PIPE BRIDGE REPLACEMENT



50% CONSTRUCTION PLANS FOR SAN SIMEON COMMUNITY SERVICES DISTRICT PIPE BRIDGE REPLACEMENT

OCTOBER 2023



CONTACT LIST:

SAN SIMEON COMMUNITY SERVICES DISTRICT 111 PICO AVENUE

SAN SIMEON, CA 93452

ENGINEER OF RECORD:
ASHLEY & VANCE ENGINEERING
1229 CARMEL STREET
SAN LUIS OBISPO, CA 93401
IAN SHOEBRIDGE, SE

EARTH SYSTEMS PACIFIC 4378 OLD SANTA FE ROAD SAN LUIS OBISPO, CA 93401 ROBERT DOWN, PE 805-544-3276

805-545-0010

PADRE ASSOCIATES, INC. 369 PACIFIC STREET SAN LUIS OBISPO, CA 93401 805-786-2650

MBS LAND SURVEYS 3559 SOUTH HIGUERA STREET SAN LUIS OBISPO, CA 93401 805-594-1960

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PROJECT INFO

SITE ADDRESS:

SAN SIMEON COMMUNITY
SERVICES DISTRICT
94245 BALBOA AVENUE
SAN SIMEON, CA 93452

UTILITY CONTACT LIST:

PG&E COMPANY 406 HIGUERA ST. SAN LUIS OBISPO, CA 93401 805-743-5000

SOUTHERN CALIFORNIA GAS COMPANY P.O. BOX C MONTEREY PARK, CA 91756

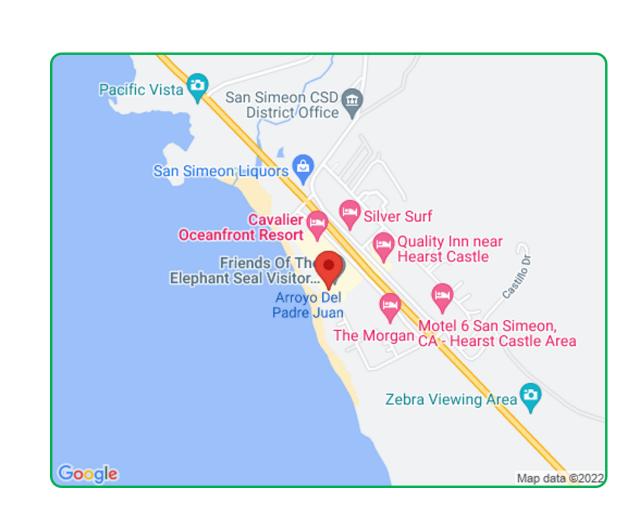
CHARTER COMMUNICATIONS 7775 SAN LUIS AVE. ATASCADERO, CA 93422

SAN SIMEON CSD 111 PICO AVENUE SAN SIMEON, CA 93452

800-427-2200

SAN SIMEON CABLE 866-631-1214

HUEGHES NET 844-737-2700



PROJECT VICINITY MAP

NOT TO SCALE

ENGINEERING, INC.



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PLACEMENT VENUE

PIPE BRIDGE

REVIS	SION:	
PRO	J. ENGR.: N. VINCE	NT PHONE EXT.: 1
PRO	J. MNGR.:I. SHOEBF	RIDGEPHONE EXT.: 1
DATE	E: 13 OCT. 2023	SCALE: NTS
A&V .	JOB NO.: 22705	

COVER PAGE

2022 CALIFORNIA BUILDING CODE (CBC) 2019 CALIFORNIA RESIDENTIAL CODE (CRC) BASED ON 2018 IRC, 2019 CALIFORNIA ELECTRICAL CODE (CEC) BASED ON 2017 NATIONAL ELECTRICAL CODE (NEC), 2019 CALIFORNIA MECHANICAL CODE (CMC) BASED ON 2018 UNIFORM MECHANICAL CODE (UMC), 2019 CALIFORNIA PLUMBING CODE (CPC) BASED ON 2018 UNIFORM PLUMBING CODE (UPC), 2019 CALIFORNIA ENERGY CODE (CENC) 2019 CALIFORNIA FIRE CODE (CFC) BASED ON 2018 IFC, 2019 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN), 2019 COUNTY OF SAN LUIS OBISPO CONSTRUCTION AND FIRE CODES.

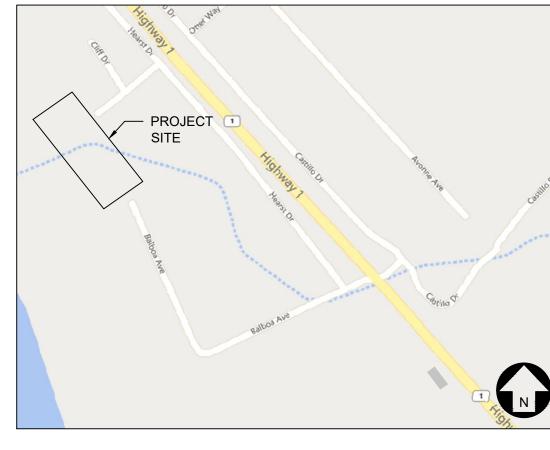


REMODELING OR DEMOLITION OF PRE-1978 STRUCTURES WITHOUT USING LEAD SAFE WORK PRACTICES IS A VIOLATION OF THE CALIFORNIA HEALTH AND SAFETY CODE SECTION 105256. CONTRACTORS, REMODELERS AND PAINTERS ARE REQUIRED TO USE "LEAD-SAFE" WORK PRACTICES PURSUANT TO TITLE 17, CALIFORNIA CODE OF REGULATIONS SECTION 36050.

OWNER'S RESPONSIBILITIES

- A. PRIOR TO COMMENCING CONSTRUCTION CALLED FOR BY THESE PLANS, SPECIFICATIONS AND DETAILS, THE OWNER SHALL ENGAGE A GEOTECHNICAL ENGINEER TO PROVIDE CONSTRUCTION PHASE OBSERVATION AND TESTING SERVICES AND SHALL ALSO ENGAGE THE PROJECT ENGINEER OR ANOTHER QUALIFIED PARTY TO PROVIDE PROJECT CONSTRUCTION OBSERVATION AND ASSURANCES ON CONFORMANCE WITH THE APPROVED PLANS, SPECIFICATIONS AND AGENCY REQUIREMENTS. THE OWNER SHALL ALSO ASSURE THAT CONTRACTOR(S) ENGAGED TO PROPERLY IMPLEMENT THE CONSTRUCTION CALLED FOR ON THESE PLANS, SPECIFICATIONS AND DETAILS INCLUDING THOSE TASKS CALLED FOR ON THE PROJECT STORM WATER POLLUTION PREVENTION PLAN DOCUMENT OR EROSION CONTROL PLAN SHEETS ATTACHED AS PART OF THESE
- B. GEOTECHNICAL ENGINEER'S RESPONSIBILITIES:
- 1. A GEOTECHNICAL ENGINEER SHALL REVIEW THESE PLANS WITH RESPECT TO GENERAL CONFORMANCE WITH THE INTENT OF THE RECOMMENDATIONS PRESENTED IN THE PROJECT SOILS ENGINEERING REPORT. THE PLAN REVIEW SHALL BE PERFORMED SPECIFICALLY WITH RESPECT TO GEOTECHNICAL FACTORS DISCUSSED IN THE REFERENCED REPORT. IN PERFORMING THE REVIEW, A GEOTECHNICAL ENGINEER SHALL ATTEMPT TO VERIFY THAT THE CONCEPTS AND RECOMMENDATIONS PRESENTED IN THE REPORT ARE GENERALLY INCORPORATED INTO THE PLANS. IN ACCORDANCE WITH THIS LEVEL OF REVIEW, THE PLANS ARE TO BE FOUND IN SUBSTANTIAL CONFORMANCE WITH THE CONCEPTS AND RECOMMENDATIONS PRESENTED IN THE NOTED REPORT.
- 2. UPON BEING RETAINED BY THE OWNER, PRIOR TO CONSTRUCTION THE GEOTECHNICAL ENGINEER SHALL RECOMMEND TO THE OWNER AND THE CONTRACTOR THE LEVEL OF OBSERVATION AND TESTING THAT WILL BE PROVIDED DURING CONSTRUCTION. PROVIDED THAT THE CONTRACTOR FULFILLS HIS OR HER RESPONSIBILITY FOR TIMELY REQUESTS FOR THOSE SERVICES DURING CONSTRUCTION, THE GEOTECHNICAL ENGINEER SHALL PROVIDE OBSERVATION AND TESTING AT THE PROJECT WORK AREA OF EARTHWORK OPERATIONS, INCLUDING TRENCHING AND PAVEMENT SUBGRADE PREPARATION, AS NECESSARY TO HAVE REASONABLE CERTAINTY THAT THE EARTHWORK IS PERFORMED IN GENERAL COMPLIANCE WITH THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS, AND WITH THE REQUIREMENTS OF SAN LUIS OBISPO COUNTY CODE CHAPTER 14 (GRADING ORDINANCE No.4766).
- 3. UPON COMPLETION OF EARTHWORK, THE GEOTECHNICAL ENGINEER SHALL, UPON REQUEST, PROVIDE A FINAL REPORT WITH RESULTS OF THEIR OBSERVATION AND TESTING DURING EARTHWORK OPERATIONS. PROVIDED THAT THE WORK IS PERFORMED IN CONFORMANCE WITH THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS, THE REPORT WILL STATE THEIR OPINION THAT THE GRADING WAS COMPLETED IN SUBSTANTIAL COMPLIANCE WITH THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
- C. CONTRACTOR'S STORM WATER POLLUTION CONTROL RESPONSIBILITIES:
 - 1. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONSTRUCT AND MAINTAIN POLLUTION PREVENTION MEASURES, INCLUDING THOSE FOR EROSION AND SEDIMENT CONTROL, AS NECESSARY TO PREVENT ANY POLLUTANT AT ANY LEVEL FROM BEING CONVEYED OFF THE CONSTRUCTION SITE AND THAT THESE MEASURES MUST CONTINUE TO BE MAINTAINED UNTIL THE REQUIRED POST-CONSTRUCTION POLLUTION PREVENTION MEASURES ARE IN PLACE AND COMPLETELY FUNCTIONAL, INCLUDING PERMANENT LANDSCAPING.
- 2. THE SPECIFIC MEASURES WHICH MAY BE CALLED FOR ON THE PROJECT STORM WATER POLLUTION PREVENTION PLAN CANNOT ADDRESS ALL SITE DEVELOPMENT AND STORM CHARACTERISTICS WHICH WILL EVOLVE OVER THE COURSE OF CONSTRUCTION AND THAT IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOT ONLY IMPLEMENT THE PLAN, BUT TO MAKE ADJUSTMENTS AND EXPANSIONS IN THE IMPLEMENTATION AS NECESSARY TO ADAPT TO THE CONTRACTOR'S CONSTRUCTION OPERATIONS AND SCHEDULE AND TO ADDRESS EVOLVING SITE CONDITIONS AND ACTUAL WEATHER CONDITIONS.
- 3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE EMPLOYEES AND SUBCONTRACTORS ARE TRAINED REGARDING THESE REQUIREMENTS AND TO MAINTAIN RECORDS OF THE INSTALLATION, MODIFICATION, INSPECTION, AND MAINTENANCE OF STORM WATER POLLUTION PREVENTION MEASURES INCLUDING, BUT NOT LIMITED TO: TRAINING, INSPECTION, MAINTENANCE LOGS; RECORD DRAWINGS SHOWING LOCATIONS, LIMITS, AND DATES OF INSTALLATION FOR VARIOUS MEASURES; DATED PHOTOGRAPHS AND FIELD SKETCHES.
- 4. THE CONTRACTOR SHALL BE FAMILIAR WITH AND AGREE TO IMPLEMENT THE MEASURES AND INSTALLATIONS DEPICTED ON THE PROJECT STORM WATER POLLUTION PREVENTION PLAN INCLUDING INSTALLATION, ROUTINE INSPECTION AND MAINTENANCE, ADJUSTMENTS AND EXPANSION DUE TO EVOLVING SITE CONDITIONS, EMERGENCY MAINTENANCE AND ADJUSTMENTS DUE TO ACTUAL STORM AND SITE CONDITIONS, AND DOCUMENTATION.

VICINITY MAP



SURVEY NOTES

EXISTING TOPOGRAPHIC AND BOUNDARY INFORMATION SHOWN HEREON PER SURVEY BY MICHAEL B STANTON DATED 10/12/2022.

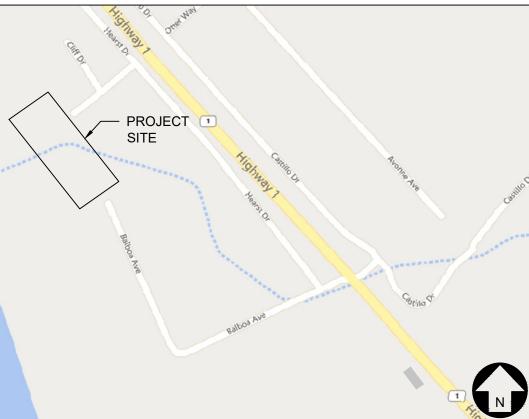
BOUNDARY DATA: PER BK 6 PG 49 RECORD OF SURVEY

BASIS OF BEARINGS: THE COORDINATES AND BEARING FOUND HEARON ARE BASED UPON THE CALIFORNIA COORDINATE SYSTEM OF 1983, CCS83, ZONE 5 0405, (1991.35) IN ACCORDANCE WITH THE CALIFORNIA PUBLIC RESOURCES CODE SECTIONS 8801-8819; SAID COORDINATES AND BEARINGS ARE BASED LOCALLY UPON FILED-OBSERVED TIES TO CAL TRANS CONTROL POINT PM54.58.

BENCHMARK: NGS BENCHMARK A|1015. STANDARD BENCHMARK STAMPED "U 259 RESET 1998" AT HWY 1 CONCRETE BRIDGE OVER PICO CREEK, FLUSH ON THE WESTERLY END OF THE NORTHERLY ABUTMENT, 17.2' WESTERLY OF THE CENTER OF HWY. ELEVATION = 57.3'. NAVD 88.

SURVEY MONUMENT PROTECTION:

PROTECT AND PRESERVE, IN PLACE, ALL SURVEY MONUMENTS AND BENCHMARKS. DO NOT DISTURB, MOVE, OR RELOCATE MONUMENTS OR BENCHMARKS WITHOUT THE PRIOR REVIEW AND APPROVAL BY THE AGENCY HAVING JURISDICTION OVER THE MONUMENT OR BENCHMARK. THE CONTRACTOR SHALL CONTRACT WITH A LICENSED SURVEYOR FOR MONUMENTS REQUIRING DISTURBANCE OR REMOVAL. AND THE SURVEYOR SHALL RESET THE MONUMENTS OR PROVIDE PERMANENT WITNESS MONUMENTS AND FILE THE REQUIRED DOCUMENTATION WITH THE AUTHORITY HAVING JURISDICTION, PURSUANT TO ALL APPLICABLE BUSINESS AND PROFESSIONAL CODES.



PROJECT INFORMATION

013-031-028, 041, & 046

1.789 AC

AREA DISTURBED: 0 AC

SITE AREA:

GRADING INFORMATION*

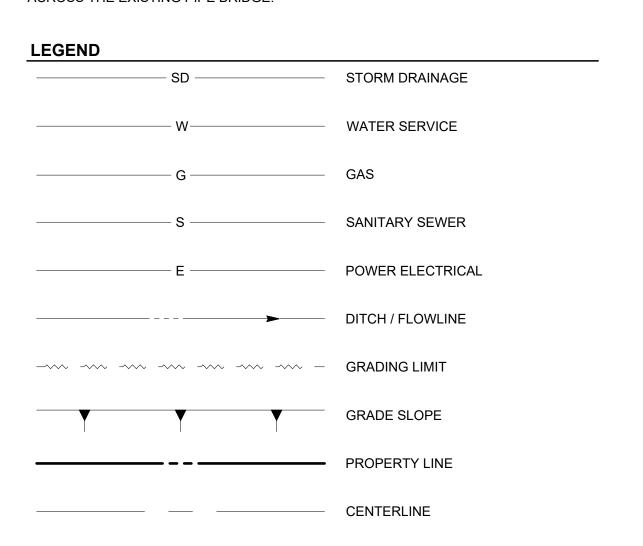
CUT QUANTITY: 0 CUBIC YARDS FILL QUANTITY: 0 CUBIC YARDS NET QUANTITY: 0 CUBIC YARDS EXPORT

*NOTE: THE ABOVE QUANTITIES ARE FOR PLANNING AND PERMITTING PURPOSES ONLY. SHRINKAGE; CONSOLIDATION AND SUBSIDENCE FACTORS; LOSSES DUE TO CLEARING AND DEMOLITION OPERATIONS; AND TRENCHING FOR UTILITIES AND FOUNDATIONS ARE NOT INCLUDED. ESTIMATED EARTHWORK QUANTITIES ARE BASED ON THE APPROXIMATE DIFFERENCE BETWEEN EXISTING GRADES AND PROPOSED FINISHED GRADES OR PAVEMENT SUBGRADES, AS INDICATED ON THE PLANS, AND SHOULD VARY ACCORDING TO THESE FACTORS AND LOSSES. THE CONTRACTOR SHALL PERFORM AN EARTHWORK ESTIMATE FOR THE PURPOSE OF PREPARING A LUMP SUM BID PRICE FOR EARTHWORK. THE BID PRICE SHALL INCLUDE COSTS FOR ANY NECESSARY IMPORT AND PLACEMENT OF EARTH MATERIALS OR THE EXPORT AND PROPER DISPOSAL OF EXCESS EARTH MATERIALS.

SCOPE OF WORK

STANDARD ABBREVIATIONS

REPLACE EXISTING UTILITIES INCLUDING SEWER, WATER AND RECLAIMED WATER ACROSS THE EXISTING PIPE BRIDGE.



INVERT ELEVATION ASPHALTIC CONCRETE BLDG BUILDING INVERT BEGIN CURB RETURN LANDSCAPE AREA NATURAL GRADE BEGIN VERTICAL CURVE PLANTER AREA **BOTTOM OF WALL** CATCH BASIN PORTLAND CEMENT CONCRETE CENTERLINE PROPERTY LINE CONCRETE MASONRY UNIT POINT OF CONNECTION CONC CONCRETE PARKING STRIPE **DRIVEWAY** POLYVINYL CHLORIDE **END CURB RETURN** RIGHT OF WAY **EXISTING GRADE** SD STORM DRAIN EDGE OF PAVEMENT SUB-GRADE ELEVATION END VERTICAL CURVE EVC SANITARY SEWER FINISHED FLOOR TOP OF CURB, CONCRETE

SHEET INDEX

FS

GB

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CALIFORNIA COORDINATE

FINISHED GRADE

FINISHED SURFACE

FIRE HYDRANT

GRADE BREAK

FLOW LINE

ASHLEY & VANCE ENGINEERING 1229 CARMEL ST. SAN LUIS OBISPO CA 93401, 805-545-0010 PUBLIC IMPROVEMENT PLANS FOR SAN SIMEON PIPE BRIDGE REPLACEMENT TITLE SHEET COUNTY PLAN CHECKER APPROVED FOR COUNTY REQUIREMENTS DESIGN/DRAWN: **EMD** DEVELOPMENT SERVICES ENGINEER COUNTY W.O. NO.

"KATHLEEN ALLWINE AND C77354"

XX.XX

COUNTY POST MILES | COUNTY ROAD NO.

91200

SHEET 1

TOP OF FOOTING

TOP OF GRATE

TOP OF WALL

VERTICAL CURVE

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Engineer of Record:



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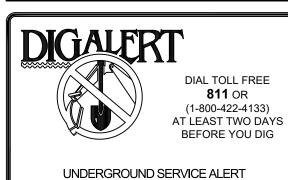
245 BA SIME Z

Project Engineer: EMD

Project Manager: KEA 10/13/2023 | Scale: PER PLAN AV Job No: 22705 | Sheet Size: 24" x 36"

50% PROGRESS CIVIL TITLE SHEET

DIG ALERT



OWNER OF SUBSURFACE FACILITIES HAS LOCATED AND MARKED THEIR SUBSURFACE FACILITIES IN THE AREA OF WORK.

PRIOR TO COMMENCING OF ANY

EXCAVATION, DIGGING, POT HOLING,

OF AN INQUIRY ID NUMBER, BECAUSE

OBTAINED THIS AND EACH UTILITY OR

NO EARTH WORK SHALL COMMENCE

UNLESS THE CONTRACTOR HAS

ETC. CALL DIG ALERT FOR ASSIGNMENT

PRE-CONSTRUCTION MEETING REQUIRED WITH INSPECTOR. CALL MICHELLE FREEMAN SLO COUNTY AT 805-781-5707.

GENERAL NOTES:

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE COUNTY OF SAN LUIS OBISPO AND THE CURRENT EDITION OF THE CALIFORNIA BUILDING CODE.
- IN THE EVENT OF A CONFLICT BETWEEN ANY REFERENCED STANDARD, THE MORE STRINGENT REQUIREMENT SHALL GOVERN.
- STORMWATER POLLUTION PREVENTION REQUIREMENTS PER COUNTY OF SAN LUIS OBISPO AND
- A COPY OF THESE APPROVED PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN
- BEFORE BEGINNING WORK, CONTRACTOR SHALL CONFIRM WITH AGENCIES HAVING JURISDICTION THAT ALL REQUIRED PERMITS AND LICENSES HAVE BEEN OBTAINED AND ALL REQUIRED NOTICES
- UNDERGROUND AND OVERHEAD CONSTRUCTION IN ADDITION TO WHAT IS SHOWN ON THESE PLANS MAY BE PART OF THIS PROJECT, INCLUDING ARCHITECTURAL AND LANDSCAPE ARCHITECTURAL IMPROVEMENTS. ADDITIONAL PERMITS MAY BE REQUIRED.
- A. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WORK AND INTERFACING IMPROVEMENTS WITH WORK BY OTHER CONTRACTORS AT THIS JOB SITE AND WITH IMPROVEMENTS REQUIRED BY PLANS BY OTHERS.
- B. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR BUILDING AND SITE LAYOUT
- C. CONTRACTOR SHALL REFER TO ARCHITECTURAL AND LANDSCAPE ARCHITECTURAL PLANS AND SPECIFICATIONS FOR SITE DEVELOPMENT CONSTRUCTION DETAILS AND DIMENSIONING, INCLUDING THOSE FOR BUILDINGS, PATIOS, WALKWAYS, DRIVEWAYS, WALLS/FENCES, PLUMBING, ELECTRICAL, UTILITIES, LANDSCAPING, AND IRRIGATION.
- ALL SITE WORK AND TESTING SHALL BE DONE IN CONFORMANCE WITH THE RECOMMENDATIONS CONTAINED IN THE FOLLOWING GEOTECHNICAL ENGINEERING REPORT FOR THIS PROJECT:
- A. PREPARED BY: EARTH SYSTEMS PACIFIC, FILE NO. 305585-001, DATE: NOVEMBER 23, 2022
- B. THIS REPORT AND ANY ADDENDA SHALL BE INCORPORATED INTO THESE PLANS AND MADE A PART HEREOF AS IF SPELLED OUT IN THEIR ENTIRETY HEREON. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW THE APPLICABLE GEOTECHNICAL REPORTS. CONTRACTOR SHALL CONTACT THE GEOTECHNICAL ENGINEER TO OBTAIN OR REVIEW COPIES OF THESE REPORTS AND ADDENDA.
- PRIOR TO BIDDING, CONTRACTOR SHALL CONTACT THE GEOTECHNICAL ENGINEER TO DETERMINE THE LOCATION AND DEPTH OF ALL TEST BORINGS AND EXPLORATORY PITS AND EXCAVATIONS. CONTRACTOR SHALL DETERMINE FROM THE GEOTECHNICAL ENGINEER WHAT REMEDIAL WORK IS RECOMMENDED TO MAKE THESE DISTURBED LOCATIONS SUITABLE FOR THE PROPOSED IMPROVEMENTS. CONTRACTOR SHALL INCLUDE IN HIS BID ALL COSTS FOR THE RECOMMENDED REMEDIAL WORK AND SHALL ADJUST HIS OPERATIONS TO PROPERLY SEQUENCE THE WORK TO ACCOMMODATE REMEDIAL WORK WITH CONSTRUCTION OF PROPOSED IMPROVEMENTS.
- ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH APPLICABLE HEALTH AND SAFETY LAWS, ORDINANCES, REGULATIONS, RULES, AND STANDARDS INCLUDING ALL REQUIREMENTS
- ALL UNSUITABLE CONSTRUCTION MATERIALS AND RUBBISH AND DEBRIS SHALL BE REMOVED FROM THE JOB SITE; TRANSPORTED TO A SUITABLE LOCATION, AND DISPOSED OF IN A PROPER AND LEGAL
- ALL WORK INVOLVING EXCAVATION, INCLUDING THAT FOR WATER, SEWER, STORM DRAIN AND UTILITY CONDUITS AND ALL SERVICE CONNECTIONS AND METER BOXES (NOT PERMITTED IN DRIVEWAYS) SHALL BE COMPLETED AND OBSERVED AND APPROVED BY THE AGENCY HAVING JURISDICTION AND THE STRUCTURAL BACKFILL OBSERVED AND TESTED FOR COMPACTION AND APPROVED BY THE GEOTECHNICAL ENGINEER BEFORE AGGREGATE BASE, PAVING AND OTHER PERMANENT SURFACE CONSTRUCTION MAY COMMENCE.
- BEFORE COMMENCING EXCAVATION, CONTRACTOR SHALL CONTACT PUBLIC WORKS AND UTILITY COMPANIES OR OTHER OWNERS OF SUBSURFACE FACILITIES WITHIN THE WORK SITE AND SHALL VERIFY WHETHER OR NOT A REPRESENTATIVE WILL BE PRESENT BEFORE AND/OR DURING EXCAVATION, AND SHALL DETERMINE SITE SPECIFIC REQUIREMENTS FOR EXCAVATION.
- CONTRACTOR SHALL NOTIFY PUBLIC WORKS, BUILDING AND SAFETY, UTILITY COMPANIES, GEOTECHNICAL ENGINEER, AND ENGINEER OF RECORD, AT LEAST 48 HOURS BEFORE START OF ANY CONSTRUCTION AND OF THE TIME AND LOCATION OF PRE-CONSTRUCTION CONFERENCE, AND SHALL DETERMINE FROM EACH PARTY THEIR SCOPE OF WORK TO BE OBSERVED AND BY WHOM, AND SCOPE OF TESTING. DURING THE COURSE OF WORK, CONTRACTOR SHALL BE RESPONSIBLE FOR CALLING FOR OBSERVATION AND TESTING AS STIPULATED PURSUANT TO ABOVE DETERMINATIONS. WORK NOT OBSERVED AND TESTED WILL BE SUBJECT TO REJECTION.
- CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN SUCH SHEETING, SHORING, BRACING, AND/OR OTHER PROTECTION AS IS NECESSARY TO PREVENT FAILURE OF TEMPORARY EXCAVATIONS AND EMBANKMENTS AND TO PREVENT DAMAGE TO EXISTING IMPROVEMENTS, TEMPORARY IMPROVEMENTS, AND PARTIALLY COMPLETED PORTIONS OF THE WORK, CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE SUFFICIENCY OF SUCH SUPPORTS AND/OR OTHER PROTECTION PER ALL REQUIREMENTS OF CAL-OSHA AND OSHA
- CONTRACTOR SHALL PROMPTLY NOTIFY ENGINEER OF RECORD AND AUTHORITY HAVING JURISDICTION BY TELEPHONE AND IN WRITING UPON DISCOVERY OF, AND BEFORE DISTURBING ANY PHYSICAL CONDITIONS DIFFERING FROM THOSE REPRESENTED BY APPROVED PLANS AND
- CONTRACTOR SHALL MAINTAIN A COMPLETE AND ACCURATE RECORD OF ALL CHANGES OF CONSTRUCTION FROM THAT SHOWN ON THESE PLANS AND SPECIFICATIONS FOR THE PURPOSE OF PROVIDING A BASIS FOR CONSTRUCTION OF RECORD DRAWINGS. NO CHANGES SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL OF ENGINEER OF RECORD AND AUTHORITY HAVING JURISDICTION. UPON COMPLETION OF THE PROJECT, CONTRACTOR SHALL DELIVER THIS RECORD OF ALL CONSTRUCTION CHANGES TO ENGINEER ALONG WITH A LETTER WHICH DECLARES THAT, OTHER THAN THESE NOTED CHANGES, "THE PROJECT WAS CONSTRUCTED IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS."
- WARNING: ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THESE PLANS MUST BE APPROVED IN WRITING BY PREPARER.
- CONTRACTOR AGREES THAT. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. CONTRACTOR FURTHER AGREES TO DEFEND INDEMNIEY AND HOLD DESIGN PROFESSIONALS HARMLESS FROM ALL LIABILITY AND CLAIMS. REAL OR ALLEGED. IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT AND ACCEPTS LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONALS.
- CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR VEHICULAR AND PEDESTRIAN TRAFFIC CONTROL AND SAFETY AND SHALL FURNISH, INSTALL, AND MAINTAIN SUCH FENCING, SIGNS, LIGHTS, TRENCH PLATES, BARRICADES, AND/OR OTHER PROTECTION AS IS NECESSARY FOR SAID CONTROL AND
- CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR PROTECTION OF PUBLIC AND PRIVATE PROPERTY AT OR IN THE VICINITY OF THE JOB SITE AND FURTHER AGREES TO, AT CONTRACTOR'S EXPENSE, REPAIR OR REPLACE TO ORIGINAL CONDITION, ALL EXISTING IMPROVEMENTS WITHIN OR IN THE VICINITY OF THE JOB SITE WHICH ARE NOT DESIGNATED FOR

REMOVAL AND WHICH ARE DAMAGED OR REMOVED AS A RESULT OF CONTRACTOR'S OPERATIONS.

- THE EXISTENCE AND APPROXIMATE LOCATIONS OF ANY UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY THE AVAILABLE RECORDS PROVIDED. THE CIVIL ENGINEER ASSUMES NO LIABILITY AS TO THE EXACT LOCATION OF SAID LINES, NOR FOR UTILITY OR IRRIGATION LINES WHOSE LOCATIONS ARE NOT SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES PRIOR TO WORK OR POTHOLE TO DETERMINE THE EXACT LOCATIONS OF ALL LINES AFFECTING THIS WORK, WHETHER OR NOT SHOWN HEREON. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO OR PROTECTION OF ALL EXISTING
- THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION OF THE SITE AND SHALL REMOVE AND DISPOSE OF ALL STRUCTURES ABOVE AND OR BELOW GROUND UNLESS NOTED OTHERWISE. ANY HAZARDOUS MATERIALS ENCOUNTERED SHALL BE HANDLED AND REMOVED AS REQUIRED BY LOCAL AND/OR STATE LAWS AT NO COST TO THE OWNER.
- THE CONTRACTOR SHALL EXERCISE DUE CARE TO AVOID DAMAGE TO EXISTING HARDSCAPE IMPROVEMENTS, UTILITY FACILITIES, AND LANDSCAPING FEATURES THAT ARE NOT AFFECTED BY
- 4. ALL JOIN LINES SHALL BE SAWCUT ON A NEAT, STRAIGHT LINE PARALLEL WITH THE JOIN. THE CUT EDGE SHALL BE PROTECTED FROM CRUSHING, AND ALL BROKEN EDGES SHALL BE RE-CUT PRIOR TO JOINING.
- 5. ALL EXISTING OBJECTIONABLE MATERIALS THAT CONFLICT WITH PROPOSED IMPROVEMENTS INCLUDING, BUT NOT LIMITED TO, BUILDING FOUNDATIONS, UTILITIES, APPURTENANCES, TREES, SIGNS, STRUCTURES, ETC. SHALL BE REMOVED AND DISPOSED BY THE CONTRACTOR AT NO COST TO THE OWNER, UNLESS NOTED OTHERWISE HEREIN, OR AS DIRECTED BY THE CONSTRUCTION
- THE CONTRACTOR SHALL PROTECT ALL EXISTING STREETS FROM DAMAGES CAUSED BY HIS OPERATIONS. ANY CURBS DAMAGED DURING HIS OPERATIONS SHALL BE SAWCUT AND REPLACED AT NO COST TO THE OWNER. ANY EXISTING PAVING IDENTIFIED AS POTENTIALLY NEEDING TO BE REPLACED SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE PRIOR TO
- THE CONTRACTOR SHALL PERFORM AND BE RESPONSIBLE FOR ALL CLEARING AND GRUBBING OPERATIONS AS NECESSARY TO COMPLETE THE WORK, INCLUDING TRANSPORTATION AND DISPOSAL OF ALL REMOVED MATERIALS, AND ALL ASSOCIATED COSTS.

COUNTY OF SAN LUIS OBISPO GENERAL NOTES:

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PLACEMENT AND MAINTENANCE OF ALL EROSION CONTROL DEVICES AS SPECIFIED BY THE ENGINEER OF WORK OR THE COUNTY OF SAN LUIS OBISPO UNTIL SUCH TIME THAT THE PROJECT ACCEPTED AS COMPLETED BY THE GOVERNING JURISDICTION. THESE DEVICES SHALL BE IN PLACE OR BE READY TO PLACE FOR THE DURATION OF THE CONSTRUCTION PERIOD. IN THE EVENT THAT THE DEVICES ARE NOT PERMANENTLY IN PLACE, THEY SHALL BE PLACED FOR A FORECASTED QUALIFYING RAIN EVENT THAT PRODUCES 0.5 INCHES OR MORE PRECIPITATION WITH A 48 HOUR OR GREATER PERIOD BETWEEN RAIN EVENTS. AN EMERGENCY CREW SHALL BE AVAILABLE 24 HOURS PER DAY IN THE EVENT AN EROSION PROBLEM SHOULD OCCUR. A RESPONSIBLE PERSON AND THEIR PHONE NUMBER SHALL BE NAMED HERE UPON: NAME: XXXXXXX PHONE NUMBER: XXXXXX
- 2. THE CONTRACTOR SHALL PROVIDE DUST CONTROL DURING ALL PHASES OF THE WORK.
- DURING CONSTRUCTION/GROUND DISTURBING ACTIVITIES. THE APPLICANT SHALL IMPLEMENT THE FOLLOWING PARTICULATE (DUST) AND OZONE CONTROL MEASURES. THESE MEASURES SHALL BE SHOWN ON THE TRACT IMPROVEMENT PLANS. IN ADDITION, THE CONTRACTOR OR BUILDER SHALL DESIGNATE A PERSON OR PERSONS TO MONITOR THE DUST CONTROL PROGRAM AND TO ORDER INCREASED WATERING, AS NECESSARY, TO PREVENT TRANSPORT OF DUST OFF SITE. THEIR DUTIES SHALL INCLUDE HOLIDAY AND WEEKEND PERIODS WHEN WORK MAY NOT BE IN PROGRESS. THE NAME AND TELEPHONE NUMBER OF SUCH PERSONS SHALL BE PROVIDED TO THE APCD PRIOR TO COMMENCEMENT OF CONSTRUCTION.

A. REDUCE THE AMOUNT OF DISTURBED AREA WHERE POSSIBLE;

- B. USE WATER TRUCKS OR SPRINKLER SYSTEMS IN SUFFICIENT QUANTITIES TO PREVENT AIRBORNE DUST FROM LEAVING THE SITE. INCREASED WATERING FREQUENCY WILL BE REQUIRED WHENEVER WIND SPEEDS EXCEED 15 MPH. RECLAIMED (NON-POTABLE) WATER SHOULD BE USED WHENEVER POSSIBLE:
- C. ALL DIRT STOCKPILE AREAS SHOULD BE SPRAYED DAILY AS NEEDED;
- D. PERMANENT DUST CONTROL MEASURES, SUCH AS IMPLEMENTATION OF APPROVED LANDSCAPE PLANS. SHALL BE IMPLEMENTED AS SOON AS POSSIBLE FOLLOWING COMPLETION OF ANY SOIL DISTURBING ACTIVITIES.
- E. EXPOSED GROUND AREAS THAT ARE PLANNED TO BE REWORKED AT DATES GREATER THEN ONE MONTH AFTER INITIAL GRADING SHOULD BE SOWN WITH A FAST GERMINATING NON-AGGRESSIVE GRASS SEED (E.G., NATIVE, BARLEY) AND WATERED UNTIL VEGETATION IS ESTABLISHED;
- F. ALL DISTURBED SOIL AREAS NOT SUBJECT TO REVEGETATION MUST BE STABILIZED USING APPROVED CHEMICAL SOIL BINDERS, JUTE NETTING, OR OTHER METHODS APPROVED IN ADVANCE BY APCD THAT WILL NOT HAVE A NEGATIVE IMPACT TO DOWNSTREAM CREEKS:
- G. ALL ROADWAYS, DRIVEWAYS, SIDEWALKS, ETC. TO BE PAVED SHOULD BE COMPLETED AS SOON AS
- H. ALL TRUCKS HAULING DIRT, SAND, SOIL, OR OTHER LOOSE MATERIALS ARE TO BE COVERED OR SHOULD MAINTAIN AT LEAST TWO FEET OF FREEBOARD (MINIMUM VERTICAL DISTANCE BETWEEN TOP OF LOAD AND TOP OF TRAILER) IN ACCORDANCE WITH CALIFORNIA VEHICLE CODE SECTION 23114 (THIS MEASURE HAS THE POTENTIAL TO REDUCE PM10 (PARTICULATE MATTER) EMISSIONS FROM THIS SOURCE BY 7 TO 14%):
- I. INSTALL WHEEL WASHERS WHERE VEHICLES ENTER AND EXIT UNPAVED ROADS ONTO STREETS, OR WASH OFF TRUCKS AND EQUIPMENT LEAVING THE SITE (THIS MEASURE HAS THE POTENTIAL TO REDUCE PM10 EMISSIONS FROM THIS SOURCE 40 TO 70%);
- J. SWEEP STREETS AT THE END OF EACH DAY IF VISIBLE SOIL MATERIAL IS CARRIED ONTO ADJACENT PAVED ROADS. WATER SWEEPERS WITH RECLAIMED WATER SHOULD BE USED WHERE FEASIBLE (THIS MEASURE HAS THE POTENTIAL TO REDUCE PM10 EMISSIONS FROM THIS SOURCE 25 TO 60%);
- K. MAINTAIN EQUIPMENT IN TUNE PER MANUFACTURER'S SPECIFICATIONS;
- L. LIMIT THE CUT AND FILL PROCESS TO LESS THAN 2,000 CUBIC YARDS PER DAY

- THE CONTRACTOR OR BUILDER SHALL DESIGNATE A PERSON OR PERSONS TO MONITOR THE FUGITIVE DUST EMISSIONS AND ENHANCE THE IMPLEMENTATION OF THE MEASURES AS NECESSARY TO MINIMIZE DUST COMPLAINTS, REDUCE VISIBLE EMISSIONS BELOW 20% OPACITY, AND TO PREVENT TRANSPORT OF DUST OFF SITE. THEIR DUTIES SHALL INCLUDE HOLIDAYS AND WEEKEND PERIODS WHEN WORK MAY NOT BE IN PROGRESS. THE NAME AND TELEPHONE NUMBER OF SUCH PERSONS SHALL BE PROVIDED TO THE APCD COMPLIANCE DIVISION PRIOR TO START OF ANY GRADING, EARTHWORK OR DEMOLITION.
- 2. AT THE TIME OF APPLICATION FOR CONSTRUCTION PERMITS, THE APPLICANT SHALL PROVIDE APCD WITH A LIST OF EQUIPMENT TO BE USED DURING CONSTRUCTION ACTIVITIES TO DETERMINE IF AN APSD PERMIT IS REQUIRED. A LIST OF EQUIPMENT THAT MAY REQUIRE A PERMIT IS IN THE ATTACHED REFERRAL RESPONSE FROM APCD. PRIOR TO ISSUANCE OF CONSTRUCTION PERMITS. THE APPLICANT SHALL OBTAIN AN APCD PERMIT AND SHOW PROOF OF SUCH PERMIT, IF REQUIRED OR AN EXEMPTION IF NO PERMIT IS NEEDED.

USE OF PLANS:

THIS DRAWING IS PROVIDED IN AN ELECTRONIC FORMAT AS A COURTESY, IF REQUESTED BY THE USER. THE DELIVERY OF THE ELECTRONIC FILE DOES NOT CONSTITUTE THE DELIVERY OF OUR PROFESSIONAL WORK PRODUCT. THE SIGNED HARD COPY PREPARED FOR THE PROJECT CONSTITUTES OUR PROFESSIONAL WORK PRODUCT AND THE HARD COPY MUST BE REFERRED TO FOR THE CORRECT DESIGN INFORMATION. THESE PLANS HAVE BEEN PREPARED SOLELY FOR USE FOR THE PROJECT SCOPE AND SITE SPECIFICALLY IDENTIFIED HEREON AT THE TIME THESE PLANS ARE SIGNED. THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, USE OF ANY PART OF THESE PLANS, INCLUDING ANY NOTE OR DETAIL, FOR ANY UNAPPROVED OR REVISED PROJECT SCOPE. OR FOR ANY OTHER PROJECT AT THIS OR ANY OTHER SITE. USER AGREES TO INDEMNIFY AND HOLD HARMLESS ASHLEY & VANCE FOR ALL COSTS AND DAMAGES IF USED.

USE OF ELECTRONIC INFORMATION:

IN THE CONTRACT DOCUMENTS.

ELECTRONIC INFORMATION MAY BE PROVIDED BY THE ENGINEER FOR CONVENIENCE; UNDER NO CIRCUMSTANCES SHALL DELIVERY OF ELECTRONIC FILES FOR USE BY OTHERS BE DEEMED A SALE BY THE ENGINEER AND THE ENGINEER MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE. IN NO EVENT SHALL THE ENGINEER BE LIABLE FOR INDIRECT OR CONSEQUENTIAL DAMAGES AS A RESULT OF THE USE OR REUSE OF THE FLECTRONIC FILES BY OTHERS

ELECTRONIC INFORMATION IS INTENDED TO PROVIDE INFORMATION SUPPLEMENTAL AND SUBORDINATE TO THE CONSTRUCTION CONTRACT DOCUMENTS. LAYOUT AND CONSTRUCTION OF PROJECT ELEMENTS SHALL BE BASED ON DIMENSIONS AND INFORMATION INCLUDED ON THE SIGNED AND SEALED CONSTRUCTION CONTRACT DOCUMENTS WHICH SHALL CONTROL OVER ELECTRONIC INFORMATION. USER IS RESPONSIBLE FOR CONFIRMING LOCATION OF PROPOSED IMPROVEMENTS BASED ON DIMENSIONS AND INFORMATION INCLUDED ON THE CONSTRUCTION CONTRACT DOCUMENTS; INCONSISTENCIES BETWEEN THE ELECTRONIC INFORMATION AND THE CONSTRUCTION CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION PRIOR TO CONSTRUCTION

PROJECT ELEMENTS SUCH AS MANHOLES, CATCH BASINS, UTILITY VAULTS, VALVE ASSEMBLIES, STAIRS, RAMPS WALLS FTC ARE SHOWN SCHEMATICALLY IN THE FLECTRONIC INFORMATION AND CONSTRUCTION OF THESE ELEMENTS SHALL BE IN ACCORDANCE WITH THE CONSTRUCTION NOTES AND DETAILS PRESENTED OR REFERENCED IN THE SIGNED AND SEALED CONSTRUCTION CONTACT DOCUMENTS. IMPROVEMENTS CONSTRUCTED BASED ON ELECTRONIC INFORMATION AND IN CONFLICT WITH THE DRAWING DIMENSIONS DETAILS. AND THE CONSTRUCTION CONTRACT DOCUMENTS SHALL BE REMOVED AND CONSTRUCTED IN THE PROPER LOCATION AND DIMENSIONS AT CONTRACTOR'S SOLE

DIGITAL DRAWINGS ARE TYPICALLY A COMPILATION OF DRAWINGS FROM A NUMBER OF SOURCES AND, AS SUCH. THERE IS INFORMATION IN THE ELECTRONIC FILE ISSUED BY THE ENGINEER THAT WAS NOT DEVELOPED BY THE ENGINEER AND IS NOT AUTHORIZED BY THE ENGINEER FOR USE BY OTHERS. ELECTRONIC INFORMATION PROVIDED BY THE ENGINEER SHALL ONLY BE APPLICABLE FOR IMPROVEMENTS DESIGNED BY THE ENGINEER AND WHICH ARE SPECIFICALLY DESIGNATED BY CONSTRUCTION NOTES AND/OR DETAILS ON THE SIGNED AND SEALED CONTRACT DOCUMENTS.

IF DIGITAL FILES ARE OBTAINED WITH THE INTENT TO USE THEM FOR PROJECT STAKING, THEY SHALL ONLY BE USED BY A QUALIFIED ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF CALIFORNIA. DIGITAL INFORMATION SHALL ONLY BE USED FOR STAKING HORIZONTAL LOCATION OF PROPOSED IMPROVEMENTS AFTER IT HAS BEEN CONFIRMED WITH THE SIGNED AND SEALED CONSTRUCTION CONTRACT DOCUMENTS.

THE DIGITAL DRAWINGS ARE NOT INTENDED TO BE USED DIRECTLY FOR CONTROL OF CONTRACTOR'S GRADING OPERATIONS WITHOUT STAKING BY ENGINEER OR LAND SURVEYOR. THE INTERSECTION OF PROPOSED CUT AND FILL SLOPES WITH EXISTING GRADE IS APPROXIMATE WHERE SHOWN ON THE DRAWINGS AND SHALL BE CONFIRMED BY FIELD STAKING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONSTRUCT SLOPES IN CONFORMANCE WITH THE SPECIFIED AND DETAILED REQUIREMENTS CONTAINED

TABLE 1705.6 - INSPECTION OF SOILS CONTINUOUS PERIODIC NOTES TYPE SPECIAL SPECIAL INSPECTION INSPECTOIN VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE **DESIGN BEARING CAPACITY** VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL PERFORM CLASSIFICATION AND TESTING OF X COMPACTED FILL MATERIALS VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY

SOILS SPECIAL INSPECTION ENGINEER:	
NAME:	
PHONE:	

REPORT NOTES

- ENGINEER OF RECORD TO PROVIDE A FINAL REPORT STATING THE WORK
- PERFORMED IS IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED PLANS. A SOIL OR CIVIL ENGINEER TO DETERMINE GRADING PERFORMED IS IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED PLANS AND IS SUITABLE TO SUPPORT THE INTENDED STRUCTURE(S).

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Engineer of Record:



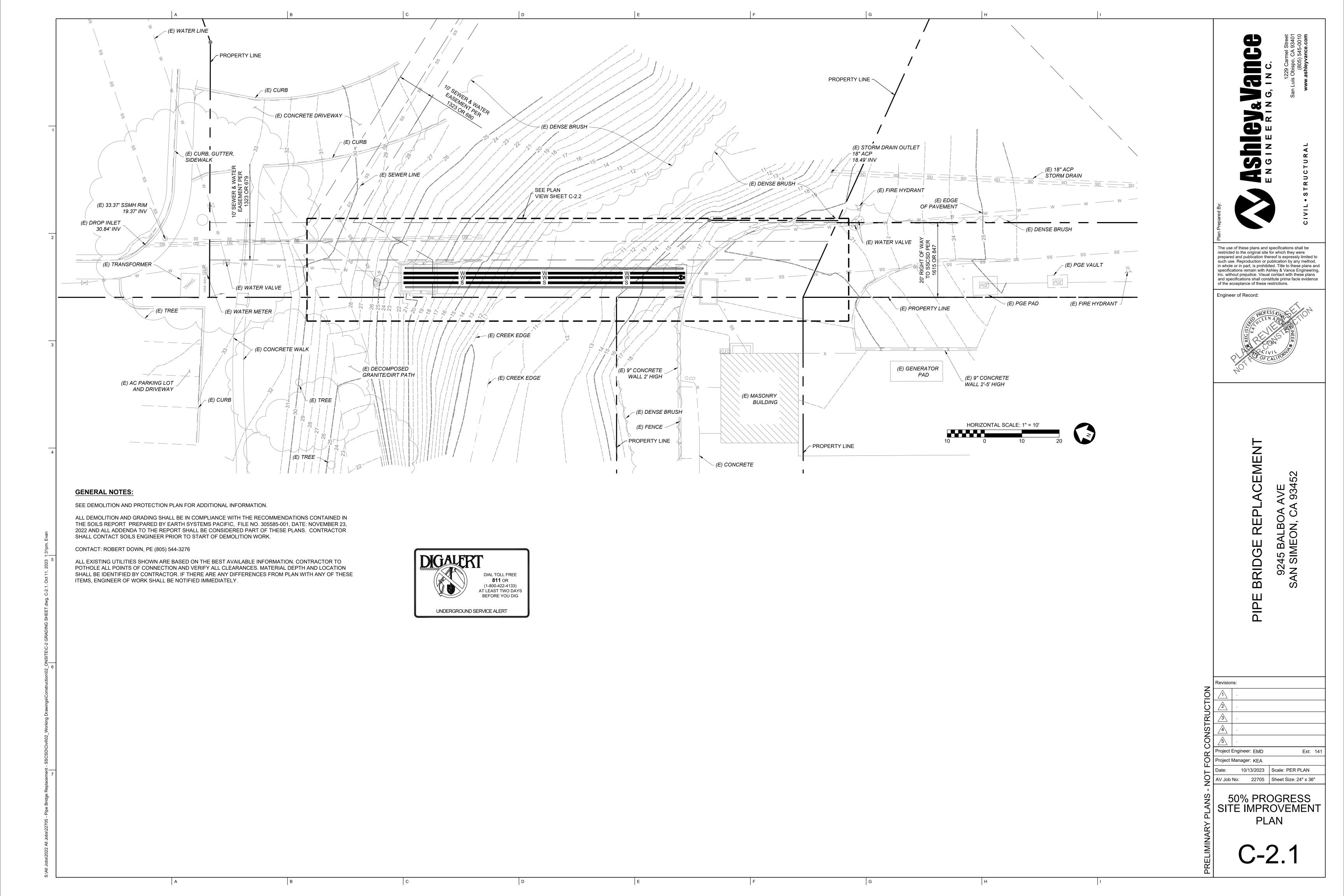
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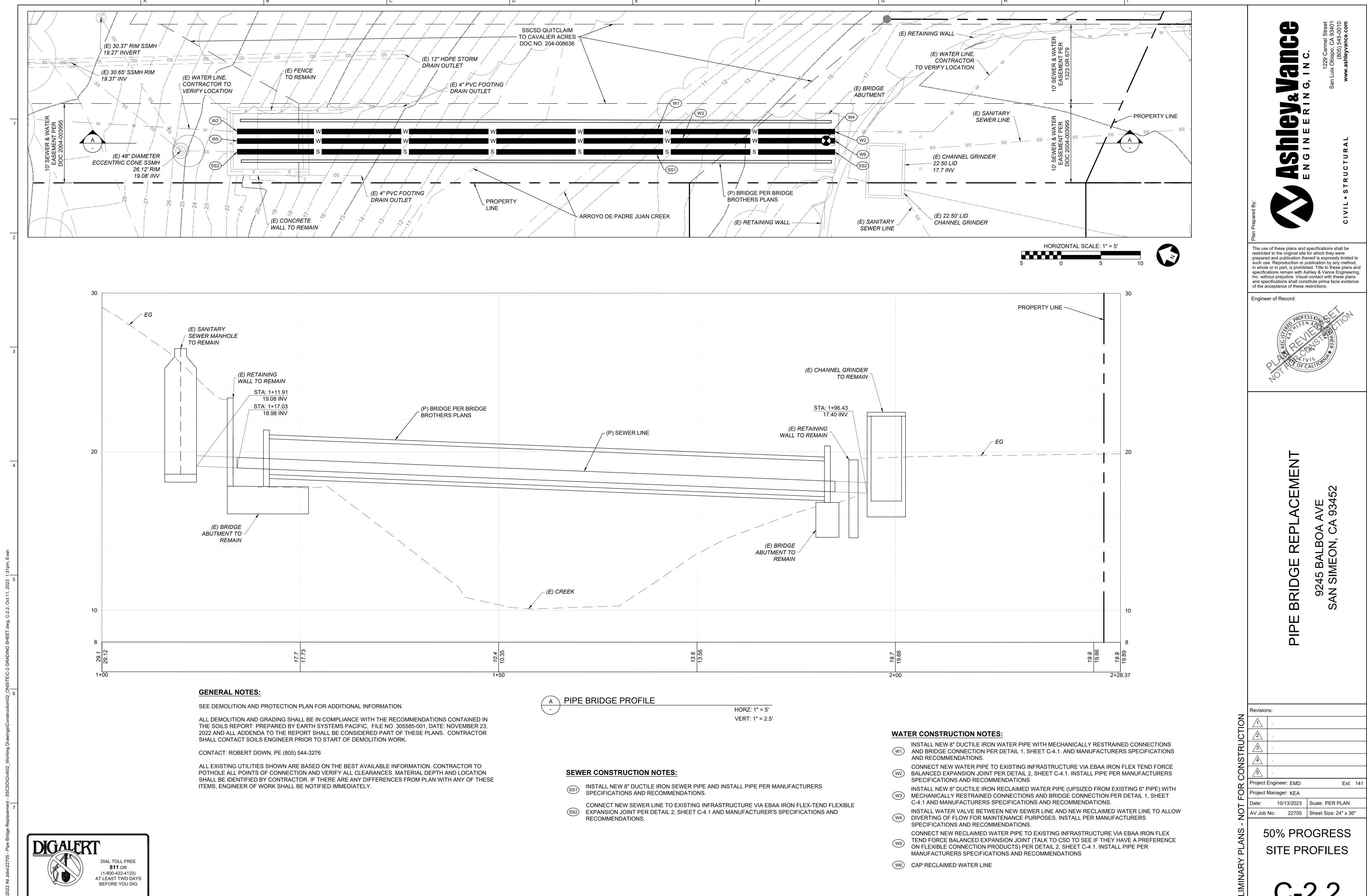
245 BA SIME RD Z

Project Engineer: EMD Project Manager: KEA

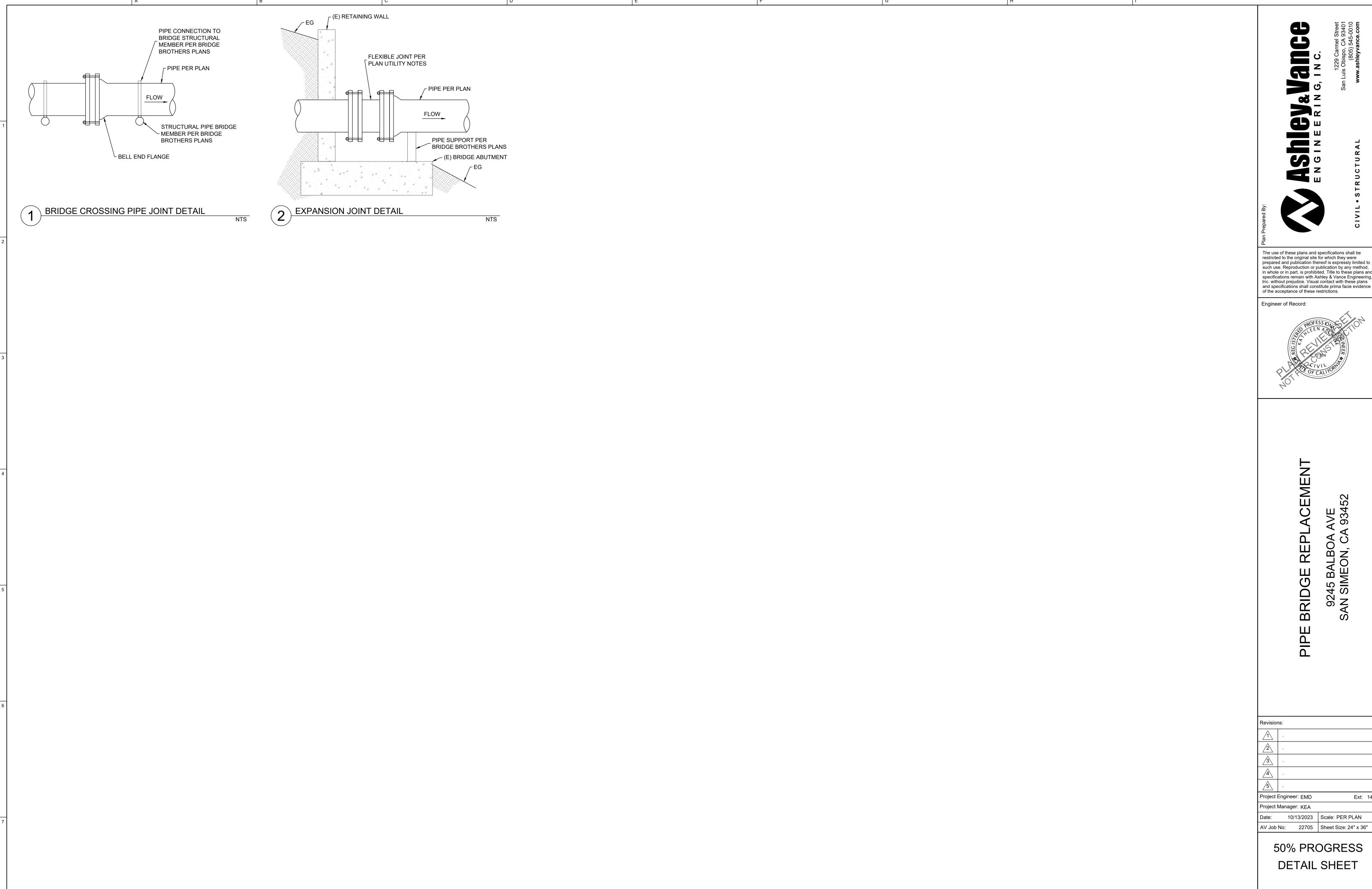
AV Job No: 22705 | Sheet Size: 24" x 36" 50% PROGRESS CIVIL NOTES SHEET

10/13/2023 | Scale: PER PLAN





UNDERGROUND SERVICE ALERT



С

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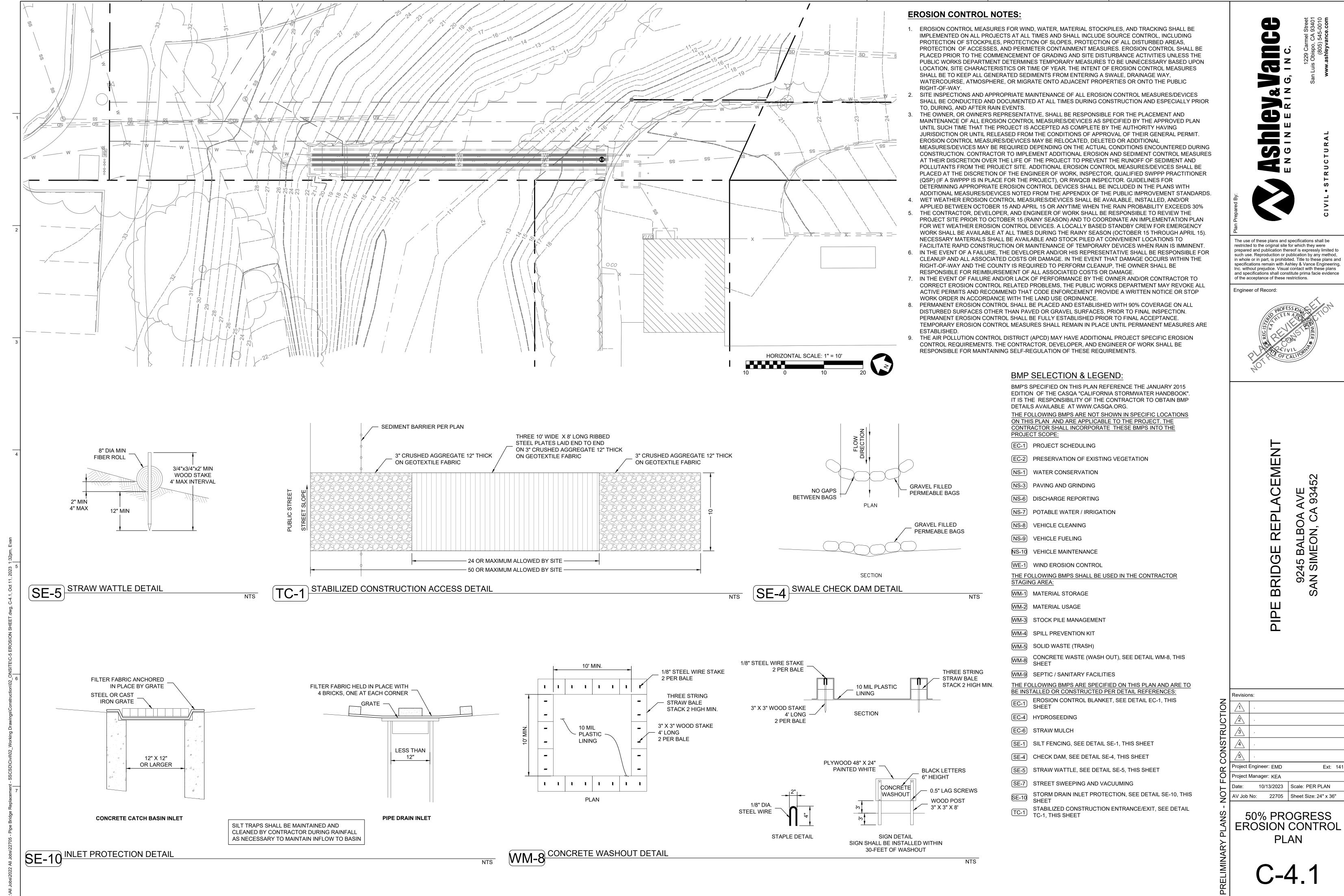


BRIDGE REPLACEMEN 9245 BALBOA AVE SAN SIMEON, CA 93452

Revision	ns:		
1			
2			
3			
4			
5			
Project	Engineer: EMD	Ext:	14
Project	Manager: KEA		
Date:	10/13/2023	Scale: PER PLAN	

50% PROGRESS DETAIL SHEET

C-3.1



C

SPECIAL INSPECTIONS STATEMENT OF SPECIAL INSPECTIONS, 2022 CBC SCHEDULE OF SPECIAL INSPECTIONS 1. THIS STATEMENT OF SPECIAL INSPECTION IS SUBMITTED IN FULFILLMENT OF THE STRUCTURAL OBSERVATION PROGRAM COLUMN HEADER NOTATION USED IN TABLE REQUIREMENTS OF THE GOVERNING BUILDING CODE, SECTION 1704 AND 1705. C INDICATES CONTINUOUS INSPECTION IS REQUIRED. 2. SPECIAL INSPECTIONS AND TESTINGS WILL BE PREFORMED IN ACCORDANCE P INDICATES PERIODIC INSPECTIONS ARE REQUIRED. THE NOTES AND/OR THE OWNER SHALL EMPLOY THE ENGINEER OR ARCHITECT WITH THE APPROVED PLANS AND SPECIFICATIONS, THIS STATEMENT AND THE CONTRACT DOCUMENTS SHOULD REGISTERED/LICENSED IN THE STATE OF CALIFORNIA WHO IS RESPONSIBLE GOVERNING BUILDING CODE, SECTION 1704, 1705, 1707, AND 1708. CLARIFY. FOR THE STRUCTURAL DESIGN TO PERFORM STRUCTURAL OBSERVATION **BOX ENTRY NOTATION USED IN TABLE:** THE SCHEDULE OF SPECIAL INSPECTIONS SUMMARIZES THE SPECIAL PIPE BRIDGE REPLACEMENT - SSCSD X IS PLACED IN THE APPROPRIATE COLUMN TO DENOTE EITHER "C" INSPECTIONS AND TESTS REQUIRED. SPECIAL INSPECTORS WILL REFER TO THE 111 PICO AVENUE Location: APPROVED PLANS AND SPECIFICATIONS FOR DETAILED SPECIAL CONTINUOUS OR "P" PERIODIC INSPECTIONS. SAN SIMEON, CA 93452 INSPECTION REQUIREMENTS. ANY ADDITIONAL TESTS AND INSPECTIONS -- DENOTES A ONE-TIME ACTIVITIY OR ONE WHOSE FREQUENCY IS DEFINED IN IAN SHOEBRIDGE, S.E., S6293 Name:

PRINCIPAL ENGINEER

THE ENGINEER OR ARCHITECT RESPONSIBLE FOR STRUCTUAL

OBSERVATION, THE CONTRACTOR, AND APPROPRIATE SUBCONTRACTORS

SHALL HOLD A PRE-CONSTRUCTION MEETING TO REVIEW THE DETAILS OF

CONTRACTOR SHALL CONTACT ENGINEER TO REQUEST EACH OBSERVATION

BRIDGE INSTALLATION.

FINAL PLACEMENT

*ADDITIONAL OBSERVATIONS MAY BE REQUIRED AT THE DISCRETION OF THE

AT THE CONCLUSION OF THE WORK INCLUDED IN THE PERMIT, THE

STRUCTURAL OBSERVER SHALL SUBMIT A WRITTEN STATEMENT TO THE

BUILDING OFFICIAL, VERIFYING THAT THE SITE VISITS HAVE BEEN MADE

STRUCTURAL OBSERVER'S KNOWLEDGE, HAVE NOT BEEN RESOLVED.

AND IDENTIFY ANY REPORTED DEFICIENCIES THAT, TO THE BEST OF THE

DESIGN

Designated Name: MIKA DANIEL, P.E., C67732

THE STRUCTURAL SYSTEM TO BE OBSERVED.

A MINIMUM OF 48 HOURS IN ADVANCE.

Observation:

ANCHORAGE

NEW BRIDGE

CONCRETE ABUTMENTS

ENGINEER OF RECORD RESPONSIBLE FOR STRUCTURAL

AFTER BRIDGE REMOVAL, PRIOR TO NEW

BRIDGE ANCHORAGE TO ABUTMENTS

REQUIRED BY THE APPROVED PLANS AND SPECIFICATIONS WILL ALSO BE

4. INTERIM REPORTS WILL BE SUBMITTED TO THE BUILDING OFFICIAL AND THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE IN ACCORDANCE WITH THE GOVERNING BUILDING CODE SECTION 1704.2.4.

5. A FINAL REPORT OF SPECIAL INSPECTIONS DOCUMENTING REQUIRED SPECIAL INSPECTIONS, TESTING AND CORRECTION OF ANY DISCREPANCIES NOTED IN THE INSPECTIONS SHALL BE SUBMITTED PRIOR TO ISSUANCE OF A CERTIFICATE OF USE AND OCCUPANCY (SECTION 1704.2.4). THE FINAL REPORT WILL DOCUMENT: (A) REQUIRED SPECIAL INSPECTIONS.

(B) CORRECTION OF DISCREPANCIES NOTED IN INSPECTIONS. 6. THE OWNER RECOGNIZES HIS OR HER OBLIGATION TO ENSURE THAT THE CONSTRUCTION COMPLIES WITH THE APPROVED PERMIT DOCUMENTS AND TO IMPLEMENT THIS PROGRAM OF SPECIAL INSPECTIONS. IN PARTIAL FULFILLMENT OF THESE OBLIGATIONS, THE OWNER WILL RETAIN AND DIRECTLY PAY FOR THE SPECIAL INSPECTIONS AS REQUIRED IN THE GOVERNING BUILDING CODE,

SECTION 1704.2. 1704.4 CONTRACTOR RESPONSIBILITY. EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A MAIN WIND- OR SEISMIC FORCE-RESISTING SYSTEM. DESIGNATED SEISMIC SYSTEM OR A WIND- OR SEISMIC FORCE-RESISTING COMPONENT LISTED IN THE STATEMENT OF SPECIAL INSPECTIONS SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER OR THE OWNER'S AUTHORIZED AGENT PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL CONTAIN ACKNOWLEDGEMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL

SCHEDULE OF TESTING AGENCIES & SPECIAL INSPECTORS THE FOLLOWING ARE THE TESTING AGENCIES AND SPECIAL INSPECTORS THAT WILL

RESPONSIBILITY	FIRM	ADDRESS, TELEPHONE, EMAIL	
1. SPECIAL INSPECTION (EXCEPT FOR GEOTECHNICAL)			
2. MATERIALS TESTING			
3. GEOTECHNICAL INSPECTION			

ABV. ABOVF ADDITION (AL) APPD. APPROVED ARCH. ARCHITECT(URAL) AVG. AVERAGE BDRY. BOUNDARY BLDG. BUILDING BLK(G). BLOCK (ING) SOME OTHER MANNER. ADDITIONAL DETAILS REGARDING INSPECTIONS ARE PROVIDED IN THE PROJECT SPECIFICATIONS OR NOTES ON THE DRAWINGS. BOTTOM OF BY OTHERS C P NOTES **VERIFICATION & INSPECTION** BOT. BOTTOM BRG. BEARING 1704.2.5 - INSPECT FABRICATOR'S FABRICATION BTWN. BETWEEN AND QUALITY CONTROL PROCEDURES. BOTH WAYS CANT. CANTILEVER(ED) CAST IN PLACE CEILING JOIST ALUMINUM COMPLETE JOINT SEE BRIDGE MANUFACTURER SPECIFICATIONS PENETRATION CENTER LINE AND SPECIAL INSPECTIONS REQUIREMENTS CLG. CEILING COL. COLUMN **1705.3** - CONCRETE COM. COMMON COMP. COMPONENT INSPECT ANCHORS POST-INSTALLED IN CONC. CONCRETE HARDENED CONCRETE CONN. CONNECTION A. ADHESIVE ANCHORS¹ INSTALLED IN CONST. CONSTRUCTION HORIZONTALLY OR UPWARDLY INCLINDED CONT. CONTINUE (OUS) CTR. CENTER ORIENTATIONS TO RESIST SUSTAINED PENNY TENSION DBL. DOUBLE B. MECHANICAL ANCHORS² AND ADHESIVE DEFL. DEFLECTION ANCHORS¹ NOT DEFINED IN 4.A DEG. DEGREE DEMO. DEMOLISH(TION) FOOTNOTES: DEPRESS(ED)

PRIOR TO EPOXY PLACEMENT, IT MUST BE VERIFIED THAT THE HOLE IS CLEAN, DRY, AND FREE OF LOOSE DEBRIS . PERIODIC INSPECTION SHALL TAKE PLACE SUCH THAT THE INSTALLATION OF A

MINIMUM OF TWO (2) ANCHORS PER EACH SHEAR WALL ARE OBSERVED

ABBREVIATIONS ANCHOR BOLT MASONRY ABOVE AND BELOW MAX. MAXIMUM MACHINE BOLT MOMENT FRAME ADJACENT, ADJUSTABLE MFR. MANUFACTURE(R) ALTERNATE (IVE) MINIMUM, MINUTE MOD. MODIF(Y), (ICATION) MTL. METAL NEW NOT APPLICABLE NATURAL NOT TO SCALE NTS BOUNDARY NAILING ON CENTER OUTSIDE DIAMETER OPNG. OPENING OPP. OPPOSITE OPT. OPTIONAL PARA. PARALLEL PCF LBS PER CUBIC FT. PENETRATE, (TION) PFN. PERF. PERFORATED PERIM. PERIMETER PERP. PERPENDICULAR PANEL INDEX PARTIAL JOINT PEN. PLATE LBS PER LINEAR FT. CMU CONC. MASONRY UNIT PLF PLATE PLY. PLYWOOD PREP. PREPARE, (ATION) PRESS. PRESSURE PROJ. PROJECT PROP. PROPERTY PSF LBS PER SQUARE FT. LBS PER SQUARE IN. PRESSURE-TREATED PHOTOVOLTAIC (SOLAR PV PANELS) RADIUS REC(S). RECOMMENDATION(S) RECT. RECTANGULAR DOUGLAS FIR REF. REFERENCE DIAMETER REINF. REINFORCE(D) DIAPH, DIAPHRAGM (MENT),(ING)

DIFFERENT

DISTANCE

DECK JOIST

DEAD LOAD

EACH FACE

EACH SIDE

FACH WAY

FOUNDATION

FLOOR JOIST

PRESSURE

EXISTING

EACH

DWG. DRAWING

ENGR. ENGINEER

EXT. EXTERIOR

FLR(G). FLOOR (ING)

FOW FACE OF WALL

FOOT, FEET

GAGE, GAUGE

GRADE BEAM

INSIDE DIAMETER

INVERT, INVERTED

KLF KIPS PER LINEAR FT.

LIGHT WEIGHT

KSF KIPS PER SQUARE FT.

KING POST

KIPS (1,000 POUNDS)

FOOTING

HOLDOWN

INCH(ES)

INSP. INSPECT(ION)

INT. INTERIOR

KING KING STUD

LB(S). POUND(S) LIVE LOAD LOC. LOCATION

GALV. GALVANIZED

GYP. GYPSUM

HDR. HEADER

HGR. HANGER

HT. HEIGHT

HOR(IZ).

HDW. HARDWARE

FRMG. FRAMING

DIMENSION

DIM.

DIST.

REQ(D). REQUIRE(D) REQS. REQUIREMENTS RET. RETAIN(ING) ROOF JOIST ROOF RAFTER REDWOOD SAD SEE ARCH DWG'S SCHED. SCHEDULE SGL. SINGLE EQUIVALENT FLUID SHTG. SHEATHING SIMILAR ELEV. ELEVATOR, ELEVATION STR. INSULATED PANEL SIP EMBED. EMBED(ED), (MENT) SHEET METAL SHEET METAL SCREW EOR ENGINEER OF RECORD SOG SLAB ON GRADE EQUAL, EQUIVALENT SPEC. SPECIFI(ED).(CATIONS) SQUARE STRUCTURAL STEEL EXPAND, EXPANSION STD. STANDARD STGR. STAGGER(ED) STL. STEEL FINISHED FLOOR STRUC. STRUCTURE, (AL) SW SHEAR WALL SYM. SYMMET(RY), (RICAL) TOP AND BOTTOM FOC FACE OF CONCRETE T&B FOM FACE OF MASONRY T&G TONGUE AND GROOVE TEMP TEMPORARY FOS FACE OF STUDS THICK(NESS)

THRU THROUGH

TOE-NAIL

DIAMETER **GREATER THAN** LESS THAN

PER

NUMBER, POUND(S)

PERCENT(AGE) PLUS OR MINUS

TN

T-O

TOS

TRU

UNO

W/N

TOP PLATE TOP OF TOP OF BEAM TOC TOP OF CONCRETE GENERAL CONTRACTOR TOG TOP OF GRADE TOM TOP OF MASONRY TOP OF STEEL TOW TOP OF WALL TO REMAIN UNCHANGED TRMR. TRIMMER STUD TYP. TYPICAL UNLESS NOTED OTHERWISE VERT. VERTICAL VIF VERIFY IN FIELD VWA VERIFY WITH ARCH WITHIN W/O WITHOUT

WS WOOD SCREW WNDW. WINDOW WT. WEIGHT KIPS PER SQUARE IN. WWF WELDED WIRE FABRIC YD. YARD DEGREES

S-2.2 NEW BRIDGE PLAN S-3.1 STRUCTURAL DETAILS

111 PICO AVENUE SAN SIMEON, CA 93452 SOILS/GEO. ENGINEER: EARTH SYSTEMS PACIFIC 4378 OLD SANTA FE ROAD SAN LUIS OBISPO, CA 93401 (805) 544-3276

DESIGN PARAMETERS

PROJECT INFORMATION

SAN SIMEON COMMUNITY

SERVICES DISTRICT

CLIENT:

GENERAL PARAMETERS BUILDING CODE 2022 CBC *

SOILS VALUES NO FOUNDATION WORK ANTICIPATED. SEE SOILS REPORT FOR ADDITIONAL INFORMATION.

WIND DESIGN BASIS ULTIMATE WIND SPEED, VIILT 98 MPH NOMINAL WIND SPEED, V_{ASD} 76 MPH RISK CATEGORY **EXPOSURE** IMPORTANCE FACTOR, I_W 1.00

SEISMIC DESIGN BASIS SEISMIC DESIGN CATEGORY SITE CLASS SEISMIC FACTORS 1.362 / 0.479 S_S / S_1 0.908 / 0.582 S_{DS} / S_{D1} **RISK CATEGORY**

THE 2022 CALIFORNIA BUILDING CODE (CBC), BASED ON THE 2021 INTERNATIONAL BUILDING CODE (IBC), IS THE GOVERNING CODE IN THE STATE OF CALIFORNIA.

IMPORTANCE FACTOR, I_F

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Engineer of Record:

1.25



SHEET INDEX

S-1.1 STRUCTURAL TITLE SHEET 8 SPECIAL INSPECTIONS S-1.2 STRUCTURAL SPECIFICATIONS

S-2.1 DEMOLITOIN PLAN

PIPE

Y

N D

PROJ. ENGR.: N. VINCENT PHONE EXT.: 150 PROJ. MNGR.:I. SHOEBRIDGE PHONE EXT.: 116 DATE: 13 OCT. 2023 | SCALE: NTS

A&V JOB NO.: 22705 STRUCTURAL

TITLE SHEET

NOTES AND DETAILS ON THE STRUCTURAL PLANS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE GIVEN, CONSTRUCTION SHALL BE AS SHOWN FOR SIMILAR WORK. ALL DRAWINGS ARE CONSIDERED TO BE PART OF THE CONTRACT DOCUMENTS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL DRAWINGS AND SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE START OF CONSTRUCTION SO THAT A CLARIFICATION CAN BE ISSUED. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY APPLICABLE CODE REQUIREMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER OR

ALL INFORMATION ON EXISTING CONDITIONS SHOWN ON THE STRUCTURAL PLANS ARE BASED ON BEST PRESENT KNOWLEDGE AVAILABLE, BUT WITHOUT GUARANTEE OF ACCURACY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATIONS OF ALL DIMENSION AND CONDITIONS AT THE SITE. ANY DISCREPANCIES BETWEEN ACTUAL SITE CONDITIONS AND INFORMATION SHOWN ON THE DRAWINGS OR IN THE SPECIFICATIONS SHALL BE BROUGHT TO THE

ATTENTION OF THE EOR PRIOR TO THE START OF CONSTRUCTION.

REFER TO THE CIVIL PLANS FOR THE FOLLOWING: (A) SIZE AND LOCATION OF ALL EQUIPMENT (B) PIPE RUNS, SLEEVES, HANGERS AND TRENCHES

(C) SIZE AND LOCATION OF ALL DRAINS, SLOPES, DEPRESSIONS, STEPS, ETC. **DO NOT** SCALE STRUCTURAL PLANS. CONTRACTOR SHALL FEILD VERIFY ALL

CONSTRUCTION MATERIALS SHALL BE UNIFORMLY SPREAD OUT IF PLACED ON BRIDGE SO AS TO NOT OVERLOAD THE FRAMING. LOAD SHALL NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADEQUATE SHORING AND/OR BRACING AS

SPECIFICATIONS AND DETAILING OF ALL WATERPROOFING AND DRAINAGE ITEMS, WHILE SOMETIMES SHOWN ON THE STRUCTURAL PLANS FOR GENERAL INFORMATION PURPOSES ONLY, ARE SOLELY THE DESIGN RESPONSIBILITY OF

THE ENGINEER WILL NOT BE RESPONSIBLE FOR AND WILL NOT HAVE CONTROL OR 3. SUBMITTALS: CHARGE OF CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE CONSTRUCTION DELINEATED BY THESE PLANS. IT SHOULD BE UNDERSTOOD THAT THE CONTRACTOR OR HIS/HER AGENT(S) SHALL SUPERVISE AND DIRECT ALL WORK AND SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES AND CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING THE ENTIRE PERIOD OF CONSTRUCTION. PERIODIC OBSERVATIONS BY THE ENGINEER, HIS STAFF OR REPRESENTATIVES ARE NOT INTENDED TO INCLUDE VERIFICATION OF DIMENSIONS OR REVIEW THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES ON OR NEAR THE CONSTRUCTION SITE.

MODIFICATIONS OF THE PLANS, NOTES, DETAILS AND SPECIFICATIONS SHALL NOT BE PERMITTED WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

10. ALL WORKMANSHIP SHALL CONFORM TO THE BEST PRACTICE PREVAILING IN THE VARIOUS TRADES PERFORMING THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES.

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ONLY APPROVED STRUCTURAL PLANS ARE USED DURING THE COURSE OF CONSTRUCTION. THE USE OF UNAPPROVED DOCUMENTS SHALL BE AT THE CONTRACTOR'S OWN RISK. CORRECTIONS OF ALL WORK BASED ON SUCH DOCUMENTS SHALL BE PERFORMED AT THE CONTRACTOR'S EXPENSE.

12. THESE PLANS AND SPECIFICATIONS REPRESENT THE STRUCTURAL DESIGN ONLY. NO INFORMATION NOR WARRANTY IS PROVIDED FOR THE WORK OF ANY OTHER CONSULTANT (ARCHITECT, MECHANICAL, ELECTRICAL ETC.). THIS INCLUDES, BUT IS NOT LIMITED TO, WATERPROOFING, DRAINAGE,

. REFER TO STRUCTURAL DESIGN PARAMETERS SECTION ON SHEET S-1.1 FOR ALL SOIL DESIGN VALUES USED IN CALCULATIONS.

VENTILATION, ACCESSIBILITY, OR DIMENSIONS.

SOILS VALUES PER GEOLOGIC/GEOTECHNICAL REPORT (OR "SOILS REPORT") BY EARTH SYSTEMS, INC., PROJECT NO. 305585-001, NOVEMBER 23, 2022. THIS REPORT AND ALL RECOMMENDATIONS CONTAINED THEREIN ARE TO BE CONSIDERED A PART OF THESE PLANS.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN A COPY OF THE SOILS REPORT FROM THE OWNER. A COPY OF THE SOILS REPORT SHALL BE ON THE JOB SITE DURING THE COURSE OF CONSTRUCTION.

UNEXPECTED SOIL CONDITIONS: ALLOWABLE VALUES AND SUBSEQUENT FOUNDATION DESIGNS ARE BASED ON SOIL CONDITIONS WHICH ARE SHOWN BY TEST BORINGS. ACTUAL SOIL CONDITIONS WHICH DEVIATE APPRECIABLY FROM THAT SHOWN IN THE TEST BORINGS SHALL BE REPORTED TO THE EOR AND/OR

SOILS ENGINEER IMMEDIATELY. ALL COMPACTION, FILL, BACKFILLING AND SITE PREPARATION SHALL BE PERFORMED IN ACCORDANCE WITH PROJECT SOILS REPORT OR THE GOVERNING BUILDING CODE CHAPTER 18 & APPENDIX J. ALL SUCH WORK

SHALL BE PERFORMED PER THE RECOMMENDATIONS OF THE PROJECT SOILS ENGINEER. EXCAVATE TO REQUIRED DEPTHS AND DIMENSIONS (AS INDICATED IN THE DRAWINGS), CUT SQUARE AND SMOOTH WITH FIRM LEVEL BOTTOMS. CARE SHALL BE TAKEN NOT TO OVER-EXCAVATE FOUNDATION AT LOWER

ELEVATION AND PREVENT DISTURBANCE OF SOILS AROUND HIGH ELEVATION. FOUNDATIONS SHALL BE POURED IN NEAT EXCAVATIONS. EXCAVATE ALL FOUNDATIONS TO REQUIRED DEPTHS INTO COMPACTED FILL OR NATURAL SOIL (AS PER PLANS AND DETAILS) AND AS VERIFIED BY THE BUILDING

OFFICIAL AND/OR SOILS ENGINEER. ALL FOUNDATIONS SHALL BE INSPECTED AND APPROVED BY THE APPROPRIATE BUILDING OFFICIAL AND/OR A REPRESENTATIVE OF THE SOILS ENGINEER PRIOR

TO FORMING AND PLACEMENT OF REINFORCING OR CONCRETE. FOUNDATIONS SHALL NOT BE POURED UNTIL ALL REQUIRED REINFORCING STEEL, FRAMING HARDWARE, SLEEVES, INSERTS, CONDUITS, PIPES, ETC. AND FORMWORK IS PROPERLY PLACED AND INSPECTED BY THE

APPROPRIATE BUILDING OFFICIAL/INSPECTOR(S). 11. IT IS THE RESPONSIBILITY OF THE CONTRACTOR IN CHARGE OF FRAMING TO PROPERLY POSITION ALL HOLDOWN BOLTS, ANCHOR BOLTS, COLUMN BASES, AND ALL OTHER CAST-IN-PLACE HARDWARE. REFER TO TYPICAL DETAILS. ALL

HARDWARE TO BE SECURED PRIOR TO FOUNDATION INSPECTIONS. 12. THE SIDES AND BOTTOMS OF DRY EXCAVATIONS MUST BE MOISTENED TO OPTIMUM MOISTURE CONTENT OR JUST ABOVE, JUST PRIOR TO PLACING CONCRETE. CONVERSELY, DE-WATER FOOTINGS AS REQUIRED TO REMOVE

STANDING WATER AND TO MAINTAIN OPTIMUM WORKING CONDITIONS.

3. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL EXCAVATION PROCEDURES INCLUDING LAGGING, SHORING, AND THE PROTECTION OF ADJACENT PROPERTY, STRUCTURES, STREETS, AND UTILITIES IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL SAFETY ORDINANCES. THE CONTRACTOR SHALL PROVIDE FOR THE DESIGN AND INSTALLATION OF ALL CRIBBING, BRACING AND SHORING REQUIRED

PRE-ENGINEERED METAL PIPE BRIDGE

1. BRIDGE MANUFACTERER TO PROVIDE DESIGN, MANUFACTURE, AND INSTALLATION OF PRE-FABRICATED METAL PIPE BRIDGE, INCLUDING BUT NOT LIMITED TO PRIMARY FRAMING, DECKING, LATERAL SUPPORT SYSTEM, RAILING, PIPE SUPPORTS, BEARINGS AND PAINTING, TO THE DIMENSIONS AND SPECIFICATIONS SHOWN ON THE CONSTRUCTION DRAWINGS. 2. QUALITY ASSURANCE

A) BRIDGES AND APPURTENANCES SHALL SHALL BE DESIGNED, FABRICATED INSTALLED, AND INSPECTED TO THE LATEST EDITION OF THE FOLLOWING

I) AASHTO GUIDE SPECIFICATIONS FOR DESIGN OF PEDESTRIAN BRIDGES II) AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) II) AMERICAN SOCIETY OF TESTING MATERIALS (ASTM)

IV) AMERICAN WELDIG SOCIETY (AWS) BRDIGE WELDING CODE B) DESIGNER SHALL BE A LISCENCED PROFESSIONAL CIVIL OR STRUCTURAL ENGINEER VALID IN CALIFORNIA. QUALIFIED SUPPLIERS MUST HAVE AT LEAST FIVE YEARS EXPERIENCE CONSTRUCTING/ FABRICATING BRIDGES OF SIMILAR SIZE AND COMPLEXITY

C) QUALIFICATIONS FOR WELDING WORK I) QUALIFY WELDING PROCESSES AND WELDING OPERATORS IN ACCORDANCE WITH AWS "STRUCTURAL WELDING CODE" D1.1, SECTION

II) PROVIDE CERTIFICATION THAT ALL WELDERS EMPLOYED ON OR TO BE EMPLOYED FOR THE WORK HAVE SATISFACTORILY PASSED AWS QUALIFICATION TESTS WITHIN THE PREVIOUS 12 MONTHS. ENSURE THAT ALL CERTIFICATIONS ARE KEPT CURRENT.

III) ALL WELDS WILL BE SUBJECT TO VISUAL INSPECTION. WHERE VISUALLY DEFICIENT WELDS ARE OBSERVED, THE WELDS WILL BE TESTED USING NON-DESTRUCTIVE METHODS BY A CERTIFIED TESTING LABORATORY. IF WELDS ARE FOUND TO BE SATISFACTORY, OWNER WILL PAY FOR TESTING. WHERE WELDS ARE FOUND UNNACEPTABLE OR DEFICIENT, CONTRACTOR SHALL PAY FOR TESTING, CORRECT OR IMPROPER WORKMANSHIP, REMOVE AND REPLACE, OR CORRECT AS INSTRUCTED, ALL WELDS FOUND UNACCPTABLE OR DEFICIENT. RESPONSIBILITY BELONGS TO CONTRACTOR TO PAY FOR ALL CORRECTIONS AND SUBSEQUENT TESTS REQUIRED TO CONFIRM THE INTEGRITY OF THE WELD.

A. SHOP DRAWINGS SHALL BE SUBMITTED TO THE CLIENT FOR REVIEW AND APPROVAL PRIOR TO FABRICATION. UPON APPROVAL, SHOP DRAWINGS SHALL 10. BE STAMPED AND SIGNED BY THE MANUFACTURER'S ENGINEER PER PARAGRAPH 2.B AND PREPARED SPECIFICALLY FOR THIS PROJECT. SHOW THE FOLLOWING ITEMS. AT MINIMUM:

I. DESIGN LOAD CRITERIA AND BRIDGE REACTIONS II. MATERIAL SPECIFICATIONS FOR MEMBERS AND CONNECTIONS

III. FRAMING PLAN IV. BEARING PLATE DETAILS SHOWING ANCHOR BOLT SIZE AND LAYOUT V. SECTIONS SHOWING FRAMING AND BRACING

VI. INSTRUCTIONS FOR TEMPORARY BRACING, AS REQUIRED VII. DETAILS FOR JOINING FRAMING MEMBERS AND RAILING

VII. DETAILS FOR PIPE SUPPORTS IX. SECTIONS AND DETAILS FOR ALL COMPONENTS AND ACCESSORIES B. STRUCTURAL CALCULATIONS: STAMPED AND SIGNED BY THE MANUFACTURER'S ENGINEER PER SECTION 2.B. SHOW THE FOLLOWING ITEMS, AT MINIMUM:

I. COMPLETE ANALYSIS AND DESIGN OF STRUCTURAL COMPONENTS AND CONNECTIONS IN ACCORDANCE WITH THE DESIGN REQUIREMENTS INDICATED AND CODES SPECIFIED.

II. SUBMIT CALCULATIONS FOR APPROVAL PRIOR TO FABRICATION. C. PRODUCT DATA:

MANUFACTURER'S WRITTEN INSTRUCTIONS FOR SHIPPING, HANDLING, STORAGE, PROTECTION AND ERECTION OR INSTALLATION II. MANUFACTURER'S LITERATURE AND TECHNICAL DATA

III. PAINTING SYSTEM: SPECIFICATIONS INCLUDING PAINT MANUFACTURER'S NAME, PRODUCT TRADE-NAME AND PREPARATION FOR SHOP AND FIELD COATS

4. PRODUCT DELIVERY, STORAGE, AND HANDLING:

A. PROTECT COMPONENTS AND ACCESSORIES FROM CORROSION, DEFORMATION AND OTHER DAMAGE DURING DELIVERY, STORAGE, HANDLING AND

B. DELIVER TO SITE WITH PARTS INDIVIDUALLY TAGGED. STORE ON WOOD BLOCKING, FLAT AND OFF GROUND, TO KEEP CLEAN AND TO PREVENT ANY DAMAGE OR PERMANENT DISTORTION. SUPPORT BUNDLES SO THERE IS NO DANGER OF TIPPING, SLIDING, ROLLING, SHIFTING, OR MATERIAL DAMAGE.

5. WARRANTY: A. THE MANUFACTURER SHALL PROVIDE A WARRANTY AGAINST DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF TEN YEARS.

6. MANUFACTURER A. BRIDGES MANUFACTURED OR SUPPLIED BY THE FOLLOWING MANUFACTURERS.

AND MEETING THESE SPECIFICATIONS, SHALL BE USED ON THIS PROJECT: I. BRIDGE BROTHERS

II. CONTECH ENGINEERED SOLUTIONS III. GATOR BRIDGE

IV. OR EQUAL

7. SERVICE CONDITIONS AND DESIGN CRITERIA A. GENERAL:

I. ALL LOADS SHALL BE PROPORTIONED AND APPLIED IN ACCORDANCE WITH THE CURRENT AASHTO GUIDE SPECIFICATIONS.

II. VERTICAL LIVE LOAD DEFLECTION SHALL BE LIMITED TO L/360. HORIZONTAL WIND LOAD DEFLECTION SHALL BE LIMITED TO L/360. III. ASSEMBLY SHALL PERMIT MOVEMENT OF COMPONENTS WITHOUT

BUCKLING, FAILURE OF JOINTS, UNDUE STRESS ON FASTENERS OR OTHER DETRIMENTAL EFFECTS, WHEN SUBJECT TO TEMPERATURE RANGE OF

8. COMPONENTS

A. BRIDGE SHALL BE FABRICATED FROM ONE OF THE FOLLOWING: I. STRUCTURAL ALUMINUM MEETING ASTM-B308

a. ALL OPEN ENDS OF TUBE SHAPED BEAMS SHALL BE CAPPED. b. DRAIN HOLES SHALL BE PROVIDED FOR ALL SECTIONS AT THE LOW

POINT OF THE MEMBER THAT MAY BECOME FILLED WITH WATER. c. MINIMUM THICKNESS OF PRIMARY HOLLOW STRUCTURAL SHAPES (HSS) AND ROLLED SHAPES SHALL BE 1/4-INCH.

B. BRIDGE WALKWAY: GRATING I. WELD FORGED RECTANGULAR DESIGN SPACED APPROXIMATELY 1-3/16

INCHES X 4 INCHES ON CENTER. II. GRATING SIZE AND DESIGN:

a. MAIN BARS TO BE 3/16 INCHES THICK.

b. DEPTH AS DETERMINED BY THE DESIGNER/MANUFACTURER TO SUPPORT LOADS SPECIFIED, 1-1/2 INCHES MINIMUM. c. CROSS BARS TO BE TWISTED SQUARE STEEL AND RESISTANCE WELDED

AT RIGHT ANGLES TO THE MAIN BARS. I. MATERIAL: A. GALVANIZED STEEL: ASTM A36, HOT DIPPED GALVANIZED PER ASTM A123 AFTER FABRICATION

IV. PLANK CLIPS FOR GRATING HOLD-DOWNS OR OTHER REQUIRED ATTACHMENTS SHALL BE GALVANIZED STEEL OR TYPE 304 STAINLESS

V. NO NOTCHING OR CUTTING OF BEARING BARS IS PERMISSIBLE VI. ALL EXPOSED BEARING ENDS OF GRATING SHALL BE ENCLOSED IN A PERIMETER BAND OF THE SAME DIMENSIONS AND MATERIAL AS THE

MAIN BARS, INCLUDING ENDS AT ALL CUTOUTS. VII. GRATING SHALL BE FABRICATED INTO EASILY REMOVABLE SECTIONS AND SHALL BE FASTENED AT EACH CORNER AND AS REQUIRED WITH FASTENERS PROVIDED BY THE GRATING MANUFACTURER. NO FASTENERS SHALL BE PERMITTED TO PROJECT ABOVE THE WALKING

SURFACE.

I. ALL BOLTS SHALL BE ASTM F593 ALLOY GROUP 2, UNO SPECIFICALLY ON THE STRUCTURAL PLANS. SPECIAL INSPECTIONS SHALL BE REQUIRED IN ACCORDANCE WITH THE GOVERNING BUILDING CODE, SECTION

II. BOLT HOLES SHALL BE DRILLED 1/32" TO 1/16" LARGER THAN THE

SPECIFIED BOLT DIAMETER. D. GUARDRAIL: PROVIDE GUARDRAIL ON BOTH SIDES OF THE BRIDGE OVER THE FULL LENGTH THAT EXTENDS 3'-6", MINIMUM, ABOVE THE WALKING SURFACE. CLEAR OPENING BETWEEN MEMBERS SHALL REJECT THE PASSAGE OF A 21-INCH DIAMETER SPHERE.

PRE-ENGINEERED METAL PIPE BRIDGE CONTINUED

E. BEARING PADS: ELASTOMERIC PADS SHALL BE DESIGNED FOR A FULL TEMPERATURE RANGE FROM 20°F TO 120°F. ELASTOMERIC PADS SHALL BE DESIGNED AS STEEL REINFORCED WHERE NECESSARY. COTTON DUCT OR FIBERGLASS REINFORCEMENT SHALL NOT BE

PERMITTED F. ANCHOR RODS: POST INSTALLED, SEE CONCRETE ANCHORS. DIAMETER SHALL BE DETERMINED BY THE BRIDGE MANUFACTURER.

G. CONCRETE FOUNDATIONS: ANY CHANGES NEEDED TO MODIFY THE FOUNDATIONS SHOWN ON THE DRAWINGS TO ACCOMMODATE CONTRACTOR INITIATED DESIGN CHANGES SHALL BE DESIGNED AND SEAL BY A PROFESSIONAL CIVIL OR STRUCTURAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT AT NO ADDITIONAL COST TO THE OWNER.

H. PIPE SUPPORTS: I. IN ADDITION TO THE PIPE SUPPORTS SPECIFICALLY CALLED FOR ON THE DRAWINGS, CONTRACTOR SHALL PROVIDE PIPE SUPPORTS AS REQUIRED TO FULLY SUPPORT ALL PIPING SYSTEMS

II. CONTRACTOR SHALL DESIGN, SUPPLY AND INSTALL PIPE SUPPORT SYSTEM SUPPORT DESIGN SHALL INCLUDE ALLOWANCES FOR THERMAL EXPANSION AND CONTRACTION. III. PIPE SUPPORTS SHALL, AT A MINIMUM, BE INSTALLED ALONG STRAIGHT

RUNS OF PIPE WITH A MAXIMUM DISTANCE BETWEEN SUPPORTS AS LISTED BELOW:

PIPE DIAMETER	MAX DISTANCE BETWEEN SUPPORTS	MIN. HANGER ROD DIAMETER (IF USED)
2-1/2" - 6"	8 FEET	3/4"
8" - 12"	10 FEET	2 @ 3/4"

A. VERIFY ALL FIELD DIMENSIONS PRIOR TO BRIDGE FABRICATION. B. FACTORY FABRICATE TO MANUFACTURER'S WRITTEN STANDARDS AND AISC SPECIFICATIONS ACCURATELY AND DIMENSIONALLY CORRECT TO FACILITATE

BRIDGE ERECTION WITHOUT FIELD ALTERATION. C. ALL WELDING SHALL BE IN ACCORDANCE WITH THE CURRENT ADDITION OF THE AWS D1.1 STRUCTURAL WELDING CODE USING THE GAS METAL ARC OR FLUX CORED ARC WELDING PROCESSES.

PREPARATION A. INSPECT MECHANICAL PIPING AND ELECTRICAL CONDUIT, WHERE OCCURS, SUPPORTING CONCRETE FOUNDATIONS, AND ANCHORAGE SYSTEMS FOR COMPLIANCE WITH REQUIREMENTS FOR INSTALLATION TOLERANCES. NOTIFY ENGINEER IN WRITING OF CONDITIONS DETRIMENTAL TO PROPER AND TIMELY COMPLETION OF WORK. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED IN A MANNER ACCEPTABLE TO ENGINEER.

A. GENERAL: COMPLY WITH AISC SPECIFICATIONS AND AASHTO LRFD BRIDGE

DESIGN SPECIFICATIONS AND AS HEREIN SPECIFIED. B. SURVEYS: PROVIDE SERVICES OF A REGISTERED SURVEYOR TO CHECK LINES AND ELEVATIONS OF CONCRETE BEARING SURFACES, LOCATION OF ANCHOR BOLTS AND SIMILAR DEVICES BEFORE BRIDGE ERECTION PROCEEDS. DISCREPANCIES SHALL BE REPORTED IMMEDIATELY TO ENGINEER, IN WRITING. DO NOT PROCEED WITH ERECTION UNTIL CORRECTIONS HAVE BEEN MADE, OR UNTIL COMPENSATING ADJUSTMENTS TO THE STRUCTURAL STEEL HAVE BEEN AGREED UPON

WITH ENGINEER. C. ANCHOR BOLTS: FURNISH ANCHOR BOLTS AND OTHER CONNECTORS REQUIRED FOR SECURING STRUCTURAL MEMBERS TO THE FOUNDATION AND OTHER IN-PLACE WORK. I) FURNISH TEMPLATES AND OTHER DEVICES AS NECESSARY FOR

PRESETTING BOLTS AND OTHER ANCHORS TO ACCURATE LOCATIONS. D. SETTING BASES AND BEARING PLATES: CLEAN CONCRETE BEARING SURFACES. SET BEARING PLATES LOOSE AND ATTACH STRUCTURAL MEMBERS. TIGHTEN ANCHOR BOLTS AFTER THE SUPPORTED MEMBERS

HAVE BEEN POSITIONED AND PLUMBED. E. INSTALL BRIDGE SECTIONS IN THE ORDER SHOWN ON THE SHOP

DRAWINGS. 12. FIELD QUALITY CONTROL

A. CORRECT DEFICIENCIES IN WORK THAT INSPECTION AND/OR LABORATORY TEST REPORTS INDICATE DO NOT COMPLY WITH THE SPECIFICATIONS. PERFORM ADDITIONAL TESTS, AS MAY BE REQUIRED TO RECONFIRM ANY NON-COMPLIANCE OF THE ORIGINAL WORK, AND AS MAY BE REQUIRED TO SHOW COMPLIANCE OF CORRECTED WORK.

B. WELDING INSPECTIONS SHALL BE IN ACCORDANCE WITH AWS "STRUCTURAL WELDING CODE" D1.1, SECTION 6, INSPECTION. OWNER RESERVES THE RIGHT TO CONDUCT A SEPARATE INDEPENDENT VISUAL INSPECTION. BY A CERTIFIED WELDING INSPECTOR (CWI). ANY ADDITIONAL DEFECTS FOUND BY THE OWNER'S CWI SHALL BE REPAIRED.

CONCRETE ANCHORS

1. QUALITY ASSURANCE: A. TESTING AGENCY QUALIFICATIONS: AN INDEPENDENT AGENCY QUALIFIED

ACCORDING TO ASTM E 329 FOR TESTING INDICATED. B. SPECIAL INSPECTION IS REQUIRED, UNLESS SPECIFICALLY NOTED OTHERWISE. SPECIAL INSPECTION SERVICES SHALL CONFORM TO THE GOVERNING BUILDING CODE, CHAPTER 17 AND SHALL BE PROVIDED BY AN ICC CERTIFIED INSPECTOR OR BUILDING DEPARTMENT APPROVED ENGINEER. THE BUILDING DEPARTMENT RESERVES THE RIGHT TO WAIVE OR REQUIRE THE SPECIAL INSPECTION REQUIREMENTS [GOVERNING BUILDING CODE SECTIONS 1704.1 & 1704.4]. NOTHING IN THESE PLANS WAIVES THE BUILDING DEPARTMENT'S RIGHT TO REQUIRE SPECIAL INSPECTION AT ANY POINT AND ON ANY MATERIAL

2. DELIVERY, STORAGE, AND HANDLING:

A. STORE AND HANDLE ALL ANCHORS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS

B. DELIVER MATERIALS TO PROJECT SITE IN MANUFACTURERE'S OR DISTRIBUTOR'S ORIGINAL PACKAGING UNDAMAGED, AND WITH PRINTED INISTALLATION INSTRUCTIONS. 3. DRILLED-IN ANCHORS:

A. CARTRIDGE INJECTION ADHESIVE ANCHORS: THREADED STEEL ROD, INSERTS OR REINFORCING DOWELS, COMPLETE WITH NUTS, WASHERS, POLYMER OR HYBRID MORTAR ADHESIVE INJECTION SYSTEM, AND MANUFACTURER'S INSTALLATION INSTRUCTIONS. CURRENT ICC APPROVAL FOR USE IN CRACKED AND UNCRACKED CONCRETE WITH A PUBLISHED ICC EVALUATION SERVICE REPORT REQUIRED. TYPE AND SIZE AS INDICATED ON DRAWINGS.

I. ALL ANCHORS, BOLTS, NUTS AND WASHERS SHALL BE 316 STAINLESS STEEL AS INDICATED ON THE DRAWINGS. II. REINFORCING DOWELS SHALL BE A615 GRADE 60.

III. WHERE ANCHOR MANUFACTURER IS NOT INDICATED, SUBJECT TO COMPLIANCE WITH REQUIREMENTS AND ACCEPTANCE BY THE ENGINEER, PROVIDE ONE OF THE FOLLOWING: a. HILTI HAS-R 316 SS THREADED RODS WITH HIT-RE 500 V3 SAFE

SET SYSTEM USING HILTI HOLLOW DRILL BIT AND VC 150/300 VACUUM SYSTEM FOR ANCHOR AND REBAR ANCHORAGE TO CONCRETE, ICC ESR-3814. b. SIMPSON SET-3G (ICC ESR-4057) WITH ANCHOR RODS

CONFORMING TO THE SPECIFICATIONS LISTED ABOVE. B. EXPANSION, SCREW OR UNDERCUT ANCHORS HAVING CURRENT ICC APPROVAL FOR USE IN CRACKED AND UNCRACKED CONCRETE, WITH A PUBLISHED ICC EVALUATION SERVICE REPORT AND MANUFACTURER'S INSTALLATION

INSTRUCTIONS. TYPE AND SIZE AS INDICATED ON DRAWINGS. I. ALL ANCHORS BOLTS, NUTS AND WASHERS SHALL BE 316 STAINLESS STEEL AS INDICATED ON THE DRAWINGS II. WHERE ANCHOR MANUFACTURER IS NOT INDICATED, SUBJECT TO

COMPLIANCE WITH REQUIREMENTS AND ACCEPTANCE BY THE ENGINEER, PROVIDE THE FOLLOWING: A. HILTI KWIK BOLT TZ SS 316, ICC ESR-1917.

A. DRILL HOLES WITH ROTARY IMPACT HAMMER DRILLS USING CARBIDE-TIPPED BITS, HOLLOW DRILL BIT SYSTEM, OR CORE DRILLS USING DIAMOND CORE BITS. DRILL BITS SHALL BE OF DIAMETERS AS SPECIFIED BY THE ANCHOR

MANUFACTURER. UNLESS OTHERWISE SHOWN ON THE DRAWINGS, ALL HOLES SHALL BE DRILLED PERPENDICULAR TO THE CONCRETE SURFACE. I. CORED HOLES: WHERE ANCHORS ARE PERMITTED TO BE INSTALLED IN CORED HOLES, USE CORE BITS WITH MATCHED TOLERANCES AS SPECIFIED BY THE MANUFACTURER. PROPERLY CLEAN CORED HOLE

PER MANUFACTURER'S INSTRUCTIONS. II. EMBEDDED ITEMS: IDENTIFY POSITION OF REINFORCING STEEL AND OTHER EMBEDDED ITEMS PRIOR TO DRILLING HOLES FOR ANCHORS EXERCISE CARE IN CORING OR DRILLING TO AVOID DAMAGING EXISTING REINFORCING OR EMBEDDED ITEMS. A SMALL DIAMETER TEST HOLE SHALL BE DRILLED AT THE INSTALLATION LOCATION. IF EXISTING REINFORCING IS ENCOUNTERED, THE INSTALLATION LOCATION SHALL BE RELOCATED TO AVOID CONFLICT AND THE ABANDONED HOLE SHALL BE FILLED WITH NON-SHRINK, NONMETALLIC GROUT. NOTIFY THE ENGINEER IF REINFORCING STEEL OR OTHER EMBEDDED ITEMS ARE ENCOUNTERED DURING DRILLING.

B. PERFORM ANCHOR INSTALLATION IN ACCORDANCE WITH MANUFACTURER INSTRUCTIONS AND ESR REPORT BY QUALIFIED PERSONNEL TRAINED TO

INSTALL DRILLED IN ANCHORS. C. CARTRIDGE INJECTION ADHESIVE ANCHORS: CLEAN ALL HOLES PER MANUFACTURER INSTRUCTIONS TO REMOVE LOOSE MATERIAL AND DRILLING DUST PRIOR TO INSTALLATION OF ADHESIVE. INJECT ADHESIVE INTO HOLES PROCEEDING FROM THE BOTTOM OF THE HOLE AND PROGRESSING TOWARD THE SURFACE IN SUCH A MANNER AS TO AVOID INTRODUCTION OF AIR POCKETS IN THE ADHESIVE. FOLLOW MANUFACTURER RECOMMENDATIONS TO ENSURE PROPER MIXING OF ADHESIVE COMPONENTS. SUFFICIENT ADHESIVE SHALL BE INJECTED IN THE HOLE TO ENSURE THAT THE ANNULAR GAP IS FILLED TO THE SURFACE. REMOVE EXCESS ADHESIVE FROM THE SURFACE. SHIM ANCHORS WITH SUITABLE DEVICE TO CENTER THE ANCHOR IN THE HOLE. DO NOT DISTURB OR LOAD ANCHORS BEFORE MANUFACTURER

SPECIFIED CURE TIME HAS ELAPSED. D. WEDGE ANCHORS, HEAVY-DUTY SLEEVE ANCHORS, AND UNDERCUT ANCHORS: 6. PUNCHING, DRILLING, AND REAMING: PROTECT THREADS FROM DAMAGE DURING ANCHOR INSTALLATION. HEAVY-DUTY SLEEVE ANCHORS SHALL BE INSTALLED WITH SLEEVE FULLY ENGAGED IN PART TO BE FASTENED. SET ANCHORS TO MANUFACTURER'S RECOMMENDED TORQUE, USING A TORQUE WRENCH. FOLLOWING ATTAINMENT OF 10% OF THE SPECIFIED TORQUE, 100% OF THE SPECIFIED TORQUE SHALL BE REACHED WITHIN 7 OR FEWER COMPLETE TURNS OF THE NUT. IF THE SPECIFIED TORQUE IS NOT ACHIEVED WITHIN THE REQUIRED NUMBER OF TURNS, THE ANCHOR SHALL BE REMOVED AND REPLACED UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

E. OBSERVE MANUFACTURER RECOMMENDATIONS WITH RESPECT TO INSTALLATION TEMPERATURES FOR CARTRIDGE INJECTION ADHESIVE ANCHORS AND CAPSULE ANCHORS.

5. REPAIR OF DEFECTIVE WORK: A. REMOVE AND REPLACE MISPLACED OR MALFUNCTIONING ANCHORS. FILL EMPTY ANCHOR HOLES AND PATCH FAILED ANCHOR LOCATIONS WITH HIGH-STRENGTH NON-SHRINK, NONMETALLIC GROUT. ANCHORS THAT FAIL TO MEET PROOF LOAD OR INSTALLATION TORQUE REQUIREMENTS SHALL BE

6. FIELD QUALITY CONTROL A. MINIMUM ANCHOR EMBEDMENTS, PROOF LOADS AND TORQUES SHALL BE AS SHOWN ON THE DRAWINGS, CALIFORNIA BUILDING CODE 1909.2.7.4, MANUFACTURER SPECIFICATIONS AND ESR REPORT.

REGARDED AS MALFUNCTIONING.

B. TEST FREQUENCY: I. WHEN POST-INSTALLED ANCHORS ARE USED FOR OTHER STRUCTURAL APPLICATIONS, ALL SUCH ANCHORS SHALL BE TESTED. II. WHEN POST-INSTALLED ANCHORS ARE USED FOR NONSTRUCTURAL

APPLICATIONS SUCH AS EQUIPMENT ANCHORAGE, 50 PERCENT OR ALTERNATE BOLTS IN A GROUP, INCLUDING AT LEAST ONE-HALF THE ANCHORS IN EACH GROUP SHALL BE TESTED. C. TESTING: EACH TYPE AND SIZE OF DRILLED-IN ANCHOR SHALL BE PROOF

LOADED BY THE INDEPENDENT TESTING LABORATORY. ADHESIVE ANCHORS AND CAPSULE ANCHORS SHALL NOT BE TORQUE TESTED UNLESS OTHERWISE DIRECTED BY THE ENGINEER. IF ANY ANCHOR FAILS TESTING, ALL ANCHORS OF THE SAME TYPE SHALL BE TESTED, WHICH ARE INSTALLED BY THE SAME TRADE, NOT PREVIOUSLY TESTED UNTIL TWENTY (20) CONSECUTIVE ANCHORS PASS, THEN RESUME THE INITIAL TEST FREQUENCY. I. TENSION TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH ASTM

II. TORQUE SHALL BE APPLIED WITH A CALIBRATED TORQUE WRENCH. III. PROOF LOADS SHALL BE APPLIED WITH A CALIBRATED HYDRAULIC RAM. DISPLACEMENT OF ADHESIVE AND CAPSULE ANCHORS AT PROOF LOAD SHALL NOT EXCEED D/10, WHERE D IS THE NOMINAL ANCHOR DIAMETER.

CONCRETE ANCHORS CONTINUED

D. PERIODIC QUALITY CONTROL INSPECTION MUST BE PERFORMED. THE QUALITY CONTROL INSPECTOR MUST BE ON THE JOBSITE INITIALLY DURING ANCHOR OR POST INSTALLED REINFORCING BAR INSTALLATION TO VERIFY ANCHOR OR POST INSTALLED REINFORCING BAR TYPE AND DIMENSIONS, CONCRETE TYPE, CONCRETE COMPRESSIVE STRENGTH. ADHESIVE IDENTIFICATION AND EXPIRATION DATE, HOLE DIMENSIONS, HOLE CLEANING PROCEDURES, SPACING EDGE DISTANCES, CONCRETE THICKNESS, ANCHOR OR POST-INSTALLED REINFORCING BAR EMBEDMENT, TIGHTENING TORQUE AND ADHERENCE TO THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS. THE QUALITY CONTROL INSPECTOR MUST VERIFY THE INITIAL INSTALLATIONS OF EACH TYPE OF SIZE OF ADHESIVE ANCHOR OR POST-INSTALLED REINFORCING BAR BY CONSTRUCTION PERSONNEL ON SITE SUBSEQUENT INSTALLATIONS OF THE SAME ANCHOR OR POST-INSTALLED REINFORCING BAR TYPE AND SIZE BY THE SAME CONSTRUCTION PERSONNEL ARE PERMITTED TO BE PERFORMED IN THE ABSENCE OF THE QUALITY CONTROL INSPECTOR. ANY CHANGE IN THE ANCHOR OR POST INSTALLED REINFORCING BAR PRODUCT BEING INSTALLED OR THE PERSONNEL PERFORMING THE INSTALLATION REQUIRES AN INITIAL INSPECTION. FOR ONGOING INSTALLATIONS OVER AN EXTENDED PERIOD, THE QUALITY CONTROL INSPECTOR MUST MAKE REGULAR INSPECTIONS TO CONFIRM CORRECT HANDLING AND INSTALLATION OF THE PRODUCT. CONTINUOUS QUALITY CONTROL INSPECTION OF ADHESIVE ANCHORS OR POST INSTALLED REINFORCING BAR INSTALLED IN HORIZONTAL OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS SHALL BE PERFORMED IN ACCORDANCE WITH ACI 318-14 17.8.2.4, 26.7.1(H), AND 26.13.3.2(C)

MATERIALS

(A) STRUCTURAL ALUMINUM SECTIONS SUCH AS CHANNELS (CS), RECTANGULAR TUBES (RT), AND PIPE SECTIONS SHALL BE CONFORM TO (B) ALL PLATE MATERIAL SHALL CONFORM TO TO ASTM B209

(A) ALL NONFERROUS BOLTS SHALL CONFORM TO ASTM F468

(A) HOLE CENTERS SHALL BE CENTER PUNCHED AND CUTOFF LINES SHALL BI PUNCHED OR SCRIBED. CENTER PUNCHING AND SCRIBING SHALL NOT BE USED WHERE SUCH MARKINGS WILL REMAIN ON FABRICATED MATERIAL

(B) A TEMPERATURE CORRECTION SHALL BE APPLIED WHERE NECESSARY IN THE CRITICAL DIMENSIONS. THE COEFFICIENT OF EXPANSION SHALL BE TAKEN AS 0.000013 PER DEGREE FAHRENHEIT (0.000023 PER DEGREE

(A) MATERIAL SHALL BE SHEARED, SAWN, CUT WITH A ROUTER, OR ARC CUT. ALL EDGES WHICH HAVE BEEN CUT BY THE ARC PROCESS SHALL BE PLANED TO REMOVE EDGE CRACKS. (B) CUT EDGES SHALL BE TRUE AND SMOOTH, AND FREE FROM EXCESSIVE

BURRS OR RAGGED BREAKS. (C) RE-ENTRANT CUTS SHALL BE FILLETED BY DRILLING PRIOR TO CUTTING (D) OXYGEN CUTTING SHALL NOT BE USED ON ALUMINUM ALLOYS

HEATING: STRUCTURAL MATERIAL SHALL NOT BE HEATED, WITH THE FOLLOWING

(A) MATERIAL SHALL BE PERMITTED TO BE HEATED TO A TEMPERATURE NOT EXCEEDING 400°F (200°C) FOR A PERIOD NOT EXCEEDING 30 MINUTES. SUCH HEATING SHALL BE DONE ONLY WHEN PROPER TEMPERATURE CONTROLS AND SUPERVISION ARE PROVIDED TO INSURE THAT THE LIMITATIONS ON TEMPERATURE AND TIME ARE CAREFULLY OBSERVED. II STRUCTURAL MATERIAL IS SUBJECTED TO ELEVATED TEMPERATURES OR TIMES IN EXCESS OF THE FOREGOING, THE LIMIT STATE STRESS SHALL BE REDUCED CONSISTENT WITH MECHANICAL PROPERTIES SPECIFIED FOR THE MATERIAL AFTER THE HEATING PROCESS.

(B) FOR 5XXX SERIES ALLOYS WITH MAGNESIUM CONTENTS GREATER THAN 3 PERCENT, HOLDING WITHIN THE TEMPERATURE RANGE FROM 150°F TO 450°F MUST BE AVOIDED IN ORDER TO MINIMIZE THE POSSIBILITY OF SENSITIZATION TO EXFOLIATION AND STRESS CORROSION CRACKING. THE LENGTH OF TIME AT TEMPERATURE IS A CRITICAL FACTOR IN DETERMINING THE DEGREE OF SENSITIZATION. HOT FORMING TECHNIQUES MUST INCLUDE QUICK HEAT UP TO A TEMPERATURE NOT TO EXCEED 550°F TO MINIMIZE LOSS OF MECHANICAL PROPERTIES. FORMING MUST BE COMPLETED BEFORE THE METAL COOLS BELOW 450°F. THE METAL SHALL THEN BE FAN COOLED, TO DROP THE METAL TEMPERATURE FROM 450°F TO 150°F IN THE MINIMUM TIME POSSIBLE TO PREVENT SENSITIZATION.

(C) SOME ELEVATED TEMPERATURE PROCESSES, SUCH AS FACTORY PAINT CURING OR FIRING OF PORCELAIN ENAMEL COATINGS. CAN REDUCE THE MECHANICAL PROPERTIES OF THE METAL. SINCE THE AMOUNT OF THE REDUCTION WILL VARY WITH THE ALLOY AND TEMPER USED. AS WELL AS WITH THE ELEVATED TEMPERATURE EXPOSURE, THE SUPPLIER SHALL BE CONSULTED FOR MECHANICAL PROPERTY SPECIFICATIONS FOR THE PROCESSED MATERIAL.

THE FOLLOWING RULES FOR PUNCHING, DRILLING, AND REAMING SHALL

BE OBSERVED (A) RIVET OR BOLT HOLES SHALL BE WITHER PUNCHED OR DRILLED. PUNCHING SHALL NOT BE USED IF THE METAL THICKNESS IS GREATER THAN THE DIAMETER OF THE HOLE. THE AMOUNT BY WHICH THE DIAMETER OF A SUB-PUNCHED HOLE IS LESS THAN THAT OF THE FINISHED HOLE SHALL BE AT LEAST 1/4 THE THICKNESS OF THE PIECE AND IN NO CASE

(B) THE FINISHED DIAMETER OF HOLES FOR BOLTS SHALL BE NOT MORE THAN 1/16 IN. (1.6 MM) LARGER THAN THE NOMINAL BOLT DIAMETER UNLESS SLIP-CRITICAL CONNECTIONS ARE USED.

(C) IF ANY HOLES MUST BE ENLARGED TO ADMIT THE BOLTS, THEY SHALL BE REAMED. POOR MATCHING OF HOLES SHALL BE CAUSE FOR REJECTION. HOLES SHALL NOT BE DRIFTED IN SUCH A MANNER AS TO DISTORT THE METAL. ALL CHIPS LODGED BETWEEN CONTACTING SURFACES SHALL BE REMOVED BEFORE ASSEMBLY.

PENETRATION WELDS & 4043 @ ALL OTHERS U.N.O. 8. WELDING FABRICATION: (A) WELDING SHALL COMPLY WITH THE AMERICAN WELDING SOCIETY D1.2 STRUCTURAL WELDING CODE - ALUMINUM.

7. FILLER WIRE: FILLER ALLOY SHALL BE 5356 @ ALL COMPLETE JOINT

EXISTING BRIDGE REPLACEMENT

1. ANY GRINDING, CUTTING WELDING, OR SIMILAR ACTIVITIES COMPLETED AS PART OF BRIDGE REPLACEMENT SHALL BE COMPLETED WITH APPROPRIATE CONTAINMENT (E.G., PLASTIC SHEETING, TARPS, ETC.) TO ENSURE ANY PARTICULATES ARE CAUGHT AND NOT ALLOWED TO ENTER THE CREEK BED OR

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> STRUCTURAL **SPECIFICATIONS**

