GENERAL NOTES

1. ALL IMPROVEMENTS SHALL BE CONSTRUCTED IN STRICT ACCORDANCE WITH THE FOLLOWING: SAN JOAQUIN COUNTY IMPROVEMENT STANDARDS REVISED MAY 1997, AND ALL AMENDMENTS THERETO TO DATE. THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (FHWA'S MUTCD 2003 EDITION, AS AMENDED FOR USE IN CALIFORNIA) DATED SEPTEMBER 26, 2006 AND CALTRANS STANDARD PLANS & SPECIFICATIONS, LATEST EDITION, WHERE APPLICABLE. WHERE THERE IS A CONFLICT BETWEEN THE PLANS AND SAN JOAQUIN COUNTY IMPROVEMENT STANDARDS IN THE ARMSTRONG ROAD RIGHT-OF-WAY, SAN JOAQUIN COUNTY IMPROVMENT STANDARDS SHALL PREVAIL. ALL WORK WITHIN THE COUNTY RIGHT-OF-WAY SHALL BE SUBJECT TO INSPECTION BY SAN JOAQUIN COUNTY.

2. IT IS INTENDED THAT THESE PLANS, CALTRANS STANDARDS AND SAN JOAQUIN COUNTY IMPROVEMENT STANDARDS REQUIRE ALL LABOR AND MATERIALS NECESSARY AND PROPER FOR THE WORK CONTEMPLATED AND THAT THE WORK CAN BE COMPLETED IN ACCORDANCE WITH THEIR TRUE INTENT AND PURPOSE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY REGARDING ANY DISCREPANCIES OR AMBIGUITIES WHICH MAY EXIST IN THE PLANS OR SPECIFICATIONS. THE ENGINEER'S INTERPRETATION OF CORRECTION THEREOF SHALL BE CONCLUSIVE.

3. WHERE THE PLANS OR SPECIFICATIONS DESCRIBE PORTIONS OF THE WORK IN GENERAL TERMS BUT NOT IN COMPLETE DETAIL, IT IS UNDERSTOOD THAT ONLY THE BEST GENERAL PRACTICE IS TO PREVAIL AND THAT ONLY MATERIALS AND WORKMANSHIP OF THE FIRST QUALITY ARE TO BE USED.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS AND LICENSES REQUIRED FOR THE CONSTRUCTION AND COMPLETION OF THE PROJECT. EXCEPT FOR THE COUNTY ENCROACHMENT PERMIT.

5. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT WRITTEN AUTHORIZATION FROM A.R. SANGUINETTI & ASSOCIATES AND W.I.D. (WOODBRIDGE IRRIGATION DISTRICT).

6. THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, BARRICADES, SIGNS, FLAGMEN OR OTHER DEVICES NECESSARY FOR PUBLIC SAFETY.

7. ALL STATIONS REFER TO DISTANCES ALONG THE BASELINE FOR TOPO & CONSTRUCTION, PERPENDICULAR TO THE BASELINE FOR TOPO & CONSTRUCTION STATIONS, UNLESS OTHERWISE NOTED.

8. THE CONTRACTOR SHALL CHECK WITH THE UTILITY COMPANIES AND VERIFY ALL UTILITY LOCATIONS. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROTECT ALL EXISTING UTILITIES SO THAT NO DAMAGE RESULTS TO THEM DURING THE PERFORMANCE OF THE CONTRACT. THE CONTRACTOR SHALL BE REQUIRED TO COOPERATE AND COORDINATE WITH OTHER CONTRACTORS AND UTILITY COMPANIES WORKING ON THE PROJECT.

9. PRIOR TO COMMENCING ANY WORK, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HAVE EACH UTILITY COMPANY LOCATE IN THE FIELD THEIR MAIN AND SERVICE LINES. THE CONTRACTOR SHALL NOTIFY MEMBERS OF THE UNDERGROUND SERVICE ALERT (U.S.A.) 48 HOURS IN ADVANCE OF PERFORMING EXCAVATION WORK BY CALLING THE TOLL-FREE NUMBER (800) 227-2600.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING IMPROVEMENTS FROM DAMAGE. THE COST OF REPLACING EXISTING IMPROVEMENTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEMS REQUIRING REMOVAL AND REPLACEMENT OF EXISTING IMPROVEMENTS.

11. WHENEVER PAVEMENT/CONCRETE IS BROKEN OR CUT IN THE INSTALLATION OF THE WORK COVERED BY THESE PLANS AND SPECIFICATIONS, THE PAVEMENT/CONCRETE SHALL BE REPLACED, AFTER PROPER BACKFILLING, WITH PAVEMENT/CONCRETE MATERIALS EQUAL TO OR BETTER THAN THE MATERIALS USED IN THE ORIGINAL PAVING. THE FINISHED PAVEMENT SHALL BE SUBJECT TO THE APPROVAL OF THE COUNTY ENGINEER.

12. PAYMENT FOR PAVEMENT/CONCRETE WILL BE MADE ONLY FOR AREAS SHOWN ON THE PLANS. REPLACEMENT OF PAVEMENT/CONCRETE WHICH IS BROKEN OR CUT IN THE INSTALLATION OF THE WORK COVERED BY THESE PLANS AND SPECIFICATIONS, AND WHICH LIES OUTSIDE OF SAID AREAS, SHALL BE INCLUDED IN THE CONTRACTOR'S UNIT PRICES AND NO ADDITIONAL PAYMENT SHALL BE MADE FOR SUCH WORK.

13. THE CONTRACTOR AGREES THAT THEY SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND ALL PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR THE LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER AND SPECIFIC WORK BEING DONE BY W.I.D.

14. EXCAVATIONS OF 5 FEET OR MORE IN DEPTH WILL REQUIRE AN EXCAVATION PERMIT FROM THE STATE OF CALIFORNIA DEPARTMENT OF INDUSTRIAL SAFETY. FOR TRENCHES, 5 FEET OR MORE IN DEPTH, THE CONTRACTOR SHALL COMPLY WITH SECTION 5-1.02A OF THE CALTRANS STANDARDS, CHAPTER 9 OF THE STATE OF CALIFORNIA LABOR CODE, AND ANY LOCAL CODES OR ORDINANCES.

15. THE CONTRACTOR'S ATTENTION IS DIRECTED TO: SECTION 1540 (a) (1) OF THE CONSTRUCTION SAFETY ORDERS (TITLE 8 CALIFORNIA ADMINISTRATION CODE SECTION 1540), ISSUED BY THE NATIONAL SAFETY AND HEALTH STANDARDS BOARD PURSUANT TO THE CALIFORNIA OCCUPATIONS SAFETY AND HEALTH ACT OF 1973 AS AMENDED WHICH STATES:

    (1) PRIOR TO OPENING AN EXCAVATION, EFFORT SHALL BE MADE TO DETERMINE WHETHER UNDERGROUND INSTALLATIONS; I.E. SEWER, WATER, FUEL, ELECTRIC LINES, ETC., WILL BE ENCOUNTERED AND IF SO, WHERE SUCH UNDERGROUND INSTALLATIONS ARE LOCATED. WHEN THE EXCAVATION APPROACHES THE APPROXIMATE LOCATION OF SUCH AN INSTALLATION, THE EXACT LOCATION SHALL BE DETERMINED BY CAREFUL PROBING OR HAND DIGGING; AND, WHEN IT IS UNCOVERED, ADEQUATE PROTECTION SHALL BE PROVIDED FOR THE EXISTING INSTALLATION. ALL KNOWN OWNERS OF UNDERGROUND FACILITIES IN THE AREA CONCERNED SHALL BE ADVISED OF PROPOSED WORK AT LEAST 48 HOURS PRIOR TO THE START OF ACTUAL EXCAVATION.

16. W.I.D. WILL OBTAIN AN ENCROACHMENT PERMIT FOR ANY WORK DONE WITHIN COUNTY RIGHT-OF-WAY FROM SAN JOAQUIN COUNTY PUBLIC WORKS DEPARTMENT, AND NOTIFY SAN JOAQUIN COUNTY DEPARTMENT OF PUBLIC WORKS 48 HOURS IN ADVANCE OF STARTING ANY WORK REQUIRED IN THE PLANS.

17. THE CONTRACTOR SHALL CONTACT W.I.D. FOR A PRE-CONSTRUCTION CONFERENCE A MINIMUM OF SEVENTY TWO (72) HOURS PRIOR TO THE COMMENCEMENT OF WORK, (209) 369-6808.

18. WORK PERFORMED IN STREET RIGHT-OF-WAY IS SUBJECT TO THE APPROVAL AND ACCEPTANCE OF SAN JOAQUIN COUNTY DEPARTMENT OF PUBLIC WORKS.

19. NO PRODUCTS CONTAINING ASBESTOS WILL BE PERMITTED ON THE JOB.

20. ALL EXISTING GROUND ELEVATIONS ARE BASED ON THE TOPOGRAPHIC SURVEY NOTES DATED AUGUST 2007, MARCH 2009, OCTOBER 2009 & DECEMBER 2009.

21. DRAWING NUMBERS SHOWN ON THESE PLANS REFER TO DRAWINGS CONTAINED IN THE IMPROVEMENT STANDARDS FOR SAN JOAQUIN COUNTY SHOWN THUS: DWG. NO.

22. THE CONTRACTOR SHALL PROVIDE ALL SHORING, BRACING, SLOPING OR PROVISIONS TO PROTECT WORKMEN FOR ALL AREAS TO BE EXCAVATED TO A DEPTH OF FIVE (5) FEET OR MORE, IN ACCORDANCE WITH THE REQUIREMENTS OF THE STATE OF CALIFORNIA REGULATIONS.

23. ELEVATIONS REFER TO NGVD29 DATUM, CITY OF STOCKTON (C.O.S.) 1996 LOCAL ADJUSTMENT, APRIL 2003 REVISION AND THE 1991 TOWILL INC. ELEVATION REFERENCE MARKS (ERM) COMMISSIONED BY FEMA FOR THE FLOOD PLAIN STUDY OF SAN JOAQUIN COUNTY.

    SEE SHEET 1 FOR ALL THE BENCH MARKS USED FOR THIS PROJECT.

24. SAN JOAQUIN COUNTY IMPROVEMENT STANDARDS AND DETAILS AS SHOWN HEREON ARE FOR THE CONVENIENCE OF THE CONTRACTOR. PRIOR TO AND DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR BEING FAMILIAR WITH THE CURRENT SAN JOAQUIN COUNTY STANDARDS AND ALL UPDATES AND REVISIONS MADE TO ANY OF SAN JOAQUIN COUNTY STANDARD DETAILS SHOWN ON THESE PLANS. THE CONTRACTOR IS ALSO RESPONSIBLE FOR BEING FAMILIAR WITH THE WRITTEN SPECIFICATIONS AND/OR OTHER STANDARD DETAILS NOT SHOWN BUT WHICH ARE INCLUDED IN "SAN JOAQUIN COUNTY IMPROVEMENT STANDARDS".

25. AT THE CONCLUSION OF CONSTRUCTION, THE FIRM WHO PREPARED THE IMPROVEMENT PLANS WILL ADD TO THE PLANS, FOR W.I.D. RECORD PURPOSES, CONSTRUCTION DATA BASED ON INFORMATION COMPILED AND FURNISHED BY THE ENGINEER/SURVEYOR, CONTRACTORS, INSPECTORS, AND OTHERS.

26. HORIZONTAL & VERTICAL TOLERANCES SHALL BE PER CALTRANS STANDARDS FOR EACH DISCIPLINE OF WORK HEREIN. GRADING SHALL NOT EXCEED 0.10 OF A FOOT. STRUCTURAL CONCRETE GRADE (HORIZONTAL & VERTICAL) SHALL NOT EXCEED 0.04 OF A FOOT.

STAKING NOTES

1. CONSTRUCTION STAKING FOR PIPE CULVERTS, AND ALL OTHER WORK SHALL BE DONE BY A.R. SANGUINETTI & ASSOCIATES, INC. THE CONTRACTOR SHALL NOTIFY A.R. SANGUINETTI & ASSOCIATES 48 HOURS IN ADVANCE OF STAKING REQUEST. AT THE TIME OF REQUEST, THE CONTRACTOR SHALL PROVIDE ANY SPECIFIC OFFSET INFORMATION INFORMATION AND/OR SPECIAL STAKING REQUIREMENTS.

2. THE CONTRACTOR SHALL EXERCISE DUE CAUTION AND SHALL CAREFULLY PRESERVE BENCH MARKS, REFERENCE POINTS, CONTROL POINTS, AND ALL SURVEY STAKES, AND SHALL BEAR ALL EXPENSES FOR REPLACEMENT AND/OR ERRORS CAUSED BY THEIR UNNECESSARY LOSS OR DISTURBANCE OF SAID MONUMENTATION.

3. A.R. SANGUINETTI & ASSOCIATES WILL STAKE ALL DESIGN IMPROVEMENTS AS INDICATED ON THE PLANS, ANY DEVIATION IS SUBJECT TO A.R. SANGUINETTI & ASSOCIATES AND W.I.D. (WOODBRIDGE IRRIGATION DISTRICT).

HAZARDOUS MATERIALS NOTES

1. IF, DURING THE COURSE OF WORK UNDER THIS CONTRACT, THE CONTRACTOR ENCOUNTERS ANY SURFACE OR SUBSURFACE MATERIALS THAT THE CONTRACTOR BELIEVES ARE HAZARDOUS (AS DEFINED IN SECTION 25177 OF THE HEALTH AND SAFETY CODE), THE CONTRACTOR MUST INFORM THE OWNER OR THE OWNER'S REPRESENTATIVE IN WRITING IMMEDIATELY.

2. UPON DISCOVERY, THE MATERIAL IS TO REMAIN UNDISTURBED UNTIL INVESTIGATION BY THE OWNER.

3. THE REMOVAL AND/OR DISPOSAL OF HAZARDOUS MATERIALS, IF DISCOVERED, IS NOT INITIALLY PART OF THE SCOPE OF WORK OF THIS CONTRACT UNLESS SPECIFICALLY CALLED OUT IN THE CONTRACT DOCUMENTS. AT THE DISCRETION OF THE OWNER, SUCH WORK MAY BE ADDED TO THE CONTRACT BY MUTUAL AGREEMENT PURSUANT TO THE CONTRACT PROVISIONS FOR CHANGES.

EARTHWORK SPECIFICATIONS

1. THE EARTHWORK IN THE COUNTY RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH SAN JOAQUIN COUNTY IMPROVEMENT STANDARDS. ALL FILL AREAS AND FINISHED GRADE SHALL BE TESTED BY A GEOTECHNICAL ENGINEERING FIRM AS REQUIRED BY SAN JOAQUIN COUNTY AND W.I.D. AND SHALL BE PAID FOR BY THE OWNER. ALL COST OF RETESTING SHALL BE BORNE BY THE CONTRACTOR.

2. ALL VEGETATION AND DELETERIOUS MATERIALS SHALL BE REMOVED FROM THE SITE AT THE EXPENSE OF THE CONTRACTOR AND SHALL BE INCLUDED IN THE LUMP SUM CLEARING COSTS.

3. DRAINAGE SHALL BE GRADED AND MAINTAINED TO PROVIDE PROPER DRAINAGE WITHOUT CAUSING SOIL EROSION OR DRAINAGE ONTO THE ADJACENT PROPERTY.

4. THE "MAXIMUM CUT & FILL SLOPES SHALL BE 2:1 PER UBC". GREATER SLOPES CAN BE IMPLEMENTED WHEN APPROVED BY W.I.D. (WOODBRIDGE IRRIGATION DISTRICT).

5. ALL EXCAVATION AND GRADING SHALL COMPLY WITH APPENDIX CHAPTER 33 OF THE 1997 UBC (UNIFORM BUILDING CODE) AND/OR THE MOST RECENT ADOPTED CODES.

6. APPROPRIATE DUST CONTROL SHALL BE PROVIDED, AT THE CONTRACTOR'S EXPENSE, TO MINIMIZE ANY DUST NUISANCE. DUST CONTROL SHALL BE IN ACCORDANCE WITH SECTION 10 OF CALTRANS STANDARD SPECIFICATIONS AND THE REQUIREMENTS OF SAN JOAQUIN COUNTY.

7. THE BOTTOM OF ALL EXCAVATIONS SHALL BE FIRM AND DRY. IN THE EVENT OF AN UNSTABLE BOTTOM THE GEOTECHNICAL ENGINEER WILL BE CONSULTED AND A RECOMMENDATION BE PREPARED AND APPROVED BY THE DISTRICT PRIOR TO PLACEMENT OF AGGREGATE BASE, CONCRETE, PIPE, ETC.

TRAFFIC CONTROL SPECIFICATIONS

1. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION THE CONTRACTOR SHALL SUBMIT FOR APPROVAL BY SAN JOAQUIN COUNTY PUBLIC WORKS DEPARTMENT A TRAFFIC CONTROL PLAN IN ACCORDANCE WITH THE LATEST EDITION OF THE CAL-TRANS MANUAL OF TRAFFIC CONTROLS.

2. THE CONTRACTOR SHALL MAINTAIN ACCESS TO THE PRIVATE PROPERTY AT ALL TIMES. IF CLOSURE OF ACCESS POINTS TO PRIVATE PROPERTY IS REQUIRED, THE CONTRACTOR SHALL ARRANGE A TEMPORARY ACCESS AT A MUTUALLY AGREED LOCATION WITH THE PROPERTY OWNER AND SHALL BE APPROVED BY THE DISTRICT & COUNTY.

3. ALL TRAFFIC PROVISIONS ARE SUBJECT TO REVIEW AND APPROVAL OF SAN JOAQUIN COUNTY.

4. EXISTING TRAFFIC FLOW MUST BE MAINTAINED AT ALL TIMES ALONG ARMSTRONG ROAD. NO ROAD CLOSURE WILL BE PERMITTED. TWO-WAY TRAFFIC SHALL BE MAINTAINED DURING NON-WORKING HOURS.

RESTORATION SPECIFICATIONS

1. PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR IS REQUIRED TO CONTACT EACH PROPERTY OWNER THAT MAY BE IMPACTED BY THE PROJECT. THE CONTRACTOR SHALL NOTIFY EACH PROPERTY OF THE POTENTIAL DISRUPTION AND PROVIDE EACH OWNER WITH A SCHEDULE OF WHEN AND HOW LONG THE PROPERTY(S) MAY BE IMPACTED BY THE DISTRICT'S PROJECT. COORDINATION WITH W.I.D. IS REQUIRED BEFORE CONTACTING ANY LAND OWNER.

2. KNOWN EXISTING UTILITIES ARE SHOWN ON THE PLANS IN THERE APPROXIMATE LOCATIONS TAKEN FROM FIELD OBSERVATIONS, TOPOGRAPHCIAL SURVEYS AND AVAILABLE RECORDS. IT IS THE CONTRACTORS RESPONSIBILTY TO LOCATE, PROTECT AND MAINTAIN EXISTING UTILITIES INCLUDING ANY THAT MAY BE DISCOVERED. MINOR ADJUSTMENTS TO THE DESIGN MAY BE NECESSARY TO FACILITATE CONSTRUCTION OF THE PROJECT. ANY AND ALL ADJUSTMENTS REQUIRE APPROVAL OF A.R. SANGUINETTI & ASSOCIATES AND W.I.D. (WOODBRIDGE IRRIGATION DISTRICT).

3. ALL EXISTING MAIL BOXES, SIGNS, DRAINAGE DITCHES, ETC. THAT MAY BE DISTURBED WITH THIS PROJECT ARE REQUIRED TO BE RESTORED TO AT LEAST THE CONDITION THAT EXISTED PRIOR TO THE START OF CONSTRUCTION.

4. ANY MAIL BOX REQUIRED TO BE REMOVED TO FACILITATE CONSTRUCTION OF THE PROJECT SHALL BE TEMPORARILY RELOCATED AT A LOCATION AGREED TO BY THE PROPERTY OWNER & POSTAL SERVICE.

5. STRIPING & SIGNING THAT IS DISTRUBTED BY CONSTRUCTION OF THIS PROJECT SHALL BE RESTORED TO THE PRE-PROJECT CONDITION/ LOCATION.

BACKFILL & COMPACTION SPECIFICATIONS

1. COMPACTION OR "RELATIVE COMPACTION" SHALL REFER TO IN-PLACE DRY DENSITY OF SOIL EXPRESSED AS A PERCENTAGE OF THE MAXIMUM DRY DENSITY OF THE SAME MATERIAL AS DETERMINED BY ASTM D1557 TEST METHOD.

2. NO STRUCTURE SHALL BE BACKFILLED UNTIL 70% OF THE CONCRETE DESIGN STRENGTH IS ACHIEVED OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER.

3. EXISTING DEBRIS, VEGETATION, TOPSOIL, SURFACING MATERIAL, ETC. SHALL BE REMOVED PRIOR TO ANY EXCAVATION AND/OR FILL PLACEMENT.

4. THE UNDERLYING MATERIAL SHALL BE SCARIFIED, MOISTURE CONDITIONED TO AT LEAST 1% ABOVE OPTIMUM AND COMPACTED TO A MINIMUM OF 90% RELATIVE COMPACTION AT 12 INCHES DEEP. OVER EXCAVATION SHOULD NOT BE USED IN LIEU OF SCARIFICATION AND COMPACTION.

5. ALL FILL SHALL BE PLACED IN HORIZONTAL LAYERS NO GREATER THAN 6-8 INCHES IN LOOSE THICKNESS, UNLESS SHOWN OTHERWISE.

6. EMBANKMENT FILL SHALL HAVE AN ORGANIC CONTENT OF LESS THAN 6 PERCENT WITH AT LEAST 20 PERCENT PASSING A NO. 200 SIEVE SIZE. THE LIQUID LIMIT SHOULD BE LESS THAN 50 WITH THE PLASTICITY INDEX BETWEEN 7 AND 30.

7. ALL EMBANKMENT FILL AREAS SHALL BE MOISTURE CONDITIONED TO AT LEAST 1% ABOVE OPTIMUM AND COMPACTED TO A MINIMUM OF 90% RELATIVE COMPACTION.

8. ALL PATROL ROAD SURFACING SHALL BE 3/4" CLASS II, AGGREGATE BASE MEETING CALTRANS STANDARD SPECIFICATIONS AND COMPACTED TO A MINIMUM OF 95% RELATIVE COMPACTION.

9. SUBGRADE SOIL (MINIMUM 12-INCH DEPTH) BELOW PATROL ROADS, STRUCTURES, PIPES, ETC. SHALL BE A MINIMUM OF 90% RELATIVE COMPACTION.

10. BACKFILL AT THE STRUCTURES SHALL BE IN LOOSE LAYER LIFTS NOT EXCEEDING 6-8 INCHES AND MECHANICALLY COMPACTED WITH EQUIPMENT LESS THAN 1,000 POUNDS TO A MINIMUM RELATIVE DENSITY OF 90% OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER.

11. IN LIEU OF MECHANICAL BACKFILL THE CONTRACTOR MAY USE A CONTROLLED DENSITY FILL (CDF). CDF BACKFILL SHALL MEET THE REQUIREMENTS AS DEFINED IN THE SECTION 19-3.062 OF THE CALTRANS STANDARD SPECIFICATIONS (2006).

12. WATER JETTING MAY BE CONSIDERED WITH THE APPROVAL AND RECOMMENDATION OF THE GEOTECHNICAL ENGINEER EXCEPT FOR IN THE COUNTY R/W.

13. ALL BACKFILL AT THE CULVERTS/PIPES SHALL BE AS INDICATED ON THE PLANS OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER.

14. ALL STRUCTURAL CONCRETE SHALL HAVE A SLUMP TEST PRIOR TO PLACEMENT. MAXIMUM ALLOWABLE SLUMP SHALL BE 3-1/2 INCHES. ONE SLUMP TEST PER STRUCTURE OR EACH 30 CUBIC YARDS, WHICH EVER COMES FIRST, UNLESS DIRECTED OTHERWISE.

15. TEST CYLINDERS SHALL BE TAKEN - TWO STORED AT JOB SITE AND TWO HELD IN LAB. BREAKS SHALL BE AT 7 DAYS AND 28 DAYS, ADDITIONAL CYLINDERS MAY BE NECESSARY TO PERMIT EARLY BACKFILL.

16. ALL GROUT SHALL BE NON-SHRINK TYPE.

17. MIX DESIGN SHALL BE SUBMITTED FOR REVIEW AND APPROVAL 2 WEEKS BEFORE ANY CONCRETE PLACEMENT.

PIPE SPECIFICATIONS

1. ALL PIPE WILL BE PROVIDED BY W.I.D. INCLUDING MAINTENANCE HOLES. THE CONTRACTOR SHALL COORDINATE DELIVERY, ETC. WITH ANDERS CHRISTENSEN AT W.I.D., (209) 369-6808.

2. 60" PIPE FOR STA. 29+91.43 TO STA. 30+75.14 SHALL MEET ASTM C361 B-25 LOW PRESSURE HEAD PIPE DESIGN & MANUFACTURING SPECIFICATIONS EXCEPT FOR THE FOLLOWING MODIFICATIONS:

    A. RUBBER GASKET SHALL BE CONFINED SOLID "O" RING STYLE.

3. 60" RCP PIPE FOR STA. 30+75.14 TO STA. 43+00.00 & PRE-FABRICATED 'S' BEND RCP PIPES SHALL BE CLASS III, RUBBER GASKETED PIPE MEETING ASTM C76 DESIGN & MANUFACTURING SPECIFICATIONS.

4. STORAGE, HANDLING, AND INSTALLATION OF THE PIPE SHALL BE PER THE MANUFACTURERS SPECIFICATIONS.

5. THE PIPE MANUFACTURE SHALL SUBMIT FOR APPROVAL BY THE DISTRICT. PIPE LAYOUT, SPECIFICATIONS, ETC. FOR ALL PIPE, SPECIAL FITTINGS, MAINTENANCE HOLES, ETC. PRIOR TO FABRICATION.

6. MAINTENANCE HOLES SHALL BE PRE-FABRICATED MEETING ASTM C478 SPECIFICATIONS. HOLES SHALL BE CORED OR BLOCKED OUT FOR INCOMING/OUTGOING PIPES.

7. MAINTENANCE HOLES SHALL HAVE ECCENTRIC CONES WITH 36" WIDE OPENING. HEAVY DUTY CAST IRON FRAME AND SOLID COVER MARKED "NON-POTABLE WATER". CASTING SHALL MEET SAN JOAQUIN COUNTY STANDARD DRAWING CW-M3.

8. AFTER INSTALLATION OF THE PIPE, THE CONTRACTOR SHALL SEAL ALL INSIDE JOINTS WITH SIKAFLEX-2CSL (2 PART MIX). SEALANT SHALL BE APPLIED NEATLY, MEETING MANUFACTURERS SPECIFICATIONS.

EXCAVATION SPECIFICATIONS

1. EXCAVATION FOR ALL TRENCHES/STRUCTURES/PIPES SHALL BE MADE TO THE GRADES SHOWN ON THE DRAWINGS. SAFE AND SUITABLE ACCESS SHALL BE PROVIDED IN ACCORDANCE WITH CAL-OSHA AND OTHER APPLICABLE REGULATIONS.

2. BEDDING FOR PIPE/CULVERT/STRUCTURES SHALL BE PER MANUFACTURES SPECIFICATIONS OR THE GEOTECHNICAL ENGINEERS RECOMMENDATIONS, UNLESS SHOWN OTHERWISE ON THE DRAWINGS.

3. TRENCH EXCAVATION SHALL INCLUDE REMOVAL OF ANY MATERIALS OF ANY NATURE AND WATER WHICH INTERFERES WITH THE CONSTRUCTION WORK.

4. EXCAVATED MATERIAL FROM TRENCHES LOCATED WITHIN THE COUNTY RIGHT-OF-WAY AND PAVED AREAS SHALL BE IMMEDIATELY REMOVED FROM THE PUBLIC RIGHT-OF-WAY UNLESS OTHERWISE PERMITTED BY THE COUNTY PUBLIC WORKS DEPARTMENT.

5. TRENCH WIDTH SHALL BE PER THE TRENCH SECTION SHOWN ON THE DRAWINGS. IN THE EVENT THAT UNSUITABLE MATERIALS OR UNSTABLE TRENCH WALLS ARE ENCOUNTERED, THE TRENCH WIDTH SHALL BE MODIFIED IN ACCORDANCE WITH THE APPLICABLE ASTM STANDARD OR AS DIRECTED BY A GEOTECHNICAL ENGINEER.

6. THE CONTRACTOR SHALL FURNISH AND INSTALL SUFFICIENT SHORING, SHEETING AND BRACING TO INSURE THE SAFETY OF WORK PERSONNEL AND THE PUBLIC, TO PROTECT THE WORK, AND PROTECT EXISTING FACILITIES.

    A. SHORING, SHEETING, AND BRACING SHALL COMPLY WITH THE RULES, ORDERS AND REGULATIONS OF CAL-OSHA.
    B. THE CONTRACTOR SHALL PROVIDE A COPY OF ITS CURRENT ANNUAL EXCAVATION PERMIT ISSUED BY CAL-OSHA TO W.I.D.
    C. IF SPECIAL BRACING, SHORING OR SHEETING IS REQUIRED FOR SPECIFIC PARTS OF THE PROJECT, THE CONTRACTOR SHALL SUBMIT TO W.I.D. DRAWINGS AND CALCULATIONS BY A CALIFORNIA REGISTERED ENGINEER PRIOR TO BEGINNING THE EXCAVATION FOR THE SPECIALLY DESIGNED BRACING, SHORING OR SHEETING.

7. THE BOTTOM OF THE EXCAVATION SHALL BE FIRM AND DRY. IN THE EVENT OF AN UNSTABLE BOTTOM, THE GEOTECHNICAL ENGINEER WILL BE CONSULTED AND A RECOMMENDATION WILL BE MADE AND APPROVED BY W.I.D. PRIOR TO PLACEMENT OF ANY BEDDING OR PIPE/CULVERT/STRUCTURE.

8. THE MAXIMUM LENGTH OF OPEN TRENCH WHERE PIPE IS TO BE LAID SHALL BE THE DISTANCE NECESSARY TO ACCOMMODATE THE AMOUNT OF PIPE WHICH CAN BE INSTALLED THAT SAME DAY.

9. AT THE END OF EACH WORKING DAY, THERE SHALL BE NO OPEN TRENCH IN THE PAVED AREA ~~(UNLESS IT IS PLATED IN ACCORDANCE WITH THE FOLLOWING:~~ THE TRENCH SHALL BE BACKFILLED EACH DAY & TWO-WAY TRAFFIC RESTORED AT END OF DAY.
    ~~A. WHEN THE BACKFILLING OF TRENCHES CAN NOT BE COMPLETED IN THE SAME DAY WITHIN THE PAVED STREET SECTION, TRENCH PLATING IS REQUIRED.~~
    ~~B. PLATES SHALL BE OF STEEL AND CAPABLE OF SUPPORTING HS20 LOADING.~~
    ~~C. THE PLATES MUST EXTEND BEYOND THE EDGE OF THE TRENCH WALL TO ADEQUATELY SUPPORT THE TRAFFIC LOADS ON IT. IN NO CASE SHALL THE PLATES EXTEND LESS THAN TWELVE (12") INCHES BEYOND THE TRENCH WALL.~~
    ~~D. EACH PLATE MUST BE FULLY SUPPORTED AROUND THE PERIMETER TO PREVENT WOBBLING OR ROCKING.~~
    ~~E. THE PLATES SHALL BE SECURED TO PREVENT ANY MOVEMENT.~~
    ~~F. TRENCHES AND EXCAVATIONS SHALL BE SHORED AND BRACED TO WITHSTAND HIGHWAY TRAFFIC LOADS.~~
    G. TEMPORARY PAVING OR COLD-MIX ASPHALT CONCRETE (CUTBACK) SHALL BE PLACED AT ~~AND CONTINUOUSLY MAINTAINED AROUND ALL OUTSIDE EDGES OF THE TRENCH PLATE UNTIL REMOVAL OF PLATES.~~ BACKFILLED TRENCH EACH DAY UNTIL FINISH PAVING IS COMPLETED.

10. AT THE END OF EACH WORKING DAY, THE "OPEN FIELD" PIPE LINE TRENCH OR STRUCTURE EXCAVATION SHALL BE CORDONED OFF WITH SUITABLE SAFETY FENCING UNTIL ALL BACKFILLING HAS BEEN COMPLETED.

WORK ORDER SPECIFICATIONS

W.I.D.:

1. WILL DO ALL DEMOLITION WORK TO CONSTRUCT THE PROJECT AS SHOWN ON THE PLANS.

2. WILL IMPLEMENT THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND EROSION CONTROL FEATURES SHOWN ON THE PLANS EXCEPT THE CONCRETE WASH-OUT SHALL BE PROVIDED FOR AND MAINTAINED BY THE CONTRACTOR.

3. WILL PROVIDE ALL RCP PIPE AND PRE-FABRICATED MAINTENANCE HOLES TO THE CONTRACTOR.

4. WILL FABRICATE AND INSTALL THE STRUCTURE BAR RACK. THE STRUCTURE CONTRACTOR WILL COORDINATE WITH W.I.D.

5. WILL FABRICATE AND INSTALL THE ENTRY GATES & CANAL SIGNING.

6. WILL CONSTRUCT ANY NECESSARY TAKE-OUT STRUCTURES TO PROVIDE WATER TO THE ADJACENT PROPERTIES.

CONTRACTOR:

1. THE CONTRACTOR'S FIRST ORDER OF WORK SHALL BE TO VERIFY LOCATION & ELEVATIONS OF ALL EXISTING FACILITIES WHICH ARE A PART OR MAY BE IN CONFLICT WITH A PART OF THE WORK HEREIN CONTEMPLATED. THIS INFORMATION SHALL BE PROVIDED TO THE DESIGN ENGINEER IMMEDIATELY.

2. REMOVE/ABANDON EXISTING CULVERT PIPE UNDER ARMSTRONG ROAD AND MAKE GRADE AS NEEDED AND INSTALL THE NEW 60-INCH RCP AS SHOWN ON THE PLANS AND PER THE REQUIREMENTS OF THE COUNTY ENCROACHMENT PERMIT.

3. WILL IMPLEMENT AND PROVIDE ALL NECESSARY TRAFFIC CONTROL AS SHOWN ON THE PLANS AND REQUIRED BY THE COUNTY ENCROACHMENT PERMIT. ALL SUBCONTRACTORS SHALL ADHERE TO THE REQUIREMENTS OF THE TRAFFIC CONTROL PLAN AND COUNTY ENCROACHMENT PERMIT.

4. WILL EXCAVATE AND INSTALL THE PIPE AS SHOWN ON THE PLANS, COMPLETE AND INPLACE INCLUDING MAINTENANCE HOLES.

5. WILL CONSTRUCT/BUILD THE INLET-OUTLET STRUCTURES AS SHOWN ON THE PLANS INCLUDING ALL SAFETY FENCING, CONCRETE CHANNEL TRANSITIONS, REINFORCING, BACKFILL, ETC., COMPLETE AND INPLACE EXCEPT FOR THE BAR RACK.

6. WILL BACKFILL THE PIPE LINE, STRUCTURES, ETC. AS SHOWN ON THE PLANS, PLACE ASPHALT AS REQUIRED ON ARMSTRONG ROAD, ROUGH GRADE ALONG DAIRY, IMPORT/EXPORT MATERIAL AS NEEDED TO MAKE THE GRADES SHOWN ON THE PLANS, CONSTRUCT DRAINAGE DITCH(S) AS SHOWN ON THE PLANS, FINISH GRADE THE PATROL ROAD AND ADJACENT PROPERTIES AS SHOWN AND/OR AS DIRECTED BY W.I.D., PROVIDE, PLACE AND COMPACT THE CLASS 2 - A.B. AS SHOWN ON THE PLANS.

REGISTERED PROFESSIONAL ENGINEER
MARK A. SANGUINETTI
EXPIRES 6-30-11
NO. 64,907
CIVIL
STATE OF CALIFORNIA

800-227-2600
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USA
UNDERGROUND SERVICE ALERT

REVISION NO.	DESCRIPTION	DATE	BY	APRVD. BY
1	COUNTY COMMENTS	3/10/11		

A.R. SANGUINETTI & ASSOCIATES
CONSULTING CIVIL ENGINEERS
1150 W. ROBINHOOD DR., STE. 1C, STOCKTON, CALIFORNIA
MARK A. SANGUINETTI R