



**CONSTRUCTION DOCUMENTS
FOR
JOB ORDER CONTRACT**

**TELECOMM STRUCTURED CABLING JOC –
COPPER AND FIBER BACKBONE 2021**

**UNIVERSITY OF CALIFORNIA
LOS ANGELES CAMPUS
LOS ANGELES, CALIFORNIA**

OCTOBER 2021

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ADVERTISEMENT FOR BIDS

Subject to conditions prescribed by the University of California, Los Angeles, sealed bids for a Job Order Contract are invited for the following work:

TELECOMM STRUCTURED CABLING JOC – COPPER AND FIBER BACKBONE 2021
Project Number ITSJOC-2021-01

DESCRIPTION OF WORK: University seeks to hire a Contractor to perform telecommunications structured cabling work that will be delivered by Job Order Contracts (JOC). As described in more details in the Bidding Documents, Work under the JOC will be limited to the following:

1. Intra-building and Inter-building structured cabling backbone work where the value of each job performed is between \$1 and \$250,000 and where the work is performed on the UCLA campus and off-campus University owned buildings.
2. Intra-building and Inter-building structured cabling backbone maintenance work where the value of each job performed is between \$1 and \$250,000 and where the work is performed on the UCLA campus and off-campus University owned buildings.

The following facility is excluded from this contract:

1. The UCLA Lake Arrowhead Conference Center located in Lake Arrowhead, CA.

The Job Order Contract will have a Maximum Contract Value of \$1,500,000.00 for the 1-year Base Term, and \$1,500,000.00 during each 1-year Option Term, if exercised by University.

BIDDING DOCUMENTS:

1. Bidding Documents will be available beginning on October 4, 2021 and will be issued at:
UCLA Online Planroom
Website: <https://www.uclaplanroom.com/>
2. Bidders may view the Bidding Documents online at the UCLA Online Planroom website and download the documents at no cost to user.

BID DEADLINE: Bids will be received only at the following location:

Contracts Administration
University of California, Los Angeles
1060 Veteran Avenue, Suite 125
Box 951365
Los Angeles, California 90095-1365
310-825-7015

and must be received at or before:

2:00 p.m., November 8, 2021

NOTE: PLEASE BE ADVISED THAT THE UCLA CONTRACTS ADMINISTRATION OFFICE IS CURRENTLY CLOSED BUT WILL BE OPEN FOR RECEIPT OF BIDS FOR THIS PROJECT APPROXIMATELY 30 MINUTES PRIOR TO THE ABOVE-SPECIFIED BID DEADLINE. BIDDERS SHALL PLAN THEIR BID SUBMISSION ACCORDINGLY.

MANDATORY PRE-BID CONFERENCE: A mandatory Pre-Bid Conference will be conducted on October 11, 2021 beginning promptly at 10:00 a.m. The mandatory Pre-Bid Conference will be conducted via ZOOM and shall begin promptly at 10:00 a.m. Only bidders who participate in the Conference in its entirety, will be allowed to bid on the Project as prime contractors. For further information, contact Zachary Patalingjug at -310-267-4444.

MANDATORY PRE-BID CONFERENCE VIA ZOOM: Participants must log onto the Zoom meeting at or before 10:00 a.m. (See ZOOM meeting instructions below.) Persons logging in later than said time will not be allowed to bid on the Project as prime contractors.

Join by Computer by accessing the link below:

<https://ucla.zoom.us/j/94157825139>

Meeting ID: 941 5782 5139

Joint by telephone by dialing on of the numbers below:

- +1 669 219 2599 US (San Jose)
- +1 213 338 8477 US (Los Angeles)
- +1 346 248 7799 US (Houston)
- +1 312 626 6799 US (Chicago)
- +1 646 558 8656 US (New York)

Find your local number: <https://ucla.zoom.us/j/94157825139>

LICENSE REQUIREMENTS: The successful Bidder will be required to have one of the following California current and active contractor's licenses at the time of submission of the Bid:

C-10 License (Electrical) or C-07 License (Low Voltage Systems)

PREQUALIFICATION: To be allowed to submit a bid, Bidders must have the minimum experience set forth in the Prequalification Questionnaire contained in the Bidding Documents and posted on the UCLA Online Planroom website. Bidder's completed Prequalification Questionnaire must be received at the above-listed University Contracts Administration office in a sealed envelope, or uploaded to the UCLA Online Planroom website, no later than:

3:00 p.m., October 18, 2021

Every effort will be made to ensure that all persons have equal access to contracts and other business opportunities with the University within the limits imposed by law or University policy. Each Bidder may be required to show evidence of its equal employment opportunity policy. The successful Bidder and its subcontractors will be required to follow the nondiscrimination requirements set forth in the Bidding Documents and to pay prevailing wage at the location of the work.

The work described in the contract is a public work subject to section 1771 of the California Labor Code.

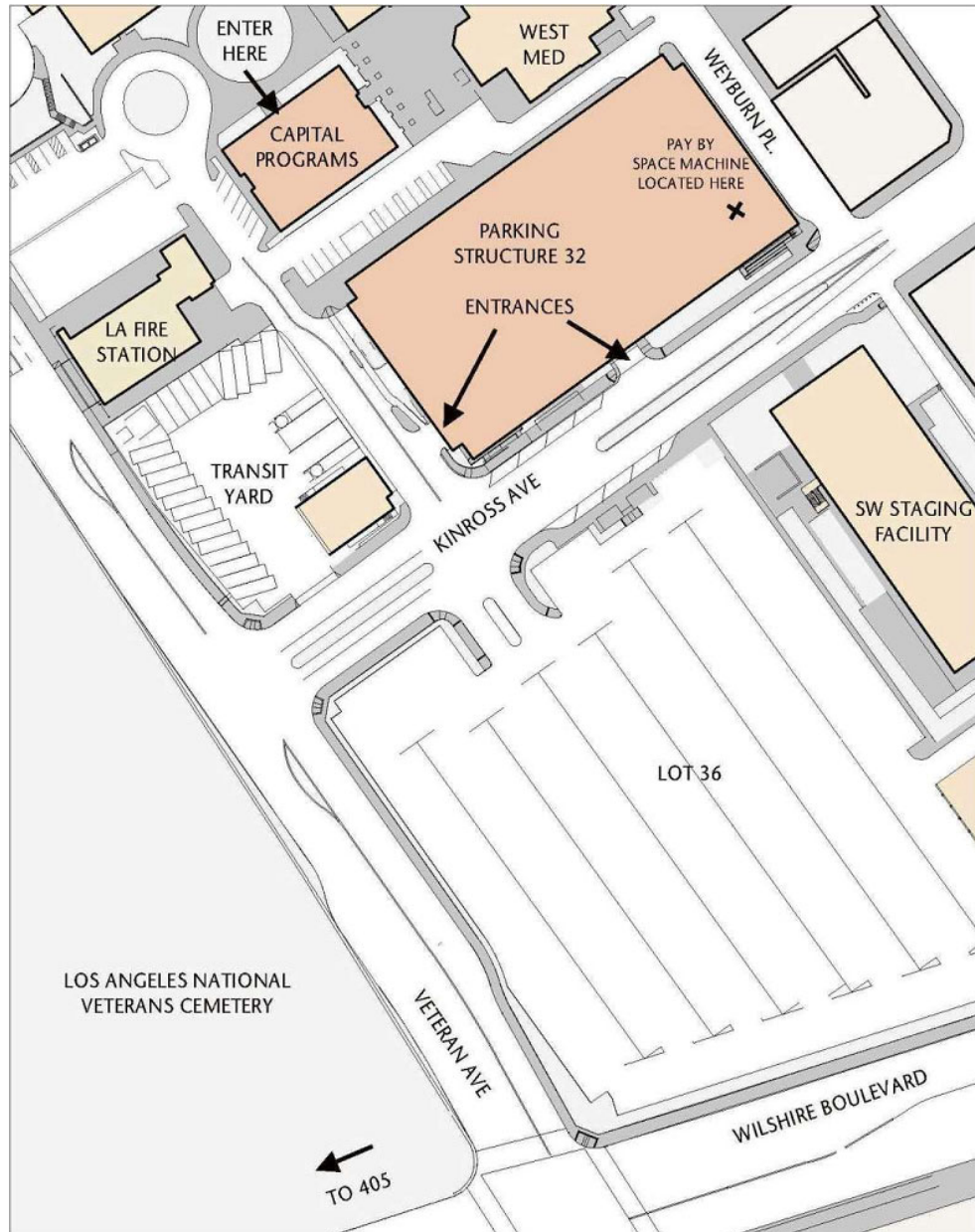
No contractor or subcontractor, regardless of tier, may be listed on a Bid for, or engage in the performance of, any portion of this project, unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 and 1771.1.

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

The successful Bidder shall pay all persons providing construction services and/or any labor on site, including any University location, no less than the UC Fair Wage (defined as \$15 per hour) and shall comply with all applicable federal, state and local working condition requirements.

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
(Visit our website at: <https://www.uclaplanroom.ucla.edu>)

CAMPUS MAP



CAPITAL PROGRAMS BUILDING:

1060 Veteran Avenue
Los Angeles, CA 90095
Contracts Tel: 310-825-7015

OFFICE HOURS:

Monday through Friday
8:00am to 12:00pm and
1:00pm to 4:00pm

DIRECTIONS:

Exit 405 Fwy at Wilshire Blvd.
Take Wilshire Blvd. east towards Westwood.
Turn left (north) onto Veteran Ave.
Turn right (east) onto Kinross Ave. and into
UCLA Parking Lot 36/Parking Structure 32
Pay for and obtain a parking permit at a Pay Station
(southeast corner of Parking Structure 32).
The Capital Programs Building is located just north of
Parking Structure 32.

PROJECT DIRECTORY

Project Name	TELECOMM STRUCTURED CABLING JOC – COPPER AND FIBER BACKBONE 2021
Project Number	ITSJOC-2021-01
Location	University of California, Los Angeles
University	The Regents of the University of California
University Representative	Zachary Patalingjug UCLA Information Technology Services BOX 957245, Ste 1200, UCLA Wilshire Cntr Los Angeles, CA 90095-7245 310-267-4444
All bidding inquiries shall be directed only to:	Zachary Patalingjug EMAIL: zpatalingjug@it.ucla.edu
Address for Stop Notices:	Zachary Patalingjug UCLA Information Technology Services BOX 957245, Ste 1200, UCLA Wilshire Center Los Angeles, CA 90095-7245
Address for Demand for Arbitration:	Western Case Management Center 6795 N. Palm Ave., 2nd Floor Fresno, CA 93704
A copy of the Demand for Arbitration must be sent to:	University of California Office of the General Counsel 1111 Franklin St., 8th Floor Oakland, CA 94607-5200

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ARTICLE 1
DEFINITIONS

- 1.1 Except as otherwise specifically provided, definitions set forth in the General Conditions or in other Contract Documents are applicable to all Bidding Documents.
- 1.2 The term “Addenda” means written or graphic instruments issued by University prior to the Bid Deadline which modify or interpret the Bidding Documents by additions, deletions, clarifications, or corrections.
- 1.3 “Adjustment Factor” – See Article 1, Subparagraph 1.1.1 of the General Conditions.
- 1.4 The term “Bid Deadline” means the date and time on or before which Bids must be received, as designated in the Advertisement for Bids and which may be revised by Addenda.
- 1.5 The term “Bidder” means a person or firm that submits a Bid.
- 1.6 The term “Bidding Documents” means the construction documents prepared and issued for bidding purposes including all Addenda thereto.
- 1.7 NOT USED
- 1.8 As used in these Instructions to Bidders, the term “Business Day” means any day other than a Saturday, a Sunday, and the holidays specified herein, and to the extent provided herein, if Facility or applicable office of University is closed for the whole of any day, insofar as the business of that office is concerned, that day shall be considered as a holiday for the purposes of computing time in these Instructions to Bidders. Holidays include January 1st and either December 31st or January 2nd, the third Monday in January, the third Monday in February, the last Friday in March, the last Monday in May, July 4th and either July 3rd or July 5th if it falls on a weekend, the first Monday in September, November 11th and either November 10th or November 12th if it falls on a weekend, Thanksgiving Day and the Friday after, December 25th and either December 24th or December 26th, and every day designated by University as a holiday.
- 1.9 NOT USED.
- 1.10 As used in these Instructions to Bidders, the term “Facility” means the University's Facility office issuing the Bidding Documents.
- 1.11 This Job Order Contract (JOC) is an indefinite quantity contract pursuant to which the Contractor will perform an ongoing series of individual Job Orders, consisting of specific construction tasks, at different locations. The scope of this JOC Contract is for general construction, repair, remodel and other repetitive related work to be performed for the University.
- As jobs are identified, the University will prepare a Detailed Scope of Work and issue a Request for Schedule of Values to the Contractor. The Contractor will then prepare a Job Order Schedule of Values for the work including a Job Order Sum, drawings and sketches, a list of subcontractors and materialmen, construction schedule, and other requested documentation. The value of the Job Order Sum shall be calculated by summing the total of the calculation for each Pre-priced Task (Unit Price x quantity x Adjustment Factor) plus the value of all Non-Pre-priced Tasks.
- 1.12 The term “Planholder” means a person or entity known by the Facility to have received a complete set of Bidding Documents and who has provided a street address for receipt of any written pre-bid communications.
- 1.13 The Scope of Work for this Contract will be determined by the Detailed Scopes of Work issued in connection with individual Job Orders. The Scope of Work, for each job will be explained to the Contractor at a Joint Scope Meeting. The University will provide a Request for Job Order Schedule of Values and Detailed Scope of Work to the Contractor. The Contractor will be required to review the Detailed Scope of Work and develop a Schedule of Values using appropriate tasks, quantities and the applicable Adjustment Factor. A separate Job Order Authorization will be issued for each job. Extra work, credits, and deletions will be contained in a Supplemental Job Order. The University will review the Contractor's Schedule of Values in detail and if found to be reasonable and acceptable, a Job Order may be issued. The agreed upon price will be a fixed price for the performance of the Detailed Scope of Work.
- See Supplementary Instructions to Bidders
- 1.14 The term “Total Composite Bid” means the calculated amount in the Total Award Criteria Figure Calculation section in the Bid Form used to determine the low bid as determined therein.

ARTICLE 2
BIDDER'S REPRESENTATIONS

- 2.1 Bidder, by making a Bid, represents that:
- 2.1.1 Bidder has read, understood, and made the Bid in accordance with the provisions of the Bidding Documents.
- 2.1.2 Bidder is familiar with the conditions under which the Work is to be performed and the local conditions as related to the requirements of the Contract Documents.
- 2.1.3 The Bid is based upon the materials, equipment, and systems required by the Bidding Documents without exception.
- 2.1.4 At the time of submission of the Bid, Bidder shall have the appropriate current and active licenses issued by the State of California Contractors State License Board for the Work to be performed and any licenses specifically required by the Bidding Documents. If Bidder is a joint venture, at the time of submission of the Bid, Bidder shall have the licenses required by the preceding sentence in the name of the joint venture itself. The State of California Business and Professions Code, Division 3, Chapter 9, known as the “Contractor's License Law,” establishes licensing requirements for contractors.

- 2.1.5 Bidder has read and shall abide by the nondiscrimination requirements contained in the Bidding Documents.
- 2.1.6 Bidder has the expertise and financial capacity to perform and complete all obligations under the Bidding Documents.
- 2.1.7 The person executing the Bid Form is duly authorized and empowered to execute the Bid Form on behalf of Bidder.
- 2.1.8 Bidder is aware of and, if awarded the Contract, will comply with Applicable Code Requirements in its performance of the Work.

ARTICLE 3
BIDDING DOCUMENTS

3.1 COPIES

- 3.1.1 ~~Bidders may obtain complete sets of the Bidding Documents from the issuing office designated in the Advertisement for Bids at no cost.~~

See Supplementary Instructions to Bidders

- 3.1.2 Bidders shall use a complete set of Bidding Documents in preparing Bids.
- 3.1.3 University makes copies of the Bidding Documents available, on the above terms, for the sole purpose of obtaining Bids for the Work and does not confer a license or grant permission for any other use of the Bidding Documents.

3.2 INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS

- 3.2.1 Bidder shall, before submitting its Bid, carefully study and compare the components of the Bidding Documents; shall examine the local conditions; and shall at once report to University's Representative errors, inconsistencies, or ambiguities discovered. If Bidder is awarded the Contract, Bidder waives any claim arising from any errors, inconsistencies or ambiguities, that Bidder, its subcontractors or suppliers, or any person or entity under Bidder on the Contract became aware of, or reasonably should have become aware of, prior to Bidder's submission of its Bid.

- 3.2.2 Requests for clarification or interpretation of the Bidding Documents shall be addressed only to the person or firm designated in the Supplementary Instructions to Bidders.

- 3.2.3 Clarifications, interpretations, corrections, and changes to the Bidding Documents will be made by Addenda issued as provided in Article 3.5. Clarifications, interpretations, corrections, and changes to the Bidding Documents made in any other manner shall not be binding and Bidders shall not rely upon them.

3.3 PRODUCT SUBSTITUTIONS

- 3.1.1 No substitutions will be considered prior to award of Contract. Substitutions will only be considered after award of the Contract and as provided for in the Contract Documents.

3.4 NOT USED

3.5 ADDENDA

- 3.5.1 ~~Addenda will be issued only by University and only in writing. Addenda will be identified as such and will be mailed or delivered to all Planholders. At its sole discretion, the University may elect to deliver Addenda via facsimile to Planholders who have provided a facsimile number for receipt of Addenda.~~

See Supplementary Instructions to Bidders

- 3.5.2 Copies of Addenda will be made available for inspection wherever Bidding Documents are on file for inspection.
- 3.5.3 Addenda will be issued such that Planholders should receive them no later than 3 full business days prior to the Bid Deadline. Addenda withdrawing the request for Bids or postponing the Bid Deadline may be issued any time prior to the Bid Deadline.
- 3.5.4 Each Bidder shall be responsible for ascertaining, prior to submitting a Bid, that it has received all issued Addenda.

3.6 BUILDER'S RISK PROPERTY INSURANCE

- 3.6.1 University will provide builder's risk property insurance subject to the deductibles in the policy as required by the General Conditions if the requirements of the Project are not excluded by such coverage. A summary of the provisions of the policy is included as an Exhibit to the Contract; the policy may be reviewed at the Facility office. Bidder agrees that the University's provision of builder's risk property insurance containing said provisions meets the University's obligation to provide builder's risk property insurance under the Contract and, in the event of a conflict between the provisions of the policy and any summary or description of the provisions contained herein or otherwise, the provisions of the policy shall control and shall be conclusively presumed to fulfill the University's obligation to provide such insurance.

ARTICLE 4
PRE-BID CONFERENCE

- 4.1 ~~Bidder shall attend the Pre Bid Conference at which the requirements of the Bidding Documents are reviewed by University, comments and questions are received from Bidders. University requires all Pre Bid Conference attendees to arrive for the meeting on~~

~~time and to sign an attendance list, which in turn is used to determine if Bidders meet this requirement. Any Bidder not attending the Pre-Bid Conference in its entirety will be deemed to have not complied with the requirements of the Bidding Documents and its Bid will be rejected.~~

See Supplementary Instructions to Bidders

ARTICLE 5 **BIDDING PROCEDURES**

5.1 FORM AND STYLE OF BIDS

5.1.1 Bids shall be submitted on the Bid Form included with the Bidding Documents. Bids not submitted on the University's Bid Form shall be rejected.

5.1.2 The Bid Form shall be filled in legibly in ink or by typewriter. All portions of the Bid Form must be completed and the Bid Form must be signed before the Bid is submitted. Failure to comply with the requirements of this Article 5.1.2 will result in the Bid being rejected as non-responsive.

5.1.3 Bidder's failure to submit an Adjustment Factor(s) will result in the Bid being considered as non-responsive.

5.1.4 Bidder shall make no stipulations on the Bid Form nor qualify the Bid in any manner.

5.1.5 The Bid Form shall be signed by a person or persons legally authorized to bind Bidder to a contract. Bidder's Representative shall sign and date the Declaration included in the Bid Form. Failure to sign and date the declaration will cause the Bid to be rejected.

5.2 BID SECURITY

5.2.1 Each Bid shall be accompanied by Bid Security in the amount of \$25,000 as security for Bidder's obligation to enter into a Contract with University on the terms stated in the Bid Form and to furnish all items required by the Bidding Documents. Bid Security shall be a Bid Bond on the form provided by University and included herein, or a certified check made payable to "The Regents of the University of California." When a Bid Bond is used for Bid Security, failure to use University's Bid Bond form will result in the rejection of the Bid. Bidder must use the Bid Bond form provided by the University or an exact, true and correct photocopy of such form. The Bid Bond form may not be retyped, reformatted, transcribed onto another form, or altered in any manner except for the purpose of completing the form.

5.2.2 If the apparent lowest responsible Bidder fails to sign the Agreement and furnish all items required by the Bidding Documents within the time limits specified in these Instructions to Bidders, University may reject such Bidder's Bid and select the next apparent lowest responsible Bidder until all Bids have been exhausted or University may reject all Bids. The Bidder whose Bid is rejected for such failure(s) shall be liable for and forfeit to University the amount of the difference, not to exceed the amount of the Bid Security, between the amount of the Bid of the Bidder so rejected and the greater amount for which University procures the Work.

5.2.3 If a Bid Bond is submitted, the signature of the person executing the Bid Bond must be notarized. If an attorney-in-fact executes the Bid Bond on behalf of the surety, a copy of the current power of attorney bearing the notarized signature of the appropriate corporate officer shall be included with the Bid Bond. Additionally, the surety issuing the Bid Bond shall be, on the Bid Deadline, an admitted surety insurer (as defined in the California Code of Civil Procedure Section 995.120).

5.2.4 Bid Security will be returned after the contract has been awarded. Notwithstanding the preceding, if a Bidder fails or refuses, within 10 days after receipt of notice of selection, to sign the Agreement or submit to University all of the items required by the Bidding Documents, the University will retain that Bidder's Bid Security. If the Bid Security is in the form of a Bid Bond, the Bid Security will be retained until the University has been appropriately compensated; if the Bid Security is in the form of certified check, the University will negotiate said check and after deducting its damages, return any balance to Bidder.

5.3 SUBMISSION OF BIDS

5.3.1 The Bid Form, Bid Security, and all other documents required to be submitted with the Bid shall be enclosed in a sealed opaque envelope. The envelope shall be addressed to the office designated in the Supplementary Instructions to Bidders for receipt of Bids. The envelope shall be identified with the Project name, Bidder's name and address, and, if applicable, the designated portion of the Project for which the Bid is submitted. If the Bid is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "SEALED BID ENCLOSED" on the face thereof.

5.3.2 Bids shall be deposited at the designated location on or before the Bid Deadline. A Bid received after the Bid Deadline will be returned to Bidder unopened.

5.3.3 Bidder shall assume full responsibility for timely delivery at the location designated for receipt of Bids.

5.3.4 Oral, telephonic, electronic (e-mail), facsimile, or telegraphic Bids are invalid and will not be accepted.

5.4 MODIFICATION OR WITHDRAWAL OF BID

5.4.1 Prior to the Bid Deadline, a submitted Bid may be modified or withdrawn by notice to the Facility receiving Bids at the location designated for receipt of Bids. Such notice shall be in writing over the signature of Bidder and, in order to be effective, must be received on or before the Bid Deadline. A modification so made shall be worded so as not to reveal the amount of the original Bid.

5.4.2 A withdrawn Bid may be resubmitted on or before the Bid Deadline, provided that it then fully complies with the Bidding Requirements.

5.4.3 Bid Security shall be in an amount sufficient for the Bid as modified or resubmitted.

5.4.4 Bids may not be modified, withdrawn, or canceled within 60 days after the Bid Deadline unless otherwise provided in Supplementary Instructions to Bidders.

ARTICLE 6
CONSIDERATION OF BIDS

6.1 OPENING OF BIDS

6.1.1 Bids which have the required identification as stipulated in Article 5.3.1 and are received on or before the Bid Deadline will be opened publicly.

6.2 REJECTION OF BIDS

6.2.1 University will have the right to reject all Bids.

6.2.2 University will have the right to reject any Bid not accompanied by the required Bid Security or any other item required by the Bidding Documents, or a Bid which is in any other way incomplete or irregular.

6.3 AWARD

6.3.1 University will have the right, but is not required, to waive nonmaterial irregularities in a Bid. If the University awards the Contract, it will be awarded to the responsible Bidder submitting the lowest responsive Bid as determined by University and who is not rejected by University for failing or refusing, within 10 days after receipt of notice of selection, to sign the Agreement or submit to University all of the items required by the Bidding Documents.

6.3.2 NOT USED

6.3.3 NOT USED

6.3.4 University will determine the apparent low Bidder on the basis of the Total Composite Bid as defined in Article 1 in these Instructions to Bidders.

6.3.5 The University will post the Bid results in a public place at the address where the Bids are received (unless another address is specified in the Bidding Documents).

6.3.6 University will select the apparent lowest responsive and responsible Bidder and notify such Bidder on University's form within 50 days (unless the number of days is modified in Supplementary Instructions to Bidders) after the Bid Deadline or reject all Bids. Within 10 days after receipt of notice of selection as the apparent lowest responsive and responsible Bidder, Bidder shall submit to University all of the following items:

- .1 Three originals of the Agreement signed by Bidder.
- .2 Three originals of the Payment Bond required under Article 11 of the General Conditions.
- .3 Three originals of the Performance Bond required under Article 11 of the General Conditions.
- .4 Certificates of Insurance on form provided by University required under Article 11 of the General Conditions.
- .5 Name of, qualifications of, and references for the Project Manager proposed for the Contract.

See Supplementary Instructions to Bidders

6.3.7 Prior to award of the Contract, University will notify Bidder in writing, if University, after due investigation, objects to Project Manager proposed by Bidder, in which case Bidder shall propose a substitute acceptable to University. Failure of University to object to a proposed Project Manager prior to award shall not preclude University from requiring replacement of the Project Manager based upon information received subsequent to award, information which cannot be properly evaluated prior to award due to time constraints, or information relating to a failure to comply with the requirements of the Contract.

6.3.8 If Bidder submits three originals of the signed Agreement and all other items required to be submitted to University within 10 days after receipt of notice of selection as the apparent lowest responsive and responsible Bidder, and if all such items comply with the requirements of the Bidding Documents and are acceptable to University, University will award the Contract to Bidder by signing the Agreement and returning a signed copy of the Agreement to Bidder.

6.3.9 If University consents to the withdrawal of the Bid of the apparent lowest responsive and responsible Bidder, or the apparent lowest responsive and responsible Bidder fails or refuses to sign the Agreement or submit to University all of the items required by the Bidding Documents, within 10 days after receipt of notice of selection, or that Bidder is not financially or otherwise qualified to perform the Contract, University may reject such Bidder's Bid and select the next apparent lowest responsive Bidder, until all Bids are exhausted, or reject all Bids. Any Bidder whose Bid is rejected because the Bidder has failed or refused, within 10 days after receipt of notice of selection, to sign the Agreement or submit to University all of the items required by the Bidding Documents, shall be liable to the University for all resulting damages.

See Supplementary Instructions to Bidders

ARTICLE 7
BID PROTEST

7.1 FILING A BID PROTEST

7.1.1 Any Bidder, person, or entity may file a Bid protest. The protest shall specify the reasons and facts upon which the protest is based and shall be in writing and received by the Facility not later than 5:00 p.m. on the 3rd business day following:

- .1 if the Bid Form does not contain any Alternate(s), the date of the Bid opening;
- .2 if the Bid Form contains any Alternate(s), the date of posting in a public place of Bid results.

7.1.2 If a Bid is rejected by the Facility, and such rejection is not in response to a Bid protest, any Bidder, person or entity may dispute that rejection by filing a Bid protest (limited to the rejection) in writing and received by the Facility not later than 5:00 p.m. on the 3rd business day following the rejected Bidder's receipt of the notice of rejection.

7.1.3 For the purpose of computing any time period in this Article 7, the date of receipt of any notice shall be the date on which the intended recipient of such notice actually received it. Delivery of any notice may be by any means, with verbal or written confirmation of receipt by the intended recipient.

7.2 RESOLUTION OF BID CONTROVERSY

7.2.1 Facility will investigate the basis for the Bid protest and analyze the facts. Facility will notify Bidder whose Bid is the subject of the Bid protest of evidence presented in the Bid protest and evidence found as a result of the investigation, and, if deemed appropriate, afford Bidder an opportunity to rebut such evidence, and permit Bidder to present evidence that it should be allowed to perform the Work. If deemed appropriate by Facility, an informal hearing will be held. Facility will issue a written decision within 15 days following receipt of the Bid protest, unless factors beyond Facility's reasonable control prevent such a resolution, in which event such decision will be issued as expeditiously as circumstances reasonably permit. The decision will state the reasons for the action taken by Facility. A written copy of the decision will be furnished to the protestor, the Bidder whose Bid is the subject of the Bid protest, and all Bidders affected by the decision. As used in this Article 7, a Bidder is affected by the decision on a Bid protest if a decision on the protest could have resulted in the Bidder not being the lowest responsible and responsive Bidder for the Contract. A written copy of the Facility's decision must be received by the protestor, the Bidder whose Bid is the subject of the Bid protest, and all Bidders affected by the decision no later than 3 business days prior to award of the contract.

7.2.2 Notwithstanding the provisions of Article 7.2.1, at the election of Facility, a Bid protest may be referred directly to University's Construction Review Board without prior investigation and review by Facility. The Chair of the Construction Review Board will either decide the Bid protest or appoint a Hearing Officer. If a Hearing Officer is appointed, the Hearing Officer will review the Bid protest in accordance with the provisions of Article 7.2.4.

7.2.3 Bidder whose Bid is the subject of the protest, all Bidders affected by the Facility's decision on the protest, and the protestor have the right to appeal to the Construction Review Board if not satisfied with Facility's decision. The appeal must be in writing and shall specify the decision being appealed and all the facts and circumstances relied upon in support of the appeal. A copy of the appeal must be received by the Chair, Construction Review Board, not later than 5:00 p.m. on the 3rd business day following appellant's receipt of the written decision of Facility, at the following address:

Chair, Construction Review Board
University of California
Office of the President
1111 Franklin Street, 6th Floor
Oakland, CA 94607-5200
Attention: Director, Construction Services

And, by e-mail to:

constructionreviewboard@ucop.edu

A copy of the appeal must be sent to all parties involved in the Bid protest and to Facility, to the same address and in the same manner as the original protest. An appeal received after 5:00 p.m. is considered received as of the next business day. If the final date for receipt of an appeal falls on a Saturday, Sunday, or University holiday, the appeal will be considered timely only if received by 5:00 p.m. on the following business day. The burden of proving timely receipt of the appeal is on the appealing party.

7.2.4 The Chair of the Construction Review Board will review the Facility's decision and the appeal, and issue a written decision, or if appropriate, appoint a Hearing Officer to conduct a hearing and issue a written decision. If a hearing is held, the hearing shall be held not later than the 10th day following the appointment of the Hearing Officer unless the Hearing Officer for good cause determines otherwise. The written decision of the Chair or Hearing Officer will state the basis of the decision, and the decision will be final and not subject to any further appeal to University. The Chair or Hearing Officer may consult with the University's Office of the General Counsel on the decision as to legal form. The University will complete its internal Bid protest procedures before award of the Contract.

END OF INSTRUCTIONS TO BIDDERS

SUPPLEMENTARY INSTRUCTIONS TO BIDDERS

1. Requests for clarification or interpretation of the Bidding Documents shall be addressed only to the person or firm listed in the Project Directory, bound herein.
2. The Pre-Bid Conference will be conducted at the time and location specified in the Advertisement for Bids, bound herein. (Attendance at the Pre-Bid Conference is mandatory.)
3. Bids will be received on or before the Bid Deadline specified in the Advertisement for Bids, bound herein.
4. Bids will be opened at the location specified in the Advertisement for Bids, bound herein.
5. **Prequalification:** To be allowed to submit a bid, Bidders must have the minimum experience described in the Prequalification Questionnaire contained in the Bidding Documents and also posted on the website listed in the Advertisement for Bids. To allow University to evaluate Bidders, each Bidder must: complete the Prequalification Questionnaire (no other form will be accepted) consisting of an experience record and required attachments (if any); and either place it in a sealed envelope and submit it so that it is received at the place and time stipulated in the Advertisement for Bids, or upload it to the UCLA Online Planroom so that it is received by the time stipulated in the Advertisement for Bids. University reserves the right (but is not obligated) to request, receive and evaluate supplemental information after the specified time and date at its sole determination. The envelope shall be clearly labeled, "Prequalification Documents" and state the project name and Bidder name. (NOTE: Oral, telephonic, electronic mail (e-mail), facsimile or telegraphic qualifications are invalid and will not be accepted.)
6. **California State General Prevailing Wage Determination:** The California State General Prevailing Wage Determination for this Project is 2021-2. Bidder is required to refer to the California Department of Industrial Relations website (<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>) and confirm the correct Prevailing Wage Determination for this Project.
7. Add the following to the end of Article 1.13:

The Bidding Documents include a Construction Task Catalog® (CTC) containing a series of construction tasks with preset Unit Prices. The CTC was developed using experienced labor and high quality materials. All Unit Prices are based on local labor, material and equipment prices including the current prevailing wages and are the direct cost of construction. The Contractor will bid Adjustment Factor(s) to be applied to the Unit Prices. The price of an individual project will be determined by multiplying the preset Unit Prices and the appropriate quantities by the appropriate Adjustment Factor. The Adjustment Factor(s) shall apply to every Pre-priced Task in the Construction Task Catalog®.
8. Article 3.1.1 of the Instructions to Bidders is replaced with the following revised article:

3.1.1 Bidders may obtain complete sets of the Bidding Documents as indicated in the Advertisement for Bids.
9. Article 3.5.1 of the Instructions to Bidders is replaced with the following revised article:

3.5.1 Addenda will be issued only by University. Addenda will be identified as such and will be posted on the UCLA Online Planroom website (<https://www.uclaplanroom.com>). At its sole discretion, the University may elect to deliver Addenda via facsimile or via e-mail to Planholders who have provided a facsimile number or an e-mail address for receipt of Addenda.
10. Article 4.1 of the Instructions to Bidders is replaced with the following revised article:

4.1 Bidder shall attend the Pre-Bid ZOOM Conference at which the requirements of the Bidding Documents are reviewed by University, comments and questions are received from Bidders. University requires all Pre-Bid Conference attendees to:

 1. Log into the ZOOM meeting on time.
 2. Ensure their names are recorded by the Conference Host on the Sign-in Sheet.
 3. Acknowledge presence at the conclusion of the Pre-Bid Conference.

4.2 Any Bidder not complying with the requirements of Article 4.1 in its entirety will be deemed to have not complied with the requirements of the Bidding Documents and its Bid will be rejected.
11. The following Subparagraphs are added to Article 6.3.6 of the Instructions to Bidders:
 6. Submit proof of Registered Communications Distribution Designer® (RCDD®) certification for project manager/s that will be on-site, providing estimates, and overseeing and inspecting projects. In addition,

submit resumes for project manager/s showing a minimum of 5 years' experience coordinating projects including providing estimates and performing inspections.

7. Submit proof of BICSI Technician certification or equivalent for Superintendents that will be on-site and overseeing projects. In addition, submit resumes for superintendents showing a minimum of 5 years' experience in coordinating projects.
8. Submit proof of OSHA 30 Certifications. (Refer to Section 27 00 00 1.04 Submittals)

END OF SUPPLEMENTARY INSTRUCTIONS TO BIDDERS

INFORMATION AVAILABLE TO BIDDERS

The following information is made available for the convenience of bidders and is not a part of the Contract. The information is provided subject to the provisions of Article 3 of the General Conditions.

1. The University of California has contracts for materials, equipment and/or services with the suppliers listed on the Office of the President Procurement Services website at <http://www.ucop.edu/procurement-services/for-suppliers/construction-supplier-resources.html>. General Contractors or others submitting bids for University construction projects may enter into agreements with these suppliers that utilize the pricing and terms contained in the University-supplier agreements. University does not represent or warrant that materials/equipment/services of these suppliers meet the requirements of University's construction contracts. Use of such suppliers shall not relieve Contractor from its obligation to meet all contractual requirements in any contracts with University. University will not be a party to any agreements with such suppliers and accepts no performance obligations or liability with respect to such agreements.

END OF INFORMATION AVAILABLE TO BIDDERS

BID FORM

FOR:

TELECOMM STRUCTURED CABLING JOC – COPPER AND FIBER BACKBONE 2021

**UNIVERSITY OF CALIFORNIA
LOS ANGELES CAMPUS
LOS ANGELES, CALIFORNIA**

OCTOBER 2021

BID TO:

Contracts Administration
University of California, Los Angeles
1060 Veteran Avenue, Suite 125
Box 951365
Los Angeles, California 90095-1365
(310) 825-7015

BID FROM:

(Name of Firm Submitting Bid)

(Address)

(City, State, Zip Code)

(Telephone No.)

(Date Bid submitted)

Note: All portions of this Bid Form must be completed and the Bid Form must be signed before the Bid is submitted. Failure to do so will result in the Bid being rejected as non-responsive.

1.0 BIDDER'S REPRESENTATIONS

Bidder, represents that a) Bidder has the appropriate current and active Contractor's license required by the State of California and the Bidding Documents; b) it has carefully read and examined the Bidding Documents for the proposed Work on this Project; c) it has examined all Information Available to Bidders; d) it has become familiar with all the conditions related to the proposed Work, including the availability of labor, materials, and equipment; e) Bidder and all Subcontractors, regardless of tier, are currently registered with the California Department of Industrial Relations pursuant to California Labor Code Section 1725.5 and 1771.1. Bidder hereby offers to furnish all labor, materials, equipment, tools, transportation, and services necessary to complete the proposed Work for this Contract in accordance with the Contract Documents using the Bid Adjustments quoted in this Bid Form. Bidder further agrees that it will not withdraw its Bid within 60 days after the Bid Deadline, and that, if it is selected as the apparent lowest responsive and responsible Bidder, that it will, within 10 days after receipt of notice of selection, sign and deliver to University the Agreement in triplicate and furnish to University all items required by the Bidding Documents. If awarded the Contract, Bidder agrees to complete the Work of each Job Order within the applicable Job Order Time.

2.0 ADDENDA

Bidder acknowledges that it is Bidder's responsibility to ascertain whether any Addenda have been issued and if so, to obtain copies of such Addenda from University as specified in the Instructions to Bidders. Bidder therefore agrees to be bound by all Addenda that have been issued for this Bid.

3.0 PRICING SCHEDULE

A. Adjustment Factor: Bidders shall provide the following coefficients for the base term and option term(s).

(Bidders Write Adjustment Factors Here)

ADJUSTMENT FACTORS

ADJUSTMENT FACTOR 1*
Business Hours
5:00 a.m. to 5:00 p.m.
Mondays through Fridays (M-F)

		■				
--	--	---	--	--	--	--

ADJUSTMENT FACTOR 2*
Non-Business Hours
5:00 p.m. to 5:00 a.m. M-F; and
All day Saturdays, Sundays & Holidays

		■				
--	--	---	--	--	--	--

ADJUSTMENT FACTOR 3*					
Emergency Work Hours					
(See General Conditions 1.1.56)					

* The Adjustment Factors are to be carried no further than 4 decimal places.

B. Bid Award Criteria Figure: For purposes of comparing Bids, the Adjustment Factors provided above will be weighted and aggregated as follows to form a number referred to as the Bid Award Criteria. The University will calculate the Adjustment Factor times the percentages shown. These percentages have been chosen for the purpose of evaluating bids only and in no way should they be construed to represent or guarantee the actual or expected value of work under this contract.

(Do Not Complete, For University Use Only)

TOTAL AWARD CRITERIA FIGURE CALCULATION TO CALCULATE LOW BIDDER					
(Adjustment Factor 1)	_____	X	75%	=	_____
(Adjustment Factor 2)	_____	X	20%	=	_____
(Adjustment Factor 3)	_____	X	5%	=	_____
Total Composite Bid					= _____

C. If two or more bids are equal, award shall be made by a drawing by lot limited to those bidders. If time permits, the bidders involved shall be given an opportunity to attend the drawing. The drawing shall be witnessed by at least three persons, and the contract file shall contain the names and addresses of the witnesses and the person supervising the drawing.

4.0 SELECTION OF APPARENT LOW BIDDER

Refer to the Instructions to Bidders for selection of apparent low bidder.

5.0 BIDDER INFORMATION

TYPE OF ORGANIZATION: _____
 (Corporation, Partnership, Individual, Joint Venture, etc.)

IF A CORPORATION, THE CORPORATION IS ORGANIZED UNDER THE LAWS OF THE STATE OF:

THE STATE OF: _____
 (State)

NAME OF PRESIDENT
OF THE CORPORATION: _____
 (Insert Name)

NAME OF SECRETARY
OF THE CORPORATION:

(Insert Name)

IF A PARTNERSHIP, NAMES OF ALL GENERAL PARTNERS:

(Insert Names)

CALIFORNIA CONTRACTORS LICENSE(S):

(Classification)

(License Number)

(Expiration Date)

(For Joint Venture, list Joint Venture's license and licenses for all Joint Venture partners.)

6.0 REQUIRED COMPLETED ATTACHMENTS

The following documents are submitted with and made a condition of this Bid:

1. Bid Security in the form of _____
(Bid Bond or Certified Check)

7.0 DECLARATION

I, _____, hereby declare that I am the
(Printed Name)

_____ of _____
(Title) (Name of Bidder)

submitting this Bid Form; that I am duly authorized to execute this Bid Form on behalf of Bidder; and that all information set forth in this Bid Form and all attachments hereto are, to the best of my knowledge, true, accurate, and complete as of its submission date.

I further declare that this bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the Bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the Bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the Bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the Bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

I declare, under penalty of perjury, that the foregoing is true and correct and that this declaration was executed at: _____
(Name of City if within a City, otherwise Name of County),

in the State of _____, on _____.
(State) (Date)

(Signature)

BID BOND

KNOW ALL PERSONS BY THESE PRESENTS:

That we, _____,
as Principal, and _____, as
Surety, are held and firmly bound unto THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, hereinafter called THE REGENTS, in
the sum of \$25,000.00 for payment of which in lawful money of the United States, well and truly to be made, we bind ourselves, our
heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH THAT, WHEREAS, Principal has submitted a Bid for the work
described as follows:

NOW, THEREFORE, if Principal shall not withdraw said Bid within the time period specified after the Bid Deadline, as defined
in the Bidding Documents, or within 60 days after the Bid Deadline if no time period be specified, and, if selected as the apparent lowest
responsible Bidder, Principal shall, within the time period specified in the Bidding Documents, do the following:

- (1) Enter into a written agreement, in the prescribed form, in accordance with the Bid.
- (2) File two bonds with THE REGENTS, one to guarantee faithful performance and the other to guarantee payment for
labor and materials, as required by the Bidding Documents.
- (3) Furnish certificates of insurance and all other items as required by the Bidding Documents.

In the event of the withdrawal of said Bid within the time period specified, or within 60 days if no time period be specified, or
the disqualification of said Bid due to failure of Principal to enter into such agreement and furnish such bonds, certificates of insurance,
and all other items as required by the Bidding Documents, if Principal shall pay to THE REGENTS an amount equal to the difference, not
to exceed the amount hereof, between the amount specified in said Bid and such larger amount for which THE REGENTS procure the
required work covered by said Bid, if the latter be in excess of the former, then this obligation shall be null and void, otherwise to remain
in full force and effect.

In the event suit is brought upon this bond by THE REGENTS, Surety shall pay reasonable attorneys' fees and costs incurred
by THE REGENTS in such suit.

IN WITNESS WHEREOF, we have hereunto set our hands this _____ day of _____, 20_____.

Principal: _____
(Name of Firm)

Surety: _____
(Name of Firm)

By: _____
(Signature)

By: _____
(Signature)

(Printed Name)

(Printed Name)

Title: _____

Title: _____

Addresses for Notices:

NOTE: Notary acknowledgement for Surety and Surety's Power of Attorney must be attached.

PREQUALIFICATION QUESTIONNAIRE

*****THIS COMPLETED FORM MUST BE SUBMITTED IN ADVANCE OF THE BID*****

The Undersigned declares under penalty of perjury that all of the qualification information submitted with this form is true and correct and that this Declaration was executed in _____

County, State of _____, on _____.

Signed: _____

Typed Name and Title

Firm Name and Full Address

Firm's
Telephone Number

Firm's
Fax Number

Firm's
License Number

Name and Title of Firm's Contact Person for Questions

Each prospective Bidder must answer all of the following questions and provide all requested information, where applicable. Any prospective Bidder failing to do so will be deemed to be not responsive and not responsible with respect to this Prequalification at the sole discretion of the University of California. In addition, Bidder must list accurate names and telephone numbers of applicable contact references. If University is unable, after reasonable efforts, to confirm any information submitted by Bidder, said information will not be accepted as a qualifying information. All Bidders that have submitted a Prequalification Questionnaire will be notified in writing of whether or not they have successfully achieved Prequalification status. Prospective Bidders that affirmatively respond (i.e. answer YES) to all questions, submit all required information and supporting data, and are determined to have accurately responded to the questions will be prequalified. Only those Bidders that have been determined to be prequalified will be eligible to submit a bid for this Project.

If the prospective Bidder is determined by the University not to be prequalified, the prospective Bidder may request a review by the Facility. Any such request must be received by the Facility within 3 calendar days after receipt by the prospective Bidder of the determination. The decision resulting from such review is final and is not appealable within the University of California. Any person or entity not satisfied with the outcome of the prequalification must file a writ challenging the outcome within 10 calendar days from the date of the University's written notice regarding prequalification determination. Any assertion that the outcome of the prequalification process was improper will not be a ground for a bid protest.

All information submitted for Prequalification evaluation will be considered official information acquired in confidence, and the University will maintain its confidentiality to the extent permitted by law.

WHERE NECESSARY, COPY THE FORMS IN THIS PACKAGE. USE ONLY THESE FORMS.

Refer to Supplementary Instructions to Bidders for additional information.

1. CERTIFICATIONS:

To be allowed to submit a bid, Bidders must have the minimum Certifications described below. Submit, on this form only proof of the following Certifications:

- | | | |
|-------|---|--|
| A. | Entity has Registered Communications Distribution Designer® (RCDD®) certification for Project Manager(s) that will be on-site, providing estimates, and overseeing and inspecting projects. | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| <hr/> | | |
| B. | Entity has BICSI Technician certification, or equivalent, for Superintendents that will be on-site and overseeing projects. | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| <hr/> | | |
| C. | Entity has OSHA 30 Certifications. | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| <hr/> | | |
| D. | Entity has attached proof of certification specified in Paragraphs 1.A, 1.B, and 1.C above? | <input type="checkbox"/> Yes <input type="checkbox"/> No |

2. PRIOR CONSTRUCTION EXPERIENCE:

To be allowed to submit a bid, Bidders must have the minimum experience described below. Submit, on this form only proof of the following prior construction experience:

1. Each submitted project must have been fully completed by Bidder since January 1, 2016 (fully completed shall be defined as bidder having completed all on-site work, including punch list, and submitted all required close-out documentation to project owner or general contractor, as applicable, and submitted on time and without incurring liquidated damages); and
2. Work must have included providing inter-building voice or data cabling; and
3. Of the submitted projects meeting all of the criteria specified above:
 - a. Bidder must have fully completed at least (3) projects where the work of each project included field splicing fiber cables and pigtails with at least 192 strands; and
 - b. Bidder must have fully completed at least (3) projects where the work of each project included performing a mid-sheath splice on a minimum of an 864 strand count fiber cable; and
 - c. Bidder must have fully completed at least (3) projects where the work of each project included installing outside plant cabling that required entering (6) or more maintenance holes following confined space requirements, and entering splice cases with at least 600-pair copper cables.
 - d. Bidder must have fully completed at least (3) projects where the work of each project included installing outside plant cabling that required entering (2) or more maintenance holes and required traffic lane closures and redirecting traffic.

NOTES:

- A. "Fully completed" shall be defined as a Certificate of Occupancy was issued on the project.
- B. Bidder, the licensed entity listed on Page 1 of this Questionnaire, must have been the contractor on each project submitted for consideration. Bidder may not use experience performed by a parent company, a sister subsidiary company, or a subsidiary to the Bidder. Additionally, Bidder may not use experience where Bidder was one member of a separately licensed joint venture entity.
- C. If Bidder is a joint venture, proof of experience must be submitted for each of the joint venture partners. Joint venture bids will only be considered if each joint venture partner has had the above specified experience.

(Copy Additional Pages as Needed)

_____	_____
Project Name	Project Location (City & State)
_____	_____
Owner's Name & Telephone	Owner's Contact Person's Name & Telephone
_____	_____
Design Professional's or General Contractor's Name & Telephone	Design Professional's or General Contractor's Contact Person's Name & Telephone
_____	_____
Project Start Date	Project Completion Date

1. Is all on-site work, including punch list work, complete, and has all required close-out documentation been submitted to project owner or general contractor, as applicable?	<input type="checkbox"/> Yes <input type="checkbox"/> No
---	--

2. Did work include the provision of inter-building voice or data cabling?	<input type="checkbox"/> Yes <input type="checkbox"/> No
--	--

3.a Did the work include field splicing fiber cables and pigtails with at least 192 strands?	<input type="checkbox"/> Yes <input type="checkbox"/> No
3.b Did the work include performing a mid-sheath splice on a minimum of an 864 strand count fiber cable?	<input type="checkbox"/> Yes <input type="checkbox"/> No
3.c Did the work include installing outside plant cabling that required entering (6) or more maintenance holes following confined space requirements, and entering splice cases with at least 600-pair copper cables?	<input type="checkbox"/> Yes <input type="checkbox"/> No
3.d Did the work include installing outside plant cabling that required entering (2) or more maintenance holes and required traffic lane closures and redirecting traffic?	<input type="checkbox"/> Yes <input type="checkbox"/> No

END OF PREQUALIFICATION QUESTIONNAIRE

AGREEMENT

THIS AGREEMENT is made as of the _____ day of {MONTH}, 2021, by and between
THE REGENTS OF THE UNIVERSITY OF CALIFORNIA ("University"),

whose facility is: University of California, Los Angeles

whose address for notices is: UCLA Contracts Administration
1060 Veteran Avenue
Box 951365
University of California
Los Angeles, California 90095-1365

and Contractor: {Contractor_Name}

whose address for notices is: {Contractor_Address}

for the Project: TELECOMM STRUCTURED CABLING JOC – COPPER AND FIBER
BACKBONE 2021
University of California
Los Angeles Campus, Los Angeles County
Los Angeles, California 90095

University's Responsible Administrator: Michael J. Beck
Administrative Vice Chancellor

University's Representative is: Zachary Patalingjug

whose address for notices is: UCLA Information Technology Services BOX 957245, Ste 1200,
UCLA Wilshire Center
Los Angeles, CA 90095-7245

Contract Documents for the Work prepared by: UCLA Information Technology Services
BOX 957245, Ste. 1200, UCLA Wilshire Center
Los Angeles, CA 90095-7245

University and Contractor hereby agree as follows:

ARTICLE 1 WORK

Contractor shall provide all work required by the Contract Documents (the "Work"). Contractor shall (1) pay all sales, consumer and other taxes and (2) obtain and pay for any governmental licenses and permits necessary for the work, other than building and utility permits.

University hereby awards this Job Order Contract (JOC) for the performance of multiple individual construction jobs at facilities owned, leased or managed by the University of California, Los Angeles. The JOC will have a Base Term of 1 year with University holding an option to renew for up to two additional 1-year periods ("Option Terms"). The specific scope of each construction job will be defined in a separate Job Order and shall be performed as specified in Article 3 below. Contractor may be requested to perform several Job Orders concurrently. Individual Job Orders will not exceed a Maximum Individual Job Order Value of \$250,000.00 The total combined cost for all Job Orders issued will not exceed the Maximum Contract Value of \$1,500,000.00 during the 1-year Base Term, and \$1,500,000.00 during each 1-year Option Term, if

exercised by University. The minimum value of work to be purchased under this Contract will be \$25,000.00. The Maximum Contract Value is not guaranteed. During the Base Term and any extended term of the JOC, Contractor shall perform the work described in the Advertisement for Bids, ranging in cost (exclusive of changes) from \$25,000.00 to \$4,500,000.00.

Any work required under this Contract shall be authorized by issuance of formal, written Job Orders.

ARTICLE 2 CONTRACT DOCUMENTS

"Contract Documents" means the Advertisement for Bids, Instructions to Bidders, Supplementary Instructions to Bidders, Bid Form, completed Prequalification Questionnaire, this Agreement, General Conditions, Supplementary Conditions, Exhibits, Specifications, List of Drawings, Drawings, the Construction Task Catalog®, Addenda, Notices to Proceed, Job Order Schedule of Values, Detailed Scope of Work, Job Order Authorizations, Change Orders, Notices of Completion, and all other documents identified in this Agreement that together form the contract between University and Contractor for the Work (the "Contract"). The Contract constitutes the complete agreement between University and Contractor and supersedes any previous agreements or understandings.

ARTICLE 3 JOB ORDER SUM

Subject to the provisions of the Contract Documents, University will pay to Contractor for the performance of Job Order Work, the total dollar amount specified in each Job Order ("Job Order Sum"), which will be determined by applying Adjustment Factors to Pre-priced Items (items that have Unit Prices in the Construction Cost Catalog). A Job Order will not be authorized for any Job where, at the time the Job Order is issued, the value of Non-Pre-priced Items (Task Items 95 through 97 in the Construction Cost Catalog) exceeds the lesser of either of the following: (a) 10% of the value of the work to be performed under the Job Order or (b) \$100,000. Adjustment Factors used to determine the Job Order Sum for the base term and option term(s) shall be as follows:

Adjustment Factor 1: Business Hours Adjustment Factor (5:00 a.m. to 5:00 p.m. Monday through Friday (M-F))	{UCLA: AMOUNT}
Adjustment Factor 2: Non-Business Hours Adjustment Factor (5:00 p.m. to 5:00 a.m. Monday through Friday (M-F); and All day Saturdays, Sundays & Holidays)	{UCLA: AMOUNT}
Adjustment Factor 3: Emergency Work Hours Adjustment Factor (See General Conditions 1.1.56)	{UCLA: AMOUNT}

ARTICLE 4 TERM FOR ISSUANCE AND IMPLEMENTATION OF JOB ORDERS, AND JOB ORDER TIME.

Base Term: The Base Term of this Job Order Contract commences on the effective date of the Notice to Proceed for the Contract. The term of this Contract is either for one year or when Job Orders totaling the Maximum Contract Value have been completed, whichever comes first. All Job Orders must be issued during the term of the Contract but all Job Order Work must not necessarily be completed during the term of the Contract. A Job Order is issued when the University submits a written Job Order Authorization to the Contractor to perform the Work of the Job Order.

Option Term(s):

- 1) University may, at its sole discretion extend its right to issue and/or implement Job Orders to Contractor for up to two additional 1-year periods, provided University gives Contractor written notice of such extension at least 30 days prior to the expiration of the Base Term and, if exercised, the first Option Term. Election of the Option Term(s), if made, will be accomplished by Unilateral Change Order.

- 2) The Adjustment Factors will be modified according to General Conditions Article 4.5.3. at the same time Option Term(s) are exercised.

Job Order Time: The individual Job Order Authorization will specify a reasonable time limit for completion of the Job Order Work.

ARTICLE 5 LIQUIDATED DAMAGES

If Contractor fails to complete any Job Order Work within the applicable Job Order Time, Contractor shall pay to University, as liquidated damages and not as a penalty, the applicable below-listed sum for each day after the expiration of the Job Order Time that the Job Order Work remains incomplete. University and Contractor agree that if the Job Order Work is not completed within the applicable Job Order Time, University's damages would be extremely difficult or impracticable to determine and that the below stated amounts are reasonable estimates of and reasonable sums for such damages. University may deduct any liquidated damages due from Contractor from any amounts otherwise due to Contractor under the Contract Documents. This provision shall not limit any right or remedy of University in the event of any other default of Contractor other than failing to complete the Job Order Work within the applicable Job Order Time. Liquidated Damages will be assessed on a Job Order by Job Order basis.

1. \$ per day for Job Orders with a Job Order Sum of \$100,000.00 or less.
2. \$ per day for Job Orders with a Job Order Sum between \$100,000.00 and \$250,000.00.
3. \$ per day for Job Orders with a Job Order Sum greater than \$250,000.00.

ARTICLE 6 DUE AUTHORIZATION

The person or persons signing the Agreement on behalf of Contractor hereby represent and warrant to University that this Agreement is duly authorized, signed and delivered by Contractor.

THIS AGREEMENT is entered into by University and Contractor as of the date set forth above.

CONTRACTOR:

UNIVERSITY:

{
(Name of Firm)

THE REGENTS OF THE
UNIVERSITY OF CALIFORNIA

a _____
(Type of Organization)

UNIVERSITY OF CALIFORNIA,
LOS ANGELES

By: _____
(Signature)

By: _____
(Signature)

(Printed Name)

{
(Printed Name)

(Title)

{
(Title)

California Contractor's License(s):

(Name of Licensee)

(Classification and License Number)

(Expiration Date)

(Employer Identification Number)

Attach notary acknowledgment for all signatures of Contractor. If signed by other than the sole proprietor, a general partner or corporate officer, attach original notarized Power of Attorney or Corporate Resolution.

GENERAL CONDITIONS - JOB ORDER CONTRACT

**UNIVERSITY OF CALIFORNIA
LOS ANGELES CAMPUS
LOS ANGELES, CALIFORNIA**

GENERAL CONDITIONS – JOB ORDER CONTRACT

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ARTICLE 1
GENERAL PROVISIONS

1.1 BASIC DEFINITIONS

1.1.1 **ADJUSTMENT FACTOR** - The "Adjustment Factor" means Contractor's competitively bid price adjustment to the unit process as published in the Construction Task Catalog® (CTC). At a minimum, the Adjustment Factors must contain all Contractor's costs, including but not limited to home office overhead; insurance, bonds, and indemnification; project meetings, training, management and supervision; mobilization and close-out for the contract and each Job Order; project office staff and equipment; profit; subcontractor's overhead and profit; all taxes for which a waiver is not available including material sales tax and equipment rental; employee or subcontractor's wage rates; fringe benefits, payroll taxes, worker's compensation, insurance costs and any other payment mandated by law in connection with labor; cost of financing the work, and business risks such as the risk of a lower than expected volume of work, smaller than anticipated Job Orders, poor Subcontractor performance, and inflation or material cost fluctuations. The Adjustment Factor shall also include costs described by General Requirements (Division 1) listed in the project specifications and specifically excluded by the CTC, interface with University's Representatives, coordination with occupants, costs associated with removal, protection and repositioning of room contents, cleanup, and all other costs incurred in performing the Job Order Contract except costs covered by the CTC.

1.1.2 **APPLICABLE CODE REQUIREMENTS** - The term "Applicable Code Requirements" means all laws, statutes, the most recent building codes, ordinances, rules, regulations, and lawful orders of all public authorities having jurisdiction over University, Contractor, any Subcontractor, the Project, the Job Order Work site(s), the Work, or the prosecution of the Work including without limitation the requirements set forth in Article 3.7.

1.1.3 **APPLICATION FOR PAYMENT** - The term "Application for Payment" means the submittal from Contractor wherein payment for certain portions of the completed Work is requested in accordance with Article 9.

1.1.4 **BASE TERM** - The term "Base Term" means the initial one-year period, beginning with the date of Contract award, during which University may issue and/or implement Job Orders to Contractor

1.1.5 **BENEFICIAL OCCUPANCY** - The term "Beneficial Occupancy", which shall apply only to each individual Job Order, means University's occupancy or use of any part of the Job Order Work in accordance with Article 9.

1.1.6 **CERTIFICATE FOR PAYMENT** - The term "Certificate for Payment" means the form signed by University's Representative attesting to Contractor's right to receive payment for certain completed portions of the Work in accordance with Article 9.

1.1.7 **CHANGE ORDER** - See Article 7.2 of the General Conditions.

1.1.8 **CLAIM** - See Article 4.6 of the General Conditions.

1.1.9 **Not Used**. See Supplementary Conditions.

1.1.10 **CONTRACT** - The term "Contract", also referred to as "Job Order Contract", means the written Agreement between Contractor and University set forth in the Contract Documents.

1.1.11 **CONTRACT DOCUMENTS** - The term "Contract Documents" means all documents listed in Article 2 of the Agreement, as modified by Change Order, including but not limited to the Specifications and Job Orders.

1.1.12 **CONTRACTOR** - The term "Contractor", also referred to as "Job Order Contractor", means the person or firm identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number.

1.1.13 **COST OF EXTRA WORK** - See Article 7.3 of the General Conditions.

1.1.14 **DAY** - The term "day," as used in the Contract Documents, shall mean calendar day, unless otherwise specifically provided.

1.1.15 **DEFECTIVE WORK** - The term "Defective Work" means work that is unsatisfactory, faulty, omitted, incomplete, deficient, or does not conform to the requirements of the Contract Documents, directives of University's Representative, or the requirements of any inspection, reference standard, test, or approval specified in the Contract Documents.

1.1.16 **DETAILED SCOPE OF WORK** - The term "Detailed Scope of Work" means the complete description of services to be provided by Contractor pursuant to an individual Job Order. The Detailed Scope of Work will include documentation for the individual Job Order. Documentation may include a narrative description of the Work and/or partial or full design documents depending on the complexity of the individual Job Order. The Detailed Scope of Work may also be referred to as the DSW.

1.1.17 **DRAWINGS** - The term "Drawings" means the graphic and pictorial portions of the Contract Documents showing the design, location, and dimensions of the Job Order Work, generally including plans, elevations, sections, details, schedules, and diagrams.

1.1.18 **EXCUSABLE DELAY** - The term "Excusable Delay" means a delay that entitles Contractor to an adjustment of the Job Order Time but not an adjustment of the Job Order Sum, pursuant to Articles 7 and 8 of the General Conditions.

1.1.19 **EXTRA WORK** - The term "Extra Work" means Work beyond or in addition to the Work required by the Contract Documents. Extra Work specifically excludes work identified as scope of any and all existing Job Order Authorizations.

1.1.20 **FIELD ORDER** - See Article 7.2 of the General Conditions.

1.1.21 **FINAL COMPLETION** - The term "Final Completion" shall apply to only each individual Job Order and means the date at which the Job Order Work has been fully completed in accordance with the requirements of the Contract Documents pursuant to Article 9.5.1 of the General Conditions.

1.1.22 **GUARANTEE TO REPAIR PERIOD** - See Article 12.2 of the General Conditions.

1.1.23 HAZARDOUS MATERIAL - The term "Hazardous Material" means any substance or material identified as hazardous under any California or federal statute governing handling, disposal and/or cleanup of any such substance or material.

1.1.24 JOB ORDER - The term "Job Order" means a construction document relating to a specific scope of Job Order Work under the Contract as defined by the Detailed Scope of Work, Job Order Sum, Job Order Time, and any special conditions that might apply to the specific Job Order such as Liquidated Damages, all as stated in the Job Order. A Job Order may constitute all or part of the work.

1.1.25 JOB ORDER AUTHORIZATION - The term "Job Order Authorization" means the document issued by University authorizing Contractor to perform the Job Order Work.

1.1.26 JOB ORDER MILESTONE - The term "Job Order Milestone" means any requirement in a Job Order that reflects a planned point in time for the start or completion of a portion of the Job Order Work measured from i) the date of the Job Order Authorization or ii) the date of another Job Order Milestone defined in said Job Order, as applicable.

1.1.27 JOB ORDER SCHEDULE OF VALUES - The term "Job Order Schedule of Values," also referred to as "Schedule of Values," is Contractor's irrevocable offer to perform Work associated with a Job Order. It refers to Contractor's prepared document quoting a firm fixed price and schedule for the completion of a specific Scope of Work. The Job Order Schedule of Values shall include a detailed Schedule of Values comprised of line items from the CTC, supporting documentation for any Non Pre-priced items, a construction schedule, a list of subcontractors and any other documentation that may be required by University prior to the issuance of a Job Order including, but not limited to shop drawings, sketches, permits, and submittals as necessary.

See Supplementary Conditions

1.1.28 JOB ORDER SCHEDULE - The term "Job Order Schedule" means the graphical representation of a practical plan, in accordance with the Specifications, to perform and complete the Work of a Job Order within the Job Order Time in accordance with Article 3.

1.1.29 JOB ORDER SUM - The term "Job Order Sum" means the amount of compensation stated in a Job Order for the performance of the applicable Job Order, or as modified by any Supplemental Job Order or Change Order.

1.1.30 JOB ORDER TIME - The term "Job Order Time" means the number of days set forth in a Job Order within which Contractor must achieve Final Completion, or as modified by any Supplemental Job Order or Change Order.

1.1.31 JOB ORDER WORK - The term "Job Order Work" means the Work of one or more Job Orders as may be modified.

1.1.32 JOINT SCOPE MEETING - The term "Joint Scope Meeting" means the meeting at the Work site attended by University and Contractor, at a minimum, to jointly prepare the scope of the work on a Job Order.

1.1.33 MAXIMUM CONTRACT VALUE - The term "Maximum Contract Value" means the maximum dollar value of Work specified in Article 1 of the Agreement that University may order during the Base Term, and if exercised by University, one or both Option Terms, of the Job Order Contract.

1.1.34 MINIMUM CONTRACT VALUE - The term "Minimum Contract Value" means the minimum dollar value of Work specified in Article 1 of the Agreement that University must order under this Contract.

1.1.35 NON PRE PRICED ITEM - The term "Non Pre-priced Item", also referred to as NPP, means the Unit of Work that is not set forth in the Construction Task Catalog® but which is in the general scope and intent of this Contract.

See Supplementary Conditions

1.1.36 OPTION TERM - The term "Option Term" means the additional time period beyond the expiration of the Base Term during which University may extend its right to implement and/or issue Job Orders to Contractor.

1.1.37 PRE-PRICED ITEM - The Term "Pre-priced Item" means an item of work included in the Construction Task Catalog® for which a Unit Price is set forth.

1.1.38 PROJECT - The term "Project" means the Work of the Contract and all other work, labor, equipment, and materials necessary.

1.1.39 PROJECT SITE - The term "Project Site" or "Project site" or "Site" or "site" means lands and facilities upon which the Work pertaining to physical construction operations is performed, including such access and other lands and facilities designated in the Contract Documents for use by Contractor.

1.1.40 REIMBURSABLE TASK OR FEE - The term "Reimbursable Task" or Fee are Permits or other reimbursable fees as listed as the Reimbursable Fee in the Construction Task Catalog®.

1.1.41 SEPARATE CONTRACTOR - The term "Separate Contractor" means a person or firm under separate contract with University performing other work related to the Project.

1.1.42 SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES - See Article 3.12 of the General Conditions.

1.1.43 SPECIFICATIONS - The term "Specifications" means that portion of the Contract Documents consisting of the written requirements for materials, equipment, construction systems, standards and workmanship for the Work, and performance of related services.

1.1.44 SUBCONTRACTOR - The term "Subcontractor" means a person or firm that has a contract with Contractor or with a Subcontractor to perform a portion of the Job Order Work. Unless otherwise specifically provided, the term Subcontractor includes Subcontractors of all tiers.

1.1.45 SUPERINTENDENT - The term "Superintendent" means the person designated by Contractor to represent Contractor at the Job Order Work site in accordance with Article 3.

1.1.46 SUPPLEMENTAL JOB ORDER - See Article 7.2 of the General Conditions

1.1.47 TIER - The term "tier" means the contractual level of a Subcontractor or supplier with respect to Contractor. For example, a first-tier Subcontractor is under subcontract with Contractor, a second-tier Subcontractor is under subcontract with a first-tier Subcontractor, and so on.

1.1.48 UNEXCUSABLE DELAY - The term "Unexcusable Delay" means a delay that does not entitle Contractor to an adjustment of the Job Order Sum and does not entitle Contractor to an adjustment of the Job Order Time.

1.1.49 UNILATERAL CHANGE ORDER - See Article 7.2 of the General Conditions.

1.1.50 UNIT PRICE The term "Unit Price" means the price published in the Construction Task Catalog® for a specific construction repair or refurbishment task. The Unit Prices are fixed for the duration of the Contract. Each Unit Price is comprised of the Labor, Equipment and Materials cost to accomplish that specific task.

1.1.51 UNIVERSITY - The term "University" means The Regents of the University of California.

1.1.52 UNIVERSITY'S BUILDING OFFICIAL - The term "University's Building Official," or "Certified Building Official," means the individual University has designated to act in the capacity as the "Building Official" as defined by the California Building Standards Code. University's Building Official will determine whether the Work complies with Applicable Code Requirements and will determine whether and when it is appropriate to issue a Certificate of Occupancy.

1.1.53 UNIVERSITY'S REPRESENTATIVE - The term "University's Representative" means the person identified as such in the Agreement or in the Job Order, as applicable.

1.1.54 UNIVERSITY'S RESPONSIBLE ADMINISTRATOR - The term "University's Responsible Administrator" means the person, or his or her authorized designee, who is authorized to execute the Agreement, Job Order Authorizations, Change Orders, Field Orders and other applicable Contract Documents on behalf of University.

1.1.55 WORK - The term "Work" means all construction, services and other requirements of the Contract Documents as modified by Change Order, whether completed or partially completed, and includes all labor, materials, equipment, tools, and services provided or to be provided by Contractor to fulfill Contractor's obligations. The Work may constitute the whole or a part of the Project.

See Supplementary Conditions

1.2 OWNERSHIP AND USE OF CONTRACT DOCUMENTS

1.2.1 The Contract Documents and all copies thereof furnished to or provided by Contractor are the property of University and are not to be used on other work.

1.3 INTERPRETATION

1.3.1 The Contract Documents are complementary and what is required by one shall be as binding as if required by all. In the case of conflict between terms of the Contract Documents, the following order of precedence shall apply:

1. The Agreement,
2. The Supplementary Conditions,
3. The General Conditions,
4. The Specifications,
5. Drawings,
6. The individual Job Order,
7. The Construction Task Catalog®.

1.3.2 With respect to the Drawings, figured dimensions shall control over scaled measurements and specific details shall control over typical or standard details.

1.3.3 With respect to the Contract Documents, Addenda shall govern over other portions of the Contract Documents to the extent specifically noted; subsequent Addenda shall govern over prior Addenda only to the extent specifically noted.

1.3.4 Organization of the Specifications into various subdivisions and the arrangement of the Drawings shall not control Contractor in dividing the Work among Subcontractors or in establishing the extent of work to be performed by any trade.

1.3.5 Unless otherwise stated in the Contract Documents, technical words and abbreviations contained in the Contract Documents are used in accordance with commonly understood construction industry meanings; and non-technical words and abbreviations are used in accordance with their commonly understood meanings.

1.3.6 The Contract Documents may omit modifying words such as "all" and "any," and articles such as "the" and "an," but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement. The use of the word "including," when following any general statement, shall not be construed to limit such statement to specific items or matters set forth immediately following such word or to similar items or matters, whether or not non-limiting language (such as "without limitation," "but not limited to," or words of similar import) is used with reference thereto, but rather shall be deemed to refer to all other items or matters that could reasonably fall within the broadest possible scope of such general statement.

1.3.7 Whenever the context so requires, the use of the singular number shall be deemed to include the plural and vice versa. Each gender shall be deemed to include any other gender, and each shall include corporation, partnership, trust, or other legal entity whenever the context so requires. The captions and headings of the various subdivisions of the Contract Documents are intended only

for reference and convenience and in no way define, limit, or prescribe the scope or intent of the Contract Documents or any subdivision thereof.

ARTICLE 2
UNIVERSITY

2.1 INFORMATION AND SERVICES PROVIDED BY UNIVERSITY

2.1.1 If required for performance of Job Order Work, as determined by University's Representative, University will make available a survey describing known physical characteristics, boundaries, easements, and utility locations for the Job Order Work site.

2.1.2 University is not subject to any requirement to obtain or pay for local building permits, inspection fees, plan checking fees, or certain utility fees. Except as otherwise provided in the Contract Documents, University will obtain and pay for any utility permits, demolition permits, easements, and government approvals for the use or occupancy of permanent structures required in connection with the Work.

2.1.3 Contractor will be furnished, free of charge, such copies of the Contract Documents as University deems reasonably necessary for execution of the Work.

2.2 ACCESS TO JOB ORDER WORK SITE

2.2.1 University will provide, no later than the date designated in the Job Order Schedule accepted by University's Representative, access to the lands and facilities upon which the Work is to be performed, including such access and other lands and facilities designated in the Contract Documents for use by Contractor.

2.3 UNIVERSITY'S RIGHT TO STOP THE JOB ORDER WORK

2.3.1 If Contractor fails to correct Defective Work as required by Article 12.2 or fails to perform Job Order Work in accordance with the Contract Documents, University or University's Representative may direct Contractor to stop said Job Order Work, or any portion thereof, until the cause for such order has been eliminated by Contractor. Contractor shall not be entitled to any adjustment of Job Order Time or Job Order Sum as a result of any such order. University and University's Representative have no duty or responsibility to Contractor or any other party to exercise the right to stop the Job Order Work.

2.4 UNIVERSITY'S RIGHT TO CARRY OUT THE JOB ORDER WORK

2.4.1 If Contractor fails to carry out Work in accordance with the Contract Documents, fails to provide sufficient labor, materials, equipment, tools, and services to maintain the Job Order Schedule, or otherwise fails to comply with any material term of the Contract Documents, and, after receipt of written notice from University, fails within 2 days, excluding Saturdays, Sundays and legal holidays, or within such additional time as University may specify, to correct such failure, University may, without prejudice to other remedies University may have, correct such failure at Contractor's expense. In such case, University will be entitled to deduct from payments then or thereafter due Contractor the cost of correcting such failure, including without limitation compensation for the additional services and expenses of University's consultants made necessary thereby. If payments then or thereafter due Contractor are not sufficient to cover such amounts, Contractor shall pay the additional amount to University.

2.5 UNIVERSITY'S RIGHT TO REPLACE UNIVERSITY'S REPRESENTATIVE

2.5.1 University may at any time and from time to time, without prior notice to or approval of Contractor, replace University's Representative with a new University's Representative. Upon receipt of notice from University informing Contractor of such replacement and identifying the new University's Representative, Contractor shall recognize such person or firm as University's Representative for all purposes under the Contract Documents.

ARTICLE 3
CONTRACTOR

3.1 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR

3.1.1 Contractor and its Subcontractors shall review and compare each of the Contract Documents with the others and with information furnished or made available by University, and shall promptly report in writing to University's Representative any errors, inconsistencies, or omissions in the Contract Documents or inconsistencies with Applicable Code Requirements observed by Contractor or its Subcontractors.

3.1.2 Contractor and its Subcontractors shall take field measurements, verify field conditions, and carefully compare with the Contract Documents such field measurements, conditions, and other information known to Contractor before commencing Job Order Work. Errors, inconsistencies, or omissions discovered at any time shall be promptly reported in writing to University's Representative.

3.1.3 If Contractor and its Subcontractors performs any construction activity involving an error, inconsistency, or omission referred to in Articles 3.1.1 and 3.1.2, without giving the notice required in those Articles and obtaining the written consent of University's Representative, Contractor shall be responsible for the resultant losses, including, without limitation, the costs of correcting Defective Work.

3.2 SUPERVISION AND CONSTRUCTION PROCEDURES

3.2.1 Contractor shall supervise, coordinate, and direct the Work using Contractor's best skill and attention. Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences, procedures, and the coordination of all portions of the Work.

3.2.2 Contractor shall be responsible to University for acts and omissions of Contractor's agents, employees, and Subcontractors, and their respective agents and employees.

3.2.3 Contractor shall not be relieved of its obligation to perform the Work in accordance with the Contract Documents either by acts or omissions of University or University's Representative in the administration of the Contract, or by tests, inspections, or approvals required or performed by persons or firms other than Contractor.

3.2.4 Contractor shall be responsible for inspection of all portions of the Work, including those portions already performed under this Contract, to determine that such portions conform to the requirements of the Contract and are ready to receive subsequent Work.

3.2.5 Contractor shall at all times maintain good discipline and order among its employees and Subcontractors. Contractor shall provide competent, fully qualified personnel to perform the Work.

3.3 LABOR AND MATERIALS

3.3.1 Unless otherwise provided in the Contract, Contractor shall provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and Final Completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

3.4 CONTRACTOR'S WARRANTY

3.4.1 Contractor warrants to University that all materials and equipment used in or incorporated into the Work will be of good quality, new, and free of liens, claims, and security interests of third parties; that the Work will be of good quality and free from defects; and that the Work will conform with the requirements of the Contract. If required by University's Representative, Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

3.5 TAXES

3.5.1 Contractor shall pay all sales, consumer, use, and similar taxes for the Work or portions thereof provided by Contractor.

3.6 PERMITS, FEES, AND NOTICES

3.6.1 Except for the permits and approvals which are to be obtained by University or the requirements with respect to which University is not subject as provided in Article 2.1.2, Contractor shall secure and pay for all permits, approvals, government fees, licenses, and inspections necessary for the proper execution and performance of the Work. Contractor shall deliver to University all original licenses, permits, and approvals obtained by Contractor in connection with the Work prior to the final payment or upon termination of the Contract, whichever is earlier. Contractor shall be reimbursed for the direct cost of all permits.

3.7 APPLICABLE CODE REQUIREMENTS

3.7.1 Contractor shall perform the Work in accordance with the following Applicable Code Requirements:

- .1 All laws, statutes, the most recent building codes, ordinances, rules, regulations, and lawful orders of all public authorities having jurisdiction over University, Contractor, any Subcontractor, the Job Order, the Job Order Work site, the Work, or the prosecution of the Work.
- .2 All requirements of any insurance company issuing insurance required hereunder.
- .3 The Federal Occupational Safety and Health Act and all other Applicable Code Requirements relating to safety.
- .4 Applicable titles in the State of California Code of Regulations.
- .5 Applicable sections in the State of California Labor Code.
- .6 All Applicable Code Requirements relating to nondiscrimination, payment of prevailing wages, payroll records, apprentices, and work day.

Without limiting the foregoing, Contractor shall comply with the provisions regarding nondiscrimination, payment of prevailing wages, payroll records, apprentices, and work day set forth in Article 14.

3.7.2 Contractor shall comply with and give notices required by all Applicable Code Requirements, including all environmental laws and all notice requirements under the State of California Safe Drinking Water and Enforcement Act of 1986 (State of California Health and Safety Code Section 25249.5 and applicable sections that follow). Contractor shall promptly notify University's Representative in writing if Contractor becomes aware during the performance of the Work that the Contract Documents are at variance with Applicable Code Requirements.

3.7.3 If Contractor performs Work which it knows or should know is contrary to Applicable Code Requirements, without prior notice to University and University's Representative, Contractor shall be responsible for such Work and any resulting damages including, without limitation, the costs of correcting Defective Work.

3.8 CONTRACTOR STAFF

3.8.1 Contractor shall employ a competent staff satisfactory to University. At minimum, a superintendent shall be in attendance at the Job Order Work site at all times during the performance of Job Order Work. Contractor shall include the name of the proposed Superintendent as part of each Job Order Schedule of Values. With prior written authorization by University, Contractor may have a Superintendent supervise multiple jobs within close proximity. Superintendent shall represent Contractor and communications given to and received from Superintendent shall be binding on Contractor.

3.8.2 Failure to maintain a Superintendent on the Job Order Work site at all times Work is in progress shall be considered a material breach of this Contract, entitling University to terminate the Contract or alternatively, issue a stop Work order until the Superintendent is on the Job Order Work site. If, by virtue of issuance of said stop Work order, Contractor fails to complete the Job Order Work on time, Contractor will be assessed Liquidated Damages in accordance with the Agreement.

3.8.3 The Superintendent approved for each Job Order must be able to read, write and verbally communicate in English.

3.8.4 The Superintendent may not perform the Work of any trade, pick-up materials, or perform any Work not directly related to the supervision and coordination of the Work at the Job Order Work site when Job Order Work is in progress.

3.8.5 Contractor must also employ an individual who is competent in performing Job Order pricing and preparation of Job Order Schedule of Values. This individual may also be the Superintendent providing that Job Order Schedule of Values preparation does not interfere with supervision and coordination of Job Order Work in progress.

3.9 SCHEDULES REQUIRED OF CONTRACTOR

3.9.1 Not Used.

3.9.2 For each Job Order, Contractor shall submit a Job Order Schedule and updated Job Order Schedules to University's Representative in the form and within the time limits required by the Specifications and acceptable to University's Representative. University's Representative will determine acceptability of the Job Order Schedule and updated Job Order Schedules within the time limits required by the Specifications.

3.9.3 The Job Order Schedule, and updated Job Order Schedules, shall represent a practical plan to complete the Job Order Work within the Job Order Time. Schedules showing the Job Order Work completed in less than the Job Order Time may be acceptable if judged by University's Representative to be practical. Schedules showing the Work completed beyond the Job Order Time may be submitted under the following circumstances:

- .1 If accompanied by a Supplemental Job Order Request seeking an adjustment of the Job Order Time consistent the requirements of article 8.4 for Adjustment of the Job Order Time for Delay; or
- .2 If the Job Order Time has passed, or if it is a practical impossibility to complete the Work within the Job Order Time, then the updated Job Order Schedule or fragnet schedule shall show completion at the earliest practical date.

University's Representative will timely review the updated Job Order Schedule or Fragnet Schedule submitted by Contractor. If University's Representative determines that additional supporting data are necessary to fully evaluate the updated Job Order Schedule or Fragnet Schedule, University's Representative will request such additional supporting data in writing. Such data shall be furnished no later than 10 days after the date of such request. University's Representative will render a decision promptly and in any case within 30 days after the later of the receipt of the updated Job Order Schedule or Fragnet Schedule or the deadline for furnishing such additional supporting data. Failure of University's Representative to render a decision by the applicable deadline will be deemed a decision denying approval of the updated Job Order Schedule or Fragnet Schedule. Acceptance of any schedule showing completion beyond the Contract Time by University's Representative shall not change the Job Order Time and shall be without prejudice right of University. The Job Order Time, not the Job Order Schedule, shall control in the determination of liquidated damages payable by Contractor under Article 4 and Article 5 of the Agreement and in the determination of any delay under Article 8 of the General Conditions.

3.9.4 If a schedule showing the Job Order Work completed in less than the Job Order Time is accepted, Contractor shall not be entitled to extensions of the Job Order Time for Excusable Delays or Compensable Delays or to adjustments of the Job Order Sum for Compensable Delays until such delays extend the Final Completion of the Work beyond the expiration of the Job Order Time.

3.9.5 Contractor shall prepare and keep current, to the reasonable satisfaction of University's Representative, a Submittal Schedule, in the form contained in the Exhibits, for each submittal, as required by the Specifications, and that are coordinated with the other activities in the Job Order Schedule.

3.9.6 The Job Order Schedule, and the Updated Job Order Schedules shall meet the following requirements:

- .1 Schedules must be suitable for monitoring progress of the Job Order Work.
- .2 Schedules must provide necessary data about the timing for University decisions and University furnished items.
- .3 Schedules must be in sufficient detail to demonstrate adequate planning for the Job Order Work.
- .4 Schedules must represent a practical plan to perform and complete the Job Order Work within the Job Order Time.

3.9.7 University's Representative's review of the form and general content of the Job Order Schedule, and Updated Job Order Schedules is for the purpose of determining if the above-listed requirements have been satisfied.

3.9.8 Contractor shall plan, develop, supervise, control, and coordinate the performance of the Job Order Work so that its progress and the sequence and timing of Job Order Work activities will permit completion within Job Order Time.

3.9.9 In preparing the Job Order Schedule and updated Job Order Schedules, Contractor shall obtain such information and data from Subcontractors as may be required to develop a reasonable and appropriate schedule for performance of the work and shall provide such information and data to University's Representative upon request. Contractor shall continuously obtain from Subcontractors information and data about the planning for and progress of the Job Order Work and the delivery of equipment, shall coordinate and integrate such information and data into updated Job Order Schedules, as appropriate, and shall monitor the progress of the Job Order Work and the delivery of equipment.

3.9.10 Contractor shall act as the expeditor of potential and actual delays, interruptions, hindrances, or disruptions for its own forces and those forces of Subcontractors, regardless of tier.

3.9.11 Contractor shall cooperate with University's Representative in the development of the Job Order Schedule and updated Job Order Schedules. University's Representative's acceptance of or its review comments about any schedule or scheduling data shall not relieve Contractor from its sole responsibility to plan for, perform, and complete the Job Order Work within the Job Order Time. Acceptance of or review comments about any schedule shall not transfer responsibility for any schedule to University's Representative or University nor imply their agreement with (1) any assumption upon which such schedule is based or (2) any matter underlying or contained in such schedule. Failure of University's Representative to discover errors or omissions in schedules that it has reviewed, or to inform Contractor that Contractor, Subcontractors, or others are behind schedule, or to direct or enforce procedures for complying with

the Job Order Schedule shall not relieve Contractor from its sole responsibility to perform and complete the Job Order Work within the Job Order Time and shall not be a cause for an adjustment of the Job Order Time or the Job Order Sum.

3.10 AS-BUILT DOCUMENTS

3.10.1 Contractor shall maintain one set of As-built drawings and specifications for each Job Order, which shall be kept up to date during the Work of said Job Order. All changes which are incorporated into the Job Order which differ from the documents as drawn and written shall be noted on the As-built set. Notations shall reflect the actual material, equipment and installation methods used for the Job Order Work and each revision shall be initialed and dated by Superintendent. Prior to filing of the Notice of Completion each drawing and the specification cover of the applicable Job Order shall be signed by Contractor and dated attesting to the completeness of the information noted therein. As-built Documents shall be turned over to University's Representative and shall become part of the Record Documents.

3.11 DOCUMENTS AND SAMPLES AT JOB ORDER WORK SITE

3.11.1 Contractor shall maintain the following at the Job Order Work site:

- .1 One as-built copy of the Job Order Documents, in good order and marked to record current changes and selections made during construction.
- .2 The current accepted Job Order Schedule.
- .3 Shop Drawings, Product Data, and Samples.
- .4 All other required submittals.

These shall be available to University's Representative and shall be delivered to University's Representative for submittal to University upon the earlier of Final Completion or termination of the Contract and/or Job Order(s).

3.12 SHOP DRAWINGS, PRODUCT DATA, SAMPLES, AND ENVIRONMENTAL PRODUCT DECLARATIONS

3.12.1 Definitions:

- .1 Shop Drawings are drawings, diagrams, schedules, and other data specially prepared for the Job Order Work by Contractor or a Subcontractor to illustrate some portion of the Job Order Work.
- .2 Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by Contractor to illustrate or describe materials or equipment for some portion of the Job Order Work.
- .3 Samples are physical examples which illustrate materials, equipment, or workmanship and establish standards by which the Job Order Work will be judged.
- .4 Environmental ProductDeclarations are those documents and other submissions required to be furnished by Contractor or a Subcontractor pursuant to California Public Contract Code Section 3500 et seq., the Buy Clean California Act, as further described in Article 3.12.9 below.

3.12.2 Shop Drawings, Product Data, Samples, and similar submittals are not Contract Documents. Their purpose is to demonstrate, for those portions of the Job Order Work for which submittals are required, how Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents.

3.12.3 Contractor shall review, approve, and submit to University's Representative Shop Drawings, Product Data, Samples, and similar submittals required by the Contract Documents with reasonable promptness and in such sequence as to cause no delay in the Job Order Work or in the activities of University or of Separate Contractors. Submittals made by Contractor which are not required by the Contract Documents may be returned without action by University's Representative.

3.12.4 Contractor shall perform no portion of the Job Order Work requiring submittal and review of Shop Drawings, Product Data, Samples, or similar submittals until the respective submittal has been reviewed by University's Representative and no exceptions have been taken by University's Representative. Such Job Order Work shall be in accordance with approved submittals and the Contract Documents.

3.12.5 By approving and submitting Shop Drawings, Product Data, Samples, and similar submittals, Contractor represents that it has determined or verified materials and field measurements and conditions related thereto, and that it has checked and coordinated the information contained within such submittals with the requirements of the Contract Documents and Shop Drawings for related Work.

3.12.6 If Contractor discovers any conflicts, omissions, or errors in Shop Drawings or other submittals, Contractor shall notify University's Representative and receive instruction before proceeding with the affected Work.

3.12.7 Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by University's Representative's review of Shop Drawings, Product Data, Samples, or similar submittals, unless Contractor has specifically informed University's Representative in writing of such deviation at the time of submittal and University's Representative has given written approval of the specific deviation. Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples, or similar submittals by University's Representative's review, acceptance, comment, or approval thereof.

3.12.8 Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples, or similar submittals, to revisions other than those requested by University's Representative on previous submittals.

3.12.9 Environmental Product Declarations:

3.12.9.1 Contractor shall comply with California Public Contract Code Section 3500 et seq., the Buy Clean California Act ("BCCA").

3.12.9.2 The term "Eligible Materials," as used herein, shall mean the same as defined by the BCCA, and shall include at a minimum the following materials:

- (1) Carbon steel rebar.
- (2) Flat glass.
- (3) Mineral wool board insulation.
- (4) Structural steel.

3.12.9.3 Compliance with the BCCA and this Article applies to all Eligible Materials for the Project.

3.12.9.4 Contractor shall submit to University a current facility-specific Environmental Product Declaration (“EPD”), Type III, as defined by the International Organization for Standardization (“ISO”) standard 14025, or similarly robust life cycle assessment methods that have uniform standards in data collection consistent with ISO standard 14025, industry acceptance, and integrity, for each Eligible Material proposed to be used on the Project.

3.12.9.5 Eligible Materials installed on the Project by Contractor must comply with any standards to the extent established in the BCCA or by University, whichever is more stringent. The facility-specific global warming potential for any Eligible Material must not exceed any existing maximum acceptable global warming potential for that material pursuant to the BCCA or by University, whichever is more stringent (“EM Standards”).

3.12.9.6 Contractor shall not install any Eligible Materials on the Project until Contractor submits a facility-specific EPD for that material which demonstrates that the material complies with any existing EM Standards and this Article. If a global warming potential has not been established for Eligible Materials, the Contractor shall submit a facility-specific EPD for Eligible Materials where available. Contractor shall be responsible for any losses, expenses, penalties or damages of any type incurred or sustained by University, including any tear out and replacement of Defective Work, which are caused by Contractor’s failure to comply with the requirements of the BCCA or this Article.

3.13 USE OF SITE AND CLEAN UP

3.13.1 Contractor shall confine operations at the Job Order Work site to areas permitted by law, ordinances, permits, and the Contract Documents. Contractor shall not unreasonably encumber the Job Order Work site with materials or equipment.

3.13.2 Contractor shall, during performance of the Job Order Work, keep the Job Order Work site and surrounding area free from the accumulation of excess dirt, waste materials, and rubbish caused by Contractor. Contractor shall remove all excess dirt, waste material, and rubbish caused by Contractor; tools; equipment; machinery; and surplus materials from the Job Order Work site and surrounding area at the completion of the Job Order Work.

3.13.3 Personnel of Contractor and Subcontractors shall not occupy, live upon, or otherwise make use of the Job Order Work site during any time that Work is not being performed at the Job Order Work site, except as otherwise provided in the Contract Documents.

3.14 CUTTING, FITTING, AND PATCHING

3.14.1 Contractor shall do all cutting, fitting, or patching of the Work required to make all parts of the Work come together properly and to allow the Work to receive or be received by work of Separate Contractors shown upon, or reasonably implied by, the Contract Documents.

3.14.2 Contractor shall not endanger the Work, the Project, or adjacent property by cutting, digging, or otherwise. Contractor shall not cut or alter the work of any Separate Contractor without the prior consent of University’s Representative.

3.15 ACCESS TO WORK

3.15.1 University, University’s Representative, their consultants, and other persons authorized by University will at all times have access to the Work wherever it is in preparation or progress. Contractor shall provide safe and proper facilities for such access and for inspection.

3.16 ROYALTIES AND PATENTS

3.16.1 Contractor shall pay all royalties and license fees required for the performance of the Work. Contractor shall defend suits or claims resulting from Contractor’s or any Subcontractor’s infringement of patent rights and shall indemnify, defend and hold harmless University and University’s Representative from losses on account thereof.

3.17 DIFFERING SITE CONDITIONS

3.17.1 If Contractor encounters any of the following conditions at the site, Contractor shall immediately notify University’s Representative in writing of the specific differing conditions before they are disturbed and before any affected Job Order Work is performed, and permit investigation of the conditions:

- .1 Subsurface or latent physical conditions at the site (including Hazardous Materials) which differ materially from those indicated in this Contract, or if not indicated in this Contract, in a specific Job Order Notification; or
- .2 Unknown physical conditions at the site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract or specific Job Order.

3.17.2 Contractor shall be entitled to an adjustment to the Job Order Sum and/or Job Order Time as the result of extra costs and/or delays resulting from a materially differing site condition, if and only if Contractor fulfills the following conditions:

- .1 Contractor fully complies with Article 3.17.1; and
- .2 Contractor fully complies with Article 4 (including the timely filing of a Supplemental Job Order Request and all other requirements for Supplemental Job Order Requests and Claims).

3.17.3 Adjustments to the Job Order Sum and/or Job Order Time shall be subject to the procedures and limitations set forth in Articles 7 and 8.

3.18 CONCEALED, UNFORESEEN, OR UNKNOWN CONDITIONS OR EVENTS

3.18.1 Except and only to the extent provided otherwise in Articles 3.17, 7 and 8 of the General Conditions, by signing the Agreement, Contractor agrees:

- .1 To bear the risk of concealed, unforeseen or unknown conditions or events, if any, which may be encountered in performing the Contract; and
- .2 That Contractor's bid for the Contract was made with full knowledge of this risk.

In agreeing to bear the risk of concealed, unforeseen or unknown conditions or events, Contractor understands that, except and only to the extent provided otherwise in Articles 3.17, 7 and 8, concealed, unforeseen or unknown conditions or events shall not excuse Contractor from its obligation to achieve Final Completion of the Job Order Work within the Job Order Time, and shall not entitle Contractor to an adjustment of the Job Order Sum.

3.18.2 If Contractor encounters concealed, unforeseen or unknown conditions or events that may require a change to the design shown in the Contract Documents, Contractor shall immediately notify University's Representative in writing such that University's Representative can determine if a change to the design is required. Contractor shall be liable to University for any extra costs incurred as the result of Contractor's failure to immediately give such notice.

3.18.3 If, as the result of concealed, unforeseen or unknown conditions or events, University issues a Change Order or Field Order that changes the design from the design depicted in the Contract Documents, Contractor shall be entitled, subject to compliance with all the provisions of the Contract, including those set forth in Articles 4, 7 and 8, to an adjustment of the Job Order Sum and/or Job Order Time, for the cost and delay resulting from implementing the changes to the design. Except as provided in this Article 3.18.3, or as may be expressly provided otherwise in the Contract, there shall be no adjustment of the Job Order Sum and/or Job Order Time as a result of concealed, unforeseen or unknown conditions or events. .

3.18.4 Contractor shall, as a condition precedent to any adjustment in Job Order Sum or Job Order Time under Article 3.18.3, fully comply with Article 4 (including the timely filing of a Change Order Request and all other requirements for Change Orders Requests and Claims).

3.19 HAZARDOUS MATERIALS

3.19.1 University shall not be responsible for any Hazardous Material brought to the site by Contractor.

3.19.2 If Contractor: (i) introduces and/or discharges a Hazardous Material onto the site in a manner not specified by the Contract Documents; and/or (ii) disturbs a Hazardous Material identified in the Contract Documents, Contractor shall hire a qualified remediation contractor at Contractor's sole cost to eliminate the condition as soon as possible. Under no circumstance shall Contractor perform Work for which it is not qualified. University, in its sole discretion, may require Contractor to retain at Contractor's cost an independent testing laboratory.

3.19.3 If Contractor encounters a Hazardous Material which may cause foreseeable injury or damage, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such material or substance (except in an emergency situation); and (iii) notify University (and promptly thereafter confirm such notice in writing).

3.19.4 Subject to Contractor's compliance with Article 3.19.3, University shall verify the presence or absence of the Hazardous Material reported by Contractor, except as qualified under Section 3.19.1 and 3.19.3, and, in the event such material or substance is found to be present, verify that the levels of the hazardous material are below OSHA Permissible Exposure Levels and below levels which would classify the material as a state of California or federal hazardous waste. When the material falls below such levels, Work in the affected area shall resume upon direction by University. The Contract Time and Sum shall be extended appropriately as provided in Articles 7 and 8.

3.19.5 University shall indemnify and hold harmless Contractor from and against claims, damages, losses and expenses, arising from a Hazardous Material on the Project site, if such Hazardous Material: (i) was not shown on the Contract Documents or Information Available to Bidders; (ii) was not brought to the site by Contractor; and (iii) exceeded OSHA Permissible Exposure Levels or levels which would classify the material as a state of California or federal hazardous waste. The indemnity obligation in this Article shall not apply to:

- .1 claims, damages, losses or expenses arising from the breach of contract, negligence or willful misconduct of Contractor, its suppliers, its Subcontractors of all tiers and/or any persons or entities working under Contractor; and
- .2 claims, damages, losses or expenses arising from a Hazardous Material subject to Article 3.19.2.

3.19.6 In addition to the requirements in Article 3.22, Contractor shall indemnify and hold harmless University from and against claims, damages, losses and expenses, arising from a Hazardous Material on the Project site, if such Hazardous Material exceeded OSHA Permissible Exposure Levels or levels which would classify the material as a state of California or federal hazardous waste, and was either i) shown on the Contract Documents or Information Available to Bidders; or (ii) brought to the site by Contractor. Nothing in this article shall obligate Contractor to indemnify University in the event of the sole negligence of University, its officers, agents, or employees.

3.20 INFORMATION AVAILABLE TO BIDDERS

3.20.1 Any information provided pursuant to INFORMATION AVAILABLE TO BIDDERS is subject to the following provisions:

- .1 The information is made available for the convenience of Bidders and is not a part of the Contract.
- .2 Contractor may rely on written descriptions of physical conditions included in the information to the extent such reliance is reasonable.
- .3 Other components of the information, including but not limited to recommendations, may not be relied upon by Contractor. University shall not be responsible for any interpretation of or conclusion drawn from the other components of the information by Contractor.

3.21 LIABILITY FOR AND REPAIR OF DAMAGED WORK

3.21.1 Contractor shall be liable for any and all damages and losses to any Job Order Work (whether by fire, theft, vandalism, earthquake, or otherwise) prior to University's acceptance of the Job Order Work as fully completed except that Contractor shall not be liable for earthquake in excess of 3.5 on the Richter Scale, tidal wave, or flood, provided that the damages or losses were not caused in whole or in part by the negligent acts or omissions of Contractor, its officers, agents or employees (including all Subcontractors and suppliers of all tiers). As used herein, "flood" shall have the same meaning as in the builder's risk property insurance.

3.21.2 Contractor shall promptly repair and replace any Work or materials damaged or destroyed for which Contractor is liable under Article 3.21.1.

3.22 INDEMNIFICATION

3.22.1 Contractor shall indemnify, defend and hold harmless University, University's consultants, University's Representative, University's Representative's consultants, and their respective directors, officers, agents, and employees from and against losses (including without limitation the cost of repairing defective work and remedying the consequences of defective work) arising out of, resulting from, or relating to the following:

- .1 The failure of Contractor to perform its obligations under the Contract.
- .2 The inaccuracy of any representation or warranty by Contractor given in accordance with or contained in the Contract Documents.
- .3 Any claim of damage or loss by any Subcontractor against University arising out of any alleged act or omission of Contractor or any other Subcontractor, or anyone directly or indirectly employed by Contractor or any Subcontractor.
- .4 Any claim of damage or loss resulting from Hazardous Materials introduced, discharged, or disturbed by Contractor as required per Article 3.19.6.

3.22.2 University shall not be liable or responsible for any accidents, loss, injury (including death) or damages happening or accruing during the term of the performance of the Work herein referred to or in connection therewith, to persons and/or property, and Contractor shall fully indemnify, defend and hold harmless University and protect University from and against the same as provided in article 3.22.1 above. In addition to the liability imposed by law upon Contractor for damage or injury (including death) to persons or property by reason of the negligence of Contractor, its officers, agents, employees or Subcontractors, which liability is not impaired or otherwise affected hereby, Contractor shall defend, indemnify, hold harmless, release and forever discharge University, its officers, employees, and agents from and against and waive any and all responsibility of same for every expense, liability, or payment by reason of any damage or injury (including death) to persons or property suffered or claimed to have been suffered through any negligent act, omission, or willful misconduct of Contractor, its officers, agents, employees, or any of its Subcontractors, or anyone directly or indirectly employed by either of them or from the condition of the premises or any part of the premises while in control of Contractor, its officers, agents, employees, or any of its Subcontractors or anyone directly or indirectly employed by either of them, arising out of the performance of the Work called for by this Contract. Contractor agrees that this indemnity and hold harmless shall apply even in the event of negligence of University, its officers, agents, or employees, regardless of whether such negligence is contributory to any claim, demand, loss, damage, injury, expense, and/or liability; but such indemnity and hold harmless shall not apply (i) in the event of the sole negligence of University, its officers, agents, or employees; or (ii) to the extent that University shall indemnify and hold harmless Contractor for Hazardous Materials pursuant to Article 3.19.5.

3.22.3 In claims against any person or entity indemnified under this Article 3.22 that are made by an employee of Contractor or any Subcontractor, a person indirectly employed by Contractor or any Subcontractor, or anyone for whose acts Contractor or any Subcontractor may be liable, the indemnification obligation under this Article 3.22 shall not be limited by any limitation on amount or type of damages, compensation, or benefits payable by or for Contractor or any Subcontractor under workers' compensation acts, disability benefit acts, or other employee benefit acts.

3.22.4 The indemnification obligations under this Article 3.22 shall not be limited by any assertion or finding that the person or entity indemnified is liable by reason of a non-delegable duty.

3.22.5 Contractor shall indemnify University from and against Losses resulting from any claim of damage made by any Separate Contractor against University arising out of any alleged acts or omissions of Contractor, any Subcontractor, anyone directly or indirectly employed by either of them, or anyone for whose acts either of them may be liable.

3.22.6 Contractor shall indemnify Separate Contractors from and against Losses arising out of the negligent acts, omissions, or willful misconduct of Contractor, any Subcontractor, anyone directly or indirectly employed by either of them, or anyone for whose acts either of them may be liable.

ARTICLE 4 ADMINISTRATION OF THE CONTRACT

4.1 ADMINISTRATION OF THE CONTRACT BY UNIVERSITY'S REPRESENTATIVE

4.1.1 University's Representative will provide administration of the Contract as provided in the Contract Documents and will be the representative of University. University's Representative will have authority to act on behalf of University only to the extent provided in the Contract Documents.

4.1.2 University's Representative will have the right to visit the Job Order Work site at such intervals as deemed appropriate by University's Representative. However, no actions taken during such Job Order Work site visit by University's Representative shall relieve Contractor of its obligations as described in the Contract Documents.

4.1.3 University's Representative will not have control over, will not be in charge of, and will not be responsible for construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the Work, since these are solely Contractor's responsibility.

4.1.4 Except as otherwise provided in the Contract Documents or when direct communications have been specifically authorized, University and Contractor shall communicate through University's Representative. Except when direct communication has been specifically authorized in writing by University Representative, communications by Contractor with University's consultants and University's Representative's consultants shall be through University's Representative. Communications by University and University's Representative with Subcontractors will be through Contractor. Communications by Contractor and Subcontractors with Separate Contractors shall be through University's Representative. Contractor shall not rely on oral or other non-written communications.

4.1.5 Based on University's Representative's Job Order Work site visits and evaluations of Contractor's Applications For Payment, University's Representative will recommend amounts, if any, due Contractor and will issue Certificates For Payment in such amounts.

4.1.6 University's Representative will have the authority to reject the Work, or any portion thereof, which does not conform to the Contract Documents. University's Representative will have the authority to stop the Work or any portion thereof. Whenever University's Representative considers it necessary or advisable for implementation of the intent of the Contract Documents, University's Representative will have the authority to require additional inspection or testing of the Work in accordance with the Contract Documents, whether or not such Work is fabricated, installed, or completed. However, no authority of University's Representative conferred by the Contract Documents nor any decision made in good faith either to exercise or not exercise such authority, will give rise to a duty or responsibility of University or University's Representative to Contractor, or any person or entity claiming under or through Contractor.

4.1.7 University's Representative will have the authority to conduct inspections as provided in the Contract Documents, to take Beneficial Occupancy and to determine the date of Final Completion; will receive for review and approval any records, written warranties, and related documents required by the Contract Documents and assembled by Contractor; and will issue a final Certificate for Payment upon Contractor's compliance with the requirements of the Contract Documents.

4.1.8 University's Representative will be, in the first instance, the interpreter of the requirements of the Contract Documents and the judge of performance thereunder by Contractor. Should Contractor discover any conflicts, omissions, or errors in the Contract Documents; have any questions about the interpretation or clarification of the Contract Documents; question whether Work is within the scope of the Contract Documents; or question that Work required is not sufficiently detailed or explained, then, before proceeding with the Work affected, Contractor shall notify University's Representative in writing and request interpretation, clarification, or furnishing of additional detailed instructions. University's Representative's response to questions and requests for interpretations, clarifications, instructions, or decisions will be made with reasonable promptness. Should Contractor proceed with the Work affected before receipt of a response from University's Representative, any portion of the Work which is not done in accordance with University's Representative's interpretations, clarifications, instructions, or decisions shall be removed or replaced and Contractor shall be responsible for all resultant losses.

4.2 JOB ORDER PROCEDURES

4.2.1 As the need exists for performance under the terms of this Contract, University will notify Contractor of an existing Job Order requirement. Upon receipt of this notification, Contractor shall respond to the needs of University within two working days by establishing verbal contact with University to further define the scope of the requirement and visiting the proposed work site in the company of University's Representative, and participating in a Joint Scope Meeting which will include discussion and establishment of the following:

- .1 Project number and title
- .2 Staging area
- .3 Existing site conditions
- .4 Methods and alternatives for accomplishing work
- .5 Definition and refinement of requirements
- .6 Detailed scope of work
- .7 Requirements for plans, sketches, shop drawing etc.
- .8 Tentative work schedule
- .9 Preliminary quantity estimates

4.2.2 Upon completion of the Joint Scope Meeting, University's Representative will issue a Request for Job Order Schedule of Values (RFP) and Detailed Scope of Work. The Detailed Scope of Work, unless modified by both the Contractor and the University, will be the basis on which the Contractor will develop its Job Order Schedule of Values and the University will evaluate the same. The Contractor does not have the right to refuse to perform any task or any work in connection with a particular Project.

4.2.3 The Job Order Sum shall be the value of the approved Job Order Schedule of Values. Contractor will prepare a Job Order Schedule of Values which shall include but not be limited to:

- .1 Firm fixed-price proposal based on units for the Detailed Scope of Work and the related Unit Price.
- .2 Schedule in a form required by University.
- .3 Subcontractor List which includes (a) the name and the location of the place of business of each subcontractor who will perform work or labor or render service to the Contractor in or about the construction of the work or improvement, or a subcontractor licensed by the state of California who, under subcontract to Contractor, specifically fabricates and installs a portion of the work or improvement according to Detailed Scope of Work, in an amount in excess of 1/2 of 1 percent of Contractor's total bid, (b) the portion of the work which will be done by each subcontractor. Contractor shall list only one subcontractor for each such portion as is defined by Contractor in its Job Order Schedule of Values. By submitting the Job Order Schedule of Values, Contractor represents that each Subcontractor, regardless of tier, has the appropriate current and active license(s) issued by the State of California Contractor's State License Board for the Work to be performed.
- .4 Any Drawings or other information required for University to be able to review Items .1 to .3 above.

4.2.4 The firm fixed-price Schedule of Values shall be calculated from either Pre-priced Work Tasks or Non-Pre-priced Work Tasks.

4.2.5 Pre-priced Work Tasks shall identify the type and number of work units required from the Construction Task Catalog®. The price per unit set forth in the Construction Task Catalog® shall serve as the base price for the purpose of the operation of this article. Contractor's Schedule of Values shall include support documentation to indicate that adequate engineering and planning for the requirement has been done, and that the work units proposed are reasonable for the tasks to be performed. Documentation to be submitted with the Schedule of Values shall include, but not be limited to, drawings, calculations, catalog cuts, specifications, and architectural renderings.

4.2.6 ~~Non-Pre-priced Work Tasks are units of work not included in the Construction Task Catalog® but within the general scope and intent of this Contract. Such work requirements shall be incorporated into and made a part of this Contract for the Job Order to which they pertain, and may be incorporated into the Construction Task Catalog® if determined appropriate by University at the base price determined in this Article. Non-Pre priced work requirements shall be separately identified and submitted in the Job Order Schedule of Values. Information submitted in support of Non-Pre priced work shall include, but not be limited to, the following:~~

- ~~1. Catalog cuts, complete specifications and technical data, drawings, including work unit content, work unit costs data, quality control and inspection requirements.~~
- ~~2. Work schedule specific to the Non-Pre-priced Task, this will include an update for other Job Order Work concurrently under construction and how these projects will affect the new Job Order Work.~~
- ~~3. Pricing data submitted in support of non-pre-priced work units shall include a cost or price analysis report, establishing the basis for selecting the approach proposed to accomplish the requirements. Unless otherwise directed by University, costing data will be submitted demonstrating that Contractor sought and received three quotes.~~
- ~~4. The final price submitted for Non-Pre-priced Tasks shall be based on the lowest of the three quotes according to the following formula:~~

~~For Non-Pre-priced Tasks Performed with Contractor's Own Forces:~~

- ~~A = Hourly Labor Rate (for Trades not in the Construction Task Catalog®) x the Quantity required~~
~~B = Direct Material Costs (supported by three quotes)~~
~~C = Direct Equipment Costs (for Equipment not in the Construction Task Catalog®) x the Quantity required~~

~~Total Cost of Non-Pre-Priced Task = (A + B + C) x Appropriate Working Hours Adjustment Factor.~~

~~For Non-Pre-priced Tasks Performed by Subcontractors:~~

- ~~D = Lowest of three subcontractor Quotes~~

~~Total Cost for Non-Pre-priced Tasks performed by Subcontractors = D x Appropriate Working Hours Adjustment Factor.~~

- ~~5. Following approval by the University of a Non-Pre-priced Task and Unit Price, the Non-Pre-priced Task Unit Price will be entered into the computer data base.~~
- ~~6. The total extended price for the Non-Pre-priced Task will be determined by multiplying the Unit Price by the quantity required.~~
- ~~7. After using a Non-Pre-priced item on three separate Job Orders, the University and Contractor will agree on the Unit Price for the work item which will be fixed as a permanent Pre-priced item which will no longer require price justification and the Unit Price will not include any markup which is included in the Adjustment Factor.~~
- ~~8. Credits for Pre-priced and Non-Pre-priced Tasks shall be calculated at the pre-set Unit Prices and multiplied by the appropriate Adjustment Factors. The result is that a credit for Tasks that have been deleted from the Detailed Scope of Work will be given at 100% of the value at which they were included in the original Schedule of Values.~~
- ~~9. The University's determination as to whether a task is a Pre-priced Task or a Non-Pre-priced Task shall be final, binding and conclusive as to the Contractor.~~

See Supplementary Conditions

4.2.7 University reserves the right to reject a Contractor's Schedule of Values based on unjustifiable quantities, performance periods, inadequate documentation, or other inconsistencies on Contractor's part. Contractor has the obligation to confirm the quantities shown in Contractor's Schedule of Values. University has the right to require Contractor to prove the quantities shown in the Schedule of Values by providing additional documentation such as sketches, drawings or plans as necessary. University also reserves the right to not award a Job Order if University's requirement is no longer valid. In these instances, Contractor has no right of claim to recoup Schedule of Values expenses.

4.2.8 By submitting a signed Job Order Schedule of Values to the University, the Contractor is agreeing to accomplish the Detailed Scope of Work outlined in the Request for Job Order Schedule of Values for that particular Job Order at the Job Order Sum, pending approval by the University. It is the Contractor's responsibility to include any necessary scope items in the Schedule of Values prior to issuing it to the University. Errors and omissions in the Schedule of Values shall be the responsibility of the Contractor. The Contractor's Schedule of Values shall be valid for the entire term of the Contract.

4.2.9 Before ordering any material or doing any work, Contractor shall verify all measurements at the site of a specific Job Order, and shall be responsible for the correctness of same. No extra charge or compensation will be allowed on account of difference between actual dimensions and the measurements indicated in the Request for Job Order Schedule of Values and Detailed Scope of Work. Any difference which may be found shall be submitted to University for review and consideration before proceeding with the work.

4.2.10 When the word approximate is used in conjunction with measurements, quantities, dimensions, etc., it is Contractors' responsibility to verify any and all such items prior to submission of the Schedule of Values. Any Job Order awarded is for all services or work, as necessary, to construct, repair, and remodel the facilities covered by the Job Order in accordance with all Contract terms and conditions. It shall also be the duty and responsibility of Contractor to manage, and conduct the required work in the most effective and efficient manner possible and meet or exceed minimum critical rates or standards. No claims for additional moneys will be entertained when such claim is based upon a contention the Contract or Job Order fails to mention a specific item or component of facility covered by contract and the work is required in the normal course of operations.

4.2.11 Prior to issuing a Job Order Authorization, University will notify Contractor in writing, if University, after due investigation, objects to a Subcontractor or Superintendent proposed by Contractor, in which case Contractor shall propose a substitute acceptable to University. Substitution of Superintendent shall be made in accordance with Article 3 of the General Conditions. Substitution of a Subcontractor shall be made in accordance with Article 5 of the General Conditions. Failure of University to object to a proposed Subcontractor or Superintendent prior to authorization shall not preclude University from requiring replacement of the Subcontractor or Superintendent based upon information received subsequent to authorization, information which cannot be properly evaluated prior to authorization due to time constraints, or information relating to a failure to comply with the requirements of the Contract.

4.3 PROCESSING TIME LIMITS

4.3.1 After receiving the Request for Job Order Schedule of Values Submittal, Contractor shall submit the Schedule of Values for the Job Order on or before the due date stated in the Request for Schedule of Values (14 days maximum unless otherwise specified).

4.3.2 Contractor shall make a thorough analysis of each Job Order and submit all Requests For Information (RFI's) within 7 days after issuance of any RFP. Submission of RFI's shall in no way extend the Schedule of Values due date unless deemed necessary by University.

4.3.3 Contractor's project manager or agent shall be available for Schedule of Values review meetings within 48 hours of being notified by University (via fax, e-mail, telephone, etc.). After review of the Schedule of Values, Contractor shall remove all inappropriate line items and adjust quantities as directed by University.

4.3.4 Contractor shall submit a revised Schedule of Values within 24 hours of Schedule of Values review meeting. Upon review of revised Schedule of Values by University's Representative, Contractor shall remove all line items or adjust quantities deemed inappropriate by University's Representative and re-submit the Schedule of Values within 24 hours. No new line items, quantity increases or added modifiers will be accepted unless agreed to by University during the second Schedule of Values review meeting.

4.3.5 Failure to comply may result in Contractor being deemed non-responsive and could result in termination of the Contract. University may also deem Contractor to be non-responsive in regard to any future JOC Contracts.

4.4 CONTRACTOR SUPPLEMENTAL JOB ORDER REQUESTS

4.4.1 Contractor may request changes to the Job Order Sum and/or Job Order Time for Extra Work or delays for completion of Job Order Work caused by the acts, errors, or omissions of University, University's Representative, their agents or employees, materially differing site conditions, or Delays to Final Completion of the Work.

4.4.2 Conditions precedent to obtaining an adjustment of the Job Order Sum and/or Job Order Time, payment of money, or other relief with respect to the Contract Documents, for any other reason, are:

- .1 Timely submission of a Supplemental Job Order Request that meets the requirements of Articles 4.4.3.1, 4.4.3.2 and 4.4.3.3; and
- .2 If requested, timely submission of additional information requested by University's Representative pursuant to Article 4.2.3.3.

4.4.3 Supplemental Job Order Request:

- .1 Any changes to the Work of a Job Order will be done by issuance of a Supplemental Job Order. Any additions or deletions are therefore calculated using the appropriate item in the Construction Task Catalog®, multiplied by the quantity to be adjusted, multiplied by the appropriate Adjustment Factor. Time will be adjusted as appropriate.
- .2 A Supplemental Job Order Request will be deemed timely submitted if, and only if, it is submitted within 7 days of the date Contractor discovers, or reasonably should discover the circumstances giving rise to the Supplemental Job Order Request, unless additional time is allowed in writing by University's Representative for submission of the Supplemental Job Order Request, provided that if:
 - .1 the Supplemental Job Order Request includes compensation sought by a Subcontractor; AND
 - .2 Contractor requests in writing to University's Representative, within the 7-day time period, additional time to permit Contractor to conduct an appropriate review of the Subcontractor Supplemental Job Order Request, the time period for submission of the actual Supplemental Order Request shall be extended by the number of days specified in writing by University's Representative.
- .3 A Supplemental Job Order Request must state that it is a Supplemental Job Order Request, state and justify the reason for the request, and specify the amount of any requested adjustment of the Job Order Sum, Job Order Time, and/or other monetary relief. If Contractor requests an adjustment to the Job Order Sum or other monetary relief, Contractor shall submit the following with the Supplemental Job Order Request:
 - .1 a completed Schedule of Values with pricing from the CTC meeting the requirements of Article 7; OR
 - .2 a partial Schedule of Values with pricing from the CTC and a declaration of what required information is not then known to Contractor. If Contractor failed to submit a completed Schedule of Values with the Job Order Request, Contractor shall submit a completed Schedule of Values meeting the requirements of Article 7 within 7 days of the date Contractor submitted the Job Order Request unless additional time is allowed by University's Representative.

- 4 Upon request of University's Representative, Contractor shall submit such additional information as may be requested by University's Representative for the purpose of evaluating the Supplemental Job Order Request. Such additional information may include:
 - .1 If Contractor seeks an adjustment of the Job Order Time, written documentation demonstrating Contractor's entitlement to a time extension under Article 8.4, which shall be submitted within 15 days of the date requested. If requested, Contractor may submit a fragnet in support of its request for a time extension. University may, but is not obligated to, grant a time extension on the basis of a fragnet alone which, by its nature, is not a complete schedule analysis. If deemed appropriate by University's Representative, Contractor shall submit a more detailed schedule analysis in support of its request for a time extension.
 - .2 If Contractor seeks an adjustment of the Job Order Sum or other monetary relief for delay, written documentation demonstrating Contractor's entitlement to such an adjustment under Article 7.3.1, which shall be submitted within 15 days of the date requested.
 - .3 Any other information requested by University's Representative for the purpose of evaluating the Supplemental Job Order Request, which shall be submitted by the deadline established by University's Representative.

4.4.4 University's Representative will make a decision on a Supplemental Job Order Request, within a reasonable time, after receipt of a Supplemental Job Order Request. In the event the Supplemental Job Order Request is submitted pursuant to Article 8.4.1, University's Representative shall promptly review and accept or reject it within thirty (30) days. A final decision is any decision on a Supplemental Job Order Request which states that it is final. If University's Representative issues a final decision denying a Supplemental Job Order Request in whole or in part, Contractor may contest the decision by filing a timely Claim under the procedures specified in Article 4.7.

4.4.5 Contractor may file a written demand for a final decision by University's Representative on all or part of any Supplemental Job Order Request as to which University's Representative has not previously issued a final decision pursuant to Article 4.4.4; such written demand may not be made earlier than the 30th day after submission of the Supplemental Job Order Request. Within 30 days of receipt of the demand, University's Representative will issue a final decision on the Supplemental Job Order Request. University's Representative's failure to issue a decision within the 30-day period shall be treated as the issuance, on the last day of the 30-day period, of a final decision to deny the Supplemental Order Request in its entirety.

4.5 CHANGE ORDERS TO THE CONTRACT

4.5.1 University and Contractor may modify the Contract only by Change Order or by Job Order Authorization.

4.5.2 Contract Change Orders shall include, but are not limited to, additions to the Construction Task Catalog® and University's unilateral option to extend the Contract.

4.5.3 University has two (2) unilateral options which may be exercised at any time subject to the following:

- .1 Each University Option Term is for a maximum time period of one year, or the full expenditure of the Maximum Contract Value given for the current Option Term.
- .2 This provision provides a means by which to make adjustments to the Base Term Adjustment Factors for use on subsequent Option Term Adjustment Factors by using actual escalation/de-escalation as measured by the Construction Cost Index (CCI) published in the ENR (formally known as Engineering News Record). The CCI for closest published City shall be applied in the operation of this provision.
- .3 The "base term index" is determined by averaging the monthly CCI indices for the 12 months prior to the month of the Base Term bid due date.
- .4 The "first option term index" is determined by averaging the last 12-month period just prior to the month in which the first Option Term is exercised.

The "second option term index" is determined by averaging the last 12-month period just prior to the month in which the second Option Term is exercised.
- .5 The Adjustment Factor for the first Option Term is determined by dividing the "first option term index" by the "base term index" and then by multiplying by the original Adjustment Factor.

The Adjustment Factor for the second Option Term is determined by dividing the "second option term index" by the "base term index" and then by multiplying by the original Adjustment Factor.
- .6 All the above computations shall be rounded to four (4) decimal places.
- .7 The Contractor cannot delay submission of the Job Order Schedule of Values past the due date to take advantage of a scheduled update of the Adjustment Factors. In that event, the Contractor shall use the Adjustment Factors that would have been in effect without the delay.

4.6 CLAIMS

4.6.1 The term "Claim" means a written demand or assertion by Contractor seeking an adjustment or interpretation of the terms of the Contract Documents, payment of money, extension of time, or other relief with respect to the Contract Documents, including a determination of disputes or matters in question between University and Contractor arising out of or related to the Contract Documents or the performance of the Work. However, the term "Claim" shall not include, and the Claims procedures provided under this Article 4, including but not limited to arbitration, shall not apply to the following:

- .1 Claims respecting penalties for forfeitures prescribed by statute or regulation which a government agency is specifically authorized to administer, settle, or determine.
 - .2 Claims respecting personal injury, death, reimbursement, or other compensation arising out of or resulting from liability for personal injury or death.
 - .3 Claims by University, except as set forth in Articles 4.8, 4.9, and 4.10.
 - .4 Claims respecting stop payment notices.
- 4.6.2 A Claim arises upon the issuance of a written final decision denying in whole or in part Contractor's Supplemental Job Order Request pursuant to Articles 4.4.4 and 4.4.5.
- 4.6.3 A Claim must include the following:
- .1 A statement that it is a Claim and a request for a decision pursuant to Article 4.4.
 - .2 A detailed factual narrative of events fully describing the nature and circumstances giving rise to the Claim, including but not limited to, necessary dates, locations, and items of work affected.
 - .3 A certification, executed by Contractor, that the claim is filed in good faith. The certification must be made on the Claim Certification form, included in the Exhibits to the Contract. The language of the Claim Certification form may not be modified.
 - .4 A certification, executed by each Subcontractor claiming not less than 5% of the total monetary amount sought by the claim, that the subcontractor's portion of the claim is filed in good faith. The certification must be made on the Claim Certification form, included in the Exhibits to the Contract. The language of the Claim Certification form may not be modified.
 - .5 A statement demonstrating that a Supplemental Job Order Request was timely submitted as required by Article 4.4.3.
 - .6 If a Schedule of Values or declaration was required by Article 4.4.3, a statement demonstrating that the Schedule of Values or the declaration was timely submitted as required by Article 4.4.3.
 - .7 A detailed justification for any remedy or relief sought by the Claim, including to the extent applicable, the following:
 - .1 If the Claim involves Extra Work, a detailed cost breakdown of the amounts claimed, including the items specified in Article 7.3.2. An estimate of the costs must be provided even if the costs claimed have not been incurred when the Claim is submitted. To the extent costs have been incurred when the Claim is submitted, the Claim must include actual cost records (including without limitation, payroll records, material and rental invoices and the like) demonstrating that costs claimed have actually been incurred. To the extent costs have not yet been incurred at the time the Claim is submitted, actual cost records must be submitted on a current basis not less than once a month during any periods costs are incurred. A cost record will be considered current if submitted within 30 days of the date the cost reflected in the record is incurred. At the request of University's Representative, claimed extra costs may be subject to further verification procedures (such as having an inspector verify the performance of alleged Extra Work on a daily basis). The cost breakdown must include an itemization of costs for i) labor including workers' names, classifications, regular hours and overtime hours worked, dates worked, and other pertinent information; ii) materials stored or incorporated into the Work including invoices, purchase orders, location of materials either stored or incorporated into the Work, dates materials were transported to the Job Order Work site or incorporated into the Work, and other pertinent information; and iii) itemization of machinery and equipment including make, model, hours of use, dates of use and equipment rental rates of any rented equipment.
 - .2 If the Claim involves an extension of the Job Order Time, written documentation demonstrating Contractor's entitlement to a time extension under Article 8.4, including the specific dates for which a time extension is sought and the specific reasons for entitlement of a time extension.
 - .3 If the Claim involves an adjustment of the Job Order Sum for delay, written documentation demonstrating Contractor's entitlement to such an adjustment, including but not limited to, a detailed time impact analysis of the Job Order Schedule. The Job Order Schedule must demonstrate Contractor's entitlement to such an adjustment.

4.7 ASSERTION OF CLAIMS

- 4.7.1 Claims by Contractor shall be first submitted to University's Representative for decision.
- 4.7.2 Notwithstanding the making of any Claim or the existence of any dispute regarding any Claim, unless otherwise directed by University's Representative, Contractor shall not cause any delay, cessation, or termination in or of Contractor's performance of the Work, but shall diligently proceed with performance of the Work in accordance with the Contract Documents.
- 4.7.3 Contractor shall submit a Claim in writing, together with all supporting data specified in Article 4.6.3, to University's Representative as soon as possible but not later than 30 days after the date the Claim arises under Article 4.6.2, provided that after written notification to University's Representative within such time period, the time period for submission of the Claim shall be extended by the number of days specified in writing by University's Representative where the Claim includes compensation sought by a Subcontractor and Contractor requests an extension of time to permit it to discharge its responsibilities to conduct an appropriate review of the Subcontractor claim.
- 4.7.4 Strict compliance with the requirements of Articles 4.2, 4.3 and 4.4 are conditions precedent to Contractor's right to an informal conference to meet and confer to resolve a Claim, mediate a Claim, or arbitrate or litigate a Claim. Contractor specifically agrees to assert no Claims via an informal conference, mediation, arbitration or litigation unless there has been strict compliance with Articles 4.2, 4.3, and 4.4. The failure of Contractor to strictly comply with the requirements of Articles 4.2, 4.3 and 4.4 constitutes a failure by Contractor to exhaust its administrative remedies with the University, thereby denying any court or arbitration panel of jurisdiction to adjudicate the Claim.

4.8 DECISION OF UNIVERSITY'S REPRESENTATIVE ON CLAIMS

4.8.1 University's Representative will timely review Claims submitted by Contractor. If University's Representative determines that additional supporting data are necessary to fully evaluate a Claim, University's Representative will request such additional supporting data in writing. Such data shall be furnished no later than 10 days after the date of such request. University's Representative will render a decision promptly and in any case within 30 days after the later of the receipt of the Claim or the deadline for furnishing such additional supporting data; provided that, if the amount of the Claim is in excess of \$50,000, the aforesaid 30-day period shall be 45 days. Failure of University's Representative to render a decision by the applicable deadline will be deemed a decision denying the Claim on the date of the deadline, unless, upon receipt of a Claim, Contractor and University mutually agree to extend the time periods provided herein, or unless otherwise extended by law. The decision of University's Representative will be final and binding unless appealed in accordance with Articles 4.8.2, 4.9, and 4.10. The University's Representative's decision on a Claim or dispute will include a written statement both identifying all disputed and undisputed portions of the Claim and substantially including the following:

"This is a decision under Article 4.8 of the General Conditions of your contract. If you are dissatisfied with the decision, and if you complied with the procedural requirements for asserting claims specified in Article 4 of the General Conditions of your contract, you may have the right to demand in writing an informal conference to meet and confer for settlement of any remaining issues in dispute, following which, if still dissatisfied, you may demand in writing a further resolution via nonbinding mediation, after which you have the right to arbitrate or litigate this decision. If you fail to take appropriate action within 30 days of the date of this decision, the decision shall become final and binding and not subject to further appeal."

4.8.2 If either Contractor or University disputes University's Representative's decision on a Claim, then, within 30 days after the decision of University's Representative on the Claim, or, if no decision has been issued, within 30 days from the date of the applicable deadline in Article 4.5.1 for University Representative to render a decision, such party (the "Disputing Party") must provide written notice demanding an informal conference to meet and confer. University shall schedule the conference within 30 days upon receipt of the notice demanding an informal conference. The parties will attempt in good faith to resolve any controversy or Claim arising out of or relating to this Contract by negotiation at the conference.

4.9 MEDIATION

4.9.1 Within 10 business days following the informal conference to meet and confer stated in Article 4.5.2, if the Claim or any portion of the Claim remains in dispute, the University shall provide a written statement identifying the disputed and undisputed portions of the Claim. Within 30 days of receipt of the statement, if either Contractor or University disputes any portion of the Claim, then the Disputing Party must provide written notice to the non-disputing party demanding non-binding mediation. The Contractor and the University shall share the associated costs equally and shall mutually agree to a mediator within 10 business days. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the Claim, with each party bearing the fees and costs of its respective mediator. Mediation shall include, but not be limited to, neutral evaluation, a dispute review board, or other negotiation or evaluation through an independent third party or board. The Contractor and the University may mutually agree to waive any individual mediation in writing and proceed to arbitration or litigation pursuant to this Contract.

4.10 LITIGATION AND ARBITRATION

4.10.1 Either party may provide a written notice of its election to arbitrate or provide written notice of its election to litigate the Claim within 30 days after the mediation pursuant to Article 4.6.1, or, if the parties mutually agreed in writing to waive mediation, within 30 days after the agreement is signed by both parties.

4.10.2 If a notice of election to arbitrate or litigate is not given by either party within 30 days pursuant to Article 4.7.1, University's Representative's decision on the Claim will be final and binding and not subject to appeal or challenge.

4.10.3 If the Disputing Party gives timely notice of its election to arbitrate the University's Representative's decision on a Claim, Disputing Party shall have the right, within 120 days after a Notice of Completion, or a Notice of Cessation, as applicable, is filed for the Contract, to make a demand for arbitration in accordance with Article 4.7. Failure to perfect a Claim for which a timely election to arbitrate has been made by the timely filing of a demand for arbitration and timely payment of all applicable and required fees to the American Arbitration Association ("AAA") shall result in the University's Representative's decision on said Claim becoming final and binding and not subject to appeal or challenge. If the Disputing Party makes a timely demand for arbitration, and the amount of the Claim in question, when combined with all other Claims, if any, which are the subject of previously filed demands for arbitration that have not been resolved by settlement or arbitration award, is \$100,000 or more, then the other party may elect to litigate all such Claims by filing a written notice with the AAA within 30 days after its receipt of notice from AAA of the Disputing Party's demand for arbitration of the Claim that raises the total amount of Claims subject to arbitration to \$100,000 or more. If the other party fails to give notice of its election to litigate within such 30-day period, it shall be deemed to have consented to arbitration and waived the right to litigate. If after commencement of arbitration the amount of unresolved Claims in arbitration are allowed to be increased to \$100,000 or more, through an AAA-allowed amendment or otherwise, either party may elect to litigate within 30 days following the date that the electing party first receives written notification from the AAA that total Claims in arbitration equal or exceed \$100,000. If neither party gives notice of its election to litigate within such 30-day period as applicable, then both parties shall be deemed to have consented to arbitration and waived the right to litigate.

4.10.4 A demand for arbitration pursuant to Article 4.10.3 shall include a copy of the Claim presented to University's Representative pursuant to Article 4.6, a copy of the decision of University's Representative pursuant to Article 4.7, if any, a copy of the University's written statement identifying the portion of the Claim that remained in dispute following the informal conference pursuant to Article 4.9.1, and a summary of the remaining portions of the Claim in dispute. The demand shall state the amount in controversy, if any, and state the remedy sought. The demand shall identify the University's Responsible Administrator as the representative of the responding party and the Office of the General Counsel as counsel for the responding party. The demand shall be filed with the AAA and shall not be deemed to have been made until all applicable fees have been paid to the AAA by the demanding party. Copies of the demand and attachments shall be sent to University's Responsible Administrator as the representative of the responding party and the University's

Office of General Counsel as attorney for the responding party, at the addresses set forth in the Project Directory, at the time the demand for arbitration is initiated with the AAA.

4.10.5 Except as modified by this Article 4.10, arbitration shall be initiated and conducted in accordance with the Construction Industry Arbitration Rules of the AAA then in effect. The following additional modifications shall be made to the aforesaid AAA rules:

- .1 Civil discovery shall be permitted for the production of documents and taking of depositions. Other discovery may be permitted at the discretion of the arbitrator. All disputes regarding discovery shall be decided by the arbitrator.
- .2 University's Representative and/or University's consultants, shall if required by agreement with University, upon demand by University join in and be bound by the Arbitration. University's Representative and University's consultants will have the same rights in any arbitration proceeding as are afforded by the AAA rules to Contractor and University.
- .3 Contractor's sureties shall be bound by any arbitration award and may join in any arbitration proceeding.
- .4 Except as provided in Articles 4.10.5.2. and 4.10.5.3 above, no Subcontractor or other person shall have a right or obligation to join in or be a party to any arbitration proceeding provided for in this Article 4 either directly, by joinder, by consolidation or actions, by counterclaim or cross-claim, or otherwise without the express written consent of University, Contractor, and the joining party.
- .5 If more than one demand for arbitration is made by a party with respect to Claims referred to University's Representative, all such Claims shall be consolidated into a single arbitration unless the parties otherwise agree in writing.
- .6 If total Claims are less than \$50,000, AAA expedited procedures as modified by this Article 4 shall apply. If total Claims are between \$50,000 and \$100,000 they shall be heard by a single arbitrator who shall be an attorney. If total Claims are in excess of \$100,000 and are submitted to arbitration, either by agreement or by failure to elect litigation the controversy shall be heard by a panel of three arbitrators, one of which shall be an attorney.
- .7 No arbitrator shall be appointed and no discovery may be commenced prior to the date of Final Completion unless University and Contractor otherwise agree.
- .8 The exclusive forum for determining arbitrability shall be the Superior Court of the State of California. The AAA shall not submit to any arbitrator any matter concerning the arbitrability of the dispute if the arbitrability is contested.
- .9 If the expedited procedures of the AAA are applicable, the AAA shall submit simultaneously to each party an identical list of 7 proposed arbitrators drawn from the National Panel of Commercial Arbitrators, and each party may strike 3 names from the list on a peremptory basis and return the list to the AAA within 10 days from the date of receipt.
- .10 Except as provided herein, the arbitration shall be conducted and enforced under California law, including the California Arbitration Act (California Code of Civil Procedure section 1280 and following). The Federal Arbitration Act shall not apply to the arbitration.

4.10.6 Unless University and Contractor otherwise agree in writing, the arbitration decision shall be binding upon the parties, made under and in accordance with the laws of the State of California, supported by substantial evidence, and in writing. If the total of all Claims or cross Claims submitted to arbitration is in excess of \$50,000, the award shall contain the basis for the decision, findings of fact, and conclusions of law. Any arbitration award shall be subject to confirmation, vacation, or correction under the procedures and on the grounds specified in the California Code of Civil Procedure including without limitation Section 1296. The expenses and fees of the arbitrators and the administrative fees of the AAA shall be divided among the parties equally. Each party shall pay its own counsel fees, witness fees, and other expenses incurred for its own benefit.

4.10.7 University may, but is not required, to assert as a counterclaim any matter arising out of the claims asserted by Contractor in the arbitration. University's failure to assert any such counterclaim in an arbitration shall be without prejudice to the University's right to assert the counterclaim in litigation or other proceeding.

4.10.8 Any litigation shall be filed in the Superior Court of the State of California for the County in which the contract was to be performed.

4.11 WAIVER

4.11.1 A waiver of or failure by University or University's Representative to enforce any requirement in this Article 4 in connection with any Claim shall not constitute a waiver of, and shall not preclude University or University's Representative from enforcing such requirements in connection with any other Claims.

4.11.2 Contractor agrees and understands that no oral approval, either express or implied, of any Claim shall be binding upon University unless and until such approval is ratified by execution of a written Supplemental Job Order.

ARTICLE 5 SUBCONTRACTORS

5.1 AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK

5.1.1 Contractor shall list in each Job Order Schedule of Values all Subcontractors that will perform work, labor, or render such services having a dollar value in excess of 0.5% of the Job Order. A Job Order Schedule of Values shall include the following information when listing Subcontractors: 1) Work Activity; 2) name of Subcontractor; 3) city of Subcontractor's business location and 4) Subcontract Dollar Value. The failure to list, on the Job Order Schedule of Values, any one of the items set forth above will result in University treating the Job Order as if no Subcontractor was listed for the Work Activity and Contractor will thereby represent to University that Contractor agrees that it is fully qualified to perform that portion of the Work and shall perform that Work Activity.

5.1.2 Any Subcontractor may be disqualified if University or University's Representative determines that such Subcontractor fails to meet the requirements of the Contract Documents or for any other reason.

5.1.3 In accordance with the Subletting and Subcontracting Fair Practices Act, nothing herein shall be deemed to entitle Contractor, without the approval of University, to substitute other subcontractors for those named in Contractor's List of Subcontractors contained in the completed Job Order; and, except with such approval, no such substitution shall be made.

5.1.4 Except as hereinafter provided, any increase in the cost of the Job Order Work resulting from the replacement or substitution of a Subcontractor, as required by University or University's Representative pursuant to Article 5.1.3 shall be borne solely by Contractor and Contractor shall not be entitled to any increase in Job Order Sum or extension of Job Order Time on account of such replacement or substitution.

5.2 SUBCONTRACTUAL RELATIONS

5.2.1 Any part of the Work performed for Contractor by a first-tier Subcontractor shall be pursuant to a written subcontract. Each such subcontract shall require the Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to Contractor by the terms of the Contract Documents, to assume toward Contractor all the obligations and responsibilities which Contractor assumes towards University by the Contract Documents, and to perform such portion of the Work in accordance with the Contract Documents. Each such subcontract shall preserve and protect the rights of University under the Contract Documents, with respect to the Work to be performed by Subcontractor, so that subcontracting thereof will not prejudice such rights. Contractor shall cause each such subcontract to expressly include the following requirements:

- .1 Subcontractor waives all rights that Subcontractor may have against University for damages caused by fire or other perils covered by builder's risk property insurance carried by Contractor or University, except for such rights Subcontractor may have to the proceeds of such insurance held by University under Article 11.
- .2 University and entities and agencies designated by University will have access to and the right to audit and the right to copy at University's cost all of Subcontractor's books, records, contracts, correspondence, instructions, drawings, receipts, vouchers, purchase orders, and memoranda relating to the Work. Subcontractor shall preserve all such records and other items for a period of at least 3 years after Final Completion.
- .3 Subcontractor recognizes the rights of University under Article 5.3, Contingent Assignment of Subcontracts, and agrees, upon notice from University that University has elected to accept said assignment and to retain Subcontractor pursuant to the terms of the subcontract, to complete the unperformed obligations under the subcontract and, if requested by University, to execute a written agreement confirming that Subcontractor is bound to University under the terms of the subcontract.

5.2.2 Upon the request of University, Contractor shall promptly furnish to University a true, complete, and executed copy of any subcontract.

5.2.3 Nothing contained in the Contract Documents shall create any contractual relationship between any Subcontractor and University, except when, and only to the extent that, University elects to accept the assignment of the subcontract with such Subcontractor pursuant to Article 5.3, Contingent Assignment of Subcontracts.

5.3 CONTINGENT ASSIGNMENT OF SUBCONTRACTS

5.3.1 Contractor hereby assigns to University all its interest in first-tier subcontracts now or hereafter entered into by Contractor for performance of any part of the Work. The assignment will be effective upon acceptance by University in writing and only as to those subcontracts which University designates in writing. University may accept said assignment at any time during the course of the Work and prior to Final Completion of the last Job Order in the event of a suspension or termination of Contractor's rights under the Contract Documents. Such assignment is part of the consideration to University for entering into the Contract with Contractor and may not be withdrawn prior to Final Completion.

ARTICLE 6 CONSTRUCTION BY UNIVERSITY OR BY SEPARATE CONTRACTORS

6.1 UNIVERSITY'S RIGHT TO PERFORM CONSTRUCTION AND TO AWARD SEPARATE CONTRACTS

6.1.1 University reserves the right to award separate contracts for, or to perform with its own forces, construction or operations related to Job Order Work or other construction or operations at or affecting the Job Order Work site, including portions of Project or other construction or operations at or affecting the Project. Contractor shall cooperate with University's forces and Separate Contractors.

6.1.2 University will provide coordination of the activities of University's forces and of each Separate Contractor with Job Order Work of Contractor. Contractor shall participate with University and Separate Contractors in joint review of construction schedules and Project requirements when directed to do so. Contractor shall make necessary revisions to the Job Order Schedule after such joint review.

6.2 MUTUAL RESPONSIBILITY

6.2.1 Contractor shall afford University and Separate Contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities. Contractor shall connect, schedule, and coordinate its construction and operations with the construction and operations of University and Separate Contractors as required by the Contract Documents.

6.2.2 If a portion of Job Order Work is dependent upon the proper execution or results of other construction or operations by University or Separate Contractors, Contractor shall inspect such other construction or operations before proceeding with that portion of Job Order Work. Contractor shall promptly report to University's Representative apparent discrepancies or defects which render the other construction or operations unsuitable to receive Job Order Work. Unless otherwise directed by University's Representative, Contractor shall not proceed with the portion of Job Order Work affected until apparent discrepancies or defects have been corrected. Failure of Contractor to so report within a reasonable time after discovering such discrepancies or defects shall constitute an acknowledgment that the other construction or operations by University or Separate Contractors is suitable to receive Job Order Work, except as to defects not then reasonably discoverable.

6.3 UNIVERSITY'S RIGHT TO CLEAN UP

6.3.1 If a dispute arises between Contractor and Separate Contractors as to the responsibility under their respective contracts for maintaining the Job Order Work site and surrounding areas free from waste materials and rubbish, University may clean up and allocate the cost between those firms it deems to be responsible.

ARTICLE 7 CHANGES IN THE WORK

7.1 CHANGES

7.1.1 University may, from time to time, order or authorize additions, deletions, and other changes in Job Order Work by Supplemental Job Order or Field Order and modifications to any Contract Term or Condition by Change Order without invalidating the Contract and without notice to sureties. Absence of such notice shall not relieve such sureties of any of their obligations to University.

7.1.2 Contractor may request a Supplemental Job Order under the procedures specified in Article 4.2.

7.1.3 A Field Order may be issued by University, does not require the agreement of Contractor, and shall be valid with or without the signature of Contractor.

7.1.4 Contractor shall proceed promptly with any changes in the Work, unless otherwise provided in the relevant Supplemental Job Order or Field Order.

7.2 DEFINITIONS

7.2.1 A Supplemental Job Order is developed for the purpose of changing, deleting, or adding work to the initial Scope of Work after the initial Job Order has been issued or for changing the Job Order Time or Job Order Sum.

7.2.2 A Change Order is a Contract Document (as shown in the Exhibits) which has been signed by both University and Contractor, and states their agreement, as applicable, to modification to any Contract term or condition.

7.2.3 A Unilateral Change Order may be issued by University, without Contractor's signature, where University determines that a modification to a Contract Term or Condition is required, even though no agreement has been reached between University and Contractor with regard to such change in the Work.

7.2.4 A Field Order (as shown in the Exhibits) is a Contract Document issued by University that orders Contractor to perform Work. A Field Order may, but need not, constitute a change in the Work and may, but need not, entitle Contractor to an adjustment of the Job Order Sum or Job Order Time.

7.3 SUPPLEMENTAL JOB ORDER PROCEDURES

7.3.1 Contractor shall provide a Supplemental Job Order Request and Schedule of Values pursuant to Article 4.4 and this Article 7.3 of the General Conditions. Adjustments of the Job Order Sum resulting from Extra Work and Deductive Work shall be determined using one of the methods described in this Article 7.3. All changes to the work shall be priced in the same manner as the original Job Order. Adjustments of the Job Order Time shall be subject to the provisions in Article 8. Contractor's obligation to provide Schedule of Values shall be subject to the following:

- .1 The obligation of Contractor to provide Schedule of Values is not Extra Work, and shall not entitle Contractor to an adjustment of the Job Order Sum or Job Order Time.
- .2 The failure of Contractor to timely provide a Schedule of Values pursuant to Article 4.4 and this Article 7.3.1 is a material breach of the Contract. Contractor shall be responsible for any delay in implementing a change for which Contractor failed to timely provide a Schedule of Values consistent with the requirements of Article 4.4 and this Article 7.3.1.

7.3.2 The term "Cost of Extra Work" as used in this Article 7.3 shall mean costs incurred or to be incurred by Contractor and each Subcontractor, regardless of tier involved, in the performance of Work scope not specified in an applicable Job Order. The Cost of Extra Work shall be determined using the same procedures in pricing the original Job Order. Any additions or deletions are therefore calculated by using the appropriate item(s) from the Construction Task Catalog® multiplied by the quantity to be adjusted multiplied by the appropriate Adjustment Factor.

7.3.3 Modifications to a specified scope of Job Order Work shall utilize the Adjustment Factors in effect when the Job Order was drafted.

7.3.4 For Work to be deleted by Supplemental Job Order, the reduction of the Job Order Sum shall be computed on the basis of one or more of the following:

- .1 If scope stated on the narrative scope of Work and detailed cost estimate is deleted by University, the cost of the Work will be deducted by Supplemental Job Order. The deduction will include Contractor's Adjustment Factor for all work not performed or deleted from the original Job Order.

7.3.5 Except as provided in Articles 7 and 8, Contractor shall have no claim for damage or compensation for any delay, interruption, hindrance, or disruption.

7.4 FIELD ORDERS

7.4.1 Field Orders issued by University's Representative shall be subject to the following:

- .1 A Field Order may state that it does or does not constitute a change in the Job Order Work.

- .2 If the Field Order states that it does not constitute a change in the Job Order Work and Contractor asserts that the Field Order constitutes a change in the Job Order Work, in order to obtain an adjustment of the Job Order Sum or Job Order Time for the Work encompassed by the Field Order, Contractor must follow all procedures set forth in Article 4, starting with the requirement of submitting a timely Supplemental Job Order or Change Order Request within 7 days of Contractor's receipt of the Field Order; failure to strictly follow those procedures is a bar to any Claim for an adjustment of the Job Order Sum or Job Order Time arising from performance of the Work described in the Field Order.
- .3 If the Field Order states that it does constitute a change in the Job Order Work, the Work described in the Field Order shall be considered Extra Work and Contractor shall be entitled to an adjustment of the Work as set forth by the Job Order Sum and Job Order Time, calculated under and subject to Contractor's compliance with the procedures for verifying and substantiating costs and delays in Articles 7 and 8.
- .4 In addition, if the Field Order states that it does constitute a change in Job Order Work, the Field Order may or may not contain University's estimate of adjustment of Job Order Sum and/or Job Order Time. If the Field Order contains an estimate of adjustment of Job Order Sum or Job Order Time, the Field Order is subject to the following:
 - .1 Contractor shall not exceed University's estimate of adjustment to Job Order Sum or Job Order Time without prior written notification to University's Representative.
 - .2 If Contractor asserts that the change in the Work encompassed by the Field Order may entitle Contractor to an adjustment of Job Order Sum or Job Order Time in excess of University's estimate, in order not to be bound by University's estimate Contractor must follow all procedures set forth in Article 4, starting with the requirement of submitting a timely Supplemental Job Order or Change Order Request within 7 days of Contractor's receipt of the Field Order; failure to strictly follow those procedures is a bar to any Claim for an adjustment of the Job Order Sum or Job Order Time, in excess of University's estimate, arising from performance of the Work described in the Field Order.

7.4.2 Upon receipt of a Field Order, Contractor shall promptly proceed to perform the Work as ordered in the Field Order notwithstanding any disagreement by Contractor concerning whether the Work is extra.

7.5 WAIVER

7.5.1 A waiver of or failure by University or University's Representative to enforce any requirement in this Article 7 in connection with any adjustment of the Job Order Sum will not constitute a waiver of, and will not preclude University or University's Representative from enforcing, such requirements in connection with any other adjustments of the Job Order Sum.

7.5.2 Contractor agrees and understands that no oral approval, either express or implied, of any adjustment of the Job Order Sum by University or its agents shall be binding upon University unless and until such approval is ratified by execution of a written Supplemental Job Order.

See Supplementary Conditions

ARTICLE 8 CONTRACT TIME

8.1 COMMENCEMENT OF THE JOB ORDER WORK

8.1.1 The date of commencement of Job Order Work shall be set forth in the Job Order Authorization for such Job Order. The date of commencement of Job Order Work shall not be postponed by the failure of Contractor, Subcontractors, or of persons or firms for whom Contractor is responsible, to act.

8.2 PROGRESS AND COMPLETION

8.2.1 By signing the Job Order Schedule of Values:

- .1 Contractor represents to University that the Job Order Time is reasonable for performing the Work and that Contractor is able to perform the Work within the Job Order Time.
- .2 Contractor agrees that University is purchasing the right to have Contractor present on the Job Order Work site for the full duration of the Job Order Time, even if Contractor could finish the Job Order Work in less than the Job Order Time.

8.2.2 Contractor shall not, except by agreement or instruction of University in writing, commence operations on the Job Order Work site or elsewhere prior to the effective date of insurance required by Article 11 to be furnished by Contractor. The dates of commencement and Final Completion of the Work shall not be changed by the effective date of such insurance.

8.2.3 Contractor shall proceed expeditiously with adequate forces and shall achieve full completion of the Job Order Work within the Job Order Time. If University's Representative determines and notifies Contractor that Contractor's progress is such that Contractor will not achieve full completion of Job Order Work within the Job Order Time, Contractor shall immediately and at no additional cost to University, take all measures necessary, including working such overtime, additional shifts, Sundays, or holidays as may be required to ensure that the Work is fully completed within the Job Order Time. Upon receipt of such notice from University's Representative, Contractor shall immediately notify University's Representative of all measures to be taken to ensure full completion of Job Order Work within the Job Order Time. Contractor shall reimburse University for any extra costs or expenses (including the reasonable value of any services provided by University's employees) incurred by University as the result of such measures.

8.3 DELAY

8.3.1 Except and only to the extent provided otherwise in Articles 7 and 8, by signing the Agreement, Contractor agrees:

- .1 to bear the risk of delays to Job Order Work; and
- .2 that Contractor's bid for the Contract was made with full knowledge of this risk.

In agreeing to bear the risk of delays to Job Order Work, Contractor understands that, except and only to the extent provided otherwise in Articles 7 and 8, the occurrence of events that delay Job Order Work shall not excuse Contractor from its obligation to achieve Final Completion of the Job Order Work within the Job Order Time, and shall not entitle Contractor to an adjustment of the Job Order Sum.

8.4 ADJUSTMENT OF THE JOB ORDER TIME FOR DELAY

8.4.1 Subject to Article 8.4.2, the Job Order Time will be extended for each day of delay for which Contractor demonstrates that all of the following four conditions have been met; a time extension will not be granted for any day of delay for which Contractor fails to demonstrate compliance with the four conditions:

- .1 Condition Number One: The delay is critical. A delay is critical if and only to the extent it delays a work activity that cannot be delayed without delaying Final Completion of the Job Order Work beyond the Job Order Time. Under this Article 8.4.1.2, if the Job Order Schedule shows Final Completion of the Work before expiration of the Job Order Time, a delay is critical if and only to the extent the delay pushes Final Completion of the Job Order Work to a date that is beyond the Job Order Time.
- .2 Condition Number Two: Within 7 days of the date Contractor discovers or reasonably should discover an act, error, omission or unforeseen condition or event causing the delay is likely to have an impact on the critical path of the Project, (even if Contractor has not yet been delayed when Contractor discovers or reasonably should discover the critical path impact of the act, error, omission or unforeseen condition giving rise to the delay) Contractor submits both a timely and complete Supplemental Job Order Request that meets the requirements of Article 4.4.
- .3 Condition Number Three: The delay is not caused by:
 - .1 A concealed, unforeseen or unknown condition or event except for a materially differing site condition pursuant to Article 3.17; or
 - .2 The financial inability, misconduct or default of Contractor, a Subcontractor or supplier; or
 - .3 The unavailability of materials or parts.
- .4 Condition Number Four: The delay is caused by:
 - .1 Fire; or
 - .2 Strikes, boycotts, or like obstructive actions by labor organizations; or
 - .3 Acts of God (As used herein, "Acts of God" shall include only earthquakes in excess of a magnitude of 3.5 on the Richter Scale and tidal waves); or
 - .4 A materially differing site condition pursuant to Article 3.17; or
 - .5 An error or omission in the Contract; or
 - .6 University's decision to change the scope of the Job Order Work, where such decision is not the result of any default or misconduct of Contractor; or
 - .7 University's decision to suspend the Job Order Work, where such decision is not the result of any default or misconduct of Contractor; or
 - .8 The failure of University (including University acting through its consultants, Design Professionals, Separate Contractors or University's representative) to perform any Contract obligation unless such failure is due to Contractor's default or misconduct.
 - .9 "Adverse weather," but only for such days of adverse weather, or on-site conditions caused by adverse weather, that are in excess of the number of days specified in the Supplementary Conditions. In order for a day to be considered a day of adverse weather for the purpose of determining whether Contractor is entitled to an adjustment in Job Order Time, both of the following conditions must be met:
 - .1 the day must be a day in which, as a result of adverse weather, less than one half day of critical path work is performed by Contractor; and
 - .2 the day must be identified in the Job Order Schedule as a scheduled work day.

8.4.2 If and only if a delay meets all four conditions prescribed in Article 8.4.1, then a time extension will be granted for each day that Final Completion of the Job Order Work is delayed beyond the Job Order Time, subject to the following:

- .1 When two or more delays (each of which meet all four conditions prescribed in Article 8.4.1) occur concurrently on the same day, and each such concurrent delay by itself without consideration of the other delays would be critical, then all such concurrent delays shall be considered critical. For the purpose of determining whether and to what extent the Job Order Time should be adjusted pursuant to Article 8.4.2, such concurrent critical delays shall be treated as a single delay for each such day.
- .2 Contractor shall be entitled to a time extension for a day of delay that meets all four requirements of Article 8.4.1 if the delay is concurrent with a delay that does not meet all four conditions of Article 8.4.1.

8.4.3 If for any reason one or more of the four conditions prescribed in Article 8.4.1 is held legally unenforceable, then all remaining conditions must be met as a condition to obtaining an extension of the Job Order Time under Article 8.4.2.

8.5 WAIVER

8.5.1 A waiver of or failure by University or University's Representative to enforce any requirement in this Article 8, including without limitation the requirements in Article 8.4, in connection with any or all past delays shall not constitute a waiver of, and shall not preclude University or University's Representative from enforcing, such requirements in connection with any present or future delays.

8.5.2 Contractor agrees and understands that no oral approval, either express or implied, of any time extension by University or its agents shall be binding upon University unless and until such approval is ratified by execution of a written Supplemental Job Order or Change Order.

See Supplementary Conditions

ARTICLE 9 PAYMENTS AND COMPLETION

9.1 PROGRESS PAYMENT

9.1.1 University agrees to pay monthly to Contractor, subject to Article 9.3.3, an amount equal to 95% of the sum of the following for each applicable Job Order, Contractor's total payment will be limited to:

- .1 Cost of the Job Order Work in permanent place as of the date of Contractor's Application for Payment.
- .2 Plus cost of materials not yet incorporated in the Work, subject to Article 9.2.5.
- .3 Less amounts previously paid.

Under this Article 9.1.1, University may, but is not required to, pay Contractor more frequently than monthly.

9.1.2 After Final Completion of each Job Order and subject to Article 9.3.3, University will make any of the remaining progress payments for each applicable Job Order in full.

9.2 APPLICATION FOR PAYMENT

9.2.1 On or before the 10th day of the month or such other date as is established by the Contract Documents, Contractor shall submit to University's Representative an itemized Application for Payment for each Job Order, for the cost of the Work in permanent place, as approved by University's Representative, which has been completed in accordance with the Contract Documents, less amounts previously paid.

The Application for Payment shall be prepared as follows:

- .1 Use the form contained in the Exhibits.
- .2 Itemize in accordance with the sections of the Schedule of Values Summary (as contained in the Job Order Schedule of Values) based upon the percentage complete for each section.
- .3 Itemize retention.

9.2.2 Applications For Payment shall not include requests for payment on account of (1) changes which have not been authorized by Job Order Authorizations or Supplemental Job Orders or Change Orders or (2) amounts Contractor does not intend to pay a Subcontractor because of a dispute or other reason.

9.2.3 If required by University, an Application for Payment shall be accompanied by (1) Certified Payroll, (2) a summary showing payments that will be made to Subcontractors covered by such application and conditional releases upon progress payment or final payment and (3) unconditional waivers and releases of claims and stop payment notices, in the form contained in the Exhibits, from each Subcontractor listed in the preceding Application for Payment covering sums disbursed pursuant to that preceding Application for Payment.

9.2.4 Contractor warrants that, upon submittal of an Application for Payment, all Job Order Work, for which Certificates For Payment have been previously issued and payment has been received from University, shall be free and clear of all claims, stop payment notices, security interests, and encumbrances in favor of Contractor, Subcontractors, or other persons or firms entitled to make claims by reason of having provided labor, materials, or equipment relating to the Work.

9.2.5 At the sole discretion of University, University's Representative may approve for inclusion in the Application for Payment the cost of materials not yet incorporated in Job Order Work but already delivered and suitably stored either at the Job Order Work site or at some other appropriate location acceptable to University's Representative. In such case, Contractor shall furnish evidence satisfactory to University's Representative (1) of the cost of such materials and (2) that such materials are under the exclusive control of Contractor. Only materials to be incorporated in the Work will be considered for payment. Any payment shall not be construed as acceptance of such materials nor relieve Contractor from sole responsibility for the care and protection of such materials; nor relieve Contractor from risk of loss to such materials from any cause whatsoever; nor relieve Contractor from its obligation to complete the Job Order Work in accordance with the Contract; nor act as a waiver of the right of University to require fulfillment of all terms of the Contract. Nothing contained in this Article 9.2.5 shall be deemed to obligate University to agree to payment for any non-incorporated materials or any part thereof, payment being in the sole and absolute discretion of University.

9.3 CERTIFICATE FOR PAYMENT

9.3.1 If Contractor has submitted an Application for Payment in accordance with Article 9.2, University's Representative shall, not later than 5 working days after the date of receipt of the Application for Payment, issue to University, with a copy to Contractor, a Certificate for Payment for such amount as University's Representative determines to be properly due.

9.3.2 If any such Application for Payment is determined not to be in accordance with Article 9.2, University will inform Contractor as soon as practicable, but not later than 5 working days after receipt. Thereafter, Contractor shall have 3 days to revise and resubmit such Application for Payment; otherwise University's Representative may issue a Certificate for Payment in the amount that University's Representative determines to be properly due without regard to such Application for Payment.

9.3.3 Approval of all or any part of an Application for Payment may be withheld, a Certificate for Payment may be withheld, and all or part of a previous Certificate for Payment may be nullified and that amount withheld from a current Certificate for Payment on account of any of the following:

- .1 Defective Job Order Work not remedied.
- .2 Third-party claims against Contractor or University arising from the acts or omissions of Contractor or Subcontractors.
- .3 Stop payment notices, including without limitations stop payment notices pertaining to prior Job Orders.
- .4 Failure of Contractor to make timely payments due Subcontractors for material or labor.
- .5 A reasonable doubt that the Work can be completed for the balance of the Job Order Sum then unpaid.
- .6 Damage to University or Separate Contractor for which Contractor is responsible.
- .7 Reasonable evidence that the Job Order Work will not be completed within the Job Order Time; and that the unpaid balance of the Job Order Sum would not be adequate to cover University's damages for the anticipated delay.
- .8 Failure of Contractor to maintain and update as-built documents.
- .9 Failure of Contractor to submit schedules or their updates as required by the Contract Documents.
- .10 Failure to provide conditional or unconditional releases from any Subcontractor or supplier, if such waiver(s) have been requested by University's Representative.
- .11 Performance of Job Order Work by Contractor without properly processed Shop Drawings.
- .12 Liquidated damages assessed in accordance with Article 5 of the Agreement.
- .13 Failure to provide updated Reports of Subcontractor Information and Self-Certifications, as applicable.
- .14 Failure to provide a Final Distribution of Contract Dollars with final Application for Payment.
- .15 Any other failure of Contractor to perform its obligations under the Contract Documents.

9.3.4 Subject to the withholding provisions of Article 9.3.3, University will pay Contractor the amount set forth in the Certificate for Payment no later than 10 days after the issuance of the Certificate for Payment.

9.3.5 Neither University nor University's Representative will have an obligation to pay or to see to the payment of money to a Subcontractor, except as may otherwise be required by law.

9.3.6 Neither a Certificate for Payment nor a progress payment made by University will constitute acceptance of Defective Work.

9.4 BENEFICIAL OCCUPANCY

9.4.1 University reserves the right, at its option and convenience, to occupy or otherwise make use of any part of the Job Order Work at any time prior to Final Completion upon 10 days' notice to Contractor. Such occupancy or use is herein referred to as "Beneficial Occupancy." Beneficial Occupancy shall be subject to the following conditions:

- .1 University's Representative will make an inspection of the portion of the Job Order Work to be beneficially occupied and prepare a list of items to be completed or corrected prior to Final Completion. Prior to Beneficial Occupancy, University will issue a Certificate of Beneficial Occupancy on University's form.
- .2 Beneficial Occupancy by University shall not be construed by Contractor as an acceptance by University of that portion of the Job Order Work which is to be occupied.
- .3 Beneficial Occupancy by University shall not constitute a waiver of existing claims of University or Contractor against each other.
- .4 Contractor shall provide, in the areas beneficially occupied and on a 24 hour and 7 day week basis as required, utility services, heating, and cooling for systems which are in operable condition at the time of Beneficial Occupancy. All responsibility for the operation and maintenance of equipment shall remain with Contractor while the equipment is so operated. Contractor shall submit to University an itemized list of each piece of equipment so operated with the date operation commences.
- .5 The Guarantee to Repair Periods, as defined in Article 12.2, will commence upon the occupancy date stated in the Certificate of Beneficial Occupancy except that the Guarantee to Repair Periods for that part of equipment or systems that serve portions of the Job Order Work for which University has not taken Beneficial Occupancy or issued a Certificate of Substantial Completion shall not commence until University has taken Beneficial Occupancy for that portion of the Job Order Work or has issued a Certificate of Substantial Completion with respect to the entire Job Order.
- .6 University will pay all normal operating and maintenance costs resulting from its use of equipment in areas beneficially occupied.
- .7 University will pay all utility costs which arise out of the Beneficial Occupancy.
- .8 Contractor shall not be responsible for providing security in areas beneficially occupied.
- .9 University will use its best efforts to prevent its Beneficial Occupancy from interfering with the conduct of Contractor's remaining Job Order Work.
- .10 Contractor shall not be required to repair damage caused by University in its Beneficial Occupancy.
- .11 Except as provided in this Article 9.4, there shall be no added cost to University due to Beneficial Occupancy.
- .12 Contractor shall continue to maintain all insurance required by the Contract in full force and effect.

9.5 FINAL COMPLETION, FINAL PAYMENT AND RELEASE OF RETENTION

9.5.1 Upon receipt of notice from Contractor that the Job Order Work is ready for final inspection, University's Representative will make such inspection. Final Completion shall be when University's Representative determines that the Job Order Work is fully completed and in accordance with the Contract Documents including without limitation satisfaction of all "punch list" items and determines that a Certificate of Occupancy has been issued by the University. University will execute an Inspection Acceptance form for such Job Order within 10 days after Final Completion of such Job Order. After receipt of the final Application for Payment for such Job Order, if University's Representative determines that Final Completion of such Job Order has occurred, University's Representative will issue the final Certificate for Payment of such Job Order.

9.5.2 Neither final payment nor any retention shall become due for any Job Order until Contractor submits the following items to University's Representative for such Job Order:

- .1 The final Application for Payment and all submittals required in accordance with Article 9.3.
- .2 All guarantees and warranties procured by Contractor from Subcontractors, all operating manuals for equipment installed in the Job Order Work, as-built documents, and all other submittals required by the Contract Documents.
- .3 The Final Distribution of Contract Dollars in the form contained in the Exhibits.
- .4 University's representative issues the final Certificate for Payment of such Job Order

At its sole discretion, after Final Completion of such Job Order, University may waive the requirement that Contractor submit a final Application for Payment before making final payment and/or release of retention to Contractor for such Job Order.

9.5.3 The final payment for such Job Order shall be paid not more than 10 days after University's Representative issues the final Certificate for Payment of such Job Order. Retention for such Job Order shall be released to Contractor 35 days after University's execution of an Inspection Acceptance form for such Job Order.

9.5.4 Acceptance of final payment by Contractor with regard to a Job Order shall constitute a waiver of all claims with regard to such Job Order, except those previously made in writing and identified by Contractor as unsettled at the time of submission of the final Application for Payment with regard to such Job Order.

9.5.5 If requested in writing by Contractor at the time of the Final Completion of such Job Order, University will file a Notice of Completion within 15 days after Final Completion.

ARTICLE 10

PROTECTION OF PERSONS AND PROPERTY

10.1 SAFETY PRECAUTIONS AND PROGRAMS

10.1.1 Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Contract.

10.2 SAFETY OF PERSONS AND PROPERTY

10.2.1 Contractor shall take adequate precautions for safety of and shall provide adequate protection to prevent damage, injury, or loss to the following:

- .1 Employees involved in the Job Order Work and other persons who may be affected thereby.
- .2 The Job Order Work in place and materials and equipment to be incorporated therein, whether in storage on or off the Job Order Work site, under care, custody, or control of Contractor or Subcontractors.
- .3 Other property at the Job Order Work site and adjoining property.

10.2.2 Contractor shall erect and maintain, as required by existing conditions and performance of the Job Order Work, adequate safeguards for safety and protection, including providing adequate lighting and ventilation, posting danger signs and other warnings against hazards, promulgating safety regulations, and notifying owners and users of adjacent sites and utilities.

10.2.3 When use or storage of explosives, other hazardous materials, equipment, or unusual methods are necessary for execution of Job Order Work, Contractor shall exercise the utmost care and carry on such activities only under the supervision of properly qualified personnel.

10.2.4 Contractor shall designate a responsible member of Contractor's organization at the Job Order Work site whose duty shall be the prevention of accidents. That person shall be the Superintendent, unless otherwise designated by Contractor in writing to University and University's Representative.

10.2.5 Contractor shall not load or permit any part of the Job Order Work or the Job Order Work site to be loaded so as to endanger the safety of persons or property.

10.3 EMERGENCIES

10.3.1 In an emergency affecting the safety of persons or property, Contractor shall act to prevent or minimize damage, injury, or loss. Contractor shall promptly notify University's Representative, which notice may be oral followed by written confirmation, of the occurrence of such an emergency and Contractor's action.

ARTICLE 11

INSURANCE AND BONDS

11.1 CONTRACTOR'S INSURANCE

11.1.1 Contractor shall, at its expense, purchase and maintain in full force and effect such insurance as will protect itself and University from claims, such as for bodily injury, wrongful death, and property damage, which may arise out of or result from the Work required by the Contract Documents, whether such Work is done by Contractor, by any Subcontractor, by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable. The amounts of such insurance and any additional insurance requirements are specified in the Supplementary Conditions. See Article 3.21 regarding the scope and extent of Contractor's liability for repair of damaged Work.

11.1.2 The following policies and coverages shall be furnished by Contractor:

- .1 COMMERCIAL GENERAL LIABILITY INSURANCE subject to terms no less broad than the Insurance Services Office's (ISO) form CG 0001 (2004 or later edition), or a substitute form providing coverage at least as broad as the ISO form specified, covering all Work done by or on behalf of Contractor and providing insurance for bodily injury, wrongful death, personal injury, property damage, and contractual liability. There shall be no limitations or exclusions of coverage beyond those contained in the standard ISO form CG 0001 (2004 or later edition). Except with respect to bodily injury and property damage included within the products and completed operations hazards, the aggregate limit shall apply separately to Work required of Contractor by these Contract Documents. Contractor shall continue to maintain Products/Completed Operations liability insurance coverage for a minimum completed operations period of 10 year(s) or the applicable Statute of Repose as provided by the law of the jurisdiction where the project is located as shown in the policy(ies), whichever is less. All terms and conditions of such coverage shall be maintained during this completed operations period, including the required minimum coverage limits and the requirement to provide the University with coverage as an additional insured for completed operations as specified under this Article 11.1 and the Supplementary Conditions.
- .2 BUSINESS AUTOMOBILE LIABILITY INSURANCE subject to terms no less broad than the Insurance Services Office's (ISO) form CA 0001 (1990 or later edition), or a substitute form providing coverage at least as broad as the ISO form specified, covering owned, hired, leased, and non-owned automobiles used by or on behalf of Insured, and providing liability insurance for bodily injury and property damage arising from the use or operation of such auto(s) with a minimum combined single limit of not less than \$1,000,000 per accident. The minimum limits required may be satisfied by combination of primary and umbrella/excess policies. The Commercial Automobile Liability Insurance shall be provided by Contractor for all on site and off site Work.
- .3 WORKERS' COMPENSATION AND EMPLOYER'S LIABILITY INSURANCE as required by Federal and State of California law. Contractor shall also require all of its Subcontractors to maintain this insurance coverage.

See Supplementary Conditions

11.1.3 The coverages required under this Article 11 shall not in any way limit the liability of Contractor.

11.1.4 Contractor's Certificates of Insurance, executed by a duly authorized representative of each broker of record or each insurer as evidence of the insurance required by these Contract Documents and on the form contained in the Exhibits, shall be submitted by Contractor to University prior to the commencement of Work by the Contractor. The Certificates of Insurance shall provide for no cancellation or modification of coverage without prior written notice to University, in accordance with policy provisions.

11.1.5 In the event Contractor does not comply with these insurance requirements, University may, at its option, provide insurance coverage to protect University; and the cost of such insurance shall be paid by Contractor and may be deducted from the Job Order Sum.

11.1.6 Contractor's insurance as required by Article 11.1.2, shall, by endorsement to the policies, include the following:

- .1 The Regents of the University of California, The University of California, University, and each of their Representatives, consultants, officers, agents, employees, and each of their Representative's consultants, regardless of whether or not identified in the Contract Documents or to the Contractor in writing, will be included as additional insureds on the Contractor's General Liability insurance for and relating to the Work to be performed by the Contractor and Subcontractors. Additional Insured provision or endorsement shall be at least as broad as the CG 20 10 07 04 in combination with the CG 20 37 07 04 (or earlier versions of CG 20 10 and CG 20 37 or Form B - CG 20 10 11 85 by itself), as published by Insurance Services Offices (ISO) and shall be included with Certificates of Insurance. The additional insured requirement shall not apply to Worker's Compensation and Employer's Liability insurance. Further, the amount of insurance available to the University shall be for the full amount of the loss up to the available policy limits and shall not be limited to any minimum requirements stated in the Contract Documents.
- .2 University, University's consultants, University's Representative, and University's Representative's consultants will not by reason of their inclusion as insureds incur liability to the insurance carriers for payment of premiums for such insurance.
- .3 Coverage provided is primary and is not in excess of or contributing with any insurance or self-insurance maintained by University, University's consultants, University's Representative, and University's Representative's consultants. This provision, however, shall only apply as per the stipulations of Article 11.1.6.1.

11.1.7 The form and substance of all insurance policies required to be obtained by Contractor shall be subject to approval by University. All policies required by Articles 11.1.2.1, 11.1.2.2, and 11.1.2.3 shall be issued by companies with ratings and financial classifications as specified in the Supplementary Conditions.

11.1.8 Contractor shall, by mutual agreement with University, furnish any additional insurance as may be required by University. Contractor shall provide Certificates of Insurance evidencing such additional insurance.

11.1.9 The Certificate of Insurance shall show (1) all companies affording coverage and (2) the name of the insured exactly in the manner as shown on the Bid Form. The name of the insured must be the name under which the entity is licensed by Contractors State License Board.

11.1.10 If insurance company refuses to use the Certificate of Insurance form as contained in the Exhibits, it must provide a Certificate of Insurance evidencing compliance with this Article including those provisions noted under DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES section of the Certificate of Insurance Exhibit by including an endorsement to its Certificate of Insurance form covering those noted provisions exactly as they appear on the Certificate of Insurance Exhibit.

11.1.11 At the request of University, Contractor shall submit to University copies of the policies obtained by Contractor.

11.2 BUILDER'S RISK PROPERTY INSURANCE

11.2.1 University will provide its standard builder's risk property insurance, subject to the deductibles, terms and conditions, exclusions, and limitations as contained in the provisions of the policy. Limits established for builder's risk insurance coverage shall be based on the actual value of each Job Order and not on the overall Contract value. Such limits established for builder's risk insurance coverage shall in no way limit the liability of Contractor. A copy of University's standard builder's risk property insurance policy is available at University's Facility office. In addition, a summary of the provisions of the policy is included as an Exhibit to the Contract. Contractor agrees that University's provision of its standard builder's risk property insurance policy meets University's obligation to provide builder's risk property insurance under the Contract and, in the event of a conflict between the provisions of the policy and any summary or description of the provisions contained herein or otherwise, the provisions of the policy shall control and shall be conclusively presumed to fulfill University's obligation to provide such insurance. The proceeds under such insurance policies taken out by University insuring the Work and materials will be payable to University and Contractor as their respective interests, from time to time, may appear. Contractor shall be responsible for the deductible amount in the event of a loss. In addition, nothing in this Article 11.2 shall be construed to relieve Contractor of full responsibility for loss of or damage to materials not incorporated in the Work, and for Contractor's tools and equipment used to perform the Work, whether on the Job Order Work site or elsewhere, or to relieve Contractor of its responsibilities referred to under this Article 11. Materials incorporated in the Work, as used in this Article 11.2, shall mean materials furnished while in transit to, stored at, or in permanent place at the Job Order Work site.

11.2.2 Insurance policies referred to under this Article 11.2 shall:

- .1 Include a provision that the policies are primary and do not participate with nor are excess over any other valid collectible insurance carried by Contractor.
- .2 Include a waiver of subrogation against Contractor, its Subcontractors, its agents, and employees.

11.2.3 Builder's risk insurance coverage under this Article 11.2 will expire on the earlier of:

- .1 For each Job Order, on the date of Final Completion established by University in any Notice of Completion or Inspection Acceptance issued by University for the Job Order; or
- .2 For all Job Orders, on the date of Final Completion established by the University in any Notice of Completion for the entire Project (meaning that Work on all Job Orders issued pursuant to the Contract is completed).

11.3 PERFORMANCE BOND AND PAYMENT BOND

11.3.1 Contractor shall furnish bonds covering the faithful performance of the Contract (Performance Bond) and payment of obligations arising thereunder (Payment Bond) on the forms contained in the Exhibits.

11.3.2 The premiums for the Payment Bond and Performance Bond shall be paid by Contractor and be included in Contractor's Adjustment Factor.

11.3.3 During the Base Term, the Payment Bond and Performance Bond shall each initially be in the amounts set forth in the Supplementary Conditions. The bonds of each shall be provided on the forms contained in the Exhibits.

See Supplementary Conditions

11.3.4 The Payment Bond and Performance Bond shall be in effect on the date the Contract is signed by University.

11.3.5 If University elects to exercise its option for one or more Option Term(s), Contractor shall, prior to University's award of any Job Order Authorizations within the Option Term, provide additional Payment Bonds and Performance Bonds in the amounts set forth in the Supplementary Conditions for the Option Term.

See Supplementary Conditions

11.3.6 Surety companies used by Contractor shall be, on the date the Contract is signed by University, an admitted surety insurer (as defined in the California Code of Civil Procedure Section 995.120).

ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

12.1 UNCOVERING OF WORK

12.1.1 If a portion of the Job Order Work is covered contrary to University's Representative's request or direction, or contrary to the requirements of the Contract Documents, it must, if required in writing by University's Representative, be uncovered for University's Representative's observation and be replaced at Contractor's expense without adjustment of the Job Order Time or the Job Order Sum.

12.1.2 If a portion of the Job Order Work has been covered, which is not required by the Contract Documents to be observed or inspected prior to its being covered and which University's Representative has not specifically requested to observe prior to its being covered, University's Representative may request to see such Job Order Work and it shall be uncovered and replaced by Contractor. If such Job Work is in accordance with the Contract Documents, the costs of uncovering and replacing the Job Work shall be added to the Job Order Sum by Supplemental Job Order or Change Order; and if the uncovering and replacing of the Work extends the Job Order Time, an appropriate adjustment of the Job Order Time shall be made by Supplemental Job Order or Change Order. If such Work is not in accordance with the Contract Documents, Contractor shall pay such costs and shall not be entitled to an adjustment of the Job Order Time or the Job Order Sum.

12.2 CORRECTION OF DEFECTIVE WORK AND GUARANTEE TO REPAIR PERIOD

12.2.1 The term "Guarantee To Repair Period" applies only to each individual Job Order and means a period of one (1) year, unless a longer period of time is specified, commencing as follows:

- .1 For space beneficially occupied or for separate systems fully utilized prior to Final Completion pursuant to Article 9.4, from the first date of such Beneficial Occupancy or actual use, as established in a Certificate of Beneficial Occupancy.
- .2 For all Job Order Work other than .1 above, from the date of Final Completion.

12.2.2 Contractor shall (1) correct Defective Work that becomes apparent during the progress of the Job Order Work or during the Guarantee To Repair Period and (2) replace, repair, or restore to University's satisfaction any other parts of the Job Order Work and any other real or personal property which is damaged or destroyed as a result of Defective Work or the correction of Defective Work. Contractor shall promptly commence such correction, replacement, repair, or restoration upon notice from University's Representative or University, but in no case later than 10 days after receipt of such notice; and Contractor shall diligently and continuously prosecute such correction to completion. Contractor shall bear all costs of such correction, replacement, repair, or restoration, and all losses resulting from such Defective Work, including additional testing, inspection, and compensation for University's Representative's services and expenses. Contractor shall perform corrective Work at such times that are acceptable to University and in such a manner as to avoid, to the extent practicable, disruption to University's activities.

12.2.3 If immediate correction of Defective Work is required for life safety or the protection of property and is performed by University or Separate Contractors, Contractor shall pay to University all reasonable costs of correcting such Defective Work. Contractor shall replace, repair, or restore to University's satisfaction any other parts of the Job Order Work and any other real or personal property which is damaged or destroyed as a result of such Defective Work or the correction of such Defective Work.

12.2.4 Contractor shall remove from the Job Order Work site portions of the Job Order Work and materials which are not in accordance with the Contract Documents and which are neither corrected by Contractor nor accepted by University.

12.2.5 If Contractor fails to commence correction of Defective Work within 10 days after notice from University or University's Representative or fails to diligently prosecute such correction to completion, University may correct the Defective Work in accordance with Article 2.4; and, in addition, University may remove the Defective Work and store salvageable materials and equipment at Contractor's expense.

12.2.6 If Contractor fails to pay the costs of such removal and storage as required by Articles 12.2.4 and 12.2.5 within 10 days after written demand, University may, without prejudice to other remedies, sell such materials at auction or at private sale, or otherwise dispose of such material. Contractor shall be entitled to the proceeds of such sale, if any, in excess of the costs and damages for which Contractor is liable to University, including compensation for University's Representative's services and expenses. If such proceeds of sale do not cover costs and damages for which Contractor is liable to University, the Job Order Sum shall be reduced by such deficiency. If there are no remaining payments due Contractor or the remaining payments are insufficient to cover such deficiency, Contractor shall promptly pay the difference to University.

12.2.7 Contractor's obligations under this Article 12 are in addition to and not in limitation of its warranty under Article 3.4 or any other obligation of Contractor under the Contract Documents. Enforcement of Contractor's express warranties and guarantees to repair contained in the Contract Documents shall be in addition to and not in limitation of any other rights or remedies University may have under the Contract Documents or at law or in equity for Defective Work. Nothing contained in this Article 12 shall be construed to establish a period of limitation with respect to other obligations of Contractor under the Contract Documents. Establishment of the Guarantee To Repair Period relates only to the specific obligation of Contractor to correct the Job Order Work and in no way limits either Contractor's liability for Defective Work or the time within which proceedings may be commenced to enforce Contractor's obligations under the Contract Documents.

ARTICLE 13 TERMINATION OR SUSPENSION OF THE CONTRACT

13.1 TERMINATION BY CONTRACTOR

13.1.1 Subject to Article 13.1.2, Contractor shall have the right to terminate the Contract only upon the occurrence of one of the following:

- .1 Provided that University has not commenced reasonable action to remove any order of a court within the 90 day period, the Work is stopped for 90 consecutive days, through no act or fault of Contractor, any Subcontractor, or any employee or agent of Contractor or any Subcontractor, due to an issuance of an order of a court or other public authority having jurisdiction or due to an act of government, such as a declaration of a national emergency making material unavailable.
- .2 University fails to perform any material obligation under the Contract and fails to cure such default within 30 days, or University has not commenced to cure such default within 30 days where such cure will require a reasonable period beyond 30 days and diligently prosecutes the same to completion, after receipt of notice from Contractor stating the nature of such default(s).
- .3 Repeated suspensions by University, other than such suspensions as are agreed to by Contractor under Article 13.3, which constitute in the aggregate more than 20% of the Job Order Time.

13.1.2 Upon the occurrence of one of the events listed in Article 13.1.1, Contractor may, upon 10 days additional notice to University and University's Representative, and provided that the condition giving rise to Contractor's right to terminate is continuing, terminate the Contract.

13.1.3 Upon termination by Contractor, University will pay to Contractor the sum determined by Article 13.4.4. Such payment will be the sole and exclusive remedy to which Contractor is entitled in the event of termination of the Contract by Contractor pursuant to Article 13.1; and Contractor will be entitled to no other compensation or damages and expressly waives the same.

13.2 TERMINATION BY UNIVERSITY FOR CAUSE

13.2.1 University will have the right to terminate the Contract for cause at any time after the occurrence of any of the following events:

- .1 Contractor becomes insolvent or files for relief under the bankruptcy laws of the United States.
- .2 Contractor makes a general assignment for the benefit of its creditors or fails to pay its debts as the same become due.
- .3 A receiver is appointed to take charge of Contractor's property.
- .4 Contractor fails to make progress to prepare an acceptable Job Order Schedule of Values or to revise a Schedule of Values as directed by University.
- .5 The commencement or completion of any Job Order Work activity on the critical path is 30 days behind the date set forth in the Job Order Schedule for such Job Order Work activity, and which results in an Unexcusable Delay. For a Contract with a Job Order Time of less than 300 days, the 30-day period shall be reduced to the number of days commensurate with 10% of the Job Order Time.
- .6 Contractor abandons the Work.

13.2.2 Upon the occurrence of any of the following events, University will have the right to terminate the Contract for cause if Contractor fails to promptly commence to cure such default and diligently prosecute such cure within 5 days after notice from University, or within such longer period of time as is reasonably necessary to complete such cure:

- .1 Contractor persistently or repeatedly refuses or fails to supply skilled supervisory personnel, an adequate number of properly skilled workers, proper materials, or necessary equipment to prosecute the Work in accordance with the Contract Documents.
- .2 Contractor fails to make prompt payment of amounts properly due Subcontractors after receiving payment from University.
- .3 Contractor disregards Applicable Code Requirements.
- .4 Contractor persistently or materially fails to execute the Work in accordance with the Contract Documents.
- .5 Contractor is in default of any other material obligation under the Contract Documents.
- .6 Contractor persistently or materially fails to comply with applicable safety requirements.

13.2.3 Upon any of the occurrences referred to in Articles 13.2.1 and 13.2.2, University may, at its election and by notice to Contractor, terminate the Contract and take possession of the Job Order Work site(s) and all materials, supplies, equipment, tools, and construction equipment and machinery thereon owned by Contractor; accept the assignment of any or all of the subcontracts; and then complete the Work by any method University may deem expedient. If requested by University, Contractor shall remove any part or all of Contractor's materials, supplies, equipment, tools, and construction equipment and machinery from the Job Order Works site(s) within 7 days of such request; and if Contractor fails to do so, University may remove or store, and after 90 days sell, any of the same at Contractor's expense.

13.2.4 If the Contract is terminated by University as provided in this Article 13.2, Contractor shall not be entitled to receive any further payment until the expiration of 35 days after Final Completion by University of all Work for all Job Order Authorizations executed prior to the date of termination.

13.2.5 If the unpaid balance of the Job Order Sum(s) exceeds the cost of completing the Work, including all additional costs and expenses made necessary thereby, including costs for University staff time, plus all losses sustained, including any liquidated damages provided under the Contract Documents, such excess shall be paid to Contractor. If such costs, expenses, losses, and liquidated damages exceed the unpaid balance of the Job Order Sum(s), Contractor shall pay such excess to University.

13.2.6 No termination or action taken by University after termination shall prejudice any other rights or remedies of University provided by law or by the Contract Documents upon such termination; and University may proceed against Contractor to recover all losses suffered by University.

13.3 SUSPENSION BY UNIVERSITY FOR CONVENIENCE

13.3.1 University may, at any time and from time to time, without cause, order Contractor, in writing, to suspend, delay, or interrupt the Work in whole or in part for such period of time, up to 90 days, as University may determine, with such period of suspension to be computed from the date of delivery of the written order. Such order shall be specifically identified as a "Suspension Order" under this Article 13.3. The Work may be stopped for such further period as the parties may agree. Upon receipt of a Suspension Order, Contractor shall, at University's expense, comply with its terms and take all reasonable steps to minimize costs allocable to the Work covered by the Suspension Order during the period of Work stoppage. Within 90 days after the issuance of the Suspension Order, or such extension to that period as is agreed upon by Contractor and University, University shall either cancel the Suspension Order or delete the Work covered by such Suspension Order by issuing a Supplemental Job Order or Change Order.

13.3.2 If a Suspension Order is canceled or expires, Contractor shall continue with the Work. Supplemental Job Order(s) will be issued to cover any adjustments of the Job Order Sum(s) or the Job Order Time(s) necessarily caused by such suspension. Any Claim by Contractor for an adjustment of the Job Order Sum(s) or the Job Order Time(s) shall be made within 21 days after the end of the Work suspension. Contractor agrees that submission of its claim within said 21 days is an express condition precedent to its right to Arbitrate or Litigate such a claim.

13.3.3 The provisions of this Article 13.3 shall not apply if a Suspension Order is not issued by University. A Suspension Order shall not be required to stop the Work as permitted or required under any other provision of the Contract Documents.

13.4 TERMINATION BY UNIVERSITY FOR CONVENIENCE

13.4.1 University may, at its option, terminate this Contract, in whole or in part, at any time by giving notice to Contractor. Upon such termination, Contractor agrees to waive any claims for damages, including loss of anticipated profits, on account thereof; and, as the sole right and remedy of Contractor, University shall pay Contractor in accordance with Article 13.4.4.

13.4.2 Upon receipt of notice of termination under this Article 13.4, Contractor shall, unless the notice directs otherwise, do the following:

- .1 Immediately discontinue the Work to the extent specified in the notice.
- .2 Place no further orders or subcontracts for materials, equipment, services, or facilities, except as may be necessary for completion of such portion of the Work as is not discontinued.
- .3 Promptly cancel, on the most favorable terms reasonably possible, all subcontracts to the extent they relate to the performance of the discontinued portion of the Work.
- .4 Thereafter do only such Work as may be necessary to preserve and protect Work already in progress and to protect materials, plants, and equipment on the Job Order Work site or in transit thereto.

13.4.3 Upon such termination, the obligations of the Contract shall continue as to portions of the Work already performed and, subject to Contractor's obligations under Article 13.4.2, as to bona fide obligations assumed by Contractor prior to the date of termination.

13.4.4 Upon such termination, University shall pay to Contractor the sum of the following:

- .1 The amount of each applicable Job Order Sum allocable to the portion of the Work properly performed by Contractor as of the date of termination, less sums previously paid to Contractor.
- .2 Plus previously unpaid costs of any items delivered to the Job Order Work site which were fabricated for subsequent incorporation in the Work.
- .3 Plus any proven losses with respect to materials and equipment directly resulting from such termination.
- .4 Plus reasonable demobilization costs.
- .5 Plus reasonable costs of preparing a statement of the aforesaid costs, expenses, and losses in connection with such termination.

The above payment shall be the sole and exclusive remedy to which Contractor is entitled in the event of termination of the Contract by University pursuant to Article 13.4; and Contractor will be entitled to no other compensation or damages and expressly waives same.

ARTICLE 14 STATUTORY AND OTHER REQUIREMENTS

14.1 PATIENT HEALTH INFORMATION

Contractor acknowledges that its employees, agents, subcontractors, consultants and others acting on its behalf may come into contact with Patient Health Information ("PHI") while performing work at the Project Site. This contact is most likely rare and brief (e.g. walking through a clinic where patient files may be visible, overhearing conversations between physicians while working or touring a hospital, noticing a relative or acquaintance receiving treatment in a University facility, etc.). Contractor shall immediately notify University's Representative of any such contact. Any and all forms of PHI should not be examined closer, copied, photographed, recorded in any manner, distributed or shared. Contractor will adopt procedures to ensure that its employees, agents and subcontractors refrain from such activity. If Contractor, its employees, agents or subcontractors do further examine, copy, photograph, record in any manner, distribute or share this information, Contractor will report such actions immediately to the University's Representative. Contractor will immediately take all steps necessary to stop any such actions and will ensure that no further violations of this contractual responsibility will occur. Contractor will report to University's Representative within five (5) days after Contractor gives University's Representative notice of the event/action of the steps taken to prevent future occurrences.

14.2 NONDISCRIMINATION

14.2.1 For purposes of this Article 14.2, the term Subcontractor shall not include suppliers, manufacturers, or distributors.

14.2.2 Contractor shall comply and shall ensure that all Subcontractors comply with Section 12900 through 12996, of the State of California Government Code.

14.2.3 Contractor agrees as follows during the performance of the Work:

- .1 Contractor shall provide equal treatment to, and shall not willfully discriminate against or allow harassment of any employee or applicant for employment on the basis of: race; color; religion; sex; age; ancestry; national origin; sexual orientation; physical or mental disability; veteran's status; medical condition (as defined in Section 12926 of the State of California Government Code and including cancer-related medical conditions and or genetic characteristics); genetic information (as defined in the Genetic Information Nondiscrimination Act of 2008 and including family medical history); marital status; gender identity, pregnancy, or citizenship (within the limits imposed by law or University's policy) or service in the uniformed services (as defined by the Uniformed Services Employment and Reemployment Rights Act of 1994). Contractor will also take affirmative action to ensure that any such employee or applicant for employment is not discriminated against on any of the bases identified above. Such equal treatment shall apply, but not be limited to the following: employment; upgrade; demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor also agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that qualified applicants will receive consideration for employment without regard to: race; color; religion; sex; age; ancestry; national origin; sexual orientation; physical or mental disability; veteran's status; medical condition (as

- defined in Section 12926 of the State of California Government Code and including cancer-related medical conditions and or genetic characteristics); genetic information (as defined in the Genetic Information Nondiscrimination Act of 2008 and including family medical history); marital status; gender identity, pregnancy, or citizenship (within the limits imposed by law or University's policy) or service in the uniformed services (as defined by the Uniformed Services Employment and Reemployment Rights Act of 1994). For purposes of this provision: (1) "Pregnancy" includes pregnancy, childbirth, and medical conditions related to pregnancy and childbirth; and (2) "Service in the uniformed services" includes membership, application for membership, performance of service, application for service, or obligation for service in the uniformed services.
- .2 Contractor and all Subcontractors will permit access to their records of employment, employment advertisements, application forms, and other pertinent data and records by University or any appropriate agency of the State of California designated by University for the purposes of investigation to ascertain compliance with this Article 14.2. The outcome of the investigation may result in the following:
- .1 A finding of willful violation of the provisions of this Contract or of the Fair Employment Practices Act may be regarded by University as (1) a basis for determining that Contractor is not a "responsible bidder" as to future contracts for which such Contractor may submit bids or (2) a basis for refusing to accept or consider the bids of Contractor for future contracts.
 - .2 University may deem a finding of willful violation of the Fair Employment Practices Act to have occurred upon receipt of written notice from the Fair Employment Practices Commission that it has (1) investigated and determined that Contractor has violated the Fair Employment Practices Act and (2) issued an order under the State of California Government Code Section 12970 or obtained an injunction under Government Code Section 12973.
 - .3 Upon receipt of such written notice from the Fair Employment Practices Commission, University may notify Contractor that, unless it demonstrates to the satisfaction of University within a stated period that the violation has been corrected, Contractor's bids on future projects will not be considered.
 - .4 Contractor agrees that, should University determine that Contractor has not complied with this Article 14.2, Contractor shall forfeit to University, as a penalty, for each day or portion thereof, for each person who was denied employment as a result of such non-compliance, the penalties provided in Article 14.3 for violation of prevailing wage rates. Such penalty amounts may be recovered from Contractor; and University may deduct any such penalty amounts from the Job Order Sum.
 - .5 Nothing contained in this Article 14.2 shall be construed in any manner so as to prevent University from pursuing any other remedies that may be available at law.
 - .6 Contractor shall meet the following standards for compliance and provide University with satisfactory evidence of such compliance upon University's request, which shall be evaluated in each case by University:
 - .1 Contractor shall notify its Superintendent and other supervisory personnel of the nondiscrimination requirements of the Contract Documents and their responsibilities thereto.
 - .2 Contractor shall notify all sources of employee referrals (including unions, employment agencies, and the State of California Department of Employment) of the nondiscrimination requirements of the Contract Documents by sending to such sources and by posting the Notice of Equal Employment Opportunity (EEO).
 - .3 Contractor or its representative shall, through all unions with whom it may have agreements, develop agreements that (1) define responsibilities for nondiscrimination in hiring, referrals, upgrading, and training and (2) implement an affirmative nondiscrimination program, in terms of the unions' specific areas of skill and geography, such that qualified minority women, nonminority women, and minority men shall be available and given an equal opportunity for employment.
 - .4 Contractor shall notify University of opposition to the nondiscrimination requirements of the Contract Documents by individuals, firms, or organizations during the term of the Contract.
 - .7 Contractor shall include the provisions of the foregoing Articles 14.2.3.2.1 through 14.2.3.2.6 in all subcontracts with Subcontractors, so that such provisions will be binding upon each such Subcontractor.

14.3 PREVAILING WAGE RATES

14.3.1 For purposes of this Article 14.3, the term Subcontractor shall not include suppliers, manufacturers, or distributors.

14.3.2 Contractor shall comply and shall ensure that all Subcontractors comply with prevailing wage law pursuant to the State of California Labor Code, including but not limited to Section 1720 et seq. of the State of California Labor Code. Compliance with these sections is required by this Contract. The Work under this Contract is subject to compliance monitoring and enforcement by the State of California Department of Industrial Relations.

14.3.3 The State of California Department of Industrial Relations has ascertained the general prevailing per diem wage rates in the locality in which the Work is to be performed for each craft, classification, or type of worker required to perform the Work. A copy of the general prevailing per diem wage rates will be on file at University's principal facility office and will be made available to any interested party upon request. Contractor shall post a copy of the general prevailing per diem wage rates as well as job site notices as prescribed by regulation at the job site. By this reference, such schedule is made part of the Contract Documents. Contractor shall pay not less than the prevailing wage rates, as specified in the schedule and any amendments thereto, to all workers employed by Contractor in the execution of the Work. Contractor shall cause all subcontracts to include the provision that all Subcontractors shall pay not less than the prevailing rates to all workers employed by such Subcontractors in the execution of the Work. Contractor shall forfeit to University, as a penalty, not more than \$200 for each calendar day or portion thereof for each worker that is paid less than the prevailing rates as determined by the Director of Industrial Relations for the work or craft in which the worker is employed for any portion of the Work done by Contractor or any Subcontractor. The amount of this penalty shall be determined pursuant to applicable law. Such forfeiture amounts may be deducted from the Job Order Sum or sought directly from the surety under its Performance Bond if there are insufficient funds

remaining in the Job Order Sum. Contractor shall also pay to any worker who was paid less than the prevailing wage rate for the work or craft for which the worker was employed for any portion of the Work, for each day, or portion thereof, for which the worker was paid less than the specified prevailing per diem wage rate, an amount equal to the difference between the specified prevailing per diem wage rate and the amount which was paid to the worker. Review of any civil wage and penalty assessment shall be made pursuant to section 1742 of the California Labor Code.

14.4 PAYROLL RECORDS

14.4.1 For purposes of this Article 14.4, the term Subcontractor shall not include suppliers, manufacturers, or distributors.

14.4.2 Contractor and all Subcontractors shall keep an accurate payroll record, showing the name, address, social security number, job classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyworker, apprentice, worker, or other employee employed in connection with the Work. All payroll records shall be certified as being true and correct by Contractor or Subcontractors keeping such records; and the payroll records shall be available for inspection at all reasonable hours at the principal office of Contractor on the following basis:

- .1 A certified copy of an employee's payroll record shall be made available for inspection or furnished to such employee or the employee's authorized representative on request.
- .2 A certified copy of all payroll records shall be made available for inspection upon request to University, the State of California Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards of the State of California Division of Industrial Relations.
- .3 A certified copy of all payroll records shall be made available upon request by the public for inspection or copies thereof made; provided, however, that the request by the public shall be made to either University, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement. The public shall not be given access to such records at the principal offices of Contractor or Subcontractors. Any copy of the records made available for inspection as copies and furnished upon request to the public or any public agency by University shall be marked or obliterated in such a manner as to prevent disclosure of an individual's name, address, and social security number. The name and address of Contractor awarded the Contract or performing the Contract shall not be marked or obliterated.

14.4.3 Contractor shall file a certified copy of the payroll records with the entity that requested the records within 10 days after receipt of a written request. Contractor shall inform University of the location of such payroll records for the Project, including the street address, city, and county; and Contractor shall, within 5 working days, provide notice of change of location of such records. In the event of noncompliance with the requirements of this Article 14.4 or with the State of California Labor Code Section 1776, Contractor shall have 10 days in which to comply following receipt of notice specifying in what respects Contractor must comply. Should noncompliance still be evident after the 10 day period, Contractor shall forfeit to University, as a penalty, \$100 for each day, or portion thereof, for each worker, until strict compliance is accomplished. Such forfeiture amounts may be deducted from the Job Order Sum.

See Supplementary Conditions

14.5 APPRENTICES

14.5.1 For purposes of this Article 14.5, the term Subcontractor shall not include suppliers, manufacturers, and distributors.

14.5.2 Only apprentices, as defined in the State of California Labor Code Section 3077, who are in training under apprenticeship standards and written apprentice agreements under Chapter 4, Division 3, of the State of California Labor Code, are eligible to be employed by Contractor and Subcontractors as apprentices. The employment and training of each apprentice shall be in accordance with the provisions of the apprenticeship standards and written apprentice agreements under which the apprentice is training and in accordance with prevailing wage law pursuant to the Labor Code, including but not limited to Section 1777.5. The Contractor bears responsibility for compliance with this section for all apprenticeable occupations.

14.5.3 Every apprentice shall be paid the standard wage to apprentices, under the regulations of the craft or trade at which the apprentice is employed, and shall be employed only at the Work in the craft or trade to which the apprentice is indentured.

14.5.4 When Contractor or Subcontractors employ workers in any apprenticeship craft or trade on the Work, Contractor or Subcontractors shall 1) send contract award information to the applicable joint apprenticeship committee that can supply apprentices to the site of the public work and 2) apply to the joint apprenticeship committee, which administers the apprenticeship standards of the craft or trade in the area of the jobsite, for a certificate approving Contractor or Subcontractors under the apprenticeship standards for the employment and training of apprentices in the area of the jobsite. The committee will issue a certificate fixing the number of apprentices or the ratio of apprentices to journeypersons who shall be employed in the craft or trade on the Work. The ratio will not exceed that stipulated in the apprenticeship standards under which the joint apprenticeship committee operates; but in no case shall the ratio be less than 1 hour of apprentice work for every 5 hours of journeyperson work, except as permitted by law. Contractor or Subcontractors shall, upon the issuance of the approval certificate in each such craft or trade, employ the number of apprentices or the ratio of apprentices to journeypersons fixed in the certificate issued by the joint apprenticeship committee or present an exemption certificate issued by the Division of Apprenticeship Standards.

14.5.5 "Apprenticeship craft or trade," as used in this Article 14.5, shall mean a craft or trade determined as an apprenticeship occupation in accordance with rules and regulations prescribed by the Apprenticeship Council.

14.5.6 If Contractor or Subcontractors employ journeymen or apprentices in any apprenticeship craft or trade in the area of the jobsite, and there exists a fund for assisting to allay the cost of the apprenticeship program in the trade or craft, to which fund or funds other contractors in the area of the jobsite are contributing, Contractor and Subcontractors shall contribute to the fund or funds in each craft or trade in which they employ journeymen or apprentices on the Job Order Work in the same amount or upon the same basis and in the same manner done by the other contractors. Contractor may include the amount of such contributions in computing its bid for the Contract; but if Contractor fails to do so, it shall not be entitled to any additional compensation therefor from University.

14.5.7 In the event Contractor willfully fails to comply with this Article 14.5, it will be considered in violation of the requirements of the Contract.

14.5.8 Nothing contained herein shall be considered or interpreted as prohibiting or preventing the hiring by Contractor or Subcontractors of journeyworker trainees who may receive on-the-job training to enable them to achieve journeyworker status in any craft or trade under standards other than those set forth for apprentices.

14.6 WORK DAY

14.6.1 Contractor shall not permit any worker to labor more than 8 hours during any 1 day or more than 40 hours during any 1 calendar week, except as permitted by law and in such cases only upon such conditions as are provided by law. Contractor shall forfeit to University, as a penalty, \$25 for each worker employed in the execution of this Contract by Contractor, or any Subcontractor, for each day during which such worker is required or permitted to work more than 8 hours in any 1 day and 40 hours in any 1 calendar week in violation of the terms of this Article 14.6 or in violation of the provisions of any law of the State of California. Such forfeiture amounts may be deducted from the Job Order Sum. Contractor and each Subcontractor shall keep, or cause to be kept, an accurate record showing the actual hours worked each day and each calendar week by each worker employed on a jobsite, which record shall be kept open at all reasonable hours to the inspection of University, its officers and agents, and to the inspection of the appropriate enforcement agency of the State of California.

ARTICLE 15 MISCELLANEOUS PROVISIONS

15.1 GOVERNING LAW

15.1.1 The Contract shall be governed by the law of the State of California.

15.2 SUCCESSORS AND ASSIGNS

15.2.1 University and Contractor respectively bind themselves and their successors, permitted assigns, and legal representatives to the other party and to the successors, permitted assigns, and legal representatives of such other party in respect to covenants, agreements, and obligations contained in the Contract Documents. Neither party to the Contract shall assign the Contract, in whole or in part, without prior written consent of the other party. Notwithstanding any such assignment, each of the original contracting parties shall remain legally responsible for all of its obligations under the Contract.

15.3 RIGHTS AND REMEDIES

15.3.1 All University's rights and remedies under the Contract Documents will be cumulative and in addition to and not in limitation of all other rights and remedies of University under the Contract Documents or otherwise available at law or in equity.

15.3.2 No action or failure to act by University or University's Representative will constitute a waiver of a right afforded them under the Contract, nor will such action or failure to act constitute approval of or acquiescence in a condition or breach thereunder, except as may be specifically agreed in writing. No waiver by University or University's Representative of any condition, breach or default will constitute a waiver of any other condition, breach or default; nor will any such waiver constitute a continuing waiver.

15.3.3 No provision contained in the Contract Documents shall create or give to third parties any claim or right of action against University, University's Representative, or Contractor.

15.4 SURVIVAL

15.4.1 The provisions of the Contract which by their nature survive termination of the Contract or Final Completion, including all warranties, indemnities, payment obligations, and University's right to audit Contractor's books and records, shall remain in full force and effect after Final Completion or any termination of the Contract.

15.5 COMPLETE AGREEMENT

15.5.1 The Contract Documents constitute the full and complete understanding of the parties and supersede any previous agreements or understandings, oral or written, with respect to the subject matter hereof. The Contract may be modified only by a written instrument signed by both parties or as provided in Article 7.

15.6 SEVERABILITY OF PROVISIONS

15.6.1 If any one or more of the provisions contained in the Contract Documents should be invalid, illegal, or unenforceable in any respect, the validity, legality, and enforceability of the remaining provisions contained herein shall not in any way be affected or impaired thereby.

15.7 UNIVERSITY'S RIGHT TO AUDIT

15.7.1 University and entities and agencies designated by University will have access to and the right to audit and the right to copy at University's cost all of Contractor's books, records, contracts, correspondence, instructions, drawings, receipts, vouchers, purchase orders, and memoranda relating to the Work. Contractor shall preserve all such records and other items during the performance of the Contract and for a period of at least 3 years after Final Completion of the last Job Order.

15.8 METHODS OF DELIVERY FOR SPECIFIED DOCUMENTS

15.8.1 The following documents must be delivered in a manner specified in Article 15.8.2:

- .1 Contractor Notices of election to litigate or arbitrate;
- .2 Written demand for an informal conference to meet and confer pursuant to Article 4.8;

- .3 University's written statement identifying remaining disputes following informal conference pursuant to Article 4.9;
- .4 Written demand for non-binding mediation pursuant to Article 4.9;
- .5 Contractor claims pursuant to Article 4.3;
- .6 Contractor notices of conditions pursuant to Articles 3.17, 3.18, or 3.19;
- .7 University's notices of Contractor's failure to perform and/or correct defective work pursuant to Articles 4.1.6, 12.2 and 13.2.3;
- .8 University's notice to stop work pursuant to Article 2.3.1;
- .9 Notices of termination or suspension pursuant to Article 13.

15.8.2 Delivery methods for documents specified in Article 15.8.1:

- .1 By personal delivery.
- .2 Sent by facsimile copy where receipt is confirmed.
- .3 Sent by Express Mail, or another method of delivery providing for overnight delivery where receipt is confirmed.
- .4 Sent by registered or certified mail, postage prepaid, return receipt requested.

15.8.3 The documents identified in Article 15.8.1 shall only be effective if delivered in the manner specified in Article 15.8.2. Subject to the forgoing, such documents shall be deemed given and received upon actual receipt in the case of all except registered or certified mail; and in the case of registered or certified mail, on the date shown on the return receipt or the date delivery during normal business hours was attempted. Delivery of the specified documents shall be made at the respective street addresses set forth in the Agreement. Such street addresses may be changed by notice given in accordance with this Article 15.8.

15.9 TIME OF THE ESSENCE

15.9.1 Time limits stated in the Contract Documents are of the essence of the Contract.

15.10 MUTUAL DUTY TO MITIGATE

15.10.1 University and Contractor shall use all reasonable and economically practicable efforts to mitigate delays and damages to the Project and to one another with respect to the Project, regardless of the cause of such delay or damage.

15.11 UC FAIR WAGE

15.11.1 Contractor shall pay all persons providing construction services and/or any labor on site, including any University location, no less than the UC Fair Wage (defined as \$15 per hour) and shall comply with all applicable federal, state and local working condition requirements.

15.12 EXECUTION OF AGREEMENT

15.12.1 This Agreement may be executed in two or more counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same Agreement. The counterparts of this Agreement may be executed via a digital signature process and shall have the same force and effect as the use of a manual signature. The University reserves the right to reject any digital signature unless it is unique to the person using it, capable of verification, created by public key cryptography or signature dynamics, and meets all requirements of California Government Code § 16.5 and California Code of Regulations 22000 through 22005.

END OF GENERAL CONDITIONS

SUPPLEMENTARY CONDITIONS

1. MODIFICATION OF ARTICLE 1 – GENERAL PROVISIONS

Delete Paragraph 1.1.9 and replace with the following revised Paragraph:

1.1.9 CONSTRUCTION COST CATALOG - The term "Construction Cost Catalog" means the comprehensive listing of construction related tasks together with a specific unit of measure and a published Unit Price. Also referred to as the CCC.

Delete Paragraph 1.1.27 and replace with the following revised Paragraph:

1.1.27 JOB ORDER SCHEDULE OF VALUES - The term "Job Order Schedule of Values," also referred to as "Proposal", is Contractor's irrevocable offer to perform Work associated with a Job Order. It refers to Contractor's prepared document quoting a firm fixed-price and schedule for the completion of a specific Scope of Work. The Job Order Schedule of Values shall include a detailed cost proposal comprised of line items from the CCC, supporting documentation for any Non-Prepriced items, a construction schedule and any other documentation that may be required by University prior to the issuance of a Job Order including, but not limited to shop drawings, sketches, permits, and submittals as necessary.

Delete Paragraph 1.1.35 and replace with the following revised Paragraph:

1.1.35 NON-PREPRICED ITEM - The term "Non-Prepriced Item", also referred to as NPP, means the Unit of Work that is not included in the Construction Cost Catalog Task Items 1 through 94 but which is in the general scope and intent of this Contract. All Non-Prepriced Item work shall be performed using Construction Cost Catalog Task Items 95 through 97.

The following Paragraph 1.1.56 is added:

1.1.56 EMERGENCY WORK - The Term "Emergency Work" as related to the Adjustment Factors means Contractor shall mobilize to the Project site within two (2) hours of notification by University to rectify either a system outage or operational need. University shall issue an Emergency Job Order Authorization with a maximum not-to-exceed value. Contractor shall prepare the Job Order Schedule of Values as soon as Emergency Detailed Scope of Work has been determined. University will then issue a Supplemental Job Order to finalize Job Order Scope of Work.

2. MODIFICATION OF ARTICLE 4 – ADMINISTRATION OF THE CONTRACT Delete Paragraph 4.2.6 and replace with the following revised Paragraph:

4.2.6 Non-Prepriced Work Tasks are units of work not included in the Construction Cost Catalog Task Items 1 through 94 but within the general scope and intent of this contract. All Non-Prepriced work shall be performed utilizing Construction Cost Catalog Task Items 95 through 97. Non-prepriced work requirements shall be separately identified and submitted in the Job Order Schedule of Values. Information submitted in support of non-prepriced work shall include, but not be limited to, the following:

- .1 Complete specifications and technical data, including work unit content, work unit costs data, quality control and inspection requirements.
- .2 Work schedule specific to the Non-Prepriced Task, this will include an update for other Job Order Work concurrently under construction and how these projects will affect the new Job Order Work.
- .3 Pricing data submitted in support of non-prepriced materials. Such material costs shall be charged at the lowest price available to Contractor but in no event shall such costs exceed competitive costs obtainable from other subcontractors, suppliers, manufacturers, and distributors in the area of the Project Site. All discounts, rebates, and refunds and all returns from sale of surplus materials and consumable items shall accrue to University and Contractor shall make provisions so that they may be obtained.
- .4 Not Used.
- .5 Not Used.
- .6 Not Used.
- .7 Not Used.

3. MODIFICATION OF ARTICLE 7 - CHANGES IN THE WORK

7.6 CCI FOR THIS CONTRACT

The closest published city for modifying the Adjustment Factor at the beginning of any new Option Period will be Los Angeles.

4. MODIFICATION OF GENERAL CONDITIONS, ARTICLE 8 – JOB ORDER TIME

Adverse weather in excess of the following number of days will be granted a Job Order Time extension pursuant to Article 8.4 of the General Conditions:

January.....- 6 days	July- 1 day
February.....- 6 days	August- 0 days
March.....- 6 days	September- 1 day
April- 3 days	October.....- 2 days
May.....- 1 day	November- 3 days
June.....- 1 day	December- 5 days

5. MODIFICATION OF GENERAL CONDITIONS, ARTICLE 11 – INSURANCE AND BONDS

Contractor shall furnish and maintain insurance in the amounts below.

The insurance required by 11.1.2.1 and 11.1.2.2 shall be (i) issued by companies with a Best rating of A- or better, and a financial classification of VIII or better (or an equivalent rating by Standard & Poor or Moody's) or (ii) guaranteed, under terms consented to by the University (such consent to not be unreasonably withheld), by companies with a Best rating of A- or better, and a financial classification of VIII or better (or an equivalent rating by Standard & Poor or Moody's). Such insurance shall be written for not less than the following:

11.1.2.1 Commercial General Liability Insurance – Limits of Liability	<u>Minimum Requirements</u>
Each Occurrence - Combined Single Limit for Bodily Injury and Property Damage	\$2,000,000
Products - Completed Operations Aggregate	\$4,000,000
Personal and Advertising Injury	\$2,000,000
General Aggregate.....	\$4,000,000
11.1.2.2 Business Automobile Liability Insurance - Limits of Liability Each Accident - Combined Single Limit for Bodily Injury and Property Damage	\$1,000,000

Insurance required by Article 11.1.2.3 shall be issued by companies (i) that have a Best rating of B+ or better, and a financial classification of VIII or better (or an equivalent rating by Standard & Poor or Moody's); or (ii) that are acceptable to the University. Such insurance shall be written for not less than the following:

11.1.2.3 WORKER'S COMPENSATION AND EMPLOYER'S LIABILITY - <u>Requirements</u>	<u>Minimum Requirements</u>
Worker's Compensation	(as required by Federal and State of California law)
Employer's Liability:	
Each Employee	\$1,000,000
Each Accident	\$1,000,000
Policy Limit.....	\$1,000,000

In the event that Contractor and/or Subcontractor utilize drone(s)/Unmanned Aerial Vehicle(s) in the performance of their Work, the following Article is added to the General Conditions pursuant to Article 11.1.2:

11.1.2.5 The Contractor shall obtain, either itself or through the applicable Subcontractor(s) in use of drone(s)/Unmanned Aerial Vehicle(s) (UAV(s)) in the performance of their Work, separate Unmanned Aircraft System (UAS) insurance. Contractor and/or Subcontractor shall maintain and show evidence of coverage pursuant to this Article 11.1.2.5 while Work involving drone(s)/UAV(s) is being completed. The insurance required by this paragraph shall be (i) issued by companies with a Best rating of A- or better, and a financial classification of VIII or better (or an equivalent rating by Standard & Poor's or Moody's) or (ii) guaranteed, under terms consented to by the University (such consent to not be unreasonably withheld), by companies with a Best rating of A- or better, and a financial classification of VIII or better (or an equivalent rating by Standard & Poor's or Moody's).

Contractor and/or Subcontractor in use of a drone/UAV in the performance of their Work shall meet all FAA requirements for certification and comply with all FAA rules for operation of the drone/UAV and any established University policy relating to operation of unmanned aircraft systems at University location.

Such UAV Liability coverage as provided by a UAS insurance policy shall be written for not less than the following minimum limits:

<u>UAV / UAS Insurance –Limits of Liability</u>	<u>Minimum Requirements</u>
Per Occurrence	\$1,000,000
Annual Aggregate	\$1,000,000

Such UAS insurance policy must include coverage for Bodily Injury (Liability), Property Damage (Liability) and Physical Damage to the UAV and support systems. Contractor and/or Subcontractor shall be required to also show evidence of the following under its UAS policy:

Such UAS insurance shall, by endorsement to the policies, also include the following:

- .1 The Regents of the University of California and each of their Representatives, consultants, officers, agents, employees, and each of their Representative's consultants shall be included as additional insureds on a primary non-contributory basis.
- .2 As to all liability insurance policies, each shall include a waiver of subrogation endorsement evidencing that the Contractor and/or Subcontractor waives all rights of recovery by subrogation against University, University's Representative, University's Representative's consultants, their respective officers, agents, or employees.
- .3 If insurance policy providing coverage requires that each UAV be scheduled, the Contractor and/or Subcontractor shall meet all reporting requirements of the insurance company to schedule insurance for the actual unit (drone/UAV) in use in the performance of their Work.

11.3 PERFORMANCE BOND AND PAYMENT BOND

Add the following new subparagraph to Paragraph 11.3.3 of the General Conditions:

11.3.3.1 During the Base Term, the Payment Bond and Performance Bond shall each initially be in the amount of \$1,500,000.00. If the amount initially bonded is less than the full Maximum Contract Value for the Base Term, Contractor shall supplement said Performance Bond and Payment Bond, with the same surety company, so that the amount bonded equals the Maximum Contract Value for the Base Term, prior to the University approving a total dollar amount of Job Orders in excess of 90% of the bonding limit in effect at that time.

Add the following new subparagraph to Paragraph 11.3.5 of the General Conditions:

11.3.5.1 If University elects to exercise its option for one or more Option Term(s), Contractor shall, prior to University's award of any Job Order Authorizations within the Option Term, provide additional Payment Bonds and Performance Bonds in the initial amount of \$1,500,000.00 on the forms contained in the Exhibits. If the amount initially bonded is less than the full Maximum Contract Value for the Option Term, Contractor shall supplement said Performance Bond and Payment Bond, with the same surety company, so that the amount bonded equals the Maximum Contract Value for the Option Term, prior to University approving a total dollar amount of Job Orders in excess of 90% of the bonding limit in effect at that time.

6. MODIFICATION OF GENERAL CONDITIONS, ARTICLE 14 – STATUTORY AND OTHER REQUIREMENTS

The following new Subparagraph 14.4.4 is added to Article 14.4:

14.4.4 Contractor and every Subcontractor required to submit certified payrolls shall use the web-based electronic certified payroll reporting (eCPR) system to be named by University. The software shall be a web-based eCPR system accessed by a web browser. Contractor and each Subcontractor will be furnished a log-on identification and password to access University's reporting system. Use of the system may entail additional data entry of weekly payroll information including, without limitation: employee identification, labor classification, total hours worked and hours worked on the project, wage and benefit rates paid, etc. The required

software shall be used regardless of the ability to interface with Contractor's or Subcontractor's payroll and accounting software or system. On-line training in the use of the system will be available via the Internet. University may elect to schedule training classes in the use of the software and Contractor shall have all necessary personnel attend and shall require attendance by all Subcontractors.

END OF SUPPLEMENTARY CONDITIONS

INDEX TO EXHIBITS

- Exhibit 01 - Certificate of Insurance
- Exhibit 02 - Payment Bond
- Exhibit 03 - Performance Bond
- Exhibit 04 - Request for Job Order Schedule of Values
- Exhibit 05 - Detailed Scope of Work
- Exhibit 06 - Job Order Schedule of Values
- Exhibit 07 - Submittal Schedule
- Exhibit 08 - Job Order Authorization
- Exhibit 09 - Field Order
- Exhibit 10 - Change Order
- Exhibit 11A - Conditional Waiver and Release on Progress Payment
- Exhibit 11B - Conditional Waiver and Release on Final Payment
- Exhibit 12A - Unconditional Waiver and Release on Progress Payment
- Exhibit 12B - Unconditional Waiver and Release on Final Payment
- Exhibit 13 - Summary of Builder's Risk Insurance Policy
- Exhibit 14 - Self-Certification
- Exhibit 15 - Report of Subcontractor Information
- Exhibit 16 - Final Distribution of Job Order Dollars
- Exhibit 17 - Application for Payment
- Exhibit 18 - General Contractor Claim Certification
- Exhibit 19 - Subcontractor Claim Certification
- Exhibit 20 - Inspection Acceptance
- Exhibit 21 - Notice of Completion
- Exhibit 22 – Contractor's Daily Report
- Exhibit 23 – Construction Cost Catalog



CERTIFICATE OF LIABILITY INSURANCE

(for non-UCIP Construction Projects and Consultant/Design Contracts)

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
	PHONE (A/C, No, Ext):	FAX (A/C, No):
	EMAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE	NAIC #
INSURED	INSURER A:	
	INSURER B:	
	INSURER C:	
	INSURER D:	
	INSURER E:	
	INSURER F:	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	GENERAL LIABILITY <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR <small>(SEE)</small> AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC						
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS						
	UMBRELLA LIAB <input type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input type="checkbox"/> RETENTION \$						
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? <input type="checkbox"/> <small>Y/N</small> <small>(Mandatory in NH)</small> If yes, describe under DESCRIPTION OF OPERATIONS below						<input type="checkbox"/> WC STATU-TORY LIMITS <input type="checkbox"/> OTH-ER
	PROFESSIONAL LIABILITY <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS-MADE						

Special Provisions:

- The Regents of the University of California, The University of California, University, and each of their Representatives, consultants, officers, agents, employees, and each of their Representative's consultants, are included as additional insureds on the general liability policy as required by contract and pursuant to additional insured endorsement CG2010 (1/1/85) or a combination of both CG 2010 (10/01 or 07/04) and CG 2037 (10/01 or 07/04) but only in connection with ___(name of project)___.
- The General Liability coverage contains a Severability of Interest provision and shall be primary insurance as respects The Regents of the University of California, its officers, agents and employees. Any insurance or self-insurance maintained by The Regents of the University of California shall be excess of and non-contributory with this insurance.

CERTIFICATE HOLDER: The Regents of the University of California Forward to: {Office, Room Number or Mail Stop} University of California, {Facility} {Street Address} {City, State, Zip}	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE
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December 16, 2013

Project No. _____ {#}
Bond No. _____

PAYMENT BOND

For the {UCLA: ENTER EITHER "Base" or "Option"} Term Only

KNOW ALL PERSONS BY THESE PRESENTS:

THAT WHEREAS, The Regents of the University of California ("The Regents") has awarded to { _____ } as Principal the {UCLA: ENTER EITHER "Base" or "Option"} Term of a contract dated the _____ day of { _____ }, 20{____}, {UCLA: ENTER THE DATE OF EITHER THE BASE OR THE OPTION TERM AS APPLICABLE} (the "Contract") for the work described as follows:

{Project Name}
Project Number {#}

AND WHEREAS, the Principal is required to furnish a bond in connection only with the above referenced { "Base" or "Option" } Term of the Contract, to secure the payment of claims of laborers, mechanics, material suppliers, and other persons as provided by law;

NOW, THEREFORE, we, the undersigned Principal and { _____ } as Surety, are held and firmly bound unto The Regents in the sum of { _____ } dollars (\$ { _____ }), for which payment well and truly to be made we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents. {UCLA: IF THE AMOUNT INITIALLY BONDED IS LESS THAN THE MAXIMUM CONTRACT VALUE FOR THE APPLICABLE BASE OR OPTION TERM, ADD NEXT SENTENCE; OTHERWISE DELETE NEXT SENTENCE} Principal agrees to supplement this bond to equal the sum of { _____ } dollars (\$ { _____ }). {UCLA: ENTER THE MAXIMUM CONTRACT VALUE FOR THE APPLICABLE TERM};

THE CONDITION OF THIS OBLIGATION IS SUCH, that if Principal, or its heirs, executors, administrators, successors, or assigns approved by The Regents, or its subcontractors shall fail to pay any of the persons named in State of California Civil Code Section 9100, or amounts due under the State of California Unemployment Insurance Code with respect to work or labor performed under the Contract, or for any amounts required to be deducted, withheld, and paid over to the State of California Employment Development Department from the wages of employees of Principal and subcontractors pursuant to Section 13020 of the State of California Unemployment Insurance Code with respect to such work and labor, that Surety will pay for the same in an amount not exceeding the sum specified in this bond, otherwise the above obligation shall become and be null and void.

This bond shall inure to the benefit of any of the persons named in State of California Civil Code Section 9100 as to give a right of action to such persons or their assigns in any suit brought upon this bond.

Surety, for value received, hereby expressly agrees that no extension of time, change, modification, alteration, or addition to the undertakings, covenants, terms, conditions, and agreements of the above referenced { "Base" or "Option" } Term of the Contract, or to the work to be performed thereunder, shall in any way affect the obligation of this bond; and it does hereby waive notice of any such extension of time, change, modification, alteration, or addition to the undertakings, covenants, terms, conditions, and agreements of the said { "Base" or "Option" } Term of the Contract, or to the work to be performed thereunder.

Surety's obligations hereunder are independent of the obligations of any other surety for the payment of claims of laborers, mechanics, material suppliers, and other persons in connection with the said { "Base" or "Option" } Term of the Contract; and suit may be brought against Surety and such other

sureties, jointly and severally, or against any one or more of them, or against less than all of them without impairing The Regents' rights against the other.

In the event suit is brought upon this bond, the parties not prevailing in such suit shall pay reasonable attorneys' fees and costs incurred by the prevailing parties in such suit.

Correspondence or claims relating to this bond shall be sent to Surety at the address set forth below.

IN WITNESS WHEREOF, we have hereunto set our hands this _____ day of
{ _____ }, { _____ }.

Principal: _____
(Name of Firm)

Surety: _____
(Name of Firm)

By: _____
(Signature)

By: _____
(Signature)

(Printed Name)

(Printed Name)

Title: _____

Title: _____

Address for Notices:

NOTE: Notary acknowledgement for Surety and Surety's Power of Attorney must be attached.

Project No. _____ {#}
Bond No. _____

PERFORMANCE BOND
For the {UCLA: ENTER EITHER "Base" or "Option"} Term Only

KNOW ALL PERSONS BY THESE PRESENTS:

THAT WHEREAS, The Regents of the University of California ("The Regents") has awarded to { _____ } as Principal the {UCLA: ENTER EITHER "Base" or "Option"} Term of a contract dated the _____ day of { _____ }, { _____ } {UCLA: ENTER THE DATE OF EITHER THE BASE OR THE OPTION TERM AS APPLICABLE}, (the "Contract"), which { "Base" or "Option" } Term of the Contract is by this reference made a part hereof, for the work described as follows:

{Project Name}
Project Number {#}

AND WHEREAS, Principal is required to furnish a bond in connection with the { "Base" or "Option" } Term of the Contract, guaranteeing the faithful performance thereof;

NOW, THEREFORE, we, the undersigned Principal and { _____ } as Surety, are held and firmly bound unto The Regents in the sum of { _____ } dollars (\$ { _____ }), to be paid to The Regents or its successors and assigns; for which payment, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents. {UCLA: IF THE AMOUNT INITIALLY BONDED IS LESS THAN THE MAXIMUM CONTRACT VALUE FOR THE APPLICABLE BASE OR OPTION TERM, ADD NEXT SENTENCE; OTHERWISE DELETE NEXT SENTENCE} Principal agrees to supplement this bond to equal the sum of { _____ } dollars (\$ { _____ }). {UCLA: ENTER THE MAXIMUM CONTRACT VALUE FOR THE APPLICABLE TERM.}

THE CONDITION OF THIS OBLIGATION IS SUCH, that if Principal, or its heirs, executors, administrators, successors, or assigns approved by The Regents, shall promptly and faithfully perform the covenants, conditions, and agreements of the { "Base" or "Option" } Term of the Contract during said term, and during the period of any guarantees or warranties required under the { "Base" or "Option" } Term of the Contract, and shall also promptly and faithfully perform all the covenants, conditions, and agreements of any alteration of the { "Base" or "Option" } Term of the Contract made as therein provided, notice of which alterations to Surety being hereby waived, on Principal's part to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify, defend, protect, and hold harmless The Regents as stipulated in the { "Base" or "Option" } Term of the Contract, then this obligation shall become and be null and void; otherwise it shall be and remain in full force and effect.

No extension of time, change, alteration, modification, or addition to the { "Base" or "Option" } Term of the Contract, or of the work required thereunder, shall release or exonerate Surety on this bond or in any way affect the obligation of this bond; and Surety does hereby waive notice of any such extension of time, change, alteration, modification, or addition.

Whenever Principal shall be and declared by The Regents to be in default under the { "Base" or "Option" } Term of the Contract, Surety shall promptly remedy the default, or shall promptly:

1. Undertake through its agents or independent contractors, reasonably acceptable to The Regents, to complete the { "Base" or "Option" } Term of the Contract in accordance with its terms and

conditions and to pay and perform all obligations of Principal under the {"Base" or "Option"} Term of the Contract, including without limitation, all obligations with respect to warranties, guarantees, and the payment of liquidated damages, or, at Surety's election, or, if required by The Regents,

2. Obtain a bid or bids for completing the {"Base" or "Option"} Term of the Contract in accordance with its terms and conditions, and, upon determination by The Regents of the lowest responsible bidder, arrange for a contract between such bidder and The Regents and make available as work progresses (even though there should be a default or a succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion up to the Maximum Contract Value for the {"Base" or "Option"} Term of the Contract less the balance of the Job Order Sum, and to pay and perform all obligations of Principal under the {"Base" or "Option"} Term of the Contract, including, without limitation, all obligations with respect to warranties, guarantees, and the payment of liquidated damages; but, in any event, Surety's total obligations hereunder shall not exceed the amount set forth in the third paragraph hereof. The term "balance of the Job Order Sum," as used in this paragraph, shall mean the total amount payable by The Regents to the Principal under the Contract and any amendments thereto, less the amount paid by The Regents to Principal.

Surety's obligations hereunder are independent of the obligations of any other surety for the performance of the {"Base" or "Option"} Term of the Contract, and suit may be brought against Surety and such other sureties, jointly and severally, or against any one or more of them, or against less than all of them without impairing The Regents' rights against the others.

No right of action shall accrue on this bond to or for the use of any person or corporation other than The Regents or its successors or assigns.

Surety may join in any arbitration proceedings brought under the {"Base" or "Option"} Term of the Contract and shall be bound by any arbitration award.

In the event suit is brought upon this bond by The Regents, Surety shall pay reasonable attorney's fees and costs incurred by The Regents in such suit.

Correspondence or claims relating to this bond shall be sent to Surety at the address set forth below.

IN WITNESS WHEREOF, we have hereunto set our hands this _____ day of
{_____}, {_____}.

Principal: _____
(Name of Firm)

Surety: _____
(Name of Firm)

By: _____
(Signature)

By: _____
(Signature)

(Printed Name)

(Printed Name)

Title: _____

Title: _____

Address for Notices:

NOTE: Notary acknowledgement for Surety and Surety's Power of Attorney must be attached.

REQUEST FOR JOB ORDER SCHEDULE OF VALUES

Facility: _____	Job Order #: _____
Address: _____	Job Order Title: _____
City, State, Zip _____	Location: _____
Web site _____	

To: Contractor
 Attention: _____
 Phone: _____
 Fax: _____
 Email: _____

From: _____ Job Order Manager	For this Project/Job Order, Contact: Project Manager
Phone: _____	Phone: _____
Fax: _____	Fax: _____
Email: _____	Email: _____

REQUEST FOR JOB ORDER SCHEDULE OF VALUES

Please provide a Proposal Package for the above named Job Order as described below.

Proposal Due Date:

Brief Description of Work:

Detailed Scope of Work: See Attached

Special Requirements:

- | | | |
|---|---|---|
| <input type="checkbox"/> Emergency Mobilization | <input type="checkbox"/> Non-Standard Hours | <input type="checkbox"/> Submittals |
| <input type="checkbox"/> Phasing | <input type="checkbox"/> Standard Hours | <input type="checkbox"/> Shop Drawings |
| | <input type="checkbox"/> Sequence Schedule | <input type="checkbox"/> Code Review Drawings |
| | | <input type="checkbox"/> Other |

JO Start Date: <input type="checkbox"/> Required <input type="checkbox"/> Desired	JO Completion Date: <input type="checkbox"/> Required <input type="checkbox"/> Desired	Architect/Engineer:
--	---	---------------------

Joint Scope Walk:

Date:{DATE}

Location:{LOCATION}

Attachments in addition to a Detailed Scope of Work:

- | | |
|---|--------------------------------------|
| <input type="checkbox"/> Specifications | <input type="checkbox"/> Drawings |
| <input type="checkbox"/> Samples | <input type="checkbox"/> Other _____ |

Work Plan:

- Required Due: _____
 Not-Required

DETAILED SCOPE OF WORK

Contract #:
Job Order Title:

Job Order #:
Location:

Date Issued: {MM/DD/YYYY}

Detailed Scope of Work

Please refer to the Request for Job Order Schedule of Values for additional information.

JOB ORDER SCHEDULE OF VALUES

Contract #: _____ Job Order #: _____
Job Order Title: _____ Location: _____

To: Facility _____ Date: _____
Address _____
City, State, Zip _____

Attn: Project Manager _____
cc: JOC Manager _____
Fax: _____
Email: _____

From: Contractor _____
Address _____
City, State Zip _____
Contact Name _____

Fax: _____
Email: _____

Our Job Order Schedule of Values, based upon the Request for Job Order Schedule of Values dated _____ and inclusive of the attachments noted below, is hereby submitted for your consideration. All Work is to be performed in accordance with the Contract Documents and the Request for Job Order Schedule of Values identified above, inclusive of related documents contained or reference therein.

<u>Price Proposal Summary</u>			
Section 01	\$ _____	Section 09	\$ _____
Section 02	\$ _____	Section 10	\$ _____
Section 03	\$ _____	Section 11	\$ _____
Section 04	\$ _____	Section 12	\$ _____
Section 05	\$ _____	Section 13	\$ _____
Section 06	\$ _____	Section 14	\$ _____
Section 07	\$ _____	Section 15	\$ _____
Section 08	\$ _____	Section 16	\$ _____
			Proposal Total \$ _____

Required Attachments:
 Detailed price proposal List of Subcontractors Non-Prepriced back-up (If applicable)
 Job Order schedule Scope of work changes (If Applicable)

Name of proposed Superintendent: _____

Site Investigation and Constructability Review: Contractor confirmed by signing the Job Order Schedule of Values that a complete and careful investigation of the Job Order Work site has been performed to insure there are no known or avoidable conflicts which would delay completion or accomplishment of the Work.

Contractor's Authorized Representative _____ Date: _____

Name: _____

Signature: _____

SUBMITTAL SCHEDULE

Project Name: _____

Contract Number: _____

Job Order No.: _____

Job Order Date: _____

Subcontractor: _____

Specification Section: _____

Work Activity: _____

Event	Scheduled Completion Date	Actual Completion Date	Calendar Days Required to Complete
1. Received by Contractor and Time for Checking			
2. First Delivered to University's Representative and Time for Checking			
3. Return to Contractor			
4. Corrections Completed and Time for Corrections			
5. Next Delivered to University's Representative and Time for Checking			
6. Return to Contractor			
7. Approval for Job Information			
8. Approval for Fabrication and Time for Fabrication			
9. Fabrication Completed			
10. Shipping Date and Time Enroute			
11. Delivery to Job			

JOB ORDER AUTHORIZATION

JOB ORDER NUMBER: _____

TO: {Contractor's Name} _____
{Contractor's Address} _____

FROM: University of California, Los Angeles

When executed by University, Contractor is authorized to perform the Job Order Work including furnishing all materials, labor, equipment, and services for the Detailed Scope of Work dated {MM/DD/YYYY} described in brief below:

in accordance with plans and specifications provided by University's Representative, for the following Job Order Sum based on the attached Job Order Schedule of Values dated {MM/DD/YYYY}:

 \${AMOUNT IN FIGURES}
(Job Order Sum)

Job Site Investigation and Constructability Review: Contractor confirms by signing and accepting this Job Order that a complete and careful investigation of the Job Order Work site has been performed to insure there are no known or avoidable conflicts which would delay completion or accomplishment of the Work.

Job Order Work shall be fully completed within {NUMBER} calendar days (Job Order Time) from the date last signed below.

Contractor will be assessed as Liquidated Damages the sum of \$_{AMOUNT IN FIGURES} for each calendar day the Job Order Work remains incomplete beyond the expiration of the Job Order Time. See Article 5 of the Agreement for detailed requirements.

University reserves the right to increase or decrease the quantity and scope of any item or portion of the Work, or to omit any item or portion of the Work as determined by the University.

Agreed Upon by Contractor:

(Signature)

(Printed Name)

(Title)

(Date)

Agreed Upon by University:

(Signature)

(Printed Name)

(Title)

(Date)

Attachments Required:

Job Order Schedule of Values

Detailed Scope of Work

Estimated Adjustment
of Job Order Sum: _____

Estimated Adjustment
Job Order Time: _____

(Name of University's Representative - typed or printed)

(Signature)

_____ (Title) _____ (Date)

(Name of University's Designated Administrator -
typed or printed)

(Signature)

_____ (Title) _____ (Date)

(Contractor)

(Signature)

_____ (Title) _____ (Date)

Note: If the Work described above constitutes a change, this Field Order will be superseded by a Supplemental Job Order that will include the scope of the change in the Work and any actual adjustments of the Job Order Sum and the Job Order Time.

CHANGE ORDER

University of California Facility: Los Angeles

CHANGE ORDER NO. _____

Job Order Contract: _____ Contract Date: _____

To Contractor: _____

Address: _____

DESCRIPTION OF CHANGE:

Adjustment of Contract Sum:

Original Contract Sum: _____

Prior Adjustments: _____

Contract Sum Prior

to this Change: _____

Adjustment for this

Change: _____

Revised Contract Sum: _____

Adjustment of Contract Time:

Original Contract Time: "NUMBER OF DAYS"

Prior Adjustments: "NUMBER OF DAYS"

Contract Time Prior

to this Change: "NUMBER OF DAYS"

Adjustment for this

Change: "NUMBER OF DAYS"

Revised Contract Time: "NUMBER OF DAYS"

Contractor waives any claim for further adjustments of the Contract Sum and the Contract Time related to the above described change in the Work.

Recommended:

(Signature of University's Representative)

(Printed Name)

(Date)

Accepted:

(Name of Contractor - typed or printed)

(Signature)

(Printed Name & Title)

(Date)

Reviewed and Recommended:

(Signature of University's Designated Administrator)

(Printed Name)

(Date)

Funds Sufficient:

(Signature of University's Accounting Office)

(Printed Name)

(Date)

Approved:

UNIVERSITY: THE REGENTS OF THE UNIVERSITY
OF CALIFORNIA

By: _____
(Signature)

(Printed Name and Title)

Date: _____

**CONDITIONAL WAIVER AND
RELEASE ON PROGRESS PAYMENT**

NOTICE:

THIS DOCUMENT WAIVES THE CLAIMANT'S LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS EFFECTIVE ON RECEIPT OF PAYMENT. A PERSON SHOULD NOT RELY ON THIS DOCUMENT UNLESS SATISFIED THAT THE CLAIMANT HAS RECEIVED PAYMENT.

Identifying Information

Name of Claimant: _____

Name of Customer: _____

Job Location: _____

Owner: _____

Through Date: _____

Conditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for labor and service provided, and equipment and material delivered, to the customer on this job through the Through Date of this document. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. This document is effective only on the claimant's receipt of payment from the financial institution on which the following check is drawn:

Maker of Check: _____

Amount of Check: \$ _____

Check Payable to: _____

Exceptions

This document does not affect any of the following:

- (1) Retentions.
- (2) Extras for which the claimant has not received payment.
- (3) The following progress payments for which the claimant has previously given a conditional waiver and release but has not received payment:
Date(s) of waiver and release: _____
Amount(s) of unpaid progress payment(s): \$ _____
- (4) Contract rights, including (A) a right based on rescission, abandonment, or breach of contract, and (B) the right to recover compensation for work not compensated by the payment.

Signature

Claimant's Signature: _____

Claimant's Title: _____

Date of Signature: _____

**CONDITIONAL WAIVER AND
RELEASE ON FINAL PAYMENT**

NOTICE:

THIS DOCUMENT WAIVES THE CLAIMANT'S LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS EFFECTIVE ON RECEIPT OF PAYMENT. A PERSON SHOULD NOT RELY ON THIS DOCUMENT UNLESS SATISFIED THAT THE CLAIMANT HAS RECEIVED PAYMENT.

Identifying Information

Name of Claimant: _____
Name of Customer: _____
Job Location: _____
Owner: _____

Conditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for labor and service provided, and equipment and material delivered, to the customer on this job. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. This document is effective only on the claimant's receipt of payment from the financial institution on which the following check is drawn:

Maker of Check: _____
Amount of Check: \$ _____
Check Payable to: _____

Exceptions

This document does not affect any of the following: Disputed claims for extras in the amount of:

\$ _____.

Signature

Claimant's Signature: _____
Claimant's Title: _____
Date of Signature: _____

UNCONDITIONAL WAIVER AND RELEASE ON PROGRESS PAYMENT

NOTICE TO CLAIMANT:

UNCONDITIONAL WAIVER AND RELEASE ON PROGRESS PAYMENT NOTICE TO CLAIMANT: THIS DOCUMENT WAIVES AND RELEASES LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS UNCONDITIONALLY AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THOSE RIGHTS. THIS DOCUMENT IS ENFORCEABLE AGAINST YOU IF YOU SIGN IT, EVEN IF YOU HAVE NOT BEEN PAID. IF YOU HAVE NOT BEEN PAID, USE A CONDITIONAL WAIVER AND RELEASE FORM.

Identifying Information

Name of Claimant: _____
Name of Customer: _____
Job Location: _____
Owner: _____
Through Date: _____

Unconditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for labor and service provided, and equipment and material delivered, to the customer on this job through the Through Date of this document. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. The claimant has received the following progress payment:
\$ _____.

Exceptions

This document does not affect any of the following:

- (1) Retentions.
- (2) Extras for which the claimant has not received payment.
- (3) Contract rights, including (A) a right based on rescission, abandonment, or breach of contract, and (B) the right to recover compensation for work not compensated by the payment.

Signature

Claimant's Signature: _____
Claimant's Title: _____
Date of Signature: _____

**UNCONDITIONAL WAIVER AND
RELEASE ON FINAL PAYMENT**

NOTICE:

THIS DOCUMENT WAIVES AND RELEASES LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS UNCONDITIONALLY AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THOSE RIGHTS. THIS DOCUMENT IS ENFORCEABLE AGAINST YOU IF YOU SIGN IT, EVEN IF YOU HAVE NOT BEEN PAID. IF YOU HAVE NOT BEEN PAID, USE A CONDITIONAL WAIVER AND RELEASE FORM.

Identifying Information

Name of Claimant: _____
Name of Customer: _____
Job Location: _____
Owner: _____

Unconditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for all labor and service provided, and equipment and material delivered, to the customer on this job. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. The claimant has been paid in full.

Exceptions

This document does not affect any of the following: Disputed claims for extras in the amount of:

\$ _____.

Signature

Claimant's Signature: _____
Claimant's Title: _____
Date of Signature: _____

EXHIBIT 13
THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
Master Builder's Risk Program
Coverage Summary

This document summarizes the Builder's Risk policy and is not intended to reflect all the terms, conditions, or exclusions of such policy as of the effective date of coverage. This document is not an insurance policy and does not amend, alter or extend the coverage afforded by the listed policy. The actual insurance policy defines all the terms, exclusions and conditions of coverage, and not this summary. Should any ambiguities or conflicts between the summary and policy exist, the policy terms and conditions will apply.

*Some Projects may be excluded and/or must be underwritten separately and may be subject to different rates, deductibles, and terms and conditions (see page 15). Therefore, **this document should be used as a guideline only.***

INSURANCE COMPANY: Allianz Global Risks U.S. Insurance Company

BEST'S RATING: A+

NAMED INSURED: Regents of the University of California

INSURING AGREEMENT

This Policy, subject to the Limit of Liability and the terms, conditions, and limitations contained herein or endorsed hereon, insures against all risks of direct physical loss of or direct physical damage to Insured Property while at the construction site, stored off-site, or in the course of transit within the Territorial Limits specified in the Schedule during the Period of Insurance of each Insured Project.

LIMITS OF LIABILITY

SCHEDULE OF LIMITS

This Company shall not be liable for more than the Limit of Liability, as stated in Confirmation of Coverage, in any one Occurrence for any one Insured Project, subject to the following limits and sublimits:

MASTER POLICY LIMITS, BY CONSTRUCTION CLASS

\$150,000,000 per project, per occurrence; except,
\$ 25,000,000 per project, Joisted Masonry construction
\$ 25,000,000 per project, Wood Frame construction

NOTE: *The Total Estimated Construction Cost is estimated through project completion and reported on the original Builder's Risk Insurance Application. This Limit of Liability (Total Project Value (TPV)) will correspond with the Total Estimated Construction Cost as shown on the original Builder's Risk Insurance Application. If the construction costs should increase, the Limit of Liability (TPV) should be subsequently increased, once advance notice has been given by the University's Representative to Willis Towers Watson.*

KEY SUBLIMITS (percentage or dollar value, whichever is less):

1. \$25,000,000 for **Wood Frame Construction**
2. \$25,000,000 for **Joisted Masonry Construction**
3. \$50,000,000 for **Structural Renovations**
4. \$500,000 for **Pollution Cleanup Expenses**
5. 15% of the declared estimated Total Project Value or minimum of \$2,500,000, subject to a maximum of \$30,000,000 for **Demolition and Increased Cost of Construction**
6. 25% of the adjusted property damage loss or minimum of \$1,000,000, subject to a maximum of \$5,000,000 for **Expediting Expense/Extra Expense**
7. 10% of the declared estimated Total Project Value or minimum of \$2,500,000, subject to a maximum of \$10,000,000 for **Insured Property while Stored Off-site**
8. 10% of the declared estimated Total Project Value or minimum of \$2,500,000, subject to a maximum of \$10,000,000 for **Insured Property while in the Course of Inland Transit (continental US)**
9. 25% of the declared estimated Total Project Value or minimum of \$2,500,000, subject to a maximum of \$30,000,000 for **Debris Removal**
10. \$750,000 for **Valuable Papers**
11. \$1,000,000 for **Trees, Grass, Shrubbery, Seed and Plants**
12. 10% of estimated Total Project Value or minimum of \$1,000,000, subject to a maximum of \$10,000,000 for **Frost, Freeze, Falling of Ice**
13. 15% of the adjusted property damage loss or minimum of \$1,000,000, subject to a maximum of \$15,000,000 for **Green/LEED Rating System**
14. 10% of the adjusted property damage loss or minimum of \$250,000, subject to a maximum of \$500,000 for **Mold/Fungi**
15. 5% of the declared estimated Total Project Value or minimum of \$1,000,000, subject to a maximum of \$10,000,000 for additional **Architects, Engineering and Professional Fees**
16. \$500,000 for **Claims Preparation Expenses**
17. \$750,000 for **Protection Services and Equipment Refills**
18. \$50,000 for **Reward Payment**
19. \$1,000,000 for **Off Premises Service Interruption – Direct Damage**

KEY TERMS AND CONDITIONS

NAMED INSURED

The Regents of the University of California and all affiliated and subsidiary companies, corporations, ventures, partnerships or other organizations, all owned, controlled or managed by the Named Insured and all as now exist or may hereafter be constituted or acquired.

ADDITIONAL INSUREDS

General Contractors, Construction Managers and subcontractors of every tier. Additionally, any other person or entity(ies) as identified on a Project Declaration Endorsement, Quarterly Report Endorsement, or to the extent required by a written contract or agreement. As respects architects, engineers, manufacturers and suppliers, the foregoing is limited to their site activities only.

ATTACHMENT/TERMINATION

Insurance hereunder applies to all projects specifically declared under the Master Policy in a Quarterly Report Endorsement or in a Project Declaration Endorsement, where the project is scheduled to begin during the term of the Master Policy. The Master Policy term commences on September 1, 2017 at 12:01AM and ends on September 1, 2020 at 12:01AM.

Coverage for each Insured Project declared under the Master Policy will go into effect and continue in full force and effect during the Coverage Period specified in the Confirmation of Coverage.

NOTIFICATION OF COVERAGE/TERMINATION: *The Confirmation of Coverage Period will correspond with the Estimated Dates of Commencement and Completion of Work as indicated on the original Builder's Risk Insurance Application. If construction is not completed on time and coverage beyond the Estimated Date of Completion of Work is required, prior notification must be given by the University Representative to Willis Towers Watson in order to ensure that coverage remains in force for the project.*

DEDUCTIBLES (Basis for determining Deductible is the Total Project Value on record with the insurance company at time of loss. Total Project Value will correspond with the Total Estimated Construction Cost reported.)

NOTE: *The contractor shall be responsible for the deductibles.*

All Other Perils (except Water Damage; Electrical/Mechanical Breakdown and/or Hot-testing)

\$10,000 for Projects up to a value of \$25,000,000
\$25,000 for Projects exceeding \$25,000,000 in value

Water Damage

\$25,000 for projects up to a value of \$25,000,000
\$50,000 for projects valued \$25,000,000 up to \$50,000,000
\$75,000 for projects exceeding \$50,000,000 in value

Frost/Freeze/Falling Ice: \$100,000

Electrical/Mechanical Breakdown and/or Hot Testing

\$50,000 for Projects up to a value of \$25,000,000
\$100,000 for Projects valued \$25,000,000 up to \$100,000,000
\$250,000 for Projects exceeding \$100,000,000 in value

KEY EXCLUSIONS

PROPERTY EXCLUDED

This Policy does not insure:

1. Land, but this exclusion does not apply to excavation and grading as long as the cost of the excavation and grading is included in the Limit of Liability as stated in Confirmation of Coverage.
2. Contractor's plant and equipment, machinery, tools, or property of similar nature not destined to become a permanent part of the Insured Project but this exclusion shall not apply to formwork, fences, shoring, falsework and temporary buildings as long as the value of these items are included in the estimated Limit of Liability as stated in Confirmation of Coverage.
3. Automobiles or other vehicles, watercraft or aircraft.
4. Water.
5. Accounts, bills, currency, deeds, securities, books, records, manuscripts, other similar papers, or data processing media.
6. Existing buildings or structures or any other existing property.
7. Owner supplied material, equipment, machinery and supplies, unless the value of such is included in the Limit of Liability as stated in Confirmation of Coverage.
8. Transmission and/or distribution lines; including wires, cables, poles, towers and all equipment attached thereto beyond 1,000 feet from the perimeter of the project site.
9. Partially or completely excavated or open trench, pipeline or workface, at any one time beyond 1,000 feet in length.

EXCLUDED CAUSES OF LOSS

1. Loss or damage caused by, or resulting from, wear and tear, moth, vermin, termites or other insects, inherent vice, latent defect, gradual deterioration, wet or dry rot and rust, corrosion, erosion or normal settling, shrinkage, and/or expansion of buildings and/or foundations.
2. Any loss of use or occupancy or consequential loss of any nature howsoever caused.
3. Liquidated damages and/or penalties for delay or detention in connection with guarantees of performance or efficiency.
4. Hostile or warlike action.
5. Nuclear reaction, nuclear radiation, or radioactive contamination.
6. Any cost or expenses incurred to test for, monitor, or assess the existence, concentration or effects of Fungi.

7. Loss or damage caused by or resulting from infidelity or dishonesty on the part of the Insured and/or any employee of the Insured; inventory shortage or unexplained disappearance.
8. Loss or damage caused by or resulting from the enforcement of any ordinance or law, or any order of governmental or municipal authority; by suspension, lapse, termination and/or cancellation of any license, lease, or permit, or any injunction or process of any court, unless otherwise endorsed herein.
9. Loss or damage caused by, resulting from, contributed to or made worse by actual, alleged, or threatened release, discharge, escape or dispersal of Contaminants and/or Pollutants.
10. Loss or damage to Insured Property while aboard any aircraft or watercraft.
11. The cost of making good faulty or defective workmanship, material, construction, designs, plans and/or specifications unless direct physical loss or direct physical damage not otherwise excluded under this policy ensues and then this Policy will cover such ensuing loss or damage only.
12. Loss, damage, corruption, destruction, distortion, interruption, disruption, erasure, deletion, alteration, loss of use, reduction in functionality, loss of access to, denial of access to or breakdown of Electronic Data from any cause whatsoever.
13. Loss or damage to Used Equipment caused by mechanical and/or electrical breakdown.
14. Loss or damage directly or indirectly caused by, resulting from, contributed to, or aggravated by Land Movement.
15. Loss or damage directly or indirectly caused by, resulting from, contributed to, or aggravated by Flood.
16. Loss or damage covered under any guarantee or warranty, expressed or implied, by any manufacturer or supplier whether or not such manufacturer or supplier is an Insured under this policy.
17. Terrorism.
18. Loss or damage arising out of the performance of the professional activities of any consulting engineer, architect, or designer, or any person employed by them or any others whose acts they are legally liable for whether or not named as an Insured under this Policy.

SELECTED EXTENSIONS OF COVERAGE

1. EXPEDITING/EXTRA EXPENSES

Subject to the stated sublimit, this Policy is extended to cover extra charges for overtime, night work, work on public holidays, the extra cost of rental construction equipment, express freight, including air freight all incurred solely:

- A. to facilitate the repair or replacement of the Insured Property which has sustained physical loss or physical damage from a peril insured, or;
- B. which are necessary to return the work on the Insured Property to the same schedule actually being observed immediately prior to the sustaining of physical loss or physical damage from a peril insured.

This Policy does not cover charges incurred to expedite work on parts of the Insured Property which have not sustained physical loss or physical damage.

2. DEMOLITION AND INCREASED COST OF CONSTRUCTION

- A. Subject to the stated sublimit, in the event of direct physical loss and/or direct physical damage by perils insured under this Policy, the Company shall also pay:
 - (i) The increased cost to repair, replace or re-erect the Insured Property caused by the enforcement of any building, zoning or land use ordinance or law in force at the time of loss. If the Insured Property is replaced, it must be intended for similar occupancy of the current Insured Property, unless otherwise required by zoning or land use ordinance or law.
 - (ii) The cost to demolish and clear the construction site of undamaged parts of the Insured Property caused by the enforcement of any building, zoning or land use law in force at the time of the loss.
- B. In no event, however, shall the Company be liable for costs associated with the enforcement of any ordinance or law which requires any Insured or others to test for, monitor, clean up, remove, contain, treat, detoxify, or neutralize, or in any way respond to or assess the discharge, dispersal, release or escape of smoke, vapors, soot, fumes, acids, alkali, toxic chemicals, liquids or gasses, waste materials or other irritants, any Contaminants and/or Pollutants.
- C. The Company shall not pay for the increased cost of construction until the Insured Property is actually repaired, replaced, or re-erected at the same construction site or elsewhere and as soon as reasonably possible after the loss or damage, not to exceed thirty (30) months.

D. In no event, however, shall the Company pay more:

- (i) If the Insured Property is repaired, replaced or re-erected at the same construction site than the amount the insured actually spends to:
 - a) Demolish and clear the construction site; and
 - b) Repair, replace or re-erect the Insured Property but not for more than property of like height, floor area and style at the same construction site.
- (ii) If the Insured Property is not repaired, replaced, or re-erected at the same construction site than:
 - a) The amount the Insured actually spends to demolish and clear the construction site; and
 - b) The cost to replace, at the same construction site, the damaged or destroyed Insured Property with other property;
 - 1) of like kind and quality;
 - 2) of like height, floor area and style; and
 - 3) used for the same purpose.
- (iii) Than the stated sublimit of Demolition and Increased Cost of Construction.

3. PROTECTION SERVICES AND EQUIPMENT REFILLS

Subject to the stated sublimit, in the event of direct physical loss or direct physical damage to Insured Property by perils insured under this Policy, this insurance shall also pay the cost for services rendered by the Fire Department, Police Department or other governmental authority to save or protect Insured Property from direct physical loss or damage by an insured peril, for which the Insured is liable, provided they are assumed by contract or written agreement prior to a loss or they are required by a local ordinance.

This policy also covers cost or expense to recharge or refill any fire protective equipment owned, in the control of, or used to protect the Insured Property when discharged:

- A. To prevent or control direct physical loss or direct physical damage by an insured peril; or
- B. Accidentally; or
- C. As a result of malfunction of the equipment.

In respect items B. and C. above, the Company will pay for amounts in excess of amounts recoverable under any manufacturer's or supplier's warranty.

4. PLANS, BLUEPRINTS, AND SPECIFICATIONS

Subject to the stated sublimit, in the event of direct physical damage to records, documents, drawings, plans, blueprints or specifications by perils insured under this policy, this insurance shall also pay the costs of mechanical reproduction from originals.

5. TREES, GRASS, SHRUBBERY, SEED AND PLANTS

Subject to the stated sublimit, this policy is extended to insure direct physical loss or direct physical damage to trees, grass, shrubbery, seed and plants caused by or resulting from fire, lightning, windstorm, hail, explosion, smoke, collision by aircraft or vehicle, riot, riot attending a strike or civil commotion, vandalism or malicious mischief.

6. DEBRIS REMOVAL

Subject to the stated sublimit, in the event of direct physical loss or physical damage to Insured Property by perils insured under this policy, this insurance shall also pay the cost of removal of material and debris being a part of the Insured Property located at the construction site and the cost to demolish and clear the construction site of undamaged parts caused by the enforcement of any building, zoning or land use law in force at the time of the loss.

This Policy also covers cost or expense to:

- A. Extract Contaminants and/or Pollutants from the debris; or
- B. Extract Contaminants and/or Pollutants from land and/or water; or
- C. Remove, restore, or replace land and/or water made necessary due to the presence of Contaminants and/or Pollutants; or
- D. Remove or transport any property, material, or debris to a site for storage or decontamination required because the property, material, or debris is affected by Contaminants and/or Pollutants, whether or not such removal, transport, or decontamination is required by law or regulation.
- E. This sub-clause (Items A - D above), is subject to a sublimit for **Pollution Cleanup Expenses**.

It is a condition precedent to recovery under this clause, that the Company shall have paid, or agreed to pay for direct physical loss or direct physical damage to the Insured Property and that the Insured shall give written notice to the Company of intent to claim for cost of removal of debris or the cost of cleanup no later than (12) twelve months after the date the original physical loss or physical damage occurred.

7. ARCHITECT, ENGINEERING AND PROFESSIONAL FEES

Subject to the stated sublimit, Architect, Engineering and Professional Fees shall mean the additional architectural and engineering expenses, excluding any costs for redesign or betterment, or owner's consultant service expenses, or owner's legal, appraisal, title and/or inspection fees incurred to facilitate repair or replacement of the Insured Property which has sustained physical loss or physical damage from an insured peril.

8. GREEN/LEED

Subject to the stated sublimit, in the event of a direct physical loss or direct physical damage not otherwise excluded in the policy to Insured Property by perils insured under the policy the Insurer shall also pay the reasonable additional cost, if any, incurred by the Insured to repair or replace such damaged or destroyed Insured Property in a manner and with products or materials of otherwise equivalent quality and function that meet the requirements of the LEED Rating System.

Coverage under this extension applies only if the Insured Project has been registered with the US Green Building Council during the Period of Insurance specified as stated in Confirmation of Coverage and prior to any loss, and only to the initial and intended building certification level that has been registered with the US Green Building Council, in accordance with the criteria outlined in order to comply with the requirements of the LEED Rating System existing at the time of the loss or damage to the Insured Project, which upon completion will undergo the process of being certified by the US Green Building Council.

This coverage extension includes the additional coverages below as part of and not in addition to the sublimit as stated:

(1) CERTIFICATION FEES

Coverage is provided herein for the registration and certification fees charged by U.S. Green Building Council for the Insured to obtain LEED certification;

(2) COMMISSIONING EXPENSE

Coverage is provided herein for the reasonable expense incurred by the Insured to hire a professional engineer to provide commissioning or retro-commissioning services, including overseeing the repairs and replacement of damaged or destroyed Insured Property in order to verify and document that the replacement systems have been installed and calibrated properly and perform according to the documented design criteria and manufacturers' specifications; and to conduct a Test-and-Balance analysis of heating, ventilating or air conditioning systems (HVAC) as part of the commissioning or retro-commissioning , even if the HVAC system did not sustain any physical loss or damage;

(3) FLUSH-OUT OF RECONSTRUCTED SPACE

Coverage is provided herein for the reasonable expense incurred by the Insured to flush out the reconstructed space with 100% outside air through new filtration media following reconstruction in a manner consistent with the LEED Rating System;

(4) LEED ACCREDITED PROFESSIONAL FEES

Coverage is provided herein for the reasonable expense incurred by the Insured to hire a LEED Accredited Professional to participate in the design and construction of the damaged or destroyed building.

(5) RECYCLING EXPENSE

DEBRIS REMOVAL is extended to cover the reasonable additional cost incurred, if any, to sort, collect and transport recyclable debris to recycling facilities instead of landfills. Any income or remuneration derived from this recycling will be used to reduce the amount of the loss.

GREEN / LEED EXCLUSIONS:

No coverage is provided under this extension:

- A. If no such products or materials exist at the time of the loss or damage; or
- B. If the Insured does not repair or replace the damaged or destroyed Insured Property.

In no event will the policy pay more than the lesser of the:

- A. The cost to repair; or
- B. The cost to replace;

the damaged Insured Property in a manner and with products or materials of otherwise equivalent quality and function that meet the requirements of the LEED Rating System existing at the time of the loss or damage.

No coverage is provided under this extension of coverage for any of the following items:

- A. Re-registering the Insured project with the US Green Building Council.
- B. Failure to meet the registered LEED Building Rating certification level.
- C. Land and land values.
- D. Any additional cost incurred to comply with any law or ordinance.
- E. Personal property of others in the Insured's care, custody or control.
- F. Raw materials, stock-in-process and finished goods.
- G. Motor vehicles.
- H. Property located outside the Territorial Limits of the policy.

9. CLAIMS PREPARATIONS EXPENSE

Subject to the stated sublimit, this policy is extended to include reasonable expenses incurred by the Insured, or by the Insured's representatives for preparing the details of a claim resulting from a loss which would be payable under this policy. However, the Company shall not be liable for expenses incurred by the Insured in utilizing or retaining the services of attorneys, insurance agents or brokers; or any subsidiary, related or associated entities either partially or wholly owned by an attorney or public adjuster.

10. MOLD/FUNGI

Subject to the stated sublimit, in the event of direct physical loss or direct physical damage to Insured Property by perils insured under the policy, the insurance shall also pay, subject to the Limit of Liability and the terms, conditions, and limitations of this policy, the cost to clean up or remove Mold/Fungi from Insured Property located at the construction site.

Notwithstanding any terms or conditions, this policy does not insure any cost or expense incurred to test for, monitor, or assess the existence, concentration or effects of Mold/Fungi.

11. REWARD PAYMENT

Subject to the stated sublimit, the Company will reimburse the Named Insured for rewards that the Named Insured paid to others for information leading to:

- A. The successful return of undamaged stolen Insured Property to the Insured or a law enforcement agency; or
- B. The arrest and convictions of any persons responsible for having damaged or stolen Covered Property.

The reward payments must be documented.

The most that the Company will pay under this Coverage Extension in any one "occurrence" is 25% of the covered loss of or damage to Insured Property, prior to the application of any applicable Deductible and recovery of any Insured Property, up to the stated Sublimit.

12. OFF-PREMISES SERVICE INTERRUPTION – DIRECT DAMAGE

Subject to the stated sublimit, the Company will pay for direct physical loss of or damage to Insured Property at the project site directly caused by an off premises service interruption. The interruption must result from direct physical loss or damage directly caused by a covered cause of loss to property located away from the project site and used to provide any of the following services to the project site:

- A. Water;
- B. Power, including steam and natural gas; or
- C. Communication, including video, voice and data.

SELECTED GENERAL CONDITIONS

1. REQUIREMENTS IN CASE OF LOSS

In the event of loss or damage to Insured Property the Insured shall:

- A. Give immediate notice to the insurance company;
- B. Protect the Insured Property from further loss or damage;
- C. Within ninety (90) days from the date of discovery of the loss or damage, the Named Insured shall render a statement to the Insurer signed and sworn to by the Named Insured stating the knowledge and belief of the Insured as to the time and cause of the loss or damage and the interest of the Insured and all others in the Insured Property;
- D. Exhibit to any person designated by the Insurer all that remains of the Insured Property.
- E. Coordinate and cooperate with investigation and/or inspection of property and provide documentation as requested by the insurance adjuster. Do NOT destroy or salvage damaged property unless authorized to do so by the insurance adjuster.

- F. Submit to examinations under oath by any person named by the Insurer and produce for examination all writings, books of account, bills, invoices and other vouchers, or certified copies thereof if originals be lost, at such reasonable time and place as may be designated by the Insurer or its representative, and permit extracts and copies thereof to be made. No such examination under oath or examination of books or documents shall be deemed to be a waiver of any defense which the Insurer might otherwise have with respect to any loss or claim; but all such examinations and acts shall be deemed to have been made or done without prejudice to the Company's liability.
- G. Subject to the Limit of Liability and the terms, conditions, and limitations of the policy, all adjusted losses shall be paid or made good to the Named Insured within sixty (60) days after presentation and acceptance of the satisfactory proof of interest and loss to the Insurer. No amount shall be paid on an adjusted loss or made good if the Insured has collected the same from others.

2. VALUATION

Subject to the Limit of Liability, sublimits or Aggregate Limit of Liability, the Insurer shall not be liable beyond the cost to repair, replace, or re-erect the Insured Property at the time and place of loss, with materials of like kind and quality, less the cost of betterment, salvage, or other recovery including contractors reasonable profit and overhead in the proportion as that included in the original contract documents, or 15% profit and overhead, whichever is lesser. If the Insured Property is not replaced, then the loss shall be settled on the Actual Cash Value basis with proper deduction for depreciation, salvage or other recovery and exclusive of profit and overhead.

3. PROTECTION OF PROPERTY

In the case of direct physical loss or direct physical damage to Insured Property by perils insured under the policy, it shall be lawful and necessary for the Insured, his or their factors, servants, or assigns, to sue, labor, and travel for in and about the defense, safeguard, and recovery of the Insured Property, or any part thereof, without prejudice to this insurance, nor shall the acts of the Insured or Insurer, in recovering, saving, and preserving the Insured Property in case of loss be considered a waiver or an acceptance of abandonment. The expenses so incurred shall be borne by the Insured and the Insurer proportionately to the extent of their respective interests.

4. OTHER INSURANCE

This Policy shall not provide coverage to the extent of any other insurance, whether prior or subsequent hereto in date, and by whomsoever effected, directly or indirectly covering the same property against the same peril; and the Company shall be liable for direct physical loss or direct physical damage only for the excess value beyond the amount due from such other insurance, subject to the applicable Deductible.

5. INSUREDS' REPRESENTATIVE

The first Named Insured shall be the sole and irrevocable agent of each and every Insured for the purpose of:

- A. Payment of premium;
- B. Giving or receiving notice of cancellation;
- C. Requesting amendments to this policy and accepting amendments to the policy made by the Insurer.

6. LOSS PAYABLE

Loss, if any, shall be payable to the first Named Insured and/or its assigned designee.

7. PARTIAL OCCUPANCY OR USE

Notwithstanding anything to the contrary elsewhere in the policy, the Owner and/or tenants may occupy or use any completed or partially completed portion of the Insured Property, provided that the Insured warrants that all fire protection shall be in service and fully operational during such occupancy or use.

SELECTED DEFINITIONS

The following terms have been defined in the Master Policy and will be applied in the interpretation of certain wording used herein or within the Master Policy.

1. FLOOD:

Flood shall mean the rising, overflowing or breaking of boundaries of rivers, lakes, streams, ponds or similar natural or man-made bodies of water, or from waves, tidal waves, tidal waters, wave wash, or spray from any of the foregoing, surface waters, rain accumulation run off, all whether driven by wind or not.

2. CONTAMINANTS OR POLLUTANTS:

Contaminants and/or Pollutants shall mean any material which after its release or discharge can cause or threaten damage to human health and/or human welfare, or causes or threatens damage, deterioration, loss of value, marketability and/or loss of use to Insured Property; including, but not limited to, bacteria, virus, or hazardous substances as listed in the Federal Water Pollution Control Act, Clean Air Act, Resource Conservation and Recovery Act of 1976, and/or Toxic Substances Control Act, or as designated by the U.S. Environmental Protection Agency.

3. LAND MOVEMENT:

Land Movement shall mean all land movement however caused, whether by natural event or man-made including but not limited to, earthquake, volcanic eruption, tsunami, subsidence, landslide, mudflow, or rockfall.

4. OCCURRENCE:

Occurrence shall mean any one loss, disaster, or casualty, or series of losses, disasters, or casualties arising out of one event. With respect to the perils of Flood, Land Movement, or riots, one event shall be construed to be all losses arising during a continuous period of seventy-two (72) hours. With respect to the peril of Water Damage, one event shall be construed to be all losses arising during a continuous period of ninety-six (96) hours.

The Insured may choose the time from which any such period shall be deemed to have commenced, provided it shall not be earlier than the time of the first loss sustained by the Insured during the Occurrence.

5. WATER DAMAGE:

All water damage excluding flood, however caused, whether by natural event or man-made, including but not limited to interior water damage, damage due to water from pipe breakage or sprinkler leakage, damage from rainfall and/or resulting runoff; all whether wind driven or not.

PROJECTS EXCLUDED AND/OR MUST BE UNDERWRITTEN SEPARATELY. THESE PROJECTS MAY BE SUBJECT TO DIFFERENT RATES, DEDUCTIBLES, TERMS AND CONDITIONS.

(A) Construction Cost exceeds:

- \$150 Million regardless of Construction Type (Standalone project-specific policy may apply on projects over \$100 Million)
- \$25 Million for Wood Frame (Standalone project-specific policy may apply on projects over \$10 Million)
- \$25 Million for Joisted Masonry
- \$50 Million for Structural Renovations

(B) Project involves the following:

- Construction occurring outside of the State of California
- Co-Generation Facility
- Stadium or arena
- Bridge
- Tunnel
- Excavations greater than 1,000 feet in length or 40 feet in depth
- Transmission and/or distribution lines extending greater than 1,000 feet in length from the perimeter project site including cable, telecom, wires, poles, towers, and electrical
- Directional Drilling
- Gas Turbine
- Power Plants

(C) Project involves the following, without being delivered in combination with other new “ground-up” construction:

- Water or Sewer Pipelines, Cut and Cover, Open Trench, Utility Relocations (exceeding \$25M in value), Central Utility Plants, Waste Water, or Water Treatment Facilities. (Standalone projects means when the scope of work is not included in the estimated Construction Cost of a building project).

(D) Project requires coverage for:

- Land Movement (e.g. Earthquake)
- Flood
- Terrorism
- Delay in Completion/Business Interruption

END OF EXHIBIT 13

EXHIBIT 14
SELF-CERTIFICATION

For the Contractor and each Subcontractor indicated on the Report of Subcontractor Information, the following must be completed.

OR

For the Consultant and each Sub-consultant, the following must be completed.

Indicate all Business category(ies) that apply by initialing next to the applicable category(ies):

(Initial if applicable) **Small Business Enterprise (SBE)** - an independently owned and operated concern certified, or certifiable, as small business by the Federal Small Business Administration (SBA). (Size standards by Standard Industrial Classification codes required by the Federal Acquisition Regulations, Section 19.102, may be found at <http://www.sba.gov/content/table-small-business-size-standards>.) The eligibility requirements for California contracting purposes is on the [Department of General Services website](#) at <http://www.dgs.ca.gov/pd/Programs/OSDS/SBEeligibilityBenefits.aspx>. The University may rely on written representation by the vendors regarding their status.

(Initial if applicable) **Disabled Veteran Business Enterprise (DVBE)** - a business that is at least 51% owned by one or more disabled veterans or, in the case of any publicly owned business, at least 51% of the stock of which is owned by such individuals and whose management and daily business operations are controlled by one or more of such individuals. A Disabled Veteran is a veteran of the military, naval, or air service of the United States with a service connected disability who is a resident of the State of California. To qualify as a veteran with a service connected disability, the person must be currently declared by the United States Veterans Administration to be 10% or more disabled as a result of service in the armed forces.

(Initial if applicable) **Disadvantaged Business Enterprise (DBE)** - a business concern that is at least 51% owned by one or more socially and economically disadvantaged individuals or, in the case of any publicly owned business, at least 51% of the stock of which is owned by such individuals and whose management and daily business operations are controlled by one or more of such individuals. Socially disadvantaged individuals are those who have been subjected to racial or ethnic prejudice or cultural bias because of their identity as members of a group without regard to their individual qualities. Economically disadvantaged individuals are those socially disadvantaged individuals whose ability to compete in the free private enterprise system has been impaired due to diminished capital and credit opportunities as compared to others in the same business area who are not socially disadvantaged. Business owners who certify that they are members of named groups (Black Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans, Asian-Indian Americans) are to be considered socially and economically disadvantaged.

(Initial if applicable) **Women-Owned Business Enterprise (WBE)** - a business that is at least 51% owned by a woman or women who also control and operate it. "Control" in this context means exercising the power to make policy decisions. "Operate" in this context means being actively involved in the day-to-day management.

(Initial if applicable) **None of the above categories apply.**

I hereby certify under penalty of perjury under the laws of the State of California that I have read this certification and know the contents thereof, and that the business category indicated above reflects the true and correct status of the business in accordance with Federal Small Business Administration criteria and Federal Acquisition Regulations, FAR 19 pertaining to small, disadvantaged, women-owned, and disabled veteran business enterprises. I understand that falsely certifying the status of this business, obstructing, impeding or otherwise inhibiting any University of California official who is attempting to verify the information on this form may result in suspension from participation in University of California business contracts for a period up to five (5) years and the imposition of any civil penalties allowed by law.

INFORMATION FURNISHED BY:

(Print or Type Name of Owner and/or Principal)

(Name of Business or Firm)

a

(Insert type of business e.g. corporation, sole proprietorship, partnership, etc.)

By:

(Print Name)

(Title)

(Signature)

(Date)

PRIVACY NOTICE

The State of California Information Practices Act of 1977 (effective July 1, 1978) requires the University of California to provide the following information to individuals who are asked to supply personal information about themselves. Information furnished on the Self-Certification form may, in some cases, identify personal information of an individual.

- The University of California, Los Angeles, is requesting the information contained in this form and the accompanying Report of Subcontractor Information.
- The Small Business Coordinator at the University of California, Los Angeles, is responsible for maintaining the requested information. The contact information for the Small Business Coordinators may be found at: <http://www.ucop.edu/procurement-services/files/sbdmgr.xlsx>.
- The maintenance of information is authorized in part by Public Contract Code section 10500.5.
- Furnishing the information requested on this form is mandatory. If SBE, DBE, WBE and/or DVBE status is applicable, furnishing such information is mandatory.
- Failure to provide the information may be a violation of bidding procedures and/or breach of the contract and the University may pursue any and all remedies permitted by the provisions of the Contract Documents.
- The information on this form is collected for monitoring and reporting purposes in accordance with state law and University policy.
- The individual may access information contained in this form and related forms by contacting the Small Business Coordinator(s).

APPLICATION FOR PAYMENT

Number: _____ Period to: _____

TO UNIVERSITY: THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, "Facility Name"
AND UNIVERSITY'S REPRESENTATIVE:

FROM CONTRACTOR:

ADDRESS _____

PROJECT NAME _____

JOB ORDER NUMBER _____

FACILITY _____

JOB ORDER _____

AUTHORIZATION DATE _____

APPLICATION DATE _____

SUPPLEMENTAL JOB ORDER SUMMARY:

Additions

Deductions

Supplemental Job Orders approved in previous months: Total: _____

Supplemental Job Orders approved this month:

Number: _____ Date Approved: _____

Total: _____

NET CHANGE BY SUPPLEMENTAL JOB ORDERS: _____

Application is made for payment under the Contract as shown below and in Schedule 1 attached hereto:

1. ORIGINAL JOB ORDER SUM		\$ _____
2. NET CHANGE BY SUPPLEMENTAL JOB ORDERS		\$ _____
3. Job Order SUM TO DATE (Line 1 ± Line 2)		\$ _____
4. TOTAL AMOUNT COMPLETED TO DATE (Column E on Schedule 1)		\$ _____
5. RETENTION: 5% of Completed Work (Column H on Schedule 1)*		\$ _____
a. _____		
c. Retention Held by University	\$ _____	
Current Retention Value (a + b + c)	\$ _____	
6. TOTAL EARNED LESS RETENTION (Line 4 less Line 5)		\$ _____
7. TOTAL AMOUNT PREVIOUSLY PAID	\$ _____	
8. CURRENT PAYMENT DUE (Line 6 less Line 7)		\$ _____
9. BALANCE TO FINISH, PLUS RETENTION (Line 3 less Line 6)		\$ _____

*Pursuant to Article 9.2.2 of the General Conditions.

The undersigned Contractor hereby represents and warrants to University that all Work, for which Certificates For Payment have previously been issued and payment received from University, is free and clear of all claims, stop notices, security interests, and encumbrances in favor of Contractor, any Subcontractor, and any other persons or firms entitled to make claims by reason of having provided labor, materials, or equipment related to the Work.

The following Schedules are attached and incorporated herein, and made a part of this Application For Payment:

- Schedule 1 Cost Breakdown Schedule
- Schedule 2 List of Subcontractors
- Schedule 3 Declaration of Releases of Claims

(Contractor)

By: _____
(Name)

(Title)

DECLARATION

I, _____, hereby declare that I am the _____ of Contractor submitting this Application For Payment; that I am duly authorized to execute and deliver this Application For Payment on behalf of Contractor; and that all information set forth in this Application For Payment and all Schedules attached hereto are true, accurate, and complete as of its date.

I declare, under penalty of perjury, that the foregoing is true and correct and that this declaration was subscribed at

_____, _____, State of _____

on _____, 20__.

(Signature)

(Print Name)

PROJECT NAME: _____

APPLICATION NUMBER: _____

JOB ORDER NUMBER: _____

APPLICATION DATE: _____

FACILITY: _____

PERIOD TO: _____

(NTP?) DATE: _____

CONTRACTOR: _____

SCHEDULE 1

TO

APPLICATION FOR PAYMENT

COST BREAKDOWN BASED ON PROPOSAL SUMMARY CSI SECTIONS

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>
	DESCRIPTION	SCHEDULED VALUE	% COMPLETE TO DATE	TOTAL AMOUNT COMPLETED TO DATE (C x D)	TOTAL AMOUNT COMPLETED ON PRIOR APPLICATION FOR PAYMENT	AMOUNT OF THIS APPLICATION (E - F)	RETENTION (5% x E)
CSI Section No. .							

PROJECT NAME: _____

CONTRACTOR: _____

JOB ORDER NUMBER: _____

APPLICATION NUMBER: _____

SCHEDULE 2
TO
APPLICATION FOR PAYMENT

LIST OF SUBCONTRACTORS

Subcontractors listed below are all Subcontractors furnishing labor, services, or materials for the period referred to in the Application For Payment referenced above, of which this Schedule 3 is a part:

<u>Name of Subcontractor</u>	<u>Subcontracted Work Activity</u>	<u>Date Work Activity Completed</u>
------------------------------	--	---

(Contractor)

By: _____
(Name)

(Title)

Date: _____

PROJECT NAME: _____

CONTRACTOR: _____

JOB ORDER NUMBER: _____

APPLICATION NUMBER: _____

SCHEDULE 3
TO
APPLICATION FOR PAYMENT

DECLARATION OF RELEASE OF CLAIMS

Contractor hereby certifies that attached hereto are releases and waivers of claims and stop notices from all Subcontractors furnishing labor, services, or materials covered by the Certificate For Payment dated

_____, 19____, except those listed below:

(Contractor)

By: _____
(Name)

(Title)

Date: _____

GENERAL CONTRACTOR CLAIM CERTIFICATION

Pursuant to Article 4.6.3 of the General Conditions, I certify as follows:

1. The Claim to which this certification is attached is made in good faith.
2. Amounts claimed for costs, expenses and damages incurred by Contractor are accurate and complete. Supporting data for amounts incurred by Contractor is accurate and complete. Any such supporting data, including any such new amounts, submitted after the execution of this certification, will be accurate and complete.
3. To the best of my knowledge and belief, amounts claimed, and supporting data submitted by Contractor on behalf of any and all subcontractors or suppliers, of all tiers, or any person or entity under Contractor, are accurate and complete. Contractor will not submit, after the date of execution of this certification, any such supporting data, including any such new amounts that to the best of my knowledge and belief, is not accurate and complete.
4. The amount requested accurately reflects the adjustment of the Job Order Sum for which the Contractor believes the University is liable.
5. Attached hereto is a certification that has been executed by each Subcontractor claiming not less than 5% of the total monetary amount sought by the claim to which this certification is attached.
6. I am duly authorized to certify the Claim on behalf of the Contractor.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration was executed at:

_____ (Name of City if within a City, otherwise Name of County), in the

State of _____, on _____.
(State) (Date)

(Signature)

(Print Name)

(Name of Contractor)

SUBCONTRACTOR CLAIM CERTIFICATION

Pursuant to Article 4.6.3 of the General Conditions, I certify as follows:

1. The portion of the Claim made on behalf of the Subcontractor to which this certification is attached is made in good faith.
2. Amounts claimed for costs, expenses and damages incurred by the Subcontractor are accurate and complete. Supporting data for amounts incurred by the Subcontractor is accurate and complete. Any such supporting data, including any such new amounts, submitted to Contractor after the execution of this certification, will be accurate and complete.
3. To the best of my knowledge and belief, amounts claimed, and supporting data submitted to Contractor by the Subcontractor on behalf of any and all subcontractors or suppliers to Subcontractor, of all tiers, or any person or entity under Subcontractor, are accurate and complete. Subcontractor will not submit, after the date of execution of this certification, any such supporting data, including any such new amounts that to the best of my knowledge and belief, is not accurate and complete.
4. The amount requested accurately reflects the amount for which the Subcontractor believes the University is liable to Contractor.
5. I am duly authorized to certify the Claim on behalf of the Subcontractor.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration was executed at:

_____ (Name of City if within a City, otherwise Name of County), in the

State of _____, on _____.
(State) (Date)

(Signature)

(Print Name)

(Name of Subcontractor)

WHEN RECORDED, MAIL TO:
LISA COMPTON
UNIVERSITY OF CALIFORNIA LOS ANGELES
CAPITAL PROGRAMS
1060 VETERAN AVE, SUITE 125
BOX 951365
LOS ANGELES, CA 90095-1365

NOTICE OF COMPLETION

NOTICE IS HEREBY GIVEN that on the {DAY OF MONTH} day of {MONTH, YEAR}, the Work on the <ProjectName> <Project#> {ORDER#} Project was completed. The name of the owner is THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, hereinafter referred to as "The Regents." The address of The Regents is University of California, Office of the President, 1111 Franklin St., 6th Floor, Oakland, California 94607-5200. The Regents is the owner in fee simple of the real property commonly known as {BUILDING NAME, IF ANY}, {BUILDING #, IF ANY}, {NAMES OF STREETS ABUTTING PROJECT, IF ANY, AND STREET ADDRESS, IF ANY}, University of California Los Angeles, {CITY IN WHICH PROJECT IS LOCATED}, {COUNTY IN WHICH PROJECT IS LOCATED} and of all improvements and buildings thereon including the above-named Project. The name of the original Contractor is {Contractor Firm Name}.

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA:

By: _____
{insert UCLA name & title}

I, {SIGNER'S NAME}, say that I am the {SIGNER'S TITLE} of the Los Angeles campus of the University of California, and as such, make this verification on behalf of The Regents, a corporation; and that I have read the above Notice of Completion and know the contents thereof and that the facts stated therein are true. I declare under penalty of perjury that the foregoing is true and correct. Executed on _____, at _____.

(Signature)

(Note: Attach Notarization of Signature)

STATE OF CALIFORNIA)
COUNTY OF _____)

On _____, before me, Notary Public, personally appeared _____, personally known to me (or 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 on behalf of 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.

IN WITNESS WHEREOF, my hand and official seal.

Signature

My Commission expires: _____

CONTRACTOR'S DAILY REPORT

Prime Contractor: _____

Subcontractor: _____

Job Name & Area: _____

Date: _____

NOTE: Please indicate, by category, the number of workers on site, and the hours, for the above date.								
CATEGORY	#	HOURS	CATEGORY	#	HOURS	CATEGORY	#	HOURS
Superintendents			Foreman			Carpenters		
Laborers			Operating Eng.			Pipefitters		
Cement Finishers			Sheet Metal			Masons		
Lathers			Ironworkers			Plasterers		
Truck Drivers			Painters			Electricians		
Plumbers								
Work Force: Superintendents & Foremen			Work Force: Workers			Total Work Force:		

Materials Delivered: _____

Description of Work and Location: _____

Injuries or Accidents: _____

Special Notes (incl. Union Representatives and Special Visitors): _____

NOTE: Contractor and each subcontractor on site shall completely fill out a Contractor's Daily Report, on forms provided by University's Representative (refer to Exhibits, bound herein), for each day worked. It is the responsibility of Contractor to submit all Daily Reports, including those of subcontractors, by 9:00 a.m. the following work day. Failure to submit Daily Reports in a timely manner may result in delayed progress payment(s).

 (Signature)

 (Printed Name)

EXHIBIT 23 CONSTRUCTION COST CATALOG

Instructions:

- 1) Contractor shall provide all time, labor, material, and equipment to install, terminate, test and label, as required, the items listed on task numbers 1 77 and 83-94.
- 2) The University will accept an "or equal" part for all items listed subject to the requirements of Specification Section 01 25 13, Product Substitution Procedures.
- 3) Contractor shall include all time, labor, material and equipment to totally remove and dispose of the listed item off campus for task numbers 78-82.

Task #	UOM	Description	Total Direct Unit Cost
Refer to Specifications Section 27 15 43 Horizontal Cabling			
1	each	General 7131800 CAT 6 plenum blue cable up to three hundred twenty feet (325') long. Cable shall be temporarily labeled in addition to the final label.	<u>\$167.70</u>
2	each	General 7136100 CAT 6 OSP black cable up to three hundred twenty-five feet (325') long. Cable shall be temporarily labeled in addition to the final label.	<u>\$201.50</u>
3	each	General 7141800 CAT 6A plenum blue cable up to three hundred twenty feet (325') long. Cable shall be temporarily labeled in addition to the final label.	<u>\$180.60</u>
4	each	General 7141007 CAT 6A OSP black cable up to three hundred twenty-five feet (325') long. Cable shall be temporarily labeled in addition to the final label.	<u>\$217.00</u>
5	each	Commscope UN874049914/10 plenum CAT6 cable up to three hundred twenty feet (325') long. Cable shall be temporarily labeled in addition to the final label.	<u>\$180.60</u>
6	each	Commscope UN884019904/10 CAT 6 OSP black cable up to three hundred twenty-five feet (325') long. Cable shall be temporarily labeled in addition to the final label.	<u>\$217.00</u>
7	each	Commscope UN874035114/10 CAT 6A plenum blue cable up to three hundred twenty feet (325') long. Cable shall be temporarily labeled in addition to the final label.	<u>\$193.50</u>
8	each	Commscope 760178129 CAT 6A OSP black cable up to three hundred twenty-five feet (325') long. Cable shall be temporarily labeled in addition to the final label.	<u>\$232.50</u>
9	each	Commscope 4135303/10 RG-6 white plenum Coax cable up to forty feet (40') long as part of the cable rough in phase of a project. Cable shall be temporarily labeled.	<u>\$54.60</u>
10	each	Commscope 4135303/10 RG-6 white plenum Coax cable up to three hundred twenty-five feet (325') long in as part of the cable rough in phase of a project. Cable shall be temporarily labeled.	<u>\$185.90</u>
11	per linear ft.	Commscope 4136903/10 RG-11 white plenum Coax cable. Labels shall be installed on both ends of the cable and at each pull box or pathway transition. Per foot.	<u>\$4.42</u>
12	each	University-furnished low voltage signal or fiber optic cable with a diameter up to 0.68". Cable can be up to three hundred twenty-five feet (325') long in conduit, an accessible or hard lid ceiling. Cable shall be labeled.	<u>\$88.40</u>

13	each	Comtran DS34269 cable (22 awg 12c and 18 awg 4 c)	<u>\$167.70</u>
14	each	Commscope 2111012-3 6 port faceplate and labels as required.	<u>\$29.90</u>
15	each	SEMTRON 1FM-(6)OE-AMP 4 six port stainless steel faceplate and labels as required.	<u>\$41.60</u>
16	each	Semtron 2FM-86047PE-WH-SEM 8 port faceplate - DG and labels as required.	<u>\$32.50</u>
17	each	Commscope 1933671-3 White Surface mount 4 port outlet box and labels as required.	<u>\$32.50</u>
18	each	Commscope 1-1479504-3 Decora 4 port mounting strap and labels as required.	<u>\$32.50</u>
19	each	Commscope 760237629 CAT 6 SL Jack A.WHT, terminate cable on both ends, label, and test.	<u>\$52.00</u>
20	each	Commscope 760241147 CAT 6A SL Jack A.WHT, terminate cable on both ends, label, and test.	<u>\$56.00</u>
21	each	Commscope 66451157-01 Coax white coupler and terminate cable to the coupler, splitter or tap in the telecom room. A 2GHz rated Corning Gilbert GF-EFC-6 RG6 Compression Connectors Coaxial shall be provided & terminated on both sides of the cable. Labeling & Testing shall be included.	<u>\$36.40</u>
22	each	CORNING GILBERT GAF-UR-11-PL A 2GHz rated compression RG11 F connector shall be provided & terminated on both sides of the cable. terminate cable to the coupler, splitter or tap in the telecom room. Labeling & Testing shall be included.	<u>\$45.50</u>
23	each	5S deep metal box with a mud ring and a 1.25" chase nipple & bushing.	<u>\$39.00</u>
24	each	Blank single or double gang stainless steel faceplate and label as required.	<u>\$26.00</u>
25	each	Allen Tel AT90 Mounting Bracket, 1-Gang	<u>\$46.80</u>
Refer to Specifications Section 27 14 43 Horizontal Ortronics Cabling			
26	each	Ortronics OR-40300545 6 port plastic faceplate with blanks as required and labels as required.	<u>\$29.90</u>
27	each	Ortronics OR-403STJ13 4 port stainless steel faceplate with blanks as required and labels as required.	<u>\$41.60</u>
28	each	Ortronics OR-TJ600 CAT 6 fog white jack, terminate cable to a patch panel in the telecom room and test the link.	<u>\$54.60</u>
29	each	Ortronics OR-63700006 Coax white module and terminate cable to a splitter or tap in the telecom room. A 2 GHz F connector shall be installed on both sides of the cable.	<u>\$36.40</u>
Refer to Specifications Section 27 11 00 Telecom Room			
30	each	Chatsworth TS1029634 8' Seismic rack with two Chatsworth 13183-719 trays and one Chatsworth 13730-224 runway mounting plate. Rack shall be anchored as per the OSHPD OPM-0249-13 installation detail, directly bond the rack to the ground bus bar within the room, and both sides of the rack shall be labeled.	<u>\$1,980.00</u>
31	each	Chatsworth 13853-703 7' Seismic rack with two Chatsworth 13183-719 trays and one Chatsworth 13730-224 runway mounting plate. Rack shall be anchored as per the OSHPD OPM-0249-13 installation detail, directly bond the rack to the ground bus bar within the room, and both sides of the rack shall be labeled.	<u>\$1,800.00</u>
32	each	Chatsworth 35523-715 8' Evolution Series 6" vertical cable manager with two Eaton RAA-OUT-9 drop outs. All accessories that come with the unit shall be installed and ready for use.	<u>\$1,320.00</u>
33	each	Chatsworth 35522-715 8' Evolution Series 10" vertical cable manager with two Eaton RAA-OUT-9 drop outs. All accessories that come with the unit shall be installed and ready for use.	<u>\$1,350.00</u>
34	each	Chatsworth 35523-703 7' Evolution Series 10" vertical cable manager with two Eaton RAA-OUT-9 drop outs. All accessories that come with the unit shall be installed and ready for use.	<u>\$1,350.00</u>

35	each	Chatsworth 35521-703 7' Evolution Series 6" vertical cable manager with two Eaton RAA-OUT-9 drop outs. All accessories that come with the unit shall be installed and ready for use.	<u>\$1,182.00</u>
36	each	Chatsworth 10250-718 Universal Cable Runway 18" ladder rack include wall stand off 10506-702, cut to length as required and bonded directly to the Ground Bus bar.	<u>\$338.00</u>
37	each	Eaton RSI07A09SL-24-144 24" wide Redi Rail Cable Tray, 7" deep. Tray shall be attached with the required hardware, cut to length as required and bonded directly to the Ground Bus bar.	<u>\$845.00</u>
38	each	Commscope 760237055 48 port angled 1U CAT 6 patch panel including labeling.	<u>\$552.50</u>
39	each	Commscope 760237055 48 port angled 1U CAT 6 patch panel. Terminate two 20' Male RJ-21 pigtails with one pair terminated to each jack on the panel. Labeling of panel and cables is included.	<u>\$715.00</u>
35		Commscope 760109744 GigaSPEED X10D® XL® M4800A 1U Angled Panel, 48 port, with 48 Commscope 760241173 Uniprise UNJ Series Modular Jack, RJ45, category 6A, T568A/T568B, unshielded, no dust cover, black. Labeling of panel and cables wrap around labels is included.	<u>\$884.00</u>
36	each	Panduit UGCTE3S-X0 up to 10 - 12" straps including rack screws	<u>\$111.80</u>
37	each	Ortronics OR-PHAHJU48 48 port angled HD patch panel including 48 jacks OR-HDJ6-00 and labeling.	<u>\$884.00</u>
37	each	Ortronics OR-PHD66U48 48 port angled patch panel including labeling.	<u>\$617.50</u>
38	each	Southwire #6 Stranded CU SIMpull THHN Ground Wire up to forty feet (40') long, including a 2-hole ground lug at each end and labeling.	<u>\$54.60</u>
40	each	Blackboard DR4100-OF CONTACTLESS MAGSTRIPE DOOR RDR. Including installation and termination onto screwdown block.	<u>\$660.11</u>
41	each	Blackboard SA3000DC-OF SA3000 DOOR CONTROLLER. Including installation and termination onto screwdown block.	<u>\$601.90</u>
42	each	Blackboard SA3032-OF SA3032 MASTER/DOOR CONTROLLER. Including installation and termination onto screwdown block.	<u>\$1,656.20</u>
42	each	Blackboard MSC-PACSA-OFLSP POWER ADAPTER CABLES. Including installation and termination onto screwdown block.	<u>\$128.70</u>
43	each	BlackboardLSP-BBDV16DR400WPWR SUPPLY ENCL BB-DV16DR-400W. Including installation and termination onto screwdown block.	<u>\$2,886.00</u>
Refer to Specifications Section 27 13 00 Backbone Copper			
44	per linear ft.	CAT 3 25 pair plenum cable. Labels shall be installed on both ends of the cable and at each pull box or pathway transition.	<u>\$3.90</u>
45	per linear ft.	CAT 3 25 pair OSP cable. University furnished labels shall be installed on both ends of the cable and at each pull box or pathway transition.	<u>\$5.20</u>
46	each	Two Commscope 760237055 48 port angled 1U CAT 6 patch panel and terminate a 25 pair cable and six Cat 6 cables onto the patch panels. Patch panel and cables shall be labeled and an end to end test shall be required.	<u>\$1,560.00</u>
46	each	Install a University furnished copper Cable with a diameter up to 0.68", including labeling at all transition points and roding the pathway before installation to determine the length. A minimum of 1800lb pulling strength mule tape shall be pulled with the cable and tied off at each transition point.	<u>\$1,560.00</u>
47	each	Install a University furnished copper or fiber Cable from a 0.69" up to 3.00" outer diameter including labeling at all transition points and roding the pathway before installation to determine the length. A minimum of 1800lb pulling strength mule tape shall be pulled with the cable and tied off at each transition point.	<u>\$1,560.00</u>
48	each	Circa 2100SBC-25 protector with university furnished modules and terminate both ends as required. Protector shall be bonded to the Ground bus bar within the room. An end to end test is required.	<u>\$520.00</u>
Refer to Specifications Section 27 11 19 Fiber Optics			
45	each	R&M RCG-FM-RDF4UL12-B AFL FM001090-B Xpress Fiber Management 4U Fiber Enclosure including labeling.	<u>\$487.50</u>
46	each	R&M RCG-FM-RDS1UL3-B AFL FM002711-BE Xpress Fiber Management 1U Fiber Enclosure including labeling.	<u>\$390.00</u>
47	each	R&M RCG-CRLP24S4DGRBVI AFL POLI-MOD® PATCH AND SPLICE MODULE PM-L-24-ALC-O-R-01 24 Strand Ribbon Fiber LC-APC Duplex Pigtail Cassette. Labeling and splicing the fiber is included.	<u>\$487.50</u>
48	each	R&M RCG-CRLP12S1DBRBVI AFL POLI-MOD® PATCH AND SPLICE MODULE PM-L-12-UJC-O-R-01 12 Strand Ribbon Fiber LC-UPC Duplex Pigtail Cassette. Labeling and splicing the fiber is included.	<u>\$357.50</u>

49	each	R&M RCG-CRLP1241DARBVI AFL POLI-MOD® PATCH AND SPLICE MODULE PM-L-12-PLC-4-R-01 12 Strand Ribbon Fiber LC-OM4 Duplex Pigtail Cassette. Labeling and splicing the fiber is included.	<u>\$357.50</u>
50	each	R&M JR-LCA-PGT AFL POLI-MOD® PATCH AND SPLICE MODULE PM-L-12-ALC-O-R-0112 Strand SM Ribbon pigtail with APC-LC connectors and six Commscope 1933286-3 APC-LC adaptors. Labeling and splicing the pigtail is included.	<u>\$357.50</u>
51	per linear ft.	AFL GQ048P301YYR:C4C 48 Strand Plenum SM Spider Fiber Optic Cable. University furnished labels shall be installed on both ends of the cable and at each pull box or pathway transition.	<u>\$6.50</u>
52	per linear ft.	AFL GQ048X301CXS-H-12MMC/36SMK-BIF 36 strands SM/ 12 Strand OM4 Multimode composite plenum ribbon fiber cable. University furnished labels shall be installed on both ends of the cable and at each pull box or pathway transition.	<u>\$7.80</u>
53	per linear ft.	Prysmian F-RCG1JKT-12-ES-096-E3 96 Strand OSP Ribbon Fiber Fusion Link RICT cable. including rodding pathway before installation and leaving a 1800lb mule tape in place with the cable. University furnished labels shall be installed on both ends of the cable and at each pull box or pathway transition.	<u>\$4.55</u>
54	each	OTDR a University furnished Fiber Optic from 1 side up to 6 duplex fiber circuits	<u>\$52.00</u>
55	each	Tier 2 Testing of 6 duplex fiber circuits.	<u>\$149.50</u>
Refer to Specifications Section 27 05 29 Pathway			
56	each	Ceas Attachments 6" Yellow J hook with pencil rod up to 8' long, angle bracket and a 3/8" concrete hex head blue screw attachment or 1/4" x 2-1/4" wedge anchor. Minimum of 25lb pull test.	<u>\$32.50</u>
57	each	Ceas Attachments 2" Yellow J hook with pencil rod up to 8' long, angle bracket and a 3/8" concrete hex head blue screw attachment or 1/4" x 2-1/4" wedge anchor. Minimum of 25lb pull test.	<u>\$29.90</u>
58	each	1" or 2" chase nipple w bushing & locknut.	<u>\$26.00</u>
59	per linear ft.	Panduit LD-10 Raceway cut to the appropriate length.	<u>\$8.45</u>
60	each	Panduit LD-10 series coupler, angled coupler or fitting.	<u>\$26.00</u>
61	each	Panduit single gang deep plastic back box.	<u>\$36.40</u>
62	each	Semtron WP804-1.500L split faceplate with up to 15' of black split loom around a bundle of cables.	<u>\$45.50</u>
Refer to Specifications Section 27 05 41 Fire Stopping			
63	each	Hilti CFS-SL-SK 4" 4" Firestop Sleeve Kit including Fire Stop System label and photo documentation.	<u>\$156.00</u>
64	each	Hilti CFS-SL-SK 2" 2" Firestop Sleeve Kit including Fire Stop System label and photo documentation.	<u>\$136.50</u>
65	each	Hilti CFS-SL-RK 4" 4" Firestop Retrofit Sleeve Kit including Fire Stop System label and photo documentation.	<u>\$234.00</u>
66	each	Hilti CFS-PL 4" 4" Fire stop plug Kit including Fire Stop System label and photo documentation.	<u>\$110.50</u>
67	each	Hilti CFS-PL 2" 2" Fire stop plug Kit including Fire Stop System label and photo documentation.	<u>\$91.00</u>
68	each	Pair of Hilti CFS-CD Fire Stop disks including drilling two 1" holes, Fire Stop System label and photo documentation.	<u>\$52.00</u>
69	each	Fire stop up to a 1.25" conduit using Hilti CFS-CD Fire stop putty. Fire stopping shall be labeled with the Fire Stop System number and photo documented.	<u>\$32.50</u>
70	each	Replace existing Fire stop up to a 4" conduit using the existing Fire stop. Fire stopping shall be photo documented.	<u>\$32.50</u>
Refer to Specifications Section 27 41 17 CATV			
71	each	Blonder Tongue SCW digital tap including terminator on unused ports and up to a 3' RG6 patch cord.	<u>\$28.60</u>
72	each	Blonder Tongue Distribution Amplifier BIDA-100A-43P (5800P14) - 1000MHz / 43db	<u>\$84.50</u>
73	each	University furnished Andrew Cell-Max antenna with support Hanger as required with a minimum of 15lb pull test or equivalent with a University provided jumper.	<u>\$84.50</u>
74	each	University furnished L-Com SCW02N or equivalent splitter.	<u>\$45.50</u>
75	per linear ft.	CommScope AL4RPV-50 Heliax Plenum rated coaxial cable.	<u>\$5.85</u>
76	each	University furnished Andrew C-XX-CPUS-N or equivalent coupler/splitter.	<u>\$45.50</u>

77	each	Andrews L4TNM-PSA screw on style N connector on both sides of a cable. Perform a sweep Test on the cable when complete.	<u>\$110.50</u>
Refer to Specifications Section 27 00 00 Communications			
78	each	Demo a cable with a diameter up to 0.5" and up to 325' long.	<u>\$26.00</u>
79	each	Demo a cable with a diameter of .51" to .86" and up to 325' long.	<u>\$130.00</u>
80	each	Demo a cable with a diameter of .87" to 3" and up to 325' long.	<u>\$160.00</u>
81	each	Demo of a Wireless Device and the attached patch cord and give it to the University.	<u>\$19.50</u>
82	each	Demo of a Wireless Device and replace it with a new wireless device using existing patch cords and attachment wires. Picking up the equipment from an on campus location shall be included.	<u>\$45.50</u>
83	each	University-furnished Bruin card reader and controller, terminate to the screw down terminal provided. Picking up the equipment from an on campus location shall be included.	<u>\$58.50</u>
84	each	University-furnished Wireless Device with two seismic support wires, a T-bar adaptor as required, two contractor furnished plenum CAT 6A patch cords up to 25'. Picking up the equipment from an on campus location shall be included.	<u>\$58.50</u>
85	each	University furnished Wilson Pro 4000R cellular antenna amplifier system including the amplifier, antennas with fasteners as required, and preterminated cables.	<u>\$2,600.00</u>
86	each	University furnished IT equipment in a rack. The equipment shall be up to 2 rack units high. Picking up the equipment from an on campus location shall be included.	<u>\$97.50</u>
87	each	University furnished IT equipment in a rack. The equipment shall be up to 15 rack units high. Picking up the equipment from an on campus location shall be included.	<u>\$390.00</u>
88	each	Fully clean a Telecom Room with up to 4 racks and 5 vertical cable managers including wiping down the racks and cable managers.	<u>\$390.00</u>
89	each	Cable Exchange CEX-12B-C6-BU-UT-10FT bundle patch cord from 12 ports on a patch panel to 12 ports on a switch. Bundles shall be labeled with university furnished labels on both side of the bundle and dressed using the cable management hardware in the vertical cable managers.	<u>\$143.00</u>
90	each	CAT 6 blue patch cord up to 25' long. Patch cord shall be labeled on both ends and dressed from the patch panel to the device.	<u>\$20.80</u>
91	each	6 Millimeter plastic sheeting to protect and cover a work area up to 200 square feet and clean up the area after removal.	<u>\$45.50</u>
92	each	6 Millimeter plastic containment tent in OSHPD required environment or lab space and clean up the area after removal.	<u>\$65.00</u>
93	each	Maintenance hole setup and breakdown for inspection.	<u>\$59.15</u>
94	each	Maintenance hole setup and breakdown including pumping and cleaning the maintenance hole	<u>\$130.00</u>
Applicable to Non-Prepriced Items Only			
95	hour	Per hour rate for structured communications cabling journey worker labor Applicable only to work not covered by Catalogue Items 1 through 80.	<u>\$98.00</u>
96	hour	Per hour rate for structured communications cabling apprentice labor. Applicable only to work not covered by catalogue Items 1 through 80.	<u>\$65.00</u>
97	%	Percentage of overhead and profit on all materials or rentals furnished by Contractor. Applicable only to work not covered by catalogue Items 1 through 80. Invoices required.	<u>15%</u>

END OF EXHIBIT 23

**SPECIFICATIONS
FOR
JOB ORDER CONTRACT**

**TELECOMM STRUCTURED CABLING JOC – COPPER AND
FIBER BACKBONE 2021**

**UNIVERSITY OF CALIFORNIA
LOS ANGELES CAMPUS
LOS ANGELES, CALIFORNIA**

OCTOBER 2021

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LIST OF DRAWINGS

Refer to Job Order Contract Technical Specifications Books issued with Bidding Documents for additional technical specifications not listed above.

END OF INDEX TO SPECIFICATIONS

SECTION 01 14 00
WORK RESTRICTIONS

1. GENERAL

1.1 STORAGE

- A. Contractor's use of the Job Order Work site for the Job Order Work and storage is restricted to the areas designated on the Drawings or as approved by University's Representative. Refer also to Section 01 60 00, PRODUCT REQUIREMENTS.

1.2 WATCHMAN'S SERVICES

- A. During all hours that Job Order Work is not being prosecuted, furnish such watchman's services as Contractor may consider necessary to safeguard materials and equipment in storage on the Job Order Work site, including Job Order Work in place or in process of fabrication, against theft, acts of malicious mischief, vandalism, and other losses or damages.
- B. University will not be liable for any loss or damage.

1.3 RUBBER-TIRED EQUIPMENT

- A. Where carts, hand trucks, wheelbarrows, and similar wheeled conveyances are used on or in any portions of any structure, equip with pneumatic tires.

1.4 SITE DECORUM

- A. Contractor shall control the conduct of its employees so as to prevent unwanted interaction initiated by Contractor's employees with UCLA students, UCLA staff, or other individuals (except those associated with the Project), adjacent to the Job Order Work site. Unwanted interaction by Contractor employees would include whistling at or initiating conversations with passersby. In the event that any Contractor employee initiates such unwanted interaction, or utilizes profanity, Contractor shall, either upon request of University's Representative or on its own initiative, replace said employee with another of equivalent technical skill, at no additional cost to University. No radios, other than two-way communication type, will be allowed on the Job Order Work site. The use of cigarettes, cigars, oral tobacco, electronic cigarettes and all other tobacco products is prohibited on the UCLA Westwood campus and other sites owned or leased by UCLA.

1.5 CONTROL OF CONSTRUCTION WATER

- A. Provide impermeable floor coverings and suitable dams to prevent damage by water used for the Job Order Work. Immediately clean up and remove all surplus water and water spilled in non-working areas. Do not allow water to overflow gutters or flood streets.

1.6 WORK HOURS

- A. Unless otherwise approved in advance by University's Representative, Job Order Work shall be accomplished only during the hours identified in such Job Order.

1.7 CONSTRUCTION SIGNAGE

- A. All signage shall be as approved by University's Representative.
- B. University-Furnished Warning Signs: Whenever required by University's Representative, post University-furnished warning signs in locations as directed.
- C. Advertising Signage: The use of Contractor/subcontractor advertising signage is prohibited.

1.8 MEDICAL CENTER DIRECTORY SIGNS

- A. For Work Orders within the Medical Center only, remove all directory signs as needed in a manner which will preserve and protect signs from damage. Contact University's Representative to determine where signs should be delivered within the Medical Center.

1.9 KEY PROTOCOL

1.9 NOT USED 1.10 HISTORICAL, ARCHEOLOGICAL AND PALEONTOLOGICAL RESOURCES

- A. In order to preserve and protect potentially historic, archeological or paleontological resources that could be encountered on a construction site, University's Representative will give the information handout, "UCLA Needs Your Help to Protect the Past" to Contractor at the Pre-Construction Meeting referenced in Section 01 31 19, PROJECT MEETINGS. Contractor shall ensure that all appropriate Subcontractors receive said handout, that they comply with all applicable requirements during excavation and construction, and that they understand that the unauthorized collection of historic, archeological or paleontological resources is prohibited by law. Contractor's responsibility includes (1) distributing the information handout to all construction personnel working on a site prior to commencing any earthmoving activities; (2) immediately halting all Job Order Work in all areas where any potentially historic, archeological or paleontological remains (as identified in the handout) are uncovered; and (3) immediately notifying University's Representative if such materials are found. Contractor shall not resume Job Order Work in the affected areas until authorized by University's Representative.

1.11 TRAFFIC CONTROL

- A. If required, provide traffic control barriers and flagperson(s) throughout the construction period.
1. Furnish flagperson(s) at pedestrian crossings of construction equipment right of ways one hundred percent of the time such equipment is operating. When equipment is not operating, such equipment right of ways shall be closed to equipment by means of a chain link gate.

2. Provide temporary traffic control barriers to ensure safety of all persons and property.
3. Furnish numbers of flagperson(s) necessary for vehicular and pedestrian traffic control. Flagperson(s) shall be on duty at all times when the Job Order Work is in progress. See additional notes on Drawings, if applicable.

1.12 **NOT USED**

1.13 **NOT USED**

1.14 **INTERRUPTION OF UTILITIES/BUILDING SERVICES**

- A. Maintain continuous utility services to all existing facilities during the period of construction except for the following conditions:
 1. Perform Work that involves "shut-down" of existing facilities at such times as will cause the least inconvenience to the University activities, performing at night, on Saturdays, Sundays, holidays and at the discretion of University's Representative. Furnish University's Representative written notice of exact date and time of "shut-down" at least 15 working days in advance, unless a longer period is specified or shown on the Drawings. On jobs with short performance time, Contractor shall verify with University's Representative the number of days required in advance for shut-down.
 2. Include in Contractor's bid the cost of overtime necessary for the Work. No extra payment will be allowed for overtime to meet this requirement or the Contract Schedule.

1.15 **NOT USED**

1.16 **USE OF DRONE(S) / UNMANNED AERIAL VEHICLE(S)**

- A. At least (30) days prior to Contractor and/or Subcontractor utilizing drone(s)/unmanned aerial vehicle(s) (UAS) in the performance of their Work, Contractor shall notify University's Representative of such intended utilization, and shall submit proof of UAS insurance as specified in General Conditions Article 11, Insurance.

1.17 **ROOM ACCESS**

- A. University's Representative will coordinate access to all rooms visited on each individual Job Order.
- B. UCLA Bruin Cards: Some Job Orders may require Contractor personnel to use a University-furnished UCLA Bruin Card for job site access. Contractor shall immediately notify University's Representative of any lost Cards so that the University may immediately suspend access privileges for said Cards. Replacement of all lost Cards shall be at Contractor's expense. Contractor shall surrender any UCLA Bruin Cards immediately upon any changes to Contractor personnel, or upon Inspection Acceptance of a Job Order, or upon request of University's Representative.

2. PRODUCTS (NOT USED)

3. EXECUTION (NOT USED)

END OF SECTION

SECTION 01 25 13
PRODUCT SUBSTITUTION PROCEDURES

1. GENERAL

1.1 GENERAL PROVISIONS REGARDING SPECIFICATION OF PRODUCTS, MATERIAL OR EQUIPMENT BY BRAND OR TRADE NAME

- A. Products, material or equipment specified by both brand or trade name and model number are approved for use, provided that Contractor complies with all Contract requirements. Specification of a product, material or equipment by brand or trade name and model number is not a representation or warranty that the product, material or equipment can be used without modification, to meet the requirements of the plans and specifications; Contractor shall, at its sole cost, modify such products, material, or equipment so that they comply with all requirements of the plans and specifications.
- B. The first-named product, material or equipment specified by brand or trade name and model number is the basis for the design and the use of any item other than the first-named one may require modifications of that design. If Contractor uses any product, material or equipment other than the first-named one, Contractor shall, at its sole cost:
 - 1. Make all revisions and modifications to the design and construction of the Job Order Work necessitated by the use of the product, material or equipment.
 - 2. Be responsible for all costs of any changes resulting from the use of the product, material or equipment including costs or changes which affect other parts of the Job Order Work, the work of Separate Contractors, or any other property or operations of University.
- C. When a product, material or equipment specified by brand or trade name is followed by the words "or equal," a substitution may be permitted if the substitution is equal to or superior to the first-named product, material or equipment in quality, utility and appearance, and if the substitution complies with all other requirements of the plans and specifications.
- D. Not Used.
- E. When catalog numbers and specific brands or trade names not followed by the designation "or equal" are used in conjunction with a product, material or equipment required by the specifications, substitutions will not be allowed and the named product, material or equipment must be used.
- F. Specification of a product, material or equipment by brand or trade name and model number is not a representation or warranty that the product, material or equipment is available; Contractor shall confirm, prior to submitting its Bid, the availability of any product, material or equipment specified by brand or trade name and model number.

1.2 SPECIAL REQUIREMENTS FOR PRODUCTS, MATERIAL OR EQUIPMENT, OTHER THAN THE FIRST-NAMED PRODUCT, MATERIAL OR EQUIPMENT, SPECIFIED BY BOTH BRAND OR TRADE NAME AND MODEL NUMBER.

- A. In addition to complying with all other submittal requirements of the Contract, submit with the applicable Job Order Schedule of Values, for review and approval by University's Representative, Contractor-prepared specifications and drawings, including design and engineering calculations, prepared by an appropriate licensed professional, depicting all revisions and modifications to the design and construction of the Job Order Work necessitated by the use of the product, material or equipment. If no revisions or modifications are necessary, submit with the applicable Job Order Schedule of Values, a written representation that no revisions or modifications to the design or construction of the Job Order Work are necessitated by the use of the product, material or equipment. Contractor shall utilize the first-named product, material or equipment if Contractor fails to make the appropriate required submittal pursuant to this paragraph with the applicable Job Order Schedule of Values.
- B. A product, material or equipment, other than the first-named product, material or equipment, specified by both brand or trade name and model number may be used if no revisions or modifications to the design or construction of the Job Order Work are necessitated by the use of the product, material or equipment. If such revisions or modifications are necessary, the product, material or equipment may be used only if the revisions or modifications are approved in writing by University's Representative. Contractor has the burden of demonstrating, through the procedures specified herein, that any such revisions or modifications will not be detrimental to the quality, utility or appearance of the Job Order Job or any portion of the Job Order Job. The University's Representative may refuse to approve any such proposed revisions or modifications where, in the reasonable opinion of University's Representative, Contractor has failed to demonstrate, through the procedures specified herein, that the revisions or modifications are not detrimental to the quality, utility or appearance of the Job Order Job or any portion of the Job Order Job.

1.3 SPECIAL REQUIREMENTS FOR SUBSTITUTIONS

- A. In addition to complying with all other submittal requirements of the Contract, submit written data demonstrating that the proposed substitution is equal to or superior to the first-named product, material or equipment in quality, utility and appearance and otherwise complies with all requirements of the plans and specifications, including:
 - 1. Complete technical data including drawings, performance specifications, samples, and test reports of the article proposed for substitution.
 - 2. Statement by Contractor that the proposed substitution is in full compliance with the requirements of the Contract Documents and Applicable Code Requirements.
 - 3. List of Subcontractors, if any, that may be affected by the substitution.

4. Contractor-prepared specifications and drawings, including design and engineering calculations, prepared by an appropriately licensed professional, depicting all revisions and modifications to the design and construction of the Job Order Work necessitated by the use of the substitution. If no revisions or modifications are necessary, submit a written representation that no revisions or modifications to the design or construction of the Job Order Work are necessitated by the use of the product, material or equipment.
- B. At the request of and within the timeframes specified by University's Representative:
 1. Submit samples as deemed necessary by University's Representative to evaluate the proposed substitution.
 2. Submit proposed substitution to tests deemed necessary by University's Representative to evaluate the proposed substitution. Such tests shall be made by an independent Testing Laboratory and at the sole expense of Contractor, after review and approval of the test procedures by University's Representative. If re-testing is deemed necessary by University's Representative to evaluate the proposed substitution, such re-testing shall be made by an independent Testing Laboratory at the sole expense of the Contractor.
 3. Furnish all additional information deemed necessary by University's Representative to evaluate the proposed substitution.
- C. If University's Representative, in reviewing a proposed substitution, requires revisions or corrections to be made to previously accepted shop drawings and supplemental supporting data to be resubmitted, Contractor shall do so within the time period specified by University's Representative. A proposed substitution may be rejected if Contractor fails to submit such revisions, corrections, or supplemental supporting data within the specified time period.
- D. Requests for substitution, including the data required by Paragraph 1.3.A herein, must be submitted to University's Representative with the applicable Job Order Schedule of Values. No requests for substitutions of products, material or equipment required to be submitted with the applicable Job Order Schedule of Values shall be considered unless the request and supporting data is submitted on or before the deadline, except those deemed, in University's Representative's sole opinion, to be necessary because (i) previously specified or approved manufactured products, material or equipment are no longer manufactured, (ii) of University initiated Supplemental Job Orders or Change Orders, or (iii) it is in the best interest of University to accept such substitution.
- E. Not Used.
- F. In reviewing the supporting data submitted for substitutions, University's Representative will use, for purposes of comparison, all the characteristics of the specified material or equipment as they appear in the manufacturer's published data even though all the characteristics may not have been particularly mentioned in the Specifications. If more than 2 submissions of supporting data are required, the cost of reviewing the additional supporting data shall be at Contractor's expense.
- G. Contractor has the burden of demonstrating, through the procedures specified herein, that its proposed substitution is equal to or superior to the first-named product, material or equipment in quality, utility and appearance and complies with all other requirements of the plans and specifications. If revisions or modifications to the design or construction of the Job Order Work are necessitated by the use of the substitution, Contractor also has the burden of demonstrating, through the procedures specified herein, that the use of the substitution will not be detrimental to the quality, utility or appearance of the Job Order Job or any portion of the Job Order Job.
- H. The University's Representative may refuse to approve any requested substitution where, in the reasonable opinion of University's Representative, Contractor has failed to demonstrate, through the procedures specified herein, that the proposed substitution is equal to, or superior to, the first-named product, material or equipment, in quality, utility and appearance and that the proposed substitution complies with all other requirements of the plans and specifications.
- I. University's Representative may reject any substitution not proposed in the manner and within the time limits prescribed herein.
- J. Substitutions are not allowed unless approved in writing by University's Representative. Any such approval shall not relieve Contractor from the requirements of the Contract Documents.
- K. Not Used.
- L. If revisions or modifications to the design or construction of the Job Order Work are necessitated by the use of a substitution, the substitution may be used only if the revisions and modifications are approved in writing by University's Representative. The University's Representative may refuse to approve any such proposed revisions or modifications where, in the reasonable opinion of University's Representative, Contractor has failed to demonstrate, through the procedures specified herein, that the revisions or modifications are not detrimental to the quality, utility and appearance of the Job Order Job or any portion of the Job Order Job.
- M. If a substitution request is finally rejected by University Representative, Contractor shall furnish and install:
 1. the first-named product, material, or equipment; or
 2. a product, material, or equipment, other than the first-named product, material or equipment, specified by both brand or trade name and model number, provided Contractor complies with the submittal requirements (including deadlines) specified in Paragraph 1.2 herein.

2. PRODUCTS (NOT USED)

3. EXECUTION (NOT USED)

END OF SECTION

SECTION 01 26 00
CONTRACT MODIFICATION PROCEDURES

1. GENERAL

1.1 REQUEST FOR INFORMATION PROCEDURES

- A. This Paragraph contains the procedures to be followed by Contractor upon discovery of any apparent conflicts, omissions, or errors in the Contract Documents or upon having any question concerning interpretation.
- B. Procedures:
1. Notification by Contractor:
 - a. Submit all requests for clarification or additional information in writing to University's Representative using the Request for Information (RFI) form furnished by University's Representative or a similar form approved by University's Representative.
 - b. Number RFIs sequentially. Follow RFI number with sequential alphabetical suffix as necessary for each resubmission. For example, the first RFI would be "001." The second RFI would be "002." The first resubmittal of RFI "002" would be "002a."
 - c. Limit each RFI to one subject.
 - d. Submit an RFI if one of the following conditions occur:
 - 1) Contractor discovers an unforeseen condition or circumstance that is not described in the Contract Documents.
 - 2) Contractor discovers an apparent conflict or discrepancy between portions of the Contract Documents that appears to be inconsistent or is not reasonably inferred from the intent of the Contract Documents.
 - 3) Contractor discovers what appears to be an omission from the Contract Documents that cannot be reasonably inferred from the intent of the Contract Documents.
 - e. Contractor shall not:
 - 1) Submit an RFI as a request for substitution.
 - 2) Submit an RFI as a submittal.
 - 3) Submit an RFI under the pretense of a Contract Documents discrepancy or omission without thorough review of the Documents.
 - 4) Submit an RFI in a manner that suggests that specific portions of the Contract Documents are assumed to be excluded or by taking an isolated portion of the Contract Documents in part rather than whole.
 - 5) Submit an RFI in an untimely manner without proper coordination and scheduling of Work of related trades.If Contractor submits an RFI contrary to the above, Contractor shall pay the cost of all review, which cost shall be deducted from the Job Order Sum.
 - f. Contractor shall submit request for information or clarification immediately upon discovery. Contractor shall submit RFIs within a time frame so as not to delay the Job Order Schedule while allowing the full response time described below.
 2. Response Time:
 - a. University's Representative, whose decision will be final and conclusive, shall resolve such questions and issue instructions to Contractor within a reasonable time frame. In most cases, RFIs will receive a response within 5 days. If in the opinion of University's Representative more than 5 days is required to prepare a response to an RFI, Contractor will be notified in writing.
 - b. Should Contractor proceed with the Job Order Work affected before receipt of a response from University's Representative, within the response time described above, any portion of the Job Order Work which is not done in accordance with University's Representative's interpretations, clarifications, instructions, or decisions is subject to removal or replacement and Contractor shall be responsible for all resultant losses.
 - c. Failure to Agree: In the event of failure to agree as to the scope of the Contract requirements, Contractor shall follow procedures set forth in Article 4 of the General Conditions.

1.2 CHANGES IN THE WORK

- A. Refer to General Conditions, Articles 4, 5 and 7.
- B. University's Representative will prepare and process Supplemental Job Orders, Change Orders, Unilateral Change Orders and Field Orders. Final distribution will be made by University's Project Manager after said documents are fully executed.

2. PRODUCTS (NOT USED)

3. EXECUTION (NOT USED)

END OF SECTION

SECTION 01 30 00
ADMINISTRATIVE REQUIREMENTS

1. GENERAL

1.1 CONTRACTOR'S CORRESPONDENCE

- A. Contractor's correspondence directed to University's Representative.
1. Original to University's Representative.

1.2 UNIVERSITY'S REPRESENTATIVE'S CORRESPONDENCE

- A. University's Representative's correspondence directed to Contractor.
1. Original to Contractor.

1.3 CERTIFIED PAYROLL RECORDS

- A. In the event that Contractor or any of its Subcontractors that are required to submit certified payrolls fail to fully complete the web-based electronic certified payroll reporting (eCPR) applicable to any period covered by an Application for Payment, a delay in the University's processing said progress payment shall occur until the eCPR is completed. Refer to General Conditions and Supplementary Conditions Article 14.4.

1.4 CONTRACTOR'S DAILY REPORTS

- A. Contractor and each subcontractor on site shall completely fill out a Contractor's Daily Report, on forms furnished by University's Representative (refer to Exhibits, bound herein), for each day worked. It is the responsibility of Contractor to submit all Daily Reports, including those of subcontractors, by 9:00 a.m. the following work day. Failure to submit Daily Reports in a timely manner may result in delayed progress payment(s).

1.5 JOB ORDER PROCESSING TIME FRAMES

- A. This article further defines time frames applicable to activities specified in General Conditions Articles 4.2 and 4.3 that shall apply to each Job Order unless otherwise approved in advance by University's Representative.
1. Days 1-2:
 - a. University notifies Contractor of impending Job Order.
 - b. Contractor responds to further define scope of work.
 2. Day 3:
 - a. University and Contractor schedule a Joint Scope Meeting to establish detailed scope of work to discuss the following:
 - 1) Project number and title.
 - 2) Existing site conditions.
 - 3) Methods and alternatives for accomplishing work.
 - 4) Definition and refinement of requirements.
 - 5) Detailed scope of work.
 - 6) Requirements for plans, sketches, shop drawing, etc.
 - 7) Tentative work schedule.
 - 8) Preliminary quantity estimates.
 - b. Upon completion of Joint Scope Meeting, University issues a Request for Job Order Schedule of Values and Detailed Scope of Work.
 3. Days 4-5:
 - a. Contractor prepares Job Order Schedule of Values, which shall include but not be limited to:
 - 1) Firm fixed-price proposal (Contractor prepares the firm fixed-price proposal from Prepriced Work Tasks (Construction Cost Catalog)).
 - 2) Schedule.
 - 3) Subcontractor list, if applicable, and detailed scope by trade.
 - 4) Any drawings or other information required for the University to review the price proposal.
 4. Day 6:
 - a. University reviews, negotiates and/or approves firm fixed-price proposal.
 - b. University issues Job Order Authorization.
 5. Day 7:
 - a. Contractor Starts Work.

2. PRODUCTS (NOT USED)

3. EXECUTION (NOT USED)

END OF SECTION

SECTION 01 31 13
PROJECT COORDINATION

1. GENERAL

1.1 DESCRIPTION

- A. Coordinate the Job Order Work and do not delegate responsibility for coordination to any Subcontractor.
- B. Anticipate the interrelationship of all Subcontractors and their relationship with the Job Order Work.
- C. Resolve differences or disputes between Subcontractors concerning coordination, interference, or extent of Job Order Work between sections of the Job Order Work.
- D. Coordinate the Job Order Work of Subcontractors so that portions of the Job Order Work are performed in a manner that minimizes interference with the progress of the Job Order Work.
- E. Do not obstruct spaces and installations that are required to be clear by Applicable Code Requirements. Refer to Section 01 41 00, REGULATORY REQUIREMENTS.
- F. Apparatus and Equipment Locations:
 - 1. Locations of apparatus and equipment indicated on the Drawings are approximate only, and are subject to change to suit operational service as approved by University's Representative.
 - 2. Furnish and install apparatus and equipment in a manner and in locations which keep openings and passageways clear. Make changes in locations of equipment and materials which may be necessary to accomplish these purposes as approved by University's Representative.
- G. Do not cover any piping, wiring, ducts, or other installations until they have been inspected and approved, and required certificates of inspection issued.
- H. Remove and replace all Job Order Work which does not comply with the Contract Documents. Repair or replace any other Work or property damaged by these operations with no adjustment of Job Order Sum.
- I. Coordinate all portions of the Job Order Work requiring careful coordination in order to fit in space available. Before commencing such portions of the Job Order Work, prepare supplementary Drawings for review by University's Representative.

2. PRODUCTS (NOT USED)

3. EXECUTION (NOT USED)

END OF SECTION

SECTION 01 31 19
PROJECT MEETINGS

1. GENERAL

1.1 PRECONSTRUCTION CONFERENCE

- A. Prior to commencement of Work of the first Job Order,, a pre-construction conference (Kick-Off Meeting) will be conducted by University's Representative to discuss procedures which are to be followed during performance of the Job Order Work.
- B. Location: As designated by University's Representative.
- C. Attending shall be:
 - 1. University's Representative.
 - 2. University's consultants and University's Representative's consultants, as appropriate.
 - 3. Contractor.
 - 4. Contractor's Superintendent.
 - 5. Subcontractors, as appropriate.
 - 6. Others, as appropriate.

1.2 NOT USED

1.3 NOT USED

1.4 GUARANTEES, BONDS, AND SERVICE AND MAINTENANCE CONTRACTS REVIEW MEETING

- A. Eleven months following the date of Beneficial Occupancy, Substantial Completion, if applicable, or Final Completion of each applicable Job Order, whichever occurs earliest, a meeting shall be conducted by University for the purpose of reviewing the guarantees, bonds, and service and maintenance contracts for materials and equipment.
- B. Attending shall be:
 - 1. University.
 - 2. University's Consultants, as appropriate.
 - 3. Contractor.
 - 4. Subcontractors, as appropriate.
 - 5. Others, as appropriate.

1.5 AS-BUILT DRAWING REVIEW MEETING

- A. When required by University's Representative, a meeting shall be conducted by University's Representative every 30 days to review the as-built drawings. Refer to Section 01 78 39, PROJECT RECORD DOCUMENTS.
- B. Attending shall be:
 - 1. University's Representative.
 - 2. University.
 - 3. University's consultants, as appropriate.
 - 4. Contractor.
 - 5. Subcontractors, as appropriate.
 - 6. Others, as appropriate.

1.6 NOT USED

2. PRODUCTS (NOT USED)

3. EXECUTION (NOT USED)

END OF SECTION

SECTION 01 32 00
CONSTRUCTION PROGRESS DOCUMENTATION

1. GENERAL

1.1 JOB ORDER SCHEDULE

- A. Submission: Refer to General Conditions Articles 4.2 and 4.3.
- B. Form:
1. The Job Order Schedule shall be a bar chart showing continuous flow from left to right. Specific calendar dates shall be clearly and legibly shown for the start and finish of each Job Order Work Activity.
 2. The Job Order Schedule shall be suitable for monitoring progress of the Job Order Work, in sufficient detail to demonstrate adequate planning for the Job Order Work, and represent a practical plan to complete the Job Order Work within the Job Order Time.
 3. Identify all holidays and non-working days on the Job Order Schedule.
 4. If the Job Order Schedule is shown on more than 1 sheet, provide a summary sheet.
- C. Activities:
1. Identify all Job Order Work activities in correct sequence for the completion of the Job Order Work. Job Order Work activities shall include the following:
 - a. Major Contractor-furnished equipment, materials, and building elements, and scheduled activities requiring submittals or University's prior approval.
 - 1) Show dates for the submission, review, and approval of each submittal. Dates shall be shown for the procurement, fabrication, delivery, and installation of major equipment, materials, and building elements, and for scheduled activities designated by University.
 - 2) A minimum of 10 days shall be allotted for University's Representative to review each submittal.
 - b. System test dates.
 - c. Scheduled overtime Job Order Work if required by Contract Documents.
 - d. Dates Contractor requests designated working spaces, storage areas, access, and other facilities to be provided by University.
 - e. Dates Contractor requests orders and decisions from University on designated items.
 - f. Dates Contractor requests University-furnished equipment.
 - g. Dates Contractor requests University-furnished utilities.
 - h. Connection and relocation of existing utilities.
 - i. Connecting to or penetrating existing structures.
 - j. Scheduled inspections as required by Codes, or as otherwise specified.
 2. Identify all Job Order Work activities that constitute the critical path.
 3. Critical Job Order Work activities are defined as Job Order Work activities which, if delayed or extended, will delay the scheduled completion of one or more of the milestones specified in this Section or the scheduled completion of the Job Order Work, or both. All other Job Order Work activities are defined as non-critical Job Order Work activities and are considered to have float.
 4. Float is defined as the time that a non-critical Job Order Work activity can be delayed or extended without delaying the scheduled completion of milestones specified in this Section or the scheduled completion of the Job Order Work, or both. Neither Contractor nor University shall have an exclusive right to the use of float. The party using float shall document the effect on the updated Job Order Schedule.
 5. Delays of any non-critical Job Order Work shall not be the basis for an extension of Job Order Time until the delays consume the float associated with that non-critical Job Order Work activity and cause the Job Order Work activity to become critical.
 6. The presentation of each Job Order Work activity on the Job Order Schedule shall include a brief description of the Job Order Work activity, the duration of the Job Order Work activity in days, and a responsibility code identifying the organization or trades performing the Job Order Work activity.
 7. Contractor shall furnish cost estimates for each Job Order Work activity which cumulatively equal the total contract cost. Mobilization costs may be shown separately; however, other costs, i.e., profit and bond shall be pro-rated throughout all activities.
- D. Updating:
1. Review the Job Order Schedule with University's Representative once each week to incorporate in the Job Order Schedule all changes in the progress, sequences, and scope of Job Order Work activities.
 2. Prepare and submit to University's Representative an updated Job Order Schedule once each month, or as mutually agreed.
 - a. The updated Job Order Schedule shall accurately represent the as-built condition of all completed and in-progress Job Order Work activities as of the date of the updated Job Order Schedule.
 - b. The updated Job Order Schedule shall incorporate all changes mutually agreed upon by Contractor and University during preceding periodic reviews and all changes resulting from Change Orders and Field Orders.

- c. Contractor shall perform the Job Order Work in accordance with the updated Job Order Schedule. Contractor may change the Job Order Schedule to modify the order or method of accomplishing the Job Order Work only with prior agreement by University.
3. Contractor shall submit the updated Job Order Schedule, in the form acceptable to University's Representative, at least 7 days prior to submitting the Application for Payment.
4. University's Representative will determine acceptability of the updated Job Order Schedule within 7 days after its receipt.
5. No Applications for Payment will be processed nor shall any progress payments become due until updated Job Order Schedules are accepted by University's Representative.
6. The accepted, updated Job Order Schedule shall be the Job Order Schedule of record for the period it is current and shall be the basis for payment during that period.

END OF SECTION

SECTION 01 33 23
SHOP DRAWINGS, PRODUCT DATA & SAMPLES

1. GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Shop Drawings, Product Data, and Samples, other than in connection with proposed substitutions, shall be submitted to University's Representative only when specifically required; and University's Representative will not review any other such submittals. Product Data and Samples for proposed substitutions shall be submitted to University's Representative in accordance with Section 01 25 13, PRODUCT SUBSTITUTION PROCEDURES. Contractor shall be responsible for obtaining such copies of Shop Drawings, Product Data, and Samples as it may require for its own use.

1.2 RELATED REQUIREMENTS

- A. Definitions:
1. The terms "Shop Drawings" and "Product Data" as used herein also include fabrication, erection, layout and setting drawings, manufacturers' standard drawings, descriptive literature, catalogues, brochures, performance and test data, wiring and control diagrams, all other drawings and descriptive data pertaining to materials, equipment, piping, duct and conduit systems, and methods of construction as may be required to show that the materials, equipment, or systems and the positions thereof conform to the Contract Documents.
 2. As used herein, the term "manufactured" applies to standard units usually mass-produced. The term "fabricated" means items specifically assembled or made out of selected materials to meet individual design requirements. Shop Drawings shall establish the actual detail of all manufactured or fabricated items, indicate correct relation to adjoining Job Order Work, and amplify design details of mechanical and electrical equipment in accurate relation to physical spaces in the structure.
- B. Manufacturers' Instructions: Where any item of Job Order Work is required by the Contract Documents to be furnished, installed, or performed in accordance with a specified product manufacturer's instructions, Contractor shall procure and distribute the necessary copies of such instructions to University's Representative and all other concerned parties; and Contractor shall furnish, install, or perform the Job Order Work in strict accordance therewith.
- C. Submittal Schedule:
1. A schedule for submission of Shop Drawings, Product Data, and Samples by Contractor (the "Submittal Schedule"), and their processing and return by University's Representative, shall be agreed upon by both parties in order that the items covered by these submittals will be available when needed by the construction process and so that each party can plan its workload in an orderly manner.
 2. Contractor shall prepare the Submittal Schedule using a form to be furnished by University's Representative at the Pre-Construction Meeting (see Section 01 31 19, PROJECT MEETINGS) and coordinate it with the Job Order Schedule. No submittals will be processed before the Submittal Schedule has been submitted to and accepted by University's Representative, except in such cases where the processing of submittals is required before the acceptance of the Submittal Schedule.
 3. In preparing the Submittal Schedule, Contractor shall first determine from the Job Order Schedule the date the particular item is needed for the Job Order Work. Working backwards, Contractor shall add the required number of days for shipment, time for fabrication, and similar items to determine the date of the first submittal.
 4. The Submittal Schedule shall be adjusted to meet the needs of the construction process and Job Order Schedule. Submit digital copy of the Submittal Schedule after it is completed and each time it is updated by Contractor.

1.3 SHOP DRAWINGS

- A. Present information required on Shop Drawings in a clear and thorough manner. Identify details by reference to drawing and detail, schedule, or room numbers shown and specified. The room numbers referenced or shown shall be the University-assigned room numbers, which Contractor can obtain from University's Representative.

1.4 PRODUCT DATA

- A. Preparation:
1. Clearly mark each copy to identify pertinent products or models.
 2. Show performance characteristics and capacities.
 3. Show dimensions and clearances required.
 4. Show wiring or piping diagrams and controls.
- B. Manufacturers' standard schematic drawings and diagrams:
1. Modify the standard schematic drawings and other diagrams to delete information which is not applicable to the Job Order Work.
 2. Supplement standard information to provide information specifically applicable to the Job Order Work.

1.5 SAMPLES

- A. Office Samples shall be of sufficient size and quality to clearly illustrate the following:
 - 1. Functional characteristics of the products, with integrally related parts and attachment devices.
 - 2. Full ranges of color, texture, and pattern.
- B. Field Samples and Mock-Ups:
 - 1. Erect at the Job Order Work site, at a location as directed by University's Representative.
 - 2. Size: As specified.
 - 3. Fabricate each Sample and mock-up to be complete and fully finished.
 - 4. Remove mock-ups at conclusion of Job Order Work.

1.6 CONTRACTOR'S REVIEW OF SUBMITTALS

- A. Review, mark up as appropriate, and stamp Shop Drawings, Product Data, and Samples prior to submission. Submittals shall clearly show that they have been reviewed by Contractor for conformance with the requirements of the Contract Documents and for coordination of the Job Order Work.
- B. Determine and Verify:
 - 1. Field measurements.
 - 2. Field construction criteria.
 - 3. Catalog numbers and similar data.
 - 4. Conformance with Contract Documents.
- C. Coordinate each submittal with requirements of the Job Order Work and of the Contract Documents.
- D. Notify University's Representative in writing, at time of submission, of any changes in the submittals from requirements of the Contract Documents.
- E. Begin no fabrication or Job Order Work which requires submittals until the return of University's Representative's final reviewed submittals.

1.7 SUBMISSION REQUIREMENTS

- A. Unless otherwise approved in advance by University's Representative, all submittals shall be in digital format (PDF in Optical Character Recognition [OCR]).
- B. Make submittals promptly in accordance with the Submittal Schedule and in such sequence as to cause no delay in the Job Order Work or in the work of any Separate Contractor.
- C. Number of Submittals Required:
 - 1. Shop Drawings: Submit (1) digital copy identified by section number and contents (i.e. Sec 05 1200 – Shop Drawings – Structural Steel). After checking, University's Representative will return the copy to Contractor.
 - 2. Product Data, Qualifications and Other Submittals: Submit (1) digital copy which will be retained by University's Representative. Each submittal (i.e. product literature, test reports, proof of qualifications, etc.) shall be submitted as individual files identified by their section number and contents. See examples below:
 - a. Sec 03 2600 – Test Report – Post Installed Anchors.
 - b. Sec 06 4116 – Qualifications – Casework Manufacturer.
 - 3. Samples: Submit the number specified in the Section which requires them.
- D. Submittals shall contain:
 - 1. Date of submission and dates of any previous submissions.
 - 2. Job Order name and number.
 - 3. Contract identification.
 - 4. The names of:
 - a. Contractor.
 - b. Subcontractor.
 - c. Supplier.
 - d. Manufacturer.
 - 5. Identification of the product, with the Specification Section number.
 - 6. Field dimensions, clearly identified as such.
 - 7. Relation to adjacent or critical features of the Job Order Work or materials.
 - 8. Reference standards, such as ASTM or Federal Specification numbers.
 - 9. Identification of changes from requirements of the Contract Documents.
 - 10. Identification of revisions on resubmittals.
 - 11. An 8-inch x 3-inch blank space for review stamps.
 - 12. Contractor's stamp, initialed or signed, certifying to the review of the submittal; verification of materials and field measurements and conditions; and compliance of the information within the submittal with requirements of the Job Order Work and of the Contract Documents.
- E. Resubmission Requirements:
 - 1. Shop Drawings and Product Data:
 - a. Revise Shop Drawings or Product Data, and resubmit as specified for the initial submittal.
 - b. Identify any changes which have been made other than those requested.
 - c. Note any departures from the Contract Documents or changes in previously reviewed submittals which were not commented upon by University's Representative.
 - 2. Samples: Submit new samples as required for initial submittal.
- F. Distribution:
 - 1. Distribute digital copy of Shop Drawings and Product Data, which carry University's Representative's review stamp, to the following locations:

- a. Contractor's Job Order Work site file.
 - b. Record documents file maintained by Contractor.
 - c. Separate Contractors.
 - d. Subcontractors.
 - e. Supplier or manufacturer.
2. Distribute samples which carry University's Representative's review stamp as directed.
- G. University's Representative's Review: University's Representative will review Contractor's submittals, such as Shop Drawings, Product Data, and Samples, for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of Contractor as required by the Contract Documents.
- H. Submittal of Qualifications: Submittal of Qualifications: Unless otherwise specified, when technical specification sections or drawings identify qualification criteria (prior experience; certification; manufacturer approval; etc.) for any entity (installer; manufacturer; engineer; testing agency; etc.), Contractor shall submit proof that the entity meets said criteria at least 15 days prior to start of the applicable Job Order Work.

END OF SECTION

SECTION 01 35 13
SPECIAL PROJECT PROCEDURES

1. GENERAL

1.1 HAZARDOUS MATERIALS PROCEDURES

- A. Refer to General Conditions Article 3.19.
- B. Lead Based Paint (LBP):
 - 1. Lead coatings may exist on this Project site, and Work may involve the demolition, removal and disposal of materials coated in LBP. University will disclose all known information about such hazards, including location and quantity of lead in coating materials. If further information is desired, Contractor shall furnish sampling and analysis.
 - 2. Where LBP is determined or suspected to exist, Contractor shall comply with all regulations pertaining to its removal, including the Cal/OSHA Lead Construction Standard (CCR Title 8 section 1532.1), CDPH Work Practices for Lead-Based Paint and Lead Hazards (CCR Title 17, Div 1 Chap 8) and the General Industry Safety Orders hazard communication requirements (CCR Title 8 section 5194). Contractor shall furnish all required employee monitoring, personal protective equipment, and engineering controls designed to minimize lead exposures. Contractor is responsible for characterization and disposal of all lead-containing waste and debris. University will furnish environmental monitoring.
 - 3. During construction and demolition work, Contractor shall prevent lead dust contamination of surrounding areas. Contractor shall contact University's Office of Environment, Health & Safety regarding all Project elements which may result in significant migration of lead-containing materials off the Project site. Currently, the Department of Toxic Substances Control does not generally consider intact painted building materials to be hazardous wastes. Paint separated from its substrate shall be evaluated independently from the building material to determine proper management. Materials or solvents meeting the requirements of a Federal Hazardous Waste as determined by CCR Title 22 shall be disposed of at a location approved in advance by University's Office of Environment, Health & Safety.
 - 4. When an employee may be occupationally exposed to lead-containing coatings or paint associated with construction and/or maintenance activities, Contractor is responsible for complying with Cal/OSHA Lead Construction Standard (CCR Title 8, Section 1532.1).

1.2 HAZARDOUS MATERIAL STORAGE

- A. Materials: In occupied building areas, only sufficient materials and flammable or toxic substances necessary for the Work being performed that day or shift shall be brought into the building and work areas. In no case shall flammable or toxic substances be stored in the building, and these substances shall be immediately removed from the building when not needed and not later than the end of the day's Work.

1.3 NOT USED

1.4 NOT USED

2. PRODUCTS (NOT USED)

3. EXECUTION (NOT USED)

END OF SECTION

SECTION 01 35 43
ENVIRONMENTAL PROCEDURES

1. GENERAL

1.1 DUST CONTROL, AIR POLLUTION AND ODOR CONTROL

- A. Contractor shall employ measures to prevent the creation of dust, air pollution and odors.
1. Comply with SCAQMD Rules 401, 402 and 403.
 2. Unpaved areas where vehicles are operated shall be periodically wetted down or given an equivalent form of treatment as defined in Air Quality Management District (AQMD) Rule 403 to eliminate dust formation.
 3. All volatile liquids including fuels or solvents shall be stored in closed containers.
 4. No open burning of debris, lumber or other scrap will be permitted.
 5. Equipment shall be maintained in a manner to reduce gaseous emissions.
 6. Use alternative fuel construction equipment (i.e., compressed natural gas, liquid petroleum gas, unleaded gasoline) and low-emission diesel construction equipment to the extent that the equipment is readily available and cost effective.
 7. Stockpiles of excavated materials shall be covered with material approved by University's Representative.
 8. Refer to Section 01 74 00, CLEANING & WASTE MANAGEMENT, Paragraph 3.1.B, for silt clean up.

1.2 NOISE CONTROL

- A. The following noise control procedures shall be employed:
1. Maximum Noise: The Contractor shall use equipment and methods during the course of performing Job Order Work that are least disruptive to adjacent offices or residences. Noise levels for trenchers, graders, trucks and pile drivers shall not exceed 90 dBA at 50 feet as measured under the noisiest operating conditions. For all other equipment, noise levels shall not exceed 85 dBA at 50 feet.
 2. Equipment: Jack hammers shall be equipped with exhaust mufflers and steel muffling sleeves. All diesel equipment shall have exhaust muffled. Air compressors shall be of a quiet type such as a "whisperized" compressor.
 3. Operations: Machines shall not be left idling. Electric power shall be used in lieu of internal combustion engine power wherever possible. Equipment shall be maintained to reduce noise from vibration, faulty mufflers, or other sources.
 4. Scheduling: Noisy operations shall be scheduled so as to minimize their disturbance to occupied adjacent areas and duration at any given location.

1.3 NOT USED

2. PRODUCTS (NOT USED)

3. EXECUTION (NOT USED)

END OF SECTION

SECTION 01 41 00
REGULATORY REQUIREMENTS

1. GENERAL

1.1 DESCRIPTION

- A. The Work shall be performed in accordance with Applicable Code Requirements and applicable requirements of all other regulatory agencies, including the following:
1. California Code of Regulations (CCR), Title 8, Industrial Safety.
 2. CCR, Title 13, Hazardous Materials Transportation.
 3. CCR, Title 17, Radiation Safety.
 4. CCR, Title 19, Public Safety.
 5. CCR, Title 20, Public Utilities and Energy.
 6. CCR, Title 21, Public Works.
 7. CCR, Title 23, Underground Storage Tank Regulations.
 8. CCR, Title 24
 - a. Part 1, 2019 Building Standards Administrative Code.
 - b. Part 2, 2019 California Building Code Vol. 1 and 2 (Based on 2018 IBC).
 - c. Part 2.5, 2019 California Residential Code (Based on 2018 IRC).
 - d. Part 3, 2019 California Electrical Code (Based on 2017 NEC).
 - e. Part 4, 2019 California Mechanical Code (Based on 2018 UMC).
 - f. Part 5, 2019 California Plumbing Code (Based on 2018 UPC).
 - g. Part 6, 2019 California Energy Code.
 - h. Part 7 (This part is now Vacant: formerly California Elevator Construction Safety Code. See California Regulations Title 8).
 - i. Part 8, California Historical Building Code.
 - j. Part 9, 2019 California Fire Code (Based on 2018 IFC).
 - k. Part 10, 2019 California Existing Building Code (Based on 2018 IEC).
 - l. Part 11, 2019 California Green Building Standards Code (CALGreen).
 - m. Part 12, 2019 California Referenced Standards Code.
 9. CCR, Title 25, Housing and Community Development.
 10. CCR, Title 26, Toxics.
 11. National Fire Protection Association (NFPA): Use current edition of NFPA shown in Chapter 35 of the 2019 California Building Code (CBC).
- B. When the California Building Code does not specifically cover any subject relating to building design and construction, recognized fire prevention engineering practices shall be employed. The following may be used as authoritative guides when determining recognized fire prevention engineering practices:
1. The National Fire Codes.
 2. The Fire Protection Handbook.
- C. Unless otherwise specified, specific references to codes, regulations, standards, manufacturers' instructions, or requirements of regulatory agencies, when used to specify requirements for materials or design elements, shall mean the latest edition of each in effect at the date of submission of bids, or the date of the Change Order or Field Order, as applicable.
- D. Representatives of the Los Angeles City Fire Department, Division of State Architect (DSA) and California Occupational Safety and Health Act (Cal/OSHA) have the right to inspect all Work and workplace conditions.
- E. In accordance with California Labor Code ("CLC") Section 3099.2, all employees performing electrical work for a contractor/subcontractor holding a C-10 license shall become certified pursuant to CLC Section 3099.

1.2 CONFLICTS

- A. If a conflict exists between referenced regulatory requirements or between referenced regulatory requirements and the Contract Documents, Contractor shall notify University's Representative and request that the conflict be resolved. The fact that the Contract Documents may establish higher or more costly requirements than the minimum Code or other regulatory requirements referenced above shall not constitute a "conflict."

2. PRODUCTS (NOT USED)

3. EXECUTION (NOT USED)

END OF SECTION

SECTION 01 42 00
REFERENCES

1. GENERAL

1.1 ABBREVIATIONS

- A. The following abbreviations of organizations may be used in the Contract Documents.
- | | |
|----------|---|
| AA | Aluminum Association |
| AABC | Associated Air Balance Council |
| AAMA | Architectural Aluminum Manufacturers Association |
| AAN | American Association of Nurserymen, Inc. |
| AASHTO | American Association of State Highway and Transportation Officials |
| ABPA | Acoustical and Board Products Association |
| ACI | American Concrete Institute |
| ACIL | American Council of Independent Laboratories |
| ACPA | American Concrete Pipe Association |
| ADA | Americans with Disabilities Act |
| ADC | Air Diffusion Council |
| AFBMA | Anti-Friction Bearing Manufacturers Association |
| AFI | Air Filter Institute |
| AGA | American Gas Association |
| AGC | Associated General Contractors of America |
| AHERA | Asbestos Hazard Emergency Response Act |
| AI | The Asphalt Institute |
| AIA | American Institute of Architects |
| AIMA | Acoustical Insulating Material Association |
| AISC | American Institute of Steel Construction, Inc. |
| AISI | American Iron and Steel Institute |
| AITC | American Institute of Timber Construction |
| ALSC | American Lumber Standards Committee |
| AMCA | Air Moving and Conditioning Association |
| ANSI | American National Standards Institute |
| AOAC | Association of Official Analytical Chemists |
| APA | American Plywood Association |
| API | American Petroleum Institute |
| AQMD | Air Quality Management District |
| ARI | Air-Conditioning and Refrigeration Institute |
| ASA | American Standards Association |
| ASAH | American Society of Architectural Hardware Consultants |
| ASHRAE | American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. |
| ASME | American Society of Mechanical Engineers Association, Inc. |
| ASTM | American Society for Testing and Materials |
| AWCI | Association of Wall and Ceiling Industries |
| AWI | Architectural Woodwork Institute |
| AWPA | American Wood-Preservers' Association |
| AWPB | American Wood Preservers Bureau |
| AWPI | American Wood Preservers Institute |
| AWS | American Welding Society, Inc. |
| AWWA | American Water Works Association, Inc. |
| BHMA | Builders Hardware Manufacturers Association |
| BIA | Brick Institute of America |
| BOCA | Building Officials and Code Administrators |
| CAC | California Administrative Code |
| Cal/OSHA | California Occupational Safety and Health Act |
| CARB | California Air Resources Board |
| CBM | Certified Ballast Manufacturers Association |
| CCR | California Code of Regulations |
| CDA | Copper Development Association, Inc. |
| CE | Corps of Engineers (U. S. Dept. of the Army) |
| CEC | California Energy Commission |
| CESO | California Elevator Safety Order |
| CGA | Compressed Gas Association |
| CLFMI | Chain Link Fabric Manufacturers Institute |
| CLPCA | California Lathing and Plastering Contractors Association, Inc. |
| CPSC | Consumer Product Safety Commission |
| CRSI | Concrete Reinforcing Steel Institute |
| CS | Commercial Standards of NBS (U.S. Dept. of Commerce) |
| CTI | Cooling Tower Institute |
| CTLA | Council of Tree and Landscape Appraisers |
| DHI | Door & Hardware Institute |
| DISS | Diameter Index Safety System |

EPA	Environmental Protection Agency
ETL	Electrical Testing Laboratories
FFDA	Federal Food and Drug Administration
FIA	Factory Insurance Association
FM	Factory Mutual Engineering Corp.
FS	Federal Specification
FSC	Forest Stewardship Council
GA	Gypsum Association
GANA	Glass Association of North America (formerly FGMA)
GFI	Ground Fault Interrupter
GBCI	Green Building Certification Institute
HEPA	High Efficiency Particulate Air
HI	Hydronics Institute
HMI	Hoists Manufacturers Institute
HMMA	Hollow Metal Manufacturers Association
HPMA	Hardwood Plywood Manufacturers Association
IBEW	International Brotherhood of Electrical Workers
IBR	Institute of Boiler and Radiator Manufacturers
ICBO	International Conference of Building Officials
ICEA	Insulated Cable Engineering Association
IEEE	Institute of Electrical and Electronic Engineers
IEC	International Electric Code
IES	Illuminating Engineers Society
IGCC	Insulation Glass Certification Council
ISA	Instrument Society of America
LEED	Leadership in Energy & Environmental Design
LIA	Lead Industries Association
MFMA	Maple Flooring Manufacturers Association
MIA	Marble Institute of America
MIL	U.S. Government, Military Specification
MLSFA	Metal Lath/Steel Framing Association
MOC	Ministry of Communications General
MSHA	Mine Safety and Health Administration
MSS	Manufacturers Standardization Society of Valve and Fittings
NAA	National Arborist Association
NAAB	National Association of Air Balance
NAAMM	The National Association of Architectural Metal Manufacturers
NACE	National Association of Corrosion Engineers
NBFU	National Board of Fire Underwriters
NBGQA	National Building Granite Quarries Association, Inc.
NBHA	National Builders' Hardware Association
NBS	National Bureau of Standards (U. S. Dept. of Commerce)
NCMA	National Concrete Masonry Association
NCPWB	National Certified Pipe Welding Bureau
NEBB	National Environmental Balancing Bureau
NEC	National Electrical Code by NFPA
NECA	National Electrical Contractors Association
NEMA	National Electrical Manufacturers Association
NESHAP	National Emissions Standard for Hazardous Air Pollutants
NETA	International Electrical Testing Association
NFPA	National Fire Protection Association
NHLA	National Hardwood Lumber Association
NICET	National Institute for Certification in Engineering Technologies
NIOSH	National Institute of Occupational Safety and Health
NPA	National Particleboard Association
NRC	Noise Reduction Coefficient
NRCA	National Roofing Contractors Association
NRMCA	National Ready Mixed Concrete Association
NSF	National Sanitation Foundation
NUSIG	National Uniform Seismic Installation Guidelines
NWMA	National Woodwork Manufacturers Association, Inc.
NWWDA	National Wood Window and Door Association
OPL	Omega Point Laboratories
OSHPD	Office of Statewide Health Planning and Development
PCA	Portland Cement Association
PCB	Polychlorinated Biphenyl
PCI	Prestressed Concrete Institute
PDI	Plumbing and Drainage Institute
PI	Perlite Institute
PS	Product Standard of NBS (U.S. Dept. of Commerce)
RFCI	Resilient Floor Covering Institute

RIS	Redwood Inspection Service (Grading Rules)
SAE	Society of Automotive Engineers
SAS	Saudi Arabian Standard Organization
SBC	State Building Code
SCAQMD	South Coast Air Quality Management District
SDI	Steel Door Institute
SIGMA	Sealed Insulating Glass Manufacturers Association
SJI	Steel Joist Institute
SMACNA	Sheet Metal & Air Conditioning Contractors' National Assoc., Inc.
SPIB	Southern Pine Inspection Bureau (Grading Rules)
SSPC	Society for Protective Coatings
STC	Sound Transmission Coefficient
SWI	Sealant and Waterproofers Institute
TCA	Tile Council of America, Inc.
UBC	Uniform Building Code
UFAS	Uniform Federal Accessibility Standards
UHMW	Ultra-High Molecular Weight
UL	Underwriters' Laboratories, Inc.
UMC	Uniform Mechanical Code
UPC	Uniform Plumbing Code
USDA	United States Department of Agriculture
USGBC	United States Green Building Council
USSG	United States Steel Gauge
WCLIB	West Coast Lumber Inspection Bureau (Grading Rules)
WH	Warnock Hersey
WIC	Woodwork Institute of California
WWPA	Western Wood Products Association (Grading Rules)

1.2

DEFINITIONS

A. The following terms, when used on the Drawings or in the Specifications, shall have the following meanings:

1. **ADEQUATE; CAREFUL; PROPER; SUFFICIENT; SUITABLE; SATISFACTORY:** These terms refer to interpretation by University's Representative, and are subject to approval upon request.
2. **APPLICABLE CODES:** "Codes listed in Section 01 41 00, REGULATORY REQUIREMENTS."
3. **APPROVED:** "As approved by University's Representative."
4. **AS DIRECTED:** "As directed by University's Representative."
5. **AS REQUIRED:** "As required by Applicable Code Requirements; by good building practice; by the conditions prevailing; by the Contract Documents; by University, or by University's Representative."
6. **AS SELECTED:** "As selected by University's Representative."
7. **BY OTHERS:** Work on the Job Order Job that is outside the scope of Job Order Work to be performed by Contractor under the Contract, but that will be performed by University, Separate Contractors, or other means.
8. **EQUAL:** Of same quality, appearance, and utility to that specified, as determined by University's Representative. Contractor bears the burden of proof of equality.
9. **FURNISH:** "Supply only, not install (unless required to be provided or installed elsewhere in the Contract Documents)."
10. **INCLUDE/INCLUDING:** "Include/including, without limitation."
11. **INSTALL:** "Install or apply only, not furnish (unless required to be provided or furnished elsewhere in the Contract Documents)".
12. **INSTALLER:** Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform particular construction operation, including installation, erection, application, and similar operations.
13. **MANUFACTURER'S DIRECTIONS/INSTRUCTIONS/RECOMMENDATIONS/SPECIFICATIONS:** Manufacturer's written directions, instruction, recommendations, specifications.
14. **MUST; SHALL; TO; WILL:** When used as a directive to Contractor, these terms indicate a mandatory action.
15. **NECESSARY:** "Essential to completion of Work".
16. **UNIVERSITY-FURNISHED, CONTRACTOR INSTALLED:** "To be furnished by University at its cost and installed by Contractor as part of the Work."
17. **PROJECT SITE; JOB SITE:** Geographical location of the Project.
18. **PROVIDE:** "Furnish and install".
19. **SHOWN:** "As indicated on the Drawings".
20. **SPECIFIED:** "As written in the Contract Documents."
21. **SUBMIT:** "Submit to University's Representative."

2. PRODUCTS (NOT USED)

3. EXECUTION (NOT USED)

END OF SECTION

SECTION 01 43 00
QUALITY ASSURANCE

1. GENERAL

1.1 GENERAL

- A. Definitions:
1. The term "University's Testing Laboratory" means a testing laboratory retained and paid for by University for the purpose of reviewing material and product reports and performing other services as determined by University.
 2. The term "Contractor's Testing Laboratory" means a testing laboratory retained and paid for by Contractor to perform the testing services required by the Contract Documents. Contractor's Testing Laboratory shall be an organization other than University's Testing Laboratory and shall be acceptable to University's Representative. It may be a commercial testing organization, the testing laboratory of a trade association, the certified laboratory of a supplier or manufacturer, Contractor's own forces, or other organization. Contractor's Testing Laboratory shall have performed testing of the type specified for at least 5 years.
- B. Tests, inspections, and acceptances of portions of the Work required by the Contract Documents or by Applicable Code Requirements shall be made promptly to avoid delay of the Job Order Work. Except as otherwise specified, Contractor shall make arrangements for such tests, inspections, and approvals with Contractor's Testing Laboratory. Contractor shall give University's Representative timely notice of when and where tests and inspections are to be made.
- C. If such procedures for testing, inspection, or acceptance reveal failure of the portions of the Job Order Work to comply with requirements established by the Contract Documents, Contractor shall bear all costs made necessary by such failure including those of repeated procedures and compensation for University's Representative's services and expenses.
- D. If University's Representative is to observe tests, inspections, or make acceptances required by the Contract Documents, University's Representative will do so promptly and, where practicable, at the normal place of testing.
- E. Do not incorporate into the Job Order Work materials represented by samples under test without the written approval of University's Representative.

1.2 CONTRACTOR'S RESPONSIBILITIES REGARDING UNIVERSITY'S TESTING LABORATORY

- A. Secure and deliver to University's Testing Laboratory specified quantities of representative samples of materials proposed for use as specified.
- B. Submit to University's Testing Laboratory the preliminary design mixes proposed to be used for concrete and other materials which require review by University's Testing Laboratory.
- C. Submit digital copy of product test reports as specified.
- D. Furnish incidental labor and facilities:
1. To furnish University's Testing Laboratory access to Job Order Work to be tested.
 2. To obtain and handle samples at the Job Order Work site or at the source of the product to be tested.
 3. To facilitate inspections and tests.
 4. For storage and curing of test samples.
- E. Submit written notice to University's Representative and University's Testing Laboratory 72 hours in advance of operations to allow for assignment of personnel and scheduling of tests.
- F. When tests or inspections are not performed after such notice, Contractor shall reimburse University for University's Testing Laboratory personnel and travel expenses incurred.

1.3 TESTS, INSPECTIONS AND APPROVALS

- A. Certain portions of the Job Order Work will be tested and/or inspected at various stages. Nothing in any prior acceptance or satisfactory test result shall govern, if at any subsequent time the Job Order Work, or portion thereof, is found not to conform to the requirements of the Contract Documents.
- B. In addition to the requirements of the General Conditions, if any law, ordinance or public authority or the Specifications or University's Representative's instructions require any Job Order work to be specially tested or approved (including use of ionizing radiation for radiography), Contractor shall give University's Representative timely notice of its readiness for inspection, and if the inspection is by another authority than University's Representative, of the date fixed for such inspection.
- C. Re-examination of questioned Job Order Work may be ordered by University's Representative.
- D. For Applicable Hospital-Related Work Only: The Office of Statewide Health Planning and Development (OSHPD) requires a list of structural tests and inspections to be included in the Specifications for hospital projects. Structural tests and inspections required by OSHPD, if applicable, will be listed in the special OSHPD Structural Tests and Inspections form attached to each applicable Job Order.

1.4 ADDITIONAL TESTING AND INSPECTION

- A. If initial tests or inspections made by University's Testing Laboratory or University's Geotechnical Engineer reveal that any portion of the Job Order Work does not comply with Contract Documents, or if University's Representative determines that any portion of the Job Order Work requires additional testing or inspection, additional tests and inspections shall be made as directed.
1. If such additional tests or inspections establish that such portion of the Job Order Work complies with the Contract Documents, all costs of such additional tests or inspections shall be paid by University.

2. If such additional tests or inspections establish that such portion of the Job Order Work fails to comply with the Contract Documents, all costs of such additional tests and inspections, and all other costs resulting from such failure, including compensation for University's Representative and University's consultants, shall be deducted from the Job Order Sum.

1.5 TEST REPORTS

- A. University's Testing Laboratory and Contractor's Testing Laboratory shall submit digital copy of all reports to University's Representative, indicating observations and results of tests and indicating compliance or non-compliance with the Contract Documents.
- B. University's Representative will distribute digital copy of the reports to University, University's Consultants, and Contractor.

1.6 GEOTECHNICAL ENGINEER

- A. If applicable, University will retain and pay the expenses of a Geotechnical Engineer to perform inspection, testing, and observation functions specified by University. The Geotechnical Engineer shall communicate only with University and University's Representative. University's Representative will then give notice to Contractor, with a copy to University, of any action required of Contractor.

1.7 UNIVERSITY'S INSPECTORS

- A. University shall supply personnel, reporting to University's Representative, who shall observe construction in progress. Inspectors shall have the following responsibilities and limitations on authority:
 1. Act under the direction of University's Representative.
 2. Observe installations and work in progress as a basis for determining conformance of the work, materials and equipment with the Construction Documents. Inspector will report any discrepancies observed to University's Representative and Contractor. Only University's Representative has the authority to make approvals or rejections.
 3. Only University's Representative shall interpret the requirements of the Construction Documents. If any item is ambiguous, University's Representative shall make a written interpretation. If Contractor requests changes or modifications to the Construction Documents, University's Representative shall make a written determination on the requested changes or modifications.
 4. Prepare and submit an inspection report to University's Representative for each inspection performed.
 5. Review the monthly progress payment request before Contractor submits it to University's Representative.
 6. Assist University's Representative in reviewing the test and inspection results of testing laboratories.
 7. The Inspector is not authorized to permit deviations from the requirements of the Contract Documents unless such deviation has been approved by University's Representative in writing.
 8. The Inspector is not authorized to advise on or issue directions to Contractor about any aspect of construction means, methods, techniques, sequences or procedures, or relating to safety programs in connection with the Job Order.
- B. The failure of University, University's Representative and its representatives and consultants, or University's Inspector to observe or inspect the Job Order Work, or to detect deficiencies in the Job Order Work, or to inform Contractor of any deficiencies which may be discovered, shall not relieve Contractor, its subcontractors regardless of tier, or suppliers from their responsibility for construction means, methods, techniques, sequences and procedures, construction safety, nor from their responsibilities to carry out the work in accordance with the Contract Documents and to detect and correct defective Job Order Work. The term "defective work" means work that is unsatisfactory, faulty, omitted, incomplete, deficient, or does not conform to the requirements of the Contract Documents, directives of University's Representative, or the requirements of any inspection, reference standard, test, or approval specified in the Contract Documents, or has been damaged prior to final completion, unless responsibility for the protection of such work has been assumed by University through beneficial occupancy in accordance with Article 9.6 of the General Conditions or through substantial completion in accordance with Article 9.7 of the General Conditions.

1.8 INSPECTION REQUESTS

- A. Contractor shall request inspection of completed portions of the Job Order Work through University's Representative at least 72 hours in advance of the inspection to be performed. Contractor shall submit said request for inspection using a form to be furnished by University's Representative at the Pre-Construction Meeting (see Section 01 31 19, PROJECT MEETINGS).
- B. For each inspection request received from Contractor for which University's Representative determines that such work is not ready for inspection, University will backcharge Contractor the amount of (\$75.00) per hour as partial compensation for the University's Inspector's time spent to respond to the unnecessary request.

2. PRODUCTS (NOT USED)

3. EXECUTION (NOT USED)

END OF SECTION

SECTION 01 45 00
QUALITY CONTROL

1. GENERAL

1.1 SUPERINTENDENT(S)

- A. In addition to requirements specified in Article 3 of the General Conditions, each Contractor's Superintendent shall be certified as a technician by Building Industry Consulting Services International (BICSI) or other authority acceptable to University's Representative and have a minimum of 5 years' experience in coordinating projects.
- B. Superintendent and all staff working on Project shall be able to communicate fluently in English.
- C. **Dedicated Job Superintendent for Job Orders Exceeding \$200,000:** Unless otherwise approved in advance by University's Representative, Contractor shall provide the services of a dedicated superintendent for each Job Order that exceeds \$200,000 in value. Said dedicated Superintendent shall have no other responsibilities during the entire duration of said Job Order.
- D. **Maximum Work Load per Superintendent:** Unless otherwise approved in advance by University's Representative, no superintendent will supervise multiple concurrent Job Orders with a total combined value greater than \$200,000.
- E. **Maximum Number of Job Orders per Superintendent:** Unless otherwise approved in advance by University's Representative, no superintendent will supervise more than (6) concurrent Job Orders.

1.2 PROJECT MANAGER(S)

- A. In addition to requirements specified in Article 3 of the General Conditions, Contractor's Project Manager shall be certified as a Registered Communications Distribution Designer® (RCDD®) and have a minimum of 5 years' experience coordinating projects including providing estimates and performing inspections.
- B. Project Manager and all staff working on Project shall be able to communicate fluently in English.
- C. Unless otherwise approved in advance by University's Representative, Contractor shall provide a Project Manager to determine scope, submit Schedule of Values, and inspect all work prior to final inspection with the assigned University Representative.

2. PRODUCTS (NOT USED)

3. EXECUTION (NOT USED)

END OF SECTION

SECTION 01 51 00
TEMPORARY UTILITIES

1. GENERAL

1.1 DESCRIPTION

- A. Provide and maintain temporary utilities for construction operations and related necessary temporary structures. Remove them when they are no longer needed.
- B. Pay for connections for water and electricity to Job Order Work site sources.
- C. University does not guarantee amounts of water and electricity available from existing University's sources, nor will University be responsible for interruptions in service.

1.2 REQUIREMENTS OF REGULATORY AGENCIES

- A. Install and use temporary utilities in accordance with requirements specified in Section 01 41 00, REGULATORY REQUIREMENTS, and all applicable federal, state, and local codes and regulations.

2. MATERIALS

2.1 GENERAL

- A. Materials may be new or used, but shall be adequate for the required purposes. Their use and methods of installation shall not create unsafe conditions or violate requirements of applicable codes and requirements.

2.2 TOILET FACILITIES

- A. Toilet facilities for use by workmen on the job or other personnel of Contractor will be provided by University in existing toilet facilities; these shall be used for toilet purposes only and not for disposal of materials or cleaning of tools.

2.3 TEMPORARY TELEPHONE

- A. Telephone service will not be provided by University except in case of emergency involving life and safety. Contractor shall use the public pay phones available on campus or, after coordinating with University's Representative, make arrangements with University's Information Technology Services (ITS) department for temporary telephone service at Contractor's cost. University shall have the right to deduct unpaid costs from future payments on this or any other University project.

2.4 TEMPORARY ELECTRIC SERVICE

- A. Description of System:
 - 1. Service Required: Furnish, install and maintain all temporary electrical equipment, connections, etc., as necessary for the Job Order Work. Before final acceptance, all temporary equipment and connections installed by Contractor shall be removed in a manner approved by University's Representative. Electric power will be provided by University at no cost to Contractor.
 - 2. Electric Service: Service connections shall be made by Contractor to the existing electrical distribution system at a point which will be made available. This point of connection shall be made from the following:
 - a. Power for small tools and lighting may be taken from the existing 120 Volt 60 Hz 1-phase convenience receptacles in the building.
 - b. Power for larger equipment may be taken directly from the existing 208Y/120V 3-phase 4-wire lighting panelboard on the same floor of the Job Order.
 - c. The load connected to any circuit shall not exceed 25% of the circuit or feeder capacity as labeled in the panelboard.
 - d. There shall be no disturbance to building occupants and functions. Cables and conductors shall not prevent closing of fire labeled doors.
 - 3. Provide conduit and wires, drops, circuit breaker and disconnect switches. Temporary electric service shall be removed when no longer required. Characteristics of current furnished by University is limited to that existing and available; if current of other characteristics or quantity is required by Contractor, it shall supply the power as necessary at no extra cost to University.
 - 4. At its own expense, Contractor shall repair and make good all damage to existing electrical facilities caused by Contractor's use, as requested and approved.
- B. Use of Permanent System: Any part of the permanent electrical system which is used for construction purposes shall be operated in a manner so as to ensure the safety of all personnel and to prevent interference with the orderly progress of the Job Order Work.

2.5 TEMPORARY WATER

- A. Water service outlet shall be provided at locations where shown and as approved. Contractor shall furnish, install and maintain necessary temporary supply connections, piping, fittings, etc., as necessary for the Job Order Work. Before final acceptance, all temporary connections and piping installed by Contractor shall be removed in a manner approved by University's Representative. Water will be provided by University at Contractor's expense.
 - 1. Contractor shall furnish and install a double check valve assembly, water meter, and pressure regulator, approved by University's Representative, at the point of connection to University's water system.

2.6 TEMPORARY FIRE PROTECTION

- A. Provide and maintain fire protection equipment including extinguishers, fire hoses, and other equipment as necessary for complete fire protection during the course of the Job Order Work.
 - 1. Install a reduced pressure type backflow device, approved by University's Representative, at point of connection to University's water system.
- B. Use fire protection equipment only for fighting fires.

2.7 TEMPORARY HEAT AND VENTILATION

- A. Provide temporary heat and ventilation as required to maintain adequate environmental conditions to meet specified minimum conditions for installation of materials; and to protect equipment, materials, and finishes from damage due to temperature or humidity.
- B. Provide adequate forced ventilation of enclosed areas to cure installed materials, to prevent excessive humidity, and to prevent hazardous accumulations of dust, fumes, vapors, or gases.

3. EXECUTION

3.1 GENERAL

- A. Comply with applicable requirements specified in Section 01 41 00, REGULATORY REQUIREMENTS, Division 22, PLUMBING, Division 23, HEATING, VENTILATING AND AIR CONDITIONING, and Division 26, ELECTRICAL, as applicable.
- B. Maintain and operate systems to provide continuous service.
- C. Modify and extend systems as required.

3.2 REMOVAL AND RECONDITIONING

- A. Remove all temporary services installed as a requirement of the Contract Documents. Restore utilities to their original condition at the completion of the Job Order Work.
- B. Legally and properly dispose of all debris resulting from removal and reconditioning operations.

END OF SECTION

SECTION 01 54 00
CONSTRUCTION AIDS

1. GENERAL

1.1 TEMPORARY STAIRS, SCAFFOLD AND RUNWAYS

- A. Provide all scaffolds, stairs, hoist plant, runways, platforms, and similar temporary construction as may be necessary for the performance of the Job Order. Such facilities shall be of the type and arrangement as required for their specific use, substantially constructed throughout and strongly supported, well secured and complying with all applicable rules and regulations of the Industrial Accident Commission of the State of California and all applicable laws and ordinances. Refer to Section 01 41 00, REGULATORY REQUIREMENTS.
- B. Arrange for construction equipment access to areas which may be partly blocked by existing obstructions.

1.2 TEMPORARY HOISTS

- A. Provide temporary hoist as required by Job Order Job conditions for the installation of materials and equipment. Install and operate in accordance with all safety regulations of authorities having jurisdiction. Refer to Section 01 41 00, REGULATORY REQUIREMENTS.

1.3 TRENCHING AND SHORING

- A. All trenching and shoring work shall be in full accordance with, but not necessarily limited to the following codes and regulations: Titles 8, 19, 21, 22, & 24, State of California, California Code of Regulations (CCR), California Occupational Safety and Health Administration (OSHA).
1. General Protection. Pursuant to Labor Code Sections 6705 and 6707, Contractor shall provide all adequate sheeting, shoring, bracing or equivalent method for the protection of life and limb which shall conform to the applicable Federal and State Safety Orders.
 2. Before beginning excavation five feet or more in depth, Contractor shall submit to University's Representative a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation. The proposed plan shall comply with the standards established by the California Construction Safety Order and Title 24 of the California Code of Regulations (CCR). If the detailed plan varies from such shoring system standards, it shall be prepared by a California registered civil or structural engineer whose name and registration number shall be indicated on the drawing. If a dispute arises as to whether the plan must be prepared by a registered civil or structural engineer, University's Representative's determination of the matter shall be final and conclusive on Contractor and University.
 3. Neither the review nor approval of any plan showing the design of shoring, bracing, sloping, or other provisions for worker protection shall relieve Contractor from its obligation to comply with Construction Safety Orders Standards and CCR, Title 24, for the design and construction of this protective Work, and Contractor shall indemnify University and University's Representative from any and all claims, liability, costs, actions and causes of action arising out of or related to the failure of these protective systems. Contractor shall defend University and its officers, employees, and agents, and University's Representative in any litigation of proceeding brought with respect to the failure of these protective systems.
 4. Comply with State of California Construction Safety Orders, Article 6 - Excavations, Trenches, Earthwork – whether or not the excavation, trench, or earthwork is five feet or more in depth.

1.4 USE OF CRANE

- A. If Contractor elects to utilize a crane in the performance of Job Order Work, operation of crane shall be in accordance with California Code of Regulations, Title 8, and the following requirements.
1. To ensure compliance with these guidelines, notify University's Environment, Health and Safety Department prior to crane use. Call (310) 825-5689 or email cranes@ehs.ucla.edu.
 2. Entrance and exit path to and from the Job Order site shall be evaluated and predetermined to ensure most appropriate and safest route. Alternate access routes may be necessary depending on the size and tonnage of the crane used.
 3. The crane travel path shall be predetermined by a California registered structural engineer to ensure the safety and integrity of underground vaults, tunnels and equipment. Depending on the size of the crane, alternative routes may be necessary.
 4. Contractor, in consultation with University's Representative, shall predetermine the crane operation location. Contractor shall arrange for inspection of the location by University Fire & Life Safety Division prior to crane lift commencement.
 5. In accordance with California Code of Regulations, Title 8, Section 5025, a certificate indicating that all required tests and examinations have been performed, including all identified defects that have been corrected, shall be made available with each crane or at the Job Order site. The certificate shall verify that the equipment is in safe operating condition at the time of examination.
 6. In accordance with California Code of Regulations, Title 8, Section 5006.1, Contractor shall only permit operators who have a valid certificate of competency (certificate) issued by an Accredited Certifying Entity. Certificates shall be valid for a maximum of 5 years.
 - a. Exception to Section 5006.1: Mobile cranes having a boom length of less than 25 feet or a maximum rated load capacity of less than 15,000 pounds.
 7. Comply with the following during crane lift operations:

- a. Building occupants and/or construction personnel may be required to evacuate areas under the lift and swing radius. University Fire & Life Safety Division shall predetermine this requirement on a per Job Order basis. If evacuation of building occupants is not feasible, document why relocation/evacuation is not feasible in accordance with California Code of Regulations, Title 8, Section 5002.
 - b. The entire swing radius shall be barricaded using, at a minimum, safety cones, barrier tape, and/or saw horses. Furnish flagpersons to monitor and control all traffic. Vehicular and pedestrian traffic is not permitted under the load at any time.
 - 1) At Contractor's option, it may hire University Community Service Officers (CSOs) to assist in traffic control.
 - c. The immediate area shall be kept clear of all vehicles and equipment at all times. Only trucks that are supplying equipment to be lifted may be located in the immediate area.
8. All University personnel working in the lift area shall wear appropriate hard hats, safety shoes, and safety glasses.
9. As necessary, notify or coordinate crane lift operations with the following departments:
- a. Cal-OSHA - Tower Crane Certification Unit;
 - b. University's Facilities Management - Outage Notification Coordinator: Robert Parker (telephone 310-206-9411);
 - c. Capital Programs, Structural Engineers;
 - d. University's Facilities Management - Grounds Senior Superintendent for landscape protection (telephone 310-825-1827);
 - e. Building Coordinators (Employee Notification);
 - f. University's Transportation Services - Traffic Management (telephone 310-825-0702);
 - g. University's Environment, Health and Safety Department (telephone 310-825-5689 / email cranes@ehs.ucla.edu);
 - h. UC Police Department (Escorts, CSOs, etc.).
- B. Additional Requirements for Use of Cranes Outside Construction Fences:
1. Pedestrians shall not be allowed to walk under the load at any time. To ensure this, the entire swing radius shall be barricaded and traffic in both directions shall be prohibited. Objects to be used as pedestrian barricades shall include barrier tape, cones, saw-horses, lift personnel, flagpersons, CSOs or any combination of these.
 2. Furnish the services of flagpersons, CSOs, etc. to control or prohibit pedestrian access when the lift area is immediately adjacent to high traffic areas, including entrances to buildings and major walkways. One flagperson/CSO is recommended for each point of entry into the lift area.
 3. It may be necessary to evacuate portions of the top two floors when a crane is used to deliver or remove equipment and materials from the roof of an occupied building. Occupants shall be evacuated in the areas immediately beneath the swing radius of the boom, from rooms with external facing windows and areas immediately beneath the pick or drop location. University's Representative and the University Fire & Life Safety Division representative will predetermine the extent of the evacuation.
 4. Engineering calculations from a California registered civil or structural engineer may be used in lieu of evacuation building occupants from areas beneath crane activities.
- C. Additional Requirements for Use of Cranes Entirely Inside Construction Fences:
1. Contractor shall ensure that both the crane and crane operators are currently certified under Cal-OSHA requirements. Contractor shall submit digital copy of such documentation to University's Representative in advance.
 2. Contractor shall ensure that subcontractors working adjacent to crane activities have administered "crane awareness safety" or equivalent training to their employees. Contractor shall submit digital copy of such documentation to University's Representative in advance.
 3. At all times that the boom or load travels outside the perimeter of the construction fence, the crane operation shall be immediately subject to the additional requirements for use of cranes outside construction fences.
 4. When the crane or load encroaches upon University streets, and barricades and warning signs cannot control moving traffic, the crane operation shall be conducted using flagpersons trained in accordance with Cal-OSHA.
- D. References:
1. California Code of Regulations, Title 8, GISO Sections 344.60-344.81:
 - a. License Requirements - Crane and Derrick Certification.
 - b. Tower Cranes – Operating Permit and Certification Requests.
 - c. Certification Requirements.
 2. California Code of Regulations, Title 8, GISO Sections 4884 – 5049:
 - a. Cranes and Other Hoisting Equipment.
 - b. Overhead Loads.
 - c. Mobile Crane and Tower Crane - Operator Qualifications and Certification.
 3. California Code of Regulations, Title 8, CSO Sections 1597 – 1599:
 - a. Vehicles, Traffic Control, Flaggers, Barricades and Warning Signs.

2. PRODUCTS (NOT USED)

3. EXECUTION (NOT USED)

END OF SECTION

SECTION 01 55 00
VEHICULAR ACCESS & PARKING

1. GENERAL

1.1 USE OF PUBLIC THOROUGHFARES AND UNIVERSITY ROADS

- A. Contractor shall make its own investigation of the condition of available public thoroughfares and University roads, and of the clearances, restrictions, bridge load limits, and other limitations affecting transportation and ingress and egress at the Job Order Work site.
- B. Where materials are transported in the prosecution of the Job Order Work, do not load vehicles beyond the capacity recommended by manufacturer of the vehicles or prescribed by any applicable state or local law or regulation.
- C. Use only established roads on the campus; provided, however, that such temporary haul roads as may be required in the work shall be constructed and maintained by Contractor, subject to the approval of University's Representative.
- D. Provide protection against damage whenever it is necessary to cross existing sidewalks, curbs, and gutters in entering upon the University roads. Repair and make good at the expense of Contractor all damages thereto, including damage to existing utilities and paving, arising from the operations under the Contract.
- E. Truck staging is not allowed on campus or on any residential street surrounding the campus.

1.2 PARKING

- A. No vehicle shall be allowed to park on the UCLA campus without displaying the appropriate permit(s), as follows:
 - 1. For Parking in Designated Parking Space (i.e. Parking Structure, Open Lot) and For Construction Parking at the Project Site in Non-Fenced Areas on Hardscape: A valid parking permit is required. Permits may be purchased by the day, week, month or quarter on an as-available basis. Permits may be purchased on a daily basis from any Parking Service Kiosk. For longer term parking, permits must be purchased directly from Parking Service located at 555 Westwood Plaza (Parking Structure Number 8). Permits are valid in the area of assignment only. Violators are subject to citation.
 - 2. Mobility:
 - a. Contractors and Subcontractors who are currently engaged in work on more than one project on the Campus and need mobility between project sites, or who need in-and-out privileges during the day from parking structures/lots, shall be required to make those arrangements at the time permits are obtained. A valid permit and contractor placard must be displayed. No mobility will be allowed in Dickson Court (Portola Plaza) or at meters, handicap stalls or stalls otherwise reserved, or in designated fire lanes. Violators will be cited.
 - b. Card keys will be issued ONLY to Contractors and Subcontractors who have two or more construction projects in process on the UCLA Campus.
- B. **PARKING ARRANGEMENTS FOR THIS PROJECT:** Contractor shall arrange and pay for all parking for itself, its subcontractors, and its employees.

2. PRODUCTS (NOT USED)

3. EXECUTION (NOT USED)

END OF SECTION

SECTION 01 56 00
TEMPORARY BARRICADES & ENCLOSURES

1. GENERAL

1.1 TEMPORARY BARRICADES

- A. Provide temporary barricades as necessary. Maintain barricades in a clean and neat condition until no longer required and removal is approved or requested.
- B. When Job Order Work involves modification to an existing egress corridor, Contractor shall provide temporary barricades as necessary, constructed in a manner that maintains the fire resistive integrity of the affected corridor(s). Construction and placement of the barricades shall be approved by University's Representative.

1.2 REMOVAL AND RECONDITIONING

- A. Temporary facilities, barricades, utilities and other construction of temporary nature shall be removed from the Job Order Work site as soon as the progress of the work will permit in the opinion of University's Representative; and the portions of the Job Order Work site and building occupied by same shall be reconditioned and restored to original condition. For temporary utilities, refer to Section 01 51 00, TEMPORARY UTILITIES.
- B. Legally dispose of all debris resulting from removal and reconditioning operations.

2. PRODUCTS (NOT USED)

3. EXECUTION (NOT USED)

END OF SECTION

SECTION 01 60 00
PRODUCT REQUIREMENTS

1. GENERAL

1.1 TRANSPORTATION AND HANDLING

- A. Deliver manufactured products in their original unbroken containers or bundles, clearly labeled with manufacturer's name, brand, and grade seal or model number.
- B. Keep materials clean, dry, and undamaged. Handle materials and equipment in a manner to avoid damage to products and their finishes.
- C. Promptly remove damaged or defective products from the Job Order Work site and replace with no adjustment of Job Order Sum.

1.2 STORAGE AND PROTECTION

- A. Store manufactured products in accordance with manufacturers' instructions and with seals and labels intact and legible.
 - 1. Store products subject to damage by the elements in weathertight enclosures.
 - 2. Maintain temperature and humidity in accordance with manufacturers' recommendations (refer to Section 01 51 00, TEMPORARY UTILITIES).
- B. Exterior Storage:
 - 1. Store materials and equipment above ground on blocking or skids to prevent soiling, staining, and damage.
 - 2. Cover products which are subject to damage by the elements with impervious protective sheet coverings. Provide adequate ventilation to prevent condensation.
 - 3. Store sand, rock, or aggregate material in a well-drained area on solid surfaces to prevent mixing with foreign matter.
- C. Arrange storage to allow adequate inspection.
- D. Periodically inspect stored products to assure that products are maintained under specified conditions and are free from damage and deterioration.
- E. Use of mechanical and electrical rooms for storage of materials or furniture is prohibited.
- F. Protection After Installation:
 - 1. Prevent damage to materials and equipment.
 - 2. Use whatever protective materials or methods are necessary to prevent damage to installed products from traffic, construction operations, and weather. Remove protection when no longer required.
 - 3. Maintain temperature and humidity conditions in interior spaces for the Job Order Work in accordance with manufacturers' instructions for the materials and equipment being protected.

1.3 UNDERWRITERS LABORATORIES, INC. (UL) LABEL

- A. Materials and equipment, for which UL standards have been established and their label service is available, shall bear the appropriate UL Label.

1.4 MANUFACTURERS' TRADE MARKS AND NAMES

- A. University's Representative reserves the right to review and request the removal or redesign of manufacturers' trade marks and names on items of materials and equipment which will be exposed to view in the completed Job Order Work. Such removal or redesign shall be with no adjustment of Job Order Sum.

2. PRODUCTS (NOT USED)

3. EXECUTION (NOT USED)

END OF SECTION

SECTION 01 71 23
FIELD ENGINEERING

1. GENERAL

1.1 LAYING OUT OF THE WORK

- A. As applicable, Contractor shall employ a California registered Civil Engineer or Land Surveyor to lay out the Job Order Work and set grades, lines, levels, and positions throughout the Job Order Work site. Before beginning the Job Order Work, locate general reference points, establish monuments, and take action as is necessary to prevent their destruction; then lay out all lines, elevations, and measurements for buildings, grading, paving, utilities, and other parts of the Job Order Work. Verify figures and dimensions shown on the Drawings and accept responsibility for any error resulting from failure to so verify, including the cost of any additional re-surveying. Establish permanent monuments on curbs, manholes, or pavements, or with concrete embedded steel pipe with lead plug and brass nail, as approved.

2. PRODUCTS (NOT USED)

3. EXECUTION (NOT USED)

END OF SECTION

SECTION 01 71 33
PROTECTION OF ADJACENT CONSTRUCTION

1. GENERAL

1.1 SURROUNDING SITE CONDITION SURVEY

- A. Prior to commencing the Work, Contractor and University's Representative shall tour the Project site together to examine and record damage to existing adjacent buildings and improvements. This record shall serve as a basis for determination of subsequent damage due to Contractor's operations and shall be signed by all parties making the tour. Any cracks, sags, or damage to the adjacent buildings and improvements not noted in the original survey, but subsequently discovered, shall be reported to University's Representative.

1.2 PROTECTION OF EXISTING STRUCTURES AND UTILITIES (Refer also to General Conditions)

- A. The Drawings show, if applicable, existing above and below grade structures, drainage lines, storm drains, sewers, water, gas, electrical, hot water, and other utilities which are known to University.
- B. Locate all known existing utility installations before proceeding with construction operations which may cause damage to such installations. The existing installations shall be kept in service where shown and damage shall be repaired with no adjustment of Job Order Sum.
- C. If any other structures or utilities are encountered, request University's Representative to furnish direction on how to proceed with the Job Order Work.
- D. If any structure or utility is damaged, take immediate action to ensure the safety of persons and property.

2. PRODUCTS (NOT USED)

3. EXECUTION (NOT USED)

END OF SECTION

SECTION 01 73 23
BRACING & ANCHORING

1. GENERAL

1.1 ANCHORS AND FASTENERS

- A. Submit manufacturer's literature and calculations for anchoring and fastening devices to University's Representative for approval.
- B. For concrete, except as listed below, use two-piece expansion anchors or drilled-in fasteners as shown. Concrete nails are not permitted.
- C. The use of low velocity powder-activated tools is permitted only for the conditions described below. The use of medium and high velocity powder-activated fasteners as defined by ANSI A10.3 is prohibited.
 - 1. Permitted Uses of Low Velocity Powder-Actuated Fasteners:
 - a. Anchoring metal track for interior non-load bearing walls. Note: Door frames shall be fastened with two-piece expansion anchors.
 - b. Fastening of furring strips to concrete walls.
 - c. Temporary fastening and concrete forming.
 - d. Installation of incidental straps and wires used to suspend the following:
 - 1) Metal duct work of 25 pounds per linear foot or less;
 - 2) Piping of 1" diameter or less;
 - 3) Electrical conduit of 2" diameter or less.
 - e. Fastening of plaster accessories, flashing and similar items with negligible loading.
 - 2. Requirements for Low Velocity Powder Actuated Fasteners.
 - a. Minimum shank: .143 inch diameter; minimum penetration: 1.25 inches for 3000 psi concrete; minimum rated tensile strength: 310 lbs; minimum rated shear strength: 420 lbs. Contractor shall submit calculations to substantiate selection.
 - b. Weight suspended from each connection shall not exceed 200 lbs.
 - c. Where designated by University's Representative, anchors, fasteners and ties installed utilizing low velocity powder-actuated tools will be tested by an independent testing laboratory to resist two times the design load. Any such anchor, fastener or tie which fails such a test shall be replaced by Contractor at no cost to University.
 - 3. Procedures for use of low velocity powder actuated tools:
 - a. The use of low velocity powder actuated tools shall comply with Federal OSHA safety requirements and California Code of Regulations Title 24, including the requirement that the operator of the tool be trained and certified. Submit certification.
 - b. Submittal of manufacturer's literature and calculations for anchoring and fastening devices shall include load calculations and minimum spacing for fasteners for each specific use. Design for a factor of safety of two times allowable load. Calculations shall be signed by Contractor's structural engineer. Structural engineer shall be registered in California.
 - c. Conform to SMACNA low velocity shotpin installation requirements.

2. PRODUCTS (NOT USED)

3. EXECUTION (NOT USED)

END OF SECTION

SECTION 01 73 29
CUTTING & PATCHING

1. GENERAL

1.1 DESCRIPTION

- A. Work Included (as applicable):
1. Patching and matching existing Job Order Work altered or disturbed to accommodate new construction.
 2. Patching and matching existing Job Order Work damaged or defaced during new construction as required to restore to condition at time of start of Job Order Work.
 3. Matching of new Job Order Work in existing construction to adjacent existing Job Order Work unless otherwise noted.
 4. Execute cutting, patching and matching in a manner to prevent damage to other Job Order Work and to provide proper surfaces for the installation of repairs, penetrations through surfaces, equipment or other items.

1.2 SUBMITTALS

- A. Submit in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES.
B. Product Literature and Shop Drawings: Submit for review materials, methods, or systems different from existing Work to be matched.
C. Samples as requested by University's Representative.

1.3 QUALITY ASSURANCE

- A. Design Criteria:
1. Patching shall achieve security and protection where exposed to weather, and shall preserve the continuity of existing fire ratings.
 2. Cutting, patching and matching shall successfully duplicate the undisturbed adjacent finishes, colors, textures, and profiles. Where there is dispute over whether the duplication is successful or has been achieved to a reasonable degree, the judgment of University's Representative shall be final.
 3. Contractor shall notify University's Representative in writing if non-complying existing construction or field conditions are encountered.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Refer to Section 01 60 00, PRODUCT REQUIREMENTS.

1.5 PROJECT CONDITIONS

- A. Environmental Requirements: Follow the manufacturer's recommendations.

2. PRODUCTS

2.1 MATERIALS

- A. Materials shall be as required to match the appearance, quality and performance of the existing finishes to be duplicated and materials to be replaced.
B. Where the existing finish to be duplicated was achieved with materials now out of production or otherwise unavailable, obtain review and acceptance of substitutions by University's Representative.
C. Provide primers, sealers, underlayments, backing, blocking, furring, suspension systems and related items required for any purpose in patching existing Job Order Work.
D. Materials shall be subject to the review of and acceptance by University's Representative.

3. EXECUTION

3.1 GENERAL REQUIREMENTS

- A. Perform Job Order Work in accordance with the manufacturer's recommendations, deviating only as approved by University's Representative to achieve a good match.
B. For the following items, employ the installer or fabricator to perform any cutting, patching or matching of such items:
 1. Weather-exposed or moisture-resistance elements.
 2. Fireproofing.
 3. Finishes surfaces exposed to view.
- C. Adjust and fit products to provide a neat installation.
D. Keep noise to a minimum. Inform University's Representative of locations where Job Order Work will be noisy, and obtain University's Representative's approval of the times during which such Job Order Work will be done.
E. Finish or refinish surfaces as required to match adjacent finishes. Refinish to nearest intersection or refinish entire assembly.
F. Patching of old ceramic tile surfaces:
 1. Match tile if practical.
 2. If matching tile is unavailable, provide stock tile of color acceptable to University's Representative. Install replacement tile in a uniform, rectilinear pattern that is symmetrical to the repair area (e.g., not a zigzag or checkerboard). Pattern shall be acceptable to University's Representative.

3. Minor small screw holes may be filled with a rubberized grout of a color close to the tile color.

3.2 PAINTING

- A. Extent of Painting:
 1. Paint over the entire surface plane, unless otherwise noted.
 2. Over patched wall, soffit or ceiling surfaces, paint to the nearest cut off line for the entire surface, such as the intersection with the adjacent wall or ceiling, a beam, a plaster, or to nearest opening frame where a total cut off does not occur within 10 feet of the patch, unless otherwise noted.
- B. Ensure painted surfaces do not present a spotty, touched-up appearance.
- C. Provide a smooth continuous surface in texture, coverage, and color.

3.3 PAVEMENT

- A. Asphaltic and Portland Cement concrete shall be patched to match adjacent surfaces and thickness, with similar material (e.g., exposed aggregate concrete, colored concrete, etc.).
- B. Remove and replace all damaged concrete and all concrete to be demolished to the nearest full depth joint. Surface scribed and partial depth sawn joints shall not be acceptable in lieu of full depth joints unless specifically approved by University's Representative.
- C. Restore pavement markings.
- D. Other paving materials and systems such as decomposed granite; stone pavers, etc. shall be replaced or restored in kind. Replace or restore an entire panel or area to present a uniform appearance to the satisfaction of University's Representative.
- E. All new surfaces shall be within ¼-inch elevation of adjacent surfaces. All slopes to adjacent surfaces shall be less than 1 in 20, unless approved by University's Representative.

3.4 LANDSCAPING AND IRRIGATION

- A. Unless otherwise specified, restore to pre-existing condition, using similar materials.

3.5 MECHANICAL AND ELECTRICAL SYSTEMS

- A. Matching non-compliant materials currently in place will not be acceptable.
- B. Where equipment or devices have been removed, and where the active side of the pipe remains, cap or plug all abandoned piping using either threaded or soldered fittings. Do not rely on the existing valves for a positive shutoff.

END OF SECTION

SECTION 01 74 00
CLEANING & WASTE MANAGEMENT

1. GENERAL

1.1 DESCRIPTION

- A. Clean up and disposal.

2. PRODUCTS (NOT USED)

3. EXECUTION

3.1 CONTINUOUS CLEAN UP

- A. Under no circumstances shall rubbish, debris, waste, dust, dirt, or surplus materials be allowed to accumulate in the building, or on the Job Order Work site, and all such shall be removed continually as the Job Order Work progresses and by the end of each day's Job Order Work.
1. Splatterings or spills of materials shall be promptly cleaned up at time of occurrence.
- B. Contractor shall provide street sweeping whenever silt from construction site is carried over to adjacent public thoroughfares.

3.2 FINAL CLEAN UP PRIOR TO COMPLETION OF EACH JOB ORDER

- A. University's Representative's Inspection: Notify University's Representative at least 24 hours in advance of readiness for inspection. Any deficient cleaning operations, as determined by University's Representative, shall be immediately corrected as approved at Contractor's expense.
- B. Interior surfaces and areas where Job Order Work is performed shall be left in vacuum clean condition with all dust, dirt, stains, handmarks, paint spots, plaster droppings, and other blemishes and defects completely removed. To the extent of Contractor's operations, use or materials, the following requirements apply to all areas where Job Order Work is performed:
1. Walls: Bare and painted surfaces shall be cleaned and free of dust, lint, streaks, or stains.
 2. Hardware and metal surfaces shall be cleaned and polished using non-corrosive and non-abrasive materials.
 3. Glass: New glass and soiled existing glass shall be washed and polished both sides and left free of dirt and spots. Labels shall be removed.
 4. Ceilings shall be clean and free of stains, handmarks, and defacing.
 5. Fixtures and Equipment: New mechanical and electrical fixtures and like items shall be cleaned and polished. Lighting fixtures shall be free of dust, dirt, stains, or waste material. Equipment and machinery shall be cleaned, serviced, and ready for use. Existing items shall be cleaned as required including ventilating supply and return equipment in walls and ceilings.
 6. Surfaces not mentioned shall be cleaned according to the intent of this Section and as required for University's Representative's approval.

3.3 DISPOSAL

- A. Under no circumstances shall debris, rubbish, or waste material be disposed of on University's property by burying or otherwise, and all shall be removed from University's property to a legal disposal area. Contractor shall bear all dumping charges.
- B. Contractor is prohibited from cleaning out buckets, containers, and tools contaminated with paints, plaster, or any other materials in University storm drains.

3.4 CORRECTIVE WORK

- A. Where existing Work has been dirtied, stained, defaced, or otherwise made defective and cleaning operations are not satisfactory, as determined by University's Representative, Contractor shall remove the Defective Work and install new Work as requested and approved, at no extra cost to University.

3.5 CLEAN UP SPECIFIED IN OTHER SECTIONS

- A. Any clean up specified in other Sections of these Specifications shall be in addition to, and not in lieu of, these requirements.

END OF SECTION

SECTION 01 78 00
CLOSE-OUT SUBMITTALS

1. GENERAL

1.1 PROJECT RECORD DOCUMENTS / CONTRACTOR'S AS-BUILT DOCUMENTS

- A. Refer to Section 01 78 39, PROJECT RECORD DOCUMENTS.

1.2 SUBMITTAL

- A. Deliver closeout submittals and samples to University's Representative.
B. Include typed list identifying each item submitted as closeout document.

1.3 OPERATIONS AND MAINTENANCE MANUALS

- A. Prepare data in form of instructional manual.
1. Where written instructions are required, use personnel skilled in technical writing to extent necessary for communication of essential data.
 2. Where drawings or diagrams are required, use personnel capable of preparing drawings clearly in understandable format.
- B. Examine for completeness.
- C. Submit to University's Representative digital copy (PDF or other standard file type approved by University's Representative) of completed volumes in draft form no later than 45 days prior to request for final acceptance of the Work. This digital copy will be returned with University's Representative's comments. Revise as necessary prior to final submittal of (1) final digital copy in same approved format.
- D. Prepare and insert additional data in manuals when need for such data becomes apparent during instruction of University's personnel.
- E. Identify each manual with title OPERATIONS AND MAINTENANCE MANUAL, title of project, and subject matter of binder when multiple binders are required.
- F. Separate contents into sections logically organized with section title clearly identified.
- G. Manuals shall contain:
1. Table of contents.
 2. Directory listing names, addresses, and telephone numbers of Contractor and appropriate subcontractors.
 3. List names, addresses and telephone numbers of subcontractors, suppliers, and service representatives, including local source of supplies and replacement parts.
 4. General system or equipment description.
 5. Copies of applicable shop drawings and product data.
 6. Mark product data to clearly identify specific products and component parts.
 7. Supplement product data with drawings necessary to illustrate relationship of component parts of equipment and systems, include control and flow diagrams.
 8. Arranged by product, system, or process flow, and subdivided by Specification section. Identify following:
 - a. Significant design criteria.
 - b. List of equipment.
 - c. System or equipment identification, including:
 - 1) Name of manufacturer.
 - 2) Model number.
 - 3) Serial number of each component.
 - d. Parts list for each component.
 - e. Operating instructions.
 - f. Maintenance instructions and schedules for equipment and systems.
 - g. Emergency instructions.
 - h. Wiring and piping diagrams.
 - i. Inspection and test procedures.
 - j. Precautions against improper use and maintenance.
 9. Copies of warranties (see Paragraph 1.6 below).
 10. Text material:
 - a. Furnish manufacturer's standard printed material or typewritten specially prepared data.
 - b. Furnish text in 8-1/2 inches by 11 inches format.
 11. Drawings and diagrams.
- H. Environmental Requirements:
1. Identify environmentally preferable materials and systems incorporated into the Project. Include: product model; manufacture's name, address, phone, and website; and local technical representative, if any.
 - a. Verify that plastic products incorporated into the Project are labeled in accordance with ASTM D1972. Where products are not labeled, furnish product data indicating polymeric information in Operation and Maintenance Manual.
 - 1) Type 1: Polyethylene Terephthalate (PET, PETE).
 - 2) Type 2: High Density Polyethylene (HDPE).
 - 3) Type 3: Vinyl (Polyvinyl Chloride or PVC).
 - 4) Type 4: Low Density Polyethylene (LDPE).

- 5) Type 5: Polypropylene (PP).
 - 6) Type 6: Polystyrene (PS).
 - 7) Type 7: Other. Use of this code indicates that the package in question is made of resin other than the six listed above, or is made of more than one resin listed above, and used in a multi-layer combination.
- b. Describe maintenance procedures associated with environmentally preferable materials and systems. Include cleaning recommended in accordance with ASTM E1971.
- 1) Include potential environmental impacts of recommended maintenance procedures and materials.
 - 2) Include potential indoor air quality impacts of the recommended maintenance procedures and materials.
 - 3) Where the proposed maintenance procedures incorporate composting of plastics, assess and the potential effect of each type of plastic to be included on the composting process in accordance with ASTM D5509 or ASTM D5512.
- c. Identify maintenance agreements, take-back programs, green leases, and appropriate contact information for the following:
- 1) Carpet.
 - 2) Ceiling Tile.
 - 3) Office Equipment.
- d. Material Safety Data Sheet: Include MSDS in product specifications.

1.4 MATERIAL AND FINISHES MAINTENANCE MANUAL

- A. Manual:
1. Submit to University's Representative digital copy (PDF or other standard file type approved by University's Representative) of each materials and finishes manual in final form.
 2. Furnish (1) section for interior products, including applied materials and finishes, and (1) section for exterior products.
- B. Interior Products:
1. Furnish manufacturer's data and instructions on care and maintenance of architectural products, including applied materials and finishes.
 2. Product Data: Furnish complete information on architectural products, including following, as applicable:
 - a. Manufacturer's catalog number.
 - b. Size.
 - c. Material composition.
 - d. Color.
 - e. Texture.
 - f. Reordering information for specially manufactured products.
 3. Care and Maintenance Instructions: Furnish information on care and maintenance including manufacturers' recommendations for types of cleaning agents to be used and methods of cleaning. Furnish information regarding cleaning agents and methods that could prove detrimental to product. Include manufacturers' recommended schedule for cleaning and maintenance.
- C. Exterior Products:
1. Furnish complete manufacturer's data with instructions on inspection, maintenance, and repair of products exposed to weather or designed for moisture-protection purposes.
 2. Manufacturer's Data: Furnish manufacturers' data giving detailed information, including following, as applicable.
 - a. Applicable standards.
 - b. Chemical composition.
 - c. Installation details.
 - d. Inspection procedures.
 - e. Maintenance information.
 - f. Repair procedures.

1.5 SPARE PARTS AND MAINTENANCE MATERIALS

- A. Furnish tools, spare parts, and maintenance and extra stock materials in quantities specified in individual Specification sections.
- B. Deliver to Project site and place in locations as approved; obtain receipt from subcontractors and suppliers.
- C. No later than at time of inspection for final acceptance, submit a letter identifying by item and quantity, all spare parts and maintenance materials submitted.

1.6 GUARANTEES, WARRANTIES, BONDS, SERVICE & MAINTENANCE CONTRACTS

- A. General: Guarantees from Subcontractors shall not limit Contractor's warranties and guarantees to University. Whenever possible, Contractor shall cause warranties of Subcontractors to be made directly to University. If such warranties are made to Contractor, Contractor shall assign such warranties to University prior to final payment.

- B. Form of Guarantee: Submit written guarantees in the form contained at the end of this Section.
- C. Submittal Requirements:
 - 1. Assemble required guarantees, bonds, and service and maintenance contracts.
 - 2. Number of original signed copies required: (2) each. Also submit (1) digital copy (PDF or other standard file type approved by University's Representative).
 - 3. Table of Contents: Neatly typed and in orderly sequence. Furnish complete information for each item as follows:
 - a. Product or Work item.
 - b. Firm name, address, and telephone number; and name of principal.
 - c. Scope.
 - d. Date of beginning of guarantee, bond, or service and maintenance contract.
 - e. Duration of guarantee, bond, or service and maintenance contract.
 - f. Contractor's name, address, and telephone number; and name of responsible principal.
 - g. Furnish information for University's personnel:
 - 1) Correct procedure in case of failure.
 - 2) Circumstances which might affect the validity of guarantee or bond.
- D. Form of Submittals:
 - 1. Prepare in duplicate packets.
 - 2. Format:
 - a. Size 8½-inch x 11-inch sheets punched for 3-ring binder. Fold larger sheets to fit into binders.
 - b. Identify each packet on the cover with typed or printed title "GUARANTEES AND BONDS," and the following:
 - 1) Title of Job Order job.
 - 2) Project Number and Order Number.
 - 2) Name of Contractor.
 - 3. Binders: Commercial quality, 3-ring, with durable and cleanable plastic covers.
- E. Time of Submittals:
 - 1. Within (2) days after the date of Substantial Completion, and prior to request for final payment.
 - 2. For Job Order Work activities, where Final Completion is delayed materially beyond the date of Substantial Completion, furnish updated submittal within (2) days after Final Completion, listing the date of Final Completion as the start of the Guarantee to Repair Period.
- F. Submittals Required: Submit guarantees, bonds, and service and maintenance contracts specified in the individual Sections.

2. PRODUCTS (NOT USED)

3. EXECUTION (NOT USED)

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GUARANTEE

Date: _____

Job Order Job Name: _____

Job Order Number

Order Number

Job Order Job Location: _____

GUARANTEE FOR _____ (the "Contract"), between The Regents of the
(Specification Section); Contract No.

University of California ("University") and _____ ("Contractor").

_____ hereby guarantees to University
(Name of Subcontractor)

that the portion of the Job Order Work described as follows:

which it has provided for the above referenced Job Order Job, is of good quality; free from defects; free from any liens, claims, and security interests; and has been completed in accordance with Specification Section _____ and the other requirements of the Contract.

The undersigned further agrees that, if at any time within _____ months after the date of the guarantee the undersigned receives notice from University that the aforesaid portion of the Job Order Work is unsatisfactory, faulty, deficient, incomplete, or not in conformance with the requirements of the Contract, the undersigned will, within 10 days after receipt of such notice, correct, repair, or replace such portion of the Job Order Work, together with any other parts of the Job Order Work and any other property which is damaged or destroyed as a result of such defective portion of the Job Order Work or the correction, repair, or replacement thereof; and that it shall diligently and continuously prosecute such correction, repair, or replacement to completion.

In the event the undersigned fails to commence such correction, repair, or replacement within 10 days after such notice, or to diligently and continuously prosecute the same to completion, the undersigned, collectively and separately, do hereby authorize University to undertake such correction, repair, or replacement at the expense of the undersigned; and Contractor will pay to University promptly upon demand all costs and expenses incurred by University in connection therewith.

SUBCONTRACTOR

Signed: _____ Title: _____

Typed Name: _____

Name of Firm: _____

Contractor
License Number: _____

Address: _____

Phone Number: _____

CONTRACTOR

Signed: _____ Title: _____

Typed Name: _____

Name of Firm: _____

END OF SECTION

SECTION 01 78 39
PROJECT RECORD DOCUMENTS

1. GENERAL

1.1 MAINTENANCE OF DOCUMENTS AND SAMPLES

- A. Store Contractor's as-built documents and Samples in Contractor's field office separate from documents used for construction.
- B. Maintain as-built documents in order and in a clean, dry, legible condition.
- C. Do not use as-built documents for construction.

1.2 AS-BUILT DOCUMENTS

- A. University's Representative will, at no cost, furnish Contractor a digital set of Drawings of the original Contract Documents, which shall be used for recording the "as-built" condition of the Job Order Work.
- B. As-Built Drawings: Record the following kinds of information on the As-Built Drawings:
 - 1. Locations of Job Order Work buried under or outside the building, such as plumbing and electrical lines and conduits. Furnish horizontal and vertical dimensions from fixed points.
 - 2. Actual numbering of each electrical circuit.
 - 3. Locations of all HVAC, plumbing and electrical Job Order Work concealed inside the building; and other work that is changed by Contractor from that shown on the Drawings.
 - 4. Locations of all items, not necessarily concealed, which vary from the locations shown on the Drawings.
- C. The following requirements for As-Built Drawings are in addition to those specified elsewhere:
 - 1. As-built conditions shall be carefully and neatly recorded using methods acceptable to University's Representative. Final Drawings shall be submitted in PDF format and shall match size of original Contract Drawings and comply with the following:
 - a. The Design Professional's seal on the drawings shall be crossed out.
 - b. Add Contractor's name and contact information on each drawing.
 - c. Add "AS-BUILT" to the lower right area of each drawing.
 - 2. They shall be kept up to date during the entire progress of the Job Order Work and made available to University's Representative at any time.
 - 3. Additional drawings shall be furnished as required to accurately describe changes.
 - 4. Record all changes in size, location, and other features of installation shown on the Drawings.
 - 5. Record all locations of underground Job Order Work, points of connection, valves, manholes, catch basins, capped stubouts, invert elevations, etc.
 - 6. Record sufficient information such that Job Order Work concealed in, under or outside the building may be located with ease and accuracy. This may be accomplished by dimensioning or by stating the relationship to the spaces in the building near which the Job Order Work was installed. University's Representative's decision on what constitutes sufficient information shall be final.
- D. Shop Drawings: Furnish final Shop Drawings which have been updated to show actual conditions, for Job Order Work specified in the individual Sections.
- E. Specifications and Addenda:
 - 1. Record the following:
 - a. Manufacturer, trade name, catalog number, and supplier of each product and item of equipment actually installed.
 - b. Changes made by Addenda, Change Order, or Field Order, and clarifications and interpretations made by Letter of Instruction. All changes made shall be shown on the as-builts.

2. PRODUCTS (NOT USED)

3. EXECUTION (NOT USED)

END OF SECTION

SECTION 27 00 00 – COMMUNICATIONS

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide, label, test, document, and warranty a Structured Cabling System and a CATV distribution system in conformance with this specification for the facilities of the University of California Los Angeles (UCLA).
- B. The list of Division 27 Section specifications that may be included as part of this Division 27 specification includes, but is not limited to, the following:
 - 1. Section 27 05 26 - Grounding and Bonding for Communications Systems
 - 2. Section 27 05 29 - Hangers and Supports for Communications Systems
 - 3. Section 27 05 41 - Fire Stopping for Communications Systems
 - 5. Section 27 11 00 - Communications Equipment Room Fittings
 - 6. Section 27 11 13 - Communications Entrance Protection
 - 7. Section 27 11 16 - Communications Cabinets, Racks, Frames, and Enclosures
 - 8. Section 27 11 19 - Communications Termination Blocks and Patch Panels
 - 9. Section 27 13 00 - Communications Backbone Cabling
 - 10. Section 27 15 13 - Communications Copper Horizontal Cabling
 - 11. Section 27 15 43 - Communications Faceplates and Connectors
 - 12. Section 27 15 53 - Communications Cable Plant Testing
 - 13. Section 27 41 17 - CATV Distribution System
- C. Progress Review Meetings: During the execution of the project the Contractor shall attend weekly progress review meetings with the assigned University Representative.

1.02 QUALITY CONTROL

- A. The Contractor shall have a current State of California C-7 license.
- B. All project walks/ Joint Scope Meetings to determine scope and Schedules of Values submitted to the University Representative on Job Orders of \$20,000 and greater shall be attended by a member of Contractor's staff with a Registered Communication Distribution Designer (RCDD) certification. All project walks/Joint Scope Meetings to determine scope and Schedules of Values submitted to the University on Job Orders of \$19,999 and under shall be attended by a member of Contractor's staff with a BICSI Technician certification or equal, as approved by University Representative.
- C. Contractor's RCDD, Project Manager shall inspect all work prior to final inspection with the assigned University Representative. The Contractor's project manager(s) shall have a tablet PC, iPad, or equal device with a minimum 8" screen. The tablet shall have the Bluebeam PDF annotation program or equal software loaded on the device. Contractor's project

manager shall be responsible for maintaining current PDF drawings with field markups on the device for each Job Order. The project manager shall have the tablet with them for all meetings and job walks with University representatives.

E. On projects that require the installation of more than 250 Category 6 cables, the contractor shall maintain an electronic drawing set onsite with a 40" or greater computer monitor. As built shall be maintained on a daily basis utilizing Bluebeam PDF annotation software, or equal, by the Contractor's Superintendent. Current PDF files shall be emailed to the University representative on a weekly basis throughout the installation process.

- E. All work shall be performed in a neat and workmanlike manner as defined in the ANSI/NECA/BICSI 568-2006 standard
- F. Product, materials, and equipment provided by the Contractor shall be of the quality specified.
- G. All materials provided under this contract shall be new and of a regularly manufactured line, currently in production at the time of installation.
- H. Codes: (Most recent editions with addenda/TSB, etc.) All materials, installation, and workmanship shall comply with the applicable requirements and codes.
- I. Standards: (Most recent editions with addenda/TSB, etc.) All materials, installation, and workmanship shall comply with the applicable requirements and standards addressed within the following references:
 - 1. ANSI/TIA/EIA-568-C, Commercial Building Telecommunications Wiring Standard.
 - 2. ANSI/TIA-568-C.0, "Generic Telecommunications Cabling for Customer Premises", published 2009.
 - 3. ANSI/TIA-568-C.1, "Commercial Building Telecommunications Cabling Standard", published 2009.
 - 4. ANSI/TIA-568-C.2, "Balanced Twisted-Pair Telecommunication Cabling and Components Standard", published 2009.
 - 5. ANSI/TIA-568-C.3, "Optical Fiber Cabling Components Standard", published 2008, errata issued in October, 2008.
 - 6. ANSI/TIA-569-B Commercial Building Standard for Telecommunications Pathways and Spaces.
 - 7. ANSI/TIA-606-A Administration Standard for Commercial Telecommunications Infrastructure.
 - 8. ANSI/TIA/EIA-STD-607-A Commercial Building Grounding and Bonding Requirements for Telecommunications.
 - 9. ANSI/TIA-758-A, Customer-Owned Outside Plant Telecommunications Infrastructure Standard.
 - 10. All products shall be Underwriters Laboratories (UL) listed, or other nationally recognized testing laboratory acceptable to UCLA listed for the application intended.

- J. Refer to Section 01060, REGULATORY REQUIREMENTS, for information in the event of conflicts between codes/standards.
- K. Field Reviews: A field review is the review by the University Representative of a build-out/installation set, one of which must be completed, inspected, and signed off as acceptable by the University Representative before the Contractor shall proceed/continue with other build-outs/installations of the same build-out/installation set. Field reviews shall be required for the following build-out/installation sets (if applicable):
 - 1. Telecom Room (TR) build-out/installation set elements definition:
 - a. Equipment racks, to include the following fill elements:
 - (1) Patch panels;
 - (2) Horizontal cable management.
 - b. Vertical cable managers;
 - c. Cable runway (ladder rack);
 - d. Required bonding;
 - e. CATV distribution hardware and terminations.
 - f. Cabling may be pulled to the TR but shall not to be routed within TR, terminated or tested until the build-out/installation set defined above is signed off as acceptable by the University Representative.
 - 2. Hangers and Supports for Communications Systems build-out/installation set elements definition:
 - a. First J-hook installation of each type;
 - b. First Panduit raceway installation;
 - c. First Wireless Access Point (WAP or AP) 5S back-box, mud-ring, including pathway elements to back-box, installation.
 - 3. Cable Testing: All cables and connectors installed by the Contractor shall be tested. The University Representative shall witness the initial test procedure for any new cable installation. Before proceeding with continued testing of the cable installation under test, the Contractor shall receive in writing from the University Representative confirmation that testing methodology, and that testing equipment settings were correctly implemented for the testing to be performed. Reference Section 27 15 53 - Communications Cable Plant Testing.
 - 4. Fire Stopping: Before installing any fire stop labels/stickers, the Contractor shall have the University Representative review and approve the fire stop label/sticker information content as complete.

1.03 WARRANTIES

- A. Refer to General Conditions Article 12.2, CORRECTION OF DEFECTIVE WORK AND GUARANTEE TO REPAIR PERIOD.

- B. The Contractor shall furnish the cable manufacturers' 25-year materials and link performance certification warranty for all CAT 6 cable installed by the Contractor in his execution of the work of this specification.

1.04 SUBMITTALS

- A. Upon award, four (4) copies are required of all cut-sheet performance specifications and mock-up submittals.
- B. Two (2) of the required cut-sheet performance specifications and mock-up submittals will be returned to the Contractor.
- C. Required submittals.
 - 1. Provide mock-ups of each type of faceplate to be provided for this project. Each faceplate mock-up shall contain the following:
 - a. Full load of required connectors with eighteen inches (18") of connector type appropriate specified cable terminated on each connector.
 - b. Required faceplate labeling to include faceplate icons as required by these Division 27 specifications and the conjoined construction drawing set.
 - 2. Manufacturers' cut sheets for all products to be supplied by Contractor in response to these Division 27 Specification Sections.
 - 3. Listed fire stop system documentation - reference Section 27 05 41 - Fire Stopping for Communications Systems.
 - 4. A copy of testing personnel certification(s) to use the testing devices - reference Section 27 15 53 - Cable Plant Testing.
 - 5. Testing device(s) current calibration documentation.
 - 6. Contractor warranty certification from the CAT 6 cable manufacturer.
 - 7. Proof of Registered Communications Distribution Designer® (RCDD®) certification for project manager/s that will be on-site, providing estimates, and overseeing and inspecting projects. In addition, resumes for project manager/s showing a minimum of 5 years' experience coordinating projects including providing estimates and performing inspections.
 - 8. Proof of BICSI Technician certification or equivalent for superintendents that will be on-site and overseeing projects. In addition, resumes for superintendents showing a minimum of 5 years' experience in coordinating projects.
 - 9. Proof of OSHA 30 Certifications. Contractor shall maintain an OSHA compliant jobsite safety and health program for the duration of the contract as per part 1926 of the Safety and Health Regulations for Construction. Before work commences, the Contractor shall submit a safety manual, specific to UCLA, outlining all of their safety practices. The University will review the safety manual before work commences. The manual shall include general safety practices, processes to be followed should an employee become injured while performing work at the University, procedures to enter a telecom maintenance hole, and the required safety gear all staff shall wear on construction projects.

9. Cell Phones: The Contractor's Project Managers, estimators, and superintendents assigned to projects at UCLA shall all have cell phones with the ability to send and receive e-mail. The Contractor shall submit a contact list to the University within 10 business days of the contract being executed. A revised list shall be submitted within 3 business days of personnel additions or changes.
- D. Required submittals prior to final acceptance.
1. An electronic set of cable plant testing documentation - reference Section 27 15 53 - Cable Plant Testing.
 2. The University shall supply PDF background drawings for each project. The Contractor shall be responsible for submitting as-built information on each project utilizing the Bluebeam PDF annotation program or equal.
 3. An electronic set of all fire stop pictures reference Section 27 05 41 - Fire Stopping for Communications Systems.
 4. Electronic pictures of all work performed in Maintenance Holes, splice cases or fiber enclosures.
 5. Two (2) copies of required warranties for large projects with more than 250 CAT 6 cables.

PART 2 - PRODUCTS

2.02 QUANTITIES

Unless otherwise stated, use the construction drawing set conjoined as part of this Division 27 specification to determine quantity required and location of a given product/material specified.

PART 3 - EXECUTION

3.01 COORDINATION

- A. The Contractor shall coordinate the work specified in this Division 27 specification with the work of separate contractors, if applicable.
- B. Refer to Section 01500, CONSTRUCTION FACILITIES & TEMPORARY CONTROLS, for requirements related to utility interruptions.

3.02 INTENT OF DRAWINGS AND SPECIFICATIONS

- A. These Specifications are intended to depict the installation requirements of the infrastructure necessary to support the Structured Cabling System and CATV distribution system included in this Project. The Contractor shall provide materials shown on the drawings or mentioned in the specifications, or both, that are necessary for the complete provisioning and build-out of the Structured Cabling System and CATV distribution system herein depicted. Additionally, the Contractor shall provide all incidental equipment, required tools, and incidental materials required for the completion of the Structured Cabling System and CATV distribution system whether or not specified or shown on the drawings.
- B. Drawings are diagrammatic; their intent is to depict the on-site conditions accurately, but discrepancies between on-site conditions and drawings do exist. It is the Contractor's responsibility to familiarize itself with the on-site conditions and to immediately point out any discrepancies between drawings and on-site conditions to the University Representative.

- C. Do not use drawing scale to determine length or location dimension. Scaled drawings shall be considered diagrammatic. If exact lengths or locations are known, the drawings will show the dimensions or coordinates.

3.03 INSTALLATION

Provide all required materials, equipment, and tools necessary to properly complete the work of these specifications including, but not limited to, tools for pulling and terminating the cables, mounting hardware, cable ties, bolts, anchors, clamps, hangers, kits of consumables, lubricants, communication devices, stands for cable reels, cable wenchers, etc.

3.04 EXAMINATION

- A. The Contractor is responsible for examining existing conditions and comparing them with drawings and specifications and notifying the University Representative of any discrepancies.
- B. The Contractor is responsible for coordinating with the University Representative to address, adjust, and resolve any discrepancies found before commencing work.

3.05 VERIFICATION

- A. Refer to General Conditions Article 12.1, UNCOVERING OF WORK.
- B. After installation, label, test, certify, and provide required warranties for the Structured Cabling System and CATV distribution system installed per the requirements of this specification.

3.06 ACCEPTANCE

- A. Refer to Section 27 15 53 - Communications Cable Plant Testing.
- B. The project specified by this specification shall be considered completed and signed off as completed by the University Representative contingent upon the following:
 - 1. All punch lists have been completed and signed as complete by the University Representative;
 - 2. A successful re-test of the cable plant installation has been executed and approved as successful by the University Representative - Refer to Section 27 15 53 - Communications Cable Plant Testing;
 - 3. Any required adjustments to as-built drawings have been completed, submitted, and approved as complete by the University Representative;
 - 4. Required warranty documentation has been submitted and approved as complete by the University Representative.

END OF SECTION

SECTION 27 05 26 - GROUNDING AND BONDING FOR COMMUNICATIONS SYSTEMS

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide all services, labor, materials, tools, and equipment required for the complete and proper installation of communication bonding required by these specifications and related construction drawings.
- B. Grounding systems will be performed by separate contractor(s).
- C. Refer to the following sections for related work:
 - 1. Section 27 00 00 - Communications
 - 2. Section 27 11 00 - Communications Equipment Room Fittings
 - 3. Section 27 11 13 - Communications Entrance Protection
 - 4. Section 27 11 16 - Communications Cabinets, Racks, Frames, and Enclosures
 - 5. Section 27 11 19 - Communications Termination Blocks and Patch Panels.
 - 6. Section 27 13 00 - Communications Backbone Cabling

1.02 QUALITY CONTROL

Refer to Section 27 00 00 - Communications.

1.03 WARRANTIES

Refer to Section 27 00 00 - Communications.

1.04 MATERIAL SUBSTITUTIONS

Refer to Section 01 25 13, Product Substitution Procedures.

1.05 SUBMITTALS

Refer to Section 27 00 00 - Communications.

1.06 DELIVERY, STORAGE, AND HANDLING

Refer to Section 27 00 00 - Communications.

PART 2 - PRODUCTS

2.01 QUANTITY DETERMINATION

Refer to Section 27 00 00 - Communications.

2.02 BONDING CONDUCTORS

Furnish all required 6 AWG green thermoplastic insulated stranded copper wire

2.03 BONDING CONDUCTOR TERMINATIONS

- A. Furnish all required Two-hole compression lugs: Color-coded to appropriate cable, high conductivity wrought copper, electro tin-plated
- B. All bonding compression lugs and other bonding hardware shall be Underwriters Laboratories (UL), or other nationally recognized testing laboratory acceptable to University's Representative, listed for the application intended.

PART 3 - EXECUTION

3.01 GENERAL

The Contractor shall comply with all SCS and CATV Distribution System bonding requirements as listed in ANSI/TIA/EIA-STD-607-A "Commercial Building Grounding (Earthing) and Bonding Requirements for Telecommunications" whether shown on the drawings or not.

3.02 INSTALLATION

- A. Provide all bonding as specified by these Division 27 specifications and the conjoined construction drawings. The following elements shall be bonded when present in a Telecom Room (TR):
 - 1. Metallic equipment racks and cabinets;
 - 2. Cable shields;
 - 3. All metal raceways and cable trays.
- B. Bonding conductors shall be continuous and routed in as direct a route as possible to the point of termination while adhering to the following: No bonding conductor shall vertically traverse a wall except at wall corners.
- C. Clean ground bars prior to terminating bonding conductors.

3.03 EXAMINATION

Refer to Section 27.00 00 – Communications.

3.04 LABELING

- A. Reference construction drawings conjoined with this Division 27 specification.
- B. Label all telecommunications bonding conductors as close as possible to the termination points with an ANSI/TIA/EIA 606 compliant label for bonding.

3.05 AS BUILT DRAWINGS

Comply with Section 27 15 53 - Communications Cable Plant Testing.

END OF SECTION

SECTION 27 05 29 - HANGERS AND SUPPORTS FOR COMMUNICATIONS SYSTEMS

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide all services, labor, materials, tools, and equipment required for the complete and proper installation of equipment supports, cable supports, and fastening hardware as called for in these specifications and conjoined construction drawings.
- B. Refer to the following sections for related work:
 - 1. Section 27 00 00 - Communications
 - 2. Section 27 05 41 - Fire Stopping for Communications Systems
 - 3. Section 27 11 00 - Communications Equipment Room Fittings

1.02 QUALITY CONTROL

Refer to Section 27 00 00 - Communications.

1.03 WARRANTIES

Refer to Section 27 00 00 - Communications.

1.04 MATERIAL SUBSTITUTIONS

Refer to Section 01 25 13, Product Substitution Procedures.

1.05 SUBMITTALS

Refer to Section 27 00 00 - Communications.

1.06 DELIVERY, STORAGE, AND HANDLING

Refer to Section 27 00 00 - Communications.

PART 2 - PRODUCTS

2.01 QUANTITY DETERMINATION

Refer to Section 27 00 00 - Communications.

2.02 J-HOOKS

- A. Furnish all required four-inch (4"), two-inch (2") and one-inch (1") J-Hooks
- B. Comply with drawings for approved installation methods.

2.03 SURFACE MOUNT RACEWAY

Furnish all required surface mount cable raceway

2.04 PIECE PARTS AND ACCESSORIES

Furnish all other piece parts, accessories, hanger rods, clamps, required to properly install per this specification section and the conjoined construction drawings required J-Hooks, and surface mount raceway.

PART 3 - EXECUTION

3.01 GENERAL

- A. The Contractor shall comply with requirements as listed in ANSI/TIA-569-B “Commercial Building Standard for Telecommunications Pathways and Spaces” whether shown on the drawings or not.
- B. The Contractor shall make field adjustments and resolve conflicts between construction drawings, specifications, and field conditions before beginning any J-Hook and/or surface mount raceway installation.

3.02 INSTALLATION

- A. Install all J-Hooks, surface mount raceway and associated components per manufacturer’s specifications, instructions, and recommendations. Do not exceed 80% of manufacturer’s fill and load factors.
- B. Fasten hanger rods, conduit clamps, and other applicable supporting hardware to the building structure using expansion anchors, beam clamps, or powder actuated fastening systems. Do not use spring clips.
- C. Do not fasten supports to piping, ductwork, mechanical equipment, lay-in ceiling support wires and grid, or conduits.
- D. Do not drill into structural steel and concrete members without written authorization from the University Representative.
- E. In areas where cable tray or conduit is not provided, support the cable with cable hangers. Cable hanger to cable hanger center-to-center separation shall be a maximum of five (5) feet. Cable bundles shall be at all times at least six (6) inches above any lay-in ceiling tiles. Cable support hangers shall be placed in as straight a line as possible.

3.03 EXAMINATION

Refer to Section 27.00 00 – Communications.

3.04 AS BUILT DRAWINGS

Refer to Section 27 15 53 - Cable Plant Testing.

3.05 VERIFICATION

Refer to Section 27.00 00 – Communications.

3.06 ADJUSTMENTS

Refer to Section 27.00 00 – Communications.

END OF SECTION

SECTION 27 05 41 - FIRE STOPPING FOR COMMUNICATIONS SYSTEMS

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide all services, labor, materials, tools, and equipment required for the complete and proper installation of fire stopping for communications systems as called for in these specifications and conjoined construction drawings.
- B. Refer to the following sections for related work:
 - 1. Section 27 00 00 - Communications
 - 2. Section 27 11 13 - Communications Entrance Protection
 - 3. Section 27 13 00 - Communications Backbone Cabling
 - 4. Section 27 15 13 - Communications Copper Horizontal Cabling
- C. A through-penetration is created when a cable tray, cable, conduit, or sleeve passes through an opening in a fire-rated wall or floor. The opening offers a path for fire and smoke to spread. A fire stop is a special sealing system designed and tested to restore the fire integrity of the barrier.
- D. The Contractor shall provide fire stops for any cable tray system or riser system utilized by the Structured Cabling System (SCS) and the CATV distribution system cabling as required by the latest California Electrical Code (CEC).
- E. Fire stopping of openings or penetrations between floors, through rated fire and smoke walls, existing or created by the Contractor for SCS and CATV distribution system cable pass-through shall be the responsibility of the Contractor.
- F. Fire stopping system material and its application shall be accomplished in a manner that is in compliance with Applicable Code Requirements and acceptable to the University Representative.

1.02 QUALITY CONTROL

- A. Refer to Section 27 00 00 - Communications.
- B. Fire stop system installation must meet requirements of ASTM E 814, UL 1479 or UL 2079 tested assemblies that provide a fire rating equal to that of construction being penetrated. Fire Stopping 07840-3.

1.03 WARRANTIES

Refer to Section 27 00 00 - Communications.

1.04 MATERIAL SUBSTITUTIONS

Refer to Section 01 25 13, Product Substitution Procedures.

1.05 SUBMITTALS

A. Refer to Section 27 00 00 - Communications.

B. In addition to compiling with Section 27 00 00 - Communications, the Contractor shall make the following submittals:

1. Submit material safety data sheets provided with product when it is delivered to the job-site;
2. Furnish certification from the fire stopping manufacturer that products supplied comply with Applicable Code Requirements controlling use of volatile organic compounds (VOCs) and are nontoxic to building occupants;
3. Submit Underwriters Laboratories (UL) listed (or other nationally recognized testing laboratory acceptable to University's Representative) system documentation for each type of application.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Refer to Section 27 00 00 - Communications.

B. Deliver fire stopping products to the project site in original, unopened containers or packages with intact and legible manufacturers' labels identifying project and manufacturer; date of manufacture; lot number; shelf life, if applicable; qualified testing and inspecting agency's classification marking applicable to the project; curing time; and mixing instructions for multi-component materials.

C. Coordinate delivery of materials with the scheduled installation date to allow minimum storage time at the job site.

PART 2 - PRODUCTS

2.01 QUANTITY DETERMINATION

Refer to Section 27 00 00 - Communications.

2.02 FIRE STOP PUTTY AND MINERAL WOOL

A. Furnish all required fire stop putty

B. Furnish all required fire stop mineral wool

2.02 FIRE STOP READY SLEEVES

Furnish all required fire stop; one-inch (1"), two-inch (2"), and four-inch (4") fire stop Ready Sleeves

PART 3 - EXECUTION

3.01 GENERAL

- A. Verify that openings are ready to receive the work of this section. Sequence work to permit fire stopping materials to be installed after adjacent and surrounding work is complete.
- B. The Contractor shall notify the University Representative when conflicts between construction drawings and specifications are identified and prior to beginning fire stop system technology installation(s).
- C. If a proposed fire stop system technology requires even minor modification(s) to the certified system to accommodate some particular through-penetration field condition, do not make or install modified fire stop system before submitting to the University Representative an illustration drawing of the modifications approved by the IOR.

3.02 INSTALLATION

- A. The Contractor shall be responsible for fire stopping all penetrations that support SCS cable and CATV distribution system cable.
- B. Contractor shall fire stop any penetrations created by or for the SCS and left unused.
- C. Environmental requirements
 - 1. Do not install fire stopping when ambient or substrate temperatures are outside limits permitted by fire stopping manufacturers or when substrates are wet due to rain, frost, condensation, or other causes.
 - 2. Ventilate fire stopping per the fire stopping manufacturer's instructions by natural means or where there is inadequate means, forced air circulation.
 - 3. During installation, provide masking and drop cloths to prevent fire stopping materials from contaminating any adjacent surfaces.
 - 4. Do not use materials that contain flammable solvents.
- D. Preparation
 - 1. Clean out openings and joints immediately prior to installing fire stopping to comply with specifications, recommendations, and instructions of the fire stopping manufacturer.
 - 2. Remove all foreign materials from surfaces of openings and joint substrates and from penetrating items that could interfere with adhesion of fire stopping.
 - 3. Clean openings and joint substrates and penetrating items to produce clean, sound surfaces capable of developing the optimum bond with fire stopping. Remove loose particles remaining from the cleaning operation.
- E. Labeling

When the fire stop system has been installed, place a manufacturer's label next to the system. The label shall contain at a minimum the following items:

1. UL rating (or other nationally recognized testing laboratory acceptable to University's Representative) and any other pertinent certification information.
2. The date the fire stop system was installed.
3. Name of Contractor who installed the fire stop system.

F. Protection

1. Protect fire stopping during and after the curing period from contact with contaminating substances or form damage resulting from construction operations or other causes so that they are without deterioration or damage at the time of substantial completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated fire stopping immediately and install new materials to produce fire stopping complying with specified requirements.
2. The Contractor shall take pictures of all fire stopping installations. The picture shall include the fire stop, label, and indicate the location for each penetration.
3. Keep areas of work accessible until inspection and sign off by the IOR.

3.03 EXAMINATION

Refer to Section 27.00 00 - Communications.

3.04 AS BUILT DRAWINGS

Refer to Section 27 15 53 - Cable Plant Testing.

3.05 VERIFICATION

Refer to Section 27.00 00 - Communications.

3.06 ADJUSTMENTS

Refer to Section 27.00 00 - Communications.

END OF SECTION

SECTION 27 11 00 - COMMUNICATIONS EQUIPMENT ROOM FITTINGS

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide all services, labor, materials, tools, and equipment required for the complete and proper installation of communication blocks and patch panels as called for in these specifications and related drawings.
- B. Those specification Sections of this Division 27 that are particularly applicable to this Section include, but are not limited to, the following:
 - 1. Section 27 00 00 - Communications
 - 2. Section 27 05 26 - Grounding and Bonding for Communications Systems
 - 3. Section 27 11 13 - Communications Entrance Protection
 - 4. Section 27 11 16 - Communications Cabinets, Racks, Frames, and Enclosures
 - 5. Section 27 11 19 - Communications Termination Blocks and Patch Panels.
 - 6. Section 27 13 00 - Communications Backbone Cabling
 - 7. Section 27 15 13 - Communications Copper Horizontal Cabling
 - 9. Section 27 41 17 – CATV Distribution System

1.02 QUALITY CONTROL

Refer to Section 27 00 00 - Communications.

1.03 WARRANTIES

Refer to Section 27 00 00 - Communications.

1.04 MATERIAL SUBSTITUTIONS

Refer to Section 01 25 13, Product Substitution Procedures.

1.05 SUBMITTALS

Refer to Section 27 00 00 - Communications.

1.06 DELIVERY, STORAGE, AND HANDLING

Refer to Section 27 00 00 - Communications.

PART 2 - PRODUCTS

2.01 QUANTITY DETERMINATION

Refer to Section 27 00 00 - Communications.

2.02 CABLE RUNWAY

- A. Furnish all required cable runway
- B. Furnish all required of the following:
 - 1. Butt Splices;
 - 2. Triangle Wall Brackets;
 - 3. Junction Splices;
 - 4. Wall Angle Support Kits;
 - 5. Runway Elevation Kits;
 - 6. Single Earthquake Brackets;
 - 7. Waterfall upper trays;
 - 8. Horizontal Cable Managers;
 - 9. Upper Tray Cable Managers;
 - 10. ANSI/TIA/EIA STD-607-A Compliant Bonding Tags.

2.03 VERTICAL CABLE MANAGERS

Furnish all required vertical cable managers

2.04 PIECE PARTS AND ACCESSORIES

Furnish all other piece parts and accessories to complete the construction drawings Telecom Room (TR) layouts.

PART 3 - EXECUTION

3.01 GENERAL

The Contractor shall notify the University Representative when conflicts between construction drawings and specifications field conditions are identified and prior to beginning cable runway and/or vertical cable manager installation.

3.02 INSTALLATION

- A. Install all cable runway, vertical cable managers, horizontal cable managers, and associated components as per manufacturer's instructions as required for a seismic zone four (4) location.
- B. Cable runway shall be supported at intervals of no greater than every four (4) feet.
- C. Use only manufacturer-supplied and/or manufacturer-provided hardware.
- D. Follow cable runway, vertical cable manager, and horizontal cable manager elevations and layout patterns that are specified in the construction drawings as closely as field conditions will permit. Any proposed deviations, including those caused by field conditions, must be approved by the University Representative or his/her designate.

3.03 EXAMINATION

Refer to Section 27.00 00 – Communications.

3.04 ADJUSTMENTS

Refer to Section 27.00 00 – Communications.

3.05 AS BUILT DRAWINGS

Refer to Section 27 15 53 - Communications Cable Plant Testing.

3.06 ACCEPTANCE

Refer to Section 27.00 00 – Communications.

END OF SECTION

SECTION 27 11 13 - COMMUNICATIONS ENTRANCE PROTECTION

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide all services, labor, materials, tools, and equipment required for the complete and proper installation and termination of new outside plant (OSP) copper cable communications entrance protection as specified in this Section of the Division 27 specifications and conjoined construction drawings.

- B. All specifications and drawings issued as part of the construction bid package for this project are applicable to this Division 27 and this Section. Those specification Sections of Division 27 that are particularly applicable to this Section include, but are not limited to, the following:
 - 1. Section 27 00 00 - Communications
 - 2. Section 27 05 41 – Firestopping for Communications Systems
 - 3. Section 27 11 00 - Communications Equipment Room Fittings
 - 4. Section 27 11 19 - Communications Termination Blocks and Patch Panels
 - 5. Section 27 13 00 - Communications Backbone Cabling
 - 6. Section 27 15 53 - Communications Cable Plant Testing

1.02 QUALITY CONTROL

Refer to Section 27 00 00 - Communications.

1.03 WARRANTIES

Refer to Section 27 00 00 - Communications.

1.04 MATERIAL SUBSTITUTIONS

Refer to Section 01 25 13, Product Substitution Procedures.

1.05 SUBMITTALS

Refer to Section 27 00 00 - Communications.

1.06 DELIVERY, STORAGE, AND HANDLING

Refer to Section 27 00 00 - Communications.

PART 2 - PRODUCTS

2.01 QUANTITY DETERMINATION

Refer to Section 27 00 00 - Communications.

2.02 BUILDING ENTRANCE TERMINAL (BET)

- A. There is no specified manufacturer.
- B. Provide all required twenty-five (25) pair, fifty (50) pair, and one-hundred (100) pair BET technology. Comply with the following:
 - 1. Any BET technology supplied shall include as an integrated part of its design a connected fusible-link cable.
 - 2. The fusible-link cable shall be at least 0.6 m (2 ft.) in length. (Note: After meeting this minimum length requirement, kept the fusible-link cable as short as possible.)
 - 3. The wire gage of the fusible-link cable shall be at least two wire gauges finer than the pair wire gage of the OSP copper entrance cable entering the building.

2.03 PROTECTORS FOR BET

- A. There is no specified manufacturer.
- B. Provide all required protectors. Comply with the following:
 - 1. All pairs of both ends of new OSP copper cable shall be protected. Protection shall include cable shields ground at both ends of the cable.
 - 2. Both primary and secondary protection shall be provided.
 - 3. Protector technology shall be 5-Pin supporting 300V nominal clamping voltage, 350 mA sneak current protection.
 - 4. Primary protection shall, as a minimum performance requirement, conform to UL listing 497.
 - 5. Secondary protection shall, as a minimum performance requirement, conform to UL listing 497A.
 - 6. Protectors shall be solid-state technology. No air-gap or gas tube protectors are allowed.

2.03 MISCELLANEOUS PARTS AND MATERIAL

Provided all required miscellaneous parts and material such as splice case and associated hardware to complete a successful installation of the BET technology supplied.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Install one (1) BET protector unit for every 100 pairs of OSP copper entrance cable or entrance tie cable as specified in the construction drawings.
- B. Mount the protector units in columns of not more than three units, with the top surface of the upper-most unit 6 feet A.F.F. Use mounting hardware recommended by the manufacturer.

- C. Bond all protectors in each BET together using 1/0 AWG (6 AWG allowed) ground wire, in daisy chain style. Connect a segment of ground wire from the top unit to the Telecommunication Grounding Buss Bar in the Telecommunications Room (TR). Install 100 5-pin protector units for each protector terminal.
- D. Splice entrance cable or entrance tie cable protector terminal fuse cable pigtails. Secure the splice case vertically on the TR wall as shown on the construction drawings.
- E. The Structured Cabling System (SCS) Contractor shall bond the shield of each OSP cable to the Telecommunication Grounding Buss Bar (TGBB) provided at the entrance facilities using 1/0 AWG copper wire.

3.02 LABELING

- A. Reference construction drawing set.
- B. Comply with labeling instructions in the construction drawing set to include, but not be limited to, the following:
 - 1. Type of labeling technology to be utilized;
 - 2. Label content;
 - 3. Label placement.

3.03 TESTING

Refer to Section 27 15 53 - Cable Plant Testing.

3.04 AS BUILT DRAWINGS

Refer to Section 27 15 53 - Cable Plant Testing.

3.05 EXAMINATION

Refer to Section 27.00 00 – Communications.

3.06 VERIFICATION

Refer to Section 27.00 00 – Communications.

3.07 ADJUSTMENTS

Refer to Section 27.00 00 – Communications.

END OF SECTION

SECTION 27 11 16 - COMMUNICATIONS CABINETS, RACKS, FRAMES, AND ENCLOSURES

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide all services, labor, materials, tools, and equipment required for the complete and proper installation of communication cabinets, racks, frames and enclosures as called for in this Section of the Division 27 specifications and conjoined construction drawings.
- B. Refer to the following sections for related work:
 - 1. Section 27 00 00 - Communications
 - 2. Section 27 05 26 - Grounding and Bonding for Communications Systems
 - 3. Section 27 11 00 - Communications Equipment Room Fittings
 - 4. Section 27 11 13 - Communications Entrance Protection
 - 5. Section 27 11 19 - Communications Termination Blocks and Patch Panels.
 - 6. Section 27 15 13 - Communications Copper Horizontal Cabling
 - 7. Section 27 15 53 – Communications Cable Plant Testing

1.02 QUALITY CONTROL

Refer to Section 27 00 00 - Communications.

1.03 WARRANTIES

Refer to Section 27 00 00 - Communications.

1.04 MATERIAL SUBSTITUTIONS

Refer to Section 01 25 13, Product Substitution Procedures.

1.05 SUBMITTALS

Refer to Section 27 00 00 - Communications.

1.06 DELIVERY, STORAGE, AND HANDLING

Refer to Section 27 00 00 - Communications.

PART 2 - PRODUCTS

2.01 QUANTITY DETERMINATION

Refer to Section 27 00 00 - Communications.

2.02 CABINETS

- A. Furnish all required rack cabinets
- B. Furnish all required piece parts and hardware to construct and outfit the rack cabinets as shown on the construction drawing set conjoined with this specification.

2.03 RACKS

- A. Furnish all required equipment racks
- B. Furnish all required piece parts and hardware to construct and outfit seven-foot (7') and eight-foot (8') adjustable racks as shown on the construction drawing set conjoined with this specification.

PART 3 - EXECUTION

3.01 GENERAL

- A. Before anchoring cabinets, racks, or frames to floor, wall, or overhead runway/cable tray in any telecom room, review their in place layout with the University Representative. Upon approval of in place layout, proceed with anchoring.
- B. The Contractor shall comply with all SCS and CATV Distribution System bonding requirements as listed in ANSI/TIA/EIA-STD-607-A "Commercial Building Grounding (Earthing) and Bonding Requirements for Telecommunications" whether shown on the drawings or not.

3.02 INSTALLATION

- A. Install all cabinets, racks, frames, and enclosures per manufacturers' installation specification, instructions, and recommendations as required for a seismic zone four (4) location.
- B. Bond all cabinets, racks, frames, and enclosures to the Telecommunication Grounding Buss Bar (TGBB) using 6 AWG Green thermoplastic insulated stranded copper wire.

3.03 LABELING

- A. Reference construction drawings conjoined with this Division 27 specification.
- B. Comply with labeling instructions in the construction drawing set to include, but not be limited to, the following:
 - 1. Type of labeling technology to be utilized;
 - 2. Label content;
 - 3. Label placement.

3.04 AS BUILT DRAWINGS

Comply with Section 27 15 53 - Communications Cable Plant Testing.

END OF SECTION

SECTION 27 11 19 - COMMUNICATIONS TERMINATION BLOCKS AND PATCH PANELS

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide all services, labor, materials, tools, and equipment required for the complete and proper installation of communication blocks and patch panels as called for in as called for in this Section of the Division 27 specifications and conjoined construction drawings.
- B. Refer to the following sections for related work:
 - 1. Section 27 00 00 - Communications
 - 2. Section 27 11 13 - Communications Entrance Protection
 - 3. Section 27 13 00 - Communications Backbone Cabling
 - 4. Section 27 15 13 - Communications Copper Horizontal Cabling
 - 5. Section 27 15 53 – Communications Cable Plant Testing

1.02 QUALITY CONTROL

Refer to Section 27 00 00 - Communications.

1.03 WARRANTIES

Refer to Section 27 00 00 - Communications.

1.04 MATERIAL SUBSTITUTIONS

Refer to Section 01 25 13, Product Substitution Procedures.

1.05 SUBMITTALS

Refer to Section 27 00 00 - Communications.

1.06 DELIVERY, STORAGE, AND HANDLING

Refer to Section 27 00 00 - Communications.

PART 2 - PRODUCTS

2.01 QUANTITY DETERMINATION

Refer to Section 27 00 00 - Communications.

2.02 TERMINATION BLOCKS

- A. Furnish all required Bix (or equal) termination block fields.
- B. Furnish all required pair grouping Bix (or equal) termination block strips.

2.03 HORIZONTAL COPPER PATCH PANELS

Furnish all required patch panels

2.04 BACKBONE FIBER PATCH PANELS

- A. Furnish all required wall mount fiber patch panels
- B. Furnish all required rack mount fiber patch panels
- C. Furnish all fiber patch panel piece parts required for the termination of SMF and MMF OM4 optical fiber backbone cables and complete build-out of associated fiber patch panels including blank fill plates
- D. SMF fiber connectors: Furnish all required SMF connector "Pigtails"
- E. MMF fiber connectors: Furnish all required MMF OM4 connector "Pigtails"

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Copper backbone termination
 - 1. Mount 48 port angled 1u cat 6 patch panel per manufacturer's specifications, instructions, and recommendations. Use conjoined construction drawing set to determine mounting locations, configurations and terminations.
 - 2. Backbone cables are to be routed neatly on overhead cable runway to block termination locations. For cable management from cable runway to block termination and the dressing of cable at the blocks, follow manufacturer's specifications, instructions, and recommendations and standard industry practices.
 - 3. Terminate all riser backbone pairs per manufacturer's specifications, instructions, and recommendations. Terminate both ends onto a 1U 48 port patch panel 1 pair per port.
 - 4. At the termination end of multi-pair riser cables, the Structured Cabling System (SCS) Contractor shall provide 4 to 6 feet of managed service slack.
 - 5. If removal of the cable jacket is required to facilitate routing of ARMM or plenum backbone cable into the patch panel, the exposed cable pairs shall be fully covered with black or gray plastic tape, neatly lapped to prevent gaps.
 - 6. Install five (5) pair strips for backbone cabling and four (4) pair strips for CTRP and VG panels per the construction drawing set conjoined with this Division 27 specification.
- B. CAT6 and CAT6A Horizontal cable termination
 - 1. Install one (1) 48-port patch panel for every 48 horizontal UTP CAT6 and CAT6A cables.
 - 2. Mount patch panels per the construction drawing set conjoined with this Division 27 specification.

3. Horizontal cables are to be routed neatly on overhead cable runway to equipment racks; exit cable runway into vertical rack cabling management and proceed to the patch panels.
 4. Terminate cables using the 8-pin jack, T568-B four (4) pair termination standard and comply with manufacturer's termination practices specifications, instructions, and recommendations.
- C. Fiber Backbone cable termination
1. Install at the locations indicated on the construction drawing set and per manufacturer's specifications, instructions, and recommendations the wall mount and rack mount optical fiber patch panels.
 2. Fiber backbone cables are to be routed neatly on overhead cable runway to patch panel termination locations; For cable management from cable runway to patch panel termination and the dressing of cable at the fiber enclosure termination follow manufacturer's specifications, instructions, recommendations, and standard industry practices.
 3. Before terminating fiber backbone cable neatly install ten feet (10') of service loop slack within the vertical wire manager. Diameter of service loops shall be eighteen inches (18").
 4. Terminate fiber backbone cable by fusion splicing the appropriate connector "Pigtail" to the backbone cable. Comply with manufactures specifications, instructions, and recommendations.
 5. Fiber connector "Pigtail" splicing: Use only fusion splicing to splice fiber connector pigtails to fiber backbone cable. No other splicing methodology shall be allowed.

3.02 EXAMINATION

Comply with Section 27.00 00 – Communications.

3.03 LABELING

- A. Reference construction drawings conjoined with this Division 27 specification.
- B. Comply with labeling instructions in the construction drawing set to include but be not limited to the following:
 1. Type of labeling technology to be utilized;
 2. Label content;
 3. Label placement.

3.04 TESTING

Refer to Section 27 15 53 - Communications Cable Plant Testing.

3.05 AS BUILT DRAWINGS

Refer to Section 27 15 53 - Communications Cable Plant Testing.

3.06 ADJUSTMENTS

Refer to Section 27.00 00 – Communications.

3.07 ACCEPTANCE

Refer to Section 27.00 00 – Communications.

END OF SECTION

SECTION 27 13 00 - COMMUNICATIONS BACKBONE CABLING

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide all services, labor, materials, tools, and equipment required for the complete and proper installation and termination of new unshielded twisted pair copper and fiber backbone cabling as specified in this Section of the specifications and conjoined construction drawings.
- B. This section includes minimum requirements and installation methods for the following:
 - 1. Copper backbone cabling;
 - 2. Copper splices;
 - 3. Optical fiber backbone cabling;
 - 4. Optical Fiber splices.
- C. Refer to the following sections for related work:
 - 1. Section 27 00 00 - Communications
 - 2. Section 27 05 26 - Grounding and Bonding for Communications Systems
 - 3. Section 27 05 29 - Hangers and Supports for Communications Systems
 - 4. Section 27 05 41 - Fire Stopping for Communications Systems
 - 5. Section 27 11 00 - Communications Equipment Room Fittings
 - 6. Section 27 11 13 - Communications Entrance Protection
 - 7. Section 27 11 16 - Communications Cabinets, Racks, Frames, and Enclosures
 - 8. Section 27 11 19 - Communications Termination Blocks and Patch Panels
 - 9. Section 27 15 53 - Communications Cable Plant Testing

1.02 QUALITY CONTROL

Refer to Section 27 00 00 - Communications.

1.03 WARRANTIES

Refer to Section 27 00 00 - Communications.

1.04 MATERIAL SUBSTITUTIONS

Refer to Section 01 25 13, Product Substitution Procedures.

1.05 SUBMITTALS

Refer to Section 27 00 00 - Communications.

1.06 DELIVERY, STORAGE, AND HANDLING

Refer to Section 27 00 00 - Communications.

PART 2 - PRODUCTS

2.01 QUANTITY DETERMINATION

Refer to Section 27 00 00 - Communications.

2.02 OUTSIDE PLANT (OSP) UTP COPPER BACKBONE CABLE

Furnish all required CAT3, OSP rated, UTP cable

2.03 INSIDE PLANT (ISP) UTP COPPER BACKBONE CABLE

Provide all required CAT3, OSP rated, UTP cable; General Cable 7525785 Pe 89 Al Cat 3 25 Pair OSP or equal.

2.04 OUTSIDE PLANT (OSP) FIBER BACKBONE CABLE

Provide all required Prysmian F-RCG1JKT-12-ES-096-E3 96 Strand Ribbon Fiber Fusion Link RICT single mode fiber (SMF) or equal, OSP rated, cable

2.05 INSIDE PLANT (ISP) FIBER BACKBONE CABLE

A. Provide all required AFL GQ048X301CXS-H-12MMC/36SMK-BIF 36 strands SM/ 12 Strand OM4 Multimode composite ribbon construction, Plenum rated fiber optic cable.

2.06 SPLICE CASES/ENCLOSURES

A. Fiber backbone: For both OSP and ISP facility environments, furnish all required hardware and kits for field fusion splicing in splice closures and for sealing and mounting the closures.

B. UTP Cooper backbone: For both OSP and ISP facility environments, furnish all required hardware and kits for field splicing in splice closures and for sealing and mounting the closures.

D. See construction drawings conjoined with this Division 27 specification for specific requirements.

2.07 BACKBONE CABLE INSTALLATION MATERIALS, EQUIPMENT, AND TOOLS

A. Provide all required materials, equipment, and tools necessary to properly complete the backbone cabling system installation including, but not limited to, tools for pulling, splicing, and terminating the cables, mounting hardware, cable ties, bolts, anchors, clamps, hangers,

- kits of consumables, lubricants, communication devices, stands for cable reels, cable wenchers, etc.
- B. Furnish all required pulling 'mule' tape for OSP cable installation.
 - C. Furnish all required polypropylene monofilament pull rope line. Polypropylene monofilament pull rope line supplied shall have a minimum pull tensile strength of two hundred (200) pounds.

PART 3 - EXECUTION**3.01 GENERAL**

- A. Refer to Section 27 00 00 - Communications.
- B. Perform all backbone cable installation in conformance with manufacturer's installation specifications, instructions, and recommendations.
- C. Verify that field measurements and cable routing and termination conditions are as shown on construction drawings conjoined with this specification. Provide notification, in writing, of conditions deviating from drawings.

3.02 INSTALLATION

- A. Ensure that maximum pulling tensions of specified cables are not exceeded and cable bends maintain the proper radius during placement.
- B. Install all backbone cables in such a manner as to avoid, mid-span splices.
- C. For OSP installations, pull new pulling 'mule' tape through all conduits while placing new backbone cable. Leave a pulling 'mule' tape in the utilized conduits for future use.
- D. For ISP installations, pull new pulling 'mule' tape through all conduits while placing new backbone cable. Leave a pulling 'mule' tape in the utilized conduits for future use.
- E. The Contractor shall be responsible for all damage to the cable during placement.
- F. Do not roll or store cable reels without an appropriate underlay.
- G. Clamp all new backbone cables at the entrance facilities for strain relief.
- H. Backbone cables and splice cases installed in maintenance holes or pull boxes shall be strapped to the cable racks using stainless steel ties.
- I. Terminate cables so as not to pull tight on terminating equipment.
- J. Ensure that all splice closures are properly sealed for protection of the cable and splices.
- K. Plug ends of conduit in maintenance holes entering buildings with watertight conduit plugs or caulking compound after cable installation is complete to ensure foreign matter does not enter the buildings.

- L. Fire stop all sleeves and ISP backbone conduit openings after the cable installation is complete.
- M. Fiber splicing: Use only ribbon fusion splicing to splice fiber backbone cable. No other splicing methodology shall be allowed.
- N. Place “Caution Fiber” tags at all coils and every 50 feet along any exposed cable route.
- O. Do not leave cable slack on cable runway.

3.03 OSP SAFETY

- A. Guard maintenance hole and pull box openings.
- B. Test for gas in maintenance holes and unventilated vaults.
- C. Provision shall be made for adequate continuous supply of air. Note: the term “adequate” includes evaluation of both the quantity and quality of the air.
- D. Provide necessary traffic control when blocking traffic lanes.
- E. Where open flames must be used in maintenance holes or vaults, extra precautions shall be taken to ensure adequate ventilation.
- F. When entering maintenance holes, follow OSHA non-permit confined space standard.

3.04 TERMINATION

Comply with Section 27 11 19 – Communications Termination Blocks & Patch Panels.

3.05 EXAMINATION

Comply with Section 27 00 00 – Communications.

3.06 LABELING

- A. Reference drawings.
- B. Comply with labeling instructions in drawings to include, but not be limited to, the following:
 - 1. Label technology to be utilized;
 - 2. Label content;
 - 3. Label placement.

3.07 TESTING

Comply with Section 27 15 53 – Communications Cable Plant Testing.

3.08 AS BUILT DRAWINGS

Refer to Section 27 15 53 – Communications Cable Plant Testing.

3.09 VERIFICATION

Refer to Section 27.00 00 – Communications.

3.10 ADJUSTMENTS

Refer to Section 27.00 00 – Communications.

3.11 ACCEPTANCE

Refer to Section 27.00 00 – Communications.

END OF SECTION

SECTION 27 15 13 - COMMUNICATIONS COPPER HORIZONTAL CABLE

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide all services, labor, materials, tools, and equipment required for the complete and proper installation and termination of new horizontal “station” cabling as specified in this Section of the specifications.
- B. The horizontal link portion of the cabling system specified in this Section extends from the jack termination of the cable at the faceplate to the patch panel jack termination in the Telecom Room (TR).
- C. Refer to the following sections for related work:
 - 1. Section 27 00 00 - Communications
 - 2. Section 27 05 29 - Hangers and Supports for Communications Systems
 - 3. Section 27 05 41 - Fire Stopping for Communications Systems
 - 4. Section 27 11 00 - Communications Equipment Room Fittings
 - 5. Section 27 11 19 - Communications Termination Blocks and Patch Panels
 - 6. Section 27 15 43 - Communications Faceplates and Connectors
 - 7. Section 27 15 53 - Communications Cable Plant Testing

1.02 QUALITY CONTROL

Refer to Section 27 00 00 - Communications.

1.03 WARRANTIES

Refer to Section 27 00 00 - Communications.

1.04 MATERIAL SUBSTITUTIONS

Refer to Section 01 25 13, Product Substitution Procedures.

1.05 SUBMITTALS

Refer to Section 27 00 00 - Communications.

1.06 DELIVERY, STORAGE, AND HANDLING

Refer to Section 27 00 00 - Communications.

PART 2 - PRODUCTS

2.01 QUANTITY DETERMINATION

Refer to Section 27 00 00 - Communications.

2.02 HORIZONTAL CABLE

Furnish all required CAT 6 and CAT 6A plenum cable

PART 3 - EXECUTION

3.01 GENERAL

- A. All cable runs shall be installed per manufacturer's installation instructions.
- B. Cable installation is "home-run" between the jack termination of the cable at the faceplate to the patch panel jack termination in the Telecom Room (TR). Each cable shall be installed without any splices. Each cable shall be installed without intermediate termination points unless approved by the University Representative in writing.
- C. The total length of any horizontal station cable from jack termination of the cable at the faceplate to the patch panel jack termination in the TR shall not exceed ninety meters (90m) - two hundred and ninety eight feet (295 ft.) - unless approved by the University Representative in writing.

3.02 CEILING TILE

- A. Ceiling tile shall be removed as necessary for the cable installation and put back in place without damaging or soiling any of the tiles or supporting framework.
- B. Ceiling tile shall be handled with white gloves so that no fingerprints or marks are left on the tiles.
- C. The Structured Cabling System (SCS) Contractor is responsible for the cost of repair or replacement of any tiles or ceiling tile support/framework hardware that is damaged or soiled during the SCS installation.

3.03 PLACEMENT

- A. No cable shall run unsupported by conduit, cable tray, hangers, or other specified support for distances greater than five (5) feet.
- B. No cable shall be attached to the suspended ceiling structure or laid directly on the ceiling tiles or hard lid as a means of support and the bottom of a cable or cable bundle shall remain a minimum of six inches (6") above the ceiling tile grid. If field conditions make the six-inch (6") clearance impossible to achieve, the SCS Contractor shall receive written approval from the University Representative before proceeding.
- C. No cable or cable bundle shall be supported by or attached by any means to fire sprinkler heads, delivery system hardware, environmental sensor system hardware, or the exterior of any conduit, ladder rack, or cable tray.

- D. When cable being installed is not enclosed in conduit or cable tray, cross all electrical power circuit transport at right angles.
- E. Where discontinuity of cable trays or conduit pathway occurs that causes cable or cable bundle to sag vertically three inches (3") or more, support the cable or cable bundle over the discontinuity using hangers, brackets, hooks, rings, and other applicable supporting devices specified in Section 27 05 29 - Hangers and Supports for Communications Systems.
- F. During placement of cable runs, do not exceed manufacturer's maximum pulling tension or minimum bend radius limits.
- G. Bundle two (2) or more cables with plenum-rated Velcro ties that are snug but which do not deform the cable geometry.
- H. Manage slack to avoid excess cable or kinking.
- I. Pull new pulling string through all conduits while placing new horizontal cable. Leave a pulling string in the utilized conduits for future use.
- J. Do not roll or store cable reels without an appropriate underlay.
- K. Cables with jackets that are chaffed, burned, or exposing internal conductor insulation or have any bare copper (shiners) shall be replaced.
- L. Maintain the following clearances from EMI sources:
 - 1. Unshielded power lines or equipment less than or equal to 5 kVA near cable in open or non-metal pathway: twelve inches (12");
 - 2. Unshielded power lines or equipment greater than 5 kVA near cable in open or non-metal pathway: twenty-four inches (24");
 - 3. Unshielded power lines or equipment less than or equal to 5 kVA near cable in grounded metal pathway: six inches (6");
 - 4. Unshielded power lines or equipment greater than 5 kVA near cable in grounded metal pathway: twelve inches (12");
 - 5. Power lines enclosed in grounded metal conduit less than or equal to 5 kVA near cable in grounded metal pathway: three inches (3");
 - 6. Power lines enclosed in grounded metal conduit greater than 5 kVA near cable in grounded metal pathway: six inches (6");
 - 7. Fluorescent fixtures near cable in open or non-metal pathway: twelve inches (12");
 - 8. Fluorescent fixtures near cable in grounded metal conduit: six inches (6");
 - 9. Motors or transformers near cable in non-metal pathway: forty-eight inches (48");
 - 10. Motors or transformers near cable in grounded metal pathway: thirty-six inches (36");

11. Radiating coaxial cabling: six inches (6”).

M. After cable installation is complete, tested, and, if necessary, repairs made, install all required fire stopping. The University Representative will not accept the installation as completed until all required fire stopping has been installed and accepted as complete. See Section 27 05 41 – Fire Stopping for Communications Systems.

3.04 TERMINATION

Refer to Section 27 11 19 - Communications Termination Blocks & Patch Panels and Section 27 15 43 - Communications Faceplates and Connectors.

3.05 EXAMINATION

Refer to Section 27.00 00 – Communications.

3.06 LABELING

A. Reference the construction drawing set.

B. Comply with labeling instructions given in the construction drawing set to include but not be limited to the following:

1. Type of labeling technology to be utilized;
2. Label content;
3. Label placement.

3.07 TESTING

Refer to Section 27 15 53 - Communications Cable Plant Testing.

3.08 AS BUILT DRAWINGS

Refer to Section 27 15 53 - Communications Cable Plant Testing.

3.09 VERIFICATION

Refer to Section 27.00 00 – Communications.

3.10 ADJUSTMENTS

Refer to Section 27.00 00 – Communications.

3.07 ACCEPTANCE

Refer to Section 27.00 00 – Communications.

END OF SECTION

SECTION 27 15 43 - COMMUNICATIONS FACEPLATES AND CONNECTORS

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide all services, labor, materials, tools, and equipment required for the complete and proper installation of new faceplates and proper termination of new connectors specified in this Section of the Division 27 specifications and conjoined construction drawings.
- B. Refer to the following sections for related work:
 - 1. Section 27 00 00 - Communications
 - 2. Section 27 11 19 - Communications Termination Blocks and Patch Panels.
 - 3. Section 27 15 13 - Communications Copper Horizontal Cabling
 - 4. Section 27 15 53 – Communications Cable Plant Testing
 - 5. Section 27 41 17 - CATV Distribution System

1.02 QUALITY CONTROL

Refer to Section 27 00 00 - Communications.

1.03 WARRANTIES

Refer to Section 27 00 00 - Communications.

1.04 MATERIAL SUBSTITUTIONS

Refer to Section 01 25 13, Product Substitution Procedures.

1.05 SUBMITTALS

Refer to Section 27 00 00 - Communications.

1.06 DELIVERY, STORAGE, AND HANDLING

Refer to Section 27 00 00 - Communications.

PART 2 - PRODUCTS

2.01 QUANTITY DETERMINATION

Refer to Section 27 00 00 - Communications.

2.02 FACEPLATES

Furnish all required faceplates

2.03 FACEPLATE ICONS

Furnish all required faceplate icons as shown on conjoined construction drawings

2.04 CONNECTORS

- A. Furnish all required UTP modular jacks
- B. Furnish all required RG6 and RG11 coax connectors

PART 3 - EXECUTION

3.01 GENERAL

- A. For all cable types, connector installation execution shall comply with connector manufacturer's installation specifications, instructions, and recommendations.
- B. Use the conjoined construction drawings to determine the appropriate faceplate and icons to provide.

3.02 EXAMINATION

Refer to Section 27.00 00 – Communications.

3.03 FACEPLATE DESIGNATION LABELING

- A. Reference the construction drawing set conjoined to these specifications.
- B. Comply with labeling instructions specified in the construction drawing to include, but not be limited to, the following:
 - 1. Type of labeling technology to be utilized;
 - 2. Label content;
 - 3. Label placement.

3.04 TESTING

Refer to Section 27 15 53 - Communications Cable Plant Testing.

3.05 AS BUILT DRAWINGS

Refer to Section 27 15 53 - Communications Cable Plant Testing.

3.06 VERIFICATION

Refer to Section 27.00 00 – Communications.

3.07 ADJUSTMENTS

Refer to Section 27.00 00 – Communications.

END OF SECTION

SECTION 27 15 53 - COMMUNICATIONS CABLE PLANT TESTING

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section presents the requirements for post-installation performance testing, performance testing documentation, as-built drawing documentation, and acceptance by the University Representative as installation complete pending required final adjustments to as-built drawings and warranty submittals.
- B. The following Structured Cabling System elements shall be subject to performance testing and as-built drawing documentation:
 - 1. Outside plant (OSP) and Inside plant (ISP) backbone un-shielded twisted pair (UTP) cable;
 - 2. OSP and ISP Fiber backbone multi-mode (MMF) and single mode (SMF) fiber cable;
 - 3. Horizontal CAT 6, UTP cable.
- C. The CATV Distribution System shall be subject to performance testing and as-built drawing documentation.
- D. As built drawings: The Contactor's as-built drawing submittals for both the Structured Cabling System and the CATV Distribution System are hereby integrated as a required part of any post-installation testing documentation submittals.
- E. Refer to the following sections for related work:
 - 1. Section 27 00 00 - Communications
 - 2. Section 27 11 00 - Communications Equipment Room Fittings
 - 3. Section 27 11 19 - Communications Termination Blocks and Patch Panels
 - 4. Section 27 13 00 - Communications Backbone Cabling
 - 5. Section 27 15 13 - Communications Copper Horizontal Cabling
 - 8. Section 27 15 43 - Communications Faceplates and Connectors
 - 9. Section 27 41 17 - CATV Distribution System

PART 2 - PRODUCT

2.01 TESTING TECHNOLOGY

- A. All fiber, coax and UTP copper post-installation testing shall be performed using a Fluke , Versiv or equal, test unit.
- B. CATV Distribution System post-installation testing shall be performed using a Blonder Tongue BTSLM Signal Level meter or equal.

2.02 SUBMITTALS

- A. Structured Cabling System:
 - B. Submit Fluke Versiv (or equal) manufacturer's test unit(s) calibration certificate one (1) month before any post-installation testing begins. Date on test unit calibration certificate shall be no longer than one (1) year prior to the date that post-installation testing is scheduled to begin.
 - 2. Submit Fluke Versiv (or equal) manufacturer's certified operator(s) certificate(s) for technician(s) that will perform post-installation testing one (1) month before any post-installation testing begins.
 - 3. Submit a copy of the Tester manufacturer's recommended testing procedure for each of the structured cabling system elements listed above in this section.
- B. CATV Distribution System
 - 1. Submit the Signal Level meter cut sheet for the meter that will be used for testing.

PART 3 – EXECUTION

3.01 STRUCTURED CABLING SYSTEM TESTING

- A. Outside plant (OSP) and Inside plant (ISP) backbone un-shielded twisted pair (UTP) cable: Test per the Tester manufacturer's recommended testing procedures per TIA/EIA standards for the cable type.
- B. OSP and ISP Fiber backbone multi-mode (MMF) and single mode (SMF) fiber cable: Test per the Tester manufacturer's recommended testing procedures for TIA/EIA Tier 1 and 2 requirements for the fiber optic glass type used on the project. Splice loss shall not exceed 0.14 dB and mating pair connectors shall not exceed 0.35 dB. Return Loss on connectors shall be between -35 dB to -75 dB.
- C. Horizontal CAT 6, 6A, UTP cable: Test per the Tester manufacturer's recommended testing procedures per TIA/EIA 568-B requirements.
- D. The only acceptable test result is "Pass." A "Marginal" test result is not acceptable.

3.02 CATV DISTRIBUTION SYSTEM TESTING

- A. Provide system alignment and balancing prior to system testing. Alignment and balancing shall match the specified signal levels and impedance within the system.
- B. System shall be tested end-to-end complete.
- C. The Contractor shall provide the following tests with results to indicate conformance with the specifications at each outlet:
 - 1. End Of Line Receive Level at carriers 50MHz and 750MHz.

2. Signal Uniformity across the range 50MHz to 750MHz
- D. The CATV distribution system shall exceed the following minimum requirements:
 1. End of Line Receive Level – within the range of -8 dBmV to +3 dBmV at 50MHz and 750MHz.
 2. Signal Uniformity - < 8 dBmV across the range of channels (50-750MHz) at each outlet;
- E. The entire system shall comply with the radiation limitations as set forth under the FCC Rules.
- F. All tests shall be witnessed by the University Representative (if the University Representative so chooses) and shall be electronically recorded.

3.03 TEST RESULTS

- A. Test results shall be submitted electronically..
- B. Fluke Versiv (or equal) electronic test result files shall be provided in native Fluke "Linkware" format (or compatible equal).
- C. CATV Distribution System electronic test result files shall be furnished in an application file format approved by the University Representative.
- D. Organize the electronic test results using the follow folder (directory) format:
 1. One (1) Level 1 folder (directory) for each Telecom Room (TR) containing Level 2 folders (sub-directories) for each panel in the TR including the CTRP and VG patch panels.
 2. One (1) Level 1 folder (directory) for all backbone fiber.
 3. One (1) Level 1 folder (directory) for all backbone UTP copper with test results organized for four (4) pair at a time.
- E. Present document as well as an Adobe Acrobat pdf file copy of the hard copy document. test results in pdf summary format organized by TR and backbone.

3.04 AS-BUILT DRAWINGS

- A. PDF mark up as-built drawings shall be submitted.
- B. The list of required as-built drawings is as follows:
 1. All cabling outlets with IDs for each connector on the faceplate;
 2. One inch (1") and larger conduit pathways to include conduit size label;
 3. Pull box locations;
 4. Two inch (2") & four inch (4") J hook runs indicated by a line series of "J"s;

5. Telecom room layout labeled per current construction drawing field mark-ups;
6. Rack elevation labeled per current construction drawing field mark-ups;
7. Backbone copper and fiber schematic drawings with labeling information;
8. CATV Distribution System schematic drawings with labeling information.

3.05 ACCEPTANCE TEST PROCEDURE

- A. After submittal of test result documentation and the associated as-built drawings, the University Representative shall randomly pick five percent (5%) of the submitted cable plant installation for re-test by the Contractor.
- B. **Five percent (5%) Re-test:** The University Representative, shall witness the Contractor re-test the selected five percent (5%) of the tested and submitted cable plant. Any "fail" or "marginal" test result, or cable length discrepancies obtained during re-test, that cannot be corrected during the time allocated for re-testing and is not the result of third party damage for which the Contractor can be held responsible, shall, at the sole discretion of the University's Representative, result in a requirement to re-test ten percent (10%) of the tested and submitted cable plant installation, the ten percent being randomly selected by the University Representative.
- C. **Ten percent (10%) Re-test:** Any "fail" or "marginal" test results, or cable length discrepancies obtained during the ten percent (10%) re-test, that cannot be corrected during the time allocated for re-testing and is not the result of third party damage for which the Contractor can be held responsible, shall, at the sole discretion of the University Representative, result in a rejection of the test documentation submittal for the cable plant installation. The Contractor will then be required to re-test the entire cable plant installation and re-submit the required test result documentation that then shall result in repeating the five percent (5%) random re-test and, if triggered by the five percent (5%) random re-test process, the ten percent (10%) random re-test process.

END OF SECTION

SECTION 27 41 17 - CATV DISTRIBUTION SYSTEM

PART 1 - GENERAL

1.01 SUMMARY

- A. Work consists of furnishing a closed circuit RF distribution system for local cable television service and distribution of locally originated material. The Contactor will be responsible for the material, installation, final tap calculation, testing, performance testing documentation, as-built drawing documentation, and acceptance by the University Representative.
- B. All units of equipment shall be listed by Underwriters' Laboratories. System shall comply with the CEC and CATV Industry Standards.
- C. The CATV system shall provide for the distribution of broadband RF signals (50-1000 MHz) to video outlets utilizing hybrid trunk and branch topology (star configuration from TR to each multi-floor riser, with trunk-and-branch to feed outlets within a riser). All passive units of distribution equipment shall be rated for operation up to 1000 MHz.
- D. Refer to the following sections for related work:
 - 1. Section 27 00 00 - Communications
 - 2. Section 27 05 29 - Hangers and Supports for Communications Systems
 - 3. Section 27 05 41 - Fire Stopping for Communications Systems
 - 4. Section 27 11 00 - Communications Equipment Room Fittings
 - 5. Section 27 15 43 - Communications Faceplates and Connectors
 - 6. Section 27 15 53 - Communications Cable Plant Testing

1.02 SYSTEM DESCRIPTION

- A. Video Components - The system shall consist of a broadband fiber receiver, broadband distribution amplifiers, splitters, taps, filters, equalizers, etc. to distribute the broadband RF cable TV signal to all outlets within the project.
- B. Cabling - The system shall consist of backbone and station coaxial cabling including terminators, outlets, and terminations to distribute broadband RF cable TV signals to all outlets within the project.
- C. Cable Service - The system shall accept input from the existing campus cable television head end service and distribute the programming content on the CATV distribution system.

1.03 QUALITY CONTROL

Refer to Section 27 00 00 - Communications.

1.04 WARRANTIES

Refer to Section 27 00 00 - Communications.

1.05 MATERIAL SUBSTITUTIONS

Refer to Section 27 00 00 - Communications.

1.06 SUBMITTALS

Refer to Section 27 00 00 - Communications.

1.07 DELIVERY, STORAGE, AND HANDLING

Refer to Section 27 00 00 - Communications.

PART 2 - PRODUCTS

2.01 QUANTITY DETERMINATION

Refer to Section 27 00 00 - Communications.

2.02 RF DISTRIBUTION EQUIPMENT

A. Furnish all required Broadband Amplifiers (Distribution).

1. Provide all required equalizer modules to compensate for signal tilt and slope and as required for system balancing and alignment.
2. Provide all plug-ins and condition to manufacturer's recommended operating levels.
3. The system shall provide for a reverse tilt of no more than 8 dB differential.

B. Furnish all required Directional Couplers (Taps) (outlets/riser).

1. Construction drawings indicate calculated tap values for bidding purposes.
2. Contractor shall recalculate final tap values after final cable lengths have been verified in the field. Do not purchase these directional couplers (taps) until after final cable lengths have been verified, final tap values recalculated, and approved by the University Representative.
3. Taps to be installed in each outlet box with tap port penetrating through and secured to a faceplate being provided by Contractor.

C. Furnish all required Directional Couplers (Taps) (Telecom Room).

1. Construction drawings indicate calculated tap values for bidding purposes.
2. Contractor shall recalculate final tap values after final cable lengths have been verified in field.

- D. Furnish all required Splitters (Telecom Room) -
- E. Furnish all required terminating resistors - Provide terminating resistors at the following ports as recommended by the manufacturer:
 - 1. All unused splitter/tap/coupler ports;
 - 2. Amplifier test ports;
 - 3. Outlet tap ports.

2.03 COAXIAL CABLE

Furnish all required RG6 and RG11 Coaxial cable.

PART 3 - EXECUTION

3.01 GENERAL INSTALLATION

- A. Refer to plans for locations and quantities of equipment. Equipment locations shown on plans will be required to be field coordinated to ensure proper system operation.
- B. No items of equipment shall be installed in such a manner as to void or reduce the proper operating characteristics of individual components or of the system.
- C. The cable shall be marked with the manufacturer's name. It shall be sweep tested by the manufacturer before shipping and be certified by the tester as such on a tag on each reel. No discontinuity shall exist within TV frequency bands 54-216 MHz and 470-890 MHz on the cable. The outer jacket shall be of the non-contaminating type. No cable that shows bruises or shipping damages shall be installed in the system, nor shall any splices or connectors be installed in conduit or any inaccessible place.
- D. Termination of cable shall be with Gilbert radial crimp "F" connectors specifically listed for use with the supplied cable. Hex crimp connectors will not be acceptable. Terminators shall be screw type. Push-on type connectors will not be acceptable.
- E. All interconnecting cables between amplifiers and distribution equipment shall be a minimum twelve inches (12") in length.

3.02 WIRING INSTALLATION

- A. CATV wiring shall be installed in accordance with manufacturer's specifications, instructions and recommendations.
- B. The Contractor shall be responsible for furnishing all required cabling between components to form a complete and operational system meeting all the requirements of this specification.
- C. Provide fire stop material and seal all cable penetrations in the building as specified in Section 27 05 28.41 – Fire Stopping.

- D. The Contractor shall utilize the conduit pathways and back boxes provided for coaxial cabling installation by others.
- E. Where pathways do not exist for CATV wiring, the Contractor shall be responsible for providing all required cable management systems such as J-hooks to support communications cabling to meet building codes and manufacturer's recommendations. The Contractor shall follow the requirements listed in Section 27 05 28.29 - Hangers and Supports for Communications Systems.
- F. Cables shall not be laid upon ceilings or supported in a manner that would violate any codes or standards.
- G. All cabling shall be plenum rated.
- H. All cable shall be installed continuous and without splices. Provide appropriate compression connectors or pre-manufactured cables for each application.

3.03 TELECOM ROOMS (TR)

The layout of the telecommunications rooms as depicted on the construction drawings conjoined with this specification shall be utilized as a general guide for bidding purposes. The final room layout shall be coordinated and approved by the University Representative.

3.04 GROUNDING

All grounding and bonding shall be in conformance with the National Electric Code, article 250 and as recommended by EIA/TIA-607 - see Section 27 05 26 - Grounding and Bonding for Communications Systems.

3.05 LABELING

- A. Reference the construction drawing set.
- B. Comply with labeling instructions given in the construction drawing set to include but not be limited to the following:
 - 1. Type of labeling technology to be utilized;
 - 2. Label content;
 - 3. Label placement.

3.06 TESTING

Refer to Section 27 15 53 - Communications Cable Plant Testing.

3.08 AS-BUILT DOCUMENTATION

Refer to Section 27 15 53 - Communications Cable Plant Testing.

END OF SECTION

LIST OF DRAWINGS

SHEET NO.	TITLE	SHEET DATE
TC0.00	TITLE PAGE – SCOPE OF WORK, CONTACTS, SHEET INDEX & SYMBOL LIST	07/10/17
TC2.01	FLOOR PLAN 1st Floor (OVERALL)	07/07/17
TC2.01N	FLOOR PLAN 1ST FLOOR (NORTH)	07/07/17
TC2.01S	FLOOR PLAN 1st FLOOR (SOUTH)	07/07/17
TC3.00	RISER BUILDING PATHWAY	07/07/17
TC3.10	RISER BUILDING FIBER	07/07/17
TC3.20	RISER BUILDING COPPER	07/07/17
TC4.02	TELECOM ROOM LAYOUT – OVERHEAD VIEW, ELEVATIONS, NOTES & NOTICES FOR TR	06/08/18
TC4.04	TELECOM ROOM LAYOUT – OVERHEAD VIEW, ELEVATIONS, NOTES & NOTICES FOR TR	06/08/18
TC4.04R	TELECOM ROOM# RACK ELEVATIONS	07/07/17
TC5.00	DIAGRAMS – TYPICAL FACEPLATES NOTES AND NOTICES	07/07/17
TC5.10	DIAGRAMS – TYPICAL FIRE STOP, GROUNDING, BONDING AND NOTICES	07/07/17
TC5.20	DIAGRAMS – TYPICAL TELECOM AND NOTICES	07/07/17
FA-01	FIBER LABELING STANDARDS	9/23/2021

END OF LIST OF DRAWINGS