

COASTAL PERMIT & DESIGN REVIEW RE-SUBMITTAL FOR:
 THE HAO RESIDENCE
 218 SEADRIFT ROAD, STINSON BEACH, CA 94970
 APN: 195-331-07

SEPTEMBER 30, 2019

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Title:
 TITLE SHEET

Revisions: Date:
 WORKING REV1 9/2/2019
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 Sheet:
 A0.0

PROJECT SUMMARY	ZONING REQUIREMENTS & PROJECT BUILDING DATA	CODE REQUIREMENTS										
<p>THE SCOPE OF WORK FOR THIS PROJECT INCLUDES:</p> <p>A PROPOSED NEW 3002 SQ. FT. RESIDENCE WITH A 500 SQ. FT. GARAGE.</p> <p>THE PROPOSED FINISHED FLOOR HEIGHT OF THE MAIN RESIDENCE IS 22.0' NAVD88 (20.88' MLLW) WITH AN UNDERSIDE OF FLOOR STRUCTURE & UTILITIES ELEVATION OF 20' NAVD88 (18.88' MLLW). THE BASE FLOOD ELEVATION (BFE) FOR FEMA ZONE VE 1519' NAVD88 (17.88' MLLW).</p> <p>THE PROPOSED PROJECT INCLUDES A NEW PEAK FLOW 450 GAL. PER DAY SEPTIC SYSTEM.</p> <p>THIS PROJECT PROPOSES NO DIKING, FILLING OR DREDGING OF OPEN COASTAL WATERS, WETLANDS, ESTUARIES OR LAKES. THE PROJECT WILL NOT EXTEND ONTO OR ADJOIN ANY BEACH TIDELANDS, SUBMERGED LANDS OR PUBLIC TRUST LANDS.</p>	<p>ZONING REQUIREMENTS</p> <p>ZONING: C-RSFS 2.9</p> <p>MAXIMUM ROOF HEIGHT PERMITTED: (PER THE COUNTY OF MARIN) 34.12' NAVD88 (33.00' MLLW)</p> <p>MAXIMUM ROOF HEIGHT PERMITTED: (PER THE SEADRIFT ASSOCIATION) 37.17' NAVD88 (36.05' MLLW)</p> <p>FEMA VE ZONE, BASE FLOOD ELEVATION (BFE): (NOTE: THE MAIN HOUSE IS LOCATED IN SPECIAL FLOOD HAZARD AREA ZONE VE) 19.0' NAVD88 (17.88' MLLW)</p> <p>BFE +1' REQUIRED FOR THE BOTTOM OF THE LOWEST HORIZONTAL STRUCTURAL MEMBER AND EQUIPMENT & UTILITIES PER 2016 CRC & ASCE 24.14: 20.0' NAVD88 (18.88' MLLW)</p> <p>TO CONVERT THE NAVD88 TO THE MLLW SUBTRACT 1.12'</p> <p>TIDE ELEVATIONS - IN FEET RELATIVE TO THE MLLW PER THE NOAA BOLINAS LAGOON TIDAL STATION DATUM ON THE TOPOGRAPHIC SURVEY</p> <table> <tr><td>Mean Higher High Water</td><td>4.27</td></tr> <tr><td>Mean High Water</td><td>3.66</td></tr> <tr><td>Mean Low Water</td><td>0.74</td></tr> <tr><td>Mean Lower Low Water</td><td>0</td></tr> <tr><td>NAVD88</td><td>-1.12</td></tr> </table> <p>U.S. Department of Commerce Vertical Datum NAVD88</p> <p>REQUIRED FRONT SETBACK: 25'-0" REQUIRED SIDE SETBACK: 6'-0" REQUIRED REAR SETBACK: SEE SITE PLAN</p>	Mean Higher High Water	4.27	Mean High Water	3.66	Mean Low Water	0.74	Mean Lower Low Water	0	NAVD88	-1.12	<p>THE FOLLOWING CODES ARE APPLICABLE TO THIS PROJECT:</p> <p>2016 CALIFORNIA BUILDING CODE 2016 CALIFORNIA PLUMBING CODE 2016 CALIFORNIA MECHANICAL CODE 2016 CALIFORNIA ELECTRICAL CODE 2016 CALIFORNIA ENERGY CODE 2016 CALIFORNIA FIRE CODE 2016 CALIFORNIA TITLE 24, PART 6 RESIDENTIAL ENERGY STANDARDS APPLY</p> <p>DRAWING INDEX</p> <p><u>ARCHITECTURAL DRAWINGS:</u> A0.0 TITLE SHEET A0.1 GENERAL NOTES A0.2 BUILDING MATERIALS & LIGHTING SPECIFICATIONS A0.3 SITE PHOTOS A0.4 BEST MANAGEMENT PRACTICES - STORM WATER POLLUTION PREVENTION</p> <p>A2.0 SITE PLAN & ROOF PLAN A2.1 LANDSCAPE, GRADING & DRAINAGE PLAN A2.2 GROUND FLOOR PLAN A2.3 FIRST FLOOR PLAN</p> <p>A3.1 EXTERIOR ELEVATIONS A3.2 EXTERIOR ELEVATIONS A3.10 EXTERIOR ELEVATIONS WITH NEIGHBORS</p> <p>A4.0 SECTIONS A4.1 SECTIONS</p> <p>SV-1 TOPOGRAPHIC SURVEY</p> <p><u>SEPTIC SYSTEM DRAWINGS:</u> S-1 SEPTIC SYSTEM PLAN S-2 SEPTIC SYSTEM DETAILS</p>
Mean Higher High Water	4.27											
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<p>PROJECT DIRECTORY</p> <p><u>OWNER:</u> KATHY & KEN HAO C/ O SILVERLAKE 2775 SAND HILL ROAD, #100 MENLO PARK, CA 94025 T: 650-255-8151</p> <p><u>WASTE WATER ENGINEER:</u> AYS ENGINEERING CONTACT: TROY PEARCE P.O. BOX 5693 PETALUMA, CA 94955 T: 707-763-6620 troy@aysengineering.com</p> <p><u>GEOTECHNICAL ENGINEER:</u> SALEM HOMES & ASSOCIATES CONTACT: VINCENT HOMES 1202 GRANT AVE., SUITE F NOVATO, CA 94945 T: 415-829-8523 F: 415-829-8568 homesaps@aol.com</p> <p><u>ARCHITECT:</u> EICHLER DAVIES ARCHITECTURE CONTACT: ERIC DAVIES 2732 BALBOA STREET SAN FRANCISCO, CA 94121 T: 415-379-8381 F: 415-358-8405 eric@eichlerdaves.net</p> <p><u>SURVEYOR:</u> CSW/ SILBER - SIROEH CONTACT: RICH SOUZA 45 LEVERON COURT NOVATO, CA 94949 T: 415-883-9850 F: 415-883-9835 rich@cswwt2.com</p>	<p>SITE VICINITY MAP</p>											



ABBREVIATIONS & SYMBOLS	GENERAL CONTRACTOR NOTES	GENERAL NOTES	MECHANICAL / ELECTRICAL / PLUMBING GENERAL NOTES																									
<p>& AND @ ANGLE Ø DIAMETER L PERPENDICULAR # BOARD OR NUMBER < LESS THAN > GREATER THAN CL CENTERLINE (E) EXISTING</p> <p>ASH ABOVE ACCESS PANEL ACOUS. ACOUSTICAL A.D. AREA DRAIN ADJ. ADJACENT AFF. ABOVE FINISHED FLOOR ALUM. ALUMINUM APPROX. APPROXIMATE ARCH. ARCHITECT ASPH. ASPHALT</p> <p>BO. BOARD BKG. BACKING BLDG. BUILDING BLK. BLOCKING BM. BEAM B.D. BOTTOM OF B.U.R. BUILD-UP ROOFING</p> <p>CB. CATCH BASIN CEM. CEMENT Cer. CERAMIC CI. CAST IRON CLG. CEILING CLG.C. CALLING CLO. CLOSET CLR. CLEAR C.O. CLEANOUT COL. COLUMN CONC. CONCRETE C.M.U. CONCRETE MASONRY UNIT CONT. CONTINUOUS CONTR. JOINT CSM. CASEWORK CNTR. CENTER CTR. CERAMIC TILE CTR. CENTER CTSK. COUNTERSINK</p> <p>DBL. DOUBLE DET. DETAIL DIA. DIAMETER DIM. DIMENSION DN. DOWN D.O. DOOR OPENING DR. DOOR D.S. DOWNSPOUT D.W.G. DRAWING</p> <p>E. EXISTING EA. EACH E.B. EXPANSION BOLT E.J. EXPANSION JOINT EL. ELEVATION ELEC. ELECTRICAL ELEV. ELEVATION OF ELEVATOR</p> <p>ENCL. ENCLOSURE E.P. ELECTRICAL PANEL EQ. EQUIPMENT EXP. EXPOSED EXT. EXTERIOR</p> <p>F.D. FLOOR DRAIN FDN. FOUNDATION FN. FINISH FL. FLOOR FLASH. FLASHING FLUOR. FLUORESCENT F.O. FACE OF F.O.C. FACE OF CONCRETE F.O.F. FACE OF FINISH F.O.S. FACE OF STUD FR. FRONT FT. FOOT OR FEET FTG. FOOTING FLUR. FLURRING FUT. FUTURE</p> <p>GA. GAGE GALV. GALVANIZED G.B. GRID BAR G.C. GROUND CABLE GR. GROUND G.R. GRADE GY. GYP.</p> <p>GB. GALVANIZED G.S. GRID STRIP COR. CORNER GL. GLASS G.F.C. GROUND FAULT CROSI INTERRUPT GND. GROUND GR. GRADE GYP. GYPSUM</p> <p>H.B. HOSE BIB H.C. HOLLOW CORE H.W. HARDWARE HOR. HORIZONTAL H.M. HOLLOW METAL HORZ. HORIZONTAL H.P. HUB POINT HR. HUB HT. HEIGHT</p> <p>ID. INSIDE DIAMETER INFO. INFORMATION INSTR. INSTRUMENT INT. INTERIOR</p> <p>IT. JOINT</p> <p>KIT. KITCHEN</p> <p>LAM. LAMINATE LAV. LAVATORY L.P. LOW POINT LT. LIGHT</p> <p>MAX. MAXIMUM M.C. MEDICINE CABINET MECH. MECHANICAL MEMB. MEMBRANE MET. METAL MFR. MANUFACTURER MIN. MINIMUM MISC. MISCELLANEOUS M.O. MASONRY OPENING MILL. MILLION</p> <p>(N) NEW N. NORTH NIC. NOT IN CONTRACT NOM. NOMINAL NTS. NOT TO SCALE</p> <p>O.C. ON CENTER O.D. OVERLAP DRAIN OPNG. OPENING OPP. OPPOSITE</p> <p>PL. PLASTER PL.B. PLASTER PL.W.D. PLASTER WOOD P.N. PANEL PR. PART PT. POINT PT. PRESSURE TREATED PARTITION P.V.C. POLYVINYL CHLORIDE</p> <p>R. REFR OR BRASS R.D. ROOF DRAIN REINFC. REINFORCING REQD. REQUIRED RES. RESISTANT ROOF. ROOF OPENING ROOF. ROOF R.W.L. RAIN WATER LEADER</p> <p>S. SOFT SC. SCREED SO. SOUTH SQ. SQ. FOOT S.C. SQUARE S.C.F. SQUARE SH. SHOWER SHR. SHEET SHR. SHEET SPEC. SPECIFICATION SQ. SQUARE S.S. STAINLESS STEEL STD. STANDARD STL. STEEL STR. STORAGE STR. STRUCTURAL SY. SYMMETRICAL</p> <p>T. TREAD T.P. TOWER BAR TEL. TELEPHONE T&G. TONGUE & GROOVE TH. THICKNESS T.O. TOP OF T.V. TELEVISION T.O.W. TOP OF WALL T.S. TUB STEEL TYP. TYPICAL</p> <p>UNF. UNFINISHED U.O.N. UNLESS OTHERWISE NOTED</p> <p>VEN. VENEER VERT. VERTICAL VEST. VESTIBLE V.F. VENT FLE V.F. VERIFY IN FIELD</p> <p>W. WEST W. WITH W.D. WOOD W.O. WHERE OCCURS W/O WITHOUT WP. WATERPROOF WR. WATER RESISTANT WT. WEIGHT</p>	<p>10. THESE DRAWINGS AND SPECIFICATIONS DO NOT REPRESENT AN ASSESSMENT OF THE PRESENCE OR AN ASSESSMENT OF THE ABSENCE OF ANY TOXIC OR HAZARDOUS MATERIALS ON THIS PROJECT SITE. THE OWNERS ARE SOLELY RESPONSIBLE FOR SUCH AN ASSESSMENT AND SHOULD BE CONSULTED FOR ANY QUESTIONS THEREIN. THE CONTRACTOR WILL RESOLVE THE APPLICABLE REGULATIONS AND PROCEDURES WITH THE OWNER AT THE TIME OF DISCOVERY.</p> <p>11. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ARCHITECT AT ONCE UPON DISCOVERY OF ANY CONFLICTS OR DISCREPANCIES BETWEEN THE AFOREMENTIONED AND THE DRAWINGS AND SPECIFICATIONS OF THIS PROJECT.</p> <p>12. THE CONTRACTOR SHALL NOT SCALE DRAWINGS UNDER ANY CIRCUMSTANCE. THE CONTRACTOR SHALL REQUEST DIMENSIONS NOT ON THE DRAWINGS FROM THE ARCHITECT WHEN NEEDED. THE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES BETWEEN THEIR DRAWINGS AND FIELD CONDITIONS OR A CONSULTANT'S DRAWINGS OR SPECIFICATIONS.</p> <p>13. THE CONTRACTOR WILL COORDINATE AND BE RESPONSIBLE FOR ALL WORK BY THEIR SUBCONTRACTORS AND THEIR COMPLIANCE WITH ALL THESE GENERAL CONDITIONS. THE CONTRACTOR WILL IDENTIFY ANY CONFLICTS BETWEEN THE WORK OF THE SUBCONTRACTORS, AS DIRECTED BY THESE DRAWINGS, BEFORE BEGINNING ANY INSTALLATION.</p> <p>14. THE CONTRACTOR WILL FIELD VERIFY ALL EXISTING AND PROPOSED DIMENSIONS AND CONDITIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ARCHITECT AT ONCE UPON DISCOVERY OF ANY CONFLICTS OR DISCREPANCIES BETWEEN THE AFOREMENTIONED AND THE DRAWINGS AND SPECIFICATIONS. CONTRACTOR SHALL FOLLOW DIMENSIONS AND SHOULD NOT SCALE DRAWINGS. IF DIMENSIONS ARE REQUIRED BUT NOT SHOWN THE CONTRACTOR SHALL NOTIFY THE ARCHITECT.</p> <p>15. ANY CHANGES, ALTERNATIVES OR MODIFICATIONS TO THESE DRAWINGS AND SPECIFICATIONS MUST BE APPROVED IN WRITING FROM THE ARCHITECT AND OWNER, AND ONLY WHEN SUCH WRITTEN APPROVAL CLEARLY STATES THE AGREED COST OR CREDIT OF THE CHANGE, ALTERNATIVE OR MODIFICATION TO THIS PROJECT.</p> <p>16. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS TO INCLUDE ALL ITEMS NECESSARY FOR A COMPLETE JOB. THE CONTRACTOR WILL PROVIDE ALL MATERIALS, LABOR AND EXPERTISE NECESSARY TO ACHIEVE A COMPLETE JOB AS SHOWN IN THESE DRAWINGS AND SPECIFICATIONS OR NOT SHOWN, BUT INTENDED.</p> <p>17. THE CONTRACTOR IS FULLY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES FOR THE WORK SHOWN ON THESE DRAWINGS AND SPECIFICATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENACT THE AFOREMENTIONED IN COMPLIANCE WITH GENERALLY ACCEPTED STANDARDS OF PRACTICE FOR THE CONSTRUCTION INDUSTRY FOR THE TYPE OF WORK SHOWN ON THESE DRAWINGS AND SPECIFICATIONS.</p> <p>18. THE ARCHITECT RESERVES THE RIGHT OF REVIEW FOR ALL MATERIALS AND PRODUCTS, FOR WHICH NO SPECIFIC BRAND NAME OR MANUFACTURER IS IDENTIFIED IN THESE DRAWINGS AND SPECIFICATIONS. THE CONTRACTOR SHALL VERIFY WITH THE ARCHITECT THE NEED FOR SHOP DRAWINGS OR SAMPLES OF MATERIALS AND PRODUCTS, WHICH WERE NOT IDENTIFIED, AS WELL AS ANY MATERIAL, PRODUCTS OR EQUIPMENT SUBSTITUTIONS PROPOSED IN PLACE OF THOSE ITEMS IDENTIFIED IN THESE DRAWINGS AND SPECIFICATIONS.</p> <p>19. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY AND COORDINATE ALL UTILITY TYPE CONNECTIONS, UTILITY COMPANY'S REQUIREMENTS AND INCLUDE ANY RELATED COSTS ASSOCIATED WITH THIS RESPONSIBILITY IN THEIR PROPOSAL OR BID. THE CONTRACTOR'S RESPONSIBILITY FOR WRITING LETTERS REGARDING OPERATIVE AGREEMENTS FOR THIS PROJECT BETWEEN THE CONTRACTOR AND THE LOCAL FIRE DEPARTMENT, THE LOCAL WATER AGENCY, THE LOCAL NATURAL OR PROPANE GAS PROVIDERS, TV PROVIDER, THE OWNER'S SECURITY SERVICE PROVIDER AND ANY UNNAMED UTILITY TYPE SERVICE PROVIDER. THE CONTRACTOR WILL PROVIDE COPIES OF ANY SUCH AGREEMENTS TO THE ARCHITECT AND OWNER, IF REQUIRED OR REQUESTED.</p>	<p>NOTE: THE 2016 CBC, CMC, CPC, CEC, CALIFORNIA ENERGY CODE, PART 6, AND CALIFORNIA FIRE CODE, AS AMENDED BY THE STATE OF CALIFORNIA AND LOCAL JURISDICTIONS, ARE APPLICABLE TO THIS PROJECT.</p> <p><u>CODE REQUIREMENTS (WHEN APPLICABLE):</u></p> <p>1. ALL AREAS, WHICH ARE SUBJECT TO MOISTURE, SHALL HAVE WATER RESISTANT GYPSUM BOARD UNDER THE DESIGNATED SMOOTH, HARD NONABSORBENT WALL SURFACE, AT ALL TUB & SHOWER ENCLOSURES, WATER RESISTANT GYP. BD. AND WALL SURFACE TO EXTEND 70" MIN. ABOVE THE DRAIN INLET.</p> <p>2. ALL DOORS WITH GLASS SURFACES SHALL BE TEMPERED.</p> <p>3. ALL GLASS SHOWER DOORS SHALL BE TEMPERED AT ALL BATHROOM LOCATIONS.</p> <p>4. (N) STAIR HANDRAILS SHALL BE 36" ABOVE TREAD NOSING AND HAVE A 1-1/2" DIA. SMOOTH GRIPABLE SECTION. HANDRAILS SHALL BE MOUNTED SO THAT THE COMPLETED RAIL AND SUPPORTING STRUCTURE ARE CAPABLE OF WITHSTANDING A LOAD OF AT LEAST 200 POUNDS APPLIED IN ANY DIRECTION AT ANY POINT ON THE RAIL.</p> <p>5. PROVIDE FIRE BLOCKING AT ALL NEW CEILINGS, FLOORS, FURRED-OUT CEILINGS, SHOWERS, SOFFITS AND AT CONCEALED DRAFT OPENINGS, AND IN PARTITIONS AT 10' HORIZONTAL INTERVALS, AS REQUIRED PER CBC 717.2502.11</p> <p>6. ALL EXTERIOR JOINTS AROUND DOOR AND WINDOW FRAMES BETWEEN SOLE PLATES AND FLOORS, AND ALL OPENINGS FOR PLUMBING, ELECTRICAL AND GAS LINES IN WALLS, CEILING AND FLOOR SHALL BE CALLED.</p> <p>7. ALL WINDOWS SHALL BE DUAL GLAZED. ALL EXTERIOR DOORS SHALL BE DUAL, SAFETY GLAZED. ALL GLASS WITHIN 18" OF FLOOR, WITHIN 60" OF A TUB OR SHOWER OR ANY OTHER LOCATION SPECIFIED UNDER CBC 2406 SHALL BE TEMPERED OR SAFETY GLASS. DOORS AND WINDOWS TO BE WEATHER-STRIPPED AND CERTIFIED BY THE MANUFACTURER.</p> <p>8. CONTRACTOR SHALL VERIFY UL LISTING OF ALL SPARK ARRESTERS FOR ALL SOLID FUEL BURNING CHIMNEYS.</p> <p>9. MAINTAIN 2" CLEARANCE BETWEEN STAINLESS STEEL FLUES AND ALL COMBUSTIBLE MATERIALS. INSTALL CHIMNEY SUPPORTS, MOUNTING FLANGE, INSULATION STOP, FIRE STOP, AND CHIMNEY CAP PER MANUFACTURER SPECIFICATIONS. CAP SHALL INCLUDE SPARK ARRESTING MESH NOT TO EXCEED 1/2".</p> <p>10. SMOKE DETECTORS SHALL BE INSTALLED IN SLEEPING ROOMS AND IN HALLWAYS GIVING ACCESS TO BEDROOMS ABOVE STAIRWAYS IN ACCORDANCE WITH CBC 914.</p> <p>11. ALL TOILETS SHALL BE LOW WATER CONSUMPTION TYPE, 1.28 GAL. MAX.</p> <p>12. PROVIDE APPROVED NON-REMOVABLE BACKFLOW PREVENTION DEVICES ON HOSE BIBS.</p> <p><u>ENERGY NOTES (WHEN APPLICABLE):</u></p> <p>1. INSULATE ALL INTERIOR ACOUS. WALLS (AS INDICATED), OR FLOORS AND CEILINGS BETWEEN CONDITIONED AND UNCONDITIONED SPACES PER CALIFORNIA ENERGY CODE SECTION 150.</p> <p>2. ALL EXTERIOR JOINTS AROUND DOOR AND WINDOW FRAMES BETWEEN SOLE PLATES AND FLOORS, AND ALL OPENINGS FOR PLUMBING, ELECTRICAL AND GAS LINES IN WALLS, CEILING AND FLOOR SHALL BE CALLED.</p> <p>3. THERMOSTATS SHALL BE AUTOMATIC SETBACK TYPE WITH INTEGRAL CLOCK PROGRAMMABLE FOR TWO PERIODS WITH 24 HOURS.</p> <p>4. EXHAUST SYSTEMS SHALL HAVE BACK-DRAFT OR AUTOMATIC DAMPERS.</p> <p>5. HVAC EQUIPMENT, WATER HEATERS, SHOWER HEADS AND FAUCETS SHALL BE CERTIFIED BY THE C.E.C.</p> <p>6. GAS-FIRED APPLIANCES SHALL HAVE INTERMITTENT IGNITION DEVICE. GAS SHUT OFF VALVES SHALL BE WITHIN 5 FEET OF APPLIANCE SERVED.</p> <p>7. WATER HEATER BLANKET INSULATION: MIN. R-12. FIRST FIVE FEET OF PIPES CLOSEST TO WALL: MIN. R-4.</p> <p>8. GENERAL LIGHTING IN KITCHEN AND BATHROOMS SHALL HAVE A MINIMUM EFFICIENCY OF 40 LUMENS PER WATT</p> <p>9. REFRIGERATORS, FREEZERS AND FLUORESCENT LAMP BALLAST SHALL BE CERTIFIED BY THE C.E.C.</p>	<p><u>MECHANICAL / ELECTRICAL / PLUMBING GENERAL NOTES:</u></p> <p>1. ALL MECHANICAL ELECTRICAL AND PLUMBING SYSTEMS SHALL BE DESIGNED AND INSTALLED BY LICENSED MECHANICAL, ELECTRICAL AND PLUMBING CONTRACTORS PER ALL APPLICABLE CODES THAT RELATE TO THIS PROJECT.</p> <p><u>MECHANICAL NOTES (WHEN APPLICABLE):</u></p> <p>1. ALL APPLIANCE UNITS TERMINATING OUTSIDE A WALL MUST TERMINATE AT LEAST 4'-0" BELOW OR HORIZONTAL OR 1'-0" ABOVE ANY DOOR OR OPERABLE WINDOW OR AIR INTAKE INLET. V.I.P. WITH ARCHITECT THE VENT LOCATIONS PRIOR TO CONSTRUCTION.</p> <p>2. PROVIDE COMBUSTION AIR FOR ALL FUEL BURNING APPLIANCES. PROVIDE 1 SQ. IN. MIN. FOR EACH 4000 BTU/HR. INPUT PER OPENING. INSTALL APPLIANCES PER MANUFACTURERS RECOMMENDATIONS AND ALL APPLICABLE CODES.</p> <p>3. EXHAUST SYSTEMS SHALL HAVE BACK-DRAFT OR AUTOMATIC DAMPERS.</p> <p>4. A FORCED AIR HEATING SYSTEM SHALL BE INSTALLED. THE FURNACE WILL BE LOCATED IN THE MECHANICAL ROOM AND INSTALLED PER THE CMC. THE HEATING SYSTEM SHALL BE DESIGNED AND INSTALLED BY A LICENSED MECHANICAL CONTRACTOR PER ALL APPLICABLE CODES. CONTRACTOR SHALL VERIFY IN FIELD THE DUCT & SUPPLY/ RETURN REGISTER LOCATIONS WITH THE ARCHITECT PRIOR TO CONSTRUCTION.</p> <p><u>ELECTRICAL NOTES (WHEN APPLICABLE):</u></p> <p>1. ELECTRICAL SYSTEM SHALL BE DESIGNED AND INSTALLED BY A LICENSED ELECTRICAL CONTRACTOR WITH REGARD TO LOAD CALCULATIONS, PANEL SIZING, AND GROUNDING REQUIREMENTS PER ALL APPLICABLE CODES.</p> <p>2. CONTRACTOR SHALL VERIFY LOCATION AND HEIGHT OF OUTLETS, SWITCHES AND LIGHT FIXTURES WITH ARCHITECT PRIOR TO INSTALLATION. INSTALL J-BOXES FOR APPROVAL BY ARCHITECT PRIOR TO WIRING. LOCATE CEILING LIGHTING IN FIELD FOR ARCHITECT AND OWNER APPROVAL PRIOR TO INSTALLING LIGHTS.</p> <p>3. ALL SWITCHES, RECEPTACLES AND PLATES SHALL HAVE COLOR CHOSEN BY ARCHITECT.</p> <p>4. FLOOR OUTLETS SHALL BE METAL - VERIFY FINISH WITH ARCHITECT.</p> <p>5. ALL SWITCHES SHALL BE BY "LITRON" - VERIFY MODEL WITH ARCHITECT.</p> <p>6. ALL BATHROOM, LAUNDRY ROOM & GARAGE LIGHTING MUST BE CONTROLLED BY A MANUAL-ON OCCUPANT SENSOR. MANUAL-ON OCCUPANT SENSOR MUST TURN OFF WHEN NO ONE IS PRESENT. ON FUNCTION MUST BE CONTROLLED MANUALLY.</p> <p>7. ALL ELECTRICAL, SPEAKER AND DATA WIRING SHALL BE CONCEALED. ALL EXISTING EXPOSED ELECTRICAL CONDUIT AND PHONE LINES SHALL BE REROUTED AND CONCEALED.</p> <p>8. ALL BEDROOMS AND ACCESS CORRIDORS TO BEDROOMS SHALL HAVE HARDWIRED SMOKE DETECTORS. CONTRACTOR TO VERIFY LOCATION W/ ARCHITECT PRIOR TO INSTALLATION.</p> <p>9. LIGHT FIXTURES IN WET/ DAMP LOCATIONS SHALL BE LABELED "SUITABLE FOR DAMP LOCATIONS."</p> <p>10. PROVIDE POWER & WATER AS REQUIRED AND LOCATED PER MANUFACTURERS SPECIFICATIONS FOR ALL EQUIPMENT SUCH AS THE WATER HEATER.</p> <p>11. CLOTHES CLOSET LIGHT FIXTURE CLEARANCES SHALL CONFORM TO CEC A10-16. INCANDESCENT FIXTURES WITH OPEN OR PARTIALLY ENCLOSED LAMPS AND PENDANT FIXTURES OR LAMP HOLDERS ARE NOT ALLOWED IN CLOSETS.</p> <p>12. WALLS 2" WIDE OR GREATER SHALL HAVE AN OUTLET. OUTLETS SHALL BE SPACED NO MORE THAN 12' APART, AND A MAXIMUM OF 6' FROM END OF WALLS OR OPENINGS.</p> <p>13. ALL ELECTRICAL OUTLETS THAT SERVE BATHROOMS, THE GARAGE AND THE EXTERIOR SHALL HAVE GROUND FAULT INTERRUPTER PROTECTION.</p> <p>14. PROVIDE AT LEAST ONE 20 AMP CIRCUIT FOR BATHROOM OUTLETS, WITH NO OTHER OUTLETS ON THE CIRCUITS.</p> <p>15. PROVIDE A 20' MIN. X #4 MIN. BARE COPPER WIRE GROUND ATTACHED TO FOUNDATION REINFORCING IN ACCORDANCE WITH CEC 250-52.</p> <p><u>PLUMBING NOTES (WHEN APPLICABLE):</u></p> <p>1. PROVIDE WATER HEATER PRESSURE/ TEMPERATURE RELIEF VALVE WITH DRAIN TO OUTSIDE OF BUILDING OR OTHER APPROVED LOCATION. VERIFY W/ ARCHITECT. NO PART OF DRAIN MAY BE INSTALLED WHERE IT WOULD BE SUBJECT TO FREEZING.</p> <p>2. ALL HOSE BIBS TO BE EQUIPPED WITH ANTI SIPHON VALVES PER UPC.</p> <p>3. PROVIDE SHOWERS AND TUB-SHOWER COMBINATIONS WITH INDIVIDUAL CONTROL VALVES OF THE PRESSURE BALANCE OR THERMOSTATIC MIXING VALVE TYPE.</p> <p>4. ALL SHOWER HEADS TO BE 2.0 GPM, KITCHEN FAUCETS 1.8 GPM AND LAV FAUCETS ARE TO BE 1.2 GPM AND TOILETS ARE TO BE 1.28 GAL./ FLUSH. CONTRACTOR TO VERIFY FIXTURE TYPE WITH ARCHITECT.</p> <p>5. PROVIDE CAST IRON DRAIN/ VENT WASTE SYSTEM THROUGHOUT HOUSE.</p> <p>6. INSULATE HOT WATER PIPES.</p> <p>7. PROVIDE SEISMIC ANCHORAGE FOR WATER HEATER PER CPC. PROVIDE STRAPS WITHIN THE UPPER AND LOWER 1/3 OF UNIT WITH THE LOWER STRAP AT LEAST 4" ABOVE THE CONTROLS.</p> <p>8. PLUMBING FIXTURES, SINKS, TUBS & BATHROOM ACCESSORIES SHALL BE INSTALLED PER MANUFACTURERS INSTRUCTIONS. FIXTURE LAYOUT @ STONE LOCATIONS TO BE COORDINATED DURING THE SHOP DRAWING PROCESS FOR STONE WORK.</p>	<p>EICHLER DAVIES ARCHITECTURE</p> <p>2732 Balboa Street San Francisco, CA 94112 ph: 415-378-8381 fax: 415-358-8405 eic@eichlerdavis.net</p> <p>NO. C 32714 REV. 331.2021 STATE OF CALIFORNIA</p> <p>WALKER & MOODY ARCHITECTS</p> <p>2866 Hyde Street San Francisco, CA 94109 ph: 415-885-0800</p> <p>HAO RESIDENCE 218 SEADRIFT ROAD, STINSON BEACH CA 94970 APN: 195-951-07</p> <p>Title: GENERAL NOTES</p> <table border="1"> <tr> <th>Revisions:</th> <th>Date:</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table> <p>Date: 07.5.2019 Scale: AS NOTED Sheet: AO.1</p>	Revisions:	Date:																						
Revisions:	Date:																											
<p>GENERAL CONTRACTOR NOTES</p> <p>1. THE GENERAL CONTRACTOR WILL VISIT THE SITE AND BE FULLY COGNIZANT OF ALL EXISTING CONDITIONS PRIOR TO SUBMITTING ANY PROPOSITIONS OR BIDS.</p> <p>2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFEKEEPING OF ALL EXISTING UTILITIES, AMENITIES AND SITE IMPROVEMENTS DURING CONSTRUCTION, WHETHER OR NOT SHOWN ON DRAWINGS OR UNCOVERED DURING WORK.</p> <p>3. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM RESIDENCE.</p> <p>4. THE CONTRACTOR SHALL AT ALL TIMES, KEEP THE CONSTRUCTION SITE FREE FROM ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY HIS OPERATIONS.</p> <p>5. AT THE COMPLETION OF THE WORK, HE SHALL CLEAN ALL SURFACES AND LEAVE THE WORK "BROOM CLEAN". ALL CARPETS ARE TO BE VACUUMED CLEAN.</p> <p>6. TRENCH BACKFILL WITHIN PUBLIC RIGHT-OF-WAY SHALL CONFORM TO COUNTY STANDARDS.</p> <p>7. CONTRACTOR SHALL PROVIDE FOR TRAFFIC CONTROL AS REQUIRED.</p> <p>8. CONTRACTOR SHALL PROVIDE AND UTILIZE FACILITIES NECESSARY TO CONTROL DUST.</p> <p>9. IF ANY ASBESTOS OR KNOWN MATERIALS CONTAINING ASBESTOS ARE DISCOVERED, THEN THE CONTRACTOR WILL BE RESPONSIBLE TO COORDINATE WITH THE OWNER, AS REQUIRED FOR THE REMOVAL OF THESE CONDITIONS, PRIOR TO THE BEGINNING OF THIS PROJECT. IF THE CONTRACTOR PARTICIPATES IN ANY PORTION OF THE REMOVAL PROCESS IN HIS COORDINATION WITH THE OWNER, THEN THE CONTRACTOR WILL PROVIDE THE OWNER WITH A WRITTEN STATEMENT RELEASING THE OWNER OF ANY FUTURE LIABILITY FROM THE CONTRACTOR, HIS EMPLOYEES AND ANY SUBCONTRACTORS HIRED BY THE CONTRACTOR RELATED TO THIS WORK.</p>	<p>20. THE CONTRACTOR IS FULLY RESPONSIBLE TO ENACT THE APPROPRIATE SAFETY PRECAUTIONS REQUIRED TO MAINTAIN A SAFE WORKING ENVIRONMENT. THE CONTRACTOR WILL ALSO INDEMNIFY AND HOLD HARMLESS THE OWNER, THE ARCHITECT, THEIR CONSULTANTS, AND THEIR EMPLOYEES FROM AND AGAINST ANY CLAIMS FOR DAMAGES, INCLUDING ANY INJURY CLAIMS BY THE CONTRACTOR, HIS EMPLOYEES, HIS SUBCONTRACTORS OR ANYONE HE ALLOWS ON THE CONSTRUCTION SITE, WHICH RESULT FROM THE CONTRACTOR'S PERFORMANCE OF THE WORK SHOWN ON THESE DRAWINGS AND SPECIFICATIONS.</p> <p>21. THE CONTRACTOR WILL CARRY THE APPROPRIATE WORKMAN'S COMPENSATION AND LIABILITY INSURANCE AS REQUIRED BY THE LOCAL GOVERNMENT AGENCY HAVING JURISDICTION FOR THIS ISSUE, AS WELL AS COMPLY WITH THE GENERALLY ACCEPTED INDUSTRY STANDARDS OF PRACTICE FOR A PROJECT OF THIS SCOPE. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY WITH THE OWNER, IF HE WILL BE REQUIRED TO CARRY FIRE INSURANCE OR OTHER TYPES OF INSURANCE FOR THE DURATION OF THE PROJECT. HE SHOULD ALSO ASSIST THE OWNER IN IDENTIFYING THE AMOUNT OF COVERAGE REQUIRED.</p> <p>22. UNLESS OTHERWISE NOTED (U.O.N.), DIMENSIONS ARE TO FACE OF STUD (F.O.S) AT NEW (N) CONSTRUCTION; FACE OF FINISH (F.O.F) AT EXISTING (E) CONSTRUCTION; FACE OF CONCRETE (F.O.C) OR CENTERLINE OF ENTITY.</p>																											

BUILDING MATERIALS

PROJECT: 218 SEADRIFT ROAD, STINSON BEACH CA 94970

09.12.2019



ROOF: CLASS "A" STANDING SEAM ALUMINUM ROOF, PAINTED, COLOR: GRAY



SIDING: STAINED CEDAR LAP SIDING, WITH 4" FACE COLOR: DARK GREY

TRIM: 1x CEDAR, STAINED, COLOR: DARK GREY

"BREAKAWAY" WALL SIDING: STAINED CEDAR LAP SIDING, WITH 6" FACE COLOR: DARK GREY



CONCRETE WALLS: BOARD FORMED CONCRETE, COLOR: SEALED NATURAL CONCRETE



FENCING: 1x6 REDWOOD, CLEAR FINISHED TO WEATHER NATURALLY



WINDOWS & DOORS: ALUMINUM WINDOWS BY FLEETWOOD, COLOR: BLACK

EICHLER DAVIES ARCHITECTURE
2732 BALBOA STREET
SAN FRANCISCO, CA 94121
415-379-6581
eric@eichlerdavies.net

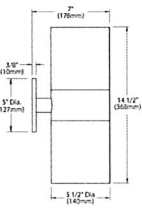
EXTERIOR LIGHTING - TYPICAL WALL SCONCE

LIGHT FIXTURE TYPE "E": NOTE: DOWNLIGHT ONLY VERSION (UPLIGHT TO BE SHIELDED)



"In all my years in specification sales I hold B-K Lighting in the highest regard and with complete confidence with not only their wide variety of high performance product families, but equally as much as their people who totally support all my efforts with my designers"

Gary A. Byram, Apex Lighting Solutions, LLC, BKU Spring 2005



B-K LIGHTING ARCHITECTURAL SURFACE

251

MAMMOTH™

PROJECT: 218 SEADRIFT ROAD

TYPE: []

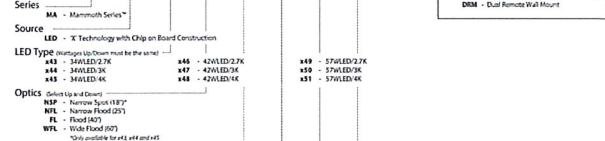
CATALOG NUMBER: []

SOURCE: []

NOTES: []

CATALOG NUMBER LOGIC

Example: MA LED x46 FL FLTL BLP 12 D B



Series	Material	Finish	Optics	LED Type	Power	Beam	Angle	Mounting
MA - Mammoth Series™	ALU - Aluminum	WIP - White Gloss	FL - Flood (60°)	x46 - 42x180D/27K	12 - 12W	D - Downlight	B - Ballast	

LM79 DATA	L70 DATA	OPTICAL DATA
BK No. 443	443	Beam Type
444	444	Angle
445	445	Beam Type
446	446	Angle
447	447	Beam Type
448	448	Angle
449	449	Beam Type
450	450	Angle
451	451	Beam Type
452	452	Angle
453	453	Beam Type
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497	497	Beam Type
498	498	Angle
499	499	Beam Type
500	500	Angle

B-K LIGHTING

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530-438-5900 • FAX 530-438-5900
www.bklighting.com • info@bklighting.com

RELEASSED 5-13-19 DRAWING NUMBER SUB-2364-00

MAMMOTH™

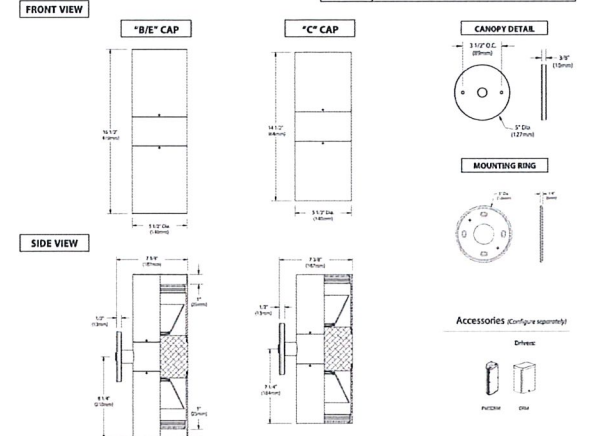
PROJECT: 218 SEADRIFT ROAD

TYPE: []

CATALOG NUMBER: []

SOURCE: []

NOTES: []



Specifications

Construction: Made with high quality components made from recycled materials. Manufactured using renewable solar energy, produced on-site. Manufactured in a facility that is 100% renewable energy. B-K Lighting is a LEED Gold certified company. B-K Lighting is a member of the Illuminating Engineering Society (IES).

Material: Powder Coat Color: Satin, Winkles, etc.

Finish: Premium Finish: ASP, AMG, AQW, BCM, etc.

Optics: LED Type: x46, x45, etc.

Power: 12W, 15W, etc.

Beam: Flood, etc.

Angle: 60°, etc.

Mounting: Ballast, etc.

Accessories: Remote Transformer, etc.

RoHS: Compliant

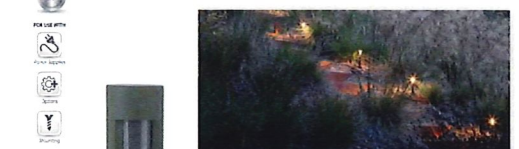
EXTERIOR LIGHTING - TYPICAL PATHWAY LIGHT

LIGHT FIXTURE TYPE "E1": NOTE: DOWNLIGHT ONLY VERSION WITH SHIELDED CAP



"Exterior Landscape Architecture designed these Corten steel risers cut into the grassy hillsides. The steps lead to a low half sphere wall - a magical place for stargazing. The Litestick™, installed with the glare shield option, projects a subtle, yet effective, wedge shaped beam of light across the edge of each riser. This is an inviting path on a moonless night."

Donna Best, d. Best Light Specification, BKU Fall 2003



B-K LIGHTING PATH / AREA

110

LITESTICK®

PROJECT: 218 SEADRIFT ROAD

TYPE: []

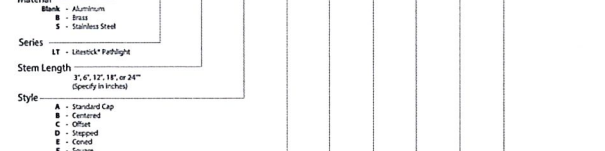
CATALOG NUMBER: []

SOURCE: []

NOTES: []

CATALOG NUMBER LOGIC

Example: S LT 12 B LED 070 BCM 2 A18 SF



Material	Finish	Optics	LED Type	Power	Beam	Angle	Mounting
S - Stainless Steel	LT - Litestick™ Pathlight	12 - 12W	B - Ballast	LED - LED	070 - 70°	BCM - 2	A18 - SF

Aluminum & Brass Finishes	Brass Finishes	Premium Finish
ASP - Antique Brass Powder	CMG - Cascade Mountain Granite	RMG - Rocky Mountain Granite
AMG - Alaskan Mountain Granite	CMK - Cracked Ice	SMG - Sierra Mountain Granite
AQW - Antique White	CMN - Cream	SSG - Sierra Mountain Granite
BCM - Black Chrome	HMG - Hunter Green	TFP - Textured Forest
BNP - Brown Patina Powder	NBP - Natural Brass Powder	WCP - Weathered Copper
CBP - Clear Anodized Powder	CCP - Old Copper	WSP - Weathered Iron

B-K LIGHTING

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530-438-5900 • FAX 530-438-5900
www.bklighting.com • info@bklighting.com

RELEASSED 5-13-19 DRAWING NUMBER SUB001109

LITESTICK®

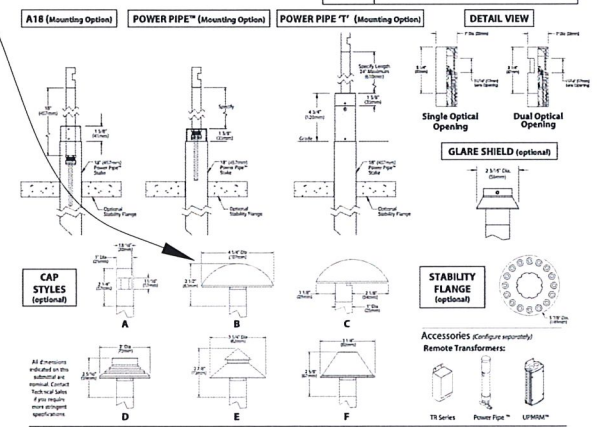
PROJECT: []

TYPE: []

CATALOG NUMBER: []

SOURCE: []

NOTES: []



Specifications

Construction: Made with high quality components made from recycled materials. Manufactured using renewable solar energy, produced on-site. Manufactured in a facility that is 100% renewable energy. B-K Lighting is a LEED Gold certified company. B-K Lighting is a member of the Illuminating Engineering Society (IES).

Material: Powder Coat Color: Satin, Winkles, etc.

Finish: Premium Finish: ASP, AMG, AQW, BCM, etc.

Optics: LED Type: x46, x45, etc.

Power: 12W, 15W, etc.

Beam: Flood, etc.

Angle: 60°, etc.

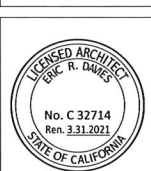
Mounting: Ballast, etc.

Accessories: Remote Transformer, etc.

RoHS: Compliant

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HAO RESIDENCE
218 SEADRIFT ROAD, STINSON BEACH CA 94970
APN: 195-331-07

Title:
BUILDING MATERIALS
LIGHTING SPECS

Revisions:	Date:
MINIPLAN REV 1	9/12/2019

Date:
07.31.2019

Scale:
AS NOTED

Sheet:
AO.2



220 SEADRIFT

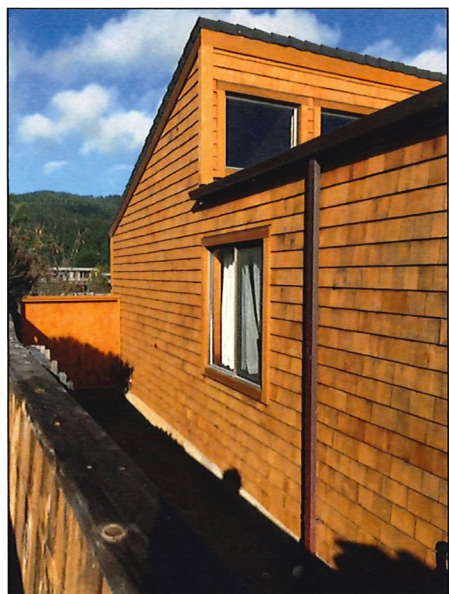


218 SEADRIFT



216 SEADRIFT

3 EXISTING SITE PHOTOS - SOUTH ELEVATIONS
SCALE: NTS



216 SEADRIFT



216 SEADRIFT



220 SEADRIFT



220 SEADRIFT

2 EXISTING SITE PHOTOS - SIDE ELEVATIONS
SCALE: NTS



216 SEADRIFT



218 SEADRIFT



220 SEADRIFT

1 EXISTING SITE PHOTOS - NORTH ELEVATIONS
SCALE: NTS

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HAO RESIDENCE
218 SEADRIFT ROAD, STINSON BEACH CA 94970
APN: 195-531-07

Title:
EXISTING
SITE PHOTOS

Revisions:	Date:

Date:
07.29.2019
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BLUEPRINT FOR A CLEAN BAY - BEST MANAGEMENT PRACTICES TO PREVENT STORM WATER POLLUTION FROM CONSTRUCTION RELATED ACTIVITIES

DEVELOPED BY: BASMAA (BAY AREA STORMWATER MANAGEMENT AGENCIES ASSOCIATION)

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HAO RESIDENCE 218 SEARIFT ROAD, STINSON BEACH CA 94970

Introduction

Stormwater pollution is a national environmental problem. In California, stormwater runoff is a major source of water pollution. To help combat the problems of stormwater pollution, federal and state governments have developed a program for monitoring and permitting discharges to municipal storm drain systems, creeks, and water bodies such as San Francisco Bay.

Municipalities in the Bay Area are required by the Clean Water Act to develop stormwater management programs that include requirements for construction activities. Your construction project will need to comply with local municipal requirements. If your construction activity will disturb one acre or more, you must also obtain coverage under the General Construction Activity Permit (see Requirements for Dischargers).

Blueprint for a Clean Bay is an introductory guide to stormwater quality control on construction sites. It contains general concepts and techniques that you can use to help prevent stormwater pollution. BASMAA has developed this booklet as a resource for all general contractors, home builders, and subcontractors working on construction sites.

Blueprint for a Clean Bay is not a design manual or a Stormwater Pollution Prevention Plan (SWPPP) (see Requirements for Dischargers). For more information on the General Permit, designing stormwater quality controls, or producing a Stormwater Pollution Prevention Plan, please refer to:

- the California Stormwater Quality Association (CASQA) Stormwater Best Management Practice Handbook for Construction,
the Regional Water Quality Control Board's (RWQCB) Guidelines for Construction Projects, or
consult your local program or the State Water Resources Control Board (SWRCB) (see below).

Please note that this booklet is concerned only with the management of construction sites and activities during construction.

For more information on stormwater requirements, call the State Water Resources Control Board's Stormwater Information Line at (916) 341-5537 or your local program.

Stormwater Pollution

Storm Drain System

Stormwater or runoff from sources like sprinklers and hoses flows over the ground into the storm drain system. In the San Francisco Bay Area, storm drain systems consist of gutters, storm drains, underground pipes, open channels, culverts, and creeks. Storm drain systems are designed to drain directly to the Bay, Delta, or Pacific Ocean with no treatment.

Pollution From Construction Sites

Stormwater runoff is part of a natural hydrologic process. However, land development and construction activities can significantly alter natural drainage patterns and pollute stormwater runoff. Runoff picks up pollutants as it flows over the ground or paved areas and carries these pollutants into the storm drain system. Common sources of pollutants from construction sites include: sediments from soil erosion; construction materials and waste (e.g., paint, solvents, concrete, drywall); landscaping runoff containing fertilizers and pesticides; and spilled oil, fuel, and other fluids from construction vehicles and heavy equipment.

Adverse Effects From Stormwater Pollution

Stormwater pollution is a major source of water pollution in California. It can cause declines in fisheries, damage habitats, and limit water recreation activities. Stormwater pollution poses a serious threat to the overall health of the ecosystem.

Requirements for Dischargers

Municipal Stormwater Program

Municipalities in the Bay Area are required by federal regulations to develop programs to control the discharge of pollutants to the storm drain system, including the discharge of pollutants from construction sites and areas of new development or significant redevelopment. As a result, your development and construction projects are subject to new requirements designed to improve stormwater quality such as: expanded plan check and review, contract specifications, stormwater treatment measures, runoff monitoring, and increased site inspection. For more information on municipal permit requirements, please contact the municipal representative listed on the back cover of this booklet.

Projects Equal To Or Greater Than 1 Acre

If your construction activity will disturb one acre or more, you must obtain coverage under the General Construction Activity Storm Water Permit (General Construction Permit) issued by the SWRCB for stormwater discharges associated with construction activity. To obtain coverage under the General Permit, a Notice of Intent (NOI) must be filed with the SWRCB. The General Construction Permit includes many appropriate stormwater pollution prevention measures or best management practices (BMPs) that the owner described in the booklet, to reduce pollutants in stormwater discharges from the construction site both during and after construction is complete. A best management practice or BMP is defined as any program, technology, process, practice, operating method, measure, or device that controls, prevents, removes, or reduces pollution. The General Permit also requires permanent stormwater quality controls (see BASMAA's Start at the Source manual and CASQA's BMP Handbooks New Development and Redevelopment for details). You should keep a copy of your SWPPP readily available onsite throughout construction.

Projects Less Than 1 Acre

If your project is less than one acre, you may still need to use BMPs in compliance with local municipal requirements. Check with the local stormwater program (listed on back

Best Management Practices

General Principles

The following are some general principles that can significantly reduce pollution from construction activity and help make compliance with stormwater regulations easy:

- Identify all storm drains, drainage swales and creeks located near the construction site and make sure all subcontractors are aware of their locations to prevent pollutants from entering them.
Clean up leaks, drips, and other spills immediately so they do not contact stormwater.
Refuel vehicles and heavy equipment in one designated location on the site and take care to clean up spills immediately.
Wash vehicles at an appropriate off-site facility. If equipment must be washed on-site, do not use soap, solvents, degreasers, or steam cleaning equipment, and prevent wash water from entering the storm drain. If possible, direct wash water to a low point where it can evaporate and/or infiltrate.
Never wash down pavement or surfaces where materials have spilled. Use dry cleaning methods whenever possible.
Avoid contaminating clean runoff from areas adjacent to your site by using berms and/or temporary or permanent drainage ditches to divert water flow around the site. Reduce stormwater runoff velocities by constructing temporary check dams and/or berms where appropriate.
Protect all storm drain inlets using filter fabric cloth or other best management practices to prevent sediments from entering the storm drainage system during construction activities.
Keep materials out of the rain - prevent runoff/pollution at the source. Schedule clearing or heavy earth moving activities for periods of dry weather. Cover exposed piles of soil, construction materials and wastes with plastic sheeting or temporary rock. Before it rains, sweep and remove materials from surfaces that drain to storm drains, creeks, or channels.

Best Management Practices

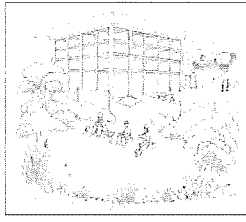
Specific Practices

Following is a summary of specific best management practices for erosion and sediment control and contractor activities. For more information on erosion and sediment control BMPs and their design, please refer to the RWQCB Erosion and Sediment Control Field Manual (August 2002), the CASQA Stormwater Best Management Practice Handbook for Construction (January 2003), and the Association of Bay Area Governments (ABAG) Manual of Standards for Erosion & Sediment Control Measures (May 1995).

Erosion Prevention and Sediment Control

Soil erosion is the process by which soil particles are removed from the land surface, by wind, water and/or gravity. Soil particles removed by stormwater runoff are pollutants that when deposited in local creeks, lakes, Bay or Delta, can have negative impacts on aquatic habitat. Exposed soil after clearing, grading, or excavation is easily eroded by wind or water. The following practices will help prevent erosion from occurring on the construction site:

- Plan the development to fit the topography, soils, drainage pattern and natural vegetation of the site.
Delimitate clearing limits, easements, setbacks, sensitive or critical areas, trees, drainage courses, and buffer zones to prevent erosion or unnecessary disturbances and exposure.
Phase grading operations to reduce disturbed areas and time of exposure.
Avoid excavation and grading during wet weather.
Limit on-site construction routes and stabilize construction entrance(s) and exit(s).
Remove existing vegetation only when absolutely necessary.
Construct diversion dikes and drainage swales to channel runoff around the site.
Use berms and drainage ditches to divert runoff around exposed areas. Place diversion ditches across the top of cut slopes.



4

Best Management Practices

General Site Maintenance

Prevent spills and leaks. Properly maintain vehicles and heavy equipment. Leaking fuel, oil, antifreeze, or other fluids on the construction site are common sources of stormwater pollution and soil contamination. Construction material spills can also cause serious problems. Careful site planning, preventive maintenance, and good materials handling practices can eliminate most spills and leaks.

Report significant spills to the appropriate spill response agencies immediately (See reference list on the back cover of this booklet for more information).

Construction Site Maintenance

Perform major maintenance, repair jobs and vehicle and equipment washing offsite when feasible, or in designated and controlled areas on-site.

Best Management Practices

Plant vegetation on exposed slopes. Where replanting is not feasible, use erosion control blankets (e.g., straw matting, glass fiber or excelsior matting, mulch netting).

Consider slope terracing with cross drains to increase soil stability.

Cover stockpiled soil and landscaping materials with secured plastic sheeting and divert runoff around them.

Use sediment control and filtration to remove sediments from dewatering discharges.

Prevent construction vehicle tires from tracking soil onto adjacent streets by constructing a temporary stone pad with a filter fabric underliner near the site exit where dirt and mud can be removed.

When cleaning sediments from streets, driveways and paved areas on construction sites, use dry sweeping methods where possible. If water must be used to flush pavement, collect runoff to settle out sediments and protect storm drain inlets.

Conduct routine inspections of erosion control measures especially before and immediately after rainstorms, and repair if necessary.

Sedimentation

Sedimentation is defined as the process of depositing sediments carried away by runoff. Sediments consist of soil particles, clays, sands, silts, and other minerals. The purpose of sediment control practices is to remove sediments from stormwater before they are transported off-site or reach a storm drain inlet or nearby creek. The most effective sediment control practices reduce runoff velocity and trap or detain runoff following construction sites to settle out:

- Use terracing, rip-rap, sand/gravel traps, rock, filter rolls, and/or temporary vegetation on slopes to reduce runoff velocity and trap sediments. Do not use asphalt rubble or other nonerosion debris for this purpose.
Use check dams in temporary drains and swales to reduce runoff velocity and promote sedimentation.
Protect storm drain inlets from sediment laden runoff. Storm drain inlet protection devices include sand/gravel bag barriers, filter fabric fences, block and gravel filters, catch basin filter inserts, excavated drop inlet sediment traps, or a combination of these.

Best Management Practices

General Site Maintenance

Prevent spills and leaks. Properly maintain vehicles and heavy equipment. Leaking fuel, oil, antifreeze, or other fluids on the construction site are common sources of stormwater pollution and soil contamination. Construction material spills can also cause serious problems. Careful site planning, preventive maintenance, and good materials handling practices can eliminate most spills and leaks.

Report significant spills to the appropriate spill response agencies immediately (See reference list on the back cover of this booklet for more information).

Construction Site Maintenance

Perform major maintenance, repair jobs and vehicle and equipment washing offsite when feasible, or in designated and controlled areas on-site.

Best Management Practices

If you must drain and replace motor oil, radiator coolant, or other fluids on-site, use drip pans or drop cloths to catch drips and spills. Collect all spent fluids, store in labeled separate containers, and recycle whenever possible. Note that in order to be recyclable, such liquids must not be mixed with other fluids. Non-recycled fluids generally must be disposed of as hazardous wastes.

Clean up spills immediately after they happen. When vehicle fluids or materials such as paints or solvents are spilled, cleanup should be immediate, automatic, and routine.

Sweep up spilled dry materials (e.g., cement, mortar, or fertilizer) immediately. Never attempt to wash them away with water or bury them. Use only minimal water for dust control.

Clean up liquid spills on paved or impermeable surfaces using "dry" cleanup methods (e.g., absorbent materials like cat litter, sand or rags).

Clean up spills on dirt areas by digging up and properly disposing of the contaminated soil.

Report significant spills to the appropriate spill response agencies immediately (See reference list on the back cover of this booklet for more information).

Use cleanup rags that have absorbed hazardous materials must either be sent to a certified industrial laundry or dry cleaner, or disposed of through a licensed hazardous waste disposal company.



6

Best Management Practices

Store materials under cover. Wet and dirty building materials with the potential to pollute runoff should be stored under cover and/or surrounded by berms when rain is forecast or during wet weather.

- Store stockpiled materials and wastes under a temporary roof or secured plastic sheeting or tarp.
Berm around storage areas to prevent contact with runoff.
Plaster or other powders can create large quantities of suspended solids in runoff, which may be toxic to aquatic life and cause serious environmental harm even if the materials are inert. Store all such potentially polluting dry materials - especially open bags - under a temporary roof or inside a building, or cover securely with an impermeable tarp. By properly storing dry materials, you may also help protect air quality, as well as water quality.

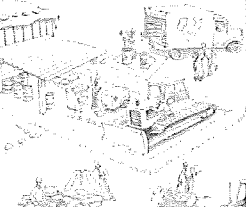
Cover and maintain dumpsters

Open and/or leaking dumpsters can be a source of stormwater pollution.

- Cover open dumpsters with plastic sheeting or a tarp. Secure the sheeting or tarp around the outside of the dumpster. If your dumpster has a cover, close it.
If a dumpster is leaking, contain and collect leaking material. Return the dumpster to the leasing company for repair/exchange.
Do not clean dumpsters on-site. Return to leasing company for periodic cleaning, if necessary.

Collect and properly dispose of paint removal wastes

Paint removal wastes include chemical paint stripping



Store building materials under cover. Make sure dumpsters are properly covered to keep rain

residues, paint chips and dust, sand blasting material and wash water. These wastes contain chemicals that are harmful to the wildlife in our creeks and the water bodies they flow to. Keep all paint wastes away from the gutter, street, and storm drains.

- Non-hazardous paint chips and dust from dry stripping and sand blasting may be swept up or collected in plastic drop cloths and disposed of as trash. Chemical paint stripping residue and chips and dust from mixing points of paints containing lead or inks must be disposed of as a hazardous waste.

- When stripping or cleaning building exteriors with high-pressure water, cover or berm storm drain inlets. If possible (and allowed by your local water treatment plant), collect (trap or vacuum) building cleaning water and discharge to the sanitary sewer. Alternatively, discharge non-contaminated wash water onto a dirt area and spill into the soil. Be sure to shovel or sweep up any debris that remains in the gutter and dispose of as garbage.

Clean up paints, solvents, adhesives, and cleaning solutions properly

Although many paint materials can and should be recycled, liquid residues from paints, thinners, solvents, glues, and cleaning fluids are hazardous wastes. When

Best Management Practices

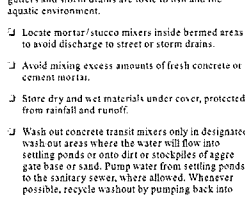
they are thoroughly dry, empty paint cans, wood brushes, rags, absorbent materials, and drop cloths are no longer hazardous and may be disposed of as garbage.

- Never clean brushes or rags in paint containers into a street, gutter, storm drain, or creek.
For water-based paints, paint out brushes to the extent possible and rinse to a drain leading to the sanitary sewer (i.e., indoor plumbing).
For oil-based paints, paint out brushes to the extent possible, and filter and reuse thinners and solvents. Dispose of unusable thinners and residue as waste.
Recycle, return to supplier or donate unwanted water-based (latex) paint. You may be able to recycle clean empty dry paint cans as metal (check with the local planning or building department for more information).
Dried latex paint may be disposed of in the garbage.
Unwanted paint (that is not recycled), thinners, and sludges must be disposed of at hazardous waste.
Most and more paint companies are recycling excess latex paint (check with the local planning or building department for more information).

Keep fresh concrete and cement mortars out of gutters, storm drains, and creeks

Concrete and cement-related mortars that wash into gutters and storm drains are toxic to fish and the aquatic environment.

- Locate mortar/stucco mixers inside bermed areas to avoid discharge to street or storm drains.
Avoid mixing excess amounts of fresh concrete or cement mortars.
Store dry mix and wet materials under cover, protected from rainfall and runoff.
Wash out concrete transit mixers only in designated wash-out areas where the water will flow into settling ponds or onto dirt or stockpiles of aggregate base or sand. Pump water from settling ponds to the sanitary sewer, where allowed. Whenever possible, recycle washout by pumping back into



Recycle yard waste and tree prunings at a landfill that accepts and composts plant material.

mixers for reuse. Never dispose of washout into the street, storm drains, drainage ditches, or creeks.

- Whenever possible, return contents of mixer barrels to the yard for recycling. Dispose of small amounts of excess concrete, grout, and mortar in the trash.
Service and maintain portable toilets. Leaking portable toilets are a potential health and environmental hazard.
Inspect portable toilets for leaks.
Be sure the leasing company adequately maintains, promptly repairs, and replaces units as needed.
The leasing company must have a permit to dispose of waste to the sanitary sewer.
Do not place on or near storm drain inlets.

Dispose of cleared vegetation properly

Cleared vegetation, tree trunks, and other plant material can cause environmental damage if it gets into creeks. Such "organic" material requires large quantities of oxygen to decompose, which reduces the oxygen available for fish and other aquatic life.

- Do not dispose of plant material in a creek or drainage facility or leave it in a roadway where it can clog storm drain inlets.
Avoid disposal of plant material in trash dumpsters or mixing with other wastes. Compost plant material or take it to a landfill or other facility that accepts yard waste (check with the local planning or building department for more information).

- Recycle yard waste and tree prunings at a landfill that accepts and composts plant material.

Demolition Waste Management

Make sure all demolition waste is properly disposed of. Demolition debris that is left in the street or pushed over a bank into a creek bed or drainage facility causes serious problems for flood control, storm drain maintenance, and the health of our environment. Different types of materials have different disposal requirements or recycling options.

- Materials that can be recycled from demolition projects include: metal framing, wood, concrete, asphalt, and plate glass.
Materials that can be salvaged for reuse from old structures include: doors, banisters, floorboards, windows, 2x4s, and other old, dense lumber.
Unusable, unrecyclable debris should be confined to dumpsters, covered at night and dugged wet weather, and taken to a landfill for disposal.
Hazardous debris such as asbestos must be handled in accordance with specific laws and regulations and disposed of as a hazardous waste. For more information on asbestos handling and disposal regulations, contact the Bay Area Air Quality Management District.

- Arrange for an adequate debris disposal schedule to ensure that dumpsters do not overflow.
Most local planning or building departments have laws of recycling and disposal services for construction and demolition debris.

Roadwork and Pavement Construction

Plan roadwork and pavement construction to avoid stormwater pollution. Road paving, surfacing, and asphalt removal happen right in the street, with numerous opportunities for stormwater pollution from the asphalt mix, saw-cut slurry, and excavated material. Properly proportioned asphalt mix and well-compacted pavement avoid a host of water pollution problems.

- Apply concrete, asphalt, and seal coat during dry weather to prevent contaminants from entering stormwater runoff.
Cover storm drain inlets and manholes when paving or applying seal coat, slurry seal, fog seal, etc.
Always park paving machines over drip pans or absorbent materials, since they tend to drip continuously.
When making saw-cuts in pavement, use as little water as possible. Cover each catch basin completely with filter fabric during the sawing operation and contain the slurry by placing sand/wood chips around the catch basin. After the liquid drains or evaporates, shovel or vacuum the slurry residue from the pavement or gutter and remove from site.
Wash down exposed aggregate concrete only when the wash water can: (1) flow onto a dirt area, (2) drain onto a bermed surface from which it can be pumped and disposed of properly, or (3) be vacuumed from a catchment created by blocking a storm drain inlet. If necessary, divert runoff with temporary berms. Make sure runoff does not reach gutters or storm drains.

- Never wash sweepings from exposed aggregate concrete into a street or storm drain. Collect and return to aggregate base stockpile, or dispose with trash.
Recycle broken concrete and asphalt (check with the local planning or building department for more information).

Contaminated Pooled Stormwater, Groundwater, and Soil Guidance

Look for pooled stormwater, groundwater, and/or soil contamination. Pooled stormwater, groundwater and soil may become contaminated or exposed to hazardous materials. If any of the following conditions apply, contaminated pooled stormwater, groundwater, and/or soil may be present and pose a potential health and environmental hazard: requirements or recycling options.

- Abandoned underground storage tanks, drums, or other buried debris are encountered during construction activities; or
Spills have occurred on the site or adjacent properties involving pesticides and herbicides, fertilizers, detergents, plaster and other products, petroleum products such as fuel oil, and grease; or
Other hazardous chemicals such as acids, lime, glues, paints, solvents, and curing compounds.

Take appropriate action

Pooled stormwater, groundwater, or water generated by dewatering that is contaminated cannot be discharged to a street, gutter, or storm drain. If contamination is suspected, the water should be contained and held for testing. Call the appropriate local agency and for the Regional Water Quality Control Board for further guidance (See reference list on the back cover of this booklet for more information).

- Soil appears discolored, smells of petroleum and/or exhibits other unusual properties.

- Apply concrete, asphalt, and seal coat during dry weather to prevent contaminants from entering stormwater runoff.
Cover storm drain inlets and manholes when paving or applying seal coat, slurry seal, fog seal, etc.
Always park paving machines over drip pans or absorbent materials, since they tend to drip continuously.
When making saw-cuts in pavement, use as little water as possible. Cover each catch basin completely with filter fabric during the sawing operation and contain the slurry by placing sand/wood chips around the catch basin. After the liquid drains or evaporates, shovel or vacuum the slurry residue from the pavement or gutter and remove from site.
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Remember: The property owner and the contractor share ultimate responsibility for the activities that occur on a construction site. You may be held responsible for any environmental damage caused by your subcontractors or employees.

Pollution Control Agencies and Sources of Information

Stormwater quality management programs. Alameda Countywide Clean Water Program 601 Turner Court, Hayward, CA 94545 (510) 673-5543 www.cleawaterprogram.com

Coastal Cities Urban Runoff Management Program 1010 Chabousson Road, Fairfield, CA 94534 (707) 428-6939

Marin County Stormwater Pollution Prevention Program 3591 Eric Center Drive, Room 304, San Rafael, CA 94903 (415) 499-6258 www.mccpp.org

Sacramento Stormwater Management Program 301 7th Street, Suite 600, San Francisco, CA 94121 (415) 995-3110 http://stormwater.sbaer.org

San Mateo Countywide Stormwater Pollution Prevention Program 355 County Center, Fifth Floor, Redwood City, CA 94063 (650) 363-4363 www.fsmpp.org

Santa Clara Valley Urban Runoff Pollution Prevention Program 699 Tonia & Country Village, Sunnyvale, CA 94086 (650) 794-2442 www.scvpp.org

Sequoia County Water Agency 2150 West College Avenue, Santa Rosa, CA 95401 (707) 538-5370 www.sca.org

Vallejo Sanjuaquin and Flood Control Districts 480 Ryder Street, Vallejo, CA 94590 (707) 445-4648 www.vscfd.com

Bay Area Stormwater Management Agencies Association (BASMAA) 1515 Clay Street, Suite 1400, Oakland, CA 94612 (510) 622-2326 (659) By/We: www.basmaa.org

Agencies to which you are required by law to report all significant releases or suspected significant releases of hazardous materials, including oil. To report a spill, call the following agencies:
1. Dial 911 for non-local emergency response number.
2. Call the Governor's Office of Emergency Services Warning Center, (800) 852-7500 (24 hours).

For spills of Federal Reportable Quantities of oil, chemicals, or other hazardous materials to land, air, or water, notify the National Response Center (800) 424-8802. If you are not sure whether the spill is of a "reportable quantity," call the Federal Environmental Protection Agency (800) 424-9340 for clarification. For further information, see California Hazardous Material Spill Release Notification Guidance (State Office of Emergency Services, Hazardous Materials Division).

Agencies to call if you find or suspect contaminated soil or groundwater:
Regional Water Quality Control Board, San Francisco Bay Region (510) 622-2309
Central Valley Region (916) 252-3609
California Environmental Protection Agency (Cal EPA), Department of Toxic Substances Control (DTSC) (510) 548-3732

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Title: BEST MANAGEMENT PRACTICES TO PREVENT STORM WATER POLLUTION

Revisions:

Date:

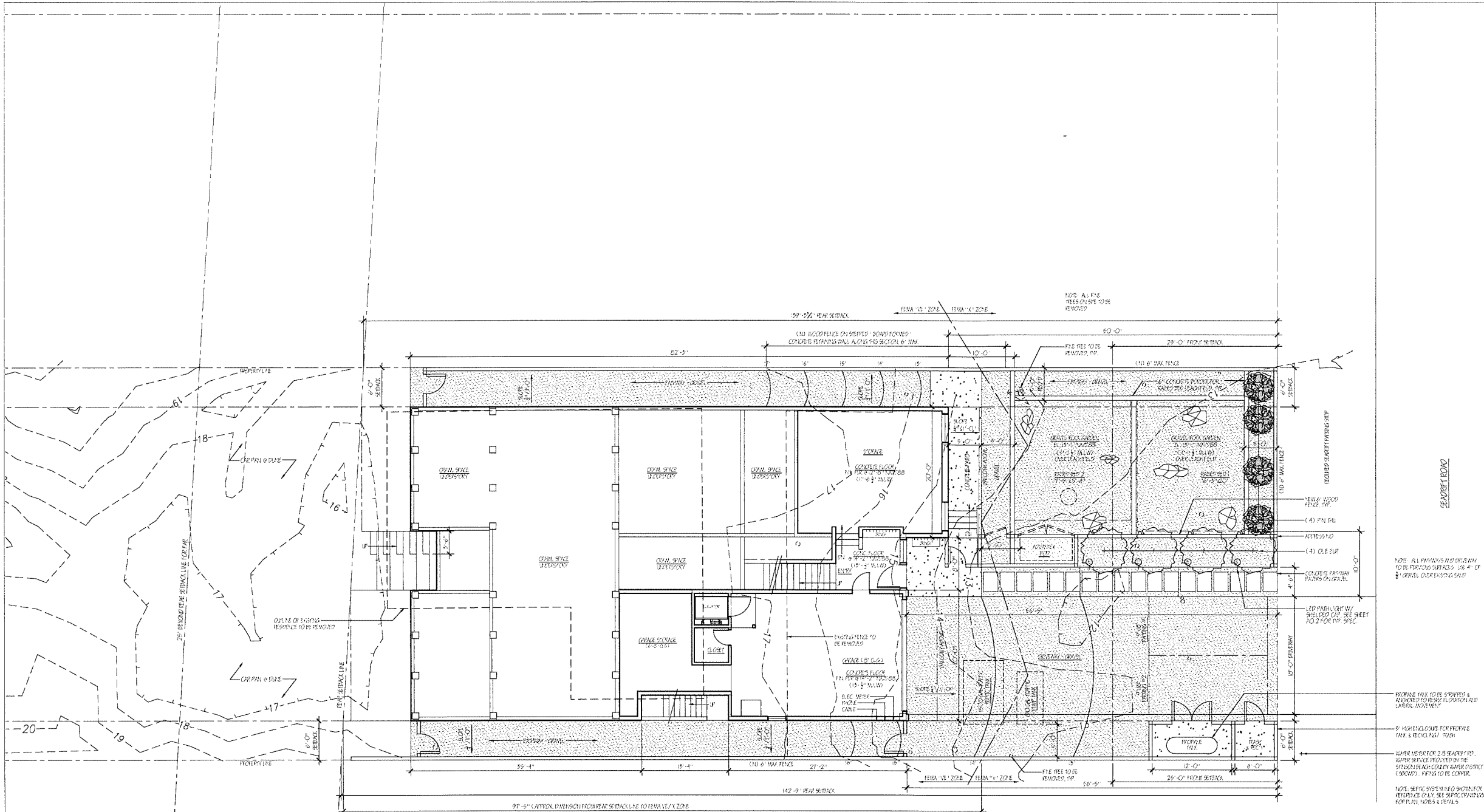
Date: 07/21/2019

Scale: AS NOTED

Sheet: AO.4



HAO RESIDENCE
 218 SEADRIFT ROAD, STINSON BEACH CA 94970
 APN: 195-551-07



NOTE: ALL PARTS AND FINISHES TO BE PERVIOUS SURFACES. USE 4" OF 3/4" GRAVEL OVER EXISTING SAND.

NOTE: PERMANENT TAX TO BE PAID TO THE COUNTY OF SAN MATEO AND LAMPA, NOVEMBER 2021.

NOTE: WATER SERVICE FOR PHONE, FAX & RECYCLING TO BE PROVIDED BY THE STINSON BEACH COUNTY WATER DISTRICT (SBCWD). FILING TO BE COMPLETED.

NOTE: SEPTIC SYSTEM SHOWN FOR REFERENCE ONLY. SEE SEPTIC DETAILS FOR PLAN NOTES & NOTES.

PLANTING LEGEND

TYPE	BOTANICAL NAME	COMMON NAME	SIZE	MATURE SIZE
CRPANI	CAREX PANSA	PACIFIC RISE SEDGE	1 GAL. @ 18" O.C.	1'-2"
OLE EUP	OLEA EUROPA	MULLEN DWARF OLIVE TREE	9 GAL.	8'
PNRBU	PNUS RADICATA	JAPANESE BLACK PINE BUSH	5 GAL.	6'

- LANDSCAPE NOTES**
- LANDSCAPE PLANTING TO BE NON-INVASIVE & TROUGH TO PERMIT. PLANT SELECTION TO REFER TO THE RESIDENT ASSOCIATION PLANNING SELECTION GUIDELINES.
 - CONTRACTOR SHALL COORDINATE ALL PLANTING WITH UTILITY LOCATIONS NOT SHOWN ON THE PLANS. ANY CONFLICTS BETWEEN LOCATIONS OF PROPOSED SITE UTILITIES OR LIGHTING SHALL BE CALLED TO THE ATTENTION OF THE ARCHITECT.
 - IRRIGATION SYSTEM TO BE A FULLY AUTOMATIC, LOW GALLONAGE Drip SYSTEM WITH COVERED WATER PROTECTION. TREE SHIELD AND GROUND COVER AREAS TO RECEIVE Drip WATER FROM THE IRRIGATION.
 - CONTRACTOR IS REQUIRED TO COORDINATE IRRIGATION CONTRACT WORK WITH ALL APPLICABLE SUB-CONTRACTORS FOR THE DESIGN, LOCATION AND INSTALLATION OF PIPING, CONTROL AND SLEEVES. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE IRRIGATION SYSTEM WITH THE PROJECT'S ELECTRICAL AND WATER SYSTEM.
 - THE IRRIGATION SYSTEM SHALL BE PROGRAMMED TO PROVIDE THE MINIMUM AMOUNT OF WATER REQUIRED TO SUSTAIN GOOD PLANT GROWTH.
 - THE CONTRACTOR SHALL LOCATE IRRIGATION PIPING AND WINGS AS NOT TO CONFLICT WITH OTHER UTILITIES. PIPING SHALL NOT BE LOCATED PARALLEL TO AND DIRECTLY ABOVE OTHER UTILITIES.
 - FOR THE FIVE TREES TO BE REMOVED, STUMPS AND ROOTS SHALL BE REMOVED FROM THE SOIL TO A DEPTH OF AT LEAST 12" BELOW THE SURFACE OF THE GROUND IN THE AREA OF THE BUILDING PER CBC 59A.

- LANDSCAPE MATERIAL LEGEND**
- GRAVEL ON SAND - NATURAL BEIGE COLOR
 - CONCRETE SLAB
 - CARPAN - CHECK PANSA "PACIFIC RISE SEDGE" MATRIE 10'-1'-2"
 - EXISTING TREE TO BE REMOVED

GRADING & DRAINAGE NOTES

- SURFACE FINISHES AWAY FROM THE FOUNDATION SHALL BE A MINIMUM 1/8" PER FOOT FOR THE EXCEPTION IN CBC SECTION 19034.5 FOR SOIL CONDITIONS. THE SITE GRAD SHALL BE SLOPED TO DRAIN AWAY FROM THE FOUNDATION. DRAINAGE ACROSS PROPERTY LINES SHALL NOT EXCEED EXISTING.
- FOUNDATION DRAINS ARE NOT REQUIRED FOR THE EXCEPTION IN CBC SECTION 19034.2 FOR GRANULAR SOILS. 800CFY OF INTERVIOUS AREA IS CREATED BY THE DESIGNER. AND THE BEARING OF THE SITE IS HIGHLY VARIABLE WITH A COMBINATION OF GRAVEL, SAND OVER SLIP AND PLANTING AREAS PER THE LANDSCAPE NOTES & PLANTING LEGEND.
- SITE WORK, GRADING AND DRAINAGE CONSTRUCTION SHALL CONFORM TO THE BEST MANAGEMENT PRACTICES "BLUEPRINT FOR A CLEAN BAY" BY THE BAY AREA SUDWATER MANAGEMENT AGENCY ASSOCIATION (BSMA). SEE SHEET A04.
- ALL UTILITY CONNECTIONS AND EXTENSIONS SERVING THE PROJECT SHALL BE INSTALLED UNDERGROUND. SOME UTILITIES MAY NOT BE SHOWN. IF THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION OF EXISTING UTILITIES. UTILITIES MAY BE LIVED OR ASSUMED. UNLAWFUL UTILITIES ARE FOUND NOTIFY THE OWNER.
- ALL REMOVES 9" DIAMETER OR GREATER SHALL BE SHOWN AND SPICED.

AREA OF DISTURBANCE	WANT RESIDENCE	5800 SF
TOTAL:	SITE WORK, DRIVEWAY & SEPTIC SYSTEM	1800 SF
TOTAL:		7600 SF
GRADING QUANTITIES	CUT:	84 CY
	FILL:	82 CY
	NET CUT:	2 CY
INTERVIOUS AREA WITHIN 100' OF BULIDABLE LOT AREA		5800 SF
PERVIOUS AREA WITHIN 100' OF BULIDABLE LOT AREA		6264 SF

NOTE: ALL PARTS AND FINISHES TO BE PERVIOUS SURFACES. USE 4" OF 3/4" GRAVEL OVER EXISTING SAND.

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL AFFECTED SERVICE AGENCIES AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION. THE CONTRACTOR SHALL LOCATE ALL RELEVANT UTILITIES TO VERIFY THEIR LOCATION AND ELEVATION. IF UNEXPECTED OR CONFLICTING UTILITIES ARE ENCOUNTERED DURING EXCAVATION, NOTIFY THE UTILITY OWNER AND/OR THE ARCHITECT AND OWNER IMMEDIATELY. UTILITIES INCLUDE, BUT ARE NOT LIMITED TO, WATER, SEWER, SEPTIC, ELECTRICAL, GAS, TELEPHONE AND CABLE / TV.
 - PER THE GEOTECHNICAL REPORT PROVIDED BY SALEM HONES AND ASSOCIATES, THE GROUND UNDER THE SITE IS HIGHLY PERMEABLE AND ROOF DRAINS ARE NOT REQUIRED IF THERE IS AN 18" OVERPASS. FOUNDATION DRAINS ARE NOT REQUIRED FOR THE EXCEPTION IN SECTION 19034.2 OF THE CBC FOR GRANULAR SOILS.
 - SEE ROOF PLAN SHEET A20 FOR DRAINAGE LOCATIONS.
 - SEPTIC SYSTEM INFORMATION SHOWN ON THIS PLAN FOR REFERENCE ONLY. SEE SEPTIC SYSTEM DETAILS FOR PLAN DETAILS & NOTES.
 - THE ARCHITECT SHALL VERIFY TO THE COUNTY IN WRITING, UPON COMPLETION OF WORK, THAT ALL GRADING & DRAINAGE WAS DONE IN ACCORDANCE WITH PLANS AND FIELD CONDITIONS. THE CERTIFICATION LETTER SHALL REFER TO THE BUILDING PERMIT # OF THE PROJECT. THE ARCHITECT'S PROFESSIONAL LIABILITY SHALL BE STIPULATED AND SHOWN BY THE ARCHITECT. THE DRIVEWAY, PAVEMENT AND OTHER SITE IMPROVEMENTS SHALL BE INSPECTED BY A DEPARTMENT OF PUBLIC WORKS ENGINEER PRIOR TO BUILDING FINAL.
 - PER CBC 19034.5, AN ELEVATION CERTIFICATE PREPARED BY THE LAND SURVEYOR OR A REGISTERED CIVIL ENGINEER SHALL BE SUBMITTED TO THE BUILDING OFFICE UPON PLACEMENT OF THE LOWEST FLOOR AND PRIOR TO FURTHER VERTICAL CONSTRUCTION.
 - AN ELEVATION CERTIFICATE SHALL BE PROVIDED TO THE DEPARTMENT OF PUBLIC WORKS UPON COMPLETION OF CONSTRUCTION PER CBC 29.09.054(b). THIS DOCUMENT MUST BE PREPARED BY A LICENSED LAND SURVEYOR OR REGISTERED CIVIL ENGINEER.
 - UPON COMPLETION OF CONSTRUCTION THE ARCHITECT OR A LICENSED CIVIL ENGINEER SHALL PROVIDE CERTIFICATION THAT THE CONSTRUCTION OF MCC 29.09.054(b) HAS BEEN SATISFIED.
- NAVD88 TO MLLW CONVERSION:**
ELEVATION DATUMS ARE BASED ON THE NOAA BOLLINAS LAGOON TIDAL STATION DATUM TABLE LOCATED ON THE SURVEYOR'S TOPOGRAPHIC MAP IN THIS DRAWING SET. PER THE BOLLINAS LAGOON TIDAL STATION DATUM TABLE, TO CONVERT THE NAVD88 TO THE MLLW SUBTRACT 1.12' (1'-1 1/8").

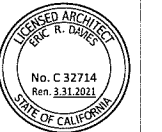
1 PROPOSED LANDSCAPE, GRADING & DRAINAGE PLAN
SCALE: 1/8" = 1'-0"



Title:

Revisions:	Date:
WALKING #11	9/2/2021
WALKING #12	9/20/2021

Date:
07.31.2019
Scale:
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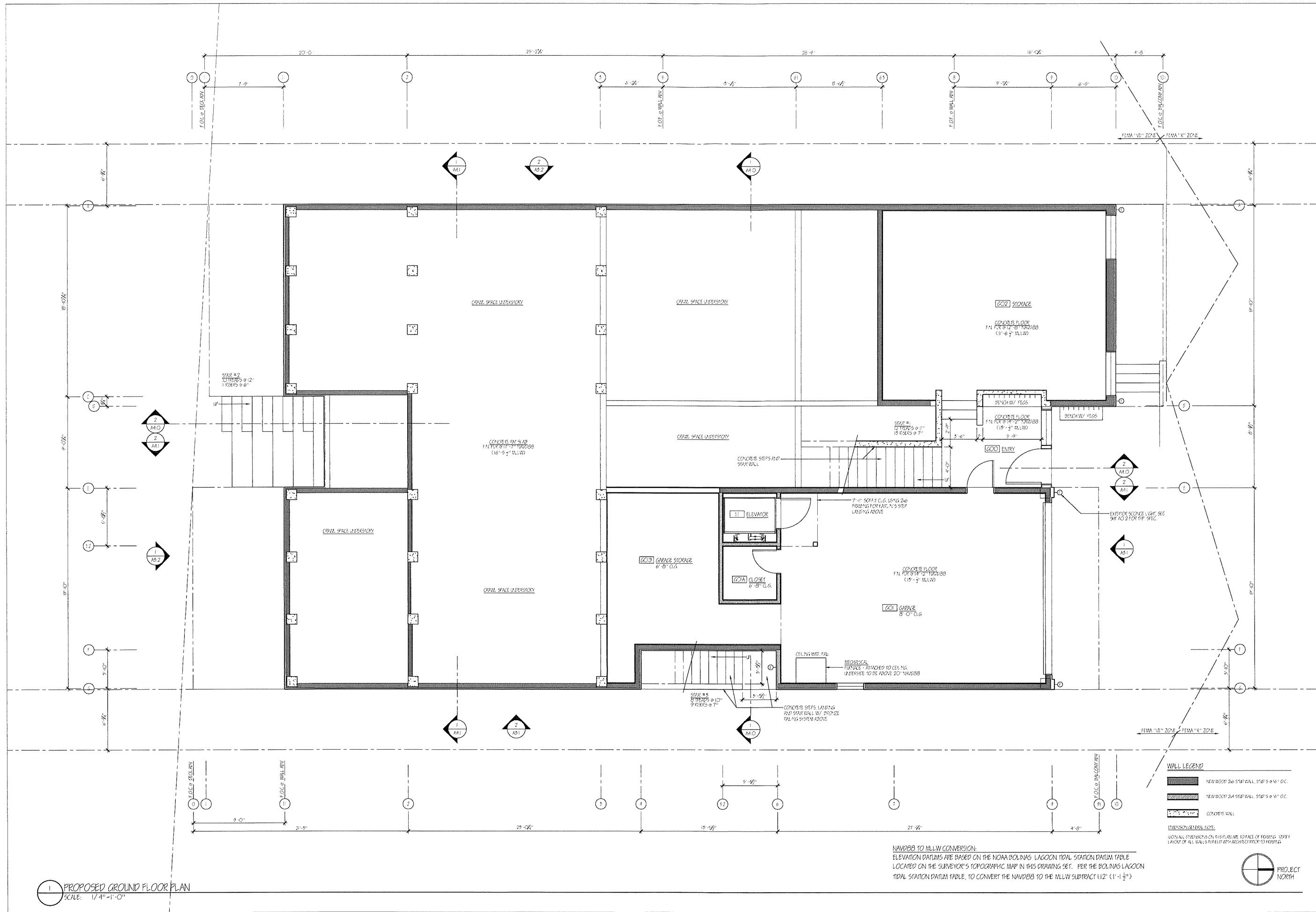


HAO RESIDENCE
218 SEADRIFT ROAD, STINSON BEACH CA 94970
APN: 195-251-07

Title:

Revisions:	Date:
WORKING REV 1	8/2/2019
WORKING REV 2	9/20/2019

Date:	07/31/2019
Scale:	AS NOTED
Sheet:	A2.2



1 PROPOSED GROUND FLOOR PLAN
SCALE: 1/4"=1'-0"

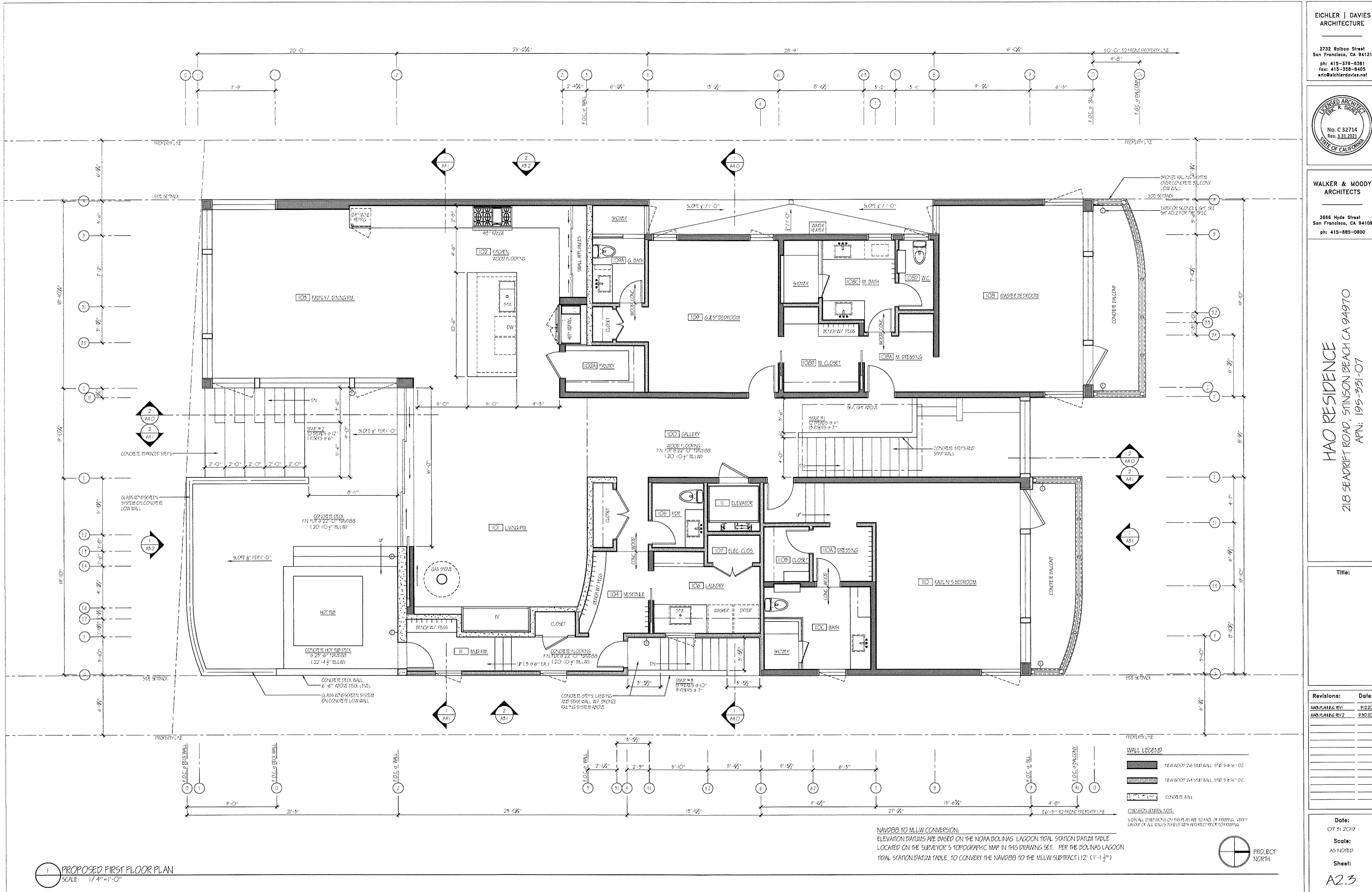
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TIDAL STATION DATUM TABLE, TO CONVERT THE NAVD83 TO THE MLLW SUBTRACT 1.12' (1'-1 1/8")

WALL LEGEND

- NEW WOOD 2x4 STUD WALL, 5/8" OC
- NEW WOOD 2x4 STUD WALL, 5/8" OC
- CONCRETE WALL

GENERAL NOTES:
1. UNLESS OTHERWISE NOTED, ALL DIMENSIONS ON THIS PLAN ARE TO FACE OF FRAMING. VERIFY
LAYOUT OF ALL WALLS BEFORE CONSTRUCTION.





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HAO RESIDENCE
 218 SEADRIFT ROAD, STINSON BEACH CA 94970
 APN: 195-5311-07

Title:

Revisions:	Date:
W&M: R.1	8/22/20
W&M: R.2	9/30/20

WALL LEGEND
(Symbol) 18" WOOD 2x4 SHED WALL, 5/8" S & 1" OC.
(Symbol) 18" WOOD 2x4 SHED WALL, 5/8" S & 16" OC.
(Symbol) CONCRETE WALL

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PROPOSED FIRST FLOOR PLAN
 SCALE: 1/4" = 1'-0"



Date: 07.31.2019
 Scale: AS NOTED
 Sheet: A2.3



HAO RESIDENCE
 218 SEADRIFT ROAD, STINSON BEACH CA 94970
 APN: 195-551-07

Title:
ELEVATIONS

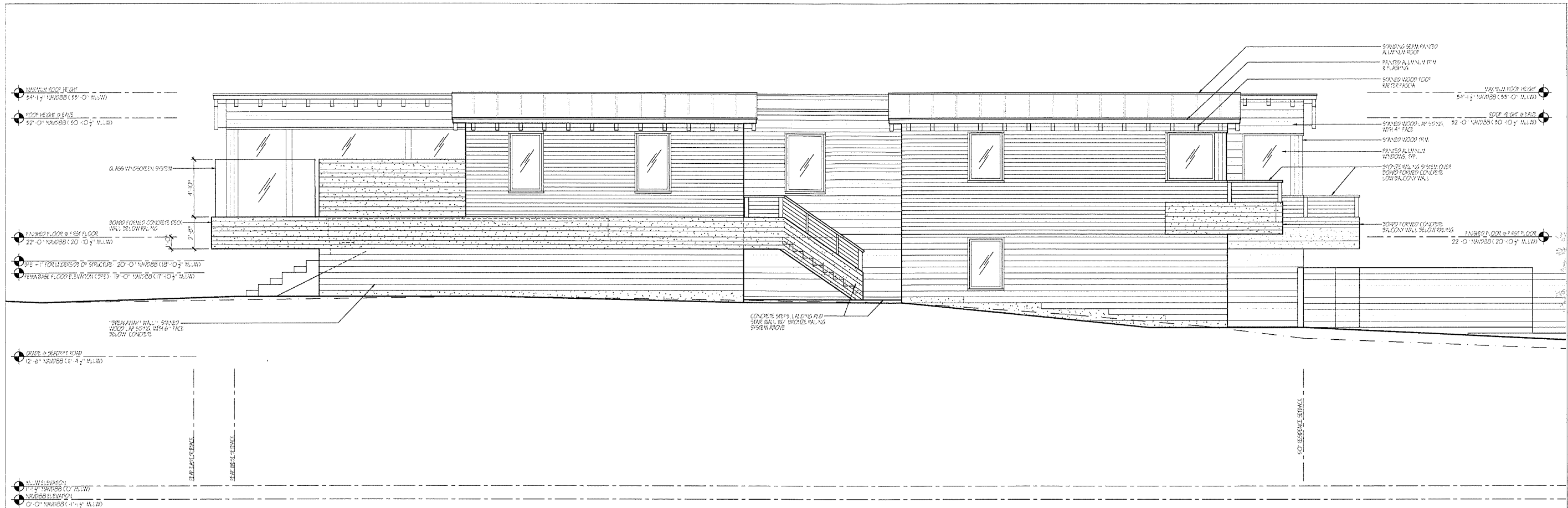
Revisions:	Date:
HYDRAULIC REV1	8/2/2019
HYDRAULIC REV2	9/30/2019

Date:
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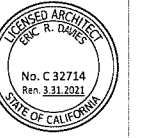


2 ELEVATION - EAST
SCALE: 1/4"=1'-0"

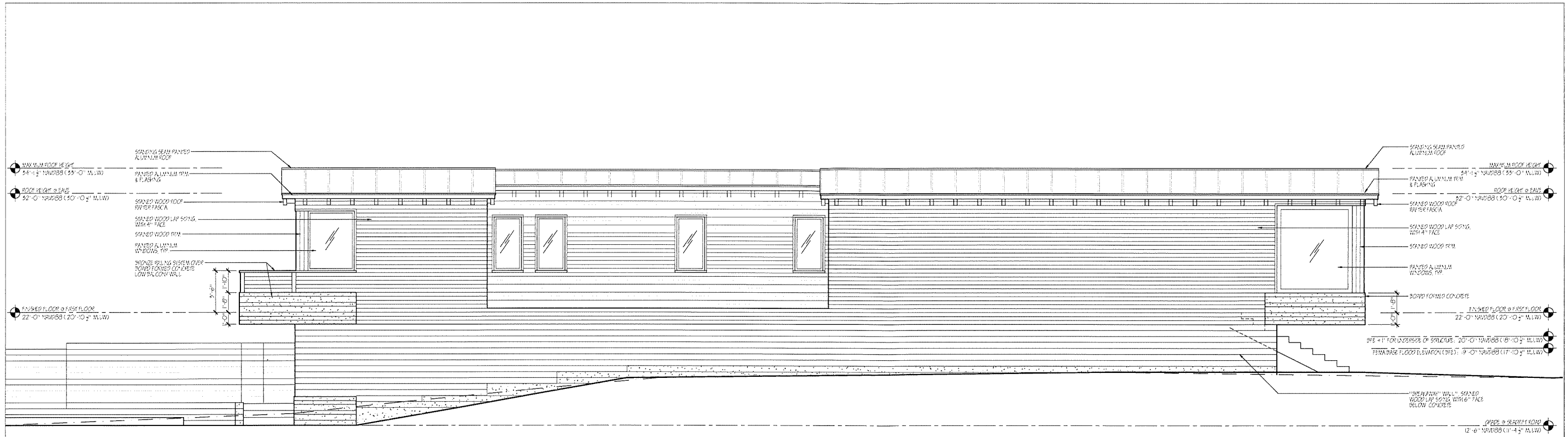


1 ELEVATION - NORTH
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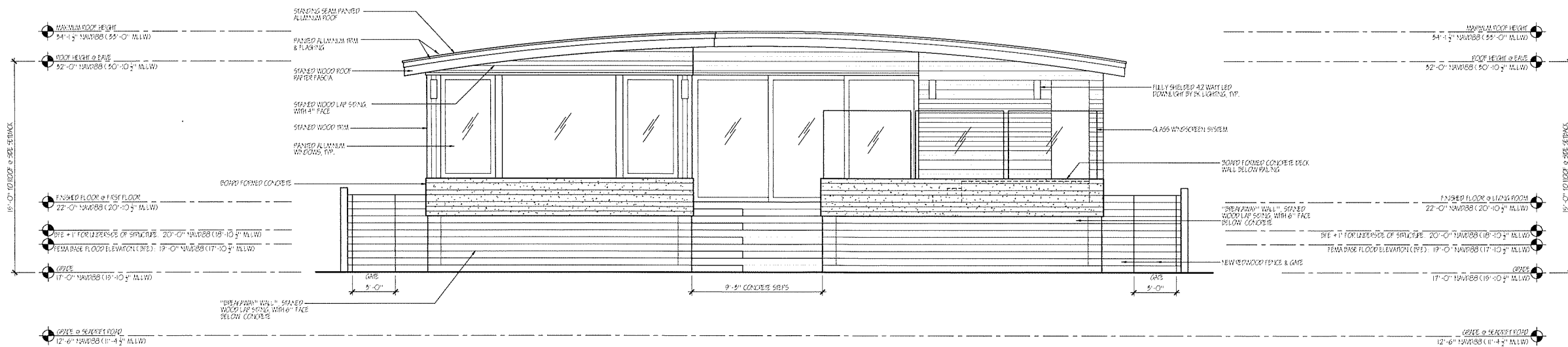
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HAO RESIDENCE
 218 SEADRIFT ROAD, STINSON BEACH CA 94970
 APN: 195-551-07



2 ELEVATION - WEST
SCALE: 1/4"=1'-0"



1 ELEVATION - SOUTH
SCALE: 1/4"=1'-0"



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Title:
ELEVATIONS

Revisions:	Date:
WALKING REV1	8/22/2019
WALKING REV2	9/20/2019

Date:
 07.31.2019
 Scale:
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 Sheet:

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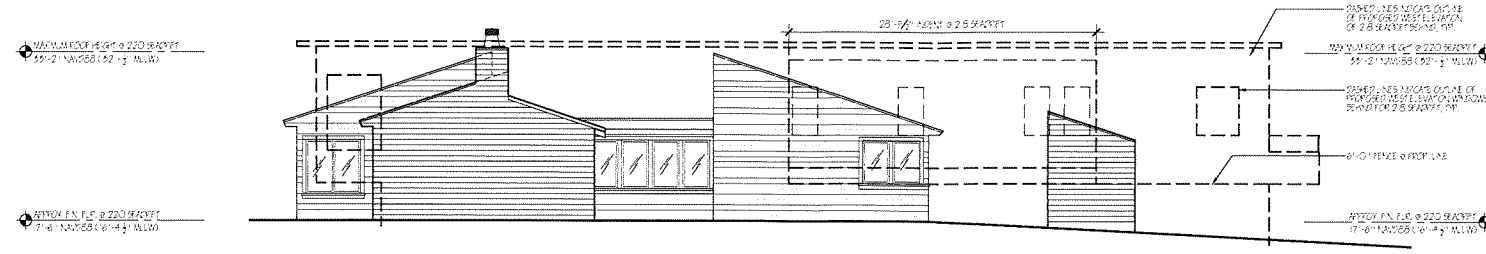
HAO RESIDENCE
 218 SEADRIFT ROAD, STINSON BEACH CA 94970
 APN: 195-251-07

Title:
NEIGHBOR
ELEVATIONS

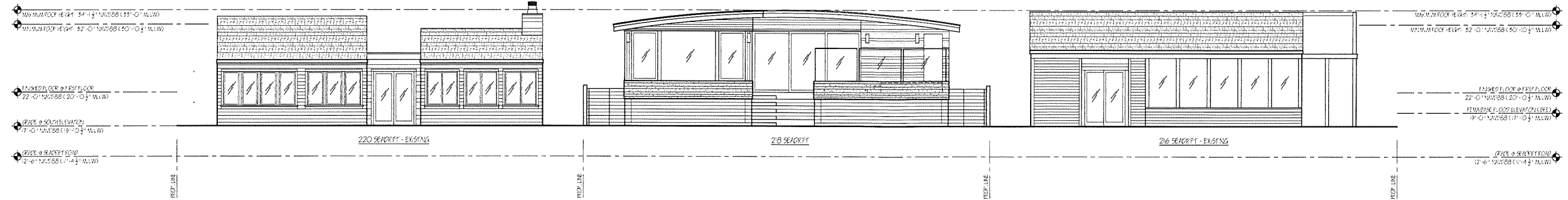
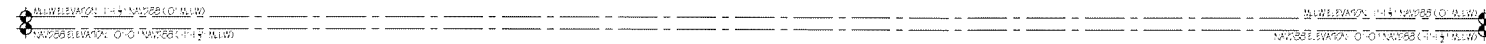
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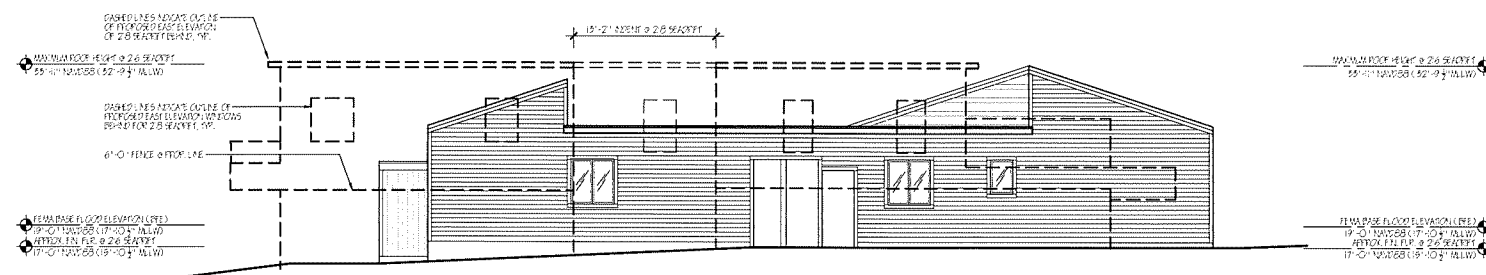
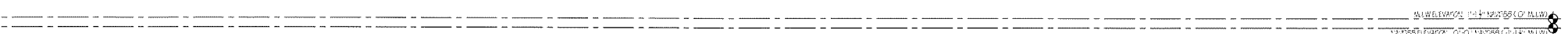
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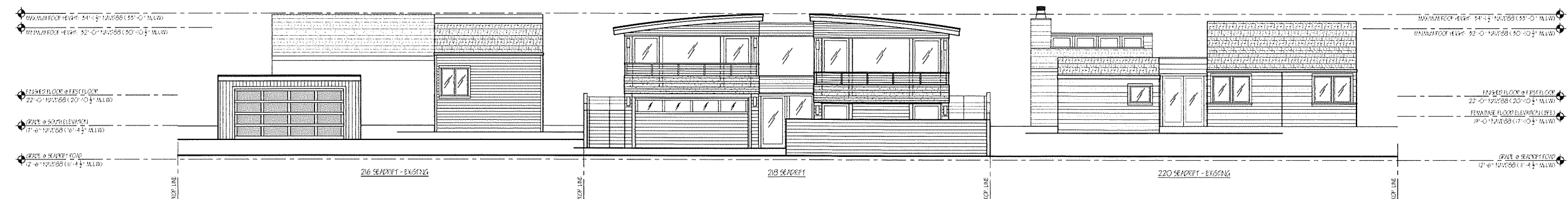
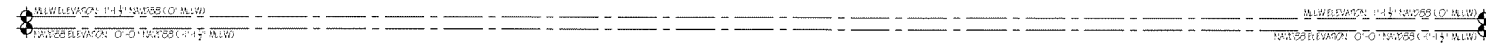
4 ELEVATION - EAST - 220 SEADRIFT
SCALE: 1/8"=1'-0"



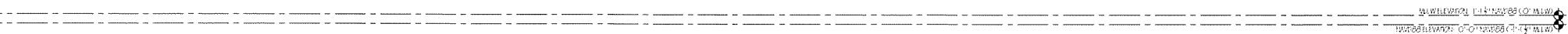
5 ELEVATION - SOUTH - 220, 218 & 216 SEADRIFT
SCALE: 1/8"=1'-0"



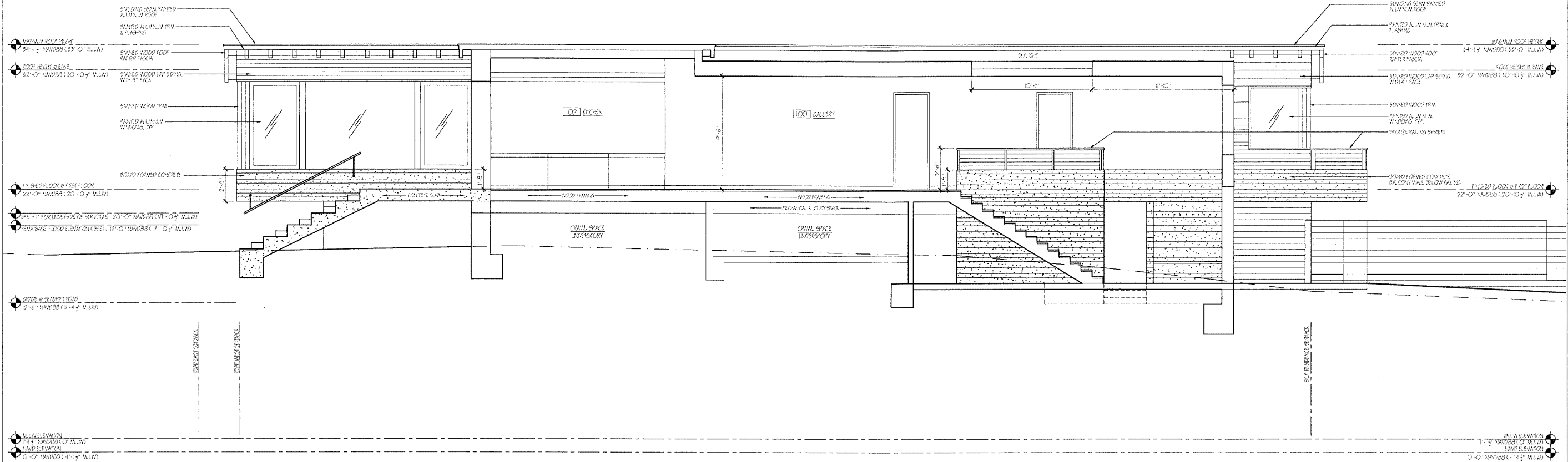
2 ELEVATION - WEST - 216 SEADRIFT
SCALE: 1/8"=1'-0"



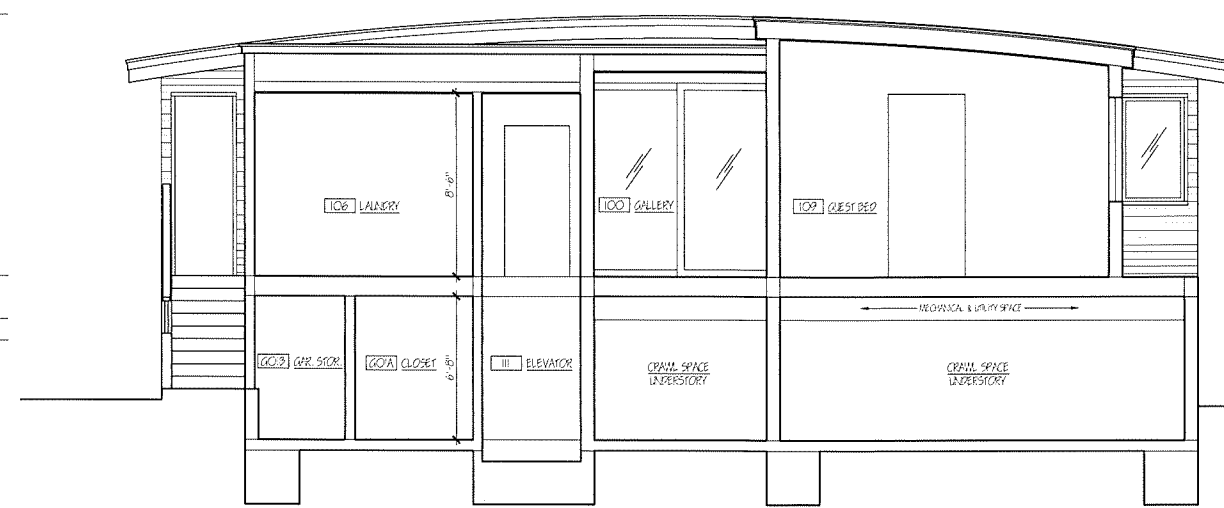
1 ELEVATION - NORTH - 216, 218 & 220 SEADRIFT
SCALE: 1/8"=1'-0"



NAVD88 TO MLLW CONVERSION
 ELEVATION DATUMS ARE BASED ON THE NOAA BOLINAS LAGOON TIDAL STATION DATUM TABLE
 LOCATED ON THE SURVEYOR'S TOPOGRAPHIC MAP IN THIS DRAWING SET. PER THE BOLINAS LAGOON
 TIDAL STATION DATUM TABLE, TO CONVERT THE NAVD88 TO THE MLLW SUBTRACT 1.12' (1'-1 1/2")



2 SECTION - LOOKING WEST
SCALE: 1/4"=1'-0"



1 SECTION - LOOKING SOUTH
SCALE: 1/4"=1'-0"

NAVD83 TO MLLW CONVERSION:
ELEVATION DATUMS ARE BASED ON THE NOAA BOLINAS LAGOON TIDAL STATION DATUM TABLE
LOCATED ON THE SURVEYOR'S TOPOGRAPHIC MAP IN THIS DRAWING SET. PER THE BOLINAS LAGOON
TIDAL STATION DATUM TABLE, TO CONVERT THE NAVD83 TO THE MLLW SUBTRACT 1.12' (1'-1 1/8")

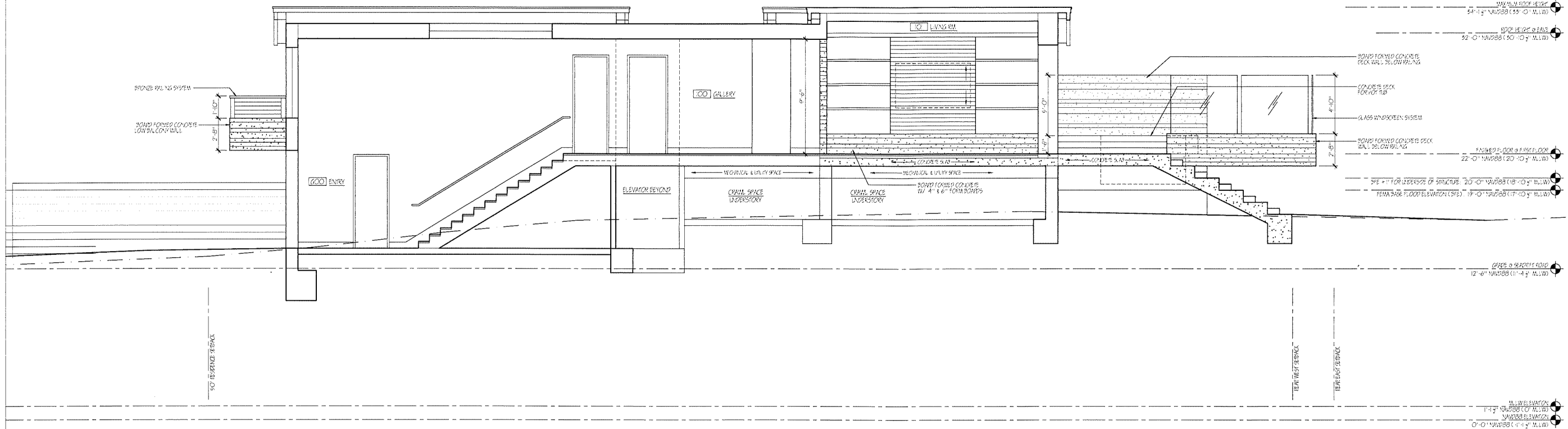


HAO RESIDENCE
218 SEADRIFT ROAD, STINSON BEACH CA 94970
APN: 195-351-07

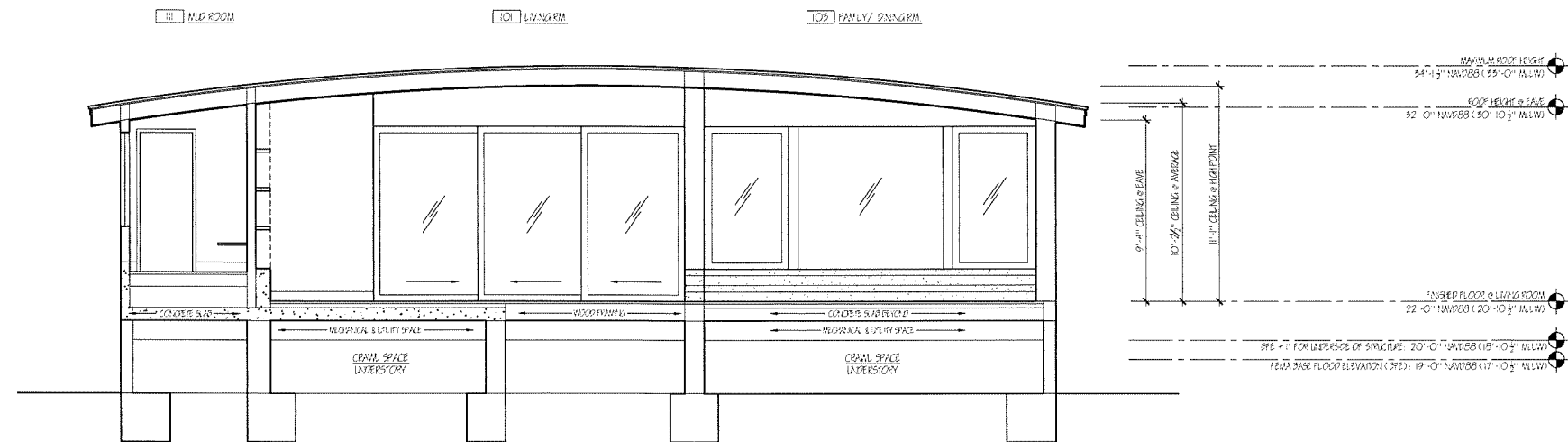
Title:
SECTIONS

Revisions:	Date:
WALKER & MOODY REV 1	9/22/2019
WALKER & MOODY REV 2	9/30/2019

Date:
07/21/2019
Scale:
AS NOTED
Sheet:
A4.1



2 SECTION - LOOKING WEST
SCALE: 1/4"=1'-0"



1 SECTION - LOOKING SOUTH
SCALE: 1/4"=1'-0"

NAVD83 TO MLLW CONVERSION:
ELEVATION DATUMS ARE BASED ON THE NOAA BOLINAS LAGOON TIDAL STATION DATUM TABLE LOCATED ON THE SURVEYOR'S TOPOGRAPHIC MAP IN THIS DRAWING SET. PER THE BOLINAS LAGOON TIDAL STATION DATUM TABLE, TO CONVERT THE NAVD83 TO THE MLLW SUBTRACT 112' (1'-1 1/2")

MLLW ELEVATION
17'-1 1/2" NAVD83 (0' MLLW)
0'-0" NAVD83 (-11 1/2" MLLW)

MLLW ELEVATION
17'-1 1/2" NAVD83 (0' MLLW)
0'-0" NAVD83 (-11 1/2" MLLW)



Graphic Scale (in feet)

1 inch = 10 ft.

LOT 59
PER
9 RM 62
LANDS OF
TERPLAN
(2862 OR 76)
APN 195-331-08

LANDS OF HAO
(DN 2018-43256)
APN 195-331-07

LOT 57
PER
9 RM 62
LANDS OF
SCHNUGG
(DN 1997-28863)
APN 195-331-06

MATCHLINE - SEE TOP LEFT

MATCHLINE-SEE BOTTOM MIDDLE

CORNER RECORD, LOT 44
APN: 195-331-37

BASIS OF BEARING
N80°00'50"W 1051.290' (MEAS) (1051.494' PER 9 RM 62)
AND RECORD OF SURVEY, LOT 44, APN 195-331-37
(50112 R/W)

LEGEND

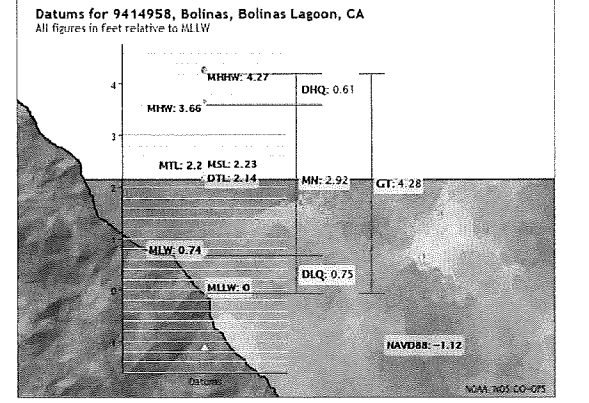
	BUILDING
	CONTOUR MAJOR (5' INTERVAL)
	CONTOUR MINOR (1' INTERVAL)
	FENCE
	GRADE BREAK LINE
	TOE OF BANK
	TOP OF BANK
	BOUNDARY
	BOUNDARY OFFSITE
	CENTER LINE
	FOUND MONUMENT AS NOTED
	MEASURED
	CALCULATED

ABBREVIATIONS

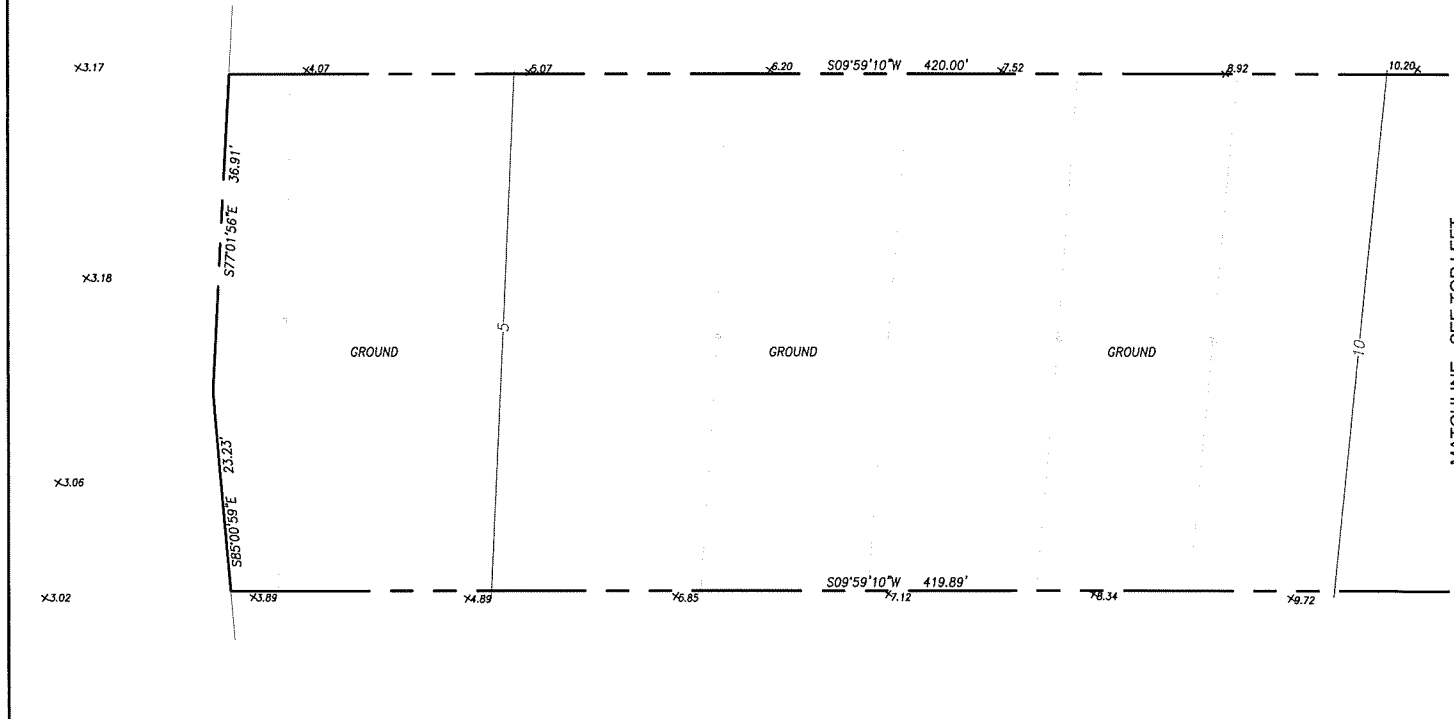
AC	ASPHALTIC CONCRETE	IRR	IRRIGATION
APN	ASSESSOR PARCEL NUMBER	L	LIGHTING CONDUIT
BFP	BACK FLOW PREVENTER	OR	OFFICIAL RECORDS
CL	CENTER LINE	R/W	ROAD WIDTH
CONC	CONCRETE	SD	STORM DRAIN
DEP	DEPRESSED	SL	STREET LIGHT
DN	DOCUMENT NUMBER	SS	SANITARY SEWER
E	ELECTRIC	TC	TOP OF CURB
ELEC	ELECTRICAL	TELE	TELEPHONE
FH	FIRE HYDRANT	TYP	TYPICAL
FL	FLOW LINE	TW	TOP OF WALL
HYD	HYDRANT	UTIL	UTILITIES
INT	INTERSECTION	W	WATER
		WV	WATER VALVE

NOTES

- DISTANCES SHOWN ARE IN FEET AND DECIMALS THEREOF.
- BASIS OF BEARING FOR THIS MAP IS N80°00'50"W BETWEEN TWO FOUND STREET MONUMENTS AS SHOWN ON THAT CERTAIN MAP ENTITLED "MAP OF SEADRIFT SUBD. NO. TWO" RECORDED IN BOOK 9 OF RECORD MAPS, PAGE 62, MARIN COUNTY RECORDS.
- VERTICAL DATUM FOR THIS PROJECT IS NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) PER NATIONAL GEODETIC SURVEY BENCHMARK HT1718 DESIGNATION XX 480 BEING A DISK IN MONUMENT WELL ON A ROCK OUTCROP WITH AN A STABILITY RATING, A STABILITY RATED MOST RELIABLE AND EXPECTED TO HOLD. BENCHMARK ELEVATION IS 20.7 FEET NAVD88. HT1718 DATA SHEET AVAILABLE ON NGS WEBSITE OR ON FILE AT THE OFFICE OF CSWST2. A GPS BASE SURVEY WAS PERFORMED TO USE AS A CHECK, BUT UNABLE TO POST PROCESS THROUGH OPUS DUE TO GOVERNMENT SHUTDOWN.
- CLOSEST TIDAL STATION IS STATION ID: 9414958 AT BOLINAS LAGOON. SEE DATUM IMAGE FOR VARIOUS TIDAL DATUMS AND THEIR DIFFERENCE FROM NAVD88.
- TOPOGRAPHY SHOWN WAS PERFORMED BY FIELD SURVEY ON JANUARY 7, 2019.



BOLINAS LAGOON TIDAL STATION 9414958, DATUMS
<https://tidesandcurrents.noaa.gov/datums.html?id=9414958>

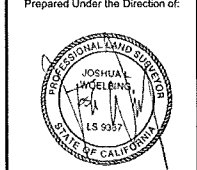


Rev	Date	Description	Designed	Drawn	Checked
01/10/19		SUBMIT TO CLIENT		BJH	JLW

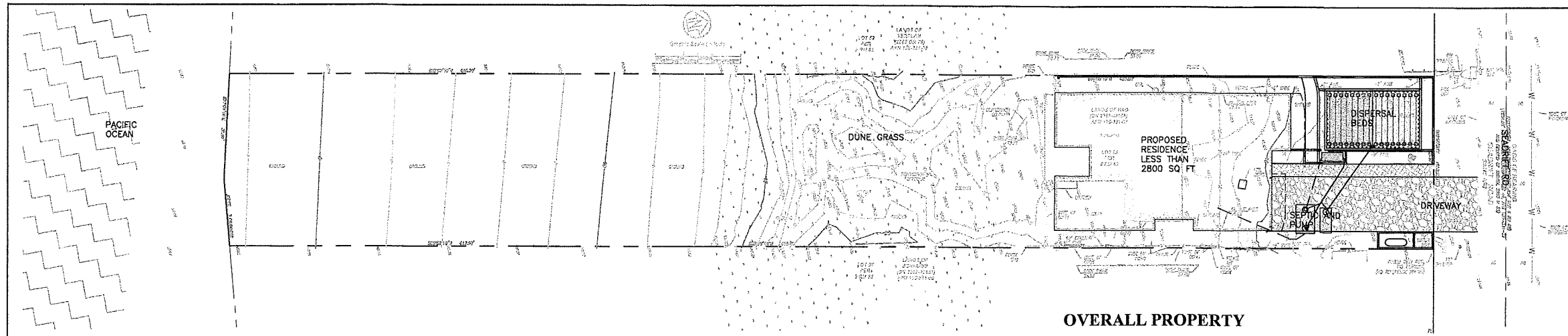
CSW ST2
CSW/Stuber-Stroeh Engineering Group, Inc.
 Civil & Structural Engineers | Surveying & Mapping | Environmental Planning
 Land Planning | Construction Management
 45 Leveroni Court, Novato, CA 94949 | tel: 415.883.9850 | fax: 415.883.9835
<http://www.cswst2.com> © 2014

City	Stinson Beach
County	Marin
State	California

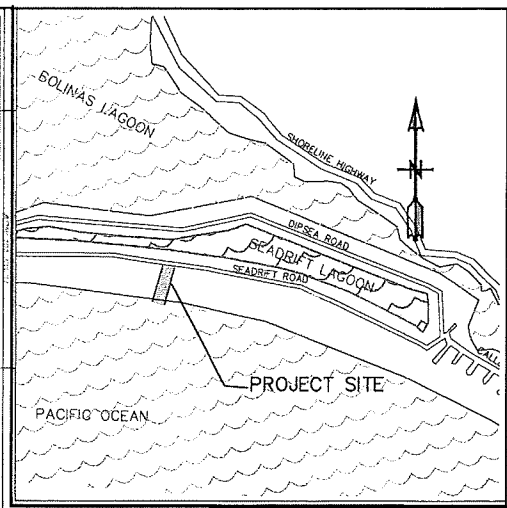
218 SEADRIFT ROAD
 TOPOGRAPHIC MAP
 LANDS OF HAO (APN 195-331-07)



Sheet	1/1
Scale:	1"=10'
Date:	01/10/19
Project Number:	3185000
Plan File:	D5526



**OVERALL PROPERTY
SCALE 1"=30'**

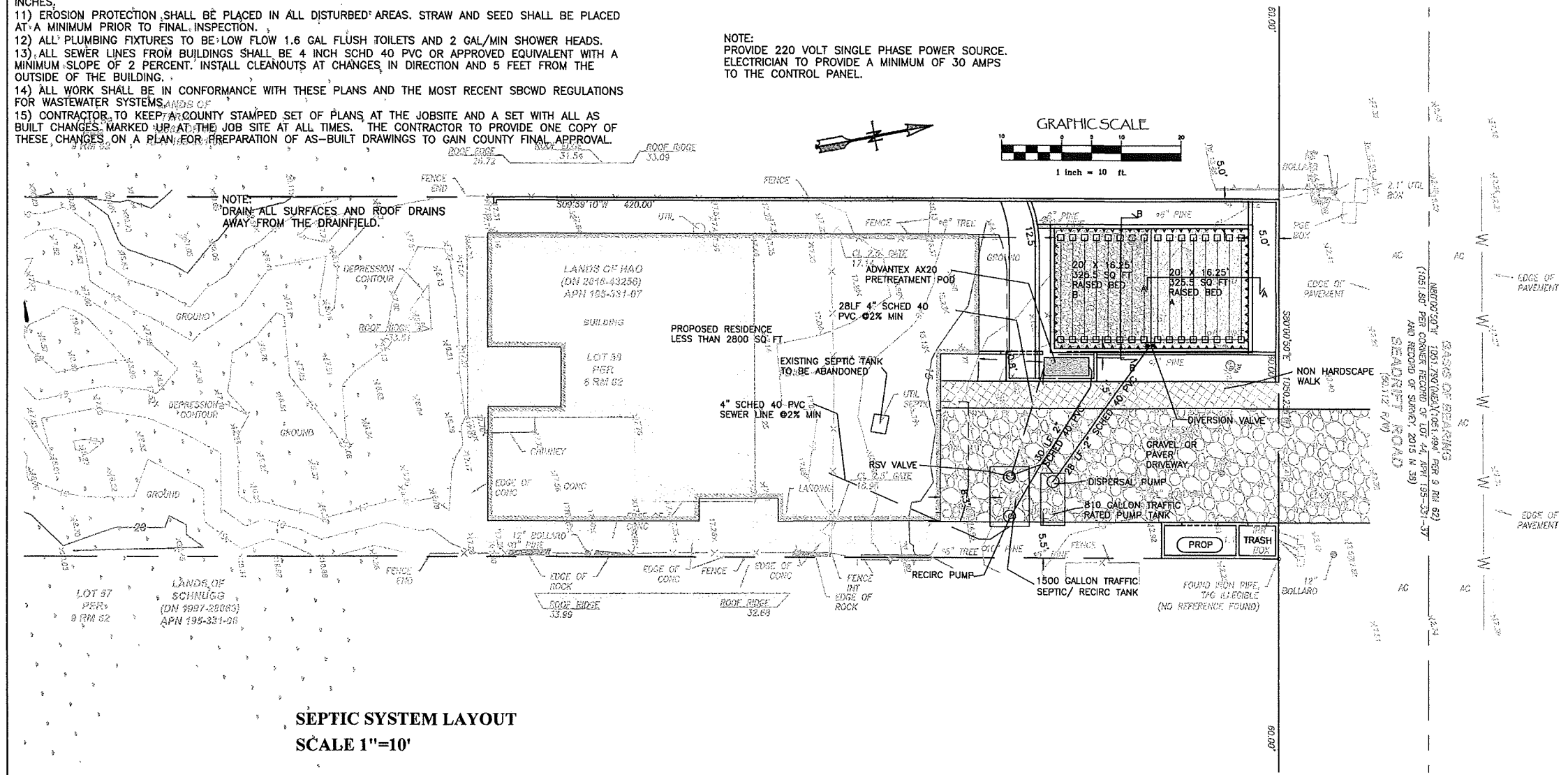


VICINITY MAP

- GENERAL NOTES:**
- 1) CONTRACTOR TO NOTIFY STINSON BEACH COUNTY WATER DISTRICT (SBCWD) PERSONEL AND DESIGN ENGINEER 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.
 - 2) TOPOGRAPHIC SURVEY PROVIDED BY CSW-STUBER-STROEH AND ASSOC 415-883-966-9850
 - 3) NOT TO BE USED AS A BOUNDARY SURVEY- SURVEYOR TO STAKE ALL PROPERTY LINES AND EASEMENTS.
 - 4) MAINTAIN 10' SEPARATION FROM ANY SEWAGE LINE TO WATERLINE IF NOT POSSIBLE REROUTE TO MAINTAIN SEPARATION. CROSSING SHALL BE MADE WITH WATER ABOVE SEWER LINE WITH A 1' SEPARATION AND CONCRETE BETWEEN LINES.
 - 5) NO CUTS SHALL BE MADE DOWNSLOPE OF DRAINFIELD WITHOUT PERMISSION OF BOTH SBCWD AND DESIGN ENGINEER.
 - 6) CONSULT ENGINEER PERTAINING TO LANDSCAPING IN SEPTIC SYSTEM AREA.
 - 7) NO MATERIAL SUBSTITUTION WITH OUT DESIGN ENGINEER APPROVAL.
 - 8) NO WORK TO BE PERFORMED DURING WET CONDITIONS AND ALL EXCAVATION TO BE COORDINATED WITH THE DESIGN ENGINEER AND SBCWDS STAFF DURING WET SEASON (OCTOBER 15- APRIL 15).
 - 9) ALL TANKS TO BE WATERTIGHT-SEE WATERTIGHTNESS TEST.
 - 10) CONTRACTOR NOT TO OVEREXCAVATE THE DELIVERY LINE TRENCH/S. MAXIMUM DEPTH OF TRENCH IS 24 INCHES.
 - 11) EROSION PROTECTION SHALL BE PLACED IN ALL DISTURBED AREAS. STRAW AND SEED SHALL BE PLACED AT A MINIMUM PRIOR TO FINAL INSPECTION.
 - 12) ALL PLUMBING FIXTURES TO BE LOW FLOW 1.6 GAL FLUSH TOILETS AND 2 GAL/MIN SHOWER HEADS.
 - 13) ALL SEWER LINES FROM BUILDINGS SHALL BE 4 INCH SCHD 40 PVC OR APPROVED EQUIVALENT WITH A MINIMUM SLOPE OF 2 PERCENT. INSTALL CLEANOUTS AT CHANGES IN DIRECTION AND 5 FEET FROM THE OUTSIDE OF THE BUILDING.
 - 14) ALL WORK SHALL BE IN CONFORMANCE WITH THESE PLANS AND THE MOST RECENT SBCWD REGULATIONS FOR WASTEWATER SYSTEMS.
 - 15) CONTRACTOR TO KEEP A COUNTY STAMPED SET OF PLANS AT THE JOBSITE AND A SET WITH ALL AS BUILT CHANGES MARKED UP AT THE JOB SITE AT ALL TIMES. THE CONTRACTOR TO PROVIDE ONE COPY OF THESE CHANGES ON A PLAN FOR PREPARATION OF AS-BUILT DRAWINGS TO GAIN COUNTY FINAL APPROVAL.

NOTE:
REROUTE ANY WATERLINE WITHIN TEN FEET OF SEPTIC SYSTEM IF CROSSING OF WATER AND SEWER LINES MUST BE MADE THEN SLEEVE BOTH WATER AND SEWER WITHIN TEN FEET EACH OF EACH OTHER WITH SCH 80 PVC

NOTE:
PROVIDE 220 VOLT SINGLE PHASE POWER SOURCE. ELECTRICIAN TO PROVIDE A MINIMUM OF 30 AMPS TO THE CONTROL PANEL.



**SEPTIC SYSTEM LAYOUT
SCALE 1"=10'**

NOTE:
LOCATION OF EXISTING UTILITIES IS UNKNOWN AND MUST BE DETERMINED BY CONTRACTOR PRIOR TO CONSTRUCTION. ENGINEER ASSUMES NO RESPONSIBILITY IN LOCATING EXISTIN UTILITIES.

NOTE:
PROVIDE CONCRETE THRUST BLOCKS AT PIPE DIRECTION CHANGES OF GREATER THAN 44 DEGREES. SEE DETAIL FOR THRUST BLOCKS.

Revisions:

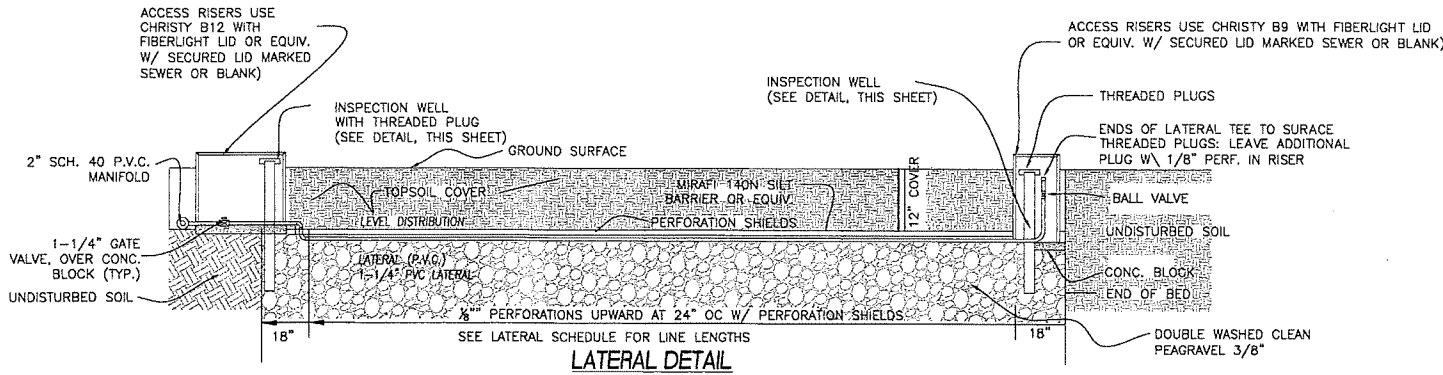
PREPARED FOR:
Ken Hao C/o Silverlake
2775 Sand Hill Road #100
Menlo Park CA 94025

RAISED BED ADVANTEK SYSTEM
218 Seadrift Road
Stinson Beach, CA
APN 195-331-07

AYS Engineering Group, Inc
PO Box 5693, Petaluma, CA 94955
Voice (707) 763-6620



Job No. 2019-015
Date 6-03-19
Drawn By: tkp
Checked By: tkp
Scale as shown
Sheet 1 of 2
1

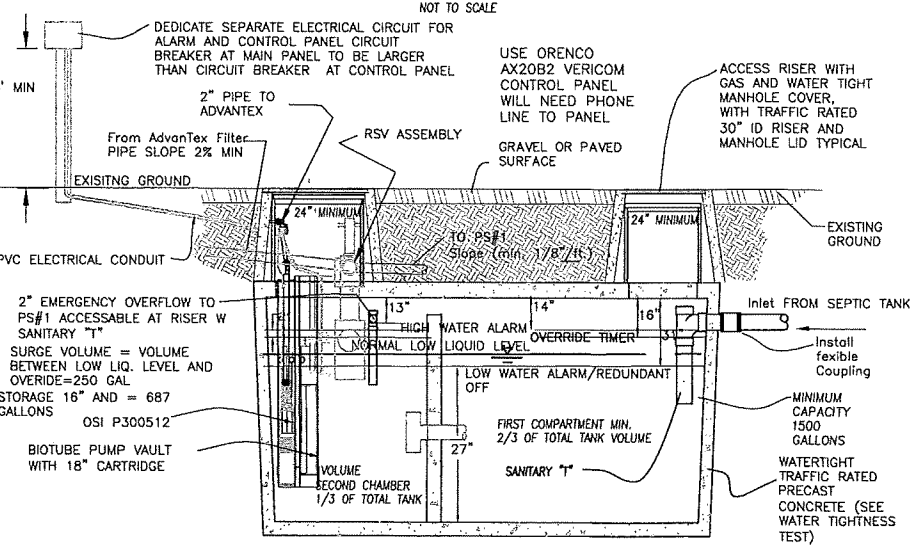
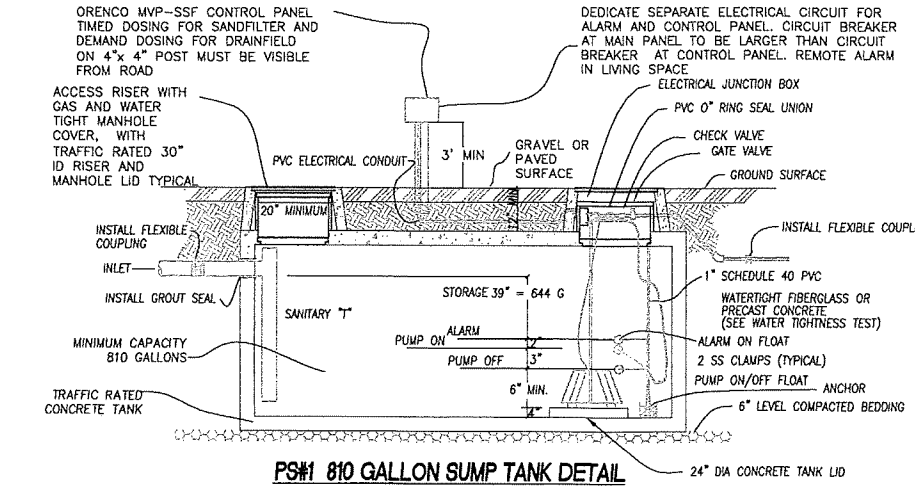
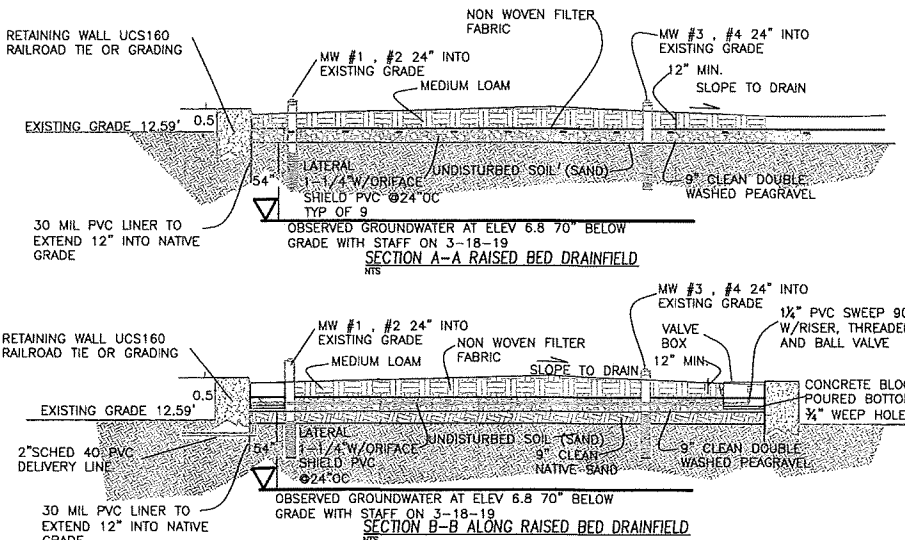


No.	DIAMETER	PERF SIZE	LENGTH	# OF PERFS"
A1	1 1/4"	3/8"	17	8
A2	1 1/4"	3/8"	17	8
A3	1 1/4"	3/8"	17	8
A4	1 1/4"	3/8"	17	8
A5	1 1/4"	3/8"	17	8
A6	1 1/4"	3/8"	17	8
A7	1 1/4"	3/8"	17	8
A8	1 1/4"	3/8"	17	8
B1	1 1/4"	3/8"	17	8
B2	1 1/4"	3/8"	17	8
B3	1 1/4"	3/8"	17	8
B4	1 1/4"	3/8"	17	8
B5	1 1/4"	3/8"	17	8
B6	1 1/4"	3/8"	17	8
B7	1 1/4"	3/8"	17	8
B8	1 1/4"	3/8"	17	8

RT#1 FROM RECIRC TO ADVANTEX
 TOTAL DYNAMIC HEAD = 25.8 FT
 GALLONS PER MINUTE (GPM) = 32 GPM
 DOSE = 13 GALLONS
 OPERATION RANGE = TIMER
 ON CYCLE 24 SEC OFF 60 MIN
 OVER ON 24 SEC OFF 30MIN
 RECOMMENDED PUMP TYPE: OSI
 PF300512 (230 VOLTS, SINGLE PHASE,
 7 AMPS).
 RECOMMENDED CONTROL PANEL:
 SEE CONTROL PANEL REQUIREMENTS
 THIS PAGE.

PS#1 FROM 810 SUMP TO DISPERSAL BEDS
 TOTAL DYNAMIC HEAD = 25 FT
 GALLONS PER MINUTE (GPM) = 28 GPM
 DOSE = 55 GALLONS ON DEMAND
 OPERATION RANGE = 3.0"
 RECOMMENDED PUMP TYPE: GOULDS
 MODEL 3885 WEO512H (5 HP, 230
 VOLTS, SINGLE PHASE, 7.0 AMPS).
 RECOMMENDED CONTROL PANEL:
 SEE CONTROL PANEL REQUIREMENTS
 THIS PAGE.

LATERAL SCHEDULE
 NOT TO SCALE



GENERAL NOTES

- 1) CONTRACTOR TO NOTIFY STINSON BEACH COUNTY WATER DISTRICT (SBCWD) PERSONEL AND DESIGN ENGINEER 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.
- 2) NOT TO BE USED AS A BOUNDARY SURVEY- SURVEYOR TO STAKE ALL PROPERTY LINES AND EASEMENTS. SURVEY PROVIDED BY LAWRENCE P DOYLE 415-388-9585
- 3) MAINTAIN 10' SEPARATION FROM ANY SEWAGE LINE TO WATERLINE IF NOT POSSIBLE REROUTE TO MAINTAIN SEPARATION. CROSSING SHALL BE MADE WITH WATER ABOVE SEWER LINE WITH BOTH LINES SLEEVED WITHIN 10' OF EACH OTHER.
- 4) NO CUTS SHALL BE MADE DOWNSLOPE OF DRAINFIELD WITHOUT PERMISSION OF BOTH SBCWD AND DESIGN ENGINEER.
- 5) CONSULT ENGINEER PERTAINING TO LANDSCAPE SEPTIC SYSTEM.
- 6) NO MATERIAL SUBSTITUTION WITH OUT DESIGN ENGINEER APPROVAL.
- 7) ALL TANKS TO BE WATERTIGHT-SEE WATERTIGHTNESS TEST.
- 8) CONTRACTOR NOT TO OVEREXCAVATE THE DELIVERY LINE TRENCH/S. MAXIMUM DEPTH OF TRENCH IS 24 INCHES.
- 9) THIS SYSTEM CALLS FOR A DIVERSION VALVE/S WHICH ARE TO BE HOUSED IN A SUBSTANTIAL VALVE BOX. THE BOX IS TO BE EXTENDED TO 3 INCHES ABOVE GRADE. THE VALVE SHOULD BE ALTERNATED EVERY SIX MONTHS.
- 10) EROSION PROTECTION SHALL BE PLACED IN ALL DISTURBED AREAS. STRAW AND SEED SHALL BE PLACED AT A MINIMUM PRIOR TO FINAL INSPECTION.
- 11) ALL SEWER LINES FROM BUILDINGS SHALL BE 3 INCH SDR 35 OR APPROVED EQUIVALENT WITH A MINIMUM SLOPE OF 2 PERCENT. INSTALL CLEANOUTS AT CHANGES IN DIRECTION AND 5 FEET FROM THE OUTSIDE OF THE BUILDING.
- 12) ALL WORK SHALL BE IN CONFORMANCE WITH THESE PLANS AND THE MOST RECENT SBCWD REGULATIONS FOR WASTEWATER SYSTEMS.
- 13) CONTRACTOR TO CONDUCT SQUIRT TEST CONSISTING OF PRESSURIZING THE LEACHFIELD WITH THE PUMP AND ADJUSTING THE LEACHFIELD GATE VALVES TO PROVIDE A 5' HIGH STREAM OF WATER THROUGH ORIFICES. THIS IS TO BE REPEATED FOR CONSTRUCTION INSPECTION PHASE 2.
- 14) CONTRACTOR TO KEEP A PLAN SET WITH ALL CHANGES MARKED UP AT THE JOB SITE AT ALL TIMES. THE CONTRACTOR TO PROVIDE ONE COPY OF THESE CHANGES ON A PLAN FOR PREPARATION OF AS- BUILT DRAWINGS TO GAIN COUNTY FINAL APPROVAL.

CONSTRUCTION INSPECTION NOTES
 CONTRACTOR TO NOTIFY DESIGN ENGINEER AND SBCWD A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION AND INSPECTION OF THE SYSTEM. ADDITIONAL FEES WILL BE REQUIRED BY SBCWD AFTER THREE SITE INSPECTIONS. ENGINEER AND SBCWD SHALL INSPECT THE SYSTEM AT CRITICAL CONSTRUCTION PHASES AS FOLLOWS:

- PHASE ONE:**
- 1) INSPECT STAKE OUT LOCATION OF LATERALS ALONG CONTOURS, THE SEPTIC AND SUMP TANKS, AND THE SANDFILTER.
 - 2) INSPECT THE LEACHLINE GRAVEL AND SANDFILTER MEDIA, AND PROVIDE A CERTIFIED COPY OF WET SIEVE ANALYSIS USING ASTM C-117 OR EQUIVALENT.
- PHASE TWO:**
- 1) INSPECT LEACHLINE INSTALLATION AND LEVEL VIA OPEN TRENCHES AND INSTALLED INSPECTION WELLS.
 - 2) INSPECT PERFORATION SIZE AND SPACING.
 - 3) INSPECT WATERTIGHTNESS OF ALL TANKS.
 - 4) INSPECT SQUIRT TEST OF LEACHFIELD.
 - 5) INSPECT CONTROL PANEL, FLOATS AND CIRCUIT BREAKER FOR ENTIRE SEPTIC SYSTEM.
- PHASE THREE:**
- 1) INSPECT ANY ITEMS LISTED ABOVE WHICH HAVE NOT BEEN OBSERVED YET.
 - 2) INSPECT FINISHED SEPTIC SYSTEM INCLUSIVE OF ANY NECESSARY EROSION CONTROL MEASURES.
 - 3) INSPECT FLOOR PLAN OF STRUCTURE BEING SERVED BY THE SEPTIC SYSTEM. INSPECT, IF APPLICABLE, WHETHER LOW FLOW FIXTURES WERE INSTALLED OR NOT.
 - 4) PROVIDE SBCWD WITH BUILDING DEPARTMENT APPROVAL OF PUMP INSTALLATION.

OPERATION AND MAINTENANCE OF A SEPTIC SYSTEM

- 1) INSPECT SEPTIC TANKS AND DRAINFIELD EVERY SIX MONTHS.
 - 2) IF SLUDGE OR SCUM BUILDUP IS GREATER THAN 6 TO 8 INCHES HAVE TANK PUMPED. (USUAL FREQUENCY FOR PUMPING IS 3 TO 5 YEARS).
 - 3) MINIMIZE THE USE OF GARBAGE DISPOSAL.
 - 4) MINIMIZE THE USE OF HARSH CHEMICALS IN LARGE QUANTITIES.
 - 5) MINIMIZE THE AMOUNT OF GREASE DISPOSED OF IN SINKS. PACKAGE ALL FOOD WASTES AND DISPOSE OF IN GARBAGE FOR SANITARY LANDFILL.
 - 6) MINIMIZE DISPOSAL OF NON-SEWAGE ITEMS SUCH AS SANITARY NAPKINS, CIGARETTES AND OTHERS.
 - 7) MAINTAIN ALL PLUMBING. LEAKS SHOULD BE FIXED AS QUICK AS THEY OCCUR.
 - 8) MINIMIZE LIQUID LOAD ON THE SYSTEM BY WASHING DISHES AND LAUNDRY IN LARGE LOADS. SPREAD LOADS OVER THE WEEK RATHER THAN DOING ALL LAUNDRY ON A SINGLE DAY.
 - 9) PROHIBIT VEHICULAR TRAFFIC AND HOOFED ANIMALS FROM THE SEPTIC SYSTEM AREA.
- PUMP:**
 THE PUMP SHALL BE OF THE SIZE AND TYPE INDICATED ON THE PLANS AND SHALL INCLUDE THE FOLLOWING:
 1) A HANDS OFF AUTO (HOA) SWITCH.
 2) AN AUDIO AND VISIBLE ALARM AND NECESSARY EFFLUENT SENSING DEVICE TO INDICATE A HIGH WATER CONDITION.
 3) USE EITHER PILL OR MERCURY TYPE FLOAT SWITCH.
 4) SET PUMPING VOLUME AS STATED IN THE PUMP REQUIREMENTS.
 5) PUMP TO BE SET A MINIMUM OF 8 INCHES FROM THE BOTTOM OF THE SUMP.
- SUMP:**
 1) THE SUMP SHALL HAVE A WORKING CAPACITY OF 1.0 TIMES THE DESIGN FLOW DESIGNATED. THE CAPACITY SHALL INCLUDE THE DOSE VOLUME AND 24-HOUR STORAGE VOLUME.
 2) ACCESS TO BE PROVIDED BY A MINIMUM 24-INCH DIAMETER WATERPROOF AIRTIGHT RISER AND LID SYSTEM.
 3) ALL PIPE AND OR ELECTRICAL CONNECTIONS MADE THROUGH THE RISER EITHER TO BE PRECAST INTO THE RISER OR SEALED WITH GASTIGHT COMPRESSION CONNECTORS.

ELECTRICAL FEATURES

- THE FOLLOWING ELECTRICAL FEATURES TO BE PROVIDED
- 1) AN OUTDOOR TYPE CONTROL BOX CONTAINING A FUSED DISCONNECT AND MOTOR PROTECTION SWITCH. SEE THE PUMP REQUIREMENT SECTION OF THE PLANS FOR THE MODEL NUMBER AND REQUIREMENTS.
 - 2) THE CONTROL BOX TO BE MOUNTED ON THE BUILDING BEING SERVED IF WITHIN 20 FEET OF THE SUMP OTHERWISE INSTALL ON A 4"x4" POST THAT IS INSTALLED SECURELY. CONTROL PANEL TO BE VISIBLE FROM THE ROADWAY IF AT ALL POSSIBLE.
 - 3) ALARM AND PUMP TO BE INSTALLED ON SEPARATE CIRCUITS THAT ARE OF SIZE LARGE ENOUGH FOR THE RESPECTIVE USES.
 - 4) ELECTRICAL CONDUIT SHALL BE PVC AND SEPARATE CONDUITS SHALL BE PROVIDED TO POWER PUMP AND FLOATS.

PRESSURE PIPING

- 1) THE PIPE FROM THE SUMP TO THE DRAINFIELD SHALL BE PVC IN THE SIZE AND SCHEDULE SPECIFIED ON THE PLANS.
- 2) A UNION SWING CHECKVALVE AND DOUBLE WEDGE GATE VALVE SHALL BE INSTALLED IN THE SUMP CHAMBER IN THIS ORDER AWAY FROM THE PUMP. ALTERNATIVELY THESE ITEMS CAN BE INSTALLED IN A VALVE BOX NEXT TO THE SUMP CHAMBER.
- 3) CONCRETE THRUST BLOCKS SHALL BE INSTALLED WHEN CHANGE IN PIPE DIRECTION IS 45 DEGREES OR GREATER.

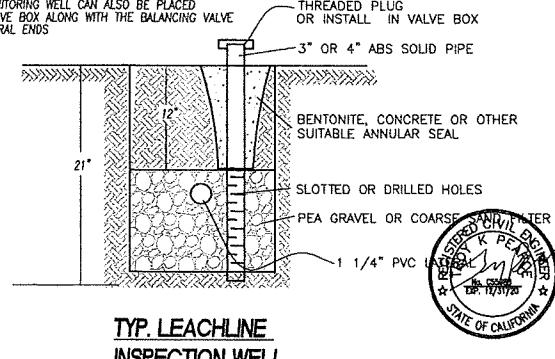
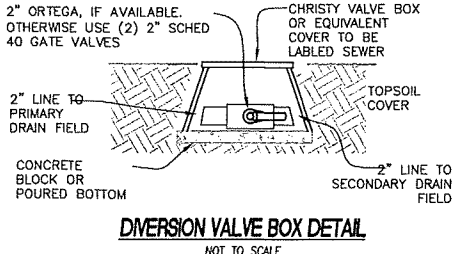
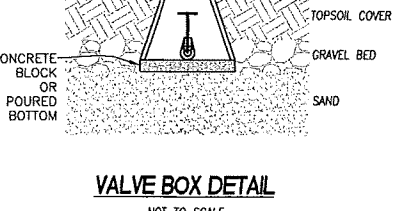
PERMITS

ASIDE FROM THE INDIVIDUAL SEWAGE DISPOSAL SYSTEM PERMIT ADDITIONAL PERMIT (S) WILL BE REQUIRED BY THE BUILDING INSPECTION DEPARTMENT FOR PUMP INSTALLATION.



TANK WATERTIGHTNESS TEST

1. CAP OR TEST PLUG ALL INLETS AND OUTLETS TO TANK.
2. FILL TANK WITH WATER TWO INCHES INTO THE RISER AND MARK WATER LEVEL. SCHEDULE WITH ENGINEER AND NECM 24 HOURS BEFORE FILLING TANK.
3. IF AFTER 24 HOURS WATER LEVEL DROPS, TANK MUST BE MADE WATERTIGHT BY APPLYING WATERPROOF SEALER (NOT BITUMINOUS PRODUCT) THOROUGHLY, THOROSEAL OR OTHER PORTLAND CONCRETE CEMENT PRODUCT.



PREPARED FOR:
 Ken Hao C/o Silverlake
 2775 Sand Hill Road #100
 Menlo Park CA 94025

RAISED BED ADVANTEX SYSTEM
 218 Seadrift Road
 Stinson Beach, CA
 APN 195-331-07

AYS Engineering Group, Inc
 PO Box 5693, Petaluma, CA 94955
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Job No.
2019-015
 Date
6-03-19
 Drawn By:
tkp
 Checked By:
tkp
 Scale
as shown

Sheet 2 of 2

DETAILS