city of san luis obispo

PROJECT PLANS FOR

TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

general notes:

1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR OR PERMITTEE TO CONTACT "UNDERGROUND SERVICE ALERT OF NORTHERN CALIFORNIA" BY PHONE AT 8-1-1 FORTY-EIGHT (48) HOURS PRIOR TO START OF CONSTRUCTION FOR LOCATION OF POWER, TELEPHONE, OIL AND NATURAL GAS UNDERGROUND FACILITIES. CONTRACTOR OR PERMITTEE SHALL ALSO CONTACT THE APPROPRIATE AGENCY FOR THE LOCATION OF CABLE T.V., WATER, SEWER, DRAINAGE OR UNDERGROUND FACILITIES.

2. THE CONTRACTOR SHALL POSSESS A CLASS A LICENSE AT THE TIME OF BID OPENING.

basis of coordinates and bearings:

THE COORDINATES AND BEARINGS SHOWN HEREON ARE BASED UPON THE CALIFORNIA COORDINATE SYSTEM OF 1983, CCS83, ZONE 5 0405, (1993.35) IN ACCORDANCE WITH THE CALIFORNIA PUBLIC RESOURCES CODE SECTIONS 8801-8819; SAID COORDINATES AND BEARINGS ARE BASED LOCALLY UPON FIELD-OBSERVED TIE TO THE FOLLOWING CITY OF SAN LUIS OBISPO HORIZONTAL CONTROL NETWORK POINT 8097 & 8095 (MBS POINT 1016 & 1030):

STATION	NORTHING(ft)	EASTING(ft)	MAPPING ANGLE	COMBINATION FACTOR	ELEVATION (NAVD88)(ft)	ELLIP.HT.
1016	2287843.843	5777970.804	-1°29'46.798"	.9999531	254.60	143.39
1030	2287662.0270	5776336.092				

TO OBTAIN GROUND DISTANCES AND GEODETIC NORTH, MULTIPLE GRID DISTANCES (DISTANCES SHOWN HEREON) BY 1.0000469 AND ROTATE GRID BEARINGS COUNTERCLOCKWISE BY 1°29'46.798" TO OBTAIN GEODETIC BEARINGS.

basis of bearings:

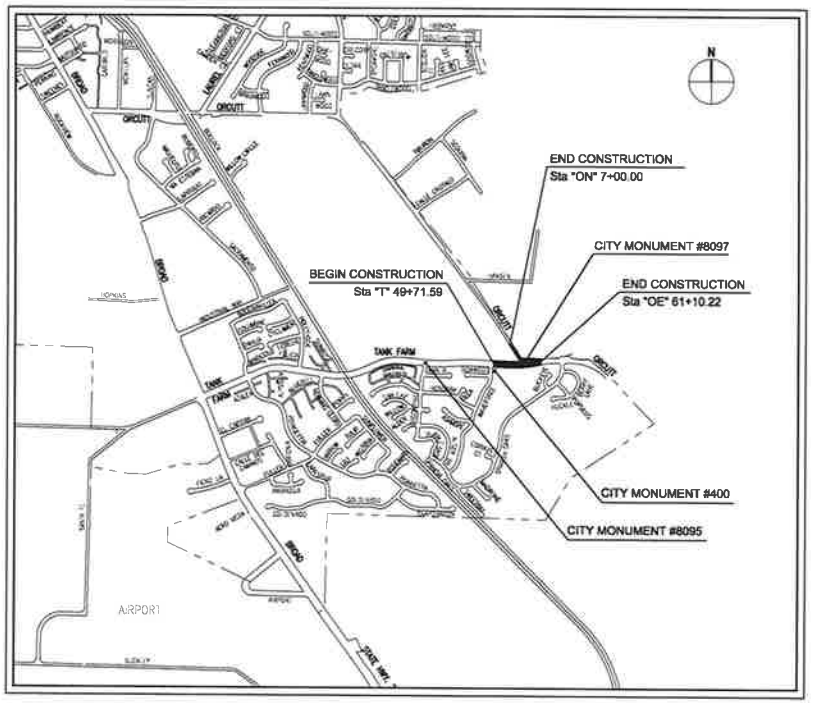
THE BASIS OF BEARINGS FOR THIS SURVEY WAS TAKEN FROM BETWEEN FOUND CITY OF SAN LUIS OBISPO HORIZONTAL CONTROL NETWORK MONUMENTS 8095 AND 8097. BEARING N 89° 21' 46" W PER CITY OF SAN LUIS OBISPO HORIZONTAL CONTROL NETWORK (INVERSED OF ABOVE COORDINATES).

bench mark

VERTICAL CONTROL BENCH MARK NO. 400 WITH AN ELEVATION OF 255.11' AS PUBLISHED IN THE CITY OF SAN LUIS OBISPO 2017 BENCH MARK SYSTEM. CITY'S BENCH MARK SYSTEM IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

DESCRIPTION: LEAD AND TACK IN THE TOP OF THE SOUTHEASTERLY CURB OF TANK FARM ROAD AND WAVERTREE STREET, AT THE SOUTHEASTERLY ECR.

VICINITY MAP
N.T.S.



PROJECT LOCATION MAP
1"=1000'

STORM WATER INFO
TOTAL AREA OF DISTURBANCE: 154,634 SF
AREA OF EXISTING PERVIOUS SURFACE: 49,854 SF
AREA OF EXISTING IMPERVIOUS SURFACE: 99,222 SF
AREA OF PROPOSED PERVIOUS SURFACE: 11,722 SF
AREA OF PROPOSED IMPERVIOUS SURFACE: 109,437 SF
PCR COMPLIANCE INFORMATION: PROJECT IS SUBJECT TO REQUIREMENTS OF CENTRAL COAST REGIONAL WATER QUALITY CONTROL BOARD RESOLUTION NO. R3-2012-0025, POST-CONSTRUCTION REQUIREMENTS, PERFORMANCE REQUIREMENTS NOS. 1 AND 2

811
Know what's below. Call before you dig.
Contractor shall call Underground Service Alert of 811 two working days prior to excavation

GHD

100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

REGISTERED PROFESSIONAL ENGINEER JOSEPH R. RETLAND No. C63755 CIVIL STATE OF CALIFORNIA

T1

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Reference Documents:
City Standard Specifications - August 2020 Edition
City Engineering Standards - August 2020 Edition

CITY OF SAN LUIS OBISPO

san luis obispo county, california

TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

SPECIFICATION NO. 1000164

APPROVED BY

Manuel Guzman
Construction Engineering Manager

DATE: 01/26/21
FILE NO.LOCATION: 2460T001
SHEET: 1 OF 67

GENERAL NOTES:

1. UTILITY INFORMATION AND OBSTRUCTIONS SHOWN ON THE PROJECT PLANS (PLANS) ARE ONLY INFORMATIONAL. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION AND ELEVATION OF ALL EXISTING UTILITIES WITHIN THE WORK AREA PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (U.S.A.) AT 800-227-2600 A MINIMUM OF TWO WORKING DAYS IN ADVANCE OF ANY EXCAVATION. EXCAVATION SHALL NOT BEGIN UNTIL UNDERGROUND UTILITIES HAVE BEEN LOCATED.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SECURE ALL PERMITS NECESSARY TO PERFORM THE WORK, INCLUDING BUT NOT LIMITED TO WORK IN THE PUBLIC RIGHT-OF-WAY, GRADING, TREE REMOVAL, UTILITY MODIFICATIONS.
3. CONTRACTOR SHALL SUPPLY ALL EQUIPMENT, LABOR, AND MATERIALS NECESSARY TO PERFORM THE WORK SHOWN ON THESE PLANS.
4. IT SHALL BE THE RESPONSIBILITY OF THE VARIOUS CONTRACTORS TO COORDINATE THEIR WORK SO AS TO ELIMINATE CONFLICTS AND WORK TOWARD THE GENERAL GOOD AND COMPLETION OF THE ENTIRE PROJECT.
5. ALL WORKMANSHIP AND MATERIALS FURNISHED BY THE CONTRACTOR SHALL BE THE KIND AND QUALITY DESCRIBED IN THE PLANS AND SHALL BE FIRST CLASS THROUGHOUT. NEITHER FINAL ACCEPTANCE NOR FINAL PAYMENT BY OWNER SHALL RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR FAULTY MATERIALS OF WORKMANSHIP.
6. CONTRACTOR SHALL PROVIDE ADEQUATE DUST CONTROL AT ALL TIMES AS REQUIRED BY OWNER'S REPRESENTATIVE.
7. CONTRACTOR SHALL EXERCISE ALL NECESSARY CAUTION TO AVOID DAMAGE TO ANY EXISTING TREES, OR SURFACE IMPROVEMENTS OR TO ANY EXISTING DRAINAGE STRUCTURE, WATER STRUCTURE, SEWER CLEANOUTS, MANHOLES, OR JUNCTION BOXES FOR UNDERGROUND ELECTRIC, GAS, TELEPHONE, CABLE TV, STORM, SANITARY, WATER, OR OTHER UTILITIES WHICH ARE TO REMAIN IN PLACE AND SHALL BEAR FULL RESPONSIBILITY FOR ANY DAMAGE THERETO.
8. ALL KNOWN EXISTING UTILITY LINES ARE SHOWN FOR INFORMATION ONLY. CONTRACTOR SHALL EXERCISE ALL NECESSARY CAUTION TO AVOID DAMAGE TO ANY EXISTING UTILITY LINES OR FACILITIES TO REMAIN IN PLACE, WHETHER OR NOT SUCH FACILITIES APPEAR ON THESE PLANS, AND SHALL BEAR FULL RESPONSIBILITY FOR ANY DAMAGE THERETO.
9. CONTRACTOR SHALL CONTACT BOTH UNDERGROUND SERVICE ALERT (800-227-2600) AND THE AFFECTED UTILITY COMPANY PRIOR TO STARTING WORK TO REQUEST AND OBTAIN THE MARKING OF EXISTING UNDERGROUND FACILITIES.
10. CONTRACTOR SHALL HIRE A LICENSED LAND SURVEYOR TO PROVIDE CONSTRUCTION STAKING IN ORDER TO ENSURE THE PROJECT IS CONSTRUCTED TO THE LINES AND GRADES INDICATED ON THIS PLAN.
11. INSPECTION OF WORK: CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF REQUIRED INSPECTIONS WITH THE APPROPRIATE AGENCIES AND UTILITY COMPANIES.
12. ENGINEER SHALL BEAR NO RESPONSIBILITY FOR METHODS AND PROCEDURES OF WORK ESTABLISHED BY CONTRACTOR, JOBSITE CONDITIONS, JOBSITE SAFETY OR CONFORMANCE WITH SAFETY PROCEDURES AND REQUIREMENTS.
13. IN CONFORMANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOBSITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS BOTH THE OWNER AND ENGINEER FROM ANY AND ALL LIABILITY REAL OR ALLEGED IN CONNECTION THE PERFORMANCE OF THE WORK ON THIS PROJECT EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.
14. THE CONTRACTOR SHALL HAVE COPIES OF THE PLANS FOR THIS PROJECT ON SITE AT ALL TIMES. THE CONTRACTOR SHALL MAINTAIN A CURRENT, COMPLETE, AND ACCURATE RECORD OF ALL CHANGES WHICH DEVIATE FROM THE CONSTRUCTION AS PROPOSED IN THESE PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE AS-BUILT INFORMATION AS TO THE EXACT LOCATION BY THE CENTERLINE STATION AND MAIN DEPTH OF ALL WATER FACILITY APPURTENANCES: PIPE, VALVES, TEES, MARKERS, AND OTHER FEATURES FOR THE PURPOSE OF PROVIDING THE ENGINEER WITH A BASIS FOR RECORD DRAWINGS. NO CHANGES SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE CITY OF SAN LUIS OBISPO ENGINEERING DEPARTMENT.
15. THE CONTRACTOR SHALL PRACTICE SAFETY AT ALL TIMES AND SHALL FURNISH, ERECT, AND MAINTAIN SUCH FENCES, BARRICADES, DETOURS, FLAGMAN, LIGHTS, AND SIGNS AS NECESSARY TO GIVE PROTECTION TO THE PUBLIC AT ALL TIMES.
16. ALL UNSUITABLE MATERIALS SHALL BE REMOVED FROM THE PROJECT AND BE PLACED AT A SUITABLE DISPOSAL SITE.
17. THE CONTRACTOR SHALL INSPECT THE PROJECT SITE PRIOR TO SUBMITTING A BID IN ORDER TO OBSERVE AND DETERMINE THE EXISTING SITE CONDITIONS.
18. TRAFFIC CONTROL DURING CONSTRUCTION SHALL BE THE CONTRACTOR'S RESPONSIBILITY. ALL TRAFFIC CONTROL AND DEVICES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MANUAL OF TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE WORK ZONES" USED BY THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION AND CITY OF SAN LUIS OBISPO ENGINEERING STANDARD APPENDIX G.
19. THE CONTRACTOR SHALL PROVIDE FOR CONTINUOUS INGRESS AND EGRESS TO ALL PUBLIC AND PRIVATE PROPERTIES ADJACENT TO THE WORK THROUGHOUT THE PERIOD OF CONSTRUCTION.
20. THE FINAL ADJUSTMENT TO FINISH GRADE OF ALL MANHOLES, VALVE COVERS, AND SURVEY MONUMENTS SHALL BE MADE FOLLOWING PLACEMENT OF ASPHALT CONCRETE FINAL LIFT.
21. THE CONTRACTOR SHALL COMPLY WITH THE RULES AND REGULATIONS OF CAL/OSHA. THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
22. AL WORK LOCATED WITHIN THE PUBLIC RIGHT-OF-WAY OR WITHIN THE JURISDICTION OF THE CITY OF SAN LUIS OBISPO UTILITIES AND PUBLIC WORKS DEPARTMENTS SHALL COMPLY WITH THE MOST CURRENT EDITION OF THE STANDARD SPECIFICATIONS AND ENGINEERING STANDARDS. THE CURRENT ADOPTED EDITION IS DATED MAY 2018.
23. A SEPARATE ENCROACHMENT PERMIT IS REQUIRED FOR ANY WORK IN THE PUBLIC RIGHT-OF-WAY OR WITHIN CITY EASEMENTS FOR CONNECTIONS TO PUBLIC UTILITIES. WORK REQUIRING AN ENCROACHMENT PERMIT INCLUDES BUT IS NOT LIMITED TO DEMOLITIONS, UTILITIES, WATER, SEWER, AND FIRE SERVICE LATERALS, CURB, GUTTER, AND SIDEWALK, DRIVEWAY APPROACHES, SIDEWALK UNDERDRAINS, STORM DRAIN IMPROVEMENTS, STREET TREE PLANTING OR PRUNING, CURB RAMPS, STREET PAVING, AND PEDESTRIAN PROTECTION OR CONSTRUCTION STAGING IN THE RIGHT-OF-WAY.
24. CONTACT THE CITY OF SAN LUIS OBISPO PUBLIC WORKS INSPECTION HOTLINE AT 805-781-7554 AT LEAST TWO WORKING DAYS PRIOR TO START OF WORK OR ANY REQUIRED ENCROACHMENT PERMIT INSPECTION.
25. A TRAFFIC AND PEDESTRIAN CONTROL PLAN SHALL BE SUBMITTED TO THE CITY OF SAN LUIS OBISPO PUBLIC WORKS DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO ENCROACHMENT PERMIT ISSUANCE.
26. ALL TRENCHING AND BACKFILL TO BE DONE TO CITY OF SAN LUIS OBISPO ENGINEERING STANDARDS UNLESS OTHERWISE NOTED.
27. A CAL-OSHA PERMIT IS REQUIRED FOR EXCAVATION OR TRENCHING GREATER THAN 5 FEET IN DEPTH. A COPY OF THE ANNUAL, PROVISIONAL, OR TEMPORARY PERMIT SHALL BE PROVIDED TO THE BUILDING DIVISION PRIOR TO BUILDING, UTILITY, AND/GRADING GRADING PERMIT ISSUANCE IS APPLICABLE. ANY OSHA PERMIT EXEMPTION OR WAIVER SHALL BE PROCESSED ON A FORM PROVIDED BY THE CITY OF SAN LUIS OBISPO BUILDING DIVISION.
28. ANY SECTIONS OF DAMAGED OR DISPLACED CURB, GUTTER AND SIDEWALK, OR DRIVEWAY APPROACH SHALL BE REQUIRED OR REPLACED TO THE SATISFACTION OF THE CITY OF SAN LUIS OBISPO.
29. FOLLOW CITY OF SAN LUIS OBISPO TRAFFIC CONTROL GUIDELINES FOR ALL CONSTRUCTION ACTIVITIES FOUND AT HTTP://WWW.SLOCITY.ORG/PUBLICWORKS/STDS/APPX-G.PDF.
30. SHOULD HYDROCARBON CONTAMINATED SOIL BE ENCOUNTERED DURING CONSTRUCTION ACTIVITIES, THE APCD AND SLO FIRE DEPARTMENT MUST BE NOTIFIED AS SOON AS POSSIBLE AND NO LATER THAN 48 HOURS AFTER AFFECTED MATERIAL IS DISCOVERED TO DETERMINE IF AN APCD PERMIT WILL BE REQUIRED. IN ADDITION, STANDARD APCD REQUIRED PROCEDURES SHALL BE IMPLEMENTED IMMEDIATELY AFTER CONTAMINATED SOIL IS DISCOVERED.

GENERAL UTILITY NOTES:

1. AS A FIRST ORDER OF WORK, THE CONTRACTOR MUST POTHOLE ALL UTILITIES WITHIN THE WORK AREA AND FURNISH ELEVATIONS TO THE ENGINEER.
2. THE CONTRACTOR SHALL CONTACT AND COORDINATE WITH AFFECTED UTILITIES RELOCATIONS REQUIRED BY THE PLANS.
3. AN EFFORT HAS BEEN MADE TO DEFINE THE LOCATION OF UNDERGROUND FACILITIES WITHIN THE JOBSITE. HOWEVER, ALL EXISTING UTILITY AND OTHER UNDERGROUND STRUCTURES MAY NOT BE SHOWN ON THESE PLANS AND THEIR LOCATION WHERE SHOWN IS APPROXIMATE. THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR LOCATING OR HAVING LOCATED ALL UNDERGROUND UTILITIES AND OTHER FACILITIES AND FOR PROTECTING THEM DURING CONSTRUCTION.
4. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES TO MARK LOCATIONS AND SHALL POTHOLE ALL UTILITY CROSSINGS, PRIOR TO STAKING AND PRIOR TO ANY PIPELINE EXCAVATIONS TO ALLOW GRADE REVISIONS IF NECESSITATED BY ACTUAL LOCATIONS. THE CONTRACTOR SHALL NOTIFY AND CALL UNDERGROUND SERVICE ALERT A MINIMUM OF 48 HOURS PRIOR TO WORK AT 811.
5. THE CONTRACTOR SHALL CONTACT THE FOLLOWING UTILITY COMPANIES AT LEAST 48 HOURS BEFORE BEGINNING EXCAVATION AND SHALL VERIFY WHETHER OR NOT A REPRESENTATIVE OF EACH COMPANY WILL BE PRESENT DURING EXCAVATION.

WATER, SEWER, STORM:	CITY OF SAN LUIS OBISPO	805-781-7200
GAS	SOCAL GAS	805-681-7939
TELEPHONE	AT&T	805-546-7315
INTERNET	CHARTER COMMUNICATIONS	805-503-8543
ELECTRIC:	PG&E	805-546-5236

6. ALL STATIONING IS BASED ON CENTERLINE OF ROAD UNLESS OTHERWISE SHOWN ON PLANS.
7. DOMESTIC WATER SERVICE LATERALS AND METERS AND SEWER SERVICE LATERALS ARE SHOWN ON THE PLAN DRAWINGS. THE CONTRACTOR SHALL POTHOLE AND VERIFY THE LOCATION OF THESE UTILITIES AND CONSTRUCT THE NEW IMPROVEMENTS WHILE MAINTAINING SERVICE AT ALL TIMES DURING CONSTRUCTION. DAMAGE CAUSED BY THE CONTRACTOR TO THESE SERVICES SHALL BE REPAIRED IMMEDIATELY AT THE SOLE EXPENSE OF THE CONTRACTOR.
8. PROFILES ARE DRAWN AT AN EXAGGERATED SCALE MAKING VERTICAL GRADE BREAKS APPEAR GREATER THAN ACTUAL. THE CONTRACTOR SHALL LAY THE PIPE IN ACCORDANCE SECTION 77-2.03A AND NOT EXCEED THE PIPE MANUFACTURER'S RECOMMENDATIONS.
9. THE CONTRACTOR SHALL HAVE A COPY OF THE PROJECT PLANS AND THE CITY OF SAN LUIS OBISPO FIELD REPRESENTATIVE SHALL BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION OR ANY REQUIRED OBSERVATION.
10. CONTRACTOR SHALL MAINTAIN THE WORK AREA IN A NEAT, SAFE, CLEAN, AND SANITARY CONDITION AT ALL TIMES AND TO THE SATISFACTION OF THE AGENCY HAVING JURISDICTION OVER THE AREA. STREETS SHALL BE KEPT CLEAN OF DEBRIS, WITH DUST AND OTHER NUISANCE BEING CONTROLLED AT ALL TIMES. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ANY CLEANUP ON ADJACENT STREETS AFFECTED BY HIS CONSTRUCTION.
11. ALL CONSTRUCTION ACTIVITY THAT DISRUPTS THE SMOOTH FLOW OF TRAFFIC OVER THE PUBLIC ROADS WILL REQUIRE A TRAFFIC CONTROL PLAN. TRAFFIC CONTROL SHALL BE SUBMITTED 5 WORKING DAYS PRIOR FOR APPROVAL OF THE CITY OF SAN LUIS OBISPO TRANSPORTATION DEPARTMENT.
12. IN THE EVENT THAT EXISTING TRAFFIC STRIPING OR STENCILING IS OBLITERATED BY CONSTRUCTION, IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPLACE "IN KIND". IF STENCILING OR LEGEND IS PARTIALLY OBLITERATED, THE ENTIRE STENCIL OR LEGEND SHALL BE REPLACED TO THE SATISFACTION OF THE CITY.
13. NO CONSTRUCTION SHALL BE STARTED WITHOUT PLANS AND/OR PERMITS APPROVED BY THE REGULATORY AGENCIES HAVING JURISDICTION OVER THE PROJECT WORK. ALL AGENCIES SHALL BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO STARTING CONSTRUCTION. ANY CONSTRUCTION DONE WITHOUT APPROVED PLANS AND/OR PERMITS AND PRIOR NOTIFICATION WILL BE REJECTED AND WILL BE AT THE CONTRACTOR'S RISK AND EXPENSE.
14. ALL LANDSCAPING AND GRASSED AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION UNLESS OTHERWISE NOTED ON THE PLANS. ALL IRRIGATION LINES, SPRINKLERS, CONTROL WIRES, AND CONTROL BOXES THAT ARE DAMAGED SHALL BE REPAIRED TO THE SATISFACTION OF THE CITY OF SAN LUIS OBISPO AND TO THE REGULATORY AGENCY PER THE PROJECT SPECIFICATIONS.
15. ALL P.C.C. AND A.C. PAVEMENT REMOVALS SHALL BE OUTLINED TO NECESSARY WORKING LIMITS AND SAW CUT PRIOR TO REMOVAL. ALL DEBRIS CREATED BY THE REMOVAL OPERATIONS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF AWAY FROM THE JOB SITE IN A MANNER AND AT A LOCATION ACCEPTABLE TO ALL COGNIZANT AGENCIES.
16. THE CONTRACTOR SHALL COOPERATE WITH OTHER CONTRACTORS AND UTILITY COMPANIES PERFORMING OTHER CONSTRICTION AND MAINTENANCE WORK IN THE AREA.
17. THE CONTRACTOR'S WORK SCHEDULE SHALL TAKE INTO ACCOUNT SCHEDULE RESTRICTIONS NECESSARY FOR THE SAFE HANDLING OF VEHICLE, BICYCLE, AND PEDESTRIAN TRAFFIC ADJACENT TO PROJECT.
18. COMPACTION TESTS SHALL BE DONE ON SUBGRADE MATERIAL AND MATERIAL PLACED AS SPECIFIED BY THE CITY OF SAN LUIS OBISPO, SAID TEST SHALL BE COMPLETED BY A CERTIFIED SOILS ENGINEER AND APPROVED BY THE CITY OF SAN LUIS OBISPO PRIOR TO THE PLACING OF THE NEXT MATERIAL.
19. IN THE EVENT THAT THE CONTRACTOR NOTICES IRREGULARITIES IN THE LINE OR GRADE HE SHALL BRING IT TO THE IMMEDIATE ATTENTION OF THE CITY OF SAN LUIS OBISPO AND DESIGN ENGINEER IN WRITING (RFI). IF HE FAILS TO DO SO, THE CONTRACTORS SHALL BE RESPONSIBLE FOR ANY ERROR IN THE LINE AND GRADE AND NECESSARY RECONSTRUCTION TO CORRECT SUCH ERROR.
20. NEITHER THE CITY OF SAN LUIS OBISPO NOR THE ENGINEER WILL ENFORCE SAFETY MEASURES OR REGULATIONS AS THE PERTAIN TO THE CONTRACTOR. THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING AND BRACING AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS.
21. THE CONTRACTOR SHALL FURNISH SUPPLIERS' CERTIFICATES OF COMPLIANCE STATING THAT ALL PIPE, FITTINGS, PROTECTIVE COATINGS, AND ALL OTHER MATERIALS COMPLY WITH THE PLANS AND REQUIREMENTS OF THE CONTRACT DOCUMENTS.
22. THE CONTRACTOR SHALL NOT INTERRUPT THE UTILITY SERVICE FUNCTION, DISTURB THE SUPPORT BASE, OR MODIFY ANY FACILITY WITHOUT AUTHORITY FROM THE UTILITY OWNER OR THE CITY OF SAN LUIS OBISPO.
23. EXISTING PIPELINES/UTILITIES THAT CROSS THE PROPOSED UTILITIES OR SIMILAR EXCAVATIONS REQUIRED TO CONSTRUCT THE PIPING, SHALL BE PROTECTED IN PLACE, UNLESS OTHERWISE NOTED. ALL EXISTING PIPELINES/UTILITIES SHALL BE SUPPORTED ACROSS THE EXCAVATION PER CITY OF SAN LUIS OBISPO STANDARD 6020 AND SECTION 77-2.03A. IN ORDER TO PREVENT SETTLEMENT OF THE UTILITY AFTER INSTALLATION OF THE PIPELINE SYSTEMS. THE CONTRACTOR SHALL PLACE 1-SACK SLURRY BETWEEN THE COMPACTED PIPE ZONE MATERIAL AND THE UTILITY.
24. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF THE DISCOVERY OF ANY UTILITY THAT WAS OMITTED FROM THE PLANS, INCORRECTLY SHOWN OR NOT PROPERLY MARKED. IF A UTILITY COMPANY DOES NOT PROVIDE LOCATION INFORMATION OR MARKING SERVICES IN THE FIELD, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER PER SECTION 4-1.06B OF THE CITY OF SAN LUIS OBISPO STANDARDS SHALL PROHIBIT THE CONTRACTOR FROM CLAIMING EXTRA WORK ASSOCIATED WITH SAID UTILITY.
25. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CITY OF SAN LUIS OBISPO AND UTILITY OWNER IF ANY UTILITY IS DISTURBED OR DAMAGED DURING THE COURSE OF THE WORK. THE CONTRACTOR SHALL BEAR THE COSTS OF REPAIR OR REPLACEMENT OF ANY MARKED UTILITY WHERE DAMAGE WAS CAUSED BY THE CONTRACTOR'S ACTIVITIES.
26. CONTRACTOR SHALL EXPOSE AND VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES, INCLUDING SANITARY AND STORM SEWERS, WATER, ELECTRIC, AND CABLE LINES BEFORE CONSTRUCTING NEW FACILITIES. EXISTING UTILITIES ARE APPROXIMATE ONLY.
27. STORM DRAIN PIPE MATERIAL SHALL BE PER PLAN OR BETTER, INSTALLED PER MANUFACTURER'S RECOMMENDATIONS WITH WATER TIGHT JOINTS.
28. ALL TRENCH EXCAVATION AND BACKFILL FOR LINES SHALL CONFORM TO REQUIREMENTS OF THE CITY OF SAN LUIS OBISPO AND THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER.
29. ALL TRENCHES AND EXCAVATIONS SHALL BE CONSTRUCTED IN STRICT COMPLIANCE WITH THE APPLICABLE SECTIONS OF CALIFORNIA AND FEDERAL O.S.H.A. REQUIREMENTS AND OTHER APPLICABLE SAFETY ORDINANCES. CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR TRENCH SHORING DESIGN AND INSTALLATION.
30. ALL CONSTRUCTION OF UTILITIES SHALL COMMENCE AT THE DOWNSTREAM CONNECTION AND RUN UPSTREAM. SHOULD THE CONTRACTOR DEVIATE FROM THIS STANDARD, ANY REVISIONS TO THE LINE DUE TO CONFLICTS OR UNFORESEEN CIRCUMSTANCES SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
31. ALL NEW WATER MAINS SHALL MEET THE REQUIREMENTS OF CITY OF SAN LUIS OBISPO SPECIFICATIONS AND ENGINEERING STANDARDS SECTION 77.
32. ALL PIPE TO DRAINAGE INLET FITTING CONNECTIONS SHALL BE EQUIPPED WITH RESTRAINTS (EBAA SERIES 2000PV MEGALUG, OR APPROVED EQUAL).
33. ALL DUCTILE IRON FITTINGS BURIED UNDERGROUND SHALL BE PROTECTED FROM CORROSION WITH PLASTIC FILM WRAP IN ACCORDANCE WITH ANSI A21.5 AND AWWA C105 AND CITY OF SAN LUIS OBISPO SECTION 77-2.02B. IN ADDITION, ALL DUCTILE IRON FITTINGS, AND VALVES BURIED UNDERGROUND SHALL BE WRAPPED WITH 10 MILS POLYETHYLENE SHEETING.
34. ALL DUCTILE IRON FITTINGS SHALL BE MECHANICAL JOINT PER PLAN AND CONFORM TO ANSI/AWWA C110/A21.10, UNLESS OTHERWISE NOTED. ALL DUCTILE IRON FITTINGS SHALL BE RATED FOR A WORKING PRESSURE OF NO LESS THAN 350 PSI PER CITY OF SAN LUIS OBISPO SECTION 77-2.02C.
35. ALL NUTS AND BOLTS FOR FLANGES SHALL BE IN ACCORDANCE WITH AWWA C110-08 PER CITY OF SAN LUIS OBISPO SECTION 77-2.02C.

GRADING AND PAVING NOTES:

1. WORK SHALL CONSIST OF ALL CLEARING (INCLUDING TREE REMOVAL), GRUBBING, AND STRIPPING, PREPARATION OF LAND TO BE FILLED, EXCAVATION, SPREADING, COMPACTION AND CONTROL OF THE FILL, AND ALL SUBSIDIARY WORK NECESSARY TO COMPLETE THE GRADING TO CONFORM TO THE LINES, GRADING AND SLOPES, AS SHOWN ON THE ACCEPTED PLANS AND TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER REVIEWING THE WORK.
2. CONTRACTOR IS RESPONSIBLE TO VERIFY THAT PERMITS ARE IN ORDER PRIOR TO STARTING WORK ON THE PROJECT. CONTRACTOR SHALL ADHERE TO THE REQUIREMENTS THEREOF.
3. THE CONTRACTOR SHALL NOTIFY THE SOIL ENGINEER, AND THE CITY OF SAN LUIS OBISPO INSPECTOR AT LEAST FORTY EIGHT (48) HOURS PRIOR TO COMMENCEMENT OF ANY GRADING OPERATIONS ON-SITE.
4. CUT AND FILL SLOPES SHALL NOT EXCEED A GRADE OF 1.5 UNITS HORIZONTAL TO 1 UNIT VERTICAL AND 2 UNITS HORIZONTAL TO 1 UNIT VERTICAL RESPECTIVELY, AS APPROVED IN THE PROJECT SOILS ENGINEER REPORT.
5. A REPRESENTATIVE OF THE SOILS ENGINEER SHALL BE ON SITE DURING GRADING OPERATIONS AND SHALL PERFORM SUCH TESTING AS DEEMED NECESSARY. THE REPRESENTATIVE SHALL OBSERVE THE GRADING OPERATION FOR CONDITIONS THAT SHOULD BE CORRECTED, AND IDENTIFY THOSE CONDITIONS WITH RECOMMENDED CORRECTIVE MEASURES TO THE CONTRACTOR.
6. IN THE EVENT THAT ANY UNUSUAL CONDITIONS NOT COVERED BY THESE NOTES ARE ENCOUNTERED DURING GRADING OPERATION, THE SOILS ENGINEER SHALL BE IMMEDIATELY NOTIFIED FOR DIRECTIONS.
7. FILL MATERIALS SHALL NOT INCLUDE ORGANIC, FROZEN, OR OTHER DELETERIOUS MATERIALS. NO ROCK OR SIMILAR IRREDUCIBLE MATERIAL GREATER THAN 12 INCHES (305MM) IN ANY DIMENSION SHALL BE INCLUDED IN FILLS.
8. FILL MATERIAL PLACED WITHIN 3' OF FINISHED GRADE IN ROADWAY OR FLATWORK AREA SHALL BE COMPACTED TO A MINIMUM OF 95 PERCENT OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D 1557, MODIFIED PROCTOR, IN LIFTS NOT EXCEEDING 12 INCHES IN DEPTH, UNLESS OTHERWISE SPECIFIED.
9. AREAS TO BE GRADED SHALL BE PREPARED TO RECEIVE FILL BY REMOVING VEGETATION, TOPSOIL, AND OTHER UNSUITABLE MATERIALS PRIOR TO OVER EXCAVATION AND SCARIFICATION TO THE DEPTHS SPECIFIED BY THE PROJECT SOILS ENGINEER.
10. ALL EXISTING TRASH, DEBRIS, ROOTS, TREE REMAINS AND OTHER RUBBISH SHALL BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF SO AS TO LEAVE THE AREAS THAT HAVE BEEN DISTURBED WITH A NEAT AND FINISHED APPEARANCE FREE FROM UNSIGHTLY DEBRIS. NO BURNING SHALL BE PERMITTED.
11. WHERE EXISTING GRADE IS AT A SLOPE STEEPER THAN 5 HORIZONTAL TO 1 VERTICAL (20 PERCENT) AND THE DEPTH OF THE FILL EXCEEDS 5 FEET, BENCHING SHALL BE PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE SOILS REPORT, AND A KEY SHALL BE PROVIDED WHICH IS AT LEAST 10 FEET IN WIDTH AND 2 FEET IN DEPTH, OR AS REQUIRED BY THE PROJECT SOILS ENGINEER.
12. ALL AGGREGATE BASE MATERIAL AND THE HANDLING AND PLACEMENT THEREOF SHALL BE IN ACCORDANCE WITH CITY OF SAN LUIS OBISPO STANDARD SPECIFICATIONS AND ENGINEERING STANDARDS. AGGREGATE BASE MATERIALS SHALL BE CLASS II.
13. CONTRACTOR SHALL ADJUST ALL INLETS, VALVE BOXES, MANHOLE RIMS, AND SEWER CLEANOUTS TO NEW FINISH GRADE.
14. MATERIALS HANDLING AND PLACEMENT OF PORTLAND CEMENT CONCRETE SHALL BE IN ACCORDANCE WITH APPLICABLE SECTIONS OF CITY OF SAN LUIS OBISPO STANDARDS AND THESE PLANS AND DETAILS SHOWN HEREON.
15. CONCENTRATED DRAINAGE IS NOT ALLOWED ACROSS PUBLIC SIDEWALKS.
16. APCD APPROVAL REQUIRED PRIOR TO GRADING.

GENERAL CITY NOTES

1. ANY EXISTING SURVEY MONUMENTS AND BENCHMARKS SHALL BE PROTECTED IN PLACE OR SHALL BE TIED OUT BY A LICENSED LAND SURVEYOR PRIOR TO DISTURBANCE AND THEN REPLACED PRIOR TO OCCUPANCY IN ACCORDANCE WITH SECTION 8771 OF THE CALIFORNIA BUSINESS AND PROFESSIONS CODE.
2. THE ADJOINING STREETS SHALL BE CLEANED BY SWEEPING TO REMOVE DIRT, DUST, MUD AND CONSTRUCTION DEBRIS AT THE END OF EACH DAY.
3. A PRE-CONSTRUCTION MEETING SHALL BE COORDINATED BY THE OWNER/DEVELOPER OR CONTRACTOR AND SHALL INCLUDE PERTINENT CITY STAFF. AS A MINIMUM, THE ASSIGNED BUILDING INSPECTOR AND PUBLIC WORKS INSPECTOR SHALL BE INCLUDED IN THIS MEETING TO DISCUSS THE LIMIT OF PUBLIC AND PRIVATE IMPROVEMENTS AND THE CORRESPONDING INSPECTION RESPONSIBILITIES.
4. THE PUBLIC IMPROVEMENTS SHALL BE SUBSTANTIALLY COMPLETE TO THE SATISFACTION OF THE PUBLIC WORKS DIRECTOR PRIOR TO FINAL INSPECTION APPROVALS AND/OR OCCUPANCY OF ANY BUILDING.
5. "RECORD" DRAWINGS OR "AS-BUILT" PLANS ARE REQUIRED FOR ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY WITHIN CITY EASEMENTS AT THE COMPLETION OF THE PROJECT PER CITY STANDARDS AND CITY STANDARD SPECIFICATIONS. THE RECORD DRAWINGS SHALL BE RECEIVED AND ACCEPTED BY THE CITY PRIOR TO FINAL ACCEPTANCE OF THE IMPROVEMENTS AND/OR OCCUPANCY OF ANY BUILDING.
6. STORMWATER AND DRAINAGE SYSTEM CERTIFICATION IS REQUIRED FROM THE ENGINEER PRIOR TO FINAL INSPECTION APPROVALS. THE ENGINEER SHALL CERTIFY THAT THE DRAINAGE AND STORMWATER SYSTEM COMPONENTS HAVE BEEN INSPECTED AND ARE IN GENERAL CONFORMANCE WITH THE DRAINAGE REPORT, SYSTEM DESIGN, AND THE APPROVED PLANS, INCLUDING ALL FINAL ELEVATIONS, COMPONENT SIZING, DETENTION BASINS, DRAINAGE PIPING, WEIR ELEVATIONS, AND ORIFICES.
7. CONTRACTOR SHALL HIRE OR EMPLOY A QUALIFIED QSD TO STUDY THE SITE AND ASSIGN THE APPROPRIATE RISK LEVEL PRIOR TO DESIGNING THE SWPP FOR THE PROJECT.

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PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

SHEET TITLE: GENERAL NOTES

DESIGNED BY:	N/A
DRAWN BY:	EM
CHECKED BY:	SKP
APPROVED BY:	JWW
SCALE:	NO SCALE
DATE:	01/26/2021
CITY SPECIFICATION NO.:	1000164
PLAN FILE NO./LOCATION:	2460T001.dwg
SHEET NO.:	2 of 67

GN1

ORCUTT AREA SPECIFIC PLAN MITIGATION MEASURES:

AQ-3(A)

- SPECIFIC PLAN APPLICANTS SHALL BE REQUIRED TO ENSURE THAT ALL CONSTRUCTION EQUIPMENT AND PORTABLE ENGINES ARE PROPERLY MAINTAINED AND TUNED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
- SPECIFIC PLAN APPLICANTS SHALL BE REQUIRED TO ENSURE THAT OFF -ROAD AND PORTABLE DIESEL POWERED EQUIPMENT, INCLUDING BUT NOT LIMITED TO BULLDOZERS, GRADERS, CRANES, LOADERS, SCRAPERS, BACKHOES, GENERATOR SETS, COMPRESSORS, AUXILIARY POWER UNITS, SHALL BE FUELED EXCLUSIVELY WITH CARB MOTOR VEHICLE DIESEL FUEL (NON -TAXED OFF -ROAD DIESEL IS ACCEPTABLE).
- SPECIFIC PLAN APPLICANTS SHALL BE REQUIRED TO INSTALL A DIESEL OXIDATION CATALYST ON EACH OF THE TWO PIECES OF EQUIPMENT PROJECTED TO GENERATE THE GREATEST EMISSIONS.

AQ -3(B) DUST CONTROL. THE FOLLOWING MEASURES SHALL BE IMPLEMENTED TO REDUCE PM10 EMISSIONS DURING ALL SPECIFIC PLAN CONSTRUCTION:

- REDUCE THE AMOUNT OF THE DISTURBED AREA WHERE POSSIBLE
- USE WATER TRUCKS OR SPRINKLER SYSTEMS IN SUFFICIENT QUANTITIES TO PREVENT AIRBORNE DUST FROM LEAVING THE SITE. WATER SHALL BE APPLIED AS SOON AS POSSIBLE WHENEVER WIND SPEEDS EXCEED 15 MILES PER HOUR. RECLAIMED (NONPOTABLE) WATER SHOULD BE USED WHENEVER POSSIBLE
- ALL DIRT- STOCK -PILE AREAS SHALL BE SPRAYED DAILY AS NEEDED.
- PERMANENT DUST CONTROL MEASURES SHALL BE IDENTIFIED IN THE APPROVED SPECIFIC PLAN REVEGETATION AND LANDSCAPE PLANS AND IMPLEMENTED AS SOON AS POSSIBLE FOLLOWING COMPLETION OF ANY SOIL DISTURBING ACTIVITIES.
- EXPOSED GROUND AREAS THAT ARE PLANNED TO BE REWORKED AT DATES GREATER THAN ONE MONTH AFTER INITIAL GRADING SHALL BE SOWN WITH A FAST - GERMINATING NATIVE GRASS SEED AND WATERED UNTIL VEGETATION IS ESTABLISHED.
- ALL DISTURBED SOIL AREAS NOT SUBJECT TO REVEGETATION SHALL BE STABILIZED USING APPROVED CHEMICAL SOIL BINDERS, JUTE NETTING, OR OTHER METHODS APPROVED IN ADVANCE BY THE APCD.
- ALL ROADWAYS, DRIVEWAYS, SIDEWALKS, ETC., TO BE PAVED SHALL BE COMPLETED AS SOON AS POSSIBLE. IN ADDITION, BUILDING PADS SHALL BE LAID AS SOON AS POSSIBLE AFTER GRADING UNLESS SEEDING OR SOIL BINDERS ARE USED.
- VEHICLE SPEED FOR ALL CONSTRUCTION VEHICLES SHALL NOT EXCEED 15 MPH ON ANY UNPAVED SURFACE AT THE CONSTRUCTION SITE.
- ALL TRUCKS HAULING DIRT, SAND, SOIL OR OTHER LOOSE MATERIALS SHALL BE COVERED OR SHALL MAINTAIN AT LEAST TWO FEET OF FREEBOARD (MINIMUM VERTICAL DISTANCE BETWEEN TOP OF LOAD AND TOP OF TRAILER) IN ACCORDANCE WITH CVC SECTION 23114.
- INSTALL WHEEL WASHERS WHERE VEHICLES ENTER AND EXIT UNPAVED ROADS ONTO STREETS, OR WASH OFF TRUCKS AND EQUIPMENT LEAVING THE SITE
- SWEEP STREETS AT THE END OF EACH DAY IF VISIBLE SOIL MATERIAL IS CARRIED ONTO ADJACENT PAVED ROADS. WATER SWEEPERS WITH RECLAIMED WATER SHALL BE USED WHERE FEASIBLE.

AQ -3(C) COVER STOCKPILED SOILS. IF IMPORTATION, EXPORTATION, OR STOCKPILING OF FILL MATERIAL IS INVOLVED, SOIL STOCKPILED FOR MORE THAN TWO DAYS SHALL BE COVERED, KEPT MOIST, OR TREATED WITH SOIL BINDERS TO PREVENT DUST GENERATION. TRUCKS TRANSPORTING MATERIAL SHALL BE TARPED FROM THE POINT OF ORIGIN.

AQ -3(D) DUST CONTROL MONITOR. ON ALL PROJECTS WITH AN AREA OF DISTURBANCE GREATER THAN 1 ACRE, 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.

B -3(A) CONSTRUCTION REQUIREMENTS. DEVELOPMENT UNDER THE SPECIFIC PLAN SHALL ABIDE BY THE REQUIREMENTS OF THE CITY ARBORIST FOR CONSTRUCTION. REQUIREMENTS SHALL INCLUDE BUT NOT BE LIMITED TO: THE PROTECTION OF TREES WITH CONSTRUCTION SETBACKS FROM TREES; CONSTRUCTION FENCING AROUND TREES; GRADING LIMITS AROUND THE BASE OF TREES AS REQUIRED

B -5(A) BIRD PRE - CONSTRUCTION SURVEY. TO AVOID IMPACTS TO NESTING SPECIAL- STATUS BIRD SPECIES AND RAPTORS INCLUDING THE GROUND- NESTING BURROWING OWL, ALL INITIAL GROUND- DISTURBING ACTIVITIES AND TREE REMOVAL SHALL BE LIMITED TO THE TIME PERIOD BETWEEN SEPTEMBER 15 AND FEBRUARY 1. IF INITIAL SITE DISTURBANCE, GRADING, AND TREE REMOVAL CANNOT BE CONDUCTED DURING THIS TIME PERIOD, A PRE- CONSTRUCTION SURVEY FOR ACTIVE NESTS WITHIN THE LIMITS OF GRADING SHALL BE CONDUCTED BY A QUALIFIED BIOLOGIST AT THE SITE TWO WEEKS PRIOR TO ANY CONSTRUCTION ACTIVITIES (FOR GROUND- NESTING BURROWING OWL SURVEY SEE BELOW). IF ACTIVE NESTS ARE LOCATED, ALL CONSTRUCTION WORK MUST BE CONDUCTED OUTSIDE A BUFFER ZONE OF 200 FEET TO 500 FEET FROM THE NESTS AS DETERMINED IN CONSULTATION WITH THE CDFG. NO DIRECT DISTURBANCE TO NESTS SHALL OCCUR UNTIL THE ADULTS AND YOUNG ARE NO LONGER RELIANT ON THE NEST SITE. A QUALIFIED BIOLOGIST SHALL CONFIRM THAT BREEDING /NESTING IS COMPLETED AND YOUNG HAVE FLEDGED THE NEST PRIOR TO THE START OF CONSTRUCTION.

B -5(C) MONARCH PRE - CONSTRUCTION SURVEY. IF INITIAL GROUND- BREAKING IS TO OCCUR BETWEEN THE MONTHS OF OCTOBER AND MARCH A PRE - CONSTRUCTION SURVEY FOR ACTIVE MONARCH ROOST SITES WITHIN THE LIMITS OF GRADING SHALL BE CONDUCTED BY A QUALIFIED BIOLOGIST AT THE SITE TWO WEEKS PRIOR TO ANY CONSTRUCTION ACTIVITIES. IF ACTIVE ROOST SITES ARE LOCATED NO GROUND- DISTURBING ACTIVITIES SHALL OCCUR WITHIN 50 FEET OF THE PERIMETER OF THE HABITAT. CONSTRUCTION SHALL NOT RESUME WITHIN THE SETBACK UNTIL A QUALIFIED BIOLOGIST HAS DETERMINED THAT THE MONARCH BUTTERFLY HAS VACATED THE SITE.

ABBREVIATIONS:

A	ALGEBRAIC GRADE DIFFERENCE
AB	AGGREGATE BASE
AC	ASPHALT CONCRETE
ALY	ALLEY
AP	ANGLE POINT
APN	ASSESSOR'S PARCEL NUMBER
BC	BEGIN CURVE
BEG,Beg	BEGIN
BLVD	BOULEVARD
BVC	BEGINNING OF VERTICAL CURVE
CA	CALIFORNIA
C&G	CURB AND GUTTER
CL	CENTERLINE
CLR	CLEARANCE
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
DIP	DUCTILE IRON PIPE
DWY	DRIVEWAY
(E)	EXISTING
EA	EACH
EB	EASTBOUND
EC	END CURVE
ELEV,Elev	ELEVATION
ETW	EDGE OF TRAVELED WAY
EVC	END OF VERTICAL CURVE
Exist	EXISTING
FC	FACE OF CURB
FG	FINISHED GRADE
FL	FLOWLINE
FT	FOOT/FEET
G	GRADE
H	HEIGHT
HMA	HOT MIX ASPHALT
IN	INCH
Inv	INVERT
L	LENGTH
LF	LINEAR FEET
LIP	LIP OF GUTTER
LOL	LAYOUT LINE
Lt	LEFT
MH	MANHOLE
MIN,Min	MINIMUM
MOD	MODIFIED
MUTCD	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
(N)	NOT A PAY ITEM
NB	NORTHBOUND
NAVD	NORTH AMERICAN VERTICAL DATUM
No.	NUMBER
NTS	NOT TO SCALE
O.C.	ON CENTER
OG	ORIGINAL GROUND
OH	OVERHEAD
(P)	PROPOSED
PCC	POINT OF COMPOUND CURVATURE
PCC	PORTLAND CEMENT CONCRETE
PED	PEDESTRIAN
PG	PROFILE GRADE
PH	POTHOLE
PI	POINT OF INTERSECTION
P/L	PROPERTY LINE
PRC	POINT OF REVERSE CURVATURE
PROP	PROPOSED
PVC	PVC PIPE
PVI	POINT OF VERTICAL INTERSECTION
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
RET	RETAINING
RRST	RAILROAD SAFETY TRAIL
Rt	RIGHT
RW	RETAINING WALL
R/W	RIGHT-OF-WAY
SB	SOUTHBOUND
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SF	SQUARE FOOT/FEET
SNS	STREET NAME SIGN
SSBM	STRAP AND SADDLE BRACKET METHOD
ST	STREET
STA,Sta	STATION
STD	STANDARD
SW	SIDEWALK
TC	TOP OF CURB
TCE	TEMPORARY CONSTRUCTION EASEMENT
TI	TRAFFIC INDEX
TYP	TYPICAL
UPRR	UNION PACIFIC RAILROAD
Var	VARIES
VC	VERTICAL CURVE
W	WIDTH
WB	WESTBOUND

APPLICABLE STANDARD PLANS:

CITY OF SAN LUIS OBISPO

2110	DRIVEWAY RAMP
3355	CATCH BASIN (SIDE OPENING WITH SUMP)
3420	SIDEWALK UNDERDRAIN (NO FRAME AND COVER)
3520	STORM DRAIN MANHOLE
4020	CURB
4030	CURB & GUTTER
4110	SIDEWALK (INTEGRAL & DETACHED)
4440	CURB RAMP (CORNERS & MID-BLOCK)
4910	CUTTING CONCRETE
4940	RAISED COBBLESTONE MEDIAN
6020	TRENCH DETAIL #1 (PAVED OR UNPAVED STREETS)
6040	UTILITY COVER (GRADE ADJUSTMENT & P.C.C. COLLAR)
6310	FIRE HYDRANT ASSEMBLY
7120	ASPHALT BERM (6")
7210	METAL SIGN & PARKING METER POSTS
7215	METAL SIGN & PARKING METER POSTS (IN EXISTING SIDEWALK)
7250	STREET NAME SIGN
7350	HIGH-VIS CROSSWALKS
7410	STREET PARKING
7520	LIGHTING CIRCUIT
7920	HYDRANT REFLECTOR
8010	STREET TREES - MASTER LIST
9050	RAIL FENCE

CALTRANS STANDARD PLANS (DATED 2015)

A20A	PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS
A20B	PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS
A20C	PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS
A20D	PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS
A24A	PAVEMENT MARKINGS ARROWS
A24C	PAVEMENT MARKINGS SYMBOLS AND NUMERALS
A24D	PAVEMENT MARKINGS WORDS
A24E	PAVEMENT MARKINGS WORDS, LIMIT, AND YIELD LINES
A77R3	GUARDRAIL
A87A	CURBS AND DRIVEWAYS
A88A	CURB RAMP DETAILS
A88B	CURB RAMP AND ISLAND PASSAGEWAY DETAILS
D94B	CONCRETE FLARED END SECTIONS
T3B	TEMPORARY RAILING (TYPE K)

LEGEND:

	EXISTING RIGHT OF WAY
— e —	EXISTING ELECTRIC (UG)
— e(oh) —	EXISTING ELECTRIC (OH)
— fo —	EXISTING FIBER OPTIC
— s —	EXISTING SEWER
— sd —	EXISTING STORM DRAIN
— SD —	PROPOSED STORM DRAIN
— t —	EXISTING TELEPHONE (UG)
— t(oh) —	EXISTING TELEPHONE (OH)
— tv —	EXISTING TELEVISION (UG)
— tv(oh) —	EXISTING TELEVISION (OH)
— rcw —	EXISTING RECYCLED WATER
— RCW —	PROPOSED RECYCLED WATER
	EXISTING INLET
	EXISTING SDMH
	PROPOSED INLET
	PROPOSED SDMH
	UTILITY POLE
	PROPOSED STREET LIGHT
	EXISTING STREET LIGHT
℄	CENTERLINE

100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

GN2

CITY OF SAN LUIS OBISPO

REGISTERED PROFESSIONAL ENGINEER
JOSEPH W. WETLAND
No. C53755
Exp. 06/30/21
CIVIL
STATE OF CALIFORNIA

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

SHEET TITLE: GENERAL NOTES

DESIGNED BY: N/A
DRAWN BY: EM
CHECKED BY: SKP
APPROVED BY: JWW
SCALE: NO SCALE
DATE: 01/26/2021
CITY SPECIFICATION NO. 1000164
PLAN FILE NO./LOCATION: 2460T001.dwg
SHEET NO. 3 of 67

PAVEMENT SECTIONS:

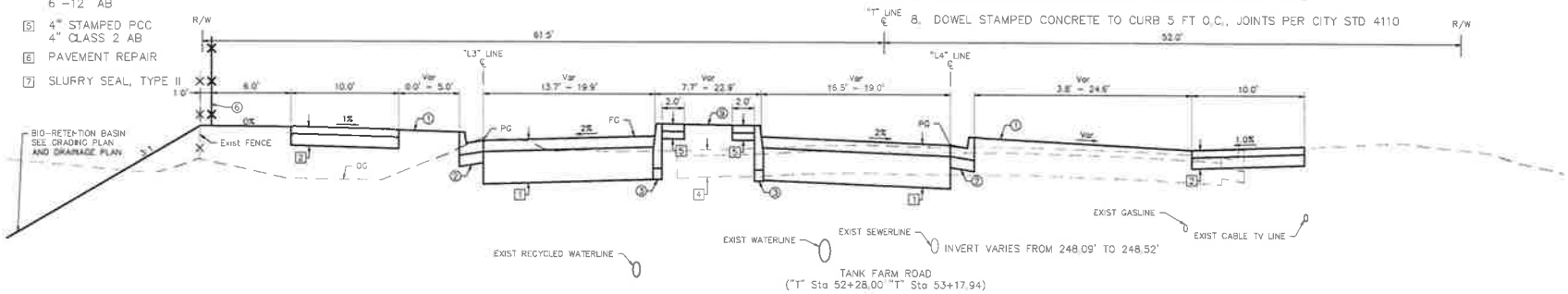
1. TRAVELED WAY
   R VALUE = 18
   TI = 9.5
   6" HMA (TYPE A)
   17.5" CLASS 2 AB
2. SHARED USE PATH/SIDEWALK
   4" PCC (#4 REBAR @ 24" E.W.)
   6" CLASS 3 AB
3. TRUCK APRON
   15" STAMPED PCC
   6" CLASS 2 AB
4. EXISTING STRUCTURAL SECTION
   3"–4" AC
   6"–12" AB
5. 4" STAMPED PCC
   4" CLASS 2 AB
6. PAVEMENT REPAIR
7. SLURRY SEAL, TYPE II

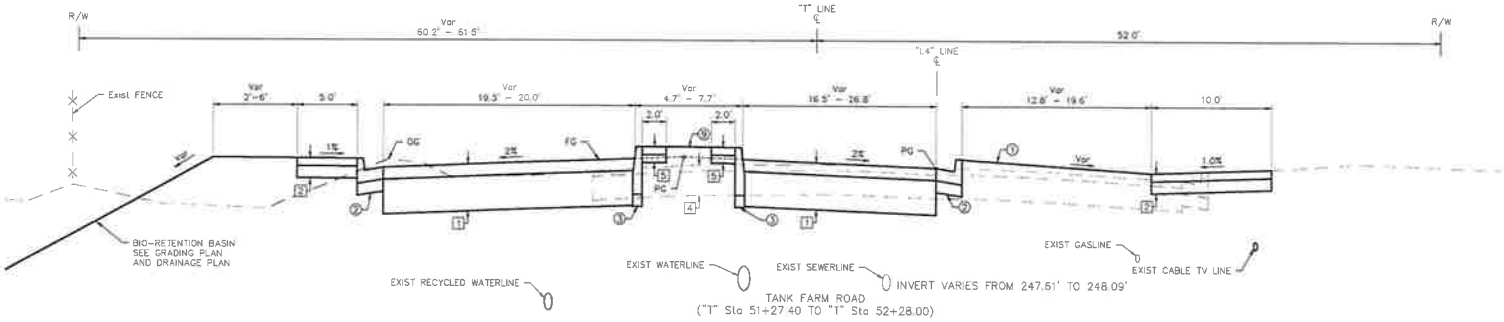
CONSTRUCTION NOTES:

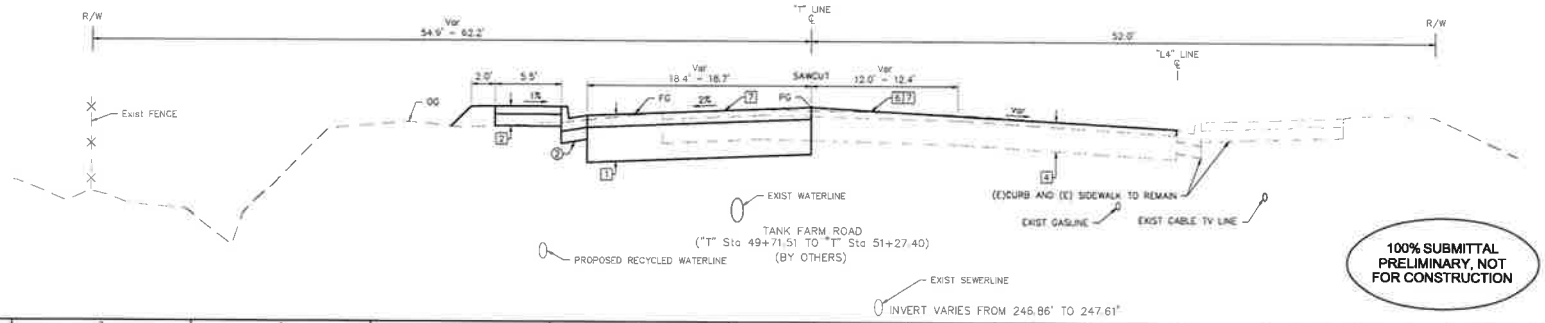
1. LANDSCAPE AREA
2. 18" GUTTER (CITY Std Dwg 4030)
   6" CURB HEIGHT
3. VERTICAL CURB (CITY Std Dwg 4020)
   6" CURB HEIGHT
4. Mod CALTRANS TYPE D CURB
5. ASPHALT BERM (CITY Std Dwg 7120)
6. RAIL FENCE (CITY Std Dwg 9050)
7. MIDWEST GUARDRAIL SYSTEM
8. RAISED COBBLESTONE MEDIAN (CITY Std Dwg 4940)
9. LANDSCAPE AREA IN MEDIAN, 4' MIN

NOTES: (ALL TYPICAL SECTION SHEETS)

1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS AND GEOTECH REPORT.
2. FOR ACCURATE SLOPES AND GRADES, SEE CONSTRUCTION DETAILS C5–C8 AND GRADING PLAN G1.
3. SEE PLANTING PLANS LP3–LP4 FOR VEGETATION DETAILS.
4. SEE CONSTRUCTION DETAILS C1–C4 FOR SPLITTER/CENTRAL ISLAND, TRUCK APRON.
5. LANE WIDTHS VARY, SEE LAYOUT L1 AND PAVEMENT DELINEATION PD1 FOR DETAILS.
6. SEE DM1 FOR DEMOLITION AND REMOVAL LIMITS.
7. SEE EROSION CONTROL PLAN EC1 FOR HYDROSEEDING LIMITS.
8. DOWEL STAMPED CONCRETE TO CURB 5 FT O.C., JOINTS PER CITY STD 4110







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PRELIMINARY, NOT
FOR CONSTRUCTION

X1

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

SHEET TITLE: TYPICAL SECTIONS

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. WETLAND No. C53755 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

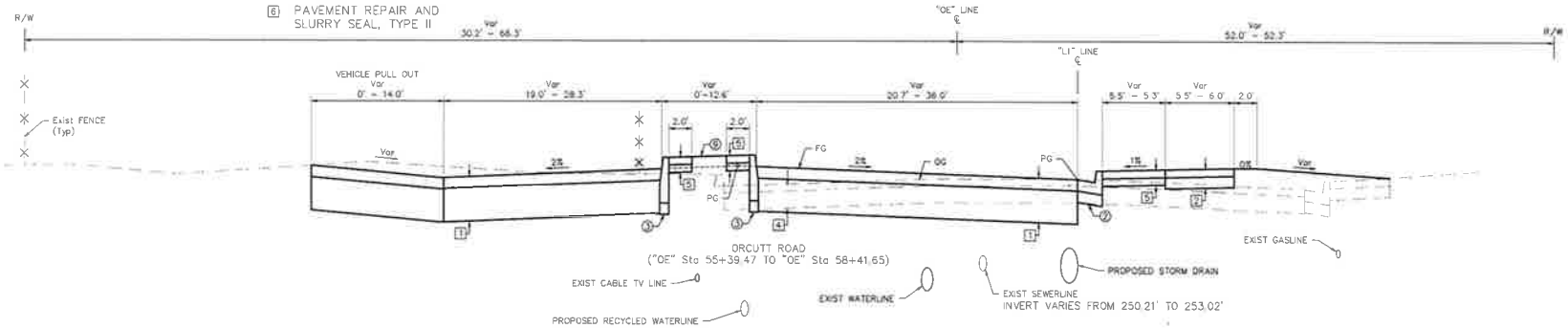
DESIGNED BY:	HD
DRAWN BY:	HD
CHECKED BY:	SKP
APPROVED BY:	JWW
SCALE:	NO SCALE
DATE:	01/27/2021
CITY SPECIFICATION NO.	1000164
PLAN FILE NO./LOCATION	2460X001.dwg
SHEET NO.	4 of 67

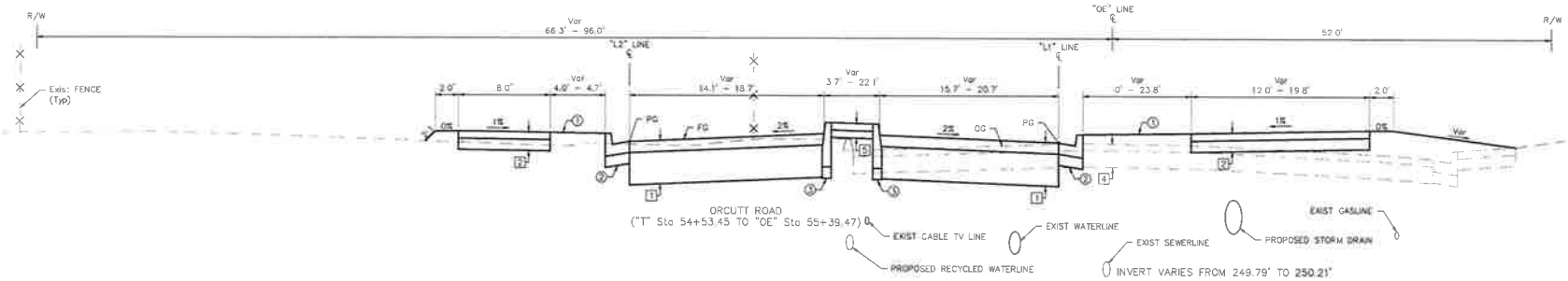
PAVEMENT SECTIONS:

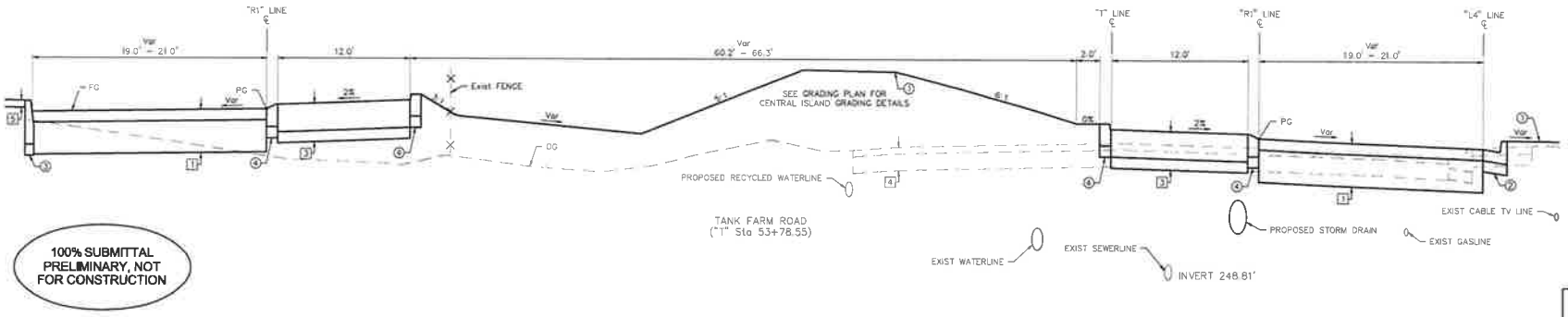
1. TRAVELED WAY
   R VALUE = 18
   TI = 9.5
   6" HMA (TYPE A)
   17.5" CLASS 2 AB
2. SHARED USE PATH/SIDEWALK
   4" PCC (#4 REBAR @ 24" E.W.)
   6" CLASS 3 AB
3. TRUCK APRON
   15" STAMPED PCC
   6" CLASS 2 AB
4. EXISTING STRUCTURAL SECTION
   3"–4" AC
   6"–12" AB
5. 4" STAMPED PCC
   4" CLASS 2 AB
6. PAVEMENT REPAIR AND SLURRY SEAL, TYPE II

CONSTRUCTION NOTES:

1. LANDSCAPE AREA
2. 18" GUTTER (CITY Std Dwg 4030) 6" CURB HEIGHT
3. VERTICAL CURB (CITY Std Dwg 4020) 6" CURB HEIGHT
4. Mod CALTRANS TYPE D CURB
5. ASPHALT BERM (CITY Std Dwg 7120)
6. RAIL FENCE (CITY Std Dwg 9050)
7. MIDWEST GUARDRAIL SYSTEM
8. RAISED COBBLESTONE MEDIAN (CITY Std Dwg 4940)
9. LANDSCAPE AREA IN MEDIAN, 4' MIN







100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

X2

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

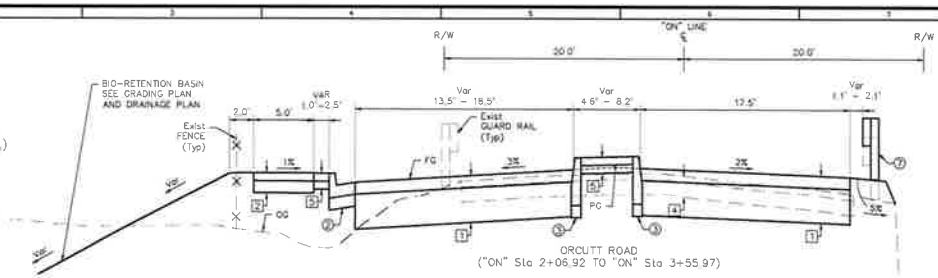
SHEET TITLE: TYPICAL SECTIONS

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. WETLAND No. C53755 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

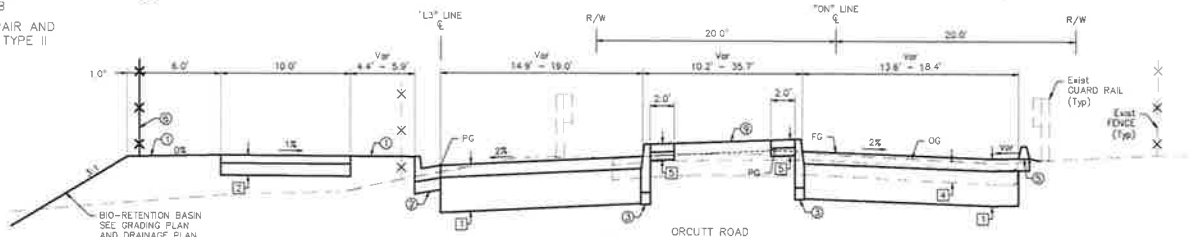
DESIGNED BY:	HD
DRAWN BY:	HD
CHECKED BY:	SKP
APPROVED BY:	JWW
SCALE:	NO SCALE
DATE:	01/27/2021
CITY SPECIFICATION NO.	1000164
PLAN FILE NO./LOCATION	2460X001.dwg
SHEET NO.	5 of 67

PAVEMENT SECTIONS:

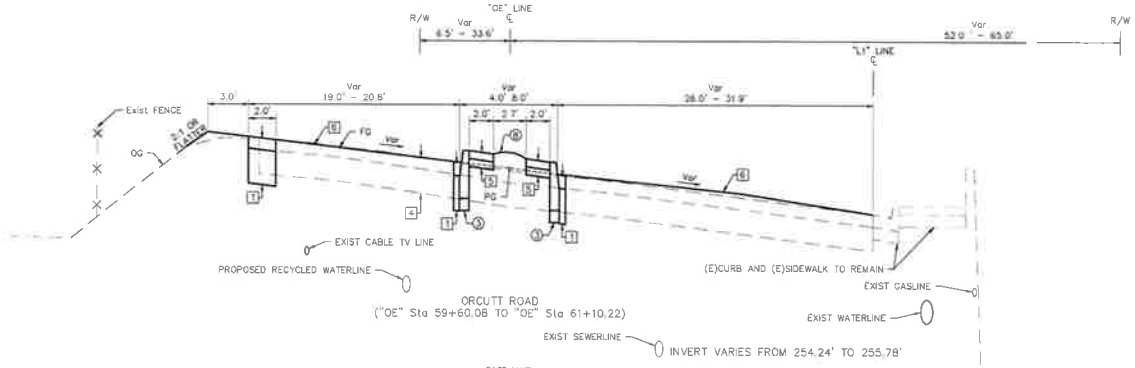
1. TRAVELED WAY
   R VALUE = 18
   TI = 9.5
   6" HMA (TYPE A)
   17.5" CLASS 2 AB
2. SHARED USE PATH/SIDEWALK
   4" PCC (#4 REBAR @ 24" E.W.)
   6" CLASS 3 AB
3. TRUCK APRON
   15" STAMPED PCC
   6" CLASS 2 AB
4. EXISTING STRUCTURAL SECTION
   3"-4" AC
   6"-12" AB
5. 4" STAMPED PCC
   4" CLASS 2 AB
6. PAVEMENT REPAIR AND SLURRY SEAL, TYPE II



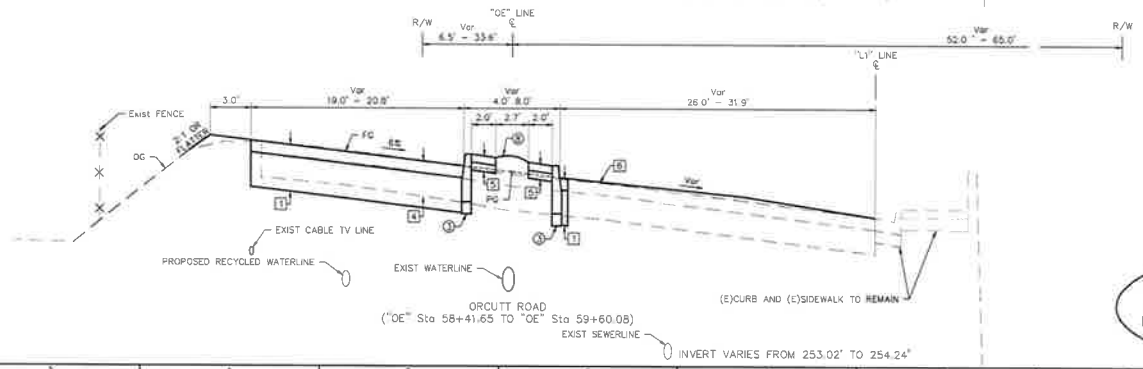
ORCUTT ROAD
("ON" Sta 2+06.92 TO "ON" Sta 3+55.97)



ORCUTT ROAD
("ON" Sta 1+31.19 TO "ON" Sta 2+06.92)



ORCUTT ROAD
("OE" Sta 59+60.08 TO "OE" Sta 61+10.22)



ORCUTT ROAD
("OE" Sta 58+41.65 TO "OE" Sta 59+60.08)

CONSTRUCTION NOTES:

1. LANDSCAPE AREA
2. 18" GUTTER (CITY Std Dwg 4030) 6" CURB HEIGHT
3. VERTICAL CURB (CITY Std Dwg 4020) 6" CURB HEIGHT
4. Mod CALTRANS TYPE D CURB
5. ASPHALT BERM (CITY Std Dwg 7120)
6. RAIL FENCE (CITY Std Dwg 9050)
7. MIDWEST GUARDRAIL SYSTEM
8. RAISED COBBLESTONE MEDIAN (CITY Std Dwg 4940)
9. LANDSCAPE AREA IN MEDIAN, 4' MIN

100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

X3

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

SHEET TITLE: TYPICAL SECTIONS

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. WETLAND No. C53755 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

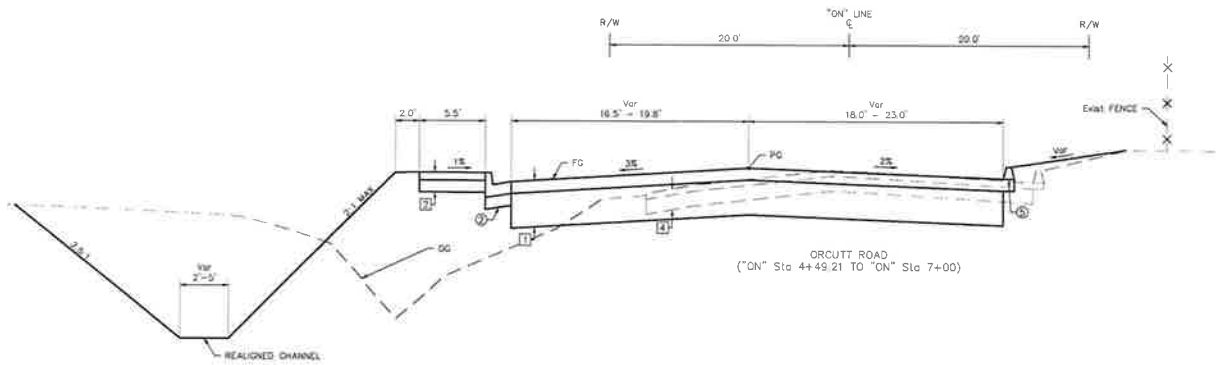
DESIGNED BY:	HD
DRAWN BY:	HD
CHECKED BY:	SKP
APPROVED BY:	JWW
SCALE:	NO SCALE
DATE:	01/27/2021
CITY SPECIFICATION NO.	1000164
PLAN FILE NO. FILENAME	2460X001.dwg
SHEET NO.	6 of 67

PAVEMENT SECTIONS:

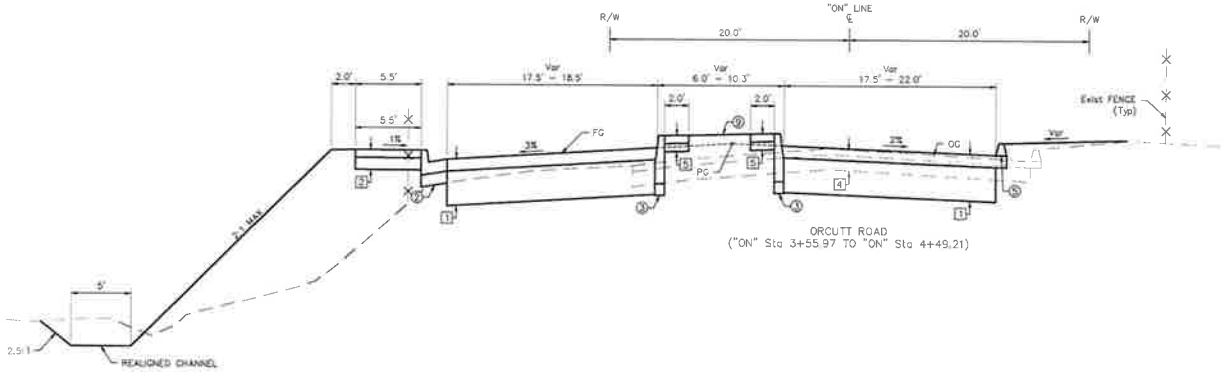
1. TRAVELED WAY
   R VALUE = 18
   TI = 9.5
   6" HMA (TYPE A)
   17.5" CLASS 2 AB
2. SHARED USE PATH/SIDEWALK
   4" PCC (#4 REBAR @ 24" E.W.)
   6" CLASS 3 AB
3. TRUCK APRON
   15" STAMPED PCC
   6" CLASS 2 AB
4. EXISTING STRUCTURAL SECTION
   3"–4" AC
   6"–12" AB
5. 4" STAMPED PCC
   4" CLASS 2 AB
6. PAVEMENT REPAIR AND SLURRY SEAL, TYPE II

CONSTRUCTION NOTES:

1. LANDSCAPE AREA
2. 18" GUTTER (CITY Std Dwg 4030)
   6" CURB HEIGHT
3. VERTICAL CURB (CITY Std Dwg 4020)
   6" CURB HEIGHT
4. Mod CALTRANS TYPE D CURB
5. ASPHALT BERM (CITY Std Dwg 7120)
6. RAIL FENCE (CITY Std Dwg 9050)
7. MIDWEST GUARDRAIL SYSTEM
8. RAISED COBBLESTONE MEDIAN (CITY Std Dwg 4940)
9. LANDSCAPE AREA IN MEDIAN, 4' MIN



ORCUTT ROAD
("ON" Sta 4+49.21 TO "ON" Sta 7+00)



ORCUTT ROAD
("ON" Sta 3+55.97 TO "ON" Sta 4+49.21)

100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

X4

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

SHEET TITLE: TYPICAL SECTIONS

REGISTERED PROFESSIONAL ENGINEER — No. C53755 — Exp. 06/30/21 — CIVIL — STATE OF CALIFORNIA

DESIGNED BY:	HD
DRAWN BY:	HD
CHECKED BY:	SKP
APPROVED BY:	JWW
SCALE:	NO SCALE
DATE:	01/27/2021
CITY SPECIFICATION NO.	1000164
PLAN FILE NO./LOCATION:	2460X001.dwg
SHEET NO.:	7 of 67

NOTES:

1. PROTECT ALL TREES. SEE SPECIAL PROVISIONS AND STANDARD SPECIFICATIONS SECTION 77-1.03A FOR TREE PROTECTION MEASURES.
2. SEE SHEET U1 FOR UTILITIES TO BE REMOVED/ RELOCATED.
3. SEE SHEET PD1 FOR STRIPING AND MARKINGS TO BE REMOVED.
4. SEE SHEET S1 AND S2 FOR SIGNS TO BE REMOVED.

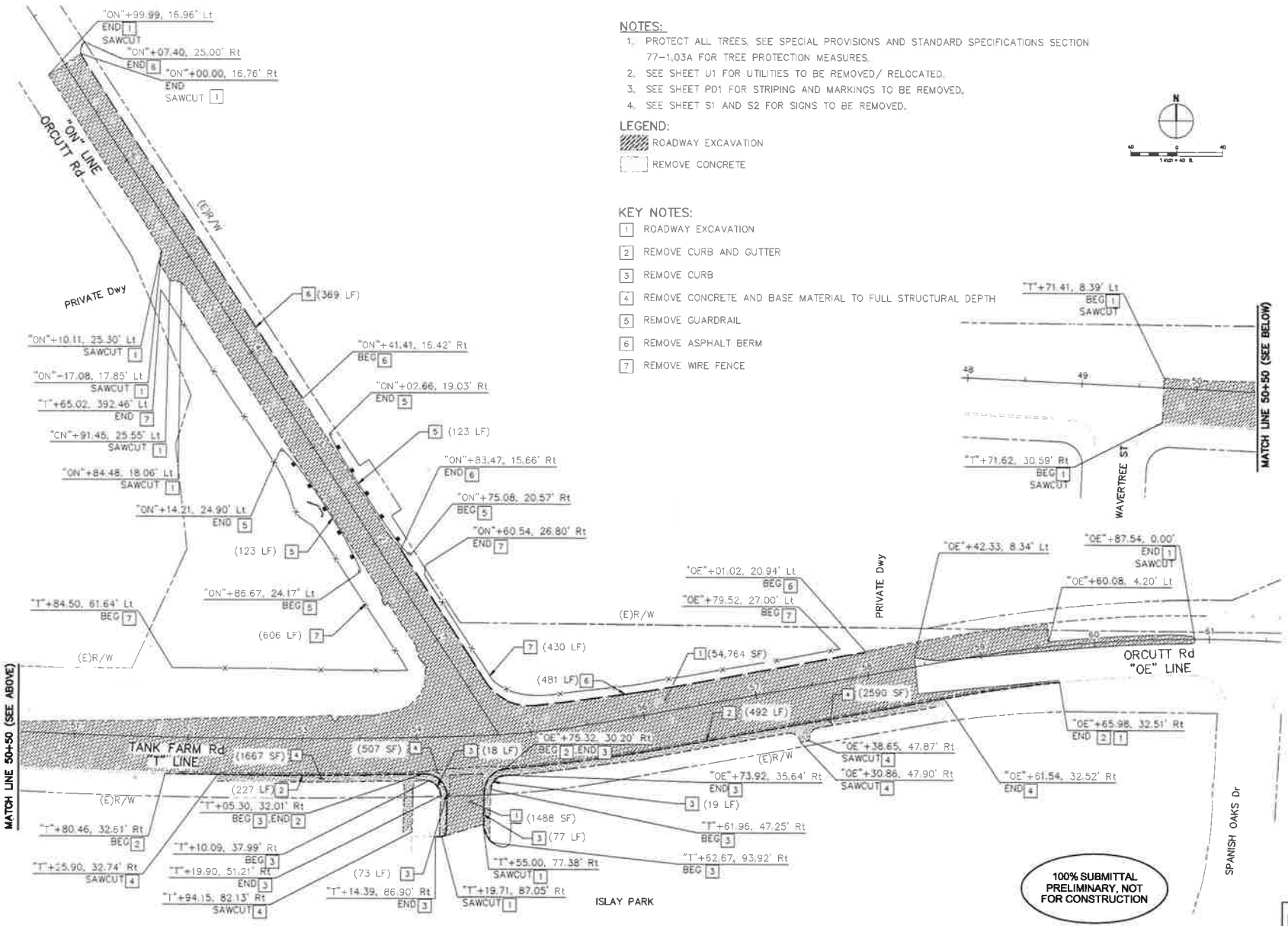
LEGEND:

ROADWAY EXCAVATION

REMOVE CONCRETE

KEY NOTES:

1. ROADWAY EXCAVATION
2. REMOVE CURB AND GUTTER
3. REMOVE CURB
4. REMOVE CONCRETE AND BASE MATERIAL TO FULL STRUCTURAL DEPTH
5. REMOVE GUARDRAIL
6. REMOVE ASPHALT BERM
7. REMOVE WIRE FENCE



TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

DEMOLITION PLAN

DESIGNED BY:	HD
DRAWN BY:	HD
CHECKED BY:	SKP
APPROVED BY:	JWW
SCALE:	1" = 40'
DATE:	01/31/2021
CITY SPECIFICATION NO.	1000184
PLAN FILE NO./LOCATION:	2460DM001.dwg
SHEET NO:	8 of 67

NOTES:

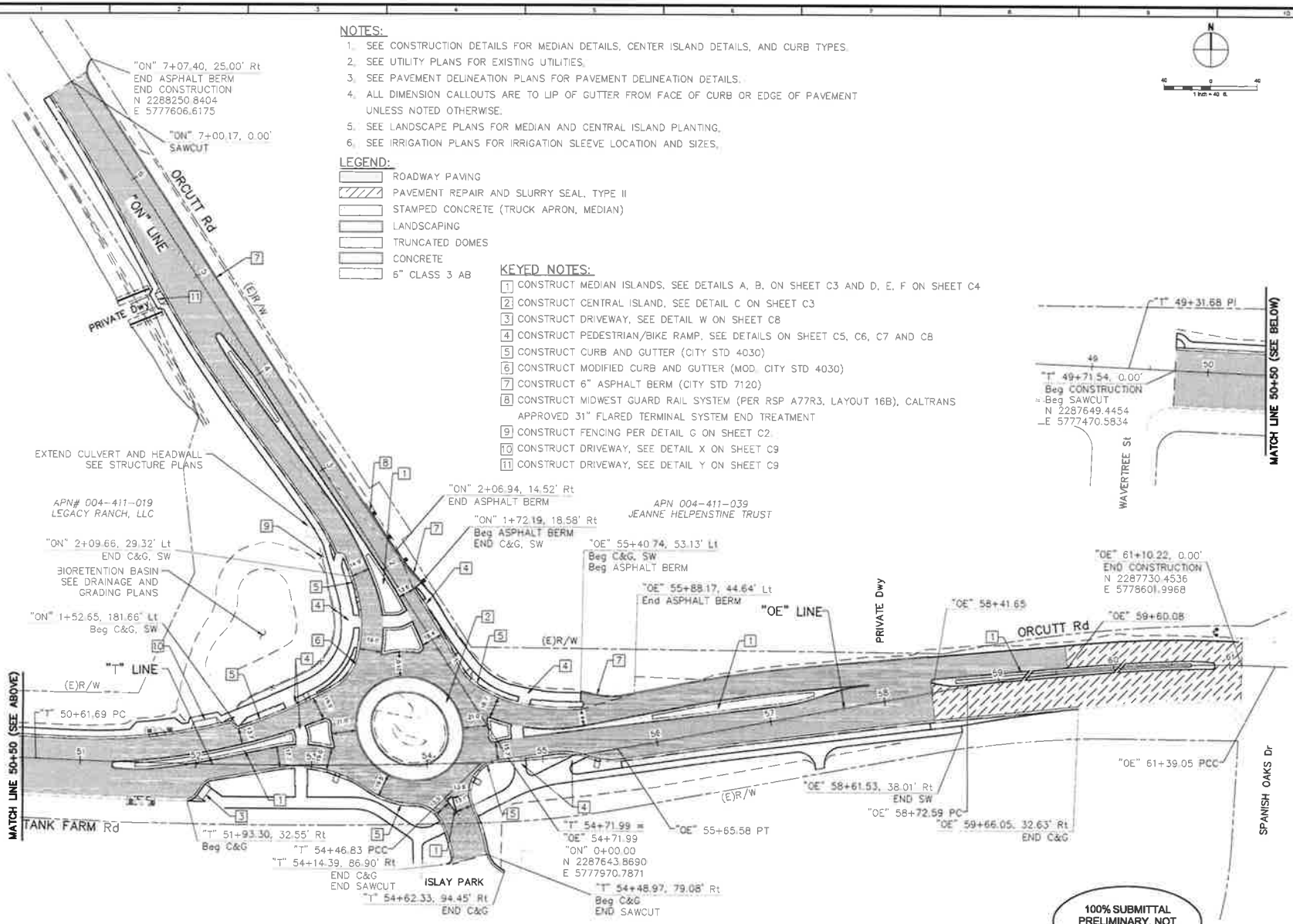
1. SEE CONSTRUCTION DETAILS FOR MEDIAN DETAILS, CENTER ISLAND DETAILS, AND CURB TYPES.
2. SEE UTILITY PLANS FOR EXISTING UTILITIES.
3. SEE PAVEMENT DELINEATION PLANS FOR PAVEMENT DELINEATION DETAILS.
4. ALL DIMENSION CALLOUTS ARE TO LIP OF GUTTER FROM FACE OF CURB OR EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.
5. SEE LANDSCAPE PLANS FOR MEDIAN AND CENTRAL ISLAND PLANTING.
6. SEE IRRIGATION PLANS FOR IRRIGATION SLEEVE LOCATION AND SIZES.

LEGEND:

- ROADWAY PAVING
- PAVEMENT REPAIR AND SLURRY SEAL, TYPE II
- STAMPED CONCRETE (TRUCK APRON, MEDIAN)
- LANDSCAPING
- TRUNCATED DOMES
- CONCRETE
- 6" CLASS 3 AB

KEYED NOTES:

1. CONSTRUCT MEDIAN ISLANDS, SEE DETAILS A, B, ON SHEET C3 AND D, E, F ON SHEET C4
2. CONSTRUCT CENTRAL ISLAND, SEE DETAIL C ON SHEET C3
3. CONSTRUCT DRIVEWAY, SEE DETAIL W ON SHEET C8
4. CONSTRUCT PEDESTRIAN/BIKE RAMP, SEE DETAILS ON SHEET C5, C6, C7 AND C8
5. CONSTRUCT CURB AND GUTTER (CITY STD 4030)
6. CONSTRUCT MODIFIED CURB AND GUTTER (MOD. CITY STD 4030)
7. CONSTRUCT 6" ASPHALT BERM (CITY STD 7120)
8. CONSTRUCT MIDWEST GUARD RAIL SYSTEM (PER RSP A77R3, LAYOUT 16B), CALTRANS APPROVED 31" FLARED TERMINAL SYSTEM END TREATMENT
9. CONSTRUCT FENCING PER DETAIL G ON SHEET C2.
10. CONSTRUCT DRIVEWAY, SEE DETAIL X ON SHEET C9
11. CONSTRUCT DRIVEWAY, SEE DETAIL Y ON SHEET C9



100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

L1

CITY OF SAN LUIS OBISPO

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

SHEET TITLE: LAYOUT

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. WELLAND No. C63750 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

DESIGNED BY:	SKP
DRAWN BY:	FR
CHECKED BY:	SKP
APPROVED BY:	JWW
SCALE:	1" = 40'
DATE:	01/27/2021
CITY APPLICATION NO.	1000164
PLAN FILE NO./LOCATION	2460L001.dwg
SHEET NO.	9 of 67

ALIGNMENT DATA TANK FARM ROAD				
No.	R	Δ	T	L
C1	4800.00'	004°35'50"	192.68'	385.14'
C2	800.00'	001°48'06"	12.58'	25.16'
L1	–	S87°18'57"E	–	130.01'

ALIGNMENT DATA ORCUTT ROAD EAST				
No.	R	Δ	T	L
C3	800.00'	006°42'10"	46.85'	93.59'
C4	1200.00'	012°43'20"	133.78'	266.45'
C5	1200.00'	044°38'13"	492.61'	934.87'
L2	–	N79°35'07"E	–	307.01'

ALIGNMENT DATA ORCUTT ROAD NORTH "ON" LINE				
No.	R	Δ	T	L
L3	–	N32°59'13"W	–	1658.20'

ALIGNMENT DATA L2 LINE				
No.	R	Δ	T	L
C17	192.00'	013°02'22"	21.94'	43.70'
C18	120.00'	025°22'35"	27.02'	53.15'
C19	38.50'	027°30'57"	9.43'	18.49'
C20	850.00'	005°22'17"	39.87'	79.69'

ALIGNMENT DATA L4 LINE				
No.	R	Δ	T	L
C26	104.50'	043°38'35"	41.84'	79.60'
C27	70.50'	034°05'35"	21.62'	41.95'
C28	26.50'	063°25'52"	16.38'	29.34'
C29	111.96'	016°53'57"	16.63'	33.02'
L16	–	N80°16'50"E	–	49.41'
L17	–	S56°04'35"E	–	4.51'
L18	–	S09°00'22"E	–	6.15'

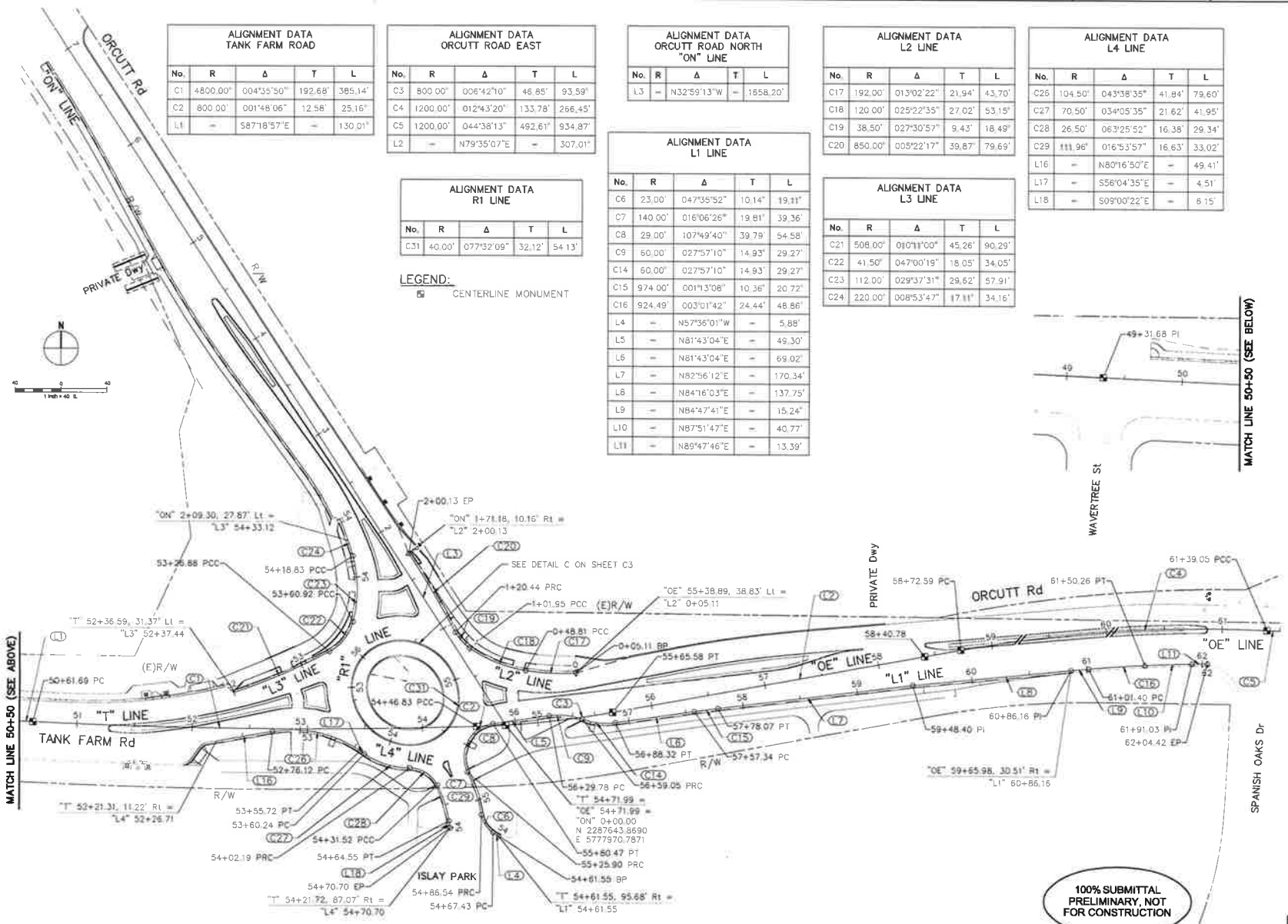
ALIGNMENT DATA R1 LINE				
No.	R	Δ	T	L
C31	40.00'	077°32'09"	32.12'	54.13'

ALIGNMENT DATA L1 LINE				
No.	R	Δ	T	L
C6	23.00'	047°35'52"	10.14'	19.11'
C7	140.00'	016°06'26"	19.81'	39.36'
C8	29.00'	107°49'40"	39.79'	54.58'
C9	60.00'	027°57'10"	14.93'	29.27'
C14	60.00'	027°57'10"	14.93'	29.27'
C15	974.00'	001°13'08"	10.36'	20.72'
C16	924.49'	003°01'42"	24.44'	48.86'
L4	–	N57°36'01"W	–	5.88'
L5	–	N81°43'04"E	–	49.30'
L6	–	N81°43'04"E	–	69.02'
L7	–	N82°56'12"E	–	170.34'
L8	–	N84°16'03"E	–	137.75'
L9	–	N84°47'41"E	–	15.24'
L10	–	N87°51'47"E	–	40.77'
L11	–	N89°47'46"E	–	13.39'

ALIGNMENT DATA L3 LINE				
No.	R	Δ	T	L
C21	508.00'	010°11'00"	45.26'	90.29'
C22	41.50'	047°00'19"	18.05'	34.05'
C23	112.00'	029°37'31"	29.62'	57.91'
C24	220.00'	008°53'47"	17.11'	34.16'

LEGEND:

CENTERLINE MONUMENT



100% SUBMITTAL PRELIMINARY, NOT FOR CONSTRUCTION

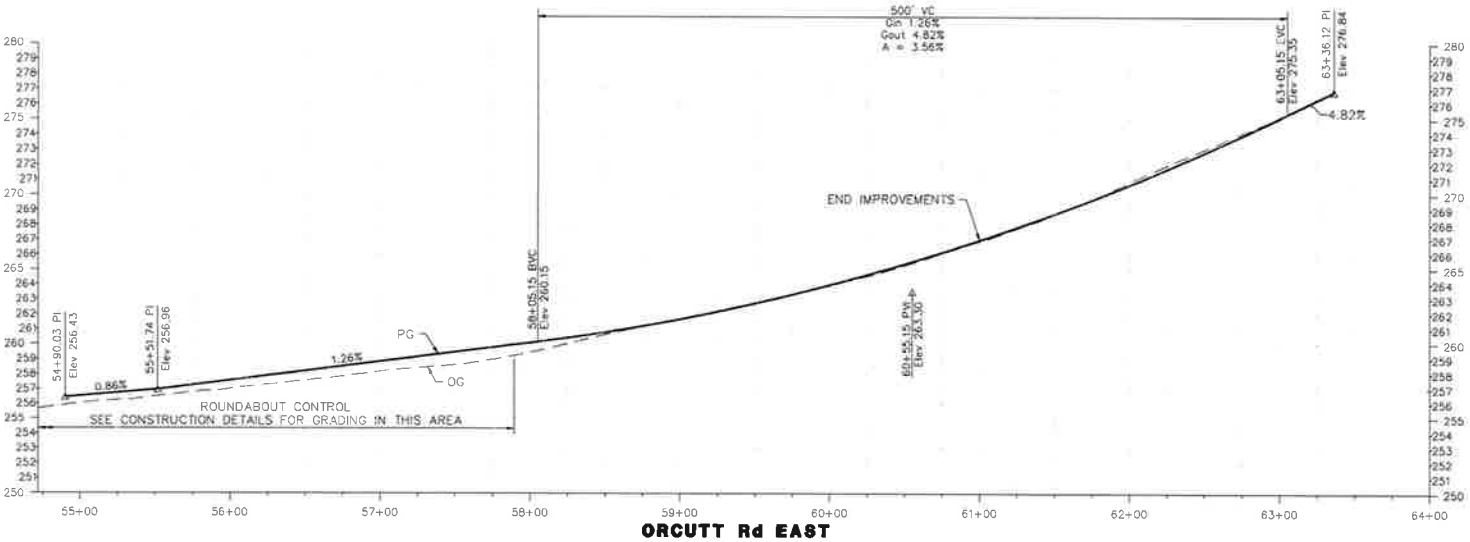
L2

TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

LAYOUT (CURB ALIGNMENTS)

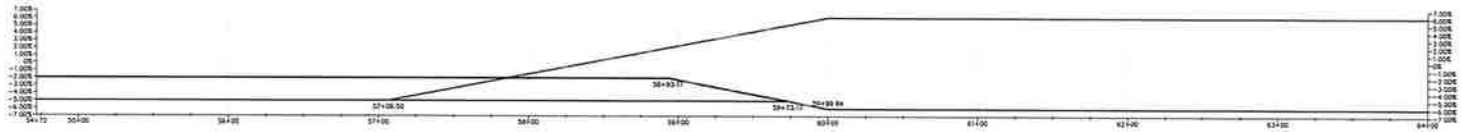
REGISTERED PROFESSIONAL ENGINEER JOSEPH W. RETLAND No. C53755 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

DESIGNED BY: SKP
DRAWN BY: FR
CHECKED BY: SKP
APPROVED BY: JWW
SCALE: 1" = 40'
DATE: 02/04/2021
CITY SPECIFICATION NO. 1000164
PLAN FILE NO./LOCATION: 2460L002.dwg
SHEET NO. 10 of 67



ORCUTT Rd EAST

SCALE: H: 1" = 40', V: 1" = 4'



SUPERELEVATION DIAGRAM

SCALE: 1" = 40'

100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

P1

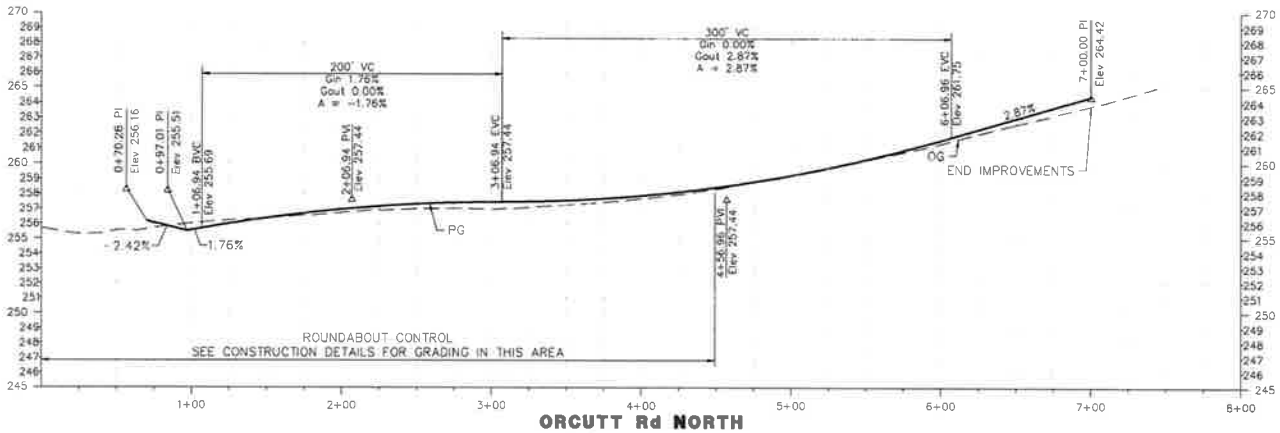
CITY OF SAN LUIS OBISPO

PROJECT TITLE: **TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT**

SHEET TITLE: ORCUTT Rd EAST PROFILE

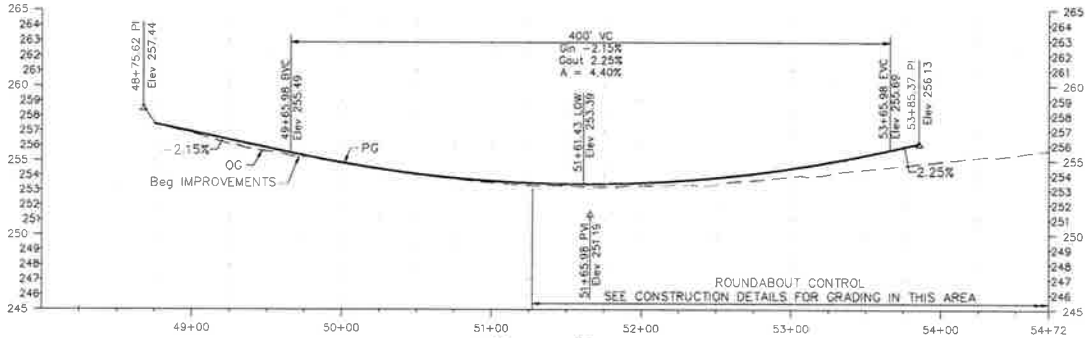
REGISTERED PROFESSIONAL ENGINEER JOSEPH W. WETLAND No. C53755 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

DESIGNED BY:	HD
DRAWN BY:	HD
CHECKED BY:	SKP
APPROVED BY:	JWW
SCALE:	AS NOTED
DATE:	01/27/2021
CITY SPECIFICATION NO.	1000164
PLAN FILE NO./LOCATION	2460P001.dwg
SHEET NO.	11 of 67



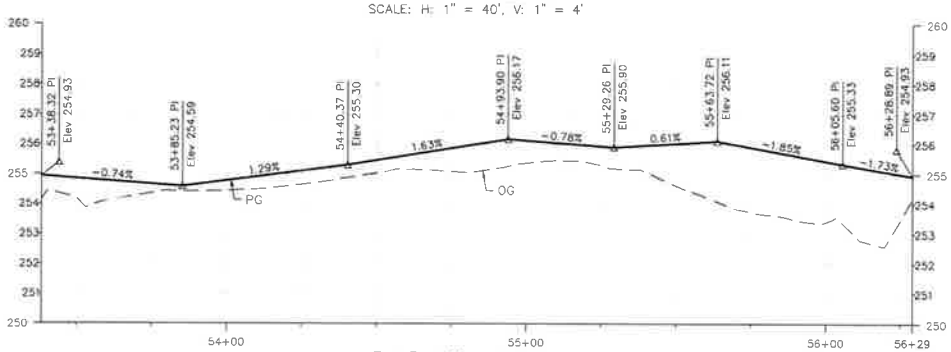
ORCUTT Rd NORTH

SCALE: H: 1" = 40', V: 1" = 4'



TANK FARM Rd

SCALE: H: 1" = 40', V: 1" = 4'



"R1" LINE PROFILE

SCALE: H: 1" = 20', V: 1" = 2"

100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

P2

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

SHEET TITLE: ORCUTT Rd NORTH, TANK FARM Rd, AND R1 LINE PROFILES

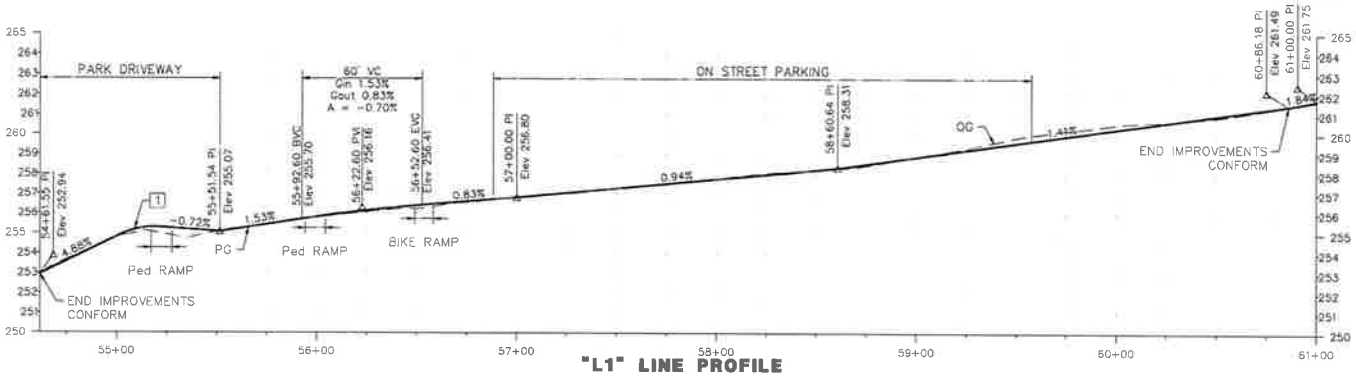
REGISTERED PROFESSIONAL ENGINEER JOSEPH W. WETLAND No. C53755 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

DESIGNED BY:	HD
DRAWN BY:	HD
CHECKED BY:	SKP
APPROVED BY:	JWW
SCALE:	AS NOTED
DATE:	01/27/2021
CITY SPECIFICATION NO.	1000164
PLAN FILE NO./LOCATION	2460P001.dwg
SHEET NO.	12 of 67

NOTES:

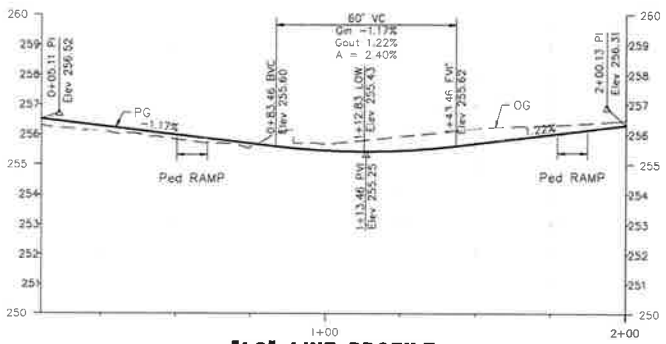
1. 20' VC
   Gin = 4.88%
   Gout = −0.72%
   A = −5.60%
   55+01.17 BVC
   Elev 254.88
   55+21.17 EVC
   Elev 255.29
   55+11.17 PVI
   Elev 255.36
   55+18.61
   Elev 255.30

2. 20' VC
   Gin = 1.38%
   Gout = −4.88%
   A = −6.26%
   54+31.72 BVC
   Elev 254.99
   54+51.72 EVC
   Elev 254.64
   54+41.72 PVI
   Elev 255.13
   54+35.14
   Elev 255.02



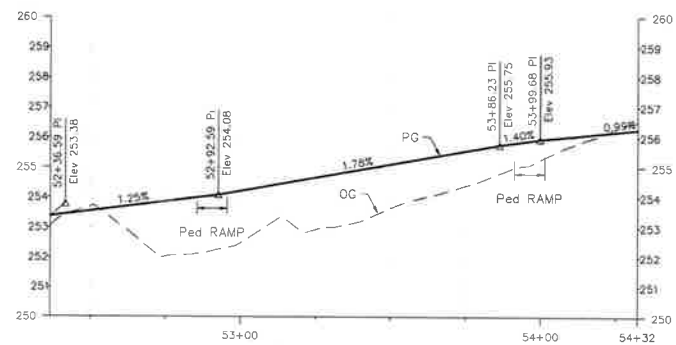
"L1" LINE PROFILE

SCALE: H: 1" = 30', V: 1" = 3'



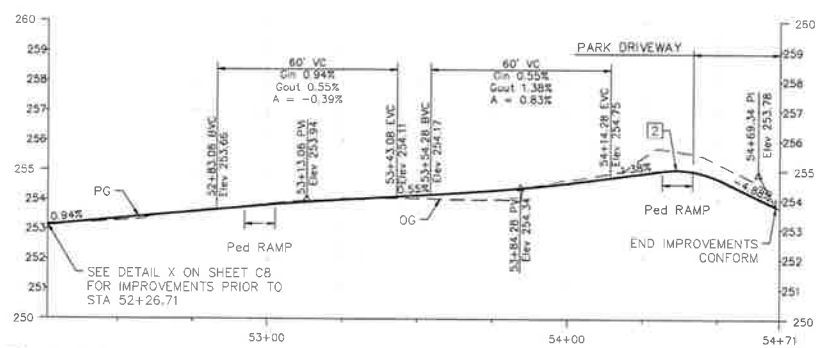
"L2" LINE PROFILE

SCALE: H: 1" = 20', V: 1" = 2'



"L3" LINE PROFILE

SCALE: H: 1" = 20', V: 1" = 2'



"L4" LINE PROFILE

SCALE: H: 1" = 20', V: 1" = 2'

100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

P3

CITY OF CHULA VISTA

TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

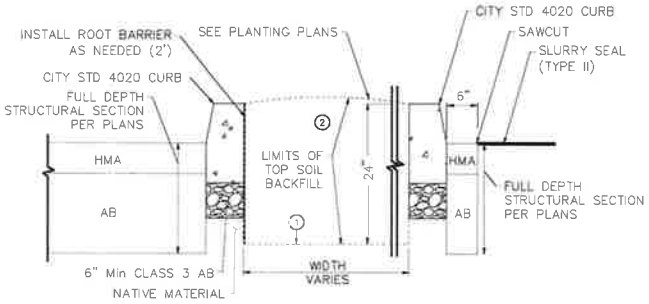
LIP OF GUTTER PROFILES

PROJECT TITLE:

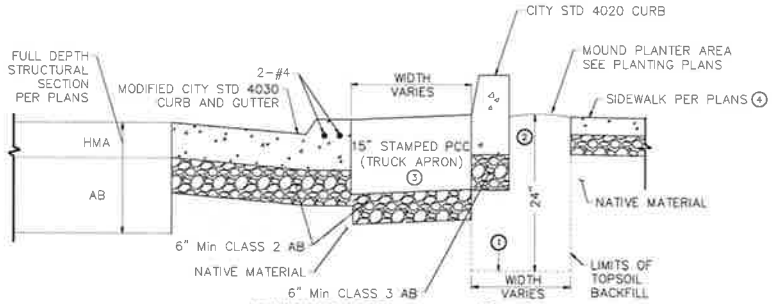
SHEET TITLE:

REGISTERED PROFESSIONAL ENGINEER
JOSEPH W. WETLAND
No. C53769
Exp. 06/30/21
CIVIL
STATE OF CALIFORNIA

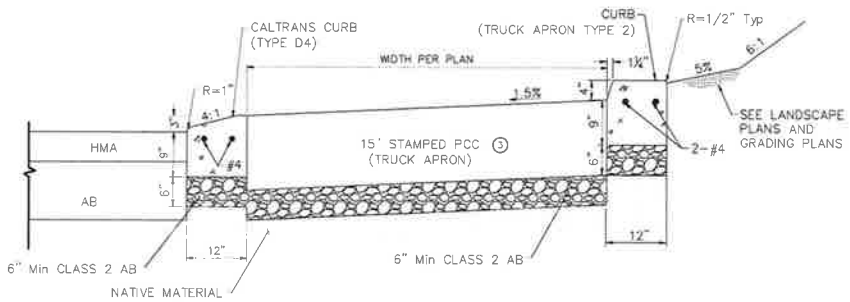
DESIGNED BY:	HD
DRAWN BY:	HD
CHECKED BY:	SKP
APPROVED BY:	JWW
SCALE:	AS NOTED
DATE:	01/27/2021
CITY SPECIFICATION NO.	1000164
PLAN FILE NO./LOCATION	246OP001.dwg
SHEET NO.	13 of 67



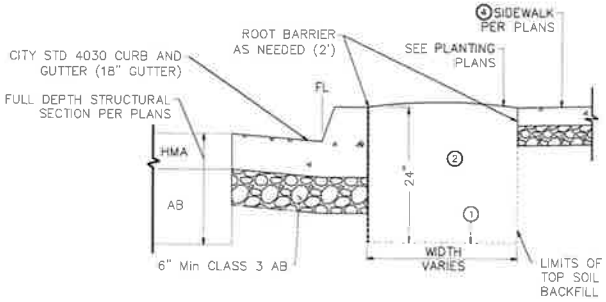
MEDIAN CURB NTS (A)



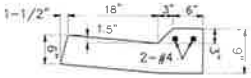
TRUCK BLISTER NTS (B)



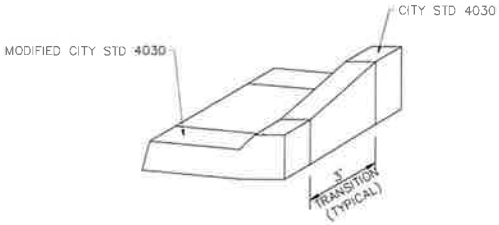
CURB (TRUCK APRON) AND TRUCK APRON NTS (C)



DETACHED SIDEWALK (CITY STD 4110) NTS (D)



MODIFIED CITY STD 4030 CURB AND GUTTER NTS (E)



CURB & GUTTER TRANSITION NTS (F)

NOTES:

1. EXCAVATE 24" (MINIMUM), SCARIFY 6" MINIMUM BELOW GRADE
2. 24" TOPSOIL BACKFILL, SEE PLANTING PLANS FOR MORE INFORMATION
3. STAMPED PCC. SEE DETAIL E (NOTES 1–3), DETAIL F ON SHEET C2, AND DETAIL C ON SHEET C3.
4. ADD #4 REBAR @ 24" E.W.

LEGEND:

- PCC
- CLASS 2 OR 3 AGGREGATE BASE (95% RELATIVE COMPACTION)
- NATIVE MATERIAL (95% RELATIVE COMPACTION)

100% SUBMITTAL PRELIMINARY, NOT FOR CONSTRUCTION

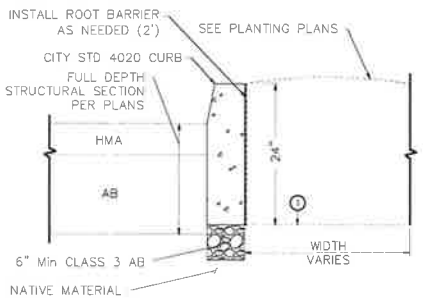
C1

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

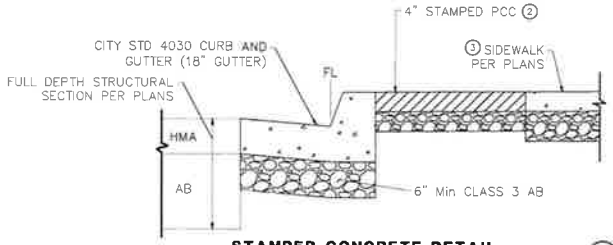
SHEET TITLE: CONSTRUCTION DETAILS

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. WETLAND No. C53755 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

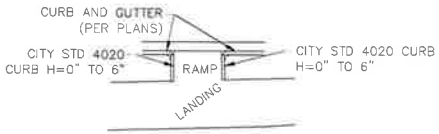
DESIGNED BY:	SKP
DRAWN BY:	SKP
CHECKED BY:	HD
APPROVED BY:	JWW
SCALE:	NO SCALE
DATE:	01/27/2021
CITY SPECIFICATION NO.	1000164
PLAN FILE NO./LOCATION	2460C002.dwg
SHEET NO.	14 of 67



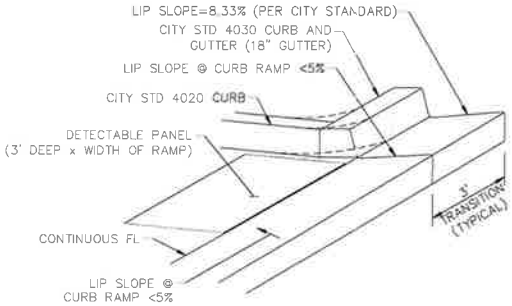
CURB (DEEP CITY) NTS (A)



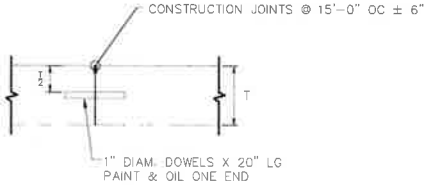
STAMPED CONCRETE DETAIL NTS (B)



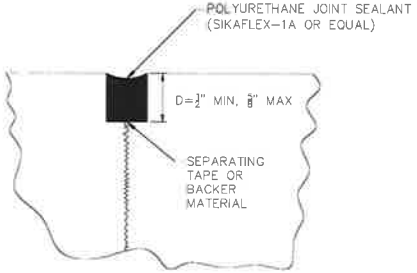
TYPICAL PEDESTRIAN RAMP NTS (C)



CURB AND GUTTER TRANSITION DETAIL NTS (D)

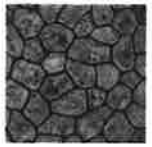


CONTRACTION JOINT



JOINT SEALANT DETAIL

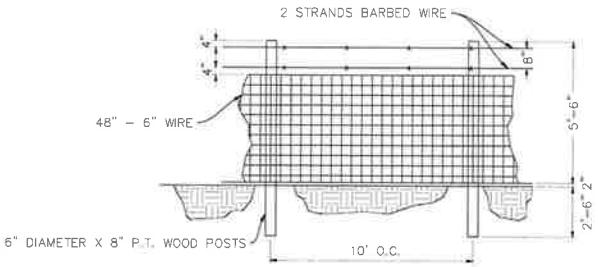
TRUCK APRON CONSTRUCTION JOINTS DETAIL NTS (F)



STAMPED CONCRETE NOTES:

1. 4" THICK STAMPED CONCRETE, COLORED BRICK RED.
2. RIVER ROCK PATTERN
3. INSTALL PER MANUFACTURER RECOMMENDATIONS
4. ADD #4 REBAR @ 24" E.W.

STAMPED CONCRETE PATTERN NTS (E)



FENCE DETAIL NTS (G)

NOTES:

1. SEE BIORETENTION PLANTER DETAILS ON SHEETS D3–D6 FOR EXCAVATION LIMITS.
2. STAMPED PCC. SEE DETAIL E ON THIS SHEET.
3. ADD #4 REBAR @ 24" E.W.

LEGEND:

- PCC
- CLASS 2 OR 3 AGGREGATE BASE (95% RELATIVE COMPACTION)
- NATIVE MATERIAL (95% RELATIVE COMPACTION)

100% SUBMITTAL PRELIMINARY, NOT FOR CONSTRUCTION

C2

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

SHEET TITLE: CONSTRUCTION DETAILS

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. WETTER No. C53755 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

DESIGNED BY:	SKP
DRAWN BY:	SKP
CHECKED BY:	HD
APPROVED BY:	JWW
SCALE:	NO SCALE
DATE:	02/05/2021
CITY SPECIFICATION NO.	1000184
PLAN FILE NO. / LOCATION	2460C002.dwg
SHEET NO.	15 of 67

KEYED NOTES:

1. 6" VERTICAL CURB PER STANDARD DRAWING 4020
2. CURB (TRUCK APRON), SEE DETAIL B AND DETAIL C ON SHEET C1.
3. TRUCK APRON STAMPED PCC SHALL BE PER COLOR, PATTERN AND INSTALLATION RECOMMENDATIONS PER DETAIL E ON SHEET C2.
4. SEE DETAIL F, TRUCK APRON CONSTRUCTION JOINTS DETAIL, ON SHEET C2.

LEGEND:

TRUNCATED DOMES PER STANDARD DRAWING 4440

PLANTING AREA, SEE LANDSCAPE PLANS

STAMPED PCC. SEE DETAIL E ON SHEET C2.

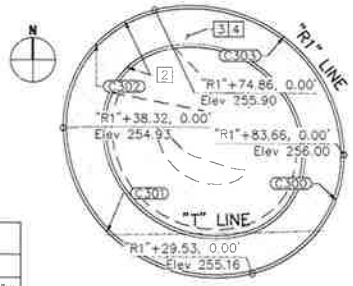
DETAIL A

CURVE DATA				
No.	R	Δ	T	L
C100	101.00'	009°24'11"	8.31'	16.58'
C101	585.00'	005°50'09"	29.82'	59.58'
C102	150.00'	013°47'23"	18.14'	36.10'
C103	3.00'	169°59'25"	34.26'	8.90'
C104	568.00'	015°52'36"	79.20'	157.39'
C105	5.00'	108°53'24"	7.00'	9.50'
C106	72.00'	015°18'32"	9.68'	19.24'
C107	2.00'	121°22'39"	3.56'	4.24'
C108	101.00'	011°57'08"	10.57'	21.07'

LINE DATA		
No.	L	Δ
L100	46.53'	S77°53'45"W
L101	17.39'	N69°58'12"E

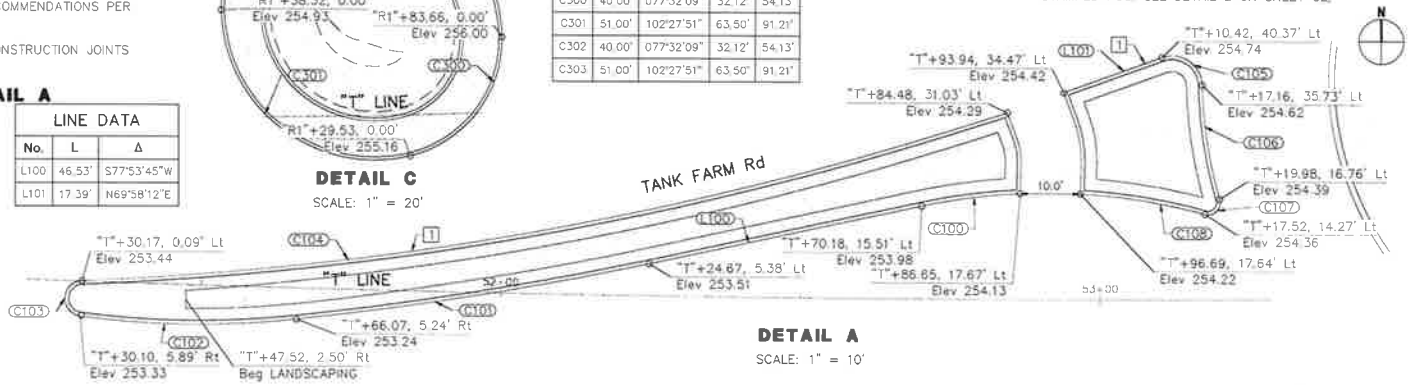
DETAIL C

CURVE DATA				
No.	R	Δ	T	L
C300	40.00'	077°32'09"	32.12'	54.13'
C301	51.00'	102°27'51"	63.50'	91.21'
C302	40.00'	077°32'09"	32.12'	54.13'
C303	51.00'	102°27'51"	63.50'	91.21'



DETAIL C

SCALE: 1" = 20'



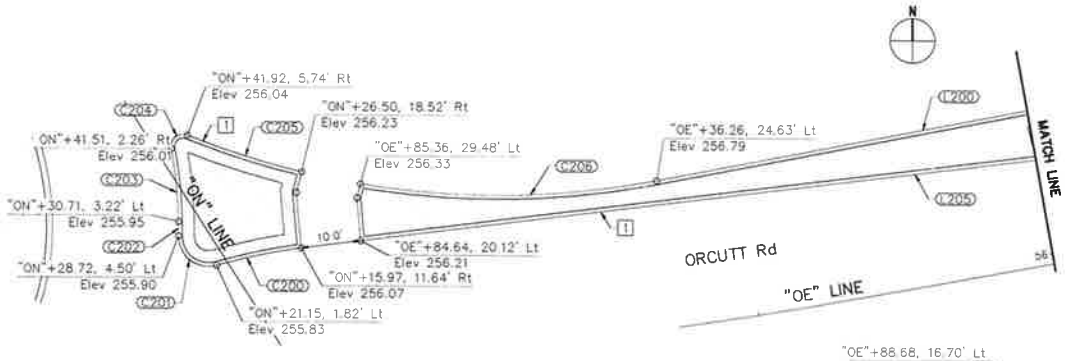
DETAIL A

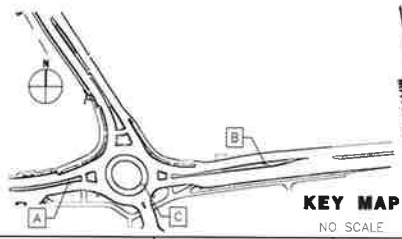
SCALE: 1" = 10'

DETAIL B

CURVE DATA				
No.	R	Δ	T	L
C200	105.00'	007°52'38"	7.23'	14.44'
C201	5.00'	106°50'07"	6.74'	9.32'
C202	61.00'	002°13'20"	1.18'	2.37'
C203	72.00'	009°39'00"	6.08'	12.13'
C204	2.00'	122°20'44"	3.63'	4.27'
C205	141.00'	008°08'40"	10.04'	20.04'
C206	141.00'	020°10'50"	25.09'	49.66'
C208	999.00'	005°46'39"	50.41'	100.74'
C210	0.65'	180°00'00"	INFINITY'	2.04'
C212	100.00'	013°07'54"	11.51'	22.92'
C214	100.00'	011°15'09"	9.85'	19.64'

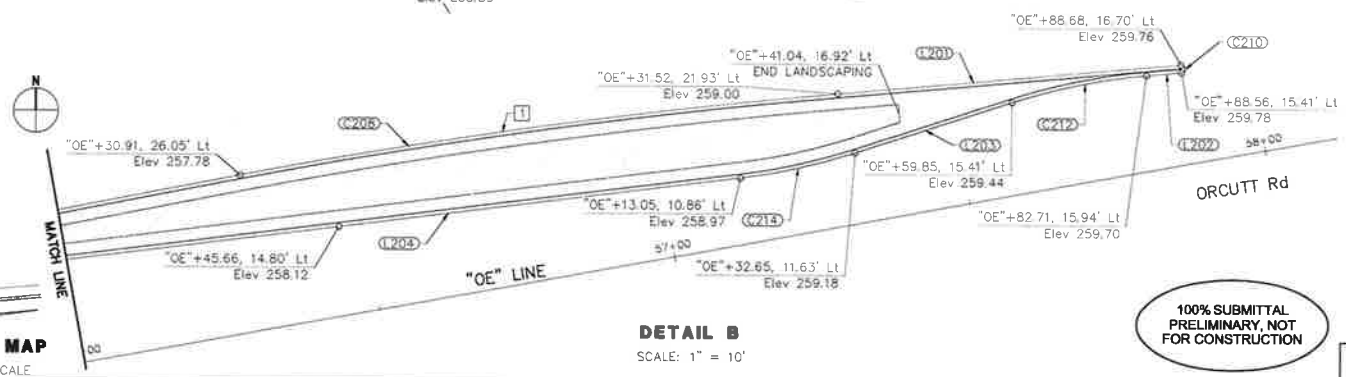
LINE DATA		
No.	L	Δ
L200	93.75'	N79°02'19"E
L201	57.40'	N84°48'57"E
L202	5.88'	S84°48'57"W
L203	27.46'	S71°41'03"W
L204	67.51'	S82°56'12"W
L205	159.12'	S82°56'12"W





KEY MAP

NO SCALE



DETAIL B

SCALE: 1" = 10'

100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

C3

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

SHEET TITLE: CONSTRUCION DETAILS ISLAND DETAILS

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. HETLAND No. C53795 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

DESIGNED BY: HD
DRAWN BY: HD
CHECKED BY: SKP
APPROVED BY: JWW
SCALE: AS NOTED
DATE: 01/27/2021
CITY SPECIFICATION NO.: 1000184
PLAN FILE NO / LOCATION: 2460C001.dwg
SHEET NO.: 16 of 67

KEYED NOTES:

1. 6" VERTICAL CURB PER STANDARD DRAWING 4020

LEGEND:

TRUNCATED DOMES PER STANDARD DRAWING 4440

STAMPED PCC, SEE DETAIL E ON SHEET C2

PLANTING AREA, SEE LANDSCAPE PLANS

RAISED COBBLESTONE MEDIAN (CITY Std Dwg 4940)

DETAIL E

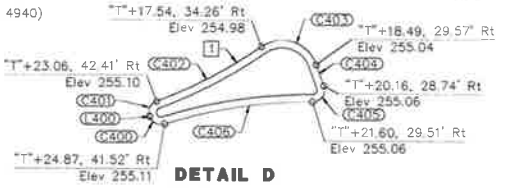
CURVE DATA				
No.	R	Δ	T	L
C500	2.00'	161°42'03"	12.42'	5.64'
C501	1204.00'	001°13'21"	12.84'	25.69'
C502	1204.00'	002°41'22"	28.25'	56.51'
C503	100.00'	010°30'36"	9.20'	18.34'
C504	3.25'	170°19'59"	38.47'	9.67'
C505	1196.00'	003°54'49"	40.86'	81.69'
C506	1196.00'	000°50'26"	8.77'	17.55'
C507	1201.00'	000°38'08"	6.66'	13.32'
C508	20.00'	009°08'42"	1.60'	3.19'
C509	100.00'	009°47'22"	8.56'	17.09'

LINE DATA		
No.	L	Δ
L500	83.71'	N84°48'57"E
L501	11.31'	N39°48'57"E
L502	11.31'	N39°48'57"E
L503	51.60'	N84°48'57"E
L504	9.56'	N40°54'56"E
L505	9.53'	N40°54'56"E
L506	59.58'	S84°48'57"W
L507	43.24'	S84°48'57"W

DETAIL D

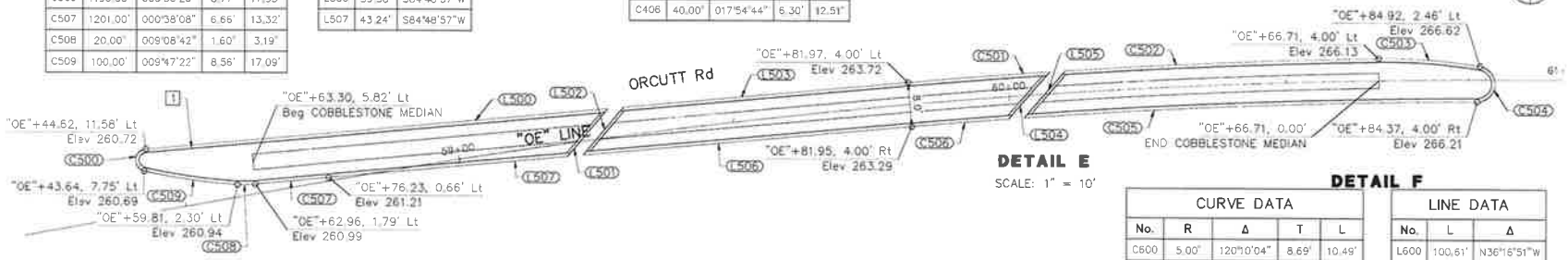
CURVE DATA				
No.	R	Δ	T	L
C400	1.00'	089°10'55"	0.99'	1.56'
C401	1.00'	087°54'12"	0.96'	1.53'
C402	40.00'	014°09'49"	4.97'	9.89'
C403	3.00'	105°55'40"	3.98'	5.55'
C404	61.00'	001°45'24"	0.94'	1.87'
C405	1.00'	110°49'10"	1.45'	1.93'
C406	40.00'	017°54'44"	6.30'	12.51'

LINE DATA		
No.	L	Δ
L400	0.03'	N63°15'42"E



DETAIL D

SCALE: 1" = 5'



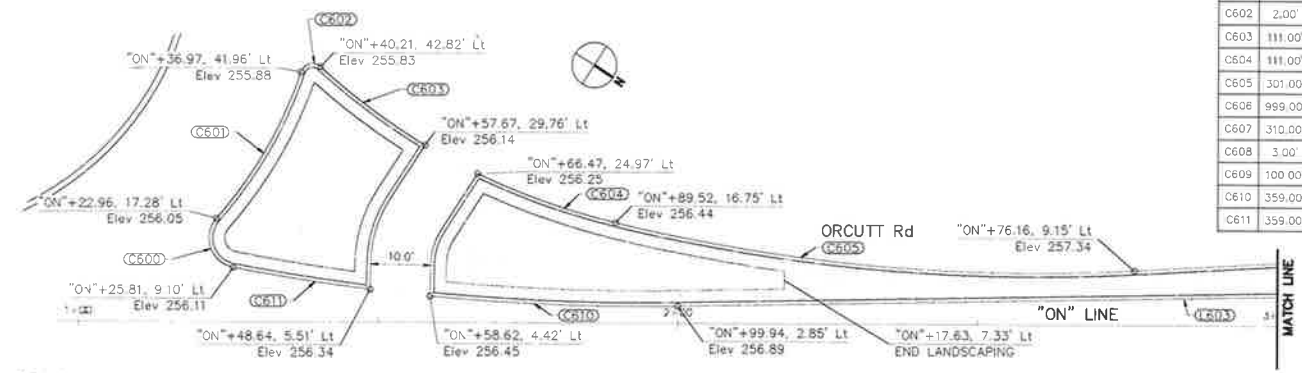
DETAIL E

SCALE: 1" = 10'

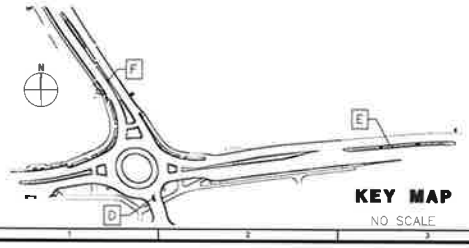
DETAIL F

CURVE DATA				
No.	R	Δ	T	L
C600	5.00'	120°10'04"	8.69'	10.49'
C601	72.00'	022°43'44"	14.47'	28.56'
C602	2.00'	114°12'54"	3.09'	3.99'
C603	111.00'	011°16'10"	10.95'	21.83'
C604	111.00'	012°39'18"	12.31'	24.52'
C605	301.00'	016°36'48"	43.95'	87.28'
C606	999.00'	002°17'18"	19.95'	39.90'
C607	310.00'	005°32'43"	15.01'	30.00'
C608	3.00'	170°31'00"	36.17'	8.93'
C609	100.00'	004°56'45"	4.32'	8.63'
C610	359.00'	006°36'15"	20.71'	41.38'
C611	359.00'	003°41'20"	11.56'	23.11'

LINE DATA		
No.	L	Δ
L600	100.61'	N36°16'51"W
L601	42.35'	S37°55'50"E
L602	61.32'	S32°59'05"E
L603	134.41'	S34°07'02"E

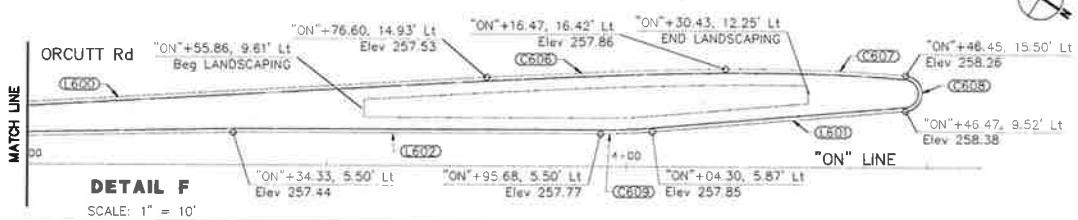


100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION



KEY MAP

NO SCALE



DETAIL F

SCALE: 1" = 10'

C4

TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

CONSTRUCION DETAILS ISLAND DETAILS

PROJECT TITLE:

SHEET TITLE:

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. WETLAUFER No. C53755 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

DESIGNED BY:	HD
DRAWN BY:	HD
CHECKED BY:	SKP
APPROVED BY:	JWW
SCALE:	AS NOTED
DATE:	01/27/2021
CITY SPECIFICATION NO.	1000164
PLAN FILE NO / LOCATION	24600001.dwg
SHEET NO.	17 of 67

KEYED NOTES:

1. 6" VERTICAL CURB PER STANDARD DRAWING 4020

LEGEND:

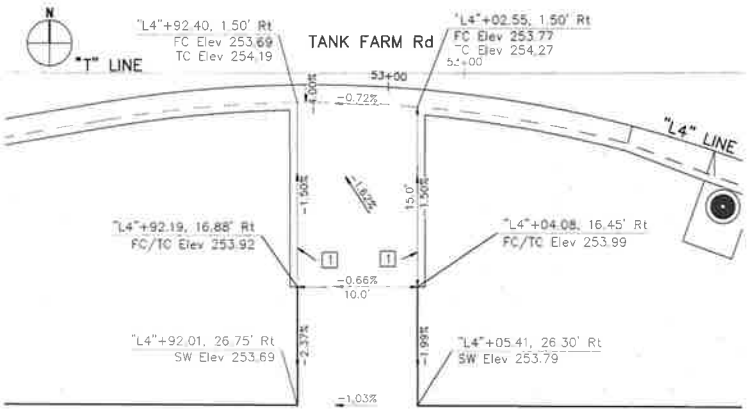
TRUNCATED DOMES PER STANDARD DRAWING 4440

PLANTING AREA, SEE LANDSCAPE PLANS

STAMPED PCC, SEE DETAIL E ON SHEET C2.

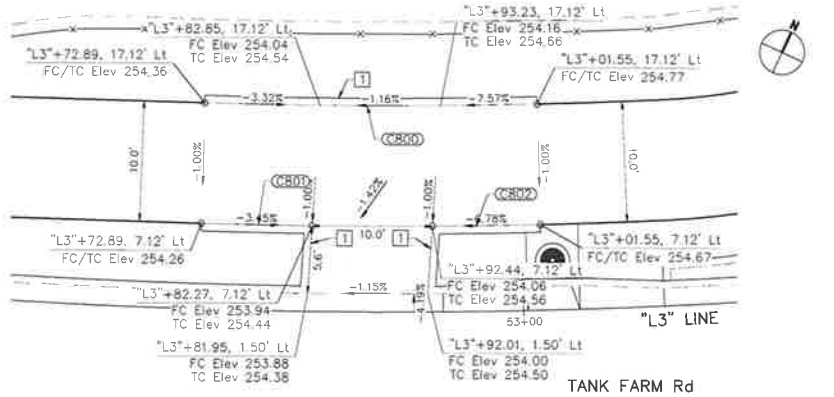
GENERAL NOTES (SHEETS C5–C7):

1. ALL RAMPS SHALL BE PER CITY STANDARD 4440



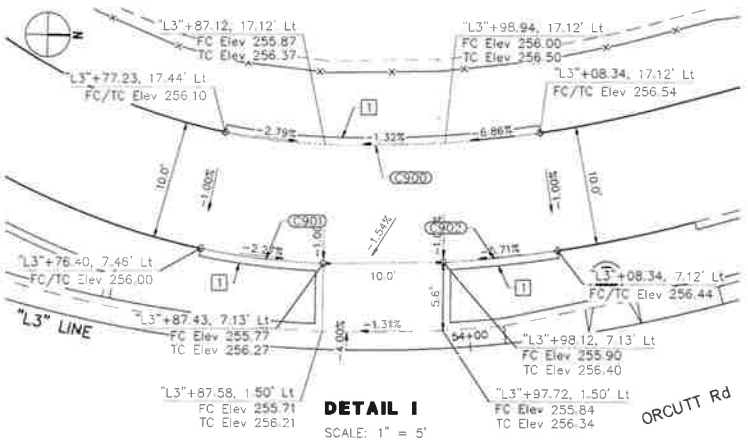
DETAIL G

SCALE: 1" = 5'



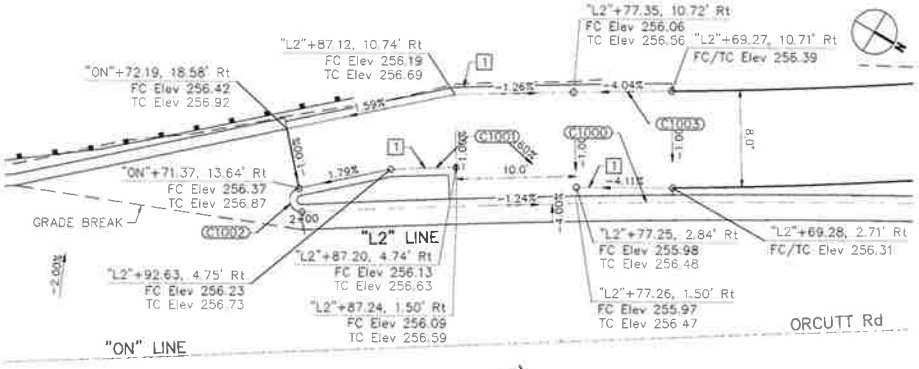
DETAIL H

SCALE: 1" = 5'



DETAIL I

SCALE: 1" = 5'



DETAIL J

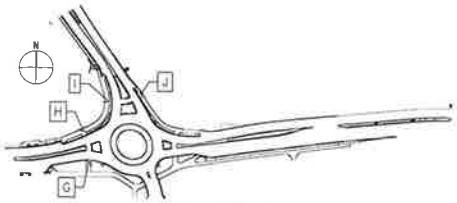
SCALE: 1" = 5'

DETAIL H

CURVE DATA				
No.	R	Δ	T	L
C800	490.88'	003°13'58"	13.85'	27.70'
C801	500.88'	001°03'29"	4.62'	9.25'
C802	500.88'	001°01'42"	4.49'	8.99'

DETAIL J

CURVE DATA				
No.	R	Δ	T	L
C1000	851.50'	005°13'55"	38.91'	77.76'
C1001	854.63'	000°21'58"	2.73'	5.46'
C1002	1.00'	170°56'05"	12.61'	2.98'
C1003	860.63'	001°12'12"	9.04'	18.07'



KEY MAP

NO SCALE

DETAIL I

CURVE DATA				
No.	R	Δ	T	L
C900	94.87'	011°01'06"	9.15'	18.24'
C901	60.00'	009°51'26"	5.17'	10.32'
C902	104.88'	005°13'55"	4.79'	9.58'

100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

C5

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

SHEET TITLE: CONSTRUCION DETAILS RAMP DETAILS

REGISTERED PROFESSIONAL ENGINEER — JOSEPH W. HEILMAN — No. C53755 — Exp. 06/30/21 — CIVIL — STATE OF CALIFORNIA

DESIGNED BY: HD
DRAWN BY: HD
CHECKED BY: SKP
APPROVED BY: JWW
SCALE: AS NOTED
DATE: 01/27/2021
CITY SPECIFICATION NO.: 1000184
PLAN FILE NO./LOCATION: 2460C001.dwg
SHEET NO.: 18 of 67

KEYED NOTES:

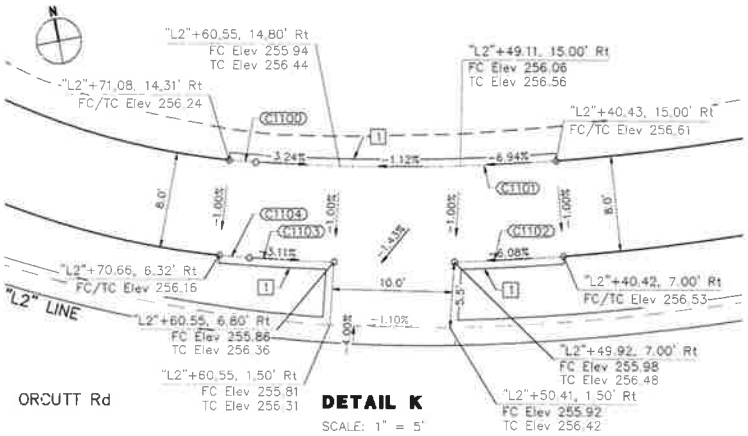
1 6" VERTICAL CURB PER STANDARD DRAWING 4020

LEGEND:

TRUNCATED DOMES PER STANDARD DRAWING 4440

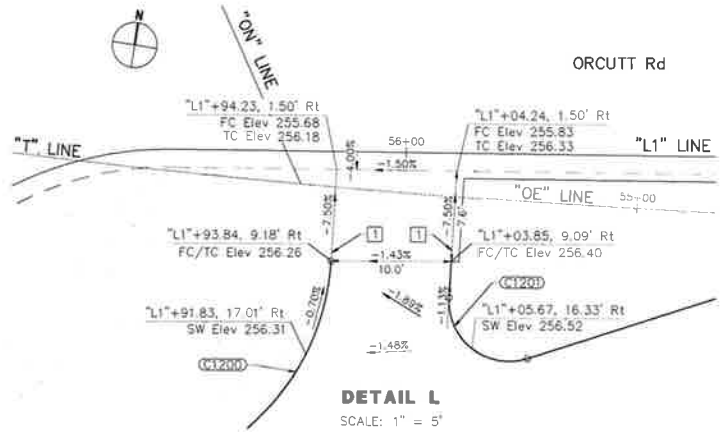
PLANTING AREA, SEE LANDSCAPE PLANS

STAMPED PCC, SEE DETAIL E ON SHEET C2



DETAIL K

SCALE: 1" = 5'

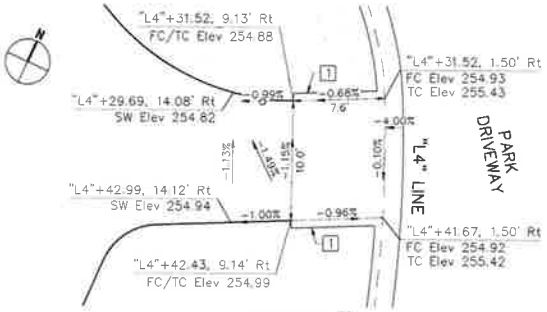


DETAIL L

SCALE: 1" = 5'

DETAIL M

SCALE: 1" = 5'



DETAIL N

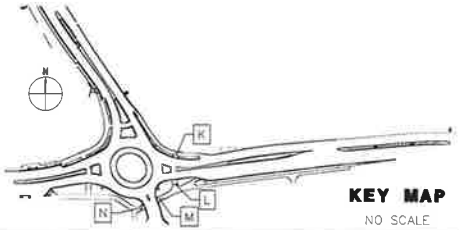
SCALE: 1" = 5'

DETAIL K

CURVE DATA				
No.	R	Δ	T	L
C1100	62.00'	002°04'07"	1.12'	2.24'
C1101	173.26'	008°16'42"	12.54'	25.03'
C1102	181.26'	002°53'10"	4.57'	9.13'
C1103	181.26'	002°13'28"	3.52'	7.04'
C1104	70.00'	002°04'07"	1.26'	2.53'

DETAIL L

CURVE DATA				
No.	R	Δ	T	L
C1200	20.00'	068°38'09"	13.65'	23.96'
C1201	5.00'	111°21'51"	7.32'	9.72'



KEY MAP

NO SCALE

100% SUBMITTAL PRELIMINARY, NOT FOR CONSTRUCTION

C6

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

SHEET TITLE: CONSTRUCION DETAILS RAMP DETAILS

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. HETLAND No. C53755 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

DESIGNED BY: HD
DRAWN BY: HD
CHECKED BY: SKP
APPROVED BY: JWW
SCALE: AS NOTED
DATE: 01/27/2021
CITY SPECIFICATION NO.: 1000164
PLAN FILE NO./LOCATION: 2460C001.dwg
SHEET NO.: 19 of 67

KEYED NOTES:

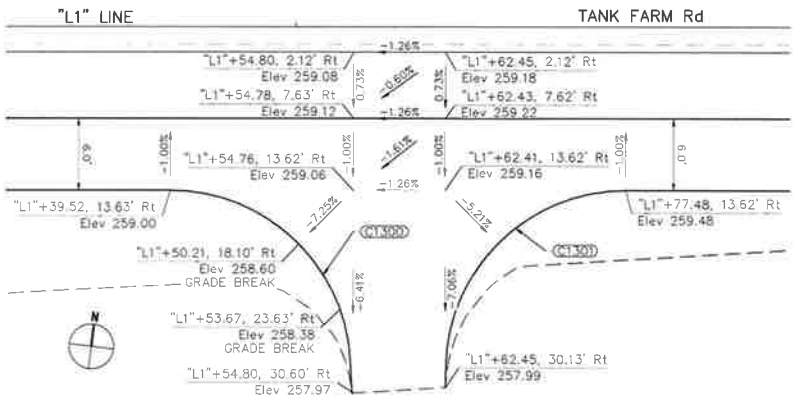
1 6" VERTICAL CURB PER STANDARD DRAWING 4020

LEGEND:

TRUNCATED DOMES PER STANDARD DRAWING 4440

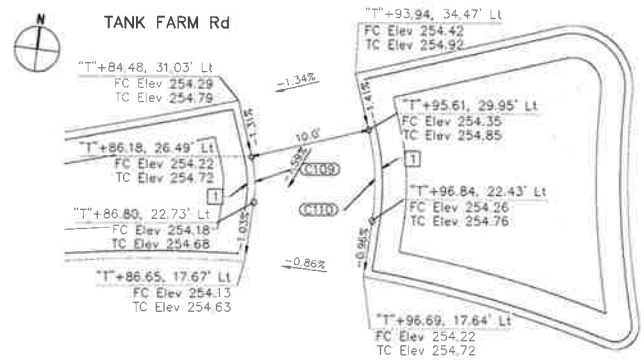
PLANTING AREA, SEE LANDSCAPE PLANS

STAMPED PCC. SEE DETAIL E ON SHEET C2.



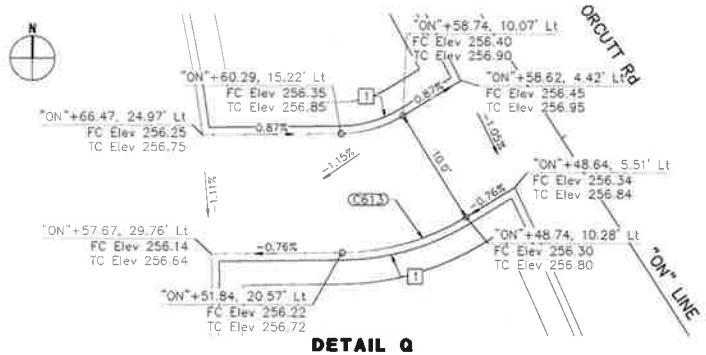
DETAIL O

SCALE: 1" = 5'



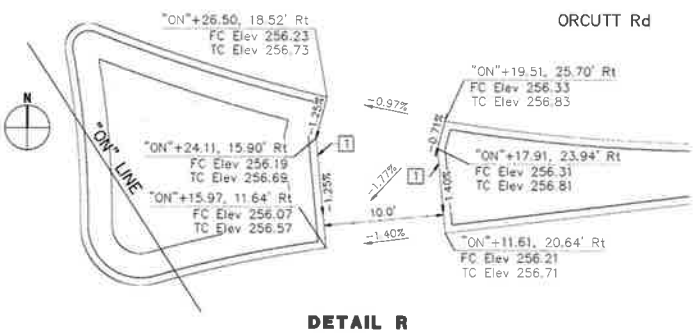
DETAIL P

SCALE: 1" = 5'



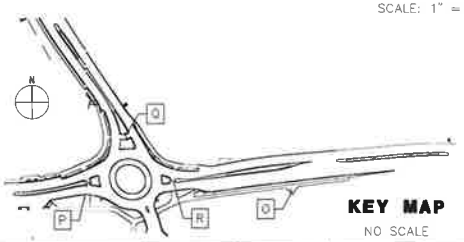
DETAIL Q

SCALE: 1" = 5'



DETAIL R

SCALE: 1" = 5'



KEY MAP

NO SCALE

DETAIL O

CURVE DATA				
No.	R	Δ	T	L
C1300	15.00'	086°28'58"	14.11'	22.64'
C1301	15.00'	088°55'48"	14.72'	23.28'

DETAIL P

CURVE DATA				
No.	R	Δ	T	L
C109	10.00'	021°56'51"	1.94'	3.83'
C110	20.00'	021°56'51"	3.88'	7.66'

DETAIL Q

CURVE DATA				
No.	R	Δ	T	L
C613	20.00'	031°10'01"	5.58'	10.88'

100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

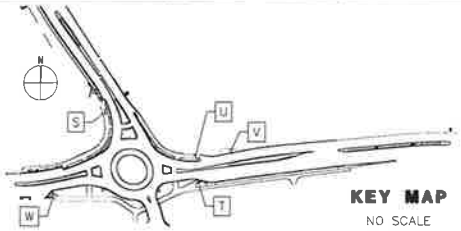
C7

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

SHEET TITLE: CONSTRUCION DETAILS ISLAND DETAILS

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. WELLAND No. C53755 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

DESIGNED BY	HD
DRAWN BY	HD
CHECKED BY	SKP
APPROVED BY	JWW
SCALE	AS NOTED
DATE	01/27/2021
CITY SPECIFICATION NO.	1000164
PLAN FILE NO. / LOCATION	2460C001.dwg
SHEET NO.	20 of 67



KEY MAP
NO SCALE

KEYED NOTES:

1. 6" VERTICAL CURB PER STANDARD DRAWING 4020

LEGEND:

TRUNCATED DOMES PER STANDARD DRAWING 4440

PLANTING AREA, SEE LANDSCAPE PLANS

STAMPED PCC. SEE DETAIL E ON SHEET C2.

DETAIL S

CURVE DATA				
No.	R	Δ	T	L
C1800	94.87'	006°23'40"	5.30'	10.59'
C1803	104.88'	006°23'40"	5.86'	11.70'
C1804	104.88'	006°23'40"	5.86'	11.70'

DETAIL T

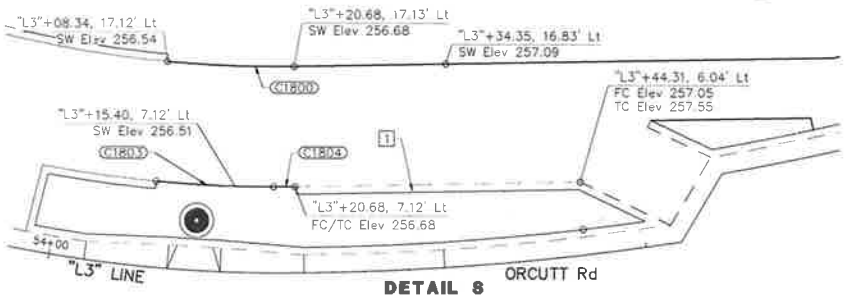
CURVE DATA				
No.	R	Δ	T	L
C1900	5.00'	161°32'37"	30.78'	14.10'

DETAIL U

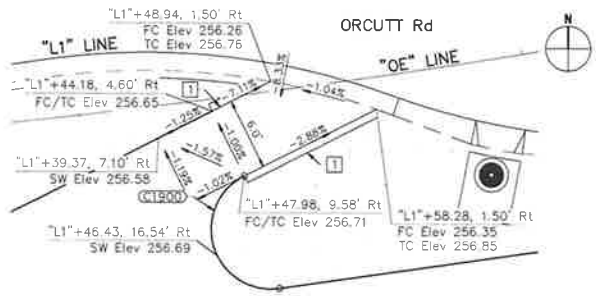
CURVE DATA				
No.	R	Δ	T	L
C2000	173.26'	008°31'07"	12.90'	25.76'
C2001	50.00'	008°30'51"	3.72'	7.43'
C2002	181.26'	002°51'09"	4.51'	9.02'
C2003	181.26'	007°53'58"	12.51'	24.99'

DETAIL W

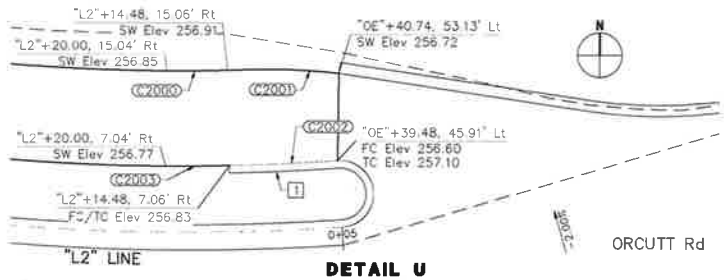
CURVE DATA				
No.	R	Δ	T	L
C3000	9.38'	055°13'10"	4.90'	9.04'
C3001	10.62'	044°44'01"	4.37'	8.30'



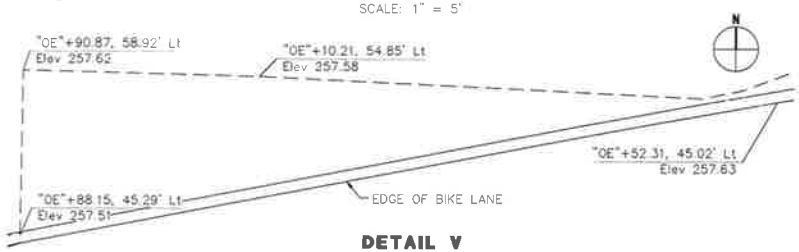
DETAIL S
SCALE: 1" = 5'



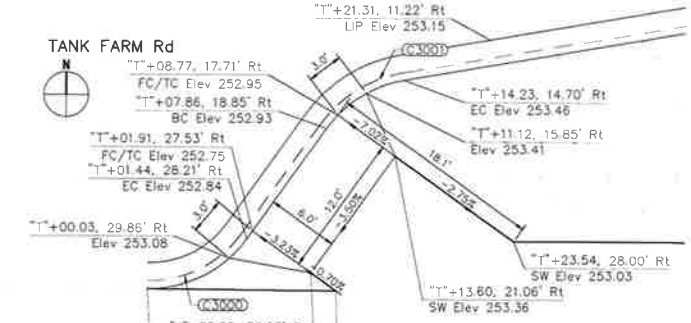
DETAIL T
SCALE: 1" = 5'



DETAIL U
SCALE: 1" = 5'



DETAIL V
SCALE: 1" = 5'



DETAIL W
SCALE: 1" = 5'

100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

C8

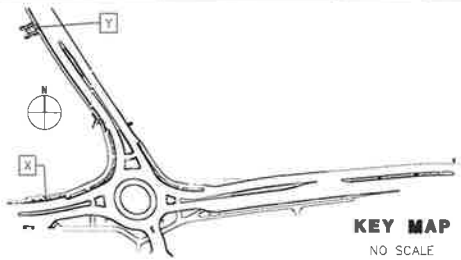
CITY OF SAN DIEGO

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

SHEET TITLE: CONSTRUCION DETAILS ISLAND DETAILS

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. WELLAND No. C63755 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

DESIGNED BY:	HD
DRAWN BY:	HD
CHECKED BY:	SKP
APPROVED BY:	JWW
SCALE:	AS NOTED
DATE:	01/27/2021
CITY SPECIFICATION NO.	1000164
PLAN FILE NO./LOCATION:	2460C001.dwg
SHEET NO.	21 of 67



KEY MAP
NO SCALE

KEYED NOTES:

1. 6" VERTICAL CURB PER STANDARD DRAWING 4020
2. 2" HMA OVER 6" CLASS II AB, 90% COMPACTED SUBGRADE.

LEGEND:

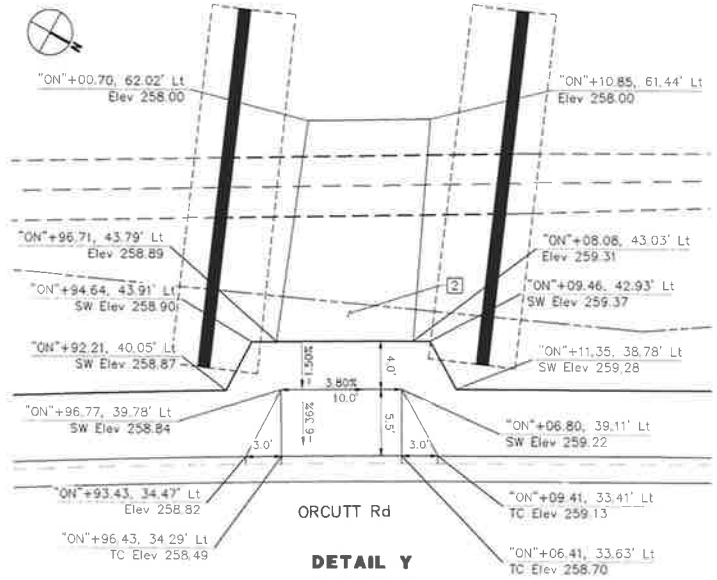
TRUNCATED DOMES PER STANDARD DRAWING 4440

PLANTING AREA, SEE LANDSCAPE PLANS

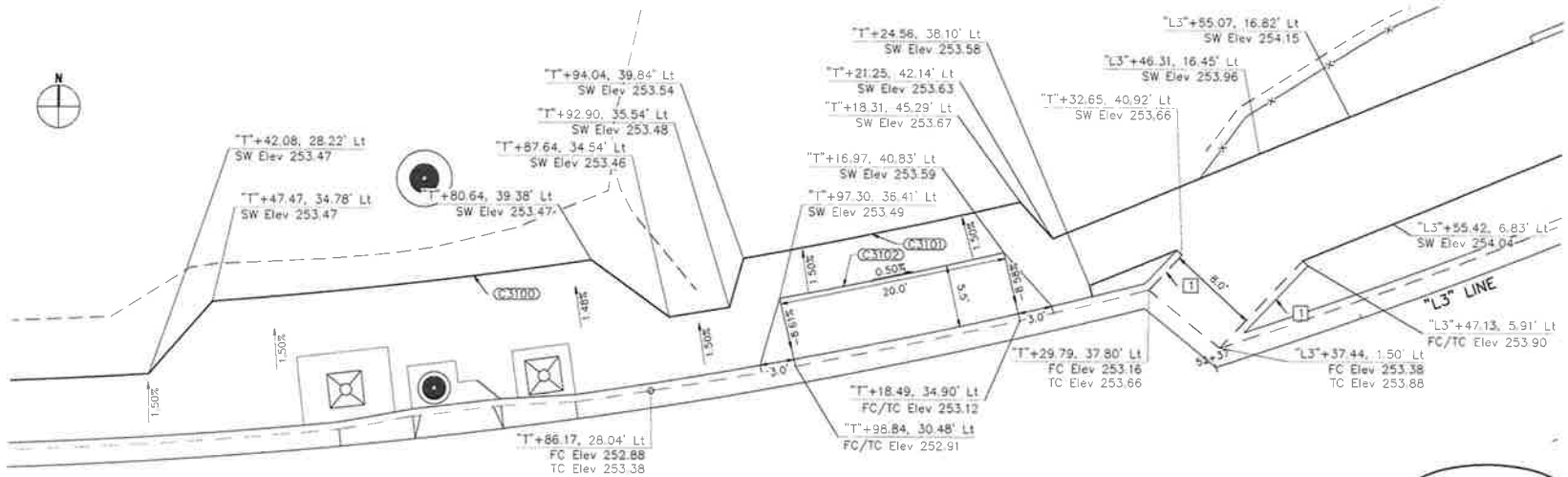
STAMPED PCC, SEE DETAIL E ON SHEET C2.

DETAIL X

CURVE DATA				
No.	R	Δ	T	L
C3100	453.21'	004°12'11"	16.63'	33.25'
C3101	455.21'	003°06'17"	12.34'	24.67'
C3102	459.21'	002°29'48"	10.01'	20.01'



DETAIL Y
SCALE: 1" = 5'



DETAIL X
SCALE: 1" = 5'

100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

C9

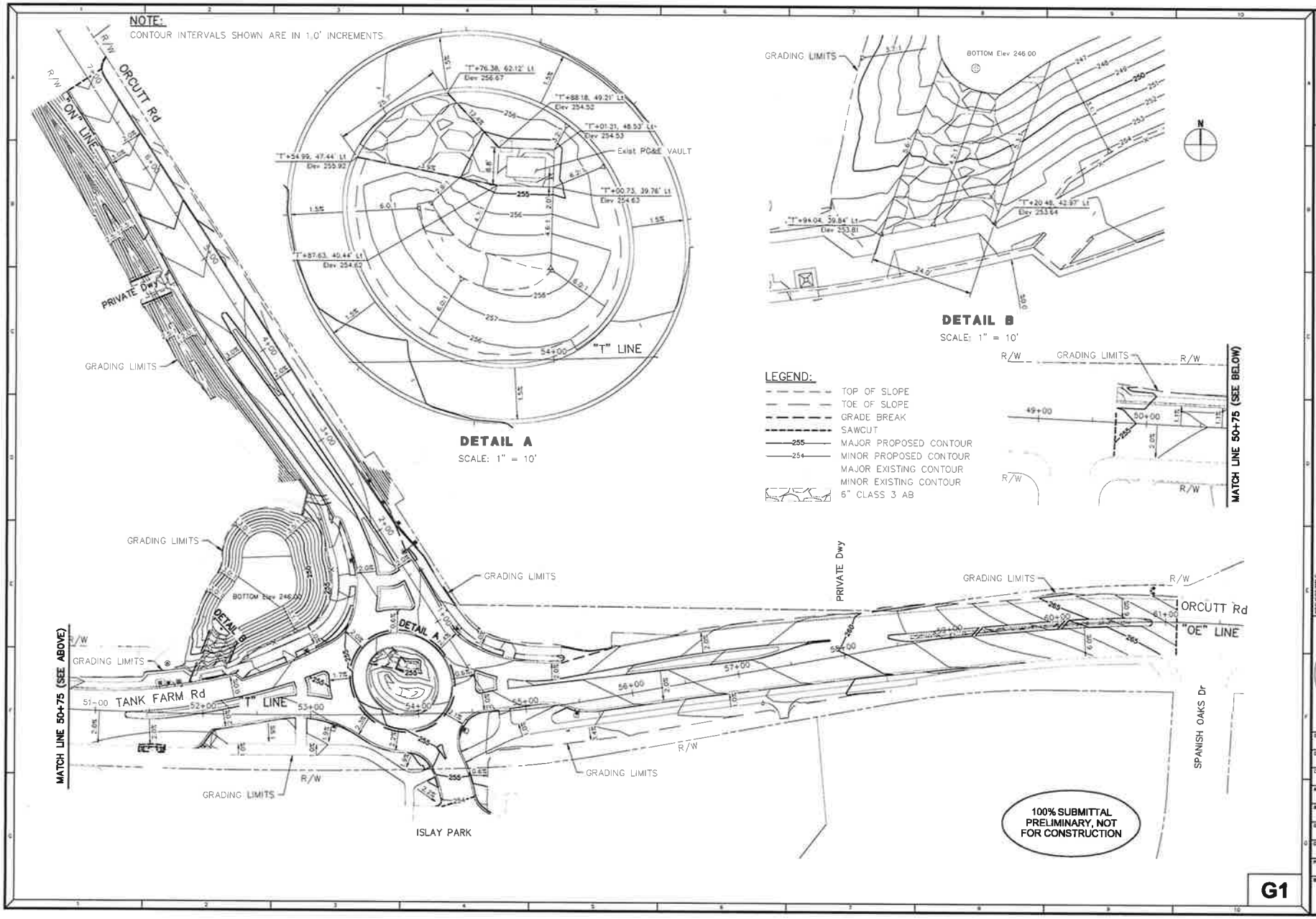
CITY OF CHICO

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

SHEET TITLE: CONSTRUCION DETAILS ISLAND DETAILS

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. WETLAND No. C53755 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

DESIGNED BY:	HD
DRAWN BY:	HD
CHECKED BY:	SKP
APPROVED BY:	JWW
SCALE:	AS NOTED
DATE:	02/05/2021
CITY SPECIFICATION NO.	1000164
PLAN FILE NO./LOCATION	2460C001.dwg
SHEET NO.	22 of 67



TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

GRADING PLAN

DESIGNED BY:	HD
DRAWN BY:	HD
CHECKED BY:	SKP
APPROVED BY:	JWW
SCALE:	1" = 40'
DATE:	02/05/2021
CITY SPECIFICATION NO:	1000164
PLAN FILE NO / LOCATION:	2460G001.dwg
SHEET NO:	23 of 67

KEYED NOTES:

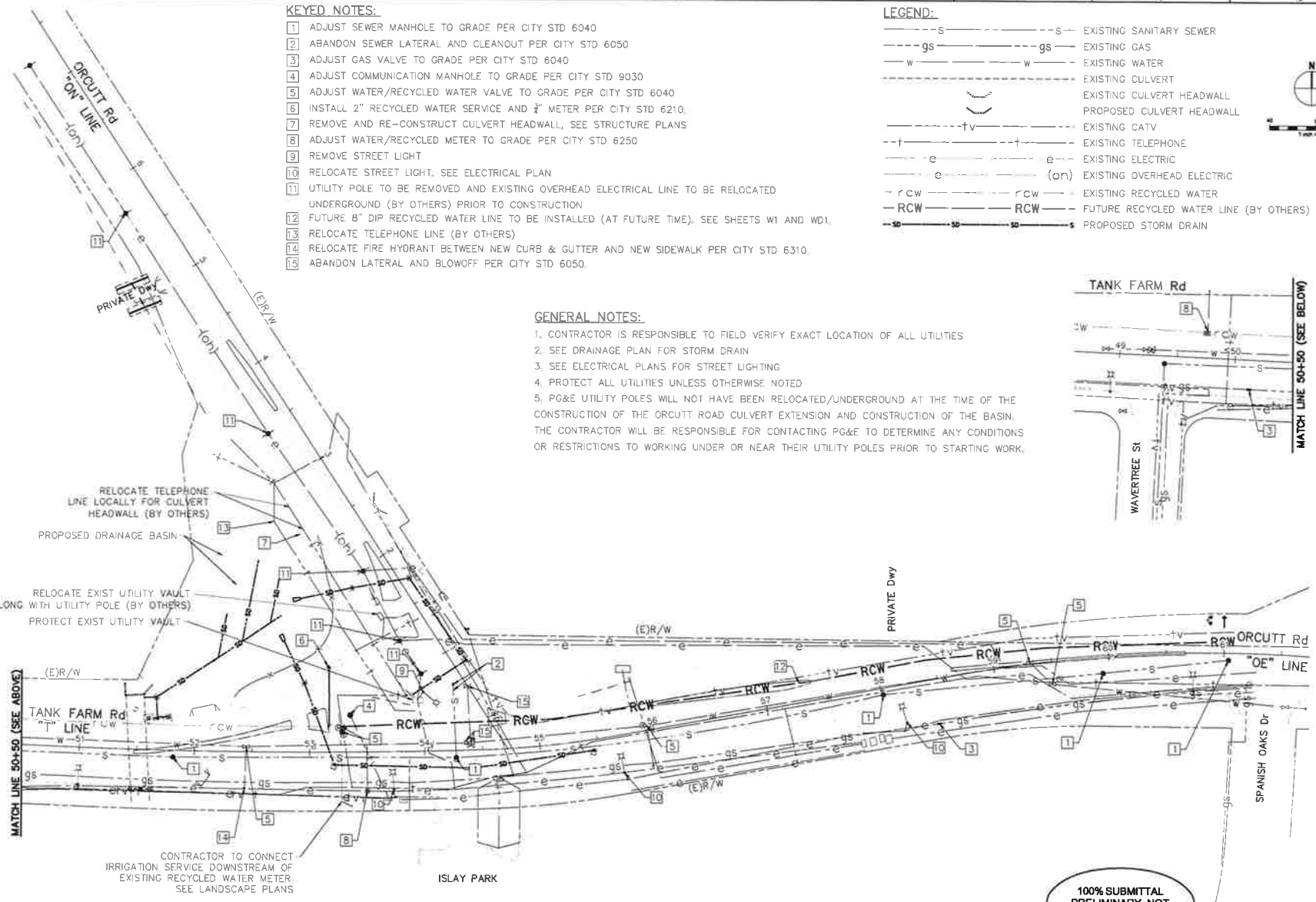
1. ADJUST SEWER MANHOLE TO GRADE PER CITY STD 6040
2. ABANDON SEWER LATERAL AND CLEANOUT PER CITY STD 6050
3. ADJUST GAS VALVE TO GRADE PER CITY STD 6040
4. ADJUST COMMUNICATION MANHOLE TO GRADE PER CITY STD 9030
5. ADJUST WATER/RECYCLED WATER VALVE TO GRADE PER CITY STD 6040
6. INSTALL 2" RECYCLED WATER SERVICE AND ¾" METER PER CITY STD 6210.
7. REMOVE AND RE-CONSTRUCT CULVERT HEADWALL, SEE STRUCTURE PLANS
8. ADJUST WATER/RECYCLED METER TO GRADE PER CITY STD 6250
9. REMOVE STREET LIGHT
10. RELOCATE STREET LIGHT. SEE ELECTRICAL PLAN
11. UTILITY POLE TO BE REMOVED AND EXISTING OVERHEAD ELECTRICAL LINE TO BE RELOCATED UNDERGROUND (BY OTHERS) PRIOR TO CONSTRUCTION
12. FUTURE 8" DIP RECYCLED WATER LINE TO BE INSTALLED (AT FUTURE TIME). SEE SHEETS W1 AND WD1.
13. RELOCATE TELEPHONE LINE (BY OTHERS)
14. RELOCATE FIRE HYDRANT BETWEEN NEW CURB & GUTTER AND NEW SIDEWALK PER CITY STD 6310.
15. ABANDON LATERAL AND BLOWOFF PER CITY STD 6050.

LEGEND:

- EXISTING SANITARY SEWER
- EXISTING GAS
- EXISTING WATER
- EXISTING CULVERT
- EXISTING CULVERT HEADWALL
- PROPOSED CULVERT HEADWALL
- EXISTING CATV
- EXISTING TELEPHONE
- EXISTING ELECTRIC
- EXISTING OVERHEAD ELECTRIC
- EXISTING RECYCLED WATER
- FUTURE RECYCLED WATER LINE (BY OTHERS)
- PROPOSED STORM DRAIN

GENERAL NOTES:

1. CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY EXACT LOCATION OF ALL UTILITIES
2. SEE DRAINAGE PLAN FOR STORM DRAIN
3. SEE ELECTRICAL PLANS FOR STREET LIGHTING
4. PROTECT ALL UTILITIES UNLESS OTHERWISE NOTED
5. PG&E UTILITY POLES WILL NOT HAVE BEEN RELOCATED/UNDERGROUND AT THE TIME OF THE CONSTRUCTION OF THE ORCUTT ROAD CULVERT EXTENSION AND CONSTRUCTION OF THE BASIN. THE CONTRACTOR WILL BE RESPONSIBLE FOR CONTACTING PG&E TO DETERMINE ANY CONDITIONS OR RESTRICTIONS TO WORKING UNDER OR NEAR THEIR UTILITY POLES PRIOR TO STARTING WORK.



100% SUBMITTAL PRELIMINARY, NOT FOR CONSTRUCTION

U1

CITY OF SAN LUIS OBISPO

PRODUCT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

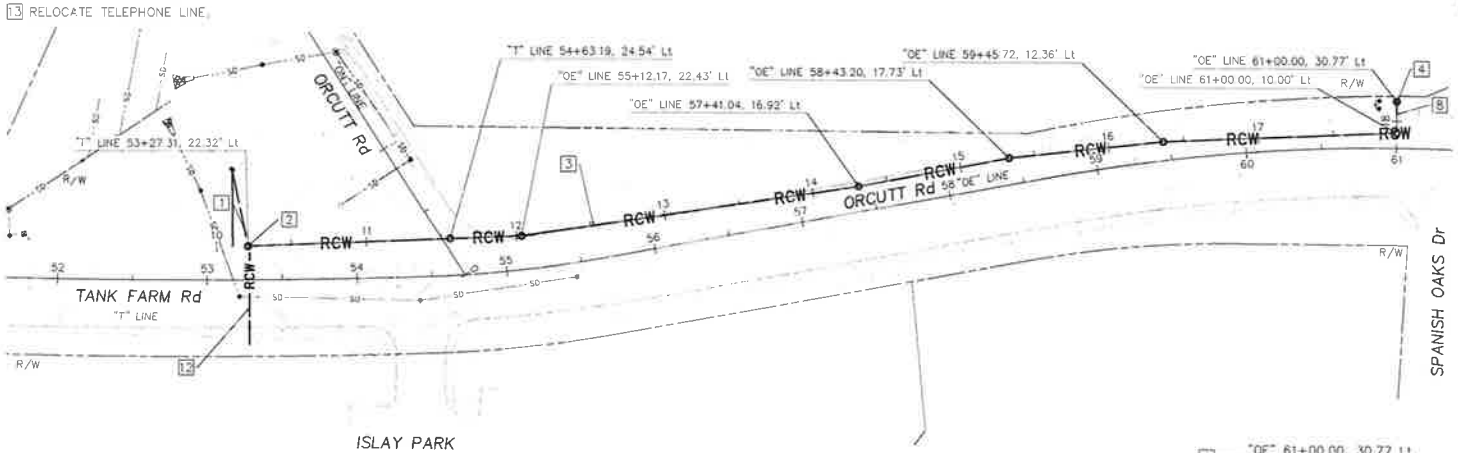
SHEET TITLE: UTILITY PLAN

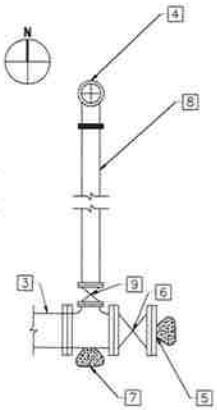
REGISTERED PROFESSIONAL ENGINEER JOSEPH W. WELLAND No. C53755 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

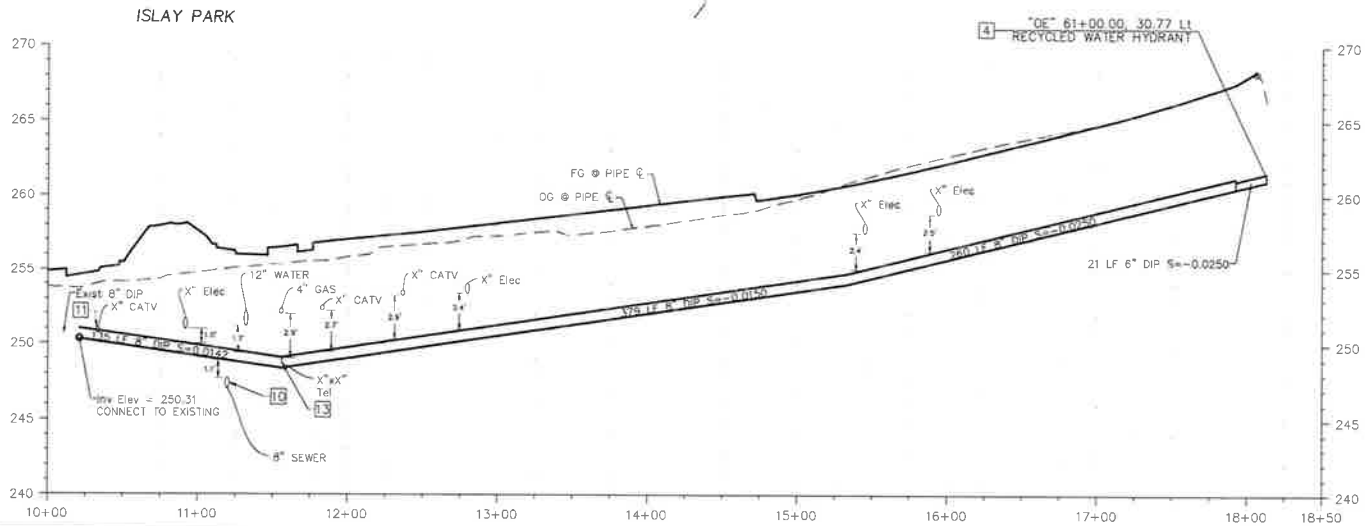
DESIGNED BY:	SKP
DRAWN BY:	HD
CHECKED BY:	SKP
APPROVED BY:	JWW
SCALE:	1" = 40'
DATE:	02/07/2021
CITY SPECIFICATION NO.	1000164
PLAN FILE NO. / LOCATION	2460U001.dwg
SHEET NO.	24 of 67

CONSTRUCTION NOTES:

1. REMOVE RECYCLED WATER HYDRANT ASSEMBLY.
2. REMOVE BLIND FLANGE AND THRUST BLOCK.
3. INSTALL 8" DIP PER CITY STD 6020 or 6030, IN ADDITION TO 6110 AND 6140.
4. INSTALL RECYCLED WATER HYDRANT ASSEMBLY PER CITY STD 6315.
5. INSTALL 8" DIP BLIND FLANGE WITH THRUST BLOCK PER DETAIL A ON THIS SHEET AND DETAIL A ON SHEET WD1.
6. INSTALL 8" GATE VALVE PER CITY STD 6320 AND 6340.
7. INSTALL DIP TEE WITH THRUST BLOCK PER DETAIL A ON THIS SHEET AND DETAIL A ON SHEET WD1.
8. INSTALL 6" DIP LATERAL PER CITY STD 6020 or 6030, IN ADDITION TO 6110 AND 6140.
9. INSTALL 6" GATE VALVE PER CITY STD 6320 AND 6340.
10. NO DIP JOINTS ALLOWED WITHIN 8" OF EITHER SIDE OF SEWER PIPE.
11. RELOCATE CABLE TV LINE.
12. RELOCATE 6" LATERAL.
13. RELOCATE TELEPHONE LINE.







100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

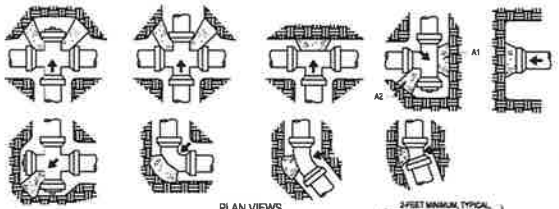
W1

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

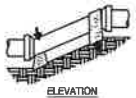
SHEET TITLE: RECYCLED WATER PLAN AND PROFILE

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. WEYLAND No. C63755 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

DESIGNED BY:	JAV
DRAWN BY:	JAV
CHECKED BY:	SKP
APPROVED BY:	JWW
SCALE:	H: 1"=40'; V: 1"=4'
DATE:	02/07/2021
CITY SPECIFICATION NO.	1000164
PLAN FILE NO. / LOCATOR	2460W001.dwg
SHEET NO.	25 of 67



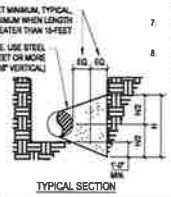
PLAN VIEWS



ELEVATION

ELEVATION

ELEVATION



TYPICAL SECTION

NOTES:

1. CONCRETE THRUST BLOCKS ARE TO BE POURED AGAINST UNDISTURBED EARTH OR STRUCTURAL BACKFILL.
2. KEEP CONCRETE CLEAR OF JOINTS AND ACCESSORIES.
3. VOLUMES AND SPECIAL BLOCKING DETAILS SHOWN ON THE PLANS TAKE PRECEDENCE OVER VOLUMES AND BLOCKING DETAILS SHOWN ON THIS STANDARD DETAIL.
4. ALL BURIED PIPE EXCEPT FLANGED, SCREWED, SOLVENT WELDED PVC OR WELDED STEEL PIPE SPECIFIED TO BE PRESSURE TESTED SHALL BE PROVIDED WITH CONCRETE THRUST BLOCKS AT ALL DIRECTIONAL CHANGES UNLESS OTHERWISE NOTED.
5. THRUST BLOCKS SHALL NOT BE LOCATED OR SIZED TO ENCASE ADJACENT PIPES OR FITTINGS.
6. THE SIZE AND WEIGHT OF ALL UPLIFT THRUST BLOCKS SHALL BE AS DETERMINED BY ENGINEER.
7. A FRICTION COEFFICIENT OF 0.20 SHALL BE USED BETWEEN THE BEDDING MATERIAL AND PIPE.
8. THE BEARING AREAS SHOWN IN THE TABLE ARE BASED ON TEST PRESSURE OF 200 PSI AND ALLOWABLE SOIL BEARING STRESS OF 2000 POUNDS PER SQUARE FOOT. TO COMPUTE BEARING AREAS FOR SPECIFIC TEST PRESSURES AND SOIL BEARING STRESSES, USE THE FOLLOWING EQUATION:

BEARING AREA = (TEST PRESSURE / 200) X (2000/SOIL BEARING STRESS) X (TABLE VALUE)

FITTING SIZE	ROD SIZE	EMBEDMENT
12" AND LESS	#6	30"
14" TO 16"	#8	36"

BEARING AREA OF THRUST BLOCK IN SQUARE FEET (HORIZONTAL BENDS)

FITTING SIZE	TEE, WYE, PLUG, CAP, OR VALVE	90° BEND, PLUGGED CROSS	TEE PLUGGED		45° BEND	22 1/2° BEND	11 1/4° BEND
			A1	A2			
4	1.5	2	2	1.5	1.5	1	1
6	3	4.5	4.5	3	2.5	1.5	1
8	5	7	7	5	4	2	1
10	8	12	12	8	7	3	2
12	12	17	17	12	10	5	3
14	17	24	17	24	13	6.6	3.4
16	23	32	23	32	17	8.8	4.4
24	23	32	23	32	17	8.8	4.4

VOLUME OF THRUST BLOCK IN CUBIC YARDS (VERTICAL BENDS)

FITTING SIZE	BEND ANGLE					
	45°		22°		11°	
	V (CY)	A1 (SF)	V (CY)	A1 (SF)	V (CY)	A1 (SF)
4	0.3	1.0	0.3	1.0	0.1	1.0
6	1.1	1.0	0.6	1.0	0.3	1.0
8	2.0	1.7	1.1	1.0	0.5	1.0
10	3.1	2.8	1.7	1.0	0.8	1.0
12	4.4	3.7	2.4	1.0	1.2	1.0
14	6.0	5.1	3.3	1.3	1.7	1.0
16	7.8	6.6	4.3	1.7	2.2	1.0
24	7.8	6.6	4.3	1.7	2.2	1.0

(A) STANDARD THRUST BLOCK

NOT TO SCALE

100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

WD1

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

SHEET TITLE: RECYCLED WATER DETAILS

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. WELLMAN No. 053755 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

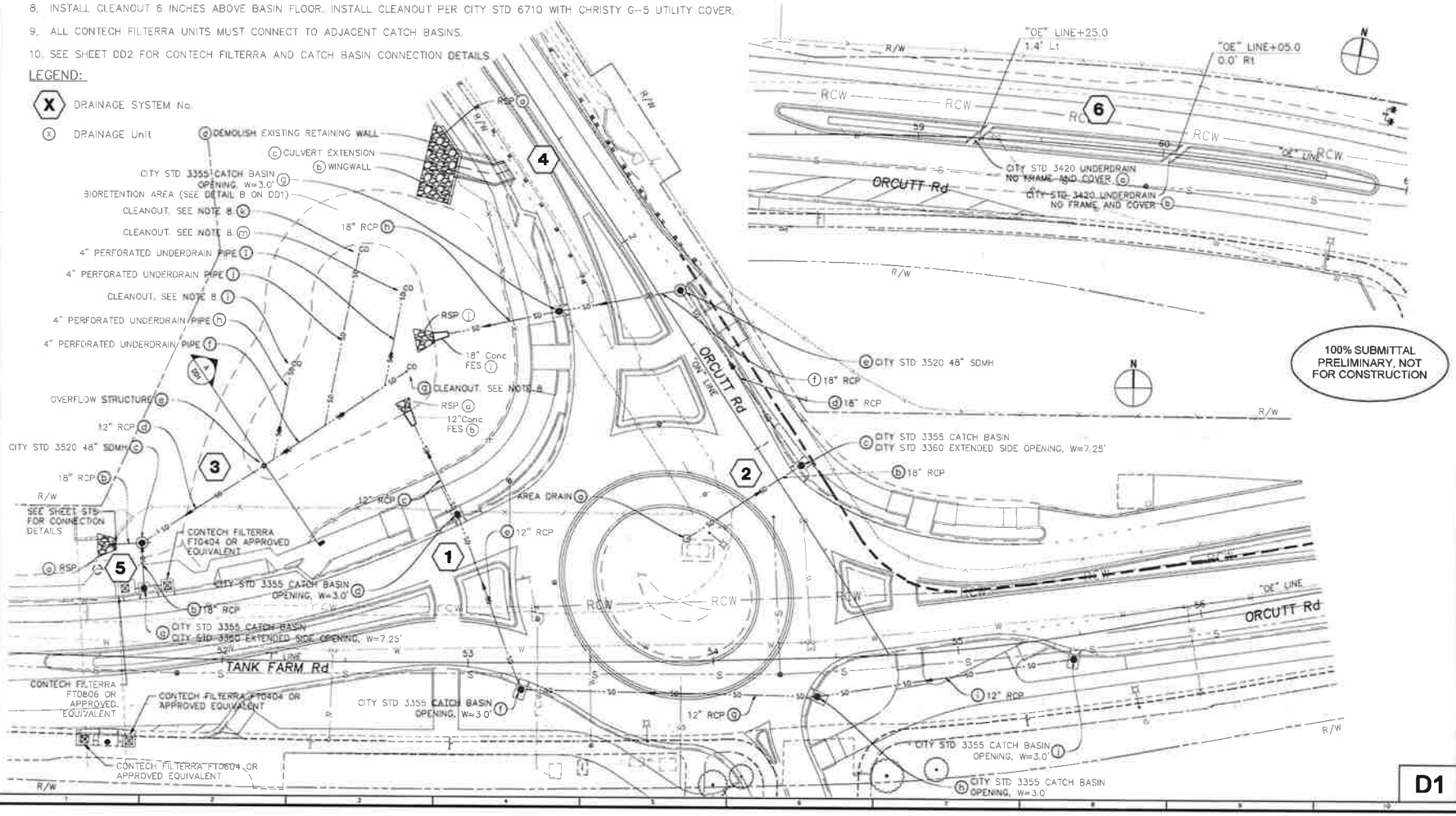
DESIGNED BY:	JAV
DRAWN BY:	JAV
CHECKED BY:	SKP
APPROVED BY:	JWW
SCALE:	H: 1"=40'; V: 1"=4'
DATE:	02/07/2021
CITY SPECIFICATION NO.	1000184
PLAN FILE NO. / LOCATION	2460W001.dwg
SHEET NO.	26 of 67

NOTES:

1. THE LOCATIONS AND SIZES OF BURIED AND OVERHEAD UTILITIES SHOWN ON THESE DRAWINGS ARE BASED ON THE BEST AVAILABLE INFORMATION FROM THE UTILITY OWNERS, AND SHOULD BE CONSIDERED APPROXIMATE. COMPLETE RECORD DRAWINGS OF THE EXISTING SITE UTILITIES ARE UNAVAILABLE AND THEREFORE UNDERGROUND UTILITY LOCATIONS SHOULD BE VERIFIED BY THE CONTRACTOR. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED. CONTRACTOR SHALL NOTIFY CITY OF ANY DEVIATIONS FROM UTILITIES SHOWN ON PLANS WITHIN 24 HOURS
2. THE EXISTING UTILITIES STRUCTURES LOCATIONS AT SURFACE SHOWN ARE BASED ON GROUND SURVEY AND BEST AVAILABLE INFORMATION FROM THE UTILITY OWNERS. EXACT IDENTIFICATION OF THE UTILITY STRUCTURE IS NOT GUARANTEED.
3. CONTRACTOR SHALL REPAIR OR REPLACE-IN-KIND ALL EXISTING UTILITIES, SITE FURNISHINGS, TREE WELLS, CURB AND GUTTER, RAMPS, UTILITY BOXES, LIGHT POLES, SIGNS, AND OTHER ITEMS DAMAGED DURING CONSTRUCTION BY CONTRACTOR.
4. PROTECT IN PLACE EXISTING STRUCTURES AND UTILITIES ADJACENT TO SITE TO REMAIN IN PLACE PRIOR TO START OF DEMOLITION.
5. CONTRACTOR TO COORDINATE DEMOLITION AND SITE IMPROVEMENT WORK WITH CITY, PG&E, AND OTHER UTILITY OWNERS TO MAINTAIN SERVICE CONTINUITY AND MINIMIZE SERVICE INTERRUPTION.
6. STORM DRAIN PIPE 18" AND LARGER SHALL BE CENTRIFUGALLY SPUN REINFORCED CONCRETE PIPE (RCP), ASTM C76, CLASS III, , OR VERTICALLY CAST RCP, ASTM C76, CLASS III. STORM DRAIN PIPE LESS THAN 18" SHALL BE VERTCALLY CAST RCP, RCP ASTM C361, CLASS III. ALL RCP SHALL HAVE BELL AND SPIGOT JOINTS WITH NEOPRENE RUBBER GASKETS.
7. FOR TRENCH DETAILS, REFER TO CITY STANDARD PLANS 6020 (FOR PAVED/UNPAVED STREETS) AND 6030 (FOR UNPAVED SURFACE, NON-TRAFFIC AREA).
8. INSTALL CLEANOUT 6 INCHES ABOVE BASIN FLOOR. INSTALL CLEANOUT PER CITY STD 6710 WITH CHRISTY G-5 UTILITY COVER.
9. ALL CONTECH FILTERRA UNITS MUST CONNECT TO ADJACENT CATCH BASINS.
10. SEE SHEET DD2 FOR CONTECH FILTERRA AND CATCH BASIN CONNECTION DETAILS

LEGEND:

- (X) DRAINAGE SYSTEM No.
- (x) DRAINAGE Unit



100% SUBMITTAL PRELIMINARY, NOT FOR CONSTRUCTION

D1

TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

DRAINAGE PLAN

DESIGNED BY	JAV
DRAWN BY	JAV
CHECKED BY	STS
APPROVED BY	JWW
SCALE	1" = 20'
DATE	02/07/2021
CITY SPECIFICATION NO	1000164
PLAN FILE NO FLOCATION	24600005.dwg
SHEET NO	27 of 67

NOTES:

1. THE LOCATIONS AND SIZES OF BURIED AND OVERHEAD UTILITIES SHOWN ON THESE DRAWINGS ARE BASED ON THE BEST AVAILABLE INFORMATION FROM THE UTILITY OWNERS, AND SHOULD BE CONSIDERED APPROXIMATE. COMPLETE RECORD DRAWINGS OF THE EXISTING SITE UTILITIES ARE UNAVAILABLE AND THEREFORE UNDERGROUND UTILITY LOCATIONS SHOULD BE VERIFIED BY THE CONTRACTOR. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED. CONTRACTOR SHALL NOTIFY CITY OF ANY DEVIATIONS FROM UTILITIES SHOWN ON PLANS WITHIN 24 HOURS
2. DEPTHS OF SEWER, WATER AND RECYCLED WATER UTILITIES SHOWN ON THE PROFILE ARE BASED ON AVAILABLE AS-BUILT INFORMATION. DEPTHS OF OTHER EXISITNG UTILITIES ARE ASSUMED BASED ON SLO CITY MINIMUM COVER REQUIREMENTS.
3. DIMENSIONS OF EXISTING UTILTIES ARE DISPLAYED ON THE PROFILE WHERE KNOWN. UTILITIES OF UNKNOWN DIMENSION ARE DISPLAYED FOR REFERENCE ONLY.
4. THE EXISTING UTILITIES STRUCTURES LOCATIONS AT SURFACE SHOWN ARE BASED ON GROUND SURVEY AND BEST AVAILABLE INFORMATION FROM THE UTILITY OWNERS. EXACT IDENTIFICATION OF THE UTILITY STRUCTURE IS NOT GUARANTEED.
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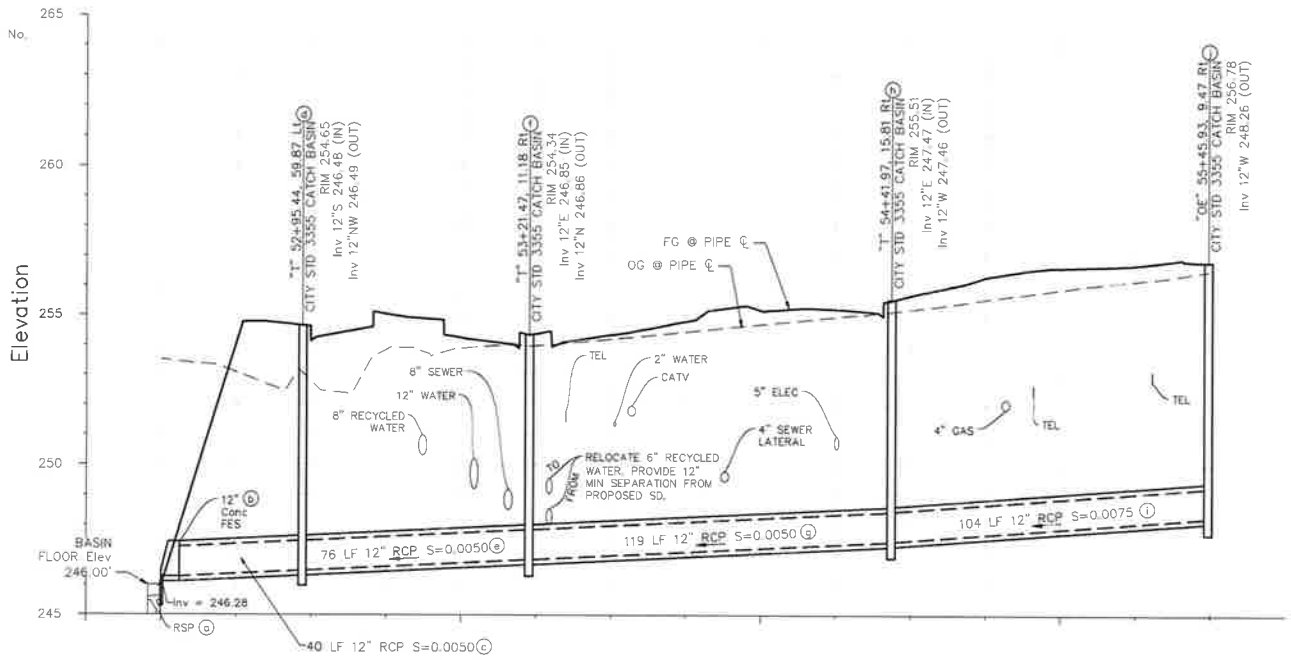
9. MINIMUM PIPE CLEARANCES SHALL CONFORM WITH CITY STANDARDS 6010, 6110, AND 6140.

LEGEND:

(X) DRAINAGE SYSTEM No.

(X) DRAINAGE Unit



DRAINAGE SYSTEM No. 1

100% SUBMITTAL PRELIMINARY, NOT FOR CONSTRUCTION

DP1

CITY OF SAN LUIS OBISPO

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

SHEET TITLE: DRAINAGE PROFILES

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. WETLAND No. C53755 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

DESIGNED BY	JAV
DRAWN BY	JAV
CHECKED BY	STS
APPROVED BY	JWW
SCALE	H: 1" = 20', V: 1" = 2'
DATE	02/05/2021
CITY SPECIFICATION NO	1000164
PLAN FILE NO / LOCATION	24600005.dwg
SHEET NO	28 of 67

NOTES:

1. THE LOCATIONS AND SIZES OF BURIED AND OVERHEAD UTILITIES SHOWN ON THESE DRAWINGS ARE BASED ON THE BEST AVAILABLE INFORMATION FROM THE UTILITY OWNERS, AND SHOULD BE CONSIDERED APPROXIMATE. COMPLETE RECORD DRAWINGS OF THE EXISTING SITE UTILITIES ARE UNAVAILABLE AND THEREFORE UNDERGROUND UTILITY LOCATIONS SHOULD BE VERIFIED BY THE CONTRACTOR. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED. CONTRACTOR SHALL NOTIFY CITY OF ANY DEVIATIONS FROM UTILITIES SHOWN ON PLANS WITHIN 24 HOURS
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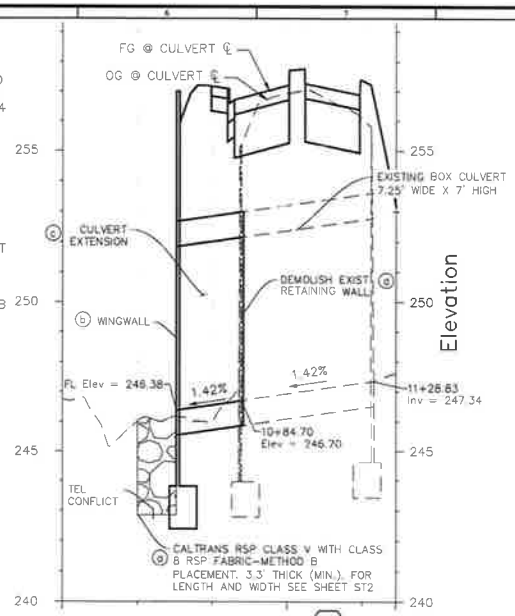
9. MINIMUM PIPE CLEARANCES SHALL CONFORM WITH CITY STANDARDS 6010, 6110, AND 6140.

LEGEND:

(X) DRAINAGE SYSTEM No.

(X) DRAINAGE Unit

100% SUBMITTAL PRELIMINARY, NOT FOR CONSTRUCTION



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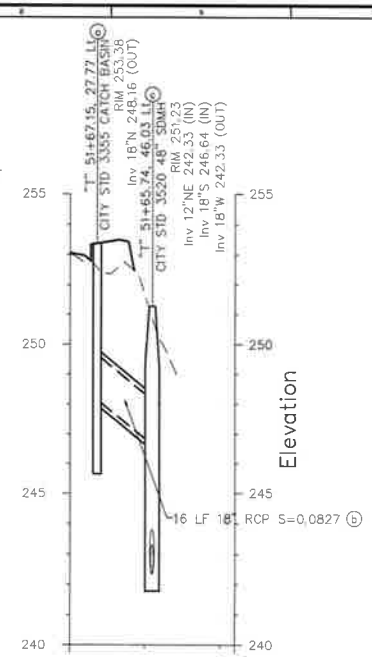

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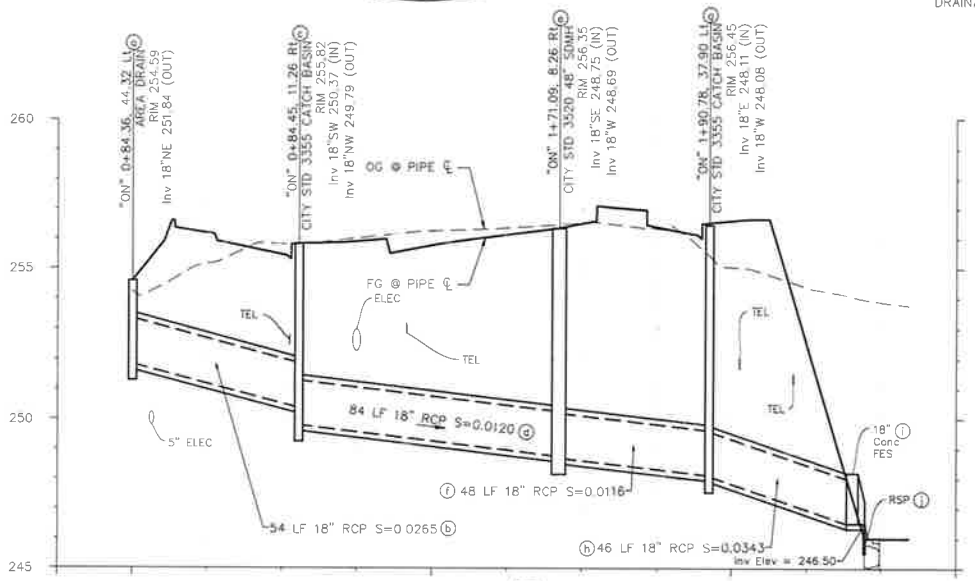
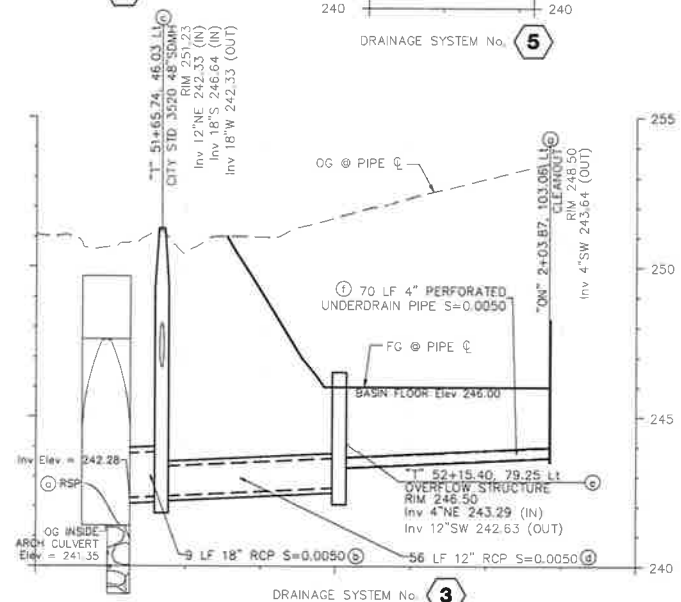


DRAINAGE SYSTEM No. 2



DRAINAGE SYSTEM No. 3

DP2

TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

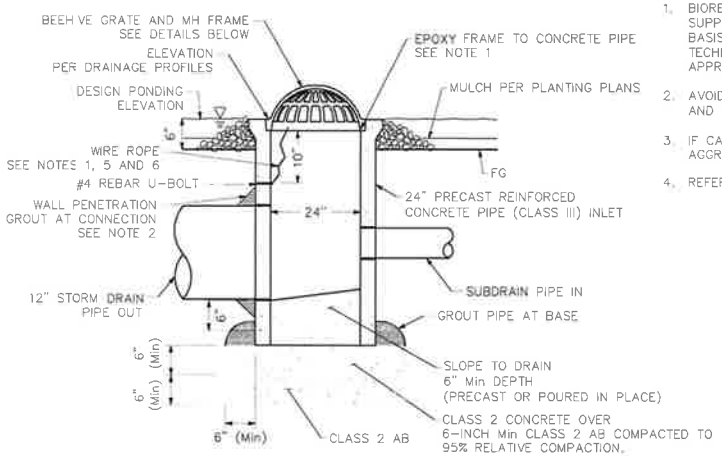
DRAINAGE PROFILES

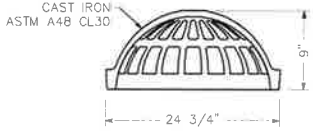
REGISTERED PROFESSIONAL ENGINEER JOSEPH W. WETLAND No. C57795 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

DESIGNED BY	JAV
DRAWN BY	JAV
CHECKED BY	STS
APPROVED BY	JWW
SCALE	H: 1" = 20; V: 1" = 2
DATE	02/05/2021
CITY SPECIFICATION NO	1000164
PLAN FILE NO / LOCATION	2460D005.dwg
SHEET NO	29 of 67

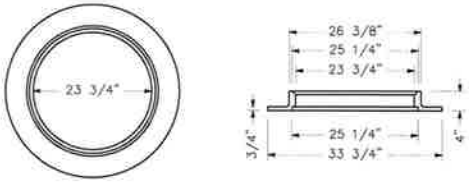
NOTES:

1. BIORETENTION SOIL MEDIA SHALL ACHIEVE A LONG-TERM, IN-PLACE INFILTRATION RATE OF 5 INCHES/HOUR AND HAVE SUFFICIENT MOISTURE RETENTION TO SUPPORT VIGOROUS VEGETATION GROWTH. THE MEDIA SHALL CONSIST OF THE FOLLOWING MIXTURE OF FINE SAND AND COMPOST, MEASURED ON A VOLUME BASIS: 60%-70% SAND AND 30%-40% COMPOST. MEDIA SHALL MEET THE SPECIFICATIONS OF THE BAY AREA STORMWATER MANAGEMENT AGENCIES (BASMA) TECHNICAL MEMORANDUM, REGIONAL BIORETENTION SOIL GUIDANCE & MODEL SPECIFICATION BAY AREA STORMWATER MANAGEMENT AGENCIES ASSOCIATION, AS APPROVED BY THE CENTRAL COAST REGIONAL WATER QUALITY CONTROL BOARD AND CENTRAL COAST LID INSTITUTE.
2. AVOID COMPACTION OF EXISTING SUBGRADE BELOW BASIN. SCARIFY SUBGRADE TO A Min 3" DEPTH IMMEDIATELY PRIOR TO PLACEMENT OF AGGREGATE STORAGE AND BIORETENTION SOIL MATERIALS.
3. IF CALTRANS CLASS 2 PERMEABLE IS NOT AVAILABLE, SUBSTITUTE CLASS 3 PERMEABLE WITH AN OVERLYING 3" DEEP LAYER OF ¾" (NO. 4) OPEN-GRADED AGGREGATE.
4. REFER TO SAN LUIS OBISPO COUNTY LOW IMPACT DEVELOPMENT STORMWATER MANAGEMENT TYPICAL DETAILS FOR ADDITIONAL NOTES.





BEEHIVE GRATE



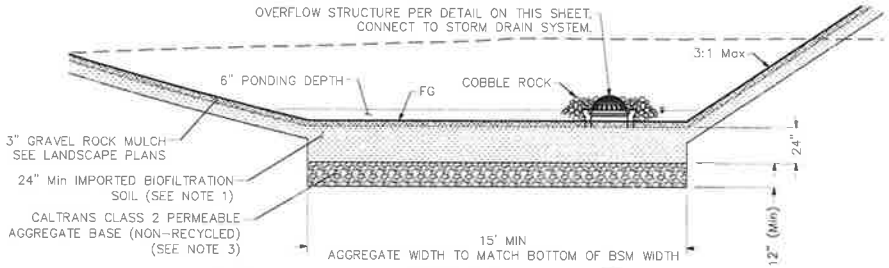
MH FRAME

NOTES:

1. WIRE ROPE AND EPOXY INCLUDED IN PAYMENT FOR 24" PRECAST CONCRETE PIPE INLET.
2. INCLUDED IN PAYMENT OF OUTFALL PIPE.
3. COVER LOCKING MECHANISM SHALL BE TAMPER RESISTANT AND FLUSH OR RECESSED IN LID.
4. IRRIGATION SLEEVE QUANTITY INCLUDES NON-SHRINK GROUT.
5. SECURE BEEHIVE GRATE IN PLACE WITH 54" OF WIRE ROPE. LOOP ENDS OF WIRE ROPE AROUND #4 REBAR U-BOLT AND BEEHIVE GRATE. CRIMP EACH END OF WIRE ROPE WITH 3" OVERLAP.
6. DRILL 2" DEEP HOLES INTO 24" PRECAST CONCRETE PIPE AND EPOXY #4 REBAR U-BOLT (2" x 4") IN HOLES.

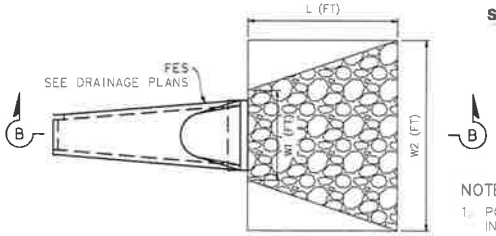
OVERFLOW STRUCTURE (A) (3)(e)

NTS



SECTION A-A (B)

SCALE H:1"=2'; V:1"=1"



PLAN

NOTES:

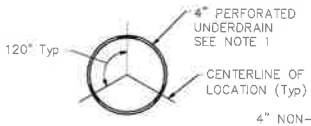
1. PCC CUTOFF WALL IS INCLUDED IN PAYMENT OF FES.

SECTION B-B

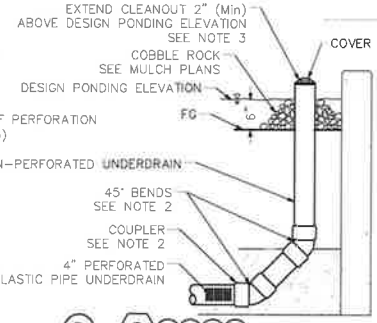
NTS

DRAINAGE SYSTEM	DRAINAGE UNIT	PIPE DIAMETER D (IN)	CALTRANS RIP-RAP CLASS	RIP-RAP D_{50} (IN)	H (IN)	L (FT)	W_1 (FT)	W_2 (FT)
1	a	12	FACING	10	27.5	5.0	3.0	6.3
2	j	18	FACING	10	27.5	7.5	4.5	9.5
3	a	18	FACING	10	27.5	7.5	4.5	9.5

ROCK SLOPE PROTECTION (C)



UNDERDRAIN



CLEANOUT (D) (3)(g)(i)(k)(m)

NTS

NOTES:

1. LONGITUDINAL SLOPE OF UNDERDRAIN PIPE SHALL BE 0.5% MINIMUM.
2. 4" NON-PERFORATED PLASTIC PIPE UNDERDRAIN PIPE SHALL BE SLOTTED HDPE SDR 17 OR SLOTTED PVC SDR 35 PERFORATED PIPE. SINGLE AND DUAL WALL CORRUGATED HDPE PIPE ARE NOT ACCEPTABLE SUBSTITUTES. QUANTITY INCLUDES BENDS, COUPLERS AND COVERS.
3. COVER LOCKING MECHANISM SHALL BE TAMPER RESISTANT AND FLUSH OR RECESSED IN LID.
4. INSTALL UNDERDRAIN WITH HOLES FACING DOWN. UNDERDRAIN DISCHARGE ELEVATION SHALL BE WITHIN 2" OF THE BOTTOM OF THE BIORETENTION PERMEABLE AGGREGATE BASE LAYER.
5. PERFORATIONS SHALL BE SLOTTED TYPE, MEASURING 0.032 INCH WIDE (Max), SPACED AT 0.25 INCHES (Min), AND PROVIDE A Min INLET AREA OF 5 IN^2/LF OF PIPE. SLOTS SHALL BE ORIENTED PERPENDICULAR TO LONG AXIS OF PIPE.
6. ALL FITTINGS SHALL BE SOIL TIGHT.

100% SUBMITTAL PRELIMINARY, NOT FOR CONSTRUCTION

DD1

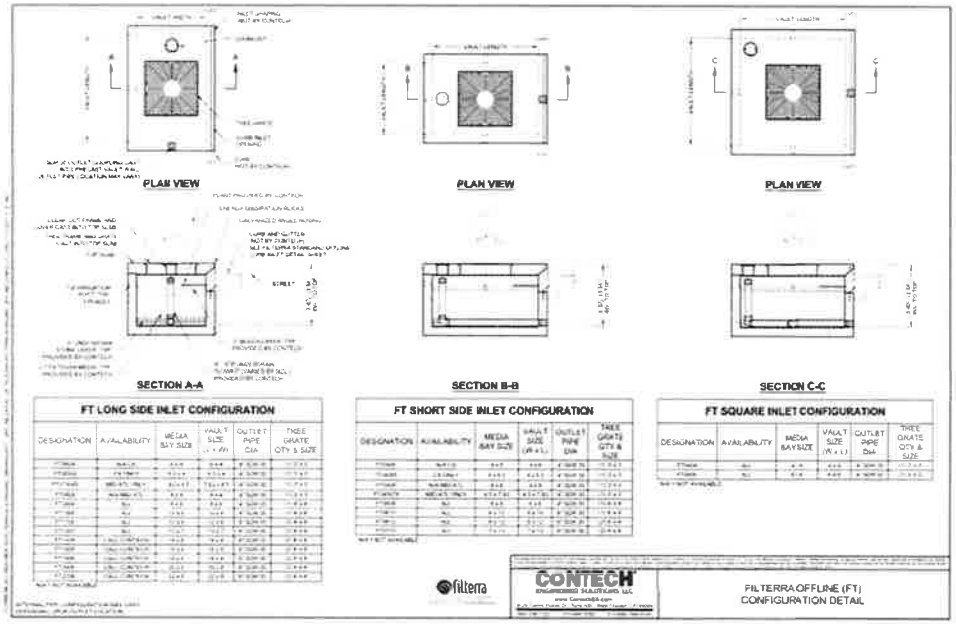
CITY OF SAN LUIS OBISPO

TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

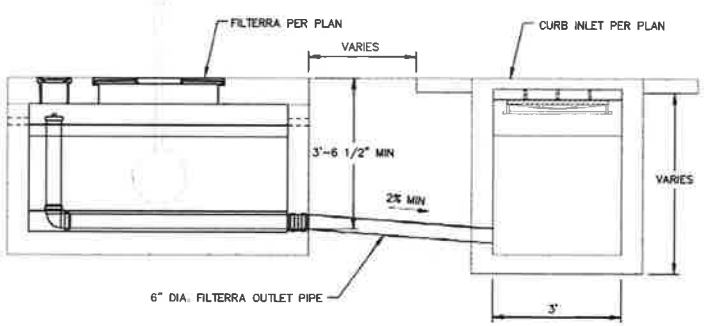
DRAINAGE DETAILS

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. WETLAND No. C53795 Exp. 09/30/21 CIVIL STATE OF CALIFORNIA

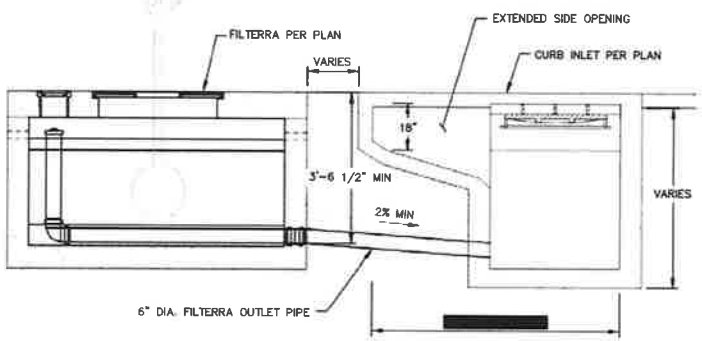
DESIGNED BY	JAV
DRAWN BY	JAV
CHECKED BY	STS
APPROVED BY	JWW
SCALE	AS NOTED
DATE	02/04/2021
CITY SPECIFICATION NO	1000164
PLAN FILE NO / LOCATION	24600005.dwg
SHEET NO	30 of 67



100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION



STANDARD CURB INLET



EXTENDED CURB INLET

NOTE: CONTRACTOR TO REFER TO APPROVED DRAINAGE PLANS FOR EXACT CONNECTION CHARACTERISTICS, INLET TYPE, AND FILTERRA SIZE.

FILTERRA TO CATCH BASIN CONNECTION (E)

NTS

DD2

TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

DRAINAGE DETAILS

REGISTERED PROFESSIONAL ENGINEER JOSEPH B. MCFLAND No. C53755 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

DESIGNED BY	JAV
DRAWN BY	JM
CHECKED BY	STS
APPROVED BY	JWW
SCALE	AS NOTED
DATE	02/04/2021
CITY SPECIFICATION NO	1000164
PLAN FILE NO / LOCATION	24600005.dwg
SHEET NO	31 of 67

KEYED NOTES:

1. TEMPORARY DRAINAGE INLET PROTECTION PER DETAIL 1, SHEET EC3.
2. TEMPORARY FIBER ROLL PER DETAIL 2, SHEET EC2.
3. TEMPORARY SILT FENCE PER DETAIL 4, SHEET EC2.
4. TEMPORARY CONCRETE WASHOUT PER DETAIL 1, SHEET EC2.
5. SOIL STABILIZATION – DRY SEED, HYDROMULCH – SEE SEQUENCE NOTES
6. SOIL STABILIZATION – HYDROSEED, HYDROMULCH – SEE SEQUENCE NOTES. BEGIN HYDROSEED AT SLOPE HINGE, MIN. 3 FT. FROM FROM EDGE OF PAVEMENT.
7. SOIL STABILIZATION – COMPOST, HYDROSEED, ROLLED EROSION CONTROL PRODUCT (DETAIL 2, SHEET EC3) – SEE SEQUENCE NOTES
8. STABILIZED CONSTRUCTION ENTRANCE/EXIT PER DETAIL 3, SHEET EC2.

EROSION CONTROL SEQUENCE KEYNOTE 5:

1. BACKFILL EXCAVATION WITH BIORETENTION SOIL MEDIA, SEE DRAINAGE SHEET D1. HARROW FG TO A DEPTH OF 2" TO CREATE LOOSE, FRIABLE SURFACE
2. DRY SEED WITH SEED MIX IN TABLE 2.
3. HARROW ENTIRE SEEDED AREA TO A DEPTH OF 1"–2" TO ENSURE SEED TO SOIL CONTACT
4. HYDROMULCH SEEDED AREA WITH WOOD FIBER MULCH (2,000 LBS/AC), GREEN DYED CELLULOSE FIBER (500 LB/AC), ORGANIC TACKIFIER (125 LB/AC), AND CLEAN WATER NEEDED FOR HYDRAULIC APPLICATION.

TABLE 1. EROSION CONTROL SEED MIX (KEYNOTE 6 AND 7)

BIOLOGICAL NAME	COMMON NAME	APPLICATION RATE (LBS/AC)
ESCHSCHOLZIA CALIFORNICA	CALIFORNIA POPPY	5.00
LUPINUS NANUS	SKY LUPINE	5.00
TRIFOLIUM HIRTUM "HYKON'	ROSE CLOVER	30.00
MYCORRHIZAL INOCULUM	PER CITY STANDARD	5.00
BROMUS CARINATUS	CALIFORNIA BROME	22.00
FESTUCA MICROSTACHYS	SMALL FESCUE	10.00
TOTAL		77.00

EROSION CONTROL SEQUENCE KEYNOTE 6:

1. ROUGHEN SURFACE: HARROW FG TO A DEPTH OF 2" TO CREATE LOOSE, FRIABLE SURFACE
2. HYDROSEED WITH SEED MIX IN TABLE 1, 12.5 LBS/1000SF FERTILIZER, 500 LB/AC GREEN DYED WOOD OR CELLULOSE FIBER, AND CLEAN WATER NEEDED FOR HYDRAULIC APPLICATION.
3. HYDROMULCH SEEDED AREA WITH WOOD FIBER MULCH (2,000 LBS/AC), GREEN DYED CELLULOSE FIBER (500 LB/AC), ORGANIC TACKIFIER (125 LB/AC), AND CLEAN WATER NEEDED FOR HYDRAULIC APPLICATION.

EROSION CONTROL SEQUENCE KEYNOTE 7:

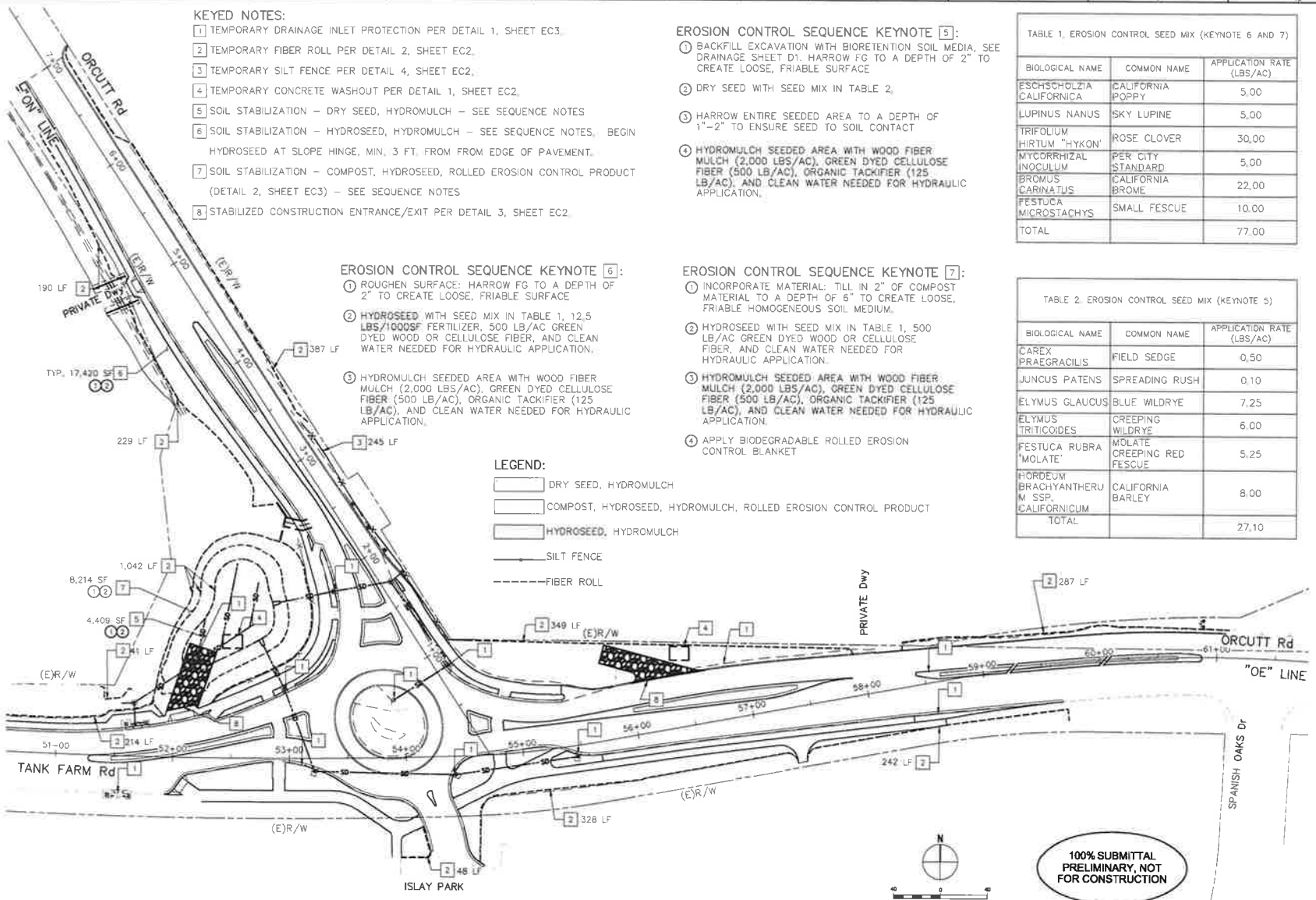
1. INCORPORATE MATERIAL: TILL IN 2" OF COMPOST MATERIAL TO A DEPTH OF 6" TO CREATE LOOSE, FRIABLE HOMOGENEOUS SOIL MEDIUM.
2. HYDROSEED WITH SEED MIX IN TABLE 1, 500 LB/AC GREEN DYED WOOD OR CELLULOSE FIBER, AND CLEAN WATER NEEDED FOR HYDRAULIC APPLICATION.
3. HYDROMULCH SEEDED AREA WITH WOOD FIBER MULCH (2,000 LBS/AC), GREEN DYED CELLULOSE FIBER (500 LB/AC), ORGANIC TACKIFIER (125 LB/AC), AND CLEAN WATER NEEDED FOR HYDRAULIC APPLICATION.
4. APPLY BIODEGRADABLE ROLLED EROSION CONTROL BLANKET

TABLE 2. EROSION CONTROL SEED MIX (KEYNOTE 5)

BIOLOGICAL NAME	COMMON NAME	APPLICATION RATE (LBS/AC)
CAREX PRAEGRACILIS	FIELD SEDGE	0.50
JUNCUS PATENS	SPREADING RUSH	0.10
ELYMUS GLAUCUS	BLUE WILDRYE	7.25
ELYMUS TRITICOIDES	CREEPING WILDRYE	6.00
FESTUCA RUBRA 'MOLATE'	MOLATE CREEPING RED FESCUE	5.25
HORDEUM BRACHYANTHERUM SSP. CALIFORNICUM	CALIFORNIA BARLEY	8.00
TOTAL		27.10

LEGEND:

- DRY SEED, HYDROMULCH
- COMPOST, HYDROSEED, HYDROMULCH, ROLLED EROSION CONTROL PRODUCT
- HYDROSEED, HYDROMULCH
- SILT FENCE
- FIBER ROLL



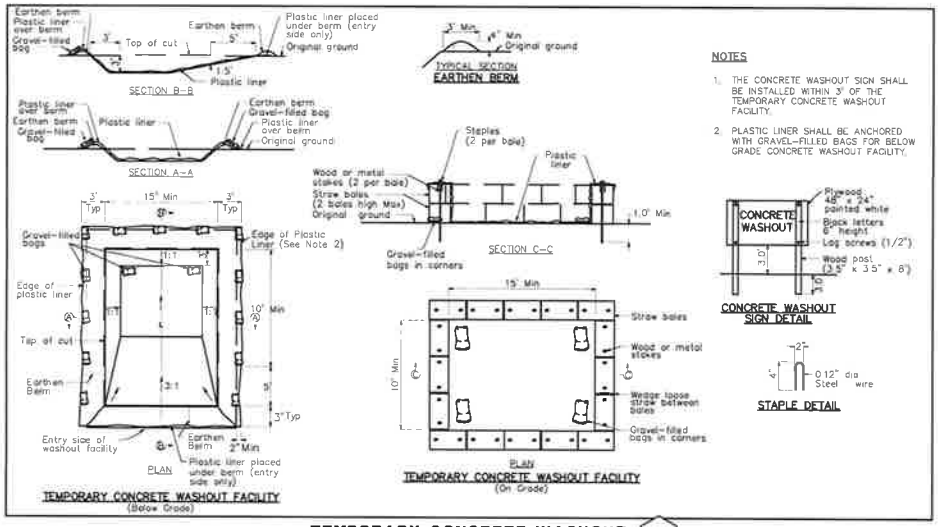
EC1

TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

EROSION CONTROL

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. WELLAND No. C53755 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

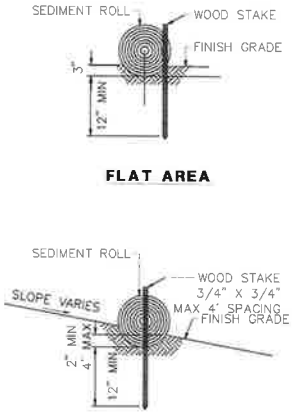
DESIGNED BY:	GH
DRAWN BY:	GH
CHECKED BY:	LP
APPROVED BY:	JWW
SCALE:	1" = 40'
DATE:	02/03/2021
CITY SPECIFICATION NO.	1000164
PLAN FILE NO./LOCATION	2460EC001.dwg
SHEET NO.	32 of 67



NOTES

1. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 3' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
2. PLASTIC LINER SHALL BE ANCHORED WITH GRAVEL-FILLED BAGS FOR BELOW GRADE CONCRETE WASHOUT FACILITY.

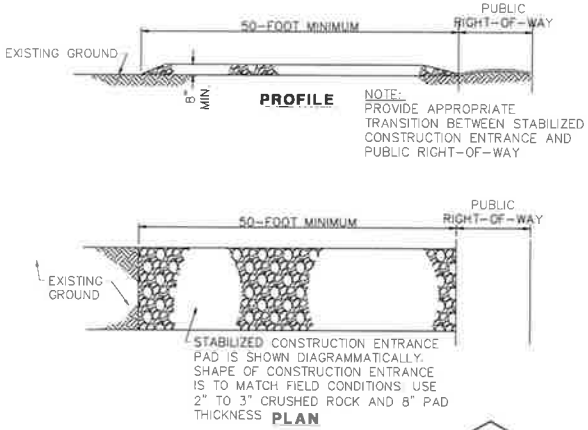
TEMPORARY CONCRETE WASHOUT (1)
NTS



NOTES:

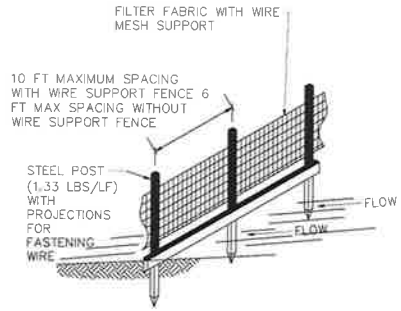
1. STRAW FIBER ROLLS WRAPPED IN TUBULAR, BIODEGRADABLE NETTING SUPPLIED IN 20'-25' ROLLS.
2. FIBER ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE FIBER ROLL IN A TRENCH, 2" TO 4" DEEP, DUG ON A CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND FIBER ROLL.

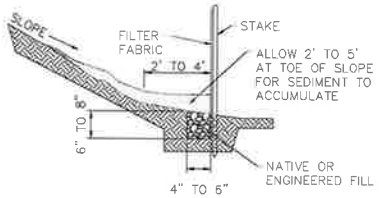
FIBER ROLL ENTRENCHMENT IN SLOPED AREA (2)
NOT TO SCALE



NOTE:
PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION ENTRANCE AND PUBLIC RIGHT-OF-WAY

STABILIZED ACCESS ROAD ENTRANCE (3)
NOT TO SCALE





SILT FENCE PROFILE

NOTE:

KEY IN FILTER FABRIC A MINIMUM OF 6" BELOW THE GROUND SURFACE AND 6" ACROSS, THEN BACKFILL WITH DIRT OR GRAVEL.

SILT FENCE INSTALLATION (4)
NOT TO SCALE

100% SUBMITTAL
PRELIMINARY, NOT FOR CONSTRUCTION

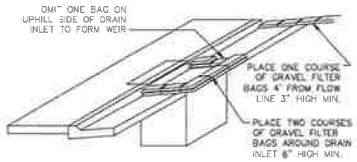
EC2

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

SHEET TITLE: EROSION CONTROL DETAILS

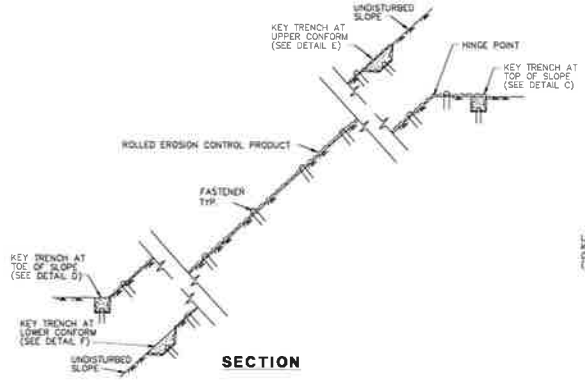
REGISTERED PROFESSIONAL ENGINEER JOSEPH W. WETLAND No. C53750 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

DESIGNED BY:	GH
DRAWN BY:	GH
CHECKED BY:	LP
APPROVED BY:	JWW
SCALE:	NO SCALE
DATE:	02/03/2021
CITY SPECIFICATION NO.	1000164
PLAN FILE NO./LOCATION	2460EC001.dwg
SHEET NO.	33 of 67

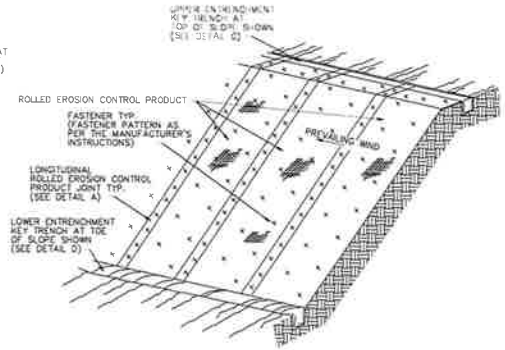


TEMPORARY DRAINAGE INLET PROTECTION (1)

NTS



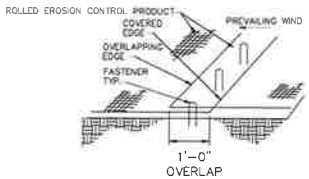
SECTION



ISOMETRIC

ROLLED EROSION CONTROL PRODUCT ON SLOPE WITH VARIOUS KEY ENTRENCHMENTS (2)

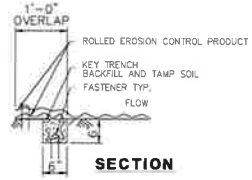
NOT TO SCALE



PERSPECTIVE

LONGITUDINAL ROLLED EROSION CONTROL PRODUCT JOINT (A)

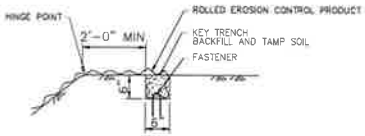
NOT TO SCALE



SECTION

TRANSVERSE ROLLED EROSION CONTROL PRODUCT JOINT (B)

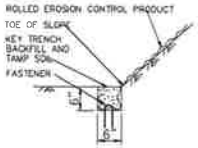
NOT TO SCALE



SECTION

KEY TRENCH AT TOP OF SLOPE (C)

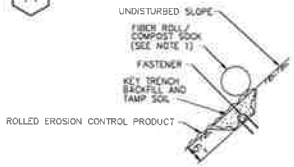
NOT TO SCALE



SECTION

KEY TRENCH AT TOE OF SLOPE (D)

NOT TO SCALE



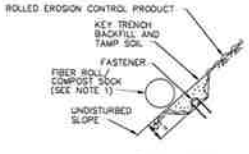
SECTION

NOTES:

1. FIBER ROLL/COMPOST SOCK SHOWN FOR REFERENCE PURPOSES ONLY.
2. IF TRANSVERSE ROLLED EROSION CONTROL PRODUCT JOINTS ARE REQUIRED ON SLOPES, SEE DETAIL B.

KEY TRENCH UPPER CONFORM (E)

NOT TO SCALE



SECTION

NOTES:

1. FIBER ROLL/COMPOST SOCK SHOWN FOR REFERENCE PURPOSES ONLY.
2. IF TRANSVERSE ROLLED EROSION CONTROL PRODUCT JOINTS ARE REQUIRED ON SLOPES, SEE DETAIL B.

KEY TRENCH AT LOWER CONFORM (F)

NOT TO SCALE

100% SUBMITTAL PRELIMINARY, NOT FOR CONSTRUCTION

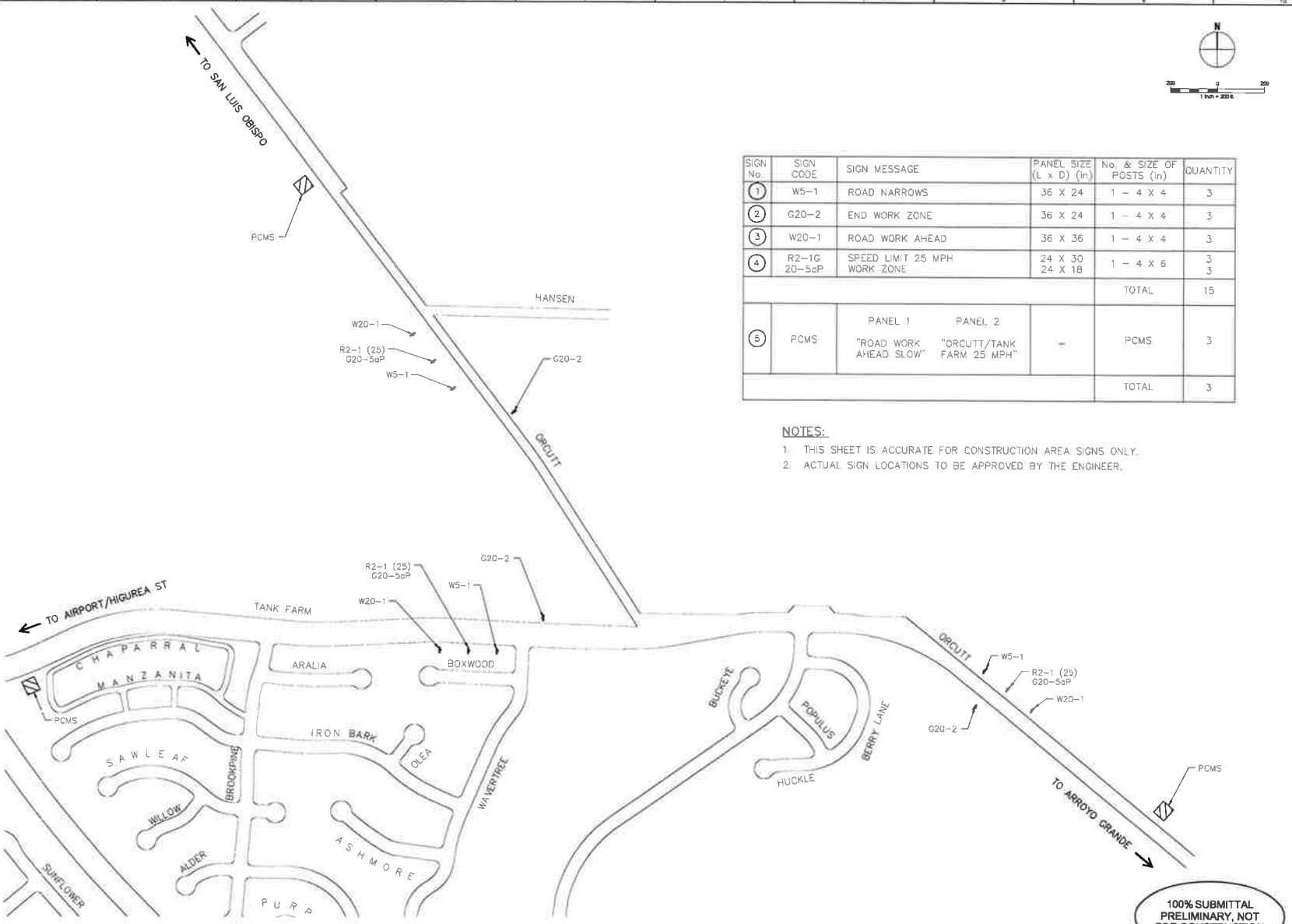
EC3

PROJECT TITLE: **TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT**

SHEET TITLE: **EROSION CONTROL DETAILS**

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. WETLAND No. C53755 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

DESIGNED BY:	HD
DRAWN BY:	HD
CHECKED BY:	LP
APPROVED BY:	JWW
SCALE:	NO SCALE
DATE:	02/03/2021
CITY SPECIFICATION NO:	1000164
PLAN FILE NO./LOCATION:	2460EC001.dwg
SHEET NO:	34 of 67



SIGN No.	SIGN CODE	SIGN MESSAGE	PANEL SIZE (L x D) (in)	No. & SIZE OF POSTS (in)	QUANTITY
1	W5-1	ROAD NARROWS	36 X 24	1 - 4 X 4	3
2	G20-2	END WORK ZONE	36 X 24	1 - 4 X 4	3
3	W20-1	ROAD WORK AHEAD	36 X 36	1 - 4 X 4	3
4	R2-1G 20-5aP	SPEED LIMIT 25 MPH WORK ZONE	24 X 30 24 X 18	1 - 4 X 6	3 3
				TOTAL	15
5	PCMS	PANEL 1 "ROAD WORK AHEAD SLOW" PANEL 2 "ORCUTT/TANK FARM 25 MPH"	-	PCMS	3
				TOTAL	3

NOTES:

1. THIS SHEET IS ACCURATE FOR CONSTRUCTION AREA SIGNS ONLY.
2. ACTUAL SIGN LOCATIONS TO BE APPROVED BY THE ENGINEER.

100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

CS1

CITY OF SAN LUIS OBISPO

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

SHEET TITLE: CONSTRUCTION AREA SIGN PLAN

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. WETLAND No. C53756 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

DESIGNED BY: ECS
DRAWN BY: ECS
CHECKED BY: DK
APPROVED BY: JWW
SCALE: 1" = 200'
DATE: 02/03/2021
CITY APPROPRIATION NO: 1000184
PLAN FILE NO./LOCATION: 2460C5001.dwg
SHEET NO.: 35 of 67

NOTES:

1. CONTRACTOR TO MAINTAIN DRIVEWAY AND PEDESTRIAN ACCESS DURING CONSTRUCTION.
2. REMOVE ALL CONFLICTING SIGNING AND STRIPING PRIOR TO TEMPORARY DELINEATION.
3. ALL TEMPORARY RAILING (TYPE K) SHALL BE STAKED PER CALTRANS STANDARD T3B.
4. WORK HOURS SHALL BE 7AM TO 7PM MONDAY THROUGH FRIDAY AND 8AM TO 6PM SATURDAY PER CITY OF SAN LUIS OBISPO NOISE ORDINANCE. NIGHTWORK ALLOWED FROM 8PM TO 5AM MONDAY THROUGH SATURDAY UPON APPROVAL OF THE ENGINEER

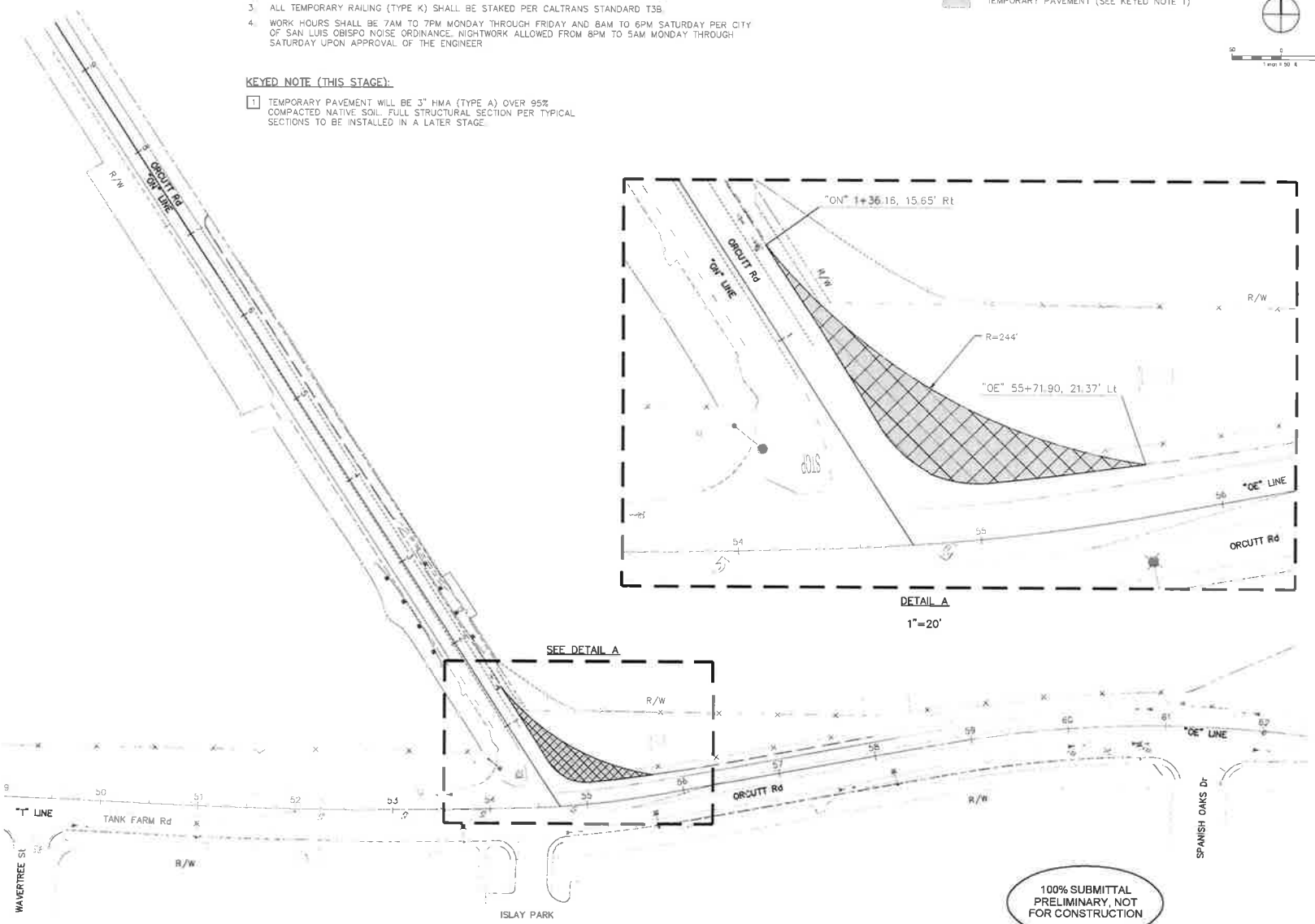
KEYED NOTE (THIS STAGE):

1 TEMPORARY PAVEMENT WILL BE 3" HMA (TYPE A) OVER 95% COMPACTED NATIVE SOIL. FULL STRUCTURAL SECTION PER TYPICAL SECTIONS TO BE INSTALLED IN A LATER STAGE.

LEGEND:

CONSTRUCT THIS STAGE

TEMPORARY PAVEMENT (SEE KEYED NOTE 1)



100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

SC1

TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

STAGE CONSTRUCTION (STAGE 1)

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. WETLAND No. C53755 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

DESIGNED BY	JAV
DRAWN BY	JAV
CHECKED BY	JWW
APPROVED BY	JWW
SCALE	1" = 50'
DATE	02/03/2021
CITY SPECIFICATION NO	1000164
PLAN FILE NO (LOCATION)	2460SC004.dwg
SHEET NO	36 of 67

NOTES:

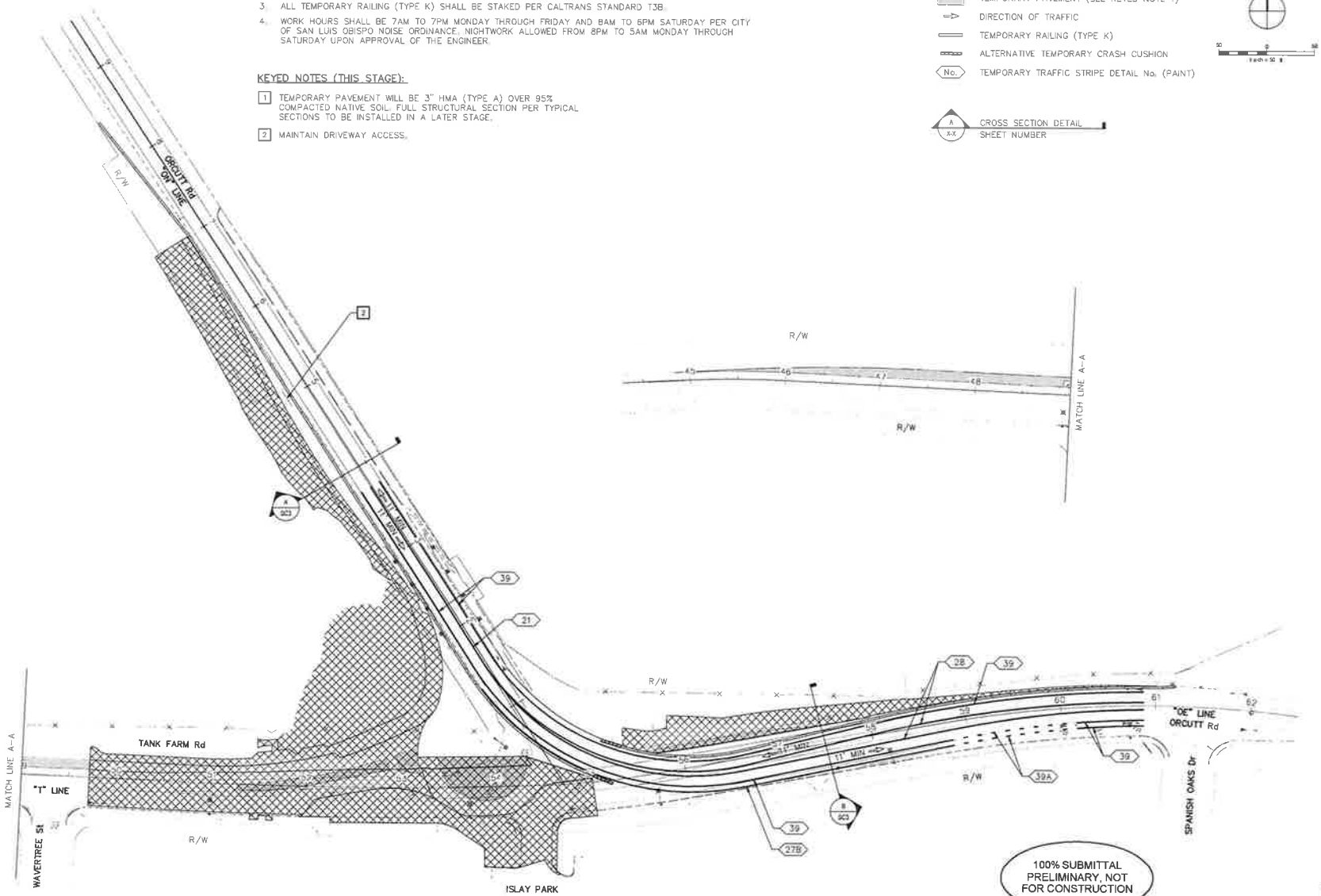
1. CONTRACTOR TO MAINTAIN DRIVEWAY AND PEDESTRIAN ACCESS DURING CONSTRUCTION.
2. REMOVE ALL CONFLICTING SIGNING AND STRIPING PRIOR TO TEMPORARY DELINEATION.
3. ALL TEMPORARY RAILING (TYPE K) SHALL BE STAKED PER CALTRANS STANDARD T3B.
4. WORK HOURS SHALL BE 7AM TO 7PM MONDAY THROUGH FRIDAY AND 8AM TO 6PM SATURDAY PER CITY OF SAN LUIS OBISPO NOISE ORDINANCE. NIGHTWORK ALLOWED FROM 8PM TO 5AM MONDAY THROUGH SATURDAY UPON APPROVAL OF THE ENGINEER.

KEYED NOTES (THIS STAGE):

1. TEMPORARY PAVEMENT WILL BE 3" HMA (TYPE A) OVER 95% COMPACTED NATIVE SOIL. FULL STRUCTURAL SECTION PER TYPICAL SECTIONS TO BE INSTALLED IN A LATER STAGE.
2. MAINTAIN DRIVEWAY ACCESS.

LEGEND:

- CONSTRUCT THIS STAGE
- TEMPORARY PAVEMENT (SEE KEYED NOTE 1)
- DIRECTION OF TRAFFIC
- TEMPORARY RAILING (TYPE K)
- ALTERNATIVE TEMPORARY CRASH CUSHION
- No. TEMPORARY TRAFFIC STRIPE DETAIL No. (PAINT)
- A / X-X CROSS SECTION DETAIL / SHEET NUMBER



100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

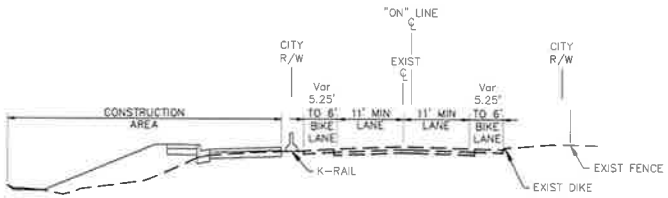
SC2

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

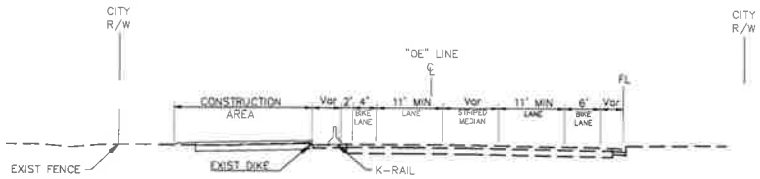
SHEET TITLE: STAGE CONSTRUCTION (STAGE 2)

REGISTERED PROFESSIONAL ENGINEER JOHN W. WETLAND No. C53755 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

DESIGNED BY	JAV
DRAWN BY	JAV
CHECKED BY	JWW
APPROVED BY	JWW
SCALE	1" = 50'
DATE	02/03/2021
CITY SPECIFICATION NO	1000164
PLAN FILE NO / LOCATION	24600C004.dwg
SHEET NO	37 of 67



SECTION A
"ON" STA 4+00
NTS



SECTION B
"OE" STA 57+50
NTS

100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

SC3

PROJECT TITLE
TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

SHEET TITLE
STAGE 2 CROSS SECTIONS

REGISTERED PROFESSIONAL ENGINEER
JOSEPH W. WEITKAMP
No. C53755
Exp. 06/30/21
CIVIL
STATE OF CALIFORNIA

DESIGNED BY	JAV
DRAWN BY	JAV
CHECKED BY	JWW
APPROVED BY	JWW
SCALE	1" = 50'
DATE	02/03/2021
CITY SPECIFICATION NO.	1000164
PLAN FILE NO / LOCATION	24605C004.dwg
SHEET NO.	38 of 67

NOTES:

1. CONTRACTOR TO MAINTAIN DRIVEWAY AND PEDESTRIAN ACCESS DURING CONSTRUCTION.
2. REMOVE ALL CONFLICTING SIGNING AND STRIPING PRIOR TO TEMPORARY DELINEATION.
3. ALL TEMPORARY RAILING (TYPE K) SHALL BE STAKED PER CALTRANS STANDARD T3B.
4. WORK HOURS SHALL BE 7AM TO 7PM MONDAY THROUGH FRIDAY AND 8AM TO 6PM SATURDAY PER CITY OF SAN LUIS OBISPO NOISE ORDINANCE. NIGHTWORK ALLOWED FROM 8PM TO 5AM MONDAY THROUGH SATURDAY UPON APPROVAL OF THE ENGINEER.

KEYED NOTES (THIS STAGE):

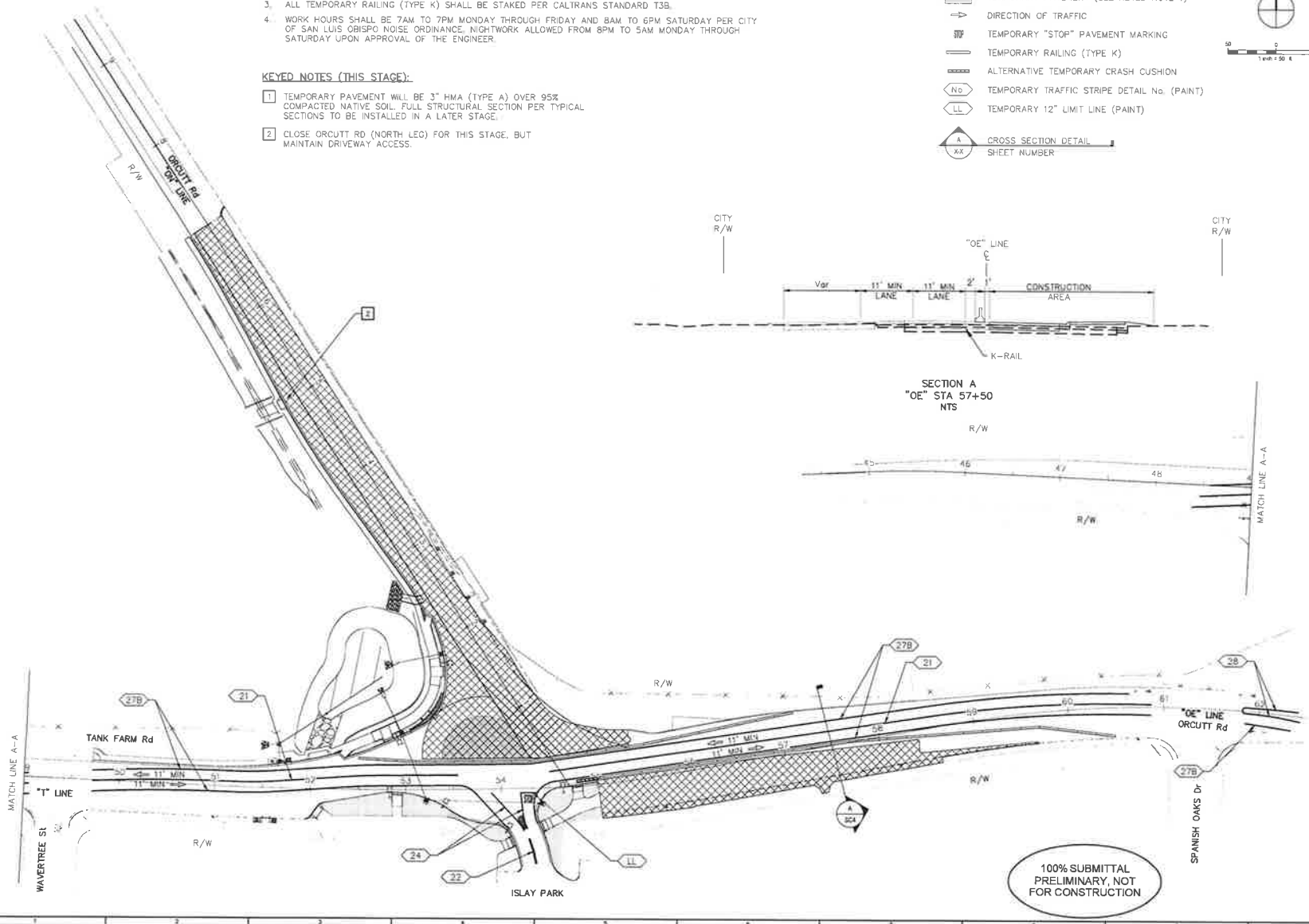
1. TEMPORARY PAVEMENT WILL BE 3" HMA (TYPE A) OVER 95% COMPACTED NATIVE SOIL. FULL STRUCTURAL SECTION PER TYPICAL SECTIONS TO BE INSTALLED IN A LATER STAGE.
2. CLOSE ORCUTT RD (NORTH LEG) FOR THIS STAGE, BUT MAINTAIN DRIVEWAY ACCESS.

LEGEND:

- CONSTRUCT THIS STAGE
- TEMPORARY PAVEMENT (SEE KEYED NOTE 1)
- DIRECTION OF TRAFFIC
- STOP — TEMPORARY "STOP" PAVEMENT MARKING
- TEMPORARY RAILING (TYPE K)
- ALTERNATIVE TEMPORARY CRASH CUSHION
- No — TEMPORARY TRAFFIC STRIPE DETAIL No. (PAINT)
- LL — TEMPORARY 12" LIMIT LINE (PAINT)
- A / X-X — CROSS SECTION DETAIL / SHEET NUMBER

N

50 0 50
1 inch = 50 ft



100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

SC4

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

SHEET TITLE: STAGE CONSTRUCTION (STAGE 3)

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. WETLAND No. C53755 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

DESIGNED BY	JAV
DRAWN BY	JAV
CHECKED BY	JWW
APPROVED BY	JWW
SCALE	1" = 50'
DATE	02/03/2021
CITY SPECIFICATION NO	1000164
PLAN FILE NO / LOCATION	24605C004.dwg
SHEET NO	39 of 67

NOTES:

1. CONTRACTOR TO MAINTAIN DRIVEWAY AND PEDESTRIAN ACCESS DURING CONSTRUCTION.
2. REMOVE ALL CONFLICTING SIGNING AND STRIPING PRIOR TO TEMPORARY DELINEATION.
3. ALL TEMPORARY RAILING (TYPE K) SHALL BE STAKED PER CALTRANS STANDARD T3B.
4. WORK HOURS SHALL BE 7AM TO 7PM MONDAY THROUGH FRIDAY AND 8AM TO 6PM SATURDAY PER CITY OF SAN LUIS OBISPO NOISE ORDINANCE. NIGHTWORK ALLOWED FROM 8PM TO 5AM MONDAY THROUGH SATURDAY UPON APPROVAL OF THE ENGINEER.

KEYED NOTE (THIS STAGE):

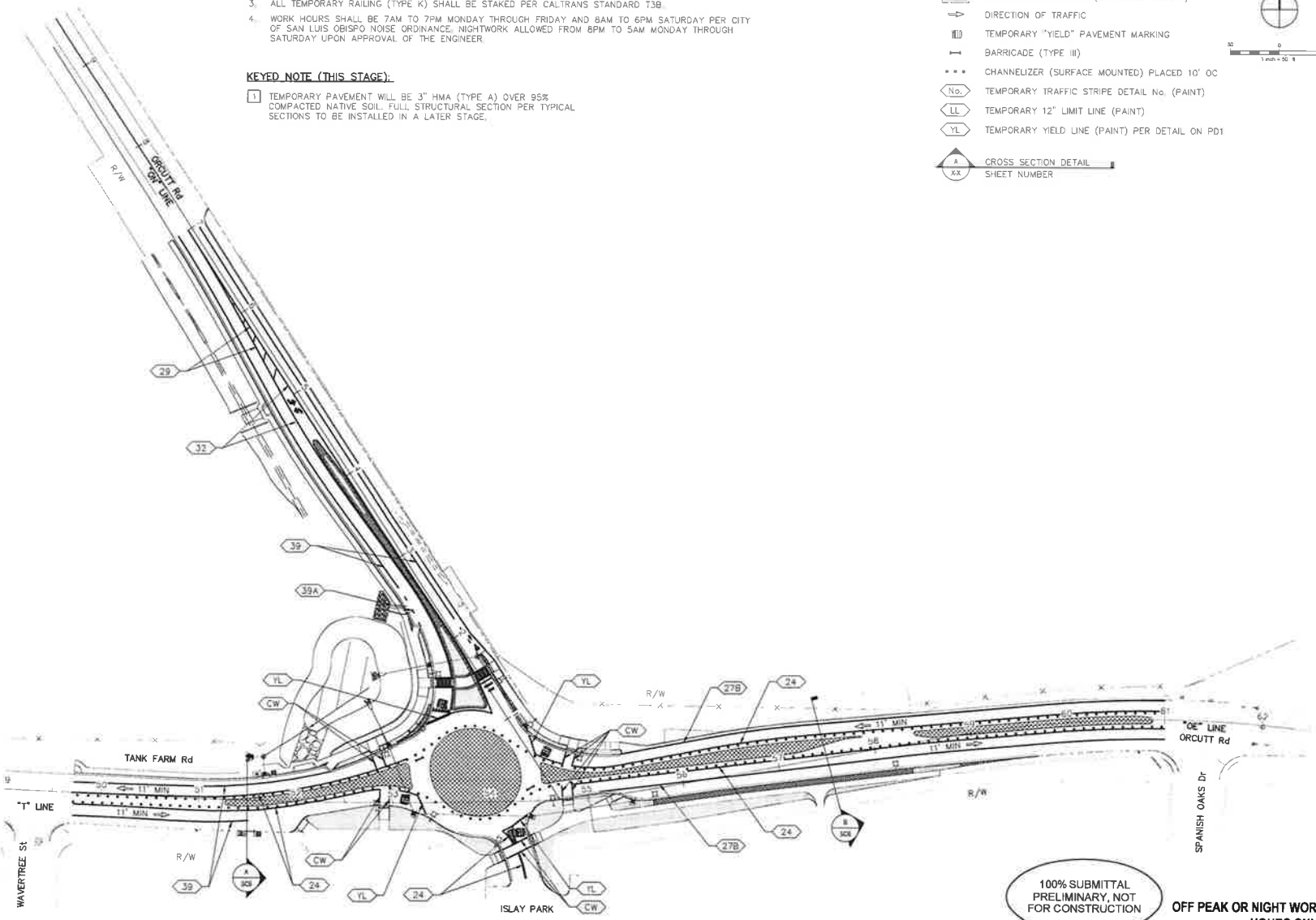
1. TEMPORARY PAVEMENT WILL BE 3" HMA (TYPE A) OVER 95% COMPACTED NATIVE SOIL. FULL STRUCTURAL SECTION PER TYPICAL SECTIONS TO BE INSTALLED IN A LATER STAGE.

LEGEND:

- CONSTRUCT THIS STAGE
- TEMPORARY PAVEMENT (SEE KEYED NOTE 1)
- DIRECTION OF TRAFFIC
- TEMPORARY "YIELD" PAVEMENT MARKING
- BARRICADE (TYPE III)
- CHANNELIZER (SURFACE MOUNTED) PLACED 10' OC
- No. TEMPORARY TRAFFIC STRIPE DETAIL No. (PAINT)
- LL TEMPORARY 12" LIMIT LINE (PAINT)
- YL TEMPORARY YIELD LINE (PAINT) PER DETAIL ON PD1
- A / XX CROSS SECTION DETAIL / SHEET NUMBER

N

50 0 50
1 inch = 50 ft



100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

OFF PEAK OR NIGHT WORK
HOURS ONLY

SC5

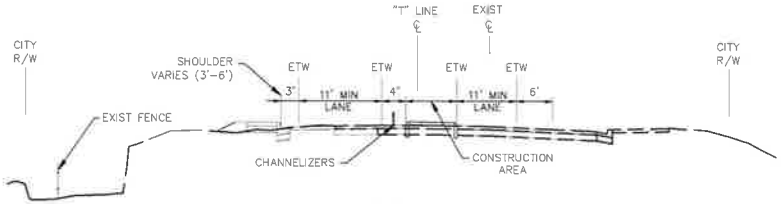
CITY OF SAN LUIS OBISPO

PROJECT TITLE
TANK FARM ROAD & ORCUTT ROAD
ROUNDABOUT

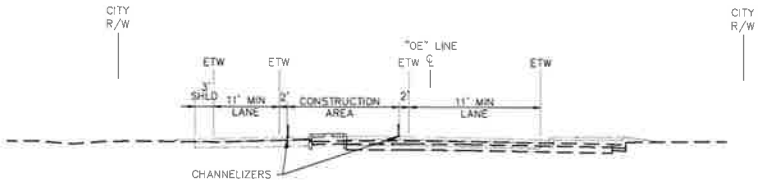
SHEET TITLE
STAGE CONSTRUCTION (STAGE 4)

REGISTERED PROFESSIONAL ENGINEER
JOSEPH W. WETLAND
No. C53759
Exp. 06/30/21
CIVIL
STATE OF CALIFORNIA

DESIGNED BY	JAV
DRAWN BY	JAV
CHECKED BY	JWW
APPROVED BY	JWW
SCALE	1" = 50'
DATE	02/03/2021
CITY SPECIFICATION NO	1000164
PLAN FILE NO / LOCATION	24605C004.dwg
SHEET NO	40 of 67



SECTION A
"T" STA 51+50
NTS



SECTION B
"OE" STA 57+50
NTS

100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

SC6

PROJECT TITLE
TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

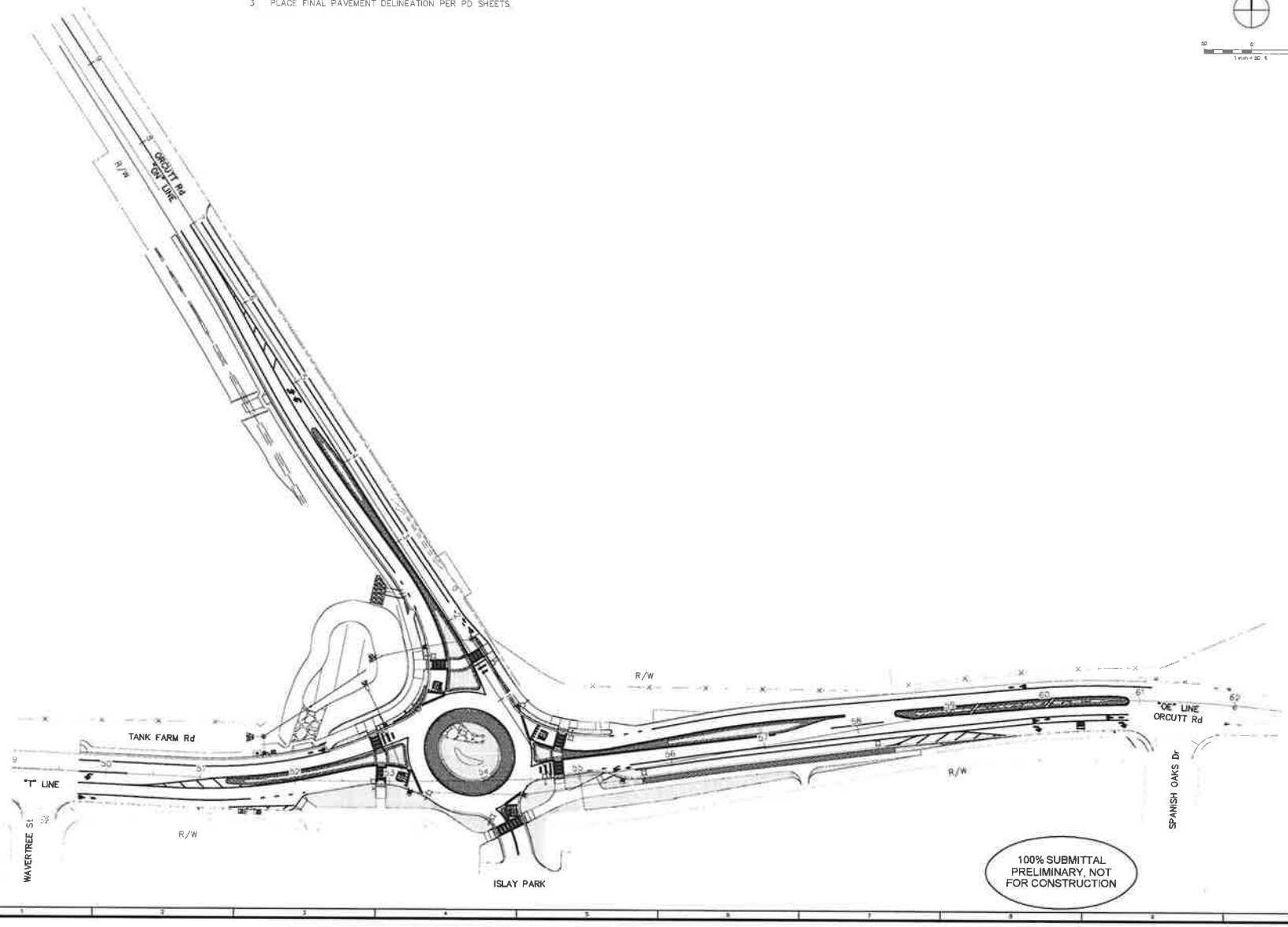
SHEET TITLE
STAGE 4 CROSS SECTIONS

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. WETLAND No. C53759 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

DESIGNED BY	JAV
DRAWN BY	JAV
CHECKED BY	JWW
APPROVED BY	JWW
SCALE	1" = 50'
DATE	02/03/2021
CITY SPECIFICATION NO.	1000164
PLAN FILE NO. / LOCATION	24605C004.dwg
SHEET NO.	41 of 67

NOTES:

1. CONTRACTOR TO MAINTAIN DRIVEWAY AND PEDESTRIAN ACCESS DURING CONSTRUCTION.
2. REMOVE ALL CONFLICTING SIGNING AND STRIPING PRIOR TO TEMPORARY DELINEATION.
3. PLACE FINAL PAVEMENT DELINEATION PER PD SHEETS.



SC7

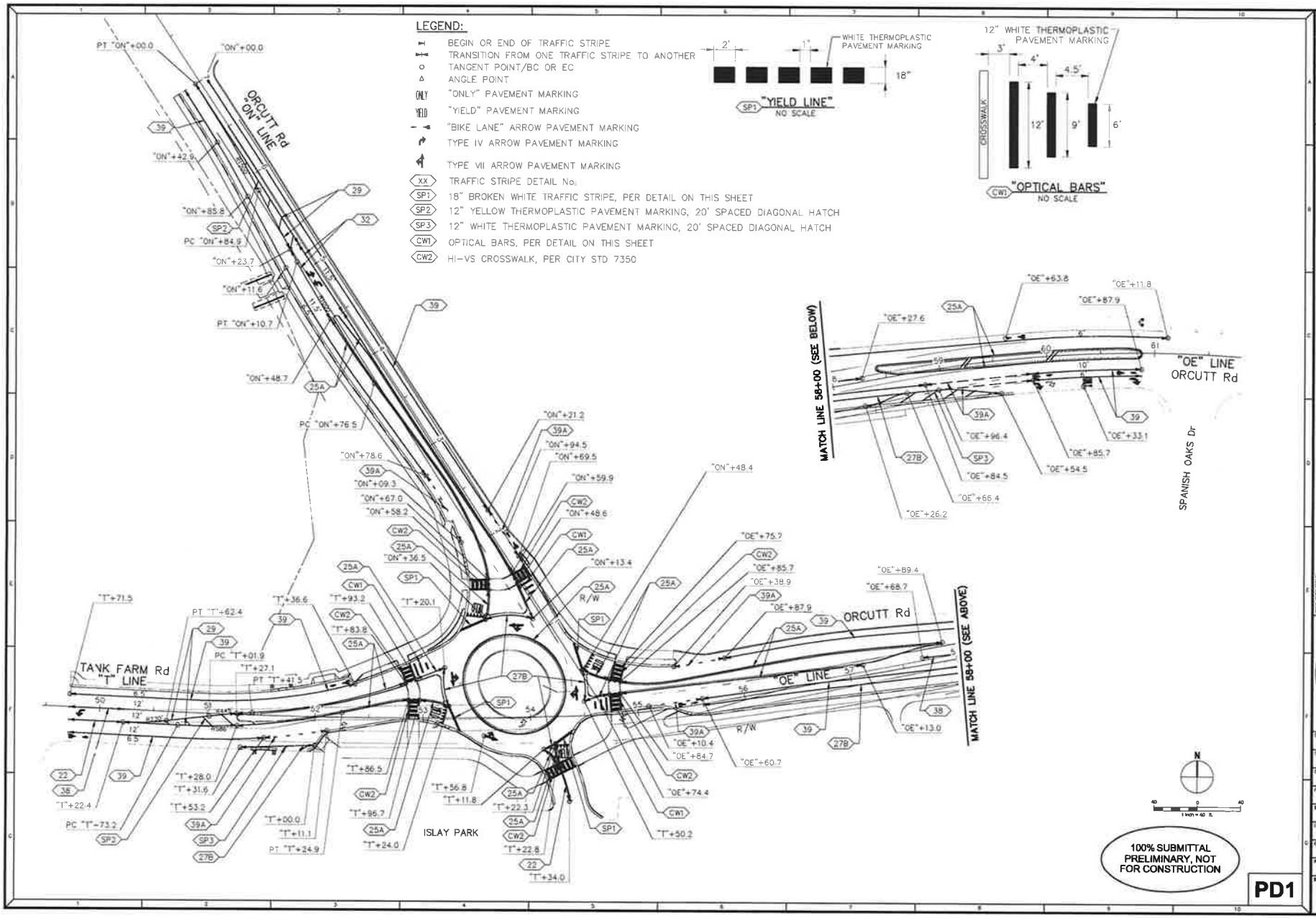
CITY OF SAN LUIS OBISPO

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

SHEET TITLE: STAGE CONSTRUCTION (STAGE 5)

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. WETLAND No. C53755 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

DESIGNED BY	JAV
DRAWN BY	JAV
CHECKED BY	JWW
APPROVED BY	JWW
SCALE	1" = 50'
DATE	02/03/2021
CITY SPECIFICATION NO	1000164
PLAN FILE NO/ LOCATION	24608C004.dwg
SHEET NO	42 of 67



TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

PAVEMENT DELINEATION

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. HETLAND No. C53756 Exp. 09/30/21 CIVIL STATE OF CALIFORNIA

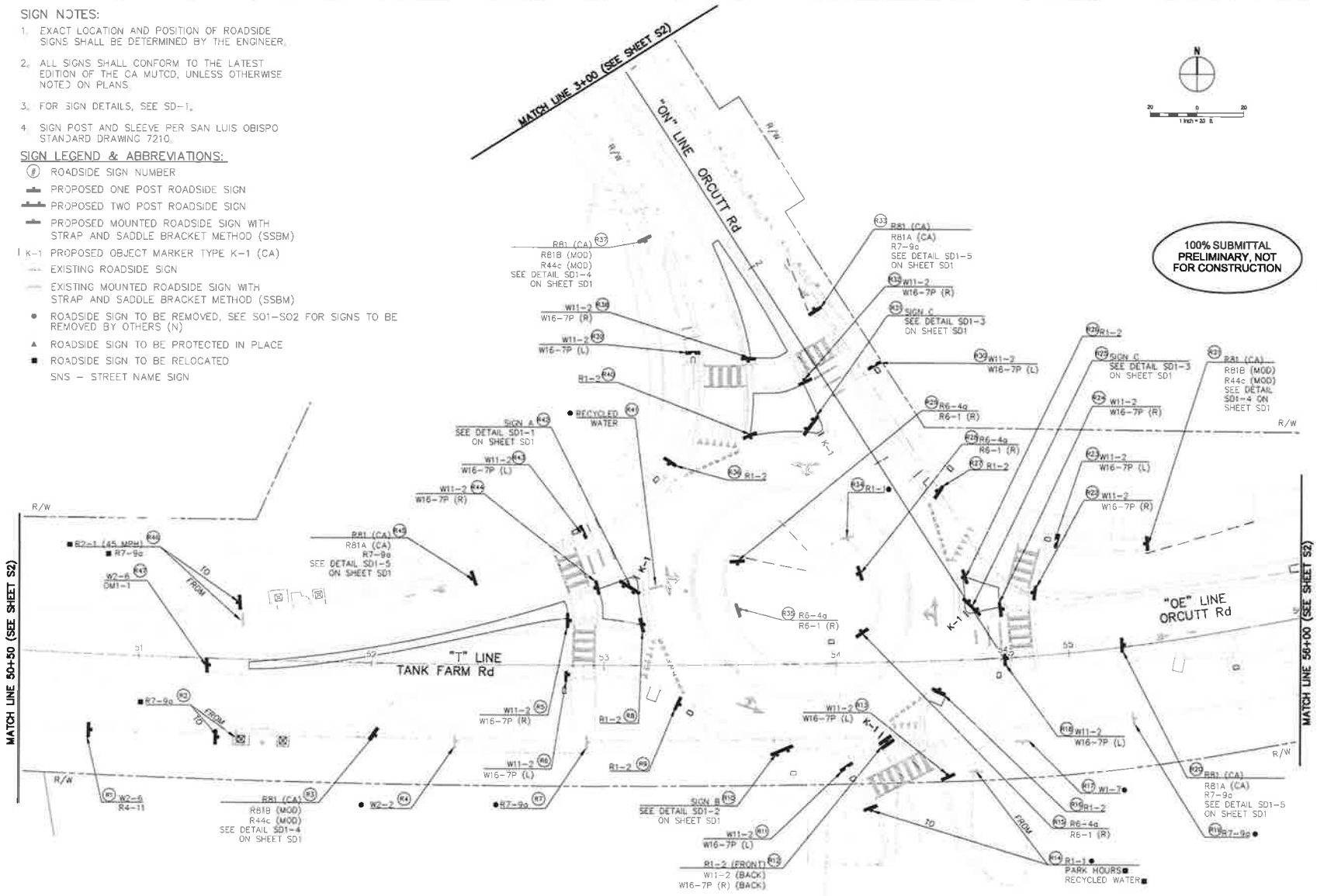
DESIGNED BY:	HD
DRAWN BY:	HD
CHECKED BY:	SKP
APPROVED BY:	JWW
SCALE:	1" = 40'
DATE:	02/03/2021
CITY SPEC/PLAN NO.	1000164
PLAN FILE NO./LOCATION:	2460PD001.dwg
SHEET NO.	43 of 67

SIGN NOTES:

1. EXACT LOCATION AND POSITION OF ROADSIDE SIGNS SHALL BE DETERMINED BY THE ENGINEER.
2. ALL SIGNS SHALL CONFORM TO THE LATEST EDITION OF THE CA MUTCD, UNLESS OTHERWISE NOTED ON PLANS.
3. FOR SIGN DETAILS, SEE SD-1.
4. SIGN POST AND SLEEVE PER SAN LUIS OBISPO STANDARD DRAWING 7210.

SIGN LEGEND & ABBREVIATIONS:

- (#) ROADSIDE SIGN NUMBER
- PROPOSED ONE POST ROADSIDE SIGN
- PROPOSED TWO POST ROADSIDE SIGN
- PROPOSED MOUNTED ROADSIDE SIGN WITH STRAP AND SADDLE BRACKET METHOD (SSBM)
- K-1 PROPOSED OBJECT MARKER TYPE K-1 (CA)
- EXISTING ROADSIDE SIGN
- EXISTING MOUNTED ROADSIDE SIGN WITH STRAP AND SADDLE BRACKET METHOD (SSBM)
- ● ROADSIDE SIGN TO BE REMOVED, SEE S01-S02 FOR SIGNS TO BE REMOVED BY OTHERS (N)
- ▲ ROADSIDE SIGN TO BE PROTECTED IN PLACE
- ■ ROADSIDE SIGN TO BE RELOCATED
- SNS – STREET NAME SIGN



S1

TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

SIGN PLAN

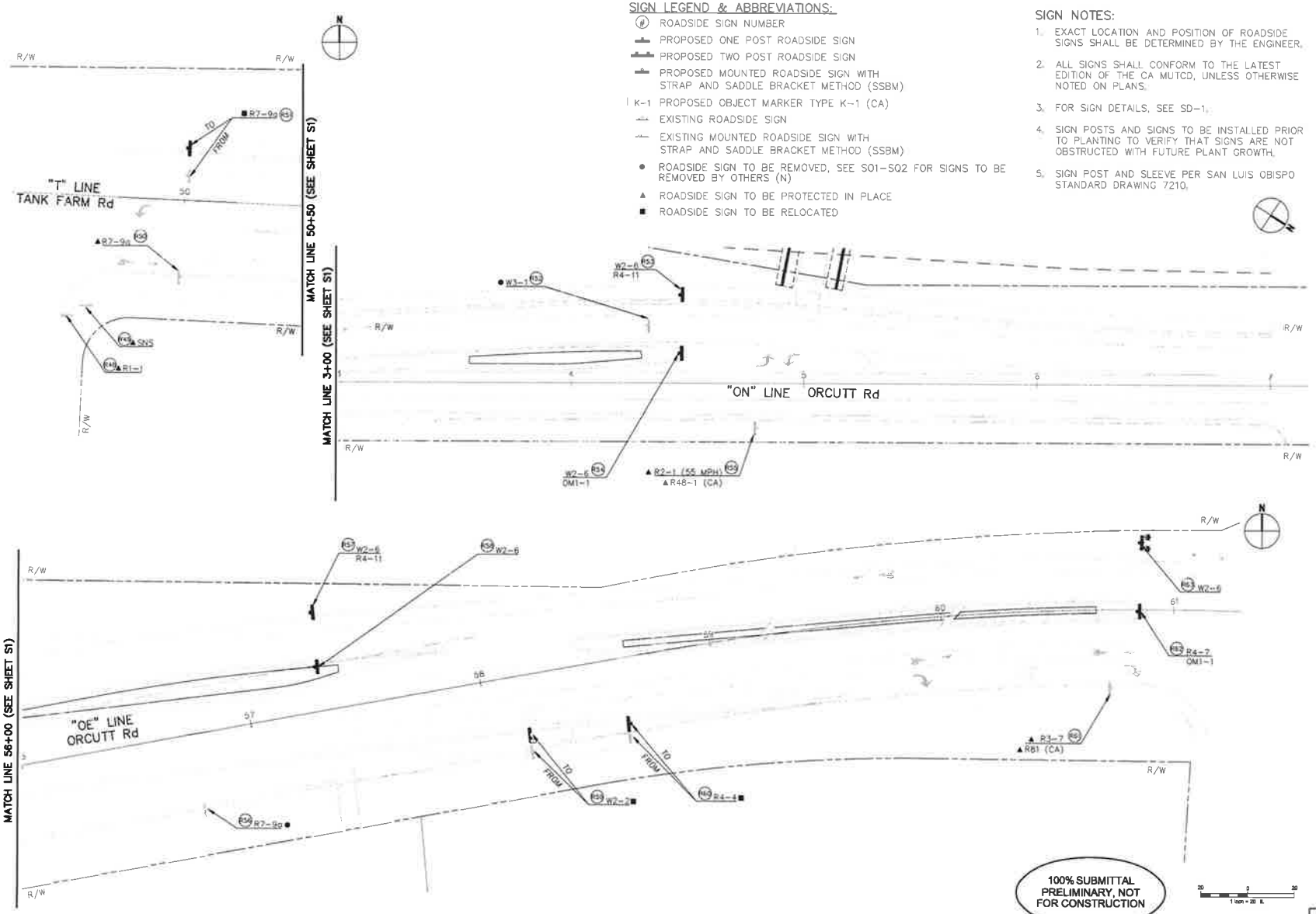
DESIGNED BY:	JAV
DRAWN BY:	JAV
CHECKED BY:	SKP
APPROVED BY:	JWW
SCALE:	1" = 20'
DATE:	02/05/2021
CITY SPECIFICATION NO.	1000184
PLAN FILE NO./LOCATION	2460S001.dwg
SHEET NO.	44 of 67

SIGN LEGEND & ABBREVIATIONS:

- (#) ROADSIDE SIGN NUMBER
- PROPOSED ONE POST ROADSIDE SIGN
- PROPOSED TWO POST ROADSIDE SIGN
- PROPOSED MOUNTED ROADSIDE SIGN WITH STRAP AND SADDLE BRACKET METHOD (SSBM)
- K-1 PROPOSED OBJECT MARKER TYPE K-1 (CA)
- EXISTING ROADSIDE SIGN
- EXISTING MOUNTED ROADSIDE SIGN WITH STRAP AND SADDLE BRACKET METHOD (SSBM)
- ● ROADSIDE SIGN TO BE REMOVED, SEE S01-S02 FOR SIGNS TO BE REMOVED BY OTHERS (N)
- ▲ ROADSIDE SIGN TO BE PROTECTED IN PLACE
- ■ ROADSIDE SIGN TO BE RELOCATED

SIGN NOTES:

1. EXACT LOCATION AND POSITION OF ROADSIDE SIGNS SHALL BE DETERMINED BY THE ENGINEER.
2. ALL SIGNS SHALL CONFORM TO THE LATEST EDITION OF THE CA MUTCD, UNLESS OTHERWISE NOTED ON PLANS.
3. FOR SIGN DETAILS, SEE SD-1.
4. SIGN POSTS AND SIGNS TO BE INSTALLED PRIOR TO PLANTING TO VERIFY THAT SIGNS ARE NOT OBSTRUCTED WITH FUTURE PLANT GROWTH.
5. SIGN POST AND SLEEVE PER SAN LUIS OBISPO STANDARD DRAWING 7210.



100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

S2

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

SHEET TITLE: SIGN PLAN

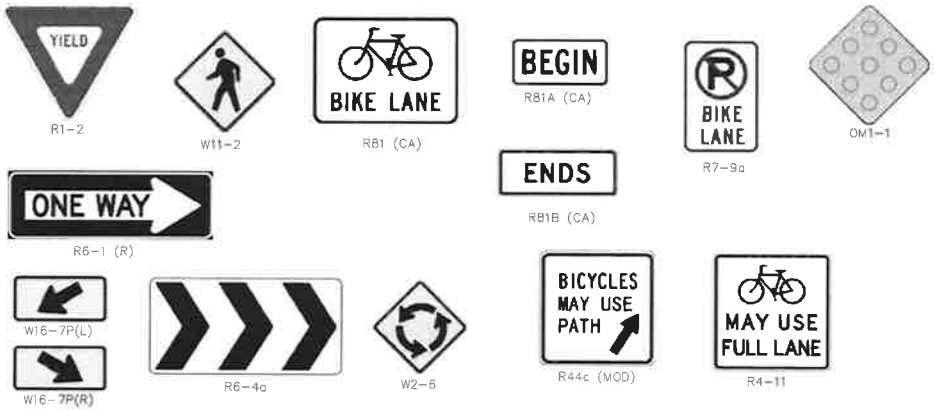
REGISTERED PROFESSIONAL ENGINEER JOSEPH W. WETLAND No. C53755 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

DESIGNED BY:	JAV
DRAWN BY:	JAV
CHECKED BY:	SKP
APPROVED BY:	JWW
SCALE:	1" = 20'
DATE:	02/05/2021
CITY SPECIFICATION NO.	1000184
PLAN FILE NO. / LOCATION	24605001.dwg
SHEET NO.	45 of 67

SIGN NOTES:

1. ALL SIGNS SHALL CONFORM TO THE LATEST EDITION OF THE CA MUTCD EXCEPT AS NOTED ON THE PLANS.
2. SIGN PANEL DIMENSIONS ARE IN INCHES.
3. FOR SIGN PLACEMENT SEE CITY OF SAN LUIS OBISPO STANDARD DRAWING 7210.
4. SPECIAL SIGNS SHOWN IN DETAIL SD1-1, SD1-2, AND SD1-3 WILL BE PROVIDED BY THE CONTRACTOR AND SHALL BE INSTALL WITH 2-2" O.D. GALVANIZED METAL PUNCH POSTS, PER CITY STANDARD 7210, WITH A MOUNTING HEIGHT OF 5'. FOR ALL OTHER SIGNS, THE MOUNTING HEIGHT SHALL BE AS SHOWN IN THE SIGN QUANTITIES TABLES. ACTUAL LOCATIONS AND MOUNTING HEIGHTS TO BE DETERMINED IN THE FIELD AND APPROVED BY THE ENGINEER.

STANDARD SIGN LEGEND:



NOTE: ALL STANDARD SIGNS SHOWN ABOVE ARE NOT TO SCALE, FOR INFORMATION PURPOSES ONLY.

SD1-1

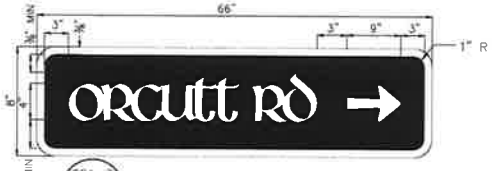
SIGN A

COLOR: 3M-8871 BROWN BACKGROUND
REFLECTIVE WHITE LETTERS AND ARROW.
SEE CITY DETAIL 7250 FOR MORE INFORMATION.
NOT TO SCALE

SD1-2

SIGN B

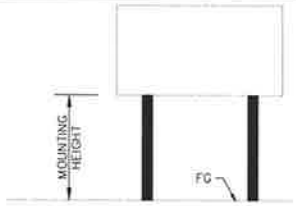
COLOR: 3M-8871 BROWN BACKGROUND
REFLECTIVE WHITE LETTERS AND ARROW.
SEE CITY DETAIL 7250 FOR MORE INFORMATION.
NOT TO SCALE



SD1-3

SIGN C

COLOR: 3M-8871 BROWN BACKGROUND
REFLECTIVE WHITE LETTERS AND ARROW.
SEE CITY DETAIL 7250 FOR MORE INFORMATION.
NOT TO SCALE

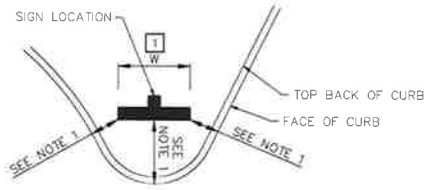


SIGN MOUNTING HEIGHT DETAIL

NO SCALE

NOTE:

1. THE MOUNTING HEIGHT ("C" DIM) IS MEASURED FROM THE BOTTOM OF THE SIGN PANEL TO THE PROJECTED ELEVATION AT ADJACENT EDGE OF TRAVELED WAY. WHEN THERE ARE MORE THAN ONE PANEL, IT'S MEASURED FROM THE BOTTOM OF THE BOTTOM PANEL.



SIGN PLACEMENT AT ISLAND NOSE DETAIL

NO SCALE

NOTES:

1. FOR SIGN PLACEMENT AND INSTALLATION SEE CITY OF SAN LUIS OBISPO STANDARD DRAWING 7210, UNLESS RESTRICTIVE CONDITIONS HAVE BEEN IDENTIFIED OR AS DIRECTED BY THE ENGINEER.

KEYED NOTE:

1. SIGN PANEL WIDTH VARIES, SEE SIGN QUANTITIES TABLES FOR WIDTHS OF INDIVIDUAL PANELS.

SD1-4 **BIKE LANE ENDS SIGN ASSEMBLY**
NOT TO SCALE

SD1-5 **BIKE LANE BEGINS SIGN ASSEMBLY**
NOT TO SCALE

SD1

100% SUBMITTAL PRELIMINARY, NOT FOR CONSTRUCTION

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

SHEET TITLE: SIGN DETAILS

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. WEYLAND No. C53755 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

DESIGNED BY:	JAV
DRAWN BY:	JAV
CHECKED BY:	SKP
APPROVED BY:	JWW
SCALE:	NO SCALE
DATE:	02/03/2021
CITY SPECIFICATION NO.	1000164
PLAN FILE NO./LOCATION:	24605002.dwg
SHEET NO.	46 of 67

SIGN NO.	SIGN CODE	SIGN MESSAGE OR DESCRIPTION	OBJECT MARKER (OM1-1)	PANEL SIZE L	PANEL SIZE D	MOUNTING HEIGHT	BACKGROUND SHEETING COLOR	BACKGROUND RETROFLECTIVITY ASTM TYPE	LEGEND SHEETING COLOR	LEGEND RETROFLECTIVITY ASTM TYPE	PROTECTIVE OVERLAY STANDARD	PROTECTIVE OVERLAY PREMIUM	FURNISH SINGLE SHEET ALUMINUM SIGN 0.063"-UNFRAMED	0.080"-UNFRAMED	0.080"-FRAMED	0.100"-FRAMED	ROADSIDE SIGN-ONE POST	ROADSIDE SIGN-TWO POST	INSTALL ROADSIDE SIGN (STRAP & SADDLE BRACKET)	REMOVE ROADSIDE SIGN	RELOCATE ROADSIDE SIGN (ONE POST)	EXISTING SIGN TO REMAIN (N)	REMARKS
			EA	IN	IN	FT							SQFT	SQFT	SQFT	SQFT	EA	EA	EA	EA	EA	EA (N)	
R1	W2-6	CIRCULAR INTERSECTION WARNING		30	30	4	YELLOW	XI	BLACK			X	6.25				1						
	R4-11	BICYCLES MAY USE FULL LANE		30	30		WHITE	IX	BLACK			X	6.25										
R2	R7-8a	NO PARKING BIKE LANE																				1	PROTECT IN PLACE
R3	R81 (CA)	BIKE LANE		12	8	4	WHITE	IX	BLACK			X	0.67				1						SEE DETAIL SD1-4 ON SHEET SD1
	R81B (MOD)	ENDS		8	5		WHITE	IX	BLACK			X	0.28										
	R44c (MOD)	BICYCLES MAY USE PATH		30	30		WHITE	IX	BLACK			X	6.25										
R4	W2-2	SIDE ROAD																		1			TO BE REMOVED BY OTHERS (N)
R5	W11-2	PEDESTRIAN CROSSING		30	30	4	YELLOW	XI	BLACK			X	6.25				1						
	W16-7P (R)	DIAGONAL DOWNWARD POINTING ARROW (RIGHT)		24	12		YELLOW	XI	BLACK			X	2.00										
R6	W11-2	PEDESTRIAN CROSSING		30	30	4	YELLOW	XI	BLACK			X	6.25				1						
	W16-7P (L)	DIAGONAL DOWNWARD POINTING ARROW (LEFT)		24	12		YELLOW	XI	BLACK			X	2.00										
R7	R7-8a	NO PARKING BIKE LANE																		1			TO BE REMOVED BY OTHERS (N)
R8	R1-2	YIELD		36	36	7	RED	XI	WHITE			X	9.00				1						
R9	R1-2	YIELD		36	36	7	RED	XI	WHITE			X	9.00				1						
R10	SIGN B	ISLAY HILL PARK		78	8	5	BROWN		WHITE	IX		X			4.33			1					SEE DETAIL SD1-2 ON SHEET SD1
R11	W11-2	PEDESTRIAN CROSSING		30	30	4	YELLOW	XI	BLACK			X	6.25						1				
	W16-7P (L)	DIAGONAL DOWNWARD POINTING ARROW (LEFT)		24	12		YELLOW	XI	BLACK			X	2.00										
R12	W11-2	PEDESTRIAN CROSSING (BACK)		30	30	4	YELLOW	XI	BLACK			X	6.25				1						
	W16-7P (R)	DIAGONAL DOWNWARD POINTING ARROW (RIGHT) (BACK)		24	12		YELLOW	XI	BLACK			X	2.00										
	R1-2	YIELD (FRONT)		36	36		RED	XI	WHITE			X	9.00										
R13	W11-2	PEDESTRIAN CROSSING		30	30	4	YELLOW	XI	BLACK			X	6.25				1						
	W16-7P (L)	DIAGONAL DOWNWARD POINTING ARROW (LEFT)		24	12		YELLOW	XI	BLACK			X	2.00										
R14	R1-1	STOP																		1			TO BE REMOVED BY OTHERS (N)
	SPECIAL	PARK HOURS																					
	SPECIAL	RECYCLED WATER																			1		RELOCATE SIGN
R15	R6-4a	ROUNDABOUT DIRECTIONAL (3 CHEVRONS)		48	24	4	WHITE	IX	BLACK			X		8.00			1						
	R5-1 (R)	ONE WAY (RIGHT)		36	12		BLACK	XI	WHITE			X	3.00										
R16	R1-2	YIELD		36	36	7	RED	XI	WHITE			X	9.00				1						
R17	W1-7	TWO-DIRECTIONAL LARGE ARROW																		1			TO BE REMOVED BY OTHERS (N)
R18	W11-2	PEDESTRIAN CROSSING		30	30	4	YELLOW	XI	BLACK			X	6.25				1						
	W16-7P (L)	DIAGONAL DOWNWARD POINTING ARROW (LEFT)		24	12		YELLOW	XI	BLACK			X	2.00										
R19	R7-8a	NO PARKING BIKE LANE																		1			TO BE REMOVED BY OTHERS (N)
R20	R81 (CA)	BIKE LANE		12	8	4	WHITE	IX	BLACK			X	0.67				1						SEE DETAILS SD1-5 ON SHEET SD1
	R81A (CA)	BEGIN		12	5		WHITE	IX	BLACK			X	0.42										
	R7-8a	NO PARKING BIKE LANE		12	18		WHITE	IX	BLACK			X	1.50										
R21	R81 (CA)	BIKE LANE		12	8	4	WHITE	IX	BLACK			X	0.67				1						SEE DETAILS SD1-4 ON SHEET SD1
	R81B (MOD)	ENDS		8	5		WHITE	IX	BLACK			X	0.28										
	R44c (MOD)	BICYCLES MAY USE PATH		30	30		WHITE	IX	BLACK			X	6.25										
R22	W11-2	PEDESTRIAN CROSSING		30	30	4	YELLOW	XI	BLACK			X	6.25				1						
	W16-7P (R)	DIAGONAL DOWNWARD POINTING ARROW (RIGHT)		24	12		YELLOW	XI	BLACK			X	2.00										
R23	W11-2	PEDESTRIAN CROSSING		30	30	4	YELLOW	XI	BLACK			X	6.25						1				
	W16-7P (L)	DIAGONAL DOWNWARD POINTING ARROW (LEFT)		24	12		YELLOW	XI	BLACK			X	2.00										
R24	W11-2	PEDESTRIAN CROSSING		30	30	4	YELLOW	XI	BLACK			X	6.25				1						
	W16-7P (R)	DIAGONAL DOWNWARD POINTING ARROW (RIGHT)		24	12		YELLOW	XI	BLACK			X	2.00										
R25	SIGN C	ORCUTT ROAD		66	8	5	BROWN		WHITE	IX		X			3.67			1					SEE DETAIL SD1-3 ON SHEET SD1
R26	R1-2	YIELD		36	36	7	RED	XI	WHITE			X	9.00				1						
R27	R1-2	YIELD		36	36	7	RED	XI	WHITE			X	9.00				1						
R28	R6-4a	ROUNDABOUT DIRECTIONAL (3 CHEVRONS)		48	24	4	WHITE	IX	BLACK			X		8.00			1						
	R5-1 (R)	ONE WAY (RIGHT)		36	12		BLACK	XI	WHITE			X	3.00										
R29	R6-4a	ROUNDABOUT DIRECTIONAL (3 CHEVRONS)		48	24	4	WHITE	IX	BLACK			X		8.00			1						
	R5-1 (R)	ONE WAY (RIGHT)		36	12		BLACK	XI	WHITE			X	3.00										
R30	W11-2	PEDESTRIAN CROSSING		30	30	4	YELLOW	XI	BLACK			X	6.25						1				
	W16-7P (L)	DIAGONAL DOWNWARD POINTING ARROW (LEFT)		24	12		YELLOW	XI	BLACK			X	2.00										
R31	SIGN C	ORCUTT ROAD		66	8	5	BROWN		WHITE	IX		X			3.67			1					SEE DETAIL SD1-3 ON SHEET SD1
SUBTOTAL THIS SHEET			0										174.87	24	11.67	0	19	3	3	5	1	1	

100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

SQ1

CITY OF SAN LUIS OBISPO

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

SHEET TITLE: SIGN QUANTITIES

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. WELLAND No. C53755 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

DESIGNED BY: JAV
DRAWN BY: JAV
CHECKED BY: SKP
APPROVED BY: JWW
SCALE: NO SCALE
DATE: 02/03/2021
CITY SPECIFICATION NO.: 1000164
PLAN FILE NO./LOCATION: 24605002.dwg
SHEET NO.: 47 of 67

SIGN NO	SIGN CODE	SIGN MESSAGE OR DESCRIPTION	OBJECT MARKER (OM1-1)	PANEL SIZE L	PANEL SIZE D	DIM	BACKGROUND SHEETING COLOR	BACKGROUND RETROFLECTIVITY ASTM TYPE	LEGEND SHEETING COLOR	LEGEND RETROFLECTIVITY ASTM TYPE	PROTECTIVE OVERLAY STANDARD	PROTECTIVE OVERLAY PREMIUM	FURNISH SINGLE SHEET ALUMINUM SIGN 0.063"-UNFRAMED	0.080"-UNFRAMED	0.063"-FRAMED	0.080"-FRAMED	ROADSIDE SIGN-ONE POST	ROADSIDE SIGN-TWO POST	INSTALL ROADSIDE SIGN (STRAP & SADDLE BRACKET)	REMOVE ROADSIDE SIGN	RELOCATE ROADSIDE SIGN (ONE POST)	EXISTING SIGN TO REMAIN (N)	REMARKS
			EA	IN	IN	FT							SQFT	SQFT	SQFT	SQFT	EA	EA	EA	EA	EA	EA (N)	
R32	W11-2	PEDESTRIAN CROSSING		30	30	4	YELLOW	XI	BLACK			X	6.25				1						
	W16-7P (R)	DIAGONAL DOWNWARD POINTING ARROW (RIGHT)		24	12		YELLOW	XI	BLACK			X	2.00										
R33	R81 (CA)	BIKE LANE		12	6	4	WHITE	IX	BLACK			X	0.67				1						SEE DETAILS SD1-5 ON SHEET SD1
	R81A (CA)	BEGIN		12	5		WHITE	IX	BLACK			X	0.42										
	R7-9a	NO PARKING BIKE LANE		12	18		WHITE	IX	BLACK			X	1.50										
R34	R1-1	STOP																		1			TO BE REMOVED BY OTHERS (N)
R35	R9-4a	ROUNDABOUT DIRECTIONAL (3 CHEVRONS)		48	24	4	WHITE	IX	BLACK			X		8.00			1						
	R5-1 (R)	ONE WAY (RIGHT)		36	12		BLACK	XI	WHITE			X	3.00										
R36	R1-2	YIELD		36	36	7	RED	XI	WHITE			X	9.00				1						
R37	R81 (CA)	BIKE LANE		12	6	4	WHITE	IX	BLACK			X	0.67				1						SEE DETAILS SD1-4 ON SHEET SD1
	R81B (MOD)	ENDS		6	5		WHITE	IX	BLACK			X	0.28										
	R44c(MOD)	BICYCLES MAY USE PATH		30	30		WHITE	IX	BLACK			X	6.25										
R38	W11-2	PEDESTRIAN CROSSING		30	30	4	YELLOW	XI	BLACK			X	6.25				1						
	W16-7P (R)	DIAGONAL DOWNWARD POINTING ARROW (RIGHT)		24	12		YELLOW	XI	BLACK			X	2.00										
R39	W11-2	PEDESTRIAN CROSSING		30	30	4	YELLOW	XI	BLACK			X	6.25						1				
	W16-7P (L)	DIAGONAL DOWNWARD POINTING ARROW (LEFT)		24	12		YELLOW	XI	BLACK			X	2.00										
R40	R1-2	YIELD		36	36	7	RED	XI	WHITE			X	9.00				1						
R41	SPECIAL	RECYCLED WATER																		1			TO BE REMOVED BY OTHERS (N)
R42	SIGN A	TANK FARM ROAD		79	6	5	BROWN		WHITE	IX		X			4.33			1					SEE DETAIL SD1-1 ON SHEET SD1
R43	W11-2	PEDESTRIAN CROSSING		30	30	4	YELLOW	XI	BLACK			X	6.25										
	W16-7P (L)	DIAGONAL DOWNWARD POINTING ARROW (LEFT)		24	12		YELLOW	XI	BLACK			X	2.00						1				
R44	W11-2	PEDESTRIAN CROSSING		30	30	4	YELLOW	XI	BLACK			X	6.25				1						
	W16-7P (R)	DIAGONAL DOWNWARD POINTING ARROW (RIGHT)		24	12		YELLOW	XI	BLACK			X	2.00										
R45	R81 (CA)	BIKE LANE		12	6	4	WHITE	IX	BLACK			X	0.67				1						SEE DETAILS SD1-4 ON SHEET SD1
	R81A (CA)	BEGIN		12	5		WHITE	IX	BLACK			X	0.42										
	R7-9a	NO PARKING BIKE LANE		12	18		WHITE	IX	BLACK			X	1.50										
R46	R2-1	SPEED LIMIT (45 MPH)																			1		RELOCATE SIGN
	R7-9a	NO PARKING BIKE LANE																					
R47	W2-6	CIRCULAR INTERSECTION WARNING		30	30	4	YELLOW	XI	BLACK			X	6.25				1						
	OM1-1	OBJECT MARKER	1																				
R48	R1-1	STOP																				1	PROTECT IN PLACE
R49	SNS	STREET NAME SIGN																				1	PROTECT IN PLACE
R50	R7-9a	NO PARKING BIKE LANE																				1	PROTECT IN PLACE
R51	R7-9a	NO PARKING BIKE LANE																			1		RELOCATE SIGN
R52	W3-1	STOP AHEAD																		1			TO BE REMOVED BY OTHERS (N)
R53	W2-6	CIRCULAR INTERSECTION WARNING		30	30	4	YELLOW	XI	BLACK			X	6.25				1						
	R4-11	BICYCLES MAY USE FULL LANE		30	30		WHITE	IX	BLACK			X	5.25										
R54	W2-6	CIRCULAR INTERSECTION WARNING		30	30	4	YELLOW	XI	BLACK			X	6.25				1						
	OM1-1	OBJECT MARKER	1																				
R55	R2-1	SPEED LIMIT (55 MPH)																				1	PROTECT IN PLACE
	R48-1	RADAR INFORCED																					
R56	R7-9a	NO PARKING BIKE LANE																		1			TO BE REMOVED BY OTHERS (N)
R57	W2-6	CIRCULAR INTERSECTION WARNING		30	30	4	YELLOW	XI	BLACK			X	6.25				1						
	R4-11	BICYCLES MAY USE FULL LANE		30	30		WHITE	IX	BLACK			X	6.25										
R58	W2-6	CIRCULAR INTERSECTION WARNING		30	30	4	YELLOW	XI	BLACK			X	6.25				1						
R59	W2-2	SIDE ROAD																	1				RELOCATE SIGN AND INSTALL BY STRAP AND SADLE BRACKET METHOD
R60	R4-4	BEGIN RIGHT TURN LANE, YIELD TO BIKES																			1		RELOCATE SIGN
R61	R3-7	RIGHT LANE MUST TURN RIGHT																				1	PROTECT IN PLACE
	R81 (CA)	BIKE LANE																					
R62	R4-7	KEEP RIGHT (SYMBOL)		24	30	4	WHITE	IX	BLACK			X	5.00				1						
	OM1-1	OBJECT MARKER	1																				
R63	W2-6	CIRCULAR INTERSECTION WARNING		30	30	4	YELLOW	XI	BLACK			X	6.25				1						INSTALL ON FLASHING BEACON
SUBTOTAL THIS SHEET			3										123.36	8	4.333	0	14	1	3	4	3	4	
TOTAL			3										296.33	33	18	0	33	4	8	8	4	5	

100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

SQ2

CITY OF SAN JOSE

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

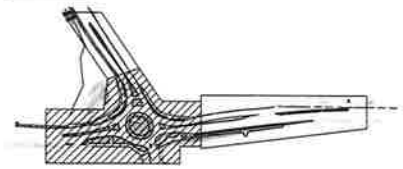
SHEET TITLE: SIGN QUANTITIES

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. WETLAND No. C53755 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

DESIGNED BY: JAV
DRAWN BY: JAV
CHECKED BY: SPK
APPROVED BY: JWW
SCALE: NO SCALE
DATE: 02/03/2021
CITY SPECIFICATION NO.: 1000164
PLAN FILE NO./LOCATION: 24505002.dwg
SHEET NO.: 48 of 67

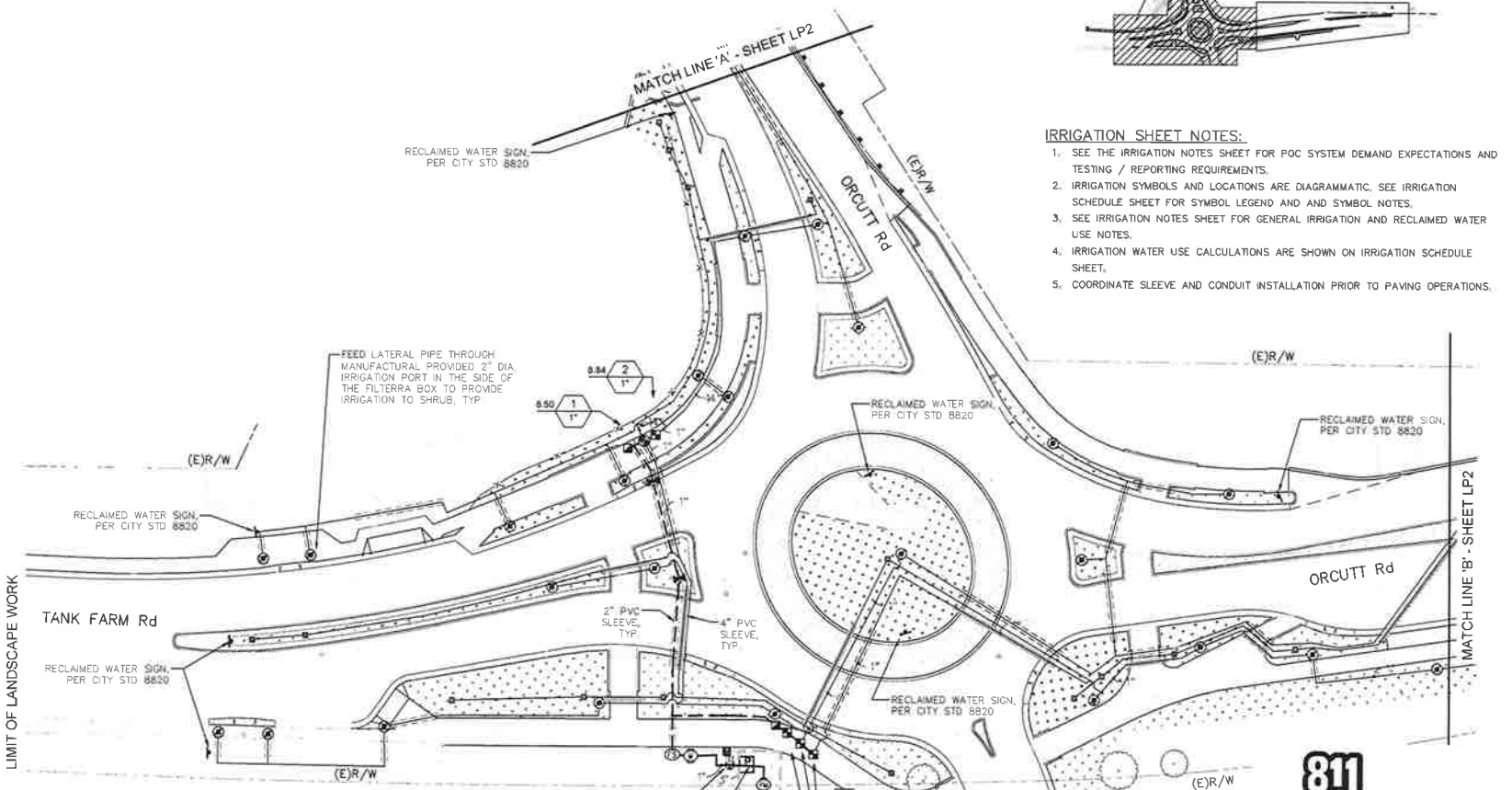
100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

KEY MAP:



IRRIGATION SHEET NOTES:

1. SEE THE IRRIGATION NOTES SHEET FOR POC SYSTEM DEMAND EXPECTATIONS AND TESTING / REPORTING REQUIREMENTS.
2. IRRIGATION SYMBOLS AND LOCATIONS ARE DIAGRAMMATIC. SEE IRRIGATION SCHEDULE SHEET FOR SYMBOL LEGEND AND AND SYMBOL NOTES.
3. SEE IRRIGATION NOTES SHEET FOR GENERAL IRRIGATION AND RECLAIMED WATER USE NOTES.
4. IRRIGATION WATER USE CALCULATIONS ARE SHOWN ON IRRIGATION SCHEDULE SHEET.
5. COORDINATE SLEEVE AND CONDUIT INSTALLATION PRIOR TO PAVING OPERATIONS.



POINT OF CONNECTION – CONTRACTOR TO TEE INTO EXISTING RECYCLED WATER MAINLINE IMMEDIATELY DOWNSTREAM OF EXISTING WATER METER SERVICING THE PARK IRRIGATION SYSTEM. TEE SHALL REDUCE FROM 3" TO 1" FOR NEW ROADWAY SYSTEM (MAINTAIN 3" CONNECTION TO PARK PUMP). CARE SHALL BE TAKEN WHEN EXCAVATING WITHIN EXISTING TREE ROOT SYSTEMS – SEE THE TREE PROTECTION PER THE CITY ARBORIST REQUIREMENT NOTES, SHEET LP10. COORDINATE CONNECTION AND LOCATION OF IRRIGATION SYSTEM COMPONENTS WITH CITY. SEE BYPASS SCHEMATIC DETAIL FOR ADDITIONAL INFORMATION.

EXISTING PUMP FOR PARK IRRIGATION SYSTEM.

CONTRACTOR TO REPLACE EXISTING PARK MASTER VALVE AND FLOW SENSOR LOCATED DOWNSTREAM OF EXISTING PUMP. SEE IRRIGATION SCHEDULE FOR MATERIAL REQUIREMENTS AND ADDITIONAL INFORMATION.

EXISTING IRRIGATION CONTROLLER LOCATED SOUTH OF THE PROJECT APPROXIMATELY 50 FT. MOUNTED TO THE BACK OF THE EXISTING PARK BATHROOM. RETROFIT CONTROLLER WITH FLOW SENSOR BYPASS TO ALLOW FOR INDEPENDENT CONTROL OF NEW FLOW METERS FOR THE PARK AND ROADWAY PROJECT. CONTRACTOR TO UTILIZE OPEN PORTS TO INSTALL NEW CONTROL AND NEUTRAL CONDUCTOR WIRES TO ROADWAY VALVES AND FLOW SENSOR. NEW WIRES SHALL BE HOUSED IN A 1" GREY PVC CONDUIT 24" BELOW GRADE IN THE SAME TRENCH AS OTHER CONDUIT / SLEEVES. ALL GROUND DISTURBANCE THROUGH EXISTING PARK LANDSCAPE FOR THE INSTALLATION OF NEW WIRE SHALL BE REPLACED "IN-KIND" TO THE SATISFACTION OF THE CITY.

811 Know what's below. Call before you dig.
Contractor shall call Underground Service Alert at 811 two working days prior to excavation

LP1

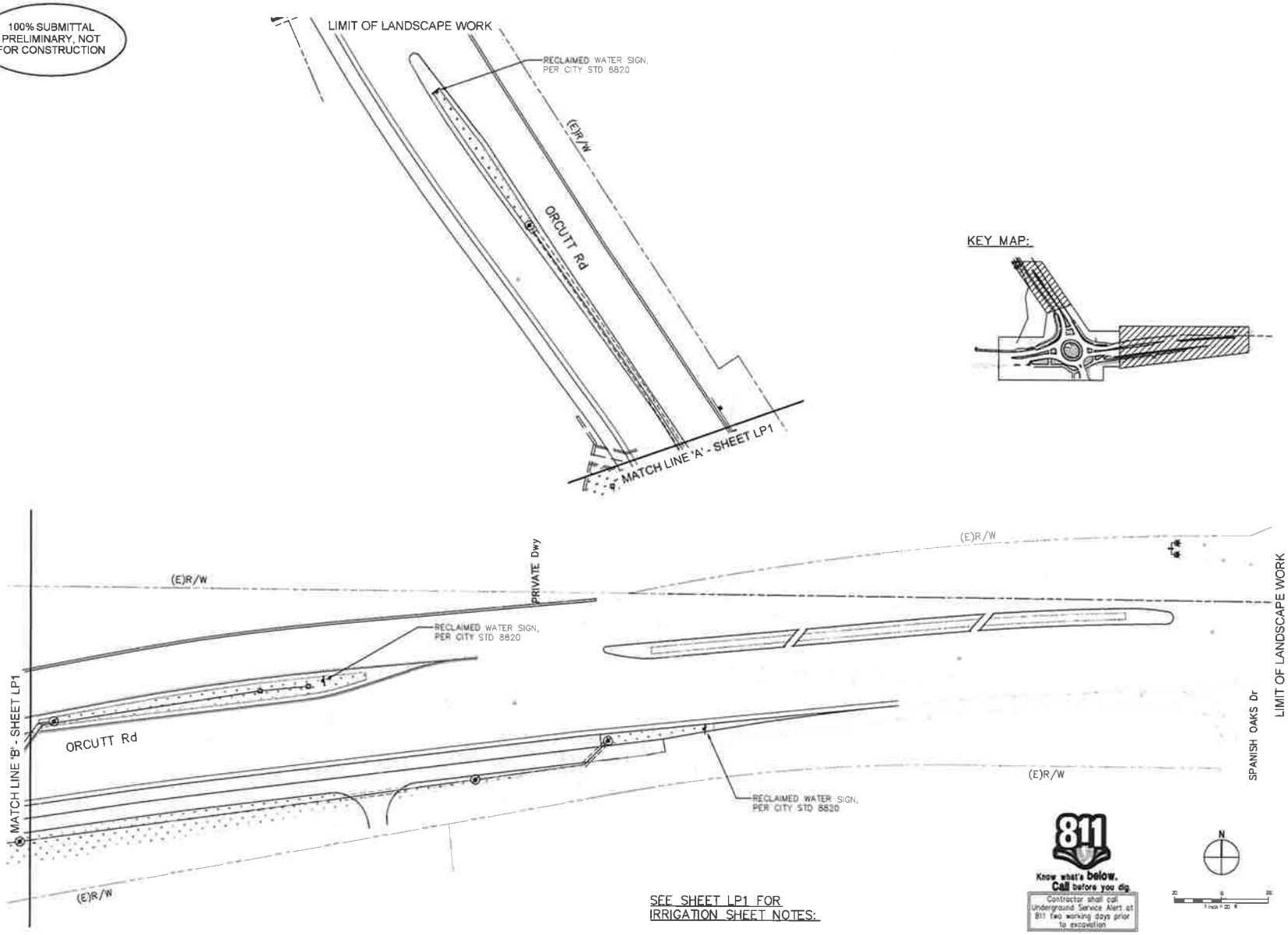
TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

IRRIGATION PLAN

LICENSED LANDSCAPE ARCHITECT LUCAS R. PIPER No. 5785 STATE OF CALIFORNIA

DESIGNED BY	LP
DRAWN BY	LP
CHECKED BY	SR
APPROVED BY	JWW
SCALE	1" = 20'
DATE	01/27/2021
CITY SPECIFICATION NO.	1000164
PLAN FILE NO / LOCATION	2460LSP001.dwg
SHEET NO	49 of 67

100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION



SEE SHEET LP1 FOR
IRRIGATION SHEET NOTES:

LP2

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

SHEET TITLE: IRRIGATION PLAN

LICENSED LANDSCAPE ARCHITECT — LUCAS R. PIPER — STATE OF CALIFORNIA

DESIGNED BY	LP
DRAWN BY	LP
CHECKED BY	SR
APPROVED BY	JWW
SCALE	1" = 20'
DATE	01/27/2021
CITY SPECIFICATION NO.	1000164
PLAN FILE NO./LOCATION	2460LSP001.dwg
SHEET NO.	50 of 67

SHRUB SCHEDULE

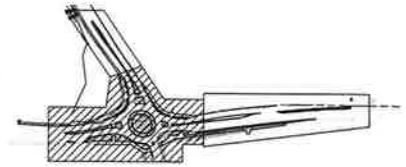
SHRUBS	BOTANICAL NAME	CONT
	Anigozanthos flavidus "Tequila Sunrise"	5 gal
	Cistus x purpureus	5 gal
	Cistus x skanbergii	5 gal
	Dietes iridioides	5 gal
	Muhlenbergia rigens	5 gal
	Nandina domestica	5 gal
	Nandina domestica "Moon Bay" TM	5 gal
	Phormium x "Black Adder"	5 gal
	Rhaphiolepis indica "Ballerina"	5 gal
	Rhaphiolepis indica "Pink Lady"	5 gal
G.C. / LOW SHRUB	**BOTANICAL NAME**	**CONT**
	Ceanothus glorosus "Anchor Bay"	5 gal
	Ceanothus glorosus "Heart's Desire"	5 gal
	Epilobium canum "Calistoga"	1 gal
	Lantana camara "Dwarf Yellow"	1 gal
	Lantana montevidensis "Purple"	1 gal
	Lomandra longifolia "Breeze"	1 gal
	Salvia spathacea	1 gal
	Teucrium chamaedrys	1 gal
	Tulbaghia violacea "Silver Lace"	1 gal

100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

PLANTING SHEET NOTES:

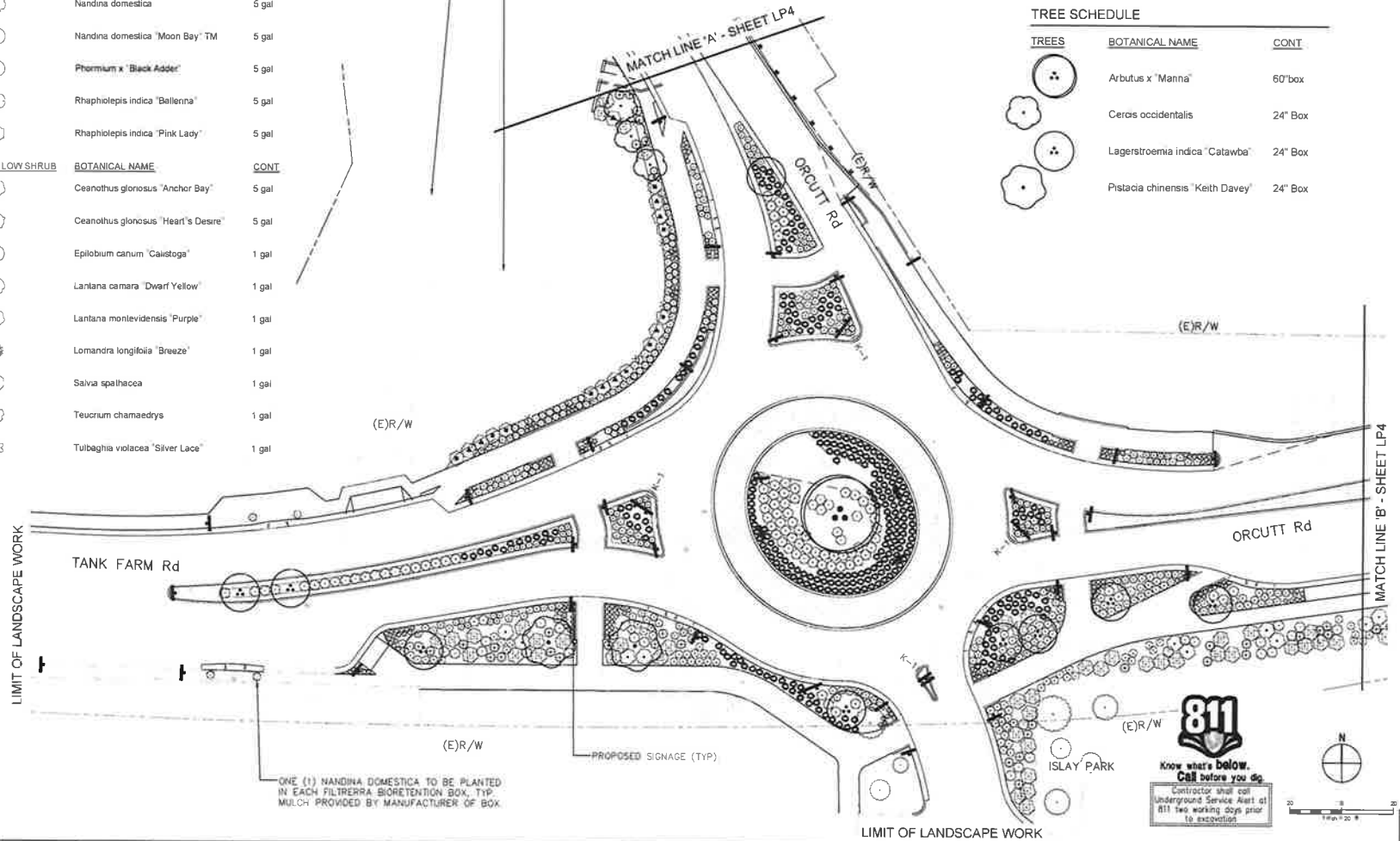
1. SEE PLANT SCHEDULE SHEET FOR TOPSOIL BACKFILL SPECIFICATIONS. ALL PLANTING AREAS SHALL BE BACKFILLED WITH A 24" DEEP LAYER OF TOPSOIL.
2. ALL PLANTER AREAS (EXCEPT FOR FILTERRA BIORETENTION BOXES) SHALL BE MULCHED WITH A 3" LAYER OF WOOD MULCH. SEE PLANT SCHEDULE SHEET FOR MULCH SPECIFICATION.
3. SEE PLANTING SCHEDULE SHEET FOR COMPLETE PLANT SCHEDULE AND PLANTING NOTES.

KEY MAP:



TREE SCHEDULE

TREES	BOTANICAL NAME	CONT
	Arbutus x "Manna"	60"box
	Cercis occidentalis	24" Box
	Lagerstroemia indica "Catawba"	24" Box
	Pistacia chinensis "Keith Davey"	24" Box

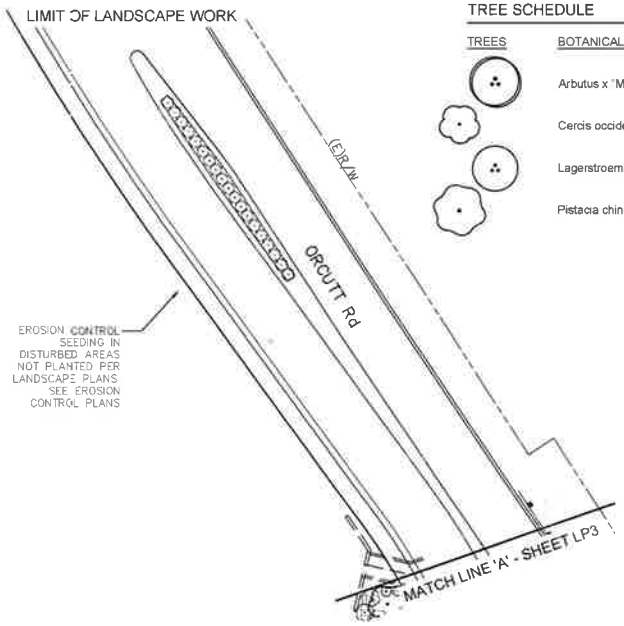


LP3

TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

PLANTING PLAN

DESIGNED BY	LP
DRAWN BY	LP
CHECKED BY	SR
APPROVED BY	JWW
SCALE	1" = 20'
DATE	01/27/2021
CITY SPECIFICATION NO.	1000164
PLAN FILE NO / LOCATION	2460LSP001.dwg
SHEET NO.	51 of 67



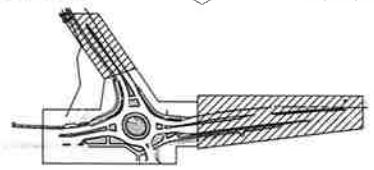
TREE SCHEDULE

TREES	BOTANICAL NAME	CONT
	Arbutus x "Marina"	60"box
	Cercis occidentalis	24" Box
	Lagerstroemia indica "Catawba"	24" Box
	Pistacia chinensis "Keith Davey"	24" Box

SHRUB SCHEDULE

SHRUBS	BOTANICAL NAME	CONT	G.C. / LOW SHRUB	BOTANICAL NAME	CONT
	Anigozanthos flavidus "Tequila Sunrise"	5 gal		Ceanothus gloriosus "Anchor Bay"	5 gal
	Cistus x purpureus	5 gal		Ceanothus gloriosus "Heart's Desire"	5 gal
	Cistus x skanbergii	5 gal		Epilobium canum "Calistoga"	1 gal
	Dietes iridioides	5 gal		Lantana camara "Dwarf Yellow"	1 gal
	Muhlenbergia rigens	5 gal		Lantana montevidensis "Purple"	1 gal
	Nandina domestica	5 gal		Lomandra longifolia "Breeze"	1 gal
	Nandina domestica "Moon Bay" TM	5 gal		Salvia spathacea	1 gal
	Phormium x "Black Adder"	5 gal		Teucrium chamaedrys	1 gal
	Rhaphiolepis indica "Ballerina"	5 gal		Tulbaghia violacea "Silver Lace"	1 gal
	Rhaphiolepis indica "Pink Lady"	5 gal			

KEY MAP:



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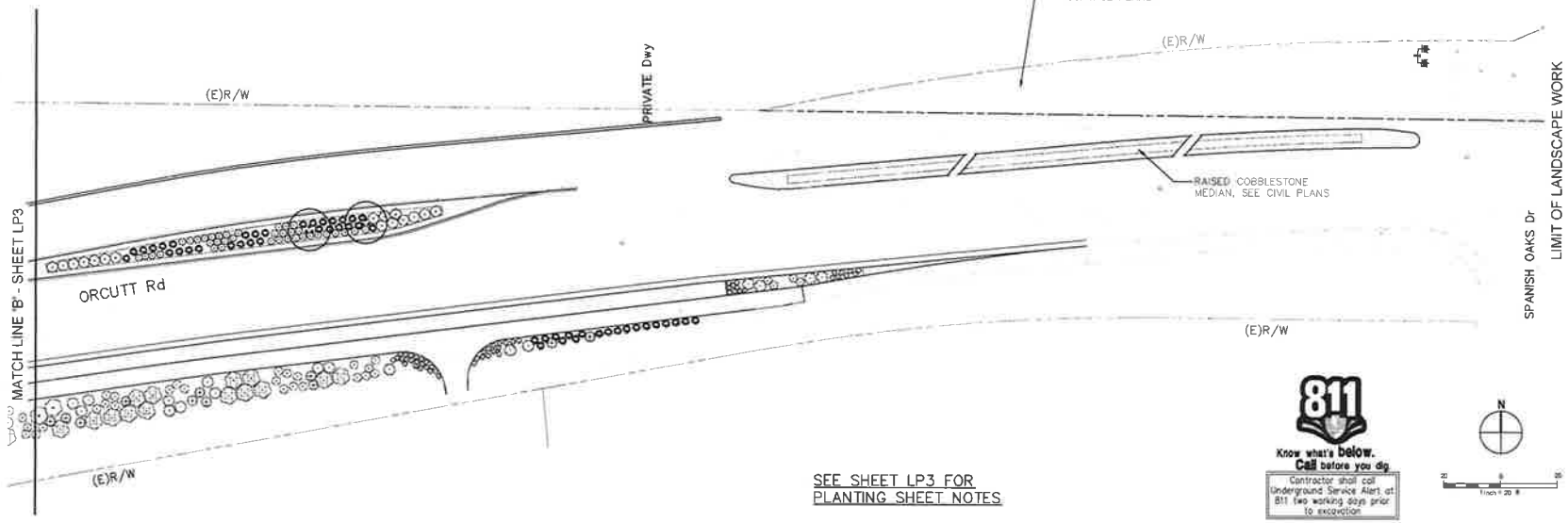


SEE SHEET LP3 FOR PLANTING SHEET NOTES

811 Know what's below. Call before you dig.

Contractor shall call Underground Service Alert at 811 two working days prior to excavation

N

1 inch = 20 ft

LP4

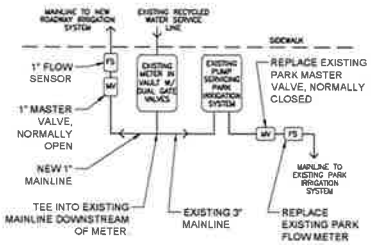
TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

PLANTING PLAN

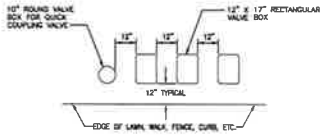
LICENSED LANDSCAPE ARCHITECT LUCAS R. PIPER STATE OF CALIFORNIA

DESIGNED BY	LP
DRAWN BY	LP
CHECKED BY	SR
APPROVED BY	JWW
SCALE	1" = 20'
DATE	01/27/2021
CITY SPECIFICATION NO	1000164
PLAN FILE NO / LOCATION	2460LSP001.dwg
SHEET NO	52 of 67

100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

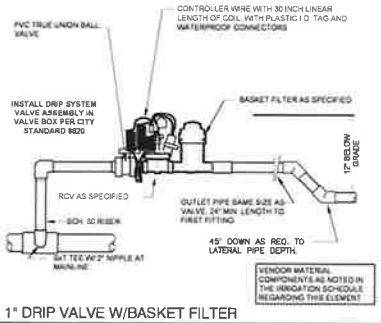


1 BYPASS SCHEMATIC LAYOUT
NOT TO SCALE

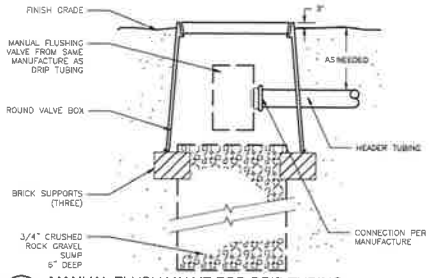


1. CENTER VALVE BOX OVER REMOTE CONTROL VALVE TO FACILITATE SERVICING VALVE.
2. SET BOXES 1" ABOVE FINISH GRADE OR MULCH COVER IN GROUND COVER/SHRUB AREA AND FINISH GRADE IN TURF AREA.
3. SET RCV AND VALVE BOX ASSEMBLY IN GROUND COVER/SHRUB AREA WHERE POSSIBLE. INSTALL IN LAWN ONLY IF GROUND COVER DOES NOT EXIST ADJACENT TO LAWN.
4. SET BOXES PARALLEL TO EACH OTHER AND PERPENDICULAR TO EDGE OF LAWN, WALK, FENCE, CURB, ETC.
5. AVOID HEAVILY COMPACTING SOIL AROUND VALVE BOXES TO PREVENT COLLAPSE AND DEFORMATION OF VALVE BOX SIDES.
6. INSTALL EXTENSION BY VALVE BOX MANUFACTURER AS REQUIRED TO COMPLETELY ENCLOSE ASSEMBLY FOR EASY ACCESS.

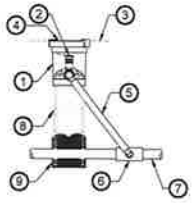
2 VALVE BOX LAYOUT
NOT TO SCALE



3 1" DRIP VALVE W/BASKET FILTER
1 1/2" = 1'-0"
P-TA-12



4 MANUAL FLUSH VALVE FOR DRIP TUBING
NOT TO SCALE



1. RAIN BIRD RWS-M-B-C-P-1402 (INCLUDES RETAINER, 18 (45.7 cm) TUBE, 0.5 GPM (1.9 L/M) BUBBLER & INTEGRATED CHECK VALVE, 4 (10.2 cm) GRATE, 1 1/2 (1.3 cm) M NPT INLET SPIRAL BARB ELBOW)
2. BUBBLER, RAIN BIRD 1402 0.5 GPM (1.9 L/M) (INCLUDED)
3. FINISH GRADE/TOP OF MULCH
4. 4" (10.2 cm) LOCKING GRATE (PURPLE IN COLOR)
5. 1/2" (1.3 cm) SWING ASSEMBLY RAIN BIRD SA-125250
   OR
   1/2" (1.3 cm) SWING PIPE RAIN BIRD SP SERIES WITH 1/2" (1.3 cm) MALE NPT x 0.490" BARB ELBOW RAIN BIRD SBE-050
6. PVC OR POLYETHYLENE LATERAL PIPE
7. PVC OR POLYETHYLENE LATERAL PIPE
8. 4" (10.2 cm) WIDE x 18" (45.7 cm) LONG RIGID BASKET WEAVE CANISTER (INCLUDED)
9. OPTIONAL SOCK (RWS-SOC6) FOR SANDY SOILS

NOTES:
1. INSTALL PRODUCT SO THAT THE GRATE IS EVEN WITH FINISH GRADE OR TOP OF MULCH.
2. OPTIONAL BARB SOCK (RBS-SOC6) IS 34" (86.4 CM) IN LENGTH, CUT TO LENGTH NEEDED TO COVER MESH BASKET AREA.
3. WHEN INSTALLING IN EXTREMELY HARD OR CLAY SOILS, ADD 3/4" (1.9 CM) GRAVEL UNDER AND AROUND THE UNIT TO ALLOW FASTER WATER INFILTRATION AND ROOT PENETRATION.
4. ONCE RWS-M HAS BEEN INSTALLED FILL THE BASKET WITH PEA GRAVEL BEFORE LOCKING LID.

5 ROOT WATERING SYSTEM
NOT TO SCALE
P-TA-22

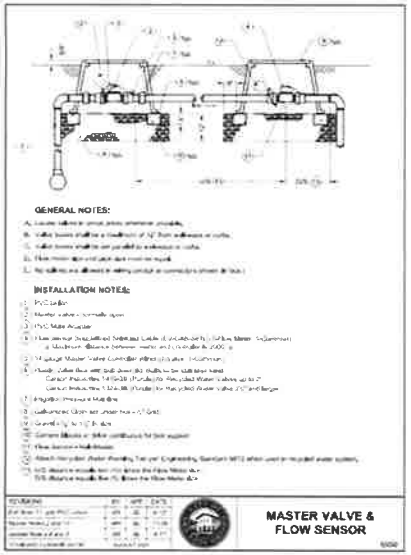
LP5

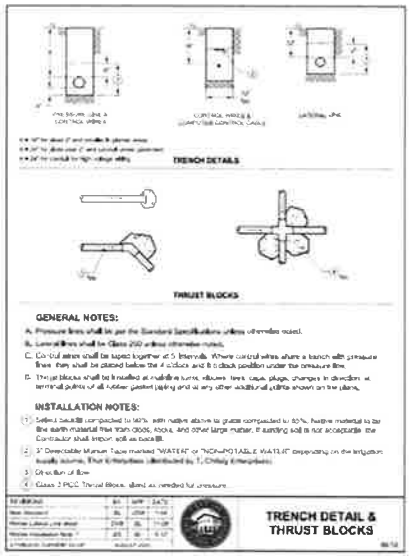
PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

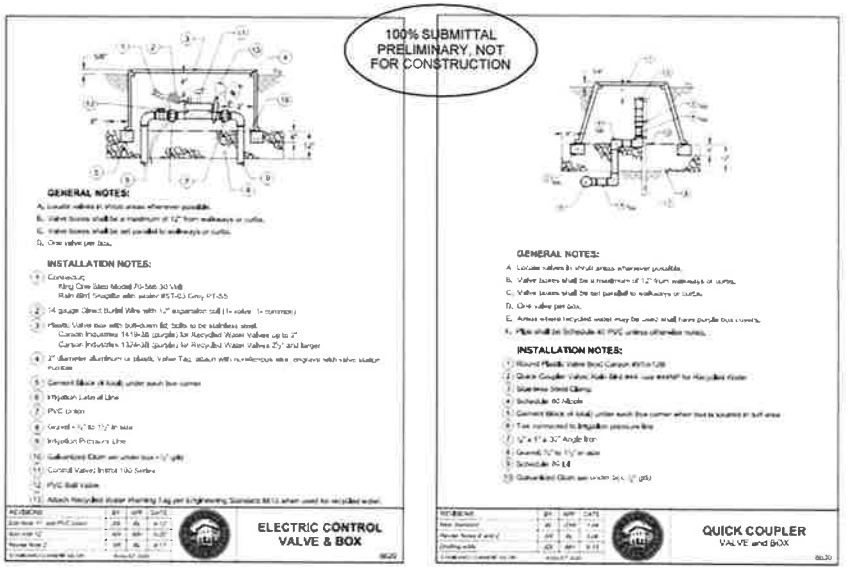
SHEET TITLE: IRRIGATION DETAILS

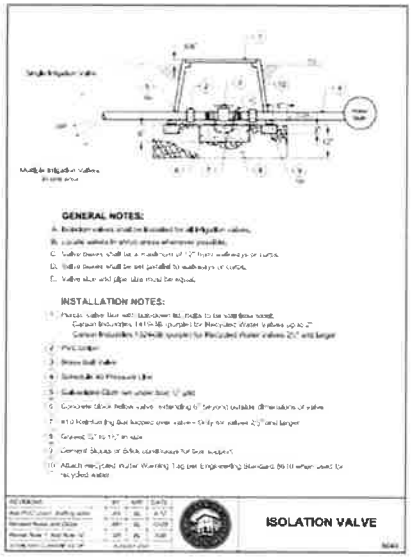
LICENSED LANDSCAPE ARCHITECT
LUCAS R. PIPER
STATE OF CALIFORNIA

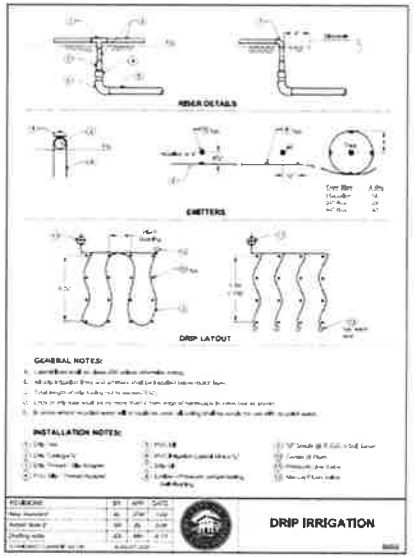
DESIGNED BY	LP
DRAWN BY	LP
CHECKED BY	SR
APPROVED BY	JWW
SCALE	NO SCALE
DATE	01/27/2021
CITY SPECIFICATION NO	1000164
PLAN FILE NO / LOCATION	2460LSP001.dwg
SHEET NO	53 of 67

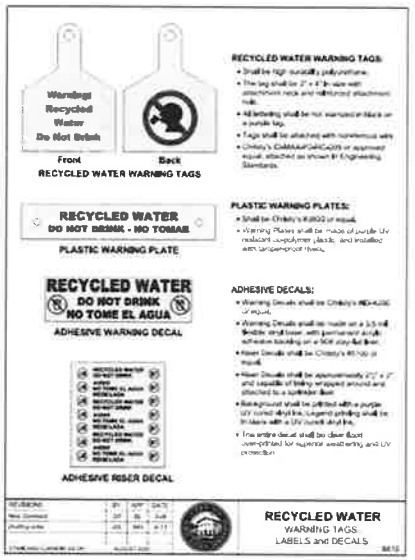


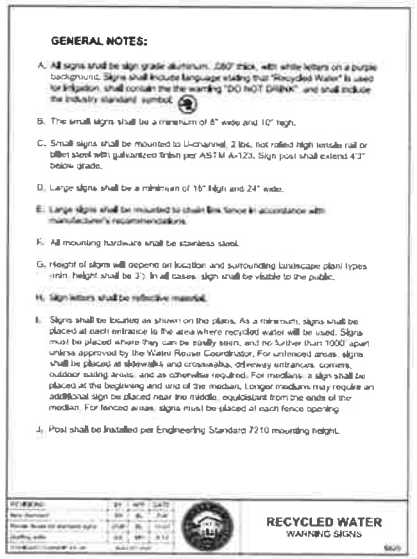












LP6

TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

IRRIGATION CITY STANDARDS

PROJECT TITLE

SHEET TITLE

LICENSED LANDSCAPE ARCHITECT
JOHN R. PIPER
No. 2499
STATE OF CALIFORNIA

DESIGNED BY	LP
DRAWN BY	LP
REVIEWED BY	SR
APPROVED BY	JWW
SCALE	NO SCALE
DATE	01/27/2021
CITY SPECIFICATION NO	1000164
PLAN FILE NO / LOCATION	2460LSP001.dwg
SHEET NO	54 of 67

IRRIGATION NOTES

GENERAL

1. PUBLICLY MAINTAINED IRRIGATED AREAS SHALL ABIDE BY THE MOST RECENT VERSION OF THE CITY OF SAN LUIS OBISPO STANDARD SPECIFICATIONS AND ENGINEERING STANDARDS, AND THE PROCEDURES FOR RECYCLED WATER USE.
2. THE IRRIGATION DRAWINGS ARE DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. ALL PIPING, VALVES, ETC. SHOWN WITHIN PAVED AREAS IS FOR CLARITY ONLY AND ARE TO BE INSTALLED WITHIN PLANTING AREAS WHERE POSSIBLE. THE CONTRACTOR IS ALSO REQUIRED TO NOTIFY AND COORDINATE IRRIGATION CONTRACT WORK WITH ALL APPLICABLE CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE, CONDUIT OR SLEEVES THROUGH OR UNDER WALLS, ROADWAYS, PAVING, STRUCTURE, ETC., BEFORE CONSTRUCTION. IN THE EVENT THESE NOTIFICATIONS ARE NOT PERFORMED, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL REQUIRED REVISIONS.
3. CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE PLANS AND SITE CONDITIONS PRIOR TO BEGINNING WORK. THE CONTRACTOR SHALL NOT WILLFULLY INSTALL THE IRRIGATION SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS, GRADE DIFFERENCES, DIFFERENCES IN THE AREA, AND/OR DIFFERENCES IN DIMENSIONS EXISTING THAT MIGHT NOT HAVE BEEN KNOWN DURING THE TIME THE PLANS WHERE CREATED. SHOULD CONFLICTS ARISE BETWEEN THE PLANS AND SITE CONDITIONS, THE CONTRACTOR SHALL NOTIFY THE PROJECT LANDSCAPE ARCHITECT AND CITY PRIOR TO PROCEEDING WITH THE WORK IN QUESTION.
4. THIS IRRIGATION SYSTEM POINT OF CONNECTION SHALL TAP INTO AN EXISTING RECLAIMED WATER CONNECTION SERVICE AT THE LOCATION SHOWN ON PLANS, DOWNSTREAM OF THE EXISTING RECYCLED WATER METER. THE LANDSCAPE CONTRACTOR SHALL COORDINATE WITH THE CITY TO VERIFY LOCATION OF EXISTING RECYCLED WATER FACILITIES AND OBTAIN APPROVAL OF CONNECTION LOCATION AND LOCATION OF DOWNSTREAM COMPONENTS.
5. THE CONTRACTOR SHALL MAINTAIN FUNCTION OF THE EXISTING PARK IRRIGATION SYSTEM DURING AND AFTER WORK COMPLETION. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING THE EXISTING PARK MASTER VALVE AND FLOW METER AS SHOWN ON THE PLANS AND SCHEDULE TO THE SATISFACTION OF THE CITY.
6. THE LOCATION OF EXISTING UNDERGROUND UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND INCOMPLETE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ANY AND ALL EXISTING UTILITIES BEFORE COMMENCING WORK. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO "POTHOLE" ALL EXISTING FACILITIES AS NEEDED TO DETERMINE THE DEPTH AND DIRECTION OF UNDERGROUND FACILITIES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO "POTHOLE" ALL EXISTING FACILITIES FAR ENOUGH AHEAD OF CONSTRUCTION (300 FT. MIN.) TO ALLOW FOR VERTICAL ADJUSTMENTS IN GRADE TO AVOID CONFLICTS WITH EXISTING FACILITIES. ALL FIELD ADJUSTMENTS SHALL BE ACCOMPLISHED AT THE SOLE EXPENSE OF THE CONTRACTOR. CONTRACTOR SHALL ALSO NOTIFY UNDERGROUND SERVICE ALERT PRIOR TO BEGINNING ANY WORK ON SITE.
7. CONTRACTOR SHALL PROVIDE MANUFACTURERS' CUT SHEETS FOR ALL COMPONENTS SPECIFIED. ALL IRRIGATION EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURERS' RECOMMENDATIONS, SPECIFICATIONS, ACCORDING TO PLANS AND DETAILS, AND AT THE DIRECTION AND DISCRETION OF THE CITY.
8. CONTRACTOR SHALL SLEEVE UNDER PAVING PER PLANS AND SPECIFICATIONS. SLEEVES UNDER PAVING SHALL BE COORDINATED WITH THE CIVIL PLANS AND INSTALLED PRIOR TO PAVING OPERATIONS. SLEEVES SHALL BE 2X THE SIZE OF THE LINE(S) PROTECTED, AT LOCATIONS SHOWN ON THE PLANS, AND EXTEND 18" BEYOND EDGE OF PAVING.
9. ALL CONTROL WIRE SHALL BE THE TYPE AND SIZE PER CITY STANDARDS AND SPECIFICATIONS. WIRE SHALL BE INSTALLED IN A COMMON TRENCH WITH MAINLINE PIPING WHERE POSSIBLE. TWO "SPARE" WIRES SHALL RUN FROM THE CONTROLLER TO THE FARTHEST IRRIGATION VALVE(S). LOOP WIRES INTO VALVE BANKS ALONG THE RUN.
10. PLACE FLOW SENSOR DATA CABLE FROM CONTROLLER TO MASTER VALVE / FLOW SENSOR IN ITS OWN 1" DIAMETER SCH. 40 GREY ELECTRICAL CONDUIT.

CONTROLLER

1. CONTRACTOR SHALL UTILIZE AN EXISTING CITY IRRIGATION CONTROLLER LOCATED ON THE BACKSIDE OF THE ISLAY PARK RESTROOM. THE EXISTING CONTROLLER SHALL BE RETROFITTED AS DESCRIBED ON THE PLANS AND IRRIGATION SCHEDULE. NEW CONTROL AND NEUTRAL WIRES SHALL CONNECT FROM OPEN PORTS ON THE EXISTING CONTROLLER TO NEW VALVES.
2. CONTRACTOR SHALL PROGRAM THE EXISTING IRRIGATION CONTROLLER TO PROVIDE IRRIGATION TO ALL PLANTING WITHIN THE ALLOWED WATERING WINDOW OF TIME AS REQUIRED BY THE CITY. THE CONTRACTOR SHALL CREATE CONTROLLER PROGRAMING THAT WILL OPERATE ONE VALVE AT A TIME AS TO NOT EXCEED THE MAXIMUM GALLONS PER MINUTE FLOW RATE STATED ON THE DRAWINGS. COORDINATE WITH CITY PARKS TO VERIFY NEW SCHEDULES WITH EXISTING PARK IRRIGATION SCHEDULE.

SYSTEM DEMAND EXPECTATIONS

1. IRRIGATION POC REQUIREMENTS: IRRIGATION SYSTEM IS DESIGNED TO FUNCTION AT MINIMUM 12 GPM AND 85 PSI STATIC PRESSURE AT IRRIGATION POINT OF CONNECTION. CONTRACTOR TO VERIFY STATIC PRESSURE AT POC PRIOR TO COMMENCEMENT OF WORK. IF EXISTING STATIC PRESSURE IS MORE THAN 10 PSI LOWER THAN SYSTEM DESIGN LIMIT AS SPECIFIED, OR GPM IS LOWER THAN 15 GPM, THE CONTRACTOR SHALL NOTIFY THE CITY PRIOR TO PROCEEDING WITH IRRIGATION INSTALLATION.

COMPLETION

1. CONTRACTOR SHALL KEEP A DETAILED REDLINE PLAN RECORDING INSTALLATION OF IRRIGATION SYSTEM. RECORD PLAN SHALL BE DRAFTED WITH AS-BUILT DRAWINGS SHOWING LOCATIONS OF PIPING, VALVES, HEADS, WIRING, ETC. FOR APPROVAL BY CITY ENGINEER.
2. THREE LAMINATED, DETAILED IRRIGATION SCHEDULES SHOWING STATION PROGRAMMING AND RUN TIMES SHALL BE PROVIDED FOR THE CONTROLLER AND APPROVED BY CITY – ONE WARM SEASON, ONE COOL SEASON, AND ONE FOR PLANT ESTABLISHMENT PERIOD. EACH SCHEDULE SHALL BE ACCOMPANIED BY REDUCED "AS-BUILT" PLAN (11"X17") PERMANENTLY MOUNTED IN OR NEAR CONTROLLER. THESE SHALL BE SUBMITTED PRIOR TO ACCEPTANCE OF THE WORK AND AS A CONDITION OF COMMENCEMENT OF MAINTENANCE PERIOD, AFTER FINAL ACCEPTANCE OF THE PROJECT BY THE CITY. INCLUDE A WIRE COLOR ID AND DESIGNATION, WIRE COLOR, VALVE NO. AND LOCATION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE LANDSCAPE IRRIGATION SYSTEM FOR THE DURATION OF THE PLANT ESTABLISHMENT PERIOD. THIS INCLUDES PROGRAMMING THE MINIMUM AMOUNT OF WATER NEEDED TO SUSTAIN GOOD PLANT HEALTH. DUTIES SHALL ALSO INCLUDE CHECKING AND REPAIRING IRRIGATION SYSTEM TO MAINTAIN PEAK PERFORMANCE.
4. CONTRACTOR RESPONSIBLE TO COMPLETE STATE REQUIRED "CERTIFICATION OF INSTALLATION" AND COORDINATE A "LANDSCAPE IRRIGATION AUDIT REPORT" PER SECTION 492.11 OF THE STATE MODEL WATER EFFICIENT LANDSCAPE ORDINANCE.

CITY STANDARDS

UNLESS OTHERWISE SPECIFICALLY STATED IN THESE DRAWINGS, THE CONTRACTOR SHALL ADHERE TO THE CITY OF SAN LUIS OBISPO STANDARD SPECIFICATION AND ENGINEERING STANDARDS. REFER TO THE FOLLOWING CITY IRRIGATION STANDARD DETAILS:

- MASTER VALVE AND FLOW SENSOR STANDARD 8550
- TRENCH DETAIL AND THRUST BLOCKS STANDARD 8610
- ELECTRIC CONTROL VALVE AND BOX STANDARD 8620 (USE FOR ROOT ZONE WATER SYSTEM VALVES)
- QUICK COUPLER VALVE AND BOX STANDARD 8630
- ISOLATION VALVE STANDARD 8640
- DRIP IRRIGATION STANDARD 8660
- RECYCLED WATER WARNING TAGS, LABELS, AND DECALS STANDARD 8810
- RECYCLED WATER WARNING SIGNS STANDARD 8820

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PRELIMINARY, NOT
FOR CONSTRUCTION

ADDITIONAL DETAILS NOT COVERED BY, OR DIFFERING FROM, THE ENGINEERING STANDARDS ARE SHOWN ON THE IRRIGATION DETAILS SHEET.

GENERAL SITE INFORMATION FOR RECYCLED WATER USE

1. LANDSCAPE RECYCLED WATER IRRIGATION USE AREA: 15,668 SF
2. PUBLIC ACCESS TO SITE GROUND IS: OPEN
3. OWNER: CITY OF SAN LUIS OBISPO
4. PROPERTY MANAGER CONTACT: CITY OF SAN LUIS OBISPO PUBLIC WORKS
5. TENANTS: NOT APPLICABLE
6. ON-SITE WELL LOCATIONS: NONE
7. WELLS ON ADJACENT SITES LOCATED WITHIN 50 FT OF RECYCLED WATER APPROVED USE AREA OR WITHIN IN 100 FT OF ANY RECYCLED WATER IMPOUNDMENT: NOT KNOWN
8. OUTDOOR DRINKING FOUNTAINS IN/NEAR THE RECYCLED WATER USE AREA: NONE
9. OUTDOOR EATING AREAS IN/NEAR THE RECYCLED WATER USE AREA: NONE
10. WATER FEATURES ON SITE: NONE

CITY STANDARD NOTES FOR RECLAIMED WATER USE:

1. THE CITY MUST INSPECT AND/OR VERIFY:
   - PRESENCE OF PROPER BACKFLOW PREVENTION DEVICE AT ALL POTABLE WATER POINTS OF CONNECTION.
   - NEW UNDERGROUND PIPING (MATERIALS, BURIAL DEPTH, CLEARANCES, LABELING, SLEEVING).
   - INSTALLATION OF SIGNS, TAGS AND CONTROLLER DECALS.
   - REQUIRED TEMPORARY CONNECTION TO POTABLE WATER IN ORDER TO CONDUCT REQUIRED CROSS-CONNECTION TEST.
2. SITE MUST PASS A REQUIRED CROSS-CONNECTION TEST PERFORMED BY A CERTIFIED AWWA CROSS-CONNECTION SPECIALIST. IF POTABLE WATER IS NOT PRESENT AND/OR USED AT THE SITE, THE CROSS-CONNECTION TEST MAY BE WAIVED. CONTACT THE CITY UTILITIES DEPARTMENT TO DISCUSS TESTING REQUIREMENTS AT (805) 781-7239.
3. NEW METER INSTALLATION – PRIOR TO RECEIVING RECYCLED WATER, THE CITY MUST INSPECT THE DISCONNECTION OF THE SITE'S IRRIGATION SYSTEM FROM THE TEMPORARY POTABLE WATER SUPPLY, AND THEN INSPECT THE CONNECTION OF THE SYSTEM TO THE RECYCLED WATER SUPPLY.
4. ALL ON-SITE BURIED RECYCLED WATER PIPING SHALL BE IDENTIFIED BY ONE OF THE FOLLOWING METHODS:
   - USING PURPLE-COLORED PVC PIPE WITH CONTINUOUS WORDING: "CAUTION – RECYCLED WATER" OR "CAUTION – RECLAIMED WATER" PRINTED ON OPPOSITE SIDES OF THE PIPE. PIPE SHALL BE LAID WITH WORDING FACING UPWARDS.
   - USING PURPLE-COLORED POLYWRAP SLEEVE OVER THE PIPE. POLYWRAP SLEEVE SHALL HAVE CONTINUALLY REPEATING WORDING: "CAUTION – RECYCLED WATER" OR "CAUTION – RECLAIMED WATER" PRINTED ON OPPOSITE SIDES.
   - WARNING TAPE WITH A MINIMUM WIDTH OF THREE INCHES (3") READING, "CAUTION – RECYCLED WATER" OR "CAUTION – RECLAIMED WATER" (IN BLACK OR WHITE LETTERING ON PURPLE BACKGROUND) SHALL RUN CONTINUOUSLY ON TOP OF PIPING AN SHALL BE ATTACHED TO PIPING WITH PLASTIC TAPE BANDED AROUND THE WARNING TAPE AND THE PIPE EVERY FIVE (5') ON CENTER.
5. ALL ON-SITE RECYCLED WATER PIPING SHALL BE BURIED TO A MINIMUM DEPTH FROM FINISHED GRADE TO TOP OF PIPE (MINIMUM COVER) OF:
   - PRESSURIZED LINES 3 INCHES AND LARGER – 24 INCHES
   - PRESSURIZED LINES 2 1/2 INCHES AND SMALLER – 18 INCHES
   - INTERMITTENT PRESSURE LINES – 12 INCHES
6. ALL RECYCLED WATER PIPING OTHER THAN PVC PIPING WITH SOLVENT WELDED JOINTS SHALL BE PROTECTED AGAINST MOVEMENT WITH THRUST BLOCKS OR RESTRAINED JOINTS OR OTHER APPROVED METHOD PER THE CITY OF SAN LUIS OBISPO REQUIREMENTS.
7. MAINTAIN A 10-FOOT HORIZONTAL SEPARATION BETWEEN BURIED PRESSURIZED RECYCLED WATER IRRIGATION PIPING AND BURIED POTABLE WATER PIPING UNLESS OTHERWISE NOTED. AT PIPE CROSSINGS, BURIED PRESSURIZED RECYCLED WATER IRRIGATION PIPING MUST BE 12 INCHES BELOW POTABLE WATER LINES. PRESSURIZED RECYCLED WATER PIPELINES ARE ALLOWED OVER POTABLE WATER PIPELINED WITH A MINIMUM OF 12 INCHES OF VERTICAL SEPARATION IF A FULL STANDARD PIPE LENGTH IS CENTERED OVER THE CROSSING. OF THE RECYCLED WATER PIPELINE IS INSTALLED IN A PIPE SLEEVE WHICH EXTENDS A MINIMUM OF 10 FEET ON EITHER SIDE OF THE POTABLE WATER PIPING. INTERMITTENTLY PRESSURIZED IRRIGATION LINES MAY BE LOCATED A MINIMUM OF 12 INCHES ABOVE POTABLE WATER PIPELINES WITHOUT SLEEVING.
8. ALL RECYCLED WATER SYSTEM REMOTE CONTROL VALVES, ISOLATION VALVES, QUICK COUPLING VALVES, STRAINERS, AND PRESSURE-REGULATING VALVES SHALL BE INSTALLED BELOW GRADE IN VALVE BOXES (WITH PURPLE-COLORES BOXES AND LIDS). VALVE BOXES SHALL HAVE A WARNING LABEL OR NAMEPLATE PERMANENTLY MOLDED INTO OR ATTACHED ONTO THE LID WITH RIVETS, SCREWS, OR BOLTS. WARNING LABELS SHALL BE PER CITY OF SAN LUIS OBISPO STANDARD DETAILS.
9. NO HOSE BIBS ARE ALLOWED ON THE RECYCLED WATER IRRIGATION SYSTEM.
10. ALL RECYCLED WATER METERS, DEVICES AND VALVES (E.G. ISOLATION VALVES, IRRIGATION CONTROLLERS, REMOTE CONTROL VALVES, PRESSURE REGULATING VALVES, QUICK COUPLING VALVES, ETC.) SHALL BE TAGGED PER CITY OF SAN LUIS OBISPO STANDARD DETAILS.
11. RECYCLED WATER ADVISORY SIGNS CONFORMING TO THE DETAILS AND SPECIFICATIONS ON THE CITY OF SAN LUIS OBISPO-APPROVED IRRIGATION PLANS SHALL BE POSTED PER LOCATIONS SHOWN ON THOSE IRRIGATION PLANS.
12. INSTALLATION OF DIRECT INJECTION SYSTEMS ON THE RECYCLED WATER IRRIGATION SYSTEM IS NOT PERMITTED.
13. NO DRINKING FOUNTAINS OR EATING AREAS ARE ALLOWED IN THE APPROVED RECYCLED WATER USE AREA UNLESS ADEQUATELY PROTECTED FROM OVERSPRAY.
14. ALL RECYCLED WATER METERS WILL BE SET BY THE CITY AFTER THE SITE'S OWNER, DEVELOPER, OR CONTRACTOR HAS APPLIED FOR RECYCLED WATER SERVICE WITH THE CITY. THE WATER SERVICE AGREEMENT HAS BEEN APPROVED (IF APPLICABLE), AND ALL APPLICABLE FEES HAVE BEEN PAID.
15. NO OVERSPRAY OR RUNOFF OF RECYCLED WATER IS ALLOWED ON ANY NON-APPROVED USE AREA. PONDING OF RECYCLED WATER DUE TO IRRIGATION IS NOT ALLOWED IN ANY AREA. UPON RECEIVING RECYCLED WATER, THE ON-SITE RECYCLED WATER IRRIGATION SYSTEM MUST PASS A COVERAGE TEST CONDUCTED BY THE CITY OF SAN LUIS OBISPO INSPECTOR OR DESIGNEE.
16. CONTRACTOR SHALL SUBMIT AS-BUILT IRRIGATION PLANS TO THE CITY OF SAN LUIS OBISPO INSPECTOR WITHIN 90 DAYS OF SITE RECEIVING RECYCLED WATER.
17. IRRIGATION HEADS SHALL BE LOCATED NO CLOSER THAN 24" FROM HARDSCAPE EDGES WHEN HARDSCAPE DRAINS AWAY FROM LANDSCAPE AREAS PER WATER EFFICIENT LANDSCAPE ORDINANCE.

LP7

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

SHEET TITLE: IRRIGATION NOTES

LICENSED LANDSCAPE ARCHITECT — LUKE R. PIPER — STATE OF CALIFORNIA

REVISED BY	LP
DRAWN BY	LP
DESIGNED BY	SR
APPROVED BY	JWW
SCALE	NO SCALE
DATE	01/27/2021
CITY SPECIFICATION NO	1000164
PLAN FILE NO / LOCATION	2460LSP001.dwg
SHEET NO	55 of 67

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Electric Control Valve 1". Rain Bird PESBR-PRS-D Valves for Reclaimed Water Applications. With Scrubber Mechanism Technology, Purple Flow Control Handle, and Pressure Regulator Module. Set pressure regulation to 30psi.	1
	Quick Coupler 1" Rain Bird 44-NP Brass Quick-Coupling Valve, with Corrosion-Resistant Stainless Steel Spring, Locking Non-Potable Purple Rubber Cover, and 2-Piece Body. See City Standard detail.	2
	Isolation Valve Nibco T-113 Class 125 bronze gate shut off valve with wheel handle, same size as mainline pipe diameter at valve location. See City Standard detail.	2
PM	Park Master Valve 3" 3" Buckner-Superior 3200-RW Master Valve. Normally Closed Brass Master Valve to replace existing Master Valve Sevicing Park Irrigation System. Purple Cross Handle for Reclaimed Water Use.	1
W	Roadway Master Valve 1" 1" Buckner-Superior 3100-RW Master Valve. Normally Open Brass Master Valve Sevicing New Roadway Irrigation System. Purple Cross Handle for Reclaimed Water Use.	1
C	Existing Irrigation Controller Contractor to use existing Irrigation Controller located approximately 50' to the south at the rear of the park restroom. Contractor to provide new control and neutral conductors from existing controller to new valve and flow sensor locations. Contractor to retrofit existing irrigaiton controller with Calsense Transient Protection Board (TP-1) and Flow Sensor Bypass Interface (F-RETRO) to allow for existing controller to read new flow meters and operate separate master valves independently.	1
FS	Park Flow Sensor Calsense 3" Flow Sensor (FM-3) to Replace Flow Sensor for Existing Park Irrigation System. Verify use of existing wires from old sensor for direct communication with existing controller in the field. See City Standard detail.	1
FS	Roadway Flow Sensor Calsense 1" Flow Sensor (FM-1B) for New Roadway Project. Wire directly to controller using flow sensing cable (ev-cab-sen) for communicaiton shutoff with master valve. See City Standard detail.	1
	Point of Connection 1" Existing Recycled Water City Meter. See Civil Plans	1
	Irrigation Lateral Line: PVC Schedule 40 Recycled Water Warning, Purple in Color	2,984 l.f.
	Irrigation Mainline: PVC Schedule 40 1" Mainline, Recycled Water Warning, Purple in Color	238.6 l.f.
	Pipe Sleeve: 2" PVC Schedule 40 Sleeve Sleeves shall be 2x pipe diameter, extend sleeves 18" beyond edges of paving. Install sleeves per City Standards.	633.5 l.f.
	Pipe Sleeve: 4" PVC Schedule 40 Sleeve Max 2 pipes per Sleeve. Sleeve shall be 2x total diameter of pipes serviced. Extend sleeves 18" beyond edges of paving. Install sleeves per City Standards.	260.6 l.f.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
1402	Mini Root Watering System Rain Bird RWS-M-B-C-P with 4.0" diameter x 18.0" long with locking grate, semi-rigid mesh tube and Rain Bird 1402 0.5 gpm bubbler as indicated. With Check Valve and Purple Grate.	17

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Drip Zone Valve Assembly Rain Bird XCZ-100-PRB-R Wide Flow Drip Control Kit. Purple Cap designates for Reclaimed Water, Non-Potable Use. 1" PESBR Valve and 1" Pressure Regulating 40psi Basket Filter, 0.3gpm to 20gpm. Install per detail.	4
	Pipe Transition Point Pipe transition from PVC laterai line to on-grade drip tubing.	28
	Area to Receive Drip Emitters Drip Irrigation Rain Bird XB-PC, Pressure Compensating Drip Emitters. Flow rates of 0.5gph=blue, 1.0gph=black, and 2.0gph=red. Comes with a self-piercing barb inlet x barb outlet. All tubing shall be purple in color. See City Standard detail. Emitter Notes: 1.0 GPH emitters (1 assigned to each 1 gal plant) 1,035 1.0 GPH emitters (2 assigned to each 5 gal plant) 718	15,423 s.f.

CRITICAL ANALYSIS

Generated:	2020-03-31 14:27
P.O.C. NUMBER: 01	
Water Source Information:	Existing Recycled Water City Meter. See Civil Plans
FLOW AVAILABLE	
Point of Connection Size:	1"
Flow Available:	20.24 gpm
PRESSURE AVAILABLE	
Static Pressure at POC:	85.00 psi
Pressure Available:	85.00 psi
DESIGN ANALYSIS	
Maximum Station Flow:	10.16 gpm
Flow Available at POC:	20.24 gpm
Residual Flow Available:	10.08 gpm
Critical Station:	5
Design Pressure:	40.00 psi
Friction Loss:	6.70 psi
Fittings Loss:	0.67 psi
Elevation Loss:	0.00 psi
Loss through Valve:	7.48 psi
Pressure Req. at Critical Station:	54.86 psi
Loss for Fittings:	0.25 psi
Loss for Main Line:	2.53 psi
Loss for POC to Valve Elevation:	0.00 psi
Loss for Backflow:	0.00 psi
Loss for Master Valve:	0.77 psi
Critical Station Pressure at POC:	58.41 psi
Pressure Available:	85.00 psi
Residual Pressure Available:	26.59 psi

SCH 40 LATERAL SIZING CHART

GPM	PIPE SIZE
0–8	3/4"
8–15	1"
15–25	1.25"
25–35	1.5"
35–56	2"

LANDSCAPE DOCUMENTATION PACKAGE

PROJECT INFORMATION:

1. PROJECT LOCATION IS AS SHOWN ON TITLE SHEET
2. TOTAL LANDSCAPE AREA: 15,423 SF
3. PROJECT TYPE: PUBLIC CITY ROUNDABOUT
4. WATER PURVEYOR: CITY OF SAN LUIS OBISPO UTILITY SERVICES WATER DIVISION
5. WATER SUPPLY TYPE: RECLAIMED WATER
6. DOCUMENTS IN THIS PACKAGE INCLUDE:
   - IRRIGATION PLANS / DETAILS
   - PLANTING PLANS / DETAILS
   - MAWA WATER BUDGET CALCULATIONS
   - ETWU WATER BUDGET CALCULATIONS
7. SOIL MANAGEMENT REPORT: NOT PREPARED – ALL PLANTING SOIL SHALL BE IMPORTED TOPSOIL FOR BACKFILL IN OVER-EXCAVATED PLANTER AREAS. SOIL SHALL CONFORM TO PLAN NOTES, DETAILS, AND CALTRANS STANDARD FOR IMPORTED TOPSOIL.
8. SEE CONTOUR GRADING SHEETS FOR GRADING INFORMATION

DESIGNER'S STATEMENT

I HAVE COMPLIED WITH THE CRITERIA OF THE STATE OF CALIFORNIA ASSOCIATED WITH THE MODEL WATER EFFICIENT LANDSCAPE ORDINANCE AND APPLIED THEM ACCORDINGLY FOR THE EFFICIENT USE OF WATER IN THE IRRIGATION DESIGN PLAN.

STATEMENT PREPARED BY:

LUCAS R. PIPER, CA LLA 5873
LANDSCAPE ARCHITECT

GHD, INC.
916–782–8688
lucas.piper@ghd.com

Orcutt and Tank Farm Roundabout, SLO, CA

Based on landscape areas to be maintained

(per the State Model as of November 2017)

MAWA (Maximum Applied Water Allowance) Calculation

Formula per State = (Eto)(0.62)((ETAF*LA) + ((1-ETAF)*SLA))

Annual Gallons Allowed = 418,826.99

MAWA Criteria

ETo =	43.80
ETAF =	0.45
LA =	15,423.00
SLA =	15,423.00

Orcutt and Tank Farm Roundabout, SLO, CA

Based on landscape areas to be maintained

ETWU (Estimated Total Water Use) Calculation (Eto x 0.62 x ((PF x HA)/IE) + SLA)

Hydro Zone	Valve Zones	PF	Irr Method	IE	Hydrozone Area (HA)	PF x HA/IE
Low	NA	0.3	DRIP	0.81	0.00	0.00
Medium	NA	0.5	DRIP	0.81	0.00	0.00
High	NA	0.9	DRIP	0.81	0.00	0.00
				TOTAL HYDROZONE AREA	0.00	
				TOTAL SPECIAL LANDSCAPE AREA - ALL VALVES USE RECLAIMED WATER		15423
				TOTAL LANDSCAPE AREA INCLUDING SPECIAL LANDSCAPE AREA		15,423.00
				ETWU Total		418,826.99
				MAWA		418,826.99

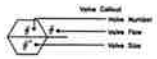
(ETWU should be less than MAWA)

REFERENCE FACTORS

ETo Rate	(Evapotranspiration rate for area)	43.80
ETAF	(factor from state for non-residential, used for MAWA)	0.45
CF (Conversion Factor)	(used to convert acre-inches/year to gallons per year)	0.62
IE (Irrigation Efficiency)	(from state - efficiency for drip)	0.81
PF (Plant Factor) High	(factor from state or jurisdiction)	1.0
PF (Plant Factor) Medium	(factor from state or jurisdiction)	0.6
PF (Plant Factor) Low	(factor from state or jurisdiction)	0.3
PF (Plant Factor) Very Low	(factor from state or jurisdiction)	0.1

VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	GPM	WIRE	PSI	PSI @ POC	PRECIP
1	Electric Control Valve	1"	Bubbler	8.50	211.2	38.16	41.77	1.70 in/h
2	Drip Zone Valve Assembly	1"	Area for Drip Emitters	8.84	216.0	49.21	53.20	0.44 in/h
3	Drip Zone Valve Assembly	1"	Area for Drip Emitters	7.04	149.4	47.00	48.63	0.42 in/h
4	Drip Zone Valve Assembly	1"	Area for Drip Emitters	9.02	155.8	50.61	53.33	0.37 in/h
5	Drip Zone Valve Assembly	1"	Area for Drip Emitters	10.16	161.8	54.86	58.41	0.34 in/h
	Common Wire				238.6			



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FOR CONSTRUCTION

LP8

TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

IRRIGATION SCHEDULE

PROJECT TITLE

SHEET TITLE

LICENSED LANDSCAPE ARCHITECT
LUCAS R. PIPER
STATE OF CALIFORNIA

DESIGNED BY: LP
DRAWN BY: LP
CHECKED BY: SR
APPROVED BY: JWW
SCALE: NO SCALE
DATE: 01/27/2021
CITY SPECIFICATION NO: 1000154
PLAN FILE NO / LOCATION: 2460LSP001.dwg
SHEET NO: 56 of 67

STREET TREE PLANTING INSTRUCTIONS AND REQUIREMENTS

A. INSPECTION:
Inspection of tree planting by the City Engineering Inspector or Building Inspector is required.
1. Engineering Inspector or Building Inspector shall approve the hole dimensions prior to planting.
2. City Arborist shall perform inspection of planting and tree quality after the tree planting is complete.

Appointments for inspections may be made by calling (805) 781-7220 at least 48 hours in advance of the inspection.

B. TREE QUALITY:
Tree quality must conform to the requirements of guideline specifications for nursery tree quality included in Appendix I.

C. BACKFILL MATERIAL:
The backfill material shall be free of construction spoils/debris and composed of:
- 75% Native Soil (the soil removed from the planting hole)
- 15% Compost Material
- 10% Sand (see Note)

Note: The sand component of the backfill may be deleted if the Arborist determines that the existing native soil will provide adequate aeration for the root system.

D. PLANTING:
Partially fill the bottom of the excavated hole with backfill material, while tamping and watering, to an elevation equal to the bottom of the root ball. Root crown (top of root ball) shall extend one (1) inch above finish grade when planting is completed and 4 inches below the bottom of grate. Place the tree to be planted in the center of the hole on tamped backfill. Continue adding backfill while tamping and watering.

Continue adding backfill around root ball to finish grade, while tamping lightly, and add additional water to thoroughly wet root ball and backfill material.

For Street Tree Well installations, finish grade shall be 4" below the sidewalk grade.

E. TREE SIZE and TYPE:
Standard tree size shall be #15. A larger sized 24", 36" or 48" box may be required for some installations. New trees planted in the downtown (within the boundary of the Downtown Association) shall be a minimum of a 24" box.

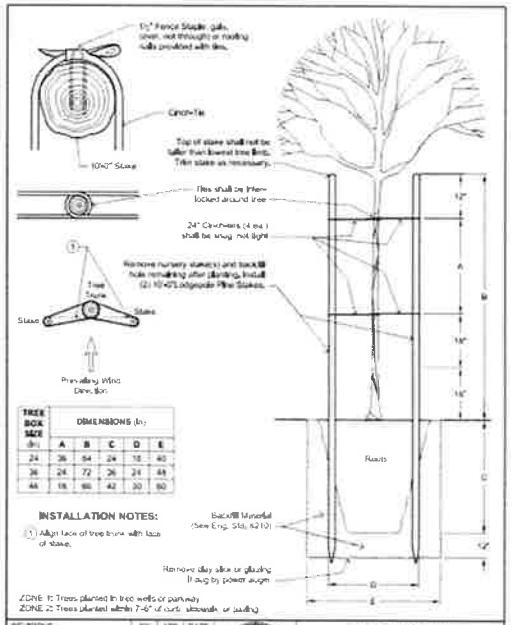
Tree type shall be from the Master Street Tree list and (if applicable) be in accordance with the selections for major streets.

F. STAKING:
All newly planted street trees shall be staked.

G. GUARDS:
Trees planted within the Mission Style Sidewalk District shall include installation of a tree guard of the same manufacturer as the tree grate, see Engineering Standard 8130.

REVISIONS	BY	APP	DATE
Revised Notes 4, 5 & 6	MH	BL	11-02
Modified 4, 5 & 7	KH	MH	1-13
Drafting edits	JDL	MH	3-14
STANDARD CURRENT AS OF:	AUGUST 2020		

STREET TREE
PLANTING NOTES
8210

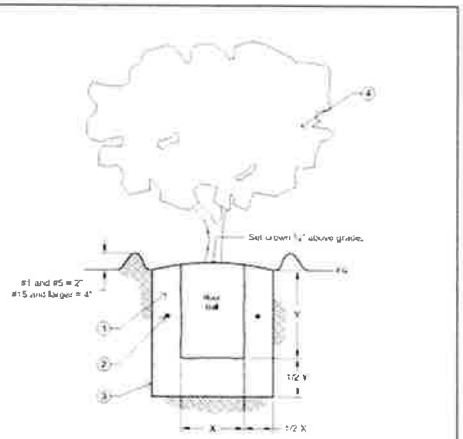


TREE BOX SIZE (In)	DIMENSIONS (In)				
	A	B	C	D	E
24	36	54	24	18	40
36	24	72	26	24	44
48	18	66	42	30	60

INSTALLATION NOTES:
1. Align face of tree trunk with face of stake.

REVISIONS	BY	APP	DATE
Removed crosshatch	KH	MH	01-12
Revised tube length	MH	BL	11-09
Drafting edits	JDL	MH	6-13
STANDARD CURRENT AS OF:	AUGUST 2020		

TREE PLANTING and STAKING
ZONES 1 and 2
24" Box and Larger
8250

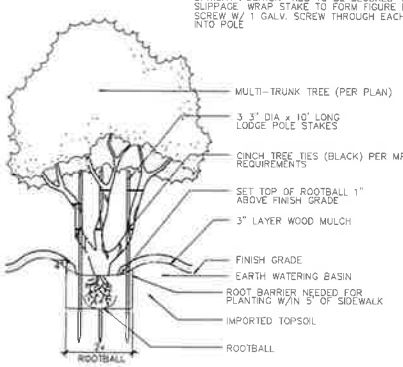


NOTES:
1. Backfill per Standard Specifications.
2. Fertilizer tablets per Standard Specifications. Place tablet halfway up root ball and approximately 1 inch from root tips, equally spaced around the root ball.
3. Plant pit to have vertical sides. Pit shall be twice the width of root ball or container and one and a half times the height of the root ball or container. Sides and bottom of plant pit are to be scarified to remove glazed surfaces.
4. Place plant in pit so that it is plumb and straight with best side facing the most viewed angle.

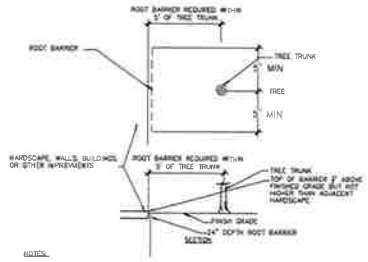
REVISIONS	BY	APP	DATE
New Standard	BL	JDW	1-04
Revised Note 2, Add Notes 3 and 4	JDL	BL	3-12
Drafting edits	JDL	MH	3-14
STANDARD CURRENT AS OF:	AUGUST 2020		

SHRUB PLANTING
8410

NOTE:
MINIMUM (2) TIES (TOP & BOTTOM) REQUIRED. USE A THIRD TIE WHEN NECESSARY TO KEEP TREE UPRIGHT POSITION. TIES TO BE SECURED TO AVOID SLIPPAGE. WRAP STAKE TO FORM FIGURE EIGHT. SCREW W/ 1 GALV. SCREW THROUGH EACH TIE INTO POLE



1 MULTI-TRUNK TREE PLANTING
1" = 1'



NOTES:
1. ROOT BARRIER SHALL BE INSTALLED ADJACENT TO THE IMPROVEMENT. DO NOT CIRCLE ROOT BARRIER AROUND THE ROOTBALL.
2. ROOT BARRIER REQUIRED WHEN THE TREE TRUNK IS WITHIN 5' OF HARDSCAPE, WALLS, BUILDINGS, OR OTHER IMPROVEMENTS.

2 LINEAR ROOT BARRIER
1" = 1'

100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

LP9

TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

PROJECT TITLE

PLANTING CITY STANDARDS

SHEET TITLE

LICENSED LANDSCAPE ARCHITECT
LUCAS R. PIPER
STATE OF CALIFORNIA

DESIGNED BY	LP
DRAWN BY	LP
CHECKED BY	SR
APPROVED BY	JWW
SCALE	NO SCALE
DATE	01/27/2021
CITY SPECIFICATION NO	1000164
PLAN FILE NO / LOCATION	2460LSP001.dwg
SHEET NO	57 of 67

PLANT SCHEDULE

TREES	BOTANICAL / COMMON NAME	CONT	QTY
	Arbutus x 'Marina' / Multi-Trunk Arbutus Low Water Use - WUCOLS Specimen Tree, Multi-trunk, See Photo & Notes	60"box	1
	Cercis occidentalis / Western Redbud Low Water Use - WUCOLS	24" Box	3
	Lagerstroemia indica 'Catawba' / Catawba Crape Myrtle Multi-trunk Low Water Use - WUCOLS	24" Box	11
	Pistacia chinensis 'Keith Davey' / Chinese Pistache Low Water Use - WUCOLS	24" Box	2

SHRUBS	BOTANICAL / COMMON NAME	CONT	QTY
	Anigozanthos flavidus 'Tequila Sunrise' / Kangaroo Paw Low Water Use - WUCOLS	5 gal	7
	Cistus x purpureus / Orchid Rockrose Low Water Use - WUCOLS	5 gal	8
	Cistus x skanbergii / Coral Rockrose Low Water Use - WUCOLS	5 gal	37
	Dietes iridioides / Fortnight Lily Low Water Use - WUCOLS	5 gal	46
	Muhlenbergia rigens / Deer Grass Low Water Use - WUCOLS	5 gal	46
	Nandina domestica / Heavenly Bamboo Low Water Use - WUCOLS Use in Filterra Bioretention Boxes	5 gal	4
	Nandina domestica 'Moon Bay' TM / Moon Bay Heavenly Bamboo Low Water Use - WUCOLS	5 gal	10
	Phormium x 'Black Adder' / New Zealand Flax Low Water Use - WUCOLS	5 gal	5
	Rhaphiolepis indica 'Ballerina' / Ballerina Indian Hawthorn Low Water Use - WUCOLS	5 gal	25
	Rhaphiolepis indica 'Pink Lady' / Pink Lady Indian Hawthorn Low Water Use - WUCOLS	5 gal	9

G.C. / LOW SHRUB	BOTANICAL / COMMON NAME	CONT	QTY
	Ceanothus gloriosus 'Anchor Bay' / Anchor Bay Lilac Low Water Use - WUCOLS	5 gal	58
	Ceanothus gloriosus 'Heart's Desire' / Heart's Desire Lilac Low Water Use - WUCOLS	5 gal	104
	Epilobium canum 'Calistoga' / California Fuchsia Low Water Use - WUCOLS	1 gal	150
	Lantana camara 'Dwarf Yellow' / Yellow Bush Lantana Low Water Use - WUCOLS	1 gal	57
	Lantana montevidensis 'Purple' / Trailing Lantana Low Water Use - WUCOLS	1 gal	11
	Lomandra longifolia 'Breeze' / Dwarf Mat Rush Low Water Use - WUCOLS	1 gal	365
	Salvia spathacea / Hummingbird Sage Low Water Use - WUCOLS	1 gal	69
	Teucrium chamaedrys / Germander Low Water Use - WUCOLS	1 gal	127
	Tulbaghia violacea 'Silver Lace' / Silver Lace Society Garlic Low Water Use - WUCOLS	1 gal	256

GENERAL PLANTING NOTES

1. CONFORMITY: IF CONSTRUCTED SITE CONDITIONS DIFFER FROM DESIGN PLANS, CONTRACTOR SHALL NOTIFY THE CIVIL AND ENGINEER PRIOR TO PROCEEDING WITH INSTALLATION.
2. COORDINATION WITH EXISTING UTILITIES: THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THESE PLANS IS APPROXIMATE. THE CONTRACTOR SHALL COORDINATE WITH CIVIL PLANS AND UTILITY PROVIDERS TO DETERMINE THE EXACT LOCATION OF ANY EXISTING OR NEWLY FURNISHED UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (usa/DIGALERT) MINIMUM 48 HOURS PRIOR TO BEGINNING ANY WORK ON SITE.
3. QUANTITIES: THE PLANT QUANTITIES ARE PROVIDED FOR THE CONVENIENCE OF THE OWNER. THE CONTRACTOR SHALL VERIFY ALL PLANT COUNTS LISTED AND SHOWN ON PLANS. IF A DISCREPANCY EXISTS, THE PLANS SHALL GOVERN. NOTIFY LANDSCAPE ARCHITECT IF MATERIALS ARE NOT AVAILABLE AS SPECIFIED. ALL SUBSTITUTIONS ARE SUBJECT TO THE WRITTEN APPROVAL OF THE PROJECT LANDSCAPE ARCHITECT.
4. PRE-EMERGENT: A PRE-EMERGENT HERBICIDE SHALL BE APPLIED TO ALL LANDSCAPED AREAS BEFORE APPLYING SURFACE MULCH. THE LANDSCAPE CONTRACTOR SHALL OBTAIN A PEST CONTROL ADVISOR (PCA) WRITTEN RECOMMENDATION PRIOR TO APPLICATION. ALL HERBICIDES SHALL BE APPLIED BY A QUALIFIED APPLICATOR.
5. PLANT LOCATIONS AND SPACING: PLANTS SHALL BE INSTALLED AT LOCATIONS SHOWN. PLANT LOCATIONS ADJACENT TO CURBS AND SIDEWALKS SHALL BE PLANTED AT A DISTANCE OF NO CLOSER THAN ½ THE FULL GROWN WIDTH OF THE SPECIES INSTALLED. REFER TO THE PLANT SCHEDULE FOR REMARKS ON PLANT DIMENSIONS.
6. LINEAR ROOT BARRIERS: ROOT BARRIERS SHALL BE PROVIDED FOR ALL TREES THAT ARE WITHIN FIVE (5) FEET OF PAVING, NEW CONCRETE, AND WATER METERS / JOINT TRENCH. THE CONTRACTOR SHALL FURNISH AND INSTALL THE ROOT BARRIER AT A MIN. DEPTH OF 19.5".
7. SPECIFICATION HIERARCHY OF ADHERENCE: CONTRACTOR SHALL FOLLOW THE GOVERNING HIERARCHY FOR DESIGN ADHERENCE:
   - PROJECT SPECIFIC DRAWINGS AND NOTES
   - MAY 2018 SAN LUIS OBISPO CITY ENGINEERING STANDARDS AND STANDARD SPECIFICATIONS;
   - CALTRANS 2010 STANDARD SPECIFICATIONS AND PLANS.
7. CITY STANDARDS: UNLESS OTHERWISE SPECIFICALLY STATED IN THESE DRAWINGS, THE CONTRACTOR SHALL ADHERE TO THE CITY OF SAN LUIS OBISPO STANDARD SPECIFICATION AND ENGINEERING STANDARDS. REFER TO THE FOLLOWING ENGINEERING STANDARD PLANTING DETAILS:
   - STREET TREE PLANTING NOTES STANDARD 8210
   - TREE PLANTING AND STAKING STANDARD 8250
   - SHRUB PLANTING STANDARD 8410

SOIL AND MULCH NOTES:

1. IMPORTED SOILS: AT MINIMUM, A 24-INCH DEEP LAYER OF IMPORTED TOPSOIL SHALL BE PLACED IN 12" LIFTS (COMPACTED) AT ALL PLANTING LOCATIONS THAT MEETS THE FOLLOWING REQUIREMENTS*:
   - AMENDED USDA CATEGORIZED LOAM, SANDY CLAY LOAM, OR SANDY LOAM CONTAINING BETWEEN 15% AND 25% CLAY WITH A COMBINED CLAY/SILT CONTENT OF MAX. 55%
   - SOIL PH BETWEEN 6.0 AND 7.0
   - LESS THAN 3 MMHO/CM SOLUBLE SALT
   - SOIL SHALL BE AMENDED WITH ORGANIC, WEED-FREE COMPOST TO ENSURE 5% MINIMUM ORGANIC MATTER BY DRY WEIGHT (SOIL WILL BE MADE UP OF 20% – 30% COMPOST, TYP.
   - SOIL SHALL CONTAIN SUFFICIENT PORE SPACE TO PERMIT ADEQUATE SPACE FOR ROOT PENETRATION AND ALLOW FOR ADEQUATE PERCOLATION
   - COMPACTED TO 80% RELATIVE COMPACTION

   * BACKFILL SOILS ASSOCIATED WITH THE STORM WATER TREATMENT BASIN AREAS SHALL ADHERE TO SEPARATE BACKFILL REQUIREMENTS – SEE DRAINAGE PLANS FOR SOIL REQUIREMENTS
   - SOILS TEST: PRIOR TO ACCEPTANCE OF FINISH GRADE CONDITIONS, THE LANDSCAPE CONTRACTOR SHALL OBTAIN A SOILS TEST (SOIL MANAGEMENT REPORT) FOR THE IMPORTED SOIL. IF NO DOCUMENTATION IS AVAILABLE, THE CONTRACTOR SHALL OBTAIN SAMPLES FROM AT LEAST FOUR DIFFERENT LOCATIONS WITHIN THE PROJECT AREA AFTER SITE DEVELOPMENT GRADING IS COMPLETE. SOIL TESTS SHALL PROVIDE ANALYSIS REPORTS ON TEXTURE, PHYSICAL, AND CHEMICAL PROPERTIES INCLUDING CHARACTERISTICS REGARDING COMPOSITION, NUTRIENTS/FERTILITY, AND MOISTURE HOLDING CAPACITY. SOIL TEST RESULTS SHALL BE PROVIDED TO THE LANDSCAPE ARCHITECT AND OWNER FOR THEIR RECORDS. SOIL AMENDMENTS MAY BE RECOMMENDED BY THE SOILS REPORT TO CORRECT SOIL DEFICIENCIES. IMPORTED SOILS SHALL, AT MINIMUM MEET CITY ENGINEERING STANDARD PLANTING BACKFILL MATERIAL REQUIREMENTS (STANDARD 8210) AND REQUIREMENTS LISTED ABOVE.
   - FINISH GRADE: FINISH GRADE ALL PLANTER AREAS TO ESTABLISH A SMOOTH, EVEN FINISH VOID OF ALL ROCKS OR DEBRIS LARGER THAN 1-INCH IN DIAMETER (BY CIVIL). PLANTER SOIL SHALL BE 3-INCHES BELOW THE CURB / SIDEWALK HEIGHT TO ALLOW FOR PLACEMENT OF A 3-INCH LAYER OF WOOD CHIP MULCH. THE LANDSCAPE CONTRACTOR SHALL VERIFY FINISH GRADE CONDITIONS AND IMPORTED TOPSOIL CONSTITUENT REQUIREMENTS LISTED ABOVE PRIOR TO START OF WORK.
   - WOOD MULCH: WOOD MULCH SHALL CONSIST OF WOOD CHIPS DERIVED FROM CLEAN WOOD. MULCH SHALL NOT CONTAIN LEAVES OR SMALL TWIGS AND CONTAIN AT LEAST 95 PERCENT WOOD CHIPS BY VOLUME WITH AN AVERAGE THICKNESS OF $\frac{1}{16}$ TO $\frac{3}{8}$ IN ANY DIRECTION AND ½ TO 3 INCHES IN LENGTH. WOOD MULCH SHALL BE SPREAD EVENLY AT A DEPTH OF 3 INCHES ACROSS ALL PLANTING AREAS THAT ARE NOT SUBJECT TO GRAVEL OR COBBLE ROCK MULCH PLACEMENT. SUBMIT SAMPLE FOR APPROVAL BY THE PROJECT LANDSCAPE ARCHITECT PRIOR TO DELIVERY ON SITE.

ARBUTUS X 'MARINA' SPECIMEN TREE

1. THE CENTRAL ISLAND TREE SHALL BE A WELL FORMED, 60" BOX, MULTI-TRUNK, ARBUTUS X 'MARINA'. PRIOR TO PURCHASE CONTRACTOR SHALL PROVIDE PICTURES AND MEASUREMENTS OF THE TREE THAT WILL BE INSTALLED TO THE CITY REPRESENTATIVE AND LANDSCAPE ARCHITECT. MINIMUM SIZE OF 15' X 8'-10'.
2. THE TREE SHALL HAVE A SIMILAR APPEARANCE TO THE EXAMPLE PHOTO PROVIDED. FOR ADDITIONAL INFORMATION ON THE TREE IN THE PHOTO, CONTACT ALLYSON LANDRY AT JIMENEZ NURSERY AND LANDSCAPES (T: 1-805-684-7955)

CITY ARBORIST REQUIREMENTS:

1. CONTRACTOR SHALL ADHERE TO CITY PLANTING STANDARDS.
2. QUALITY NURSERY STOCK FOR ALL TREES SHALL ADHERE TO THE "GUIDELINE SPECIFICATIONS FOR NURSERY TREE QUALITY", PUBLISHED BY THE URBAN TREE FOUNDATION, 2009 REVISION.
3. TREE PROTECTION MEASURES DURING THE DEMOLITION / CONSTRUCTION, SPECIFICALLY FOR THE EXISTING TREES ALONG TANK FARM ROAD NEAR/AT THE ENTRANCE OF ISLAY PARK ENTRANCE.
4. CONTRACTOR SHALL ADHERE TO THE PROTECTION OF TREES 12.24.150 WITHIN THE CITY'S TREE ORDINANCE.
5. CONTRACTOR SHALL ADHERE TO TREE PROTECTION MEASURES 77-1.03A(2) WITHIN THE CITY'S STANDARD SPECIFICATIONS.

100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

LP10

TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

PLANTING SCHEDULE

LICENSED LANDSCAPE ARCHITECT
LUCAS R. PIPER
STATE OF CALIFORNIA

DESIGNED BY	LP
DRAWN BY	LP
CHECKED BY	SR
APPROVED BY	JWW
SCALE	NO SCALE
DATE	01/27/2021
CITY SPECIFICATION NO	1000164
PLAN FILE NO / LOCATION	2460LSP001.dwg
SHEET NO	58 of 67

KEYED NOTES: (SHEETS E1 AND E2)

1. PG&E CONNECTION BOX. SEE INSTALLATION NOTES ON CITY OF SAN LUIS OBISPO STANDARD PLAN 7520.
2. CITY POINT OF SERVICE. SEE INSTALLATION NOTES ON CITY OF SAN LUIS OBISPO STANDARD PLAN 7520.
3. 2"C WITH BELL END, 3#2.
4. 2"C WITH BELL END, 3#10 (STREET LIGHTING).
5. #3½ CONCRETE LUMINAIRE PULL BOX MARKED "STREET LIGHT."
6. INSTALL STREET LIGHT PER CITY OF SAN LUIS OBISPO STANDARD PLAN 7910.
7. ABANDON CONDUIT. REMOVE CONDUCTORS.
8. INSTALL CONDUIT INTO EXISTING PULL BOX. INSTALL NEW FUSE HOLDER PER CITY OF SAN LUIS OBISPO STANDARD PLAN 7520.
9. INSTALL FLASHING WITH TYPE 15-FBS STANDARD PER CALTRANS STANDARD PLAN ES-7J. SEE SIGN PLAN FOR SIGN TO BE MOUNTED ON FLASHING BEACON.
10. 2"C, PT (FUTURE USE)
11. #5 CONCRETE PULL BOX (FUTURE USE)

LEGEND: (SHEETS E1 AND E2)

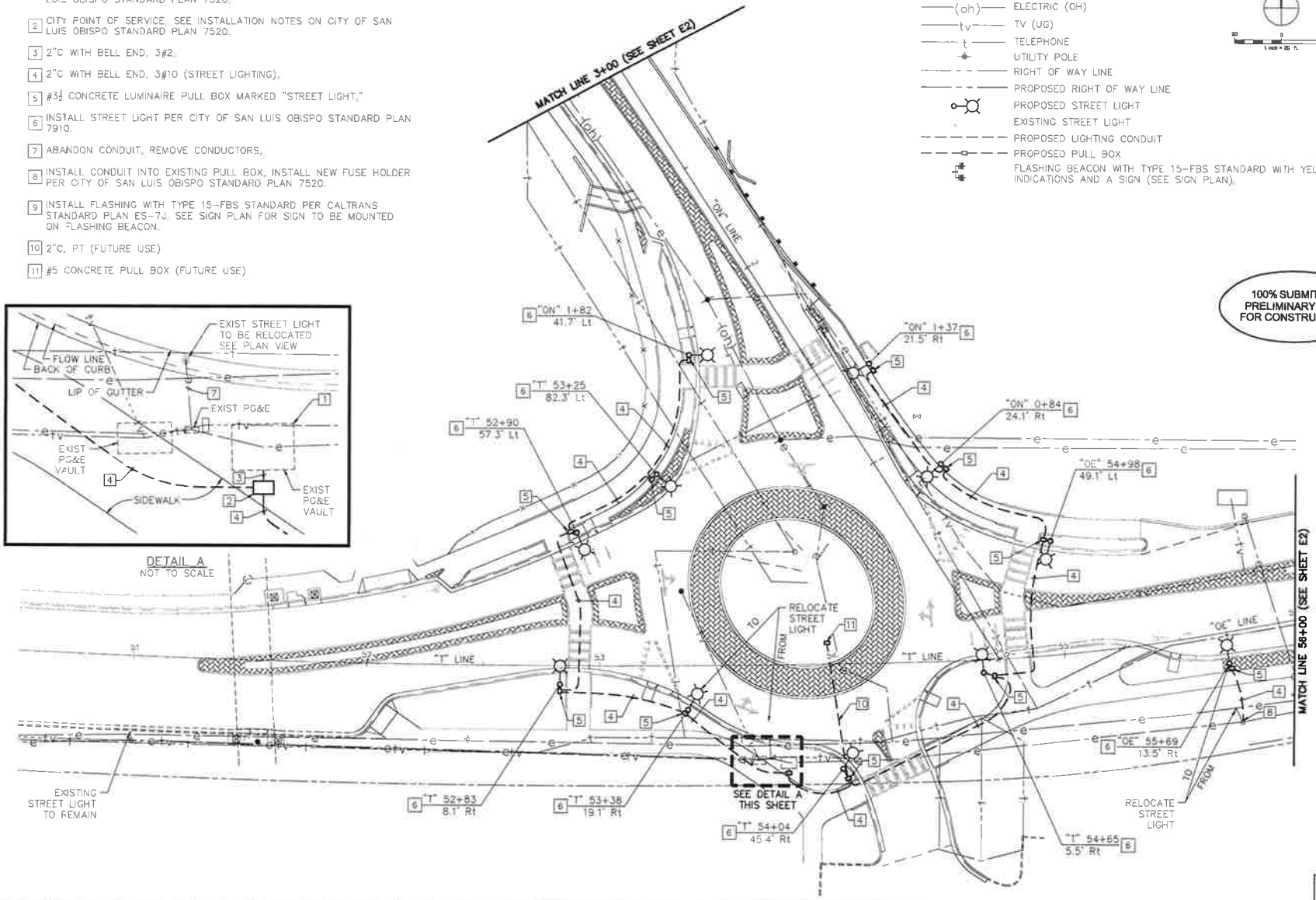
- e — ELECTRIC (UG)
- (oh) — ELECTRIC (OH)
- tv — TV (UG)
- t — TELEPHONE
- UTILITY POLE
- RIGHT OF WAY LINE
- PROPOSED RIGHT OF WAY LINE
- PROPOSED STREET LIGHT
- EXISTING STREET LIGHT
- PROPOSED LIGHTING CONDUIT
- PROPOSED PULL BOX
- FLASHING BEACON WITH TYPE 15-FBS STANDARD WITH YELLOW INDICATIONS AND A SIGN (SEE SIGN PLAN).

N

20 0 20
1 inch = 20 ft.

100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

DETAIL A
NOT TO SCALE



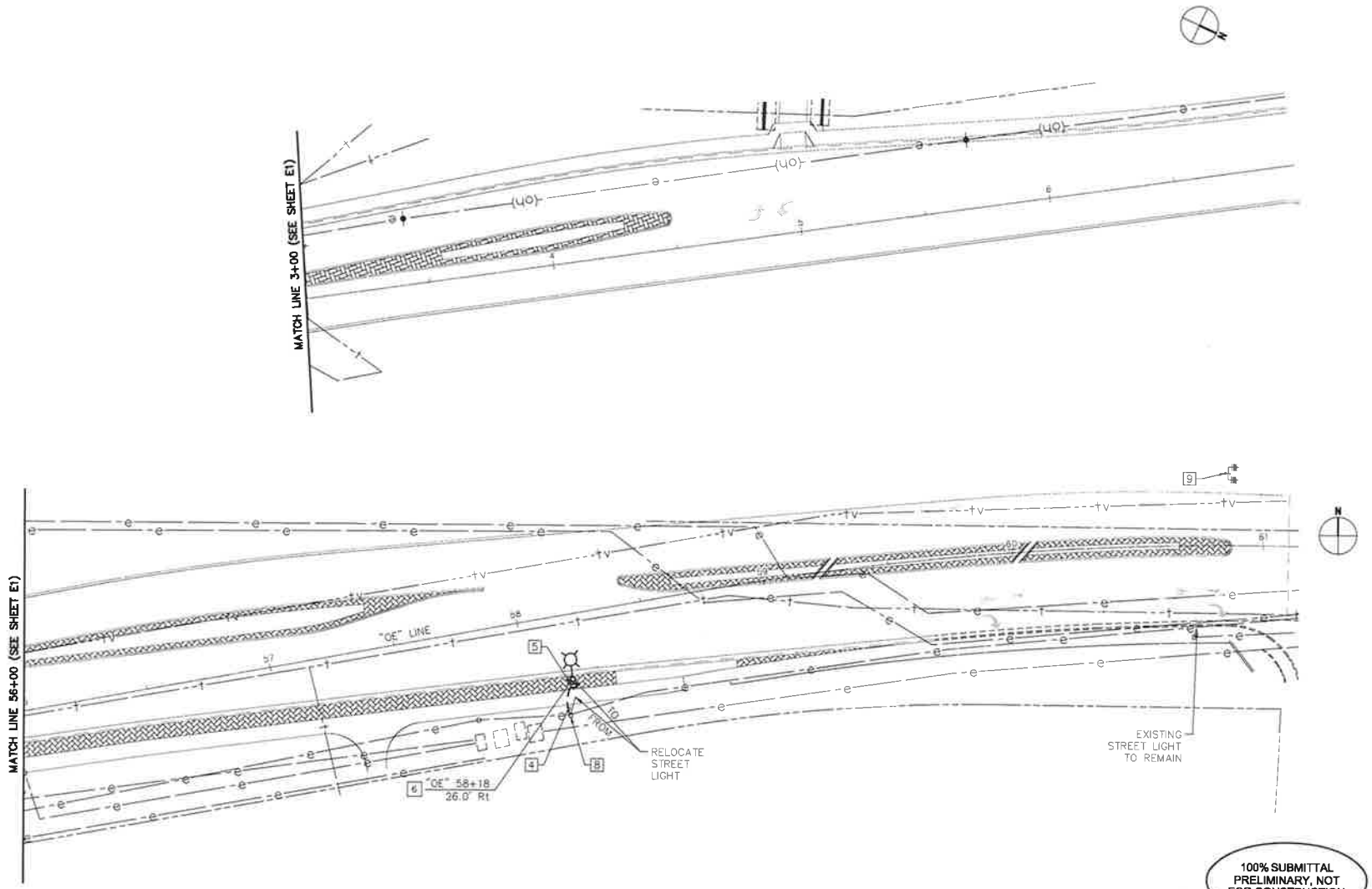
E1

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

SHEET TITLE: ELECTRICAL PLAN (STREET LIGHTING)

REGISTERED PROFESSIONAL ENGINEER — JOHN W. WETLAND — No. C53755 — Exp. 06/30/21 — CIVIL — STATE OF CALIFORNIA

DESIGNED BY:	EM
DRAWN BY:	EM
CHECKED BY:	JWW
APPROVED BY:	JWW
SCALE:	1" = 20'
DATE:	02/03/2021
CITY SPECIFICATION NO.	1000154
PLAN FILE NO./LOCATION:	2460E001.dwg
SHEET NO.	59 of 67



100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

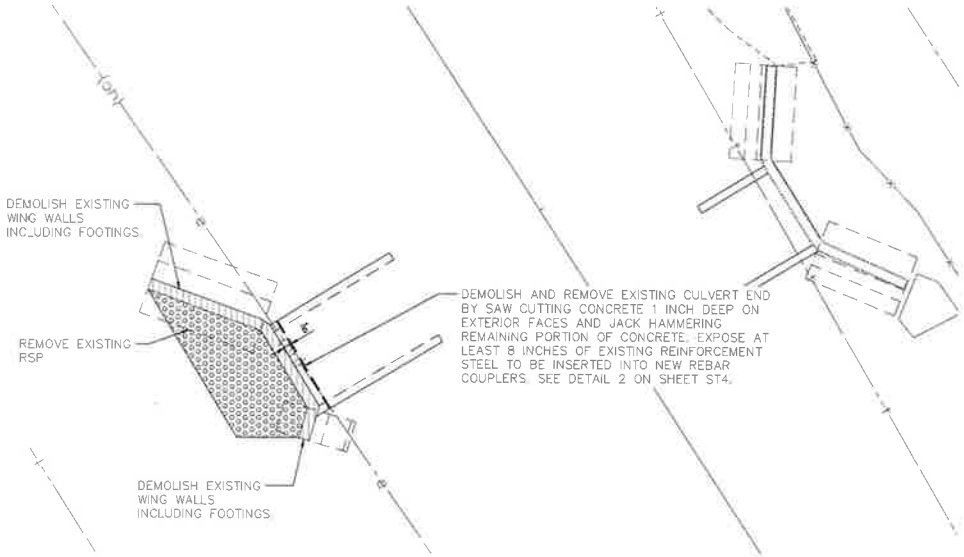
E2

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

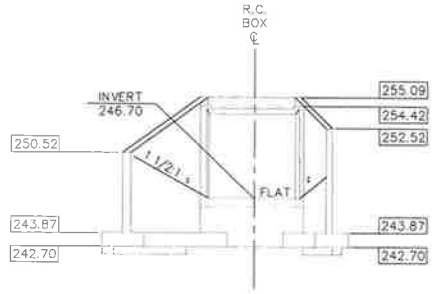
SHEET TITLE: ELECTRICAL PLAN (STREET LIGHTING)

REGISTERED PROFESSIONAL ENGINEER JOSEPH W. WESTLAND No. C53750 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

DESIGNED BY:	EM
DRAWN BY:	EM
CHECKED BY:	JWW
APPROVED BY:	JWW
SCALE:	1" = 20'
DATE:	02/03/2021
CITY SPECIFICATION NO.	1000164
PLAN FILE NO / LOCATION	2460E001.dwg
SHEET NO.	60 of 67



A **BOX CULVERT DEMOLITION PLAN**
SCALE: 1"=5'



1 **EXISTING WINGWALLS TO BE DEMOLISHED**
SCALE: NTS

100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

ST1

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

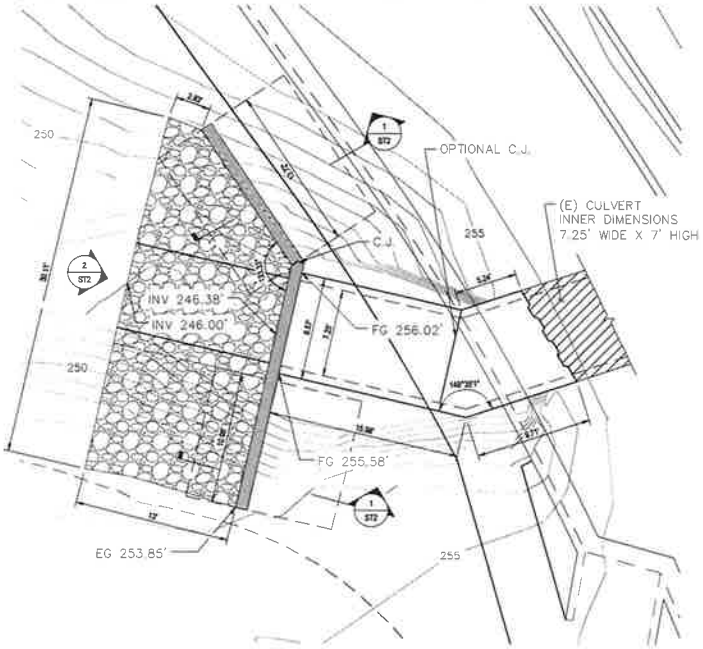
SHEET TITLE: BOX CULVERT DEMOLITION PLAN

REGISTERED PROFESSIONAL ENGINEER MANUEL Y. CO. C 61518 CIVIL STATE OF CALIFORNIA

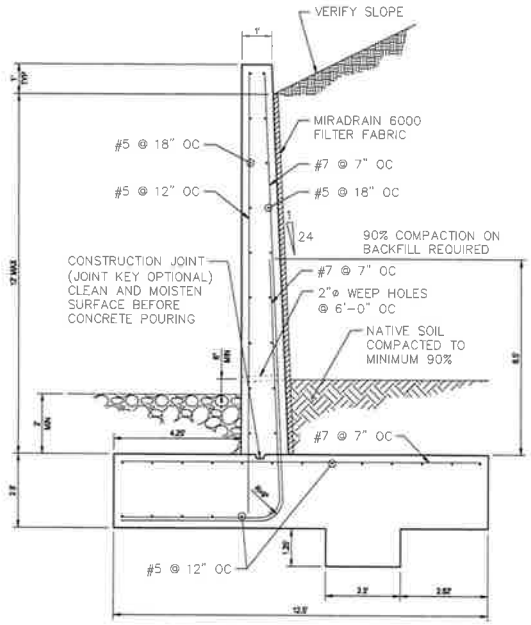
DESIGNED BY	CM
DRAWN BY	TS
CHECKED BY	MY
APPROVED BY	JWW
SCALE	AS NOTED
DATE	01/21/2021
CITY SPECIFICATION NO	1000164
PLAN FILE NO / LOCATION	11151202:ST1.dwg
SHEET NO	61 of 67

NOTES:

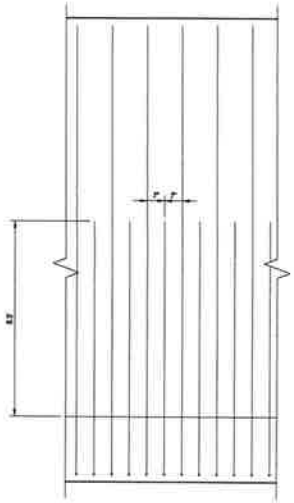
1. FOR BOX CULVERT PROFILE VIEW, SEE SHEET DP2 (DRAINAGE SYSTEM No. 4)
2. CONCRETE – 28 DAY CONCRETE STRENGTH = 4,000 PSI.
3. REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60.
4. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS SHOWING LOCATIONS AND DETAILS OF CONSTRUCTION JOINTS FOR APPROVAL PRIOR TO CONSTRUCTION.



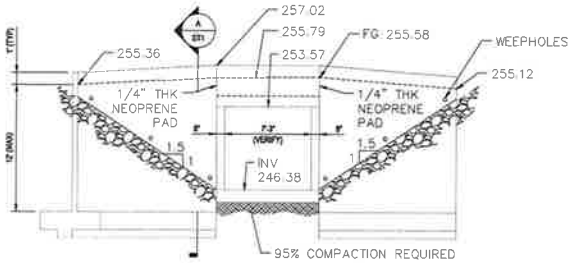
A BOX CULVERT STRUCTURAL PLAN
SCALE: 1" = 5'



1 TYPICAL WINGWALL SECTION
SCALE: NTS



3 TYPICAL WINGWALL REINF ELEVATION
SCALE: NTS



2 BOX CULVERT ELEVATION
SCALE: NTS

100% SUBMITTAL PRELIMINARY, NOT FOR CONSTRUCTION

ST2

TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

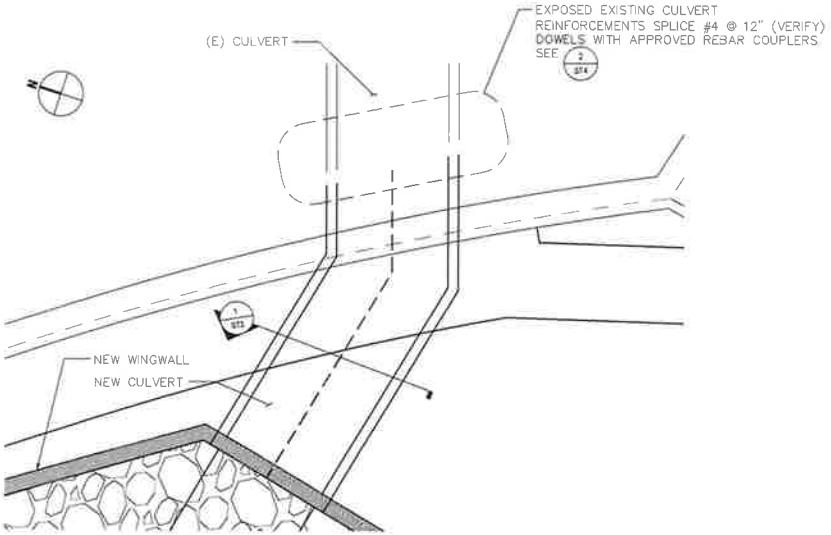
PROPOSED BOX CULVERT PLAN

PROJECT TITLE:

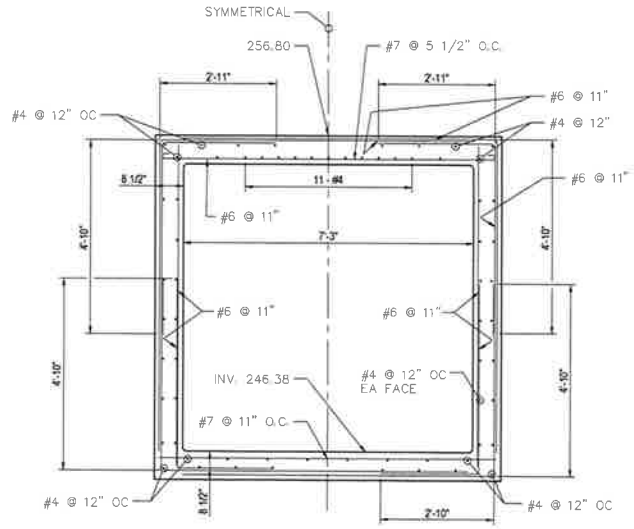
SHEET TITLE:

REGISTERED PROFESSIONAL ENGINEER MANUEL R. YCO No. C85628 CIVIL STATE OF CALIFORNIA

DESIGNED BY:	CM
DRAWN BY:	TS
CHECKED BY:	MY
APPROVED BY:	JWW
SCALE:	AS NOTED
DATE:	02/05/2021
CITY SPECIFICATION NO.	1000164
PLAN FILE NO./LOCATION:	11151202-ST2.dwg
SHEET NO.	62 of 67



A ENLARGED CULVERT EXTENSION TOP SLAB REINF PLAN
SCALE: NTS



1 SECTION
SCALE: NTS

100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

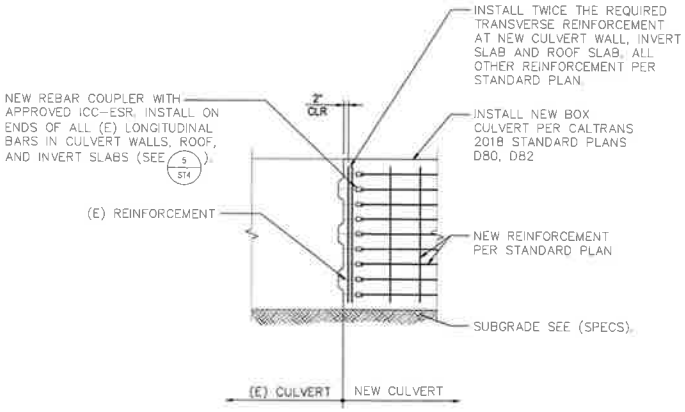
ST3

PROJECT TITLE
TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

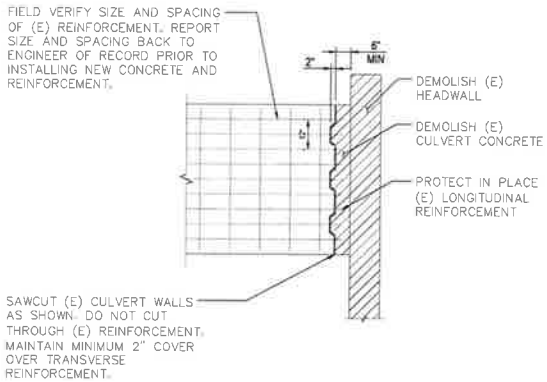
SHEET TITLE
BOX CULVERT ENLARGED PLAN AND SECTION

REGISTERED PROFESSIONAL ENGINEER
SAMUEL W. TOU
No. C68128
CIVIL
STATE OF CALIFORNIA

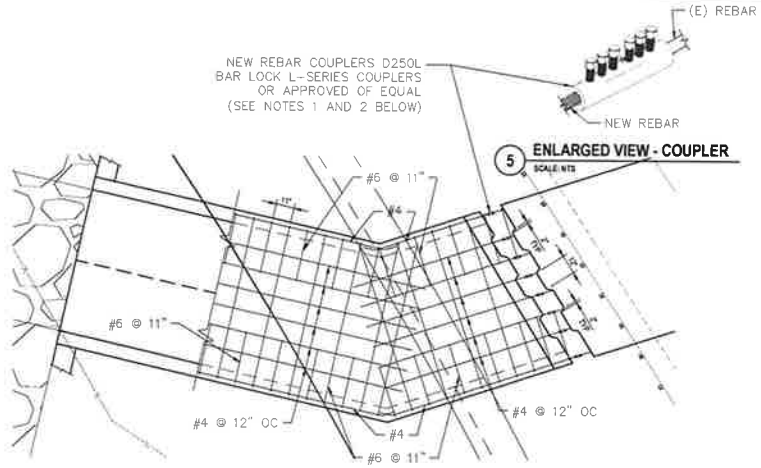
DESIGNED BY	CM
DRAWN BY	TS
SPECIFIED BY	MY
APPROVED BY	JWW
SCALE	AS NOTED
DATE	01/20/2021
CITY SPECIFICATION NO	1000164
PLAN FILE NO / LOCATION	11151202:ST3.dwg
SHEET NO	63 of 67



2 EXISTING CULVERT WALL TO NEW CULVERT WALL CONNECTION
SCALE: 6" = 1'-0"

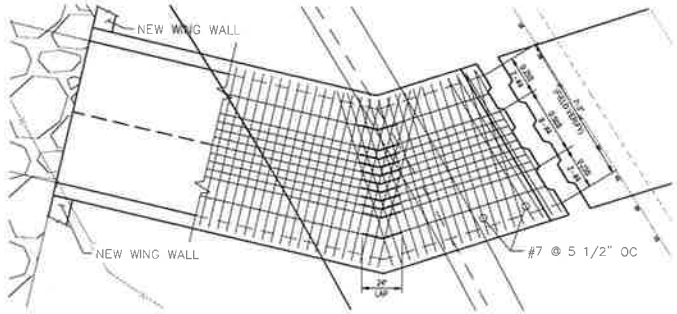


1 EXISTING HEADWALL DEMOLITION
SCALE: 6" = 1'-0"



NOTES:
1. REBAR SIZES AND QUANTITIES SHOWN ON THESE DRAWINGS ARE BASED ON CALTRANS STANDARD DRAWING (D80) FOR CAST-IN-PLACE SINGLE BOX CULVERTS.
2. CONTRACTOR SHALL EXPOSE EXISTING BOX CULVERT REINFORCEMENTS TO BE SPLICED TO NEW BOX CULVERT EXTENSION AND DETERMINE IF REBAR SIZES ON THE EXISTING BOX CULVERT ARE THE SAME AS THOSE INDICATED ON THESE DRAWINGS.
3. WHERE REBAR SIZES AND SPACING SHOWN ON THESE DRAWINGS DO NOT MATCH EXISTING CULVERT HORIZONTAL REBARS, THE OWNER SHALL BE NOTIFIED AND REBAR AND COUPLER SIZES AND SPACING INDICATED ON THESE DRAWINGS SHALL BE MODIFIED TO MATCH THE SIZES AND SPACING OF EXISTING REINFORCING.
4. NEW CULVERT BOTTOM SLAB SHALL BE CONNECTED TO EXISTING IN THE SIMILAR MANNER AS SHOWN ON DETAILS 3 AND 4 ON THIS SHEET.

3 PLAN VIEW - REINFORCEMENT TOP BARS TOP SLAB
SCALE: NTS



4 PLAN VIEW - REINFORCEMENT BOTTOM BARS TOP SLAB
SCALE: NTS

5 ENLARGED VIEW - COUPLER
SCALE: NTS

100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

ST4

TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

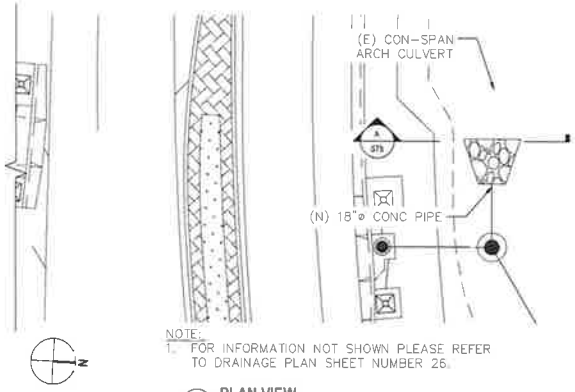
BOX CULVERT DETAILS

PROJECT TITLE

SHEET TITLE

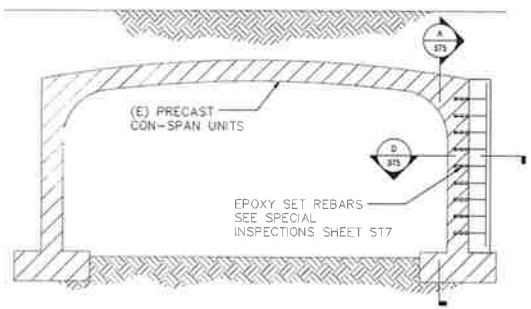
REGISTERED PROFESSIONAL ENGINEER
No. C85128
CIVIL
STATE OF CALIFORNIA

DESIGNED BY	CM
DRAWN BY	TS
CHECKED BY	MY
APPROVED BY	JVW
SCALE	AS NOTED
DATE	01/21/2021
CITY SPECIFICATION NO	1000164
PLAN FILE NO / LOCATION	111512021ST4.dwg
SHEET NO	64 of 67

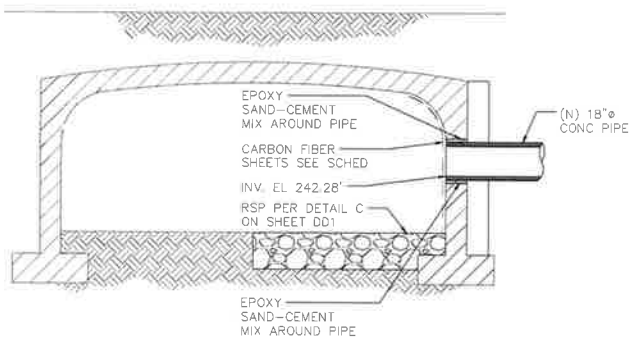


NOTE:
1. FOR INFORMATION NOT SHOWN PLEASE REFER TO DRAINAGE PLAN SHEET NUMBER 26.

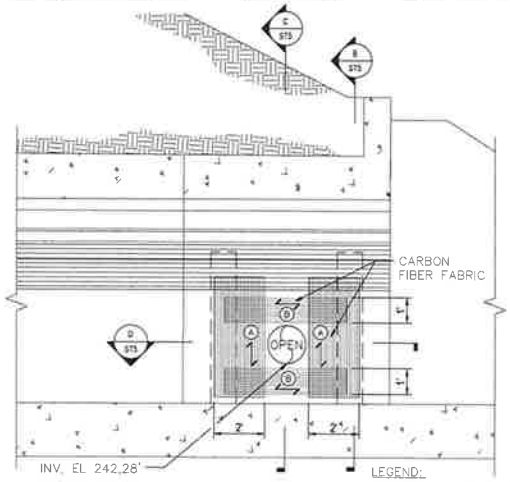
1 PLAN VIEW
SCALE: 1:10



B SECTION
SCALE: NTS

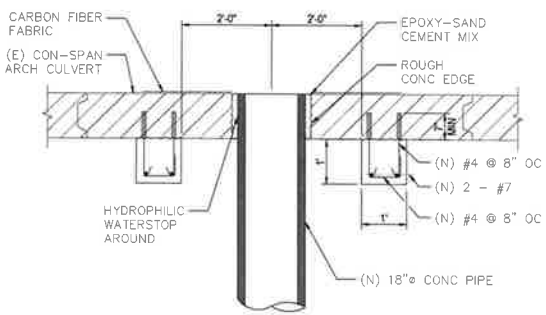


C SECTION
SCALE: NTS



A SECTION
SCALE: NTS

LEGEND:
(A),(B) CARBON FIBER SHEETS (SEE SCHEDULE)
CARBON FIBER DIRECTION



D SECTION
SCALE: 3/4" = 1'-0"

CARBON FIBER FABRIC SCHEDULE

MARK	THICK	WIDTH	LENGTH
A	0.16" (2.03 mm)	2'-0"	5'-0"
B	0.16" (2.03 mm)	2'-0"	5'-0"

CARBON FIBER FABRIC SPECIFICATIONS:

V-WRAP C400HM (HIGH MODULUS CARBON FIBER FABRIC) OR APPROVED EQUIVALENT

PRIMARY FIBER DIRECTION: 0 DEG. (UNIDIRECTIONAL)

WEIGHT: 38 OZ./SQ. YD.

TENSILE STRENGTH: 790,000 PSI

ELONGATION: 1.9%

CURED LAMINATE PROPERTIES:

TENSILE STRENGTH: 155,000 PSI
MODULUS OF ELASTICITY 14.0 X 106 PSI
ELONGATION AT BREAK 1.1%
THICKNESS 0.08 IN.
STRENGTH PER UNIT WIDTH 12,400 LBS/IN.

SURFACE PREPARATION FOR CARBON FIBER FABRIC INSTALLATION:

INSTALLATION OF THE V-WRAP C400HM STRENGTHENING SYSTEM SHOULD BE PERFORMED ONLY BY SPECIALLY TRAINED, APPROVED CONTRACTOR.SURFACES TO RECEIVE CARBON FIBER FABRIC MUST BE CLEAN, DRY AND SOUND. ALL DUST, LAITANCE, GREASE, CURING COMPOUNDS, WAXES, AND OTHER BOND INHIBITING MATERIALS MUST BE REMOVED FROM THE SURFACE PRIOR TO APPLICATION. UNEVEN SURFACES MUST BE FILLED WITH APPROPRIATE EPOXY PUTTY. USE ABRASIVE BLASTING PRESSURE WASH, SHOTBLAST, GRIND OR OTHER APPROVED MECHANICAL MEANS TO ACHIEVE AN OPEN-PORE TEXTURE WITH A CONCRETE SURFACE PROFILE OF CSP-3 OR BETTER. ALL CORNERS MUST BE ROUNDED TO 1/2" RADIUS MINIMUM. A MINIMUM OVERLAP OF 12" IS REQUIRED TO ACHIEVE CONTINUITY. ADHESIVE STRENGTH OF THE CONCRETE AFTER SURFACE PREPARATION SHALL BE DETERMINED BY ASTM D7522 WITH A MINIMUM STRENGTH OF 200 PSI.

APPLICATION:

FOLLOW MANUFACTURERS INSTALLATION PROCEDURE.

CONCRETE:

ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH

FC' = 4,000 PSI AT 28 DAYS.

REINFORCING STEEL:

ALL REINFORCING STEEL SHALL CONFORM TO ASTM A 615 GRADE 40.

DEMOLITION PROCEDURE NOTES:

1. CLEAN WALL SURFACE TO REMOVE DUST, LAITANCE, GREASE, WAXES, CURING COMPOUNDS OR OTHER BOND INHIBITING MATERIALS.
2. INSTALL CARBON FIBER FABRIC A & B.
3. DISK CUT EXISTING CONCRETE WALL. CUT HOLE SHALL HAVE A DIAMETER APPROX. 1 IN. LARGER THAN SIZE OF NEW CONCRETE PIPE.
4. AIR PRESSURE CLEAN EDGE OF CUT CONCRETE.
5. APPLY EPOXY-SAND-CEMENT MIX AND PLASTER AROUND THE CONCRETE CUT EDGE TO OBTAIN AN EVEN SURFACE TO RECEIVE NEW CONCRETE PIPE.
6. INSTALL CARBON FABRIC A & B. SEE CARBON FABRIC NOTES BELOW.
7. CLEAN WALL SURFACE TO RECEIVE NEW 12" X 12" CONCRETE COLUMNS. ROUGHEN WALL SURFACE TO A MINIMUM 1/4" AMPLITUDE.
8. DRILL HOLES FOR #4 BARS, USING A ROTARY-HAMMER DRILL WITH CARBIDE BIT. RELOCATE DRILL HOLE LOCATION WHERE EXISTING REINFORCEMENT ARE ENCOUNTERED.
9. BLOW DRILLED HOLE WITH COMPRESSED AIR TO REMOVE DEBRIS AND WATER, AND USE A WIRE BRUSH TO MECHANICALLY SCOUR THE HOLE.
10. INSTALL REINFORCING BARS INTO DRILLED HOLES USING HILTI HIT-RE 500 V3 SYSTEM OR APPROVED EQUAL.
11. INSTALL REMAINING COLUMN REINFORCEMENTS AS SHOWN ON DRAWING.
12. FORM AND POUR CONCRETE COLUMNS.

100% SUBMITTAL PRELIMINARY, NOT FOR CONSTRUCTION

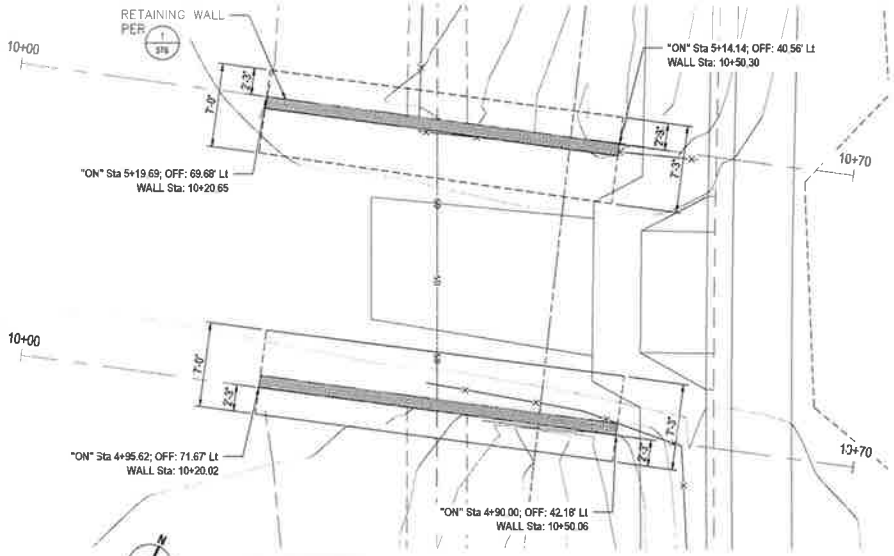
ST5

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

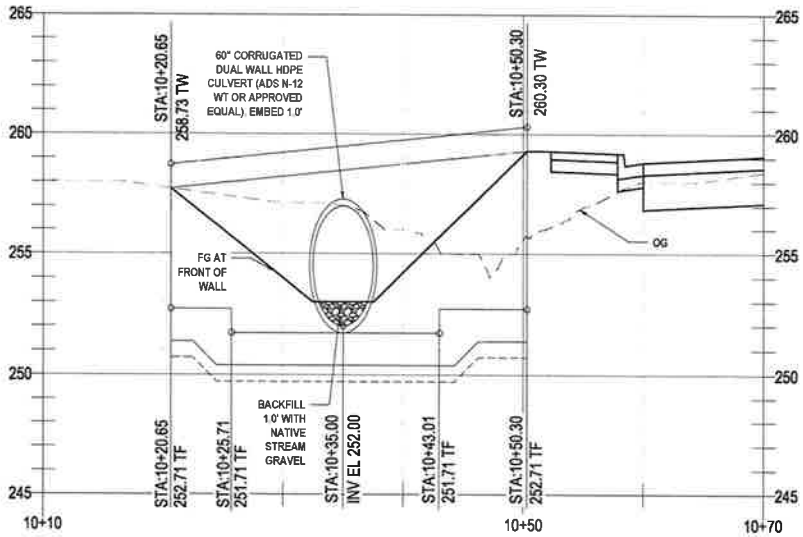
SHEET TITLE: BOX CULVERT SECTIONS

REGISTERED PROFESSIONAL ENGINEER C065128 CIVIL STATE OF CALIFORNIA

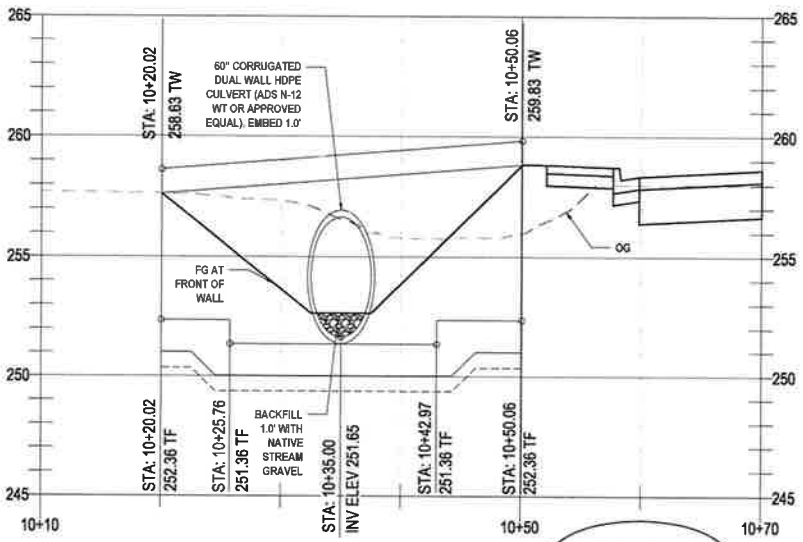
DESIGNED BY: CM
DRAWN BY: TS
CHECKED BY: MY
APPROVED BY: JWW
SCALE: AS NOTED
DATE: 01/21/2021
CITY SPECIFICATION NO: 1000164
PLAN FILE NO / LOCATION: 11151202.ST5.dwg
SHEET NO: 65 of 67



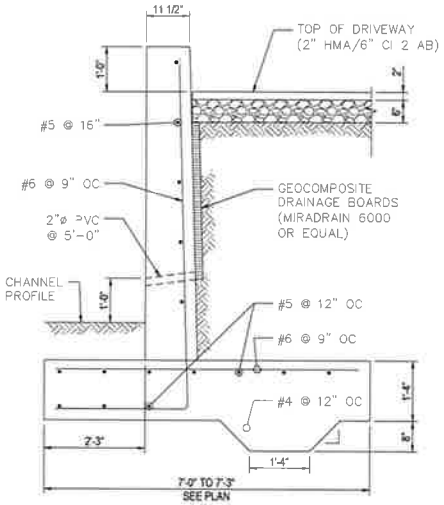
1 PLAN VIEW
SCALE: 1:5



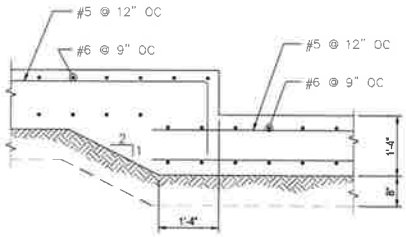
RETAINING WALL - NORTH - PROFILE VIEW
SCALE: HORIZ. 1"=5'; VERT. 1"=2.5'



RETAINING WALL - SOUTH - PROFILE VIEW
SCALE: HORIZ. 1"=5'; VERT. 1"=2.5'



1 TYPICAL RETAINING WALL SECTION
SCALE: NTS



2 TYPICAL STEPPED FOOTING DETAIL
SCALE: NTS

100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

ST6

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

SHEET TITLE: RETAINING WALL PLAN, ELEVATION AND SECTION

REGISTERED PROFESSIONAL ENGINEER — MANUEL Y. YOO — No. 065128 — Civil — STATE OF CALIFORNIA

DESIGNED BY	CM
DRAWN BY	TS
CHECKED BY	MY
APPROVED BY	JWW
SCALE	AS NOTED
DATE	01/21/2021
CITY SPECIFICATION NO	1000164
PLANTS NO / LOCATION	11151203:ST6.dwg
SHEET NO	66 of 67

STATEMENT OF SPECIAL INSPECTIONS

STATEMENT OF SPECIAL INSPECTIONS

THIS STATEMENT OF SPECIAL INSPECTIONS IS SUBMITTED AS A CONDITION FOR PERMIT ISSUANCE IN ACCORDANCE WITH THE SPECIAL INSPECTION AND STRUCTURAL TESTING REQUIREMENTS OF THE BUILDING CODE SECTIONS 1704 AND 1705.

THIS STATEMENT OF SPECIAL INSPECTIONS ENCOMPASSES THE FOLLOWING DISCIPLINES:

STRUCTURAL SPECIAL INSPECTIONS PER 1704 AND 1705
STRUCTURAL SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE
STRUCTURAL SPECIAL INSPECTIONS FOR WIND RESISTANCE

THE SCHEDULE OF SPECIAL INSPECTIONS SUMMARIZES THE SPECIAL INSPECTIONS AND TESTS REQUIRED. SPECIAL INSPECTORS WILL REFER TO THE APPROVED PLANS AND SPECIFICATIONS FOR DETAILED SPECIAL INSPECTION REQUIREMENTS. ANY ADDITIONAL TESTS AND INSPECTIONS REQUIRED BY THE APPROVED PLANS AND SPECIFICATIONS WILL ALSO BE PERFORMED.

THE SPECIAL INSPECTIONS IDENTIFIED ARE IN ADDITION TO THOSE REQUIRED BY OTHER SECTIONS OF THE BUILDING CODE. SPECIAL INSPECTION IS NOT A SUBSTITUTE FOR INSPECTION BY THE BUILDING OFFICIAL/CONTRACTING OFFICER HAVING JURISDICTION OR CONTRACTING OFFICER.

THE SPECIAL INSPECTION COORDINATOR SHALL KEEP RECORDS OF ALL INSPECTIONS AND SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL AND THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. DISCOVERED DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF SUCH DISCREPANCIES ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL/CONTRACTING OFFICER AND THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. THE SPECIAL INSPECTION PROGRAM DOES NOT RELIEVE THE CONTRACTOR OF HIS OR HER RESPONSIBILITIES.

INTERIM REPORTS SHALL BE SUBMITTED TO THE BUILDING OFFICIAL OR CONTRACTING OFFICER AND THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE IN ACCORDANCE WITH SECTION 1704.1.2.

A FINAL REPORT OF SPECIAL INSPECTIONS DOCUMENTING COMPLETION OF ALL 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 PER SECTION 1704.1.2. THE FINAL REPORT WILL DOCUMENT THE REQUIRED SPECIAL INSPECTIONS AND CORRECTION OF DISCREPANCIES NOTED IN INSPECTIONS.

JOB SITE SAFETY AND MEANS AND METHODS OF CONSTRUCTION ARE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.

THE CONTRACTOR IS REQUIRED TO COORDINATE ALL INSPECTIONS. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE AND THE SPECIAL INSPECTOR A MINIMUM OF 2 WORKING DAYS PRIOR TO ANY SPECIAL INSPECTIONS THAT ARE REQUIRED. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE AND THE SPECIAL INSPECTOR A MINIMUM OF 2 WORKING DAYS PRIOR TO ANY CONCRETE TO BE POURED.

THE INSPECTORS AND TESTING AGENCIES SHALL BE ENGAGED BY THE OWNER OR THE OWNER'S AGENT, AND NOT BY THE CONTRACTOR OR SUBCONTRACTOR WHOSE WORK IS TO BE INSPECTED OR TESTED PER SECTION 1704.1. ANY CONFLICT OF INTEREST MUST BE DISCLOSED TO THE BUILDING OFFICIAL/CONTRACTING OFFICER, PRIOR TO COMMENCING WORK. IF APPROPRIATE AGENTS ARE NOTED AS "TO BE DETERMINED (TBD), THE OWNER IS RESPONSIBLE TO COORDINATE THE ASSEMBLY OF A SPECIAL INSPECTION TEAM. ALL SPECIAL INSPECTORS AND TESTING LABORATORIES SHALL BE SUBMITTED TO GHD INC. AND THE BUILDING OFFICIAL / CONTRACTING OFFICE FOR REVIEW.

SPECIALLY INSPECTED WORK THAT IS INSTALLED OR COVERED WITHOUT THE APPROVAL OF THE BUILDING OFFICIAL/CONTRACTING OFFICER IS SUBJECT TO REMOVAL OR EXPOSURE.

CONTINUOUS INSPECTION IS ALWAYS REQUIRED DURING THE PERFORMANCE OF THE WORK UNLESS OTHERWISE SPECIFIED. WHEN WORK IN MORE THAN ONE CATEGORY OF WORK REQUIRING SPECIAL INSPECTION IS TO BE PERFORMED SIMULTANEOUSLY, OR THE GEOGRAPHIC LOCATION OF THE WORK IS SUCH THAT IT CANNOT BE CONTINUOUSLY OBSERVED, IT IS THE AGENT'S RESPONSIBILITY TO EMPLOY A SUFFICIENT NUMBER OF INSPECTORS TO ASSURE THAT ALL THE WORK IS INSPECTED IN ACCORDANCE WITH THE PROVISIONS OF THE BUILDING CODE.

CONTRACTOR STATEMENT OF RESPONSIBILITY

EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OR FABRICATION OF A SYSTEM OR COMPONENT DESIGNATED ABOVE AS PART OF THE MAIN WIND FORCE OR MAIN SEISMIC FORCE RESISTING SYSTEMS ABOVE MUST SUBMIT A STATEMENT OF RESPONSIBILITY PER 1706.

QUALIFICATIONS OF INSPECTORS AND TESTING TECHNICIANS

THE QUALIFICATIONS OF ALL PERSONNEL PERFORMING SPECIAL INSPECTION AND TESTING ACTIVITIES ARE SUBJECT TO THE APPROVAL OF THE BUILDING OFFICIAL. THE CREDENTIALS OF ALL INSPECTORS AND TESTING TECHNICIANS SHALL BE PROVIDED IF REQUESTED.

KEY FOR MINIMUM QUALIFICATIONS OF INSPECTION AGENTS:

WHEN THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE DEEMS IT APPROPRIATE THAT THE INDIVIDUAL PERFORMING A STIPULATED TEST OR INSPECTION HAVE A SPECIFIC CERTIFICATION OR LICENSE AS INDICATED BELOW, SUCH DESIGNATION SHALL APPEAR BELOW THE AGENCY NUMBER ON THE SCHEDULE.

PE/SE STRUCTURAL ENGINEER – A LICENSED SE OR PE SPECIALIZING IN THE DESIGN OF BUILDING STRUCTURES
PE/GE GEOTECHNICAL ENGINEER – A LICENSED GE OR PE SPECIALIZING IN SOIL MECHANICS AND FOUNDATIONS
EIT ENGINEER-IN-TRAINING – A GRADUATE ENGINEER WHO HAS PASSED THE FUNDAMENTALS OF ENGINEERING EXAMINATION

AMERICAN CONCRETE INSTITUTE (ACI) CERTIFICATION

ACI-CFTT CONCRETE FIELD TESTING TECHNICIAN – GRADE 1
ACI-CCI CONCRETE CONSTRUCTION INSPECTOR
ACI-LTT LABORATORY TESTING TECHNICIAN – GRADE 1&2
ACI-STT STRENGTH TESTING TECHNICIAN

AMERICAN WELDING SOCIETY (AWS) CERTIFICATION

AWS-CWI CERTIFIED WELDING INSPECTOR

INTERNATIONAL CODE COUNCIL (ICC) CERTIFICATION

ICC-SFSI SPRAY-APPLIED FIREPROOFING SPECIAL INSPECTOR
ICC-PCSI PRESTRESSED CONCRETE SPECIAL INSPECTOR
ICC-RCSI REINFORCED CONCRETE SPECIAL INSPECTOR

SCHEDULE OF INSPECTION AND TESTING AGENCIES

THIS STATEMENT OF SPECIAL INSPECTIONS / QUALITY ASSURANCE PLAN INCLUDES THE FOLLOWING BUILDING SYSTEMS:

- ☒ SOILS AND FOUNDATIONS
- ☒ CAST-IN-PLACE CONCRETE
- ☐ PRECAST CONCRETE
- ☐ MASONRY LEVEL 1
- ☐ MASONRY LEVEL 2
- ☐ WOOD CONSTRUCTION
- ☐ MECHANICAL & ELECTRICAL SYSTEMS
- ☐ ARCHITECTURAL SYSTEMS
- ☐ STRUCTURAL STEEL
- ☐ COLD-FORMED STEEL FRAMING

SPECIAL INSPECTION AGENCIES	FIRM AND CONTACT INFO
1. SPECIAL INSPECTION COORDINATOR	TBD
2. INSPECTOR	TBD
3. INSPECTOR	TBD
4. TESTING AGENCY	TBD
5. TESTING AGENCY	TBD
6. OTHER	TBD

TABLE 1704.4 – CONCRETE

ITEM 1:	INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS AND PLACEMENT	☐ PERIODIC ☒ CONTINUOUS	AGENCY # (QUALIF.) ACI-CCI, ICC-RCSI
ITEM 2:	INSPECTION OF REINFORCING STEEL WELDING IN ACCORDANCE WITH TABLE 1704.3, ITEM 5B	☐ PERIODIC ☒ CONTINUOUS	AGENCY # (QUALIF.) AWS-CWI
ITEM 3:	INSPECT BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE	☐ PERIODIC ☒ CONTINUOUS	AGENCY # (QUALIF.) ACI-CCI, ICC-RCSI
ITEM 4:	VERIFYING USE OF REQUIRED DESIGN MIX	☒ PERIODIC ☐ CONTINUOUS	AGENCY # (QUALIF.) ACI-CCI, ICC-RCSI
ITEM 5:	AT TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS AND DETERMINE THE TEMPERATURE OF THE CONCRETE	☐ PERIODIC ☒ CONTINUOUS	AGENCY # (QUALIF.) ACI-CFTT, ACI-STT
ITEM 6:	INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	☐ PERIODIC ☒ CONTINUOUS	AGENCY # (QUALIF.) ACI-CCI, ICC-RCSI
ITEM 7:	INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES	☒ PERIODIC ☐ CONTINUOUS	AGENCY # (QUALIF.) ACI-CCI, ICC-RCSI
ITEM 8:	INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES	☒ PERIODIC ☐ CONTINUOUS	AGENCY # (QUALIF.) ACI-CCI, ICC-RCSI
ITEM 9:	INSPECT OF REBAR COUPLER TYPE AND CORRECT TORQUE APPLIED	☒ PERIODIC ☐ CONTINUOUS	AGENCY # (QUALIF.) ACI-CCI, ICC-RCSI
ITEM 10:	INSPECT CARBON FABRIC TYPE, SIZE AND PLACEMENT	☒ PERIODIC ☐ CONTINUOUS	AGENCY # (QUALIF.) ACI-CCI
ITEM 11:	INSPECT FORMWORK FOR SHAPE, LOCATION, AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED	☒ PERIODIC ☐ CONTINUOUS	AGENCY # (QUALIF.) ACI-CCI, ICC-RCSI

TABLE 1704.7 – INSPECTION OF SOILS

ITEM 1:	VERIFY MATERIALS BELOW FOOTINGS ARE ADEQUATE TO ACHIEVE THE DESIRED BEARING CAPACITY.	☒ PERIODIC ☐ CONTINUOUS	AGENCY # (QUALIF.) PE/GE
ITEM 2:	VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL	☒ PERIODIC ☐ CONTINUOUS	AGENCY # (QUALIF.) PE/GE
ITEM 3:	PERFORM CLASSIFICATION AND TESTING OF CONTROLLED FILL MATERIALS. PERFORM SIEVE TESTS (ASTM D422 & D1140), ATTERBERG LIMIT TEST (ASTM D4318) AND MODIFIED PROCTOR TESTS (ASTM D1557) OF EACH SOURCE OF FILL MATERIAL	☒ PERIODIC ☐ CONTINUOUS	AGENCY # (QUALIF.) PE/GE
ITEM 4:	VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF CONTROLLED FILL. TEST DENSITY OF EACH LIFT OF FILL BY NUCLEAR METHODS (ASTM D6938) OR SAND CONE (ASTM D1556). VERIFY EXTENT AND SLOPE OF FILL PLACEMENT. VERIFY COMPACTION OF FILL AND BACKFILL MATERIAL TO 95 PERCENT OF ASTM D 1557. TEST EACH LIFT AT RANDOMLY SELECTED LOCATIONS EVERY 1000 SQUARE FEET OF FILL OR 50 LINEAR FOOT OF WALL OR CONTINUOUS FOOTING, WHICHEVER IS GREATER. PERFORM A MINIMUM OF ONE TEST PER ISOLATED FOOTING. PERFORM 3 TESTS MINIMUM PER LIFT.	☐ PERIODIC ☒ CONTINUOUS	AGENCY # (QUALIF.) PE/GE
ITEM 5:	PRIOR TO PLACEMENT OF CONTROLLED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY	☒ PERIODIC ☐ CONTINUOUS	AGENCY # (QUALIF.) PE/GE

VIII. STRUCTURAL OBSERVATION

1. THE DESIGN ENGINEER, OR ANOTHER ENGINEER DESIGNATED BY THE DESIGN ENGINEER SHALL PERFORM STRUCTURAL OBSERVATION AS REQUIRED BY CBC CHAPTER 17 SECTION 1709, AND AS DEFINED BY SECTION 220. STRUCTURAL OBSERVATION SHALL BE PROVIDED DURING VARIOUS STAGES OF CONSTRUCTION. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE AT LEAST 72 HOURS ADVANCE NOTICE TO THE CITY ENGINEER WHEN HIS WORK IS READY FOR STRUCTURAL INSPECTIONS.

100% SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION

CITY OF SAN LUIS OBISPO

PROJECT TITLE: TANK FARM ROAD & ORCUTT ROAD ROUNDABOUT

SHEET TITLE: STRUCTURAL SPECIAL INSPECTIONS

REGISTERED PROFESSIONAL ENGINEER, MANUEL R. YCO, No. C85126, CIVIL, STATE OF CALIFORNIA

DESIGNED BY	CM
DRAWN BY	TS
CHECKED BY	MY
APPROVED BY	JWW
SCALE	AS NOTED
DATE	01/2_/2021
CITY SPECIFICATION NO	1000164
PLAN FILE NO / LOCATION	11151202 ST_.dwg
SHEET NO	67 of 67

ST7