County of Los Angeles
CHIEF EXECUTIVE OFFICE
Kenneth Hahn Hall of Administration
500 West Temple Street, Room 713, Los Angeles, California 90012
(213) 974-1101
http://ceo.lacounty.gov

WILLIAM T FUJIOKA
Chief Executive Officer

"To Enrich Lives Through Effective And Caring Service"

ADOPTED
BOARD OF SUPERVISORS
COUNTY OF LOS ANGELES
#56 October 8, 2013

Sachi A. Hamai
SACHI A. HAMAI
EXECUTIVE OFFICER

SET: November 26, 2013 @ 9:30 a.m.

October 08, 2013

The Honorable Board of Supervisors
County of Los Angeles
383 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, California 90012

Dear Supervisors:

DEPARTMENT OF PUBLIC WORKS:
EAST ANTELOPE VALLEY ANIMAL CARE CENTER PROJECT
ADOPT MITIGATED NEGATIVE DECLARATION AND
MITIGATION MONITORING AND REPORTING PROGRAM
APPROVE PROJECT AND BUDGET
AWARD DESIGN-BUILD CONTRACT
AUTHORIZE LOCAL WORKER HIRING PROGRAM
APPROVE AND ORDER PUBLICATION OF NOTICE OF INTENTION TO PURCHASE REAL PROPERTY AND APPROVE RELATED ACTIONS
SPECS. 7003; CAPITAL PROJECT NO. 69570
(FIFTH DISTRICT)
(3 VOTES)

SUBJECT

Approval of the recommended actions will adopt the Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program; approve the Project and budget; award the design-build contract; authorize a Local Worker Hiring Program; and authorize the acquisition of land for the implementation of the East Antelope Valley Animal Care Center Project in the City of Palmdale.

IT IS RECOMMENDED THAT THE BOARD:

1. Consider the Mitigated Negative Declaration for the County of Los Angeles Animal Care Center Project, Palmdale, California (subsequently the East Antelope Valley Animal Care Center), together with any comments received during the public review period; find that the Mitigated Negative Declaration reflects the independent judgment and analysis of the Board; adopt the Mitigation Monitoring and Reporting Program, finding that the Mitigation Monitoring and Reporting Program is

adequately designed to ensure compliance with the mitigation measures during Project implementation, and find on the basis of the whole record before the Board that there is no substantial evidence the Project will have a significant effect on the environment; and adopt the Mitigated Negative Declaration.

2. Approve the East Antelope Valley Animal Care Center Project (also known as East Antelope Valley Animal Shelter), Capital Project No. 69570, with a total budget of $20,100,000.

3. Find that KPRS Construction Services, Inc., is the Responsive and Responsible bidder that submitted the most advantageous and best value proposal for the East Antelope Valley Animal Care Center Project, and award a design-build contract to KPRS Construction Services, Inc., for a contract sum of $14,874,000, contingent upon submission of acceptable performance and payment bonds, and evidence of required insurance filed by KPRS Construction Services, Inc.

4. Authorize the implementation of a Local Worker Hiring Program for the East Antelope Valley Animal Care Center Project and find that the program furthers a legitimate governmental interest for the reasons stated in this letter and in the Project files.

5. Approve the Notice of Intention to acquire a 5.94 acre parcel of unimproved real property from the City of Palmdale located on the east side of the 38500 block of Sierra Highway in the City of Palmdale for the monetary consideration of $20,125 to implement the East Antelope Valley Animal Care Center Project.

6. Instruct the Executive Officer of the Board of Supervisors to publish the Notice of Intention in accordance with Government Code Section 6063.

7. Find that the property described in the Notice of Intention is needed for a public purpose and set the date for a Public Hearing to receive comments and consummate the proposed transaction.

IT IS FURTHER RECOMMENDED THAT, AT THE TIME OF CONSUMMATION, THE BOARD:

8. Order the purchase consummated in accordance with Government Code Section 25350. Approve and instruct the Chair of the Board to sign the Agreement for Purchase and Sale of Real Property together with the easements (Exhibit D – Common Driveway Easement and Exhibit F – Access Easement, respectively) with the seller, City of Palmdale, to acquire the subject property.

9. Authorize the Chief Executive Office to open and manage escrow, execute any required documentation necessary to complete the transfer of title to the County of Los Angeles, and accept the easements and deed conveying title to the County of Los Angeles.

10. Authorize the Auditor-Controller to issue a warrant to cover the purchase price of $20,125 for the real property and any other required transactional costs or escrow fees, which are estimated not-to-exceed $5,000.

11. Authorize the Chief Executive Office to dedicate a portion of the acquired property to the City of Palmdale for road right-of-way purposes to create a new public sidewalk and right turn lane along Sierra Highway in connection with the development of the East Antelope Valley Animal Care Center Project.

<u>PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION</u>

The purpose of the recommended actions will allow the County of Los Angeles (County) Department of Public Works (Public Works) to implement the new East Antelope Valley Animal Care Center (Project) in the City of Palmdale.

Project Background and Description

The existing Lancaster Animal Care Center is experiencing high service demands due to the increasing animal population in the north County area. Over the past several years, the Department of Animal Care and Control (Department) has been looking for possible sites on the east side of the Antelope Valley to address the increased services required by the north County communities.

The Department, Chief Executive Office (CEO), and the City of Palmdale (City) have been working to identify possible real properties for the development of a new animal care center. The City has identified City-owned property located just south of the County Palmdale Sheriff Station to develop and implement a new animal care center. The City has agreed to sell to the County approximately 5.94 acres of undeveloped property located on the east side of the 38500 block of Sierra Highway, north of Avenue Q-6.

The proposed Project will consist of approximately 25,500 square feet indoor facility, including a public entry lobby; public adoption; space for animal relinquishment, control, quarantine, and euthanasia; a veterinary and spay/neuter clinic; and staff and administration areas.

The proposed Project will also include associated site improvements, including underground utility connections to serve the facility, separate staff and public parking areas, outdoor fenced exercise yard areas for the animals; walkways; security lighting; and drought-tolerant landscape. In addition, the Project will include offsite improvements, including a new landscaped parkway and dedicated right turn lane along Sierra Highway to serve the proposed new animal care center.

Design-Build Contract Award

On August 23, 2012, Public Works issued a Request for Proposals (RFP) for design-build services for the proposed Project. The initial total project cost prior to the release of the RFP was estimated at $18,000,000, which included a design-build contract cost estimate of $13,500,000. A total of five firms submitted prequalification questionnaires in response to the RFP, and the three highest scoring prequalified proposers were invited to participate in the second part of the RFP for submission of technical and cost proposals. Based on the criteria stated in the RFP, KPRS Construction Services, Inc. (KPRS), submitted the most advantageous and best value proposal for design and construction of the proposed Project.

KPRS's base price proposal of $14,874,000 was $1,374,000 higher than the amount of $13,500,000 estimated for the design-build contract amount, which includes furniture, fixtures, equipment, and low-voltage/telecommunication systems. This base price proposal is within 10 percent of the estimated design-build contract amount, and we consider it to be reasonable for the proposed Project scope of work. Based on the current market conditions, we do not anticipate receiving more favorable price proposals by readvertising the proposed Project.

As part of subsequent negotiations with KPRS, a Local Worker Hiring Program (LWHP) was added to the Project at the request of the County, which resulted in no net change to the base price proposal of $14,874,000. Therefore, we recommend awarding the design-build contract for a contract sum of $14,874,000 to KPRS.

Land Acquisition

The County and the City cooperatively evaluated potential sites in the Palmdale area and selected the proposed site owned by the City for the new animal care center location. The proposed site is located on the east side of the 38500 block of Sierra Highway, north of Avenue Q-6, in the City of Palmdale, and consists of approximately 5.94 acres of unimproved land. The proposed site is adequate in size and shape to accommodate the proposed improvements, compatible with the existing surrounding land uses, and directly accessible from Sierra Highway.

The County, in coordination with the City, has completed all of the necessary due diligence activities for the property, including environmental site assessments, geotechnical studies, and title review. In addition, the County has completed the Final Mitigated Negative Declaration (MND) for the proposed Project.

The parties have agreed that consideration for this transaction shall be a one-time only cash payment of $20,125 to the City for the County's proportional share to contribute to the City's maintenance and repair in perpetuity for use of the City's existing driveway area pursuant to the Common Driveway Easement granted by the City to the County (Exhibit D of Attachment D), which will serve as the primary public access for the new animal care center.

The City Council is scheduled to approve and execute the Agreement for Purchase and Sale of Real Property (Agreement) (Attachment D) on November 6, 2013, after the County adopts the Final MND for the proposed Project.

Local Worker Hiring Program

According to the Factual Predicate Study prepared in 2010, the proposed Project's location is surrounded by zip codes with unemployment rates in excess of 150 percent of the average County unemployment rate. Within a five-mile radius of the proposed Project, four of the six zip codes (93534, 93536, 93550, and 93552) have an unemployment rate in excess of 150 percent of the average unemployment rate for the County. Beyond the five-mile radius, there are an additional 148 zip codes that have an unemployment rate in excess of 150 percent of the unemployment rate for the County.

Therefore, it is recommended that a LWHP be implemented for the proposed Project in the City of Palmdale with the following key elements:

• The design-builder is required to make a good-faith effort to employ qualified local workers to perform at least 30 percent of the total California craft worker hours.

• "Local residency" is defined with a two-tier system - first preference will be given to qualified workers residing within the County in zip codes within a five-mile radius of the proposed Project in the City of Palmdale; and second preference given to qualified workers residing within the County in any zip code having an unemployment rate in excess of 150 percent of unemployment rate for the County as a whole or a Bank Enterprise Award Distressed Community.

Green Building/Sustainable Design Program

The proposed Project will comply with the County's Energy and Environmental Policy by achieving the United States Green Building Council Leadership in Energy and Environmental Design Silver level certification by incorporating sustainable design features to optimize energy and water use efficiency, enhance the sustainability of the site, improve indoor environmental quality, and maximize the use and reuse of sustainable and local resources.

Implementation of Strategic Plan Goals

The Countywide Strategic Plan directs the provision of Operational Effectiveness (Goal 1) and Integrated Services Delivery (Goal 3), by investing in public infrastructure that will provide improved animal care and control services for County residents.

FISCAL IMPACT/FINANCING

The total proposed Project cost, including land acquisition, scoping documents, consultant services, plan check, construction, furniture and equipment, civic art, telecommunications, miscellaneous expenditures, and County services, is currently estimated at $20,100,000. Prior to the release of the RFP, the total Project cost was estimated at $18,000,000, which included a design-build contract cost estimate of $13,500,000. The bid of $14,874,000, proposed by KPRS increased the estimated total Project cost by $2,100,000 due to an increase in the Civic Arts allocation, the change order contingency, utilities, etc.

The construction cost of $16,916,000 includes the recommended design-build contract with KPRS for $14,874,000, a change order contingency fund of $1,487,400, and $554,600 for other construction items, such as civic art, telecommunication equipment, and other fees. The monetary compensation for the unimproved land is $20,125, and approximately $5,000 for the related title, escrow, and other related transactional costs necessary to consummate the transaction. Sufficient appropriation and financing will be included in Fiscal Year (FY) 2013 14 Supplemental Resolution. The Project Schedule and Budget Summary are detailed in Attachment A.

The proposed Project will be funded by $1,090,000 Vehicle License Fees and $19,010,000 tax-exempt commercial paper, which will be ultimately financed through the issuance of long-term bonds. The par amount of each bond type to be issued will be based on market conditions and discussions with the Treasurer and Tax Collector and presented to the Board for approval prior to implementation of the financing.

In order for the Department to retain the current scope of the proposed Project, the Department's Operating Budget will contribute 10 percent per year towards the annual payment of the long-term bonds, not to exceed $336,000 per year, due to the savings from the Department's completion of the repayment of Asset Development Improvement Fund loan in FY 2014-15.

Operating Budget

Following completion of the proposed Project, the Department will work with the CEO to determine the appropriate level of associated maintenance and operational costs for the new indoor animal care center and will request funding as required.

FACTS AND PROVISIONS/LEGAL REQUIREMENTS

Pursuant to the Board's Civic Art Policy adopted on December 7, 2004, and amended on December 15, 2009, the proposed Project budget includes one percent of design and construction costs to be allocated to the Civic Art Fund.

Carde Ten Architects was contracted by the County to provide programming services, preparation of scoping documents, and design-build support services for the proposed Project. As part of the design-build support services, Carde Ten Architects assisted the County in the evaluation of the technical and cost proposals submitted by the prospective design-build firms, and will assist the County in reviewing the selected design builder's design and construction documents for conformance with the scoping documents.

Pursuant to Government Code Section 25350, the Notice of Intention (Attachment C) will be published in accordance with Government Code Section 6063 for the intended action to purchase real property, and a Public Hearing will be held for the Board to receive comments prior to consummating the acquisition.

Public Works, in accordance with Title 7, Division 1, Chapter 3, Article 7, Section 65402(b) of the Government Code; and notice under Title 22, Section 22.36.10 of the Los Angeles County Code as required for public agencies when acquiring real property interests for public purposes, has provided notification to the City's Planning Commission of the County's intent to acquire the real property. The City acknowledged that the subject parcel would be considered within public facility land use designation and in conformance with the City's General Plan.

A preliminary title report has been issued and reveals no claims or encumbrances, which would significantly affect or impair the subject property's title. Additionally, as required by Government Code Section 65402, the proposed acquisition was submitted to the City's Planning Commission for review and they have determined that the proposed Project is in accordance with the adopted land uses and design parameters permitted by the City. County Counsel has reviewed the Notice of Intention (Attachment C) and Purchase and Sale Agreement (Attachment D) in connection with this transaction and has approved them as to form.

The Agreement includes a clause that both the City and County agree to dedicate portions of their respective properties for road right-of-way purposes in order to create a new public sidewalk and right turn lane along Sierra Highway in connection with the County's development of the new animal care center.

ENVIRONMENTAL DOCUMENTATION

An Initial Study for the County of Los Angeles Animal Care Center, Palmdale, CA Project (subsequently East Antelope Valley Animal Shelter) was prepared in compliance with the California Environmental Quality Act (CEQA). The Initial Study identified potentially significant effects of the proposed Project on cultural resources; geology and soils; and hazards and hazardous materials. However, prior to the release of the proposed MND and Initial Study for public review, revisions to the proposed Project were made or agreed to, which would avoid these effects or mitigate them to a point where clearly no significant effects would occur as follows:

- Cultural Resources: In the event that archeological materials or subsurface deposits are exposed during ground disturbance, findings shall be evaluated by a qualified archaeologist in accordance with existing law and appropriate treatment measures implemented; and in the event that human remains are encountered during Project construction, the Department of Medical Examiner-Coroner shall be immediately contacted to determine whether or not investigation of the cause of death is required and to determine procedures for handling of remains in accordance with existing law.

• Geology and Soils: Design and construct the proposed Project in accordance with the Project-specific geotechnical requirements and recommendations included in the Final MND.

• Hazards and Hazardous Materials: In the event that soil contamination is encountered during earthwork activities, all contaminated soil handling and removal will be required to adhere to a soil management plan prepared and approved by the County. The soil management plan will specify procedures for the proper handling and disposal of contaminated soil in accordance with all applicable local and State regulations.

The Initial Study and proposed Project revisions showed that there is no substantial evidence, in light of the whole record before the County, that the proposed Project as revised may have a significant effect on the environment. Based on the Initial Study and proposed Project revisions, an MND was prepared for the proposed Project. The proposed Mitigation Monitoring and Reporting Program (Section 6 of Attachment B) was prepared to ensure compliance with the environmental mitigation measures included as part of the final MND (Attachment B) relative to these areas during Project implementation. There has been no substantial revision of the MND since public circulation that would result in a new avoidable significant effect and previously proposed mitigation measures and Project revisions will ensure that all significant environmental effects are reduced to below the level of significance.

Public Notice was published in the Antelope Valley Press on April 25, 2013, pursuant to Public Resources Code Section 21092 and posted pursuant to Section 21092.3. During the 30-day comment period, which started on April 25, 2013, and ended on May 24, 2013, no comments were received from members of the public. Comment letters were received from the following three public agencies: Antelope Valley Air Quality Management District; the City of Palmdale; and the State of California, Governor's Office of Planning and Research. All comments received, as well as responses to the comments, are contained in the final MND (Section 7 of Attachment B) and have been sent to the commenting public agencies pursuant to Section 21092.5 of the Public Resources Code.

The location of the documents and other materials constituting the record of the proceedings upon, which the Board's decision is based in this manner is the County Public Works, Project Management Division I, 900 South Fremont Avenue, 5th Floor, Alhambra, California 91803. The custodian of such documents and materials is Jason Kim, Project Manager, Public Works.

The proposed Project is not exempt from payment of a fee to the California Department of Fish and Wildlife pursuant to Section 711.4 of the Fish and Game Code to defray the costs of fish and wildlife protection and management incurred by the California Department of Fish and Wildlife. Upon the Board's adoption of the MND, Public Works will file a Notice of Determination in accordance with Section 21152(a) of the California Public Resources Code and pay the required filing and processing fees with the Registrar-Recorder/County Clerk in the amount of $2,231.25.

CONTRACTING PROCESS

On August 23, 2012, Public Works issued the RFP for design-build services, including the standardized prequalification questionnaire, while the scoping documents were being prepared. This contract opportunity was listed in the County's "Doing Business with Us" website. The first part of the RFP required prospective design-build firms to submit responses to the standardized prequalification questionnaire. On October 4, 2012, five firms submitted prequalification questionnaires. Additionally, the RFP specified that the three highest scoring prequalified proposers would be short-listed and invited to participate in the second part of the RFP for submission of technical and cost proposals. The three short-listed firms were KPRS, Mallcraft, Inc., and Sinanian Development, Inc.

On March 14, 2013, Public Works requested technical and cost proposals from the three short-listed prequalified firms and on May 23, 2013, technical and cost proposals were received. On June 18, 2013, the proposals were evaluated and ranked based on technical design and construction expertise, design-build team personnel and organization, proposed delivery plan and schedule, price, life cycle costs, skilled labor force availability, and acceptable safety record. The evaluation was completed without regard to race, creed, color, or gender. The KPRS proposal received the highest score and was determined to be the best value in accordance with the provisions of the RFP. A scoring summary of the proposals is included in Attachment E.

A standard design-build contract, in a form previously approved by County Counsel, will be used. The contract will contain terms and conditions supporting the Board's ordinances, policies, and programs, including, but not limited to, County's Greater Avenues for Independence (GAIN) and General Relief Opportunities for Work (GROW) Programs, Board Policy No. 5.050; Contract Language to Assist in Placement of Displaced County Workers, Board Policy No. 5.110; Reporting of Improper Solicitations, Board Policy No. 5.060; Notice to Contract Employees of Newborn Abandonment Law (Safely Surrendered Baby Law), Board Policy No. 5.135; Contractor Employee Jury Service Program, Los Angeles County Code, Chapter 2.203; Notice to Employees regarding the Federal Income Credit (Federal Income Tax Law, Internal Revenue Service Notice 1015); Contractor Responsibility and Debarment, Los Angeles County Code, Chapter 2.202; the Los Angeles County's Child Support Compliance Program, Los Angeles County Code, Chapter 2.200; and the standard Board-directed clauses that provide for contract termination and renegotiation.

IMPACT ON CURRENT SERVICES (OR PROJECTS)

Approval of the recommended actions will have no impact on current animal care and control services. The residents of the Antelope Valley will continue to be served by the existing Lancaster Animal Care Center during design and construction of the proposed Project.

CONCLUSION

Please return all three submitted original copies of the signed Agreement for forwarding to the City for its signature and one adopted copy of this Board letter to the Chief Executive Office, Facilities and Asset Management Division. Also, please forward additional adopted copies of the Board letter to the Department of Animal Care and Control and the Department of Public Works, Project Management Division I. Once the City's signature has been obtained, a fully executed original copy of the Agreement will be returned to your office.

Respectfully submitted,

WILLIAM T FUJIOKA
Chief Executive Officer

WTF:SHK:DJT
DKM:CF:zu

Enclosures

c: Executive Office, Board of Supervisors
County Counsel
Animal Care and Control
Arts Commission
Public Works

ATTACHMENT A

DEPARTMENT OF PUBLIC WORKS:
EAST ANTELOPE VALLEY ANIMAL CARE CENTER PROJECT
ADOPT MITIGATED NEGATIVE DECLARATION AND
MITIGATION MONITORING AND REPORTING PROGRAM
APPROVE PROJECT AND BUDGET
AWARD DESIGN-BUILD CONTRACT
AUTHORIZE LOCAL WORKER HIRING PROGRAM
APPROVE AND ORDER PUBLICATION OF NOTICE OF INTENTION TO
PURCHASE REAL PROPERTY AND APPROVE RELATED ACTIONS
SPECS. 7003; CAPITAL PROJECT NO. 69570

I. PROJECT SCHEDULE

Project Activity	Scheduled Completion Date
Scoping Document Contract Award	05/23/2011*
Prequalify Design-Builders	03/14/2013*
Award Design-Build Contract	10/08/2013
Construction Documents	07/17/2014
Jurisdictional Approvals	10/15/2014
Construction Start	10/20/2014
Substantial Completion	04/07/2016
Final Acceptance	06/06/2016
Grand Opening	07/07/2016

* Actual completion date.

II. PROJECT BUDGET SUMMARY

Budget Category	Initial Project Budget	Proposed Project Budget
Land Acquisition	$ 0	$ 30,000
Construction		
Design-Build Contract	$ 13,500,000	$ 14,874,000
Job Order Contract	0	0
Change Order Contingency	1,350,000	1,487,400
Departmental Crafts	0	0
Youth Employment	0	0
Construction Consultants	0	0
Misc. Expense: Utility Relocation Fees	0	0
Telecommunication Equip-Affixed to Building	100,000	154,600
Civic Arts	139,000	150,000
Other: Utility Connection Fees	100,000	100,000
Other: City Developer Fees	0	150,000
Subtotal	$ 15,189,000	$ 16,916,000
Programming/Development	$ 150,000	$ 150,000
Plans and Specifications (Scoping Documents)	$ 187,000	$ 187,000
Plan Check and Jurisdictional Review	$ 100,000	$ 100,000
Consultant Services		
Site Planning (Phase I & II Site Assessment)	$ 126,000	$ 126,000
Hazardous Materials	0	0
Geotech/Soils Report and Soils Testing	0	0
Materials Testing and Deputy Inspection	260,000	260,000
Cost Estimating	0	0
Topographic Surveys	40,000	40,000
Construction Management	0	0
Design-Build Support Services	0	205,000
Constructability Review	25,000	25,000
Geotechnical Survey	30,000	14,000
Environmental Documents (MND)	140,000	125,000
Move Management	0	0
Equipment Planning	0	0
Legal	0	0
Construction/Change Order	0	0
Other: (Building Commissioning)	30,000	30,000
Subtotal	$ 651,000	$ 825,000
Furniture, Fixtures, and Equipment *	$ 0	$ 0
Miscellaneous Expenditures	$ 15,000	$ 15,000
County Services		
Code Compliance and Quality Control Inspection	$ 515,000	$ 515,000
Design Review	35,000	35,000
Design Services	0	0
Contract Administration	138,000	138,000
Project Management	649,000	778,000
Project Management Support Services	37,000	37,000
ISD JOC Management	0	0
DPW JOC Management	0	0
ISD ITS Communications	67,000	67,000
Project Security	0	0
Countywide Contract Compliance Section	32,000	32,000
County Counsel	0	0
Other: Labor Compliance	0	40,000
Other: Project Technical Support	120,000	120,000
Other: Consultant Contract Recovery	95,000	95,000
Other: DPW Support Divisions	20,000	20,000
Subtotal	$ 1,708,000	$ 1,877,000
Total	**$ 18,000,000**	**$ 20,100,000**

* Included in the design-build contract

ATTACHMENT B

DEPARTMENT OF PUBLIC WORKS:
EAST ANTELOPE VALLEY ANIMAL CARE CENTER PROJECT
ADOPT MITIGATED NEGATIVE DECLARATION AND
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SPECS. 7003; CAPITAL PROJECT NO. 69570

MITIGATED NEGATIVE DECLARATION
(SEE ATTACHMENT)

Final Mitigated Negative Declaration

County of Los Angeles Animal Care Center Project Palmdale, CA

Prepared for

County of Los Angeles
Department of Public Works

38532, 38560, 38600 and 38624 Sierra Highway
Palmdale, CA 93550

August 2013

Prepared by

CDM Smith
111 Academy Way, Suite 150
Irvine, California 92617

COUNTY OF LOS ANGELES ANIMAL CARE CENTER PROJECT PALMDALE, CALIFORNIA

FINAL MITIGATED NEGATIVE DECLARATION

The Initial Study/Proposed Mitigated Negative Declaration (Draft IS/MND) for the County of Los Angeles Animal Care Center Project, Palmdale, California (project) was circulated for a 30-day public review period, beginning on April 25, 2013 and ending on May 24, 2013. The public review period, during which interested agencies, organizations, and members of the public were invited to submit written comments, was noticed and conducted in compliance with CEQA Section 21091 and State CEQA Guidelines 15105. During the 30-day public review period, three comment letters were received. The comments on the Draft IS/MND and responses to comments have been incorporated into this Final MND. The comments received did not result in changes to the Draft IS/MND text, analysis or mitigation.

Since circulation of the Draft IS/MND, minor corrections, additions and refinements have been made that update, clarify, amplify or represent insignificant modifications. Changes to the Draft IS/MND include:

- Minor editorial and grammatical corrections have been made to Section 6, Mitigation Monitoring and Reporting Program, to provide improved readability;
- Revision to mitigation measure MM HAZ-1 throughout the document to provide improved readability and amplify the intent of the measure;
- The addition as appendices of two geotechnical reports referenced within the Draft IS/MND; and,
- The addition of one new added section, Section 7, Response to Comments, which includes copies of the three comment letters associated with public review of the Draft IS/MND and corresponding responses.

The changes noted above do not result in any new significant impacts or an increase in the severity of any previously identified impacts. The revised mitigation measure (MM HAZ-1) is essentially the same measure and provides the same level of mitigation. The addition of the two geotechnical reports that were previously referenced in the Draft IS/MND and part of the administrative record are being included as appendices because they are project-specific studies that are noted in, and provide details associated with, mitigation measures MM SOILS-1 and MM SOILS-2.

This Final MND consists of the Draft IS/MND, including all technical appendices, this introduction, the revisions and clarifications section to the Draft IS/MND, as well as incorporation of those revisions and clarifications. The County of Los Angeles Board of Supervisors (Board) will use the Final MND for all environmental decisions related to the project. Prior to approving the project, the Board will consider the project in conjunction with comments received during the public review period. A project will only be approved when the Board "finds that there is no substantial evidence that the project will have a significant effect on the environment and that the [IS/MND] reflects the lead agency's independent judgment and analysis." When adopting a Final MND, a mitigation monitoring and reporting program (MMRP) must also be adopted to ensure implementation of mitigation measures required as a condition of approval. The MMRP is included in Section 6 of the Final MND.

Revisions and Clarifications

County of Los Angeles Animal Care Center Project
Palmdale, CA

Final Mitigated Negative Declaration

Revisions and Clarifications

The Initial Study/Proposed Mitigated Negative Declaration (Draft IS/MND) for the County of Los Angeles Animal Care Center Project, Palmdale, California (project) was circulated for a 30-day public review period, beginning on April 25, 2013 and ending on May 24, 2013. During the 30-day public review period, three comment letters were received. The comments on the Draft IS/MND and responses to comments have been incorporated into this Final MND. The comments received did not result in changes to the Draft IS/MND text, analysis or mitigation; however, minor revisions to the Draft IS/MND have been made to make minor corrections and additions that update, clarify, amplify or represent insignificant modifications.

Pursuant to Section 15073.5 of the State CEQA Guidelines, recirculation of a negative declaration is required when a document must be substantially revised after public notice has been given. A "substantial revision" is defined under this section to mean:

a) A new, avoidable significant effects have been identified and mitigation measures or project revisions must be added in order to reduce the effect to insignificance, or

b) The Lead Agency determines that the proposed mitigation measures or project revisions will not reduce potential effects to less than significant and new measures or revisions must be required.

Minor editorial revisions and grammatical modifications, not necessarily noted in this summary, have been incorporated. Editorial and grammatical corrections were limited to those that would not change the project scope or any findings and conclusions as presented in the original document; therefore, no recirculation of the MND is required. Revisions and additions have been incorporated and are prepresented in "revision-mode" (i.e., deletions are shown with ~~strikethrough~~ and additions are shown with underline) to reflect clarifications to the project and are limited to the respective sections of the Final MND listed below.

Table of Contents

The Table of Contents has been updated to reflect changes related to addition of a new section (Section 7, Response to Comments), relabeling of the appendices heading to reflect the inclusion of the Draft IS/MND in the Final MND, and the addition to the appendices of the two project-specific geotechnical reports referenced within the Draft IS/MND reports.

Section 3.8 Hazards and Hazardous Materials

Revision to mitigation measure MM HAZ-1 has been incorporated to provide improved readability and amplify the intent of the measure. On page 3-40, the mitigation measure has been revised as follows:

MM HAZ-1. *Although contaminated soil is not anticipated to be encountered,* ~~*All soil removal will be required to adhere to the provisions of a soil management plan that will include procedures and recommendations to follow*~~ *in the event soil contamination is encountered during earthwork activities, all contaminated soil handling and removal will be required to adhere to a soil management plan prepared and approved by the County. The soil management plan will specify procedures for the proper handling and disposal of contaminated soil*~~*, which will be performed*~~ *in accordance with all applicable local and state regulations.*

Section 6. Mitigation Monitoring and Reporting Program

Minor grammatical modifications (not noted in this summary) have been incorporated into Section 6. Throughout Section 6, as appropriate, the term "Lead Agency" has been replaced with LACDPW. The remaining minor editorial revisions and clarifications in this section are noted below with deletions shown with ~~strikethrough~~.

On page 6-1, revise the two paragraphs under "Responsible Party" heading, as follows:

> The County of Los Angeles Department of Public Works (hereafter referred to as LACDPW) will be responsible for implementing and reporting mitigation measures in this program. The LACDPW will have responsibility for ensuring that mitigation measures are accomplished in an environmentally responsible manner. The LACDPW will be responsible for ensuring that the status of mitigation measures is reported in accordance with this program. ~~The LACDPW will be responsible for ensuring that the cost of mitigation is included in the project budget, as appropriate.~~
>
> The LACDPW will be responsible for program oversight and ensure that applicable mitigation measures are carried forward in construction and operational and maintenance procedures. Mitigation measures will be included in applicable request for proposals, specifications and procedures issued for construction of the ~~pool complex within the scope of this~~ project. Other mitigation measures implemented by the Design Builder will be subject to oversight by the LACDPW. In addition, the LACDPW will be responsible for ensuring that mitigation measures are properly carried out by designated and qualified personnel~~, which may include specialty contractors~~.

On page 6-2, revise the last two sentences of paragraph under "Schedule and Reporting Frequency" heading, as follows:

> The monitoring table below describes the mitigation measure, organization responsible for implementing the measure, organization responsible for monitoring the measure, and timing of verification for each measure. A column is provided for the monitoring party to sign-off on the implementation of each mitigation measure. ~~Due to possible funding conditions and other external factors, facility construction and operation could be delayed. These delays may also affect the start and completion of mitigation measures.~~

As revised within Section 3.8, mitigation measure MM HAZ-1, under the Mitigation Measure column on page 6-5 has been revised as follows:

> Although contaminated soil is not anticipated to be encountered, ~~All soil removal will be required to adhere to the provisions of a soil management plan that will include procedures and recommendations to follow~~ in the event soil contamination is encountered during earthwork activities, all contaminated soil handling and removal will be required to adhere to a soil management plan approved by the County. The soil management plan will specify procedures for the proper handling and disposal of contaminated soil~~, which will be performed~~ in accordance with all applicable local and state regulations.

The last column within the table (on pages 6-4 through 6-5), Verification of Completion, has been deemed unnescesary and has therefore been deleted.

Section 7. Response to Comments
This section is new and has been added to include copies of the three comment letters received during the public review of the Draft IS/MND and responses to those comments. In addition, the end of this section includes a copy of the Notice of Intent to Adopt a Mitigated Negative Declaration filed with the Los Angeles County Clerk, the proof copy of the publication of a notice in a newspaper of general circulation in the affected area (i.e., Antelope Valley Press), and the Notice of Completion submitted to the State of California, Governor's Office of Planning and Research, State Clearinghouse and Planning Unit (State Clearinghouse) for state agency review.

Appendices
The Draft IS/MND appendices have been included as appendices to this Final MND. In addition, the following project-specific techncial reports have been added to the appendices:

Appendix D – Geotechnical Study Report, East Antelope Valley Animal Shelter"[1] by Converse Consultants (April 19, 2012)

Appendix E - Subsurface Slab Assessment and Geotechnical Recommendations for Subsurface Slab Abandonment, Proposed East Antelope Valley Animal Shelter[2] by Converse Consultants (October 10, 2012)

[1] The proposed project was originally referred to as the "East Antelope Valley Animal Shelter." Based on coordination with the City of Palmdale and DACC, the project name was revised to its current title: "County of Los Angeles Animal Care Center Project, Palmdale CA."

[2] Ibid.

Contents

Draft IS/MND (April 2013) Appendices

Appendix A – CalEEMod Emissions Output
Appendix B – Noise Worksheets
Appendix C - Los Angeles County LID Volume Calculator

Additional Appendices (added as part of Final MND)

Appendix D – Geotechnical Study Report, East Antelope Valley Animal Shelter"[3] by Converse Consultants (April 19, 2012)
Appendix E – Subsurface Slab Assessment and Geotechnical Recommendations for Subsurface Slab Abandonment, Proposed East Antelope Valley Animal Shelter[4] by Converse Consultants (October 10, 2012)

[3] The proposed project was originally referred to as the "East Antelope Valley Animal Shelter." Based on coordination with the City of Palmdale and DACC, the project name was revised to its current title: "County of Los Angeles Animal Care Center Project, Palmdale CA."

[4] Ibid.

Tables

Figures

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Acronyms and Abbreviations

AB	Assembly Bill
ACO	animal control officers
ADT	average daily traffic
AF	acre-feet
AQMP	Air Quality Management Plan
AVAQMD	Antelope Valley Air Quality Management District
AVTA	Antelope Valley Transit Authority
BEP	business emergency plans
bgs	below ground surface
BLM	Bureau of Land Management
BMPs	Best Management Practices
CAAQS	California Ambient Air Quality Standards
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CBC	California Building Code
CEQA	California Environmental Quality Act
CH_4	methane
CMP	Congestion Management Program
CNDDB	California Natural Diversity Database
CNEL	community equivalent noise level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CONC	California Office of Noise Control
CUPAs	Certified Unified Program Agencies
CWA	Clean Water Act
DACC	Department of Animal Care and Control
dB	decibel

dBA	decibels A-weighted
dbh	diameter at breast height
DTSC	California Department of Toxic Substances Control
ESA	Endangered Species Act
ESA	Environmental Site Assessment (Phase I or Phase II)
GHG	greenhouse gas
gpd	gallons per day
GWP	Global Warming Potential
HMBP	Hazardous Materials Business Plan
in/sec	inches per second
ITE	Institute of Transportation Engineers
LACDPW	Los Angeles County Department of Public Works
LACSD	Sanitation Districts of Los Angeles County
lb	pound
LEED	Leadership in Energy and Environmental Design
Leq	equivalent noise level
LID	low impact development
MBTA	Migratory Bird Treaty Act
MDAB	Mojave Desert Air Basin
mgd	million gallons per day
MRZ	Mineral Resource Zone
MS4	municipal separate storm sewer system
$MTCO_2e$	metric tons of carbon dioxide equivalents
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NOx	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
O_3	ozone
OSHA	Occupational Safety and Health Administration
PCE	tetrachlorothene
PF	Public Facilities
PHS	Burlingame Peninsula Humane Society
PM	particulate matter

$PM_{2.5}$	PM less than 2.5 microns in aerodynamic diameter
PM_{10}	PM less than 10 microns in aerodynamic diameter
PRC	Public Resources Code
RCP	Regional Comprehensive Plan
RHNA	Regional Housing Needs Assessment
RWQCB	Regional Water Quality Control Board
SCAG	Southern California Association of Governments
SEA	Significant Ecological Area
SO_2	sulfur dioxide
SO_x	sulfur oxides
SR	State Route
SUSMP	Standard Urban Storm Water Mitigation Plan
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TPH	total petroleum hydrocarbons
USEPA	United States Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UWMP	urban water management plan
V/C	volume-to-capacity
VOC	volatile organic compound
WDR	Waste Discharge Requirements
WRP	Water Reclamation Plant

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SECTION 1
Background Information

1.2 Project Title

County of Los Angeles Animal Care Center Project, Palmdale, CA

1.3 Lead Agency Name and Address

County of Los Angeles

By Department of Public Works
900 S. Fremont Avenue
Alhambra, California 91803

1.4 Lead Agency Contact Person and Phone Number

Jason Kim, Capital Projects Manager
County of Los Angeles Department of Public Works
(626) 300-2326
Email: jikim@dpw.lacounty.gov

1.5 Project Location

38532, 38560, 38600 and 38624 Sierra Highway
Palmdale, California 93550

1.6 Project Sponsor's Name and Address

Built/Managed By:

Same as Lead Agency above.

Operated by:

County of Los Angeles
Department of Animal Care and Control

1.7 General Plan Designation/Zoning

Public Facilities (PF)

1.8 Description of the Project

1.8.1 Project Overview

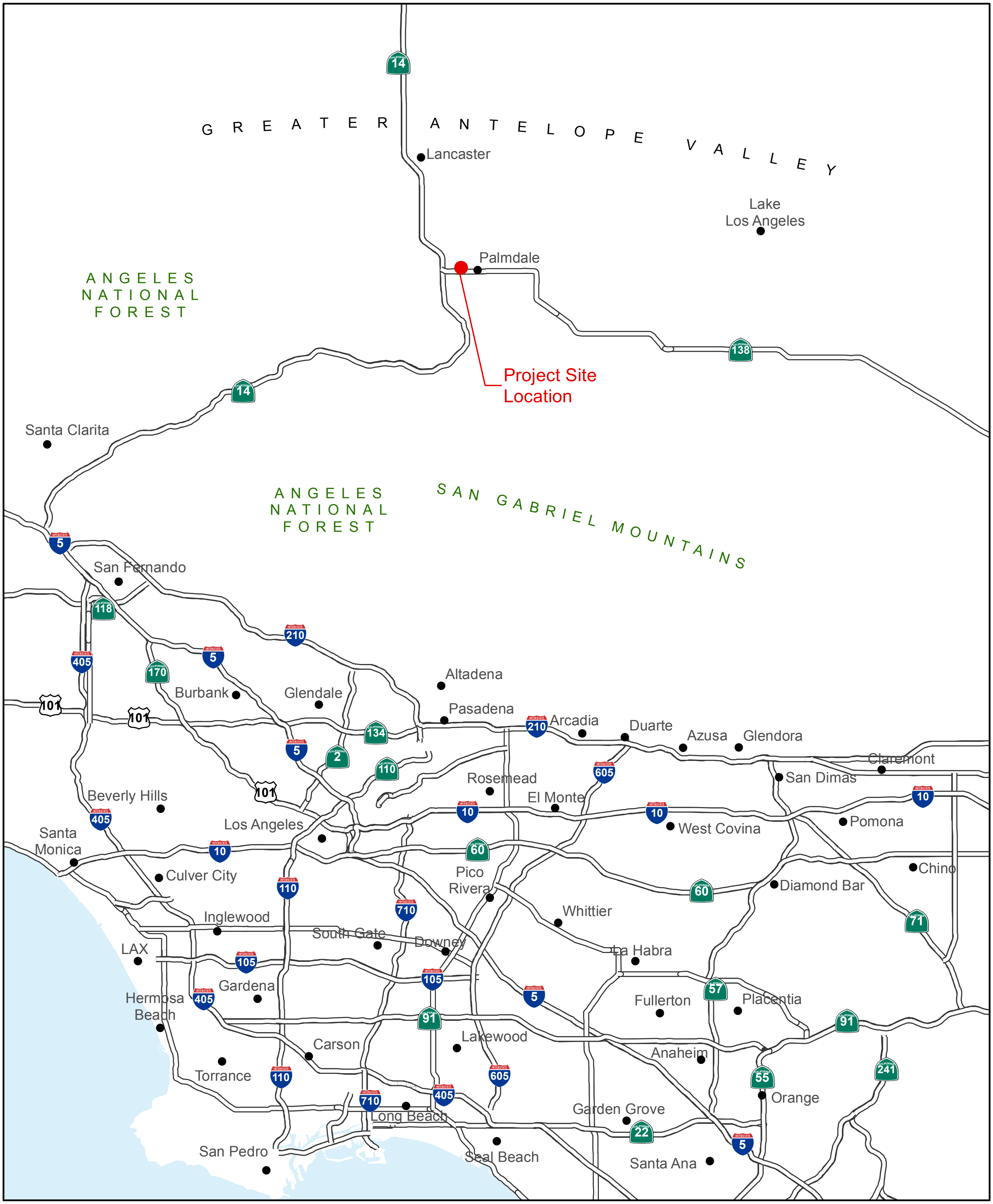
The County of Los Angeles Animal Care Center Project, Palmdale, CA (the "proposed project") is a proposed new County of Los Angeles animal care facility ("proposed project") that will service the needs of communities in the eastern portion of Antelope Valley, in northern Los Angeles County. The proposed facility will be on a 5.8-acre site to be acquired from the City of Palmdale by Los Angeles County for the construction and operation of a one-story approximately 25,500 square foot indoor animal care center, as well as maintaining a portion of the site to remain fenced, vacant, and for possible future animal care center expansion. The proposed facility will have an average peak day capacity of approximately 361 animals of which approximately 35 percent (approximately 128) are anticipated to be dogs, 64 percent (approximately 229) are cats, and one percent (approximately 4) are wildlife (non-domesticated animals). No livestock will be housed at the proposed facility and no animals will be housed outdoors. The proposed facility will alleviate the high volume of animal control services at the existing Lancaster Animal Care Center and eliminate the need to continue to rent kennels (currently 32 kennels are rented by the County's Department of Animal Care and Control) at the Pet Stop in Lancaster, a privately owned facility used for the private boarding of animals/pets.

The project site is owned by the City of Palmdale. The proposed project includes acquisition of the project site by the County of Los Angeles from the City of Palmdale for the specific construction and operation of an animal care center. The County of Los Angeles will construct the proposed project and the County's Department of Animal Care and Control (DACC) will operate the facility. Therefore, the County of Los Angeles is the lead agency under California Environmental Quality Act (CEQA). The project will be implemented through the Los Angeles County Department of Public Works (LACDPW).

1.8.2 Project Site

The 5.8-acre project site is located approximately a quarter of a mile north of the Palmdale Boulevard and Sierra Highway intersection in the eastern part of the Antelope Valley. The regional location is depicted on Figure 1. The project site is currently a vacant area immediately west of (adjacent to) residential uses, northwest of the Richard B. Hammack Community Activity Center (Hammack Activity Center), north of the South Valley WorkSource Center (WorkSource Center),[5] east of Sierra Highway, and south of the Los Angeles County Sheriff's Department Palmdale Station. The residential uses to the east and the Sheriff's station to the north are separated from the project site by a block wall (estimated to be approximately eight-feet high). Since the paved portion of the project site is open, it is possible for the Hammack Activity Center and WorkSource Center to use that portion of the site for parking. The site is zoned as Public Facilities (PF). The project site and surrounding uses are shown on Figure 2.The project site is vacant and open (not fenced). The northern portion of the site is bare soil and gravel, while the remainder of the site is paved with asphalt. The site is relatively flat. The vegetation within the project site is

[5] The WorkSource Center is a network of workforce experts that leverage funding and resources across the Los Angeles region to provide job seekers and businesses with no-cost, high value employment and training services. The City of Palmdale is a proud partner of the WorkSource program, which is an initiative of the Los Angeles County Workforce Investment Board.



Source: US Census Bureau, Geography Division, 2010

Figure 1
Regional Location

Source: Bing Maps Imagery, 2012

N

Figure 2
Project Site

(ruderal (i.e., weeds). According to historical information, it appears that the project site had been undeveloped in 1917. By 1928, the northern portion of the project site was agricultural land orchard or groves), surrounded by undeveloped land with light industrial, commercial and residential properties interspersed. By 1948, several residential and light industrial/commercial structures were developed on the project site. The greater surrounding area appeared to be moderately populated with a mix of residential, commercial and light industrial properties, as well as some agricultural and undeveloped land. Building records issued as early as the 1950s indicated the use of the project site was for retail, including restaurants/lounge, salons, stores, and a church. Several commercial properties within the project site had been redeveloped by 1968;[6] however, the northeastern corner of the project site remained undeveloped. By 2002, the project site had been cleared of previous building development and was left vacant as it appears today (LACDPW, 2011).

1.8.3 Project Elements

The proposed one-story animal care facility will be situated within the central portion of the project site. The closest portion of the proposed facility (a DACC car wash area and emergency generator) is approximately 94 feet from the nearest sensitive receptor (residence at 38575 Friendly Avenue, immediately east of the project site). The proposed building is approximately 100 feet from the nearest sensitive receptor. As noted above, the residential uses to the east are separated from the project site by an approximate eight-foot tall block wall. The nearest recreational use (outdoor roller hockey rink), southeast of the project site, is approximately 128 feet from the proposed building and 230 feet from the nearest noise source (i.e., emergency generator). The proposed facility will be approximately 25,500 square feet with the roof line having varying heights (maximum assumed height of 30 feet) which will enhance scale and look of the exterior of the building while providing opportunities for vaulted ceilings and natural light within portions of the interior of the building.

The proposed facility includes various indoor spaces for public adoption, relinquishment, animal control, quarantine, euthanasia, veterinary and spay neuter clinic, and administration areas associated with the animal care facility and DACC operations. The proposed facility also includes outdoor spaces (i.e., fenced exercise yards) between the staff parking to the north and the new animal care center, and an ample open and grass area between the facility and the residential area to the east that will serve as a retention area to percolate stormwater runoff on-site. Court yard areas are proposed within the building footprint and are surrounded by all four sides by building walls, as well as landscaping. No animals will be housed outdoors.

As part of DACC and animal care center operations, a trash receptacle, small storage area, car wash (for use by DACC officers on department vehicles only), covered parking (i.e., carport), and sally port (i.e., loading and unloading area) are proposed at the northeast area of the facility. This area of the proposed facility also includes an emergency generator that will be exercised as part of monthly maintenance for a minimum of 30 minutes. The trash receptacle, storage area, car wash, sally port and emergency generator areas will be

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[6] As part of research regarding the historical uses at the project site, it was noted that the project site may have been occupied by a JC Penny retail store; however, no records have been found on county level to verify if a JC Penny's was ever at this location.

separated from the residential area to the east by the existing block wall, as well as an additional/new eight-foot high concrete screen wall as part of the facility. Refer to Figure 3 for a conceptual schematic site plan.

In addition to the carport for DACC vehicles, two separate parking lots (one each for public and staff parking) are proposed at the north and south sides of the proposed facility. The proposed staff parking area will consist of approximately 32 spaces. The proposed public parking area will consist of the development of 71 parking spaces. Of the 71 public parking spaces being developed as part of the proposed project, approximately six are handicap spaces adjacent to the roller hockey rink associated with the Hammack Activity Center (east/southeast of the project site). There will be 65 spaces for use by the proposed facility. A conceptual schematic site plan delineating parking is shown on Figure 3.

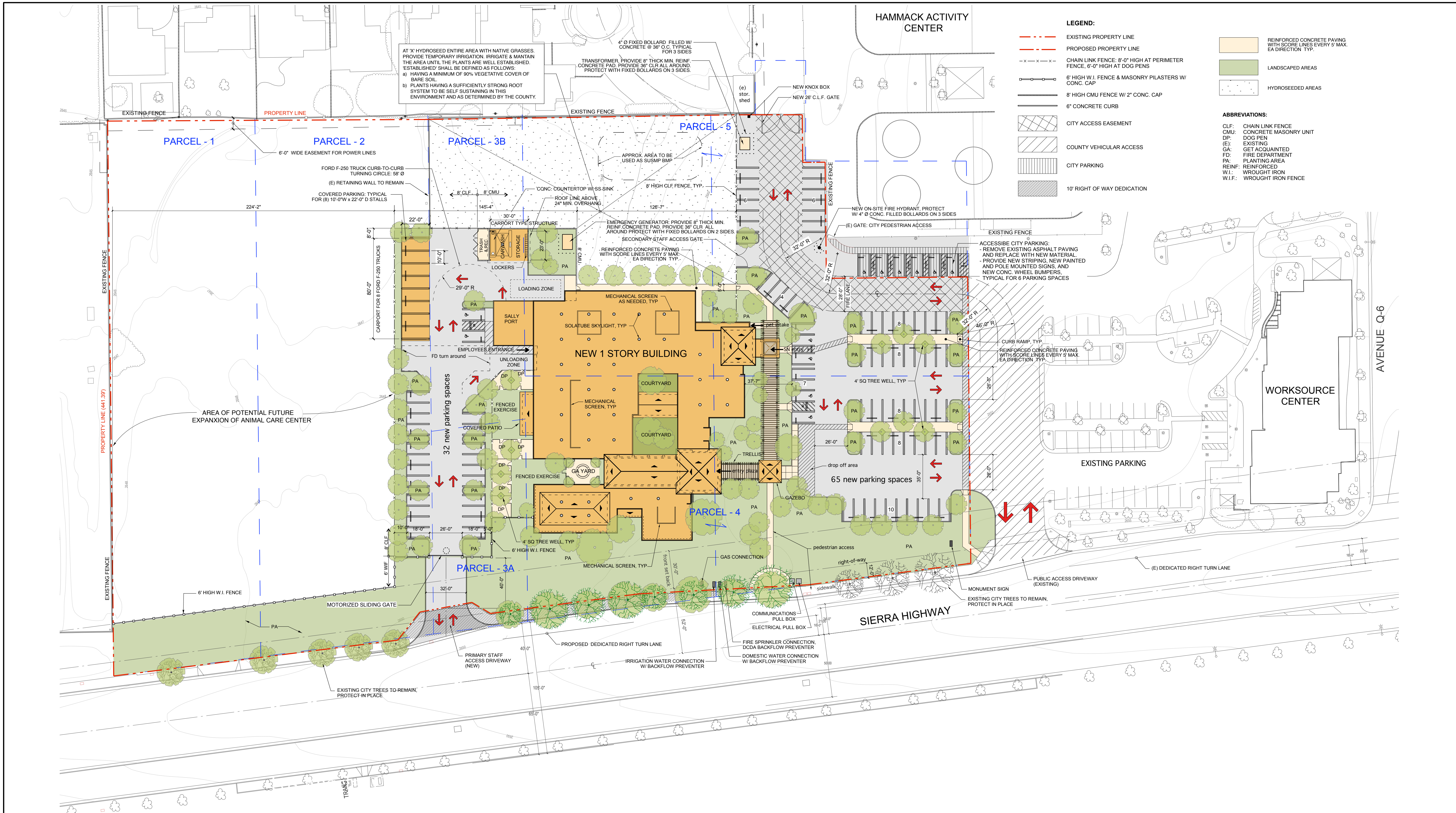
The proposed facility will be accessed by the public from an existing driveway (just north of the WorkSource Center) on Sierra Highway. Staff and service vehicles associated with the facility will access the proposed facility from a new gated-entry and access driveway at the northern portion of the proposed facility on Sierra Highway. Landscaping and hardscaping will be installed all around the building.

As required by the City of Palmdale, a new turn lane/deceleration lane along Sierra Highway will be constructed within the existing right-of-way of Sierra Highway to provide access to the staff parking lot. There is an existing turn lane/deceleration lane at the public entrance to the south of the project site (near the WorkSource Center).

The proposed facility will be designed and built in a manner consistent with the adjacent facilities. The proposed facility will be surrounded by fencing, with the exception of the public entrances at the southern portion of the site. The project will introduce lighting that will be developed to be compatible with existing lighting. The exterior of the animal care facility, parking lots, and pedestrian walkways will be illuminated by lighting fixtures at a level adequate to ensure safety of visitors and staff. Security lighting will be low-lighting, pedestrian-scaled and will be directed downward and towards the interior of the animal care facility, or shielded, to ensure lighting does not spill over onto adjacent properties.

The northern portion of the project site will remain vacant. This area will be enclosed by wrought iron fencing and it will be reserved for future expansion of the shelter, should expansion be warranted in the future.[7] No public access will occur within the area designated for possible future expansion.

[7] No plans for expansion are being considered at this time. Should expansion be proposed in the future, this will be analyzed under a separate CEQA action.



Source: Carde Ten, 2013
Preliminary Conceptual Plan. For discussion purposes only.

Figure 3
Conceptual Site Diagram

The facility will comply with the County's adopted Energy and Environmental Policy, which is part of the County's effort to help conserve natural resources and protect the environment. The goal of the policy is to provide guidelines for the development, implementation, and enhancement of energy conservation and environmental programs. In order to meet the goals of the policy, the County has implemented energy efficient projects in County facilities, specifically retrofitting or replacing building lighting systems and air conditioning equipment, or as is the case of the proposed project, the certification of new development under the United States Green Building Council's Leadership in Energy and Environmental Design (LEED) or equivalent standards, and implementation of County sponsored recycling programs, and the incorporation of Low Impact Design Standards and drought tolerant landscaping, as applicable. As such, the building will be designed and constructed to achieve (at a minimum) the LEED Silver level certification by incorporating sustainable design features to optimize energy and water use, enhance the sustainability of the site, improve indoor environmental quality, and maximize the use and reuse of sustainable and local resources.

1.8.4 Construction

Proposed project construction activities will include construction and installation of the proposed facilities described above within the project site boundaries. Construction activities include removal of existing pavement, site preparation, grading (excavated to a depth of at least three feet from the existing grade), construction of the building and infrastructure connections, painting, and installation of lighting, parking lot paving and striping, and landscaping and irrigation. An eight-foot high concrete screen wall will be constructed at the trash receptacle, storage area, car wash and adjacent planter area to screen views to the loading zone from the residential lot. A turn lane/deceleration lane along Sierra Highway will also be constructed to provide access to the staff parking lot.

Construction is expected to begin in the summer of 2014 and last for approximately 16-18 months. Anticipated duration for each construction phase is summarized in Table 1.7-1. Construction of the proposed project will require temporary staging and storage areas for materials and equipment and a maximum of 33 workers at any one time. The materials staging and storage will be located within the project site, primarily in the area designated for possible future expansion. Upon the completion of construction activities, the area designated for possible future expansion will subsequently be graded and fully fenced. All materials for project construction will be delivered by truck on existing roadways. Up to 14 construction delivery trips, 33 construction worker trips, and 17 haul truck trips[8] are anticipated to occur to and from the project site per day during construction.

Construction will be scheduled for eight-hours per day between the hours of 7:00 a.m. and 5:00 p.m., Monday through Friday, and no holidays. If additional hours are necessary to make up schedule deficiencies or to complete critical construction activities, approval from the City of Palmdale and County will be obtained.

[8] Haul trucks will be in operation for approximately 20 days during the construction period.

Table 1.7-1
Anticipated Construction Phases and Approximate Duration

Construction Phase	Duration
Demolition (paved area and subsurface slab/basement)	1 month
Site Preparation and Grading	1 to 2 weeks
Building Construction	13 to 15 months*
Paving	2 weeks
Architectural Coating	3 weeks

* For purposes of the air quality analysis a nine month duration was assumed for building construction, which represents a worst case (conservative) scenario.

1.8.5 Operation

The new animal care center is expected to be operational in the fall of 2015. The facility will be staffed by approximately 30 full-time County Animal Control Officers (ACOs) and approximately 20 part-time volunteers. It is anticipated that the facility will serve approximately 70 visitors per day and will be open to the public from noon to 7:00 p.m. from Monday through Thursday, and 10:00 a.m. to 5:00 p.m. from Friday through Sunday, and closed or special hours on selected holidays. The facility will always have staff on-site (24-hours per day, seven days per week) though there will be limited staff at the facility during hours the shelter is closed to the public. There may be other events or training that occurs on-site such as dog obedience classes. These activities will typically occur during normal public hours of operation. Business hours are subject to change based upon operational needs. Programs conducted at the proposed facility include:

- Rescue of, and shelter for, unwanted and sick or injured animals
- Capture of stray animals
- Reuniting lost pets with their owners
- Adoption of homeless animals
- Low-cost vaccinations and spay/neuter services
- Temporary impoundment and quarantine services (including certain species of wildlife)
- Licensing and enforcement
- Euthanasia services
- Emergency response to disasters

The proposed facility will have an average peak day capacity of approximately 361 animals of which approximately 35 percent (approximately 128) are anticipated to be dogs, 64 percent (approximately 229) are cats, and one percent (approximately 4) is allocated for wildlife (which is managed per the DACC administrative policy - Policy No. LW140, Wild Animals). The interior of the proposed facility will contain several kennel areas to house the dogs and cats, as well as wildlife. In addition, the facility will have several holding areas to receive and temporarily house the animals.

It is estimated that the outdoor exercise yards will be used between the hours of 10:00 a.m. to 7:00 p.m. Monday through Thursday, and 10:00 a.m. to 5:00 p.m. Friday through Sunday under staff supervision. Animals dropped off the by the public will be delivered to staff or to indoor cages, and animal deliveries by field staff will occur behind screened fencing at the sally port to the rear of the facility.

The DACC will contract with a licensed disposal services for the regular pickup and disposal of wastes. The pickup schedules will be developed based on storage capacity and use. Delivery of supplies will occur on an irregular schedule based on frequency of orders. For the purpose of the analysis, the number of delivery/disposal trucks is conservatively estimated at three per day.

For the following analysis, unless otherwise stated, the proposed project will be operated in accordance with all the latest and applicable DACC administrative policies and procedures.

1.9 Project Actions and Approvals

The environmental document (i.e., this Initial Study/Proposed Mitigated Negative Declaration), proposed project, and land acquisition will require approval by the County of Los Angeles Board of Supervisors. Additional anticipated approval/permit for the proposed project includes, but is not limited, to the following:

- Los Angeles County Department of Public Works Building and Safety Division – approval of the building plans (including review and approval associated with the proposed site utilities) and issue building permits.

- City of Palmdale – agreement with Los Angeles County for land acquisition, review and approval of new access driveway and proposed dedicated right-turn lane (both along Sierra Highway), review and issuance of permit to connect to the existing sanitary sewer system, payment of required City fees (Traffic, Drainage, Fire Facility and Public Facility) if required, as well as review and approval for off-site site infrastructure improvements, as applicable.

- Palmdale Water District and Los Angeles County Fire Department – review and approval on-site fire hydrant.

The analysis in this document assumes that, unless otherwise stated, the proposed project will be designed, constructed and operated following all applicable laws, regulations, ordinances and formally adopted County of Los Angeles standards (e.g., Los Angeles County Code), and that all applicable permits will be obtained. Construction will also follow, as applicable, the uniform practices established by the Southern California Chapter of the American Public Works Association (e.g., Standard Specifications for Public Works Construction and the Work Area Traffic Control Handbook).

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SECTION 2

Environmental Determination

2.1 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, i.e. involve at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture/Forest Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology/Soils
☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials	☐ Hydrology/Water Quality
☐ Land Use/Planning	☐ Mineral Resources	☐ Noise
☐ Population/Housing	☐ Public Services	☐ Recreation
☐ Transportation/Traffic	☐ Utilities/Service Systems	☐ Mandatory Findings of Significance

2.2 Determination

Determination: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

[signature]	04/18/13
Signature	Date
PROJECT MANAGER	COUNTY OF LOS ANGELES DEPT OF PUBLIC WORKS
Title	Agency:

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SECTION 3

Evaluation of Environmental Impacts

3.1 Aesthetics

Aesthetics Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

3.1.1 Setting

The project site is currently a vacant lot located two blocks north of the intersection of Sierra Highway and Palmdale Boulevard. Single-family residences are located immediately east of the project site, blocked by a concrete fence. The Los Angeles County Sheriff's Department Palmdale Station, which includes a helicopter landing pad, is located north of the project site, adjacent to the area designated for possible future expansion. Two outdoor hockey rinks of the Hammack Activity Center are located adjacent to the project site to the southeast. The WorkSource Center is also located adjacent to the project site, on the northeast corner of the Sierra Highway and Avenue Q-6 intersection. The Dr. Robert C Saint Clair Parkway is located to the west of the project site, across Sierra Highway. Sycamore trees line the sidewalks of Sierra Highway. These trees and landscaping associated with the Dr. Robert C Saint Clair Parkway provide a visual break to the urban landscape.

The project site and surrounding area are predominantly flat, which provide distant vistas of the San Gabriel Mountains to the south. The Sierra Nevada Mountains are visible to some extent to the north. Although the mountain ranges create a dramatic backdrop and aesthetically pleasing viewshed, views of the mountain ranges are obscured by existing utilities and development. Views of the project site are primarily along Sierra Highway and Dr. Robert C Saint Clair Parkway. There are no outstanding focal points on the project site.

As mentioned before, the existing project site is vacant; thus, the site does not contain any lighting. The surrounding area is characterized by typical urban sources of light and glare, such as street, parking, and commercial lighting. The residential area east of the project site is considered a light-sensitive land use. The Hammack Activity Center has lighting for its outdoor hockey rinks. This lighting does not carry over onto the project site because fixtures are directed inward onto the hockey rinks.

Regulatory Setting

Federal. None

State. None

Local.

Title 22 (Planning and Zoning) of the Los Angeles County Code requires general design standards, which limit the type and intensity of uses consistent with the General Plan and local plans. In addition, the City of Palmdale Zoning Ordinance (1994) also includes property development standards and design guidelines including allowable land uses, setback and height requirements, landscaping, lighting, screening, walls, signs, parking requirements, and trash and recycling storage.

The City of Palmdale General Plan includes a Community Design Element which has policies and objectives, including site design for the comfort and safety of users; community character through distinctive design and quality workmanship; human-scale developments; parking lot design and orientation to function well for site users and present an attractive appearance to enhance business environment; and community design to provide a visually interesting and stimulating setting by using varied physical forms and details which contribute to Palmdale’s sense of place.

Under the Conservation and Open Space Element of the Draft Los Angeles County General Plan, goals and policies for scenic resources include protecting the County’s ridgelines from incompatible development that diminished their scenic value; reducing light trespass and light pollution; requiring development to be designed to create a consistent visual relationship with the natural terrain and vegetation; and, prohibit outdoor advertising and billboards along scenic routes, corridors, and other scenic areas.

Although the project site is within the boundary of the City of Palmdale, as part of the project the site will become County property; therefore, the County’s goals and policies are the governing regulation. However, the project is also consistent with the City of Palmdale’s regulations.

3.1.2 Impacts Analysis

a. Would the project have a substantial adverse effect on a scenic vista?

LESS THAN SIGNIFICANT IMPACT. The nearest scenic resources to the project site are the San Gabriel Mountains to the south, which serve as the visual backdrop to the urban setting of the project. The project will include a one-story building with varying roof lines (approximately 30 feet high), which will be consistent in size with the adjacent buildings. The project will not introduce incompatible visual elements within the viewshed of the mountains or substantially alter the views of the mountains. The existing scenic view of the San Gabriel Mountains will continue to be fully visible from

Sierra Highway and the project area. Therefore, the project will have a less than significant impact on a scenic vista and no mitigation is required.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

NO IMPACT. The project site is vacant. The northern portion of the site is bare soil and gravel, while the remainder of the site is paved with asphalt. Scenic resources such as trees, rock outcroppings, or historic buildings are not present on the project site. There is no official state or county scenic highways in the project area. The Angeles Crest Highway (Route 2) from the La Canada/Angeles National Forest boundary to the San Bernardino County line is the nearest officially designated scenic highway to the project site (Caltrans, 2012). The 55-mile segment of the state scenic highway is approximately 21 miles south, and not visible from, the project site. Therefore, the project will have no impact on scenic resources, including within a state scenic highway.

c. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

LESS THAN SIGNIFICANT IMPACT. The scenic vistas of the San Gabriel Mountains to the south of the project site are the primary contributors to the visual character and quality of the area, as discussed above. The project site is currently vacant and construction activities associated with the project will temporarily change the visual character of the site. Construction activities will vary throughout the 16-18 month construction period. Although the visual character of the site will change because of and during construction, the change will not substantially degrade the existing visual character or quality of the site. Elements of the project include a one-story building (potentially 30 feet in height), visitor and employee parking lots, and outdoor open spaces. The proposed structures will be similar in appearance and character to adjacent facilities (i.e., Hammack Activity Center, WorkSource Center, and the Los Angeles County Sheriff's Department Palmdale Station), while being sensitive to the immediate neighbors. The architectural design will be coordinated with the City of Palmdale to address regional and environmental appropriateness. Additionally, the proposed project will include civic art either inside and/or outside of the building, which will also add to the enhanced visual character of the site.

The project will be visible by viewers from the immediate surrounding area. The backyards of the single-family homes to the east of the project are separated from the site with an existing block wall. Similar to the existing block wall, an additional eight-foot high concrete screen wall will be constructed that will preclude direct views of the trash receptacle, car wash, emergency generator, and loading zone from the abutting residential lots. The new wall in the area of these portions of the facility will be approximately 94 feet from the abutting residential lots and the eastern most portion of the proposed building will be approximately 145 feet from these residences. As shown in Figure 3, landscaping (i.e., grass) is proposed in the open area between the proposed facility and abutting residences, as well as other landscaping (i.e., bushes and/or trees) along the eastern building facade. Therefore, the area to the east of the proposed building will remain undeveloped as a buffer zone between the animal facility and the residential neighbors.

The landscaping associated with the project will enhance the overall aesthetics of the site, which is currently paved with asphalt and contains bare soil and gravel, and surrounding area and will provide additional visual relief in conjunction with the existing sycamore trees along Sierra Highway.

Therefore, the project will not degrade the existing visual character or quality of the site, and the impact will be less than significant and no mitigation is required.

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

LESS THAN SIGNIFICANT IMPACT. Construction activities for the project will occur during daylight hours; therefore, no new sources of artificial lighting will be necessary. Upon completion of construction activities, the project will introduce a new source of nighttime light and glare into the area. The exterior of the animal care facility, parking lots, and pedestrian walkways will be illuminated by lighting fixtures at a level adequate to ensure safety of visitors and staff. Security lighting will be low-lighting, pedestrian-scaled and will be directed downward and towards the interior of the animal care facility, or shielded, to ensure lighting does not spill over onto adjacent properties.

There is existing lighting (street, parking lot, and security lighting) adjacent and along all four areas of the site. With the new lighting sources, lighting levels at the project site will increase slightly from existing conditions. Spill of light onto adjacent residential neighborhood will be reduced and controlled by using shields/hoods and other design features on light fixtures to confine lighting within the site boundaries, as required by regulation. Therefore, lighting associated with the project will not affect the overall ambient lighting levels; a less than significant impact will occur and no mitigation is required.

3.2 Agriculture and Forest Resources

Agriculture and Forest Resources Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code (PRC) Section 12220(g)) or timberland (as defined in PRC Section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒

d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

3.2.1 Setting

Although the greater Antelope Valley contains the majority of Los Angeles County's active agricultural land uses, the project is not located on or near land designated for agricultural use as defined by the Farmland Mapping and Monitoring Program or the Williamson Act, nor is there designated forest land at or near the site. The current land use of the project is designated as PF under the City of Palmdale General Plan.

Regulatory Setting

Federal. None

State.

California Land Conservation Act. Under the provisions of the Williamson Act (California Land Conservation Act 1965, Section 51200), landowners enter into a contract to maintain agricultural or open space use of their lands in return for reduced property tax assessment.

Farmland Mapping and Monitoring Program. The California Department of Conservation, Division of Land Resource Protection Farmland Mapping and Monitoring Program monitors the conversion of the state's farmland to and from agricultural use. The map identifies eight classifications and uses a minimum mapping unit size of 10 acres. Four classifications of farmland: Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance, are considered valuable.

Local. The proposed policies of the Draft Los Angeles County General Plan protects Agricultural Resource Areas from encroaching development and discourages incompatible adjacent land uses. However, the project site is not located within or adjacent to an Agricultural Resource Area.

The City of Palmdale General Plan also includes goals and objectives that address the premature conversion of agricultural lands to urban uses by aiming to encourage the preservation of agricultural lands in non-urban areas and as an interim use where urban development is not anticipated for several years.

Although the project site is within the boundary of the City of Palmdale, as part of the project the site will become County property; therefore, the County's proposed policies and goals within the Draft General Plan are the governing regulation. However, the project is also consistent with the City of Palmdale General Plan.

3.2.2 Impacts Analysis

a. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

NO IMPACT. The proposed project will not be located on agricultural land nor will it convert prime agricultural lands to non-agricultural use. The project site is not currently used for agricultural uses. The northern portion of the site is bare soil and gravel, while the remainder of the site is paved with asphalt. Therefore, there will be no impact to designated farmland.

b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

NO IMPACT. The project site is currently zoned as PF. The proposed project is not located on or near land zoned for agriculture use or under a Williamson Act contract. Therefore, the proposed project will not have an impact on agricultural zoning or a Williamson Act contract.

c. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC section 1220(g)) or timberland (as defined in PRC section 4526)?

NO IMPACT. There is no state or federally designated forests or timberland zoning in close proximity to the project site or in the project vicinity. Therefore, the proposed project will have no impact on land zoned for forest land.

d. Would the project result in the loss of forest land or conversion of forest land to non-forest use?

NO IMPACT. The project site is currently zoned as PF. The northern portion of the site is bare soil and gravel, while the remainder of the site is paved with asphalt. No forest land is present at the project site or in the project vicinity. Therefore, the proposed project will have no impact on forest land.

e. Would the project involve other changes in the existing environment which, due to their location or nature, could result in the conversion of Farmland, to non-agricultural use?

NO IMPACT. As described above, there is no farmland located on the project site or in the project vicinity and the project will not involve any changes that could result in the conversion of forest resources or farmland to non-agricultural use. Therefore, the proposed project will have no impact on agricultural uses or activities.

3.3 Air Quality

Air Quality Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone (O_3) precursors)?	☐	☐	☒	☐
d. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e. Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

3.3.1 Setting

Regulatory Setting

The Clean Air Act as amended in 1990 is the federal law that governs air quality. Its counterpart in California is the California Clean Air Act of 1988. These laws set standards for the quantity of pollutants that can be in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS) and at the state level, these standards are called California Ambient Air Quality Standards (CAAQS). Standards have been established for the following criteria pollutants that have been linked to potential health concerns: carbon monoxide (CO), nitrogen dioxide, ozone (O_3), inhalable particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), lead, and sulfur dioxide (SO_2); and in addition visibility reducing particles, sulfates, hydrogen sulfide, and vinyl chloride in California.

The proposed project is located within the Antelope Valley Air Quality Management District (AVAQMD) in the Mojave Desert Air Basin (MDAB). The MDAB includes the desert portions of Kern, Los Angeles, San Bernardino, and Riverside counties and is adjacent to the South Coast Air Basin. The AVAQMD comprises 1,300 square miles and is bordered by Kern County to the north, the San Gabriel Mountains to the south, San Bernardino County to the east, and Ventura County to the west. The AVAQMD is responsible for developing and updating clean air plans to comply with federal and state air quality requirements including plans to correct levels of air pollutants to achieve or exceed air quality standards. Currently, the AVAQMD's jurisdiction meets federal and state standards for most criteria pollutants except O_3 and PM_{10}.

AVAQMD CEQA and Federal Conformity Guidelines.

The AVAQMD CEQA and Federal Conformity Guidelines (2011), consider a project to have a significant effect on air quality if it does the following:

- Generates total emissions (direct and/or indirect) exceeding the thresholds given in the Guidelines;
- Generates a violation of any ambient air quality standard when added to the local background;
- Does not conform with the applicable attainment or maintenance plans; and/or,
- Exposes sensitive receptors to substantial pollutant concentrations, including those resulting in a cancer risk greater than or equal to 1 in one million and/or a Hazard Index (non-cancerous) greater than or equal to 0.1.

Table 3.3-1 below shows the AVAQMD significance thresholds for criteria pollutants.

Table 3.3-1
AVAQMD CEQA Significance Thresholds

Pollutant	Daily Threshold (lbs per day)	Annual Threshold (tons per year)
Carbon Monoxide	548	100
Nitrogen Oxides	137	25
Volatile Organic Compounds	137	25
Inhalable Particulate Matter (PM_{10})	82	15
Fine Particulate Matter ($PM_{2.5}$)	82	15
Sulfur Oxides	137	25
Lead	3	0.6
Hydrogen Sulfide	54	10
Greenhouse Gases	548,000	100,000

Source: AVAQMD, 2011,

In general, project emissions that are lower than the threshold criteria is sufficient to demonstrate that a project will have less than significant impact on air quality. A project with a significant impact must incorporate mitigation sufficient to reduce its impact to a level that is not significant. A project that cannot be mitigated to a level that is not significant must incorporate all feasible mitigation measures. Federal and state attainment status designations assigned by the United States Environmental Protection Agency (USEPA) and California Air Resources Board (CARB) for the Antelope Valley are summarized below in Table 3.3-2. As can be seen, the Antelope Valley area is in attainment for all criteria pollutants except for O_3 NAAQS and CAAQS and PM_{10} CAAQS.

Table 3.3-2
Attainment Designations of the Project Area

Pollutant	State Designation	Federal Designation
Ozone (1-hour)	Extreme Nonattainment	NA
Ozone (8-hour)	Nonattainment	Severe Nonattainment
Inhalable Particulate Matter (PM_{10})	Nonattainment	Unclassifiable
Fine Particulate Matter ($PM_{2.5}$)	Unclassified	Unclassifiable/Attainment
Carbon Monoxide	Attainment	Unclassifiable/Attainment
Nitrogen Dioxide	Attainment	Unclassifiable/Attainment
Sulfur Dioxide	Attainment	Unclassifiable
Lead	Attainment	Unclassifiable/Attainment
Sulfates	Attainment	NA
Hydrogen Sulfide	Unclassified	NA
Visibility Reducing Particles	Unclassified	NA

Sources: CARB, 2011. USEPA, 2012.

AVAQMD Air Quality Management Plan

An air quality management plan (AQMP) or attainment plan is prepared by each air district that has not attained the NAAQS. The purpose of these plans is to describe how the district will achieve attainment. On May 20, 2008, AVAQMD adopted a federal 8-hour O_3 attainment plan that forecasted attainment with O_3 NAAQS by 2021.

AVAQMD Rules

Air district rules are generally limited to regulating stationary sources while state and federal rules regulate both stationary and mobile sources. The following prohibitory rules will apply to the project during construction even though the project is well below AVAQMD's significance thresholds under CEQA, as discussed below. These rules further ensure that impacts are reduced to the maximum extent feasible.

Rule 401 – Visible Emissions. No emissions may exceed No. 1 on the Ringlemann Chart for a period or periods aggregating more than three minutes in any one hour.

Rule 402 – Nuisance. A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or the public, or which cause or have a natural tendency to cause injury or damage to business or property.

Rule 403 – Fugitive Dust. Visible dust is prohibited beyond the property line of an emission source. PM_{10} levels are prohibited from exceeding 50 micrograms per cubic meter when determined by simultaneous upwind and downwind sampling. Rule 403 contains a list of best applicable control measures to reduce fugitive dust impacts.

3.3.2 Impacts Analysis

The proposed project was evaluated for its potential to create a significant adverse air quality impact either during construction or operation.

Construction Emissions

The California Emission Estimator Model (CalEEMod), Version 2011.1.1 was used to estimate emissions generated during construction of the proposed project. The following assumptions were input into the model for the most conservative analysis possible:

- CalEEMod defaults were used for the number and type of construction equipment, as summarized in Table 3.3-3, and number of workers necessary.
- Peak construction workers were assumed to be 33.
- The AVAQMD was input as the appropriate air district.
- The acreage was 5-10 acres.
- The construction schedule was assumed 18 months.
- The VOC content of the paint was modified from CalEEMod to reflect the limits found in AVAQMD Rule 1113 – Architectural Coatings.
- Haul trip of removed pavement were assumed to be disposed of at the Antelope Valley Recycling and Disposal Facility in Palmdale, CA.

Table 3.3-3
Anticipated Construction Equipment

Construction Phase	Equipment Type	Quantity
Demolition	Concrete Saw Dozer Loader/Backhoes	1 1 3
Site Preparation and Grading	Grader Dozer Loader/Backhoe	1 1 1
Building Construction	Crane Forklift Generator Set Loader/Backhoe Welders	1 1 1 1 3
Paving	Cement Mixer Paver Paving Equipment Roller Loader/Backhoe	1 1 1 1 1
Architectural Coating	Air Compressor	1

Table 3.3-4 presents the estimated maximum daily construction emissions anticipated to be generated by the proposed project.

Table 3.3-4
Summary of Estimated Maximum Daily Construction Emissions

	CO (lb/day)	NOx (lb/day)	ROG (lb/day)	SOx (lb/day)	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)
Demolition	27	45	5	<1	12	2
Site Preparation	18	30	4	<1	4	3
Grading	15	25	3	<1	4	2
Building Construction	19	24	5	<1	2	2
Paving	13	16	3	<1	2	1
Architectural Coating	2	3	66	<1	<1	<1
Maximum Daily Emissions from worst-case phase	27	45	66	<1	12	3
AVAQMD CEQA Threshold	548	137	137	137	82	82
Emissions Exceed CEQA Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:
AVAQMD = Antelope Valley Air Quality Management District, CEQA = California Environmental Quality Act, CO = carbon monoxide, lb/day = pounds per day, NOx = nitrogen oxides, ROG = reactive organic gases, SOx = sulfur oxides, PM_{10} = inhalable particulate matter, $PM_{2.5}$ = fine particulate matter

Table 3.3-5 presents the estimated annual construction emissions anticipated to be generated by the proposed project.

Table 3.3-5
Summary of Estimated Annual Construction Emissions

	CO (ton/yr)	NOx (ton/yr)	ROG (ton/yr)	SOx (ton/yr)	PM_{10} (ton/yr)	$PM_{2.5}$ (ton/yr)
2014	2	3	<1	<1	<1	<1
2015	<1	<1	<1	<1	<1	<1
AVAQMD CEQA Threshold	100	25	25	25	15	15
Emissions Exceed CEQA Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:
AVAQMD = Antelope Valley Air Quality Management District, CEQA = California Environmental Quality Act, CO = carbon monoxide, NOx = nitrogen oxides, ROG = reactive organic gases, SOx = sulfur oxides, PM_{10} = inhalable particulate matter, $PM_{2.5}$ = fine particulate matter
2014 emissions include those from the demolition, site preparation, grading, and building construction (partial) phases. 2015 emissions include those from the building construction (partial), paving, and architectural coating phases.
Although construction is assumed to take 16 to 18 months, a construction period of 12 months was assumed as a worst case (conservative) scenario for purpose of the air quality construction analysis.

Operational Emissions

The CalEEMod air quality modeling tool was also used to estimate emissions generated during operation of the proposed project. The following assumptions were input into the model for the most conservative analysis possible:

- Electricity and utility usage was assumed for a 25,500 square foot facility.

- Default assumptions were used for VOC-containing materials such as coatings and cleaning supplies.
- Vehicle trips were obtained from the project proponent and were no more than 30 employees; 20 volunteers; and up to 70 visitors per day. The analysis assumed that all of these trips will occur on a daily basis.

Tables 3.3-6 and 3.3-7 present the estimated maximum daily and annual emissions anticipated to be generated during operation of the proposed project, respectively. There will also be a diesel-powered emergency generator on-site that will be required as part of maintenance activities to be exercised for a minimum of 30 minutes a month, and will only be used during power outages; therefore, daily and annual emissions from the generator under normal conditions will be minimal. The appropriate permit will be obtained from AVAQMD prior to installation and operation of the emergency generator and the operator will follow required recordkeeping, reporting, and monitoring procedures.

Table 3.3-6
Summary of Estimated Maximum Daily Operational Emissions

	CO (ton/yr)	**NOx (ton/yr)**	**ROG (ton/yr)**	**SOx (ton/yr)**	**PM_{10} (ton/yr)**	**$PM_{2.5}$ (ton/yr)**
Building Operations	<1	<1	2	<1	<1	<1
Vehicle Travel	146	38	19	<1	23	2
Total	146	38	21	<1	23	2
AVAQMD CEQA Threshold	548	137	137	137	82	82
Emissions Exceed CEQA Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:
AVAQMD = Antelope Valley Air Quality Management District, CEQA = California Environmental Quality Act, CO = carbon monoxide, lb/day = pounds per day, NOx = nitrogen oxides, ROG = reactive organic gases, SOx = sulfur oxides, PM_{10} = inhalable particulate matter, $PM_{2.5}$ = fine particulate matter

Table 3.3-7
Summary of Estimated Annual Operational Emissions

	CO (lb/day)	**NO_x (lb/day)**	**ROG (lb/day)**	**SOx (lb/day)**	**PM_{10} (lb/day)**	**$PM_{2.5}$ (lb/day)**
Building Operations	<1	<1	<1	<1	<1	<1
Vehicle Travel	24	7	3	<1	4	<1
Total	24	7	3	<1	4	<1
AVAQMD CEQA Threshold	100	25	25	25	15	15
Emissions Exceed CEQA Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:
AVAQMD = Antelope Valley Air Quality Management District, CEQA = California Environmental Quality Act, CO = carbon monoxide, NOx = nitrogen oxides, ROG = reactive organic gases, SOx = sulfur oxides, PM_{10} = inhalable particulate matter, $PM_{2.5}$ = fine particulate matter

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

LESS THAN SIGNIFICANT IMPACT. As can be seen from the air quality analysis performed for both the construction and operation, emissions from the proposed project will be well below AVAQMD's significance thresholds for CEQA. Further, the emissions have no potential to jeopardize or obstruct any AVAQMD clean air plan. The region is in attainment for all pollutants with the exception of O_3 and PM_{10}. As presented in Tables 3.3-4 through 3.3-7 above, PM_{10} emissions are negligible as well as emissions of nitrogen oxides (NOx) and VOCs; which contribute to O_3 formation. The proposed project will adhere to all AVAQMD rules and regulations; including those described above for PM_{10} emission control from construction operations. The proposed project will not conflict with or obstruct implementation of the air quality plan for the region. Therefore, impacts will be less than significant and no mitigation is required.

b. Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

LESS THAN SIGNIFICANT IMPACT. The air quality analysis performed for the construction and operation of the proposed project, as summarized in Tables 3.3-4 through 3.3-7, indicates that emissions will be well below AVAQMD's significance thresholds for CEQA with no potential to contribute to a violation of an air quality standard. In addition, the proposed project will comply with existing AVAQMD rules, as well as applicable state and federal regulations pertaining to construction equipment, to further reduce any potential impacts. Impacts are considered less than significant and no mitigation is required.

c. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for O_3 precursors)?

LESS THAN SIGNIFICANT IMPACT. The proposed project will not result in a cumulatively considerable net increase of any criteria pollutant. As shown above in Tables 3.3-4 through 3.3-7, emissions from the proposed project are negligible and are far below AVAQMD's CEQA thresholds.

The region is in nonattainment for O_3 and PM_{10}. As discussed above, the proposed project will not considerably contribute to an increase in O_3 precursors or PM_{10} in any way. Impacts in this area are considered less than significant and no mitigation is required.

d. Would the project expose sensitive receptors to substantial pollutant concentrations?

LESS THAN SIGNIFICANT IMPACT. The proposed project consists of a main building, two parking lots, as well as an exercise yards and open space. The proposed project is surrounded by a major roadway (Sierra Highway) to the west, the Los Angeles County Sheriff's Department Palmdale Station to the north, a residential area to the east, and a recreational and commercial use to the south.

Residences, schools, daycare centers, playgrounds and medical facilities are considered sensitive receptor land uses under the AVAQMD CEQA Handbook and Federal Conformity Guidelines (2011). The Handbook mandates that an analysis be conducted for specific project types located within 300-1000 feet of a residence (depending on project type). The proposed animal care facility does not fall under the specific types of projects requiring such an analysis per the Handbook. However, construction and operation emissions were evaluated for the proposed project as discussed above. The location of the new facility is roughly in the center of the site in order to allow for distance between the new facility and the nearest sensitive receptors (i.e., existing residences and outdoor roller hockey rink). Although the nearest sensitive receptor to the site is the adjacent residences along the eastern boundary of the project site, the closest active areas associated with the new facility (i.e., car wash and emergency generator) is approximately 100 feet from the nearest sensitive receptor (residence at 38575 Friendly Avenue), and the outdoor roller hockey rink is approximately 128 feet from the closest portion of the main building and approximately 230 feet from the emergency generator, which is the nearest potential emission source.

Due to the small construction crew, short-term schedule, and minimal trips upon project completion, no impacts have been identified to sensitive receptors as a result of the project. In addition, the proposed project will comply with existing AVAQMD rules, as well as applicable state and federal regulations pertaining to construction equipment, to further reduce any impacts. As shown above, emissions of criteria pollutants and any toxic pollutants contained in VOCs and PM emissions will be minimal. Impacts in this area are considered less than significant and no mitigation is required.

e. Would the project create objectionable odors affecting a substantial number of people?

LESS THAN SIGNIFICANT IMPACT. The proposed project will not create objectionable odors affecting a substantial number of people. The proposed project is an animal care facility with residences that border the site to the east. All animals will be kept indoors and enclosures will be cleaned regularly with the waste stored in sealed receptacles and contained on-site prior to their disposal. Animals will not be permitted in the open area along the eastern area of the proposed facility (which is closest to the abutting residences), but will only be permitted in the exercise yards located to the north of the facility (south of the staff parking area) during day time hours. The nearest exercise yard to the residences is approximately 233 feet. Animals will not be permitted in an exercise without constant supervision; therefore, the full staff or part-time volunteers will clean up any animal waste as soon as it occurs at an exercise yard. There will also be a diesel-powered emergency generator on-site that will be required as part of maintenance activities to be exercised for a minimum of 30 minutes a month, and will only be used during power outages. The appropriate permit will be obtained from AVAQMD prior to installation and operation of the emergency generator and the operator will follow required recordkeeping, reporting, and monitoring procedures. Therefore, potential for odors from the emergency generator are expected to be minimal. Impacts associated with objectionable odors will be less than significant and no mitigation is required.

3.4 Biological Resources

Biological Resources Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (CWA) (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local or regional habitat conservation plan?	☐	☐	☐	☒

3.4.1 Setting

The project site consists of approximately 5.8-acres of vacant land, the northern portion of which is bare soil with ruderal (weedy) vegetation while the southern portion is paved. Several mature trees, including California sycamores (*Platanus racemosa*) are located along Sierra Highway adjacent to the site. Adjacent land uses include light industrial, commercial, recreational, and residential.

The nearest open space to the project site is located at Ritter Ranch, approximately five miles southwest of the project site. Ritter Ranch provides habitat for wildlife and a corridor for wildlife movement to the adjacent Angeles National Forest.

A search of the California Natural Diversity Database (CNDDB) identified 12 special-status wildlife and plant species with potential to occur within the U.S. Geological Survey (USGS)

Palmdale Quadrangle, as presented in Table 3.4-1 (CDFG, 2012). Special-status species include those federally- and/or state-listed as threatened, endangered, and/or candidate plant or wildlife species as well as those identified as species of concern by the California Department of Fish and Wildlife (CDFW)[9] for wildlife, and as rare, threatened, or endangered by the California Native Plant Society (CNPS) for plants.

According to historical information, it appears that the project site had been undeveloped in 1917. By 1928, the northern portion of the project site was agricultural land (orchard or groves). Building records issued as early as the 1950s indicated the use of the project site was for retail, including restaurants/lounge, salons, stores, and a church. Several commercial properties within the project site had been redeveloped by 1968; however, the northeastern corner of the project site remained undeveloped. By 2002, the project site had been cleared of previous building development and was left vacant as it appears today (LACDPW, 2011). Given the disturbed nature of the site, and the lack of anything but ruderal vegetation (i.e., weeds) at the site, the urbanized surrounding area, and the lack of appropriate habitat, no species have the potential to be located at the project site. One bird species, the Cooper's hawk (*Accipiter cooperii*) could occur transiently in mature trees along Sierra Highway adjacent to the site. However, there is no habitat for foraging or nesting at the site or in the vicinity. Other migratory birds, which are protected under the Migratory Bird Treaty Act (MBTA) as described below, may utilize the mature trees along Sierra Highway for foraging during migration, but will be unlikely to nest there given the limited habitat and high level of human activity nearby.

Regulatory Setting

Federal.

Endangered Species Act. The Endangered Species Act (ESA) of 1973 (Public Law 93-205) and subsequent amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Section 7 of the ESA requires Federal agencies to aid in the conservation of listed species, and to ensure that the activities of Federal agencies will not jeopardize the continued existence of listed species or adversely modify designated critical habitat. At the Federal level, the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service are responsible for administration of the ESA.

Migratory Bird Treaty Act. The MBTA of 1918 (16 USC §§ 703 – 712) decrees that all migratory birds and their parts (including eggs, nests, and feathers) are fully protected. Under the MBTA, taking, killing, or possessing migratory birds is unlawful. Projects that are likely to result in the taking of birds protected under the MBTA will require the issuance of take permits from the USFWS. Activities that will require such a permit will include, but not be limited to, the destruction of migratory bird nesting habitat during the nesting season when eggs or young are likely to be present. In accordance with the MBTA, surveys are required to determine if nests will be disturbed and, if so, a buffer area with a specified radius around the nest will be established so that no disturbance or intrusion will be allowed until the young had fledged and left the nest. If not otherwise specified in the permit, the size of the buffer area will vary with species and local circumstances (e.g.

[9] As of January 1, 2013, the California Department of Fish and Game (CDFG) is now called the California Department of Fish and Wildlife (CDFW).

Table 3.4-1
Special-Status Species and Natural Communities Documented in the Palmdale Quadrangle

Species	Status	Habitat Requirements	Likelihood of Occurrence
Reptiles			
Silvery legless lizard *Anniella pulchra pulchra*	CSC	Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential.	Unlikely to occur. No suitable habitat in the project area.
Coast horned lizard *Phrynosoma blainvillii*	CSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	Unlikely to occur. No suitable habitat in the project area.
Birds			
Cooper's hawk *Accipiter cooperii*	None	Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains and in live oaks.	May occur transiently; no suitable habitat in the project area for nesting.
Burrowing owl *Athene cunicularia*	CSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Unlikely to occur. No suitable habitat in the project area.
Loggerhead shrike *Lanius ludovicianus*	CSC	Broken woodlands, savannah, Pinyon-Juniper, Joshua Tree, and riparian woodlands, desert oases, scrub, and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	Unlikely to occur. No suitable habitat in the project area.
Least Bell's vireo *Vireo bellii pusillus*	FE, SE	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms below 2000 feet. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, *Baccharis*, mesquite.	Unlikely to occur. No suitable habitat in the project area.
LeConte's thrasher *Toxostoma lecontei*	CSC	Desert resident; primarily of open desert wash, desert scrub, alkali desert scrub, and desert succulent scrub habitats. Commonly nests in a dense, spiny shrub or densely branched cactus in desert wash habitat, usually 2-8 feet above ground.	Unlikely to occur. No suitable habitat in the project area.
Tricolored blackbird *Agelaius tricolor*	CSC	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony.	Unlikely to occur. No suitable habitat in the project area.
Mammals			

Table 3.4-1
Special-Status Species and Natural Communities Documented in the Palmdale Quadrangle

Species	Status	Habitat Requirements	Likelihood of Occurrence
San Joaquin pocket mouse *Perognathus inornatus inornatus*	None	Typically found in grasslands and blue oak savannas. Needs friable soils.	Unlikely to occur. No suitable habitat in the project area.
Mohave ground squirrel *Xerospermophilus mohavensis*	ST	Open desert scrub, alkali scrub, and Joshua Tree woodland. Also feeds in annual grasslands. Restricted to Mojave Desert. Prefers sandy to gravelly soils, avoids rocky areas. Uses burrows at base of shrubs for cover. Nests are in burrows.	Unlikely to occur. No suitable habitat in the project area.
Plants			
Sagebrush loeflingia *Loeflingia squarrosa* var. *artemisiarum*	CNPS List 2.2	Great basin scrub, Sonoran Desert scrub, desert dunes. Sandy flats and dunes. Sandy areas around clay slicks with *Sarcobatus*, *Atriplex*, *Tetradymia*, etc. 700-1200m.	Unlikely to occur. No suitable habitat in the project area.
Short-joint beavertail *Opuntia basilaris* var. *brachyclada*	CNPS List 1B.2	Chaparral, Joshua Tree woodland, Mojavean Desert scrub, Pinyon-Juniper woodland, riparian woodland. Sandy soil or coarse, granitic loam. 425-1800m.	Unlikely to occur. No suitable habitat in the project area.

Source: CDFG, 2012 search of the Palmdale 7.5-minute USGS quadrangle (Note: As of January 1, 2013, the California Department of Fish and Game [CDFG] is now called the California Department of Fish and Wildlife [CDFW]).

CNPS (California Native Plant Society) List 1B.2 – Plants rare, threatened, or endangered in California and elsewhere, fairly threatened in California
CNPS List 2.2 – Plants rare, threatened, or endangered in California, but more common elsewhere; fairly threatened in California
CSC – California Species of Concern
FE – Federal Endangered
None – No official federal or state listing but considered rare to varying extent
SE – State Endangered
ST – State Threatened

presence of busy roads), and will be based on the professional judgment of the monitoring biologist.

State.

California Fish and Game Code (Sections 3500 through 3705). Sections 3500 through 3705 of the California Fish and Game Code protect most migratory bird species and active nests from harm or destruction.

California Endangered Species Act of 1984 (California Fish and Game Code 2050- 2116). The California Endangered Species Act of 1984 provides for the protection of rare, threatened, and endangered plants and animals, as recognized by CDFW, and prohibits the unauthorized taking of such species. As a responsible agency, the CDFW has regulatory authority over state-listed endangered and threatened species. State agencies are required to consult with CDFW on actions that may affect listed or candidate species.

California Fish and Game Code (Streambed Alteration Agreement). Under Chapter 6 of the California Fish and Game Code, CDFW is responsible for protecting and conserving the state's fish and wildlife resources. Sections 1600 et seq. of the Code define the responsibilities of CDFW, and the requirement for public and private applicants to obtain an agreement to:

… divert, obstruct, or change the natural flow or bed, channel, or bank of any river, stream, or lake designated by CDFG[10] *in which there is at any time an existing fish or wildlife resource or from which those resources derive benefit, or will use material from the streambeds designated by the department.*

Local.

Los Angeles County Oak Tree Ordinance (#22.56.2180). The ordinance protects any tree of the oak genus (*Quercus*) over eight inches in diameter at breast height (dbh), or 12 inches dbh combined for multiple trunks. Protected oak trees may not be damaged, removed, or encroached upon (within five feet of the drip line or 15 feet from the trunk) without an oak tree permit. The permit applicant may be required to replace oaks removed at a ratio of 2:1. When replacement or relocation of oak trees on the project site is inappropriate, the applicant may be required to pay into the oak forests special fund to plant new trees on public lands, maintain oaks on public lands, purchase prime oak woodlands, and purchase oaks of cultural significance. There are no oak trees at or adjacent to the project site.

Los Angeles County Tree Protection. Los Angeles County Code , Title 16 - Highways, Division 5 - Miscellaneous Provisions, Chapter 16.76, requires a permit to trim, prune, cut, break, deface, destroy, burn, or remove any shade or ornamental tree, hedge, plant, shrub, or flower growing on any public highway, public ground, or public property within the County of Los Angeles. The permit is issued either by the Department of Parks and Recreation for public property or public grounds, or by the LACDPW, Road Maintenance Division for public highways. The permit requires replacement of any removed tree with another tree of a type and quality to be determined by either the Director of Parks and Recreation or the Assistant Deputy Director of the Road Maintenance Division of the

[10] As of January 1, 2013, the California Department of Fish and Game (CDFG) is now called the California Department of Fish and Wildlife (CDFW).

LACDPW. There are no trees at the site but there are street trees in the public right-of –way along Sierra Highway (adjacent to the project site). As the proposed facility will be public property within the County, this code will apply during operation.

City of Palmdale Joshua Tree and Native Desert Vegetation Preservation. Under City of Palmdale Municipal Code, Chapter 14.04, all development proposal applications for sites containing native desert vegetation shall include a desert vegetation preservation plan and obtain a native desert vegetation removal permit from the City's Landscape Architect for removal of Joshua trees (*Yucca brevifolia*), California juniper (*Juniperus californica*), or any other native desert vegetation identified pursuant to the California Desert Native Plants Act (Food and Agricultural Code Section 80001, et seq.) as protected or designated on any state or federal rare and endangered species list. There is no native desert vegetation at or adjacent to the project site.

In addition, although the project site is within the boundary of the City of Palmdale, as part of the project the site will become County property; therefore, the site is governed by the County's regulations. As there are no native desert vegetation at or adjacent to the project site, the project is also consistent with the City of Palmdale's regulations.

3.4.2 Impact Analysis

a. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

NO IMPACT. All construction and construction staging will occur within the project site footprint and the site will be accessed by existing roadways. The project site consists of bare soil and pavement in an urbanized area and does not provide habitat for any threatened, endangered, or rare animal species. Additionally, the nearest habitat for migratory birds consists of mature trees along Sierra Highway adjacent to the site, which do not provide suitable habitat for nesting. Thus, no impacts associated with disturbance of nesting migratory birds will occur. There will be no impacts to special-status species or habitat from the project.

b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

NO IMPACT. The project site consists of bare soil and pavement and is located in an urbanized area. Adjacent land uses include light industrial, commercial, recreational, and residential. There is no riparian habitat, other sensitive natural community, or ecologically significant or critical areas located within or adjacent to the project site; therefore, no impact will occur.

c. Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

NO IMPACT. As indicated above, the project site consists of bare soil and pavement and is located in an urbanized area. There are no jurisdictional wetlands or drainage features on or adjacent to the project site; therefore, no impact to wetlands will occur.

d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

NO IMPACT. The project site is located within an urban area surrounded by developed properties and does not provide habitat that will be utilized as a wildlife corridor. These conditions will not change with construction or operation of the proposed project. Therefore, no impacts associated with wildlife movement will occur.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

NO IMPACT. As indicated above, a majority of the project site is paved and the portion of the site that is not paved is an area of bare soil and ruderal (weedy) vegetation; no trees are located on the project site. Further, construction and construction staging will occur on the project site and the project does not require the trimming, pruning, cutting, breaking, defacing, destroying, burning, or removal of any shade or ornamental tree, hedge, plant, shrub, or flower growing on any public highway, public ground, or public property within the County of Los Angeles (such as the street trees along Sierra Highway). As such, the proposed project will not conflict with any local policies or ordinances protecting biological resources, including protected trees or desert vegetation, and thus, no impact will occur.

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

NO IMPACT. The project site is located within the planning area of the West Mojave Plan, a Habitat Conservation Plan that is being prepared by the Bureau of Land Management (BLM) in collaboration with the region's cities, counties, state and federal agencies (BLM, 2012). The purpose of the West Mojave Plan is to provide a regional strategy for conserving plant and animal species and their habitats and to define an efficient, equitable, and cost-effective process for complying with threatened and endangered species laws. The Plan will establish Desert Wildlife Management Areas that will be managed for the long-term survival and recovery of special-status species including the desert tortoise and Mohave ground squirrel.

The project site is located in an urban, developed area which does not provide habitat for special-status species and will not be designated as protected by the West Mojave Plan. Therefore, the proposed project will not conflict with the provisions of the West Mojave Plan and no impact will occur.

3.5 Cultural Resources

Cultural Resources Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

3.5.1 Setting

Past archaeological investigations point to a lengthy prehistoric tradition in the Antelope Valley. Archaeologists have learned that the Antelope Valley has been inhabited for the past 5,000 years, and may have been occupied many thousands of years before that (City of Palmdale, 1993). Cultural groups known to have occupied the Antelope Valley in late prehistoric and early historic times include the Kitanemuk, Kawaiisu, Tatavium, and Serrano/Vanyume. For the purposes of archaeological classification, Palmdale was divided into three primary physiographic environment types: the rift zone, the foothill areas, and the desert floor. The project site is located within the desert floor, which is moderately high probability of discovering prehistoric and historic sites (City of Palmdale, 1993).

According to a paleontological sensitivity study prepared in April 1990 by Robert E. Reynolds, the curator of Earth Sciences at the San Bernardino County Museum, Palmdale's low-lying areas consist of Quaternary alluvium which is known to contain numerous vertebrate fossils. Although Exhibit ER-8 in the Environmental Resources Element of the City of Palmdale General Plan shows the project site is located in an undetermined area of paleontological sensitivity, historical information shows that the project site was previously graded and developed. As discussed further in Section 3.6 Geology and Soils, the site soils include fill materials and alluvial soils, to a depth to 50 feet below ground surface (bgs). Fills up to a maximum observed depth of three feet were encountered in the borings; however, deeper artificial fill may exist at the site. The fill material was probably placed during original site grading.

According to historical information, it appears that the project site had been undeveloped in 1917, and consisted of agricultural land (orchard or groves) by 1928. By 1937, a structure was depicted on the southern portion of the project site. By 1948, several more structures were developed on the project site, and by 1968 had been redeveloped into several commercial properties. Building records dated as early as the 1950s indicated that the use of these properties were for retail, including restaurants/lounge, salons, stores, and a church. The project site has been vacant since 2002 (LACDPW, 2011). Indications are that this development included a basement located at approximately 11 feet bgs and two feet thick (LACDPW, 2012a). Given the previous development that has occurred on-site, including the use of fill material, the likelihood of encountering intact paleontological and/or archaeological resources is low. Additionally, there is no indication that this development is associated with historical resources and the likelihood of any potentially historic artifact associated with the past uses being located on-site is extremely unlikely given site redevelopment and subsequent demolition and paving.

Regulatory Setting

Federal. Section 106 of the National Historic Preservation Act requires that projects with federal agency involvement must take into account the effects of the project on historic properties and provide the Advisory Council on Historic Preservation a reasonable opportunity to comment. The Act defines historic properties as those included in the National Register of Historic Place or meet the criteria for the National Register. Additionally, in carrying out the requirements of Section 106, a federal agency must consult with any Native American tribe that identifies religious and/or cultural connections to historic properties that may be affected by the agency's undertakings.

State. The proposed project is subject to CEQA which requires public or private projects financed or approved by public agencies to assess their effects on historical resources. CEQA uses the term "historical resources" to include buildings, sites, structures, objects or districts, each of which may have historical, prehistoric, architectural, archaeological, cultural, or scientific importance. CEQA states that if implementation of a project results in significant effects on historical resources, then alternative plans or mitigation measures must be considered; however, only significant historical resources need to be addressed (California Code of Regulations 15064.5 and 15126.4).

Properties that area listed in or eligible for listing in the National Register of Historic Places are considered eligible for listing in the CRHR, and thus are significant historical resources for the purpose of CEQA (PRC Section 5024.1(d)(1)). However, the project site is not listed or eligible for listing in the National Register.

Local. Under the Conservation and Open Space Element of the Draft Los Angeles County General Plan, proposed policies for the protection of cultural heritage resources include mitigating all impacts from new development on or adjacent to historical a cultural heritage resources sites to the greatest extent feasible; support the preservation and rehabilitation of historic buildings; ensure proper notification procedures to Native American tribes in accordance with Senate Bill 18; and, ensure proper notification and recovery processes are carried out for development on or near historical and cultural heritage resource sites.

The Environmental Resources Element of City of Palmdale General Plan requires an evaluation to ascertain whether a proposed area contains historic or cultural resources of local or regional significance.

Although the project site is within the boundary of the City of Palmdale, as part of the project the site will become County property; therefore, the proposed goals and policies within the County's Draft General Plan are the governing regulation. However, the project is also consistent with the City of Palmdale General Plan.

3.5.2 Impacts Analysis

a. Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

NO IMPACT. Although the project site has been previously disturbed and developed (previously used for agricultural and commercial uses), the site is currently vacant with no structures remaining. The possibility of any potentially historical artifact being located on-site associated with the past uses is extremely unlikely, given that the site is highly disturbed and been developed and redeveloped, with subsequent demolish of all structures. In addition, there are no known or documented national or State historic resources that have been designated as landmarks or points of interest on or in the immediate vicinity of the project. Therefore, the development of the project will not alter or destroy potentially historic resources; no impact is anticipated.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATION. As discussed above and further in Section 3.6 Geology and Soils, fills up to a maximum observed depth of three feet were encountered in the borings; however, deeper artificial fill may exist at the site. Additionally, the previous development likely included a basement located at approximately 11 feet bgs and two feet thick (refer to Section 3.6, Geology and Soils, for details on the existence of a subsurface slab/basement) while the proposed project will not. Based on recommendations contained in the Geotechnical Study Report prepared from the proposed project (LACDPW, 2012a) the footprint of the building should be excavated to depth of three feet as measured from existing grades, or to a depth of at least two feet below the bottom of footings (recommended at 18-inches bgs), or to the depth of undocumented fill, whichever is deeper. Pavement and hardscape areas beyond the footprint of the buildings should be excavated to a depth of two feet, as measured from existing grades. The depth to which soils have been disturbed is likely greater than will occur for the proposed project.

Although the potential of encountering intact archeological resources is unlikely given that the project site has been previously graded and developed, the proposed project involves grading which has a potential to encounter unknown subsurface archaeological material. To avoid potential impacts to unknown archaeological resources that may be buried beneath the project site, the County of Los Angeles Department of Public Works will ensure that the following mitigation measure is implemented:

MM CUL-1. *In the event any archaeological materials or subsurface deposits are exposed during ground disturbance, the construction contractor will cease activity in the affected area (e.g., redirect activities into another area within the site) until the discovery can be evaluated by a qualified archaeologist or historic resources specialist, as required, and appropriate* *treatment measures implemented. If the discovery proves to be significant pursuant to Section 15064.5(c) of CEQA Guidelines, additional work such as testing or data recovery will be conducted as warranted. Methods during monitoring and/or recovery of archaeological resources shall be documented in a report of findings.*

With incorporation of this mitigation measure, impacts to archaeological resources are anticipated to be less than significant.

c. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

NO IMPACT. As described under Item b above, fills up to a maximum observed depth of three feet were encountered in the borings; however, deeper artificial fill may exist at the site. Additionally, the previous development likely included basements while the proposed project will not. In addition, the proposed project will not require deep construction or footings that could encounter paleontological resources. Therefore it is unlikely the project will encounter nor directly or indirectly destroy a unique paleontological resource or unique geologic features. Therefore, no impacts are anticipated regarding paleontological resources.

d. Would the project disturb any human remains, including those interred outside of formal cemeteries?

NO IMPACT. According to historical information, the project site has been disturbed and occupied since 1928 with various uses including agricultural, commercial, retail, and restaurant uses, until 2002 when the entire project site appeared to be vacant of development. The previous development included artificial fill and buildings likely included basements. Given the previous disturbance, it is extremely unlikely that human remains will be encountered at the site. To avoid potential impacts to unknown human remains that may be buried beneath the surface in the work area, the County of Los Angeles Department of Public Works will ensure that the following mitigation measure is implemented:

MM CUL-2. *In the event human remains are encountered during project construction, the Los Angeles County Coroner shall be immediately contacted to determine whether or not investigation of the cause of death is required. The Coroner shall make a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The Coroner will be notified of the find immediately. In the event it is determined by the Coroner the remains are Native American in origin, the Native American Heritage Commission shall be contacted to determine necessary procedures for protection and preservation of remains, including reburial, as provided in the CEQA Guidelines, Section 15064.5(e).*

With incorporation of this mitigation measure, impacts to unknown human remains are anticipated to be less than significant.

3.6 Geology and Soils

Geology and Soils Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☒	☐	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

3.6.1 Setting

The project site is located approximately 2,650 feet above mean sea level with surface topography in the general vicinity sloping up towards the southwest (USGS Topographic Map, Palmdale, California, 1974, photo revised 1958). The project site is underlain by loamy sands of the Cajun series (Soil Conservation Service SSURGO Data, EDR Radius Map Report ordered April 2011). During soil vapor sampling in January 2012 and geotechnical investigations conducted in March 2012, site soils consisted of fills and alluvial deposits to the maximum explored depth of up to 50 feet bgs (LACDPW, 2012b). The fill encountered at a maximum depth of three feet consist primarily of silty sand and clayey silt. The fill material was probably placed during original site grading. Deeper artificial fill may exist at the site. The alluvial deposits below the fill primarily consist of silty sands and sand with gravels.

Major topographical features consist of the San Gabriel Mountains and Sierra Nevada Mountains, located south and north of the project, respectively. The project site is located approximately two miles north of the San Andreas Fault, which is the dominant seismic feature traversing the southernmost portion of Palmdale. The San Andreas Fault extends over 600 miles from the Salton Sea, northwest toward the Pacific Ocean at Point Arena. Two of the three largest (8.0+ Richter) earthquakes in the state have occurred along the San Andreas Fault, two of which were the 1906 San Francisco earthquake which caused 21-foot offsets and the 1857 Fort Tejon earthquake.

The Safety Element of the City of Palmdale General Plan also identifies active fault traces crossing through the valley soils in Palmdale, including the Cemetery Fault, the Nadeau Fault, and the Littlerock Fault. All three faults are active splays of the San Andreas Fault. Thus, movement on the San Andreas Fault may activate one or all of these subsidiary faults. Other splays of the San Andreas Fault which are found in Palmdale are the Powerline Fault and the eastern end of the Clearwater Fault. A number of other faults located in the Southern California region could be responsible for earthquakes that would affect the Palmdale area.

A Geotechnical Study Report was prepared for the project site for Los Angeles County by Converse Consultants in April 2012 (LACDPW, 2012b). The impacts analysis is based on finding of that study. Recommendations contained in that study is incorporated into the proposed project as mitigation.

Regulatory Setting

Federal. None.

State.

Alquist Priolo Earthquake Fault Act. The Alquist-Priolo Earthquake Fault Zone Act of 1972 (California PRC, Division 2, Chapter 7.5) established the Alquist-Priolo Earthquake Fault Zones to mitigate the hazard of surface faulting to structures for human occupancy. The primary purpose of the Act is to prevent the construction of buildings for human occupancy on the surface trace of active faults, to provide the citizens with increased safety, and to minimize loss of life during and immediately following earthquakes by facilitating seismic retrofitting to strengthen buildings against ground shaking. The State Geologist is required to establish regulatory zones, known as Earthquake Fault Zones, around the surface traces of active faults and to produce appropriate maps to assist cities and counties in planning, zoning, and building regulation functions. The maps define potential surface rupture or fault creep. New geologic and seismic data is continually reviewed by the State Geologist and revisions are made to existing zones when warranted by new information. Local agencies are required to enforce the Act in the development permit process, where applicable, and may impose greater restrictions than State law requires.

Seismic Hazards Mapping Act. The State of California Seismic Hazards Mapping Act of 1990 (PRC Section 2690-2699) addresses the effects of strong ground shaking, liquefaction, landslides, and other ground failures due to seismic events. Under this Act, the State Geologist is required to delineate seismic hazard zones. Cities and counties are required to regulate certain development projects within the zones, investigate the geologic and soil conditions of the project, and incorporate appropriate mitigation measures, as appropriate, into development plans.

California Building Code. The California Building Code (CBC), which is based on the International Building Code, requires that project structures be designed with adequate strength to withstand the lateral dynamic displacements induced by the Design Basis Ground Motion, which the CBC defines as the earthquake ground motion that has two percent chance of being exceeded in 50 years.

Local. Under the Safety Element of the Draft Los Angeles County General Plan, proposed policies for an effective regulatory system that prevents or minimizes personal injury, loss of life and property damage due to seismic and geologic hazards and flood and inundation hazards include: discourage development in Seismic and Geologic Hazard Zones and Flood Hazard Zones; prohibit new developments within fault traces until a comprehensive geological study has been completed, as defined by the Alquist-Priolo Act; support the retrofitting of unreinforced masonry structures to help reduce the risk of structural and human loss due to seismic or geological hazards; and, discourage development from locating in dam and reservoir inundation routes.

Building and construction within the County is governed by the latest version of the Los Angeles County Building Code, which references the CBC.

Building and construction within the City of Palmdale are subject to the regulations of the City of Palmdale Municipal Code (Chapter 8.04.201) that adopts and incorporates the CBC by reference (Ordinance 1410 Section 2, 2010). The Municipal Code includes amendments and modifications to the CBC that are specific to the City of Palmdale. The CBC incorporates provisions of the International Building Code, which contains seismic design criteria and grading standards.

Although the project site is within the boundary of the City of Palmdale, as part of the project the site will become County property; therefore, the County's General Plan goals and policies are the governing regulation. However, as the County's policies include building and construction that incorporates the CBC, the project is also consistent with the City of Palmdale's regulations.

3.6.2 Impact Analysis

a. **Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:**

   i) **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.**

   LESS THAN SIGNIFICANT IMPACT. The project site is not located within the boundaries of an Alquist-Priolo Special Studies Zone. The project site is located in a seismically active area, as is most of southern California. The nearest active fault/special study zone is the San Andreas fault system approximately two miles south of the project site (LACDPW, 2012b; California Department of Conservation, 1979). However, no active faults are known to cross the project site. Nonetheless, the proposed project will be designed and constructed in conformance with building and seismic code requirements and industry standards, including the most recent edition of the CBC, which reduces potential impacts by ensuring that development is designed to withstand seismic or other geologic hazards. Such a design is considered to result in an acceptable level of risk for the Southern California region. As such, the construction and operation of the project will have a less than significant impact related to the potential rupture of a known earthquake fault and no mitigation is required.

ii) Strong seismic ground shaking?

LESS THAN SIGNIFICANT IMPACT. Given the seismically active region of southern California, the project site is susceptible to ground shaking emanating from causative faults during an earthquake. As indicated above, the nearest active earthquake fault to the project site is the San Andreas Fault Zone, located approximately two miles south of the project site. Ground shaking from seismic activity along nearby regional faults could also affect the project site. The project includes the construction of a new animal care facility and eastern perimeter concrete screen wall which will be designed in accordance with the latest building and seismic code requirements, such as the CBC, which will reduce potential adverse effects associated with seismic ground shaking. Therefore, the potential impact from strong seismic ground shaking will be considered less than significant and no mitigation is required.

iii) Seismic-related ground failure, including liquefaction?

LESS THAN SIGNIFICANT IMPACT. Liquefaction describes a phenomenon in which a saturated soil loses strength during an earthquake as a result of induced shearing strains. Lateral and vertical movement of the soil mass combined with loss of bearing usually results. Loose sand, high groundwater conditions (where the water table is within approximately 50 feet of the ground surface), higher intensity earthquakes, and particularly long duration of ground shaking are the requisite conditions for liquefaction. Exhibit S-10, Soil Expansion Potential, of the Safety Element in the City of Palmdale General Plan indicates that the project site is located within a low liquefaction area. Geotechnical site specific exploration did not encounter groundwater to a depth of 50.5 feet bgs. Absence of groundwater within 50 feet indicates liquefaction potential is very low and potential for seismically-induced settlement is negligible. Additionally, design and construction of the proposed project will comply with applicable building code requirements and industry standards. Therefore, the risks associated with seismic-related ground failure, including liquefaction will be less than significant and no mitigation is required.

iv) Landslides?

LESS THAN SIGNIFICANT IMPACT. Landslides and mudflows are most likely in the foothill and mountain areas where fractured and steep slopes are present (as in the San Gabriel Mountains). The project site is located within a predominantly flat area of the Antelope Valley and not within an area susceptible to, or affected by, landslides. Therefore, the potential risks associated with landslides are considered less than significant and no mitigation is required.

b. Would the project result in substantial soil erosion or the loss of topsoil?

LESS THAN SIGNIFICANT IMPACT. As shown in Exhibit S-11, Soil Erosion Potential, of the City of Palmdale General Plan, the project site is within an area of moderate soil erosion potential. Construction activities will include grading, excavation, trenching for utilities, temporary staging, and construction on flat terrain. These activities could result in the potential for erosion to occur at the project site, though soil exposure will be temporary and short-term in nature. Project implementation will increase storm water runoff from the project site and could result in additional water erosion. Construction projects resulting in the disturbance of one acre or more are required to obtain a National Pollutant Discharge Elimination System (NPDES) permit issued by the Regional Water Quality Control Board (RWQCB) to control soil erosion due to storm water. In addition, implementation of best management practices (BMPs) and a Storm Water Pollution Prevention Plan (SWPPP) will minimize the potential for soil erosion and sedimentation. After construction is completed, the project site will be covered by paving or landscaping and no large areas of exposed soil that will be exposed to erosion effects of wind or water will remain. As such, construction or operation of the project will have less than significant impacts related to erosion and loss of topsoil and no mitigation is required.

c. Would the project be located on a geologic unit or soils that is unstable, or that would become unstable as a result of the project, and potentially result in an on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

LESS THAN SIGNIFICANT IMPACT. The project will be constructed within an area of slow soil infiltration capacity (City of Palmdale, 1993). Soil borings, and vapor probes were installed at the project site as part of site investigations and did not encounter groundwater in any of the borings completed at depths up to 50.5 feet bgs. In addition, the Department of Water Resource data (2012) for Well 06N12W26Z003S (located underneath the project site) indicate the depth of groundwater was 262 feet in 1911. Due to the absence of shallow groundwater (>50 feet), the risk for liquefaction at the site will be considered very low. As indicated above, the project site is located in a predominantly flat area of the Antelope Valley and not within an area susceptible to, or affected by, landslides. The soils under the project site will not become unstable or potentially result in off-site landslide, lateral spreading, subsidence, liquefactions or collapse. Additionally, design and construction of the project will comply with applicable building and safety requirements (such as the building standards contained in the most recent edition of the CBC). The proposed project will also comply with recommendations contained in the 2012 Geotechnical Study Report for the project site, including over-excavation and compaction of the existing site soils and undocumented fill material (LACDPW, 2012b). Therefore, the impact is considered less than significant and no mitigation is required.

d. Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATION. Expansive soils are soils with a significant amount of clay. These soils have the ability to take on and absorb water. When this occurs, the soils swell and exert pressure on the loads imposed on them. As shown in Exhibit S-10, Soil Expansion Potential, of the City of Palmdale General Plan, soils at the project site have a low potential to be expansive. The subsurface soils at the project site consist of silty sands to sandy silts, which are materials that do not substantially expand or shrink with an increase in the moisture content. In addition, laboratory tests from the geotechnical investigation indicate the site soils have a low expansion potential. However, to further address the hazards associated with expansive soils, the following mitigation measures will be incorporated into project design/specifications and followed during site construction:

MM SOILS-1. *The proposed project will be designed and constructed in accordance with remedial grading and compaction requirements contained in the report entitled "Geotechnical Study Report, East Antelope Valley Animal Shelter"*[11] *by Converse Consultants (April 19, 2012).*

MM SOILS-2. *The proposed project will follow site-specific geotechnical recommendations (e.g., drill drain holes and backfill, and excavate at least the upper two feet of soil for pavement) for the abandonment of the subsurface slab/basement, detailed in the correspondence from Converse Consultants dated October 10, 2012.*

With incorporation of the above mitigation measures, the compacted fill soils are anticipated to have similar engineering characteristics with the underlying alluvial soils, and the placement of the new one-story building and associated hardscape improvements are not expected to result in collapse or soil settlement. Therefore, impacts from unstable/expansive soil conditions are anticipated to be less than significant.

Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

NO IMPACT. The proposed animal care facility will use the existing municipal sewer system and will therefore not require the use of septic tanks or alternative wastewater disposal systems. Therefore, no impact will occur.

[11] The proposed project was originally referred to as the "East Antelope Valley Animal Shelter." Based on coordination with the City of Palmdale and DACC, the project name was revised to its current title: "County of Los Angeles Animal Care Center Project, Palmdale CA."

3.7 Greenhouse Gas Emissions

Greenhouse Gas Emissions Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b. Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs?	☐	☐	☒	☐

3.7.1 Setting

Various gases in the earth's atmosphere play an important role in moderating the earth's surface temperature. Solar radiation enters earth's atmosphere from space and a portion of the radiation is absorbed by the earth's surface. The earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation. Greenhouse gases (GHGs) are transparent to solar radiation, but are effective in absorbing infrared radiation. Consequently, radiation that will otherwise escape back into space is retained, resulting in a warming of the earth's atmosphere. This phenomenon is known as the greenhouse effect.

Scientific research to date indicates that some of the observed climate change is a result of increased GHG emissions associated with human activity. Among the GHGs contributing to the greenhouse effect are water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and chlorofluorocarbons. Human-caused emissions of these GHGs in excess of natural ambient concentrations are considered responsible for enhancing the greenhouse effect. GHG emissions contributing to global climate change are attributable, in large part, to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors.

In 2008, California statewide GHG emissions were 474 million metric tons CO_2-equivalent ($MTCO_2e$) per year. Transportation contributes the most to the GHG emissions, followed by electric power generation (CARB, 2010).

Regulatory Setting

Federal. None.

State. In 2006, the California State Legislature signed the Global Warming Solutions Act of 2006 or Assembly Bill (AB) 32, which provides the framework for regulating GHG emissions in California. This law requires CARB to design and implement emission limits, regulations, and other measures such that statewide GHG emissions are reduced in a technologically feasible and cost-effective manner to 1990 levels by 2020. The statewide 2020 emissions limit is 427 million $MTCO_2e$ (CARB, 2006).

Local. Since the County of Los Angeles has not adopted thresholds of significance associated with GHG emissions for County projects, this analysis uses significance thresholds developed by the Antelope Valley AQMD. To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, the Antelope Valley AQMD revised their CEQA and Federal Conformity guidelines in August 2011. This document includes a significance threshold of 100,000 tons per year and 548,000 pounds (lbs) per day of carbon dioxide equivalent (CO_2e) that applies to all CEQA projects. CO_2e is a measure used to compare the emissions from various GHGs based upon their global warming potential (GWP). CO_2e are commonly expressed in terms of metric tons (i.e., $MTCO_2e$). The CO_2e for a gas is derived by multiplying the tons of the gas by its associated GWP. The GWP of a GHG, is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. For example, CH_4 is a much more potent GHG than CO_2. Most mandatory and voluntary reporting registries require the use of the GWPs published in the Intergovernmental Panel on Climate Change's (IPCC's) Second Assessment Report (IPCC 1996); therefore, the GWPs from the Second Assessment Report were used to maintain consistency with the international standard. The Second Assessment Report describes that one ton of CH_4 has the same contribution to the greenhouse effect as approximately 21 tons of CO_2. Expressing GHG emissions in CO_2e takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that will occur if only CO_2 were being emitted.

Below is the formula for calculating the emissions:

$$TCO_2e = (\text{tons of a gas}) * (\text{GWP of the gas})$$

On January 16, 2007, the County of Los Angeles adopted the Energy and Environmental Policy as part of the County's effort to help conserve natural resources and protect the environment. The goal of the policy is to provide guidelines for the development, implementation, and enhancement of energy conservation and environmental programs (e.g., energy and water efficiency, environmental stewardship, public outreach and education, and sustainable design). In order to meet the goals of the policy and ultimately AB 32, the County has implemented energy efficient projects in County facilities, specifically retrofitting or replacing building lighting systems and air conditioning equipment or as is the case of the proposed project, the certification of new development. The County has also developed/adopted tools and policies to support the reduction of GHG emissions that include but are not limited to: the "green building" ordinance, which will lead to all new private development within the unincorporated areas of the County being certified under the LEED or equivalent standards; County sponsored recycling programs; and the incorporation of Low Impact Design Standards and drought tolerant landscaping.

3.7.2 Impact Analysis

GHG emissions will be emitted as a result of the construction and operation of the proposed project. The majority of GHG emissions will be temporary and occur during the construction phase, which is expected to begin in summer of 2014 and last 16 to 18 months. These emissions will result from the use of on-road vehicles and diesel-fueled off-road equipment. Maximum daily and annual GHG emissions for construction phases are presented in Tables 3.7-1 and 3.7-2, respectively. Detailed assumptions and calculations for estimating purposes are included in Appendix A. Construction emissions were calculated using the CalEEMod program.

Table 3.7-1
Maximum Daily Project Construction GHG Emissions

Construction Phase	CO_2e (lb/day)
Demolition	5,515
Site Preparation	3,343
Grading	2,778
Building Construction	3,291
Paving	1,848
Architectural Coating	352
AVAQMD CEQA Threshold	548,000
Emissions Exceed CEQA Threshold?	**No**

Notes:
AVAQMD = Antelope Valley Air Quality Management District, CEQA = California Environmental Quality Act, CO_2e = carbon dioxide equivalent, GHG = greenhouse gas, lb/day = pounds per day

Table 3.7-2
Annual Project Construction GHG Emissions (MTCO2e/year)

Construction Phase	2014	2015
Demolition	50	-
Site Preparation	3	-
Grading	5	-
Building Construction	263	31
Paving	-	8
Architectural Coating	-	2
Annual Construction Emissions	**321**	**41**
Total Construction Emissions	**363**	

Notes:
GHG = greenhouse gas, $MTCO_2e$/year = metric tons carbon dioxide equivalent per year

Totals may not add up due to rounding. The construction emissions were calculated based on a 12 month construction schedule (which is a worst case scenario) at 5 days per week, 8 hours per day, assuming the maximum number of equipment on-site.

Once constructed, emissions associated with project operation will result primarily from employee, volunteer and visitor trips and from truck deliveries. There will also be a diesel-powered emergency generator on-site; however, the generator will be operated only periodically for testing (minimum of 30 minutes once a month) and will only be used during power outages. Therefore, daily and annual emissions from the generator under normal conditions will be minimal.

Indirect GHG emissions will occur from electricity use of the project. The new facility will be designed and constructed to achieve (at a minimum) LEED Silver level certification, which will incorporate sustainable design features to optimize energy use, enhance the sustainability of the site, reduce water use and maximize the use and reuse of sustainable and local resources. While not explicitly quantified because the exact amount of expected emissions reductions is not known, the incorporation of LEED design will serve to reduce GHG emissions associated with the proposed project. Daily and annual operation emissions are expected to be minimal and are presented in Tables 3.7-3 and 3.7-4, respectively. Maximum daily and total annual emissions associated with the proposed project construction and operations compared with the AVAQMD thresholds are presented in Table 3.7-5. CEQA and Federal Conformity Guidelines (AVAQMD, 2011) does not specify that amortized construction emissions should be added to the operational emissions; therefore to be conservative, total construction emissions and annual operational emissions were compared against the thresholds. Appendix A contains the CalEEMod output showing GHG emissions during project operations.

Table 3.7-3
Maximum Daily Operational GHG Emissions (lb CO2e/day)

Emissions Type	**2015 and beyond**
Energy Usage	90
Mobile Sources (vehicles)	21,253
Area Sources	<1
Total	21,343
AVAQMD CEQA Threshold	548,000
Emissions Exceed CEQA Threshold?	**No**

Note:

AVAQMD = Air Quality Management District, CEQA = California Environmental Quality Act, GHG = greenhouse gas, lb CO_2e/day = pounds of carbon dioxide equivalent per day

Table 3.7-4
Annual Operational GHG Emissions (MTCO2e/year)

Emissions Type	**2015 and beyond**
Energy Usage	123
Waste	125
Water	17
Mobile Sources (vehicles)	3,141
Area Sources	0
Total	**3,406**

Note:

GHG = greenhouse gas, $MTCO_2e$/year = metric tons carbon dioxide equivalent per year
Totals do not add up due to rounding. Emissions from “Water” includes energy used to supply, distribute, and treat water and wastewater associated with the proposed project.

Table 3.7-5
Total Proposed Project GHG Emissions Compared to AVAQMD Thresholds

Emissions Type	**Daily Emissions (lbs CO_2e/day)**	**Annual Emissions ($MTCO_2e$ / year)**
Total Construction Emissions [1]	5,515	363
Total Operational Emissions	21,343	3,406
AVAQMD GHG Thresholds	548,000	90,718 [2]
Exceeding Thresholds?	**No**	**No**

Note:

AVAQMD = Antelope Valley Air Quality Management District, GHG = greenhouse gas, lbs CO_2e/day = pounds of carbon dioxide equivalent per day, $MTCO_2e$/year = metric tons carbon dioxide equivalent per year

[1] Construction emissions presented for comparison with the annual threshold are the total construction emissions from all construction phases occurring in 2014 and 2015. Construction emissions during the individual years in 2014 and 2015 will be less than this amount.
[2] AVAQMD’s annual GHG threshold was converted from short tons to metric tons.

a. Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

LESS THAN SIGNIFICANT IMPACT. As shown in Tables 3.7-1 through 3.7-5 above, the proposed project will result in a short-term increase in GHG emissions during construction and minimal GHG emissions from its operation. The annual GHG emissions, which include the direct emissions from additional vehicle travel, the indirect emissions from electricity purchasing, and the construction emissions are substantially less than the AVAQMD GHG significance threshold of 100,000 short tons per year (90,718 $MTCO_2e$/year) and 548,000 lbs per day of CO_2e. Therefore, the proposed project will result in a less than significant impact from GHG emissions and no mitigation is required.

b. Would the project conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs?

LESS THAN SIGNIFICANT IMPACT. The proposed project will not conflict with an applicable plan, policy, or regulation adopted to reduce GHG emissions. The short-term construction GHG emissions will not interfere with the AB 32 Scoping Plan and the long-term goal of AB 32 to reduce GHG emissions to 1990 levels by 2020. Operation of the proposed project will result in minor GHG emissions from vehicle travel and electricity use. However GHG emissions are negligible compared to the statewide GHG inventory. In addition, the new facility will be designed and operated under the LEED program, which confirms with the County's adopted Energy and Environmental Policy to enhance energy conservation. It is anticipated that the proposed project through design and operation will include energy-related conservation equipment and practices as part of compliance with both LEED certification and the County's adopted Energy and Environmental Policy. Incorporation of LEED design will serve to reduce GHG emissions associated with the proposed project. Therefore, the project will not conflict with plans, policies, or regulations intended to reduce GHGs and impacts will be less than significant and no mitigation is required.

3.8 Hazards and Hazardous Materials

Hazards and Hazardous Materials Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed	☐	☐	☐	☒

	school?				
d.	Be located on a site, which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e.	For a project located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f.	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h.	Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

3.8.1 Setting

The project site consists of approximately 5.8-acres of vacant land in which the northern portion is bare soil and the southern portion is covered by pavement. Adjacent land uses include light industrial, commercial, and residential. There are no schools located within one quarter mile of the project site, and the project site is not located in the vicinity of an airport or private airstrip. A helipad is located to the north at the Los Angeles County Sheriff's Department Palmdale Station.

A Phase I Environmental Site Assessment (Phase I ESA) was conducted for the site to identify potential environmental conditions, including the presence of hazardous materials, in connection with past uses of the site and past and current uses of nearby properties (LACDPW, 2011). The Phase I ESA included a search of regulatory databases, a reconnaissance survey, interviews with the property owner representatives and public agency personnel, and review of historical photos and maps. Based on information provided by the regulatory database search, the project site does not appear on any list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

The findings of the Phase I ESA indicated there was potential for the presence of hazardous materials from the historic use of the site for light industrial and agricultural purposes and the historic use of the adjacent properties for service stations and dry cleaners. The Phase I ESA concluded that a Phase II ESA, including soil and soil gas sampling, was warranted to evaluate the potential for subsurface contamination due to the historic light industrial use of the site and adjacent properties. Due to the time elapsed since last possible application of agricultural chemicals at the site (prior to 1950), sampling was not warranted for potential agricultural chemicals (LACDPW, 2011).

A Phase II ESA was subsequently conducted and included sampling of soil and soil gas at several locations at the project site (LACDPW, 2012a). Soil samples were analyzed for total petroleum hydrocarbons (TPH) carbon chain analysis and gasoline, metals, VOCs, and semi-volatile organic compounds. Soil gas samples were analyzed for VOCs plus oxygenates and TPH-gasoline. Groundwater was not encountered in any of the borings completed to depths up to 50.5 feet bgs.

The findings of the Phase II ESA indicate that low concentrations of tetrachloroethene (PCE) were detected in the underlying soils in the southwestern portion of the site and appear to be associated with former dry cleaners west and south of site, which are the presumed sources. Based on the proposed animal care facility development plans, no structures are proposed to be constructed in the southwestern portion of the site over where the PCE was detected. Based on the concentrations and a human health risk evaluation, the Phase II ESA concluded that the site does not pose a health risk for the proposed commercial/industrial land use or for construction workers.

During previous investigative activities at the project site, a subsurface feature was encountered at approximately 11 feet bgs. The subsurface feature was determined to be a concrete slab about two feet thick that appears to have been the abandoned basement slab of the previous building. The subsurface slab will be drilled with drain holes and backfilled in place during construction of the proposed project. The area of the subsurface slab will be a paved surface parking lot (LACDPW, 2012c).

Regulatory Setting

Federal. The USEPA is the lead federal agency responsible for enforcing federal regulations regarding hazardous materials. The project site is not a known superfund site or a site that has stored or generated hazardous waste; therefore, many of the federal regulations do not apply.

State. The California Department of Toxic Substances Control (DTSC) and the RWQCB are the state agencies primarily responsible for the regulation of hazardous materials in California. DTSC is responsible for the management of hazardous substances and oversees the investigation and remediation of contaminated sites. The Lahontan RWQCB is primarily responsible for the protection of groundwater and surface water resources from hazardous materials in the project area. The project site is not a known superfund site or a site that has stored or generated hazardous waste (DTSC, 2012); therefore, many of the state regulations do not apply.

State of California Occupational Safety and Health Act (Cal OSHA). Cal OSHA regulates worker safety similar to federal OSHA but also requires preparation of an Injury and Illness Prevention Program, an employee safety program of inspections, procedures to correct unsafe conditions, employee training, and occupational safety communication. In addition, Cal OSHA regulations indirectly protect the general public by requiring construction managers to post warnings signs, limit public access to construction areas, and obtain permits for work considered to present a significant risk of injury, such as excavations greater than five feet.

In addition, Cal OSHA requires the maintaining of Materials Safety Data Sheets (MSDSs) for hazardous materials present in DACC’s operations which identify the types and handling requirements of hazardous materials used in given areas (such as the sanitation solutions and pharmaceuticals stored and used at an animal care center).

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program. This program designates local agencies called Certified Unified Program Agencies (CUPAs). These local agencies have jurisdiction to manage hazardous substances with respect to hazardous waste generators and hazardous waste on-site treatment; underground storage tanks; aboveground storage tanks; and hazardous materials release response plans and inventories (business emergency plans [BEP]), including Unified Fire Code hazardous materials management plans and inventories; and risk management and accidental release prevention programs.

Waters Bill of 1985 (Business Emergency Plan/Hazardous Materials Business Plan). Administered by the CUPA, the Waters Bill requires facilities which meet minimum hazardous materials use/storage thresholds to file a BEP, or a Hazardous Materials Business Plan (HMBP), which includes a complete inventory of the hazardous materials being used and stored on a site. Employee training and emergency response plans and procedures for the accidental release of hazardous materials are also included in a BEP.

Antelope Valley Air Quality Management District Rule 403. Rule 403 requires actions to prevent, reduce or mitigate fugitive dust emissions from sources including, but not limited to, earth-moving activities, construction/demolition activities, disturbed surface area, or heavy- and light-duty vehicular movement.

Medical Waste Management Act (MWMA). MWMA (California Health and Safety Code, Sections 117600 – 118360) http://www.cdph.ca.gov/certlic/medicalwaste/Documents/MedicalWaste/2013/MWMAfinal2013.doc governs the management of medical waste in all jurisdictions of the state. The Act identifies and regulates the type of medical waste generators, as well as regulates the containment and storage of medical waste, treatment of waste (including sharps waste and animal remains), haulers of waste, and enforcement.

Local. The owner or operator of any business or entity that handles a hazardous material above threshold quantities is required, by State and Federal laws, to submit a HMBP to the local CUPA. The CUPA with local jurisdiction over the proposed project area is the Los Angeles County Fire Department, Health Hazardous Materials Division.

In addition, DACC has policies and procedures, such as Policy No. OPG120, Controlled Substances, which details the storage, use and disposal of controlled substances (such as sodium pentobarbital, ketamine and diazepam) at an animal care facility.

3.8.2 Impacts Analysis

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATION. Hazardous materials will be handled in compliance with applicable laws and regulations regarding transport, handling, disposal, and storage. Small quantities of hazardous materials will be used during project construction, such as gasoline, diesel fuel, motor oil, cleaning chemicals and detergents, lubrication oil, and oxygen and acetylene for any welding activities. Transport, handling, disposal, and storage of these materials to and from the project site would occur in compliance with applicable regulations. Best management practices will be used during construction to prevent and control spills and leaks of these substances.

Based on the Phase II ESA (LACDPW, 2012a), soil and soil gas samples taken at the project site in May and July 2011 showed low human health risk levels of total petroleum hydrocarbons and volatile organic compounds, all of which were below regulatory and permissible exposure limits for residential and commercial/industrial land uses. Although no visible signs of contamination were observed during sampling, there is a potential to encounter unknown subsurface contamination during construction. For this reason, the following mitigation measure will be implemented:

MM HAZ-1. *Although contaminated soil is not anticipated to be encountered, in the event soil contamination is encountered during earthwork activities, all contaminated soil handling and removal will be required to adhere to a soil management plan prepared and approved by the County. The soil management plan will specify procedures for the proper handling and disposal of contaminated soil in accordance with all applicable local and state regulations.*

With implementation of this mitigation measure, potential impacts to the public, including construction workers, from unknown hazardous materials encountered during construction at the site and from the transport and disposal of any such hazardous materials are anticipated to be less than significant.

Operation of the proposed facility will require the use and storage of routine chemicals such as cleaning compounds. In addition, the proposed animal care facility includes an on-site clinic. The clinic includes the storage and use of pharmaceuticals (such as anesthetic, sedative and euthanasia solution) commonly utilized in the daily operations of the facility. All sanitation solution and pharmaceuticals will be stored in a manner specified in their applicable MSDS and DACC's policies and procedures. Medical waste (such as sharps and animal remains) will be stored and disposed of in accordance with the MWMA, which includes the pick-up and disposal of such waste by a licensed disposal services under contract with DACC. Therefore, with storage, handling, and transport of such materials in compliance with applicable regulations, the proposed project will not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, and impacts are anticipated to be less than significant.

b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

LESS THAN SIGNIFICANT IMPACT. During construction, spill handling procedures will be implemented should a small fuel (gasoline, diesel, or oil) spill occur during on-site refueling. Any release of construction-related hazardous materials will be limited to small areas of contaminated soil, if spills occur during fueling or operation of construction equipment. No hazardous materials will be used during operation of the proposed facility other than cleaning chemicals. Therefore, the proposed project will not create a significant hazard to the public or the environment through an accidental release of hazardous materials. Impacts will be less than significant and no mitigation is required.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

NO IMPACT. The nearest school, R. Rex Parris High School, is located approximately 0.28 mile (1,500 feet) northwest of the project site at 38801 Clock Tower Plaza Drive in Palmdale. Given the distance of the nearest school; there is no risk that the project will emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within 0.25 mile of an existing or proposed school, and no impact will result.

d. Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

NO IMPACT. The proposed project is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, based on the findings of a Phase I ESA conducted for the site (LACDPW, 2011). Therefore, the proposed project will not result in an impact associated with being located on a site included on a list of hazardous materials site.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

NO IMPACT. The project site is not located within an airport land use plan or in the vicinity of a public airport or public use airport. The nearest airport is the Palmdale Regional Airport, located approximately two miles northeast of the project site. The proposed project will not result in any airport-related safety hazard for people working in the project area. Therefore, no impact will result.

f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

NO IMPACT. There are no private airstrips located within the project vicinity. A helipad is located to the north at the Los Angeles County Sheriff's Department Palmdale Station. The helipad is located within a secure area for Los Angeles County Sheriff use. It will not result in an aviation safety hazard for people working in the project area. Therefore, no impact will result.

g. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

LESS THAN SIGNIFICANT IMPACT. The proposed project will not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Construction activities, including staging, will occur on-site and no road closures are anticipated. The project site shares an entrance with the WorkSource Center. Ingress and egress to the site will be maintained at all times. Impacts are anticipated to be less than significant no mitigation is required.

h. Would the project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

NO IMPACT. The project site is in an urban area surrounded by developed lands. It is not within a high fire severity zone. Therefore, no impact will result.

3.9 Hydrology and Water Quality

Hydrology and Water Quality Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements (WDR)?	☐	☐	☒	☐
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on-site or off-site?	☐	☐	☒	☐
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-site or off-site?	☐	☐	☒	☐
e. Create or contribute runoff water, which would exceed the capacity of existing or planned storm water drainage systems, or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f. Otherwise substantially degrade water quality?	☐	☐	☒	☐
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h. Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?	☐	☐	☐	☒
i. Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j. Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

3.9.1 Setting

The project site is located in a high desert climate, characterized by hot dry summers and cool wet winters. Average annual precipitation in the project region is 7.9 inches which occur mostly during winter from December to March (Palmdale Water District, 2010). There is little precipitation during the summer from June to September.

The project area includes the Antelope Valley Groundwater Basin, which is comprised of an unconfined principal aquifer and a confined deep aquifer. They are important sources of local groundwater that meet 40 percent of the water demands in the region (Palmdale Water District, 2010). Natural ground water recharge in the area occurs from percolation of precipitation from the San Gabriel Mountains to the south. Human activities are responsible for other sources of recharge such as irrigation of agriculture and landscapes and wastewater effluent management practices.

The nearest well with recent groundwater data is Well No. 9974, located approximately 4.75 miles northeast of the project site. Depth to groundwater was reported to be 229 feet bgs. In addition, groundwater was not encountered in any of the drillings or borings completed to depths up to 50.5 feet bgs during soil vapor or geotechnical investigations. Based upon regional groundwater data included in the Seismic Hazard Evaluation Report for the Palmdale 7.5-minute Quadrangle (2003), historic high groundwater levels for the project site are reportedly greater than 40 feet bgs. The direction of regional groundwater is inferred to follow surface topography to the southwest.

No permanent surface water is present on or adjacent to the project site, a portion of which is vacant and paved. The historical drainage pattern at the site is generally south easterly to a discharge point via a wall opening to the adjacent cul-de-sac at Avenue Q-4 and Friendly Avenue (at the adjacent residential neighborhood), or runoff flows off-site at Sierra Highway and into the curb and gutter. There is no existing underground storm drainage infrastructure on the project site or in the surrounding streets.

Regulatory Setting

Federal. In California, discharges of storm water are regulated by the State Water Resources Control Board (SWRCB) through each RWQCB pursuant to the federal CWA and the state Porter-Cologne Water Quality Control Act. Regulatory details are discussed below.

State.
Construction Storm Water National Pollution Discharge Elimination System Permit. The federal CWA effectively prohibits discharges of storm water from construction sites unless the discharge is in compliance with a NPDES permit. The SWRCB is the permitting authority in California and has adopted a statewide *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activity* (SWRCB Water Quality Order No. 2009-0009-DWQ; SWRCB, 2009) that applies to projects resulting in one or more acres of soil disturbance (effective July 1, 2010). This permit requires development and implementation of a SWPPP.

Local.
County of Los Angeles Condition Use Permit for Grading. Grading projects, off-site transport, require a grading permit as provided in Title 26 Building Code. Compliance shall be made

with all applicable requirements of other county departments and other governmental agencies. All hauling shall be restricted to a route approved by the road commissioner.

Municipal Storm Water Permitting Program. The Municipal Storm Water Permitting Program regulates storm water discharges from municipal separate storm sewer systems (MS4s). To implement the requirements of the NPDES permit, the Los Angeles County co-permittees have created development planning guidance and control measures that control and mitigate storm water quality and quantity impacts to receiving waters as a result of new development activity. The Los Angeles County co-permittees are also required to implement other municipal source detection and elimination programs and maintenance measures.

Low Impact Development (LID). Low Impact Development, or LID, is a design strategy using naturalistic, on-site BMPs to lessen the impacts of development on stormwater quality and quantity. As of January 1, 2009, the County of Los Angeles instituted LID requirements for development occurring within unincorporated portions of the County. The recently adopted MS4 Permit for Los Angeles County includes similar LID requirements for new development and significant redevelopment. LID BMPs control stormwater at or close to the source to reduce off-site runoff using facilities that infiltrate, evapotranspirate, or biotreat runoff. Other low impact development benefits include water conservation, groundwater recharge and greening communities. Specific requirements for the proposed project include the use of BMPs for a LID design water quality volume, which is equal to the runoff that would result from an 85th percentile storm (~0.5 inches) for the post development site condition. The selection of BMPs must be prioritized in the following order of preference:

- BMPs that promote infiltration.
- BMPs that store and beneficially use stormwater runoff.
- BMPs that utilize the runoff for other water conservation uses including, but not limited to, BMPs that incorporate vegetation to promote pollutant removal and runoff volume reduction and integrate multiple uses, and BMPs that percolate runoff through engineered soil and allow it to discharge downstream slowly.

To move from one BMP category to the next in the hierarchy, technical infeasibility must be demonstrated as specified in the LID Guidance Manual.

Standard Urban Stormwater Mitigation Plan (SUSMP). The SUSMP was approved by the Los Angeles RWQCB as part of the MS4 program to address storm water pollution from new construction throughout Los Angeles County. The SUSMP contains a list of minimum BMPs that must be employed to infiltrate or treat storm water runoff, control peak flow discharge, and reduce the post-development discharge of pollutants from storm water conveyance systems. The SUSMP defines, based upon land use type, the types of BMPs that must be included and issues appropriate to the development type and size that must be addressed. Compliance with SUSMP requirements is used as one method to evaluate the significance of project development impacts on surface water runoff.

City of Palmdale Excavation and Grading Regulations. Excavation, grading, and earthwork construction regulations are outlined in Section 8.04.265 Chapter 70 of the City of Palmdale Municipal Code. This chapter sets forth regulations for the control of excavation, grading, and earthwork construction, including fills or embankments, and for the control of grading site runoff, including erosion, sediments and construction related pollutants. These regulations establish minimum standards and are not intended to prevent the use of alternate materials, methods, or means of conforming to such standards, provided such alternate has been approved. Exceptions for a grading permit are listed in the code. The City of Palmdale regulations will apply to grading or excavation activities that occur, if any, within the City of Palmdale's jurisdiction.

Although the project site is within the boundary of the City of Palmdale, as part of the project the site will become County property; therefore, the project is governed by the County's regulations. However, the project is also consistent with the City of Palmdale's regulations.

3.9.2 Impact Analysis

a. Would the project violate any water quality standards or Waste Discharge Requirements (WDR)?

LESS THAN SIGNIFICANT IMPACT. The project site is vacant and has relatively flat topography. The existing asphalt will be removed in order to construct the main building, outdoor spaces, and impervious surfaces such as walkways and parking lots. Soil exposure will occur during excavation and construction allowing for possible erosion and runoff into storm drains. During construction, the proposed project will be required to obtain coverage under the State's NPDES General Permit for Construction Activities and General Permit for Discharges of Stormwater Runoff Associated with Construction Activity.

The project site is currently undeveloped with the historical drainage pattern at the site generally flowing south easterly to a discharge point via a wall opening at the eastern boundary of the project site to the adjacent cul-de-sac at Avenue Q-4 and Friendly Avenue (at the adjacent residential neighborhood), or runoff flows off-site at Sierra Highway and into the curb and gutter. The proposed project will maintain the existing general drainage pattern currently at the site. In addition, the project includes two detention areas to capture a portion of the runoff. The open area to the north of the proposed facility (future expansion area) will remain undeveloped and may be used for stormwater retention. A detention basin (to be used as a SUSMP BMP) is proposed on the eastern area of the development, in the buffer zone between the facility and residential neighborhood, to capture by way of overland flow and underground storm drain piping a portion of runoff for on-site detention and treatment. Excess runoff will be conveyed to Friendly Street via the existing wall opening.

Further, project construction and operation will be required to comply with all County of Los Angeles (and City of Palmdale as applicable) ordinances and standard practices which assure proper grading and proper storm water drainage. The project will also comply with all local, state, and federal regulations, including requirements to prepare and implement a SWPPP to meet the requirements of the General Permit. The SWPPP will include identification and implementation of BMPs to control erosion from disturbed areas and reduce runoff.

Based on the above, construction and operation will result in a less than significant impact on water quality standards or WDR. Therefore, impacts will be less than significant and no mitigation is required.

b. Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted?

LESS THAN SIGNIFICANT IMPACT. The proposed project will result in the demolition of the existing asphalt and result in an increase in pervious surfaces (i.e., exercise yard, acquaint yard/courtyard, landscaping/trees, etc.) on the site. An increase in pervious surfaces will allow more water to percolate into the soil; however, this will not affect potable groundwater supplies. In addition, the project area is not used for groundwater pumping. The proposed project will not result in substantial depletion of ground water supplies from the basin or interference with groundwater recharge because the proposed project does not include new wells or other means of extracting groundwater supplies. Therefore, impacts to groundwater supplies will be considered less than significant.

c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on-site or off-site?

LESS THAN SIGNIFICANT IMPACT. The project site is relatively flat and primarily paved. Construction activities include the replacement of impervious surfaces with a pervious landscaping and new parking lots at the project site that will have a positive effect on directing runoff from the existing vacant site. The proposed project will be designed to include on-site drainage and storm water flow systems (such as on-site detention and treatment) to accommodate the new facility and its parking lots. Under the proposed project, the amount of impervious surface area will decrease, given that areas currently paved will be replaced with turf and landscaping (i.e., exercise yard, courtyard/ acquaint yard, and landscaped setbacks). Additionally, the area designated for possible future expansion will be replaced with hard packed bare dirt with turf, which will increase the perviousness of the soil. Therefore, the amount of previous surfaces will be greater, which could reduce the amount of runoff that occurs from the site. Therefore, it is anticipated that the existing storm drain system will have sufficient capacity to accommodate the flows from the project site and no substantial increase in erosion or siltation will occur. No streams or rivers will be affected or altered as part of the project. The applicant will comply with all applicable requirements and conditions as for construction activities, including measures addressing drainage. Therefore, the proposed project will result in a less than significant impact relative to the existing drainage pattern of the site and no mitigation is required.

d. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-site or off-site?

LESS THAN SIGNIGICANT IMPACT. As discussed for item c. above, the existing site is relatively flat and vacant. The new on-site drainage system of the proposed project will not substantially alter the existing drainage pattern of the site or area and the rate of runoff is expected to be less than existing conditions because of the increases in pervious landscaping (i.e., exercise yard, courtyard/acquaint yard, landscaped setbacks and turf on the possible future expansion area) in the area currently paved. The existing storm drain system has the capacity to accommodate the flows from the proposed project and will not result in flooding conditions on- or off-site. As such, impacts are considered to be less than significant and no mitigation is required.

e. Would the project create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

LESS THAN SIGNIFICANT IMPACT. The portion of the project site to be developed is currently paved, and thereby impervious. The proposed project will maintain impervious areas (i.e., main building, walkways, and parking lots) and add pervious surfaces (i.e., exercise yard, acquaint yard, and landscaping) to an area currently paved. The change in impervious surfaces and increase in pervious surfaces will not increase the volume of runoff to a level that will exceed the capacity of the storm drain system serving a project site. The existing storm drain system has sufficient capacity to accommodate the flows from the site.

Construction activities typically involve machines that have the potential to leak hazardous materials that may include oil and gasoline. It is expected that the construction contractor will use standard containment and handling protocols to ensure that these vehicles do not leak any material that may add sources of polluted runoff to the storm drain system.

Operation of the proposed project will not be a substantial source of polluted runoff. Animal wastes and medical wastes associated with the proposed project will be disposed of properly (i.e., animal wastes will be disposed of in the sanitary sewer or off-site and medical wastes will be removed by a licensed disposal services) and will not be allowed to enter the stormwater system.

In addition, as shown in Figure 3, within the project site, in the area between the main building and the existing block wall, a SUSMP BMP is proposed to infiltrate a LID design water quality volume of approximately 4,000 cubic feet (estimated using the Los Angeles County LID Volume Calculator – included as Appendix C). Additionally, the northern portion of the project site that will remain vacant for possible future expansion and unpaved may also function as a BMP for infiltration of surface water.

Therefore, the proposed project will not contribute runoff water which will exceed the capacity of existing or planned storm water drainage systems or provide a substantial additional source of polluted runoff, and impacts will be less than significant and no mitigation is required.

f. Would the project otherwise substantially degrade water quality?

LESS THAN SIGNIFICANT IMPACT. As described under item e. above, the proposed project will not result in any other effects that could substantially degrade water quality or substantially change the amount of polluted runoff from the project site. Further, as described under item a., the proposed project will not violate any water quality standards. The proposed project will comply with NPDES General Permit for Construction Activities and General Permit for Discharges of Stormwater Runoff Associated with Construction Activity and will be designed and constructed using BMPs to avoid impacts to water quality. Operation of the proposed project will not generate a substantial new source polluted runoff. Therefore, the proposed project will not result in a significant impact on water quality and no mitigation is required.

g. Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

NO IMPACT. The project site is located within an area that is determined to be outside the 100- and 500-year floodplains as mapped on the federal Flood Insurance Rate Map # 06037C0700F (2008). In addition, no housing will be constructed as a part of the project. Therefore, proposed project will not result in flood hazard impacts to housing.

h. Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

NO IMPACT. As noted in item g. above, the project site is located outside of the 100- and 500-year floodplain hazard areas. With incorporation of drainage features that increase infiltration and provide adequate site drainage, flood flows in the project area will not be impeded or redirected. As such, no impacts will occur.

i. Would the project expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

NO IMPACT. As indicated above, the project area is lies outside the 100- and 500-year flood plains. The project site is located approximately two miles and nine miles north of Lake Palmdale and Littlerock Reservoir/Dam, respectively. The proposed project will not result in the construction or operation of new structures that will be vulnerable to flooding or inundation as a result of dam failure. In addition, the project site is not located within an inundation area of a dam or levee as identified on the proposed Dam and Reservoir Inundation Routes Policy Map (Figure 9.4) of the Safety Element of the Draft Los Angeles County General Plan. Therefore, there will be no impact related to the exposure of people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

j. Would the project result in inundation by seiche, tsunami, or mudflow?

NO IMPACT. The project site is located in the Antelope Valley of northern Los Angeles County, over 45 miles from the coast. The proposed project is not located in an influence area that is at risk for seiche, tsunami, or mud flow as identified on the Draft Los Angeles County General Plan proposed Plate 6 of the Safety Element, Flood and Inundation Hazards, and proposed Figure 9.3, Los Angeles County Tsunami Hazard Area. Therefore, people or structures will not be exposed to hazards associated with seiches, tsunamis, or mudflows and no impact will occur.

3.10 Land Use and Planning

Land Use and Planning Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Physically divide an established community?	☐	☐	☐	☒
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

3.10.1 Setting

The City of Palmdale manages land use through the Land Use Element of the City of Palmdale General Plan and the Palmdale Zoning Ordinance (Ordinance U-1060, dated December 14. 1994, and as amended). The general plan sets forth high-level goals, objectives, and policies and is used as a blueprint for future growth in the city. The zoning code regulates the location, height, bulk, and number of stories and size of buildings, structures; regulates land uses; establishes requirements for off-street parking and loading; established building setback lines; and other matters. The City of Palmdale General Plan designates the project site as PF. The northern portion of the project site is bare soil, while the remainder of the project site is paved land. Although the project site is vacant, the PF designation supports and allows for development.

The project site is in a general area of mixed uses including light industrial, commercial, recreational, and residential properties. Surrounding uses include the Dr. Robert C Saint Clair Parkway on the west side of Sierra Highway, the Hammack Activity Center immediately to the southeast, the WorkSource Center to the south, residences to the east, and the Los Angeles County Sheriff's Department Palmdale Station to the north.

Regulatory Setting

Federal. None.

State. None.

Local. The project site is designated under the Public Facilities (PF) land use in the City of Palmdale General Plan. Applicable zoning regulations for the City of Palmdale are within the Palmdale Municipal Code (Chapter 17 - Zoning) and the Palmdale Zoning Ordinance. Applicable zoning regulations for the County are within Title 22 (Planning and Zoning) of the Los Angeles County Code. The PF zone is intended to provide for public and quasi-public uses, such as schools, government facilities, community facilities, libraries, police and fire stations, etc.

Although the project site is within the boundary of the City of Palmdale, as part of the project the site will become County property; therefore, the project is governed by the County's regulations. However, the project is also consistent with the City of Palmdale's regulations.

3.10.2 Impact Analysis

a. Would the project physically divide an established community?

NO IMPACT. The proposed project will consist of construction of a new animal care facility on vacant parcel. The proposed project will occur within the project site boundaries and neither construction nor operation will include features such as a highway, above-ground infrastructure, or an easement that will cause a permanent disruption to an established community or will otherwise create a physical barrier within an established community. Therefore, no impact will occur.

b. Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

LESS THAN SIGNIFICANT IMPACT. The existing land use of the project site is PF. The City of Palmdale General Plan allows development on existing vacant land under PF land uses and the proposed use will be consistent with land uses allowed under the PF zoning. The proposed new animal care facility will not be incompatible with the existing light industrial, commercial, recreational, and residential land uses surrounding the site. Nor will it conflict with the goals, policies, and vision of the City of Palmdale General Plan. Therefore, the impact is considered less than significant and no mitigation is required.

c. Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

NO IMPACT. The project site is not located within or a near a habitat conservation plan or natural community conservation plan. The project site is also not located within any Los Angeles County Significant Ecological Area (SEA). The Antelope Valley SEA is located approximately eight miles east of the project site. Therefore, the proposed project will not conflict with such plans and no impact will occur.

3.11 Mineral Resources

Mineral Resources Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

3.11.1 Setting

The project site is not located in an area of known mineral resources. As shown in the Draft Los Angeles County's General Plan, the project site is approximately 11 miles east to Little Rock Creek Fan, a designated Mineral Resource Zone (MRZ-2). Little Rock Creek MRZ-2 extends over 37 square miles and contains significant deposits (i.e., sand and gravel) that can provide for future needs through the year 2046.

3.11.2 Impact Analysis

a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

NO IMPACT. The project will not result in the loss of availability of a known mineral because there are no existing or proposed mineral resource recovery activities in or around the project site. The project will not impact or result in the loss of availability of any known mineral or other available resource; therefore, no impact will result from construction or operation of the project.

b. Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

NO IMPACT. The project will not result in the loss of availability of a mineral resource recovery site as described under item a. above. The project site is not located within an established MRZ, the closest mineral zone is approximately 11 miles west of the project site, and no economically viable mineral deposits are known to be present. Therefore, no impact to the availability of a mineral resource will result from construction or operation of the project.

3.12 Noise

Noise Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

3.12.1 Setting

Basic Noise Concepts

Sound is mechanical energy characterized by the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level (amplitude). The human ear experiences sound as pressure on the ear. The sound pressure level is the logarithmic ratio of that pressure to a reference pressure, and is expressed in decibels (dB). Approximately zero dB corresponds to the threshold of human hearing.

The A-scale simulates the frequency response of the human ear by giving more weight to the middle frequency sounds and less to the low and high frequency sounds. A-weighted sound levels are designated as dBA. Table 3.12-1, Typical Noise Levels, shows the range of sound levels of common indoor and outdoor activities, in dBA.

Table 3.12-1
Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110	Rock band
Jet flyover at 1,000 feet		
	100	
Gas lawnmower at 3 feet		
	90	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	80	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawnmower, 100 feet	70	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	60	
		Large business office
Quiet urban daytime	50	Dishwater in next room
Quiet urban nighttime	40	Theater, large conference room (background)
Quiet suburban nighttime		
	30	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	20	
		Broadcast/recording studio
	10	
	0	

Source: Caltrans, 2009.

Because sound levels in the environment usually vary with time, they cannot simply be described with a single number. One method used to describe variable sound is the equivalent noise level, which is derived from a large number of moment-to-moment A-weighted noise level measurements. The equivalent noise level (Leq) is the constant sound level that in a given period has the same sound energy level as the actual time-varying sound pressure level. Leq provides a methodology for combining noise from individual events and steady state sources into a measure of cumulative noise exposure.

In the State of California, the community equivalent noise level (CNEL) is widely used. The CNEL is a 24-hour cumulative noise descriptor that considers the sensitivity of humans to noise at night. The CNEL adds a 5 dBA penalty for evening hours between 7:00 p.m. and 10:00 p.m. For the nighttime hours between 10:00 p.m. and 7:00 a.m., a 10 dBA penalty is added for the CNEL.

Sound is based on a logarithmic scale; a doubling of a noise source results in an increase of 3 dB. Noise levels reduce with distance at a rate of 6 dB per doubling of distance from a point source, such as a stationary machine, and 3 to 4.5 dB per doubling of distance from a road.

A key concept in evaluating potential noise impacts is the perceived effect of incremental increases in existing noise levels. The effect of increasing noise levels is presented in Table 3.12-2. For example, the table shows that an increase of 3 dBA is barely perceptible, an increase of 5 dBA is noticeable, and that a 10 dBA increase will be perceived by someone to be a doubling of the loudness. In practice, the goal of a noise impact analysis is usually to show that the proposed project will result in no more than a 5 dBA increase in noise level (moderate impact). An increase of 5 to 10 dBA will tend to be noticeable to most but not substantial. An increase of 10 dBA or more will be perceived by most people as a substantial increase from existing noise levels.

Table 3.12-2
Decibel Changes, Loudness, and Energy Loss

Sound Level Change (dBA)	Relative Loudness/ Impact	Acoustical Energy Gain (%)
0	Reference	0
+3	Barely Perceptible Change/Slight	50
+5	Noticeable Change/Moderate	67
+10	Twice as Loud/Substantial	90
+20	Four Times as Loud/Very Substantial	99

Source: Federal Highway Administration, 2011 (Modified).

Existing Conditions and Sensitive Receptors

There are multiple noise sources that contribute to background noise in the project area. The project will be located approximately 2.5 miles southwest of Air Force Plant 42 and is within the low altitude overflight area as described in City of Palmdale General Plan. Directly to the west of the project site is Sierra Highway with approximately 17,000 average daily traffic (ADT) (2006 traffic count, Google Earth Pro) and the Metrolink/Union Pacific railroad.

The project is in an area of mixed uses including light industrial, commercial, recreational, and residential properties. Noise receptors include the residences located along Friendly Avenue to the east of the project site, the Hammack Activity Center southeast of the project site, and the Dr. Robert C Saint Clair Parkway between Sierra Highway and the railroad to the west of the project site. Based on the noise contours in the City of Palmdale General Plan and the types of noise sources in the project area, it was estimated that the project area has a CNEL of 60 dBA (i.e. daytime noise level is 60 dBA, evening noise level is 55 dBA, and night time noise level is 50 dBA). The closest school, the R. Rex Parris High School, is approximately 1,500 feet to the north of the project site. There are two elementary schools and a daycare center located within 0.5 mile of the project site.

The location of the new facility is roughly in the center of the site in order to allow for the greatest distance possible between the new facility and the nearest sensitive receptors (i.e., existing residences and outdoor roller hockey rink). Although the nearest sensitive receptor to the site is the adjacent residences along the eastern boundary of the project site, the closest noise generating activity associated with the project (i.e., car wash) is approximately

90 feet from the nearest sensitive receptor (residence at 38575 Friendly Avenue), and the outdoor roller hockey rink is approximately 128 feet from the closest portion of the main building and approximately 230 feet from the emergency generator and car wash, which are the nearest noise source.

Regulatory Setting

Federal. None.

State. The California Office of Noise Control (CONC) was established under the California Noise Control Act of 1972. The CONC is a division of the California Department of Public Health Services who are responsible for developing model noise ordinances for urban, suburban, and rural environments, developing criteria, and guidelines for use in setting standards for human noise exposure and assisting local governments in developing and implementing noise abatement procedures (California Health and Safety Code Section 46002).

CONC has established guidelines for evaluating the compatibility of various land uses as a function of community noise exposure in the form of a land use/noise compatibility matrix. This matrix is presented in Table 3.12-3. Cities within the State have incorporated this compatibility matrix into their General Plan noise elements. These guidelines are meant to maintain acceptable noise levels in a community setting based on the type of land use. Noise compatibility by different types of land uses is a range from "Normally Acceptable" to "Clearly Unacceptable" levels. The guidelines are used by cities within the State to help determine the appropriate land uses that could be located within an existing or anticipated ambient noise level.

Table 3.12-3
Land Use Compatibility Community Equivalent Noise Levels in dBA)

Land Use	Normally Acceptable [(a)]	Conditionally Acceptable [(b)]	Normally Unacceptable[(c)]	Clearly Unacceptable [(d)]
Single-family, Duplex, Mobile Homes	50 - 60	55 - 70	70 - 75	above 70
Multi-Family Homes	50 - 65	60 - 70	70 - 75	above 70
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 - 70	60 - 70	70 - 80	above 80
Transient Lodging – Motels, Hotels	50 - 65	60 - 70	70 - 80	above 80
Auditoriums, Concert Halls, Amphitheaters	---	50 - 70	---	above 65
Sports Arena, Outdoor Spectator Sports	---	50 - 75	---	above 70
Playgrounds, Neighborhood Parks	50 - 70	---	67 - 75	above 72
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 - 75	---	70 - 80	above 80
Office Buildings, Business and Professional Commercial	50 - 70	67 - 77	above 75	---
Industrial, Manufacturing, Utilities, Agriculture	50 - 75	70 - 80	above 75	---

Table 3.12-3
Land Use Compatibility Community Equivalent Noise Levels in dBA)

Land Use	Normally Acceptable [(a)]	Conditionally Acceptable [(b)]	Normally Unacceptable[(c)]	Clearly Unacceptable [(d)]
(a) Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.				
(b) Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.				
(c) Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features are included in project design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning normally will suffice.				
(d) Insulation features included in the design. Clearly Unacceptable: New construction or development should generally not be undertaken.				

Source: California Governor's Office of Planning and Research, 2003.

Local. The project has the potential to affect noise levels within the City of Palmdale. Noise within the City is regulated by noise ordinance in the City of Palmdale Municipal Code Sections 8.28 and 9.18. The noise ordinance prohibits intrusive noise and establishes hours of operation for certain activities (such as construction and trash collection). Construction activities are limited to between the hours of 6:30 a.m. and 8:00 p.m. on Mondays through Saturdays (City of Palmdale Municipal Code Section 8.28.030). Construction may not occur within 500 feet of any residence without written permission of the City Engineer (City of Palmdale Municipal Code Sections 8.28.030 and 8.28.040). The City of Palmdale has no quantitative thresholds for construction or operational noise and vibration levels.

The City of Palmdale General Plan Noise Element provides noise management goals, objectives, policies, and programs for the City to achieve and incorporate the CONC noise compatibility matrix. This matrix is used to help the City determine the appropriate land use and mitigation measures based on the existing or anticipated ambient noise levels. The State recommended noise level guideline presented in Table 3.12-3 was adopted by the City. Per the General Plan Noise Element, the exterior noise levels are set at 65 dBA CNEL and acceptable interior noise levels are 45 dBA CNEL.

Chapter 12.08 (Noise Control) of the Los Angeles County Municipal Code establishes allowable construction noise levels. Specifically, Chapter 12.08.440 prohibits construction between the hours of 7:00 p.m. and 7:00 a.m., and anytime on Sunday or holidays. The County also requires the use of suitable exhaust and air-intake silencers. Further, during the allowable hours, mobile equipment shall not exceed noise levels in excess of 75 dBA at single-family residential uses, 80 dBA at multi-family residential uses, and 85 dBA at commercial and semi (mixed)-residential uses.

The County prohibits generation of noise (excluding construction) exceeding 70 dBA outside at and 55 dBA inside of a residential receptor during the day for any period of time (County Code Sections 12.08.390 and 12.08.40). Noise levels averaged of a longer period of time have lower thresholds.

Although the project site is within the boundary of the City of Palmdale, as part of the project the site will be County property; therefore, the County's noise ordinance is the governing regulation. Although the County's noise standards are the governing noise regulations associated with the project site, the project will be consistent with the City of Palmdale's noise regulations.

3.12.2 Impact Analysis

a. Would the project result in exposure of persons to generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

LESS THAN SIGNIFICANT IMPACT. A significant impact may occur if the proposed project were to expose persons to or generate noise levels in excess of standards established in the Los Angeles County Code, City of Palmdale General Plan or the City's Municipal Code. Construction of the proposed animal care facility is expected to occur between 7:00 a.m. and 5:00 p.m. on Mondays through Fridays, which will be consistent with the County and City Codes. Because there are residences adjacent to the project area, a written permission must be obtained from the City Engineer before construction.

Construction noise will be produced from mobile construction equipment (refer to Table 3.3-3 for a list of the estimated type and number of construction equipment); however, the mobile equipment thresholds established by the County is applicable to equipment operating for less than 10 days. Thresholds established for stationary equipment will be inappropriate for mobile equipment operating near single residential homes. The existing ambient noise level is approximately the same as the threshold for stationary equipment operating near single residential areas (i.e. no additional noise can be produced without violating the threshold). For the purposes of this analysis, the mobile equipment threshold for a single residential area (noise level exceeding 75 dBA) was used to determine significance. It is estimated that the maximum hourly Leq experienced at the residences will be approximately 75 dBA, which does not exceed the County threshold. There are no quantitative construction noise limits established by the City.

Operation of the proposed animal care facility must not cause "loud, unnecessary, or unusual noise which unreasonably disturbs the peace and quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitiveness residing in the area" (City of Palmdale Municipal Code Section 9.18.010). There are no quantitative operational noise limits established by the city. Assuming the kennel buildings have sufficient interior/exterior sound insulation and that the doors and windows will be kept closed, except as needed for entry, noise levels from inside the buildings are anticipated to be negligible at the nearest receptor. As shown in the conceptual site layout (Figure 3), the proposed facility has been planned to have minimal noise impacts on adjacent uses. The main building centered at the project site and is separated from the residences by an open area that is not expected to be used except as buffer area and a portion as a SUSMP BMP (a passive surface water infiltration area). Exercise yards, which will be used by dogs under supervision of staff during daytime hours, have been located away from the nearest residential uses, at the north and northwestern areas of the proposed building. The nearest outdoor exercise yard is located approximately 233 feet from the nearest residence to the east. The County prohibits generation of noise exceeding 70 dBA outside at and 55 dBA inside a residential receptor during the day for any period of time (County Code Sections

12.08.390 and 12.08.40). Based on an assumption that a barking dog produces approximately 67 dBA of instantaneous noise at 55 feet (Sound Solutions, 2011), it was determined that the exterior threshold will not be violated unless more than 72 dogs barked simultaneously at approximately 233 feet from the residences. A building may provide 15-25 dBA reduction in noise levels in the interior of the residence; therefore the 55 dBA threshold will not be exceeded.

The emergency generator, which will be located approximately 100 feet from the nearest residence, will be behind an eight-foot high concrete screen wall and have sound attenuated weatherproof housing with a sound rating of 50 dBA at 50 feet. Therefore, during period testing and in the event of power outages, noise from the emergency generator is expected to be minimal. Adjacent to the emergency generator, and also behind an eight-foot high concrete screen wall, is the DACC car wash. This is an outdoor area that will be equipped with a high pressure sprayer and a central vacuum system to clean out the interiors of the vehicles. ACO's are required to wash each truck prior to leaving the site each day. As shown in Figure 3, there is parking (a carport for approximately eight trucks); therefore it is estimated that the car wash will be used six to eight time, of short duration, and during business hours. The noise from the emergency generator and use of the car wash is expected to be intermittent; therefore, noise from the emergency generator, high pressure sprayer, and central vacuum system is expected to be minimal. Therefore, operation of the proposed project will not violate the noise ordinance.

Local ordinances will not be violated by construction or operation of the project. Therefore, the project will not result in exposure of persons to generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies and noise impacts will be less than significant and no mitigation is required.

b. Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

LESS THAN SIGNIFICANT IMPACT. Construction activities associated with the project could generate vibration. Construction equipment such as dozers and rollers will generate vibrations that could result in groundborne noise or vibration that may affect nearby structures or residents. Los Angeles County Code Section 12.08.560 states that the threshold of perception is a vibration level of 0.01 inch per second (in/sec). Vibration levels greater than 0.3 inches per second (in/sec) have potential to damage older residential structures and levels greater than 0.1 in/sec will be strongly perceptible and possibly annoying to a human (Caltrans, 2004). For the purpose of this analysis, vibration levels exceeding 0.1 in/sec will be considered significant. The maximum estimated vibration during construction will be 0.01 in/sec at the nearest residence, which is below the vibration that could have potential to damage older residential structures and the vibration level severely noticeable to a human (Federal Transit Administration, 2006). Excessive groundborne vibration and/or groundborne noise are not anticipated. Therefore, the proposed project will have a less than significant groundborne vibration and noise impact during project construction and no mitigation is required.

The proposed project involves operation of an animal care facility. Project operations will not involve equipment or activities that could generate vibration or groundborne noise, or otherwise expose persons to such impacts. Therefore, project operation will not result in a significant impact related to groundborne vibration or noise and no mitigation is required.

c. Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

LESS THAN SIGNIFICANT IMPACT. Operations of the project could generate noise impacts from barking dogs. These noise impacts will be intermittent and will occur when dogs are present in the exercise yard. Dogs inside the kennel buildings and in the get-acquainted yard are not expected to produce noise levels that will impact the nearby residences given the attenuation of noise from the interior to the exterior of the kennel buildings and the distance and location of the get-acquaint yard (over 233 feet away from the residences and behind a portion of the main facility). Supervisors will be responsible for controlling barking behavior.

Because the County thresholds do not address long term, permanent increase in noise levels, a noise level increase of 10 dBA or above was considered a significant impact. A measured noise level of one barking dog at 55 feet of 60 dBA 1-hour Leq was used to estimate potential noise levels from the exercise yard (Sound Solutions, 2011). The concrete screen wall will provide at least a 3 dBA reduction in noise. Based on noise modeling done for the proposed project, it was determined that if there were 128 dogs (peak average) barking simultaneously for seven hours a day in the nearest exercise yard will only result in a CNEL increase of 3 dBA, which would be barely perceptible, and would not cause the exterior noise levels in the adjacent residential area (to the east of the project) to exceed 65 dBA CNEL (per the City's General Plan Noise Element). It is unlikely for 128 dogs to be in the exercise yard at the same time; therefore, operation of the proposed project will not result in a 10 dBA increase in noise and the permanent increase in ambient noise levels in the project vicinity will be less than significant and no mitigation is required. As described above (under "a"), the emergency generator, which will be located approximately 100 feet from the nearest residence, will have sound attenuated weatherproof housing with a sound rating of 50 dBA at 50 feet. Therefore, during period testing and in the event of power outages, noise from the emergency generator is expected to be minimal. Adjacent to the emergency generator, and also behind an eight-foot high concrete screen wall, is the DACC car wash, which will be equipped with a high pressure sprayer and a central vacuum system to clean out the interiors of the vehicles. It is estimated that the car wash will be used six to eight time, of short duration, and during business hours. The noise from the emergency generator and use of the car wash is expected to be intermittent; therefore, noise from the emergency generator, high pressure sprayer, and central vacuum system is expected to be minimal.

In addition, the increase in roadway noise on Sierra Highway due to the traffic generated by the project is anticipated to be negligible. It takes a doubling of the noise source, in this case traffic, to produce a 3 dB increase in noise, which is barely perceptible by the human ear. The ADT along Sierra Highway is 17,000. Using a trip generation rate for a similar project (see Section 3.16, Transportation/Traffic), it is estimated that the proposed project will generate approximately 240 daily trips, which will not result in a doubling of traffic along Sierra Highway. Therefore, roadway noise impacts associated with the proposed project will be less than significant and no mitigation is required.

d. Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

LESS THAN SIGNIFICANT IMPACT. Using the Federal Highway Administration's Roadway Construction Noise Model and the equipment list identified in the air quality and GHG analyses, it was estimated that construction activities will produce an hourly Leq of 76 to 86 dBA at 50 feet depending on the construction phase (Appendix B). Construction equipment will be located at different distances from the residences located along Friendly Avenue. However on average, it is estimated that the maximum hourly Leq experienced at the residences will be approximately 75 dBA during debris removal and paving phases. As described earlier, the County's threshold for mobile construction equipment in single family residential area was used to determine significance for this analysis. The estimated maximum hourly Leq from construction will not exceed the significance threshold. It was assumed that all anticipated equipment for each construction phase will be operating at the same time. However actual levels will be lower during construction, given that not all equipment will be operating at the same time and will operate at all locations farther than the nearest property line. Therefore, construction noise levels will be less than significant and no mitigation is required.

Traffic on Sierra Highway from construction worker commute, deliveries, and hauling will not result in a doubling of traffic and traffic noise associated with construction vehicles is anticipated to be negligible and no mitigation is required.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

LESS THAN SIGNIFICANT IMPACT. The project site is located approximately 2.5 miles southwest of Air Force Plant 42 and is beyond the 60 CNEL contour from activities at Air Force Plant 42. However, the project is within an area that is frequently overflown by aircraft at low altitudes. The General Plan Noise Element discourages high density residential, hospital, and school uses of this area. The proposed project does not propose any of these uses in the area. The project area is not considered to have excessive noise levels and is suitable for industrial, commercial, and low density residential land use. Therefore, exposure to aircraft noise will be less than significant and no mitigation is required.

f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

NO IMPACT. No private airstrips are located within the vicinity of the project area. The closest private airstrip is Bohunk's Airpark located approximately 12 miles northwest of the project site. The Los Angeles County Sherriff's Department Palmdale Station just north of the project site has a heliport; however, the heliport is used infrequently and is not a source of consistent or excessive noise. Therefore, the project will not expose people residing or working in the project area to excessive noise levels and no impact will occur.

3.13 Population and Housing

Population and Housing Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

3.13.1 Setting

There are no housing units on the project site. The nearest residences are located immediately east of the project site. The residential lots are separated by a block walk from the existing vacant lot.

Regulatory Setting

Federal. None.

State. California Planning and Zoning Law (Government Code Sections 65000 et seq.) requires that each city and county adopt a comprehensive, long-term plan for the physical development of the land within its planning area. The general plan must include a housing element that identifies the planning area's housing needs, the sites that can accommodate those needs, and the policies and programs to assure that the housing units can be provided. The Housing Element is required to be updated every five years.

Regional. Southern California Association of Governments' (SCAG's) Regional Housing Needs Assessment (RHNA) and Regional Comprehensive Plan (RCP) are tools for coordinating regional planning and housing development strategies in southern California.

State Housing Law mandates that local governments, through Councils of Governments, identify existing and future housing needs in a RHNA. The RHNA provides recommendations and guidelines to identify housing needs within cities for various income levels. It does not impose requirements as to housing development in cities. The RHNA Plan that covers the period from January 1, 2006 to June 30, 2014, identified the County of Los Angeles housing needs at 283,927 dwelling units.

The latest RCP, adopted in 2008, integrates the major elements of planning for the region, including: Air Quality; Economy; Energy; Finance; Land Use and Housing; Open Space and Habitat; Security and Emergency Preparedness; Solid Waste; Transportation; and Water (SCAG, 2008b). The 2008 RCP is built around the "Compass Growth Vision and 2% Strategy" adopted by the Regional Council in April 2004, which is based on four key principles. These principles include mobility, getting where we want to go; livability, creating positive communities; prosperity, long-term health for the region; and sustainability, preserving natural surroundings. The Land Use and Housing chapter focuses on integrating land and transportation planning and achieving land use and housing sustainability.

County. Each county within California is also required to prepare and adopt a housing element. The housing element in the Los Angeles County General Plan outlines growth and development, addresses the housing needs of all income levels, and facilitates programs for a variety of housing types and affordability in the unincorporated areas of Los Angeles County. On August 5, 2008, the Los Angeles County 2008-2014 Housing Element was adopted by the Board of Supervisors and subsequently certified by the State Department of Housing and Community Development.

Local. As described under the state regulations above, each city in California is required to prepare a housing element as part of the general plan and update it every five years. The housing element in the City of Palmdale General Plan identifies the community's housing needs and provides a statement of goals, policies, quantified objectives, financial resources and scheduled programs for the preservation, improvement and development of housing.

3.13.2 Impact Analysis

a. Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

NO IMPACT. The project does not propose new housing. The new animal care facility will house animals and serve an existing need and will not induce population growth in the area nor create new infrastructure that could be considered growth inducing. Therefore, no impact will occur.

b. Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

NO IMPACT. The project is an animal care facility on a vacant site; therefore no displacement of existing housing will occur. Neither construction, nor operation, will result in the displacement of existing housing nor will it necessitate the construction of any replacement housing on the adjacent residential lot. Therefore, no impact will occur.

c. Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

NO IMPACT. The project site is currently vacant. Therefore, construction of the proposed project will not result in the displacement of any housing or businesses. Construction and operation of the proposed project will not result in the displacement of people, nor will it necessitate the construction of replacement housing elsewhere. Therefore, no impact will occur.

3.14 Public Services

Public Services Checklist

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Fire protection?	☐	☐	☒	☐
b. Police protection?	☐	☐	☒	☐
c. Schools?	☐	☐	☐	☒
d. Parks?	☐	☐	☐	☒
e. Other public facilities?	☐	☐	☐	☒

3.14.1 Setting

Public services and facilities are provided and maintained by local and county entities. The County of Los Angeles provides public services including fire and police. The City of Palmdale provides public services including public works and building and safety. There is currently no demand on these services from the existing project site because it is vacant land.

Regulatory Setting

Federal. None.

State. The California Fire Code contains specialized regulations related to construction, maintenance, and use of buildings in relation to fire and safety. The extent of the code coverage pertains to fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazard safety, hazardous material storage and use, provisions to aid fire responders, industrial processes, and other fire-safety requirements for new and existing buildings.

California Health and Safety Code contains State fire regulations as set forth in Sections 13000 et seq. of the California Health and Safety Code, include regulations for building standards (as also set forth in the CBC), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

Local. Title 32 Los Angeles County Fire Code of the Los Angeles County Code establishes the minimum requirements consistent with nationally recognized good practices for providing a reasonable level of life safety and property protection from the hazards of fire, explosion, or dangerous conditions in new and existing building, structures, and premises, and to provide safety to fire fights and emergency responders during emergency operations. The City of Palmdale adopted the Los Angeles County Fire Code into the Palmdale Municipal Code.

3.14.2 Impact Analysis

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

a. Fire protection?

LESS THAN SIGNIFICANT IMPACT. Fire protection services are provided by the Los Angeles County Fire Department. The proposed project includes a new on-site fire hydrant as required by the Fire Department. The nearest fire station to the project site and surrounding area is Fire Station 37 at 38318 9th Street East, Palmdale approximately 0.3 mile southeast of the site. Construction activities and staging will occur on-site and thus no street closure or work in the public right-of-way is anticipated. Construction of the proposed project will also be temporary and not require the addition of a new fire station or the expansion, consolidation or relocation of an existing facility to maintain service. The proposed animal care facility will require fire protection services, but this will not result in a substantial increase in the demand for fire protection services or generate a need for new fire stations in the area because the site is already within an existing service area. The proposed project will comply with fire safety requirements of the CBC, and incorporate recommendations from the Los Angeles County Fire Department regarding fire safety into the project design as appropriate to minimize potential impacts. Therefore, impacts related to fire services are considered less than significant and no mitigation is required.

b. Police protection?

LESS THAN SIGNIFICANT IMPACT. Law enforcement services are provided, by contract, with the Los Angeles County Sheriff's Department. The Palmdale Sheriff Station is immediately north of the project; at 750 East Avenue Q, Palmdale. The operation of the proposed facility will require police protection services; however, the proximity of the project site to the sheriffs' station is conducive to meeting the necessary response time and will not result in a substantial increase in the demand for police protection services. Therefore, the existing police service will be adequate and impacts to police protection will be considered less than significant and no mitigation is required.

c. Schools?

NO IMPACT. The project site is located approximately 0.28 mile from R. Rex Parris High School. The proposed project involves operation of an animal care facility, which will not generate additional population or student enrollment. Therefore, the proposed animal care facility will not utilize services of the local school district nor increase the demand for schools in the area. No impact will occur.

d. Parks?

NO IMPACT. As previously noted above, the proposed project is not growth-inducing, either directly or indirectly. Construction activities and staging will occur within the vacant land of the project site and thus no trail closures or other temporary disruption to recreation use is expected to occur. The proposed project will include exercise yards on-site for the animals and will not increase the use of the existing Dr. Robert C Saint Clair Parkway or the Hammack Activity Center. Therefore, the proposed project will not result in impacts to existing or planned parks in the region.

e. Other public facilities?

NO IMPACT. The proposed project involves operation of an animal care facility, which will not result in an increase in population. In addition, the proposed project facilities will be operated and maintained by the County of Los Angeles. Therefore, the proposed project will not affect other government services or public facilities.

3.15 Recreation

Recreation Checklist

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a.	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b.	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

3.15.1 Setting

The Dr. Robert C Saint Clair Parkway, located to the west of the project site across the Sierra Highway, is less than three acres in size, and serves the residential and business areas within walking distance. Amenities for the park include passive features, such as a walking/running/ bicycle pathway. The path is approximately one mile long and 12 feet wide between Avenue Q and Avenue R.

The Hammack Activity Center is located immediately southeast of the project site. Two roller hockey rinks are located in the parking lot just west of the Center. The Boys & Girls Club offers a variety of activities for children at the Hammack Activity Center.

Regulatory Setting

Federal. None.

State. None.

Local. Both the County of Los Angeles and City of Palmdale have a Department of Parks and Recreation that manages the parks within their respective jurisdictional limits. Regulations related to parks are in Title 17 Parks, Beaches and Other Public Area of the Los Angeles County Code, and the Palmdale Municipal Code, Chapter 8.24 Park and Recreation Areas. Proposed related goals, objectives, and policies are set forth in the Parks and Recreation Element of the Draft Los Angeles County General Plan and the Parks, Recreation, and Trails Element of the City of Palmdale General Plan.

Although the project site is within the boundary of the City of Palmdale, as part of the project the site will become County property; therefore, the project is governed by the County's regulations. However, the project is also consistent with the City of Palmdale's goals and policies.

3.15.2 Impact Analysis

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

NO IMPACT. The proposed project involves the construction and operation of an animal care facility and will not result in increased use of the Hammack Activity Center, Dr. Robert C Saint Clair Parkway, or other recreational facilities in the area and will not eliminate existing park space, nor result in substantial deterioration of other recreational facilities at a rate greater than normal use will cause. Therefore, no impact will occur.

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

NO IMPACT. The proposed project does not include recreational facilities. The proposed project involves the construction and operation of an animal care facility, which will not induce population growth, either directly or indirectly; therefore, the proposed project will not increase the demand for parks or other recreational facilities that might have an adverse physical effect on the environment. Therefore, no impact will occur.

3.16 Transportation/Traffic

Transportation/Traffic Checklist

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e. Result in inadequate emergency access?	☐	☐	☒	☐
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☒	☐

3.16.1 Setting

The project site is located along northbound Sierra Highway about 350 feet north of East Avenue Q-6 in the City of Palmdale, California. It is generally bounded by residential property parcels and El Toreo Inc. offices to the east and northeast, the Hammack Activity Center to the southeast, the WorkSource Center to the south, and a County of Los Angeles Sheriff's Department Palmdale Station to the north. To the west of the project site is the east side of Sierra Highway, which will be the primarily access to the site. In the vicinity of the project site, Sierra Highway consists of five lanes, two travel lanes in each direction and a center two-way left-turn lane.

The proposed facility will be accessed from two driveways from Sierra Highway - one existing driveway currently serving the WorkSource Center and one new driveway proposed approximately 400 feet to the north of the existing driveway. At the existing driveway, a short 150-foot deceleration turn lane from northbound Sierra Highway is currently provided. Similar deceleration lane is planned for the new driveway as well to assist northbound vehicles entering the project site.

Regulatory Setting

Federal. None.

State. None.

Local. Los Angeles County maintains a list of principal arterials and freeways critical to the function and operation of local and regional travel throughout the county. This list is included in the 2010 Congestion Management Program (CMP) for Los Angeles County. In the vicinity of the project site, State Route 138 (SR-138) is located approximately 0.25 mile to the south of the site and runs along Palmdale Boulevard.

According to the 2010 CMP (Chapter 5), a traffic impact analysis is required if the proposed project adds 50 or more trips to any CMP arterial segment or intersection during the weekday AM or PM peak hours. Should CMP intersections and roadways be significantly affected by the proposed project as determined by the 2010 CMP guidelines, mitigation measures reducing the impact of the proposed project to a less than significant level are required. Per Appendix D of the 2010 CMP guidelines, a significant impact occurs under the following conditions:

- If the proposed project would cause a CMP facility to operate at LOS F by increasing its traffic demand by two percent of capacity, i.e., the volume-to-capacity ratio (V/C ratio) is increased at least by 0.02; or
- If the proposed project would increase traffic demand on a CMP facility already operating at LOS F by two percent of capacity, i.e., the V/C ratio is increased at least by 0.02.

3.16.2 Impact Analysis

a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

LESS THAN SIGNIFICANT IMPACT. The proposed animal care facility project will primarily serve the eastern Antelope Valley area and provide additional space for animal control services. Operation of the animal care facility is estimated to result in a maximum of approximately 120 people on the site daily, based on Los Angeles County's DACC estimates. This is assumed to consist of a staff of 30 full-time ACOs to be at the site, 20 part-time volunteers, and up to 70 visitors a day during facility operating hours (Noon to 7:00 p.m. Monday through Thursday and 10:00 a.m. to 5:00 p.m. Friday through Sunday). The facility will house animals 24 hours a day, seven days a week, and will have limited staff always on-site; however, the majority of staff will work at the shelter during regular operating hours.

Generally, the latest version of the Institute of Transportation Engineers (ITE) Trip Generation Manual (8th Edition) is used to estimate project trip generation. However, an animal care facility land use is not available in the ITE Trip Generation Manual; the land use closest in activity to the proposed project available in the ITE Trip Generation Manual is an animal hospital. The nature of an animal care facility is different to that of an animal hospital; as such, the ITE Trip Generation Manual was not used to estimate project-related trips. Instead, a similar study conducted for a planned animal care facility in the City of Burlingame, California ([PHS/SPCA]) was used to estimate project trip generation (City of Burlingame, 2006). As part of this study, trip generation rates for an animal care facility were estimated by conducting trip generation observations at three similar facilities located in the San Francisco Bay Area. According to this report, the trip generation rate for an animal care facility was estimated to be 1.72 trips per 1,000 square feet during the PM peak hour (37 percent inbound and 63 percent outbound trips). Applying this trip generation rate, the proposed project is estimated to generate about 44 trips (16 inbound and 28 outbound) during the PM peak hour. During the AM peak hour no visitor activity is expected at the proposed animal care facility (since the facility will only typically be open to public from Noon to 7:00 p.m.); as such, it is expected that the number of AM peak hour trips will be less than those in the PM peak hour. Using the trip generation rate for the similar project, the proposed project is estimated to generate a maximum of 240 daily trips and 44 weekday AM/PM peak hour trips.

Since the proposed project is expected to generate only 44 trips during the weekday AM or PM peak hours (less than the 2010 CMP's 50 peak hour trip threshold), a less than significant impact on nearby transportation facilities is anticipated. Hence, per 2010 CMP guidelines, the proposed project will result in less than significant impact to traffic operations and no mitigation is required.

Parking Operations - The proposed staff parking area will consist of approximately 32 spaces. The proposed public parking area will consist of the development of 71 parking spaces. Of the 71 public parking spaces being developed as part of the proposed project, approximately six are handicap spaces adjacent to the roller hockey rink associated with the Hammack Activity Center (east/southeast of the project site). There will be 65 spaces for use by the proposed facility. A schematic site plan showing the proposed parking is shown on Figure 3.

The latest version of ITE Parking Generation Manual (4th Edition) is typically used to estimate project-related parking demand. However, similar to the ITE Trip Generation Manual, the ITE Parking Generation Manual does not include an animal care facility land use; therefore, the parking rates observed and estimated for an animal care facility in the Burlingame PHS/SPCA Transportation Impact Analysis Report, June 2006 were used to estimate the proposed project's parking demand. According to this report, the parking generation rate for an animal care facility was estimated to be 1.56 spaces per 1000 square feet during a weekday. Using this parking rate, the proposed project is estimated to generate a maximum parking demand of about 40 spaces during a typical weekday. Since the parking demand of 40 spaces will be lower than the parking supply of 65 spaces, the proposed project will result in less than significant impact to neighboring parking operations and no mitigation is required.

Transit Operations - At the project site, the following transit services are currently available:

- **Local fixed-route service (within one-fourth-mile radius)**: Antelope Valley Transit Authority (AVTA) Route 1 (Lancaster/Palmdale), Route 2 (Palmdale Boulevard), Route 3 (Avenue R), and Route 10 (Palmdale/Lancaster);
- **Express bus service (within two-mile radius):** AVTA Route "Lake LA Express" and Santa Clarita Transit Route 795 (Palmdale/Lancaster); and
- **Rail service (within two-mile radius):** Metrolink Antelope Valley Line Palmdale Station

According to Appendix D of the 2010 CMP, project-related transit trips can be estimated based on project-related vehicle trips, primary nature of project (residential vs. commercial), type of transit service available in the vicinity of the project site (transit center vs. transit corridor), and the distance between the project site and neighboring transit service. Project-related transit trips estimated using the 2010 CMP methodology are shown in Table 3.16-1.

Table 3.16-1
Project-Related Transit Trips per 2010 CMP Methodology

Parameter	Conversion Factor[1]	Daily	AM/PM Peak Hour
Number of vehicle trips	-	240	44
Number of person trips	1.4	336	62
Number of transit trips	7%[2]	23	4

Notes:
[1] Conversion factors were obtained from the 2010 CMP.
[2] A conservative 7 percent value was used to account for transit service operating along CMP roadways.

The nearest transit corridor, SR-138 is located less than 0.25 mile away from the project site. Therefore, a more conservative person trip-to-transit trip conversion factor of 7 percent, instead of the default 3.5 percent, was used to estimate transit trips. As shown in Table 3.16-1, the proposed project will generate a maximum of 23 daily and 4 peak hour transit trips. Given the amount of available transit services near the project site and the low anticipated project-related transit demand, the proposed project is expected to result in a less than significant impact to neighboring transit operations and no mitigation is required.

Bicycle Operations - In the vicinity of the project site, the Sierra Highway Bicycle Trail provides a bicycle path for recreational and commute travel between Palmdale and the City of Lancaster. A bicycle lane is also provided along Palmdale Boulevard. Bicycle activity along neighboring roadways, including Sierra Highway is low under existing conditions.

The majority of project-related trips are expected to be auto based, with only a few bicycle trips. Given the low bicycle demand in the neighborhood under existing conditions, the few bicycle trips anticipated to be generated by the proposed project will cause a less than significant impact to bicycle operations and no mitigation is required.

Pedestrian Operations - In the vicinity of the project site, sidewalks are provided along both sides of Sierra Highway. However, pedestrian activity is low in the neighborhood under existing conditions.

Similar to bicycle demand, pedestrian demand related to the proposed project is expected to be low, since the majority of project-related trips are expected to auto based. Given the low pedestrian demand in the neighborhood under existing conditions, the few pedestrian trips anticipated to be generated by the proposed project will cause a less than significant impact to pedestrian operations and no mitigation is required.

Construction Operations - Construction is anticipated to begin in the summer of 2014 and last around 16-18 months. Construction will be scheduled for eight hours a day between 7:00 a.m. and 5:00 p.m., Monday through Friday. During construction, it is estimated that a maximum of 33 workers and 14 trucks will access the project site daily. Assuming truck trips are equally distributed throughout the day, the construction of the proposed project will generate a maximum of 94 daily trips (66 construction worker trips and 28 truck trips) and 37 AM/PM peak hour trips (33 construction worker trips and 4 truck trips) during the AM and PM peak hours. Therefore, the maximum number of construction trips anticipated during the AM and PM peak hours is lower than the 2010 CMP's 50 peak hour trip threshold for conducting a traffic impact analysis. Also, construction staging will be located on the project site and are not anticipated to disrupt roadway operations or restrict pedestrian facilities. In addition, construction traffic is temporary in nature. Therefore, the construction of this project is expected to result in a less than significant impact to neighboring circulation network and no mitigation is required.

b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

LESS THAN SIGNIFICANT IMPACT. The 2010 CMP designates only Palmdale Boulevard (SR-138) as a CMP roadway in the proposed project's vicinity. The proposed project will entail a maximum of 37 construction-related and 44 operation-related trips during the weekday AM and PM peak hours, which are lower than the 2010 CMP's 50 peak hour trip threshold for conducting a traffic impact analysis. As such, the additional trips generated by the project could be accommodated by the neighboring CMP roadway without causing any significant impacts to its operations. Therefore, the proposed project will not conflict with the standards established by the Los Angeles CMP and the impact will be less than significant and no mitigation is required.

c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

NO IMPACT. The proposed project involves operation of an animal care facility and will have no impact on air traffic patterns.

d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

NO IMPACT. The proposed project will not substantially alter any nearby roadways and will not include dangerous design features or incompatible uses. The proposed project will include a deceleration lane for the new driveway to assist northbound vehicles entering the project site, which will increase the safety of drivers slowing to enter the site. As such, no impact will occur.

e. Result in inadequate emergency access?

LESS THAN SIGNIFICANT IMPACT. Access to the project site during construction and operation will be directly to and from an existing driveway off of Sierra Highway. All construction and construction staging will take place within the project site. No temporary road closures are anticipated and access to and from the site, including for emergency vehicles, will be maintained at all times. All travel lanes along Sierra Highway will be maintained during the construction phase. Therefore, impacts related to emergency access are expected to be less than significant and no mitigation is required.

f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

LESS THAN SIGNIFICANT IMPACT. The proposed project entails construction and operation of an animal care facility and will not affect use of an alternative transportation mode during its construction or operation. Therefore, the proposed project will not conflict with any adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities. All construction activities and staging will occur on-site and no temporary blockages or closures of adjacent circulation facilities are anticipated; therefore, the project will not have a significant impact on the performance or safety of such facilities. Therefore, impacts are expected to be less than significant and no mitigation is required.

As part of the proposed project, a new driveway will be provided along northbound Sierra Highway to provide additional access to the project site. This driveway could impact pedestrian safety by increasing the potential for vehicle-pedestrian conflicts between vehicles accessing the project site and pedestrians traveling along northbound Sierra Highway. However, since pedestrian activity is minimal near the project site and a maximum of 44 vehicle trips will access the project site per hour, the increase in vehicle-pedestrian conflicts is anticipated to be minimal. Therefore, the proposed project will cause less than significant impact to safety of neighboring circulation facilities and no mitigation is required.

3.17 Utilities and Service Systems

Utilities and Service Systems Checklist

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Exceed wastewater treatment requirements of the applicable RWQCB?	☐	☐	☒	☐
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g. Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

3.17.1 Setting

Southern California Edison and Southern California Gas Company provide electricity and natural gas services, respectively, to the City of Palmdale. The Palmdale Water District provides potable water services. The water supply sources include groundwater drawn from the Antelope Valley Groundwater Basin and surface water from the California Aqueduct (imported) and Littlerock Dam (local). Approximately 40 to 50 percent of potable water supplies consist of groundwater and the balance is supplied from surface water.

In 2010, the District's water demand was 19,800 acre-feet (AF). Based on population growth projections, the Palmdale Urban Water Management Plan (UWMP) projects water demand to increase to 35,000 AF in 2015 and 60,000 AF in 2035. However, due to the recent economic downturn, there has been lower-than-expected population growth in the district between 2009 and 2010. This will likely result in a decrease of water demand by approximately 5,000 AF (i.e., actual demand for 2015 will be closer to 30,000 AF and actual demand for 2035 will be closer to 55,000 AF) (Palmdale Water District, 2011). The District is projected to meet its future water demand through 2035 by current water supplies (groundwater and surface water) and future water supplies (i.e., recycled water, groundwater banking and anticipated new supplies from transfers and exchanges [i.e., banking of imported water]) (Palmdale Water District, 2011).

The project site is within the jurisdictional boundary of the Antelope Valley Groundwater Adjudication. According to the 2010 Urban Water Management Plan for the Antelope Valley-East Kern Water Agency, the Agency is implementing a groundwater banking project that will improve the reliability of the Antelope Valley Region's water supplies through construction of the necessary infrastructure to store excess water during wet periods and recover water during dry and high demand periods. Probable supply totals for the year 2015 are based on the Agency receiving 62 percent of its delivery amount from the State Water Project, which is about 87,688 AF of water per year. Additional supply of 20,000 AF per year is projected to be available from water banking projects on a limited basis. The projected probable year supply and demand indicates that sufficient supplies are available to meet demand through 2030 in a normal year.

The City of Palmdale Utilities Division provides sanitary sewer collection service to its residents and businesses. Wastewater from Palmdale is treated at the Palmdale Water Reclamation Plant (WRP) which is operated by Sanitation Districts of Los Angeles County (LACSD). Treated effluent is reused for irrigation of trees and feed crops on adjacent land leased from the Los Angeles World Airports. The capacity of the Palmdale WRP is 15.0 million gallons per day (mgd). In 2007, the Palmdale WRP received an average of 9.5 mgd of inflow, leaving an excess capacity of 5.5 mgd. A Palmdale WRP 2025 Master Plan was developed in 2005 that included a planned set of improvements that will double capacity to 30.0 mgd (LACSD, 2005). However, since that time, plans have scaled back due to lower than projected development rates in Antelope Valley. Future capacity at Palmdale WRP will be expanded as needed as wastewater flows increase (Palmdale Water District, 2010). Residents and businesses in Palmdale receive a comprehensive range of refuse disposal and waste management planning services from Waste Management of Antelope Valley. Solid waste is sent to either the Antelope Valley Landfill or the Lancaster Landfill where it is process or recycled.

The proposed facility will be designed and constructed to achieve (at a minimum) LEED Silver level certification. The proposed project will incorporate sustainable design features to optimize energy and water use, enhance the sustainability of the site, improve indoor environmental quality, and maximize the use and reuse of sustainable and local resources.

Regulatory Setting

Federal. None.

State. None.

Local. The Environmental Management Chapter 14.05 Title 14 of the Palmdale Municipal Code requires water efficient landscaping for all new construction and rehabilitated landscaping for public agency and private development projects requiring a permit, plan check, or design review. This ordinance aims to promote the values and benefits of landscaping while recognizing the need to utilize water and other resources as efficiently as possible.

Under Public Services Element of the City of Palmdale General Plan, goals and policies are set forth to ensure that all development in Palmdale is serviced by adequate water distribution and sewage facilities. The policies also require that provision of streets, sewer, water, drainage, and other needed infrastructure be coordinate in a logical manner between adjacent developments, so as to reduce cost of design, construction and maintenance.

County's Adopted Energy and Environmental Policy (2006). This policy includes programs and elements, one of which is the Energy and Water Efficiency Program, which implements and monitoring energy and water conservation practices and efficiency projects, and enhances employee energy and water conservation awareness through education and promotions.

Ordinance No. 91-0046U, Title 11 - Health and Safety of the Los Angeles County Code. Part 4 of thie County Code, Water Conservation Requirements for Unincorporated Los Angeles County Area, includes prohibition and requirements associated with watering of lawns, landscaping, and washing vehicles.

Palmdale Water District Resolution 91-10. Resolution 91-10 becomes mandatory when a Stage 1 Water Shortage Emergency is declared and prohibits the watering of lawns, landscaping, and other turf areas at facilities such and public open space and landscaped areas more often than every third day and between the hours of 6:00 a.m. and 6:00 p.m during a declared water shortage.

City of Palmdale's Water Efficient Landscape Ordinance (2008). The landscape and irrigation engineering design standards of the ordinance reflects the changes mandated by AB 1881-Model Water Efficient Landscape Ordinance that is coordinated through the California Department of Water Resources. Two of the state mandated changes are the required use of SMART controllers and the need to have a water budget for each project. For the efficient use of water, applicant shall submit landscape plan, landscape design plan, and irrigation design plan.

Although the project site is within the boundary of the City of Palmdale, as part of the project the site will become County property; therefore, the project is governed by the County's regulations. However, the project is also consistent with the City of Palmdale's goals and policies.

3.17.2 Impact Analysis

a. Exceed wastewater treatment requirements of the applicable RWQCB?

LESS THAN SIGNIFICANT IMPACT. During construction, water will be required primarily for dust suppression, but will also be used for concrete washout and soil compaction. This water percolates into the ground after use, requiring no wastewater treatment. The new animal care facility will introduce wastewater discharge from daily operations (i.e., car wash, restroom use and maintenance activities [i.e., cleaning of animal enclosures and other facilities]) into the sanitary sewer system. The quality of wastewater generated by the proposed project will be similar to that generated by other municipal uses. The wastewater will be transported to the Palmdale WRP where it will receive treatment. As described, below, there is adequate capacity available at the WRP to accept wastewater from the propose project. As such, the proposed project will not generate wastewater which will exceed the wastewater treatment requirements of the RWQCB. Therefore, impacts to WDR will be considered less than significant and no mitigation is required.

b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

LESS THAN SIGNIFICANT IMPACT. During construction, water will be used for dust suppression during excavation, grading, and other construction-related activities such as mixing with concrete. In most cases, water trucks, which are filled off-site, are used during construction. No significant impact is anticipated to occur due to project construction activities because the water demands associated with such activities are short-term (temporary) and not anticipated to exceed available supplies or distribution infrastructure.

Operation of the proposed project will require an on-site fire hydrant, as well as water and wastewater infrastructure to connect to existing utilities within the adjacent Sierra Highway. During operations, water use and wastewater generation will be associated with activities such as drinking water, car wash, restroom use, landscaping, and maintenance of the facilities (i.e., cleaning animal cages). The DACC car wash is an outdoor area that will be equipped with a high pressure sprayer to clean each DACC truck prior to leaving the site each day. As shown in Figure 3, there is parking (a carport for approximately eight trucks); therefore it is estimated that the car wash will be used six to eight time, of short duration, and during business hours. The car wash will be equipped with a water clarifier and will use state-of-the art equipment that is energy and water efficient.

The proposed project also includes landscaping. As part of the County's adopted Energy and Environmental Policy, as well as LEED certification, there are requirements to optimize water use efficiency, such as water efficient equipment and landscaping, such as an automatic irrigation system and landscaping with drought-tolerant vegetation.

Based on the water duty factor of 750 gallons per day (gpd) for indoor uses and 304 gpd for outdoor uses for public facilities (Palmdale Water District, 2001), it is estimated that the proposed project will use approximately 2,035 gallons of water per day, which represents an increase in water demand compared to the existing vacant use on project site. Future water production can also be calculated as being 10 percent greater than wastewater demand to account for evaporation and lack of infiltration. Using this methodology, the water demand for the proposed project is estimated to be 2,750 gpd. The Palmdale Water District delivered 19,800 AF of water to its service area in 2010 and anticipates the demand to increase to 35,000 AF in 2015, which is an increase of 15,200 AF. Using either the Palmdale Water District's water use factors or the 10 percent of wastewater generation method, the water demand of the proposed project will represent approximately 13 or 18 percent, respectively, of increased demand projected between

2010 and 2015 in the UWMP. Therefore, the proposed project will account for a small percentage of the overall increased demand for potable water within the Palmdale Water District. According to the UWMP, the increase in demand can be served by existing and planned water supplies. Therefore, the Palmdale Water District will be able to meet the water demand of the proposed project without the need for new or expanded facilities or resources, other than those already considered as part of the UWMP. Further, as described previously, the actual demand for water within the District is expected to be 5,000 AF less than projected in the UWMP given the slower than expected population growth rates, which further indicates that adequate water supply facilities will be available. Therefore, the proposed project will result in a less than significant impact to potable water supply facilities.

The 2009 City of Palmdale Sewer Master Plan estimates wastewater generation for non-residential uses at a flow rate of 50 gpd per employee. This factor is equivalent to 1,000 to 1,200 gpd per net acre (City of Palmdale, 2009). Applying the employee wastewater generation rate factor to the proposed project, the operation of the new animal care facility will generate approximately 2,500 gallons of wastewater per day based on a total of 30 employees and 20 volunteers. As previously described, there is currently approximately 5.5 mgd of excess capacity at the Palmdale WRP. The proposed project represents approximately less than 0.05 percent of the excess capacity. Therefore, adequate treatment capacity is currently available and thus, no new treatment capacity will be required.

Further, the new facility will be built to achieve (at a minimum) LEED Silver Certification, which will require the incorporation of elements designed to reduce water use (which could also be associated with a reduction in wastewater generation) and wastewater generation such as use of low flow water fixtures, on-site wastewater treatment, and use of recycled water).

As described above, the proposed project will not require the construction of new or expanded water supply or wastewater treatment facilities. Therefore, impacts to water or wastewater treatment facilities from the proposed project will be considered less than significant and no mitigation is required.

c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

LESS THAN SIGNIFICANT IMPACT. The proposed project will include an on-site storm water drainage system to accommodate new impervious surface associated with two parking lots, walkways, and main building. These improvements will not result in need for new or expanded storm water drain facilities outside of the project site. As the project is largely vacant and paved, the amount of runoff will be less than existing conditions due to open spaces (i.e., exercise yard, courtyard/ acquaint yard, and shrubs and trees). Impacts from construction of the storm drainage system will be considered less than significant and no mitigation is required.

d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

LESS THAN SIGNIFICANT IMPACT. During construction, water will be required primarily for dust suppression, and will also be used for concrete washout and soil compaction. Water required for construction will be obtained from the Palmdale Water District. Construction water volumes will be minimal and will not require new or expanded entitlements.

As discussed above, it is estimated that the proposed project will use approximately 2,035 to 2,750 gallons of water per day, which represents an increase in water demand compared to the existing vacant use on project site. Further, the new facility will be built to achieve (at a minimum) LEED Silver Certification and thus, will be required to incorporate elements designed to reduce water use such as use of low flow water fixtures, recycled water, and low water landscaping.

The Palmdale Water District delivered 19,800 AF of water to its service area in 2010. Using either the Palmdale Water District's water use factors or the 10 percent of wastewater generation method, the water demand of the proposed project will represent approximately 13 or 18 percent, respectively, of increased demand projected between 2010 and 2015 in the UWMP. According to the UWMP, the Palmdale Water District will be able to meet the water demand of the proposed project by existing and planned water supplies. Therefore, the project will result in a less than significant impact to potable water supply and no mitigation is required.

e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

LESS THAN SIGNIFICANT IMPACT. As described in items a. and b. above, the proposed project will increase wastewater generation. The Palmdale WRP is anticipated to be to meet the wastewater needs of the proposed project without the need from new or expanded facilities or resources. The City of Palmdale Utilities Division will also have adequate capacity to serve the projected demand for this project in addition to its current commitments. Therefore, the proposed project will not require additional wastewater treatment capacity during project construction and operation resulting in a less than significant impact and no mitigation is required.

f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

LESS THAN SIGNIFICANT IMPACT. Construction activities will generate solid waste; however, waste management during construction will include diversion of wastes from disposal through recycling and reuse. During project operation, the proposed project will generate a new source of solid waste, approximately 230.6 tons per year (considering 30 full-time employees, 20 part-time volunteers, and 70 daily visitors). All waste will be disposed of in accordance with federal, state, and local regulations.

The landfills serving the project area are the Antelope Valley Landfill, approximately two miles southwest of the project site (remaining capacity of 20,400,000 cy), and the

Lancaster Landfill, approximately 11 miles north of the project site (remaining capacity of 19,088,739 cy). Solid waste generation from the proposed project will represent 0.00012 percent and 0.00025 percent of the permitted throughput for the Antelope Valley Landfill and Lancaster Landfill, respectively. (CalRecycle, 2012) Both landfills have sufficient remaining capacity to accommodate the proposed project. The proposed project will not require the development of new landfills, nor will it require existing landfills to be expanded. Therefore, the proposed project will have a less than significant impact on landfills and no mitigation is required.

g. Comply with federal, state, and local statutes and regulations related to solid waste?

LESS THAN SIGNIFICANT IMPACT. All solid waste disposal will be managed in accordance with applicable federal, state and local statutes and regulations. Construction waste is accepted at local disposal facilities and recycling is encouraged. Impacts to solid waste will be considered less than significant and no mitigation is required.

3.18 Mandatory Findings of Significance

Mandatory Findings of Significance Checklist

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b. Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects?	☐	☐	☒	☐
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

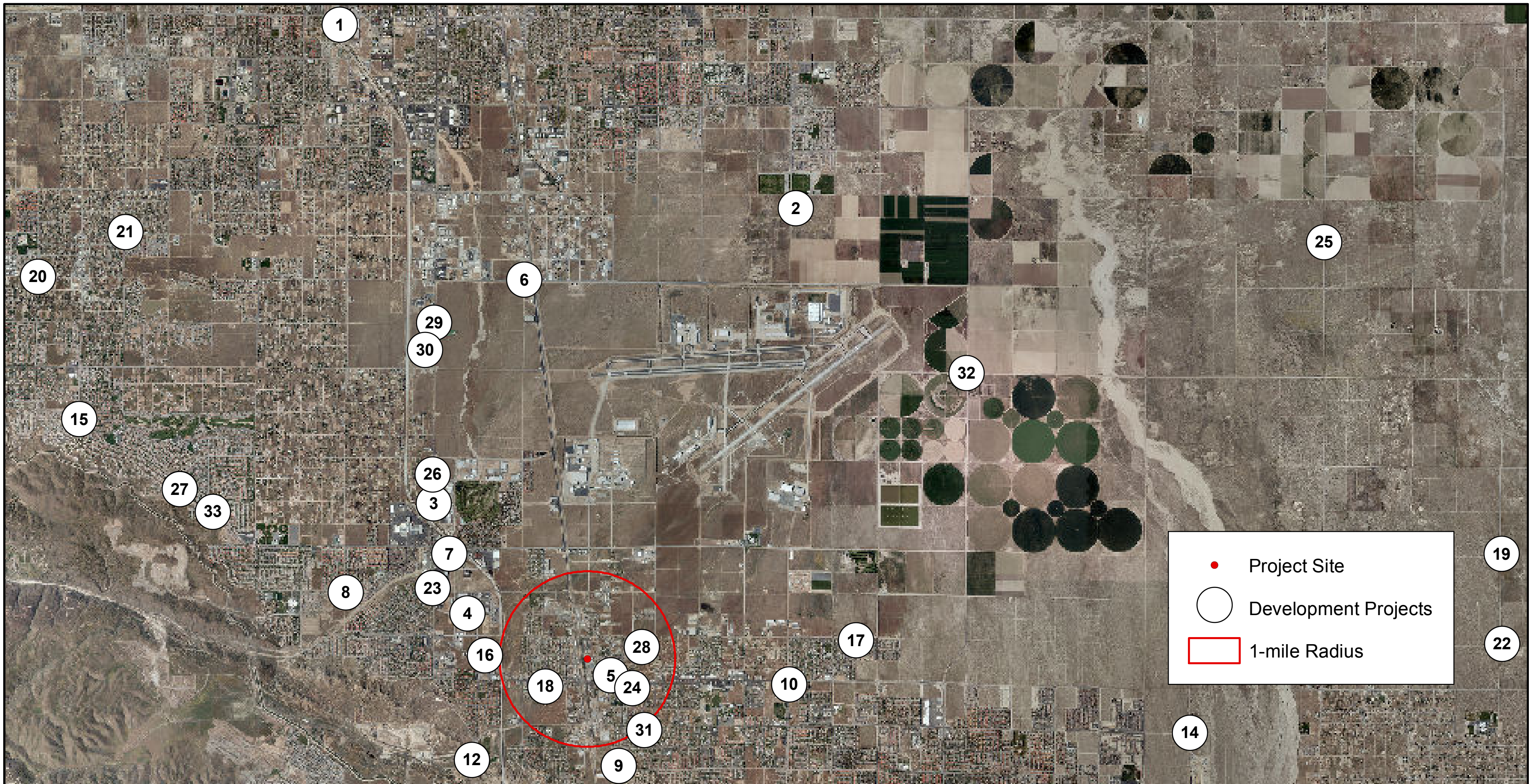
LESS THAN SIGNIFICANT IMPACT. The proposed project will not be expected to substantially degrade fish, wildlife, and/or plant populations because there are no such populations on the site. Implementation of the proposed project will not impact a biological community. Additionally, there are no historical resources or expected archeological resources on-site. The proposed project will involve moderate amounts of grading and excavation and will not disturb native soils. The proposed site does not contain any important examples of the major periods of California history or prehistory. Therefore, the project will result in a less than significant impact on the quality of the environment and no mitigation is required.

b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)

LESS THAN SIGNIFICANT IMPACT. As indicated throughout this Initial Study, impacts on all environmental resources were deemed to result in either "no impact" (agricultural resources, biological resource, mineral resources, population/housing, and recreation), "less than significant impact" (air quality, GHG, and utilities and service systems), or a combination of no impact/less than significant impact responses (aesthetics, geology/soils, hazards and hazardous materials, hydrology/water quality, land use, noise, transportation/traffic, and public services). By its very nature, climate change is a cumulative phenomenon and is not possible to link a single project to specific climatological changes; therefore the GHG emission analysis completed in Section 3.7, Greenhouse Gas Emissions, is a cumulative analysis.

To evaluate the proposed project's contribution to cumulative impacts, a list of past, approved, and pending projects within the project vicinity were identified (see Figure 4). The proposed project is the construction and operation of a new animal care facility. The cumulative analysis focuses on projects identified within a one mile radius of the project site. A one mile radius was deemed appropriate based on the project location in comparison with the proposed development projects on record with the City of Palmdale, as well as the potential for overlap of environmental resource impacts. Following is a list of the four related projects (nearest to furthest) within one mile of the proposed project (and their number as identified on Figure 4):

5. Religious Assembly Use: request to construct a 10,272 square foot building and two caretaker residences (each 1,746 square feet) at the southwest corner of 10th Street East and Avenue Q-6 (located approximately 0.30 mile southeast from the project site)



Source: City of Palmdale, Planning Department, 2012.

1 Gold Buying at Keven Jewelers
2 Wireless Telecommunication Facility
3 Shopping Cart Control Plan
4 Intertex Companies Industrial Use
5 Religious Assembly Use
6 Commercial/Retail Center
7 Retail Center
8 Industrial Buildings
9 Commercial Buildings
10 Commercial Development
11 RY Properties
12 Subdivide 185.4 acres into 1 Public Facility Lot
13 Zoning Ord. Amendment to the Express Carwash Use
14 Time Extension to Mining Operation
15 Time Extension for Assisted Living Facility
16 Commercial Building w/ Alcohol & Tobacco
17 Wireless Communication Facility
18 Alcoholic Beverage Establishment
19 PV Solar Facility
20 MW Photovoltaic Solar Facility
21 1.5-2 MW Solar PV Facility
22 4.0 MW Solar Facility
23 Commercial Express Carwash
24 Auto Parts Store
25 Subdivide Parcel
26 Commercial/Retail Building
27 Four Commercial/Retail Buildings
28 Global Premier Development
29 Public Service Building
30 Expansion of Existing Cable TV Equipment Room
31 Commercial Center w/ Supermarket
32 Construct a Drive Thru Restaurant
33 Construct Retail Building

N

Figure 4

Past, Approved, and Pending Projects in the Project Vicinity

18 Alcoholic Beverage Establishment: request to establish an incidental off-sale alcoholic beverage establishment at a discount retailer to be located at 244 East Palmdale Boulevard (located approximately 0.57 mile southwest from the project site)

24 Auto Part Store: request to construct an 8,241 square foot auto parts store at the intersection of 12th Street East and Palmdale Boulevard (located approximately 0.60 mile southeast from the project site)

28. Global Premier Development: request to construct 16 single family homes on 6.22 acres behind the Desert Senior Apartments - located at 38780 Orchid View Place (located approximately 0.63 mile northeast from the project site)

There is no known construction dates associated with the related projects. The proposed expansion project will not result in any potentially significant impacts to the immediate areas surrounding the project site and no mitigation is required; therefore, no cumulative impact is anticipated. Following is an analysis of the resources associated with construction that have the potential to cause construction-related cumulative impacts:

Air Quality
It is possible that construction of the proposed project could coincide with construction of the cumulative projects in the project area. Even if construction activities were concurrent, the proposed project's contribution to short-term, construction related air emissions will not be cumulatively considerable. The cumulative projects are subject to the same air quality thresholds and will be required to implement measures during construction, as required, to ensure that short-term air emissions will not be significant. As discussed in Section 3.3, Air Quality, air emissions generated during project construction and operation are below the air quality thresholds (refer to Table 3.3-3 and Table 3.3-4). The proposed project, therefore, will not result in a significant cumulative air quality impact and no mitigation is required.

Noise
Project-level noise impacts will not be significant and have been evaluated in Section 3.12 above. Compliance with existing noise regulations of the City of Palmdale and County, as applicable, for all identified cumulative projects will minimize construction noise impacts. Vehicle volumes on roadways that might be generated by cumulative projects will have to double before it results in noise level increase perceptible to humans. Therefore, no perceptible increase in noise levels from traffic from cumulative projects is anticipated. The nearest cumulative project is the proposed Religious Assembly User (approximately 0.30 mile southeast from the project site). Being that a majority of the use of this type of project will be during evening and weekend hours, the ambient noise levels in the project area when combined with non-traffic operational noise generated by the proposed project will be minimal and will not substantially increase existing ambient noise levels in the project area. The cumulative project with the potential for the greatest generation of traffic is the Global Premier Development, which is a relatively small residential development approximately 0.63 mile from the project site. The ambient noise levels in the project area when combined with non-traffic

operational noise generated by the proposed project and the proposed residential development will be minimal and will not substantially increase existing ambient noise levels in the project area. Therefore, the proposed project will not contribute to cumulatively considerable noise impacts and no mitigation is required.

Traffic

Project-level traffic impacts will not be significant and have been evaluated in Section 3.16 above. It is possible that a minor cumulative increase in traffic could occur with the construction of the proposed project and nearby projects. However, the City of Palmdale and surrounding area is relatively built-out and the cumulative projects identified will not likely lead to significant population or employment growth thereby creating a substantial increase in vehicle travel (commercial and industrial projects tend to be growth-inducing and generate many more vehicle trips than residential or institutional projects). With the exception of the Global Premier Development, which is a relatively small residential development approximately 0.63 mile from the project site, it is anticipated that vehicle trips from a majority of the cumulative projects are currently part of the daily volumes on area roadways. The proposed residential development is small (approximately 16 single family residences) and the furthest away from the project site. For these reasons, the proposed project will not contribute to cumulatively considerable traffic impacts and no mitigation is required.

As discussed in the respective issue areas, the proposed project will have no impact or a less than significant impact on environmental resources. Analysis of the proposed project did not discover any evidence that any impact of the proposed project could be significant in conjunction with related projects. Therefore, the proposed project will not result in any potentially significant impacts to the immediate areas surrounding the project site.

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

LESS THAN SIGNIFICANT IMPACT. As indicated throughout this Initial Study, impacts on all environmental resources were deemed to result in either "no impact" or a "less than significant impact." These impacts are primarily construction-related (i.e., noise, dust and localized traffic increases) and are short-term effects to the environment. The proposed project will not have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risk, nor will it establish a precedent for future actions with potentially significant environmental effects. As a result, the proposed project will not create environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly, and the preparation of an Environmental Impact Report is not required. Therefore, impacts from the proposed project on humans are considered less than significant and no mitigation is required.

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SECTION 4

List of Preparers

Los Angeles County

Jason Kim – Capital Projects Manager

CDM Smith

Dorothy Meyer – Project Manager, Principal Planner

Katie Owston – Environmental Planner

Lucy DeRosier – Environmental Planner

Juan Ramirez – Environmental Planner

Jennifer Jones – Environmental Scientist

Bhanu Kala – Traffic Engineer

Asami Tanimoto –Engineer

Environmental Compliance Solutions, Inc.

Erin Sheehy – Air Quality Specialist

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SECTION 5

References

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[12] The proposed project was originally referred to as the “East Antelope Valley Animal Shelter.” Based on coordination with the City of Palmdale and DACC, the project name was revised to its current title: “County of Los Angeles Animal Care Center Project, Palmdale CA.”
[13] Ibid.

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SECTION 6

Mitigation Monitoring and Reporting Program

Section 21081.6 of the Public Resources Code (PRC), enacted by passage of AB 3180 (Cortese Bill), and CEQA Guidelines section 15097 require public agencies approving projects with significant environmental impacts to adopt a Mitigation Monitoring and Reporting Program (MMRP). The objective of this program is to ensure that mitigation measures adopted to avoid or mitigate potentially significant environmental impacts are implemented as part of the project. Section 21081.6 of the PRC requires all state and local agencies to establish monitoring and reporting programs whenever approval of a project relies upon a Mitigated Negative Declaration (MND) or an environmental impact report (EIR). In accordance with these requirements, this MMRP has been prepared to ensure that mitigation measures identified in the Initial Study (IS)/ MND for the proposed construction and operation of the County of Los Angeles Animal Care Center, Palmdale, CA (proposed project) are implemented in an effective and timely manner, and that identified impacts are avoided or mitigated to a level of insignificance. This plan identifies responsible parties for the mitigation program, and includes a detailed discussion of monitoring and reporting procedures for each mitigation measure.

Responsible Party

The County of Los Angeles Department of Public Works (hereafter referred to as LACDPW) will be responsible for implementing and reporting mitigation measures in this program. The LACDPW will have responsibility for ensuring that mitigation measures are accomplished in an environmentally responsible manner. The LACDPW will be responsible for ensuring that the status of mitigation measures is reported in accordance with this program.

The LACDPW will be responsible for program oversight and ensure that applicable mitigation measures are carried forward in construction and operational and maintenance procedures. Mitigation measures will be included in applicable request for proposals, specifications and procedures issued for construction of the project. Other mitigation measures implemented by the Design Builder will be subject to oversight by the LACDPW. In addition, the LACDPW will be responsible for ensuring that mitigation measures are properly carried out by designated and qualified personnel.

Mitigation Requirements

Based on the findings of the IS/MND, mitigation measures are not required for Aesthetics, Agriculture and Forest Resources, Air Quality, Biological Resources, Greenhouse Gas Emissions, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Transportation/Traffic, and Utilities and Service Systems. Specific mitigation measures are required for Cultural Resources, Geology and Soils, and Hazards and Hazardous Materials. Potentially significant impacts in these environmental resource areas will be avoided or minimized with implementation of five (5) specific mitigation measures summarized on the monitoring table. The mitigation measures for the project must be adopted by the Lead Agency (i.e. County of Los Angeles Board of Supervisors), in conjunction with adoption of the MND.

Schedule and Reporting Frequency

The monitoring table below describes the mitigation measure, organization responsible for implementing the measure, organization responsible for monitoring the measure, and timing of verification for each measure. A column is provided for the monitoring party to sign-off on the implementation of each mitigation measure.

Measure No.	Mitigation Measure	Responsible Party	Monitoring Party	Timing of Verification
MM CUL-1	In the event any archaeological materials or subsurface deposits are exposed during ground disturbance, the construction contractor will cease activity in the affected area (e.g., redirect activities into another area within the site) until the discovery can be evaluated by a qualified archaeologist or historic resources specialist, as required, and appropriate treatment measures implemented. If the discovery proves to be significant pursuant to Section 15064.5(c) of California Environmental Quality Act Guidelines, additional work such as testing or data recovery will be conducted as warranted. Methods during monitoring and/or recovery of archaeological resources shall be documented in a report of findings.	Design Builder/ Construction Contractor	County of Los Angeles Department of Public Works	During excavation and grading

Measure No.	Mitigation Measure	Responsible Party	Monitoring Party	Timing of Verification
MM CUL-2	In the event human remains are encountered during project construction, the Los Angeles County Coroner shall be immediately contacted to determine whether or not investigation of the cause of death is required. The Coroner shall make a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The Coroner will be notified of the find immediately. In the event it is determined by the Coroner the remains are Native American in origin, the Native American Heritage Commission shall be contacted to determine necessary procedures for protection and preservation of remains, including reburial, as provided in the California Environmental Quality Act Guidelines, Section 15064.5(e).	Design Builder/ Construction Contractor	Los Angeles County Department of Public Works	During excavation and grading
MM SOILS-1	The proposed project will be designed and constructed in accordance with remedial grading and compaction requirements contained in the report entitled "Geotechnical Study Report, East Antelope Valley Animal Shelter"[14] by Converse Consultants (April 19, 2012).	Design Builder/ Construction Contractor	Los Angeles County Department of Public Works	Prior to Final Design; During Construction

14 The proposed project was originally referred to as the "East Antelope Valley Animal Shelter." Based on coordination with the City of Palmdale and DACC, the project name was revised to its current title: "County of Los Angeles Animal Care Center Project, Palmdale CA."

Measure No.	Mitigation Measure	Responsible Party	Monitoring Party	Timing of Verification
MM SOILS-2	The proposed project will follow site-specific geotechnical recommendations (e.g., drill drain holes and backfill, and excavate at least the upper two feet of soil for pavement) for the abandonment of the subsurface slab/basement, detailed in the correspondence from Converse Consultants dated October 10, 2012.	Design Builder/ Construction Contractor	Los Angeles County Department of Public Works	Prior to Final Design; During Construction
MM HAZ-1	Although contaminated soil is not anticipated to be encountered, in the event soil contamination is encountered during earthwork activities, all contaminated soil handling and removal will be required to adhere to a soil management plan prepared and approved by the County. The soil management plan will specify procedures for the proper handling and disposal of contaminated soil in accordance with all applicable local and state regulations.	Design Builder/ Construction Contractor; Los Angeles County Department of Public Works	Los Angeles County Department of Public Works	During construction

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Section 7

Response to Comments

The Draft IS/MND was circulated for a 30-day public review period, beginning on April 25, 2013 and ending on May 24, 2013. The public review period, during which interested agencies, organizations, and members of the public were invited to submit written comments, was noticed and conducted in compliance with CEQA Section 21091 and State CEQA Guidelines 15105. During the 30-day public review period, three comment letters were received. This section is organized in the following manner. Each letter received has been identified by a Comment Letter Number (No.). Comments requiring specific responses are bracketed and numbered (e.g., 1, 2, 3, etc.) and are referred to by Comment Letter No. and Response No. Copies of the written comment letters are provided before the response to comment. No changes have been made to the Draft IS/MND text.

The following is a list of the commenters on the Draft IS/MND:

Comment Letter No. 1:	Antelope Valley Air Quality Management District Bret Banks, Operations Manager May 17, 2013
Comment Letter No. 2:	City of Palmdale Richard Kite, Planning Manager May 22, 2013
Comment Letter No. 3:	State of California, Governor's Office of Planning and Research, State Clearinghouse and Planning Unit Scott Morgan, Director May 28, 2013

Antelope Valley
Air Quality Management District

Antelope Valley Air Quality Management District
43301 Division St., Suite 206
Lancaster, CA 93535-4649

661.723.8070
Fax 661.723.3450

Eldon Heaston, Executive Director

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MAY 28 2013
PROJECT MANAGEMENT DIVISION I
DEPT. PUBLIC WORKS

In reply, please refer to AV0513/038

May 17, 2013

Mr. Jason Kim, Capitol Projects Manager
County of Los Angeles
Department of Public Works
Project Management Division I
900 South Fremont Avenue
Alhambra, CA 91803-1331

**RE: Initial Study/Proposed Mitigated Negative Declaration
New County of Los Angeles Animal Care Facility**

Mr. Kim:

The Antelope Valley Air Quality Management District (District) has received the request for comment on the proposed County of Los Angeles Animal Care Facility located at 38532,38560,38600 and 38624 Sierra Highway, Palmdale California.

The District requires compliance with District Rule 403, *Fugitive Dust*. One element of the rule is the submittal and approval of a Dust Control Plan prior to construction activities on a site that includes five acres or more of a Disturbed Surface Area for non-residential developments. The District will also require all applicable air quality permits. 1-1

Thank you for the opportunity to review this planning document. If you have any questions regarding this letter, please contact Bret Banks at (661) 723-8070 x2.

Sincerely,

Bret Banks
Operations Manager
BB/bl

Clean Cities
Antelope Valley

7.1 COMMENT LETTER NO. 1

Antelope Valley Air Quality Management District

Comment No. 1

The District requires compliance with District Rule 403, *Fugitive Dust*. One element of the rule is the submittal and approval of a Dust Control Plan prior to construction activities on a site that includes five acres or more of a Disturbed Surface Area for non-residential developments. The District will also require all applicable air quality permits.

Response No. 1

Comment noted. As detailed in Section 3.3, Air Quality, of the Draft IS/MND (beginning on page 3-7), the project analysis addressed the District's Rule 403, Fugitive Dust, which includes the prohibition that visible dust will go beyond the property line of an emission source and contains a list of best applicable control measures to reduce fugitive dust impacts. The proposed project will adhere to all District rules and regulations; including those specific to PM_{10} emission control from construction operations (including a Dust Control Plan). In addition, as described on page 3-12 of the Draft IS/MND, the appropriate permit will be obtained from District prior to installation and operation of the emergency generator.

Comment Letter No. 2

PALMDALE

a place to call home

RECEIVED
MAY 29 2013
PROJECT MANAGEMENT DIVISION I
DEPT. PUBLIC WORKS

James C. Ledford, Jr.
Mayor

Tom Lackey
Mayor Pro Tem

Laura Bettencourt
Councilmember

Mike Dispenza
Councilmember

Steven D. Hofbauer
Councilmember

38300 Sierra Highway

Palmdale, CA 93550-4798

Tel: 661/267-5100

Fax: 661/267-5122

TDD: 661/267-5167

May 22, 2013

Mr. Jason Kim, Capital Projects Manager
County of Los Angeles
Department of Public Works
Project Management Division I
900 S. Fremont Avenue
Alhambra, CA 91803

RE: Initial Study and Mitigated Negative Declaration for a New County of Los Angeles Animal Care Facility

Dear Mr. Kim:

Thank you for the opportunity to review the above referenced document. At this time, the City of Palmdale offers no comments. 2-1

If you have any questions, please do not hesitate to contact the Planning Department at (661) 267-5200.

Sincerely,

Richard Kite
Planning Manager

RK:KI

7.2 COMMENT LETTER NO. 2

City of Palmdale

Comment No. 1

Thank you for the opportunity to review the above referenced document. At this time, the City of Palmdale offers no comments.

Response No. 1

Thank you for your review of the document.

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

May 28, 2013

Jason Kim
Los Angeles County
900 South Fremont Avenue
Alhambra, CA 91803-1331

Subject: Animal Care Center
SCH#: 2013041077

Dear Jason Kim:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. The review period closed on May 24, 2013, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. 3-1

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Scott Morgan
Director, State Clearinghouse

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# **2013041077**
Project Title Animal Care Center
Lead Agency Los Angeles County

Type **MND** Mitigated Negative Declaration

Description The proposed project is a new approximately 25,500 sf indoor County of Los Angeles animal care facility that will alleviate the high volume of animal control services at the existing Lancaster Animal Care Center and further serve the needs of communities in the eastern portion of Antelope Valley, in northern Los Angeles County. The facility is proposed on a 5.8-acre site to be acquired from the City of Palmdale by Los Angeles County for the construction/operation of the one-story facility, which includes visitor and employee parking. No livestock will be housed at the facility and no animals will be outdoors.

Lead Agency Contact

Name Jason Kim
Agency Los Angeles County
Phone 626 300 2326 ***Fax***
email
Address 900 South Fremont Avenue
City Alhambra ***State*** CA ***Zip*** 91803-1331

Project Location

County Los Angeles
City Palmdale
Region
Lat / Long 34° 35' 1.7" N / 118° 6' 58.7" W
Cross Streets Sierra Highway and Avenue Q-6 East
Parcel No. 3008-030-900 to -904 & part of -905
Township ***Range*** ***Section*** ***Base***

Proximity to:

Highways Hwy 14
Airports Palmdale Regional
Railways UP/Metrolink
Waterways
Schools R. Rex Parris HS, Yucca ES, Guidance Charter School
Land Use Public Facilities

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Septic System; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Landuse; Cumulative Effects; Other Issues

Reviewing Agencies Resources Agency; Department of Fish and Wildlife, Region 5; Department of Parks and Recreation; Department of Water Resources; Resources, Recycling and Recovery; Caltrans, Division of Aeronautics; Caltrans, District 7; Regional Water Quality Control Bd., Region 6 (Victorville); Department of Toxic Substances Control; Native American Heritage Commission

Date Received 04/25/2013 ***Start of Review*** 04/25/2013 ***End of Review*** 05/24/2013

7.3 COMMENT LETTER NO. 3

State of California Governor's Office of Planning and Research, State Clearinghouse and Planning Unit

Comment No. 1

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. The review period closed on May 24, 2013, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Response No. 1

This is the transmittal letter from the State Clearinghouse that indicates the Lead Agency has complied with state requirements for distribution of the Initial Study and Mitigated Negative Declaration. No response is required.

COUNTY OF LOS ANGELES

NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

Project title: *COUNTY OF LOS ANGELES ANIMAL CARE CENTER PROJECT, PALMDALE, CALIFORNIA*

Pursuant to the State of California Public Resources Code Article 7 of the California Environmental Quality Act (CEQA), as amended, the County of Los Angeles Department of Public Works has prepared an Initial Study for the project described below. Under CEQA, the County identified no significant impacts and proposes to adopt a Mitigated Negative Declaration

The County of Los Angeles proposes a new County of Los Angeles animal care facility (the County of Los Angeles Animal Care Center Project, Palmdale, CA, or "proposed project") that will alleviate the high volume of animal control services at the existing Lancaster Animal Care Center and further serve the needs of communities in the eastern portion of Antelope Valley, in northern Los Angeles County. The proposed facility will be on a 5.8-acre site to be acquired from the City of Palmdale by Los Angeles County for the construction and operation of a one-story approximately 25,500 square foot indoor animal care center, as well as maintaining a portion of the site to remain fenced, vacant, and for possible future animal care center expansion. The proposed facility will have an average peak day capacity of approximately 361 animals of which approximately 35 percent (approximately 128) are anticipated to be dogs, 64 percent (approximately 229) are cats, and one percent (approximately four) are wildlife (non-domesticated animals). No livestock will be housed at the proposed facility and no animals will be housed outdoors.

An Initial Study and Mitigated Negative Declaration have been prepared pursuant to the requirements of the CEQA to assess the proposed project's potential impacts on the environment. Appropriate mitigation measures have been included in the proposed project in order to minimize any potential environmental impacts. Copies of the Initial Study and Mitigated Negative Declaration are available for public review at the following locations:

County of Los Angeles
Lake Los Angeles Library
16921 E. Avenue O, #A
Palmdale, CA 93591
M-T, 11:00 am to 7:00 pm
W-Th-F, 10:00 am to 6:00 pm
Sat, 10:00 am to 5:00 pm

County of Los Angeles
Department of Public Works
Project Management Division I
900 South Fremont Avenue
Alhambra, CA 91803
M-Th, 6:45 am to 5:30 pm

Palmdale City Hall
38300 N. Sierra Highway
Palmdale, CA 93550
M-Th, 7:30 am to 6:00 pm

Palmdale City Library
700 E. Palmdale Boulevard
Palmdale, CA 93550
M-Th, 10:00 am to 8:00 pm
F-Sat, 10:00 am to 5:00 pm
Sun, 1:00 pm to 5:00 pm

Palmdale Planning Counter
38250 N. Sierra Highway
Palmdale, CA 93550
M-Th, 7:30 am to 6:00 pm

The 30-day review period will begin on April 25, 2013, and will end on May 24, 2013. Comments on the Initial Study and Mitigated Negative Declaration must be submitted in writing no later than May 24, 2013 at 5:30 pm. Please address all written comments to:

Mr. Jason Kim, Capital Projects Manager
County of Los Angeles
Department of Public Works
Project Management Division I
900 South Fremont Avenue
Alhambra, CA 91803-1331
Fax: (626) 979-5321
Email: jikim@dpw.lacounty.gov

2013 084963
FILED
Apr 25 2013
Dean C. Logan, Registrar – Recorder/County Clerk
Electronically signed by TYFFANY YATES

THIS NOTICE WAS POSTED
ON April 25 2013
UNTIL May 28 2013
REGISTRAR – RECORDER/COUNTY CLERK

The Final Mitigated Negative Declaration will incorporate responses to written comments received during the public review period and will be considered by the Board of Supervisors for approval of the project.

Public Notices

Superior Court of California,
County of Los Angeles
42011 4th Street West
Lancaster, CA 93534
North District
Michael D. Antonovich
Antelope Valley Courthouse
PETITION OF: ALEXA REYES MIRANDA by and through her parents Juan Amaya and Guadalupe Miranda
FOR CHANGE OF NAME
ORDER TO SHOW CAUSE FOR CHANGE OF NAME
CASE NUMBER: MS009275
TO ALL INTERESTED PERSONS: Petitioner: Alexa Reyes by and through her paretns Juan Amaya and Guadalupe Miranda filed a petition with this court for a decree changing names as follows:
Present name
Alexa Reyes Miranda
to:
Proposed name
Alexa Amaya Miranda
THE COURT ORDERS that all persons interested in this matter shall appear before this court at the hearing indicated below to show cause, if any, why the petition for change of name should not be granted. Any person objecting to the name changes described above must file a written objection that includes the reasons for the objection at least two court days before the matter is scheduled to be heard and must appear at the hearing to show cause why the petition should not be granted. If no written objection is timely filed, the court may grant the petition without a hearing.
NOTICE OF HEARING
Date: 6-5-13 Time: 8:30 a.m. Dept.: A-11 The address of the court is same as noted above.
A copy of this Order to Show Cause shall be published at least once each week for four successive weeks prior to the date set for hearing on the petition in the following newspaper of general circulation, printed in this county: Antelope Valley Press
Date: MAR 29 2013
s/THOMAS R. WHITE, JUDGE
JUDGE OF THE SUPERIOR COURT
Publish: 4/4, 4/11, 4/18, 4/25, 2013

Superior Court of California,
County of Los Angeles
42011 4th Street West
Lancaster, CA 93534
North District
Michael D. Antonovich
Antelope Valley Courthouse
PETITION OF: ROSA LEE SHELL
FOR CHANGE OF NAME
ORDER TO SHOW CAUSE FOR CHANGE OF NAME
CASE NUMBER: MS009309
TO ALL INTERESTED PERSONS: Petitioner: Rosa Lee Shell filed a petition with this court for a decree changing names as follows:
Present name
Rosa Lee Shell
to:
Proposed name
Rosa Lee Boslar-Shell
THE COURT ORDERS that all persons interested in this matter shall appear before this court at the hearing indicated below to show cause, if any, why the petition for change of name should not be granted. Any person objecting to the name changes described above must file a written objection that includes the reasons for the objection at least two court days before the matter is scheduled to be heard and must appear at the hearing to show cause why the petition should not be granted. If no written objection is timely filed, the court may grant the petition without a hearing.
NOTICE OF HEARING
Date: 06-17-13 Time: 8:30 a.m. Dept.: A11 The address of the court is same as noted above.
A copy of this Order to Show Cause shall be published at least once each week for four successive weeks prior to the date set for hearing on the petition in the following newspaper of general circulation, printed in this county: Antelope Valley Press
Date: APR 12 2013
s/THOMAS R. WHITE, JUDGE
JUDGE OF THE SUPERIOR COURT
Publish: 4/18, 4/25, 5/2, 5/9, 2013

NOTICE OF TRUSTEE'S SALE TSG No.: 1200271 TS No.: 8686.00098 YOU ARE IN DEFAULT UNDER A DEED OF TRUST, DATED June 20,2005. UNLESS YOU TAKE ACTION TO PROTECT YOUR PROPERTY, IT MAY BE SOLD AT A PUBLIC SALE. IF YOU NEED AN EXPLANATION OF THE NATURE OF THE PROCEEDING AGAINST YOU, YOU SHOULD CONTACT A LAWYER. On May 02,2013, Sage Point Lender Services, LLC, as duly appointed Trustee WILL SELL AT PUBLIC AUCTION TO HIGHEST BIDDER FOR CASH, CASHIER'S CHECK/CASH EQUIVALENT drawn on a state or national bank, cashier's check drawn by a state or federal credit union, or a cashier's check drawn by a state or federal savings and loan association, or savings association, or savings bank specified in Section 5102 of the Financial Code and authorized to do business in this state, or other form of payment authorized by 2924h(b), (Payable at time of sale in lawful money of the United States). The sale will be made, but without covenant or warranty, expressed or implied, regarding title, possession, or encumbrances, to satisfy the obligation secured by said Deed of Trust with interest and late charges thereon, as provided in said note(s), advances, under the terms of said Deed of Trust, fees, charges and expenses of the Trustee and of the trusts created by said Deed of Trust. The undersigned Trustee disclaims any liability for any incorrectness of the property address or other common designation, if any, shown herein. All right, title and interest conveyed to and now held by it under said Deed of Trust in the property situated in said County and State described as: AS MORE FULLY DESCRIBED IN BELOW MENTIONED DEED OF TRUST Executed by: JOSE FELICIANO UNMARRIED MAN Recorded on June 30,2005, as Instrument No. 05 1545202, of Official Records, in the office of the County Recorder of Los Angeles County, California Date of Sale: May 02,2013 at 11:00 AM Place of Sale: By the fountain located at 400 Civic Center Plaza, Pomona, CA 91766 The street address and other common designation, if any, of the real property described above is purported to be: 665 TWINBERRY LANE, LANCASTER, CA 93534 APN # 3135-034-062 The total amount of the unpaid balance of the obligation secured by the property to be sold and reasonable estimated costs, expenses and advances at the time of the initial publication of this Notice of Sale is $212,979.43. The beneficiary under said Deed of Trust heretofore executed and delivered to the undersigned a written Declaration of Default and Demand for Sale, and a written Notice of Default and Election to Sell. The undersigned caused said Notice of Default and Election to Sell to be recorded in the County where the real property is located. If the Trustee is unable to convey title for any reason, tine successful bidder's sole and exclusive remedy shall be the return of monies paid to the Trustee, and the successful bidder shall have no further recourse. If the sale is set aside for any reason, the Purchaser at the sale shall be entitled only to the return of the deposit paid. The Purchaser shall have no further recourse against the Mortgagor, the Mortgagee, or the Mortgagee's Attorney. NOTICE TO POTENTIAL BIDDERS: If you are considering bidding on this property Hen, you should understand that there are risks involved in bidding at a trustee auction. You will be bidding on a lien, not on the property itself. Placing the highest bid at a trustee auction does not automatically entitle you to free and clear ownership of the property. You should also be aware that the lien being auctioned off may be a junior lien. If you are the highest bidder at the auction, you are or may be responsible for paying off all liens senior to the lien being auctioned off, before you can receive clear title to the property. You are encouraged to investigate the existence, priority, and size of outstanding liens that may exist on this property by contacting the county recorder's office or a title insurance company, either of which may charge you a fee for this information. If you consult either of these resources, you should be aware that the same lender may hold more than one mortgage or deed of trust on the property. NOTICE TO PROPERTY OWNER: The sale date shown on this notice of sale may be postponed one or more times by the mortgagee, beneficiary, trustee, or a court, pursuant to Section 2924g of the California Civil Code. The law requires that information about trustee sale postponements be made available to you and to the public, as a courtesy to those not present at the sale. If you wish to learn whether your sale date has been postponed, and, if applicable, the rescheduled time and date for the sale of this property, you may call 866-684-2727 or 714-730-2727 or visit this Internet Web site www.lpsasap.com, using the file number assigned to this case 8686.00098. Information about postponements that are very short hi duration or that occur close in time to the scheduled sale may not immediately be reflected in the telephone information or on the Internet Web site. The best way to verify postponement information is to attend the scheduled sale... Date: April 4,2013 Sage Point Lender Services, LLC 34 Executive Park, Suite 100 Irvine, CA 92614 949-265-9940 Hector Solorzano FOR TRUSTEE'S SALE INFORMATION PLEASE CALL 866-684-2727 or 714-730-2727 or visit www.lpsasap.com SAGE POINT LENDER SERVICES, LLC MAY BE ACTING AS A DEBT COLLECTOR ATTEMPTING TO COLLECT A DEBT. ANY INFORMATION OBTAINED MAY BE USED FOR THAT PURPOSE. A-4376713 04/11/2013, 04/18/2013, 04/25/2013

T.S.#: 02012579 Loan#: GSM01-1537-F APN#: 31345106 NOTICE OF TRUSTEE'S SALE YOU ARE IN DEFAULT UNDER A DEED OF TRUST, DATED AS SHOWN BELOW. UNLESS YOU TAKE ACTION TO PROTECT YOUR PROPERTY, IT MAY BE SOLD AT A PUBLIC SALE. IF YOU NEED AN EXPLANATION OF THE NATURE OF THE PROCEEDING AGAINST YOU, YOU SHOULD CONTACT A LAWYER. A public auction sale to the highest bidder for cash, cashier's check drawn on a state or national bank, a check drawn by a state or federal credit union, or a check drawn by a state or federal savings and loan association, savings association, or savings bank specified in Section 5102 of the Financial Code and authorized to do business in this state will be held by the duly appointed trustee as shown below, of all right, title, and interest conveyed to and now held by the trustee in the hereinafter described property under the pursuant to a Deed of Trust described below The sale will be made, but without covenant or warranty, express or implied, regarding title, possession, or encumbrances, to pay the remaining principal sum of the note(s) secured by the Deed of Trust, with interest and late charges thereon, as provided in the note(s), advances, if any, under the terms of the Deed of Trust, interest thereon, fees, charges, and expenses of the Trustee for the total amount (at the time of the initial publication of the Notice of Sale) reasonably estimated to be as set forth below. The amount may be greater on the day of the sale. Trustor: Jairo Gonzalez, a married man, as his sole and separate property Duly Appointed Trustee: Guild Administration Corp., A California Corporation Trust Deed Date: June 28, 2010 Recording Date: July 02, 2010 Instrument No.: 20100914631 Book: - Page - Recorded in County: Los Angeles, State of California Date and Time of Sale: May 02, 2013 at: 10:30 A.M. Place of Sale: Near the fountain located at 400 Civic Center Plaza Pomona California Estimated Sale Amount: $156,682.80 As More Fully Described On Said Deed Of Trust. Street Address of Property (or Other Common Designation, if any): 45656 17TH Street West, Lancaster CA 93534 The undersigned Trustee disclaims any liability for any incorrectness of the street address and other common designation, if any, shown above. If no street address or other Common designation is shown, directions to the location of the property may be obtained by sending a written request to the beneficiary within 10 days of the date of first publication of this Notice of Sale. NOTICE TO POTENTIAL BIDDERS: If you are considering bidding on this property lien, you should understand that there are risks involved in bidding at a trustee auction. You will be bidding on a lien, not on the property itself. Placing the highest bid at a trustee auction does not automatically entitle you to free and clear ownership of the property. You should also be aware that the lien being auctioned off may be a junior lien. If you are the highest bidder at the auction, you are or may be responsible for paying off all liens senior to the lien being auctioned off before you can receive clear title to the property. You are encouraged to investigate the existence, priority, and size of outstanding liens that may exist on this property by contacting the county recorder's office or a title insurance company, either of which may charge you a fee for this information. If you consult either of these resources, you should be aware that the same lender may hold more than one mortgage or deed of trust on the property. NOTICE TO PROPERTY OWNER: The sale date shown on this notice of sale may be postponed one or more times by the mortgagee, beneficiary, trustee, or a court, pursuant to Section 2924g of the California Civil Code. The law requires that information about trustee sale postponements be made available to you and to the public, as a courtesy to those not present at the sale. If you wish to learn whether your sale date has been postponed, and, if applicable, the rescheduled time and date for the sale of this property, you may call (714) 480-5690 or visit this Internet Web site http://www.tacforeclosures.com/sales using the file number assigned to this case 02012579. Information about postponements that are very short in duration or that occur close in time to the scheduled sale may not immediately be reflected in the telephone information or on the Internet Web site. The best way to verify postponement information is to attend the scheduled sale. Date: April 04, 2013 Guild Administration Corporation As Said Trustee 5898 Copley Drive, San Diego, CA 92111 (858) 492-5890 By: Gail Windus, Assistant Secretary TAC: 962846 PUB: 4/11 4/18 4/25/13

NOTICE OF TRUSTEE'S SALE TS No. CA-12-529525-JP Order No.: 1294019 YOU ARE IN DEFAULT UNDER A DEED OF TRUST DATED 9/21/2011. UNLESS YOU TAKE ACTION TO PROTECT YOUR PROPERTY, IT MAY BE SOLD AT A PUBLIC SALE. IF YOU NEED AN EXPLANATION OF THE NATURE OF THE PROCEEDING AGAINST YOU, YOU SHOULD CONTACT A LAWYER. A public auction sale to the highest bidder for cash, cashier's check drawn on a state or national bank, check drawn by state or federal credit union, or a check drawn by a state or federal savings and loan association, or savings association, or savings bank specified in Section 5102 to the Financial code and authorized to do business in this state, will be held by duly appointed trustee. The sale will be made, but without covenant or warranty, expressed or implied, regarding title, possession, or encumbrances, to pay the remaining principal sum of the note(s) secured by the Deed of Trust, with interest and late charges thereon, as provided in the note(s), advances, under the terms of the Deed of Trust, interest thereon, fees, charges and expenses of the Trustee for the total amount (at the time of the initial publication of the Notice of Sale) reasonably estimated to be set forth below. The amount may be greater on the day of sale. BENEFICIARY MAY ELECT TO BID LESS THAN THE TOTAL AMOUNT DUE. Trustor(s): JOHN D. CHARTOUNI, AN UNMARRIED MAN Recorded: 10/7/2011 as Instrument No. 20111365366 of Official Records in the office of the Recorder of LOS ANGELES County, California; Date of Sale: 5/21/2013 at 9:00 AM Place of Sale: At the Doubletree Hotel Los Angeles-Norwalk, 13111 Sycamore Drive, Norwalk, CA 90650, in the Vineyard Ballroom Amount of unpaid balance and other charges: $349,880.34 The purported property address is: 4826 JADE CT, LANCASTER, CA 93536 Assessor's Parcel No.: 3153-078-007 NOTICE TO POTENTIAL BIDDERS: If you are considering bidding on this property lien, you should understand that there are risks involved in bidding at a trustee auction. You will be bidding on a lien, not on the property itself. Placing the highest bid at a trustee auction does not automatically entitle you to free and clear ownership of the property. You should also be aware that the lien being auctioned off may be a junior lien. If you are the highest bidder at the auction, you are or may be responsible for paying off all liens senior to the lien being auctioned off, before you can receive clear title to the property. You are encouraged to investigate the existence, priority, and size of outstanding liens that may exist on this property by contacting the county recorder's office or a title insurance company, either of which may charge you a fee for this information. If you consult either of these resources, you should be aware that the same lender may hold more than one mortgage or deed of trust on the property. NOTICE TO PROPERTY OWNER: The sale date shown on this notice of sale may be postponed one or more times by the mortgagee, beneficiary, trustee, or a court, pursuant to Section 2924g of the California Civil Code. The law requires that information about trustee sale postponements be made available to you and to the public, as a courtesy to those not present at the sale. If you wish to learn whether your sale date has been postponed, and, if applicable, the rescheduled time and date for the sale of this property, you may call 800-280-2832 for information regarding the trustee's sale or visit this Internet Web site http://www.qualityloan.com , using the file number assigned to this foreclosure by the Trustee: CA-12-529525-JP . Information about postponements that are very short in duration or that occur close in time to the scheduled sale may not immediately be reflected in the telephone information or on the Internet Web site. The best way to verify postponement information is to attend the scheduled sale. The undersigned Trustee disclaims any liability for any incorrectness of the property address or other common designation, if any, shown herein. If no street address or other common designation is shown, directions to the location of the property may be obtained by sending a written request to the beneficiary within 10 days of the date of first publication of this Notice of Sale. If the Trustee is unable to convey title for any reason, the successful bidder's sole and exclusive remedy shall be the return of monies paid to the Trustee, and the successful bidder shall have no further recourse. If the sale is set aside for any reason, the Purchaser at the sale shall be entitled only to a return of the deposit paid. The Purchaser shall have no further recourse against the Mortgagor, the Mortgagee, or the Mortgagee's Attorney. If you have previously been discharged through bankruptcy, you may have been released of personal liability for this loan in which case this letter is intended to exercise the note holders right's against the real property only. As required by law, you are hereby notified that a negative credit report reflecting on your credit record may be submitted to a credit report agency if you fail to fulfill the terms of your credit obligations. THIS OFFICE IS ATTEMPTING TO COLLECT A DEBT AND ANY INFORMATION OBTAINED WILL BE USED FOR THAT PURPOSE. Date: Quality Loan Service Corporation 2141 5th Avenue San Diego, CA 92101 619-645-7711 For NON SALE information only Sale Line: 800-280-2832 Or Login to: http://www.qualityloan.com Reinstatement Line: (866) 645-7711 Ext 5318 Quality Loan Service Corp. TS No.: CA-12-529525-JP IDSPub #0048912 4/18/2013 4/25/2013 5/2/2013

Superior Court of California,
County of Los Angeles
42011 4th Street West
Lancaster, CA 93534
North District
Michael D. Antonovich
Antelope Valley Courthouse
PETITION OF: ZACHARY LEONARDO HOWARD by his mother Andrea Juarez & Gustine Magadan his father
FOR CHANGE OF NAME
ORDER TO SHOW CAUSE FOR CHANGE OF NAME
CASE NUMBER: MS009306
TO ALL INTERESTED PERSONS: Petitioner: Zachary Leonardo Howard by his mother & father Andrea Juarez & Gustine Magadan filed a petition with this court for a decree changing names as follows:
Present name
Zachary Leonardo Howard
to:
Proposed name
Zachary Leonardo Magadan Mejicanos
THE COURT ORDERS that all persons interested in this matter shall appear before this court at the hearing indicated below to show cause, if any, why the petition for change of name should not be granted. Any person objecting to the name changes described above must file a written objection that includes the reasons for the objection at least two court days before the matter is scheduled to be heard and must appear at the hearing to show cause why the petition should not be granted. If no written objection is timely filed, the court may grant the petition without a hearing.
NOTICE OF HEARING
Date: 06-19-13 Time: 8:30 a.m. Dept.: A10 The address of the court is same as noted above.
A copy of this Order to Show Cause shall be published at least once each week for four successive weeks prior to the date set for hearing on the petition in the following newspaper of general circulation, printed in this county: Antelope Valley Press
Date: APR 11 2013
s/THOMAS R. WHITE, JUDGE
JUDGE OF THE SUPERIOR COURT
Publish: 4/18, 4/25, 5/2, 5/9, 2013

2013 074769
FICTITIOUS BUSINESS NAME STATEMENT
The following person(s) is/are doing business as: The Yoga Roots, 641 West Lancaster Blvd Suite 201, Lancaster CA 93534 County of: LA
REGISTERED OWNER(S): Shannon Quigley, 4206 W Ave L-2, Quartz Hill CA 93536
This Business is conducted by an Individual.
The date registrant commenced to transact business under the fictitious business name or names listed above on N/A.
I declare that all information in this statement is true and correct. (A registrant who declares as true information which he or she knows to be false is guilty of a crime.)
s/Shannon Quigley, Owner
This statement was filed with the County Clerk of LOS ANGELES on the date indicated by the filed stamp on 04/12/2013.
NOTICE - In accordance with subdivision (a) of section 17920, a fictitious name statement generally expires at the end of five years from the date on which it was filed in the office of the county clerk, except, as provided in subdivision (b) of section 17920, where it expires 40 days after any change in the facts set forth in the statement pursuant to section 17913 other than a change in the residence address of a registered owner. A new fictitious business name statement must be filed before the expiration. The filing of this statement does not of itself authorize the use in this state of a fictitious business name in violation of the rights of another under federal, state, or common law (see section 14411 et seq., Business and Professions Code).
I hereby certify that this copy is a correct copy of the original statement on file in my office. Dean C. Logan, Los Angeles County Clerk By: M Stephens, Deputy Published in the Antelope Valley Press 661-267-4112: 4/18, 4/25, 5/2, 5/9, 2013

T.S.#: 02012821 Loan#: GQD13-0220-F APN#: 3153080044 NOTICE OF TRUSTEE'S SALE YOU ARE IN DEFAULT UNDER A DEED OF TRUST, DATED AS SHOWN BELOW. UNLESS YOU TAKE ACTION TO PROTECT YOUR PROPERTY, IT MAY BE SOLD AT A PUBLIC SALE. IF YOU NEED AN EXPLANATION OF THE NATURE OF THE PROCEEDING AGAINST YOU, YOU SHOULD CONTACT A LAWYER. A public auction sale to the highest bidder for cash, cashier's check drawn on a state or national bank, a check drawn by a state or federal credit union, or a check drawn by a state or federal savings and loan association, savings association, or savings bank specified in Section 5102 of the Financial Code and authorized to do business in this state will be held by the duly appointed trustee as shown below, of all right, title, and interest conveyed to and now held by the trustee in the hereinafter described property under the pursuant to a Deed of Trust described below The sale will be made, but without covenant or warranty, express or implied, regarding title, possession, or encumbrances, to pay the remaining principal sum of the note(s) secured by the Deed of Trust, with interest and late charges thereon, as provided in the note(s), advances, if any, under the terms of the Deed of Trust, interest thereon, fees, charges, and expenses of the Trustee for the total amount (at the time of the initial publication of the Notice of Sale) reasonably estimated to be as set forth below. The amount may be greater on the day of the sale. Trustor: James Hanible, a single man, and Yolanda Blanchard, a single woman Duly Appointed Trustee: Guild Administration Corp., A California Corporation Trust Deed Date: November 18, 2009 Recording Date: December 02, 2009 Instrument No.: 20091819918 Book: - Page - Recorded in County: Los Angeles, State of California Date and Time of Sale: May 16, 2013 at: 10:30 A.M. Place of Sale: near the fountain located at 400 Civic Center Plaza Pomona, California Estimated Sale Amount: $182,006.11 As More Fully Described On Said Deed Of Trust. Street Address of Property (or Other Common Designation, if any): 44049 Moccasin Place, Lancaster CA 93536 The undersigned Trustee disclaims any liability for any incorrectness of the street address and other common designation, if any, shown above. If no street address or other Common designation is shown, directions to the location of the property may be obtained by sending a written request to the beneficiary within 10 days of the date of first publication of this Notice of Sale. NOTICE TO POTENTIAL BIDDERS: If you are considering bidding on this property lien, you should understand that there are risks involved in bidding at a trustee auction. You will be bidding on a lien, not on the property itself. Placing the highest bid at a trustee auction does not automatically entitle you to free and clear ownership of the property. You should also be aware that the lien being auctioned off may be a junior lien. If you are the highest bidder at the auction, you are or may be responsible for paying off all liens senior to the lien being auctioned off before you can receive clear title to the property. You are encouraged to investigate the existence, priority, and size of outstanding liens that may exist on this property by contacting the county recorder's office or a title insurance company, either of which may charge you a fee for this information. If you consult either of these resources, you should be aware that the same lender may hold more than one mortgage or deed of trust on the property. NOTICE TO PROPERTY OWNER: The sale date shown on this notice of sale may be postponed one or more times by the mortgagee, beneficiary, trustee, or a court, pursuant to Section 2924g of the California Civil Code. The law requires that information about trustee sale postponements be made available to you and to the public, as a courtesy to those not present at the sale. If you wish to learn whether your sale date has been postponed, and, if applicable, the rescheduled time and date for the sale of this property, you may call (714) 480-5690 or visit this Internet Web site http://www.tacforeclosures.com/sales using the file number assigned to this case02012821. Information about postponements that are very short in duration or that occur close in time to the scheduled sale may not immediately be reflected in the telephone information or on the Internet Web site. The best way to verify postponement information is to attend the scheduled sale. Date: April 18, 2013 Guild Administration Corporation As Said Trustee 5898 Copley Drive, San Diego, CA 92111 (858) 492-5890 By: Gail Windus, Assistant Secretary TAC: 962985 PUB: 4/25 5/02 5/09/13

T.S.#: 02012822 Loan#: GSM08-8976-F APN#: 3148012004 NOTICE OF TRUSTEE'S SALE YOU ARE IN DEFAULT UNDER A DEED OF TRUST, DATED AS SHOWN BELOW. UNLESS YOU TAKE ACTION TO PROTECT YOUR PROPERTY, IT MAY BE SOLD AT A PUBLIC SALE. IF YOU NEED AN EXPLANATION OF THE NATURE OF THE PROCEEDING AGAINST YOU, YOU SHOULD CONTACT A LAWYER. A public auction sale to the highest bidder for cash, cashier's check drawn on a state or national bank, a check drawn by a state or federal credit union, or a check drawn by a state or federal savings and loan association, savings association, or savings bank specified in Section 5102 of the Financial Code and authorized to do business in this state will be held by the duly appointed trustee as shown below, of all right, title, and interest conveyed to and now held by the trustee in the hereinafter described property under the pursuant to a Deed of Trust described below The sale will be made, but without covenant or warranty, express or implied, regarding title, possession, or encumbrances, to pay the remaining principal sum of the note(s) secured by the Deed of Trust, with interest and late charges thereon, as provided in the note(s), advances, if any, under the terms of the Deed of Trust, interest thereon, fees, charges, and expenses of the Trustee for the total amount (at the time of the initial publication of the Notice of Sale) reasonably estimated to be as set forth below. The amount may be greater on the day of the sale. Trustor: Matthew Critchfield and Tifanne Critchfield, husband and wife Duly Appointed Trustee: Guild Administration Corp., A California Corporation Trust Deed Date: June 24, 2004 Recording Date: July 01, 2004 Instrument No.: 04 1686744 Book: - Page - Recorded in County: Los Angeles, State of California Date and Time of Sale: May 16, 2013 at: 10:30 A.M. Place of Sale: near the fountain located at 400 Civic Center Plaza Pomona, California Estimated Sale Amount: $187,779.28 As More Fully Described On Said Deed Of Trust. Street Address of Property (or Other Common Designation, if any): 1128 East Avenue J-5, Lancaster CA 93535 The undersigned Trustee disclaims any liability for any incorrectness of the street address and other common designation, if any, shown above. If no street address or other Common designation is shown, directions to the location of the property may be obtained by sending a written request to the beneficiary within 10 days of the date of first publication of this Notice of Sale. NOTICE TO POTENTIAL BIDDERS: If you are considering bidding on this property lien, you should understand that there are risks involved in bidding at a trustee auction. You will be bidding on a lien, not on the property itself. Placing the highest bid at a trustee auction does not automatically entitle you to free and clear ownership of the property. You should also be aware that the lien being auctioned off may be a junior lien. If you are the highest bidder at the auction, you are or may be responsible for paying off all liens senior to the lien being auctioned off before you can receive clear title to the property. You are encouraged to investigate the existence, priority, and size of outstanding liens that may exist on this property by contacting the county recorder's office or a title insurance company, either of which may charge you a fee for this information. If you consult either of these resources, you should be aware that the same lender may hold more than one mortgage or deed of trust on the property. NOTICE TO PROPERTY OWNER: The sale date shown on this notice of sale may be postponed one or more times by the mortgagee, beneficiary, trustee, or a court, pursuant to Section 2924g of the California Civil Code. The law requires that information about trustee sale postponements be made available to you and to the public, as a courtesy to those not present at the sale. If you wish to learn whether your sale date has been postponed, and, if applicable, the rescheduled time and date for the sale of this property, you may call (714) 480-5690 or visit this Internet Web site http://www.tacforeclosures.com/sales using the file number assigned to this case 02012986. Information about postponements that are very short in duration or that occur close in time to the scheduled sale may not immediately be reflected in the telephone information or on the Internet Web site. The best way to verify postponement information is to attend the scheduled sale. Date: April 18, 2013 Guild Administration Corporation As Said Trustee 5898 Copley Drive, San Diego, CA 92111 (858) 492-5890 By: Gail Windus, Assistant Secretary TAC: 962986 PUB: 4/25 5/02 5/09/13

NOTICE OF TRUSTEE'S SALE TS No. 12-0084874 Title Order No. 12-0157390 APN No. 3109-029-018 YOU ARE IN DEFAULT UNDER A DEED OF TRUST, DATED 06/07/2010. UNLESS YOU TAKE ACTION TO PROTECT YOUR PROPERTY, IT MAY BE SOLD AT A PUBLIC SALE. IF YOU NEED AN EXPLANATION OF THE NATURE OF THE PROCEEDING AGAINST YOU, YOU SHOULD CONTACT A LAWYER. Notice is hereby given that RECONTRUST COMPANY, N.A., as duly appointed trustee pursuant to the Deed of Trust executed by AARON D. CONDOLL, JR., A SINGLE MAN, dated 06/07/2010 and recorded 6/11/2010, as Instrument No. 20100798695, in Book N/A, Page N/A, of Official Records in the office of the County Recorder of Los Angeles County, State of California, will sell on 05/21/2013 at 9:00AM, Doubletree Hotel Los Angeles-Norwalk, 13111 Sycamore Drive, Norwalk, CA 90650, Vineyard Ballroom at public auction, to the highest bidder for cash or check as described below, payable in full at time of sale, all right, title, and interest conveyed to and now held by it under said Deed of Trust, in the property situated in said County and State and as more fully described in the above referenced Deed of Trust. The street address and other common designation, if any, of the real property described above is purported to be: 42642 28TH STREET WEST, LANCASTER, CA, 93536. The undersigned Trustee disclaims any liability for any incorrectness of the street address and other common designation, if any, shown herein. The total amount of the unpaid balance with interest thereon of the obligation secured by the property to be sold plus reasonable estimated costs, expenses and advances at the time of the initial publication of the Notice of Sale is $154,206.62. It is possible that at the time of sale the opening bid may be less than the total indebtedness due. In addition to cash, the Trustee will accept cashier's checks drawn on a state or national bank, a check drawn by a state or federal credit union, or a check drawn by a state or federal savings and loan association, savings association, or savings bank specified in Section 5102 of the Financial Code and authorized to do business in this state. Said sale will be made, in an ''AS IS'' condition, but without covenant or warranty, express or implied, regarding title, possession or encumbrances, to satisfy the indebtedness secured by said Deed of Trust, advances thereunder, with interest as provided, and the unpaid principal of the Note secured by said Deed of Trust with interest thereon as provided in said Note, plus fees, charges and expenses of the Trustee and of the trusts created by said Deed of Trust. NOTICE TO POTENTIAL BIDDERS If you are considering bidding on this property lien, you should understand that there are risks involved in bidding at a trustee auction. You will be bidding on a lien, not on a property itself. Placing the highest bid at a trustee auction does not automatically entitle you to free and clear ownership of the property. You should also be aware that the lien being auctioned off may be a junior lien. If you are the highest bidder at the auction, you are or may be responsible for paying off all liens senior to the lien being auctioned off, before you can receive clear title to the property. You are encouraged to investigate the existence, priority, and size of outstanding liens that may exist on this property by contacting the county recorder's office or a title insurance company, either of which may charge you a fee for this information. If you consult either of these resources, you should be aware that the same lender may hold more than one mortgage or deed of trust on the property. NOTICE TO PROPERTY OWNER The sale date shown on this notice of sale may be postponed one or more times by the mortgagee, beneficiary, trustee, or a court, pursuant to Section 2924g of the California Civil Code. The law requires that information about trustee sale postponements be made available to you and to the public, as a courtesy to those not present at the sale. If you wish to learn whether your sale date has been postponed, and, if applicable, the rescheduled time and date for the sale of this property, you may call 1-800-281-8219 or visit this Internet Web site www.recontrustco.com, using the file number assigned to this case 12-0084874. Information about postponements that are very short in duration or that occur close in time to the scheduled sale may not immediately be reflected in the telephone information or on the Internet Web site. The best way to verify postponement information is to attend the scheduled sale. DATED: 03/05/2013 RECONTRUST COMPANY, N.A. 1800 Tapo Canyon Rd., CA6-914-01-94 SIMI VALLEY, CA 93063 Phone/Sale Information: (800) 281-8219 By: Trustee's Sale Officer RECONTRUST COMPANY, N.A. is a debt collector attempting to collect a debt. Any information obtained will be used for that purpose. FEI # 1006.174138 4/11, 4/18, 4/25/2013

NOTICE OF TRUSTEE'S SALE Trustee Sale No. 12021335 Loan No: 0090883638 APN 3147020003 NOTE: THERE IS A SUMMARY OF THE INFORMATION IN THIS DOCUMENT ATTACHED (The above statement is made pursuant to CA Civil Code Section 2923.3(d)(1). The Summary will not be recorded pursuant to CA Civil Code Section 2923.3(a). It will be mailed to the Trustor(s) and/or vested owner(s) only, pursuant to CA Civil Code Section 2923.3(d)(2).) YOU ARE IN DEFAULT UNDER A DEED OF TRUST DATED September 9, 2008. UNLESS YOU TAKE ACTION TO PROTECT YOUR PROPERTY, IT MAY BE SOLD AT A PUBLIC SALE. IF YOU NEED AN EXPLANATION OF THE NATURE OF THE PROCEEDINGS AGAINST YOU, YOU SHOULD CONTACT A LAWYER. On May 15, 2013, at 11:00 AM, By the fountain located at 400 Civic Center Plaza, Pomona, CA 91766, FIDELITY NATIONAL TITLE INSURANCE COMPANY, as the duly appointed Trustee, under and pursuant to the power of sale contained in that certain Deed of Trust Recorded on September 24, 2008, as Instrument No. 20081715558 of Official Records in the office of the Recorder of Los Angeles County, CA, executed by: HARRY R. LESSING, JR., A SINGLE PERSON AND MICHAEL MADRIGAL, A MARRIED PERSON, as Trustor, in favor of Wells Fargo Bank, NA, as Beneficiary, WILL SELL AT PUBLIC AUCTION TO THE HIGHEST BIDDER, in lawful money of the United States, all payable at the time of sale, that certain property situated in said County, California describing the land therein as: AS MORE FULLY DESCRIBED IN SAID DEED OF TRUST The property heretofore described is being sold "as is". The street address and other common designation, if any, of the real property described above is purported to be: 44609 CALSTON AVENUE, LANCASTER, CA 93535 The undersigned Trustee disclaims any liability for any incorrectness of the street address and other common designation, if any, shown herein. Said sale will be made without covenant or warranty, express or implied, regarding title, possession, or encumbrances, to pay the remaining unpaid balance of the obligations secured by and pursuant to the power of sale contained in that certain Deed of Trust (together with any modifications thereto). NOTICE TO POTENTIAL BIDDERS: If you are considering bidding on this property lien, you should understand that there are risks involved in bidding at a trustee auction. You will be bidding on a lien, not on the property itself. Placing the highest bid at a trustee auction does not automatically entitle you to free and clear ownership of the property. You should also be aware that the lien being auctioned off may be a junior lien. If you are the highest bidder at the auction, you are or may be responsible for paying off all liens senior to the lien being auctioned off, before you can receive clear title to the property. You are encouraged to investigate the existence, priority, and size of outstanding liens that may exist on this property by contacting the county recorder`s office or a title insurance company, either of which may charge you a fee for this information. If you consult either of these resources, you should be aware that the same lender may hold more than one mortgage or deed of trust on the property. NOTICE TO PROPERTY OWNER: The sale date shown on this notice of sale may be postponed one or more times by the mortgagee, beneficiary, trustee, or a court, pursuant to Section 2924g of the California Civil Code. The law requires that information about trustee sale postponements be made available to you and to the public, as a courtesy to those not present at the sale. If you wish to learn whether your sale date has been postponed, and, if applicable, the rescheduled time and date for the sale of this property, you may call 714.730.2727 or visit this Internet Web site www.lpsasap.com, using the file number assigned to this case 12021335. Information about postponements that are very short in duration or that occur close in time to the scheduled sale may not immediately be reflected in the telephone information or on the Internet Web site. The best way to verify postponement information is to attend the scheduled sale. The total amount of the unpaid balance of the obligations secured by the property to be sold and reasonable estimated costs, expenses and advances at the time of the initial publication of this Notice of Trustee`s Sale is estimated to be $149,189.30 (Estimated), provided, however, prepayment premiums, accrued interest and advances will increase this figure prior to sale. Beneficiary`s bid at said sale may include all or part of said amount. In addition to cash, the Trustee will accept a cashier's check drawn on a state or national bank, a check drawn by a state or federal credit union or a check drawn by a state or federal savings and loan association, savings association or savings bank specified in Section 5102 of the California Financial Code and authorized to do business in California, or other such funds as may be acceptable to the trustee. In the event tender other than cash is accepted, the Trustee may withhold the issuance of the Trustee`s Deed Upon Sale until funds become available to the payee or endorsee as a matter of right. The property offered for sale excludes all funds held on account by the property receiver, if applicable. DATE: 04/23/2013 FIDELITY NATIONAL TITLE INSURANCE COMPANY, TRUSTEE 11000 Olson Drive Ste 101 Rancho Cordova, CA 95670 9166360114 Megan Curtis Authorized Signature SALE INFORMATION CAN BE OBTAINED ON LINE AT www.lpsasap.com AUTOMATED SALES INFORMATION PLEASE CALL 714.730.2727 A-4380964 04/25/2013, 05/02/2013, 05/09/2013

NOTICE OF TRUSTEE'S SALE T.S No. 1278630-31 APN: 3119-018-037 TRA: 012659 LOAN NO: Xxxxxx6639 REF: Newton, Gary IMPORTANT NOTICE TO PROPERTY OWNER: YOU ARE IN DEFAULT UNDER A DEED OF TRUST, DATED July 22, 2005. UNLESS YOU TAKE ACTION TO PROTECT YOUR PROPERTY, IT MAY BE SOLD AT A PUBLIC SALE. IF YOU NEED AN EXPLANATION OF THE NATURE OF THE PROCEEDING AGAINST YOU, YOU SHOULD CONTACT A LAWYER. On May 01, 2013, at 9:00am, Cal-Western Reconveyance Corporation, as duly appointed trustee under and pursuant to Deed of Trust recorded August 05, 2005, as Inst. No. 05 1867699 in book XX, page XX of Official Records in the office of the County Recorder of Los Angeles County, State of California, executed by Gary Nathan Newton An Unmarried Man, will sell at public auction to highest bidder for cash, cashier's check drawn on a state or national bank, a check drawn by a state or federal credit union, or a check drawn by a state or federal savings and loan association, savings association, or savings bank specified in section 5102 of the financial code and authorized to do business in this state: Behind the fountain located in civic center plaza, 400 civic Center Plaza Pomona, California, all right, title and interest conveyed to and now held by it under said Deed of Trust in the property situated in said County and State described as: Completely described in said deed of trust The street address and other common designation, if any, of the real property described above is purported to be: 1541 West Ave H-1 Lancaster CA 93534 The undersigned Trustee disclaims any liability for any incorrectness of the street address and other common designation, if any, shown herein. Said sale will be held, but without covenant or warranty, express or implied, regarding title, possession, condition or encumbrances, including fees, charges and expenses of the Trustee and of the trusts created by said Deed of Trust, to pay the remaining principal sums of the note(s) secured by said Deed of Trust. The total amount of the unpaid balance of the obligation secured by the property to be sold and reasonable estimated costs, expenses and advances at the time of the initial publication of the Notice of Sale is: $296,319.48. If the Trustee is unable to convey title for any reason, the successful bidder's sole and exclusive remedy shall be the return of monies paid to the Trustee, and the successful bidder shall have no further recourse. The beneficiary under said Deed of Trust heretofore executed and delivered to the undersigned a written declaration of Default and Demand for Sale, and a written Notice of Default and Election to Sell. The undersigned caused said Notice of Default and Election to Sell to be recorded in the county where the real property is located. NOTICE TO POTENTIAL BIDDERS: If you are considering bidding on this property lien, you should understand that there are risks involved in bidding at a trustee auction. You will be bidding on a lien, not on the property itself. Placing the highest bid at a trustee auction does not automatically entitle you to free and clear ownership of the property. You should also be aware that the lien being auctioned off may be a junior lien. If you are the highest bidder at the auction, you are or may be responsible for paying off all liens senior to the lien being auctioned off, before you can receive clear title to the property. You are encouraged to investigate the existence, priority, and size of outstanding liens that may exist on this property by contacting the county recorder's office or a title insurance company, either of which may charge you a fee for this information. If you consult either of these resources, you should be aware that the same lender may hold more than one mortgage or deed of trust on the property. NOTICE TO PROPERTY OWNER: The sale date shown on this notice of sale may be postponed one or more times by the mortgagee, beneficiary, trustee, or a court, pursuant to section 2924g of the California Civil Code. The law requires that information about trustee sale postponements be made available to you and to the public, as a courtesy to those not present at the sale. If you wish to learn whether your sale date has been postponed, and, if applicable, the rescheduled time and date for the sale of this property, you may call (619)590-1221 or visit the internet website www.rppsales.com, using the file number assigned to this case 1278630-31. Information about postponements that are very short in duration or that occur close in time to the scheduled sale may not immediately be reflected in the telephone information or on the Internet Web Site. The best way to verify postponement information is to attend the scheduled sale. For sales information:(619)590-1221. Cal-Western Reconveyance Corporation, 525 East Main Street, P.O. Box 22004, El Cajon, CA 92022-9004 Dated: April 01, 2013. (R-428498 04/11/13, 04/18/13, 04/25/13)

2013 076658
FICTITIOUS BUSINESS NAME STATEMENT
The following person(s) is/are doing business as: Cellular Level; Healthy Horizons, 1520 Essex Lane, Lancaster CA 93534; Mailing address: P.O. Box 6824, Lancaster CA 93539 County of: Los Angeles
REGISTERED OWNER(S): Timothy Archie, 1520 Essex Lane, Lancaster CA 93534
Olatokumbo Archie, 520 Essex Lane, Lancaster CA 93534
This Business is conducted by a Married Couple.
The date registrant commenced to transact business under the fictitious business name or names listed above on N/A.
I declare that all information in this statement is true and correct. (A registrant who declares as true information which he or she knows to be false is guilty of a crime.)
s/Timothy Archie, Owner
This statement was filed with the County Clerk of LOS ANGELES on the date indicated by the filed stamp on 04/15/2013.
NOTICE - In accordance with subdivision (a) of section 17920, a fictitious name statement generally expires at the end of five years from the date on which it was filed in the office of the county clerk, except, as provided in subdivision (b) of section 17920, where it expires 40 days after any change in the facts set forth in the statement pursuant to section 17913 other than a change in the residence address of a registered owner. A new fictitious business name statement must be filed before the expiration. The filing of this statement does not of itself authorize the use in this state of a fictitious business name in violation of the rights of another under federal, state, or common law (see section 14411 et seq., Business and Professions Code).
I hereby certify that this copy is a correct copy of the original statement on file in my office. Dean C. Logan, Los Angeles County Clerk By: W Watson, Deputy Published in the Antelope Valley Press 661-267-4112: 4/18, 4/25, 5/2, 5/9, 2013

2013 061500
FICTITIOUS BUSINESS NAME STATEMENT
The following person(s) is/are doing business as: Yael's Beauty Boutique, 1139 W Ave I Spc 3D, Lancaster CA 93534 Mailing address: 6146 West Spice St., Lancaster CA 93536 County of: LA
REGISTERED OWNER(S): Alicia Preciado, 6146 West Spice St., Lancaster CA 93536
This Business is conducted by an Individual.
The date registrant commenced to transact business under the fictitious business name or names listed above on N/A.
I declare that all information in this statement is true and correct. (A registrant who declares as true information which he or she knows to be false is guilty of a crime.)
s/Alicia Preciado, Owner
This statement was filed with the County Clerk of LOS ANGELES on the date indicated by the filed stamp on 03/27 /2013.
NOTICE - In accordance with subdivision (a) of section 17920, a fictitious name statement generally expires at the end of five years from the date on which it was filed in the office of the county clerk, except, as provided in subdivision (b) of section 17920, where it expires 40 days after any change in the facts set forth in the statement pursuant to section 17913 other than a change in the residence address of a registered owner. A new fictitious business name statement must be filed before the expiration. The filing of this statement does not of itself authorize the use in this state of a fictitious business name in violation of the rights of another under federal, state, or common law (see section 14411 et seq., Business and Professions Code).
I hereby certify that this copy is a correct copy of the original statement on file in my office. Dean C. Logan, Los Angeles County Clerk By: M Stephens, Deputy Published in the Antelope Valley Press 661-267-4112: 4/18, 4/25, 5/2, 5/9, 2013

2013074970
FICTITIOUS BUSINESS NAME STATEMENT
The following person(s) is/are doing business as: Westline Freight, 1120 N Towne Avenue, Claremont CA 91711 County of: Los Angeles
REGISTERED OWNER(S): Antonio Chavez, 1120 N Towne Avenue, Claremont CA 91711
Michael A Aceves Portillo, 1120 N Towne Avenue, Claremont CA 91711
This Business is conducted by a General Partnership.
The date registrant commenced to transact business under the fictitious business name or names listed above on N/A.
I declare that all information in this statement is true and correct. (A registrant who declares as true information which he or she knows to be false is guilty of a crime.)
s/Michael A Aceves Potillo, Owner
This statement was filed with the County Clerk of LOS ANGELES on the date indicated by the filed stamp on 04/12/2013.
NOTICE - In accordance with subdivision (a) of section 17920, a fictitious name statement generally expires at the end of five years from the date on which it was filed in the office of the county clerk, except, as provided in subdivision (b) of section 17920, where it expires 40 days after any change in the facts set forth in the statement pursuant to section 17913 other than a change in the residence address of a registered owner. A new fictitious business name statement must be filed before the expiration. The filing of this statement does not of itself authorize the use in this state of a fictitious business name in violation of the rights of another under federal, state, or common law (see section 14411 et seq., Business and Professions Code).
I hereby certify that this copy is a correct copy of the original statement on file in my office. Dean C. Logan, Los Angeles County Clerk By: M Stephens, Deputy Published in the Antelope Valley Press 661-267-4112: 4/18, 4/25, 5/2, 5/9, 2013

PUBLIC NOTICE
2013-2018 HOUSING AND COMMUNITY DEVELOPMENT CONSOLIDATED PLAN, INCLUDING 2013-2014 ONE-YEAR ACTION PLAN FOR THE LOS ANGELES URBAN COUNTY
The proposed 2013-2018 Housing and Community Development Consolidated Plan for the Los Angeles Urban County (Consolidated Plan) describes housing and community development needs as well as activities to address those needs through the Los Angeles Urban County Program, as defined and funded by the U.S. Department of Housing and Urban Development (HUD). As required by HUD, the Consolidated Plan brings together, in one consolidated submission, the planning and application aspects of the Community Development Block Grant (CDBG), HOME Investment Partnerships, and Emergency Solutions Grant (ESG) programs. The Urban County Program's geographic area encompasses 49 participating cities and all the County's unincorporated areas. The Consolidated Plan includes a needs assessment, five-year strategy, and the Los Angeles Urban County 2013-2014 One-Year Action Plan (Action Plan). Project descriptions, resources to be utilized, and proposed accomplishments for the 2013-2014 Fiscal Year (July 1, 2013 - June 30, 2014) are delineated in the Action Plan. In addition, the Action Plan addresses monitoring standards and procedures. The public hearing on the Consolidated Plan will be held before the Los Angeles County Board of Supervisors on: **May 28, 2013 - 1:00 p.m. Board Hearing Room - 381 Kenneth Hahn Hall of Administration 500 West Temple Street - Los Angeles, CA 90012** Copies of the proposed document will be available during a 30-day public review and comment period from April 26, 2013 to May 28, 2013 at the following locations:

1st District
Anthony Quinn Library, 3965 Cesar E. Chavez Ave., Los Angeles
(323) 264-7715
East Los Angeles Library, 4837 E. Third St., Los Angeles
(323) 264-0155
Graham Library, 1900 E. Firestone Blvd., Los Angeles
(323) 582-2903
La Puente Library, 15920 E. Central Ave., La Puente
(626) 968-4613
Montebello Library, 1550 W. Beverly Blvd., Montebello
(323) 722-6551
South El Monte Library, 1430 N. Central Ave., South El Monte
(626) 443-4158

2nd District
Carson Regional Library, 151 E. Carson St., Carson
(310) 830-0901
East Rancho Dominguez Library, 4420 E. Rose St., (310) 632-6193 East Rancho Dominguez
Lennox Library, 10828 Condon Ave., Lennox
(310) 674-0385
View Park Library, 3854 W. 54th St., Los Angeles
(323) 293-5371
Willowbrook Library, 11838 Wilmington Ave., Los Angeles
(323) 564-5698
Woodcrest Library, 1340 W. 106th St., Los Angeles
(323) 757-9373

3rd District
Agoura Hills Library, 29901 Ladyface Ct., Agoura Hills
(818) 889-2278
Malibu Library, 23519 W. Civic Center Way, Malibu
(310) 456-6438
San Fernando Library, 217 North Maclay Ave., San Fernando
(818) 365-6928
West Hollywood Library, 625 N. San Vicente Blvd., West Hollywood (310) 652-5340

4th District
El Segundo Library, 111 W. Mariposa Ave., El Segundo
(310) 524-2722
Hacienda Heights Library, 16010 La Monde St., Hacienda Heights
(626) 968-9356
Hawaiian Gardens Library, 11940 Carson St., Hawaiian Gardens (562) 496-1212
Lomita Library, 24200 Narbonne Ave., Lomita (310) 539-4515
Rowland Heights Library, 1850 Nogales St., Rowland Heights
(626) 912-5348
South Whittier Library, 14433 Leffingwell Rd., Whittier
(562) 946-4415

5th District
Altadena Library, 600 E. Mariposa St., Altadena (626) 798-0833
Castaic Library, 27971 Sloan Canyon Road, Castaic
(661) 257-7410
Duarte Library, 1301 Buena Vista St., Duarte
(626) 358-1865
La Verne Library, 3640 D St., La Verne
(909) 596-1934
Lake Los Angeles Library, 16921 E. Ave. O, Suite A, Palmdale
(661) 264-0593
Littlerock Library, 35119 80th St. East, Littlerock
(661) 944-4138
Quartz Hill Library, 42018 N. 50th St. West, Quartz Hill
(661) 943-2454

Assisted listening devices, agenda in Braille, and/or alternate formats are available upon request. American Sign Language (ASL) interpreters, other auxiliary aids and services, or reasonable modifications to Board meeting policies and/or procedures, such as to assist members of the disabled community who would like to request a disability-related accommodation in addressing the Board, are available if requested at least three (3) business days prior to the Board meeting. Later requests will be accommodated to the extent feasible. Please telephone the Executive Office of the Board at (213) 974-1431 (voice) or (213) 974-1707 (TTY), from 8:00 a.m. to 5:00 p.m., Monday through Friday. Copies of the proposed document are also available for review at the Community Development Commission (CDC), 700 W. Main Street, Alhambra, CA 91801. Citizens wishing to submit written comments during the public review and comment period may mail them, postmarked no later than May 28, 2013, to the CDC, to the attention of Raymond Webster, Development Specialist, CDBG Division, who can be reached at (626) 586-1755 if there are any questions.
4/25/13
CNS-2474571#

Department of Alcoholic Beverage Control
6150 Van Nuys Blvd., Room 220
Van Nuys, CA 91401
(818) 901-5017
NOTICE OF APPLICATION TO SELL ALCOHOLIC BEVERAGES
Date of Filing Application:
April 12, 2013
To Whom It May Concern:
The Name(s) of the Applicant(s) is/are:
RAZOR EDGE BARBERSHOP LLC
The applicants listed above are applying to the Department of Alcoholic Beverage Control to sell alcoholic beverages at:
2015 E PALMDALE BLVD
PALMDALE, CA 93550
Type of license(s) applied for:
40 - ON-SALE BEER
Publish: 4/25/13

COUNTY OF LOS ANGELES
NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

COUNTY OF LOS ANGELES ANIMAL CARE CENTER PROJECT, PALMDALE, CALIFORNIA

Pursuant to the State of California Public Resources Code Article 7 of the California Environmental Quality Act (CEQA), as amended, the County of Los Angeles Department of Public Works has prepared an Initial Study for the project described below. Under CEQA, the County identified no significant impacts and proposes to adopt a Mitigated Negative Declaration

The County of Los Angeles proposes a new County of Los Angeles animal care facility (the County of Los Angeles Animal Care Center Project, Palmdale, CA, or "proposed project") that will alleviate the high volume of animal control services at the existing Lancaster Animal Care Center and further serve the needs of communities in the eastern portion of Antelope Valley, in northern Los Angeles County. The proposed facility will be on a 5.8-acre site to be acquired from the City of Palmdale by Los Angeles County for the construction and operation of a one-story approximately 25,500 square foot indoor animal care center, as well as maintaining a portion of the site to remain fenced, vacant, and for possible future animal care center expansion. The proposed facility will have an average peak day capacity of approximately 361 animals of which approximately 35 percent (approximately 128) are anticipated to be dogs, 64 percent (approximately 229) are cats, and one percent (approximately four) are wildlife (non-domesticated animals). No livestock will be housed at the proposed facility and no animals will be housed outdoors.

An Initial Study and Mitigated Negative Declaration have been prepared pursuant to the requirements of the CEQA to assess the proposed project's potential impacts on the environment. Appropriate mitigation measures have been included in the proposed project in order to minimize any potential environmental impacts.

Copies of the Initial Study and Mitigated Negative Declaration are available for public review at the following locations:

County of Los Angeles
Lake Los Angeles Library
16921 E. Avenue O, #A
Palmdale, CA 93591
M-T, 11:00 am to 7:00 pm
W-Th-F, 10:00 am to 6:00 pm
Sat, 10:00 am to 5:00 pm

County of Los Angeles
Department of Public Works
Project Management Division I
900 South Fremont Avenue
Alhambra, CA 91803
M-Th, 6:45 am to 5:30 pm

Palmdale City Hall
38300 N. Sierra Highway
Palmdale, CA 93550
M-Th, 7:30 am to 6:00 pm

Palmdale City Library
700 E. Palmdale Boulevard
Palmdale, CA 93550
M-Th, 10:00 am to 8:00 pm
F-Sat, 10:00 am to 5:00 pm
Sun, 1:00 pm to 5:00 pm

Palmdale Planning Counter
38250 N. Sierra Highway
Palmdale, CA 93550
M-Th, 7:30 am to 6:00 pm

The 30-day review period will begin on April 25, 2013, and will end on May 24, 2013. Comments on the Initial Study and Mitigated Negative Declaration must be submitted in writing no later than May 24, 2013 at 5:30 pm. Please address all written comments to:

Mr. Jason Kim, Capital Projects Manager
County of Los Angeles
Department of Public Works
Project Management Division I
900 South Fremont Avenue
Alhambra, CA 91803-1331
Fax: (626) 979-5321
Email: jikim@dpw.lacounty.gov

The Final Mitigated Negative Declaration will incorporate responses to written comments received during the public review period and will be considered by the Board of Supervisors for approval of the project.
Publish: 4/25/13

Print Form

Appendix C

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #

Project Title: County of Los Angeles Animal Care Center, Palmdale, CA

Lead Agency: County of Los Angeles — Contact Person: Jason Kim
Mailing Address: 900 South Fremont Avenue — Phone: (626) 300-2326
City: Alhambra — Zip: 91803-1331 — County: Los Angeles

Project Location: County: Los Angeles — City/Nearest Community: Palmdale
Cross Streets: Sierra Highway and Avenue Q-6 East — Zip Code: 93550
Longitude/Latitude (degrees, minutes and seconds): 34 ° 35 ′ 1.7 ″ N / 118 ° 6 ′ 58.7 ″ W — Total Acres: 5.8
Assessor's Parcel No.: 3008-030-900 to -904 & part of -905 — Section: ___ Twp.: ___ Range: ___ Base: ___
Within 2 Miles: State Hwy #: 14 — Waterways: N/A — Airports: Palmdale Regional Airport — Railways: UP/Metrolink — Schools: Yucca ES, Guidance Charter School & R. Rex Parris HS

Document Type:

CEQA: ☐ NOP ☐ Early Cons ☐ Neg Dec ☒ Mit Neg Dec ☐ Draft EIR ☐ Supplement/Subsequent EIR (Prior SCH No.) ___ Other: ___

NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI

Other: ☐ Joint Document ☐ Final Document ☐ Other: ___

Local Action Type:

☐ General Plan Update ☐ General Plan Amendment ☐ General Plan Element ☐ Community Plan
☐ Specific Plan ☐ Master Plan ☐ Planned Unit Development ☐ Site Plan
☐ Rezone ☐ Prezone ☐ Use Permit ☐ Land Division (Subdivision, etc.)
☐ Annexation ☐ Redevelopment ☐ Coastal Permit ☒ Other: Sale of site/Fees

Development Type:

☐ Residential: Units ___ Acres ___
☐ Office: Sq.ft. ___ Acres ___ Employees ___
☐ Commercial: Sq.ft. ___ Acres ___ Employees ___
☐ Industrial: Sq.ft. ___ Acres ___ Employees ___
☐ Educational: ___
☐ Recreational: ___
☐ Water Facilities: Type ___ MGD ___
☐ Transportation: Type ___
☐ Mining: Mineral ___
☐ Power: Type ___ MW ___
☐ Waste Treatment: Type ___ MGD ___
☐ Hazardous Waste: Type ___
☒ Other: ~25,500 sq ft new Animal Care Center

Project Issues Discussed in Document:

☒ Aesthetic/Visual ☒ Agricultural Land ☒ Air Quality ☒ Archeological/Historical ☒ Biological Resources ☐ Coastal Zone ☒ Drainage/Absorption ☐ Economic/Jobs
☐ Fiscal ☒ Flood Plain/Flooding ☒ Forest Land/Fire Hazard ☒ Geologic/Seismic ☒ Minerals ☒ Noise ☒ Population/Housing Balance ☒ Public Services/Facilities
☒ Recreation/Parks ☒ Schools/Universities ☒ Septic Systems ☒ Sewer Capacity ☒ Soil Erosion/Compaction/Grading ☒ Solid Waste ☒ Toxic/Hazardous ☒ Traffic/Circulation
☒ Vegetation ☒ Water Quality ☒ Water Supply/Groundwater ☒ Wetland/Riparian ☐ Growth Inducement ☒ Land Use ☒ Cumulative Effects ☒ Other: Greenhouse Gases

Present Land Use/Zoning/General Plan Designation:
Public Facilities (PF)

Project Description: *(please use a separate page if necessary)*
The proposed project is a new approximately 25,500 square foot indoor County of Los Angeles animal care facility that will alleviate the high volume of animal control services at the existing Lancaster Animal Care Center and further serve the needs of communities in the eastern portion of Antelope Valley, in northern Los Angeles County. The facility is proposed on a 5.8-acre site to be acquired from the City of Palmdale by Los Angeles County for the construction/operation of the one-story facility, which includes visitor and employee parking. No livestock will be housed at the facility and no animals will be housed outdoors

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "**X**".
If you have already sent your document to the agency please denote that with an "**S**".

X Air Resources Board	X Office of Historic Preservation
___ Boating & Waterways, Department of	___ Office of Public School Construction
___ California Emergency Management Agency	___ Parks & Recreation, Department of
___ California Highway Patrol	___ Pesticide Regulation, Department of
X Caltrans District # 5	___ Public Utilities Commission
___ Caltrans Division of Aeronautics	X Regional WQCB # 6
___ Caltrans Planning	X Resources Agency
___ Central Valley Flood Protection Board	___ Resources Recycling and Recovery, Department of
___ Coachella Valley Mtns. Conservancy	___ S.F. Bay Conservation & Development Comm.
___ Coastal Commission	___ San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
___ Colorado River Board	___ San Joaquin River Conservancy
___ Conservation, Department of	___ Santa Monica Mtns. Conservancy
___ Corrections, Department of	___ State Lands Commission
___ Delta Protection Commission	___ SWRCB: Clean Water Grants
___ Education, Department of	___ SWRCB: Water Quality
___ Energy Commission	___ SWRCB: Water Rights
X Fish & Game Region # 5	___ Tahoe Regional Planning Agency
___ Food & Agriculture, Department of	X Toxic Substances Control, Department of
___ Forestry and Fire Protection, Department of	X Water Resources, Department of
___ General Services, Department of	
___ Health Services, Department of	___ Other: ___
___ Housing & Community Development	___ Other: ___
X Native American Heritage Commission	

Local Public Review Period (to be filled in by lead agency)

Starting Date April 25, 2013 Ending Date May 24, 2013

Lead Agency (Complete if applicable):

Consulting Firm: CDM Smith
Address: 111 Academy, Suite 150
City/State/Zip: Irvine, CA 92617
Contact: Dorothy Meyer
Phone: (949) 752-5452

Applicant: County of Los Angeles Dept. of Public Works
Address: 900 South Fremont Avenue
City/State/Zip: Alhambra, CA 91803-1331
Phone: (626) 300-2326

Signature of Lead Agency Representative: [signature] **Date:** 04/18/13

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

Appendix A
CalEEMod Emissions Output

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County of Los Angeles Animal Care Center, Palmdale, CA

Antelope Valley APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Medical Office Building	25.5	1000sqft
Parking Lot	60	1000sqft

1.2 Other Project Characteristics

Urbanization Urban

Wind Speed (m/s) 2.2

Utility Company Southern California Edison

Climate Zone 9

Precipitation Freq (Days) 33

1.3 User Entered Comments

Project Characteristics -

Land Use - Site acreage is 6.02 acres per project description (includes main building, parking lots, outdoor lot areas, courtyard, loading zone, etc)

Construction Phase - Architectural coating: assumes 15 days (default is 10 days).

Trips and VMT - Demolition hauling trips assume 20 tons of material per load, 5 mile trip length to landfill (model default is 20 miles)

Demolition - ~3,500 tons of debris estimated for removal of ~2 acres of existing pavement and miscellaneous debris.

Architectural Coating - Assume average interior/exterior VOC content is 125 g/L, which is 50% of default value (default = 250 g/L).

Vehicle Trips - Trip rate = 134 trips/day, 7 days/week (30 workers, 20 volunteers, 70 visitors, 14 deliveries). This trip rate is higher than model default trip rates for weekdays, Saturdays, and Sundays.

Area Coating -

Landscape Equipment -

Construction Off-road Equipment Mitigation - Fugitive dust mitigation assumes watering exposed areas 2 times per day, with 55% PM10 reduction and 55% PM2.5 reduction (defaults).

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	0.47	2.67	2.00	0.00	0.17	0.16	0.34	0.01	0.16	0.18	0.00	320.45	320.45	0.04	0.00	321.23
2015	0.56	0.33	0.27	0.00	0.01	0.02	0.03	0.00	0.02	0.02	0.00	41.36	41.36	0.00	0.00	41.46
Total	**1.03**	**3.00**	**2.27**	**0.00**	**0.18**	**0.18**	**0.37**	**0.01**	**0.18**	**0.20**	**0.00**	**361.81**	**361.81**	**0.04**	**0.00**	**362.69**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	0.47	2.67	2.00	0.00	0.14	0.16	0.31	0.01	0.16	0.17	0.00	320.45	320.45	0.04	0.00	321.23
2015	0.56	0.33	0.27	0.00	0.01	0.02	0.03	0.00	0.02	0.02	0.00	41.36	41.36	0.00	0.00	41.46
Total	**1.03**	**3.00**	**2.27**	**0.00**	**0.15**	**0.18**	**0.34**	**0.01**	**0.18**	**0.19**	**0.00**	**361.81**	**361.81**	**0.04**	**0.00**	**362.69**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.43	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	122.65	122.65	0.01	0.00	123.41
Mobile	2.79	6.51	24.26	0.03	3.61	0.22	3.83	0.06	0.21	0.27	0.00	3,137.39	3,137.39	0.15	0.00	3,140.60
Waste						0.00	0.00		0.00	0.00	55.90	0.00	55.90	3.30	0.00	125.28
Water						0.00	0.00		0.00	0.00	0.00	14.12	14.12	0.10	0.00	17.01
Total	**3.22**	**6.52**	**24.27**	**0.03**	**3.61**	**0.22**	**3.83**	**0.06**	**0.21**	**0.27**	**55.90**	**3,274.16**	**3,330.06**	**3.56**	**0.00**	**3,406.30**

2.2 Overall Operational

<u>Mitigated Operational</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.43	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	122.65	122.65	0.01	0.00	123.41
Mobile	2.79	6.51	24.26	0.03	3.61	0.22	3.83	0.06	0.21	0.27	0.00	3,137.39	3,137.39	0.15	0.00	3,140.60
Waste						0.00	0.00		0.00	0.00	55.90	0.00	55.90	3.30	0.00	125.28
Water						0.00	0.00		0.00	0.00	0.00	14.12	14.12	0.10	0.00	17.01
Total	**3.22**	**6.52**	**24.27**	**0.03**	**3.61**	**0.22**	**3.83**	**0.06**	**0.21**	**0.27**	**55.90**	**3,274.16**	**3,330.06**	**3.56**	**0.00**	**3,406.30**

3.0 Construction Detail

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.04	0.00	0.04	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.05	0.36	0.23	0.00		0.02	0.02		0.02	0.02	0.00	35.79	35.79	0.00	0.00	35.87
Total	**0.05**	**0.36**	**0.23**	**0.00**	**0.04**	**0.02**	**0.06**	**0.01**	**0.02**	**0.03**	**0.00**	**35.79**	**35.79**	**0.00**	**0.00**	**35.87**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.01	0.08	0.03	0.00	0.07	0.00	0.08	0.00	0.00	0.00	0.00	12.89	12.89	0.00	0.00	12.89
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.05	1.05	0.00	0.00	1.06
Total	**0.01**	**0.08**	**0.04**	**0.00**	**0.07**	**0.00**	**0.08**	**0.00**	**0.00**	**0.00**	**0.00**	**13.94**	**13.94**	**0.00**	**0.00**	**13.95**

3.2 Demolition - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.05	0.36	0.23	0.00		0.02	0.02		0.02	0.02	0.00	35.79	35.79	0.00	0.00	35.87
Total	**0.05**	**0.36**	**0.23**	**0.00**	**0.02**	**0.02**	**0.04**	**0.00**	**0.02**	**0.02**	**0.00**	**35.79**	**35.79**	**0.00**	**0.00**	**35.87**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.01	0.08	0.03	0.00	0.07	0.00	0.08	0.00	0.00	0.00	0.00	12.89	12.89	0.00	0.00	12.89
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.05	1.05	0.00	0.00	1.06
Total	**0.01**	**0.08**	**0.04**	**0.00**	**0.07**	**0.00**	**0.08**	**0.00**	**0.00**	**0.00**	**0.00**	**13.94**	**13.94**	**0.00**	**0.00**	**13.95**

3.3 Site Preparation - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.03	0.02	0.00		0.00	0.00		0.00	0.00	0.00	2.95	2.95	0.00	0.00	2.96
Total	**0.00**	**0.03**	**0.02**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**2.95**	**2.95**	**0.00**	**0.00**	**2.96**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.06	0.00	0.00	0.06
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.06**	**0.06**	**0.00**	**0.00**	**0.06**

3.3 Site Preparation - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.03	0.02	0.00		0.00	0.00		0.00	0.00	0.00	2.95	2.95	0.00	0.00	2.96
Total	**0.00**	**0.03**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.95**	**2.95**	**0.00**	**0.00**	**2.96**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.06	0.00	0.00	0.06
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.06**	**0.06**	**0.00**	**0.00**	**0.06**

3.4 Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.01	0.00	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.05	0.03	0.00		0.00	0.00		0.00	0.00	0.00	4.88	4.88	0.00	0.00	4.89
Total	**0.01**	**0.05**	**0.03**	**0.00**	**0.01**	**0.00**	**0.01**	**0.01**	**0.00**	**0.01**	**0.00**	**4.88**	**4.88**	**0.00**	**0.00**	**4.89**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.13	0.00	0.00	0.13
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.13**	**0.13**	**0.00**	**0.00**	**0.13**

3.4 Grading - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.05	0.03	0.00		0.00	0.00		0.00	0.00	0.00	4.88	4.88	0.00	0.00	4.89
Total	**0.01**	**0.05**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**4.88**	**4.88**	**0.00**	**0.00**	**4.89**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.13	0.00	0.00	0.13
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.13**	**0.13**	**0.00**	**0.00**	**0.13**

3.5 Building Construction - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.37	1.95	1.42	0.00		0.13	0.13		0.13	0.13	0.00	207.93	207.93	0.03	0.00	208.56
Total	**0.37**	**1.95**	**1.42**	**0.00**		**0.13**	**0.13**		**0.13**	**0.13**	**0.00**	**207.93**	**207.93**	**0.03**	**0.00**	**208.56**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.02	0.19	0.10	0.00	0.01	0.01	0.02	0.00	0.01	0.01	0.00	30.82	30.82	0.00	0.00	30.83
Worker	0.02	0.02	0.16	0.00	0.03	0.00	0.04	0.00	0.00	0.00	0.00	23.94	23.94	0.00	0.00	23.97
Total	**0.04**	**0.21**	**0.26**	**0.00**	**0.04**	**0.01**	**0.06**	**0.00**	**0.01**	**0.01**	**0.00**	**54.76**	**54.76**	**0.00**	**0.00**	**54.80**

3.5 Building Construction - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.37	1.95	1.42	0.00		0.13	0.13		0.13	0.13	0.00	207.93	207.93	0.03	0.00	208.56
Total	**0.37**	**1.95**	**1.42**	**0.00**		**0.13**	**0.13**		**0.13**	**0.13**	**0.00**	**207.93**	**207.93**	**0.03**	**0.00**	**208.56**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.02	0.19	0.10	0.00	0.01	0.01	0.02	0.00	0.01	0.01	0.00	30.82	30.82	0.00	0.00	30.83
Worker	0.02	0.02	0.16	0.00	0.03	0.00	0.04	0.00	0.00	0.00	0.00	23.94	23.94	0.00	0.00	23.97
Total	**0.04**	**0.21**	**0.26**	**0.00**	**0.04**	**0.01**	**0.06**	**0.00**	**0.01**	**0.01**	**0.00**	**54.76**	**54.76**	**0.00**	**0.00**	**54.80**

3.5 Building Construction - 2015

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Off-Road	0.04	0.21	0.16	0.00		0.01	0.01		0.01	0.01	0.00	24.39	24.39	0.00	0.00	24.46
Total	**0.04**	**0.21**	**0.16**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**24.39**	**24.39**	**0.00**	**0.00**	**24.46**

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.62	3.62	0.00	0.00	3.62
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.74	2.74	0.00	0.00	2.74
Total	**0.00**	**0.02**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**6.36**	**6.36**	**0.00**	**0.00**	**6.36**

3.5 Building Construction - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.04	0.21	0.16	0.00		0.01	0.01		0.01	0.01	0.00	24.39	24.39	0.00	0.00	24.46
Total	**0.04**	**0.21**	**0.16**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**24.39**	**24.39**	**0.00**	**0.00**	**24.46**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.62	3.62	0.00	0.00	3.62
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.74	2.74	0.00	0.00	2.74
Total	**0.00**	**0.02**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**6.36**	**6.36**	**0.00**	**0.00**	**6.36**

3.6 Paving - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.01	0.08	0.06	0.00		0.01	0.01		0.01	0.01	0.00	7.77	7.77	0.00	0.00	7.79
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.01**	**0.08**	**0.06**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**7.77**	**7.77**	**0.00**	**0.00**	**7.79**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.51	0.51	0.00	0.00	0.51
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.51**	**0.51**	**0.00**	**0.00**	**0.51**

3.6 Paving - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.01	0.08	0.06	0.00		0.01	0.01		0.01	0.01	0.00	7.77	7.77	0.00	0.00	7.79
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.01**	**0.08**	**0.06**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**7.77**	**7.77**	**0.00**	**0.00**	**7.79**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.51	0.51	0.00	0.00	0.51
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.51**	**0.51**	**0.00**	**0.00**	**0.51**

3.7 Architectural Coating - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.49					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.02	0.01	0.00		0.00	0.00		0.00	0.00	0.00	1.91	1.91	0.00	0.00	1.92
Total	**0.49**	**0.02**	**0.01**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**1.91**	**1.91**	**0.00**	**0.00**	**1.92**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.41	0.00	0.00	0.42
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.41**	**0.41**	**0.00**	**0.00**	**0.42**

3.7 Architectural Coating - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.49					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.02	0.01	0.00		0.00	0.00		0.00	0.00	0.00	1.91	1.91	0.00	0.00	1.92
Total	**0.49**	**0.02**	**0.01**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**1.91**	**1.91**	**0.00**	**0.00**	**1.92**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.41	0.00	0.00	0.42
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.41**	**0.41**	**0.00**	**0.00**	**0.42**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.79	6.51	24.26	0.03	3.61	0.22	3.83	0.06	0.21	0.27	0.00	3,137.39	3,137.39	0.15	0.00	3,140.60
Unmitigated	2.79	6.51	24.26	0.03	3.61	0.22	3.83	0.06	0.21	0.27	0.00	3,137.39	3,137.39	0.15	0.00	3,140.60
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Medical Office Building	3,417.00	3,417.00	3417.00	6,687,923	6,687,923
Parking Lot	0.00	0.00	0.00		
Total	3,417.00	3,417.00	3,417.00	6,687,923	6,687,923

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Medical Office Building	9.50	7.30	7.30	29.60	51.40	19.00
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	107.77	107.77	0.00	0.00	108.45
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	107.77	107.77	0.00	0.00	108.45
NaturalGas Mitigated	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	14.87	14.87	0.00	0.00	14.96
NaturalGas Unmitigated	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	14.87	14.87	0.00	0.00	14.96
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Medical Office Building	278715	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	14.87	14.87	0.00	0.00	14.96
Parking Lot	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		**0.00**	**0.01**	**0.01**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**14.87**	**14.87**	**0.00**	**0.00**	**14.96**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Medical Office Building	278715	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	14.87	14.87	0.00	0.00	14.96
Parking Lot	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		**0.00**	**0.01**	**0.01**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**14.87**	**14.87**	**0.00**	**0.00**	**14.96**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Medical Office Building	370515					107.77	0.00	0.00	108.45
Parking Lot	0					0.00	0.00	0.00	0.00
Total						**107.77**	**0.00**	**0.00**	**108.45**

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Medical Office Building	370515					107.77	0.00	0.00	108.45
Parking Lot	0					0.00	0.00	0.00	0.00
Total						**107.77**	**0.00**	**0.00**	**108.45**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.43	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unmitigated	0.43	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.10					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.33					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.43**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.10					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.33					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.43**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					14.12	0.10	0.00	17.01
Unmitigated					14.12	0.10	0.00	17.01
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Medical Office Building	3.19975 / 0.609477					14.12	0.10	0.00	17.01
Parking Lot	0 / 0					0.00	0.00	0.00	0.00
Total						**14.12**	**0.10**	**0.00**	**17.01**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Medical Office Building	3.19975 / 0.609477					14.12	0.10	0.00	17.01
Parking Lot	0 / 0					0.00	0.00	0.00	0.00
Total						**14.12**	**0.10**	**0.00**	**17.01**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					55.90	3.30	0.00	125.28
Unmitigated					55.90	3.30	0.00	125.28
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Medical Office Building	275.4					55.90	3.30	0.00	125.28
Parking Lot	0					0.00	0.00	0.00	0.00
Total						**55.90**	**3.30**	**0.00**	**125.28**

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Medical Office Building	275.4					55.90	3.30	0.00	125.28
Parking Lot	0					0.00	0.00	0.00	0.00
Total						**55.90**	**3.30**	**0.00**	**125.28**

9.0 Vegetation

County of Los Angeles Animal Care Center, Palmdale, CA

Antelope Valley APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Medical Office Building	25.5	1000sqft
Parking Lot	60	1000sqft

1.2 Other Project Characteristics

Urbanization Urban

Wind Speed (m/s) 2.2

Utility Company Southern California Edison

Climate Zone 9

Precipitation Freq (Days) 33

1.3 User Entered Comments

Project Characteristics -

Land Use - Site acreage is 6.02 acres per project description (includes main building, parking lots, outdoor lot areas, courtyard, loading zone, etc)

Construction Phase - Architectural coating: assumes 15 days (default is 10 days).

Trips and VMT - Demolition hauling trips assume 20 tons of material per load, 5 mile trip length to landfill (model default is 20 miles)

Demolition - ~3,500 tons of debris estimated for removal of ~2 acres of existing pavement and miscellaneous debris.

Architectural Coating - Assume average interior/exterior VOC content is 125 g/L, which is 50% of default value (default = 250 g/L).

Vehicle Trips - Trip rate = 134 trips/day, 7 days/week (30 workers, 20 volunteers, 70 visitors, 14 deliveries). This trip rate is higher than model default trip rates for weekdays, Saturdays, and Sundays.

Area Coating -

Landscape Equipment -

Construction Off-road Equipment Mitigation - Fugitive dust mitigation assumes watering exposed areas 2 times per day, with 55% PM10 reduction and 55% PM2.5 reduction (defaults).

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	5.48	44.29	26.98	0.05	12.01	2.39	14.40	2.90	2.36	4.37	0.00	5,504.94	0.00	0.46	0.00	5,514.66
2015	66.44	22.23	18.45	0.04	0.56	1.38	1.94	0.01	1.37	1.38	0.00	3,274.43	0.00	0.36	0.00	3,282.04
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	5.48	44.29	26.98	0.05	9.95	2.39	12.34	1.30	2.36	2.77	0.00	5,504.94	0.00	0.46	0.00	5,514.66
2015	66.44	22.23	18.45	0.04	0.56	1.38	1.94	0.01	1.37	1.38	0.00	3,274.43	0.00	0.36	0.00	3,282.04
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.37	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.01	0.07	0.06	0.00		0.00	0.01		0.00	0.01		89.84		0.00	0.00	90.38
Mobile	18.77	36.53	146.43	0.21	22.15	1.23	23.37	0.31	1.16	1.47		21,233.92		0.90		21,252.76
Total	**21.15**	**36.60**	**146.49**	**0.21**	**22.15**	**1.23**	**23.38**	**0.31**	**1.16**	**1.48**		**21,323.76**		**0.90**	**0.00**	**21,343.14**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.37	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.01	0.07	0.06	0.00		0.00	0.01		0.00	0.01		89.84		0.00	0.00	90.38
Mobile	18.77	36.53	146.43	0.21	22.15	1.23	23.37	0.31	1.16	1.47		21,233.92		0.90		21,252.76
Total	**21.15**	**36.60**	**146.49**	**0.21**	**22.15**	**1.23**	**23.38**	**0.31**	**1.16**	**1.48**		**21,323.76**		**0.90**	**0.00**	**21,343.14**

3.0 Construction Detail

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.74	0.00	3.74	0.00	0.00	0.00						0.00
Off-Road	4.75	35.99	22.84	0.04		2.08	2.08		2.08	2.08		3,946.47		0.42		3,955.39
Total	**4.75**	**35.99**	**22.84**	**0.04**	**3.74**	**2.08**	**5.82**	**0.00**	**2.08**	**2.08**		**3,946.47**		**0.42**		**3,955.39**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.64	8.22	3.29	0.01	8.10	0.30	8.40	0.02	0.28	0.30		1,424.55		0.03		1,425.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.09	0.07	0.85	0.00	0.17	0.00	0.17	0.00	0.00	0.01		133.92		0.01		134.07
Total	**0.73**	**8.29**	**4.14**	**0.01**	**8.27**	**0.30**	**8.57**	**0.02**	**0.28**	**0.31**		**1,558.47**		**0.04**		**1,559.27**

3.2 Demolition - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.69	0.00	1.69	0.00	0.00	0.00						0.00
Off-Road	4.75	35.99	22.84	0.04		2.08	2.08		2.08	2.08	0.00	3,946.47		0.42		3,955.39
Total	**4.75**	**35.99**	**22.84**	**0.04**	**1.69**	**2.08**	**3.77**	**0.00**	**2.08**	**2.08**	**0.00**	**3,946.47**		**0.42**		**3,955.39**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.64	8.22	3.29	0.01	8.10	0.30	8.40	0.02	0.28	0.30		1,424.55		0.03		1,425.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.09	0.07	0.85	0.00	0.17	0.00	0.17	0.00	0.00	0.01		133.92		0.01		134.07
Total	**0.73**	**8.29**	**4.14**	**0.01**	**8.27**	**0.30**	**8.57**	**0.02**	**0.28**	**0.31**		**1,558.47**		**0.04**		**1,559.27**

3.3 Site Preparation - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.80	0.00	5.80	2.90	0.00	2.90						0.00
Off-Road	3.75	29.67	17.95	0.03		1.47	1.47		1.47	1.47		3,253.39		0.34		3,260.45
Total	**3.75**	**29.67**	**17.95**	**0.03**	**5.80**	**1.47**	**7.27**	**2.90**	**1.47**	**4.37**		**3,253.39**		**0.34**		**3,260.45**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.05	0.04	0.52	0.00	0.10	0.00	0.11	0.00	0.00	0.00		82.41		0.00		82.51
Total	**0.05**	**0.04**	**0.52**	**0.00**	**0.10**	**0.00**	**0.11**	**0.00**	**0.00**	**0.00**		**82.41**		**0.00**		**82.51**

3.3 Site Preparation - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.61	0.00	2.61	1.30	0.00	1.30						0.00
Off-Road	3.75	29.67	17.95	0.03		1.47	1.47		1.47	1.47	0.00	3,253.39		0.34		3,260.45
Total	**3.75**	**29.67**	**17.95**	**0.03**	**2.61**	**1.47**	**4.08**	**1.30**	**1.47**	**2.77**	**0.00**	**3,253.39**		**0.34**		**3,260.45**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.05	0.04	0.52	0.00	0.10	0.00	0.11	0.00	0.00	0.00		82.41		0.00		82.51
Total	**0.05**	**0.04**	**0.52**	**0.00**	**0.10**	**0.00**	**0.11**	**0.00**	**0.00**	**0.00**		**82.41**		**0.00**		**82.51**

3.4 Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.91	0.00	4.91	2.48	0.00	2.48						0.00
Off-Road	3.11	24.59	14.80	0.03		1.21	1.21		1.21	1.21		2,689.97		0.28		2,695.82
Total	**3.11**	**24.59**	**14.80**	**0.03**	**4.91**	**1.21**	**6.12**	**2.48**	**1.21**	**3.69**		**2,689.97**		**0.28**		**2,695.82**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.05	0.04	0.52	0.00	0.10	0.00	0.11	0.00	0.00	0.00		82.41		0.00		82.51
Total	**0.05**	**0.04**	**0.52**	**0.00**	**0.10**	**0.00**	**0.11**	**0.00**	**0.00**	**0.00**		**82.41**		**0.00**		**82.51**

3.4 Grading - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.21	0.00	2.21	1.12	0.00	1.12						0.00
Off-Road	3.11	24.59	14.80	0.03		1.21	1.21		1.21	1.21	0.00	2,689.97		0.28		2,695.82
Total	**3.11**	**24.59**	**14.80**	**0.03**	**2.21**	**1.21**	**3.42**	**1.12**	**1.21**	**2.33**	**0.00**	**2,689.97**		**0.28**		**2,695.82**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.05	0.04	0.52	0.00	0.10	0.00	0.11	0.00	0.00	0.00		82.41		0.00		82.51
Total	**0.05**	**0.04**	**0.52**	**0.00**	**0.10**	**0.00**	**0.11**	**0.00**	**0.00**	**0.00**		**82.41**		**0.00**		**82.51**

3.5 Building Construction - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.15	21.74	15.92	0.03		1.46	1.46		1.46	1.46		2,561.58		0.37		2,569.39
Total	**4.15**	**21.74**	**15.92**	**0.03**		**1.46**	**1.46**		**1.46**	**1.46**		**2,561.58**		**0.37**		**2,569.39**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.16	2.10	0.98	0.00	0.13	0.06	0.19	0.00	0.06	0.06		381.14		0.01		381.31
Worker	0.22	0.19	2.17	0.00	0.43	0.01	0.44	0.01	0.01	0.02		339.96		0.02		340.34
Total	**0.38**	**2.29**	**3.15**	**0.00**	**0.56**	**0.07**	**0.63**	**0.01**	**0.07**	**0.08**		**721.10**		**0.03**		**721.65**

3.5 Building Construction - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.15	21.74	15.92	0.03		1.46	1.46		1.46	1.46	0.00	2,561.58		0.37		2,569.39
Total	**4.15**	**21.74**	**15.92**	**0.03**		**1.46**	**1.46**		**1.46**	**1.46**	**0.00**	**2,561.58**		**0.37**		**2,569.39**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.16	2.10	0.98	0.00	0.13	0.06	0.19	0.00	0.06	0.06		381.14		0.01		381.31
Worker	0.22	0.19	2.17	0.00	0.43	0.01	0.44	0.01	0.01	0.02		339.96		0.02		340.34
Total	**0.38**	**2.29**	**3.15**	**0.00**	**0.56**	**0.07**	**0.63**	**0.01**	**0.07**	**0.08**		**721.10**		**0.03**		**721.65**

3.5 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.78	20.14	15.61	0.03		1.31	1.31		1.31	1.31		2,561.58		0.34		2,568.69
Total	**3.78**	**20.14**	**15.61**	**0.03**		**1.31**	**1.31**		**1.31**	**1.31**		**2,561.58**		**0.34**		**2,568.69**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.15	1.93	0.91	0.00	0.13	0.06	0.19	0.00	0.05	0.06		381.30		0.01		381.45
Worker	0.20	0.16	1.93	0.00	0.43	0.01	0.44	0.01	0.01	0.02		331.55		0.02		331.90
Total	**0.35**	**2.09**	**2.84**	**0.00**	**0.56**	**0.07**	**0.63**	**0.01**	**0.06**	**0.08**		**712.85**		**0.03**		**713.35**

3.5 Building Construction - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.78	20.14	15.61	0.03		1.31	1.31		1.31	1.31	0.00	2,561.58		0.34		2,568.69
Total	**3.78**	**20.14**	**15.61**	**0.03**		**1.31**	**1.31**		**1.31**	**1.31**	**0.00**	**2,561.58**		**0.34**		**2,568.69**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.15	1.93	0.91	0.00	0.13	0.06	0.19	0.00	0.05	0.06		381.30		0.01		381.45
Worker	0.20	0.16	1.93	0.00	0.43	0.01	0.44	0.01	0.01	0.02		331.55		0.02		331.90
Total	**0.35**	**2.09**	**2.84**	**0.00**	**0.56**	**0.07**	**0.63**	**0.01**	**0.06**	**0.08**		**712.85**		**0.03**		**713.35**

3.6 Paving - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.62	16.38	11.89	0.02		1.34	1.34		1.34	1.34		1,712.73		0.24		1,717.66
Paving	0.36					0.00	0.00		0.00	0.00						0.00
Total	**2.98**	**16.38**	**11.89**	**0.02**		**1.34**	**1.34**		**1.34**	**1.34**		**1,712.73**		**0.24**		**1,717.66**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.08	0.06	0.76	0.00	0.17	0.00	0.17	0.00	0.00	0.01		130.61		0.01		130.75
Total	**0.08**	**0.06**	**0.76**	**0.00**	**0.17**	**0.00**	**0.17**	**0.00**	**0.00**	**0.01**		**130.61**		**0.01**		**130.75**

3.6 Paving - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.62	16.38	11.89	0.02		1.34	1.34		1.34	1.34	0.00	1,712.73		0.24		1,717.66
Paving	0.36					0.00	0.00		0.00	0.00						0.00
Total	**2.98**	**16.38**	**11.89**	**0.02**		**1.34**	**1.34**		**1.34**	**1.34**	**0.00**	**1,712.73**		**0.24**		**1,717.66**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.08	0.06	0.76	0.00	0.17	0.00	0.17	0.00	0.00	0.01		130.61		0.01		130.75
Total	**0.08**	**0.06**	**0.76**	**0.00**	**0.17**	**0.00**	**0.17**	**0.00**	**0.00**	**0.01**		**130.61**		**0.01**		**130.75**

3.7 Architectural Coating - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	65.99					0.00	0.00		0.00	0.00						0.00
Off-Road	0.41	2.57	1.90	0.00		0.22	0.22		0.22	0.22		281.19		0.04		281.96
Total	**66.40**	**2.57**	**1.90**	**0.00**		**0.22**	**0.22**		**0.22**	**0.22**		**281.19**		**0.04**		**281.96**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.04	0.03	0.41	0.00	0.09	0.00	0.09	0.00	0.00	0.00		70.33		0.00		70.40
Total	**0.04**	**0.03**	**0.41**	**0.00**	**0.09**	**0.00**	**0.09**	**0.00**	**0.00**	**0.00**		**70.33**		**0.00**		**70.40**

3.7 Architectural Coating - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	65.99					0.00	0.00		0.00	0.00						0.00
Off-Road	0.41	2.57	1.90	0.00		0.22	0.22		0.22	0.22	0.00	281.19		0.04		281.96
Total	**66.40**	**2.57**	**1.90**	**0.00**		**0.22**	**0.22**		**0.22**	**0.22**	**0.00**	**281.19**		**0.04**		**281.96**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.04	0.03	0.41	0.00	0.09	0.00	0.09	0.00	0.00	0.00		70.33		0.00		70.40
Total	**0.04**	**0.03**	**0.41**	**0.00**	**0.09**	**0.00**	**0.09**	**0.00**	**0.00**	**0.00**		**70.33**		**0.00**		**70.40**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	18.77	36.53	146.43	0.21	22.15	1.23	23.37	0.31	1.16	1.47		21,233.92		0.90		21,252.76
Unmitigated	18.77	36.53	146.43	0.21	22.15	1.23	23.37	0.31	1.16	1.47		21,233.92		0.90		21,252.76
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Medical Office Building	3,417.00	3,417.00	3417.00	6,687,923	6,687,923
Parking Lot	0.00	0.00	0.00		
Total	3,417.00	3,417.00	3,417.00	6,687,923	6,687,923

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Medical Office Building	9.50	7.30	7.30	29.60	51.40	19.00
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.01	0.07	0.06	0.00		0.00	0.01		0.00	0.01		89.84		0.00	0.00	90.38
NaturalGas Unmitigated	0.01	0.07	0.06	0.00		0.00	0.01		0.00	0.01		89.84		0.00	0.00	90.38
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

<u>Unmitigated</u>

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Medical Office Building	763.603	0.01	0.07	0.06	0.00		0.00	0.01		0.00	0.01		89.84		0.00	0.00	90.38
Parking Lot	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.01**	**0.07**	**0.06**	**0.00**		**0.00**	**0.01**		**0.00**	**0.01**		**89.84**		**0.00**	**0.00**	**90.38**

5.2 Energy by Land Use - NaturalGas

<u>Mitigated</u>

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Medical Office Building	0.763603	0.01	0.07	0.06	0.00		0.00	0.01		0.00	0.01		89.84		0.00	0.00	90.38
Parking Lot	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.01**	**0.07**	**0.06**	**0.00**		**0.00**	**0.01**		**0.00**	**0.01**		**89.84**		**0.00**	**0.00**	**90.38**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.37	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Unmitigated	2.37	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.54					0.00	0.00		0.00	0.00						0.00
Consumer Products	1.83					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**2.37**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.54					0.00	0.00		0.00	0.00						0.00
Consumer Products	1.83					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**2.37**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

County of Los Angeles Animal Care Center, Palmdale, CA

Antelope Valley APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Medical Office Building	25.5	1000sqft
Parking Lot	60	1000sqft

1.2 Other Project Characteristics

Urbanization Urban

Climate Zone 9

Wind Speed (m/s) 2.2

Precipitation Freq (Days) 33

Utility Company Southern California Edison

1.3 User Entered Comments

Project Characteristics -

Land Use - Site acreage is 6.02 acres per project description (includes main building, parking lots, outdoor lot areas, courtyard, loading zone, etc)

Construction Phase - Architectural coating: assumes 15 days (default is 10 days).

Trips and VMT - Demolition hauling trips assume 20 tons of material per load, 5 mile trip length to landfill (model default is 20 miles)

Demolition - ~3,500 tons of debris estimated for removal of ~2 acres of existing pavement and miscellaneous debris.

Architectural Coating - Assume average interior/exterior VOC content is 125 g/L, which is 50% of default value (default = 250 g/L).

Vehicle Trips - Trip rate = 134 trips/day, 7 days/week (30 workers, 20 volunteers, 70 visitors, 14 deliveries). This trip rate is higher than model default trip rates for weekdays, Saturdays, and Sundays.

Area Coating -

Landscape Equipment -

Construction Off-road Equipment Mitigation - Fugitive dust mitigation assumes watering exposed areas 2 times per day, with 55% PM10 reduction and 55% PM2.5 reduction (defaults).

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	5.49	44.57	27.20	0.05	12.01	2.39	14.41	2.90	2.37	4.37	0.00	5,475.35	0.00	0.46	0.00	5,485.07
2015	66.44	22.28	18.26	0.03	0.56	1.38	1.94	0.01	1.37	1.38	0.00	3,219.83	0.00	0.36	0.00	3,227.41
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	5.49	44.57	27.20	0.05	9.95	2.39	12.35	1.30	2.37	2.77	0.00	5,475.35	0.00	0.46	0.00	5,485.07
2015	66.44	22.28	18.26	0.03	0.56	1.38	1.94	0.01	1.37	1.38	0.00	3,219.83	0.00	0.36	0.00	3,227.41
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.37	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.01	0.07	0.06	0.00		0.00	0.01		0.00	0.01		89.84		0.00	0.00	90.38
Mobile	16.60	37.68	133.59	0.18	22.15	1.25	23.40	0.31	1.18	1.50		18,635.29		0.88		18,653.83
Total	**18.98**	**37.75**	**133.65**	**0.18**	**22.15**	**1.25**	**23.41**	**0.31**	**1.18**	**1.51**		**18,725.13**		**0.88**	**0.00**	**18,744.21**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.37	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.01	0.07	0.06	0.00		0.00	0.01		0.00	0.01		89.84		0.00	0.00	90.38
Mobile	16.60	37.68	133.59	0.18	22.15	1.25	23.40	0.31	1.18	1.50		18,635.29		0.88		18,653.83
Total	**18.98**	**37.75**	**133.65**	**0.18**	**22.15**	**1.25**	**23.41**	**0.31**	**1.18**	**1.51**		**18,725.13**		**0.88**	**0.00**	**18,744.21**

3.0 Construction Detail

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.74	0.00	3.74	0.00	0.00	0.00						0.00
Off-Road	4.75	35.99	22.84	0.04		2.08	2.08		2.08	2.08		3,946.47		0.42		3,955.39
Total	**4.75**	**35.99**	**22.84**	**0.04**	**3.74**	**2.08**	**5.82**	**0.00**	**2.08**	**2.08**		**3,946.47**		**0.42**		**3,955.39**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.66	8.50	3.66	0.01	8.10	0.31	8.41	0.02	0.28	0.30		1,415.43		0.03		1,416.10
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.08	0.08	0.70	0.00	0.17	0.00	0.17	0.00	0.00	0.01		113.45		0.01		113.58
Total	**0.74**	**8.58**	**4.36**	**0.01**	**8.27**	**0.31**	**8.58**	**0.02**	**0.28**	**0.31**		**1,528.88**		**0.04**		**1,529.68**

3.2 Demolition - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.69	0.00	1.69	0.00	0.00	0.00						0.00
Off-Road	4.75	35.99	22.84	0.04		2.08	2.08		2.08	2.08	0.00	3,946.47		0.42		3,955.39
Total	**4.75**	**35.99**	**22.84**	**0.04**	**1.69**	**2.08**	**3.77**	**0.00**	**2.08**	**2.08**	**0.00**	**3,946.47**		**0.42**		**3,955.39**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.66	8.50	3.66	0.01	8.10	0.31	8.41	0.02	0.28	0.30		1,415.43		0.03		1,416.10
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.08	0.08	0.70	0.00	0.17	0.00	0.17	0.00	0.00	0.01		113.45		0.01		113.58
Total	**0.74**	**8.58**	**4.36**	**0.01**	**8.27**	**0.31**	**8.58**	**0.02**	**0.28**	**0.31**		**1,528.88**		**0.04**		**1,529.68**

3.3 Site Preparation - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.80	0.00	5.80	2.90	0.00	2.90						0.00
Off-Road	3.75	29.67	17.95	0.03		1.47	1.47		1.47	1.47		3,253.39		0.34		3,260.45
Total	**3.75**	**29.67**	**17.95**	**0.03**	**5.80**	**1.47**	**7.27**	**2.90**	**1.47**	**4.37**		**3,253.39**		**0.34**		**3,260.45**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.05	0.05	0.43	0.00	0.10	0.00	0.11	0.00	0.00	0.00		69.81		0.00		69.90
Total	**0.05**	**0.05**	**0.43**	**0.00**	**0.10**	**0.00**	**0.11**	**0.00**	**0.00**	**0.00**		**69.81**		**0.00**		**69.90**

3.3 Site Preparation - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.61	0.00	2.61	1.30	0.00	1.30						0.00
Off-Road	3.75	29.67	17.95	0.03		1.47	1.47		1.47	1.47	0.00	3,253.39		0.34		3,260.45
Total	**3.75**	**29.67**	**17.95**	**0.03**	**2.61**	**1.47**	**4.08**	**1.30**	**1.47**	**2.77**	**0.00**	**3,253.39**		**0.34**		**3,260.45**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.05	0.05	0.43	0.00	0.10	0.00	0.11	0.00	0.00	0.00		69.81		0.00		69.90
Total	**0.05**	**0.05**	**0.43**	**0.00**	**0.10**	**0.00**	**0.11**	**0.00**	**0.00**	**0.00**		**69.81**		**0.00**		**69.90**

3.4 Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.91	0.00	4.91	2.48	0.00	2.48						0.00
Off-Road	3.11	24.59	14.80	0.03		1.21	1.21		1.21	1.21		2,689.97		0.28		2,695.82
Total	**3.11**	**24.59**	**14.80**	**0.03**	**4.91**	**1.21**	**6.12**	**2.48**	**1.21**	**3.69**		**2,689.97**		**0.28**		**2,695.82**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.05	0.05	0.43	0.00	0.10	0.00	0.11	0.00	0.00	0.00		69.81		0.00		69.90
Total	**0.05**	**0.05**	**0.43**	**0.00**	**0.10**	**0.00**	**0.11**	**0.00**	**0.00**	**0.00**		**69.81**		**0.00**		**69.90**

3.4 Grading - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.21	0.00	2.21	1.12	0.00	1.12						0.00
Off-Road	3.11	24.59	14.80	0.03		1.21	1.21		1.21	1.21	0.00	2,689.97		0.28		2,695.82
Total	**3.11**	**24.59**	**14.80**	**0.03**	**2.21**	**1.21**	**3.42**	**1.12**	**1.21**	**2.33**	**0.00**	**2,689.97**		**0.28**		**2,695.82**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.05	0.05	0.43	0.00	0.10	0.00	0.11	0.00	0.00	0.00		69.81		0.00		69.90
Total	**0.05**	**0.05**	**0.43**	**0.00**	**0.10**	**0.00**	**0.11**	**0.00**	**0.00**	**0.00**		**69.81**		**0.00**		**69.90**

3.5 Building Construction - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.15	21.74	15.92	0.03		1.46	1.46		1.46	1.46		2,561.58		0.37		2,569.39
Total	**4.15**	**21.74**	**15.92**	**0.03**		**1.46**	**1.46**		**1.46**	**1.46**		**2,561.58**		**0.37**		**2,569.39**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.17	2.15	1.15	0.00	0.13	0.07	0.19	0.00	0.06	0.06		377.45		0.01		377.63
Worker	0.20	0.20	1.77	0.00	0.43	0.01	0.44	0.01	0.01	0.02		287.98		0.02		288.32
Total	**0.37**	**2.35**	**2.92**	**0.00**	**0.56**	**0.08**	**0.63**	**0.01**	**0.07**	**0.08**		**665.43**		**0.03**		**665.95**

3.5 Building Construction - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.15	21.74	15.92	0.03		1.46	1.46		1.46	1.46	0.00	2,561.58		0.37		2,569.39
Total	**4.15**	**21.74**	**15.92**	**0.03**		**1.46**	**1.46**		**1.46**	**1.46**	**0.00**	**2,561.58**		**0.37**		**2,569.39**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.17	2.15	1.15	0.00	0.13	0.07	0.19	0.00	0.06	0.06		377.45		0.01		377.63
Worker	0.20	0.20	1.77	0.00	0.43	0.01	0.44	0.01	0.01	0.02		287.98		0.02		288.32
Total	**0.37**	**2.35**	**2.92**	**0.00**	**0.56**	**0.08**	**0.63**	**0.01**	**0.07**	**0.08**		**665.43**		**0.03**		**665.95**

3.5 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.78	20.14	15.61	0.03		1.31	1.31		1.31	1.31		2,561.58		0.34		2,568.69
Total	**3.78**	**20.14**	**15.61**	**0.03**		**1.31**	**1.31**		**1.31**	**1.31**		**2,561.58**		**0.34**		**2,568.69**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.16	1.97	1.07	0.00	0.13	0.06	0.19	0.00	0.05	0.06		377.58		0.01		377.74
Worker	0.19	0.18	1.57	0.00	0.43	0.01	0.44	0.01	0.01	0.02		280.67		0.01		280.98
Total	**0.35**	**2.15**	**2.64**	**0.00**	**0.56**	**0.07**	**0.63**	**0.01**	**0.06**	**0.08**		**658.25**		**0.02**		**658.72**

3.5 Building Construction - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.78	20.14	15.61	0.03		1.31	1.31		1.31	1.31	0.00	2,561.58		0.34		2,568.69
Total	**3.78**	**20.14**	**15.61**	**0.03**		**1.31**	**1.31**		**1.31**	**1.31**	**0.00**	**2,561.58**		**0.34**		**2,568.69**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.16	1.97	1.07	0.00	0.13	0.06	0.19	0.00	0.05	0.06		377.58		0.01		377.74
Worker	0.19	0.18	1.57	0.00	0.43	0.01	0.44	0.01	0.01	0.02		280.67		0.01		280.98
Total	**0.35**	**2.15**	**2.64**	**0.00**	**0.56**	**0.07**	**0.63**	**0.01**	**0.06**	**0.08**		**658.25**		**0.02**		**658.72**

3.6 Paving - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.62	16.38	11.89	0.02		1.34	1.34		1.34	1.34		1,712.73		0.24		1,717.66
Paving	0.36					0.00	0.00		0.00	0.00						0.00
Total	**2.98**	**16.38**	**11.89**	**0.02**		**1.34**	**1.34**		**1.34**	**1.34**		**1,712.73**		**0.24**		**1,717.66**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.07	0.07	0.62	0.00	0.17	0.00	0.17	0.00	0.00	0.01		110.57		0.01		110.69
Total	**0.07**	**0.07**	**0.62**	**0.00**	**0.17**	**0.00**	**0.17**	**0.00**	**0.00**	**0.01**		**110.57**		**0.01**		**110.69**

3.6 Paving - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.62	16.38	11.89	0.02		1.34	1.34		1.34	1.34	0.00	1,712.73		0.24		1,717.66
Paving	0.36					0.00	0.00		0.00	0.00						0.00
Total	**2.98**	**16.38**	**11.89**	**0.02**		**1.34**	**1.34**		**1.34**	**1.34**	**0.00**	**1,712.73**		**0.24**		**1,717.66**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.07	0.07	0.62	0.00	0.17	0.00	0.17	0.00	0.00	0.01		110.57		0.01		110.69
Total	**0.07**	**0.07**	**0.62**	**0.00**	**0.17**	**0.00**	**0.17**	**0.00**	**0.00**	**0.01**		**110.57**		**0.01**		**110.69**

3.7 Architectural Coating - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	65.99					0.00	0.00		0.00	0.00						0.00
Off-Road	0.41	2.57	1.90	0.00		0.22	0.22		0.22	0.22		281.19		0.04		281.96
Total	**66.40**	**2.57**	**1.90**	**0.00**		**0.22**	**0.22**		**0.22**	**0.22**		**281.19**		**0.04**		**281.96**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.04	0.04	0.33	0.00	0.09	0.00	0.09	0.00	0.00	0.00		59.54		0.00		59.60
Total	**0.04**	**0.04**	**0.33**	**0.00**	**0.09**	**0.00**	**0.09**	**0.00**	**0.00**	**0.00**		**59.54**		**0.00**		**59.60**

3.7 Architectural Coating - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	65.99					0.00	0.00		0.00	0.00						0.00
Off-Road	0.41	2.57	1.90	0.00		0.22	0.22		0.22	0.22	0.00	281.19		0.04		281.96
Total	**66.40**	**2.57**	**1.90**	**0.00**		**0.22**	**0.22**		**0.22**	**0.22**	**0.00**	**281.19**		**0.04**		**281.96**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.04	0.04	0.33	0.00	0.09	0.00	0.09	0.00	0.00	0.00		59.54		0.00		59.60
Total	**0.04**	**0.04**	**0.33**	**0.00**	**0.09**	**0.00**	**0.09**	**0.00**	**0.00**	**0.00**		**59.54**		**0.00**		**59.60**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	16.60	37.68	133.59	0.18	22.15	1.25	23.40	0.31	1.18	1.50		18,635.29		0.88		18,653.83
Unmitigated	16.60	37.68	133.59	0.18	22.15	1.25	23.40	0.31	1.18	1.50		18,635.29		0.88		18,653.83
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Medical Office Building	3,417.00	3,417.00	3417.00	6,687,923	6,687,923
Parking Lot	0.00	0.00	0.00		
Total	3,417.00	3,417.00	3,417.00	6,687,923	6,687,923

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Medical Office Building	9.50	7.30	7.30	29.60	51.40	19.00
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.01	0.07	0.06	0.00		0.00	0.01		0.00	0.01		89.84		0.00	0.00	90.38
NaturalGas Unmitigated	0.01	0.07	0.06	0.00		0.00	0.01		0.00	0.01		89.84		0.00	0.00	90.38
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Medical Office Building	763.603	0.01	0.07	0.06	0.00		0.00	0.01		0.00	0.01		89.84		0.00	0.00	90.38
Parking Lot	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.01**	**0.07**	**0.06**	**0.00**		**0.00**	**0.01**		**0.00**	**0.01**		**89.84**		**0.00**	**0.00**	**90.38**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Medical Office Building	0.763603	0.01	0.07	0.06	0.00		0.00	0.01		0.00	0.01		89.84		0.00	0.00	90.38
Parking Lot	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.01**	**0.07**	**0.06**	**0.00**		**0.00**	**0.01**		**0.00**	**0.01**		**89.84**		**0.00**	**0.00**	**90.38**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.37	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Unmitigated	2.37	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.54					0.00	0.00		0.00	0.00						0.00
Consumer Products	1.83					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**2.37**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.54					0.00	0.00		0.00	0.00						0.00
Consumer Products	1.83					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**2.37**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

Appendix B
Noise Worksheets

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County of Los Angeles Animal Care Center, Palmdale, CA
Initial Study
Construction Noise

Construction Schedule
Mon-Fri
8-hours per day between 7am and 5pm
3/20/2014 - 3/6/2015
Phases do not overlap

Phase	Equipment Description	Usage Factor	Equipment Lmax @ 50'	Equipment Leq @ 50'	Number of Equipment	Add to Single Source Level (dBA)	Total Lmax @ 50'	Total Leq @ 50'
Debris Removal	Concrete/Industrial Saws	20%	90	83	1	0	90	83
	Rubber Tired Dozers	40%	85	81	1	0	85	81
	Tractors/Loaders/Backhoes	40%	80	76	3	5	85	81
						Debris Removal Total	92	86
Site Preparation	Graders	40%	85	81	1	0	85	81
	Rubber Tired Dozers	40%	85	81	1	0	85	81
	Tractors/Loaders/Backhoes	40%	80	76	1	0	80	76
						Site Preparation Total	89	85
Grading	Graders	40%	85	81	1	0	85	81
	Rubber Tired Dozers	40%	85	81	1	0	85	81
	Tractors/Loaders/Backhoes	40%	80	76	1	0	80	76
						Grading Total	89	85
Building Construction	Cranes	16%	85	77	1	0	85	77
	Forklifts	20%	85	78	1	0	85	78
	Generator Sets	50%	82	79	1	0	82	79
	Tractors/Loaders/Backhoes	40%	80	76	1	0	80	76
	Welders	40%	73	69	3	5	78	74
						Building Construction Total	90	84
Paving	Cement and Mortar Mixers	20%	80	73	1	0	80	73
	Pavers	50%	85	82	1	0	85	82
	Paving Equipment	50%	85	82	1	0	85	82
	Rollers	20%	85	78	1	0	85	78
	Tractors/Loaders/Backhoes	40%	80	76	1	0	80	76
						Paving Total	91	86
Architectural Coating	Air Compressors	40%	80	76	1	0	80	76

Assume all equipment operates at the same time during each phase.
Calculations based on FHWA. 2006. Roadway Construction Noise Model. January.

County of Los Angeles Animal Care Center, Palmdale, CA
Initial Study
Construction Noise

Impacts to Residential Area on Friendly Avenue		
Distance from the Center of the Construction Area (ft)	200	*Google Earth*
Maximum Construction Noise Level @ 50 ft (dBA)	86	
Distance Divergence (dBA)	12.0	
Atmospheric Attenuation (dBA)	0.08	
Construction Noise Level at the Receptor (dBA)	74	

Hour	**Background w/ CNEL penalty (dBA)**	**Construction (dBA)**	**Total (dBA)**
0:00	60	0	60
1:00	60	0	60
2:00	60	0	60
3:00	60	0	60
4:00	60	0	60
5:00	60	0	60
6:00	60	0	60
7:00	60	74	75
8:00	60	74	75
9:00	60	74	75
10:00	60	74	75
11:00	60	0	60
12:00	60	0	60
13:00	60	74	75
14:00	60	74	75
15:00	60	74	75
16:00	60	74	75
17:00	60	0	60
18:00	60	0	60
19:00	60	0	60
20:00	60	0	60
21:00	60	0	60
22:00	60	0	60
23:00	60	0	60
		CNEL	70
		Increase in CNEL	10

County of Los Angeles Animal Care Center, Palmdale, CA
Initial Study
Construction Noise

Construction Vehicles

9	haul trips (heavy trucks)
3	vendor trips (medium trucks)
33	construction workers (auto)

Equivalent Vehicle (55 mph)

4.1	auto per medium truck
10.4	auto per heavy truck

Speed limit on Sierra Highway obtained from Google Maps Street View
Caltrans. 2009. Technical Supplement to the Noise Protocol.

Total Equivalent Vehicles per Hour

139	per hour (assuming all operating at the same time)

Sierra Highway ADT	17,000	
Estimated peak traffic	1,700	Assumes 10% of ADT is peak hour traffic.

Doubling of the noise source produces only a 3 dB increase, which is barely perceptible by the human ear.
No audible change in traffic noise as traffic will not double as a result of this project
FHWA. 2011. Highway Traffic Noise: Analysis and Abatement Guidance.

County of Los Angeles Animal Care Center, Palmdale, CA
Initial Study
Construction Vibration

Distance (ft)	25	200
PPV (in/sec)		
Large Bulldozer	0.089	0.004
Vibratory Roller	0.21	0.009

FTA. 2006. Transit Noise and Vibration Impact Assessment.

County of Los Angeles Animal Care Center Project
Initial Study
Operational Noise

Settings

660	ft from metrolink/Union Pacific railroad		
2.5	mi NE = Air Force Plant 42		
400	ft from Sierra Highway	17,000	ADT

Operations - Animal Noise
Monday-Thursday noon-19:00; Friday-Saturday 10-17:00

Peak shelter animal population	128	dogs
	229	cats

"Get Acquainted Yard" is surrounded by buildings and has minimal noise impact.
Exercise Yard is approximately 233 ft from residences on Friendly Ave.
There is a 8 ft wall at the property boundary, along residences.
Exercise yard will be used during hours that are open to the public (i.e. no nighttime noise).

Instantaneous (dBA)

1 dog barking @ 55'	72
Number of dogs barking	20
Multiple dogs barking @ 55'	85
Multiple dogs barking @ 233'	73
Noise reduction by wall	-3
Noise level with wall	70

1-hour Leq (dBA)

1 dog barking @ 55'	60
Number of dogs barking	128
Multiple dogs barking @ 55'	81
Multiple dogs barking @ 233'	69
Barking + existing @ 233'	69
Noise reduction by wall	-3
Noise level with wall	66

Hour	Background w/ CNEL penalty (dBA)	Operation (dBA)	Total (dBA)
0:00	60	0	60
1:00	60	0	60
2:00	60	0	60
3:00	60	0	60
4:00	60	0	60
5:00	60	0	60
6:00	60	0	60
7:00	60	0	60
8:00	60	0	60
9:00	60	0	60
10:00	60	0	60
11:00	60	0	60
12:00	60	66	67
13:00	60	66	67
14:00	60	66	67
15:00	60	66	67
16:00	60	66	67
17:00	60	66	67
18:00	60	66	67
19:00	60	0	60
20:00	60	0	60
21:00	60	0	60
22:00	60	0	60
23:00	60	0	60
		CNEL	63
		Increase in CNEL	3

Reference:
Measurement of 1 dog barking at 55' from Sound Solutions. Noise Impacts and Mitigation in Connection with the Proposed Meadows Kennel, 6445 Highway 12, Sonoma County, California. August 2011

County of Los Angeles Animal Care Center, Palmdale, CA
Initial Study
Operational Noise

Operations - Traffic Noise

30 full time, 20 part time, 70 visitors	120	auto
3 vendor trips per day	3	medium trucks

Equivalent Vehicle (55 mph)
4.1 auto per medium truck
Speed limit on Sierra Highway obtained from Google Maps Street View
Caltrans. 2009. Technical Supplement to the Noise Protocol.

Total Equivalent Vehicles per Hour
132 per hour (assuming all operating at the same time)

Sierra Highway ADT	17,000	
Estimated peak traffic	1,700	Assumes 10% of ADT is peak hour traffic.

Doubling of the noise source produces only a 3 dB increase, which is barely perceptible by the human ear.
No audible change in traffic noise as traffic will not double as a result of this project
FHWA. 2011. Highway Traffic Noise: Analysis and Abatement Guidance.

Noise contours in the general plan noise element show that the project area falls below the 60 dB contour line from transportation noise. The project site is within the low altitude overflight area.

Appendix C
Los Angeles County LID Volume Calculator

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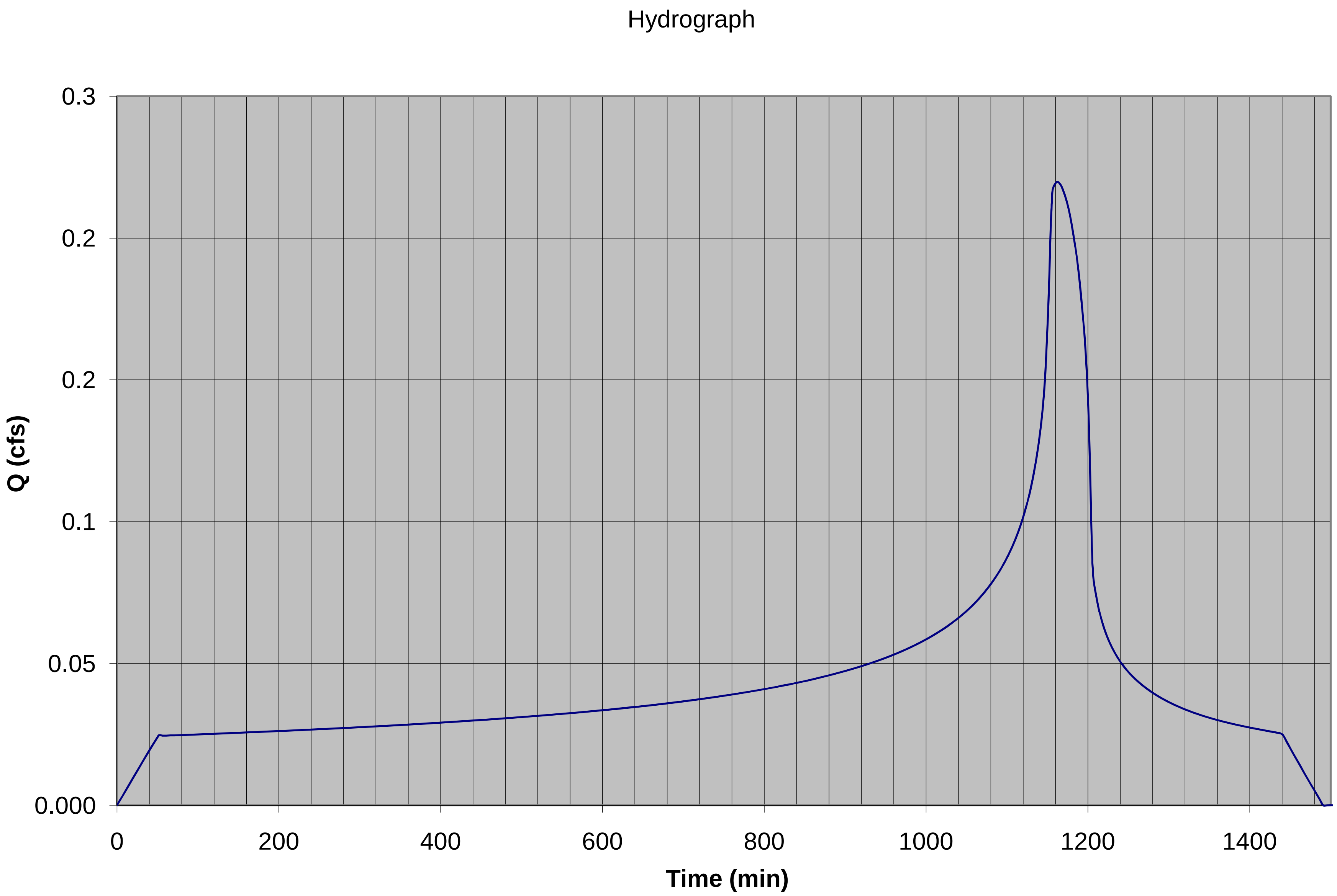
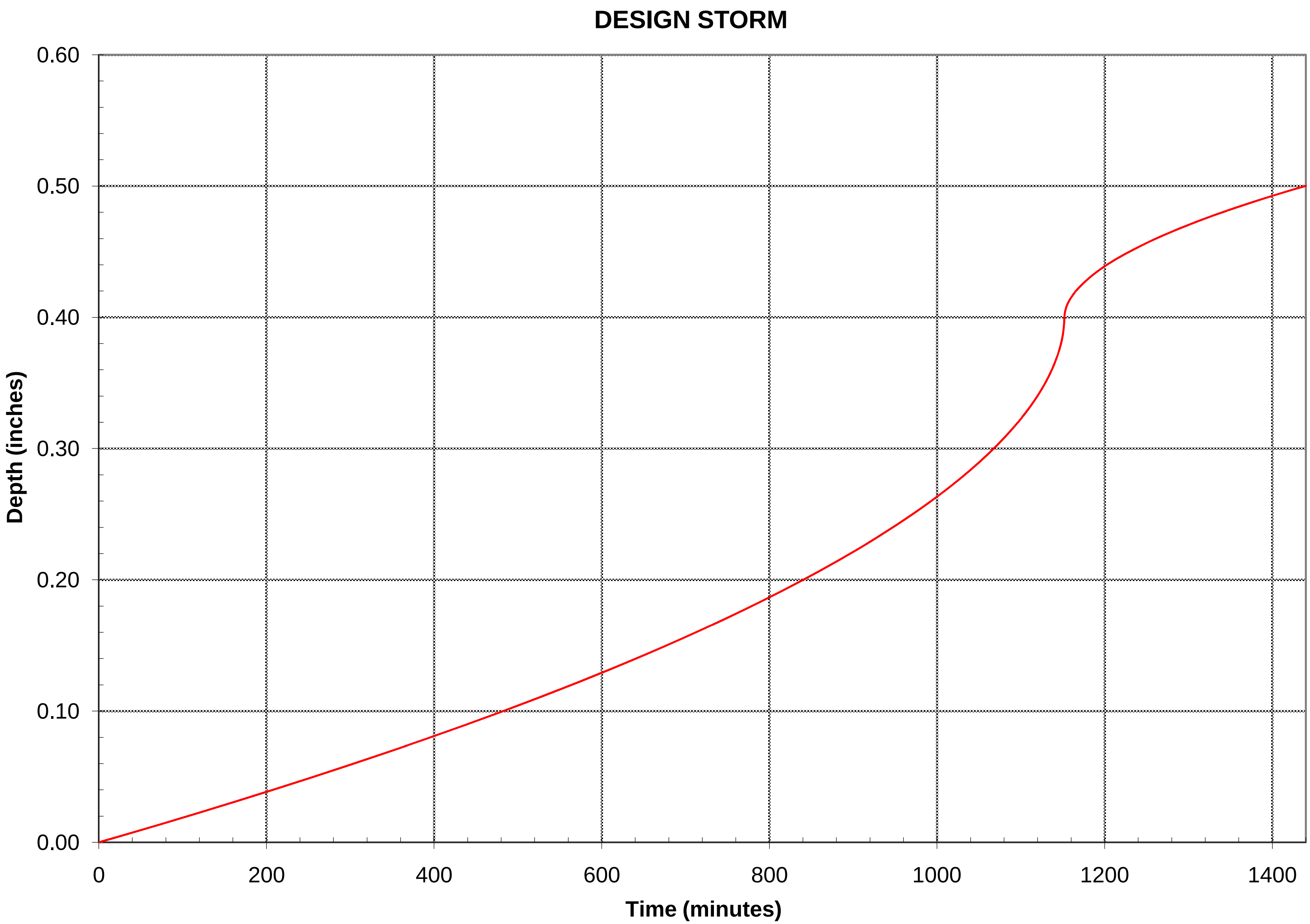
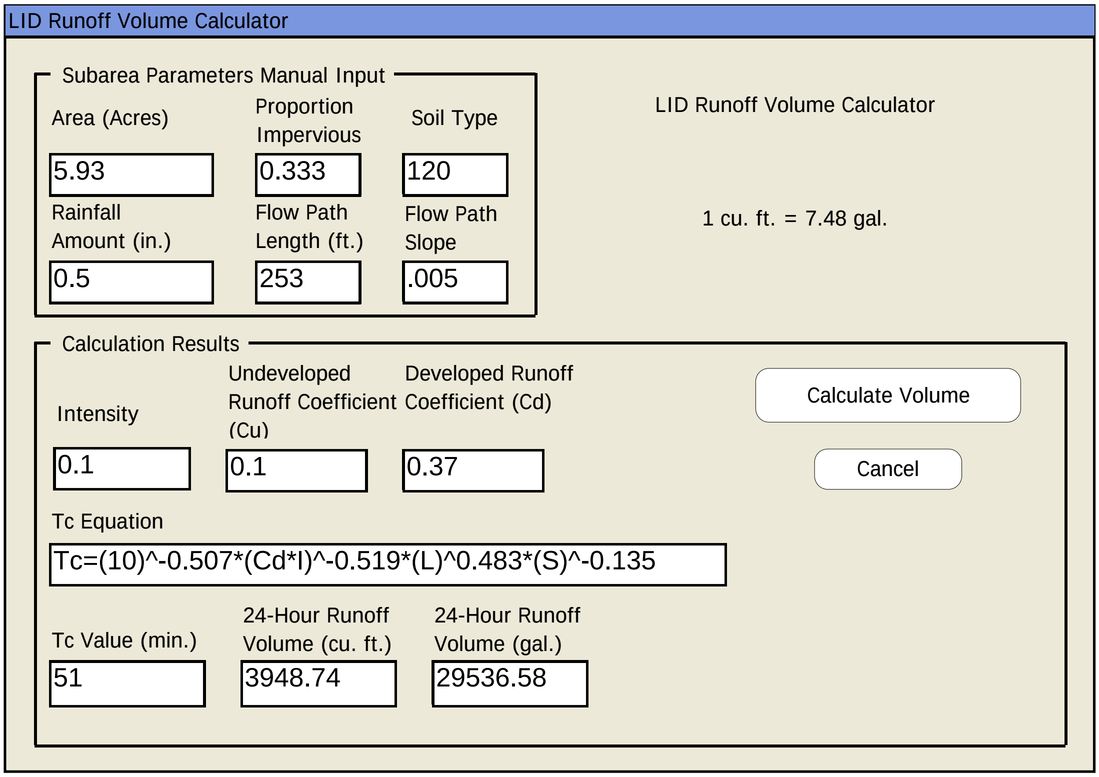

Hydrograph
Q (cfs)
0.3
0.2
0.2
0.1
0.05
0.000
0
200
400
600
800
1000
1200
1400
Time (min)


DESIGN STORM
Depth (inches)
0.00
0.10
0.20
0.30
0.40
0.50
0.60
0
200
400
600
800
1000
1200
1400
Time (minutes)


LID Runoff Volume Calculator
Subarea Parameters Manual Input
Area (Acres)
5.93
Proportion Impervious
0.333
Soil Type
120
Rainfall Amount (in.)
0.5
Flow Path Length (ft.)
253
Flow Path Slope
.005
LID Runoff Volume Calculator
1 cu. ft. = 7.48 gal.
Calculation Results
Intensity
0.1
Undeveloped Runoff Coefficient (Cu)
0.1
Developed Runoff Coefficient (Cd)
0.37
Calculate Volume
Cancel
Tc Equation
Tc=(10)^-0.507*(Cd*I)^-0.519*(L)^0.483*(S)^-0.135
Tc Value (min.)
51
24-Hour Runoff Volume (cu. ft.)
3948.74
24-Hour Runoff Volume (gal.)
29536.58

Subarea No.	Area (acres)	Imp. %	Frequency	Soil Type	Length	Slope	Isohyet	Fire Factor
1a	5.93	0.333	50	120	253	0.005	0.5	1

Undeveloped subarea coeff. (%imp=0):		Undeveloped subarea coeff. (0<%imp<.21):		Developed subarea coeff. (.21<%imp<.68):		Developed subarea coeff. (.68<%imp<1):	
bo=	-0.507	bo=	-0.507	bo=	-0.507	bo=	-0.507
b1=	-0.519	b1=	-0.519	b1=	-0.519	b1=	-0.519
b2=	0.483	b2=	0.483	b2=	0.483	b2=	0.483
b3=	-0.135	b3=	-0.135	b3=	-0.135	b3=	-0.135

Equation, given parameters above:
Developed subarea coeff. (.21<%imp<.68):

bo=	-0.507
b1=	-0.519
b2=	0.483
b3=	-0.135
0	0

Tc=(10)^-0.507*(Cd*I)^-0.519*(L)^0.483*(S)^-0.135

Equations for Tc: Tc=(10)^bo*(Cd*I)^b1*(L)^b2*(S)^b3

I1440=Isohyet/24hrs: 0.021
It=I1440*Ix/I1440: 0.100

Qd=Cd*I*A: 0.22
Qb=FF*((1-K)*((1-0.1*imp)*A*I-Qd))+Qd: 0.27
K=0.677*I^(-0.102): 0.86
Cb=FF*((1-K)*(1-Cu))+Cu: 0.23
Cba=(0.9*imp)+(1.0-imp)*Cb: 0.45
Qb=Cba*I*A: 0.27 no rounding

Iterations	RESET	Tc estimate:	Tc calc:	Diff:	RUN	Cu	Cd	Ix=Cd*I	It
5		50.99	50.99	0.00		0.10	0.37	0.037	0.10

Interpolated value for I:	Tc high	Tc low	It/I1440 low	It/I1440 high	Interpolated It/I1440	(1440/Tc)^0.47
	51.00	50.00	4.81	4.85	4.81	4.81

Tolerance (min)
0.5

Use Tc value: 51.00 minutes

lookup->	Total	18.00																
1.00	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	Project	**Subarea**	**Area (acres)**	**%imp**	**Frequency**	**Soil Type**	**Length (ft)**	**Slope (ft/ft)**	**Isohyet (in.)**	**Tc-calculated (min.)**	**Intensity (in./hr)**	**Cu**	**Cd**	**Flow rate (cfs)**	**Tc Equation**	**Fire Factor**	**Burned flow rate (cfs)**	**Volume (ac**
User		**1a**	**5.93**	**0.33**	**50.00**	**120.00**	**253.00**	**0.01**	**0.50**	**51.00**	**0.10**	**0.10**	**0.37**	0.22	**Tc=(10)^-0.507*(Cd*I)^-0.519*(L)^0.483*(S)^-0.135**	1.00	n/a	3948.74

Soil Type:

2	I	C	0.00	I	soil type:	2	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.12	0.10	0.37	0.12							Upper I	Upper C
	0.23	0.37	0.52	0.23							0.12	0.1
	0.4	0.52	0.69	0.4								
	0.8	0.69	0.78	0.8								
	1.3	0.78	0.84	1.3								
	2	0.84	0.88	2								
	3	0.88	0.91	3								
	4	0.91	0.94	4								
	7	0.94	0.96	7								
	13	0.96	0.97	13								
	18	0.97	0.97	18								
	20	0.97	0.98	20								
	25	0.98	0.00	25								
3	I	C	0.00	I	soil type:	3	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.86	0.10	0.20	0.86							Upper I	Upper C
	1.3	0.20	0.28	1.3							0.86	0.1
	1.7	0.28	0.40	1.7								
	2.5	0.40	0.50	2.5								
	3.5	0.50	0.58	3.5								
	4.5	0.58	0.63	4.5								
	5.5	0.63	0.69	5.5								
	7	0.69	0.74	7								
	9	0.74	0.76	9								
	10	0.76	0.81	10								
	13.75	0.81	0.85	13.75								
	20	0.85	0.87	20								
	25	0.87	0.00	25								
4	I	C	0.00	I	soil type:	4	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.44	0.10	0.21	0.44							Upper I	Upper C
	0.5	0.21	0.40	0.5							0.44	0.1
	0.75	0.40	0.49	0.75								
	1	0.49	0.60	1								
	1.5	0.60	0.67	1.5								
	2	0.67	0.71	2								
	2.5	0.71	0.76	2.5								
	3.5	0.76	0.80	3.5								
	5	0.80	0.84	5								
	8	0.84	0.86	8								
	10	0.86	0.89	10								
	20	0.89	0.89	20								
	25	0.89	0.00	25								
5	I	C	0.00	I	soil type:	5	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.5	0.10	0.35	0.5							Upper I	Upper C
	0.75	0.35	0.46	0.75							0.5	0.1
	1	0.46	0.59	1								
	1.5	0.59	0.67	1.5								
	2	0.67	0.73	2								
	2.5	0.73	0.80	2.5								
	3.5	0.80	0.86	3.5								
	5	0.86	0.91	5								
	7	0.91	0.95	7								
	10	0.95	0.98	10								
	15	0.98	0.99	15								
	20	0.99	1.00	20								
	25	1.00	0.00	25								
6	I	C	0.00	I	soil type:	6	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1

	0.37	0.10	0.32	0.37							Upper I	Upper C
	0.5	0.32	0.50	0.5							0.37	0.1
	0.75	0.50	0.59	0.75								
	1	0.59	0.68	1								
	1.5	0.68	0.79	1.5								
	2.5	0.79	0.86	2.5								
	3.5	0.86	0.91	3.5								
	5	0.91	0.95	5								
	7	0.95	0.97	7								
	10	0.97	0.98	10								
	15	0.98	0.99	15								
	20	0.99	0.99	20								
	25	0.99	0.00	25								
7	I	C	0.00	I	soil type:	7	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.73	0.10	0.27	0.73							Upper I	Upper C
	1	0.27	0.44	1							0.73	0.1
	1.5	0.44	0.54	1.5								
	2	0.54	0.61	2								
	2.5	0.61	0.66	2.5								
	3	0.66	0.75	3								
	4	0.75	0.80	4								
	5	0.80	0.87	5								
	7	0.87	0.92	7								
	10	0.92	0.95	10								
	15	0.95	0.96	15								
	20	0.96	0.97	20								
	25	0.97	0.00	25								
8	I	C	0.00	I	soil type:	8	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.2	0.10	0.44	0.2							Upper I	Upper C
	0.3	0.44	0.63	0.3							0.2	0.1
	0.5	0.63	0.76	0.5								
	0.8	0.76	0.80	0.8								
	1	0.80	0.87	1								
	1.5	0.87	0.90	1.5								
	2	0.90	0.93	2								
	3	0.93	0.95	3								
	4	0.95	0.96	4								
	5	0.96	0.99	5								
	10	0.99	1.00	10								
	20	1.00	1.00	20								
	25	1.00	0.00	25								
9	I	C	0.00	I	soil type:	9	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.3	0.10	0.27	0.3							Upper I	Upper C
	0.5	0.27	0.43	0.5							0.3	0.1
	0.8	0.43	0.61	0.8								
	1.25	0.61	0.73	1.25								
	1.75	0.73	0.84	1.75								
	2.5	0.84	0.88	2.5								
	3	0.88	0.93	3								
	4	0.93	0.97	4								
	6	0.97	0.99	6								
	10	0.99	0.99	10								
	15	0.99	1.00	15								
	20	1.00	1.00	20								
	25	1.00	0.00	25								
10	I	C	0.00	I	soil type:	10	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.82	0.10	0.29	0.82							Upper I	Upper C
	1.5	0.29	0.48	1.5							0.82	0.1
	2.5	0.48	0.62	2.5								
	3.5	0.62	0.71	3.5								

	4.5	0.71	0.78	4.5								
	5.5	0.78	0.83	5.5								
	6.5	0.83	0.86	6.5								
	7.5	0.86	0.90	7.5								
	9	0.90	0.94	9								
	12	0.94	0.96	12								
	15	0.96	0.97	15								
	20	0.97	0.98	20								
	25	0.98	0.00	25								
11	I	C	0.00	I	soil type:	11	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.25	0.10	0.39	0.25							Upper I	Upper C
	0.5	0.39	0.51	0.5							0.25	0.1
	0.75	0.51	0.59	0.75								
	1	0.59	0.68	1								
	1.5	0.68	0.73	1.5								
	2	0.73	0.80	2								
	3	0.80	0.83	3								
	4	0.83	0.87	4								
	6	0.87	0.89	6								
	8	0.89	0.93	8								
	15	0.93	0.94	15								
	20	0.94	0.94	20								
	25	0.94	0.00	25								
12	I	C	0.00	I	soil type:	12	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.2	0.10	0.57	0.2							Upper I	Upper C
	0.25	0.57	0.74	0.25							0.2	0.1
	0.5	0.74	0.80	0.5								
	0.75	0.80	0.84	0.75								
	1	0.84	0.89	1								
	1.5	0.89	0.92	1.5								
	2	0.92	0.96	2								
	3	0.96	0.98	3								
	4	0.98	0.99	4								
	7	0.99	0.99	7								
	10	0.99	0.99	10								
	20	0.99	0.99	20								
	25	0.99	0.00	25								
13	I	C	0.00	I	soil type:	13	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.6	0.10	0.32	0.6							Upper I	Upper C
	0.75	0.32	0.46	0.75							0.6	0.1
	1	0.46	0.70	1								
	1.5	0.70	0.83	1.5								
	2	0.83	0.89	2								
	2.5	0.89	0.93	2.5								
	3	0.93	0.95	3								
	3.5	0.95	0.98	3.5								
	5	0.98	0.99	5								
	8	0.99	0.99	8								
	10	0.99	0.99	10								
	20	0.99	1.00	20								
	25	1.00	0.00	25								
14	I	C	0.00	I	soil type:	14	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.9	0.10	0.25	0.9							Upper I	Upper C
	1	0.25	0.51	1							0.9	0.1
	1.5	0.51	0.63	1.5								
	2	0.63	0.70	2								
	2.5	0.70	0.78	2.5								
	3.5	0.78	0.83	3.5								
	4.5	0.83	0.87	4.5								
	5.5	0.87	0.90	5.5								

	7	0.90	0.94	7								
	10	0.94	0.97	10								
	15	0.97	0.98	15								
	20	0.98	0.99	20								
	25	0.99	0.00	25								
15	I	C	0.00	I	soil type:	15	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	1.02	0.10	0.22	1.02							Upper I	Upper C
	1.5	0.22	0.29	1.5							1.02	0.1
	2	0.29	0.41	2								
	3	0.41	0.51	3								
	4	0.51	0.58	4								
	5	0.58	0.67	5								
	6.5	0.67	0.76	6.5								
	8.5	0.76	0.82	8.5								
	10.5	0.82	0.88	10.5								
	13	0.88	0.93	13								
	16	0.93	0.98	16								
	20	0.98	1.00	20								
	25	1.00	0.00	25								
16	I	C	0.00	I	soil type:	16	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.4	0.10	0.42	0.4							Upper I	Upper C
	0.75	0.42	0.54	0.75							0.4	0.1
	1	0.54	0.68	1								
	1.5	0.68	0.76	1.5								
	2	0.76	0.81	2								
	2.5	0.81	0.85	2.5								
	3	0.85	0.90	3								
	4	0.90	0.93	4								
	5	0.93	0.96	5								
	7	0.96	0.98	7								
	10	0.98	1.00	10								
	20	1.00	1.00	20								
	25	1.00	0.00	25								
17	I	C	0.00	I	soil type:	17	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.3	0.10	0.46	0.3							Upper I	Upper C
	0.5	0.46	0.62	0.5							0.3	0.1
	0.75	0.62	0.70	0.75								
	1	0.70	0.79	1								
	1.5	0.79	0.84	1.5								
	2	0.84	0.87	2								
	2.5	0.87	0.91	2.5								
	3.5	0.91	0.94	3.5								
	5	0.94	0.96	5								
	7	0.96	0.98	7								
	10	0.98	1.00	10								
	20	1.00	1.00	20								
	25	1.00	0.00	25								
18	I	C	0.00	I	soil type:	18	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	2.8	0.10	0.14	2.8							Upper I	Upper C
	3	0.14	0.30	3							2.8	0.1
	4	0.30	0.41	4								
	5	0.41	0.49	5								
	6	0.49	0.55	6								
	7	0.55	0.61	7								
	8	0.61	0.65	8								
	9	0.65	0.73	9								
	11.5	0.73	0.78	11.5								
	14	0.78	0.81	14								
	16	0.81	0.84	16								
	20	0.84	0.88	20								

	25	0.88	0.00	25								
19	I	C	0.00	I	soil type:	19	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	1	0.10	0.37	1							Upper I	Upper C
	2.5	0.37	0.57	2.5							1	0.1
	4	0.57	0.66	4								
	5	0.66	0.72	5								
	6	0.72	0.76	6								
	7	0.76	0.79	7								
	8	0.79	0.81	8								
	9	0.81	0.82	9								
	10	0.82	0.84	10								
	12	0.84	0.86	12								
	14	0.86	0.90	14								
	20	0.90	0.91	20								
	25	0.91	0.00	25								
20	I	C	0.00	I	soil type:	20	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.3	0.10	0.19	0.3							Upper I	Upper C
	0.5	0.19	0.35	0.5							0.3	0.1
	1	0.35	0.45	1								
	1.5	0.45	0.52	1.5								
	2	0.52	0.61	2								
	3	0.61	0.66	3								
	4	0.66	0.73	4								
	6	0.73	0.76	6								
	8	0.76	0.78	8								
	10	0.78	0.82	10								
	15	0.82	0.83	15								
	20	0.83	0.84	20								
	25	0.84	0.00	25								
21	I	C	0.00	I	soil type:	21	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.75	0.10	0.17	0.75							Upper I	Upper C
	1	0.17	0.29	1							0.75	0.1
	1.5	0.29	0.38	1.5								
	2	0.38	0.51	2								
	3	0.51	0.59	3								
	4	0.59	0.66	4								
	5	0.66	0.70	5								
	6	0.70	0.76	6								
	8	0.76	0.82	8								
	11	0.82	0.86	11								
	15	0.86	0.89	15								
	20	0.89	0.91	20								
	25	0.91	0.00	25								
22	I	C	0.00	I	soil type:	22	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.4	0.10	0.37	0.4							Upper I	Upper C
	0.75	0.37	0.45	0.75							0.4	0.1
	1	0.45	0.55	1								
	1.5	0.55	0.62	1.5								
	2	0.62	0.66	2								
	2.5	0.66	0.70	2.5								
	3	0.70	0.74	3								
	4	0.74	0.79	4								
	6	0.79	0.82	6								
	8	0.82	0.85	8								
	12	0.85	0.88	12								
	20	0.88	0.89	20								
	25	0.89	0.00	25								
23	I	C	0.00	I	soil type:	23	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1

	0.4	0.10	0.30	0.4							Upper I	Upper C
	0.75	0.30	0.40	0.75							0.4	0.1
	1	0.40	0.53	1								
	1.5	0.53	0.62	1.5								
	2	0.62	0.68	2								
	2.5	0.68	0.72	2.5								
	3	0.72	0.78	3								
	4	0.78	0.84	4								
	6	0.84	0.88	6								
	8	0.88	0.91	8								
	12	0.91	0.94	12								
	20	0.94	0.95	20								
	25	0.95	0.00	25								
24	I	C	0.00	I	soil type:	24	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	1.4	0.10	0.17	1.4							Upper I	Upper C
	1.7	0.17	0.22	1.7							1.4	0.1
	1.9	0.22	0.29	1.9								
	2.2	0.29	0.35	2.2								
	2.5	0.35	0.43	2.5								
	3	0.43	0.51	3								
	3.9	0.51	0.58	3.9								
	5	0.58	0.64	5								
	7	0.64	0.69	7								
	9.8	0.69	0.72	9.8								
	13.75	0.72	0.75	13.75								
	20	0.75	0.76	20								
	25	0.76	0.00	25								
25	I	C	0.00	I	soil type:	25		0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.17	0.10	0.19	0.17							Upper I	Upper C
	0.18	0.19	0.54	0.18							0.17	0.1
	0.3	0.54	0.62	0.3								
	0.6	0.62	0.67	0.6								
	1	0.67	0.74	1								
	2	0.74	0.80	2								
	3.5	0.80	0.86	3.5								
	6	0.86	0.90	6								
	9.6	0.90	0.93	9.6								
	13	0.93	0.95	13								
	18	0.95	0.95	18								
	20	0.95	0.96	20								
	25	0.96	0.00	25								
26	I	C	0.00	I	soil type:	26	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	4	0.10	0.14	4							Upper I	Upper C
	4.5	0.14	0.17	4.5							4	0.1
	5	0.17	0.21	5								
	5.5	0.21	0.23	5.5								
	6	0.23	0.26	6								
	6.5	0.26	0.28	6.5								
	7	0.28	0.31	7								
	8	0.31	0.36	8								
	10	0.36	0.39	10								
	12	0.39	0.43	12								
	16	0.43	0.45	16								
	20	0.45	0.47	20								
	25	0.47	0.00	25								
27	I	C	0.00	I	soil type:	27	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.71	0.10	0.35	0.71							Upper I	Upper C
	1.7	0.35	0.48	1.7							0.71	0.1
	2.5	0.48	0.58	2.5								
	3.5	0.58	0.64	3.5								

	4.25	0.64	0.68	4.25								
	5	0.68	0.74	5								
	6.5	0.74	0.78	6.5								
	8	0.78	0.82	8								
	10	0.82	0.85	10								
	12	0.85	0.87	12								
	14	0.87	0.90	14								
	20	0.90	0.92	20								
	25	0.92	0.00	25								
28	I	C	0.00	I	soil type:	28	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.54	0.10	0.26	0.54							Upper I	Upper C
	1	0.26	0.44	1							0.54	0.1
	1.75	0.44	0.56	1.75								
	2.6	0.56	0.64	2.6								
	3.5	0.64	0.70	3.5								
	4.5	0.70	0.75	4.5								
	6	0.75	0.78	6								
	8	0.78	0.80	8								
	10	0.80	0.81	10								
	13	0.81	0.82	13								
	18	0.82	0.82	18								
	20	0.82	0.83	20								
	25	0.83	0.00	25								
29	I	C	0.00	I	soil type:	29	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.18	0.10	0.20	0.18							Upper I	Upper C
	0.2	0.20	0.56	0.2							0.18	0.1
	0.5	0.56	0.71	0.5								
	0.9	0.71	0.80	0.9								
	1.5	0.80	0.87	1.5								
	2.5	0.87	0.90	2.5								
	3.5	0.90	0.93	3.5								
	5.5	0.93	0.96	5.5								
	9.6	0.96	0.96	9.6								
	13	0.96	0.97	13								
	18	0.97	0.97	18								
	20	0.97	0.98	20								
	25	0.98	0.00	25								
30	I	C	0.00	I	soil type:	30	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.8	0.10	0.21	0.8							Upper I	Upper C
	1	0.21	0.35	1							0.8	0.1
	1.5	0.35	0.43	1.5								
	2	0.43	0.49	2								
	2.5	0.49	0.53	2.5								
	3	0.53	0.59	3								
	4	0.59	0.64	4								
	5	0.64	0.70	5								
	7	0.70	0.75	7								
	10	0.75	0.79	10								
	14	0.79	0.82	14								
	20	0.82	0.84	20								
	25	0.84	0.00	25								
31	I	C	0.00	I	soil type:	31	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	1	0.10	0.26	1							Upper I	Upper C
	1.25	0.26	0.40	1.25							1	0.1
	1.6	0.40	0.52	1.6								
	2.25	0.52	0.60	2.25								
	3	0.60	0.67	3								
	4	0.67	0.71	4								
	5	0.71	0.73	5								
	6	0.73	0.77	6								

	8	0.77	0.79	8								
	10	0.79	0.82	10								
	14	0.82	0.84	14								
	20	0.84	0.84	20								
	25	0.84	0.00	25								
32	I	C	0.00	I	soil type:	32	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.2	0.10	0.31	0.2							Upper I	Upper C
	0.5	0.31	0.52	0.5							0.2	0.1
	1	0.52	0.63	1								
	1.5	0.63	0.71	1.5								
	2	0.71	0.79	2								
	3	0.79	0.83	3								
	4	0.83	0.88	4								
	7	0.88	0.91	7								
	9.6	0.91	0.93	9.6								
	13	0.93	0.95	13								
	18	0.95	0.96	18								
	20	0.96	0.97	20								
	25	0.97	0.00	25								
33	I	C	0.00	I	soil type:	33	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.6	0.10	0.20	0.6							Upper I	Upper C
	0.7	0.20	0.32	0.7							0.6	0.1
	0.9	0.32	0.43	0.9								
	1.25	0.43	0.55	1.25								
	2	0.55	0.65	2								
	3	0.65	0.71	3								
	4	0.71	0.77	4								
	5.5	0.77	0.83	5.5								
	8	0.83	0.86	8								
	10	0.86	0.91	10								
	15	0.91	0.94	15								
	20	0.94	0.96	20								
	25	0.96	0.00	25								
34	I	C	0.00	I	soil type:	34	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.2	0.10	0.43	0.2							Upper I	Upper C
	0.5	0.43	0.65	0.5							0.2	0.1
	1	0.65	0.74	1								
	1.5	0.74	0.79	1.5								
	2	0.79	0.84	2								
	3	0.84	0.88	3								
	4	0.88	0.91	4								
	5	0.91	0.95	5								
	7	0.95	0.97	7								
	10	0.97	0.99	10								
	15	0.99	0.99	15								
	20	0.99	0.99	20								
	25	0.99	0.00	25								
35	I	C	0.00	I	soil type:	35	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	1.67	0.10	0.20	1.67							Upper I	Upper C
	1.8	0.20	0.30	1.8							1.67	0.1
	2	0.30	0.44	2								
	2.5	0.44	0.51	2.5								
	3	0.51	0.56	3								
	3.5	0.56	0.59	3.5								
	4	0.59	0.63	4								
	5	0.63	0.68	5								
	7	0.68	0.73	7								
	10	0.73	0.78	10								
	15	0.78	0.82	15								
	20	0.82	0.85	20								

	25	0.85	0.00	25								
36	I	C	0.00	I	soil type:	36	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.2	0.10	0.44	0.2							Upper I	Upper C
	0.45	0.44	0.65	0.45							0.2	0.1
	1	0.65	0.74	1								
	1.5	0.74	0.79	1.5								
	2	0.79	0.83	2								
	2.5	0.83	0.89	2.5								
	3.5	0.89	0.92	3.5								
	4.5	0.92	0.95	4.5								
	6	0.95	0.97	6								
	8	0.97	0.99	8								
	12	0.99	1.00	12								
	20	1.00	1.00	20								
	25	1.00	0.00	25								
37	I	C	0.00	I	soil type:	37	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.78	0.10	0.25	0.78							Upper I	Upper C
	1	0.25	0.40	1							0.78	0.1
	1.5	0.40	0.49	1.5								
	2	0.49	0.60	2								
	3	0.60	0.66	3								
	4	0.66	0.71	4								
	5	0.71	0.75	5								
	6	0.75	0.80	6								
	8	0.80	0.83	8								
	10	0.83	0.88	10								
	15	0.88	0.90	15								
	20	0.90	0.92	20								
	25	0.92	0.00	25								
38	I	C	0.00	I	soil type:	38	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.56	0.10	0.29	0.56							Upper I	Upper C
	0.75	0.29	0.40	0.75							0.56	0.1
	1	0.40	0.54	1								
	1.5	0.54	0.61	1.5								
	2	0.61	0.71	2								
	3	0.71	0.76	3								
	4	0.76	0.82	4								
	6	0.82	0.85	6								
	8	0.85	0.87	8								
	10	0.87	0.90	10								
	15	0.90	0.92	15								
	20	0.92	0.93	20								
	25	0.93	0.00	25								
39	I	C	0.00	I	soil type:	39	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.24	0.10	0.46	0.24							Upper I	Upper C
	0.5	0.46	0.58	0.5							0.24	0.1
	0.75	0.58	0.66	0.75								
	1	0.66	0.75	1								
	1.5	0.75	0.80	1.5								
	2	0.80	0.85	2								
	3	0.85	0.88	3								
	4	0.88	0.92	4								
	6	0.92	0.95	6								
	10	0.95	0.96	10								
	15	0.96	0.97	15								
	20	0.97	0.97	20								
	25	0.97	0.00	25								
40	I	C	0.00	I	soil type:	40	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1

	0.26	0.10	0.36	0.26							Upper I	Upper C
	0.4	0.36	0.51	0.4							0.26	0.1
	0.6	0.51	0.66	0.6								
	1	0.66	0.74	1								
	1.5	0.74	0.79	1.5								
	2	0.79	0.84	2								
	2.75	0.84	0.88	2.75								
	4	0.88	0.91	4								
	6	0.91	0.94	6								
	10	0.94	0.96	10								
	15	0.96	0.96	15								
	20	0.96	0.97	20								
	25	0.97	0.00	25								
41	I	C	0.00	I	soil type:	41	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	2.56	0.10	0.23	2.56							Upper I	Upper C
	3	0.23	0.35	3							2.56	0.1
	3.5	0.35	0.43	3.5								
	4	0.43	0.48	4								
	4.5	0.48	0.52	4.5								
	5	0.52	0.55	5								
	5.5	0.55	0.60	5.5								
	6.5	0.60	0.63	6.5								
	8	0.63	0.68	8								
	11	0.68	0.70	11								
	15	0.70	0.72	15								
	20	0.72	0.73	20								
	25	0.73	0.00	25								
42	I	C	0.00	I	soil type:	42	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.285	0.10	0.34	0.285							Upper I	Upper C
	0.5	0.34	0.46	0.5							0.285	0.1
	0.75	0.46	0.59	0.75								
	1.25	0.59	0.69	1.25								
	2	0.69	0.75	2								
	2.75	0.75	0.80	2.75								
	3.75	0.80	0.83	3.75								
	5	0.83	0.87	5								
	7	0.87	0.90	7								
	10	0.90	0.92	10								
	15	0.92	0.93	15								
	20	0.93	0.94	20								
	25	0.94	0.00	25								
43	I	C	0.00	I	soil type:	43	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.58	0.10	0.21	0.58							Upper I	Upper C
	1	0.21	0.31	1							0.58	0.1
	1.5	0.31	0.40	1.5								
	2	0.40	0.46	2								
	2.5	0.46	0.56	2.5								
	3.5	0.56	0.64	3.5								
	4.5	0.64	0.71	4.5								
	6	0.71	0.77	6								
	8	0.77	0.83	8								
	11	0.83	0.88	11								
	15	0.88	0.91	15								
	20	0.91	0.93	20								
	25	0.93	0.00	25								
44	I	C	0.00	I	soil type:	44	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.14	0.10	0.45	0.14							Upper I	Upper C
	0.3	0.45	0.70	0.3							0.14	0.1
	0.75	0.70	0.80	0.75								
	1.25	0.80	0.85	1.25								

	1.75	0.85	0.90	1.75								
	2.5	0.90	0.91	2.5								
	3	0.91	0.94	3								
	4	0.94	0.96	4								
	6	0.96	0.98	6								
	10	0.98	0.99	10								
	15	0.99	1.00	15								
	20	1.00	1.00	20								
	25	1.00	0.00	25								
45	I	C	0.00	I	soil type:	45	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	2	0.10	0.21	2							Upper I	Upper C
	2.25	0.21	0.27	2.25							2	0.1
	2.5	0.27	0.39	2.5								
	3.25	0.39	0.46	3.25								
	4	0.46	0.49	4								
	4.5	0.49	0.52	4.5								
	5	0.52	0.56	5								
	6	0.56	0.61	6								
	8	0.61	0.66	8								
	11	0.66	0.70	11								
	15	0.70	0.72	15								
	20	0.72	0.74	20								
	25	0.74	0.00	25								
46	I	C	0.00	I	soil type:	46	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	1.6	0.10	0.14	1.6							Upper I	Upper C
	2	0.14	0.23	2							1.6	0.1
	3	0.23	0.30	3								
	4	0.30	0.34	4								
	4.5	0.34	0.37	4.5								
	5	0.37	0.42	5								
	6	0.42	0.50	6								
	8	0.50	0.55	8								
	10	0.55	0.60	10								
	12	0.60	0.65	12								
	15	0.65	0.70	15								
	20	0.70	0.73	20								
	25	0.73	0.00	25								
47	I	C	0.00	I	soil type:	47	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.33	0.10	0.24	0.33							Upper I	Upper C
	0.5	0.24	0.46	0.5							0.33	0.1
	1	0.46	0.59	1								
	1.5	0.59	0.71	1.5								
	2.25	0.71	0.78	2.25								
	3	0.78	0.84	3								
	4	0.84	0.88	4								
	5	0.88	0.90	5								
	7	0.90	0.93	7								
	10	0.93	0.95	10								
	15	0.95	0.96	15								
	20	0.96	0.97	20								
	25	0.97	0.00	25								
48	I	C	0.00	I	soil type:	48	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.7	0.10	0.29	0.7							Upper I	Upper C
	1	0.29	0.43	1							0.7	0.1
	1.5	0.43	0.52	1.5								
	2	0.52	0.59	2								
	2.5	0.59	0.64	2.5								
	3	0.64	0.71	3								
	4	0.71	0.76	4								
	5	0.76	0.83	5								

	7	0.83	0.89	7								
	10	0.89	0.94	10								
	15	0.94	0.97	15								
	20	0.97	0.99	20								
	25	0.99	0.00	25								
49	I	C	0.00	I	soil type:	49	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.25	0.10	0.35	0.25							Upper I	Upper C
	0.5	0.35	0.55	0.5							0.25	0.1
	1	0.55	0.65	1								
	1.5	0.65	0.71	1.5								
	2	0.71	0.76	2								
	2.5	0.76	0.82	2.5								
	3.5	0.82	0.87	3.5								
	5	0.87	0.91	5								
	7	0.91	0.95	7								
	10	0.95	0.98	10								
	15	0.98	0.99	15								
	20	0.99	1.00	20								
	25	1.00	0.00	25								
50	I	C	0.00	I	soil type:	50	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.17	0.10	0.48	0.17							Upper I	Upper C
	0.5	0.48	0.60	0.5							0.17	0.1
	0.75	0.60	0.68	0.75								
	1	0.68	0.77	1								
	1.5	0.77	0.85	1.5								
	2.25	0.85	0.89	2.25								
	3	0.89	0.93	3								
	4	0.93	0.96	4								
	6	0.96	0.98	6								
	10	0.98	0.99	10								
	15	0.99	0.99	15								
	20	0.99	0.99	20								
	25	0.99	0.00	25								
51	I	C	0.00	I	soil type:	51	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.48	0.10	0.32	0.48							Upper I	Upper C
	0.75	0.32	0.42	0.75							0.48	0.1
	1	0.42	0.54	1								
	1.5	0.54	0.61	1.5								
	2	0.61	0.66	2								
	2.5	0.66	0.70	2.5								
	3	0.70	0.75	3								
	4	0.75	0.81	4								
	6	0.81	0.84	6								
	8	0.84	0.88	8								
	12	0.88	0.91	12								
	20	0.91	0.92	20								
	25	0.92	0.00	25								
52	I	C	0.00	I	soil type:	52	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	4.22	0.10	0.13	4.22							Upper I	Upper C
	4.5	0.13	0.19	4.5							4.22	0.1
	5	0.19	0.28	5								
	6	0.28	0.35	6								
	7	0.35	0.41	7								
	8	0.41	0.45	8								
	9	0.45	0.48	9								
	10	0.48	0.53	10								
	12	0.53	0.57	12								
	14	0.57	0.59	14								
	16	0.59	0.63	16								
	20	0.63	0.66	20								

	25	0.66	0.00	25								
53	I	C	0.00	I	soil type:	53	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.6	0.10	0.18	0.6							Upper I	Upper C
	0.75	0.18	0.31	0.75							0.6	0.1
	1.25	0.31	0.42	1.25								
	2	0.42	0.47	2								
	2.5	0.47	0.51	2.5								
	3	0.51	0.58	3								
	4	0.58	0.62	4								
	5	0.62	0.69	5								
	7	0.69	0.76	7								
	10	0.76	0.82	10								
	15	0.82	0.86	15								
	20	0.86	0.88	20								
	25	0.88	0.00	25								
54	I	C	0.00	I	soil type:	54	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.465	0.10	0.33	0.465							Upper I	Upper C
	0.75	0.33	0.50	0.75							0.465	0.1
	1.25	0.50	0.63	1.25								
	2	0.63	0.69	2								
	2.5	0.69	0.73	2.5								
	3	0.73	0.76	3								
	3.5	0.76	0.83	3.5								
	5	0.83	0.88	5								
	7	0.88	0.92	7								
	10	0.92	0.96	10								
	15	0.96	0.98	15								
	20	0.98	0.99	20								
	25	0.99	0.00	25								
55	I	C	0.00	I	soil type:	55	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.455	0.10	0.48	0.455							Upper I	Upper C
	1.5	0.48	0.58	1.5							0.455	0.1
	2	0.58	0.64	2								
	2.5	0.64	0.69	2.5								
	3	0.69	0.73	3								
	3.5	0.73	0.79	3.5								
	4.5	0.79	0.85	4.5								
	6	0.85	0.89	6								
	8	0.89	0.94	8								
	12	0.94	0.96	12								
	15	0.96	0.98	15								
	20	0.98	1.00	20								
	25	1.00	0.00	25								
56	I	C	0.00	I	soil type:	56	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.26	0.10	0.31	0.26							Upper I	Upper C
	0.5	0.31	0.47	0.5							0.26	0.1
	0.75	0.47	0.65	0.75								
	1.25	0.65	0.74	1.25								
	1.75	0.74	0.79	1.75								
	2.25	0.79	0.83	2.25								
	3	0.83	0.86	3								
	4	0.86	0.89	4								
	6	0.89	0.91	6								
	10	0.91	0.92	10								
	15	0.92	0.93	15								
	20	0.93	0.93	20								
	25	0.93	0.00	25								
57	I	C	0.00	I	soil type:	57	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1

	1.25	0.10	0.23	1.25							Upper I	Upper C
	1.75	0.23	0.39	1.75							1.25	0.1
	2.5	0.39	0.47	2.5								
	3	0.47	0.53	3								
	3.5	0.53	0.58	3.5								
	4	0.58	0.65	4								
	5	0.65	0.69	5								
	6	0.69	0.75	6								
	8	0.75	0.82	8								
	11	0.82	0.86	11								
	15	0.86	0.90	15								
	20	0.90	0.92	20								
	25	0.92	0.00	25								
58	I	C	0.00	I	soil type:	58	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.52	0.10	0.21	0.52							Upper I	Upper C
	0.63	0.21	0.29	0.63							0.52	0.1
	0.79	0.29	0.44	0.79								
	1.25	0.44	0.53	1.25								
	1.75	0.53	0.63	1.75								
	2.5	0.63	0.70	2.5								
	3.5	0.70	0.77	3.5								
	5	0.77	0.83	5								
	7	0.83	0.88	7								
	10	0.88	0.92	10								
	15	0.92	0.94	15								
	20	0.94	0.96	20								
	25	0.96	0.00	25								
59	I	C	0.00	I	soil type:	59	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.33	0.10	0.34	0.33							Upper I	Upper C
	0.5	0.34	0.49	0.5							0.33	0.1
	0.75	0.49	0.64	0.75								
	1.25	0.64	0.75	1.25								
	2	0.75	0.83	2								
	3	0.83	0.87	3								
	4	0.87	0.90	4								
	5	0.90	0.93	5								
	7	0.93	0.96	7								
	10	0.96	0.98	10								
	15	0.98	0.99	15								
	20	0.99	1.00	20								
	25	1.00	0.00	25								
60	I	C	0.00	I	soil type:	60	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	1	0.10	0.25	1							Upper I	Upper C
	1.5	0.25	0.34	1.5							1	0.1
	2	0.34	0.40	2								
	2.5	0.40	0.44	2.5								
	3	0.44	0.47	3								
	3.5	0.47	0.49	3.5								
	4	0.49	0.52	4								
	5	0.52	0.55	5								
	7	0.55	0.58	7								
	10	0.58	0.60	10								
	15	0.60	0.61	15								
	20	0.61	0.61	20								
	25	0.61	0.00	25								
61	I	C	0.00	I	soil type:	61	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	4.1	0.10	0.15	4.1							Upper I	Upper C
	4.25	0.15	0.21	4.25							4.1	0.1
	4.5	0.21	0.29	4.5								
	5	0.29	0.35	5								

	5.5	0.35	0.39	5.5								
	6	0.39	0.45	6								
	7	0.45	0.49	7								
	8	0.49	0.53	8								
	10	0.53	0.56	10								
	12	0.56	0.58	12								
	15	0.58	0.60	15								
	20	0.60	0.62	20								
	25	0.62	0.00	25								
62	I	C	0.00	I	soil type:	62	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.73	0.10	0.28	0.73							Upper I	Upper C
	1	0.28	0.43	1							0.73	0.1
	1.5	0.43	0.53	1.5								
	2	0.53	0.59	2								
	2.5	0.59	0.64	2.5								
	3	0.64	0.72	3								
	4	0.72	0.79	4								
	5.5	0.79	0.85	5.5								
	7.5	0.85	0.89	7.5								
	10	0.89	0.95	10								
	15	0.95	0.98	15								
	20	0.98	0.99	20								
	25	0.99	0.00	25								
63	I	C	0.00	I	soil type:	63	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.47	0.10	0.31	0.47							Upper I	Upper C
	0.75	0.31	0.40	0.75							0.47	0.1
	1	0.40	0.52	1								
	1.5	0.52	0.59	1.5								
	2	0.59	0.69	2								
	3	0.69	0.75	3								
	4	0.75	0.79	4								
	5	0.79	0.85	5								
	7.5	0.85	0.88	7.5								
	10	0.88	0.92	10								
	15	0.92	0.94	15								
	20	0.94	0.95	20								
	25	0.95	0.00	25								
64	I	C	0.00	I	soil type:	64	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.21	0.10	0.36	0.21							Upper I	Upper C
	0.5	0.36	0.57	0.5							0.21	0.1
	1	0.57	0.67	1								
	1.5	0.67	0.73	1.5								
	2	0.73	0.80	2								
	3	0.80	0.84	3								
	4	0.84	0.87	4								
	5	0.87	0.88	5								
	6	0.88	0.92	6								
	10	0.92	0.94	10								
	15	0.94	0.95	15								
	20	0.95	0.95	20								
	25	0.95	0.00	25								
65	I	C	0.00	I	soil type:	65	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.13	0.10	0.38	0.13							Upper I	Upper C
	0.25	0.38	0.62	0.25							0.13	0.1
	0.6	0.62	0.74	0.6								
	1	0.74	0.81	1								
	1.5	0.81	0.87	1.5								
	2.25	0.87	0.90	2.25								
	3	0.90	0.92	3								
	4	0.92	0.95	4								

	6	0.95	0.97	6									
	10	0.97	0.98	10									
	15	0.98	0.99	15									
	20	0.99	0.99	20									
	25	0.99	0.00	25									
66	I	C	0.00	I	soil type:	66	I:	0.1	C:	0.100			
	0	0.00	0.10	0								Lower I	Lower C
	0	0.10	0.10	0								0	0.1
	0.32	0.10	0.15	0.32								Upper I	Upper C
	0.4	0.15	0.38	0.4								0.32	0.1
	0.7	0.38	0.48	0.7									
	1	0.48	0.58	1									
	1.5	0.58	0.64	1.5									
	2	0.64	0.71	2									
	3	0.71	0.76	3									
	4	0.76	0.80	4									
	5.5	0.80	0.85	5.5									
	8	0.85	0.89	8									
	12	0.89	0.93	12									
	20	0.93	0.95	20									
	25	0.95	0.00	25									
67	I	C	0.00	I	soil type:	67	I:	0.1	C:	0.100			
	0	0.00	0.10	0								Lower I	Lower C
	0	0.10	0.10	0								0	0.1
	0.7	0.10	0.26	0.7								Upper I	Upper C
	1	0.26	0.39	1								0.7	0.1
	1.5	0.39	0.47	1.5									
	2	0.47	0.52	2									
	2.5	0.52	0.56	2.5									
	3	0.56	0.61	3									
	3.75	0.61	0.66	3.75									
	5	0.66	0.72	5									
	7	0.72	0.76	7									
	10	0.76	0.80	10									
	15	0.80	0.82	15									
	20	0.82	0.84	20									
	25	0.84	0.00	25									
68	I	C	0.00	I	soil type:	68	I:	0.1	C:	0.100			
	0	0.00	0.10	0								Lower I	Lower C
	0	0.10	0.10	0								0	0.1
	0.33	0.10	0.29	0.33								Upper I	Upper C
	0.75	0.29	0.50	0.75								0.33	0.1
	1.5	0.50	0.58	1.5									
	2	0.58	0.68	2									
	3	0.68	0.71	3									
	3.5	0.71	0.76	3.5									
	4.5	0.76	0.81	4.5									
	6	0.81	0.85	6									
	8	0.85	0.87	8									
	10	0.87	0.90	10									
	15	0.90	0.92	15									
	20	0.92	0.93	20									
	25	0.93	0.00	25									
69	I	C	0.00	I	soil type:	69	I:	0.1	C:	0.100			
	0	0.00	0.10	0								Lower I	Lower C
	0	0.10	0.10	0								0	0.1
	0.23	0.10	0.30	0.23								Upper I	Upper C
	1	0.30	0.40	1								0.23	0.1
	1.5	0.40	0.47	1.5									
	2	0.47	0.52	2									
	2.5	0.52	0.56	2.5									
	3	0.56	0.63	3									
	4	0.63	0.67	4									
	5	0.67	0.73	5									
	7	0.73	0.77	7									
	10	0.77	0.82	10									
	15	0.82	0.84	15									
	20	0.84	0.85	20									

	25	0.85	0.00	25								
70	I	C	0.00	I	soil type:	70	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.32	0.10	0.34	0.32							Upper I	Upper C
	0.5	0.34	0.47	0.5							0.32	0.1
	0.75	0.47	0.54	0.75								
	1	0.54	0.63	1								
	1.5	0.63	0.67	1.5								
	2	0.67	0.70	2								
	2.5	0.70	0.75	2.5								
	4	0.75	0.78	4								
	6	0.78	0.80	6								
	10	0.80	0.82	10								
	15	0.82	0.82	15								
	20	0.82	0.83	20								
	25	0.83	0.00	25								
71	I	C	0.00	I	soil type:	71	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.24	0.10	0.46	0.24							Upper I	Upper C
	0.5	0.46	0.58	0.5							0.24	0.1
	0.75	0.58	0.65	0.75								
	1	0.65	0.74	1								
	1.5	0.74	0.79	1.5								
	2	0.79	0.85	2								
	3	0.85	0.88	3								
	4	0.88	0.92	4								
	6	0.92	0.94	6								
	10	0.94	0.96	10								
	15	0.96	0.97	15								
	20	0.97	0.97	20								
	25	0.97	0.00	25								
72	I	C	0.00	I	soil type:	72	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.46	0.10	0.31	0.46							Upper I	Upper C
	0.75	0.31	0.43	0.75							0.46	0.1
	1	0.43	0.59	1								
	1.5	0.59	0.68	1.5								
	2	0.68	0.74	2								
	2.5	0.74	0.81	2.5								
	3.5	0.81	0.86	3.5								
	5	0.86	0.90	5								
	7	0.90	0.93	7								
	10	0.93	0.96	10								
	15	0.96	0.97	15								
	20	0.97	0.98	20								
	25	0.98	0.00	25								
73	I	C	0.00	I	soil type:	73	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.77	0.10	0.41	0.77							Upper I	Upper C
	1.5	0.41	0.54	1.5							0.77	0.1
	2	0.54	0.62	2								
	2.5	0.62	0.68	2.5								
	3	0.68	0.72	3								
	3.5	0.72	0.78	3.5								
	4.5	0.78	0.83	4.5								
	6	0.83	0.87	6								
	8	0.87	0.89	8								
	10	0.89	0.93	10								
	15	0.93	0.94	15								
	20	0.94	0.95	20								
	25	0.95	0.00	25								
74	I	C	0.00	I	soil type:	74	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1

	0.47	0.10	0.20	0.47							Upper I	Upper C
	0.75	0.20	0.39	0.75							0.47	0.1
	1.5	0.39	0.49	1.5								
	2	0.49	0.56	2								
	2.5	0.56	0.64	2.5								
	3.25	0.64	0.70	3.25								
	4	0.70	0.75	4								
	5	0.75	0.78	5								
	6	0.78	0.84	6								
	10	0.84	0.89	10								
	15	0.89	0.91	15								
	20	0.91	0.93	20								
	25	0.93	0.00	25								
75	I	C	0.00	I	soil type:	75	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.83	0.10	0.29	0.83							Upper I	Upper C
	1.5	0.29	0.39	1.5							0.83	0.1
	2	0.39	0.47	2								
	2.5	0.47	0.53	2.5								
	3	0.53	0.58	3								
	3.5	0.58	0.65	3.5								
	4.5	0.65	0.73	4.5								
	6	0.73	0.79	6								
	8	0.79	0.83	8								
	10	0.83	0.89	10								
	15	0.89	0.92	15								
	20	0.92	0.93	20								
	25	0.93	0.00	25								
76	I	C	0.00	I	soil type:	76	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.55	0.10	0.25	0.55							Upper I	Upper C
	1	0.25	0.33	1							0.55	0.1
	1.5	0.33	0.39	1.5								
	2	0.39	0.44	2								
	2.5	0.44	0.48	2.5								
	3	0.48	0.54	3								
	4	0.54	0.58	4								
	5	0.58	0.65	5								
	7	0.65	0.71	7								
	10	0.71	0.77	10								
	15	0.77	0.81	15								
	20	0.81	0.83	20								
	25	0.83	0.00	25								
77	I	C	0.00	I	soil type:	77	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.37	0.10	0.33	0.37							Upper I	Upper C
	0.5	0.33	0.59	0.5							0.37	0.1
	1	0.59	0.70	1								
	1.5	0.70	0.76	1.5								
	2	0.76	0.80	2								
	2.5	0.80	0.83	2.5								
	3	0.83	0.87	3								
	4	0.87	0.91	4								
	6	0.91	0.94	6								
	10	0.94	0.96	10								
	15	0.96	0.97	15								
	20	0.97	0.97	20								
	25	0.97	0.00	25								
78	I	C	0.00	I	soil type:	78	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.575	0.10	0.29	0.575							Upper I	Upper C
	0.9	0.29	0.44	0.9							0.575	0.1
	1.5	0.44	0.51	1.5								
	2	0.51	0.57	2								

	2.5	0.57	0.61	2.5								
	3	0.61	0.68	3								
	4	0.68	0.73	4								
	5	0.73	0.79	5								
	7	0.79	0.84	7								
	10	0.84	0.89	10								
	15	0.89	0.92	15								
	20	0.92	0.94	20								
	25	0.94	0.00	25								
79	I	C	0.00	I	soil type:	79	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.38	0.10	0.26	0.38							Upper I	Upper C
	0.5	0.26	0.51	0.5							0.38	0.1
	1	0.51	0.62	1								
	1.5	0.62	0.69	1.5								
	2	0.69	0.77	2								
	3	0.77	0.82	3								
	4	0.82	0.87	4								
	6	0.87	0.90	6								
	8	0.90	0.92	8								
	10	0.92	0.95	10								
	15	0.95	0.96	15								
	20	0.96	0.97	20								
	25	0.97	0.00	25								
80	I	C	0.00	I	soil type:	80	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.425	0.10	0.24	0.425							Upper I	Upper C
	0.6	0.24	0.33	0.6							0.425	0.1
	0.8	0.33	0.40	0.8								
	1	0.40	0.51	1								
	1.5	0.51	0.61	1.5								
	2.25	0.61	0.67	2.25								
	3	0.67	0.73	3								
	4	0.73	0.80	4								
	6	0.80	0.86	6								
	9	0.86	0.89	9								
	12	0.89	0.94	12								
	20	0.94	0.95	20								
	25	0.95	0.00	25								
81	I	C	0.00	I	soil type:	81	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.285	0.10	0.35	0.285							Upper I	Upper C
	0.5	0.35	0.58	0.5							0.285	0.1
	1	0.58	0.69	1								
	1.5	0.69	0.75	1.5								
	2	0.75	0.79	2								
	2.5	0.79	0.83	2.5								
	3	0.83	0.87	3								
	4	0.87	0.91	4								
	6	0.91	0.95	6								
	10	0.95	0.97	10								
	15	0.97	0.99	15								
	20	0.99	0.99	20								
	25	0.99	0.00	25								
82	I	C	0.00	I	soil type:	82	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.445	0.10	0.35	0.445							Upper I	Upper C
	1	0.35	0.49	1							0.445	0.1
	1.5	0.49	0.61	1.5								
	2.25	0.61	0.68	2.25								
	3	0.68	0.72	3								
	3.5	0.72	0.77	3.5								
	4.5	0.77	0.81	4.5								
	6	0.81	0.85	6								

	8	0.85	0.87	8								
	10	0.87	0.90	10								
	15	0.90	0.92	15								
	20	0.92	0.93	20								
	25	0.93	0.00	25								
84	I	C	0.00	I	soil type:	84	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.63	0.10	0.22	0.63							Upper I	Upper C
	1	0.22	0.35	1							0.63	0.1
	1.5	0.35	0.45	1.5								
	2	0.45	0.52	2								
	2.5	0.52	0.63	2.5								
	3.5	0.63	0.70	3.5								
	4.5	0.70	0.77	4.5								
	6	0.77	0.84	6								
	8	0.84	0.88	8								
	10	0.88	0.93	10								
	15	0.93	0.96	15								
	20	0.96	0.98	20								
	25	0.98	0.00	25								
85	I	C	0.00	I	soil type:	85	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	1.22	0.10	0.22	1.22							Upper I	Upper C
	1.5	0.22	0.34	1.5							1.22	0.1
	2	0.34	0.42	2								
	2.5	0.42	0.48	2.5								
	3	0.48	0.53	3								
	3.5	0.53	0.60	3.5								
	4.5	0.60	0.68	4.5								
	6	0.68	0.74	6								
	8	0.74	0.79	8								
	10	0.79	0.86	10								
	15	0.86	0.90	15								
	20	0.90	0.93	20								
	25	0.93	0.00	25								
86	I	C	0.00	I	soil type:	86	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	1.48	0.10	0.20	1.48							Upper I	Upper C
	2	0.20	0.30	2							1.48	0.1
	2.5	0.30	0.44	2.5								
	3.5	0.44	0.52	3.5								
	4.5	0.52	0.58	4.5								
	5.5	0.58	0.63	5.5								
	6.5	0.63	0.69	6.5								
	8	0.69	0.74	8								
	10	0.74	0.78	10								
	12	0.78	0.82	12								
	15	0.82	0.86	15								
	20	0.86	0.89	20								
	25	0.89	0.00	25								
87	I	C	0.00	I	soil type:	87	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.73	0.10	0.22	0.73							Upper I	Upper C
	1	0.22	0.35	1							0.73	0.1
	1.5	0.35	0.45	1.5								
	2	0.45	0.57	2								
	3	0.57	0.65	3								
	4	0.65	0.70	4								
	5	0.70	0.74	5								
	6	0.74	0.79	6								
	8	0.79	0.82	8								
	10	0.82	0.86	10								
	15	0.86	0.89	15								
	20	0.89	0.90	20								

	25	0.90	0.00	25								
88	I	C	0.00	I	soil type:	88	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.69	0.10	0.23	0.69							Upper I	Upper C
	1	0.23	0.38	1							0.69	0.1
	1.5	0.38	0.49	1.5								
	2	0.49	0.65	2								
	3	0.65	0.70	3								
	3.5	0.70	0.78	3.5								
	4.5	0.78	0.85	4.5								
	6	0.85	0.87	6								
	7	0.87	0.92	7								
	10	0.92	0.94	10								
	15	0.94	0.95	15								
	20	0.95	0.95	20								
	25	0.95	0.00	25								
89	I	C	0.00	I	soil type:	89	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.33	0.10	0.29	0.33							Upper I	Upper C
	0.5	0.29	0.49	0.5							0.33	0.1
	1	0.49	0.58	1								
	1.5	0.58	0.64	1.5								
	2	0.64	0.68	2								
	2.5	0.68	0.71	2.5								
	3	0.71	0.73	3								
	3.5	0.73	0.77	3.5								
	5	0.77	0.81	5								
	8	0.81	0.84	8								
	15	0.84	0.86	15								
	20	0.86	0.86	20								
	25	0.86	0.00	25								
90	I	C	0.00	I	soil type:	90	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.16	0.10	0.43	0.16							Upper I	Upper C
	0.4	0.43	0.59	0.4							0.16	0.1
	0.75	0.59	0.66	0.75								
	1	0.66	0.74	1								
	1.5	0.74	0.78	1.5								
	2	0.78	0.82	2								
	2.5	0.82	0.85	2.5								
	3.5	0.85	0.88	3.5								
	4.5	0.88	0.90	4.5								
	6	0.90	0.93	6								
	10	0.93	0.95	10								
	20	0.95	0.96	20								
	25	0.96	0.00	25								
91	I	C	0.00	I	soil type:	91	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.18	0.10	0.26	0.18							Upper I	Upper C
	0.25	0.26	0.47	0.25							0.18	0.1
	0.5	0.47	0.57	0.5								
	0.75	0.57	0.63	0.75								
	1	0.63	0.70	1								
	1.5	0.70	0.74	1.5								
	2	0.74	0.79	2								
	3	0.79	0.83	3								
	5	0.83	0.87	5								
	10	0.87	0.88	10								
	15	0.88	0.89	15								
	20	0.89	0.89	20								
	25	0.89	0.00	25								
92	I	C	0.00	I	soil type:	92	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1

	0.18	0.10	0.36	0.18							Upper I	Upper C
	0.3	0.36	0.52	0.3							0.18	0.1
	0.5	0.52	0.62	0.5								
	0.75	0.62	0.68	0.75								
	1	0.68	0.74	1								
	1.5	0.74	0.78	1.5								
	2	0.78	0.82	2								
	3	0.82	0.85	3								
	4	0.85	0.88	4								
	7	0.88	0.89	7								
	10	0.89	0.91	10								
	20	0.91	0.91	20								
	25	0.91	0.00	25								
93	I	C	0.00	I	soil type:	93	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.29	0.10	0.25	0.29							Upper I	Upper C
	0.5	0.25	0.36	0.5							0.29	0.1
	0.75	0.36	0.45	0.75								
	1	0.45	0.56	1								
	1.5	0.56	0.63	1.5								
	2	0.63	0.68	2								
	2.5	0.68	0.75	2.5								
	3.5	0.75	0.80	3.5								
	5	0.80	0.84	5								
	7	0.84	0.88	7								
	12	0.88	0.91	12								
	20	0.91	0.91	20								
	25	0.91	0.00	25								
94	I	C	0.00	I	soil type:	94	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.2	0.10	0.29	0.2							Upper I	Upper C
	0.25	0.29	0.57	0.25							0.2	0.1
	0.5	0.57	0.68	0.5								
	0.75	0.68	0.74	0.75								
	1	0.74	0.81	1								
	1.5	0.81	0.85	1.5								
	2	0.85	0.88	2								
	3	0.88	0.90	3								
	4	0.90	0.93	4								
	7	0.93	0.95	7								
	12	0.95	0.95	12								
	20	0.95	0.96	20								
	25	0.96	0.00	25								
95	I	C	0.00	I	soil type:	95	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.22	0.10	0.41	0.22							Upper I	Upper C
	0.4	0.41	0.59	0.4							0.22	0.1
	0.75	0.59	0.66	0.75								
	1	0.66	0.73	1								
	1.5	0.73	0.77	1.5								
	2	0.77	0.80	2								
	2.5	0.80	0.83	2.5								
	3.5	0.83	0.86	3.5								
	5	0.86	0.88	5								
	7	0.88	0.90	7								
	12	0.90	0.91	12								
	20	0.91	0.92	20								
	25	0.92	0.00	25								
96	I	C	0.00	I	soil type:	96	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	1.74	0.10	0.18	1.74							Upper I	Upper C
	2	0.18	0.30	2							1.74	0.1
	2.5	0.30	0.39	2.5								
	3	0.39	0.46	3								

	3.5	0.46	0.51	3.5								
	4	0.51	0.58	4								
	5	0.58	0.64	5								
	6.5	0.64	0.70	6.5								
	9	0.70	0.74	9								
	12	0.74	0.77	12								
	15	0.77	0.79	15								
	20	0.79	0.81	20								
	25	0.81	0.00	25								
97	I	C	0.00	I	soil type:	97	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.32	0.10	0.31	0.32							Upper I	Upper C
	0.5	0.31	0.44	0.5							0.32	0.1
	0.75	0.44	0.52	0.75								
	1	0.52	0.61	1								
	1.5	0.61	0.67	1.5								
	2	0.67	0.71	2								
	2.5	0.71	0.75	2.5								
	3.5	0.75	0.78	3.5								
	4.5	0.78	0.82	4.5								
	7	0.82	0.84	7								
	10	0.84	0.87	10								
	20	0.87	0.88	20								
	25	0.88	0.00	25								
98	I	C	0.00	I	soil type:	98	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.25	0.10	0.44	0.25							Upper I	Upper C
	0.5	0.44	0.59	0.5							0.25	0.1
	0.75	0.59	0.67	0.75								
	1	0.67	0.76	1								
	1.5	0.76	0.80	1.5								
	2	0.80	0.82	2								
	2.5	0.82	0.86	2.5								
	3.5	0.86	0.88	3.5								
	5	0.88	0.90	5								
	7	0.90	0.92	7								
	10	0.92	0.95	10								
	20	0.95	0.97	20								
	25	0.97	0.00	25								
99	I	C	0.00	I	soil type:	99	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.28	0.10	0.43	0.28							Upper I	Upper C
	0.5	0.43	0.57	0.5							0.28	0.1
	0.75	0.57	0.64	0.75								
	1	0.64	0.73	1								
	1.5	0.73	0.78	1.5								
	2	0.78	0.81	2								
	2.5	0.81	0.85	2.5								
	3.5	0.85	0.88	3.5								
	5	0.88	0.90	5								
	7	0.90	0.92	7								
	10	0.92	0.94	10								
	20	0.94	0.94	20								
	25	0.94	0.00	25								
100	I	C	0.00	I	soil type:	100	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.66	0.10	0.30	0.66							Upper I	Upper C
	1	0.30	0.44	1							0.66	0.1
	1.5	0.44	0.52	1.5								
	2	0.52	0.58	2								
	2.5	0.58	0.66	2.5								
	3.5	0.66	0.71	3.5								
	4.5	0.71	0.76	4.5								
	6	0.76	0.80	6								

	8	0.80	0.83	8								
	10	0.83	0.87	10								
	15	0.87	0.89	15								
	20	0.89	0.90	20								
	25	0.90	0.00	25								
101	I	C	0.00	I	soil type:	101	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.63	0.10	0.28	0.63							Upper I	Upper C
	1	0.28	0.39	1							0.63	0.1
	1.5	0.39	0.45	1.5								
	2	0.45	0.50	2								
	2.5	0.50	0.53	2.5								
	3	0.53	0.58	3								
	4	0.58	0.63	4								
	6	0.63	0.66	6								
	8	0.66	0.68	8								
	10	0.68	0.71	10								
	15	0.71	0.72	15								
	20	0.72	0.73	20								
	25	0.73	0.00	25								
102	I	C	0.00	I	soil type:	102	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.3	0.10	0.40	0.3							Upper I	Upper C
	0.5	0.40	0.62	0.5							0.3	0.1
	1	0.62	0.71	1								
	1.5	0.71	0.76	1.5								
	2	0.76	0.79	2								
	2.5	0.79	0.82	2.5								
	3	0.82	0.86	3								
	4.5	0.86	0.89	4.5								
	7	0.89	0.91	7								
	10	0.91	0.92	10								
	15	0.92	0.93	15								
	20	0.93	0.94	20								
	25	0.94	0.00	25								
103	I	C	0.10	I	soil type:	103	I:	0.1	C:	0.100		
	0	0.10	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.29	0.10	0.31	0.29							Upper I	Upper C
	0.5	0.31	0.43	0.5							0.29	0.1
	0.75	0.43	0.51	0.75								
	1	0.51	0.61	1								
	1.5	0.61	0.67	1.5								
	2	0.67	0.75	2								
	3	0.75	0.81	3								
	4.5	0.81	0.86	4.5								
	7	0.86	0.89	7								
	10	0.89	0.92	10								
	15	0.92	0.93	15								
	20	0.93	0.94	20								
	25	0.94	0.00	25								
104	I	C	0.00	I	soil type:	104	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.725	0.10	0.27	0.725							Upper I	Upper C
	1	0.27	0.42	1							0.725	0.1
	1.5	0.42	0.51	1.5								
	2	0.51	0.57	2								
	2.5	0.57	0.62	2.5								
	3	0.62	0.69	3								
	4	0.69	0.77	4								
	6	0.77	0.81	6								
	8	0.81	0.84	8								
	10	0.84	0.89	10								
	15	0.89	0.91	15								
	20	0.91	0.93	20								

	25	0.93	0.00	25								
105	I	C	0.00	I	soil type:	105	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.33	0.10	0.28	0.33							Upper I	Upper C
	0.75	0.28	0.46	0.75							0.33	0.1
	1.5	0.46	0.54	1.5								
	2	0.54	0.59	2								
	2.5	0.59	0.63	2.5								
	3	0.63	0.70	3								
	4	0.70	0.74	4								
	5	0.74	0.81	5								
	7	0.81	0.88	7								
	10	0.88	0.94	10								
	15	0.94	0.99	15								
	20	0.99	1.00	20								
	25	1.00	0.00	25								
106	I	C	0.00	I	soil type:	106	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	1.665	0.10	0.15	1.665							Upper I	Upper C
	2	0.15	0.21	2							1.665	0.1
	2.5	0.21	0.25	2.5								
	3	0.25	0.31	3								
	4	0.31	0.35	4								
	5	0.35	0.39	5								
	6	0.39	0.41	6								
	7	0.41	0.44	7								
	8	0.44	0.48	8								
	10	0.48	0.54	10								
	15	0.54	0.58	15								
	20	0.58	0.61	20								
	25	0.61	0.00	25								
107	I	C	0.00	I	soil type:	107	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.23	0.10	0.42	0.23							Upper I	Upper C
	0.5	0.42	0.53	0.5							0.23	0.1
	0.75	0.53	0.60	0.75								
	1	0.60	0.68	1								
	1.5	0.68	0.73	1.5								
	2	0.73	0.79	2								
	3	0.79	0.82	3								
	4	0.82	0.86	4								
	6	0.86	0.89	6								
	10	0.89	0.91	10								
	15	0.91	0.92	15								
	20	0.92	0.92	20								
	25	0.92	0.00	25								
108	I	C	0.00	I	soil type:	108	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0.1	0.1
	0.1	0.10	0.49	0.1							Upper I	Upper C
	0.25	0.49	0.61	0.25							0.25	0.48964
	0.5	0.61	0.70	0.5								
	1	0.70	0.75	1								
	1.5	0.75	0.78	1.5								
	2	0.78	0.82	2								
	3	0.82	0.87	3								
	5	0.87	0.89	5								
	7	0.89	0.92	7								
	10	0.92	0.94	10								
	15	0.94	0.95	15								
	20	0.95	0.95	20								
	25	0.95	0.00	25								
109	I	C	0.00	I	soil type:	109	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1

	0.3	0.10	0.35	0.3							Upper I	Upper C
	0.5	0.35	0.56	0.5							0.3	0.1
	1	0.56	0.65	1								
	1.5	0.65	0.70	1.5								
	2	0.70	0.73	2								
	2.5	0.73	0.77	2.5								
	3.5	0.77	0.81	3.5								
	5	0.81	0.83	5								
	7	0.83	0.85	7								
	10	0.85	0.87	10								
	15	0.87	0.88	15								
	20	0.88	0.88	20								
	25	0.88	0.00	25								
110	I	C	0.00	I	soil type:	110	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0.1	0.1
	0.1	0.10	0.46	0.1							Upper I	Upper C
	0.25	0.46	0.66	0.25							0.25	0.456878
	0.6	0.66	0.75	0.6								
	1	0.75	0.80	1								
	1.5	0.80	0.82	1.5								
	2	0.82	0.84	2								
	2.5	0.84	0.87	2.5								
	4	0.87	0.88	4								
	5	0.88	0.90	5								
	10	0.90	0.90	10								
	15	0.90	0.91	15								
	20	0.91	0.91	20								
	25	0.91	0.00	25								
111	I	C	0.00	I	soil type:	111	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.385	0.10	0.39	0.385							Upper I	Upper C
	0.75	0.39	0.48	0.75							0.385	0.1
	1	0.48	0.58	1								
	1.5	0.58	0.64	1.5								
	2	0.64	0.72	2								
	3	0.72	0.76	3								
	4	0.76	0.81	4								
	6	0.81	0.83	6								
	8	0.83	0.85	8								
	10	0.85	0.87	10								
	15	0.87	0.88	15								
	20	0.88	0.89	20								
	25	0.89	0.00	25								
112	I	C	0.00	I	soil type:	112	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.28	0.10	0.42	0.28							Upper I	Upper C
	0.5	0.42	0.63	0.5							0.28	0.1
	1	0.63	0.71	1								
	1.5	0.71	0.76	1.5								
	2	0.76	0.82	2								
	3	0.82	0.84	3								
	4	0.84	0.86	4								
	5	0.86	0.88	5								
	7	0.88	0.90	7								
	10	0.90	0.92	10								
	15	0.92	0.92	15								
	20	0.92	0.93	20								
	25	0.93	0.00	25								
113	I	C	0.00	I	soil type:	113	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.25	0.10	0.34	0.25							Upper I	Upper C
	0.5	0.34	0.52	0.5							0.25	0.1
	1	0.52	0.62	1								
	1.5	0.62	0.68	1.5								

	2	0.68	0.76	2								
	3	0.76	0.80	3								
	4	0.80	0.84	4								
	5	0.84	0.88	5								
	7	0.88	0.91	7								
	10	0.91	0.94	10								
	15	0.94	0.95	15								
	20	0.95	0.96	20								
	25	0.96	0.00	25								
114	I	C	0.00	I	soil type:	114	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.35	0.10	0.29	0.35							Upper I	Upper C
	0.75	0.29	0.36	0.75							0.35	0.1
	1	0.36	0.46	1								
	1.5	0.46	0.53	1.5								
	2	0.53	0.63	2								
	3	0.63	0.69	3								
	4	0.69	0.75	4								
	5	0.75	0.82	5								
	7	0.82	0.89	7								
	10	0.89	0.95	10								
	15	0.95	0.99	15								
	20	0.99	1.00	20								
	25	1.00	0.00	25								
115	I	C	0.00	I	soil type:	115	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.22	0.10	0.42	0.22							Upper I	Upper C
	0.5	0.42	0.53	0.5							0.22	0.1
	0.75	0.53	0.59	0.75								
	1	0.59	0.68	1								
	1.5	0.68	0.77	1.5								
	2.5	0.77	0.81	2.5								
	3.5	0.81	0.85	3.5								
	5	0.85	0.88	5								
	7	0.88	0.90	7								
	10	0.90	0.92	10								
	15	0.92	0.92	15								
	20	0.92	0.93	20								
	25	0.93	0.00	25								
116	I	C	0.00	I	soil type:	116	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.72	0.10	0.29	0.72							Upper I	Upper C
	1	0.29	0.44	1							0.72	0.1
	1.5	0.44	0.52	1.5								
	2	0.52	0.57	2								
	2.5	0.57	0.61	2.5								
	3	0.61	0.66	3								
	4	0.66	0.72	4								
	6	0.72	0.76	6								
	8	0.76	0.78	8								
	10	0.78	0.81	10								
	15	0.81	0.82	15								
	20	0.82	0.83	20								
	25	0.83	0.00	25								
117	I	C	0.00	I	soil type:	117	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0.1	0.1
	0.1	0.10	0.52	0.1							Upper I	Upper C
	0.3	0.52	0.68	0.3							0.3	0.524112
	0.6	0.68	0.77	0.6								
	1	0.77	0.82	1								
	1.5	0.82	0.85	1.5								
	2	0.85	0.87	2								
	2.5	0.87	0.89	2.5								
	3.5	0.89	0.91	3.5								

	5	0.91	0.93	5								
	10	0.93	0.93	10								
	15	0.93	0.94	15								
	20	0.94	0.94	20								
	25	0.94	0.00	25								
118	I	C	0.00	I	soil type:	118	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.58	0.10	0.39	0.58							Upper I	Upper C
	1	0.39	0.52	1							0.58	0.1
	1.5	0.52	0.60	1.5								
	2	0.60	0.66	2								
	2.5	0.66	0.70	2.5								
	3	0.70	0.76	3								
	4	0.76	0.79	4								
	5	0.79	0.84	5								
	7	0.84	0.88	7								
	10	0.88	0.91	10								
	15	0.91	0.93	15								
	20	0.93	0.94	20								
	25	0.94	0.00	25								
119	I	C	0.00	I	soil type:	119	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.77	0.10	0.31	0.77							Upper I	Upper C
	1.5	0.31	0.42	1.5							0.77	0.1
	2	0.42	0.50	2								
	2.5	0.50	0.56	2.5								
	3	0.56	0.64	3								
	4	0.64	0.70	4								
	5	0.70	0.74	5								
	6	0.74	0.79	6								
	8	0.79	0.82	8								
	10	0.82	0.87	10								
	15	0.87	0.90	15								
	20	0.90	0.91	20								
	25	0.91	0.00	25								
120	I	C	0.00	I	soil type:	120	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.65	0.10	0.32	0.65							Upper I	Upper C
	1	0.32	0.46	1							0.65	0.1
	1.5	0.46	0.55	1.5								
	2	0.55	0.60	2								
	2.5	0.60	0.68	2.5								
	3.5	0.68	0.74	3.5								
	4.5	0.74	0.79	4.5								
	6	0.79	0.83	6								
	8	0.83	0.86	8								
	10	0.86	0.90	10								
	15	0.90	0.92	15								
	20	0.92	0.94	20								
	25	0.94	0.00	25								
121	I	C	0.00	I	soil type:	121	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	3.7	0.10	0.17	3.7							Upper I	Upper C
	4	0.17	0.29	4							3.7	0.1
	5	0.29	0.38	5								
	6	0.38	0.46	6								
	7	0.46	0.52	7								
	8	0.52	0.57	8								
	9	0.57	0.61	9								
	10	0.61	0.67	10								
	12	0.67	0.71	12								
	14	0.71	0.75	14								
	16	0.75	0.80	16								
	20	0.80	0.94	20								

	25	0.94	0.00	25								
122	I	C	0.00	I	soil type:	122	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.82	0.10	0.29	0.82							Upper I	Upper C
	1.5	0.29	0.39	1.5							0.82	0.1
	2	0.39	0.47	2								
	2.5	0.47	0.53	2.5								
	3	0.53	0.61	3								
	4	0.61	0.67	4								
	5	0.67	0.71	5								
	6	0.71	0.77	6								
	8	0.77	0.81	8								
	10	0.81	0.86	10								
	15	0.86	0.89	15								
	20	0.89	0.91	20								
	25	0.91	0.00	25								
123	I	C	0.00	I	soil type:	123	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.12	0.10	0.48	0.12							Upper I	Upper C
	0.5	0.48	0.63	0.5							0.12	0.1
	1	0.63	0.71	1								
	1.5	0.71	0.76	1.5								
	2	0.76	0.79	2								
	2.5	0.79	0.85	2.5								
	3.75	0.85	0.87	3.75								
	5	0.87	0.89	5								
	6	0.89	0.92	6								
	10	0.92	0.94	10								
	15	0.94	0.95	15								
	20	0.95	0.96	20								
	25	0.96	0.00	25								
124	I	C	0.00	I	soil type:	124	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	1.4	0.10	0.21	1.4							Upper I	Upper C
	2	0.21	0.29	2							1.4	0.1
	2.5	0.29	0.36	2.5								
	3	0.36	0.47	3								
	4	0.47	0.56	4								
	5	0.56	0.62	5								
	6	0.62	0.67	6								
	7	0.67	0.71	7								
	8	0.71	0.77	8								
	10	0.77	0.83	10								
	13	0.83	0.91	13								
	20	0.91	0.94	20								
	25	0.94	0.00	25								
125	I	C	0.00	I	soil type:	125	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	2.82	0.10	0.22	2.82							Upper I	Upper C
	3.5	0.22	0.37	3.5							2.82	0.1
	4.5	0.37	0.42	4.5								
	5	0.42	0.51	5								
	6	0.51	0.58	6								
	7	0.58	0.63	7								
	8	0.63	0.67	8								
	9	0.67	0.70	9								
	10	0.70	0.75	10								
	12	0.75	0.80	12								
	15	0.80	0.85	15								
	20	0.85	0.88	20								
	25	0.88	0.00	25								
126	I	C	0.00	I	soil type:	126	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1

	0.68	0.10	0.27	0.68							Upper I	Upper C
	1	0.27	0.41	1							0.68	0.1
	1.5	0.41	0.49	1.5								
	2	0.49	0.56	2								
	2.5	0.56	0.61	2.5								
	3	0.61	0.68	3								
	4	0.68	0.74	4								
	5	0.74	0.82	5								
	7	0.82	0.89	7								
	10	0.89	0.95	10								
	15	0.95	0.99	15								
	20	0.99	1.00	20								
	25	1.00	0.00	25								
127	I	C	0.00	I	soil type:	127	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	1.42	0.10	0.23	1.42							Upper I	Upper C
	2	0.23	0.38	2							1.42	0.1
	3	0.38	0.49	3								
	4	0.49	0.57	4								
	5	0.57	0.62	5								
	6	0.62	0.67	6								
	7	0.67	0.70	7								
	8	0.70	0.75	8								
	10	0.75	0.79	10								
	12	0.79	0.83	12								
	15	0.83	0.87	15								
	20	0.87	0.90	20								
	25	0.90	0.00	25								
128	I	C	0.00	I	soil type:	128	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	1.52	0.10	0.24	1.52							Upper I	Upper C
	2	0.24	0.39	2							1.52	0.1
	3	0.39	0.49	3								
	4	0.49	0.56	4								
	5	0.56	0.62	5								
	6	0.62	0.67	6								
	7	0.67	0.71	7								
	8	0.71	0.78	8								
	10	0.78	0.84	10								
	12	0.84	0.93	12								
	16	0.93	0.99	16								
	20	0.99	1.00	20								
	25	1.00	0.00	25								
129	I	C	0.00	I	soil type:	129	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	1.02	0.10	0.20	1.02							Upper I	Upper C
	1.5	0.20	0.29	1.5							1.02	0.1
	2	0.29	0.37	2								
	2.5	0.37	0.44	2.5								
	3	0.44	0.54	3								
	4	0.54	0.62	4								
	5	0.62	0.68	5								
	6	0.68	0.76	6								
	8	0.76	0.82	8								
	10	0.82	0.89	10								
	14	0.89	0.95	14								
	20	0.95	0.98	20								
	25	0.98	0.00	25								
130	I	C	0.00	I	soil type:	130	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	2.06	0.10	0.17	2.06							Upper I	Upper C
	2.5	0.17	0.23	2.5							2.06	0.1
	3	0.23	0.27	3								
	3.5	0.27	0.31	3.5								

	4	0.31	0.36	4								
	5	0.36	0.40	5								
	6	0.40	0.43	6								
	7	0.43	0.45	7								
	8	0.45	0.48	8								
	10	0.48	0.52	10								
	15	0.52	0.54	15								
	20	0.54	0.55	20								
	25	0.55	0.00	25								
131	I	C	0.00	I	soil type:	131	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	3.27	0.10	0.19	3.27							Upper I	Upper C
	4	0.19	0.31	4							3.27	0.1
	5	0.31	0.41	5								
	6	0.41	0.48	6								
	7	0.48	0.54	7								
	8	0.54	0.59	8								
	9	0.59	0.63	9								
	10	0.63	0.69	10								
	12	0.69	0.73	12								
	14	0.73	0.77	14								
	16	0.77	0.82	16								
	20	0.82	0.86	20								
	25	0.86	0.00	25								
132	I	C	0.00	I	soil type:	132	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	4	0.10	0.15	4							Upper I	Upper C
	4.5	0.15	0.27	4.5							4	0.1
	5.5	0.27	0.31	5.5								
	6	0.31	0.35	6								
	6.5	0.35	0.38	6.5								
	7	0.38	0.40	7								
	7.5	0.40	0.43	7.5								
	8.5	0.43	0.45	8.5								
	10	0.45	0.46	10								
	12	0.46	0.47	12								
	14	0.47	0.48	14								
	20	0.48	0.48	20								
	25	0.48	0.00	25								
133	I	C	0.00	I	soil type:	133	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.28	0.10	0.46	0.28							Upper I	Upper C
	0.75	0.46	0.55	0.75							0.28	0.1
	1	0.55	0.66	1								
	1.5	0.66	0.72	1.5								
	2	0.72	0.76	2								
	2.5	0.76	0.79	2.5								
	3	0.79	0.83	3								
	4	0.83	0.85	4								
	5	0.85	0.86	5								
	6	0.86	0.89	6								
	10	0.89	0.92	10								
	20	0.92	0.92	20								
	25	0.92	0.00	25								
134	I	C	0.00	I	soil type:	134	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	1.2	0.10	0.26	1.2							Upper I	Upper C
	1.75	0.26	0.39	1.75							1.2	0.1
	2.5	0.39	0.45	2.5								
	3	0.45	0.50	3								
	3.5	0.50	0.54	3.5								
	4	0.54	0.61	4								
	5	0.61	0.66	5								
	6	0.66	0.75	6								

	8	0.75	0.81	8								
	10	0.81	0.88	10								
	13	0.88	0.99	13								
	20	0.99	1.00	20								
	25	1.00	0.00	25								
135	I	C	0.00	I	soil type:	135	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.37	0.10	0.33	0.37							Upper I	Upper C
	0.5	0.33	0.59	0.5							0.37	0.1
	1	0.59	0.69	1								
	1.5	0.69	0.74	1.5								
	2	0.74	0.81	2								
	3	0.81	0.84	3								
	4	0.84	0.88	4								
	6	0.88	0.89	6								
	8	0.89	0.91	8								
	10	0.91	0.92	10								
	15	0.92	0.93	15								
	20	0.93	0.93	20								
	25	0.93	0.00	25								
136	I	C	0.00	I	soil type:	136	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	2.2	0.10	0.20	2.2							Upper I	Upper C
	2.5	0.20	0.30	2.5							2.2	0.1
	3	0.30	0.36	3								
	3.5	0.36	0.41	3.5								
	4	0.41	0.45	4								
	4.5	0.45	0.51	4.5								
	5.5	0.51	0.58	5.5								
	7	0.58	0.64	7								
	9	0.64	0.70	9								
	12	0.70	0.74	12								
	15	0.74	0.78	15								
	20	0.78	0.81	20								
	25	0.81	0.00	25								
137	I	C	0.00	I	soil type:	137	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.3	0.10	0.37	0.3							Upper I	Upper C
	0.75	0.37	0.47	0.75							0.3	0.1
	1	0.47	0.59	1								
	1.5	0.59	0.66	1.5								
	2	0.66	0.70	2								
	2.5	0.70	0.74	2.5								
	3	0.74	0.80	3								
	4.5	0.80	0.84	4.5								
	7	0.84	0.86	7								
	9	0.86	0.89	9								
	15	0.89	0.90	15								
	20	0.90	0.90	20								
	25	0.90	0.00	25								
138	I	C	0.00	I	soil type:	138	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.97	0.10	0.35	0.97							Upper I	Upper C
	1.5	0.35	0.48	1.5							0.97	0.1
	2	0.48	0.55	2								
	2.5	0.55	0.60	2.5								
	3	0.60	0.67	3								
	4	0.67	0.71	4								
	5	0.71	0.75	5								
	7	0.75	0.76	7								
	8	0.76	0.78	8								
	10	0.78	0.81	10								
	15	0.81	0.82	15								
	20	0.82	0.83	20								

	25	0.83	0.00	25								
139	I	C	0.00	I	soil type:	139	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.13	0.10	0.48	0.13							Upper I	Upper C
	0.5	0.48	0.64	0.5							0.13	0.1
	1	0.64	0.73	1								
	1.5	0.73	0.78	1.5								
	2	0.78	0.84	2								
	3	0.84	0.88	3								
	4	0.88	0.92	4								
	6	0.92	0.95	6								
	8	0.95	0.96	8								
	10	0.96	0.98	10								
	15	0.98	0.99	15								
	20	0.99	1.00	20								
	25	1.00	0.00	25								
140	I	C	0.00	I	soil type:	140	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.73	0.10	0.33	0.73							Upper I	Upper C
	1	0.33	0.53	1							0.73	0.1
	1.5	0.53	0.63	1.5								
	2	0.63	0.69	2								
	2.5	0.69	0.73	2.5								
	3	0.73	0.78	3								
	4	0.78	0.82	4								
	5.5	0.82	0.85	5.5								
	7.5	0.85	0.87	7.5								
	10	0.87	0.88	10								
	15	0.88	0.89	15								
	20	0.89	0.90	20								
	25	0.90	0.00	25								
141	I	C	0.00	I	soil type:	141	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.52	0.10	0.39	0.52							Upper I	Upper C
	1	0.39	0.55	1							0.52	0.1
	1.5	0.55	0.63	1.5								
	2	0.63	0.68	2								
	2.5	0.68	0.72	2.5								
	3	0.72	0.76	3								
	4	0.76	0.80	4								
	6	0.80	0.82	6								
	8	0.82	0.84	8								
	10	0.84	0.85	10								
	15	0.85	0.86	15								
	20	0.86	0.87	20								
	25	0.87	0.00	25								
142	I	C	0.00	I	soil type:	142	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.53	0.10	0.34	0.53							Upper I	Upper C
	0.75	0.34	0.46	0.75							0.53	0.1
	1	0.46	0.59	1								
	1.5	0.59	0.67	1.5								
	2	0.67	0.72	2								
	2.5	0.72	0.78	2.5								
	3.5	0.78	0.84	3.5								
	5	0.84	0.88	5								
	7	0.88	0.91	7								
	10	0.91	0.94	10								
	15	0.94	0.95	15								
	20	0.95	0.96	20								
	25	0.96	0.00	25								
143	I	C	0.00	I	soil type:	143	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1

	1.5	0.10	0.27	1.5							Upper I	Upper C
	2	0.27	0.37	2							1.5	0.1
	2.5	0.37	0.44	2.5								
	3	0.44	0.49	3								
	3.5	0.49	0.53	3.5								
	4	0.53	0.58	4								
	5	0.58	0.62	5								
	6	0.62	0.66	6								
	8	0.66	0.69	8								
	10	0.69	0.70	10								
	12	0.70	0.74	12								
	20	0.74	0.75	20								
	25	0.75	0.00	25								
144	I	C	0.00	I	soil type:	144	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	1.17	0.10	0.26	1.17							Upper I	Upper C
	1.5	0.26	0.41	1.5							1.17	0.1
	2	0.41	0.50	2								
	2.5	0.50	0.57	2.5								
	3	0.57	0.64	3								
	4	0.64	0.69	4								
	5	0.69	0.72	5								
	6	0.72	0.76	6								
	8	0.76	0.78	8								
	10	0.78	0.81	10								
	15	0.81	0.83	15								
	20	0.83	0.84	20								
	25	0.84	0.00	25								
145	I	C	0.00	I	soil type:	145	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	2.69	0.10	0.16	2.69							Upper I	Upper C
	3	0.16	0.23	3							2.69	0.1
	3.5	0.23	0.28	3.5								
	4	0.28	0.35	4								
	5	0.35	0.41	5								
	6	0.41	0.45	6								
	7	0.45	0.48	7								
	8	0.48	0.54	8								
	10	0.54	0.58	10								
	12	0.58	0.63	12								
	15	0.63	0.68	15								
	20	0.68	0.72	20								
	25	0.72	0.00	25								
146	I	C	0.00	I	soil type:	146	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.7	0.10	0.32	0.7							Upper I	Upper C
	1	0.32	0.49	1							0.7	0.1
	1.5	0.49	0.59	1.5								
	2	0.59	0.64	2								
	2.5	0.64	0.70	2.5								
	3.5	0.70	0.74	3.5								
	4.5	0.74	0.76	4.5								
	6	0.76	0.79	6								
	8	0.79	0.80	8								
	10	0.80	0.82	10								
	15	0.82	0.83	15								
	20	0.83	0.83	20								
	25	0.83	0.00	25								
147	I	C	0.00	I	soil type:	147	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.8	0.10	0.24	0.8							Upper I	Upper C
	1	0.24	0.47	1							0.8	0.1
	1.5	0.47	0.59	1.5								
	2	0.59	0.66	2								

	2.5	0.66	0.73	2.5								
	3.25	0.73	0.79	3.25								
	4.5	0.79	0.84	4.5								
	6	0.84	0.87	6								
	8	0.87	0.88	8								
	10	0.88	0.91	10								
	15	0.91	0.92	15								
	20	0.92	0.93	20								
	25	0.93	0.00	25								
148	I	C	0.00	I	soil type:	148	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.8	0.10	0.23	0.8							Upper I	Upper C
	1	0.23	0.41	1							0.8	0.1
	1.5	0.41	0.51	1.5								
	2	0.51	0.57	2								
	2.5	0.57	0.63	2.5								
	3.25	0.63	0.68	3.25								
	4.5	0.68	0.71	4.5								
	6	0.71	0.74	6								
	8	0.74	0.75	8								
	10	0.75	0.77	10								
	15	0.77	0.78	15								
	20	0.78	0.79	20								
	25	0.79	0.00	25								
149	I	C	0.00	I	soil type:	149	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	1.62	0.10	0.26	1.62							Upper I	Upper C
	2	0.26	0.36	2							1.62	0.1
	2.5	0.36	0.43	2.5								
	3	0.43	0.48	3								
	3.5	0.48	0.52	3.5								
	4	0.52	0.58	4								
	5	0.58	0.62	5								
	6	0.62	0.68	6								
	8	0.68	0.72	8								
	10	0.72	0.77	10								
	15	0.77	0.80	15								
	20	0.80	0.82	20								
	25	0.82	0.00	25								
150	I	C	0.00	I	soil type:	150	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	1.72	0.10	0.21	1.72							Upper I	Upper C
	2	0.21	0.35	2							1.72	0.1
	2.5	0.35	0.44	2.5								
	3	0.44	0.50	3								
	3.5	0.50	0.55	3.5								
	4	0.55	0.61	4								
	5	0.61	0.65	5								
	6	0.65	0.70	6								
	8	0.70	0.74	8								
	11	0.74	0.77	11								
	15	0.77	0.79	15								
	20	0.79	0.91	20								
	25	0.91	0.00	25								
151	I	C	0.00	I	soil type:	151	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.27	0.10	0.42	0.27							Upper I	Upper C
	0.5	0.42	0.59	0.5							0.27	0.1
	0.75	0.59	0.67	0.75								
	1	0.67	0.76	1								
	1.5	0.76	0.80	1.5								
	2	0.80	0.84	2								
	3	0.84	0.86	3								
	4	0.86	0.88	4								

	6	0.88	0.89	6								
	10	0.89	0.90	10								
	15	0.90	0.91	15								
	20	0.91	0.91	20								
	25	0.91	0.00	25								
152	I	C	0.00	I	soil type:	152	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.43	0.10	0.45	0.43							Upper I	Upper C
	0.75	0.45	0.58	0.75							0.43	0.1
	1	0.58	0.71	1								
	1.5	0.71	0.77	1.5								
	2	0.77	0.84	2								
	3	0.84	0.87	3								
	4	0.87	0.90	4								
	6	0.90	0.91	6								
	8	0.91	0.92	8								
	10	0.92	0.93	10								
	15	0.93	0.94	15								
	20	0.94	0.94	20								
	25	0.94	0.00	25								
153	I	C	0.00	I	soil type:	153	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	1.9	0.10	0.18	1.9							Upper I	Upper C
	2	0.18	0.40	2							1.9	0.1
	2.5	0.40	0.51	2.5								
	3	0.51	0.59	3								
	3.75	0.59	0.66	3.75								
	5	0.66	0.69	5								
	6	0.69	0.71	6								
	7	0.71	0.72	7								
	8	0.72	0.74	8								
	10	0.74	0.76	10								
	15	0.76	0.77	15								
	20	0.77	0.77	20								
	25	0.77	0.00	25								
154	I	C	0.00	I	soil type:	154	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.38	0.10	0.32	0.38							Upper I	Upper C
	0.5	0.32	0.49	0.5							0.38	0.1
	0.75	0.49	0.58	0.75								
	1	0.58	0.67	1								
	1.5	0.67	0.73	1.5								
	2	0.73	0.79	2								
	3	0.79	0.84	3								
	5	0.84	0.86	5								
	7	0.86	0.88	7								
	10	0.88	0.90	10								
	15	0.90	0.90	15								
	20	0.90	0.91	20								
	25	0.91	0.00	25								
155	I	C	0.00	I	soil type:	155	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.3	0.10	0.26	0.3							Upper I	Upper C
	0.75	0.26	0.33	0.75							0.3	0.1
	1	0.33	0.53	1								
	2	0.53	0.65	2								
	3	0.65	0.73	3								
	4	0.73	0.78	4								
	5	0.78	0.82	5								
	6	0.82	0.88	6								
	8	0.88	0.91	8								
	10	0.91	0.96	10								
	15	0.96	0.99	15								
	20	0.99	1.00	20								

	25	1.00	0.00	25								
156	I	C	0.00	I	soil type:	156	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.45	0.10	0.28	0.45							Upper I	Upper C
	1	0.28	0.54	1							0.45	0.1
	2	0.54	0.70	2								
	3	0.70	0.75	3								
	3.5	0.75	0.79	3.5								
	4	0.79	0.81	4								
	4.5	0.81	0.84	4.5								
	5.5	0.84	0.86	5.5								
	7	0.86	0.88	7								
	10	0.88	0.90	10								
	15	0.90	0.92	15								
	20	0.92	0.93	20								
	25	0.93	0.00	25								
157	I	C	0.00	I	soil type:	157	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	1.5	0.10	0.30	1.5							Upper I	Upper C
	2	0.30	0.41	2							1.5	0.1
	2.5	0.41	0.47	2.5								
	3	0.47	0.51	3								
	3.5	0.51	0.54	3.5								
	4	0.54	0.56	4								
	4.5	0.56	0.60	4.5								
	6	0.60	0.63	6								
	8	0.63	0.64	8								
	10	0.64	0.66	10								
	15	0.66	0.67	15								
	20	0.67	0.68	20								
	25	0.68	0.00	25								
158	I	C	0.00	I	soil type:	158	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.55	0.10	0.30	0.55							Upper I	Upper C
	1	0.30	0.42	1							0.55	0.1
	1.5	0.42	0.49	1.5								
	2	0.49	0.55	2								
	2.5	0.55	0.63	2.5								
	3.5	0.63	0.69	3.5								
	4.5	0.69	0.75	4.5								
	6	0.75	0.80	6								
	8	0.80	0.87	8								
	12	0.87	0.90	12								
	15	0.90	0.93	15								
	20	0.93	0.95	20								
	25	0.95	0.00	25								
159	I	C	0.00	I	soil type:	159	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.5	0.10	0.31	0.5							Upper I	Upper C
	1	0.31	0.45	1							0.5	0.1
	1.5	0.45	0.54	1.5								
	2	0.54	0.61	2								
	2.5	0.61	0.67	2.5								
	3	0.67	0.73	3								
	4	0.73	0.77	4								
	5	0.77	0.80	5								
	7	0.80	0.83	7								
	10	0.83	0.84	10								
	15	0.84	0.84	15								
	20	0.84	0.85	20								
	25	0.85	0.00	25								
160	I	C	0.00	I	soil type:	160	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1

	1.72	0.10	0.14	1.72							Upper I	Upper C
	2	0.14	0.30	2							1.72	0.1
	3	0.30	0.42	3								
	4	0.42	0.51	4								
	5	0.51	0.58	5								
	6	0.58	0.64	6								
	7	0.64	0.69	7								
	8	0.69	0.76	8								
	10	0.76	0.81	10								
	12	0.81	0.87	12								
	15	0.87	0.93	15								
	20	0.93	0.97	20								
	25	0.97	0.00	25								
161	I	C	0.00	I	soil type:	161	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	1	0.10	0.22	1							Upper I	Upper C
	1.5	0.22	0.39	1.5							1	0.1
	2.5	0.39	0.46	2.5								
	3	0.46	0.57	3								
	4	0.57	0.66	4								
	5	0.66	0.72	5								
	6	0.72	0.81	6								
	8	0.81	0.86	8								
	10	0.86	0.90	10								
	12	0.90	0.93	12								
	15	0.93	0.95	15								
	20	0.95	0.96	20								
	25	0.96	0.00	25								
162	I	C	0.00	I	soil type:	162	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.34	0.10	0.29	0.34							Upper I	Upper C
	0.5	0.29	0.53	0.5							0.34	0.1
	1	0.53	0.65	1								
	1.5	0.65	0.73	1.5								
	2	0.73	0.78	2								
	2.5	0.78	0.84	2.5								
	3.5	0.84	0.89	3.5								
	5	0.89	0.93	5								
	7	0.93	0.96	7								
	10	0.96	0.98	10								
	15	0.98	0.99	15								
	20	0.99	1.00	20								
	25	1.00	0.00	25								
163	I	C	0.00	I	soil type:	163	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.13	0.10	0.39	0.13							Upper I	Upper C
	0.25	0.39	0.58	0.25							0.13	0.1
	0.5	0.58	0.73	0.5								
	1	0.73	0.79	1								
	1.5	0.79	0.83	1.5								
	2	0.83	0.86	2								
	3	0.86	0.89	3								
	4	0.89	0.91	4								
	7	0.91	0.93	7								
	10	0.93	0.94	10								
	15	0.94	0.94	15								
	20	0.94	0.94	20								
	25	0.94	0.00	25								
164	I	C	0.00	I	soil type:	164	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.38	0.10	0.35	0.38							Upper I	Upper C
	0.75	0.35	0.43	0.75							0.38	0.1
	1	0.43	0.53	1								
	1.5	0.53	0.60	1.5								

	2	0.60	0.64	2								
	2.5	0.64	0.70	2.5								
	3.5	0.70	0.76	3.5								
	5	0.76	0.80	5								
	7	0.80	0.83	7								
	10	0.83	0.86	10								
	15	0.86	0.88	15								
	20	0.88	0.89	20								
	25	0.89	0.00	25								
165	I	C	0.00	I	soil type:	165	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.42	0.10	0.36	0.42							Upper I	Upper C
	0.75	0.36	0.45	0.75							0.42	0.1
	1	0.45	0.56	1								
	1.5	0.56	0.63	1.5								
	2	0.63	0.73	2								
	3	0.73	0.78	3								
	4	0.78	0.85	4								
	6	0.85	0.88	6								
	8	0.88	0.91	8								
	10	0.91	0.94	10								
	15	0.94	0.96	15								
	20	0.96	0.97	20								
	25	0.97	0.00	25								
166	I	C	0.00	I	soil type:	166	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	4.83	0.10	0.11	4.83							Upper I	Upper C
	5	0.11	0.15	5							4.83	0.1
	6	0.15	0.19	6								
	7	0.19	0.23	7								
	8	0.23	0.27	8								
	9	0.27	0.30	9								
	10	0.30	0.37	10								
	12	0.37	0.42	12								
	14	0.42	0.47	14								
	16	0.47	0.51	16								
	18	0.51	0.54	18								
	20	0.54	0.61	20								
	25	0.61	0.00	25								
167	I	C	0.00	I	soil type:	167	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.17	0.10	0.22	0.17							Upper I	Upper C
	0.25	0.22	0.43	0.25							0.17	0.1
	0.5	0.43	0.64	0.5								
	1	0.64	0.74	1								
	1.5	0.74	0.80	1.5								
	2	0.80	0.86	2								
	3	0.86	0.90	3								
	4	0.90	0.94	4								
	6	0.94	0.97	6								
	10	0.97	0.98	10								
	15	0.98	0.99	15								
	20	0.99	1.00	20								
	25	1.00	0.00	25								
168	I	C	0.00	I	soil type:	168	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	3.78	0.10	0.11	3.78							Upper I	Upper C
	4	0.11	0.17	4							3.78	0.1
	5	0.17	0.25	5								
	6	0.25	0.31	6								
	7	0.31	0.36	7								
	8	0.36	0.40	8								
	9	0.40	0.42	9								
	10	0.42	0.47	10								

	12	0.47	0.50	12								
	14	0.50	0.52	14								
	16	0.52	0.55	16								
	20	0.55	0.57	20								
	25	0.57	0.00	25								
169	I	C	0.00	I	soil type:	169	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.27	0.10	0.31	0.27							Upper I	Upper C
	0.5	0.31	0.37	0.5							0.27	0.1
	0.75	0.37	0.40	0.75								
	1	0.40	0.44	1								
	1.5	0.44	0.46	1.5								
	2	0.46	0.48	2								
	3	0.48	0.50	3								
	4	0.50	0.59	4								
	6.5	0.59	0.66	6.5								
	9	0.66	0.73	9								
	13	0.73	0.81	13								
	20	0.81	0.85	20								
	25	0.85	0.00	25								
170	I	C	0.00	I	soil type:	170	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	3.53	0.10	0.14	3.53							Upper I	Upper C
	4	0.14	0.19	4							3.53	0.1
	5	0.19	0.22	5								
	6	0.22	0.24	6								
	7	0.24	0.26	7								
	8	0.26	0.28	8								
	10	0.28	0.30	10								
	12	0.30	0.31	12								
	14	0.31	0.32	14								
	16	0.32	0.32	16								
	18	0.32	0.33	18								
	20	0.33	0.34	20								
	25	0.34	0.00	25								
171	I	C	0.00	I	soil type:	171	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.37	0.10	0.25	0.37							Upper I	Upper C
	0.75	0.25	0.43	0.75							0.37	0.1
	1.5	0.43	0.50	1.5								
	2	0.50	0.60	2								
	3	0.60	0.66	3								
	4	0.66	0.70	4								
	5	0.70	0.72	5								
	6	0.72	0.76	6								
	8	0.76	0.79	8								
	10	0.79	0.82	10								
	15	0.82	0.84	15								
	20	0.84	0.85	20								
	25	0.85	0.00	25								
172	I	C	0.00	I	soil type:	172	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.75	0.10	0.14	0.75							Upper I	Upper C
	1	0.14	0.34	1							0.75	0.1
	2	0.34	0.49	2								
	3	0.49	0.59	3								
	4	0.59	0.63	4								
	4.5	0.63	0.70	4.5								
	5.5	0.70	0.77	5.5								
	7	0.77	0.84	7								
	9	0.84	0.90	9								
	12	0.90	0.94	12								
	15	0.94	0.99	15								
	20	0.99	1.00	20								

	25	1.00	0.00	25								
173	I	C	0.00	I	soil type:	173	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	2.1	0.10	0.29	2.1							Upper I	Upper C
	2.3	0.29	0.42	2.3							2.1	0.1
	2.7	0.42	0.47	2.7								
	3	0.47	0.52	3								
	3.5	0.52	0.55	3.5								
	4	0.55	0.57	4								
	4.5	0.57	0.60	4.5								
	5.5	0.60	0.62	5.5								
	7	0.62	0.64	7								
	10	0.64	0.66	10								
	15	0.66	0.66	15								
	20	0.66	0.67	20								
	25	0.67	0.00	25								
174	I	C	0.00	I	soil type:	174	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0.005	0.10	0.10	0.005							0.005	0.1
	0.6	0.10	0.23	0.6							Upper I	Upper C
	0.8	0.23	0.48	0.8							0.6	0.1
	1.5	0.48	0.58	1.5								
	2	0.58	0.65	2								
	2.5	0.65	0.70	2.5								
	3	0.70	0.74	3								
	3.5	0.74	0.78	3.5								
	4.5	0.78	0.81	4.5								
	6	0.81	0.83	6								
	8	0.83	0.85	8								
	12	0.85	0.86	12								
	20	0.86	0.86	20								
	25	0.86	0.00	25								
175	I	C	0.00	I	soil type:	175	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	1	0.10	0.24	1							Upper I	Upper C
	1.1	0.24	0.44	1.1							1	0.1
	1.5	0.44	0.56	1.5								
	2	0.56	0.63	2								
	2.5	0.63	0.67	2.5								
	3	0.67	0.73	3								
	4	0.73	0.78	4								
	5.5	0.78	0.83	5.5								
	8	0.83	0.86	8								
	12	0.86	0.87	12								
	16	0.87	0.88	16								
	20	0.88	0.89	20								
	25	0.89	0.00	25								
176	I	C	0.00	I	soil type:	176	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1
	0.25	0.10	0.38	0.25							Upper I	Upper C
	0.5	0.38	0.50	0.5							0.25	0.1
	0.75	0.50	0.63	0.75								
	1.25	0.63	0.74	1.25								
	2	0.74	0.82	2								
	3	0.82	0.86	3								
	4	0.86	0.91	4								
	6	0.91	0.94	6								
	8	0.94	0.97	8								
	12	0.97	0.99	12								
	16	0.99	1.00	16								
	20	1.00	1.00	20								
	25	1.00	0.00	25								
177	I	C	0.00	I	soil type:	177	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0	0.10	0.10	0							0	0.1

	0.315	0.10	0.26	0.315							Upper I	Upper C
	0.4	0.26	0.43	0.4							0.315	0.1
	0.6	0.43	0.58	0.6								
	1	0.58	0.68	1								
	1.5	0.68	0.75	1.5								
	2	0.75	0.79	2								
	2.5	0.79	0.84	2.5								
	3.5	0.84	0.88	3.5								
	5	0.88	0.91	5								
	7	0.91	0.94	7								
	11	0.94	0.97	11								
	20	0.97	0.97	20								
	25	0.97	0.00	25								
178	I	C	0.00	I	soil type:	178	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0.005	0.10	0.10	0.005							0.005	0.1
	2.1	0.10	0.24	2.1							Upper I	Upper C
	2.25	0.24	0.35	2.25							2.1	0.1
	2.5	0.35	0.49	2.5								
	3	0.49	0.58	3								
	3.5	0.58	0.70	3.5								
	4.5	0.70	0.76	4.5								
	5.5	0.76	0.83	5.5								
	7	0.83	0.85	7								
	8	0.85	0.89	8								
	11	0.89	0.91	11								
	15	0.91	0.93	15								
	20	0.93	0.93	20								
	25	0.93	0.00	25								
179	I	C	0.00	I	soil type:	179	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0.005	0.10	0.10	0.005							0.005	0.1
	1.55	0.10	0.25	1.55							Upper I	Upper C
	1.75	0.25	0.35	1.75							1.55	0.1
	2	0.35	0.47	2								
	2.5	0.47	0.56	2.5								
	3	0.56	0.62	3								
	3.5	0.62	0.66	3.5								
	4	0.66	0.69	4								
	4.5	0.69	0.73	4.5								
	5.5	0.73	0.75	5.5								
	7	0.75	0.77	7								
	10	0.77	0.77	10								
	20	0.77	0.77	20								
	25	0.77	0.00	25								
180	I	C	0.00	I	soil type:	180	I:	0.1	C:	0.100		
	0	0.00	0.10	0							Lower I	Lower C
	0.005	0.10	0.10	0.005							0.005	0.1
	0.5	0.10	0.35	0.5							Upper I	Upper C
	0.75	0.35	0.44	0.75							0.5	0.1
	1	0.44	0.65	1								
	2	0.65	0.72	2								
	2.5	0.72	0.80	2.5								
	3.5	0.80	0.85	3.5								
	4.5	0.85	0.88	4.5								
	6	0.88	0.90	6								
	8	0.90	0.91	8								
	10	0.91	0.93	10								
	15	0.93	0.93	15								
	20	0.93	0.93	20								
	25	0.93	0.00	25								
181	I	C	0.00	I	soil type:	181	I:	0.1	C:	0.000		
	0	0	0.10	0							Lower I	Lower C
	0.005	0.1	0.00	0.005							0	0
	0	0	0.00	0							Upper I	Upper C
	0	0	0.00	0							25	0
	0	0	0.00	0								
	1	0	0.00	1								

	2	0	0.00	2								
	3.4	0	0.00	3.4								
	5	0	0.00	5								
	7	0	0.00	7								
	9.6	0	0.00	9.6								
	13	0	0.00	13								
	18	0	0.00	18								
	20	0	0.00	20								
	25	0	0.00	25								
182	I	C	0.00	I	soil type:	182	I:	0.1	C:	0.000		
	0	0	0.10	0							Lower I	Lower C
	0.005	0.1	0.00	0.005							0	0
	0	0	0.00	0							Upper I	Upper C
	0	0	0.00	0							25	0
	0	0	0.00	0								
	1	0	0.00	1								
	2	0	0.00	2								
	3.4	0	0.00	3.4								
	5	0	0.00	5								
	7	0	0.00	7								
	9.6	0	0.00	9.6								
	13	0	0.00	13								
	18	0	0.00	18								
	20	0	0.00	20								
	25	0	0.00	25								
183	I	C	0.00	I	soil type:	183	I:	0.1	C:	0.000		
	0	0	0.10	0							Lower I	Lower C
	0.005	0.1	0.00	0.005							0	0
	0	0	0.00	0							Upper I	Upper C
	0	0	0.00	0							25	0
	0	0	0.00	0								
	1	0	0.00	1								
	2	0	0.00	2								
	3.4	0	0.00	3.4								
	5	0	0.00	5								
	7	0	0.00	7								
	9.6	0	0.00	9.6								
	13	0	0.00	13								
	18	0	0.00	18								
	20	0	0.00	20								
	25	0	0.00	25								
184	I	C	0.00	I	soil type:	184	I:	0.1	C:	0.000		
	0	0	0.10	0							Lower I	Lower C
	0.005	0.1	0.00	0.005							0	0
	0	0	0.00	0							Upper I	Upper C
	0	0	0.00	0							25	0
	0	0	0.00	0								
	1	0	0.00	1								
	2	0	0.00	2								
	3.4	0	0.00	3.4								
	5	0	0.00	5								
	7	0	0.00	7								
	9.6	0	0.00	9.6								
	13	0	0.00	13								
	18	0	0.00	18								
	20	0	0.00	20								
	25	0	0.00	25								
185	I	C	0.00	I	soil type:	185	I:	0.1	C:	0.000		
	0	0	0.10	0							Lower I	Lower C
	0.005	0.1	0.00	0.005							0	0
	0	0	0.00	0							Upper I	Upper C
	0	0	0.00	0							25	0
	0	0	0.00	0								
	1	0	0.00	1								
	2	0	0.00	2								
	3.4	0	0.00	3.4								
	5	0	0.00	5								
	7	0	0.00	7								

	9.6	0	0.00	9.6								
	13	0	0.00	13								
	18	0	0.00	18								
	20	0	0.00	20								
	25	0	0.00	25								
186	I	C	0.00	I	soil type:	186	I:	0.1	C:	0.000		
	0	0	0.10	0							Lower I	Lower C
	0.005	0.1	0.00	0.005							0	0
	0	0	0.00	0							Upper I	Upper C
	0	0	0.00	0							25	0
	0	0	0.00	0								
	1	0	0.00	1								
	2	0	0.00	2								
	3.4	0	0.00	3.4								
	5	0	0.00	5								
	7	0	0.00	7								
	9.6	0	0.00	9.6								
	13	0	0.00	13								
	18	0	0.00	18								
	20	0	0.00	20								
	25	0	0.00	25								
187	I	C	0.00	I	soil type:	187	I:	0.1	C:	0.000		
	0	0	0.10	0							Lower I	Lower C
	0.005	0.1	0.00	0.005							0	0
	0	0	0.00	0							Upper I	Upper C
	0	0	0.00	0							25	0
	0	0	0.00	0								
	1	0	0.00	1								
	2	0	0.00	2								
	3.4	0	0.00	3.4								
	5	0	0.00	5								
	7	0	0.00	7								
	9.6	0	0.00	9.6								
	13	0	0.00	13								
	18	0	0.00	18								
	20	0	0.00	20								
	25	0	0.00	25								
188	I	C	0.00	I	soil type:	188	I:	0.1	C:	0.000		
	0	0	0.10	0							Lower I	Lower C
	0.005	0.1	0.00	0.005							0	0
	0	0	0.00	0							Upper I	Upper C
	0	0	0.00	0							25	0
	0	0	0.00	0								
	1	0	0.00	1								
	2	0	0.00	2								
	3.4	0	0.00	3.4								
	5	0	0.00	5								
	7	0	0.00	7								
	9.6	0	0.00	9.6								
	13	0	0.00	13								
	18	0	0.00	18								
	20	0	0.00	20								
	25	0	0.00	25								
189	I	C	0.00	I	soil type:	189	I:	0.1	C:	0.000		
	0	0	0.10	0							Lower I	Lower C
	0.005	0.1	0.00	0.005							0	0
	0	0	0.00	0							Upper I	Upper C
	0	0	0.00	0							25	0
	0	0	0.00	0								
	1	0	0.00	1								
	2	0	0.00	2								
	3.4	0	0.00	3.4								
	5	0	0.00	5								
	7	0	0.00	7								
	9.6	0	0.00	9.6								
	13	0	0.00	13								
	18	0	0.00	18								
	20	0	0.00	20								

	25	0	0.00	25								
190	I	C	0.00	I	soil type:	190	I:	0.1	C:	0.000		
	0	0	0.10	0							Lower I	Lower C
	0.005	0.1	0.00	0.005							0	0
	0	0	0.00	0							Upper I	Upper C
	0	0	0.00	0							25	0
	0	0	0.00	0								
	1	0	0.00	1								
	2	0	0.00	2								
	3.4	0	0.00	3.4								
	5	0	0.00	5								
	7	0	0.00	7								
	9.6	0	0.00	9.6								
	13	0	0.00	13								
	18	0	0.00	18								
	20	0	0.00	20								
	25	0	0.00	25								
191	I	C	0.00	I	soil type:	191	I:	0.1	C:	0.000		
	0	0	0.10	0							Lower I	Lower C
	0.005	0.1	0.00	0.005							0	0
	0	0	0.00	0							Upper I	Upper C
	0	0	0.00	0							25	0
	0	0	0.00	0								
	1	0	0.00	1								
	2	0	0.00	2								
	3.4	0	0.00	3.4								
	5	0	0.00	5								
	7	0	0.00	7								
	9.6	0	0.00	9.6								
	13	0	0.00	13								
	18	0	0.00	18								
	20	0	0.00	20								
	25	0	0.00	25								
192	I	C	0.00	I	soil type:	192	I:	0.1	C:	0.000		
	0	0	0.10	0							Lower I	Lower C
	0.005	0.1	0.00	0.005							0	0
	0	0	0.00	0							Upper I	Upper C
	0	0	0.00	0							25	0
	0	0	0.00	0								
	1	0	0.00	1								
	2	0	0.00	2								
	3.4	0	0.00	3.4								
	5	0	0.00	5								
	7	0	0.00	7								
	9.6	0	0.00	9.6								
	13	0	0.00	13								
	18	0	0.00	18								
	20	0	0.00	20								
	25	0	0.00	25								
193	I	C	0.00	I	soil type:	193	I:	0.1	C:	0.000		
	0	0	0.10	0							Lower I	Lower C
	0.005	0.1	0.00	0.005							0	0
	0	0	0.00	0							Upper I	Upper C
	0	0	0.00	0							25	0
	0	0	0.00	0								
	1	0	0.00	1								
	2	0	0.00	2								
	3.4	0	0.00	3.4								
	5	0	0.00	5								
	7	0	0.00	7								
	9.6	0	0.00	9.6								
	13	0	0.00	13								
	18	0	0.00	18								
	20	0	0.00	20								
	25	0	0.00	25								
194	I	C	0.00	I	soil type:	194	I:	0.1	C:	0.000		
	0	0	0.10	0							Lower I	Lower C
	0.005	0.1	0.00	0.005							0	0

	0	0	0.00	0							Upper I	Upper C
	0	0	0.00	0							25	0
	0	0	0.00	0								
	1	0	0.00	1								
	2	0	0.00	2								
	3.4	0	0.00	3.4								
	5	0	0.00	5								
	7	0	0.00	7								
	9.6	0	0.00	9.6								
	13	0	0.00	13								
	18	0	0.00	18								
	20	0	0.00	20								
	25	0	0.00	25								
195	I	C	0.00	I	soil type:	195	I:	0.1	C:	0.000		
	0	0	0.10	0							Lower I	Lower C
	0.005	0.1	0.00	0.005							0	0
	0	0	0.00	0							Upper I	Upper C
	0	0	0.00	0							25	0
	0	0	0.00	0								
	1	0	0.00	1								
	2	0	0.00	2								
	3.4	0	0.00	3.4								
	5	0	0.00	5								
	7	0	0.00	7								
	9.6	0	0.00	9.6								
	13	0	0.00	13								
	18	0	0.00	18								
	20	0	0.00	20								
	25	0	0.00	25								
196	I	C	0.00	I	soil type:	196	I:	0.1	C:	0.000		
	0	0	0.10	0							Lower I	Lower C
	0.005	0.1	0.00	0.005							0	0
	0	0	0.00	0							Upper I	Upper C
	0	0	0.00	0							25	0
	0	0	0.00	0								
	1	0	0.00	1								
	2	0	0.00	2								
	3.4	0	0.00	3.4								
	5	0	0.00	5								
	7	0	0.00	7								
	9.6	0	0.00	9.6								
	13	0	0.00	13								
	18	0	0.00	18								
	20	0	0.00	20								
	25	0	0.00	25								
197	I	C	0.00	I	soil type:	197	I:	0.1	C:	0.000		
	0	0	0.10	0							Lower I	Lower C
	0.005	0.1	0.00	0.005							0	0
	0	0	0.00	0							Upper I	Upper C
	0	0	0.00	0							25	0
	0	0	0.00	0								
	1	0	0.00	1								
	2	0	0.00	2								
	3.4	0	0.00	3.4								
	5	0	0.00	5								
	7	0	0.00	7								
	9.6	0	0.00	9.6								
	13	0	0.00	13								
	18	0	0.00	18								
	20	0	0.00	20								
	25	0	0.00	25								
198	I	C	0.00	I	soil type:	198	I:	0.1	C:	0.000		
	0	0	0.10	0							Lower I	Lower C
	0.005	0.1	0.00	0.005							0	0
	0	0	0.00	0							Upper I	Upper C
	0	0	0.00	0							25	0
	0	0	0.00	0								
	1	0	0.00	1								

	2	0	0.00	2									
	3.4	0	0.00	3.4									
	5	0	0.00	5									
	7	0	0.00	7									
	9.6	0	0.00	9.6									
	13	0	0.00	13									
	18	0	0.00	18									
	20	0	0.00	20									
	25	0	0.00	25									
199	I	C	0.00	I	soil type:	199	I:	0.1	C:	0.000			
	0	0	0.10	0								Lower I	Lower C
	0.005	0.1	0.00	0.005								0	0
	0	0	0.00	0								Upper I	Upper C
	0	0	0.00	0								25	0
	0	0	0.00	0									
	1	0	0.00	1									
	2	0	0.00	2									
	3.4	0	0.00	3.4									
	5	0	0.00	5									
	7	0	0.00	7									
	9.6	0	0.00	9.6									
	13	0	0.00	13									
	18	0	0.00	18									
	20	0	0.00	20									
	25	0	0.00	25									

DESIGN STORM

This design storm is generated using the intensity-duration relationship
and with the inflection point at 80%.

t (min.)	Dt/D24	t*20%	0.8+(Dt/D24)*.2	t*80%	0.8-(Dt/D24)*.8
0	0.000	0.00	0.80000000	0.0	0.80000000
0.25	0.010	0.05	0.80203239	0.2	0.79187046
0.5	0.015	0.10	0.80293462	0.4	0.78826152
0.75	0.018	0.15	0.80363815	0.6	0.78544741
1	0.021	0.20	0.80423738	0.8	0.78305046
1.25	0.024	0.25	0.80476936	1.0	0.78092256
1.5	0.026	0.30	0.80525323	1.2	0.77898709
1.75	0.029	0.35	0.80570044	1.4	0.77719826
2	0.031	0.40	0.80611848	1.6	0.77552607
2.25	0.033	0.45	0.80651260	1.8	0.77394959
2.5	0.034	0.50	0.80688662	2.0	0.77245352
2.75	0.036	0.55	0.80724343	2.2	0.77102628
3	0.038	0.60	0.80758529	2.4	0.76965884
3.25	0.040	0.65	0.80791400	2.6	0.76834400
3.5	0.041	0.70	0.80823103	2.8	0.76707590
3.75	0.043	0.75	0.80853757	3.0	0.76584971
4	0.044	0.80	0.80883466	3.2	0.76466137
4.25	0.046	0.85	0.80912313	3.4	0.76350747
4.5	0.047	0.90	0.80940374	3.6	0.76238505
4.75	0.048	0.95	0.80967711	3.8	0.76129158
5	0.050	1.00	0.80994379	4.0	0.76022484
5.25	0.051	1.05	0.81020428	4.2	0.75918289
5.5	0.052	1.10	0.81045900	4.4	0.75816401
5.75	0.054	1.15	0.81070833	4.6	0.75716667
6	0.055	1.20	0.81095262	4.8	0.75618952
6.25	0.056	1.25	0.81119217	5.0	0.75523132
6.5	0.057	1.30	0.81142726	5.2	0.75429098
6.75	0.058	1.35	0.81165813	5.4	0.75336748
7	0.059	1.40	0.81188502	5.6	0.75245993
7.25	0.061	1.45	0.81210813	5.8	0.75156749
7.5	0.062	1.50	0.81232765	6.0	0.75068939
7.75	0.063	1.55	0.81254376	6.2	0.74982496
8	0.064	1.60	0.81275662	6.4	0.74897353
8.25	0.065	1.65	0.81296637	6.6	0.74813451
8.5	0.066	1.70	0.81317316	6.8	0.74730737
8.75	0.067	1.75	0.81337711	7.0	0.74649158
9	0.068	1.80	0.81357833	7.2	0.74568667
9.25	0.069	1.85	0.81377695	7.4	0.74489221
9.5	0.070	1.90	0.81397306	7.6	0.74410778
9.75	0.071	1.95	0.81416675	7.8	0.74333299
10	0.072	2.00	0.81435813	8.0	0.74256748
10.25	0.073	2.05	0.81454727	8.2	0.74181092
10.5	0.074	2.10	0.81473426	8.4	0.74106298
10.75	0.075	2.15	0.81491916	8.6	0.74032336
11	0.076	2.20	0.81510205	8.8	0.73959179
11.25	0.076	2.25	0.81528300	9.0	0.73886799
11.5	0.077	2.30	0.81546207	9.2	0.73815171
11.75	0.078	2.35	0.81563932	9.4	0.73744271
12	0.079	2.40	0.81581481	9.6	0.73674077
12.25	0.080	2.45	0.81598858	9.8	0.73604566
12.5	0.081	2.50	0.81616070	10.0	0.73535720
12.75	0.082	2.55	0.81633121	10.2	0.73467517
13	0.083	2.60	0.81650015	10.4	0.73399941
13.25	0.083	2.65	0.81666757	10.6	0.73332972
13.5	0.084	2.70	0.81683351	10.8	0.73266595
13.75	0.085	2.75	0.81699802	11.0	0.73200792
14	0.086	2.80	0.81716112	11.2	0.73135550
14.25	0.087	2.85	0.81732287	11.4	0.73070853
14.5	0.087	2.90	0.81748328	11.6	0.73006688
14.75	0.088	2.95	0.81764240	11.8	0.72943040
15	0.089	3.00	0.81780026	12.0	0.72879898
15.25	0.090	3.05	0.81795688	12.2	0.72817248
15.5	0.091	3.10	0.81811230	12.4	0.72755079
15.75	0.091	3.15	0.81826655	12.6	0.72693379

1-minute mass curve

DEPTH = 0.500 in

	time (min.)	% total	depth
1152	0	0.00000	0.0000
1151	1	0.00037	0.0002
1150	2	0.00074	0.0004
1149	3	0.00110	0.0006
1148	4	0.00147	0.0007
1147	5	0.00184	0.0009
1146	6	0.00221	0.0011
1145	7	0.00258	0.0013
1144	8	0.00295	0.0015
1143	9	0.00332	0.0017
1142	10	0.00369	0.0018
1141	11	0.00406	0.0020
1140	12	0.00443	0.0022
1139	13	0.00480	0.0024
1138	14	0.00517	0.0026
1137	15	0.00554	0.0028
1136	16	0.00591	0.0030
1135	17	0.00628	0.0031
1134	18	0.00665	0.0033
1133	19	0.00702	0.0035
1132	20	0.00739	0.0037
1131	21	0.00776	0.0039
1130	22	0.00813	0.0041
1129	23	0.00851	0.0043
1128	24	0.00888	0.0044
1127	25	0.00925	0.0046
1126	26	0.00962	0.0048
1125	27	0.00999	0.0050
1124	28	0.01037	0.0052
1123	29	0.01074	0.0054
1122	30	0.01111	0.0056
1121	31	0.01148	0.0057
1120	32	0.01186	0.0059
1119	33	0.01223	0.0061
1118	34	0.01260	0.0063
1117	35	0.01298	0.0065
1116	36	0.01335	0.0067
1115	37	0.01372	0.0069
1114	38	0.01410	0.0070
1113	39	0.01447	0.0072
1112	40	0.01484	0.0074
1111	41	0.01522	0.0076
1110	42	0.01559	0.0078
1109	43	0.01597	0.0080
1108	44	0.01634	0.0082
1107	45	0.01672	0.0084
1106	46	0.01709	0.0085
1105	47	0.01747	0.0087
1104	48	0.01784	0.0089
1103	49	0.01822	0.0091
1102	50	0.01859	0.0093
1101	51	0.01897	0.0095
1100	52	0.01935	0.0097
1099	53	0.01972	0.0099
1098	54	0.02010	0.0100
1097	55	0.02048	0.0102
1096	56	0.02085	0.0104
1095	57	0.02123	0.0106
1094	58	0.02161	0.0108
1093	59	0.02198	0.0110
1092	60	0.02236	0.0112
1091	61	0.02274	0.0114
1090	62	0.02312	0.0116
1089	63	0.02349	0.0117

16	0.092	3.20	0.81841965	12.8	0.72632138	1088	64	0.02387	0.0119
16.25	0.093	3.25	0.81857164	13.0	0.72571346	1087	65	0.02425	0.0121
16.5	0.094	3.30	0.81872252	13.2	0.72510991	1086	66	0.02463	0.0123
16.75	0.094	3.35	0.81887234	13.4	0.72451064	1085	67	0.02501	0.0125
17	0.095	3.40	0.81902111	13.6	0.72391557	1084	68	0.02539	0.0127
17.25	0.096	3.45	0.81916885	13.8	0.72332459	1083	69	0.02576	0.0129
17.5	0.097	3.50	0.81931559	14.0	0.72273763	1082	70	0.02614	0.0131
17.75	0.097	3.55	0.81946135	14.2	0.72215459	1081	71	0.02652	0.0133
18	0.098	3.60	0.81960615	14.4	0.72157540	1080	72	0.02690	0.0135
18.25	0.099	3.65	0.81975000	14.6	0.72099998	1079	73	0.02728	0.0136
18.5	0.099	3.70	0.81989294	14.8	0.72042825	1078	74	0.02766	0.0138
18.75	0.100	3.75	0.82003496	15.0	0.71986015	1077	75	0.02804	0.0140
19	0.101	3.80	0.82017610	15.2	0.71929559	1076	76	0.02842	0.0142
19.25	0.102	3.85	0.82031637	15.4	0.71873451	1075	77	0.02880	0.0144
19.5	0.102	3.90	0.82045579	15.6	0.71817685	1074	78	0.02918	0.0146
19.75	0.103	3.95	0.82059437	15.8	0.71762253	1073	79	0.02956	0.0148
20	0.104	4.00	0.82073212	16.0	0.71707151	1072	80	0.02994	0.0150
20.25	0.104	4.05	0.82086907	16.2	0.71652371	1071	81	0.03032	0.0152
20.5	0.105	4.10	0.82100523	16.4	0.71597908	1070	82	0.03070	0.0154
20.75	0.106	4.15	0.82114061	16.6	0.71543757	1069	83	0.03108	0.0155
21	0.106	4.20	0.82127522	16.8	0.71489911	1068	84	0.03147	0.0157
21.25	0.107	4.25	0.82140909	17.0	0.71436366	1067	85	0.03185	0.0159
21.5	0.108	4.30	0.82154221	17.2	0.71383116	1066	86	0.03223	0.0161
21.75	0.108	4.35	0.82167461	17.4	0.71330156	1065	87	0.03261	0.0163
22	0.109	4.40	0.82180630	17.6	0.71277482	1064	88	0.03299	0.0165
22.25	0.110	4.45	0.82193728	17.8	0.71225088	1063	89	0.03338	0.0167
22.5	0.110	4.50	0.82206757	18.0	0.71172970	1062	90	0.03376	0.0169
22.75	0.111	4.55	0.82219719	18.2	0.71121124	1061	91	0.03414	0.0171
23	0.112	4.60	0.82232614	18.4	0.71069544	1060	92	0.03452	0.0173
23.25	0.112	4.65	0.82245443	18.6	0.71018228	1059	93	0.03491	0.0175
23.5	0.113	4.70	0.82258207	18.8	0.70967170	1058	94	0.03529	0.0176
23.75	0.114	4.75	0.82270908	19.0	0.70916367	1057	95	0.03567	0.0178
24	0.114	4.80	0.82283546	19.2	0.70865815	1056	96	0.03606	0.0180
24.25	0.115	4.85	0.82296123	19.4	0.70815509	1055	97	0.03644	0.0182
24.5	0.115	4.90	0.82308638	19.6	0.70765447	1054	98	0.03682	0.0184
24.75	0.116	4.95	0.82321094	19.8	0.70715624	1053	99	0.03721	0.0186
25	0.117	5.00	0.82333491	20.0	0.70666037	1052	100	0.03759	0.0188
25.25	0.117	5.05	0.82345829	20.2	0.70616683	1051	101	0.03797	0.0190
25.5	0.118	5.10	0.82358111	20.4	0.70567558	1050	102	0.03836	0.0192
25.75	0.119	5.15	0.82370335	20.6	0.70518658	1049	103	0.03874	0.0194
26	0.119	5.20	0.82382505	20.8	0.70469982	1048	104	0.03913	0.0196
26.25	0.120	5.25	0.82394619	21.0	0.70421524	1047	105	0.03951	0.0198
26.5	0.120	5.30	0.82406679	21.2	0.70373284	1046	106	0.03990	0.0199
26.75	0.121	5.35	0.82418686	21.4	0.70325256	1045	107	0.04028	0.0201
27	0.122	5.40	0.82430640	21.6	0.70277439	1044	108	0.04067	0.0203
27.25	0.122	5.45	0.82442542	21.8	0.70229830	1043	109	0.04105	0.0205
27.5	0.123	5.50	0.82454394	22.0	0.70182426	1042	110	0.04144	0.0207
27.75	0.123	5.55	0.82466194	22.2	0.70135224	1041	111	0.04183	0.0209
28	0.124	5.60	0.82477945	22.4	0.70088221	1040	112	0.04221	0.0211
28.25	0.124	5.65	0.82489646	22.6	0.70041415	1039	113	0.04260	0.0213
28.5	0.125	5.70	0.82501299	22.8	0.69994803	1038	114	0.04298	0.0215
28.75	0.126	5.75	0.82512904	23.0	0.69948383	1037	115	0.04337	0.0217
29	0.126	5.80	0.82524462	23.2	0.69902153	1036	116	0.04376	0.0219
29.25	0.127	5.85	0.82535973	23.4	0.69856109	1035	117	0.04414	0.0221
29.5	0.127	5.90	0.82547438	23.6	0.69810250	1034	118	0.04453	0.0223
29.75	0.128	5.95	0.82558857	23.8	0.69764573	1033	119	0.04492	0.0225
30	0.129	6.00	0.82570231	24.0	0.69719076	1032	120	0.04531	0.0227
30.25	0.129	6.05	0.82581561	24.2	0.69673758	1031	121	0.04569	0.0228
30.5	0.130	6.10	0.82592846	24.4	0.69628614	1030	122	0.04608	0.0230
30.75	0.130	6.15	0.82604089	24.6	0.69583645	1029	123	0.04647	0.0232
31	0.131	6.20	0.82615288	24.8	0.69538847	1028	124	0.04686	0.0234
31.25	0.131	6.25	0.82626445	25.0	0.69494218	1027	125	0.04725	0.0236
31.5	0.132	6.30	0.82637561	25.2	0.69449757	1026	126	0.04764	0.0238
31.75	0.132	6.35	0.82648635	25.4	0.69405462	1025	127	0.04802	0.0240
32	0.133	6.40	0.82659668	25.6	0.69361330	1024	128	0.04841	0.0242
32.25	0.134	6.45	0.82670660	25.8	0.69317359	1023	129	0.04880	0.0244
32.5	0.134	6.50	0.82681613	26.0	0.69273549	1022	130	0.04919	0.0246
32.75	0.135	6.55	0.82692526	26.2	0.69229897	1021	131	0.04958	0.0248
33	0.135	6.60	0.82703400	26.4	0.69186401	1020	132	0.04997	0.0250
33.25	0.136	6.65	0.82714235	26.6	0.69143060	1019	133	0.05036	0.0252
33.5	0.136	6.70	0.82725032	26.8	0.69099872	1018	134	0.05075	0.0254

33.75	0.137	6.75	0.82735791	27.0	0.69056834	1017	135	0.05114	0.0256
34	0.137	6.80	0.82746513	27.2	0.69013947	1016	136	0.05153	0.0258
34.25	0.138	6.85	0.82757198	27.4	0.68971207	1015	137	0.05192	0.0260
34.5	0.138	6.90	0.82767846	27.6	0.68928614	1014	138	0.05231	0.0262
34.75	0.139	6.95	0.82778459	27.8	0.68886166	1013	139	0.05270	0.0264
35	0.139	7.00	0.82789035	28.0	0.68843861	1012	140	0.05309	0.0265
35.25	0.140	7.05	0.82799576	28.2	0.68801697	1011	141	0.05349	0.0267
35.5	0.141	7.10	0.82810081	28.4	0.68759674	1010	142	0.05388	0.0269
35.75	0.141	7.15	0.82820552	28.6	0.68717790	1009	143	0.05427	0.0271
36	0.142	7.20	0.82830989	28.8	0.68676044	1008	144	0.05466	0.0273
36.25	0.142	7.25	0.82841392	29.0	0.68634433	1007	145	0.05505	0.0275
36.5	0.143	7.30	0.82851761	29.2	0.68592957	1006	146	0.05544	0.0277
36.75	0.143	7.35	0.82862096	29.4	0.68551614	1005	147	0.05584	0.0279
37	0.144	7.40	0.82872399	29.6	0.68510403	1004	148	0.05623	0.0281
37.25	0.144	7.45	0.82882669	29.8	0.68469323	1003	149	0.05662	0.0283
37.5	0.145	7.50	0.82892907	30.0	0.68428373	1002	150	0.05701	0.0285
37.75	0.145	7.55	0.82903112	30.2	0.68387550	1001	151	0.05741	0.0287
38	0.146	7.60	0.82913286	30.4	0.68346854	1000	152	0.05780	0.0289
38.25	0.146	7.65	0.82923429	30.6	0.68306284	999	153	0.05819	0.0291
38.5	0.147	7.70	0.82933540	30.8	0.68265839	998	154	0.05859	0.0293
38.75	0.147	7.75	0.82943621	31.0	0.68225516	997	155	0.05898	0.0295
39	0.148	7.80	0.82953671	31.2	0.68185316	996	156	0.05938	0.0297
39.25	0.148	7.85	0.82963691	31.4	0.68145237	995	157	0.05977	0.0299
39.5	0.149	7.90	0.82973681	31.6	0.68105277	994	158	0.06016	0.0301
39.75	0.149	7.95	0.82983641	31.8	0.68065436	993	159	0.06056	0.0303
40	0.150	8.00	0.82993572	32.0	0.68025713	992	160	0.06095	0.0305
40.25	0.150	8.05	0.83003473	32.2	0.67986106	991	161	0.06135	0.0307
40.5	0.151	8.10	0.83013346	32.4	0.67946615	990	162	0.06174	0.0309
40.75	0.151	8.15	0.83023190	32.6	0.67907238	989	163	0.06214	0.0311
41	0.152	8.20	0.83033006	32.8	0.67867975	988	164	0.06254	0.0313
41.25	0.152	8.25	0.83042794	33.0	0.67828823	987	165	0.06293	0.0315
41.5	0.153	8.30	0.83052554	33.2	0.67789784	986	166	0.06333	0.0317
41.75	0.153	8.35	0.83062286	33.4	0.67750854	985	167	0.06372	0.0319
42	0.154	8.40	0.83071991	33.6	0.67712034	984	168	0.06412	0.0321
42.25	0.154	8.45	0.83081669	33.8	0.67673323	983	169	0.06452	0.0323
42.5	0.155	8.50	0.83091320	34.0	0.67634719	982	170	0.06491	0.0325
42.75	0.155	8.55	0.83100945	34.2	0.67596221	981	171	0.06531	0.0327
43	0.156	8.60	0.83110543	34.4	0.67557830	980	172	0.06571	0.0329
43.25	0.156	8.65	0.83120114	34.6	0.67519543	979	173	0.06610	0.0331
43.5	0.156	8.70	0.83129660	34.8	0.67481359	978	174	0.06650	0.0333
43.75	0.157	8.75	0.83139180	35.0	0.67443279	977	175	0.06690	0.0334
44	0.157	8.80	0.83148675	35.2	0.67405301	976	176	0.06730	0.0336
44.25	0.158	8.85	0.83158144	35.4	0.67367425	975	177	0.06769	0.0338
44.5	0.158	8.90	0.83167588	35.6	0.67329648	974	178	0.06809	0.0340
44.75	0.159	8.95	0.83177007	35.8	0.67291972	973	179	0.06849	0.0342
45	0.159	9.00	0.83186402	36.0	0.67254394	972	180	0.06889	0.0344
45.25	0.160	9.05	0.83195772	36.2	0.67216914	971	181	0.06929	0.0346
45.5	0.160	9.10	0.83205117	36.4	0.67179531	970	182	0.06969	0.0348
45.75	0.161	9.15	0.83214439	36.6	0.67142245	969	183	0.07009	0.0350
46	0.161	9.20	0.83223736	36.8	0.67105054	968	184	0.07049	0.0352
46.25	0.162	9.25	0.83233010	37.0	0.67067959	967	185	0.07088	0.0354
46.5	0.162	9.30	0.83242261	37.2	0.67030957	966	186	0.07128	0.0356
46.75	0.163	9.35	0.83251488	37.4	0.66994049	965	187	0.07168	0.0358
47	0.163	9.40	0.83260692	37.6	0.66957233	964	188	0.07208	0.0360
47.25	0.163	9.45	0.83269873	37.8	0.66920509	963	189	0.07248	0.0362
47.5	0.164	9.50	0.83279031	38.0	0.66883877	962	190	0.07289	0.0364
47.75	0.164	9.55	0.83288166	38.2	0.66847335	961	191	0.07329	0.0366
48	0.165	9.60	0.83297279	38.4	0.66810883	960	192	0.07369	0.0368
48.25	0.165	9.65	0.83306370	38.6	0.66774520	959	193	0.07409	0.0370
48.5	0.166	9.70	0.83315439	38.8	0.66738245	958	194	0.07449	0.0372
48.75	0.166	9.75	0.83324485	39.0	0.66702059	957	195	0.07489	0.0374
49	0.167	9.80	0.83333510	39.2	0.66665959	956	196	0.07529	0.0376
49.25	0.167	9.85	0.83342514	39.4	0.66629946	955	197	0.07569	0.0378
49.5	0.168	9.90	0.83351495	39.6	0.66594018	954	198	0.07610	0.0380
49.75	0.168	9.95	0.83360456	39.8	0.66558176	953	199	0.07650	0.0382
50	0.168	10.00	0.83369395	40.0	0.66522418	952	200	0.07690	0.0385
50.25	0.169	10.05	0.83378314	40.2	0.66486745	951	201	0.07730	0.0387
50.5	0.169	10.10	0.83387211	40.4	0.66451154	950	202	0.07771	0.0389
50.75	0.170	10.15	0.83396088	40.6	0.66415647	949	203	0.07811	0.0391
51	0.170	10.20	0.83404945	40.8	0.66380221	948	204	0.07851	0.0393
51.25	0.171	10.25	0.83413781	41.0	0.66344877	947	205	0.07892	0.0395

51.5	0.171	10.30	0.83422597	41.2	0.66309614	946	206	0.07932	0.0397
51.75	0.172	10.35	0.83431392	41.4	0.66274431	945	207	0.07972	0.0399
52	0.172	10.40	0.83440168	41.6	0.66239328	944	208	0.08013	0.0401
52.25	0.172	10.45	0.83448924	41.8	0.66204304	943	209	0.08053	0.0403
52.5	0.173	10.50	0.83457660	42.0	0.66169359	942	210	0.08094	0.0405
52.75	0.173	10.55	0.83466377	42.2	0.66134492	941	211	0.08134	0.0407
53	0.174	10.60	0.83475074	42.4	0.66099703	940	212	0.08175	0.0409
53.25	0.174	10.65	0.83483752	42.6	0.66064991	939	213	0.08215	0.0411
53.5	0.175	10.70	0.83492411	42.8	0.66030355	938	214	0.08256	0.0413
53.75	0.175	10.75	0.83501051	43.0	0.65995795	937	215	0.08296	0.0415
54	0.175	10.80	0.83509672	43.2	0.65961311	936	216	0.08337	0.0417
54.25	0.176	10.85	0.83518275	43.4	0.65926901	935	217	0.08377	0.0419
54.5	0.176	10.90	0.83526858	43.6	0.65892566	934	218	0.08418	0.0421
54.75	0.177	10.95	0.83535424	43.8	0.65858305	933	219	0.08459	0.0423
55	0.177	11.00	0.83543971	44.0	0.65824118	932	220	0.08499	0.0425
55.25	0.178	11.05	0.83552499	44.2	0.65790003	931	221	0.08540	0.0427
55.5	0.178	11.10	0.83561010	44.4	0.65755961	930	222	0.08581	0.0429
55.75	0.178	11.15	0.83569502	44.6	0.65721991	929	223	0.08621	0.0431
56	0.179	11.20	0.83577977	44.8	0.65688093	928	224	0.08662	0.0433
56.25	0.179	11.25	0.83586434	45.0	0.65654265	927	225	0.08703	0.0435
56.5	0.180	11.30	0.83594873	45.2	0.65620508	926	226	0.08744	0.0437
56.75	0.180	11.35	0.83603295	45.4	0.65586821	925	227	0.08784	0.0439
57	0.181	11.40	0.83611699	45.6	0.65553204	924	228	0.08825	0.0441
57.25	0.181	11.45	0.83620086	45.8	0.65519656	923	229	0.08866	0.0443
57.5	0.181	11.50	0.83628456	46.0	0.65486177	922	230	0.08907	0.0445
57.75	0.182	11.55	0.83636808	46.2	0.65452766	921	231	0.08948	0.0447
58	0.182	11.60	0.83645144	46.4	0.65419423	920	232	0.08989	0.0449
58.25	0.183	11.65	0.83653463	46.6	0.65386148	919	233	0.09030	0.0451
58.5	0.183	11.70	0.83661765	46.8	0.65352940	918	234	0.09071	0.0454
58.75	0.184	11.75	0.83670051	47.0	0.65319798	917	235	0.09111	0.0456
59	0.184	11.80	0.83678319	47.2	0.65286722	916	236	0.09152	0.0458
59.25	0.184	11.85	0.83686572	47.4	0.65253713	915	237	0.09193	0.0460
59.5	0.185	11.90	0.83694808	47.6	0.65220768	914	238	0.09234	0.0462
59.75	0.185	11.95	0.83703028	47.8	0.65187889	913	239	0.09276	0.0464
60	0.186	12.00	0.83711231	48.0	0.65155074	912	240	0.09317	0.0466
60.25	0.186	12.05	0.83719419	48.2	0.65122324	911	241	0.09358	0.0468
60.5	0.186	12.10	0.83727591	48.4	0.65089637	910	242	0.09399	0.0470
60.75	0.187	12.15	0.83735747	48.6	0.65057014	909	243	0.09440	0.0472
61	0.187	12.20	0.83743887	48.8	0.65024454	908	244	0.09481	0.0474
61.25	0.188	12.25	0.83752011	49.0	0.64991956	907	245	0.09522	0.0476
61.5	0.188	12.30	0.83760120	49.2	0.64959521	906	246	0.09563	0.0478
61.75	0.188	12.35	0.83768213	49.4	0.64927147	905	247	0.09605	0.0480
62	0.189	12.40	0.83776291	49.6	0.64894835	904	248	0.09646	0.0482
62.25	0.189	12.45	0.83784354	49.8	0.64862585	903	249	0.09687	0.0484
62.5	0.190	12.50	0.83792401	50.0	0.64830395	902	250	0.09728	0.0486
62.75	0.190	12.55	0.83800434	50.2	0.64798266	901	251	0.09770	0.0488
63	0.190	12.60	0.83808451	50.4	0.64766196	900	252	0.09811	0.0491
63.25	0.191	12.65	0.83816453	50.6	0.64734187	899	253	0.09852	0.0493
63.5	0.191	12.70	0.83824441	50.8	0.64702237	898	254	0.09894	0.0495
63.75	0.192	12.75	0.83832414	51.0	0.64670346	897	255	0.09935	0.0497
64	0.192	12.80	0.83840372	51.2	0.64638513	896	256	0.09977	0.0499
64.25	0.192	12.85	0.83848315	51.4	0.64606739	895	257	0.10018	0.0501
64.5	0.193	12.90	0.83856244	51.6	0.64575023	894	258	0.10059	0.0503
64.75	0.193	12.95	0.83864159	51.8	0.64543365	893	259	0.10101	0.0505
65	0.194	13.00	0.83872059	52.0	0.64511764	892	260	0.10142	0.0507
65.25	0.194	13.05	0.83879945	52.2	0.64480221	891	261	0.10184	0.0509
65.5	0.194	13.10	0.83887817	52.4	0.64448734	890	262	0.10225	0.0511
65.75	0.195	13.15	0.83895674	52.6	0.64417303	889	263	0.10267	0.0513
66	0.195	13.20	0.83903518	52.8	0.64385929	888	264	0.10309	0.0515
66.25	0.196	13.25	0.83911347	53.0	0.64354610	887	265	0.10350	0.0518
66.5	0.196	13.30	0.83919163	53.2	0.64323347	886	266	0.10392	0.0520
66.75	0.196	13.35	0.83926965	53.4	0.64292139	885	267	0.10434	0.0522
67	0.197	13.40	0.83934753	53.6	0.64260986	884	268	0.10475	0.0524
67.25	0.197	13.45	0.83942528	53.8	0.64229888	883	269	0.10517	0.0526
67.5	0.198	13.50	0.83950289	54.0	0.64198844	882	270	0.10559	0.0528
67.75	0.198	13.55	0.83958037	54.2	0.64167854	881	271	0.10600	0.0530
68	0.198	13.60	0.83965771	54.4	0.64136917	880	272	0.10642	0.0532
68.25	0.199	13.65	0.83973491	54.6	0.64106034	879	273	0.10684	0.0534
68.5	0.199	13.70	0.83981199	54.8	0.64075204	878	274	0.10726	0.0536
68.75	0.199	13.75	0.83988893	55.0	0.64044427	877	275	0.10768	0.0538
69	0.200	13.80	0.83996574	55.2	0.64013703	876	276	0.10809	0.0540

69.25	0.200	13.85	0.84004242	55.4	0.63983031	875	277	0.10851	0.0543
69.5	0.201	13.90	0.84011897	55.6	0.63952410	874	278	0.10893	0.0545
69.75	0.201	13.95	0.84019540	55.8	0.63921842	873	279	0.10935	0.0547
70	0.201	14.00	0.84027169	56.0	0.63891325	872	280	0.10977	0.0549
70.25	0.202	14.05	0.84034785	56.2	0.63860859	871	281	0.11019	0.0551
70.5	0.202	14.10	0.84042389	56.4	0.63830444	870	282	0.11061	0.0553
70.75	0.202	14.15	0.84049980	56.6	0.63800080	869	283	0.11103	0.0555
71	0.203	14.20	0.84057559	56.8	0.63769766	868	284	0.11145	0.0557
71.25	0.203	14.25	0.84065125	57.0	0.63739502	867	285	0.11187	0.0559
71.5	0.204	14.30	0.84072678	57.2	0.63709288	866	286	0.11229	0.0561
71.75	0.204	14.35	0.84080219	57.4	0.63679124	865	287	0.11271	0.0564
72	0.204	14.40	0.84087748	57.6	0.63649009	864	288	0.11313	0.0566
72.25	0.205	14.45	0.84095264	57.8	0.63618943	863	289	0.11355	0.0568
72.5	0.205	14.50	0.84102769	58.0	0.63588926	862	290	0.11398	0.0570
72.75	0.206	14.55	0.84110261	58.2	0.63558957	861	291	0.11440	0.0572
73	0.206	14.60	0.84117741	58.4	0.63529037	860	292	0.11482	0.0574
73.25	0.206	14.65	0.84125209	58.6	0.63499165	859	293	0.11524	0.0576
73.5	0.207	14.70	0.84132665	58.8	0.63469341	858	294	0.11567	0.0578
73.75	0.207	14.75	0.84140109	59.0	0.63439565	857	295	0.11609	0.0580
74	0.207	14.80	0.84147541	59.2	0.63409836	856	296	0.11651	0.0583
74.25	0.208	14.85	0.84154961	59.4	0.63380154	855	297	0.11693	0.0585
74.5	0.208	14.90	0.84162370	59.6	0.63350519	854	298	0.11736	0.0587
74.75	0.208	14.95	0.84169767	59.8	0.63320931	853	299	0.11778	0.0589
75	0.209	15.00	0.84177153	60.0	0.63291389	852	300	0.11821	0.0591
75.25	0.209	15.05	0.84184526	60.2	0.63261894	851	301	0.11863	0.0593
75.5	0.210	15.10	0.84191889	60.4	0.63232445	850	302	0.11905	0.0595
75.75	0.210	15.15	0.84199240	60.6	0.63203041	849	303	0.11948	0.0597
76	0.210	15.20	0.84206579	60.8	0.63173683	848	304	0.11990	0.0600
76.25	0.211	15.25	0.84213907	61.0	0.63144370	847	305	0.12033	0.0602
76.5	0.211	15.30	0.84221224	61.2	0.63115103	846	306	0.12075	0.0604
76.75	0.211	15.35	0.84228530	61.4	0.63085880	845	307	0.12118	0.0606
77	0.212	15.40	0.84235825	61.6	0.63056702	844	308	0.12161	0.0608
77.25	0.212	15.45	0.84243108	61.8	0.63027568	843	309	0.12203	0.0610
77.5	0.213	15.50	0.84250380	62.0	0.62998479	842	310	0.12246	0.0612
77.75	0.213	15.55	0.84257641	62.2	0.62969434	841	311	0.12289	0.0614
78	0.213	15.60	0.84264892	62.4	0.62940433	840	312	0.12331	0.0617
78.25	0.214	15.65	0.84272131	62.6	0.62911475	839	313	0.12374	0.0619
78.5	0.214	15.70	0.84279360	62.8	0.62882561	838	314	0.12417	0.0621
78.75	0.214	15.75	0.84286577	63.0	0.62853690	837	315	0.12459	0.0623
79	0.215	15.80	0.84293784	63.2	0.62824862	836	316	0.12502	0.0625
79.25	0.215	15.85	0.84300981	63.4	0.62796077	835	317	0.12545	0.0627
79.5	0.215	15.90	0.84308166	63.6	0.62767335	834	318	0.12588	0.0629
79.75	0.216	15.95	0.84315341	63.8	0.62738635	833	319	0.12631	0.0632
80	0.216	16.00	0.84322506	64.0	0.62709977	832	320	0.12674	0.0634
80.25	0.216	16.05	0.84329660	64.2	0.62681362	831	321	0.12716	0.0636
80.5	0.217	16.10	0.84336803	64.4	0.62652788	830	322	0.12759	0.0638
80.75	0.217	16.15	0.84343936	64.6	0.62624256	829	323	0.12802	0.0640
81	0.218	16.20	0.84351059	64.8	0.62595766	828	324	0.12845	0.0642
81.25	0.218	16.25	0.84358171	65.0	0.62567316	827	325	0.12888	0.0644
81.5	0.218	16.30	0.84365273	65.2	0.62538908	826	326	0.12931	0.0647
81.75	0.219	16.35	0.84372365	65.4	0.62510541	825	327	0.12974	0.0649
82	0.219	16.40	0.84379446	65.6	0.62482214	824	328	0.13017	0.0651
82.25	0.219	16.45	0.84386518	65.8	0.62453928	823	329	0.13061	0.0653
82.5	0.220	16.50	0.84393579	66.0	0.62425683	822	330	0.13104	0.0655
82.75	0.220	16.55	0.84400631	66.2	0.62397478	821	331	0.13147	0.0657
83	0.220	16.60	0.84407672	66.4	0.62369312	820	332	0.13190	0.0659
83.25	0.221	16.65	0.84414703	66.6	0.62341187	819	333	0.13233	0.0662
83.5	0.221	16.70	0.84421725	66.8	0.62313101	818	334	0.13276	0.0664
83.75	0.221	16.75	0.84428736	67.0	0.62285055	817	335	0.13320	0.0666
84	0.222	16.80	0.84435738	67.2	0.62257048	816	336	0.13363	0.0668
84.25	0.222	16.85	0.84442730	67.4	0.62229080	815	337	0.13406	0.0670
84.5	0.222	16.90	0.84449712	67.6	0.62201151	814	338	0.13450	0.0672
84.75	0.223	16.95	0.84456685	67.8	0.62173261	813	339	0.13493	0.0675
85	0.223	17.00	0.84463648	68.0	0.62145409	812	340	0.13536	0.0677
85.25	0.224	17.05	0.84470601	68.2	0.62117596	811	341	0.13580	0.0679
85.5	0.224	17.10	0.84477545	68.4	0.62089822	810	342	0.13623	0.0681
85.75	0.224	17.15	0.84484479	68.6	0.62062085	809	343	0.13667	0.0683
86	0.225	17.20	0.84491403	68.8	0.62034387	808	344	0.13710	0.0685
86.25	0.225	17.25	0.84498318	69.0	0.62006726	807	345	0.13753	0.0688
86.5	0.225	17.30	0.84505224	69.2	0.61979103	806	346	0.13797	0.0690
86.75	0.226	17.35	0.84512121	69.4	0.61951518	805	347	0.13841	0.0692

87	0.226	17.40	0.84519008	69.6	0.61923969	804	348	0.13884	0.0694
87.25	0.226	17.45	0.84525885	69.8	0.61896458	803	349	0.13928	0.0696
87.5	0.227	17.50	0.84532754	70.0	0.61868984	802	350	0.13971	0.0699
87.75	0.227	17.55	0.84539613	70.2	0.61841547	801	351	0.14015	0.0701
88	0.227	17.60	0.84546463	70.4	0.61814147	800	352	0.14059	0.0703
88.25	0.228	17.65	0.84553304	70.6	0.61786783	799	353	0.14102	0.0705
88.5	0.228	17.70	0.84560136	70.8	0.61759455	798	354	0.14146	0.0707
88.75	0.228	17.75	0.84566959	71.0	0.61732164	797	355	0.14190	0.0709
89	0.229	17.80	0.84573773	71.2	0.61704909	796	356	0.14234	0.0712
89.25	0.229	17.85	0.84580577	71.4	0.61677690	795	357	0.14277	0.0714
89.5	0.229	17.90	0.84587373	71.6	0.61650507	794	358	0.14321	0.0716
89.75	0.230	17.95	0.84594160	71.8	0.61623359	793	359	0.14365	0.0718
90	0.230	18.00	0.84600938	72.0	0.61596247	792	360	0.14409	0.0720
90.25	0.230	18.05	0.84607707	72.2	0.61569170	791	361	0.14453	0.0723
90.5	0.231	18.10	0.84614468	72.4	0.61542129	790	362	0.14497	0.0725
90.75	0.231	18.15	0.84621219	72.6	0.61515122	789	363	0.14541	0.0727
91	0.231	18.20	0.84627962	72.8	0.61488151	788	364	0.14585	0.0729
91.25	0.232	18.25	0.84634696	73.0	0.61461214	787	365	0.14629	0.0731
91.5	0.232	18.30	0.84641422	73.2	0.61434312	786	366	0.14673	0.0734
91.75	0.232	18.35	0.84648139	73.4	0.61407445	785	367	0.14717	0.0736
92	0.233	18.40	0.84654847	73.6	0.61380611	784	368	0.14761	0.0738
92.25	0.233	18.45	0.84661547	73.8	0.61353813	783	369	0.14805	0.0740
92.5	0.233	18.50	0.84668238	74.0	0.61327048	782	370	0.14849	0.0742
92.75	0.234	18.55	0.84674921	74.2	0.61300317	781	371	0.14893	0.0745
93	0.234	18.60	0.84681595	74.4	0.61273620	780	372	0.14938	0.0747
93.25	0.234	18.65	0.84688261	74.6	0.61246957	779	373	0.14982	0.0749
93.5	0.235	18.70	0.84694918	74.8	0.61220327	778	374	0.15026	0.0751
93.75	0.235	18.75	0.84701567	75.0	0.61193731	777	375	0.15070	0.0754
94	0.235	18.80	0.84708208	75.2	0.61167168	776	376	0.15115	0.0756
94.25	0.236	18.85	0.84714840	75.4	0.61140638	775	377	0.15159	0.0758
94.5	0.236	18.90	0.84721465	75.6	0.61114142	774	378	0.15203	0.0760
94.75	0.236	18.95	0.84728080	75.8	0.61087678	773	379	0.15248	0.0762
95	0.237	19.00	0.84734688	76.0	0.61061247	772	380	0.15292	0.0765
95.25	0.237	19.05	0.84741288	76.2	0.61034849	771	381	0.15337	0.0767
95.5	0.237	19.10	0.84747879	76.4	0.61008483	770	382	0.15381	0.0769
95.75	0.238	19.15	0.84754463	76.6	0.60982150	769	383	0.15425	0.0771
96	0.238	19.20	0.84761038	76.8	0.60955849	768	384	0.15470	0.0774
96.25	0.238	19.25	0.84767605	77.0	0.60929580	767	385	0.15515	0.0776
96.5	0.239	19.30	0.84774164	77.2	0.60903343	766	386	0.15559	0.0778
96.75	0.239	19.35	0.84780715	77.4	0.60877138	765	387	0.15604	0.0780
97	0.239	19.40	0.84787259	77.6	0.60850965	764	388	0.15648	0.0782
97.25	0.240	19.45	0.84793794	77.8	0.60824824	763	389	0.15693	0.0785
97.5	0.240	19.50	0.84800321	78.0	0.60798714	762	390	0.15738	0.0787
97.75	0.240	19.55	0.84806841	78.2	0.60772636	761	391	0.15782	0.0789
98	0.241	19.60	0.84813353	78.4	0.60746589	760	392	0.15827	0.0791
98.25	0.241	19.65	0.84819857	78.6	0.60720573	759	393	0.15872	0.0794
98.5	0.241	19.70	0.84826353	78.8	0.60694588	758	394	0.15917	0.0796
98.75	0.242	19.75	0.84832841	79.0	0.60668635	757	395	0.15962	0.0798
99	0.242	19.80	0.84839322	79.2	0.60642712	756	396	0.16006	0.0800
99.25	0.242	19.85	0.84845795	79.4	0.60616820	755	397	0.16051	0.0803
99.5	0.243	19.90	0.84852260	79.6	0.60590958	754	398	0.16096	0.0805
99.75	0.243	19.95	0.84858718	79.8	0.60565127	753	399	0.16141	0.0807
100	0.243	20.00	0.84865168	80.0	0.60539327	752	400	0.16186	0.0809
100.25	0.244	20.05	0.84871611	80.2	0.60513556	751	401	0.16231	0.0812
100.5	0.244	20.10	0.84878046	80.4	0.60487816	750	402	0.16276	0.0814
100.75	0.244	20.15	0.84884473	80.6	0.60462106	749	403	0.16321	0.0816
101	0.245	20.20	0.84890893	80.8	0.60436426	748	404	0.16366	0.0818
101.25	0.245	20.25	0.84897306	81.0	0.60410776	747	405	0.16411	0.0821
101.5	0.245	20.30	0.84903711	81.2	0.60385156	746	406	0.16456	0.0823
101.75	0.246	20.35	0.84910109	81.4	0.60359565	745	407	0.16502	0.0825
102	0.246	20.40	0.84916499	81.6	0.60334004	744	408	0.16547	0.0827
102.25	0.246	20.45	0.84922882	81.8	0.60308472	743	409	0.16592	0.0830
102.5	0.246	20.50	0.84929258	82.0	0.60282969	742	410	0.16637	0.0832
102.75	0.247	20.55	0.84935626	82.2	0.60257496	741	411	0.16682	0.0834
103	0.247	20.60	0.84941987	82.4	0.60232052	740	412	0.16728	0.0836
103.25	0.247	20.65	0.84948341	82.6	0.60206637	739	413	0.16773	0.0839
103.5	0.248	20.70	0.84954687	82.8	0.60181250	738	414	0.16818	0.0841
103.75	0.248	20.75	0.84961027	83.0	0.60155893	737	415	0.16864	0.0843
104	0.248	20.80	0.84967359	83.2	0.60130564	736	416	0.16909	0.0845
104.25	0.249	20.85	0.84973684	83.4	0.60105264	735	417	0.16955	0.0848
104.5	0.249	20.90	0.84980002	83.6	0.60079992	734	418	0.17000	0.0850

104.75	0.249	20.95	0.84986313	83.8	0.60054749	733	419	0.17046	0.0852
105	0.250	21.00	0.84992616	84.0	0.60029534	732	420	0.17091	0.0855
105.25	0.250	21.05	0.84998913	84.2	0.60004347	731	421	0.17137	0.0857
105.5	0.250	21.10	0.85005203	84.4	0.59979189	730	422	0.17182	0.0859
105.75	0.251	21.15	0.85011485	84.6	0.59954058	729	423	0.17228	0.0861
106	0.251	21.20	0.85017761	84.8	0.59928955	728	424	0.17274	0.0864
106.25	0.251	21.25	0.85024030	85.0	0.59903881	727	425	0.17319	0.0866
106.5	0.252	21.30	0.85030292	85.2	0.59878833	726	426	0.17365	0.0868
106.75	0.252	21.35	0.85036547	85.4	0.59853814	725	427	0.17411	0.0871
107	0.252	21.40	0.85042795	85.6	0.59828822	724	428	0.17457	0.0873
107.25	0.252	21.45	0.85049036	85.8	0.59803857	723	429	0.17502	0.0875
107.5	0.253	21.50	0.85055270	86.0	0.59778920	722	430	0.17548	0.0877
107.75	0.253	21.55	0.85061498	86.2	0.59754010	721	431	0.17594	0.0880
108	0.253	21.60	0.85067718	86.4	0.59729127	720	432	0.17640	0.0882
108.25	0.254	21.65	0.85073932	86.6	0.59704271	719	433	0.17686	0.0884
108.5	0.254	21.70	0.85080139	86.8	0.59679442	718	434	0.17732	0.0887
108.75	0.254	21.75	0.85086340	87.0	0.59654640	717	435	0.17778	0.0889
109	0.255	21.80	0.85092534	87.2	0.59629865	716	436	0.17824	0.0891
109.25	0.255	21.85	0.85098721	87.4	0.59605116	715	437	0.17870	0.0893
109.5	0.255	21.90	0.85104901	87.6	0.59580394	714	438	0.17916	0.0896
109.75	0.256	21.95	0.85111075	87.8	0.59555699	713	439	0.17962	0.0898
110	0.256	22.00	0.85117242	88.0	0.59531030	712	440	0.18008	0.0900
110.25	0.256	22.05	0.85123403	88.2	0.59506387	711	441	0.18054	0.0903
110.5	0.256	22.10	0.85129557	88.4	0.59481771	710	442	0.18101	0.0905
110.75	0.257	22.15	0.85135705	88.6	0.59457181	709	443	0.18147	0.0907
111	0.257	22.20	0.85141846	88.8	0.59432617	708	444	0.18193	0.0910
111.25	0.257	22.25	0.85147980	89.0	0.59408078	707	445	0.18239	0.0912
111.5	0.258	22.30	0.85154108	89.2	0.59383566	706	446	0.18286	0.0914
111.75	0.258	22.35	0.85160230	89.4	0.59359080	705	447	0.18332	0.0917
112	0.258	22.40	0.85166345	89.6	0.59334619	704	448	0.18378	0.0919
112.25	0.259	22.45	0.85172454	89.8	0.59310184	703	449	0.18425	0.0921
112.5	0.259	22.50	0.85178556	90.0	0.59285774	702	450	0.18471	0.0924
112.75	0.259	22.55	0.85184652	90.2	0.59261390	701	451	0.18518	0.0926
113	0.260	22.60	0.85190742	90.4	0.59237032	700	452	0.18564	0.0928
113.25	0.260	22.65	0.85196825	90.6	0.59212698	699	453	0.18611	0.0931
113.5	0.260	22.70	0.85202902	90.8	0.59188390	698	454	0.18657	0.0933
113.75	0.260	22.75	0.85208973	91.0	0.59164107	697	455	0.18704	0.0935
114	0.261	22.80	0.85215038	91.2	0.59139850	696	456	0.18750	0.0938
114.25	0.261	22.85	0.85221096	91.4	0.59115617	695	457	0.18797	0.0940
114.5	0.261	22.90	0.85227148	91.6	0.59091409	694	458	0.18844	0.0942
114.75	0.262	22.95	0.85233194	91.8	0.59067226	693	459	0.18890	0.0945
115	0.262	23.00	0.85239233	92.0	0.59043067	692	460	0.18937	0.0947
115.25	0.262	23.05	0.85245267	92.2	0.59018933	691	461	0.18984	0.0949
115.5	0.263	23.10	0.85251294	92.4	0.58994824	690	462	0.19031	0.0952
115.75	0.263	23.15	0.85257315	92.6	0.58970740	689	463	0.19078	0.0954
116	0.263	23.20	0.85263330	92.8	0.58946680	688	464	0.19125	0.0956
116.25	0.263	23.25	0.85269339	93.0	0.58922644	687	465	0.19171	0.0959
116.5	0.264	23.30	0.85275342	93.2	0.58898632	686	466	0.19218	0.0961
116.75	0.264	23.35	0.85281339	93.4	0.58874645	685	467	0.19265	0.0963
117	0.264	23.40	0.85287330	93.6	0.58850682	684	468	0.19312	0.0966
117.25	0.265	23.45	0.85293314	93.8	0.58826743	683	469	0.19359	0.0968
117.5	0.265	23.50	0.85299293	94.0	0.58802827	682	470	0.19407	0.0970
117.75	0.265	23.55	0.85305266	94.2	0.58778936	681	471	0.19454	0.0973
118	0.266	23.60	0.85311233	94.4	0.58755069	680	472	0.19501	0.0975
118.25	0.266	23.65	0.85317194	94.6	0.58731225	679	473	0.19548	0.0977
118.5	0.266	23.70	0.85323149	94.8	0.58707405	678	474	0.19595	0.0980
118.75	0.266	23.75	0.85329098	95.0	0.58683609	677	475	0.19642	0.0982
119	0.267	23.80	0.85335041	95.2	0.58659836	676	476	0.19690	0.0984
119.25	0.267	23.85	0.85340978	95.4	0.58636086	675	477	0.19737	0.0987
119.5	0.267	23.90	0.85346910	95.6	0.58612360	674	478	0.19784	0.0989
119.75	0.268	23.95	0.85352836	95.8	0.58588658	673	479	0.19832	0.0992
120	0.268	24.00	0.85358755	96.0	0.58564978	672	480	0.19879	0.0994
120.25	0.268	24.05	0.85364669	96.2	0.58541322	671	481	0.19926	0.0996
120.5	0.269	24.10	0.85370578	96.4	0.58517689	670	482	0.19974	0.0999
120.75	0.269	24.15	0.85376480	96.6	0.58494079	669	483	0.20021	0.1001
121	0.269	24.20	0.85382377	96.8	0.58470492	668	484	0.20069	0.1003
121.25	0.269	24.25	0.85388268	97.0	0.58446927	667	485	0.20117	0.1006
121.5	0.270	24.30	0.85394154	97.2	0.58423386	666	486	0.20164	0.1008
121.75	0.270	24.35	0.85400033	97.4	0.58399867	665	487	0.20212	0.1011
122	0.270	24.40	0.85405907	97.6	0.58376371	664	488	0.20259	0.1013
122.25	0.271	24.45	0.85411776	97.8	0.58352898	663	489	0.20307	0.1015

122.5	0.271	24.50	0.85417638	98.0	0.58329447	662	490	0.20355	0.1018
122.75	0.271	24.55	0.85423495	98.2	0.58306019	661	491	0.20403	0.1020
123	0.271	24.60	0.85429347	98.4	0.58282613	660	492	0.20450	0.1023
123.25	0.272	24.65	0.85435193	98.6	0.58259229	659	493	0.20498	0.1025
123.5	0.272	24.70	0.85441033	98.8	0.58235868	658	494	0.20546	0.1027
123.75	0.272	24.75	0.85446868	99.0	0.58212529	657	495	0.20594	0.1030
124	0.273	24.80	0.85452697	99.2	0.58189212	656	496	0.20642	0.1032
124.25	0.273	24.85	0.85458521	99.4	0.58165917	655	497	0.20690	0.1034
124.5	0.273	24.90	0.85464339	99.6	0.58142644	654	498	0.20738	0.1037
124.75	0.274	24.95	0.85470152	99.8	0.58119393	653	499	0.20786	0.1039
125	0.274	25.00	0.85475959	100.0	0.58096164	652	500	0.20834	0.1042
125.25	0.274	25.05	0.85481761	100.2	0.58072957	651	501	0.20882	0.1044
125.5	0.274	25.10	0.85487557	100.4	0.58049772	650	502	0.20930	0.1047
125.75	0.275	25.15	0.85493348	100.6	0.58026608	649	503	0.20979	0.1049
126	0.275	25.20	0.85499134	100.8	0.58003466	648	504	0.21027	0.1051
126.25	0.275	25.25	0.85504914	101.0	0.57980345	647	505	0.21075	0.1054
126.5	0.276	25.30	0.85510688	101.2	0.57957246	646	506	0.21123	0.1056
126.75	0.276	25.35	0.85516458	101.4	0.57934169	645	507	0.21172	0.1059
127	0.276	25.40	0.85522222	101.6	0.57911113	644	508	0.21220	0.1061
127.25	0.276	25.45	0.85527981	101.8	0.57888078	643	509	0.21268	0.1063
127.5	0.277	25.50	0.85533734	102.0	0.57865064	642	510	0.21317	0.1066
127.75	0.277	25.55	0.85539482	102.2	0.57842072	641	511	0.21365	0.1068
128	0.277	25.60	0.85545225	102.4	0.57819101	640	512	0.21414	0.1071
128.25	0.278	25.65	0.85550962	102.6	0.57796151	639	513	0.21462	0.1073
128.5	0.278	25.70	0.85556695	102.8	0.57773221	638	514	0.21511	0.1076
128.75	0.278	25.75	0.85562422	103.0	0.57750313	637	515	0.21559	0.1078
129	0.278	25.80	0.85568144	103.2	0.57727426	636	516	0.21608	0.1080
129.25	0.279	25.85	0.85573860	103.4	0.57704559	635	517	0.21657	0.1083
129.5	0.279	25.90	0.85579572	103.6	0.57681714	634	518	0.21706	0.1085
129.75	0.279	25.95	0.85585278	103.8	0.57658889	633	519	0.21754	0.1088
130	0.280	26.00	0.85590979	104.0	0.57636084	632	520	0.21803	0.1090
130.25	0.280	26.05	0.85596675	104.2	0.57613301	631	521	0.21852	0.1093
130.5	0.280	26.10	0.85602366	104.4	0.57590538	630	522	0.21901	0.1095
130.75	0.280	26.15	0.85608051	104.6	0.57567795	629	523	0.21950	0.1097
131	0.281	26.20	0.85613732	104.8	0.57545073	628	524	0.21999	0.1100
131.25	0.281	26.25	0.85619407	105.0	0.57522371	627	525	0.22048	0.1102
131.5	0.281	26.30	0.85625078	105.2	0.57499689	626	526	0.22097	0.1105
131.75	0.282	26.35	0.85630743	105.4	0.57477028	625	527	0.22146	0.1107
132	0.282	26.40	0.85636403	105.6	0.57454387	624	528	0.22195	0.1110
132.25	0.282	26.45	0.85642059	105.8	0.57431766	623	529	0.22244	0.1112
132.5	0.282	26.50	0.85647709	106.0	0.57409165	622	530	0.22293	0.1115
132.75	0.283	26.55	0.85653354	106.2	0.57386584	621	531	0.22342	0.1117
133	0.283	26.60	0.85658994	106.4	0.57364023	620	532	0.22391	0.1120
133.25	0.283	26.65	0.85664629	106.6	0.57341482	619	533	0.22441	0.1122
133.5	0.284	26.70	0.85670260	106.8	0.57318961	618	534	0.22490	0.1124
133.75	0.284	26.75	0.85675885	107.0	0.57296460	617	535	0.22539	0.1127
134	0.284	26.80	0.85681505	107.2	0.57273979	616	536	0.22589	0.1129
134.25	0.284	26.85	0.85687121	107.4	0.57251517	615	537	0.22638	0.1132
134.5	0.285	26.90	0.85692731	107.6	0.57229075	614	538	0.22687	0.1134
134.75	0.285	26.95	0.85698337	107.8	0.57206652	613	539	0.22737	0.1137
135	0.285	27.00	0.85703938	108.0	0.57184249	612	540	0.22787	0.1139
135.25	0.285	27.05	0.85709534	108.2	0.57161866	611	541	0.22836	0.1142
135.5	0.286	27.10	0.85715125	108.4	0.57139502	610	542	0.22886	0.1144
135.75	0.286	27.15	0.85720711	108.6	0.57117157	609	543	0.22935	0.1147
136	0.286	27.20	0.85726292	108.8	0.57094832	608	544	0.22985	0.1149
136.25	0.287	27.25	0.85731869	109.0	0.57072526	607	545	0.23035	0.1152
136.5	0.287	27.30	0.85737440	109.2	0.57050239	606	546	0.23084	0.1154
136.75	0.287	27.35	0.85743007	109.4	0.57027971	605	547	0.23134	0.1157
137	0.287	27.40	0.85748569	109.6	0.57005723	604	548	0.23184	0.1159
137.25	0.288	27.45	0.85754127	109.8	0.56983493	603	549	0.23234	0.1162
137.5	0.288	27.50	0.85759679	110.0	0.56961283	602	550	0.23284	0.1164
137.75	0.288	27.55	0.85765227	110.2	0.56939091	601	551	0.23334	0.1167
138	0.289	27.60	0.85770770	110.4	0.56916919	600	552	0.23384	0.1169
138.25	0.289	27.65	0.85776309	110.6	0.56894765	599	553	0.23434	0.1172
138.5	0.289	27.70	0.85781842	110.8	0.56872630	598	554	0.23484	0.1174
138.75	0.289	27.75	0.85787371	111.0	0.56850514	597	555	0.23534	0.1177
139	0.290	27.80	0.85792896	111.2	0.56828417	596	556	0.23584	0.1179
139.25	0.290	27.85	0.85798416	111.4	0.56806338	595	557	0.23634	0.1182
139.5	0.290	27.90	0.85803931	111.6	0.56784278	594	558	0.23685	0.1184
139.75	0.290	27.95	0.85809441	111.8	0.56762236	593	559	0.23735	0.1187
140	0.291	28.00	0.85814947	112.0	0.56740213	592	560	0.23785	0.1189

140.25	0.291	28.05	0.85820448	112.2	0.56718209	591	561	0.23836	0.1192
140.5	0.291	28.10	0.85825944	112.4	0.56696223	590	562	0.23886	0.1194
140.75	0.292	28.15	0.85831436	112.6	0.56674255	589	563	0.23936	0.1197
141	0.292	28.20	0.85836924	112.8	0.56652306	588	564	0.23987	0.1199
141.25	0.292	28.25	0.85842406	113.0	0.56630375	587	565	0.24037	0.1202
141.5	0.292	28.30	0.85847885	113.2	0.56608462	586	566	0.24088	0.1204
141.75	0.293	28.35	0.85853358	113.4	0.56586567	585	567	0.24138	0.1207
142	0.293	28.40	0.85858827	113.6	0.56564691	584	568	0.24189	0.1209
142.25	0.293	28.45	0.85864292	113.8	0.56542832	583	569	0.24240	0.1212
142.5	0.293	28.50	0.85869752	114.0	0.56520992	582	570	0.24290	0.1215
142.75	0.294	28.55	0.85875208	114.2	0.56499170	581	571	0.24341	0.1217
143	0.294	28.60	0.85880659	114.4	0.56477365	580	572	0.24392	0.1220
143.25	0.294	28.65	0.85886105	114.6	0.56455579	579	573	0.24443	0.1222
143.5	0.295	28.70	0.85891547	114.8	0.56433810	578	574	0.24494	0.1225
143.75	0.295	28.75	0.85896985	115.0	0.56412059	577	575	0.24545	0.1227
144	0.295	28.80	0.85902418	115.2	0.56390326	576	576	0.24596	0.1230
144.25	0.295	28.85	0.85907847	115.4	0.56368611	575	577	0.24647	0.1232
144.5	0.296	28.90	0.85913272	115.6	0.56346913	574	578	0.24698	0.1235
144.75	0.296	28.95	0.85918692	115.8	0.56325233	573	579	0.24749	0.1237
145	0.296	29.00	0.85924107	116.0	0.56303571	572	580	0.24800	0.1240
145.25	0.296	29.05	0.85929519	116.2	0.56281926	571	581	0.24851	0.1243
145.5	0.297	29.10	0.85934925	116.4	0.56260299	570	582	0.24902	0.1245
145.75	0.297	29.15	0.85940328	116.6	0.56238689	569	583	0.24954	0.1248
146	0.297	29.20	0.85945726	116.8	0.56217096	568	584	0.25005	0.1250
146.25	0.298	29.25	0.85951120	117.0	0.56195521	567	585	0.25056	0.1253
146.5	0.298	29.30	0.85956509	117.2	0.56173963	566	586	0.25108	0.1255
146.75	0.298	29.35	0.85961894	117.4	0.56152423	565	587	0.25159	0.1258
147	0.298	29.40	0.85967275	117.6	0.56130899	564	588	0.25210	0.1261
147.25	0.299	29.45	0.85972652	117.8	0.56109393	563	589	0.25262	0.1263
147.5	0.299	29.50	0.85978024	118.0	0.56087904	562	590	0.25313	0.1266
147.75	0.299	29.55	0.85983392	118.2	0.56066433	561	591	0.25365	0.1268
148	0.299	29.60	0.85988756	118.4	0.56044978	560	592	0.25417	0.1271
148.25	0.300	29.65	0.85994115	118.6	0.56023540	559	593	0.25468	0.1273
148.5	0.300	29.70	0.85999470	118.8	0.56002119	558	594	0.25520	0.1276
148.75	0.300	29.75	0.86004821	119.0	0.55980716	557	595	0.25572	0.1279
149	0.301	29.80	0.86010168	119.2	0.55959329	556	596	0.25624	0.1281
149.25	0.301	29.85	0.86015510	119.4	0.55937959	555	597	0.25676	0.1284
149.5	0.301	29.90	0.86020849	119.6	0.55916606	554	598	0.25727	0.1286
149.75	0.301	29.95	0.86026183	119.8	0.55895269	553	599	0.25779	0.1289
150	0.302	30.00	0.86031513	120.0	0.55873949	552	600	0.25831	0.1292
150.25	0.302	30.05	0.86036838	120.2	0.55852646	551	601	0.25883	0.1294
150.5	0.302	30.10	0.86042160	120.4	0.55831360	550	602	0.25935	0.1297
150.75	0.302	30.15	0.86047477	120.6	0.55810090	549	603	0.25988	0.1299
151	0.303	30.20	0.86052791	120.8	0.55788837	548	604	0.26040	0.1302
151.25	0.303	30.25	0.86058100	121.0	0.55767601	547	605	0.26092	0.1305
151.5	0.303	30.30	0.86063405	121.2	0.55746380	546	606	0.26144	0.1307
151.75	0.303	30.35	0.86068706	121.4	0.55725177	545	607	0.26197	0.1310
152	0.304	30.40	0.86074003	121.6	0.55703989	544	608	0.26249	0.1312
152.25	0.304	30.45	0.86079295	121.8	0.55682819	543	609	0.26301	0.1315
152.5	0.304	30.50	0.86084584	122.0	0.55661664	542	610	0.26354	0.1318
152.75	0.304	30.55	0.86089869	122.2	0.55640526	541	611	0.26406	0.1320
153	0.305	30.60	0.86095149	122.4	0.55619404	540	612	0.26459	0.1323
153.25	0.305	30.65	0.86100426	122.6	0.55598298	539	613	0.26511	0.1326
153.5	0.305	30.70	0.86105698	122.8	0.55577208	538	614	0.26564	0.1328
153.75	0.306	30.75	0.86110966	123.0	0.55556135	537	615	0.26617	0.1331
154	0.306	30.80	0.86116231	123.2	0.55535077	536	616	0.26669	0.1333
154.25	0.306	30.85	0.86121491	123.4	0.55514036	535	617	0.26722	0.1336
154.5	0.306	30.90	0.86126747	123.6	0.55493011	534	618	0.26775	0.1339
154.75	0.307	30.95	0.86132000	123.8	0.55472001	533	619	0.26828	0.1341
155	0.307	31.00	0.86137248	124.0	0.55451008	532	620	0.26881	0.1344
155.25	0.307	31.05	0.86142492	124.2	0.55430030	531	621	0.26934	0.1347
155.5	0.307	31.10	0.86147733	124.4	0.55409069	530	622	0.26987	0.1349
155.75	0.308	31.15	0.86152969	124.6	0.55388123	529	623	0.27040	0.1352
156	0.308	31.20	0.86158202	124.8	0.55367193	528	624	0.27093	0.1355
156.25	0.308	31.25	0.86163430	125.0	0.55346279	527	625	0.27146	0.1357
156.5	0.308	31.30	0.86168655	125.2	0.55325380	526	626	0.27199	0.1360
156.75	0.309	31.35	0.86173876	125.4	0.55304498	525	627	0.27252	0.1363
157	0.309	31.40	0.86179092	125.6	0.55283630	524	628	0.27305	0.1365
157.25	0.309	31.45	0.86184305	125.8	0.55262779	523	629	0.27359	0.1368
157.5	0.309	31.50	0.86189514	126.0	0.55241943	522	630	0.27412	0.1371
157.75	0.310	31.55	0.86194719	126.2	0.55221122	521	631	0.27466	0.1373

158	0.310	31.60	0.86199921	126.4	0.55200317	520	632	0.27519	0.1376
158.25	0.310	31.65	0.86205118	126.6	0.55179528	519	633	0.27573	0.1379
158.5	0.311	31.70	0.86210312	126.8	0.55158754	518	634	0.27626	0.1381
158.75	0.311	31.75	0.86215501	127.0	0.55137995	517	635	0.27680	0.1384
159	0.311	31.80	0.86220687	127.2	0.55117252	516	636	0.27733	0.1387
159.25	0.311	31.85	0.86225869	127.4	0.55096524	515	637	0.27787	0.1389
159.5	0.312	31.90	0.86231047	127.6	0.55075811	514	638	0.27841	0.1392
159.75	0.312	31.95	0.86236222	127.8	0.55055114	513	639	0.27895	0.1395
160	0.312	32.00	0.86241392	128.0	0.55034432	512	640	0.27948	0.1397
160.25	0.312	32.05	0.86246559	128.2	0.55013765	511	641	0.28002	0.1400
160.5	0.313	32.10	0.86251722	128.4	0.54993113	510	642	0.28056	0.1403
160.75	0.313	32.15	0.86256881	128.6	0.54972476	509	643	0.28110	0.1406
161	0.313	32.20	0.86262036	128.8	0.54951854	508	644	0.28164	0.1408
161.25	0.313	32.25	0.86267188	129.0	0.54931248	507	645	0.28219	0.1411
161.5	0.314	32.30	0.86272336	129.2	0.54910656	506	646	0.28273	0.1414
161.75	0.314	32.35	0.86277480	129.4	0.54890079	505	647	0.28327	0.1416
162	0.314	32.40	0.86282621	129.6	0.54869518	504	648	0.28381	0.1419
162.25	0.314	32.45	0.86287757	129.8	0.54848971	503	649	0.28435	0.1422
162.5	0.315	32.50	0.86292890	130.0	0.54828439	502	650	0.28490	0.1424
162.75	0.315	32.55	0.86298020	130.2	0.54807922	501	651	0.28544	0.1427
163	0.315	32.60	0.86303145	130.4	0.54787420	500	652	0.28599	0.1430
163.25	0.315	32.65	0.86308267	130.6	0.54766932	499	653	0.28653	0.1433
163.5	0.316	32.70	0.86313385	130.8	0.54746459	498	654	0.28708	0.1435
163.75	0.316	32.75	0.86318500	131.0	0.54726001	497	655	0.28762	0.1438
164	0.316	32.80	0.86323611	131.2	0.54705558	496	656	0.28817	0.1441
164.25	0.316	32.85	0.86328718	131.4	0.54685129	495	657	0.28872	0.1444
164.5	0.317	32.90	0.86333821	131.6	0.54664715	494	658	0.28927	0.1446
164.75	0.317	32.95	0.86338921	131.8	0.54644315	493	659	0.28981	0.1449
165	0.317	33.00	0.86344017	132.0	0.54623930	492	660	0.29036	0.1452
165.25	0.317	33.05	0.86349110	132.2	0.54603560	491	661	0.29091	0.1455
165.5	0.318	33.10	0.86354199	132.4	0.54583204	490	662	0.29146	0.1457
165.75	0.318	33.15	0.86359284	132.6	0.54562862	489	663	0.29201	0.1460
166	0.318	33.20	0.86364366	132.8	0.54542535	488	664	0.29256	0.1463
166.25	0.318	33.25	0.86369444	133.0	0.54522222	487	665	0.29311	0.1466
166.5	0.319	33.30	0.86374519	133.2	0.54501924	486	666	0.29367	0.1468
166.75	0.319	33.35	0.86379590	133.4	0.54481640	485	667	0.29422	0.1471
167	0.319	33.40	0.86384657	133.6	0.54461370	484	668	0.29477	0.1474
167.25	0.319	33.45	0.86389721	133.8	0.54441114	483	669	0.29532	0.1477
167.5	0.320	33.50	0.86394782	134.0	0.54420873	482	670	0.29588	0.1479
167.75	0.320	33.55	0.86399839	134.2	0.54400646	481	671	0.29643	0.1482
168	0.320	33.60	0.86404892	134.4	0.54380433	480	672	0.29699	0.1485
168.25	0.320	33.65	0.86409941	134.6	0.54360234	479	673	0.29754	0.1488
168.5	0.321	33.70	0.86414988	134.8	0.54340049	478	674	0.29810	0.1491
168.75	0.321	33.75	0.86420030	135.0	0.54319879	477	675	0.29866	0.1493
169	0.321	33.80	0.86425069	135.2	0.54299722	476	676	0.29921	0.1496
169.25	0.322	33.85	0.86430105	135.4	0.54279579	475	677	0.29977	0.1499
169.5	0.322	33.90	0.86435137	135.6	0.54259451	474	678	0.30033	0.1502
169.75	0.322	33.95	0.86440166	135.8	0.54239336	473	679	0.30089	0.1504
170	0.322	34.00	0.86445191	136.0	0.54219235	472	680	0.30145	0.1507
170.25	0.323	34.05	0.86450213	136.2	0.54199148	471	681	0.30201	0.1510
170.5	0.323	34.10	0.86455231	136.4	0.54179075	470	682	0.30257	0.1513
170.75	0.323	34.15	0.86460246	136.6	0.54159016	469	683	0.30313	0.1516
171	0.323	34.20	0.86465257	136.8	0.54138971	468	684	0.30369	0.1518
171.25	0.324	34.25	0.86470265	137.0	0.54118939	467	685	0.30426	0.1521
171.5	0.324	34.30	0.86475270	137.2	0.54098921	466	686	0.30482	0.1524
171.75	0.324	34.35	0.86480271	137.4	0.54078917	465	687	0.30538	0.1527
172	0.324	34.40	0.86485268	137.6	0.54058927	464	688	0.30595	0.1530
172.25	0.325	34.45	0.86490263	137.8	0.54038950	463	689	0.30651	0.1533
172.5	0.325	34.50	0.86495253	138.0	0.54018986	462	690	0.30708	0.1535
172.75	0.325	34.55	0.86500241	138.2	0.53999037	461	691	0.30764	0.1538
173	0.325	34.60	0.86505225	138.4	0.53979101	460	692	0.30821	0.1541
173.25	0.326	34.65	0.86510205	138.6	0.53959178	459	693	0.30877	0.1544
173.5	0.326	34.70	0.86515183	138.8	0.53939269	458	694	0.30934	0.1547
173.75	0.326	34.75	0.86520157	139.0	0.53919374	457	695	0.30991	0.1550
174	0.326	34.80	0.86525127	139.2	0.53899492	456	696	0.31048	0.1552
174.25	0.327	34.85	0.86530094	139.4	0.53879623	455	697	0.31105	0.1555
174.5	0.327	34.90	0.86535058	139.6	0.53859768	454	698	0.31162	0.1558
174.75	0.327	34.95	0.86540019	139.8	0.53839926	453	699	0.31219	0.1561
175	0.327	35.00	0.86544976	140.0	0.53820097	452	700	0.31276	0.1564
175.25	0.327	35.05	0.86549930	140.2	0.53800282	451	701	0.31333	0.1567
175.5	0.328	35.10	0.86554880	140.4	0.53780480	450	702	0.31390	0.1570

175.75	0.328	35.15	0.86559827	140.6	0.53760691	449	703	0.31448	0.1572
176	0.328	35.20	0.86564771	140.8	0.53740916	448	704	0.31505	0.1575
176.25	0.328	35.25	0.86569712	141.0	0.53721153	447	705	0.31562	0.1578
176.5	0.329	35.30	0.86574649	141.2	0.53701404	446	706	0.31620	0.1581
176.75	0.329	35.35	0.86579583	141.4	0.53681668	445	707	0.31677	0.1584
177	0.329	35.40	0.86584514	141.6	0.53661945	444	708	0.31735	0.1587
177.25	0.329	35.45	0.86589441	141.8	0.53642235	443	709	0.31793	0.1590
177.5	0.330	35.50	0.86594365	142.0	0.53622539	442	710	0.31850	0.1593
177.75	0.330	35.55	0.86599286	142.2	0.53602855	441	711	0.31908	0.1595
178	0.330	35.60	0.86604204	142.4	0.53583184	440	712	0.31966	0.1598
178.25	0.330	35.65	0.86609118	142.6	0.53563527	439	713	0.32024	0.1601
178.5	0.331	35.70	0.86614030	142.8	0.53543882	438	714	0.32082	0.1604
178.75	0.331	35.75	0.86618938	143.0	0.53524250	437	715	0.32140	0.1607
179	0.331	35.80	0.86623842	143.2	0.53504631	436	716	0.32198	0.1610
179.25	0.331	35.85	0.86628744	143.4	0.53485025	435	717	0.32256	0.1613
179.5	0.332	35.90	0.86633642	143.6	0.53465432	434	718	0.32314	0.1616
179.75	0.332	35.95	0.86638537	143.8	0.53445851	433	719	0.32372	0.1619
180	0.332	36.00	0.86643429	144.0	0.53426284	432	720	0.32431	0.1622
180.25	0.332	36.05	0.86648318	144.2	0.53406729	431	721	0.32489	0.1624
180.5	0.333	36.10	0.86653203	144.4	0.53387187	430	722	0.32548	0.1627
180.75	0.333	36.15	0.86658086	144.6	0.53367657	429	723	0.32606	0.1630
181	0.333	36.20	0.86662965	144.8	0.53348141	428	724	0.32665	0.1633
181.25	0.333	36.25	0.86667841	145.0	0.53328637	427	725	0.32723	0.1636
181.5	0.334	36.30	0.86672714	145.2	0.53309145	426	726	0.32782	0.1639
181.75	0.334	36.35	0.86677583	145.4	0.53289667	425	727	0.32841	0.1642
182	0.334	36.40	0.86682450	145.6	0.53270200	424	728	0.32900	0.1645
182.25	0.334	36.45	0.86687313	145.8	0.53250747	423	729	0.32959	0.1648
182.5	0.335	36.50	0.86692174	146.0	0.53231306	422	730	0.33018	0.1651
182.75	0.335	36.55	0.86697031	146.2	0.53211877	421	731	0.33077	0.1654
183	0.335	36.60	0.86701885	146.4	0.53192461	420	732	0.33136	0.1657
183.25	0.335	36.65	0.86706736	146.6	0.53173058	419	733	0.33195	0.1660
183.5	0.336	36.70	0.86711583	146.8	0.53153666	418	734	0.33254	0.1663
183.75	0.336	36.75	0.86716428	147.0	0.53134288	417	735	0.33313	0.1666
184	0.336	36.80	0.86721270	147.2	0.53114921	416	736	0.33373	0.1669
184.25	0.336	36.85	0.86726108	147.4	0.53095567	415	737	0.33432	0.1672
184.5	0.337	36.90	0.86730944	147.6	0.53076226	414	738	0.33492	0.1675
184.75	0.337	36.95	0.86735776	147.8	0.53056896	413	739	0.33551	0.1678
185	0.337	37.00	0.86740605	148.0	0.53037579	412	740	0.33611	0.1681
185.25	0.337	37.05	0.86745431	148.2	0.53018274	411	741	0.33671	0.1684
185.5	0.338	37.10	0.86750255	148.4	0.52998982	410	742	0.33730	0.1687
185.75	0.338	37.15	0.86755075	148.6	0.52979702	409	743	0.33790	0.1690
186	0.338	37.20	0.86759892	148.8	0.52960433	408	744	0.33850	0.1693
186.25	0.338	37.25	0.86764706	149.0	0.52941177	407	745	0.33910	0.1696
186.5	0.338	37.30	0.86769517	149.2	0.52921934	406	746	0.33970	0.1699
186.75	0.339	37.35	0.86774325	149.4	0.52902702	405	747	0.34030	0.1702
187	0.339	37.40	0.86779129	149.6	0.52883482	404	748	0.34091	0.1705
187.25	0.339	37.45	0.86783931	149.8	0.52864275	403	749	0.34151	0.1708
187.5	0.339	37.50	0.86788730	150.0	0.52845079	402	750	0.34211	0.1711
187.75	0.340	37.55	0.86793526	150.2	0.52825896	401	751	0.34272	0.1714
188	0.340	37.60	0.86798319	150.4	0.52806724	400	752	0.34332	0.1717
188.25	0.340	37.65	0.86803109	150.6	0.52787565	399	753	0.34393	0.1720
188.5	0.340	37.70	0.86807896	150.8	0.52768417	398	754	0.34453	0.1723
188.75	0.341	37.75	0.86812680	151.0	0.52749282	397	755	0.34514	0.1726
189	0.341	37.80	0.86817461	151.2	0.52730158	396	756	0.34575	0.1729
189.25	0.341	37.85	0.86822238	151.4	0.52711046	395	757	0.34635	0.1732
189.5	0.341	37.90	0.86827013	151.6	0.52691946	394	758	0.34696	0.1735
189.75	0.342	37.95	0.86831785	151.8	0.52672858	393	759	0.34757	0.1738
190	0.342	38.00	0.86836555	152.0	0.52653782	392	760	0.34818	0.1741
190.25	0.342	38.05	0.86841321	152.2	0.52634717	391	761	0.34880	0.1744
190.5	0.342	38.10	0.86846084	152.4	0.52615665	390	762	0.34941	0.1747
190.75	0.343	38.15	0.86850844	152.6	0.52596624	389	763	0.35002	0.1750
191	0.343	38.20	0.86855601	152.8	0.52577594	388	764	0.35063	0.1753
191.25	0.343	38.25	0.86860356	153.0	0.52558577	387	765	0.35125	0.1756
191.5	0.343	38.30	0.86865107	153.2	0.52539571	386	766	0.35186	0.1759
191.75	0.343	38.35	0.86869856	153.4	0.52520577	385	767	0.35248	0.1762
192	0.344	38.40	0.86874601	153.6	0.52501594	384	768	0.35309	0.1765
192.25	0.344	38.45	0.86879344	153.8	0.52482623	383	769	0.35371	0.1769
192.5	0.344	38.50	0.86884084	154.0	0.52463664	382	770	0.35433	0.1772
192.75	0.344	38.55	0.86888821	154.2	0.52444716	381	771	0.35495	0.1775
193	0.345	38.60	0.86893555	154.4	0.52425780	380	772	0.35557	0.1778
193.25	0.345	38.65	0.86898286	154.6	0.52406855	379	773	0.35619	0.1781

193.5	0.345	38.70	0.86903015	154.8	0.52387942	378	774	0.35681	0.1784
193.75	0.345	38.75	0.86907740	155.0	0.52369040	377	775	0.35743	0.1787
194	0.346	38.80	0.86912463	155.2	0.52350150	376	776	0.35805	0.1790
194.25	0.346	38.85	0.86917182	155.4	0.52331271	375	777	0.35868	0.1793
194.5	0.346	38.90	0.86921899	155.6	0.52312404	374	778	0.35930	0.1797
194.75	0.346	38.95	0.86926613	155.8	0.52293547	373	779	0.35993	0.1800
195	0.347	39.00	0.86931324	156.0	0.52274703	372	780	0.36055	0.1803
195.25	0.347	39.05	0.86936033	156.2	0.52255869	371	781	0.36118	0.1806
195.5	0.347	39.10	0.86940738	156.4	0.52237048	370	782	0.36181	0.1809
195.75	0.347	39.15	0.86945441	156.6	0.52218237	369	783	0.36243	0.1812
196	0.348	39.20	0.86950141	156.8	0.52199437	368	784	0.36306	0.1815
196.25	0.348	39.25	0.86954838	157.0	0.52180649	367	785	0.36369	0.1818
196.5	0.348	39.30	0.86959532	157.2	0.52161872	366	786	0.36432	0.1822
196.75	0.348	39.35	0.86964223	157.4	0.52143107	365	787	0.36495	0.1825
197	0.348	39.40	0.86968912	157.6	0.52124352	364	788	0.36559	0.1828
197.25	0.349	39.45	0.86973598	157.8	0.52105609	363	789	0.36622	0.1831
197.5	0.349	39.50	0.86978281	158.0	0.52086877	362	790	0.36685	0.1834
197.75	0.349	39.55	0.86982961	158.2	0.52068156	361	791	0.36749	0.1837
198	0.349	39.60	0.86987638	158.4	0.52049446	360	792	0.36812	0.1841
198.25	0.350	39.65	0.86992313	158.6	0.52030747	359	793	0.36876	0.1844
198.5	0.350	39.70	0.86996985	158.8	0.52012060	358	794	0.36940	0.1847
198.75	0.350	39.75	0.87001654	159.0	0.51993383	357	795	0.37003	0.1850
199	0.350	39.80	0.87006321	159.2	0.51974718	356	796	0.37067	0.1853
199.25	0.351	39.85	0.87010984	159.4	0.51956063	355	797	0.37131	0.1857
199.5	0.351	39.90	0.87015645	159.6	0.51937420	354	798	0.37195	0.1860
199.75	0.351	39.95	0.87020303	159.8	0.51918787	353	799	0.37259	0.1863
200	0.351	40.00	0.87024959	160.0	0.51900165	352	800	0.37324	0.1866
200.25	0.351	40.05	0.87029611	160.2	0.51881555	351	801	0.37388	0.1869
200.5	0.352	40.10	0.87034261	160.4	0.51862955	350	802	0.37452	0.1873
200.75	0.352	40.15	0.87038908	160.6	0.51844366	349	803	0.37517	0.1876
201	0.352	40.20	0.87043553	160.8	0.51825788	348	804	0.37581	0.1879
201.25	0.352	40.25	0.87048195	161.0	0.51807221	347	805	0.37646	0.1882
201.5	0.353	40.30	0.87052834	161.2	0.51788665	346	806	0.37711	0.1886
201.75	0.353	40.35	0.87057470	161.4	0.51770119	345	807	0.37776	0.1889
202	0.353	40.40	0.87062104	161.6	0.51751585	344	808	0.37840	0.1892
202.25	0.353	40.45	0.87066735	161.8	0.51733061	343	809	0.37905	0.1895
202.5	0.354	40.50	0.87071363	162.0	0.51714548	342	810	0.37971	0.1899
202.75	0.354	40.55	0.87075989	162.2	0.51696045	341	811	0.38036	0.1902
203	0.354	40.60	0.87080612	162.4	0.51677553	340	812	0.38101	0.1905
203.25	0.354	40.65	0.87085232	162.6	0.51659072	339	813	0.38166	0.1908
203.5	0.354	40.70	0.87089849	162.8	0.51640602	338	814	0.38232	0.1912
203.75	0.355	40.75	0.87094464	163.0	0.51622143	337	815	0.38297	0.1915
204	0.355	40.80	0.87099077	163.2	0.51603694	336	816	0.38363	0.1918
204.25	0.355	40.85	0.87103686	163.4	0.51585255	335	817	0.38429	0.1921
204.5	0.355	40.90	0.87108293	163.6	0.51566827	334	818	0.38494	0.1925
204.75	0.356	40.95	0.87112897	163.8	0.51548410	333	819	0.38560	0.1928
205	0.356	41.00	0.87117499	164.0	0.51530004	332	820	0.38626	0.1931
205.25	0.356	41.05	0.87122098	164.2	0.51511608	331	821	0.38692	0.1935
205.5	0.356	41.10	0.87126695	164.4	0.51493222	330	822	0.38759	0.1938
205.75	0.357	41.15	0.87131288	164.6	0.51474847	329	823	0.38825	0.1941
206	0.357	41.20	0.87135879	164.8	0.51456482	328	824	0.38891	0.1945
206.25	0.357	41.25	0.87140468	165.0	0.51438128	327	825	0.38958	0.1948
206.5	0.357	41.30	0.87145054	165.2	0.51419785	326	826	0.39024	0.1951
206.75	0.357	41.35	0.87149637	165.4	0.51401452	325	827	0.39091	0.1955
207	0.358	41.40	0.87154218	165.6	0.51383129	324	828	0.39158	0.1958
207.25	0.358	41.45	0.87158796	165.8	0.51364816	323	829	0.39225	0.1961
207.5	0.358	41.50	0.87163371	166.0	0.51346514	322	830	0.39292	0.1965
207.75	0.358	41.55	0.87167944	166.2	0.51328223	321	831	0.39359	0.1968
208	0.359	41.60	0.87172515	166.4	0.51309942	320	832	0.39426	0.1971
208.25	0.359	41.65	0.87177082	166.6	0.51291671	319	833	0.39493	0.1975
208.5	0.359	41.70	0.87181648	166.8	0.51273410	318	834	0.39560	0.1978
208.75	0.359	41.75	0.87186210	167.0	0.51255160	317	835	0.39628	0.1981
209	0.360	41.80	0.87190770	167.2	0.51236919	316	836	0.39695	0.1985
209.25	0.360	41.85	0.87195328	167.4	0.51218690	315	837	0.39763	0.1988
209.5	0.360	41.90	0.87199883	167.6	0.51200470	314	838	0.39831	0.1992
209.75	0.360	41.95	0.87204435	167.8	0.51182261	313	839	0.39899	0.1995
210	0.360	42.00	0.87208985	168.0	0.51164061	312	840	0.39967	0.1998
210.25	0.361	42.05	0.87213532	168.2	0.51145872	311	841	0.40035	0.2002
210.5	0.361	42.10	0.87218077	168.4	0.51127694	310	842	0.40103	0.2005
210.75	0.361	42.15	0.87222619	168.6	0.51109525	309	843	0.40171	0.2009
211	0.361	42.20	0.87227158	168.8	0.51091366	308	844	0.40239	0.2012

211.25	0.362	42.25	0.87231696	169.0	0.51073218	307	845	0.40308	0.2015
211.5	0.362	42.30	0.87236230	169.2	0.51055079	306	846	0.40377	0.2019
211.75	0.362	42.35	0.87240762	169.4	0.51036951	305	847	0.40445	0.2022
212	0.362	42.40	0.87245292	169.6	0.51018833	304	848	0.40514	0.2026
212.25	0.362	42.45	0.87249819	169.8	0.51000725	303	849	0.40583	0.2029
212.5	0.363	42.50	0.87254343	170.0	0.50982626	302	850	0.40652	0.2033
212.75	0.363	42.55	0.87258865	170.2	0.50964538	301	851	0.40721	0.2036
213	0.363	42.60	0.87263385	170.4	0.50946460	300	852	0.40790	0.2040
213.25	0.363	42.65	0.87267902	170.6	0.50928392	299	853	0.40860	0.2043
213.5	0.364	42.70	0.87272417	170.8	0.50910334	298	854	0.40929	0.2046
213.75	0.364	42.75	0.87276929	171.0	0.50892285	297	855	0.40999	0.2050
214	0.364	42.80	0.87281438	171.2	0.50874247	296	856	0.41068	0.2053
214.25	0.364	42.85	0.87285945	171.4	0.50856218	295	857	0.41138	0.2057
214.5	0.365	42.90	0.87290450	171.6	0.50838200	294	858	0.41208	0.2060
214.75	0.365	42.95	0.87294952	171.8	0.50820191	293	859	0.41278	0.2064
215	0.365	43.00	0.87299452	172.0	0.50802192	292	860	0.41348	0.2067
215.25	0.365	43.05	0.87303949	172.2	0.50784203	291	861	0.41418	0.2071
215.5	0.365	43.10	0.87308444	172.4	0.50766224	290	862	0.41488	0.2074
215.75	0.366	43.15	0.87312936	172.6	0.50748254	289	863	0.41559	0.2078
216	0.366	43.20	0.87317426	172.8	0.50730294	288	864	0.41629	0.2081
216.25	0.366	43.25	0.87321914	173.0	0.50712344	287	865	0.41700	0.2085
216.5	0.366	43.30	0.87326399	173.2	0.50694404	286	866	0.41771	0.2089
216.75	0.367	43.35	0.87330882	173.4	0.50676474	285	867	0.41842	0.2092
217	0.367	43.40	0.87335362	173.6	0.50658553	284	868	0.41913	0.2096
217.25	0.367	43.45	0.87339839	173.8	0.50640642	283	869	0.41984	0.2099
217.5	0.367	43.50	0.87344315	174.0	0.50622741	282	870	0.42055	0.2103
217.75	0.367	43.55	0.87348788	174.2	0.50604849	281	871	0.42127	0.2106
218	0.368	43.60	0.87353258	174.4	0.50586967	280	872	0.42198	0.2110
218.25	0.368	43.65	0.87357726	174.6	0.50569095	279	873	0.42270	0.2113
218.5	0.368	43.70	0.87362192	174.8	0.50551232	278	874	0.42341	0.2117
218.75	0.368	43.75	0.87366655	175.0	0.50533379	277	875	0.42413	0.2121
219	0.369	43.80	0.87371116	175.2	0.50515535	276	876	0.42485	0.2124
219.25	0.369	43.85	0.87375575	175.4	0.50497701	275	877	0.42557	0.2128
219.5	0.369	43.90	0.87380031	175.6	0.50479877	274	878	0.42630	0.2131
219.75	0.369	43.95	0.87384484	175.8	0.50462062	273	879	0.42702	0.2135
220	0.369	44.00	0.87388936	176.0	0.50444257	272	880	0.42774	0.2139
220.25	0.370	44.05	0.87393385	176.2	0.50426461	271	881	0.42847	0.2142
220.5	0.370	44.10	0.87397831	176.4	0.50408674	270	882	0.42920	0.2146
220.75	0.370	44.15	0.87402276	176.6	0.50390897	269	883	0.42993	0.2150
221	0.370	44.20	0.87406717	176.8	0.50373130	268	884	0.43066	0.2153
221.25	0.371	44.25	0.87411157	177.0	0.50355372	267	885	0.43139	0.2157
221.5	0.371	44.30	0.87415594	177.2	0.50337623	266	886	0.43212	0.2161
221.75	0.371	44.35	0.87420029	177.4	0.50319884	265	887	0.43285	0.2164
222	0.371	44.40	0.87424461	177.6	0.50302155	264	888	0.43359	0.2168
222.25	0.371	44.45	0.87428891	177.8	0.50284434	263	889	0.43432	0.2172
222.5	0.372	44.50	0.87433319	178.0	0.50266723	262	890	0.43506	0.2175
222.75	0.372	44.55	0.87437745	178.2	0.50249022	261	891	0.43580	0.2179
223	0.372	44.60	0.87442168	178.4	0.50231329	260	892	0.43654	0.2183
223.25	0.372	44.65	0.87446588	178.6	0.50213646	259	893	0.43728	0.2186
223.5	0.373	44.70	0.87451007	178.8	0.50195972	258	894	0.43802	0.2190
223.75	0.373	44.75	0.87455423	179.0	0.50178308	257	895	0.43877	0.2194
224	0.373	44.80	0.87459837	179.2	0.50160653	256	896	0.43951	0.2198
224.25	0.373	44.85	0.87464248	179.4	0.50143007	255	897	0.44026	0.2201
224.5	0.373	44.90	0.87468657	179.6	0.50125370	254	898	0.44101	0.2205
224.75	0.374	44.95	0.87473064	179.8	0.50107743	253	899	0.44176	0.2209
225	0.374	45.00	0.87477469	180.0	0.50090125	252	900	0.44251	0.2213
225.25	0.374	45.05	0.87481871	180.2	0.50072516	251	901	0.44326	0.2216
225.5	0.374	45.10	0.87486271	180.4	0.50054916	250	902	0.44402	0.2220
225.75	0.375	45.15	0.87490669	180.6	0.50037325	249	903	0.44477	0.2224
226	0.375	45.20	0.87495064	180.8	0.50019744	248	904	0.44553	0.2228
226.25	0.375	45.25	0.87499457	181.0	0.50002172	247	905	0.44629	0.2231
226.5	0.375	45.30	0.87503848	181.2	0.49984608	246	906	0.44705	0.2235
226.75	0.375	45.35	0.87508236	181.4	0.49967054	245	907	0.44781	0.2239
227	0.376	45.40	0.87512623	181.6	0.49949509	244	908	0.44857	0.2243
227.25	0.376	45.45	0.87517007	181.8	0.49931973	243	909	0.44934	0.2247
227.5	0.376	45.50	0.87521388	182.0	0.49914446	242	910	0.45010	0.2251
227.75	0.376	45.55	0.87525768	182.2	0.49896928	241	911	0.45087	0.2254
228	0.377	45.60	0.87530145	182.4	0.49879420	240	912	0.45164	0.2258
228.25	0.377	45.65	0.87534520	182.6	0.49861920	239	913	0.45241	0.2262
228.5	0.377	45.70	0.87538893	182.8	0.49844429	238	914	0.45318	0.2266
228.75	0.377	45.75	0.87543263	183.0	0.49826947	237	915	0.45395	0.2270

229	0.377	45.80	0.87547631	183.2	0.49809475	236	916	0.45473	0.2274
229.25	0.378	45.85	0.87551997	183.4	0.49792011	235	917	0.45550	0.2278
229.5	0.378	45.90	0.87556361	183.6	0.49774556	234	918	0.45628	0.2281
229.75	0.378	45.95	0.87560723	183.8	0.49757110	233	919	0.45706	0.2285
230	0.378	46.00	0.87565082	184.0	0.49739673	232	920	0.45784	0.2289
230.25	0.378	46.05	0.87569439	184.2	0.49722245	231	921	0.45862	0.2293
230.5	0.379	46.10	0.87573794	184.4	0.49704825	230	922	0.45941	0.2297
230.75	0.379	46.15	0.87578146	184.6	0.49687415	229	923	0.46019	0.2301
231	0.379	46.20	0.87582497	184.8	0.49670014	228	924	0.46098	0.2305
231.25	0.379	46.25	0.87586845	185.0	0.49652621	227	925	0.46177	0.2309
231.5	0.380	46.30	0.87591191	185.2	0.49635237	226	926	0.46256	0.2313
231.75	0.380	46.35	0.87595534	185.4	0.49617862	225	927	0.46335	0.2317
232	0.380	46.40	0.87599876	185.6	0.49600496	224	928	0.46415	0.2321
232.25	0.380	46.45	0.87604215	185.8	0.49583139	223	929	0.46494	0.2325
232.5	0.380	46.50	0.87608553	186.0	0.49565790	222	930	0.46574	0.2329
232.75	0.381	46.55	0.87612887	186.2	0.49548450	221	931	0.46654	0.2333
233	0.381	46.60	0.87617220	186.4	0.49531119	220	932	0.46734	0.2337
233.25	0.381	46.65	0.87621551	186.6	0.49513797	219	933	0.46814	0.2341
233.5	0.381	46.70	0.87625879	186.8	0.49496483	218	934	0.46894	0.2345
233.75	0.382	46.75	0.87630205	187.0	0.49479178	217	935	0.46975	0.2349
234	0.382	46.80	0.87634530	187.2	0.49461882	216	936	0.47056	0.2353
234.25	0.382	46.85	0.87638851	187.4	0.49444594	215	937	0.47137	0.2357
234.5	0.382	46.90	0.87643171	187.6	0.49427315	214	938	0.47218	0.2361
234.75	0.382	46.95	0.87647489	187.8	0.49410045	213	939	0.47299	0.2365
235	0.383	47.00	0.87651804	188.0	0.49392784	212	940	0.47380	0.2369
235.25	0.383	47.05	0.87656117	188.2	0.49375531	211	941	0.47462	0.2373
235.5	0.383	47.10	0.87660428	188.4	0.49358286	210	942	0.47544	0.2377
235.75	0.383	47.15	0.87664737	188.6	0.49341051	209	943	0.47626	0.2381
236	0.383	47.20	0.87669044	188.8	0.49323824	208	944	0.47708	0.2385
236.25	0.384	47.25	0.87673349	189.0	0.49306605	207	945	0.47790	0.2390
236.5	0.384	47.30	0.87677651	189.2	0.49289395	206	946	0.47873	0.2394
236.75	0.384	47.35	0.87681952	189.4	0.49272193	205	947	0.47956	0.2398
237	0.384	47.40	0.87686250	189.6	0.49255001	204	948	0.48039	0.2402
237.25	0.385	47.45	0.87690546	189.8	0.49237816	203	949	0.48122	0.2406
237.5	0.385	47.50	0.87694840	190.0	0.49220640	202	950	0.48205	0.2410
237.75	0.385	47.55	0.87699132	190.2	0.49203473	201	951	0.48289	0.2414
238	0.385	47.60	0.87703422	190.4	0.49186314	200	952	0.48372	0.2419
238.25	0.385	47.65	0.87707709	190.6	0.49169164	199	953	0.48456	0.2423
238.5	0.386	47.70	0.87711995	190.8	0.49152022	198	954	0.48540	0.2427
238.75	0.386	47.75	0.87716278	191.0	0.49134888	197	955	0.48625	0.2431
239	0.386	47.80	0.87720559	191.2	0.49117763	196	956	0.48709	0.2435
239.25	0.386	47.85	0.87724838	191.4	0.49100646	195	957	0.48794	0.2440
239.5	0.386	47.90	0.87729116	191.6	0.49083538	194	958	0.48879	0.2444
239.75	0.387	47.95	0.87733391	191.8	0.49066438	193	959	0.48964	0.2448
240	0.387	48.00	0.87737663	192.0	0.49049346	192	960	0.49049	0.2452
240.25	0.387	48.05	0.87741934	192.2	0.49032263	191	961	0.49135	0.2457
240.5	0.387	48.10	0.87746203	192.4	0.49015188	190	962	0.49221	0.2461
240.75	0.388	48.15	0.87750470	192.6	0.48998122	189	963	0.49307	0.2465
241	0.388	48.20	0.87754734	192.8	0.48981064	188	964	0.49393	0.2470
241.25	0.388	48.25	0.87758996	193.0	0.48964014	187	965	0.49479	0.2474
241.5	0.388	48.30	0.87763257	193.2	0.48946973	186	966	0.49566	0.2478
241.75	0.388	48.35	0.87767515	193.4	0.48929939	185	967	0.49653	0.2483
242	0.389	48.40	0.87771771	193.6	0.48912914	184	968	0.49740	0.2487
242.25	0.389	48.45	0.87776026	193.8	0.48895898	183	969	0.49827	0.2491
242.5	0.389	48.50	0.87780278	194.0	0.48878889	182	970	0.49914	0.2496
242.75	0.389	48.55	0.87784528	194.2	0.48861889	181	971	0.50002	0.2500
243	0.389	48.60	0.87788776	194.4	0.48844897	180	972	0.50090	0.2505
243.25	0.390	48.65	0.87793022	194.6	0.48827913	179	973	0.50178	0.2509
243.5	0.390	48.70	0.87797266	194.8	0.48810938	178	974	0.50267	0.2513
243.75	0.390	48.75	0.87801507	195.0	0.48793970	177	975	0.50355	0.2518
244	0.390	48.80	0.87805747	195.2	0.48777011	176	976	0.50444	0.2522
244.25	0.390	48.85	0.87809985	195.4	0.48760060	175	977	0.50533	0.2527
244.5	0.391	48.90	0.87814221	195.6	0.48743117	174	978	0.50623	0.2531
244.75	0.391	48.95	0.87818454	195.8	0.48726183	173	979	0.50712	0.2536
245	0.391	49.00	0.87822686	196.0	0.48709256	172	980	0.50802	0.2540
245.25	0.391	49.05	0.87826916	196.2	0.48692337	171	981	0.50892	0.2545
245.5	0.392	49.10	0.87831143	196.4	0.48675427	170	982	0.50983	0.2549
245.75	0.392	49.15	0.87835369	196.6	0.48658525	169	983	0.51073	0.2554
246	0.392	49.20	0.87839592	196.8	0.48641631	168	984	0.51164	0.2558
246.25	0.392	49.25	0.87843814	197.0	0.48624744	167	985	0.51255	0.2563
246.5	0.392	49.30	0.87848033	197.2	0.48607866	166	986	0.51347	0.2567

246.75	0.393	49.35	0.87852251	197.4	0.48590996	165	987	0.51438	0.2572
247	0.393	49.40	0.87856466	197.6	0.48574134	164	988	0.51530	0.2577
247.25	0.393	49.45	0.87860680	197.8	0.48557280	163	989	0.51622	0.2581
247.5	0.393	49.50	0.87864891	198.0	0.48540434	162	990	0.51715	0.2586
247.75	0.393	49.55	0.87869101	198.2	0.48523596	161	991	0.51807	0.2590
248	0.394	49.60	0.87873308	198.4	0.48506766	160	992	0.51900	0.2595
248.25	0.394	49.65	0.87877514	198.6	0.48489944	159	993	0.51993	0.2600
248.5	0.394	49.70	0.87881717	198.8	0.48473130	158	994	0.52087	0.2604
248.75	0.394	49.75	0.87885919	199.0	0.48456324	157	995	0.52181	0.2609
249	0.395	49.80	0.87890119	199.2	0.48439526	156	996	0.52275	0.2614
249.25	0.395	49.85	0.87894316	199.4	0.48422736	155	997	0.52369	0.2618
249.5	0.395	49.90	0.87898512	199.6	0.48405953	154	998	0.52464	0.2623
249.75	0.395	49.95	0.87902705	199.8	0.48389179	153	999	0.52559	0.2628
250	0.395	50.00	0.87906897	200.0	0.48372412	152	1000	0.52654	0.2633
250.25	0.396	50.05	0.87911087	200.2	0.48355653	151	1001	0.52749	0.2637
250.5	0.396	50.10	0.87915274	200.4	0.48338903	150	1002	0.52845	0.2642
250.75	0.396	50.15	0.87919460	200.6	0.48322160	149	1003	0.52941	0.2647
251	0.396	50.20	0.87923644	200.8	0.48305425	148	1004	0.53038	0.2652
251.25	0.396	50.25	0.87927826	201.0	0.48288697	147	1005	0.53134	0.2657
251.5	0.397	50.30	0.87932006	201.2	0.48271978	146	1006	0.53231	0.2662
251.75	0.397	50.35	0.87936183	201.4	0.48255266	145	1007	0.53329	0.2666
252	0.397	50.40	0.87940359	201.6	0.48238562	144	1008	0.53426	0.2671
252.25	0.397	50.45	0.87944533	201.8	0.48221866	143	1009	0.53524	0.2676
252.5	0.397	50.50	0.87948706	202.0	0.48205178	142	1010	0.53623	0.2681
252.75	0.398	50.55	0.87952876	202.2	0.48188497	141	1011	0.53721	0.2686
253	0.398	50.60	0.87957044	202.4	0.48171825	140	1012	0.53820	0.2691
253.25	0.398	50.65	0.87961210	202.6	0.48155160	139	1013	0.53919	0.2696
253.5	0.398	50.70	0.87965374	202.8	0.48138502	138	1014	0.54019	0.2701
253.75	0.398	50.75	0.87969537	203.0	0.48121853	137	1015	0.54119	0.2706
254	0.399	50.80	0.87973697	203.2	0.48105211	136	1016	0.54219	0.2711
254.25	0.399	50.85	0.87977856	203.4	0.48088577	135	1017	0.54320	0.2716
254.5	0.399	50.90	0.87982012	203.6	0.48071950	134	1018	0.54421	0.2721
254.75	0.399	50.95	0.87986167	203.8	0.48055331	133	1019	0.54522	0.2726
255	0.400	51.00	0.87990320	204.0	0.48038720	132	1020	0.54624	0.2731
255.25	0.400	51.05	0.87994471	204.2	0.48022117	131	1021	0.54726	0.2736
255.5	0.400	51.10	0.87998620	204.4	0.48005521	130	1022	0.54828	0.2741
255.75	0.400	51.15	0.88002767	204.6	0.47988933	129	1023	0.54931	0.2747
256	0.400	51.20	0.88006912	204.8	0.47972352	128	1024	0.55034	0.2752
256.25	0.401	51.25	0.88011055	205.0	0.47955779	127	1025	0.55138	0.2757
256.5	0.401	51.30	0.88015197	205.2	0.47939214	126	1026	0.55242	0.2762
256.75	0.401	51.35	0.88019336	205.4	0.47922656	125	1027	0.55346	0.2767
257	0.401	51.40	0.88023474	205.6	0.47906105	124	1028	0.55451	0.2773
257.25	0.401	51.45	0.88027609	205.8	0.47889563	123	1029	0.55556	0.2778
257.5	0.402	51.50	0.88031743	206.0	0.47873028	122	1030	0.55662	0.2783
257.75	0.402	51.55	0.88035875	206.2	0.47856500	121	1031	0.55768	0.2788
258	0.402	51.60	0.88040005	206.4	0.47839980	120	1032	0.55874	0.2794
258.25	0.402	51.65	0.88044133	206.6	0.47823467	119	1033	0.55981	0.2799
258.5	0.402	51.70	0.88048259	206.8	0.47806962	118	1034	0.56088	0.2804
258.75	0.403	51.75	0.88052384	207.0	0.47790465	117	1035	0.56196	0.2810
259	0.403	51.80	0.88056506	207.2	0.47773975	116	1036	0.56304	0.2815
259.25	0.403	51.85	0.88060627	207.4	0.47757492	115	1037	0.56412	0.2821
259.5	0.403	51.90	0.88064746	207.6	0.47741017	114	1038	0.56521	0.2826
259.75	0.403	51.95	0.88068863	207.8	0.47724550	113	1039	0.56630	0.2832
260	0.404	52.00	0.88072978	208.0	0.47708089	112	1040	0.56740	0.2837
260.25	0.404	52.05	0.88077091	208.2	0.47691637	111	1041	0.56851	0.2843
260.5	0.404	52.10	0.88081202	208.4	0.47675191	110	1042	0.56961	0.2848
260.75	0.404	52.15	0.88085312	208.6	0.47658754	109	1043	0.57073	0.2854
261	0.404	52.20	0.88089419	208.8	0.47642323	108	1044	0.57184	0.2859
261.25	0.405	52.25	0.88093525	209.0	0.47625900	107	1045	0.57296	0.2865
261.5	0.405	52.30	0.88097629	209.2	0.47609484	106	1046	0.57409	0.2870
261.75	0.405	52.35	0.88101731	209.4	0.47593076	105	1047	0.57522	0.2876
262	0.405	52.40	0.88105831	209.6	0.47576675	104	1048	0.57636	0.2882
262.25	0.405	52.45	0.88109930	209.8	0.47560281	103	1049	0.57750	0.2888
262.5	0.406	52.50	0.88114026	210.0	0.47543895	102	1050	0.57865	0.2893
262.75	0.406	52.55	0.88118121	210.2	0.47527516	101	1051	0.57980	0.2899
263	0.406	52.60	0.88122214	210.4	0.47511144	100	1052	0.58096	0.2905
263.25	0.406	52.65	0.88126305	210.6	0.47494780	99	1053	0.58213	0.2911
263.5	0.407	52.70	0.88130394	210.8	0.47478423	98	1054	0.58329	0.2916
263.75	0.407	52.75	0.88134482	211.0	0.47462073	97	1055	0.58447	0.2922
264	0.407	52.80	0.88138567	211.2	0.47445731	96	1056	0.58565	0.2928
264.25	0.407	52.85	0.88142651	211.4	0.47429396	95	1057	0.58684	0.2934

264.5	0.407	52.90	0.88146733	211.6	0.47413068	94	1058	0.58803	0.2940
264.75	0.408	52.95	0.88150813	211.8	0.47396747	93	1059	0.58923	0.2946
265	0.408	53.00	0.88154892	212.0	0.47380434	92	1060	0.59043	0.2952
265.25	0.408	53.05	0.88158968	212.2	0.47364128	91	1061	0.59164	0.2958
265.5	0.408	53.10	0.88163043	212.4	0.47347829	90	1062	0.59286	0.2964
265.75	0.408	53.15	0.88167116	212.6	0.47331537	89	1063	0.59408	0.2970
266	0.409	53.20	0.88171187	212.8	0.47315253	88	1064	0.59531	0.2977
266.25	0.409	53.25	0.88175256	213.0	0.47298975	87	1065	0.59655	0.2983
266.5	0.409	53.30	0.88179324	213.2	0.47282705	86	1066	0.59779	0.2989
266.75	0.409	53.35	0.88183389	213.4	0.47266442	85	1067	0.59904	0.2995
267	0.409	53.40	0.88187453	213.6	0.47250186	84	1068	0.60030	0.3001
267.25	0.410	53.45	0.88191516	213.8	0.47233938	83	1069	0.60156	0.3008
267.5	0.410	53.50	0.88195576	214.0	0.47217696	82	1070	0.60283	0.3014
267.75	0.410	53.55	0.88199635	214.2	0.47201462	81	1071	0.60411	0.3021
268	0.410	53.60	0.88203691	214.4	0.47185234	80	1072	0.60539	0.3027
268.25	0.410	53.65	0.88207746	214.6	0.47169014	79	1073	0.60669	0.3033
268.5	0.411	53.70	0.88211800	214.8	0.47152801	78	1074	0.60799	0.3040
268.75	0.411	53.75	0.88215851	215.0	0.47136595	77	1075	0.60930	0.3046
269	0.411	53.80	0.88219901	215.2	0.47120396	76	1076	0.61061	0.3053
269.25	0.411	53.85	0.88223949	215.4	0.47104204	75	1077	0.61194	0.3060
269.5	0.411	53.90	0.88227995	215.6	0.47088020	74	1078	0.61327	0.3066
269.75	0.412	53.95	0.88232039	215.8	0.47071842	73	1079	0.61461	0.3073
270	0.412	54.00	0.88236082	216.0	0.47055671	72	1080	0.61596	0.3080
270.25	0.412	54.05	0.88240123	216.2	0.47039508	71	1081	0.61732	0.3087
270.5	0.412	54.10	0.88244162	216.4	0.47023351	70	1082	0.61869	0.3093
270.75	0.412	54.15	0.88248200	216.6	0.47007202	69	1083	0.62007	0.3100
271	0.413	54.20	0.88252235	216.8	0.46991059	68	1084	0.62145	0.3107
271.25	0.413	54.25	0.88256269	217.0	0.46974924	67	1085	0.62285	0.3114
271.5	0.413	54.30	0.88260301	217.2	0.46958795	66	1086	0.62426	0.3121
271.75	0.413	54.35	0.88264332	217.4	0.46942673	65	1087	0.62567	0.3128
272	0.413	54.40	0.88268360	217.6	0.46926559	64	1088	0.62710	0.3135
272.25	0.414	54.45	0.88272387	217.8	0.46910451	63	1089	0.62854	0.3143
272.5	0.414	54.50	0.88276412	218.0	0.46894350	62	1090	0.62998	0.3150
272.75	0.414	54.55	0.88280436	218.2	0.46878257	61	1091	0.63144	0.3157
273	0.414	54.60	0.88284458	218.4	0.46862170	60	1092	0.63291	0.3165
273.25	0.414	54.65	0.88288478	218.6	0.46846090	59	1093	0.63440	0.3172
273.5	0.415	54.70	0.88292496	218.8	0.46830017	58	1094	0.63589	0.3179
273.75	0.415	54.75	0.88296512	219.0	0.46813951	57	1095	0.63740	0.3187
274	0.415	54.80	0.88300527	219.2	0.46797891	56	1096	0.63891	0.3195
274.25	0.415	54.85	0.88304540	219.4	0.46781839	55	1097	0.64044	0.3202
274.5	0.415	54.90	0.88308552	219.6	0.46765794	54	1098	0.64199	0.3210
274.75	0.416	54.95	0.88312561	219.8	0.46749755	53	1099	0.64355	0.3218
275	0.416	55.00	0.88316569	220.0	0.46733723	52	1100	0.64512	0.3226
275.25	0.416	55.05	0.88320575	220.2	0.46717699	51	1101	0.64670	0.3234
275.5	0.416	55.10	0.88324580	220.4	0.46701681	50	1102	0.64830	0.3242
275.75	0.416	55.15	0.88328583	220.6	0.46685669	49	1103	0.64992	0.3250
276	0.417	55.20	0.88332584	220.8	0.46669665	48	1104	0.65155	0.3258
276.25	0.417	55.25	0.88336583	221.0	0.46653667	47	1105	0.65320	0.3266
276.5	0.417	55.30	0.88340581	221.2	0.46637677	46	1106	0.65486	0.3274
276.75	0.417	55.35	0.88344577	221.4	0.46621693	45	1107	0.65654	0.3283
277	0.417	55.40	0.88348571	221.6	0.46605715	44	1108	0.65824	0.3291
277.25	0.418	55.45	0.88352564	221.8	0.46589745	43	1109	0.65996	0.3300
277.5	0.418	55.50	0.88356555	222.0	0.46573781	42	1110	0.66169	0.3308
277.75	0.418	55.55	0.88360544	222.2	0.46557824	41	1111	0.66345	0.3317
278	0.418	55.60	0.88364531	222.4	0.46541874	40	1112	0.66522	0.3326
278.25	0.418	55.65	0.88368517	222.6	0.46525931	39	1113	0.66702	0.3335
278.5	0.419	55.70	0.88372501	222.8	0.46509994	38	1114	0.66884	0.3344
278.75	0.419	55.75	0.88376484	223.0	0.46494064	37	1115	0.67068	0.3353
279	0.419	55.80	0.88380465	223.2	0.46478141	36	1116	0.67254	0.3363
279.25	0.419	55.85	0.88384444	223.4	0.46462225	35	1117	0.67443	0.3372
279.5	0.419	55.90	0.88388421	223.6	0.46446315	34	1118	0.67635	0.3382
279.75	0.420	55.95	0.88392397	223.8	0.46430412	33	1119	0.67829	0.3391
280	0.420	56.00	0.88396371	224.0	0.46414515	32	1120	0.68026	0.3401
280.25	0.420	56.05	0.88400344	224.2	0.46398625	31	1121	0.68226	0.3411
280.5	0.420	56.10	0.88404314	224.4	0.46382742	30	1122	0.68428	0.3421
280.75	0.420	56.15	0.88408284	224.6	0.46366866	29	1123	0.68634	0.3432
281	0.421	56.20	0.88412251	224.8	0.46350996	28	1124	0.68844	0.3442
281.25	0.421	56.25	0.88416217	225.0	0.46335133	27	1125	0.69057	0.3453
281.5	0.421	56.30	0.88420181	225.2	0.46319276	26	1126	0.69274	0.3464
281.75	0.421	56.35	0.88424143	225.4	0.46303426	25	1127	0.69494	0.3475
282	0.421	56.40	0.88428104	225.6	0.46287583	24	1128	0.69719	0.3486

282.25	0.422	56.45	0.88432064	225.8	0.46271746	23	1129	0.69948	0.3497
282.5	0.422	56.50	0.88436021	226.0	0.46255916	22	1130	0.70182	0.3509
282.75	0.422	56.55	0.88439977	226.2	0.46240092	21	1131	0.70422	0.3521
283	0.422	56.60	0.88443931	226.4	0.46224275	20	1132	0.70666	0.3533
283.25	0.422	56.65	0.88447884	226.6	0.46208465	19	1133	0.70916	0.3546
283.5	0.423	56.70	0.88451835	226.8	0.46192661	18	1134	0.71173	0.3559
283.75	0.423	56.75	0.88455784	227.0	0.46176864	17	1135	0.71436	0.3572
284	0.423	56.80	0.88459732	227.2	0.46161073	16	1136	0.71707	0.3585
284.25	0.423	56.85	0.88463678	227.4	0.46145289	15	1137	0.71986	0.3599
284.5	0.423	56.90	0.88467622	227.6	0.46129511	14	1138	0.72274	0.3614
284.75	0.424	56.95	0.88471565	227.8	0.46113740	13	1139	0.72571	0.3629
285	0.424	57.00	0.88475506	228.0	0.46097975	12	1140	0.72880	0.3644
285.25	0.424	57.05	0.88479446	228.2	0.46082217	11	1141	0.73201	0.3660
285.5	0.424	57.10	0.88483384	228.4	0.46066465	10	1142	0.73536	0.3677
285.75	0.424	57.15	0.88487320	228.6	0.46050720	9	1143	0.73887	0.3694
286	0.425	57.20	0.88491255	228.8	0.46034981	8	1144	0.74257	0.3713
286.25	0.425	57.25	0.88495188	229.0	0.46019249	7	1145	0.74649	0.3732
286.5	0.425	57.30	0.88499119	229.2	0.46003523	6	1146	0.75069	0.3753
286.75	0.425	57.35	0.88503049	229.4	0.45987803	5	1147	0.75523	0.3776
287	0.425	57.40	0.88506977	229.6	0.45972090	4	1148	0.76022	0.3801
287.25	0.426	57.45	0.88510904	229.8	0.45956384	3	1149	0.76585	0.3829
287.5	0.426	57.50	0.88514829	230.0	0.45940684	2	1150	0.77245	0.3862
287.75	0.426	57.55	0.88518753	230.2	0.45924990	1	1151	0.78092	0.3905
288	0.426	57.60	0.88522674	230.4	0.45909303	0	1152	0.80000	0.4000
288.25	0.426	57.65	0.88526595	230.6	0.45893622	1	1153	0.80994	0.4050
288.5	0.427	57.70	0.88530513	230.8	0.45877947	2	1154	0.81436	0.4072
288.75	0.427	57.75	0.88534430	231.0	0.45862279	3	1155	0.81780	0.4089
289	0.427	57.80	0.88538346	231.2	0.45846617	4	1156	0.82073	0.4104
289.25	0.427	57.85	0.88542259	231.4	0.45830962	5	1157	0.82333	0.4117
289.5	0.427	57.90	0.88546172	231.6	0.45815313	6	1158	0.82570	0.4129
289.75	0.428	57.95	0.88550082	231.8	0.45799670	7	1159	0.82789	0.4139
290	0.428	58.00	0.88553991	232.0	0.45784034	8	1160	0.82994	0.4150
290.25	0.428	58.05	0.88557899	232.2	0.45768404	9	1161	0.83186	0.4159
290.5	0.428	58.10	0.88561805	232.4	0.45752780	10	1162	0.83369	0.4168
290.75	0.428	58.15	0.88565709	232.6	0.45737163	11	1163	0.83544	0.4177
291	0.428	58.20	0.88569612	232.8	0.45721552	12	1164	0.83711	0.4186
291.25	0.429	58.25	0.88573513	233.0	0.45705947	13	1165	0.83872	0.4194
291.5	0.429	58.30	0.88577413	233.2	0.45690349	14	1166	0.84027	0.4201
291.75	0.429	58.35	0.88581311	233.4	0.45674757	15	1167	0.84177	0.4209
292	0.429	58.40	0.88585207	233.6	0.45659171	16	1168	0.84323	0.4216
292.25	0.429	58.45	0.88589102	233.8	0.45643591	17	1169	0.84464	0.4223
292.5	0.430	58.50	0.88592996	234.0	0.45628018	18	1170	0.84601	0.4230
292.75	0.430	58.55	0.88596887	234.2	0.45612451	19	1171	0.84735	0.4237
293	0.430	58.60	0.88600778	234.4	0.45596890	20	1172	0.84865	0.4243
293.25	0.430	58.65	0.88604666	234.6	0.45581335	21	1173	0.84993	0.4250
293.5	0.430	58.70	0.88608553	234.8	0.45565787	22	1174	0.85117	0.4256
293.75	0.431	58.75	0.88612439	235.0	0.45550245	23	1175	0.85239	0.4262
294	0.431	58.80	0.88616323	235.2	0.45534709	24	1176	0.85359	0.4268
294.25	0.431	58.85	0.88620205	235.4	0.45519179	25	1177	0.85476	0.4274
294.5	0.431	58.90	0.88624086	235.6	0.45503656	26	1178	0.85591	0.4280
294.75	0.431	58.95	0.88627965	235.8	0.45488138	27	1179	0.85704	0.4285
295	0.432	59.00	0.88631843	236.0	0.45472627	28	1180	0.85815	0.4291
295.25	0.432	59.05	0.88635719	236.2	0.45457122	29	1181	0.85924	0.4296
295.5	0.432	59.10	0.88639594	236.4	0.45441623	30	1182	0.86032	0.4302
295.75	0.432	59.15	0.88643467	236.6	0.45426131	31	1183	0.86137	0.4307
296	0.432	59.20	0.88647339	236.8	0.45410644	32	1184	0.86241	0.4312
296.25	0.433	59.25	0.88651209	237.0	0.45395164	33	1185	0.86344	0.4317
296.5	0.433	59.30	0.88655078	237.2	0.45379690	34	1186	0.86445	0.4322
296.75	0.433	59.35	0.88658945	237.4	0.45364222	35	1187	0.86545	0.4327
297	0.433	59.40	0.88662810	237.6	0.45348760	36	1188	0.86643	0.4332
297.25	0.433	59.45	0.88666674	237.8	0.45333304	37	1189	0.86741	0.4337
297.5	0.434	59.50	0.88670536	238.0	0.45317854	38	1190	0.86837	0.4342
297.75	0.434	59.55	0.88674397	238.2	0.45302411	39	1191	0.86931	0.4347
298	0.434	59.60	0.88678257	238.4	0.45286973	40	1192	0.87025	0.4351
298.25	0.434	59.65	0.88682115	238.6	0.45271542	41	1193	0.87117	0.4356
298.5	0.434	59.70	0.88685971	238.8	0.45256116	42	1194	0.87209	0.4360
298.75	0.434	59.75	0.88689826	239.0	0.45240697	43	1195	0.87299	0.4365
299	0.435	59.80	0.88693679	239.2	0.45225284	44	1196	0.87389	0.4369
299.25	0.435	59.85	0.88697531	239.4	0.45209876	45	1197	0.87477	0.4374
299.5	0.435	59.90	0.88701381	239.6	0.45194475	46	1198	0.87565	0.4378
299.75	0.435	59.95	0.88705230	239.8	0.45179080	47	1199	0.87652	0.4383

300	0.435	60.00	0.88709077	240.0	0.45163691	48	1200	0.87738	0.4387
300.25	0.436	60.05	0.88712923	240.2	0.45148308	49	1201	0.87823	0.4391
300.5	0.436	60.10	0.88716767	240.4	0.45132931	50	1202	0.87907	0.4395
300.75	0.436	60.15	0.88720610	240.6	0.45117560	51	1203	0.87990	0.4400
301	0.436	60.20	0.88724451	240.8	0.45102195	52	1204	0.88073	0.4404
301.25	0.436	60.25	0.88728291	241.0	0.45086836	53	1205	0.88155	0.4408
301.5	0.437	60.30	0.88732129	241.2	0.45071483	54	1206	0.88236	0.4412
301.75	0.437	60.35	0.88735966	241.4	0.45056136	55	1207	0.88317	0.4416
302	0.437	60.40	0.88739801	241.6	0.45040795	56	1208	0.88396	0.4420
302.25	0.437	60.45	0.88743635	241.8	0.45025460	57	1209	0.88476	0.4424
302.5	0.437	60.50	0.88747467	242.0	0.45010131	58	1210	0.88554	0.4428
302.75	0.438	60.55	0.88751298	242.2	0.44994808	59	1211	0.88632	0.4432
303	0.438	60.60	0.88755127	242.4	0.44979491	60	1212	0.88709	0.4435
303.25	0.438	60.65	0.88758955	242.6	0.44964179	61	1213	0.88786	0.4439
303.5	0.438	60.70	0.88762782	242.8	0.44948874	62	1214	0.88862	0.4443
303.75	0.438	60.75	0.88766606	243.0	0.44933575	63	1215	0.88937	0.4447
304	0.439	60.80	0.88770430	243.2	0.44918281	64	1216	0.89012	0.4451
304.25	0.439	60.85	0.88774252	243.4	0.44902993	65	1217	0.89086	0.4454
304.5	0.439	60.90	0.88778072	243.6	0.44887712	66	1218	0.89160	0.4458
304.75	0.439	60.95	0.88781891	243.8	0.44872436	67	1219	0.89234	0.4462
305	0.439	61.00	0.88785708	244.0	0.44857166	68	1220	0.89306	0.4465
305.25	0.439	61.05	0.88789525	244.2	0.44841902	69	1221	0.89379	0.4469
305.5	0.440	61.10	0.88793339	244.4	0.44826644	70	1222	0.89450	0.4473
305.75	0.440	61.15	0.88797152	244.6	0.44811392	71	1223	0.89522	0.4476
306	0.440	61.20	0.88800964	244.8	0.44796145	72	1224	0.89593	0.4480
306.25	0.440	61.25	0.88804774	245.0	0.44780905	73	1225	0.89663	0.4483
306.5	0.440	61.30	0.88808583	245.2	0.44765670	74	1226	0.89733	0.4487
306.75	0.441	61.35	0.88812390	245.4	0.44750441	75	1227	0.89802	0.4490
307	0.441	61.40	0.88816196	245.6	0.44735218	76	1228	0.89872	0.4494
307.25	0.441	61.45	0.88820000	245.8	0.44720001	77	1229	0.89940	0.4497
307.5	0.441	61.50	0.88823803	246.0	0.44704789	78	1230	0.90008	0.4500
307.75	0.441	61.55	0.88827604	246.2	0.44689584	79	1231	0.90076	0.4504
308	0.442	61.60	0.88831404	246.4	0.44674384	80	1232	0.90144	0.4507
308.25	0.442	61.65	0.88835203	246.6	0.44659190	81	1233	0.90211	0.4511
308.5	0.442	61.70	0.88839000	246.8	0.44644002	82	1234	0.90277	0.4514
308.75	0.442	61.75	0.88842795	247.0	0.44628819	83	1235	0.90343	0.4517
309	0.442	61.80	0.88846589	247.2	0.44613643	84	1236	0.90409	0.4520
309.25	0.443	61.85	0.88850382	247.4	0.44598472	85	1237	0.90475	0.4524
309.5	0.443	61.90	0.88854173	247.6	0.44583307	86	1238	0.90540	0.4527
309.75	0.443	61.95	0.88857963	247.8	0.44568147	87	1239	0.90605	0.4530
310	0.443	62.00	0.88861752	248.0	0.44552994	88	1240	0.90669	0.4533
310.25	0.443	62.05	0.88865539	248.2	0.44537846	89	1241	0.90733	0.4537
310.5	0.443	62.10	0.88869324	248.4	0.44522704	90	1242	0.90797	0.4540
310.75	0.444	62.15	0.88873108	248.6	0.44507567	91	1243	0.90860	0.4543
311	0.444	62.20	0.88876891	248.8	0.44492437	92	1244	0.90923	0.4546
311.25	0.444	62.25	0.88880672	249.0	0.44477312	93	1245	0.90986	0.4549
311.5	0.444	62.30	0.88884452	249.2	0.44462192	94	1246	0.91049	0.4552
311.75	0.444	62.35	0.88888230	249.4	0.44447079	95	1247	0.91111	0.4556
312	0.445	62.40	0.88892007	249.6	0.44431971	96	1248	0.91173	0.4559
312.25	0.445	62.45	0.88895783	249.8	0.44416869	97	1249	0.91234	0.4562
312.5	0.445	62.50	0.88899557	250.0	0.44401772	98	1250	0.91295	0.4565
312.75	0.445	62.55	0.88903330	250.2	0.44386681	99	1251	0.91356	0.4568
313	0.445	62.60	0.88907101	250.4	0.44371596	100	1252	0.91417	0.4571
313.25	0.446	62.65	0.88910871	250.6	0.44356517	101	1253	0.91477	0.4574
313.5	0.446	62.70	0.88914639	250.8	0.44341443	102	1254	0.91537	0.4577
313.75	0.446	62.75	0.88918406	251.0	0.44326375	103	1255	0.91597	0.4580
314	0.446	62.80	0.88922172	251.2	0.44311312	104	1256	0.91657	0.4583
314.25	0.446	62.85	0.88925936	251.4	0.44296255	105	1257	0.91716	0.4586
314.5	0.446	62.90	0.88929699	251.6	0.44281204	106	1258	0.91775	0.4589
314.75	0.447	62.95	0.88933460	251.8	0.44266158	107	1259	0.91834	0.4592
315	0.447	63.00	0.88937220	252.0	0.44251118	108	1260	0.91892	0.4595
315.25	0.447	63.05	0.88940979	252.2	0.44236084	109	1261	0.91951	0.4598
315.5	0.447	63.10	0.88944736	252.4	0.44221055	110	1262	0.92009	0.4600
315.75	0.447	63.15	0.88948492	252.6	0.44206032	111	1263	0.92066	0.4603
316	0.448	63.20	0.88952246	252.8	0.44191014	112	1264	0.92124	0.4606
316.25	0.448	63.25	0.88955999	253.0	0.44176002	113	1265	0.92181	0.4609
316.5	0.448	63.30	0.88959751	253.2	0.44160996	114	1266	0.92238	0.4612
316.75	0.448	63.35	0.88963501	253.4	0.44145995	115	1267	0.92295	0.4615
317	0.448	63.40	0.88967250	253.6	0.44130999	116	1268	0.92351	0.4618
317.25	0.449	63.45	0.88970998	253.8	0.44116010	117	1269	0.92408	0.4620
317.5	0.449	63.50	0.88974744	254.0	0.44101025	118	1270	0.92464	0.4623

317.75	0.449	63.55	0.88978488	254.2	0.44086047	119	1271	0.92520	0.4626
318	0.449	63.60	0.88982232	254.4	0.44071074	120	1272	0.92575	0.4629
318.25	0.449	63.65	0.88985973	254.6	0.44056106	121	1273	0.92631	0.4632
318.5	0.449	63.70	0.88989714	254.8	0.44041144	122	1274	0.92686	0.4634
318.75	0.450	63.75	0.88993453	255.0	0.44026187	123	1275	0.92741	0.4637
319	0.450	63.80	0.88997191	255.2	0.44011236	124	1276	0.92796	0.4640
319.25	0.450	63.85	0.89000927	255.4	0.43996291	125	1277	0.92850	0.4643
319.5	0.450	63.90	0.89004662	255.6	0.43981351	126	1278	0.92905	0.4645
319.75	0.450	63.95	0.89008396	255.8	0.43966416	127	1279	0.92959	0.4648
320	0.451	64.00	0.89012128	256.0	0.43951487	128	1280	0.93013	0.4651
320.25	0.451	64.05	0.89015859	256.2	0.43936563	129	1281	0.93067	0.4653
320.5	0.451	64.10	0.89019589	256.4	0.43921645	130	1282	0.93120	0.4656
320.75	0.451	64.15	0.89023317	256.6	0.43906733	131	1283	0.93174	0.4659
321	0.451	64.20	0.89027044	256.8	0.43891825	132	1284	0.93227	0.4661
321.25	0.452	64.25	0.89030769	257.0	0.43876924	133	1285	0.93280	0.4664
321.5	0.452	64.30	0.89034493	257.2	0.43862027	134	1286	0.93333	0.4667
321.75	0.452	64.35	0.89038216	257.4	0.43847137	135	1287	0.93385	0.4669
322	0.452	64.40	0.89041937	257.6	0.43832251	136	1288	0.93438	0.4672
322.25	0.452	64.45	0.89045657	257.8	0.43817371	137	1289	0.93490	0.4675
322.5	0.452	64.50	0.89049376	258.0	0.43802497	138	1290	0.93542	0.4677
322.75	0.453	64.55	0.89053093	258.2	0.43787627	139	1291	0.93594	0.4680
323	0.453	64.60	0.89056809	258.4	0.43772764	140	1292	0.93646	0.4682
323.25	0.453	64.65	0.89060524	258.6	0.43757905	141	1293	0.93697	0.4685
323.5	0.453	64.70	0.89064237	258.8	0.43743053	142	1294	0.93749	0.4687
323.75	0.453	64.75	0.89067949	259.0	0.43728205	143	1295	0.93800	0.4690
324	0.454	64.80	0.89071659	259.2	0.43713363	144	1296	0.93851	0.4693
324.25	0.454	64.85	0.89075368	259.4	0.43698526	145	1297	0.93902	0.4695
324.5	0.454	64.90	0.89079076	259.6	0.43683695	146	1298	0.93953	0.4698
324.75	0.454	64.95	0.89082783	259.8	0.43668869	147	1299	0.94003	0.4700
325	0.454	65.00	0.89086488	260.0	0.43654048	148	1300	0.94054	0.4703
325.25	0.455	65.05	0.89090192	260.2	0.43639233	149	1301	0.94104	0.4705
325.5	0.455	65.10	0.89093894	260.4	0.43624423	150	1302	0.94154	0.4708
325.75	0.455	65.15	0.89097595	260.6	0.43609618	151	1303	0.94204	0.4710
326	0.455	65.20	0.89101295	260.8	0.43594819	152	1304	0.94254	0.4713
326.25	0.455	65.25	0.89104994	261.0	0.43580025	153	1305	0.94303	0.4715
326.5	0.455	65.30	0.89108691	261.2	0.43565237	154	1306	0.94353	0.4718
326.75	0.456	65.35	0.89112387	261.4	0.43550453	155	1307	0.94402	0.4720
327	0.456	65.40	0.89116081	261.6	0.43535675	156	1308	0.94451	0.4723
327.25	0.456	65.45	0.89119774	261.8	0.43520903	157	1309	0.94500	0.4725
327.5	0.456	65.50	0.89123466	262.0	0.43506135	158	1310	0.94549	0.4727
327.75	0.456	65.55	0.89127157	262.2	0.43491373	159	1311	0.94598	0.4730
328	0.457	65.60	0.89130846	262.4	0.43476617	160	1312	0.94647	0.4732
328.25	0.457	65.65	0.89134534	262.6	0.43461865	161	1313	0.94695	0.4735
328.5	0.457	65.70	0.89138220	262.8	0.43447119	162	1314	0.94743	0.4737
328.75	0.457	65.75	0.89141906	263.0	0.43432378	163	1315	0.94791	0.4740
329	0.457	65.80	0.89145589	263.2	0.43417642	164	1316	0.94839	0.4742
329.25	0.457	65.85	0.89149272	263.4	0.43402912	165	1317	0.94887	0.4744
329.5	0.458	65.90	0.89152953	263.6	0.43388187	166	1318	0.94935	0.4747
329.75	0.458	65.95	0.89156633	263.8	0.43373467	167	1319	0.94983	0.4749
330	0.458	66.00	0.89160312	264.0	0.43358752	168	1320	0.95030	0.4752
330.25	0.458	66.05	0.89163989	264.2	0.43344043	169	1321	0.95078	0.4754
330.5	0.458	66.10	0.89167665	264.4	0.43329339	170	1322	0.95125	0.4756
330.75	0.459	66.15	0.89171340	264.6	0.43314640	171	1323	0.95172	0.4759
331	0.459	66.20	0.89175013	264.8	0.43299946	172	1324	0.95219	0.4761
331.25	0.459	66.25	0.89178686	265.0	0.43285258	173	1325	0.95266	0.4763
331.5	0.459	66.30	0.89182356	265.2	0.43270574	174	1326	0.95312	0.4766
331.75	0.459	66.35	0.89186026	265.4	0.43255896	175	1327	0.95359	0.4768
332	0.459	66.40	0.89189694	265.6	0.43241223	176	1328	0.95405	0.4770
332.25	0.460	66.45	0.89193361	265.8	0.43226556	177	1329	0.95452	0.4773
332.5	0.460	66.50	0.89197027	266.0	0.43211893	178	1330	0.95498	0.4775
332.75	0.460	66.55	0.89200691	266.2	0.43197236	179	1331	0.95544	0.4777
333	0.460	66.60	0.89204354	266.4	0.43182584	180	1332	0.95590	0.4780
333.25	0.460	66.65	0.89208016	266.6	0.43167937	181	1333	0.95636	0.4782
333.5	0.461	66.70	0.89211676	266.8	0.43153295	182	1334	0.95682	0.4784
333.75	0.461	66.75	0.89215335	267.0	0.43138658	183	1335	0.95727	0.4786
334	0.461	66.80	0.89218993	267.2	0.43124027	184	1336	0.95773	0.4789
334.25	0.461	66.85	0.89222650	267.4	0.43109400	185	1337	0.95818	0.4791
334.5	0.461	66.90	0.89226305	267.6	0.43094779	186	1338	0.95863	0.4793
334.75	0.461	66.95	0.89229959	267.8	0.43080163	187	1339	0.95908	0.4795
335	0.462	67.00	0.89233612	268.0	0.43065552	188	1340	0.95953	0.4798
335.25	0.462	67.05	0.89237263	268.2	0.43050946	189	1341	0.95998	0.4800

335.5	0.462	67.10	0.89240914	268.4	0.43036345	190	1342	0.96043	0.4802
335.75	0.462	67.15	0.89244563	268.6	0.43021750	191	1343	0.96088	0.4804
336	0.462	67.20	0.89248210	268.8	0.43007159	192	1344	0.96132	0.4807
336.25	0.463	67.25	0.89251857	269.0	0.42992574	193	1345	0.96177	0.4809
336.5	0.463	67.30	0.89255502	269.2	0.42977994	194	1346	0.96221	0.4811
336.75	0.463	67.35	0.89259145	269.4	0.42963418	195	1347	0.96266	0.4813
337	0.463	67.40	0.89262788	269.6	0.42948848	196	1348	0.96310	0.4815
337.25	0.463	67.45	0.89266429	269.8	0.42934283	197	1349	0.96354	0.4818
337.5	0.464	67.50	0.89270069	270.0	0.42919723	198	1350	0.96398	0.4820
337.75	0.464	67.55	0.89273708	270.2	0.42905168	199	1351	0.96442	0.4822
338	0.464	67.60	0.89277345	270.4	0.42890618	200	1352	0.96485	0.4824
338.25	0.464	67.65	0.89280982	270.6	0.42876074	201	1353	0.96529	0.4826
338.5	0.464	67.70	0.89284617	270.8	0.42861534	202	1354	0.96573	0.4829
338.75	0.464	67.75	0.89288250	271.0	0.42846999	203	1355	0.96616	0.4831
339	0.465	67.80	0.89291883	271.2	0.42832470	204	1356	0.96659	0.4833
339.25	0.465	67.85	0.89295514	271.4	0.42817945	205	1357	0.96703	0.4835
339.5	0.465	67.90	0.89299144	271.6	0.42803425	206	1358	0.96746	0.4837
339.75	0.465	67.95	0.89302772	271.8	0.42788911	207	1359	0.96789	0.4839
340	0.465	68.00	0.89306400	272.0	0.42774401	208	1360	0.96832	0.4842
340.25	0.466	68.05	0.89310026	272.2	0.42759897	209	1361	0.96874	0.4844
340.5	0.466	68.10	0.89313651	272.4	0.42745397	210	1362	0.96917	0.4846
340.75	0.466	68.15	0.89317274	272.6	0.42730903	211	1363	0.96960	0.4848
341	0.466	68.20	0.89320897	272.8	0.42716413	212	1364	0.97002	0.4850
341.25	0.466	68.25	0.89324518	273.0	0.42701929	213	1365	0.97045	0.4852
341.5	0.466	68.30	0.89328138	273.2	0.42687449	214	1366	0.97087	0.4854
341.75	0.467	68.35	0.89331756	273.4	0.42672974	215	1367	0.97129	0.4856
342	0.467	68.40	0.89335374	273.6	0.42658505	216	1368	0.97172	0.4859
342.25	0.467	68.45	0.89338990	273.8	0.42644040	217	1369	0.97214	0.4861
342.5	0.467	68.50	0.89342605	274.0	0.42629581	218	1370	0.97256	0.4863
342.75	0.467	68.55	0.89346219	274.2	0.42615126	219	1371	0.97298	0.4865
343	0.467	68.60	0.89349831	274.4	0.42600676	220	1372	0.97339	0.4867
343.25	0.468	68.65	0.89353442	274.6	0.42586231	221	1373	0.97381	0.4869
343.5	0.468	68.70	0.89357052	274.8	0.42571792	222	1374	0.97423	0.4871
343.75	0.468	68.75	0.89360661	275.0	0.42557357	223	1375	0.97464	0.4873
344	0.468	68.80	0.89364268	275.2	0.42542927	224	1376	0.97506	0.4875
344.25	0.468	68.85	0.89367875	275.4	0.42528502	225	1377	0.97547	0.4877
344.5	0.469	68.90	0.89371480	275.6	0.42514082	226	1378	0.97589	0.4879
344.75	0.469	68.95	0.89375083	275.8	0.42499666	227	1379	0.97630	0.4881
345	0.469	69.00	0.89378686	276.0	0.42485256	228	1380	0.97671	0.4884
345.25	0.469	69.05	0.89382287	276.2	0.42470851	229	1381	0.97712	0.4886
345.5	0.469	69.10	0.89385887	276.4	0.42456450	230	1382	0.97753	0.4888
345.75	0.469	69.15	0.89389486	276.6	0.42442055	231	1383	0.97794	0.4890
346	0.470	69.20	0.89393084	276.8	0.42427664	232	1384	0.97834	0.4892
346.25	0.470	69.25	0.89396680	277.0	0.42413278	233	1385	0.97875	0.4894
346.5	0.470	69.30	0.89400276	277.2	0.42398897	234	1386	0.97916	0.4896
346.75	0.470	69.35	0.89403870	277.4	0.42384521	235	1387	0.97956	0.4898
347	0.470	69.40	0.89407463	277.6	0.42370150	236	1388	0.97997	0.4900
347.25	0.471	69.45	0.89411054	277.8	0.42355784	237	1389	0.98037	0.4902
347.5	0.471	69.50	0.89414644	278.0	0.42341422	238	1390	0.98077	0.4904
347.75	0.471	69.55	0.89418234	278.2	0.42327066	239	1391	0.98118	0.4906
348	0.471	69.60	0.89421822	278.4	0.42312714	240	1392	0.98158	0.4908
348.25	0.471	69.65	0.89425408	278.6	0.42298367	241	1393	0.98198	0.4910
348.5	0.471	69.70	0.89428994	278.8	0.42284025	242	1394	0.98238	0.4912
348.75	0.472	69.75	0.89432578	279.0	0.42269688	243	1395	0.98278	0.4914
349	0.472	69.80	0.89436161	279.2	0.42255355	244	1396	0.98318	0.4916
349.25	0.472	69.85	0.89439743	279.4	0.42241028	245	1397	0.98357	0.4918
349.5	0.472	69.90	0.89443324	279.6	0.42226705	246	1398	0.98397	0.4920
349.75	0.472	69.95	0.89446903	279.8	0.42212387	247	1399	0.98437	0.4922
350	0.473	70.00	0.89450482	280.0	0.42198074	248	1400	0.98476	0.4924
350.25	0.473	70.05	0.89454059	280.2	0.42183765	249	1401	0.98516	0.4926
350.5	0.473	70.10	0.89457635	280.4	0.42169462	250	1402	0.98555	0.4928
350.75	0.473	70.15	0.89461209	280.6	0.42155163	251	1403	0.98594	0.4930
351	0.473	70.20	0.89464783	280.8	0.42140869	252	1404	0.98633	0.4932
351.25	0.473	70.25	0.89468355	281.0	0.42126580	253	1405	0.98673	0.4934
351.5	0.474	70.30	0.89471926	281.2	0.42112296	254	1406	0.98712	0.4936
351.75	0.474	70.35	0.89475496	281.4	0.42098016	255	1407	0.98751	0.4938
352	0.474	70.40	0.89479065	281.6	0.42083741	256	1408	0.98790	0.4939
352.25	0.474	70.45	0.89482632	281.8	0.42069471	257	1409	0.98829	0.4941
352.5	0.474	70.50	0.89486199	282.0	0.42055206	258	1410	0.98867	0.4943
352.75	0.474	70.55	0.89489764	282.2	0.42040945	259	1411	0.98906	0.4945
353	0.475	70.60	0.89493328	282.4	0.42026690	260	1412	0.98945	0.4947

353.25	0.475	70.65	0.89496890	282.6	0.42012438
353.5	0.475	70.70	0.89500452	282.8	0.41998192
353.75	0.475	70.75	0.89504012	283.0	0.41983951
354	0.475	70.80	0.89507572	283.2	0.41969714
354.25	0.476	70.85	0.89511130	283.4	0.41955482
354.5	0.476	70.90	0.89514686	283.6	0.41941254
354.75	0.476	70.95	0.89518242	283.8	0.41927031
355	0.476	71.00	0.89521797	284.0	0.41912813
355.25	0.476	71.05	0.89525350	284.2	0.41898600
355.5	0.476	71.10	0.89528902	284.4	0.41884392
355.75	0.477	71.15	0.89532453	284.6	0.41870188
356	0.477	71.20	0.89536003	284.8	0.41855988
356.25	0.477	71.25	0.89539552	285.0	0.41841794
356.5	0.477	71.30	0.89543099	285.2	0.41827604
356.75	0.477	71.35	0.89546645	285.4	0.41813419
357	0.478	71.40	0.89550190	285.6	0.41799238
357.25	0.478	71.45	0.89553734	285.8	0.41785063
357.5	0.478	71.50	0.89557277	286.0	0.41770891
357.75	0.478	71.55	0.89560819	286.2	0.41756725
358	0.478	71.60	0.89564359	286.4	0.41742563
358.25	0.478	71.65	0.89567899	286.6	0.41728406
358.5	0.479	71.70	0.89571437	286.8	0.41714253
358.75	0.479	71.75	0.89574974	287.0	0.41700105
359	0.479	71.80	0.89578509	287.2	0.41685962
359.25	0.479	71.85	0.89582044	287.4	0.41671823
359.5	0.479	71.90	0.89585578	287.6	0.41657689
359.75	0.479	71.95	0.89589110	287.8	0.41643560
360	0.480	72.00	0.89592641	288.0	0.41629435
360.25	0.480	72.05	0.89596171	288.2	0.41615315
360.5	0.480	72.10	0.89599700	288.4	0.41601199
360.75	0.480	72.15	0.89603228	288.6	0.41587088
361	0.480	72.20	0.89606754	288.8	0.41572982
361.25	0.481	72.25	0.89610280	289.0	0.41558880
361.5	0.481	72.30	0.89613804	289.2	0.41544783
361.75	0.481	72.35	0.89617327	289.4	0.41530690
362	0.481	72.40	0.89620849	289.6	0.41516602
362.25	0.481	72.45	0.89624370	289.8	0.41502519
362.5	0.481	72.50	0.89627890	290.0	0.41488440
362.75	0.482	72.55	0.89631409	290.2	0.41474366
363	0.482	72.60	0.89634926	290.4	0.41460296
363.25	0.482	72.65	0.89638442	290.6	0.41446231
363.5	0.482	72.70	0.89641958	290.8	0.41432170
363.75	0.482	72.75	0.89645472	291.0	0.41418114
364	0.482	72.80	0.89648984	291.2	0.41404062
364.25	0.483	72.85	0.89652496	291.4	0.41390015
364.5	0.483	72.90	0.89656007	291.6	0.41375972
364.75	0.483	72.95	0.89659516	291.8	0.41361934
365	0.483	73.00	0.89663025	292.0	0.41347901
365.25	0.483	73.05	0.89666532	292.2	0.41333872
365.5	0.484	73.10	0.89670038	292.4	0.41319847
365.75	0.484	73.15	0.89673543	292.6	0.41305827
366	0.484	73.20	0.89677047	292.8	0.41291812
366.25	0.484	73.25	0.89680550	293.0	0.41277801
366.5	0.484	73.30	0.89684051	293.2	0.41263795
366.75	0.484	73.35	0.89687552	293.4	0.41249793
367	0.485	73.40	0.89691051	293.6	0.41235795
367.25	0.485	73.45	0.89694549	293.8	0.41221802
367.5	0.485	73.50	0.89698047	294.0	0.41207814
367.75	0.485	73.55	0.89701543	294.2	0.41193830
368	0.485	73.60	0.89705038	294.4	0.41179850
368.25	0.485	73.65	0.89708531	294.6	0.41165875
368.5	0.486	73.70	0.89712024	294.8	0.41151904
368.75	0.486	73.75	0.89715516	295.0	0.41137938
369	0.486	73.80	0.89719006	295.2	0.41123976
369.25	0.486	73.85	0.89722495	295.4	0.41110019
369.5	0.486	73.90	0.89725984	295.6	0.41096066
369.75	0.486	73.95	0.89729471	295.8	0.41082117
370	0.487	74.00	0.89732957	296.0	0.41068173
370.25	0.487	74.05	0.89736442	296.2	0.41054234
370.5	0.487	74.10	0.89739925	296.4	0.41040299
370.75	0.487	74.15	0.89743408	296.6	0.41026368

261	1413	0.98983	0.4949
262	1414	0.99022	0.4951
263	1415	0.99060	0.4953
264	1416	0.99099	0.4955
265	1417	0.99137	0.4957
266	1418	0.99175	0.4959
267	1419	0.99213	0.4961
268	1420	0.99251	0.4963
269	1421	0.99289	0.4964
270	1422	0.99327	0.4966
271	1423	0.99365	0.4968
272	1424	0.99403	0.4970
273	1425	0.99441	0.4972
274	1426	0.99479	0.4974
275	1427	0.99516	0.4976
276	1428	0.99554	0.4978
277	1429	0.99591	0.4980
278	1430	0.99629	0.4981
279	1431	0.99666	0.4983
280	1432	0.99704	0.4985
281	1433	0.99741	0.4987
282	1434	0.99778	0.4989
283	1435	0.99815	0.4991
284	1436	0.99852	0.4993
285	1437	0.99889	0.4994
286	1438	0.99926	0.4996
287	1439	0.99963	0.4998
288	1440	1.00000	0.5000

371	0.487	74.20	0.89746890	296.8	0.41012442
371.25	0.488	74.25	0.89750370	297.0	0.40998520
371.5	0.488	74.30	0.89753849	297.2	0.40984602
371.75	0.488	74.35	0.89757328	297.4	0.40970689
372	0.488	74.40	0.89760805	297.6	0.40956780
372.25	0.488	74.45	0.89764281	297.8	0.40942876
372.5	0.488	74.50	0.89767756	298.0	0.40928976
372.75	0.489	74.55	0.89771230	298.2	0.40915081
373	0.489	74.60	0.89774703	298.4	0.40901189
373.25	0.489	74.65	0.89778174	298.6	0.40887303
373.5	0.489	74.70	0.89781645	298.8	0.40873420
373.75	0.489	74.75	0.89785114	299.0	0.40859542
374	0.489	74.80	0.89788583	299.2	0.40845668
374.25	0.490	74.85	0.89792050	299.4	0.40831799
374.5	0.490	74.90	0.89795517	299.6	0.40817934
374.75	0.490	74.95	0.89798982	299.8	0.40804073
375	0.490	75.00	0.89802446	300.0	0.40790217
375.25	0.490	75.05	0.89805909	300.2	0.40776365
375.5	0.490	75.10	0.89809371	300.4	0.40762517
375.75	0.491	75.15	0.89812831	300.6	0.40748674
376	0.491	75.20	0.89816291	300.8	0.40734835
376.25	0.491	75.25	0.89819750	301.0	0.40721001
376.5	0.491	75.30	0.89823207	301.2	0.40707170
376.75	0.491	75.35	0.89826664	301.4	0.40693344
377	0.492	75.40	0.89830119	301.6	0.40679523
377.25	0.492	75.45	0.89833574	301.8	0.40665705
377.5	0.492	75.50	0.89837027	302.0	0.40651892
377.75	0.492	75.55	0.89840479	302.2	0.40638083
378	0.492	75.60	0.89843930	302.4	0.40624279
378.25	0.492	75.65	0.89847380	302.6	0.40610479
378.5	0.493	75.70	0.89850829	302.8	0.40596683
378.75	0.493	75.75	0.89854277	303.0	0.40582891
379	0.493	75.80	0.89857724	303.2	0.40569104
379.25	0.493	75.85	0.89861170	303.4	0.40555321
379.5	0.493	75.90	0.89864615	303.6	0.40541542
379.75	0.493	75.95	0.89868058	303.8	0.40527767
380	0.494	76.00	0.89871501	304.0	0.40513997
380.25	0.494	76.05	0.89874942	304.2	0.40500231
380.5	0.494	76.10	0.89878383	304.4	0.40486469
380.75	0.494	76.15	0.89881822	304.6	0.40472712
381	0.494	76.20	0.89885260	304.8	0.40458959
381.25	0.494	76.25	0.89888698	305.0	0.40445210
381.5	0.495	76.30	0.89892134	305.2	0.40431465
381.75	0.495	76.35	0.89895569	305.4	0.40417724
382	0.495	76.40	0.89899003	305.6	0.40403988
382.25	0.495	76.45	0.89902436	305.8	0.40390256
382.5	0.495	76.50	0.89905868	306.0	0.40376528
382.75	0.495	76.55	0.89909299	306.2	0.40362804
383	0.496	76.60	0.89912729	306.4	0.40349085
383.25	0.496	76.65	0.89916158	306.6	0.40335370
383.5	0.496	76.70	0.89919585	306.8	0.40321658
383.75	0.496	76.75	0.89923012	307.0	0.40307952
384	0.496	76.80	0.89926438	307.2	0.40294249
384.25	0.496	76.85	0.89929862	307.4	0.40280551
384.5	0.497	76.90	0.89933286	307.6	0.40266856
384.75	0.497	76.95	0.89936708	307.8	0.40253166
385	0.497	77.00	0.89940130	308.0	0.40239480
385.25	0.497	77.05	0.89943550	308.2	0.40225799
385.5	0.497	77.10	0.89946970	308.4	0.40212121
385.75	0.498	77.15	0.89950388	308.6	0.40198448
386	0.498	77.20	0.89953805	308.8	0.40184778
386.25	0.498	77.25	0.89957222	309.0	0.40171113
386.5	0.498	77.30	0.89960637	309.2	0.40157452
386.75	0.498	77.35	0.89964051	309.4	0.40143796
387	0.498	77.40	0.89967464	309.6	0.40130143
387.25	0.499	77.45	0.89970876	309.8	0.40116495
387.5	0.499	77.50	0.89974287	310.0	0.40102850
387.75	0.499	77.55	0.89977697	310.2	0.40089210
388	0.499	77.60	0.89981106	310.4	0.40075574
388.25	0.499	77.65	0.89984514	310.6	0.40061942
388.5	0.499	77.70	0.89987921	310.8	0.40048314

388.75	0.500	77.75	0.89991327	311.0	0.40034691
389	0.500	77.80	0.89994732	311.2	0.40021071
389.25	0.500	77.85	0.89998136	311.4	0.40007456
389.5	0.500	77.90	0.90001539	311.6	0.39993844
389.75	0.500	77.95	0.90004941	311.8	0.39980237
390	0.500	78.00	0.90008342	312.0	0.39966634
390.25	0.501	78.05	0.90011741	312.2	0.39953035
390.5	0.501	78.10	0.90015140	312.4	0.39939440
390.75	0.501	78.15	0.90018538	312.6	0.39925849
391	0.501	78.20	0.90021934	312.8	0.39912262
391.25	0.501	78.25	0.90025330	313.0	0.39898680
391.5	0.501	78.30	0.90028725	313.2	0.39885101
391.75	0.502	78.35	0.90032118	313.4	0.39871527
392	0.502	78.40	0.90035511	313.6	0.39857956
392.25	0.502	78.45	0.90038903	313.8	0.39844390
392.5	0.502	78.50	0.90042293	314.0	0.39830827
392.75	0.502	78.55	0.90045683	314.2	0.39817269
393	0.502	78.60	0.90049071	314.4	0.39803715
393.25	0.503	78.65	0.90052459	314.6	0.39790165
393.5	0.503	78.70	0.90055845	314.8	0.39776619
393.75	0.503	78.75	0.90059231	315.0	0.39763077
394	0.503	78.80	0.90062615	315.2	0.39749539
394.25	0.503	78.85	0.90065999	315.4	0.39736005
394.5	0.503	78.90	0.90069381	315.6	0.39722475
394.75	0.504	78.95	0.90072763	315.8	0.39708949
395	0.504	79.00	0.90076143	316.0	0.39695427
395.25	0.504	79.05	0.90079523	316.2	0.39681909
395.5	0.504	79.10	0.90082901	316.4	0.39668395
395.75	0.504	79.15	0.90086279	316.6	0.39654885
396	0.504	79.20	0.90089655	316.8	0.39641379
396.25	0.505	79.25	0.90093031	317.0	0.39627878
396.5	0.505	79.30	0.90096405	317.2	0.39614380
396.75	0.505	79.35	0.90099779	317.4	0.39600886
397	0.505	79.40	0.90103151	317.6	0.39587396
397.25	0.505	79.45	0.90106522	317.8	0.39573910
397.5	0.505	79.50	0.90109893	318.0	0.39560428
397.75	0.506	79.55	0.90113262	318.2	0.39546950
398	0.506	79.60	0.90116631	318.4	0.39533477
398.25	0.506	79.65	0.90119998	318.6	0.39520007
398.5	0.506	79.70	0.90123365	318.8	0.39506541
398.75	0.506	79.75	0.90126730	319.0	0.39493079
399	0.507	79.80	0.90130095	319.2	0.39479621
399.25	0.507	79.85	0.90133458	319.4	0.39466167
399.5	0.507	79.90	0.90136821	319.6	0.39452717
399.75	0.507	79.95	0.90140182	319.8	0.39439271
400	0.507	80.00	0.90143543	320.0	0.39425828
400.25	0.507	80.05	0.90146902	320.2	0.39412390
400.5	0.508	80.10	0.90150261	320.4	0.39398956
400.75	0.508	80.15	0.90153619	320.6	0.39385526
401	0.508	80.20	0.90156975	320.8	0.39372099
401.25	0.508	80.25	0.90160331	321.0	0.39358677
401.5	0.508	80.30	0.90163685	321.2	0.39345258
401.75	0.508	80.35	0.90167039	321.4	0.39331844
402	0.509	80.40	0.90170392	321.6	0.39318433
402.25	0.509	80.45	0.90173743	321.8	0.39305026
402.5	0.509	80.50	0.90177094	322.0	0.39291623
402.75	0.509	80.55	0.90180444	322.2	0.39278224
403	0.509	80.60	0.90183793	322.4	0.39264829
403.25	0.509	80.65	0.90187140	322.6	0.39251438
403.5	0.510	80.70	0.90190487	322.8	0.39238051
403.75	0.510	80.75	0.90193833	323.0	0.39224668
404	0.510	80.80	0.90197178	323.2	0.39211288
404.25	0.510	80.85	0.90200522	323.4	0.39197913
404.5	0.510	80.90	0.90203865	323.6	0.39184541
404.75	0.510	80.95	0.90207207	323.8	0.39171173
405	0.511	81.00	0.90210548	324.0	0.39157809
405.25	0.511	81.05	0.90213888	324.2	0.39144449
405.5	0.511	81.10	0.90217227	324.4	0.39131093
405.75	0.511	81.15	0.90220565	324.6	0.39117741
406	0.511	81.20	0.90223902	324.8	0.39104392
406.25	0.511	81.25	0.90227238	325.0	0.39091048

406.5	0.512	81.30	0.90230573	325.2	0.39077707
406.75	0.512	81.35	0.90233907	325.4	0.39064370
407	0.512	81.40	0.90237241	325.6	0.39051037
407.25	0.512	81.45	0.90240573	325.8	0.39037708
407.5	0.512	81.50	0.90243904	326.0	0.39024383
407.75	0.512	81.55	0.90247235	326.2	0.39011062
408	0.513	81.60	0.90250564	326.4	0.38997744
408.25	0.513	81.65	0.90253892	326.6	0.38984430
408.5	0.513	81.70	0.90257220	326.8	0.38971120
408.75	0.513	81.75	0.90260546	327.0	0.38957814
409	0.513	81.80	0.90263872	327.2	0.38944512
409.25	0.513	81.85	0.90267197	327.4	0.38931213
409.5	0.514	81.90	0.90270520	327.6	0.38917919
409.75	0.514	81.95	0.90273843	327.8	0.38904628
410	0.514	82.00	0.90277165	328.0	0.38891341
410.25	0.514	82.05	0.90280486	328.2	0.38878058
410.5	0.514	82.10	0.90283805	328.4	0.38864778
410.75	0.514	82.15	0.90287124	328.6	0.38851503
411	0.515	82.20	0.90290442	328.8	0.38838231
411.25	0.515	82.25	0.90293759	329.0	0.38824963
411.5	0.515	82.30	0.90297075	329.2	0.38811699
411.75	0.515	82.35	0.90300390	329.4	0.38798438
412	0.515	82.40	0.90303705	329.6	0.38785182
412.25	0.515	82.45	0.90307018	329.8	0.38771929
412.5	0.516	82.50	0.90310330	330.0	0.38758680
412.75	0.516	82.55	0.90313641	330.2	0.38745434
413	0.516	82.60	0.90316952	330.4	0.38732193
413.25	0.516	82.65	0.90320261	330.6	0.38718955
413.5	0.516	82.70	0.90323570	330.8	0.38705721
413.75	0.516	82.75	0.90326877	331.0	0.38692491
414	0.517	82.80	0.90330184	331.2	0.38679264
414.25	0.517	82.85	0.90333490	331.4	0.38666041
414.5	0.517	82.90	0.90336794	331.6	0.38652822
414.75	0.517	82.95	0.90340098	331.8	0.38639607
415	0.517	83.00	0.90343401	332.0	0.38626396
415.25	0.517	83.05	0.90346703	332.2	0.38613188
415.5	0.518	83.10	0.90350004	332.4	0.38599984
415.75	0.518	83.15	0.90353304	332.6	0.38586783
416	0.518	83.20	0.90356603	332.8	0.38573587
416.25	0.518	83.25	0.90359901	333.0	0.38560394
416.5	0.518	83.30	0.90363199	333.2	0.38547205
416.75	0.518	83.35	0.90366495	333.4	0.38534020
417	0.518	83.40	0.90369791	333.6	0.38520838
417.25	0.519	83.45	0.90373085	333.8	0.38507660
417.5	0.519	83.50	0.90376379	334.0	0.38494486
417.75	0.519	83.55	0.90379671	334.2	0.38481315
418	0.519	83.60	0.90382963	334.4	0.38468148
418.25	0.519	83.65	0.90386254	334.6	0.38454985
418.5	0.519	83.70	0.90389544	334.8	0.38441826
418.75	0.520	83.75	0.90392833	335.0	0.38428670
419	0.520	83.80	0.90396121	335.2	0.38415518
419.25	0.520	83.85	0.90399408	335.4	0.38402369
419.5	0.520	83.90	0.90402694	335.6	0.38389225
419.75	0.520	83.95	0.90405979	335.8	0.38376084
420	0.520	84.00	0.90409263	336.0	0.38362946
420.25	0.521	84.05	0.90412547	336.2	0.38349813
420.5	0.521	84.10	0.90415829	336.4	0.38336683
420.75	0.521	84.15	0.90419111	336.6	0.38323556
421	0.521	84.20	0.90422392	336.8	0.38310434
421.25	0.521	84.25	0.90425671	337.0	0.38297315
421.5	0.521	84.30	0.90428950	337.2	0.38284199
421.75	0.522	84.35	0.90432228	337.4	0.38271088
422	0.522	84.40	0.90435505	337.6	0.38257980
422.25	0.522	84.45	0.90438781	337.8	0.38244875
422.5	0.522	84.50	0.90442056	338.0	0.38231775
422.75	0.522	84.55	0.90445331	338.2	0.38218677
423	0.522	84.60	0.90448604	338.4	0.38205584
423.25	0.523	84.65	0.90451876	338.6	0.38192494
423.5	0.523	84.70	0.90455148	338.8	0.38179408
423.75	0.523	84.75	0.90458419	339.0	0.38166325
424	0.523	84.80	0.90461688	339.2	0.38153247

424.25	0.523	84.85	0.90464957	339.4	0.38140171
424.5	0.523	84.90	0.90468225	339.6	0.38127100
424.75	0.524	84.95	0.90471492	339.8	0.38114032
425	0.524	85.00	0.90474758	340.0	0.38100967
425.25	0.524	85.05	0.90478023	340.2	0.38087906
425.5	0.524	85.10	0.90481288	340.4	0.38074849
425.75	0.524	85.15	0.90484551	340.6	0.38061795
426	0.524	85.20	0.90487814	340.8	0.38048745
426.25	0.525	85.25	0.90491075	341.0	0.38035699
426.5	0.525	85.30	0.90494336	341.2	0.38022656
426.75	0.525	85.35	0.90497596	341.4	0.38009617
427	0.525	85.40	0.90500855	341.6	0.37996581
427.25	0.525	85.45	0.90504113	341.8	0.37983549
427.5	0.525	85.50	0.90507370	342.0	0.37970521
427.75	0.526	85.55	0.90510626	342.2	0.37957496
428	0.526	85.60	0.90513881	342.4	0.37944475
428.25	0.526	85.65	0.90517136	342.6	0.37931457
428.5	0.526	85.70	0.90520389	342.8	0.37918443
428.75	0.526	85.75	0.90523642	343.0	0.37905432
429	0.526	85.80	0.90526894	343.2	0.37892425
429.25	0.527	85.85	0.90530145	343.4	0.37879422
429.5	0.527	85.90	0.90533395	343.6	0.37866422
429.75	0.527	85.95	0.90536644	343.8	0.37853425
430	0.527	86.00	0.90539892	344.0	0.37840432
430.25	0.527	86.05	0.90543139	344.2	0.37827443
430.5	0.527	86.10	0.90546386	344.4	0.37814457
430.75	0.527	86.15	0.90549631	344.6	0.37801475
431	0.528	86.20	0.90552876	344.8	0.37788497
431.25	0.528	86.25	0.90556120	345.0	0.37775522
431.5	0.528	86.30	0.90559362	345.2	0.37762550
431.75	0.528	86.35	0.90562604	345.4	0.37749582
432	0.528	86.40	0.90565846	345.6	0.37736618
432.25	0.528	86.45	0.90569086	345.8	0.37723657
432.5	0.529	86.50	0.90572325	346.0	0.37710699
432.75	0.529	86.55	0.90575564	346.2	0.37697745
433	0.529	86.60	0.90578801	346.4	0.37684795
433.25	0.529	86.65	0.90582038	346.6	0.37671848
433.5	0.529	86.70	0.90585274	346.8	0.37658905
433.75	0.529	86.75	0.90588509	347.0	0.37645965
434	0.530	86.80	0.90591743	347.2	0.37633028
434.25	0.530	86.85	0.90594976	347.4	0.37620095
434.5	0.530	86.90	0.90598208	347.6	0.37607166
434.75	0.530	86.95	0.90601440	347.8	0.37594240
435	0.530	87.00	0.90604671	348.0	0.37581318
435.25	0.530	87.05	0.90607900	348.2	0.37568399
435.5	0.531	87.10	0.90611129	348.4	0.37555484
435.75	0.531	87.15	0.90614357	348.6	0.37542572
436	0.531	87.20	0.90617584	348.8	0.37529663
436.25	0.531	87.25	0.90620810	349.0	0.37516758
436.5	0.531	87.30	0.90624036	349.2	0.37503857
436.75	0.531	87.35	0.90627260	349.4	0.37490959
437	0.532	87.40	0.90630484	349.6	0.37478064
437.25	0.532	87.45	0.90633707	349.8	0.37465173
437.5	0.532	87.50	0.90636929	350.0	0.37452285
437.75	0.532	87.55	0.90640150	350.2	0.37439401
438	0.532	87.60	0.90643370	350.4	0.37426521
438.25	0.532	87.65	0.90646589	350.6	0.37413643
438.5	0.532	87.70	0.90649808	350.8	0.37400770
438.75	0.533	87.75	0.90653025	351.0	0.37387899
439	0.533	87.80	0.90656242	351.2	0.37375032
439.25	0.533	87.85	0.90659458	351.4	0.37362169
439.5	0.533	87.90	0.90662673	351.6	0.37349309
439.75	0.533	87.95	0.90665887	351.8	0.37336452
440	0.533	88.00	0.90669100	352.0	0.37323599
440.25	0.534	88.05	0.90672313	352.2	0.37310750
440.5	0.534	88.10	0.90675524	352.4	0.37297903
440.75	0.534	88.15	0.90678735	352.6	0.37285060
441	0.534	88.20	0.90681945	352.8	0.37272221
441.25	0.534	88.25	0.90685154	353.0	0.37259385
441.5	0.534	88.30	0.90688362	353.2	0.37246552
441.75	0.535	88.35	0.90691569	353.4	0.37233723

442	0.535	88.40	0.90694776	353.6	0.37220897
442.25	0.535	88.45	0.90697981	353.8	0.37208075
442.5	0.535	88.50	0.90701186	354.0	0.37195256
442.75	0.535	88.55	0.90704390	354.2	0.37182441
443	0.535	88.60	0.90707593	354.4	0.37169629
443.25	0.536	88.65	0.90710795	354.6	0.37156820
443.5	0.536	88.70	0.90713996	354.8	0.37144014
443.75	0.536	88.75	0.90717197	355.0	0.37131212
444	0.536	88.80	0.90720397	355.2	0.37118414
444.25	0.536	88.85	0.90723595	355.4	0.37105619
444.5	0.536	88.90	0.90726793	355.6	0.37092827
444.75	0.536	88.95	0.90729990	355.8	0.37080039
445	0.537	89.00	0.90733187	356.0	0.37067254
445.25	0.537	89.05	0.90736382	356.2	0.37054472
445.5	0.537	89.10	0.90739577	356.4	0.37041694
445.75	0.537	89.15	0.90742770	356.6	0.37028919
446	0.537	89.20	0.90745963	356.8	0.37016147
446.25	0.537	89.25	0.90749155	357.0	0.37003379
446.5	0.538	89.30	0.90752346	357.2	0.36990614
446.75	0.538	89.35	0.90755537	357.4	0.36977853
447	0.538	89.40	0.90758726	357.6	0.36965095
447.25	0.538	89.45	0.90761915	357.8	0.36952340
447.5	0.538	89.50	0.90765103	358.0	0.36939588
447.75	0.538	89.55	0.90768290	358.2	0.36926840
448	0.539	89.60	0.90771476	358.4	0.36914096
448.25	0.539	89.65	0.90774661	358.6	0.36901354
448.5	0.539	89.70	0.90777846	358.8	0.36888616
448.75	0.539	89.75	0.90781030	359.0	0.36875881
449	0.539	89.80	0.90784212	359.2	0.36863150
449.25	0.539	89.85	0.90787394	359.4	0.36850422
449.5	0.540	89.90	0.90790576	359.6	0.36837697
449.75	0.540	89.95	0.90793756	359.8	0.36824976
450	0.540	90.00	0.90796936	360.0	0.36812258
450.25	0.540	90.05	0.90800114	360.2	0.36799543
450.5	0.540	90.10	0.90803292	360.4	0.36786832
450.75	0.540	90.15	0.90806469	360.6	0.36774124
451	0.540	90.20	0.90809645	360.8	0.36761419
451.25	0.541	90.25	0.90812821	361.0	0.36748717
451.5	0.541	90.30	0.90815995	361.2	0.36736019
451.75	0.541	90.35	0.90819169	361.4	0.36723324
452	0.541	90.40	0.90822342	361.6	0.36710633
452.25	0.541	90.45	0.90825514	361.8	0.36697945
452.5	0.541	90.50	0.90828685	362.0	0.36685260
452.75	0.542	90.55	0.90831856	362.2	0.36672578
453	0.542	90.60	0.90835025	362.4	0.36659900
453.25	0.542	90.65	0.90838194	362.6	0.36647224
453.5	0.542	90.70	0.90841362	362.8	0.36634553
453.75	0.542	90.75	0.90844529	363.0	0.36621884
454	0.542	90.80	0.90847695	363.2	0.36609219
454.25	0.543	90.85	0.90850861	363.4	0.36596557
454.5	0.543	90.90	0.90854025	363.6	0.36583898
454.75	0.543	90.95	0.90857189	363.8	0.36571243
455	0.543	91.00	0.90860352	364.0	0.36558591
455.25	0.543	91.05	0.90863515	364.2	0.36545942
455.5	0.543	91.10	0.90866676	364.4	0.36533296
455.75	0.543	91.15	0.90869837	364.6	0.36520654
456	0.544	91.20	0.90872996	364.8	0.36508015
456.25	0.544	91.25	0.90876155	365.0	0.36495379
456.5	0.544	91.30	0.90879313	365.2	0.36482746
456.75	0.544	91.35	0.90882471	365.4	0.36470117
457	0.544	91.40	0.90885627	365.6	0.36457491
457.25	0.544	91.45	0.90888783	365.8	0.36444868
457.5	0.545	91.50	0.90891938	366.0	0.36432248
457.75	0.545	91.55	0.90895092	366.2	0.36419632
458	0.545	91.60	0.90898245	366.4	0.36407019
458.25	0.545	91.65	0.90901398	366.6	0.36394409
458.5	0.545	91.70	0.90904549	366.8	0.36381802
458.75	0.545	91.75	0.90907700	367.0	0.36369199
459	0.546	91.80	0.90910850	367.2	0.36356599
459.25	0.546	91.85	0.90914000	367.4	0.36344002
459.5	0.546	91.90	0.90917148	367.6	0.36331408

459.75	0.546	91.95	0.90920296	367.8	0.36318817
460	0.546	92.00	0.90923442	368.0	0.36306230
460.25	0.546	92.05	0.90926588	368.2	0.36293646
460.5	0.546	92.10	0.90929734	368.4	0.36281065
460.75	0.547	92.15	0.90932878	368.6	0.36268487
461	0.547	92.20	0.90936022	368.8	0.36255913
461.25	0.547	92.25	0.90939165	369.0	0.36243342
461.5	0.547	92.30	0.90942307	369.2	0.36230774
461.75	0.547	92.35	0.90945448	369.4	0.36218209
462	0.547	92.40	0.90948588	369.6	0.36205647
462.25	0.548	92.45	0.90951728	369.8	0.36193089
462.5	0.548	92.50	0.90954867	370.0	0.36180533
462.75	0.548	92.55	0.90958005	370.2	0.36167981
463	0.548	92.60	0.90961142	370.4	0.36155432
463.25	0.548	92.65	0.90964278	370.6	0.36142887
463.5	0.548	92.70	0.90967414	370.8	0.36130344
463.75	0.549	92.75	0.90970549	371.0	0.36117805
464	0.549	92.80	0.90973683	371.2	0.36105269
464.25	0.549	92.85	0.90976816	371.4	0.36092736
464.5	0.549	92.90	0.90979949	371.6	0.36080206
464.75	0.549	92.95	0.90983080	371.8	0.36067679
465	0.549	93.00	0.90986211	372.0	0.36055156
465.25	0.549	93.05	0.90989341	372.2	0.36042635
465.5	0.550	93.10	0.90992470	372.4	0.36030118
465.75	0.550	93.15	0.90995599	372.6	0.36017604
466	0.550	93.20	0.90998727	372.8	0.36005093
466.25	0.550	93.25	0.91001854	373.0	0.35992585
466.5	0.550	93.30	0.91004980	373.2	0.35980081
466.75	0.550	93.35	0.91008105	373.4	0.35967580
467	0.551	93.40	0.91011230	373.6	0.35955081
467.25	0.551	93.45	0.91014353	373.8	0.35942586
467.5	0.551	93.50	0.91017476	374.0	0.35930094
467.75	0.551	93.55	0.91020599	374.2	0.35917605
468	0.551	93.60	0.91023720	374.4	0.35905120
468.25	0.551	93.65	0.91026841	374.6	0.35892637
468.5	0.551	93.70	0.91029961	374.8	0.35880158
468.75	0.552	93.75	0.91033080	375.0	0.35867681
469	0.552	93.80	0.91036198	375.2	0.35855208
469.25	0.552	93.85	0.91039315	375.4	0.35842738
469.5	0.552	93.90	0.91042432	375.6	0.35830271
469.75	0.552	93.95	0.91045548	375.8	0.35817807
470	0.552	94.00	0.91048663	376.0	0.35805347
470.25	0.553	94.05	0.91051778	376.2	0.35792889
470.5	0.553	94.10	0.91054891	376.4	0.35780435
470.75	0.553	94.15	0.91058004	376.6	0.35767983
471	0.553	94.20	0.91061116	376.8	0.35755535
471.25	0.553	94.25	0.91064228	377.0	0.35743090
471.5	0.553	94.30	0.91067338	377.2	0.35730648
471.75	0.554	94.35	0.91070448	377.4	0.35718209
472	0.554	94.40	0.91073557	377.6	0.35705773
472.25	0.554	94.45	0.91076665	377.8	0.35693340
472.5	0.554	94.50	0.91079772	378.0	0.35680911
472.75	0.554	94.55	0.91082879	378.2	0.35668484
473	0.554	94.60	0.91085985	378.4	0.35656061
473.25	0.554	94.65	0.91089090	378.6	0.35643640
473.5	0.555	94.70	0.91092194	378.8	0.35631223
473.75	0.555	94.75	0.91095298	379.0	0.35618809
474	0.555	94.80	0.91098401	379.2	0.35606398
474.25	0.555	94.85	0.91101503	379.4	0.35593990
474.5	0.555	94.90	0.91104604	379.6	0.35581585
474.75	0.555	94.95	0.91107704	379.8	0.35569183
475	0.556	95.00	0.91110804	380.0	0.35556784
475.25	0.556	95.05	0.91113903	380.2	0.35544388
475.5	0.556	95.10	0.91117001	380.4	0.35531995
475.75	0.556	95.15	0.91120099	380.6	0.35519606
476	0.556	95.20	0.91123195	380.8	0.35507219
476.25	0.556	95.25	0.91126291	381.0	0.35494836
476.5	0.556	95.30	0.91129386	381.2	0.35482455
476.75	0.557	95.35	0.91132481	381.4	0.35470078
477	0.557	95.40	0.91135574	381.6	0.35457703
477.25	0.557	95.45	0.91138667	381.8	0.35445332

477.5	0.557	95.50	0.91141759	382.0	0.35432964
477.75	0.557	95.55	0.91144850	382.2	0.35420598
478	0.557	95.60	0.91147941	382.4	0.35408236
478.25	0.558	95.65	0.91151031	382.6	0.35395877
478.5	0.558	95.70	0.91154120	382.8	0.35383521
478.75	0.558	95.75	0.91157208	383.0	0.35371168
479	0.558	95.80	0.91160296	383.2	0.35358818
479.25	0.558	95.85	0.91163382	383.4	0.35346471
479.5	0.558	95.90	0.91166468	383.6	0.35334127
479.75	0.558	95.95	0.91169554	383.8	0.35321786
480	0.559	96.00	0.91172638	384.0	0.35309448
480.25	0.559	96.05	0.91175722	384.2	0.35297113
480.5	0.559	96.10	0.91178805	384.4	0.35284781
480.75	0.559	96.15	0.91181887	384.6	0.35272452
481	0.559	96.20	0.91184968	384.8	0.35260126
481.25	0.559	96.25	0.91188049	385.0	0.35247803
481.5	0.560	96.30	0.91191129	385.2	0.35235483
481.75	0.560	96.35	0.91194208	385.4	0.35223166
482	0.560	96.40	0.91197287	385.6	0.35210852
482.25	0.560	96.45	0.91200365	385.8	0.35198542
482.5	0.560	96.50	0.91203442	386.0	0.35186234
482.75	0.560	96.55	0.91206518	386.2	0.35173929
483	0.560	96.60	0.91209593	386.4	0.35161627
483.25	0.561	96.65	0.91212668	386.6	0.35149328
483.5	0.561	96.70	0.91215742	386.8	0.35137032
483.75	0.561	96.75	0.91218815	387.0	0.35124739
484	0.561	96.80	0.91221888	387.2	0.35112449
484.25	0.561	96.85	0.91224959	387.4	0.35100162
484.5	0.561	96.90	0.91228030	387.6	0.35087878
484.75	0.562	96.95	0.91231101	387.8	0.35075598
485	0.562	97.00	0.91234170	388.0	0.35063320
485.25	0.562	97.05	0.91237239	388.2	0.35051044
485.5	0.562	97.10	0.91240307	388.4	0.35038772
485.75	0.562	97.15	0.91243374	388.6	0.35026503
486	0.562	97.20	0.91246441	388.8	0.35014237
486.25	0.562	97.25	0.91249506	389.0	0.35001974
486.5	0.563	97.30	0.91252572	389.2	0.34989714
486.75	0.563	97.35	0.91255636	389.4	0.34977457
487	0.563	97.40	0.91258699	389.6	0.34965202
487.25	0.563	97.45	0.91261762	389.8	0.34952951
487.5	0.563	97.50	0.91264824	390.0	0.34940703
487.75	0.563	97.55	0.91267886	390.2	0.34928457
488	0.564	97.60	0.91270946	390.4	0.34916215
488.25	0.564	97.65	0.91274006	390.6	0.34903975
488.5	0.564	97.70	0.91277065	390.8	0.34891739
488.75	0.564	97.75	0.91280124	391.0	0.34879505
489	0.564	97.80	0.91283181	391.2	0.34867274
489.25	0.564	97.85	0.91286238	391.4	0.34855047
489.5	0.564	97.90	0.91289295	391.6	0.34842822
489.75	0.565	97.95	0.91292350	391.8	0.34830600
490	0.565	98.00	0.91295405	392.0	0.34818381
490.25	0.565	98.05	0.91298459	392.2	0.34806165
490.5	0.565	98.10	0.91301512	392.4	0.34793952
490.75	0.565	98.15	0.91304565	392.6	0.34781742
491	0.565	98.20	0.91307616	392.8	0.34769535
491.25	0.566	98.25	0.91310667	393.0	0.34757330
491.5	0.566	98.30	0.91313718	393.2	0.34745129
491.75	0.566	98.35	0.91316767	393.4	0.34732930
492	0.566	98.40	0.91319816	393.6	0.34720735
492.25	0.566	98.45	0.91322864	393.8	0.34708542
492.5	0.566	98.50	0.91325912	394.0	0.34696352
492.75	0.566	98.55	0.91328959	394.2	0.34684166
493	0.567	98.60	0.91332005	394.4	0.34671982
493.25	0.567	98.65	0.91335050	394.6	0.34659801
493.5	0.567	98.70	0.91338094	394.8	0.34647622
493.75	0.567	98.75	0.91341138	395.0	0.34635447
494	0.567	98.80	0.91344181	395.2	0.34623275
494.25	0.567	98.85	0.91347224	395.4	0.34611105
494.5	0.568	98.90	0.91350265	395.6	0.34598939
494.75	0.568	98.95	0.91353306	395.8	0.34586775
495	0.568	99.00	0.91356346	396.0	0.34574614

495.25	0.568	99.05	0.91359386	396.2	0.34562457
495.5	0.568	99.10	0.91362425	396.4	0.34550302
495.75	0.568	99.15	0.91365463	396.6	0.34538150
496	0.568	99.20	0.91368500	396.8	0.34526000
496.25	0.569	99.25	0.91371537	397.0	0.34513854
496.5	0.569	99.30	0.91374572	397.2	0.34501710
496.75	0.569	99.35	0.91377608	397.4	0.34489570
497	0.569	99.40	0.91380642	397.6	0.34477432
497.25	0.569	99.45	0.91383676	397.8	0.34465297
497.5	0.569	99.50	0.91386709	398.0	0.34453165
497.75	0.569	99.55	0.91389741	398.2	0.34441036
498	0.570	99.60	0.91392773	398.4	0.34428910
498.25	0.570	99.65	0.91395803	398.6	0.34416786
498.5	0.570	99.70	0.91398834	398.8	0.34404666
498.75	0.570	99.75	0.91401863	399.0	0.34392548
499	0.570	99.80	0.91404892	399.2	0.34380433
499.25	0.570	99.85	0.91407920	399.4	0.34368321
499.5	0.571	99.90	0.91410947	399.6	0.34356212
499.75	0.571	99.95	0.91413974	399.8	0.34344106
500	0.571	100.00	0.91416999	400.0	0.34332003
500.25	0.571	100.05	0.91420025	400.2	0.34319902
500.5	0.571	100.10	0.91423049	400.4	0.34307804
500.75	0.571	100.15	0.91426073	400.6	0.34295709
501	0.571	100.20	0.91429096	400.8	0.34283617
501.25	0.572	100.25	0.91432118	401.0	0.34271528
501.5	0.572	100.30	0.91435140	401.2	0.34259442
501.75	0.572	100.35	0.91438161	401.4	0.34247358
502	0.572	100.40	0.91441181	401.6	0.34235277
502.25	0.572	100.45	0.91444200	401.8	0.34223199
502.5	0.572	100.50	0.91447219	402.0	0.34211124
502.75	0.573	100.55	0.91450237	402.2	0.34199052
503	0.573	100.60	0.91453254	402.4	0.34186982
503.25	0.573	100.65	0.91456271	402.6	0.34174916
503.5	0.573	100.70	0.91459287	402.8	0.34162852
503.75	0.573	100.75	0.91462302	403.0	0.34150791
504	0.573	100.80	0.91465317	403.2	0.34138733
504.25	0.573	100.85	0.91468331	403.4	0.34126677
504.5	0.574	100.90	0.91471344	403.6	0.34114625
504.75	0.574	100.95	0.91474356	403.8	0.34102575
505	0.574	101.00	0.91477368	404.0	0.34090528
505.25	0.574	101.05	0.91480379	404.2	0.34078484
505.5	0.574	101.10	0.91483389	404.4	0.34066443
505.75	0.574	101.15	0.91486399	404.6	0.34054404
506	0.574	101.20	0.91489408	404.8	0.34042368
506.25	0.575	101.25	0.91492416	405.0	0.34030335
506.5	0.575	101.30	0.91495424	405.2	0.34018305
506.75	0.575	101.35	0.91498431	405.4	0.34006278
507	0.575	101.40	0.91501437	405.6	0.33994253
507.25	0.575	101.45	0.91504442	405.8	0.33982231
507.5	0.575	101.50	0.91507447	406.0	0.33970212
507.75	0.576	101.55	0.91510451	406.2	0.33958196
508	0.576	101.60	0.91513454	406.4	0.33946183
508.25	0.576	101.65	0.91516457	406.6	0.33934172
508.5	0.576	101.70	0.91519459	406.8	0.33922164
508.75	0.576	101.75	0.91522460	407.0	0.33910159
509	0.576	101.80	0.91525461	407.2	0.33898157
509.25	0.576	101.85	0.91528461	407.4	0.33886157
509.5	0.577	101.90	0.91531460	407.6	0.33874160
509.75	0.577	101.95	0.91534458	407.8	0.33862166
510	0.577	102.00	0.91537456	408.0	0.33850175
510.25	0.577	102.05	0.91540453	408.2	0.33838186
510.5	0.577	102.10	0.91543450	408.4	0.33826201
510.75	0.577	102.15	0.91546446	408.6	0.33814218
511	0.577	102.20	0.91549441	408.8	0.33802237
511.25	0.578	102.25	0.91552435	409.0	0.33790260
511.5	0.578	102.30	0.91555429	409.2	0.33778285
511.75	0.578	102.35	0.91558422	409.4	0.33766313
512	0.578	102.40	0.91561414	409.6	0.33754344
512.25	0.578	102.45	0.91564406	409.8	0.33742377
512.5	0.578	102.50	0.91567397	410.0	0.33730414
512.75	0.579	102.55	0.91570387	410.2	0.33718453

513	0.579	102.60	0.91573376	410.4	0.33706494
513.25	0.579	102.65	0.91576365	410.6	0.33694539
513.5	0.579	102.70	0.91579353	410.8	0.33682586
513.75	0.579	102.75	0.91582341	411.0	0.33670636
514	0.579	102.80	0.91585328	411.2	0.33658689
514.25	0.579	102.85	0.91588314	411.4	0.33646744
514.5	0.580	102.90	0.91591299	411.6	0.33634802
514.75	0.580	102.95	0.91594284	411.8	0.33622863
515	0.580	103.00	0.91597268	412.0	0.33610927
515.25	0.580	103.05	0.91600252	412.2	0.33598993
515.5	0.580	103.10	0.91603235	412.4	0.33587062
515.75	0.580	103.15	0.91606217	412.6	0.33575134
516	0.580	103.20	0.91609198	412.8	0.33563208
516.25	0.581	103.25	0.91612179	413.0	0.33551285
516.5	0.581	103.30	0.91615159	413.2	0.33539365
516.75	0.581	103.35	0.91618138	413.4	0.33527448
517	0.581	103.40	0.91621117	413.6	0.33515533
517.25	0.581	103.45	0.91624095	413.8	0.33503621
517.5	0.581	103.50	0.91627072	414.0	0.33491712
517.75	0.582	103.55	0.91630049	414.2	0.33479805
518	0.582	103.60	0.91633025	414.4	0.33467901
518.25	0.582	103.65	0.91636000	414.6	0.33456000
518.5	0.582	103.70	0.91638975	414.8	0.33444102
518.75	0.582	103.75	0.91641948	415.0	0.33432206
519	0.582	103.80	0.91644922	415.2	0.33420313
519.25	0.582	103.85	0.91647894	415.4	0.33408423
519.5	0.583	103.90	0.91650866	415.6	0.33396535
519.75	0.583	103.95	0.91653838	415.8	0.33384650
520	0.583	104.00	0.91656808	416.0	0.33372768
520.25	0.583	104.05	0.91659778	416.2	0.33360888
520.5	0.583	104.10	0.91662747	416.4	0.33349011
520.75	0.583	104.15	0.91665716	416.6	0.33337137
521	0.583	104.20	0.91668684	416.8	0.33325265
521.25	0.584	104.25	0.91671651	417.0	0.33313396
521.5	0.584	104.30	0.91674618	417.2	0.33301530
521.75	0.584	104.35	0.91677583	417.4	0.33289666
522	0.584	104.40	0.91680549	417.6	0.33277806
522.25	0.584	104.45	0.91683513	417.8	0.33265947
522.5	0.584	104.50	0.91686477	418.0	0.33254092
522.75	0.584	104.55	0.91689440	418.2	0.33242239
523	0.585	104.60	0.91692403	418.4	0.33230389
523.25	0.585	104.65	0.91695365	418.6	0.33218541
523.5	0.585	104.70	0.91698326	418.8	0.33206696
523.75	0.585	104.75	0.91701287	419.0	0.33194854
524	0.585	104.80	0.91704246	419.2	0.33183014
524.25	0.585	104.85	0.91707206	419.4	0.33171177
524.5	0.586	104.90	0.91710164	419.6	0.33159343
524.75	0.586	104.95	0.91713122	419.8	0.33147511
525	0.586	105.00	0.91716079	420.0	0.33135682
525.25	0.586	105.05	0.91719036	420.2	0.33123856
525.5	0.586	105.10	0.91721992	420.4	0.33112032
525.75	0.586	105.15	0.91724947	420.6	0.33100211
526	0.586	105.20	0.91727902	420.8	0.33088393
526.25	0.587	105.25	0.91730856	421.0	0.33076577
526.5	0.587	105.30	0.91733809	421.2	0.33064764
526.75	0.587	105.35	0.91736762	421.4	0.33052954
527	0.587	105.40	0.91739714	421.6	0.33041146
527.25	0.587	105.45	0.91742665	421.8	0.33029340
527.5	0.587	105.50	0.91745616	422.0	0.33017538
527.75	0.587	105.55	0.91748566	422.2	0.33005738
528	0.588	105.60	0.91751515	422.4	0.32993941
528.25	0.588	105.65	0.91754464	422.6	0.32982146
528.5	0.588	105.70	0.91757412	422.8	0.32970354
528.75	0.588	105.75	0.91760359	423.0	0.32958564
529	0.588	105.80	0.91763306	423.2	0.32946777
529.25	0.588	105.85	0.91766252	423.4	0.32934993
529.5	0.588	105.90	0.91769197	423.6	0.32923212
529.75	0.589	105.95	0.91772142	423.8	0.32911433
530	0.589	106.00	0.91775086	424.0	0.32899656
530.25	0.589	106.05	0.91778029	424.2	0.32887882
530.5	0.589	106.10	0.91780972	424.4	0.32876111

530.75	0.589	106.15	0.91783914	424.6	0.32864343
531	0.589	106.20	0.91786856	424.8	0.32852577
531.25	0.589	106.25	0.91789797	425.0	0.32840813
531.5	0.590	106.30	0.91792737	425.2	0.32829053
531.75	0.590	106.35	0.91795676	425.4	0.32817294
532	0.590	106.40	0.91798615	425.6	0.32805539
532.25	0.590	106.45	0.91801554	425.8	0.32793786
532.5	0.590	106.50	0.91804491	426.0	0.32782036
532.75	0.590	106.55	0.91807428	426.2	0.32770288
533	0.591	106.60	0.91810364	426.4	0.32758543
533.25	0.591	106.65	0.91813300	426.6	0.32746800
533.5	0.591	106.70	0.91816235	426.8	0.32735060
533.75	0.591	106.75	0.91819169	427.0	0.32723323
534	0.591	106.80	0.91822103	427.2	0.32711588
534.25	0.591	106.85	0.91825036	427.4	0.32699855
534.5	0.591	106.90	0.91827969	427.6	0.32688126
534.75	0.592	106.95	0.91830900	427.8	0.32676399
535	0.592	107.00	0.91833831	428.0	0.32664674
535.25	0.592	107.05	0.91836762	428.2	0.32652952
535.5	0.592	107.10	0.91839692	428.4	0.32641233
535.75	0.592	107.15	0.91842621	428.6	0.32629516
536	0.592	107.20	0.91845550	428.8	0.32617802
536.25	0.592	107.25	0.91848477	429.0	0.32606090
536.5	0.593	107.30	0.91851405	429.2	0.32594381
536.75	0.593	107.35	0.91854331	429.4	0.32582675
537	0.593	107.40	0.91857257	429.6	0.32570971
537.25	0.593	107.45	0.91860183	429.8	0.32559269
537.5	0.593	107.50	0.91863107	430.0	0.32547570
537.75	0.593	107.55	0.91866032	430.2	0.32535874
538	0.593	107.60	0.91868955	430.4	0.32524180
538.25	0.594	107.65	0.91871878	430.6	0.32512489
538.5	0.594	107.70	0.91874800	430.8	0.32500800
538.75	0.594	107.75	0.91877721	431.0	0.32489114
539	0.594	107.80	0.91880642	431.2	0.32477431
539.25	0.594	107.85	0.91883563	431.4	0.32465750
539.5	0.594	107.90	0.91886482	431.6	0.32454071
539.75	0.594	107.95	0.91889401	431.8	0.32442395
540	0.595	108.00	0.91892319	432.0	0.32430722
540.25	0.595	108.05	0.91895237	432.2	0.32419051
540.5	0.595	108.10	0.91898154	432.4	0.32407383
540.75	0.595	108.15	0.91901071	432.6	0.32395717
541	0.595	108.20	0.91903986	432.8	0.32384054
541.25	0.595	108.25	0.91906902	433.0	0.32372393
541.5	0.595	108.30	0.91909816	433.2	0.32360735
541.75	0.596	108.35	0.91912730	433.4	0.32349080
542	0.596	108.40	0.91915643	433.6	0.32337426
542.25	0.596	108.45	0.91918556	433.8	0.32325776
542.5	0.596	108.50	0.91921468	434.0	0.32314128
542.75	0.596	108.55	0.91924379	434.2	0.32302482
543	0.596	108.60	0.91927290	434.4	0.32290839
543.25	0.597	108.65	0.91930200	434.6	0.32279199
543.5	0.597	108.70	0.91933110	434.8	0.32267561
543.75	0.597	108.75	0.91936019	435.0	0.32255925
544	0.597	108.80	0.91938927	435.2	0.32244293
544.25	0.597	108.85	0.91941834	435.4	0.32232662
544.5	0.597	108.90	0.91944741	435.6	0.32221034
544.75	0.597	108.95	0.91947648	435.8	0.32209409
545	0.598	109.00	0.91950554	436.0	0.32197786
545.25	0.598	109.05	0.91953459	436.2	0.32186166
545.5	0.598	109.10	0.91956363	436.4	0.32174548
545.75	0.598	109.15	0.91959267	436.6	0.32162932
546	0.598	109.20	0.91962170	436.8	0.32151319
546.25	0.598	109.25	0.91965073	437.0	0.32139709
546.5	0.598	109.30	0.91967975	437.2	0.32128101
546.75	0.599	109.35	0.91970876	437.4	0.32116496
547	0.599	109.40	0.91973777	437.6	0.32104893
547.25	0.599	109.45	0.91976677	437.8	0.32093292
547.5	0.599	109.50	0.91979576	438.0	0.32081695
547.75	0.599	109.55	0.91982475	438.2	0.32070099
548	0.599	109.60	0.91985373	438.4	0.32058506
548.25	0.599	109.65	0.91988271	438.6	0.32046916

548.5	0.600	109.70	0.91991168	438.8	0.32035328
548.75	0.600	109.75	0.91994064	439.0	0.32023742
549	0.600	109.80	0.91996960	439.2	0.32012159
549.25	0.600	109.85	0.91999855	439.4	0.32000579
549.5	0.600	109.90	0.92002750	439.6	0.31989001
549.75	0.600	109.95	0.92005644	439.8	0.31977425
550	0.600	110.00	0.92008537	440.0	0.31965852
550.25	0.601	110.05	0.92011430	440.2	0.31954281
550.5	0.601	110.10	0.92014322	440.4	0.31942713
550.75	0.601	110.15	0.92017213	440.6	0.31931148
551	0.601	110.20	0.92020104	440.8	0.31919584
551.25	0.601	110.25	0.92022994	441.0	0.31908024
551.5	0.601	110.30	0.92025884	441.2	0.31896465
551.75	0.601	110.35	0.92028773	441.4	0.31884909
552	0.602	110.40	0.92031661	441.6	0.31873356
552.25	0.602	110.45	0.92034549	441.8	0.31861805
552.5	0.602	110.50	0.92037436	442.0	0.31850257
552.75	0.602	110.55	0.92040322	442.2	0.31838711
553	0.602	110.60	0.92043208	442.4	0.31827167
553.25	0.602	110.65	0.92046093	442.6	0.31815626
553.5	0.602	110.70	0.92048978	442.8	0.31804087
553.75	0.603	110.75	0.92051862	443.0	0.31792551
554	0.603	110.80	0.92054746	443.2	0.31781018
554.25	0.603	110.85	0.92057628	443.4	0.31769486
554.5	0.603	110.90	0.92060511	443.6	0.31757957
554.75	0.603	110.95	0.92063392	443.8	0.31746431
555	0.603	111.00	0.92066273	444.0	0.31734907
555.25	0.603	111.05	0.92069154	444.2	0.31723385
555.5	0.604	111.10	0.92072033	444.4	0.31711866
555.75	0.604	111.15	0.92074913	444.6	0.31700350
556	0.604	111.20	0.92077791	444.8	0.31688836
556.25	0.604	111.25	0.92080669	445.0	0.31677324
556.5	0.604	111.30	0.92083546	445.2	0.31665814
556.75	0.604	111.35	0.92086423	445.4	0.31654307
557	0.604	111.40	0.92089299	445.6	0.31642803
557.25	0.605	111.45	0.92092175	445.8	0.31631301
557.5	0.605	111.50	0.92095050	446.0	0.31619801
557.75	0.605	111.55	0.92097924	446.2	0.31608304
558	0.605	111.60	0.92100798	446.4	0.31596809
558.25	0.605	111.65	0.92103671	446.6	0.31585317
558.5	0.605	111.70	0.92106543	446.8	0.31573827
558.75	0.605	111.75	0.92109415	447.0	0.31562339
559	0.606	111.80	0.92112286	447.2	0.31550854
559.25	0.606	111.85	0.92115157	447.4	0.31539371
559.5	0.606	111.90	0.92118027	447.6	0.31527891
559.75	0.606	111.95	0.92120897	447.8	0.31516413
560	0.606	112.00	0.92123766	448.0	0.31504938
560.25	0.606	112.05	0.92126634	448.2	0.31493465
560.5	0.606	112.10	0.92129501	448.4	0.31481994
560.75	0.607	112.15	0.92132369	448.6	0.31470526
561	0.607	112.20	0.92135235	448.8	0.31459060
561.25	0.607	112.25	0.92138101	449.0	0.31447596
561.5	0.607	112.30	0.92140966	449.2	0.31436135
561.75	0.607	112.35	0.92143831	449.4	0.31424677
562	0.607	112.40	0.92146695	449.6	0.31413221
562.25	0.607	112.45	0.92149558	449.8	0.31401767
562.5	0.608	112.50	0.92152421	450.0	0.31390315
562.75	0.608	112.55	0.92155283	450.2	0.31378866
563	0.608	112.60	0.92158145	450.4	0.31367419
563.25	0.608	112.65	0.92161006	450.6	0.31355975
563.5	0.608	112.70	0.92163867	450.8	0.31344533
563.75	0.608	112.75	0.92166727	451.0	0.31333094
564	0.608	112.80	0.92169586	451.2	0.31321656
564.25	0.609	112.85	0.92172445	451.4	0.31310222
564.5	0.609	112.90	0.92175303	451.6	0.31298789
564.75	0.609	112.95	0.92178160	451.8	0.31287359
565	0.609	113.00	0.92181017	452.0	0.31275932
565.25	0.609	113.05	0.92183873	452.2	0.31264506
565.5	0.609	113.10	0.92186729	452.4	0.31253084
565.75	0.609	113.15	0.92189584	452.6	0.31241663
566	0.610	113.20	0.92192439	452.8	0.31230245

566.25	0.610	113.25	0.92195293	453.0	0.31218829
566.5	0.610	113.30	0.92198146	453.2	0.31207416
566.75	0.610	113.35	0.92200999	453.4	0.31196005
567	0.610	113.40	0.92203851	453.6	0.31184596
567.25	0.610	113.45	0.92206703	453.8	0.31173190
567.5	0.610	113.50	0.92209554	454.0	0.31161786
567.75	0.611	113.55	0.92212404	454.2	0.31150384
568	0.611	113.60	0.92215254	454.4	0.31138985
568.25	0.611	113.65	0.92218103	454.6	0.31127588
568.5	0.611	113.70	0.92220952	454.8	0.31116194
568.75	0.611	113.75	0.92223800	455.0	0.31104802
569	0.611	113.80	0.92226647	455.2	0.31093412
569.25	0.611	113.85	0.92229494	455.4	0.31082024
569.5	0.612	113.90	0.92232340	455.6	0.31070639
569.75	0.612	113.95	0.92235186	455.8	0.31059256
570	0.612	114.00	0.92238031	456.0	0.31047876
570.25	0.612	114.05	0.92240875	456.2	0.31036498
570.5	0.612	114.10	0.92243719	456.4	0.31025122
570.75	0.612	114.15	0.92246563	456.6	0.31013749
571	0.612	114.20	0.92249406	456.8	0.31002378
571.25	0.613	114.25	0.92252248	457.0	0.30991009
571.5	0.613	114.30	0.92255089	457.2	0.30979643
571.75	0.613	114.35	0.92257930	457.4	0.30968279
572	0.613	114.40	0.92260771	457.6	0.30956917
572.25	0.613	114.45	0.92263611	457.8	0.30945558
572.5	0.613	114.50	0.92266450	458.0	0.30934201
572.75	0.613	114.55	0.92269288	458.2	0.30922846
573	0.614	114.60	0.92272127	458.4	0.30911494
573.25	0.614	114.65	0.92274964	458.6	0.30900144
573.5	0.614	114.70	0.92277801	458.8	0.30888796
573.75	0.614	114.75	0.92280637	459.0	0.30877451
574	0.614	114.80	0.92283473	459.2	0.30866108
574.25	0.614	114.85	0.92286308	459.4	0.30854767
574.5	0.614	114.90	0.92289143	459.6	0.30843429
574.75	0.615	114.95	0.92291977	459.8	0.30832093
575	0.615	115.00	0.92294810	460.0	0.30820759
575.25	0.615	115.05	0.92297643	460.2	0.30809427
575.5	0.615	115.10	0.92300475	460.4	0.30798098
575.75	0.615	115.15	0.92303307	460.6	0.30786771
576	0.615	115.20	0.92306138	460.8	0.30775447
576.25	0.615	115.25	0.92308969	461.0	0.30764125
576.5	0.616	115.30	0.92311799	461.2	0.30752805
576.75	0.616	115.35	0.92314628	461.4	0.30741487
577	0.616	115.40	0.92317457	461.6	0.30730172
577.25	0.616	115.45	0.92320285	461.8	0.30718859
577.5	0.616	115.50	0.92323113	462.0	0.30707548
577.75	0.616	115.55	0.92325940	462.2	0.30696240
578	0.616	115.60	0.92328767	462.4	0.30684934
578.25	0.617	115.65	0.92331592	462.6	0.30673630
578.5	0.617	115.70	0.92334418	462.8	0.30662329
578.75	0.617	115.75	0.92337243	463.0	0.30651029
579	0.617	115.80	0.92340067	463.2	0.30639732
579.25	0.617	115.85	0.92342891	463.4	0.30628438
579.5	0.617	115.90	0.92345714	463.6	0.30617146
579.75	0.617	115.95	0.92348536	463.8	0.30605856
580	0.618	116.00	0.92351358	464.0	0.30594568
580.25	0.618	116.05	0.92354179	464.2	0.30583282
580.5	0.618	116.10	0.92357000	464.4	0.30571999
580.75	0.618	116.15	0.92359820	464.6	0.30560718
581	0.618	116.20	0.92362640	464.8	0.30549440
581.25	0.618	116.25	0.92365459	465.0	0.30538163
581.5	0.618	116.30	0.92368278	465.2	0.30526889
581.75	0.619	116.35	0.92371096	465.4	0.30515618
582	0.619	116.40	0.92373913	465.6	0.30504348
582.25	0.619	116.45	0.92376730	465.8	0.30493081
582.5	0.619	116.50	0.92379546	466.0	0.30481816
582.75	0.619	116.55	0.92382362	466.2	0.30470553
583	0.619	116.60	0.92385177	466.4	0.30459293
583.25	0.619	116.65	0.92387991	466.6	0.30448035
583.5	0.620	116.70	0.92390805	466.8	0.30436779
583.75	0.620	116.75	0.92393619	467.0	0.30425525

584	0.620	116.80	0.92396431	467.2	0.30414274
584.25	0.620	116.85	0.92399244	467.4	0.30403025
584.5	0.620	116.90	0.92402055	467.6	0.30391778
584.75	0.620	116.95	0.92404867	467.8	0.30380534
585	0.620	117.00	0.92407677	468.0	0.30369291
585.25	0.621	117.05	0.92410487	468.2	0.30358051
585.5	0.621	117.10	0.92413297	468.4	0.30346814
585.75	0.621	117.15	0.92416105	468.6	0.30335578
586	0.621	117.20	0.92418914	468.8	0.30324345
586.25	0.621	117.25	0.92421722	469.0	0.30313114
586.5	0.621	117.30	0.92424529	469.2	0.30301885
586.75	0.621	117.35	0.92427335	469.4	0.30290659
587	0.622	117.40	0.92430141	469.6	0.30279434
587.25	0.622	117.45	0.92432947	469.8	0.30268212
587.5	0.622	117.50	0.92435752	470.0	0.30256993
587.75	0.622	117.55	0.92438556	470.2	0.30245775
588	0.622	117.60	0.92441360	470.4	0.30234560
588.25	0.622	117.65	0.92444163	470.6	0.30223347
588.5	0.622	117.70	0.92446966	470.8	0.30212136
588.75	0.622	117.75	0.92449768	471.0	0.30200928
589	0.623	117.80	0.92452570	471.2	0.30189721
589.25	0.623	117.85	0.92455371	471.4	0.30178517
589.5	0.623	117.90	0.92458171	471.6	0.30167315
589.75	0.623	117.95	0.92460971	471.8	0.30156116
590	0.623	118.00	0.92463770	472.0	0.30144918
590.25	0.623	118.05	0.92466569	472.2	0.30133723
590.5	0.623	118.10	0.92469367	472.4	0.30122530
590.75	0.624	118.15	0.92472165	472.6	0.30111340
591	0.624	118.20	0.92474962	472.8	0.30100151
591.25	0.624	118.25	0.92477759	473.0	0.30088965
591.5	0.624	118.30	0.92480555	473.2	0.30077781
591.75	0.624	118.35	0.92483350	473.4	0.30066599
592	0.624	118.40	0.92486145	473.6	0.30055419
592.25	0.624	118.45	0.92488939	473.8	0.30044242
592.5	0.625	118.50	0.92491733	474.0	0.30033067
592.75	0.625	118.55	0.92494527	474.2	0.30021894
593	0.625	118.60	0.92497319	474.4	0.30010723
593.25	0.625	118.65	0.92500111	474.6	0.29999555
593.5	0.625	118.70	0.92502903	474.8	0.29988388
593.75	0.625	118.75	0.92505694	475.0	0.29977224
594	0.625	118.80	0.92508484	475.2	0.29966062
594.25	0.626	118.85	0.92511274	475.4	0.29954903
594.5	0.626	118.90	0.92514064	475.6	0.29943745
594.75	0.626	118.95	0.92516852	475.8	0.29932590
595	0.626	119.00	0.92519641	476.0	0.29921437
595.25	0.626	119.05	0.92522428	476.2	0.29910286
595.5	0.626	119.10	0.92525216	476.4	0.29899138
595.75	0.626	119.15	0.92528002	476.6	0.29887991
596	0.627	119.20	0.92530788	476.8	0.29876847
596.25	0.627	119.25	0.92533574	477.0	0.29865705
596.5	0.627	119.30	0.92536359	477.2	0.29854565
596.75	0.627	119.35	0.92539143	477.4	0.29843427
597	0.627	119.40	0.92541927	477.6	0.29832292
597.25	0.627	119.45	0.92544710	477.8	0.29821159
597.5	0.627	119.50	0.92547493	478.0	0.29810027
597.75	0.628	119.55	0.92550275	478.2	0.29798899
598	0.628	119.60	0.92553057	478.4	0.29787772
598.25	0.628	119.65	0.92555838	478.6	0.29776647
598.5	0.628	119.70	0.92558619	478.8	0.29765525
598.75	0.628	119.75	0.92561399	479.0	0.29754405
599	0.628	119.80	0.92564178	479.2	0.29743287
599.25	0.628	119.85	0.92566957	479.4	0.29732171
599.5	0.628	119.90	0.92569736	479.6	0.29721057
599.75	0.629	119.95	0.92572514	479.8	0.29709946
600	0.629	120.00	0.92575291	480.0	0.29698837
600.25	0.629	120.05	0.92578068	480.2	0.29687730
600.5	0.629	120.10	0.92580844	480.4	0.29676625
600.75	0.629	120.15	0.92583620	480.6	0.29665522
601	0.629	120.20	0.92586395	480.8	0.29654421
601.25	0.629	120.25	0.92589169	481.0	0.29643323
601.5	0.630	120.30	0.92591943	481.2	0.29632227

601.75	0.630	120.35	0.92594717	481.4	0.29621133
602	0.630	120.40	0.92597490	481.6	0.29610041
602.25	0.630	120.45	0.92600262	481.8	0.29598951
602.5	0.630	120.50	0.92603034	482.0	0.29587864
602.75	0.630	120.55	0.92605805	482.2	0.29576778
603	0.630	120.60	0.92608576	482.4	0.29565695
603.25	0.631	120.65	0.92611347	482.6	0.29554614
603.5	0.631	120.70	0.92614116	482.8	0.29543535
603.75	0.631	120.75	0.92616885	483.0	0.29532458
604	0.631	120.80	0.92619654	483.2	0.29521383
604.25	0.631	120.85	0.92622422	483.4	0.29510311
604.5	0.631	120.90	0.92625190	483.6	0.29499241
604.75	0.631	120.95	0.92627957	483.8	0.29488173
605	0.632	121.00	0.92630723	484.0	0.29477107
605.25	0.632	121.05	0.92633489	484.2	0.29466043
605.5	0.632	121.10	0.92636255	484.4	0.29454981
605.75	0.632	121.15	0.92639020	484.6	0.29443921
606	0.632	121.20	0.92641784	484.8	0.29432864
606.25	0.632	121.25	0.92644548	485.0	0.29421809
606.5	0.632	121.30	0.92647311	485.2	0.29410756
606.75	0.633	121.35	0.92650074	485.4	0.29399705
607	0.633	121.40	0.92652836	485.6	0.29388656
607.25	0.633	121.45	0.92655598	485.8	0.29377609
607.5	0.633	121.50	0.92658359	486.0	0.29366564
607.75	0.633	121.55	0.92661119	486.2	0.29355522
608	0.633	121.60	0.92663880	486.4	0.29344482
608.25	0.633	121.65	0.92666639	486.6	0.29333444
608.5	0.633	121.70	0.92669398	486.8	0.29322408
608.75	0.634	121.75	0.92672157	487.0	0.29311374
609	0.634	121.80	0.92674915	487.2	0.29300342
609.25	0.634	121.85	0.92677672	487.4	0.29289312
609.5	0.634	121.90	0.92680429	487.6	0.29278285
609.75	0.634	121.95	0.92683185	487.8	0.29267259
610	0.634	122.00	0.92685941	488.0	0.29256236
610.25	0.634	122.05	0.92688696	488.2	0.29245215
610.5	0.635	122.10	0.92691451	488.4	0.29234196
610.75	0.635	122.15	0.92694205	488.6	0.29223179
611	0.635	122.20	0.92696959	488.8	0.29212164
611.25	0.635	122.25	0.92699712	489.0	0.29201151
611.5	0.635	122.30	0.92702465	489.2	0.29190141
611.75	0.635	122.35	0.92705217	489.4	0.29179132
612	0.635	122.40	0.92707968	489.6	0.29168126
612.25	0.636	122.45	0.92710720	489.8	0.29157122
612.5	0.636	122.50	0.92713470	490.0	0.29146120
612.75	0.636	122.55	0.92716220	490.2	0.29135120
613	0.636	122.60	0.92718970	490.4	0.29124122
613.25	0.636	122.65	0.92721718	490.6	0.29113126
613.5	0.636	122.70	0.92724467	490.8	0.29102133
613.75	0.636	122.75	0.92727215	491.0	0.29091141
614	0.636	122.80	0.92729962	491.2	0.29080151
614.25	0.637	122.85	0.92732709	491.4	0.29069164
614.5	0.637	122.90	0.92735455	491.6	0.29058179
614.75	0.637	122.95	0.92738201	491.8	0.29047196
615	0.637	123.00	0.92740946	492.0	0.29036215
615.25	0.637	123.05	0.92743691	492.2	0.29025236
615.5	0.637	123.10	0.92746435	492.4	0.29014259
615.75	0.637	123.15	0.92749179	492.6	0.29003284
616	0.638	123.20	0.92751922	492.8	0.28992311
616.25	0.638	123.25	0.92754665	493.0	0.28981341
616.5	0.638	123.30	0.92757407	493.2	0.28970372
616.75	0.638	123.35	0.92760149	493.4	0.28959406
617	0.638	123.40	0.92762890	493.6	0.28948442
617.25	0.638	123.45	0.92765630	493.8	0.28937479
617.5	0.638	123.50	0.92768370	494.0	0.28926519
617.75	0.639	123.55	0.92771110	494.2	0.28915561
618	0.639	123.60	0.92773849	494.4	0.28904605
618.25	0.639	123.65	0.92776587	494.6	0.28893651
618.5	0.639	123.70	0.92779325	494.8	0.28882700
618.75	0.639	123.75	0.92782063	495.0	0.28871750
619	0.639	123.80	0.92784799	495.2	0.28860802
619.25	0.639	123.85	0.92787536	495.4	0.28849857

619.5	0.640	123.90	0.92790272	495.6	0.28838913
619.75	0.640	123.95	0.92793007	495.8	0.28827972
620	0.640	124.00	0.92795742	496.0	0.28817033
620.25	0.640	124.05	0.92798476	496.2	0.28806095
620.5	0.640	124.10	0.92801210	496.4	0.28795160
620.75	0.640	124.15	0.92803943	496.6	0.28784227
621	0.640	124.20	0.92806676	496.8	0.28773296
621.25	0.640	124.25	0.92809408	497.0	0.28762367
621.5	0.641	124.30	0.92812140	497.2	0.28751440
621.75	0.641	124.35	0.92814871	497.4	0.28740515
622	0.641	124.40	0.92817602	497.6	0.28729592
622.25	0.641	124.45	0.92820332	497.8	0.28718672
622.5	0.641	124.50	0.92823062	498.0	0.28707753
622.75	0.641	124.55	0.92825791	498.2	0.28696836
623	0.641	124.60	0.92828520	498.4	0.28685922
623.25	0.642	124.65	0.92831248	498.6	0.28675009
623.5	0.642	124.70	0.92833975	498.8	0.28664099
623.75	0.642	124.75	0.92836702	499.0	0.28653191
624	0.642	124.80	0.92839429	499.2	0.28642284
624.25	0.642	124.85	0.92842155	499.4	0.28631380
624.5	0.642	124.90	0.92844881	499.6	0.28620478
624.75	0.642	124.95	0.92847606	499.8	0.28609578
625	0.643	125.00	0.92850330	500.0	0.28598680
625.25	0.643	125.05	0.92853054	500.2	0.28587784
625.5	0.643	125.10	0.92855778	500.4	0.28576890
625.75	0.643	125.15	0.92858501	500.6	0.28565998
626	0.643	125.20	0.92861223	500.8	0.28555108
626.25	0.643	125.25	0.92863945	501.0	0.28544220
626.5	0.643	125.30	0.92866667	501.2	0.28533334
626.75	0.643	125.35	0.92869387	501.4	0.28522450
627	0.644	125.40	0.92872108	501.6	0.28511568
627.25	0.644	125.45	0.92874828	501.8	0.28500689
627.5	0.644	125.50	0.92877547	502.0	0.28489811
627.75	0.644	125.55	0.92880266	502.2	0.28478935
628	0.644	125.60	0.92882985	502.4	0.28468062
628.25	0.644	125.65	0.92885702	502.6	0.28457190
628.5	0.644	125.70	0.92888420	502.8	0.28446321
628.75	0.645	125.75	0.92891137	503.0	0.28435453
629	0.645	125.80	0.92893853	503.2	0.28424588
629.25	0.645	125.85	0.92896569	503.4	0.28413724
629.5	0.645	125.90	0.92899284	503.6	0.28402863
629.75	0.645	125.95	0.92901999	503.8	0.28392003
630	0.645	126.00	0.92904713	504.0	0.28381146
630.25	0.645	126.05	0.92907427	504.2	0.28370291
630.5	0.646	126.10	0.92910141	504.4	0.28359437
630.75	0.646	126.15	0.92912853	504.6	0.28348586
631	0.646	126.20	0.92915566	504.8	0.28337737
631.25	0.646	126.25	0.92918278	505.0	0.28326890
631.5	0.646	126.30	0.92920989	505.2	0.28316044
631.75	0.646	126.35	0.92923700	505.4	0.28305201
632	0.646	126.40	0.92926410	505.6	0.28294360
632.25	0.646	126.45	0.92929120	505.8	0.28283521
632.5	0.647	126.50	0.92931829	506.0	0.28272684
632.75	0.647	126.55	0.92934538	506.2	0.28261849
633	0.647	126.60	0.92937246	506.4	0.28251015
633.25	0.647	126.65	0.92939954	506.6	0.28240184
633.5	0.647	126.70	0.92942661	506.8	0.28229355
633.75	0.647	126.75	0.92945368	507.0	0.28218528
634	0.647	126.80	0.92948074	507.2	0.28207703
634.25	0.648	126.85	0.92950780	507.4	0.28196880
634.5	0.648	126.90	0.92953485	507.6	0.28186059
634.75	0.648	126.95	0.92956190	507.8	0.28175240
635	0.648	127.00	0.92958894	508.0	0.28164423
635.25	0.648	127.05	0.92961598	508.2	0.28153608
635.5	0.648	127.10	0.92964301	508.4	0.28142794
635.75	0.648	127.15	0.92967004	508.6	0.28131983
636	0.648	127.20	0.92969706	508.8	0.28121174
636.25	0.649	127.25	0.92972408	509.0	0.28110367
636.5	0.649	127.30	0.92975109	509.2	0.28099562
636.75	0.649	127.35	0.92977810	509.4	0.28088759
637	0.649	127.40	0.92980511	509.6	0.28077958

637.25	0.649	127.45	0.92983210	509.8	0.28067159
637.5	0.649	127.50	0.92985910	510.0	0.28056362
637.75	0.649	127.55	0.92988608	510.2	0.28045566
638	0.650	127.60	0.92991307	510.4	0.28034773
638.25	0.650	127.65	0.92994004	510.6	0.28023982
638.5	0.650	127.70	0.92996702	510.8	0.28013193
638.75	0.650	127.75	0.92999399	511.0	0.28002406
639	0.650	127.80	0.93002095	511.2	0.27991621
639.25	0.650	127.85	0.93004791	511.4	0.27980837
639.5	0.650	127.90	0.93007486	511.6	0.27970056
639.75	0.651	127.95	0.93010181	511.8	0.27959277
640	0.651	128.00	0.93012875	512.0	0.27948500
640.25	0.651	128.05	0.93015569	512.2	0.27937724
640.5	0.651	128.10	0.93018262	512.4	0.27926951
640.75	0.651	128.15	0.93020955	512.6	0.27916180
641	0.651	128.20	0.93023647	512.8	0.27905410
641.25	0.651	128.25	0.93026339	513.0	0.27894643
641.5	0.651	128.30	0.93029031	513.2	0.27883877
641.75	0.652	128.35	0.93031721	513.4	0.27873114
642	0.652	128.40	0.93034412	513.6	0.27862353
642.25	0.652	128.45	0.93037102	513.8	0.27851593
642.5	0.652	128.50	0.93039791	514.0	0.27840835
642.75	0.652	128.55	0.93042480	514.2	0.27830080
643	0.652	128.60	0.93045168	514.4	0.27819326
643.25	0.652	128.65	0.93047856	514.6	0.27808575
643.5	0.653	128.70	0.93050544	514.8	0.27797825
643.75	0.653	128.75	0.93053231	515.0	0.27787077
644	0.653	128.80	0.93055917	515.2	0.27776332
644.25	0.653	128.85	0.93058603	515.4	0.27765588
644.5	0.653	128.90	0.93061289	515.6	0.27754846
644.75	0.653	128.95	0.93063974	515.8	0.27744106
645	0.653	129.00	0.93066658	516.0	0.27733368
645.25	0.653	129.05	0.93069342	516.2	0.27722632
645.5	0.654	129.10	0.93072025	516.4	0.27711898
645.75	0.654	129.15	0.93074708	516.6	0.27701166
646	0.654	129.20	0.93077391	516.8	0.27690436
646.25	0.654	129.25	0.93080073	517.0	0.27679708
646.5	0.654	129.30	0.93082755	517.2	0.27668982
646.75	0.654	129.35	0.93085436	517.4	0.27658257
647	0.654	129.40	0.93088116	517.6	0.27647535
647.25	0.655	129.45	0.93090796	517.8	0.27636815
647.5	0.655	129.50	0.93093476	518.0	0.27626096
647.75	0.655	129.55	0.93096155	518.2	0.27615380
648	0.655	129.60	0.93098834	518.4	0.27604665
648.25	0.655	129.65	0.93101512	518.6	0.27593953
648.5	0.655	129.70	0.93104189	518.8	0.27583242
648.75	0.655	129.75	0.93106867	519.0	0.27572533
649	0.655	129.80	0.93109543	519.2	0.27561827
649.25	0.656	129.85	0.93112220	519.4	0.27551122
649.5	0.656	129.90	0.93114895	519.6	0.27540419
649.75	0.656	129.95	0.93117571	519.8	0.27529718
650	0.656	130.00	0.93120245	520.0	0.27519019
650.25	0.656	130.05	0.93122920	520.2	0.27508322
650.5	0.656	130.10	0.93125593	520.4	0.27497627
650.75	0.656	130.15	0.93128267	520.6	0.27486933
651	0.657	130.20	0.93130939	520.8	0.27476242
651.25	0.657	130.25	0.93133612	521.0	0.27465553
651.5	0.657	130.30	0.93136284	521.2	0.27454865
651.75	0.657	130.35	0.93138955	521.4	0.27444180
652	0.657	130.40	0.93141626	521.6	0.27433496
652.25	0.657	130.45	0.93144296	521.8	0.27422815
652.5	0.657	130.50	0.93146966	522.0	0.27412135
652.75	0.657	130.55	0.93149636	522.2	0.27401457
653	0.658	130.60	0.93152305	522.4	0.27390781
653.25	0.658	130.65	0.93154973	522.6	0.27380107
653.5	0.658	130.70	0.93157641	522.8	0.27369435
653.75	0.658	130.75	0.93160309	523.0	0.27358765
654	0.658	130.80	0.93162976	523.2	0.27348097
654.25	0.658	130.85	0.93165642	523.4	0.27337431
654.5	0.658	130.90	0.93168308	523.6	0.27326766
654.75	0.659	130.95	0.93170974	523.8	0.27316104

655	0.659	131.00	0.93173639	524.0	0.27305443
655.25	0.659	131.05	0.93176304	524.2	0.27294785
655.5	0.659	131.10	0.93178968	524.4	0.27284128
655.75	0.659	131.15	0.93181632	524.6	0.27273473
656	0.659	131.20	0.93184295	524.8	0.27262820
656.25	0.659	131.25	0.93186958	525.0	0.27252169
656.5	0.659	131.30	0.93189620	525.2	0.27241520
656.75	0.660	131.35	0.93192282	525.4	0.27230873
657	0.660	131.40	0.93194943	525.6	0.27220228
657.25	0.660	131.45	0.93197604	525.8	0.27209584
657.5	0.660	131.50	0.93200264	526.0	0.27198943
657.75	0.660	131.55	0.93202924	526.2	0.27188303
658	0.660	131.60	0.93205584	526.4	0.27177666
658.25	0.660	131.65	0.93208243	526.6	0.27167030
658.5	0.661	131.70	0.93210901	526.8	0.27156396
658.75	0.661	131.75	0.93213559	527.0	0.27145764
659	0.661	131.80	0.93216217	527.2	0.27135134
659.25	0.661	131.85	0.93218874	527.4	0.27124506
659.5	0.661	131.90	0.93221530	527.6	0.27113880
659.75	0.661	131.95	0.93224186	527.8	0.27103255
660	0.661	132.00	0.93226842	528.0	0.27092633
660.25	0.661	132.05	0.93229497	528.2	0.27082012
660.5	0.662	132.10	0.93232152	528.4	0.27071393
660.75	0.662	132.15	0.93234806	528.6	0.27060776
661	0.662	132.20	0.93237460	528.8	0.27050162
661.25	0.662	132.25	0.93240113	529.0	0.27039548
661.5	0.662	132.30	0.93242766	529.2	0.27028937
661.75	0.662	132.35	0.93245418	529.4	0.27018328
662	0.662	132.40	0.93248070	529.6	0.27007721
662.25	0.663	132.45	0.93250721	529.8	0.26997115
662.5	0.663	132.50	0.93253372	530.0	0.26986511
662.75	0.663	132.55	0.93256023	530.2	0.26975910
663	0.663	132.60	0.93258673	530.4	0.26965310
663.25	0.663	132.65	0.93261322	530.6	0.26954712
663.5	0.663	132.70	0.93263971	530.8	0.26944116
663.75	0.663	132.75	0.93266620	531.0	0.26933521
664	0.663	132.80	0.93269268	531.2	0.26922929
664.25	0.664	132.85	0.93271915	531.4	0.26912339
664.5	0.664	132.90	0.93274563	531.6	0.26901750
664.75	0.664	132.95	0.93277209	531.8	0.26891163
665	0.664	133.00	0.93279855	532.0	0.26880578
665.25	0.664	133.05	0.93282501	532.2	0.26869995
665.5	0.664	133.10	0.93285146	532.4	0.26859414
665.75	0.664	133.15	0.93287791	532.6	0.26848835
666	0.665	133.20	0.93290436	532.8	0.26838257
666.25	0.665	133.25	0.93293080	533.0	0.26827682
666.5	0.665	133.30	0.93295723	533.2	0.26817108
666.75	0.665	133.35	0.93298366	533.4	0.26806536
667	0.665	133.40	0.93301008	533.6	0.26795967
667.25	0.665	133.45	0.93303650	533.8	0.26785398
667.5	0.665	133.50	0.93306292	534.0	0.26774832
667.75	0.665	133.55	0.93308933	534.2	0.26764268
668	0.666	133.60	0.93311574	534.4	0.26753705
668.25	0.666	133.65	0.93314214	534.6	0.26743145
668.5	0.666	133.70	0.93316854	534.8	0.26732586
668.75	0.666	133.75	0.93319493	535.0	0.26722029
669	0.666	133.80	0.93322132	535.2	0.26711474
669.25	0.666	133.85	0.93324770	535.4	0.26700921
669.5	0.666	133.90	0.93327408	535.6	0.26690369
669.75	0.667	133.95	0.93330045	535.8	0.26679820
670	0.667	134.00	0.93332682	536.0	0.26669272
670.25	0.667	134.05	0.93335318	536.2	0.26658726
670.5	0.667	134.10	0.93337954	536.4	0.26648182
670.75	0.667	134.15	0.93340590	536.6	0.26637640
671	0.667	134.20	0.93343225	536.8	0.26627100
671.25	0.667	134.25	0.93345860	537.0	0.26616561
671.5	0.667	134.30	0.93348494	537.2	0.26606025
671.75	0.668	134.35	0.93351127	537.4	0.26595490
672	0.668	134.40	0.93353761	537.6	0.26584957
672.25	0.668	134.45	0.93356393	537.8	0.26574426
672.5	0.668	134.50	0.93359026	538.0	0.26563897

672.75	0.668	134.55	0.93361658	538.2	0.26553370
673	0.668	134.60	0.93364289	538.4	0.26542844
673.25	0.668	134.65	0.93366920	538.6	0.26532320
673.5	0.668	134.70	0.93369550	538.8	0.26521798
673.75	0.669	134.75	0.93372180	539.0	0.26511278
674	0.669	134.80	0.93374810	539.2	0.26500760
674.25	0.669	134.85	0.93377439	539.4	0.26490244
674.5	0.669	134.90	0.93380068	539.6	0.26479729
674.75	0.669	134.95	0.93382696	539.8	0.26469217
675	0.669	135.00	0.93385324	540.0	0.26458706
675.25	0.669	135.05	0.93387951	540.2	0.26448197
675.5	0.670	135.10	0.93390578	540.4	0.26437689
675.75	0.670	135.15	0.93393204	540.6	0.26427184
676	0.670	135.20	0.93395830	540.8	0.26416680
676.25	0.670	135.25	0.93398455	541.0	0.26406179
676.5	0.670	135.30	0.93401080	541.2	0.26395679
676.75	0.670	135.35	0.93403705	541.4	0.26385181
677	0.670	135.40	0.93406329	541.6	0.26374684
677.25	0.670	135.45	0.93408952	541.8	0.26364190
677.5	0.671	135.50	0.93411576	542.0	0.26353697
677.75	0.671	135.55	0.93414198	542.2	0.26343207
678	0.671	135.60	0.93416821	542.4	0.26332718
678.25	0.671	135.65	0.93419442	542.6	0.26322230
678.5	0.671	135.70	0.93422064	542.8	0.26311745
678.75	0.671	135.75	0.93424685	543.0	0.26301262
679	0.671	135.80	0.93427305	543.2	0.26290780
679.25	0.671	135.85	0.93429925	543.4	0.26280300
679.5	0.672	135.90	0.93432545	543.6	0.26269822
679.75	0.672	135.95	0.93435164	543.8	0.26259346
680	0.672	136.00	0.93437782	544.0	0.26248871
680.25	0.672	136.05	0.93440400	544.2	0.26238398
680.5	0.672	136.10	0.93443018	544.4	0.26227928
680.75	0.672	136.15	0.93445635	544.6	0.26217459
681	0.672	136.20	0.93448252	544.8	0.26206991
681.25	0.673	136.25	0.93450869	545.0	0.26196526
681.5	0.673	136.30	0.93453484	545.2	0.26186062
681.75	0.673	136.35	0.93456100	545.4	0.26175600
682	0.673	136.40	0.93458715	545.6	0.26165140
682.25	0.673	136.45	0.93461329	545.8	0.26154682
682.5	0.673	136.50	0.93463944	546.0	0.26144226
682.75	0.673	136.55	0.93466557	546.2	0.26133771
683	0.673	136.60	0.93469170	546.4	0.26123318
683.25	0.674	136.65	0.93471783	546.6	0.26112867
683.5	0.674	136.70	0.93474395	546.8	0.26102418
683.75	0.674	136.75	0.93477007	547.0	0.26091971
684	0.674	136.80	0.93479619	547.2	0.26081525
684.25	0.674	136.85	0.93482230	547.4	0.26071081
684.5	0.674	136.90	0.93484840	547.6	0.26060639
684.75	0.674	136.95	0.93487450	547.8	0.26050199
685	0.675	137.00	0.93490060	548.0	0.26039760
685.25	0.675	137.05	0.93492669	548.2	0.26029324
685.5	0.675	137.10	0.93495278	548.4	0.26018889
685.75	0.675	137.15	0.93497886	548.6	0.26008456
686	0.675	137.20	0.93500494	548.8	0.25998024
686.25	0.675	137.25	0.93503101	549.0	0.25987595
686.5	0.675	137.30	0.93505708	549.2	0.25977167
686.75	0.675	137.35	0.93508315	549.4	0.25966741
687	0.676	137.40	0.93510921	549.6	0.25956317
687.25	0.676	137.45	0.93513526	549.8	0.25945895
687.5	0.676	137.50	0.93516131	550.0	0.25935474
687.75	0.676	137.55	0.93518736	550.2	0.25925055
688	0.676	137.60	0.93521340	550.4	0.25914638
688.25	0.676	137.65	0.93523944	550.6	0.25904223
688.5	0.676	137.70	0.93526548	550.8	0.25893810
688.75	0.676	137.75	0.93529151	551.0	0.25883398
689	0.677	137.80	0.93531753	551.2	0.25872988
689.25	0.677	137.85	0.93534355	551.4	0.25862580
689.5	0.677	137.90	0.93536957	551.6	0.25852173
689.75	0.677	137.95	0.93539558	551.8	0.25841769
690	0.677	138.00	0.93542159	552.0	0.25831366
690.25	0.677	138.05	0.93544759	552.2	0.25820965

690.5	0.677	138.10	0.93547359	552.4	0.25810566
690.75	0.677	138.15	0.93549958	552.6	0.25800168
691	0.678	138.20	0.93552557	552.8	0.25789772
691.25	0.678	138.25	0.93555155	553.0	0.25779378
691.5	0.678	138.30	0.93557753	553.2	0.25768986
691.75	0.678	138.35	0.93560351	553.4	0.25758596
692	0.678	138.40	0.93562948	553.6	0.25748207
692.25	0.678	138.45	0.93565545	553.8	0.25737820
692.5	0.678	138.50	0.93568141	554.0	0.25727435
692.75	0.679	138.55	0.93570737	554.2	0.25717051
693	0.679	138.60	0.93573333	554.4	0.25706670
693.25	0.679	138.65	0.93575928	554.6	0.25696290
693.5	0.679	138.70	0.93578522	554.8	0.25685912
693.75	0.679	138.75	0.93581116	555.0	0.25675535
694	0.679	138.80	0.93583710	555.2	0.25665161
694.25	0.679	138.85	0.93586303	555.4	0.25654788
694.5	0.679	138.90	0.93588896	555.6	0.25644417
694.75	0.680	138.95	0.93591488	555.8	0.25634048
695	0.680	139.00	0.93594080	556.0	0.25623680
695.25	0.680	139.05	0.93596671	556.2	0.25613314
695.5	0.680	139.10	0.93599262	556.4	0.25602950
695.75	0.680	139.15	0.93601853	556.6	0.25592588
696	0.680	139.20	0.93604443	556.8	0.25582227
696.25	0.680	139.25	0.93607033	557.0	0.25571868
696.5	0.680	139.30	0.93609622	557.2	0.25561511
696.75	0.681	139.35	0.93612211	557.4	0.25551156
697	0.681	139.40	0.93614799	557.6	0.25540802
697.25	0.681	139.45	0.93617387	557.8	0.25530451
697.5	0.681	139.50	0.93619975	558.0	0.25520100
697.75	0.681	139.55	0.93622562	558.2	0.25509752
698	0.681	139.60	0.93625149	558.4	0.25499405
698.25	0.681	139.65	0.93627735	558.6	0.25489061
698.5	0.682	139.70	0.93630321	558.8	0.25478717
698.75	0.682	139.75	0.93632906	559.0	0.25468376
699	0.682	139.80	0.93635491	559.2	0.25458036
699.25	0.682	139.85	0.93638075	559.4	0.25447698
699.5	0.682	139.90	0.93640659	559.6	0.25437362
699.75	0.682	139.95	0.93643243	559.8	0.25427028
700	0.682	140.00	0.93645826	560.0	0.25416695
700.25	0.682	140.05	0.93648409	560.2	0.25406364
700.5	0.683	140.10	0.93650991	560.4	0.25396035
700.75	0.683	140.15	0.93653573	560.6	0.25385707
701	0.683	140.20	0.93656155	560.8	0.25375382
701.25	0.683	140.25	0.93658736	561.0	0.25365058
701.5	0.683	140.30	0.93661316	561.2	0.25354735
701.75	0.683	140.35	0.93663896	561.4	0.25344415
702	0.683	140.40	0.93666476	561.6	0.25334096
702.25	0.683	140.45	0.93669055	561.8	0.25323779
702.5	0.684	140.50	0.93671634	562.0	0.25313463
702.75	0.684	140.55	0.93674213	562.2	0.25303150
703	0.684	140.60	0.93676791	562.4	0.25292838
703.25	0.684	140.65	0.93679368	562.6	0.25282527
703.5	0.684	140.70	0.93681945	562.8	0.25272219
703.75	0.684	140.75	0.93684522	563.0	0.25261912
704	0.684	140.80	0.93687098	563.2	0.25251607
704.25	0.684	140.85	0.93689674	563.4	0.25241304
704.5	0.685	140.90	0.93692249	563.6	0.25231002
704.75	0.685	140.95	0.93694824	563.8	0.25220702
705	0.685	141.00	0.93697399	564.0	0.25210404
705.25	0.685	141.05	0.93699973	564.2	0.25200108
705.5	0.685	141.10	0.93702547	564.4	0.25189813
705.75	0.685	141.15	0.93705120	564.6	0.25179520
706	0.685	141.20	0.93707693	564.8	0.25169228
706.25	0.686	141.25	0.93710265	565.0	0.25158939
706.5	0.686	141.30	0.93712837	565.2	0.25148651
706.75	0.686	141.35	0.93715409	565.4	0.25138365
707	0.686	141.40	0.93717980	565.6	0.25128080
707.25	0.686	141.45	0.93720551	565.8	0.25117797
707.5	0.686	141.50	0.93723121	566.0	0.25107516
707.75	0.686	141.55	0.93725691	566.2	0.25097237
708	0.686	141.60	0.93728260	566.4	0.25086959

708.25	0.687	141.65	0.93730829	566.6	0.25076683
708.5	0.687	141.70	0.93733398	566.8	0.25066409
708.75	0.687	141.75	0.93735966	567.0	0.25056137
709	0.687	141.80	0.93738534	567.2	0.25045866
709.25	0.687	141.85	0.93741101	567.4	0.25035597
709.5	0.687	141.90	0.93743668	567.6	0.25025329
709.75	0.687	141.95	0.93746234	567.8	0.25015063
710	0.687	142.00	0.93748800	568.0	0.25004799
710.25	0.688	142.05	0.93751366	568.2	0.24994537
710.5	0.688	142.10	0.93753931	568.4	0.24984276
710.75	0.688	142.15	0.93756496	568.6	0.24974017
711	0.688	142.20	0.93759060	568.8	0.24963760
711.25	0.688	142.25	0.93761624	569.0	0.24953505
711.5	0.688	142.30	0.93764187	569.2	0.24943251
711.75	0.688	142.35	0.93766750	569.4	0.24932999
712	0.688	142.40	0.93769313	569.6	0.24922748
712.25	0.689	142.45	0.93771875	569.8	0.24912499
712.5	0.689	142.50	0.93774437	570.0	0.24902252
712.75	0.689	142.55	0.93776998	570.2	0.24892007
713	0.689	142.60	0.93779559	570.4	0.24881763
713.25	0.689	142.65	0.93782120	570.6	0.24871521
713.5	0.689	142.70	0.93784680	570.8	0.24861281
713.75	0.689	142.75	0.93787239	571.0	0.24851042
714	0.689	142.80	0.93789799	571.2	0.24840805
714.25	0.690	142.85	0.93792358	571.4	0.24830570
714.5	0.690	142.90	0.93794916	571.6	0.24820336
714.75	0.690	142.95	0.93797474	571.8	0.24810104
715	0.690	143.00	0.93800031	572.0	0.24799874
715.25	0.690	143.05	0.93802589	572.2	0.24789646
715.5	0.690	143.10	0.93805145	572.4	0.24779419
715.75	0.690	143.15	0.93807702	572.6	0.24769193
716	0.691	143.20	0.93810258	572.8	0.24758970
716.25	0.691	143.25	0.93812813	573.0	0.24748748
716.5	0.691	143.30	0.93815368	573.2	0.24738528
716.75	0.691	143.35	0.93817923	573.4	0.24728309
717	0.691	143.40	0.93820477	573.6	0.24718093
717.25	0.691	143.45	0.93823031	573.8	0.24707878
717.5	0.691	143.50	0.93825584	574.0	0.24697664
717.75	0.691	143.55	0.93828137	574.2	0.24687452
718	0.692	143.60	0.93830689	574.4	0.24677242
718.25	0.692	143.65	0.93833242	574.6	0.24667034
718.5	0.692	143.70	0.93835793	574.8	0.24656827
718.75	0.692	143.75	0.93838345	575.0	0.24646622
719	0.692	143.80	0.93840895	575.2	0.24636418
719.25	0.692	143.85	0.93843446	575.4	0.24626217
719.5	0.692	143.90	0.93845996	575.6	0.24616016
719.75	0.692	143.95	0.93848545	575.8	0.24605818
720	0.693	144.00	0.93851095	576.0	0.24595621
720.25	0.693	144.05	0.93853643	576.2	0.24585426
720.5	0.693	144.10	0.93856192	576.4	0.24575233
720.75	0.693	144.15	0.93858740	576.6	0.24565041
721	0.693	144.20	0.93861287	576.8	0.24554851
721.25	0.693	144.25	0.93863834	577.0	0.24544662
721.5	0.693	144.30	0.93866381	577.2	0.24534476
721.75	0.693	144.35	0.93868927	577.4	0.24524290
722	0.694	144.40	0.93871473	577.6	0.24514107
722.25	0.694	144.45	0.93874019	577.8	0.24503925
722.5	0.694	144.50	0.93876564	578.0	0.24493745
722.75	0.694	144.55	0.93879108	578.2	0.24483566
723	0.694	144.60	0.93881653	578.4	0.24473389
723.25	0.694	144.65	0.93884196	578.6	0.24463214
723.5	0.694	144.70	0.93886740	578.8	0.24453041
723.75	0.694	144.75	0.93889283	579.0	0.24442869
724	0.695	144.80	0.93891825	579.2	0.24432699
724.25	0.695	144.85	0.93894368	579.4	0.24422530
724.5	0.695	144.90	0.93896909	579.6	0.24412363
724.75	0.695	144.95	0.93899451	579.8	0.24402198
725	0.695	145.00	0.93901991	580.0	0.24392034
725.25	0.695	145.05	0.93904532	580.2	0.24381872
725.5	0.695	145.10	0.93907072	580.4	0.24371712
725.75	0.695	145.15	0.93909612	580.6	0.24361553

726	0.696	145.20	0.93912151	580.8	0.24351396
726.25	0.696	145.25	0.93914690	581.0	0.24341240
726.5	0.696	145.30	0.93917228	581.2	0.24331087
726.75	0.696	145.35	0.93919766	581.4	0.24320934
727	0.696	145.40	0.93922304	581.6	0.24310784
727.25	0.696	145.45	0.93924841	581.8	0.24300635
727.5	0.696	145.50	0.93927378	582.0	0.24290488
727.75	0.696	145.55	0.93929914	582.2	0.24280342
728	0.697	145.60	0.93932450	582.4	0.24270198
728.25	0.697	145.65	0.93934986	582.6	0.24260056
728.5	0.697	145.70	0.93937521	582.8	0.24249915
728.75	0.697	145.75	0.93940056	583.0	0.24239776
729	0.697	145.80	0.93942590	583.2	0.24229639
729.25	0.697	145.85	0.93945124	583.4	0.24219503
729.5	0.697	145.90	0.93947658	583.6	0.24209369
729.75	0.698	145.95	0.93950191	583.8	0.24199237
730	0.698	146.00	0.93952724	584.0	0.24189106
730.25	0.698	146.05	0.93955256	584.2	0.24178976
730.5	0.698	146.10	0.93957788	584.4	0.24168849
730.75	0.698	146.15	0.93960319	584.6	0.24158723
731	0.698	146.20	0.93962850	584.8	0.24148598
731.25	0.698	146.25	0.93965381	585.0	0.24138476
731.5	0.698	146.30	0.93967911	585.2	0.24128355
731.75	0.699	146.35	0.93970441	585.4	0.24118235
732	0.699	146.40	0.93972971	585.6	0.24108117
732.25	0.699	146.45	0.93975500	585.8	0.24098001
732.5	0.699	146.50	0.93978028	586.0	0.24087886
732.75	0.699	146.55	0.93980557	586.2	0.24077773
733	0.699	146.60	0.93983084	586.4	0.24067662
733.25	0.699	146.65	0.93985612	586.6	0.24057552
733.5	0.699	146.70	0.93988139	586.8	0.24047444
733.75	0.700	146.75	0.93990666	587.0	0.24037338
734	0.700	146.80	0.93993192	587.2	0.24027233
734.25	0.700	146.85	0.93995718	587.4	0.24017130
734.5	0.700	146.90	0.93998243	587.6	0.24007028
734.75	0.700	146.95	0.94000768	587.8	0.23996928
735	0.700	147.00	0.94003293	588.0	0.23986829
735.25	0.700	147.05	0.94005817	588.2	0.23976733
735.5	0.700	147.10	0.94008341	588.4	0.23966637
735.75	0.701	147.15	0.94010864	588.6	0.23956544
736	0.701	147.20	0.94013387	588.8	0.23946452
736.25	0.701	147.25	0.94015910	589.0	0.23936362
736.5	0.701	147.30	0.94018432	589.2	0.23926273
736.75	0.701	147.35	0.94020954	589.4	0.23916186
737	0.701	147.40	0.94023475	589.6	0.23906100
737.25	0.701	147.45	0.94025996	589.8	0.23896016
737.5	0.701	147.50	0.94028517	590.0	0.23885934
737.75	0.702	147.55	0.94031037	590.2	0.23875853
738	0.702	147.60	0.94033556	590.4	0.23865774
738.25	0.702	147.65	0.94036076	590.6	0.23855697
738.5	0.702	147.70	0.94038595	590.8	0.23845621
738.75	0.702	147.75	0.94041113	591.0	0.23835546
739	0.702	147.80	0.94043632	591.2	0.23825474
739.25	0.702	147.85	0.94046149	591.4	0.23815403
739.5	0.702	147.90	0.94048667	591.6	0.23805333
739.75	0.703	147.95	0.94051184	591.8	0.23795265
740	0.703	148.00	0.94053700	592.0	0.23785199
740.25	0.703	148.05	0.94056216	592.2	0.23775134
740.5	0.703	148.10	0.94058732	592.4	0.23765071
740.75	0.703	148.15	0.94061248	592.6	0.23755010
741	0.703	148.20	0.94063763	592.8	0.23744950
741.25	0.703	148.25	0.94066277	593.0	0.23734892
741.5	0.703	148.30	0.94068791	593.2	0.23724835
741.75	0.704	148.35	0.94071305	593.4	0.23714780
742	0.704	148.40	0.94073818	593.6	0.23704726
742.25	0.704	148.45	0.94076331	593.8	0.23694674
742.5	0.704	148.50	0.94078844	594.0	0.23684624
742.75	0.704	148.55	0.94081356	594.2	0.23674575
743	0.704	148.60	0.94083868	594.4	0.23664528
743.25	0.704	148.65	0.94086379	594.6	0.23654482
743.5	0.704	148.70	0.94088890	594.8	0.23644438

743.75	0.705	148.75	0.94091401	595.0	0.23634396
744	0.705	148.80	0.94093911	595.2	0.23624355
744.25	0.705	148.85	0.94096421	595.4	0.23614316
744.5	0.705	148.90	0.94098930	595.6	0.23604278
744.75	0.705	148.95	0.94101439	595.8	0.23594242
745	0.705	149.00	0.94103948	596.0	0.23584208
745.25	0.705	149.05	0.94106456	596.2	0.23574175
745.5	0.705	149.10	0.94108964	596.4	0.23564144
745.75	0.706	149.15	0.94111472	596.6	0.23554114
746	0.706	149.20	0.94113979	596.8	0.23544086
746.25	0.706	149.25	0.94116485	597.0	0.23534059
746.5	0.706	149.30	0.94118991	597.2	0.23524034
746.75	0.706	149.35	0.94121497	597.4	0.23514011
747	0.706	149.40	0.94124003	597.6	0.23503989
747.25	0.706	149.45	0.94126508	597.8	0.23493969
747.5	0.706	149.50	0.94129012	598.0	0.23483950
747.75	0.707	149.55	0.94131517	598.2	0.23473933
748	0.707	149.60	0.94134021	598.4	0.23463917
748.25	0.707	149.65	0.94136524	598.6	0.23453903
748.5	0.707	149.70	0.94139027	598.8	0.23443891
748.75	0.707	149.75	0.94141530	599.0	0.23433880
749	0.707	149.80	0.94144032	599.2	0.23423871
749.25	0.707	149.85	0.94146534	599.4	0.23413863
749.5	0.707	149.90	0.94149036	599.6	0.23403857
749.75	0.708	149.95	0.94151537	599.8	0.23393853
750	0.708	150.00	0.94154038	600.0	0.23383850
750.25	0.708	150.05	0.94156538	600.2	0.23373848
750.5	0.708	150.10	0.94159038	600.4	0.23363848
750.75	0.708	150.15	0.94161537	600.6	0.23353850
751	0.708	150.20	0.94164037	600.8	0.23343853
751.25	0.708	150.25	0.94166535	601.0	0.23333858
751.5	0.708	150.30	0.94169034	601.2	0.23323865
751.75	0.709	150.35	0.94171532	601.4	0.23313873
752	0.709	150.40	0.94174029	601.6	0.23303882
752.25	0.709	150.45	0.94176527	601.8	0.23293893
752.5	0.709	150.50	0.94179023	602.0	0.23283906
752.75	0.709	150.55	0.94181520	602.2	0.23273920
753	0.709	150.60	0.94184016	602.4	0.23263936
753.25	0.709	150.65	0.94186512	602.6	0.23253953
753.5	0.709	150.70	0.94189007	602.8	0.23243972
753.75	0.710	150.75	0.94191502	603.0	0.23233993
754	0.710	150.80	0.94193996	603.2	0.23224015
754.25	0.710	150.85	0.94196490	603.4	0.23214038
754.5	0.710	150.90	0.94198984	603.6	0.23204063
754.75	0.710	150.95	0.94201477	603.8	0.23194090
755	0.710	151.00	0.94203970	604.0	0.23184118
755.25	0.710	151.05	0.94206463	604.2	0.23174148
755.5	0.710	151.10	0.94208955	604.4	0.23164179
755.75	0.711	151.15	0.94211447	604.6	0.23154212
756	0.711	151.20	0.94213938	604.8	0.23144247
756.25	0.711	151.25	0.94216429	605.0	0.23134283
756.5	0.711	151.30	0.94218920	605.2	0.23124320
756.75	0.711	151.35	0.94221410	605.4	0.23114359
757	0.711	151.40	0.94223900	605.6	0.23104400
757.25	0.711	151.45	0.94226389	605.8	0.23094442
757.5	0.711	151.50	0.94228879	606.0	0.23084486
757.75	0.712	151.55	0.94231367	606.2	0.23074531
758	0.712	151.60	0.94233856	606.4	0.23064578
758.25	0.712	151.65	0.94236343	606.6	0.23054626
758.5	0.712	151.70	0.94238831	606.8	0.23044676
758.75	0.712	151.75	0.94241318	607.0	0.23034727
759	0.712	151.80	0.94243805	607.2	0.23024780
759.25	0.712	151.85	0.94246291	607.4	0.23014835
759.5	0.712	151.90	0.94248777	607.6	0.23004891
759.75	0.713	151.95	0.94251263	607.8	0.22994949
760	0.713	152.00	0.94253748	608.0	0.22985008
760.25	0.713	152.05	0.94256233	608.2	0.22975068
760.5	0.713	152.10	0.94258717	608.4	0.22965131
760.75	0.713	152.15	0.94261201	608.6	0.22955194
761	0.713	152.20	0.94263685	608.8	0.22945260
761.25	0.713	152.25	0.94266168	609.0	0.22935326

761.5	0.713	152.30	0.94268651	609.2	0.22925395
761.75	0.714	152.35	0.94271134	609.4	0.22915465
762	0.714	152.40	0.94273616	609.6	0.22905536
762.25	0.714	152.45	0.94276098	609.8	0.22895609
762.5	0.714	152.50	0.94278579	610.0	0.22885683
762.75	0.714	152.55	0.94281060	610.2	0.22875759
763	0.714	152.60	0.94283541	610.4	0.22865837
763.25	0.714	152.65	0.94286021	610.6	0.22855916
763.5	0.714	152.70	0.94288501	610.8	0.22845996
763.75	0.715	152.75	0.94290980	611.0	0.22836078
764	0.715	152.80	0.94293459	611.2	0.22826162
764.25	0.715	152.85	0.94295938	611.4	0.22816247
764.5	0.715	152.90	0.94298417	611.6	0.22806334
764.75	0.715	152.95	0.94300894	611.8	0.22796422
765	0.715	153.00	0.94303372	612.0	0.22786512
765.25	0.715	153.05	0.94305849	612.2	0.22776603
765.5	0.715	153.10	0.94308326	612.4	0.22766696
765.75	0.716	153.15	0.94310802	612.6	0.22756790
766	0.716	153.20	0.94313279	612.8	0.22746886
766.25	0.716	153.25	0.94315754	613.0	0.22736983
766.5	0.716	153.30	0.94318229	613.2	0.22727082
766.75	0.716	153.35	0.94320704	613.4	0.22717182
767	0.716	153.40	0.94323179	613.6	0.22707284
767.25	0.716	153.45	0.94325653	613.8	0.22697388
767.5	0.716	153.50	0.94328127	614.0	0.22687493
767.75	0.717	153.55	0.94330600	614.2	0.22677599
768	0.717	153.60	0.94333073	614.4	0.22667707
768.25	0.717	153.65	0.94335546	614.6	0.22657816
768.5	0.717	153.70	0.94338018	614.8	0.22647927
768.75	0.717	153.75	0.94340490	615.0	0.22638040
769	0.717	153.80	0.94342962	615.2	0.22628154
769.25	0.717	153.85	0.94345433	615.4	0.22618269
769.5	0.717	153.90	0.94347903	615.6	0.22608386
769.75	0.718	153.95	0.94350374	615.8	0.22598505
770	0.718	154.00	0.94352844	616.0	0.22588625
770.25	0.718	154.05	0.94355313	616.2	0.22578746
770.5	0.718	154.10	0.94357783	616.4	0.22568869
770.75	0.718	154.15	0.94360252	616.6	0.22558994
771	0.718	154.20	0.94362720	616.8	0.22549120
771.25	0.718	154.25	0.94365188	617.0	0.22539247
771.5	0.718	154.30	0.94367656	617.2	0.22529376
771.75	0.719	154.35	0.94370123	617.4	0.22519507
772	0.719	154.40	0.94372590	617.6	0.22509639
772.25	0.719	154.45	0.94375057	617.8	0.22499773
772.5	0.719	154.50	0.94377523	618.0	0.22489908
772.75	0.719	154.55	0.94379989	618.2	0.22480044
773	0.719	154.60	0.94382454	618.4	0.22470182
773.25	0.719	154.65	0.94384920	618.6	0.22460322
773.5	0.719	154.70	0.94387384	618.8	0.22450463
773.75	0.719	154.75	0.94389849	619.0	0.22440605
774	0.720	154.80	0.94392313	619.2	0.22430750
774.25	0.720	154.85	0.94394776	619.4	0.22420895
774.5	0.720	154.90	0.94397239	619.6	0.22411042
774.75	0.720	154.95	0.94399702	619.8	0.22401191
775	0.720	155.00	0.94402165	620.0	0.22391341
775.25	0.720	155.05	0.94404627	620.2	0.22381492
775.5	0.720	155.10	0.94407089	620.4	0.22371645
775.75	0.720	155.15	0.94409550	620.6	0.22361800
776	0.721	155.20	0.94412011	620.8	0.22351956
776.25	0.721	155.25	0.94414472	621.0	0.22342113
776.5	0.721	155.30	0.94416932	621.2	0.22332272
776.75	0.721	155.35	0.94419392	621.4	0.22322433
777	0.721	155.40	0.94421851	621.6	0.22312595
777.25	0.721	155.45	0.94424310	621.8	0.22302758
777.5	0.721	155.50	0.94426769	622.0	0.22292923
777.75	0.721	155.55	0.94429228	622.2	0.22283089
778	0.722	155.60	0.94431686	622.4	0.22273257
778.25	0.722	155.65	0.94434143	622.6	0.22263427
778.5	0.722	155.70	0.94436601	622.8	0.22253598
778.75	0.722	155.75	0.94439058	623.0	0.22243770
779	0.722	155.80	0.94441514	623.2	0.22233944

779.25	0.722	155.85	0.94443970	623.4	0.22224119
779.5	0.722	155.90	0.94446426	623.6	0.22214296
779.75	0.722	155.95	0.94448881	623.8	0.22204474
780	0.723	156.00	0.94451337	624.0	0.22194654
780.25	0.723	156.05	0.94453791	624.2	0.22184835
780.5	0.723	156.10	0.94456246	624.4	0.22175018
780.75	0.723	156.15	0.94458699	624.6	0.22165202
781	0.723	156.20	0.94461153	624.8	0.22155388
781.25	0.723	156.25	0.94463606	625.0	0.22145575
781.5	0.723	156.30	0.94466059	625.2	0.22135764
781.75	0.723	156.35	0.94468512	625.4	0.22125954
782	0.724	156.40	0.94470964	625.6	0.22116145
782.25	0.724	156.45	0.94473415	625.8	0.22106338
782.5	0.724	156.50	0.94475867	626.0	0.22096533
782.75	0.724	156.55	0.94478318	626.2	0.22086729
783	0.724	156.60	0.94480768	626.4	0.22076926
783.25	0.724	156.65	0.94483219	626.6	0.22067125
783.5	0.724	156.70	0.94485669	626.8	0.22057326
783.75	0.724	156.75	0.94488118	627.0	0.22047527
784	0.725	156.80	0.94490567	627.2	0.22037731
784.25	0.725	156.85	0.94493016	627.4	0.22027936
784.5	0.725	156.90	0.94495465	627.6	0.22018142
784.75	0.725	156.95	0.94497913	627.8	0.22008350
785	0.725	157.00	0.94500360	628.0	0.21998559
785.25	0.725	157.05	0.94502808	628.2	0.21988770
785.5	0.725	157.10	0.94505255	628.4	0.21978982
785.75	0.725	157.15	0.94507701	628.6	0.21969195
786	0.726	157.20	0.94510147	628.8	0.21959410
786.25	0.726	157.25	0.94512593	629.0	0.21949627
786.5	0.726	157.30	0.94515039	629.2	0.21939845
786.75	0.726	157.35	0.94517484	629.4	0.21930064
787	0.726	157.40	0.94519929	629.6	0.21920285
787.25	0.726	157.45	0.94522373	629.8	0.21910508
787.5	0.726	157.50	0.94524817	630.0	0.21900732
787.75	0.726	157.55	0.94527261	630.2	0.21890957
788	0.726	157.60	0.94529704	630.4	0.21881184
788.25	0.727	157.65	0.94532147	630.6	0.21871412
788.5	0.727	157.70	0.94534590	630.8	0.21861641
788.75	0.727	157.75	0.94537032	631.0	0.21851873
789	0.727	157.80	0.94539474	631.2	0.21842105
789.25	0.727	157.85	0.94541915	631.4	0.21832339
789.5	0.727	157.90	0.94544356	631.6	0.21822575
789.75	0.727	157.95	0.94546797	631.8	0.21812812
790	0.727	158.00	0.94549237	632.0	0.21803050
790.25	0.728	158.05	0.94551678	632.2	0.21793290
790.5	0.728	158.10	0.94554117	632.4	0.21783531
790.75	0.728	158.15	0.94556557	632.6	0.21773774
791	0.728	158.20	0.94558995	632.8	0.21764018
791.25	0.728	158.25	0.94561434	633.0	0.21754264
791.5	0.728	158.30	0.94563872	633.2	0.21744511
791.75	0.728	158.35	0.94566310	633.4	0.21734759
792	0.728	158.40	0.94568748	633.6	0.21725009
792.25	0.729	158.45	0.94571185	633.8	0.21715261
792.5	0.729	158.50	0.94573622	634.0	0.21705514
792.75	0.729	158.55	0.94576058	634.2	0.21695768
793	0.729	158.60	0.94578494	634.4	0.21686024
793.25	0.729	158.65	0.94580930	634.6	0.21676281
793.5	0.729	158.70	0.94583365	634.8	0.21666540
793.75	0.729	158.75	0.94585800	635.0	0.21656800
794	0.729	158.80	0.94588235	635.2	0.21647061
794.25	0.730	158.85	0.94590669	635.4	0.21637324
794.5	0.730	158.90	0.94593103	635.6	0.21627589
794.75	0.730	158.95	0.94595536	635.8	0.21617855
795	0.730	159.00	0.94597970	636.0	0.21608122
795.25	0.730	159.05	0.94600402	636.2	0.21598391
795.5	0.730	159.10	0.94602835	636.4	0.21588661
795.75	0.730	159.15	0.94605267	636.6	0.21578932
796	0.730	159.20	0.94607699	636.8	0.21569205
796.25	0.731	159.25	0.94610130	637.0	0.21559480
796.5	0.731	159.30	0.94612561	637.2	0.21549756
796.75	0.731	159.35	0.94614992	637.4	0.21540033

797	0.731	159.40	0.94617422	637.6	0.21530312
797.25	0.731	159.45	0.94619852	637.8	0.21520592
797.5	0.731	159.50	0.94622282	638.0	0.21510874
797.75	0.731	159.55	0.94624711	638.2	0.21501157
798	0.731	159.60	0.94627140	638.4	0.21491441
798.25	0.731	159.65	0.94629568	638.6	0.21481727
798.5	0.732	159.70	0.94631996	638.8	0.21472015
798.75	0.732	159.75	0.94634424	639.0	0.21462304
799	0.732	159.80	0.94636852	639.2	0.21452594
799.25	0.732	159.85	0.94639279	639.4	0.21442885
799.5	0.732	159.90	0.94641705	639.6	0.21433179
799.75	0.732	159.95	0.94644132	639.8	0.21423473
800	0.732	160.00	0.94646558	640.0	0.21413769
800.25	0.732	160.05	0.94648983	640.2	0.21404066
800.5	0.733	160.10	0.94651409	640.4	0.21394365
800.75	0.733	160.15	0.94653834	640.6	0.21384665
801	0.733	160.20	0.94656258	640.8	0.21374967
801.25	0.733	160.25	0.94658682	641.0	0.21365270
801.5	0.733	160.30	0.94661106	641.2	0.21355575
801.75	0.733	160.35	0.94663530	641.4	0.21345881
802	0.733	160.40	0.94665953	641.6	0.21336188
802.25	0.733	160.45	0.94668376	641.8	0.21326497
802.5	0.734	160.50	0.94670798	642.0	0.21316807
802.75	0.734	160.55	0.94673220	642.2	0.21307118
803	0.734	160.60	0.94675642	642.4	0.21297431
803.25	0.734	160.65	0.94678064	642.6	0.21287746
803.5	0.734	160.70	0.94680485	642.8	0.21278062
803.75	0.734	160.75	0.94682905	643.0	0.21268379
804	0.734	160.80	0.94685326	643.2	0.21258698
804.25	0.734	160.85	0.94687746	643.4	0.21249018
804.5	0.735	160.90	0.94690165	643.6	0.21239339
804.75	0.735	160.95	0.94692584	643.8	0.21229662
805	0.735	161.00	0.94695003	644.0	0.21219986
805.25	0.735	161.05	0.94697422	644.2	0.21210312
805.5	0.735	161.10	0.94699840	644.4	0.21200639
805.75	0.735	161.15	0.94702258	644.6	0.21190968
806	0.735	161.20	0.94704676	644.8	0.21181298
806.25	0.735	161.25	0.94707093	645.0	0.21171629
806.5	0.735	161.30	0.94709510	645.2	0.21161962
806.75	0.736	161.35	0.94711926	645.4	0.21152296
807	0.736	161.40	0.94714342	645.6	0.21142632
807.25	0.736	161.45	0.94716758	645.8	0.21132969
807.5	0.736	161.50	0.94719173	646.0	0.21123307
807.75	0.736	161.55	0.94721588	646.2	0.21113647
808	0.736	161.60	0.94724003	646.4	0.21103988
808.25	0.736	161.65	0.94726417	646.6	0.21094331
808.5	0.736	161.70	0.94728831	646.8	0.21084675
808.75	0.737	161.75	0.94731245	647.0	0.21075020
809	0.737	161.80	0.94733658	647.2	0.21065367
809.25	0.737	161.85	0.94736071	647.4	0.21055715
809.5	0.737	161.90	0.94738484	647.6	0.21046065
809.75	0.737	161.95	0.94740896	647.8	0.21036416
810	0.737	162.00	0.94743308	648.0	0.21026768
810.25	0.737	162.05	0.94745719	648.2	0.21017122
810.5	0.737	162.10	0.94748131	648.4	0.21007478
810.75	0.738	162.15	0.94750541	648.6	0.20997834
811	0.738	162.20	0.94752952	648.8	0.20988192
811.25	0.738	162.25	0.94755362	649.0	0.20978552
811.5	0.738	162.30	0.94757772	649.2	0.20968913
811.75	0.738	162.35	0.94760181	649.4	0.20959275
812	0.738	162.40	0.94762590	649.6	0.20949638
812.25	0.738	162.45	0.94764999	649.8	0.20940003
812.5	0.738	162.50	0.94767408	650.0	0.20930370
812.75	0.738	162.55	0.94769816	650.2	0.20920738
813	0.739	162.60	0.94772223	650.4	0.20911107
813.25	0.739	162.65	0.94774631	650.6	0.20901477
813.5	0.739	162.70	0.94777038	650.8	0.20891849
813.75	0.739	162.75	0.94779444	651.0	0.20882223
814	0.739	162.80	0.94781851	651.2	0.20872597
814.25	0.739	162.85	0.94784257	651.4	0.20862974
814.5	0.739	162.90	0.94786662	651.6	0.20853351

814.75	0.739	162.95	0.94789067	651.8	0.20843730
815	0.740	163.00	0.94791472	652.0	0.20834110
815.25	0.740	163.05	0.94793877	652.2	0.20824492
815.5	0.740	163.10	0.94796281	652.4	0.20814875
815.75	0.740	163.15	0.94798685	652.6	0.20805260
816	0.740	163.20	0.94801089	652.8	0.20795646
816.25	0.740	163.25	0.94803492	653.0	0.20786033
816.5	0.740	163.30	0.94805895	653.2	0.20776421
816.75	0.740	163.35	0.94808297	653.4	0.20766811
817	0.741	163.40	0.94810699	653.6	0.20757203
817.25	0.741	163.45	0.94813101	653.8	0.20747596
817.5	0.741	163.50	0.94815503	654.0	0.20737990
817.75	0.741	163.55	0.94817904	654.2	0.20728385
818	0.741	163.60	0.94820304	654.4	0.20718782
818.25	0.741	163.65	0.94822705	654.6	0.20709180
818.5	0.741	163.70	0.94825105	654.8	0.20699580
818.75	0.741	163.75	0.94827505	655.0	0.20689981
819	0.741	163.80	0.94829904	655.2	0.20680384
819.25	0.742	163.85	0.94832303	655.4	0.20670787
819.5	0.742	163.90	0.94834702	655.6	0.20661193
819.75	0.742	163.95	0.94837100	655.8	0.20651599
820	0.742	164.00	0.94839498	656.0	0.20642007
820.25	0.742	164.05	0.94841896	656.2	0.20632416
820.5	0.742	164.10	0.94844293	656.4	0.20622827
820.75	0.742	164.15	0.94846690	656.6	0.20613239
821	0.742	164.20	0.94849087	656.8	0.20603652
821.25	0.743	164.25	0.94851483	657.0	0.20594067
821.5	0.743	164.30	0.94853879	657.2	0.20584483
821.75	0.743	164.35	0.94856275	657.4	0.20574901
822	0.743	164.40	0.94858670	657.6	0.20565320
822.25	0.743	164.45	0.94861065	657.8	0.20555740
822.5	0.743	164.50	0.94863460	658.0	0.20546162
822.75	0.743	164.55	0.94865854	658.2	0.20536585
823	0.743	164.60	0.94868248	658.4	0.20527009
823.25	0.744	164.65	0.94870641	658.6	0.20517435
823.5	0.744	164.70	0.94873034	658.8	0.20507862
823.75	0.744	164.75	0.94875427	659.0	0.20498291
824	0.744	164.80	0.94877820	659.2	0.20488720
824.25	0.744	164.85	0.94880212	659.4	0.20479152
824.5	0.744	164.90	0.94882604	659.6	0.20469584
824.75	0.744	164.95	0.94884995	659.8	0.20460018
825	0.744	165.00	0.94887387	660.0	0.20450453
825.25	0.744	165.05	0.94889777	660.2	0.20440890
825.5	0.745	165.10	0.94892168	660.4	0.20431328
825.75	0.745	165.15	0.94894558	660.6	0.20421768
826	0.745	165.20	0.94896948	660.8	0.20412208
826.25	0.745	165.25	0.94899337	661.0	0.20402650
826.5	0.745	165.30	0.94901727	661.2	0.20393094
826.75	0.745	165.35	0.94904115	661.4	0.20383539
827	0.745	165.40	0.94906504	661.6	0.20373985
827.25	0.745	165.45	0.94908892	661.8	0.20364432
827.5	0.746	165.50	0.94911280	662.0	0.20354881
827.75	0.746	165.55	0.94913667	662.2	0.20345332
828	0.746	165.60	0.94916054	662.4	0.20335783
828.25	0.746	165.65	0.94918441	662.6	0.20326236
828.5	0.746	165.70	0.94920827	662.8	0.20316690
828.75	0.746	165.75	0.94923213	663.0	0.20307146
829	0.746	165.80	0.94925599	663.2	0.20297603
829.25	0.746	165.85	0.94927985	663.4	0.20288061
829.5	0.747	165.90	0.94930370	663.6	0.20278521
829.75	0.747	165.95	0.94932754	663.8	0.20268982
830	0.747	166.00	0.94935139	664.0	0.20259445
830.25	0.747	166.05	0.94937523	664.2	0.20249908
830.5	0.747	166.10	0.94939907	664.4	0.20240374
830.75	0.747	166.15	0.94942290	664.6	0.20230840
831	0.747	166.20	0.94944673	664.8	0.20221308
831.25	0.747	166.25	0.94947056	665.0	0.20211777
831.5	0.747	166.30	0.94949438	665.2	0.20202248
831.75	0.748	166.35	0.94951820	665.4	0.20192719
832	0.748	166.40	0.94954202	665.6	0.20183193
832.25	0.748	166.45	0.94956583	665.8	0.20173667

832.5	0.748	166.50	0.94958964	666.0	0.20164143
832.75	0.748	166.55	0.94961345	666.2	0.20154620
833	0.748	166.60	0.94963725	666.4	0.20145099
833.25	0.748	166.65	0.94966105	666.6	0.20135579
833.5	0.748	166.70	0.94968485	666.8	0.20126060
833.75	0.749	166.75	0.94970864	667.0	0.20116543
834	0.749	166.80	0.94973243	667.2	0.20107027
834.25	0.749	166.85	0.94975622	667.4	0.20097512
834.5	0.749	166.90	0.94978000	667.6	0.20087999
834.75	0.749	166.95	0.94980378	667.8	0.20078487
835	0.749	167.00	0.94982756	668.0	0.20068976
835.25	0.749	167.05	0.94985133	668.2	0.20059467
835.5	0.749	167.10	0.94987510	668.4	0.20049959
835.75	0.749	167.15	0.94989887	668.6	0.20040452
836	0.750	167.20	0.94992263	668.8	0.20030947
836.25	0.750	167.25	0.94994639	669.0	0.20021443
836.5	0.750	167.30	0.94997015	669.2	0.20011940
836.75	0.750	167.35	0.94999390	669.4	0.20002439
837	0.750	167.40	0.95001765	669.6	0.19992939
837.25	0.750	167.45	0.95004140	669.8	0.19983440
837.5	0.750	167.50	0.95006514	670.0	0.19973943
837.75	0.750	167.55	0.95008888	670.2	0.19964447
838	0.751	167.60	0.95011262	670.4	0.19954952
838.25	0.751	167.65	0.95013635	670.6	0.19945459
838.5	0.751	167.70	0.95016008	670.8	0.19935967
838.75	0.751	167.75	0.95018381	671.0	0.19926476
839	0.751	167.80	0.95020753	671.2	0.19916987
839.25	0.751	167.85	0.95023125	671.4	0.19907499
839.5	0.751	167.90	0.95025497	671.6	0.19898012
839.75	0.751	167.95	0.95027868	671.8	0.19888527
840	0.752	168.00	0.95030239	672.0	0.19879043
840.25	0.752	168.05	0.95032610	672.2	0.19869560
840.5	0.752	168.10	0.95034980	672.4	0.19860079
840.75	0.752	168.15	0.95037350	672.6	0.19850598
841	0.752	168.20	0.95039720	672.8	0.19841120
841.25	0.752	168.25	0.95042089	673.0	0.19831642
841.5	0.752	168.30	0.95044458	673.2	0.19822166
841.75	0.752	168.35	0.95046827	673.4	0.19812692
842	0.752	168.40	0.95049195	673.6	0.19803218
842.25	0.753	168.45	0.95051564	673.8	0.19793746
842.5	0.753	168.50	0.95053931	674.0	0.19784275
842.75	0.753	168.55	0.95056299	674.2	0.19774806
843	0.753	168.60	0.95058666	674.4	0.19765338
843.25	0.753	168.65	0.95061032	674.6	0.19755871
843.5	0.753	168.70	0.95063399	674.8	0.19746405
843.75	0.753	168.75	0.95065765	675.0	0.19736941
844	0.753	168.80	0.95068130	675.2	0.19727478
844.25	0.754	168.85	0.95070496	675.4	0.19718017
844.5	0.754	168.90	0.95072861	675.6	0.19708556
844.75	0.754	168.95	0.95075226	675.8	0.19699097
845	0.754	169.00	0.95077590	676.0	0.19689640
845.25	0.754	169.05	0.95079954	676.2	0.19680184
845.5	0.754	169.10	0.95082318	676.4	0.19670729
845.75	0.754	169.15	0.95084681	676.6	0.19661275
846	0.754	169.20	0.95087044	676.8	0.19651823
846.25	0.754	169.25	0.95089407	677.0	0.19642372
846.5	0.755	169.30	0.95091770	677.2	0.19632922
846.75	0.755	169.35	0.95094132	677.4	0.19623473
847	0.755	169.40	0.95096493	677.6	0.19614026
847.25	0.755	169.45	0.95098855	677.8	0.19604580
847.5	0.755	169.50	0.95101216	678.0	0.19595136
847.75	0.755	169.55	0.95103577	678.2	0.19585693
848	0.755	169.60	0.95105937	678.4	0.19576251
848.25	0.755	169.65	0.95108297	678.6	0.19566810
848.5	0.756	169.70	0.95110657	678.8	0.19557371
848.75	0.756	169.75	0.95113017	679.0	0.19547933
849	0.756	169.80	0.95115376	679.2	0.19538497
849.25	0.756	169.85	0.95117735	679.4	0.19529061
849.5	0.756	169.90	0.95120093	679.6	0.19519627
849.75	0.756	169.95	0.95122451	679.8	0.19510195
850	0.756	170.00	0.95124809	680.0	0.19500763

850.25	0.756	170.05	0.95127167	680.2	0.19491333
850.5	0.756	170.10	0.95129524	680.4	0.19481904
850.75	0.757	170.15	0.95131881	680.6	0.19472477
851	0.757	170.20	0.95134237	680.8	0.19463050
851.25	0.757	170.25	0.95136594	681.0	0.19453626
851.5	0.757	170.30	0.95138950	681.2	0.19444202
851.75	0.757	170.35	0.95141305	681.4	0.19434780
852	0.757	170.40	0.95143660	681.6	0.19425359
852.25	0.757	170.45	0.95146015	681.8	0.19415939
852.5	0.757	170.50	0.95148370	682.0	0.19406521
852.75	0.758	170.55	0.95150724	682.2	0.19397103
853	0.758	170.60	0.95153078	682.4	0.19387688
853.25	0.758	170.65	0.95155432	682.6	0.19378273
853.5	0.758	170.70	0.95157785	682.8	0.19368860
853.75	0.758	170.75	0.95160138	683.0	0.19359448
854	0.758	170.80	0.95162491	683.2	0.19350037
854.25	0.758	170.85	0.95164843	683.4	0.19340628
854.5	0.758	170.90	0.95167195	683.6	0.19331220
854.75	0.758	170.95	0.95169547	683.8	0.19321813
855	0.759	171.00	0.95171898	684.0	0.19312408
855.25	0.759	171.05	0.95174249	684.2	0.19303004
855.5	0.759	171.10	0.95176600	684.4	0.19293601
855.75	0.759	171.15	0.95178950	684.6	0.19284199
856	0.759	171.20	0.95181300	684.8	0.19274799
856.25	0.759	171.25	0.95183650	685.0	0.19265400
856.5	0.759	171.30	0.95185999	685.2	0.19256002
856.75	0.759	171.35	0.95188349	685.4	0.19246606
857	0.760	171.40	0.95190697	685.6	0.19237211
857.25	0.760	171.45	0.95193046	685.8	0.19227817
857.5	0.760	171.50	0.95195394	686.0	0.19218424
857.75	0.760	171.55	0.95197742	686.2	0.19209033
858	0.760	171.60	0.95200089	686.4	0.19199643
858.25	0.760	171.65	0.95202436	686.6	0.19190254
858.5	0.760	171.70	0.95204783	686.8	0.19180867
858.75	0.760	171.75	0.95207130	687.0	0.19171481
859	0.760	171.80	0.95209476	687.2	0.19162096
859.25	0.761	171.85	0.95211822	687.4	0.19152712
859.5	0.761	171.90	0.95214167	687.6	0.19143330
859.75	0.761	171.95	0.95216513	687.8	0.19133949
860	0.761	172.00	0.95218858	688.0	0.19124570
860.25	0.761	172.05	0.95221202	688.2	0.19115191
860.5	0.761	172.10	0.95223547	688.4	0.19105814
860.75	0.761	172.15	0.95225890	688.6	0.19096438
861	0.761	172.20	0.95228234	688.8	0.19087064
861.25	0.762	172.25	0.95230577	689.0	0.19077690
861.5	0.762	172.30	0.95232920	689.2	0.19068318
861.75	0.762	172.35	0.95235263	689.4	0.19058947
862	0.762	172.40	0.95237606	689.6	0.19049578
862.25	0.762	172.45	0.95239948	689.8	0.19040210
862.5	0.762	172.50	0.95242289	690.0	0.19030843
862.75	0.762	172.55	0.95244631	690.2	0.19021477
863	0.762	172.60	0.95246972	690.4	0.19012113
863.25	0.762	172.65	0.95249313	690.6	0.19002750
863.5	0.763	172.70	0.95251653	690.8	0.18993388
863.75	0.763	172.75	0.95253993	691.0	0.18984027
864	0.763	172.80	0.95256333	691.2	0.18974668
864.25	0.763	172.85	0.95258672	691.4	0.18965310
864.5	0.763	172.90	0.95261012	691.6	0.18955953
864.75	0.763	172.95	0.95263351	691.8	0.18946598
865	0.763	173.00	0.95265689	692.0	0.18937244
865.25	0.763	173.05	0.95268027	692.2	0.18927891
865.5	0.764	173.10	0.95270365	692.4	0.18918539
865.75	0.764	173.15	0.95272703	692.6	0.18909189
866	0.764	173.20	0.95275040	692.8	0.18899840
866.25	0.764	173.25	0.95277377	693.0	0.18890492
866.5	0.764	173.30	0.95279714	693.2	0.18881145
866.75	0.764	173.35	0.95282050	693.4	0.18871800
867	0.764	173.40	0.95284386	693.6	0.18862456
867.25	0.764	173.45	0.95286722	693.8	0.18853113
867.5	0.764	173.50	0.95289057	694.0	0.18843772
867.75	0.765	173.55	0.95291392	694.2	0.18834432

868	0.765	173.60	0.95293727	694.4	0.18825093
868.25	0.765	173.65	0.95296061	694.6	0.18815755
868.5	0.765	173.70	0.95298395	694.8	0.18806418
868.75	0.765	173.75	0.95300729	695.0	0.18797083
869	0.765	173.80	0.95303063	695.2	0.18787749
869.25	0.765	173.85	0.95305396	695.4	0.18778417
869.5	0.765	173.90	0.95307729	695.6	0.18769085
869.75	0.766	173.95	0.95310061	695.8	0.18759755
870	0.766	174.00	0.95312393	696.0	0.18750426
870.25	0.766	174.05	0.95314725	696.2	0.18741099
870.5	0.766	174.10	0.95317057	696.4	0.18731772
870.75	0.766	174.15	0.95319388	696.6	0.18722447
871	0.766	174.20	0.95321719	696.8	0.18713123
871.25	0.766	174.25	0.95324050	697.0	0.18703801
871.5	0.766	174.30	0.95326380	697.2	0.18694480
871.75	0.766	174.35	0.95328710	697.4	0.18685159
872	0.767	174.40	0.95331040	697.6	0.18675841
872.25	0.767	174.45	0.95333369	697.8	0.18666523
872.5	0.767	174.50	0.95335698	698.0	0.18657207
872.75	0.767	174.55	0.95338027	698.2	0.18647892
873	0.767	174.60	0.95340355	698.4	0.18638578
873.25	0.767	174.65	0.95342684	698.6	0.18629265
873.5	0.767	174.70	0.95345011	698.8	0.18619954
873.75	0.767	174.75	0.95347339	699.0	0.18610644
874	0.767	174.80	0.95349666	699.2	0.18601335
874.25	0.768	174.85	0.95351993	699.4	0.18592028
874.5	0.768	174.90	0.95354320	699.6	0.18582722
874.75	0.768	174.95	0.95356646	699.8	0.18573417
875	0.768	175.00	0.95358972	700.0	0.18564113
875.25	0.768	175.05	0.95361297	700.2	0.18554810
875.5	0.768	175.10	0.95363623	700.4	0.18545509
875.75	0.768	175.15	0.95365948	700.6	0.18536209
876	0.768	175.20	0.95368272	700.8	0.18526910
876.25	0.769	175.25	0.95370597	701.0	0.18517613
876.5	0.769	175.30	0.95372921	701.2	0.18508316
876.75	0.769	175.35	0.95375245	701.4	0.18499021
877	0.769	175.40	0.95377568	701.6	0.18489728
877.25	0.769	175.45	0.95379891	701.8	0.18480435
877.5	0.769	175.50	0.95382214	702.0	0.18471144
877.75	0.769	175.55	0.95384537	702.2	0.18461854
878	0.769	175.60	0.95386859	702.4	0.18452565
878.25	0.769	175.65	0.95389181	702.6	0.18443277
878.5	0.770	175.70	0.95391502	702.8	0.18433991
878.75	0.770	175.75	0.95393824	703.0	0.18424706
879	0.770	175.80	0.95396145	703.2	0.18415422
879.25	0.770	175.85	0.95398465	703.4	0.18406139
879.5	0.770	175.90	0.95400785	703.6	0.18396858
879.75	0.770	175.95	0.95403106	703.8	0.18387578
880	0.770	176.00	0.95405425	704.0	0.18378299
880.25	0.770	176.05	0.95407745	704.2	0.18369021
880.5	0.771	176.10	0.95410064	704.4	0.18359745
880.75	0.771	176.15	0.95412383	704.6	0.18350470
881	0.771	176.20	0.95414701	704.8	0.18341196
881.25	0.771	176.25	0.95417019	705.0	0.18331923
881.5	0.771	176.30	0.95419337	705.2	0.18322652
881.75	0.771	176.35	0.95421655	705.4	0.18313381
882	0.771	176.40	0.95423972	705.6	0.18304112
882.25	0.771	176.45	0.95426289	705.8	0.18294845
882.5	0.771	176.50	0.95428605	706.0	0.18285578
882.75	0.772	176.55	0.95430922	706.2	0.18276313
883	0.772	176.60	0.95433238	706.4	0.18267049
883.25	0.772	176.65	0.95435553	706.6	0.18257786
883.5	0.772	176.70	0.95437869	706.8	0.18248524
883.75	0.772	176.75	0.95440184	707.0	0.18239264
884	0.772	176.80	0.95442499	707.2	0.18230005
884.25	0.772	176.85	0.95444813	707.4	0.18220747
884.5	0.772	176.90	0.95447127	707.6	0.18211490
884.75	0.772	176.95	0.95449441	707.8	0.18202235
885	0.773	177.00	0.95451755	708.0	0.18192981
885.25	0.773	177.05	0.95454068	708.2	0.18183728
885.5	0.773	177.10	0.95456381	708.4	0.18174476

885.75	0.773	177.15	0.95458694	708.6	0.18165225
886	0.773	177.20	0.95461006	708.8	0.18155976
886.25	0.773	177.25	0.95463318	709.0	0.18146728
886.5	0.773	177.30	0.95465630	709.2	0.18137481
886.75	0.773	177.35	0.95467941	709.4	0.18128236
887	0.774	177.40	0.95470252	709.6	0.18118991
887.25	0.774	177.45	0.95472563	709.8	0.18109748
887.5	0.774	177.50	0.95474873	710.0	0.18100506
887.75	0.774	177.55	0.95477184	710.2	0.18091265
888	0.774	177.60	0.95479494	710.4	0.18082026
888.25	0.774	177.65	0.95481803	710.6	0.18072788
888.5	0.774	177.70	0.95484112	710.8	0.18063551
888.75	0.774	177.75	0.95486421	711.0	0.18054315
889	0.774	177.80	0.95488730	711.2	0.18045080
889.25	0.775	177.85	0.95491038	711.4	0.18035847
889.5	0.775	177.90	0.95493346	711.6	0.18026615
889.75	0.775	177.95	0.95495654	711.8	0.18017384
890	0.775	178.00	0.95497962	712.0	0.18008154
890.25	0.775	178.05	0.95500269	712.2	0.17998925
890.5	0.775	178.10	0.95502575	712.4	0.17989698
890.75	0.775	178.15	0.95504882	712.6	0.17980472
891	0.775	178.20	0.95507188	712.8	0.17971247
891.25	0.775	178.25	0.95509494	713.0	0.17962024
891.5	0.776	178.30	0.95511800	713.2	0.17952801
891.75	0.776	178.35	0.95514105	713.4	0.17943580
892	0.776	178.40	0.95516410	713.6	0.17934360
892.25	0.776	178.45	0.95518715	713.8	0.17925141
892.5	0.776	178.50	0.95521019	714.0	0.17915924
892.75	0.776	178.55	0.95523323	714.2	0.17906707
893	0.776	178.60	0.95525627	714.4	0.17897492
893.25	0.776	178.65	0.95527930	714.6	0.17888278
893.5	0.777	178.70	0.95530234	714.8	0.17879065
893.75	0.777	178.75	0.95532537	715.0	0.17869854
894	0.777	178.80	0.95534839	715.2	0.17860644
894.25	0.777	178.85	0.95537141	715.4	0.17851434
894.5	0.777	178.90	0.95539443	715.6	0.17842227
894.75	0.777	178.95	0.95541745	715.8	0.17833020
895	0.777	179.00	0.95544046	716.0	0.17823814
895.25	0.777	179.05	0.95546347	716.2	0.17814610
895.5	0.777	179.10	0.95548648	716.4	0.17805407
895.75	0.778	179.15	0.95550949	716.6	0.17796205
896	0.778	179.20	0.95553249	716.8	0.17787005
896.25	0.778	179.25	0.95555549	717.0	0.17777805
896.5	0.778	179.30	0.95557848	717.2	0.17768607
896.75	0.778	179.35	0.95560147	717.4	0.17759410
897	0.778	179.40	0.95562446	717.6	0.17750214
897.25	0.778	179.45	0.95564745	717.8	0.17741020
897.5	0.778	179.50	0.95567043	718.0	0.17731826
897.75	0.778	179.55	0.95569341	718.2	0.17722634
898	0.779	179.60	0.95571639	718.4	0.17713443
898.25	0.779	179.65	0.95573937	718.6	0.17704253
898.5	0.779	179.70	0.95576234	718.8	0.17695065
898.75	0.779	179.75	0.95578531	719.0	0.17685877
899	0.779	179.80	0.95580827	719.2	0.17676691
899.25	0.779	179.85	0.95583123	719.4	0.17667506
899.5	0.779	179.90	0.95585419	719.6	0.17658322
899.75	0.779	179.95	0.95587715	719.8	0.17649140
900	0.780	180.00	0.95590010	720.0	0.17639958
900.25	0.780	180.05	0.95592305	720.2	0.17630778
900.5	0.780	180.10	0.95594600	720.4	0.17621599
900.75	0.780	180.15	0.95596895	720.6	0.17612421
901	0.780	180.20	0.95599189	720.8	0.17603245
901.25	0.780	180.25	0.95601483	721.0	0.17594069
901.5	0.780	180.30	0.95603776	721.2	0.17584895
901.75	0.780	180.35	0.95606069	721.4	0.17575722
902	0.780	180.40	0.95608362	721.6	0.17566550
902.25	0.781	180.45	0.95610655	721.8	0.17557380
902.5	0.781	180.50	0.95612947	722.0	0.17548210
902.75	0.781	180.55	0.95615239	722.2	0.17539042
903	0.781	180.60	0.95617531	722.4	0.17529875
903.25	0.781	180.65	0.95619823	722.6	0.17520709

903.5	0.781	180.70	0.95622114	722.8	0.17511545
903.75	0.781	180.75	0.95624405	723.0	0.17502381
904	0.781	180.80	0.95626695	723.2	0.17493219
904.25	0.781	180.85	0.95628986	723.4	0.17484058
904.5	0.782	180.90	0.95631276	723.6	0.17474898
904.75	0.782	180.95	0.95633565	723.8	0.17465739
905	0.782	181.00	0.95635855	724.0	0.17456582
905.25	0.782	181.05	0.95638144	724.2	0.17447425
905.5	0.782	181.10	0.95640432	724.4	0.17438270
905.75	0.782	181.15	0.95642721	724.6	0.17429116
906	0.782	181.20	0.95645009	724.8	0.17419964
906.25	0.782	181.25	0.95647297	725.0	0.17410812
906.5	0.782	181.30	0.95649585	725.2	0.17401662
906.75	0.783	181.35	0.95651872	725.4	0.17392513
907	0.783	181.40	0.95654159	725.6	0.17383365
907.25	0.783	181.45	0.95656446	725.8	0.17374218
907.5	0.783	181.50	0.95658732	726.0	0.17365072
907.75	0.783	181.55	0.95661018	726.2	0.17355928
908	0.783	181.60	0.95663304	726.4	0.17346784
908.25	0.783	181.65	0.95665589	726.6	0.17337642
908.5	0.783	181.70	0.95667875	726.8	0.17328501
908.75	0.784	181.75	0.95670160	727.0	0.17319362
909	0.784	181.80	0.95672444	727.2	0.17310223
909.25	0.784	181.85	0.95674729	727.4	0.17301086
909.5	0.784	181.90	0.95677013	727.6	0.17291950
909.75	0.784	181.95	0.95679296	727.8	0.17282815
910	0.784	182.00	0.95681580	728.0	0.17273681
910.25	0.784	182.05	0.95683863	728.2	0.17264548
910.5	0.784	182.10	0.95686146	728.4	0.17255417
910.75	0.784	182.15	0.95688428	728.6	0.17246286
911	0.785	182.20	0.95690711	728.8	0.17237157
911.25	0.785	182.25	0.95692993	729.0	0.17228029
911.5	0.785	182.30	0.95695274	729.2	0.17218903
911.75	0.785	182.35	0.95697556	729.4	0.17209777
912	0.785	182.40	0.95699837	729.6	0.17200653
912.25	0.785	182.45	0.95702118	729.8	0.17191529
912.5	0.785	182.50	0.95704398	730.0	0.17182407
912.75	0.785	182.55	0.95706678	730.2	0.17173286
913	0.785	182.60	0.95708958	730.4	0.17164167
913.25	0.786	182.65	0.95711238	730.6	0.17155048
913.5	0.786	182.70	0.95713517	730.8	0.17145931
913.75	0.786	182.75	0.95715796	731.0	0.17136815
914	0.786	182.80	0.95718075	731.2	0.17127700
914.25	0.786	182.85	0.95720354	731.4	0.17118586
914.5	0.786	182.90	0.95722632	731.6	0.17109473
914.75	0.786	182.95	0.95724910	731.8	0.17100362
915	0.786	183.00	0.95727187	732.0	0.17091251
915.25	0.786	183.05	0.95729464	732.2	0.17082142
915.5	0.787	183.10	0.95731741	732.4	0.17073034
915.75	0.787	183.15	0.95734018	732.6	0.17063927
916	0.787	183.20	0.95736295	732.8	0.17054822
916.25	0.787	183.25	0.95738571	733.0	0.17045717
916.5	0.787	183.30	0.95740846	733.2	0.17036614
916.75	0.787	183.35	0.95743122	733.4	0.17027512
917	0.787	183.40	0.95745397	733.6	0.17018411
917.25	0.787	183.45	0.95747672	733.8	0.17009311
917.5	0.787	183.50	0.95749947	734.0	0.17000212
917.75	0.788	183.55	0.95752221	734.2	0.16991115
918	0.788	183.60	0.95754495	734.4	0.16982019
918.25	0.788	183.65	0.95756769	734.6	0.16972924
918.5	0.788	183.70	0.95759043	734.8	0.16963830
918.75	0.788	183.75	0.95761316	735.0	0.16954737
919	0.788	183.80	0.95763589	735.2	0.16945645
919.25	0.788	183.85	0.95765861	735.4	0.16936555
919.5	0.788	183.90	0.95768134	735.6	0.16927465
919.75	0.789	183.95	0.95770406	735.8	0.16918377
920	0.789	184.00	0.95772677	736.0	0.16909290
920.25	0.789	184.05	0.95774949	736.2	0.16900204
920.5	0.789	184.10	0.95777220	736.4	0.16891119
920.75	0.789	184.15	0.95779491	736.6	0.16882036
921	0.789	184.20	0.95781762	736.8	0.16872954

921.25	0.789	184.25	0.95784032	737.0	0.16863872
921.5	0.789	184.30	0.95786302	737.2	0.16854792
921.75	0.789	184.35	0.95788572	737.4	0.16845713
922	0.790	184.40	0.95790841	737.6	0.16836636
922.25	0.790	184.45	0.95793110	737.8	0.16827559
922.5	0.790	184.50	0.95795379	738.0	0.16818484
922.75	0.790	184.55	0.95797648	738.2	0.16809409
923	0.790	184.60	0.95799916	738.4	0.16800336
923.25	0.790	184.65	0.95802184	738.6	0.16791264
923.5	0.790	184.70	0.95804452	738.8	0.16782193
923.75	0.790	184.75	0.95806719	739.0	0.16773124
924	0.790	184.80	0.95808986	739.2	0.16764055
924.25	0.791	184.85	0.95811253	739.4	0.16754988
924.5	0.791	184.90	0.95813520	739.6	0.16745922
924.75	0.791	184.95	0.95815786	739.8	0.16736857
925	0.791	185.00	0.95818052	740.0	0.16727793
925.25	0.791	185.05	0.95820317	740.2	0.16718730
925.5	0.791	185.10	0.95822583	740.4	0.16709668
925.75	0.791	185.15	0.95824848	740.6	0.16700608
926	0.791	185.20	0.95827113	740.8	0.16691549
926.25	0.791	185.25	0.95829377	741.0	0.16682491
926.5	0.792	185.30	0.95831642	741.2	0.16673434
926.75	0.792	185.35	0.95833906	741.4	0.16664378
927	0.792	185.40	0.95836169	741.6	0.16655323
927.25	0.792	185.45	0.95838433	741.8	0.16646270
927.5	0.792	185.50	0.95840696	742.0	0.16637217
927.75	0.792	185.55	0.95842959	742.2	0.16628166
928	0.792	185.60	0.95845221	742.4	0.16619116
928.25	0.792	185.65	0.95847483	742.6	0.16610067
928.5	0.792	185.70	0.95849745	742.8	0.16601019
928.75	0.793	185.75	0.95852007	743.0	0.16591972
929	0.793	185.80	0.95854268	743.2	0.16582927
929.25	0.793	185.85	0.95856529	743.4	0.16573882
929.5	0.793	185.90	0.95858790	743.6	0.16564839
929.75	0.793	185.95	0.95861051	743.8	0.16555797
930	0.793	186.00	0.95863311	744.0	0.16546756
930.25	0.793	186.05	0.95865571	744.2	0.16537716
930.5	0.793	186.10	0.95867831	744.4	0.16528678
930.75	0.794	186.15	0.95870090	744.6	0.16519640
931	0.794	186.20	0.95872349	744.8	0.16510604
931.25	0.794	186.25	0.95874608	745.0	0.16501569
931.5	0.794	186.30	0.95876866	745.2	0.16492534
931.75	0.794	186.35	0.95879125	745.4	0.16483501
932	0.794	186.40	0.95881383	745.6	0.16474470
932.25	0.794	186.45	0.95883640	745.8	0.16465439
932.5	0.794	186.50	0.95885898	746.0	0.16456409
932.75	0.794	186.55	0.95888155	746.2	0.16447381
933	0.795	186.60	0.95890412	746.4	0.16438354
933.25	0.795	186.65	0.95892668	746.6	0.16429328
933.5	0.795	186.70	0.95894924	746.8	0.16420303
933.75	0.795	186.75	0.95897180	747.0	0.16411279
934	0.795	186.80	0.95899436	747.2	0.16402256
934.25	0.795	186.85	0.95901691	747.4	0.16393234
934.5	0.795	186.90	0.95903947	747.6	0.16384214
934.75	0.795	186.95	0.95906201	747.8	0.16375195
935	0.795	187.00	0.95908456	748.0	0.16366176
935.25	0.796	187.05	0.95910710	748.2	0.16357159
935.5	0.796	187.10	0.95912964	748.4	0.16348143
935.75	0.796	187.15	0.95915218	748.6	0.16339129
936	0.796	187.20	0.95917471	748.8	0.16330115
936.25	0.796	187.25	0.95919724	749.0	0.16321102
936.5	0.796	187.30	0.95921977	749.2	0.16312091
936.75	0.796	187.35	0.95924230	749.4	0.16303081
937	0.796	187.40	0.95926482	749.6	0.16294072
937.25	0.796	187.45	0.95928734	749.8	0.16285064
937.5	0.797	187.50	0.95930986	750.0	0.16276057
937.75	0.797	187.55	0.95933237	750.2	0.16267051
938	0.797	187.60	0.95935488	750.4	0.16258046
938.25	0.797	187.65	0.95937739	750.6	0.16249043
938.5	0.797	187.70	0.95939990	750.8	0.16240040
938.75	0.797	187.75	0.95942240	751.0	0.16231039

939	0.797	187.80	0.95944490	751.2	0.16222039
939.25	0.797	187.85	0.95946740	751.4	0.16213040
939.5	0.797	187.90	0.95948989	751.6	0.16204042
939.75	0.798	187.95	0.95951239	751.8	0.16195045
940	0.798	188.00	0.95953488	752.0	0.16186050
940.25	0.798	188.05	0.95955736	752.2	0.16177055
940.5	0.798	188.10	0.95957984	752.4	0.16168062
940.75	0.798	188.15	0.95960233	752.6	0.16159070
941	0.798	188.20	0.95962480	752.8	0.16150079
941.25	0.798	188.25	0.95964728	753.0	0.16141089
941.5	0.798	188.30	0.95966975	753.2	0.16132100
941.75	0.798	188.35	0.95969222	753.4	0.16123112
942	0.799	188.40	0.95971469	753.6	0.16114125
942.25	0.799	188.45	0.95973715	753.8	0.16105140
942.5	0.799	188.50	0.95975961	754.0	0.16096156
942.75	0.799	188.55	0.95978207	754.2	0.16087172
943	0.799	188.60	0.95980452	754.4	0.16078190
943.25	0.799	188.65	0.95982698	754.6	0.16069209
943.5	0.799	188.70	0.95984943	754.8	0.16060229
943.75	0.799	188.75	0.95987187	755.0	0.16051250
944	0.799	188.80	0.95989432	755.2	0.16042273
944.25	0.800	188.85	0.95991676	755.4	0.16033296
944.5	0.800	188.90	0.95993920	755.6	0.16024321
944.75	0.800	188.95	0.95996163	755.8	0.16015346
945	0.800	189.00	0.95998407	756.0	0.16006373
945.25	0.800	189.05	0.96000650	756.2	0.15997401
945.5	0.800	189.10	0.96002892	756.4	0.15988430
945.75	0.800	189.15	0.96005135	756.6	0.15979460
946	0.800	189.20	0.96007377	756.8	0.15970491
946.25	0.800	189.25	0.96009619	757.0	0.15961524
946.5	0.801	189.30	0.96011861	757.2	0.15952557
946.75	0.801	189.35	0.96014102	757.4	0.15943592
947	0.801	189.40	0.96016343	757.6	0.15934628
947.25	0.801	189.45	0.96018584	757.8	0.15925664
947.5	0.801	189.50	0.96020824	758.0	0.15916702
947.75	0.801	189.55	0.96023065	758.2	0.15907741
948	0.801	189.60	0.96025305	758.4	0.15898782
948.25	0.801	189.65	0.96027544	758.6	0.15889823
948.5	0.801	189.70	0.96029784	758.8	0.15880865
948.75	0.802	189.75	0.96032023	759.0	0.15871909
949	0.802	189.80	0.96034262	759.2	0.15862953
949.25	0.802	189.85	0.96036500	759.4	0.15853999
949.5	0.802	189.90	0.96038739	759.6	0.15845046
949.75	0.802	189.95	0.96040977	759.8	0.15836094
950	0.802	190.00	0.96043214	760.0	0.15827143
950.25	0.802	190.05	0.96045452	760.2	0.15818193
950.5	0.802	190.10	0.96047689	760.4	0.15809244
950.75	0.802	190.15	0.96049926	760.6	0.15800296
951	0.803	190.20	0.96052163	760.8	0.15791350
951.25	0.803	190.25	0.96054399	761.0	0.15782404
951.5	0.803	190.30	0.96056635	761.2	0.15773460
951.75	0.803	190.35	0.96058871	761.4	0.15764517
952	0.803	190.40	0.96061106	761.6	0.15755575
952.25	0.803	190.45	0.96063342	761.8	0.15746634
952.5	0.803	190.50	0.96065577	762.0	0.15737694
952.75	0.803	190.55	0.96067811	762.2	0.15728755
953	0.804	190.60	0.96070046	762.4	0.15719817
953.25	0.804	190.65	0.96072280	762.6	0.15710881
953.5	0.804	190.70	0.96074514	762.8	0.15701945
953.75	0.804	190.75	0.96076747	763.0	0.15693011
954	0.804	190.80	0.96078981	763.2	0.15684077
954.25	0.804	190.85	0.96081214	763.4	0.15675145
954.5	0.804	190.90	0.96083447	763.6	0.15666214
954.75	0.804	190.95	0.96085679	763.8	0.15657284
955	0.804	191.00	0.96087911	764.0	0.15648355
955.25	0.805	191.05	0.96090143	764.2	0.15639427
955.5	0.805	191.10	0.96092375	764.4	0.15630500
955.75	0.805	191.15	0.96094606	764.6	0.15621575
956	0.805	191.20	0.96096837	764.8	0.15612650
956.25	0.805	191.25	0.96099068	765.0	0.15603727
956.5	0.805	191.30	0.96101299	765.2	0.15594805

956.75	0.805	191.35	0.96103529	765.4	0.15585883
957	0.805	191.40	0.96105759	765.6	0.15576963
957.25	0.805	191.45	0.96107989	765.8	0.15568044
957.5	0.806	191.50	0.96110218	766.0	0.15559126
957.75	0.806	191.55	0.96112448	766.2	0.15550209
958	0.806	191.60	0.96114677	766.4	0.15541294
958.25	0.806	191.65	0.96116905	766.6	0.15532379
958.5	0.806	191.70	0.96119134	766.8	0.15523465
958.75	0.806	191.75	0.96121362	767.0	0.15514553
959	0.806	191.80	0.96123590	767.2	0.15505641
959.25	0.806	191.85	0.96125817	767.4	0.15496731
959.5	0.806	191.90	0.96128045	767.6	0.15487822
959.75	0.807	191.95	0.96130272	767.8	0.15478914
960	0.807	192.00	0.96132498	768.0	0.15470007
960.25	0.807	192.05	0.96134725	768.2	0.15461101
960.5	0.807	192.10	0.96136951	768.4	0.15452196
960.75	0.807	192.15	0.96139177	768.6	0.15443292
961	0.807	192.20	0.96141403	768.8	0.15434390
961.25	0.807	192.25	0.96143628	769.0	0.15425488
961.5	0.807	192.30	0.96145853	769.2	0.15416587
961.75	0.807	192.35	0.96148078	769.4	0.15407688
962	0.808	192.40	0.96150303	769.6	0.15398790
962.25	0.808	192.45	0.96152527	769.8	0.15389892
962.5	0.808	192.50	0.96154751	770.0	0.15380996
962.75	0.808	192.55	0.96156975	770.2	0.15372101
963	0.808	192.60	0.96159198	770.4	0.15363207
963.25	0.808	192.65	0.96161421	770.6	0.15354314
963.5	0.808	192.70	0.96163644	770.8	0.15345423
963.75	0.808	192.75	0.96165867	771.0	0.15336532
964	0.808	192.80	0.96168089	771.2	0.15327642
964.25	0.809	192.85	0.96170312	771.4	0.15318754
964.5	0.809	192.90	0.96172533	771.6	0.15309866
964.75	0.809	192.95	0.96174755	771.8	0.15300980
965	0.809	193.00	0.96176976	772.0	0.15292095
965.25	0.809	193.05	0.96179197	772.2	0.15283210
965.5	0.809	193.10	0.96181418	772.4	0.15274327
965.75	0.809	193.15	0.96183639	772.6	0.15265445
966	0.809	193.20	0.96185859	772.8	0.15256564
966.25	0.809	193.25	0.96188079	773.0	0.15247684
966.5	0.810	193.30	0.96190299	773.2	0.15238805
966.75	0.810	193.35	0.96192518	773.4	0.15229928
967	0.810	193.40	0.96194737	773.6	0.15221051
967.25	0.810	193.45	0.96196956	773.8	0.15212175
967.5	0.810	193.50	0.96199175	774.0	0.15203301
967.75	0.810	193.55	0.96201393	774.2	0.15194428
968	0.810	193.60	0.96203611	774.4	0.15185555
968.25	0.810	193.65	0.96205829	774.6	0.15176684
968.5	0.810	193.70	0.96208047	774.8	0.15167814
968.75	0.811	193.75	0.96210264	775.0	0.15158945
969	0.811	193.80	0.96212481	775.2	0.15150077
969.25	0.811	193.85	0.96214698	775.4	0.15141210
969.5	0.811	193.90	0.96216914	775.6	0.15132344
969.75	0.811	193.95	0.96219130	775.8	0.15123479
970	0.811	194.00	0.96221346	776.0	0.15114615
970.25	0.811	194.05	0.96223562	776.2	0.15105752
970.5	0.811	194.10	0.96225777	776.4	0.15096891
970.75	0.811	194.15	0.96227992	776.6	0.15088030
971	0.812	194.20	0.96230207	776.8	0.15079171
971.25	0.812	194.25	0.96232422	777.0	0.15070312
971.5	0.812	194.30	0.96234636	777.2	0.15061455
971.75	0.812	194.35	0.96236850	777.4	0.15052599
972	0.812	194.40	0.96239064	777.6	0.15043744
972.25	0.812	194.45	0.96241278	777.8	0.15034890
972.5	0.812	194.50	0.96243491	778.0	0.15026037
972.75	0.812	194.55	0.96245704	778.2	0.15017185
973	0.812	194.60	0.96247917	778.4	0.15008334
973.25	0.813	194.65	0.96250129	778.6	0.14999484
973.5	0.813	194.70	0.96252341	778.8	0.14990635
973.75	0.813	194.75	0.96254553	779.0	0.14981787
974	0.813	194.80	0.96256765	779.2	0.14972941
974.25	0.813	194.85	0.96258976	779.4	0.14964095

974.5	0.813	194.90	0.96261187	779.6	0.14955251
974.75	0.813	194.95	0.96263398	779.8	0.14946407
975	0.813	195.00	0.96265609	780.0	0.14937565
975.25	0.813	195.05	0.96267819	780.2	0.14928724
975.5	0.814	195.10	0.96270029	780.4	0.14919884
975.75	0.814	195.15	0.96272239	780.6	0.14911044
976	0.814	195.20	0.96274448	780.8	0.14902206
976.25	0.814	195.25	0.96276658	781.0	0.14893369
976.5	0.814	195.30	0.96278867	781.2	0.14884533
976.75	0.814	195.35	0.96281075	781.4	0.14875698
977	0.814	195.40	0.96283284	781.6	0.14866865
977.25	0.814	195.45	0.96285492	781.8	0.14858032
977.5	0.814	195.50	0.96287700	782.0	0.14849200
977.75	0.814	195.55	0.96289908	782.2	0.14840369
978	0.815	195.60	0.96292115	782.4	0.14831540
978.25	0.815	195.65	0.96294322	782.6	0.14822711
978.5	0.815	195.70	0.96296529	782.8	0.14813884
978.75	0.815	195.75	0.96298736	783.0	0.14805057
979	0.815	195.80	0.96300942	783.2	0.14796232
979.25	0.815	195.85	0.96303148	783.4	0.14787408
979.5	0.815	195.90	0.96305354	783.6	0.14778585
979.75	0.815	195.95	0.96307559	783.8	0.14769762
980	0.815	196.00	0.96309765	784.0	0.14760941
980.25	0.816	196.05	0.96311970	784.2	0.14752121
980.5	0.816	196.10	0.96314174	784.4	0.14743302
980.75	0.816	196.15	0.96316379	784.6	0.14734484
981	0.816	196.20	0.96318583	784.8	0.14725667
981.25	0.816	196.25	0.96320787	785.0	0.14716852
981.5	0.816	196.30	0.96322991	785.2	0.14708037
981.75	0.816	196.35	0.96325194	785.4	0.14699223
982	0.816	196.40	0.96327397	785.6	0.14690410
982.25	0.816	196.45	0.96329600	785.8	0.14681599
982.5	0.817	196.50	0.96331803	786.0	0.14672788
982.75	0.817	196.55	0.96334005	786.2	0.14663979
983	0.817	196.60	0.96336207	786.4	0.14655170
983.25	0.817	196.65	0.96338409	786.6	0.14646363
983.5	0.817	196.70	0.96340611	786.8	0.14637557
983.75	0.817	196.75	0.96342812	787.0	0.14628751
984	0.817	196.80	0.96345013	787.2	0.14619947
984.25	0.817	196.85	0.96347214	787.4	0.14611144
984.5	0.817	196.90	0.96349415	787.6	0.14602342
984.75	0.818	196.95	0.96351615	787.8	0.14593541
985	0.818	197.00	0.96353815	788.0	0.14584741
985.25	0.818	197.05	0.96356015	788.2	0.14575942
985.5	0.818	197.10	0.96358214	788.4	0.14567144
985.75	0.818	197.15	0.96360413	788.6	0.14558347
986	0.818	197.20	0.96362612	788.8	0.14549551
986.25	0.818	197.25	0.96364811	789.0	0.14540756
986.5	0.818	197.30	0.96367009	789.2	0.14531962
986.75	0.818	197.35	0.96369208	789.4	0.14523170
987	0.819	197.40	0.96371406	789.6	0.14514378
987.25	0.819	197.45	0.96373603	789.8	0.14505587
987.5	0.819	197.50	0.96375801	790.0	0.14496798
987.75	0.819	197.55	0.96377998	790.2	0.14488009
988	0.819	197.60	0.96380195	790.4	0.14479222
988.25	0.819	197.65	0.96382391	790.6	0.14470435
988.5	0.819	197.70	0.96384587	790.8	0.14461650
988.75	0.819	197.75	0.96386784	791.0	0.14452866
989	0.819	197.80	0.96388979	791.2	0.14444082
989.25	0.820	197.85	0.96391175	791.4	0.14435300
989.5	0.820	197.90	0.96393370	791.6	0.14426519
989.75	0.820	197.95	0.96395565	791.8	0.14417739
990	0.820	198.00	0.96397760	792.0	0.14408960
990.25	0.820	198.05	0.96399955	792.2	0.14400182
990.5	0.820	198.10	0.96402149	792.4	0.14391405
990.75	0.820	198.15	0.96404343	792.6	0.14382629
991	0.820	198.20	0.96406537	792.8	0.14373854
991.25	0.820	198.25	0.96408730	793.0	0.14365080
991.5	0.821	198.30	0.96410923	793.2	0.14356307
991.75	0.821	198.35	0.96413116	793.4	0.14347535
992	0.821	198.40	0.96415309	793.6	0.14338764

992.25	0.821	198.45	0.96417501	793.8	0.14329994
992.5	0.821	198.50	0.96419694	794.0	0.14321226
992.75	0.821	198.55	0.96421885	794.2	0.14312458
993	0.821	198.60	0.96424077	794.4	0.14303691
993.25	0.821	198.65	0.96426269	794.6	0.14294926
993.5	0.821	198.70	0.96428460	794.8	0.14286161
993.75	0.822	198.75	0.96430651	795.0	0.14277398
994	0.822	198.80	0.96432841	795.2	0.14268635
994.25	0.822	198.85	0.96435032	795.4	0.14259874
994.5	0.822	198.90	0.96437222	795.6	0.14251113
994.75	0.822	198.95	0.96439412	795.8	0.14242354
995	0.822	199.00	0.96441601	796.0	0.14233596
995.25	0.822	199.05	0.96443790	796.2	0.14224838
995.5	0.822	199.10	0.96445980	796.4	0.14216082
995.75	0.822	199.15	0.96448168	796.6	0.14207327
996	0.823	199.20	0.96450357	796.8	0.14198572
996.25	0.823	199.25	0.96452545	797.0	0.14189819
996.5	0.823	199.30	0.96454733	797.2	0.14181067
996.75	0.823	199.35	0.96456921	797.4	0.14172316
997	0.823	199.40	0.96459109	797.6	0.14163566
997.25	0.823	199.45	0.96461296	797.8	0.14154817
997.5	0.823	199.50	0.96463483	798.0	0.14146069
997.75	0.823	199.55	0.96465670	798.2	0.14137322
998	0.823	199.60	0.96467856	798.4	0.14128576
998.25	0.824	199.65	0.96470042	798.6	0.14119831
998.5	0.824	199.70	0.96472228	798.8	0.14111087
998.75	0.824	199.75	0.96474414	799.0	0.14102344
999	0.824	199.80	0.96476599	799.2	0.14093602
999.25	0.824	199.85	0.96478785	799.4	0.14084861
999.5	0.824	199.90	0.96480970	799.6	0.14076122
999.75	0.824	199.95	0.96483154	799.8	0.14067383
1000	0.824	200.00	0.96485339	800.0	0.14058645
1000.25	0.824	200.05	0.96487523	800.2	0.14049908
1000.5	0.824	200.10	0.96489707	800.4	0.14041173
1000.75	0.825	200.15	0.96491890	800.6	0.14032438
1001	0.825	200.20	0.96494074	800.8	0.14023704
1001.25	0.825	200.25	0.96496257	801.0	0.14014972
1001.5	0.825	200.30	0.96498440	801.2	0.14006240
1001.75	0.825	200.35	0.96500623	801.4	0.13997510
1002	0.825	200.40	0.96502805	801.6	0.13988780
1002.25	0.825	200.45	0.96504987	801.8	0.13980052
1002.5	0.825	200.50	0.96507169	802.0	0.13971324
1002.75	0.825	200.55	0.96509351	802.2	0.13962598
1003	0.826	200.60	0.96511532	802.4	0.13953872
1003.25	0.826	200.65	0.96513713	802.6	0.13945148
1003.5	0.826	200.70	0.96515894	802.8	0.13936424
1003.75	0.826	200.75	0.96518075	803.0	0.13927702
1004	0.826	200.80	0.96520255	803.2	0.13918981
1004.25	0.826	200.85	0.96522435	803.4	0.13910260
1004.5	0.826	200.90	0.96524615	803.6	0.13901541
1004.75	0.826	200.95	0.96526794	803.8	0.13892823
1005	0.826	201.00	0.96528974	804.0	0.13884105
1005.25	0.827	201.05	0.96531153	804.2	0.13875389
1005.5	0.827	201.10	0.96533332	804.4	0.13866674
1005.75	0.827	201.15	0.96535510	804.6	0.13857960
1006	0.827	201.20	0.96537688	804.8	0.13849246
1006.25	0.827	201.25	0.96539866	805.0	0.13840534
1006.5	0.827	201.30	0.96542044	805.2	0.13831823
1006.75	0.827	201.35	0.96544222	805.4	0.13823113
1007	0.827	201.40	0.96546399	805.6	0.13814404
1007.25	0.827	201.45	0.96548576	805.8	0.13805696
1007.5	0.828	201.50	0.96550753	806.0	0.13796989
1007.75	0.828	201.55	0.96552929	806.2	0.13788282
1008	0.828	201.60	0.96555106	806.4	0.13779577
1008.25	0.828	201.65	0.96557282	806.6	0.13770873
1008.5	0.828	201.70	0.96559457	806.8	0.13762170
1008.75	0.828	201.75	0.96561633	807.0	0.13753468
1009	0.828	201.80	0.96563808	807.2	0.13744767
1009.25	0.828	201.85	0.96565983	807.4	0.13736067
1009.5	0.828	201.90	0.96568158	807.6	0.13727368
1009.75	0.829	201.95	0.96570332	807.8	0.13718670

1010	0.829	202.00	0.96572507	808.0	0.13709973
1010.25	0.829	202.05	0.96574681	808.2	0.13701277
1010.5	0.829	202.10	0.96576854	808.4	0.13692582
1010.75	0.829	202.15	0.96579028	808.6	0.13683888
1011	0.829	202.20	0.96581201	808.8	0.13675195
1011.25	0.829	202.25	0.96583374	809.0	0.13666504
1011.5	0.829	202.30	0.96585547	809.2	0.13657813
1011.75	0.829	202.35	0.96587719	809.4	0.13649123
1012	0.829	202.40	0.96589892	809.6	0.13640434
1012.25	0.830	202.45	0.96592063	809.8	0.13631746
1012.5	0.830	202.50	0.96594235	810.0	0.13623059
1012.75	0.830	202.55	0.96596407	810.2	0.13614373
1013	0.830	202.60	0.96598578	810.4	0.13605688
1013.25	0.830	202.65	0.96600749	810.6	0.13597005
1013.5	0.830	202.70	0.96602920	810.8	0.13588322
1013.75	0.830	202.75	0.96605090	811.0	0.13579640
1014	0.830	202.80	0.96607260	811.2	0.13570959
1014.25	0.830	202.85	0.96609430	811.4	0.13562279
1014.5	0.831	202.90	0.96611600	811.6	0.13553600
1014.75	0.831	202.95	0.96613769	811.8	0.13544923
1015	0.831	203.00	0.96615939	812.0	0.13536246
1015.25	0.831	203.05	0.96618107	812.2	0.13527570
1015.5	0.831	203.10	0.96620276	812.4	0.13518895
1015.75	0.831	203.15	0.96622445	812.6	0.13510221
1016	0.831	203.20	0.96624613	812.8	0.13501549
1016.25	0.831	203.25	0.96626781	813.0	0.13492877
1016.5	0.831	203.30	0.96628948	813.2	0.13484206
1016.75	0.832	203.35	0.96631116	813.4	0.13475536
1017	0.832	203.40	0.96633283	813.6	0.13466868
1017.25	0.832	203.45	0.96635450	813.8	0.13458200
1017.5	0.832	203.50	0.96637617	814.0	0.13449533
1017.75	0.832	203.55	0.96639783	814.2	0.13440867
1018	0.832	203.60	0.96641949	814.4	0.13432202
1018.25	0.832	203.65	0.96644115	814.6	0.13423539
1018.5	0.832	203.70	0.96646281	814.8	0.13414876
1018.75	0.832	203.75	0.96648446	815.0	0.13406214
1019	0.833	203.80	0.96650612	815.2	0.13397553
1019.25	0.833	203.85	0.96652777	815.4	0.13388894
1019.5	0.833	203.90	0.96654941	815.6	0.13380235
1019.75	0.833	203.95	0.96657106	815.8	0.13371577
1020	0.833	204.00	0.96659270	816.0	0.13362920
1020.25	0.833	204.05	0.96661434	816.2	0.13354264
1020.5	0.833	204.10	0.96663598	816.4	0.13345610
1020.75	0.833	204.15	0.96665761	816.6	0.13336956
1021	0.833	204.20	0.96667924	816.8	0.13328303
1021.25	0.834	204.25	0.96670087	817.0	0.13319651
1021.5	0.834	204.30	0.96672250	817.2	0.13311000
1021.75	0.834	204.35	0.96674412	817.4	0.13302351
1022	0.834	204.40	0.96676575	817.6	0.13293702
1022.25	0.834	204.45	0.96678737	817.8	0.13285054
1022.5	0.834	204.50	0.96680898	818.0	0.13276407
1022.75	0.834	204.55	0.96683060	818.2	0.13267761
1023	0.834	204.60	0.96685221	818.4	0.13259116
1023.25	0.834	204.65	0.96687382	818.6	0.13250473
1023.5	0.834	204.70	0.96689543	818.8	0.13241830
1023.75	0.835	204.75	0.96691703	819.0	0.13233188
1024	0.835	204.80	0.96693863	819.2	0.13224547
1024.25	0.835	204.85	0.96696023	819.4	0.13215907
1024.5	0.835	204.90	0.96698183	819.6	0.13207268
1024.75	0.835	204.95	0.96700342	819.8	0.13198630
1025	0.835	205.00	0.96702502	820.0	0.13189993
1025.25	0.835	205.05	0.96704661	820.2	0.13181357
1025.5	0.835	205.10	0.96706819	820.4	0.13172723
1025.75	0.835	205.15	0.96708978	820.6	0.13164089
1026	0.836	205.20	0.96711136	820.8	0.13155456
1026.25	0.836	205.25	0.96713294	821.0	0.13146824
1026.5	0.836	205.30	0.96715452	821.2	0.13138193
1026.75	0.836	205.35	0.96717609	821.4	0.13129563
1027	0.836	205.40	0.96719767	821.6	0.13120934
1027.25	0.836	205.45	0.96721924	821.8	0.13112306
1027.5	0.836	205.50	0.96724080	822.0	0.13103679

1027.75	0.836	205.55	0.96726237	822.2	0.13095053
1028	0.836	205.60	0.96728393	822.4	0.13086428
1028.25	0.837	205.65	0.96730549	822.6	0.13077803
1028.5	0.837	205.70	0.96732705	822.8	0.13069180
1028.75	0.837	205.75	0.96734860	823.0	0.13060558
1029	0.837	205.80	0.96737016	823.2	0.13051937
1029.25	0.837	205.85	0.96739171	823.4	0.13043317
1029.5	0.837	205.90	0.96741326	823.6	0.13034698
1029.75	0.837	205.95	0.96743480	823.8	0.13026080
1030	0.837	206.00	0.96745634	824.0	0.13017463
1030.25	0.837	206.05	0.96747788	824.2	0.13008846
1030.5	0.837	206.10	0.96749942	824.4	0.13000231
1030.75	0.838	206.15	0.96752096	824.6	0.12991617
1031	0.838	206.20	0.96754249	824.8	0.12983004
1031.25	0.838	206.25	0.96756402	825.0	0.12974391
1031.5	0.838	206.30	0.96758555	825.2	0.12965780
1031.75	0.838	206.35	0.96760708	825.4	0.12957170
1032	0.838	206.40	0.96762860	825.6	0.12948561
1032.25	0.838	206.45	0.96765012	825.8	0.12939952
1032.5	0.838	206.50	0.96767164	826.0	0.12931345
1032.75	0.838	206.55	0.96769315	826.2	0.12922738
1033	0.839	206.60	0.96771467	826.4	0.12914133
1033.25	0.839	206.65	0.96773618	826.6	0.12905529
1033.5	0.839	206.70	0.96775769	826.8	0.12896925
1033.75	0.839	206.75	0.96777919	827.0	0.12888323
1034	0.839	206.80	0.96780070	827.2	0.12879721
1034.25	0.839	206.85	0.96782220	827.4	0.12871121
1034.5	0.839	206.90	0.96784370	827.6	0.12862521
1034.75	0.839	206.95	0.96786519	827.8	0.12853923
1035	0.839	207.00	0.96788669	828.0	0.12845325
1035.25	0.840	207.05	0.96790818	828.2	0.12836728
1035.5	0.840	207.10	0.96792967	828.4	0.12828133
1035.75	0.840	207.15	0.96795115	828.6	0.12819538
1036	0.840	207.20	0.96797264	828.8	0.12810944
1036.25	0.840	207.25	0.96799412	829.0	0.12802352
1036.5	0.840	207.30	0.96801560	829.2	0.12793760
1036.75	0.840	207.35	0.96803708	829.4	0.12785169
1037	0.840	207.40	0.96805855	829.6	0.12776579
1037.25	0.840	207.45	0.96808002	829.8	0.12767991
1037.5	0.841	207.50	0.96810149	830.0	0.12759403
1037.75	0.841	207.55	0.96812296	830.2	0.12750816
1038	0.841	207.60	0.96814442	830.4	0.12742230
1038.25	0.841	207.65	0.96816589	830.6	0.12733645
1038.5	0.841	207.70	0.96818735	830.8	0.12725061
1038.75	0.841	207.75	0.96820880	831.0	0.12716478
1039	0.841	207.80	0.96823026	831.2	0.12707896
1039.25	0.841	207.85	0.96825171	831.4	0.12699315
1039.5	0.841	207.90	0.96827316	831.6	0.12690735
1039.75	0.841	207.95	0.96829461	831.8	0.12682156
1040	0.842	208.00	0.96831606	832.0	0.12673578
1040.25	0.842	208.05	0.96833750	832.2	0.12665001
1040.5	0.842	208.10	0.96835894	832.4	0.12656424
1040.75	0.842	208.15	0.96838038	832.6	0.12647849
1041	0.842	208.20	0.96840181	832.8	0.12639275
1041.25	0.842	208.25	0.96842325	833.0	0.12630702
1041.5	0.842	208.30	0.96844468	833.2	0.12622129
1041.75	0.842	208.35	0.96846610	833.4	0.12613558
1042	0.842	208.40	0.96848753	833.6	0.12604988
1042.25	0.843	208.45	0.96850895	833.8	0.12596418
1042.5	0.843	208.50	0.96853038	834.0	0.12587850
1042.75	0.843	208.55	0.96855179	834.2	0.12579282
1043	0.843	208.60	0.96857321	834.4	0.12570716
1043.25	0.843	208.65	0.96859462	834.6	0.12562150
1043.5	0.843	208.70	0.96861604	834.8	0.12553586
1043.75	0.843	208.75	0.96863745	835.0	0.12545022
1044	0.843	208.80	0.96865885	835.2	0.12536459
1044.25	0.843	208.85	0.96868026	835.4	0.12527898
1044.5	0.844	208.90	0.96870166	835.6	0.12519337
1044.75	0.844	208.95	0.96872306	835.8	0.12510777
1045	0.844	209.00	0.96874445	836.0	0.12502218
1045.25	0.844	209.05	0.96876585	836.2	0.12493660

1045.5	0.844	209.10	0.96878724	836.4	0.12485104
1045.75	0.844	209.15	0.96880863	836.6	0.12476548
1046	0.844	209.20	0.96883002	836.8	0.12467993
1046.25	0.844	209.25	0.96885140	837.0	0.12459439
1046.5	0.844	209.30	0.96887279	837.2	0.12450886
1046.75	0.844	209.35	0.96889417	837.4	0.12442334
1047	0.845	209.40	0.96891554	837.6	0.12433782
1047.25	0.845	209.45	0.96893692	837.8	0.12425232
1047.5	0.845	209.50	0.96895829	838.0	0.12416683
1047.75	0.845	209.55	0.96897966	838.2	0.12408135
1048	0.845	209.60	0.96900103	838.4	0.12399588
1048.25	0.845	209.65	0.96902240	838.6	0.12391041
1048.5	0.845	209.70	0.96904376	838.8	0.12382496
1048.75	0.845	209.75	0.96906512	839.0	0.12373951
1049	0.845	209.80	0.96908648	839.2	0.12365408
1049.25	0.846	209.85	0.96910784	839.4	0.12356865
1049.5	0.846	209.90	0.96912919	839.6	0.12348324
1049.75	0.846	209.95	0.96915054	839.8	0.12339783
1050	0.846	210.00	0.96917189	840.0	0.12331244
1050.25	0.846	210.05	0.96919324	840.2	0.12322705
1050.5	0.846	210.10	0.96921458	840.4	0.12314167
1050.75	0.846	210.15	0.96923592	840.6	0.12305631
1051	0.846	210.20	0.96925726	840.8	0.12297095
1051.25	0.846	210.25	0.96927860	841.0	0.12288560
1051.5	0.846	210.30	0.96929994	841.2	0.12280026
1051.75	0.847	210.35	0.96932127	841.4	0.12271493
1052	0.847	210.40	0.96934260	841.6	0.12262961
1052.25	0.847	210.45	0.96936393	841.8	0.12254430
1052.5	0.847	210.50	0.96938525	842.0	0.12245900
1052.75	0.847	210.55	0.96940657	842.2	0.12237371
1053	0.847	210.60	0.96942789	842.4	0.12228843
1053.25	0.847	210.65	0.96944921	842.6	0.12220315
1053.5	0.847	210.70	0.96947053	842.8	0.12211789
1053.75	0.847	210.75	0.96949184	843.0	0.12203264
1054	0.848	210.80	0.96951315	843.2	0.12194739
1054.25	0.848	210.85	0.96953446	843.4	0.12186216
1054.5	0.848	210.90	0.96955577	843.6	0.12177693
1054.75	0.848	210.95	0.96957707	843.8	0.12169172
1055	0.848	211.00	0.96959837	844.0	0.12160651
1055.25	0.848	211.05	0.96961967	844.2	0.12152132
1055.5	0.848	211.10	0.96964097	844.4	0.12143613
1055.75	0.848	211.15	0.96966226	844.6	0.12135095
1056	0.848	211.20	0.96968355	844.8	0.12126578
1056.25	0.849	211.25	0.96970484	845.0	0.12118063
1056.5	0.849	211.30	0.96972613	845.2	0.12109548
1056.75	0.849	211.35	0.96974742	845.4	0.12101034
1057	0.849	211.40	0.96976870	845.6	0.12092521
1057.25	0.849	211.45	0.96978998	845.8	0.12084009
1057.5	0.849	211.50	0.96981126	846.0	0.12075498
1057.75	0.849	211.55	0.96983253	846.2	0.12066987
1058	0.849	211.60	0.96985380	846.4	0.12058478
1058.25	0.849	211.65	0.96987508	846.6	0.12049970
1058.5	0.849	211.70	0.96989634	846.8	0.12041463
1058.75	0.850	211.75	0.96991761	847.0	0.12032956
1059	0.850	211.80	0.96993887	847.2	0.12024451
1059.25	0.850	211.85	0.96996013	847.4	0.12015946
1059.5	0.850	211.90	0.96998139	847.6	0.12007443
1059.75	0.850	211.95	0.97000265	847.8	0.11998940
1060	0.850	212.00	0.97002390	848.0	0.11990438
1060.25	0.850	212.05	0.97004516	848.2	0.11981938
1060.5	0.850	212.10	0.97006641	848.4	0.11973438
1060.75	0.850	212.15	0.97008765	848.6	0.11964939
1061	0.851	212.20	0.97010890	848.8	0.11956441
1061.25	0.851	212.25	0.97013014	849.0	0.11947944
1061.5	0.851	212.30	0.97015138	849.2	0.11939448
1061.75	0.851	212.35	0.97017262	849.4	0.11930953
1062	0.851	212.40	0.97019385	849.6	0.11922459
1062.25	0.851	212.45	0.97021509	849.8	0.11913966
1062.5	0.851	212.50	0.97023632	850.0	0.11905474
1062.75	0.851	212.55	0.97025754	850.2	0.11896982
1063	0.851	212.60	0.97027877	850.4	0.11888492

1063.25	0.851	212.65	0.97029999	850.6	0.11880002
1063.5	0.852	212.70	0.97032122	850.8	0.11871514
1063.75	0.852	212.75	0.97034243	851.0	0.11863026
1064	0.852	212.80	0.97036365	851.2	0.11854540
1064.25	0.852	212.85	0.97038486	851.4	0.11846054
1064.5	0.852	212.90	0.97040608	851.6	0.11837569
1064.75	0.852	212.95	0.97042729	851.8	0.11829085
1065	0.852	213.00	0.97044849	852.0	0.11820603
1065.25	0.852	213.05	0.97046970	852.2	0.11812121
1065.5	0.852	213.10	0.97049090	852.4	0.11803640
1065.75	0.853	213.15	0.97051210	852.6	0.11795160
1066	0.853	213.20	0.97053330	852.8	0.11786680
1066.25	0.853	213.25	0.97055449	853.0	0.11778202
1066.5	0.853	213.30	0.97057569	853.2	0.11769725
1066.75	0.853	213.35	0.97059688	853.4	0.11761249
1067	0.853	213.40	0.97061807	853.6	0.11752773
1067.25	0.853	213.45	0.97063925	853.8	0.11744299
1067.5	0.853	213.50	0.97066044	854.0	0.11735825
1067.75	0.853	213.55	0.97068162	854.2	0.11727353
1068	0.854	213.60	0.97070280	854.4	0.11718881
1068.25	0.854	213.65	0.97072397	854.6	0.11710410
1068.5	0.854	213.70	0.97074515	854.8	0.11701940
1068.75	0.854	213.75	0.97076632	855.0	0.11693472
1069	0.854	213.80	0.97078749	855.2	0.11685004
1069.25	0.854	213.85	0.97080866	855.4	0.11676537
1069.5	0.854	213.90	0.97082982	855.6	0.11668070
1069.75	0.854	213.95	0.97085099	855.8	0.11659605
1070	0.854	214.00	0.97087215	856.0	0.11651141
1070.25	0.854	214.05	0.97089331	856.2	0.11642678
1070.5	0.855	214.10	0.97091446	856.4	0.11634215
1070.75	0.855	214.15	0.97093562	856.6	0.11625754
1071	0.855	214.20	0.97095677	856.8	0.11617293
1071.25	0.855	214.25	0.97097792	857.0	0.11608834
1071.5	0.855	214.30	0.97099906	857.2	0.11600375
1071.75	0.855	214.35	0.97102021	857.4	0.11591918
1072	0.855	214.40	0.97104135	857.6	0.11583461
1072.25	0.855	214.45	0.97106249	857.8	0.11575005
1072.5	0.855	214.50	0.97108363	858.0	0.11566550
1072.75	0.856	214.55	0.97110476	858.2	0.11558096
1073	0.856	214.60	0.97112589	858.4	0.11549643
1073.25	0.856	214.65	0.97114702	858.6	0.11541191
1073.5	0.856	214.70	0.97116815	858.8	0.11532739
1073.75	0.856	214.75	0.97118928	859.0	0.11524289
1074	0.856	214.80	0.97121040	859.2	0.11515840
1074.25	0.856	214.85	0.97123152	859.4	0.11507391
1074.5	0.856	214.90	0.97125264	859.6	0.11498944
1074.75	0.856	214.95	0.97127376	859.8	0.11490497
1075	0.856	215.00	0.97129487	860.0	0.11482051
1075.25	0.857	215.05	0.97131598	860.2	0.11473607
1075.5	0.857	215.10	0.97133709	860.4	0.11465163
1075.75	0.857	215.15	0.97135820	860.6	0.11456720
1076	0.857	215.20	0.97137931	860.8	0.11448278
1076.25	0.857	215.25	0.97140041	861.0	0.11439837
1076.5	0.857	215.30	0.97142151	861.2	0.11431397
1076.75	0.857	215.35	0.97144261	861.4	0.11422957
1077	0.857	215.40	0.97146370	861.6	0.11414519
1077.25	0.857	215.45	0.97148480	861.8	0.11406082
1077.5	0.858	215.50	0.97150589	862.0	0.11397645
1077.75	0.858	215.55	0.97152698	862.2	0.11389210
1078	0.858	215.60	0.97154806	862.4	0.11380775
1078.25	0.858	215.65	0.97156915	862.6	0.11372341
1078.5	0.858	215.70	0.97159023	862.8	0.11363908
1078.75	0.858	215.75	0.97161131	863.0	0.11355476
1079	0.858	215.80	0.97163239	863.2	0.11347046
1079.25	0.858	215.85	0.97165346	863.4	0.11338615
1079.5	0.858	215.90	0.97167453	863.6	0.11330186
1079.75	0.858	215.95	0.97169560	863.8	0.11321758
1080	0.859	216.00	0.97171667	864.0	0.11313331
1080.25	0.859	216.05	0.97173774	864.2	0.11304904
1080.5	0.859	216.10	0.97175880	864.4	0.11296479
1080.75	0.859	216.15	0.97177986	864.6	0.11288054

1081	0.859	216.20	0.97180092	864.8	0.11279631
1081.25	0.859	216.25	0.97182198	865.0	0.11271208
1081.5	0.859	216.30	0.97184303	865.2	0.11262786
1081.75	0.859	216.35	0.97186409	865.4	0.11254365
1082	0.859	216.40	0.97188514	865.6	0.11245945
1082.25	0.860	216.45	0.97190618	865.8	0.11237526
1082.5	0.860	216.50	0.97192723	866.0	0.11229108
1082.75	0.860	216.55	0.97194827	866.2	0.11220691
1083	0.860	216.60	0.97196931	866.4	0.11212275
1083.25	0.860	216.65	0.97199035	866.6	0.11203859
1083.5	0.860	216.70	0.97201139	866.8	0.11195445
1083.75	0.860	216.75	0.97203242	867.0	0.11187031
1084	0.860	216.80	0.97205345	867.2	0.11178619
1084.25	0.860	216.85	0.97207448	867.4	0.11170207
1084.5	0.860	216.90	0.97209551	867.6	0.11161796
1084.75	0.861	216.95	0.97211653	867.8	0.11153386
1085	0.861	217.00	0.97213756	868.0	0.11144977
1085.25	0.861	217.05	0.97215858	868.2	0.11136569
1085.5	0.861	217.10	0.97217960	868.4	0.11128162
1085.75	0.861	217.15	0.97220061	868.6	0.11119755
1086	0.861	217.20	0.97222162	868.8	0.11111350
1086.25	0.861	217.25	0.97224264	869.0	0.11102946
1086.5	0.861	217.30	0.97226364	869.2	0.11094542
1086.75	0.861	217.35	0.97228465	869.4	0.11086139
1087	0.862	217.40	0.97230566	869.6	0.11077738
1087.25	0.862	217.45	0.97232666	869.8	0.11069337
1087.5	0.862	217.50	0.97234766	870.0	0.11060937
1087.75	0.862	217.55	0.97236866	870.2	0.11052538
1088	0.862	217.60	0.97238965	870.4	0.11044140
1088.25	0.862	217.65	0.97241064	870.6	0.11035743
1088.5	0.862	217.70	0.97243163	870.8	0.11027346
1088.75	0.862	217.75	0.97245262	871.0	0.11018951
1089	0.862	217.80	0.97247361	871.2	0.11010556
1089.25	0.862	217.85	0.97249459	871.4	0.11002163
1089.5	0.863	217.90	0.97251557	871.6	0.10993770
1089.75	0.863	217.95	0.97253655	871.8	0.10985378
1090	0.863	218.00	0.97255753	872.0	0.10976988
1090.25	0.863	218.05	0.97257851	872.2	0.10968598
1090.5	0.863	218.10	0.97259948	872.4	0.10960208
1090.75	0.863	218.15	0.97262045	872.6	0.10951820
1091	0.863	218.20	0.97264142	872.8	0.10943433
1091.25	0.863	218.25	0.97266238	873.0	0.10935047
1091.5	0.863	218.30	0.97268335	873.2	0.10926661
1091.75	0.864	218.35	0.97270431	873.4	0.10918277
1092	0.864	218.40	0.97272527	873.6	0.10909893
1092.25	0.864	218.45	0.97274622	873.8	0.10901510
1092.5	0.864	218.50	0.97276718	874.0	0.10893129
1092.75	0.864	218.55	0.97278813	874.2	0.10884748
1093	0.864	218.60	0.97280908	874.4	0.10876368
1093.25	0.864	218.65	0.97283003	874.6	0.10867988
1093.5	0.864	218.70	0.97285097	874.8	0.10859610
1093.75	0.864	218.75	0.97287192	875.0	0.10851233
1094	0.864	218.80	0.97289286	875.2	0.10842856
1094.25	0.865	218.85	0.97291380	875.4	0.10834481
1094.5	0.865	218.90	0.97293473	875.6	0.10826106
1094.75	0.865	218.95	0.97295567	875.8	0.10817733
1095	0.865	219.00	0.97297660	876.0	0.10809360
1095.25	0.865	219.05	0.97299753	876.2	0.10800988
1095.5	0.865	219.10	0.97301846	876.4	0.10792617
1095.75	0.865	219.15	0.97303938	876.6	0.10784247
1096	0.865	219.20	0.97306031	876.8	0.10775877
1096.25	0.865	219.25	0.97308123	877.0	0.10767509
1096.5	0.866	219.30	0.97310215	877.2	0.10759142
1096.75	0.866	219.35	0.97312306	877.4	0.10750775
1097	0.866	219.40	0.97314398	877.6	0.10742409
1097.25	0.866	219.45	0.97316489	877.8	0.10734045
1097.5	0.866	219.50	0.97318580	878.0	0.10725681
1097.75	0.866	219.55	0.97320671	878.2	0.10717318
1098	0.866	219.60	0.97322761	878.4	0.10708956
1098.25	0.866	219.65	0.97324851	878.6	0.10700595
1098.5	0.866	219.70	0.97326941	878.8	0.10692234

1098.75	0.866	219.75	0.97329031	879.0	0.10683875
1099	0.867	219.80	0.97331121	879.2	0.10675516
1099.25	0.867	219.85	0.97333210	879.4	0.10667159
1099.5	0.867	219.90	0.97335299	879.6	0.10658802
1099.75	0.867	219.95	0.97337388	879.8	0.10650446
1100	0.867	220.00	0.97339477	880.0	0.10642091
1100.25	0.867	220.05	0.97341566	880.2	0.10633737
1100.5	0.867	220.10	0.97343654	880.4	0.10625384
1100.75	0.867	220.15	0.97345742	880.6	0.10617032
1101	0.867	220.20	0.97347830	880.8	0.10608681
1101.25	0.867	220.25	0.97349917	881.0	0.10600330
1101.5	0.868	220.30	0.97352005	881.2	0.10591981
1101.75	0.868	220.35	0.97354092	881.4	0.10583632
1102	0.868	220.40	0.97356179	881.6	0.10575284
1102.25	0.868	220.45	0.97358266	881.8	0.10566937
1102.5	0.868	220.50	0.97360352	882.0	0.10558591
1102.75	0.868	220.55	0.97362438	882.2	0.10550246
1103	0.868	220.60	0.97364525	882.4	0.10541902
1103.25	0.868	220.65	0.97366610	882.6	0.10533558
1103.5	0.868	220.70	0.97368696	882.8	0.10525216
1103.75	0.869	220.75	0.97370781	883.0	0.10516874
1104	0.869	220.80	0.97372867	883.2	0.10508534
1104.25	0.869	220.85	0.97374952	883.4	0.10500194
1104.5	0.869	220.90	0.97377036	883.6	0.10491855
1104.75	0.869	220.95	0.97379121	883.8	0.10483517
1105	0.869	221.00	0.97381205	884.0	0.10475180
1105.25	0.869	221.05	0.97383289	884.2	0.10466844
1105.5	0.869	221.10	0.97385373	884.4	0.10458508
1105.75	0.869	221.15	0.97387457	884.6	0.10450174
1106	0.869	221.20	0.97389540	884.8	0.10441840
1106.25	0.870	221.25	0.97391623	885.0	0.10433508
1106.5	0.870	221.30	0.97393706	885.2	0.10425176
1106.75	0.870	221.35	0.97395789	885.4	0.10416845
1107	0.870	221.40	0.97397871	885.6	0.10408515
1107.25	0.870	221.45	0.97399954	885.8	0.10400186
1107.5	0.870	221.50	0.97402036	886.0	0.10391857
1107.75	0.870	221.55	0.97404118	886.2	0.10383530
1108	0.870	221.60	0.97406199	886.4	0.10375203
1108.25	0.870	221.65	0.97408281	886.6	0.10366878
1108.5	0.871	221.70	0.97410362	886.8	0.10358553
1108.75	0.871	221.75	0.97412443	887.0	0.10350229
1109	0.871	221.80	0.97414523	887.2	0.10341906
1109.25	0.871	221.85	0.97416604	887.4	0.10333584
1109.5	0.871	221.90	0.97418684	887.6	0.10325263
1109.75	0.871	221.95	0.97420764	887.8	0.10316943
1110	0.871	222.00	0.97422844	888.0	0.10308623
1110.25	0.871	222.05	0.97424924	888.2	0.10300305
1110.5	0.871	222.10	0.97427003	888.4	0.10291987
1110.75	0.871	222.15	0.97429082	888.6	0.10283670
1111	0.872	222.20	0.97431161	888.8	0.10275354
1111.25	0.872	222.25	0.97433240	889.0	0.10267039
1111.5	0.872	222.30	0.97435319	889.2	0.10258725
1111.75	0.872	222.35	0.97437397	889.4	0.10250412
1112	0.872	222.40	0.97439475	889.6	0.10242099
1112.25	0.872	222.45	0.97441553	889.8	0.10233788
1112.5	0.872	222.50	0.97443631	890.0	0.10225477
1112.75	0.872	222.55	0.97445708	890.2	0.10217167
1113	0.872	222.60	0.97447785	890.4	0.10208858
1113.25	0.872	222.65	0.97449862	890.6	0.10200550
1113.5	0.873	222.70	0.97451939	890.8	0.10192243
1113.75	0.873	222.75	0.97454016	891.0	0.10183937
1114	0.873	222.80	0.97456092	891.2	0.10175631
1114.25	0.873	222.85	0.97458168	891.4	0.10167327
1114.5	0.873	222.90	0.97460244	891.6	0.10159023
1114.75	0.873	222.95	0.97462320	891.8	0.10150720
1115	0.873	223.00	0.97464395	892.0	0.10142419
1115.25	0.873	223.05	0.97466471	892.2	0.10134118
1115.5	0.873	223.10	0.97468546	892.4	0.10125817
1115.75	0.874	223.15	0.97470620	892.6	0.10117518
1116	0.874	223.20	0.97472695	892.8	0.10109220
1116.25	0.874	223.25	0.97474769	893.0	0.10100922

1116.5	0.874	223.30	0.97476844	893.2	0.10092625
1116.75	0.874	223.35	0.97478918	893.4	0.10084330
1117	0.874	223.40	0.97480991	893.6	0.10076035
1117.25	0.874	223.45	0.97483065	893.8	0.10067741
1117.5	0.874	223.50	0.97485138	894.0	0.10059448
1117.75	0.874	223.55	0.97487211	894.2	0.10051155
1118	0.874	223.60	0.97489284	894.4	0.10042864
1118.25	0.875	223.65	0.97491357	894.6	0.10034573
1118.5	0.875	223.70	0.97493429	894.8	0.10026284
1118.75	0.875	223.75	0.97495501	895.0	0.10017995
1119	0.875	223.80	0.97497573	895.2	0.10009707
1119.25	0.875	223.85	0.97499645	895.4	0.10001420
1119.5	0.875	223.90	0.97501717	895.6	0.09993134
1119.75	0.875	223.95	0.97503788	895.8	0.09984848
1120	0.875	224.00	0.97505859	896.0	0.09976564
1120.25	0.875	224.05	0.97507930	896.2	0.09968280
1120.5	0.876	224.10	0.97510001	896.4	0.09959998
1120.75	0.876	224.15	0.97512071	896.6	0.09951716
1121	0.876	224.20	0.97514141	896.8	0.09943435
1121.25	0.876	224.25	0.97516211	897.0	0.09935155
1121.5	0.876	224.30	0.97518281	897.2	0.09926875
1121.75	0.876	224.35	0.97520351	897.4	0.09918597
1122	0.876	224.40	0.97522420	897.6	0.09910319
1122.25	0.876	224.45	0.97524489	897.8	0.09902043
1122.5	0.876	224.50	0.97526558	898.0	0.09893767
1122.75	0.876	224.55	0.97528627	898.2	0.09885492
1123	0.877	224.60	0.97530695	898.4	0.09877218
1123.25	0.877	224.65	0.97532764	898.6	0.09868945
1123.5	0.877	224.70	0.97534832	898.8	0.09860673
1123.75	0.877	224.75	0.97536900	899.0	0.09852401
1124	0.877	224.80	0.97538967	899.2	0.09844131
1124.25	0.877	224.85	0.97541035	899.4	0.09835861
1124.5	0.877	224.90	0.97543102	899.6	0.09827592
1124.75	0.877	224.95	0.97545169	899.8	0.09819324
1125	0.877	225.00	0.97547236	900.0	0.09811057
1125.25	0.877	225.05	0.97549302	900.2	0.09802791
1125.5	0.878	225.10	0.97551369	900.4	0.09794525
1125.75	0.878	225.15	0.97553435	900.6	0.09786261
1126	0.878	225.20	0.97555501	900.8	0.09777997
1126.25	0.878	225.25	0.97557566	901.0	0.09769734
1126.5	0.878	225.30	0.97559632	901.2	0.09761472
1126.75	0.878	225.35	0.97561697	901.4	0.09753211
1127	0.878	225.40	0.97563762	901.6	0.09744951
1127.25	0.878	225.45	0.97565827	901.8	0.09736692
1127.5	0.878	225.50	0.97567892	902.0	0.09728433
1127.75	0.878	225.55	0.97569956	902.2	0.09720175
1128	0.879	225.60	0.97572020	902.4	0.09711919
1128.25	0.879	225.65	0.97574084	902.6	0.09703663
1128.5	0.879	225.70	0.97576148	902.8	0.09695408
1128.75	0.879	225.75	0.97578212	903.0	0.09687153
1129	0.879	225.80	0.97580275	903.2	0.09678900
1129.25	0.879	225.85	0.97582338	903.4	0.09670648
1129.5	0.879	225.90	0.97584401	903.6	0.09662396
1129.75	0.879	225.95	0.97586464	903.8	0.09654145
1130	0.879	226.00	0.97588526	904.0	0.09645895
1130.25	0.880	226.05	0.97590588	904.2	0.09637646
1130.5	0.880	226.10	0.97592651	904.4	0.09629398
1130.75	0.880	226.15	0.97594712	904.6	0.09621151
1131	0.880	226.20	0.97596774	904.8	0.09612904
1131.25	0.880	226.25	0.97598835	905.0	0.09604659
1131.5	0.880	226.30	0.97600897	905.2	0.09596414
1131.75	0.880	226.35	0.97602958	905.4	0.09588170
1132	0.880	226.40	0.97605018	905.6	0.09579927
1132.25	0.880	226.45	0.97607079	905.8	0.09571685
1132.5	0.880	226.50	0.97609139	906.0	0.09563443
1132.75	0.881	226.55	0.97611199	906.2	0.09555203
1133	0.881	226.60	0.97613259	906.4	0.09546963
1133.25	0.881	226.65	0.97615319	906.6	0.09538724
1133.5	0.881	226.70	0.97617378	906.8	0.09530486
1133.75	0.881	226.75	0.97619438	907.0	0.09522249
1134	0.881	226.80	0.97621497	907.2	0.09514013

1134.25	0.881	226.85	0.97623556	907.4	0.09505778
1134.5	0.881	226.90	0.97625614	907.6	0.09497543
1134.75	0.881	226.95	0.97627673	907.8	0.09489310
1135	0.881	227.00	0.97629731	908.0	0.09481077
1135.25	0.882	227.05	0.97631789	908.2	0.09472845
1135.5	0.882	227.10	0.97633847	908.4	0.09464614
1135.75	0.882	227.15	0.97635904	908.6	0.09456383
1136	0.882	227.20	0.97637962	908.8	0.09448154
1136.25	0.882	227.25	0.97640019	909.0	0.09439925
1136.5	0.882	227.30	0.97642076	909.2	0.09431698
1136.75	0.882	227.35	0.97644132	909.4	0.09423471
1137	0.882	227.40	0.97646189	909.6	0.09415245
1137.25	0.882	227.45	0.97648245	909.8	0.09407020
1137.5	0.883	227.50	0.97650301	910.0	0.09398795
1137.75	0.883	227.55	0.97652357	910.2	0.09390572
1138	0.883	227.60	0.97654413	910.4	0.09382349
1138.25	0.883	227.65	0.97656468	910.6	0.09374128
1138.5	0.883	227.70	0.97658523	910.8	0.09365907
1138.75	0.883	227.75	0.97660578	911.0	0.09357687
1139	0.883	227.80	0.97662633	911.2	0.09349467
1139.25	0.883	227.85	0.97664688	911.4	0.09341249
1139.5	0.883	227.90	0.97666742	911.6	0.09333032
1139.75	0.883	227.95	0.97668796	911.8	0.09324815
1140	0.884	228.00	0.97670850	912.0	0.09316599
1140.25	0.884	228.05	0.97672904	912.2	0.09308384
1140.5	0.884	228.10	0.97674958	912.4	0.09300170
1140.75	0.884	228.15	0.97677011	912.6	0.09291957
1141	0.884	228.20	0.97679064	912.8	0.09283744
1141.25	0.884	228.25	0.97681117	913.0	0.09275533
1141.5	0.884	228.30	0.97683170	913.2	0.09267322
1141.75	0.884	228.35	0.97685222	913.4	0.09259112
1142	0.884	228.40	0.97687274	913.6	0.09250903
1142.25	0.884	228.45	0.97689326	913.8	0.09242695
1142.5	0.885	228.50	0.97691378	914.0	0.09234487
1142.75	0.885	228.55	0.97693430	914.2	0.09226281
1143	0.885	228.60	0.97695481	914.4	0.09218075
1143.25	0.885	228.65	0.97697532	914.6	0.09209870
1143.5	0.885	228.70	0.97699583	914.8	0.09201666
1143.75	0.885	228.75	0.97701634	915.0	0.09193463
1144	0.885	228.80	0.97703685	915.2	0.09185261
1144.25	0.885	228.85	0.97705735	915.4	0.09177059
1144.5	0.885	228.90	0.97707785	915.6	0.09168859
1144.75	0.885	228.95	0.97709835	915.8	0.09160659
1145	0.886	229.00	0.97711885	916.0	0.09152460
1145.25	0.886	229.05	0.97713934	916.2	0.09144262
1145.5	0.886	229.10	0.97715984	916.4	0.09136065
1145.75	0.886	229.15	0.97718033	916.6	0.09127868
1146	0.886	229.20	0.97720082	916.8	0.09119673
1146.25	0.886	229.25	0.97722130	917.0	0.09111478
1146.5	0.886	229.30	0.97724179	917.2	0.09103284
1146.75	0.886	229.35	0.97726227	917.4	0.09095091
1147	0.886	229.40	0.97728275	917.6	0.09086899
1147.25	0.887	229.45	0.97730323	917.8	0.09078708
1147.5	0.887	229.50	0.97732371	918.0	0.09070517
1147.75	0.887	229.55	0.97734418	918.2	0.09062327
1148	0.887	229.60	0.97736465	918.4	0.09054138
1148.25	0.887	229.65	0.97738512	918.6	0.09045950
1148.5	0.887	229.70	0.97740559	918.8	0.09037763
1148.75	0.887	229.75	0.97742606	919.0	0.09029577
1149	0.887	229.80	0.97744652	919.2	0.09021391
1149.25	0.887	229.85	0.97746698	919.4	0.09013207
1149.5	0.887	229.90	0.97748744	919.6	0.09005023
1149.75	0.888	229.95	0.97750790	919.8	0.08996840
1150	0.888	230.00	0.97752836	920.0	0.08988658
1150.25	0.888	230.05	0.97754881	920.2	0.08980476
1150.5	0.888	230.10	0.97756926	920.4	0.08972296
1150.75	0.888	230.15	0.97758971	920.6	0.08964116
1151	0.888	230.20	0.97761016	920.8	0.08955937
1151.25	0.888	230.25	0.97763060	921.0	0.08947760
1151.5	0.888	230.30	0.97765104	921.2	0.08939582
1151.75	0.888	230.35	0.97767148	921.4	0.08931406

1152	0.888	230.40	0.97769192	921.6	0.08923231
1152.25	0.889	230.45	0.97771236	921.8	0.08915056
1152.5	0.889	230.50	0.97773279	922.0	0.08906882
1152.75	0.889	230.55	0.97775323	922.2	0.08898709
1153	0.889	230.60	0.97777366	922.4	0.08890537
1153.25	0.889	230.65	0.97779409	922.6	0.08882366
1153.5	0.889	230.70	0.97781451	922.8	0.08874195
1153.75	0.889	230.75	0.97783494	923.0	0.08866026
1154	0.889	230.80	0.97785536	923.2	0.08857857
1154.25	0.889	230.85	0.97787578	923.4	0.08849689
1154.5	0.889	230.90	0.97789620	923.6	0.08841522
1154.75	0.890	230.95	0.97791661	923.8	0.08833355
1155	0.890	231.00	0.97793703	924.0	0.08825190
1155.25	0.890	231.05	0.97795744	924.2	0.08817025
1155.5	0.890	231.10	0.97797785	924.4	0.08808861
1155.75	0.890	231.15	0.97799825	924.6	0.08800698
1156	0.890	231.20	0.97801866	924.8	0.08792536
1156.25	0.890	231.25	0.97803906	925.0	0.08784375
1156.5	0.890	231.30	0.97805946	925.2	0.08776214
1156.75	0.890	231.35	0.97807986	925.4	0.08768055
1157	0.891	231.40	0.97810026	925.6	0.08759896
1157.25	0.891	231.45	0.97812066	925.8	0.08751738
1157.5	0.891	231.50	0.97814105	926.0	0.08743581
1157.75	0.891	231.55	0.97816144	926.2	0.08735424
1158	0.891	231.60	0.97818183	926.4	0.08727269
1158.25	0.891	231.65	0.97820222	926.6	0.08719114
1158.5	0.891	231.70	0.97822260	926.8	0.08710960
1158.75	0.891	231.75	0.97824298	927.0	0.08702807
1159	0.891	231.80	0.97826336	927.2	0.08694655
1159.25	0.891	231.85	0.97828374	927.4	0.08686503
1159.5	0.892	231.90	0.97830412	927.6	0.08678353
1159.75	0.892	231.95	0.97832449	927.8	0.08670203
1160	0.892	232.00	0.97834486	928.0	0.08662054
1160.25	0.892	232.05	0.97836524	928.2	0.08653906
1160.5	0.892	232.10	0.97838560	928.4	0.08645759
1160.75	0.892	232.15	0.97840597	928.6	0.08637612
1161	0.892	232.20	0.97842633	928.8	0.08629467
1161.25	0.892	232.25	0.97844670	929.0	0.08621322
1161.5	0.892	232.30	0.97846706	929.2	0.08613178
1161.75	0.892	232.35	0.97848741	929.4	0.08605035
1162	0.893	232.40	0.97850777	929.6	0.08596892
1162.25	0.893	232.45	0.97852812	929.8	0.08588751
1162.5	0.893	232.50	0.97854847	930.0	0.08580610
1162.75	0.893	232.55	0.97856882	930.2	0.08572470
1163	0.893	232.60	0.97858917	930.4	0.08564331
1163.25	0.893	232.65	0.97860952	930.6	0.08556193
1163.5	0.893	232.70	0.97862986	930.8	0.08548056
1163.75	0.893	232.75	0.97865020	931.0	0.08539919
1164	0.893	232.80	0.97867054	931.2	0.08531783
1164.25	0.893	232.85	0.97869088	931.4	0.08523648
1164.5	0.894	232.90	0.97871121	931.6	0.08515514
1164.75	0.894	232.95	0.97873155	931.8	0.08507381
1165	0.894	233.00	0.97875188	932.0	0.08499248
1165.25	0.894	233.05	0.97877221	932.2	0.08491117
1165.5	0.894	233.10	0.97879254	932.4	0.08482986
1165.75	0.894	233.15	0.97881286	932.6	0.08474856
1166	0.894	233.20	0.97883318	932.8	0.08466727
1166.25	0.894	233.25	0.97885350	933.0	0.08458598
1166.5	0.894	233.30	0.97887382	933.2	0.08450471
1166.75	0.894	233.35	0.97889414	933.4	0.08442344
1167	0.895	233.40	0.97891445	933.6	0.08434218
1167.25	0.895	233.45	0.97893477	933.8	0.08426093
1167.5	0.895	233.50	0.97895508	934.0	0.08417969
1167.75	0.895	233.55	0.97897539	934.2	0.08409845
1168	0.895	233.60	0.97899569	934.4	0.08401723
1168.25	0.895	233.65	0.97901600	934.6	0.08393601
1168.5	0.895	233.70	0.97903630	934.8	0.08385480
1168.75	0.895	233.75	0.97905660	935.0	0.08377360
1169	0.895	233.80	0.97907690	935.2	0.08369240
1169.25	0.895	233.85	0.97909720	935.4	0.08361122
1169.5	0.896	233.90	0.97911749	935.6	0.08353004

1169.75	0.896	233.95	0.97913778	935.8	0.08344887
1170	0.896	234.00	0.97915807	936.0	0.08336771
1170.25	0.896	234.05	0.97917836	936.2	0.08328656
1170.5	0.896	234.10	0.97919865	936.4	0.08320541
1170.75	0.896	234.15	0.97921893	936.6	0.08312428
1171	0.896	234.20	0.97923921	936.8	0.08304315
1171.25	0.896	234.25	0.97925949	937.0	0.08296203
1171.5	0.896	234.30	0.97927977	937.2	0.08288091
1171.75	0.897	234.35	0.97930005	937.4	0.08279981
1172	0.897	234.40	0.97932032	937.6	0.08271871
1172.25	0.897	234.45	0.97934059	937.8	0.08263763
1172.5	0.897	234.50	0.97936086	938.0	0.08255655
1172.75	0.897	234.55	0.97938113	938.2	0.08247547
1173	0.897	234.60	0.97940140	938.4	0.08239441
1173.25	0.897	234.65	0.97942166	938.6	0.08231336
1173.5	0.897	234.70	0.97944192	938.8	0.08223231
1173.75	0.897	234.75	0.97946218	939.0	0.08215127
1174	0.897	234.80	0.97948244	939.2	0.08207024
1174.25	0.898	234.85	0.97950270	939.4	0.08198922
1174.5	0.898	234.90	0.97952295	939.6	0.08190820
1174.75	0.898	234.95	0.97954320	939.8	0.08182719
1175	0.898	235.00	0.97956345	940.0	0.08174619
1175.25	0.898	235.05	0.97958370	940.2	0.08166520
1175.5	0.898	235.10	0.97960394	940.4	0.08158422
1175.75	0.898	235.15	0.97962419	940.6	0.08150325
1176	0.898	235.20	0.97964443	940.8	0.08142228
1176.25	0.898	235.25	0.97966467	941.0	0.08134132
1176.5	0.898	235.30	0.97968491	941.2	0.08126037
1176.75	0.899	235.35	0.97970514	941.4	0.08117943
1177	0.899	235.40	0.97972538	941.6	0.08109850
1177.25	0.899	235.45	0.97974561	941.8	0.08101757
1177.5	0.899	235.50	0.97976584	942.0	0.08093665
1177.75	0.899	235.55	0.97978606	942.2	0.08085574
1178	0.899	235.60	0.97980629	942.4	0.08077484
1178.25	0.899	235.65	0.97982651	942.6	0.08069395
1178.5	0.899	235.70	0.97984673	942.8	0.08061306
1178.75	0.899	235.75	0.97986695	943.0	0.08053219
1179	0.899	235.80	0.97988717	943.2	0.08045132
1179.25	0.900	235.85	0.97990739	943.4	0.08037046
1179.5	0.900	235.90	0.97992760	943.6	0.08028960
1179.75	0.900	235.95	0.97994781	943.8	0.08020876
1180	0.900	236.00	0.97996802	944.0	0.08012792
1180.25	0.900	236.05	0.97998823	944.2	0.08004709
1180.5	0.900	236.10	0.98000843	944.4	0.07996627
1180.75	0.900	236.15	0.98002864	944.6	0.07988546
1181	0.900	236.20	0.98004884	944.8	0.07980465
1181.25	0.900	236.25	0.98006904	945.0	0.07972385
1181.5	0.900	236.30	0.98008923	945.2	0.07964307
1181.75	0.901	236.35	0.98010943	945.4	0.07956229
1182	0.901	236.40	0.98012962	945.6	0.07948151
1182.25	0.901	236.45	0.98014981	945.8	0.07940075
1182.5	0.901	236.50	0.98017000	946.0	0.07931999
1182.75	0.901	236.55	0.98019019	946.2	0.07923924
1183	0.901	236.60	0.98021037	946.4	0.07915850
1183.25	0.901	236.65	0.98023056	946.6	0.07907777
1183.5	0.901	236.70	0.98025074	946.8	0.07899704
1183.75	0.901	236.75	0.98027092	947.0	0.07891633
1184	0.901	236.80	0.98029110	947.2	0.07883562
1184.25	0.902	236.85	0.98031127	947.4	0.07875492
1184.5	0.902	236.90	0.98033144	947.6	0.07867423
1184.75	0.902	236.95	0.98035161	947.8	0.07859354
1185	0.902	237.00	0.98037178	948.0	0.07851286
1185.25	0.902	237.05	0.98039195	948.2	0.07843220
1185.5	0.902	237.10	0.98041212	948.4	0.07835154
1185.75	0.902	237.15	0.98043228	948.6	0.07827088
1186	0.902	237.20	0.98045244	948.8	0.07819024
1186.25	0.902	237.25	0.98047260	949.0	0.07810960
1186.5	0.902	237.30	0.98049276	949.2	0.07802897
1186.75	0.903	237.35	0.98051291	949.4	0.07794835
1187	0.903	237.40	0.98053307	949.6	0.07786774
1187.25	0.903	237.45	0.98055322	949.8	0.07778713

1187.5	0.903	237.50	0.98057337	950.0	0.07770654
1187.75	0.903	237.55	0.98059351	950.2	0.07762595
1188	0.903	237.60	0.98061366	950.4	0.07754537
1188.25	0.903	237.65	0.98063380	950.6	0.07746480
1188.5	0.903	237.70	0.98065394	950.8	0.07738423
1188.75	0.903	237.75	0.98067408	951.0	0.07730367
1189	0.903	237.80	0.98069422	951.2	0.07722312
1189.25	0.904	237.85	0.98071435	951.4	0.07714258
1189.5	0.904	237.90	0.98073449	951.6	0.07706205
1189.75	0.904	237.95	0.98075462	951.8	0.07698153
1190	0.904	238.00	0.98077475	952.0	0.07690101
1190.25	0.904	238.05	0.98079488	952.2	0.07682050
1190.5	0.904	238.10	0.98081500	952.4	0.07674000
1190.75	0.904	238.15	0.98083512	952.6	0.07665951
1191	0.904	238.20	0.98085525	952.8	0.07657902
1191.25	0.904	238.25	0.98087536	953.0	0.07649854
1191.5	0.904	238.30	0.98089548	953.2	0.07641807
1191.75	0.905	238.35	0.98091560	953.4	0.07633761
1192	0.905	238.40	0.98093571	953.6	0.07625716
1192.25	0.905	238.45	0.98095582	953.8	0.07617671
1192.5	0.905	238.50	0.98097593	954.0	0.07609627
1192.75	0.905	238.55	0.98099604	954.2	0.07601584
1193	0.905	238.60	0.98101614	954.4	0.07593542
1193.25	0.905	238.65	0.98103625	954.6	0.07585501
1193.5	0.905	238.70	0.98105635	954.8	0.07577460
1193.75	0.905	238.75	0.98107645	955.0	0.07569420
1194	0.905	238.80	0.98109655	955.2	0.07561381
1194.25	0.906	238.85	0.98111664	955.4	0.07553343
1194.5	0.906	238.90	0.98113674	955.6	0.07545306
1194.75	0.906	238.95	0.98115683	955.8	0.07537269
1195	0.906	239.00	0.98117692	956.0	0.07529233
1195.25	0.906	239.05	0.98119700	956.2	0.07521198
1195.5	0.906	239.10	0.98121709	956.4	0.07513164
1195.75	0.906	239.15	0.98123717	956.6	0.07505130
1196	0.906	239.20	0.98125726	956.8	0.07497098
1196.25	0.906	239.25	0.98127734	957.0	0.07489066
1196.5	0.906	239.30	0.98129741	957.2	0.07481035
1196.75	0.907	239.35	0.98131749	957.4	0.07473004
1197	0.907	239.40	0.98133756	957.6	0.07464975
1197.25	0.907	239.45	0.98135763	957.8	0.07456946
1197.5	0.907	239.50	0.98137770	958.0	0.07448918
1197.75	0.907	239.55	0.98139777	958.2	0.07440891
1198	0.907	239.60	0.98141784	958.4	0.07432865
1198.25	0.907	239.65	0.98143790	958.6	0.07424839
1198.5	0.907	239.70	0.98145796	958.8	0.07416814
1198.75	0.907	239.75	0.98147802	959.0	0.07408790
1199	0.907	239.80	0.98149808	959.2	0.07400767
1199.25	0.908	239.85	0.98151814	959.4	0.07392744
1199.5	0.908	239.90	0.98153819	959.6	0.07384723
1199.75	0.908	239.95	0.98155825	959.8	0.07376702
1200	0.908	240.00	0.98157830	960.0	0.07368682
1200.25	0.908	240.05	0.98159834	960.2	0.07360662
1200.5	0.908	240.10	0.98161839	960.4	0.07352644
1200.75	0.908	240.15	0.98163843	960.6	0.07344626
1201	0.908	240.20	0.98165848	960.8	0.07336609
1201.25	0.908	240.25	0.98167852	961.0	0.07328593
1201.5	0.908	240.30	0.98169856	961.2	0.07320578
1201.75	0.909	240.35	0.98171859	961.4	0.07312563
1202	0.909	240.40	0.98173863	961.6	0.07304549
1202.25	0.909	240.45	0.98175866	961.8	0.07296536
1202.5	0.909	240.50	0.98177869	962.0	0.07288524
1202.75	0.909	240.55	0.98179872	962.2	0.07280512
1203	0.909	240.60	0.98181875	962.4	0.07272502
1203.25	0.909	240.65	0.98183877	962.6	0.07264492
1203.5	0.909	240.70	0.98185879	962.8	0.07256483
1203.75	0.909	240.75	0.98187881	963.0	0.07248474
1204	0.909	240.80	0.98189883	963.2	0.07240467
1204.25	0.910	240.85	0.98191885	963.4	0.07232460
1204.5	0.910	240.90	0.98193887	963.6	0.07224454
1204.75	0.910	240.95	0.98195888	963.8	0.07216449
1205	0.910	241.00	0.98197889	964.0	0.07208444

1205.25	0.910	241.05	0.98199890	964.2	0.07200441
1205.5	0.910	241.10	0.98201891	964.4	0.07192438
1205.75	0.910	241.15	0.98203891	964.6	0.07184436
1206	0.910	241.20	0.98205891	964.8	0.07176434
1206.25	0.910	241.25	0.98207892	965.0	0.07168434
1206.5	0.910	241.30	0.98209891	965.2	0.07160434
1206.75	0.911	241.35	0.98211891	965.4	0.07152435
1207	0.911	241.40	0.98213891	965.6	0.07144437
1207.25	0.911	241.45	0.98215890	965.8	0.07136439
1207.5	0.911	241.50	0.98217889	966.0	0.07128443
1207.75	0.911	241.55	0.98219888	966.2	0.07120447
1208	0.911	241.60	0.98221887	966.4	0.07112452
1208.25	0.911	241.65	0.98223886	966.6	0.07104458
1208.5	0.911	241.70	0.98225884	966.8	0.07096464
1208.75	0.911	241.75	0.98227882	967.0	0.07088471
1209	0.911	241.80	0.98229880	967.2	0.07080479
1209.25	0.912	241.85	0.98231878	967.4	0.07072488
1209.5	0.912	241.90	0.98233876	967.6	0.07064498
1209.75	0.912	241.95	0.98235873	967.8	0.07056508
1210	0.912	242.00	0.98237870	968.0	0.07048519
1210.25	0.912	242.05	0.98239867	968.2	0.07040531
1210.5	0.912	242.10	0.98241864	968.4	0.07032544
1210.75	0.912	242.15	0.98243861	968.6	0.07024557
1211	0.912	242.20	0.98245857	968.8	0.07016571
1211.25	0.912	242.25	0.98247853	969.0	0.07008586
1211.5	0.912	242.30	0.98249849	969.2	0.07000602
1211.75	0.913	242.35	0.98251845	969.4	0.06992619
1212	0.913	242.40	0.98253841	969.6	0.06984636
1212.25	0.913	242.45	0.98255836	969.8	0.06976654
1212.5	0.913	242.50	0.98257832	970.0	0.06968673
1212.75	0.913	242.55	0.98259827	970.2	0.06960693
1213	0.913	242.60	0.98261822	970.4	0.06952713
1213.25	0.913	242.65	0.98263816	970.6	0.06944734
1213.5	0.913	242.70	0.98265811	970.8	0.06936756
1213.75	0.913	242.75	0.98267805	971.0	0.06928779
1214	0.913	242.80	0.98269799	971.2	0.06920802
1214.25	0.914	242.85	0.98271793	971.4	0.06912827
1214.5	0.914	242.90	0.98273787	971.6	0.06904852
1214.75	0.914	242.95	0.98275781	971.8	0.06896878
1215	0.914	243.00	0.98277774	972.0	0.06888904
1215.25	0.914	243.05	0.98279767	972.2	0.06880932
1215.5	0.914	243.10	0.98281760	972.4	0.06872960
1215.75	0.914	243.15	0.98283753	972.6	0.06864989
1216	0.914	243.20	0.98285745	972.8	0.06857018
1216.25	0.914	243.25	0.98287738	973.0	0.06849049
1216.5	0.914	243.30	0.98289730	973.2	0.06841080
1216.75	0.915	243.35	0.98291722	973.4	0.06833112
1217	0.915	243.40	0.98293714	973.6	0.06825145
1217.25	0.915	243.45	0.98295705	973.8	0.06817178
1217.5	0.915	243.50	0.98297697	974.0	0.06809212
1217.75	0.915	243.55	0.98299688	974.2	0.06801248
1218	0.915	243.60	0.98301679	974.4	0.06793283
1218.25	0.915	243.65	0.98303670	974.6	0.06785320
1218.5	0.915	243.70	0.98305661	974.8	0.06777357
1218.75	0.915	243.75	0.98307651	975.0	0.06769395
1219	0.915	243.80	0.98309641	975.2	0.06761434
1219.25	0.916	243.85	0.98311631	975.4	0.06753474
1219.5	0.916	243.90	0.98313621	975.6	0.06745514
1219.75	0.916	243.95	0.98315611	975.8	0.06737556
1220	0.916	244.00	0.98317601	976.0	0.06729598
1220.25	0.916	244.05	0.98319590	976.2	0.06721640
1220.5	0.916	244.10	0.98321579	976.4	0.06713684
1220.75	0.916	244.15	0.98323568	976.6	0.06705728
1221	0.916	244.20	0.98325557	976.8	0.06697773
1221.25	0.916	244.25	0.98327545	977.0	0.06689819
1221.5	0.916	244.30	0.98329534	977.2	0.06681866
1221.75	0.917	244.35	0.98331522	977.4	0.06673913
1222	0.917	244.40	0.98333510	977.6	0.06665961
1222.25	0.917	244.45	0.98335498	977.8	0.06658010
1222.5	0.917	244.50	0.98337485	978.0	0.06650059
1222.75	0.917	244.55	0.98339473	978.2	0.06642110

1223	0.917	244.60	0.98341460	978.4	0.06634161
1223.25	0.917	244.65	0.98343447	978.6	0.06626213
1223.5	0.917	244.70	0.98345434	978.8	0.06618266
1223.75	0.917	244.75	0.98347420	979.0	0.06610319
1224	0.917	244.80	0.98349407	979.2	0.06602373
1224.25	0.918	244.85	0.98351393	979.4	0.06594428
1224.5	0.918	244.90	0.98353379	979.6	0.06586484
1224.75	0.918	244.95	0.98355365	979.8	0.06578540
1225	0.918	245.00	0.98357351	980.0	0.06570598
1225.25	0.918	245.05	0.98359336	980.2	0.06562656
1225.5	0.918	245.10	0.98361321	980.4	0.06554714
1225.75	0.918	245.15	0.98363306	980.6	0.06546774
1226	0.918	245.20	0.98365291	980.8	0.06538834
1226.25	0.918	245.25	0.98367276	981.0	0.06530895
1226.5	0.918	245.30	0.98369261	981.2	0.06522957
1226.75	0.919	245.35	0.98371245	981.4	0.06515020
1227	0.919	245.40	0.98373229	981.6	0.06507083
1227.25	0.919	245.45	0.98375213	981.8	0.06499147
1227.5	0.919	245.50	0.98377197	982.0	0.06491212
1227.75	0.919	245.55	0.98379181	982.2	0.06483278
1228	0.919	245.60	0.98381164	982.4	0.06475344
1228.25	0.919	245.65	0.98383147	982.6	0.06467411
1228.5	0.919	245.70	0.98385130	982.8	0.06459479
1228.75	0.919	245.75	0.98387113	983.0	0.06451548
1229	0.919	245.80	0.98389096	983.2	0.06443617
1229.25	0.920	245.85	0.98391078	983.4	0.06435687
1229.5	0.920	245.90	0.98393060	983.6	0.06427758
1229.75	0.920	245.95	0.98395042	983.8	0.06419830
1230	0.920	246.00	0.98397024	984.0	0.06411902
1230.25	0.920	246.05	0.98399006	984.2	0.06403976
1230.5	0.920	246.10	0.98400988	984.4	0.06396050
1230.75	0.920	246.15	0.98402969	984.6	0.06388124
1231	0.920	246.20	0.98404950	984.8	0.06380200
1231.25	0.920	246.25	0.98406931	985.0	0.06372276
1231.5	0.920	246.30	0.98408912	985.2	0.06364353
1231.75	0.921	246.35	0.98410892	985.4	0.06356431
1232	0.921	246.40	0.98412873	985.6	0.06348509
1232.25	0.921	246.45	0.98414853	985.8	0.06340589
1232.5	0.921	246.50	0.98416833	986.0	0.06332669
1232.75	0.921	246.55	0.98418813	986.2	0.06324749
1233	0.921	246.60	0.98420792	986.4	0.06316831
1233.25	0.921	246.65	0.98422772	986.6	0.06308913
1233.5	0.921	246.70	0.98424751	986.8	0.06300996
1233.75	0.921	246.75	0.98426730	987.0	0.06293080
1234	0.921	246.80	0.98428709	987.2	0.06285164
1234.25	0.922	246.85	0.98430688	987.4	0.06277250
1234.5	0.922	246.90	0.98432666	987.6	0.06269336
1234.75	0.922	246.95	0.98434644	987.8	0.06261423
1235	0.922	247.00	0.98436622	988.0	0.06253510
1235.25	0.922	247.05	0.98438600	988.2	0.06245598
1235.5	0.922	247.10	0.98440578	988.4	0.06237688
1235.75	0.922	247.15	0.98442556	988.6	0.06229777
1236	0.922	247.20	0.98444533	988.8	0.06221868
1236.25	0.922	247.25	0.98446510	989.0	0.06213959
1236.5	0.922	247.30	0.98448487	989.2	0.06206051
1236.75	0.923	247.35	0.98450464	989.4	0.06198144
1237	0.923	247.40	0.98452441	989.6	0.06190238
1237.25	0.923	247.45	0.98454417	989.8	0.06182332
1237.5	0.923	247.50	0.98456393	990.0	0.06174427
1237.75	0.923	247.55	0.98458369	990.2	0.06166523
1238	0.923	247.60	0.98460345	990.4	0.06158619
1238.25	0.923	247.65	0.98462321	990.6	0.06150717
1238.5	0.923	247.70	0.98464296	990.8	0.06142815
1238.75	0.923	247.75	0.98466272	991.0	0.06134914
1239	0.923	247.80	0.98468247	991.2	0.06127013
1239.25	0.924	247.85	0.98470222	991.4	0.06119114
1239.5	0.924	247.90	0.98472196	991.6	0.06111215
1239.75	0.924	247.95	0.98474171	991.8	0.06103316
1240	0.924	248.00	0.98476145	992.0	0.06095419
1240.25	0.924	248.05	0.98478119	992.2	0.06087522
1240.5	0.924	248.10	0.98480093	992.4	0.06079626

1240.75	0.924	248.15	0.98482067	992.6	0.06071731
1241	0.924	248.20	0.98484041	992.8	0.06063837
1241.25	0.924	248.25	0.98486014	993.0	0.06055943
1241.5	0.924	248.30	0.98487987	993.2	0.06048050
1241.75	0.924	248.35	0.98489961	993.4	0.06040158
1242	0.925	248.40	0.98491933	993.6	0.06032266
1242.25	0.925	248.45	0.98493906	993.8	0.06024376
1242.5	0.925	248.50	0.98495879	994.0	0.06016486
1242.75	0.925	248.55	0.98497851	994.2	0.06008597
1243	0.925	248.60	0.98499823	994.4	0.06000708
1243.25	0.925	248.65	0.98501795	994.6	0.05992820
1243.5	0.925	248.70	0.98503767	994.8	0.05984933
1243.75	0.925	248.75	0.98505738	995.0	0.05977047
1244	0.925	248.80	0.98507710	995.2	0.05969162
1244.25	0.925	248.85	0.98509681	995.4	0.05961277
1244.5	0.926	248.90	0.98511652	995.6	0.05953393
1244.75	0.926	248.95	0.98513623	995.8	0.05945510
1245	0.926	249.00	0.98515593	996.0	0.05937627
1245.25	0.926	249.05	0.98517564	996.2	0.05929745
1245.5	0.926	249.10	0.98519534	996.4	0.05921864
1245.75	0.926	249.15	0.98521504	996.6	0.05913984
1246	0.926	249.20	0.98523474	996.8	0.05906104
1246.25	0.926	249.25	0.98525444	997.0	0.05898226
1246.5	0.926	249.30	0.98527413	997.2	0.05890348
1246.75	0.926	249.35	0.98529382	997.4	0.05882470
1247	0.927	249.40	0.98531352	997.6	0.05874594
1247.25	0.927	249.45	0.98533321	997.8	0.05866718
1247.5	0.927	249.50	0.98535289	998.0	0.05858843
1247.75	0.927	249.55	0.98537258	998.2	0.05850969
1248	0.927	249.60	0.98539226	998.4	0.05843095
1248.25	0.927	249.65	0.98541194	998.6	0.05835222
1248.5	0.927	249.70	0.98543163	998.8	0.05827350
1248.75	0.927	249.75	0.98545130	999.0	0.05819479
1249	0.927	249.80	0.98547098	999.2	0.05811608
1249.25	0.927	249.85	0.98549065	999.4	0.05803738
1249.5	0.928	249.90	0.98551033	999.6	0.05795869
1249.75	0.928	249.95	0.98553000	999.8	0.05788000
1250	0.928	250.00	0.98554967	1000.0	0.05780133
1250.25	0.928	250.05	0.98556934	1000.2	0.05772266
1250.5	0.928	250.10	0.98558900	1000.4	0.05764400
1250.75	0.928	250.15	0.98560866	1000.6	0.05756534
1251	0.928	250.20	0.98562833	1000.8	0.05748669
1251.25	0.928	250.25	0.98564799	1001.0	0.05740805
1251.5	0.928	250.30	0.98566764	1001.2	0.05732942
1251.75	0.928	250.35	0.98568730	1001.4	0.05725080
1252	0.929	250.40	0.98570696	1001.6	0.05717218
1252.25	0.929	250.45	0.98572661	1001.8	0.05709357
1252.5	0.929	250.50	0.98574626	1002.0	0.05701497
1252.75	0.929	250.55	0.98576591	1002.2	0.05693637
1253	0.929	250.60	0.98578555	1002.4	0.05685778
1253.25	0.929	250.65	0.98580520	1002.6	0.05677920
1253.5	0.929	250.70	0.98582484	1002.8	0.05670063
1253.75	0.929	250.75	0.98584448	1003.0	0.05662206
1254	0.929	250.80	0.98586412	1003.2	0.05654350
1254.25	0.929	250.85	0.98588376	1003.4	0.05646495
1254.5	0.930	250.90	0.98590340	1003.6	0.05638641
1254.75	0.930	250.95	0.98592303	1003.8	0.05630787
1255	0.930	251.00	0.98594266	1004.0	0.05622934
1255.25	0.930	251.05	0.98596229	1004.2	0.05615082
1255.5	0.930	251.10	0.98598192	1004.4	0.05607231
1255.75	0.930	251.15	0.98600155	1004.6	0.05599380
1256	0.930	251.20	0.98602118	1004.8	0.05591530
1256.25	0.930	251.25	0.98604080	1005.0	0.05583681
1256.5	0.930	251.30	0.98606042	1005.2	0.05575832
1256.75	0.930	251.35	0.98608004	1005.4	0.05567984
1257	0.930	251.40	0.98609966	1005.6	0.05560137
1257.25	0.931	251.45	0.98611927	1005.8	0.05552291
1257.5	0.931	251.50	0.98613889	1006.0	0.05544445
1257.75	0.931	251.55	0.98615850	1006.2	0.05536601
1258	0.931	251.60	0.98617811	1006.4	0.05528756
1258.25	0.931	251.65	0.98619772	1006.6	0.05520913

1258.5	0.931	251.70	0.98621732	1006.8	0.05513070
1258.75	0.931	251.75	0.98623693	1007.0	0.05505228
1259	0.931	251.80	0.98625653	1007.2	0.05497387
1259.25	0.931	251.85	0.98627613	1007.4	0.05489547
1259.5	0.931	251.90	0.98629573	1007.6	0.05481707
1259.75	0.932	251.95	0.98631533	1007.8	0.05473868
1260	0.932	252.00	0.98633493	1008.0	0.05466030
1260.25	0.932	252.05	0.98635452	1008.2	0.05458192
1260.5	0.932	252.10	0.98637411	1008.4	0.05450356
1260.75	0.932	252.15	0.98639370	1008.6	0.05442519
1261	0.932	252.20	0.98641329	1008.8	0.05434684
1261.25	0.932	252.25	0.98643288	1009.0	0.05426849
1261.5	0.932	252.30	0.98645246	1009.2	0.05419016
1261.75	0.932	252.35	0.98647204	1009.4	0.05411182
1262	0.932	252.40	0.98649162	1009.6	0.05403350
1262.25	0.933	252.45	0.98651120	1009.8	0.05395518
1262.5	0.933	252.50	0.98653078	1010.0	0.05387687
1262.75	0.933	252.55	0.98655036	1010.2	0.05379857
1263	0.933	252.60	0.98656993	1010.4	0.05372028
1263.25	0.933	252.65	0.98658950	1010.6	0.05364199
1263.5	0.933	252.70	0.98660907	1010.8	0.05356371
1263.75	0.933	252.75	0.98662864	1011.0	0.05348543
1264	0.933	252.80	0.98664821	1011.2	0.05340717
1264.25	0.933	252.85	0.98666777	1011.4	0.05332891
1264.5	0.933	252.90	0.98668734	1011.6	0.05325066
1264.75	0.934	252.95	0.98670690	1011.8	0.05317241
1265	0.934	253.00	0.98672646	1012.0	0.05309418
1265.25	0.934	253.05	0.98674601	1012.2	0.05301595
1265.5	0.934	253.10	0.98676557	1012.4	0.05293773
1265.75	0.934	253.15	0.98678512	1012.6	0.05285951
1266	0.934	253.20	0.98680467	1012.8	0.05278130
1266.25	0.934	253.25	0.98682422	1013.0	0.05270310
1266.5	0.934	253.30	0.98684377	1013.2	0.05262491
1266.75	0.934	253.35	0.98686332	1013.4	0.05254672
1267	0.934	253.40	0.98688286	1013.6	0.05246854
1267.25	0.935	253.45	0.98690241	1013.8	0.05239037
1267.5	0.935	253.50	0.98692195	1014.0	0.05231221
1267.75	0.935	253.55	0.98694149	1014.2	0.05223405
1268	0.935	253.60	0.98696102	1014.4	0.05215590
1268.25	0.935	253.65	0.98698056	1014.6	0.05207776
1268.5	0.935	253.70	0.98700009	1014.8	0.05199962
1268.75	0.935	253.75	0.98701963	1015.0	0.05192150
1269	0.935	253.80	0.98703916	1015.2	0.05184338
1269.25	0.935	253.85	0.98705868	1015.4	0.05176526
1269.5	0.935	253.90	0.98707821	1015.6	0.05168716
1269.75	0.935	253.95	0.98709774	1015.8	0.05160906
1270	0.936	254.00	0.98711726	1016.0	0.05153096
1270.25	0.936	254.05	0.98713678	1016.2	0.05145288
1270.5	0.936	254.10	0.98715630	1016.4	0.05137480
1270.75	0.936	254.15	0.98717582	1016.6	0.05129673
1271	0.936	254.20	0.98719533	1016.8	0.05121867
1271.25	0.936	254.25	0.98721485	1017.0	0.05114061
1271.5	0.936	254.30	0.98723436	1017.2	0.05106256
1271.75	0.936	254.35	0.98725387	1017.4	0.05098452
1272	0.936	254.40	0.98727338	1017.6	0.05090649
1272.25	0.936	254.45	0.98729288	1017.8	0.05082846
1272.5	0.937	254.50	0.98731239	1018.0	0.05075044
1272.75	0.937	254.55	0.98733189	1018.2	0.05067243
1273	0.937	254.60	0.98735139	1018.4	0.05059442
1273.25	0.937	254.65	0.98737089	1018.6	0.05051643
1273.5	0.937	254.70	0.98739039	1018.8	0.05043843
1273.75	0.937	254.75	0.98740989	1019.0	0.05036045
1274	0.937	254.80	0.98742938	1019.2	0.05028247
1274.25	0.937	254.85	0.98744887	1019.4	0.05020451
1274.5	0.937	254.90	0.98746836	1019.6	0.05012654
1274.75	0.937	254.95	0.98748785	1019.8	0.05004859
1275	0.938	255.00	0.98750734	1020.0	0.04997064
1275.25	0.938	255.05	0.98752683	1020.2	0.04989270
1275.5	0.938	255.10	0.98754631	1020.4	0.04981477
1275.75	0.938	255.15	0.98756579	1020.6	0.04973684
1276	0.938	255.20	0.98758527	1020.8	0.04965892

1276.25	0.938	255.25	0.98760475	1021.0	0.04958101
1276.5	0.938	255.30	0.98762422	1021.2	0.04950310
1276.75	0.938	255.35	0.98764370	1021.4	0.04942521
1277	0.938	255.40	0.98766317	1021.6	0.04934732
1277.25	0.938	255.45	0.98768264	1021.8	0.04926943
1277.5	0.939	255.50	0.98770211	1022.0	0.04919156
1277.75	0.939	255.55	0.98772158	1022.2	0.04911369
1278	0.939	255.60	0.98774104	1022.4	0.04903583
1278.25	0.939	255.65	0.98776051	1022.6	0.04895797
1278.5	0.939	255.70	0.98777997	1022.8	0.04888012
1278.75	0.939	255.75	0.98779943	1023.0	0.04880228
1279	0.939	255.80	0.98781889	1023.2	0.04872445
1279.25	0.939	255.85	0.98783834	1023.4	0.04864662
1279.5	0.939	255.90	0.98785780	1023.6	0.04856881
1279.75	0.939	255.95	0.98787725	1023.8	0.04849099
1280	0.939	256.00	0.98789670	1024.0	0.04841319
1280.25	0.940	256.05	0.98791615	1024.2	0.04833539
1280.5	0.940	256.10	0.98793560	1024.4	0.04825760
1280.75	0.940	256.15	0.98795505	1024.6	0.04817982
1281	0.940	256.20	0.98797449	1024.8	0.04810204
1281.25	0.940	256.25	0.98799393	1025.0	0.04802427
1281.5	0.940	256.30	0.98801337	1025.2	0.04794651
1281.75	0.940	256.35	0.98803281	1025.4	0.04786876
1282	0.940	256.40	0.98805225	1025.6	0.04779101
1282.25	0.940	256.45	0.98807168	1025.8	0.04771327
1282.5	0.940	256.50	0.98809112	1026.0	0.04763554
1282.75	0.941	256.55	0.98811055	1026.2	0.04755781
1283	0.941	256.60	0.98812998	1026.4	0.04748009
1283.25	0.941	256.65	0.98814941	1026.6	0.04740238
1283.5	0.941	256.70	0.98816883	1026.8	0.04732467
1283.75	0.941	256.75	0.98818826	1027.0	0.04724698
1284	0.941	256.80	0.98820768	1027.2	0.04716929
1284.25	0.941	256.85	0.98822710	1027.4	0.04709160
1284.5	0.941	256.90	0.98824652	1027.6	0.04701393
1284.75	0.941	256.95	0.98826594	1027.8	0.04693626
1285	0.941	257.00	0.98828535	1028.0	0.04685860
1285.25	0.942	257.05	0.98830476	1028.2	0.04678094
1285.5	0.942	257.10	0.98832418	1028.4	0.04670329
1285.75	0.942	257.15	0.98834359	1028.6	0.04662565
1286	0.942	257.20	0.98836300	1028.8	0.04654802
1286.25	0.942	257.25	0.98838240	1029.0	0.04647039
1286.5	0.942	257.30	0.98840181	1029.2	0.04639277
1286.75	0.942	257.35	0.98842121	1029.4	0.04631516
1287	0.942	257.40	0.98844061	1029.6	0.04623755
1287.25	0.942	257.45	0.98846001	1029.8	0.04615996
1287.5	0.942	257.50	0.98847941	1030.0	0.04608236
1287.75	0.942	257.55	0.98849880	1030.2	0.04600478
1288	0.943	257.60	0.98851820	1030.4	0.04592720
1288.25	0.943	257.65	0.98853759	1030.6	0.04584963
1288.5	0.943	257.70	0.98855698	1030.8	0.04577207
1288.75	0.943	257.75	0.98857637	1031.0	0.04569452
1289	0.943	257.80	0.98859576	1031.2	0.04561697
1289.25	0.943	257.85	0.98861514	1031.4	0.04553942
1289.5	0.943	257.90	0.98863453	1031.6	0.04546189
1289.75	0.943	257.95	0.98865391	1031.8	0.04538436
1290	0.943	258.00	0.98867329	1032.0	0.04530684
1290.25	0.943	258.05	0.98869267	1032.2	0.04522933
1290.5	0.944	258.10	0.98871204	1032.4	0.04515182
1290.75	0.944	258.15	0.98873142	1032.6	0.04507432
1291	0.944	258.20	0.98875079	1032.8	0.04499683
1291.25	0.944	258.25	0.98877016	1033.0	0.04491935
1291.5	0.944	258.30	0.98878953	1033.2	0.04484187
1291.75	0.944	258.35	0.98880890	1033.4	0.04476440
1292	0.944	258.40	0.98882827	1033.6	0.04468693
1292.25	0.944	258.45	0.98884763	1033.8	0.04460948
1292.5	0.944	258.50	0.98886699	1034.0	0.04453203
1292.75	0.944	258.55	0.98888635	1034.2	0.04445458
1293	0.945	258.60	0.98890571	1034.4	0.04437715
1293.25	0.945	258.65	0.98892507	1034.6	0.04429972
1293.5	0.945	258.70	0.98894443	1034.8	0.04422230
1293.75	0.945	258.75	0.98896378	1035.0	0.04414488

1294	0.945	258.80	0.98898313	1035.2	0.04406747
1294.25	0.945	258.85	0.98900248	1035.4	0.04399007
1294.5	0.945	258.90	0.98902183	1035.6	0.04391268
1294.75	0.945	258.95	0.98904118	1035.8	0.04383529
1295	0.945	259.00	0.98906052	1036.0	0.04375791
1295.25	0.945	259.05	0.98907986	1036.2	0.04368054
1295.5	0.945	259.10	0.98909921	1036.4	0.04360317
1295.75	0.946	259.15	0.98911855	1036.6	0.04352582
1296	0.946	259.20	0.98913788	1036.8	0.04344846
1296.25	0.946	259.25	0.98915722	1037.0	0.04337112
1296.5	0.946	259.30	0.98917655	1037.2	0.04329378
1296.75	0.946	259.35	0.98919589	1037.4	0.04321645
1297	0.946	259.40	0.98921522	1037.6	0.04313913
1297.25	0.946	259.45	0.98923455	1037.8	0.04306181
1297.5	0.946	259.50	0.98925387	1038.0	0.04298450
1297.75	0.946	259.55	0.98927320	1038.2	0.04290720
1298	0.946	259.60	0.98929252	1038.4	0.04282990
1298.25	0.947	259.65	0.98931185	1038.6	0.04275262
1298.5	0.947	259.70	0.98933117	1038.8	0.04267533
1298.75	0.947	259.75	0.98935049	1039.0	0.04259806
1299	0.947	259.80	0.98936980	1039.2	0.04252079
1299.25	0.947	259.85	0.98938912	1039.4	0.04244353
1299.5	0.947	259.90	0.98940843	1039.6	0.04236628
1299.75	0.947	259.95	0.98942774	1039.8	0.04228903
1300	0.947	260.00	0.98944705	1040.0	0.04221179
1300.25	0.947	260.05	0.98946636	1040.2	0.04213456
1300.5	0.947	260.10	0.98948567	1040.4	0.04205733
1300.75	0.948	260.15	0.98950497	1040.6	0.04198012
1301	0.948	260.20	0.98952427	1040.8	0.04190290
1301.25	0.948	260.25	0.98954358	1041.0	0.04182570
1301.5	0.948	260.30	0.98956287	1041.2	0.04174850
1301.75	0.948	260.35	0.98958217	1041.4	0.04167131
1302	0.948	260.40	0.98960147	1041.6	0.04159413
1302.25	0.948	260.45	0.98962076	1041.8	0.04151695
1302.5	0.948	260.50	0.98964006	1042.0	0.04143978
1302.75	0.948	260.55	0.98965935	1042.2	0.04136262
1303	0.948	260.60	0.98967863	1042.4	0.04128546
1303.25	0.948	260.65	0.98969792	1042.6	0.04120831
1303.5	0.949	260.70	0.98971721	1042.8	0.04113117
1303.75	0.949	260.75	0.98973649	1043.0	0.04105403
1304	0.949	260.80	0.98975577	1043.2	0.04097691
1304.25	0.949	260.85	0.98977505	1043.4	0.04089979
1304.5	0.949	260.90	0.98979433	1043.6	0.04082267
1304.75	0.949	260.95	0.98981361	1043.8	0.04074556
1305	0.949	261.00	0.98983288	1044.0	0.04066846
1305.25	0.949	261.05	0.98985216	1044.2	0.04059137
1305.5	0.949	261.10	0.98987143	1044.4	0.04051428
1305.75	0.949	261.15	0.98989070	1044.6	0.04043720
1306	0.950	261.20	0.98990997	1044.8	0.04036013
1306.25	0.950	261.25	0.98992923	1045.0	0.04028307
1306.5	0.950	261.30	0.98994850	1045.2	0.04020601
1306.75	0.950	261.35	0.98996776	1045.4	0.04012896
1307	0.950	261.40	0.98998702	1045.6	0.04005191
1307.25	0.950	261.45	0.99000628	1045.8	0.03997487
1307.5	0.950	261.50	0.99002554	1046.0	0.03989784
1307.75	0.950	261.55	0.99004480	1046.2	0.03982082
1308	0.950	261.60	0.99006405	1046.4	0.03974380
1308.25	0.950	261.65	0.99008330	1046.6	0.03966679
1308.5	0.951	261.70	0.99010255	1046.8	0.03958979
1308.75	0.951	261.75	0.99012180	1047.0	0.03951279
1309	0.951	261.80	0.99014105	1047.2	0.03943580
1309.25	0.951	261.85	0.99016030	1047.4	0.03935882
1309.5	0.951	261.90	0.99017954	1047.6	0.03928184
1309.75	0.951	261.95	0.99019878	1047.8	0.03920487
1310	0.951	262.00	0.99021802	1048.0	0.03912791
1310.25	0.951	262.05	0.99023726	1048.2	0.03905096
1310.5	0.951	262.10	0.99025650	1048.4	0.03897401
1310.75	0.951	262.15	0.99027573	1048.6	0.03889707
1311	0.951	262.20	0.99029497	1048.8	0.03882013
1311.25	0.952	262.25	0.99031420	1049.0	0.03874321
1311.5	0.952	262.30	0.99033343	1049.2	0.03866629

1311.75	0.952	262.35	0.99035266	1049.4	0.03858937
1312	0.952	262.40	0.99037188	1049.6	0.03851246
1312.25	0.952	262.45	0.99039111	1049.8	0.03843556
1312.5	0.952	262.50	0.99041033	1050.0	0.03835867
1312.75	0.952	262.55	0.99042955	1050.2	0.03828179
1313	0.952	262.60	0.99044877	1050.4	0.03820491
1313.25	0.952	262.65	0.99046799	1050.6	0.03812803
1313.5	0.952	262.70	0.99048721	1050.8	0.03805117
1313.75	0.953	262.75	0.99050642	1051.0	0.03797431
1314	0.953	262.80	0.99052564	1051.2	0.03789746
1314.25	0.953	262.85	0.99054485	1051.4	0.03782061
1314.5	0.953	262.90	0.99056406	1051.6	0.03774378
1314.75	0.953	262.95	0.99058326	1051.8	0.03766695
1315	0.953	263.00	0.99060247	1052.0	0.03759012
1315.25	0.953	263.05	0.99062167	1052.2	0.03751330
1315.5	0.953	263.10	0.99064088	1052.4	0.03743649
1315.75	0.953	263.15	0.99066008	1052.6	0.03735969
1316	0.953	263.20	0.99067928	1052.8	0.03728289
1316.25	0.953	263.25	0.99069847	1053.0	0.03720610
1316.5	0.954	263.30	0.99071767	1053.2	0.03712932
1316.75	0.954	263.35	0.99073686	1053.4	0.03705254
1317	0.954	263.40	0.99075606	1053.6	0.03697577
1317.25	0.954	263.45	0.99077525	1053.8	0.03689901
1317.5	0.954	263.50	0.99079444	1054.0	0.03682226
1317.75	0.954	263.55	0.99081362	1054.2	0.03674551
1318	0.954	263.60	0.99083281	1054.4	0.03666877
1318.25	0.954	263.65	0.99085199	1054.6	0.03659203
1318.5	0.954	263.70	0.99087117	1054.8	0.03651530
1318.75	0.954	263.75	0.99089035	1055.0	0.03643858
1319	0.955	263.80	0.99090953	1055.2	0.03636187
1319.25	0.955	263.85	0.99092871	1055.4	0.03628516
1319.5	0.955	263.90	0.99094789	1055.6	0.03620846
1319.75	0.955	263.95	0.99096706	1055.8	0.03613176
1320	0.955	264.00	0.99098623	1056.0	0.03605508
1320.25	0.955	264.05	0.99100540	1056.2	0.03597840
1320.5	0.955	264.10	0.99102457	1056.4	0.03590172
1320.75	0.955	264.15	0.99104374	1056.6	0.03582505
1321	0.955	264.20	0.99106290	1056.8	0.03574839
1321.25	0.955	264.25	0.99108206	1057.0	0.03567174
1321.5	0.956	264.30	0.99110123	1057.2	0.03559510
1321.75	0.956	264.35	0.99112039	1057.4	0.03551846
1322	0.956	264.40	0.99113954	1057.6	0.03544182
1322.25	0.956	264.45	0.99115870	1057.8	0.03536520
1322.5	0.956	264.50	0.99117786	1058.0	0.03528858
1322.75	0.956	264.55	0.99119701	1058.2	0.03521197
1323	0.956	264.60	0.99121616	1058.4	0.03513536
1323.25	0.956	264.65	0.99123531	1058.6	0.03505876
1323.5	0.956	264.70	0.99125446	1058.8	0.03498217
1323.75	0.956	264.75	0.99127360	1059.0	0.03490558
1324	0.956	264.80	0.99129275	1059.2	0.03482901
1324.25	0.957	264.85	0.99131189	1059.4	0.03475243
1324.5	0.957	264.90	0.99133103	1059.6	0.03467587
1324.75	0.957	264.95	0.99135017	1059.8	0.03459931
1325	0.957	265.00	0.99136931	1060.0	0.03452276
1325.25	0.957	265.05	0.99138845	1060.2	0.03444622
1325.5	0.957	265.10	0.99140758	1060.4	0.03436968
1325.75	0.957	265.15	0.99142671	1060.6	0.03429315
1326	0.957	265.20	0.99144584	1060.8	0.03421662
1326.25	0.957	265.25	0.99146497	1061.0	0.03414011
1326.5	0.957	265.30	0.99148410	1061.2	0.03406360
1326.75	0.958	265.35	0.99150323	1061.4	0.03398709
1327	0.958	265.40	0.99152235	1061.6	0.03391060
1327.25	0.958	265.45	0.99154147	1061.8	0.03383411
1327.5	0.958	265.50	0.99156059	1062.0	0.03375762
1327.75	0.958	265.55	0.99157971	1062.2	0.03368115
1328	0.958	265.60	0.99159883	1062.4	0.03360468
1328.25	0.958	265.65	0.99161795	1062.6	0.03352821
1328.5	0.958	265.70	0.99163706	1062.8	0.03345176
1328.75	0.958	265.75	0.99165617	1063.0	0.03337531
1329	0.958	265.80	0.99167528	1063.2	0.03329887
1329.25	0.958	265.85	0.99169439	1063.4	0.03322243

1329.5	0.959	265.90	0.99171350	1063.6	0.03314600
1329.75	0.959	265.95	0.99173261	1063.8	0.03306958
1330	0.959	266.00	0.99175171	1064.0	0.03299316
1330.25	0.959	266.05	0.99177081	1064.2	0.03291675
1330.5	0.959	266.10	0.99178991	1064.4	0.03284035
1330.75	0.959	266.15	0.99180901	1064.6	0.03276396
1331	0.959	266.20	0.99182811	1064.8	0.03268757
1331.25	0.959	266.25	0.99184720	1065.0	0.03261118
1331.5	0.959	266.30	0.99186630	1065.2	0.03253481
1331.75	0.959	266.35	0.99188539	1065.4	0.03245844
1332	0.960	266.40	0.99190448	1065.6	0.03238208
1332.25	0.960	266.45	0.99192357	1065.8	0.03230572
1332.5	0.960	266.50	0.99194266	1066.0	0.03222938
1332.75	0.960	266.55	0.99196174	1066.2	0.03215303
1333	0.960	266.60	0.99198083	1066.4	0.03207670
1333.25	0.960	266.65	0.99199991	1066.6	0.03200037
1333.5	0.960	266.70	0.99201899	1066.8	0.03192405
1333.75	0.960	266.75	0.99203807	1067.0	0.03184774
1334	0.960	266.80	0.99205714	1067.2	0.03177143
1334.25	0.960	266.85	0.99207622	1067.4	0.03169513
1334.5	0.960	266.90	0.99209529	1067.6	0.03161883
1334.75	0.961	266.95	0.99211436	1067.8	0.03154254
1335	0.961	267.00	0.99213343	1068.0	0.03146626
1335.25	0.961	267.05	0.99215250	1068.2	0.03138999
1335.5	0.961	267.10	0.99217157	1068.4	0.03131372
1335.75	0.961	267.15	0.99219064	1068.6	0.03123746
1336	0.961	267.20	0.99220970	1068.8	0.03116121
1336.25	0.961	267.25	0.99222876	1069.0	0.03108496
1336.5	0.961	267.30	0.99224782	1069.2	0.03100872
1336.75	0.961	267.35	0.99226688	1069.4	0.03093248
1337	0.961	267.40	0.99228594	1069.6	0.03085626
1337.25	0.962	267.45	0.99230499	1069.8	0.03078004
1337.5	0.962	267.50	0.99232404	1070.0	0.03070382
1337.75	0.962	267.55	0.99234310	1070.2	0.03062761
1338	0.962	267.60	0.99236215	1070.4	0.03055141
1338.25	0.962	267.65	0.99238120	1070.6	0.03047522
1338.5	0.962	267.70	0.99240024	1070.8	0.03039903
1338.75	0.962	267.75	0.99241929	1071.0	0.03032285
1339	0.962	267.80	0.99243833	1071.2	0.03024668
1339.25	0.962	267.85	0.99245737	1071.4	0.03017051
1339.5	0.962	267.90	0.99247641	1071.6	0.03009435
1339.75	0.962	267.95	0.99249545	1071.8	0.03001820
1340	0.963	268.00	0.99251449	1072.0	0.02994205
1340.25	0.963	268.05	0.99253352	1072.2	0.02986591
1340.5	0.963	268.10	0.99255256	1072.4	0.02978977
1340.75	0.963	268.15	0.99257159	1072.6	0.02971365
1341	0.963	268.20	0.99259062	1072.8	0.02963753
1341.25	0.963	268.25	0.99260965	1073.0	0.02956141
1341.5	0.963	268.30	0.99262867	1073.2	0.02948531
1341.75	0.963	268.35	0.99264770	1073.4	0.02940921
1342	0.963	268.40	0.99266672	1073.6	0.02933311
1342.25	0.963	268.45	0.99268574	1073.8	0.02925703
1342.5	0.964	268.50	0.99270476	1074.0	0.02918094
1342.75	0.964	268.55	0.99272378	1074.2	0.02910487
1343	0.964	268.60	0.99274280	1074.4	0.02902880
1343.25	0.964	268.65	0.99276181	1074.6	0.02895274
1343.5	0.964	268.70	0.99278083	1074.8	0.02887669
1343.75	0.964	268.75	0.99279984	1075.0	0.02880064
1344	0.964	268.80	0.99281885	1075.2	0.02872460
1344.25	0.964	268.85	0.99283786	1075.4	0.02864857
1344.5	0.964	268.90	0.99285686	1075.6	0.02857254
1344.75	0.964	268.95	0.99287587	1075.8	0.02849652
1345	0.964	269.00	0.99289487	1076.0	0.02842051
1345.25	0.965	269.05	0.99291388	1076.2	0.02834450
1345.5	0.965	269.10	0.99293288	1076.4	0.02826850
1345.75	0.965	269.15	0.99295187	1076.6	0.02819250
1346	0.965	269.20	0.99297087	1076.8	0.02811652
1346.25	0.965	269.25	0.99298987	1077.0	0.02804054
1346.5	0.965	269.30	0.99300886	1077.2	0.02796456
1346.75	0.965	269.35	0.99302785	1077.4	0.02788859
1347	0.965	269.40	0.99304684	1077.6	0.02781263

1347.25	0.965	269.45	0.99306583	1077.8	0.02773668
1347.5	0.965	269.50	0.99308482	1078.0	0.02766073
1347.75	0.966	269.55	0.99310380	1078.2	0.02758479
1348	0.966	269.60	0.99312279	1078.4	0.02750886
1348.25	0.966	269.65	0.99314177	1078.6	0.02743293
1348.5	0.966	269.70	0.99316075	1078.8	0.02735701
1348.75	0.966	269.75	0.99317973	1079.0	0.02728109
1349	0.966	269.80	0.99319870	1079.2	0.02720519
1349.25	0.966	269.85	0.99321768	1079.4	0.02712928
1349.5	0.966	269.90	0.99323665	1079.6	0.02705339
1349.75	0.966	269.95	0.99325562	1079.8	0.02697750
1350	0.966	270.00	0.99327460	1080.0	0.02690162
1350.25	0.966	270.05	0.99329356	1080.2	0.02682574
1350.5	0.967	270.10	0.99331253	1080.4	0.02674988
1350.75	0.967	270.15	0.99333150	1080.6	0.02667401
1351	0.967	270.20	0.99335046	1080.8	0.02659816
1351.25	0.967	270.25	0.99336942	1081.0	0.02652231
1351.5	0.967	270.30	0.99338838	1081.2	0.02644647
1351.75	0.967	270.35	0.99340734	1081.4	0.02637063
1352	0.967	270.40	0.99342630	1081.6	0.02629481
1352.25	0.967	270.45	0.99344525	1081.8	0.02621898
1352.5	0.967	270.50	0.99346421	1082.0	0.02614317
1352.75	0.967	270.55	0.99348316	1082.2	0.02606736
1353	0.968	270.60	0.99350211	1082.4	0.02599156
1353.25	0.968	270.65	0.99352106	1082.6	0.02591576
1353.5	0.968	270.70	0.99354001	1082.8	0.02583997
1353.75	0.968	270.75	0.99355895	1083.0	0.02576419
1354	0.968	270.80	0.99357790	1083.2	0.02568841
1354.25	0.968	270.85	0.99359684	1083.4	0.02561264
1354.5	0.968	270.90	0.99361578	1083.6	0.02553688
1354.75	0.968	270.95	0.99363472	1083.8	0.02546112
1355	0.968	271.00	0.99365366	1084.0	0.02538537
1355.25	0.968	271.05	0.99367259	1084.2	0.02530963
1355.5	0.968	271.10	0.99369153	1084.4	0.02523389
1355.75	0.969	271.15	0.99371046	1084.6	0.02515816
1356	0.969	271.20	0.99372939	1084.8	0.02508244
1356.25	0.969	271.25	0.99374832	1085.0	0.02500672
1356.5	0.969	271.30	0.99376725	1085.2	0.02493101
1356.75	0.969	271.35	0.99378617	1085.4	0.02485531
1357	0.969	271.40	0.99380510	1085.6	0.02477961
1357.25	0.969	271.45	0.99382402	1085.8	0.02470392
1357.5	0.969	271.50	0.99384294	1086.0	0.02462824
1357.75	0.969	271.55	0.99386186	1086.2	0.02455256
1358	0.969	271.60	0.99388078	1086.4	0.02447689
1358.25	0.969	271.65	0.99389969	1086.6	0.02440123
1358.5	0.970	271.70	0.99391861	1086.8	0.02432557
1358.75	0.970	271.75	0.99393752	1087.0	0.02424992
1359	0.970	271.80	0.99395643	1087.2	0.02417427
1359.25	0.970	271.85	0.99397534	1087.4	0.02409863
1359.5	0.970	271.90	0.99399425	1087.6	0.02402300
1359.75	0.970	271.95	0.99401316	1087.8	0.02394738
1360	0.970	272.00	0.99403206	1088.0	0.02387176
1360.25	0.970	272.05	0.99405096	1088.2	0.02379614
1360.5	0.970	272.10	0.99406987	1088.4	0.02372054
1360.75	0.970	272.15	0.99408877	1088.6	0.02364494
1361	0.971	272.20	0.99410766	1088.8	0.02356935
1361.25	0.971	272.25	0.99412656	1089.0	0.02349376
1361.5	0.971	272.30	0.99414545	1089.2	0.02341818
1361.75	0.971	272.35	0.99416435	1089.4	0.02334261
1362	0.971	272.40	0.99418324	1089.6	0.02326704
1362.25	0.971	272.45	0.99420213	1089.8	0.02319148
1362.5	0.971	272.50	0.99422102	1090.0	0.02311593
1362.75	0.971	272.55	0.99423990	1090.2	0.02304038
1363	0.971	272.60	0.99425879	1090.4	0.02296484
1363.25	0.971	272.65	0.99427767	1090.6	0.02288931
1363.5	0.971	272.70	0.99429655	1090.8	0.02281378
1363.75	0.972	272.75	0.99431544	1091.0	0.02273826
1364	0.972	272.80	0.99433431	1091.2	0.02266274
1364.25	0.972	272.85	0.99435319	1091.4	0.02258724
1364.5	0.972	272.90	0.99437207	1091.6	0.02251174
1364.75	0.972	272.95	0.99439094	1091.8	0.02243624

1365	0.972	273.00	0.99440981	1092.0	0.02236075
1365.25	0.972	273.05	0.99442868	1092.2	0.02228527
1365.5	0.972	273.10	0.99444755	1092.4	0.02220980
1365.75	0.972	273.15	0.99446642	1092.6	0.02213433
1366	0.972	273.20	0.99448528	1092.8	0.02205886
1366.25	0.973	273.25	0.99450415	1093.0	0.02198341
1366.5	0.973	273.30	0.99452301	1093.2	0.02190796
1366.75	0.973	273.35	0.99454187	1093.4	0.02183252
1367	0.973	273.40	0.99456073	1093.6	0.02175708
1367.25	0.973	273.45	0.99457959	1093.8	0.02168165
1367.5	0.973	273.50	0.99459844	1094.0	0.02160623
1367.75	0.973	273.55	0.99461730	1094.2	0.02153081
1368	0.973	273.60	0.99463615	1094.4	0.02145540
1368.25	0.973	273.65	0.99465500	1094.6	0.02137999
1368.5	0.973	273.70	0.99467385	1094.8	0.02130460
1368.75	0.973	273.75	0.99469270	1095.0	0.02122921
1369	0.974	273.80	0.99471154	1095.2	0.02115382
1369.25	0.974	273.85	0.99473039	1095.4	0.02107844
1369.5	0.974	273.90	0.99474923	1095.6	0.02100307
1369.75	0.974	273.95	0.99476807	1095.8	0.02092771
1370	0.974	274.00	0.99478691	1096.0	0.02085235
1370.25	0.974	274.05	0.99480575	1096.2	0.02077699
1370.5	0.974	274.10	0.99482459	1096.4	0.02070165
1370.75	0.974	274.15	0.99484342	1096.6	0.02062631
1371	0.974	274.20	0.99486226	1096.8	0.02055098
1371.25	0.974	274.25	0.99488109	1097.0	0.02047565
1371.5	0.974	274.30	0.99489992	1097.2	0.02040033
1371.75	0.975	274.35	0.99491875	1097.4	0.02032502
1372	0.975	274.40	0.99493757	1097.6	0.02024971
1372.25	0.975	274.45	0.99495640	1097.8	0.02017441
1372.5	0.975	274.50	0.99497522	1098.0	0.02009911
1372.75	0.975	274.55	0.99499404	1098.2	0.02002383
1373	0.975	274.60	0.99501286	1098.4	0.01994855
1373.25	0.975	274.65	0.99503168	1098.6	0.01987327
1373.5	0.975	274.70	0.99505050	1098.8	0.01979800
1373.75	0.975	274.75	0.99506931	1099.0	0.01972274
1374	0.975	274.80	0.99508813	1099.2	0.01964748
1374.25	0.976	274.85	0.99510694	1099.4	0.01957224
1374.5	0.976	274.90	0.99512575	1099.6	0.01949699
1374.75	0.976	274.95	0.99514456	1099.8	0.01942176
1375	0.976	275.00	0.99516337	1100.0	0.01934653
1375.25	0.976	275.05	0.99518217	1100.2	0.01927130
1375.5	0.976	275.10	0.99520098	1100.4	0.01919609
1375.75	0.976	275.15	0.99521978	1100.6	0.01912088
1376	0.976	275.20	0.99523858	1100.8	0.01904567
1376.25	0.976	275.25	0.99525738	1101.0	0.01897047
1376.5	0.976	275.30	0.99527618	1101.2	0.01889528
1376.75	0.976	275.35	0.99529498	1101.4	0.01882010
1377	0.977	275.40	0.99531377	1101.6	0.01874492
1377.25	0.977	275.45	0.99533256	1101.8	0.01866975
1377.5	0.977	275.50	0.99535135	1102.0	0.01859458
1377.75	0.977	275.55	0.99537014	1102.2	0.01851942
1378	0.977	275.60	0.99538893	1102.4	0.01844427
1378.25	0.977	275.65	0.99540772	1102.6	0.01836912
1378.5	0.977	275.70	0.99542650	1102.8	0.01829398
1378.75	0.977	275.75	0.99544529	1103.0	0.01821885
1379	0.977	275.80	0.99546407	1103.2	0.01814372
1379.25	0.977	275.85	0.99548285	1103.4	0.01806860
1379.5	0.978	275.90	0.99550163	1103.6	0.01799349
1379.75	0.978	275.95	0.99552041	1103.8	0.01791838
1380	0.978	276.00	0.99553918	1104.0	0.01784328
1380.25	0.978	276.05	0.99555795	1104.2	0.01776818
1380.5	0.978	276.10	0.99557673	1104.4	0.01769309
1380.75	0.978	276.15	0.99559550	1104.6	0.01761801
1381	0.978	276.20	0.99561427	1104.8	0.01754294
1381.25	0.978	276.25	0.99563303	1105.0	0.01746787
1381.5	0.978	276.30	0.99565180	1105.2	0.01739280
1381.75	0.978	276.35	0.99567056	1105.4	0.01731775
1382	0.978	276.40	0.99568933	1105.6	0.01724270
1382.25	0.979	276.45	0.99570809	1105.8	0.01716765
1382.5	0.979	276.50	0.99572685	1106.0	0.01709261

1382.75	0.979	276.55	0.99574560	1106.2	0.01701758
1383	0.979	276.60	0.99576436	1106.4	0.01694256
1383.25	0.979	276.65	0.99578312	1106.6	0.01686754
1383.5	0.979	276.70	0.99580187	1106.8	0.01679253
1383.75	0.979	276.75	0.99582062	1107.0	0.01671752
1384	0.979	276.80	0.99583937	1107.2	0.01664252
1384.25	0.979	276.85	0.99585812	1107.4	0.01656753
1384.5	0.979	276.90	0.99587686	1107.6	0.01649254
1384.75	0.979	276.95	0.99589561	1107.8	0.01641756
1385	0.980	277.00	0.99591435	1108.0	0.01634259
1385.25	0.980	277.05	0.99593310	1108.2	0.01626762
1385.5	0.980	277.10	0.99595184	1108.4	0.01619266
1385.75	0.980	277.15	0.99597057	1108.6	0.01611770
1386	0.980	277.20	0.99598931	1108.8	0.01604275
1386.25	0.980	277.25	0.99600805	1109.0	0.01596781
1386.5	0.980	277.30	0.99602678	1109.2	0.01589288
1386.75	0.980	277.35	0.99604551	1109.4	0.01581795
1387	0.980	277.40	0.99606424	1109.6	0.01574302
1387.25	0.980	277.45	0.99608297	1109.8	0.01566811
1387.5	0.981	277.50	0.99610170	1110.0	0.01559320
1387.75	0.981	277.55	0.99612043	1110.2	0.01551829
1388	0.981	277.60	0.99613915	1110.4	0.01544339
1388.25	0.981	277.65	0.99615787	1110.6	0.01536850
1388.5	0.981	277.70	0.99617660	1110.8	0.01529362
1388.75	0.981	277.75	0.99619532	1111.0	0.01521874
1389	0.981	277.80	0.99621403	1111.2	0.01514387
1389.25	0.981	277.85	0.99623275	1111.4	0.01506900
1389.5	0.981	277.90	0.99625146	1111.6	0.01499414
1389.75	0.981	277.95	0.99627018	1111.8	0.01491929
1390	0.981	278.00	0.99628889	1112.0	0.01484444
1390.25	0.982	278.05	0.99630760	1112.2	0.01476960
1390.5	0.982	278.10	0.99632631	1112.4	0.01469476
1390.75	0.982	278.15	0.99634502	1112.6	0.01461994
1391	0.982	278.20	0.99636372	1112.8	0.01454511
1391.25	0.982	278.25	0.99638243	1113.0	0.01447030
1391.5	0.982	278.30	0.99640113	1113.2	0.01439549
1391.75	0.982	278.35	0.99641983	1113.4	0.01432069
1392	0.982	278.40	0.99643853	1113.6	0.01424589
1392.25	0.982	278.45	0.99645722	1113.8	0.01417110
1392.5	0.982	278.50	0.99647592	1114.0	0.01409632
1392.75	0.982	278.55	0.99649462	1114.2	0.01402154
1393	0.983	278.60	0.99651331	1114.4	0.01394677
1393.25	0.983	278.65	0.99653200	1114.6	0.01387200
1393.5	0.983	278.70	0.99655069	1114.8	0.01379724
1393.75	0.983	278.75	0.99656938	1115.0	0.01372249
1394	0.983	278.80	0.99658806	1115.2	0.01364775
1394.25	0.983	278.85	0.99660675	1115.4	0.01357301
1394.5	0.983	278.90	0.99662543	1115.6	0.01349827
1394.75	0.983	278.95	0.99664411	1115.8	0.01342354
1395	0.983	279.00	0.99666279	1116.0	0.01334882
1395.25	0.983	279.05	0.99668147	1116.2	0.01327411
1395.5	0.984	279.10	0.99670015	1116.4	0.01319940
1395.75	0.984	279.15	0.99671883	1116.6	0.01312470
1396	0.984	279.20	0.99673750	1116.8	0.01305000
1396.25	0.984	279.25	0.99675617	1117.0	0.01297531
1396.5	0.984	279.30	0.99677484	1117.2	0.01290063
1396.75	0.984	279.35	0.99679351	1117.4	0.01282595
1397	0.984	279.40	0.99681218	1117.6	0.01275128
1397.25	0.984	279.45	0.99683085	1117.8	0.01267662
1397.5	0.984	279.50	0.99684951	1118.0	0.01260196
1397.75	0.984	279.55	0.99686817	1118.2	0.01252731
1398	0.984	279.60	0.99688683	1118.4	0.01245266
1398.25	0.985	279.65	0.99690549	1118.6	0.01237802
1398.5	0.985	279.70	0.99692415	1118.8	0.01230339
1398.75	0.985	279.75	0.99694281	1119.0	0.01222876
1399	0.985	279.80	0.99696146	1119.2	0.01215414
1399.25	0.985	279.85	0.99698012	1119.4	0.01207953
1399.5	0.985	279.90	0.99699877	1119.6	0.01200492
1399.75	0.985	279.95	0.99701742	1119.8	0.01193032
1400	0.985	280.00	0.99703607	1120.0	0.01185573
1400.25	0.985	280.05	0.99705472	1120.2	0.01178114

1400.5	0.985	280.10	0.99707336	1120.4	0.01170655
1400.75	0.985	280.15	0.99709201	1120.6	0.01163198
1401	0.986	280.20	0.99711065	1120.8	0.01155741
1401.25	0.986	280.25	0.99712929	1121.0	0.01148284
1401.5	0.986	280.30	0.99714793	1121.2	0.01140828
1401.75	0.986	280.35	0.99716657	1121.4	0.01133373
1402	0.986	280.40	0.99718520	1121.6	0.01125919
1402.25	0.986	280.45	0.99720384	1121.8	0.01118465
1402.5	0.986	280.50	0.99722247	1122.0	0.01111012
1402.75	0.986	280.55	0.99724110	1122.2	0.01103559
1403	0.986	280.60	0.99725973	1122.4	0.01096107
1403.25	0.986	280.65	0.99727836	1122.6	0.01088655
1403.5	0.986	280.70	0.99729699	1122.8	0.01081205
1403.75	0.987	280.75	0.99731561	1123.0	0.01073755
1404	0.987	280.80	0.99733424	1123.2	0.01066305
1404.25	0.987	280.85	0.99735286	1123.4	0.01058856
1404.5	0.987	280.90	0.99737148	1123.6	0.01051408
1404.75	0.987	280.95	0.99739010	1123.8	0.01043960
1405	0.987	281.00	0.99740872	1124.0	0.01036513
1405.25	0.987	281.05	0.99742733	1124.2	0.01029067
1405.5	0.987	281.10	0.99744595	1124.4	0.01021621
1405.75	0.987	281.15	0.99746456	1124.6	0.01014176
1406	0.987	281.20	0.99748317	1124.8	0.01006731
1406.25	0.988	281.25	0.99750178	1125.0	0.00999287
1406.5	0.988	281.30	0.99752039	1125.2	0.00991844
1406.75	0.988	281.35	0.99753900	1125.4	0.00984401
1407	0.988	281.40	0.99755760	1125.6	0.00976959
1407.25	0.988	281.45	0.99757621	1125.8	0.00969518
1407.5	0.988	281.50	0.99759481	1126.0	0.00962077
1407.75	0.988	281.55	0.99761341	1126.2	0.00954637
1408	0.988	281.60	0.99763201	1126.4	0.00947197
1408.25	0.988	281.65	0.99765060	1126.6	0.00939758
1408.5	0.988	281.70	0.99766920	1126.8	0.00932320
1408.75	0.988	281.75	0.99768779	1127.0	0.00924882
1409	0.989	281.80	0.99770639	1127.2	0.00917445
1409.25	0.989	281.85	0.99772498	1127.4	0.00910008
1409.5	0.989	281.90	0.99774357	1127.6	0.00902573
1409.75	0.989	281.95	0.99776216	1127.8	0.00895137
1410	0.989	282.00	0.99778074	1128.0	0.00887703
1410.25	0.989	282.05	0.99779933	1128.2	0.00880269
1410.5	0.989	282.10	0.99781791	1128.4	0.00872835
1410.75	0.989	282.15	0.99783649	1128.6	0.00865403
1411	0.989	282.20	0.99785507	1128.8	0.00857970
1411.25	0.989	282.25	0.99787365	1129.0	0.00850539
1411.5	0.989	282.30	0.99789223	1129.2	0.00843108
1411.75	0.990	282.35	0.99791081	1129.4	0.00835678
1412	0.990	282.40	0.99792938	1129.6	0.00828248
1412.25	0.990	282.45	0.99794795	1129.8	0.00820819
1412.5	0.990	282.50	0.99796652	1130.0	0.00813391
1412.75	0.990	282.55	0.99798509	1130.2	0.00805963
1413	0.990	282.60	0.99800366	1130.4	0.00798536
1413.25	0.990	282.65	0.99802223	1130.6	0.00791109
1413.5	0.990	282.70	0.99804079	1130.8	0.00783683
1413.75	0.990	282.75	0.99805936	1131.0	0.00776258
1414	0.990	282.80	0.99807792	1131.2	0.00768833
1414.25	0.990	282.85	0.99809648	1131.4	0.00761409
1414.5	0.991	282.90	0.99811504	1131.6	0.00753985
1414.75	0.991	282.95	0.99813359	1131.8	0.00746562
1415	0.991	283.00	0.99815215	1132.0	0.00739140
1415.25	0.991	283.05	0.99817070	1132.2	0.00731719
1415.5	0.991	283.10	0.99818926	1132.4	0.00724297
1415.75	0.991	283.15	0.99820781	1132.6	0.00716877
1416	0.991	283.20	0.99822636	1132.8	0.00709457
1416.25	0.991	283.25	0.99824490	1133.0	0.00702038
1416.5	0.991	283.30	0.99826345	1133.2	0.00694620
1416.75	0.991	283.35	0.99828200	1133.4	0.00687202
1417	0.992	283.40	0.99830054	1133.6	0.00679784
1417.25	0.992	283.45	0.99831908	1133.8	0.00672368
1417.5	0.992	283.50	0.99833762	1134.0	0.00664951
1417.75	0.992	283.55	0.99835616	1134.2	0.00657536
1418	0.992	283.60	0.99837470	1134.4	0.00650121

1418.25	0.992	283.65	0.99839323	1134.6	0.00642707
1418.5	0.992	283.70	0.99841177	1134.8	0.00635293
1418.75	0.992	283.75	0.99843030	1135.0	0.00627880
1419	0.992	283.80	0.99844883	1135.2	0.00620468
1419.25	0.992	283.85	0.99846736	1135.4	0.00613056
1419.5	0.992	283.90	0.99848589	1135.6	0.00605645
1419.75	0.993	283.95	0.99850441	1135.8	0.00598234
1420	0.993	284.00	0.99852294	1136.0	0.00590824
1420.25	0.993	284.05	0.99854146	1136.2	0.00583415
1420.5	0.993	284.10	0.99855998	1136.4	0.00576006
1420.75	0.993	284.15	0.99857851	1136.6	0.00568598
1421	0.993	284.20	0.99859702	1136.8	0.00561190
1421.25	0.993	284.25	0.99861554	1137.0	0.00553784
1421.5	0.993	284.30	0.99863406	1137.2	0.00546377
1421.75	0.993	284.35	0.99865257	1137.4	0.00538972
1422	0.993	284.40	0.99867108	1137.6	0.00531566
1422.25	0.993	284.45	0.99868959	1137.8	0.00524162
1422.5	0.994	284.50	0.99870810	1138.0	0.00516758
1422.75	0.994	284.55	0.99872661	1138.2	0.00509355
1423	0.994	284.60	0.99874512	1138.4	0.00501952
1423.25	0.994	284.65	0.99876362	1138.6	0.00494550
1423.5	0.994	284.70	0.99878213	1138.8	0.00487149
1423.75	0.994	284.75	0.99880063	1139.0	0.00479748
1424	0.994	284.80	0.99881913	1139.2	0.00472348
1424.25	0.994	284.85	0.99883763	1139.4	0.00464948
1424.5	0.994	284.90	0.99885613	1139.6	0.00457549
1424.75	0.994	284.95	0.99887462	1139.8	0.00450151
1425	0.994	285.00	0.99889312	1140.0	0.00442753
1425.25	0.995	285.05	0.99891161	1140.2	0.00435356
1425.5	0.995	285.10	0.99893010	1140.4	0.00427960
1425.75	0.995	285.15	0.99894859	1140.6	0.00420564
1426	0.995	285.20	0.99896708	1140.8	0.00413169
1426.25	0.995	285.25	0.99898557	1141.0	0.00405774
1426.5	0.995	285.30	0.99900405	1141.2	0.00398380
1426.75	0.995	285.35	0.99902253	1141.4	0.00390986
1427	0.995	285.40	0.99904102	1141.6	0.00383593
1427.25	0.995	285.45	0.99905950	1141.8	0.00376201
1427.5	0.995	285.50	0.99907798	1142.0	0.00368810
1427.75	0.995	285.55	0.99909645	1142.2	0.00361419
1428	0.996	285.60	0.99911493	1142.4	0.00354028
1428.25	0.996	285.65	0.99913340	1142.6	0.00346638
1428.5	0.996	285.70	0.99915188	1142.8	0.00339249
1428.75	0.996	285.75	0.99917035	1143.0	0.00331860
1429	0.996	285.80	0.99918882	1143.2	0.00324473
1429.25	0.996	285.85	0.99920729	1143.4	0.00317085
1429.5	0.996	285.90	0.99922575	1143.6	0.00309698
1429.75	0.996	285.95	0.99924422	1143.8	0.00302312
1430	0.996	286.00	0.99926268	1144.0	0.00294927
1430.25	0.996	286.05	0.99928115	1144.2	0.00287542
1430.5	0.996	286.10	0.99929961	1144.4	0.00280157
1430.75	0.997	286.15	0.99931807	1144.6	0.00272774
1431	0.997	286.20	0.99933652	1144.8	0.00265390
1431.25	0.997	286.25	0.99935498	1145.0	0.00258008
1431.5	0.997	286.30	0.99937344	1145.2	0.00250626
1431.75	0.997	286.35	0.99939189	1145.4	0.00243245
1432	0.997	286.40	0.99941034	1145.6	0.00235864
1432.25	0.997	286.45	0.99942879	1145.8	0.00228484
1432.5	0.997	286.50	0.99944724	1146.0	0.00221104
1432.75	0.997	286.55	0.99946569	1146.2	0.00213725
1433	0.997	286.60	0.99948413	1146.4	0.00206347
1433.25	0.998	286.65	0.99950258	1146.6	0.00198969
1433.5	0.998	286.70	0.99952102	1146.8	0.00191592
1433.75	0.998	286.75	0.99953946	1147.0	0.00184216
1434	0.998	286.80	0.99955790	1147.2	0.00176840
1434.25	0.998	286.85	0.99957634	1147.4	0.00169465
1434.5	0.998	286.90	0.99959477	1147.6	0.00162090
1434.75	0.998	286.95	0.99961321	1147.8	0.00154716
1435	0.998	287.00	0.99963164	1148.0	0.00147343
1435.25	0.998	287.05	0.99965008	1148.2	0.00139970
1435.5	0.998	287.10	0.99966851	1148.4	0.00132597
1435.75	0.998	287.15	0.99968694	1148.6	0.00125226

1436	0.999	287.20	0.99970536	1148.8	0.00117855
1436.25	0.999	287.25	0.99972379	1149.0	0.00110484
1436.5	0.999	287.30	0.99974221	1149.2	0.00103114
1436.75	0.999	287.35	0.99976064	1149.4	0.00095745
1437	0.999	287.40	0.99977906	1149.6	0.00088377
1437.25	0.999	287.45	0.99979748	1149.8	0.00081009
1437.5	0.999	287.50	0.99981590	1150.0	0.00073641
1437.75	0.999	287.55	0.99983431	1150.2	0.00066274
1438	0.999	287.60	0.99985273	1150.4	0.00058908
1438.25	0.999	287.65	0.99987114	1150.6	0.00051543
1438.5	0.999	287.70	0.99988956	1150.8	0.00044177
1438.75	1.000	287.75	0.99990797	1151.0	0.00036813
1439	1.000	287.80	0.99992638	1151.2	0.00029449
1439.25	1.000	287.85	0.99994478	1151.4	0.00022086
1439.5	1.000	287.90	0.99996319	1151.6	0.00014723
1439.75	1.000	287.95	0.99998160	1151.8	0.00007361
1440	1.000	288.00	1.00000000	1152.0	0.00000000

Point:	t:	Rainfall total (in):	Mass Curve Slope (intensity):	Cu:	Cd:	Qi (cfs):	Qi*t (cu ft):	t(min):	Q (cfs):
1	0	0.000						0	0.00
2	1	0.000						51	0.02
3	2	0.000						56	0.02
4	3	0.001						61	0.02
5	4	0.001						66	0.02
6	5	0.001						71	0.02
7	6	0.001						76	0.02
8	7	0.001						81	0.02
9	8	0.001						86	0.02
10	9	0.002						91	0.02
11	10	0.002						96	0.02
12	11	0.002						101	0.03
13	12	0.002						106	0.03
14	13	0.002						111	0.03
15	14	0.003						116	0.03
16	15	0.003						121	0.03
17	16	0.003						126	0.03
18	17	0.003						131	0.03
19	18	0.003						136	0.03
20	19	0.004						141	0.03
21	20	0.004						146	0.03
22	21	0.004						151	0.03
23	22	0.004						156	0.03
24	23	0.004						161	0.03
25	24	0.004						166	0.03
26	25	0.005						171	0.03
27	26	0.005						176	0.03
28	27	0.005						181	0.03
29	28	0.005						186	0.03
30	29	0.005						191	0.03
31	30	0.006						196	0.03
32	31	0.006						201	0.03
33	32	0.006						206	0.03
34	33	0.006						211	0.03
35	34	0.006						216	0.03
36	35	0.006						221	0.03
37	36	0.007						226	0.03
38	37	0.007						231	0.03
39	38	0.007						236	0.03
40	39	0.007						241	0.03
41	40	0.007						246	0.03
42	41	0.008						251	0.03
43	42	0.008						256	0.03
44	43	0.008						261	0.03
45	44	0.008						266	0.03
46	45	0.008						271	0.03
47	46	0.009						276	0.03
48	47	0.009						281	0.03
49	48	0.009						286	0.03
50	49	0.009						291	0.03
51	50	0.009						296	0.03
52	51	0.009	0.011	0.10	0.37	0.02	37.46	301	0.03
53	52	0.010	0.011					306	0.03
54	53	0.010	0.011					311	0.03
55	54	0.010	0.011					316	0.03
56	55	0.010	0.011					321	0.03
57	56	0.010	0.011	0.10	0.37	0.02	7.35	326	0.03
58	57	0.011	0.011					331	0.03
59	58	0.011	0.011					336	0.03
60	59	0.011	0.011					341	0.03
61	60	0.011	0.011					346	0.03
62	61	0.011	0.011	0.10	0.37	0.02	7.37	351	0.03
63	62	0.012	0.011					356	0.03
64	63	0.012	0.011					361	0.03
65	64	0.012	0.011					366	0.03
66	65	0.012	0.011					371	0.03
67	66	0.012	0.011	0.10	0.37	0.02	7.38	376	0.03
68	67	0.013	0.011					381	0.03
69	68	0.013	0.011					386	0.03
70	69	0.013	0.011					391	0.03
71	70	0.013	0.011					396	0.03
72	71	0.013	0.011	0.10	0.37	0.02	7.40	401	0.03
73	72	0.013	0.011					406	0.03
74	73	0.014	0.011					411	0.03
75	74	0.014	0.011					416	0.03
76	75	0.014	0.011					421	0.03
77	76	0.014	0.011	0.10	0.37	0.02	7.42	426	0.03
78	77	0.014	0.011					431	0.03
79	78	0.015	0.011					436	0.03
80	79	0.015	0.011					441	0.03
81	80	0.015	0.011					446	0.03
82	81	0.015	0.011	0.10	0.37	0.02	7.43	451	0.03
83	82	0.015	0.011					456	0.03
84	83	0.016	0.011					461	0.03
85	84	0.016	0.011					466	0.03
86	85	0.016	0.011					471	0.03
87	86	0.016	0.011	0.10	0.37	0.02	7.45	476	0.03
88	87	0.016	0.011					481	0.03
89	88	0.016	0.011					486	0.03
90	89	0.017	0.011					491	0.03
91	90	0.017	0.011					496	0.03
92	91	0.017	0.011	0.10	0.37	0.02	7.46	501	0.03
93	92	0.017	0.011					506	0.03
94	93	0.017	0.011					511	0.03
95	94	0.018	0.011					516	0.03
96	95	0.018	0.011					521	0.03
97	96	0.018	0.011	0.10	0.37	0.02	7.48	526	0.03
98	97	0.018	0.011					531	0.03
99	98	0.018	0.011					536	0.03
100	99	0.019	0.011					541	0.03
101	100	0.019	0.011					546	0.03
102	101	0.019	0.011	0.10	0.37	0.03	7.50	551	0.03
103	102	0.019	0.011					556	0.03
104	103	0.019	0.011					561	0.03
105	104	0.020	0.011					566	0.03
106	105	0.020	0.011					571	0.03
107	106	0.020	0.011	0.10	0.37	0.03	7.51	576	0.03
108	107	0.020	0.011					581	0.03
109	108	0.020	0.011					586	0.03
110	109	0.021	0.011					591	0.03
111	110	0.021	0.011					596	0.03
112	111	0.021	0.011	0.10	0.37	0.03	7.53	601	0.03
113	112	0.021	0.011					606	0.03
114	113	0.021	0.011					611	0.03
115	114	0.021	0.011					616	0.03
116	115	0.022	0.011					621	0.03
117	116	0.022	0.011	0.10	0.37	0.03	7.55	626	0.03
118	117	0.022	0.011					631	0.03
119	118	0.022	0.011					636	0.03
120	119	0.022	0.011					641	0.03

Rainfall Depth (in):	Area (acres):	Tc (min):	Int (in/hr):	Cu:	Cd:	Tc Eq:	Q (cfs):	Qburned (cfs):	Volume (acre-ft):
0.5	5.93	51	0.1	0.1	0.37	Tc=(10)^-0	0.22	n/a	3948.74

121	120	0.023	0.011					646	0.03
122	121	0.023	0.012	0.10	0.37	0.03	7.56	651	0.04
123	122	0.023	0.012					656	0.04
124	123	0.023	0.012					661	0.04
125	124	0.023	0.012					666	0.04
126	125	0.024	0.012					671	0.04
127	126	0.024	0.012	0.10	0.37	0.03	7.58	676	0.04
128	127	0.024	0.012					681	0.04
129	128	0.024	0.012					686	0.04
130	129	0.024	0.012					691	0.04
131	130	0.025	0.012					696	0.04
132	131	0.025	0.012	0.10	0.37	0.03	7.60	701	0.04
133	132	0.025	0.012					706	0.04
134	133	0.025	0.012					711	0.04
135	134	0.025	0.012					716	0.04
136	135	0.026	0.012					721	0.04
137	136	0.026	0.012	0.10	0.37	0.03	7.61	726	0.04
138	137	0.026	0.012					731	0.04
139	138	0.026	0.012					736	0.04
140	139	0.026	0.012					741	0.04
141	140	0.027	0.012					746	0.04
142	141	0.027	0.012	0.10	0.37	0.03	7.63	751	0.04
143	142	0.027	0.012					756	0.04
144	143	0.027	0.012					761	0.04
145	144	0.027	0.012					766	0.04
146	145	0.028	0.012					771	0.04
147	146	0.028	0.012	0.10	0.37	0.03	7.65	776	0.04
148	147	0.028	0.012					781	0.04
149	148	0.028	0.012					786	0.04
150	149	0.028	0.012					791	0.04
151	150	0.029	0.012					796	0.04
152	151	0.029	0.012	0.10	0.37	0.03	7.66	801	0.04
153	152	0.029	0.012					806	0.04
154	153	0.029	0.012					811	0.04
155	154	0.029	0.012					816	0.04
156	155	0.029	0.012					821	0.04
157	156	0.030	0.012	0.10	0.37	0.03	7.68	826	0.04
158	157	0.030	0.012					831	0.04
159	158	0.030	0.012					836	0.04
160	159	0.030	0.012					841	0.04
161	160	0.030	0.012					846	0.04
162	161	0.031	0.012	0.10	0.37	0.03	7.70	851	0.04
163	162	0.031	0.012					856	0.04
164	163	0.031	0.012					861	0.04
165	164	0.031	0.012					866	0.04
166	165	0.031	0.012					871	0.05
167	166	0.032	0.012	0.10	0.37	0.03	7.72	876	0.05
168	167	0.032	0.012					881	0.05
169	168	0.032	0.012					886	0.05
170	169	0.032	0.012					891	0.05
171	170	0.032	0.012					896	0.05
172	171	0.033	0.012	0.10	0.37	0.03	7.74	901	0.05
173	172	0.033	0.012					906	0.05
174	173	0.033	0.012					911	0.05
175	174	0.033	0.012					916	0.05
176	175	0.033	0.012					921	0.05
177	176	0.034	0.012	0.10	0.37	0.03	7.75	926	0.05
178	177	0.034	0.012					931	0.05
179	178	0.034	0.012					936	0.05
180	179	0.034	0.012					941	0.05
181	180	0.034	0.012					946	0.05
182	181	0.035	0.012	0.10	0.37	0.03	7.77	951	0.05
183	182	0.035	0.012					956	0.05
184	183	0.035	0.012					961	0.05
185	184	0.035	0.012					966	0.05
186	185	0.035	0.012					971	0.05
187	186	0.036	0.012	0.10	0.37	0.03	7.79	976	0.06
188	187	0.036	0.012					981	0.06
189	188	0.036	0.012					986	0.06
190	189	0.036	0.012					991	0.06
191	190	0.036	0.012					996	0.06
192	191	0.037	0.012	0.10	0.37	0.03	7.81	1001	0.06
193	192	0.037	0.012					1006	0.06
194	193	0.037	0.012					1011	0.06
195	194	0.037	0.012					1016	0.06
196	195	0.037	0.012					1021	0.06
197	196	0.038	0.012	0.10	0.37	0.03	7.83	1026	0.06
198	197	0.038	0.012					1031	0.06
199	198	0.038	0.012					1036	0.07
200	199	0.038	0.012					1041	0.07
201	200	0.038	0.012					1046	0.07
202	201	0.039	0.012	0.10	0.37	0.03	7.85	1051	0.07
203	202	0.039	0.012					1056	0.07
204	203	0.039	0.012					1061	0.07
205	204	0.039	0.012					1066	0.07
206	205	0.039	0.012					1071	0.07
207	206	0.040	0.012	0.10	0.37	0.03	7.87	1076	0.08
208	207	0.040	0.012					1081	0.08
209	208	0.040	0.012					1086	0.08
210	209	0.040	0.012					1091	0.08
211	210	0.040	0.012					1096	0.09
212	211	0.041	0.012	0.10	0.37	0.03	7.88	1101	0.09
213	212	0.041	0.012					1106	0.09
214	213	0.041	0.012					1111	0.09
215	214	0.041	0.012					1116	0.10
216	215	0.041	0.012					1121	0.10
217	216	0.042	0.012	0.10	0.37	0.03	7.90	1126	0.11
218	217	0.042	0.012					1131	0.11
219	218	0.042	0.012					1136	0.12
220	219	0.042	0.012					1141	0.13
221	220	0.042	0.012					1146	0.15
222	221	0.043	0.012	0.10	0.37	0.03	7.92	1151	0.18
223	222	0.043	0.012					1156	0.22
224	223	0.043	0.012					1161	0.22
225	224	0.043	0.012					1166	0.22
226	225	0.044	0.012					1171	0.22
227	226	0.044	0.012	0.10	0.37	0.03	7.94	1176	0.21
228	227	0.044	0.012					1181	0.20
229	228	0.044	0.012					1186	0.19
230	229	0.044	0.012					1191	0.18
231	230	0.045	0.012					1196	0.16
232	231	0.045	0.012	0.10	0.37	0.03	7.96	1201	0.14
233	232	0.045	0.012					1206	0.08
234	233	0.045	0.012					1211	0.07
235	234	0.045	0.012					1216	0.07
236	235	0.046	0.012					1221	0.06
237	236	0.046	0.012	0.10	0.37	0.03	7.98	1226	0.06
238	237	0.046	0.012					1231	0.05
239	238	0.046	0.012					1236	0.05
240	239	0.046	0.012					1241	0.05
241	240	0.047	0.012					1246	0.05
242	241	0.047	0.012	0.10	0.37	0.03	8.00	1251	0.05

243	242	0.047	0.012					1256	0.05
244	243	0.047	0.012					1261	0.04
245	244	0.047	0.012					1266	0.04
246	245	0.048	0.012					1271	0.04
247	246	0.048	0.012	0.10	0.37	0.03	8.02	1276	0.04
248	247	0.048	0.012					1281	0.04
249	248	0.048	0.012					1286	0.04
250	249	0.048	0.012					1291	0.04
251	250	0.049	0.012					1296	0.04
252	251	0.049	0.012	0.10	0.37	0.03	8.04	1301	0.04
253	252	0.049	0.012					1306	0.04
254	253	0.049	0.012					1311	0.03
255	254	0.049	0.012					1316	0.03
256	255	0.050	0.012					1321	0.03
257	256	0.050	0.012	0.10	0.37	0.03	8.06	1326	0.03
258	257	0.050	0.012					1331	0.03
259	258	0.050	0.012					1336	0.03
260	259	0.051	0.012					1341	0.03
261	260	0.051	0.012					1346	0.03
262	261	0.051	0.012	0.10	0.37	0.03	8.08	1351	0.03
263	262	0.051	0.012					1356	0.03
264	263	0.051	0.012					1361	0.03
265	264	0.052	0.012					1366	0.03
266	265	0.052	0.012					1371	0.03
267	266	0.052	0.012	0.10	0.37	0.03	8.10	1376	0.03
268	267	0.052	0.012					1381	0.03
269	268	0.052	0.012					1386	0.03
270	269	0.053	0.012					1391	0.03
271	270	0.053	0.012					1396	0.03
272	271	0.053	0.012	0.10	0.37	0.03	8.12	1401	0.03
273	272	0.053	0.012					1406	0.03
274	273	0.053	0.012					1411	0.03
275	274	0.054	0.012					1416	0.03
276	275	0.054	0.012					1421	0.03
277	276	0.054	0.012	0.10	0.37	0.03	8.15	1426	0.03
278	277	0.054	0.012					1431	0.03
279	278	0.054	0.012					1436	0.03
280	279	0.055	0.012					1441	0.02
281	280	0.055	0.012					1446	0.02
282	281	0.055	0.012	0.10	0.37	0.03	8.17	1451	0.02
283	282	0.055	0.012					1456	0.02
284	283	0.056	0.012					1461	0.01
285	284	0.056	0.012					1466	0.01
286	285	0.056	0.012					1471	0.01
287	286	0.056	0.012	0.10	0.37	0.03	8.19	1476	0.01
288	287	0.056	0.012					1481	0.00
289	288	0.057	0.012					1486	0.00
290	289	0.057	0.012					1491	0.00
291	290	0.057	0.012					1496	0.00
292	291	0.057	0.012	0.10	0.37	0.03	8.21	1501	0.00
293	292	0.057	0.012					1506	0.00
294	293	0.058	0.013					1511	0.00
295	294	0.058	0.013					1516	0.00
296	295	0.058	0.013					1521	0.00
297	296	0.058	0.013	0.10	0.37	0.03	8.23	1526	0.00
298	297	0.058	0.013					1531	0.00
299	298	0.059	0.013					1536	0.00
300	299	0.059	0.013					1541	0.00
301	300	0.059	0.013						
302	301	0.059	0.013	0.10	0.37	0.03	8.25		
303	302	0.060	0.013						
304	303	0.060	0.013						
305	304	0.060	0.013						
306	305	0.060	0.013						
307	306	0.060	0.013	0.10	0.37	0.03	8.28		
308	307	0.061	0.013						
309	308	0.061	0.013						
310	309	0.061	0.013						
311	310	0.061	0.013						
312	311	0.061	0.013	0.10	0.37	0.03	8.30		
313	312	0.062	0.013						
314	313	0.062	0.013						
315	314	0.062	0.013						
316	315	0.062	0.013						
317	316	0.063	0.013	0.10	0.37	0.03	8.32		
318	317	0.063	0.013						
319	318	0.063	0.013						
320	319	0.063	0.013						
321	320	0.063	0.013						
322	321	0.064	0.013	0.10	0.37	0.03	8.34		
323	322	0.064	0.013						
324	323	0.064	0.013						
325	324	0.064	0.013						
326	325	0.064	0.013						
327	326	0.065	0.013	0.10	0.37	0.03	8.37		
328	327	0.065	0.013						
329	328	0.065	0.013						
330	329	0.065	0.013						
331	330	0.066	0.013						
332	331	0.066	0.013	0.10	0.37	0.03	8.39		
333	332	0.066	0.013						
334	333	0.066	0.013						
335	334	0.066	0.013						
336	335	0.067	0.013						
337	336	0.067	0.013	0.10	0.37	0.03	8.41		
338	337	0.067	0.013						
339	338	0.067	0.013						
340	339	0.067	0.013						
341	340	0.068	0.013						
342	341	0.068	0.013	0.10	0.37	0.03	8.44		
343	342	0.068	0.013						
344	343	0.068	0.013						
345	344	0.069	0.013						
346	345	0.069	0.013						
347	346	0.069	0.013	0.10	0.37	0.03	8.46		
348	347	0.069	0.013						
349	348	0.069	0.013						
350	349	0.070	0.013						
351	350	0.070	0.013						
352	351	0.070	0.013	0.10	0.37	0.03	8.48		
353	352	0.070	0.013						
354	353	0.071	0.013						
355	354	0.071	0.013						
356	355	0.071	0.013						
357	356	0.071	0.013	0.10	0.37	0.03	8.51		
358	357	0.071	0.013						
359	358	0.072	0.013						
360	359	0.072	0.013						
361	360	0.072	0.013						
362	361	0.072	0.013	0.10	0.37	0.03	8.53		
363	362	0.072	0.013						
364	363	0.073	0.013						

365	364	0.073	0.013				
366	365	0.073	0.013				
367	366	0.073	0.013	0.10	0.37	0.03	8.56
368	367	0.074	0.013				
369	368	0.074	0.013				
370	369	0.074	0.013				
371	370	0.074	0.013				
372	371	0.074	0.013	0.10	0.37	0.03	8.58
373	372	0.075	0.013				
374	373	0.075	0.013				
375	374	0.075	0.013				
376	375	0.075	0.013				
377	376	0.076	0.013	0.10	0.37	0.03	8.61
378	377	0.076	0.013				
379	378	0.076	0.013				
380	379	0.076	0.013				
381	380	0.076	0.013				
382	381	0.077	0.013	0.10	0.37	0.03	8.63
383	382	0.077	0.013				
384	383	0.077	0.013				
385	384	0.077	0.013				
386	385	0.078	0.013				
387	386	0.078	0.013	0.10	0.37	0.03	8.66
388	387	0.078	0.013				
389	388	0.078	0.013				
390	389	0.078	0.013				
391	390	0.079	0.013				
392	391	0.079	0.013	0.10	0.37	0.03	8.68
393	392	0.079	0.013				
394	393	0.079	0.013				
395	394	0.080	0.013				
396	395	0.080	0.013				
397	396	0.080	0.013	0.10	0.37	0.03	8.71
398	397	0.080	0.013				
399	398	0.080	0.013				
400	399	0.081	0.013				
401	400	0.081	0.013				
402	401	0.081	0.013	0.10	0.37	0.03	8.74
403	402	0.081	0.013				
404	403	0.082	0.013				
405	404	0.082	0.013				
406	405	0.082	0.013				
407	406	0.082	0.013	0.10	0.37	0.03	8.76
408	407	0.083	0.013				
409	408	0.083	0.013				
410	409	0.083	0.013				
411	410	0.083	0.013				
412	411	0.083	0.013	0.10	0.37	0.03	8.79
413	412	0.084	0.013				
414	413	0.084	0.013				
415	414	0.084	0.013				
416	415	0.084	0.013				
417	416	0.085	0.013	0.10	0.37	0.03	8.82
418	417	0.085	0.013				
419	418	0.085	0.013				
420	419	0.085	0.013				
421	420	0.085	0.013				
422	421	0.086	0.013	0.10	0.37	0.03	8.84
423	422	0.086	0.013				
424	423	0.086	0.013				
425	424	0.086	0.013				
426	425	0.087	0.013				
427	426	0.087	0.013	0.10	0.37	0.03	8.87
428	427	0.087	0.014				
429	428	0.087	0.014				
430	429	0.088	0.014				
431	430	0.088	0.014				
432	431	0.088	0.014	0.10	0.37	0.03	8.90
433	432	0.088	0.014				
434	433	0.088	0.014				
435	434	0.089	0.014				
436	435	0.089	0.014				
437	436	0.089	0.014	0.10	0.37	0.03	8.93
438	437	0.089	0.014				
439	438	0.090	0.014				
440	439	0.090	0.014				
441	440	0.090	0.014				
442	441	0.090	0.014	0.10	0.37	0.03	8.96
443	442	0.091	0.014				
444	443	0.091	0.014				
445	444	0.091	0.014				
446	445	0.091	0.014				
447	446	0.091	0.014	0.10	0.37	0.03	8.98
448	447	0.092	0.014				
449	448	0.092	0.014				
450	449	0.092	0.014				
451	450	0.092	0.014				
452	451	0.093	0.014	0.10	0.37	0.03	9.01
453	452	0.093	0.014				
454	453	0.093	0.014				
455	454	0.093	0.014				
456	455	0.094	0.014				
457	456	0.094	0.014	0.10	0.37	0.03	9.04
458	457	0.094	0.014				
459	458	0.094	0.014				
460	459	0.094	0.014				
461	460	0.095	0.014				
462	461	0.095	0.014	0.10	0.37	0.03	9.07
463	462	0.095	0.014				
464	463	0.095	0.014				
465	464	0.096	0.014				
466	465	0.096	0.014				
467	466	0.096	0.014	0.10	0.37	0.03	9.10
468	467	0.096	0.014				
469	468	0.097	0.014				
470	469	0.097	0.014				
471	470	0.097	0.014				
472	471	0.097	0.014	0.10	0.37	0.03	9.13
473	472	0.098	0.014				
474	473	0.098	0.014				
475	474	0.098	0.014				
476	475	0.098	0.014				
477	476	0.098	0.014	0.10	0.37	0.03	9.16
478	477	0.099	0.014				
479	478	0.099	0.014				
480	479	0.099	0.014				
481	480	0.099	0.014				
482	481	0.100	0.014	0.10	0.37	0.03	9.19
483	482	0.100	0.014				
484	483	0.100	0.014				
485	484	0.100	0.014				
486	485	0.101	0.014				

487	486	0.101	0.014	0.10	0.37	0.03	9.22
488	487	0.101	0.014				
489	488	0.101	0.014				
490	489	0.102	0.014				
491	490	0.102	0.014				
492	491	0.102	0.014	0.10	0.37	0.03	9.26
493	492	0.102	0.014				
494	493	0.102	0.014				
495	494	0.103	0.014				
496	495	0.103	0.014				
497	496	0.103	0.014	0.10	0.37	0.03	9.29
498	497	0.103	0.014				
499	498	0.104	0.014				
500	499	0.104	0.014				
501	500	0.104	0.014				
502	501	0.104	0.014	0.10	0.37	0.03	9.32
503	502	0.105	0.014				
504	503	0.105	0.014				
505	504	0.105	0.014				
506	505	0.105	0.014				
507	506	0.106	0.014	0.10	0.37	0.03	9.35
508	507	0.106	0.014				
509	508	0.106	0.014				
510	509	0.106	0.014				
511	510	0.107	0.014				
512	511	0.107	0.014	0.10	0.37	0.03	9.38
513	512	0.107	0.014				
514	513	0.107	0.014				
515	514	0.108	0.014				
516	515	0.108	0.014				
517	516	0.108	0.014	0.10	0.37	0.03	9.42
518	517	0.108	0.014				
519	518	0.109	0.014				
520	519	0.109	0.014				
521	520	0.109	0.014				
522	521	0.109	0.014	0.10	0.37	0.03	9.45
523	522	0.110	0.014				
524	523	0.110	0.014				
525	524	0.110	0.014				
526	525	0.110	0.014				
527	526	0.110	0.014	0.10	0.37	0.03	9.49
528	527	0.111	0.014				
529	528	0.111	0.014				
530	529	0.111	0.014				
531	530	0.111	0.014				
532	531	0.112	0.014	0.10	0.37	0.03	9.52
533	532	0.112	0.014				
534	533	0.112	0.015				
535	534	0.112	0.015				
536	535	0.113	0.015				
537	536	0.113	0.015	0.10	0.37	0.03	9.55
538	537	0.113	0.015				
539	538	0.113	0.015				
540	539	0.114	0.015				
541	540	0.114	0.015				
542	541	0.114	0.015	0.10	0.37	0.03	9.59
543	542	0.114	0.015				
544	543	0.115	0.015				
545	544	0.115	0.015				
546	545	0.115	0.015				
547	546	0.115	0.015	0.10	0.37	0.03	9.62
548	547	0.116	0.015				
549	548	0.116	0.015				
550	549	0.116	0.015				
551	550	0.116	0.015				
552	551	0.117	0.015	0.10	0.37	0.03	9.66
553	552	0.117	0.015				
554	553	0.117	0.015				
555	554	0.117	0.015				
556	555	0.118	0.015				
557	556	0.118	0.015	0.10	0.37	0.03	9.70
558	557	0.118	0.015				
559	558	0.118	0.015				
560	559	0.119	0.015				
561	560	0.119	0.015				
562	561	0.119	0.015	0.10	0.37	0.03	9.73
563	562	0.119	0.015				
564	563	0.120	0.015				
565	564	0.120	0.015				
566	565	0.120	0.015				
567	566	0.120	0.015	0.10	0.37	0.03	9.77
568	567	0.121	0.015				
569	568	0.121	0.015				
570	569	0.121	0.015				
571	570	0.121	0.015				
572	571	0.122	0.015	0.10	0.37	0.03	9.81
573	572	0.122	0.015				
574	573	0.122	0.015				
575	574	0.122	0.015				
576	575	0.123	0.015				
577	576	0.123	0.015	0.10	0.37	0.03	9.85
578	577	0.123	0.015				
579	578	0.123	0.015				
580	579	0.124	0.015				
581	580	0.124	0.015				
582	581	0.124	0.015	0.10	0.37	0.03	9.89
583	582	0.125	0.015				
584	583	0.125	0.015				
585	584	0.125	0.015				
586	585	0.125	0.015				
587	586	0.126	0.015	0.10	0.37	0.03	9.92
588	587	0.126	0.015				
589	588	0.126	0.015				
590	589	0.126	0.015				
591	590	0.127	0.015				
592	591	0.127	0.015	0.10	0.37	0.03	9.96
593	592	0.127	0.015				
594	593	0.127	0.015				
595	594	0.128	0.015				
596	595	0.128	0.015				
597	596	0.128	0.015	0.10	0.37	0.03	10.00
598	597	0.128	0.015				
599	598	0.129	0.015				
600	599	0.129	0.015				
601	600	0.129	0.015				
602	601	0.129	0.015	0.10	0.37	0.03	10.04
603	602	0.130	0.015				
604	603	0.130	0.015				
605	604	0.130	0.015				
606	605	0.130	0.015				
607	606	0.131	0.015	0.10	0.37	0.03	10.09
608	607	0.131	0.015				

609	608	0.131	0.015				
610	609	0.132	0.015				
611	610	0.132	0.015				
612	611	0.132	0.015	0.10	0.37	0.03	10.13
613	612	0.132	0.015				
614	613	0.133	0.015				
615	614	0.133	0.015				
616	615	0.133	0.015				
617	616	0.133	0.015	0.10	0.37	0.03	10.17
618	617	0.134	0.015				
619	618	0.134	0.016				
620	619	0.134	0.016				
621	620	0.134	0.016				
622	621	0.135	0.016	0.10	0.37	0.03	10.21
623	622	0.135	0.016				
624	623	0.135	0.016				
625	624	0.135	0.016				
626	625	0.136	0.016				
627	626	0.136	0.016	0.10	0.37	0.03	10.26
628	627	0.136	0.016				
629	628	0.137	0.016				
630	629	0.137	0.016				
631	630	0.137	0.016				
632	631	0.137	0.016	0.10	0.37	0.03	10.30
633	632	0.138	0.016				
634	633	0.138	0.016				
635	634	0.138	0.016				
636	635	0.138	0.016				
637	636	0.139	0.016	0.10	0.37	0.03	10.34
638	637	0.139	0.016				
639	638	0.139	0.016				
640	639	0.139	0.016				
641	640	0.140	0.016				
642	641	0.140	0.016	0.10	0.37	0.03	10.39
643	642	0.140	0.016				
644	643	0.141	0.016				
645	644	0.141	0.016				
646	645	0.141	0.016				
647	646	0.141	0.016	0.10	0.37	0.03	10.43
648	647	0.142	0.016				
649	648	0.142	0.016				
650	649	0.142	0.016				
651	650	0.142	0.016				
652	651	0.143	0.016	0.10	0.37	0.04	10.48
653	652	0.143	0.016				
654	653	0.143	0.016				
655	654	0.144	0.016				
656	655	0.144	0.016				
657	656	0.144	0.016	0.10	0.37	0.04	10.53
658	657	0.144	0.016				
659	658	0.145	0.016				
660	659	0.145	0.016				
661	660	0.145	0.016				
662	661	0.145	0.016	0.10	0.37	0.04	10.58
663	662	0.146	0.016				
664	663	0.146	0.016				
665	664	0.146	0.016				
666	665	0.147	0.016				
667	666	0.147	0.016	0.10	0.37	0.04	10.62
668	667	0.147	0.016				
669	668	0.147	0.016				
670	669	0.148	0.016				
671	670	0.148	0.016				
672	671	0.148	0.016	0.10	0.37	0.04	10.67
673	672	0.148	0.016				
674	673	0.149	0.016				
675	674	0.149	0.016				
676	675	0.149	0.016				
677	676	0.150	0.016	0.10	0.37	0.04	10.72
678	677	0.150	0.016				
679	678	0.150	0.016				
680	679	0.150	0.016				
681	680	0.151	0.016				
682	681	0.151	0.016	0.10	0.37	0.04	10.77
683	682	0.151	0.016				
684	683	0.152	0.016				
685	684	0.152	0.016				
686	685	0.152	0.016				
687	686	0.152	0.016	0.10	0.37	0.04	10.82
688	687	0.153	0.016				
689	688	0.153	0.017				
690	689	0.153	0.017				
691	690	0.154	0.017				
692	691	0.154	0.017	0.10	0.37	0.04	10.88
693	692	0.154	0.017				
694	693	0.154	0.017				
695	694	0.155	0.017				
696	695	0.155	0.017				
697	696	0.155	0.017	0.10	0.37	0.04	10.93
698	697	0.156	0.017				
699	698	0.156	0.017				
700	699	0.156	0.017				
701	700	0.156	0.017				
702	701	0.157	0.017	0.10	0.37	0.04	10.98
703	702	0.157	0.017				
704	703	0.157	0.017				
705	704	0.158	0.017				
706	705	0.158	0.017				
707	706	0.158	0.017	0.10	0.37	0.04	11.04
708	707	0.158	0.017				
709	708	0.159	0.017				
710	709	0.159	0.017				
711	710	0.159	0.017				
712	711	0.160	0.017	0.10	0.37	0.04	11.09
713	712	0.160	0.017				
714	713	0.160	0.017				
715	714	0.160	0.017				
716	715	0.161	0.017				
717	716	0.161	0.017	0.10	0.37	0.04	11.15
718	717	0.161	0.017				
719	718	0.162	0.017				
720	719	0.162	0.017				
721	720	0.162	0.017				
722	721	0.162	0.017	0.10	0.37	0.04	11.20
723	722	0.163	0.017				
724	723	0.163	0.017				
725	724	0.163	0.017				
726	725	0.164	0.017				
727	726	0.164	0.017	0.10	0.37	0.04	11.26
728	727	0.164	0.017				
729	728	0.164	0.017				
730	729	0.165	0.017				

731	730	0.165	0.017				
732	731	0.165	0.017	0.10	0.37	0.04	11.32
733	732	0.166	0.017				
734	733	0.166	0.017				
735	734	0.166	0.017				
736	735	0.167	0.017				
737	736	0.167	0.017	0.10	0.37	0.04	11.38
738	737	0.167	0.017				
739	738	0.167	0.017				
740	739	0.168	0.017				
741	740	0.168	0.017				
742	741	0.168	0.017	0.10	0.37	0.04	11.44
743	742	0.169	0.017				
744	743	0.169	0.017				
745	744	0.169	0.017				
746	745	0.170	0.018				
747	746	0.170	0.018	0.10	0.37	0.04	11.50
748	747	0.170	0.018				
749	748	0.170	0.018				
750	749	0.171	0.018				
751	750	0.171	0.018				
752	751	0.171	0.018	0.10	0.37	0.04	11.57
753	752	0.172	0.018				
754	753	0.172	0.018				
755	754	0.172	0.018				
756	755	0.173	0.018				
757	756	0.173	0.018	0.10	0.37	0.04	11.63
758	757	0.173	0.018				
759	758	0.173	0.018				
760	759	0.174	0.018				
761	760	0.174	0.018				
762	761	0.174	0.018	0.10	0.37	0.04	11.70
763	762	0.175	0.018				
764	763	0.175	0.018				
765	764	0.175	0.018				
766	765	0.176	0.018				
767	766	0.176	0.018	0.10	0.37	0.04	11.76
768	767	0.176	0.018				
769	768	0.177	0.018				
770	769	0.177	0.018				
771	770	0.177	0.018				
772	771	0.177	0.018	0.10	0.37	0.04	11.83
773	772	0.178	0.018				
774	773	0.178	0.018				
775	774	0.178	0.018				
776	775	0.179	0.018				
777	776	0.179	0.018	0.10	0.37	0.04	11.90
778	777	0.179	0.018				
779	778	0.180	0.018				
780	779	0.180	0.018				
781	780	0.180	0.018				
782	781	0.181	0.018	0.10	0.37	0.04	11.97
783	782	0.181	0.018				
784	783	0.181	0.018				
785	784	0.182	0.018				
786	785	0.182	0.018				
787	786	0.182	0.018	0.10	0.37	0.04	12.04
788	787	0.182	0.018				
789	788	0.183	0.018				
790	789	0.183	0.018				
791	790	0.183	0.018				
792	791	0.184	0.018	0.10	0.37	0.04	12.11
793	792	0.184	0.018				
794	793	0.184	0.019				
795	794	0.185	0.019				
796	795	0.185	0.019				
797	796	0.185	0.019	0.10	0.37	0.04	12.19
798	797	0.186	0.019				
799	798	0.186	0.019				
800	799	0.186	0.019				
801	800	0.187	0.019				
802	801	0.187	0.019	0.10	0.37	0.04	12.26
803	802	0.187	0.019				
804	803	0.188	0.019				
805	804	0.188	0.019				
806	805	0.188	0.019				
807	806	0.189	0.019	0.10	0.37	0.04	12.34
808	807	0.189	0.019				
809	808	0.189	0.019				
810	809	0.190	0.019				
811	810	0.190	0.019				
812	811	0.190	0.019	0.10	0.37	0.04	12.42
813	812	0.191	0.019				
814	813	0.191	0.019				
815	814	0.191	0.019				
816	815	0.191	0.019				
817	816	0.192	0.019	0.10	0.37	0.04	12.50
818	817	0.192	0.019				
819	818	0.192	0.019				
820	819	0.193	0.019				
821	820	0.193	0.019				
822	821	0.193	0.019	0.10	0.37	0.04	12.58
823	822	0.194	0.019				
824	823	0.194	0.019				
825	824	0.194	0.019				
826	825	0.195	0.019				
827	826	0.195	0.019	0.10	0.37	0.04	12.66
828	827	0.195	0.019				
829	828	0.196	0.019				
830	829	0.196	0.019				
831	830	0.196	0.019				
832	831	0.197	0.019	0.10	0.37	0.04	12.75
833	832	0.197	0.019				
834	833	0.197	0.019				
835	834	0.198	0.020				
836	835	0.198	0.020				
837	836	0.198	0.020	0.10	0.37	0.04	12.83
838	837	0.199	0.020				
839	838	0.199	0.020				
840	839	0.199	0.020				
841	840	0.200	0.020				
842	841	0.200	0.020	0.10	0.37	0.04	12.92
843	842	0.201	0.020				
844	843	0.201	0.020				
845	844	0.201	0.020				
846	845	0.202	0.020				
847	846	0.202	0.020	0.10	0.37	0.04	13.01
848	847	0.202	0.020				
849	848	0.203	0.020				
850	849	0.203	0.020				
851	850	0.203	0.020				
852	851	0.204	0.020	0.10	0.37	0.04	13.11

853	852	0.204	0.020				
854	853	0.204	0.020				
855	854	0.205	0.020				
856	855	0.205	0.020				
857	856	0.205	0.020	0.10	0.37	0.04	13.20
858	857	0.206	0.020				
859	858	0.206	0.020				
860	859	0.206	0.020				
861	860	0.207	0.020				
862	861	0.207	0.020	0.10	0.37	0.04	13.30
863	862	0.207	0.020				
864	863	0.208	0.020				
865	864	0.208	0.020				
866	865	0.209	0.020				
867	866	0.209	0.020	0.10	0.37	0.04	13.40
868	867	0.209	0.020				
869	868	0.210	0.020				
870	869	0.210	0.021				
871	870	0.210	0.021				
872	871	0.211	0.021	0.10	0.37	0.05	13.50
873	872	0.211	0.021				
874	873	0.211	0.021				
875	874	0.212	0.021				
876	875	0.212	0.021				
877	876	0.212	0.021	0.10	0.37	0.05	13.61
878	877	0.213	0.021				
879	878	0.213	0.021				
880	879	0.214	0.021				
881	880	0.214	0.021				
882	881	0.214	0.021	0.10	0.37	0.05	13.71
883	882	0.215	0.021				
884	883	0.215	0.021				
885	884	0.215	0.021				
886	885	0.216	0.021				
887	886	0.216	0.021	0.10	0.37	0.05	13.82
888	887	0.216	0.021				
889	888	0.217	0.021				
890	889	0.217	0.021				
891	890	0.218	0.021				
892	891	0.218	0.021	0.10	0.37	0.05	13.93
893	892	0.218	0.021				
894	893	0.219	0.021				
895	894	0.219	0.021				
896	895	0.219	0.021				
897	896	0.220	0.021	0.10	0.37	0.05	14.05
898	897	0.220	0.021				
899	898	0.221	0.022				
900	899	0.221	0.022				
901	900	0.221	0.022				
902	901	0.222	0.022	0.10	0.37	0.05	14.17
903	902	0.222	0.022				
904	903	0.222	0.022				
905	904	0.223	0.022				
906	905	0.223	0.022				
907	906	0.224	0.022	0.10	0.37	0.05	14.29
908	907	0.224	0.022				
909	908	0.224	0.022				
910	909	0.225	0.022				
911	910	0.225	0.022				
912	911	0.225	0.022	0.10	0.37	0.05	14.41
913	912	0.226	0.022				
914	913	0.226	0.022				
915	914	0.227	0.022				
916	915	0.227	0.022				
917	916	0.227	0.022	0.10	0.37	0.05	14.54
918	917	0.228	0.022				
919	918	0.228	0.022				
920	919	0.229	0.022				
921	920	0.229	0.022				
922	921	0.229	0.022	0.10	0.37	0.05	14.67
923	922	0.230	0.022				
924	923	0.230	0.022				
925	924	0.230	0.023				
926	925	0.231	0.023				
927	926	0.231	0.023	0.10	0.37	0.05	14.81
928	927	0.232	0.023				
929	928	0.232	0.023				
930	929	0.232	0.023				
931	930	0.233	0.023				
932	931	0.233	0.023	0.10	0.37	0.05	14.95
933	932	0.234	0.023				
934	933	0.234	0.023				
935	934	0.234	0.023				
936	935	0.235	0.023				
937	936	0.235	0.023	0.10	0.37	0.05	15.09
938	937	0.236	0.023				
939	938	0.236	0.023				
940	939	0.236	0.023				
941	940	0.237	0.023				
942	941	0.237	0.023	0.10	0.37	0.05	15.24
943	942	0.238	0.023				
944	943	0.238	0.023				
945	944	0.239	0.023				
946	945	0.239	0.023				
947	946	0.239	0.024	0.10	0.37	0.05	15.39
948	947	0.240	0.024				
949	948	0.240	0.024				
950	949	0.241	0.024				
951	950	0.241	0.024				
952	951	0.241	0.024	0.10	0.37	0.05	15.55
953	952	0.242	0.024				
954	953	0.242	0.024				
955	954	0.243	0.024				
956	955	0.243	0.024				
957	956	0.244	0.024	0.10	0.37	0.05	15.72
958	957	0.244	0.024				
959	958	0.244	0.024				
960	959	0.245	0.024				
961	960	0.245	0.024				
962	961	0.246	0.024	0.10	0.37	0.05	15.89
963	962	0.246	0.024				
964	963	0.247	0.024				
965	964	0.247	0.024				
966	965	0.247	0.024				
967	966	0.248	0.025	0.10	0.37	0.05	16.06
968	967	0.248	0.025				
969	968	0.249	0.025				
970	969	0.249	0.025				
971	970	0.250	0.025				
972	971	0.250	0.025	0.10	0.37	0.05	16.24
973	972	0.250	0.025				
974	973	0.251	0.025				

975	974	0.251	0.025				
976	975	0.252	0.025				
977	976	0.252	0.025	0.10	0.37	0.06	16.43
978	977	0.253	0.025				
979	978	0.253	0.025				
980	979	0.254	0.025				
981	980	0.254	0.025				
982	981	0.254	0.025	0.10	0.37	0.06	16.62
983	982	0.255	0.025				
984	983	0.255	0.026				
985	984	0.256	0.026				
986	985	0.256	0.026				
987	986	0.257	0.026	0.10	0.37	0.06	16.82
988	987	0.257	0.026				
989	988	0.258	0.026				
990	989	0.258	0.026				
991	990	0.259	0.026				
992	991	0.259	0.026	0.10	0.37	0.06	17.03
993	992	0.260	0.026				
994	993	0.260	0.026				
995	994	0.260	0.026				
996	995	0.261	0.026				
997	996	0.261	0.026	0.10	0.37	0.06	17.25
998	997	0.262	0.026				
999	998	0.262	0.027				
1000	999	0.263	0.027				
1001	1000	0.263	0.027				
1002	1001	0.264	0.027	0.10	0.37	0.06	17.48
1003	1002	0.264	0.027				
1004	1003	0.265	0.027				
1005	1004	0.265	0.027				
1006	1005	0.266	0.027				
1007	1006	0.266	0.027	0.10	0.37	0.06	17.72
1008	1007	0.267	0.027				
1009	1008	0.267	0.027				
1010	1009	0.268	0.027				
1011	1010	0.268	0.027				
1012	1011	0.269	0.027	0.10	0.37	0.06	17.96
1013	1012	0.269	0.028				
1014	1013	0.270	0.028				
1015	1014	0.270	0.028				
1016	1015	0.271	0.028				
1017	1016	0.271	0.028	0.10	0.37	0.06	18.22
1018	1017	0.272	0.028				
1019	1018	0.272	0.028				
1020	1019	0.273	0.028				
1021	1020	0.273	0.028				
1022	1021	0.274	0.028	0.10	0.37	0.06	18.49
1023	1022	0.274	0.028				
1024	1023	0.275	0.028				
1025	1024	0.275	0.029				
1026	1025	0.276	0.029				
1027	1026	0.276	0.029	0.10	0.37	0.06	18.78
1028	1027	0.277	0.029				
1029	1028	0.277	0.029				
1030	1029	0.278	0.029				
1031	1030	0.278	0.029				
1032	1031	0.279	0.029	0.10	0.37	0.06	19.07
1033	1032	0.279	0.029				
1034	1033	0.280	0.029				
1035	1034	0.280	0.029				
1036	1035	0.281	0.030				
1037	1036	0.282	0.030	0.10	0.37	0.07	19.39
1038	1037	0.282	0.030				
1039	1038	0.283	0.030				
1040	1039	0.283	0.030				
1041	1040	0.284	0.030				
1042	1041	0.284	0.030	0.10	0.37	0.07	19.72
1043	1042	0.285	0.030				
1044	1043	0.285	0.030				
1045	1044	0.286	0.031				
1046	1045	0.286	0.031				
1047	1046	0.287	0.031	0.10	0.37	0.07	20.07
1048	1047	0.288	0.031				
1049	1048	0.288	0.031				
1050	1049	0.289	0.031				
1051	1050	0.289	0.031				
1052	1051	0.290	0.031	0.10	0.37	0.07	20.43
1053	1052	0.290	0.031				
1054	1053	0.291	0.032				
1055	1054	0.292	0.032				
1056	1055	0.292	0.032				
1057	1056	0.293	0.032	0.10	0.37	0.07	20.83
1058	1057	0.293	0.032				
1059	1058	0.294	0.032				
1060	1059	0.295	0.032				
1061	1060	0.295	0.032				
1062	1061	0.296	0.033	0.10	0.37	0.07	21.24
1063	1062	0.296	0.033				
1064	1063	0.297	0.033				
1065	1064	0.298	0.033				
1066	1065	0.298	0.033				
1067	1066	0.299	0.033	0.10	0.37	0.07	21.69
1068	1067	0.300	0.033				
1069	1068	0.300	0.034				
1070	1069	0.301	0.034				
1071	1070	0.301	0.034				
1072	1071	0.302	0.034	0.10	0.37	0.07	22.16
1073	1072	0.303	0.034				
1074	1073	0.303	0.034				
1075	1074	0.304	0.035				
1076	1075	0.305	0.035				
1077	1076	0.305	0.035	0.10	0.37	0.08	22.67
1078	1077	0.306	0.035				
1079	1078	0.307	0.035				
1080	1079	0.307	0.035				
1081	1080	0.308	0.036				
1082	1081	0.309	0.036	0.10	0.37	0.08	23.22
1083	1082	0.309	0.036				
1084	1083	0.310	0.036				
1085	1084	0.311	0.036				
1086	1085	0.311	0.036				
1087	1086	0.312	0.037	0.10	0.37	0.08	23.81
1088	1087	0.313	0.037				
1089	1088	0.314	0.037				
1090	1089	0.314	0.037				
1091	1090	0.315	0.037				
1092	1091	0.316	0.038	0.10	0.37	0.08	24.46
1093	1092	0.316	0.038				
1094	1093	0.317	0.038				
1095	1094	0.318	0.038				
1096	1095	0.319	0.039				

1097	1096	0.319	0.039	0.10	0.37	0.09	25.17
1098	1097	0.320	0.039				
1099	1098	0.321	0.039				
1100	1099	0.322	0.040				
1101	1100	0.323	0.040				
1102	1101	0.323	0.040	0.10	0.37	0.09	25.94
1103	1102	0.324	0.040				
1104	1103	0.325	0.041				
1105	1104	0.326	0.041				
1106	1105	0.327	0.041				
1107	1106	0.327	0.041	0.10	0.37	0.09	26.80
1108	1107	0.328	0.042				
1109	1108	0.329	0.042				
1110	1109	0.330	0.042				
1111	1110	0.331	0.043				
1112	1111	0.332	0.043	0.10	0.37	0.09	27.76
1113	1112	0.333	0.043				
1114	1113	0.334	0.044				
1115	1114	0.334	0.044				
1116	1115	0.335	0.044				
1117	1116	0.336	0.045	0.10	0.37	0.10	28.85
1118	1117	0.337	0.045				
1119	1118	0.338	0.045				
1120	1119	0.339	0.046				
1121	1120	0.340	0.046				
1122	1121	0.341	0.047	0.10	0.37	0.10	30.09
1123	1122	0.342	0.047				
1124	1123	0.343	0.048				
1125	1124	0.344	0.048				
1126	1125	0.345	0.049				
1127	1126	0.346	0.049	0.10	0.37	0.11	31.53
1128	1127	0.347	0.050				
1129	1128	0.349	0.050				
1130	1129	0.350	0.051				
1131	1130	0.351	0.051				
1132	1131	0.352	0.052	0.10	0.37	0.11	33.24
1133	1132	0.353	0.053				
1134	1133	0.355	0.053				
1135	1134	0.356	0.054				
1136	1135	0.357	0.055				
1137	1136	0.359	0.055	0.10	0.37	0.12	35.33
1138	1137	0.360	0.056				
1139	1138	0.361	0.057				
1140	1139	0.363	0.058				
1141	1140	0.364	0.059				
1142	1141	0.366	0.060	0.10	0.37	0.13	37.99
1143	1142	0.368	0.061				
1144	1143	0.369	0.062				
1145	1144	0.371	0.064				
1146	1145	0.373	0.065				
1147	1146	0.375	0.067	0.10	0.37	0.15	41.68
1148	1147	0.378	0.068				
1149	1148	0.380	0.070				
1150	1149	0.383	0.073				
1151	1150	0.386	0.076				
1152	1151	0.390	0.080	0.10	0.37	0.18	48.22
1153	1152	0.400	0.090				
1154	1153	0.405	0.095				
1155	1154	0.407	0.097				
1156	1155	0.409	0.098				
1157	1156	0.410	0.099	0.10	0.37	0.22	58.73
1158	1157	0.412	0.099				
1159	1158	0.413	0.100				
1160	1159	0.414	0.100				
1161	1160	0.415	0.100				
1162	1161	0.416	0.100	0.10	0.37	0.22	65.38
1163	1162	0.417	0.100				
1164	1163	0.418	0.100				
1165	1164	0.419	0.100				
1166	1165	0.419	0.100				
1167	1166	0.420	0.100	0.10	0.37	0.22	65.78
1168	1167	0.421	0.100				
1169	1168	0.422	0.099				
1170	1169	0.422	0.099				
1171	1170	0.423	0.099				
1172	1171	0.424	0.098	0.10	0.37	0.22	65.18
1173	1172	0.424	0.098				
1174	1173	0.425	0.097				
1175	1174	0.426	0.097				
1176	1175	0.426	0.096				
1177	1176	0.427	0.096	0.10	0.37	0.21	63.91
1178	1177	0.427	0.095				
1179	1178	0.428	0.095				
1180	1179	0.429	0.094				
1181	1180	0.429	0.093				
1182	1181	0.430	0.093	0.10	0.37	0.20	62.04
1183	1182	0.430	0.092				
1184	1183	0.431	0.091				
1185	1184	0.431	0.090				
1186	1185	0.432	0.089				
1187	1186	0.432	0.088	0.10	0.37	0.19	59.53
1188	1187	0.433	0.087				
1189	1188	0.433	0.086				
1190	1189	0.434	0.085				
1191	1190	0.434	0.084				
1192	1191	0.435	0.083	0.10	0.37	0.18	56.26
1193	1192	0.435	0.081				
1194	1193	0.436	0.080				
1195	1194	0.436	0.078				
1196	1195	0.436	0.077				
1197	1196	0.437	0.075	0.10	0.37	0.16	51.87
1198	1197	0.437	0.073				
1199	1198	0.438	0.071				
1200	1199	0.438	0.068				
1201	1200	0.439	0.066				
1202	1201	0.439	0.062	0.10	0.37	0.14	45.14
1203	1202	0.440	0.058				
1204	1203	0.440	0.047				
1205	1204	0.440	0.042				
1206	1205	0.441	0.040				
1207	1206	0.441	0.038	0.10	0.37	0.08	32.98
1208	1207	0.442	0.037				
1209	1208	0.442	0.036				
1210	1209	0.442	0.035				
1211	1210	0.443	0.034				
1212	1211	0.443	0.033	0.10	0.37	0.07	23.41
1213	1212	0.444	0.032				
1214	1213	0.444	0.032				
1215	1214	0.444	0.031				
1216	1215	0.445	0.031				
1217	1216	0.445	0.030	0.10	0.37	0.07	20.87
1218	1217	0.445	0.030				

1219	1218	0.446	0.029				
1220	1219	0.446	0.029				
1221	1220	0.447	0.028				
1222	1221	0.447	0.028	0.10	0.37	0.06	19.20
1223	1222	0.447	0.028				
1224	1223	0.448	0.027				
1225	1224	0.448	0.027				
1226	1225	0.448	0.027				
1227	1226	0.449	0.026	0.10	0.37	0.06	17.95
1228	1227	0.449	0.026				
1229	1228	0.449	0.026				
1230	1229	0.450	0.026				
1231	1230	0.450	0.025				
1232	1231	0.450	0.025	0.10	0.37	0.05	16.95
1233	1232	0.451	0.025				
1234	1233	0.451	0.025				
1235	1234	0.451	0.024				
1236	1235	0.452	0.024				
1237	1236	0.452	0.024	0.10	0.37	0.05	16.12
1238	1237	0.452	0.024				
1239	1238	0.453	0.023				
1240	1239	0.453	0.023				
1241	1240	0.453	0.023				
1242	1241	0.454	0.023	0.10	0.37	0.05	15.41
1243	1242	0.454	0.023				
1244	1243	0.454	0.023				
1245	1244	0.455	0.022				
1246	1245	0.455	0.022				
1247	1246	0.455	0.022	0.10	0.37	0.05	14.80
1248	1247	0.456	0.022				
1249	1248	0.456	0.022				
1250	1249	0.456	0.022				
1251	1250	0.456	0.021				
1252	1251	0.457	0.021	0.10	0.37	0.05	14.26
1253	1252	0.457	0.021				
1254	1253	0.457	0.021				
1255	1254	0.458	0.021				
1256	1255	0.458	0.021				
1257	1256	0.458	0.021	0.10	0.37	0.05	13.79
1258	1257	0.459	0.020				
1259	1258	0.459	0.020				
1260	1259	0.459	0.020				
1261	1260	0.459	0.020				
1262	1261	0.460	0.020	0.10	0.37	0.04	13.36
1263	1262	0.460	0.020				
1264	1263	0.460	0.020				
1265	1264	0.461	0.020				
1266	1265	0.461	0.020				
1267	1266	0.461	0.019	0.10	0.37	0.04	12.97
1268	1267	0.461	0.019				
1269	1268	0.462	0.019				
1270	1269	0.462	0.019				
1271	1270	0.462	0.019				
1272	1271	0.463	0.019	0.10	0.37	0.04	12.61
1273	1272	0.463	0.019				
1274	1273	0.463	0.019				
1275	1274	0.463	0.019				
1276	1275	0.464	0.019				
1277	1276	0.464	0.018	0.10	0.37	0.04	12.29
1278	1277	0.464	0.018				
1279	1278	0.465	0.018				
1280	1279	0.465	0.018				
1281	1280	0.465	0.018				
1282	1281	0.465	0.018	0.10	0.37	0.04	11.99
1283	1282	0.466	0.018				
1284	1283	0.466	0.018				
1285	1284	0.466	0.018				
1286	1285	0.466	0.018				
1287	1286	0.467	0.018	0.10	0.37	0.04	11.71
1288	1287	0.467	0.018				
1289	1288	0.467	0.017				
1290	1289	0.467	0.017				
1291	1290	0.468	0.017				
1292	1291	0.468	0.017	0.10	0.37	0.04	11.45
1293	1292	0.468	0.017				
1294	1293	0.468	0.017				
1295	1294	0.469	0.017				
1296	1295	0.469	0.017				
1297	1296	0.469	0.017	0.10	0.37	0.04	11.21
1298	1297	0.470	0.017				
1299	1298	0.470	0.017				
1300	1299	0.470	0.017				
1301	1300	0.470	0.017				
1302	1301	0.471	0.017	0.10	0.37	0.04	10.98
1303	1302	0.471	0.016				
1304	1303	0.471	0.016				
1305	1304	0.471	0.016				
1306	1305	0.472	0.016				
1307	1306	0.472	0.016	0.10	0.37	0.04	10.77
1308	1307	0.472	0.016				
1309	1308	0.472	0.016				
1310	1309	0.473	0.016				
1311	1310	0.473	0.016				
1312	1311	0.473	0.016	0.10	0.37	0.03	10.57
1313	1312	0.473	0.016				
1314	1313	0.473	0.016				
1315	1314	0.474	0.016				
1316	1315	0.474	0.016				
1317	1316	0.474	0.016	0.10	0.37	0.03	10.38
1318	1317	0.474	0.016				
1319	1318	0.475	0.016				
1320	1319	0.475	0.015				
1321	1320	0.475	0.015				
1322	1321	0.475	0.015	0.10	0.37	0.03	10.21
1323	1322	0.476	0.015				
1324	1323	0.476	0.015				
1325	1324	0.476	0.015				
1326	1325	0.476	0.015				
1327	1326	0.477	0.015	0.10	0.37	0.03	10.04
1328	1327	0.477	0.015				
1329	1328	0.477	0.015				
1330	1329	0.477	0.015				
1331	1330	0.477	0.015				
1332	1331	0.478	0.015	0.10	0.37	0.03	9.88
1333	1332	0.478	0.015				
1334	1333	0.478	0.015				
1335	1334	0.478	0.015				
1336	1335	0.479	0.015				
1337	1336	0.479	0.015	0.10	0.37	0.03	9.73
1338	1337	0.479	0.015				
1339	1338	0.479	0.015				
1340	1339	0.480	0.015				

1341	1340	0.480	0.014				
1342	1341	0.480	0.014	0.10	0.37	0.03	9.58
1343	1342	0.480	0.014				
1344	1343	0.480	0.014				
1345	1344	0.481	0.014				
1346	1345	0.481	0.014				
1347	1346	0.481	0.014	0.10	0.37	0.03	9.44
1348	1347	0.481	0.014				
1349	1348	0.482	0.014				
1350	1349	0.482	0.014				
1351	1350	0.482	0.014				
1352	1351	0.482	0.014	0.10	0.37	0.03	9.31
1353	1352	0.482	0.014				
1354	1353	0.483	0.014				
1355	1354	0.483	0.014				
1356	1355	0.483	0.014				
1357	1356	0.483	0.014	0.10	0.37	0.03	9.18
1358	1357	0.484	0.014				
1359	1358	0.484	0.014				
1360	1359	0.484	0.014				
1361	1360	0.484	0.014				
1362	1361	0.484	0.014	0.10	0.37	0.03	9.06
1363	1362	0.485	0.014				
1364	1363	0.485	0.014				
1365	1364	0.485	0.014				
1366	1365	0.485	0.014				
1367	1366	0.485	0.014	0.10	0.37	0.03	8.95
1368	1367	0.486	0.013				
1369	1368	0.486	0.013				
1370	1369	0.486	0.013				
1371	1370	0.486	0.013				
1372	1371	0.486	0.013	0.10	0.37	0.03	8.83
1373	1372	0.487	0.013				
1374	1373	0.487	0.013				
1375	1374	0.487	0.013				
1376	1375	0.487	0.013				
1377	1376	0.488	0.013	0.10	0.37	0.03	8.73
1378	1377	0.488	0.013				
1379	1378	0.488	0.013				
1380	1379	0.488	0.013				
1381	1380	0.488	0.013				
1382	1381	0.489	0.013	0.10	0.37	0.03	8.62
1383	1382	0.489	0.013				
1384	1383	0.489	0.013				
1385	1384	0.489	0.013				
1386	1385	0.489	0.013				
1387	1386	0.490	0.013	0.10	0.37	0.03	8.52
1388	1387	0.490	0.013				
1389	1388	0.490	0.013				
1390	1389	0.490	0.013				
1391	1390	0.490	0.013				
1392	1391	0.491	0.013	0.10	0.37	0.03	8.43
1393	1392	0.491	0.013				
1394	1393	0.491	0.013				
1395	1394	0.491	0.013				
1396	1395	0.491	0.013				
1397	1396	0.492	0.013	0.10	0.37	0.03	8.33
1398	1397	0.492	0.013				
1399	1398	0.492	0.013				
1400	1399	0.492	0.013				
1401	1400	0.492	0.012				
1402	1401	0.493	0.012	0.10	0.37	0.03	8.24
1403	1402	0.493	0.012				
1404	1403	0.493	0.012				
1405	1404	0.493	0.012				
1406	1405	0.493	0.012				
1407	1406	0.494	0.012	0.10	0.37	0.03	8.16
1408	1407	0.494	0.012				
1409	1408	0.494	0.012				
1410	1409	0.494	0.012				
1411	1410	0.494	0.012				
1412	1411	0.495	0.012	0.10	0.37	0.03	8.07
1413	1412	0.495	0.012				
1414	1413	0.495	0.012				
1415	1414	0.495	0.012				
1416	1415	0.495	0.012				
1417	1416	0.495	0.012	0.10	0.37	0.03	7.99
1418	1417	0.496	0.012				
1419	1418	0.496	0.012				
1420	1419	0.496	0.012				
1421	1420	0.496	0.012				
1422	1421	0.496	0.012	0.10	0.37	0.03	7.91
1423	1422	0.497	0.012				
1424	1423	0.497	0.012				
1425	1424	0.497	0.012				
1426	1425	0.497	0.012				
1427	1426	0.497	0.012	0.10	0.37	0.03	7.84
1428	1427	0.498	0.012				
1429	1428	0.498	0.012				
1430	1429	0.498	0.012				
1431	1430	0.498	0.012				
1432	1431	0.498	0.012	0.10	0.37	0.03	7.76
1433	1432	0.499	0.012				
1434	1433	0.499	0.012				
1435	1434	0.499	0.012				
1436	1435	0.499	0.012				
1437	1436	0.499	0.012	0.10	0.37	0.03	7.69
1438	1437	0.499	0.012				
1439	1438	0.500	0.012				
1440	1439	0.500	0.012				
1441	1440	0.500	0.012				
1442	1441	0.500	0.011	0.10	0.37	0.02	7.55
1443	1442	0.500	0.011				
1444	1443	0.500	0.011				
1445	1444	0.500	0.011				
1446	1445	0.500	0.010				
1447	1446	0.500	0.010	0.10	0.37	0.02	7.06
1448	1447	0.500	0.010				
1449	1448	0.500	0.010				
1450	1449	0.500	0.009				
1451	1450	0.500	0.009				
1452	1451	0.500	0.009	0.10	0.37	0.02	6.28
1453	1452	0.500	0.009				
1454	1453	0.500	0.009				
1455	1454	0.500	0.008				
1456	1455	0.500	0.008				
1457	1456	0.500	0.008	0.10	0.37	0.02	5.52
1458	1457	0.500	0.008				
1459	1458	0.500	0.007				
1460	1459	0.500	0.007				
1461	1460	0.500	0.007				
1462	1461	0.500	0.007	0.10	0.37	0.01	4.76

1463	1462	0.500	0.006				
1464	1463	0.500	0.006				
1465	1464	0.500	0.006				
1466	1465	0.500	0.006				
1467	1466	0.500	0.006	0.10	0.37	0.01	4.01
1468	1467	0.500	0.005				
1469	1468	0.500	0.005				
1470	1469	0.500	0.005				
1471	1470	0.500	0.005				
1472	1471	0.500	0.004	0.10	0.37	0.01	3.27
1473	1472	0.500	0.004				
1474	1473	0.500	0.004				
1475	1474	0.500	0.004				
1476	1475	0.500	0.004				
1477	1476	0.500	0.003	0.1	0.37	0.01	2.53
1478	1477	0.500	0.003				
1479	1478	0.500	0.003				
1480	1479	0.500	0.003				
1481	1480	0.500	0.002				
1482	1481	0.500	0.002	0.1	0.37	0.00	1.80
1483	1482	0.500	0.002				
1484	1483	0.500	0.002				
1485	1484	0.500	0.002				
1486	1485	0.500	0.001				
1487	1486	0.500	0.001	0.1	0.37	0.00	1.08
1488	1487	0.500	0.001				
1489	1488	0.500	0.001				
1490	1489	0.500	0.000				
1491	1490	0.500	0.000				
1492	1491	0.500	0.000	0.1	0.37	0.00	0.36
1493	1492	0.500	0.000				
1494	1493	0.500	0.000				
1495	1494	0.500	0.000				
1496	1495	0.500	0.000				
1497	1496	0.500	0.000	0.1	0.37	0.00	0.00
1498	1497	0.500	0.000				
1499	1498	0.500	0.000				
1500	1499	0.500	0.000				
1501	1500	0.500	0.000				
1502	1501	0.500	0.000	0.1	0.37	0.00	0.00
1503	1502	0.500	0.000				
1504	1503	0.500	0.000				
1505	1504	0.500	0.000				
1506	1505	0.500	0.000				
1507	1506	0.500	0.000	0.1	0.37	0.00	0.00
1508	1507	0.500	0.000				
1509	1508	0.500	0.000				
1510	1509	0.500	0.000				
1511	1510	0.500	0.000				
1512	1511	0.500	0.000	0.1	0.37	0.00	0.00
1513	1512	0.500	0.000				
1514	1513	0.500	0.000				
1515	1514	0.500	0.000				
1516	1515	0.500	0.000				
1517	1516	0.500	0.000	0.1	0.37	0.00	0.00
1518	1517	0.500	0.000				
1519	1518	0.500	0.000				
1520	1519	0.500	0.000				
1521	1520	0.500	0.000				
1522	1521	0.500	0.000	0.1	0.37	0.00	0.00
1523	1522	0.500	0.000				
1524	1523	0.500	0.000				
1525	1524	0.500	0.000				
1526	1525	0.500	0.000				
1527	1526	0.500	0.000	0.1	0.37	0.00	0.00
1528	1527	0.500	0.000				
1529	1528	0.500	0.000				
1530	1529	0.500	0.000				
1531	1530	0.500	0.000				
1532	1531	0.500	0.000	0.1	0.37	0.00	0.00
1533	1532	0.500	0.000				
1534	1533	0.500	0.000				
1535	1534	0.500	0.000				
1536	1535	0.500	0.000				
1537	1536	0.500	0.000	0.1	0.37	0.00	0.00
1538	1537	0.500	0.000				
1539	1538	0.500	0.000				
1540	1539	0.500	0.000				
1541	1540	0.500	0.000				
1542	1541	0.500	0.000	0.1	0.37	0.00	0.00
1543	1542	0.500					
1544	1543	0.500					
1545	1544	0.500					
1546	1545	0.500					
1547	1546	0.500					
1548	1547	0.500					
1549	1548	0.500					
1550	1549	0.500					
1551	1550	0.500					
1552	1551	0.500	0.007	0.1	0.76		3948.74 cu. ft.
							29536.58 gal.

Appendix D
Geotechnical Study Report, East Antelope Valley Animal Shelter"[15] by Converse Consultants (April 9, 2012)

15 The proposed project was originally referred to as the "East Antelope Valley Animal Shelter." Based on coordination with the City of Palmdale and DACC, the project name was revised to its current title: "County of Los Angeles Animal Care Center Project, Palmdale CA."

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Converse Consultants
Geotechnical Engineering, Environmental & Groundwater Science, Inspection & Testing Services

GEOTECHNICAL STUDY REPORT
East Antelope Valley Animal Shelter
Palmdale, California

Converse Project No. 12-31-145-01

April 19, 2012

PREPARED FOR

Los Angeles County Department of Public Works
900 South Fremont Avenue
Alhambra, CA 91803

222 East Huntington Drive, Suite 211, Monrovia, California 91016-3500
Telephone: (626) 930-1200 ♦ Facsimile: (626) 930-1212 ♦ e-mail: converse@converseconsultants.com

April 19, 2012

Mr. Jason Kim
Capital Projects Manager
Los Angeles County Department of Public Works
900 South Fremont Avenue
Alhambra, CA 91803

Subject: **GEOTECHNICAL STUDY REPORT**
East Antelope Valley Animal Shelter
Palmdale, California
Converse Project No. 12-31-145-01

Dear Mr. Kim:

Converse Consultants (Converse) is pleased to present this Geotechnical Study Report for the proposed new East Antelope Valley Animal Shelter in Palmdale, California.

The purpose of the study was to generate a report for geotechnical design parameters, percolation test results and pavement design for the construction of a new animal shelter and associated parking lots in Palmdale, California. The proposed building is likely to be one-story and support with slab on grade and shallow footings. No basement is planned at this time.

Our services were performed in accordance with our revised proposal dated March 1, 2012.

Based on our field exploration, laboratory testing, geologic evaluation and geotechnical analysis, the site is suitable from a geotechnical standpoint for the proposed project, provided our conclusions and recommendations are implemented during design and construction.

We appreciate the opportunity to be of continued service to the Los Angeles County Department of Public Works. If you should have any questions, please do not hesitate to contact us at (626) 930-1200.

CONVERSE CONSULTANTS

William H. Chu, P.E., G.E.
Senior Vice President/Principal Engineer

Dist: 6/Addressee
MNR/GDS/SCL/WHC/amm

PROFESSIONAL CERTIFICATION

This report for the proposed construction of a new animal shelter and associated parking lots located at 38532, 38560, 38600 and 38624 Sierra Highway in Palmdale, California has been prepared by the staff of Converse under the professional supervision of the individuals whose seals and signatures appear hereon.

The findings, recommendations, specifications or professional opinions contained in this report were prepared in accordance with generally accepted professional engineering and engineering geologic principles and practice in this area of Southern California. There is no warranty, either expressed or implied.

In the event that changes to the property occur, or additional, relevant information about the property is brought to our attention, the conclusions contained in this report may not be valid unless these changes and additional relevant information are reviewed and the recommendations of this report are modified or verified in writing.

REGISTERED PROFESSIONAL ENGINEER
CHI-HSIN LIN
No.2921
Exp. 9/30/12
GEOTECHNICAL
STATE OF CALIFORNIA

Sean C. Lin, P.E., G.E.
Senior Engineer

PROFESSIONAL GEOLOGIST
Geoffrey Daniel Stokes
NO. 2296
CERTIFIED
ENGINEERING
GEOLOGIST
Exp. 7/31/13
STATE OF CALIFORNIA

Geoffrey D. Stokes, P.G., C.E.G.
Senior Geologist

William H. Chu, P.E., G.E.
Principal Engineer, Senior Vice President

REGISTERED PROFESSIONAL ENGINEER
CHU HSUEH-HSIN WILLIAM
No. 2482
Exp. 6/30/12
GEOTECHNICAL
STATE OF CALIFORNIA

EXECUTIVE SUMMARY

The following is the summary of our geotechnical study, findings, conclusions, and recommendations, as presented in the body of this report. Please refer to the appropriate sections of the report for complete conclusions and recommendations. In the event of a conflict between this summary and the report, or an omission in the summary, the report shall prevail.

- The project site for East Antelope Valley Animal Shelter is collectively located at 38532, 38560, 38600 and 38624 Sierra Highway in Palmdale, California. The project site area is relatively flat, with a gentle slope in grade towards the north. The site is paved with asphalt on the southern two-thirds, with vacant land on the northern one-third of the site.
- The proposed animal shelter structure will be situated within the central portion of the site, with new parking pavement along the north and south sides of the facility. The building will likely be one-story and supported with slab on grade and shallow footings. No basement levels are planned at this time.
- Seven (7) exploratory borings (BH-1 through BH-7) were drilled within the project site on March 22, 2012. The borings were advanced using a truck mounted 8-inch diameter hollow stem auger drill rig to depths ranging from 16.5 to 51.5 feet below the existing ground surface (bgs). Two of the borings (BH-1 and BH-2) were utilized to perform percolation tests.
- The site soils consisted of fills and alluvial deposits to the maximum explored depth of 51.5 feet below existing ground surface (bgs). Fills up to a maximum observed depth of 3 feet were encountered in the borings. The fill material was probably placed during original site grading. Deeper artificial fill may exist at the site. The fill encountered consist primarily of silty sand and clayey silt. The alluvial deposits below the fill primarily consist of silty sands and sand with gravels.
- Groundwater was not encountered during drilling to the maximum exploratory depth of 51.5 feet. Based upon regional groundwater data included in the Seismic Hazard Evaluation Report for the Palmdale 7.5-minute Quadrangle (2003), historic high groundwater levels for the subject site are reportedly greater than 40 feet below the ground surface.
- The site is not located within a mapped Seismic Hazard Zone for liquefaction potential. Site specific exploration did not encounter groundwater to a depth of 51.5 feet bgs. Based on the results of our subsurface exploration, including the absence of groundwater within 50 feet, and our experience on similar projects we anticipate liquefaction potential to be very low and seismically-induced settlement to be negligible.

- Based on the percolation test results, the site soils are primarily silty sand with moderate infiltration rates. These soils are considered suitable for infiltration drainage systems. The project Civil Engineer should review the raw data of percolation test to determine specific soil layers and percolation rates for design of the proposed infiltration system.
- The results of Phase I and Phase II Environmental Site Assessments by Converse (2011 and 2012) indicate previous improvements at the site had basement levels. Areas of former basements will contain undocumented fill soils.
- Remedial grading will be needed for support of new buildings and new hardscape improvements. Such grading should include over-excavation and re-compaction to mitigate disturbed native soils from site demolition, undocumented fill soils and to provide a relatively uniform soil condition in the area of planned construction.
- The proposed structures may use conventional foundation systems (spread footings and isolated pads) with slab-on-grade, supported on compacted fill.
- Based on the soil corrosivity test results, the on-site soils are not considered to be corrosive to buried ferrous metals and concrete.
- Laboratory testing indicates the site soils have a low expansion potential. Mitigation measures for expansive soils are needed for compacted fill derived from site soils.

Results of our study indicate that the site is suitable from a geotechnical standpoint for the proposed development, provided that the recommendations contained in this report are incorporated into the design and construction of the project.

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Appendices

1.0 INTRODUCTION

This report contains the findings and recommendations of our geotechnical study performed for the proposed construction of a new animal shelter and associated parking pavement at adjacent site addresses 38532, 38560, 38600 and 38624 Sierra Highway in Palmdale as shown on Drawing No. 1, *Site Location Map.* The purpose of this work was to evaluate the subsurface soil conditions and provide geotechnical recommendations, percolation test results and pavement design recommendations for the design and construction of the proposed project, including current standard of practice seismic and geotechnical engineering interpretations. The purpose of the percolation test results is to provide the percolation rate for design of an infiltration system at the project site.

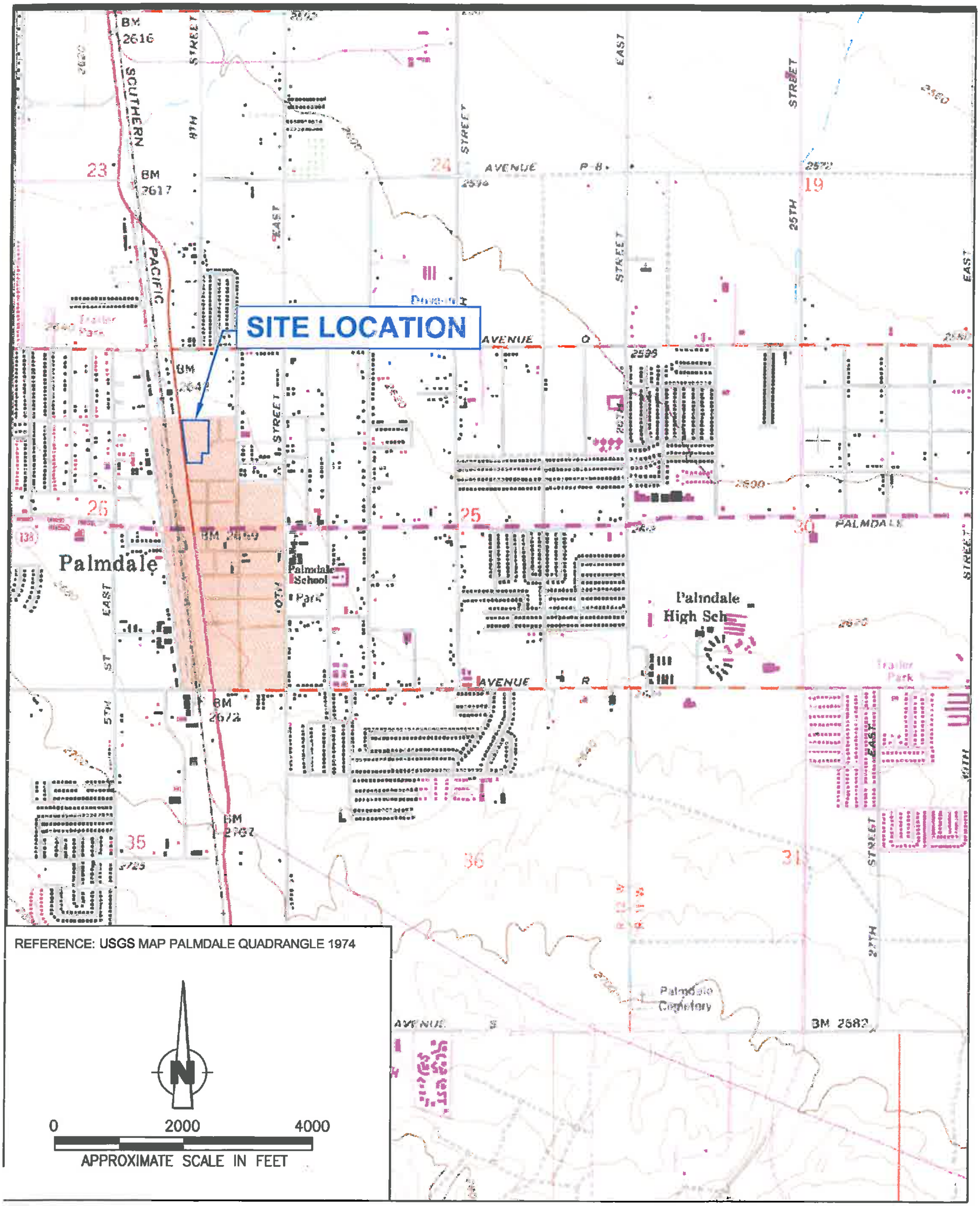
This report for geologic and geotechnical design parameters for the project described herein and is intended for use solely by the Los Angeles County Department of Public Works and their design team. This report should not be used as a bidding document but may be made available to the potential contractors for information on factual data only. For bidding purposes, the contractors should be responsible for making their own interpretation of the data contained in this report.

2.0 SITE AND PROJECT DESCRIPTION

The project site for East Antelope Valley Animal Shelter is collectively located at 38532, 38560, 38600 and 38624 Sierra Highway in Palmdale, California. The site is bordered by Sierra Highway to the west, a parking lot to the south, a residential neighborhood to the east, and a public facility to the north. The project site area is relatively flat, with a gentle slope in grade towards the north. Existing conditions include asphalt pavement within the southern two-thirds of the site and undeveloped land within the northern one-third of the site.

Review of historic aerial photos and topographic maps indicate several large buildings were present on the southern portion of the site between 1959 to at least 1981. The results of a Phase I Environmental Site Assessment (Converse, 2011) and Phase II Environmental Site Assessment (Converse, 2012) indicate that previous improvements at the site had basement levels; areas of former basements anticipated below the area of the planned parking pavement south of the animal shelter will contain undocumented fill.

Review of the conceptual site diagram shows that the proposed animal shelter will consist of one-story structures located within the central portion of the site. The buildings will likely be supported with slab on grade and shallow footings. No basement levels are planned at this time. The northern one-third of the site will be left as undeveloped land for future expansion, and majority of the east side will be converted to an exercise yard. Two new

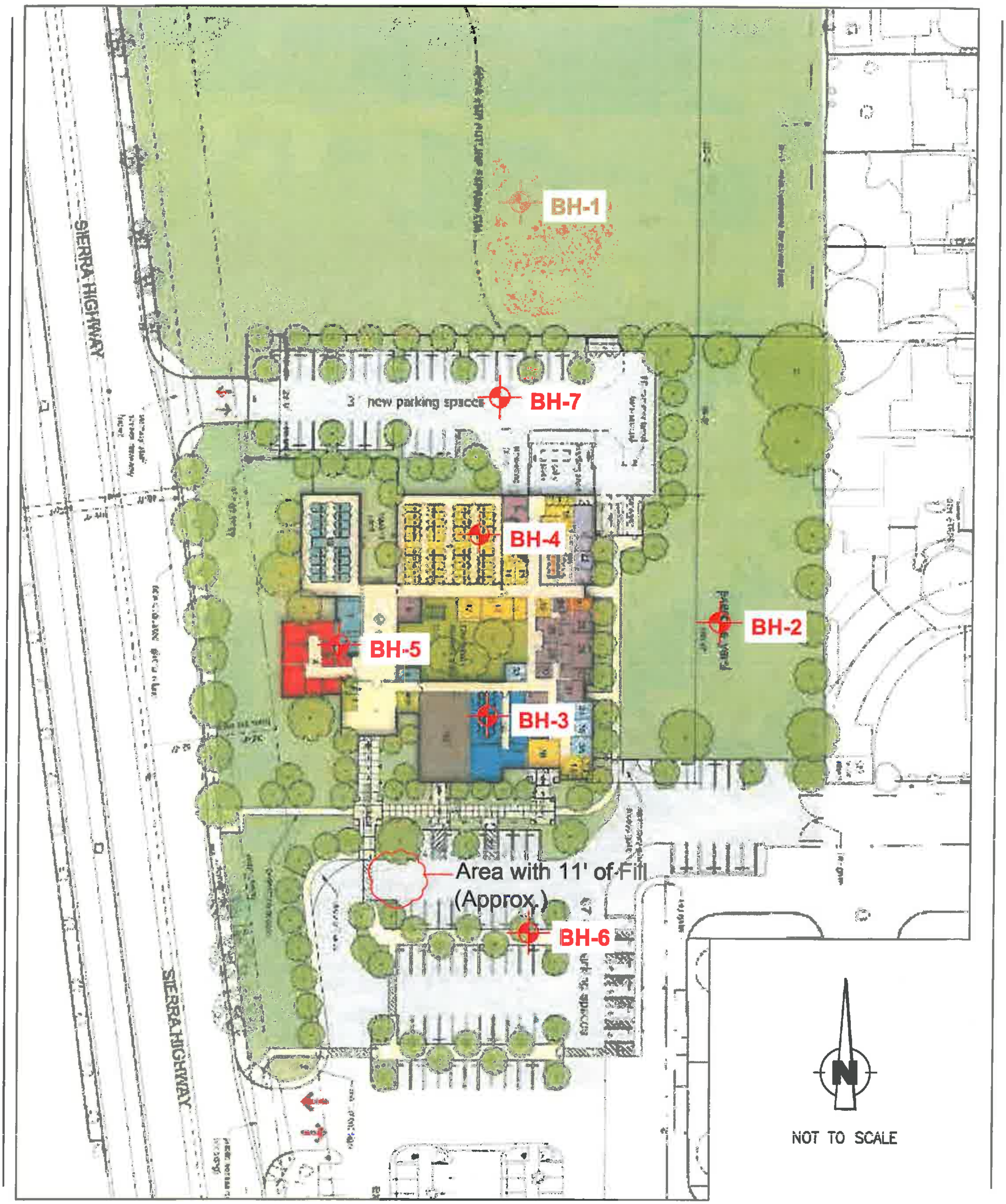


SITE LOCATION MAP

Converse Consultants

EAST ANTELOPE VALLEY ANIMAL SHELTER
LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS
PALMDALE, CALIFORNIA

Project No.	Drawing No.
12-31-145-01	1



SITE PLAN AND BORING LOCATIONS

Converse Consultants	EAST ANTELOPE VALLEY ANIMAL SHELTER LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS PALMDALE, CA	Project No. 12-31-145-01	Drawing No. 2

parking lots will also be constructed along the north and south portions of animal shelter buildings. The planned site improvements are illustrated on the base map provided for Drawing No. 2, *Site Plan and Boring Locations.*

3.0 SCOPE OF WORK

The scope of our work included a site reconnaissance, subsurface exploration with soil sampling and percolation testing, laboratory testing, engineering analysis, and preparation of this report.

3.1 Site Reconnaissance

A site reconnaissance was performed by a member of the Converse staff on March 12, 2012. The purpose of the site reconnaissance was to observe surface conditions and to mark exploratory boring locations. Underground Service Alert (USA) of Southern California was notified of our proposed drilling locations 48 hours prior to initiation of the subsurface field work. The reference ticket number from USA is A20731244.

3.2 Subsurface Exploration and Percolation Testing

Seven (7) exploratory borings (BH-1 through BH-7) were drilled within the project site on March 22, 2012. The borings were advanced using a truck mounted 8-inch diameter hollow stem auger drill rig to depths ranging from 16.5 to 51.5 feet below the existing ground surface (bgs). Two of the borings (BH-1 and BH-2) were utilized to perform percolation tests. Each boring was visually logged by an engineer and sampled at regular intervals and at changes in subsurface soils. Both relatively undisturbed and bulk soil samples were obtained for laboratory testing. California Modified Sampler (Ring samples), Standard Penetration Test samples, and bulk soil samples were obtained for laboratory testing. Standard Penetration Tests (SPTs) were performed in selected borings at selected intervals using a standard (1.4 inches inside diameter and 2.0 inches outside diameter) split-barrel sampler. The bore holes were backfilled and compacted with soil cuttings by reverse spinning of the auger following the completion of drilling. Borings within paved areas were patched with asphalt cold-patch, with the patch thickness matching the surrounding pavement section.

The approximate locations of the exploratory borings are shown in Drawing No. 2, *Site Plan and Boring Locations.* For a description of the field exploration and sampling program see Appendix A, *Field Exploration*.

Borings BH-1 and BH-2 were used for percolation testing prior to backfill. Percolation test procedures and test results are further discussed in report section 7.0, *Percolation Testing* and Appendix C.

3.3 Laboratory Testing

Representative samples of the site soils were tested in the laboratory to aid in the classification and to evaluate relevant engineering properties. The tests performed included:

- *In situ* moisture contents and dry densities (ASTM Standard D2216)
- Expansion (ASTM D4829)
- Soil corrosivity tests (Caltrans 643, 422, 417 and 532)
- Passing Sieve No. 200 (ASTM D1140)
- R-Value (ASTM D2844)
- Maximum dry density and optimum-moisture content relationship (ASTM Standard D1557)
- Direct shear (ASTM Standard D3080)
- Consolidation (ASTM Standard D2435)

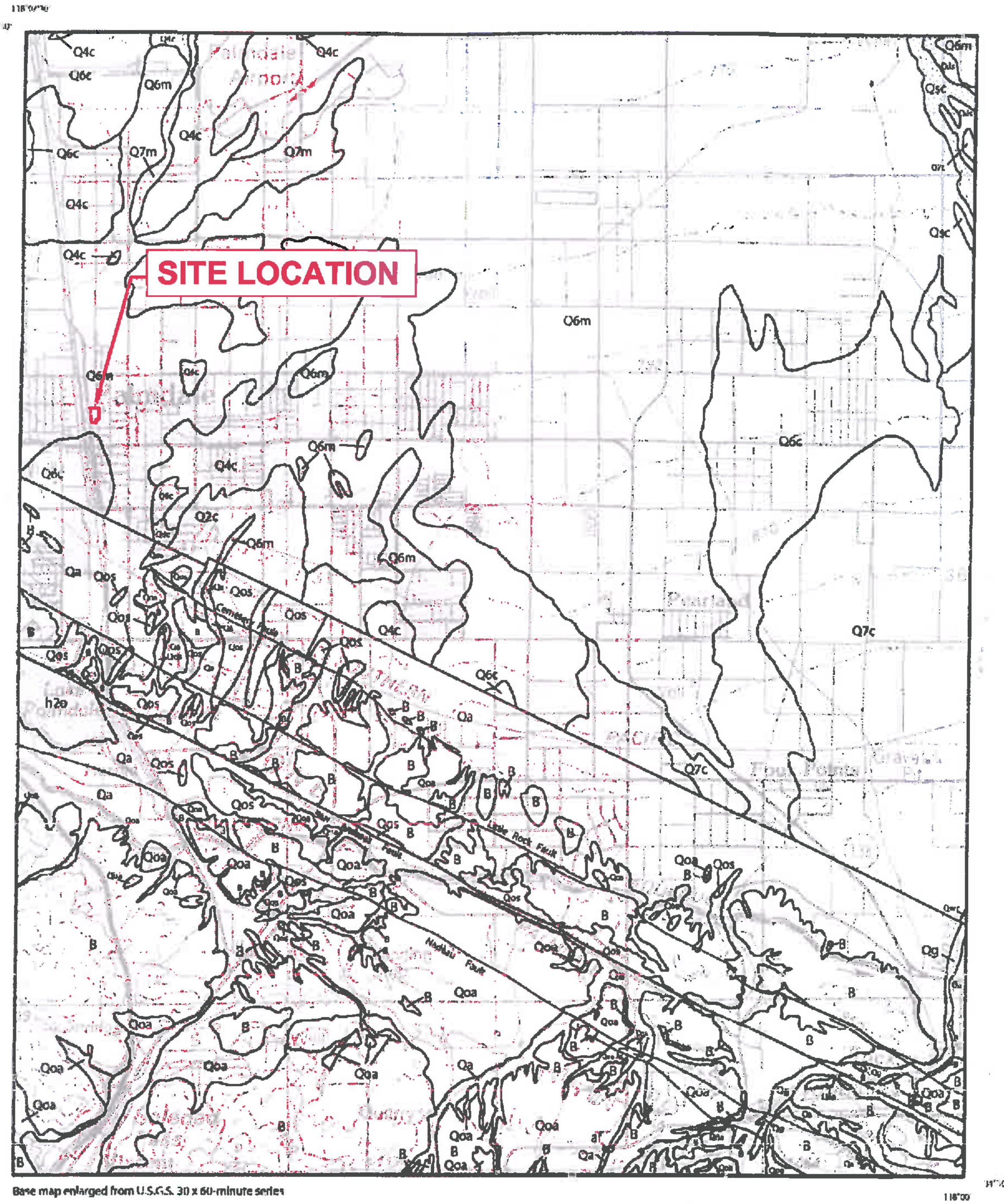
3.4 Analyses and Report

Data obtained from the exploratory fieldwork, percolation testing and laboratory-testing program were analyzed and evaluated with respect to the planned construction. This report was prepared to provide the findings, conclusions and recommendations developed during our study and evaluation.

4.0 GEOLOGIC CONDITIONS

4.1 Regional Geologic Setting

The project site is located within the Mojave Desert geomorphic province of Southern California; a broad interior region of mountains and intervening expanses of desert plains bound to the north by the Garlock fault and to the south by the San Andreas fault zone. The convergence of the Garlock and San Andreas faults form a wedged shaped alluvial plain within the western portion of the province, with which the subject site is located. Alluvial soils in the area of the subject site are derived from the elevated terrain to the south and generally consist of unconsolidated sediments of generally Holocene age (last 11,000 years). Drawing No. 3, *Geologic Map of Site Vicinity*, has been prepared to show the location of the project site with respect to local geologic exposures. The base map for Drawing No. 3 is from the Seismic Hazard Evaluation Report for the Palmdale 7.5-minute Quadrangle (2003). Map symbol Q6m corresponds to medium grained sandy alluvial sediments.



Base map enlarged from U.S.G.S. 30 x 60-minute series

B = Pre-Quaternary bedrock.

See "Bedrock and Surficial Geology" in Section 1 of report for descriptions of units.

Plate 1.1 Quaternary Geologic Map of the Palmdale 7.5-Minute Quadrangle, California.
Northern, central, and southern map sections are modified from Pond and others (1981), Barrows and others (1985), and Dibblee (1997), respectively.

GEOLOGIC MAP OF SITE VICINITY

EAST ANTELOPE VALLEY ANIMAL SHELTER
LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS
PALMDALE, CALIFORNIA

Project No.

12-31-145-01

Drawing No.

3

Converse Consultants

4.2 Subsurface Profile

The site soils consisted of fills and alluvial deposits to the maximum explored depth of 51.5 feet below existing ground surface (bgs). Fills up to a maximum observed depth of 3 feet were encountered in the borings. The fill material was probably placed during original site grading. Review of historic aerial photos and topographic maps indicate several large buildings were present on the site between as early as 1959. Deeper artificial fill may exist at the site. The fill encountered consist primarily of silty sand and clayey silt. The alluvial deposits below the fill primarily consist of silty sands and sand with gravels.

For a detailed description of the materials encountered during our exploration, see Appendix A*, Field Exploration.*

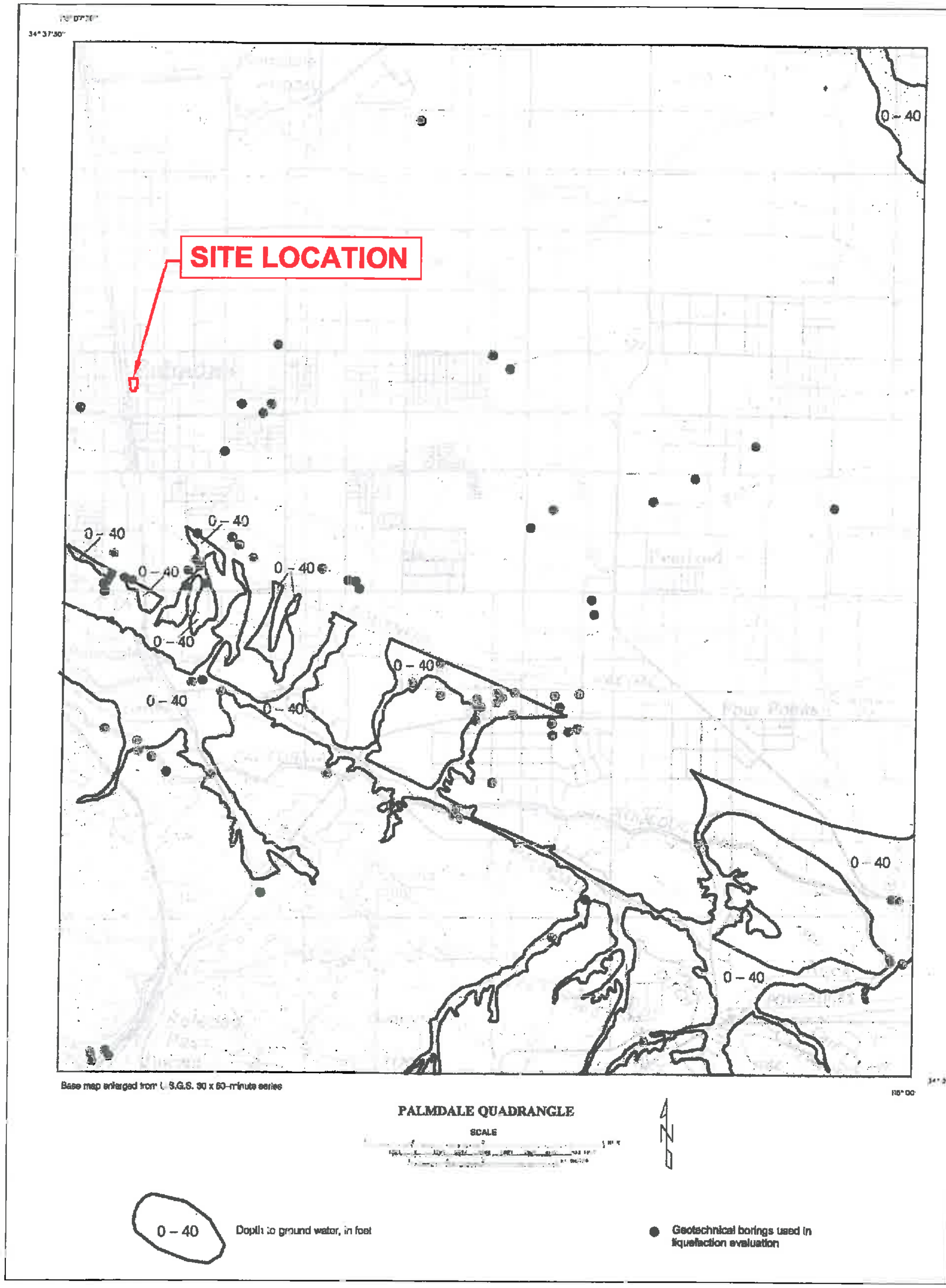
4.3 Groundwater

During our exploration, groundwater was not encountered to the maximum exploratory depth of 51.5 feet. Based upon regional groundwater data compiled by the Seismic Hazard Evaluation Report for the Palmdale 7.5-minute Quadrangle (2003), historic high groundwater levels for the subject site are reportedly greater than 40 feet below the ground surface (see Drawing No. 4, *Groundwater Contour Map*).

In general, groundwater levels fluctuate with the seasons and local zones of perched groundwater may be present within the near-surface soils due to local conditions or during rainy seasons. Groundwater conditions below any given site vary depending on numerous factors including seasonal rainfall, local irrigation, and groundwater pumping, among other factors. The regional groundwater table is not expected to be encountered during the planned construction, and confining clay layers were not observed within the zone of construction. Although conditions for isolated areas of perched groundwater were not encountered during our subsurface work, the possibility cannot be completely precluded.

4.4 Subsurface Variations

Based on results of the subsurface exploration and our experience, some variations in the continuity and nature of subsurface conditions within the project site should be anticipated. Because of the uncertainties involved in the nature and depositional characteristics of earth material, care should be exercised in interpolating or extrapolating subsurface conditions between or beyond the boring locations. If, during construction, subsurface conditions different from those presented in this report are encountered, this office should be notified immediately so that recommendations can be modified, if necessary.



GROUNDWATER CONTOUR MAP

EAST ANTELOPE VALLEY ANIMAL SHELTER
LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS
PALMDALE, CALIFORNIA

Project No.
12-31-145-01

Converse Consultants

Drawing No.
4

5.0 FAULTING AND SEISMIC HAZARDS

The subject site is situated within a seismically active region. As is the case for most areas of Southern California, ground-shaking resulting from earthquakes associated with nearby and more distant faults may occur at the project site. During the life of the project, seismic activity associated with active faults can be expected to generate moderate to strong ground shaking at the site.

5.1 Faulting

The project site is not located within a currently designated State of California Earthquake Fault Zone for surface fault rupture. There are no known active faults trending across the site. The closest known capable fault to the project site with mappable surface projection is the San Andreas Fault, located approximately 1 mile to the south.

5.2 Seismic Hazards

In addition to surface fault rupture, strong ground shaking from earthquakes can also produce other side effects that include soil liquefaction, lateral spreading, seismically induced settlement, ground lurching, landsliding, earthquake-induced flooding, seiches, and tsunamis. Drawing No. 5, *Seismic Hazard Zones Map*, has been prepared to show the mapped location of potential liquefaction and earthquake-induced landslide areas near the project site. The State of California Seismic Hazard Zone Map for the Palmdale Quadrangle (October 17, 2003) shows the project site is not located within an area of potential liquefaction. The project site is also not shown with any earthquake-induced landslide areas due to the relatively flat condition of the site topography.

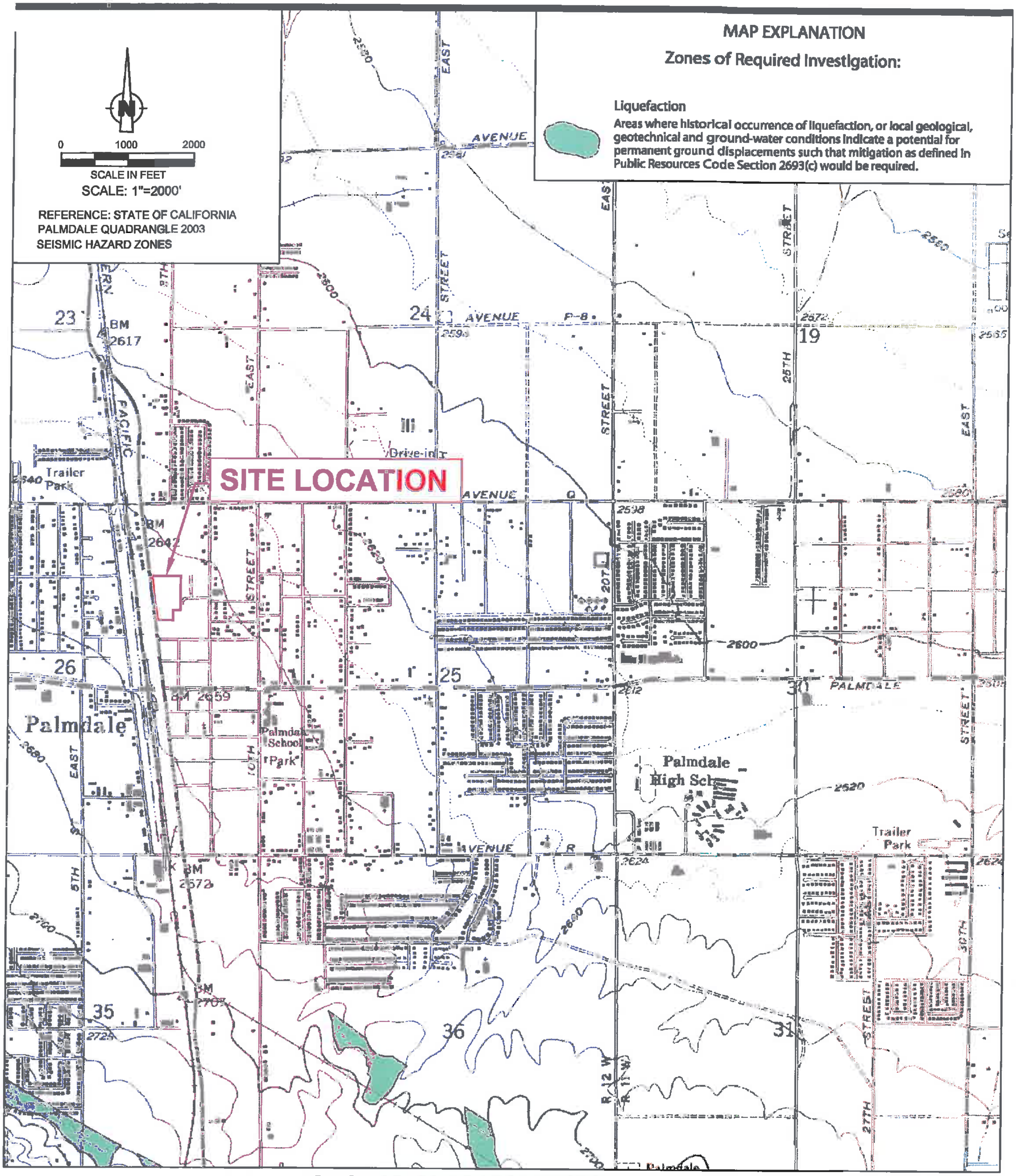
Results of a site-specific evaluation for each type of possible seismic hazard are explained below:

5.2.1 Surface Fault Rupture

The site is not located within a currently designated State of California Earthquake Fault Zone. Based on a review of existing geologic information, no known active faults cross or project toward the site. The potential for surface rupture resulting from the movement of the nearby major faults is considered remote.

5.2.2 Liquefaction and Seismically-Induced Settlement

Liquefaction is the sudden decrease in the strength of cohesionless soils due to dynamic or cyclic shaking. Saturated soils behave temporarily as a viscous fluid (liquefaction) and, consequently, lose their capacity to support the structures



SEISMIC HAZARD ZONES MAP

EAST ANTELOPE VALLEY ANIMAL SHELTER
LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS
PALMDALE, CALIFORNIA

Project No.
12-31-145-01

Converse Consultants

Drawing No.
5

founded on them. The potential for liquefaction decreases with increasing clay and gravel content, but increases as the ground acceleration and duration of shaking increase. Liquefaction potential has been found to be the greatest where the groundwater level and loose sands occur within 50 feet of the ground surface.

The site is not located within a mapped Seismic Hazard Zone for liquefaction potential. Site specific exploration did not encounter groundwater to a depth of 51.5 feet bgs. Based on the results of our subsurface exploration, including the absence of groundwater within 50 feet, and our experience on similar projects we anticipate liquefaction potential to be very low and seismically-induced settlement to be negligible.

5.2.3 Lateral Spreading

Seismically induced lateral spreading involves primarily lateral movement of earth materials along embankments due to ground shaking. It differs from slope failure in that deep seated movement does not occur due to the relatively smaller gradient of the initial ground surface. Lateral spreading is demonstrated by near-vertical cracks with predominantly horizontal movement of the soil mass involved. The topography at the project site and in the immediate vicinity of the site is relatively flat, with no nearby slopes or embankments. Under these circumstances, the potential for lateral spreading at the subject site is considered negligible.

5.2.4 Seismically-Induced Slope Instability

Seismically induced landslides and other slope failures are common occurrences during or soon after earthquakes. The project site is essentially flat. In the absence of significant ground slopes, the potential for seismically induced landslides to affect the proposed site is considered to be nil.

5.2.5 Earthquake-Induced Flooding

This is flooding caused by failure of dams or other water-retaining structures as a result of earthquakes. The site is located within an area that has a potential 0.2% annual flood chance per FEMA (2008), but is not located within the inundation zone for Palmdale Lake reservoir per the Los Angeles County General Plan. The potential of earthquake induced flooding of the subject site is considered to be minimal.

5.2.6 Seiches

Seiches are large waves generated in enclosed bodies of water in response to ground shaking. The Lake Palmdale reservoir is approximately 2.5 miles away and is the closest enclosed body of water to the site, but is not considered to pose a hazard because the site is not located within the inundation zone per the Los Angeles County General Plan.

6.0 SEISMIC ANALYSIS

The project site is classified as Site Class D, based on the soil classification and field Standard Penetration Tests. Seismic design parameters based on CBC 2010, calculated using the site coordinates by Ground Motion Parameter Calculator developed by the United States Geological Survey are provided below.

Table No. 1, CBC Seismic Parameters

Seismic Parameters	
Latitude	N 34.5827
Longitude	W 118.1160
Site Class	D
Mapped Short period (0.2-sec) Spectral Response Acceleration, S_S	2.000g
Mapped 1-second Spectral Response Acceleration, S_1	1.033g
Site Coefficient (from Table 1613.5.3(1)), Fa	1.0
Site Coefficient (from Table 1613.5.3(2)), Fv	1.5
MCE 0.2-sec period Spectral Response Acceleration, S_{MS}	2.000g
MCE 1-second period Spectral Response Acceleration, S_{M1}	1.549g
Design Spectral Response Acceleration for short period, S_{DS}	1.333g
Design Spectral Response Acceleration for 1-sec. period, S_{D1}	1.033g
Seismic Design Category	D

7.0 PERCOLATION TESTS

Percolation testing was performed utilizing exploratory Borings BH-1 and BH-2 on March 22, 2011. Each boring was cased using two-inch diameter perforated casing surrounded by gravel. Water was added to the test hole until the water level was at the ground surface and allowed to presoak for at least 2 hours. After pre-soak, water was added to the test hole until the water level was near the ground surface. Tests were performed using the falling head test method in accordance with Los Angeles County "Low Impact Development (LID) Best Management Practice (BMP) Guideline for Design, Investigation, and Reporting" dated January 2011. The water level was measured to the nearest tenth of a foot, and converted to inches in the calculation. The results of the percolation tests are tabulated below and in Appendix C, *Percolation Testing*.

Table No. 2, Percolation Test Results

Boring No.	Depth of Boring (feet)	Predominant Soil Types (USCS)	Average Percolation Rate (inches/hour)
BH-1	31.5	Sand (SP), Sand with Silt (SP-SM)	6.02
BH-2	31.5	Silty Sand (SM), Clayey Sand (SC)	2.74

Based on the percolation test results, the site soils are primarily sandy with various amount of fines (silt and clay) content. Sandy soils with fines content (BH-2) exhibit relatively moderate infiltration rates, and sandy soils with less fines content (BH-1) provided test results with relatively high infiltration. The sandy site soils are considered suitable for infiltration drainage systems. The project Civil Engineer should review the raw data of percolation test to determine specific soil layers and percolation rates for design of the proposed infiltration system.

The proposed infiltration system must comply with the following setbacks in accordance with Los Angeles County guideline.

Table No. 3, Infiltration Facility Setback Requirements per Los Angeles County

Setback from	Distance
Property lines and public right of way	5 feet
Any foundation	15 feet or within 1:1 plane drawn up from the bottom of foundation, whichever greater
Face of any slope	H/2, 5 feet minimum (H is height of slope)
Water wells used for drinking water	100 feet

8.0 LABORATORY TESTING

Representative samples of the site soils were tested in our laboratory to aid in the classification and to evaluate relevant engineering properties. Selected sub-samples were tested by Environmental Geotechnology Laboratory, Inc. of Arcadia to evaluate the soils for corrosion potential. Results of the various laboratory tests are summarized below. For a more detailed description of the laboratory test methods and test results, see Appendix B, *Laboratory Testing Program*.

- *In-situ* Moisture and Dry Density – Results of *in-situ* moisture and dry density tests are presented on the Log of Borings in Appendix A, *Field Exploration.*

- Expansion Index – One (1) representative sample from the upper five (5) feet bgs of the site soil was tested to evaluate Expansion Index (EI). The test results indicate that the site soils have a “low” expansion potential (EI = 29).
- Soil Corrosivity – One (1) representative sample of the site soils was tested to evaluate soil corrosivity with respect to common construction materials such as concrete and steel. The test results are presented in Appendix B, *Laboratory Testing Program.*
- Percent Passing No. 200 – Two (2) representative samples were tested to evaluate the fines content (percent passing no. 200). Results are presented in Appendix B, *Laboratory Testing Program*, and indicate the samples tested are predominately silty sand.
- R-value – Two (2) representative samples from the upper five (5) feet bgs of the site soils were tested to evaluate the resistance and potential soil strength value to aid in the design of pavement sections. The test results indicate relatively moderate resistance, as presented in Appendix B, *Laboratory Testing Program.*
- Maximum Dry Density and Optimum Moisture Content – The moisture-density relationship of one (1) representative near surface soil sample are presented in Appendix B, *Laboratory Testing Program*. The test result indicates that the laboratory maximum dry density for the sample is 130.5 pounds per cubic foot (pcf) at 11.5 percent moisture content.
- Direct Shear – Two (2) direct shear tests were performed; one on representative in-situ samples and one on specimens remolded to 90 percent relative compaction. Results of the direct shear testing are presented in Appendix B, *Laboratory Testing Program*.
- Consolidation Test – Two (2) consolidation tests were performed on representative samples of the site soils encountered within the upper 10 feet. The results of the testing are presented in Appendix B, *Laboratory Testing Program.* Based on the results of the test, the potential compressibility of the site soils is considered only slight.

For additional information on the subsurface conditions, see the Logs of Borings in Appendix A, *Field Exploration*.

9.0 GEOTECHNICAL EVALUATION AND CONCLUSION

Based on the results of our background review, subsurface exploration, laboratory testing, geotechnical analyses, and understanding of the planned site improvements, it is our opinion that the proposed project is feasible from a geotechnical standpoint, provided the following conclusions and recommendations are incorporated into the project plans, specifications, and are followed during site construction.

Remedial grading is recommended for ground preparation to support the planned single-story buildings and any new hardscape improvements. Such grading should include over-excavation and re-compaction to mitigate disturbed soils from site demolition, to remove and recompact undocumented fill soils (including former basement areas), and to provide a relatively uniform soil condition for the areas of future construction. Following remedial grading, compacted fill soils are anticipated to have similar engineering characteristics with the underlying alluvial soils.

The proposed structures may use conventional foundation systems (spread footings and isolated pads) with slab-on-grade, supported on compacted fill.

10.0 EARTHWORK RECOMMENDATIONS

10.1 General

Based on our field exploration, laboratory testing, and analyses of subsurface conditions at the site, remedial over-excavation grading is recommended to provide a relatively uniform soil condition across the site for support of the single-story structures and new hardscape and pavement improvements. To help reduce the potential for differential settlement, variations in the soil type, degree of compaction, and thickness of the compacted fill placed underneath the footings and slab should be kept uniform. Site grading recommendations provided in this report are based on our experience with similar projects in the area and our site-specific geotechnical evaluation.

The existing soils removed during over-excavation may be placed as compacted fill in structural areas after proper processing (free of vegetation, shrubs, roots and debris). Based on our understanding of past site usage, we anticipate that the site soil materials will contain scattered demolition debris. Earthwork should be performed with suitable equipment and techniques to selectively screen/remove debris from soils placed as engineered fill.

10.2 Over-Excavation/Removal

Remedial grading is recommended to over-excavate and re-compact existing site soils and undocumented fills. Based on our review of the Environmental Site Assessment Report, approximate 11 feet of undocumented fills are anticipated at the planned parking pavement south of the animal shelter. The footprint of the single-story structure should be over-excavated to depth of at least three (3) feet as measured from existing grades, or to a depth of at least two (2) feet below the bottom of footings, or to the depth of undocumented fill, whichever is deeper. Localized deeper removal may be needed where firm native soils are not exposed on the excavation bottom. The exposed bottom of the over-excavation area should be scarified at least 6 inches, moisture conditioned as needed to near-optimum moisture content, and compacted to 90 percent relative compaction (laboratory maximum density evaluated per ASTM D1577).

The lateral limits of the over-excavation should extend at least 5 feet beyond the planned building footings, where feasible. However, over-excavation should not undermine adjacent off-site improvements. Remedial grading should not extend within a projected 1:1 (horizontal to vertical) plane projected down from the outer edge of adjacent off-site improvements.

Pavement and hardscape areas beyond the footprint of the buildings should be over-excavated to a depth of at least 2 feet, as measured from existing grades. Deeper removal will be needed if firm soil conditions are not exposed on the excavation bottom. The lateral limits of the over-excavation should extend at least 2 feet beyond the pavement/hardscape areas, where feasible.

Soils containing organic materials should not be used as structural fill. The extent of over-excavation removal should be further evaluated by the geotechnical representative based on observations during grading.

10.3 Engineered Fill

The bottom of the over-excavations should be scarified to a depth of at least six (6) inches. The scarified soils should be moisture conditioned to near-optimum moisture content and compacted to at least 90 percent of the laboratory maximum dry density to produce a firm and unyielding surface. All engineered fill should be placed on competent, scarified and compacted native materials as evaluated by the geotechnical engineer and in accordance with the specifications presented in this section.

Excavated site soils, free of deleterious materials and rock particles larger than three (3) inches in the largest dimension, should be suitable for placement as compacted fill. Any proposed import fill should be evaluated and approved by Converse prior to import to the site. Import fill material should have an expansion index less than 20.

Prior to compaction, fill materials should be thoroughly mixed and moisture conditioned to within three (3) percent of the optimum moisture content. All fill, if not specified otherwise elsewhere in this report, should be compacted to at least 90 percent of the laboratory dry density in accordance with the ASTM Standard D1557 test method. The upper 12 inches of subgrade below parking pavement areas should be compacted to 95 percent relative compaction.

10.4 Excavatability

Based on our field exploration, the earth materials at the site may be excavated with conventional heavy-duty earth moving and trenching equipment. The onsite materials will contain occasional demolition debris and gravel and/or cobbles. Earthwork should be performed with suitable equipment and methods for removal of debris from the engineered fill.

10.5 Expansive Soil

Based on soil classifications and laboratory test results, the recommendations contained in this report are based upon anticipated low expansion soil conditions. Any proposed import fill should have an expansion index less than 20, and should be evaluated and approved by Converse prior to import to the site.

The soil materials with Expansion Index higher than 20 should be mitigated. There are several mitigation measures that can be utilized to improve expansive soils at the site. Some mitigation measures include:

- Pre-saturation of on-site compacted subgrade soils to at approximate three (3) percent above optimum moisture content, or
- Reinforce footing with grade beams and place thicker concrete slab with moisture barrier.

It is very important to keep the site soils moisture content around or under the edge of foundation, concrete slab, and asphalt concrete pavement at approximately the same moisture content before, during and after construction. This will reduce greatly the expansion potential of the site soils.

If traditional slabs are planned to be used, removal and replacement of upper two (2) feet of the underlying soils with on site or imported sandy compacted fill (Expansion Index less than 20) to avoid expansion/shrinkage cracks is recommended.

Any proposed import fill should have an expansion index less than 20, and should be evaluated and approved by Converse prior to import to the site.

10.6 Pipeline Backfill Recommendations

Any soft and/or unsuitable material encountered at the pipe invert should be removed and replaced with an adequate bedding material. The pipe subgrade should be level, firm, uniform, free of loose materials and properly graded to provide uniform bearing and support to the entire section of the pipe placed on bedding material. Protruding oversize particles larger than two (2) inches in the largest dimension, if any, should be removed from the trench bottom and replaced with compacted materials. During the digging of depressions for proper sealing of the pipe joints, the pipe should rest on a prepared bottom for as near its full length as is practicable. The bedding zone is defined as that portion of the pipe trench from four inches below the pipe invert to one foot above the top of pipe, in accordance with Section 306-1.2.1 of the Latest Edition of the *Standard Specifications for Public Works Construction* (SSPWC) and Los Angeles County Department of Public Works Standard Plans, 3080-0, Case 3, Pipe Bedding in Trenches.

10.7 Trench Zone Backfill

The following specifications are recommended to provide a basis for quality control during the placement of trench backfill.

Trench excavations to receive backfill shall be free of trash, debris or other unsatisfactory materials at the time of backfill placement. Excavated on-site soils free of oversize particles, defined as larger than one (1) inch in maximum dimension in the upper 12 inches of subgrade soils and larger than three (3) inches in the largest dimension in the trench backfill below, and deleterious matter after proper processing may be used to backfill the trench zone. Imported trench backfill, if used, should be approved by the project soils consultant prior to delivery at the site. No more than 30 percent of the backfill volume should be larger than ¾ inch in the largest dimension.

Trench backfill shall be compacted to 90 percent of the laboratory maximum dry density as per ASTM Standard D1557 test method. At least the upper twelve (12) inches of trench underlying pavements should be compacted to at least 95 percent of the laboratory maximum dry density.

Trench backfill shall be compacted by mechanical methods, such as sheepsfoot, vibrating or pneumatic rollers, or mechanical tampers, to achieve the density specified herein. The backfill materials shall be brought to within two (2) percent of optimum moisture content and then placed in horizontal layers if the expansion index is less than or equal to 30. Should the expansion index be greater than 30, backfill materials shall be brought to approximately 2 percent above optimum moisture content. The thickness of uncompacted layers should not exceed eight (8) inches. Each layer shall be evenly spread, moistened or dried as necessary, and then tamped or rolled until the specified density has been achieved.

The contractor shall select the equipment and processes to be used to achieve the specified density without damage to adjacent ground and completed work. The field density of the compacted soil shall be measured by the ASTM Standard D1556 or ASTM Standard D2922 test methods or equivalent. Observation and field tests should be performed by Converse during construction to confirm that the required degree of compaction has been obtained. Where compaction is less than that specified, additional compactive effort shall be made with adjustment of the moisture content as necessary, until the specified compaction is obtained. It should be the responsibility of the contractor to maintain safe conditions during cut and/or fill operations. Trench backfill shall not be placed, spread or rolled during unfavorable weather conditions. When the work is interrupted by heavy rain, fill operations shall not be resumed until field tests by the project's geotechnical consultant indicate that the moisture content and density of the fill are as previously specified.

Imported soils, if any, used as compacted trench backfill should be predominantly granular and meet the following criteria:

- Expansion Index less than 20
- Free of all deleterious materials
- Contain no particles larger than 3 inches in the largest dimension
- Contain less than 30 percent by weight retained on ¾-inch sieve
- Contain at least 15 percent fines (passing #200 sieve)
- Have a Plasticity Index of 10 or less

Any import fill should be tested and approved by the geotechnical representative prior to delivery to the site.

10.8 Shrinkage and Subsidence

Soil shrinkage and/or bulking as a result of remedial grading depends on several factors including the depth of over-excavation, and the grading method and equipment utilized, and average relative compaction. For preliminary estimation, bulking and shrinkage factors for various units of earth material at the site may be taken as presented below:

- The approximate shrinkage factor for the undocumented fill soils is estimated to range from ten (10) to fifteen (15) percent.
- The approximate shrinkage factor for the native alluvial soils is estimated to range from five (5) to ten (10) percent.
- For estimation purposes, ground subsidence may be taken as 0.1 feet as a result of remedial grading.

Although these values are only approximate, they represent our best estimates of the factors to be used to calculate lost volume that may occur during grading. If more accurate shrinkage and subsidence factors are needed, it is recommended that field-testing using the actual equipment and grading techniques be conducted.

11.0 DESIGN RECOMMENDATIONS

The proposed single-story structures may be supported on spread footings extending into properly compacted fill. Hardscape and pavement improvements should be supported on properly compacted fill.

11.1 Shallow Foundations

The design recommendations provided in this section are based on the assumption that in preparing the site, earthwork and grading recommendations presented in Section 11 will be implemented. The proposed single-story structures and any site walls may be supported on shallow continuous and isolated spread foundations provided our recommendations are incorporated in the design and construction plans.

11.1.1 Vertical Capacity

Shallow pad footing should be at least 24 inches square, and continuous footings should be at least 12 inches wide. Footings should be embedded at least 18 inches below lowest adjacent grade into compacted fill soils. The footing reinforcement should be based on the structural design. Conventional spread footings founded on compacted fill soils may be designed for a net bearing pressure of 2,000 pounds per square foot (psf) for dead-plus-live-loads.

The net allowable bearing pressure can be increased by 400 psf for each additional foot of excavation depth and by 300 for each additional foot of excavation width up to a maximum value of 4,000 psf.

The net allowable bearing values indicated above are for the dead loads and frequently applied live loads and are obtained by applying a factor of safety of 3.0 to the net ultimate bearing capacity.

11.1.2 Lateral Capacity

Resistance to lateral loads can be assumed to be provided by friction acting at the base of foundations and by passive earth pressure. A coefficient of friction of 0.3 between concrete and soil may be used with the dead load forces. An allowable passive earth pressure of 300 psf per foot of depth may be used for resistance against compacted fill or native soils. A factor of safety of 1.5 was applied in calculating passive earth pressure. The maximum value of the passive earth pressure should be limited to 3,000 psf for compacted fill or native soils.

11.1.3 Dynamic Increases

Vertical and lateral bearing values indicated above are for the total dead loads and frequently applied live loads. If normal code requirements are applied for design, the above vertical bearing and lateral resistance values may be increased by 33 percent for short duration loading, which will include the effect of wind or seismic forces.

11.1.4 Settlement

The static settlement of structures supported on continuous and/or spread footings founded on compacted fill and/or dense native soils will depend on the actual footing dimensions and the imposed vertical loads. Based on the maximum allowable net bearing pressures presented above, static settlement is anticipated to be less than 0.5 inch, and the differential settlement may be taken as equal to about one half of the total settlement over a horizontal distance of 30 feet.

11.2 Modulus of Subgrade Reaction

For the subject project, design of the structures supported on compacted fill subgrade prepared in accordance with the recommendations provided in this report may be based on a soil modulus of subgrade reaction (k_s) of 150 pounds per square inch per inch.

11.3 Slabs-on-grade

The design of the slab-on-grade will depend on, among other factors, the expansion potential of the pad soils. Based on the expansion index test performed during this evaluation, the expansion potential of the site soils at a shallow depth is low. Accordingly, slabs-on-grade for building pads may be of the conventional type as opposed to post-tensioned.

Slabs-on-grade should be supported on properly compacted fill or deeper undisturbed native soils. Compacted fill used to support slabs-on-grade should be placed and compacted in accordance with report Section 10.0, *Earthwork Recommendations*.

Slabs-on-grade should have a minimum thickness of four inches nominal for support of normal ground-floor live loads. Minimum reinforcement for slabs-on-grade should be No. 3 reinforcing bars, spaced at 18 inches on-center each way. The thickness and reinforcement of more heavily-loaded slabs will be dependent upon the anticipated loads and should be designed by a structural engineer. A static modulus of subgrade reaction equal to 150 pounds per square inch per inch may be used in structural design of concrete slabs-on-grade.

If approved by the owner, equivalent welded wire mesh may be used for reinforcement of concrete slabs-on-grade. However, to be effective, it is imperative that the reinforcement be located within the center third of the slab thickness. The commonly used procedure of "hooking" the reinforcement during concrete placement seldom, if ever, results in proper location of the slab reinforcing.

It is critical that the exposed subgrade soils should not be allowed to desiccate prior to the slab pour. Care should be taken during concrete placement to avoid slab curling. Slabs should be designed and constructed as promulgated by the ACI and Portland Cement Association (PCA). Prior to the slab pour, all utility trenches should be properly backfilled and compacted.

If moisture-sensitive floor coverings, such as vinyl tile, carpet, or wood floors, are used, slabs should be protected by a minimum 10-mil thick moisture retarder/barrier in conformance with ASTM E 1745 Class A requirements.

11.4 Hardscape

Hardscape walkways and patio slabs should have a minimum thickness of four inches nominal for support of normal pedestrian traffic. Minimum reinforcement for walkways and patio slabs should be No. 3 reinforcing bars, spaced at 18 inches on-center each way. Crack control joints should be provided.

Transverse construction joints should not be spaced more than 8 feet and should be cut to a depth of ¼ the thickness of the slab. Longitudinal joints should not be spaced more than 8 feet apart. A longitudinal joint is not necessary in the pavement adjacent to the curb and gutter section.

It is critical that the exposed subgrade soils should not be allowed to desiccate prior to the slab pour. Care should be taken during concrete placement to avoid slab curling. Slabs should be designed and constructed as promulgated by the ACI and Portland Cement Association (PCA). Prior to the slab pour, all utility trenches should be properly backfilled and compacted.

Positive drainage should be provided away for all hardscape areas to prevent seepage of surface and/or subsurface water into the subgrade adjacent to structures.

11.5 Flexible Pavement Recommendations

We have performed flexible pavement design analyses to provide pavement structural sections for new driveway and/or parking areas. An R-value of 31 was used for the sandy on-site soils for pavement design based on the result of laboratory testing and our experience with similar projects. Our recommendations are presented as the following:

The flexible pavement structural section design recommendations were performed in accordance with the method contained in the *CALTRANS Highway Design Manual*, Chapter 630 without the factor of safety. No specific traffic study was performed to determine the Traffic Index (TI) for the proposed project, therefore a wide range of TI values were evaluated. The recommended flexible pavement structural sections for various TI conditions are presented in the following table:

Table No. 4, Flexible Pavement Structural Sections

Design R-value	Design TI	Asphalt Concrete (AC) Over Aggregate Base (AB) Structural Sections		Full AC Structural Section
		AC (inches)	AB (inches)	AC (inches)
31	4	3.0	4.0	4.0
	5	4.0	4.0	5.0
	6	4.0	6.0	7.0
	7	5.0	7.0	8.0
	8	6.0	8.5	9.5
	9	7.0	9.5	10.5

Actual traffic index and traffic load should be determined by either Civil Engineer or Traffic Engineer. The above pavement sections are recommended as a guideline for basic usage of the indicated TI values, and may not be sufficient for actual traffic loading.

Base material shall conform to requirements for a Class 2 Aggregate Base (AB) or equivalent (such as crushed miscellaneous base - CMB) and should be placed in accordance with the requirements of the Standard Specifications for Public Works Construction (SSPWC, latest Edition).

Asphaltic materials should conform to Section 203-1, "*Paving Asphalt*," and Section 302-5, "*Asphalt Concrete Pavement*," of the SSPWC, latest edition.

11.6 Rigid Pavement Design

The Portland Cement Association's (PCA's) Southwest Region Publication P-14, *Portland Cement Concrete Pavement (PCCP) for Light, Medium, and Heavy Traffic*, presents a "*Portland Cement Concrete Pavement (PCCP) Design Nomograph for Cities and Counties Roads."* The pavement section presented in Table No. 5, *Rigid Pavement Structural Sections*, is based on this nomograph. Pavement sections are provided for the Traffic

Indices (TIs) ranging from 4 to 9. An R-value of 31 was used for pavement design based on our experiences with similar project conditions.

Table No. 5, Rigid Pavement Structural Sections

Design R-Value	Design Traffic Index (TI)	PCCP Pavement Section (inches)
31	4.0	6.25
	5.0	6.50
	6.0	6.75
	7.0	7.00
	8.0	7.25
	9.0	7.50

Actual traffic index and traffic load should be determined by either Civil Engineer or Traffic Engineer. The above pavement section is recommended for basic usage as indicated in the table and may not be sufficient for actual traffic loading.

Prior to placement of base aggregate, at least the upper 12 inches of subgrade soils below rigid pavement sections should be scarified, moisture-conditioned, if necessary, and recompacted to at least 95 percent relative compaction as defined by the ASTM D 1557 standard (current edition) test method.

The pavement section presented in Table No. 5 is based on a minimum 28-day Modulus of Rupture (M-R) of 550 psi and a compressive strength of 3,000 psi. The third point method of testing beams should be used to evaluate modulus of rupture. The concrete mix design should contain a minimum cement content of 5.5 sacks per cubic yard. Recommended maximum and minimum values of slump for pavement concrete are three inches to one inch, respectively.

Transverse contraction joints should not be spaced more than 15 feet and should be cut to a depth of ¼ the thickness of the slab. Longitudinal joints should not be spaced more than 12 feet apart. A longitudinal joint is not necessary in the pavement adjacent to the curb and gutter section.

All outside edges should conform to Section 201 of the most recent Standard Specifications for Public Works Construction (SSPWC), and should be constructed in accordance with Section 302-6 of the SSPWC. Pavement subgrade should be prepared in accordance with Section 301 of the SSPWC. The upper 12 inches of subgrade should be compacted to a relative compaction of at least 95 percent as per the current ASTM D 1557 standard.

Positive drainage should be provided away from all pavement areas to prevent seepage of surface and/or subsurface water into the pavement base and/or subgrade.

11.7 Soil Corrosivity Evaluation

Converse utilized the Environmental Geotechnology Laboratory, Inc., located in Arcadia, California, to test one (1) bulk soil samples taken in the general area of the proposed structures. The tests included minimum resistivity, pH, soluble sulfates, and chloride content, with the results summarized on the following table:

Table No. 6, Soil Corrosivity Test Results

Boring No.	Sample Depth (feet)	pH (Caltrans 643)	Soluble Chlorides (Caltrans 422) ppm	Soluble Sulfate (Caltrans 417) ppm	Saturated Resistivity (Caltrans 643) Ohm-cm
BH-5	0-5	8.04	65	10	4100

According to the Los Angeles County Manual for Preparation of Geotechnical Report (2010), the pH is in "non-corrosive" range, the Chlorides content is in "non-corrosive" range, the Sulfate content is in "non-corrosive" range, and the resistivity is in "moderately corrosive" range.

A corrosion engineer may be consulted for appropriate mitigation procedures and construction design, if needed. Conventional corrosion mitigation measures may include the following:

- Steel and wire concrete reinforcement should have at least three inches of concrete cover where cast against soil, unformed.
- Below-grade ferrous metals should be given a high-quality protective coating, such as 18-mil plastic tape, extruded polyethylene, coal-tar enamel, or Portland cement mortar.
- Below-grade metals should be electrically insulated (isolated) from above-grade metals by means of dielectric fittings in ferrous utilities and/or exposed metal structures breaking grade.

11.8 Site Drainage

Adequate positive drainage should be provided away from the structure foundations to prevent ponding and to reduce percolation of water into the foundation soils. We recommend that any landscape areas immediately adjacent to the foundation shall be designed sloped away from the foundation with a minimum 5% slope gradient for at least 10 feet measured perpendicular to the face of the foundation. Impervious surfaces within 10 feet of the structure foundation shall be sloped a minimum of 2 percent away from the structure per 2010 CBC.

12.0 CONSTRUCTION CONSIDERATIONS

12.1 General

Site soils should be excavatable using conventional heavy-duty excavating equipment. Temporary sloped excavation is feasible if performed in accordance with the slope ratios provided in Section 12.2, *Temporary Excavations*. Existing utilities should be accurately located and either protected or removed as required.

12.2 Temporary Excavations

Based on the materials encountered in the exploratory borings, sloped temporary excavations may be constructed according to the slope ratios presented in Table No. 7, *Slope Ratios for Temporary Excavation*. Any loose utility trench backfill or other fill encountered in excavations will be less stable than the native soils. Temporary cuts encountering loose fill or loose dry sand should be constructed at a flatter gradient than presented in the following table:

Table No. 7, Slope Ratios for Temporary Excavation

Maximum Depth of Cut (feet)	Maximum Slope Ratio* (horizontal: vertical)
0 – 4	vertical
4 - 8	1:1
8 +	1.5:1

*Slope ratio assumed to be uniform from top to toe of slope.

Surfaces exposed in slope excavations should be kept moist but not saturated to minimize raveling and sloughing during construction. Adequate provisions should be made to protect the slopes from erosion during periods of rainfall. Surcharge loads, including construction, should not be placed within five (5) feet of the unsupported trench edge. The above maximum slopes are based on a maximum height of six (6) feet of stockpiled soils placed at least five (5) feet from the trench edge.

All applicable requirements of the California Construction and General Industry Safety Orders, the Occupational Safety and Health Act of 1987 and current amendments, and the Construction Safety Act should be met. The soils exposed in cuts should be observed during excavation by the project's geotechnical consultant. If potentially unstable soil conditions are encountered, modifications of slope ratios for temporary cuts may be required.

12.3 Geotechnical Services During Construction

This report has been prepared to aid in the foundation plans and specifications, and to assist the architect, civil and structural engineers in the design of the proposed structures. It is recommended that this office be provided an opportunity to review final design drawings and specifications to verify that the recommendations of this report have been properly implemented.

Recommendations presented herein are based upon the assumption that adequate earthwork monitoring will be provided by Converse. Footing excavations should be observed by Converse prior to placement of steel and concrete so that footings are founded on satisfactory materials and excavations are free of loose and disturbed materials. Trench backfill should be placed and compacted with observation and field density testing provided by this office.

During construction, the geotechnical engineer and/or their authorized representatives should be present at the site to provide a source of advice to the client regarding the geotechnical aspects of the project and to observe and test the earthwork performed. Their presence should not be construed as an acceptance of responsibility for the performance of the completed work, since it is the sole responsibility of the contractor performing the work to ensure that it complies with all applicable plans, specifications, ordinances, etc.

This firm does not practice or consult in the field of safety engineering. We do not direct the contractor's operations, and cannot be responsible for other than our own personnel on the site; therefore, the safety of others is the responsibility of the contractor. The contractor should notify the owner if he considers any recommended actions presented herein to be unsafe.

13.0 SECTION 111 STATEMENT

The subject project site is not located within a mapped seismic hazard zone (CDMG 2003) and will not be subject to seismic hazards such as ground rupture, landslides, liquefaction settlement, and lateral spreading of the site soil. The recommended grading operations for the subject project will be safe from the adverse affects of landsliding, settlement, and slippage provided the site conditions are maintained. In addition, bordering offsite properties will not sustain adverse geotechnical effects resulting from the recommended grading earthwork. Our findings and professional opinion do not constitute a guarantee or warranty, expressed or implied.

14.0 CLOSURE

The findings and recommendations of this report were formulated in compliance with Section 111 of the County of Los Angeles Building Code. Our conclusions and recommendations are based on the results of the field and laboratory studies, combined with an interpolation and extrapolation of soil conditions between and beyond boring locations. If conditions encountered during construction appear to be different from those shown by the borings, this office should be notified.

Design recommendations given in this report are based on the assumption that the earthwork and site grading recommendations contained in this report are implemented. Additional consultation may be prudent to interpret Converse's findings for contractors, or to possibly refine these recommendations based upon the review of the final site grading and actual site conditions encountered during construction. If the scope of the project changes, if project completion is to be delayed, or if the report is to be used for another purpose, this office should be consulted.

This report was prepared for the Los Angeles County Department of Public Works, for the subject project described herein. We are not responsible for technical interpretations made by others of our exploratory information. Specific questions or interpretations concerning our findings and conclusions may require a written clarification to avoid future misunderstandings.

15.0 REFERENCES

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APPENDIX A

FIELD EXPLORATION

APPENDIX A

FIELD EXPLORATION

Field exploration included a site reconnaissance and subsurface exploration program. During the site reconnaissance, the surface conditions were noted, and the approximate locations of the boring were determined. The exploratory borings were approximately located using existing boundary and other features as a guide and should be considered accurate only to the degree implied by the method used. The various field study methods performed are discussed below.

Exploratory Borings

Seven (7) borings (BH-1 through BH-7) were drilled within the project site on March 22 2012. The borings were advanced using a truck mounted drill rig equipped with an eight inch diameter hollow-stem auger. The depths drilled range from 16.5 feet to 51.5 feet below ground surface (bgs). Encountered earth materials were continuously logged by a Converse professional and classified in the field by visual examination in accordance with the Unified Soil Classification System (USCS). Where appropriate, field descriptions and classifications have been modified to reflect laboratory test results.

Ring samples of the subsurface materials were obtained at frequent intervals in the exploratory borings using a drive sampler (2.4-inches inside diameter and 3.0-inches outside diameter) lined with sample rings. The steel ring sampler was driven into the bottom of the borehole with successive drops of a 140-pound driving weight falling 30 inches, using an automatic hammer. Samples are retained in brass rings (2.4-inches inside diameter and 1.0-inch in height). The central portion of the sample was retained and carefully sealed in waterproof plastic containers for shipment to the Converse laboratory. Blow counts for each sample interval are presented on the logs of borings. Bulk samples of typical soil types were also obtained.

Standard Penetration Test (SPT) was also performed using a standard (1.4-inches inside diameter and 2.0-inches outside diameter) split-barrel sampler. The mechanically driven hammer for the SPT sampler was 140 pounds, failing 30 inches for each blow. The recorded blow counts for every six inches for a total of 1.5 feet of sampler penetration are shown on the Logs of Borings in the “BLOWS" column. The standard penetration test was performed in accordance with the ASTM Standard D1586 test method.

It should be noted that the exact depths at which material changes occur cannot always be established accurately. Changes in material conditions that occur between driven samples are indicated in the logs at the top of the next drive sample. A key to soil symbols and terms is presented as Drawing No. A-1, *Soil Classification Chart*. The log of the exploratory boring is presented in Drawing Nos. A-2 through A-8, *Log of Borings*.

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

BORING LOG SYMBOLS

SAMPLE TYPE

STANDARD PENETRATION TEST
Split barrel sampler in accordance with ASTM D-1586-84 Standard Test Method

DRIVE SAMPLE 2.42" I.D. sampler.

DRIVE SAMPLE No recovery

BULK SAMPLE

GROUNDWATER WHILE DRILLING

GROUNDWATER AFTER DRILLING

LABORATORY TESTING ABBREVIATIONS

TEST TYPE
(Results shown in Appendix B)

CLASSIFICATION

Plasticity	pi
Grain Size Analysis	ma
Passing No. 200 Sieve	wa
Sand Equivalent	se
Expansion Index	ei
Compaction Curve	max
Hydrometer	h

STRENGTH

Pocket Penetrometer	p
Direct Shear	ds
Direct Shear (single point)	ds*
Unconfined Compression	uc
Triaxial Compression	tx
Vane Shear	vs
Consolidation	c
Collapse Test	col
Resistance (R) Value	r
Chemical Analysis	ca
Electrical Resistivity	er

UNIFIED SOIL CLASSIFICATION AND KEY TO BORING LOG SYMBOLS

Converse Consultants

Project Name	Project No.	Drawing No.
EAST ANTELOPE VALLEY ANIMAL SHELTER LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS PALMDALE, CALIFORNIA	12-31-145-01	A-1

Log of Boring No. BH-1

Dates Drilled: 3/22/2012 | Logged by: NR | Checked By: SCL

Equipment: 8" HOLLOW STEM AUGER | Driving Weight and Drop: 140 lbs / 30 in

Ground Surface Elevation (ft): N/A | Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES DRIVE	SAMPLES BULK	BLOWS/FOOT	MOISTURE (%)	DRY UNIT WT. (pcf)	OTHER
0		**3" TOPSOIL**						
		ALLUVIUM (Qal): **SILTY SAND (SM):** fine-grained, brown.						
5		**SAND (SP):** fine to medium-grained, trace silt and gravels up to 2" in maximum dimension, brown.			4/6/8	9	105	
10		-some silt			1/2/2	10	107	
15		-some gravels up to 2" in maximum dimension			17/21/29	3	107	
20		**SAND WITH SILT (SP-SM):** medium-grained, brown.			13/15/13	3	110	
25		-some gravels up to 3" in maximum dimension			18/20/19	3	111	
30					12/17/20	3	107	
		End of boring at 31.5 feet. Groundwater not encountered. Borehole backfilled and tamped with soil cuttings.						

Converse Consultants

Project Name: EAST ANTELOPE VALLEY ANIMAL SHELTER, LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS, PALMDALE, CALIFORNIA

Project No. 12-31-145-01 | Drawing No. A-2

Log of Boring No. BH-2

Dates Drilled: 3/22/2012 Logged by: NR Checked By: SCL

Equipment: 8" HOLLOW STEM AUGER Driving Weight and Drop: 140 lbs / 30 in

Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES DRIVE	SAMPLES BULK	BLOWS/FOOT	MOISTURE (%)	DRY UNIT WT. (pcf)	OTHER
		5" ASPHALT OVER 3" BASE						
		FILL (Af): **CLAYEY SILT (ML):** fine-grained, brown.				11	118	
		ALLUVIUM (Qal): **CLAYEY SILT (ML):** trace fine-grained sand, brown.						
5		**SILTY SAND (SM):** fine-grained, dark brown.			1/2/3	13	123	
10		-medium to coarse-grained, few gravels up to 2" in maximum dimension, brown			2/3/4	5	118	wa (fc=38%)
15					10/15/18	5	118	
20		-fine-grained, brown			2/4/4			
25		-fine to medium-grained, brown			3/6/15	5	116	
30		**CLAYEY SAND (SC):** medium to coarse-grained, grayish brown.			15/15/12			
		End of boring at 31.5 feet. Groundwater not encountered. Borehole backfilled and tamped with soil cuttings.						

Converse Consultants

Project Name
EAST ANTELOPE VALLEY ANIMAL SHELTER
LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS
PALMDALE, CALIFORNIA

Project No. 12-31-145-01

Drawing No. A-3

Log of Boring No. BH-3

Dates Drilled: 3/22/2012 Logged by: NR Checked By: SCL

Equipment: 8" HOLLOW STEM AUGER Driving Weight and Drop: 140 lbs / 30 in

Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES DRIVE	SAMPLES BULK	BLOWS/FOOT	MOISTURE (%)	DRY UNIT WT. (pcf)	OTHER
		4" ASPHALT OVER 4" BASE						max,ds,ei
		FILL (Af): **SILTY SAND (SM):** fine to medium-grained, brown.				11	118	
		ALLUVIUM (Qal): **SILTY SAND (SM):** fine to medium-grained, brown.						
5					1/2/3	13	123	c
10		**SAND (SP):** medium-grained, trace silts, few gravels up to 2" in maximum dimension, brown.			2/2/2	15	94	
15		**SILTY SAND (SM):** fine-grained, brown.			4/5/8	6	113	
20		-medium to coarse-grained, brown			1/1/1			
25		**GRAVELLY SAND (SW):** fine to medium-grained, brown.			44/34/32	2	124	
30					2/3/3			
		End of boring at 31.5 feet. Groundwater not encountered. Borehole backfilled and tamped with soil cuttings.						

Converse Consultants

Project Name
EAST ANTELOPE VALLEY ANIMAL SHELTER
LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS
PALMDALE, CALIFORNIA

Project No. **12-31-145-01**

Drawing No. **A-4**

Log of Boring No. BH-4

Dates Drilled: 3/22/2012 Logged by: NR Checked By: SCL

Equipment: 8" HOLLOW STEM AUGER Driving Weight and Drop: 140 lbs / 30 in

Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

SUMMARY OF SUBSURFACE CONDITIONS

This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

Depth (ft)	Graphic Log	Summary of Subsurface Conditions	SAMPLES DRIVE	SAMPLES BULK	BLOWS/FOOT	MOISTURE (%)	DRY UNIT WT. (pcf)	OTHER
0		**4.5" ASPHALT OVER 4" BASE**		X				
		ALLUVIUM (Qal): **SAND (SP):** fine to medium-grained, trace silt, brown.		X				
5			X		4/8/9	4	109	
10			X		2/4/8	5	109	
15			X		6/11/12	5	115	

End of boring at 16.5 feet.
Groundwater not encountered.
Borehole backfilled and tamped with soil cuttings.

Converse Consultants

Project Name: EAST ANTELOPE VALLEY ANIMAL SHELTER, LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS, PALMDALE, CALIFORNIA

Project No. 12-31-145-01 Drawing No. A-5

Log of Boring No. BH-5

Dates Drilled: 3/22/2012 Logged by: NR Checked By: SCL

Equipment: 8" HOLLOW STEM AUGER Driving Weight and Drop: 140 lbs / 30 in

Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES DRIVE	SAMPLES BULK	BLOWS/FOOT	MOISTURE (%)	DRY UNIT WT. (pcf)	OTHER
		4" ASPHALT OVER 6.5" BASE						ca,er
		FILL (Af): **SILTY SAND (SM):** fine to medium-grained, brown.						
		ALLUVIUM (Qal): **SILTY SAND (SM):** fine to medium-grained, brown.						
5		**SAND (SP):** fine to medium-grained, brown.			4/8/10	7	115	ds
10		**SILTY SAND (SM):** fine-grained, brown.			2/3/4	7	103	c
15		**SAND (SP):** medium to coarse-grained, some gravels up to 2" in maximum dimension, brown.			13/24/27	2	131	
20		-medium-grained, trace fine gravels up to 2" in maximum dimension, brown			3/3/6			
25		-some gravels up to 2" in maximum dimension			18/28/36	3	129	
30					10/19/12			

Converse Consultants

Project Name
EAST ANTELOPE VALLEY ANIMAL SHELTER
LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS
PALMDALE, CALIFORNIA

Project No. **12-31-145-01** Drawing No. **A-6a**

Log of Boring No. BH-5

Dates Drilled: 3/22/2012 Logged by: NR Checked By: SCL

Equipment: 8" HOLLOW STEM AUGER Driving Weight and Drop: 140 lbs / 30 in

Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES DRIVE	SAMPLES BULK	BLOWS/FOOT	MOISTURE (%)	DRY UNIT WT. (pcf)	OTHER
		SAND (SP): medium-grained, brown.	X		15/14/11			
40		-some gravels up to 2" in maximum dimension	X		13/22/11			
45		**SILTY SAND (SM):** fine-grained, reddish brown.	X		5/5/8			
50			X		11/14/18			
		End of boring at 51.5 feet. Groundwater not encountered. Borehole backfilled and tamped with soil cuttings.						

Converse Consultants

Project Name	Project No.	Drawing No.
EAST ANTELOPE VALLEY ANIMAL SHELTER LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS PALMDALE, CALIFORNIA	12-31-145-01	A-6b

Log of Boring No. BH-6

Dates Drilled: 3/22/2012 Logged by: NR Checked By: SCL

Equipment: 8" HOLLOW STEM AUGER Driving Weight and Drop: 140 lbs / 30 in

Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES DRIVE	SAMPLES BULK	BLOWS/FOOT	MOISTURE (%)	DRY UNIT WT. (pcf)	OTHER
		2" ASPHALT						r
		FILL (Af): **SILTY SAND (SM):** fine to medium-grained, brown.		X				
		ALLUVIUM (Qal): **SILTY SAND (SM):** fine to medium-grained, brown.		X				
5		-some gravels up to 2" in maximum dimension	■		3/3/3	15	98	
10		medium to coarse-grained	■		0/1/1	5	118	wa (fc=18%)
15			■		11/12/16	4	121	
		End of boring at 16.5 feet. Groundwater not encountered. Borehole backfilled and tamped with soil cuttings.						

Converse Consultants

Project Name
EAST ANTELOPE VALLEY ANIMAL SHELTER
LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS
PALMDALE, CALIFORNIA

Project No. 12-31-145-01

Drawing No. A-7

Log of Boring No. BH-7

Dates Drilled: 3/22/2012 | Logged by: NR | Checked By: SCL

Equipment: 8" HOLLOW STEM AUGER | Driving Weight and Drop: 140 lbs / 30 in

Ground Surface Elevation (ft): N/A | Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES DRIVE	SAMPLES BULK	BLOWS/FOOT	MOISTURE (%)	DRY UNIT WT. (pcf)	OTHER
		2.5" ASPHALT						r
		FILL (Af): **SILTY SAND (SM):** fine-grained, brown.						
		ALLUVIUM (Qal): **SILTY SAND (SM):** fine-grained, brown.						
5		**SAND (SP):** medium to coarse-grained, brown.			6/8/8	5	105	
10		-some silt			5/8/7	4	113	
15					6/8/9	3	122	
		End of boring at 16.5 feet. Groundwater not encountered. Borehole backfilled and tamped with soil cuttings.						

Converse Consultants

Project Name: EAST ANTELOPE VALLEY ANIMAL SHELTER, LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS, PALMDALE, CALIFORNIA

Project No. 12-31-145-01 | Drawing No. A-8

APPENDIX B

LABORATORY TESTING PROGRAM

APPENDIX B

LABORATORY TESTING PROGRAM

Tests were conducted in our laboratory on representative soil samples for the purpose of classification and evaluation of their relevant physical characteristics and engineering properties. The amount and selection of tests were based on the geotechnical requirements of the project. Test results are presented herein and on the Logs of Borings in Appendix A, *Field Exploration*. The following is a summary of the laboratory tests conducted for this project.

Moisture Content and Dry Density

Results of moisture content and dry density tests, performed on relatively undisturbed ring samples were used to aid in the classification of the soils and to provide quantitative measure of the *in situ* dry density. Data obtained from this test provides qualitative information on strength and compressibility characteristics of site soils. For test results, see the Logs of Borings in Appendix A, *Field Exploration*.

Percent Passing No. 200

To assist in classification of soils, percent of fine-grained (passing no. 200 sieve) analyses were performed on two (2) selected samples. Testing was performed in general accordance with the ASTM Standard D1140 test method. The test results are shown on the Logs of Borings in Appendix A, *Field Exploration*.

Maximum Dry Density Test

One (1) laboratory maximum dry density-moisture content relationship tests were performed on representative bulk samples of the upper 5 feet of soil material. The testing was conducted in accordance with ASTM Standard D1557 laboratory procedure. The test result is presented on Drawing No. B-1, *Moisture-Density Relationship Results*.

Direct Shear

Direct shear test was performed on one (1) relatively undisturbed in-situ sample and one (1) sample remolded to 90% relative compaction. For each test, three brass sampler rings were placed, one at a time, directly into the test apparatus and subjected to a range of normal loads appropriate for the anticipated conditions. The sample was then sheared at a constant strain rate of 0.01 inch/minute. Shear deformation was recorded until a maximum of about 0.25-inch shear displacement was achieved. Ultimate strength was selected from the shear-stress deformation data and plotted to determine the shear strength parameters. For test data, including sample density and moisture content, see Drawing No. B-2a and B-2b, *Direct Shear Test Results.*

Consolidation

Consolidation test was performed on two (2) relatively undisturbed in-situ samples. Data obtained from this test procedure was used to evaluate the settlement characteristics of the foundation soils under load. Preparation for this test involved trimming the sample and placing the one-inch high brass ring into the test apparatus, which contained porous stones, both top and bottom, to accommodate drainage during testing. Normal axial loads were applied to one end of the sample through the porous stones, and the resulting deflections were recorded at various time periods. The load was increased after the sample reached a reasonable state equilibrium. Normal loads were applied at a constant load-increment ratio, successive loads being generally twice the preceding load. The sample was tested at field and submerged conditions. The test results, including sample density and moisture content, are presented in Drawing Nos. B-3a and B-3b, *Consolidation Test Results*.

Expansion Index

One (1) representative bulk sample was tested to evaluate the expansion potential of materials encountered at the site. Test results are presented in the following table:

Table No. B-1, Expansion Index Test Results

Boring No.	Depth (feet)	Soil Description	Expansion Index	Expansion Potential
BH-3	0-5	Silty Sand (SM)	29	Low

Soil Corrosivity

One (1) representative soil sample was tested to evaluate minimum electrical resistivity, pH, and chemical content, including soluble sulfate and chloride concentrations. The purpose of these tests is to determine the corrosion potential of site soils when placed in contact with common construction materials. These tests were performed by Environmental Geotechnology Laboratory, Inc. (EGL), located in Arcadia, California. The test results received from EGL are included in the following table:

Table No. B-2, Corrosivity Test Results

Boring No.	Sample Depth (feet)	pH (Caltrans 643)	Soluble Chlorides (Caltrans 422) ppm	Soluble Sulfate (Caltrans 417) ppm	Saturated Resistivity (Caltrans 643) Ohm-cm
BH-5	0-5	8.04	65	10	4100

R-value

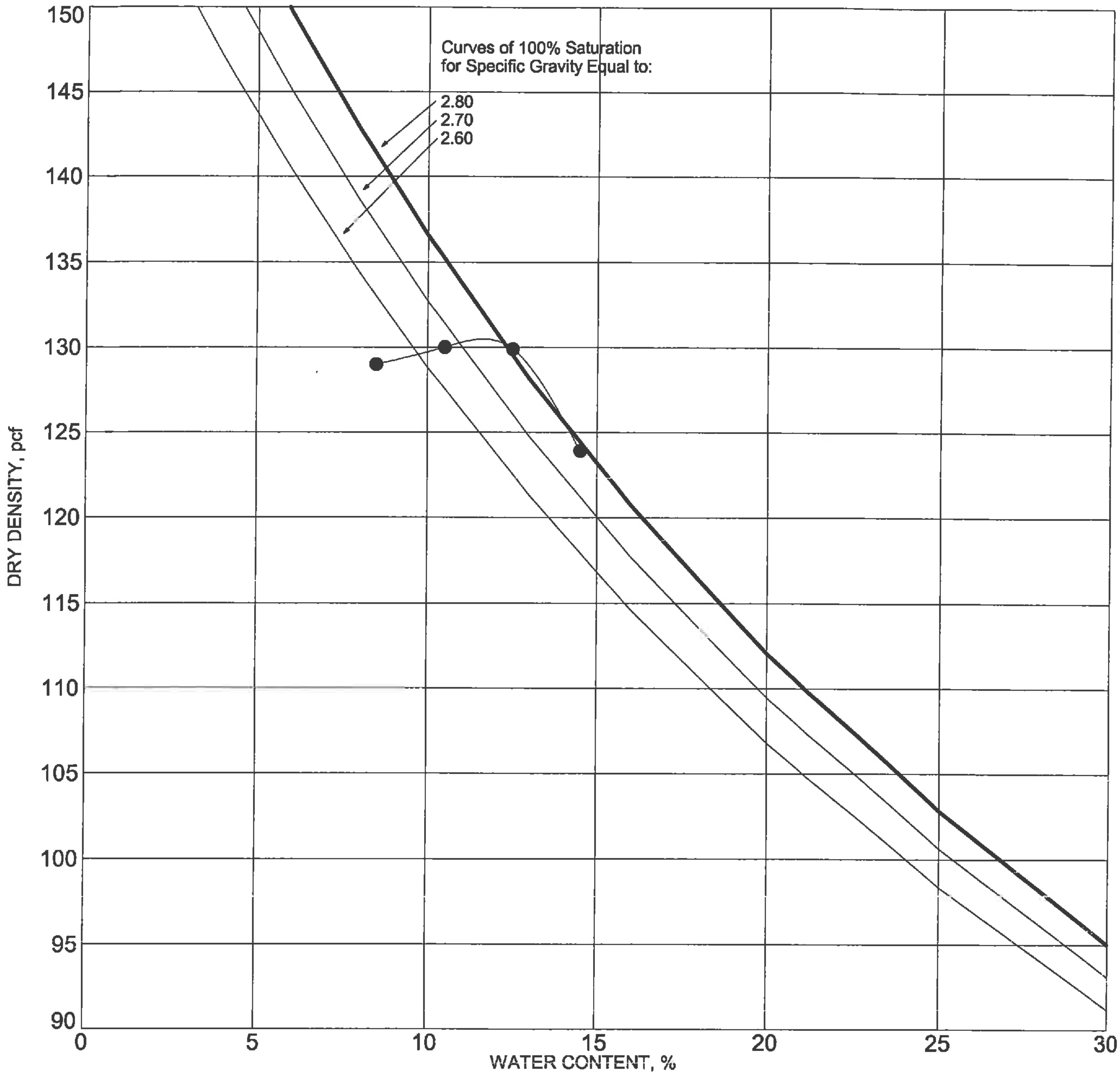
Two (2) representative bulk soil samples were tested for resistance value (R-value) in accordance with State of California Standard Method 301-G. This test is designed to provide a relative measure of soil strength for use in pavement design. The test result is shown in the following table:

Table No. B-3, R-value Test Result

Boring No.	Depth (feet)	Soil Description	Measured R-value
BH-6	0 – 5.0	Silty SAND (SM)	31
BH-7	0 – 5.0	Silty SAND (SM)	34

Sample Storage

Soil samples presently stored in our laboratory will be discarded 30 days after the date of this report, unless this office receives a specific request to retain the samples for a longer period.



SYMBOL	BORING NO.	DEPTH (ft)	DESCRIPTION	ASTM TEST METHOD	OPTIMUM WATER, %	MAXIMUM DRY DENSITY, pcf
●	BH-3	0-5	SILTY SAND (SM)	D1557 Method A	11.5	130.5

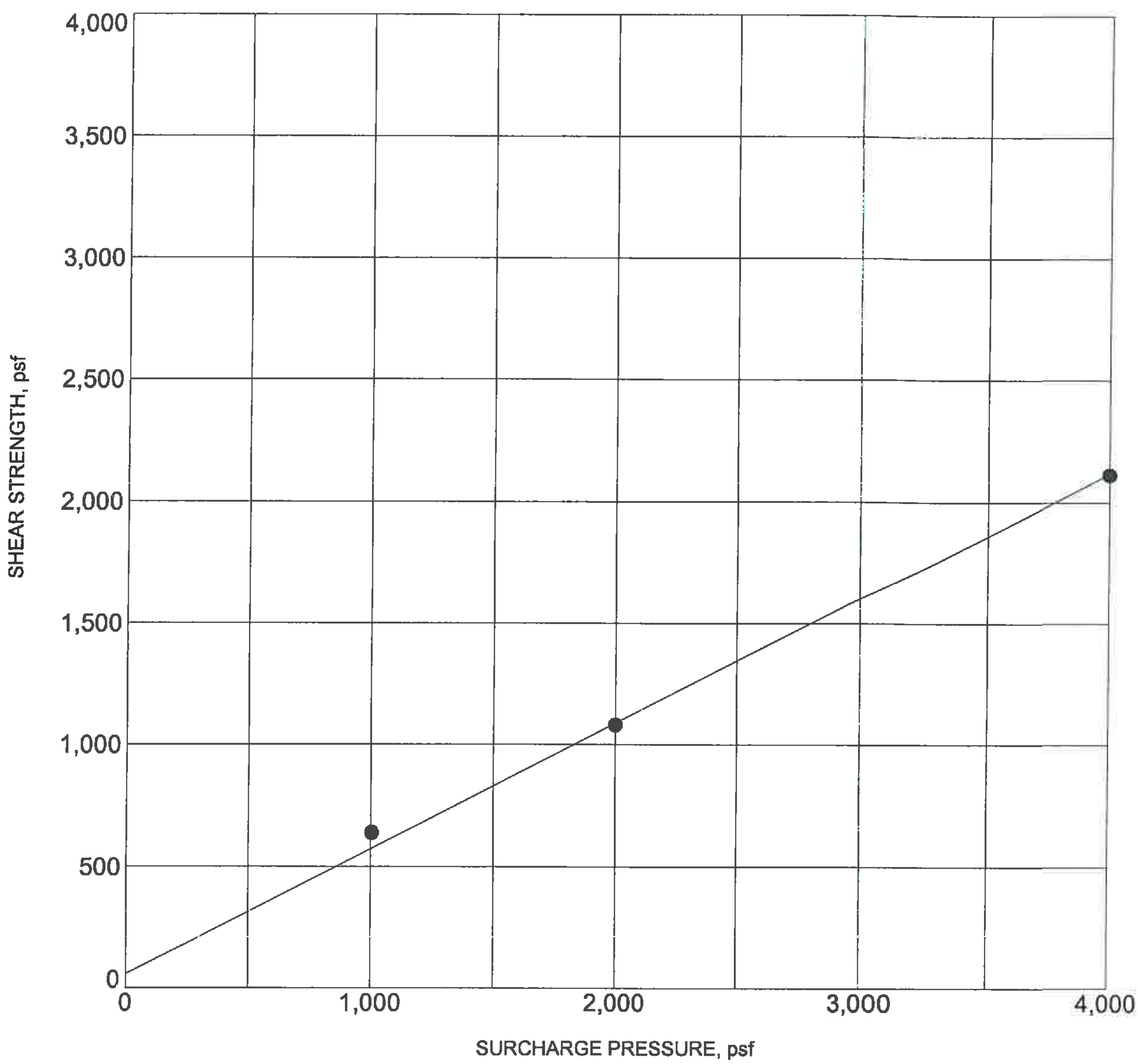
MOISTURE-DENSITY RELATIONSHIP RESULTS

Converse Consultants

Project Name
EAST ANTELOPE VALLEY ANIMAL SHELTER
LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS
PALMDALE, CALIFORNIA

Project No.
12-31-145-01

Drawing No.
B-1



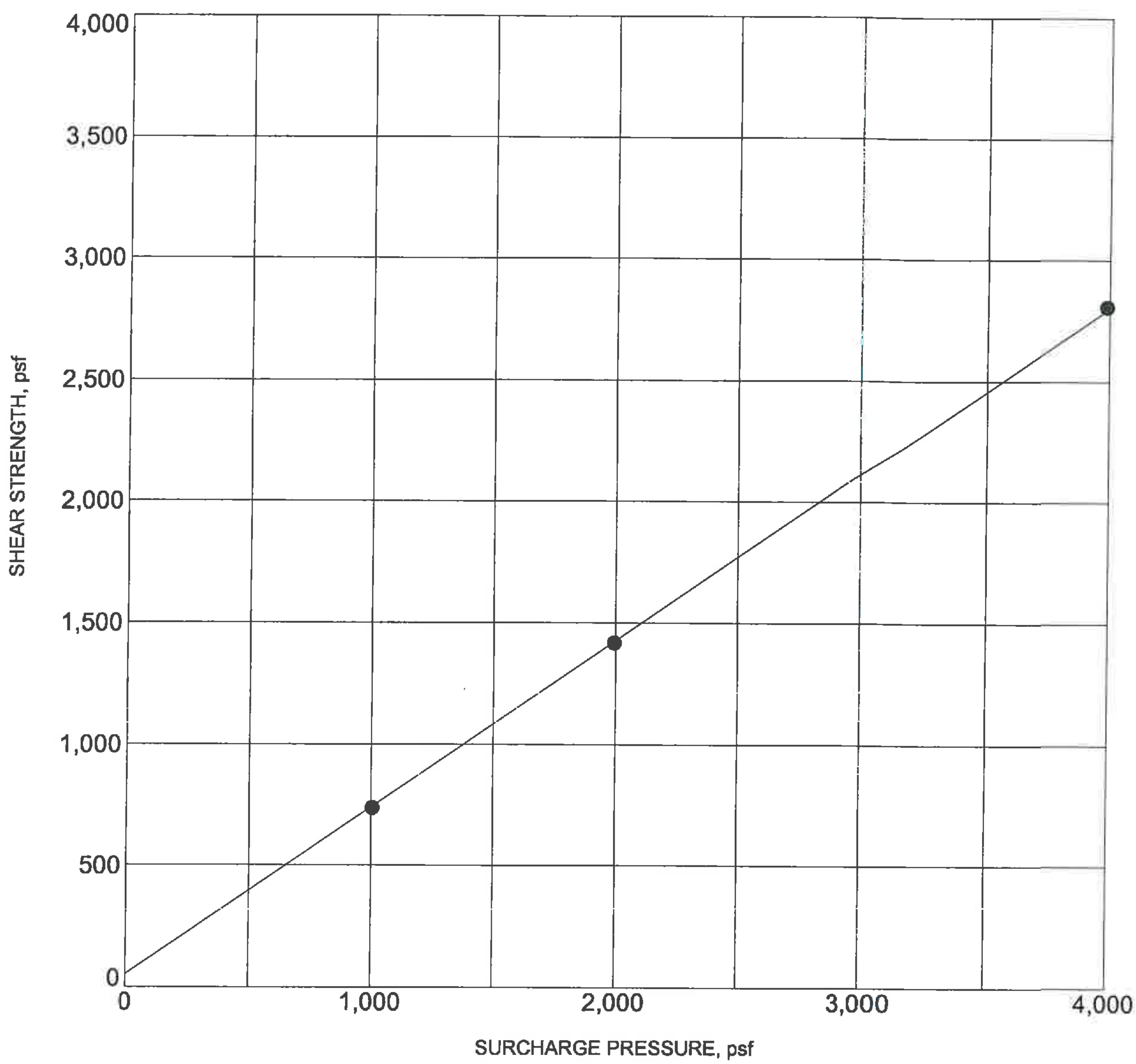
BORING NO. :	BH-3	DEPTH (ft) :	0-5
DESCRIPTION :	SILTY SAND (SM)		
COHESION (psf) :	100	FRICTION ANGLE (degrees):	27
MOISTURE CONTENT (%) :	11.1	DRY DENSITY (pcf) :	117.9

NOTE: Ultimate Strength. Remolded to 90% relative compaction.

DIRECT SHEAR TEST RESULTS

Converse Consultants

Project Name	Project No.	Drawing No.
EAST ANTELOPE VALLEY ANIMAL SHELTER LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS PALMDALE, CALIFORNIA	12-31-145-01	B-2a



BORING NO. :	BH-5	DEPTH (ft) :	5
DESCRIPTION :	SAND (SP)		
COHESION (psf) :	50	FRICTION ANGLE (degrees):	34
MOISTURE CONTENT (%) :	6.8	DRY DENSITY (pcf) :	114.7

NOTE: Ultimate Strength.

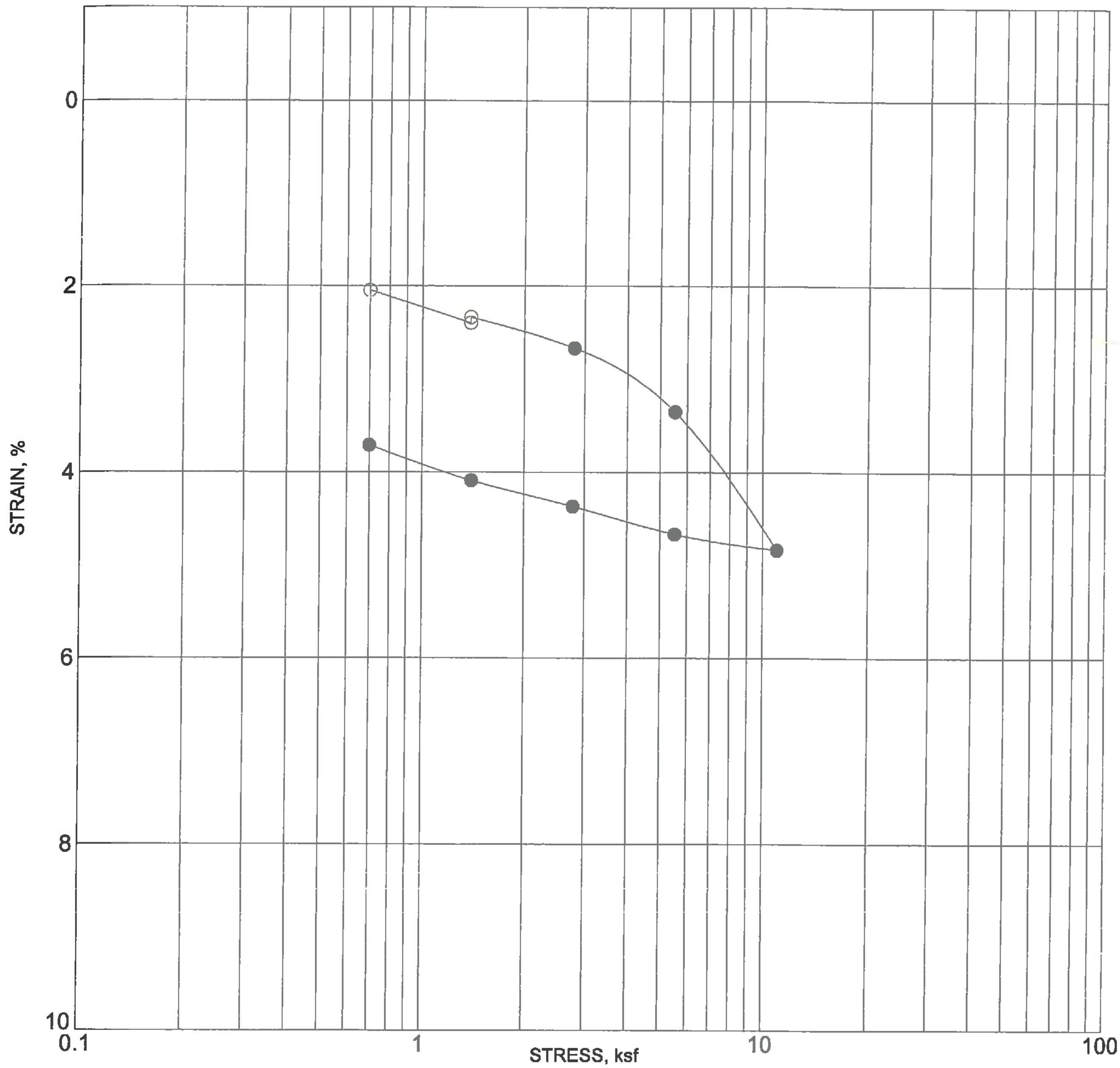
DIRECT SHEAR TEST RESULTS

Converse Consultants

Project Name
EAST ANTELOPE VALLEY ANIMAL SHELTER
LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS
PALMDALE, CALIFORNIA

Project No. 12-31-145-01

Drawing No. B-2b



BORING NO. :	BH-3	DEPTH (ft) :	5
DESCRIPTION :	SILTY SAND (SM)		

	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	PERCENT SATURATION	VOID RATIO
INITIAL	13	123		
FINAL	18.1	127.8		

NOTE: SOLID CIRCLES INDICATE READINGS AFTER ADDITION OF WATER

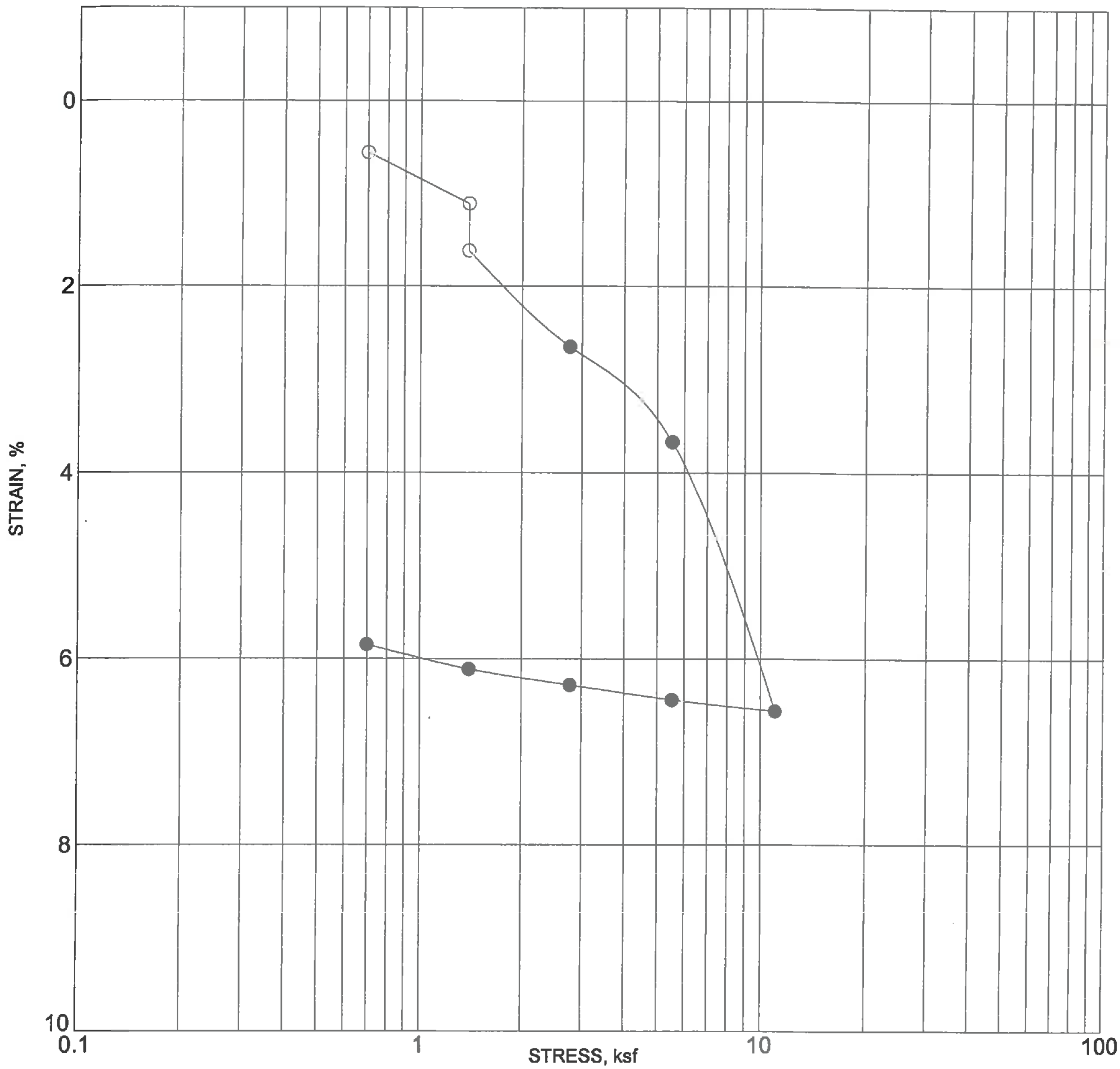
CONSOLIDATION TEST RESULTS

Converse Consultants

Project Name
EAST ANTELOPE VALLEY ANIMAL SHELTER
LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS
PALMDALE, CALIFORNIA

Project No. 12-31-145-01

Drawing No. B-3a



BORING NO. :	BH-5	DEPTH (ft) :	10
DESCRIPTION :	SILTY SAND (SM)		

	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	PERCENT SATURATION	VOID RATIO
INITIAL	7.1	103.2		
FINAL	18.1	109.7		

NOTE: SOLID CIRCLES INDICATE READINGS AFTER ADDITION OF WATER

CONSOLIDATION TEST RESULTS

Converse Consultants

Project Name
EAST ANTELOPE VALLEY ANIMAL SHELTER
LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS
PALMDALE, CALIFORNIA

Project No. 12-31-145-01

Drawing No. B-3b

APPENDIX C

PERCOLATION TESTING

APPENDIX C

Percolation testing was performed utilizing exploratory Borings BH-1 and BH-2 on March 22, 2011. Each boring was cased using two-inch diameter perforated casing and gravel. Water was added to the bore hole until the water level was at the ground surface and allowed to presoak for at least 2 hours. After pre-soak, water was added to the bore hole until the water level was near the ground surface. Tests were performed using the falling head test method in accordance with Los Angeles County "Low Impact Development Best Management Practice Guideline for Design, Investigation, and Reporting". The water level was measured to the nearest tenth of a foot, and calculated in inches per hour.

Table No. C-1, Percolation Test Results

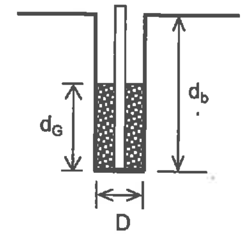
Boring No.	Depth of Boring (feet)	Predominant Soil Types (USCS)	Average Percolation Rate (inches/hour)
BH-1	30	Sand (SP), Silty Sand (SM)	6.02
BH-2	30	Silty Sand (SM), Clayey Silts (ML)	2.74

Based on the test results, the site soils are primarily silty sand and sand with moderate to good infiltration rates. These soils are considered suitable for infiltration drainage systems. The project Civil Engineer should review the raw data of percolation test attached with this memorandum to determine specific soil layers and percolation rates for design of the proposed infiltration system.

Percolation Testing

Job Name: East Antelope Valley Animal Shelter
Job No.: 12-31-145-01
Location: BH-1
Test Date: 03.22.12

Test Boring No.
Depth of Boring (d_b): 30.0 feet
Diameter of Boring (D): 0.67 feet
Test Performer: N. Rajabdeen



Time of Testing			Water Level Measurement		Water Level Calculations				Percolation Rate Calculations		
Initial Time	Final Time	Time Interval	Initial depth to water	Final depth to water	Initial Height of water column	Final Height of water column	Drop in Height	Average height of water column	Pre-adjusted Percolation Rate	Reduction Factor	Adjusted Percolation Rate
T_i	T_f	ΔT	d_1	d_2	d_i	d_f	$\Delta d = d_i - d_f$	L_{ave}	$k_i = \Delta d / \Delta T$	R_f	$k = k_i / R_f$
		(hr)	(feet)	(feet)	(feet)	(feet)	(feet)	(feet)	(inch/hr)		(inch/hr)
Presoak	3/22/2012	2									
Percolation Test											
10:56:00 AM	11:06:00 AM	0.17	1.80	9.83	28.20	20.17	8.03	24.19	578.16	73.2	7.90
11:06:00 AM	11:16:00 AM	0.17	9.83	15.10	20.17	14.90	5.27	17.54	379.44	53.3	7.11
11:16:00 AM	11:26:00 AM	0.17	15.10	18.20	14.90	11.80	3.10	13.35	223.20	40.9	5.46
11:40:00 AM	11:50:00 AM	0.17	0.50	8.55	29.50	21.45	8.05	25.48	579.60	77.0	7.52
11:50:00 AM	12:00:00 PM	0.17	8.55	14.35	21.45	15.65	5.80	18.55	417.60	56.4	7.41
12:00:00 PM	12:10:00 PM	0.17	14.35	17.85	15.65	12.15	3.50	13.90	252.00	42.5	5.93
12:10:00 PM	12:20:00 PM	0.17	17.85	20.10	12.15	9.90	2.25	11.03	162.00	33.9	4.78
12:20:00 PM	12:30:00 PM	0.17	20.10	21.95	9.90	8.05	1.85	8.98	133.20	27.8	4.79
12:30:00 PM	12:40:00 PM	0.17	21.95	23.35	8.05	6.65	1.40	7.35	100.80	22.9	4.39
12:42:00 PM	12:52:00 PM	0.17	0.50	8.45	29.50	21.55	7.95	25.53	572.40	77.2	7.42
12:52:00 PM	1:02:00 PM	0.17	8.45	14.40	21.55	15.60	5.95	18.58	428.40	56.4	7.59
1:02:00 PM	1:12:00 PM	0.17	14.40	17.78	15.60	12.22	3.38	13.91	243.36	42.5	5.72
1:12:00 PM	1:22:00 PM	0.17	17.78	20.02	12.22	9.98	2.24	11.10	161.28	34.1	4.72
1:22:00 PM	1:32:00 PM	0.17	20.02	21.83	9.98	8.17	1.81	9.08	130.32	28.1	4.64
1:32:00 PM	1:42:00 PM	0.17	21.83	23.41	8.17	6.59	1.58	7.38	113.76	23.0	4.94

Note: Reduction Factor, $R_f = (2{*}d_i - \Delta d)/D + 1$

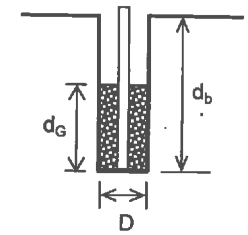
Lowest Perlcolaton Rate = 4.39 inch/hr
Average Percolation Rate = 6.02 inch/hr

Reference: Los Angeles County (2011). Adminstrative Manual - Low Impact Development Best Management Practice Guideline for Design, Investigation, and Reporting, 01/03/11.

Percolation Testing

Job Name: East Antelope Valley Animal Shelter
Job No.: 12-31-145-01
Location: BH-2
Test Date: 03.22.12

Test Boring No.
Depth of Boring (d_b): 30.0 feet
Diameter of Boring (D): 0.67 feet
Test Performer: N. Rajabdeen



Time of Testing			Water Level Measurement		Water Level Calculations				Percolation Rate Calculations		
Initial Time	Final Time	Time Interval	Initial depth to water	Final depth to water	Initial Height of water column	Final Height of water column	Drop in Height	Average height of water column	Pre-adjusted Percolation Rate	Reduction Factor	Adjusted Percolation Rate
T_i	T_f	ΔT	d_1	d_2	d_i	d_f	$\Delta d = d_i - d_f$	L_{ave}	$k_i = \Delta d / \Delta T$	R_f	$k = k_i / R_f$
		(hr)	(feet)	(feet)	(feet)	(feet)	(feet)	(feet)	(inch/hr)		(inch/hr)
Presoak	3/22/2012	2									
Percolation Test											
12:05:00 PM	12:35:00 PM	0.50	1.50	9.20	28.50	20.80	7.70	24.65	184.80	74.6	2.48
12:35:00 PM	1:05:00 PM	0.50	9.20	16.75	20.80	13.25	7.55	17.03	181.20	51.8	3.50
1:05:00 PM	1:35:00 PM	0.50	16.75	20.90	13.25	9.10	4.15	11.18	99.60	34.4	2.90
1:35:00 PM	2:05:00 PM	0.50	20.90	22.30	9.10	7.70	1.40	8.40	33.60	26.1	1.29
2:08:00 PM	2:38:00 PM	0.50	1.50	9.56	28.50	20.44	8.06	24.47	193.44	74.0	2.61
2:38:00 PM	3:08:00 PM	0.50	9.56	16.50	20.44	13.50	6.94	16.97	166.56	51.7	3.22
3:10:00 PM	3:40:00 PM	0.50	1.50	9.51	28.50	20.49	8.01	24.50	192.24	74.1	2.59
3:40:00 PM	4:10:00 PM	0.50	9.51	16.63	20.49	13.37	7.12	16.93	170.88	51.5	3.32

Note: Reduction Factor, $R_f = (2^*d_i - \Delta d)/D + 1$

Lowest Perlcolaton Rate = 1.29 inch/hr
Average Percolation Rate = 2.74 inch/hr

Reference: Los Angeles County (2011). Adminstrative Manual - Low Impact Development Best Management Practice Guideline for Design, Investigation, and Reporting, 01/03/11.

APPENDIX D

EARTHWORK SPECIFICATIONS

APPENDIX D

EARTHWORK SPECIFICATIONS

D1.1 Scope of Work

The work includes all labor, supplies and construction equipment required to construct the building pads in a good, workmanlike manner, as shown on the drawings and herein specified. The major items of work covered in this section include the following:

- Site Inspection
- Authority of Geotechnical Engineer
- Site Clearing
- Excavations
- Preparation of Fill Areas
- Placement and Compaction of Fill
- Observation and Testing

D1.2 Site Inspection

1. The Contractor shall carefully examine the site and make all inspections necessary, in order to determine the full extent of the work required to make the completed work conform to the drawings and specifications. The Contractor shall satisfy himself as to the nature and location of the work, ground surface and the characteristics of equipment and facilities needed prior to and during prosecution of the work. The Contractor shall satisfy himself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered. Any inaccuracies or discrepancies between the actual field conditions and the drawings, or between the drawings and specifications must be brought to the Owner's attention in order to clarify the exact nature of the work to be performed.

2. This *Geotechnical Study Report* by Converse Consultants may be used as a reference to the surface and subsurface conditions on this project. The information presented in this report is intended for use in design and is subject to confirmation of the conditions encountered during construction. The exploration logs and related information depict subsurface conditions only at the particular time and location designated on the boring logs. Subsurface conditions at other locations may differ from conditions encountered at the exploration locations. In addition, the passage of time may result in a change in subsurface conditions at

the exploration locations. Any review of this information shall not relieve the Contractor from performing such independent investigation and evaluation to satisfy himself as to the nature of the surface and subsurface conditions to be encountered and the procedures to be used in performing his work.

D1.3 Authority of the Geotechnical Engineer

1. The Geotechnical Engineer will observe the placement of compacted fill and will take sufficient tests to evaluate the uniformity and degree of compaction of filled ground.
2. As the Owner's representative, the Geotechnical Engineer will (a) have the authority to cause the removal and replacement of loose, soft, disturbed and other unsatisfactory soils and uncontrolled fill; (b) have the authority to approve the preparation of native ground to receive fill material; and (c) have the authority to approve or reject soils proposed for use in building areas.
3. The Civil Engineer and/or Owner will decide all questions regarding (a) the interpretation of the drawings and specifications, (b) the acceptable fulfillment of the contract on the part of the Contractor and (c) the matters of compensation.

D1.4 Site Clearing

1. Clearing and grubbing shall consist of the removal from building areas to be graded of all existing structures, pavement, utilities, and vegetation.
2. Organic and inorganic materials resulting from the clearing and grubbing operations shall be hauled away from the areas to be graded.

D1.5 Excavations

1. Based on observations made during our field explorations, the surficial soils can be excavated with conventional earthwork equipment.

D1.6 Preparation of Fill Areas

1. All organic material, organic soils, incompetent alluvium, undocumented fill soils and debris should be removed from the proposed building areas.
2. The upper three (3) feet of existing soils, or to a depth of at least two (2) feet below footings, or to the depth of undocumented fill, whichever is deeper, should be removed and replaced as compacted fill for foundation support. The excavation should be extended to five (5) feet beyond the building limits and appendages shall be removed. All loose, soft or disturbed earth materials extending below the recommended removal depth should also be removed from the bottom of excavations before placing structural fill. The actual depth of removal should be

determined based on observations made during grading. Thickness of compacted fill underneath the buildings should not vary. Pavement and hardscape areas beyond the footprint of new building structures should be over-excavated to a depth of at least two (2) feet, as measured from existing grades. After the required removals have been made, the exposed native earth materials shall be excavated to provide a zone of structural fill for the support of footings, slabs-on-grade, and exterior flatwork. The fill thickness under structures should not vary.

3. The subgrade in all areas to receive fill shall be scarified to a minimum depth of six (6) inches, the soil moisture adjusted between optimum and three percent above optimum, and then compacted to at least 90 percent of the laboratory maximum dry density as determined by ASTM Standard D1557 test method.
4. Compacted fill may be placed on native soils that have been properly scarified and recompacted as discussed above.
5. All areas to receive compacted fill will be observed and approved by the Geotechnical Engineer before the placement of fill.

D1.7 Placement and Compaction of Fill

1. Compacted fill placed for the support of footings, slabs-on-grade, exterior concrete flatwork, and driveways will be considered structural fill. Structural fill may consist of approved on-site soils or imported fill that meets the criteria indicated below.
2. Fill consisting of selected on-site earth materials or imported soils approved by the Geotechnical Engineer shall be placed in layers on approved earth materials. Soils used as compacted structural fill shall have the following characteristics:
   a. All fill soil particles shall not exceed three inches in nominal size, and shall be free of organic matter and miscellaneous inorganic debris and inert rubble.
   b. Imported fill materials shall have an Expansion Index (EI) less than 20. All imported fill should be compacted to at least 90 percent of the laboratory maximum dry density (ASTM Standard D1557) at about to three percent above optimum moisture.
3. Fill soils shall be evenly spread in maximum 8-inch lifts, watered or dried as necessary, mixed and compacted to at least the density specified below. The fill shall be placed and compacted on a horizontal plane, unless otherwise approved by the Geotechnical Engineer.
4. All fill placed at the site shall be compacted to at least 90 percent of the laboratory maximum dry density as determined by ASTM Standard D1557 test method. The on-site soils shall be moisture conditioned between optimum and three percent above the optimum moisture content.

5. Representative samples of materials being used, as compacted fill will be analyzed in the laboratory by the Geotechnical Engineer to obtain information on their physical properties. Maximum laboratory density of each soil type used in the compacted fill will be determined by the ASTM Standard D1557 compaction method.
6. Fill materials shall not be placed, spread or compacted during unfavorable weather conditions. When site grading is interrupted by heavy rain, filling operations shall not resume until the Geotechnical Engineer approves the moisture and density conditions of the previously placed fill.
7. It shall be the Grading Contractor's obligation to take all measures deemed necessary during grading to provide erosion control devices in order to protect slope areas and adjacent properties from storm damage and flood hazard originating on this project. It shall be the contractor's responsibility to maintain slopes in their as-graded form until all slopes are in satisfactory compliance with job specifications, all berms have been properly constructed, and all associated drainage devices meet the requirements of the Civil Engineer.

D1.8 Trench Backfill

The following specifications are recommended to provide a basis for quality control during the placement of trench backfill.

1. Trench excavations to receive backfill shall be free of trash, debris or other unsatisfactory materials at the time of backfill placement.
2. Trench backfill shall be compacted to a minimum relative compaction of 90 percent as per ASTM Standard D1557 test method.
3. Rocks larger than one inch should not be placed within 12 inches of the top of the pipeline or within the upper 12 inches of pavement or structure subgrade. No more than 30 percent of the backfill volume shall be larger than 3/4-inch in largest dimension. Rocks shall be well mixed with finer soil.
4. The pipe design engineer should select bedding material for the pipe. Bedding materials generally should have a Sand Equivalent (SE) greater than or equal to 30, as determined by the ASTM Standard D2419 test method.
5. Trench backfill shall be compacted by mechanical methods, such as sheepsfoot, vibrating or pneumatic rollers, or mechanical tampers, to achieve the density specified herein. The backfill materials shall be brought to between optimum and three percent above optimum, then placed in horizontal layers. The thickness of uncompacted layers should not exceed eight inches. Each layer shall be evenly spread, moistened or dried as necessary, and then tamped or rolled until the specified density has been achieved.

6. The contractor shall select the equipment and processes to be used to achieve the specified density without damage to adjacent ground and completed work.
7. The field density of the compacted soil shall be measured by the ASTM Standard D1556 or ASTM Standard D2922 test methods or equivalent.
8. Observation and field tests should be performed by Converse during construction to confirm that the required degree of compaction has been obtained. Where compaction is less than that specified, additional compactive effort shall be made with adjustment of the moisture content as necessary, until the specified compaction is obtained.
9. It should be the responsibility of the Contractor to maintain safe conditions during cut and/or fill operations.
10. Trench backfill shall not be placed, spread or rolled during unfavorable weather conditions. When the work is interrupted by heavy rain, fill operations shall not be resumed until field tests by the project's geotechnical consultant indicate that the moisture content and density of the fill are as previously specified.

D1.9 Observation and Testing

1. During the progress of grading, the Geotechnical Engineer will provide observation of the fill placement operations.
2. Field density tests will be made during grading to provide an opinion on the degree of compaction being obtained by the contractor. Where compaction of less than specified herein is indicated, additional compactive effort with adjustment of the moisture content shall be made as necessary, until the required degree of compaction is obtained.
3. A sufficient number of field density tests will be performed to provide an opinion to the degree of compaction achieved. In general, density tests will be performed on each one-foot lift of fill, but not less than one for each 500 cubic yards of fill placed.

Appendix E
Subsurface Slab Assessment and Geotechnical Recommendations for Subsurface Slab Abandonment, Proposed East Antelope Valley Animal Shelter[16] by Converse Consultants (October 10, 2012)

[16] The proposed project was originally referred to as the "East Antelope Valley Animal Shelter." Based on coordination with the City of Palmdale and DACC, the project name was revised to its current title: "County of Los Angeles Animal Care Center Project, Palmdale CA."

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October 10, 2012

Mr. Jason Kim
Capital Projects Manager
Los Angeles County Department of Public Works
900 N. Fremont Avenue
Alhambra, California 91803

Subject: **Subsurface Slab Assessment**
Contract No. PW 13460
Proposed East Antelope Valley Animal Shelter
38532, 38560, 38600 and 38624 Sierra Highway
APNs 3008-030-900 thru -905
Palmdale, California
CONVERSE Project No. 11-41-140-02

Mr. Kim:

During previous investigative activities conducted by Converse Consultants (Converse) at the above referenced property (herein referred to as Site), refusal was encountered at boring location BH-13 at 11-feet below ground surface (bgs). Step-outs from location BH-13 were attempted several times, all of which also encountered refusal at 11-feet bgs. On July 12, 2012, Converse Consultants excavated a trench to evaluate the subsurface feature causing the refusal. Converse excavated a trench approximately 30-feet long by 3-feet wide just north of location BH-13. A concrete slab was encountered in the excavation at the depth of 11-feet bgs. Using a breaker, the slab was penetrated and found to be approximately 2-feet in thickness with some wire reinforcing. Historical aerial photos show former structures in the location of the slab. On July 13, 2012, the trench was backfilled to grade using the removed material. The material was moisture conditioned and compacted to 90% maximum density using a sheep's foot wheel roller in accordance with the recommendations presented in Converse's Geotechnical Study Report, dated April 19, 2012. The backfill and compaction was observed and tested by Converse. A copy of the compaction test results is attached.

On July 16, 2012 Converse advanced 17 borings using a Geoprobe drill rig to delineate the extent of the slab. Borings were initially located midway between the trench and locations of previous borings that did not encounter refusal at 11-feet bgs (B-11, B-12, B-14, and B-16). Additional borings were then located between these borings until the extents of the slab had been determined to within a few feet between the trench location and those previous borings. The extents of the slab in other areas were inferred based on the extents of historic structures visible in the aerial photographs. It is noted that in the vicinity of previous location BH-11, refusal was encountered at 4-feet bgs, and it is suspected that a former wall may have been encountered. The probe holes were backfilled with hydrated bentonite and cold patched. It is noted that the excavation area is anticipated to be paved in the near future.

A figure showing the Site vicinity is attached as Figure 1. A figure indicating the approximate extents of the slab and trench, and previous boring locations is attached as Figure 2. In addition, aerial photos showing the footprint of former structures with the approximate location of the slab superimposed are attached as Figures 3A and 3B.

Based on the above our geotechnical group reviewed the results and concluded that the slab should be perforated during construction. A copy of their letter report is attached.

Closure

Thank you for this opportunity to be of service. Should you have questions regarding this report, please contact John Ziegler at (626) 930-1234, Michael Van Fleet at (626) 930-1267, or Norman Eke at (626) 930-1260.

Sincerely,

CONVERSE CONSULTANTS

John Ziegler
Senior Professional

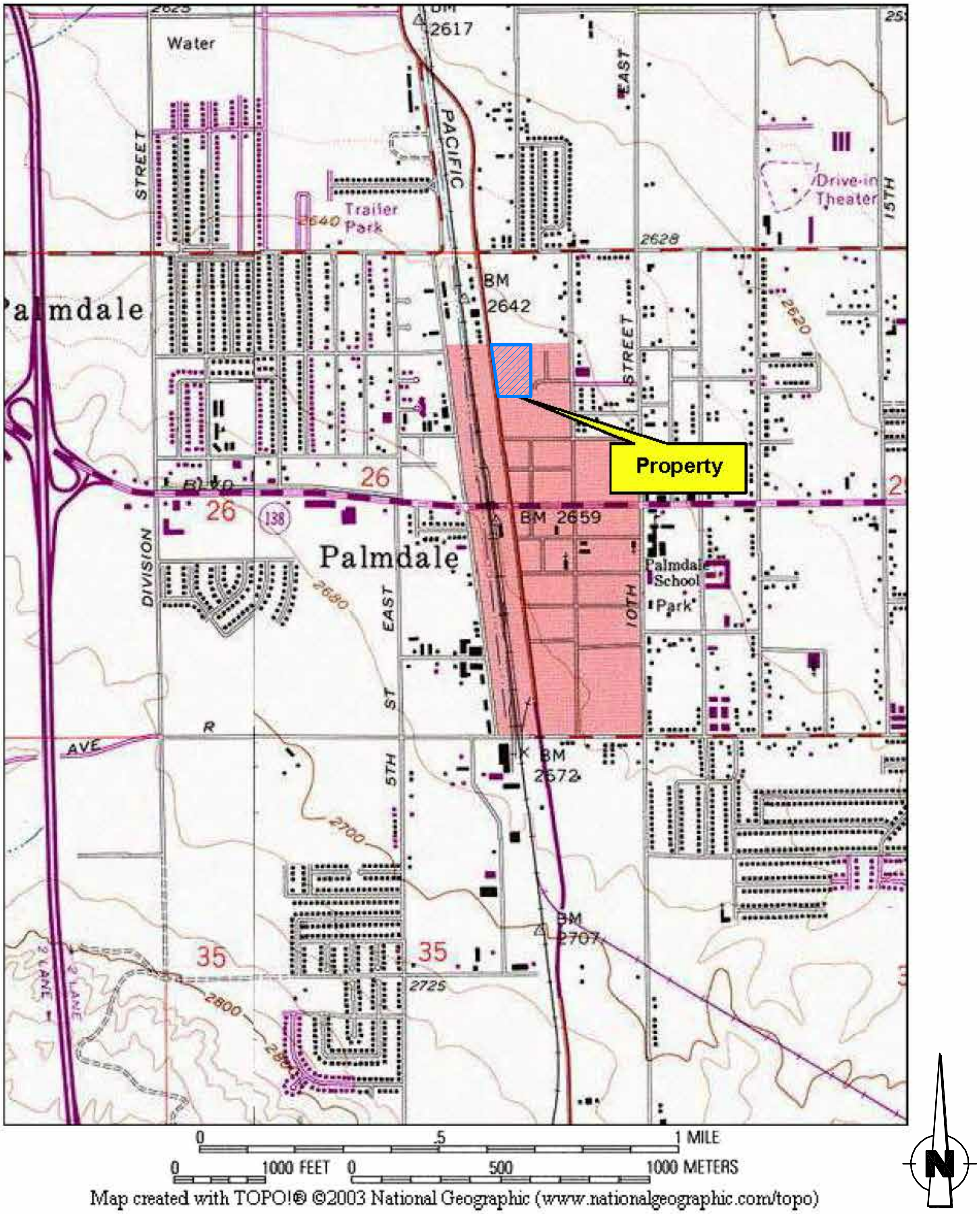
Michael Van Fleet, PG
Senior Geologist

Norman Eke
Managing Officer

Dist: 1/Addressee via Electronic Mail

Attch: Figures 1, 2, 3A and 3B
Compaction Test Results
Geotechnical Recommendations for Subsurface Slab Abandonment

Figures



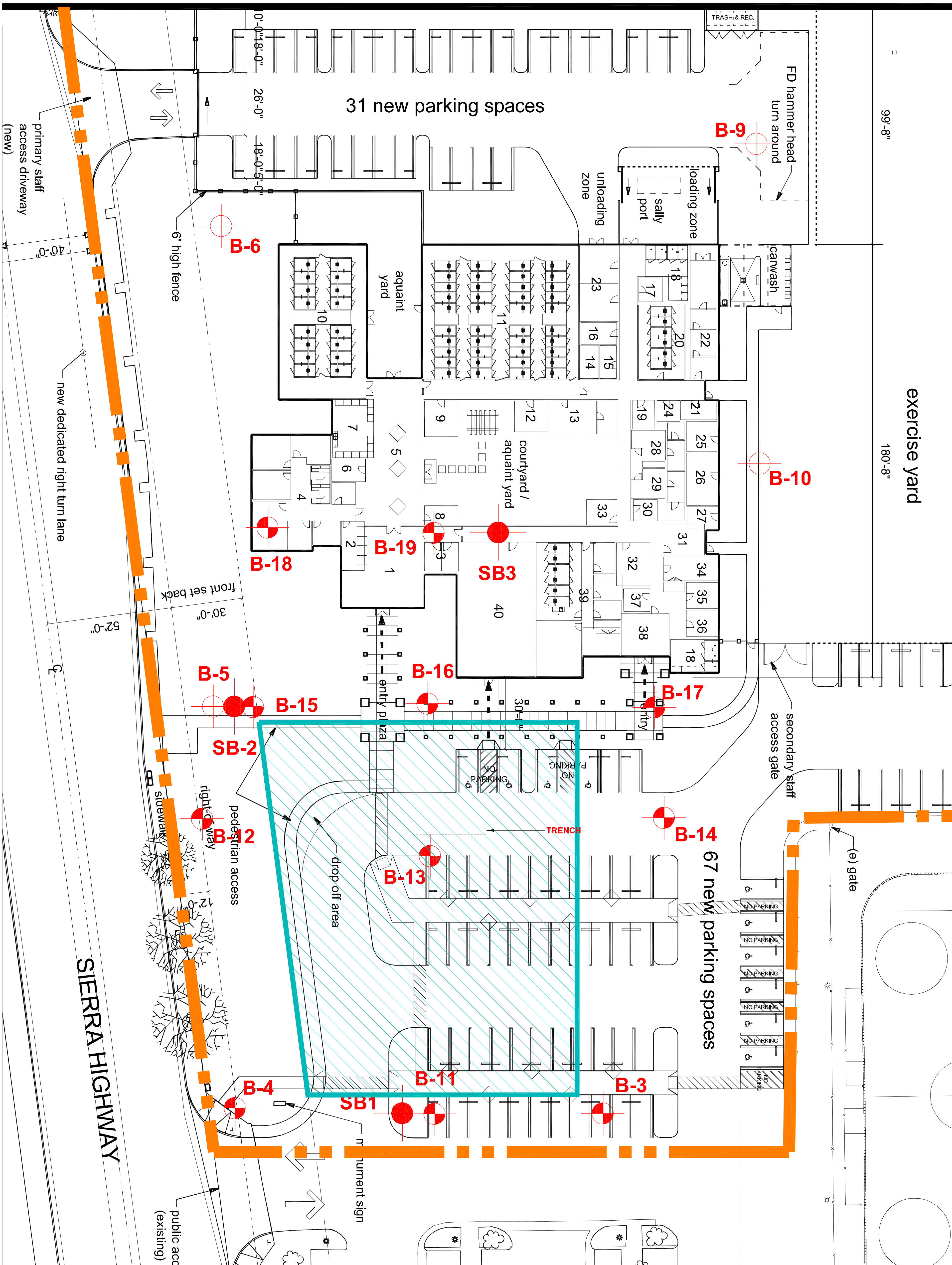
SITE LOCATION MAP

Converse Consultants

CLIENT: APSI CONSTRUCTION MANAGEMENT
EAST VALLEY ANTELOPE ANIMAL SHELTER
PALMDALE, CALIFORNIA

Project No.	Figure No.
11-41-140-01	1

I:\ACADDRAWINGS\11\41\140\11-41-140-02-SITE LOCATION.dwg



LEGEND

- BORING LOCATION (SOIL AND SOIL VAPOR)
- BORING LOCATION (SOIL VAPOR)
- BORING LOCATION (SOIL)
- UPDATED PROPERTY BOUNDARY (POST FIELD WORK MAY 2011)

N

0 40 80

APPROXIMATE SCALE IN FEET

SITE PLAN AND BORING LOCATION MAP

Converse Consultants

CLIENT: LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS
PROPOSED EAST ANTELOPE VALLEY ANIMAL SHELTER
PALMDALE, CALIFORNIA

Project No. 11-41-140-02

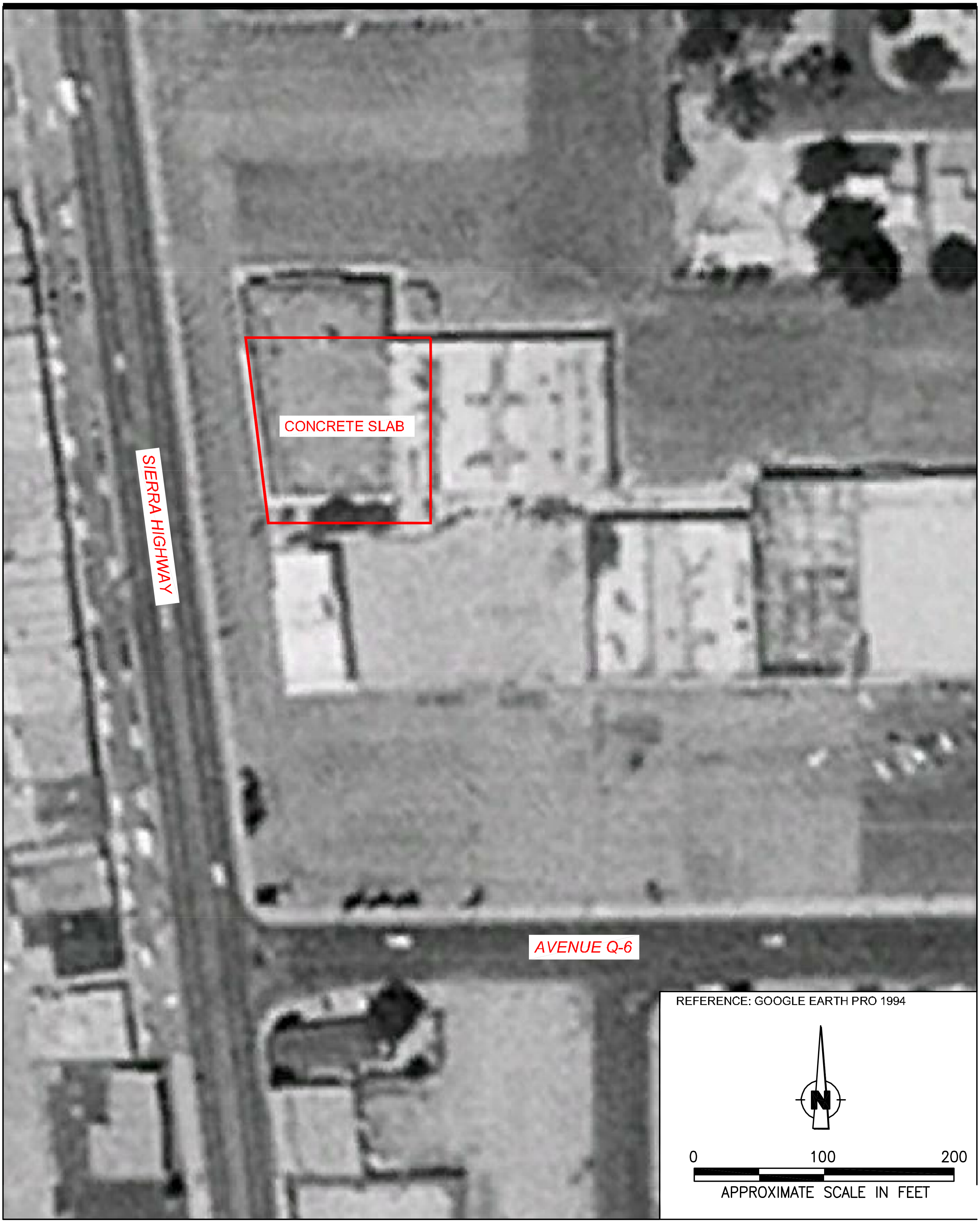
Figure No. 2

APPROXIMATE SLAB LOCATION

Converse Consultants

CLIENT: LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS
PROPOSED EAST ANTELOPE VALLEY ANIMAL SHELTER
PALMDALE, CALIFORNIA

Project No.	Figure No.
11-41-140-02	3a



FORMER SITE BUILDINGS

Converse Consultants

CLIENT: LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS
PROPOSED EAST ANTELOPE VALLEY ANIMAL SHELTER
PALMDALE, CALIFORNIA

Project No. 11-41-140-02

Figure No. 3b

Compaction Test Results

CONVERSE CONSULTANTS

☐ Monrovia TEL (626) 930-1200 FAX (626) 930-1212
☐ Redlands TEL (909) 796-0544 FAX (909) 796-7675
☐ Costa Mesa TEL (714) 444-9660 FAX (714) 444-9640
☐ Sacramento TEL (916) 331-5444 FAX (916) 331-6444

DAILY TIME SHEET AND FIELD REPORT

NOTIFICATION OF HOURS / SERVICE DURING CONSTRUCTION

Service	Straight	Overtime	Service	Straight	Overtime
Travel Mileage: ________ (Soils Only)			Density Testing NUCLEAR GAGE & SAND CONE	8	
Grading Observation & Testing			Observation of Foundation Excavation		
Concrete			Masonry		
Welding			Structural Steel		
NDT Type: UT - MT - DP			TOTAL TIME CHARGED TO PROJECT	8	—

Project Name: EAST ANTELOPE VALLEY Project No.: 11-41-140-02

Client: L.A. COUNTY DEPT. OF PUBLIC WORKS Date: 7/13/12

Remarks: TIME IN: 7:00 AM, TIME OUT: 3:00 PM Report No.: (FRIDAY)

Equipment: LOADER, SHEEPSFOOT ROLLER/COMPACTOR & WATER BUFFALO

Location: AS STATED BELOW Quantity:

AS REQUESTED, ARRIVED ON JOBSITE AT 7:00 AM TO PERFORM COMPACTION TESTING (LOCATION: TRENCH). MET AMANDA LIU ON SITE. UPON ARRIVAL ON SITE B/F MATERIALS OBSERVED BELOW O.M.C. WAITED FOR THE WATER BUFFALO AND ARRIVED @ 9:45 AM. CONTRACTOR STARTED TO ADD ENOUGH WATER AND MIXED THE MATERIALS PRIOR TO START BACKFILLING. FIRST LIFT STARTED @ 11:00 AM - 91.0%, 2ND LIFT STARTED @ 12:00 PM 94%, 3RD LIFT STARTED @ 12:50 PM - 93%, 4TH LIFT STARTED @ 1:40 PM 93% AND SUBGRADE STARTED @ 2:20 PM - 95%. ALL TESTS MET THE REQD. COMPACTION OF 90% USING PROCTOR VALUE OF 130.5 PCF @ 11.5 O.M.C.

REMARKS:
TRENCH DIMENSIONS: 3' X 30' X 11' DEPTH
FROM SUBGRADE: 4 FT BELOW TESTED EVERY ONE (1) FOOT
ON SUBGRADE (LAST LIFT) - PERFORMED ALSO SAND CONE METHOD AND GOT 96%.
PLEASE FIND DENSITY TEST RESULTS FOR YOUR REFERENCE.
COMPLETED THE PAPER WORKS @ 3:00 PM. LOADED UP EQUIPMENT.
DEPARTED THE JOBSITE @ 3:05 PM.

Signature of Field Representative for Converse Consultants

Full Name Printed JUANCHO R. SEVILLA

Acknowledgment / Verified by

of:

White - Project Manager / Yellow - Billing / Pink - Field File / Goldenrod - Client Rep.

CONVERSE CONSULTANTS

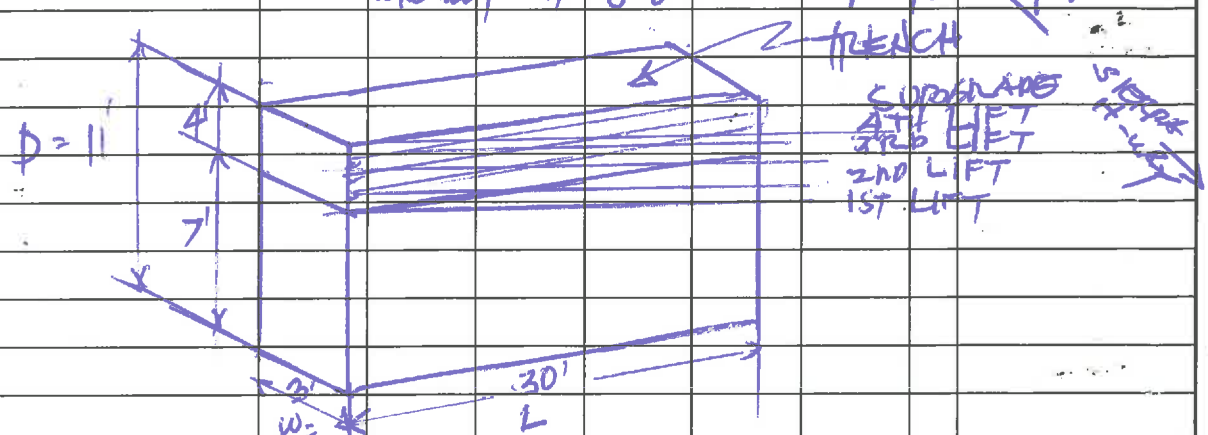
☐ Monrovia TEL (626) 930-1200 FAX (626) 930-1212
☐ Redlands TEL (909) 796-0544 FAX (909) 796-7675
☐ Costa Mesa TEL (714) 444-9660 FAX (714) 444-9640
☐ Sacramento TEL (916) 331-5444 FAX (916) 331-6444

FIELD DENSITY TEST RESULTS

Project Name: EAST ANTELOPE VALLEY Project No.: 11-41-140-02

Converse Representative: JUANCHO R. SEVILLA Date: 7/13/12 (FRIDAY)

TEST NO.	LOCATION Grading Storm Drain Sewer Electrical Water Gas Street Subgrade Curb & Gutter Other	APPROXIMATE TEST ELEVATION (Feet)	APPROXIMATE FILL DEPTH BELOW TEST ELEVATION (Feet)	DRY DENSITY (pcf)	PERCENT MOISTURE %	SOIL** TYPE	PERCENT COMPACTION %	METHOD*	REMARKS (REQ'D 90%)
1	TRENCH - 3'x30'x11' (WIDTH, LENGTH, DEPTH)		4' BELOW SUBGRADE	118.3	11.2		91.0	N	PASS
2			3'	122.1	10.1		94.0	N	PASS
3			2'	121.7	9.7		93	N	PASS
4			1'	120.9	10.3		93	N	PASS
5			SUBGRADE	123.4	8.7		95	N	PASS
5'			SUBGRADE	124.7	8.8		96	N	PASS



Sand Cone = S Nuclear Gauge = N

MAXIMUM DENSITY – OPTIMUM MOISTURE TESTS

SOIL TYPE	SOIL DESCRIPTION	MAX. DRY DENS.	OPT. MOIST.
	SILTY SAND (SM) F TO M. GR. BROWN	130.5 PCF	11.5

SOIL TYPE	SOIL DESCRIPTION	MAX. DRY DENS.	OPT. MOIST.

White - Project Manager / Yellow - Billing / Pink - Field File / Goldenrod - Client Rep.

Geotechnical Recommendations for Subsurface Slab Abandonment

Converse Consultants
Geotechnical Engineering, Environmental and Groundwater Science, Inspection and Testing Services

October 10, 2012

Mr. Jason Kim
Capital Projects Manager
Los Angeles County Department of Public Works
900 N. Fremont Avenue
Alhambra, California 91803

Subject: **GEOTECHNICAL RECOMMENDATIONS FOR SUBSURFACE SLAB ABANDONMENT**
Proposed East Antelope Valley Animal Shelter
38532, 38569, 38600 and 38624 Sierra Highway
APNs 3008-030-900 thru -905
Palmdale, California
Converse Project No. 11-41-140-02

Dear Mr. Kim:

Converse Consultants (Converse) has prepared this letter to present our geotechnical recommendations for abandonment of the subsurface slab encountered at the project site. In order to prepare this letter, Converse has reviewed the following documents:

- *Subsurface Slab Assessment, Contract No. PW 13460, Proposed East Antelope Valley Animal Shelter, 38532, 38569, 38600 and 38624 Sierra Highway, APNs 3008-030-900 thru -905, Palmdale, California*; by Converse, Project No. 11-41-140-02, dated July 18, 2012.

- *Geotechnical Study Report, East Antelope Valley Animal Shelter, Palmdale, , California,* by Converse, Project No. 12-31-145-01, dated April 19, 2012.

Based on our review of the above-listed reports, the subsurface concrete slab was about 2 feet thick situated at approximate 11 feet below ground surface. The inferred extents of the slab based on field exploration and historic aerial photograph were depicted on Figure No. 1. The existing subsurface concrete slab appears to be the abandoned basement slab of the previous building. Based on our review of researched building permits provided by LA County Public Works for the subject site, there are no grading/compaction records for the abandonment of this basement. Therefore, the following recommendations should be followed for basement abandonment:

1. We recommend drill or core 6-inch-diameter drain holes to penetrate the subsurface slab at 30 feet spacing. The drilled holes should be backfilled with 3/8-inch pea gravel to about 2 feet above the subsurface concrete slab. The remaining drilled holes can be backfilled with the soil cuttings from drilling.

2. Since the extents of this abandoned subsurface slab is to be used as a surface paved parking lot and not intended for building structure, we recommend over-excavate at least the upper 2 feet of soil for pavement as recommended in our April 9, 2012 report. All compaction requirements presented in the April 9 2012 report should be followed.

We appreciate the opportunity to be of continued service to the Los Angeles County Department of Public Works. If you should have any questions, please do not hesitate to contact us at (626) 930-1200.

CONVERSE CONSULTANTS

REGISTERED PROFESSIONAL ENGINEER
CHI-HSIN LIN
No.2921
Exp. 9/30/14
GEOTECHNICAL
STATE OF CALIFORNIA

Sean C. Lin, G.E.
Senior Engineer

Dist.: 2/Addressee
SCL/JZ

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ATTACHMENT C

DEPARTMENT OF PUBLIC WORKS:
EAST ANTELOPE VALLEY ANIMAL CARE CENTER PROJECT
ADOPT MITIGATED NEGATIVE DECLARATION AND
MITIGATION MONITORING AND REPORTING PROGRAM
APPROVE PROJECT AND BUDGET
AWARD DESIGN-BUILD CONTRACT
AUTHORIZE LOCAL WORKER HIRING PROGRAM
APPROVE AND ORDER PUBLICATION OF NOTICE OF INTENTION TO
PURCHASE REAL PROPERTY AND APPROVE RELATED ACTIONS
SPECS. 7003; CAPITAL PROJECT NO. 69570

NOTICE OF INTENTION
TO PURCHASE REAL PROPERTY
(SEE ATTACHMENT)

NOTICE OF INTENTION
TO PURCHASE REAL PROPERTY

NOTICE IS HEREBY GIVEN that it is the intention of the Board of Supervisors of the County of Los Angeles, State of California to purchase approximately 5.94 acres of undeveloped land (the "Real Property") located on the east side of the 38500 block of Sierra Highway, north of Avenue Q-6, in the City of Palmdale, County of Los Angeles, State of California for the sum of Twenty Thousand One Hundred Twenty Five Dollars ($20,125) from the fee simple owner, City of Palmdale (the "Seller"). It is the intent of the County to develop the Real Property with a new approximately 25,500 square feet indoor animal care center and associated site improvements to provide improved animal care and control services for the Antelope Valley. Due to space limitations in this notice, a complete legal description of the property being acquired by the County is available at the Chief Executive Office Real Estate Division at 222 S. Hill Street, 3rd Floor, Los Angeles, California, 90012.

NOTICE IS HEREBY GIVEN that the purchase of the Real Property will be consummated by the Board of Supervisors of the County of Los Angeles, State of California, on the 26th day of November, 2013, at 9:30 a.m. in the Hearing Room of the Board of Supervisors, Room 381, Kenneth Hahn Hall of Administration, 500 West Temple Street, Los Angeles, California 90012. No obligation will arise against the County and in favor of the Seller with respect to the purchase of the Real Property described herein until the Board of Supervisors approves the purchase on the named consummation date.

COUNTY OF LOS ANGELES CALIFORNIA

SACHI A. HAMAI, Executive Officer
Board of Supervisors, County of Los Angeles

By ______________________
Deputy

APPROVED AS TO FORM:

JOHN F. KRATTLI
County Counsel

By ______________________
Deputy

ATTACHMENT D

DEPARTMENT OF PUBLIC WORKS:
EAST ANTELOPE VALLEY ANIMAL CARE CENTER PROJECT
ADOPT MITIGATED NEGATIVE DECLARATION AND
MITIGATION MONITORING AND REPORTING PROGRAM
APPROVE PROJECT AND BUDGET
AWARD DESIGN-BUILD CONTRACT
AUTHORIZE LOCAL WORKER HIRING PROGRAM
APPROVE AND ORDER PUBLICATION OF NOTICE OF INTENTION TO PURCHASE REAL PROPERTY AND APPROVE RELATED ACTIONS
SPECS. 7003; CAPITAL PROJECT NO. 69570

PURCHASE AND SALE AGREEMENT
(SEE ATTACHMENT)

AGREEMENT FOR PURCHASE AND SALE OF REAL PROPERTY

THIS AGREEMENT FOR PURCHASE AND SALE OF REAL PROPERTY ("Agreement"), is made and entered into as of this 26th day of November, 2013, by and between Seller, **CITY OF PALMDALE** ("City"), and Buyer, **COUNTY OF LOS ANGELES**, a body politic and corporate ("County"), for acquisition by County of certain real property described below.

RECITALS

A. City is the owner of certain real property located northeast of the junction of Sierra Highway and Avenue Q-6, on the east side of the 38500 block of Sierra Highway in the City of Palmdale, County of Los Angeles, State of California, as depicted in Exhibit A, site map, and described in Exhibit B, legal description, both attached hereto and incorporated herein by this reference ("Property").

B. The Property is comprised of approximately 5.94 acres of unimproved land, together with the existing appurtenant parking, all easements and interests appurtenant thereto, and all intangible property owned or held in connection with the Property, including without limitation, development rights, governmental approvals and land entitlements.

78072

C. County desires to acquire the Property for the initial purpose of constructing an animal care facility and City desires to convey the Property in accordance with the terms and conditions contained herein.

AGREEMENT

NOW THEREFORE, the parties hereto agree as follows:

1. Purchase and Sale. City agrees to sell to County, and County agrees to purchase from City, upon the terms and for the consideration set forth in this Agreement, the fee simple absolute interest in the Property.

2. Consideration. In consideration for City conveying the Property to County, County covenants to construct and operate an animal care facility within five (5) years from completion of the conveyance. As additional consideration, County shall make payment to City for the total sum of Twenty Thousand One Hundred Twenty-Five Dollars ($20,125.00) (Cash Payment). The Cash Payment shall be a one-time-only payment to the City as County's proportional share to contribute to City's maintenance and repair, in perpetuity, of the existing common driveway area that provides ingress and egress from Sierra Highway to the Property as indicated in the Common Driveway Easement (attached hereto as Exhibit D).

The consideration recited hereinabove shall constitute payment in full, and City hereby waives and releases County from any and all claims for further compensation, expenses and/or damages, arising from or connected with County's acquisition of the Property or its use, maintenance, and repair of the common driveway area.

3. Cash Payment. County shall pay the Cash Payment by delivering the Cash Payment into Escrow (as defined in Section 7) in immediately available funds prior to the Closing (as defined in Section 9), and as otherwise provided for in this Agreement.

4. Form of Grant Deed. Fee simple absolute title to the Property shall be conveyed by City to County as described in and by the grant deed attached hereto as Exhibit C ("Grant Deed"), duly executed and acknowledged by City, subject only to matters of record approved in writing by County pursuant to paragraph 5.02 below.

5. Contingencies. Completion of the transaction contemplated by this Agreement is contingent upon the following ("Contingencies"):

5.01 Approval of Purchase and Sale.

5.02.01 Approval of this Agreement by the County Board of Supervisors;

5.02.02 The County Board of Supervisors adopting a Notice of Intention to Purchase the Property; and

5.02.03 The County Board of Supervisors approving the purchase of the Property.

5.02 Condition of Title to Transfer Property. City shall cause the conveyance of title to the Property to County as evidenced by a C.L.T.A. Standard Policy of Title Insurance ("Title Policy"), to be purchased by County at its own cost and issued by Commonwealth Land Title Company (the "Title Company") insuring good and marketable title to the Property in County in an amount equal to the appraised value of the Property and subject only to matters approved in writing by County ("Approved Exceptions"). County may also, at its own cost, obtain extended title insurance coverage. The Title Policy shall show as exceptions only the Approved Exceptions. The exceptions to title shown on Schedule B of the issued Title Report and Title Company's standard printed exceptions shall be deemed to be the Approved Exceptions.

5.03 Refurbishment of City's ADA Parking Stalls. At County's sole cost and expense, County shall refurbish the ADA parking stalls, which are located outside the Property's southeast boundary and which service City's roller hockey rinks, to meet current building code requirements, including new asphalt paving, striping, signage, and wheel stops.

5.04 Dedication or Set-Aside for Road Right of Way. Both City and County agree to dedicate, or set aside to the other party as necessary, portions of their respective properties for road right-of-way purposes in order to create a new public sidewalk and right turn lane along Sierra Highway in connection with County's development project.

6. Non-Satisfaction of Contingencies. Upon non-satisfaction of any one of the above Contingencies, by mutual written agreement, the parties may extend the period within which a party is required to cure a non-satisfaction. Alternatively, either party may elect to terminate the transaction by providing termination notice to the other party. If the Agreement is terminated as set forth herein, neither of the parties shall have any liability to the other thereafter, except as expressly provided for in this Agreement.

7. Escrow.

7.01 Opening of Escrow. No later than ten (10) business days after the execution of this Agreement by all parties, the parties shall open an escrow ("Escrow") with Commonwealth Land Title Company, 888 S. Figueroa St., Suite 2100, Los Angeles, CA 90017 ("Escrow Holder"), as mutually selected by City and County for the purpose of consummating the purchase and sale of the Property. The parties shall execute and deliver to Escrow Holder, within ten (10) business days of receipt, such escrow instructions prepared by Escrow Holder as may be required to consummate the transaction contemplated by this Agreement. Any such instructions shall not conflict with, amend, or supersede any provisions of this Agreement. If there is any inconsistency between such instructions and this Agreement, this Agreement shall control unless the parties expressly agree otherwise in writing.

7.02 Escrow Authorization. Escrow Holder is authorized to:

7.02.01 Pay, and charge City, for any delinquent taxes, and penalties and interest thereon, and for any delinquent assessments or bonds against the Property,

7.02.02 County shall be responsible for title insurance costs, documentary transfer tax, and recording fees;

7.02.03 Pay, and charge County for the amount of all escrow fees;

7.02.04 When conditions of Escrow have been fulfilled by County and City: (1) record documents of conveyance; (2) disburse the Cash Payment to City, less proration and City's expenses; (3) deliver to County and City copies of the Escrow closing statements; and (4) deliver to County and City any items or documents given to Escrow Holder to hold for County and/or City.

8. <u>Conditions to Closing.</u>

8.01 <u>County's Conditions.</u> County's obligation to consummate the transaction contemplated by this Agreement is conditioned upon: (i) City's delivery of the Grant Deed to Escrow Holder and the recordation thereof in the County of Los Angeles Registrar-Recorder/County Clerk's official records; (ii) City's representations, warranties and covenants shall be true and correct as of Closing; and (iii) Title Company's irrevocable commitment to issue the Title Policy. Upon non-satisfaction of any one of the above conditions, County may either allow City an opportunity to cure or terminate the transaction by written notice to City of such termination. If this transaction is terminated as set forth herein, neither of the parties thereafter shall have any liability to the other except as expressly provided for in this Agreement. If County does not object to City's non-satisfaction of said conditions, they shall be deemed satisfied as of the Closing.

8.02 <u>City's Conditions.</u> City's obligation to consummate the transaction contemplated by this Agreement is conditioned upon: (i) County's deposit of the Cash Payment into Escrow no later than fifteen (15) business days before the closing of Escrow; (ii) that the Closing shall occur as set forth in Section 9. After non-satisfaction by County of one of the above conditions, City may either waive the time limitation set forth therein or terminate the transaction by written notice to County of such termination. If this transaction is terminated as set forth herein, neither of the parties thereafter shall have any liability to the other except as expressly provided for in this Agreement. If City does not object to County's non-satisfaction of said conditions, they shall be deemed satisfied as of the Closing.

9. <u>Closing.</u> For the purposes of this Agreement, the "Closing" or "Closing Date" shall be defined as the date on which the recordation of the Grant Deed in the Official Records occurs. The Closing shall occur no later than fifteen (15) business days after the date of the Board of Supervisors' order consummating the purchase contemplated hereby. The parties may agree in writing to extensions of the Closing if such extensions appear to either party to be necessary. If the Closing does not occur within a reasonable period of time or by any date agreed to by the parties in writing, either party, who is not then in default, may cancel this Agreement by delivering written notice of such cancellation to the other party and to Escrow Holder before Closing occurs.

If the Closing does not occur as indicated above, neither of the parties thereafter shall have any liability to the other except as expressly provided for in this Agreement.

10. <u>Grant of Easements.</u> The parties acknowledge and agree that title to the Property will be conveyed subject to the easements to be granted by the parties as described below.

10.01 Grant of Common Driveway Easement from City to County. City will grant to County, and County will accept, a common driveway easement as described and in the form of Exhibit D, attached hereto (Common Driveway Easement), duly executed and acknowledged by City, which shall be recorded upon consummation of the conveyance.

10.02 Grant of Landscape Easements from City to County. City will grant to County, and County will accept a landscape easement, as described and in the form of Exhibit E attached hereto (Landscape Easement), duly executed and acknowledged by City, both which shall be recorded upon consummation of the conveyance.

10.03 Grant of Access Easement from County to City. County will grant to City, and City will accept, an access easement as described and in the form of Exhibit F attached hereto (Access Easement), duly executed and acknowledged by County, which shall be recorded upon consummation of the conveyance.

11. Loss by Fire or Other Casualty. City shall maintain fire and casualty insurance on the Property in full force until the Closing Date. In the event that, prior to Closing, the Property or any part thereof, is destroyed or damaged, and the cost of repair or cure is $10,000 or less, as reasonably determined by City, City shall repair or cure the loss to the reasonable satisfaction of County prior to Closing. If the cost of repair or cure is more than $10,000, County shall have the right, exercisable by giving notice of such decision to City within fifteen (15) days after receiving written notice of such damage or destruction, to terminate this Agreement. If County elects to move forward with the sales transaction, said sales transaction shall close and any proceeds of insurance paid or payable to City by reason of such damage or destruction shall be paid or assigned to County.

12. Maintenance of the Property. During the period between the City's execution of this Agreement and the Closing, City shall maintain the Property as presently maintained.

13. Notices. All notices or other communications required or permitted hereunder shall be in writing, and shall be personally delivered or sent by registered or certified mail, postage prepaid, return receipt requested or by US Postal Service Express Mail or Federal Express to the following address:

To County:

County of Los Angeles
Chief Executive Office, Real Estate Division
222 South Hill Street, 3rd Floor
Los Angeles, California 90012
Attn: Christopher M. Montana
Acting Director of Real Estate Division

To City:

City of Palmdale
38300 Sierra Highway, Ste. A
Palmdale, California 93550
Attn: Dave Childs, City Manager

Notice shall be deemed given on the day delivered by a carrier as specified above. Notice of change of address shall be given by written notice in the manner detailed in this Section.

14. Brokers. City represents and warrants to County, and County represents and warrants to City, that no broker or finder has been engaged by it in connection with the transaction contemplated by this Agreement. In the event of any claims for brokers' or finders' fees or commissions in connection with the negotiation, execution or consummation of this Agreement, County shall indemnify, hold harmless and defend City, from and against such claims if they are based upon or are alleged to be based upon any statement, representation or agreement by County, and City shall indemnify, hold harmless and defend County from and against such claims if they are based upon or are alleged to be based upon any statement, representation or agreement by City.

15. City's Representations and Warranties. In consideration of County entering into this Agreement and as an inducement to County to purchase the Property, City makes the following representations and warranties, each of which is material and is being relied upon by County, the truth and accuracy of which shall constitute a condition precedent to County's obligations hereunder. Each of the following representations and warranties shall be deemed to have been re-made as of the Closing.

15.01 Power. City has the legal power, right and authority to enter into this Agreement and the instruments referenced herein, and to consummate the transaction contemplated hereby.

15.02 Requisite Action. All requisite action has been taken by City in connection with entering into this Agreement and the instruments referenced herein, and, by the Closing, all such necessary action will have been taken to authorize the consummation of this transaction. By the Closing, no additional consent of any person or entity, judicial or administrative body, governmental authority or other party shall be required for City to consummate this transaction.

15.03 Individual Authority. The individuals executing this Agreement and the instruments referenced herein on behalf of City have the legal power, right and actual authority to bind City to the terms and conditions hereof and thereof.

15.04 Validity. This Agreement and all documents required hereby to be executed by City are and shall be valid, legally binding obligations of and enforceable against City in accordance with their terms, subject only to applicable bankruptcy, insolvency, reorganization, moratorium laws or similar laws or equitable principles affecting or limiting the right of contracting parties generally.

15.05 Violations. City has no present actual knowledge of any outstanding and uncured, written notice or citation from applicable governmental authorities of violation of any applicable codes, environmental zoning and land use laws, subdivision laws, and other applicable federal, state and local laws, regulations and ordinances, including, but not limited to, those relating to environmental conditions, hazardous materials or wastes, toxic materials or wastes or other similar materials or wastes regarding the Property.

15.06 Litigation. City has no present actual knowledge of any litigation pending or threatened against City on any basis therefor that arises out of the ownership of the Property or that might detrimentally affect the Property or adversely affect the ability of City to perform its obligations under this Agreement.

16. County's Representations and Warranties. In consideration of City entering into this Agreement and as an inducement to City to sell the Property, County makes the following representations and warranties, each of which is material and is being relied upon by City, the truth and accuracy of which shall constitute a condition precedent to City's obligations hereunder. Each of the following representations and warranties shall be deemed to have been re-made as of the Closing.

16.01 Power. County has the legal power, right and authority to enter into this Agreement and the instruments referenced herein, and to consummate the transaction contemplated hereby.

16.02 Requisite Action. All requisite action has been taken by County in connection with entering into this Agreement and the instruments referenced herein, and, by the Closing, all such necessary action will have been taken to authorize the consummation of this transaction. By the Closing, no additional consent of any person or entity, judicial or administrative body, governmental authority or other party shall be required for County to consummate this transaction.

16.03 Individual Authority. The individuals executing this Agreement and the instruments referenced herein on behalf of County have the legal power, right and actual authority to bind County to the terms and conditions hereof and thereof.

16.04 Validity. This Agreement and all documents required hereby to be executed by County are and shall be valid, legally binding obligations of and enforceable against County in accordance with their terms, subject only to applicable bankruptcy, insolvency, reorganization, moratorium laws or similar laws or equitable principles affecting or limiting the right of contracting parties generally.

17. Inspection of the Site.

17.01 Access. City agrees to provide County and/or County's employees, representatives and agents with access to the Property, upon reasonable notice, to conduct any inspections County deems appropriate at any time prior to the Closing.

17.02 Testing. County shall not engage in any destructive, intrusive, or invasive testing during any inspection of the Property, without the prior written consent of City, which consent shall not unreasonably be withheld.

18. Condition of Property. AS IS: (i) With the exception of Section 15 hereof, there are no representations or warranties of any kind whatsoever, express or implied, made by City in connection with this Agreement, the purchase of the Property by County, the physical condition of the Property or whether the Property complies with applicable laws or is appropriate for County's intended use; (ii) County has (or has chosen not to have) investigated the Property and all matters pertaining thereto including, without limitation, the environmental condition of the Property; (iii) County is not relying on any statement or representation of City, its agents or its representatives except for the express representations and warranties set forth in Section 15 hereof; (iv) County, in entering into this Agreement and in completing its purchase of the Property, is relying on its own investigation of the Property (except for the express representations and warranties set forth in Section 15 hereof) and based on its knowledge of real property in the areas where the Property is located; (v) County is aware of all zoning regulations, other governmental requirements, site and physical conditions, and other matters affecting the use and condition of the Property; (vi) County's decision to purchase the Property on the terms and conditions hereof is made solely and exclusively in reliance on County's own review, inspection and investigation of the Property except for the express representations and warranties set forth in Section 15 hereof; and (vii) County shall purchase the Property in its "as is" condition as of the date of the Closing Date.

19. Indemnity. City shall defend, indemnify, and hold County and its elected and appointed officers, agents and employees free and harmless from and against any and all liabilities, damages, claims, costs and expenses (including without limitation, attorneys' fees, legal expenses and consultants' fees) related to or arising in whole or in part from the removal, eviction, vacation, or relocation of any occupant(s) of the Property, residing on the Property at any time prior to the Closing.

20. Survival of Covenants. The covenants, indemnities, agreements, representations and warranties made herein are intended to survive, for a period of one year, the Closing and recordation and delivery of the Grant Deed conveying the Property to County.

21. Required Actions of County and City. County and City agree to execute all such instruments and documents, and to take all actions pursuant to the provisions hereof, in order to complete this transaction and shall use their best efforts to effect the Closing in accordance with the provisions hereof.

22. Entire Agreement. This Agreement contains the entire agreement between the parties hereto and no addition or modification of any term or provision shall be effective unless set forth in writing, signed by both City and County.

23. California Law. This Agreement shall be construed in accordance with the internal laws of the State of California.

24. Waivers. No waiver by either party of any provision hereof shall be deemed a waiver of any other provision hereof or of any subsequent breach by either party of the same or any other provision.

25. Captions. The captions and the section and subsection numbers appearing in this Agreement are inserted only as a matter of convenience and in no way define, limit, construe or describe the scope or intent of such sections of this Agreement nor in any way affect this Agreement.

26. Interpretation. Unless the context of this Agreement clearly requires otherwise, (i) the plural and singular numbers shall be deemed to include the other; (ii) the masculine, feminine and neuter genders shall be deemed to include the others;(iii) “or” is not exclusive; and (iv) “includes” and “including” are not limiting.

27. Severability. Any provision of this Agreement which shall prove to be invalid, void or illegal shall in no way affect, impair or invalidate any other provision hereof and such other provisions shall remain in full force and effect.

28. Delegation of Authority. The Los Angeles County Board of Supervisors on behalf of County hereby delegates to its Chief Executive Officer or his designee, the authority to issue any and all approvals required by this Agreement and to execute any and all instruments necessary to consummate or complete this transaction.

29. Binding Effect. The provisions of this Agreement shall be binding upon the parties hereto and their respective successors-in-interest.

30. <u>No Presumption Re: Drafter.</u> The parties acknowledge and agree that the terms and provisions of this Agreement have been negotiated and discussed between the parties and their attorneys, and this Agreement reflects their mutual agreement regarding the same. Because of the nature of such negotiations and discussions, it would be inappropriate to deem any party to be the drafter of this Agreement, and therefore, no presumption for or against validity or as to any interpretation hereof, based upon the identity of the drafter shall be applicable in interpreting or enforcing this Agreement.

31. <u>Assistance of Counsel.</u> Each party hereto either had the assistance of counsel or had counsel available to it, in the negotiation for, and the execution of, this Agreement, and all related documents.

/ / / / SIGNATURE PAGE FOLLOWS / / / /

IN WITNESS WHEREOF, CITY OF PALMDALE has executed this Agreement or caused it to be duly executed and this Agreement has been executed by the Chairman of the Los Angeles County Board of Supervisors on the day, month, and year first above written.

CITY OF PALMDALE:

ORIGINAL
SIGNED

By: ____________________
James C. Ledford, Jr., Mayor

COUNTY OF LOS ANGELES:
a body politic and corporate

By: Mark Ridley-Thomas
Chairman, Board of Supervisors

ATTEST:

ORIGINAL
SIGNED

By: ____________________
Rebecca J. Smith, City Clerk

ATTEST:

SACHI A. HAMAI, Executive Officer
Board of Supervisors

By: Lachelle Smitherman
DEPUTY

78072

APPROVED AS TO FORM:

ORIGINAL
SIGNED

By: ____________________
Wm. Matthew Ditzhazy
City Attorney

APPROVED AS TO FORM:

JOHN F. KRATTLI
County Counsel

By: ____________________
Deputy

I hereby certify that pursuant to Section 25103 of the Government Code, delivery of this document has been made.

SACHI A. HAMAI
Executive Officer
Clerk of the Board of Supervisors

By Lachelle Smitherman
Deputy

ADOPTED
BOARD OF SUPERVISORS

2 NOV 26 2013

Sachi A. Hamai
SACHI A. HAMAI
EXECUTIVE OFFICER

IN WITNESS WHEREOF, CITY OF PALMDALE has executed this Agreement or caused it to be duly executed and this Agreement has been executed by the Chairman of the Los Angeles County Board of Supervisors on the day, month, and year first above written.

CITY OF PALMDALE:

By: ______________________
James C. Ledford, Jr., Mayor

COUNTY OF LOS ANGELES:
a body politic and corporate

ORIGINAL SIGNED

By: ______________________
Chairman, Board of Supervisors

ATTEST:

By: Roxanne Faber D.C.C.
for Rebecca J. Smith, City Clerk

ATTEST:

SACHI A. HAMAI, Executive Officer
Board of Supervisors

ORIGINAL SIGNED

By: ______________________

78072

APPROVED AS TO FORM:

By: ______________________
Wm. Matthew Ditzhazy
City Attorney

APPROVED AS TO FORM:

JOHN F. KRATTLI
County Counsel

ORIGINAL SIGNED

By: ______________________
Deputy

LIST OF EXHIBITS

A. SITE MAP

B. LEGAL DESCRIPTION FEE PARCEL

C. GRANT DEED

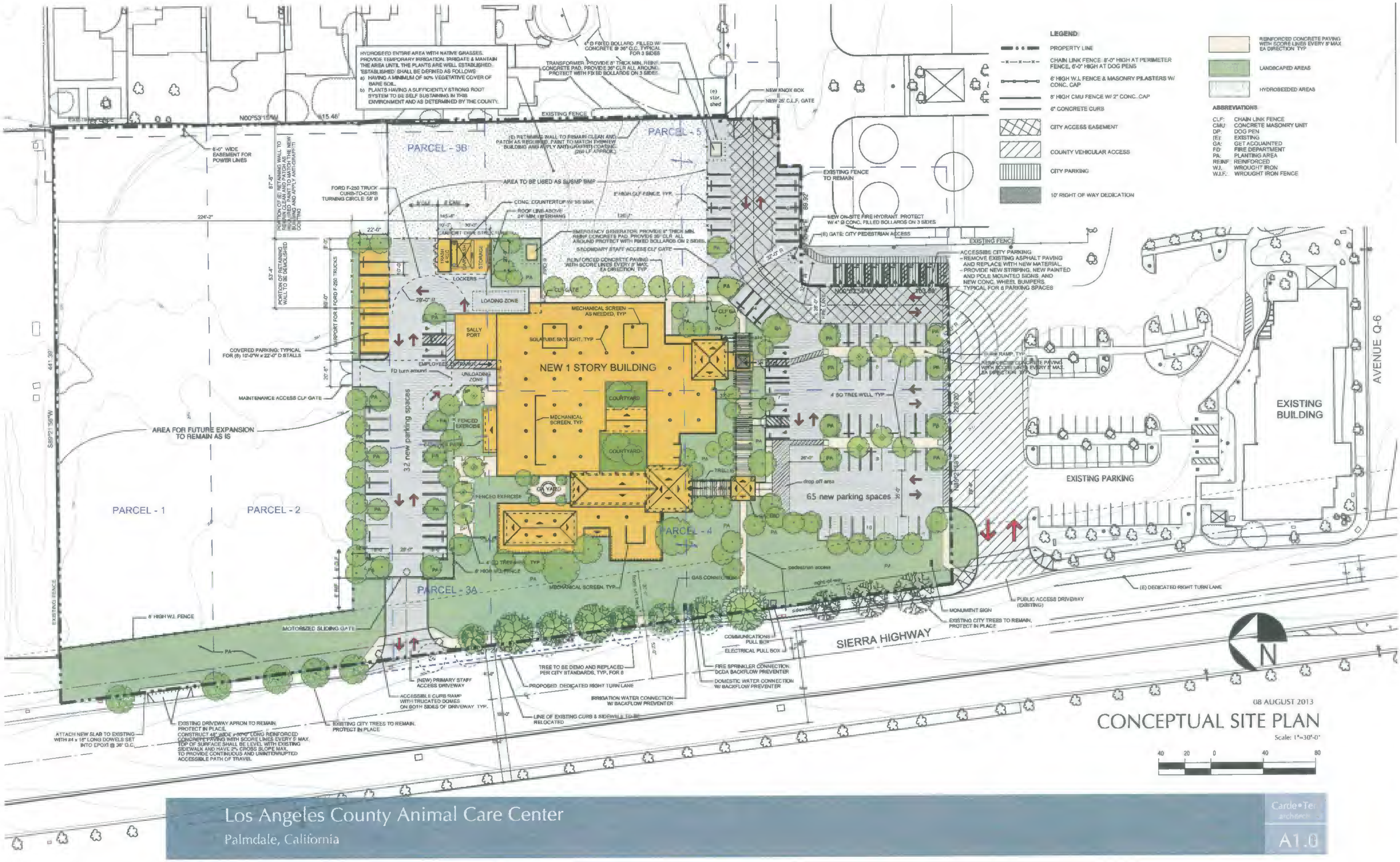
D. COMMON DRIVEWAY EASEMENT

E. LANDSCAPE EASEMENT

F. ACCESS EASEMENT

EXHIBIT A

SITE MAP



LEGEND
PROPERTY LINE
CITY ACCESS EASEMENT
COUNTY VEHICULAR ACCESS
CITY PARKING
10' RIGHT OF WAY DEDICATION
LANDSCAPED AREAS
HYDROSEEDED AREAS
ABBREVIATIONS
PARCEL - 1
PARCEL - 2
PARCEL - 3A
PARCEL - 3B
PARCEL - 4
PARCEL - 5
NEW 1 STORY BUILDING
32 new parking spaces
65 new parking spaces
AREA FOR FUTURE EXPANSION TO REMAIN AS IS
EXISTING BUILDING
EXISTING PARKING
AVENUE Q-6
SIERRA HIGHWAY
08 AUGUST 2013
CONCEPTUAL SITE PLAN
Scale: 1"=30'-0"
Los Angeles County Animal Care Center
Palmdale, California
A1.0

EXHIBIT B

LEGAL DESCRIPTION FEE PARCEL

EXHIBIT A

Being all of Block 12 and a portion of Block 13 of the Town and Suburbs of Palmdale, in the City of Palmdale, County of Los Angeles, State of California, as per map recorded in Book 52, Pages 55 and 56 of Miscellaneous Records, in the Office of the County Recorder of said County described in its entirety as follows:

Beginning at the intersection of the Westerly line of said Block 13, with a line that is parallel with and distant Northerly at right angles, 309.50 feet, from the North line of Avenue Q-6, formerly Walnut Street, 80 feet wide, as shown on said map;

Thence North 89°21'59" East along said parallel line, a distance of 229.20 feet;

Thence North 0°02'59" West, a distance of 103.39 feet to the beginning of a tangent curve, concave easterly and having a radius of 18.00 feet;

Thence northerly along said curve, through a central angle of 28°52'29" an arc length of 9.07 feet;

Thence non-tangent to last said curve, North 89°55'36" East, a distance of 89.92 feet;

Thence North 0°53'15" West, a distance of 17.13 feet;

Thence North 89°21'59" East, a distance of 36.32 feet;

Thence North 0°53'15" West, a distance of 38.80 feet;

Thence North 89°06'45" East, a distance of 3.00 feet to the easterly line of said Block 13;

Thence North 0°53'15" West along said easterly line, and along the easterly line of said Block 12, a distance of 515.46 feet to the northeasterly corner of said Block 12;

Thence South 89°21'56" West along the northerly line thereof, a distance of 441.39 feet to the northwesterly corner of said Block 12;

Thence South 7°29'32" East along the westerly line of said Block 12 and the westerly line of said Block 13, a distance of 687.48 feet to the point of beginning.

Containing 5.940 acres, more or less.

Subject to easements, covenants, conditions, and restrictions of record, if any.

As shown on Exhibit A-1, attached hereto and by this reference made a part hereof.

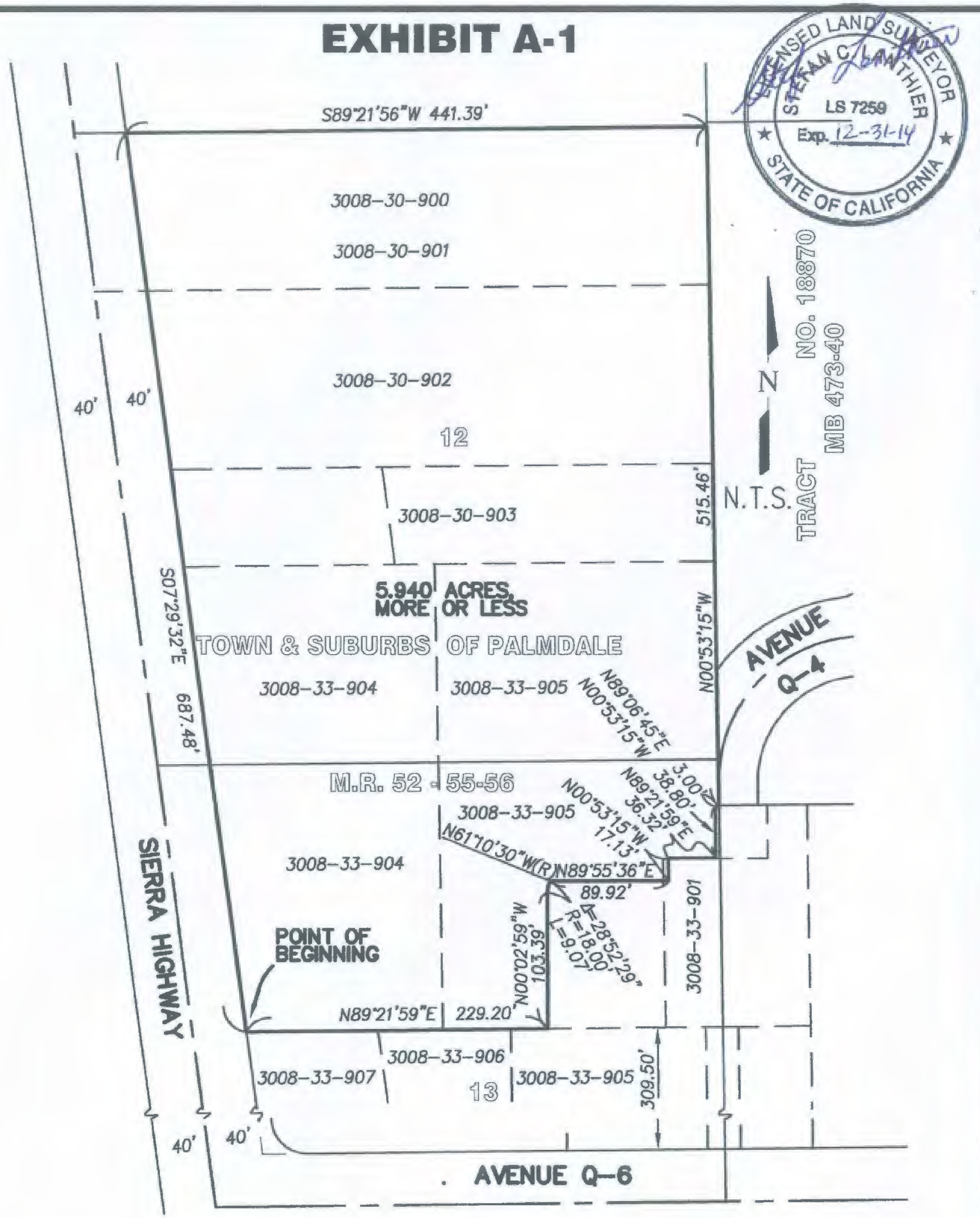
Prepared by me or under my supervision.

Stefan C. Lanthier 8-7-13

Stefan C. Lanthier, PLS 7259 date
Expiration 12-31-2014

LICENSED LAND SURVEYOR
STEFAN C. LANTHIER
LS 7259
Exp. 12/31/14
STATE OF CALIFORNIA

EXHIBIT A-1



Cornerstone Land Surveying Inc. Civil • Surveying • Planning 958 Temescal Circle CORONA, CA 92879 PH 951-736-0200 FAX 951-736-0300	SKETCH TO ACCOMPANY LEGAL DESCRIPTION	SHEET 1 OF 1 SHEET
	LOS ANGELES COUNTY AREA	DATE: 08-19-13
	PALMDALE, CALIFORNIA	JN 180-8

PALMDALE-COUNTY-AREA.dwg

LICENSED LAND SURVEYOR
STEFAN G. LANTHIER
LS 7259
Exp. 12/31/14
STATE OF CALIFORNIA

Parcel name: County Area

North: 8452.5557 East : 10626.0588
Line Course: N 00-53-15 W Length: 515.46
North: 8967.9539 East : 10618.0748
Line Course: S 89-21-56 W Length: 441.39
North: 8963.0664 East : 10176.7118
Line Course: S 07-29-32 E Length: 687.48
North: 8281.4557 East : 10266.3534
Line Course: N 89-21-59 E Length: 229.20
North: 8283.9903 East : 10495.5394
Line Course: N 00-02-59 W Length: 103.39
North: 8387.3803 East : 10495.4497
Curve Length: 9.07 Radius: 18.00
Delta: 28-52-29 Tangent: 4.63
Chord: 8.98 Course: N 14-23-16 E
Course In: N 89-57-01 E Course Out: N 61-10-30 W
RP North: 8387.3959 East : 10513.4497
End North: 8396.0743 East : 10497.6800
Line Course: N 89-55-36 E Length: 89.92
North: 8396.1894 East : 10587.5999
Line Course: N 00-53-15 W Length: 17.13
North: 8413.3174 East : 10587.3346
Line Course: N 89-21-59 E Length: 36.32
North: 8413.7190 East : 10623.6523
Line Course: N 00-53-15 W Length: 38.80
North: 8452.5143 East : 10623.0514
Line Course: N 89-06-45 E Length: 3.00
North: 8452.5608 East : 10626.0510

Perimeter: 2171.15 Area: 258,754 sq.ft. 5.94 acres

Mapcheck Closure - (Uses listed courses, radii, and deltas)
Error Closure: 0.0093 Course: N 56-53-36 W
Error North: 0.00510 East : -0.00782
Precision 1: 233,458.06

EXHIBIT C

GRANT DEED

GRANT DEED

RECORDING REQUESTED BY
COUNTY OF LOS ANGELES

WHEN RECORDED MAIL TO:

County of Los Angeles
222 South Hill Street, 3rd Floor
Los Angeles, CA 90012
Attention: Christopher M. Montana

Space above this line for Recorders use

THIS DOCUMENT IS EXEMPT FROM DOCUMENTARY TRANSFER TAX PURSUANT TO SECTION 11922 OF THE REVENUE & TAXATION CODE

THIS DOCUMENT IS EXEMPT FROM RECORDING FEES PURSUANT TO SECTION 27383 OF THE GOVERNMENT CODE

ASSESSOR'S IDENTIFICATION NUMBER
3008-030-900; 3008-030-901; 3008-030-902; 3008-030-903 (Portion); 3008-033-904; 3008-033-905 (Portion) and 3008-033-906

GRANT DEED

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, the **CITY OF PALMDALE** (hereinafter called "CITY"), does hereby grant to the **COUNTY OF LOS ANGELES COUNTY**, a body politic and corporate, all of the CITY's rights, title and interests to that certain real property in the City of Palmdale, County of Los Angeles, State of California, legally described in Exhibit A and depicted in Exhibit A-1, attached hereto and incorporated herein by this reference.

SUBJECT TO:

1. All taxes, penalties and assessments of record, if any.

2. Covenants, conditions, restrictions, reservations, easements, rights, and rights-of-way, if any.

Dated 11/7/13

CITY OF PALMDALE

By____________________
James C. Ledford, Jr., Mayor

#2 OF NOV 26 2013

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

CIVIL CODE § 1189

State of California

County of Los Angeles

On 11/7/13 (Date) before me, Lisa Roxanne Faber, Notary Public (Here Insert Name and Title of the Officer)

personally appeared James C. Ledford, JR. (Name(s) of Signer(s))

LISA ROXANNE FABER
Commission # 2006845
Notary Public - California
Los Angeles County
My Comm. Expires Feb 9, 2017

who proved to me on the basis of satisfactory evidence to be the person~~(s)~~ whose name~~(s)~~ is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity~~(ies)~~, and that by his/~~her/their~~ signature~~(s)~~ on the instrument the person~~(s)~~, or the entity upon behalf of which the person~~(s)~~ acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature: Lisa Roxanne Faber
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: ______

Document Date: ______ Number of Pages: ______

Signer(s) Other Than Named Above: ______

Capacity(ies) Claimed by Signer(s)

Signer's Name: ______	RIGHT THUMBPRINT OF SIGNER	Signer's Name: ______	RIGHT THUMBPRINT OF SIGNER
☐ Corporate Officer — Title(s): ______	Top of thumb here	☐ Corporate Officer — Title(s): ______	Top of thumb here
☐ Individual		☐ Individual	
☐ Partner — ☐ Limited ☐ General		☐ Partner — ☐ Limited ☐ General	
☐ Attorney in Fact		☐ Attorney in Fact	
☐ Trustee		☐ Trustee	
☐ Guardian or Conservator		☐ Guardian or Conservator	
☐ Other: ______		☐ Other: ______	
Signer Is Representing: ______		Signer Is Representing: ______	

#2 OF NOV 26 2013

EXHIBIT A

Being all of Block 12 and a portion of Block 13 of the Town and Suburbs of Palmdale, in the City of Palmdale, County of Los Angeles, State of California, as per map recorded in Book 52, Pages 55 and 56 of Miscellaneous Records, in the Office of the County Recorder of said County described in its entirety as follows:

Beginning at the intersection of the Westerly line of said Block 13, with a line that is parallel with and distant Northerly at right angles, 309.50 feet, from the North line of Avenue Q-6, formerly Walnut Street, 80 feet wide, as shown on said map;

Thence North 89°21'59" East along said parallel line, a distance of 229.20 feet;

Thence North 0°02'59" West, a distance of 103.39 feet to the beginning of a tangent curve, concave easterly and having a radius of 18.00 feet;

Thence northerly along said curve, through a central angle of 28°52'29" an arc length of 9.07 feet;

Thence non-tangent to last said curve, North 89°55'36" East, a distance of 89.92 feet;

Thence North 0°53'15" West, a distance of 17.13 feet;

Thence North 89°21'59" East, a distance of 36.32 feet;

Thence North 0°53'15" West, a distance of 38.80 feet;

Thence North 89°06'45" East, a distance of 3.00 feet to the easterly line of said Block 13;

Thence North 0°53'15" West along said easterly line, and along the easterly line of said Block 12, a distance of 515.46 feet to the northeasterly corner of said Block 12;

Thence South 89°21'56" West along the northerly line thereof, a distance of 441.39 feet to the northwesterly corner of said Block 12;

Thence South 7°29'32" East along the westerly line of said Block 12 and the westerly line of said Block 13, a distance of 687.48 feet to the point of beginning.

Containing 5.940 acres, more or less.

Subject to easements, covenants, conditions, and restrictions of record, if any.

As shown on Exhibit A-1, attached hereto and by this reference made a part hereof.

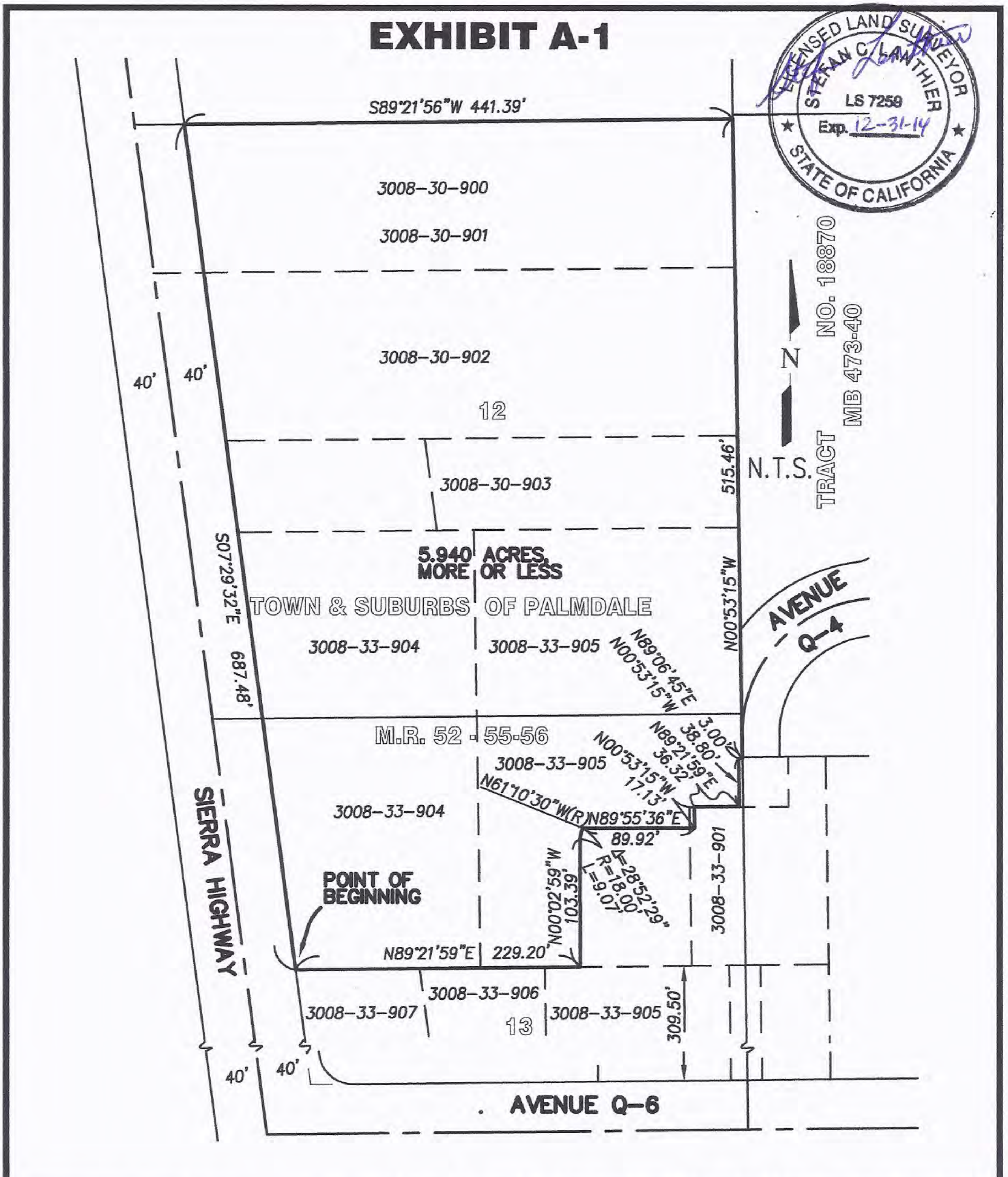
Prepared by me or under my supervision.

Stefan C. Lanthier 8-7-13

Stefan C. Lanthier, PLS 7259 date
Expiration 12-31-2014

LICENSED LAND SURVEYOR
STEFAN C. LANTHIER
LS 7259
Exp. 12/31/14
STATE OF CALIFORNIA

EXHIBIT A-1



Cornerstone Land Surveying Inc. Civil ▪ Surveying ▪ Planning 958 Temescal Circle CORONA, CA 92879 PH 951-736-0200 FAX 951-736-0300	SKETCH TO ACCOMPANY LEGAL DESCRIPTION	SHEET 1 OF 1 SHEET
	LOS ANGELES COUNTY AREA	DATE: 08-19-13
	PALMDALE, CALIFORNIA	JN 180-8

PALMDALE-COUNTY-AREA.dwg

LICENSED LAND SURVEYOR
STEFAN G. LANTHIER
LS 7259
Exp. 12/31/14
STATE OF CALIFORNIA

Parcel name: County Area

North: 8452.5557 East : 10626.0588
Line Course: N 00-53-15 W Length: 515.46
North: 8967.9539 East : 10618.0748
Line Course: S 89-21-56 W Length: 441.39
North: 8963.0664 East : 10176.7118
Line Course: S 07-29-32 E Length: 687.48
North: 8281.4557 East : 10266.3534
Line Course: N 89-21-59 E Length: 229.20
North: 8283.9903 East : 10495.5394
Line Course: N 00-02-59 W Length: 103.39
North: 8387.3803 East : 10495.4497
Curve Length: 9.07 Radius: 18.00
Delta: 28-52-29 Tangent: 4.63
Chord: 8.98 Course: N 14-23-16 E
Course In: N 89-57-01 E Course Out: N 61-10-30 W
RP North: 8387.3959 East : 10513.4497
End North: 8396.0743 East : 10497.6800
Line Course: N 89-55-36 E Length: 89.92
North: 8396.1894 East : 10587.5999
Line Course: N 00-53-15 W Length: 17.13
North: 8413.3174 East : 10587.3346
Line Course: N 89-21-59 E Length: 36.32
North: 8413.7190 East : 10623.6523
Line Course: N 00-53-15 W Length: 38.80
North: 8452.5143 East : 10623.0514
Line Course: N 89-06-45 E Length: 3.00
North: 8452.5608 East : 10626.0510

Perimeter: 2171.15 Area: 258,754 sq.ft. 5.94 acres

Mapcheck Closure - (Uses listed courses, radii, and deltas)
Error Closure: 0.0093 Course: N 56-53-36 W
Error North: 0.00510 East : -0.00782
Precision 1: 233,458.06

EXHIBIT D

COMMON DRIVEWAY EASEMENT

RECORDING REQUESTED BY
COUNTY OF LOS ANGELES

WHEN RECORDED MAIL TO:

County of Los Angeles
Real Estate Division
222 South Hill Street, 3rd Floor
Los Angeles, CA 90012
Attention: Director of Real Estate

Space above this line for Recorders use

THIS DOCUMENT IS EXEMPT FROM DOCUMENTARY TRANSFER TAX PURSUANT TO SECTION 11922 OF THE REVENUE & TAXATION CODE

ASSESSOR'S IDENTIFICATION NUMBER
3008-033-907 (Portion)
3008-033-906 (Portion)
3008-033-905 (Portion)

THIS DOCUMENT IS EXEMPT FROM RECORDING FEES PURSUANT TO SECTION 27383 OF THE GOVERNMENT CODE

COMMON DRIVEWAY EASEMENT

For and in consideration of the mutual promises contained herein and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties, the parties agree as follows:

The **CITY OF PALMDALE** (CITY), does hereby grant and convey to the **COUNTY OF LOS ANGELES** (COUNTY), a body politic and corporate, a perpetual, non-exclusive, Common Driveway Easement for vehicular ingress and egress purposes, and those appurtenances and uses commonly associated therewith, on, over, upon, and across that certain portion of CITY's real property situated in the City of Palmdale, County of Los Angeles, State of California, legally described on Exhibit A and depicted on Exhibit A-1, attached hereto and made a part hereof by this reference (Easement Area).

CITY covenants and agrees, on behalf of itself and its successors in interest that CITY shall be the sole responsible party to maintain and to keep the Easement Area in good order and repair in perpetuity. For all purposes of this Easement, the terms maintain and repair shall mean, without limitation, applying a slurry coat seal to the surface on and around the Easement Area every five (5) years, and all other necessary work required to maintain the Easement Area in a condition that will allow for reasonable and safe vehicular access.

In the event that CITY fails in any material respect to perform its maintenance and repair obligations as stated herein with reasonable diligence, COUNTY shall have the right, if such failure has continued for period of thirty (30) days after written notice thereof to CITY, to enter on and around the Easement Area and perform such maintenance and repair.

All reasonable maintenance expenses incurred by COUNTY in connection with the performance of such maintenance and repair of the Easement Area shall be paid by CITY within thirty (30) days after presentation of a written invoice for such expenses by COUNTY.

COUNTY agrees to defend, indemnify and hold harmless CITY, its officers, agents and employees, from and against any and all actions, demands, claims, liabilities, damages, losses, costs and expenses of every kind, nature and character, including but not limited to reasonable attorneys' and experts' fees, that arise in whole or in part from, or out of or in connection with COUNTY's use of or presence on the Easement Area.

All of the terms, covenants, conditions, and obligations set forth in this Common Driveway Easement shall inure to the benefit of and bind CITY and COUNTY, and their respective representatives, heirs, successors, transferees and assigns, and shall continue as a servitude running in perpetuity with CITY's property.

Dated 11/7/13

CITY OF PALMDALE

By____________________
James C. Ledford, Jr., Mayor

Dated NOV 26 2013

COUNTY OF LOS ANGELES
a body politic and corporate

By____________________
Chairman, Board of Supervisors
Los Angeles County

ATTEST: SACHI A. HAMAI
EXECUTIVE OFFICER
CLERK OF THE BOARD OF SUPERVISORS

By____________________, Deputy

#2 OF NOV 26 2013

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

CIVIL CODE § 1189

State of California }
County of Los Angeles }

On 11/7/13 (Date) before me, LISA Roxanne Faber, Notary Public (Here Insert Name and Title of the Officer)

personally appeared James C. Ledford, Jr. (Name(s) of Signer(s))

____,

LISA ROXANNE FABER
Commission # 2006845
Notary Public - California
Los Angeles County
My Comm. Expires Feb 9, 2017

LISA ROXANNE FABER
Commission # 2006845
Notary Public - California
Los Angeles County
My Comm. Expires Feb 9, 2017

Place Notary Seal Above

who proved to me on the basis of satisfactory evidence to be the person~~(s)~~ whose name~~(s)~~ is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity~~(ies)~~, and that by his/~~her/their~~ signature~~(s)~~ on the instrument the person~~(s)~~, or the entity upon behalf of which the person~~(s)~~ acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature: Lisa Roxanne Faber
Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: ____________________

Document Date: ____________________ Number of Pages: __________

Signer(s) Other Than Named Above: ____________________

Capacity(ies) Claimed by Signer(s)

Signer's Name: ____________________
☐ Corporate Officer — Title(s): __________
☐ Individual
☐ Partner — ☐ Limited ☐ General
☐ Attorney in Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other: __________

Signer Is Representing: __________

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

Signer's Name: ____________________
☐ Corporate Officer — Title(s): __________
☐ Individual
☐ Partner — ☐ Limited ☐ General
☐ Attorney in Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other: __________

Signer Is Representing: __________

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

Item #5907

#2

OF NOV 26 2013

EXHIBIT A

Being a portion of Block 13 of the Town and Suburbs of Palmdale, in the City of Palmdale, County of Los Angeles, State of California, as per map recorded in Book 52, Pages 55 and 56 of Miscellaneous Records, in the Office of the County Recorder of said County described in its entirety as follows:

Commencing at the intersection of the Westerly line of said Block 13, with a line that is parallel with and distant Northerly at right angles, 309.50 feet, from the North line of Avenue Q-6, formerly Walnut Street, 80 feet wide, as shown on said map;

Thence North 89°21'59" East along said parallel line, a distance of 59.36 feet to the **True Point of Beginning**;

Thence continuing North 89°21'59" East along said parallel line, a distance of 169.84 feet;

Thence South 0°38'07" East, a distance of 58.00 feet;

Thence South 89°21'59" West, a distance of 165.34 feet;

Thence South 86°47'57" West, a distance of 35.08 feet to the beginning of a tangent curve, concave southeasterly and having a radius of 20.00 feet;

Thence southwesterly along said curve, through a central angle of 94°17'29" an arc length of 32.91 feet to the westerly line of said Block 13;

Thence North 7°29'32" West along said westerly line, a distance of 66.72 feet to a point in a non-tangent curve, concave northerly and having a radius of 20.36 feet, a radial line to said point bears South 38°02'25" West;

Thence easterly along said curve through a central angle of 37°43'48" an arc length of 13.41 feet;

Thence tangent to last said curve, South 89°41'22" East, a distance of 22.77 feet to the beginning of a tangent curve, concave northwesterly and having a radius of 22.00 feet;

Thence northeasterly along said curve, through a central angle of 87°08'03" an arc length of 33.46 feet to the **True Point of Beginning.**

Containing 12,200 square feet, more or less.

Subject to easements, covenants, conditions, and restrictions of record, if any.

As shown on Exhibit A-1, attached hereto and by this reference made a part hereof.

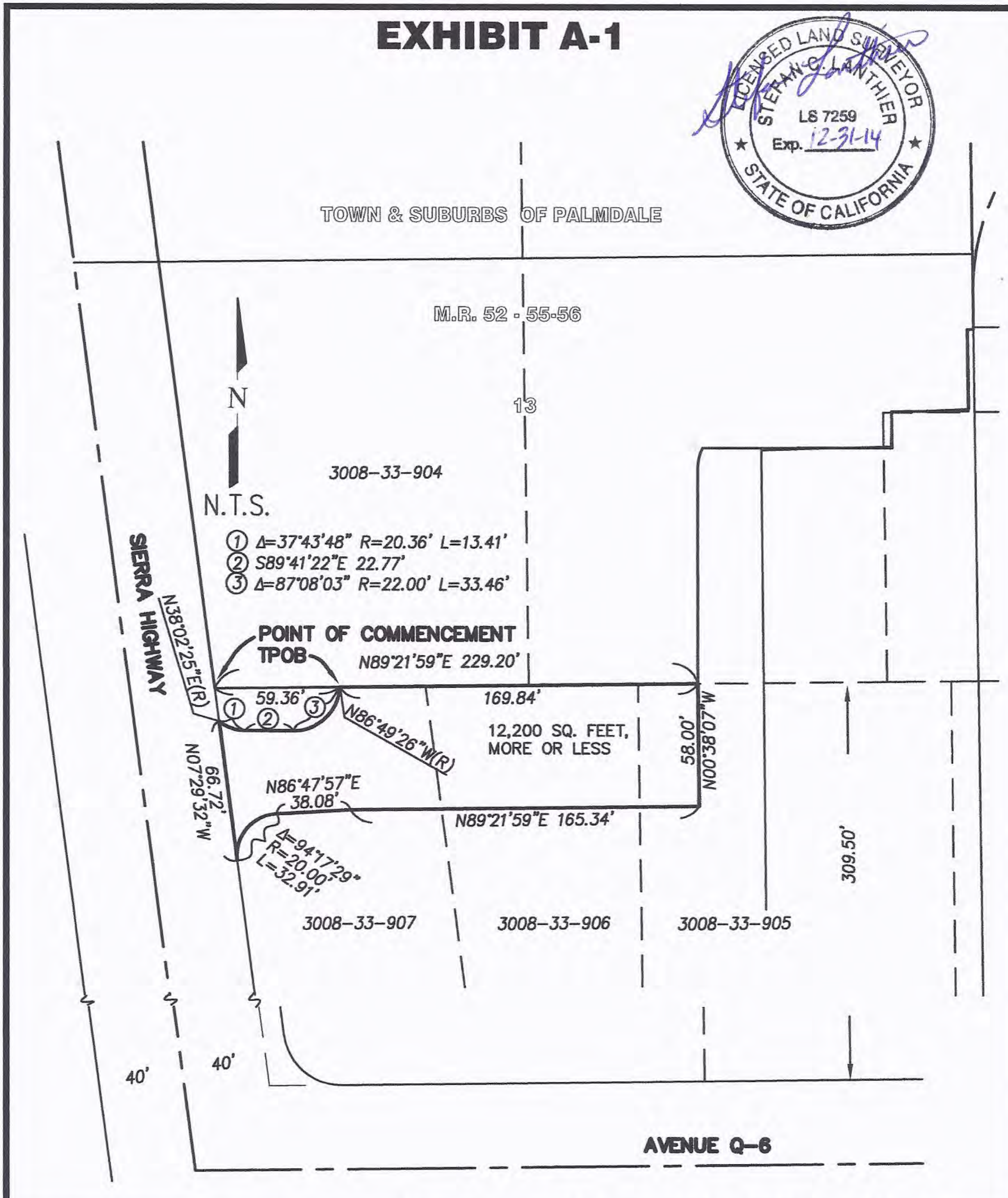
Prepared by me or under my supervision.

LICENSED LAND SURVEYOR
STEFAN C. LANTHIER
LS 7259
Exp. 12/31/14
STATE OF CALIFORNIA

Stefan C. Lanthier 8-8-13

Stefan C. Lanthier, PLS 7259 date
Expiration 12-31-2014

EXHIBIT A-1



CORNERSTONE Cornerstone Land Surveying Inc. Civil ▪ Surveying ▪ Planning 958 Temescal Circle CORONA, CA 92879 PH 951-736-0200 FAX 951-736-0300	SKETCH TO ACCOMPANY LEGAL DESCRIPTION	SHEET 1 OF 1 SHEET
	DRIVEWAY ACCESS EASEMENT	DATE: 08-19-13
	PALMDALE, CALIFORNIA	JN 180-8

PALMDALE-DRIVEWAY1.dwg

LICENSED LAND SURVEYOR
STEFAN C. LANTHIER
LS 7259
Exp. 12/31/14
STATE OF CALIFORNIA

Parcel name: DW2 access esmt

North: 8224.1663 East : 10330.8551
Line Course: S 86-47-57 W Length: 35.08
North: 8222.2076 East : 10295.8298
Curve Length: 32.91 Radius: 20.00
Delta: 94-17-29 Tangent: 21.56
Chord: 29.32 Course: S 39-39-12 W
Course In: S 03-12-03 E Course Out: S 82-30-28 W
RP North: 8202.2388 East : 10296.9465
End North: 8199.6310 East : 10277.1173
Line Course: N 07-29-32 W Length: 66.72
North: 8265.7813 East : 10268.4176
Curve Length: 13.41 Radius: 20.36
Delta: 37-43-47 Tangent: 6.96
Chord: 13.17 Course: S 70-49-29 E
Course In: N 38-02-25 E Course Out: S 00-18-38 W
RP North: 8281.8164 East : 10280.9637
End North: 8261.4567 East : 10280.8533
Line Course: S 89-41-22 E Length: 22.77
North: 8261.3333 East : 10303.6230
Curve Length: 33.46 Radius: 22.00
Delta: 87-08-04 Tangent: 20.93
Chord: 30.32 Course: N 46-44-36 E
Course In: N 00-18-38 E Course Out: S 86-49-26 E
RP North: 8283.3330 East : 10303.7423
End North: 8282.1141 East : 10325.7085
Line Course: N 89-21-59 E Length: 169.84
North: 8283.9922 East : 10495.5381
Line Course: S 00-38-07 E Length: 58.00
North: 8225.9958 East : 10496.1812
Line Course: S 89-21-59 W Length: 165.34
North: 8224.1674 East : 10330.8513

Perimeter: 597.53 Area: 12,200 sq.ft. 0.28 acres

Mapcheck Closure - (Uses listed courses, radii, and deltas)
Error Closure: 0.0040 Course: N 74-16-30 W
Error North: 0.00108 East : -0.00383
Precision 1: 149,382.50

EXHIBIT E

LANDSCAPE EASEMENT

RECORDING REQUESTED BY
COUNTY OF LOS ANGELES

WHEN RECORDED MAIL TO:

County of Los Angeles
Real Estate Division
222 South Hill Street, 3rd Floor
Los Angeles, CA 90012
Attention: Director of Real Estate

Space above this line for Recorders use

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ASSESSOR'S IDENTIFICATION NUMBER
3008-033-907 (Portion)

THIS DOCUMENT IS EXEMPT FROM RECORDING FEES PURSUANT TO SECTION 27383 OF THE GOVERNMENT CODE

LANDSCAPE EASEMENT

For and in consideration of the mutual promises contained herein and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties, the parties agree as follows:

The **CITY OF PALMDALE** (CITY), does hereby grant and convey to the **COUNTY OF LOS ANGELES** (COUNTY), a body politic and corporate, a perpetual, non-exclusive, Landscape Easement to plant, maintain, replace, or remove landscaping and install irrigation-watering systems in, upon, over, under and across that certain portion of CITY's real property situated in the City of Palmdale, County of Los Angeles, State of California, legally described on Exhibit A and depicted on Exhibit A-1, attached hereto and made a part hereof by this reference (Easement Area).

Together with the right to enter upon and to pass and repass over and along the Easement Area to deposit tools, implements and other materials thereon by COUNTY, its officers, agents and employees and by any contractor, his agents and employees engaged by COUNTY, whenever and wherever necessary for the purposes set forth above.

All of the terms, covenants, conditions, and obligations set forth in this Landscape Easement shall inure to the benefit of and bind CITY and COUNTY, and their respective representatives, heirs, successors, transferees and assigns, and shall continue as a servitude running in perpetuity with CITY's property.

Dated 11/7/13

CITY OF PALMDALE

By____________________
James C. Ledford, Jr., Mayor

#2 OF NOV 26 2013

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT CIVIL CODE § 1189

State of California

County of Los Angeles

On 11/07/2013 before me, Lisa Roxanne Faber, Notary Public
Date Here Insert Name and Title of the Officer

personally appeared James C. Ledford, JR.
Name(s) of Signer(s)

LISA ROXANNE FABER
Commission # 2006845
Notary Public - California
Los Angeles County
My Comm. Expires Feb 9, 2017

who proved to me on the basis of satisfactory evidence to be the person(~~s~~) whose name(~~s~~) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(~~ies~~), and that by his/~~her/their~~ signature(~~s~~) on the instrument the person(~~s~~), or the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature: Lisa Roxanne Faber
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: ______

Document Date: ______ Number of Pages: ______

Signer(s) Other Than Named Above: ______

Capacity(ies) Claimed by Signer(s)

Signer's Name: ______		Signer's Name: ______	
☐ Corporate Officer — Title(s): ______		☐ Corporate Officer — Title(s): ______	
☐ Individual	RIGHT THUMBPRINT OF SIGNER	☐ Individual	RIGHT THUMBPRINT OF SIGNER
☐ Partner — ☐ Limited ☐ General	Top of thumb here	☐ Partner — ☐ Limited ☐ General	Top of thumb here
☐ Attorney in Fact		☐ Attorney in Fact	
☐ Trustee		☐ Trustee	
☐ Guardian or Conservator		☐ Guardian or Conservator	
☐ Other: ______		☐ Other: ______	
Signer Is Representing: ______		Signer Is Representing: ______	

#2 OF NOV 26 2013

EXHIBIT A

Being a portion of Block 13 of the Town and Suburbs of Palmdale, in the City of Palmdale, County of Los Angeles, State of California, as per map recorded in Book 52, Pages 55 and 56 of Miscellaneous Records, in the Office of the County Recorder of said County described in its entirety as follows:

Beginning at the intersection of the Westerly line of said Block 13, with a line that is parallel with and distant Northerly at right angles, 309.50 feet, from the North line of Avenue Q-6, formerly Walnut Street, 80 feet wide, as shown on said map;

Thence North 89°21'59" East along said parallel line, a distance of 59.36 feet to the a point in a non-tangent curve, concave northwesterly and having a radius of 22.00 feet, a radial line to said point bears South 86°49'26" East;

Thence southwesterly along said curve through a central angle of 87°08'03" an arc length of 33.46 feet;

Thence tangent to last said curve North 89°41'22" West, a distance of 22.77 feet to the beginning of a tangent curve, concave northerly and having a radius of 20.36 feet;

Thence westerly along said curve through a central angle of 37°43'48" an arc length of 13.41 feet to the aforesaid westerly line of Block 13;

Thence North 7°29'32" West along said westerly line, a distance of 15.81 feet to the point of beginning.

Containing 1,065 square feet, more or less.

Subject to easements, covenants, conditions, and restrictions of record, if any.

As shown on Exhibit A-1, attached hereto and by this reference made a part hereof.

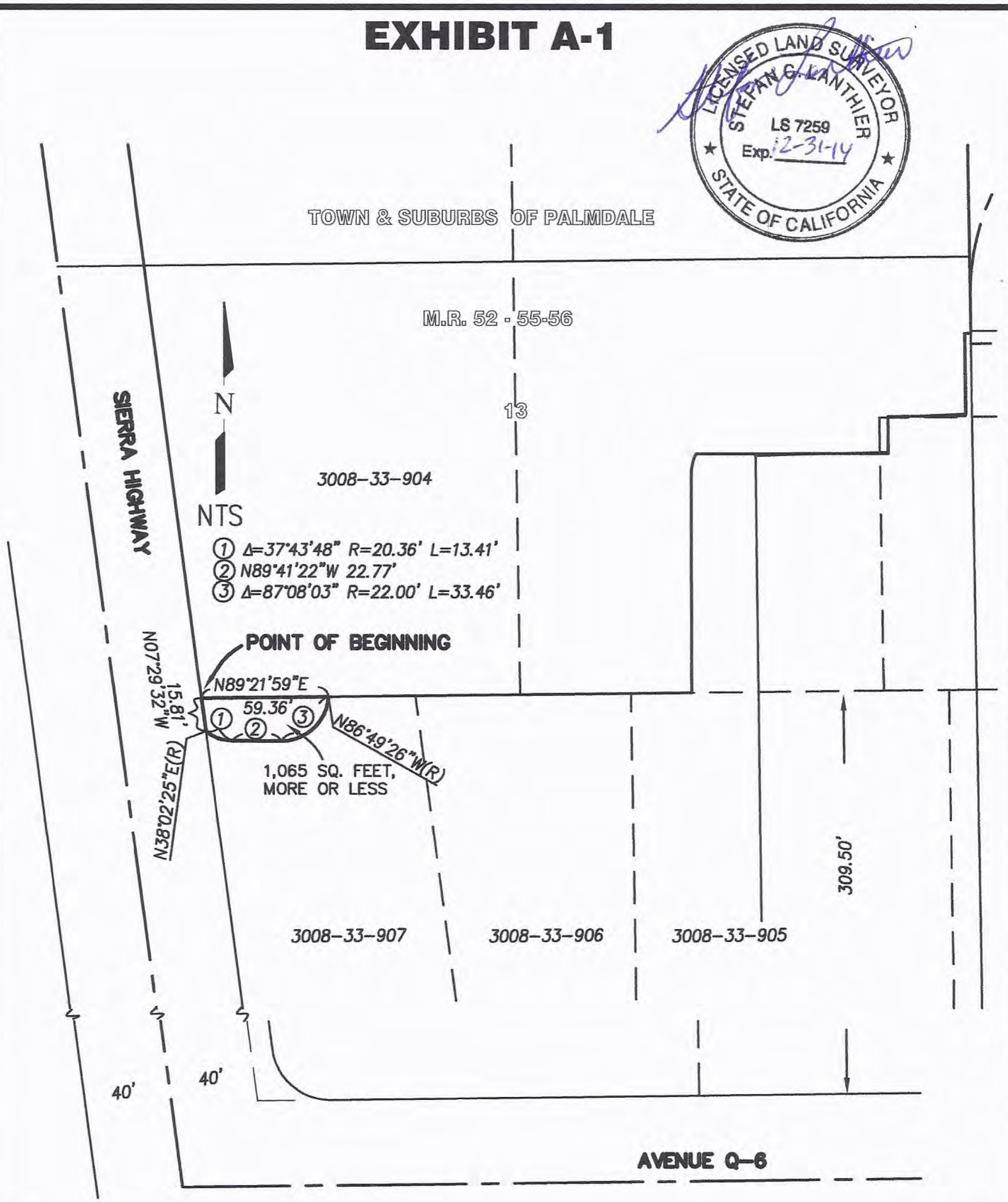
Prepared by me or under my supervision.

Stefan C. Lanthier 8-8-13

Stefan C. Lanthier, PLS 7259 date
Expiration 12-31-2014

LICENSED LAND SURVEYOR
STEFAN C. LANTHIER
LS 7259
Exp. 12/31/14
STATE OF CALIFORNIA

EXHIBIT A-1



CORNERSTONE Cornerstone Land Surveying Inc. Civil • Surveying • Planning 958 Temescal Circle CORONA, CA 92879 PH 951-736-0200 FAX 951-736-0300	SKETCH TO ACCOMPANY LEGAL DESCRIPTION	SHEET 1 OF 1 SHEET
	LANDSCAPE EASEMENT	DATE: 08-19-13
	PALMDALE, CALIFORNIA	JN 180-8

PALMDALE-LANDSCAPE.dwg

LICENSED LAND SURVEYOR
STEFAN C. LANTHIER
LS 7259
Exp. 12/31/14
STATE OF CALIFORNIA

Parcel name: LS esmt

North: 8261.3323 East : 10303.6307
Curve Length: 33.46 Radius: 22.00
Delta: 87-08-04 Tangent: 20.93
Chord: 30.32 Course: N 46-44-36 E
Course In: N 00-18-38 E Course Out: S 86-49-26 E
RP North: 8283.3320 East : 10303.7499
End North: 8282.1131 East : 10325.7161
Line Course: S 89-21-59 W Length: 59.36
North: 8281.4566 East : 10266.3598
Line Course: S 07-29-32 E Length: 15.81
North: 8265.7816 East : 10268.4213
Curve Length: 13.41 Radius: 20.36
Delta: 37-43-47 Tangent: 6.96
Chord: 13.17 Course: S 70-49-29 E
Course In: N 38-02-25 E Course Out: S 00-18-38 W
RP North: 8281.8167 East : 10280.9674
End North: 8261.4570 East : 10280.8570
Line Course: S 89-41-22 E Length: 22.77
North: 8261.3336 East : 10303.6267

Perimeter: 144.81 Area: 1,065 sq.ft. 0.02 acres

Mapcheck Closure - (Uses listed courses, radii, and deltas)
Error Closure: 0.0042 Course: N 72-10-10 W
Error North: 0.00128 East : -0.00397
Precision 1: 34,478.57

EXHIBIT F

ACCESS EASEMENT

RECORDING REQUESTED BY
COUNTY OF LOS ANGELES

WHEN RECORDED MAIL TO:

County of Los Angeles
Real Estate Division
222 South Hill Street, 3rd Floor
Los Angeles, CA 90012
Attention: Director of Real Estate

Space above this line for Recorders use

THIS DOCUMENT IS EXEMPT FROM DOCUMENTARY TRANSFER TAX PURSUANT TO SECTION 11922 OF THE REVENUE & TAXATION CODE

ASSESSOR'S IDENTIFICATION NUMBER
3008-033-901 (Portion)

THIS DOCUMENT IS EXEMPT FROM RECORDING FEES PURSUANT TO SECTION 27383 OF THE GOVERNMENT CODE

ACCESS EASEMENT

For and in consideration of the mutual promises contained herein and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties, the parties agree as follows:

The **COUNTY OF LOS ANGELES** (COUNTY), a body politic and corporate, does hereby grant and convey to the **CITY OF PALMDALE** (CITY), a perpetual, non-exclusive, Access Easement for pedestrian and vehicular ingress and egress purposes, and those appurtenances and uses commonly associated therewith, on, over, upon, and across that certain portion of COUNTY's real property situated in the City of Palmdale, County of Los Angeles, State of California, legally described on Exhibit A and depicted on Exhibit A-1, attached hereto and made a part hereof by this reference (Easement Area).

The parties acknowledge and agree that CITY shall have no obligation or responsibility for maintaining or repairing the Easement Area.

CITY agrees to defend, indemnify and hold harmless COUNTY, its officers, agents and employees, from and against any and all actions, demands, claims, liabilities, damages, losses, costs and expenses of every kind, nature and character, including but not limited to reasonable attorneys' and experts' fees, that arise in whole or in part from, or out of or in connection with CITY's use of or presence on the Easement Area. This indemnity shall continue so long as this Access Easement is in effect.

The rights granted to CITY herein under this Access Easement may not be assigned or delegated by CITY without the prior written consent of COUNTY. Any attempted assignment or delegation by CITY without the prior written consent of COUNTY shall be void.

Notwithstanding the foregoing, in the event CITY should sell its adjoining real property interest (Dominant Tenement), then this Access Easement shall automatically terminate and be of no further force or effect, and CITY shall promptly execute, acknowledge and deliver such instrument(s) for recordation as COUNTY may request to evidence such termination.

Dated NOV 26 2013

COUNTY OF LOS ANGELES
a body politic and corporate

By______________________
Chairman, Board of Supervisors
Los Angeles County

ATTEST: SACHI A. HAMAI
EXECUTIVE OFFICER
CLERK OF THE BOARD OF SUPERVISORS

By______________________, Deputy

Dated 11/7/13

CITY OF PALMDALE

By______________________
James C. Ledford, Jr., Mayor

#2 OF NOV 26 2013

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of Los Angeles

On 11/7/13 (Date) before me, Lisa Roxanne Faber, Notary Public (Here Insert Name and Title of the Officer)

personally appeared James C. Ledford, Jr. (Name(s) of Signer(s))

LISA ROXANNE FABER
Commission # 2006845
Notary Public - California
Los Angeles County
My Comm. Expires Feb 9, 2017

who proved to me on the basis of satisfactory evidence to be the person(~~s~~) whose name(~~s~~) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she~~/~~they~~ executed the same in his/~~her~~/~~their~~ authorized capacity(~~ies~~), and that by his/~~her~~/~~their~~ signature(~~s~~) on the instrument the person(~~s~~), or the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Lisa Roxanne Faber (Signature of Notary Public)

Place Notary Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: ____

Document Date: ____ Number of Pages: ____

Signer(s) Other Than Named Above: ____

Capacity(ies) Claimed by Signer(s)

Signer's Name: ____
- ☐ Individual
- ☐ Corporate Officer — Title(s): ____
- ☐ Partner — ☐ Limited ☐ General
- ☐ Attorney in Fact
- ☐ Trustee
- ☐ Guardian or Conservator
- ☐ Other: ____

Signer Is Representing: ____

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

Signer's Name: ____
- ☐ Individual
- ☐ Corporate Officer — Title(s): ____
- ☐ Partner — ☐ Limited ☐ General
- ☐ Attorney in Fact
- ☐ Trustee
- ☐ Guardian or Conservator
- ☐ Other: ____

Signer Is Representing: ____

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

#2 OF NOV 26 2013

EXHIBIT A

Being a portion of Block 13 of the Town and Suburbs of Palmdale, in the City of Palmdale, County of Los Angeles, State of California, as per map recorded in Book 52, Pages 55 and 56 of Miscellaneous Records, in the Office of the County Recorder of said County described in its entirety as follows:

Commencing at the intersection of the Westerly line of said Block 13, with a line that is parallel with and distant Northerly at right angles, 309.50 feet, from the North line of Avenue Q-6, formerly Walnut Street, 80 feet wide, as shown on said map;

Thence North 89°21'59" East along said parallel line, a distance of 229.20 feet to the **True Point of Beginning**;

Thence North 0°02'59" West, a distance of 103.39 feet to the beginning of a tangent curve, concave easterly and having a radius of 18.00 feet;

Thence northerly along said curve, through a central angle of 41°54'41" an arc length of 13.17 feet;

Thence tangent to last said curve, North 41°51'42" East, a distance of 17.67 feet to the beginning of a tangent curve, concave southerly and having a radius of 18.00 feet;

Thence easterly along said curve, through a central angle of 48°03'54" an arc length of 15.10 feet;

Thence tangent to last said curve, North 89°55'36" East, a distance of 98.36 feet;

Thence North 0°53'15" West, a distance of 28.00 feet;

Thence South 89°55'36" West, a distance of 97.96 feet to the beginning of a curve, concave southerly and having a radius of 46.00 feet;

Thence westerly along said curve, through a central angle of 48°03'54" an arc length of 38.59 feet;

Thence tangent to last said curve, South 41°51'42" West, a distance of 17.67 feet to the beginning of a curve, concave easterly and having a radius of 46.00 feet;

Thence southerly along said curve, through a central angle of 41°54'41" an arc length of 33.65 feet;

Thence tangent to last said curve, South 0°02'59" East, a distance of 103.72 feet to the aforesaid parallel line distant Northerly at right angles, 309.50 feet, from the North line of Avenue Q-6;

Thence North 89°21'59" East along said parallel line, a distance of 28.00 feet to the True Point of Beginning.

Containing 7551 square feet, more or less.

Subject to easements, covenants, conditions, and restrictions of record, if any.

As shown on Exhibit A-1, attached hereto and by this reference made a part hereof.

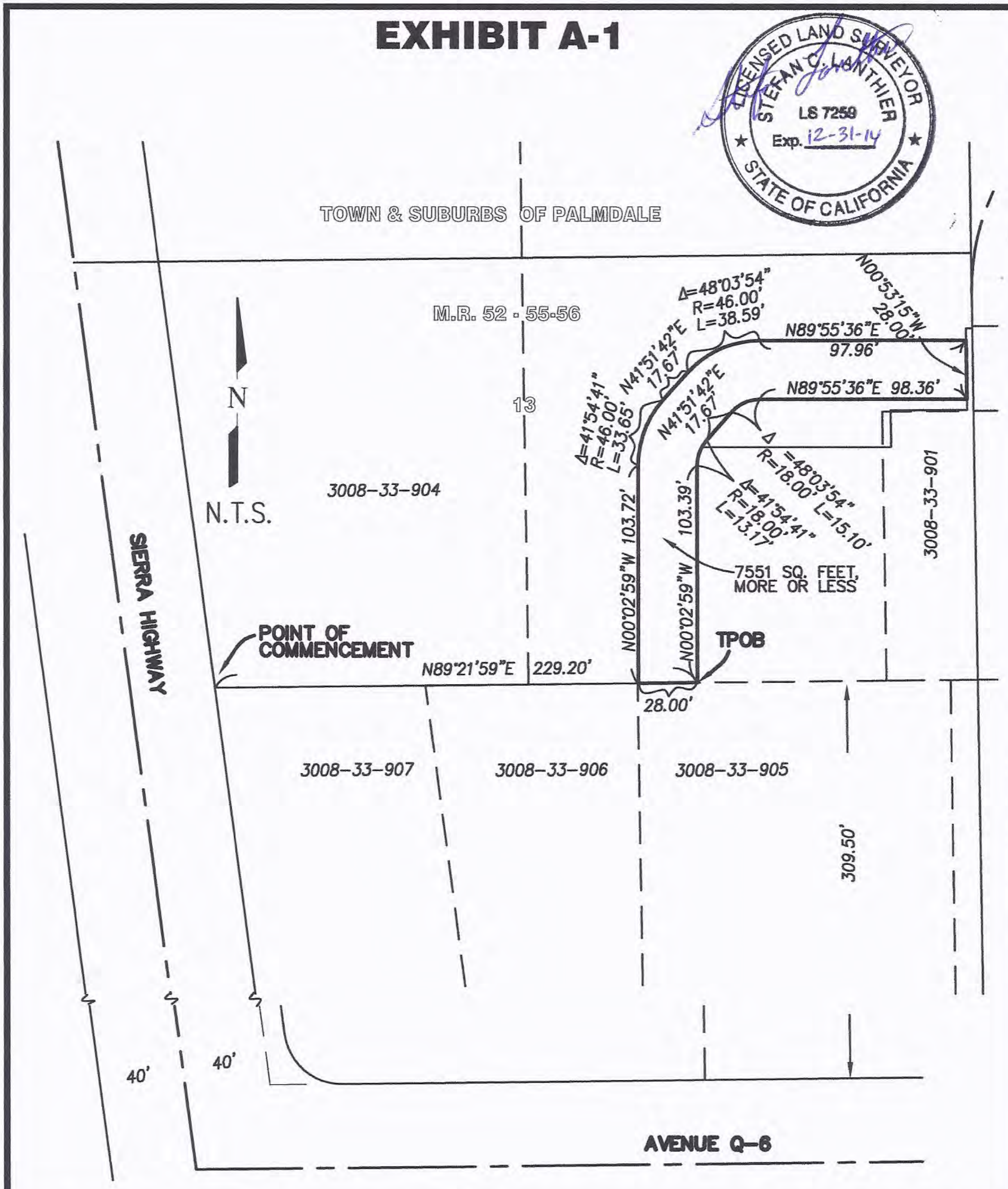
Prepared by me or under my supervision.

Stefan C. Lanthier 8-7-13

Stefan C. Lanthier, PLS 7259 date
Expiration 12-31-2014

LICENSED LAND SURVEYOR
STEFAN C. LANTHIER
LS 7259
Exp. 12/31/14
STATE OF CALIFORNIA

EXHIBIT A-1



CORNERSTONE
Cornerstone Land Surveying Inc.
Civil ▪ Surveying ▪ Planning
958 Temescal Circle
CORONA, CA 92879
PH 951-736-0200 FAX 951-736-0300

SKETCH TO ACCOMPANY LEGAL DESCRIPTION	SHEET 1 OF 1 SHEET
DRIVEWAY ACCESS EASEMENT	DATE: 08-19-13
PALMDALE, CALIFORNIA	JN 180-8

PALMDALE-DRIVEWAY1.dwg

LICENSED LAND SURVEYOR
STEFAN C. LANTHIER
LS 7259
Exp. 12-31-14
STATE OF CALIFORNIA

Parcel name: DW1 access esmt

North: 8283.6812 East : 10467.5423
Line Course: N 00-02-59 W Length: 103.72
North: 8387.4011 East : 10467.4523
Curve Length: 33.65 Radius: 46.00
Delta: 41-54-41 Tangent: 17.62
Chord: 32.90 Course: N 20-54-21 E
Course In: N 89-57-01 E Course Out: N 48-08-18 W
RP North: 8387.4411 East : 10513.4522
End North: 8418.1384 East : 10479.1934
Line Course: N 41-51-42 E Length: 17.67
North: 8431.2983 East : 10490.9852
Curve Length: 38.59 Radius: 46.00
Delta: 48-03-54 Tangent: 20.51
Chord: 37.47 Course: N 65-53-39 E
Course In: S 48-08-18 E Course Out: N 00-04-24 W
RP North: 8400.6009 East : 10525.2440
End North: 8446.6009 East : 10525.1852
Line Course: N 89-55-36 E Length: 97.96
North: 8446.7263 East : 10623.1451
Line Course: S 00-53-15 E Length: 28.00
North: 8418.7296 East : 10623.5788
Line Course: S 89-55-36 W Length: 98.36
North: 8418.6037 East : 10525.2189
Curve Length: 15.10 Radius: 18.00
Delta: 48-03-54 Tangent: 8.03
Chord: 14.66 Course: S 65-53-39 W
Course In: S 00-04-24 E Course Out: N 48-08-18 W
RP North: 8400.6038 East : 10525.2419
End North: 8412.6158 East : 10511.8363
Line Course: S 41-51-42 W Length: 17.67
North: 8399.4559 East : 10500.0445
Curve Length: 13.17 Radius: 18.00
Delta: 41-54-41 Tangent: 6.89
Chord: 12.88 Course: S 20-54-21 W
Course In: S 48-08-18 E Course Out: S 89-57-01 W
RP North: 8387.4439 East : 10513.4501
End North: 8387.4283 East : 10495.4501
Line Course: S 00-02-59 E Length: 103.43
North: 8283.9983 East : 10495.5399
Line Course: S 89-21-59 W Length: 28.00
North: 8283.6887 East : 10467.5416

Perimeter: 595.33 Area: 7,551 sq.ft. 0.17 acres

Mapcheck Closure - (Uses listed courses, radii, and deltas)
Error Closure: 0.0075 Course: N 05-15-59 W
Error North: 0.00749 East : -0.00069
Precision 1: 79,376.00

ATTACHMENT E

DEPARTMENT OF PUBLIC WORKS:
EAST ANTELOPE VALLEY ANIMAL CARE CENTER PROJECT
ADOPT MITIGATED NEGATIVE DECLARATION AND
MITIGATION MONITORING AND REPORTING PROGRAM
APPROVE PROJECT AND BUDGET
AWARD DESIGN-BUILD CONTRACT
AUTHORIZE LOCAL WORKER HIRING PROGRAM
APPROVE AND ORDER PUBLICATION OF NOTICE OF INTENTION TO PURCHASE REAL PROPERTY AND APPROVE RELATED ACTIONS
SPECS. 7003; CAPITAL PROJECT NO. 69570

DESIGN-BUILD PROPOSAL SUMMARY AND RANKING

Proposer	Best Value Score (Maximum. Score = 1,000 points)	Base Price Proposal
KPRS Construction Services, Inc.	742	$14,874,000
Sinanian Development, Inc.	736	$15,704,000
Mallcraft, Inc.	671	$21,730,000