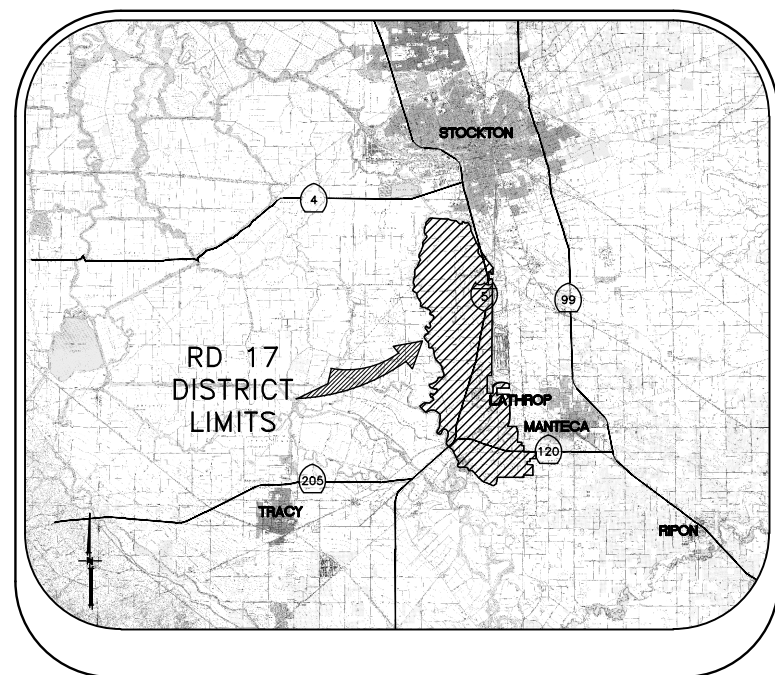


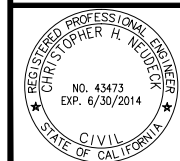
RECLAMATION DISTRICT NO. 17 LEVEE SEEPAGE REPAIR PROJECT PHASE 3 65% SUBMITTAL (PLAN VIEW SHEETS ONLY)



VICINITY MAP

ELEMENT	DESCRIPTION
1. ELEMENT Ia	SEEPAGE BERM
2. ELEMENT Ib	SEEPAGE BERM
3. ELEMENT Ic	SEEPAGE BERM
4. ELEMENT IIab	CUTOFF WALL
5. ELEMENT IIIab	SEEPAGE BERM
6. ELEMENT IVa	SEEPAGE BERM
7. ELEMENT IVc	CUTOFF WALL
8. ELEMENT Va/VIa1	CUTOFF WALL
9. ELEMENT VIbc	CUTOFF WALL
10. ELEMENT VIIb	SEEPAGE BERM
11. ELEMENT VIIe	CUTOFF WALL
12. ELEMENT VIIg	SEEPAGE BERM

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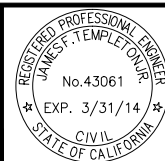
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THESE PLANS CONFORM TO THE GEOTECHNICAL REPORT
ENTITLED: SEEPAGE EVALUATION PROJECT #5747.000.000

ENGEO
INCORPORATED
EXCELLENT SERVICE SINCE 1971



PLANS PREPARED UNDER THE DIRECTION OF:

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RECLAMATION DISTRICT NO. 17
LEVEE SEEPAGE REPAIR PROJECT

PLAN INDEX

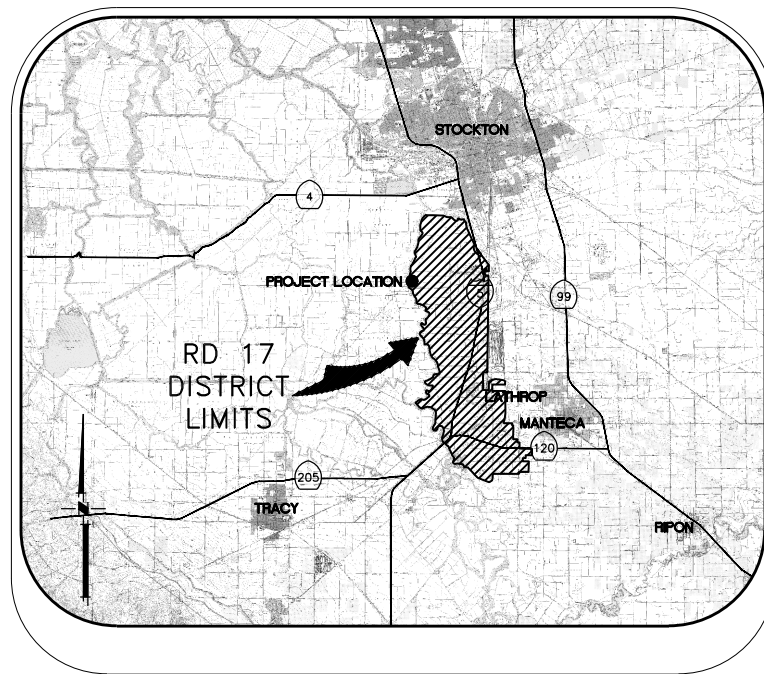
SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

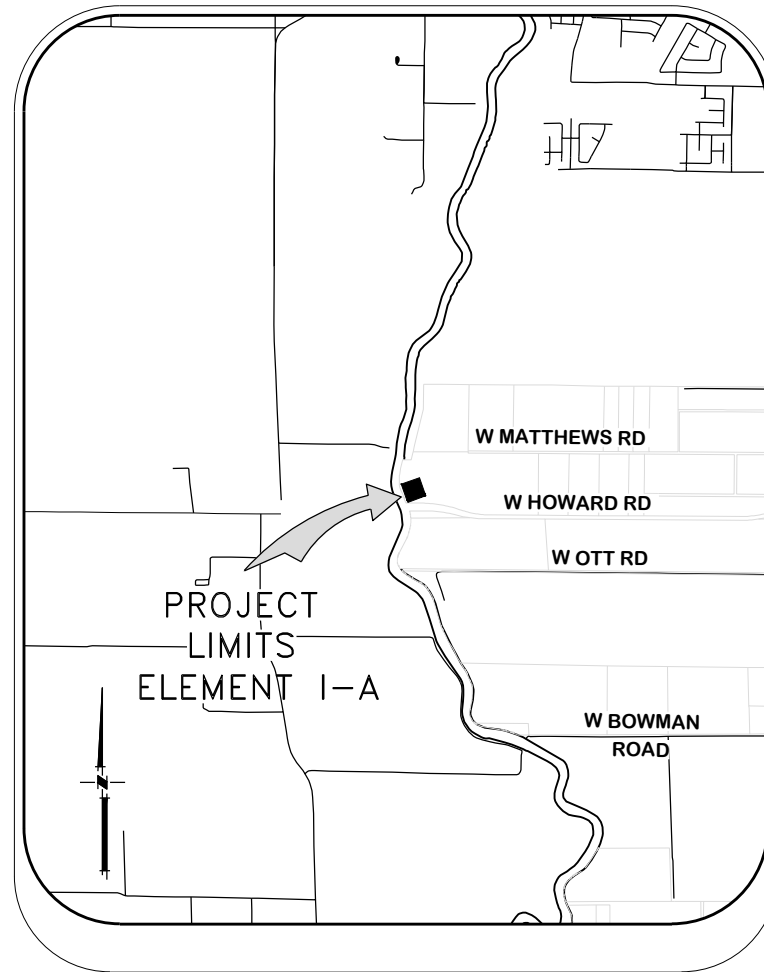
DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: NOT TO SCALE	
DRAWN BY: CWG	
DESIGNED BY: CWG	
CHECKED BY: JSL	

RECLAMATION DISTRICT NO. 17 LEVEE SEEPAGE PROJECT

ELEMENT I-A - SEEPAGE BERM RD17 STATION 247+00 THRU 252+90 (FEET) USACE STATION 2.77 THRU 2.88 (MILES)



VICINITY MAP



PROJECT SITE MAP

SHEET	DESCRIPTION
1.	COVER SHEET
2.	NOTES
3.	NOTES & BORING LOCATIONS
4.	HAUL ROUTE & CONTROL POINTS
5.	TYPICAL SECTIONS & DETAILS
6.	TYPICAL SECTIONS & DETAILS
7.	GRADING PLAN
8.	CROSS-SECTIONS
9.	CROSS-SECTIONS

INDEX

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RECLAMATION DISTRICT NO. 17
ELEMENT I-A
COVER SHEET

SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: NOT TO SCALE	SHT 1
DRAWN BY: GB	OF 9
DESIGNED BY: JBM	
CHECKED BY: JSL	

THE PERFORMANCE OF THE LEVEE SYSTEMS IS DEPENDANT UPON THE DESIGN CRITERIA AND THE LONG TERM OPERATION AND MAINTENANCE OF THE LEVEES. THE DESIGN TEAM HAS PREPARED THESE PLANS AND ASSOCIATED SPECIFICATIONS AND REPORTS IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICE USING INFORMATION FROM MULTIPLE SOURCES. IF EXTREME FLOODS (EXCEEDING THE DESIGN PROFILE), EARTHQUAKES OR OTHER LOADING CONDITIONS NOT EVALUATED IN THE DESIGN OCCUR, THE INTEGRITY OF THE LEVEE SYSTEM MAY BE COMPROMISED.

ROLES:

THE "DISTRICT" AS REFERRED TO IN THESE NOTES MEANS RECLAMATION DISTRICT 17(RD 17). THE DISTRICT IS THE PROJECT OWNER.

THE "ENGINEER" AS REFERRED TO IN THESE NOTES MEANS THE DISTRICT ENGINEER: KJELDSSEN, SINNOCK, AND NEUDECK. THE ENGINEER SHALL PROVIDE INSPECTION OF THE PROJECT AND OVERALL CONSTRUCTION MANAGEMENT INCLUDING COORDINATION WITH PUBLIC UTILITIES, PUBLIC AGENCIES, THE DESIGN ENGINEER AND THE GEOTECHNICAL ENGINEER.

THE "DESIGN ENGINEER" AS REFERRED TO IN THESE NOTES MEANS MACKAY & SOMPS, CIVIL ENGINEERS INC. THE DESIGN ENGINEER WILL PERFORM DISTRICT PROVIDED CONSTRUCTION STAKING AND "AS-GRADED" SURVEYS.

THE "GEOTECHNICAL ENGINEER" AS REFERRED TO IN THESE NOTES MEANS ENGeo INC. THE GEOTECHNICAL ENGINEER WILL PROVIDE MATERIALS TESTING, COMPACTION TESTING AND OTHER GEOTECHNICAL RELATED TESTING.

CONTRACTOR SHALL BE RESPONSIBLE FOR SUPERVISION OF ALL CONTRACTOR'S EMPLOYEES, SUBCONTRACTORS, INCLUDING SCHEDULING AND ALL SAFETY MATTERS.

THESE PLANS ARE TO BE USED IN CONJUNCTION WITH THE FOLLOWING:

- a. SOILS REPORT PREPARED BY ENGeo INC. ENTITLED, SEEPAGE EVALUATION PROJECT # 5747.000.000.
- b. SPECIFICATIONS PREPARED BY KSN DATED _____

GENERAL NOTES:

1. PRIOR TO THE COMMENCEMENT OF WORK, A JOINT INSPECTION BETWEEN THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER, THE GEOTECHNICAL ENGINEER, THEIR REPRESENTATIVES, AND THE CONTRACTOR (OR HIS REPRESENTATIVE) WILL BE CONDUCTED TO REVIEW THE PRE-CONSTRUCTION CONDITIONS (E.G. ROADS, PUMPS, DISCHARGE PIPES, SIPHONS, RAMPS, GATES, SIGNS, ETC.) IF SUCH EXISTING FACILITIES ARE DAMAGED BY THE CONTRACTOR'S OPERATIONS, THE CONTRACTOR, AT THEIR OWN EXPENSE, SHALL REPLACE OR RESTORE THEM TO THE CONDITION THAT EXISTED PRIOR TO THE COMMENCEMENT OF WORK.
2. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT (209) 946-0268, A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY WORK.
3. THE DISTRICT RESERVES THE RIGHT TO SUSPEND CONSTRUCTION AT ANY TIME IN THE EVENT OF EXTREME HIGH OR LOW TIDES, FLOOD EVENTS, OTHER CONDITIONS OR EMERGENCIES THAT MAY JEOPARDIZE THE INTEGRITY OF THE DISTRICT'S LEVEE AND ROAD SYSTEM.
4. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, COUNTY AND LOCAL REQUIREMENTS, AS REQUIRED FOR TRAFFIC CONTROL AND PUBLIC SAFETY DURING PROJECT CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL OUTLINED IN THESE PLANS AND THE REFERENCED SPECIFICATIONS.
5. THE DISTRICT WILL FURNISH ALL RIGHT-OF-WAY FOR ALL LEVEE ROADS AND DESIGNATED ACCESS HAUL ROADS AS SHOWN ON THESE PLANS. SHOULD THE CONTRACTOR WANT TO USE OTHER ROADWAYS OR ACCESS AREAS NOT SHOWN, THE CONTRACTOR SHALL AT THEIR OWN EXPENSE SECURE RIGHT-OF-WAY & NECESSARY PERMITS.
6. IF DELIVERING MATERIAL OR EQUIPMENT BY TRUCK, ALL TRUCK TRAFFIC SHALL BE LIMITED TO THE DISTRICT LEVEE ROADS AND/OR PUBLIC ROADS AS SHOWN ON HAUL ROUTE PLAN, UNLESS OTHERWISE APPROVED.
7. MAXIMUM SPEED LIMIT ON DISTRICT LEVEE ROADS IS 30 MPH, AS POSTED, OR AS OTHERWISE INDICATED ON THE CONSTRUCTION DRAWINGS. CONTRACTOR SHALL POST LARGE SLOW/CAUTION SIGNS AND SPEED LIMIT SIGNS FOR PURPOSES OF NOTIFYING BOTH CONTRACTOR'S EMPLOYEES AND THE PUBLIC. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SAFETY AT ALL TIMES ALONG ALL HAUL ROUTES AND IN ALL PROJECT AREAS (PUBLIC AND PRIVATE).

8. THE DISTRICT WILL PROVIDE SURVEY STAKES AS DESCRIBED IN THE SPECIFICATIONS WITHIN THE CONSTRUCTION SURVEYING SECTION. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL CONSTRUCTION STAKING AND SURVEYING AT THEIR OWN EXPENSE BEYOND THAT PROVIDED BY THE DISTRICT. PLEASE CONTACT THE ENGINEER IN WRITING WITH STAKING REQUESTS (209) 946-0268 WITH AT LEAST TWO WORKING DAYS ADVANCE NOTICE.
9. THE CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER AND THE GEOTECHNICAL ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER OR THE GEOTECHNICAL ENGINEER.
10. ANY DEFICIENCIES NOTED DURING INTERIM AND FINAL INSPECTIONS BY THE ENGINEER AND/OR DISTRICT SHALL BE CORRECTED BY THE CONTRACTOR PRIOR TO FINAL ACCEPTANCE BY THE DISTRICT. ANY ADDITIONAL COSTS AND EXPENSES FOR MOBILIZATION AND/OR DEMOBILIZATION, LABOR, EQUIPMENT AND OTHER ASSOCIATED COSTS REQUIRED TO CORRECT THE DEFICIENCIES NOTED, EXCEPT SPECIFIED MATERIAL(S), SHALL BE BORNE BY THE CONTRACTOR.
11. THE CONTRACTOR SHALL NOT CLOSE ANY ROAD, STREET, OR HIGHWAY TO THE PUBLIC EXCEPT WITH THE PERMISSION OF THE ENGINEER AND THE PROPER GOVERNMENTAL AUTHORITY. TEMPORARY PROVISIONS SHALL BE MADE BY THE CONTRACTOR TO ENSURE CONTINUOUS ACCESS TO PUBLIC AND PRIVATE DRIVEWAYS, AND PROPER FUNCTIONING OF CULVERTS, DRAINAGE AND IRRIGATION DITCHES, AND NATURAL WATER COURSES.
12. THE CONTRACTOR IS RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER, AND HE SHALL NOTIFY THE ENGINEER WHENEVER THERE IS A CHANGE IN SITE CONDITIONS OR AN ADJUSTMENT TO BE MADE IN WORK REQUIREMENTS.
13. SHOULD IT APPEAR THAT THE WORK TO BE DONE, OR ANY MATTER RELATIVE THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE ENGINEER AT (209) 946-0268 FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.
14. THE INTENT OF THESE PLANS IS TO SERVE AS A GUIDE AND TO PROVIDE THE CONTRACTOR WITH INFORMATION AND DETAILS NECESSARY TO CONSTRUCT THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY REGARDING ANY DISCREPANCIES AND AMBIGUITIES WHICH MAY EXIST IN THE PLANS OR SPECIFICATIONS. IF THE PLANS 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 FINEST QUALITY ARE TO BE USED.
15. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE OSHA REGULATIONS AND SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS.
16. THE CONTRACTOR SHALL AT ALL TIMES BE RESPONSIBLE FOR THE SECURITY OF THE JOBSITE AND EQUIPMENT. THE DISTRICT WILL NOT BE RESPONSIBLE FOR MISSING OR DAMAGED EQUIPMENT, TOOLS, OR PERSONAL BELONGINGS.

ENVIRONMENTAL NOTES:

1. THE CONTRACTOR SHALL NOT DISCHARGE SMOKE, DUST, OR ANY OTHER AIR CONTAMINANTS INTO THE ATMOSPHERE IN SUCH QUANTITY AS WILL VIOLATE THE REGULATIONS OF ANY LEGALLY CONSTITUTED AUTHORITY. HE SHALL ALSO ABATE DUST NUISANCE BY CLEANING, SWEEPING AND SPRINKLING WITH WATER, OR OTHER MEANS AS NECESSARY. THE USE OF WATER IN AN AMOUNT WHICH RESULTS IN MUD ON PUBLIC ROADS IS NOT ACCEPTABLE AS A SUBSTITUTE FOR SWEEPING OR OTHER METHODS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ADJACENT PUBLIC ROADS CLEAN & CLEAR FROM CONSTRUCTION IMPACTS OR DEBRIS. ADDITIONAL DETAILS FOR MUD AND DUST CONTROL IS INCLUDED IN SUBSEQUENT SECTIONS OF THESE NOTES.
2. THE CONTRACTOR SHALL EXERCISE EVERY REASONABLE PRECAUTION TO PROTECT STREAMS, WATERWAYS AND OTHER BODIES OF WATER FROM POLLUTION WITH FUELS, OIL, BITUMEN'S, CALCIUM CHLORIDE, AND OTHER HAZARDOUS MATERIALS AND SHALL CONDUCT AND SCHEDULE HIS OPERATIONS SO AS TO AVOID OR MINIMIZE MUDDYING AND SILTING OF SAID WATERS. CARE SHALL BE EXERCISED TO PRESERVE ROADSIDE VEGETATION BEYOND THE LIMITS OF CONSTRUCTION.

3. THROUGHOUT ALL PHASES OF CONSTRUCTION, INCLUDING SUSPENSION OF WORK, AND UNTIL FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL KEEP THE WORK SITE CONDITIONS CLEAN AND FREE FROM RUBBISH AND DEBRIS. ALL RUBBISH AND REFUSE SHALL BE DISPOSED OF IN A MANNER SATISFACTORY TO THE ENGINEER.

DUST AND MUD CONTROL:

1. DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL KEEP ALL CONSTRUCTION AREAS, FILL AREAS, HAUL ROADS, OTHER ROADWAYS, AND OTHER USE AREAS WHERE DUST IS GENERATED WELL WATERED: AND DURING WET CONDITIONS, AREAS USED BY LOCAL TRAFFIC, FREE AND CLEAR FROM MUD. CONTRACTOR SHALL PROVIDE EFFORTS NECESSARY TO MINIMIZE DUST AND OTHER DISTURBANCES NEAR EXISTING RESIDENCES AND ALL BUILDINGS NEAR HAUL ROUTES AND THE PROJECT SITE.
 - a. CROP DAMAGE: THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL TO PREVENT CROP DAMAGE AND FOR ANY AREAS SUBJECT TO CONSTRUCTION OR CONSTRUCTION TRAFFIC THAT GENERATE DUST AND/OR OTHER CONDITIONS WHICH MIGHT DAMAGE CROPS.
 - b. NON WORK DAYS: THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL THROUGHOUT THE DURATION OF THE PROJECT INCLUDING NON WORKDAYS IN ALL PROJECT AREAS, INCLUDING CONSTRUCTION ROADS AND CROP AREAS WHICH ARE USED BY THE CONTRACTOR, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. THE CONTRACTOR SHALL HAVE AT LEAST ONE (1) WATER TRUCK AVAILABLE TO THE PROJECT AT ALL TIMES (OR MORE AS NEEDED OR DIRECTED BY THE ENGINEER) TO MAINTAIN ADEQUATE DUST CONTROL FOR THE FOLLOWING AREAS:
 - a. PROJECT AREAS
 - b. ACCESS AND HAUL ROADS
 - c. LEVEE TOE BERM FILL AREAS
 - d. OTHER CONSTRUCTION USE AREAS
 - e. CROP DAMAGE PREVENTION
 - f. RESIDENTIAL CONSTRUCTION ZONES
 - g. ADJACENT PUBLIC STREETS, TRAILS & BIKEWAYS

UTILITY NOTES:

1. UTILITIES AS NOTED ON THE PLAN SET HAVE BEEN DETERMINED BASED ON RECORD INFORMATION AND FIELD INSPECTION, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE ACTUAL LOCATION OF ALL UNDERGROUND, SURFACE, OVERHEAD, AND SUBMARINE IMPROVEMENTS, OR FACILITIES WHICH MAY BE SUBJECT TO DAMAGE BY REASON OF HIS OPERATIONS.
2. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES AND SHALL CONTACT THE RESPECTIVE UTILITY COMPANIES & PRIVATE OWNERS PRIOR TO COMMENCEMENT OF WORK.
3. THE CONTRACTOR SHALL NOTIFY AFFECTED UTILITIES FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY CONSTRUCTION. (UNDERGROUND SERVICE ALERT (800) 642-2444) AND SHALL BE RESPONSIBLE FOR THE LOCATION AND PRESERVATION OF ALL FACILITIES IN THE AREA OF CONSTRUCTION.

PLANS REVIEWED AND APPROVED BY:



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SINNOCK
NEUDECK
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and Land Surveyors

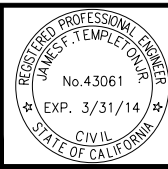
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RECLAMATION DISTRICT NO. 17
ELEMENT I-A

NOTES

SAN JOAQUIN COUNTY CALIFORNIA

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SCALE: SHOWN	25182.010
DRAWN BY: GB	SHT 2
DESIGNED BY: JBM	OF 9
CHECKED BY: JSL	
NO.	REVISION
	DATE

ACCESS ROADS:

1. THE CONTRACTOR SHALL IMPROVE, MAINTAIN, AND REPAIR UPON COMPLETION, THE ACCESS ROADS AND HAUL ROUTES AS REQUIRED FOR TRANSPORTATION AND HAULING MATERIAL. AT THE COMPLETION OF WORK THE CONTRACTOR SHALL RESTORE ALL ACCESS ROADS AND HAUL ROUTES TO PRE-CONSTRUCTION CONDITION IN A MANNER SATISFACTORY TO THE ENGINEER.
2. THE CONTRACTOR SHALL REVIEW THE ACCESS ROAD ROUTES AND DETERMINE THE LOCATION FOR TURNOUTS, RAMPS, ROAD DRAINAGE, ALIGNMENT, ETC. UPON COMPLETION OF THE PROJECT, SOME PORTIONS OF THE ACCESS ROADS MAY REQUIRE MINOR MODIFICATIONS AND ALTERATIONS. THE ACCESS ROADS WHICH REMAIN SHALL BE LEFT IN GOOD CONDITION FOR THE DISTRICT, FARMERS, AND OTHER LOCAL TRAFFIC.
3. THE CONTRACTOR SHALL NOT DEVIATE FROM IDENTIFIED HAUL ROUTES AND STAGING AREAS UNLESS PERMISSION IS OBTAINED FROM THE PROPERTY OWNER, ENGINEER AND PERMITS ARE OBTAINED FROM THE LOCAL AGENCY.
4. THE CONTRACTOR SHALL EXTEND, STRENGTHEN, REPLACE, OR OTHERWISE MODIFY THE EXISTING CROSSINGS (E.G. CULVERTS, SIPHONS, DRAIN PIPES, IRRIGATION PIPES, PUMP DISCHARGE PIPES, WET SPOTS, ETC.) AS NECESSARY TO ACCOMMODATE HIS EQUIPMENT. THE CONTRACTOR SHALL PROVIDE WHATEVER MEASURES ARE NECESSARY TO PRESERVE, PROTECT, AND MAINTAIN THE CROSSINGS SO AS TO ENSURE CONTINUOUS AND UNINTERRUPTED CONSTRUCTION OPERATIONS DURING THE ENTIRE TERM OF THIS CONTRACT.
5. THE HAUL ROADS MAY REQUIRE TEMPORARY IRRIGATION OR DISCHARGE PIPE EXTENSIONS AND RAMPING DURING CONSTRUCTION OPERATIONS. TEMPORARY EXTENSIONS AND RAMPING WILL BE PROVIDED AND INSTALLED BY THE CONTRACTOR AT HIS EXPENSE, INCLUDING REMOVAL IF REQUIRED, IN A MANNER WHICH MEETS WITH THE APPROVAL OF THE ENGINEER AND THE LANDOWNERS.
6. NEITHER THE DISTRICT NOR THE ENGINEER MAKES ANY WARRANTY OR GUARANTEE AS TO THE ADEQUACY OF THE EXISTING MATERIALS TO SUPPORT THE CONSTRUCTION TRAFFIC ON THE ACCESS ROADS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MAKING THE NECESSARY IMPROVEMENTS AND PROVIDING THE NECESSARY MEASURES REQUIRED TO ACCOMMODATE HIS ANTICIPATED NEEDS. REPAIRS TO ROADWAYS DAMAGED BY THE CONTRACTOR SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
7. CONTRACTOR MUST MAINTAIN HAUL ROUTE ACCESS AT ALL TIMES FOR USE BY THE DISTRICT AND/OR PUBLIC (AS APPLICABLE) DURING CONSTRUCTION.

CLEARING & GRUBBING:

1. UNLESS OTHERWISE INDICATED, THE WORK AREAS SHALL BE CLEARED AND GRUBBED BY THE CONTRACTOR. CONTRACTOR SHALL USE CAUTION WHILE CLEARING AND GRUBBING AROUND POWER LINES, BURIED ELECTRICAL CABLES AND OTHER EX FACILITIES/UTILITIES. ALL MATERIAL CLEARED AND REMOVED SHALL BECOME THE PROPERTY AND RESPONSIBILITY OF THE CONTRACTOR FOR REMOVAL AND DISPOSAL OFFSITE. SOME PRUNING/TRIMMING/THINNING OF BRANCHES OR TREES MAY BE REQUIRED.

FILL MATERIALS:

1. THE CONTRACTOR SHALL FURNISH, DELIVER, AND PLACE THE SPECIFIED FILL MATERIALS (PER THE DISTRICT ENGINEERS SPECIFICATIONS) TO THE DESIGNATED SITES.
2. THE FILL SHALL BE CONSTRUCTED WITH ACCEPTABLE MATERIALS SUFFICIENT TO MEET DESIGN GRADES AND SPECIFICATIONS.
3. ALL SUBGRADE AREAS RECEIVING FILL MATERIAL SHALL BE PREPARED AS REQUIRED BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR MAY BE REQUIRED TO PERFORM ADDITIONAL SUBGRADE PREPARATION WORK WITHIN THE FILL AREAS PRIOR TO THE ACCEPTANCE OF THE MATERIAL.
4. THE CONTRACTOR SHALL DELIVER THE FILL MATERIALS TO THE REQUIRED SECTIONS AS UNIFORM MIXTURES. THE MIXTURE SHALL BE DEPOSITED AND SPREAD TO THE REQUIRED COMPACTED THICKNESS. SEGREGATION OF MATERIAL SHALL BE AVOIDED AND EACH LAYER OF MATERIAL, AS SPREAD, SHALL BE FREE FROM POCKETS OF COARSE OR FINE MATERIAL.

- a. THE FILL MATERIALS SHALL BE PLACED IN LOOSE HORIZONTAL LAYERS NOT MORE THAN SIX INCHES (6") IN THICKNESS PRIOR TO COMPACTION. THE MATERIAL SHALL BE GENTLY SPREAD OUT. UNDER NO CIRCUMSTANCES SHALL ANY MATERIAL BE DROPPED FROM ANY HEIGHT ONTO THE FILL SECTION.
- b. IF SEGREGATION OCCURS, MATERIAL SHALL BE WORKED UNTIL IT IS UNIFORMLY AND SATISFACTORILY BLENDED. AFTER SPREADING, THE MATERIAL SHALL BE WATERED AND SHAPED TO THE REQUIRED SECTION AND THEN COMPACTED AS SPECIFIED.
- c. AT THE TIME MATERIALS ARE SPREAD, IT SHALL HAVE A MOISTURE CONTENT IN CONFORMANCE WITH THE PROJECT SPECIFICATIONS. SUCH MOISTURE SHALL BE UNIFORMLY DISTRIBUTED THROUGHOUT THE MATERIAL.

FINISHING AND SLOPING GRADING

1. THE SURFACE OF THE TOP LAYER SHALL BE FINISHED TO THE DESIGNATED GRADE AND CROSS SECTION. THE FINISHED SURFACE SHALL BE OF UNIFORM TEXTURE, DRESSED AND GRADED TO DRAIN AND PREVENT WATER PONDING.

COMPACTION EQUIPMENT:

1. COMPACTION SHALL BE PERFORMED WITH A NON-VIBRATORY TYPE ROLLER COMPACTOR. VIBRATORY EQUIPMENT WILL NOT BE PERMITTED ON DISTRICT LEVEES AND FILLS.

TESTING:

1. THE DISTRICT WILL RETAIN THE SERVICES OF AN INDEPENDENT SOILS CONSULTANT AND TESTING LABORATORY TO PERFORM SAMPLING AND TESTING AS REQUIRED AND TO CHECK FOR COMPLIANCE WITH THE SPECIFICATIONS. THE CONTRACTOR SHALL REMOVE SURFACE MATERIALS AT LOCATIONS DESIGNATED BY THE TESTING ENGINEER AT NO COST TO THE DISTRICT. THE INDEPENDENT TESTING LABORATORY WILL SAMPLE AND PERFORM ALL REQUIRED TESTS SUCH AS MOISTURE CONTENT; GRADATION, AND MOISTURE DENSITY RELATIONSHIPS ON THE EXCAVATED AND EMBANKMENT FILL MATERIALS

SWPPP:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DEVELOPMENT, INSTALLATION AND MAINTENANCE OF A SWPPP AND REQUIRE PROTECTION FEATURES. THESE FEATURES INCLUDE, BUT ARE NOT LIMITED TO, THOSE IDENTIFIED BELOW:
 - A. EROSION CONTROL FACILITIES
 - B. CONSTRUCTION ENTRANCE
 - C. STREET SWEEPING
2. THE CONTRACTOR IS RESPONSIBLE FOR ALL FINES, FEES, PENALTIES IMPOSED BY FEDERAL AND LOCAL AGENCIES DUE TO THE CONTRACTOR'S ACTIVITIES ASSOCIATED WITH THE SWPPP.
3. THE CONTRACTOR SHALL CONSTRUCT A STABILIZED CONSTRUCTION ENTRANCE AT ALL ENTRANCES TO THE PROJECT SITE AS APPROVED BY THE ENGINEER.
3. EROSION CONTROL FACILITIES AS SHOWN ON THESE PLANS HAVE BEEN PREPARED TO MEET THE REQUIREMENTS OF THE DISTRICT. THE PROJECT WILL REQUIRE A SWPPP, PREPARED BY A QUALIFIED DEVELOPER (QSD) WHO WILL ASSUME RESPONSIBILITY FOR THE PROJECT COMPLIANCE WITH THE STATE GENERAL CONSTRUCTION PERMIT AND WHOSE RECOMMENDATIONS WILL SUPERCEDE THIS PLAN ACCORDINGLY.

ABBREVIATIONS:

CL	CENTERLINE	N	NORTH, NORTHING
CONST	CONSTRUCTION	NTS	NOT TO SCALE
DWSEL	DESIGN WATER SURFACE ELEVATION	PROP	PROPOSED
E	EAST, EASTING	RC	RELATIVE COMPACTION
ELEV	ELEVATION	R/W	RIGHT OF WAY
ESMT	EASEMENT	STA	STATION
EX	EXISTING	TCE	TEMPORARY CONSTRUCTION EASEMENT
FT	FOOT, FEET	TEMP	TEMPORARY
H	HORIZONTAL	TYP	TYPICAL
MIN	MINIMUM	V	VERTICAL
		WS	WATERSIDE

LEGEND

- 5-B-** APPROXIMATE LOCATION OF SOIL BORING (RD-17, ENGE0, 2010)
- 2-CPT-** APPROXIMATE LOCATION OF CONE PENETRATION TEST (RIVER RUN LEVEE EVAL., ENGE0,2006)
- 1-CPT-** APPROXIMATE LOCATION OF CONE PENETRATION TEST (RIVER RUN DEVELOPMENT, ENGE0, 2005)
- K-B-** APPROXIMATE LOCATION OF BORING (RD-17, KLEINFELDER, 1986-1989)
- 001C** APPROXIMATE LOCATION OF CONE PENETRATION TEST (FUGRO, 2006-2007)



BORING LOCATIONS
SCALE 1"=400'

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EXCELLENT SERVICE SINCE 1971

PLANS PREPARED UNDER THE DIRECTION OF:

MACKAY & SOMPS ENGINEERS PLANNERS SURVEYORS
5142 Franklin Drive, Suite B, Pleasanton, CA 94588 (925) 225-0690

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RECLAMATION DISTRICT NO. 17
ELEMENT I-A
NOTES & BORING LOCATIONS

SAN JOAQUIN COUNTY CALIFORNIA

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: SHOWN	SHT 3
DRAWN BY: GB	OF 9
DESIGNED BY: JBM	
CHECKED BY: JSL	
NO. _____	REVISION _____
DATE _____	

CONTROL POINTS

P#87975- N=2142549.582 E=6321677.582 ELEV=23.40 3/4" IP ON LEVEE
 P#87976- N=2142995.032 E=6321742.157 ELEV=23.05 3/4" IP ON LEVEE
 P#87977- N=2143545.552 E=6321542.916 ELEV=22.99 3/4" IP ON LEVEE
 ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

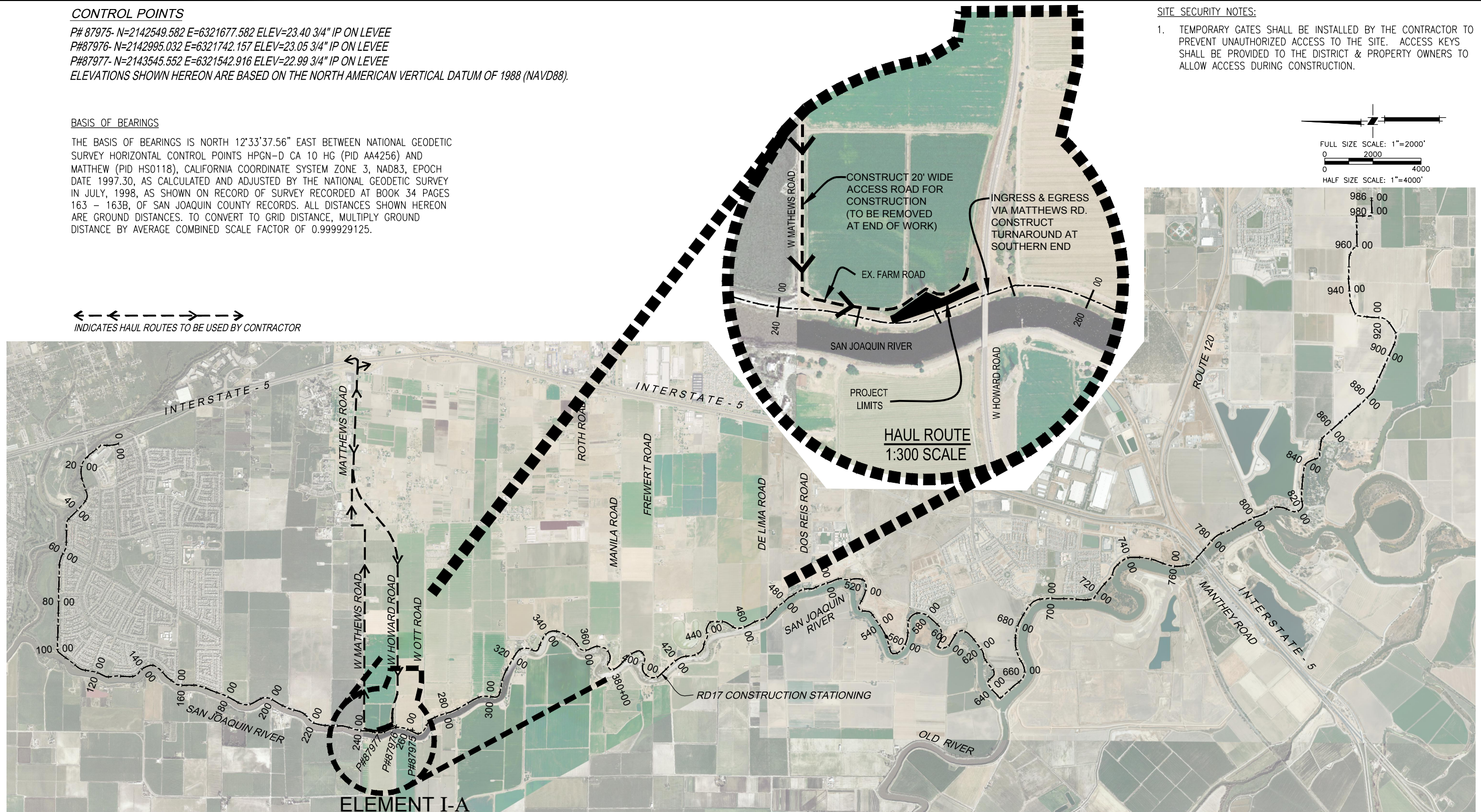
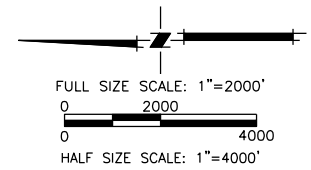
BASIS OF BEARINGS

THE BASIS OF BEARINGS IS NORTH 12°33'37.56" EAST BETWEEN NATIONAL GEODETIC SURVEY HORIZONTAL CONTROL POINTS HPGN-D CA 10 HG (PID AA4256) AND MATTHEW (PID HSO118), CALIFORNIA COORDINATE SYSTEM ZONE 3, NAD83, EPOCH DATE 1997.30, AS CALCULATED AND ADJUSTED BY THE NATIONAL GEODETIC SURVEY IN JULY, 1998, AS SHOWN ON RECORD OF SURVEY RECORDED AT BOOK 34 PAGES 163 - 163B, OF SAN JOAQUIN COUNTY RECORDS. ALL DISTANCES SHOWN HEREON ARE GROUND DISTANCES. TO CONVERT TO GRID DISTANCE, MULTIPLY GROUND DISTANCE BY AVERAGE COMBINED SCALE FACTOR OF 0.999929125.

← ← ← → → →
 INDICATES HAUL ROUTES TO BE USED BY CONTRACTOR

SITE SECURITY NOTES:

- TEMPORARY GATES SHALL BE INSTALLED BY THE CONTRACTOR TO PREVENT UNAUTHORIZED ACCESS TO THE SITE. ACCESS KEYS SHALL BE PROVIDED TO THE DISTRICT & PROPERTY OWNERS TO ALLOW ACCESS DURING CONSTRUCTION.



ELEMENT I-A

ELEMENT I-A (SEEPAGE BERM)

65% SUBMITTAL

PLANS REVIEWED AND APPROVED BY:

K S N KJELDSSEN SINNOCK NEUDECK INC. Consulting Engineers and Land Surveyors

Post Office Box 844
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 Faxes: (209) 946-0296
 E-mail: KSN@ksninc.com

THESE PLANS CONFORM TO THE GEOTECHNICAL REPORT ENTITLED: SEEPAGE EVALUATION PROJECT #5747.000.000

ENGEO INCORPORATED
 EXCELLENT SERVICE SINCE 1971

REGISTERED PROFESSIONAL ENGINEER
 JOSEF TOOTLE
 No. 2677
 Exp. 6/30/2014
 GEOTECHNICAL
 STATE OF CALIFORNIA

PLANS PREPARED UNDER THE DIRECTION OF:

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 ENGINEERS PLANNERS SURVEYORS
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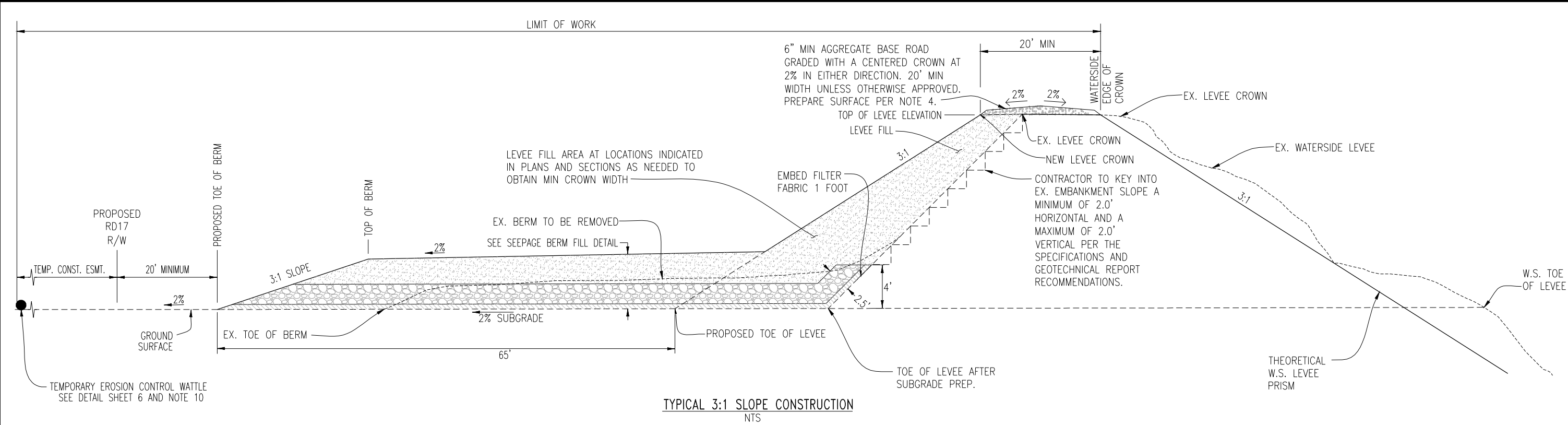
REGISTERED PROFESSIONAL ENGINEER
 JAMES TEMPLETON
 No. 43061
 Exp. 3/31/14
 CIVIL
 STATE OF CALIFORNIA

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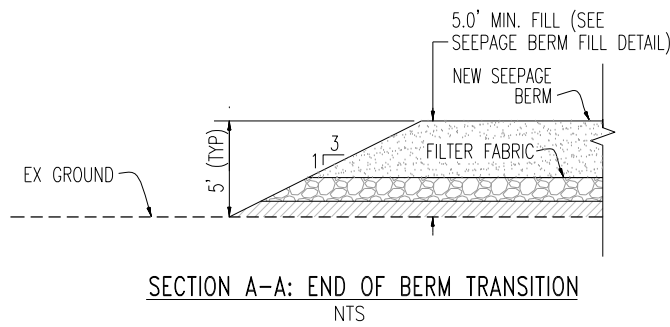
RECLAMATION DISTRICT NO. 17
 ELEMENT I-A
 HAUL ROUTE & CONTROL POINTS

SAN JOAQUIN COUNTY CALIFORNIA

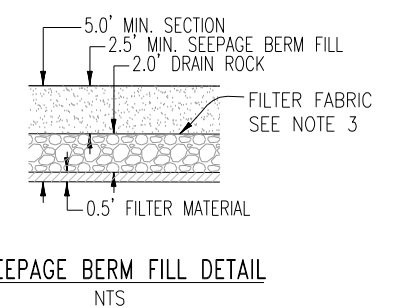
DATE:	JAN 2014	PROJECT NO.	25182.010
SCALE:	AS NOTED	SHT	4
DRAWN BY:	GB	OF	9
DESIGNED BY:	JBM		
CHECKED BY:	JSL		
NO.	REVISION	DATE	



TYPICAL 3:1 SLOPE CONSTRUCTION
NTS



SECTION A-A: END OF BERM TRANSITION
NTS



SEEPAGE BERM FILL DETAIL
NTS

NOTES:

- RD17 RIGHT OF WAY EXTENDS FROM THE SAN JOAQUIN RIVER WATER'S EDGE (AT ORDINARY HIGH WATER) TO THE PROPOSED RD17 RIGHT OF WAY SHOWN ABOVE AND ON THE DETAILED CROSS-SECTIONS WITHIN THIS PLAN SET. TEMPORARY CONSTRUCTION EASEMENTS WILL BE OBTAINED BY RD17 TO COVER THE LIMITS OF WORK AS SHOWN.
- CONTRACTOR TO CLEAR, AND GRUB WORKING AREAS. SCARIFY AND RECOMPACT EXISTING GROUND PER GEOTECHNICAL ENGINEER'S RECOMMENDATION.
- ALL FILTER FABRIC SHALL BE MIRAFI FW700 OR APPROVED EQUAL. EDGES SHALL BE SEWN PER SPECIFICATIONS.
- PG&E SHALL BE NOTIFIED WHEN WORK OCCURS WITHIN 20' OF THE HIGH VOLTAGE OVERHEAD LINES AND CONTRACTOR SHALL NOTIFY PG&E 72 HOURS IN ADVANCE TO ALLOW FOR PG&E INSPECTOR TO BE ONSITE DURING CONSTRUCTION.
- REMOVE EXISTING SEEPAGE BERM, MATERIAL MAY BE REUSED AS FILL IF SUFFICIENTLY MIXED WITH OTHER MATERIALS PER GEOTECHNICAL ENGINEERS RECOMMENDATION.
- THE CONTRACTOR SHALL TAKE NOTE OF THE POWER LINES & HIGH VOLTAGE TOWERS WITHIN THE CONSTRUCTION ZONE. EXTREME CAUTION SHALL BE EXERCISED WHILE WORKING AROUND THE LIVE LINES.
- IF HIGH VOLTAGE TOWERS, POWER POLES, LINES AND GUY WIRES ARE WITHIN THE IMMEDIATE WORK AREA, CONTRACTOR SHALL ADHERE TO ALL SAFETY STANDARDS AND REQUIREMENTS OF THE UTILITY COMPANY.
- FILL AROUND HIGH VOLTAGE TOWERS & POLES SHALL BE PLACED AND COMPACTED IN A MANNER SO AS TO AVOID ANY ADVERSE IMPACTS TO THE INTEGRITY OF THE EXISTING POLES AND POWER SYSTEM & CONSISTENT WITH THE RECOMMENDATIONS OF THE SOILS REPORT.
- GRADE SUBGRADE TO UNIFORM 2% SLOPE TO ENSURE CONSISTENT UNIFORM BERM LAYER THICKNESS
- CONTRACTOR SHALL PLACE WATTLES ALONG THE LIMIT OF THE TEMPORARY CONSTRUCTION EASEMENT PRIOR TO BEGINNING WORK, ALL SUBSEQUENT EROSION CONTROL MEASURES SHALL BE INSTALLED PER THE PROVISIONS OF THE SWPPP.

PLANS REVIEWED AND APPROVED BY:

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E-mail: KSN@ksninc.com

THESE PLANS CONFORM TO THE GEOTECHNICAL REPORT ENTITLED: SEEPAGE EVALUATION PROJECT #5747.000.000

ENGEO INCORPORATED
EXCELLENT SERVICE SINCE 1971

REGISTERED PROFESSIONAL ENGINEER
JOSEF TOOLE
No. 2677
Exp. 6/30/2014
STATE OF CALIFORNIA

PLANS PREPARED UNDER THE DIRECTION OF:

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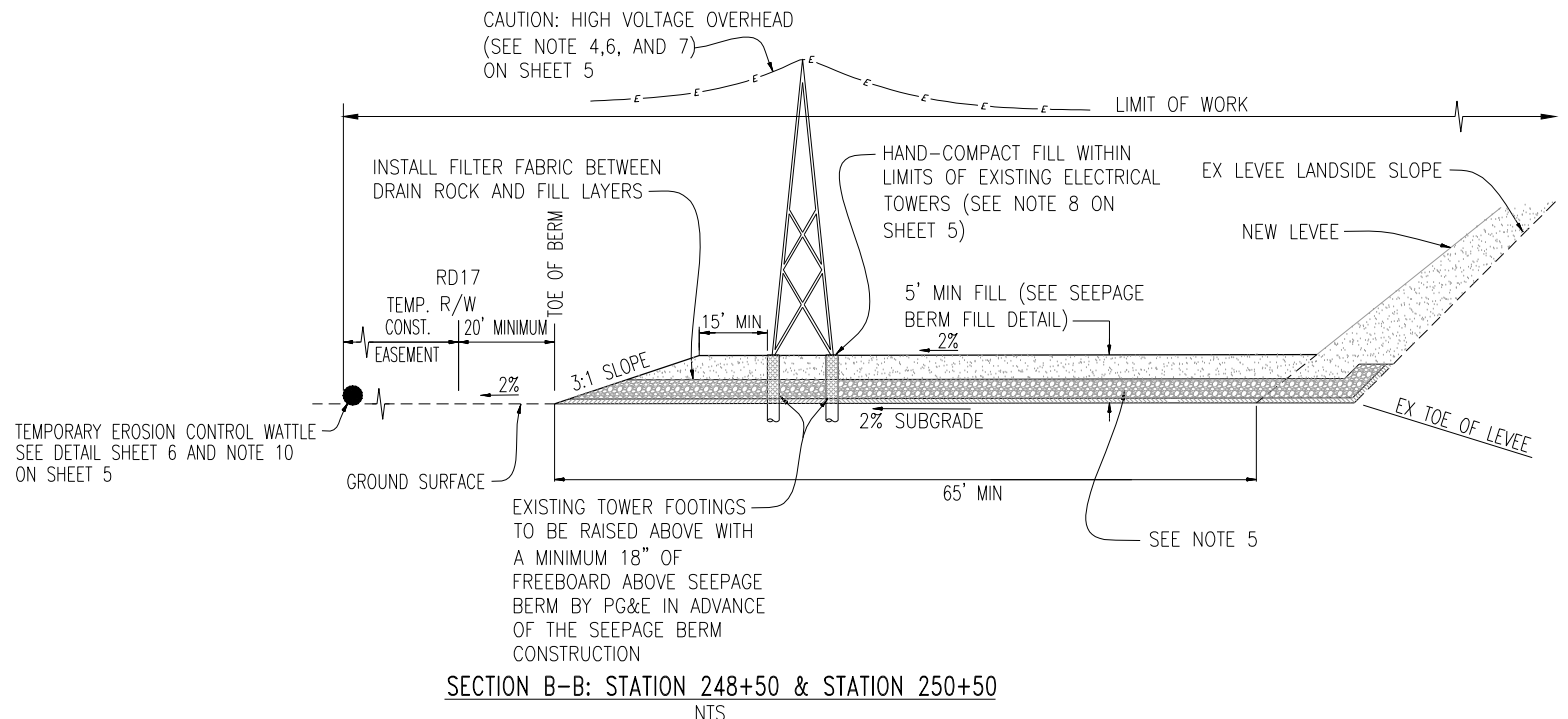
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REGISTERED PROFESSIONAL ENGINEER
JAMES TEMPLETON
No. 43061
Exp. 3/31/14
STATE OF CALIFORNIA

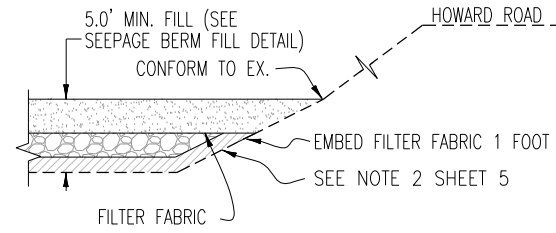
RECLAMATION DISTRICT NO. 17
ELEMENT I-A
TYPICAL SECTIONS & DETAILS

SAN JOAQUIN COUNTY CALIFORNIA

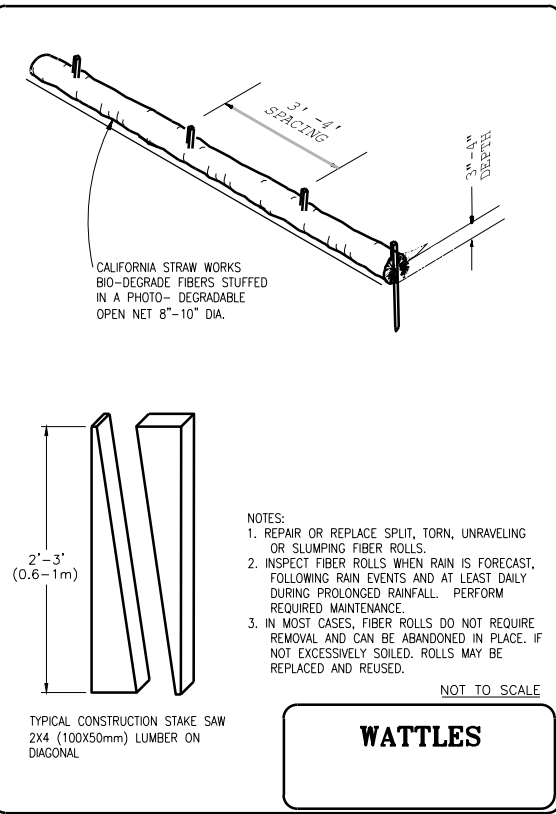
DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: NTS	SHT 5
DRAWN BY: GB	OF 9
DESIGNED BY: JBM	
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NO. _____	REVISION _____
DATE _____	



SECTION B-B: STATION 248+50 & STATION 250+50
NTS

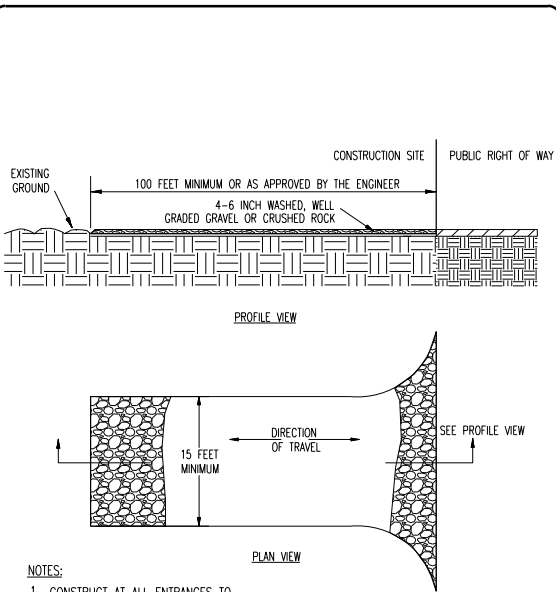


SECTION C-C: END OF BERM TRANSITION
NTS



- NOTES:
1. REPAIR OR REPLACE SPLIT, TORN, UNRAVELING OR SLUMPING FIBER ROLLS.
 2. INSPECT FIBER ROLLS WHEN RAIN IS FORECAST, FOLLOWING RAIN EVENTS AND AT LEAST DAILY DURING PROLONGED RAINFALL. PERFORM REQUIRED MAINTENANCE.
 3. IN MOST CASES, FIBER ROLLS DO NOT REQUIRE REMOVAL AND CAN BE ABANDONED IN PLACE. IF NOT EXCESSIVELY SOILED, ROLLS MAY BE REPLACED AND REUSED.

NOT TO SCALE
WATTLES



- NOTES:
1. CONSTRUCT AT ALL ENTRANCES TO THE PROJECT SITE AS APPROVED BY THE ENGINEER
 2. THE ENTRANCE SHALL BE KEPT IN GOOD CONDITION BY OCCASIONAL TOP DRESSING WITH ROCK MATERIAL
 3. ACCESSES SHALL BE INSPECTED WEEKLY DURING PERIODS OF HEAVY USAGE, MONTHLY DURING NORMAL USAGE, AND AFTER EACH RAINFALL, WITH MAINTENANCE PROVIDED AS NECESSARY. PERIODIC TOP DRESSING SHALL BE DONE AS NEEDED.

NOT TO SCALE
STABILIZED CONSTRUCTION SITE ACCESS

PLANS REVIEWED AND APPROVED BY:

K KJELDSSEN
S SINNOCK
N NEUDECK
INC. Consulting Engineers and Land Surveyors

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E-mail: KSN@ksninc.com

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ENGEO
INCORPORATED
EXCELLENT SERVICE SINCE 1971

REGISTERED PROFESSIONAL ENGINEER
JOSEF TOOTE
No. 2677
Exp. 6/30/2014
STATE OF CALIFORNIA

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No. 43061
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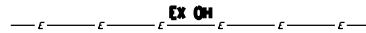

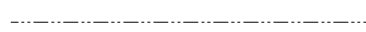

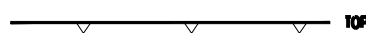
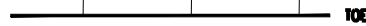

RECLAMATION DISTRICT NO. 17
ELEMENT I-A
TYPICAL SECTIONS & DETAILS

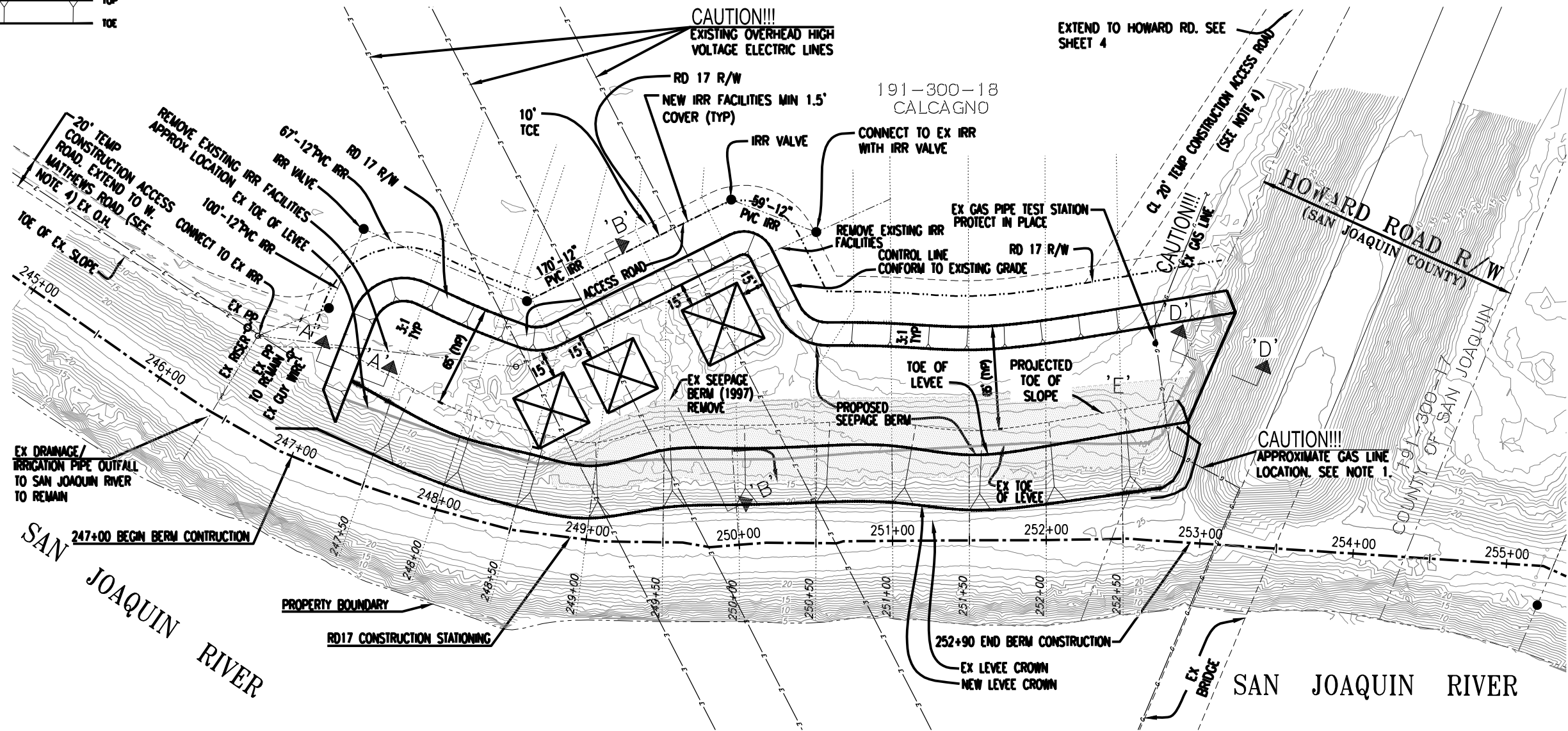
SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: NTS	SHT 6
DRAWN BY: GB	OF 9
DESIGNED BY: JBM	
CHECKED BY: JSL	

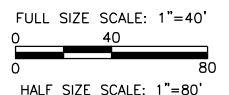
LEGEND

-  Ex GAS EXISTING GAS LINE
-  Ex OH EXISTING OVERHEAD ELECTRIC LINE
-  Ex IRR EXISTING IRRIGATION LINE
-  PROPOSED IRRIGATION LINE
-  CONFORM
-  NEW SEEPAGE BERM SLOPE
-  TOP
-  TOE



- NOTE:
1. CONTACT UNDERGROUND SERVICE ALERT (USA) PRIOR TO ANY CONSTRUCTION TO LOCATE AND MARK IN FIELD, THE EX GAS LINE.
 2. CONTRACTOR TO CLEAR AND GRUB EX BRUSH BELOW PG&E TOWERS IF NOT ALREADY COMPLETED BY PG&E.
 3. TOWER FOOTING EXTENSIONS TO BE INSTALLED BY PG&E.
 4. CONTRACTOR TO CONSTRUCT TEMPORARY CONSTRUCTION ACCESS ROAD TO ALLOW TRUCK ACCESS TO SITE CONFORMING WITH THE S.W.P.P.P. AND HAVING STABILIZED CONSTRUCTION ACCESS WHERE IT CONNECTS TO PAVED ROADWAY. TEMP HAUL ROADS SHALL BE RETURNED TO THEIR PRE-CONSTRUCTION CONDITION AT THE COMPLETION OF CONSTRUCTION.

WARNING • CAUTION
 EXISTING UNDERGROUND UTILITIES
 CONTACT : UNDERGROUND SERVICE ALERT
 PHONE: (800) 642-2444
 FOR MARKING PRIOR TO DIGGING



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 Consulting Engineers and Land Surveyors

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ENGEO INCORPORATED
 EXCELLENT SERVICE SINCE 1971

REGISTERED PROFESSIONAL ENGINEER
 JOSEF TOOTLE
 No. 2677
 Exp. 6/30/2014
 GEOTECHNICAL
 STATE OF CALIFORNIA

PLANS PREPARED UNDER THE DIRECTION OF:

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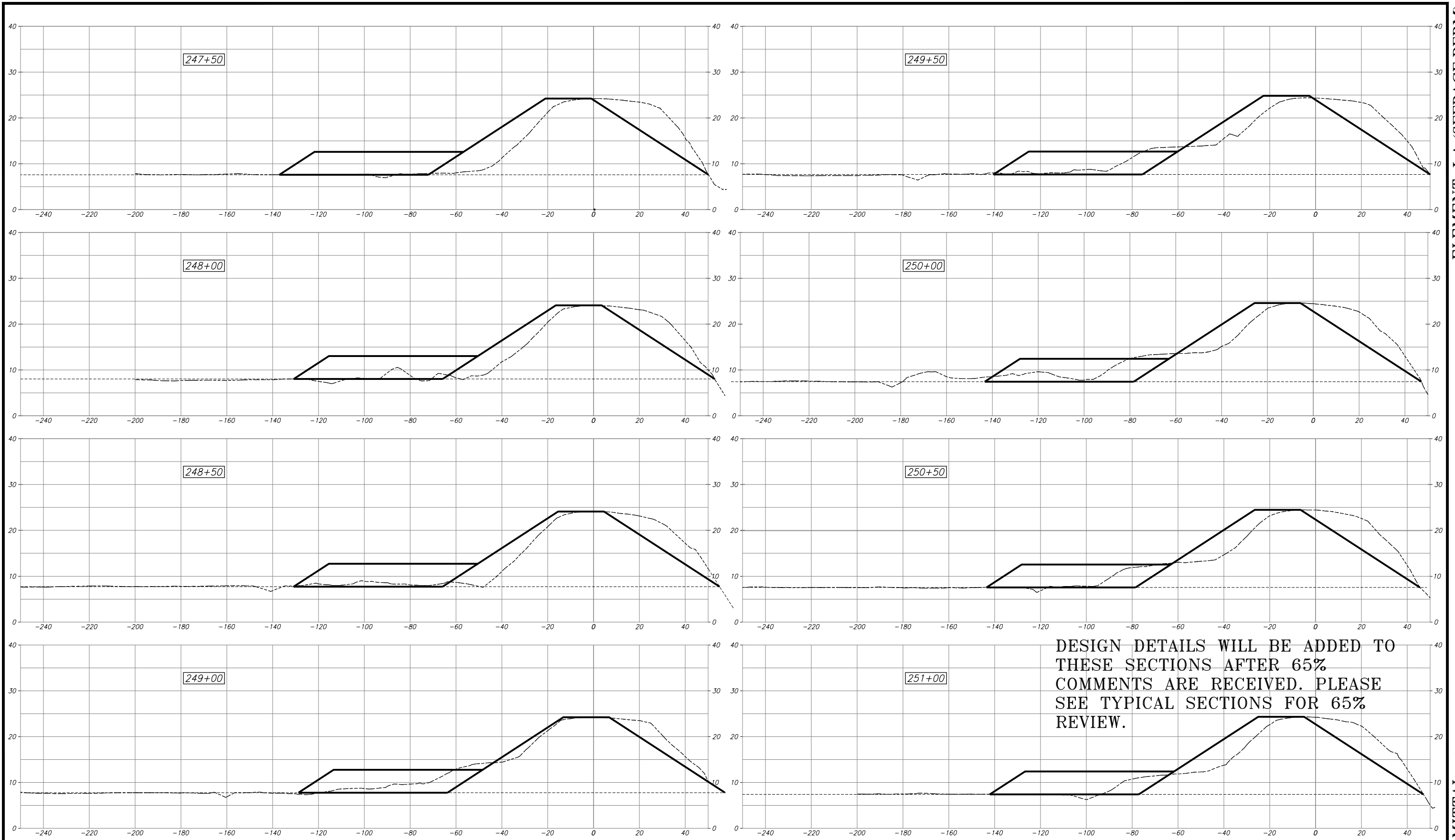
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REGISTERED PROFESSIONAL ENGINEER
 JAMES TEMPLETON
 No. 43061
 Exp. 3/31/14
 CIVIL
 STATE OF CALIFORNIA

RECLAMATION DISTRICT NO. 17
 ELEMENT I-A
 GRADING PLAN
 SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: 1" = 80'	SHT 7
DRAWN BY: GB	OF 9
DESIGNED BY: JBM	
CHECKED BY: JSL	



DESIGN DETAILS WILL BE ADDED TO THESE SECTIONS AFTER 65% COMMENTS ARE RECEIVED. PLEASE SEE TYPICAL SECTIONS FOR 65% REVIEW.

PLANS REVIEWED AND APPROVED BY:

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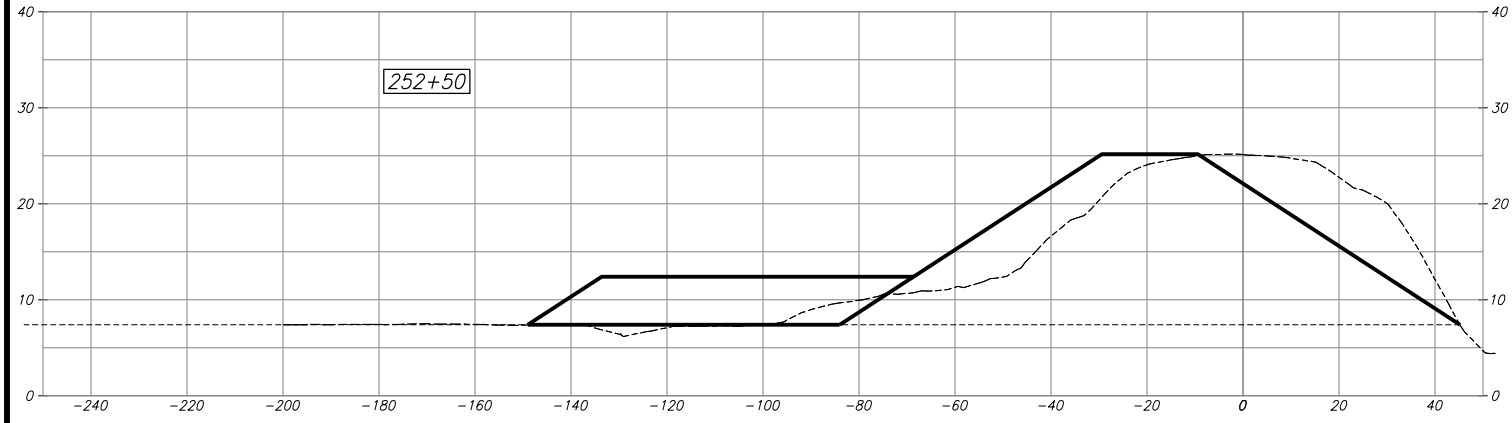
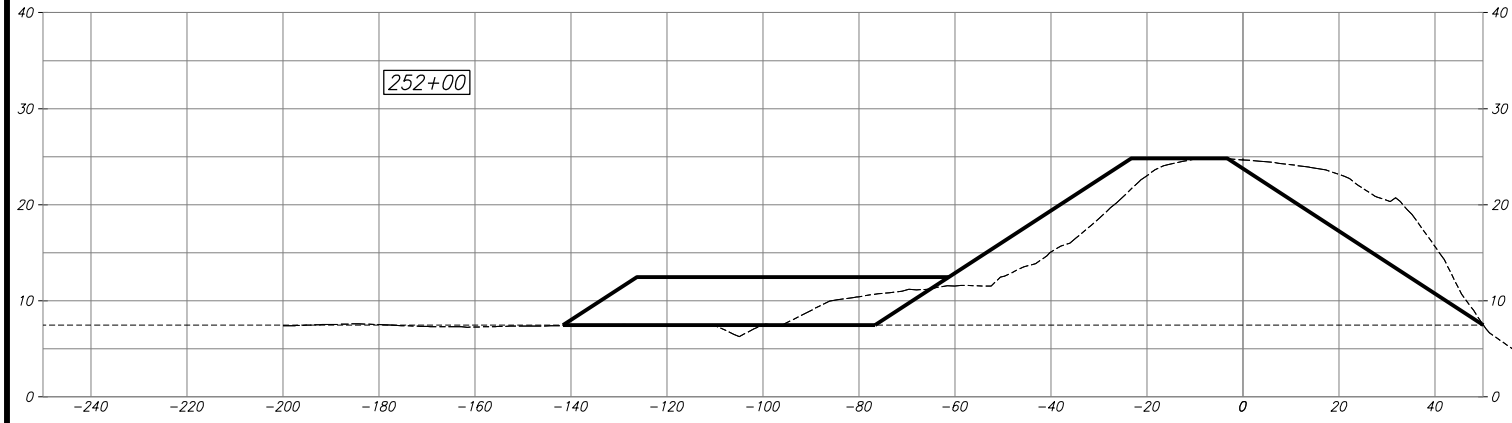
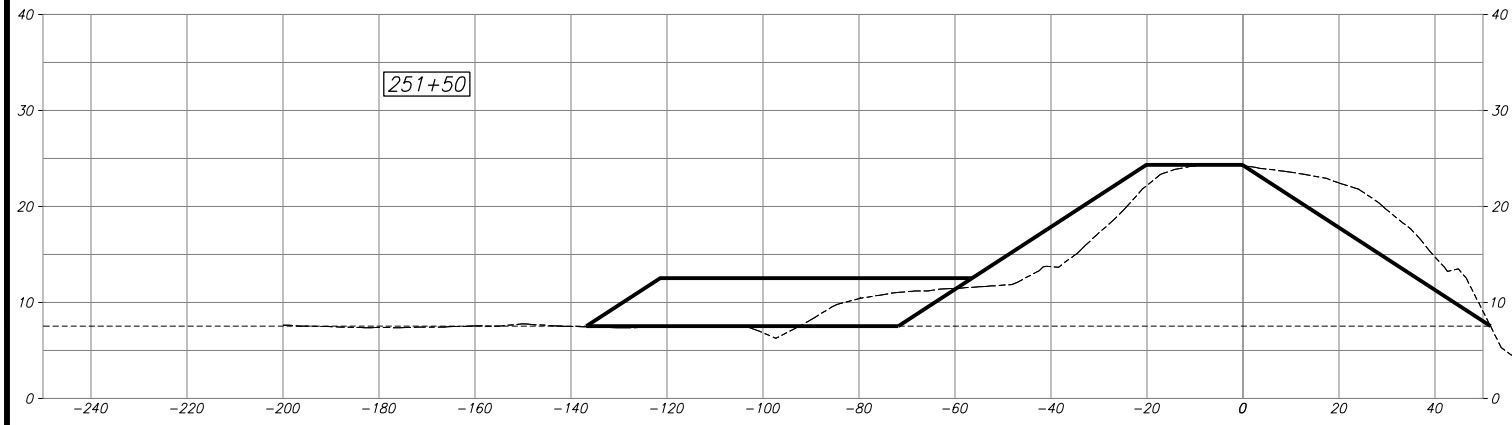
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RECLAMATION DISTRICT NO. 17
ELEMENT I-A
CROSS SECTIONS

SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: 1"=10'	SHT 8
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PLANS REVIEWED AND APPROVED BY:

K | KJELSDEN
S | SINNOCK
N | NEUDECK
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ENGEO
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REGISTERED PROFESSIONAL ENGINEER
JOSEF TOOLE
No. 2677
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CIVIL

RECLAMATION DISTRICT NO. 17
ELEMENT I-A
CROSS SECTIONS

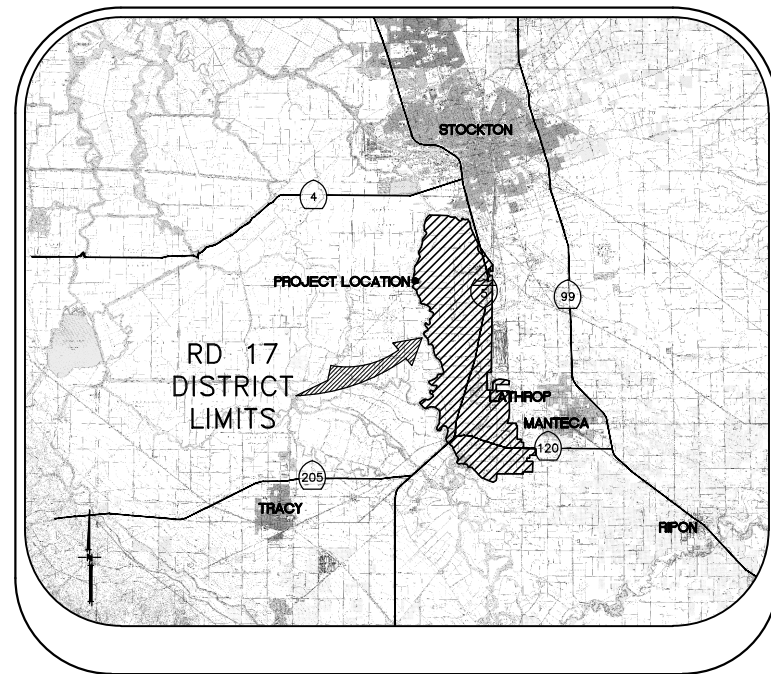
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NO.	REVISION	DATE

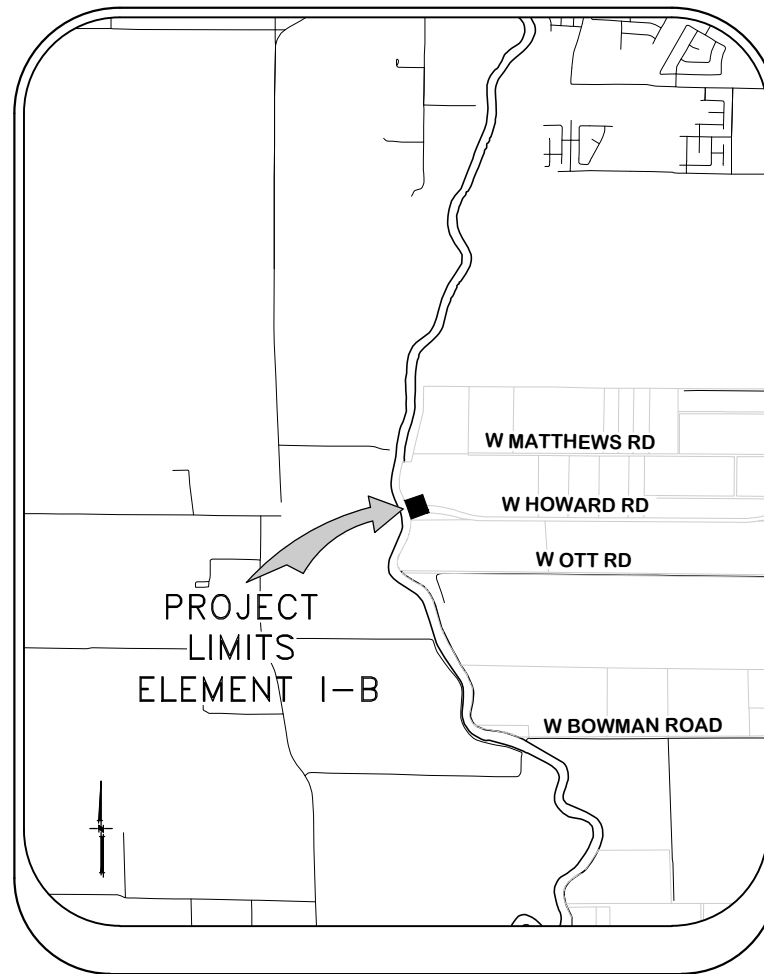
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SCALE: 1"=10'	SHT 9
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DESIGNED BY: JBM	
CHECKED BY: JSL	

RECLAMATION DISTRICT NO. 17 LEVEE SEEPAGE PROJECT

ELEMENT I-B - SEEPAGE BERM RD17 STATION 254+00 THRU 255+25 (FEET) USACE STATION 2.88 THRU 2.93 (MILES)



VICINITY MAP



PROJECT SITE MAP

SHEET	DESCRIPTION
1.	COVER SHEET
2.	NOTES
3.	NOTES & BORING LOCATIONS
4.	HAUL ROUTE & CONTROL POINTS
5.	TYPICAL SECTIONS & DETAILS
6.	TYPICAL SECTIONS & DETAILS
7.	GRADING PLAN
8.	CROSS SECTIONS

INDEX

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RECLAMATION DISTRICT NO. 17
ELEMENT I-B
COVER SHEET

SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: NOT TO SCALE	SHT 1
DRAWN BY: GB	OF 8
DESIGNED BY: JBM	
CHECKED BY: JSL	

ELEMENT I-B (SEEPAGE BERM) 65% SUBMITTAL

THE PERFORMANCE OF THE LEVEE SYSTEMS IS DEPENDANT UPON THE DESIGN CRITERIA AND THE LONG TERM OPERATION AND MAINTENANCE OF THE LEVEES. THE DESIGN TEAM HAS PREPARED THESE PLANS AND ASSOCIATED SPECIFICATIONS AND REPORTS IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICE USING INFORMATION FROM MULTIPLE SOURCES. IF EXTREME FLOODS (EXCEEDING THE DESIGN PROFILE), EARTHQUAKES OR OTHER LOADING CONDITIONS NOT EVALUATED IN THE DESIGN OCCUR, THE INTEGRITY OF THE LEVEE SYSTEM MAY BE COMPROMISED.

ROLES:

THE "DISTRICT" AS REFERRED TO IN THESE NOTES MEANS RECLAMATION DISTRICT 17(RD 17). THE DISTRICT IS THE PROJECT OWNER.

THE "ENGINEER" AS REFERRED TO IN THESE NOTES MEANS THE DISTRICT ENGINEER: KJELDSSEN, SINNOCK, AND NEUDECK. THE ENGINEER SHALL PROVIDE INSPECTION OF THE PROJECT AND OVERALL CONSTRUCTION MANAGEMENT INCLUDING COORDINATION WITH PUBLIC UTILITIES, PUBLIC AGENCIES, THE DESIGN ENGINEER AND THE GEOTECHNICAL ENGINEER.

THE "DESIGN ENGINEER" AS REFERRED TO IN THESE NOTES MEANS MACKAY & SOMPS, CIVIL ENGINEERS INC. THE DESIGN ENGINEER WILL PERFORM DISTRICT PROVIDED CONSTRUCTION STAKING AND "AS-GRADED" SURVEYS.

THE "GEOTECHNICAL ENGINEER" AS REFERRED TO IN THESE NOTES MEANS ENGeo INC. THE GEOTECHNICAL ENGINEER WILL PROVIDE MATERIALS TESTING, COMPACTION TESTING AND OTHER GEOTECHNICAL RELATED TESTING.

CONTRACTOR SHALL BE RESPONSIBLE FOR SUPERVISION OF ALL CONTRACTOR'S EMPLOYEES, SUBCONTRACTORS, INCLUDING SCHEDULING AND ALL SAFETY MATTERS.

- THESE PLANS ARE TO BE USED IN CONJUNCTION WITH THE FOLLOWING:
- a. SOILS REPORT PREPARED BY ENGeo INC. ENTITLED, SEEPAGE EVALUATION PROJECT # 5747.000.000.
 - b. SPECIFICATIONS PREPARED BY KSN DATED _____

GENERAL NOTES:

1. PRIOR TO THE COMMENCEMENT OF WORK, A JOINT INSPECTION BETWEEN THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER, THE GEOTECHNICAL ENGINEER, THEIR REPRESENTATIVES, AND THE CONTRACTOR (OR HIS REPRESENTATIVE) WILL BE CONDUCTED TO REVIEW THE PRE-CONSTRUCTION CONDITIONS (E.G. ROADS, PUMPS, DISCHARGE PIPES, SIPHONS, RAMPS, GATES, SIGNS, ETC.) IF SUCH EXISTING FACILITIES ARE DAMAGED BY THE CONTRACTOR'S OPERATIONS, THE CONTRACTOR, AT THEIR OWN EXPENSE, SHALL REPLACE OR RESTORE THEM TO THE CONDITION THAT EXISTED PRIOR TO THE COMMENCEMENT OF WORK.
2. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT (209) 946-0268, A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY WORK.
3. THE DISTRICT RESERVES THE RIGHT TO SUSPEND CONSTRUCTION AT ANY TIME IN THE EVENT OF EXTREME HIGH OR LOW TIDES, FLOOD EVENTS, OTHER CONDITIONS OR EMERGENCIES THAT MAY JEOPARDIZE THE INTEGRITY OF THE DISTRICT'S LEVEE AND ROAD SYSTEM.
4. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, COUNTY AND LOCAL REQUIREMENTS, AS REQUIRED FOR TRAFFIC CONTROL AND PUBLIC SAFETY DURING PROJECT CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL OUTLINED IN THESE PLANS AND THE REFERENCED SPECIFICATIONS.
5. THE DISTRICT WILL FURNISH ALL RIGHT-OF-WAY FOR ALL LEVEE ROADS AND DESIGNATED ACCESS HAUL ROADS AS SHOWN ON THESE PLANS. SHOULD THE CONTRACTOR WANT TO USE OTHER ROADWAYS OR ACCESS AREAS NOT SHOWN, THE CONTRACTOR SHALL AT THEIR OWN EXPENSE SECURE RIGHT-OF-WAY & NECESSARY PERMITS.
6. IF DELIVERING MATERIAL OR EQUIPMENT BY TRUCK, ALL TRUCK TRAFFIC SHALL BE LIMITED TO THE DISTRICT LEVEE ROADS AND/OR PUBLIC ROADS AS SHOWN ON HAUL ROUTE PLAN, UNLESS OTHERWISE APPROVED.
7. MAXIMUM SPEED LIMIT ON DISTRICT LEVEE ROADS IS 30 MPH, AS POSTED, OR AS OTHERWISE INDICATED ON THE CONSTRUCTION DRAWINGS. CONTRACTOR SHALL POST LARGE SLOW/CAUTION SIGNS AND SPEED LIMIT SIGNS FOR PURPOSES OF NOTIFYING BOTH CONTRACTOR'S EMPLOYEES AND THE PUBLIC. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SAFETY AT ALL TIMES ALONG ALL HAUL ROUTES AND IN ALL PROJECT AREAS (PUBLIC AND PRIVATE).

8. THE DISTRICT WILL PROVIDE SURVEY STAKES AS DESCRIBED IN THE SPECIFICATIONS WITHIN THE CONSTRUCTION SURVEYING SECTION. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL CONSTRUCTION STAKING AND SURVEYING AT THEIR OWN EXPENSE BEYOND THAT PROVIDED BY THE DISTRICT. PLEASE CONTACT THE ENGINEER IN WRITING WITH STAKING REQUESTS (209) 946-0268 WITH AT LEAST TWO WORKING DAYS ADVANCE NOTICE.
9. THE CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER AND THE GEOTECHNICAL ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER OR THE GEOTECHNICAL ENGINEER.
10. ANY DEFICIENCIES NOTED DURING INTERIM AND FINAL INSPECTIONS BY THE ENGINEER AND/OR DISTRICT SHALL BE CORRECTED BY THE CONTRACTOR PRIOR TO FINAL ACCEPTANCE BY THE DISTRICT. ANY ADDITIONAL COSTS AND EXPENSES FOR MOBILIZATION AND/OR DEMOBILIZATION, LABOR, EQUIPMENT AND OTHER ASSOCIATED COSTS REQUIRED TO CORRECT THE DEFICIENCIES NOTED, EXCEPT SPECIFIED MATERIAL(S), SHALL BE BORNE BY THE CONTRACTOR.
11. THE CONTRACTOR SHALL NOT CLOSE ANY ROAD, STREET, OR HIGHWAY TO THE PUBLIC EXCEPT WITH THE PERMISSION OF THE ENGINEER AND THE PROPER GOVERNMENTAL AUTHORITY. TEMPORARY PROVISIONS SHALL BE MADE BY THE CONTRACTOR TO ENSURE CONTINUOUS ACCESS TO PUBLIC AND PRIVATE DRIVEWAYS, AND PROPER FUNCTIONING OF CULVERTS, DRAINAGE AND IRRIGATION DITCHES, AND NATURAL WATER COURSES.
12. THE CONTRACTOR IS RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER, AND HE SHALL NOTIFY THE ENGINEER WHENEVER THERE IS A CHANGE IN SITE CONDITIONS OR AN ADJUSTMENT TO BE MADE IN WORK REQUIREMENTS.
13. SHOULD IT APPEAR THAT THE WORK TO BE DONE, OR ANY MATTER RELATIVE THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE ENGINEER AT (209) 946-0268 FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.
14. THE INTENT OF THESE PLANS IS TO SERVE AS A GUIDE AND TO PROVIDE THE CONTRACTOR WITH INFORMATION AND DETAILS NECESSARY TO CONSTRUCT THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY REGARDING ANY DISCREPANCIES AND AMBIGUITIES WHICH MAY EXIST IN THE PLANS OR SPECIFICATIONS. IF THE PLANS 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 FINEST QUALITY ARE TO BE USED.
15. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE OSHA REGULATIONS AND SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS.
16. THE CONTRACTOR SHALL AT ALL TIMES BE RESPONSIBLE FOR THE SECURITY OF THE JOBSITE AND EQUIPMENT. THE DISTRICT WILL NOT BE RESPONSIBLE FOR MISSING OR DAMAGED EQUIPMENT, TOOLS, OR PERSONAL BELONGINGS.

ENVIRONMENTAL NOTES:

1. THE CONTRACTOR SHALL NOT DISCHARGE SMOKE, DUST, OR ANY OTHER AIR CONTAMINANTS INTO THE ATMOSPHERE IN SUCH QUANTITY AS WILL VIOLATE THE REGULATIONS OF ANY LEGALLY CONSTITUTED AUTHORITY. HE SHALL ALSO ABATE DUST NUISANCE BY CLEANING, SWEEPING AND SPRINKLING WITH WATER, OR OTHER MEANS AS NECESSARY. THE USE OF WATER IN AN AMOUNT WHICH RESULTS IN MUD ON PUBLIC ROADS IS NOT ACCEPTABLE AS A SUBSTITUTE FOR SWEEPING OR OTHER METHODS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ADJACENT PUBLIC ROADS CLEAN & CLEAR FROM CONSTRUCTION IMPACTS OR DEBRIS. ADDITIONAL DETAILS FOR MUD AND DUST CONTROL IS INCLUDED IN SUBSEQUENT SECTIONS OF THESE NOTES.
2. THE CONTRACTOR SHALL EXERCISE EVERY REASONABLE PRECAUTION TO PROTECT STREAMS, WATERWAYS AND OTHER BODIES OF WATER FROM POLLUTION WITH FUELS, OIL, BITUMEN'S, CALCIUM CHLORIDE, AND OTHER HAZARDOUS MATERIALS AND SHALL CONDUCT AND SCHEDULE HIS OPERATIONS SO AS TO AVOID OR MINIMIZE MUDDYING AND SILTING OF SAID WATERS. CARE SHALL BE EXERCISED TO PRESERVE ROADSIDE VEGETATION BEYOND THE LIMITS OF CONSTRUCTION.

3. THROUGHOUT ALL PHASES OF CONSTRUCTION, INCLUDING SUSPENSION OF WORK, AND UNTIL FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL KEEP THE WORK SITE CONDITIONS CLEAN AND FREE FROM RUBBISH AND DEBRIS. ALL RUBBISH AND REFUSE SHALL BE DISPOSED OF IN A MANNER SATISFACTORY TO THE ENGINEER.

DUST AND MUD CONTROL:

1. DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL KEEP ALL CONSTRUCTION AREAS, FILL AREAS, HAUL ROADS, OTHER ROADWAYS, AND OTHER USE AREAS WHERE DUST IS GENERATED WELL WATERED: AND DURING WET CONDITIONS, AREAS USED BY LOCAL TRAFFIC, FREE AND CLEAR FROM MUD. CONTRACTOR SHALL PROVIDE EFFORTS NECESSARY TO MINIMIZE DUST AND OTHER DISTURBANCES NEAR EXISTING RESIDENCES AND ALL BUILDINGS NEAR HAUL ROUTES AND THE PROJECT SITE.
 - a. CROP DAMAGE: THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL TO PREVENT CROP DAMAGE AND FOR ANY AREAS SUBJECT TO CONSTRUCTION OR CONSTRUCTION TRAFFIC THAT GENERATE DUST AND/OR OTHER CONDITIONS WHICH MIGHT DAMAGE CROPS.
 - b. NON WORK DAYS: THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL THROUGHOUT THE DURATION OF THE PROJECT INCLUDING NON WORKDAYS IN ALL PROJECT AREAS, INCLUDING CONSTRUCTION ROADS AND CROP AREAS WHICH ARE USED BY THE CONTRACTOR, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. THE CONTRACTOR SHALL HAVE AT LEAST ONE (1) WATER TRUCK AVAILABLE TO THE PROJECT AT ALL TIMES (OR MORE AS NEEDED OR DIRECTED BY THE ENGINEER) TO MAINTAIN ADEQUATE DUST CONTROL FOR THE FOLLOWING AREAS:
 - a. PROJECT AREAS
 - b. ACCESS AND HAUL ROADS
 - c. LEVEE TOE BERM FILL AREAS
 - d. OTHER CONSTRUCTION USE AREAS
 - e. CROP DAMAGE PREVENTION
 - f. RESIDENTIAL CONSTRUCTION ZONES
 - g. ADJACENT PUBLIC STREETS, TRAILS & BIKEWAYS

UTILITY NOTES:

1. UTILITIES AS NOTED ON THE PLAN SET HAVE BEEN DETERMINED BASED ON RECORD INFORMATION AND FIELD INSPECTION, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE ACTUAL LOCATION OF ALL UNDERGROUND, SURFACE, OVERHEAD, AND SUBMARINE IMPROVEMENTS, OR FACILITIES WHICH MAY BE SUBJECT TO DAMAGE BY REASON OF HIS OPERATIONS.
2. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES AND SHALL CONTACT THE RESPECTIVE UTILITY COMPANIES & PRIVATE OWNERS PRIOR TO COMMENCEMENT OF WORK.
3. THE CONTRACTOR SHALL NOTIFY AFFECTED UTILITIES FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY CONSTRUCTION. (UNDERGROUND SERVICE ALERT (800) 642-2444) AND SHALL BE RESPONSIBLE FOR THE LOCATION AND PRESERVATION OF ALL FACILITIES IN THE AREA OF CONSTRUCTION.

PLANS REVIEWED AND APPROVED BY:



K S N KJELDSSEN
SINNOCK
NEUDECK
INC. Consulting Engineers
and Land Surveyors

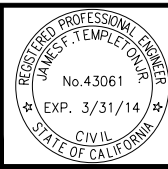
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THESE PLANS CONFORM TO THE GEOTECHNICAL REPORT ENTITLED: SEEPAGE EVALUATION PROJECT #5747.000.000



ENGEO
INCORPORATED
EXCELLENT SERVICE SINCE 1971

PLANS PREPARED UNDER THE DIRECTION OF:



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RECLAMATION DISTRICT NO. 17
ELEMENT I-B

NOTES

SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO.
SCALE: SHOWN	25182.010
DRAWN BY: GB	SHT 2
DESIGNED BY: JBM	OF 8
CHECKED BY: JSL	

ELEMENT I-B (SEEPAGE BERM) 65% SUBMITTAL

ACCESS ROADS:

1. THE CONTRACTOR SHALL IMPROVE, MAINTAIN, AND REPAIR UPON COMPLETION, THE ACCESS ROADS AND HAUL ROUTES AS REQUIRED FOR TRANSPORTATION AND HAULING MATERIAL. AT THE COMPLETION OF WORK THE CONTRACTOR SHALL RESTORE ALL ACCESS ROADS AND HAUL ROUTES TO PRE-CONSTRUCTION CONDITION IN A MANNER SATISFACTORY TO THE ENGINEER.
2. THE CONTRACTOR SHALL REVIEW THE ACCESS ROAD ROUTES AND DETERMINE THE LOCATION FOR TURNOUTS, RAMPS, ROAD DRAINAGE, ALIGNMENT, ETC. UPON COMPLETION OF THE PROJECT, SOME PORTIONS OF THE ACCESS ROADS MAY REQUIRE MINOR MODIFICATIONS AND ALTERATIONS. THE ACCESS ROADS WHICH REMAIN SHALL BE LEFT IN GOOD CONDITION FOR THE DISTRICT, FARMERS, AND OTHER LOCAL TRAFFIC.
3. THE CONTRACTOR SHALL NOT DEVIATE FROM IDENTIFIED HAUL ROUTES AND STAGING AREAS UNLESS PERMISSION IS OBTAINED FROM THE PROPERTY OWNER, ENGINEER AND PERMITS ARE OBTAINED FROM THE LOCAL AGENCY.
4. THE CONTRACTOR SHALL EXTEND, STRENGTHEN, REPLACE, OR OTHERWISE MODIFY THE EXISTING CROSSINGS (E.G. CULVERTS, SIPHONS, DRAIN PIPES, IRRIGATION PIPES, PUMP DISCHARGE PIPES, WET SPOTS, ETC.) AS NECESSARY TO ACCOMMODATE HIS EQUIPMENT. THE CONTRACTOR SHALL PROVIDE WHATEVER MEASURES ARE NECESSARY TO PRESERVE, PROTECT, AND MAINTAIN THE CROSSINGS SO AS TO ENSURE CONTINUOUS AND UNINTERRUPTED CONSTRUCTION OPERATIONS DURING THE ENTIRE TERM OF THIS CONTRACT.
5. THE HAUL ROADS MAY REQUIRE TEMPORARY IRRIGATION OR DISCHARGE PIPE EXTENSIONS AND RAMPING DURING CONSTRUCTION OPERATIONS. TEMPORARY EXTENSIONS AND RAMPING WILL BE PROVIDED AND INSTALLED BY THE CONTRACTOR AT HIS EXPENSE, INCLUDING REMOVAL IF REQUIRED, IN A MANNER WHICH MEETS WITH THE APPROVAL OF THE ENGINEER AND THE LANDOWNERS.
6. NEITHER THE DISTRICT NOR THE ENGINEER MAKES ANY WARRANTY OR GUARANTEE AS TO THE ADEQUACY OF THE EXISTING MATERIALS TO SUPPORT THE CONSTRUCTION TRAFFIC ON THE ACCESS ROADS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MAKING THE NECESSARY IMPROVEMENTS AND PROVIDING THE NECESSARY MEASURES REQUIRED TO ACCOMMODATE HIS ANTICIPATED NEEDS. REPAIRS TO ROADWAYS DAMAGED BY THE CONTRACTOR SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
7. CONTRACTOR MUST MAINTAIN HAUL ROUTE ACCESS AT ALL TIMES FOR USE BY THE DISTRICT AND/OR PUBLIC (AS APPLICABLE) DURING CONSTRUCTION.

CLEARING & GRUBBING:

1. UNLESS OTHERWISE INDICATED, THE WORK AREAS SHALL BE CLEARED AND GRUBBED BY THE CONTRACTOR. CONTRACTOR SHALL USE CAUTION WHILE CLEARING AND GRUBBING AROUND POWER LINES, BURIED ELECTRICAL CABLES AND OTHER EX FACILITIES/UTILITIES. ALL MATERIAL CLEARED AND REMOVED SHALL BECOME THE PROPERTY AND RESPONSIBILITY OF THE CONTRACTOR FOR REMOVAL AND DISPOSAL OFFSITE. SOME PRUNING/TRIMMING/THINNING OF BRANCHES OR TREES MAY BE REQUIRED.

FILL MATERIALS:

1. THE CONTRACTOR SHALL FURNISH, DELIVER, AND PLACE THE SPECIFIED FILL MATERIALS (PER THE DISTRICT ENGINEERS SPECIFICATIONS) TO THE DESIGNATED SITES.
2. THE FILL SHALL BE CONSTRUCTED WITH ACCEPTABLE MATERIALS SUFFICIENT TO MEET DESIGN GRADES AND SPECIFICATIONS.
3. ALL SUBGRADE AREAS RECEIVING FILL MATERIAL SHALL BE PREPARED AS REQUIRED BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR MAY BE REQUIRED TO PERFORM ADDITIONAL SUBGRADE PREPARATION WORK WITHIN THE FILL AREAS PRIOR TO THE ACCEPTANCE OF THE MATERIAL.
4. THE CONTRACTOR SHALL DELIVER THE FILL MATERIALS TO THE REQUIRED SECTIONS AS UNIFORM MIXTURES. THE MIXTURE SHALL BE DEPOSITED AND SPREAD TO THE REQUIRED COMPACTED THICKNESS. SEGREGATION OF MATERIAL SHALL BE AVOIDED AND EACH LAYER OF MATERIAL, AS SPREAD, SHALL BE FREE FROM POCKETS OF COARSE OR FINE MATERIAL.

- a. THE FILL MATERIALS SHALL BE PLACED IN LOOSE HORIZONTAL LAYERS NOT MORE THAN SIX INCHES (6") IN THICKNESS PRIOR TO COMPACTION. THE MATERIAL SHALL BE GENTLY SPREAD OUT. UNDER NO CIRCUMSTANCES SHALL ANY MATERIAL BE DROPPED FROM ANY HEIGHT ONTO THE FILL SECTION.
- b. IF SEGREGATION OCCURS, MATERIAL SHALL BE WORKED UNTIL IT IS UNIFORMLY AND SATISFACTORILY BLENDED. AFTER SPREADING, THE MATERIAL SHALL BE WATERED AND SHAPED TO THE REQUIRED SECTION AND THEN COMPACTED AS SPECIFIED.
- c. AT THE TIME MATERIALS ARE SPREAD, IT SHALL HAVE A MOISTURE CONTENT IN CONFORMANCE WITH THE PROJECT SPECIFICATIONS. SUCH MOISTURE SHALL BE UNIFORMLY DISTRIBUTED THROUGHOUT THE MATERIAL.

FINISHING AND SLOPING GRADING

1. THE SURFACE OF THE TOP LAYER SHALL BE FINISHED TO THE DESIGNATED GRADE AND CROSS SECTION. THE FINISHED SURFACE SHALL BE OF UNIFORM TEXTURE, DRESSED AND GRADED TO DRAIN AND PREVENT WATER PONDING.

COMPACTION EQUIPMENT:

1. COMPACTION SHALL BE PERFORMED WITH A NON-VIBRATORY TYPE ROLLER COMPACTOR. VIBRATORY EQUIPMENT WILL NOT BE PERMITTED ON DISTRICT LEVEES AND FILLS.

TESTING:

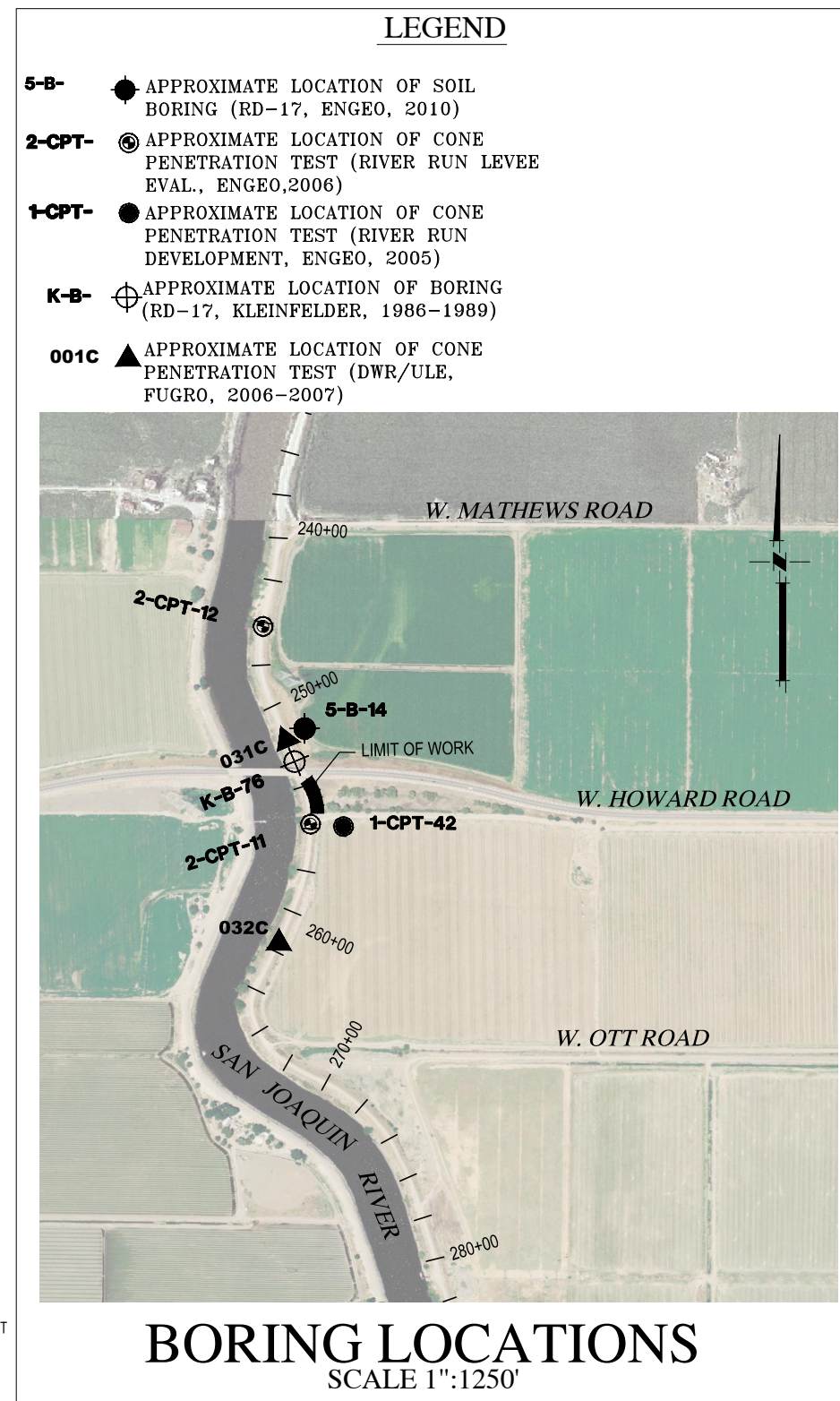
1. THE DISTRICT WILL RETAIN THE SERVICES OF AN INDEPENDENT SOILS CONSULTANT AND TESTING LABORATORY TO PERFORM SAMPLING AND TESTING AS REQUIRED AND TO CHECK FOR COMPLIANCE WITH THE SPECIFICATIONS. THE CONTRACTOR SHALL REMOVE SURFACE MATERIALS AT LOCATIONS DESIGNATED BY THE TESTING ENGINEER AT NO COST TO THE DISTRICT. THE INDEPENDENT TESTING LABORATORY WILL SAMPLE AND PERFORM ALL REQUIRED TESTS SUCH AS MOISTURE CONTENT; GRADATION, AND MOISTURE DENSITY RELATIONSHIPS ON THE EXCAVATED AND EMBANKMENT FILL MATERIALS

SWPPP:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DEVELOPMENT, INSTALLATION AND MAINTENANCE OF A SWPPP AND REQUIRE PROTECTION FEATURES. THESE FEATURES INCLUDE, BUT ARE NOT LIMITED TO, THOSE IDENTIFIED BELOW:
 - A. EROSION CONTROL FACILITIES
 - B. CONSTRUCTION ENTRANCE
 - C. STREET SWEEPING
 - D. THE CONTRACTOR IS RESPONSIBLE FOR ALL FINES, FEES, PENALTIES IMPOSED BY FEDERAL AND LOCAL AGENCIES DUE TO THE CONTRACTOR'S ACTIVITIES ASSOCIATED WITH THE SWPPP.
2. THE CONTRACTOR SHALL CONSTRUCT A STABILIZED CONSTRUCTION ENTRANCE AT ALL ENTRANCES TO THE PROJECT SITE AS APPROVED BY THE ENGINEER.
3. EROSION CONTROL FACILITIES AS SHOWN ON THESE PLANS HAVE BEEN PREPARED TO MEET THE REQUIREMENTS OF THE DISTRICT. THE PROJECT WILL REQUIRE A SWPPP, PREPARED BY A QUALIFIED DEVELOPER (QSD) WHO WILL ASSUME RESPONSIBILITY FOR THE PROJECT COMPLIANCE WITH THE STATE GENERAL CONSTRUCTION PERMIT AND WHOSE RECOMMENDATIONS WILL SUPERCEDE THIS PLAN ACCORDINGLY.

ABBREVIATIONS:

CL	CENTERLINE	N	NORTH, NORTHING
CONST	CONSTRUCTION	NTS	NOT TO SCALE
DWSEL	DESIGN WATER SURFACE ELEVATION	PROP	PROPOSED
E	EAST, EASTING	RC	RELATIVE COMPACTION
ELEV	ELEVATION	R/W	RIGHT OF WAY
ESMT	EASEMENT	STA	STATION
EX	EXISTING	TCE	TEMPORARY CONSTRUCTION EASEMENT
FT	FOOT, FEET	TEMP	TEMPORARY
H	HORIZONTAL	TYP	TYPICAL
MIN	MINIMUM	V	VERTICAL
		WS	WATERSIDE



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THESE PLANS CONFORM TO THE GEOTECHNICAL REPORT ENTITLED: SEEPAGE EVALUATION PROJECT #5747.000.000

ENGEO INCORPORATED
EXCELLENT SERVICE SINCE 1971

PLANS PREPARED UNDER THE DIRECTION OF:

Mackay & Somps
ENGINEERS PLANNERS SURVEYORS

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RECLAMATION DISTRICT NO. 17
ELEMENT I-B
NOTES & BORING LOCATIONS

SAN JOAQUIN COUNTY CALIFORNIA

No.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: SHOWN	SHT 3
DRAWN BY: GB	OF 8
DESIGNED BY: JBM	
CHECKED BY: JSL	

CONTROL POINTS

P# 87975- N=2142549.582 E=6321677.582 ELEV=23.40 3/4" IP ON LEVEE
 P# 87976- N=2142995.032 E=6321742.157 ELEV=23.05 3/4" IP ON LEVEE
 P# 87977- N=2143545.552 E=6321542.916 ELEV=22.99 3/4" IP ON LEVEE
 ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

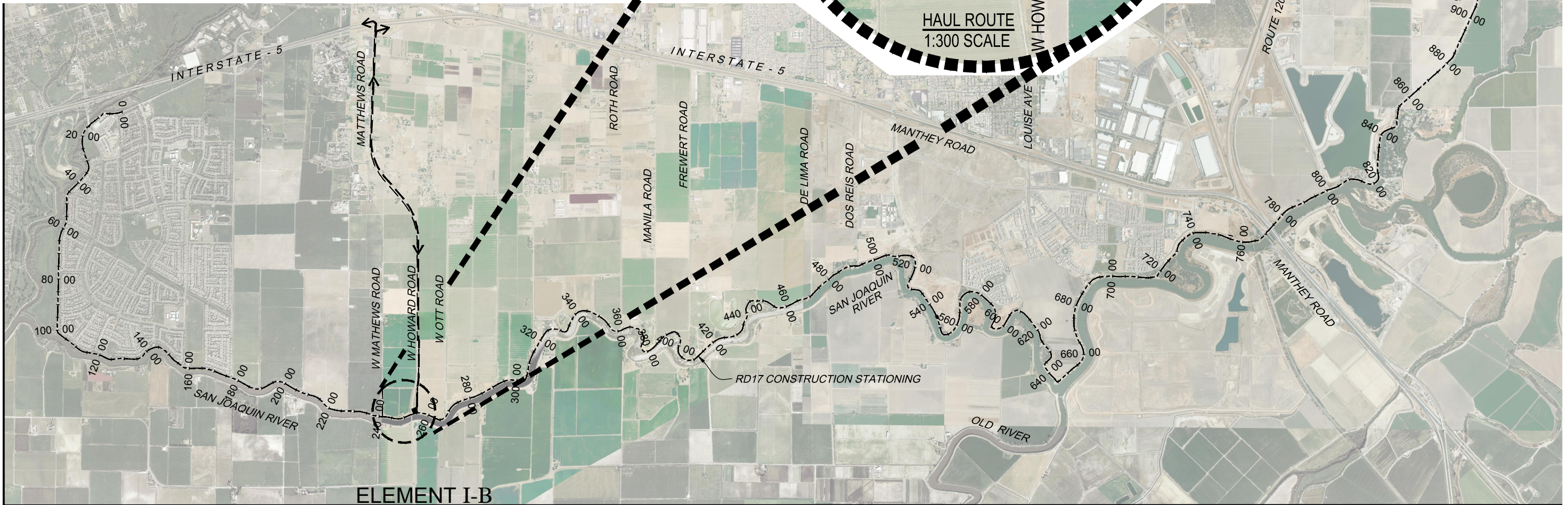
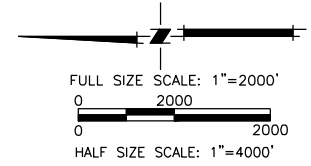
BASIS OF BEARINGS

THE BASIS OF BEARINGS IS NORTH 12D33'37.56" EAST BETWEEN NATIONAL GEODETIC SURVEY HORIZONTAL CONTROL POINTS HPGN-D CA 10 HG (PID AA4256) AND MATTHEW (PID HS0118), CALIFORNIA COORDINATE SYSTEM ZONE 3, NAD83, EPOCH DATE 1997.30, AS CALCULATED AND ADJUSTED BY THE NATIONAL GEODETIC SURVEY IN JULY, 1998, AS SHOWN ON RECORD OF SURVEY RECORDED AT BOOK 34 PAGES 163 - 163B, OF SAN JOAQUIN COUNTY RECORDS. ALL DISTANCES SHOWN HEREON ARE GROUND DISTANCES. TO CONVERT TO GRID DISTANCE, MULTIPLY GROUND DISTANCE BY AVERAGE COMBINED SCALE FACTOR OF 0.999929125.

← ← ← → → → →
 INDICATES HAUL ROUTES TO BE USED BY CONTRACTOR

SITE SECURITY NOTES:

1. TEMPORARY GATES SHALL BE INSTALLED BY THE CONTRACTOR TO PREVENT UNAUTHORIZED ACCESS TO THE SITE. ACCESS KEYS SHALL BE PROVIDED TO THE DISTRICT & PROPERTY OWNERS TO ALLOW ACCESS DURING CONSTRUCTION.



ELEMENT I-B

PLANS REVIEWED AND APPROVED BY:

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THESE PLANS CONFORM TO THE GEOTECHNICAL REPORT ENTITLED: SEEPAGE EVALUATION PROJECT #5747.000.000

ENGEO INCORPORATED
 EXCELLENT SERVICE SINCE 1971

REGISTERED PROFESSIONAL ENGINEER
 JOSEF TOOTLE
 No. 2677
 Exp. 6/30/2014
 CIVIL
 STATE OF CALIFORNIA

PLANS PREPARED UNDER THE DIRECTION OF:

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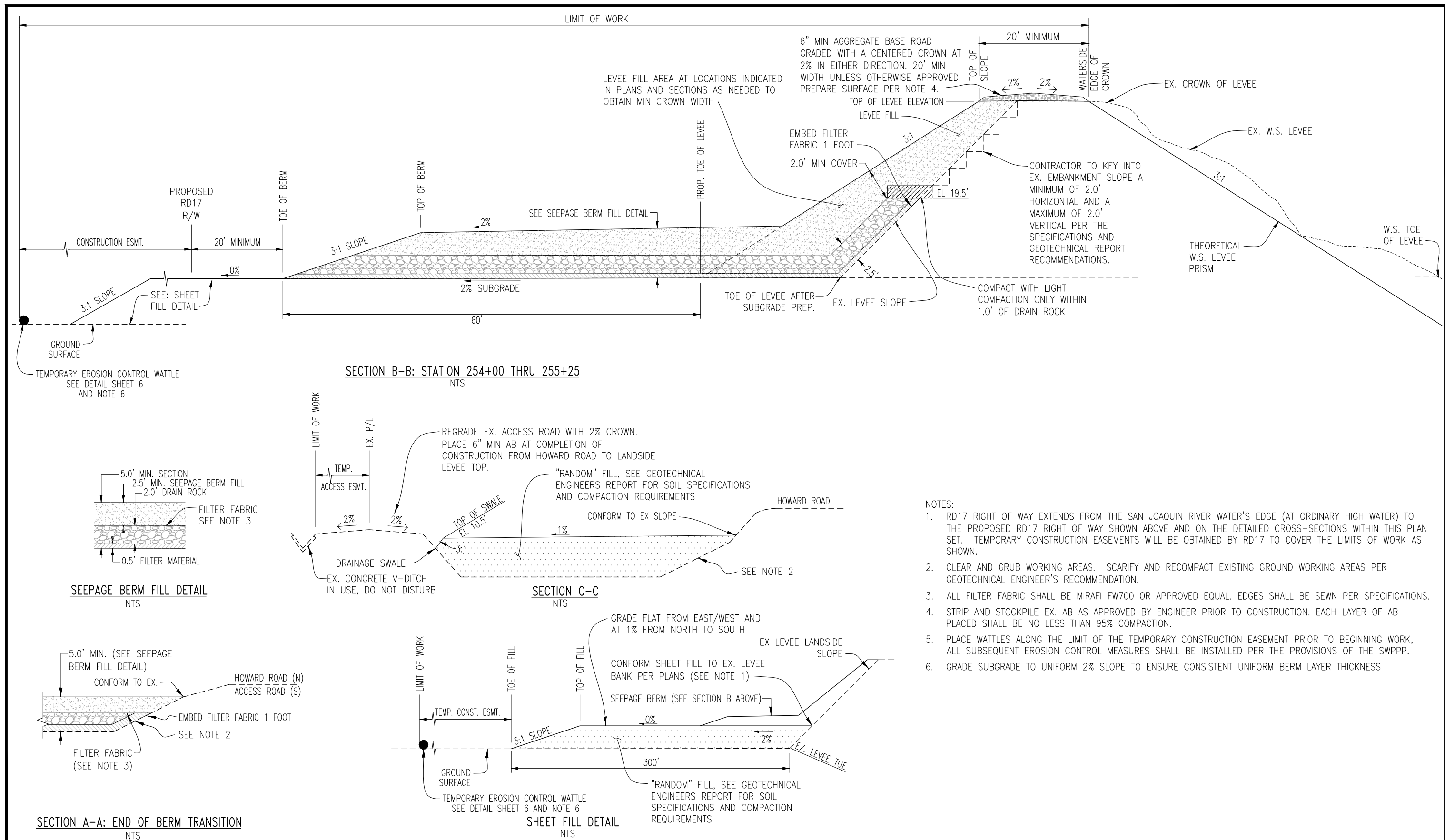
RECLAMATION DISTRICT NO. 17
ELEMENT I-B
 STATIONING MAP / HAUL ROUTES

SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: AS NOTED	SHT 4
DRAWN BY: GB	OF 8
DESIGNED BY: JBM	
CHECKED BY: JSL	

ELEMENT I-B (SEEPAGE BERM) 65% SUBMITTAL



- NOTES:
- RD17 RIGHT OF WAY EXTENDS FROM THE SAN JOAQUIN RIVER WATER'S EDGE (AT ORDINARY HIGH WATER) TO THE PROPOSED RD17 RIGHT OF WAY SHOWN ABOVE AND ON THE DETAILED CROSS-SECTIONS WITHIN THIS PLAN SET. TEMPORARY CONSTRUCTION EASEMENTS WILL BE OBTAINED BY RD17 TO COVER THE LIMITS OF WORK AS SHOWN.
 - CLEAR AND GRUB WORKING AREAS. SCARIFY AND RECOMPACT EXISTING GROUND WORKING AREAS PER GEOTECHNICAL ENGINEER'S RECOMMENDATION.
 - ALL FILTER FABRIC SHALL BE MIRAFI FW700 OR APPROVED EQUAL. EDGES SHALL BE SEWN PER SPECIFICATIONS.
 - STRIP AND STOCKPILE EX. AB AS APPROVED BY ENGINEER PRIOR TO CONSTRUCTION. EACH LAYER OF AB PLACED SHALL BE NO LESS THAN 95% COMPACTION.
 - PLACE WATTLES ALONG THE LIMIT OF THE TEMPORARY CONSTRUCTION EASEMENT PRIOR TO BEGINNING WORK, ALL SUBSEQUENT EROSION CONTROL MEASURES SHALL BE INSTALLED PER THE PROVISIONS OF THE SWPPP.
 - GRADE SUBGRADE TO UNIFORM 2% SLOPE TO ENSURE CONSISTENT UNIFORM BERM LAYER THICKNESS

PLANS REVIEWED AND APPROVED BY:

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ENGEO INCORPORATED
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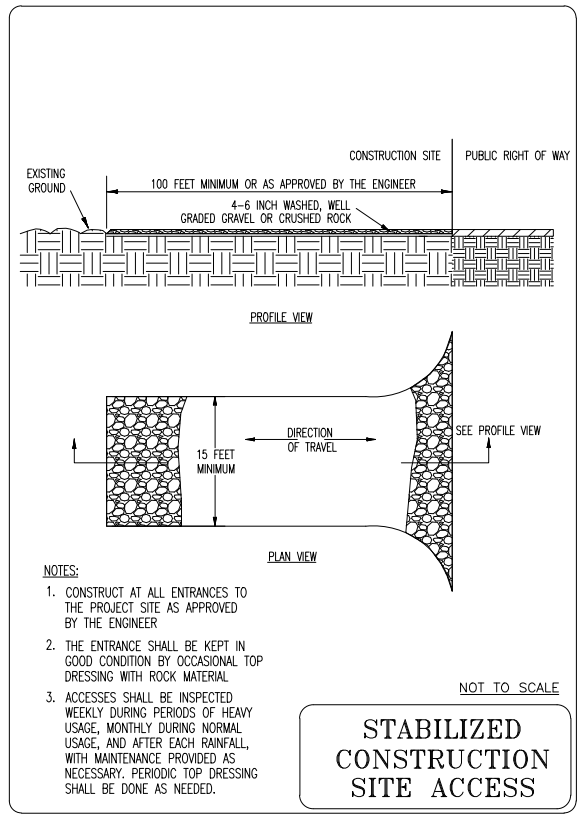
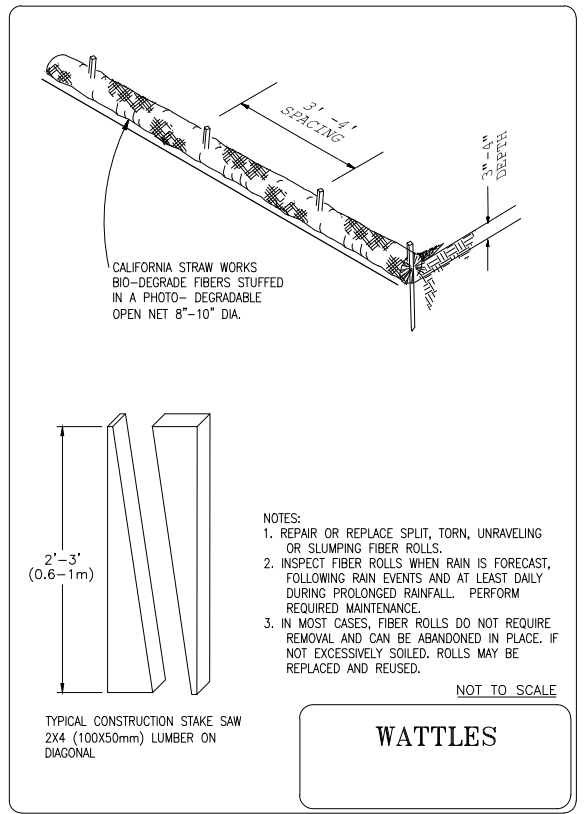
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RECLAMATION DISTRICT NO. 17
ELEMENT I-B
TYPICAL SECTIONS & DETAILS

SAN JOAQUIN COUNTY CALIFORNIA

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: NTS	SHT 5
DRAWN BY: GB	OF 8
DESIGNED BY: JBM	
CHECKED BY: JSL	
NO. _____	REVISION _____
DATE _____	

ELEMENT I-B (SEEPAGE BERM) 65% SUBMITTAL



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Faxes: (209) 946-0296
E-mail: KSN@ksninc.com

THESE PLANS CONFORM TO THE GEOTECHNICAL REPORT ENTITLED: SEEPAGE EVALUATION PROJECT #5747.000.000

ENGEO INCORPORATED
EXCELLENT SERVICE SINCE 1971

PLANS PREPARED UNDER THE DIRECTION OF:

MACKAY & SOMPS
ENGINEERS PLANNERS SURVEYORS

5142 Franklin Drive, Suite B, Pleasanton, CA 94588 (925) 225-0690

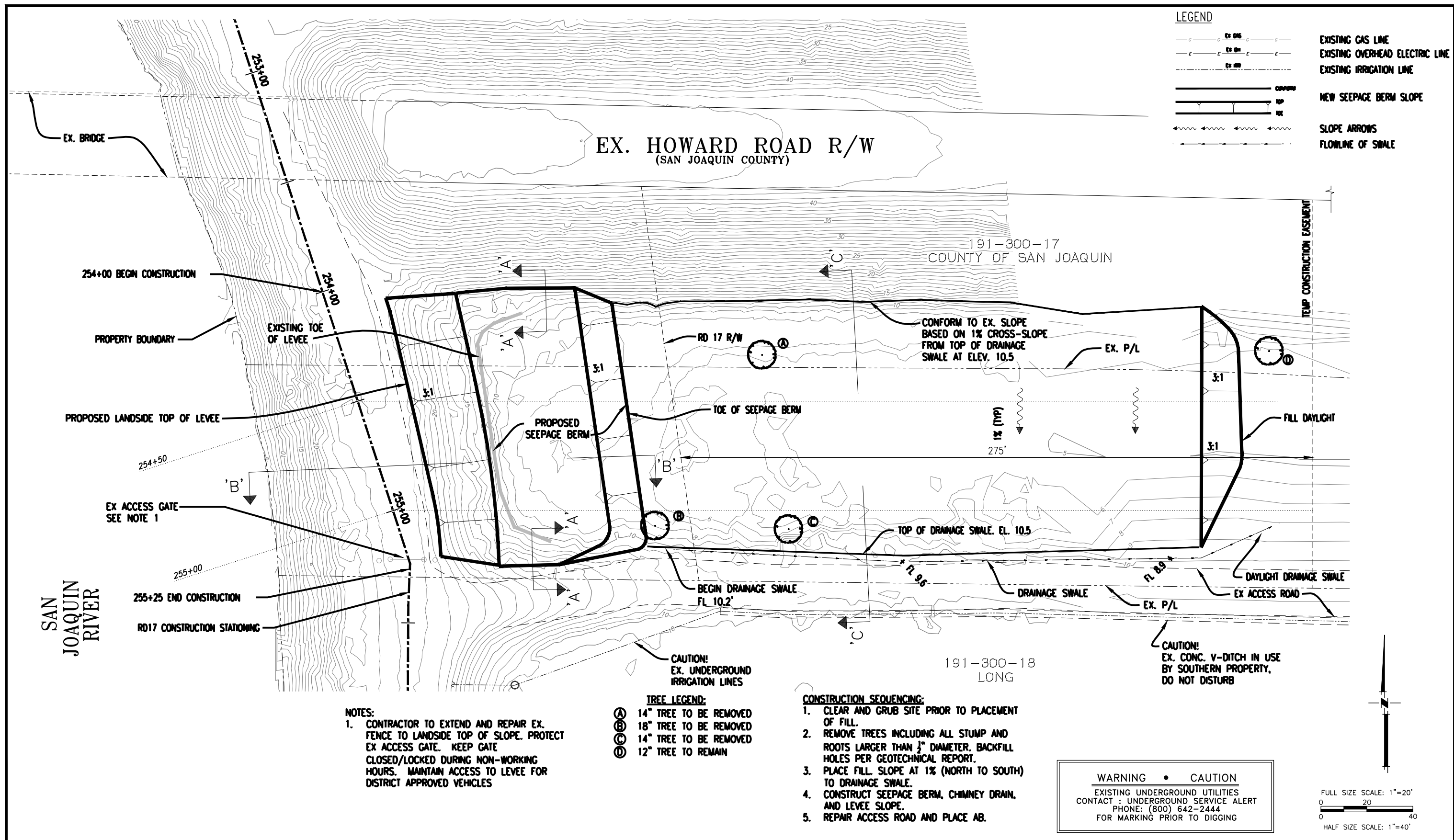
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RECLAMATION DISTRICT NO. 17
ELEMENT I-B
TYPICAL SECTIONS & DETAILS

SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: NTS	SHT 6
DRAWN BY: GB	OF 8
DESIGNED BY: JBM	
CHECKED BY: JSL	



PLANS REVIEWED AND APPROVED BY:

K S N KJELDSSEN SINNOCK NEUDECK INC.
Consulting Engineers and Land Surveyors

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711 N. Pershing Avenue
Stockton, CA 95201-0844
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E-mail: KSN@ksninc.com

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ENGEO INCORPORATED
EXCELLENT SERVICE SINCE 1971

REGISTERED PROFESSIONAL ENGINEER
JOSEF TOOTE
No. 2677
Exp. 6/30/2014
STATE OF CALIFORNIA

PLANS PREPARED UNDER THE DIRECTION OF:

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ENGINEERS PLANNERS SURVEYORS
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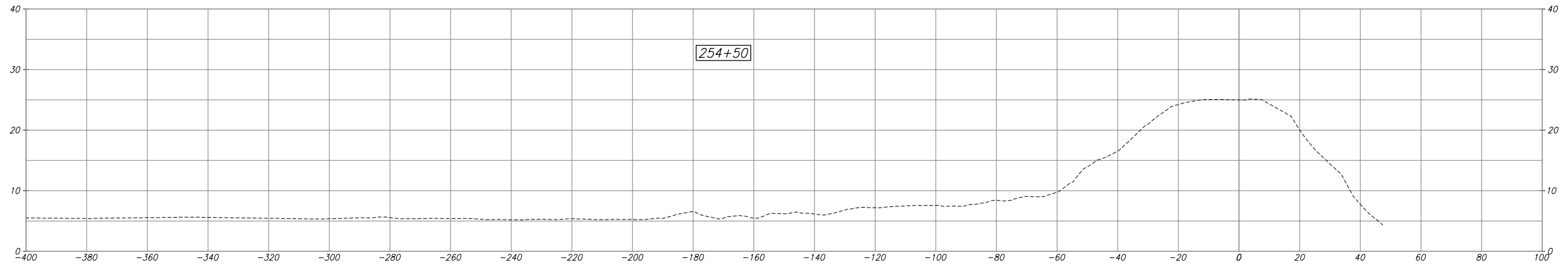
REGISTERED PROFESSIONAL ENGINEER
JAMES TEMPLETON
No. 43061
Exp. 3/31/14
STATE OF CALIFORNIA

RECLAMATION DISTRICT NO. 17
ELEMENT I-B
GRADING PLAN

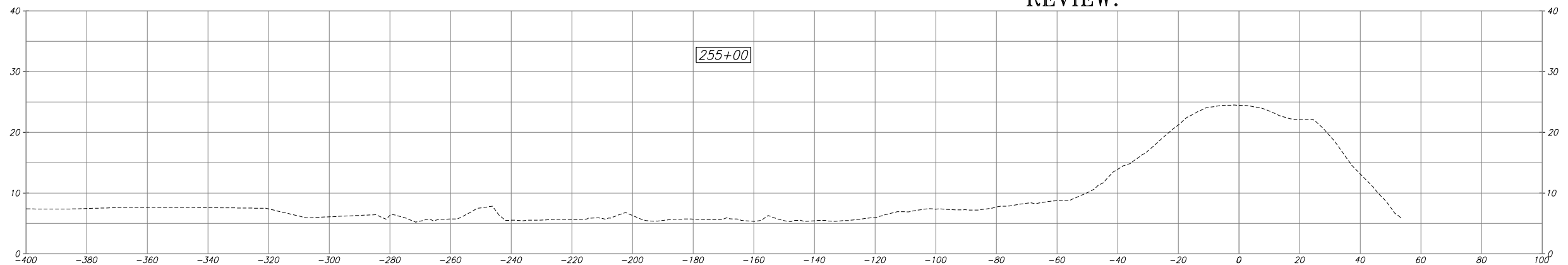
SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: 1" = 40'	SHT 7
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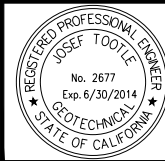
DESIGN DETAILS WILL BE ADDED TO THESE SECTIONS AFTER 65% COMMENTS ARE RECEIVED. PLEASE SEE TYPICAL SECTIONS FOR 65% REVIEW.



PLANS REVIEWED AND APPROVED BY:

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S SINNOCK
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INC. Consulting Engineers
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RECLAMATION DISTRICT NO. 17
ELEMENT I-B

CROSS SECTIONS

SAN JOAQUIN COUNTY

CALIFORNIA

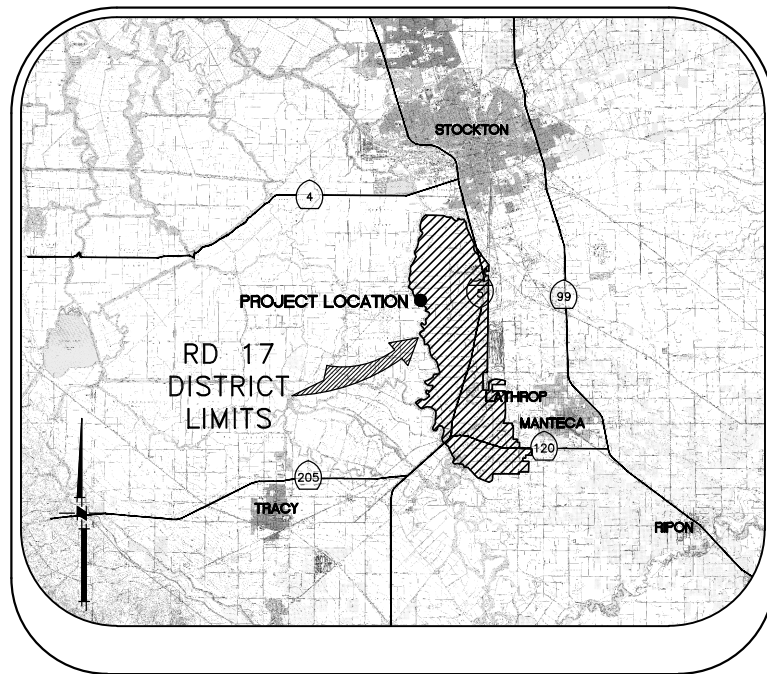
NO.	REVISION	DATE

DATE: JAN 2014
SCALE: 1"=10'
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CHECKED BY: JSL

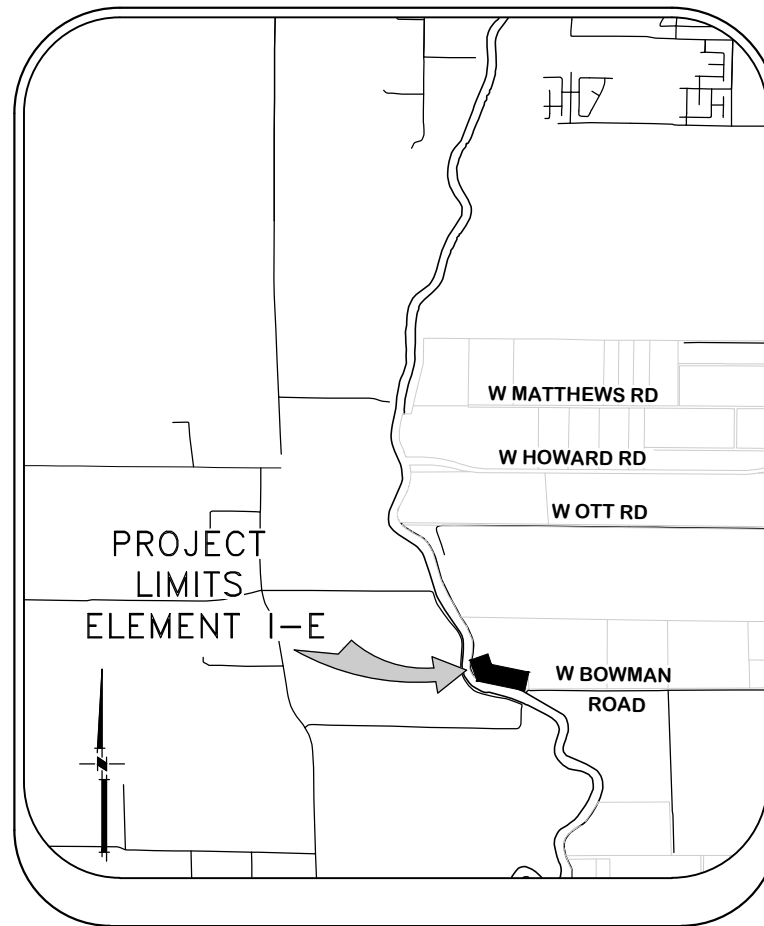
PROJECT NO.
25182.010
SHT 8
OF 8

RECLAMATION DISTRICT NO. 17 LEVEE SEEPAGE PROJECT

ELEMENT I-E - SEEPAGE BERM RD17 STATION 305+75 THRU 312+30 (FEET) USACE STATION 3.89 THRU 4.01 (MILES)



VICINITY MAP



PROJECT SITE MAP

SHEET	DESCRIPTION
1.	COVER SHEET
2.	NOTES
3.	NOTES & BORING LOCATIONS
4.	STATIONING MAP / HAUL ROUTES
5.	TYPICAL SECTIONS & DETAILS
6.	TYPICAL SECTIONS & DETAILS
7.	GRADING PLAN
8.	CROSS SECTIONS

INDEX

<p>PLANS REVIEWED AND APPROVED BY:</p> <p>K S N KJELDEN SINNOCK NEUDECK INC. Consulting Engineers and Land Surveyors Post Office Box 844 711 N. Pershing Avenue Stockton, CA 95201-0844 Office: (209) 946-0268 Faxes: (209) 946-0296 E-mail: KSN@ksninc.com</p>	<p>THESE PLANS CONFORM TO THE GEOTECHNICAL REPORT ENTITLED: SEEPAGE EVALUATION PROJECT #5747.000.000</p>	<p>PLANS PREPARED UNDER THE DIRECTION OF:</p> <p>MACKAY & SOMPS ENGINEERS PLANNERS SURVEYORS 5142 Franklin Drive, Suite B, Pleasanton, CA 94588 (925) 225-0690 MACKAY & SOMPS IS NOT RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF REPRODUCTIONS OF THIS DOCUMENT THAT ARE GENERATED BY OTHERS FROM ELECTRONIC MEDIA.</p>	<p>RECLAMATION DISTRICT NO. 17 ELEMENT I-E COVER SHEET</p> <p>SAN JOAQUIN COUNTY CALIFORNIA</p>	<p>DATE: JAN 2014</p> <p>SCALE: NOT TO SCALE</p> <p>DRAWN BY: GB</p> <p>DESIGNED BY: JBM</p> <p>CHECKED BY: JSL</p>	<p>PROJECT NO. 25182.010</p> <p>SHT 1 OF 8</p>
				<p>No. _____</p> <p>DATE _____</p>	<p>No. _____</p> <p>DATE _____</p>

THE PERFORMANCE OF THE LEVEE SYSTEMS IS DEPENDANT UPON THE DESIGN CRITERIA AND THE LONG TERM OPERATION AND MAINTENANCE OF THE LEVEES. THE DESIGN TEAM HAS PREPARED THESE PLANS AND ASSOCIATED SPECIFICATIONS AND REPORTS IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICE USING INFORMATION FROM MULTIPLE SOURCES. IF EXTREME FLOODS (EXCEEDING THE DESIGN PROFILE), EARTHQUAKES OR OTHER LOADING CONDITIONS NOT EVALUATED IN THE DESIGN OCCUR, THE INTEGRITY OF THE LEVEE SYSTEM MAY BE COMPROMISED.

ROLES:

THE "DISTRICT" AS REFERRED TO IN THESE NOTES MEANS RECLAMATION DISTRICT 17(RD 17). THE DISTRICT IS THE PROJECT OWNER.

THE "ENGINEER" AS REFERRED TO IN THESE NOTES MEANS THE DISTRICT ENGINEER: KJELDSSEN, SINNOCK, AND NEUDECK. THE ENGINEER SHALL PROVIDE INSPECTION OF THE PROJECT AND OVERALL CONSTRUCTION MANAGEMENT INCLUDING COORDINATION WITH PUBLIC UTILITIES, PUBLIC AGENCIES, THE DESIGN ENGINEER AND THE GEOTECHNICAL ENGINEER.

THE "DESIGN ENGINEER" AS REFERRED TO IN THESE NOTES MEANS MACKAY & SOMPS, CIVIL ENGINEERS INC. THE DESIGN ENGINEER WILL PERFORM DISTRICT PROVIDED CONSTRUCTION STAKING AND "AS-GRADED" SURVEYS.

THE "GEOTECHNICAL ENGINEER" AS REFERRED TO IN THESE NOTES MEANS ENGeo INC. THE GEOTECHNICAL ENGINEER WILL PROVIDE MATERIALS TESTING, COMPACTION TESTING AND OTHER GEOTECHNICAL RELATED TESTING.

CONTRACTOR SHALL BE RESPONSIBLE FOR SUPERVISION OF ALL CONTRACTOR'S EMPLOYEES, SUBCONTRACTORS, INCLUDING SCHEDULING AND ALL SAFETY MATTERS.

THESE PLANS ARE TO BE USED IN CONJUNCTION WITH THE FOLLOWING:

- a. SOILS REPORT PREPARED BY ENGeo INC. ENTITLED, SEEPAGE EVALUATION PROJECT # 5747.000.000.
- b. SPECIFICATIONS PREPARED BY KSN DATED _____

GENERAL NOTES:

1. PRIOR TO THE COMMENCEMENT OF WORK, A JOINT INSPECTION BETWEEN THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER, THE GEOTECHNICAL ENGINEER, THEIR REPRESENTATIVES, AND THE CONTRACTOR (OR HIS REPRESENTATIVE) WILL BE CONDUCTED TO REVIEW THE PRE-CONSTRUCTION CONDITIONS (E.G. ROADS, PUMPS, DISCHARGE PIPES, SIPHONS, RAMPS, GATES, SIGNS, ETC.) IF SUCH EXISTING FACILITIES ARE DAMAGED BY THE CONTRACTOR'S OPERATIONS, THE CONTRACTOR, AT THEIR OWN EXPENSE, SHALL REPLACE OR RESTORE THEM TO THE CONDITION THAT EXISTED PRIOR TO THE COMMENCEMENT OF WORK.
2. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT (209) 946-0268, A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY WORK.
3. THE DISTRICT RESERVES THE RIGHT TO SUSPEND CONSTRUCTION AT ANY TIME IN THE EVENT OF EXTREME HIGH OR LOW TIDES, FLOOD EVENTS, OTHER CONDITIONS OR EMERGENCIES THAT MAY JEOPARDIZE THE INTEGRITY OF THE DISTRICT'S LEVEE AND ROAD SYSTEM.
4. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, COUNTY AND LOCAL REQUIREMENTS, AS REQUIRED FOR TRAFFIC CONTROL AND PUBLIC SAFETY DURING PROJECT CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL OUTLINED IN THESE PLANS AND THE REFERENCED SPECIFICATIONS.
5. THE DISTRICT WILL FURNISH ALL RIGHT-OF-WAY FOR ALL LEVEE ROADS AND DESIGNATED ACCESS HAUL ROADS AS SHOWN ON THESE PLANS. SHOULD THE CONTRACTOR WANT TO USE OTHER ROADWAYS OR ACCESS AREAS NOT SHOWN, THE CONTRACTOR SHALL AT THEIR OWN EXPENSE SECURE RIGHT-OF-WAY & NECESSARY PERMITS.
6. IF DELIVERING MATERIAL OR EQUIPMENT BY TRUCK, ALL TRUCK TRAFFIC SHALL BE LIMITED TO THE DISTRICT LEVEE ROADS AND/OR PUBLIC ROADS AS SHOWN ON HAUL ROUTE PLAN, UNLESS OTHERWISE APPROVED.
7. MAXIMUM SPEED LIMIT ON DISTRICT LEVEE ROADS IS 30 MPH, AS POSTED, OR AS OTHERWISE INDICATED ON THE CONSTRUCTION DRAWINGS. CONTRACTOR SHALL POST LARGE SLOW/CAUTION SIGNS AND SPEED LIMIT SIGNS FOR PURPOSES OF NOTIFYING BOTH CONTRACTOR'S EMPLOYEES AND THE PUBLIC. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SAFETY AT ALL TIMES ALONG ALL HAUL ROUTES AND IN ALL PROJECT AREAS (PUBLIC AND PRIVATE).

8. THE DISTRICT WILL PROVIDE SURVEY STAKES AS DESCRIBED IN THE SPECIFICATIONS WITHIN THE CONSTRUCTION SURVEYING SECTION. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL CONSTRUCTION STAKING AND SURVEYING AT THEIR OWN EXPENSE BEYOND THAT PROVIDED BY THE DISTRICT. PLEASE CONTACT THE ENGINEER IN WRITING WITH STAKING REQUESTS (209) 946-0268 WITH AT LEAST TWO WORKING DAYS ADVANCE NOTICE.
9. THE CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER AND THE GEOTECHNICAL ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER OR THE GEOTECHNICAL ENGINEER.
10. ANY DEFICIENCIES NOTED DURING INTERIM AND FINAL INSPECTIONS BY THE ENGINEER AND/OR DISTRICT SHALL BE CORRECTED BY THE CONTRACTOR PRIOR TO FINAL ACCEPTANCE BY THE DISTRICT. ANY ADDITIONAL COSTS AND EXPENSES FOR MOBILIZATION AND/OR DEMOBILIZATION, LABOR, EQUIPMENT AND OTHER ASSOCIATED COSTS REQUIRED TO CORRECT THE DEFICIENCIES NOTED, EXCEPT SPECIFIED MATERIAL(S), SHALL BE BORNE BY THE CONTRACTOR.
11. THE CONTRACTOR SHALL NOT CLOSE ANY ROAD, STREET, OR HIGHWAY TO THE PUBLIC EXCEPT WITH THE PERMISSION OF THE ENGINEER AND THE PROPER GOVERNMENTAL AUTHORITY. TEMPORARY PROVISIONS SHALL BE MADE BY THE CONTRACTOR TO ENSURE CONTINUOUS ACCESS TO PUBLIC AND PRIVATE DRIVEWAYS, AND PROPER FUNCTIONING OF CULVERTS, DRAINAGE AND IRRIGATION DITCHES, AND NATURAL WATER COURSES.
12. THE CONTRACTOR IS RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER, AND HE SHALL NOTIFY THE ENGINEER WHENEVER THERE IS A CHANGE IN SITE CONDITIONS OR AN ADJUSTMENT TO BE MADE IN WORK REQUIREMENTS.
13. SHOULD IT APPEAR THAT THE WORK TO BE DONE, OR ANY MATTER RELATIVE THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE ENGINEER AT (209) 946-0268 FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.
14. THE INTENT OF THESE PLANS IS TO SERVE AS A GUIDE AND TO PROVIDE THE CONTRACTOR WITH INFORMATION AND DETAILS NECESSARY TO CONSTRUCT THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY REGARDING ANY DISCREPANCIES AND AMBIGUITIES WHICH MAY EXIST IN THE PLANS OR SPECIFICATIONS. IF THE PLANS 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 FINEST QUALITY ARE TO BE USED.
15. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE OSHA REGULATIONS AND SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS.
16. THE CONTRACTOR SHALL AT ALL TIMES BE RESPONSIBLE FOR THE SECURITY OF THE JOBSITE AND EQUIPMENT. THE DISTRICT WILL NOT BE RESPONSIBLE FOR MISSING OR DAMAGED EQUIPMENT, TOOLS, OR PERSONAL BELONGINGS.

ENVIRONMENTAL NOTES:

1. THE CONTRACTOR SHALL NOT DISCHARGE SMOKE, DUST, OR ANY OTHER AIR CONTAMINANTS INTO THE ATMOSPHERE IN SUCH QUANTITY AS WILL VIOLATE THE REGULATIONS OF ANY LEGALLY CONSTITUTED AUTHORITY. HE SHALL ALSO ABATE DUST NUISANCE BY CLEANING, SWEEPING AND SPRINKLING WITH WATER, OR OTHER MEANS AS NECESSARY. THE USE OF WATER IN AN AMOUNT WHICH RESULTS IN MUD ON PUBLIC ROADS IS NOT ACCEPTABLE AS A SUBSTITUTE FOR SWEEPING OR OTHER METHODS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ADJACENT PUBLIC ROADS CLEAN & CLEAR FROM CONSTRUCTION IMPACTS OR DEBRIS. ADDITIONAL DETAILS FOR MUD AND DUST CONTROL IS INCLUDED IN SUBSEQUENT SECTIONS OF THESE NOTES.
2. THE CONTRACTOR SHALL EXERCISE EVERY REASONABLE PRECAUTION TO PROTECT STREAMS, WATERWAYS AND OTHER BODIES OF WATER FROM POLLUTION WITH FUELS, OIL, BITUMEN'S, CALCIUM CHLORIDE, AND OTHER HAZARDOUS MATERIALS AND SHALL CONDUCT AND SCHEDULE HIS OPERATIONS SO AS TO AVOID OR MINIMIZE MUDDYING AND SILTING OF SAID WATERS. CARE SHALL BE EXERCISED TO PRESERVE ROADSIDE VEGETATION BEYOND THE LIMITS OF CONSTRUCTION.

3. THROUGHOUT ALL PHASES OF CONSTRUCTION, INCLUDING SUSPENSION OF WORK, AND UNTIL FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL KEEP THE WORK SITE CONDITIONS CLEAN AND FREE FROM RUBBISH AND DEBRIS. ALL RUBBISH AND REFUSE SHALL BE DISPOSED OF IN A MANNER SATISFACTORY TO THE ENGINEER.

DUST AND MUD CONTROL:

1. DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL KEEP ALL CONSTRUCTION AREAS, FILL AREAS, HAUL ROADS, OTHER ROADWAYS, AND OTHER USE AREAS WHERE DUST IS GENERATED WELL WATERED: AND DURING WET CONDITIONS, AREAS USED BY LOCAL TRAFFIC, FREE AND CLEAR FROM MUD. CONTRACTOR SHALL PROVIDE EFFORTS NECESSARY TO MINIMIZE DUST AND OTHER DISTURBANCES NEAR EXISTING RESIDENCES AND ALL BUILDINGS NEAR HAUL ROUTES AND THE PROJECT SITE.
 - a. CROP DAMAGE: THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL TO PREVENT CROP DAMAGE AND FOR ANY AREAS SUBJECT TO CONSTRUCTION OR CONSTRUCTION TRAFFIC THAT GENERATE DUST AND/OR OTHER CONDITIONS WHICH MIGHT DAMAGE CROPS.
 - b. NON WORK DAYS: THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL THROUGHOUT THE DURATION OF THE PROJECT INCLUDING NON WORKDAYS IN ALL PROJECT AREAS, INCLUDING CONSTRUCTION ROADS AND CROP AREAS WHICH ARE USED BY THE CONTRACTOR, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. THE CONTRACTOR SHALL HAVE AT LEAST ONE (1) WATER TRUCK AVAILABLE TO THE PROJECT AT ALL TIMES (OR MORE AS NEEDED OR DIRECTED BY THE ENGINEER) TO MAINTAIN ADEQUATE DUST CONTROL FOR THE FOLLOWING AREAS:
 - a. PROJECT AREAS
 - b. ACCESS AND HAUL ROADS
 - c. LEVEE TOE BERM FILL AREAS
 - d. OTHER CONSTRUCTION USE AREAS
 - e. CROP DAMAGE PREVENTION
 - f. RESIDENTIAL CONSTRUCTION ZONES
 - g. ADJACENT PUBLIC STREETS, TRAILS & BIKEWAYS

UTILITY NOTES:

1. UTILITIES AS NOTED ON THE PLAN SET HAVE BEEN DETERMINED BASED ON RECORD INFORMATION AND FIELD INSPECTION, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE ACTUAL LOCATION OF ALL UNDERGROUND, SURFACE, OVERHEAD, AND SUBMARINE IMPROVEMENTS, OR FACILITIES WHICH MAY BE SUBJECT TO DAMAGE BY REASON OF HIS OPERATIONS.
2. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES AND SHALL CONTACT THE RESPECTIVE UTILITY COMPANIES & PRIVATE OWNERS PRIOR TO COMMENCEMENT OF WORK.
3. THE CONTRACTOR SHALL NOTIFY AFFECTED UTILITIES FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY CONSTRUCTION. (UNDERGROUND SERVICE ALERT (800) 642-2444) AND SHALL BE RESPONSIBLE FOR THE LOCATION AND PRESERVATION OF ALL FACILITIES IN THE AREA OF CONSTRUCTION.

PLANS REVIEWED AND APPROVED BY:



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SINNOCK
NEUDECK
INC. Consulting Engineers
and Land Surveyors

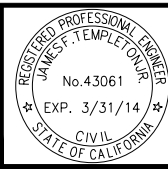
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PLANS PREPARED UNDER THE DIRECTION OF:



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RECLAMATION DISTRICT NO. 17
ELEMENT I-E

NOTES

SAN JOAQUIN COUNTY CALIFORNIA

DATE: JAN 2014	PROJECT NO.
SCALE: SHOWN	25182.010
DRAWN BY: GB	SHT 2
DESIGNED BY: JBM	OF 8
CHECKED BY: JSL	
NO.	REVISION
	DATE

ACCESS ROADS:

1. THE CONTRACTOR SHALL IMPROVE, MAINTAIN, AND REPAIR UPON COMPLETION, THE ACCESS ROADS AND HAUL ROUTES AS REQUIRED FOR TRANSPORTATION AND HAULING MATERIAL. AT THE COMPLETION OF WORK THE CONTRACTOR SHALL RESTORE ALL ACCESS ROADS AND HAUL ROUTES TO PRE-CONSTRUCTION CONDITION IN A MANNER SATISFACTORY TO THE ENGINEER.
2. THE CONTRACTOR SHALL REVIEW THE ACCESS ROAD ROUTES AND DETERMINE THE LOCATION FOR TURNOUTS, RAMPS, ROAD DRAINAGE, ALIGNMENT, ETC. UPON COMPLETION OF THE PROJECT, SOME PORTIONS OF THE ACCESS ROADS MAY REQUIRE MINOR MODIFICATIONS AND ALTERATIONS. THE ACCESS ROADS WHICH REMAIN SHALL BE LEFT IN GOOD CONDITION FOR THE DISTRICT, FARMERS, AND OTHER LOCAL TRAFFIC.
3. THE CONTRACTOR SHALL NOT DEVIATE FROM IDENTIFIED HAUL ROUTES AND STAGING AREAS UNLESS PERMISSION IS OBTAINED FROM THE PROPERTY OWNER, ENGINEER AND PERMITS ARE OBTAINED FROM THE LOCAL AGENCY.
4. THE CONTRACTOR SHALL EXTEND, STRENGTHEN, REPLACE, OR OTHERWISE MODIFY THE EXISTING CROSSINGS (E.G. CULVERTS, SIPHONS, DRAIN PIPES, IRRIGATION PIPES, PUMP DISCHARGE PIPES, WET SPOTS, ETC.) AS NECESSARY TO ACCOMMODATE HIS EQUIPMENT. THE CONTRACTOR SHALL PROVIDE WHATEVER MEASURES ARE NECESSARY TO PRESERVE, PROTECT, AND MAINTAIN THE CROSSINGS SO AS TO ENSURE CONTINUOUS AND UNINTERRUPTED CONSTRUCTION OPERATIONS DURING THE ENTIRE TERM OF THIS CONTRACT.
5. THE HAUL ROADS MAY REQUIRE TEMPORARY IRRIGATION OR DISCHARGE PIPE EXTENSIONS AND RAMPING DURING CONSTRUCTION OPERATIONS. TEMPORARY EXTENSIONS AND RAMPING WILL BE PROVIDED AND INSTALLED BY THE CONTRACTOR AT HIS EXPENSE, INCLUDING REMOVAL IF REQUIRED, IN A MANNER WHICH MEETS WITH THE APPROVAL OF THE ENGINEER AND THE LANDOWNERS.
6. NEITHER THE DISTRICT NOR THE ENGINEER MAKES ANY WARRANTY OR GUARANTEE AS TO THE ADEQUACY OF THE EXISTING MATERIALS TO SUPPORT THE CONSTRUCTION TRAFFIC ON THE ACCESS ROADS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MAKING THE NECESSARY IMPROVEMENTS AND PROVIDING THE NECESSARY MEASURES REQUIRED TO ACCOMMODATE HIS ANTICIPATED NEEDS. REPAIRS TO ROADWAYS DAMAGED BY THE CONTRACTOR SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
7. CONTRACTOR MUST MAINTAIN HAUL ROUTE ACCESS AT ALL TIMES FOR USE BY THE DISTRICT AND/OR PUBLIC (AS APPLICABLE) DURING CONSTRUCTION.

CLEARING & GRUBBING:

1. UNLESS OTHERWISE INDICATED, THE WORK AREAS SHALL BE CLEARED AND GRUBBED BY THE CONTRACTOR. CONTRACTOR SHALL USE CAUTION WHILE CLEARING AND GRUBBING AROUND POWER LINES, BURIED ELECTRICAL CABLES AND OTHER EX FACILITIES/UTILITIES. ALL MATERIAL CLEARED AND REMOVED SHALL BECOME THE PROPERTY AND RESPONSIBILITY OF THE CONTRACTOR FOR REMOVAL AND DISPOSAL OFFSITE. SOME PRUNING/TRIMMING/THINNING OF BRANCHES OR TREES MAY BE REQUIRED.

FILL MATERIALS:

1. THE CONTRACTOR SHALL FURNISH, DELIVER, AND PLACE THE SPECIFIED FILL MATERIALS (PER THE DISTRICT ENGINEERS SPECIFICATIONS) TO THE DESIGNATED SITES.
2. THE FILL SHALL BE CONSTRUCTED WITH ACCEPTABLE MATERIALS SUFFICIENT TO MEET DESIGN GRADES AND SPECIFICATIONS.
3. ALL SUBGRADE AREAS RECEIVING FILL MATERIAL SHALL BE PREPARED AS REQUIRED BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR MAY BE REQUIRED TO PERFORM ADDITIONAL SUBGRADE PREPARATION WORK WITHIN THE FILL AREAS PRIOR TO THE ACCEPTANCE OF THE MATERIAL.
4. THE CONTRACTOR SHALL DELIVER THE FILL MATERIALS TO THE REQUIRED SECTIONS AS UNIFORM MIXTURES. THE MIXTURE SHALL BE DEPOSITED AND SPREAD TO THE REQUIRED COMPACTED THICKNESS. SEGREGATION OF MATERIAL SHALL BE AVOIDED AND EACH LAYER OF MATERIAL, AS SPREAD, SHALL BE FREE FROM POCKETS OF COARSE OR FINE MATERIAL.

- a. THE FILL MATERIALS SHALL BE PLACED IN LOOSE HORIZONTAL LAYERS NOT MORE THAN SIX INCHES (6") IN THICKNESS PRIOR TO COMPACTION. THE MATERIAL SHALL BE GENTLY SPREAD OUT. UNDER NO CIRCUMSTANCES SHALL ANY MATERIAL BE DROPPED FROM ANY HEIGHT ONTO THE FILL SECTION.
- b. IF SEGREGATION OCCURS, MATERIAL SHALL BE WORKED UNTIL IT IS UNIFORMLY AND SATISFACTORILY BLENDED. AFTER SPREADING, THE MATERIAL SHALL BE WATERED AND SHAPED TO THE REQUIRED SECTION AND THEN COMPACTED AS SPECIFIED.
- c. AT THE TIME MATERIALS ARE SPREAD, IT SHALL HAVE A MOISTURE CONTENT IN CONFORMANCE WITH THE PROJECT SPECIFICATIONS. SUCH MOISTURE SHALL BE UNIFORMLY DISTRIBUTED THROUGHOUT THE MATERIAL.

FINISHING AND SLOPING GRADING

1. THE SURFACE OF THE TOP LAYER SHALL BE FINISHED TO THE DESIGNATED GRADE AND CROSS SECTION. THE FINISHED SURFACE SHALL BE OF UNIFORM TEXTURE, DRESSED AND GRADED TO DRAIN AND PREVENT WATER PONDING.

COMPACTION EQUIPMENT:

1. COMPACTION SHALL BE PERFORMED WITH A NON-VIBRATORY TYPE ROLLER COMPACTOR. VIBRATORY EQUIPMENT WILL NOT BE PERMITTED ON DISTRICT LEVEES AND FILLS.

TESTING:

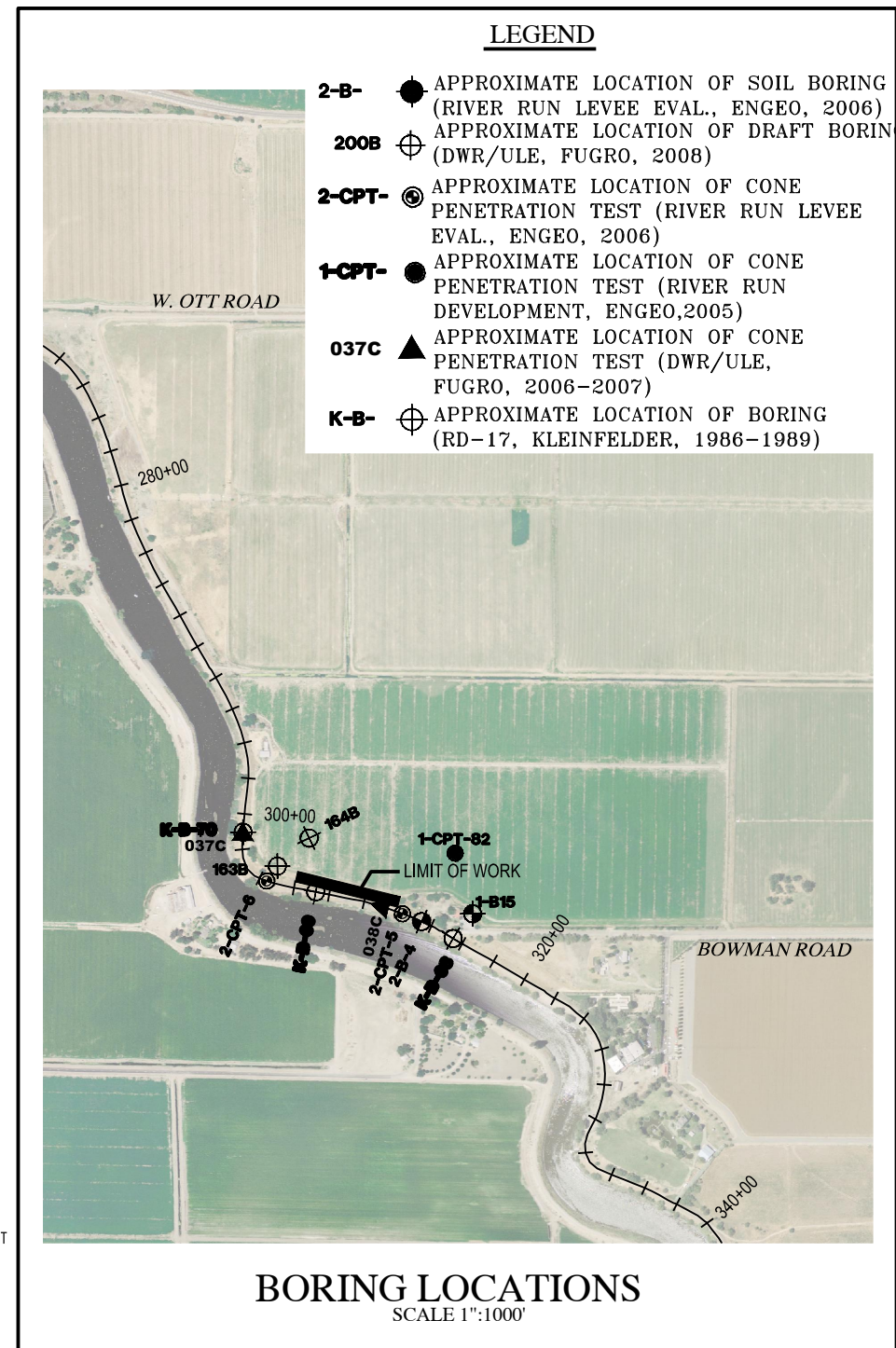
1. THE DISTRICT WILL RETAIN THE SERVICES OF AN INDEPENDENT SOILS CONSULTANT AND TESTING LABORATORY TO PERFORM SAMPLING AND TESTING AS REQUIRED AND TO CHECK FOR COMPLIANCE WITH THE SPECIFICATIONS. THE CONTRACTOR SHALL REMOVE SURFACE MATERIALS AT LOCATIONS DESIGNATED BY THE TESTING ENGINEER AT NO COST TO THE DISTRICT. THE INDEPENDENT TESTING LABORATORY WILL SAMPLE AND PERFORM ALL REQUIRED TESTS SUCH AS MOISTURE CONTENT; GRADATION, AND MOISTURE DENSITY RELATIONSHIPS ON THE EXCAVATED AND EMBANKMENT FILL MATERIALS

SWPPP:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DEVELOPMENT, INSTALLATION AND MAINTENANCE OF A SWPPP AND REQUIRE PROTECTION FEATURES. THESE FEATURES INCLUDE, BUT ARE NOT LIMITED TO, THOSE IDENTIFIED BELOW:
 - A. EROSION CONTROL FACILITIES
 - B. CONSTRUCTION ENTRANCE
 - C. STREET SWEEPING
 - D. THE CONTRACTOR IS RESPONSIBLE FOR ALL FINES, FEES, PENALTIES IMPOSED BY FEDERAL AND LOCAL AGENCIES DUE TO THE CONTRACTOR'S ACTIVITIES ASSOCIATED WITH THE SWPPP.
2. THE CONTRACTOR SHALL CONSTRUCT A STABILIZED CONSTRUCTION ENTRANCE AT ALL ENTRANCES TO THE PROJECT SITE AS APPROVED BY THE ENGINEER.
3. EROSION CONTROL FACILITIES AS SHOWN ON THESE PLANS HAVE BEEN PREPARED TO MEET THE REQUIREMENTS OF THE DISTRICT. THE PROJECT WILL REQUIRE A SWPPP, PREPARED BY A QUALIFIED DEVELOPER (QSD) WHO WILL ASSUME RESPONSIBILITY FOR THE PROJECT COMPLIANCE WITH THE STATE GENERAL CONSTRUCTION PERMIT AND WHOSE RECOMMENDATIONS WILL SUPERCEDE THIS PLAN ACCORDINGLY.

ABBREVIATIONS:

CL	CENTERLINE	N	NORTH, NORTHING
CONST	CONSTRUCTION	NTS	NOT TO SCALE
DWSEL	DESIGN WATER SURFACE ELEVATION	PROP	PROPOSED
E	EAST, EASTING	RC	RELATIVE COMPACTION
ELEV	ELEVATION	R/W	RIGHT OF WAY
ESMT	EASEMENT	STA	STATION
EX	EXISTING	TCE	TEMPORARY CONSTRUCTION EASEMENT
FT	FOOT, FEET	TEMP	TEMPORARY
H	HORIZONTAL	TYP	TYPICAL
MIN	MINIMUM	V	VERTICAL
		WS	WATERSIDE



PLANS REVIEWED AND APPROVED BY:

K S N KJELDSSEN SINNOCK NEUDECK INC.
Consulting Engineers and Land Surveyors

Post Office Box 844
711 N. Pershing Avenue
Stockton, CA 95201-0844
Office: (209) 946-0268
Faxes: (209) 946-0296
E-mail: KSN@ksninc.com

THESE PLANS CONFORM TO THE GEOTECHNICAL REPORT ENTITLED: SEEPAGE EVALUATION PROJECT #5747.000.000

ENGEO INCORPORATED
EXCELLENT SERVICE SINCE 1971

PLANS PREPARED UNDER THE DIRECTION OF:

MACKAY & SOMPS
ENGINEERS PLANNERS SURVEYORS

5142 Franklin Drive, Suite B, Pleasanton, CA 94588 (925) 225-0690

RECLAMATION DISTRICT NO. 17
ELEMENT I-E
NOTES & BORING LOCATIONS

SAN JOAQUIN COUNTY CALIFORNIA

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: SHOWN	SHT 3
DRAWN BY: GB	OF 8
DESIGNED BY: JBM	
CHECKED BY: JSL	
NO. _____	REVISION _____
DATE _____	

CONTROL POINTS

P87978 - N=2138518.817 E=6323883.306 ELEV=24.85 IRON PIPE ON LEVEE
 P87979 - N=2138711.925 E=6323078.145 ELEV=25.11 IRON PIPE ON LEVEE
 P87980 - N=2139379.183 E=6323030.916 ELEV=24.08 IRON PIPE ON LEVEE

ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

BASIS OF BEARINGS

THE BASIS OF BEARINGS IS NORTH 12°33'37.56" EAST BETWEEN NATIONAL GEODETIC SURVEY HORIZONTAL CONTROL POINTS HPGN-D CA 10 HG (PID AA4256) AND MATTHEW (PID HSO118), CALIFORNIA COORDINATE SYSTEM ZONE 3, NAD83, EPOCH DATE 1997.30, AS CALCULATED AND ADJUSTED BY THE NATIONAL GEODETIC SURVEY IN JULY, 1998, AS SHOWN ON RECORD OF SURVEY RECORDED AT BOOK 34 PAGES 163 - 163B, OF SAN JOAQUIN COUNTY RECORDS. ALL DISTANCES SHOWN HEREON ARE GROUND DISTANCES. TO CONVERT TO GRID DISTANCE, MULTIPLY GROUND DISTANCE BY AVERAGE COMBINED SCALE FACTOR OF 0.999929125.

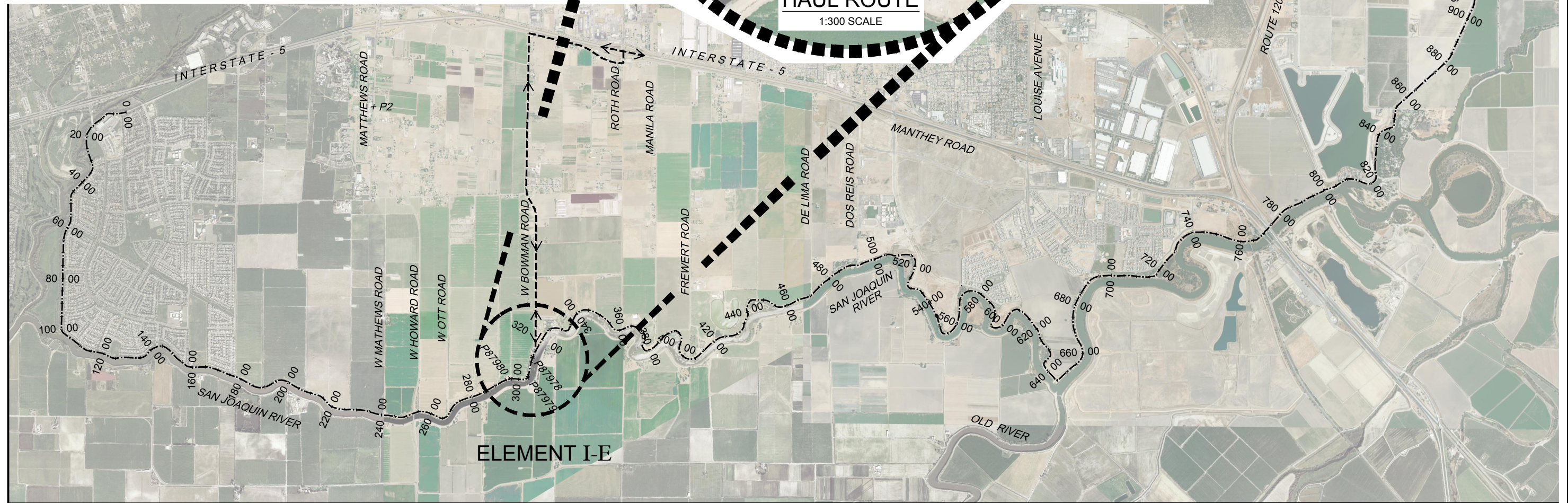
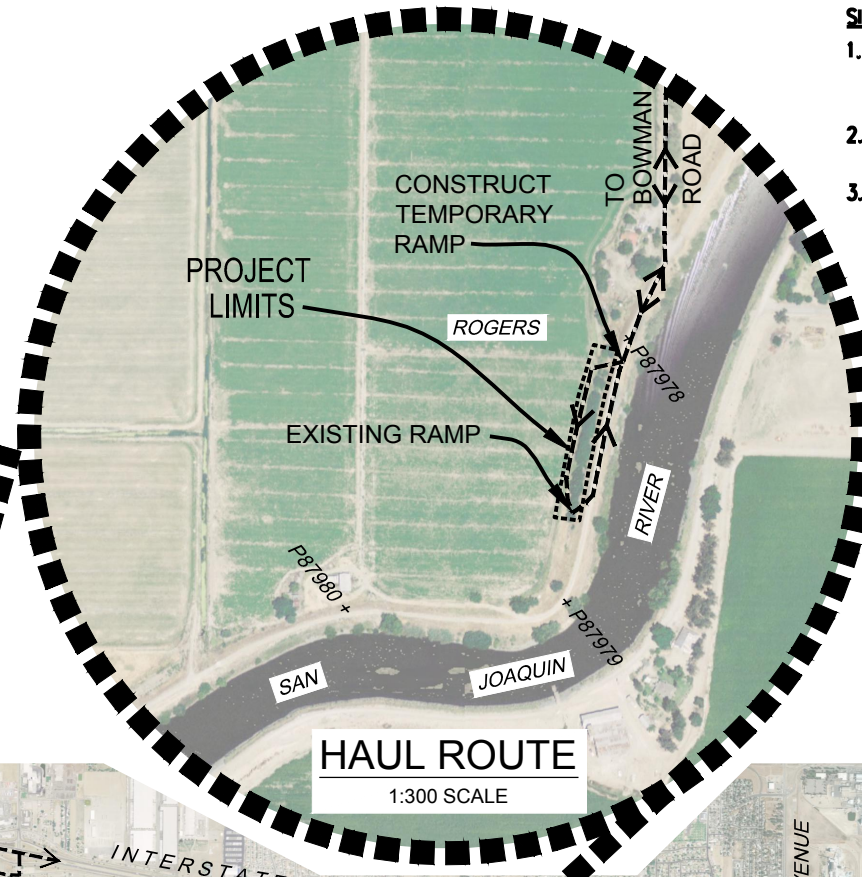
SITE SECURITY NOTES:

1. THE ACCESS GATE THE THE END OF BOWMAN ROAD NEEDS REMAIN CLOSED UNLESS THERE IS ACTIVE CONSTRUCTION WITHIN THE SITE. THIS INCLUDES NIGHTS / WEEKENDS AND PERIODS OF INACTIVITY.
2. GATES SHALL BE OPENED TOWARDS THE WEST ONLY AND SECURED BY THE CONTRACTOR IN PLACE.
3. IF ANY LOCKS ARE INSTALLED BY THE CONTRACTOR, COPIES OF THE KEYS SHALL BE PROVIDED TO THE DISTRICT AND FARMER FOR ACCESS DURING CONSTRUCTION.



FULL SIZE SCALE: 1"=2000'
 0 2000 4000
 HALF SIZE SCALE: 1"=4000'

INDICATES HAUL ROUTES TO BE USED BY CONTRACTOR



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ENGEO INCORPORATED
 EXCELLENT SERVICE SINCE 1971

REGISTERED PROFESSIONAL ENGINEER
 JOSEF TOOTLE
 No. 2677
 Exp. 6/30/2014
 CIVIL
 STATE OF CALIFORNIA

PLANS PREPARED UNDER THE DIRECTION OF:

MACKAY & SOMPS
 ENGINEERS PLANNERS SURVEYORS

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REGISTERED PROFESSIONAL ENGINEER
 JAMES TEMPLETON
 No. 43061
 Exp. 3/31/14
 CIVIL
 STATE OF CALIFORNIA

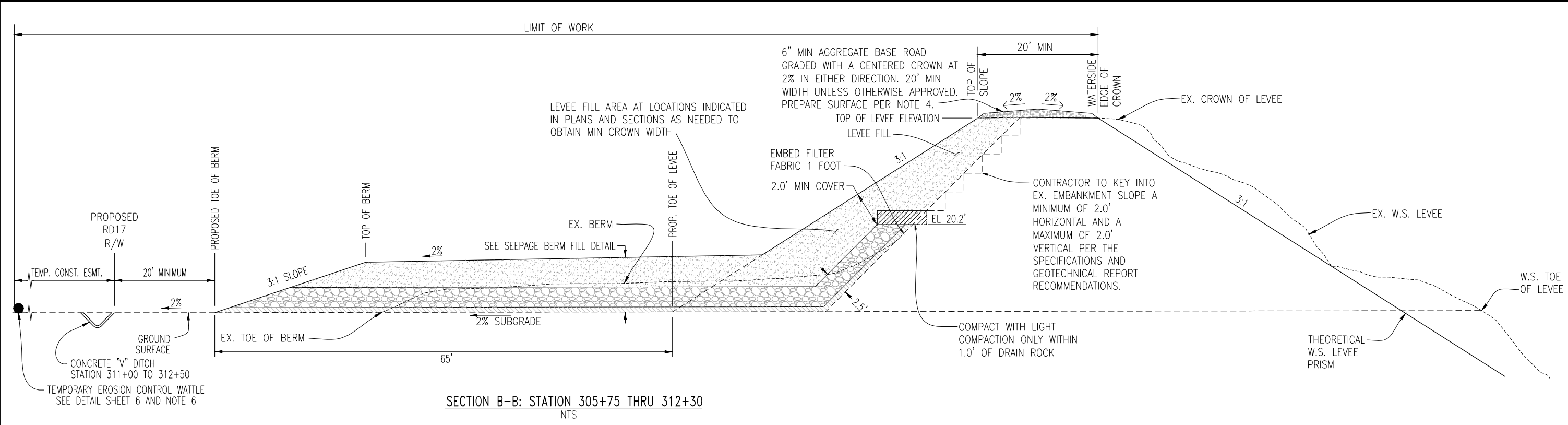
RECLAMATION DISTRICT NO. 17
 ELEMENT I-E
 STATIONING MAP / HAUL ROUTES

SAN JOAQUIN COUNTY CALIFORNIA

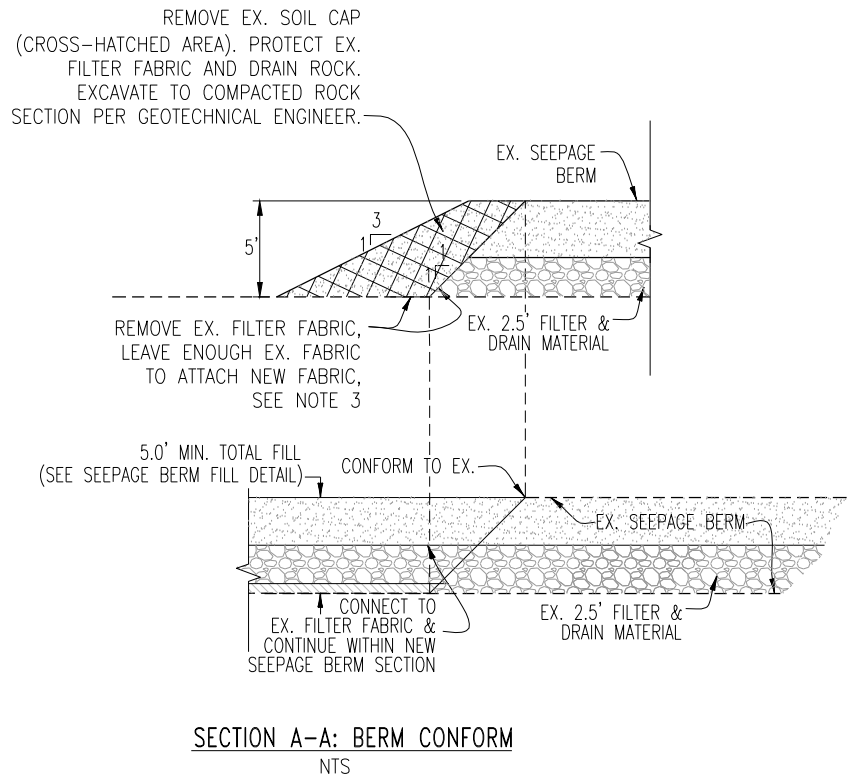
NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: 1"=4000'	SHT 4
DRAWN BY: GB	OF 8
DESIGNED BY: JBM	
CHECKED BY: JSL	

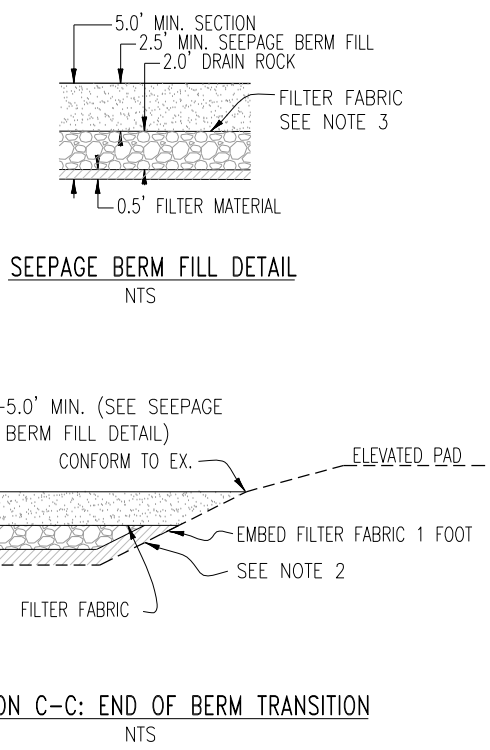
ELEMENT I-E (SEEPAGE BERM) 65% SUBMITTAL



SECTION B-B: STATION 305+75 THRU 312+30
NTS



SECTION A-A: BERM CONFORM
NTS



SEEPAGE BERM FILL DETAIL
NTS

SECTION C-C: END OF BERM TRANSITION
NTS

- NOTES:
- RD17 RIGHT OF WAY EXTENDS FROM THE SAN JOAQUIN RIVER WATER'S EDGE (AT ORDINARY HIGH WATER) TO THE PROPOSED RD17 RIGHT OF WAY SHOWN ABOVE AND ON THE DETAILED CROSS-SECTIONS WITHIN THIS PLAN SET. TEMPORARY CONSTRUCTION EASEMENTS WILL BE OBTAINED BY RD17 TO COVER THE LIMITS OF WORK AS SHOWN.
 - CONTRACTOR TO CLEAR AND GRUB WORKING AREAS. SCARIFY AND RECOMPACT EXISTING GROUND PER GEOTECHNICAL ENGINEER'S RECOMMENDATION.
 - ALL FILTER FABRIC SHALL BE MIRAFI FW700 OR APPROVED EQUAL. EDGES SHALL BE SEWN PER SPECIFICATIONS.
 - CONTRACTOR SHALL STRIP AND STOCKPILE EX. AB AS APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION. SCARIFY 6" AND RECOMPACT LEVEE CROWN SUBGRADE TO 90% RELATIVE COMPACTION PRIOR TO PLACEMENT OF AB. EACH LAYER OF AB PLACED SHALL BE NOT LESS THAN 95% RELATIVE COMPACTION.
 - GRADE SUBGRADE TO UNIFORM 2% SLOPE TO ENSURE CONSISTENT UNIFORM BERM LAYER THICKNESS.
 - CONTRACTOR SHALL PLACE WATTLES ALONG THE LIMIT OF THE TEMPORARY CONSTRUCTION EASEMENT PRIOR TO BEGINNING WORK, ALL SUBSEQUENT EROSION CONTROL MEASURES SHALL BE INSTALLED PER THE PROVISIONS OF THE SWPPP.

PLANS REVIEWED AND APPROVED BY:

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ENGEO INCORPORATED
EXCELLENT SERVICE SINCE 1971

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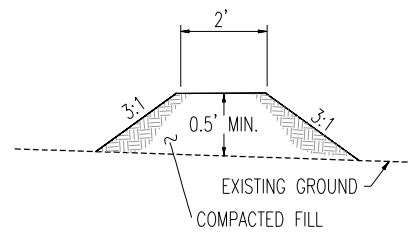
MACKAY & SOMPS
ENGINEERS PLANNERS SURVEYORS

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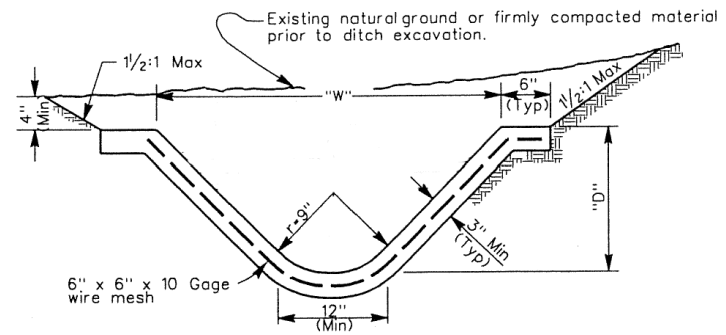
RECLAMATION DISTRICT NO. 17
ELEMENT I-E
TYPICAL SECTIONS & DETAILS

SAN JOAQUIN COUNTY CALIFORNIA

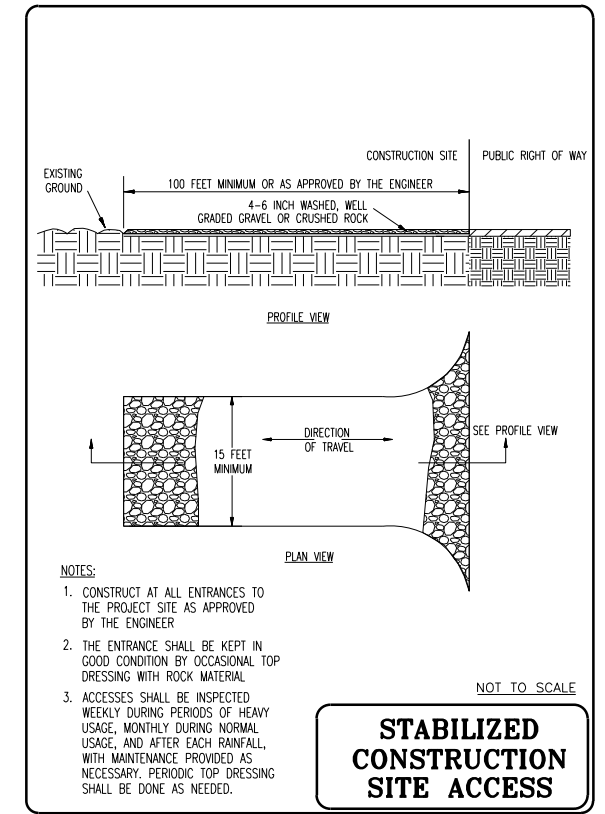
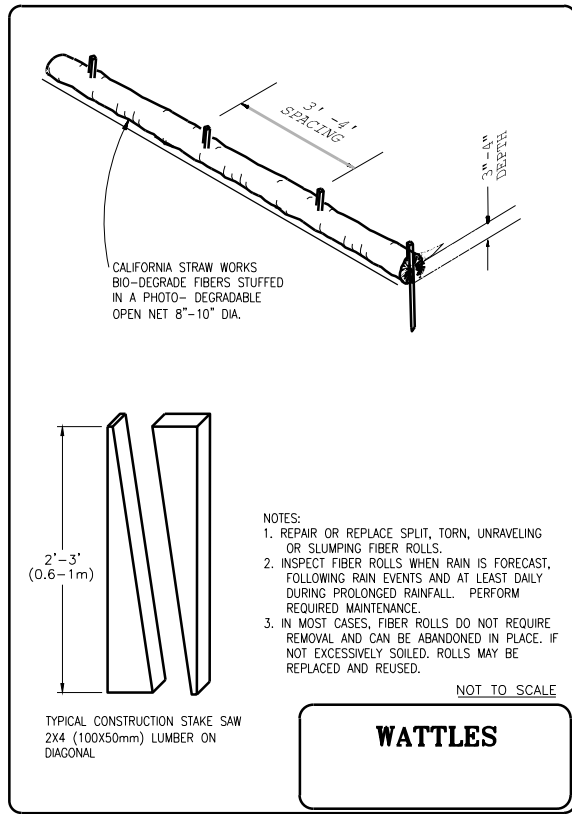
DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: NTS	SHT 5
DRAWN BY: GB	OF 8
DESIGNED BY: JBM	
CHECKED BY: JSL	
NO. _____	REVISION _____
DATE _____	



SECTION D-D - AGRICULTURAL BERM
NTS



CONCRETE "V" DITCH DETAIL
STATION 311+00 TO 312+50
NTS



PLANS REVIEWED AND APPROVED BY:

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N NEUDECK
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ENGEO
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EXCELLENT SERVICE SINCE 1971

REGISTERED PROFESSIONAL ENGINEER
JOSEF TOOTLE
No. 2677
Exp. 6/30/2014
GEOTECHNICAL
STATE OF CALIFORNIA

PLANS PREPARED UNDER THE DIRECTION OF:

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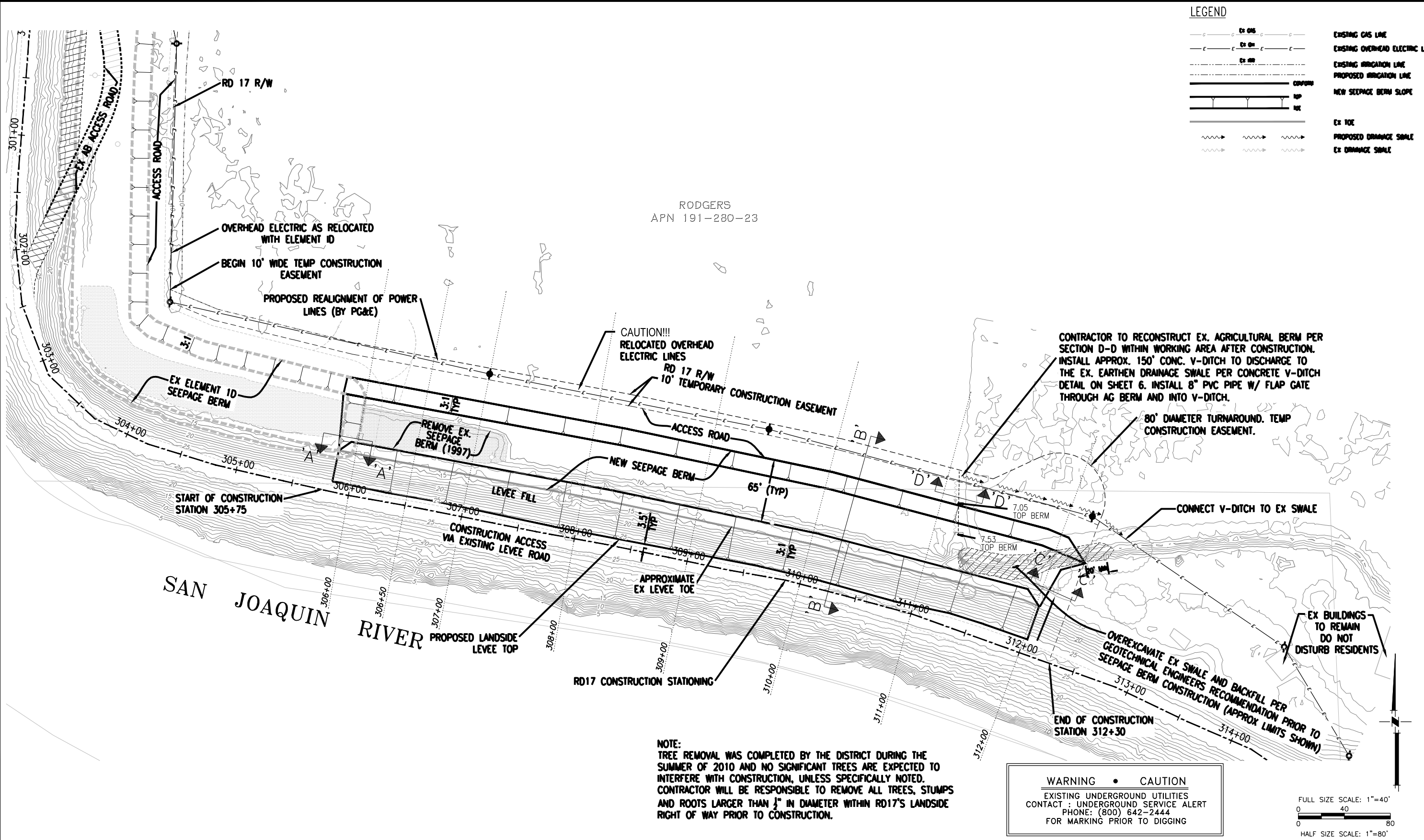
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Exp. 3/31/14
CIVIL
STATE OF CALIFORNIA

RECLAMATION DISTRICT NO. 17
ELEMENT I-E
TYPICAL SECTIONS & DETAILS

SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE	PROJECT NO.
			25182.010
			SHT 6
			OF 8
DATE:	JAN 2014		
SCALE:	NTS		
DRAWN BY:	GB		
DESIGNED BY:	JBM		
CHECKED BY:	JSL		



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ENGEO INCORPORATED
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Exp. 6/30/2014
STATE OF CALIFORNIA

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Exp. 3/31/14
STATE OF CALIFORNIA

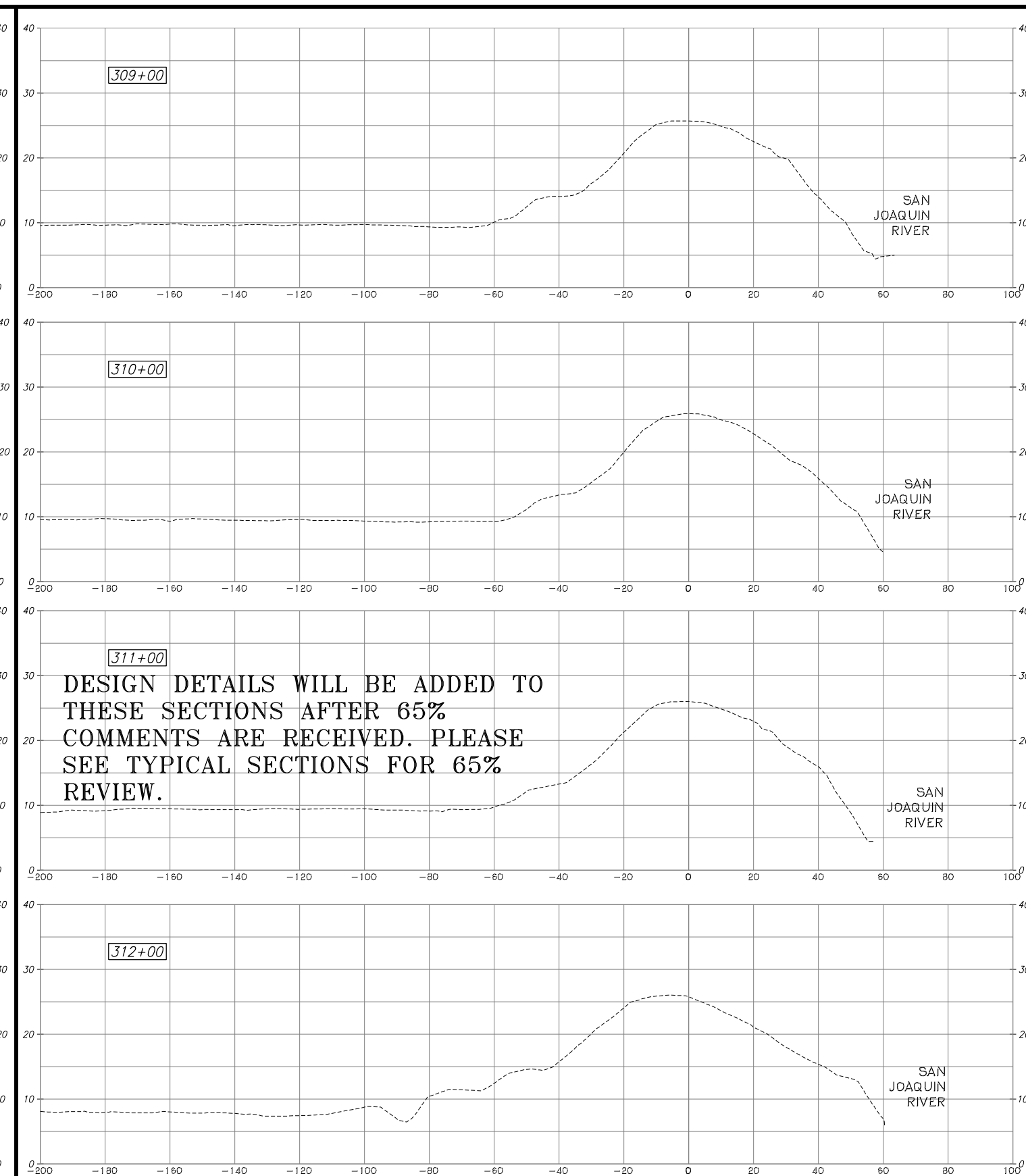
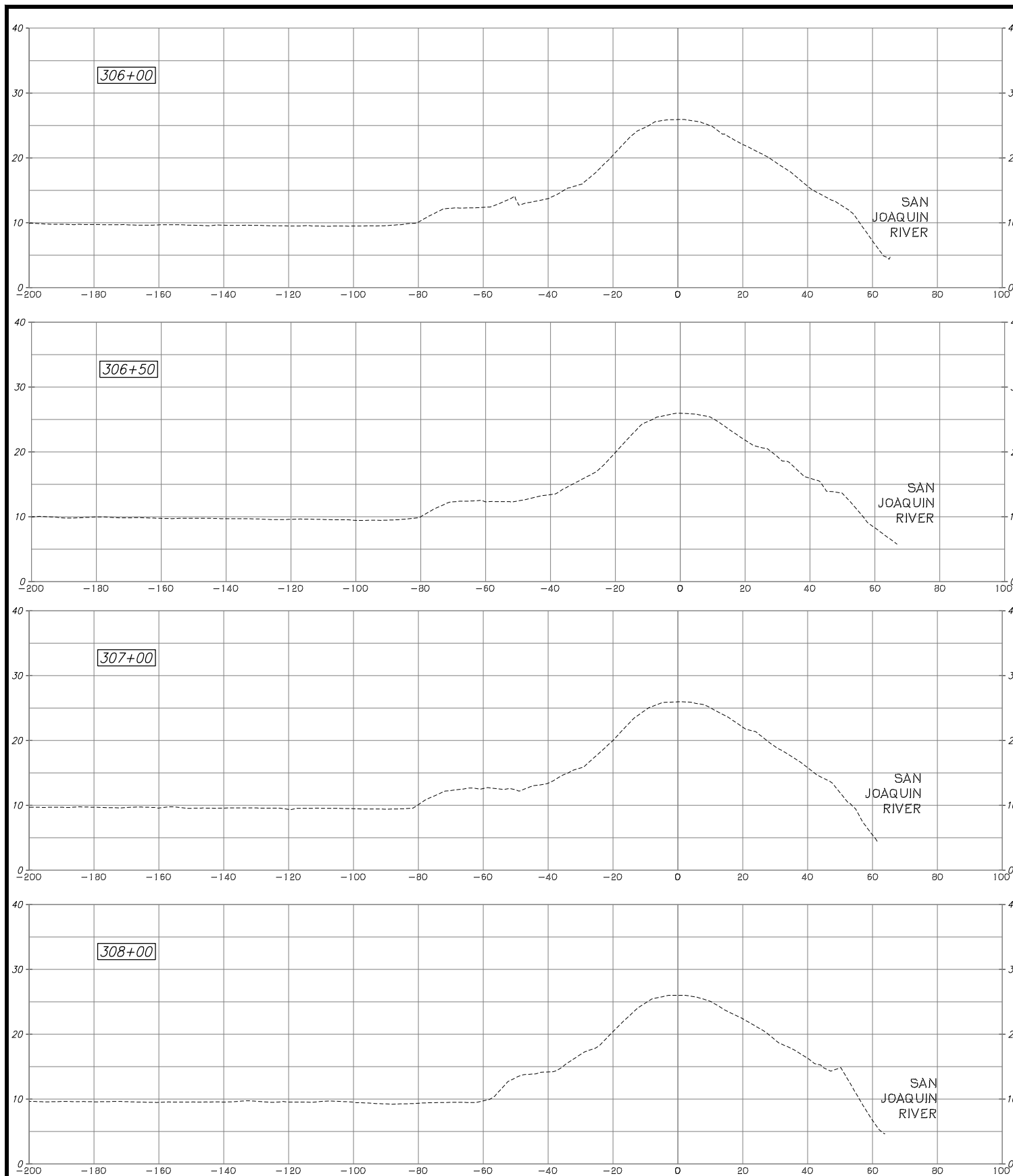
RECLAMATION DISTRICT NO. 17
ELEMENT I-E
GRADING PLAN

SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014
SCALE: 1"= 40'
DRAWN BY: GB
DESIGNED BY: JBM
CHECKED BY: JSL

PROJECT NO. 25182.010
SHT 7
OF 8



ELEMENT I-E (SEEPAGE BERM)

65% SUBMITTAL

PLANS REVIEWED AND APPROVED BY:

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RECLAMATION DISTRICT NO. 17
ELEMENT I-E
CROSS SECTIONS

SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

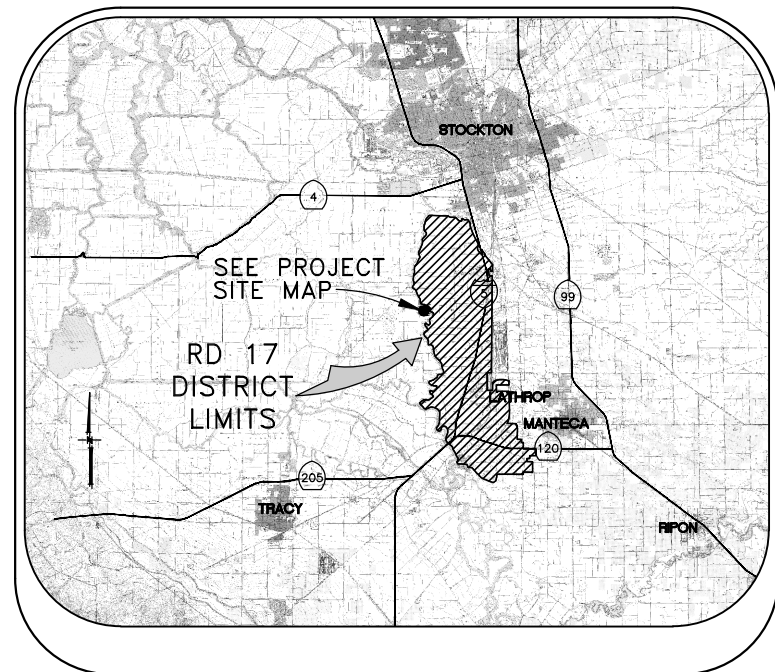
DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: 1"=10'	SHT 8
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RECLAMATION DISTRICT NO. 17 LEVEE SEEPAGE PROJECT

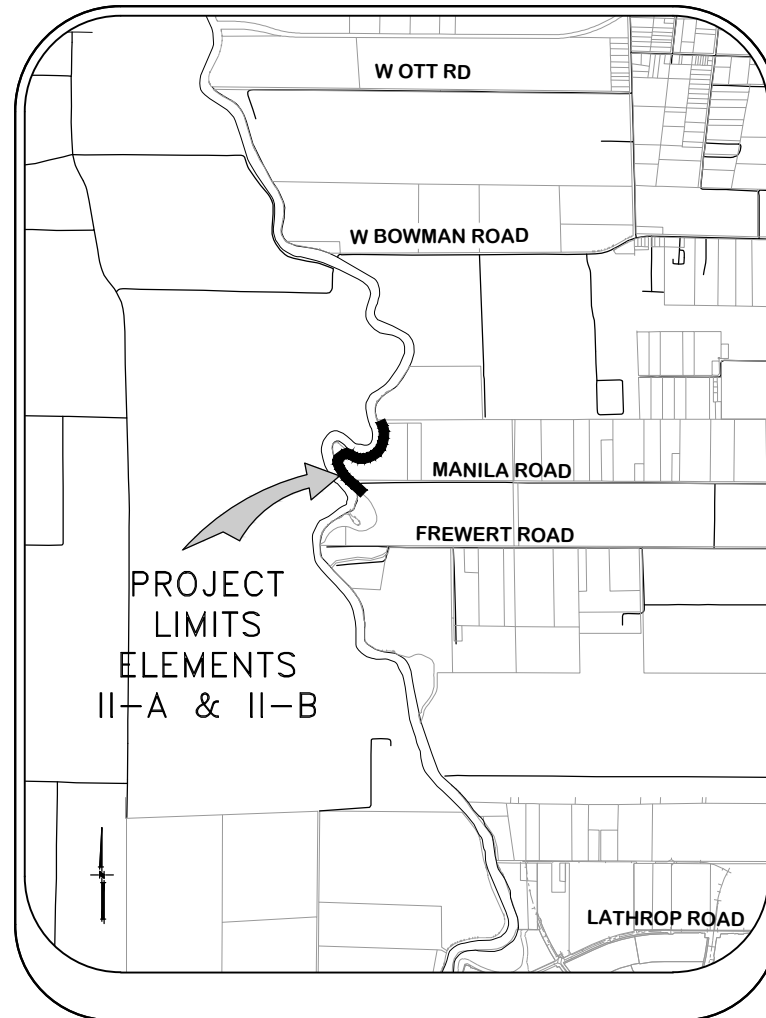
ELEMENTS II-A & II-B

RD17 STATION 362+50 THRU 388+00 (FEET)

USACE STATION 4.96 THRU 5.44 (MILES)



VICINITY MAP

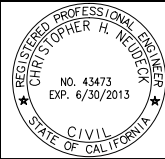


PROJECT SITE MAP

SHEET	DESCRIPTION
1.	COVER SHEET
2.	NOTES
3.	NOTES
4.	TYPICAL SECTIONS & DETAILS
5.	TYPICAL SECTIONS & DETAILS
6.	BORING LOCATIONS, HAUL ROUTE & CONTROL POINTS
7.	PLAN VIEW - 362+50 to 373+00
8.	PLAN VIEW - 373+00 to 388+00
9.	PROFILE VIEW - 362+50 to 388+00
10.	CROSS SECTIONS - 363+00 to 369+00
11.	CROSS SECTIONS - 370+00 to 377+00
12.	CROSS SECTIONS - 378+00 to 385+00
13.	CROSS SECTIONS - 386+00 to 388+00

INDEX

WARNING • CAUTION
EXISTING UNDERGROUND UTILITIES
CONTACT : UNDERGROUND SERVICE ALERT
PHONE: (800) 642-2444
FOR MARKING PRIOR TO DIGGING



PLANS REVIEWED AND APPROVED BY:

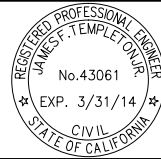
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SINNOCK
NEUDECK
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ENGEO
INCORPORATED
EXCELLENT SERVICE SINCE 1971



PLANS PREPARED UNDER THE DIRECTION OF:

MACKAY & SOMPS
ENGINEERS PLANNERS SURVEYORS
5142 Franklin Drive, Suite B, Pleasanton, CA 94588 (925) 225-0690

RECLAMATION DISTRICT NO. 17
ELEMENT II-A & II-B

COVER SHEET

SAN JOAQUIN COUNTY

CALIFORNIA

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: _____	SHT 1
DRAWN BY: GB	OF 13
DESIGNED BY: GJ/CG	
CHECKED BY: JSL	

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ELEMENT II-A & II-B (CUTOFF WALL)

65% SUBMITTAL

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THE PERFORMANCE OF THE LEVEE SYSTEMS IS DEPENDANT UPON THE DESIGN CRITERIA AND THE LONG TERM OPERATION AND MAINTENANCE OF THE LEVEES. THE DESIGN TEAM HAS PREPARED THESE PLANS AND ASSOCIATED SPECIFICATIONS AND REPORTS IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICE USING INFORMATION FROM MULTIPLE SOURCES. IF EXTREME FLOODS (EXCEEDING THE DESIGN PROFILE), EARTHQUAKES OR OTHER LOADING CONDITIONS NOT EVALUATED IN THE DESIGN OCCUR, THE INTEGRITY OF THE LEVEE SYSTEM MAY BE COMPROMISED.

ROLES:

THE "DISTRICT" AS REFERRED TO IN THESE NOTES MEANS RECLAMATION DISTRICT 17(RD 17). THE DISTRICT IS THE PROJECT OWNER.

THE "ENGINEER" AS REFERRED TO IN THESE NOTES MEANS THE DISTRICT ENGINEER: KJELDSSEN, SINNOCK, AND NEUDECK. THE ENGINEER SHALL PROVIDE INSPECTION OF THE PROJECT AND OVERALL CONSTRUCTION MANAGEMENT INCLUDING COORDINATION WITH PUBLIC UTILITIES, PUBLIC AGENCIES, THE DESIGN ENGINEER AND THE GEOTECHNICAL ENGINEER.

THE "DESIGN ENGINEER" AS REFERRED TO IN THESE NOTES MEANS MACKAY & SOMPS, CIVIL ENGINEERS INC. THE DESIGN ENGINEER WILL PERFORM DISTRICT PROVIDED CONSTRUCTION STAKING AND "AS-GRADED" SURVEYS.

THE "GEOTECHNICAL ENGINEER" AS REFERRED TO IN THESE NOTES MEANS ENGeo INC. THE GEOTECHNICAL ENGINEER WILL PROVIDE MATERIALS TESTING, COMPACTION TESTING AND OTHER GEOTECHNICAL RELATED TESTING.

CONTRACTOR SHALL BE RESPONSIBLE FOR SUPERVISION OF ALL CONTRACTOR'S EMPLOYEES, SUBCONTRACTORS, INCLUDING SCHEDULING AND ALL SAFETY MATTERS.

THESE PLANS ARE TO BE USED IN CONJUNCTION WITH THE FOLLOWING:

- a. SOILS REPORT PREPARED BY ENGeo INC. ENTITLED, SEEPAGE EVALUATION PROJECT # 5747.000.000.
- b. SPECIFICATIONS PREPARED BY KSN DATED _____

GENERAL NOTES:

1. PRIOR TO THE COMMENCEMENT OF WORK, A JOINT INSPECTION BETWEEN THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER, THE GEOTECHNICAL ENGINEER, THEIR REPRESENTATIVES, AND THE CONTRACTOR (OR HIS REPRESENTATIVE) WILL BE CONDUCTED TO REVIEW THE PRE-CONSTRUCTION CONDITIONS (E.G. ROADS, PUMPS, DISCHARGE PIPES, SIPHONS, RAMPS, GATES, SIGNS, ETC.) IF SUCH EXISTING FACILITIES ARE DAMAGED BY THE CONTRACTOR'S OPERATIONS, THE CONTRACTOR, AT THEIR OWN EXPENSE, SHALL REPLACE OR RESTORE THEM TO THE CONDITION THAT EXISTED PRIOR TO THE COMMENCEMENT OF WORK.
2. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT (209) 946-0268, A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY WORK.
3. THE DISTRICT RESERVES THE RIGHT TO SUSPEND CONSTRUCTION AT ANY TIME IN THE EVENT OF EXTREME HIGH OR LOW TIDES, FLOOD EVENTS, OTHER CONDITIONS OR EMERGENCIES THAT MAY JEOPARDIZE THE INTEGRITY OF THE DISTRICT'S LEVEE AND ROAD SYSTEM.
4. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, COUNTY AND LOCAL REQUIREMENTS, AS REQUIRED FOR TRAFFIC CONTROL AND PUBLIC SAFETY DURING PROJECT CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL OUTLINED IN THESE PLANS AND THE REFERENCED SPECIFICATIONS.
5. THE DISTRICT WILL FURNISH ALL RIGHT-OF-WAY FOR ALL LEVEE ROADS AND DESIGNATED ACCESS HAUL ROADS AS SHOWN ON THESE PLANS. SHOULD THE CONTRACTOR WANT TO USE OTHER ROADWAYS OR ACCESS AREAS NOT SHOWN, THE CONTRACTOR SHALL AT THEIR OWN EXPENSE SECURE RIGHT-OF-WAY & NECESSARY PERMITS.
6. IF DELIVERING MATERIAL OR EQUIPMENT BY TRUCK, ALL TRUCK TRAFFIC SHALL BE LIMITED TO THE DISTRICT LEVEE ROADS AND/OR PUBLIC ROADS AS SHOWN ON HAUL ROUTE PLAN, UNLESS OTHERWISE APPROVED.
7. MAXIMUM SPEED LIMIT ON DISTRICT LEVEE ROADS IS 30 MPH, AS POSTED, OR AS OTHERWISE INDICATED ON THE CONSTRUCTION DRAWINGS. CONTRACTOR SHALL POST LARGE SLOW/CAUTION SIGNS AND SPEED LIMIT SIGNS FOR PURPOSES OF NOTIFYING BOTH CONTRACTOR'S EMPLOYEES AND THE PUBLIC. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SAFETY AT ALL TIMES ALONG ALL HAUL ROUTES AND IN ALL PROJECT AREAS (PUBLIC AND PRIVATE).

8. THE DISTRICT WILL PROVIDE SURVEY STAKES AS DESCRIBED IN THE SPECIFICATIONS WITHIN THE CONSTRUCTION SURVEYING SECTION. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL CONSTRUCTION STAKING AND SURVEYING AT THEIR OWN EXPENSE BEYOND THAT PROVIDED BY THE DISTRICT. PLEASE CONTACT THE ENGINEER IN WRITING WITH STAKING REQUESTS (209) 946-0268 WITH AT LEAST TWO WORKING DAYS ADVANCE NOTICE.
9. THE CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER AND THE GEOTECHNICAL ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER OR THE GEOTECHNICAL ENGINEER.
10. ANY DEFICIENCIES NOTED DURING INTERIM AND FINAL INSPECTIONS BY THE ENGINEER AND/OR DISTRICT SHALL BE CORRECTED BY THE CONTRACTOR PRIOR TO FINAL ACCEPTANCE BY THE DISTRICT. ANY ADDITIONAL COSTS AND EXPENSES FOR MOBILIZATION AND/OR DEMOBILIZATION, LABOR, EQUIPMENT AND OTHER ASSOCIATED COSTS REQUIRED TO CORRECT THE DEFICIENCIES NOTED, EXCEPT SPECIFIED MATERIAL(S), SHALL BE BORNE BY THE CONTRACTOR.
11. THE CONTRACTOR SHALL NOT CLOSE ANY ROAD, STREET, OR HIGHWAY TO THE PUBLIC EXCEPT WITH THE PERMISSION OF THE ENGINEER AND THE PROPER GOVERNMENTAL AUTHORITY. TEMPORARY PROVISIONS SHALL BE MADE BY THE CONTRACTOR TO ENSURE CONTINUOUS ACCESS TO PUBLIC AND PRIVATE DRIVEWAYS, AND PROPER FUNCTIONING OF CULVERTS, DRAINAGE AND IRRIGATION DITCHES, AND NATURAL WATER COURSES.
12. THE CONTRACTOR IS RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER, AND HE SHALL NOTIFY THE ENGINEER WHENEVER THERE IS A CHANGE IN SITE CONDITIONS OR AN ADJUSTMENT TO BE MADE IN WORK REQUIREMENTS.
13. SHOULD IT APPEAR THAT THE WORK TO BE DONE, OR ANY MATTER RELATIVE THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE ENGINEER AT (209) 946-0268 FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.
14. THE INTENT OF THESE PLANS IS TO SERVE AS A GUIDE AND TO PROVIDE THE CONTRACTOR WITH INFORMATION AND DETAILS NECESSARY TO CONSTRUCT THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY REGARDING ANY DISCREPANCIES AND AMBIGUITIES WHICH MAY EXIST IN THE PLANS OR SPECIFICATIONS. IF THE PLANS 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 FINEST QUALITY ARE TO BE USED.
15. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE OSHA REGULATIONS AND SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS.
16. THE CONTRACTOR SHALL AT ALL TIMES BE RESPONSIBLE FOR THE SECURITY OF THE JOBSITE AND EQUIPMENT. THE DISTRICT WILL NOT BE RESPONSIBLE FOR MISSING OR DAMAGED EQUIPMENT, TOOLS, OR PERSONAL BELONGINGS.

ENVIRONMENTAL NOTES:

1. THE CONTRACTOR SHALL NOT DISCHARGE SMOKE, DUST, OR ANY OTHER AIR CONTAMINANTS INTO THE ATMOSPHERE IN SUCH QUANTITY AS WILL VIOLATE THE REGULATIONS OF ANY LEGALLY CONSTITUTED AUTHORITY. HE SHALL ALSO ABATE DUST NUISANCE BY CLEANING, SWEEPING AND SPRINKLING WITH WATER, OR OTHER MEANS AS NECESSARY. THE USE OF WATER IN AN AMOUNT WHICH RESULTS IN MUD ON PUBLIC ROADS IS NOT ACCEPTABLE AS A SUBSTITUTE FOR SWEEPING OR OTHER METHODS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ADJACENT PUBLIC ROADS CLEAN & CLEAR FROM CONSTRUCTION IMPACTS OR DEBRIS. ADDITIONAL DETAILS FOR MUD AND DUST CONTROL IS INCLUDED IN SUBSEQUENT SECTIONS OF THESE NOTES.
2. THE CONTRACTOR SHALL EXERCISE EVERY REASONABLE PRECAUTION TO PROTECT STREAMS, WATERWAYS AND OTHER BODIES OF WATER FROM POLLUTION WITH FUELS, OIL, BITUMEN'S, CALCIUM CHLORIDE, AND OTHER HAZARDOUS MATERIALS AND SHALL CONDUCT AND SCHEDULE HIS OPERATIONS SO AS TO AVOID OR MINIMIZE MUDDYING AND SILTING OF SAID WATERS. CARE SHALL BE EXERCISED TO PRESERVE ROADSIDE VEGETATION BEYOND THE LIMITS OF CONSTRUCTION.

3. THROUGHOUT ALL PHASES OF CONSTRUCTION, INCLUDING SUSPENSION OF WORK, AND UNTIL FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL KEEP THE WORK SITE CONDITIONS CLEAN AND FREE FROM RUBBISH AND DEBRIS. ALL RUBBISH AND REFUSE SHALL BE DISPOSED OF IN A MANNER SATISFACTORY TO THE ENGINEER.

DUST AND MUD CONTROL:

1. DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL KEEP ALL CONSTRUCTION AREAS, FILL AREAS, HAUL ROADS, OTHER ROADWAYS, AND OTHER USE AREAS WHERE DUST IS GENERATED WELL WATERED: AND DURING WET CONDITIONS, AREAS USED BY LOCAL TRAFFIC, FREE AND CLEAR FROM MUD. CONTRACTOR SHALL PROVIDE EFFORTS NECESSARY TO MINIMIZE DUST AND OTHER DISTURBANCES NEAR EXISTING RESIDENCES AND ALL BUILDINGS NEAR HAUL ROUTES AND THE PROJECT SITE.
 - a. CROP DAMAGE: THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL TO PREVENT CROP DAMAGE AND FOR ANY AREAS SUBJECT TO CONSTRUCTION OR CONSTRUCTION TRAFFIC THAT GENERATE DUST AND/OR OTHER CONDITIONS WHICH MIGHT DAMAGE CROPS.
 - b. NON WORK DAYS: THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL THROUGHOUT THE DURATION OF THE PROJECT INCLUDING NON WORKDAYS IN ALL PROJECT AREAS, INCLUDING CONSTRUCTION ROADS AND CROP AREAS WHICH ARE USED BY THE CONTRACTOR, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. THE CONTRACTOR SHALL HAVE AT LEAST ONE (1) WATER TRUCK AVAILABLE TO THE PROJECT AT ALL TIMES (OR MORE AS NEEDED OR DIRECTED BY THE ENGINEER) TO MAINTAIN ADEQUATE DUST CONTROL FOR THE FOLLOWING AREAS:
 - a. PROJECT AREAS
 - b. ACCESS AND HAUL ROADS
 - c. LEVEE TOE BERM FILL AREAS
 - d. OTHER CONSTRUCTION USE AREAS
 - e. CROP DAMAGE PREVENTION
 - f. RESIDENTIAL CONSTRUCTION ZONES
 - g. ADJACENT PUBLIC STREETS, TRAILS & BIKEWAYS

UTILITY NOTES:

1. UTILITIES AS NOTED ON THE PLAN SET HAVE BEEN DETERMINED BASED ON RECORD INFORMATION AND FIELD INSPECTION, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE ACTUAL LOCATION OF ALL UNDERGROUND, SURFACE, OVERHEAD, AND SUBMARINE IMPROVEMENTS, OR FACILITIES WHICH MAY BE SUBJECT TO DAMAGE BY REASON OF HIS OPERATIONS.
2. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES AND SHALL CONTACT THE RESPECTIVE UTILITY COMPANIES & PRIVATE OWNERS PRIOR TO COMMENCEMENT OF WORK.
3. THE CONTRACTOR SHALL NOTIFY AFFECTED UTILITIES FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY CONSTRUCTION. (UNDERGROUND SERVICE ALERT (800) 642-2444) AND SHALL BE RESPONSIBLE FOR THE LOCATION AND PRESERVATION OF ALL FACILITIES IN THE AREA OF CONSTRUCTION.


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THESE PLANS CONFORM TO THE GEOTECHNICAL REPORT ENTITLED: SEEPAGE EVALUATION PROJECT #5747.000.000



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PLANS PREPARED UNDER THE DIRECTION OF:



Mackay & Somps
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RECLAMATION DISTRICT NO. 17
ELEMENT II-A & II-B

NOTES

SAN JOAQUIN COUNTY CALIFORNIA

DATE: JAN 2014	PROJECT NO.
SCALE: SHOWN	25182.010
DRAWN BY: GB	SHT 2
DESIGNED BY: GJ/CG	OF 13
CHECKED BY: JSL	
No.	REVISION
	DATE

ELEMENT II-A & II-B (CUTOFF WALL)

65% SUBMITTAL

ACCESS ROADS:

1. THE CONTRACTOR SHALL IMPROVE, MAINTAIN, AND REPAIR UPON COMPLETION, THE ACCESS ROADS AND HAUL ROUTES AS REQUIRED FOR TRANSPORTATION AND HAULING MATERIAL. AT THE COMPLETION OF WORK THE CONTRACTOR SHALL RESTORE ALL ACCESS ROADS AND HAUL ROUTES TO PRE-CONSTRUCTION CONDITION IN A MANNER SATISFACTORY TO THE ENGINEER.
2. THE CONTRACTOR SHALL REVIEW THE ACCESS ROAD ROUTES AND DETERMINE THE LOCATION FOR TURNOUTS, RAMPS, ROAD DRAINAGE, ALIGNMENT, ETC. UPON COMPLETION OF THE PROJECT, SOME PORTIONS OF THE ACCESS ROADS MAY REQUIRE MINOR MODIFICATIONS AND ALTERATIONS. THE ACCESS ROADS WHICH REMAIN SHALL BE LEFT IN GOOD CONDITION FOR THE DISTRICT, FARMERS, AND OTHER LOCAL TRAFFIC.
3. THE CONTRACTOR SHALL NOT DEVIATE FROM IDENTIFIED HAUL ROUTES AND STAGING AREAS UNLESS PERMISSION IS OBTAINED FROM THE PROPERTY OWNER, ENGINEER AND PERMITS ARE OBTAINED FROM THE LOCAL AGENCY.
4. THE CONTRACTOR SHALL EXTEND, STRENGTHEN, REPLACE, OR OTHERWISE MODIFY THE EXISTING CROSSINGS (E.G. CULVERTS, SIPHONS, DRAIN PIPES, IRRIGATION PIPES, PUMP DISCHARGE PIPES, WET SPOTS, ETC.) AS NECESSARY TO ACCOMMODATE HIS EQUIPMENT. THE CONTRACTOR SHALL PROVIDE WHATEVER MEASURES ARE NECESSARY TO PRESERVE, PROTECT, AND MAINTAIN THE CROSSINGS SO AS TO ENSURE CONTINUOUS AND UNINTERRUPTED CONSTRUCTION OPERATIONS DURING THE ENTIRE TERM OF THIS CONTRACT.
5. THE HAUL ROADS MAY REQUIRE TEMPORARY IRRIGATION OR DISCHARGE PIPE EXTENSIONS AND RAMPING DURING CONSTRUCTION OPERATIONS. TEMPORARY EXTENSIONS AND RAMPING WILL BE PROVIDED AND INSTALLED BY THE CONTRACTOR AT HIS EXPENSE, INCLUDING REMOVAL IF REQUIRED, IN A MANNER WHICH MEETS WITH THE APPROVAL OF THE ENGINEER AND THE LANDOWNERS.
6. NEITHER THE DISTRICT NOR THE ENGINEER MAKES ANY WARRANTY OR GUARANTEE AS TO THE ADEQUACY OF THE EXISTING MATERIALS TO SUPPORT THE CONSTRUCTION TRAFFIC ON THE ACCESS ROADS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MAKING THE NECESSARY IMPROVEMENTS AND PROVIDING THE NECESSARY MEASURES REQUIRED TO ACCOMMODATE HIS ANTICIPATED NEEDS. REPAIRS TO ROADWAYS DAMAGED BY THE CONTRACTOR SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
7. CONTRACTOR MUST MAINTAIN HAUL ROUTE ACCESS AT ALL TIMES FOR USE BY THE DISTRICT AND/OR PUBLIC (AS APPLICABLE) DURING CONSTRUCTION.

CLEARING & GRUBBING:

1. UNLESS OTHERWISE INDICATED, THE WORK AREAS SHALL BE CLEARED AND GRUBBED BY THE CONTRACTOR. CONTRACTOR SHALL USE CAUTION WHILE CLEARING AND GRUBBING AROUND POWER LINES, BURIED ELECTRICAL CABLES AND OTHER EX FACILITIES/UTILITIES. ALL MATERIAL CLEARED AND REMOVED SHALL BECOME THE PROPERTY AND RESPONSIBILITY OF THE CONTRACTOR FOR REMOVAL AND DISPOSAL OFFSITE. SOME PRUNING/TRIMMING/THINNING OF BRANCHES OR TREES MAY BE REQUIRED.

FILL MATERIALS:

1. THE CONTRACTOR SHALL FURNISH, DELIVER, AND PLACE THE SPECIFIED FILL MATERIALS (PER THE DISTRICT ENGINEERS SPECIFICATIONS) TO THE DESIGNATED SITES.
2. THE FILL SHALL BE CONSTRUCTED WITH ACCEPTABLE MATERIALS SUFFICIENT TO MEET DESIGN GRADES AND SPECIFICATIONS.
3. ALL SUBGRADE AREAS RECEIVING FILL MATERIAL SHALL BE PREPARED AS REQUIRED BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR MAY BE REQUIRED TO PERFORM ADDITIONAL SUBGRADE PREPARATION WORK WITHIN THE FILL AREAS PRIOR TO THE ACCEPTANCE OF THE MATERIAL.
4. THE CONTRACTOR SHALL DELIVER THE FILL MATERIALS TO THE REQUIRED SECTIONS AS UNIFORM MIXTURES. THE MIXTURE SHALL BE DEPOSITED AND SPREAD TO THE REQUIRED COMPACTED THICKNESS. SEGREGATION OF MATERIAL SHALL BE AVOIDED AND EACH LAYER OF MATERIAL, AS SPREAD, SHALL BE FREE FROM POCKETS OF COARSE OR FINE MATERIAL.

- a. THE FILL MATERIALS SHALL BE PLACED IN LOOSE HORIZONTAL LAYERS NOT MORE THAN SIX INCHES (6") IN THICKNESS PRIOR TO COMPACTION. THE MATERIAL SHALL BE GENTLY SPREAD OUT. UNDER NO CIRCUMSTANCES SHALL ANY MATERIAL BE DROPPED FROM ANY HEIGHT ONTO THE FILL SECTION.
- b. IF SEGREGATION OCCURS, MATERIAL SHALL BE WORKED UNTIL IT IS UNIFORMLY AND SATISFACTORILY BLENDED. AFTER SPREADING, THE MATERIAL SHALL BE WATERED AND SHAPED TO THE REQUIRED SECTION AND THEN COMPACTED AS SPECIFIED.
- c. AT THE TIME MATERIALS ARE SPREAD, IT SHALL HAVE A MOISTURE CONTENT IN CONFORMANCE WITH THE PROJECT SPECIFICATIONS. SUCH MOISTURE SHALL BE UNIFORMLY DISTRIBUTED THROUGHOUT THE MATERIAL.

FINISHING AND SLOPING GRADING

1. THE SURFACE OF THE TOP LAYER SHALL BE FINISHED TO THE DESIGNATED GRADE AND CROSS SECTION. THE FINISHED SURFACE SHALL BE OF UNIFORM TEXTURE, DRESSED AND GRADED TO DRAIN AND PREVENT WATER PONDING.

COMPACTION EQUIPMENT:

1. COMPACTION SHALL BE PERFORMED WITH A NON-VIBRATORY TYPE ROLLER COMPACTOR. VIBRATORY EQUIPMENT WILL NOT BE PERMITTED ON DISTRICT LEVEES AND FILLS.

TESTING:

1. THE DISTRICT WILL RETAIN THE SERVICES OF AN INDEPENDENT SOILS CONSULTANT AND TESTING LABORATORY TO PERFORM SAMPLING AND TESTING AS REQUIRED AND TO CHECK FOR COMPLIANCE WITH THE SPECIFICATIONS. THE CONTRACTOR SHALL REMOVE SURFACE MATERIALS AT LOCATIONS DESIGNATED BY THE TESTING ENGINEER AT NO COST TO THE DISTRICT. THE INDEPENDENT TESTING LABORATORY WILL SAMPLE AND PERFORM ALL REQUIRED TESTS SUCH AS MOISTURE CONTENT; GRADATION, AND MOISTURE DENSITY RELATIONSHIPS ON THE EXCAVATED AND EMBANKMENT FILL MATERIALS

SWPPP:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DEVELOPMENT, INSTALLATION AND MAINTENANCE OF A SWPPP AND REQUIRE PROTECTION FEATURES. THESE FEATURES INCLUDE, BUT ARE NOT LIMITED TO, THOSE IDENTIFIED BELOW:
 - A. EROSION CONTROL FACILITIES
 - B. CONSTRUCTION ENTRANCE
 - C. STREET SWEEPING
 - D. THE CONTRACTOR IS RESPONSIBLE FOR ALL FINES, FEES, PENALTIES IMPOSED BY FEDERAL AND LOCAL AGENCIES DUE TO THE CONTRACTOR'S ACTIVITIES ASSOCIATED WITH THE SWPPP.
2. THE CONTRACTOR SHALL CONSTRUCT A STABILIZED CONSTRUCTION ENTRANCE AT ALL ENTRANCES TO THE PROJECT SITE AS APPROVED BY THE ENGINEER.
3. EROSION CONTROL FACILITIES AS SHOWN ON THESE PLANS HAVE BEEN PREPARED TO MEET THE REQUIREMENTS OF THE DISTRICT. THE PROJECT WILL REQUIRE A SWPPP, PREPARED BY A QUALIFIED DEVELOPER (QSD) WHO WILL ASSUME RESPONSIBILITY FOR THE PROJECT COMPLIANCE WITH THE STATE GENERAL CONSTRUCTION PERMIT AND WHOSE RECOMMENDATIONS WILL SUPERCEDE THIS PLAN ACCORDINGLY.

ABBREVIATIONS:

CL	CENTERLINE	N	NORTH, NORthing
CONST	CONSTRUCTION	NTS	NOT TO SCALE
DWSEL	DESIGN WATER SURFACE ELEVATION	PROP	PROPOSED
E	EAST, EASTING	RC	RELATIVE COMPACTION
ELEV	ELEVATION	R/W	RIGHT OF WAY
ESMT	EASEMENT	STA	STATION
EX	EXISTING	TCE	TEMPORARY CONSTRUCTION EASEMENT
FT	FOOT, FEET	TEMP	TEMPORARY
H	HORIZONTAL	TYP	TYPICAL
MIN	MINIMUM	V	VERTICAL
		WS	WATERSIDE

LEGEND

	APPROX. EDGE OF CROWN
	LEVEE STATIONING LINE
	APPROX. EDGE OF CROWN
	ACCESS ROAD
	HAUL ROUTE
	SLURRY CONTAINMENT
	ORANGE PLASTIC FENCING
	EXISTING FENCE
	EXISTING FACE OF CURB
	EXISTING RIGHT OF WAY
	EXISTING STORM DRAIN OR EXISTING PERFORATED DRAINAGE PIPE
	EXISTING WATER LINE
	EXISTING STREET LIGHT

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ELEMENT II-A & II-B (CUTOFF WALL)

65% SUBMITTAL


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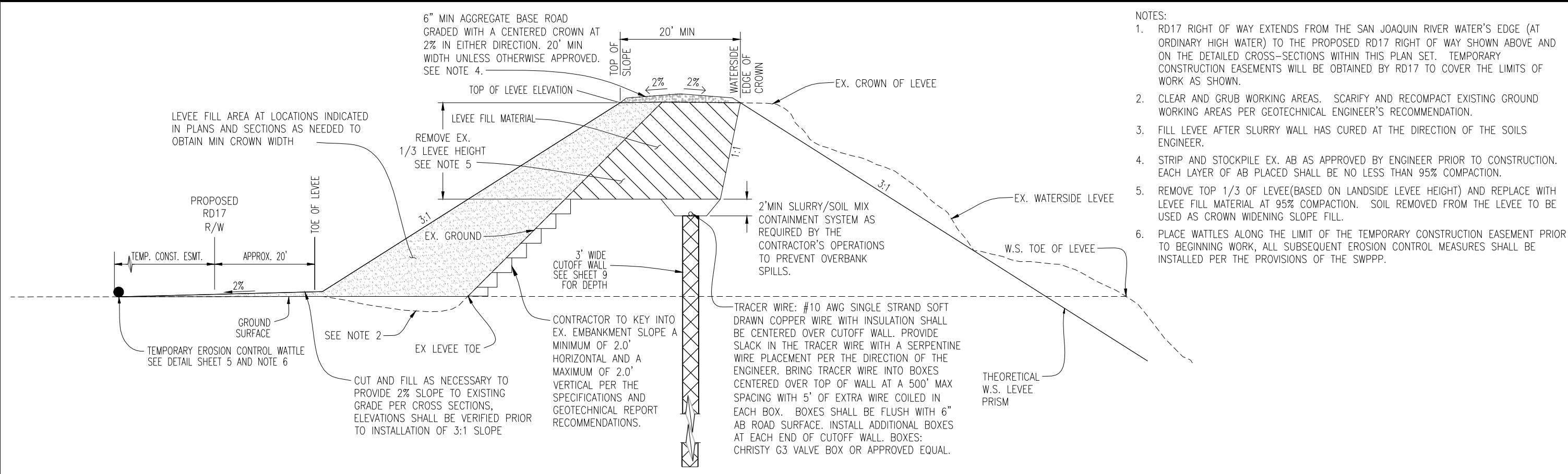
MACKAY & SOMPS ENGINEERS PLANNERS SURVEYORS
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RECLAMATION DISTRICT NO. 17
ELEMENT II-A & II-B

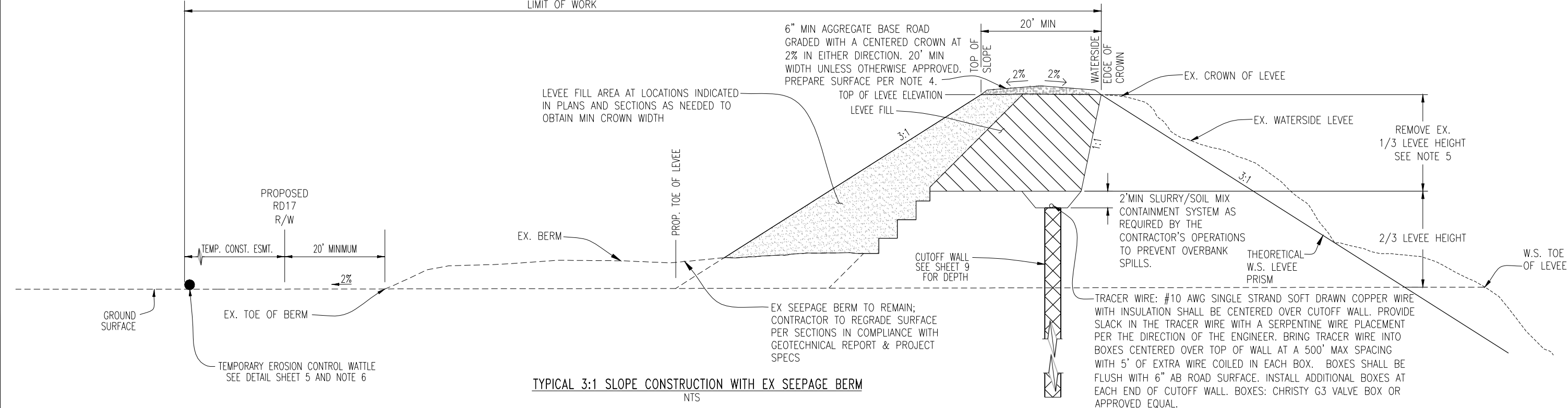
NOTES

SAN JOAQUIN COUNTY CALIFORNIA

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: SHOWN	SHT 3
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TYPICAL 3:1 SLOPE CONSTRUCTION WITHOUT EX SEEPAGE BERM
NTS



TYPICAL 3:1 SLOPE CONSTRUCTION WITH EX SEEPAGE BERM
NTS

- NOTES:
- RD17 RIGHT OF WAY EXTENDS FROM THE SAN JOAQUIN RIVER WATER'S EDGE (AT ORDINARY HIGH WATER) TO THE PROPOSED RD17 RIGHT OF WAY SHOWN ABOVE AND ON THE DETAILED CROSS-SECTIONS WITHIN THIS PLAN SET. TEMPORARY CONSTRUCTION EASEMENTS WILL BE OBTAINED BY RD17 TO COVER THE LIMITS OF WORK AS SHOWN.
 - CLEAR AND GRUB WORKING AREAS. SCARIFY AND RECOMPACT EXISTING GROUND WORKING AREAS PER GEOTECHNICAL ENGINEER'S RECOMMENDATION.
 - FILL LEVEE AFTER SLURRY WALL HAS CURED AT THE DIRECTION OF THE SOILS ENGINEER.
 - STRIP AND STOCKPILE EX. AB AS APPROVED BY ENGINEER PRIOR TO CONSTRUCTION. EACH LAYER OF AB PLACED SHALL BE NO LESS THAN 95% COMPACTION.
 - REMOVE TOP 1/3 OF LEVEE (BASED ON LANDSIDE LEVEE HEIGHT) AND REPLACE WITH LEVEE FILL MATERIAL AT 95% COMPACTION. SOIL REMOVED FROM THE LEVEE TO BE USED AS CROWN WIDENING SLOPE FILL.
 - PLACE WATTLES ALONG THE LIMIT OF THE TEMPORARY CONSTRUCTION EASEMENT PRIOR TO BEGINNING WORK, ALL SUBSEQUENT EROSION CONTROL MEASURES SHALL BE INSTALLED PER THE PROVISIONS OF THE SWPPP.

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PLANS REVIEWED AND APPROVED BY:

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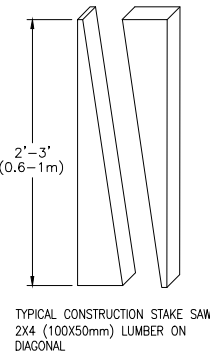
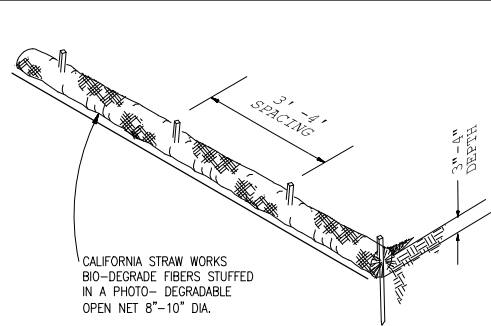
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RECLAMATION DISTRICT NO. 17
ELEMENT II-A & II-B
TYPICAL SECTIONS AND DETAILS

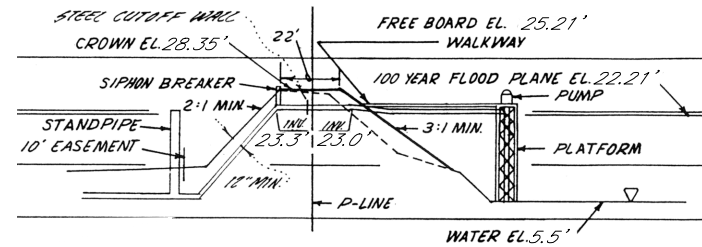
SAN JOAQUIN COUNTY CALIFORNIA

DATE: JAN 2014	PROJECT NO. 25182.010
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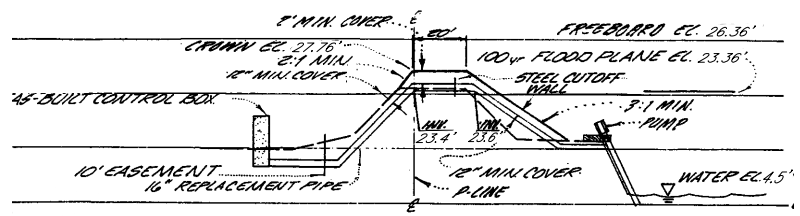


- NOTES:
1. REPAIR OR REPLACE SPLIT, TORN, UNRAVELING OR SLUMPING FIBER ROLLS.
 2. INSPECT FIBER ROLLS WHEN RAIN IS FORECAST, FOLLOWING RAIN EVENTS AND AT LEAST DAILY DURING PROLONGED RAINFALL. PERFORM REQUIRED MAINTENANCE.
 3. IN MOST CASES, FIBER ROLLS DO NOT REQUIRE REMOVAL AND CAN BE ABANDONED IN PLACE. IF NOT EXCESSIVELY SOILED, ROLLS MAY BE REPLACED AND REUSED.

WATTLES

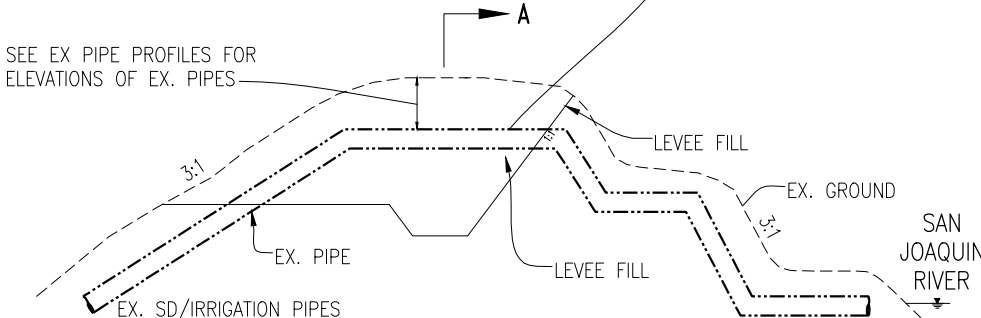


EX PIPE PROFILE - STATION 368+25± NTS



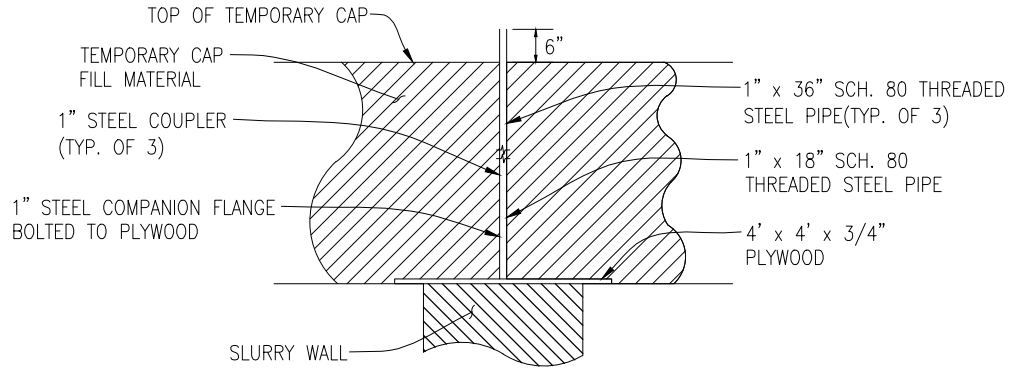
EX PIPE PROFILE - STATION 386+15± NTS

EXPOSE EX PIPE, CUT AND REMOVE SUFFICIENT PIPE TO ALLOW CUTOFF WALL INSTALLATION. TEMPORARILY CAP PIPE ENDS TO PREVENT CONTAMINATION OF PIPES. AFTER CUTOFF WALL COMPLETION REPAIR PIPE TO MATCH EXISTING CONDITIONS AND PER THE ENGINEER'S REQUIREMENTS. EX SD / IRRIGATION PIPES ARE ACTIVE AND MAY REQUIRE TEMPORARY FACILITIES TO MAINTAIN FLOW DURING CONSTRUCTION. COORDINATE WITH PIPE OWNER TO DETERMINE SHUT-OFF TIMING REQUIREMENTS AND/OR NEED FOR TEMPORARY FACILITIES.



NOTE: DO NOT INSTALL BOXES FOR TRACER WIRE WITHIN 25' OF ANY PIPE CROSSING.

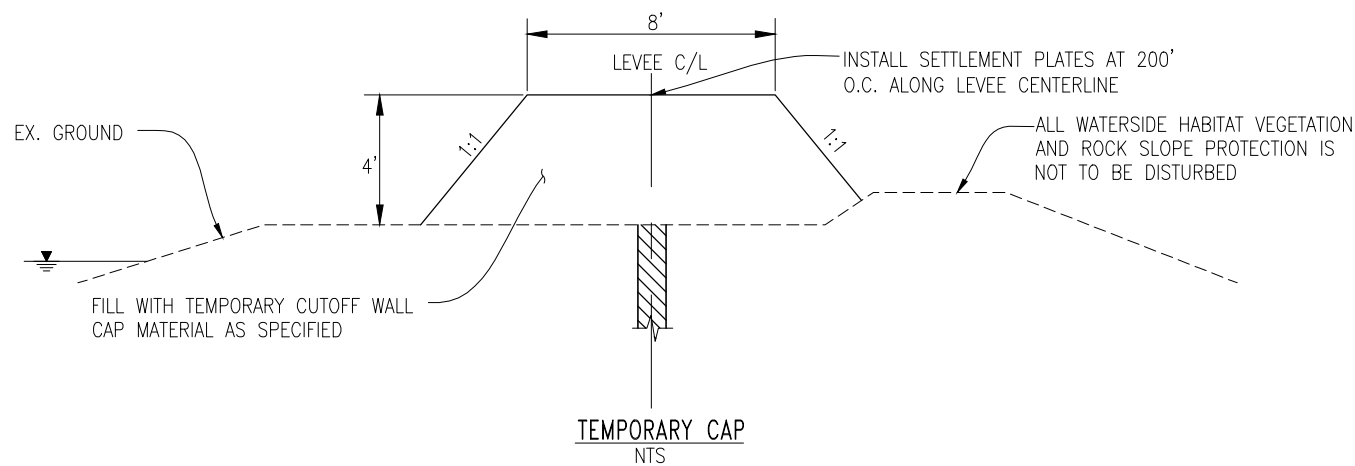
TYPICAL IRRIGATION PIPE NTS



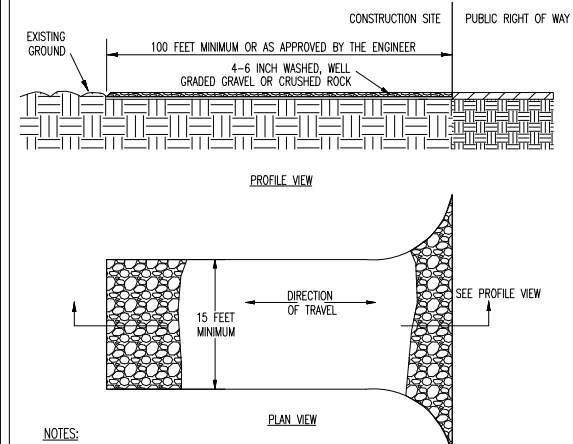
SETTLEMENT PLATE NTS

TEMPORARY CAP NOTES:

1. AFTER SLURRY WALL HAS BEEN CONSTRUCTED. FILL LEVEE TO ELEVATION 25.00 WITH TEMPORARY CUTOFF WALL CAP MATERIAL.
2. INSTALL SETTLEMENT PLATES @ 200' O.C. ALONG LEVEE CENTERLINE. CONTRACTOR SHALL BE RESPONSIBLE TO SURVEY THE TOP OF EACH RISER PIPE EVERY OTHER DAY FOR A MINIMUM 2 WEEKS AND UNTIL SETTLEMENT HAS CEASED. AS APPROVED BY THE ENGINEER. THE SURVEYING OF SETTLEMENT PLATES SHALL BE PERFORMED BY A LICENSED SURVEYOR.
3. AFTER SETTLEMENT HAS CEASED, REMOVE TEMPORARY CUTOFF WALL CAP MATERIAL. SOIL MAY BE USED AS CROWN WIDENING SLOPE FILL.. ANY EXCESS SOIL SHALL BE DISPOSED OF OFFSITE AT THE CONTRACTOR'S EXPENSE



TEMPORARY CAP NTS



- NOTES:
1. CONSTRUCT AT ALL ENTRANCES TO THE PROJECT SITE AS APPROVED BY THE ENGINEER
 2. THE ENTRANCE SHALL BE KEPT IN GOOD CONDITION BY OCCASIONAL TOP DRESSING WITH ROCK MATERIAL
 3. ACCESSES SHALL BE INSPECTED WEEKLY DURING PERIODS OF HEAVY USAGE, MONTHLY DURING NORMAL USAGE, AND AFTER EACH RAINFALL, WITH MAINTENANCE PROVIDED AS NECESSARY. PERIODIC TOP DRESSING SHALL BE DONE AS NEEDED.

STABILIZED CONSTRUCTION SITE ACCESS

PLANS REVIEWED AND APPROVED BY:

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RECLAMATION DISTRICT NO. 17
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DATE: JAN 2014	PROJECT NO. 25182.010
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ELEMENT II-A & II-B (CUTOFF WALL)

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BORING LOCATIONS/KEY MAP
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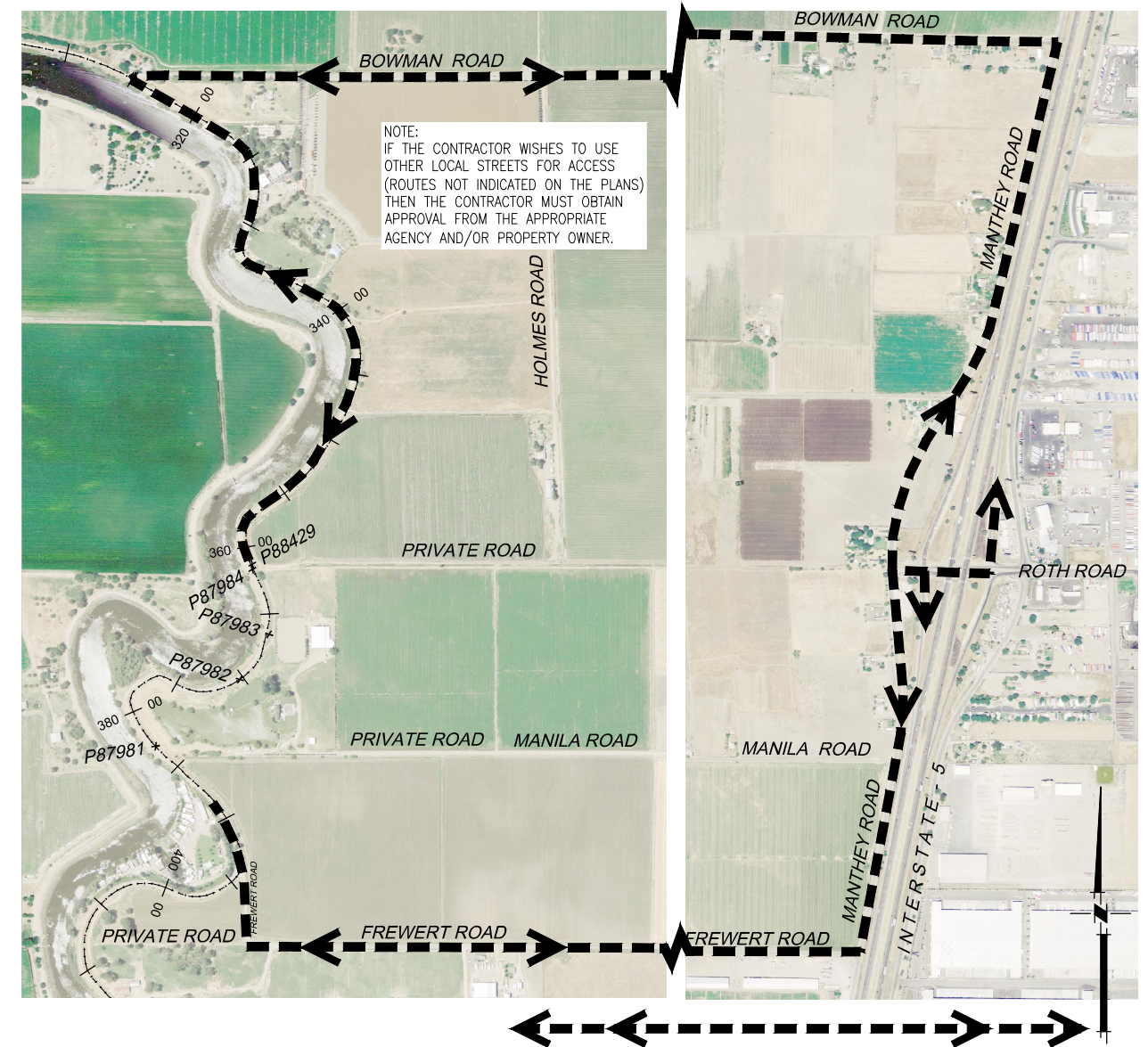
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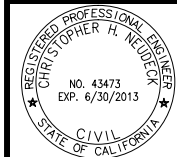
BASIS OF BEARING

THE BASIS OF BEARINGS IS NORTH 12D33'37.56" EAST BETWEEN NATIONAL GEODETIC SURVEY HORIZONTAL CONTROL POINTS HPGN-D CA 10 HG (PID AA4256) AND MATTHEW (PID HSO118), CALIFORNIA COORDINATE SYSTEM ZONE 3, NAD83, EPOCH DATE 1997.30, AS CALCULATED AND ADJUSTED BY THE NATIONAL GEODETIC SURVEY IN JULY, 1998, AS SHOWN ON RECORD OF SURVEY RECORDED AT BOOK 34 PAGES 163 - 163B, OF SAN JOAQUIN COUNTY RECORDS. ALL DISTANCES SHOWN HEREON ARE GROUND DISTANCES. TO CONVERT TO GRID DISTANCE, MULTIPLY GROUND DISTANCE BY AVERAGE COMBINED SCALE FACTOR OF 0.999929125.

ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).



HAUL ROUTE & CONTROL POINTS
NTS



PLANS REVIEWED AND APPROVED BY:
K S N KJELDSSEN SINNOCK NEUDECK INC. Consulting Engineers and Land Surveyors
Post Office Box 844
711 N. Pershing Avenue
Stockton, CA 95201-0844
Office: (209) 946-0268
Faxes: (209) 946-0296
E-mail: KSN@ksninc.com



THESE PLANS CONFORM TO THE GEOTECHNICAL REPORT ENTITLED: SEEPAGE EVALUATION PROJECT #5747.000.000
ENGEO INCORPORATED
EXCELLENT SERVICE SINCE 1971



PLANS PREPARED UNDER THE DIRECTION OF:
MACKAY & SOMPS
ENGINEERS PLANNERS SURVEYORS
5142 Franklin Drive, Suite B, Pleasanton, CA 94588 (925) 225-0690

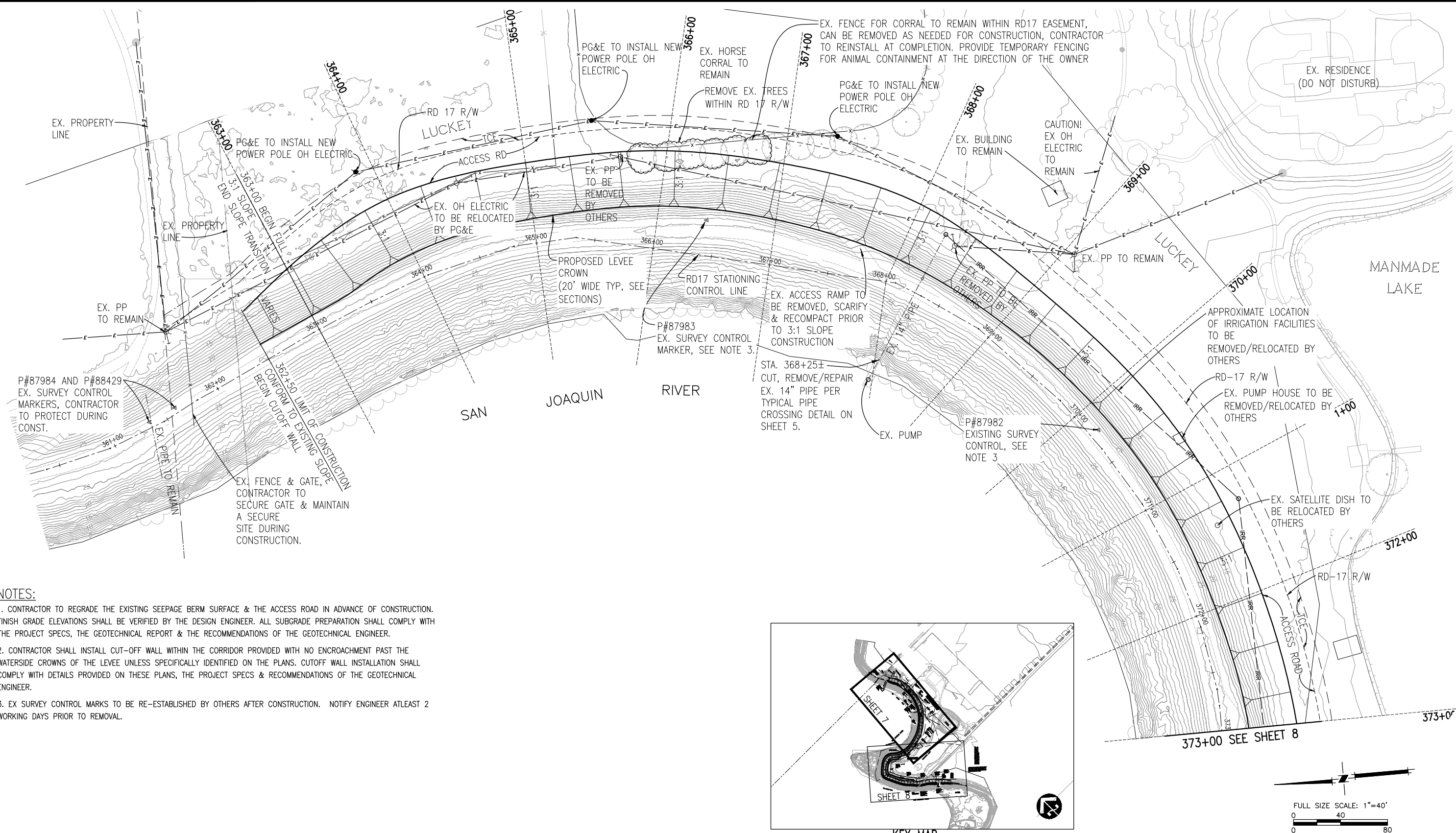
RECLAMATION DISTRICT NO. 17
ELEMENT II-A & II-B

BORING LOCATIONS, HAUL ROUTE & CONTROL POINTS
SAN JOAQUIN COUNTY CALIFORNIA

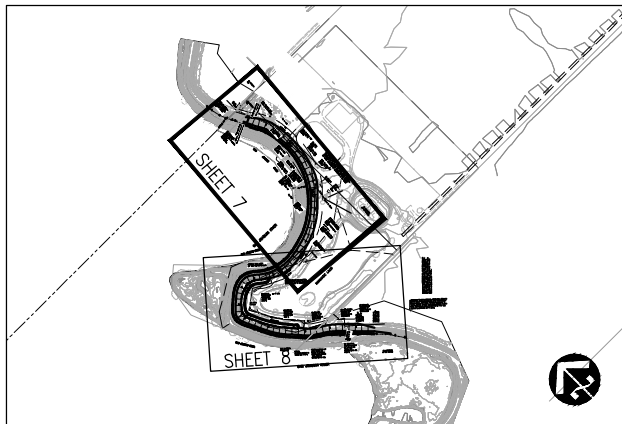
No.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: AS NOTED	SHT 6
DRAWN BY: GB	OF 13
DESIGNED BY: GJ/CG	
CHECKED BY: JSL	

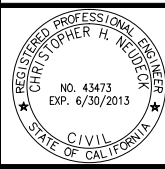
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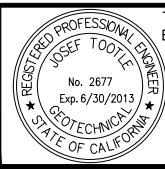
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 3. EX SURVEY CONTROL MARKS TO BE RE-ESTABLISHED BY OTHERS AFTER CONSTRUCTION. NOTIFY ENGINEER ATLEAST 2 WORKING DAYS PRIOR TO REMOVAL.



ALL TOPOGRAPHY CONTOUR LINES ARE BASED ON LIDAR TOPO PROVIDED BY DWR, DATUM IS NAVD 88.



PLANS REVIEWED AND APPROVED BY:
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ENGEO
 INCORPORATED
 EXCELLENT SERVICE SINCE 1971



PLANS PREPARED UNDER THE DIRECTION OF:
MACKAY & SOMPS
 ENGINEERS PLANNERS SURVEYORS
 5142 Franklin Drive, Suite B, Pleasanton, CA 94588 (925) 225-0690

RECLAMATION DISTRICT NO. 17
 ELEMENT II-A & II-B
 PLAN VIEW
 STA. 362+50 TO STA. 373+00
 SAN JOAQUIN COUNTY CALIFORNIA

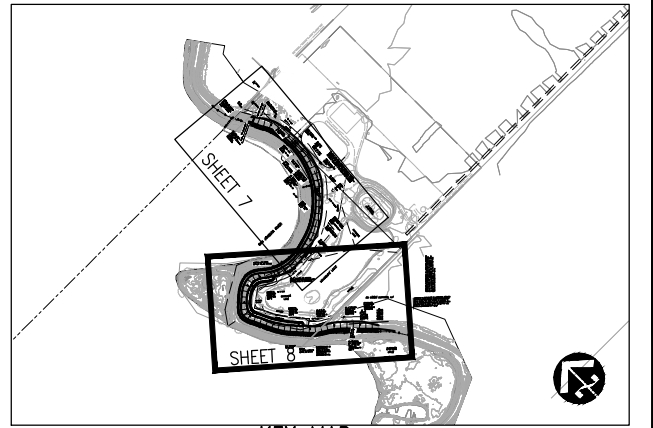
NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: _____	SHT 7
DRAWN BY: GB	OF 13
DESIGNED BY: GJ/CG	
CHECKED BY: JSL	

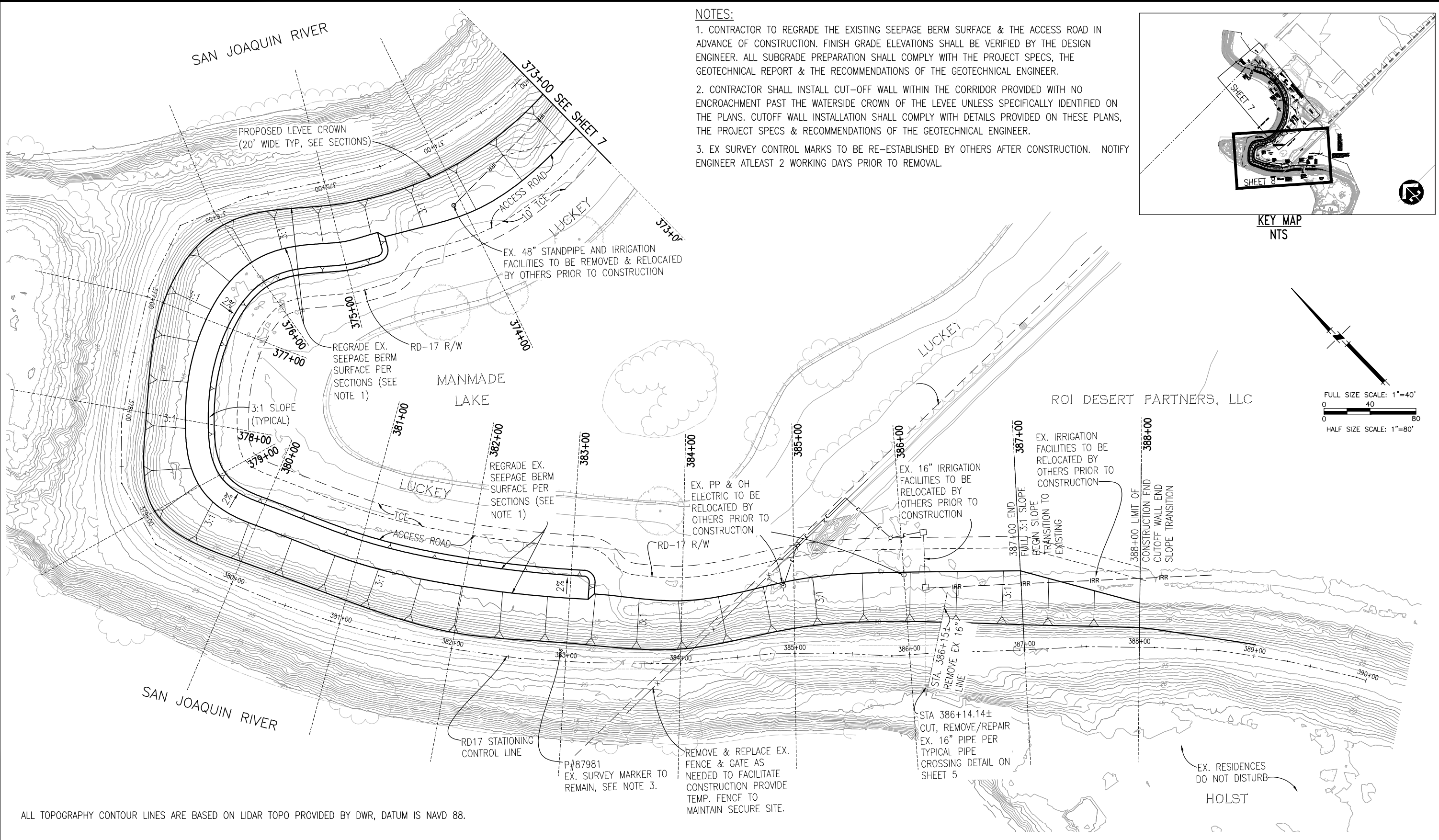
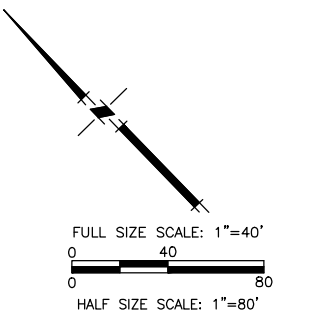
ELEMENT II-A & II-B (CUTOFF WALL) 65% SUBMITTAL

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KEY MAP
NTS



ALL TOPOGRAPHY CONTOUR LINES ARE BASED ON LIDAR TOPO PROVIDED BY DWR, DATUM IS NAVD 88.

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THESE PLANS CONFORM TO THE GEOTECHNICAL REPORT ENTITLED: SEEPAGE EVALUATION PROJECT #5747.000.000

ENGEO INCORPORATED
EXCELLENT SERVICE SINCE 1971

REGISTERED PROFESSIONAL ENGINEER
JOSEF TOOTE
No. 2677
Exp. 6/30/2013
STATE OF CALIFORNIA

PLANS PREPARED UNDER THE DIRECTION OF:

MACKAY & SOMPS
ENGINEERS PLANNERS SURVEYORS
5142 Franklin Drive, Suite B, Pleasanton, CA 94588 (925) 225-0690

REGISTERED PROFESSIONAL ENGINEER
JANEST TEMPLETON
No. 43061
Exp. 3/31/14
STATE OF CALIFORNIA

RECLAMATION DISTRICT NO. 17
ELEMENT II-A & II-B

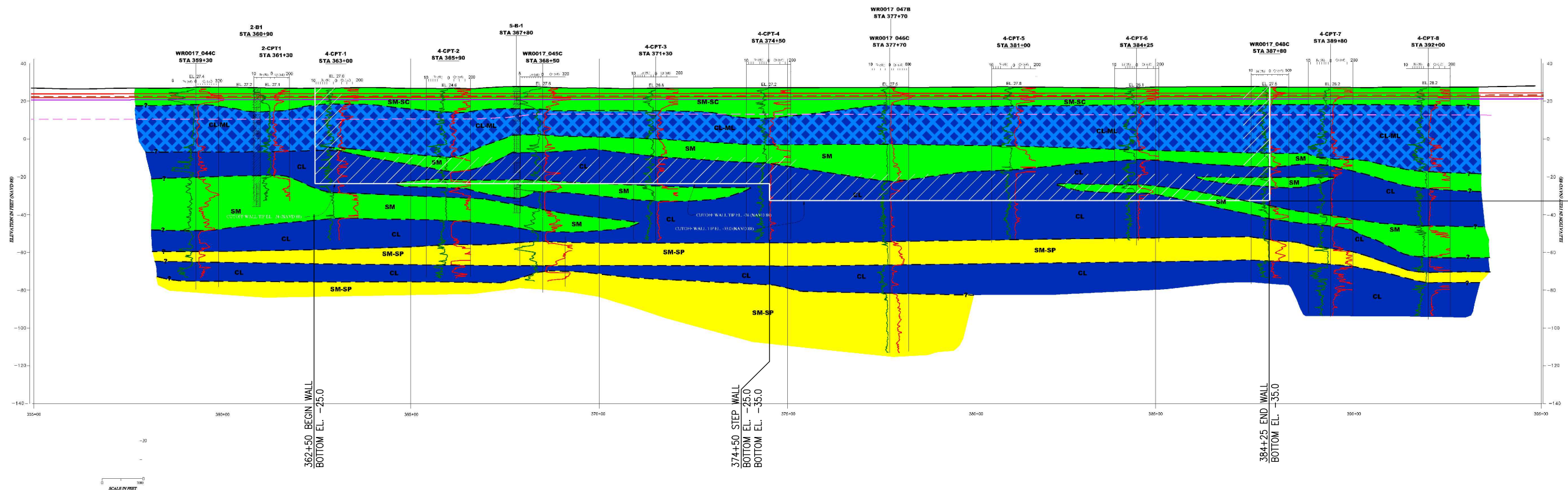
PLAN VIEW
STA. 373+00 TO STA. 388+00

SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: _____	SHT 8
DRAWN BY: GB	OF 13
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ELEMENT II-A & II-B (CUTOFF WALL)

FOR ADDITIONAL INFORMATION, PLEASE SEE GEOTECHNICAL REPORT BY ENGeo.

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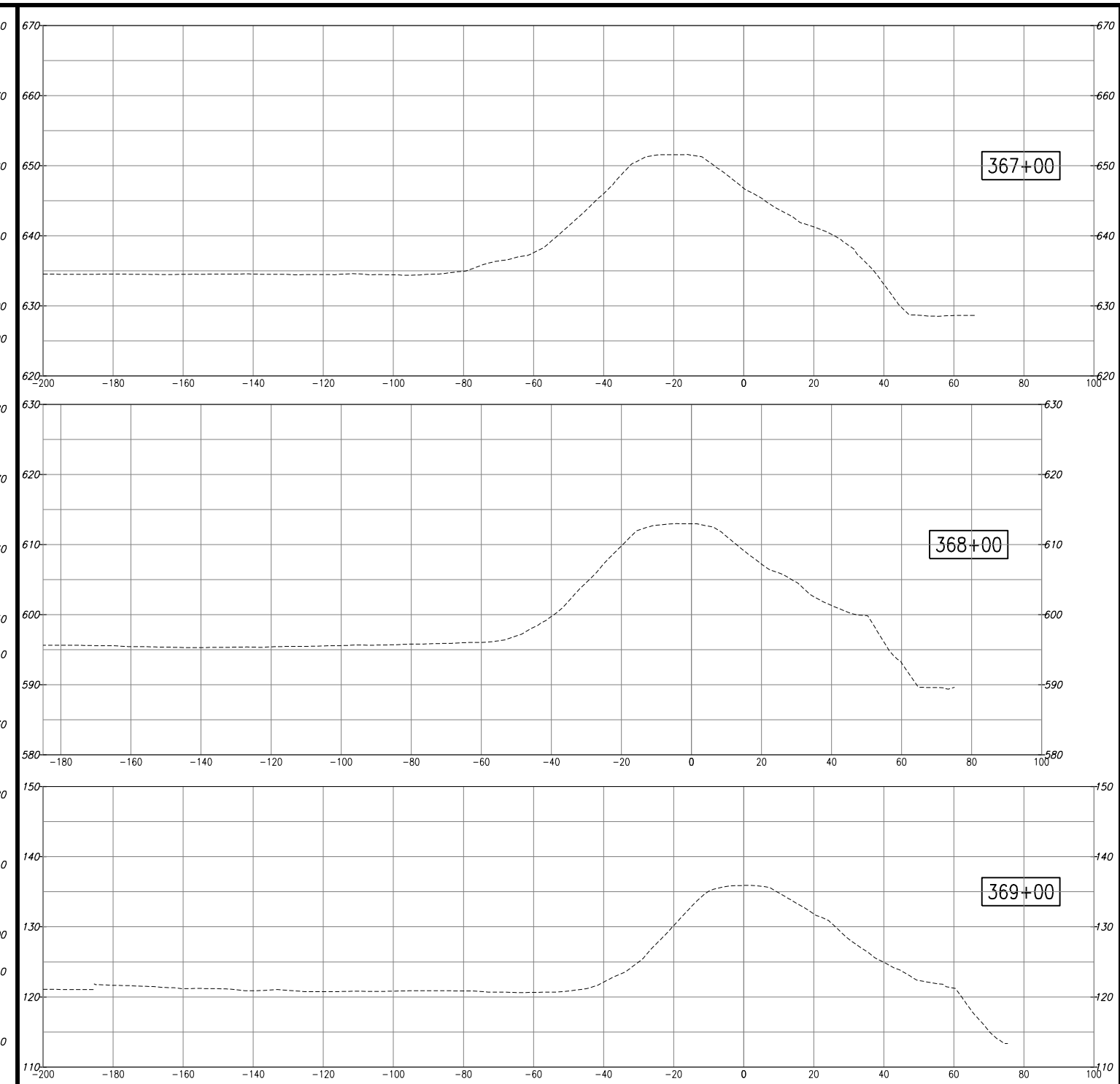
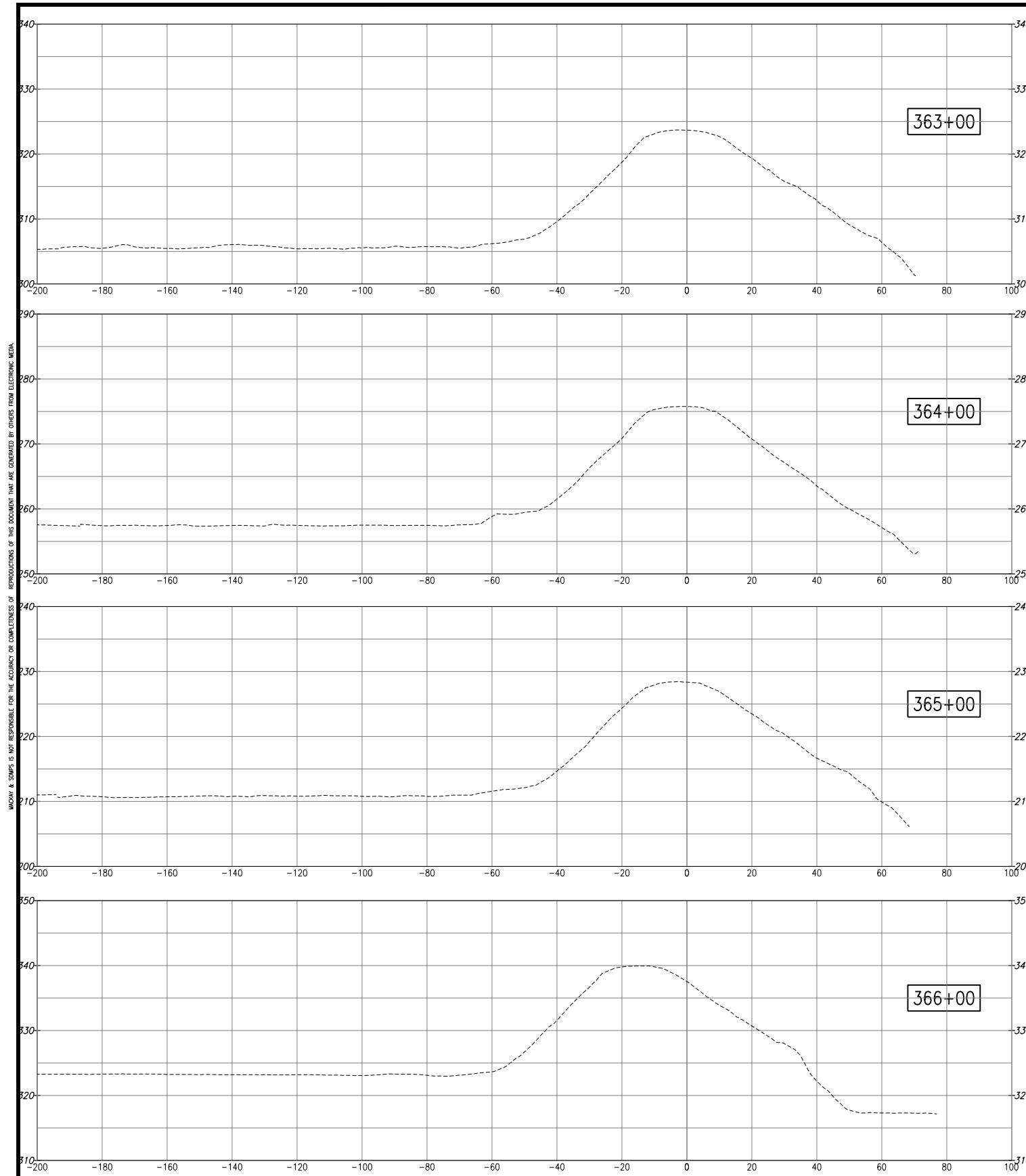
RECLAMATION DISTRICT NO. 17
ELEMENT II-A & II-B

PROFILE VIEW
STA. 362+50 TO STA. 388+00

SAN JOAQUIN COUNTY CALIFORNIA

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: _____	SHT 9
DRAWN BY: GB	OF 13
DESIGNED BY: GJ/CG	
CHECKED BY: JSL	
NO. _____	REVISION _____
DATE _____	

65% SUBMITTAL



NOTES:

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DESIGN DETAILS WILL BE ADDED TO THESE SECTIONS AFTER 65% COMMENTS ARE RECEIVED. PLEASE SEE TYPICAL SECTIONS FOR 65% REVIEW.

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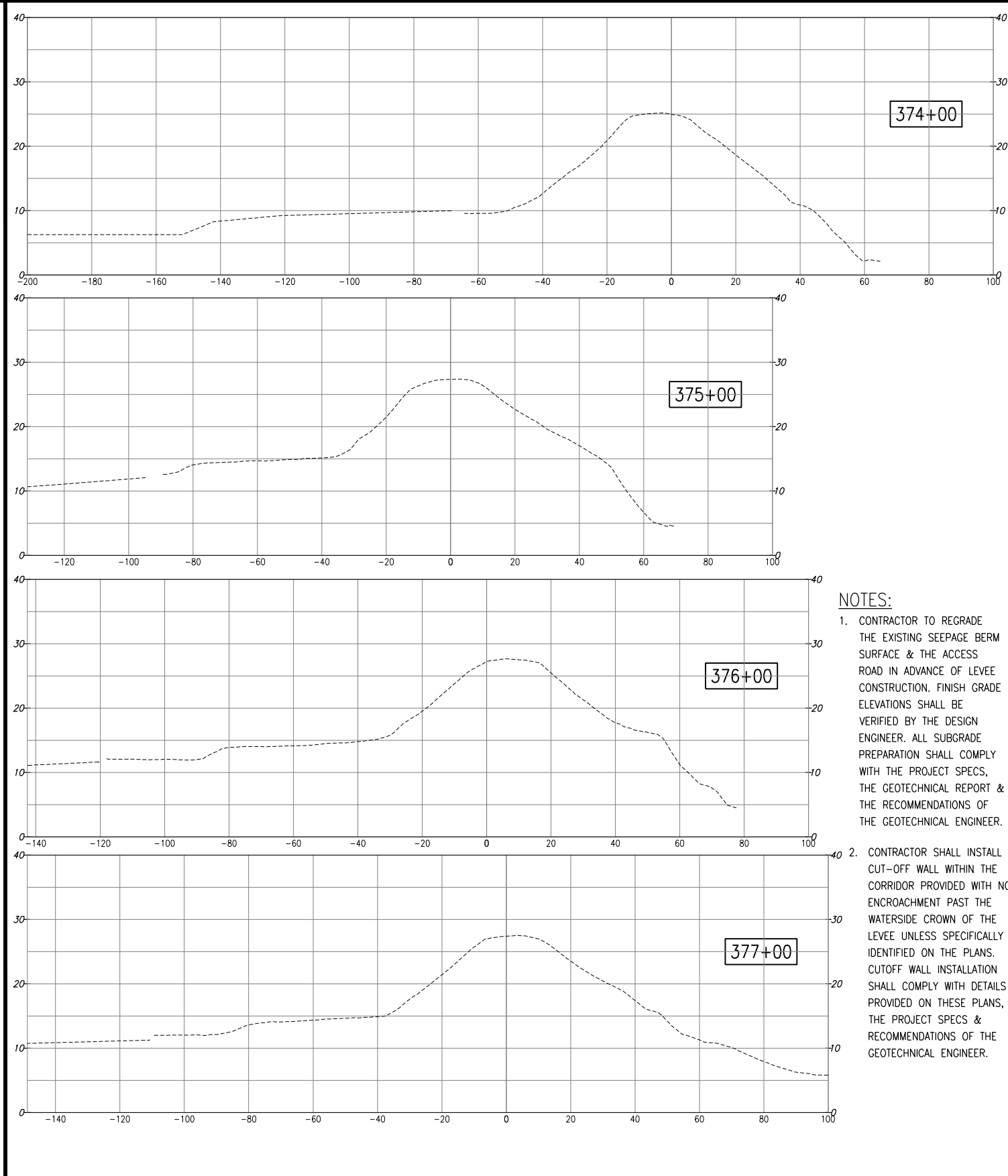
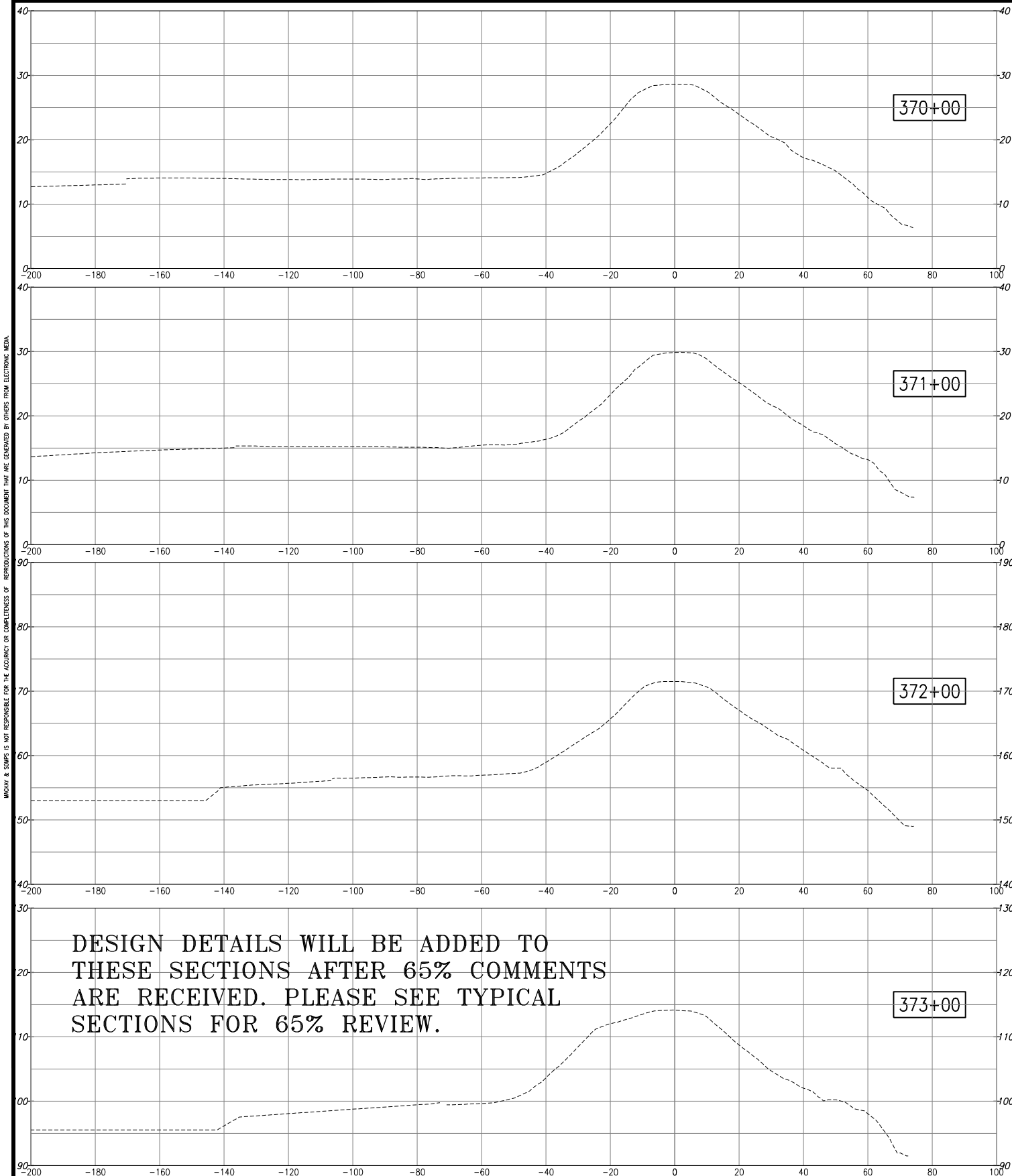
RECLAMATION DISTRICT NO. 17
ELEMENT II-A & II-B

CROSS-SECTIONS
STA. 387+00 TO STA. 388+00

SAN JOAQUIN COUNTY CALIFORNIA

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DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: _____	SHT 10
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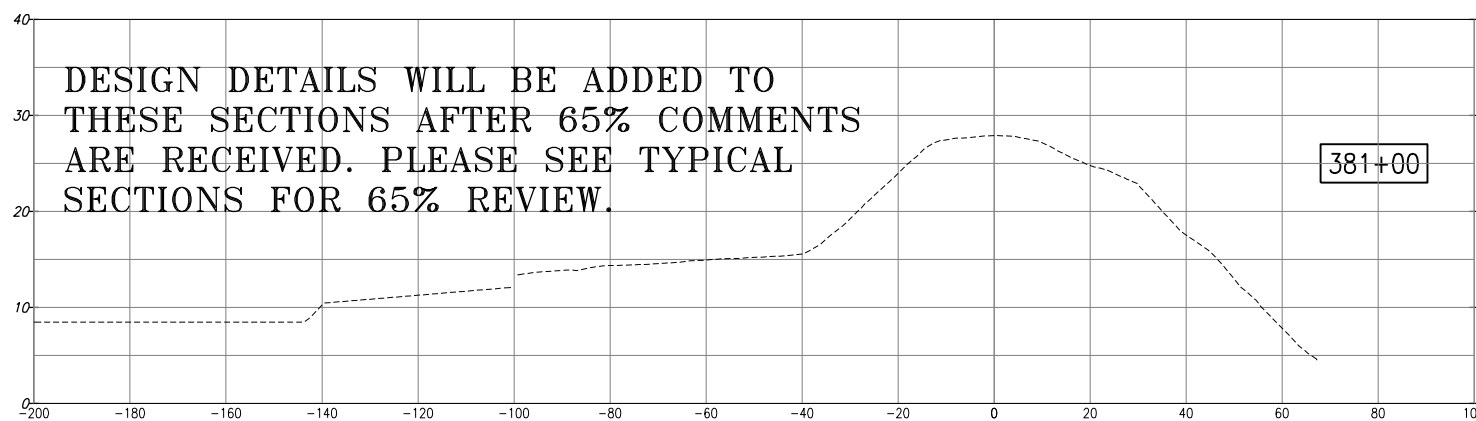
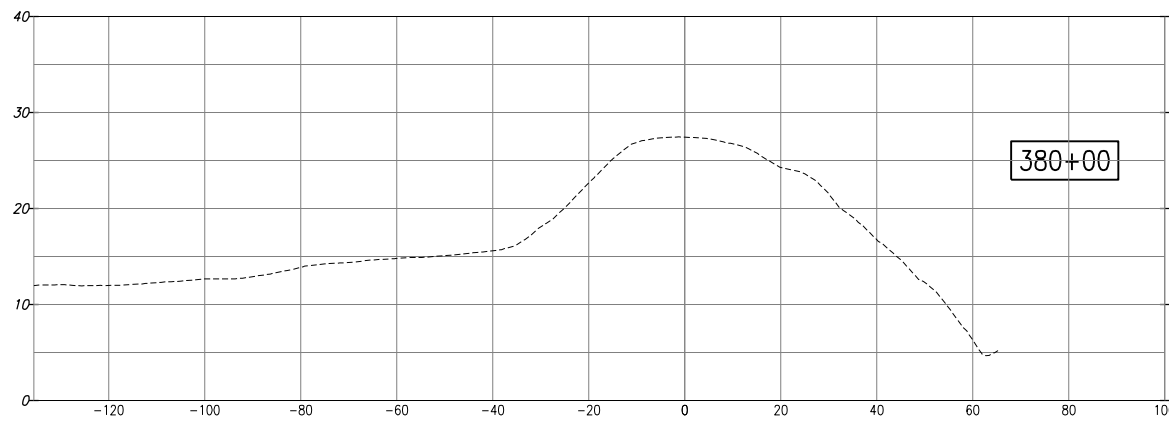
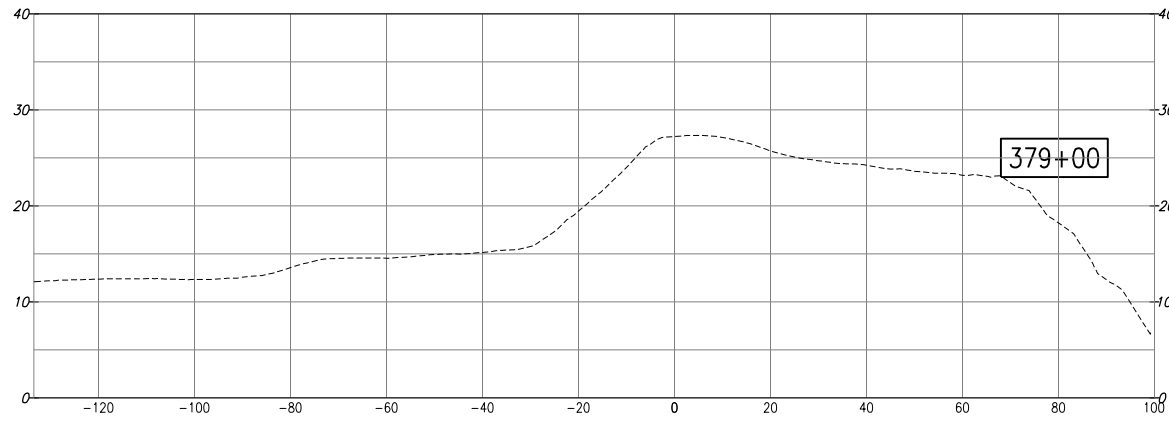
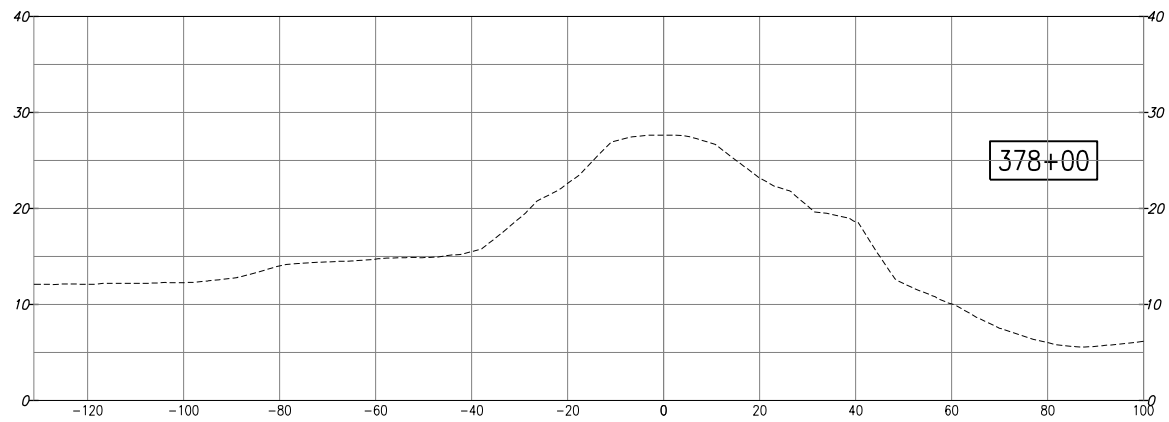
MACKAY & SOMPS ENGINEERS PLANNERS SURVEYORS
5142 Franklin Drive, Suite B, Pleasanton, CA 94588 (925) 225-0690

RECLAMATION DISTRICT NO. 17
ELEMENT II-A & II-B
CROSS-SECTIONS
STA. 371+00 TO STA. 378+00
SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: _____	SHT 11
DRAWN BY: GB	OF 13
DESIGNED BY: GJ/CG	
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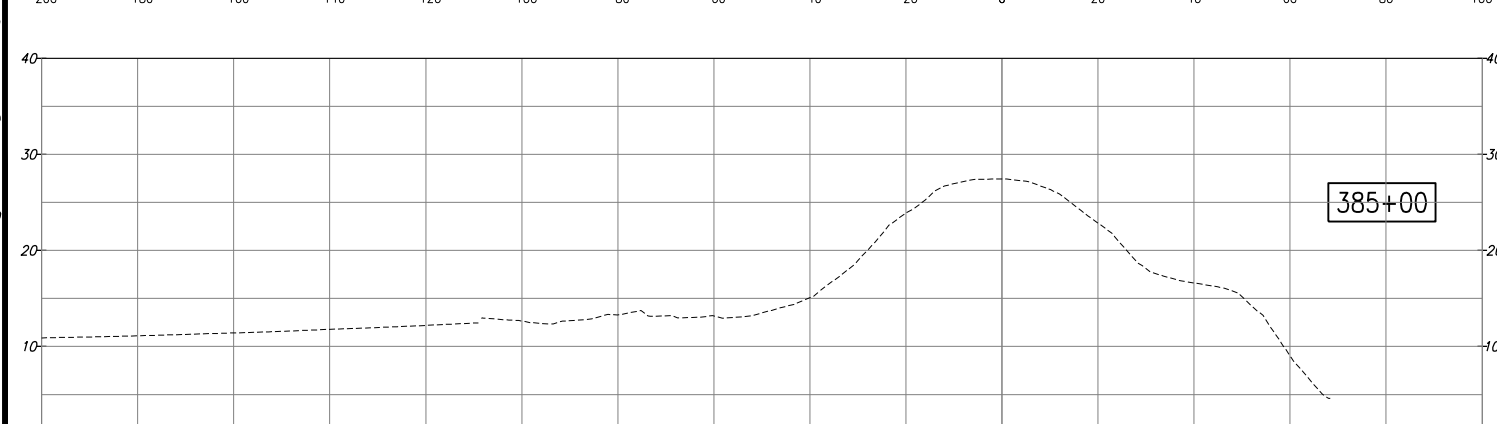
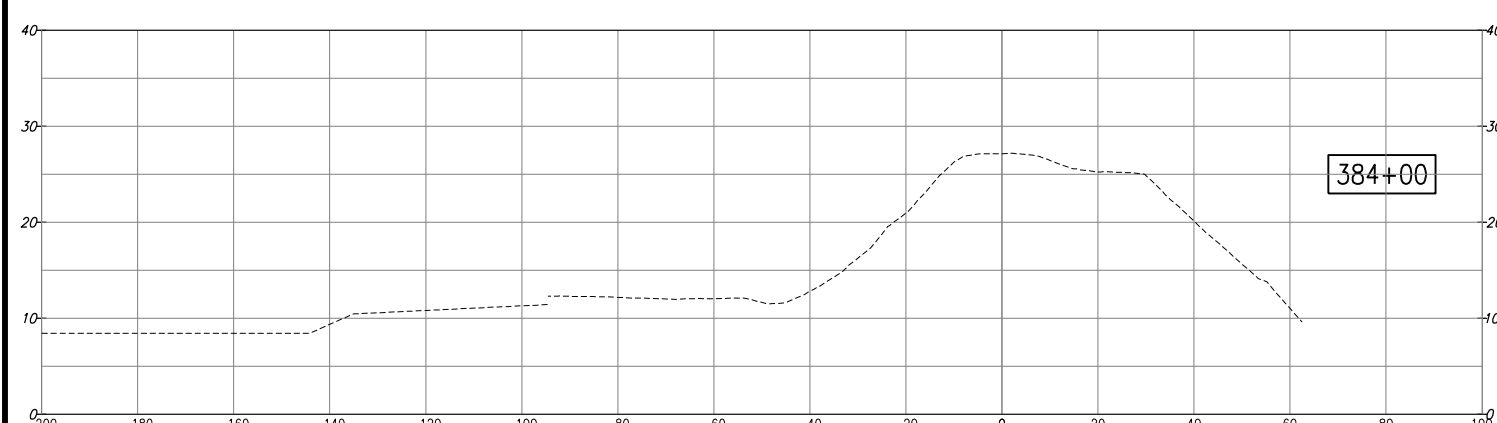
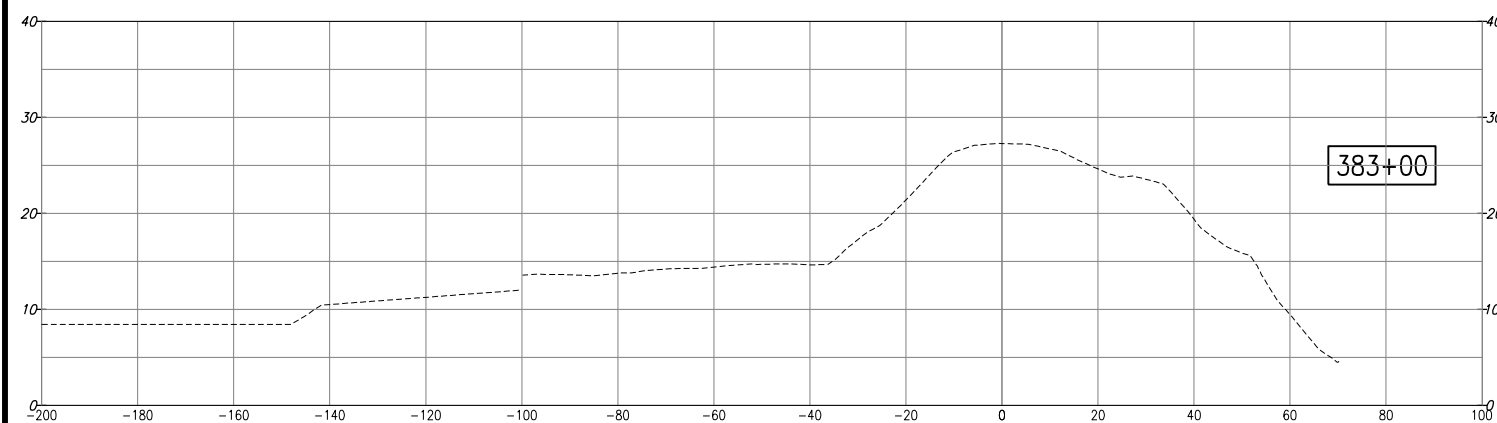
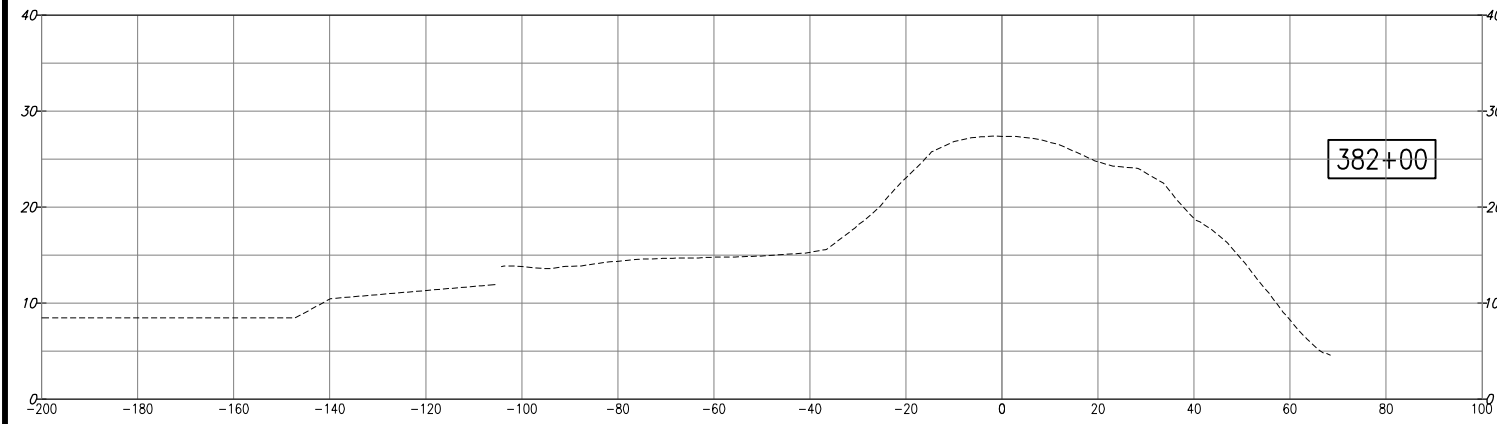
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5142 Franklin Drive, Suite B, Pleasanton, CA 94588 (925) 225-0690

RECLAMATION DISTRICT NO. 17
ELEMENT II-A & II-B

CROSS-SECTIONS
STA. 379+00 TO STA. 386+00
SAN JOAQUIN COUNTY CALIFORNIA

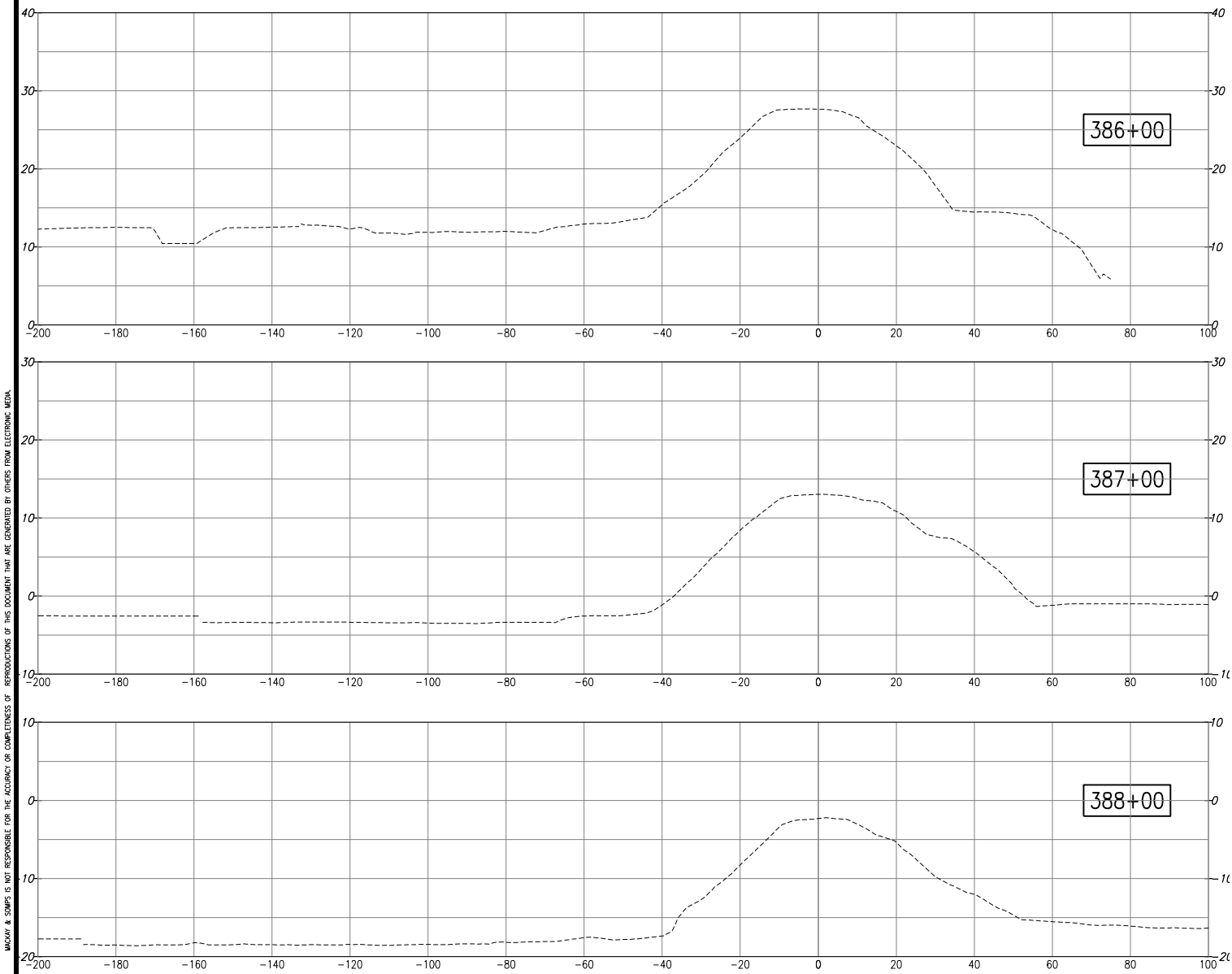
NO.	REVISION	DATE

DATE: JAN 2014
SCALE:
DRAWN BY: GB
DESIGNED BY: GJ/CG
CHECKED BY: JSL

PROJECT NO. 25182.010
SHT 12 OF 13

ELEMENT II-A & II-B (CUTOFF WALL)

65% SUBMITTAL



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RECLAMATION DISTRICT NO. 17
 ELEMENT II-A & II-B
 CROSS-SECTIONS
 STA. 363+00 TO STA. 370+00
 SAN JOAQUIN COUNTY CALIFORNIA

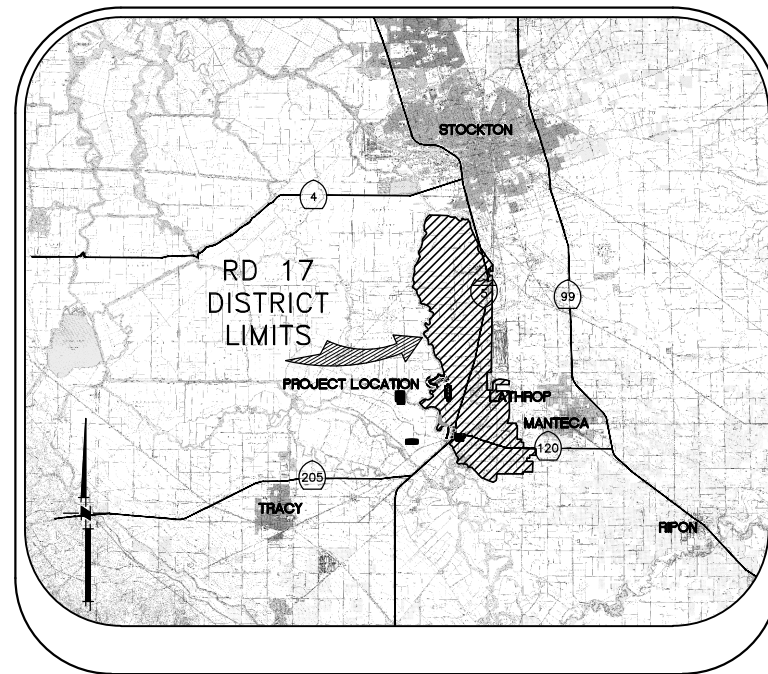
NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: _____	SHT 13
DRAWN BY: GB	OF 13
DESIGNED BY: GJ/CG	
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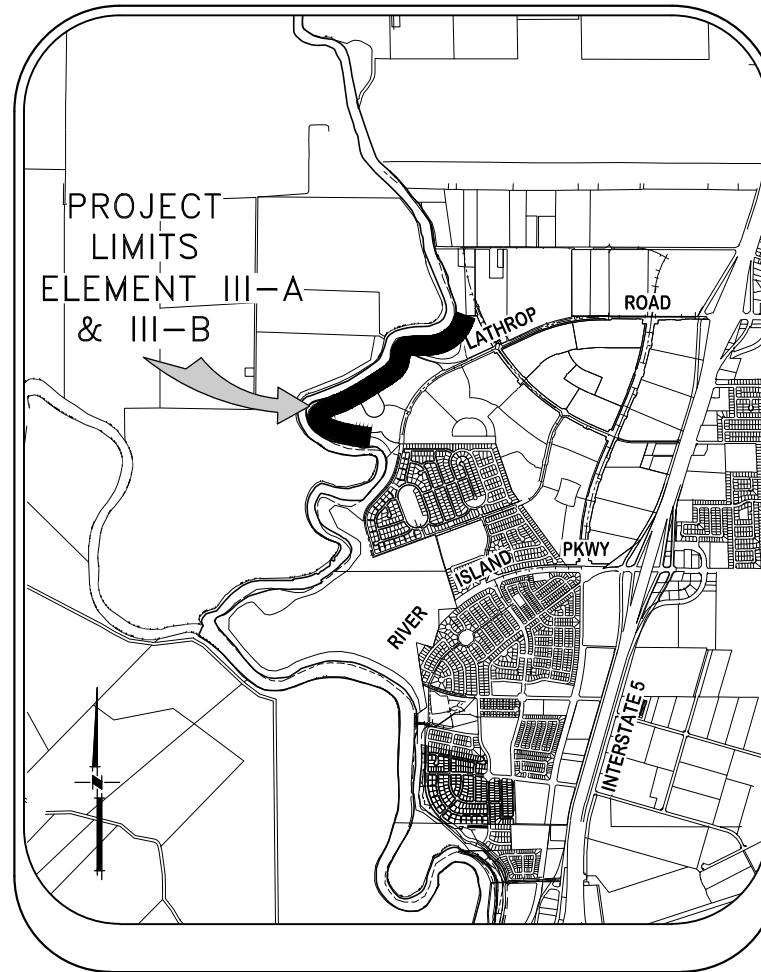
RECLAMATION DISTRICT NO. 17 LEVEE SEEPAGE PROJECT

ELEMENT III-A & III-B - SEEPAGE BERM

RD17 STATION 515+50 THRU 569+50 (FEET)
USACE STATION 7.85 THRU 8.88 (MILES)



VICINITY MAP



PROJECT SITE MAP

SHEET	DESCRIPTION
1.	COVER SHEET
2.	NOTES
3.	NOTES & BORING LOCATIONS
4.	HAUL ROUTE & CONTROL POINTS
5.	TYPICAL SECTIONS & DETAILS
6.	TYPICAL SECTIONS & DETAILS
7.	PLAN VIEW - ELEMENT III-A
8.	PLAN VIEW - ELEMENT III-A
9.	PLAN VIEW - ELEMENT III-A
10.	PLAN VIEW - ELEMENT III-B
11.	PLAN VIEW - ELEMENT III-A
12.	PLAN VIEW - ELEMENT III-A
13.	CROSS SECTION - ELEMENT III-A
14.	CROSS SECTION - ELEMENT III-A
15.	CROSS SECTION - ELEMENT III-A
16.	CROSS SECTION - ELEMENT III-A
17.	CROSS SECTION - ELEMENT III-A
18.	CROSS SECTION - ELEMENT III-B
19.	CROSS SECTION - ELEMENT III-A
20.	CROSS SECTION - ELEMENT III-A

INDEX

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Consulting Engineers and Land Surveyors

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EXCELLENT SERVICE SINCE 1971

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ENGINEERS PLANNERS SURVEYORS
5142 Franklin Drive, Suite B, Pleasanton, CA 94588 (925) 225-0690

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RECLAMATION DISTRICT NO. 17
ELEMENT III-A & III-B
COVER SHEET
SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: NOT TO SCALE	SHT 1
DRAWN BY: GB	OF 20
DESIGNED BY: JBM	
CHECKED BY: JSL	

THE PERFORMANCE OF THE LEVEE SYSTEMS IS DEPENDANT UPON THE DESIGN CRITERIA AND THE LONG TERM OPERATION AND MAINTENANCE OF THE LEVEES. THE DESIGN TEAM HAS PREPARED THESE PLANS AND ASSOCIATED SPECIFICATIONS AND REPORTS IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICE USING INFORMATION FROM MULTIPLE SOURCES. IF EXTREME FLOODS (EXCEEDING THE DESIGN PROFILE), EARTHQUAKES OR OTHER LOADING CONDITIONS NOT EVALUATED IN THE DESIGN OCCUR, THE INTEGRITY OF THE LEVEE SYSTEM MAY BE COMPROMISED.

ROLES:

THE "DISTRICT" AS REFERRED TO IN THESE NOTES MEANS RECLAMATION DISTRICT 17(RD 17). THE DISTRICT IS THE PROJECT OWNER.

THE "ENGINEER" AS REFERRED TO IN THESE NOTES MEANS THE DISTRICT ENGINEER: KJELDEN, SINNOCK, AND NEUDECK. THE ENGINEER SHALL PROVIDE INSPECTION OF THE PROJECT AND OVERALL CONSTRUCTION MANAGEMENT INCLUDING COORDINATION WITH PUBLIC UTILITIES, PUBLIC AGENCIES, THE DESIGN ENGINEER AND THE GEOTECHNICAL ENGINEER.

THE "DESIGN ENGINEER" AS REFERRED TO IN THESE NOTES MEANS MACKAY & SOMPS, CIVIL ENGINEERS INC. THE DESIGN ENGINEER WILL PERFORM DISTRICT PROVIDED CONSTRUCTION STAKING AND "AS-GRADED" SURVEYS.

THE "GEOTECHNICAL ENGINEER" AS REFERRED TO IN THESE NOTES MEANS ENGeo INC. THE GEOTECHNICAL ENGINEER WILL PROVIDE MATERIALS TESTING, COMPACTION TESTING AND OTHER GEOTECHNICAL RELATED TESTING.

CONTRACTOR SHALL BE RESPONSIBLE FOR SUPERVISION OF ALL CONTRACTOR'S EMPLOYEES, SUBCONTRACTORS, INCLUDING SCHEDULING AND ALL SAFETY MATTERS.

- THESE PLANS ARE TO BE USED IN CONJUNCTION WITH THE FOLLOWING:
- a. SOILS REPORT PREPARED BY ENGeo INC. ENTITLED, SEEPAGE EVALUATION PROJECT # 5747.000.000.
 - b. SPECIFICATIONS PREPARED BY KSN DATED _____

GENERAL NOTES:

1. PRIOR TO THE COMMENCEMENT OF WORK, A JOINT INSPECTION BETWEEN THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER, THE GEOTECHNICAL ENGINEER, THEIR REPRESENTATIVES, AND THE CONTRACTOR (OR HIS REPRESENTATIVE) WILL BE CONDUCTED TO REVIEW THE PRE-CONSTRUCTION CONDITIONS (E.G. ROADS, PUMPS, DISCHARGE PIPES, SIPHONS, RAMPS, GATES, SIGNS, ETC.) IF SUCH EXISTING FACILITIES ARE DAMAGED BY THE CONTRACTOR'S OPERATIONS, THE CONTRACTOR, AT THEIR OWN EXPENSE, SHALL REPLACE OR RESTORE THEM TO THE CONDITION THAT EXISTED PRIOR TO THE COMMENCEMENT OF WORK.
2. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT (209) 946-0268, A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY WORK.
3. THE DISTRICT RESERVES THE RIGHT TO SUSPEND CONSTRUCTION AT ANY TIME IN THE EVENT OF EXTREME HIGH OR LOW TIDES, FLOOD EVENTS, OTHER CONDITIONS OR EMERGENCIES THAT MAY JEOPARDIZE THE INTEGRITY OF THE DISTRICT'S LEVEE AND ROAD SYSTEM.
4. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, COUNTY AND LOCAL REQUIREMENTS, AS REQUIRED FOR TRAFFIC CONTROL AND PUBLIC SAFETY DURING PROJECT CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL OUTLINED IN THESE PLANS AND THE REFERENCED SPECIFICATIONS.
5. THE DISTRICT WILL FURNISH ALL RIGHT-OF-WAY FOR ALL LEVEE ROADS AND DESIGNATED ACCESS HAUL ROADS AS SHOWN ON THESE PLANS. SHOULD THE CONTRACTOR WANT TO USE OTHER ROADWAYS OR ACCESS AREAS NOT SHOWN, THE CONTRACTOR SHALL AT THEIR OWN EXPENSE SECURE RIGHT-OF-WAY & NECESSARY PERMITS.
6. IF DELIVERING MATERIAL OR EQUIPMENT BY TRUCK, ALL TRUCK TRAFFIC SHALL BE LIMITED TO THE DISTRICT LEVEE ROADS AND/OR PUBLIC ROADS AS SHOWN ON HAUL ROUTE PLAN, UNLESS OTHERWISE APPROVED.
7. MAXIMUM SPEED LIMIT ON DISTRICT LEVEE ROADS IS 30 MPH, AS POSTED, OR AS OTHERWISE INDICATED ON THE CONSTRUCTION DRAWINGS. CONTRACTOR SHALL POST LARGE SLOW/CAUTION SIGNS AND SPEED LIMIT SIGNS FOR PURPOSES OF NOTIFYING BOTH CONTRACTOR'S EMPLOYEES AND THE PUBLIC. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SAFETY AT ALL TIMES ALONG ALL HAUL ROUTES AND IN ALL PROJECT AREAS (PUBLIC AND PRIVATE).

8. THE DISTRICT WILL PROVIDE SURVEY STAKES AS DESCRIBED IN THE SPECIFICATIONS WITHIN THE CONSTRUCTION SURVEYING SECTION. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL CONSTRUCTION STAKING AND SURVEYING AT THEIR OWN EXPENSE BEYOND THAT PROVIDED BY THE DISTRICT. PLEASE CONTACT THE ENGINEER IN WRITING WITH STAKING REQUESTS (209) 946-0268 WITH AT LEAST TWO WORKING DAYS ADVANCE NOTICE.
9. THE CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER AND THE GEOTECHNICAL ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER OR THE GEOTECHNICAL ENGINEER.
10. ANY DEFICIENCIES NOTED DURING INTERIM AND FINAL INSPECTIONS BY THE ENGINEER AND/OR DISTRICT SHALL BE CORRECTED BY THE CONTRACTOR PRIOR TO FINAL ACCEPTANCE BY THE DISTRICT. ANY ADDITIONAL COSTS AND EXPENSES FOR MOBILIZATION AND/OR DEMOBILIZATION, LABOR, EQUIPMENT AND OTHER ASSOCIATED COSTS REQUIRED TO CORRECT THE DEFICIENCIES NOTED, EXCEPT SPECIFIED MATERIAL(S), SHALL BE BORNE BY THE CONTRACTOR.
11. THE CONTRACTOR SHALL NOT CLOSE ANY ROAD, STREET, OR HIGHWAY TO THE PUBLIC EXCEPT WITH THE PERMISSION OF THE ENGINEER AND THE PROPER GOVERNMENTAL AUTHORITY. TEMPORARY PROVISIONS SHALL BE MADE BY THE CONTRACTOR TO ENSURE CONTINUOUS ACCESS TO PUBLIC AND PRIVATE DRIVEWAYS, AND PROPER FUNCTIONING OF CULVERTS, DRAINAGE AND IRRIGATION DITCHES, AND NATURAL WATER COURSES.
12. THE CONTRACTOR IS RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER, AND HE SHALL NOTIFY THE ENGINEER WHENEVER THERE IS A CHANGE IN SITE CONDITIONS OR AN ADJUSTMENT TO BE MADE IN WORK REQUIREMENTS.
13. SHOULD IT APPEAR THAT THE WORK TO BE DONE, OR ANY MATTER RELATIVE THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE ENGINEER AT (209) 946-0268 FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.
14. THE INTENT OF THESE PLANS IS TO SERVE AS A GUIDE AND TO PROVIDE THE CONTRACTOR WITH INFORMATION AND DETAILS NECESSARY TO CONSTRUCT THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY REGARDING ANY DISCREPANCIES AND AMBIGUITIES WHICH MAY EXIST IN THE PLANS OR SPECIFICATIONS. IF THE PLANS 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 FINEST QUALITY ARE TO BE USED.
15. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE OSHA REGULATIONS AND SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS.
16. THE CONTRACTOR SHALL AT ALL TIMES BE RESPONSIBLE FOR THE SECURITY OF THE JOBSITE AND EQUIPMENT. THE DISTRICT WILL NOT BE RESPONSIBLE FOR MISSING OR DAMAGED EQUIPMENT, TOOLS, OR PERSONAL BELONGINGS.

ENVIRONMENTAL NOTES:

1. THE CONTRACTOR SHALL NOT DISCHARGE SMOKE, DUST, OR ANY OTHER AIR CONTAMINANTS INTO THE ATMOSPHERE IN SUCH QUANTITY AS WILL VIOLATE THE REGULATIONS OF ANY LEGALLY CONSTITUTED AUTHORITY. HE SHALL ALSO ABATE DUST NUISANCE BY CLEANING, SWEEPING AND SPRINKLING WITH WATER, OR OTHER MEANS AS NECESSARY. THE USE OF WATER IN AN AMOUNT WHICH RESULTS IN MUD ON PUBLIC ROADS IS NOT ACCEPTABLE AS A SUBSTITUTE FOR SWEEPING OR OTHER METHODS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ADJACENT PUBLIC ROADS CLEAN & CLEAR FROM CONSTRUCTION IMPACTS OR DEBRIS. ADDITIONAL DETAILS FOR MUD AND DUST CONTROL IS INCLUDED IN SUBSEQUENT SECTIONS OF THESE NOTES.
2. THE CONTRACTOR SHALL EXERCISE EVERY REASONABLE PRECAUTION TO PROTECT STREAMS, WATERWAYS AND OTHER BODIES OF WATER FROM POLLUTION WITH FUELS, OIL, BITUMEN'S, CALCIUM CHLORIDE, AND OTHER HAZARDOUS MATERIALS AND SHALL CONDUCT AND SCHEDULE HIS OPERATIONS SO AS TO AVOID OR MINIMIZE MUDDYING AND SILTING OF SAID WATERS. CARE SHALL BE EXERCISED TO PRESERVE ROADSIDE VEGETATION BEYOND THE LIMITS OF CONSTRUCTION.

3. THROUGHOUT ALL PHASES OF CONSTRUCTION, INCLUDING SUSPENSION OF WORK, AND UNTIL FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL KEEP THE WORK SITE CONDITIONS CLEAN AND FREE FROM RUBBISH AND DEBRIS. ALL RUBBISH AND REFUSE SHALL BE DISPOSED OF IN A MANNER SATISFACTORY TO THE ENGINEER.


DUST AND MUD CONTROL:

1. DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL KEEP ALL CONSTRUCTION AREAS, FILL AREAS, HAUL ROADS, OTHER ROADWAYS, AND OTHER USE AREAS WHERE DUST IS GENERATED WELL WATERED: AND DURING WET CONDITIONS, AREAS USED BY LOCAL TRAFFIC, FREE AND CLEAR FROM MUD. CONTRACTOR SHALL PROVIDE EFFORTS NECESSARY TO MINIMIZE DUST AND OTHER DISTURBANCES NEAR EXISTING RESIDENCES AND ALL BUILDINGS NEAR HAUL ROUTES AND THE PROJECT SITE.
 - a. CROP DAMAGE: THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL TO PREVENT CROP DAMAGE AND FOR ANY AREAS SUBJECT TO CONSTRUCTION OR CONSTRUCTION TRAFFIC THAT GENERATE DUST AND/OR OTHER CONDITIONS WHICH MIGHT DAMAGE CROPS.
 - b. NON WORK DAYS: THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL THROUGHOUT THE DURATION OF THE PROJECT INCLUDING NON WORKDAYS IN ALL PROJECT AREAS, INCLUDING CONSTRUCTION ROADS AND CROP AREAS WHICH ARE USED BY THE CONTRACTOR, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. THE CONTRACTOR SHALL HAVE AT LEAST ONE (1) WATER TRUCK AVAILABLE TO THE PROJECT AT ALL TIMES (OR MORE AS NEEDED OR DIRECTED BY THE ENGINEER) TO MAINTAIN ADEQUATE DUST CONTROL FOR THE FOLLOWING AREAS:
 - a. PROJECT AREAS
 - b. ACCESS AND HAUL ROADS
 - c. LEVEE TOE BERM FILL AREAS
 - d. OTHER CONSTRUCTION USE AREAS
 - e. CROP DAMAGE PREVENTION
 - f. RESIDENTIAL CONSTRUCTION ZONES
 - g. ADJACENT PUBLIC STREETS, TRAILS & BIKEWAYS

UTILITY NOTES:

1. UTILITIES AS NOTED ON THE PLAN SET HAVE BEEN DETERMINED BASED ON RECORD INFORMATION AND FIELD INSPECTION, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE ACTUAL LOCATION OF ALL UNDERGROUND, SURFACE, OVERHEAD, AND SUBMARINE IMPROVEMENTS, OR FACILITIES WHICH MAY BE SUBJECT TO DAMAGE BY REASON OF HIS OPERATIONS.
2. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES AND SHALL CONTACT THE RESPECTIVE UTILITY COMPANIES & PRIVATE OWNERS PRIOR TO COMMENCEMENT OF WORK.
3. THE CONTRACTOR SHALL NOTIFY AFFECTED UTILITIES FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY CONSTRUCTION. (UNDERGROUND SERVICE ALERT (800) 642-2444) AND SHALL BE RESPONSIBLE FOR THE LOCATION AND PRESERVATION OF ALL FACILITIES IN THE AREA OF CONSTRUCTION.

PLANS REVIEWED AND APPROVED BY:



K S N KJELDEN
SINNOCK
NEUDECK
INC. Consulting Engineers
and Land Surveyors

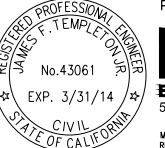
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THESE PLANS CONFORM TO THE GEOTECHNICAL REPORT ENTITLED: SEEPAGE EVALUATION PROJECT #5747.000.000



ENGEO
INCORPORATED
EXCELLENT SERVICE SINCE 1971

PLANS PREPARED UNDER THE DIRECTION OF:



MACKAY & SOMPS
ENGINEERS PLANNERS SURVEYORS
5142 Franklin Drive, Suite B, Pleasanton, CA 94588 (925) 225-0690

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RECLAMATION DISTRICT NO. 17
ELEMENT III-A & III-B

NOTES

SAN JOAQUIN COUNTY CALIFORNIA

DATE: JAN 2014	PROJECT NO.
SCALE: SHOWN	25182.010
DRAWN BY: GB	SHT 2
DESIGNED BY: JBM	OF 20
CHECKED BY: JSL	
NO.	REVISION
	DATE

ACCESS ROADS:

1. THE CONTRACTOR SHALL IMPROVE, MAINTAIN, AND REPAIR UPON COMPLETION, THE ACCESS ROADS AND HAUL ROUTES AS REQUIRED FOR TRANSPORTATION AND HAULING MATERIAL. AT THE COMPLETION OF WORK THE CONTRACTOR SHALL RESTORE ALL ACCESS ROADS AND HAUL ROUTES TO PRE-CONSTRUCTION CONDITION IN A MANNER SATISFACTORY TO THE ENGINEER.
2. THE CONTRACTOR SHALL REVIEW THE ACCESS ROAD ROUTES AND DETERMINE THE LOCATION FOR TURNOUTS, RAMPS, ROAD DRAINAGE, ALIGNMENT, ETC. UPON COMPLETION OF THE PROJECT, SOME PORTIONS OF THE ACCESS ROADS MAY REQUIRE MINOR MODIFICATIONS AND ALTERATIONS. THE ACCESS ROADS WHICH REMAIN SHALL BE LEFT IN GOOD CONDITION FOR THE DISTRICT, FARMERS, AND OTHER LOCAL TRAFFIC.
3. THE CONTRACTOR SHALL NOT DEVIATE FROM IDENTIFIED HAUL ROUTES AND STAGING AREAS UNLESS PERMISSION IS OBTAINED FROM THE PROPERTY OWNER, ENGINEER AND PERMITS ARE OBTAINED FROM THE LOCAL AGENCY.
4. THE CONTRACTOR SHALL EXTEND, STRENGTHEN, REPLACE, OR OTHERWISE MODIFY THE EXISTING CROSSINGS (E.G. CULVERTS, SIPHONS, DRAIN PIPES, IRRIGATION PIPES, PUMP DISCHARGE PIPES, WET SPOTS, ETC.) AS NECESSARY TO ACCOMMODATE HIS EQUIPMENT. THE CONTRACTOR SHALL PROVIDE WHATEVER MEASURES ARE NECESSARY TO PRESERVE, PROTECT, AND MAINTAIN THE CROSSINGS SO AS TO ENSURE CONTINUOUS AND UNINTERRUPTED CONSTRUCTION OPERATIONS DURING THE ENTIRE TERM OF THIS CONTRACT.
5. THE HAUL ROADS MAY REQUIRE TEMPORARY IRRIGATION OR DISCHARGE PIPE EXTENSIONS AND RAMPING DURING CONSTRUCTION OPERATIONS. TEMPORARY EXTENSIONS AND RAMPING WILL BE PROVIDED AND INSTALLED BY THE CONTRACTOR AT HIS EXPENSE, INCLUDING REMOVAL IF REQUIRED, IN A MANNER WHICH MEETS WITH THE APPROVAL OF THE ENGINEER AND THE LANDOWNERS.
6. NEITHER THE DISTRICT NOR THE ENGINEER MAKES ANY WARRANTY OR GUARANTEE AS TO THE ADEQUACY OF THE EXISTING MATERIALS TO SUPPORT THE CONSTRUCTION TRAFFIC ON THE ACCESS ROADS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MAKING THE NECESSARY IMPROVEMENTS AND PROVIDING THE NECESSARY MEASURES REQUIRED TO ACCOMMODATE HIS ANTICIPATED NEEDS. REPAIRS TO ROADWAYS DAMAGED BY THE CONTRACTOR SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
7. CONTRACTOR MUST MAINTAIN HAUL ROUTE ACCESS AT ALL TIMES FOR USE BY THE DISTRICT AND/OR PUBLIC (AS APPLICABLE) DURING CONSTRUCTION.

CLEARING & GRUBBING:

1. UNLESS OTHERWISE INDICATED, THE WORK AREAS SHALL BE CLEARED AND GRUBBED BY THE CONTRACTOR. CONTRACTOR SHALL USE CAUTION WHILE CLEARING AND GRUBBING AROUND POWER LINES, BURIED ELECTRICAL CABLES AND OTHER EX FACILITIES/UTILITIES. ALL MATERIAL CLEARED AND REMOVED SHALL BECOME THE PROPERTY AND RESPONSIBILITY OF THE CONTRACTOR FOR REMOVAL AND DISPOSAL OFFSITE. SOME PRUNING/TRIMMING/THINNING OF BRANCHES OR TREES MAY BE REQUIRED.

FILL MATERIALS:

1. THE CONTRACTOR SHALL FURNISH, DELIVER, AND PLACE THE SPECIFIED FILL MATERIALS (PER THE DISTRICT ENGINEERS SPECIFICATIONS) TO THE DESIGNATED SITES.
2. THE FILL SHALL BE CONSTRUCTED WITH ACCEPTABLE MATERIALS SUFFICIENT TO MEET DESIGN GRADES AND SPECIFICATIONS.
3. ALL SUBGRADE AREAS RECEIVING FILL MATERIAL SHALL BE PREPARED AS REQUIRED BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR MAY BE REQUIRED TO PERFORM ADDITIONAL SUBGRADE PREPARATION WORK WITHIN THE FILL AREAS PRIOR TO THE ACCEPTANCE OF THE MATERIAL.
4. THE CONTRACTOR SHALL DELIVER THE FILL MATERIALS TO THE REQUIRED SECTIONS AS UNIFORM MIXTURES. THE MIXTURE SHALL BE DEPOSITED AND SPREAD TO THE REQUIRED COMPACTED THICKNESS. SEGREGATION OF MATERIAL SHALL BE AVOIDED AND EACH LAYER OF MATERIAL, AS SPREAD, SHALL BE FREE FROM POCKETS OF COARSE OR FINE MATERIAL.

- a. THE FILL MATERIALS SHALL BE PLACED IN LOOSE HORIZONTAL LAYERS NOT MORE THAN SIX INCHES (6") IN THICKNESS PRIOR TO COMPACTION. THE MATERIAL SHALL BE GENTLY SPREAD OUT. UNDER NO CIRCUMSTANCES SHALL ANY MATERIAL BE DROPPED FROM ANY HEIGHT ONTO THE FILL SECTION.
- b. IF SEGREGATION OCCURS, MATERIAL SHALL BE WORKED UNTIL IT IS UNIFORMLY AND SATISFACTORILY BLENDED. AFTER SPREADING, THE MATERIAL SHALL BE WATERED AND SHAPED TO THE REQUIRED SECTION AND THEN COMPACTED AS SPECIFIED.
- c. AT THE TIME MATERIALS ARE SPREAD, IT SHALL HAVE A MOISTURE CONTENT IN CONFORMANCE WITH THE PROJECT SPECIFICATIONS. SUCH MOISTURE SHALL BE UNIFORMLY DISTRIBUTED THROUGHOUT THE MATERIAL.

FINISHING AND SLOPING GRADING

1. THE SURFACE OF THE TOP LAYER SHALL BE FINISHED TO THE DESIGNATED GRADE AND CROSS SECTION. THE FINISHED SURFACE SHALL BE OF UNIFORM TEXTURE, DRESSED AND GRADED TO DRAIN AND PREVENT WATER PONDING.

COMPACTION EQUIPMENT:

1. COMPACTION SHALL BE PERFORMED WITH A NON-VIBRATORY TYPE ROLLER COMPACTOR. VIBRATORY EQUIPMENT WILL NOT BE PERMITTED ON DISTRICT LEVEES AND FILLS.

TESTING:

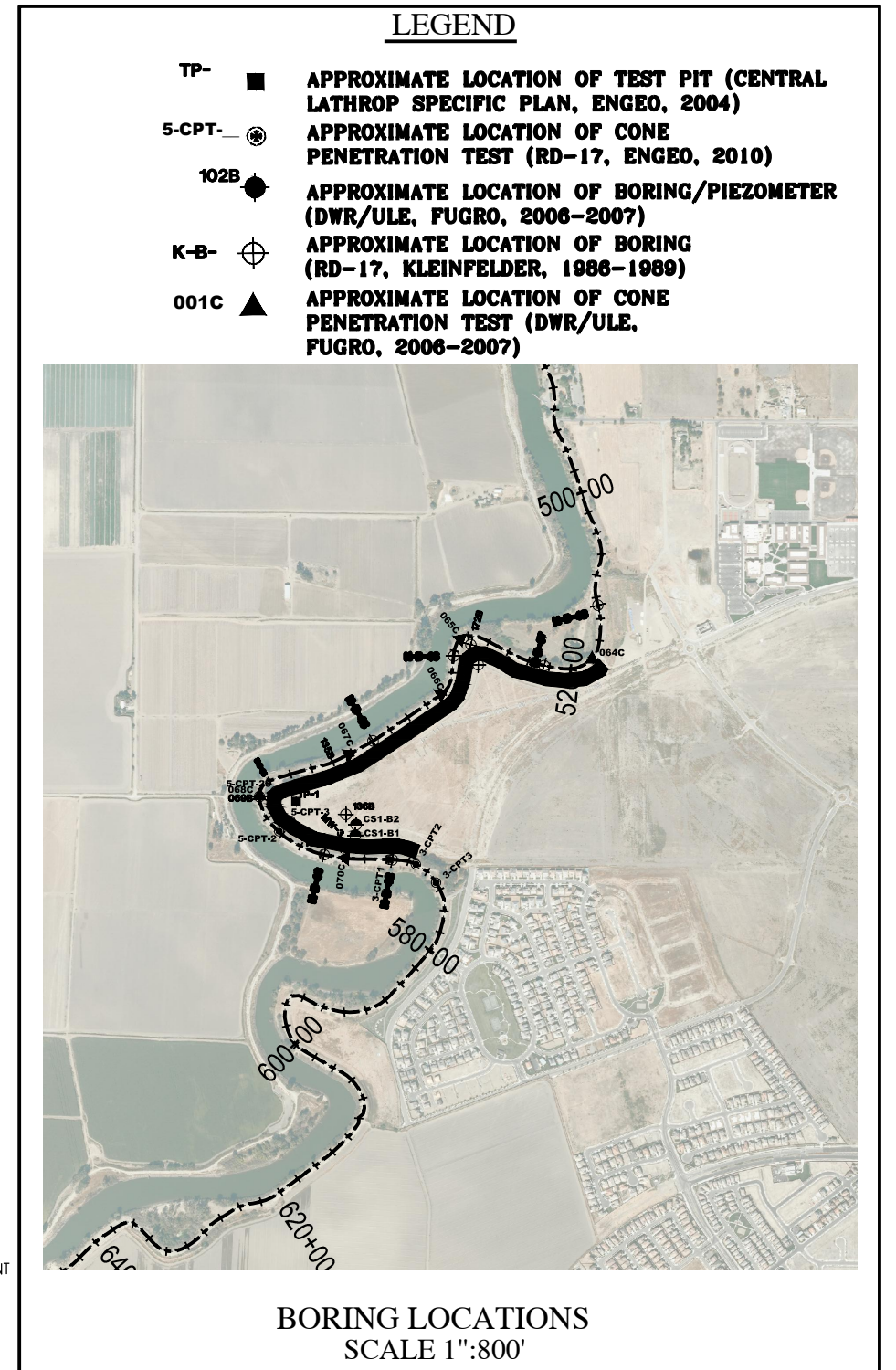
1. THE DISTRICT WILL RETAIN THE SERVICES OF AN INDEPENDENT SOILS CONSULTANT AND TESTING LABORATORY TO PERFORM SAMPLING AND TESTING AS REQUIRED AND TO CHECK FOR COMPLIANCE WITH THE SPECIFICATIONS. THE CONTRACTOR SHALL REMOVE SURFACE MATERIALS AT LOCATIONS DESIGNATED BY THE TESTING ENGINEER AT NO COST TO THE DISTRICT. THE INDEPENDENT TESTING LABORATORY WILL SAMPLE AND PERFORM ALL REQUIRED TESTS SUCH AS MOISTURE CONTENT; GRADATION, AND MOISTURE DENSITY RELATIONSHIPS ON THE EXCAVATED AND EMBANKMENT FILL MATERIALS

SWPPP:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DEVELOPMENT, INSTALLATION AND MAINTENANCE OF A SWPPP AND REQUIRE PROTECTION FEATURES. THESE FEATURES INCLUDE, BUT ARE NOT LIMITED TO, THOSE IDENTIFIED BELOW:
 - A. EROSION CONTROL FACILITIES
 - B. CONSTRUCTION ENTRANCE
 - C. STREET SWEEPING
 - D. THE CONTRACTOR IS RESPONSIBLE FOR ALL FINES, FEES, PENALTIES IMPOSED BY FEDERAL AND LOCAL AGENCIES DUE TO THE CONTRACTOR'S ACTIVITIES ASSOCIATED WITH THE SWPPP.
2. THE CONTRACTOR SHALL CONSTRUCT A STABILIZED CONSTRUCTION ENTRANCE AT ALL ENTRANCES TO THE PROJECT SITE AS APPROVED BY THE ENGINEER.
3. EROSION CONTROL FACILITIES AS SHOWN ON THESE PLANS HAVE BEEN PREPARED TO MEET THE REQUIREMENTS OF THE DISTRICT. THE PROJECT WILL REQUIRE A SWPPP, PREPARED BY A QUALIFIED DEVELOPER (QSD) WHO WILL ASSUME RESPONSIBILITY FOR THE PROJECT COMPLIANCE WITH THE STATE GENERAL CONSTRUCTION PERMIT AND WHOSE RECOMMENDATIONS WILL SUPERCEDE THIS PLAN ACCORDINGLY.

ABBREVIATIONS:

CL	CENTERLINE	N	NORTH, NORthing
CONST	CONSTRUCTION	NTS	NOT TO SCALE
DWSEL	DESIGN WATER SURFACE ELEVATION	PROP	PROPOSED
E	EAST, EASTING	RC	RELATIVE COMPACTION
ELEV	ELEVATION	R/W	RIGHT OF WAY
ESMT	EASEMENT	STA	STATION
EX	EXISTING	TCE	TEMPORARY CONSTRUCTION EASEMENT
FT	FOOT, FEET	TEMP	TEMPORARY
H	HORIZONTAL	TYP	TYPICAL
MIN	MINIMUM	V	VERTICAL
		WS	WATERSIDE



PLANS REVIEWED AND APPROVED BY:

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Stockton, CA 95201-0844
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THESE PLANS CONFORM TO THE GEOTECHNICAL REPORT ENTITLED: SEEPAGE EVALUATION PROJECT #5747.000.000

ENGEO INCORPORATED EXCELLENT SERVICE SINCE 1971

REGISTERED PROFESSIONAL ENGINEER
JOSEF TOOTLE
No. 2677
Exp. 6/30/2014
STATE OF CALIFORNIA

PLANS PREPARED UNDER THE DIRECTION OF:

MACKAY & SOMPS ENGINEERS PLANNERS SURVEYORS
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REGISTERED PROFESSIONAL ENGINEER
JAMES F. TEMPLETON JR.
No. 43061
Exp. 3/31/14
STATE OF CALIFORNIA

RECLAMATION DISTRICT NO. 17
ELEMENT III-A & III-B
NOTES & BORING LOCATIONS

SAN JOAQUIN COUNTY CALIFORNIA

DATE:	JAN 2014	PROJECT NO.	25182.010
SCALE:	SHOWN	SHT	3
DRAWN BY:	GB	OF	20
DESIGNED BY:	JBM		
CHECKED BY:	JSL		

CONTROL POINTS

- P1- N=2122543.04 E= 6325219.83 START SEEPAGE BERM (CL STATION 548+50)
- P2- N=2122122.44 E=6324847.61 END SEEPAGE BERM (CL STATION 555+70)
- P3- N=2121651.90 E=6326694.72 FND REBAR L.S. 4876 PER TRACT MAP 3533
- P4- N=2121650.91 E=6328675.89 FND IP L.S. 4876 PER TRACT MAP 3533

VERTICAL CONTROL POINTS

P5- N=2122614.90 E=6325486.531 ELEV=28.33 M&S SURVEY CONTROL PT# 87355

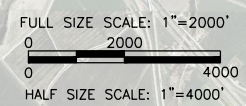
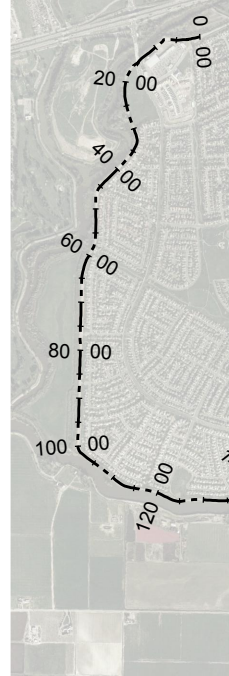
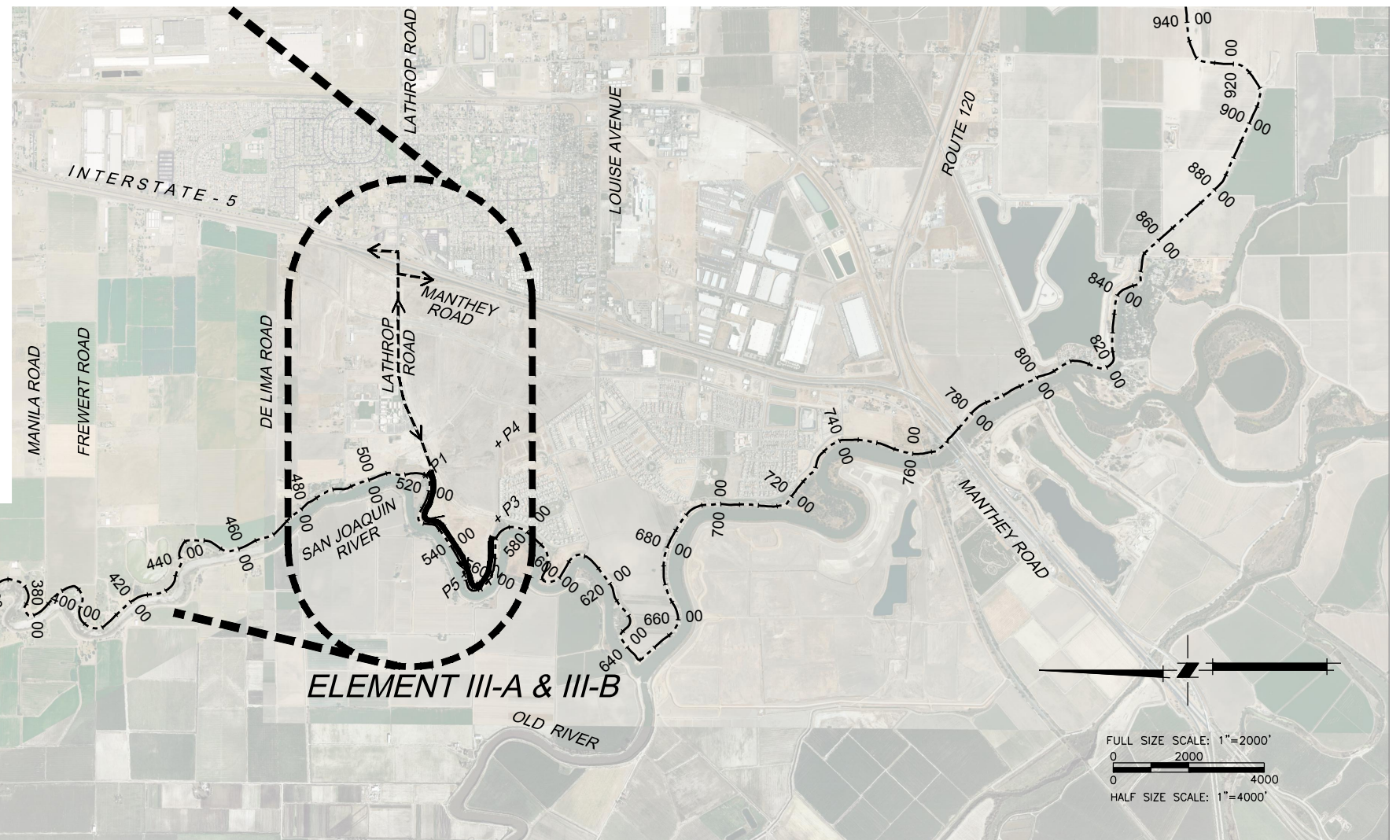
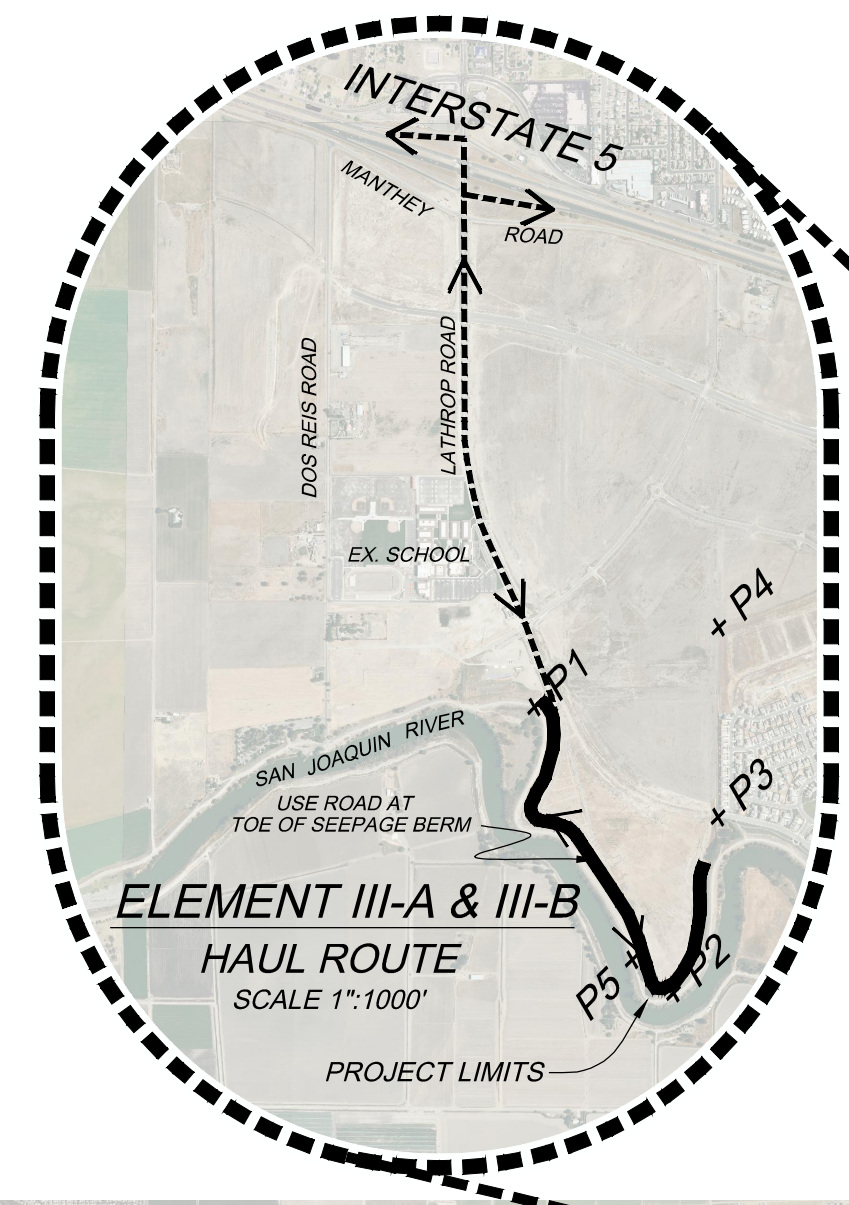
ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

BASIS OF BEARINGS

THE BASIS OF BEARINGS IS NORTH 12°33'37.56" EAST BETWEEN NATIONAL GEODETIC SURVEY HORIZONTAL CONTROL POINTS HPGN-D CA 10 HG (PID AA4256) AND MATTHEW (PID HSO118), CALIFORNIA COORDINATE SYSTEM ZONE 3, NAD83, EPOCH DATE 1997.30, AS CALCULATED AND ADJUSTED BY THE NATIONAL GEODETIC SURVEY IN JULY, 1998, AS SHOWN ON RECORD OF SURVEY RECORDED AT BOOK 34 PAGES 163 - 163B, OF SAN JOAQUIN COUNTY RECORDS. ALL DISTANCES SHOWN HEREON ARE GROUND DISTANCES. TO CONVERT TO GRID DISTANCE, MULTIPLY GROUND DISTANCE BY AVERAGE COMBINED SCALE FACTOR OF 0.999929125.

SITE SECURITY NOTES:

1. THE ACCESS GATE NEEDS TO REMAIN CLOSED UNLESS THERE IS ACTIVE CONSTRUCTION WITHIN THE SITE. THIS INCLUDES NIGHTS / WEEKENDS AND PERIODS OF INACTIVITY.
2. IF ANY LOCKS ARE INSTALLED BY THE CONTRACTOR, COPIES OF THE KEYS SHALL BE PROVIDED TO THE DISTRICT FOR ACCESS DURING CONSTRUCTION.



←-----→ INDICATES HAUL ROUTES TO BE USED BY CONTRACTOR

PLANS REVIEWED AND APPROVED BY:

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E-mail: KSN@ksninc.com

THESE PLANS CONFORM TO THE GEOTECHNICAL REPORT ENTITLED: SEEPAGE EVALUATION PROJECT #5747.000.000

ENGEO INCORPORATED EXCELLENT SERVICE SINCE 1971

REGISTERED PROFESSIONAL ENGINEER
JOSEF TOOLE
No. 2677
Exp. 6/30/2014
STATE OF CALIFORNIA

PLANS PREPARED UNDER THE DIRECTION OF:

MACKAY & SOMPS ENGINEERS PLANNERS SURVEYORS
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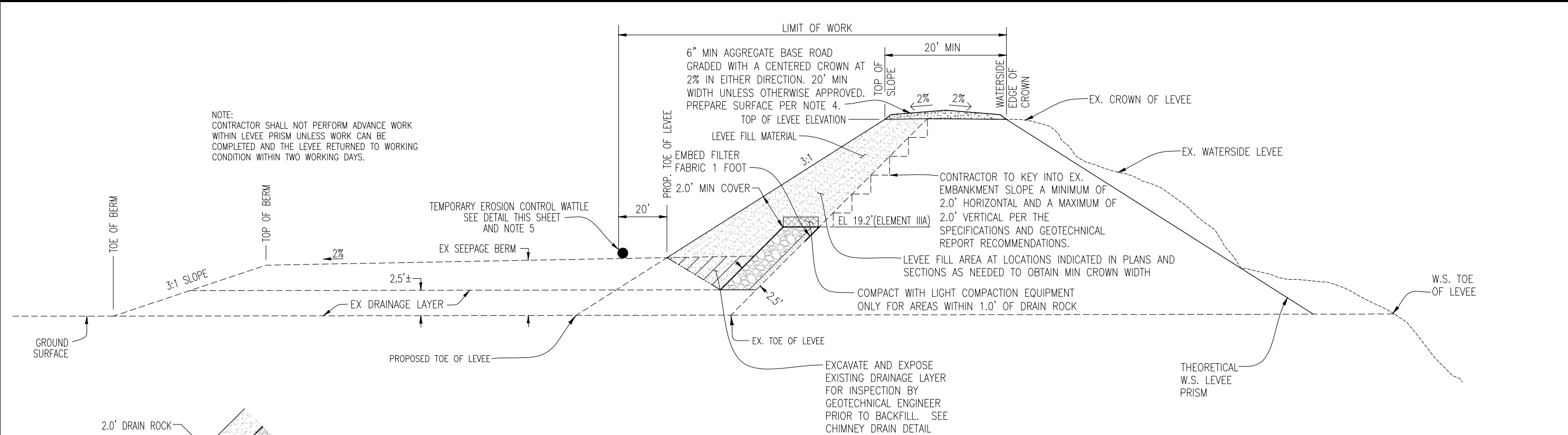
REGISTERED PROFESSIONAL ENGINEER
JAMES F. TEMPLETON JR.
No. 43061
Exp. 3/31/14
STATE OF CALIFORNIA

RECLAMATION DISTRICT NO. 17
ELEMENT III-A & III-B
HAUL ROUTE & CONTROL POINTS

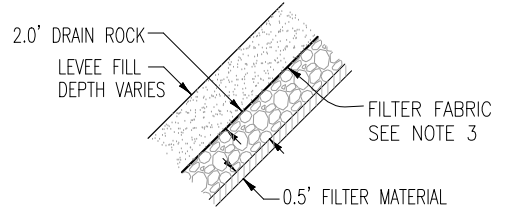
SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: AS NOTED	SHT 4
DRAWN BY: GB	OF 20
DESIGNED BY: JBM	
CHECKED BY: JSL	



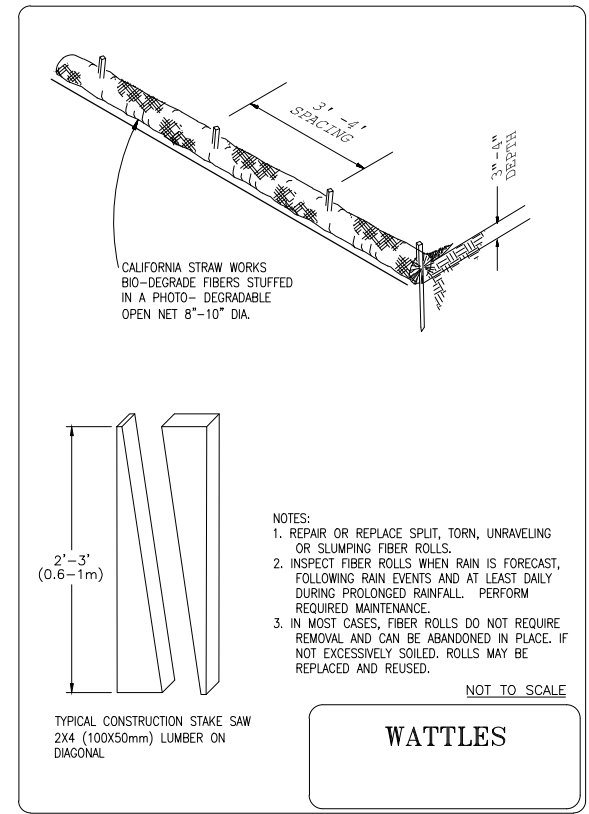
NOTE:
CONTRACTOR SHALL NOT PERFORM ADVANCE WORK WITHIN LEVEE PRISM UNLESS WORK CAN BE COMPLETED AND THE LEVEE RETURNED TO WORKING CONDITION WITHIN TWO WORKING DAYS.



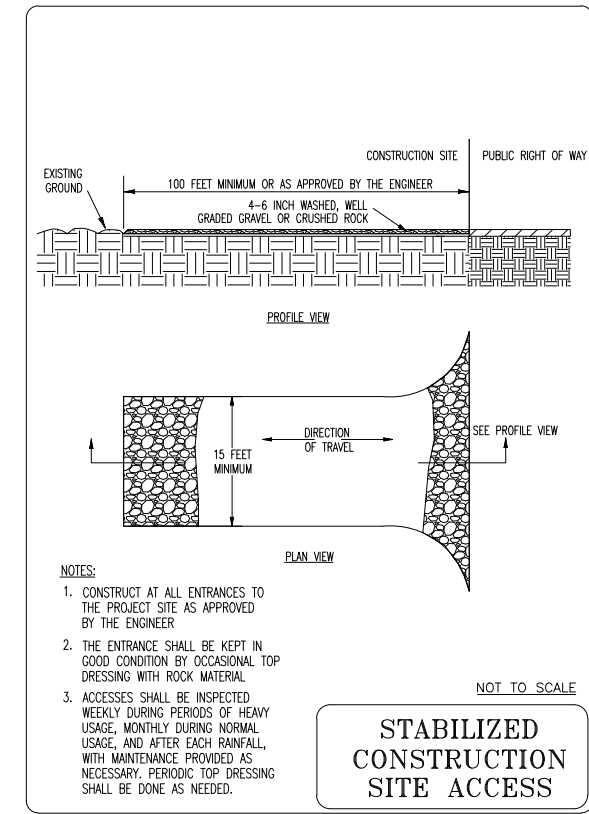
CHIMNEY DRAIN DETAIL
NTS

SECTION A-A: STATION 515+50 THRU 548+50 & 555+70 THRU 569+50
NTS

- NOTES:
- RD17 RIGHT OF WAY EXTENDS FROM THE SAN JOAQUIN RIVER WATER'S EDGE (AT ORDINARY HIGH WATER) TO THE PROPOSED RD17 RIGHT OF WAY SHOWN ABOVE AND ON THE DETAILED CROSS-SECTIONS WITHIN THIS PLAN SET. TEMPORARY CONSTRUCTION EASEMENTS WILL BE OBTAINED BY RD17 TO COVER THE LIMITS OF WORK AS SHOWN.
 - CLEAR AND GRUB WORKING AREAS. SCARIFY AND RECOMPACT EXISTING GROUND WORKING AREAS PER GEOTECHNICAL ENGINEER'S RECOMMENDATION.
 - ALL FILTER FABRIC SHALL BE MIRAFI FW700 OR APPROVED EQUAL. EDGES SHALL BE SEWN PER SPECIFICATIONS.
 - STRIP AND STOCKPILE EX. AB AS APPROVED BY ENGINEER PRIOR TO CONSTRUCTION. EACH LAYER OF AB PLACED SHALL BE NO LESS THAN 95% COMPACTION.
 - PLACE WATTLES ALONG THE LIMIT OF THE TEMPORARY CONSTRUCTION EASEMENT PRIOR TO BEGINNING WORK, ALL SUBSEQUENT EROSION CONTROL MEASURES SHALL BE INSTALLED PER THE PROVISIONS OF THE SWPPP.



WATTLES



STABILIZED CONSTRUCTION SITE ACCESS

PLANS REVIEWED AND APPROVED BY:

K S N KJELDEN SINNOCK NEUDECK INC. Consulting Engineers and Land Surveyors

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Stockton, CA 95201-0844
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Faxes: (209) 946-0296
E-mail: KSN@ksninc.com

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ENGEO INCORPORATED
EXCELLENT SERVICE SINCE 1971

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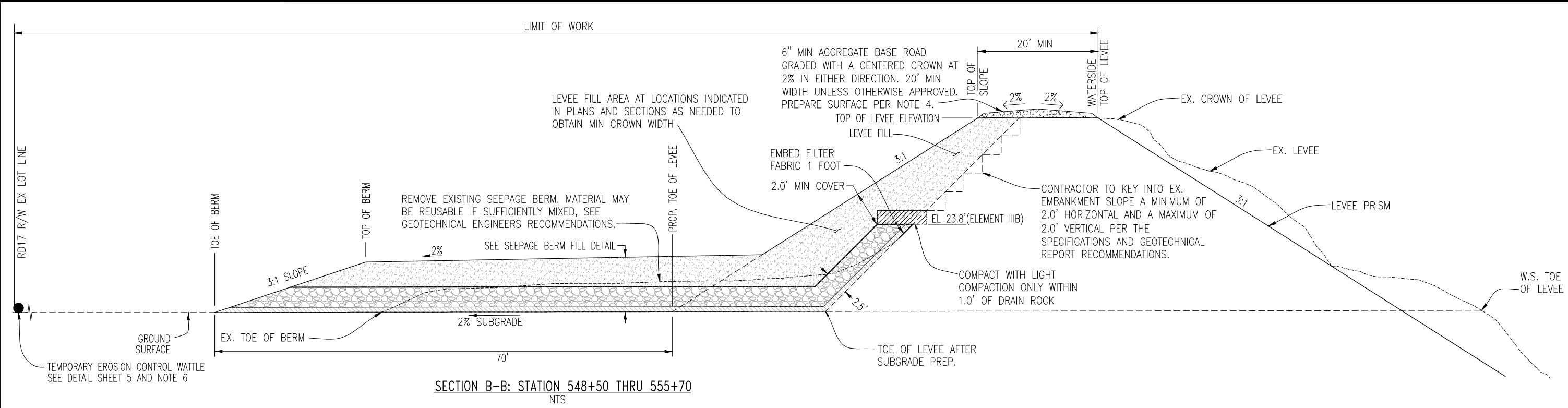
MACKAY & SOMPS
ENGINEERS PLANNERS SURVEYORS

5142 Franklin Drive, Suite B, Pleasanton, CA 94588 (925) 225-0690

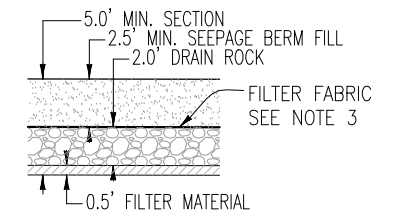
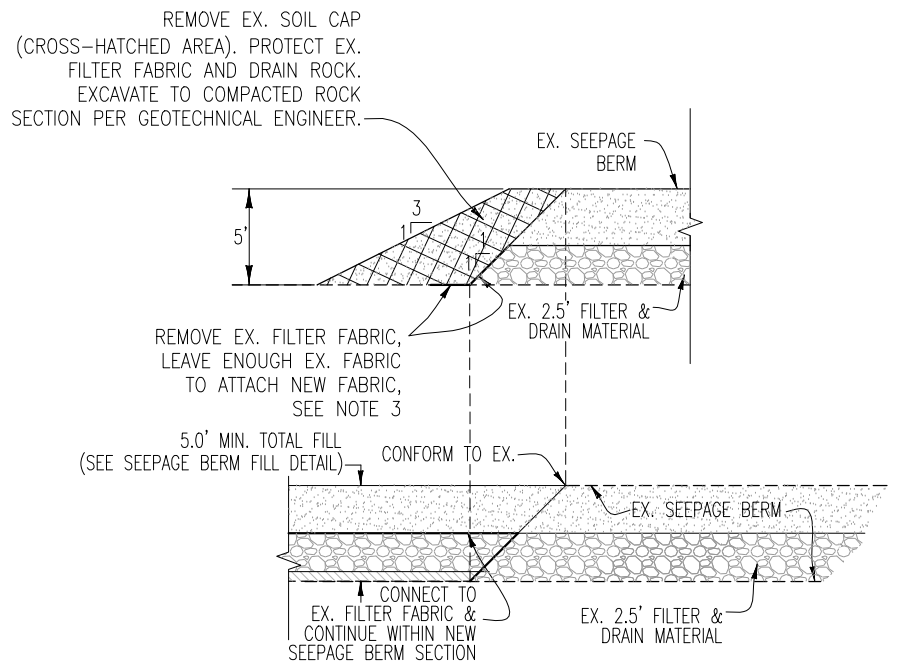
RECLAMATION DISTRICT NO. 17
ELEMENT III-A & III-B
TYPICAL SECTIONS AND DETAILS

SAN JOAQUIN COUNTY CALIFORNIA

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: NOT TO SCALE	SHT 5
DRAWN BY: GB	OF 20
DESIGNED BY: JBM	
CHECKED BY: JSL	
NO. _____	REVISION _____
DATE _____	



SEEPAGE BERM FILL DETAIL
NTS



- NOTES:
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 - CONTRACTOR TO CLEAR, AND GRUB WORKING AREAS. SCARIFY AND RECOMPACT EXISTING GROUND WORKING AREAS PER GEOTECHNICAL ENGINEER'S RECOMMENDATION.
 - ALL FILTER FABRIC SHALL BE MIRAFI FW700 OR APPROVED EQUAL. EDGES SHALL BE SEWN PER SPECIFICATIONS.
 - CONTRACTOR SHALL STRIP AND STOCKPILE EX. AB AS APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION. SCARIFY 6" AND RECOMPACT LEVEE CROWN SUBGRADE TO 90% RELATIVE COMPACTION PRIOR TO PLACEMENT OF AB. EACH LAYER OF AB PLACED SHALL BE NOT LESS THAN 95% RELATIVE COMPACTION.
 - GRADE SUBGRADE TO UNIFORM 2% SLOPE TO ENSURE CONSISTENT BERM LAYER THICKNESS.
 - CONTRACTOR SHALL PLACE WATTLES ALONG THE LIMIT OF THE TEMPORARY CONSTRUCTION EASEMENT PRIOR TO BEGINNING WORK, ALL SUBSEQUENT EROSION CONTROL MEASURES SHALL BE INSTALLED PER THE PROVISIONS OF THE SWPPP.

PLANS REVIEWED AND APPROVED BY:

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MACKAY & SOMPS
ENGINEERS PLANNERS SURVEYORS








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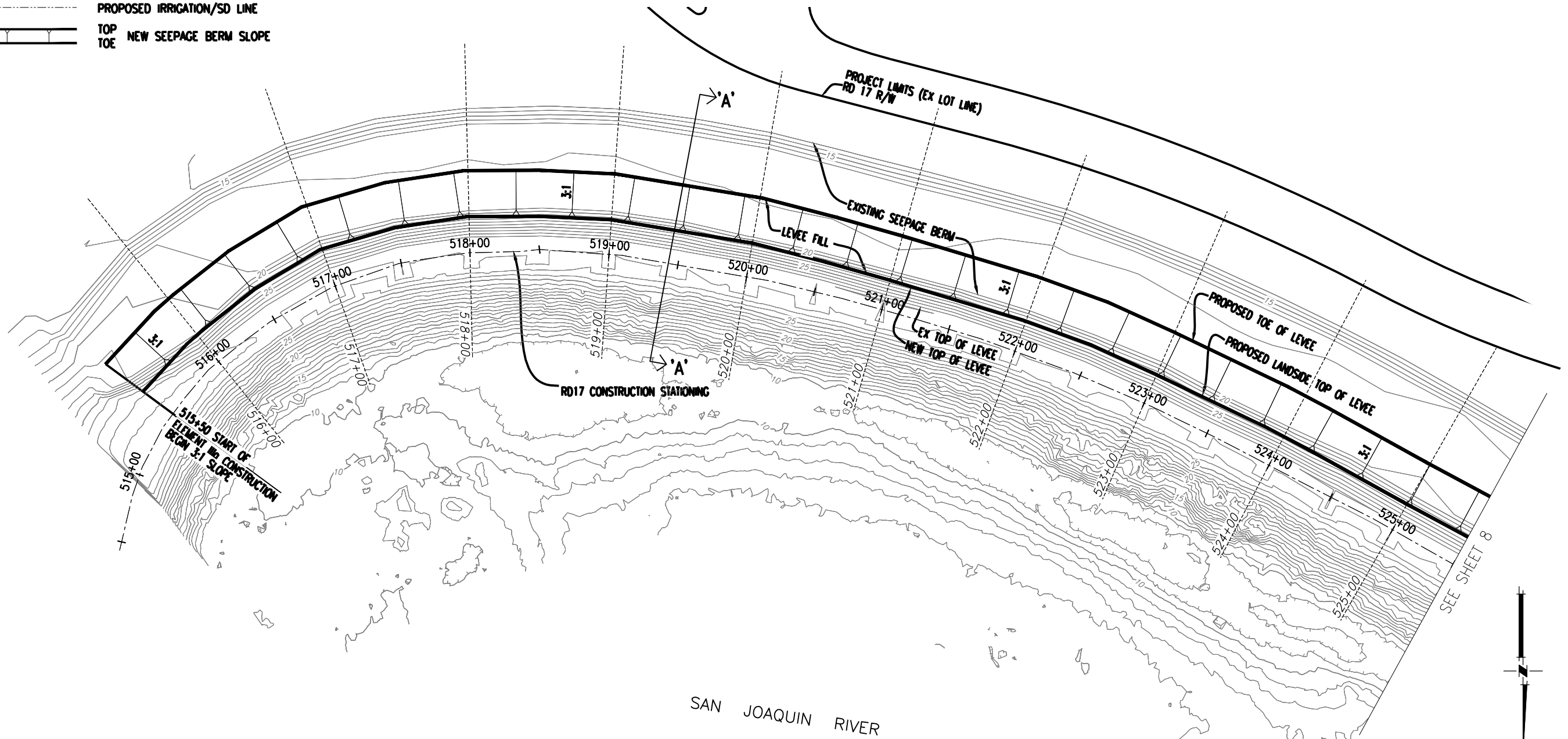
RECLAMATION DISTRICT NO. 17
ELEMENT III-A & III-B
TYPICAL SECTIONS AND DETAILS

SAN JOAQUIN COUNTY CALIFORNIA

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: NOT TO SCALE	SHT 6
DRAWN BY: GB	OF 20
DESIGNED BY: JBM	
CHECKED BY: JSL	
NO. _____	REVISION _____
DATE _____	

LEGEND

-  EXISTING GAS LINE
-  EXISTING OVERHEAD ELECTRIC LINE
-  EXISTING UNDERGROUND ELECTRIC LINE
-  EXISTING IRRIGATION/SD LINE
-  PROPOSED IRRIGATION/SD LINE
-  TOP NEW SEEPAGE BERM SLOPE
-  TOE



FULL SIZE SCALE: 1"=40'
 0 40 80
 HALF SIZE SCALE: 1"=80'

PLANS REVIEWED AND APPROVED BY:

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ENGEO INCORPORATED
 EXCELLENT SERVICE SINCE 1971

REGISTERED PROFESSIONAL ENGINEER
 JOSEF TOOTLE
 No. 2677
 Exp. 6/30/2014
 GEOTECHNICAL
 STATE OF CALIFORNIA

PLANS PREPARED UNDER THE DIRECTION OF:

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 JAMES F. TEMPLETON JR.
 No. 43061
 Exp. 3/31/14
 CIVIL
 STATE OF CALIFORNIA

RECLAMATION DISTRICT NO. 17
 ELEMENT III-A & III-B
 PLAN VIEW - ELEMENT IIIa - STATION 515+50 TO 525+50








SAN JOAQUIN COUNTY CALIFORNIA

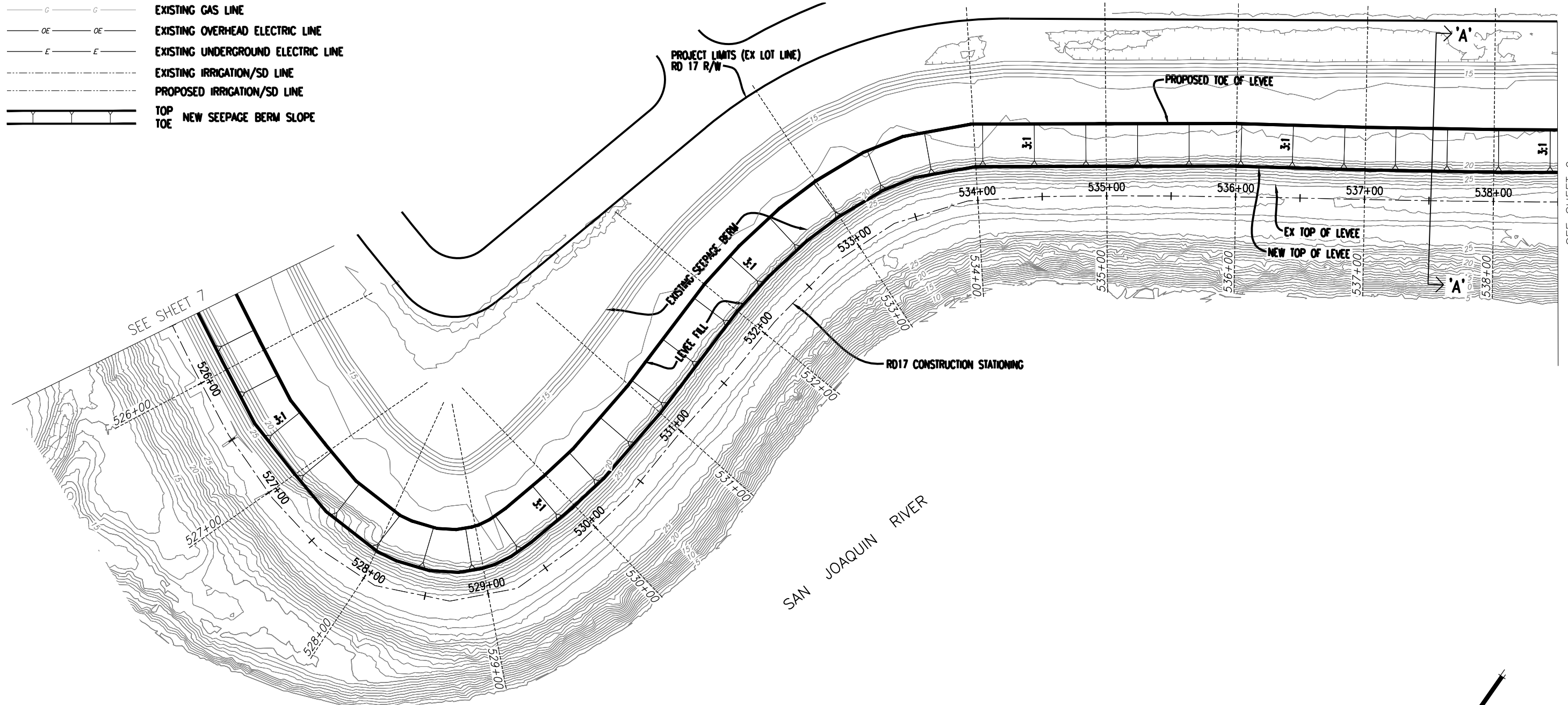
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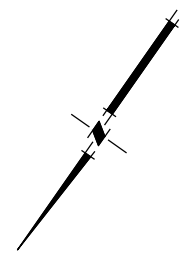
ELEMENT III-A & III-B (SEEPAGE BERM) 65% SUBMITTAL

LEGEND

-  EXISTING GAS LINE
-  EXISTING OVERHEAD ELECTRIC LINE
-  EXISTING UNDERGROUND ELECTRIC LINE
-  EXISTING IRRIGATION/SD LINE
-  PROPOSED IRRIGATION/SD LINE
-  TOP NEW SEEPAGE BERM SLOPE
-  TOE NEW SEEPAGE BERM SLOPE



SEE SHEET 9



FULL SIZE SCALE: 1"=40'
 0 40 80
 HALF SIZE SCALE: 1"=80'

PLANS REVIEWED AND APPROVED BY:

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 CIVIL
 STATE OF CALIFORNIA

K KJELDSSEN
S SINNOCK
N NEUDECK
 INC. Consulting Engineers
 and Land Surveyors

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 No. 2677
 Exp. 6/30/2014
 GEOTECHNICAL
 STATE OF CALIFORNIA

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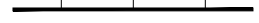
RECLAMATION DISTRICT NO. 17
 ELEMENT III-A & III-B
 PLAN VIEW - ELEMENT IIIa - STATION 525+50 TO 538+50
 SAN JOAQUIN COUNTY CALIFORNIA

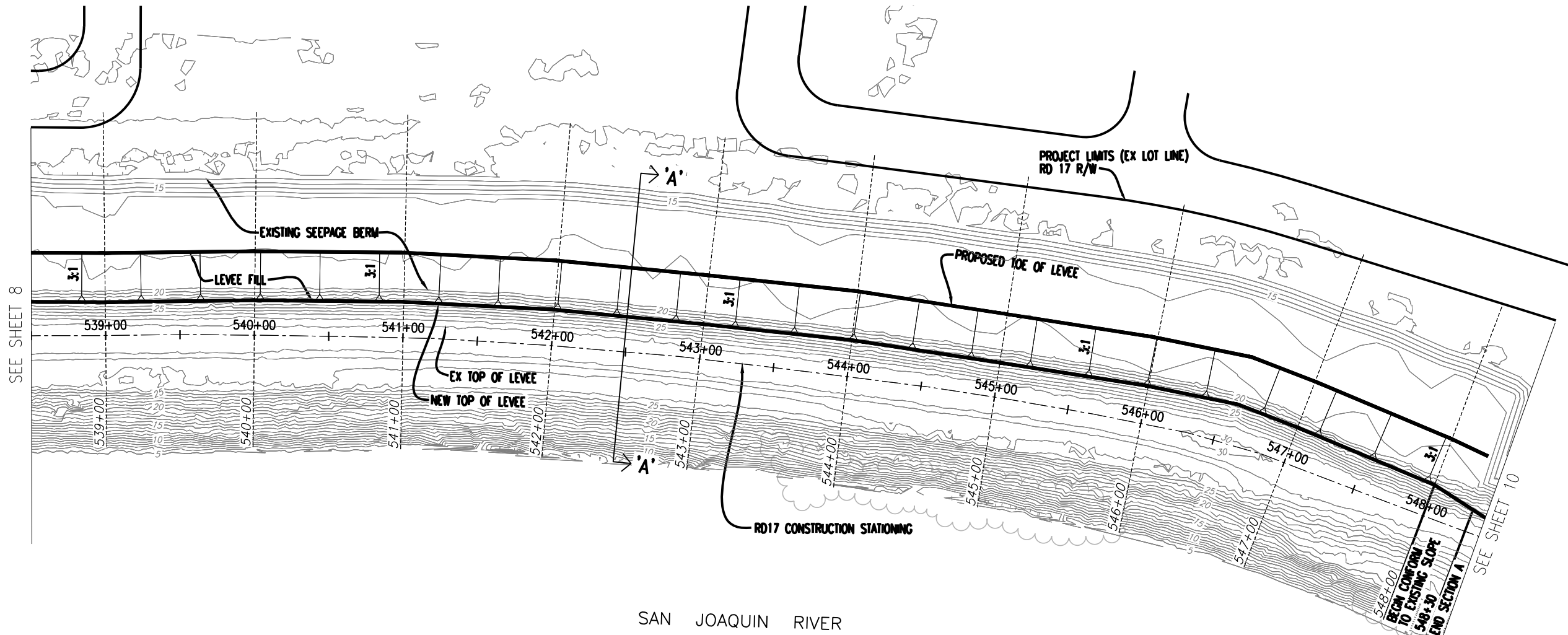
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DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: NOT TO SCALE	SHT 8
DRAWN BY: GB	OF 20
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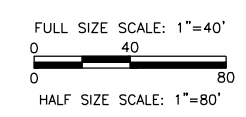
ELEMENT III-A & III-B (SEEPAGE BERM) 65% SUBMITTAL

LEGEND

-  EXISTING GAS LINE
-  EXISTING OVERHEAD ELECTRIC LINE
-  EXISTING UNDERGROUND ELECTRIC LINE
-  EXISTING IRRIGATION/SD LINE
-  PROPOSED IRRIGATION/SD LINE
-  TOP OF NEW SEEPAGE BERM SLOPE
-  TOE OF NEW SEEPAGE BERM SLOPE



SAN JOAQUIN RIVER



PLANS REVIEWED AND APPROVED BY:

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REGISTERED PROFESSIONAL ENGINEER
JOSEF TOOTLE
No. 2677
Exp. 6/30/2014
GEOTECHNICAL
STATE OF CALIFORNIA

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RECLAMATION DISTRICT NO. 17
ELEMENT III-A & III-B
PLAN VIEW - ELEMENT IIIa - STATION 538+50 TO 548+30

SAN JOAQUIN COUNTY CALIFORNIA

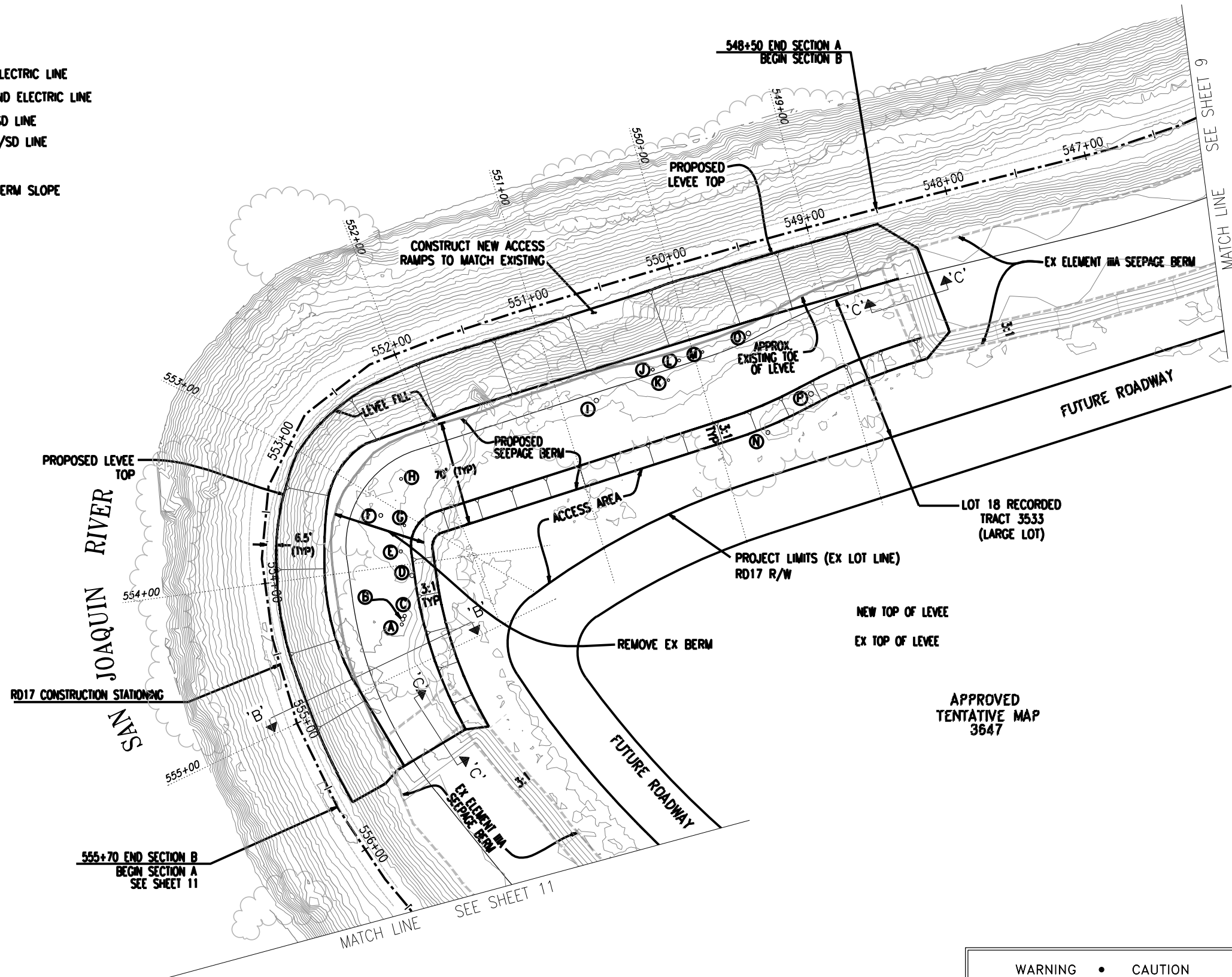
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SCALE: NOT TO SCALE	SHT 9
DRAWN BY: GB	OF 20
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CHECKED BY: JSL	

ELEMENT III-A & III-B (SEEPAGE BERM) 65% SUBMITTAL

LEGEND

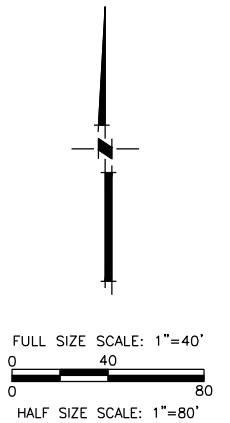
- G — G — EXISTING GAS LINE
- OE — OE — EXISTING OVERHEAD ELECTRIC LINE
- E — E — EXISTING UNDERGROUND ELECTRIC LINE
- - - - - EXISTING IRRIGATION/SD LINE
- - - - - PROPOSED IRRIGATION/SD LINE
- ===== CONFORM
- ===== TOP NEW SEEPAGE BERM SLOPE
- ===== EX TOE



- TREE LEGEND:**
- Ⓐ 22" TREE TO BE REMOVED
 - Ⓑ 16" TREE TO BE REMOVED
 - Ⓒ 22" TREE TO BE REMOVED
 - Ⓓ 36" TREE TO BE REMOVED
 - Ⓔ 22" TREE TO BE REMOVED
 - Ⓕ 28" TREE TO BE REMOVED
 - Ⓖ 20" TREE TO BE REMOVED
 - Ⓗ 24" TREE TO BE REMOVED
 - Ⓘ 36" TREE TO BE REMOVED
 - Ⓚ 24" TREE TO BE REMOVED
 - Ⓛ 20" TREE TO BE REMOVED
 - Ⓜ 24" TREE TO BE REMOVED
 - Ⓝ 20" TREE TO BE REMOVED
 - Ⓟ 20" TREE TO BE REMOVED
 - Ⓠ 30" TREE TO BE REMOVED
 - Ⓡ 32" TREE TO BE REMOVED
 - Ⓢ 40" TREE TO BE REMOVED

NOTE:
 TREE REMOVAL SHALL BE COMPLETE PRIOR TO SEEPAGE BERM CONSTRUCTION INCLUDING REMOVAL OF STUMPS AND ROOTS LARGER THAN 1 1/2" IN DIAMETER. BACKFILL HOLES CREATED FROM ALL TREE REMOVALS PER GEOTECHNICAL REPORT.

WARNING • CAUTION
 EXISTING UNDERGROUND UTILITIES
 CONTACT : UNDERGROUND SERVICE ALERT
 PHONE: (800) 642-2444
 FOR MARKING PRIOR TO DIGGING



PLANS REVIEWED AND APPROVED BY:

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 Faxes: (209) 946-0296
 E-mail: KSN@ksninc.com

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REGISTERED PROFESSIONAL ENGINEER
 JOSEF TOOTE
 No. 2677
 Exp. 6/30/2014
 GEOTECHNICAL
 STATE OF CALIFORNIA

PLANS PREPARED UNDER THE DIRECTION OF:

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 Exp. 3/31/14
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RECLAMATION DISTRICT NO. 17
ELEMENT III-A & III-B








PLAN VIEW - ELEMENT IIIb
 STATION 548+50 TO 555+70

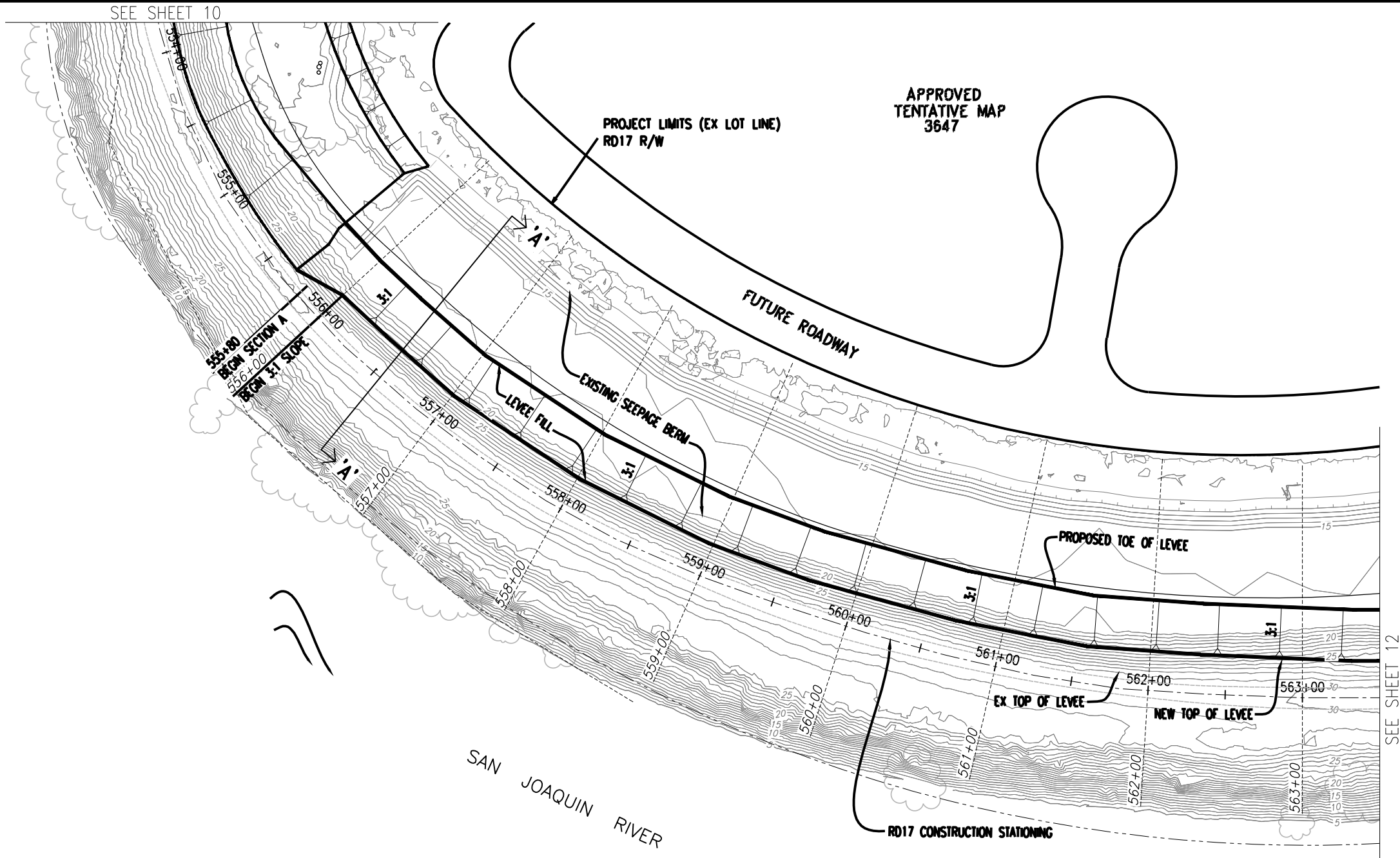
SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: 1" = 80'	SHT 10
DRAWN BY: GB	OF 20
DESIGNED BY: JBM	
CHECKED BY: JSL	

LEGEND

-  EXISTING GAS LINE
-  EXISTING OVERHEAD ELECTRIC LINE
-  EXISTING UNDERGROUND ELECTRIC LINE
-  EXISTING IRRIGATION/SD LINE
-  PROPOSED IRRIGATION/SD LINE
-  TOP OF NEW SEEPAGE BERM SLOPE
-  TOE OF NEW SEEPAGE BERM SLOPE



SEE SHEET 10

APPROVED TENTATIVE MAP 3647

PROJECT LIMITS (EX LOT LINE) RD17 R/W

FUTURE ROADWAY

EXISTING SEEPAGE BERM

LEVEL FILL

PROPOSED TOE OF LEVEE

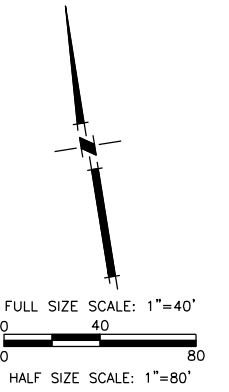
EX TOP OF LEVEE

NEW TOP OF LEVEE

SAN JOAQUIN RIVER

RD17 CONSTRUCTION STATIONING

SEE SHEET 12



PLANS REVIEWED AND APPROVED BY:

K KJELDSSEN
S SINNOCK
N NEUDECK
INC. Consulting Engineers and Land Surveyors

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RECLAMATION DISTRICT NO. 17
ELEMENT III-A & III-B
PLAN VIEW - ELEMENT IIIa - STATION 555+80 TO 563+50

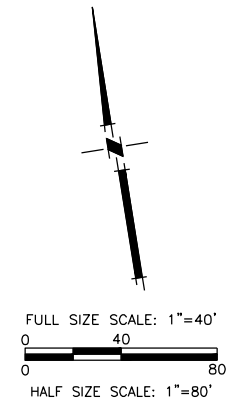
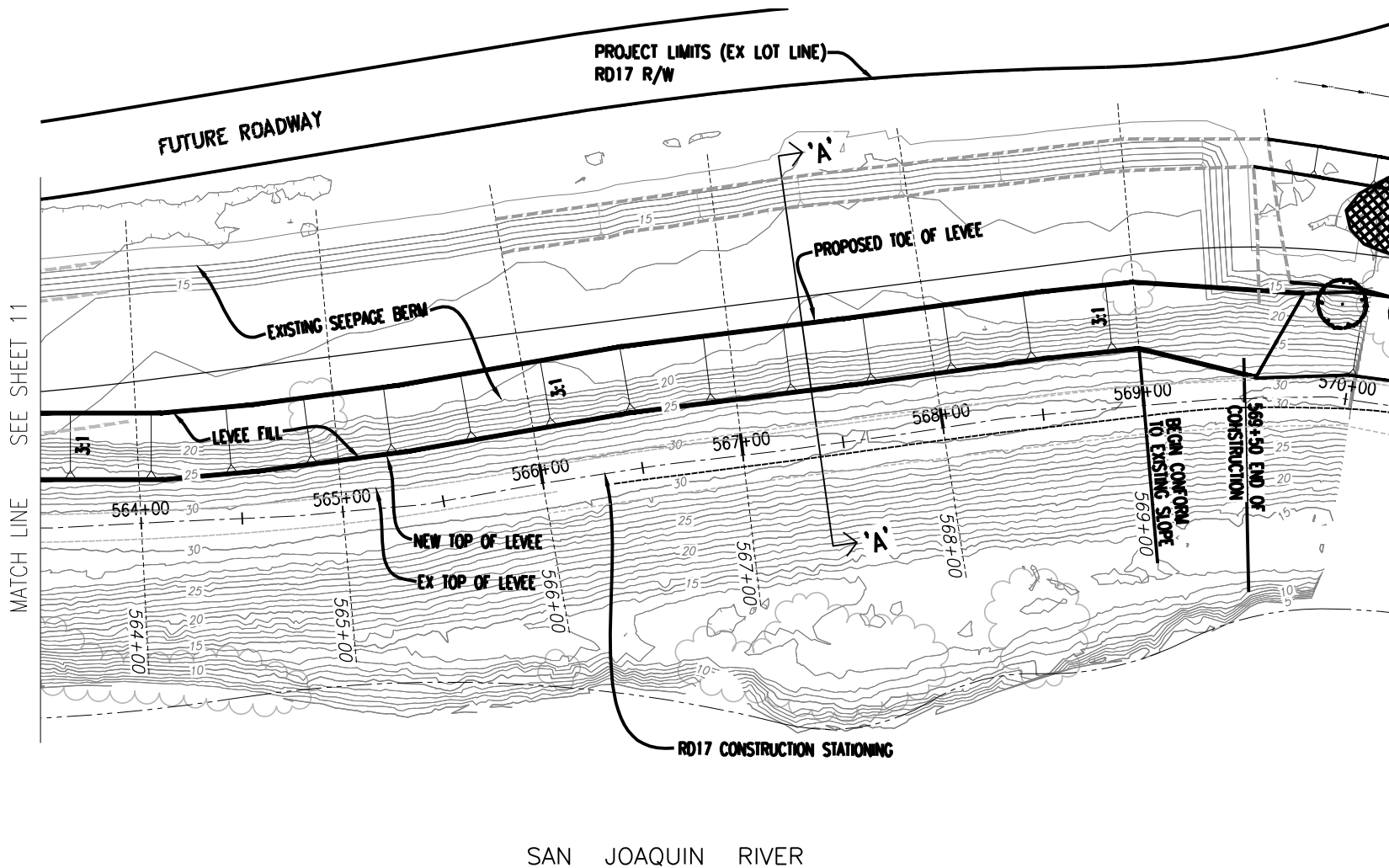
SAN JOAQUIN COUNTY CALIFORNIA

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DATE: JAN 2014	PROJECT NO. 25182.010
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LEGEND

- G — G — EXISTING GAS LINE
- OE — OE — EXISTING OVERHEAD ELECTRIC LINE
- E — E — EXISTING UNDERGROUND ELECTRIC LINE
- - - - - EXISTING IRRIGATION/SD LINE
- - - - - PROPOSED IRRIGATION/SD LINE
- TOP NEW SEEPAGE BERM SLOPE
- TOE



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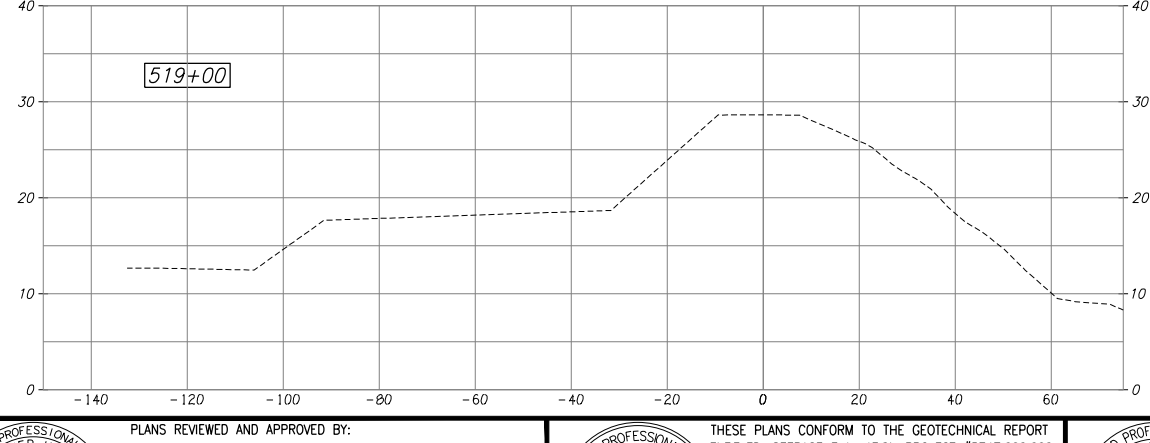
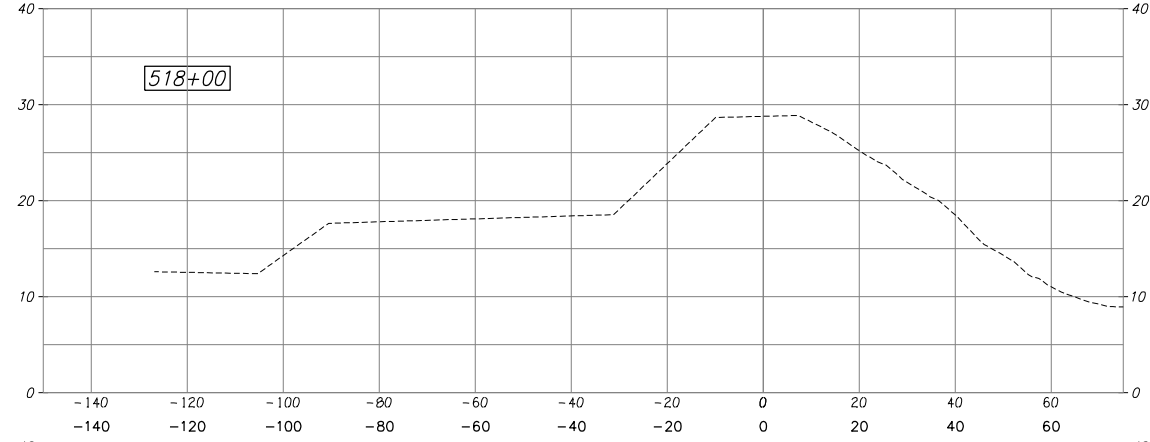
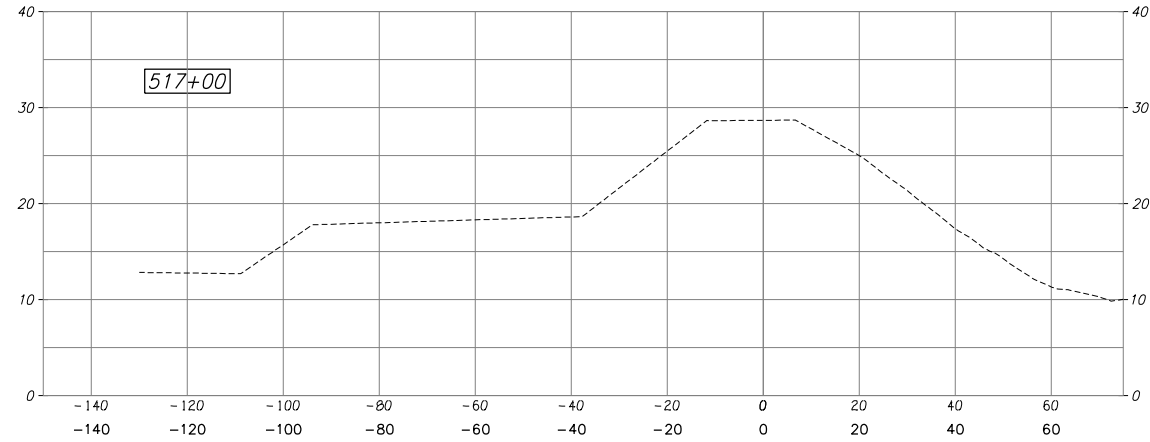
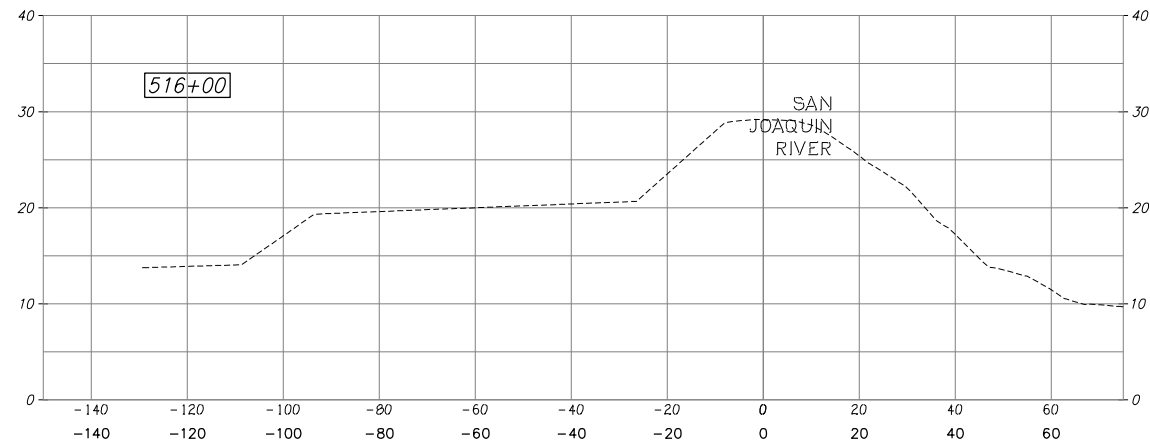
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RECLAMATION DISTRICT NO. 17
ELEMENT III-A & III-B
PLAN VIEW - ELEMENT IIIa - STATION 563+50 TO 569+50

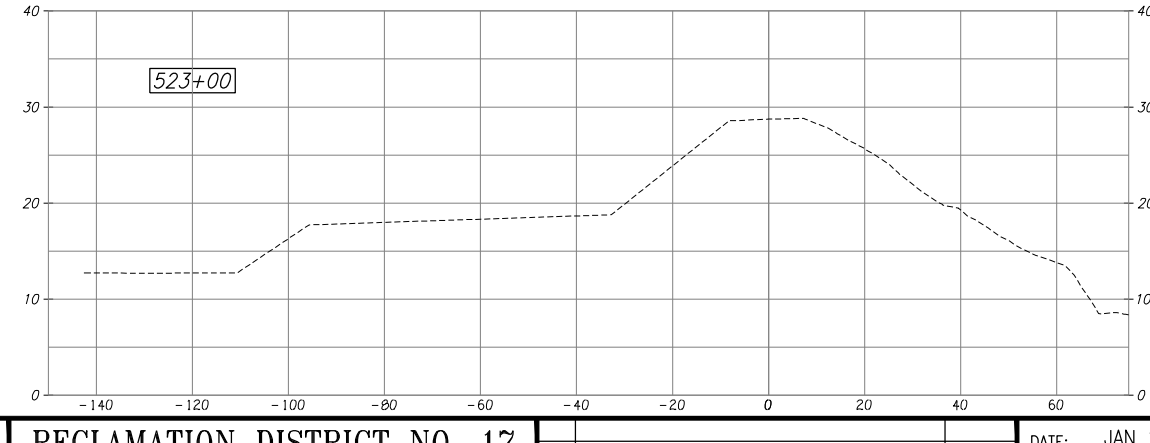
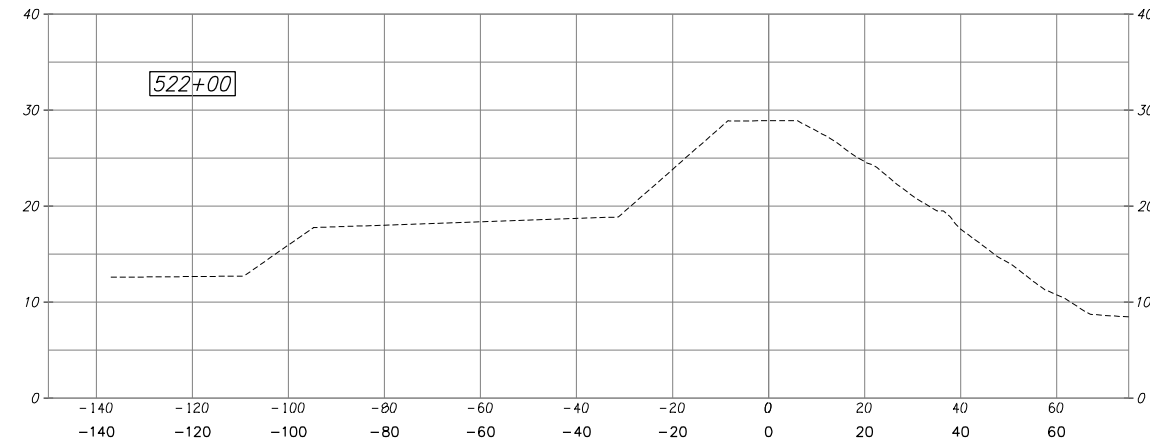
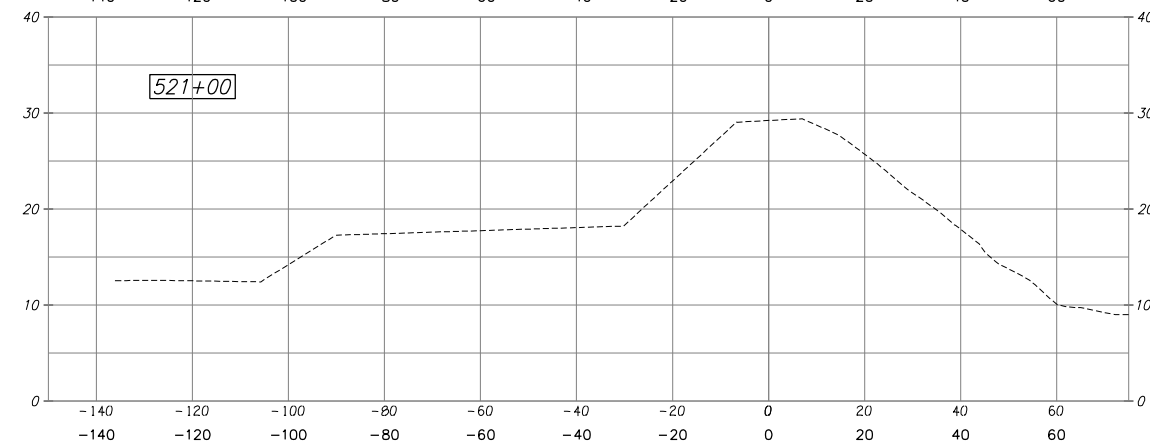
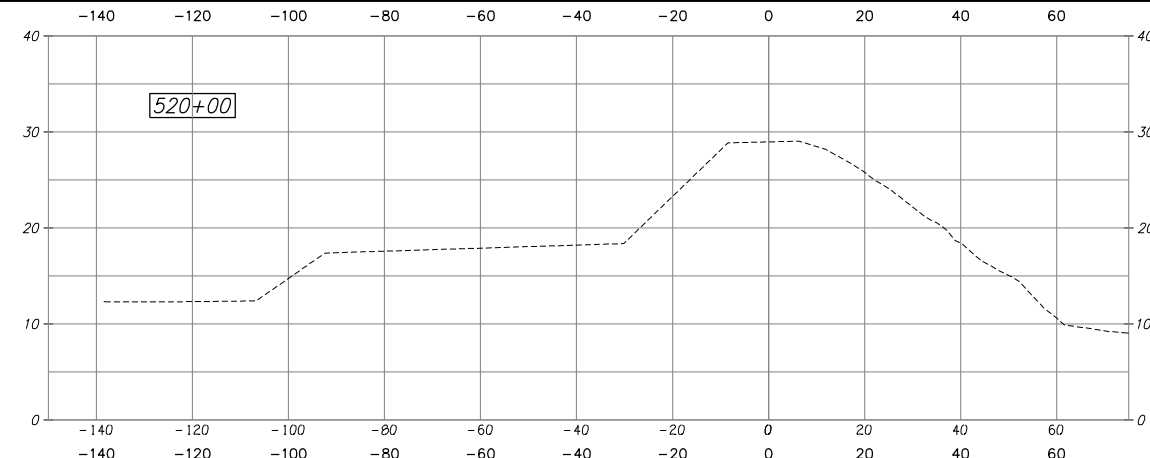
SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

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DESIGNED BY: JBM	
CHECKED BY: JSL	



DESIGN DETAILS
WILL BE ADDED
TO THESE
SECTIONS AFTER
65% COMMENTS
ARE RECEIVED.
PLEASE SEE
TYPICAL
SECTIONS FOR
65% REVIEW.



PLANS REVIEWED AND APPROVED BY:

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Consulting Engineers and Land Surveyors
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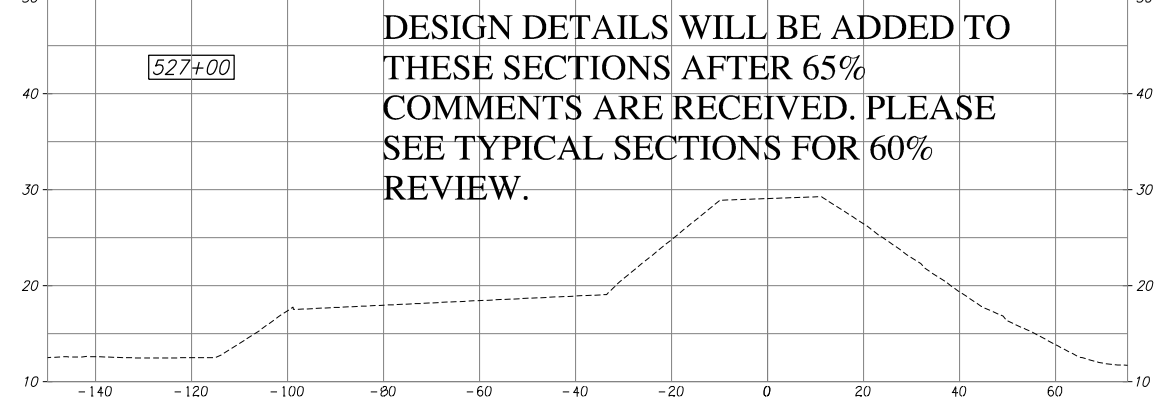
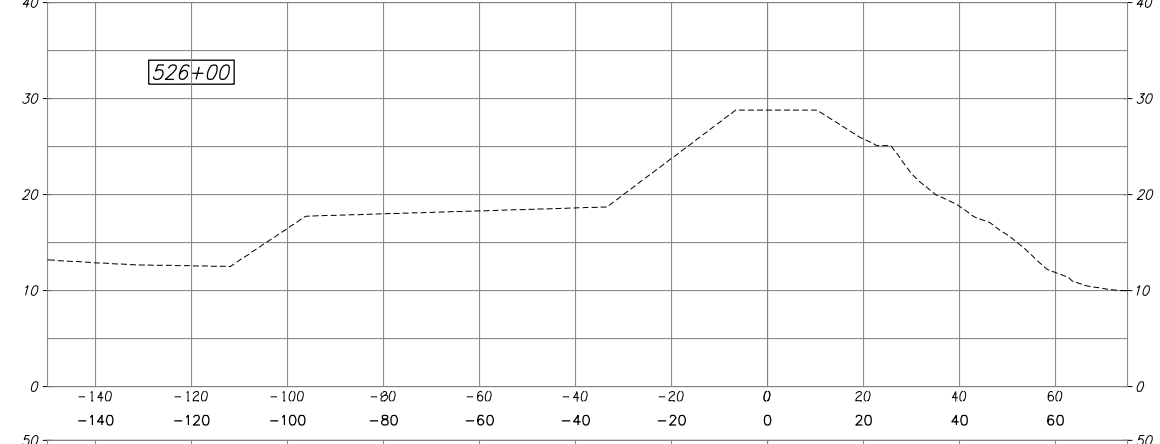
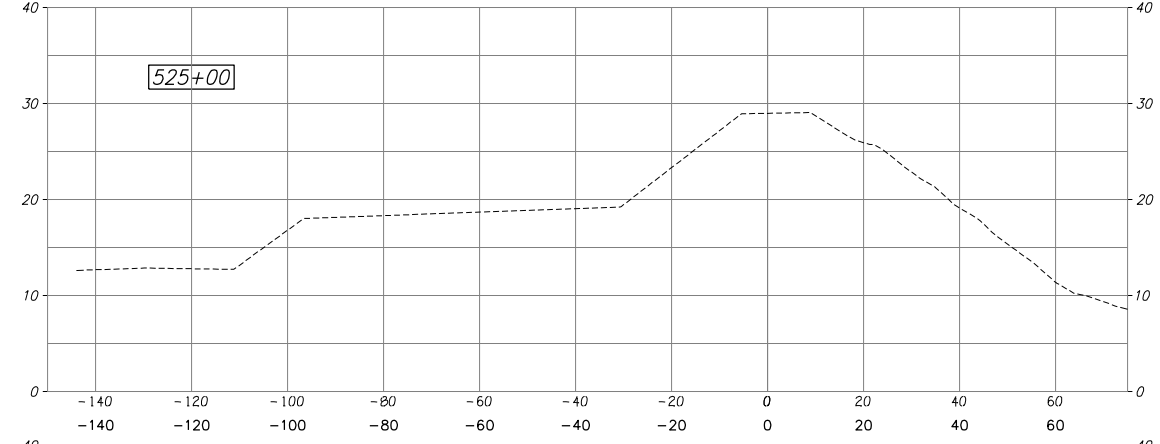
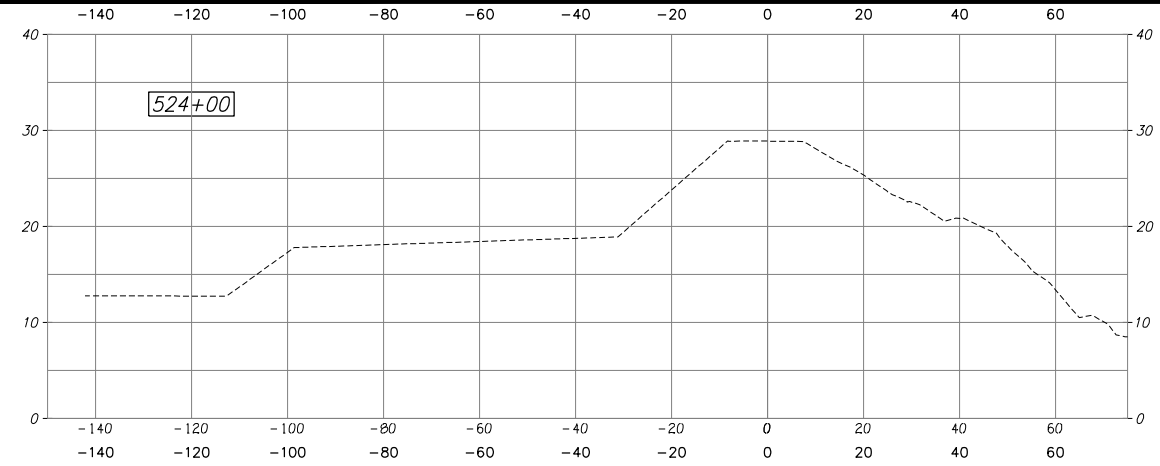
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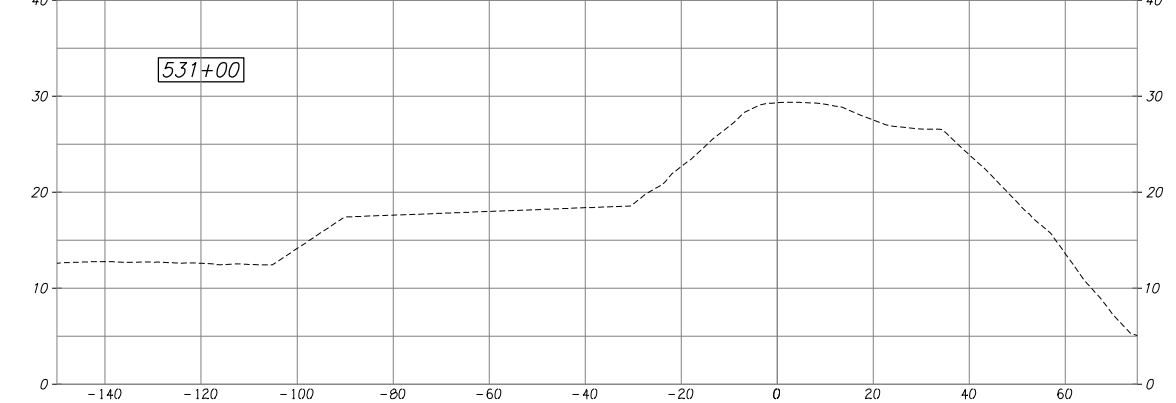
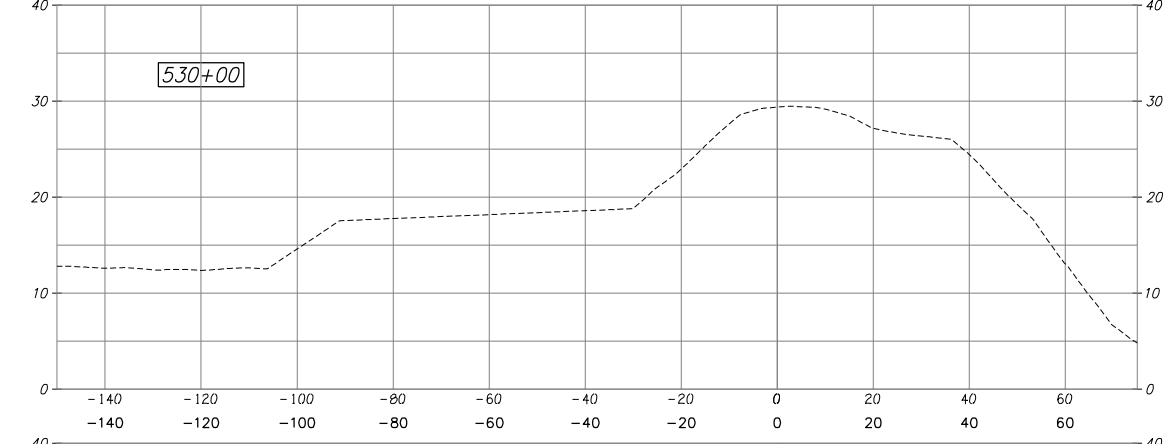
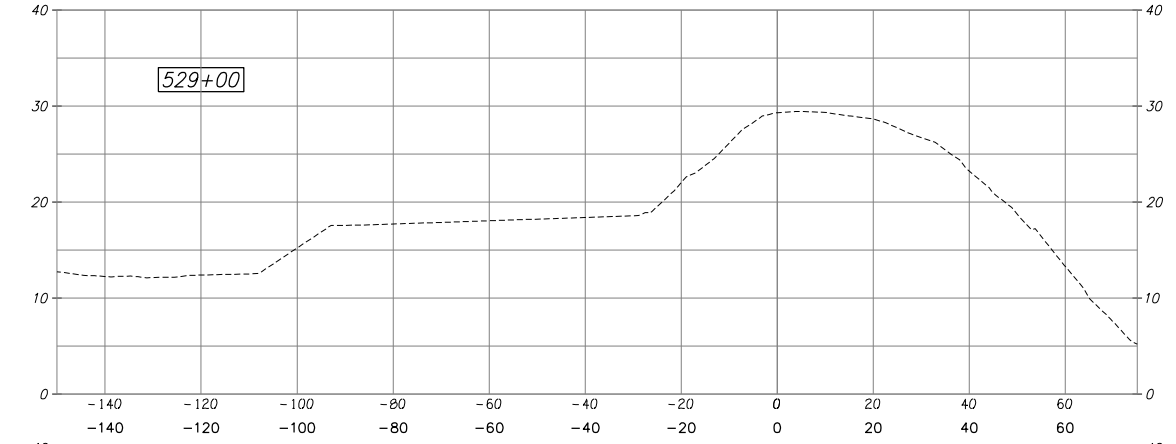
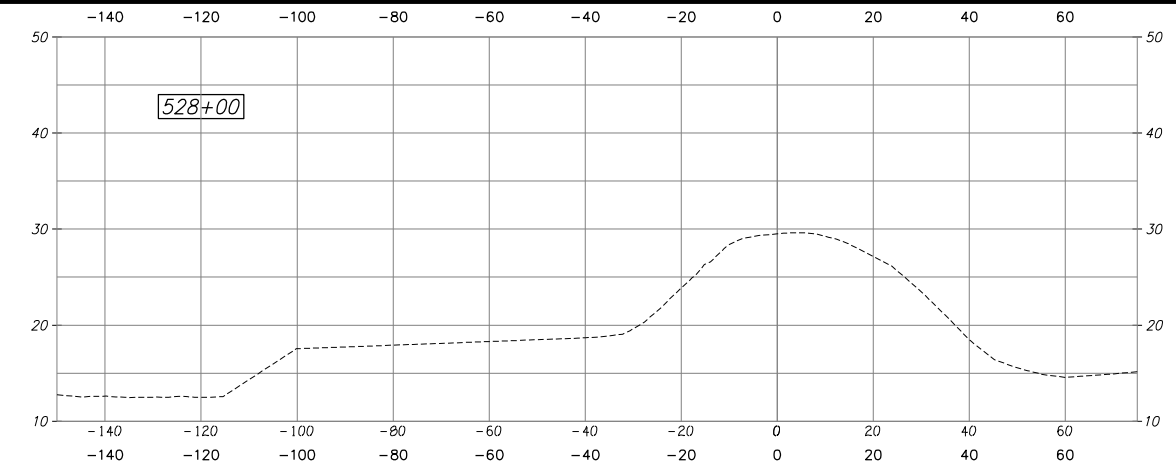
RECLAMATION DISTRICT NO. 17
ELEMENT III-A & III-B
PROFILE - ELEMENT IIIa - STATION 516+00 TO 523+00
SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: NOT TO SCALE	SHT 13
DRAWN BY: GB	OF 20
DESIGNED BY: JBM	
CHECKED BY: JSL	



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PLANS REVIEWED AND APPROVED BY:

K SJN KJELSEN SINNOCK NEUDECK INC.
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 Faxes: (209) 946-0296
 E-mail: KSN@ksninc.com

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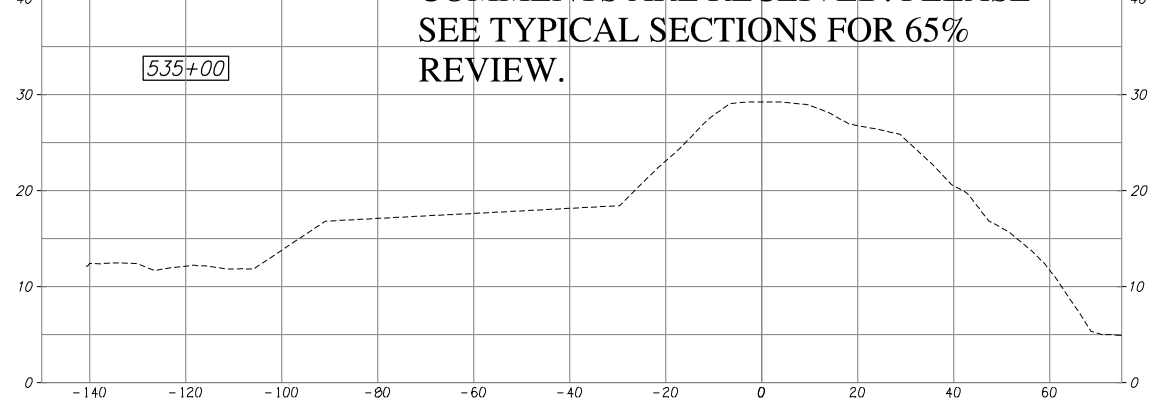
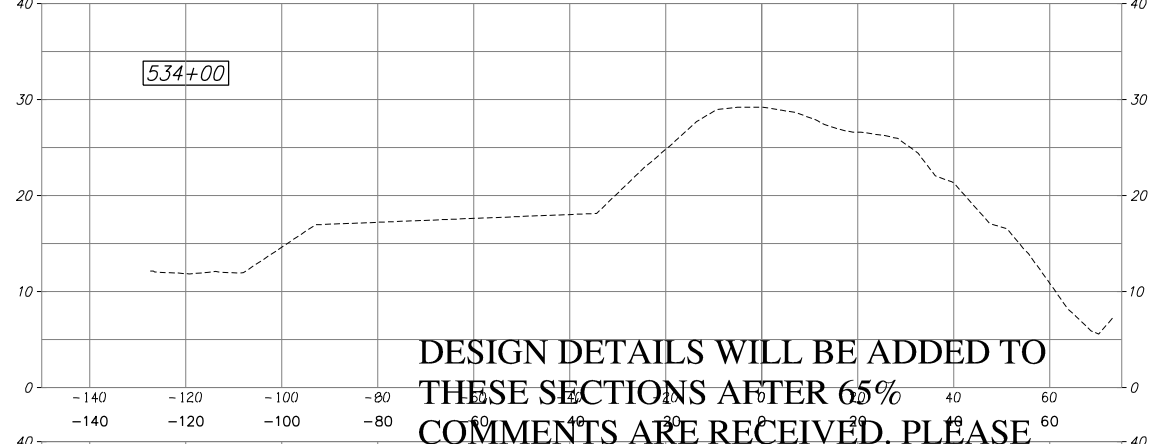
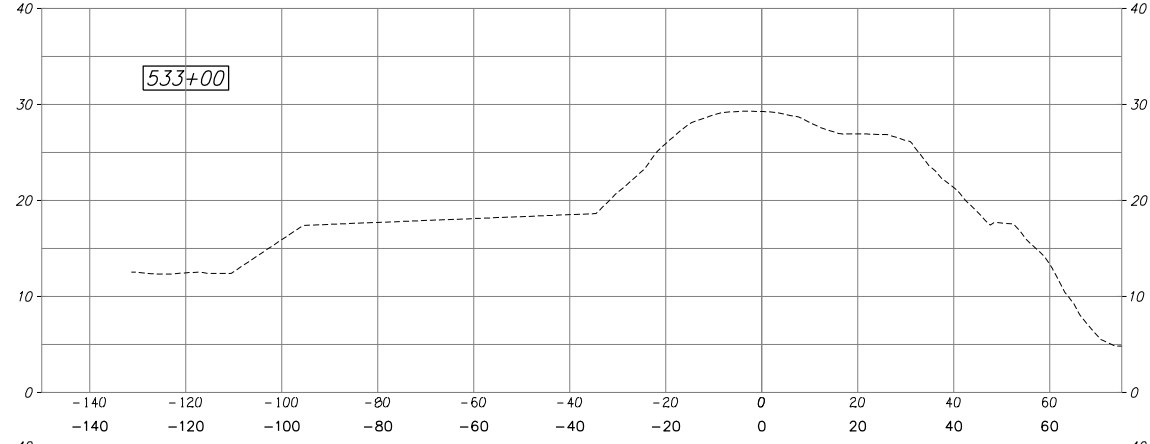
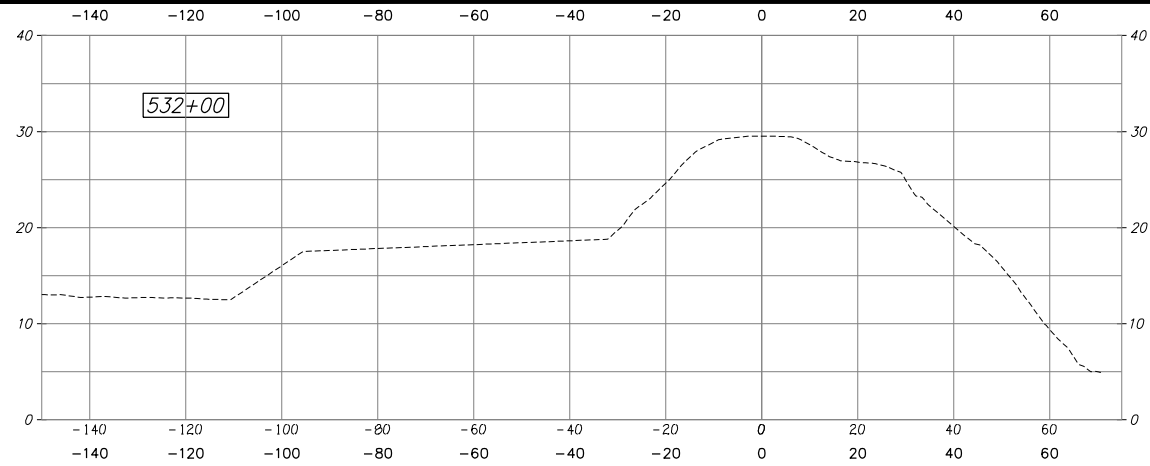
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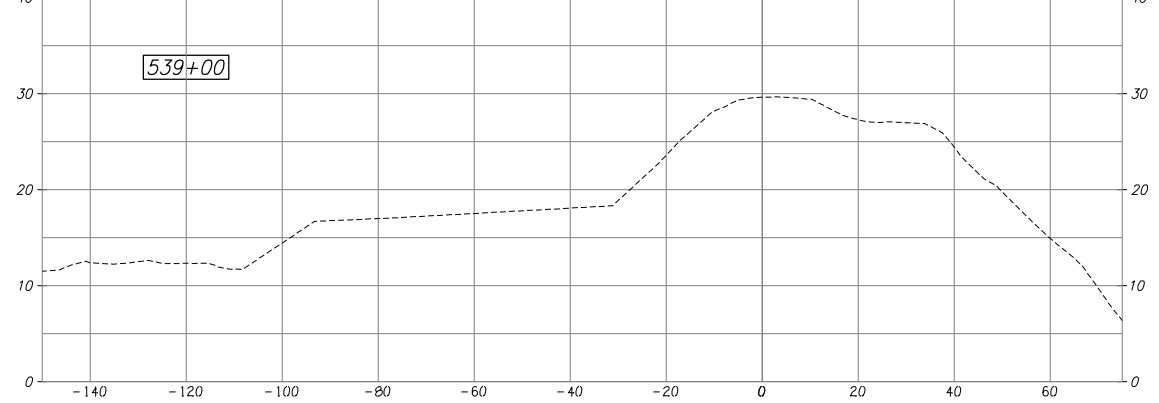
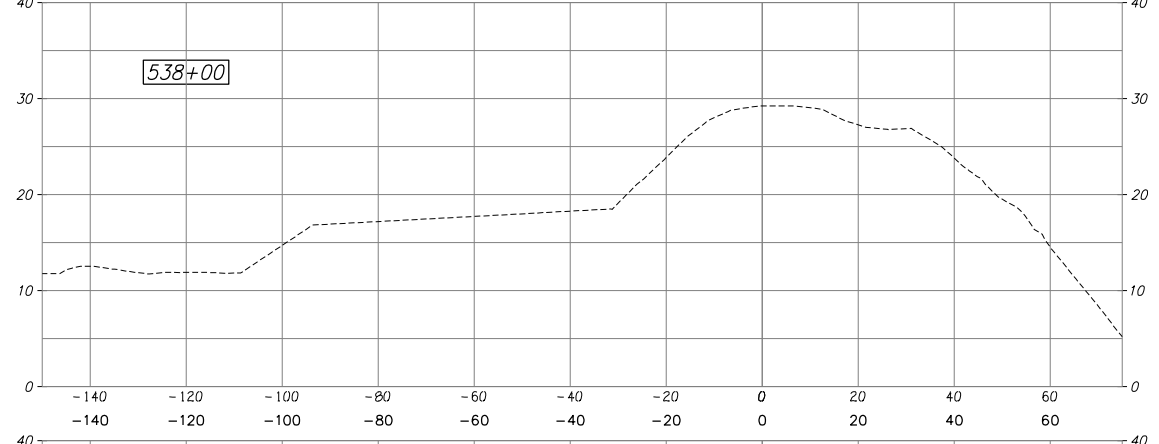
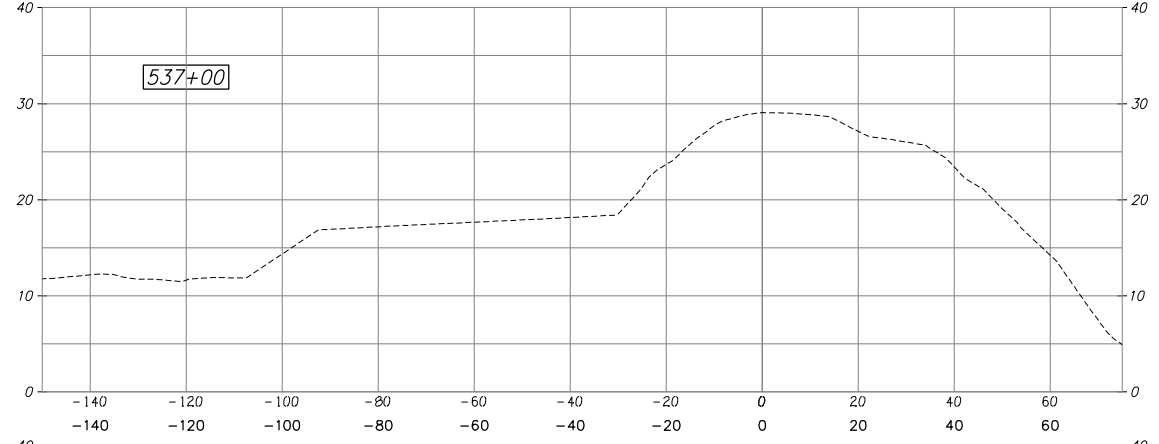
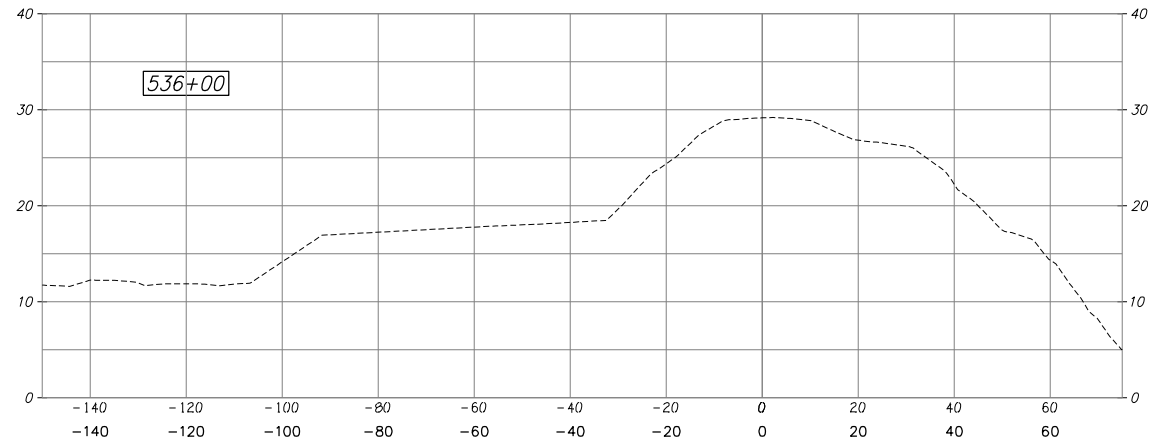
RECLAMATION DISTRICT NO. 17
 ELEMENT III-A & III-B
 PROFILE - ELEMENT IIIa - STATION 524+00 TO 531+00
 SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: NOT TO SCALE	SHT 14
DRAWN BY: GB	OF 20
DESIGNED BY: JBM	
CHECKED BY: JSL	



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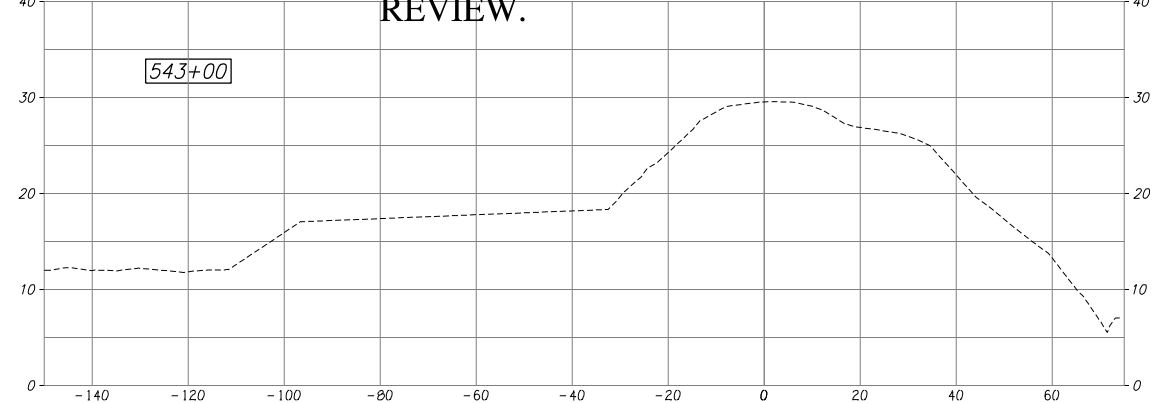
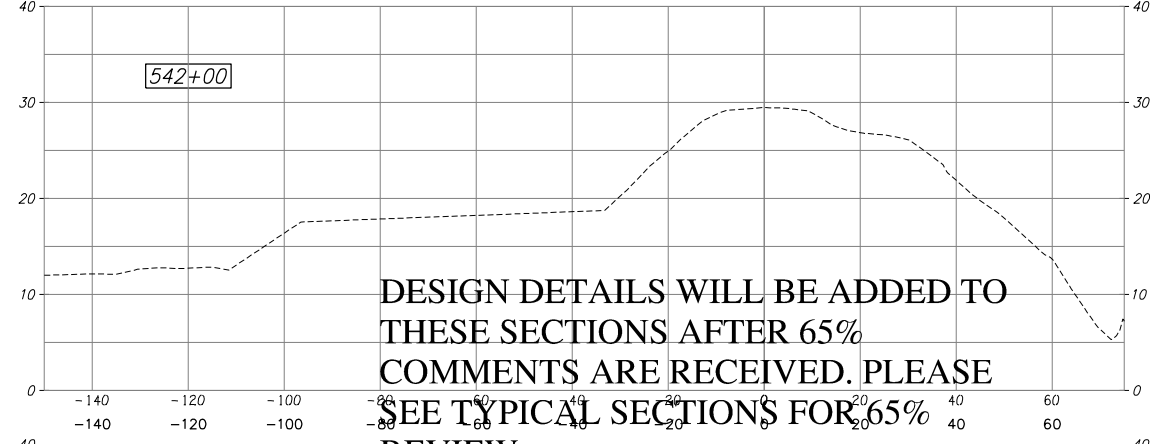
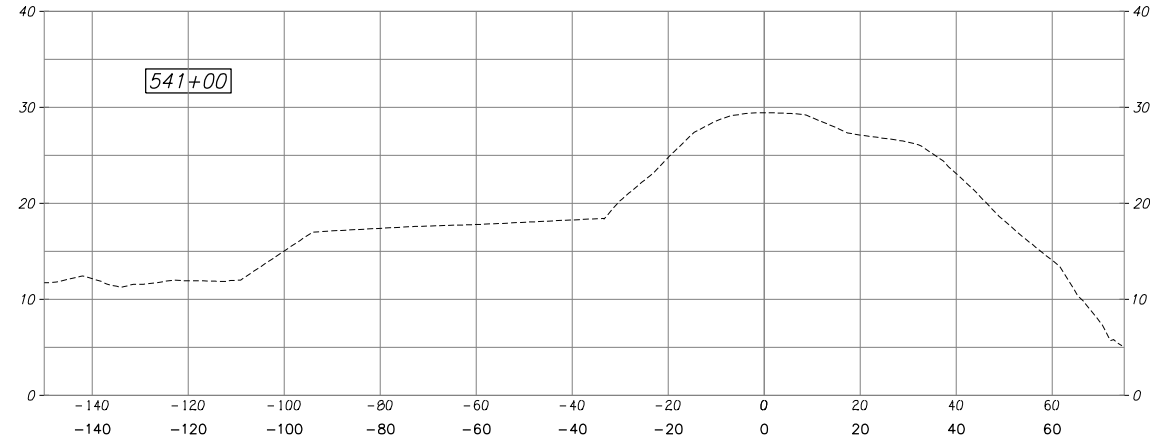
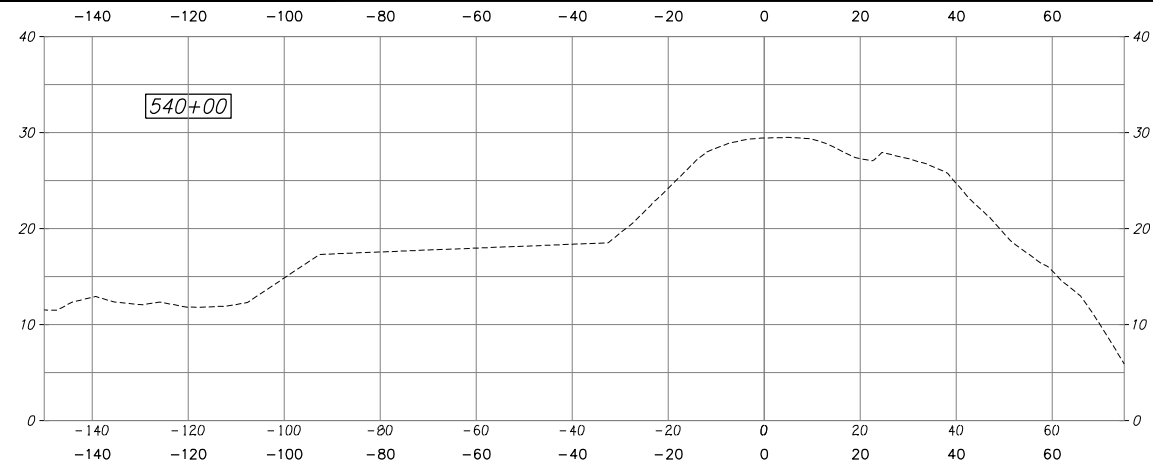
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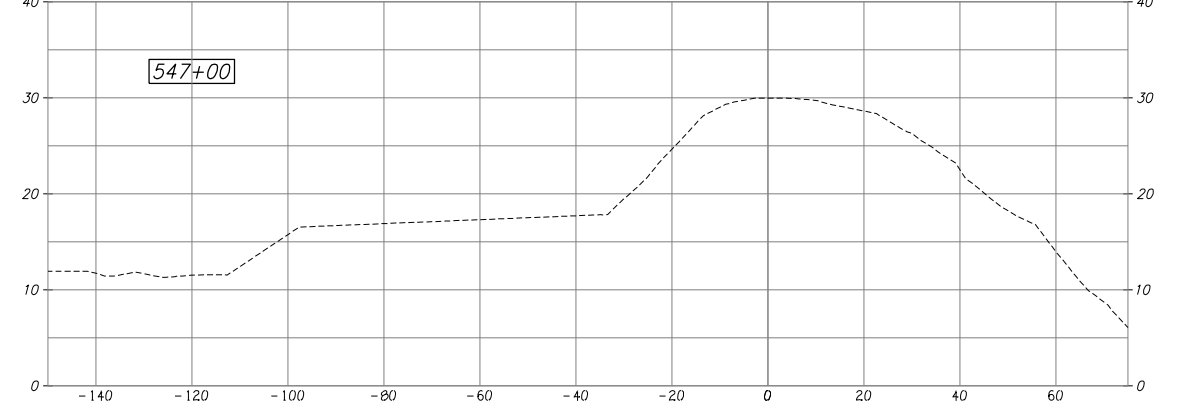
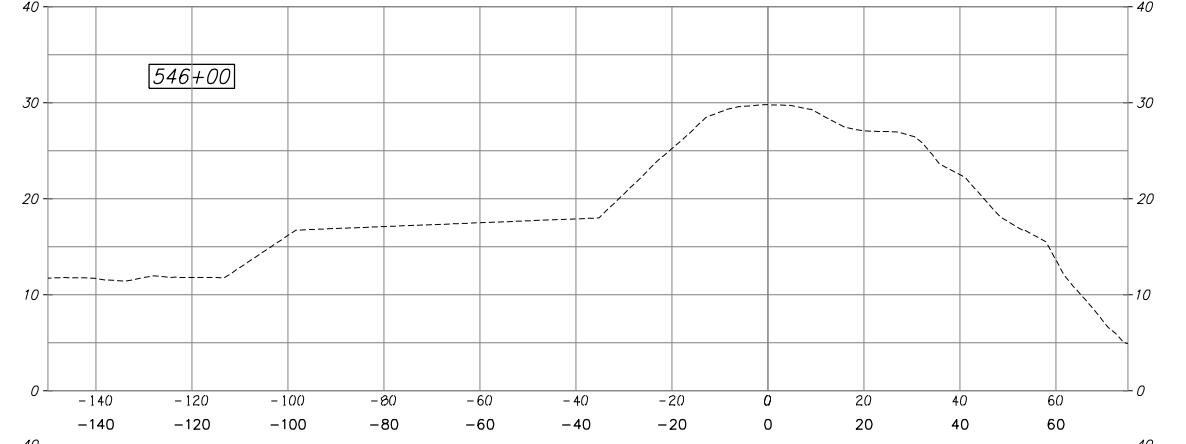
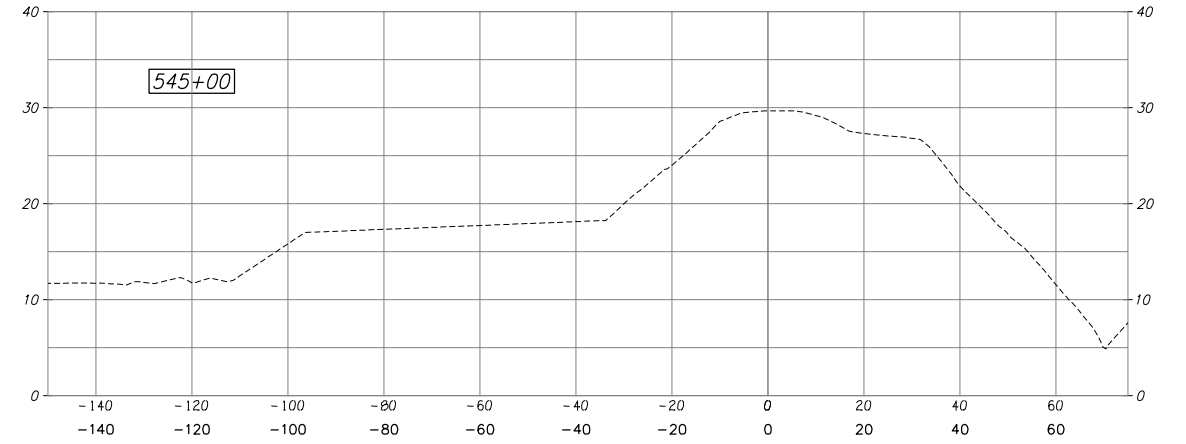
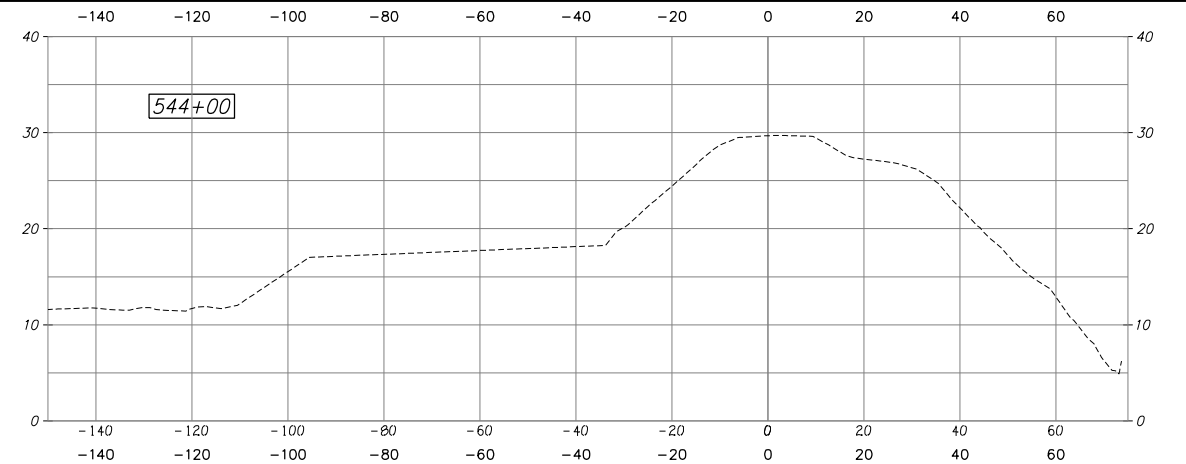
RECLAMATION DISTRICT NO. 17
 ELEMENT III-A & III-B
 PROFILE - ELEMENT IIIa - STATION 532+00 TO 539+00
 SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
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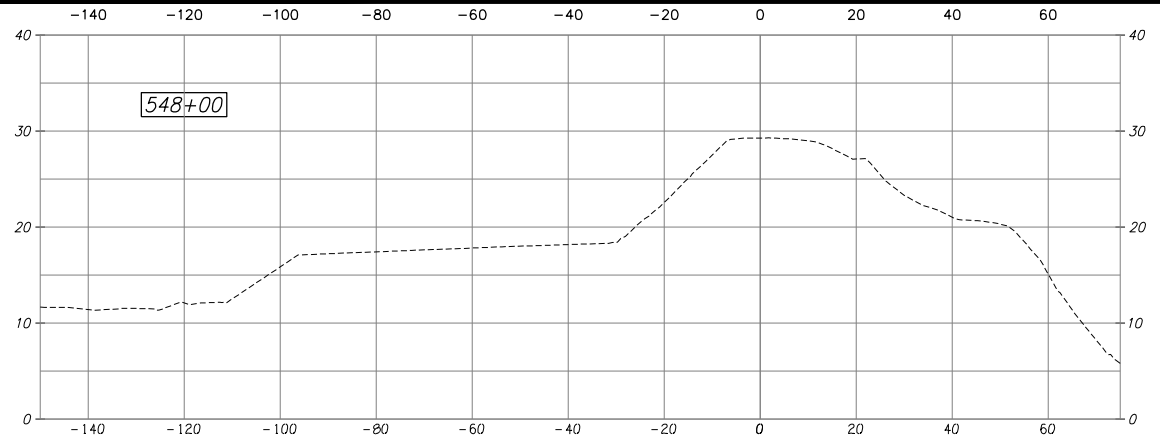
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RECLAMATION DISTRICT NO. 17
 ELEMENT III-A & III-B
 PROFILE - ELEMENT IIIa - STATION 540+00 TO 547+00
 SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: NOT TO SCALE	SHT 16
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ELEMENT III-A & III-B (SEEPAGE BERM) 65% SUBMITTAL



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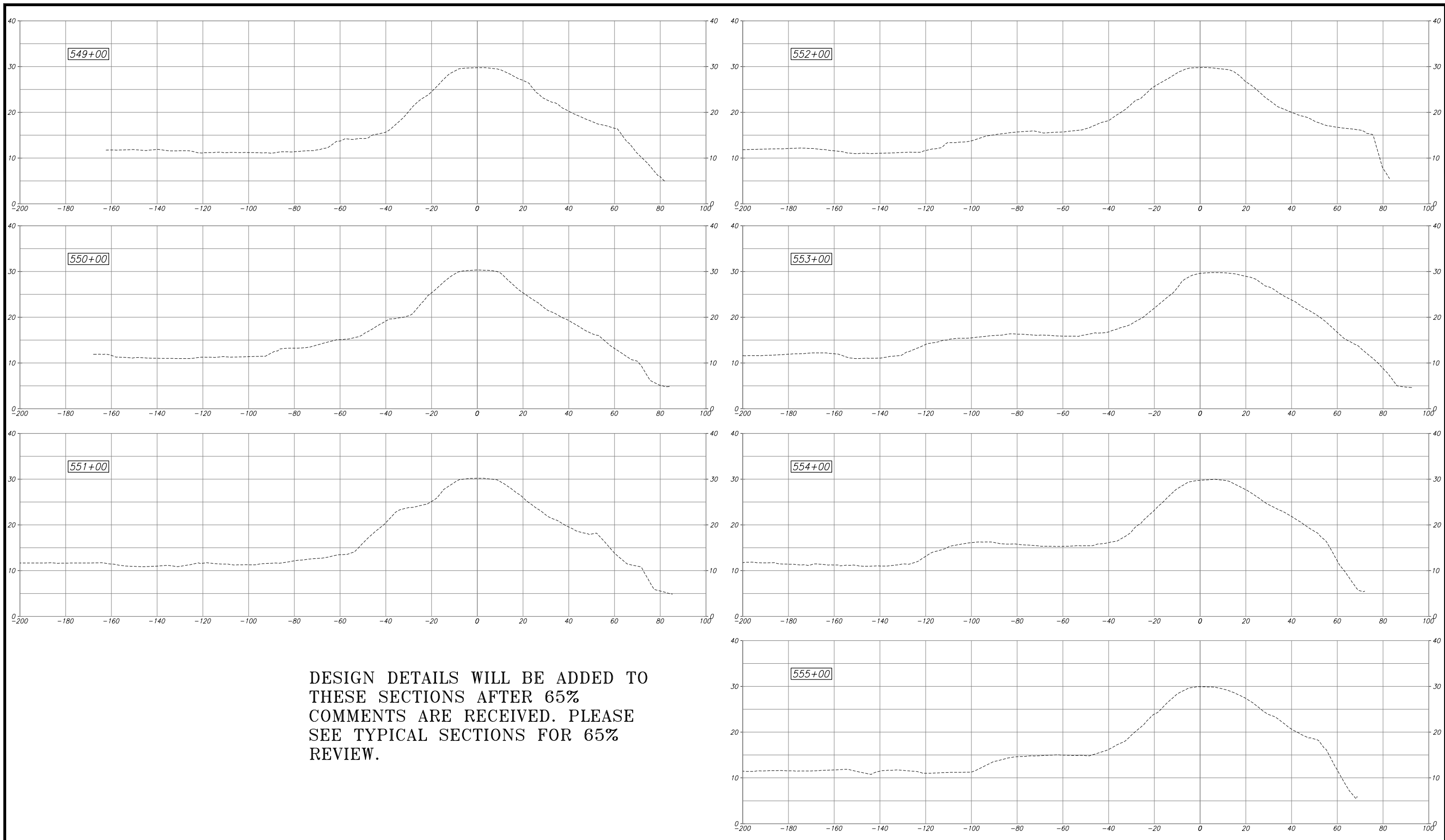
RECLAMATION DISTRICT NO. 17
ELEMENT III-A & III-B

PROFILE - ELEMENT IIIa - STATION 548+00 TO 562+00

SAN JOAQUIN COUNTY CALIFORNIA

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SCALE: NOT TO SCALE	SHT 17
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ELEMENT III-A & III-B (SEEPAGE BERM)

65% SUBMITTAL

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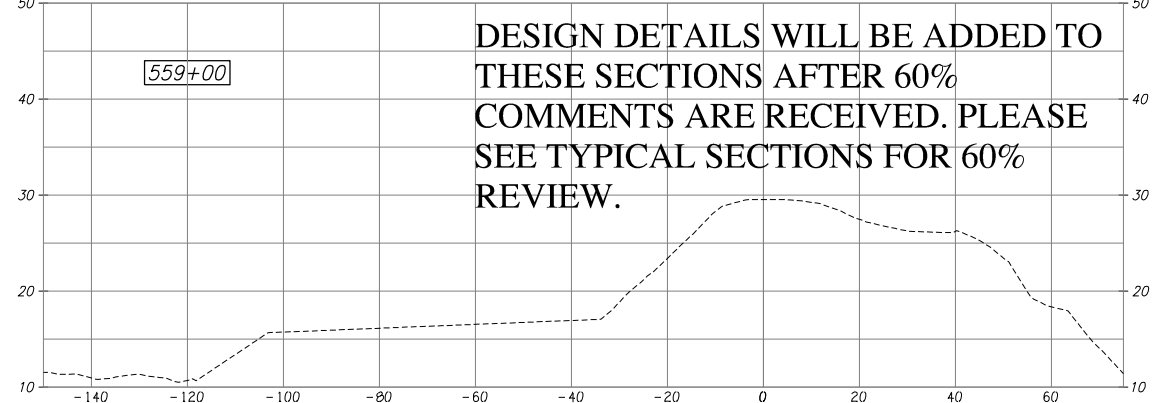
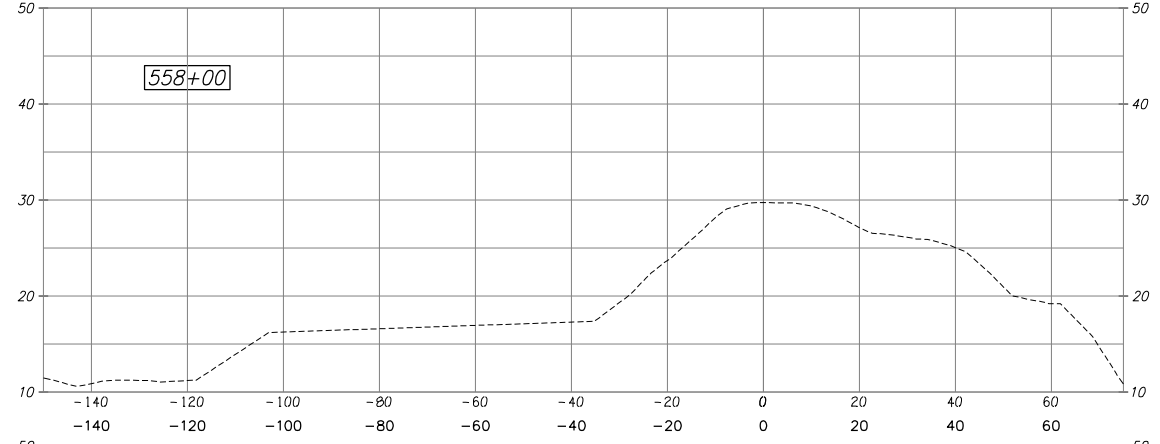
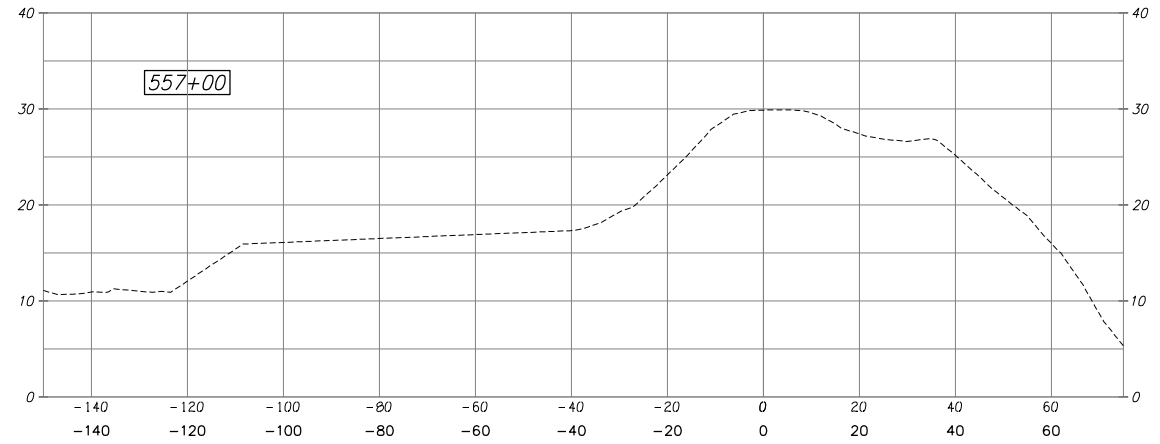
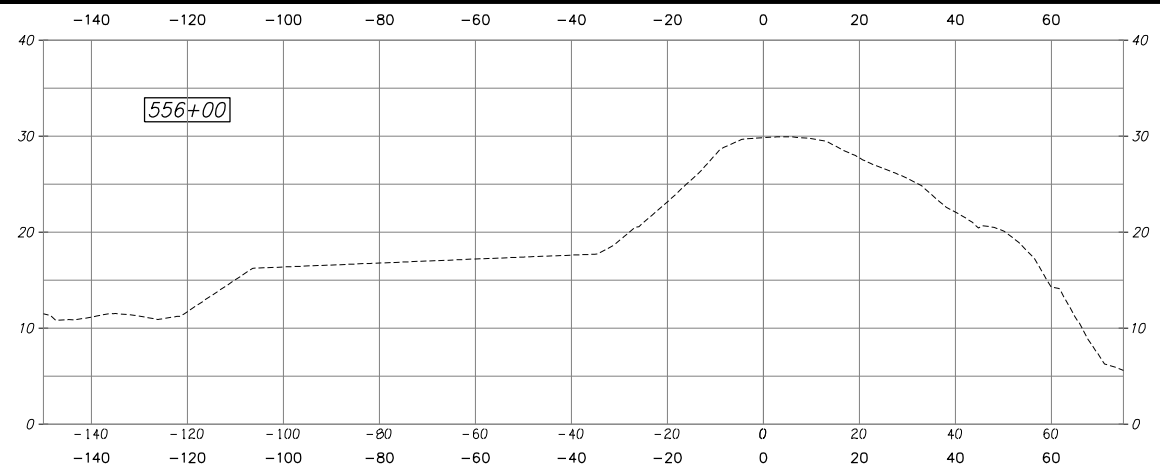


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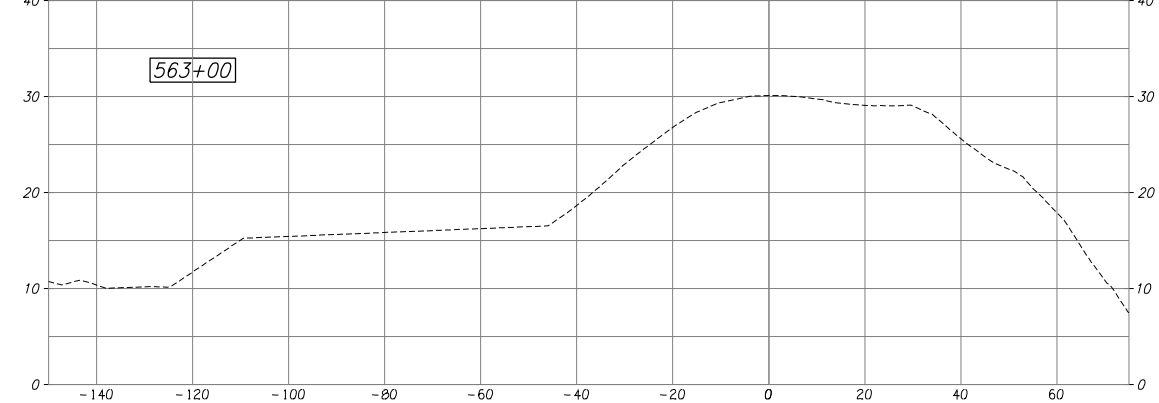
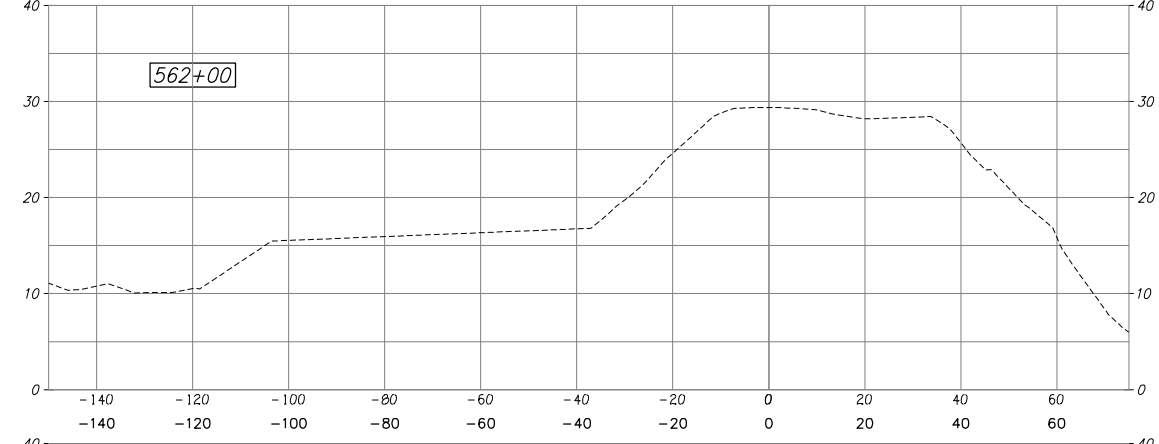
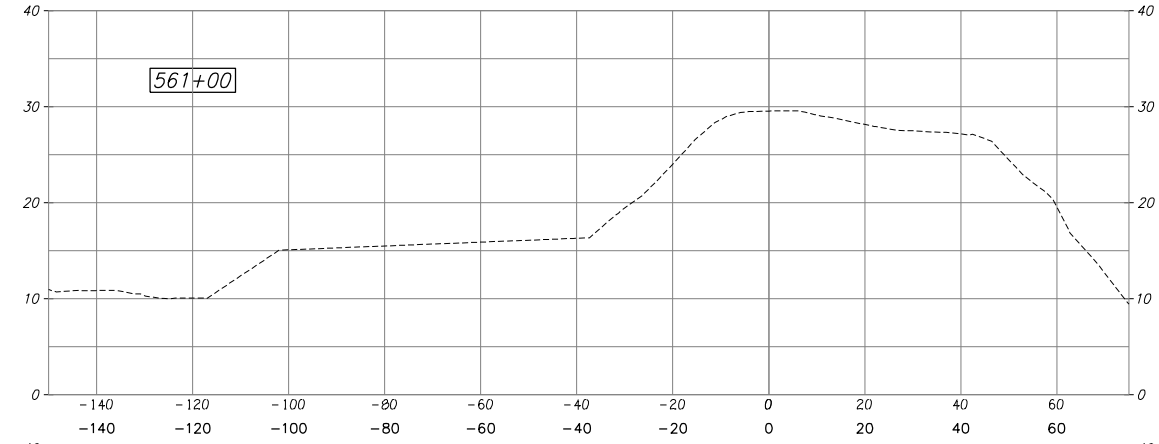
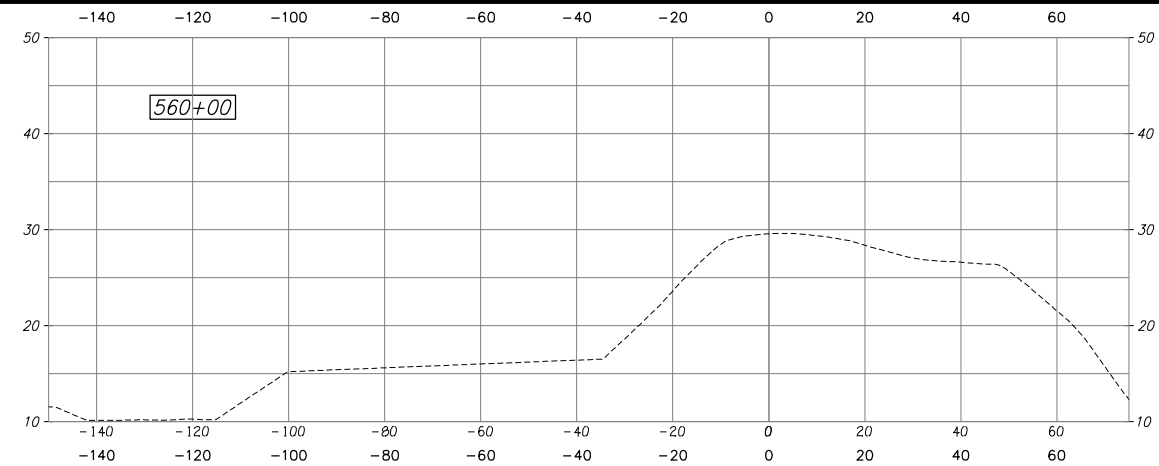
RECLAMATION DISTRICT NO. 17
 ELEMENT III-A & III-B
 CROSS SECTIONS
 SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: 1"=40'H : 1"=4'V	SHT 18
DRAWN BY: GB	OF 20
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CHECKED BY: JSL	



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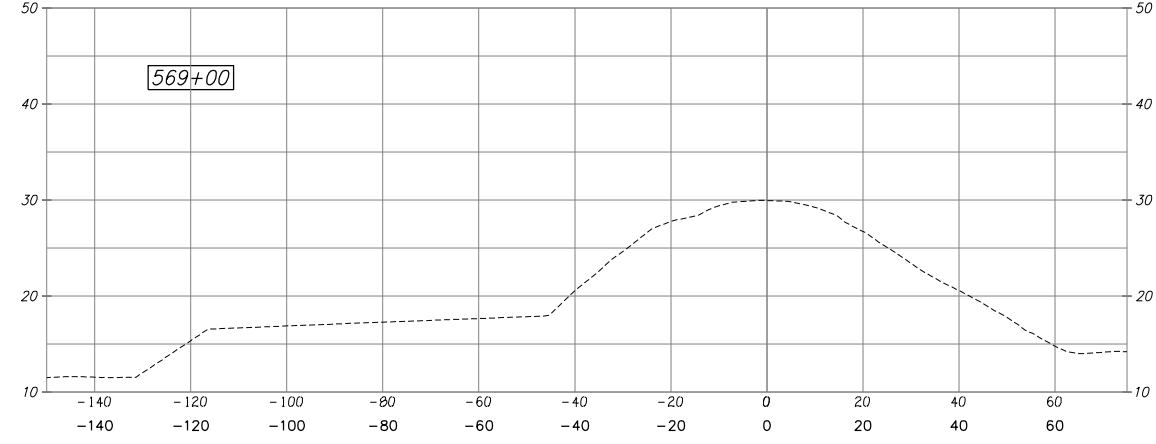
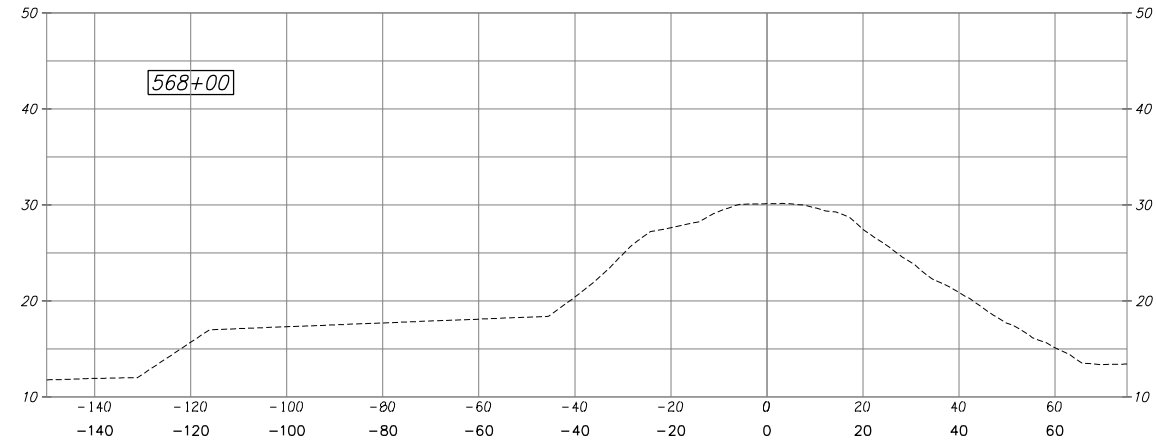
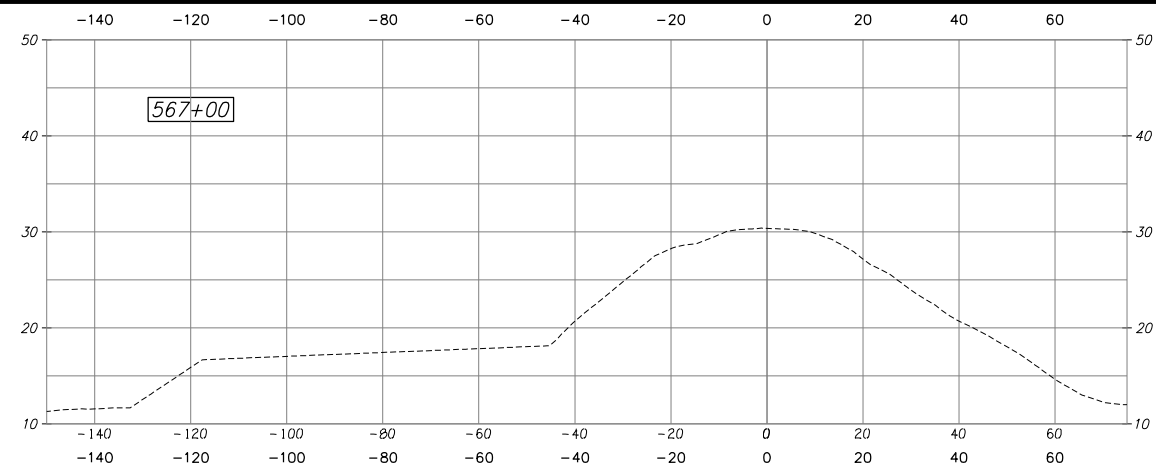
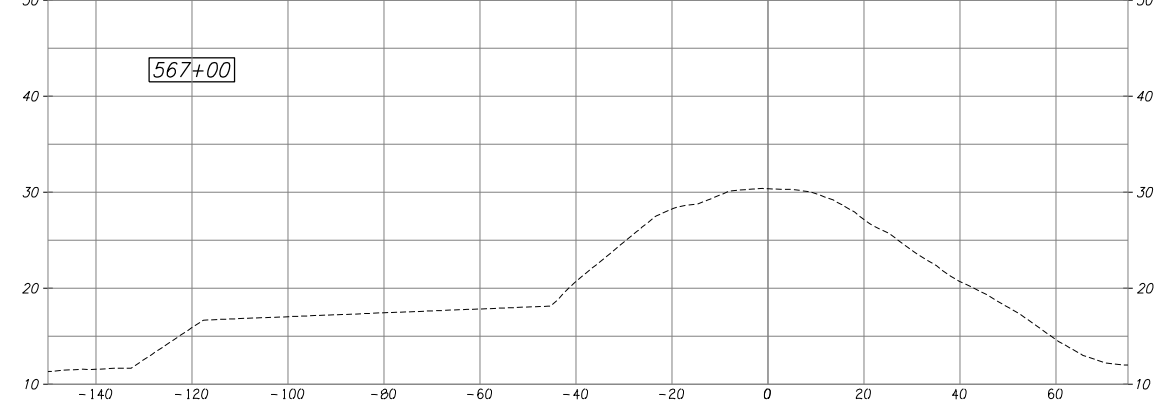
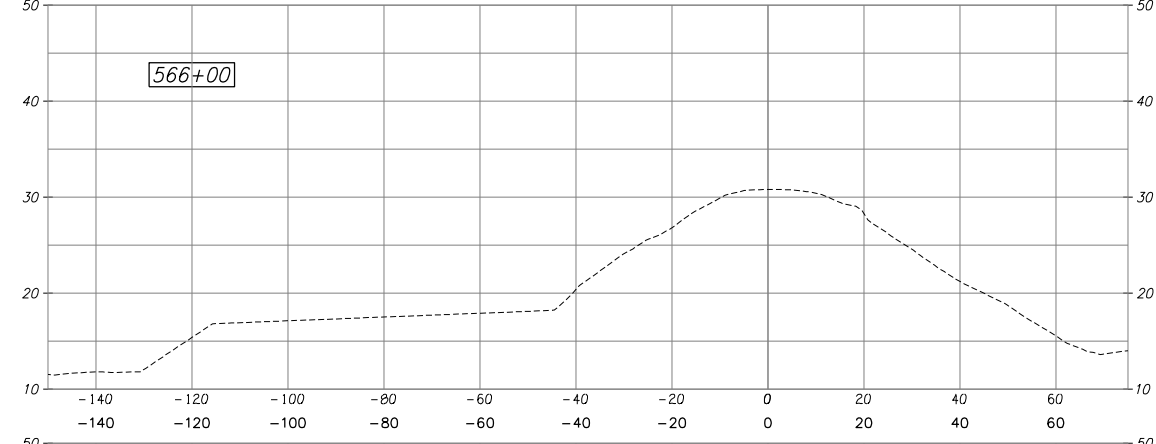
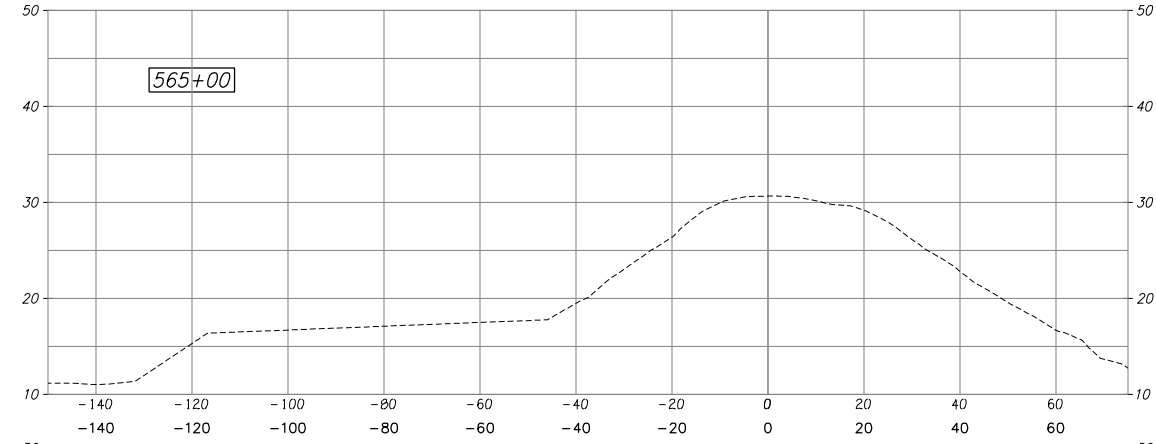
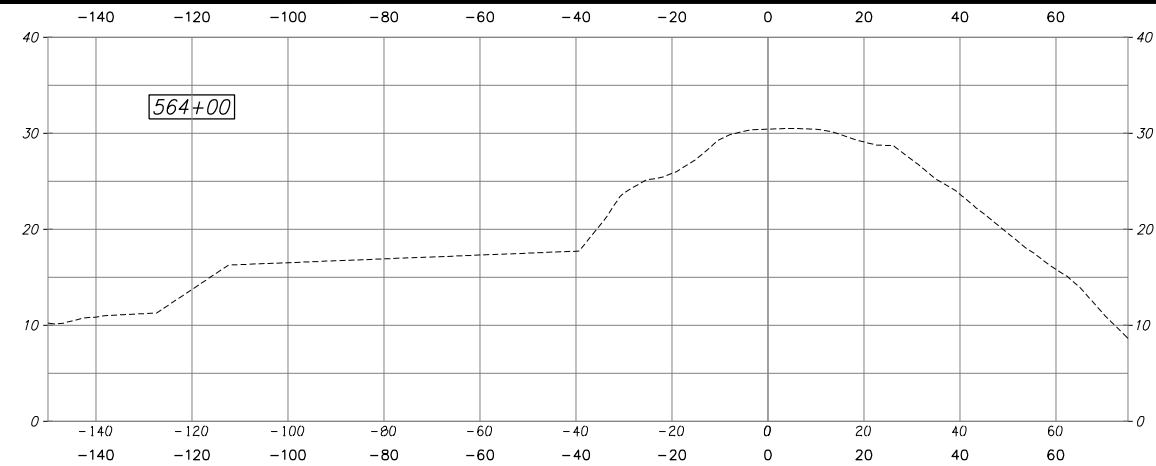
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RECLAMATION DISTRICT NO. 17
ELEMENT III-A & III-B
PROFILE - ELEMENT IIIa - STATION 516+00 TO 523+00

SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
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CHECKED BY: JSL	



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ELEMENT III-A & III-B
PROFILE - ELEMENT IIIa - STATION 524+00 TO 531+00

SAN JOAQUIN COUNTY CALIFORNIA

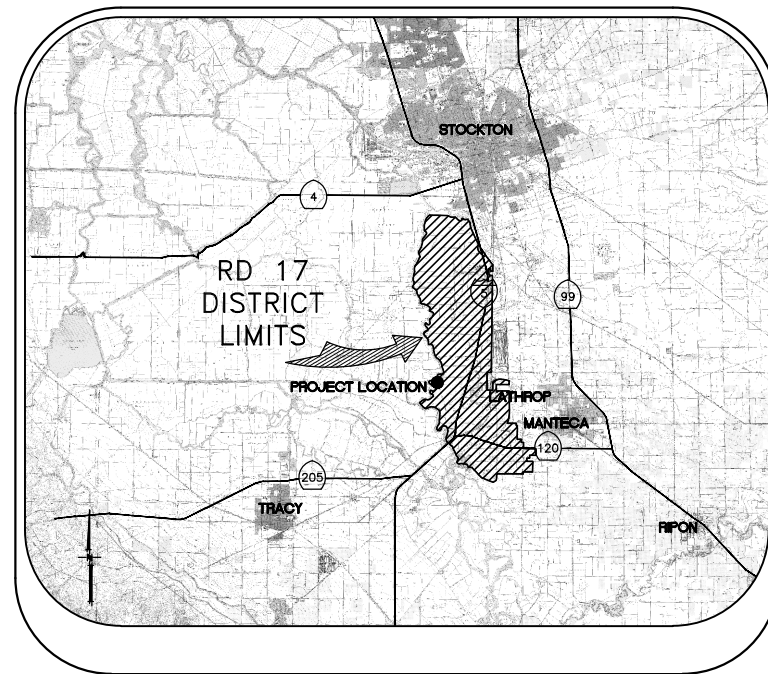
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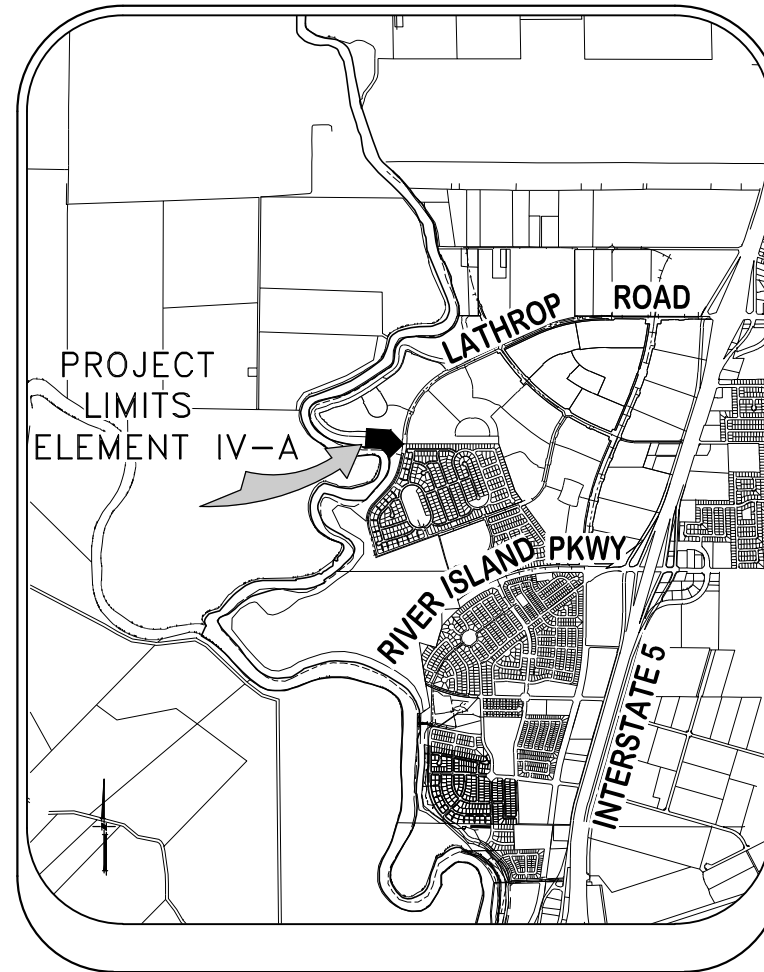
ELEMENT III-A & III-B (SEEPAGE BERM) 65% SUBMITTAL

RECLAMATION DISTRICT NO. 17 LEVEE SEEPAGE PROJECT

ELEMENT IV-A - SEEPAGE BERM RD17 STATION 569+55 THRU 574+80 (FEET) USACE STATION 8.87 THRU 8.97 (MILES)



VICINITY MAP



PROJECT SITE MAP

SHEET	DESCRIPTION
1.	COVER SHEET
2.	NOTES
3.	NOTES & BORING LOCATIONS
4.	HAUL ROUTE & CONTROL POINTS
5.	TYPICAL SECTIONS & DETAILS
6.	TYPICAL SECTIONS & DETAILS
7.	GRADING PLAN
8.	STORM DRAIN & IRRIGATION PLAN
9.	CROSS-SECTIONS
10.	PUMP PLANS
11.	PUMP PLANS

INDEX

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RECLAMATION DISTRICT NO. 17
ELEMENT IV-A
COVER SHEET

SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: NOT TO SCALE	SHT 1
DRAWN BY: GB	OF 11
DESIGNED BY: JBM	
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ELEMENT IV-A (SEEPAGE BERM)

65% SUBMITTAL

THE PERFORMANCE OF THE LEVEE SYSTEMS IS DEPENDANT UPON THE DESIGN CRITERIA AND THE LONG TERM OPERATION AND MAINTENANCE OF THE LEVEES. THE DESIGN TEAM HAS PREPARED THESE PLANS AND ASSOCIATED SPECIFICATIONS AND REPORTS IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICE USING INFORMATION FROM MULTIPLE SOURCES. IF EXTREME FLOODS (EXCEEDING THE DESIGN PROFILE), EARTHQUAKES OR OTHER LOADING CONDITIONS NOT EVALUATED IN THE DESIGN OCCUR, THE INTEGRITY OF THE LEVEE SYSTEM MAY BE COMPROMISED.

ROLES:

THE "DISTRICT" AS REFERRED TO IN THESE NOTES MEANS RECLAMATION DISTRICT 17(RD 17). THE DISTRICT IS THE PROJECT OWNER.

THE "ENGINEER" AS REFERRED TO IN THESE NOTES MEANS THE DISTRICT ENGINEER: KJELDEN, SINNOCK, AND NEUDECK. THE ENGINEER SHALL PROVIDE INSPECTION OF THE PROJECT AND OVERALL CONSTRUCTION MANAGEMENT INCLUDING COORDINATION WITH PUBLIC UTILITIES, PUBLIC AGENCIES, THE DESIGN ENGINEER AND THE GEOTECHNICAL ENGINEER.

THE "DESIGN ENGINEER" AS REFERRED TO IN THESE NOTES MEANS MACKAY & SOMPS, CIVIL ENGINEERS INC. THE DESIGN ENGINEER WILL PERFORM DISTRICT PROVIDED CONSTRUCTION STAKING AND "AS-GRADED" SURVEYS.

THE "GEOTECHNICAL ENGINEER" AS REFERRED TO IN THESE NOTES MEANS ENGeo INC. THE GEOTECHNICAL ENGINEER WILL PROVIDE MATERIALS TESTING, COMPACTION TESTING AND OTHER GEOTECHNICAL RELATED TESTING.

CONTRACTOR SHALL BE RESPONSIBLE FOR SUPERVISION OF ALL CONTRACTOR'S EMPLOYEES, SUBCONTRACTORS, INCLUDING SCHEDULING AND ALL SAFETY MATTERS.

- THESE PLANS ARE TO BE USED IN CONJUNCTION WITH THE FOLLOWING:
- a. SOILS REPORT PREPARED BY ENGeo INC. ENTITLED, SEEPAGE EVALUATION PROJECT # 5747.000.000.
 - b. SPECIFICATIONS PREPARED BY KSN DATED _____

GENERAL NOTES:

1. PRIOR TO THE COMMENCEMENT OF WORK, A JOINT INSPECTION BETWEEN THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER, THE GEOTECHNICAL ENGINEER, THEIR REPRESENTATIVES, AND THE CONTRACTOR (OR HIS REPRESENTATIVE) WILL BE CONDUCTED TO REVIEW THE PRE-CONSTRUCTION CONDITIONS (E.G. ROADS, PUMPS, DISCHARGE PIPES, SIPHONS, RAMPS, GATES, SIGNS, ETC.) IF SUCH EXISTING FACILITIES ARE DAMAGED BY THE CONTRACTOR'S OPERATIONS, THE CONTRACTOR, AT THEIR OWN EXPENSE, SHALL REPLACE OR RESTORE THEM TO THE CONDITION THAT EXISTED PRIOR TO THE COMMENCEMENT OF WORK.
2. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT (209) 946-0268, A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY WORK.
3. THE DISTRICT RESERVES THE RIGHT TO SUSPEND CONSTRUCTION AT ANY TIME IN THE EVENT OF EXTREME HIGH OR LOW TIDES, FLOOD EVENTS, OTHER CONDITIONS OR EMERGENCIES THAT MAY JEOPARDIZE THE INTEGRITY OF THE DISTRICT'S LEVEE AND ROAD SYSTEM.
4. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, COUNTY AND LOCAL REQUIREMENTS, AS REQUIRED FOR TRAFFIC CONTROL AND PUBLIC SAFETY DURING PROJECT CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL OUTLINED IN THESE PLANS AND THE REFERENCED SPECIFICATIONS.
5. THE DISTRICT WILL FURNISH ALL RIGHT-OF-WAY FOR ALL LEVEE ROADS AND DESIGNATED ACCESS HAUL ROADS AS SHOWN ON THESE PLANS. SHOULD THE CONTRACTOR WANT TO USE OTHER ROADWAYS OR ACCESS AREAS NOT SHOWN, THE CONTRACTOR SHALL AT THEIR OWN EXPENSE SECURE RIGHT-OF-WAY & NECESSARY PERMITS.
6. IF DELIVERING MATERIAL OR EQUIPMENT BY TRUCK, ALL TRUCK TRAFFIC SHALL BE LIMITED TO THE DISTRICT LEVEE ROADS AND/OR PUBLIC ROADS AS SHOWN ON HAUL ROUTE PLAN, UNLESS OTHERWISE APPROVED.
7. MAXIMUM SPEED LIMIT ON DISTRICT LEVEE ROADS IS 30 MPH, AS POSTED, OR AS OTHERWISE INDICATED ON THE CONSTRUCTION DRAWINGS. CONTRACTOR SHALL POST LARGE SLOW/CAUTION SIGNS AND SPEED LIMIT SIGNS FOR PURPOSES OF NOTIFYING BOTH CONTRACTOR'S EMPLOYEES AND THE PUBLIC. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SAFETY AT ALL TIMES ALONG ALL HAUL ROUTES AND IN ALL PROJECT AREAS (PUBLIC AND PRIVATE).

8. THE DISTRICT WILL PROVIDE SURVEY STAKES AS DESCRIBED IN THE SPECIFICATIONS WITHIN THE CONSTRUCTION SURVEYING SECTION. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL CONSTRUCTION STAKING AND SURVEYING AT THEIR OWN EXPENSE BEYOND THAT PROVIDED BY THE DISTRICT. PLEASE CONTACT THE ENGINEER IN WRITING WITH STAKING REQUESTS (209) 946-0268 WITH AT LEAST TWO WORKING DAYS ADVANCE NOTICE.
9. THE CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER AND THE GEOTECHNICAL ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER OR THE GEOTECHNICAL ENGINEER.
10. ANY DEFICIENCIES NOTED DURING INTERIM AND FINAL INSPECTIONS BY THE ENGINEER AND/OR DISTRICT SHALL BE CORRECTED BY THE CONTRACTOR PRIOR TO FINAL ACCEPTANCE BY THE DISTRICT. ANY ADDITIONAL COSTS AND EXPENSES FOR MOBILIZATION AND/OR DEMOBILIZATION, LABOR, EQUIPMENT AND OTHER ASSOCIATED COSTS REQUIRED TO CORRECT THE DEFICIENCIES NOTED, EXCEPT SPECIFIED MATERIAL(S), SHALL BE BORNE BY THE CONTRACTOR.
11. THE CONTRACTOR SHALL NOT CLOSE ANY ROAD, STREET, OR HIGHWAY TO THE PUBLIC EXCEPT WITH THE PERMISSION OF THE ENGINEER AND THE PROPER GOVERNMENTAL AUTHORITY. TEMPORARY PROVISIONS SHALL BE MADE BY THE CONTRACTOR TO ENSURE CONTINUOUS ACCESS TO PUBLIC AND PRIVATE DRIVEWAYS, AND PROPER FUNCTIONING OF CULVERTS, DRAINAGE AND IRRIGATION DITCHES, AND NATURAL WATER COURSES.
12. THE CONTRACTOR IS RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER, AND HE SHALL NOTIFY THE ENGINEER WHENEVER THERE IS A CHANGE IN SITE CONDITIONS OR AN ADJUSTMENT TO BE MADE IN WORK REQUIREMENTS.
13. SHOULD IT APPEAR THAT THE WORK TO BE DONE, OR ANY MATTER RELATIVE THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE ENGINEER AT (209) 946-0268 FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.
14. THE INTENT OF THESE PLANS IS TO SERVE AS A GUIDE AND TO PROVIDE THE CONTRACTOR WITH INFORMATION AND DETAILS NECESSARY TO CONSTRUCT THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY REGARDING ANY DISCREPANCIES AND AMBIGUITIES WHICH MAY EXIST IN THE PLANS OR SPECIFICATIONS. IF THE PLANS 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 FINEST QUALITY ARE TO BE USED.
15. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE OSHA REGULATIONS AND SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS.
16. THE CONTRACTOR SHALL AT ALL TIMES BE RESPONSIBLE FOR THE SECURITY OF THE JOBSITE AND EQUIPMENT. THE DISTRICT WILL NOT BE RESPONSIBLE FOR MISSING OR DAMAGED EQUIPMENT, TOOLS, OR PERSONAL BELONGINGS.

ENVIRONMENTAL NOTES:

1. THE CONTRACTOR SHALL NOT DISCHARGE SMOKE, DUST, OR ANY OTHER AIR CONTAMINANTS INTO THE ATMOSPHERE IN SUCH QUANTITY AS WILL VIOLATE THE REGULATIONS OF ANY LEGALLY CONSTITUTED AUTHORITY. HE SHALL ALSO ABATE DUST NUISANCE BY CLEANING, SWEEPING AND SPRINKLING WITH WATER, OR OTHER MEANS AS NECESSARY. THE USE OF WATER IN AN AMOUNT WHICH RESULTS IN MUD ON PUBLIC ROADS IS NOT ACCEPTABLE AS A SUBSTITUTE FOR SWEEPING OR OTHER METHODS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ADJACENT PUBLIC ROADS CLEAN & CLEAR FROM CONSTRUCTION IMPACTS OR DEBRIS. ADDITIONAL DETAILS FOR MUD AND DUST CONTROL IS INCLUDED IN SUBSEQUENT SECTIONS OF THESE NOTES.
2. THE CONTRACTOR SHALL EXERCISE EVERY REASONABLE PRECAUTION TO PROTECT STREAMS, WATERWAYS AND OTHER BODIES OF WATER FROM POLLUTION WITH FUELS, OIL, BITUMEN'S, CALCIUM CHLORIDE, AND OTHER HAZARDOUS MATERIALS AND SHALL CONDUCT AND SCHEDULE HIS OPERATIONS SO AS TO AVOID OR MINIMIZE MUDDYING AND SILTING OF SAID WATERS. CARE SHALL BE EXERCISED TO PRESERVE ROADSIDE VEGETATION BEYOND THE LIMITS OF CONSTRUCTION.

3. THROUGHOUT ALL PHASES OF CONSTRUCTION, INCLUDING SUSPENSION OF WORK, AND UNTIL FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL KEEP THE WORK SITE CONDITIONS CLEAN AND FREE FROM RUBBISH AND DEBRIS. ALL RUBBISH AND REFUSE SHALL BE DISPOSED OF IN A MANNER SATISFACTORY TO THE ENGINEER.


DUST AND MUD CONTROL:

1. DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL KEEP ALL CONSTRUCTION AREAS, FILL AREAS, HAUL ROADS, OTHER ROADWAYS, AND OTHER USE AREAS WHERE DUST IS GENERATED WELL WATERED: AND DURING WET CONDITIONS, AREAS USED BY LOCAL TRAFFIC, FREE AND CLEAR FROM MUD. CONTRACTOR SHALL PROVIDE EFFORTS NECESSARY TO MINIMIZE DUST AND OTHER DISTURBANCES NEAR EXISTING RESIDENCES AND ALL BUILDINGS NEAR HAUL ROUTES AND THE PROJECT SITE.
 - a. CROP DAMAGE: THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL TO PREVENT CROP DAMAGE AND FOR ANY AREAS SUBJECT TO CONSTRUCTION OR CONSTRUCTION TRAFFIC THAT GENERATE DUST AND/OR OTHER CONDITIONS WHICH MIGHT DAMAGE CROPS.
 - b. NON WORK DAYS: THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL THROUGHOUT THE DURATION OF THE PROJECT INCLUDING NON WORKDAYS IN ALL PROJECT AREAS, INCLUDING CONSTRUCTION ROADS AND CROP AREAS WHICH ARE USED BY THE CONTRACTOR, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. THE CONTRACTOR SHALL HAVE AT LEAST ONE (1) WATER TRUCK AVAILABLE TO THE PROJECT AT ALL TIMES (OR MORE AS NEEDED OR DIRECTED BY THE ENGINEER) TO MAINTAIN ADEQUATE DUST CONTROL FOR THE FOLLOWING AREAS:
 - a. PROJECT AREAS
 - b. ACCESS AND HAUL ROADS
 - c. LEVEE TOE BERM FILL AREAS
 - d. OTHER CONSTRUCTION USE AREAS
 - e. CROP DAMAGE PREVENTION
 - f. RESIDENTIAL CONSTRUCTION ZONES
 - g. ADJACENT PUBLIC STREETS, TRAILS & BIKEWAYS

UTILITY NOTES:

1. UTILITIES AS NOTED ON THE PLAN SET HAVE BEEN DETERMINED BASED ON RECORD INFORMATION AND FIELD INSPECTION, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE ACTUAL LOCATION OF ALL UNDERGROUND, SURFACE, OVERHEAD, AND SUBMARINE IMPROVEMENTS, OR FACILITIES WHICH MAY BE SUBJECT TO DAMAGE BY REASON OF HIS OPERATIONS.
2. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES AND SHALL CONTACT THE RESPECTIVE UTILITY COMPANIES & PRIVATE OWNERS PRIOR TO COMMENCEMENT OF WORK.
3. THE CONTRACTOR SHALL NOTIFY AFFECTED UTILITIES FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY CONSTRUCTION. (UNDERGROUND SERVICE ALERT (800) 642-2444) AND SHALL BE RESPONSIBLE FOR THE LOCATION AND PRESERVATION OF ALL FACILITIES IN THE AREA OF CONSTRUCTION.

PLANS REVIEWED AND APPROVED BY:



K S N KJELDEN
SINNOCK
NEUDECK
INC. Consulting Engineers
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THESE PLANS CONFORM TO THE GEOTECHNICAL REPORT
ENTITLED: SEEPAGE EVALUATION PROJECT #5747.000.000



ENGeo
INCORPORATED
EXCELLENT SERVICE SINCE 1971

PLANS PREPARED UNDER THE DIRECTION OF:



MACKAY & SOMPS
ENGINEERS PLANNERS SURVEYORS
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RECLAMATION DISTRICT NO. 17
ELEMENT IV-A

NOTES

SAN JOAQUIN COUNTY CALIFORNIA

DATE: JAN 2014	PROJECT NO.
SCALE: SHOWN	25182.010
DRAWN BY: GB	SHT 2
DESIGNED BY: JBM	OF 11
CHECKED BY: JSL	
NO.	REVISION
DATE	

ACCESS ROADS:

1. THE CONTRACTOR SHALL IMPROVE, MAINTAIN, AND REPAIR UPON COMPLETION, THE ACCESS ROADS AND HAUL ROUTES AS REQUIRED FOR TRANSPORTATION AND HAULING MATERIAL. AT THE COMPLETION OF WORK THE CONTRACTOR SHALL RESTORE ALL ACCESS ROADS AND HAUL ROUTES TO PRE-CONSTRUCTION CONDITION IN A MANNER SATISFACTORY TO THE ENGINEER.
2. THE CONTRACTOR SHALL REVIEW THE ACCESS ROAD ROUTES AND DETERMINE THE LOCATION FOR TURNOUTS, RAMPS, ROAD DRAINAGE, ALIGNMENT, ETC. UPON COMPLETION OF THE PROJECT, SOME PORTIONS OF THE ACCESS ROADS MAY REQUIRE MINOR MODIFICATIONS AND ALTERATIONS. THE ACCESS ROADS WHICH REMAIN SHALL BE LEFT IN GOOD CONDITION FOR THE DISTRICT, FARMERS, AND OTHER LOCAL TRAFFIC.
3. THE CONTRACTOR SHALL NOT DEVIATE FROM IDENTIFIED HAUL ROUTES AND STAGING AREAS UNLESS PERMISSION IS OBTAINED FROM THE PROPERTY OWNER, ENGINEER AND PERMITS ARE OBTAINED FROM THE LOCAL AGENCY.
4. THE CONTRACTOR SHALL EXTEND, STRENGTHEN, REPLACE, OR OTHERWISE MODIFY THE EXISTING CROSSINGS (E.G. CULVERTS, SIPHONS, DRAIN PIPES, IRRIGATION PIPES, PUMP DISCHARGE PIPES, WET SPOTS, ETC.) AS NECESSARY TO ACCOMMODATE HIS EQUIPMENT. THE CONTRACTOR SHALL PROVIDE WHATEVER MEASURES ARE NECESSARY TO PRESERVE, PROTECT, AND MAINTAIN THE CROSSINGS SO AS TO ENSURE CONTINUOUS AND UNINTERRUPTED CONSTRUCTION OPERATIONS DURING THE ENTIRE TERM OF THIS CONTRACT.
5. THE HAUL ROADS MAY REQUIRE TEMPORARY IRRIGATION OR DISCHARGE PIPE EXTENSIONS AND RAMPING DURING CONSTRUCTION OPERATIONS. TEMPORARY EXTENSIONS AND RAMPING WILL BE PROVIDED AND INSTALLED BY THE CONTRACTOR AT HIS EXPENSE, INCLUDING REMOVAL IF REQUIRED, IN A MANNER WHICH MEETS WITH THE APPROVAL OF THE ENGINEER AND THE LANDOWNERS.
6. NEITHER THE DISTRICT NOR THE ENGINEER MAKES ANY WARRANTY OR GUARANTEE AS TO THE ADEQUACY OF THE EXISTING MATERIALS TO SUPPORT THE CONSTRUCTION TRAFFIC ON THE ACCESS ROADS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MAKING THE NECESSARY IMPROVEMENTS AND PROVIDING THE NECESSARY MEASURES REQUIRED TO ACCOMMODATE HIS ANTICIPATED NEEDS. REPAIRS TO ROADWAYS DAMAGED BY THE CONTRACTOR SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
7. CONTRACTOR MUST MAINTAIN HAUL ROUTE ACCESS AT ALL TIMES FOR USE BY THE DISTRICT AND/OR PUBLIC (AS APPLICABLE) DURING CONSTRUCTION.

CLEARING & GRUBBING:

1. UNLESS OTHERWISE INDICATED, THE WORK AREAS SHALL BE CLEARED AND GRUBBED BY THE CONTRACTOR. CONTRACTOR SHALL USE CAUTION WHILE CLEARING AND GRUBBING AROUND POWER LINES, BURIED ELECTRICAL CABLES AND OTHER EX FACILITIES/UTILITIES. ALL MATERIAL CLEARED AND REMOVED SHALL BECOME THE PROPERTY AND RESPONSIBILITY OF THE CONTRACTOR FOR REMOVAL AND DISPOSAL OFFSITE. SOME PRUNING/TRIMMING/THINNING OF BRANCHES OR TREES MAY BE REQUIRED.

FILL MATERIALS:

1. THE CONTRACTOR SHALL FURNISH, DELIVER, AND PLACE THE SPECIFIED FILL MATERIALS (PER THE DISTRICT ENGINEERS SPECIFICATIONS) TO THE DESIGNATED SITES.
2. THE FILL SHALL BE CONSTRUCTED WITH ACCEPTABLE MATERIALS SUFFICIENT TO MEET DESIGN GRADES AND SPECIFICATIONS.
3. ALL SUBGRADE AREAS RECEIVING FILL MATERIAL SHALL BE PREPARED AS REQUIRED BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR MAY BE REQUIRED TO PERFORM ADDITIONAL SUBGRADE PREPARATION WORK WITHIN THE FILL AREAS PRIOR TO THE ACCEPTANCE OF THE MATERIAL.
4. THE CONTRACTOR SHALL DELIVER THE FILL MATERIALS TO THE REQUIRED SECTIONS AS UNIFORM MIXTURES. THE MIXTURE SHALL BE DEPOSITED AND SPREAD TO THE REQUIRED COMPACTED THICKNESS. SEGREGATION OF MATERIAL SHALL BE AVOIDED AND EACH LAYER OF MATERIAL, AS SPREAD, SHALL BE FREE FROM POCKETS OF COARSE OR FINE MATERIAL.

- o. THE FILL MATERIALS SHALL BE PLACED IN LOOSE HORIZONTAL LAYERS NOT MORE THAN SIX INCHES (6") IN THICKNESS PRIOR TO COMPACTION. THE MATERIAL SHALL BE GENTLY SPREAD OUT. UNDER NO CIRCUMSTANCES SHALL ANY MATERIAL BE DROPPED FROM ANY HEIGHT ONTO THE FILL SECTION.
- b. IF SEGREGATION OCCURS, MATERIAL SHALL BE WORKED UNTIL IT IS UNIFORMLY AND SATISFACTORILY BLENDED. AFTER SPREADING, THE MATERIAL SHALL BE WATERED AND SHAPED TO THE REQUIRED SECTION AND THEN COMPACTED AS SPECIFIED.
- c. AT THE TIME MATERIALS ARE SPREAD, IT SHALL HAVE A MOISTURE CONTENT IN CONFORMANCE WITH THE PROJECT SPECIFICATIONS. SUCH MOISTURE SHALL BE UNIFORMLY DISTRIBUTED THROUGHOUT THE MATERIAL.

FINISHING AND SLOPING GRADING

1. THE SURFACE OF THE TOP LAYER SHALL BE FINISHED TO THE DESIGNATED GRADE AND CROSS SECTION. THE FINISHED SURFACE SHALL BE OF UNIFORM TEXTURE, DRESSED AND GRADED TO DRAIN AND PREVENT WATER PONDING.

COMPACTION EQUIPMENT:

1. COMPACTION SHALL BE PERFORMED WITH A NON-VIBRATORY TYPE ROLLER COMPACTOR. VIBRATORY EQUIPMENT WILL NOT BE PERMITTED ON DISTRICT LEVEES AND FILLS.

TESTING:

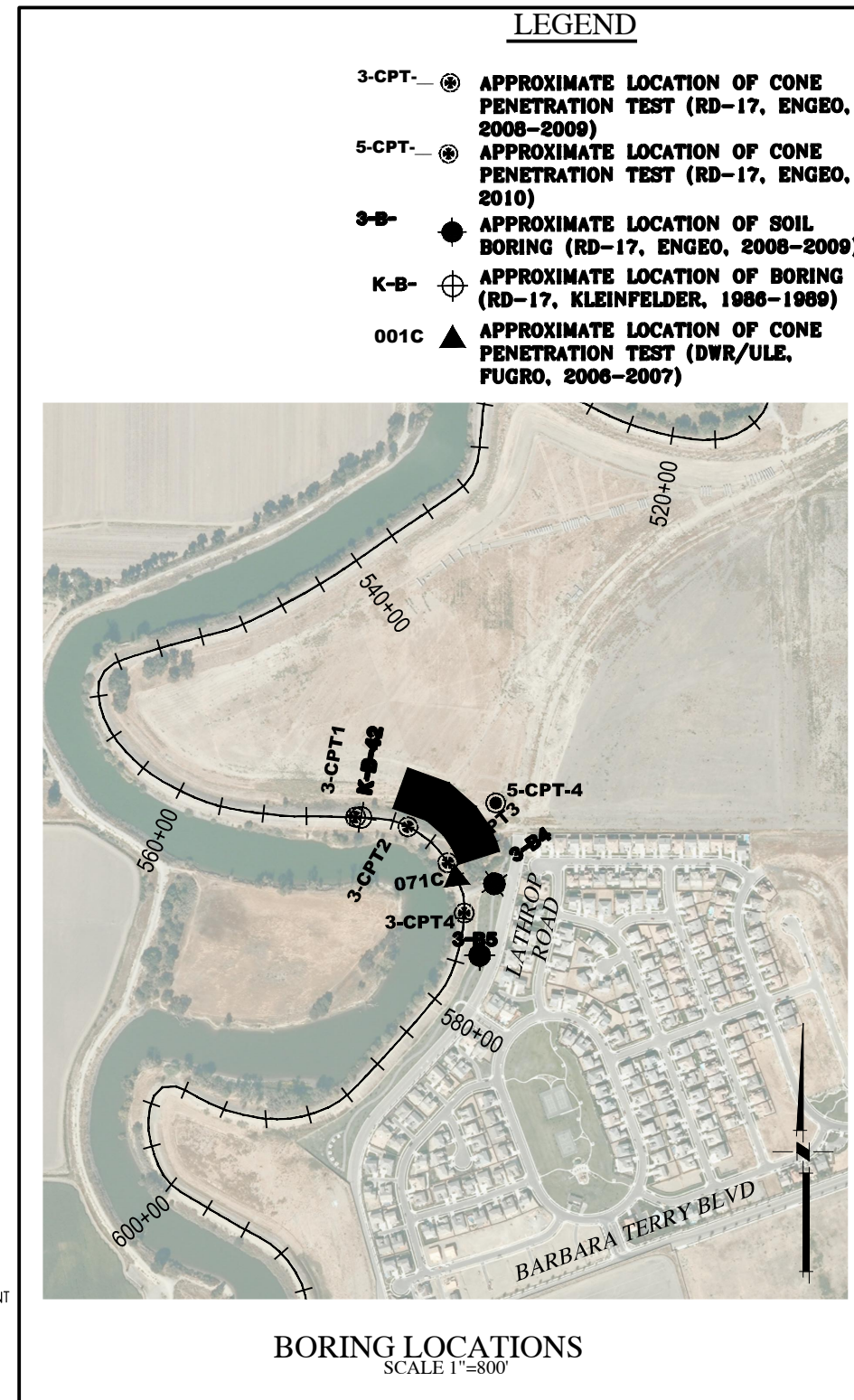
1. THE DISTRICT WILL RETAIN THE SERVICES OF AN INDEPENDENT SOILS CONSULTANT AND TESTING LABORATORY TO PERFORM SAMPLING AND TESTING AS REQUIRED AND TO CHECK FOR COMPLIANCE WITH THE SPECIFICATIONS. THE CONTRACTOR SHALL REMOVE SURFACE MATERIALS AT LOCATIONS DESIGNATED BY THE TESTING ENGINEER AT NO COST TO THE DISTRICT. THE INDEPENDENT TESTING LABORATORY WILL SAMPLE AND PERFORM ALL REQUIRED TESTS SUCH AS MOISTURE CONTENT; GRADATION, AND MOISTURE DENSITY RELATIONSHIPS ON THE EXCAVATED AND EMBANKMENT FILL MATERIALS

SWPPP:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DEVELOPMENT, INSTALLATION AND MAINTENANCE OF A SWPPP AND REQUIRE PROTECTION FEATURES. THESE FEATURES INCLUDE, BUT ARE NOT LIMITED TO, THOSE IDENTIFIED BELOW:
 - A. EROSION CONTROL FACILITIES
 - B. CONSTRUCTION ENTRANCE
 - C. STREET SWEEPING
 - D. THE CONTRACTOR IS RESPONSIBLE FOR ALL FINES, FEES, PENALTIES IMPOSED BY FEDERAL AND LOCAL AGENCIES DUE TO THE CONTRACTOR'S ACTIVITIES ASSOCIATED WITH THE SWPPP.
2. THE CONTRACTOR SHALL CONSTRUCT A STABILIZED CONSTRUCTION ENTRANCE AT ALL ENTRANCES TO THE PROJECT SITE AS APPROVED BY THE ENGINEER.
3. EROSION CONTROL FACILITIES AS SHOWN ON THESE PLANS HAVE BEEN PREPARED TO MEET THE REQUIREMENTS OF THE DISTRICT. THE PROJECT WILL REQUIRE A SWPPP, PREPARED BY A QUALIFIED DEVELOPER (QSD) WHO WILL ASSUME RESPONSIBILITY FOR THE PROJECT COMPLIANCE WITH THE STATE GENERAL CONSTRUCTION PERMIT AND WHOSE RECOMMENDATIONS WILL SUPERCEDE THIS PLAN ACCORDINGLY.

ABBREVIATIONS:

CL	CENTERLINE	N	NORTH, NORthing
CONST	CONSTRUCTION	NTS	NOT TO SCALE
DWSEL	DESIGN WATER SURFACE ELEVATION	PROP	PROPOSED
E	EAST, EASTING	RC	RELATIVE COMPACTION
ELEV	ELEVATION	R/W	RIGHT OF WAY
ESMT	EASEMENT	STA	STATION
EX	EXISTING	TCE	TEMPORARY CONSTRUCTION EASEMENT
FT	FOOT, FEET	TEMP	TEMPORARY
H	HORIZONTAL	TYP	TYPICAL
MIN	MINIMUM	V	VERTICAL
		WS	WATERSIDE



PLANS REVIEWED AND APPROVED BY:

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THESE PLANS CONFORM TO THE GEOTECHNICAL REPORT ENTITLED: SEEPAGE EVALUATION PROJECT #5747.000.000

ENGEO INCORPORATED EXCELLENT SERVICE SINCE 1971

REGISTERED PROFESSIONAL ENGINEER
JOSEF TOOTLE
No. 2677
Exp. 6/30/2014
STATE OF CALIFORNIA

PLANS PREPARED UNDER THE DIRECTION OF:

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REGISTERED PROFESSIONAL ENGINEER
JAMES F. TEMPLETON JR.
No. 43061
Exp. 3/31/14
STATE OF CALIFORNIA

RECLAMATION DISTRICT NO. 17
ELEMENT IV-A
NOTES & BORING LOCATIONS

SAN JOAQUIN COUNTY CALIFORNIA

DATE:	JAN 2014	PROJECT NO.	25182.010
SCALE:	SHOWN	SHT	3
DRAWN BY:	GB	OF	11
DESIGNED BY:	JBM		
CHECKED BY:	JSL		
NO.	REVISION	DATE	

CONTROL POINTS

P#87005 N2120953.935 E6326410.201 EL=29.32 HV104 (3/4"IN IP)
 P#87121 N2120368.619 E6325841.798 EL=29.32 MS83
 P#87607 N2121738.207 E6325726.294 EL=29.57 WP-SJR1
 P#88514 N2121624.333 E6326719.045 EL=10.84 (EX. MON DISC)
 ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

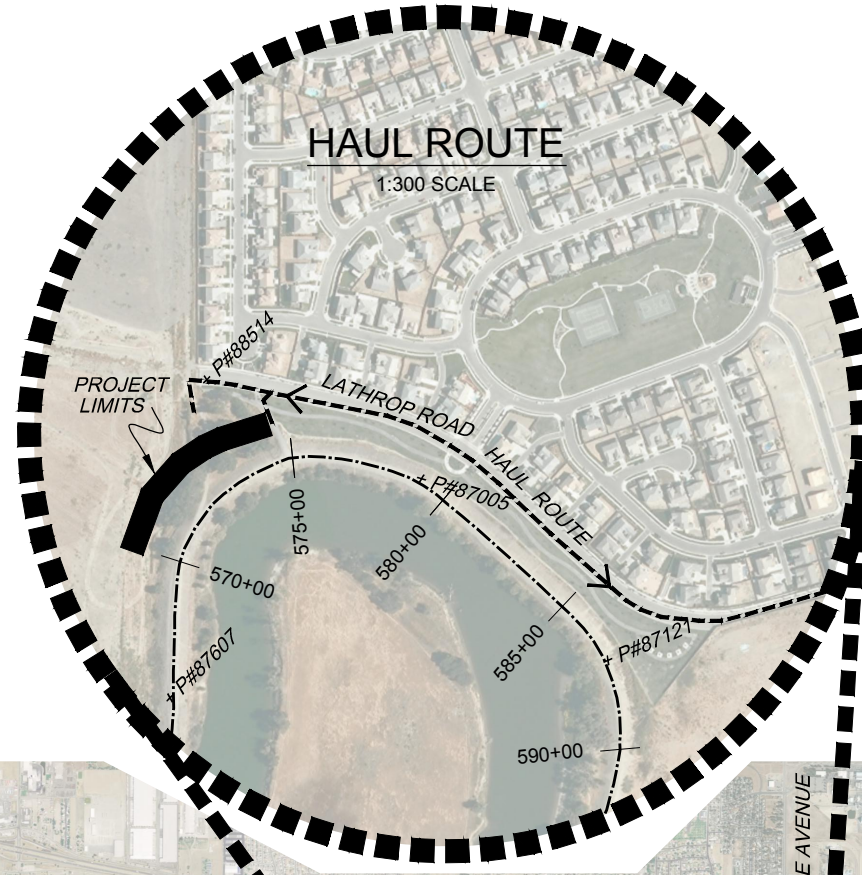
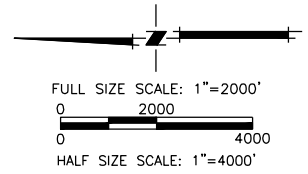
BASIS OF BEARINGS

THE BASIS OF BEARINGS IS NORTH 12D33°37.56" EAST BETWEEN NATIONAL GEODETIC SURVEY HORIZONTAL CONTROL POINTS HPGN-D CA 10 HG (PID AM4256) AND MATTHEW (PID HSO118), CALIFORNIA COORDINATE SYSTEM ZONE 3, NAD83, EPOCH DATE 1997.30, AS CALCULATED AND ADJUSTED BY THE NATIONAL GEODETIC SURVEY IN JULY, 1998, AS SHOWN ON RECORD OF SURVEY RECORDED AT BOOK 34 PAGES 163 - 163B, OF SAN JOAQUIN COUNTY RECORDS. ALL DISTANCES SHOWN HEREON ARE GROUND DISTANCES. TO CONVERT TO GRID DISTANCE, MULTIPLY GROUND DISTANCE BY AVERAGE COMBINED SCALE FACTOR OF 0.999929125.

←-----→
 INDICATES HAUL ROUTES TO BE USED BY CONTRACTOR

SITE SECURITY NOTES:

1. TEMPORARY GATES SHALL BE INSTALLED BY THE CONTRACTOR TO PREVENT UNAUTHORIZED ACCESS TO THE SITE. ACCESS KEYS SHALL BE PROVIDED TO THE DISTRICT TO ALLOW ACCESS TO THE FARMER AND DISTRICT DURING CONSTRUCTION.



PLANS REVIEWED AND APPROVED BY:

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THESE PLANS CONFORM TO THE GEOTECHNICAL REPORT ENTITLED: SEEPAGE EVALUATION PROJECT #5747.000.000

ENGEO INCORPORATED
 EXCELLENT SERVICE SINCE 1971

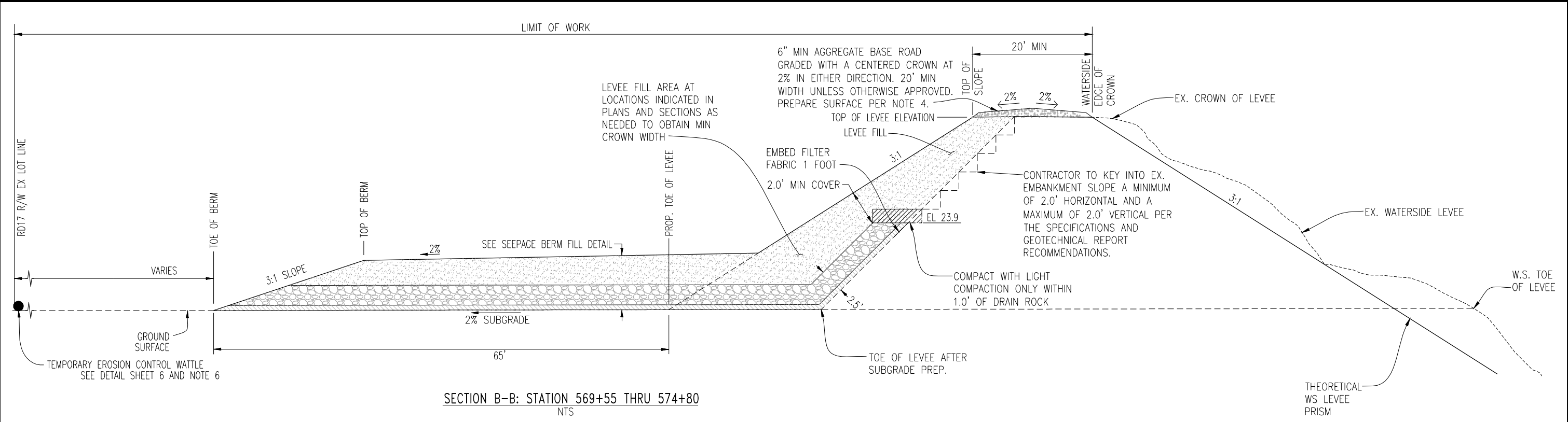
PLANS PREPARED UNDER THE DIRECTION OF:

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RECLAMATION DISTRICT NO. 17
 ELEMENT IV-A
 STATIONING MAP / HAUL ROUTE,
 SAN JOAQUIN COUNTY CALIFORNIA

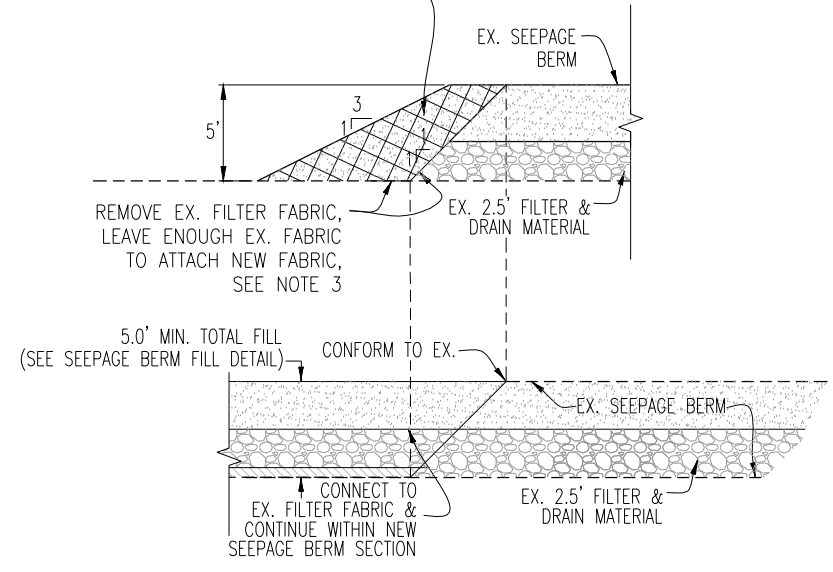
NO.	REVISION	DATE

DATE:	JAN 2014	PROJECT NO.	25182.010
SCALE:	AS NOTED	SHT	4
DRAWN BY:	GB	OF	11
DESIGNED BY:	JBM		
CHECKED BY:	JSL		

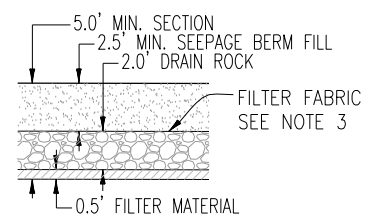


SECTION B-B: STATION 569+55 THRU 574+80
NTS

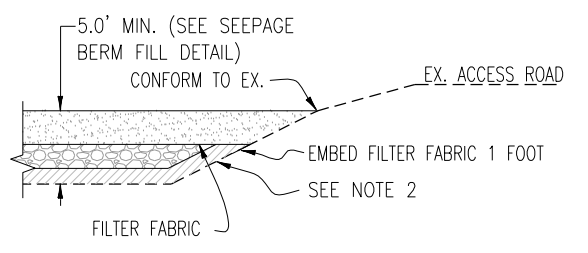
REMOVE EX. SOIL CAP (CROSS-HATCHED AREA). PROTECT EX. FILTER FABRIC AND DRAIN ROCK. EXCAVATE TO COMPACTED ROCK SECTION PER GEOTECHNICAL ENGINEER.



SECTION A-A: BERM CONFORM
NTS



SEEPAGE BERM FILL DETAIL
NTS



SECTION C-C: END OF BERM TRANSITION
NTS

NOTES:

- RD17 RIGHT OF WAY EXTENDS FROM THE SAN JOAQUIN RIVER WATER'S EDGE (AT ORDINARY HIGH WATER) TO THE RD17 RIGHT OF WAY SHOWN ABOVE AND ON THE DETAILED CROSS-SECTIONS WITHIN THIS PLAN SET. TEMPORARY CONSTRUCTION EASEMENTS WILL BE OBTAINED BY RD17 TO COVER THE LIMITS OF WORK AS SHOWN.
- CONTRACTOR TO CLEAR, GRUB, SCARIFY AND RECOMPACT EXISTING GROUND WORKING AREAS PER GEOTECHNICAL ENGINEER'S RECOMMENDATION.
- ALL FILTER FABRIC SHALL BE MIRAFI FW700 OR APPROVED EQUAL. EDGES SHALL BE SEWN PER SPECIFICATIONS.
- CONTRACTOR SHALL STRIP AND STOCKPILE EX. AB AS APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION. SCARIFY 6" AND RECOMPACT LEVEE CROWN SUBGRADE TO 90% RELATIVE COMPACTION PRIOR TO PLACEMENT OF AB. EACH LAYER OF AB PLACED SHALL BE NOT LESS THAN 95% RELATIVE COMPACTION.
- GRADE SUBGRADE TO UNIFORM 2% SLOPE TO ENSURE CONSISTENT BERM LAYER THICKNESS.
- CONTRACTOR SHALL PLACE WATTLES ALONG THE LIMIT OF THE TEMPORARY CONSTRUCTION EASEMENT PRIOR TO BEGINNING WORK, ALL SUBSEQUENT EROSION CONTROL MEASURES SHALL BE INSTALLED PER THE PROVISIONS OF THE SWPPP.

PLANS REVIEWED AND APPROVED BY:

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ENGEO INCORPORATED
EXCELLENT SERVICE SINCE 1971

REGISTERED PROFESSIONAL ENGINEER
JOSEF TOOTLE
No. 2677
Exp. 6/30/2014
STATE OF CALIFORNIA

PLANS PREPARED UNDER THE DIRECTION OF:

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ENGINEERS PLANNERS SURVEYORS
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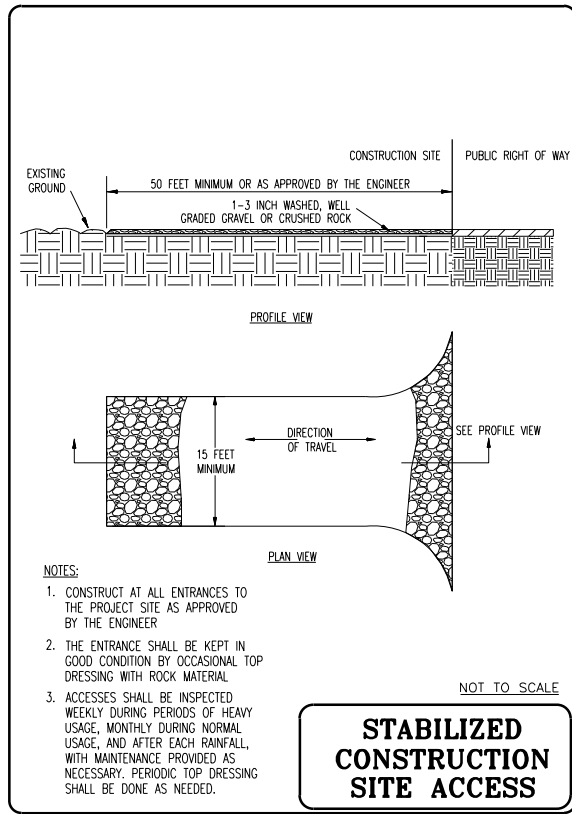
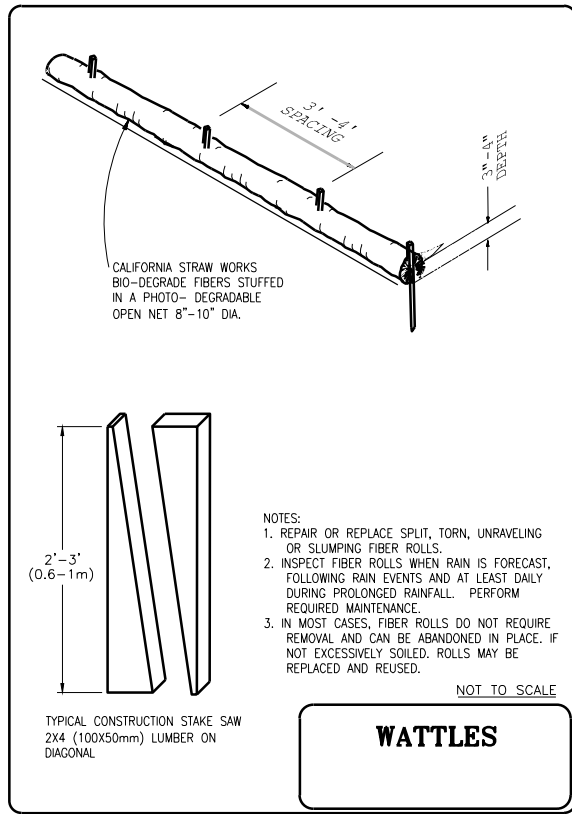
REGISTERED PROFESSIONAL ENGINEER
JAMES F. TEMPLETON JR.
No. 43061
Exp. 3/31/14
STATE OF CALIFORNIA

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RECLAMATION DISTRICT NO. 17
ELEMENT IV-A
TYPICAL SECTIONS AND DETAILS

SAN JOAQUIN COUNTY CALIFORNIA

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE:	SHT 5
DRAWN BY: GB	OF 11
DESIGNED BY: JBM	
CHECKED BY: JSL	
NO.	REVISION
	DATE



PLANS REVIEWED AND APPROVED BY:

K KJELDSSEN
S SINNOCK
N NEUDECK
INC. Consulting Engineers
and Land Surveyors

Post Office Box 844
711 N. Pershing Avenue
Stockton, CA 95201-0844
Office: (209) 946-0268
Faxes: (209) 946-0296
E-mail: KSN@ksninc.com

THESE PLANS CONFORM TO THE GEOTECHNICAL REPORT
ENTITLED: SEEPAGE EVALUATION PROJECT #5747.000.000

ENGEO
INCORPORATED
EXCELLENT SERVICE SINCE 1971

PLANS PREPARED UNDER THE DIRECTION OF:

MACKAY & SOMPS
ENGINEERS PLANNERS SURVEYORS

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ELEMENT IV-A
TYPICAL SECTIONS AND DETAILS

SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

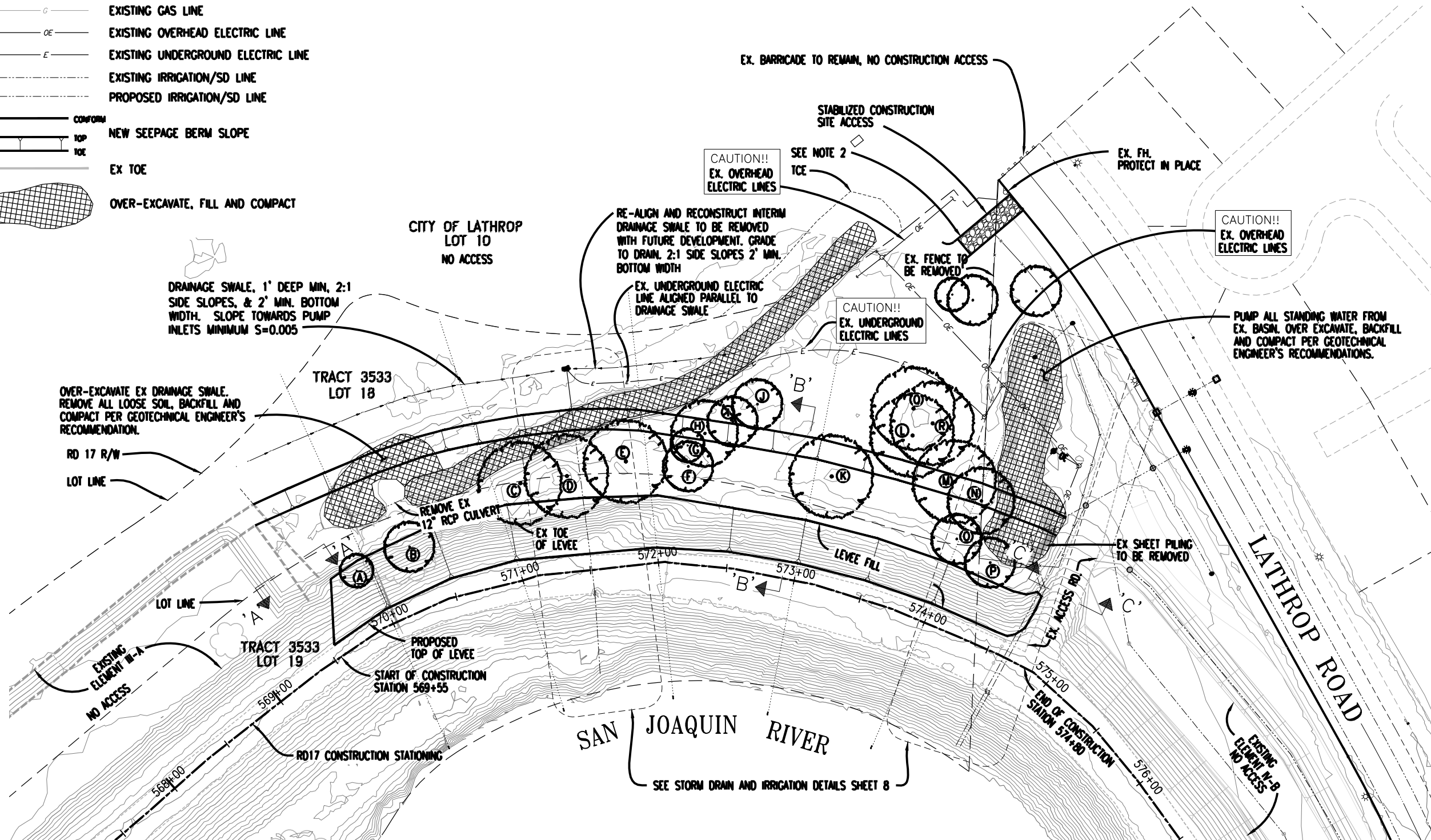
DATE: JAN 2014
SCALE: PROJECT NO. 25182.010
DRAWN BY: GB SHT 6
DESIGNED BY: JBM OF 11
CHECKED BY: JSL

LEGEND

- G — G — EXISTING GAS LINE
- OE — OE — EXISTING OVERHEAD ELECTRIC LINE
- E — E — EXISTING UNDERGROUND ELECTRIC LINE
- - - - - EXISTING IRRIGATION/SD LINE
- - - - - PROPOSED IRRIGATION/SD LINE
- CONFORM
- NEW SEEPAGE BERM SLOPE
- TOP
- TOE
- EX TOE
- OVER-EXCAVATE, FILL AND COMPACT

- TREE LEGEND:**
- (A) 9" OAK TO BE REMOVED
 - (B) 20" OAK TO BE REMOVED
 - (C) 32" OAK TO BE REMOVED
 - (D) 32" OAK TO BE REMOVED
 - (E) 36" OAK TO BE REMOVED
 - (F) 18" OAK TO BE REMOVED
 - (G) 20" OAK TO BE REMOVED
 - (H) 26" OAK TO BE REMOVED
 - (I) 18" OAK TO BE REMOVED
 - (J) 18" OAK TO REMAIN
 - (K) 32" OAK TO BE REMOVED
 - (L) 38" OAK TO REMAIN
 - (M) 22" OAK TO BE REMOVED
 - (N) 2-20" OAKS TO BE REMOVED
 - (O) 28" OAK TO BE REMOVED
 - (P) 18" OAK TO BE REMOVED
 - (Q) 32" OAK TO REMAIN
 - (R) 34" OAK TO REMAIN

NOTE:
 TREE REMOVAL SHALL BE COMPLETE PRIOR TO SEEPAGE BERM CONSTRUCTION INCLUDING REMOVAL OF STUMPS AND ROOTS LARGER THAN 1 1/2" IN DIAMETER. BACKFILL HOLES CREATED FROM ALL TREE REMOVALS PER GEOTECHNICAL REPORT.



1. CONTACT UNDERGROUND SERVICE ALERT(USA) PRIOR TO ANY CONSTRUCTION TO LOCATE AND MARK IN FIELD, THE EX. ELECTRICAL LINES.

2. CONTRACTOR TO CONSTRUCT TEMPORARY CONSTRUCTION ACCESS ROAD TO ALLOW TRUCK ACCESS TO SITE CONFORMING WITH THE S.W.P.P.P. AND HAVING STABILIZED CONSTRUCTION ACCESS WHERE IT CONNECTS TO PAVED ROADWAY. TEMP HAUL ROADS SHALL BE RETURNED TO THEIR PRE-CONSTRUCTION CONDITION AT THE COMPLETION OF CONSTRUCTION.

WARNING • CAUTION
 EXISTING UNDERGROUND UTILITIES
 CONTACT: UNDERGROUND SERVICE ALERT
 PHONE: (800) 227-2600
 FOR MARKING PRIOR TO DIGGING

FULL SIZE SCALE: 1"=40'
 0 40
 80
 HALF SIZE SCALE: 1"=80'

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ENGEO INCORPORATED
 EXCELLENT SERVICE SINCE 1971

REGISTERED PROFESSIONAL ENGINEER
 JOSEF TOOTE
 No. 2677
 Exp. 6/30/2014
 CIVIL
 STATE OF CALIFORNIA

PLANS PREPARED UNDER THE DIRECTION OF:

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REGISTERED PROFESSIONAL ENGINEER
 JAMES F. TEMPLETON JR.
 No. 43061
 Exp. 3/31/14
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 STATE OF CALIFORNIA



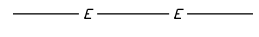



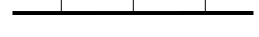


RECLAMATION DISTRICT NO. 17
 ELEMENT IV-A
 GRADING PLAN

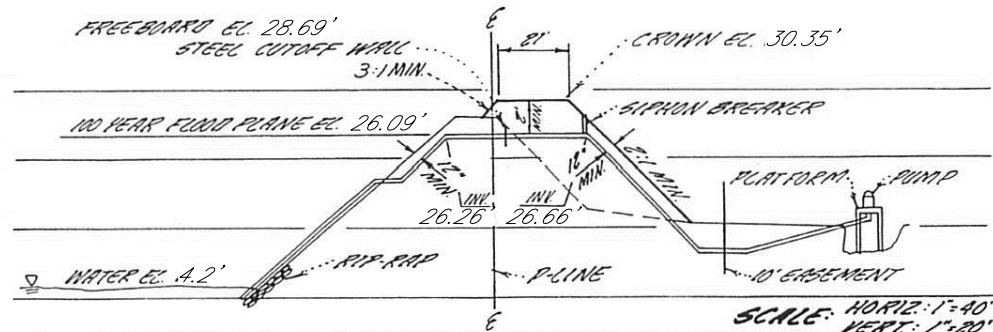
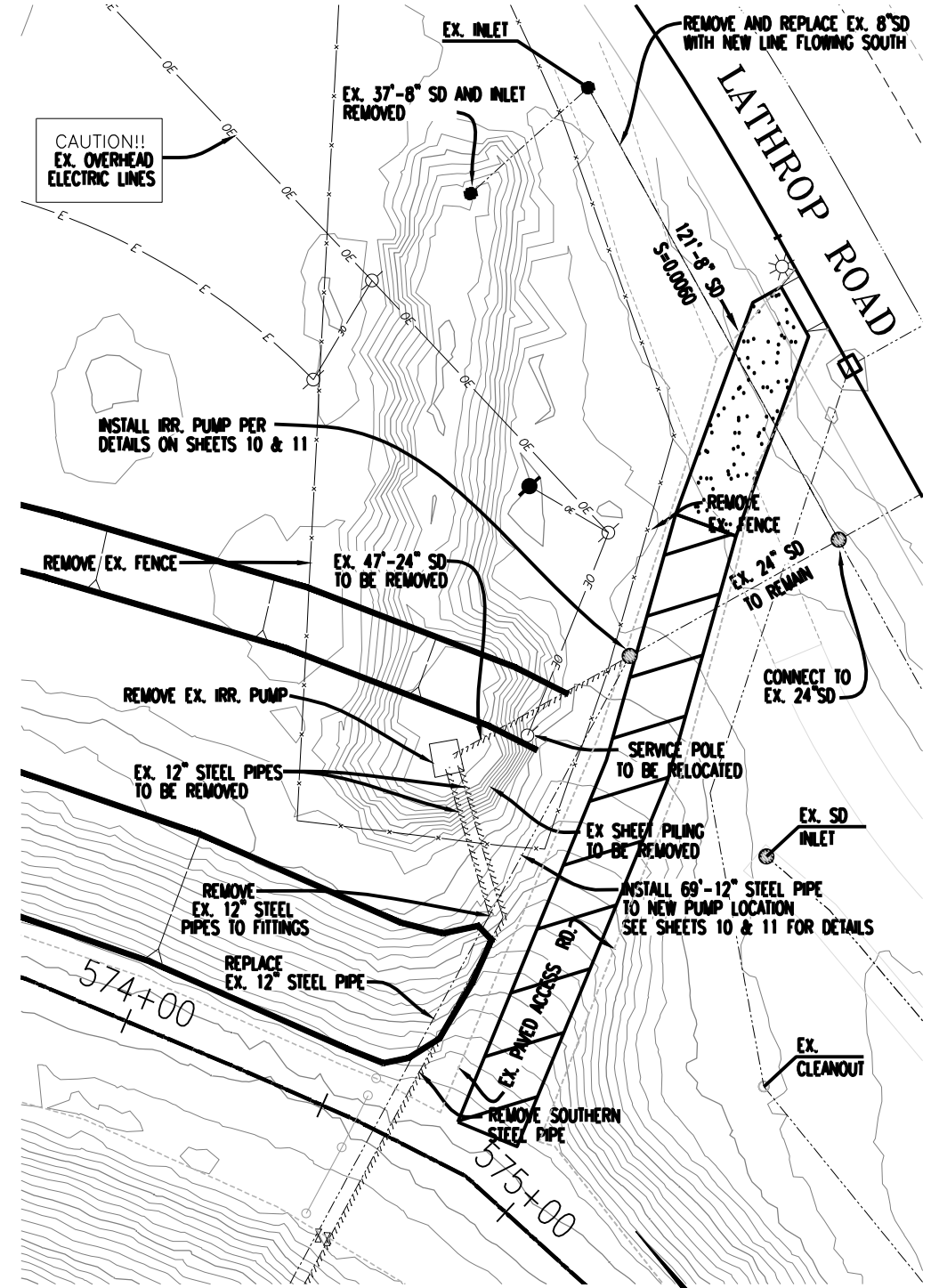
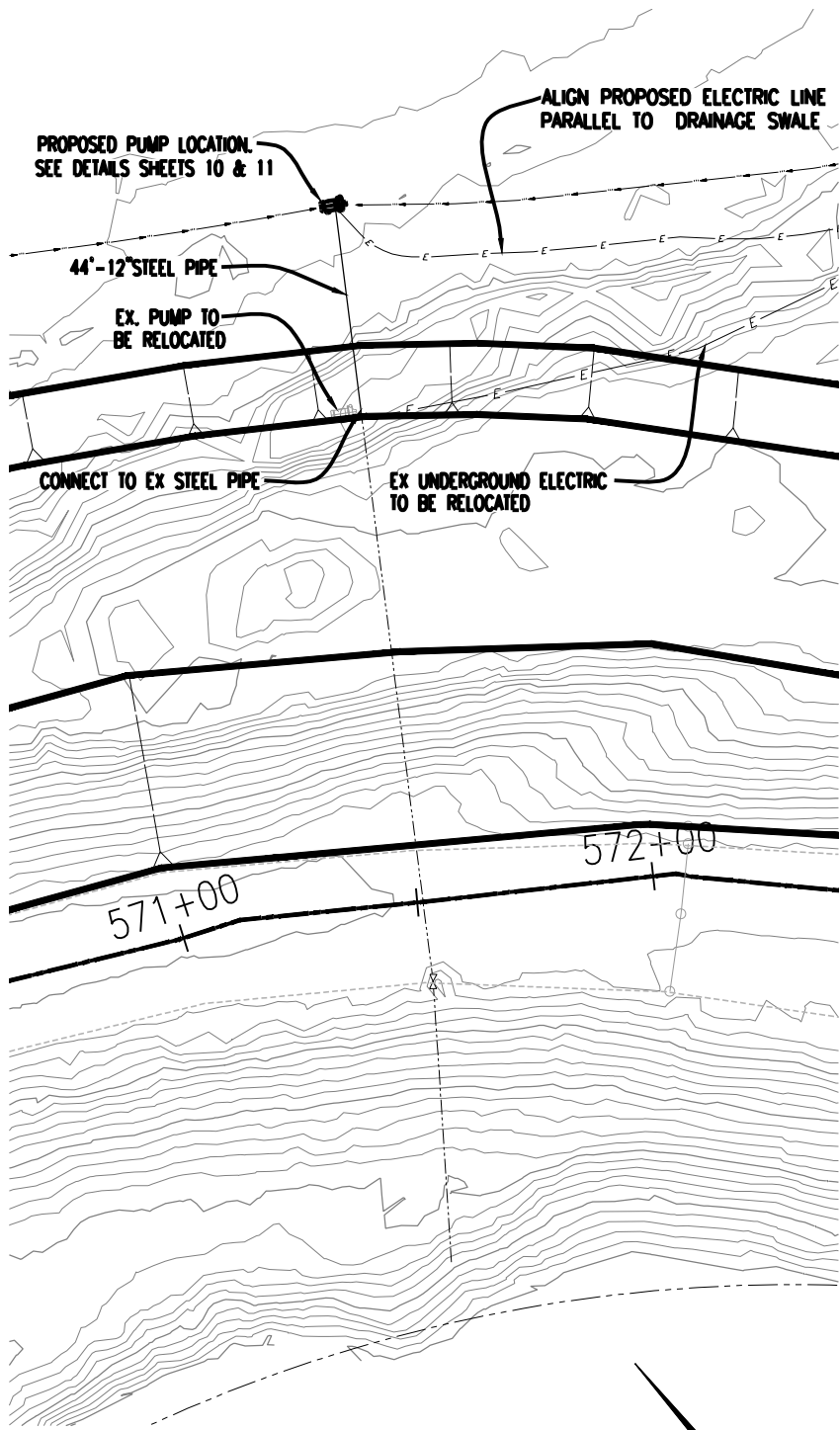
SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

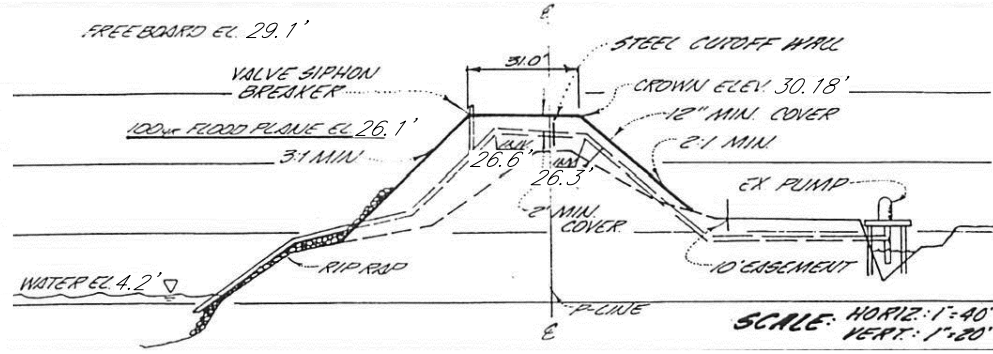
DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: 1"= 80'	SHT 7
DRAWN BY: GB	OF 11
DESIGNED BY: JBM	
CHECKED BY: JSL	

LEGEND

-  EXISTING GAS LINE
-  EXISTING OVERHEAD ELECTRIC LINE
-  EXISTING UNDERGROUND ELECTRIC LINE
-  EXISTING SD/IRRIGATION LINE
-  PROPOSED SD/IRRIGATION LINE
-  CONFORM
-  TOP NEW SEEPAGE BERM SLOPE
-  EX TOE
-  OVER-EXCAVATE, FILL AND COMPACT

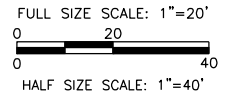


EX. PIPE PROFILE - STATIONS 574+60± AND 574+65±
NTS

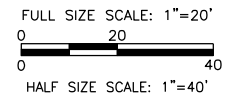


EX. PIPE PROFILE - STATION 571+50±
NTS

NOTE: CONTRACTOR SHALL INSTALL WATERMAN H-30 LINE GATE (OR EQUIVALENT) ON WATERSIDE OF PIPES THROUGH THE LEVEE INCLUDING THE TWO PIPES SHOWN ON THESE PLANS.



WARNING • CAUTION
EXISTING UNDERGROUND UTILITIES
CONTACT: UNDERGROUND SERVICE ALERT
PHONE: (800) 227-2600
FOR MARKING PRIOR TO DIGGING



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ENGEO INCORPORATED
EXCELLENT SERVICE SINCE 1971

REGISTERED PROFESSIONAL ENGINEER
JOSEF TOOLE
No. 2677
Exp. 6/30/2014
GEOTECHNICAL
STATE OF CALIFORNIA

PLANS PREPARED UNDER THE DIRECTION OF:

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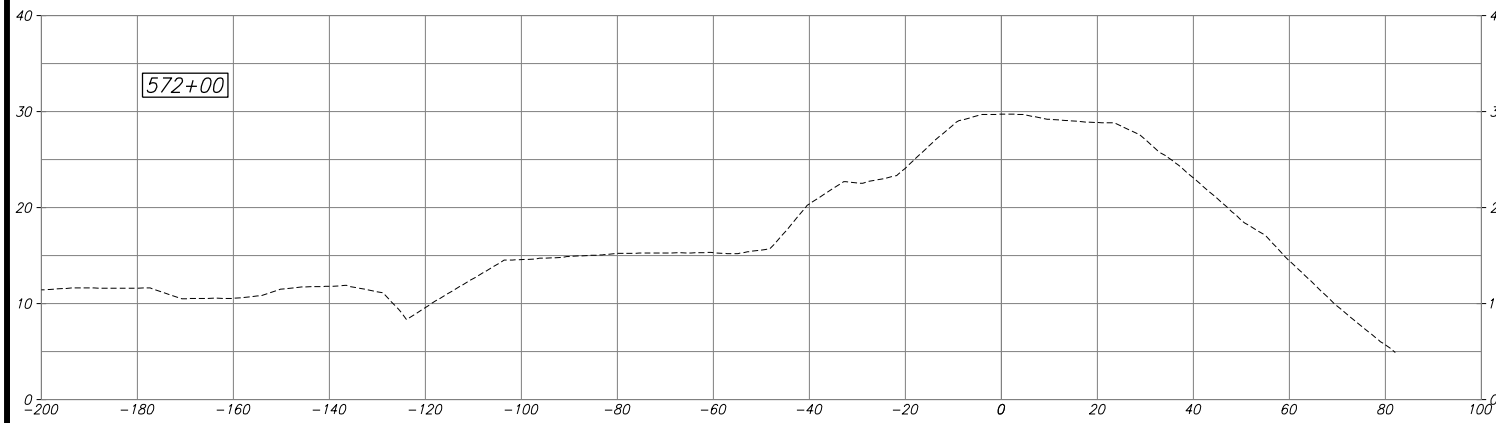
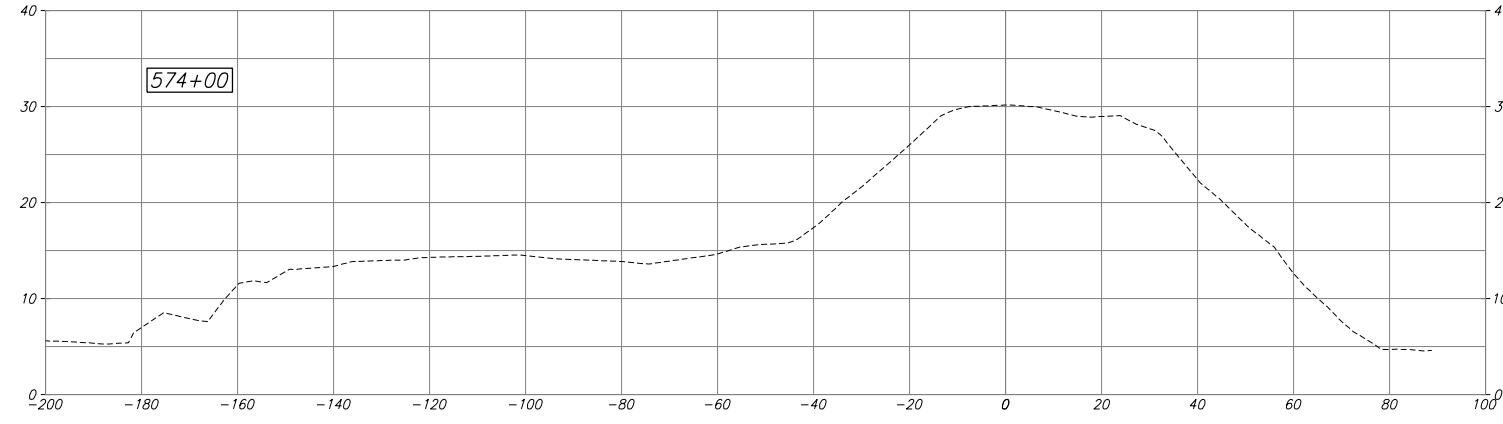
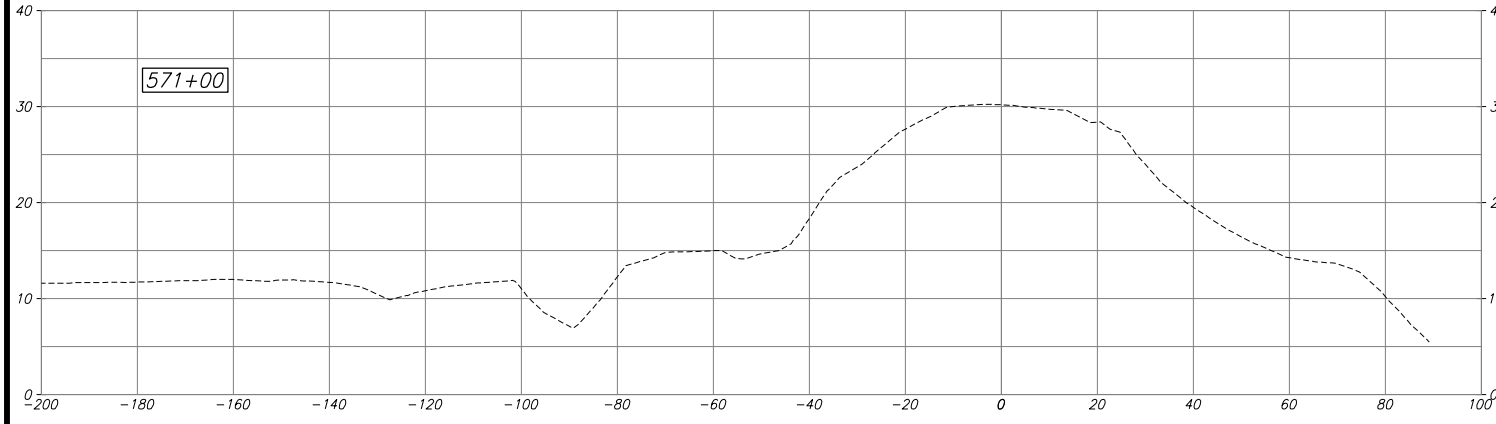
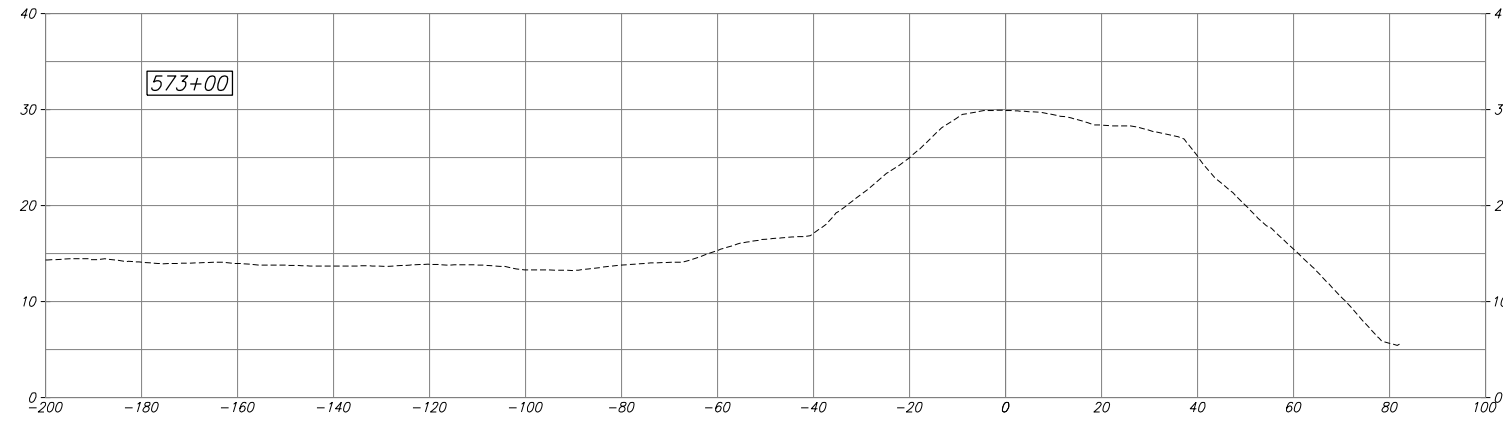
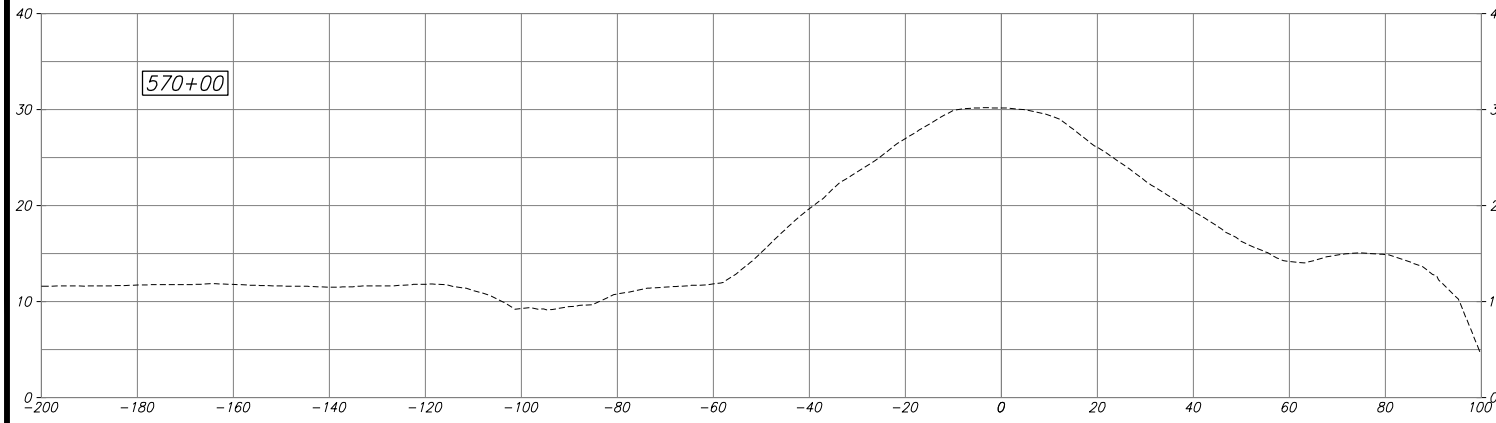
RECLAMATION DISTRICT NO. 17
ELEMENT IV-A
STORM DRAIN & IRRIGATION PLAN

SAN JOAQUIN COUNTY CALIFORNIA

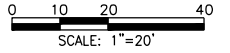
NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: AS NOTED	SHT 8
DRAWN BY: GB	OF 11
DESIGNED BY: JBM	
CHECKED BY: JSL	

ELEMENT IV-A (SEEPAGE BERM) 65% SUBMITTAL



DESIGN DETAILS WILL BE ADDED TO THESE SECTIONS AFTER 65% COMMENTS ARE RECEIVED. PLEASE SEE TYPICAL SECTIONS FOR 65% REVIEW.



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RECLAMATION DISTRICT NO. 17
ELEMENT IV-A
CROSS SECTIONS

SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
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PLACEHOLDER FOR FUTURE PUMP
PLANS. DESIGN DETAILS WILL BE
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RECLAMATION DISTRICT NO. 17
ELEMENT IV-A
PUMP PLANS

SAN JOAQUIN COUNTY CALIFORNIA

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RECLAMATION DISTRICT NO. 17
ELEMENT IV-A
PUMP PLANS

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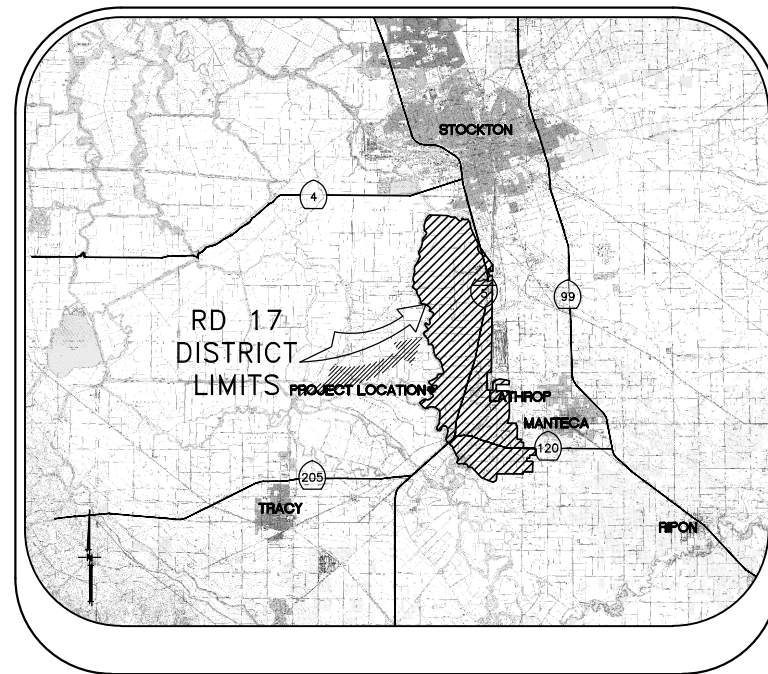
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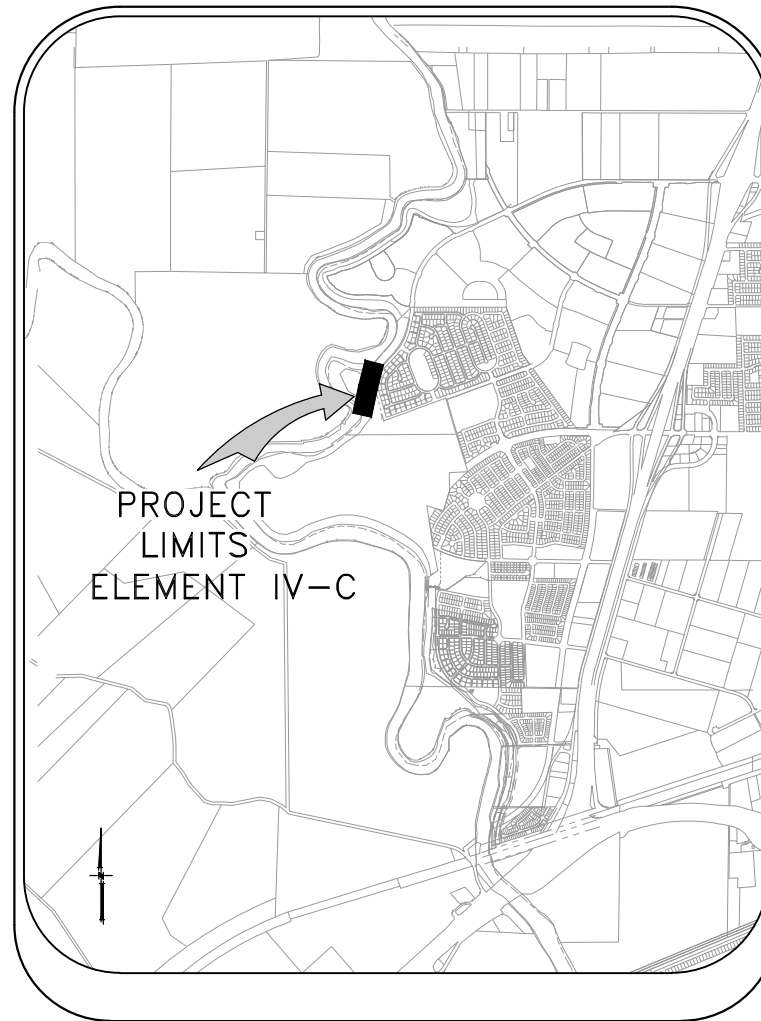
RECLAMATION DISTRICT NO. 17 SETBACK LEVEE PROJECT

ELEMENT IV-C

RD17 STATION 584+00 THRU 608+00 (FEET)
USACE STATION 9.15 THRU 9.60 (MILES)



VICINITY MAP



PROJECT SITE MAP

SHEET	DESCRIPTION
1.	COVER SHEET
2.	NOTES
3.	NOTES
4.	STATIONING MAP / HAUL ROUTES
5.	TYPICAL SECTIONS AND DETAILS
6.	TYPICAL SECTIONS AND DETAILS
7.	TYPICAL SECTIONS AND DETAILS
8.	GRADING PLAN
9.	GRADING PLAN
10.	LEVEE PROFILE
11-14.	CROSS SECTIONS

INDEX

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RECLAMATION DISTRICT NO. 17
ELEMENT IV-C
COVER SHEET

SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: NOT TO SCALE	SHT 1
DRAWN BY: GCC	OF 14
DESIGNED BY: JBM	
CHECKED BY: JSL	

ELEMENT IV-C (SETBACK LEVEE)

65% SUBMITTAL

THE PERFORMANCE OF THE LEVEE SYSTEMS IS DEPENDANT UPON THE DESIGN CRITERIA AND THE LONG TERM OPERATION AND MAINTENANCE OF THE LEVEES. THE DESIGN TEAM HAS PREPARED THESE PLANS AND ASSOCIATED SPECIFICATIONS AND REPORTS IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICE USING INFORMATION FROM MULTIPLE SOURCES. IF EXTREME FLOODS (EXCEEDING THE DESIGN PROFILE), EARTHQUAKES OR OTHER LOADING CONDITIONS NOT EVALUATED IN THE DESIGN OCCUR, THE INTEGRITY OF THE LEVEE SYSTEM MAY BE COMPROMISED.

ROLES:

THE "DISTRICT" AS REFERRED TO IN THESE NOTES MEANS RECLAMATION DISTRICT 17(RD 17). THE DISTRICT IS THE PROJECT OWNER.

THE "ENGINEER" AS REFERRED TO IN THESE NOTES MEANS THE DISTRICT ENGINEER: KJELDSSEN, SINNOCK, AND NEUDECK. THE ENGINEER SHALL PROVIDE INSPECTION OF THE PROJECT AND OVERALL CONSTRUCTION MANAGEMENT INCLUDING COORDINATION WITH PUBLIC UTILITIES, PUBLIC AGENCIES, THE DESIGN ENGINEER AND THE GEOTECHNICAL ENGINEER.

THE "DESIGN ENGINEER" AS REFERRED TO IN THESE NOTES MEANS MACKAY & SOMPS, CIVIL ENGINEERS INC. THE DESIGN ENGINEER WILL PERFORM DISTRICT PROVIDED CONSTRUCTION STAKING AND "AS-GRADED" SURVEYS.

THE "GEOTECHNICAL ENGINEER" AS REFERRED TO IN THESE NOTES MEANS ENGeo INC. THE GEOTECHNICAL ENGINEER WILL PROVIDE MATERIALS TESTING, COMPACTION TESTING AND OTHER GEOTECHNICAL RELATED TESTING.

CONTRACTOR SHALL BE RESPONSIBLE FOR SUPERVISION OF ALL CONTRACTOR'S EMPLOYEES, SUBCONTRACTORS, INCLUDING SCHEDULING AND ALL SAFETY MATTERS.

THESE PLANS ARE TO BE USED IN CONJUNCTION WITH THE FOLLOWING:

- a. SOILS REPORT PREPARED BY ENGeo INC. ENTITLED, SEEPAGE EVALUATION PROJECT # 5747.000.000.
- b. SPECIFICATIONS PREPARED BY KSN DATED _____

GENERAL NOTES:

1. PRIOR TO THE COMMENCEMENT OF WORK, A JOINT INSPECTION BETWEEN THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER, THE GEOTECHNICAL ENGINEER, THEIR REPRESENTATIVES, AND THE CONTRACTOR (OR HIS REPRESENTATIVE) WILL BE CONDUCTED TO REVIEW THE PRE-CONSTRUCTION CONDITIONS (E.G. ROADS, PUMPS, DISCHARGE PIPES, SIPHONS, RAMPS, GATES, SIGNS, ETC.) IF SUCH EXISTING FACILITIES ARE DAMAGED BY THE CONTRACTOR'S OPERATIONS, THE CONTRACTOR, AT THEIR OWN EXPENSE, SHALL REPLACE OR RESTORE THEM TO THE CONDITION THAT EXISTED PRIOR TO THE COMMENCEMENT OF WORK.
2. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT (209) 946-0268, A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY WORK.
3. THE DISTRICT RESERVES THE RIGHT TO SUSPEND CONSTRUCTION AT ANY TIME IN THE EVENT OF EXTREME HIGH OR LOW TIDES, FLOOD EVENTS, OTHER CONDITIONS OR EMERGENCIES THAT MAY JEOPARDIZE THE INTEGRITY OF THE DISTRICT'S LEVEE AND ROAD SYSTEM.
4. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, COUNTY AND LOCAL REQUIREMENTS, AS REQUIRED FOR TRAFFIC CONTROL AND PUBLIC SAFETY DURING PROJECT CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL OUTLINED IN THESE PLANS AND THE REFERENCED SPECIFICATIONS.
5. THE DISTRICT WILL FURNISH ALL RIGHT-OF-WAY FOR ALL LEVEE ROADS AND DESIGNATED ACCESS HAUL ROADS AS SHOWN ON THESE PLANS. SHOULD THE CONTRACTOR WANT TO USE OTHER ROADWAYS OR ACCESS AREAS NOT SHOWN, THE CONTRACTOR SHALL AT THEIR OWN EXPENSE SECURE RIGHT-OF-WAY & NECESSARY PERMITS.
6. IF DELIVERING MATERIAL OR EQUIPMENT BY TRUCK, ALL TRUCK TRAFFIC SHALL BE LIMITED TO THE DISTRICT LEVEE ROADS AND/OR PUBLIC ROADS AS SHOWN ON HAUL ROUTE PLAN, UNLESS OTHERWISE APPROVED.
7. MAXIMUM SPEED LIMIT ON DISTRICT LEVEE ROADS IS 30 MPH, AS POSTED, OR AS OTHERWISE INDICATED ON THE CONSTRUCTION DRAWINGS. CONTRACTOR SHALL POST LARGE SLOW/CAUTION SIGNS AND SPEED LIMIT SIGNS FOR PURPOSES OF NOTIFYING BOTH CONTRACTOR'S EMPLOYEES AND THE PUBLIC. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SAFETY AT ALL TIMES ALONG ALL HAUL ROUTES AND IN ALL PROJECT AREAS (PUBLIC AND PRIVATE).

8. THE DISTRICT WILL PROVIDE SURVEY STAKES AS DESCRIBED IN THE SPECIFICATIONS WITHIN THE CONSTRUCTION SURVEYING SECTION. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL CONSTRUCTION STAKING AND SURVEYING AT THEIR OWN EXPENSE BEYOND THAT PROVIDED BY THE DISTRICT. PLEASE CONTACT THE ENGINEER IN WRITING WITH STAKING REQUESTS (209) 946-0268 WITH AT LEAST TWO WORKING DAYS ADVANCE NOTICE.
9. THE CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER AND THE GEOTECHNICAL ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER OR THE GEOTECHNICAL ENGINEER.
10. ANY DEFICIENCIES NOTED DURING INTERIM AND FINAL INSPECTIONS BY THE ENGINEER AND/OR DISTRICT SHALL BE CORRECTED BY THE CONTRACTOR PRIOR TO FINAL ACCEPTANCE BY THE DISTRICT. ANY ADDITIONAL COSTS AND EXPENSES FOR MOBILIZATION AND/OR DEMOBILIZATION, LABOR, EQUIPMENT AND OTHER ASSOCIATED COSTS REQUIRED TO CORRECT THE DEFICIENCIES NOTED, EXCEPT SPECIFIED MATERIAL(S), SHALL BE BORNE BY THE CONTRACTOR.
11. THE CONTRACTOR SHALL NOT CLOSE ANY ROAD, STREET, OR HIGHWAY TO THE PUBLIC EXCEPT WITH THE PERMISSION OF THE ENGINEER AND THE PROPER GOVERNMENTAL AUTHORITY. TEMPORARY PROVISIONS SHALL BE MADE BY THE CONTRACTOR TO ENSURE CONTINUOUS ACCESS TO PUBLIC AND PRIVATE DRIVEWAYS, AND PROPER FUNCTIONING OF CULVERTS, DRAINAGE AND IRRIGATION DITCHES, AND NATURAL WATER COURSES.
12. THE CONTRACTOR IS RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER, AND HE SHALL NOTIFY THE ENGINEER WHENEVER THERE IS A CHANGE IN SITE CONDITIONS OR AN ADJUSTMENT TO BE MADE IN WORK REQUIREMENTS.
13. SHOULD IT APPEAR THAT THE WORK TO BE DONE, OR ANY MATTER RELATIVE THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE ENGINEER AT (209) 946-0268 FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.
14. THE INTENT OF THESE PLANS IS TO SERVE AS A GUIDE AND TO PROVIDE THE CONTRACTOR WITH INFORMATION AND DETAILS NECESSARY TO CONSTRUCT THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY REGARDING ANY DISCREPANCIES AND AMBIGUITIES WHICH MAY EXIST IN THE PLANS OR SPECIFICATIONS. IF THE PLANS 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 FINEST QUALITY ARE TO BE USED.
15. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE OSHA REGULATIONS AND SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS.
16. THE CONTRACTOR SHALL AT ALL TIMES BE RESPONSIBLE FOR THE SECURITY OF THE JOBSITE AND EQUIPMENT. THE DISTRICT WILL NOT BE RESPONSIBLE FOR MISSING OR DAMAGED EQUIPMENT, TOOLS, OR PERSONAL BELONGINGS.

ENVIRONMENTAL NOTES:

1. THE CONTRACTOR SHALL NOT DISCHARGE SMOKE, DUST, OR ANY OTHER AIR CONTAMINANTS INTO THE ATMOSPHERE IN SUCH QUANTITY AS WILL VIOLATE THE REGULATIONS OF ANY LEGALLY CONSTITUTED AUTHORITY. HE SHALL ALSO ABATE DUST NUISANCE BY CLEANING, SWEEPING AND SPRINKLING WITH WATER, OR OTHER MEANS AS NECESSARY. THE USE OF WATER IN AN AMOUNT WHICH RESULTS IN MUD ON PUBLIC ROADS IS NOT ACCEPTABLE AS A SUBSTITUTE FOR SWEEPING OR OTHER METHODS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ADJACENT PUBLIC ROADS CLEAN & CLEAR FROM CONSTRUCTION IMPACTS OR DEBRIS. ADDITIONAL DETAILS FOR MUD AND DUST CONTROL IS INCLUDED IN SUBSEQUENT SECTIONS OF THESE NOTES.
2. THE CONTRACTOR SHALL EXERCISE EVERY REASONABLE PRECAUTION TO PROTECT STREAMS, WATERWAYS AND OTHER BODIES OF WATER FROM POLLUTION WITH FUELS, OIL, BITUMEN'S, CALCIUM CHLORIDE, AND OTHER HAZARDOUS MATERIALS AND SHALL CONDUCT AND SCHEDULE HIS OPERATIONS SO AS TO AVOID OR MINIMIZE MUDDYING AND SILTING OF SAID WATERS. CARE SHALL BE EXERCISED TO PRESERVE ROADSIDE VEGETATION BEYOND THE LIMITS OF CONSTRUCTION.

3. THROUGHOUT ALL PHASES OF CONSTRUCTION, INCLUDING SUSPENSION OF WORK, AND UNTIL FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL KEEP THE WORK SITE CONDITIONS CLEAN AND FREE FROM RUBBISH AND DEBRIS. ALL RUBBISH AND REFUSE SHALL BE DISPOSED OF IN A MANNER SATISFACTORY TO THE ENGINEER.

DUST AND MUD CONTROL:

1. DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL KEEP ALL CONSTRUCTION AREAS, FILL AREAS, HAUL ROADS, OTHER ROADWAYS, AND OTHER USE AREAS WHERE DUST IS GENERATED WELL WATERED: AND DURING WET CONDITIONS, AREAS USED BY LOCAL TRAFFIC, FREE AND CLEAR FROM MUD. CONTRACTOR SHALL PROVIDE EFFORTS NECESSARY TO MINIMIZE DUST AND OTHER DISTURBANCES NEAR EXISTING RESIDENCES AND ALL BUILDINGS NEAR HAUL ROUTES AND THE PROJECT SITE.
 - a. CROP DAMAGE: THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL TO PREVENT CROP DAMAGE AND FOR ANY AREAS SUBJECT TO CONSTRUCTION OR CONSTRUCTION TRAFFIC THAT GENERATE DUST AND/OR OTHER CONDITIONS WHICH MIGHT DAMAGE CROPS.
 - b. NON WORK DAYS: THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL THROUGHOUT THE DURATION OF THE PROJECT INCLUDING NON WORKDAYS IN ALL PROJECT AREAS, INCLUDING CONSTRUCTION ROADS AND CROP AREAS WHICH ARE USED BY THE CONTRACTOR, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. THE CONTRACTOR SHALL HAVE AT LEAST ONE (1) WATER TRUCK AVAILABLE TO THE PROJECT AT ALL TIMES (OR MORE AS NEEDED OR DIRECTED BY THE ENGINEER) TO MAINTAIN ADEQUATE DUST CONTROL FOR THE FOLLOWING AREAS:
 - a. PROJECT AREAS
 - b. ACCESS AND HAUL ROADS
 - c. LEVEE TOE BERM FILL AREAS
 - d. OTHER CONSTRUCTION USE AREAS
 - e. CROP DAMAGE PREVENTION
 - f. RESIDENTIAL CONSTRUCTION ZONES
 - g. ADJACENT PUBLIC STREETS, TRAILS & BIKEWAYS

UTILITY NOTES:

1. UTILITIES AS NOTED ON THE PLAN SET HAVE BEEN DETERMINED BASED ON RECORD INFORMATION AND FIELD INSPECTION, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE ACTUAL LOCATION OF ALL UNDERGROUND, SURFACE, OVERHEAD, AND SUBMARINE IMPROVEMENTS, OR FACILITIES WHICH MAY BE SUBJECT TO DAMAGE BY REASON OF HIS OPERATIONS.
2. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES AND SHALL CONTACT THE RESPECTIVE UTILITY COMPANIES & PRIVATE OWNERS PRIOR TO COMMENCEMENT OF WORK.
3. THE CONTRACTOR SHALL NOTIFY AFFECTED UTILITIES FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY CONSTRUCTION. (UNDERGROUND SERVICE ALERT (800) 642-2444) AND SHALL BE RESPONSIBLE FOR THE LOCATION AND PRESERVATION OF ALL FACILITIES IN THE AREA OF CONSTRUCTION.

PLANS REVIEWED AND APPROVED BY:



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NEUDECK
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PLANS PREPARED UNDER THE DIRECTION OF:



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RECLAMATION DISTRICT NO. 17
ELEMENT IV-C

NOTES

SAN JOAQUIN COUNTY CALIFORNIA

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SCALE: SHOWN	25182.010
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DESIGNED BY: JBM	OF 14
CHECKED BY: JSL	
NO.	REVISION
	DATE

ELEMENT IV-C (SETBACK LEVEE)

65% SUBMITTAL

ACCESS ROADS:

- THE CONTRACTOR SHALL IMPROVE, MAINTAIN, AND REPAIR UPON COMPLETION, THE ACCESS ROADS AND HAUL ROUTES AS REQUIRED FOR TRANSPORTATION AND HAULING MATERIAL. AT THE COMPLETION OF WORK THE CONTRACTOR SHALL RESTORE ALL ACCESS ROADS AND HAUL ROUTES TO PRE-CONSTRUCTION CONDITION IN A MANNER SATISFACTORY TO THE ENGINEER.
- THE CONTRACTOR SHALL REVIEW THE ACCESS ROAD ROUTES AND DETERMINE THE LOCATION FOR TURNOUTS, RAMPS, ROAD DRAINAGE, ALIGNMENT, ETC. UPON COMPLETION OF THE PROJECT, SOME PORTIONS OF THE ACCESS ROADS MAY REQUIRE MINOR MODIFICATIONS AND ALTERATIONS. THE ACCESS ROADS WHICH REMAIN SHALL BE LEFT IN GOOD CONDITION FOR THE DISTRICT, FARMERS, AND OTHER LOCAL TRAFFIC.
- THE CONTRACTOR SHALL NOT DEVIATE FROM IDENTIFIED HAUL ROUTES AND STAGING AREAS UNLESS PERMISSION IS OBTAINED FROM THE PROPERTY OWNER, ENGINEER AND PERMITS ARE OBTAINED FROM THE LOCAL AGENCY.
- THE CONTRACTOR SHALL EXTEND, STRENGTHEN, REPLACE, OR OTHERWISE MODIFY THE EXISTING CROSSINGS (E.G. CULVERTS, SIPHONS, DRAIN PIPES, IRRIGATION PIPES, PUMP DISCHARGE PIPES, WET SPOTS, ETC.) AS NECESSARY TO ACCOMMODATE HIS EQUIPMENT. THE CONTRACTOR SHALL PROVIDE WHATEVER MEASURES ARE NECESSARY TO PRESERVE, PROTECT, AND MAINTAIN THE CROSSINGS SO AS TO ENSURE CONTINUOUS AND UNINTERRUPTED CONSTRUCTION OPERATIONS DURING THE ENTIRE TERM OF THIS CONTRACT.
- THE HAUL ROADS MAY REQUIRE TEMPORARY IRRIGATION OR DISCHARGE PIPE EXTENSIONS AND RAMPING DURING CONSTRUCTION OPERATIONS. TEMPORARY EXTENSIONS AND RAMPING WILL BE PROVIDED AND INSTALLED BY THE CONTRACTOR AT HIS EXPENSE, INCLUDING REMOVAL IF REQUIRED, IN A MANNER WHICH MEETS WITH THE APPROVAL OF THE ENGINEER AND THE LANDOWNERS.
- NEITHER THE DISTRICT NOR THE ENGINEER MAKES ANY WARRANTY OR GUARANTEE AS TO THE ADEQUACY OF THE EXISTING MATERIALS TO SUPPORT THE CONSTRUCTION TRAFFIC ON THE ACCESS ROADS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MAKING THE NECESSARY IMPROVEMENTS AND PROVIDING THE NECESSARY MEASURES REQUIRED TO ACCOMMODATE HIS ANTICIPATED NEEDS. REPAIRS TO ROADWAYS DAMAGED BY THE CONTRACTOR SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR MUST MAINTAIN HAUL ROUTE ACCESS AT ALL TIMES FOR USE BY THE DISTRICT AND/OR PUBLIC (AS APPLICABLE) DURING CONSTRUCTION.

CLEARING & GRUBBING:

- UNLESS OTHERWISE INDICATED, THE WORK AREAS SHALL BE CLEARED AND GRUBBED BY THE CONTRACTOR. CONTRACTOR SHALL USE CAUTION WHILE CLEARING AND GRUBBING AROUND POWER LINES, BURIED ELECTRICAL CABLES AND OTHER EX FACILITIES/UTILITIES. ALL MATERIAL CLEARED AND REMOVED SHALL BECOME THE PROPERTY AND RESPONSIBILITY OF THE CONTRACTOR FOR REMOVAL AND DISPOSAL OFFSITE. SOME PRUNING/TRIMMING/THINNING OF BRANCHES OR TREES MAY BE REQUIRED.

FILL MATERIALS:

- THE CONTRACTOR SHALL FURNISH, DELIVER, AND PLACE THE SPECIFIED FILL MATERIALS (PER THE DISTRICT ENGINEERS SPECIFICATIONS) TO THE DESIGNATED SITES.
- THE FILL SHALL BE CONSTRUCTED WITH ACCEPTABLE MATERIALS SUFFICIENT TO MEET DESIGN GRADES AND SPECIFICATIONS.
- ALL SUBGRADE AREAS RECEIVING FILL MATERIAL SHALL BE PREPARED AS REQUIRED BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR MAY BE REQUIRED TO PERFORM ADDITIONAL SUBGRADE PREPARATION WORK WITHIN THE FILL AREAS PRIOR TO THE ACCEPTANCE OF THE MATERIAL.
- THE CONTRACTOR SHALL DELIVER THE FILL MATERIALS TO THE REQUIRED SECTIONS AS UNIFORM MIXTURES. THE MIXTURE SHALL BE DEPOSITED AND SPREAD TO THE REQUIRED COMPACTED THICKNESS. SEGREGATION OF MATERIAL SHALL BE AVOIDED AND EACH LAYER OF MATERIAL, AS SPREAD, SHALL BE FREE FROM POCKETS OF COARSE OR FINE MATERIAL.

- THE FILL MATERIALS SHALL BE PLACED IN LOOSE HORIZONTAL LAYERS NOT MORE THAN SIX INCHES (6") IN THICKNESS PRIOR TO COMPACTION. THE MATERIAL SHALL BE GENTLY SPREAD OUT. UNDER NO CIRCUMSTANCES SHALL ANY MATERIAL BE DROPPED FROM ANY HEIGHT ONTO THE FILL SECTION.
- IF SEGREGATION OCCURS, MATERIAL SHALL BE WORKED UNTIL IT IS UNIFORMLY AND SATISFACTORILY BLENDED. AFTER SPREADING, THE MATERIAL SHALL BE WATERED AND SHAPED TO THE REQUIRED SECTION AND THEN COMPACTED AS SPECIFIED.
- AT THE TIME MATERIALS ARE SPREAD, IT SHALL HAVE A MOISTURE CONTENT IN CONFORMANCE WITH THE PROJECT SPECIFICATIONS. SUCH MOISTURE SHALL BE UNIFORMLY DISTRIBUTED THROUGHOUT THE MATERIAL.

FINISHING AND SLOPING GRADING

- THE SURFACE OF THE TOP LAYER SHALL BE FINISHED TO THE DESIGNATED GRADE AND CROSS SECTION. THE FINISHED SURFACE SHALL BE OF UNIFORM TEXTURE, DRESSED AND GRADED TO DRAIN AND PREVENT WATER PONDING.

COMPACTION EQUIPMENT:

- COMPACTION SHALL BE PERFORMED WITH A NON-VIBRATORY TYPE ROLLER COMPACTOR. VIBRATORY EQUIPMENT WILL NOT BE PERMITTED ON DISTRICT LEVEES AND FILLS.

TESTING:

- THE DISTRICT WILL RETAIN THE SERVICES OF AN INDEPENDENT SOILS CONSULTANT AND TESTING LABORATORY TO PERFORM SAMPLING AND TESTING AS REQUIRED AND TO CHECK FOR COMPLIANCE WITH THE SPECIFICATIONS. THE CONTRACTOR SHALL REMOVE SURFACE MATERIALS AT LOCATIONS DESIGNATED BY THE TESTING ENGINEER AT NO COST TO THE DISTRICT. THE INDEPENDENT TESTING LABORATORY WILL SAMPLE AND PERFORM ALL REQUIRED TESTS SUCH AS MOISTURE CONTENT; GRADATION, AND MOISTURE DENSITY RELATIONSHIPS ON THE EXCAVATED AND EMBANKMENT FILL MATERIALS

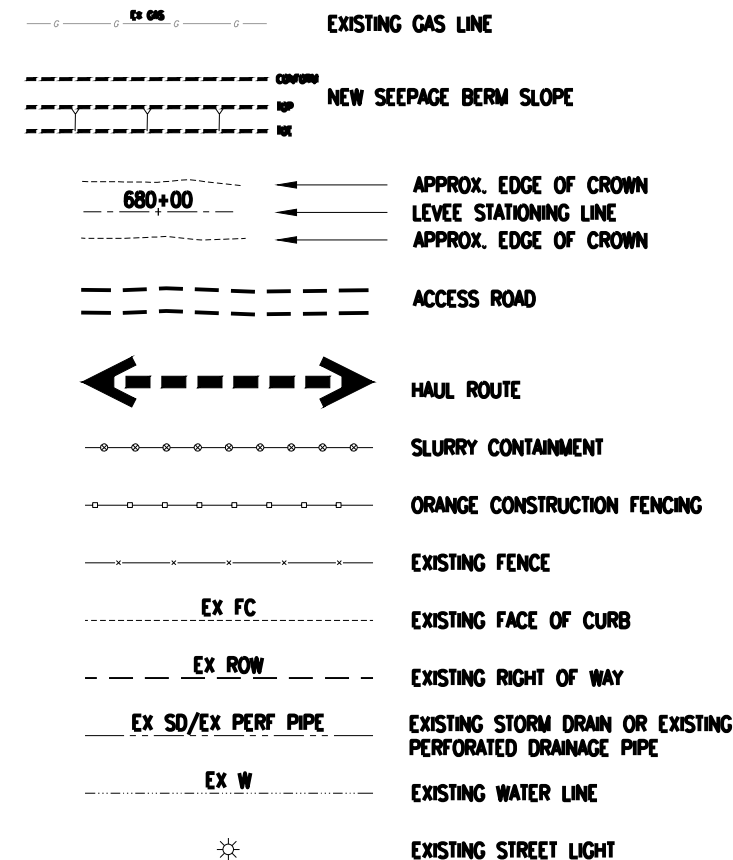
SWPPP:

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DEVELOPMENT, INSTALLATION AND MAINTENANCE OF A SWPPP AND REQUIRE PROTECTION FEATURES. THESE FEATURES INCLUDE, BUT ARE NOT LIMITED TO, THOSE IDENTIFIED BELOW:
 - EROSION CONTROL FACILITIES
 - CONSTRUCTION ENTRANCE
 - STREET SWEEPING
 - THE CONTRACTOR IS RESPONSIBLE FOR ALL FINES, FEES, PENALTIES IMPOSED BY FEDERAL AND LOCAL AGENCIES DUE TO THE CONTRACTOR'S ACTIVITIES ASSOCIATED WITH THE SWPPP.
- THE CONTRACTOR SHALL CONSTRUCT A STABILIZED CONSTRUCTION ENTRANCE AT ALL ENTRANCES TO THE PROJECT SITE AS APPROVED BY THE ENGINEER.
- EROSION CONTROL FACILITIES AS SHOWN ON THESE PLANS HAVE BEEN PREPARED TO MEET THE REQUIREMENTS OF THE DISTRICT. THE PROJECT WILL REQUIRE A SWPPP, PREPARED BY A QUALIFIED DEVELOPER (QSD) WHO WILL ASSUME RESPONSIBILITY FOR THE PROJECT COMPLIANCE WITH THE STATE GENERAL CONSTRUCTION PERMIT AND WHOSE RECOMMENDATIONS WILL SUPERCEDE THIS PLAN ACCORDINGLY.

ABBREVIATIONS:

CL	CENTERLINE	N	NORTH, NORTHING
CONST	CONSTRUCTION	NTS	NOT TO SCALE
DWSEL	DESIGN WATER SURFACE ELEVATION	PROP	PROPOSED
E	EAST, EASTING	RC	RELATIVE COMPACTION
ELEV	ELEVATION	R/W	RIGHT OF WAY
ESMT	EASEMENT	STA	STATION
EX	EXISTING	TCE	TEMPORARY CONSTRUCTION EASEMENT
FT	FOOT, FEET	TEMP	TEMPORARY
H	HORIZONTAL	TYP	TYPICAL
MIN	MINIMUM	V	VERTICAL
		WS	WATERSIDE

LEGEND



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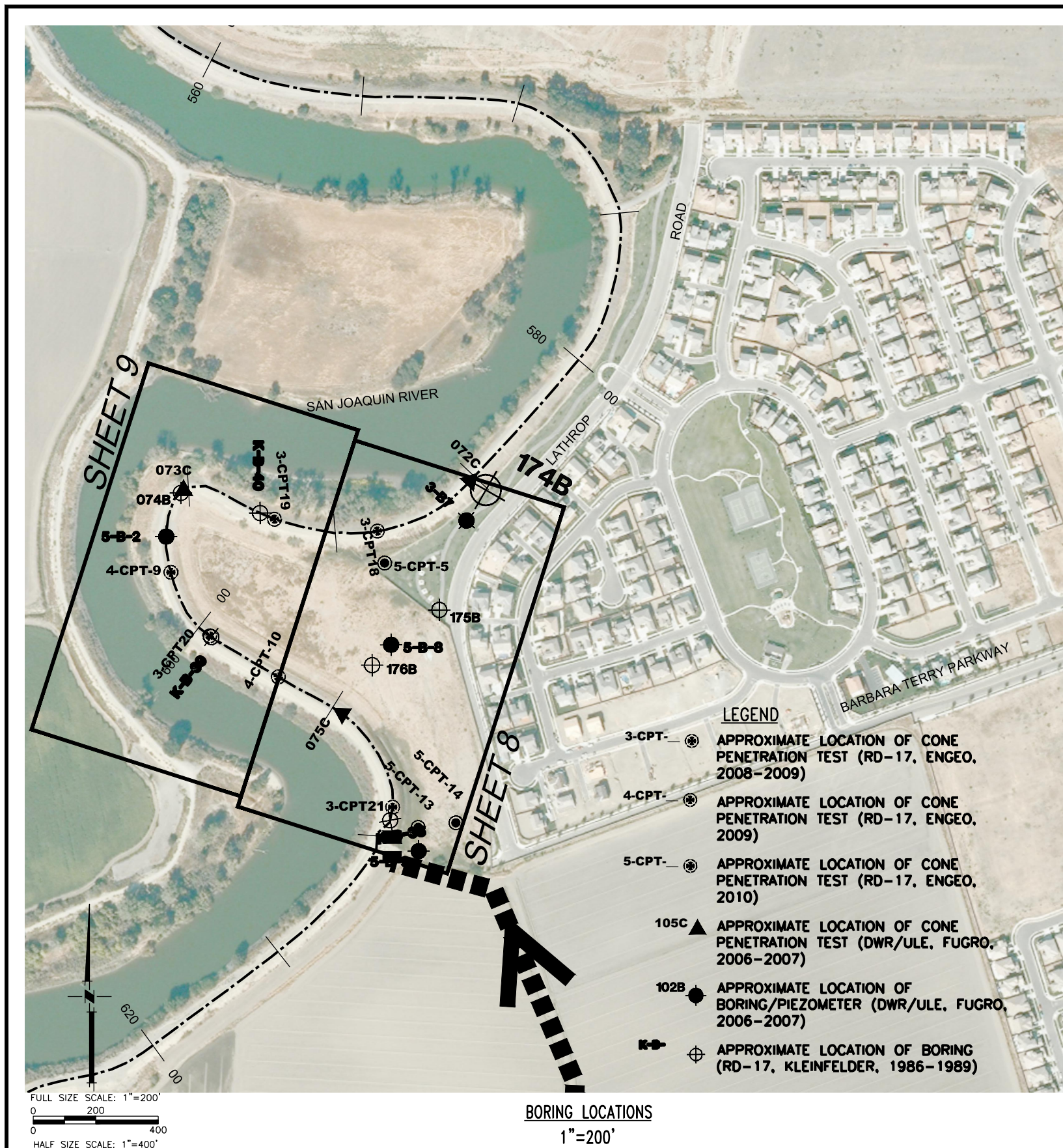
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RECLAMATION DISTRICT NO. 17
ELEMENT IV-C
NOTES & BORING LOCATIONS
SAN JOAQUIN COUNTY CALIFORNIA

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: SHOWN	SHT 3
DRAWN BY: GCC	OF 14
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DATE _____	



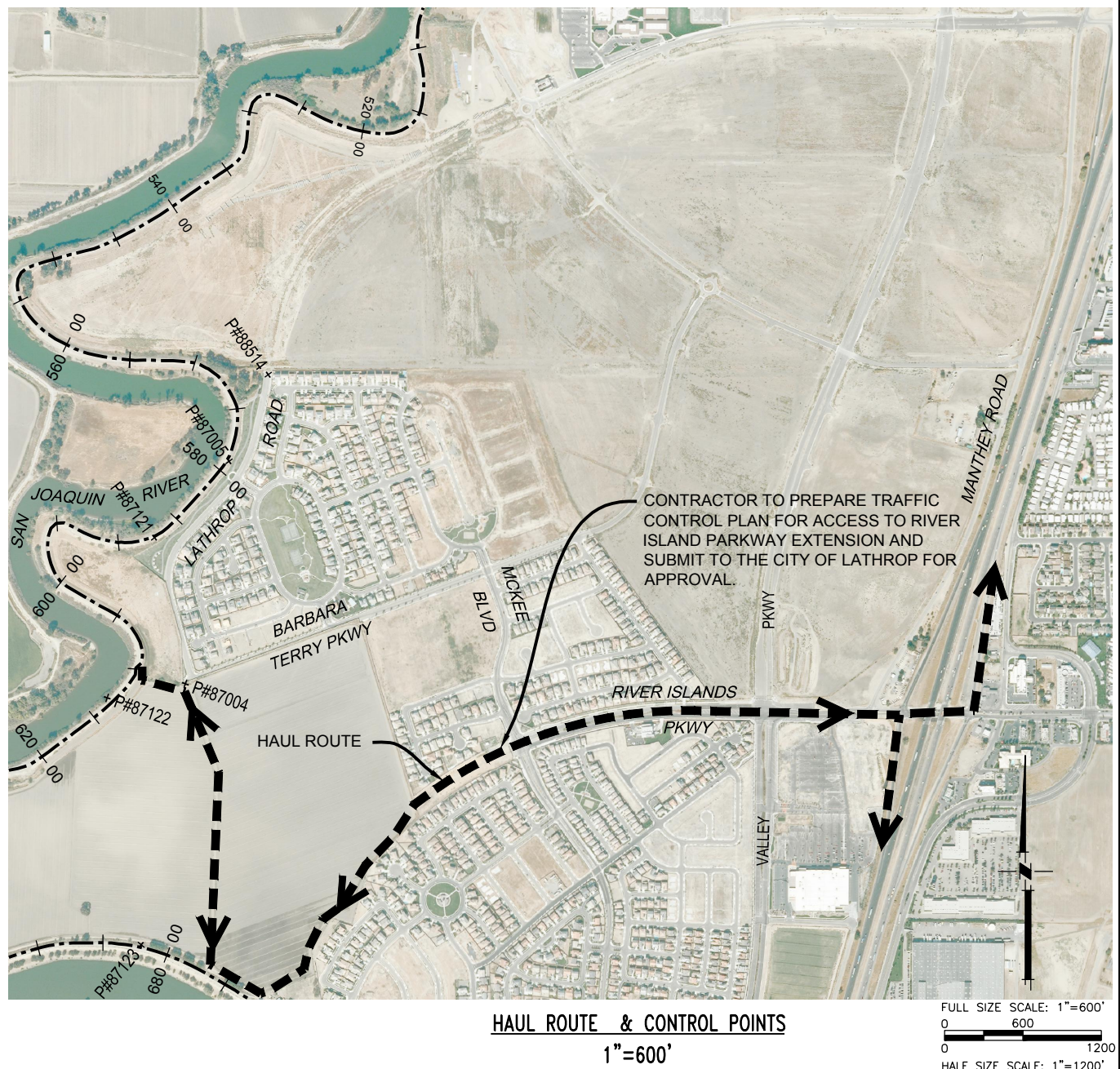
CONTROL POINTS

P#87004	N2119251.825 E6326076.602	EL=13.78	PK NAIL
P#87005	N2120953.935 E6326410.201	EL=29.28	IRON PIPE
P#87121	N2120368.619 E6325841.798	EL=29.32	MS83
P#87122	N2119121.532 E6325540.405	EL=29.96	IRON PIPE
P#87123	N2117251.052 E6325740.450	EL=29.49	IRON PIPE
P#88514	N2121624.333 E6326719.045	EL=10.84	MONUMENT DISC

ELEVATIONS SHOWN HEREON ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1988 (NGVD88).

BASIS OF BEARING
THE BASIS OF BEARINGS IS NORTH 120°33'37.56" EAST BETWEEN NATIONAL GEODETIC SURVEY HORIZONTAL CONTROL POINTS HPGN-D CA 10 HG (PID AM4256) AND MATTHEW (PID H50118), CALIFORNIA COORDINATE SYSTEM ZONE 3, NAD83, EPOCH DATE 1997.30, AS CALCULATED AND ADJUSTED BY THE NATIONAL GEODETIC SURVEY IN JULY, 1998, AS SHOWN ON RECORD OF SURVEY RECORDED AT BOOK 34 PAGES 163 - 163B, OF SAN JOAQUIN COUNTY RECORDS. ALL DISTANCES SHOWN HEREON ARE GROUND DISTANCES. TO CONVERT TO GRID DISTANCE, MULTIPLY GROUND DISTANCE BY AVERAGE COMBINED SCALE FACTOR OF 0.999929125.

INDICATES HAUL ROUTES TO BE USED BY CONTRACTOR



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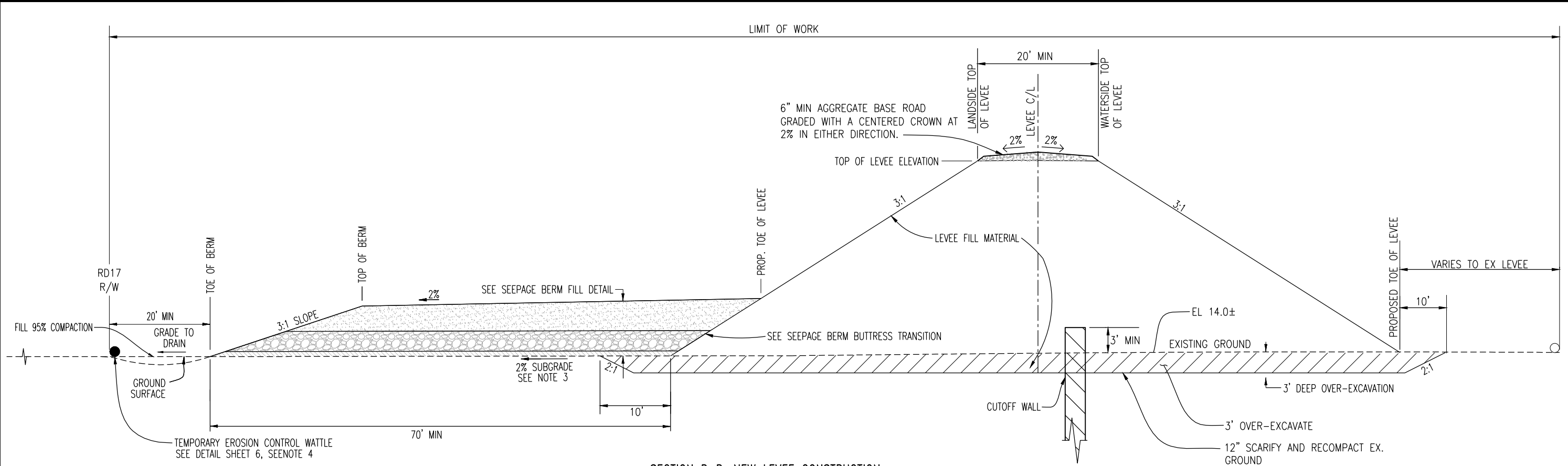
RECLAMATION DISTRICT NO. 17
ELEMENT IV-C

STATIONING MAP, HAUL ROUTES, ACCESS PLAN & CONTROL POINTS

SAN JOAQUIN COUNTY CALIFORNIA

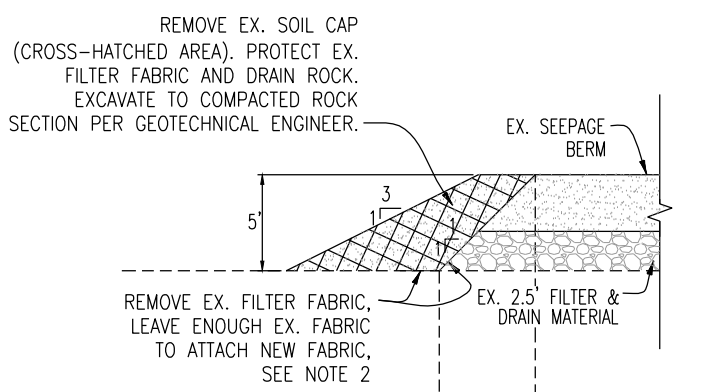
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DATE:	JAN 2014	PROJECT NO.	25182.010
SCALE:	AS NOTED	SHT	4
DRAWN BY:	GCC	OF	14
DESIGNED BY:	JBM		
CHECKED BY:	JSL		

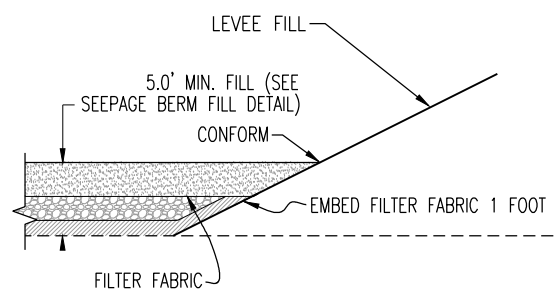


SECTION B-B: NEW LEVEE CONSTRUCTION
NTS

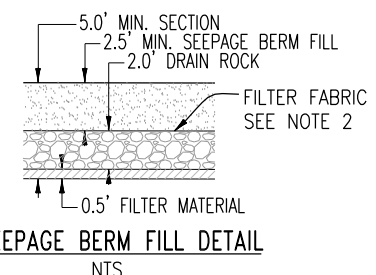
- NOTES:
- CONTRACTOR TO CLEAR, GRUB, SCARIFY AND RECOMPACT EXISTING GROUND WITHIN LIMIT OF WORK PER GEOTECHNICAL ENGINEER'S RECOMMENDATION.
 - ALL FILTER FABRIC SHALL BE MIRAFI FW700 OR APPROVED EQUAL. EDGES SHALL BE SEWN PER SPECIFICATIONS.
 - GRADE SUBGRADE TO UNIFORM 2% SLOPE TO ENSURE CONSISTENT UNIFORM BERM LAYER THICKNESS.
 - CONTRACTOR SHALL PLACE WATTLES ALONG THE LIMIT OF THE TEMPORARY CONSTRUCTION EASEMENT PRIOR TO BEGINNING WORK, ALL SUBSEQUENT EROSION MEASURES SHALL BE INSTALLED PER THE PROVISIONS OF THE SWPPP.



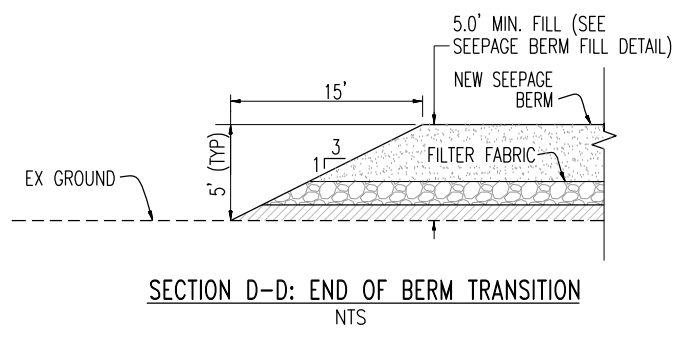
SECTION A-A: BERM CONFORM
NTS



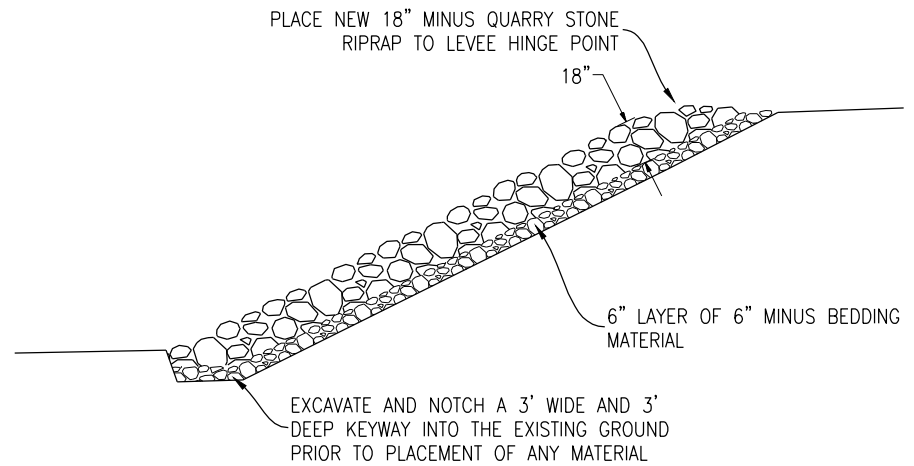
SEEPAGE BERM BUTTRESS TRANSITION
NTS



SEEPAGE BERM FILL DETAIL
NTS



SECTION D-D: END OF BERM TRANSITION
NTS



RIP-RAP DETAIL
NTS

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S SINNOCK
N NEUDECK
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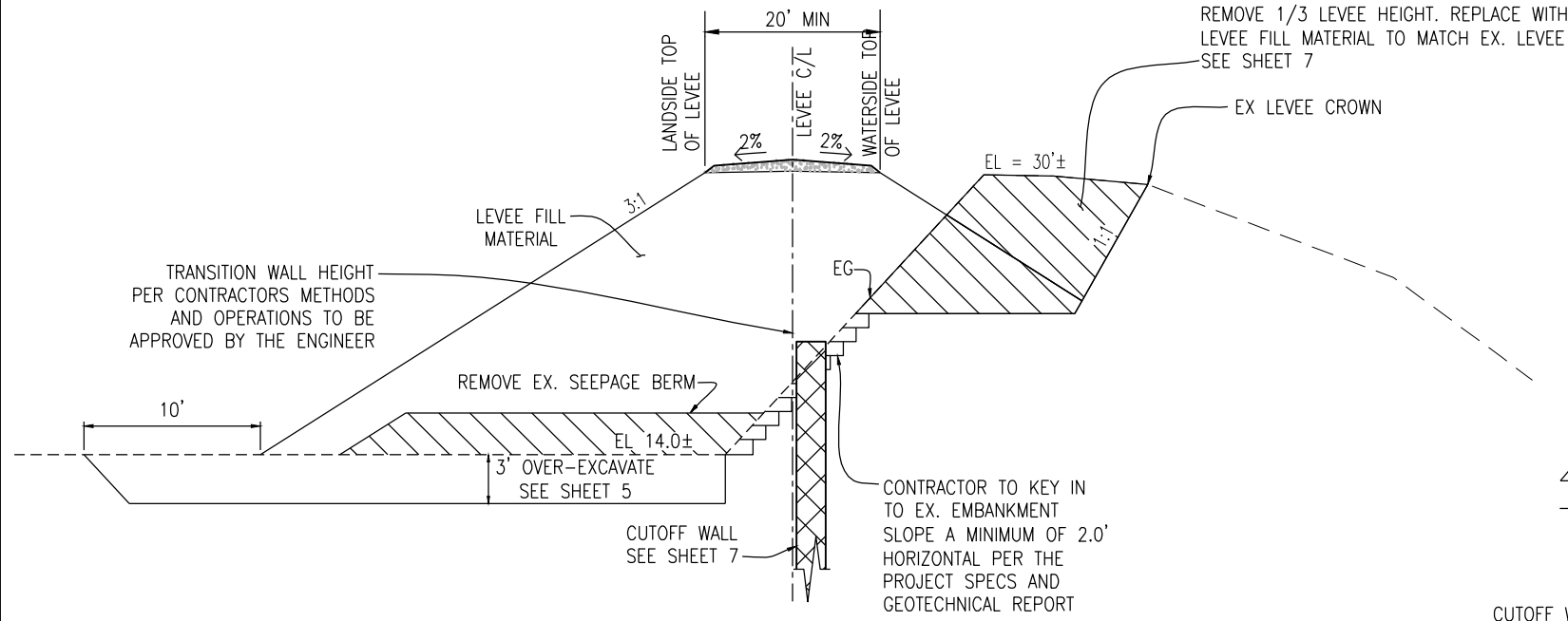
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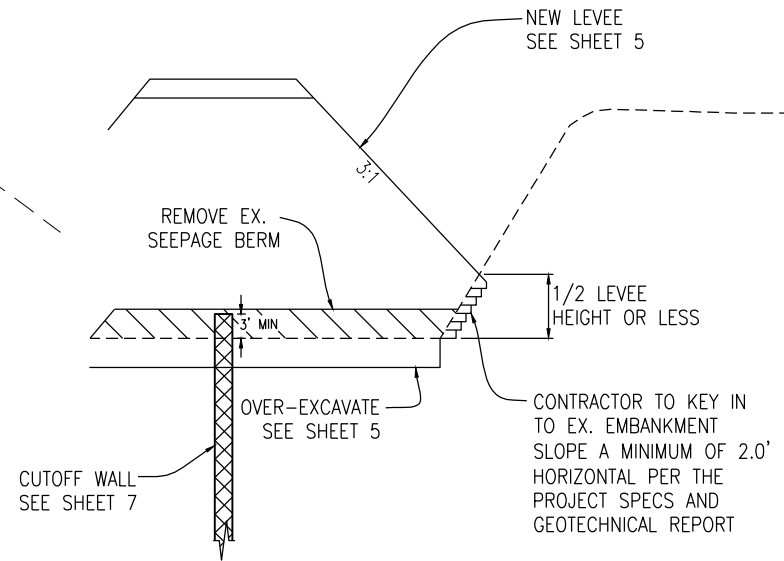
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ELEMENT IV-C

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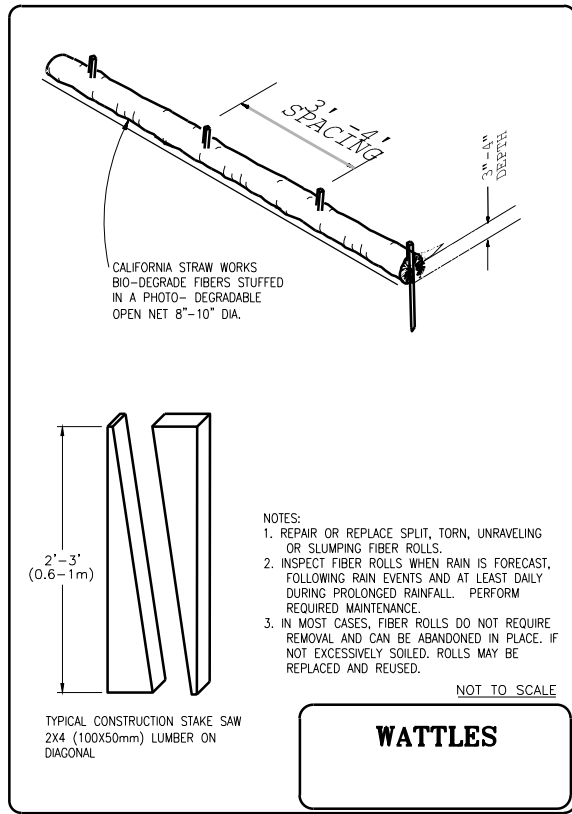
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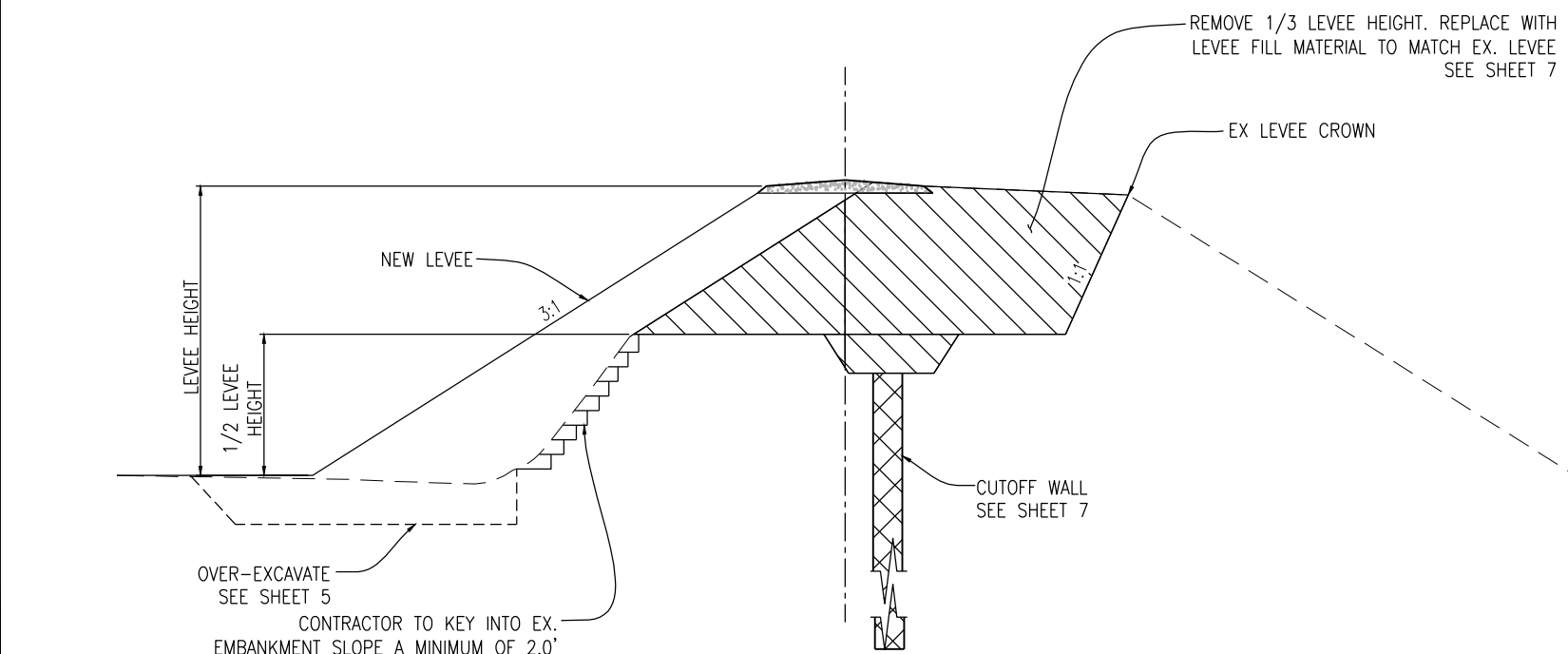
SECTION E-E: LEVEE TRANSITION DETAIL
NTS



SECTION G-G: LEVEE TRANSITION DETAIL
NTS

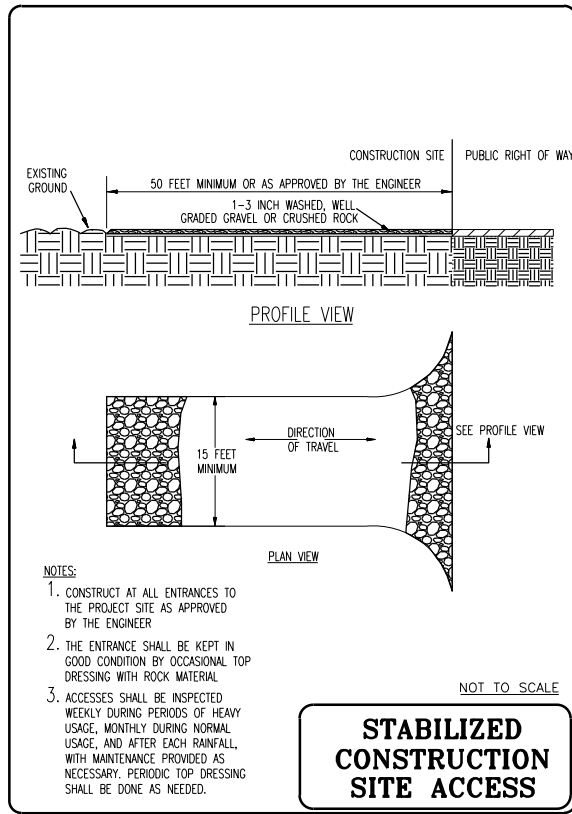


WATTLES



SECTION F-F: LEVEE TRANSITION DETAIL
NTS

NOTE:
FILL LEVEE AFTER SLURRY WALL HAS CURED AT THE DIRECTION OF THE SOILS ENGINEER.



STABILIZED CONSTRUCTION SITE ACCESS

PLANS REVIEWED AND APPROVED BY:

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S SINNOCK
N NEUDECK
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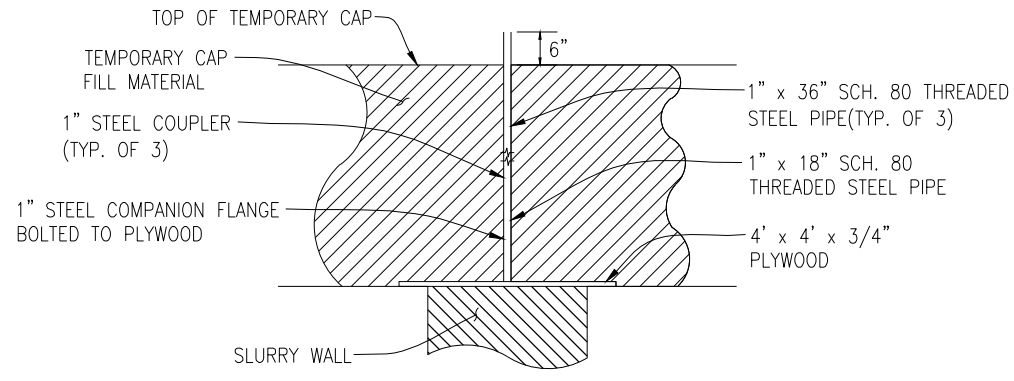
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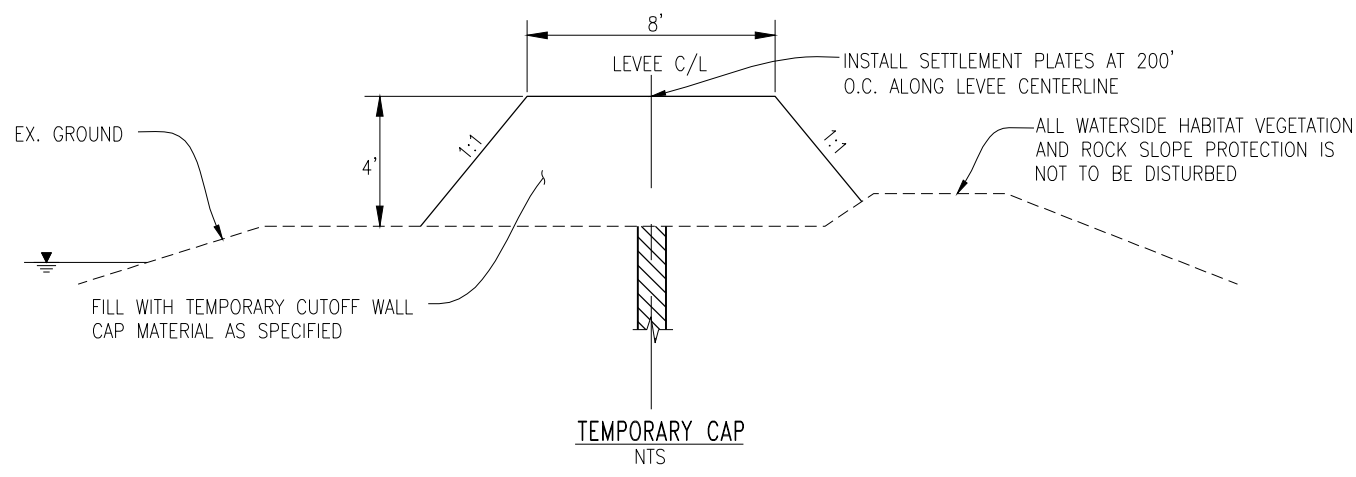
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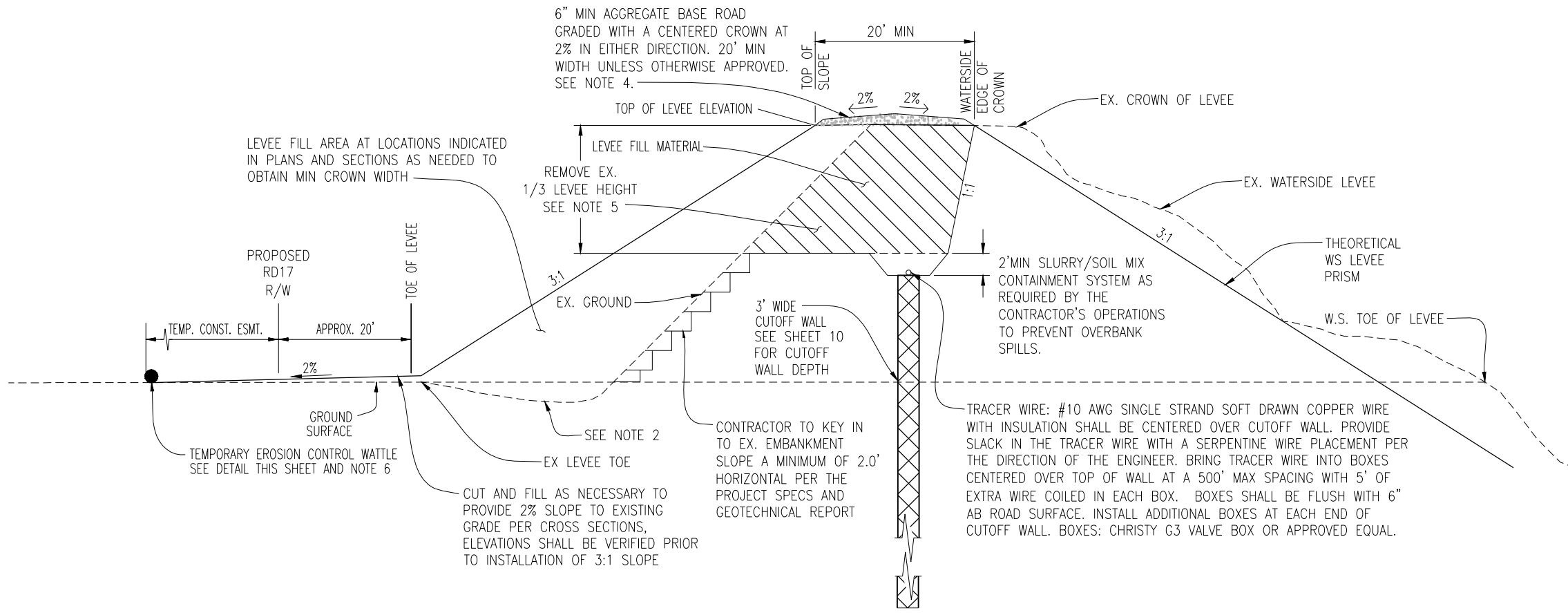
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CHECKED BY: JSL	



SETTLEMENT PLATE
NTS



- TEMPORARY CAP NOTES:**
1. AFTER SLURRY WALL HAS BEEN CONSTRUCTED, FILL LEVEE TO ELEVATION 25.00 WITH TEMPORARY CUTOFF WALL CAP MATERIAL.
 2. INSTALL SETTLEMENT PLATES @ 200' O.C. ALONG LEVEE CENTERLINE. CONTRACTOR SHALL BE RESPONSIBLE TO SURVEY THE TOP OF EACH RISER PIPE EVERY OTHER DAY FOR A MINIMUM 2 WEEKS AND UNTIL SETTLEMENT HAS CEASED. AS APPROVED BY THE ENGINEER. THE SURVEYING OF SETTLEMENT PLATES SHALL BE PERFORMED BY A LICENSED SURVEYOR.
 3. AFTER SETTLEMENT HAS CEASED, REMOVE TEMPORARY CUTOFF WALL CAP MATERIAL. SOIL MAY BE USED AS CROWN WIDENING SLOPE FILL.. ANY EXCESS SOIL SHALL BE DISPOSED OF OFFSITE AT THE CONTRACTOR'S EXPENSE



TYPICAL SECTION DETAIL
NTS

- NOTES:**
1. RD17 RIGHT OF WAY EXTENDS FROM THE SAN JOAQUIN RIVER WATER'S EDGE (AT ORDINARY HIGH WATER) TO THE PROPOSED RD17 RIGHT OF WAY SHOWN ABOVE AND ON THE DETAILED CROSS-SECTIONS WITHIN THIS PLAN SET. TEMPORARY CONSTRUCTION EASEMENTS WILL BE OBTAINED BY RD17 TO COVER THE LIMITS OF WORK AS SHOWN.
 2. CONTRACTOR TO CLEAR AND GRUB WORKING AREAS. SCARIFY AND RECOMPACT EXISTING GROUND WORKING AREAS PER GEOTECHNICAL ENGINEER'S RECOMMENDATION.
 3. ALL FILTER FABRIC SHALL BE MIRAFI FW700 OR APPROVED EQUAL. EDGES SHALL BE SEWN PER SPECIFICATIONS.
 4. CONTRACTOR SHALL STRIP AND STOCKPILE EX. AB AS APPROVED BY ENGINEER PRIOR TO CONSTRUCTION. EACH LAYER OF AB PLACED SHALL BE NO LESS THAN 95% COMPACTION.
 5. REMOVE TOP 1/3 OF LEVEE AS INDICATED AND REPLACE WITH LEVEE FILL MATERIAL AT 95% COMPACTION. SOIL REMOVED FROM THE LEVEE MAY BE USED IF IT MEETS THE REQUIREMENTS OF LEVEE FILL MATERIAL OTHERWISE IT MUST BE REMOVED FROM THE SITE AT AN APPROPRIATE LOCATION APPROVED BY THE ENGINEER.
 6. CONTRACTOR SHALL PLACE WATTLES ALONG THE LIMIT OF THE TEMPORARY CONSTRUCTION EASEMENT PRIOR TO BEGINNING WORK, ALL SUBSEQUENT EROSION CONTROL MEASURES SHALL BE INSTALLED PER THE PROVISIONS OF THE SWPPP.
 7. FILL LEVEE AFTER SLURRY WALL HAS CURED AT THE DIRECTION OF THE SOILS ENGINEER.

PLANS REVIEWED AND APPROVED BY:

K S N KJELDSSEN SINNOCK NEUDECK INC. Consulting Engineers and Land Surveyors

Post Office Box 844
711 N. Pershing Avenue
Stockton, CA 95201-0844
Office: (209) 946-0268
Faxes: (209) 946-0296
E-mail: KSN@ksninc.com

THESE PLANS CONFORM TO THE GEOTECHNICAL REPORT ENTITLED: SEEPAGE EVALUATION PROJECT #5747.000.000

ENGEO INCORPORATED
EXCELLENT SERVICE SINCE 1971

REGISTERED PROFESSIONAL ENGINEER
JOSEF TOOTLE
No. 2677
Exp. 6/30/2014
GEOTECHNICAL
STATE OF CALIFORNIA

PLANS PREPARED UNDER THE DIRECTION OF:

MACKAY & SOMPS
ENGINEERS PLANNERS SURVEYORS
5142 Franklin Drive, Suite B, Pleasanton, CA 94588 (925) 225-0690

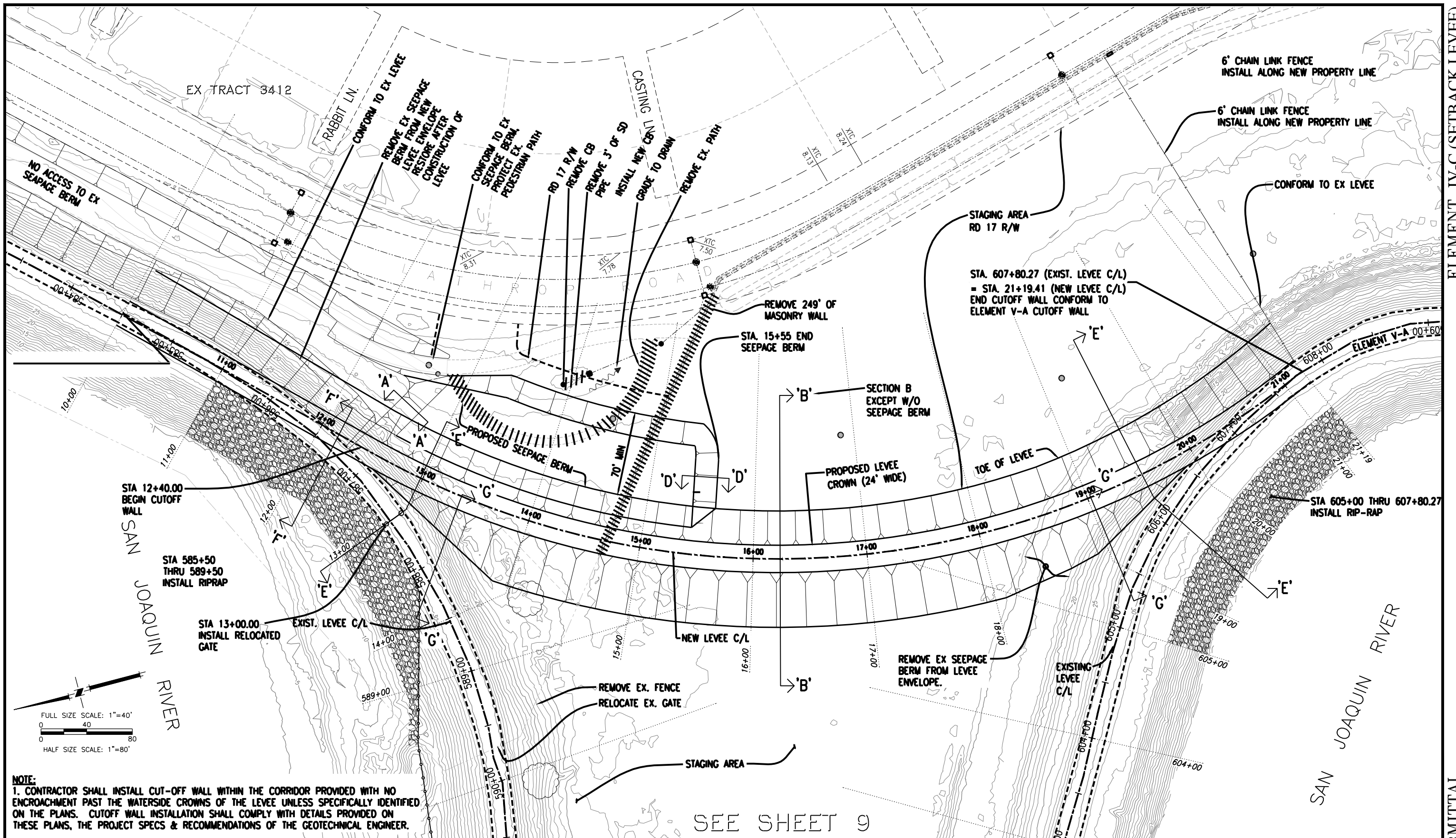
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REGISTERED PROFESSIONAL ENGINEER
JAMES F. TEMPLETON JR.
No. 43061
Exp. 3/31/14
CIVIL
STATE OF CALIFORNIA

RECLAMATION DISTRICT NO. 17
ELEMENT IV-C
TYPICAL SECTIONS & DETAILS

SAN JOAQUIN COUNTY CALIFORNIA

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: NTS	SHT 7
DRAWN BY: GCC	OF 14
DESIGNED BY: JBM	
CHECKED BY: JSL	
NO. _____	REVISION _____
DATE _____	



NOTE:
 1. CONTRACTOR SHALL INSTALL CUT-OFF WALL WITHIN THE CORRIDOR PROVIDED WITH NO ENCROACHMENT PAST THE WATERSIDE CROWNS OF THE LEVEE UNLESS SPECIFICALLY IDENTIFIED ON THE PLANS. CUTOFF WALL INSTALLATION SHALL COMPLY WITH DETAILS PROVIDED ON THESE PLANS, THE PROJECT SPECS & RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER.

SEE SHEET 9

PLANS REVIEWED AND APPROVED BY:

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ENGEO INCORPORATED
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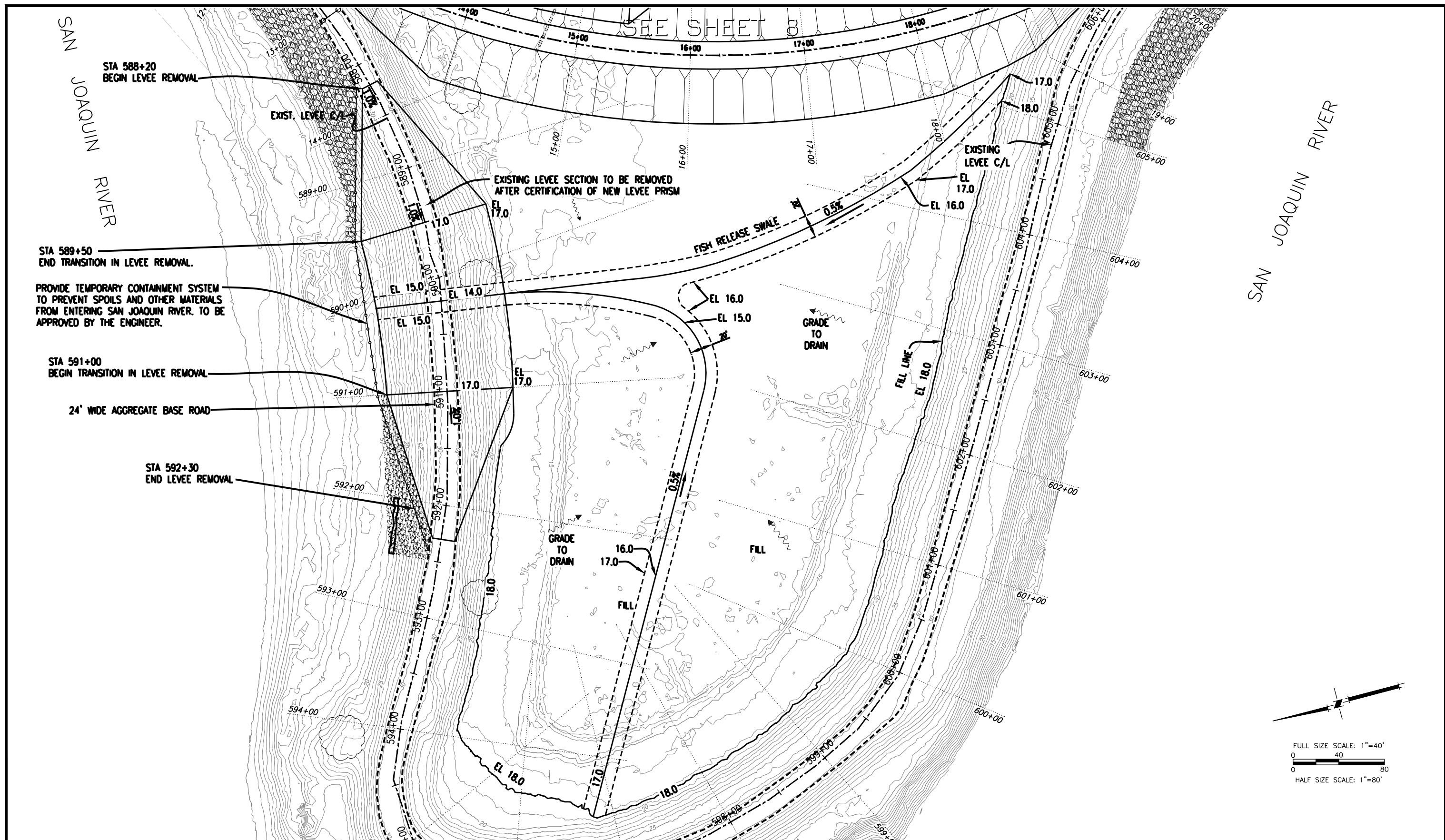
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 5142 Franklin Drive, Suite B, Pleasanton, CA 94588 (925) 225-0690

RECLAMATION DISTRICT NO. 17
 ELEMENT IV-C

SAN JOAQUIN COUNTY CALIFORNIA

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE:	SHT 8
DRAWN BY: GCC	OF 14
DESIGNED BY: JBM	
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DATE _____	



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RECLAMATION DISTRICT NO. 17
 ELEMENT IV-C

SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: _____	SHT 9
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DESIGNED BY: JBM	
CHECKED BY: JSL	

PLACE HOLDER FOR ENGeo's SOIL PROFILE



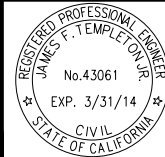
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RECLAMATION DISTRICT NO. 17
ELEMENT IV-C

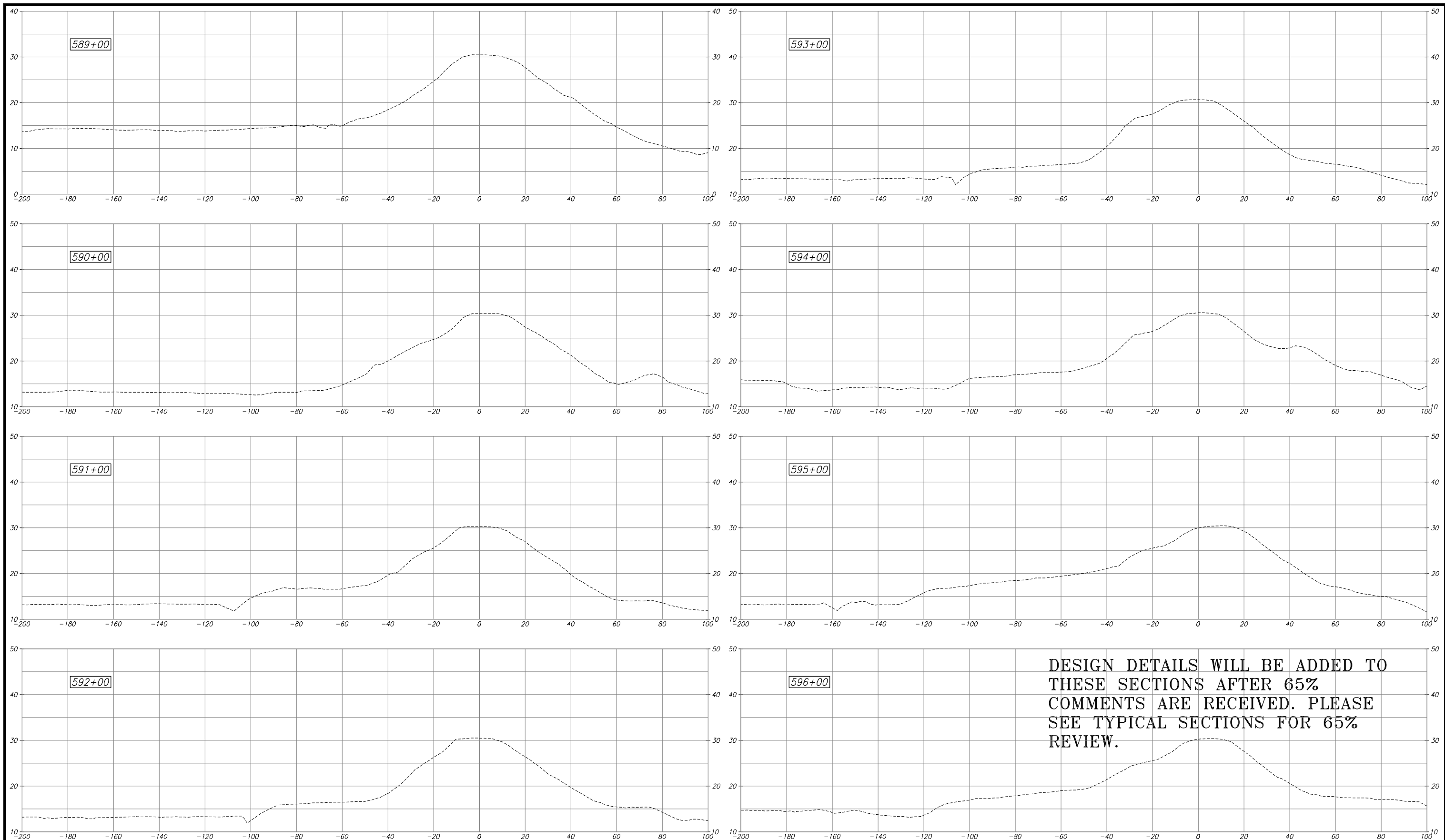
SAN JOAQUIN COUNTY

CALIFORNIA

NO.	REVISION	DATE

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PROJECT NO.
25182.010
SHT
10
OF
14



ELEMENT IV-C (SETBACK LEVEE)

65% SUBMITTAL

PLANS REVIEWED AND APPROVED BY:

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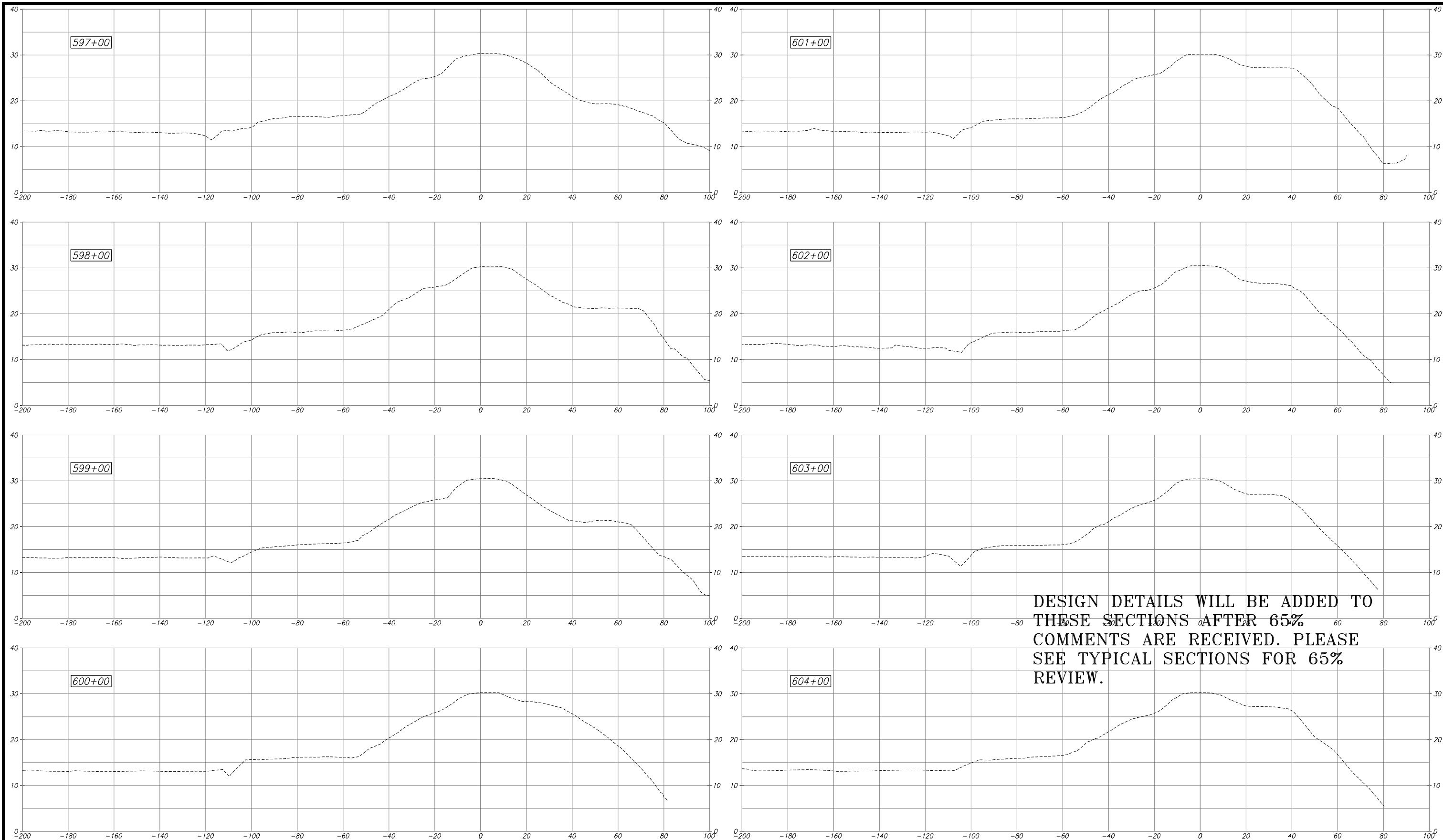
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RECLAMATION DISTRICT NO. 17
 ELEMENT IV-C
 CROSS SECTIONS

SAN JOAQUIN COUNTY CALIFORNIA

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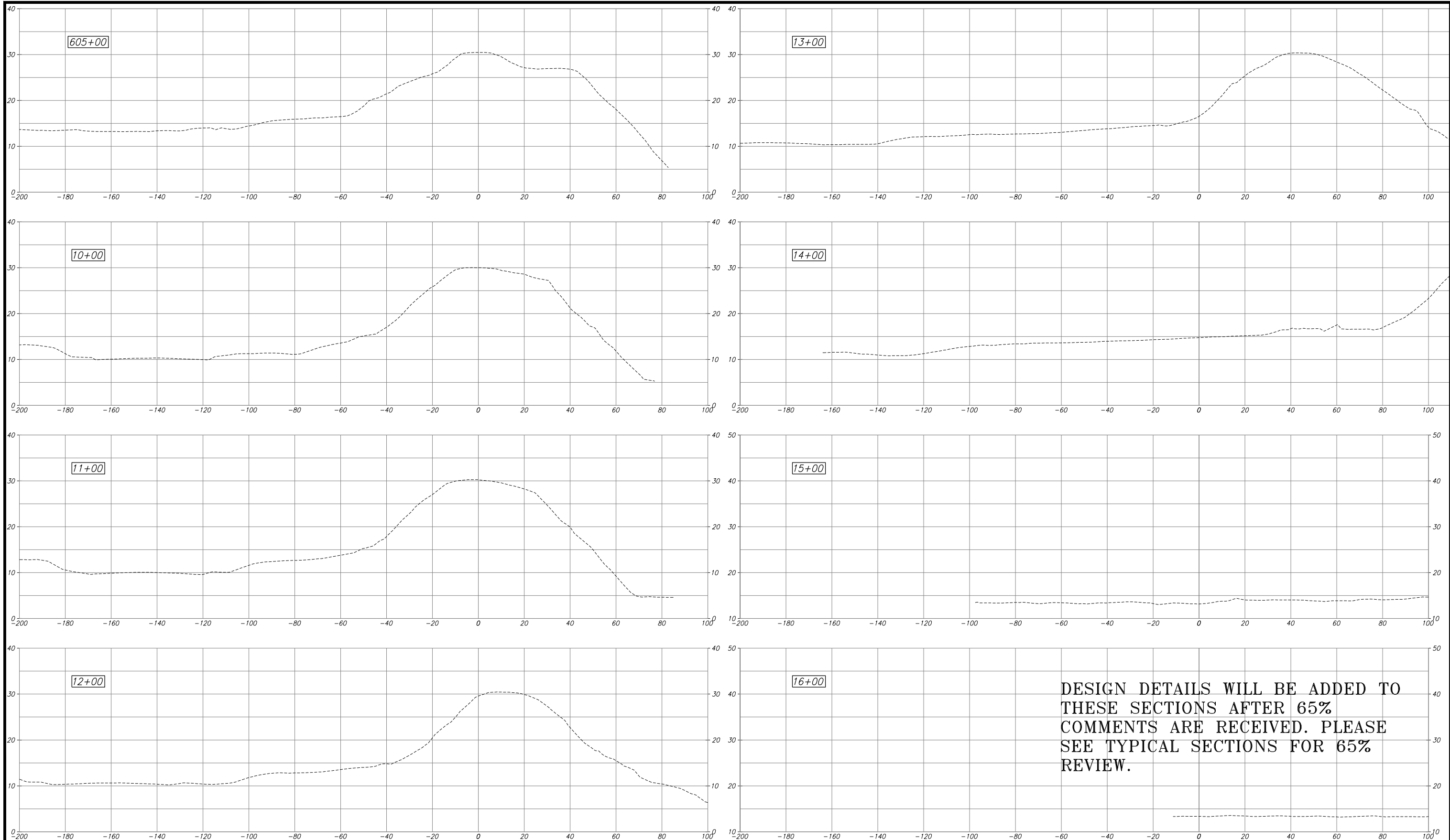
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ELEMENT IV-C (SETBACK LEVEE)

65% SUBMITTAL

	PLANS REVIEWED AND APPROVED BY: K KJELDEN S SINNOCK N NEUDECK INC. Consulting Engineers and Land Surveyors Post Office Box 844 711 N. Pershing Avenue Stockton, CA 95201-0844 Office: (209) 946-0268 Faxes: (209) 946-0296 E-mail: KSN@ksninc.com		THESE PLANS CONFORM TO THE GEOTECHNICAL REPORT ENTITLED: SEEPAGE EVALUATION PROJECT #5747.000.000 		PLANS PREPARED UNDER THE DIRECTION OF: ENGINEERS PLANNERS SURVEYORS 5142 Franklin Drive, Suite B, Pleasanton, CA 94588 (925) 225-0690 <small>MACKAY & SOMPS IS NOT RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF REPRODUCTIONS OF THIS DOCUMENT THAT ARE GENERATED BY OTHERS FROM ELECTRONIC MEDIA.</small>	RECLAMATION DISTRICT NO. 17 ELEMENT IV-C CROSS SECTIONS SAN JOAQUIN COUNTY CALIFORNIA	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>NO.</td><td>REVISION</td><td>DATE</td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>	NO.	REVISION	DATE										DATE: JAN 2014 SCALE: 1"=20' DRAWN BY: GCC DESIGNED BY: JBM CHECKED BY: JSL	PROJECT NO. 25182.010 SHT 12 OF 14
NO.	REVISION	DATE																			



DESIGN DETAILS WILL BE ADDED TO THESE SECTIONS AFTER 65% COMMENTS ARE RECEIVED. PLEASE SEE TYPICAL SECTIONS FOR 65% REVIEW.

PLANS REVIEWED AND APPROVED BY:

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S SINNOCK
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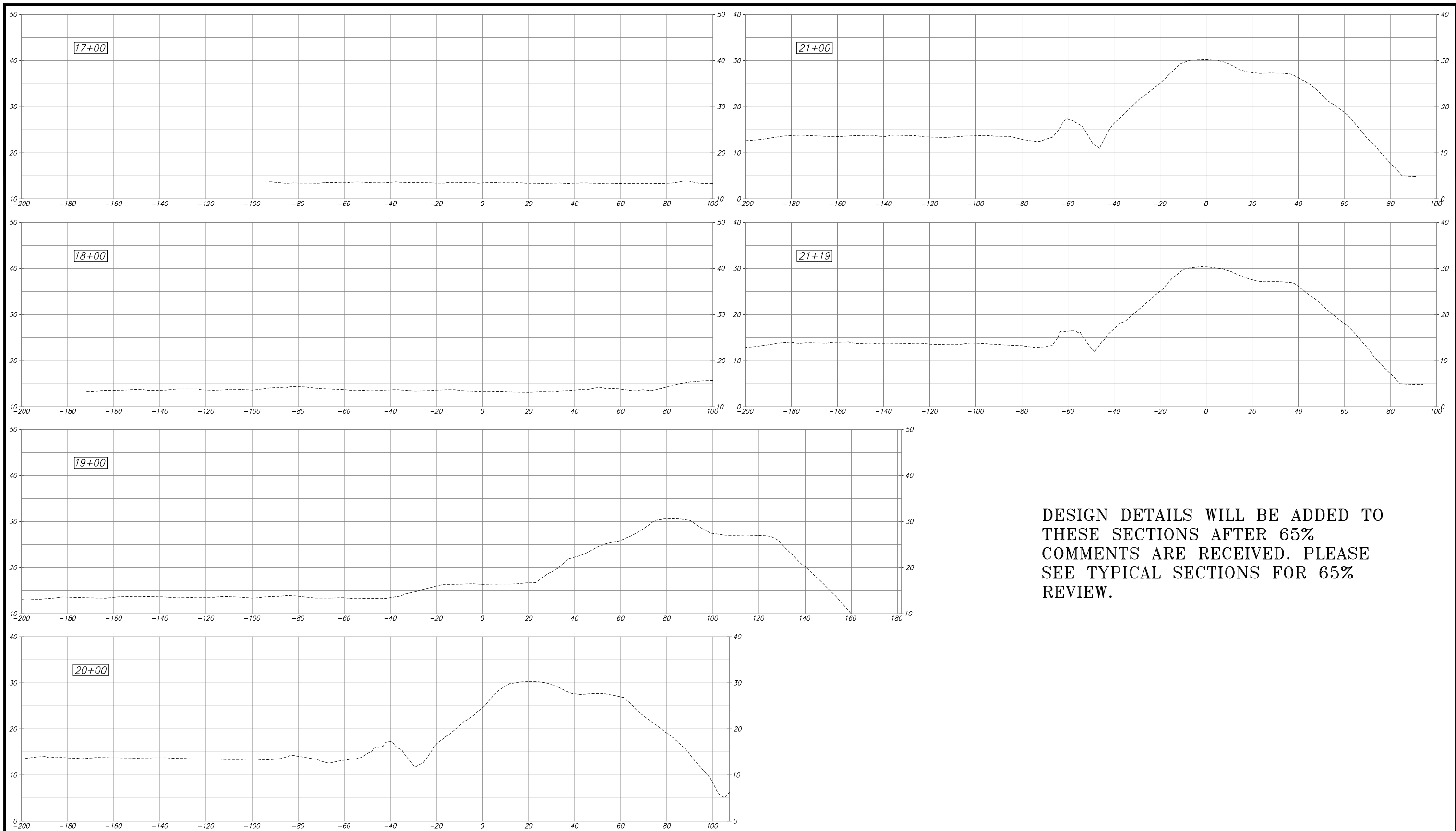
RECLAMATION DISTRICT NO. 17
 ELEMENT IV-C
 CROSS SECTIONS

SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

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SCALE: 1"=20'	SHT 13
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ELEMENT IV-C (SETBACK LEVEE) 65% SUBMITTAL



ELEMENT IV-C (SETBACK LEVEE)

DESIGN DETAILS WILL BE ADDED TO THESE SECTIONS AFTER 65% COMMENTS ARE RECEIVED. PLEASE SEE TYPICAL SECTIONS FOR 65% REVIEW.

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RECLAMATION DISTRICT NO. 17
ELEMENT IV-C
CROSS SECTIONS

SAN JOAQUIN COUNTY CALIFORNIA

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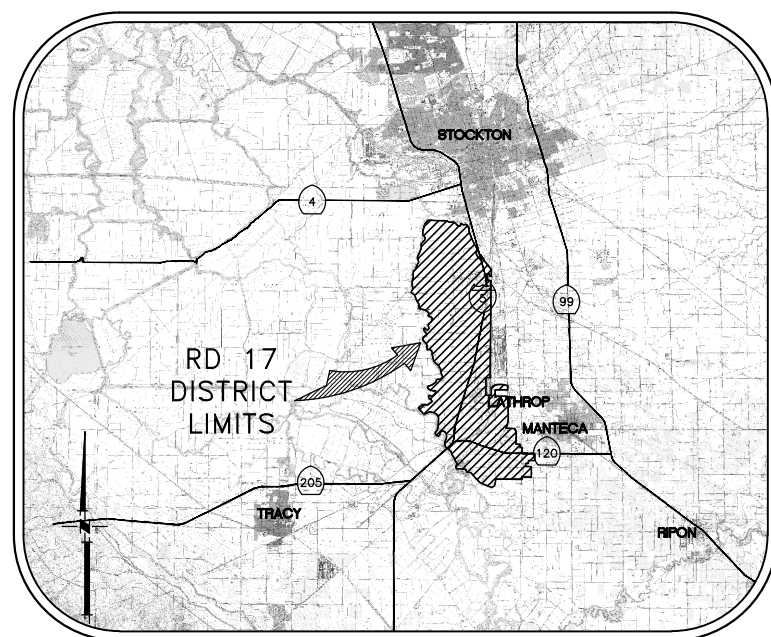
65% SUBMITTAL

RECLAMATION DISTRICT NO. 17 LEVEE SEEPAGE PROJECT

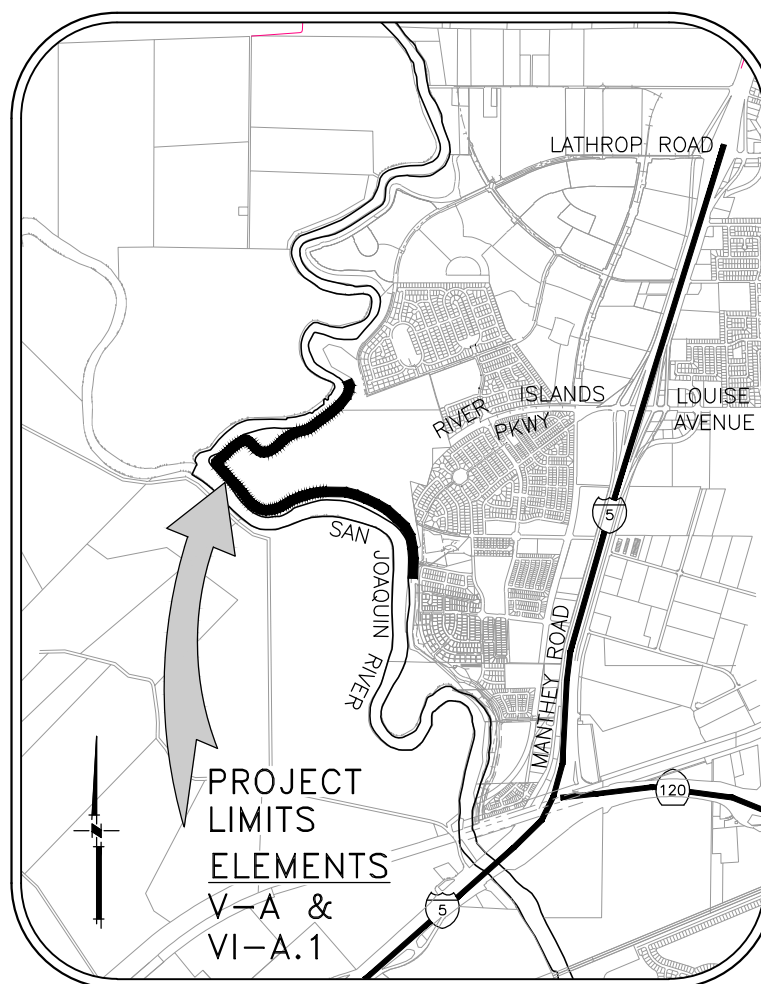
ELEMENT V-A AND VI-A.1

RD17 STATION 607+80 THRU 703+00 (FEET)

USACE STATION 9.60 THRU 11.40 (MILES)



VICINITY MAP



PROJECT SITE MAP

SHEET	DESCRIPTION
1.	COVER SHEET
2.	NOTES
3.	NOTES
4.	TYPICAL SECTIONS & DETAILS
5.	TYPICAL SECTIONS & DETAILS
6.	TYPICAL SECTIONS & DETAILS
7.	BORING LOCATIONS, HAUL ROUTE & CONTROL POINTS
8.	KEY MAP & LOCAL ACCESS PLAN
9.	PLAN VIEW - 608+00 to 623+00
10.	PLAN VIEW - 623+00 to 638+00
11.	PLAN VIEW - 638+00 to 659+00
12.	PLAN VIEW - 659+00 to 683+50
13.	PLAN VIEW - 683+50 to 696+00
14.	PLAN VIEW - 696+00 to 703+00
15.	PROFILE VIEW - 605+00 to 660+00
16.	PROFILE VIEW - 660+00 to 705+00
17.	CROSS-SECTIONS
18.	CROSS-SECTIONS
19.	CROSS-SECTIONS
20.	CROSS-SECTIONS
21.	CROSS-SECTIONS
22.	CROSS-SECTIONS

INDEX

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EXISTING UNDERGROUND UTILITIES
CONTACT : UNDERGROUND SERVICE ALERT
PHONE: (800) 642-2444
FOR MARKING PRIOR TO DIGGING

PLANS REVIEWED AND APPROVED BY:

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Stockton, CA 95201-0844
Office: (209) 946-0268
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E-mail: KSN@ksninc.com

THESE GRADING PLANS CONFORM TO THE GEOTECHNICAL REPORT ENTITLED: UNDER-SEEPAGE EVALUATION, RD NO. 17 REACH 1 - ELEMENT I-A.

ENGEO INCORPORATED
EXCELLENT SERVICE SINCE 1971

PLANS PREPARED UNDER THE DIRECTION OF:

MACKAY & SOMPS ENGINEERS PLANNERS SURVEYORS
5142 Franklin Drive, Suite B, Pleasanton, CA 94588 (925) 225-0690

RECLAMATION DISTRICT NO. 17
ELEMENTS V-A & VI-A.1
COVER SHEET
SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: NOT TO SCALE	SHT 1
DRAWN BY: GB	OF 22
DESIGNED BY: JBM	
CHECKED BY: JSL	

ELEMENTS V-A & VI-A.1 (CUTOFF WALL) 65% SUBMITTAL

THE PERFORMANCE OF THE LEVEE SYSTEMS IS DEPENDANT UPON THE DESIGN CRITERIA AND THE LONG TERM OPERATION AND MAINTENANCE OF THE LEVEES. THE DESIGN TEAM HAS PREPARED THESE PLANS AND ASSOCIATED SPECIFICATIONS AND REPORTS IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICE USING INFORMATION FROM MULTIPLE SOURCES. IF EXTREME FLOODS (EXCEEDING THE DESIGN PROFILE), EARTHQUAKES OR OTHER LOADING CONDITIONS NOT EVALUATED IN THE DESIGN OCCUR, THE INTEGRITY OF THE LEVEE SYSTEM MAY BE COMPROMISED.

ROLES:

THE "DISTRICT" AS REFERRED TO IN THESE NOTES MEANS RECLAMATION DISTRICT 17(RD 17). THE DISTRICT IS THE PROJECT OWNER.

THE "ENGINEER" AS REFERRED TO IN THESE NOTES MEANS THE DISTRICT ENGINEER: KJELDSSEN, SINNOCK, AND NEUDECK. THE ENGINEER SHALL PROVIDE INSPECTION OF THE PROJECT AND OVERALL CONSTRUCTION MANAGEMENT INCLUDING COORDINATION WITH PUBLIC UTILITIES, PUBLIC AGENCIES, THE DESIGN ENGINEER AND THE GEOTECHNICAL ENGINEER.

THE "DESIGN ENGINEER" AS REFERRED TO IN THESE NOTES MEANS MACKAY & SOMPS, CIVIL ENGINEERS INC. THE DESIGN ENGINEER WILL PERFORM DISTRICT PROVIDED CONSTRUCTION STAKING AND "AS-GRADED" SURVEYS.

THE "GEOTECHNICAL ENGINEER" AS REFERRED TO IN THESE NOTES MEANS ENGEO INC. THE GEOTECHNICAL ENGINEER WILL PROVIDE MATERIALS TESTING, COMPACTION TESTING AND OTHER GEOTECHNICAL RELATED TESTING.

CONTRACTOR SHALL BE RESPONSIBLE FOR SUPERVISION OF ALL CONTRACTOR'S EMPLOYEES, SUBCONTRACTORS, INCLUDING SCHEDULING AND ALL SAFETY MATTERS.

- THESE PLANS ARE TO BE USED IN CONJUNCTION WITH THE FOLLOWING:
- a. SOILS REPORT PREPARED BY ENGEO INC. ENTITLED, SEEPAGE EVALUATION PROJECT # 5747.000.000.
 - b. SPECIFICATIONS PREPARED BY KSN DATED _____

GENERAL NOTES:

1. PRIOR TO THE COMMENCEMENT OF WORK, A JOINT INSPECTION BETWEEN THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER, THE GEOTECHNICAL ENGINEER, THEIR REPRESENTATIVES, AND THE CONTRACTOR (OR HIS REPRESENTATIVE) WILL BE CONDUCTED TO REVIEW THE PRE-CONSTRUCTION CONDITIONS (E.G. ROADS, PUMPS, DISCHARGE PIPES, SIPHONS, RAMPS, GATES, SIGNS, ETC.) IF SUCH EXISTING FACILITIES ARE DAMAGED BY THE CONTRACTOR'S OPERATIONS, THE CONTRACTOR, AT THEIR OWN EXPENSE, SHALL REPLACE OR RESTORE THEM TO THE CONDITION THAT EXISTED PRIOR TO THE COMMENCEMENT OF WORK.
2. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT (209) 946-0268, A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY WORK.
3. THE DISTRICT RESERVES THE RIGHT TO SUSPEND CONSTRUCTION AT ANY TIME IN THE EVENT OF EXTREME HIGH OR LOW TIDES, FLOOD EVENTS, OTHER CONDITIONS OR EMERGENCIES THAT MAY JEOPARDIZE THE INTEGRITY OF THE DISTRICT'S LEVEE AND ROAD SYSTEM.
4. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, COUNTY AND LOCAL REQUIREMENTS, AS REQUIRED FOR TRAFFIC CONTROL AND PUBLIC SAFETY DURING PROJECT CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL OUTLINED IN THESE PLANS AND THE REFERENCED SPECIFICATIONS.
5. THE DISTRICT WILL FURNISH ALL RIGHT-OF-WAY FOR ALL LEVEE ROADS AND DESIGNATED ACCESS HAUL ROADS AS SHOWN ON THESE PLANS. SHOULD THE CONTRACTOR WANT TO USE OTHER ROADWAYS OR ACCESS AREAS NOT SHOWN, THE CONTRACTOR SHALL AT THEIR OWN EXPENSE SECURE RIGHT-OF-WAY & NECESSARY PERMITS.
6. IF DELIVERING MATERIAL OR EQUIPMENT BY TRUCK, ALL TRUCK TRAFFIC SHALL BE LIMITED TO THE DISTRICT LEVEE ROADS AND/OR PUBLIC ROADS AS SHOWN ON HAUL ROUTE PLAN, UNLESS OTHERWISE APPROVED.
7. MAXIMUM SPEED LIMIT ON DISTRICT LEVEE ROADS IS 30 MPH, AS POSTED, OR AS OTHERWISE INDICATED ON THE CONSTRUCTION DRAWINGS. CONTRACTOR SHALL POST LARGE SLOW/CAUTION SIGNS AND SPEED LIMIT SIGNS FOR PURPOSES OF NOTIFYING BOTH CONTRACTOR'S EMPLOYEES AND THE PUBLIC. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SAFETY AT ALL TIMES ALONG ALL HAUL ROUTES AND IN ALL PROJECT AREAS (PUBLIC AND PRIVATE).

8. THE DISTRICT WILL PROVIDE SURVEY STAKES AS DESCRIBED IN THE SPECIFICATIONS WITHIN THE CONSTRUCTION SURVEYING SECTION. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL CONSTRUCTION STAKING AND SURVEYING AT THEIR OWN EXPENSE BEYOND THAT PROVIDED BY THE DISTRICT. PLEASE CONTACT THE ENGINEER IN WRITING WITH STAKING REQUESTS (209) 946-0268 WITH AT LEAST TWO WORKING DAYS ADVANCE NOTICE.
9. THE CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER AND THE GEOTECHNICAL ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER OR THE GEOTECHNICAL ENGINEER.
10. ANY DEFICIENCIES NOTED DURING INTERIM AND FINAL INSPECTIONS BY THE ENGINEER AND/OR DISTRICT SHALL BE CORRECTED BY THE CONTRACTOR PRIOR TO FINAL ACCEPTANCE BY THE DISTRICT. ANY ADDITIONAL COSTS AND EXPENSES FOR MOBILIZATION AND/OR DEMOBILIZATION, LABOR, EQUIPMENT AND OTHER ASSOCIATED COSTS REQUIRED TO CORRECT THE DEFICIENCIES NOTED, EXCEPT SPECIFIED MATERIAL(S), SHALL BE BORNE BY THE CONTRACTOR.
11. THE CONTRACTOR SHALL NOT CLOSE ANY ROAD, STREET, OR HIGHWAY TO THE PUBLIC EXCEPT WITH THE PERMISSION OF THE ENGINEER AND THE PROPER GOVERNMENTAL AUTHORITY. TEMPORARY PROVISIONS SHALL BE MADE BY THE CONTRACTOR TO ENSURE CONTINUOUS ACCESS TO PUBLIC AND PRIVATE DRIVEWAYS, AND PROPER FUNCTIONING OF CULVERTS, DRAINAGE AND IRRIGATION DITCHES, AND NATURAL WATER COURSES.
12. THE CONTRACTOR IS RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER, AND HE SHALL NOTIFY THE ENGINEER WHENEVER THERE IS A CHANGE IN SITE CONDITIONS OR AN ADJUSTMENT TO BE MADE IN WORK REQUIREMENTS.
13. SHOULD IT APPEAR THAT THE WORK TO BE DONE, OR ANY MATTER RELATIVE THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE ENGINEER AT (209) 946-0268 FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.
14. THE INTENT OF THESE PLANS IS TO SERVE AS A GUIDE AND TO PROVIDE THE CONTRACTOR WITH INFORMATION AND DETAILS NECESSARY TO CONSTRUCT THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY REGARDING ANY DISCREPANCIES AND AMBIGUITIES WHICH MAY EXIST IN THE PLANS OR SPECIFICATIONS. IF THE PLANS 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 FINEST QUALITY ARE TO BE USED.
15. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE OSHA REGULATIONS AND SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS.
16. THE CONTRACTOR SHALL AT ALL TIMES BE RESPONSIBLE FOR THE SECURITY OF THE JOBSITE AND EQUIPMENT. THE DISTRICT WILL NOT BE RESPONSIBLE FOR MISSING OR DAMAGED EQUIPMENT, TOOLS, OR PERSONAL BELONGINGS.

ENVIRONMENTAL NOTES:

1. THE CONTRACTOR SHALL NOT DISCHARGE SMOKE, DUST, OR ANY OTHER AIR CONTAMINANTS INTO THE ATMOSPHERE IN SUCH QUANTITY AS WILL VIOLATE THE REGULATIONS OF ANY LEGALLY CONSTITUTED AUTHORITY. HE SHALL ALSO ABATE DUST NUISANCE BY CLEANING, SWEEPING AND SPRINKLING WITH WATER, OR OTHER MEANS AS NECESSARY. THE USE OF WATER IN AN AMOUNT WHICH RESULTS IN MUD ON PUBLIC ROADS IS NOT ACCEPTABLE AS A SUBSTITUTE FOR SWEEPING OR OTHER METHODS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ADJACENT PUBLIC ROADS CLEAN & CLEAR FROM CONSTRUCTION IMPACTS OR DEBRIS. ADDITIONAL DETAILS FOR MUD AND DUST CONTROL IS INCLUDED IN SUBSEQUENT SECTIONS OF THESE NOTES.
2. THE CONTRACTOR SHALL EXERCISE EVERY REASONABLE PRECAUTION TO PROTECT STREAMS, WATERWAYS AND OTHER BODIES OF WATER FROM POLLUTION WITH FUELS, OIL, BITUMEN'S, CALCIUM CHLORIDE, AND OTHER HAZARDOUS MATERIALS AND SHALL CONDUCT AND SCHEDULE HIS OPERATIONS SO AS TO AVOID OR MINIMIZE MUDDYING AND SILTING OF SAID WATERS. CARE SHALL BE EXERCISED TO PRESERVE ROADSIDE VEGETATION BEYOND THE LIMITS OF CONSTRUCTION.

3. THROUGHOUT ALL PHASES OF CONSTRUCTION, INCLUDING SUSPENSION OF WORK, AND UNTIL FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL KEEP THE WORK SITE CONDITIONS CLEAN AND FREE FROM RUBBISH AND DEBRIS. ALL RUBBISH AND REFUSE SHALL BE DISPOSED OF IN A MANNER SATISFACTORY TO THE ENGINEER.


DUST AND MUD CONTROL:

1. DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL KEEP ALL CONSTRUCTION AREAS, FILL AREAS, HAUL ROADS, OTHER ROADWAYS, AND OTHER USE AREAS WHERE DUST IS GENERATED WELL WATERED: AND DURING WET CONDITIONS, AREAS USED BY LOCAL TRAFFIC, FREE AND CLEAR FROM MUD. CONTRACTOR SHALL PROVIDE EFFORTS NECESSARY TO MINIMIZE DUST AND OTHER DISTURBANCES NEAR EXISTING RESIDENCES AND ALL BUILDINGS NEAR HAUL ROUTES AND THE PROJECT SITE.
 - a. CROP DAMAGE: THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL TO PREVENT CROP DAMAGE AND FOR ANY AREAS SUBJECT TO CONSTRUCTION OR CONSTRUCTION TRAFFIC THAT GENERATE DUST AND/OR OTHER CONDITIONS WHICH MIGHT DAMAGE CROPS.
 - b. NON WORK DAYS: THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL THROUGHOUT THE DURATION OF THE PROJECT INCLUDING NON WORKDAYS IN ALL PROJECT AREAS, INCLUDING CONSTRUCTION ROADS AND CROP AREAS WHICH ARE USED BY THE CONTRACTOR, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. THE CONTRACTOR SHALL HAVE AT LEAST ONE (1) WATER TRUCK AVAILABLE TO THE PROJECT AT ALL TIMES (OR MORE AS NEEDED OR DIRECTED BY THE ENGINEER) TO MAINTAIN ADEQUATE DUST CONTROL FOR THE FOLLOWING AREAS:
 - a. PROJECT AREAS
 - b. ACCESS AND HAUL ROADS
 - c. LEVEE TOE BERM FILL AREAS
 - d. OTHER CONSTRUCTION USE AREAS
 - e. CROP DAMAGE PREVENTION
 - f. RESIDENTIAL CONSTRUCTION ZONES
 - g. ADJACENT PUBLIC STREETS, TRAILS & BIKEWAYS

UTILITY NOTES:

1. UTILITIES AS NOTED ON THE PLAN SET HAVE BEEN DETERMINED BASED ON RECORD INFORMATION AND FIELD INSPECTION, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE ACTUAL LOCATION OF ALL UNDERGROUND, SURFACE, OVERHEAD, AND SUBMARINE IMPROVEMENTS, OR FACILITIES WHICH MAY BE SUBJECT TO DAMAGE BY REASON OF HIS OPERATIONS.
2. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES AND SHALL CONTACT THE RESPECTIVE UTILITY COMPANIES & PRIVATE OWNERS PRIOR TO COMMENCEMENT OF WORK.
3. THE CONTRACTOR SHALL NOTIFY AFFECTED UTILITIES FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY CONSTRUCTION. (UNDERGROUND SERVICE ALERT (800) 642-2444) AND SHALL BE RESPONSIBLE FOR THE LOCATION AND PRESERVATION OF ALL FACILITIES IN THE AREA OF CONSTRUCTION.


PLANS REVIEWED AND APPROVED BY:



K S N KJELDSSEN
SINNOCK
NEUDECK
INC. Consulting Engineers
and Land Surveyors

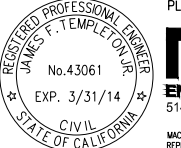
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ENGEO
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PLANS PREPARED UNDER THE DIRECTION OF:



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RECLAMATION DISTRICT NO. 17
ELEMENTS V-A & VI-A.1

NOTES

SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO.
SCALE: SHOWN	25182.010
DRAWN BY: GB	SHT
DESIGNED BY: JBM	2
CHECKED BY: JSL	OF 22

ACCESS ROADS:

1. THE CONTRACTOR SHALL IMPROVE, MAINTAIN, AND REPAIR UPON COMPLETION, THE ACCESS ROADS AND HAUL ROUTES AS REQUIRED FOR TRANSPORTATION AND HAULING MATERIAL. AT THE COMPLETION OF WORK THE CONTRACTOR SHALL RESTORE ALL ACCESS ROADS AND HAUL ROUTES TO PRE-CONSTRUCTION CONDITION IN A MANNER SATISFACTORY TO THE ENGINEER.
2. THE CONTRACTOR SHALL REVIEW THE ACCESS ROAD ROUTES AND DETERMINE THE LOCATION FOR TURNOUTS, RAMPS, ROAD DRAINAGE, ALIGNMENT, ETC. UPON COMPLETION OF THE PROJECT, SOME PORTIONS OF THE ACCESS ROADS MAY REQUIRE MINOR MODIFICATIONS AND ALTERATIONS. THE ACCESS ROADS WHICH REMAIN SHALL BE LEFT IN GOOD CONDITION FOR THE DISTRICT, FARMERS, AND OTHER LOCAL TRAFFIC.
3. THE CONTRACTOR SHALL NOT DEVIATE FROM IDENTIFIED HAUL ROUTES AND STAGING AREAS UNLESS PERMISSION IS OBTAINED FROM THE PROPERTY OWNER, ENGINEER AND PERMITS ARE OBTAINED FROM THE LOCAL AGENCY.
4. THE CONTRACTOR SHALL EXTEND, STRENGTHEN, REPLACE, OR OTHERWISE MODIFY THE EXISTING CROSSINGS (E.G. CULVERTS, SIPHONS, DRAIN PIPES, IRRIGATION PIPES, PUMP DISCHARGE PIPES, WET SPOTS, ETC.) AS NECESSARY TO ACCOMMODATE HIS EQUIPMENT. THE CONTRACTOR SHALL PROVIDE WHATEVER MEASURES ARE NECESSARY TO PRESERVE, PROTECT, AND MAINTAIN THE CROSSINGS SO AS TO ENSURE CONTINUOUS AND UNINTERRUPTED CONSTRUCTION OPERATIONS DURING THE ENTIRE TERM OF THIS CONTRACT.
5. THE HAUL ROADS MAY REQUIRE TEMPORARY IRRIGATION OR DISCHARGE PIPE EXTENSIONS AND RAMPING DURING CONSTRUCTION OPERATIONS. TEMPORARY EXTENSIONS AND RAMPING WILL BE PROVIDED AND INSTALLED BY THE CONTRACTOR AT HIS EXPENSE, INCLUDING REMOVAL IF REQUIRED, IN A MANNER WHICH MEETS WITH THE APPROVAL OF THE ENGINEER AND THE LANDOWNERS.
6. NEITHER THE DISTRICT NOR THE ENGINEER MAKES ANY WARRANTY OR GUARANTEE AS TO THE ADEQUACY OF THE EXISTING MATERIALS TO SUPPORT THE CONSTRUCTION TRAFFIC ON THE ACCESS ROADS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MAKING THE NECESSARY IMPROVEMENTS AND PROVIDING THE NECESSARY MEASURES REQUIRED TO ACCOMMODATE HIS ANTICIPATED NEEDS. REPAIRS TO ROADWAYS DAMAGED BY THE CONTRACTOR SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
7. CONTRACTOR MUST MAINTAIN HAUL ROUTE ACCESS AT ALL TIMES FOR USE BY THE DISTRICT AND/OR PUBLIC (AS APPLICABLE) DURING CONSTRUCTION.

CLEARING & GRUBBING:

1. UNLESS OTHERWISE INDICATED, THE WORK AREAS SHALL BE CLEARED AND GRUBBED BY THE CONTRACTOR. CONTRACTOR SHALL USE CAUTION WHILE CLEARING AND GRUBBING AROUND POWER LINES, BURIED ELECTRICAL CABLES AND OTHER EX FACILITIES/UTILITIES. ALL MATERIAL CLEARED AND REMOVED SHALL BECOME THE PROPERTY AND RESPONSIBILITY OF THE CONTRACTOR FOR REMOVAL AND DISPOSAL OFFSITE. SOME PRUNING/TRIMMING/THINNING OF BRANCHES OR TREES MAY BE REQUIRED.

FILL MATERIALS:

1. THE CONTRACTOR SHALL FURNISH, DELIVER, AND PLACE THE SPECIFIED FILL MATERIALS (PER THE DISTRICT ENGINEERS SPECIFICATIONS) TO THE DESIGNATED SITES.
2. THE FILL SHALL BE CONSTRUCTED WITH ACCEPTABLE MATERIALS SUFFICIENT TO MEET DESIGN GRADES AND SPECIFICATIONS.
3. ALL SUBGRADE AREAS RECEIVING FILL MATERIAL SHALL BE PREPARED AS REQUIRED BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR MAY BE REQUIRED TO PERFORM ADDITIONAL SUBGRADE PREPARATION WORK WITHIN THE FILL AREAS PRIOR TO THE ACCEPTANCE OF THE MATERIAL.
4. THE CONTRACTOR SHALL DELIVER THE FILL MATERIALS TO THE REQUIRED SECTIONS AS UNIFORM MIXTURES. THE MIXTURE SHALL BE DEPOSITED AND SPREAD TO THE REQUIRED COMPACTED THICKNESS. SEGREGATION OF MATERIAL SHALL BE AVOIDED AND EACH LAYER OF MATERIAL, AS SPREAD, SHALL BE FREE FROM POCKETS OF COARSE OR FINE MATERIAL.

- a. THE FILL MATERIALS SHALL BE PLACED IN LOOSE HORIZONTAL LAYERS NOT MORE THAN SIX INCHES (6") IN THICKNESS PRIOR TO COMPACTION. THE MATERIAL SHALL BE GENTLY SPREAD OUT. UNDER NO CIRCUMSTANCES SHALL ANY MATERIAL BE DROPPED FROM ANY HEIGHT ONTO THE FILL SECTION.
- b. IF SEGREGATION OCCURS, MATERIAL SHALL BE WORKED UNTIL IT IS UNIFORMLY AND SATISFACTORILY BLENDED. AFTER SPREADING, THE MATERIAL SHALL BE WATERED AND SHAPED TO THE REQUIRED SECTION AND THEN COMPACTED AS SPECIFIED.
- c. AT THE TIME MATERIALS ARE SPREAD, IT SHALL HAVE A MOISTURE CONTENT IN CONFORMANCE WITH THE PROJECT SPECIFICATIONS. SUCH MOISTURE SHALL BE UNIFORMLY DISTRIBUTED THROUGHOUT THE MATERIAL.

FINISHING AND SLOPING GRADING

1. THE SURFACE OF THE TOP LAYER SHALL BE FINISHED TO THE DESIGNATED GRADE AND CROSS SECTION. THE FINISHED SURFACE SHALL BE OF UNIFORM TEXTURE, DRESSED AND GRADED TO DRAIN AND PREVENT WATER PONDING.

COMPACTION EQUIPMENT:

1. COMPACTION SHALL BE PERFORMED WITH A NON-VIBRATORY TYPE ROLLER COMPACTOR. VIBRATORY EQUIPMENT WILL NOT BE PERMITTED ON DISTRICT LEVEES AND FILLS.

TESTING:

1. THE DISTRICT WILL RETAIN THE SERVICES OF AN INDEPENDENT SOILS CONSULTANT AND TESTING LABORATORY TO PERFORM SAMPLING AND TESTING AS REQUIRED AND TO CHECK FOR COMPLIANCE WITH THE SPECIFICATIONS. THE CONTRACTOR SHALL REMOVE SURFACE MATERIALS AT LOCATIONS DESIGNATED BY THE TESTING ENGINEER AT NO COST TO THE DISTRICT. THE INDEPENDENT TESTING LABORATORY WILL SAMPLE AND PERFORM ALL REQUIRED TESTS SUCH AS MOISTURE CONTENT; GRADATION, AND MOISTURE DENSITY RELATIONSHIPS ON THE EXCAVATED AND EMBANKMENT FILL MATERIALS



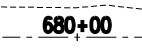
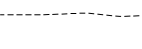
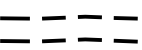
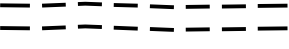

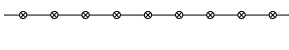
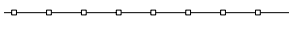
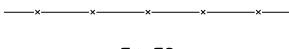

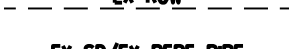

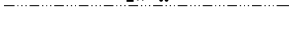

SWPPP:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DEVELOPMENT, INSTALLATION AND MAINTENANCE OF A SWPPP AND REQUIRE PROTECTION FEATURES. THESE FEATURES INCLUDE, BUT ARE NOT LIMITED TO, THOSE IDENTIFIED BELOW:
 - A. EROSION CONTROL FACILITIES
 - B. CONSTRUCTION ENTRANCE
 - C. STREET SWEEPING
 - D. THE CONTRACTOR IS RESPONSIBLE FOR ALL FINES, FEES, PENALTIES IMPOSED BY FEDERAL AND LOCAL AGENCIES DUE TO THE CONTRACTOR'S ACTIVITIES ASSOCIATED WITH THE SWPPP.
2. THE CONTRACTOR SHALL CONSTRUCT A STABILIZED CONSTRUCTION ENTRANCE AT ALL ENTRANCES TO THE PROJECT SITE AS APPROVED BY THE ENGINEER.
3. EROSION CONTROL FACILITIES AS SHOWN ON THESE PLANS HAVE BEEN PREPARED TO MEET THE REQUIREMENTS OF THE DISTRICT. THE PROJECT WILL REQUIRE A SWPPP, PREPARED BY A QUALIFIED DEVELOPER (QSD) WHO WILL ASSUME RESPONSIBILITY FOR THE PROJECT COMPLIANCE WITH THE STATE GENERAL CONSTRUCTION PERMIT AND WHOSE RECOMMENDATIONS WILL SUPERCEDE THIS PLAN ACCORDINGLY.

ABBREVIATIONS:

CL	CENTERLINE	N	NORTH, NORTHING
CONST	CONSTRUCTION	NTS	NOT TO SCALE
DWSEL	DESIGN WATER SURFACE ELEVATION	PROP	PROPOSED
E	EAST, EASTING	RC	RELATIVE COMPACTION
ELEV	ELEVATION	R/W	RIGHT OF WAY
ESMT	EASEMENT	STA	STATION
EX	EXISTING	TCE	TEMPORARY CONSTRUCTION EASEMENT
FT	FOOT, FEET	TEMP	TEMPORARY
H	HORIZONTAL	TYP	TYPICAL
MIN	MINIMUM	V	VERTICAL
		WS	WATERSIDE

LEGEND

	ALLOWABLE STAGING AREA
	ENVIRONMENTAL EXCLUSION ZONE (NO CONSTRUCTION ACTIVITY, NO ACCESS)
	APPROX. EDGE OF CROWN
	LEVEE STATIONING LINE
	APPROX. EDGE OF CROWN
	ACCESS ROAD
	HAUL ROUTE
	SLURRY CONTAINMENT
	ORANGE CONSTRUCTION FENCING
	EXISTING FENCE
	EXISTING FACE OF CURB
	EXISTING RIGHT OF WAY
	EXISTING STORM DRAIN OR EXISTING PERFORATED DRAINAGE PIPE
	EXISTING WATER LINE
	EXISTING STREET LIGHT

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ENGEO INCORPORATED
EXCELLENT SERVICE SINCE 1971

REGISTERED PROFESSIONAL ENGINEER
No. 2677
Exp. 6/30/2014
JOSSEF TOOTLE
STATE OF CALIFORNIA

PLANS PREPARED UNDER THE DIRECTION OF:

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No. 43061
Exp. 3/31/14
JAMES F. TEMPLETON JR.
STATE OF CALIFORNIA

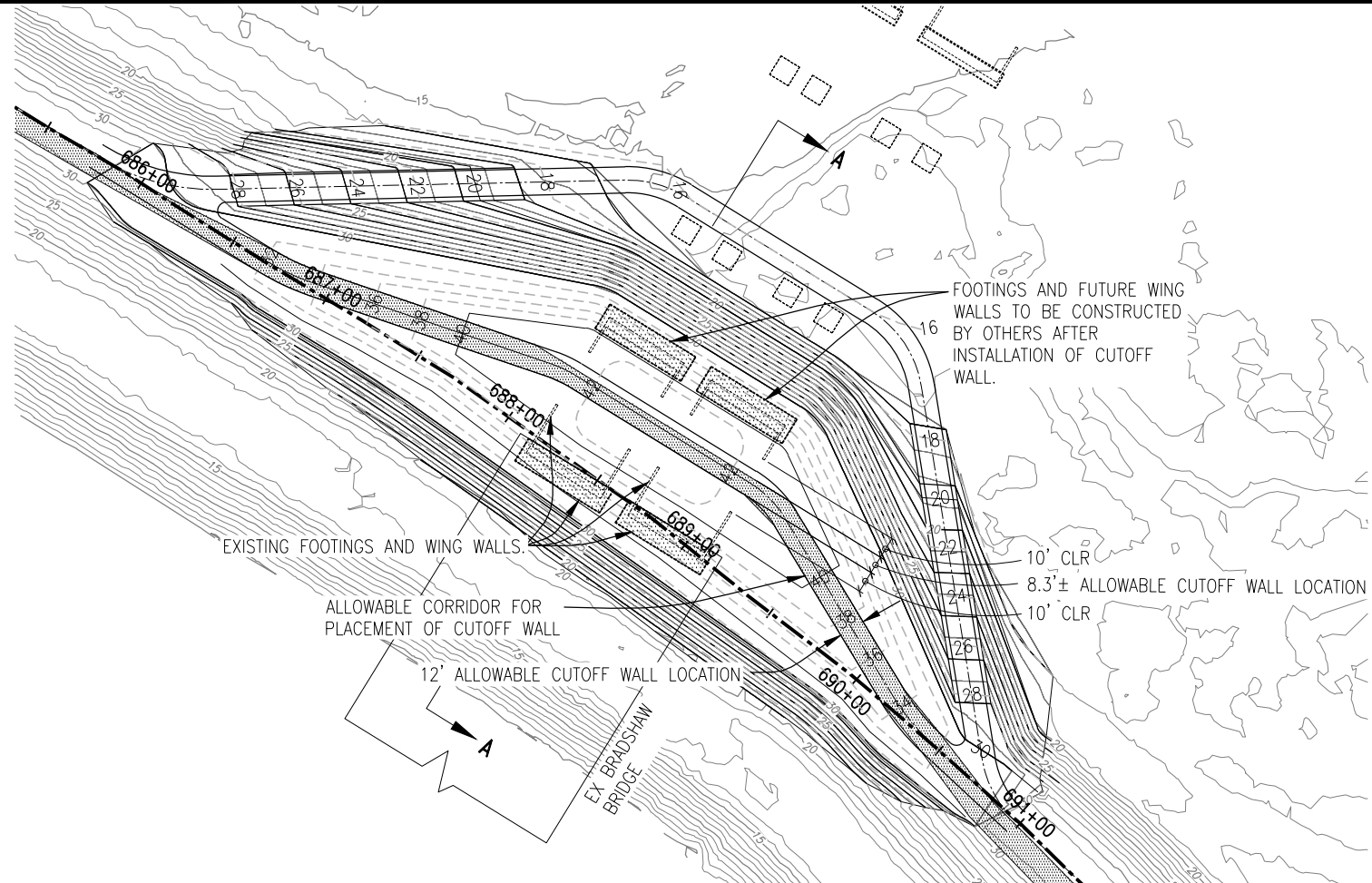
RECLAMATION DISTRICT NO. 17
ELEMENTS V-A & VI-A.1

NOTES

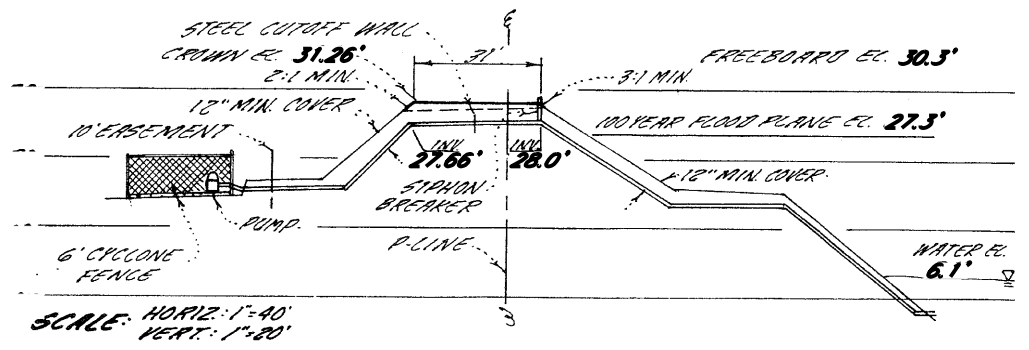
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NO.	REVISION	DATE

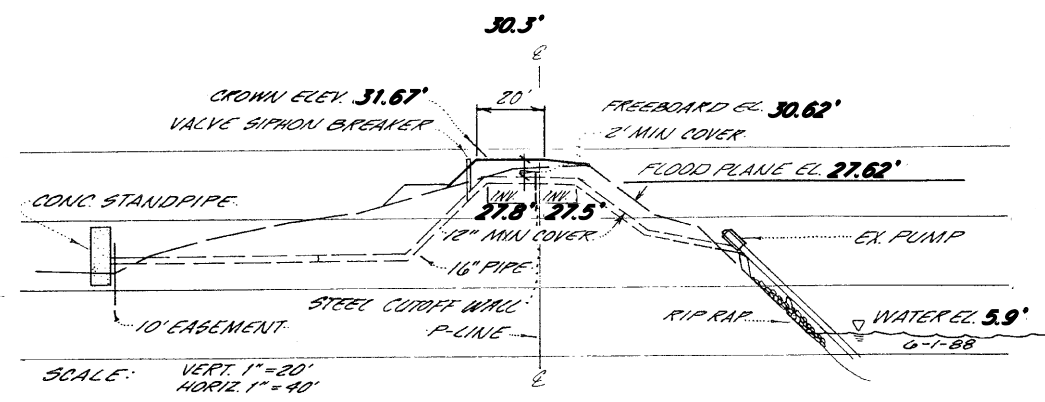
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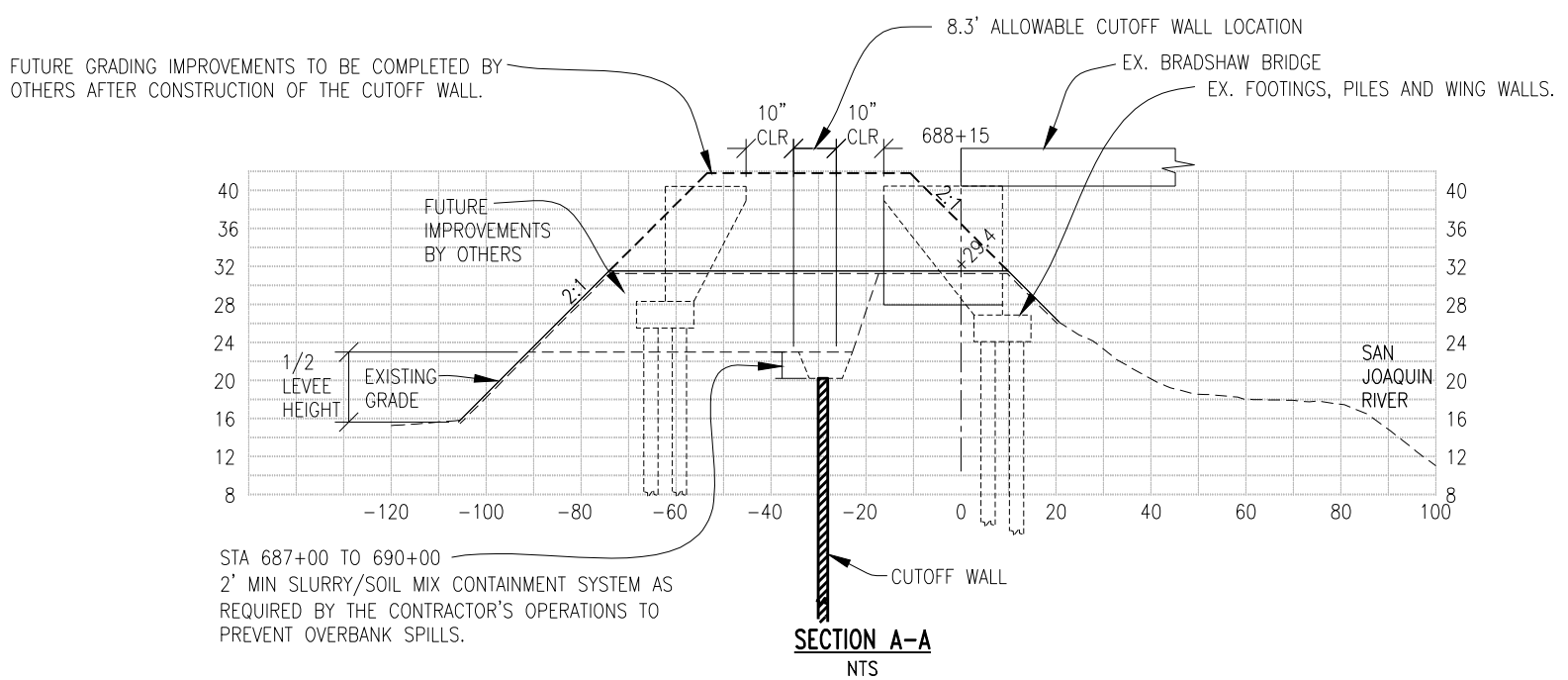
CUT-OFF WALL PLACEMENT AT BRADSHAW BRIDGE
1"=40'



EX. PIPE PROFILE - STATIONS 692+25±
NTS



EX. PIPE PROFILE - STATIONS 697+35±
NTS



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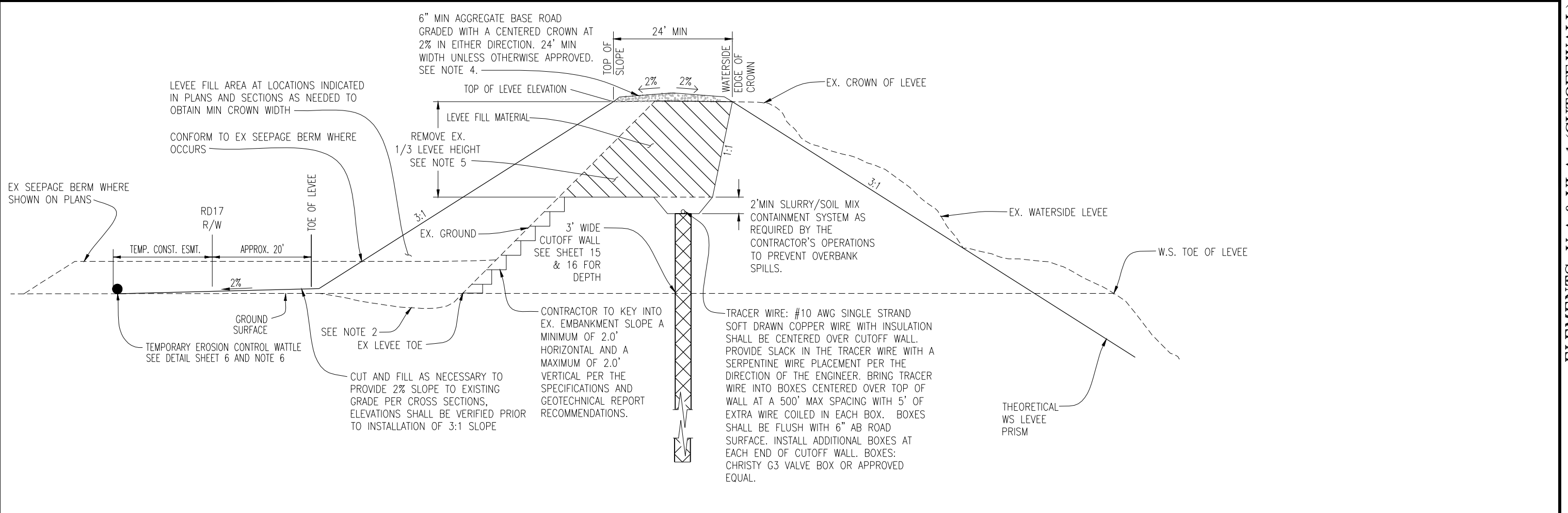
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RECLAMATION DISTRICT NO. 17
ELEMENTS V-A & VI-A.1
TYPICAL SECTIONS AND DETAILS
SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
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CHECKED BY: JSL	



SECTION B-B: STATION 608+00 THRU 703+00
NTS

NOTES:

- RD17 RIGHT OF WAY EXTENDS FROM THE SAN JOAQUIN RIVER WATER'S EDGE (AT ORDINARY HIGH WATER) TO THE PROPOSED RD17 RIGHT OF WAY SHOWN ABOVE AND ON THE DETAILED CROSS-SECTIONS WITHIN THIS PLAN SET. TEMPORARY CONSTRUCTION EASEMENTS WILL BE OBTAINED BY RD17 TO COVER THE LIMITS OF WORK AS SHOWN.
- CLEAR AND GRUB WORKING AREAS. SCARIFY AND RECOMPACT EXISTING GROUND WORKING AREAS PER GEOTECHNICAL ENGINEER'S RECOMMENDATION.
- ALL FILTER FABRIC SHALL BE MIRAFI FW700 OR APPROVED EQUAL. EDGES SHALL BE SEWN PER SPECIFICATIONS.
- STRIP AND STOCKPILE EX. AB AS APPROVED BY ENGINEER PRIOR TO CONSTRUCTION. EACH LAYER OF AB PLACED SHALL BE NO LESS THAN 95% COMPACTION.
- REMOVE TOP 1/3 OF LEVEE (BASED ON LANDSIDE LEVEE HEIGHT) AND REPLACE WITH LEVEE FILL MATERIAL AT 95% COMPACTION. SOIL REMOVED FROM THE LEVEE MAY BE USED IF IT MEETS THE REQUIREMENTS OF LEVEE FILL MATERIAL OTHERWISE IT MUST BE REMOVED FROM THE SITE AT AN APPROPRIATE LOCATION APPROVED BY THE ENGINEER.
- PLACE WATTLES ALONG THE LIMIT OF THE TEMPORARY CONSTRUCTION EASEMENT PRIOR TO BEGINNING WORK, ALL SUBSEQUENT EROSION CONTROL MEASURES SHALL BE INSTALLED PER THE PROVISIONS OF THE SWPPP.
- FILL LEVEE AFTER SLURRY WALL HAS CURED AT THE DIRECTION OF THE SOILS ENGINEER.

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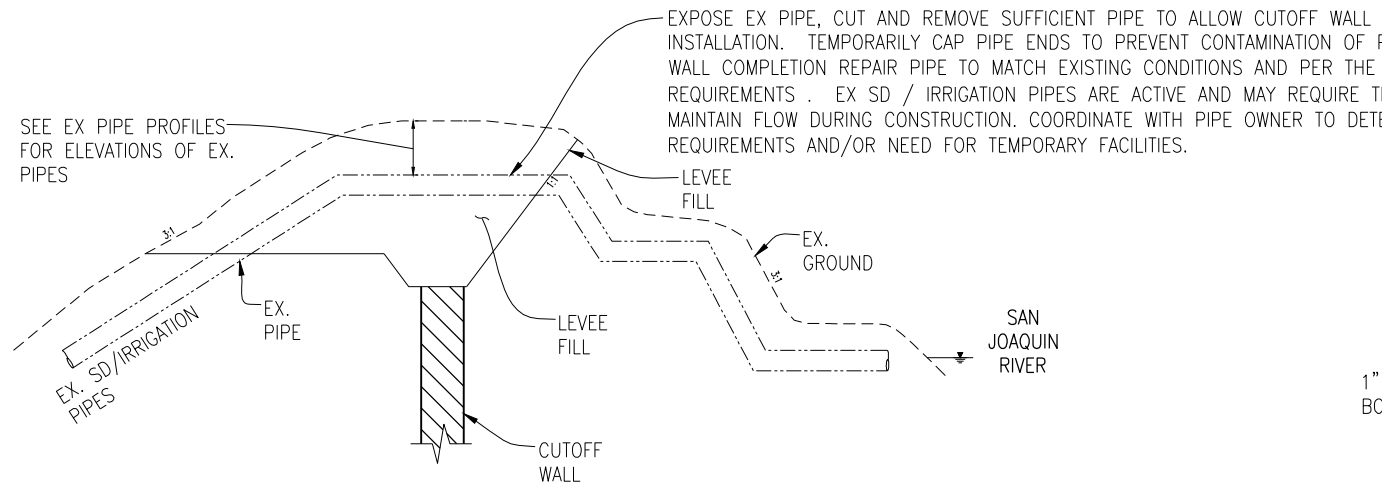
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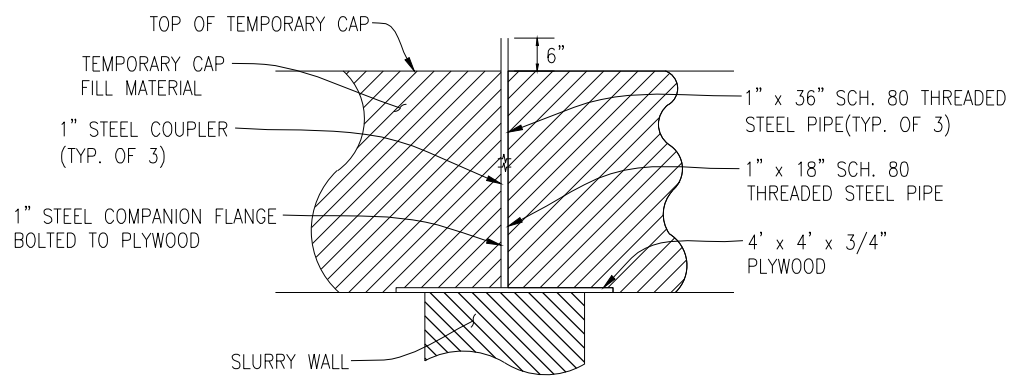
RECLAMATION DISTRICT NO. 17
ELEMENTS V-A & VI-A.1
TYPICAL SECTIONS & DETAILS

SAN JOAQUIN COUNTY CALIFORNIA

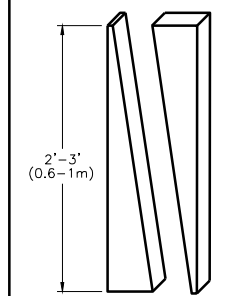
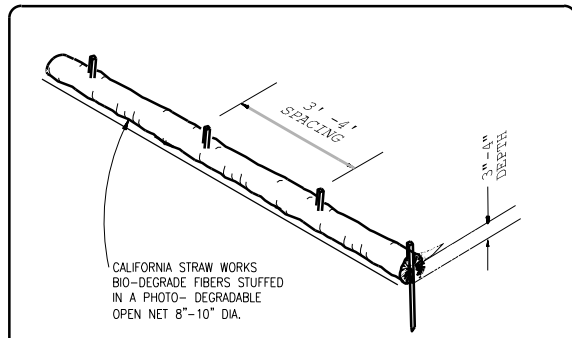
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TYPICAL PIPE CROSSING DETAIL
NTS



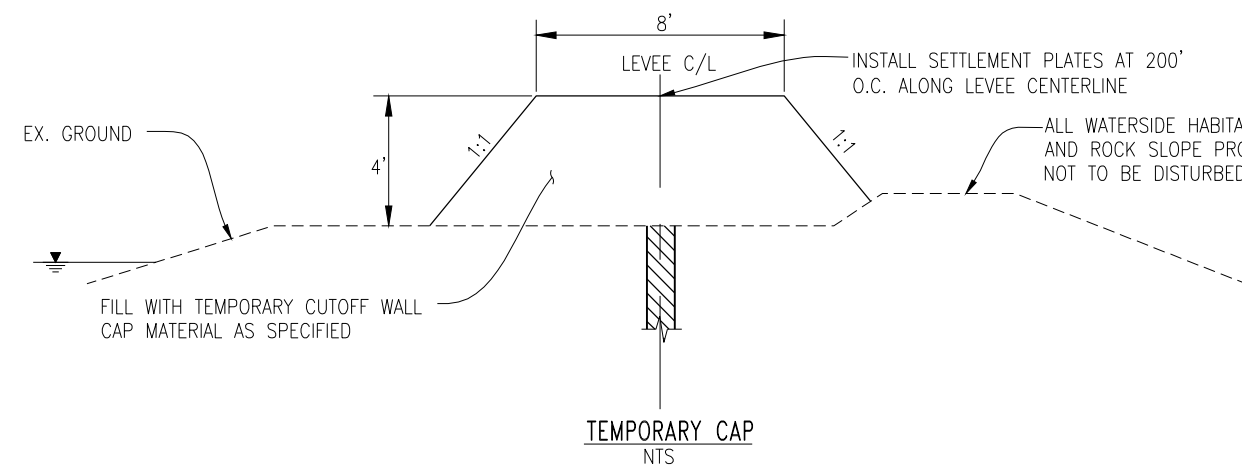
SETTLEMENT PLATE
NTS



NOTES:
1. REPAIR OR REPLACE SPLIT, TORN, UNRAVELING OR SLUMPING FIBER ROLLS.
2. INSPECT FIBER ROLLS WHEN RAIN IS FORECAST, FOLLOWING RAIN EVENTS AND AT LEAST DAILY DURING PROLONGED RAINFALL. PERFORM REQUIRED MAINTENANCE.
3. IN MOST CASES, FIBER ROLLS DO NOT REQUIRE REMOVAL AND CAN BE ABANDONED IN PLACE. IF NOT EXCESSIVELY SOILED, ROLLS MAY BE REPLACED AND REUSED.

NOT TO SCALE

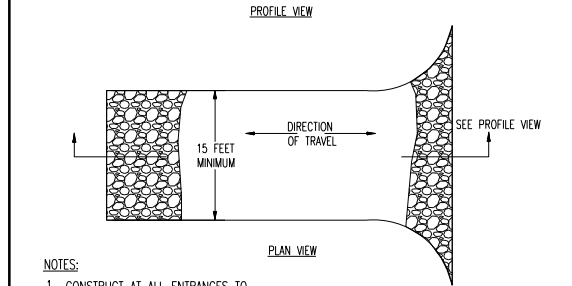
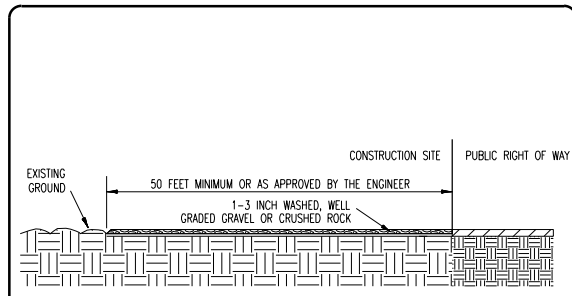
WATTLES



TEMPORARY CAP
NTS

TEMPORARY CAP NOTES:

1. AFTER SLURRY WALL HAS BEEN CONSTRUCTED. FILL LEVEE TO ELEVATION 25.00 WITH TEMPORARY CUTOFF WALL CAP MATERIAL.
2. INSTALL SETTLEMENT PLATES @ 200' O.C. ALONG LEVEE CENTERLINE. CONTRACTOR SHALL BE RESPONSIBLE TO SURVEY THE TOP OF EACH RISER PIPE EVERY OTHER DAY FOR A MINIMUM 2 WEEKS AND UNTIL SETTLEMENT HAS CEASED. AS APPROVED BY THE ENGINEER. THE SURVEYING OF SETTLEMENT PLATES SHALL BE PERFORMED BY A LICENSED SURVEYOR.
3. AFTER SETTLEMENT HAS CEASED, REMOVE TEMPORARY CUTOFF WALL CAP MATERIAL. SOIL MAY BE USED AS CROWN WIDENING SLOPE FILL.. ANY EXCESS SOIL SHALL BE DISPOSED OF OFFSITE AT THE CONTRACTOR'S EXPENSE



NOTES:
1. CONSTRUCT AT ALL ENTRANCES TO THE PROJECT SITE AS APPROVED BY THE ENGINEER
2. THE ENTRANCE SHALL BE KEPT IN GOOD CONDITION BY OCCASIONAL TOP DRESSING WITH ROCK MATERIAL
3. ACCESSES SHALL BE INSPECTED WEEKLY DURING PERIODS OF HEAVY USAGE, MONTHLY DURING NORMAL USAGE, AND AFTER EACH RAINFALL, WITH MAINTENANCE PROVIDED AS NECESSARY. PERIODIC TOP DRESSING SHALL BE DONE AS NEEDED.

NOT TO SCALE

STABILIZED CONSTRUCTION SITE ACCESS

PLANS REVIEWED AND APPROVED BY:

K S N KJELDSSEN SINNOCK NEUDECK INC.
Consulting Engineers and Land Surveyors

Post Office Box 844
711 N. Pershing Avenue
Stockton, CA 95201-0844
Office: (209) 946-0268
Faxes: (209) 946-0296
E-mail: KSN@ksninc.com

THESE GRADING PLANS CONFORM TO THE GEOTECHNICAL REPORT ENTITLED: UNDER-SEEPAGE EVALUATION, RD NO. 17 REACH 1 - ELEMENT I-A.

ENGEO INCORPORATED
EXCELLENT SERVICE SINCE 1971

REGISTERED PROFESSIONAL ENGINEER
JOSEF TOOTLE
No. 2677
Exp. 6/30/2014
STATE OF CALIFORNIA

PLANS PREPARED UNDER THE DIRECTION OF:

MACKAY & SOMPS
ENGINEERS PLANNERS SURVEYORS
5142 Franklin Drive, Suite B, Pleasanton, CA 94588 (925) 225-0690

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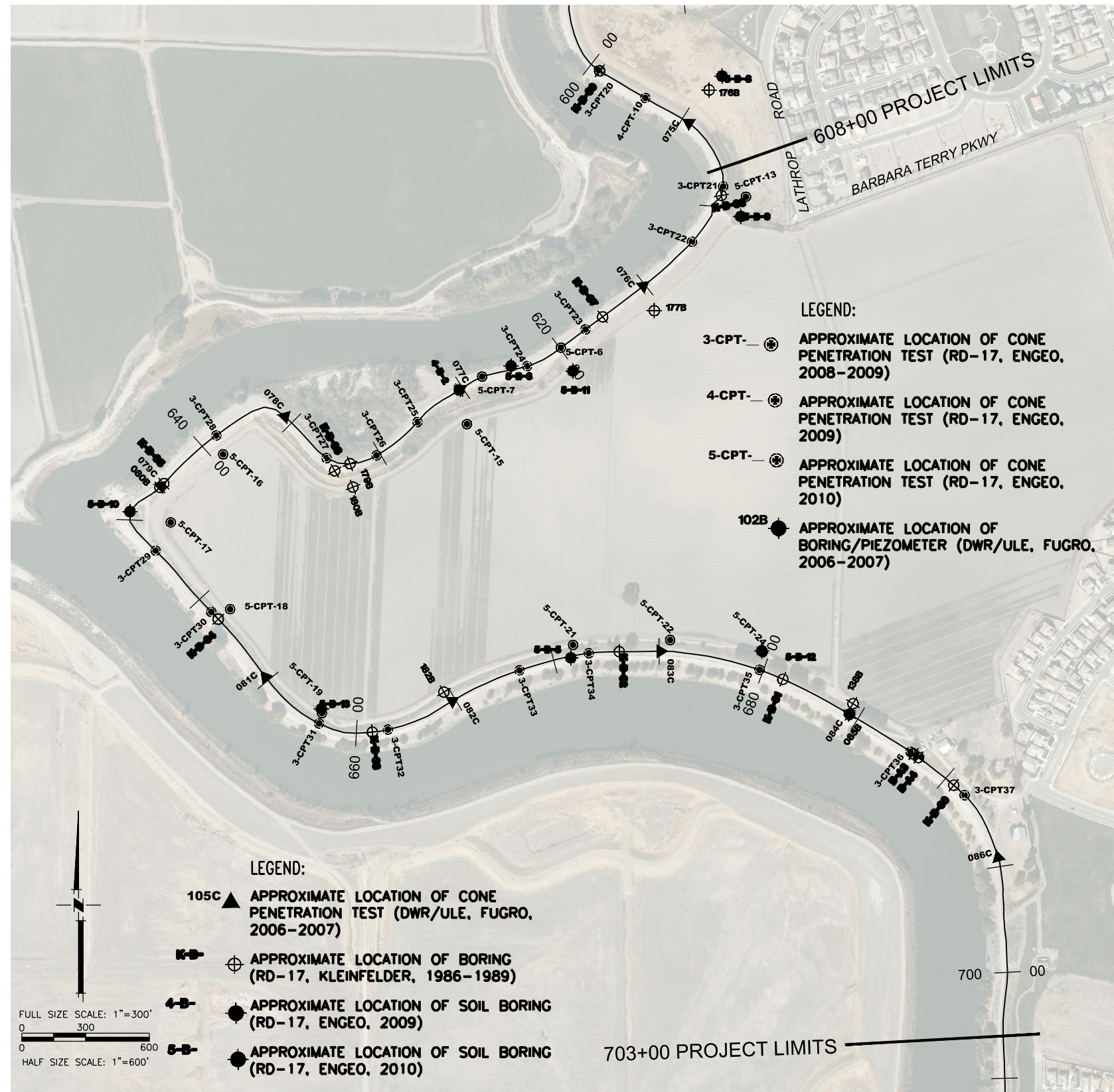
REGISTERED PROFESSIONAL ENGINEER
JAMES F. TEMPLETON JR.
No. 43061
Exp. 3/31/14
STATE OF CALIFORNIA

RECLAMATION DISTRICT NO. 17
ELEMENTS V-A & VI-A.1
TYPICAL SECTIONS & DETAILS

SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: NTS	SHT 6
DRAWN BY: GB	OF 22
DESIGNED BY: JBM	
CHECKED BY: JSL	



BORING LOCATIONS
1"=300' SCALE

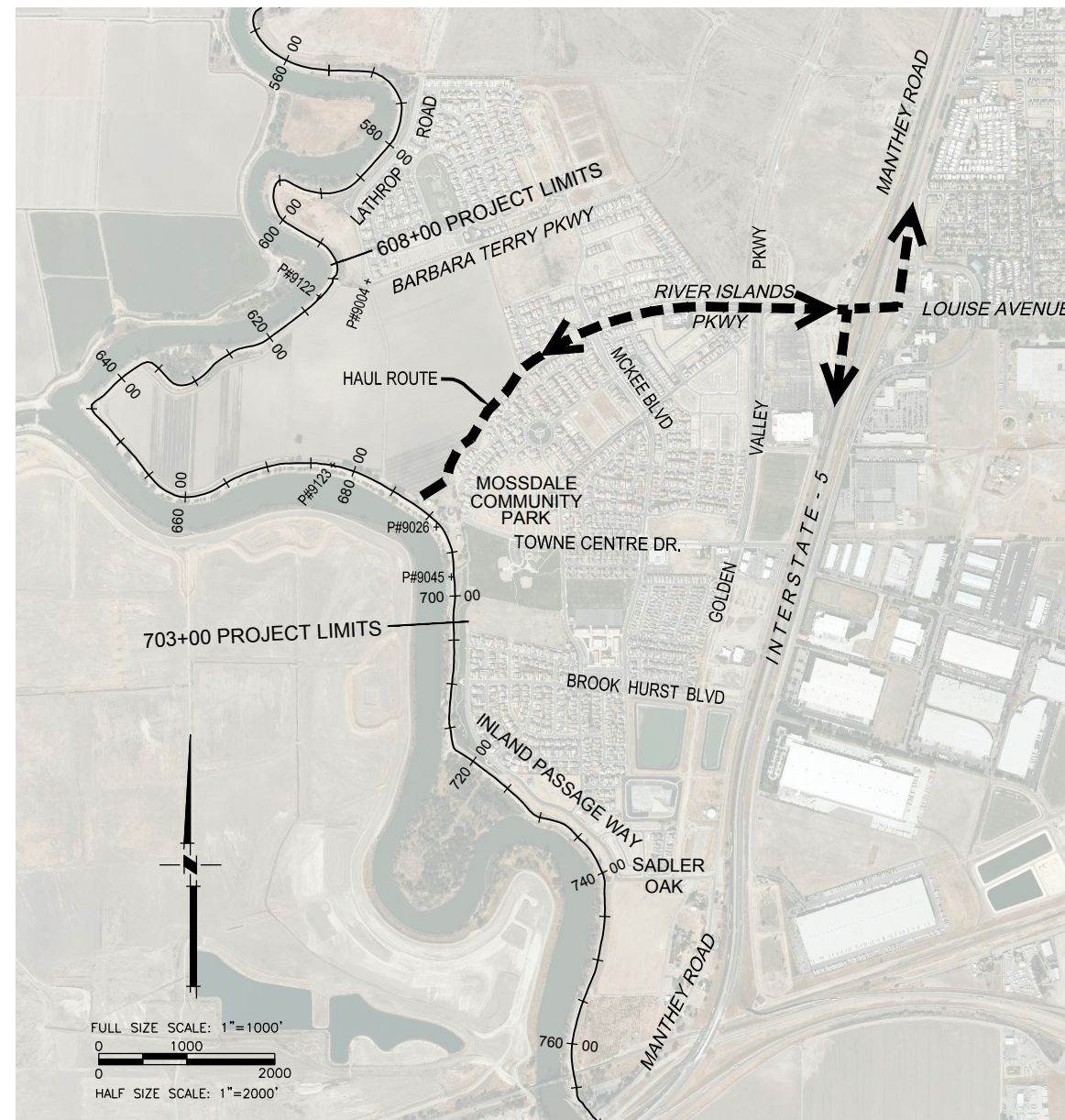
CONTROL POINTS

P#9004	N2119251.825 E6326076.602	EL=13.78	PK NAIL
P#9122	N2119121.532 E6325540.405	EL=29.96	IRON PIPE
P#9123	N2117251.052 E6325740.450	EL=29.49	IRON PIPE
P#9026	N2116532.226 E6326919.402	EL=31.13	IRON PIPE
P#9045	N2115957.455 E6327085.194	EL=30.51	IRON PIPE



INDICATES HAUL ROUTES TO BE USED BY CONTRACTOR

THE BASIS OF BEARINGS IS NORTH 120°33'37.56" EAST BETWEEN NATIONAL GEODETIC SURVEY HORIZONTAL CONTROL POINTS HPGN-D CA 10 HG (PID AA256) AND MATTHEW (PID HS0118), CALIFORNIA COORDINATE SYSTEM ZONE 3, NAD83, EPOCH DATE 1997.30, AS CALCULATED AND ADJUSTED BY THE NATIONAL GEODETIC SURVEY IN JULY, 1998, AS SHOWN ON RECORD OF SURVEY RECORDED AT BOOK 34 PAGES 163 - 163B, OF SAN JOAQUIN COUNTY RECORDS. ALL DISTANCES SHOWN HEREON ARE GROUND DISTANCES. TO CONVERT TO GRID DISTANCE, MULTIPLY GROUND DISTANCE BY AVERAGE COMBINED SCALE FACTOR OF 0.999929125. ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).



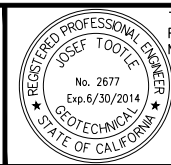
HAUL ROUTE & CONTROL POINTS
1"=1000' SCALE



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RECLAMATION DISTRICT NO. 17
ELEMENTS V-A & VI-A.1

STATIONING MAP, HAUL ROUTES,
ACCESS PLAN & CONTROL POINTS

SAN JOAQUIN COUNTY CALIFORNIA

No.	REVISION	DATE

DATE:	JAN 2014	PROJECT NO.	25182.010
SCALE:	AS NOTED	SHT	7
DRAWN BY:	GB	OF	22
DESIGNED BY:	JBM		
CHECKED BY:	JSL		



FULL SIZE SCALE: 1"=250'
 0 250
 0 500
 HALF SIZE SCALE: 1"=500'

NOTE:
 IF THE CONTRACTOR WISHES TO USE LOCAL PUBLIC STREETS FOR SITE ACCESS (ROUTES OTHER THAN INDICATED BY THE HAUL ROUTE AND ACCESS ROADS), THEN THE CONTRACTOR MUST OBTAIN APPROVAL FROM THE CITY OF LATHROP

NOTE:
 CONTRACTOR TO PREPARE TRAFFIC CONTROL PLAN FOR ACCESS TO RIVER ISLAND PARKWAY EXTENSION AND SUBMIT FOR APPROVAL BY THE CITY OF LATHROP

PLANS REVIEWED AND APPROVED BY:

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S SINNOCK
N NEUDECK
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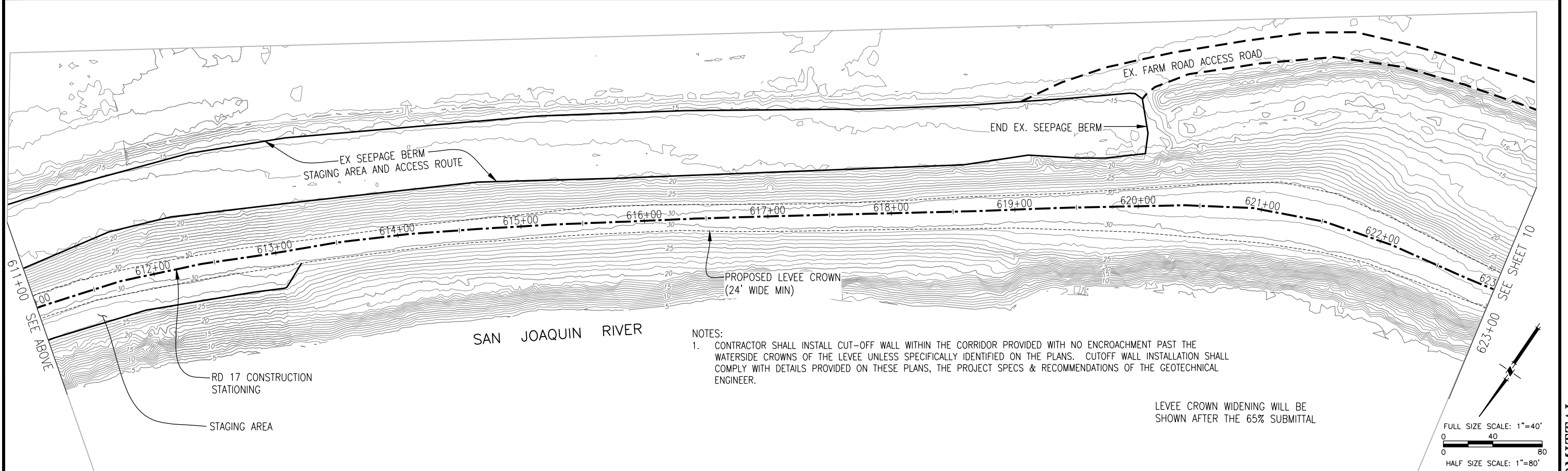
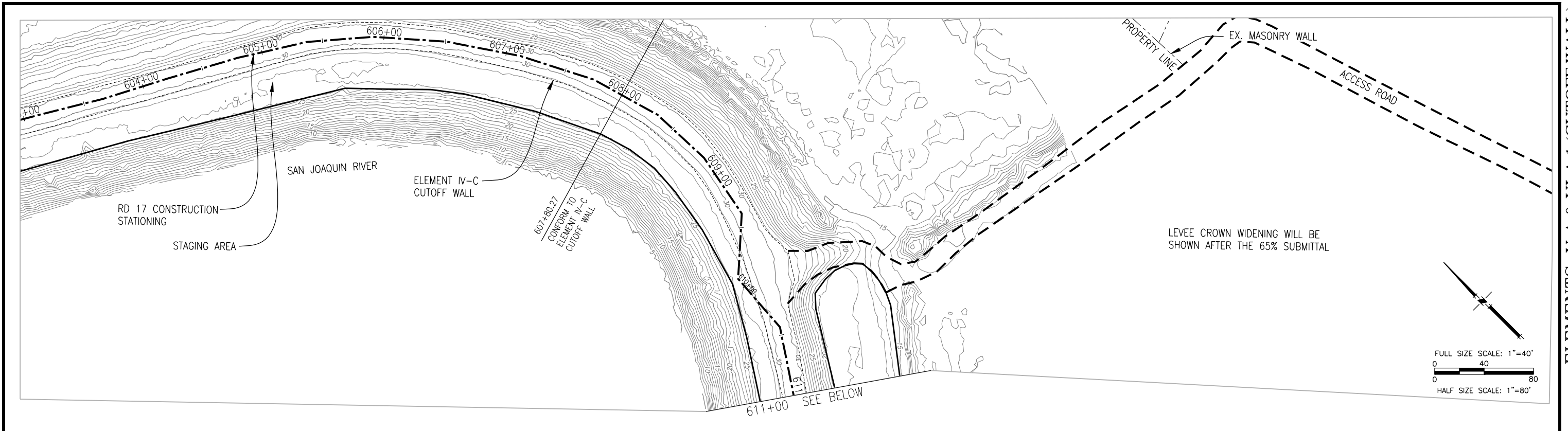
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RECLAMATION DISTRICT NO. 17
 ELEMENTS V-A & VI-A.1
 KEY MAP AND LOCAL ACCESS PLAN

SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: 1"=250'	SHT 8
DRAWN BY: GB	OF 22
DESIGNED BY: JBM	
CHECKED BY: JSL	



- NOTES:
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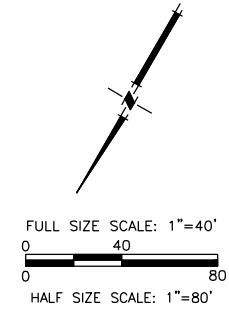
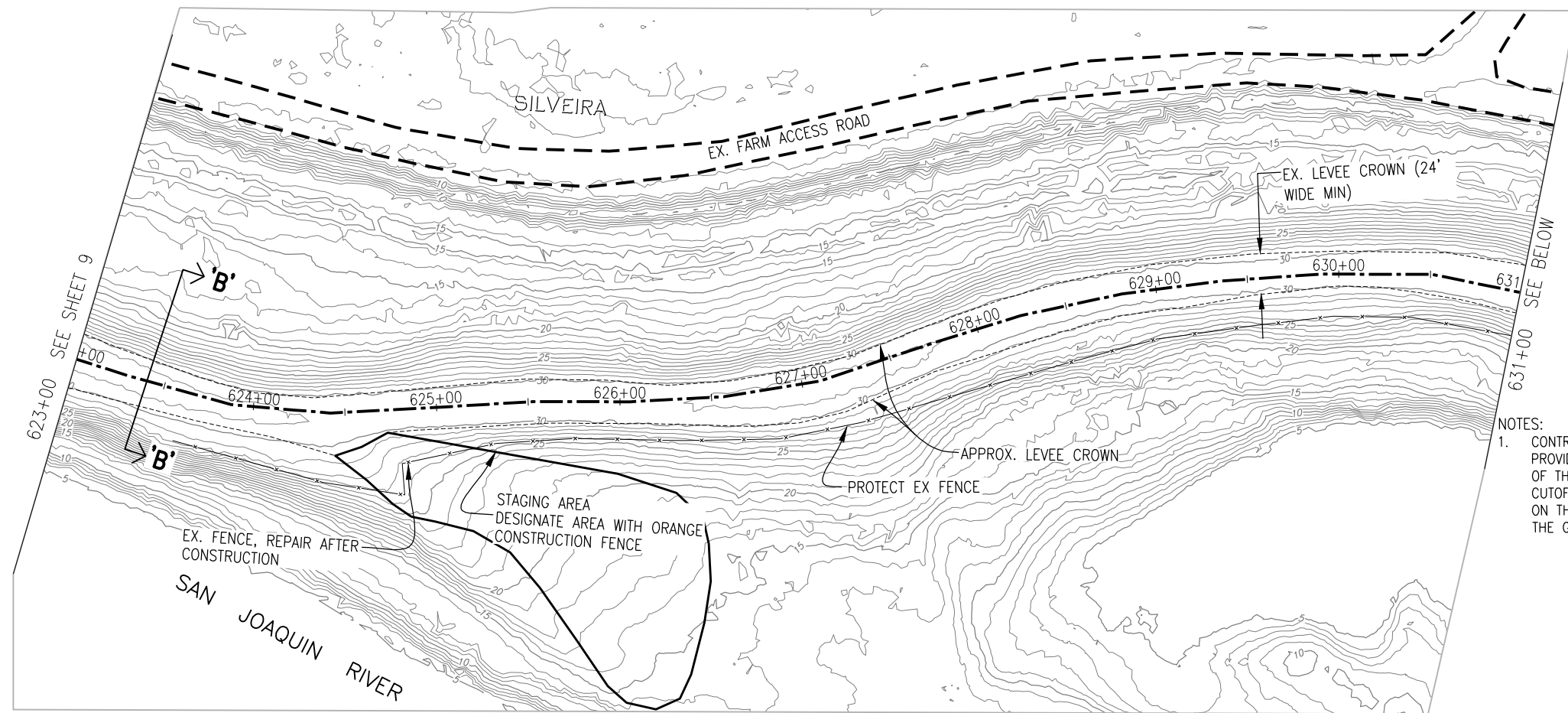
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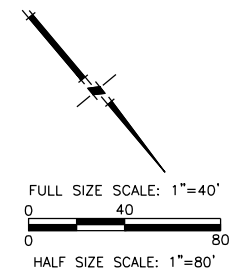
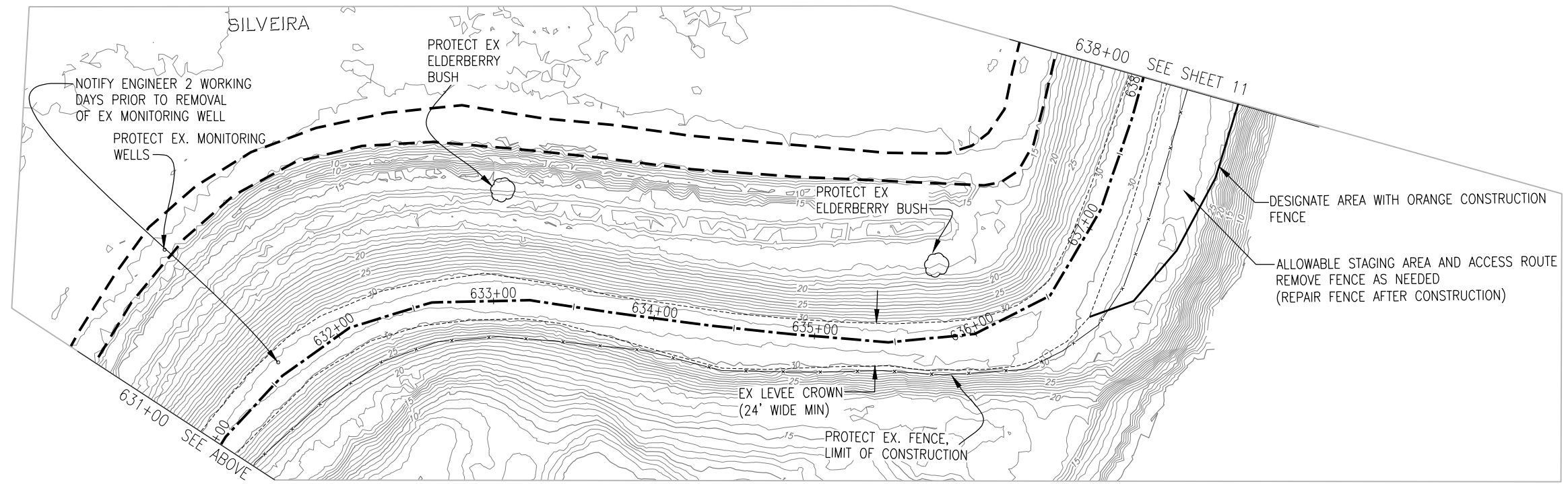
RECLAMATION DISTRICT NO. 17
 ELEMENTS V-A & VI-A.1
 PLAN VIEW
 STA. 608+00 TO STA. 623+00
 SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE:	JAN 2014	PROJECT NO.	25182.010
SCALE:	AS NOTED	SHT	9
DRAWN BY:	GB	OF	22
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CHECKED BY:	JSL		



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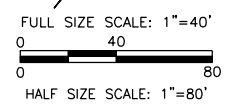
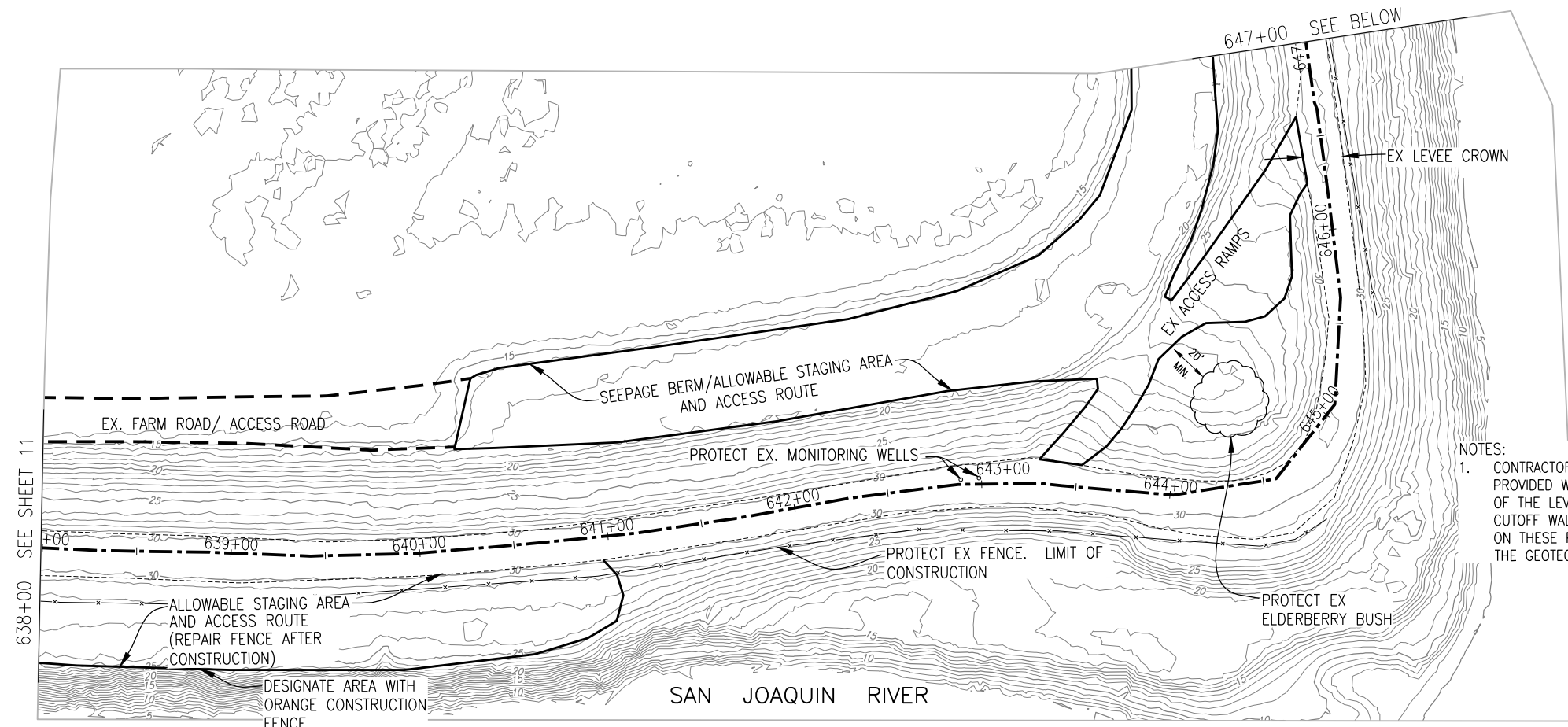
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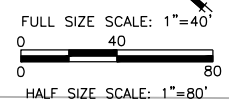
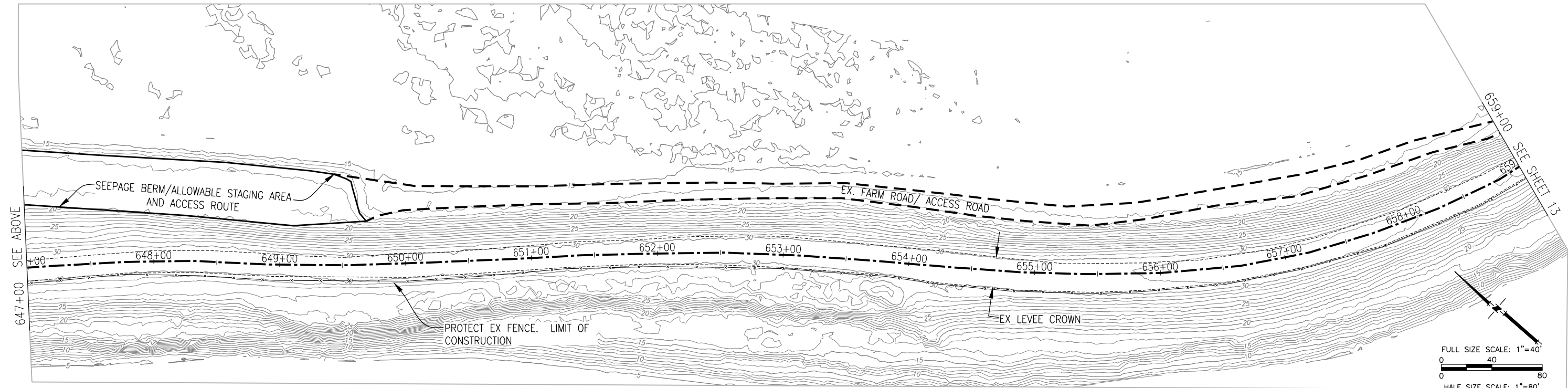
RECLAMATION DISTRICT NO. 17
 ELEMENTS V-A & VI-A.1
 AERIAL EXHIBIT
 STA. 623+00 TO STA. 638+00
 SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014
 SCALE: AS NOTED
 DRAWN BY: GB
 DESIGNED BY: JBM
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 PROJECT NO. 25182.010
 SHT 10 OF 22



NOTES:
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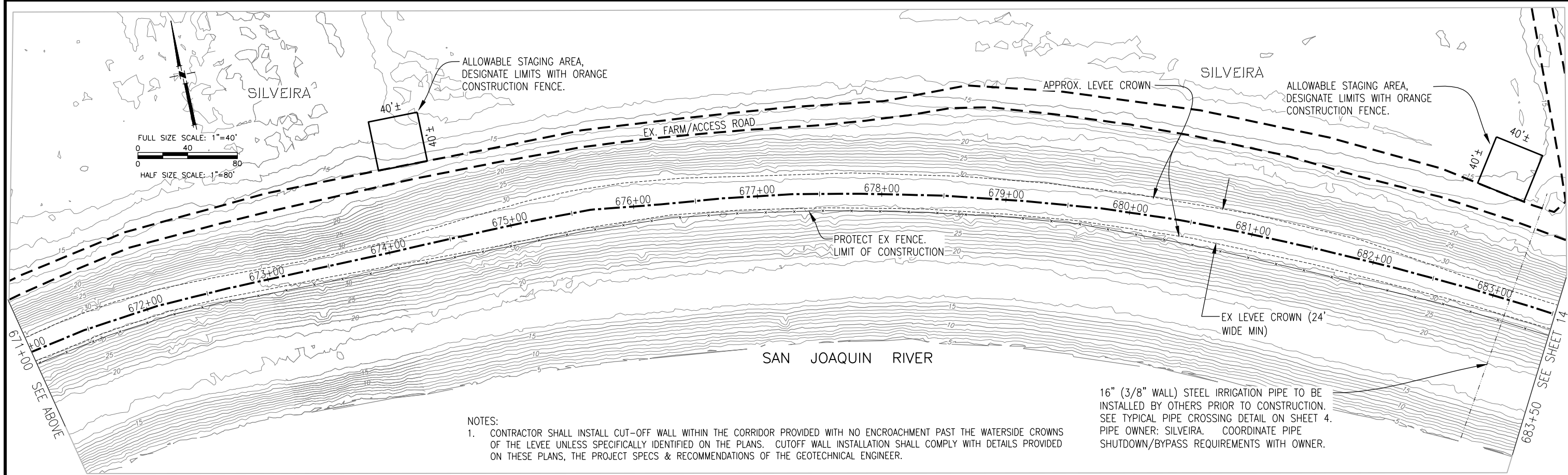
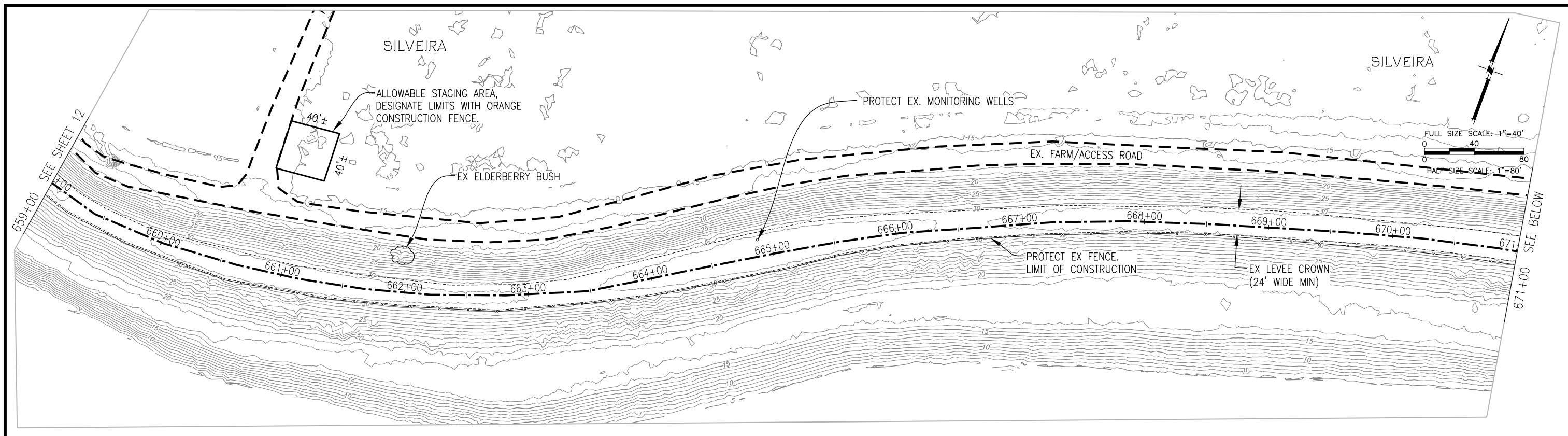
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RECLAMATION DISTRICT NO. 17
 ELEMENTS V-A & VI-A.1
 AERIAL EXHIBIT
 STA. 638+00 TO STA. 659+00
 SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: AS NOTED	SHT 11
DRAWN BY: GB	OF 22
DESIGNED BY: JBM	
CHECKED BY: JSL	



NOTES:
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16" (3/8" WALL) STEEL IRRIGATION PIPE TO BE INSTALLED BY OTHERS PRIOR TO CONSTRUCTION. SEE TYPICAL PIPE CROSSING DETAIL ON SHEET 4. PIPE OWNER: SILVEIRA. COORDINATE PIPE SHUTDOWN/BYPASS REQUIREMENTS WITH OWNER.

PLANS REVIEWED AND APPROVED BY:

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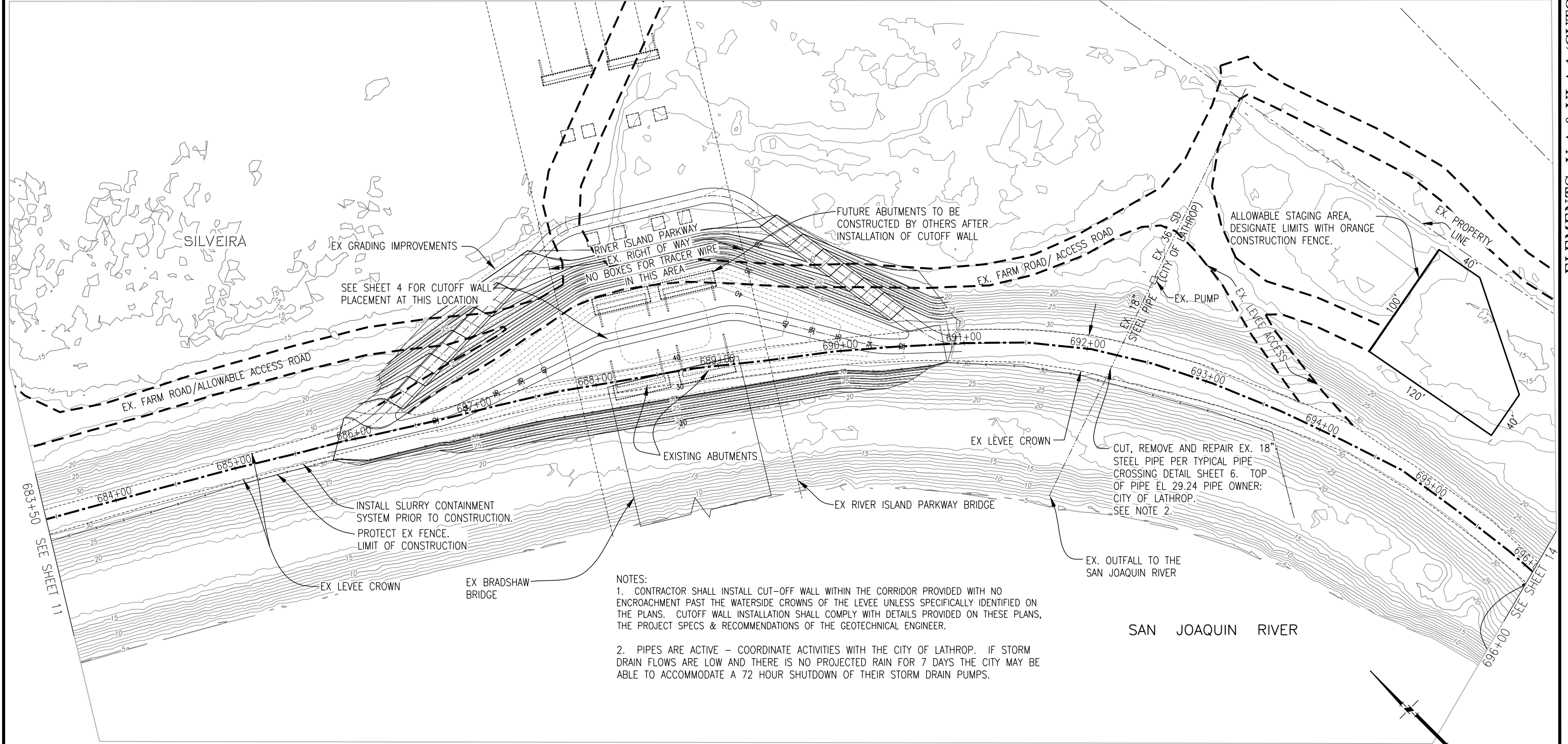
RECLAMATION DISTRICT NO. 17
 ELEMENTS V-A & VI-A.1

AERIAL EXHIBIT
 STA. 659+00 TO STA. 683+00

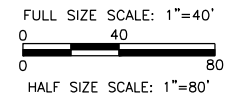
SAN JOAQUIN COUNTY CALIFORNIA

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 2. PIPES ARE ACTIVE - COORDINATE ACTIVITIES WITH THE CITY OF LATHROP. IF STORM DRAIN FLOWS ARE LOW AND THERE IS NO PROJECTED RAIN FOR 7 DAYS THE CITY MAY BE ABLE TO ACCOMMODATE A 72 HOUR SHUTDOWN OF THEIR STORM DRAIN PUMPS.



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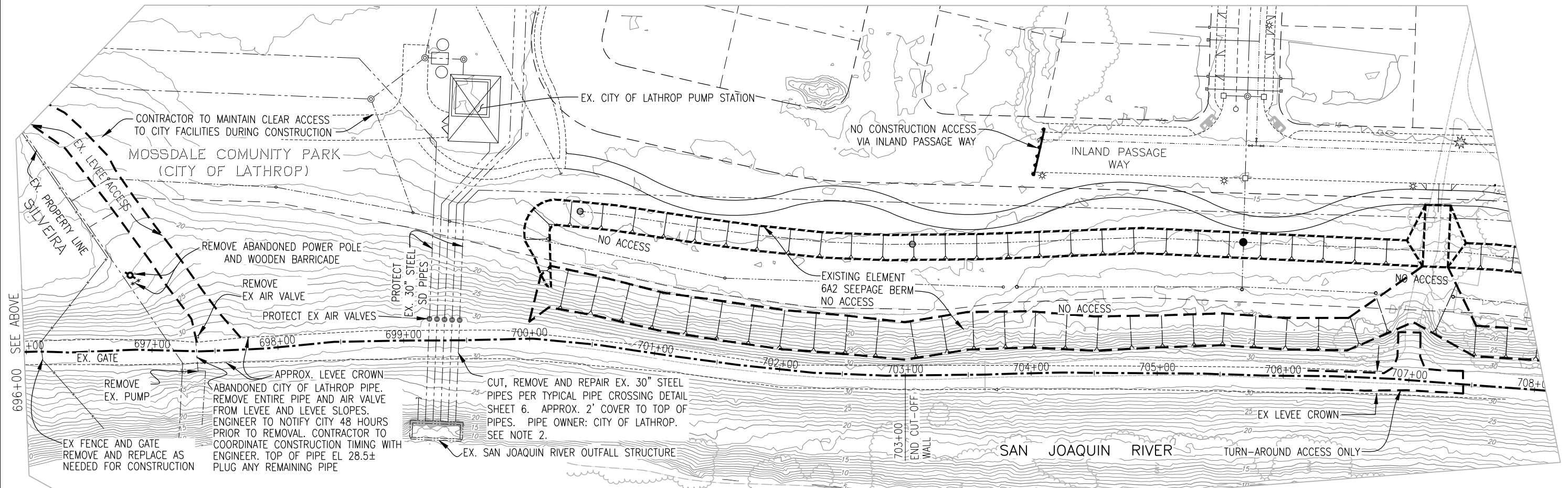
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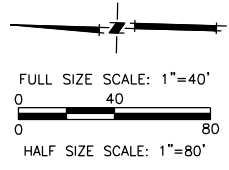
RECLAMATION DISTRICT NO. 17
 ELEMENTS V-A & VI-A.1
 AERIAL EXHIBIT
 STA. 683+00 TO STA. 703+00
 SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

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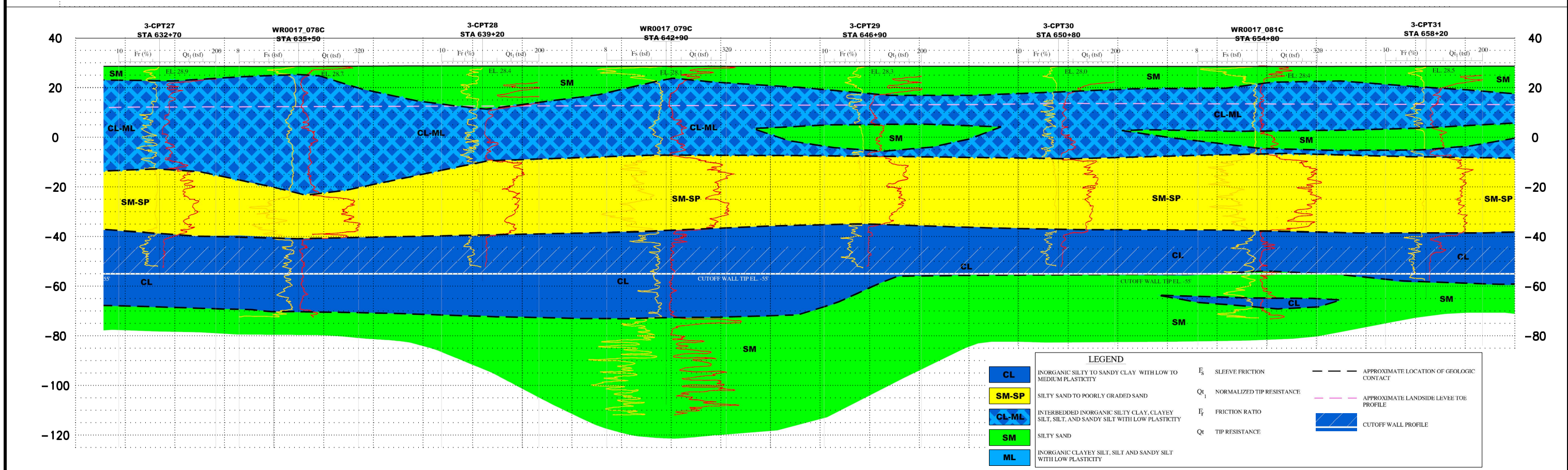
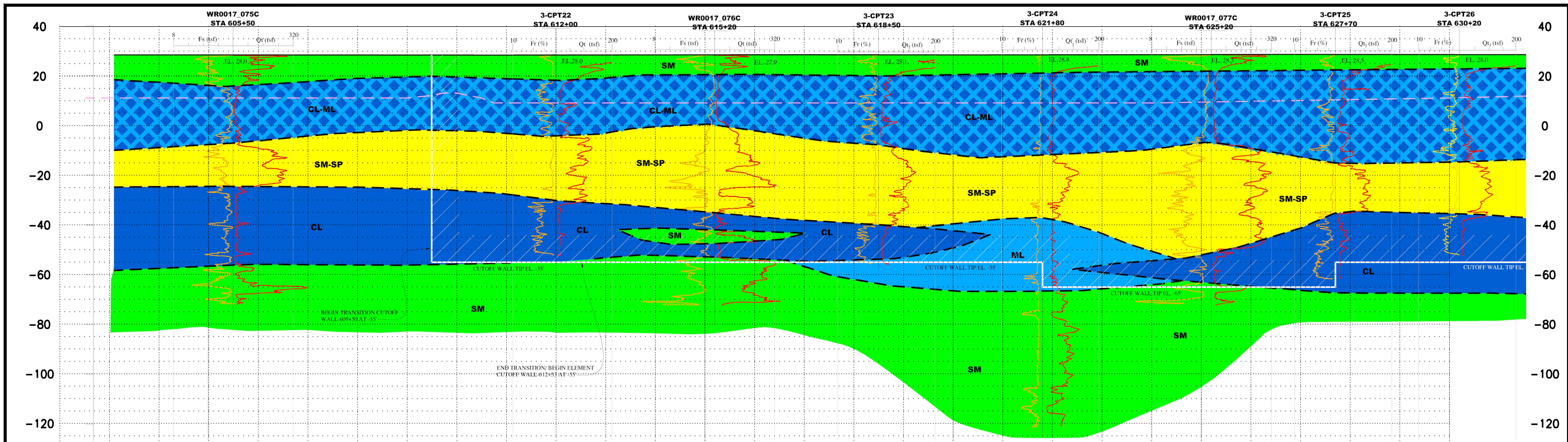
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RECLAMATION DISTRICT NO. 17
ELEMENTS V-A & VI-A.1
AERIAL EXHIBIT
STA. 683+00 TO STA. 703+00
SAN JOAQUIN COUNTY CALIFORNIA

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LEGEND			
CL	INORGANIC SILTY TO SANDY CLAY WITH LOW TO MEDIUM PLASTICITY	F_s	SLEEVE FRICTION
SM-SP	SILTY SAND TO POORLY GRADED SAND	Q_t	NORMALIZED TIP RESISTANCE
CL-ML	INTERBEDDED INORGANIC SILTY CLAY, CLAYEY SILT, SILT, AND SANDY SILT WITH LOW PLASTICITY	F_r	FRICTION RATIO
SM	SILTY SAND	Q_t	TIP RESISTANCE
ML	INORGANIC CLAYEY SILT, SILT AND SANDY SILT WITH LOW PLASTICITY		
		---	APPROXIMATE LOCATION OF GEOLOGIC CONTACT
		- - -	APPROXIMATE LANDSIDE LEVEE TOE PROFILE
			CUTOFF WALL PROFILE

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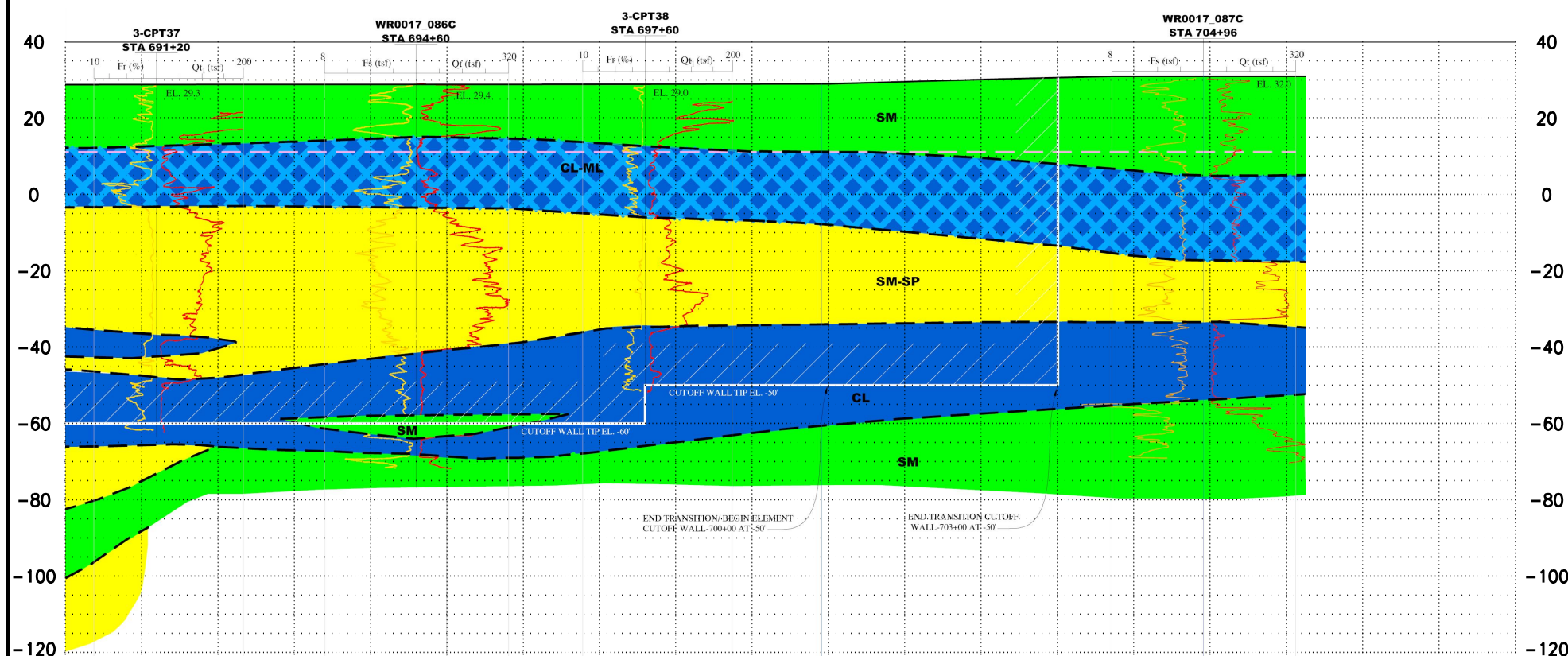
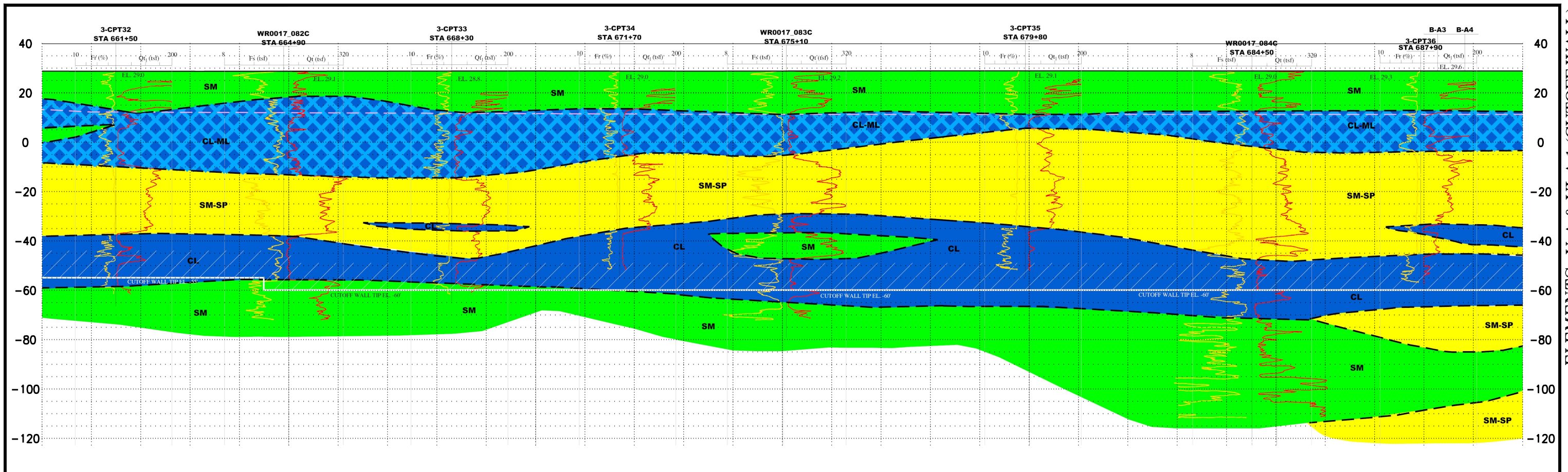
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RECLAMATION DISTRICT NO. 17
ELEMENTS V-A & VI-A.1

SAN JOAQUIN COUNTY CALIFORNIA

DATE:	JAN 2014	PROJECT NO.:	25182.010
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DRAWN BY:	GB	OF:	22
DESIGNED BY:	JBM		
CHECKED BY:	JSL		

ELEMENTS V-A & VI-A.1 (CUTOFF WALL) 65% SUBMITTAL



LEGEND

CL	INORGANIC SILTY TO SANDY CLAY WITH LOW TO MEDIUM PLASTICITY	F_s	SLEEVE FRICTION	- - -	APPROXIMATE LOCATION OF GEOLOGIC CONTACT
SM-SP	SILTY SAND TO POORLY GRADED SAND	Q_{t1}	NORMALIZED TIP RESISTANCE	- - -	APPROXIMATE LANDSIDE LEVEE TOE PROFILE
CL-ML	INTERBEDDED INORGANIC SILTY CLAY, CLAYEY SILT, SILT, AND SANDY SILT WITH LOW PLASTICITY	F_r	FRICTION RATIO		CUTOFF WALL PROFILE
SM	SILTY SAND	Q_t	TIP RESISTANCE		
ML	INORGANIC CLAYEY SILT, SILT AND SANDY SILT WITH LOW PLASTICITY				

PLANS REVIEWED AND APPROVED BY:

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E-mail: KSN@ksninc.com

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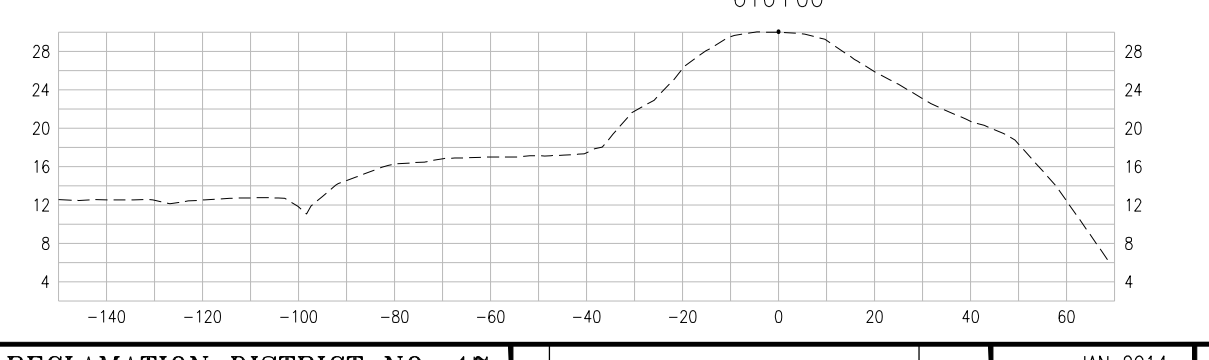
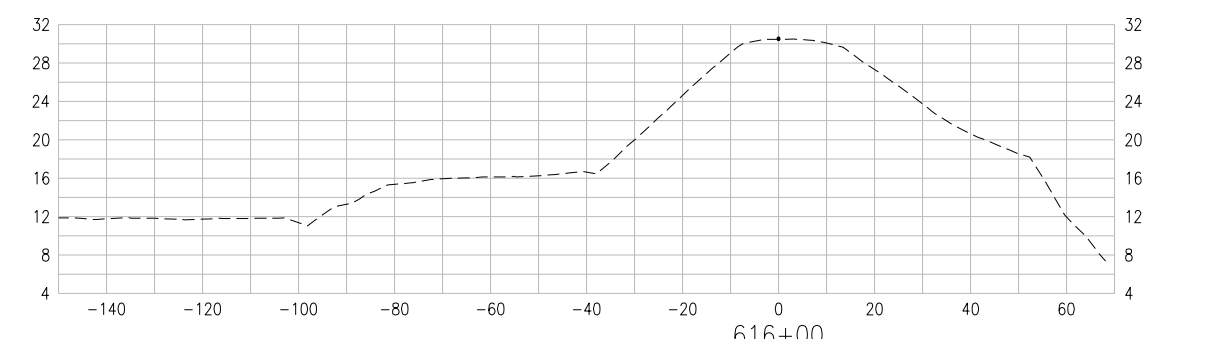
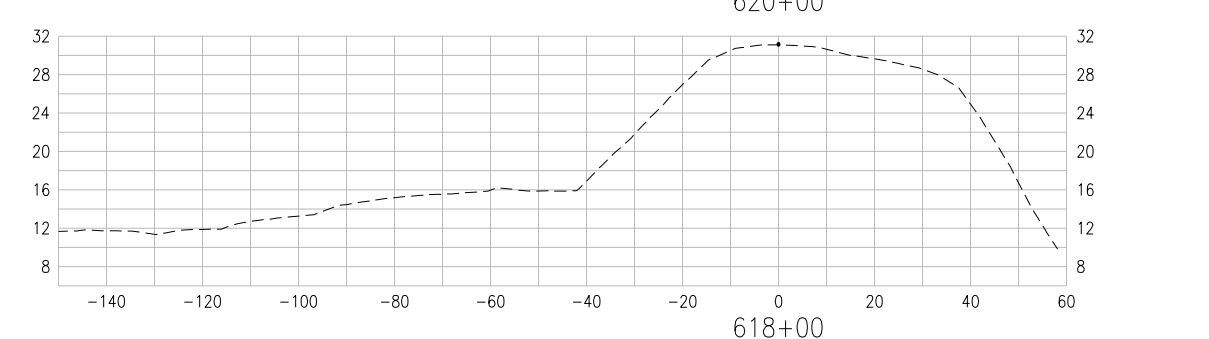
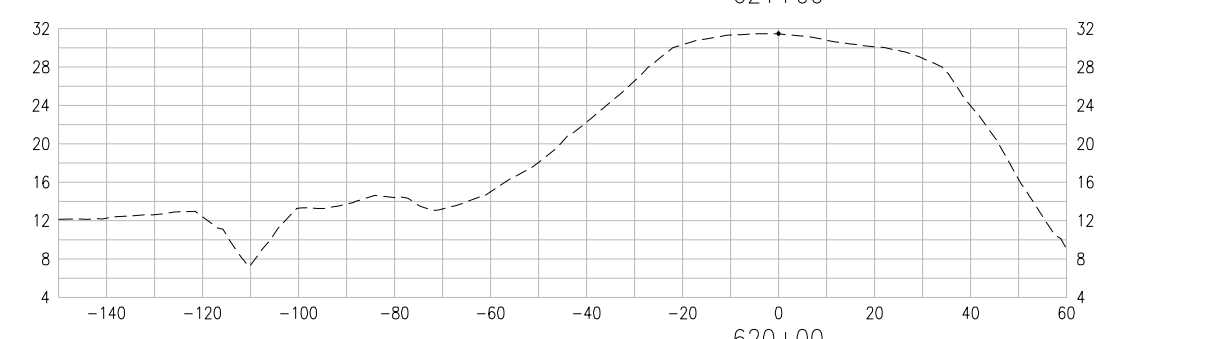
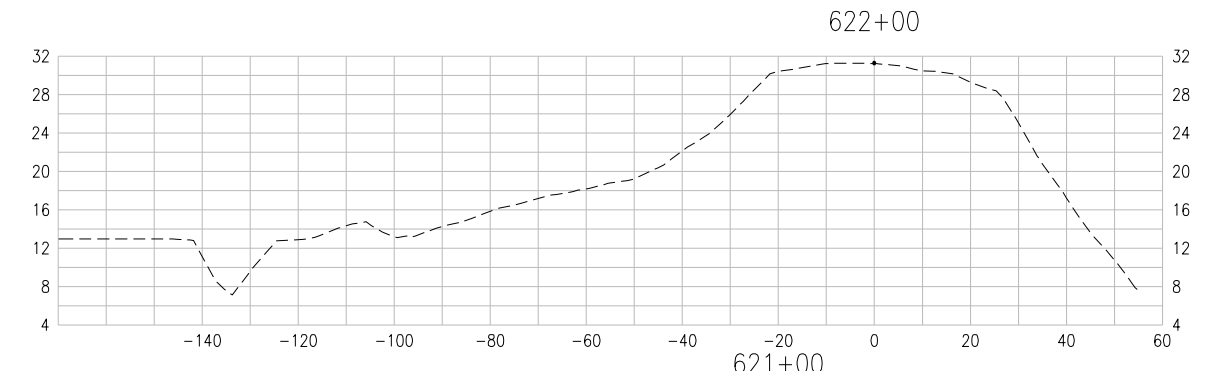
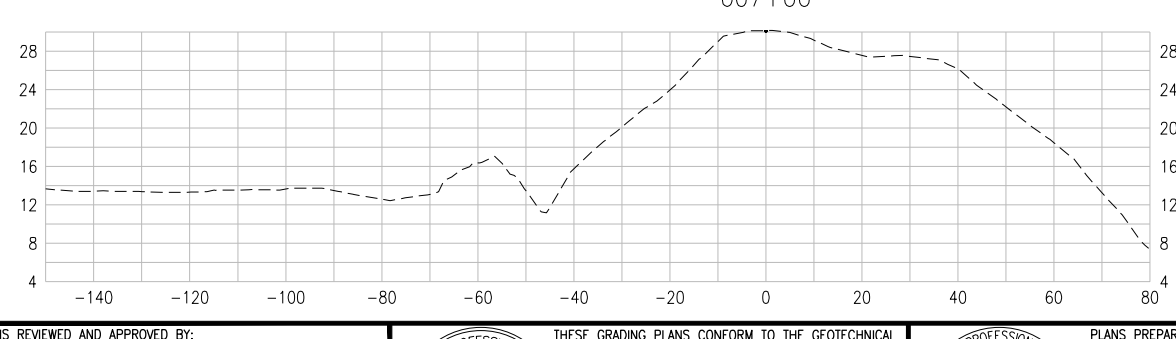
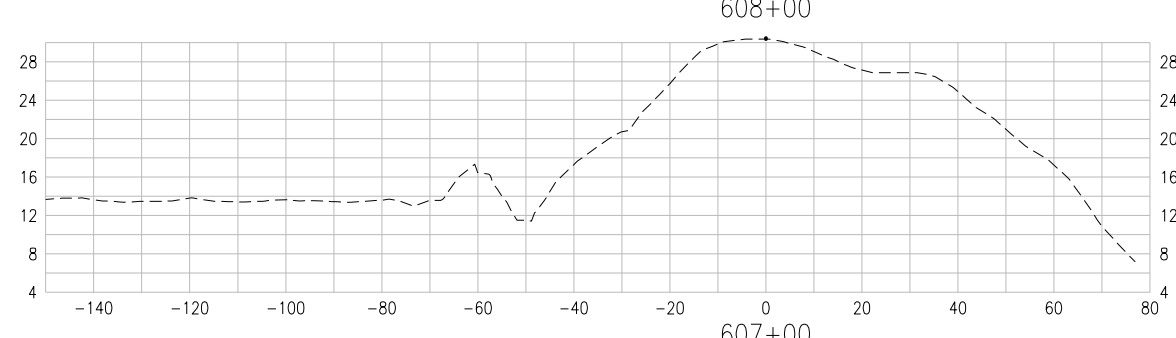
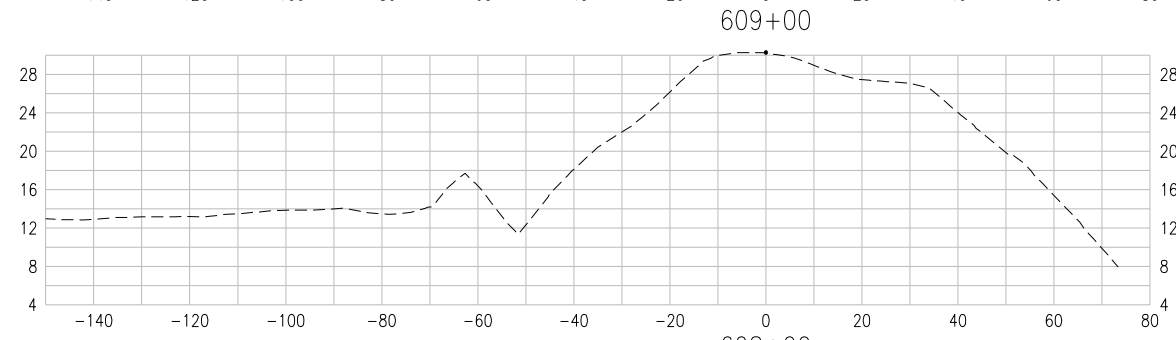
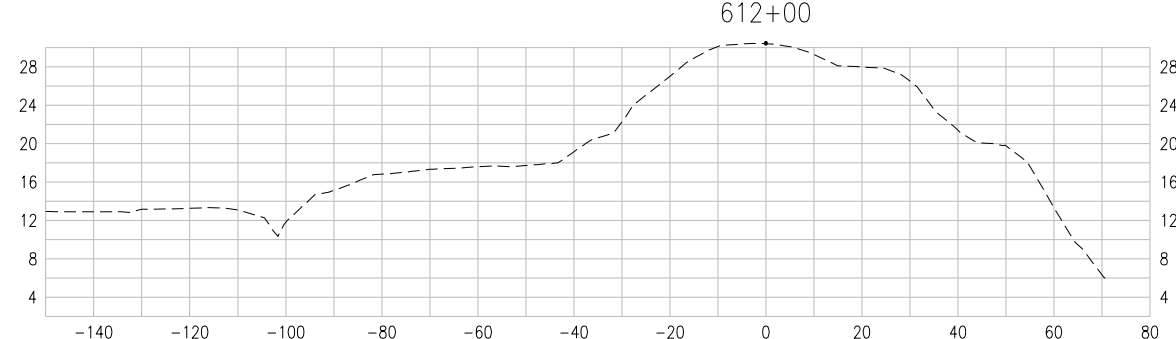
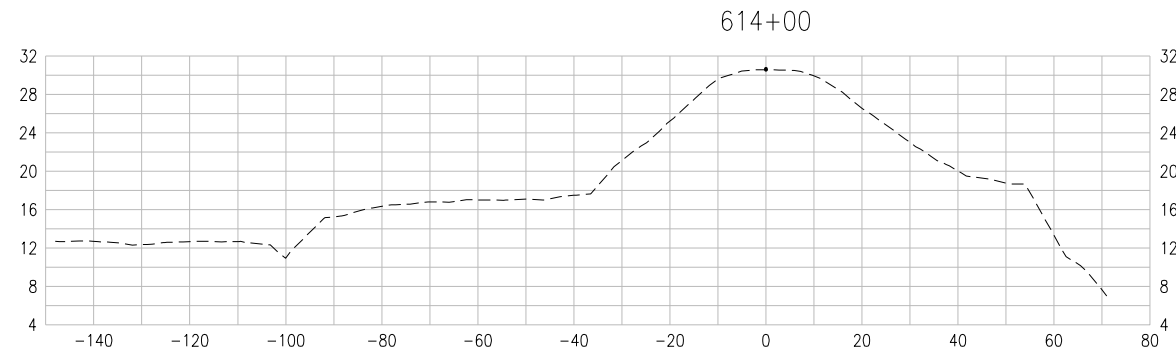
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RECLAMATION DISTRICT NO. 17
ELEMENTS V-A & VI-A.1

SAN JOAQUIN COUNTY CALIFORNIA

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE:	SHT 16
DRAWN BY: GB	OF 22
DESIGNED BY: JBM	
CHECKED BY: JSL	
NO.	REVISION
	DATE

ELEMENTS V-A & VI-A.1 (CUTOFF WALL) 65% SUBMITTAL



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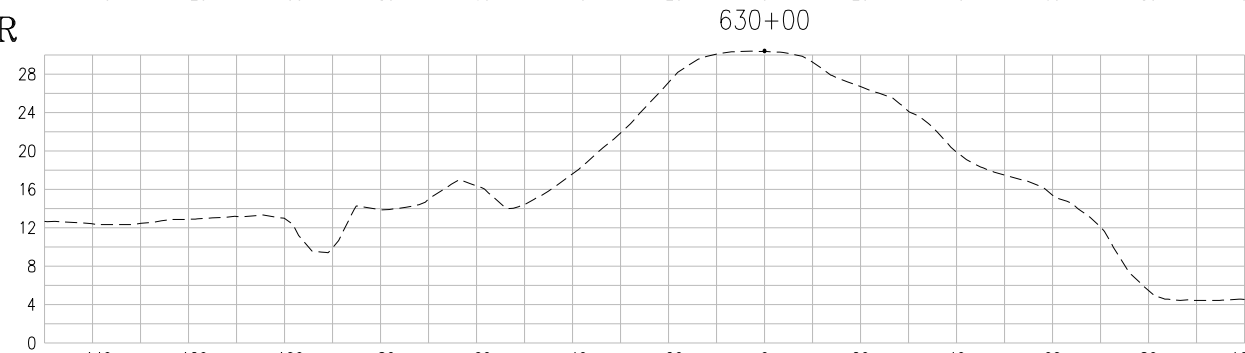
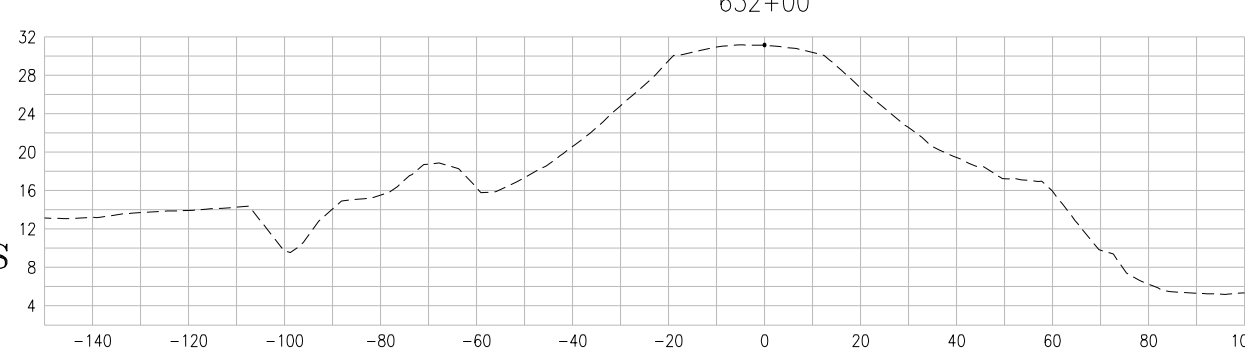
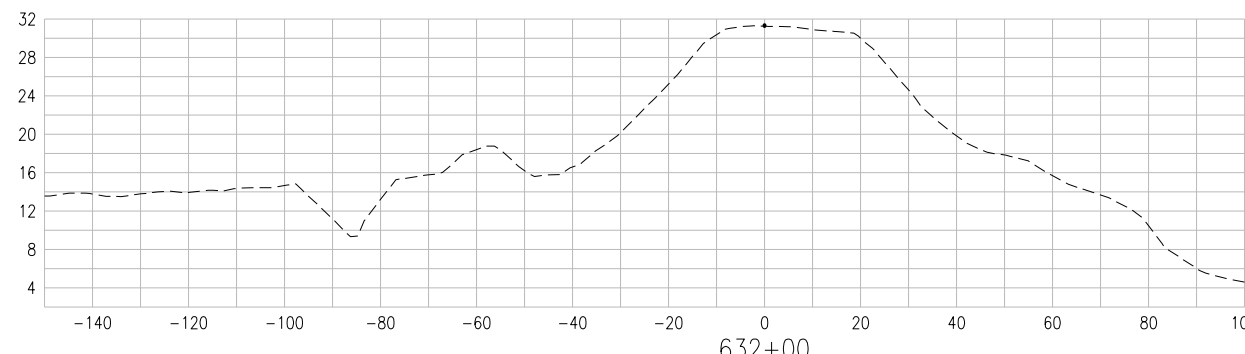
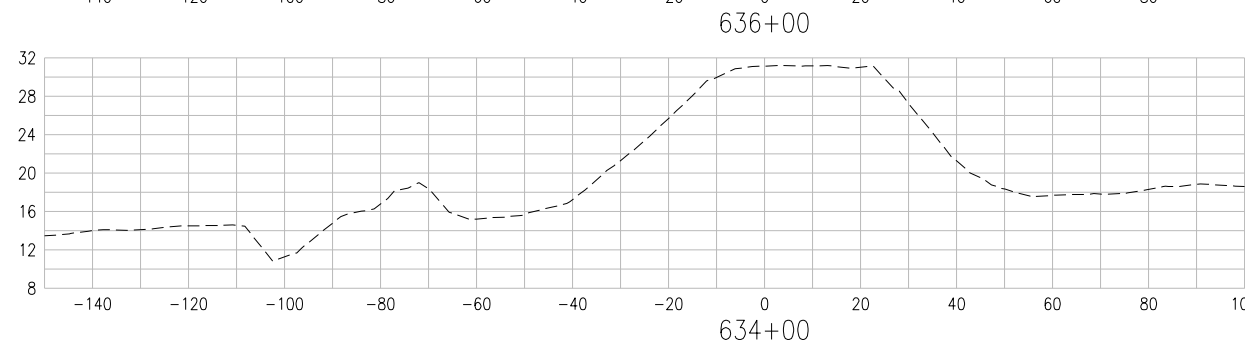
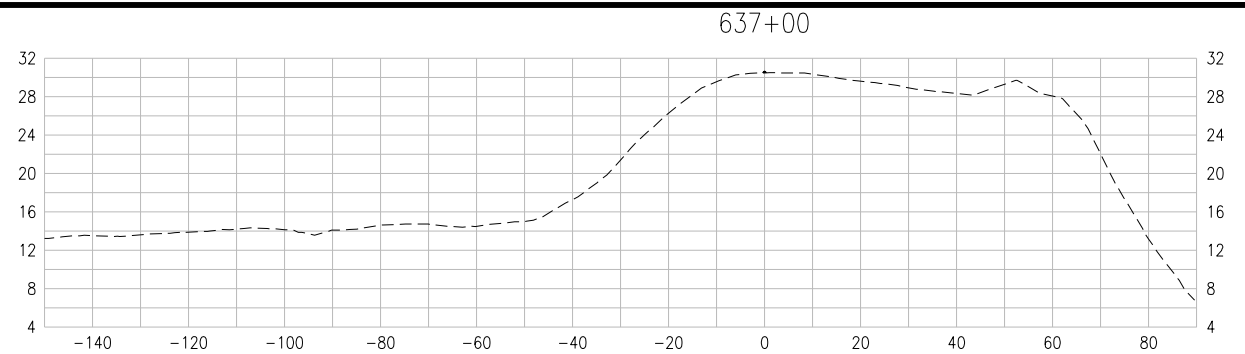
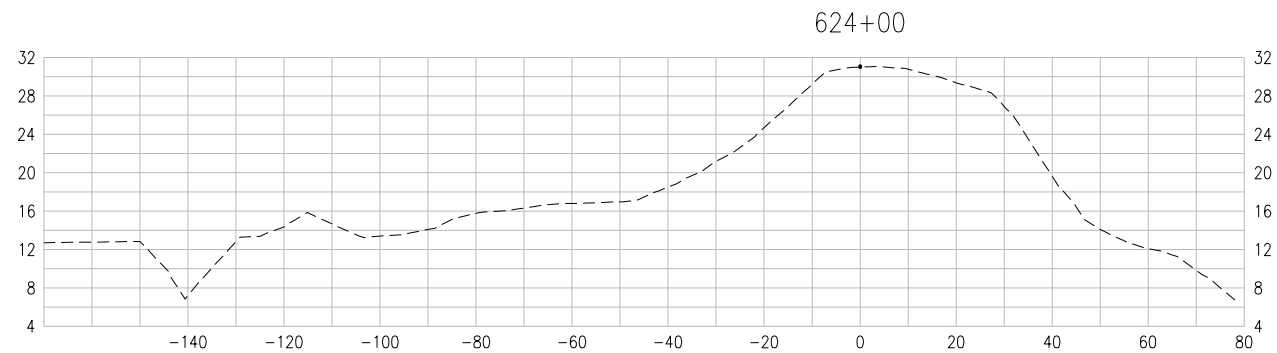
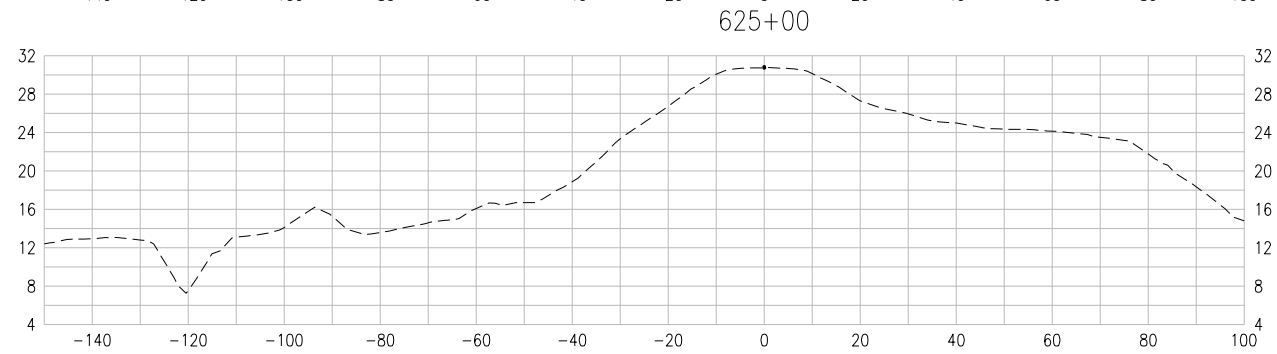
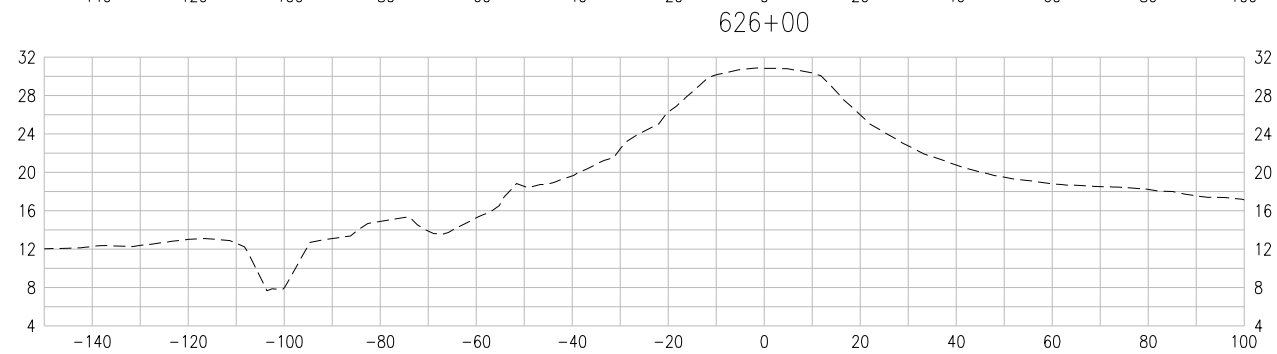
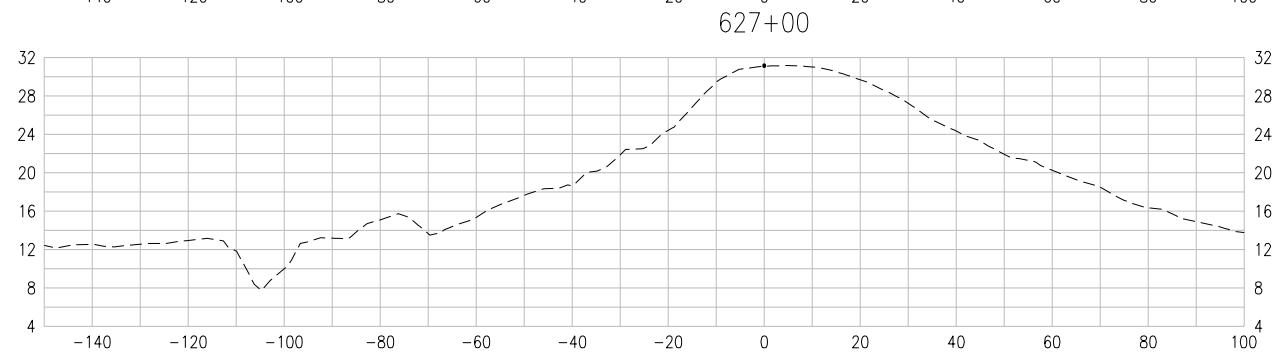
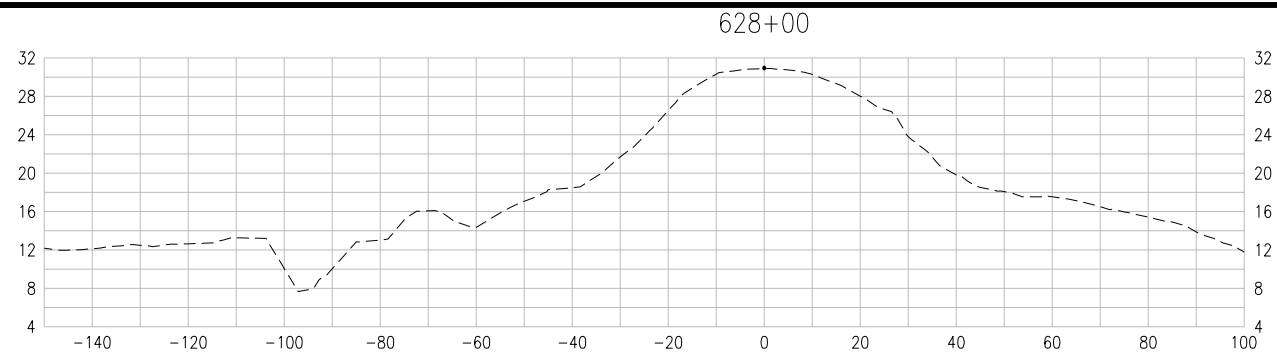
CROSS-SECTIONS
STA. 607+00 TO STA. 621+00

SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: _____	SHT 17
DRAWN BY: GB	OF 22
DESIGNED BY: JBM	
CHECKED BY: JSL	

ELEMENTS V-A & VI-A.1 (CUTOFF WALL) 65% SUBMITTAL



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ELEMENTS V-A & VI-A.1

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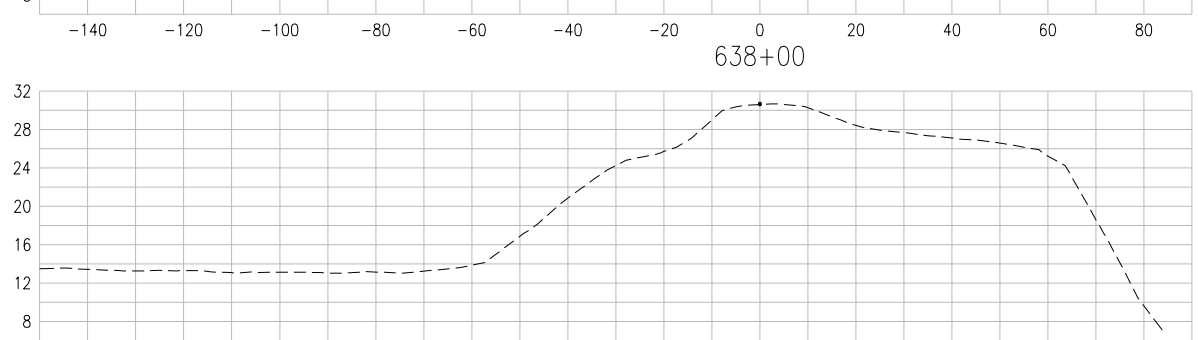
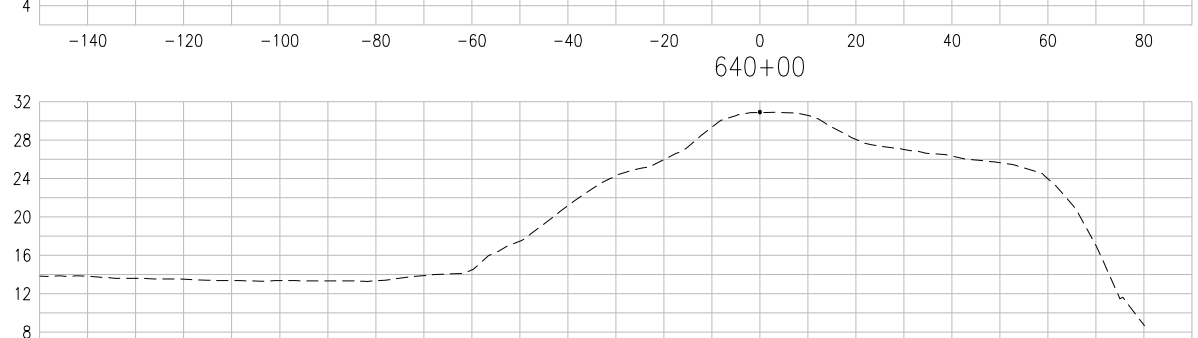
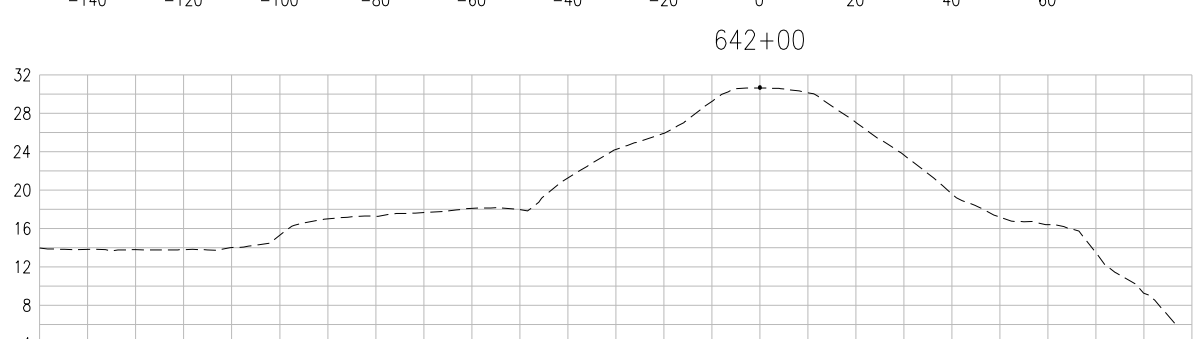
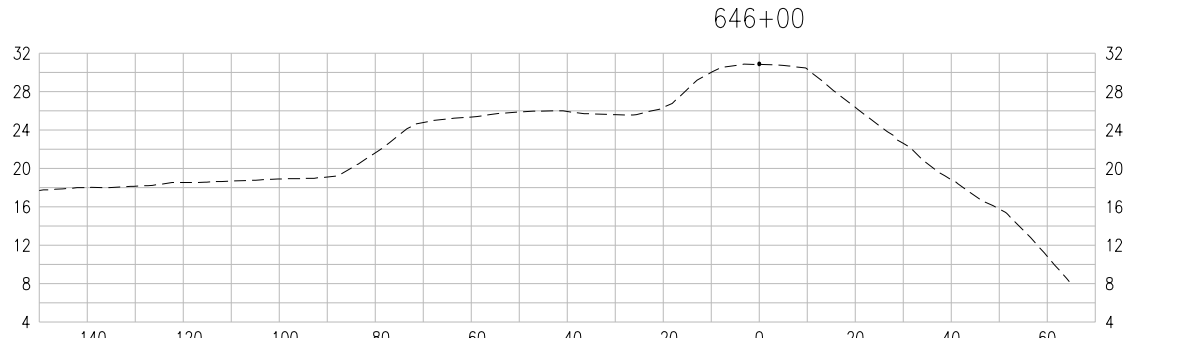
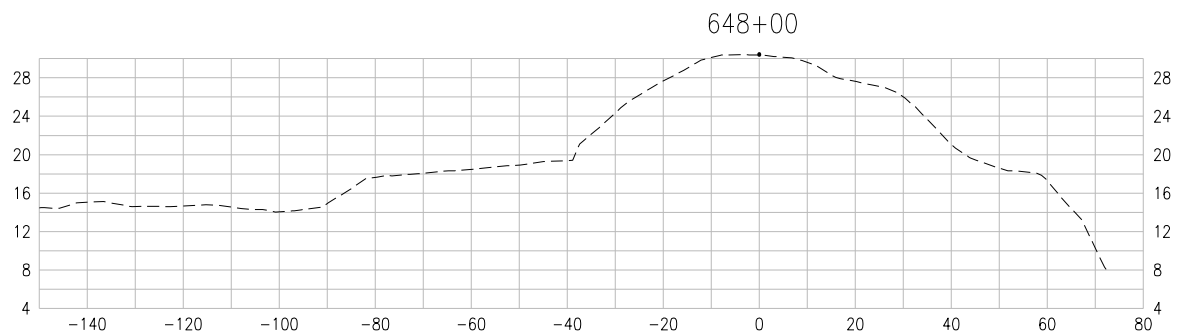
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DATE: JAN 2014
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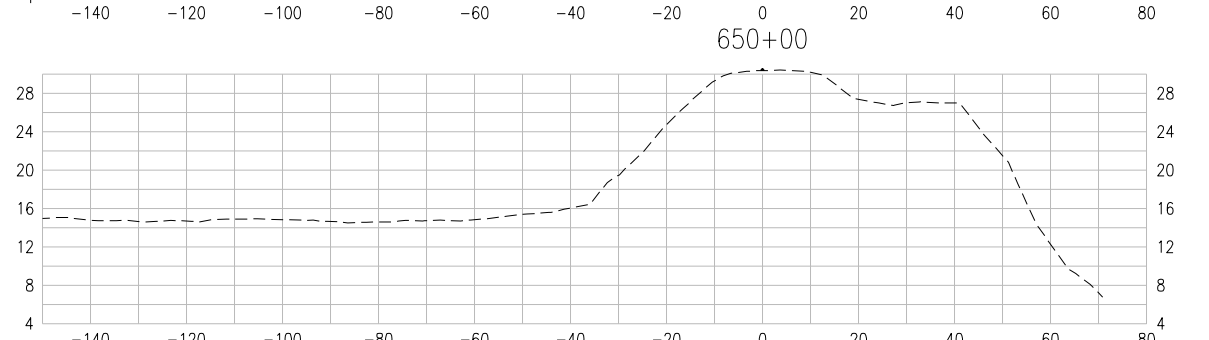
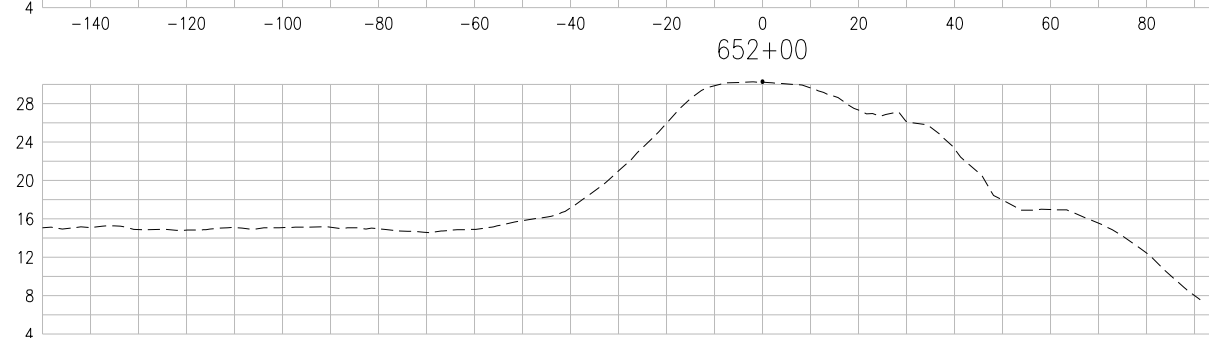
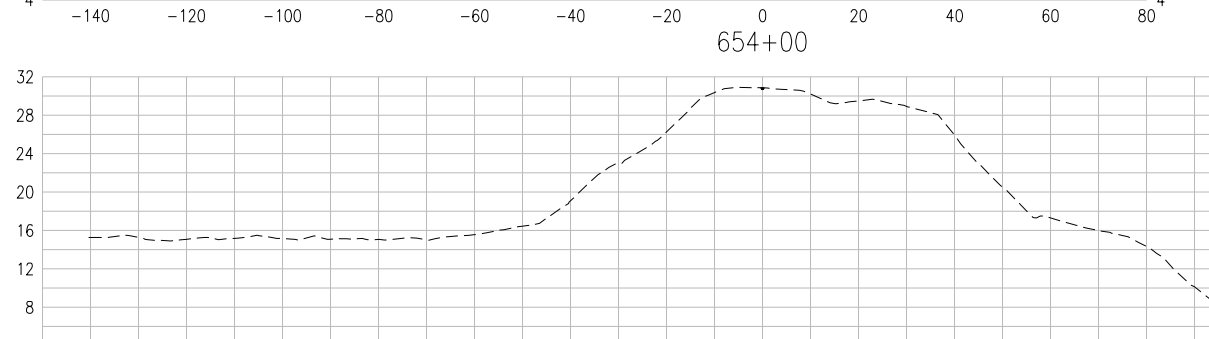
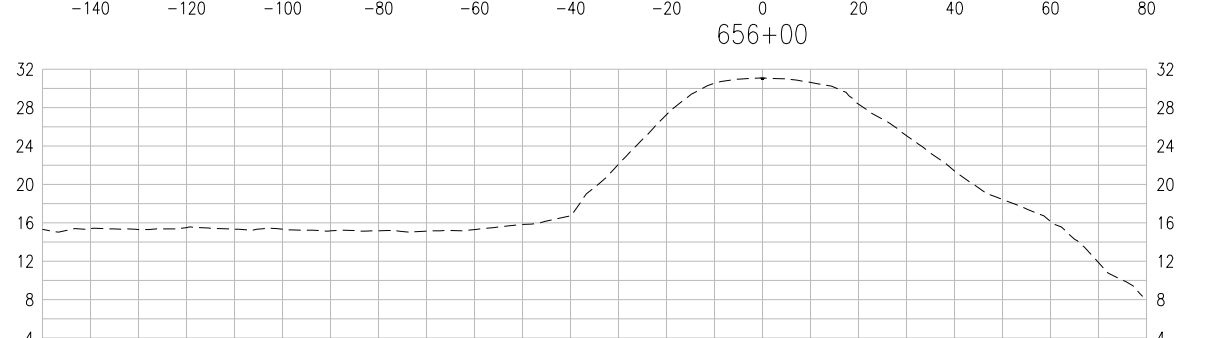
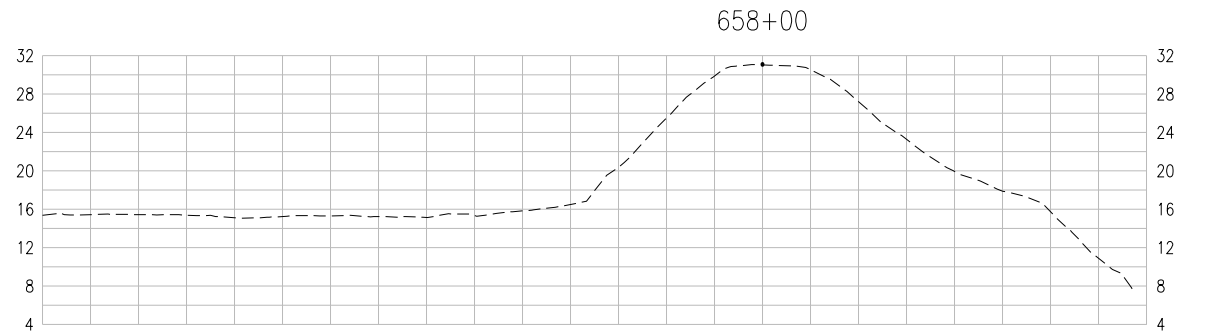
PROJECT NO.
25182.010
SHT
18
OF
22

ELEMENTS V-A & VI-A.1 (CUTOFF WALL)

65% SUBMITTAL



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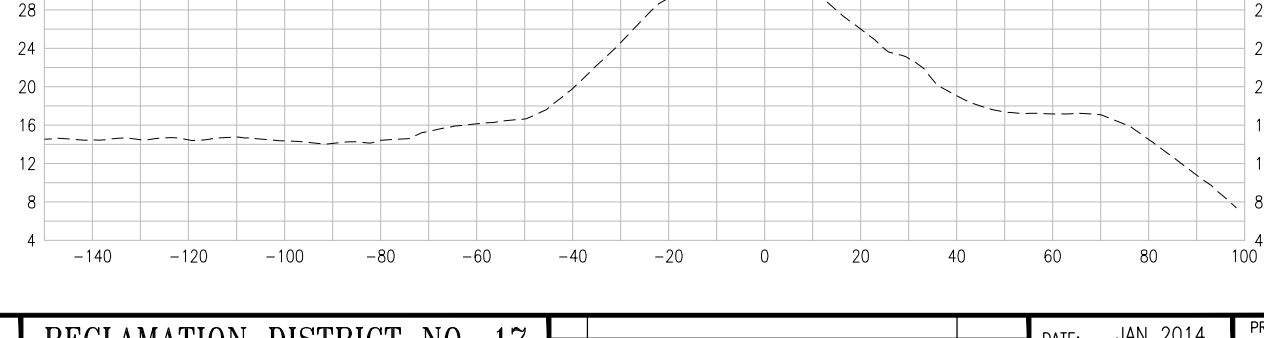
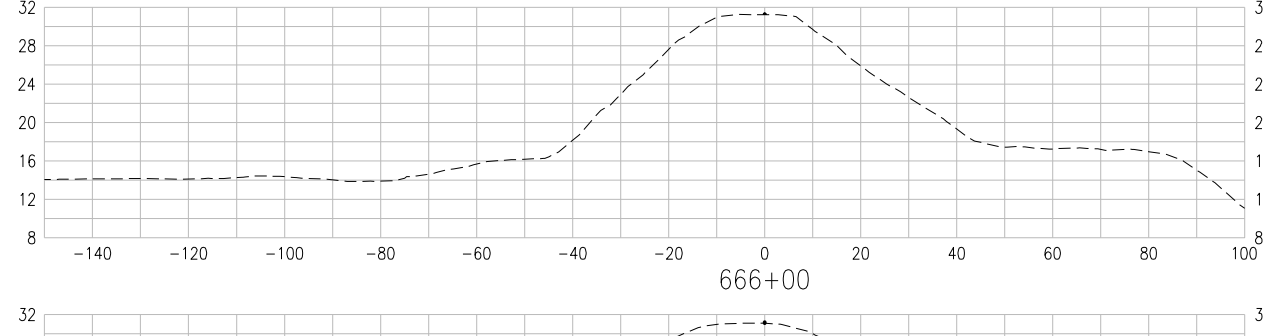
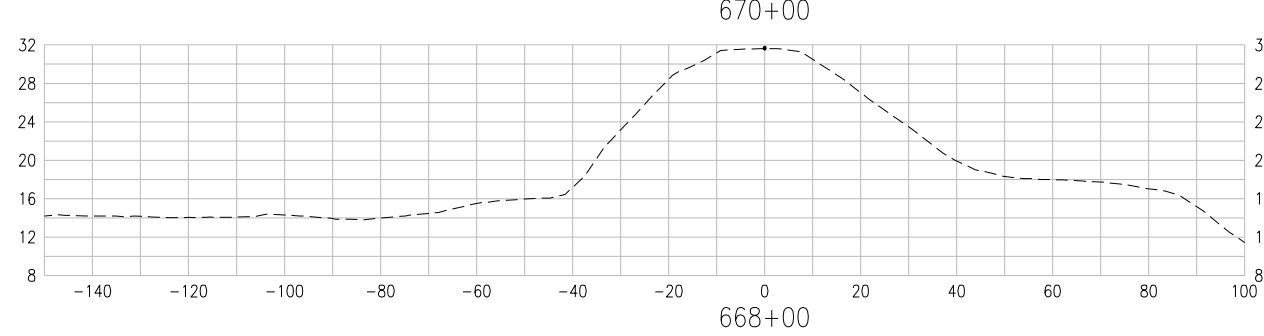
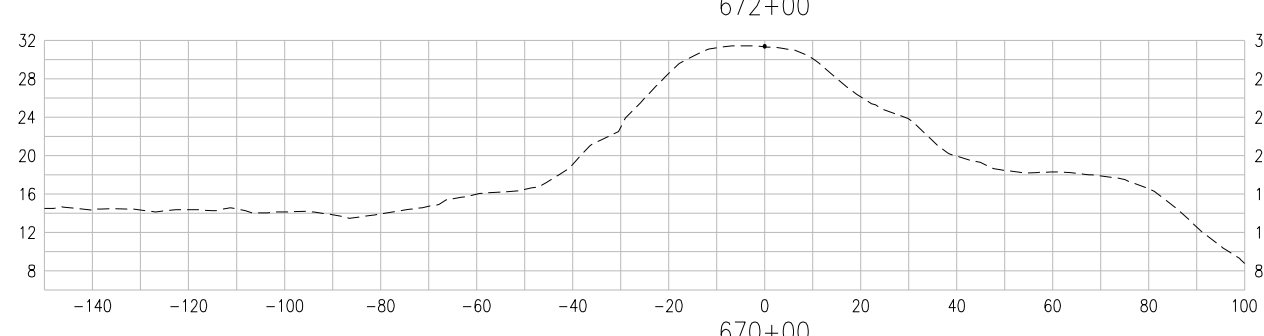
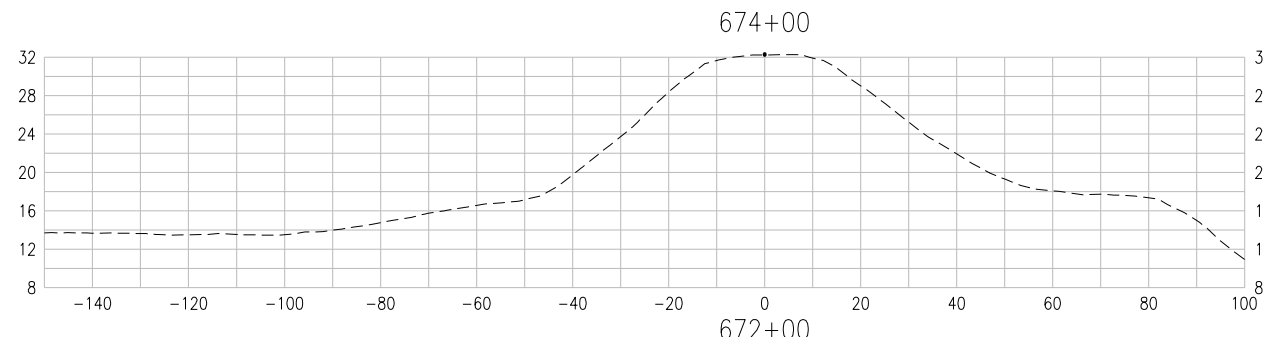
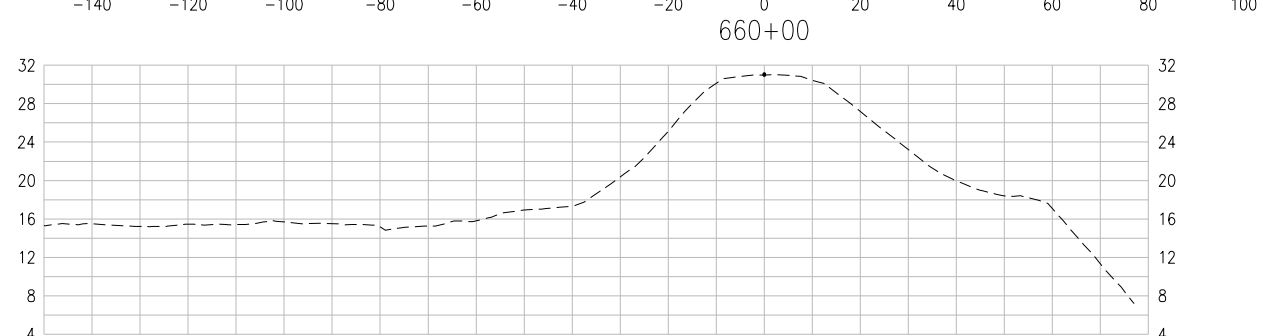
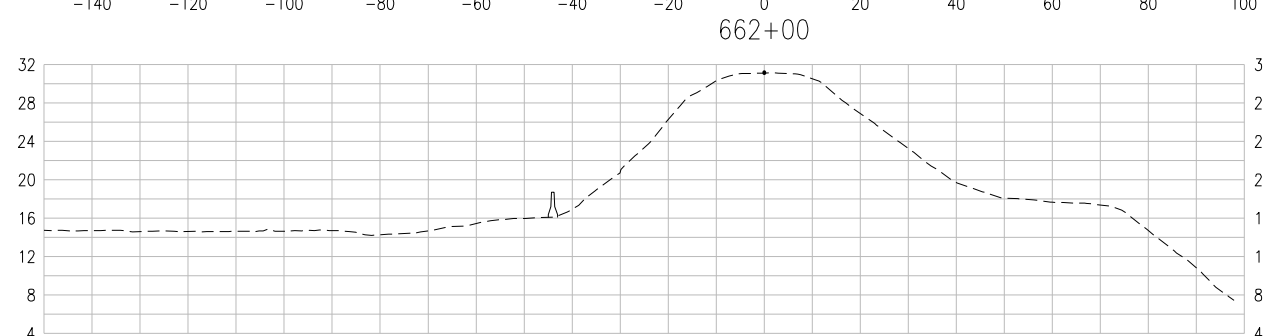
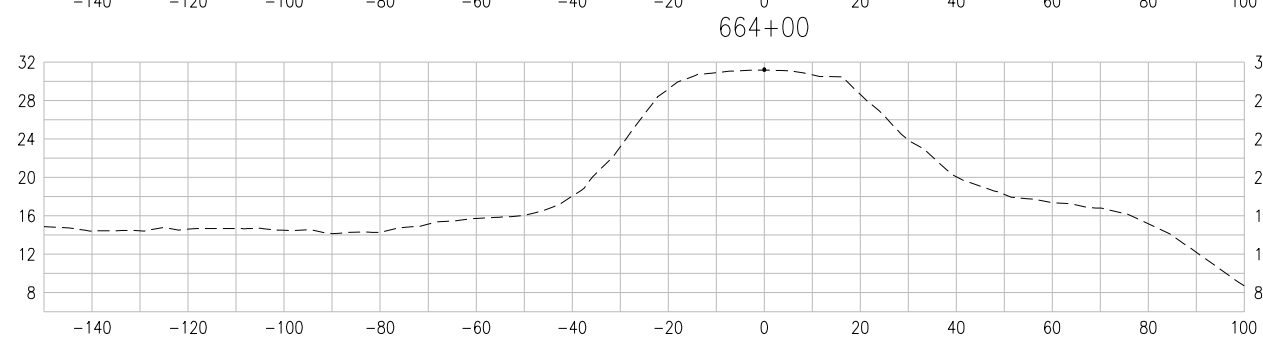
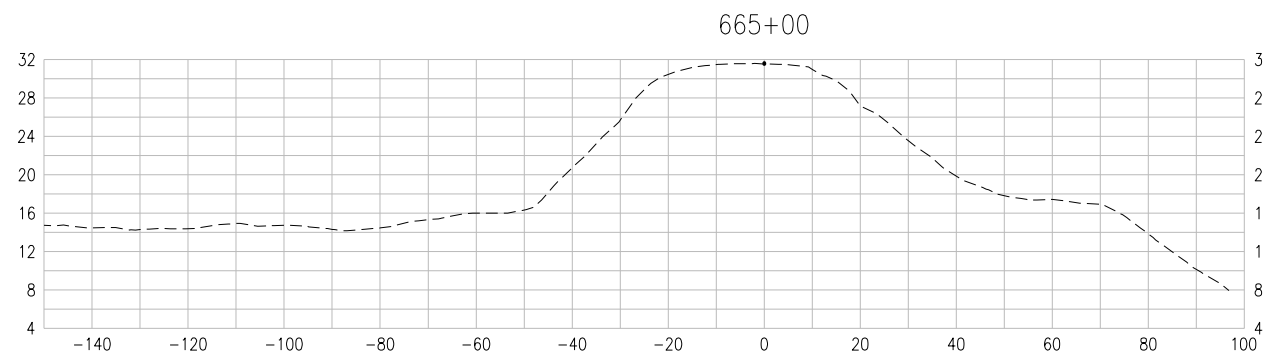
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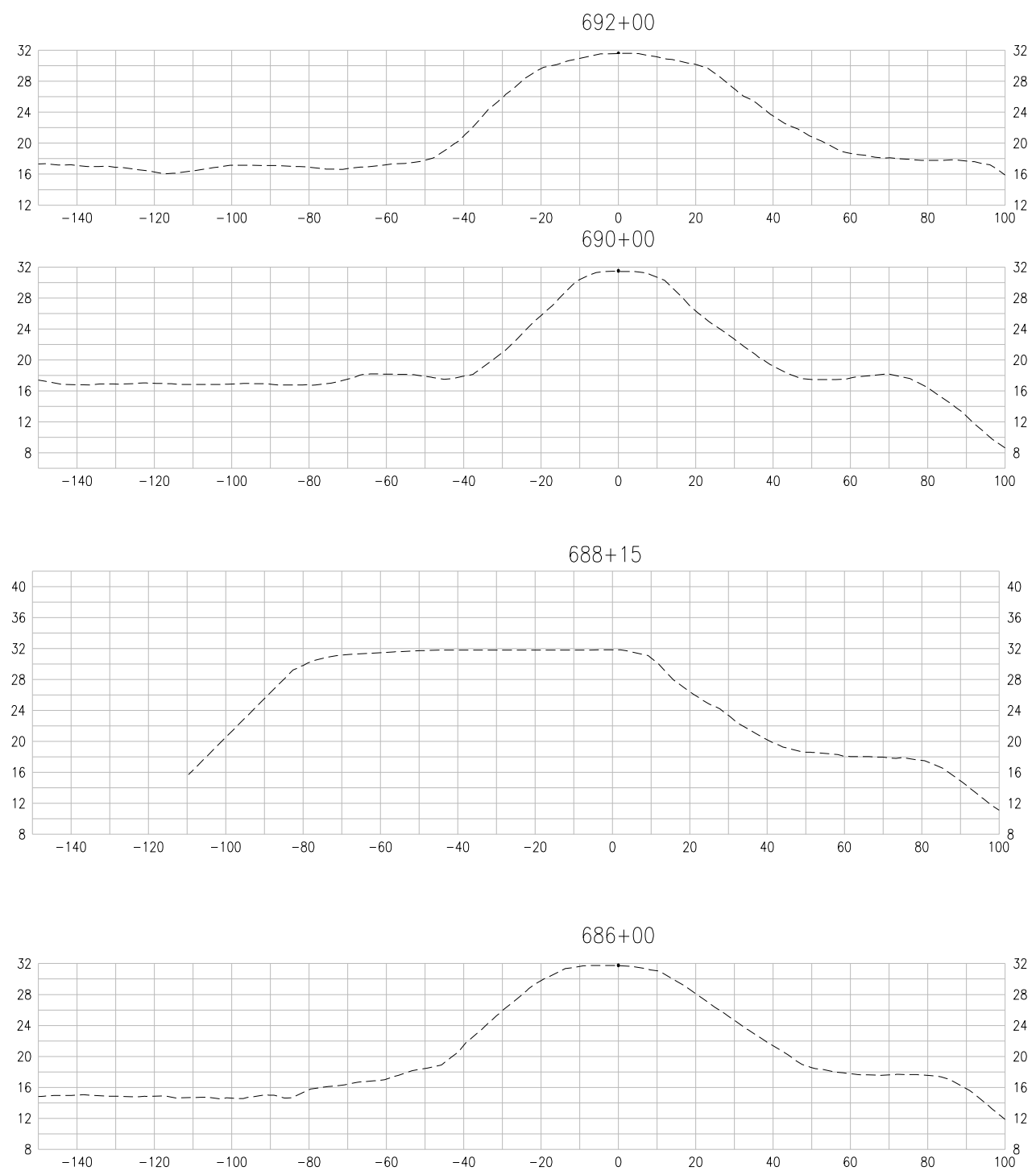
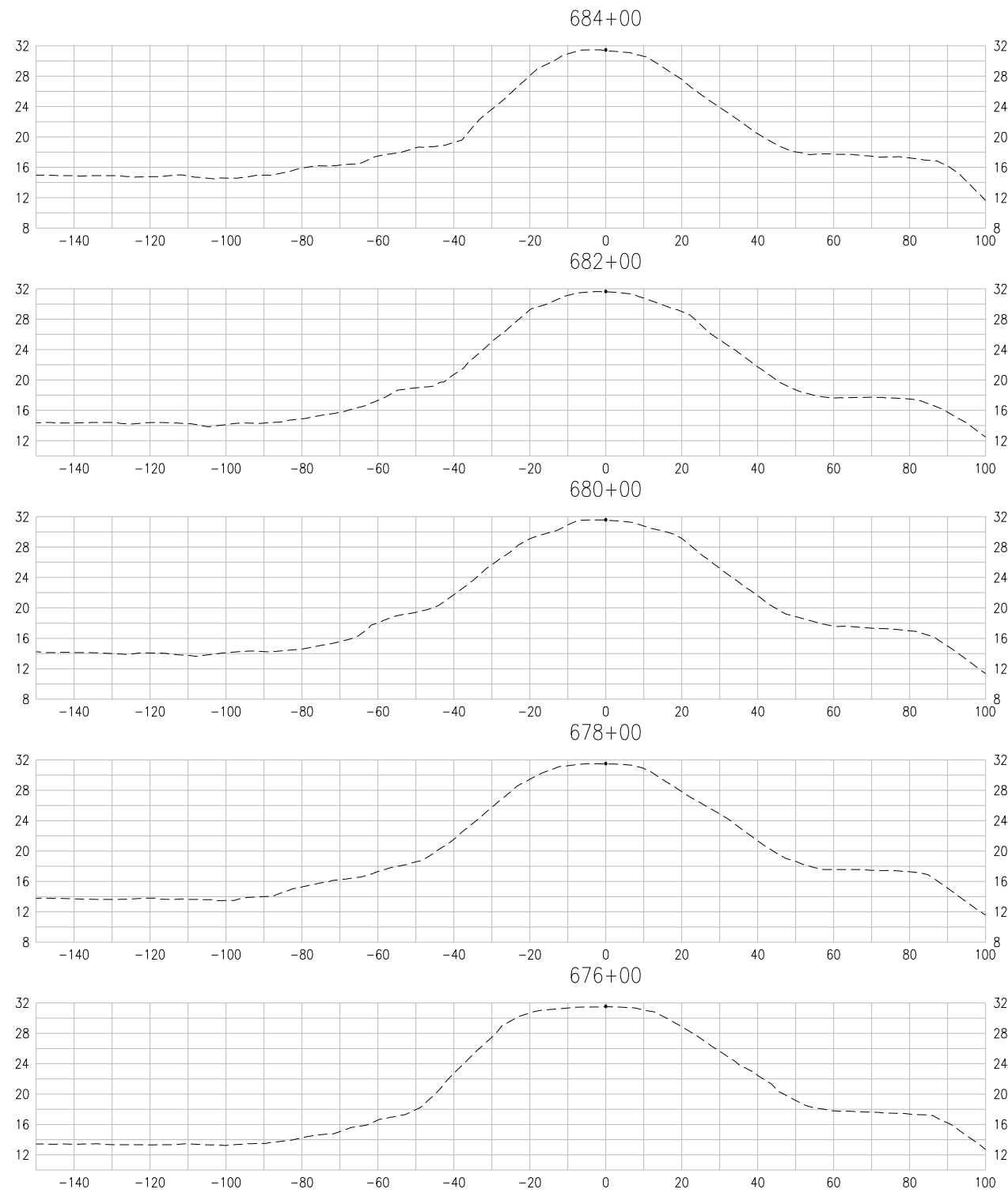
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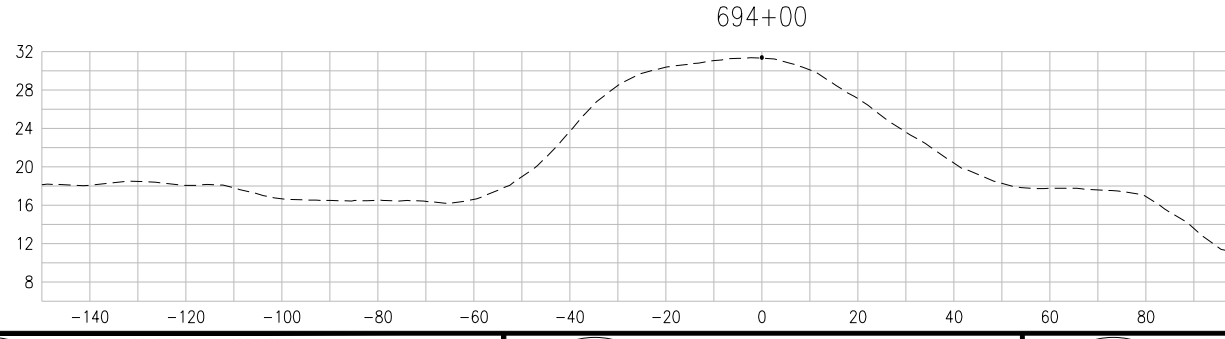
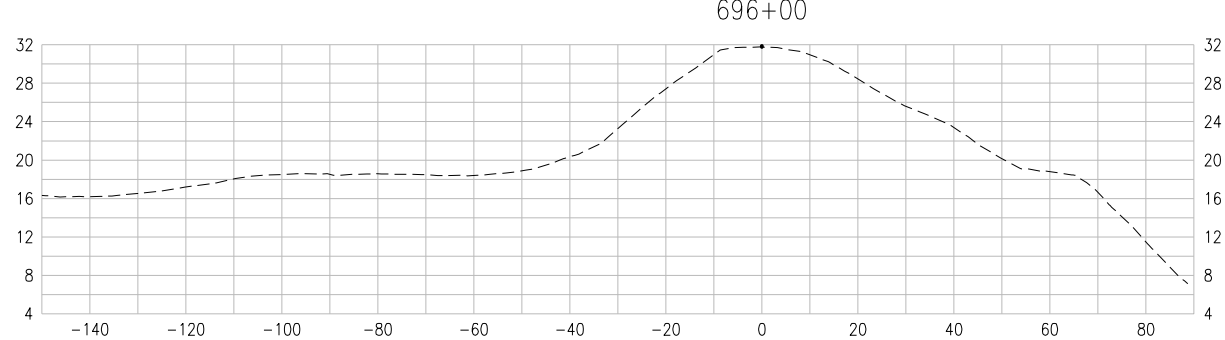
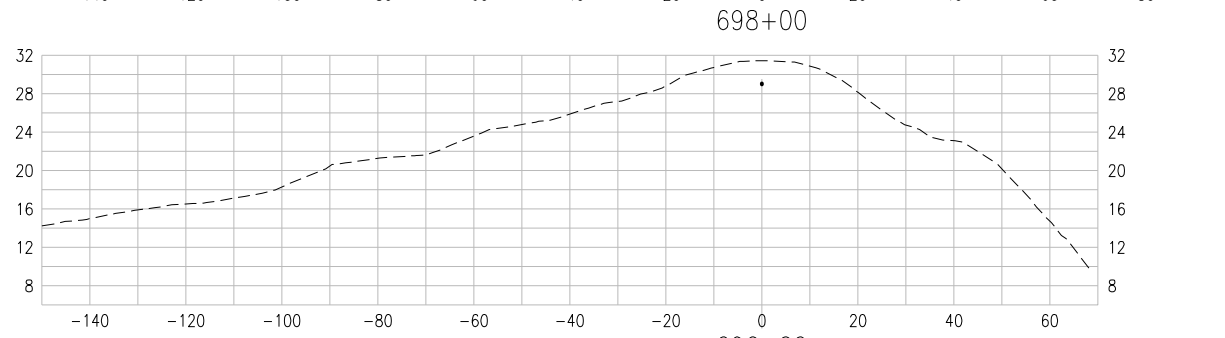
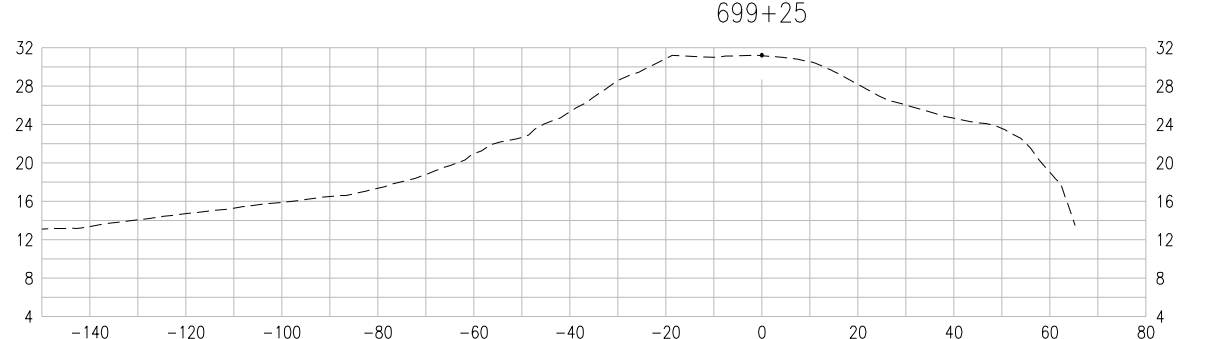
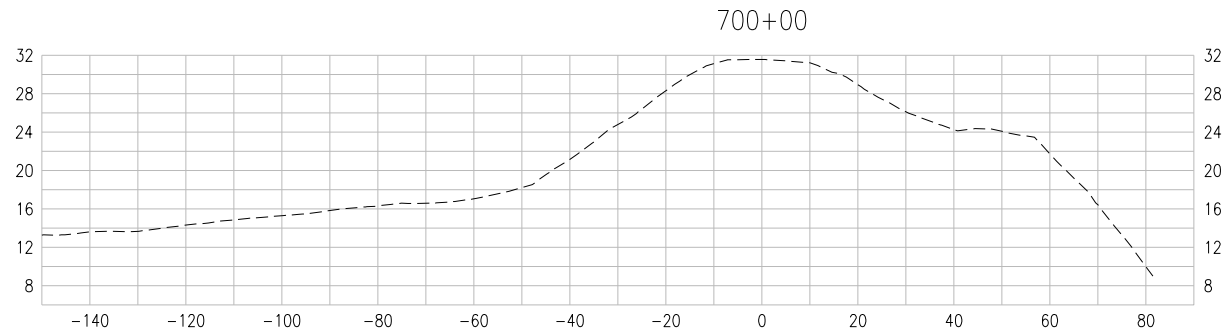
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 ELEMENTS V-A & VI-A.1

CROSS-SECTIONS
 STA. 665+00 TO STA. 680+00

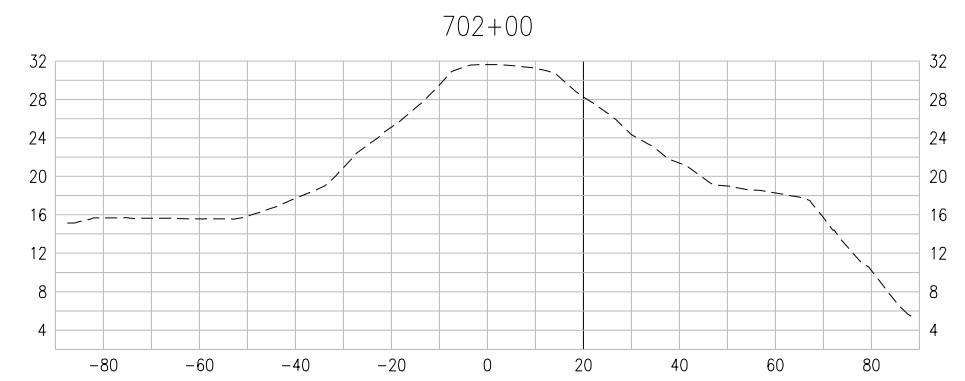
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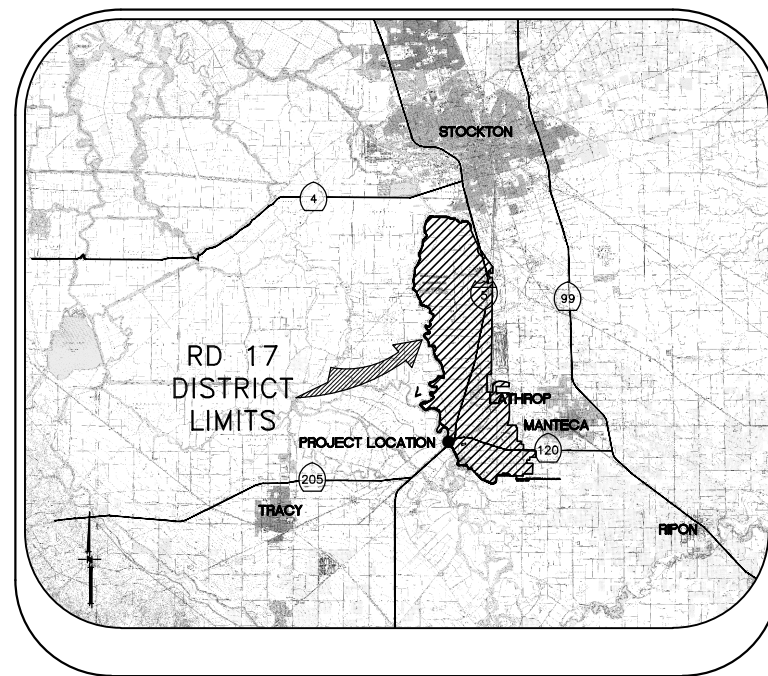
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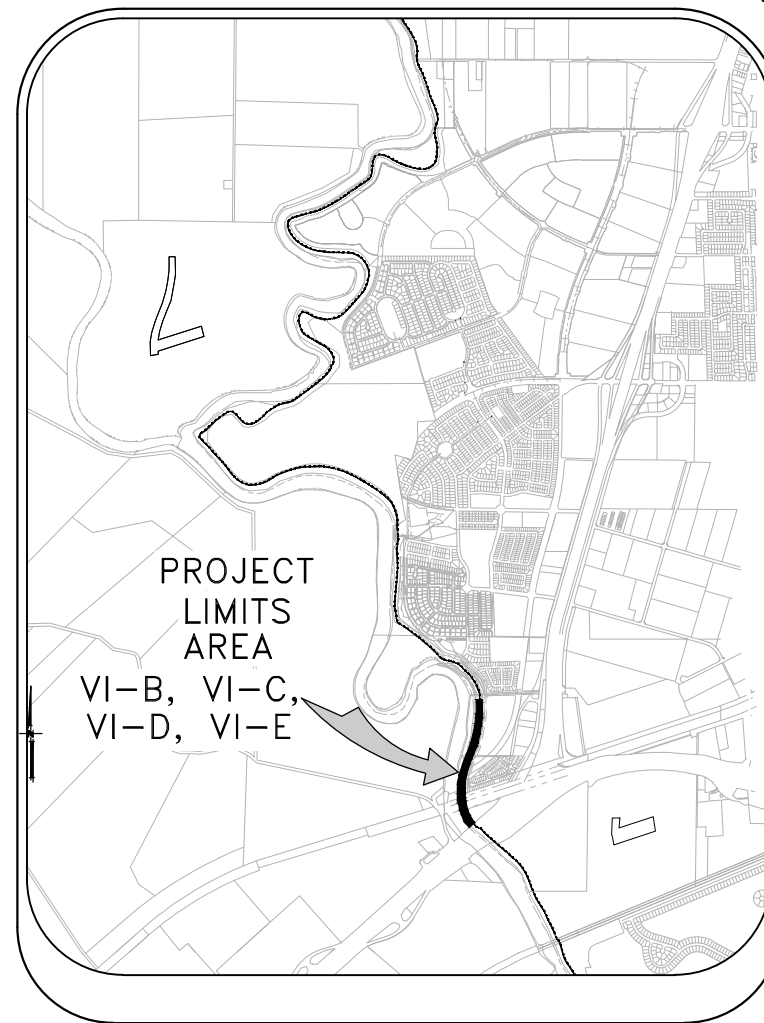
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RECLAMATION DISTRICT NO. 17 LEVEE SEEPAGE PROJECT AREAS VI-B, VI-C, VI-D & VI-E RD17 STATION 741+00 THRU 769+00 (FEET) USACE STATION 12.13 THRU 12.66 (MILES)



VICINITY MAP



PROJECT SITE MAP

SHEET	DESCRIPTION
1.	COVER SHEET
2.	BORING LOCATIONS, HAUL ROUTES & CONTROL POINTS
3.	NOTES
4.	NOTES
5.	TYPICAL SECTIONS & DETAILS
6.	TYPICAL SECTIONS & DETAILS
7.	PLAN VIEW - 741+00 to 750+50
8.	PLAN VIEW - 750+50 to 758+50
9.	PLAN VIEW - 758+50 to 763+00
10.	PLAN VIEW - 763+00 to 769+00
11.	LEVEE PROFILE
12.	LEVEE CROSS SECTIONS - VIB
13.	LEVEE CROSS SECTIONS - VIB
14.	LEVEE CROSS SECTIONS - VIB
15.	LEVEE CROSS SECTIONS - VIC
16.	LEVEE CROSS SECTIONS - VIC
17.	LEVEE CROSS SECTIONS - VIC
18.	LEVEE CROSS SECTIONS - VIC
18.	LEVEE CROSS SECTIONS - VIC
18.	LEVEE CROSS SECTIONS - VIC
19.	LEVEE CROSS SECTIONS - VIC
20.	LEVEE CROSS SECTIONS - VIC

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WARNING • CAUTION
EXISTING UNDERGROUND UTILITIES
CONTACT : UNDERGROUND SERVICE ALERT
PHONE: (800) 642-2444
FOR MARKING PRIOR TO DIGGING

PLANS REVIEWED AND APPROVED BY:

K S N **KJELDSSEN SINNOCK NEUDECK INC.**
Consulting Engineers and Land Surveyors
Post Office Box 844
711 N. Pershing Avenue
Stockton, CA 95201-0844
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THESE PLANS CONFORM TO THE GEOTECHNICAL REPORT ENTITLED: SEEPAGE EVALUATION PROJECT #5747.000.000

ENGEO
INCORPORATED
EXCELLENT SERVICE SINCE 1971

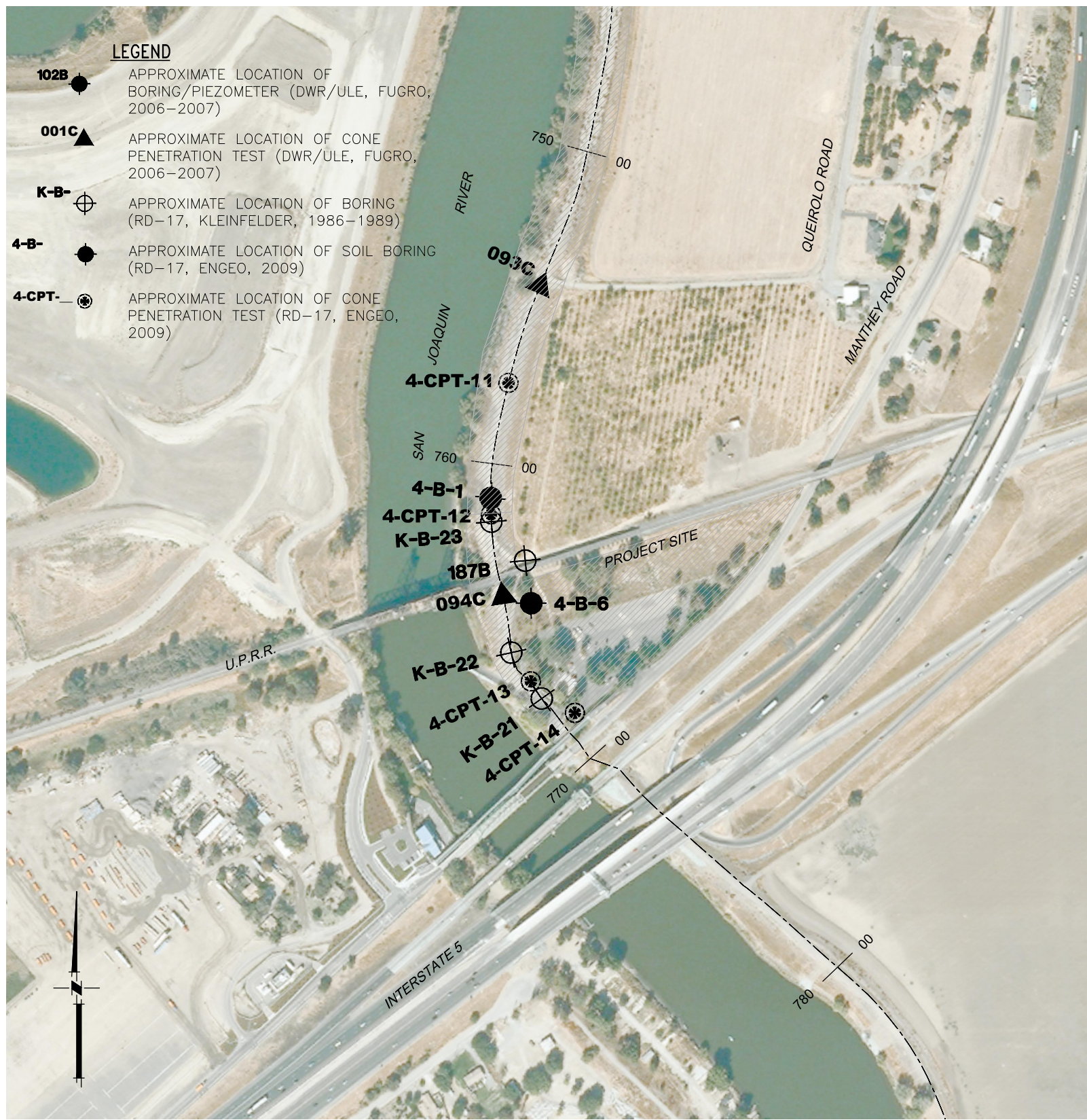
PLANS PREPARED UNDER THE DIRECTION OF:

MACKAY & SOMPS
ENGINEERS PLANNERS SURVEYORS
5142 Franklin Drive, Suite B, Pleasanton, CA 94588 (925) 225-0690
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RECLAMATION DISTRICT NO. 17
ELEMENT VI-B, VI-C, VI-D, VI-E
COVER SHEET
SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: MAY 2014	PROJECT NO. 25182.010
SCALE: NTS	SHT 1
DRAWN BY: GB	OF 20
DESIGNED BY: GJ	
CHECKED BY: JFT	



BORING LOCATIONS
1"=200'

CONTROL POINTS

P#87115	N2111213.685 E6328577.283	EL=32.42	MS72
P#87400	N2110069.305 E6328467.912	EL=32.62	MS108
P#87401	N2109852.900 E6328702.568	EL=36.44	MS109
P#88421	N2107542.060 E6330358.510	EL=33.02	
P#88422	N2109325.507 E6329251.766	EL=33.64	MS110

ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

SITE SECURITY NOTES:

- TEMPORARY GATES SHALL BE INSTALLED BY THE CONTRACTOR TO PREVENT UNAUTHORIZED ACCESS TO THE SITE. ACCESS KEYS SHALL BE PROVIDED TO THE DISTRICT TO ALLOW ACCESS TO THE FARMER AND DISTRICT DURING CONSTRUCTION.

BASIS OF BEARING

THE BASIS OF BEARINGS IS NORTH 12D33'37.56" EAST BETWEEN NATIONAL GEODETIC SURVEY HORIZONTAL CONTROL POINTS HPGN-D CA 10 HG (PID AA4256) AND MATTHEW (PID HS0118), CALIFORNIA COORDINATE SYSTEM ZONE 3, NAD83, EPOCH DATE 1997.30, AS CALCULATED AND ADJUSTED BY THE NATIONAL GEODETIC SURVEY IN JULY, 1998, AS SHOWN ON RECORD OF SURVEY RECORDED AT BOOK 34 PAGES 163 - 163B, OF SAN JOAQUIN COUNTY RECORDS. ALL DISTANCES SHOWN HEREON ARE GROUND DISTANCES. TO CONVERT TO GRID DISTANCE, MULTIPLY GROUND DISTANCE BY AVERAGE COMBINED SCALE FACTOR OF 0.999929125.



HAUL ROUTE & CONTROL POINTS
1"=600'
INDICATES HAUL ROUTES TO BE USED BY CONTRACTOR

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RECLAMATION DISTRICT NO. 17
ELEMENT VI-B, VI-C, VI-D, VI-E
BORING LOCATIONS, HAUL ROUTES & CONTROL POINTS

SAN JOAQUIN COUNTY CALIFORNIA

DATE: MAY 2014	PROJECT NO. 25182.010
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THE PERFORMANCE OF THE LEVEE SYSTEMS IS DEPENDANT UPON THE DESIGN CRITERIA AND THE LONG TERM OPERATION AND MAINTENANCE OF THE LEVEES. THE DESIGN TEAM HAS PREPARED THESE PLANS AND ASSOCIATED SPECIFICATIONS AND REPORTS IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICE USING INFORMATION FROM MULTIPLE SOURCES. IF EXTREME FLOODS (EXCEEDING THE DESIGN PROFILE), EARTHQUAKES OR OTHER LOADING CONDITIONS NOT EVALUATED IN THE DESIGN OCCUR, THE INTEGRITY OF THE LEVEE SYSTEM MAY BE COMPROMISED.

ROLES:

THE "DISTRICT" AS REFERRED TO IN THESE NOTES MEANS RECLAMATION DISTRICT 17(RD 17). THE DISTRICT IS THE PROJECT OWNER.

THE "ENGINEER" AS REFERRED TO IN THESE NOTES MEANS THE DISTRICT ENGINEER: KJELDSSEN, SINNOCK, AND NEUDECK. THE ENGINEER SHALL PROVIDE INSPECTION OF THE PROJECT AND OVERALL CONSTRUCTION MANAGEMENT INCLUDING COORDINATION WITH PUBLIC UTILITIES, PUBLIC AGENCIES, THE DESIGN ENGINEER AND THE GEOTECHNICAL ENGINEER.

THE "DESIGN ENGINEER" AS REFERRED TO IN THESE NOTES MEANS MACKAY & SOMPS, CIVIL ENGINEERS INC. THE DESIGN ENGINEER WILL PERFORM DISTRICT PROVIDED CONSTRUCTION STAKING AND "AS-GRADED" SURVEYS.

THE "GEOTECHNICAL ENGINEER" AS REFERRED TO IN THESE NOTES MEANS ENGEO INC. THE GEOTECHNICAL ENGINEER WILL PROVIDE MATERIALS TESTING, COMPACTION TESTING AND OTHER GEOTECHNICAL RELATED TESTING.

CONTRACTOR SHALL BE RESPONSIBLE FOR SUPERVISION OF ALL CONTRACTOR'S EMPLOYEES, SUBCONTRACTORS, INCLUDING SCHEDULING AND ALL SAFETY MATTERS.

THESE PLANS ARE TO BE USED IN CONJUNCTION WITH THE FOLLOWING:

- a. SOILS REPORT PREPARED BY ENGEO INC. ENTITLED, SEEPAGE EVALUATION PROJECT # 5747.000.000.
- b. SPECIFICATIONS PREPARED BY KSN DATED _____

GENERAL NOTES:

1. PRIOR TO THE COMMENCEMENT OF WORK, A JOINT INSPECTION BETWEEN THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER, THE GEOTECHNICAL ENGINEER, THEIR REPRESENTATIVES, AND THE CONTRACTOR (OR HIS REPRESENTATIVE) WILL BE CONDUCTED TO REVIEW THE PRE-CONSTRUCTION CONDITIONS (E.G. ROADS, PUMPS, DISCHARGE PIPES, SIPHONS, RAMPS, GATES, SIGNS, ETC.) IF SUCH EXISTING FACILITIES ARE DAMAGED BY THE CONTRACTOR'S OPERATIONS, THE CONTRACTOR, AT THEIR OWN EXPENSE, SHALL REPLACE OR RESTORE THEM TO THE CONDITION THAT EXISTED PRIOR TO THE COMMENCEMENT OF WORK.
2. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT (209) 946-0268, A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY WORK.
3. THE DISTRICT RESERVES THE RIGHT TO SUSPEND CONSTRUCTION AT ANY TIME IN THE EVENT OF EXTREME HIGH OR LOW TIDES, FLOOD EVENTS, OTHER CONDITIONS OR EMERGENCIES THAT MAY JEOPARDIZE THE INTEGRITY OF THE DISTRICT'S LEVEE AND ROAD SYSTEM.
4. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, COUNTY AND LOCAL REQUIREMENTS, AS REQUIRED FOR TRAFFIC CONTROL AND PUBLIC SAFETY DURING PROJECT CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL OUTLINED IN THESE PLANS AND THE REFERENCED SPECIFICATIONS.
5. THE DISTRICT WILL FURNISH ALL RIGHT-OF-WAY FOR ALL LEVEE ROADS AND DESIGNATED ACCESS HAUL ROADS AS SHOWN ON THESE PLANS. SHOULD THE CONTRACTOR WANT TO USE OTHER ROADWAYS OR ACCESS AREAS NOT SHOWN, THE CONTRACTOR SHALL AT THEIR OWN EXPENSE SECURE RIGHT-OF-WAY & NECESSARY PERMITS.
6. IF DELIVERING MATERIAL OR EQUIPMENT BY TRUCK, ALL TRUCK TRAFFIC SHALL BE LIMITED TO THE DISTRICT LEVEE ROADS AND/OR PUBLIC ROADS AS SHOWN ON HAUL ROUTE PLAN, UNLESS OTHERWISE APPROVED.
7. MAXIMUM SPEED LIMIT ON DISTRICT LEVEE ROADS IS 30 MPH, AS POSTED, OR AS OTHERWISE INDICATED ON THE CONSTRUCTION DRAWINGS. CONTRACTOR SHALL POST LARGE SLOW/CAUTION SIGNS AND SPEED LIMIT SIGNS FOR PURPOSES OF NOTIFYING BOTH CONTRACTOR'S EMPLOYEES AND THE PUBLIC. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SAFETY AT ALL TIMES ALONG ALL HAUL ROUTES AND IN ALL PROJECT AREAS (PUBLIC AND PRIVATE).

8. THE DISTRICT WILL PROVIDE SURVEY STAKES AS DESCRIBED IN THE SPECIFICATIONS WITHIN THE CONSTRUCTION SURVEYING SECTION. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL CONSTRUCTION STAKING AND SURVEYING AT THEIR OWN EXPENSE BEYOND THAT PROVIDED BY THE DISTRICT. PLEASE CONTACT THE ENGINEER IN WRITING WITH STAKING REQUESTS (209) 946-0268 WITH AT LEAST TWO WORKING DAYS ADVANCE NOTICE.
9. THE CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER AND THE GEOTECHNICAL ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER OR THE GEOTECHNICAL ENGINEER.
10. ANY DEFICIENCIES NOTED DURING INTERIM AND FINAL INSPECTIONS BY THE ENGINEER AND/OR DISTRICT SHALL BE CORRECTED BY THE CONTRACTOR PRIOR TO FINAL ACCEPTANCE BY THE DISTRICT. ANY ADDITIONAL COSTS AND EXPENSES FOR MOBILIZATION AND/OR DEMOBILIZATION, LABOR, EQUIPMENT AND OTHER ASSOCIATED COSTS REQUIRED TO CORRECT THE DEFICIENCIES NOTED, EXCEPT SPECIFIED MATERIAL(S), SHALL BE BORNE BY THE CONTRACTOR.
11. THE CONTRACTOR SHALL NOT CLOSE ANY ROAD, STREET, OR HIGHWAY TO THE PUBLIC EXCEPT WITH THE PERMISSION OF THE ENGINEER AND THE PROPER GOVERNMENTAL AUTHORITY. TEMPORARY PROVISIONS SHALL BE MADE BY THE CONTRACTOR TO ENSURE CONTINUOUS ACCESS TO PUBLIC AND PRIVATE DRIVEWAYS, AND PROPER FUNCTIONING OF CULVERTS, DRAINAGE AND IRRIGATION DITCHES, AND NATURAL WATER COURSES.
12. THE CONTRACTOR IS RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER, AND HE SHALL NOTIFY THE ENGINEER WHENEVER THERE IS A CHANGE IN SITE CONDITIONS OR AN ADJUSTMENT TO BE MADE IN WORK REQUIREMENTS.
13. SHOULD IT APPEAR THAT THE WORK TO BE DONE, OR ANY MATTER RELATIVE THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE ENGINEER AT (209) 946-0268 FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.
14. THE INTENT OF THESE PLANS IS TO SERVE AS A GUIDE AND TO PROVIDE THE CONTRACTOR WITH INFORMATION AND DETAILS NECESSARY TO CONSTRUCT THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY REGARDING ANY DISCREPANCIES AND AMBIGUITIES WHICH MAY EXIST IN THE PLANS OR SPECIFICATIONS. IF THE PLANS 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 FINEST QUALITY ARE TO BE USED.
15. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE OSHA REGULATIONS AND SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS.
16. THE CONTRACTOR SHALL AT ALL TIMES BE RESPONSIBLE FOR THE SECURITY OF THE JOBSITE AND EQUIPMENT. THE DISTRICT WILL NOT BE RESPONSIBLE FOR MISSING OR DAMAGED EQUIPMENT, TOOLS, OR PERSONAL BELONGINGS.

ENVIRONMENTAL NOTES:

1. THE CONTRACTOR SHALL NOT DISCHARGE SMOKE, DUST, OR ANY OTHER AIR CONTAMINANTS INTO THE ATMOSPHERE IN SUCH QUANTITY AS WILL VIOLATE THE REGULATIONS OF ANY LEGALLY CONSTITUTED AUTHORITY. HE SHALL ALSO ABATE DUST NUISANCE BY CLEANING, SWEEPING AND SPRINKLING WITH WATER, OR OTHER MEANS AS NECESSARY. THE USE OF WATER IN AN AMOUNT WHICH RESULTS IN MUD ON PUBLIC ROADS IS NOT ACCEPTABLE AS A SUBSTITUTE FOR SWEEPING OR OTHER METHODS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ADJACENT PUBLIC ROADS CLEAN & CLEAR FROM CONSTRUCTION IMPACTS OR DEBRIS. ADDITIONAL DETAILS FOR MUD AND DUST CONTROL IS INCLUDED IN SUBSEQUENT SECTIONS OF THESE NOTES.
2. THE CONTRACTOR SHALL EXERCISE EVERY REASONABLE PRECAUTION TO PROTECT STREAMS, WATERWAYS AND OTHER BODIES OF WATER FROM POLLUTION WITH FUELS, OIL, BITUMEN'S, CALCIUM CHLORIDE, AND OTHER HAZARDOUS MATERIALS AND SHALL CONDUCT AND SCHEDULE HIS OPERATIONS SO AS TO AVOID OR MINIMIZE MUDDYING AND SILTING OF SAID WATERS. CARE SHALL BE EXERCISED TO PRESERVE ROADSIDE VEGETATION BEYOND THE LIMITS OF CONSTRUCTION.

3. THROUGHOUT ALL PHASES OF CONSTRUCTION, INCLUDING SUSPENSION OF WORK, AND UNTIL FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL KEEP THE WORK SITE CONDITIONS CLEAN AND FREE FROM RUBBISH AND DEBRIS. ALL RUBBISH AND REFUSE SHALL BE DISPOSED OF IN A MANNER SATISFACTORY TO THE ENGINEER.

DUST AND MUD CONTROL:

1. DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL KEEP ALL CONSTRUCTION AREAS, FILL AREAS, HAUL ROADS, OTHER ROADWAYS, AND OTHER USE AREAS WHERE DUST IS GENERATED WELL WATERED: AND DURING WET CONDITIONS, AREAS USED BY LOCAL TRAFFIC, FREE AND CLEAR FROM MUD. CONTRACTOR SHALL PROVIDE EFFORTS NECESSARY TO MINIMIZE DUST AND OTHER DISTURBANCES NEAR EXISTING RESIDENCES AND ALL BUILDINGS NEAR HAUL ROUTES AND THE PROJECT SITE.
 - a. CROP DAMAGE: THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL TO PREVENT CROP DAMAGE AND FOR ANY AREAS SUBJECT TO CONSTRUCTION OR CONSTRUCTION TRAFFIC THAT GENERATE DUST AND/OR OTHER CONDITIONS WHICH MIGHT DAMAGE CROPS.
 - b. NON WORK DAYS: THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL THROUGHOUT THE DURATION OF THE PROJECT INCLUDING NON WORKDAYS IN ALL PROJECT AREAS, INCLUDING CONSTRUCTION ROADS AND CROP AREAS WHICH ARE USED BY THE CONTRACTOR, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. THE CONTRACTOR SHALL HAVE AT LEAST ONE (1) WATER TRUCK AVAILABLE TO THE PROJECT AT ALL TIMES (OR MORE AS NEEDED OR DIRECTED BY THE ENGINEER) TO MAINTAIN ADEQUATE DUST CONTROL FOR THE FOLLOWING AREAS:
 - a. PROJECT AREAS
 - b. ACCESS AND HAUL ROADS
 - c. LEVEE TOE BERM FILL AREAS
 - d. OTHER CONSTRUCTION USE AREAS
 - e. CROP DAMAGE PREVENTION
 - f. RESIDENTIAL CONSTRUCTION ZONES
 - g. ADJACENT PUBLIC STREETS, TRAILS & BIKEWAYS

UTILITY NOTES:

1. UTILITIES AS NOTED ON THE PLAN SET HAVE BEEN DETERMINED BASED ON RECORD INFORMATION AND FIELD INSPECTION, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE ACTUAL LOCATION OF ALL UNDERGROUND, SURFACE, OVERHEAD, AND SUBMARINE IMPROVEMENTS, OR FACILITIES WHICH MAY BE SUBJECT TO DAMAGE BY REASON OF HIS OPERATIONS.
2. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES AND SHALL CONTACT THE RESPECTIVE UTILITY COMPANIES & PRIVATE OWNERS PRIOR TO COMMENCEMENT OF WORK.
3. THE CONTRACTOR SHALL NOTIFY AFFECTED UTILITIES FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY CONSTRUCTION. (UNDERGROUND SERVICE ALERT (800) 642-2444) AND SHALL BE RESPONSIBLE FOR THE LOCATION AND PRESERVATION OF ALL FACILITIES IN THE AREA OF CONSTRUCTION.

PLANS REVIEWED AND APPROVED BY:



K S N KJELDSSEN
SINNOCK
NEUDECK
INC. Consulting Engineers
and Land Surveyors


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RECLAMATION DISTRICT NO. 17
ELEMENT VI-B, VI-C, VI-D, VI-E

NOTES

SAN JOAQUIN COUNTY CALIFORNIA

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SCALE: SHOWN	25182.010
DRAWN BY: GB	SHT 3
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ACCESS ROADS:

1. THE CONTRACTOR SHALL IMPROVE, MAINTAIN, AND REPAIR UPON COMPLETION, THE ACCESS ROADS AND HAUL ROUTES AS REQUIRED FOR TRANSPORTATION AND HAULING MATERIAL. AT THE COMPLETION OF WORK THE CONTRACTOR SHALL RESTORE ALL ACCESS ROADS AND HAUL ROUTES TO PRE-CONSTRUCTION CONDITION IN A MANNER SATISFACTORY TO THE ENGINEER.
2. THE CONTRACTOR SHALL REVIEW THE ACCESS ROAD ROUTES AND DETERMINE THE LOCATION FOR TURNOUTS, RAMPS, ROAD DRAINAGE, ALIGNMENT, ETC. UPON COMPLETION OF THE PROJECT, SOME PORTIONS OF THE ACCESS ROADS MAY REQUIRE MINOR MODIFICATIONS AND ALTERATIONS. THE ACCESS ROADS WHICH REMAIN SHALL BE LEFT IN GOOD CONDITION FOR THE DISTRICT, FARMERS, AND OTHER LOCAL TRAFFIC.
3. THE CONTRACTOR SHALL NOT DEVIATE FROM IDENTIFIED HAUL ROUTES AND STAGING AREAS UNLESS PERMISSION IS OBTAINED FROM THE PROPERTY OWNER, ENGINEER AND PERMITS ARE OBTAINED FROM THE LOCAL AGENCY.
4. THE CONTRACTOR SHALL EXTEND, STRENGTHEN, REPLACE, OR OTHERWISE MODIFY THE EXISTING CROSSINGS (E.G. CULVERTS, SIPHONS, DRAIN PIPES, IRRIGATION PIPES, PUMP DISCHARGE PIPES, WET SPOTS, ETC.) AS NECESSARY TO ACCOMMODATE HIS EQUIPMENT. THE CONTRACTOR SHALL PROVIDE WHATEVER MEASURES ARE NECESSARY TO PRESERVE, PROTECT, AND MAINTAIN THE CROSSINGS SO AS TO ENSURE CONTINUOUS AND UNINTERRUPTED CONSTRUCTION OPERATIONS DURING THE ENTIRE TERM OF THIS CONTRACT.
5. THE HAUL ROADS MAY REQUIRE TEMPORARY IRRIGATION OR DISCHARGE PIPE EXTENSIONS AND RAMPING DURING CONSTRUCTION OPERATIONS. TEMPORARY EXTENSIONS AND RAMPING WILL BE PROVIDED AND INSTALLED BY THE CONTRACTOR AT HIS EXPENSE, INCLUDING REMOVAL IF REQUIRED, IN A MANNER WHICH MEETS WITH THE APPROVAL OF THE ENGINEER AND THE LANDOWNERS.
6. NEITHER THE DISTRICT NOR THE ENGINEER MAKES ANY WARRANTY OR GUARANTEE AS TO THE ADEQUACY OF THE EXISTING MATERIALS TO SUPPORT THE CONSTRUCTION TRAFFIC ON THE ACCESS ROADS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MAKING THE NECESSARY IMPROVEMENTS AND PROVIDING THE NECESSARY MEASURES REQUIRED TO ACCOMMODATE HIS ANTICIPATED NEEDS. REPAIRS TO ROADWAYS DAMAGED BY THE CONTRACTOR SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
7. CONTRACTOR MUST MAINTAIN HAUL ROUTE ACCESS AT ALL TIMES FOR USE BY THE DISTRICT AND/OR PUBLIC (AS APPLICABLE) DURING CONSTRUCTION.

CLEARING & GRUBBING:

1. UNLESS OTHERWISE INDICATED, THE WORK AREAS SHALL BE CLEARED AND GRUBBED BY THE CONTRACTOR. CONTRACTOR SHALL USE CAUTION WHILE CLEARING AND GRUBBING AROUND POWER LINES, BURIED ELECTRICAL CABLES AND OTHER EX FACILITIES/UTILITIES. ALL MATERIAL CLEARED AND REMOVED SHALL BECOME THE PROPERTY AND RESPONSIBILITY OF THE CONTRACTOR FOR REMOVAL AND DISPOSAL OFFSITE. SOME PRUNING/TRIMMING/THINNING OF BRANCHES OR TREES MAY BE REQUIRED.

FILL MATERIALS:

1. THE CONTRACTOR SHALL FURNISH, DELIVER, AND PLACE THE SPECIFIED FILL MATERIALS (PER THE DISTRICT ENGINEERS SPECIFICATIONS) TO THE DESIGNATED SITES.
2. THE FILL SHALL BE CONSTRUCTED WITH ACCEPTABLE MATERIALS SUFFICIENT TO MEET DESIGN GRADES AND SPECIFICATIONS.
3. ALL SUBGRADE AREAS RECEIVING FILL MATERIAL SHALL BE PREPARED AS REQUIRED BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR MAY BE REQUIRED TO PERFORM ADDITIONAL SUBGRADE PREPARATION WORK WITHIN THE FILL AREAS PRIOR TO THE ACCEPTANCE OF THE MATERIAL.
4. THE CONTRACTOR SHALL DELIVER THE FILL MATERIALS TO THE REQUIRED SECTIONS AS UNIFORM MIXTURES. THE MIXTURE SHALL BE DEPOSITED AND SPREAD TO THE REQUIRED COMPACTED THICKNESS. SEGREGATION OF MATERIAL SHALL BE AVOIDED AND EACH LAYER OF MATERIAL, AS SPREAD, SHALL BE FREE FROM POCKETS OF COARSE OR FINE MATERIAL.

- a. THE FILL MATERIALS SHALL BE PLACED IN LOOSE HORIZONTAL LAYERS NOT MORE THAN SIX INCHES (6") IN THICKNESS PRIOR TO COMPACTION. THE MATERIAL SHALL BE GENTLY SPREAD OUT. UNDER NO CIRCUMSTANCES SHALL ANY MATERIAL BE DROPPED FROM ANY HEIGHT ONTO THE FILL SECTION.
- b. IF SEGREGATION OCCURS, MATERIAL SHALL BE WORKED UNTIL IT IS UNIFORMLY AND SATISFACTORILY BLENDED. AFTER SPREADING, THE MATERIAL SHALL BE WATERED AND SHAPED TO THE REQUIRED SECTION AND THEN COMPACTED AS SPECIFIED.
- c. AT THE TIME MATERIALS ARE SPREAD, IT SHALL HAVE A MOISTURE CONTENT IN CONFORMANCE WITH THE PROJECT SPECIFICATIONS. SUCH MOISTURE SHALL BE UNIFORMLY DISTRIBUTED THROUGHOUT THE MATERIAL.

FINISHING AND SLOPING GRADING

1. THE SURFACE OF THE TOP LAYER SHALL BE FINISHED TO THE DESIGNATED GRADE AND CROSS SECTION. THE FINISHED SURFACE SHALL BE OF UNIFORM TEXTURE, DRESSED AND GRADED TO DRAIN AND PREVENT WATER PONDING.

COMPACTION EQUIPMENT:

1. COMPACTION SHALL BE PERFORMED WITH A NON-VIBRATORY TYPE ROLLER COMPACTOR. VIBRATORY EQUIPMENT WILL NOT BE PERMITTED ON DISTRICT LEVEES AND FILLS.

TESTING:

1. THE DISTRICT WILL RETAIN THE SERVICES OF AN INDEPENDENT SOILS CONSULTANT AND TESTING LABORATORY TO PERFORM SAMPLING AND TESTING AS REQUIRED AND TO CHECK FOR COMPLIANCE WITH THE SPECIFICATIONS. THE CONTRACTOR SHALL REMOVE SURFACE MATERIALS AT LOCATIONS DESIGNATED BY THE TESTING ENGINEER AT NO COST TO THE DISTRICT. THE INDEPENDENT TESTING LABORATORY WILL SAMPLE AND PERFORM ALL REQUIRED TESTS SUCH AS MOISTURE CONTENT; GRADATION, AND MOISTURE DENSITY RELATIONSHIPS ON THE EXCAVATED AND EMBANKMENT FILL MATERIALS

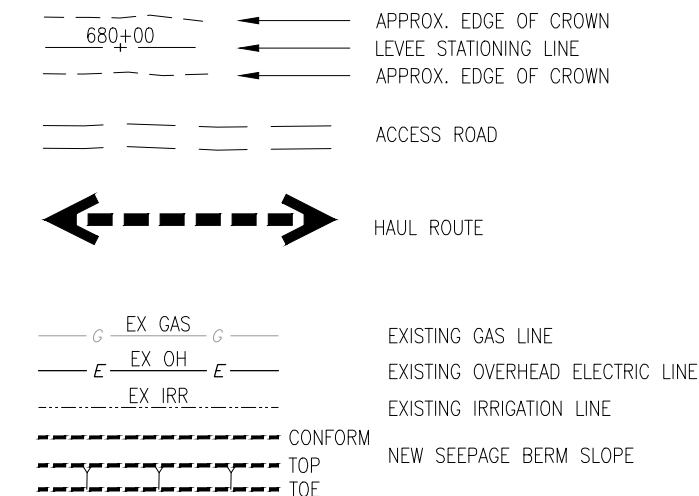
SWPPP:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DEVELOPMENT, INSTALLATION AND MAINTENANCE OF A SWPPP AND REQUIRE PROTECTION FEATURES. THESE FEATURES INCLUDE, BUT ARE NOT LIMITED TO, THOSE IDENTIFIED BELOW:
 - A. EROSION CONTROL FACILITIES
 - B. CONSTRUCTION ENTRANCE
 - C. STREET SWEEPING
 - D. THE CONTRACTOR IS RESPONSIBLE FOR ALL FINES, FEES, PENALTIES IMPOSED BY FEDERAL AND LOCAL AGENCIES DUE TO THE CONTRACTOR'S ACTIVITIES ASSOCIATED WITH THE SWPPP.
2. THE CONTRACTOR SHALL CONSTRUCT A STABILIZED CONSTRUCTION ENTRANCE AT ALL ENTRANCES TO THE PROJECT SITE AS APPROVED BY THE ENGINEER.
3. EROSION CONTROL FACILITIES AS SHOWN ON THESE PLANS HAVE BEEN PREPARED TO MEET THE REQUIREMENTS OF THE DISTRICT. THE PROJECT WILL REQUIRE A SWPPP, PREPARED BY A QUALIFIED DEVELOPER (QSD) WHO WILL ASSUME RESPONSIBILITY FOR THE PROJECT COMPLIANCE WITH THE STATE GENERAL CONSTRUCTION PERMIT AND WHOSE RECOMMENDATIONS WILL SUPERCEDE THIS PLAN ACCORDINGLY.

ABBREVIATIONS:

CL	CENTERLINE	N	NORTH, NORTHING
CONST	CONSTRUCTION	NTS	NOT TO SCALE
DWSEL	DESIGN WATER SURFACE ELEVATION	PROP	PROPOSED
E	EAST, EASTING	RC	RELATIVE COMPACTION
ELEV	ELEVATION	R/W	RIGHT OF WAY
ESMT	EASEMENT	STA	STATION
EX	EXISTING	TCE	TEMPORARY CONSTRUCTION EASEMENT
FT	FOOT, FEET	TEMP	TEMPORARY
H	HORIZONTAL	TYP	TYPICAL
MIN	MINIMUM	V	VERTICAL
		WS	WATERSIDE

LEGEND



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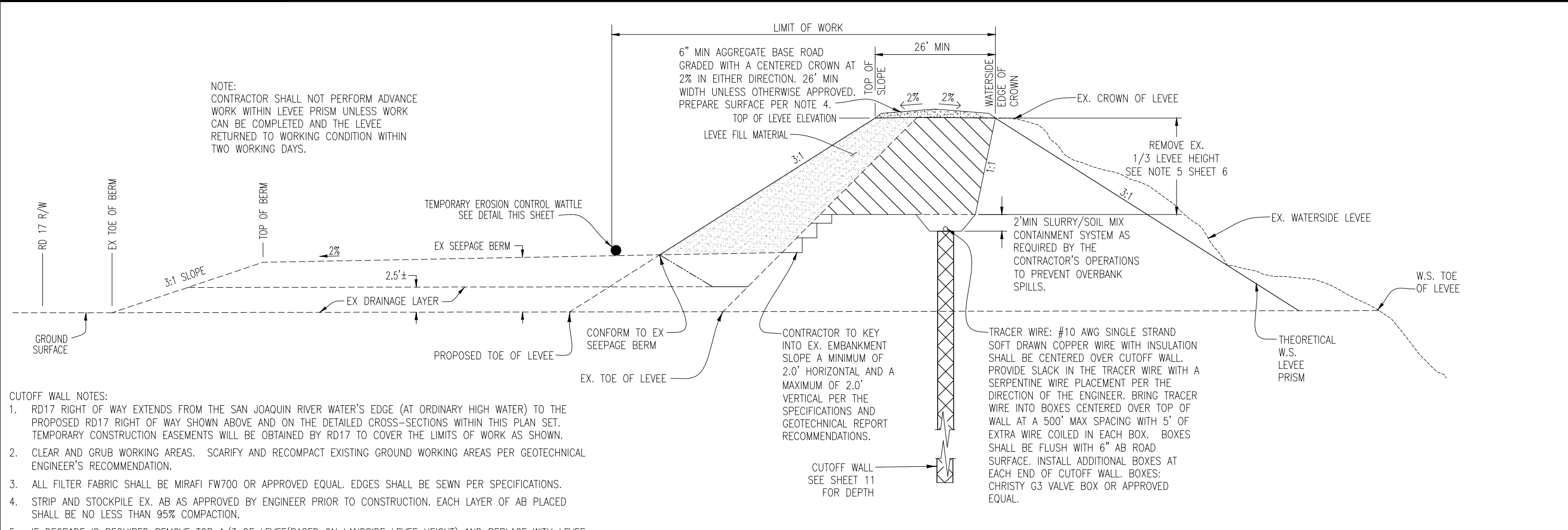
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NOTE:
CONTRACTOR SHALL NOT PERFORM ADVANCE WORK WITHIN LEVEE PRISM UNLESS WORK CAN BE COMPLETED AND THE LEVEE RETURNED TO WORKING CONDITION WITHIN TWO WORKING DAYS.

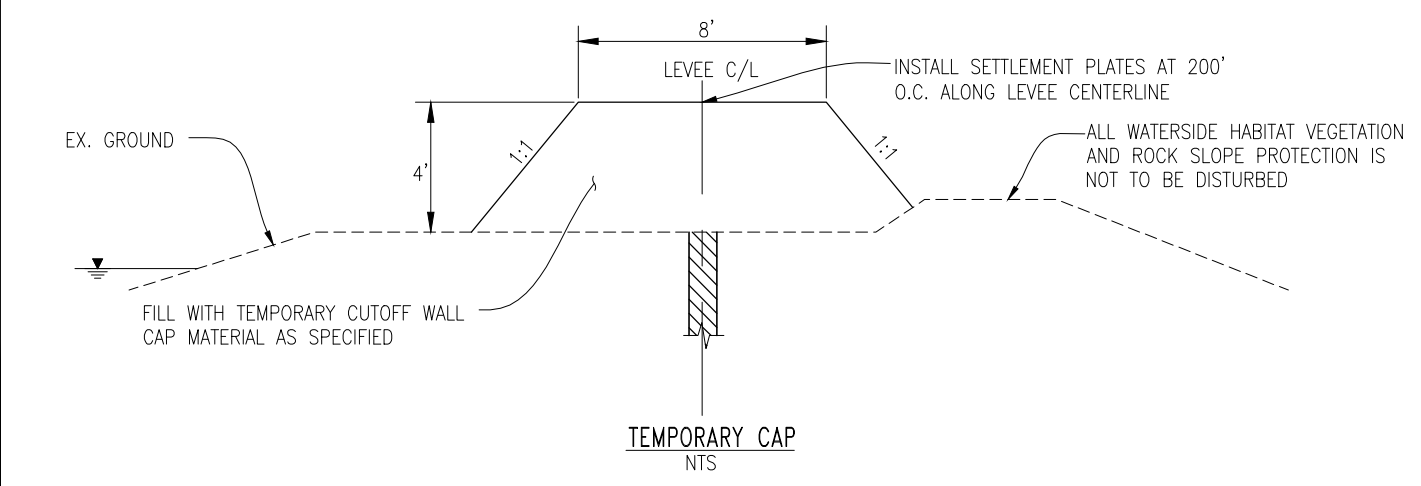
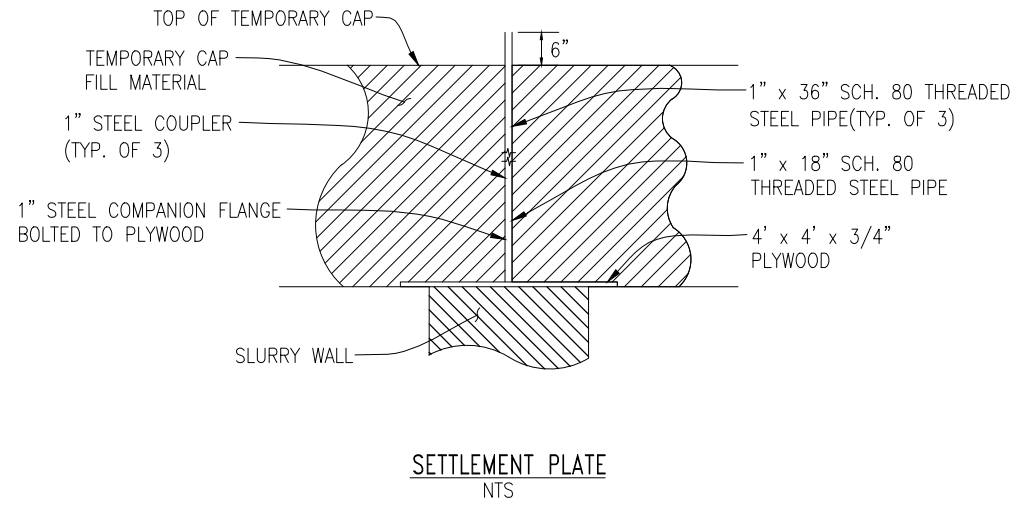
CUTOFF WALL NOTES:

- RD17 RIGHT OF WAY EXTENDS FROM THE SAN JOAQUIN RIVER WATER'S EDGE (AT ORDINARY HIGH WATER) TO THE PROPOSED RD17 RIGHT OF WAY SHOWN ABOVE AND ON THE DETAILED CROSS-SECTIONS WITHIN THIS PLAN SET. TEMPORARY CONSTRUCTION EASEMENTS WILL BE OBTAINED BY RD17 TO COVER THE LIMITS OF WORK AS SHOWN.
- CLEAR AND GRUB WORKING AREAS. SCARIFY AND RECOMPACT EXISTING GROUND WORKING AREAS PER GEOTECHNICAL ENGINEER'S RECOMMENDATION.
- ALL FILTER FABRIC SHALL BE MIRAFI FW700 OR APPROVED EQUAL. EDGES SHALL BE SEWN PER SPECIFICATIONS.
- STRIP AND STOCKPILE EX. AB AS APPROVED BY ENGINEER PRIOR TO CONSTRUCTION. EACH LAYER OF AB PLACED SHALL BE NO LESS THAN 95% COMPACTION.
- IF DEGRADE IS REQUIRED REMOVE TOP 1/3 OF LEVEE (BASED ON LANDSIDE LEVEE HEIGHT) AND REPLACE WITH LEVEE FILL MATERIAL AT 95% COMPACTION. SOIL REMOVED FROM THE LEVEE MAY BE USED IF IT MEETS THE REQUIREMENTS OF LEVEE FILL MATERIAL OTHERWISE IT MUST BE REMOVED FROM THE SITE AT AN APPROPRIATE LOCATION APPROVED BY THE ENGINEER.
- PLACE WATTLES ALONG THE LIMIT OF THE TEMPORARY CONSTRUCTION EASEMENT PRIOR TO BEGINNING WORK, ALL SUBSEQUENT EROSION CONTROL MEASURES SHALL BE INSTALLED PER THE PROVISIONS OF THE SWPPP.
- FILL LEVEE AFTER SLURRY WALL HAS CURED AT THE DIRECTION OF THE SOILS ENGINEER.

SECTION A-A: STATION 741+00 THRU 762+00
NTS

TEMPORARY CAP NOTES:

- AFTER SLURRY WALL HAS BEEN CONSTRUCTED. FILL LEVEE TO ELEVATION 25.00 WITH TEMPORARY CUTOFF WALL CAP MATERIAL.
- INSTALL SETTLEMENT PLATES @ 200' O.C. ALONG LEVEE CENTERLINE. CONTRACTOR SHALL BE RESPONSIBLE TO SURVEY THE TOP OF EACH RISER PIPE EVERY OTHER DAY FOR A MINIMUM 2 WEEKS AND UNTIL SETTLEMENT HAS CEASED. AS APPROVED BY THE ENGINEER. THE SURVEYING OF SETTLEMENT PLATES SHALL BE PERFORMED BY A LICENSED SURVEYOR.
- AFTER SETTLEMENT HAS CEASED, REMOVE TEMPORARY CUTOFF WALL CAP MATERIAL. SOIL MAY BE USED AS CROWN WIDENING SLOPE FILL. ANY EXCESS SOIL SHALL BE DISPOSED OF OFFSITE AT THE CONTRACTOR'S EXPENSE



PLANS REVIEWED AND APPROVED BY:

K S N KJELDSSEN SINNOCK NEUDECK INC. Consulting Engineers and Land Surveyors

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Faxes: (209) 946-0296
E-mail: KSN@ksninc.com

THESE PLANS CONFORM TO THE GEOTECHNICAL REPORT ENTITLED: SEEPAGE EVALUATION PROJECT #5747.000.000

ENGEO INCORPORATED
EXCELLENT SERVICE SINCE 1971

PLANS PREPARED UNDER THE DIRECTION OF:

MACKAY & SOMPS
ENGINEERS PLANNERS SURVEYORS

5142 Franklin Drive, Suite B, Pleasanton, CA 94588 (925) 225-0690

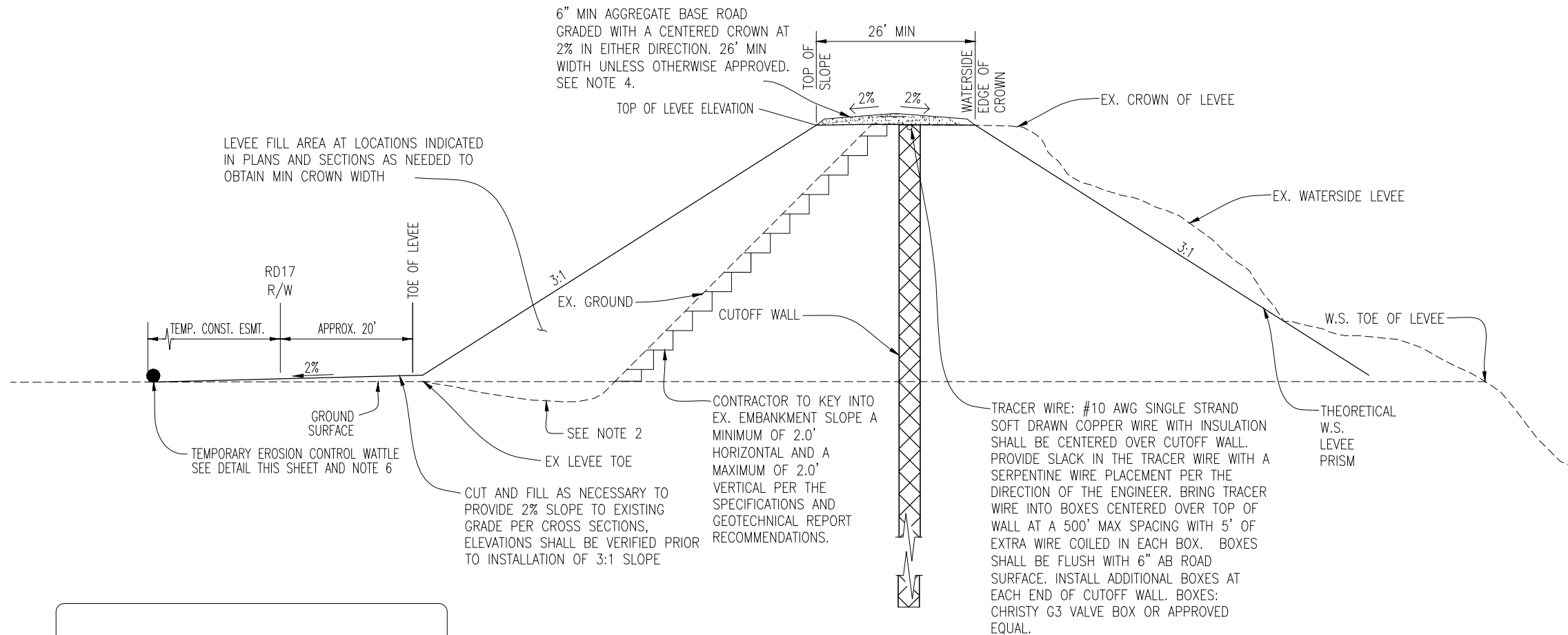
RECLAMATION DISTRICT NO. 17
ELEMENT VI-B, VI-C, VI-D, VI-E
TYPICAL SECTIONS & DETAILS

SAN JOAQUIN COUNTY CALIFORNIA

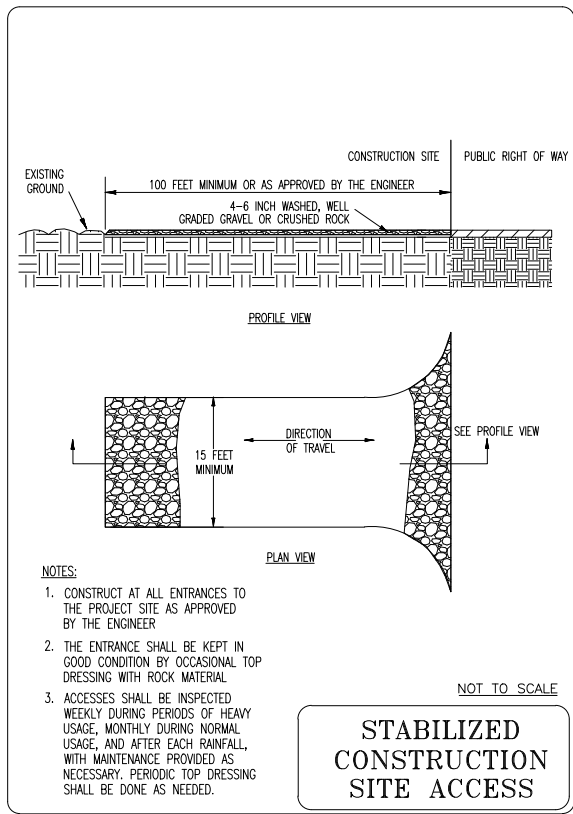
DATE: MAY 2014	PROJECT NO. 25182.010
SCALE: NTS	SHT 5
DRAWN BY: GB	OF 20
DESIGNED BY: GJ	
CHECKED BY: JFT	
NO. _____	REVISION _____
DATE _____	

NOTES:

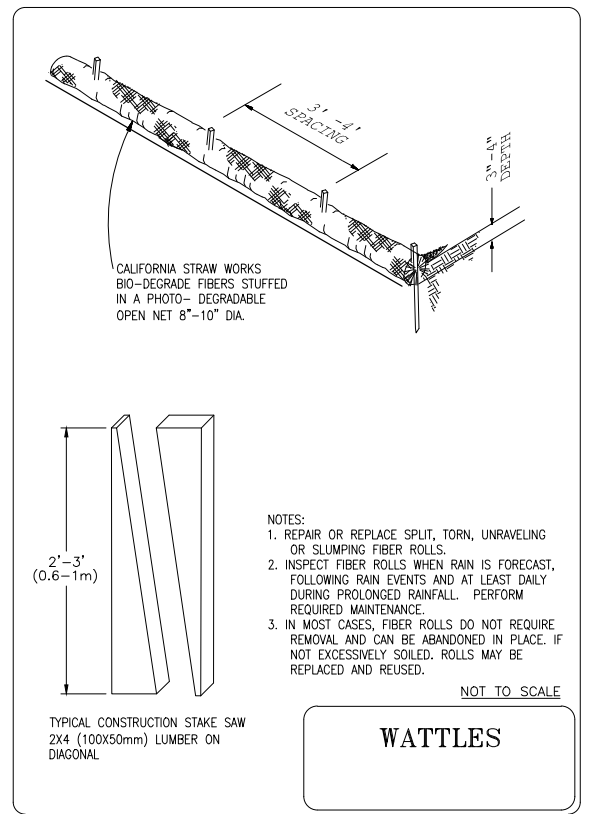
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- FILL LEVEE AFTER SLURRY WALL HAS CURED AT THE DIRECTION OF THE SOILS ENGINEER.



SECTION B-B: 762+00 THRU 769+00
NTS



STABILIZED
CONSTRUCTION
SITE ACCESS



WATTLES

PLANS REVIEWED AND APPROVED BY:

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PLANS PREPARED UNDER THE DIRECTION OF:

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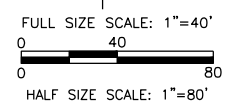
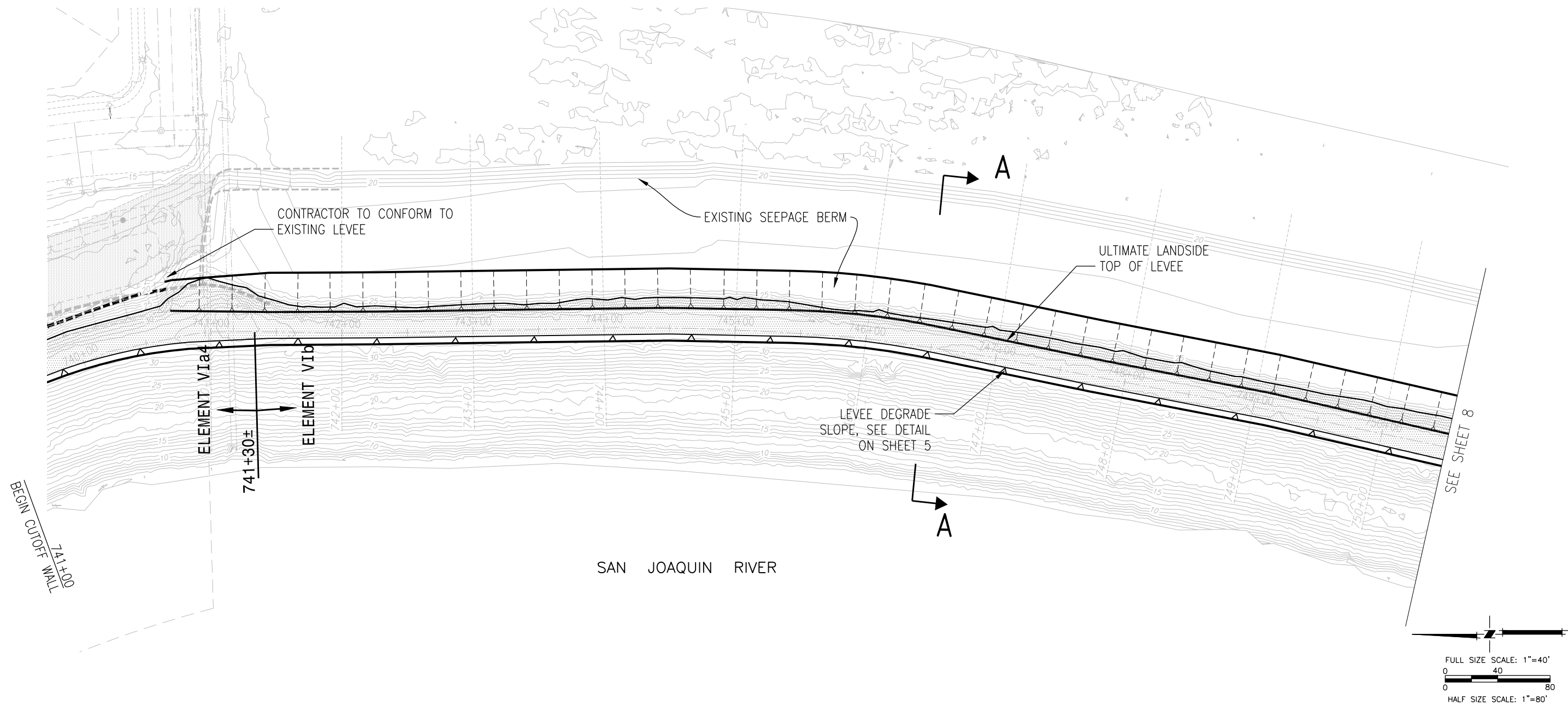
RECLAMATION DISTRICT NO. 17
ELEMENT VI-B, VI-C, VI-D, VI-E
TYPICAL SECTIONS & DETAILS

SAN JOAQUIN COUNTY CALIFORNIA

DATE: MAY 2014	PROJECT NO. 25182.010
SCALE: NTS	SHT 6
DRAWN BY: GB	OF 20
DESIGNED BY: GJ	
CHECKED BY: JFT	
NO. _____	REVISION _____
DATE _____	

LEGEND

- G — G — EXISTING GAS LINE
- OE — OE — EXISTING OVERHEAD ELECTRIC LINE
- E — E — EXISTING UNDERGROUND ELECTRIC LINE
- - - - - EXISTING IRRIGATION/SD LINE
- - - - - PROPOSED IRRIGATION/SD LINE
- TOP TOE ——— NEW SEEPAGE BERM SLOPE



PLANS REVIEWED AND APPROVED BY:

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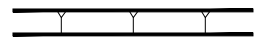
RECLAMATION DISTRICT NO. 17
 ELEMENT VI-B, VI-C, VI-D, VI-E
 PLAN VIEW - ELEMENT VIb - STATION 741+00 TO 750+50

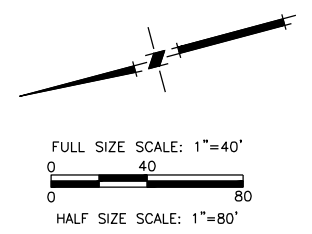
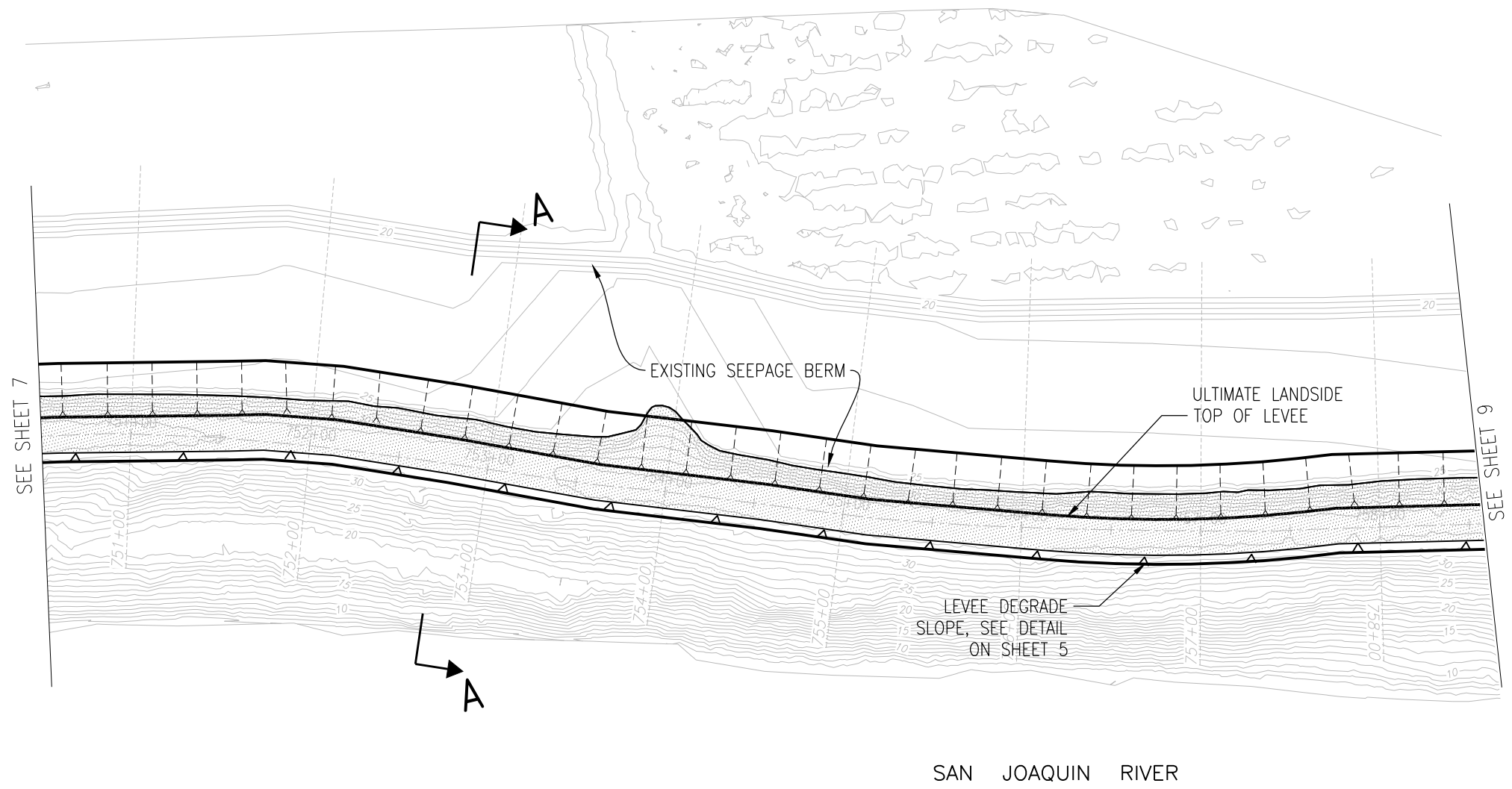
NO.	REVISION	DATE

DATE: MAY 2014	PROJECT NO. 25182.010
SCALE: NOT TO SCALE	SHT 7
DRAWN BY: GB	OF 20
DESIGNED BY: GJ	
CHECKED BY: JFT	

ELEMENT VI-B, VI-C, VI-D & VI-E (SEEPAGE BERM) 65% SUBMITTAL

LEGEND

-  EXISTING GAS LINE
-  EXISTING OVERHEAD ELECTRIC LINE
-  EXISTING UNDERGROUND ELECTRIC LINE
-  EXISTING IRRIGATION/SD LINE
-  PROPOSED IRRIGATION/SD LINE
-  TOP TOE NEW SEEPAGE BERM SLOPE



PLANS REVIEWED AND APPROVED BY:

REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER H. NEUDECK
No. 43473
EXP. 6/30/2014
CIVIL
STATE OF CALIFORNIA

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REGISTERED PROFESSIONAL ENGINEER
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No. 43061
EXP. 3/31/14
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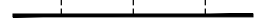
RECLAMATION DISTRICT NO. 17
ELEMENT VI-B, VI-C, VI-D, VI-E
PLAN VIEW - ELEMENT VIb - STATION 750+50 TO 758+50

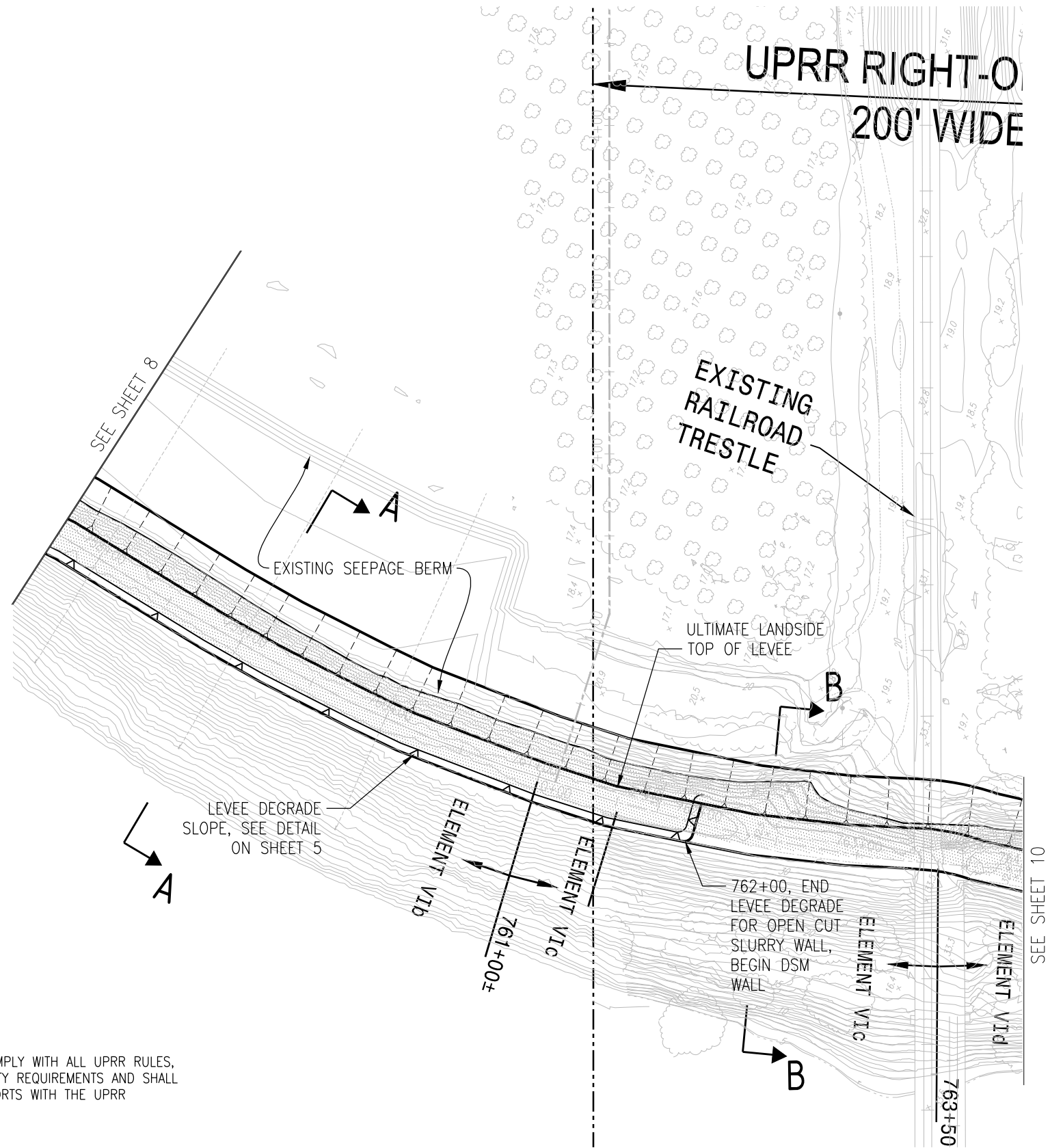
SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

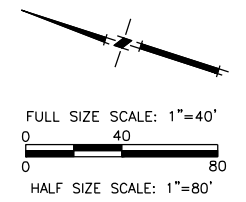
DATE: MAY 2014	PROJECT NO. 25182.010
SCALE: NOT TO SCALE	SHT 8
DRAWN BY: GB	OF 20
DESIGNED BY: GJ	
CHECKED BY: JFT	

LEGEND

-  EXISTING GAS LINE
-  EXISTING OVERHEAD ELECTRIC LINE
-  EXISTING UNDERGROUND ELECTRIC LINE
-  EXISTING IRRIGATION/SD LINE
-  PROPOSED IRRIGATION/SD LINE
-  TOP
TOE NEW SEEPAGE BERM SLOPE



NOTE:
CONTRACTOR SHALL COMPLY WITH ALL UPRR RULES,
REGULATIONS AND SAFETY REQUIREMENTS AND SHALL
COORDINATE WORK EFFORTS WITH THE UPRR



PLANS REVIEWED AND APPROVED BY:

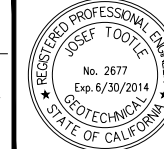


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INC. Consulting Engineers
and Land Surveyors

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INCORPORATED
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PLANS PREPARED UNDER THE DIRECTION OF:



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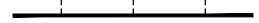
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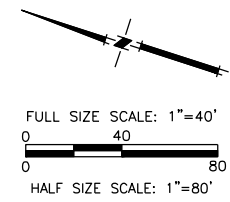
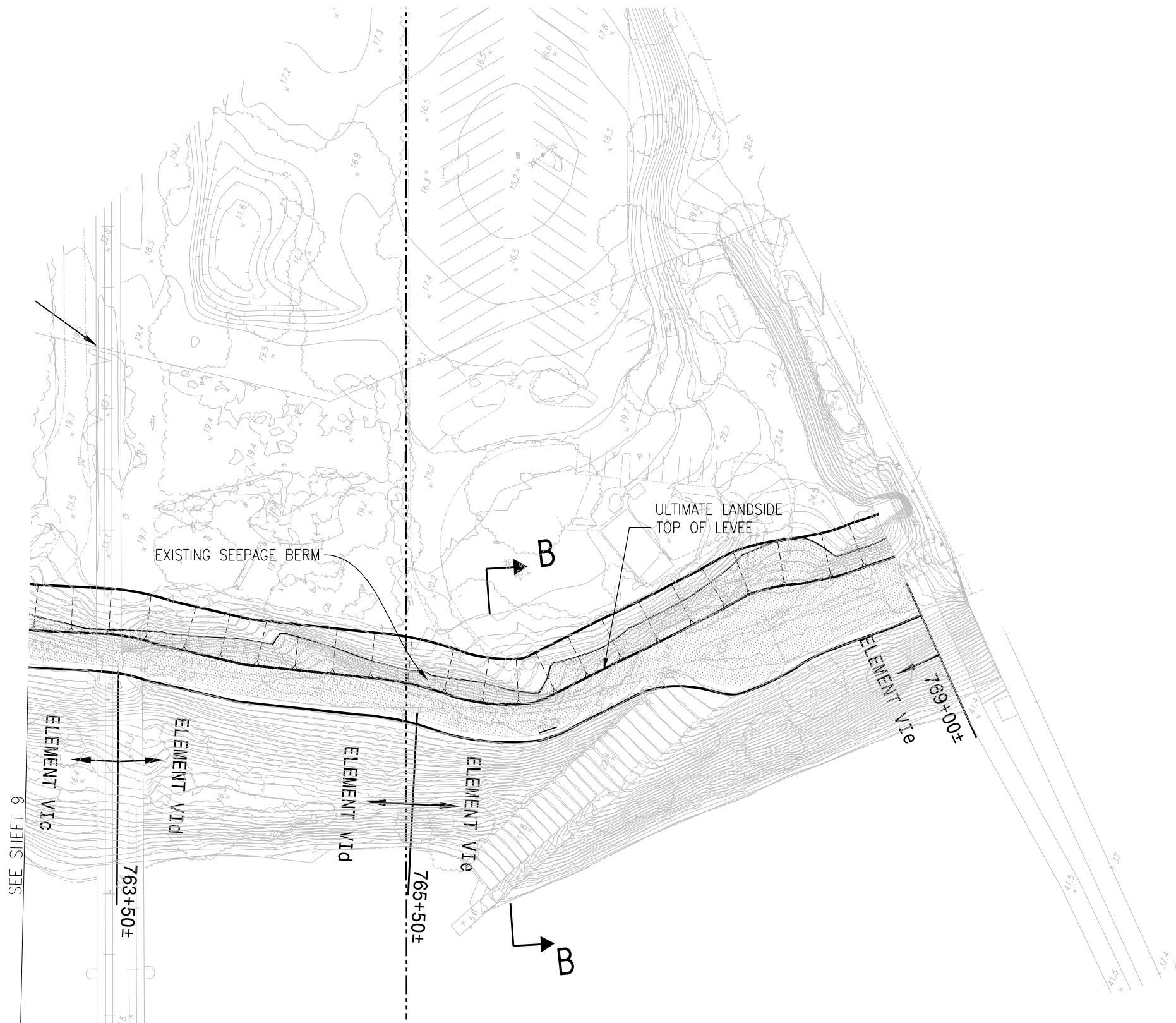
RECLAMATION DISTRICT NO. 17
ELEMENT VI-B, VI-C, VI-D, VI-E
SEEPAGE BERM GRADING PLAN
STATION 758+50 TO 763+00
SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: MAY 2014	SCALE: 1"=40'	PROJECT NO. 25182.010
DRAWN BY: GB	DESIGNED BY: GJ	SHT 9
CHECKED BY: JFT		OF 20

LEGEND

-  EXISTING GAS LINE
-  EXISTING OVERHEAD ELECTRIC LINE
-  EXISTING UNDERGROUND ELECTRIC LINE
-  EXISTING IRRIGATION/SD LINE
-  PROPOSED IRRIGATION/SD LINE
-  TOP
TOE NEW SEEPAGE BERM SLOPE



PLANS REVIEWED AND APPROVED BY:

REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER H. NEUDECK
No. 43473
Exp. 6/30/2014
CIVIL
STATE OF CALIFORNIA

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REGISTERED PROFESSIONAL ENGINEER
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GEOTECHNICAL
STATE OF CALIFORNIA

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PLANS PREPARED UNDER THE DIRECTION OF:

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RECLAMATION DISTRICT NO. 17
ELEMENT VI-B, VI-C, VI-D, VI-E

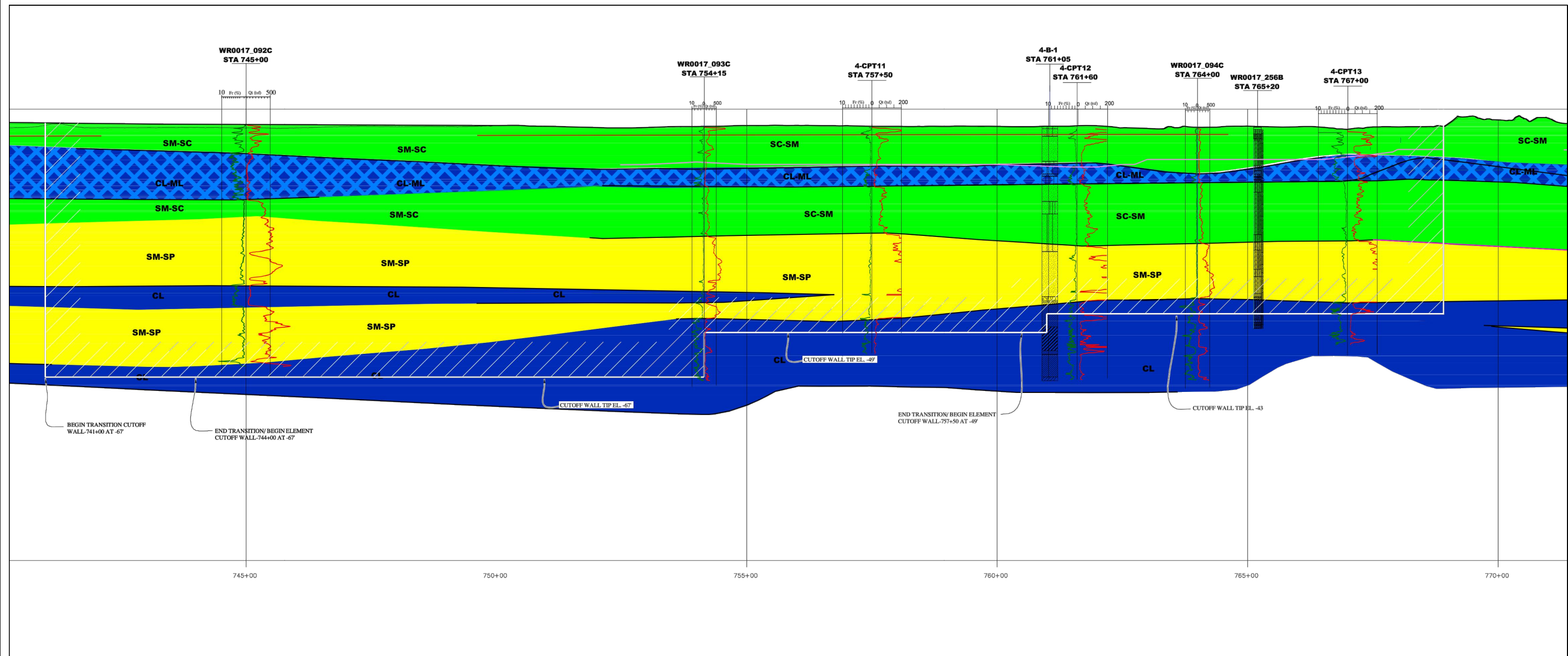
CUTOFF WALL GRADING PLAN
STATION 763+00 TO 769+00

SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: MAY 2014	PROJECT NO. 25182.010
SCALE: _____	SHT 10
DRAWN BY: GB	OF 20
DESIGNED BY: GJ	
CHECKED BY: JFT	

ELEMENT VI-B, VI-C, VI-D & VI-E (SEEPAGE BERM) 65% SUBMITTAL



FOR ADDITIONAL INFORMATION, PLEASE SEE GEOTECHNICAL REPORT BY ENGEO.

PLANS REVIEWED AND APPROVED BY:

K S N KJELSDEN SINNOCK NEUDECK INC. Consulting Engineers and Land Surveyors

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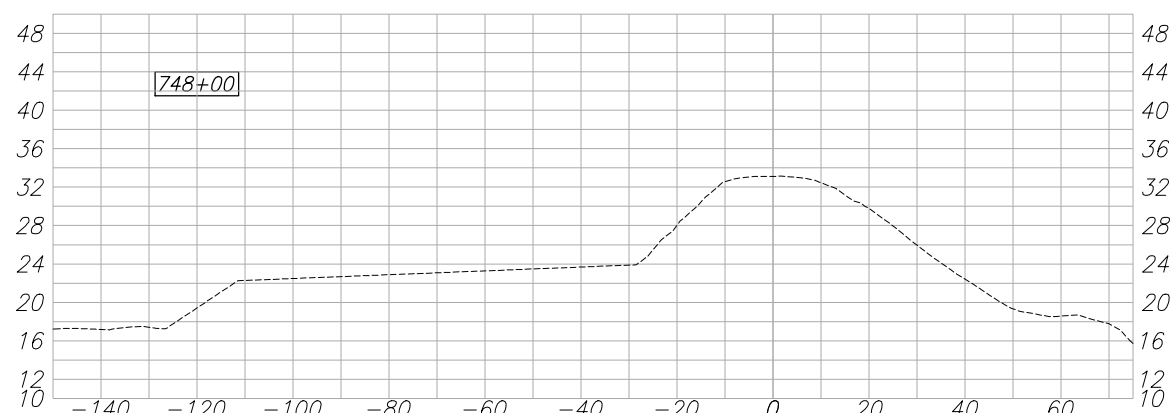
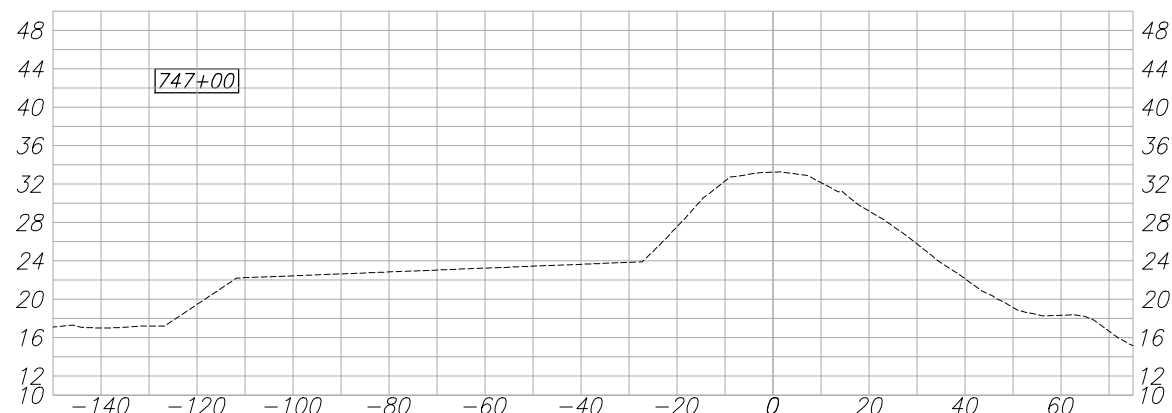
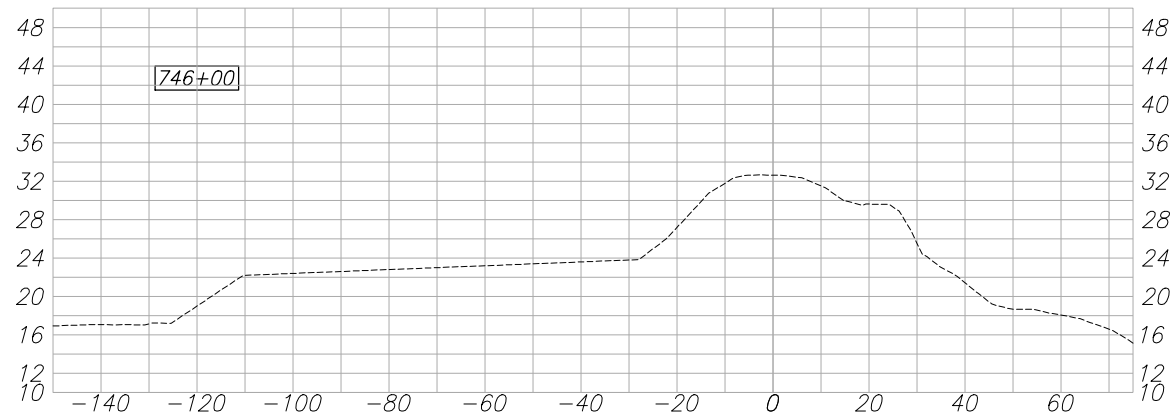
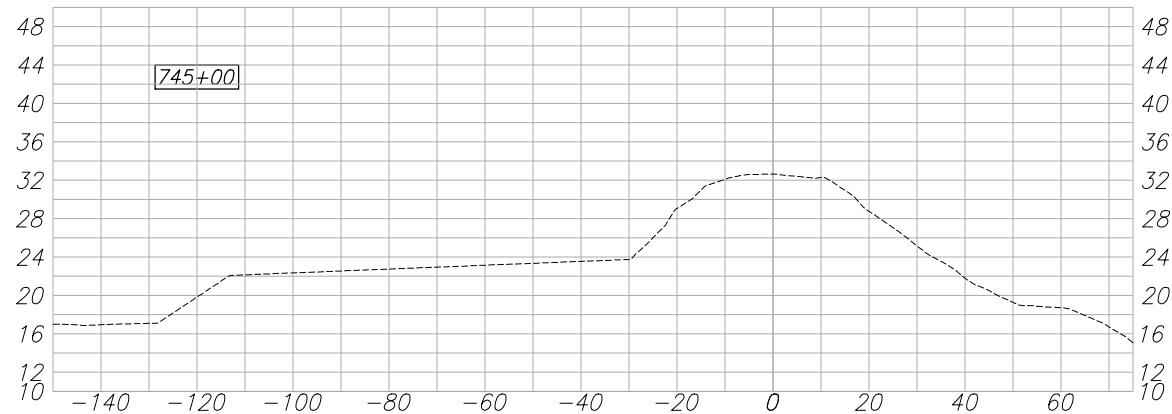
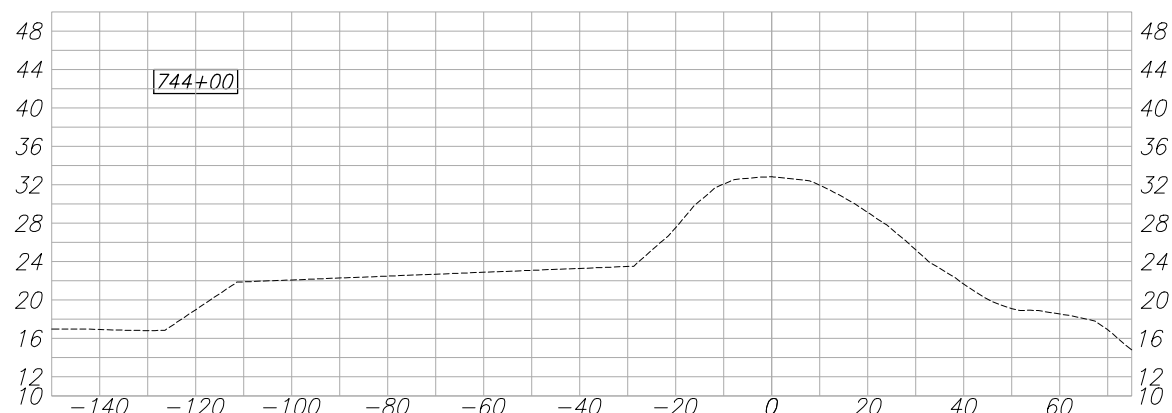
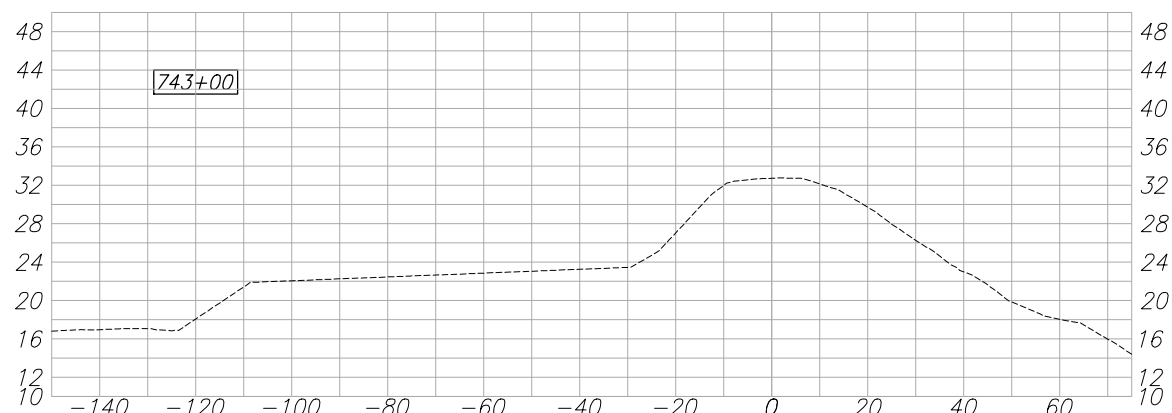
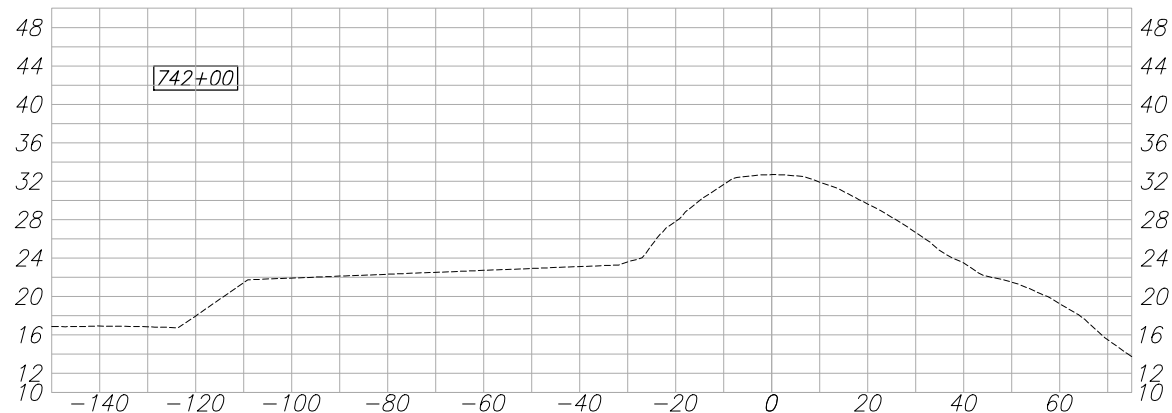
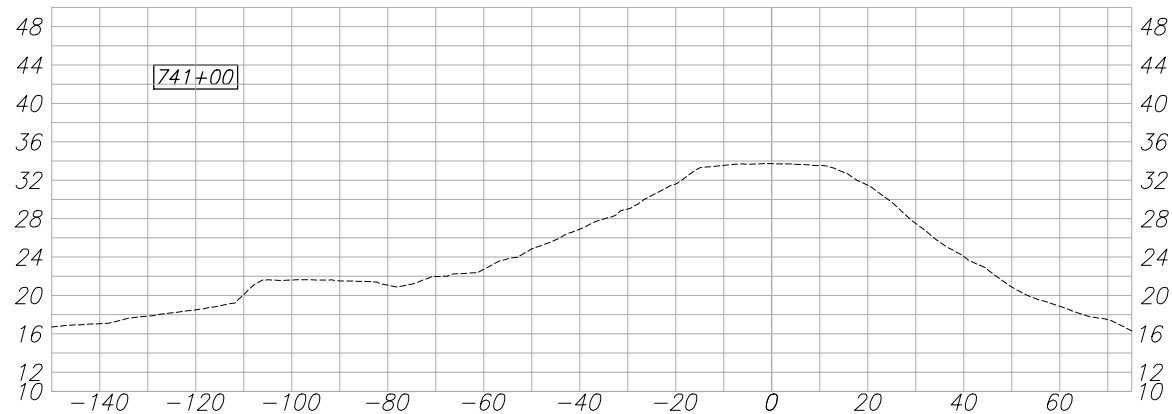
RECLAMATION DISTRICT NO. 17
ELEMENT VI-B, VI-C, VI-D, VI-E

PROFILE VIEW
STATION 741+00 TO 769+00

SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: MAY 2014	PROJECT NO. 25182.010
SCALE: _____	SHT 11
DRAWN BY: GB	OF 20
DESIGNED BY: GJ	
CHECKED BY: JFT	



DESIGN
DETAILS WILL
BE ADDED TO
THESE
SECTIONS
AFTER 65%
COMMENTS
ARE RECEIVED.
PLEASE SEE
TYPICAL
SECTIONS FOR
65% REVIEW.

PLANS REVIEWED AND APPROVED BY:

K S N KJELSDEN
SINNOCK
NEUDECK
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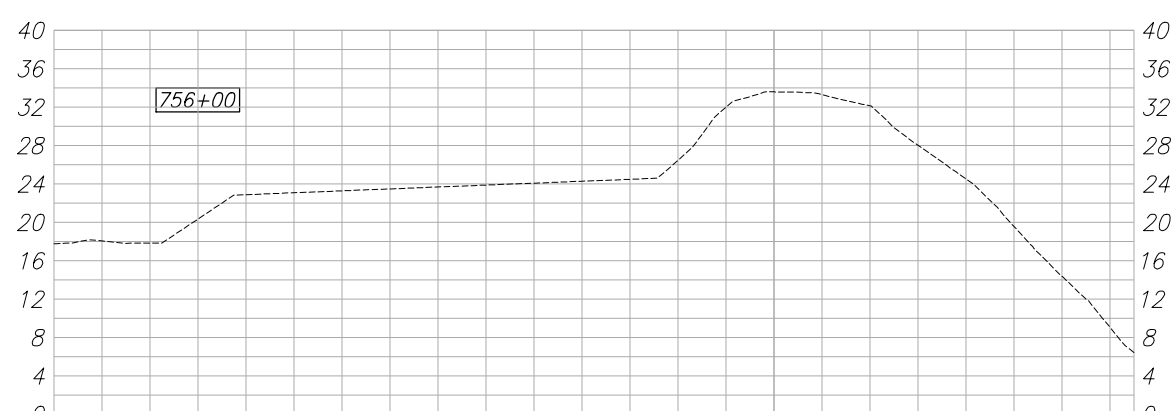
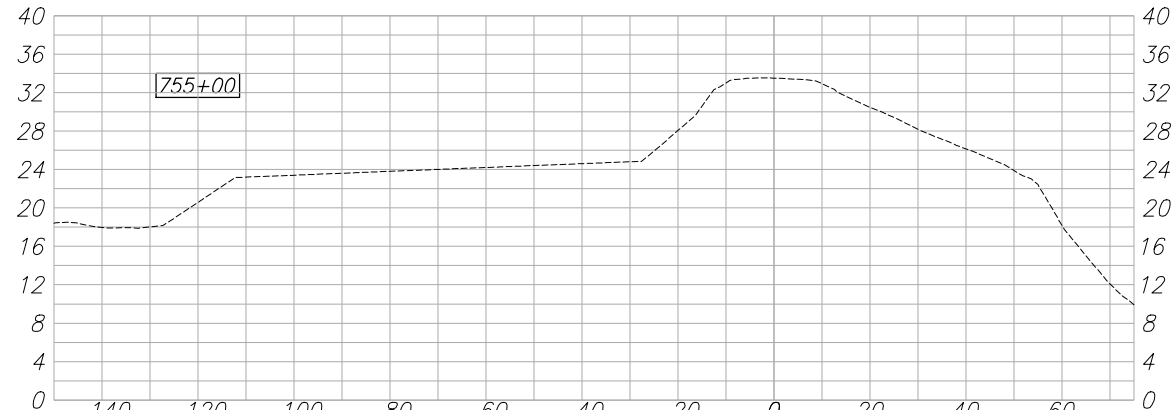
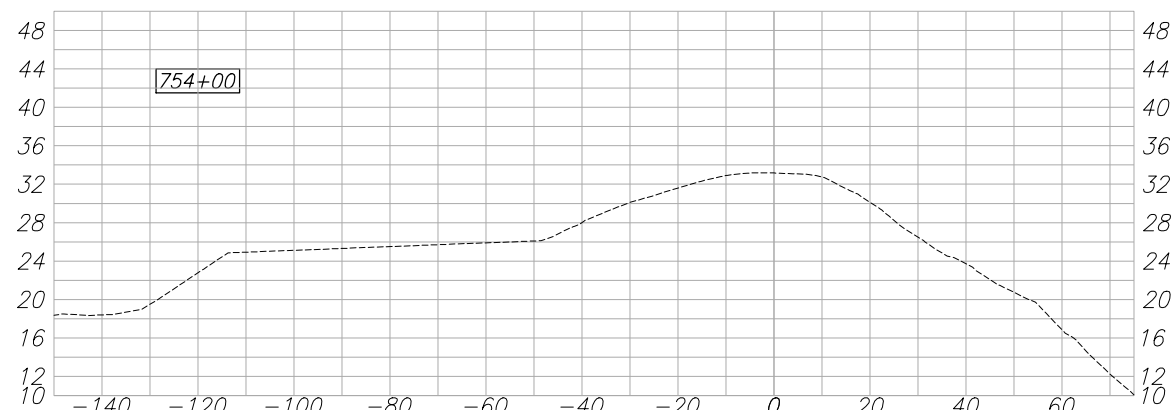
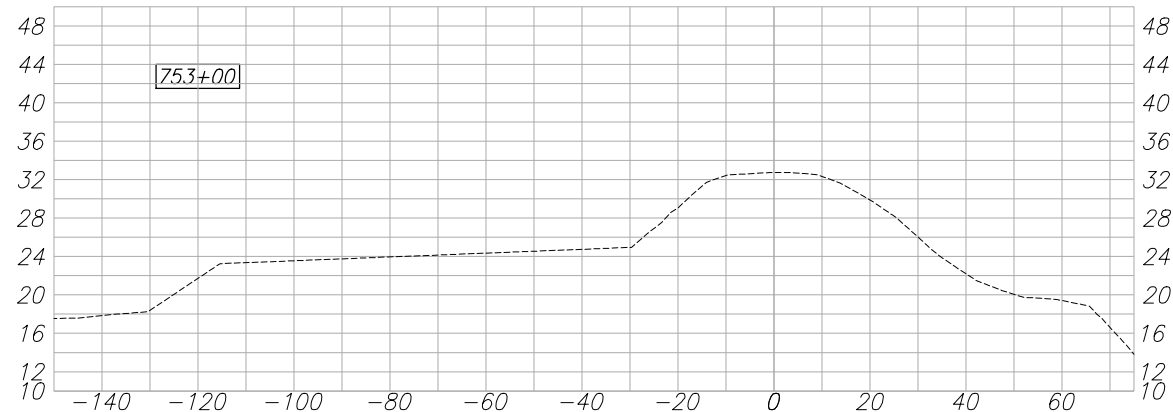
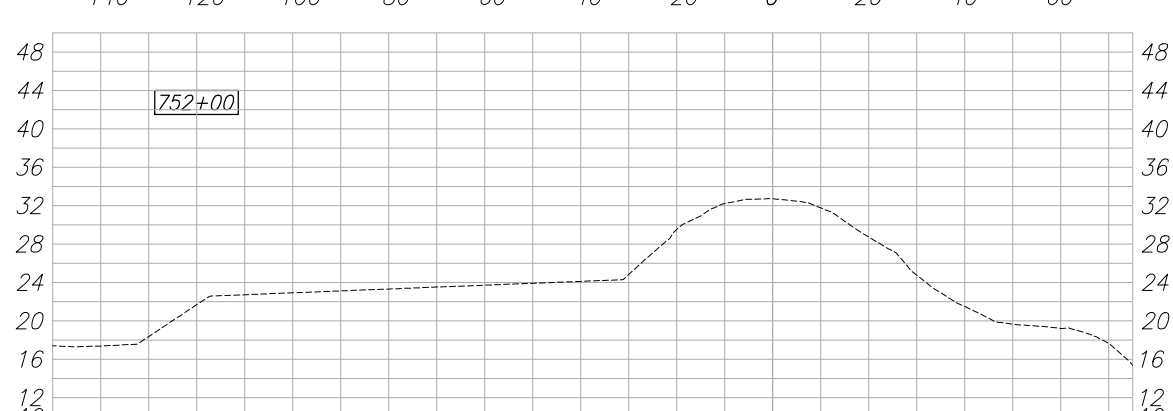
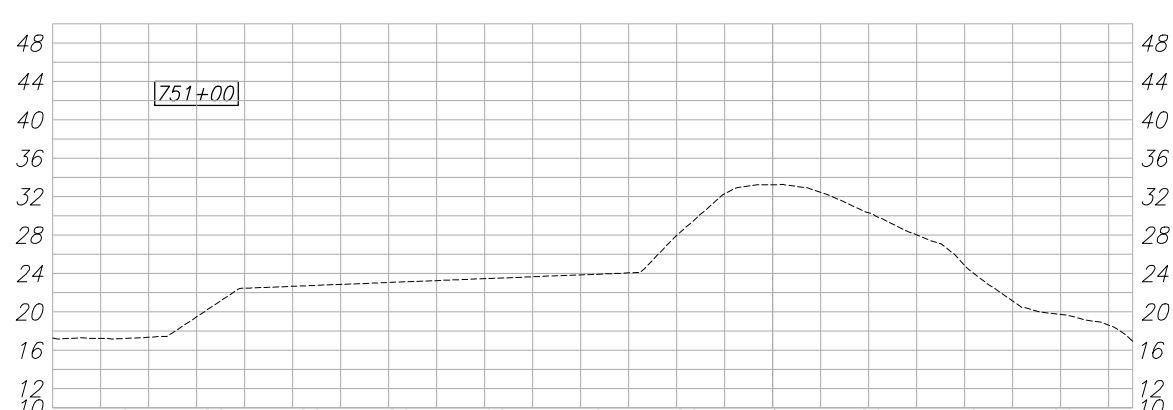
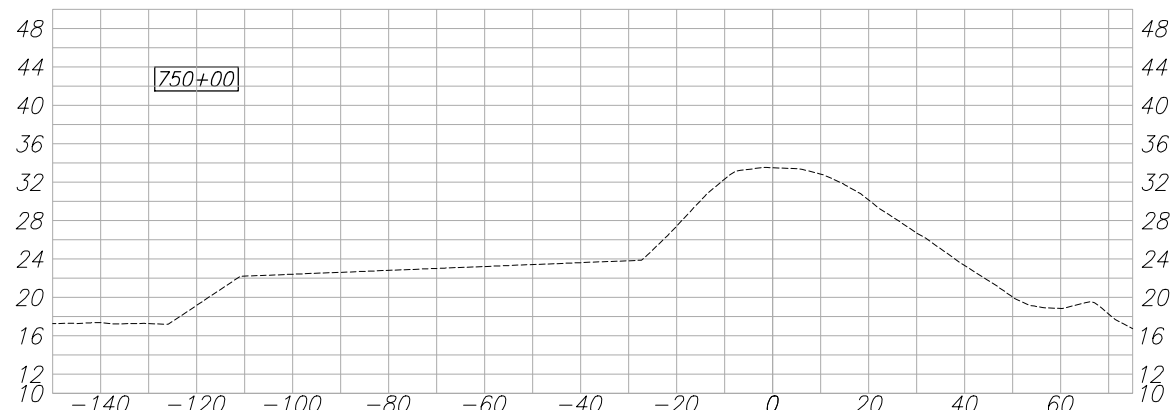
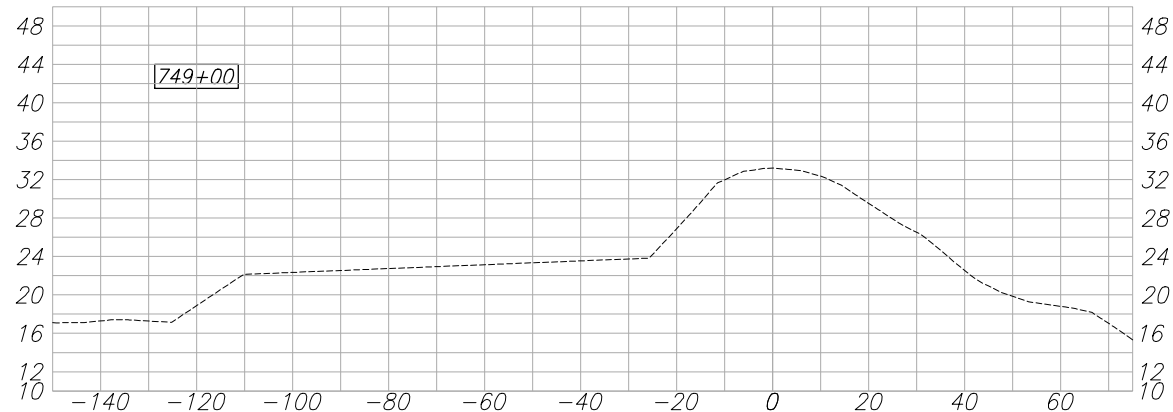
RECLAMATION DISTRICT NO. 17
ELEMENT VI-B, VI-C, VI-D, VI-E
PROFILE - ELEMENT VIb - STATION 741+00 TO 748+00

SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: MAY 2014	PROJECT NO. 25182.010
SCALE: NOT TO SCALE	SHT 12
DRAWN BY: GB	OF 20
DESIGNED BY: GJ	
CHECKED BY: JFT	

ELEMENT VI-B, VI-C, VI-D & VI-E (SEEPAGE BERM) 65% SUBMITTAL



DESIGN
DETAILS
WILL BE
ADDED TO
THESE
SECTIONS
AFTER 65%
COMMENTS
ARE
RECEIVED.
PLEASE
SEE
TYPICAL
SECTIONS
FOR 65%
REVIEW.

PLANS REVIEWED AND APPROVED BY:

K S N KJELSDEN
SINNOCK
NEUDECK
INC. Consulting Engineers
and Land Surveyors

Post Office Box 844
711 N. Pershing Avenue
Stockton, CA 95201-0844
Office: (209) 946-0268
Faxes: (209) 946-0296
E-mail: KSN@ksninc.com

THESE PLANS CONFORM TO THE GEOTECHNICAL REPORT
ENTITLED: SEEPAGE EVALUATION PROJECT #5747.000.000

ENGEO
INCORPORATED
EXCELLENT SERVICE SINCE 1971

PLANS PREPARED UNDER THE DIRECTION OF:

MACKAY & SOMPS
ENGINEERS PLANNERS SURVEYORS

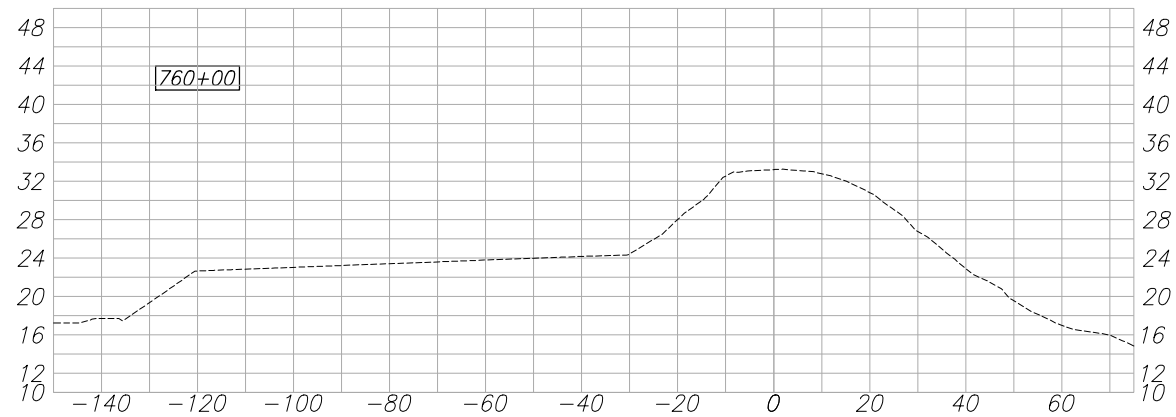
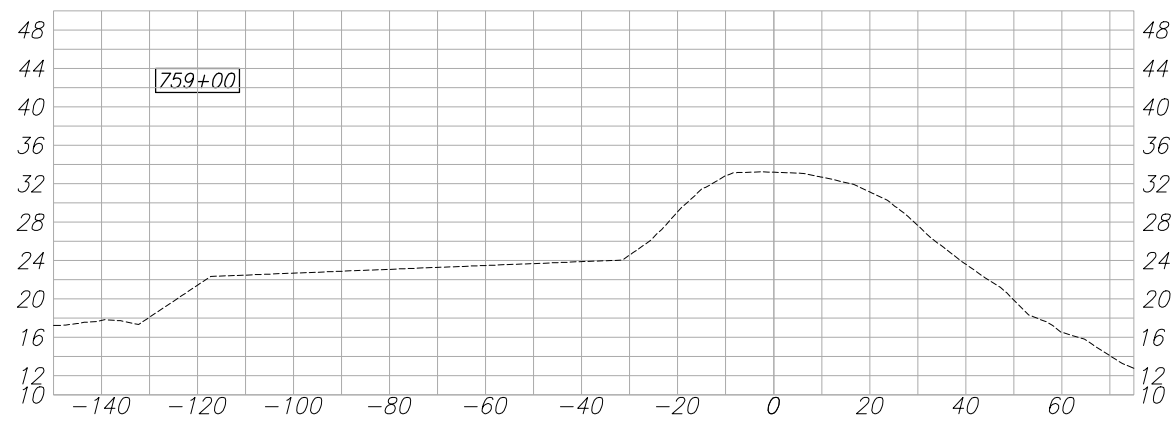
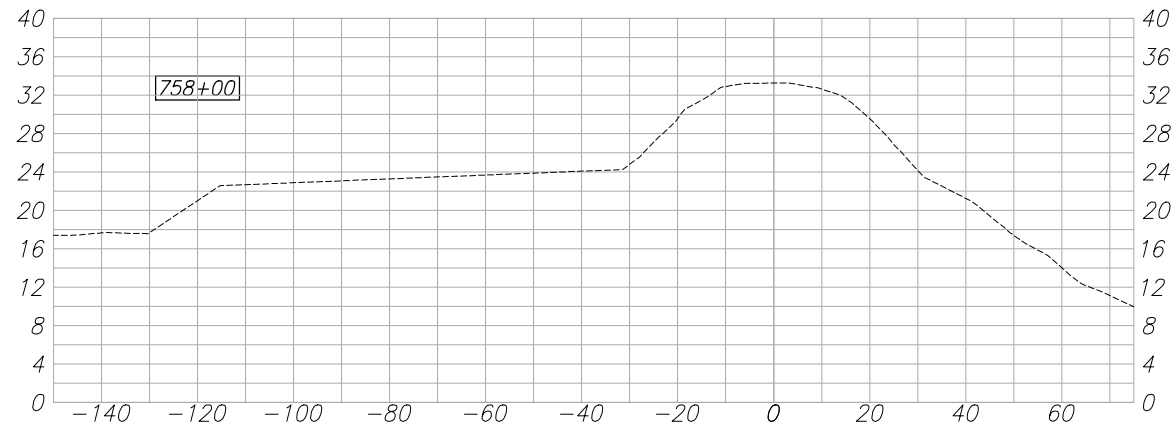
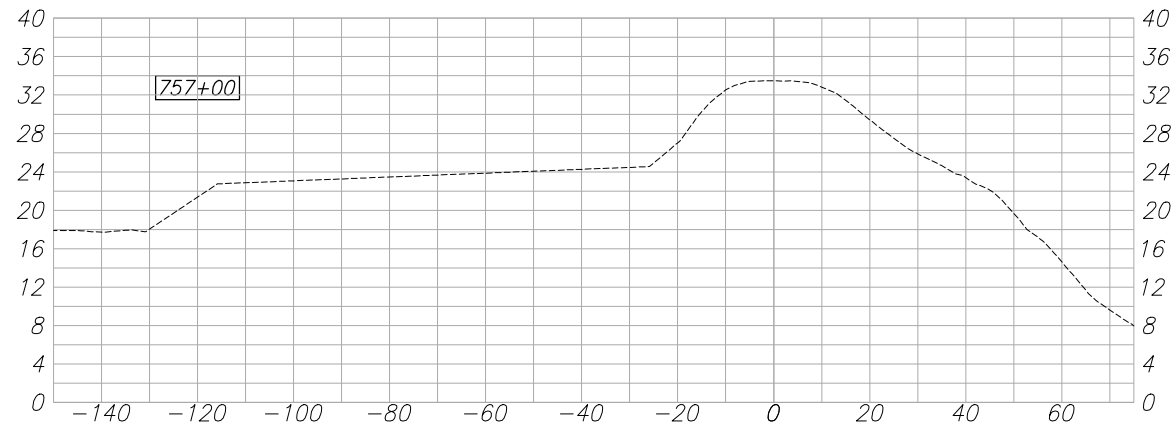
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RECLAMATION DISTRICT NO. 17
ELEMENT VI-B, VI-C, VI-D, VI-E
PROFILE - ELEMENT VIb - STATION 749+00 TO 756+00
SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: MAY 2014	PROJECT NO. 25182.010
SCALE: NOT TO SCALE	SHT 13
DRAWN BY: GB	OF 20
DESIGNED BY: GJ	
CHECKED BY: JFT	



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PLANS REVIEWED AND APPROVED BY:

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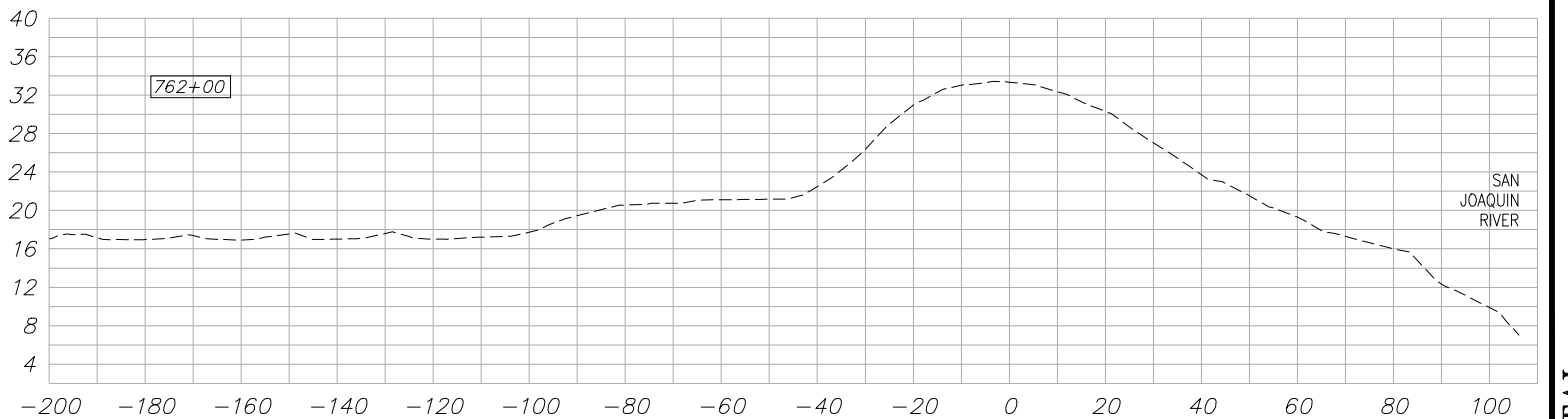
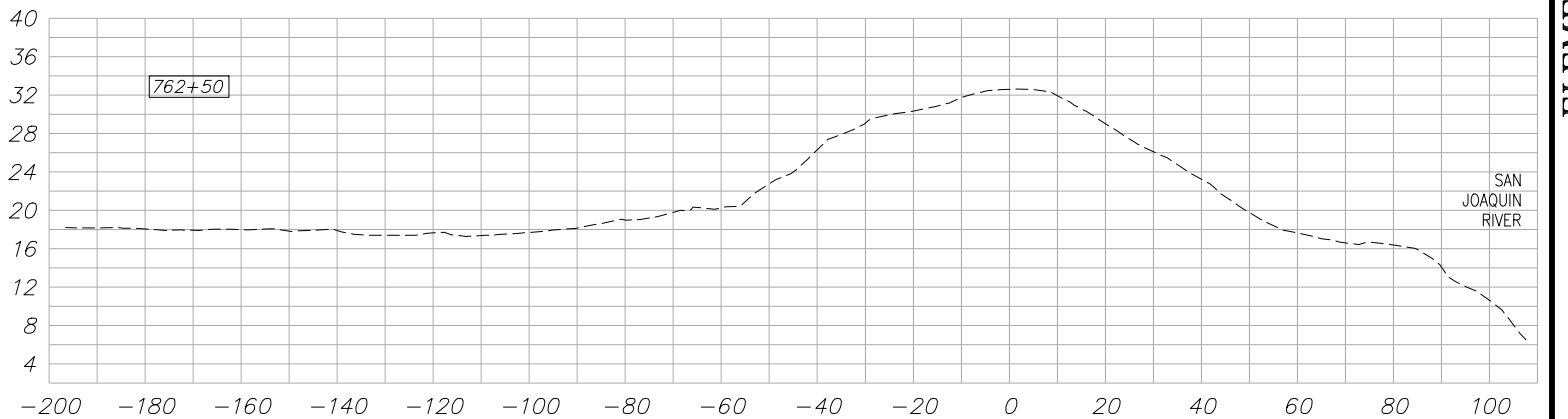
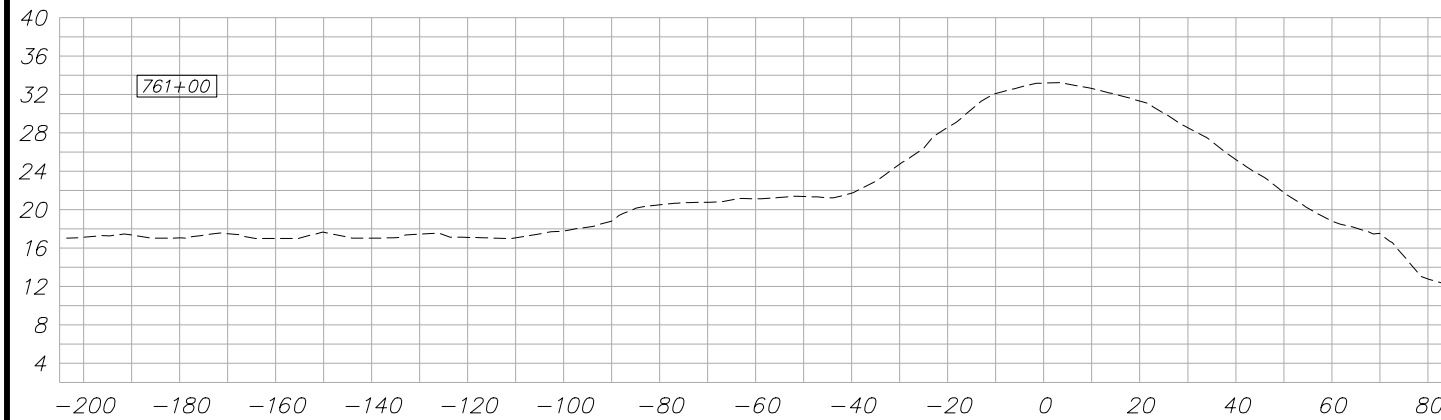
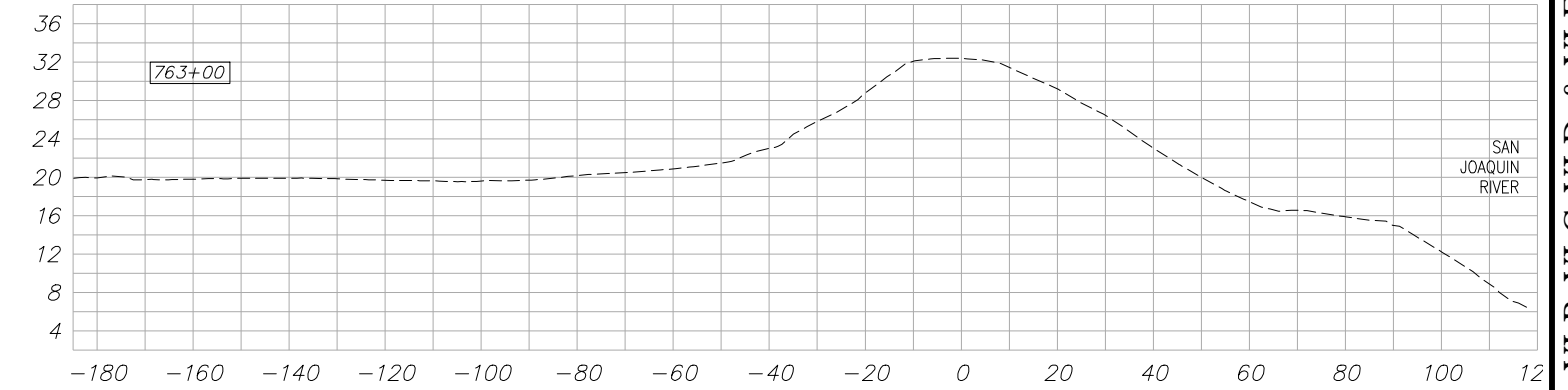
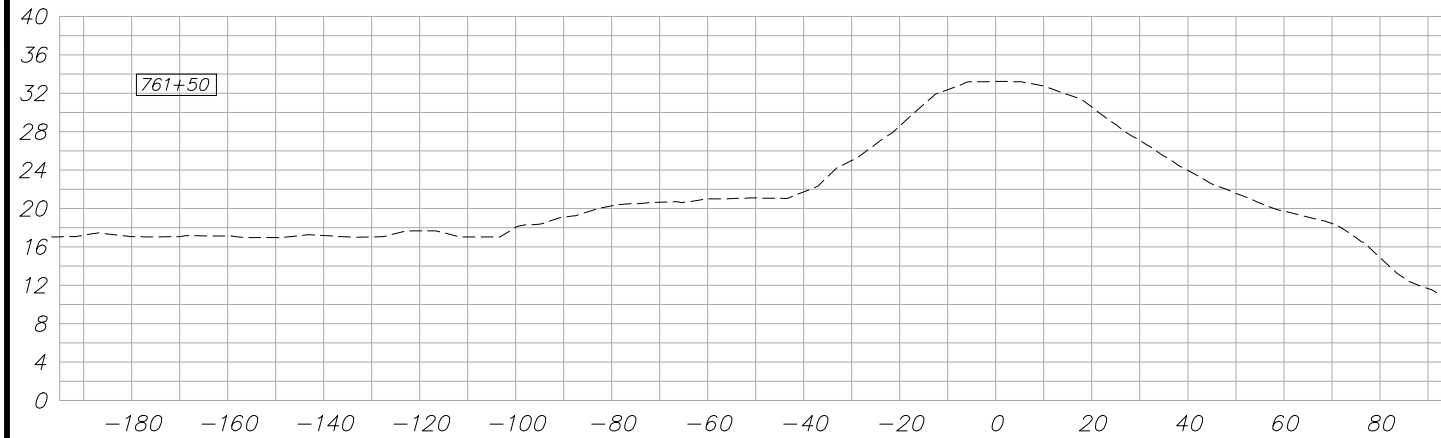
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RECLAMATION DISTRICT NO. 17
ELEMENT VI-B, VI-C, VI-D, VI-E
PROFILE - ELEMENT VIb - STATION 757+00 TO 760+00
SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: MAY 2014	PROJECT NO. 25182.010
SCALE: NOT TO SCALE	SHT 14
DRAWN BY: GB	OF 20
DESIGNED BY: GJ	
CHECKED BY: JFT	



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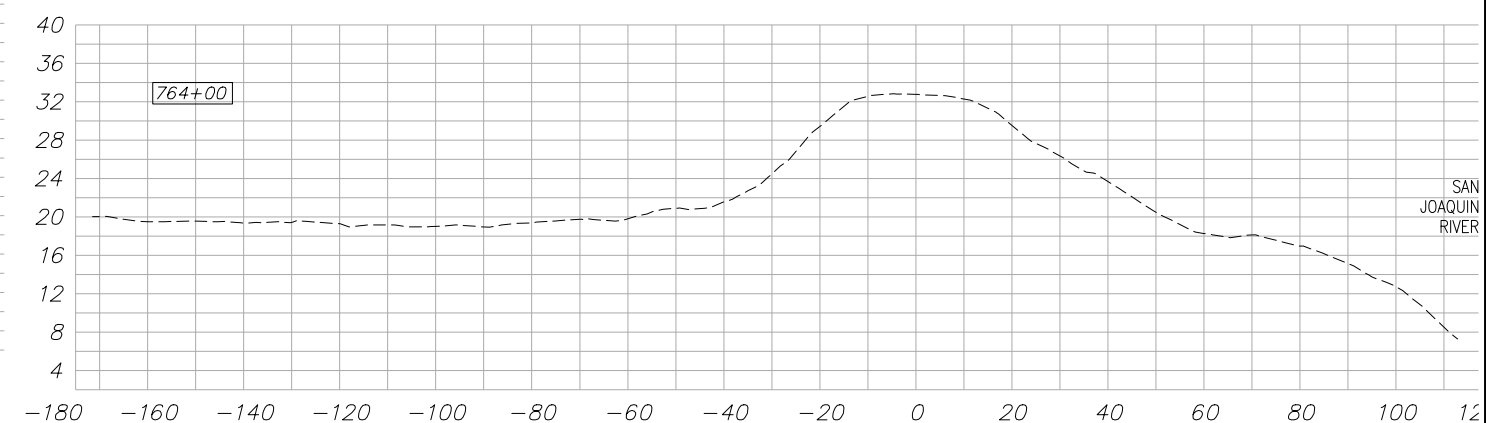
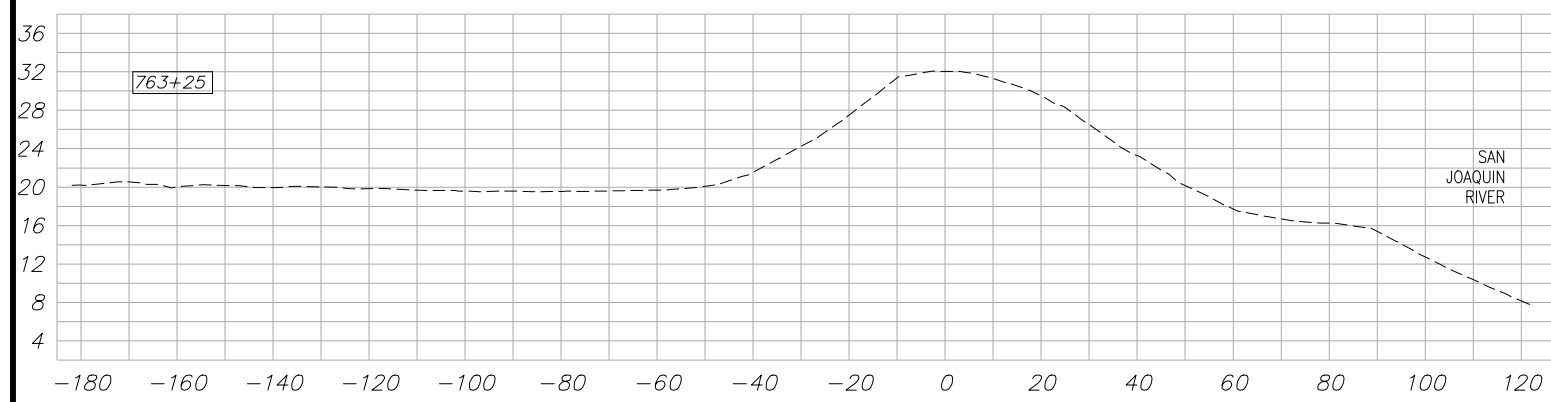
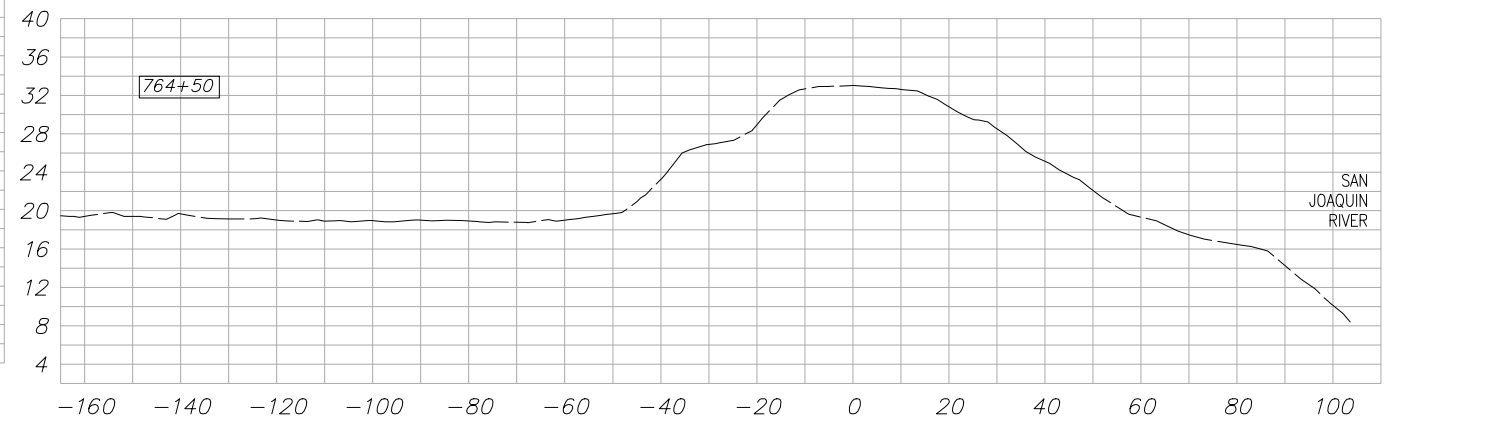
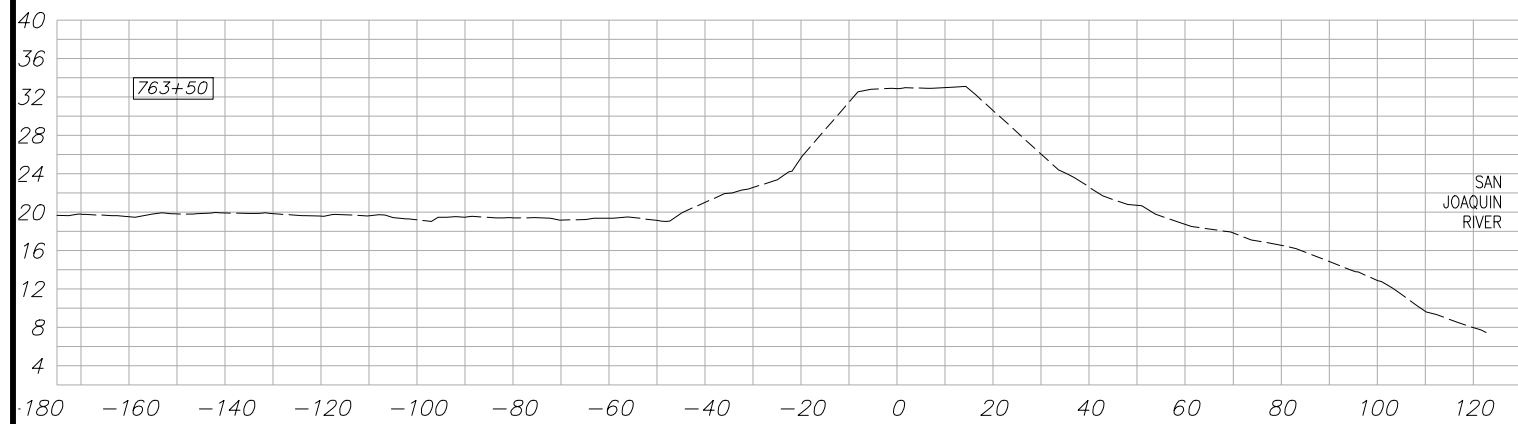
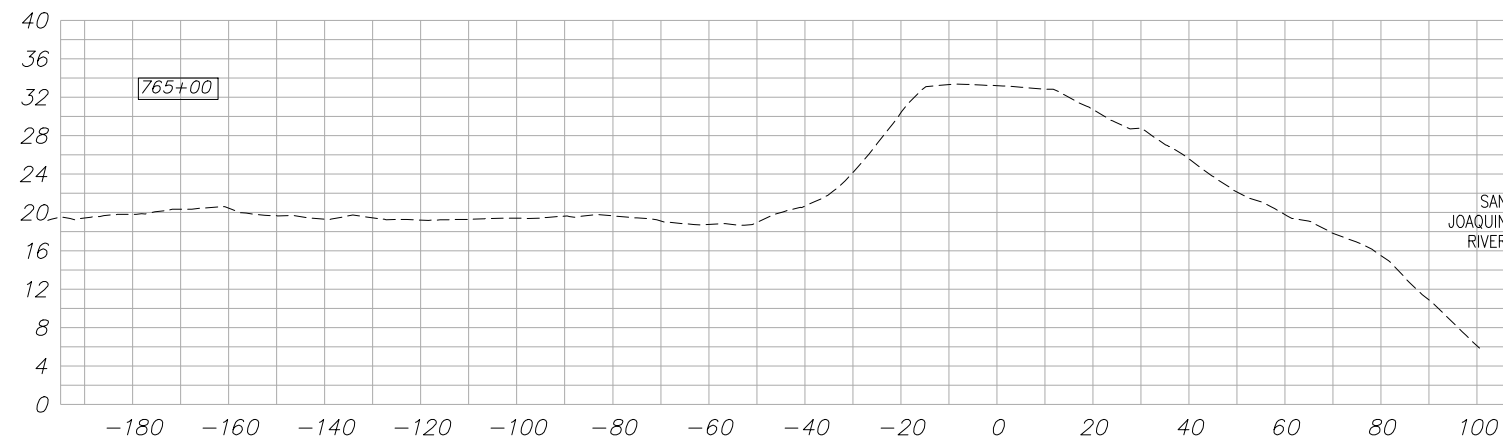
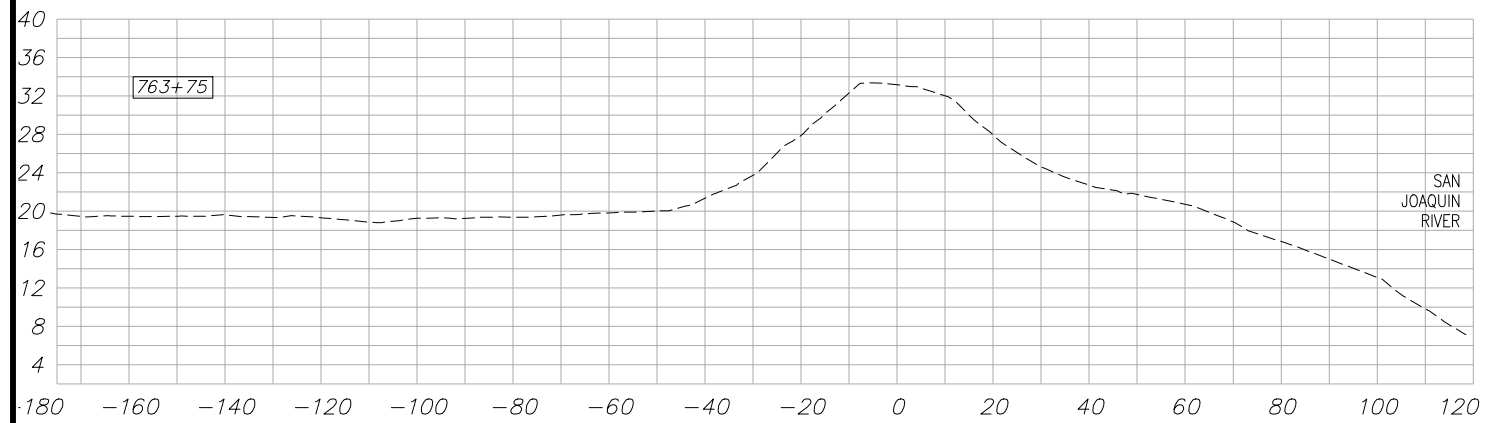
RECLAMATION DISTRICT NO. 17
ELEMENT VI-B, VI-C, VI-D, VI-E

PROFILE - ELEMENT VIC -
STATION 760+00 TO 763+00

SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: MAY 2014	PROJECT NO. 25182.010
SCALE: 1"=30'	SHT 15
DRAWN BY: GB	OF 20
DESIGNED BY: GJ	
CHECKED BY: JFT	



DESIGN DETAILS WILL BE ADDED TO THESE SECTIONS AFTER 65% COMMENTS ARE RECEIVED. PLEASE SEE TYPICAL SECTIONS FOR 65% REVIEW.

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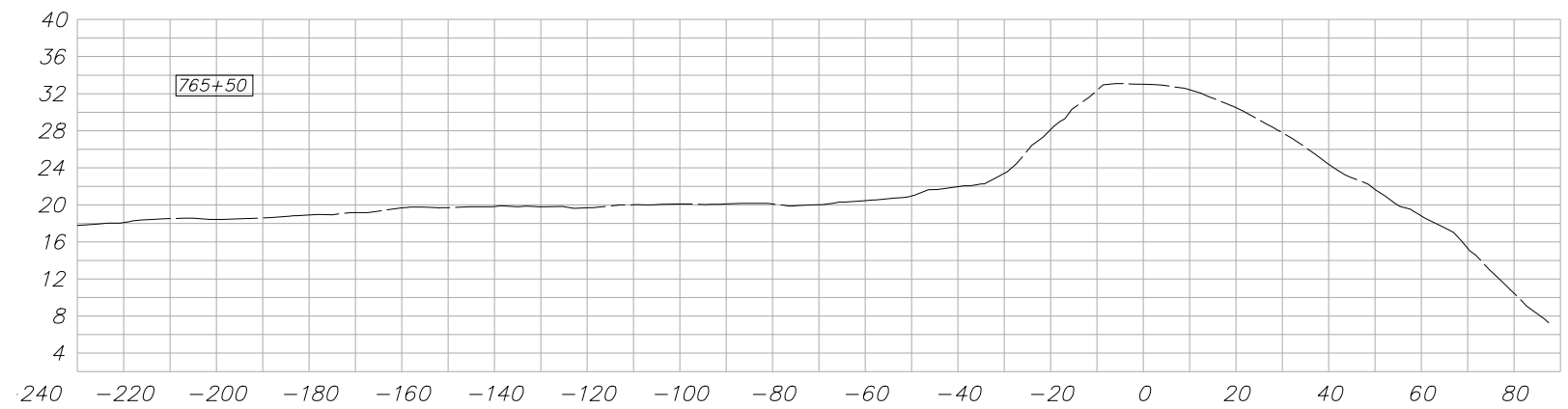
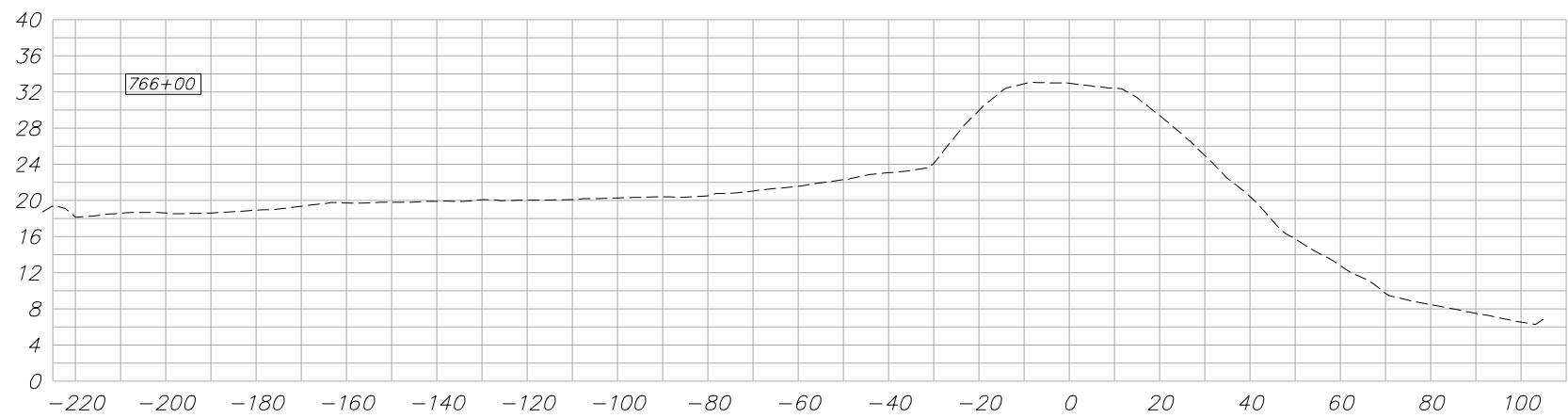
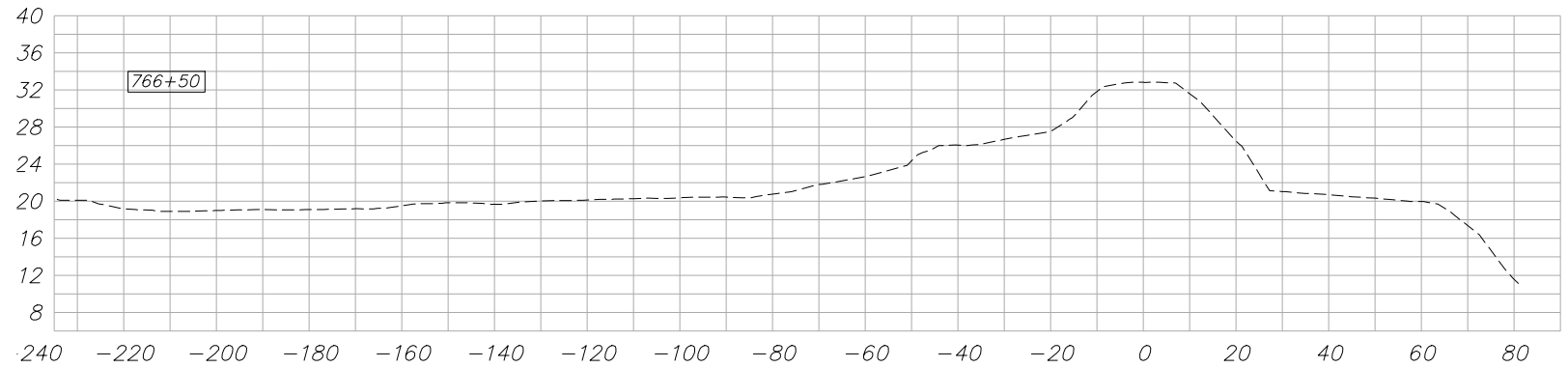
RECLAMATION DISTRICT NO. 17
ELEMENT VI-B, VI-C, VI-D, VI-E

PROFILE - ELEMENT VIC -
STATION 763+25 TO 765+00

SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: MAY 2014	PROJECT NO. 25182.010
SCALE: 1"=30'	SHT 16
DRAWN BY: GB	OF 20
DESIGNED BY: GJ	
CHECKED BY: JFT	



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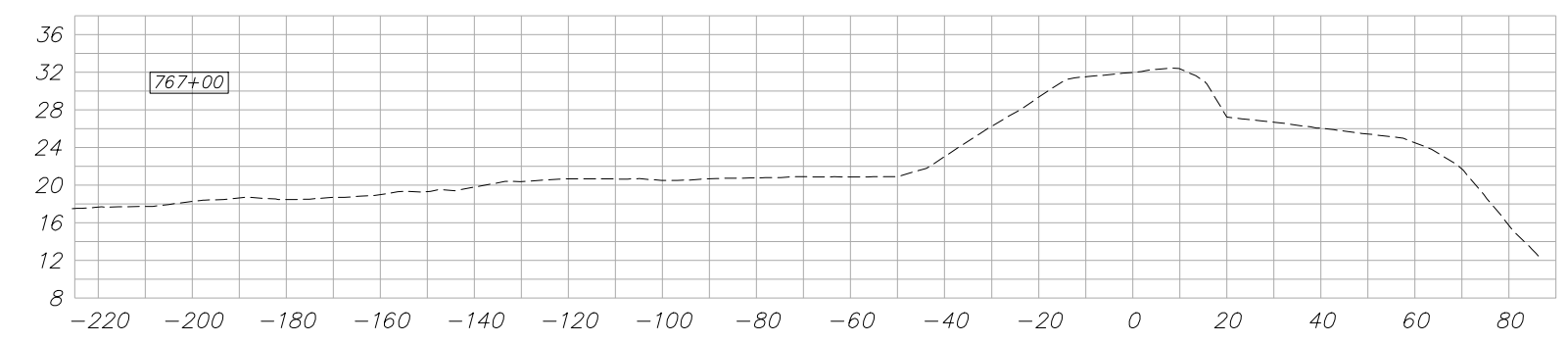
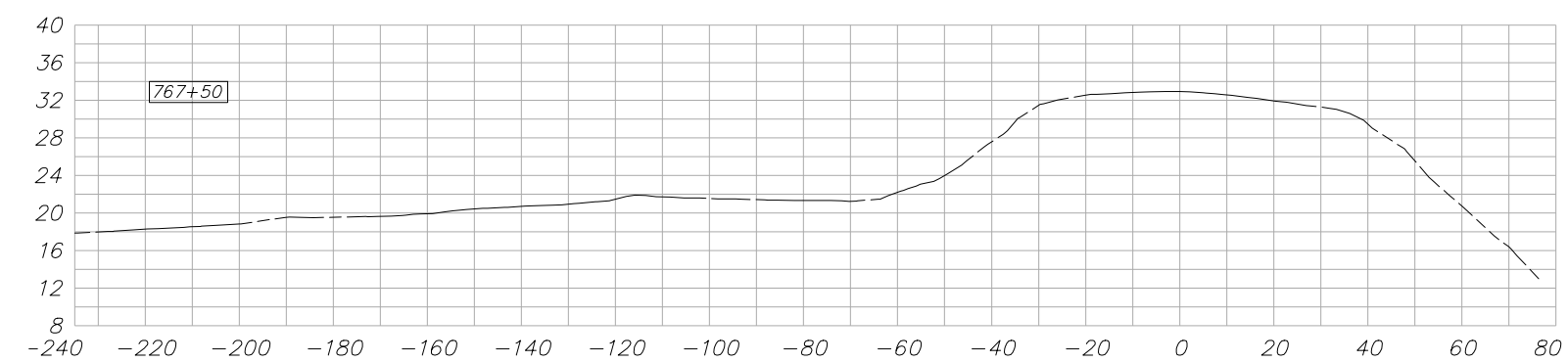
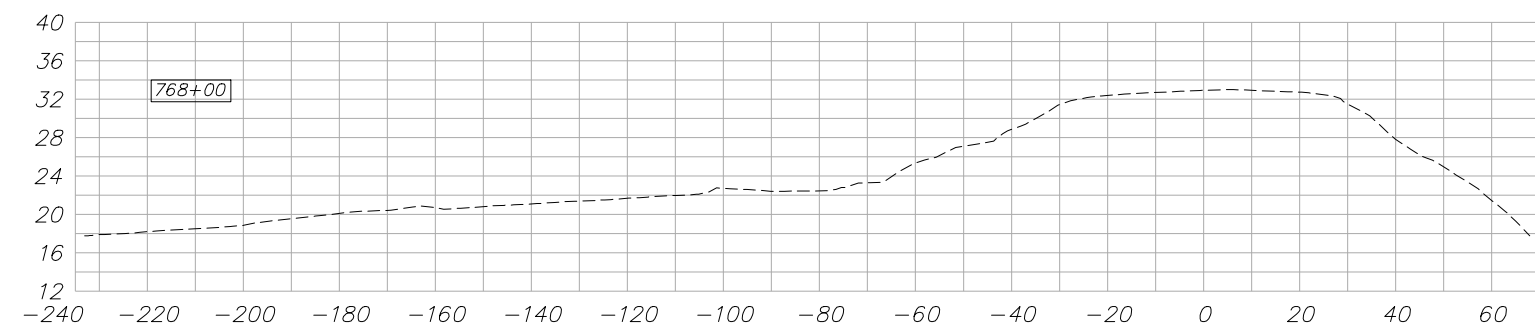
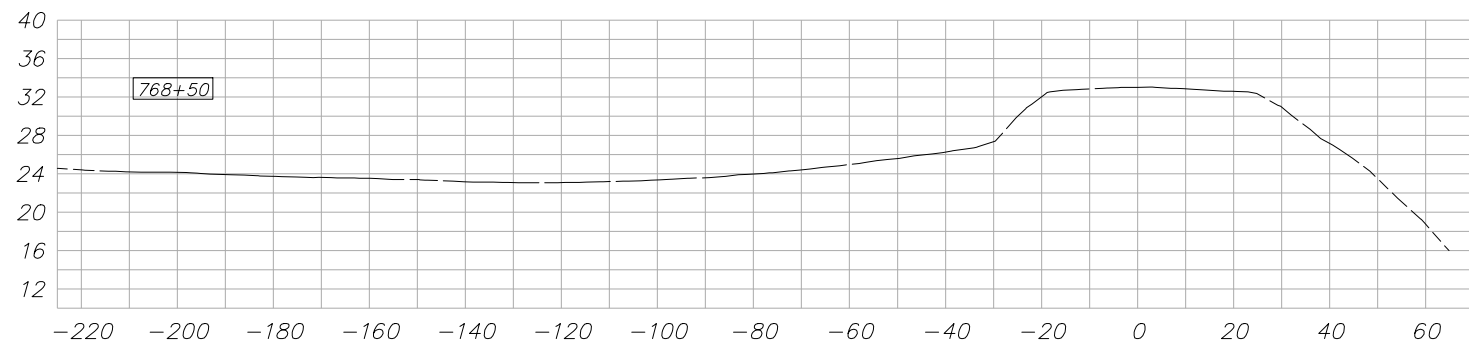
RECLAMATION DISTRICT NO. 17
ELEMENT VI-B, VI-C, VI-D, VI-E

PROFILE - ELEMENT VIC -
STATION 765+50 TO 766+50

SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: MAY 2014	PROJECT NO. 25182.010
SCALE: 1"=30'	SHT 17
DRAWN BY: GB	OF 20
DESIGNED BY: GJ	
CHECKED BY: JFT	



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RECLAMATION DISTRICT NO. 17
ELEMENT VI-B, VI-C, VI-D, VI-E

PROFILE - ELEMENT VIC -
STATION 767+00 TO 768+50

SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: MAY 2014	PROJECT NO. 25182.010
SCALE: 1"=30'	SHT 18
DRAWN BY: GB	OF 20
DESIGNED BY: GJ	
CHECKED BY: JFT	

PLACEHOLDER FOR 1000' CUTOFF
WALL SECTIONS

ELEMENT VI-B, VI-C, VI-D & VI-E (SEEPAGE BERM)

65% SUBMITTAL



PLANS REVIEWED AND APPROVED BY:

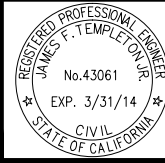
K KJELDSSEN
S SINNOCK
N NEUDECK
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RECLAMATION DISTRICT NO. 17
ELEMENT VI-B, VI-C, VI-D, VI-E

PROFILE - ELEMENT VIC -
STATION 767+00 TO 768+50

SAN JOAQUIN COUNTY

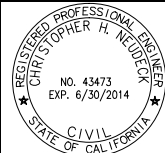
CALIFORNIA

NO.	REVISION	DATE

DATE: MAY 2014
SCALE: 1"=30'
DRAWN BY: GB
DESIGNED BY: GJ
CHECKED BY: JFT

PROJECT NO.
25182.010
SHT 19
OF 20

PLACEHOLDER FOR 1000' CUTOFF WALL SECTIONS.



PLANS REVIEWED AND APPROVED BY:

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S SINNOCK
N NEUDECK
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and Land Surveyors

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RECLAMATION DISTRICT NO. 17
ELEMENT VI-B, VI-C, VI-D, VI-E

PROFILE - ELEMENT VIC -
STATION 767+00 TO 768+50

SAN JOAQUIN COUNTY

CALIFORNIA

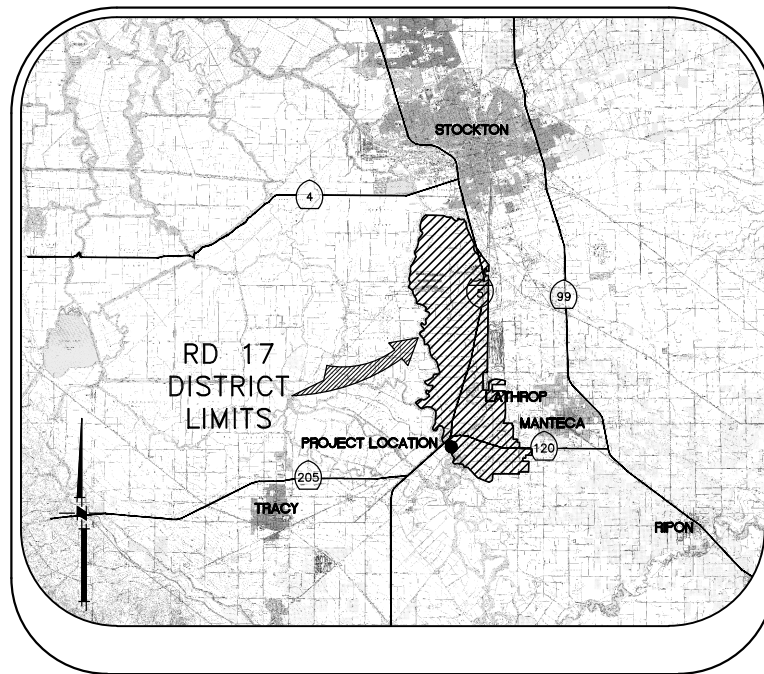
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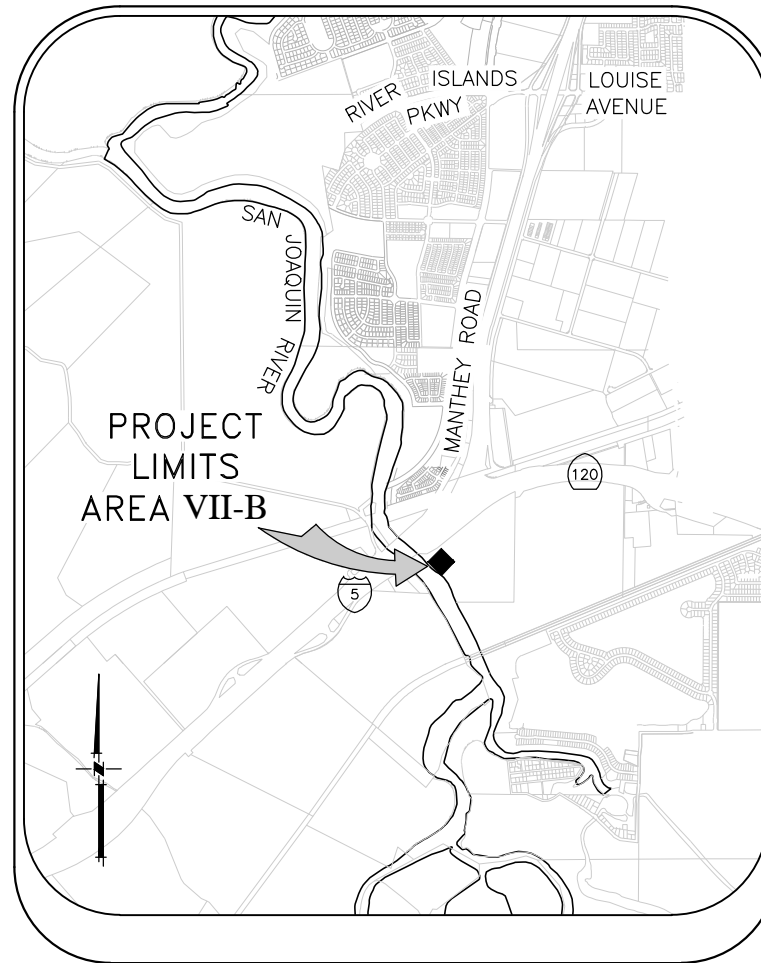
PROJECT NO.
25182.010
SHT 20
OF 20

RECLAMATION DISTRICT NO. 17 LEVEE SEEPAGE PROJECT

ELEMENT VII-B - SEEPAGE BERM RD17 STATION 775+00 THRU 778+85.43 (FEET) USACE STATION 12.77 THRU 12.83 (MILES)



VICINITY MAP



PROJECT SITE MAP

SHEET	DESCRIPTION
1.	COVER SHEET
2.	NOTES
3.	NOTES & BORING LOCATIONS
4.	HAUL ROUTE & CONTROL POINTS
5.	TYPICAL SECTIONS & DETAILS
6.	TYPICAL SECTIONS & DETAILS
7.	GRADING PLAN
8.	CROSS SECTIONS

INDEX

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EXISTING UNDERGROUND UTILITIES
CONTACT : UNDERGROUND SERVICE ALERT
PHONE: (800) 642-2444
FOR MARKING PRIOR TO DIGGING

PLANS REVIEWED AND APPROVED BY:

K S N **KJELDSSEN SINNOCK NEUDECK INC.**
Consulting Engineers and Land Surveyors
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RECLAMATION DISTRICT NO. 17
ELEMENT VII-B
COVER SHEET
SAN JOAQUIN COUNTY CALIFORNIA

No.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: NOT TO SCALE	SHT 1
DRAWN BY: GB	OF 8
DESIGNED BY: JBM	
CHECKED BY: JSL	

THE PERFORMANCE OF THE LEVEE SYSTEMS IS DEPENDANT UPON THE DESIGN CRITERIA AND THE LONG TERM OPERATION AND MAINTENANCE OF THE LEVEES. THE DESIGN TEAM HAS PREPARED THESE PLANS AND ASSOCIATED SPECIFICATIONS AND REPORTS IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICE USING INFORMATION FROM MULTIPLE SOURCES. IF EXTREME FLOODS (EXCEEDING THE DESIGN PROFILE), EARTHQUAKES OR OTHER LOADING CONDITIONS NOT EVALUATED IN THE DESIGN OCCUR, THE INTEGRITY OF THE LEVEE SYSTEM MAY BE COMPROMISED.

ROLES:

THE "DISTRICT" AS REFERRED TO IN THESE NOTES MEANS RECLAMATION DISTRICT 17(RD 17). THE DISTRICT IS THE PROJECT OWNER.

THE "ENGINEER" AS REFERRED TO IN THESE NOTES MEANS THE DISTRICT ENGINEER: KJELDSSEN, SINNOCK, AND NEUDECK. THE ENGINEER SHALL PROVIDE INSPECTION OF THE PROJECT AND OVERALL CONSTRUCTION MANAGEMENT INCLUDING COORDINATION WITH PUBLIC UTILITIES, PUBLIC AGENCIES, THE DESIGN ENGINEER AND THE GEOTECHNICAL ENGINEER.

THE "DESIGN ENGINEER" AS REFERRED TO IN THESE NOTES MEANS MACKAY & SOMPS, CIVIL ENGINEERS INC. THE DESIGN ENGINEER WILL PERFORM DISTRICT PROVIDED CONSTRUCTION STAKING AND "AS-GRADED" SURVEYS.

THE "GEOTECHNICAL ENGINEER" AS REFERRED TO IN THESE NOTES MEANS ENGeo INC. THE GEOTECHNICAL ENGINEER WILL PROVIDE MATERIALS TESTING, COMPACTION TESTING AND OTHER GEOTECHNICAL RELATED TESTING.

CONTRACTOR SHALL BE RESPONSIBLE FOR SUPERVISION OF ALL CONTRACTOR'S EMPLOYEES, SUBCONTRACTORS, INCLUDING SCHEDULING AND ALL SAFETY MATTERS.

THESE PLANS ARE TO BE USED IN CONJUNCTION WITH THE FOLLOWING:

- a. SOILS REPORT PREPARED BY ENGeo INC. ENTITLED, SEEPAGE EVALUATION PROJECT # 5747.000.000.
- b. SPECIFICATIONS PREPARED BY KSN DATED _____

GENERAL NOTES:

1. PRIOR TO THE COMMENCEMENT OF WORK, A JOINT INSPECTION BETWEEN THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER, THE GEOTECHNICAL ENGINEER, THEIR REPRESENTATIVES, AND THE CONTRACTOR (OR HIS REPRESENTATIVE) WILL BE CONDUCTED TO REVIEW THE PRE-CONSTRUCTION CONDITIONS (E.G. ROADS, PUMPS, DISCHARGE PIPES, SIPHONS, RAMPS, GATES, SIGNS, ETC.) IF SUCH EXISTING FACILITIES ARE DAMAGED BY THE CONTRACTOR'S OPERATIONS, THE CONTRACTOR, AT THEIR OWN EXPENSE, SHALL REPLACE OR RESTORE THEM TO THE CONDITION THAT EXISTED PRIOR TO THE COMMENCEMENT OF WORK.
2. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT (209) 946-0268, A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY WORK.
3. THE DISTRICT RESERVES THE RIGHT TO SUSPEND CONSTRUCTION AT ANY TIME IN THE EVENT OF EXTREME HIGH OR LOW TIDES, FLOOD EVENTS, OTHER CONDITIONS OR EMERGENCIES THAT MAY JEOPARDIZE THE INTEGRITY OF THE DISTRICT'S LEVEE AND ROAD SYSTEM.
4. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, COUNTY AND LOCAL REQUIREMENTS, AS REQUIRED FOR TRAFFIC CONTROL AND PUBLIC SAFETY DURING PROJECT CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL OUTLINED IN THESE PLANS AND THE REFERENCED SPECIFICATIONS.
5. THE DISTRICT WILL FURNISH ALL RIGHT-OF-WAY FOR ALL LEVEE ROADS AND DESIGNATED ACCESS HAUL ROADS AS SHOWN ON THESE PLANS. SHOULD THE CONTRACTOR WANT TO USE OTHER ROADWAYS OR ACCESS AREAS NOT SHOWN, THE CONTRACTOR SHALL AT THEIR OWN EXPENSE SECURE RIGHT-OF-WAY & NECESSARY PERMITS.
6. IF DELIVERING MATERIAL OR EQUIPMENT BY TRUCK, ALL TRUCK TRAFFIC SHALL BE LIMITED TO THE DISTRICT LEVEE ROADS AND/OR PUBLIC ROADS AS SHOWN ON HAUL ROUTE PLAN, UNLESS OTHERWISE APPROVED.
7. MAXIMUM SPEED LIMIT ON DISTRICT LEVEE ROADS IS 30 MPH, AS POSTED, OR AS OTHERWISE INDICATED ON THE CONSTRUCTION DRAWINGS. CONTRACTOR SHALL POST LARGE SLOW/CAUTION SIGNS AND SPEED LIMIT SIGNS FOR PURPOSES OF NOTIFYING BOTH CONTRACTOR'S EMPLOYEES AND THE PUBLIC. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SAFETY AT ALL TIMES ALONG ALL HAUL ROUTES AND IN ALL PROJECT AREAS (PUBLIC AND PRIVATE).

8. THE DISTRICT WILL PROVIDE SURVEY STAKES AS DESCRIBED IN THE SPECIFICATIONS WITHIN THE CONSTRUCTION SURVEYING SECTION. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL CONSTRUCTION STAKING AND SURVEYING AT THEIR OWN EXPENSE BEYOND THAT PROVIDED BY THE DISTRICT. PLEASE CONTACT THE ENGINEER IN WRITING WITH STAKING REQUESTS (209) 946-0268 WITH AT LEAST TWO WORKING DAYS ADVANCE NOTICE.
9. THE CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER AND THE GEOTECHNICAL ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER OR THE GEOTECHNICAL ENGINEER.
10. ANY DEFICIENCIES NOTED DURING INTERIM AND FINAL INSPECTIONS BY THE ENGINEER AND/OR DISTRICT SHALL BE CORRECTED BY THE CONTRACTOR PRIOR TO FINAL ACCEPTANCE BY THE DISTRICT. ANY ADDITIONAL COSTS AND EXPENSES FOR MOBILIZATION AND/OR DEMOBILIZATION, LABOR, EQUIPMENT AND OTHER ASSOCIATED COSTS REQUIRED TO CORRECT THE DEFICIENCIES NOTED, EXCEPT SPECIFIED MATERIAL(S), SHALL BE BORNE BY THE CONTRACTOR.
11. THE CONTRACTOR SHALL NOT CLOSE ANY ROAD, STREET, OR HIGHWAY TO THE PUBLIC EXCEPT WITH THE PERMISSION OF THE ENGINEER AND THE PROPER GOVERNMENTAL AUTHORITY. TEMPORARY PROVISIONS SHALL BE MADE BY THE CONTRACTOR TO ENSURE CONTINUOUS ACCESS TO PUBLIC AND PRIVATE DRIVEWAYS, AND PROPER FUNCTIONING OF CULVERTS, DRAINAGE AND IRRIGATION DITCHES, AND NATURAL WATER COURSES.
12. THE CONTRACTOR IS RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER, AND HE SHALL NOTIFY THE ENGINEER WHENEVER THERE IS A CHANGE IN SITE CONDITIONS OR AN ADJUSTMENT TO BE MADE IN WORK REQUIREMENTS.
13. SHOULD IT APPEAR THAT THE WORK TO BE DONE, OR ANY MATTER RELATIVE THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE ENGINEER AT (209) 946-0268 FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.
14. THE INTENT OF THESE PLANS IS TO SERVE AS A GUIDE AND TO PROVIDE THE CONTRACTOR WITH INFORMATION AND DETAILS NECESSARY TO CONSTRUCT THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY REGARDING ANY DISCREPANCIES AND AMBIGUITIES WHICH MAY EXIST IN THE PLANS OR SPECIFICATIONS. IF THE PLANS 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 FINEST QUALITY ARE TO BE USED.
15. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE OSHA REGULATIONS AND SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS.
16. THE CONTRACTOR SHALL AT ALL TIMES BE RESPONSIBLE FOR THE SECURITY OF THE JOBSITE AND EQUIPMENT. THE DISTRICT WILL NOT BE RESPONSIBLE FOR MISSING OR DAMAGED EQUIPMENT, TOOLS, OR PERSONAL BELONGINGS.

ENVIRONMENTAL NOTES:

1. THE CONTRACTOR SHALL NOT DISCHARGE SMOKE, DUST, OR ANY OTHER AIR CONTAMINANTS INTO THE ATMOSPHERE IN SUCH QUANTITY AS WILL VIOLATE THE REGULATIONS OF ANY LEGALLY CONSTITUTED AUTHORITY. HE SHALL ALSO ABATE DUST NUISANCE BY CLEANING, SWEEPING AND SPRINKLING WITH WATER, OR OTHER MEANS AS NECESSARY. THE USE OF WATER IN AN AMOUNT WHICH RESULTS IN MUD ON PUBLIC ROADS IS NOT ACCEPTABLE AS A SUBSTITUTE FOR SWEEPING OR OTHER METHODS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ADJACENT PUBLIC ROADS CLEAN & CLEAR FROM CONSTRUCTION IMPACTS OR DEBRIS. ADDITIONAL DETAILS FOR MUD AND DUST CONTROL IS INCLUDED IN SUBSEQUENT SECTIONS OF THESE NOTES.
2. THE CONTRACTOR SHALL EXERCISE EVERY REASONABLE PRECAUTION TO PROTECT STREAMS, WATERWAYS AND OTHER BODIES OF WATER FROM POLLUTION WITH FUELS, OIL, BITUMEN'S, CALCIUM CHLORIDE, AND OTHER HAZARDOUS MATERIALS AND SHALL CONDUCT AND SCHEDULE HIS OPERATIONS SO AS TO AVOID OR MINIMIZE MUDDYING AND SILTING OF SAID WATERS. CARE SHALL BE EXERCISED TO PRESERVE ROADSIDE VEGETATION BEYOND THE LIMITS OF CONSTRUCTION.

3. THROUGHOUT ALL PHASES OF CONSTRUCTION, INCLUDING SUSPENSION OF WORK, AND UNTIL FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL KEEP THE WORK SITE CONDITIONS CLEAN AND FREE FROM RUBBISH AND DEBRIS. ALL RUBBISH AND REFUSE SHALL BE DISPOSED OF IN A MANNER SATISFACTORY TO THE ENGINEER.

DUST AND MUD CONTROL:

1. DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL KEEP ALL CONSTRUCTION AREAS, FILL AREAS, HAUL ROADS, OTHER ROADWAYS, AND OTHER USE AREAS WHERE DUST IS GENERATED WELL WATERED: AND DURING WET CONDITIONS, AREAS USED BY LOCAL TRAFFIC, FREE AND CLEAR FROM MUD. CONTRACTOR SHALL PROVIDE EFFORTS NECESSARY TO MINIMIZE DUST AND OTHER DISTURBANCES NEAR EXISTING RESIDENCES AND ALL BUILDINGS NEAR HAUL ROUTES AND THE PROJECT SITE.
 - a. CROP DAMAGE: THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL TO PREVENT CROP DAMAGE AND FOR ANY AREAS SUBJECT TO CONSTRUCTION OR CONSTRUCTION TRAFFIC THAT GENERATE DUST AND/OR OTHER CONDITIONS WHICH MIGHT DAMAGE CROPS.
 - b. NON WORK DAYS: THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL THROUGHOUT THE DURATION OF THE PROJECT INCLUDING NON WORKDAYS IN ALL PROJECT AREAS, INCLUDING CONSTRUCTION ROADS AND CROP AREAS WHICH ARE USED BY THE CONTRACTOR, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. THE CONTRACTOR SHALL HAVE AT LEAST ONE (1) WATER TRUCK AVAILABLE TO THE PROJECT AT ALL TIMES (OR MORE AS NEEDED OR DIRECTED BY THE ENGINEER) TO MAINTAIN ADEQUATE DUST CONTROL FOR THE FOLLOWING AREAS:
 - a. PROJECT AREAS
 - b. ACCESS AND HAUL ROADS
 - c. LEVEE TOE BERM FILL AREAS
 - d. OTHER CONSTRUCTION USE AREAS
 - e. CROP DAMAGE PREVENTION
 - f. RESIDENTIAL CONSTRUCTION ZONES
 - g. ADJACENT PUBLIC STREETS, TRAILS & BIKEWAYS

UTILITY NOTES:

1. UTILITIES AS NOTED ON THE PLAN SET HAVE BEEN DETERMINED BASED ON RECORD INFORMATION AND FIELD INSPECTION, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE ACTUAL LOCATION OF ALL UNDERGROUND, SURFACE, OVERHEAD, AND SUBMARINE IMPROVEMENTS, OR FACILITIES WHICH MAY BE SUBJECT TO DAMAGE BY REASON OF HIS OPERATIONS.
2. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES AND SHALL CONTACT THE RESPECTIVE UTILITY COMPANIES & PRIVATE OWNERS PRIOR TO COMMENCEMENT OF WORK.
3. THE CONTRACTOR SHALL NOTIFY AFFECTED UTILITIES FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY CONSTRUCTION. (UNDERGROUND SERVICE ALERT (800) 642-2444) AND SHALL BE RESPONSIBLE FOR THE LOCATION AND PRESERVATION OF ALL FACILITIES IN THE AREA OF CONSTRUCTION.

PLANS REVIEWED AND APPROVED BY:



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THESE PLANS CONFORM TO THE GEOTECHNICAL REPORT ENTITLED: SEEPAGE EVALUATION PROJECT #5747.000.000



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RECLAMATION DISTRICT NO. 17
ELEMENT VII-B

NOTES

SAN JOAQUIN COUNTY CALIFORNIA

DATE: JAN 2014	PROJECT NO.
SCALE: TO SCALE	25182.010
DRAWN BY: GB	SHT 2
DESIGNED BY: JBM	OF 8
CHECKED BY: JSL	
No.	REVISION
	DATE

ACCESS ROADS:

1. THE CONTRACTOR SHALL IMPROVE, MAINTAIN, AND REPAIR UPON COMPLETION, THE ACCESS ROADS AND HAUL ROUTES AS REQUIRED FOR TRANSPORTATION AND HAULING MATERIAL. AT THE COMPLETION OF WORK THE CONTRACTOR SHALL RESTORE ALL ACCESS ROADS AND HAUL ROUTES TO PRE-CONSTRUCTION CONDITION IN A MANNER SATISFACTORY TO THE ENGINEER.
2. THE CONTRACTOR SHALL REVIEW THE ACCESS ROAD ROUTES AND DETERMINE THE LOCATION FOR TURNOUTS, RAMPS, ROAD DRAINAGE, ALIGNMENT, ETC. UPON COMPLETION OF THE PROJECT, SOME PORTIONS OF THE ACCESS ROADS MAY REQUIRE MINOR MODIFICATIONS AND ALTERATIONS. THE ACCESS ROADS WHICH REMAIN SHALL BE LEFT IN GOOD CONDITION FOR THE DISTRICT, FARMERS, AND OTHER LOCAL TRAFFIC.
3. THE CONTRACTOR SHALL NOT DEVIATE FROM IDENTIFIED HAUL ROUTES AND STAGING AREAS UNLESS PERMISSION IS OBTAINED FROM THE PROPERTY OWNER, ENGINEER AND PERMITS ARE OBTAINED FROM THE LOCAL AGENCY.
4. THE CONTRACTOR SHALL EXTEND, STRENGTHEN, REPLACE, OR OTHERWISE MODIFY THE EXISTING CROSSINGS (E.G. CULVERTS, SIPHONS, DRAIN PIPES, IRRIGATION PIPES, PUMP DISCHARGE PIPES, WET SPOTS, ETC.) AS NECESSARY TO ACCOMMODATE HIS EQUIPMENT. THE CONTRACTOR SHALL PROVIDE WHATEVER MEASURES ARE NECESSARY TO PRESERVE, PROTECT, AND MAINTAIN THE CROSSINGS SO AS TO ENSURE CONTINUOUS AND UNINTERRUPTED CONSTRUCTION OPERATIONS DURING THE ENTIRE TERM OF THIS CONTRACT.
5. THE HAUL ROADS MAY REQUIRE TEMPORARY IRRIGATION OR DISCHARGE PIPE EXTENSIONS AND RAMPING DURING CONSTRUCTION OPERATIONS. TEMPORARY EXTENSIONS AND RAMPING WILL BE PROVIDED AND INSTALLED BY THE CONTRACTOR AT HIS EXPENSE, INCLUDING REMOVAL IF REQUIRED, IN A MANNER WHICH MEETS WITH THE APPROVAL OF THE ENGINEER AND THE LANDOWNERS.
6. NEITHER THE DISTRICT NOR THE ENGINEER MAKES ANY WARRANTY OR GUARANTEE AS TO THE ADEQUACY OF THE EXISTING MATERIALS TO SUPPORT THE CONSTRUCTION TRAFFIC ON THE ACCESS ROADS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MAKING THE NECESSARY IMPROVEMENTS AND PROVIDING THE NECESSARY MEASURES REQUIRED TO ACCOMMODATE HIS ANTICIPATED NEEDS. REPAIRS TO ROADWAYS DAMAGED BY THE CONTRACTOR SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
7. CONTRACTOR MUST MAINTAIN HAUL ROUTE ACCESS AT ALL TIMES FOR USE BY THE DISTRICT AND/OR PUBLIC (AS APPLICABLE) DURING CONSTRUCTION.

CLEARING & GRUBBING:

1. UNLESS OTHERWISE INDICATED, THE WORK AREAS SHALL BE CLEARED AND GRUBBED BY THE CONTRACTOR. CONTRACTOR SHALL USE CAUTION WHILE CLEARING AND GRUBBING AROUND POWER LINES, BURIED ELECTRICAL CABLES AND OTHER EX FACILITIES/UTILITIES. ALL MATERIAL CLEARED AND REMOVED SHALL BECOME THE PROPERTY AND RESPONSIBILITY OF THE CONTRACTOR FOR REMOVAL AND DISPOSAL OFFSITE. SOME PRUNING/TRIMMING/THINNING OF BRANCHES OR TREES MAY BE REQUIRED.

FILL MATERIALS:

1. THE CONTRACTOR SHALL FURNISH, DELIVER, AND PLACE THE SPECIFIED FILL MATERIALS (PER THE DISTRICT ENGINEERS SPECIFICATIONS) TO THE DESIGNATED SITES.
2. THE FILL SHALL BE CONSTRUCTED WITH ACCEPTABLE MATERIALS SUFFICIENT TO MEET DESIGN GRADES AND SPECIFICATIONS.
3. ALL SUBGRADE AREAS RECEIVING FILL MATERIAL SHALL BE PREPARED AS REQUIRED BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR MAY BE REQUIRED TO PERFORM ADDITIONAL SUBGRADE PREPARATION WORK WITHIN THE FILL AREAS PRIOR TO THE ACCEPTANCE OF THE MATERIAL.
4. THE CONTRACTOR SHALL DELIVER THE FILL MATERIALS TO THE REQUIRED SECTIONS AS UNIFORM MIXTURES. THE MIXTURE SHALL BE DEPOSITED AND SPREAD TO THE REQUIRED COMPACTED THICKNESS. SEGREGATION OF MATERIAL SHALL BE AVOIDED AND EACH LAYER OF MATERIAL, AS SPREAD, SHALL BE FREE FROM POCKETS OF COARSE OR FINE MATERIAL.

- a. THE FILL MATERIALS SHALL BE PLACED IN LOOSE HORIZONTAL LAYERS NOT MORE THAN SIX INCHES (6") IN THICKNESS PRIOR TO COMPACTION. THE MATERIAL SHALL BE GENTLY SPREAD OUT. UNDER NO CIRCUMSTANCES SHALL ANY MATERIAL BE DROPPED FROM ANY HEIGHT ONTO THE FILL SECTION.
- b. IF SEGREGATION OCCURS, MATERIAL SHALL BE WORKED UNTIL IT IS UNIFORMLY AND SATISFACTORILY BLENDED. AFTER SPREADING, THE MATERIAL SHALL BE WATERED AND SHAPED TO THE REQUIRED SECTION AND THEN COMPACTED AS SPECIFIED.
- c. AT THE TIME MATERIALS ARE SPREAD, IT SHALL HAVE A MOISTURE CONTENT IN CONFORMANCE WITH THE PROJECT SPECIFICATIONS. SUCH MOISTURE SHALL BE UNIFORMLY DISTRIBUTED THROUGHOUT THE MATERIAL.

FINISHING AND SLOPING GRADING

1. THE SURFACE OF THE TOP LAYER SHALL BE FINISHED TO THE DESIGNATED GRADE AND CROSS SECTION. THE FINISHED SURFACE SHALL BE OF UNIFORM TEXTURE, DRESSED AND GRADED TO DRAIN AND PREVENT WATER PONDING.

COMPACTION EQUIPMENT:

1. COMPACTION SHALL BE PERFORMED WITH A NON-VIBRATORY TYPE ROLLER COMPACTOR. VIBRATORY EQUIPMENT WILL NOT BE PERMITTED ON DISTRICT LEVEES AND FILLS.

TESTING:

1. THE DISTRICT WILL RETAIN THE SERVICES OF AN INDEPENDENT SOILS CONSULTANT AND TESTING LABORATORY TO PERFORM SAMPLING AND TESTING AS REQUIRED AND TO CHECK FOR COMPLIANCE WITH THE SPECIFICATIONS. THE CONTRACTOR SHALL REMOVE SURFACE MATERIALS AT LOCATIONS DESIGNATED BY THE TESTING ENGINEER AT NO COST TO THE DISTRICT. THE INDEPENDENT TESTING LABORATORY WILL SAMPLE AND PERFORM ALL REQUIRED TESTS SUCH AS MOISTURE CONTENT; GRADATION, AND MOISTURE DENSITY RELATIONSHIPS ON THE EXCAVATED AND EMBANKMENT FILL MATERIALS

SWPPP:

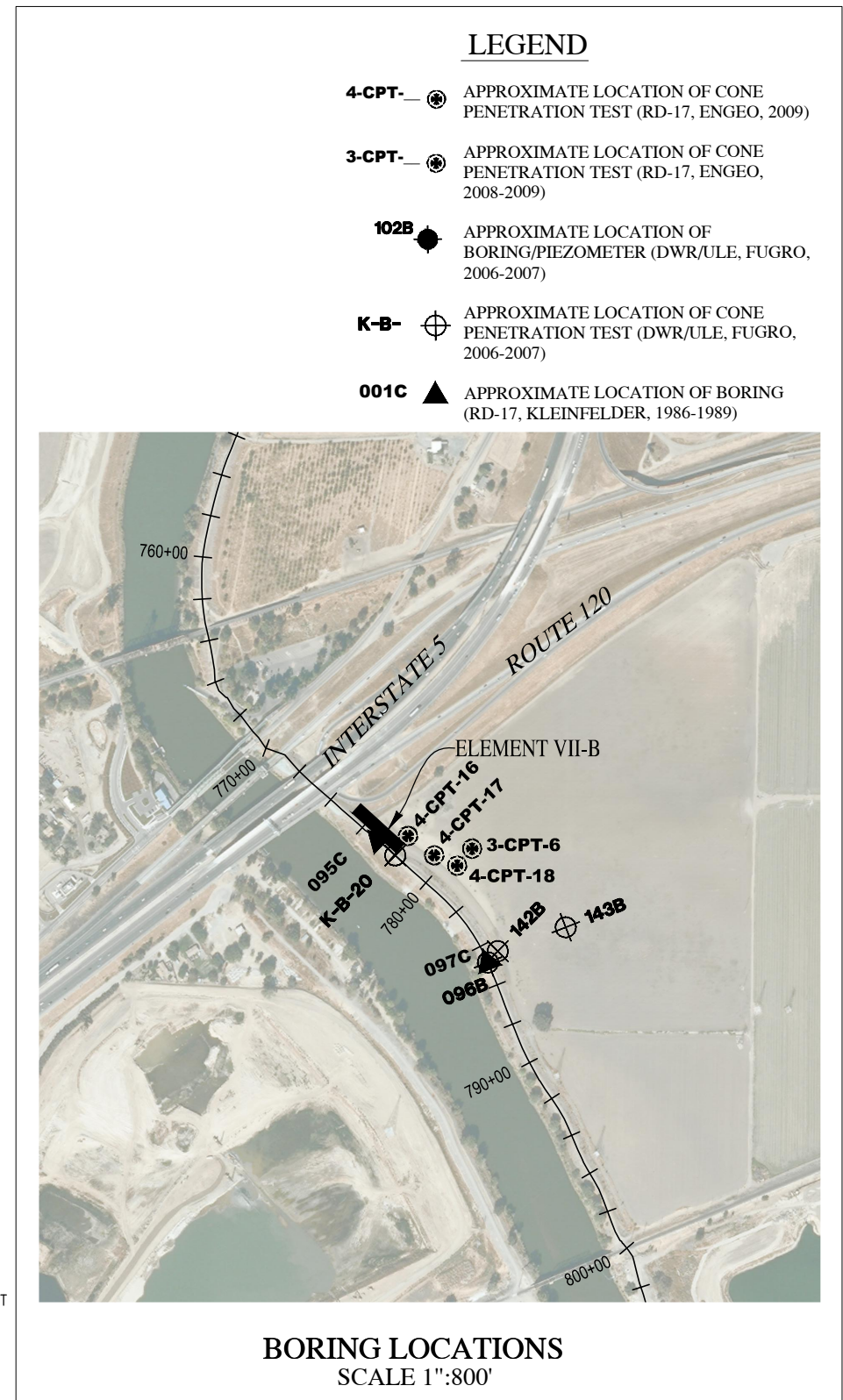
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DEVELOPMENT, INSTALLATION AND MAINTENANCE OF A SWPPP AND REQUIRE PROTECTION FEATURES. THESE FEATURES INCLUDE, BUT ARE NOT LIMITED TO, THOSE IDENTIFIED BELOW:
 - A. EROSION CONTROL FACILITIES
 - B. CONSTRUCTION ENTRANCE
 - C. STREET SWEEPING
 - D. THE CONTRACTOR IS RESPONSIBLE FOR ALL FINES, FEES, PENALTIES IMPOSED BY FEDERAL AND LOCAL AGENCIES DUE TO THE CONTRACTOR'S ACTIVITIES ASSOCIATED WITH THE SWPPP.
2. THE CONTRACTOR SHALL CONSTRUCT A STABILIZED CONSTRUCTION ENTRANCE AT ALL ENTRANCES TO THE PROJECT SITE AS APPROVED BY THE ENGINEER.
3. EROSION CONTROL FACILITIES AS SHOWN ON THESE PLANS HAVE BEEN PREPARED TO MEET THE REQUIREMENTS OF THE DISTRICT. THE PROJECT WILL REQUIRE A SWPPP, PREPARED BY A QUALIFIED DEVELOPER (QSD) WHO WILL ASSUME RESPONSIBILITY FOR THE PROJECT COMPLIANCE WITH THE STATE GENERAL CONSTRUCTION PERMIT AND WHOSE RECOMMENDATIONS WILL SUPERCEDE THIS PLAN ACCORDINGLY.

ABBREVIATIONS:

CL	CENTERLINE	N	NORTH, NORthing
CONST	CONSTRUCTION	NTS	NOT TO SCALE
DWSEL	DESIGN WATER SURFACE ELEVATION	PROP	PROPOSED
E	EAST, EASTING	RC	RELATIVE COMPACTION
ELEV	ELEVATION	R/W	RIGHT OF WAY
ESMT	EASEMENT	STA	STATION
EX	EXISTING	TCE	TEMPORARY CONSTRUCTION EASEMENT
FT	FOOT, FEET	TEMP	TEMPORARY
H	HORIZONTAL	TYP	TYPICAL
MIN	MINIMUM	V	VERTICAL
		WS	WATERSIDE

LEGEND

- 4-CPT-** APPROXIMATE LOCATION OF CONE PENETRATION TEST (RD-17, ENGEO, 2009)
- 3-CPT-** APPROXIMATE LOCATION OF CONE PENETRATION TEST (RD-17, ENGEO, 2008-2009)
- 102B** APPROXIMATE LOCATION OF BORING/PIEZOMETER (DWR/ULE, FUGRO, 2006-2007)
- K-B-** APPROXIMATE LOCATION OF CONE PENETRATION TEST (DWR/ULE, FUGRO, 2006-2007)
- 001C** APPROXIMATE LOCATION OF BORING (RD-17, KLEINFELDER, 1986-1989)



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ENGEO INCORPORATED EXCELLENT SERVICE SINCE 1971

PLANS PREPARED UNDER THE DIRECTION OF:

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RECLAMATION DISTRICT NO. 17
ELEMENT VII-B
NOTES & BORING LOCATIONS
SAN JOAQUIN COUNTY CALIFORNIA

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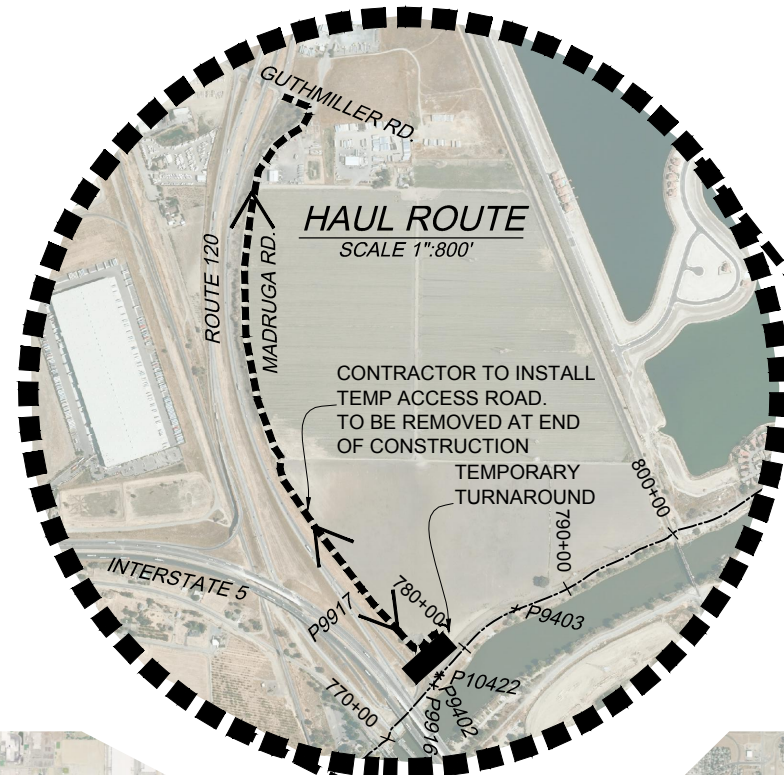
CONTROL POINTS

P#9402 - N=2109338.552 E=6329241.118 ELEV=33.60 MS110
 P#9403 - N=2108690.538 E=6329801.435 ELEV=32.91 MS111
 P#9916 - N=2109375.771 E=6329161.796 ELEV=32.99 FM#4
 P#9917 - N=2109981.365 E=6329963.705 ELEV=17.24 FM#5
 P#10422 - N=2109325.507 E=6329251.766 ELEV=33.64 9422 MS110

ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

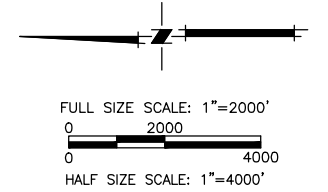
BASIS OF BEARINGS

THE BASIS OF BEARINGS IS NORTH 12D33'37.56" EAST BETWEEN NATIONAL GEODETIC SURVEY HORIZONTAL CONTROL POINTS HPGN-D CA 10 HG (PID A4256) AND MATTHEW (PID H50118), CALIFORNIA COORDINATE SYSTEM ZONE 3, NAD83, EPOCH DATE 1997.30, AS CALCULATED AND ADJUSTED BY THE NATIONAL GEODETIC SURVEY IN JULY, 1998, AS SHOWN ON RECORD OF SURVEY RECORDED AT BOOK 34 PAGES 163 - 163B, OF SAN JOAQUIN COUNTY RECORDS. ALL DISTANCES SHOWN HEREON ARE GROUND DISTANCES. TO CONVERT TO GRID DISTANCE, MULTIPLY GROUND DISTANCE BY AVERAGE COMBINED SCALE FACTOR OF 0.999929125.



SITE SECURITY NOTES:

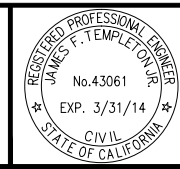
1. TEMPORARY GATES SHALL BE INSTALLED BY THE CONTRACTOR TO PREVENT UNAUTHORIZED ACCESS TO THE SITE. ACCESS KEYS SHALL BE PROVIDED TO THE DISTRICT TO ALLOW ACCESS TO THE FARMER AND DISTRICT DURING CONSTRUCTION.



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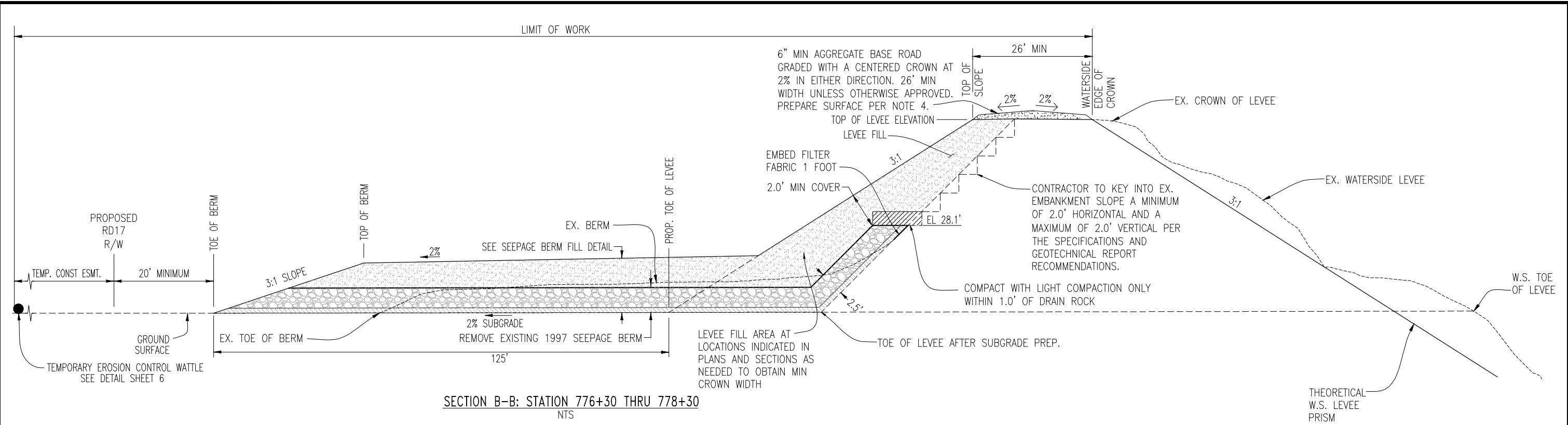


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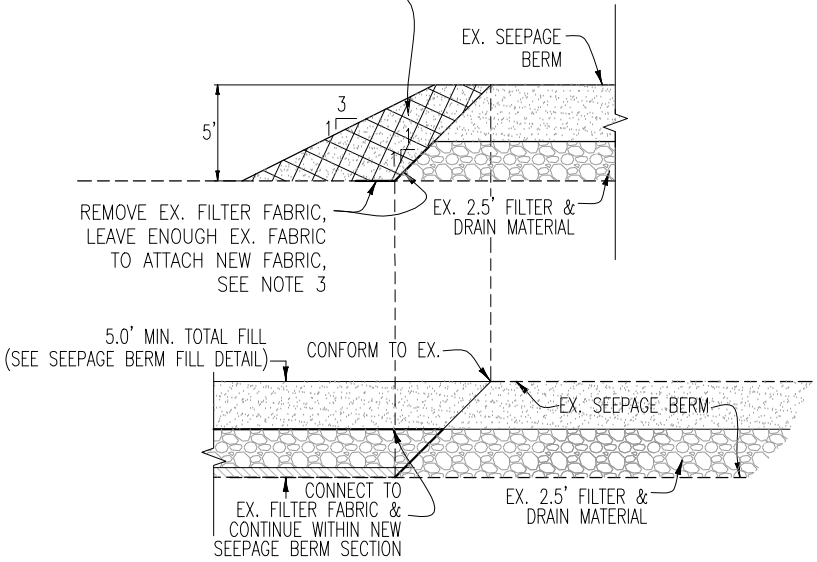
RECLAMATION DISTRICT NO. 17
 ELEMENT VII-B
 HAUL ROUTE & CONTROL POINTS
 SAN JOAQUIN COUNTY CALIFORNIA

No.	REVISION	DATE

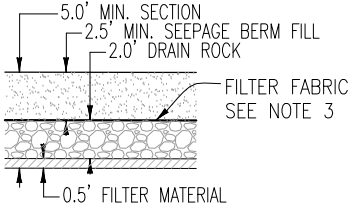
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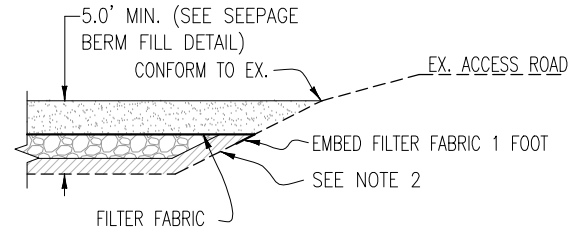
REMOVE EX. SOIL CAP (CROSS-HATCHED AREA). PROTECT EX. FILTER FABRIC AND DRAIN ROCK. EXCAVATE TO COMPACTED ROCK SECTION PER GEOTECHNICAL ENGINEER.



SECTION A-A: BERM CONFORM
NTS



SEEPAGE BERM FILL DETAIL
NTS



SECTION C-C: END OF BERM TRANSITION
NTS

- NOTES:
- RD17 RIGHT OF WAY EXTENDS FROM THE SAN JOAQUIN RIVER WATER'S EDGE (AT ORDINARY HIGH WATER) TO THE PROPOSED RD17 RIGHT OF WAY SHOWN ABOVE AND ON THE DETAILED CROSS-SECTIONS WITHIN THIS PLAN SET. TEMPORARY CONSTRUCTION EASEMENTS WILL BE OBTAINED BY RD17 TO COVER THE LIMITS OF WORK AS SHOWN.
 - CONTRACTOR TO CLEAR, AND GRUB WORKING AREAS. SCARIFY AND RECOMPACT EXISTING GROUND PER GEOTECHNICAL ENGINEER'S RECOMMENDATION.
 - ALL FILTER FABRIC SHALL BE MIRAFI FW700 OR APPROVED EQUAL. EDGES SHALL BE SEWN PER SPECIFICATIONS.
 - CONTRACTOR SHALL STRIP AND STOCKPILE EX. AB AS APPROVED BY ENGINEER PRIOR TO CONSTRUCTION. SCARIFY 6" AND RECOMPACT LEVEE CROWN SUBGRADE TO 90% RELATIVE COMPACTION PRIOR TO PLACEMENT OF AB. EACH LAYER OF AB PLACED SHALL BE NOT LESS THAN 95% RELATIVE COMPACTION.
 - GRADE SUBGRADE TO UNIFORM 2% SLOPE TO ENSURE CONSISTENT BERM LAYER THICKNESS.
 - CONTRACTOR SHALL PLACE WATTLES ALONG THE LIMIT OF THE TEMPORARY CONSTRUCTION EASEMENT PRIOR TO BEGINNING WORK, ALL SUBSEQUENT EROSION CONTROL MEASURES SHALL BE INSTALLED PER THE PROVISIONS OF THE SWPPP.

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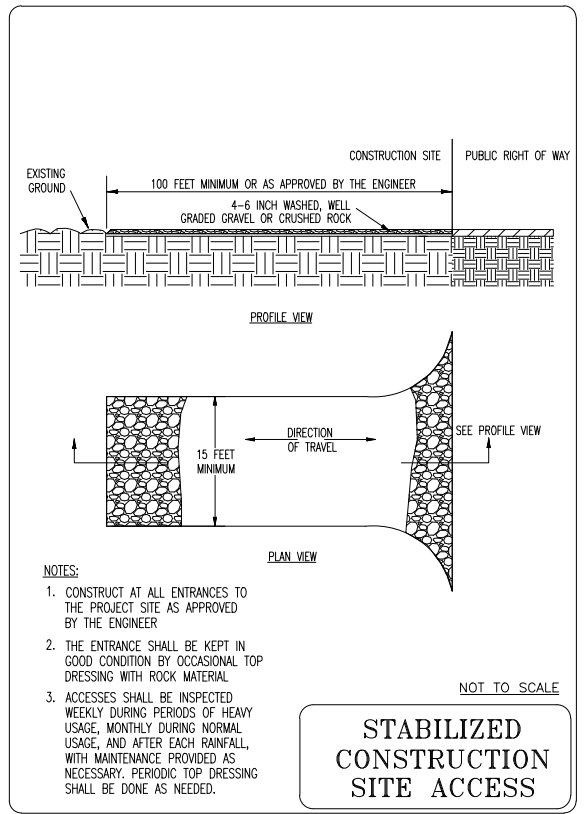
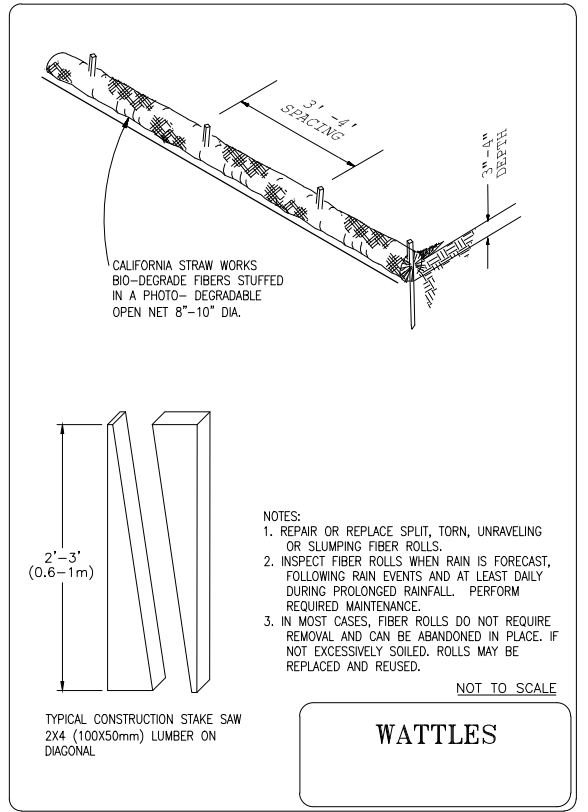
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RECLAMATION DISTRICT NO. 17
ELEMENT VII-B
TYPICAL SECTIONS & DETAILS

SAN JOAQUIN COUNTY CALIFORNIA

DATE: JAN 2014	PROJECT NO. 25182.010
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DRAWN BY: GB	OF 8
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THESE PLANS CONFORM TO THE GEOTECHNICAL REPORT ENTITLED: SEEPAGE EVALUATION PROJECT #5747.000.000

ENGEO INCORPORATED
EXCELLENT SERVICE SINCE 1971

PLANS PREPARED UNDER THE DIRECTION OF:

MACKAY & SOMPS
ENGINEERS PLANNERS SURVEYORS
5142 Franklin Drive, Suite B, Pleasanton, CA 94588 (925) 225-0690

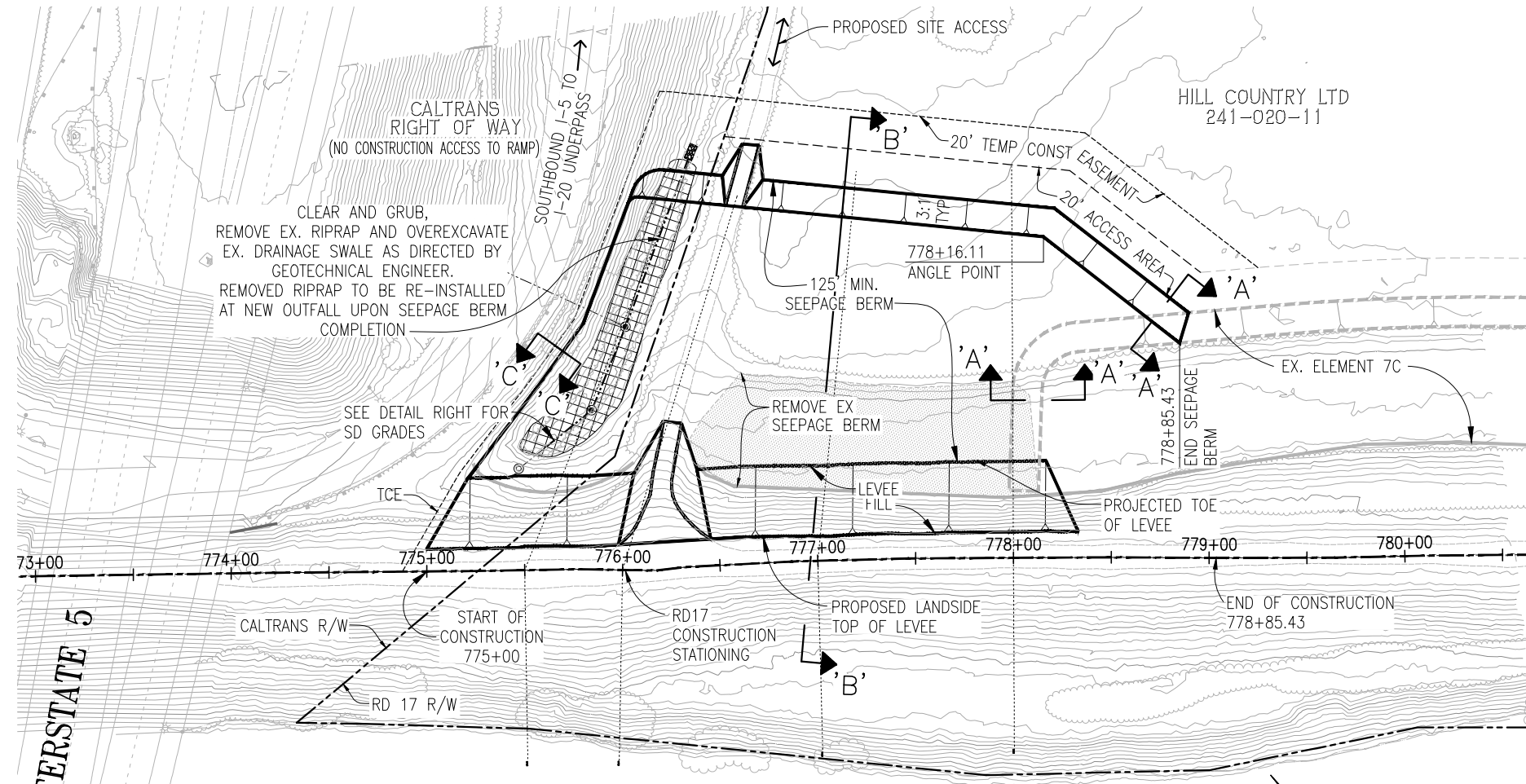
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RECLAMATION DISTRICT NO. 17
ELEMENT VII-B
TYPICAL SECTIONS & DETAILS

SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: NTS	SHT 6
DRAWN BY: GB	OF 8
DESIGNED BY: JBM	
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SAN JOAQUIN RIVER

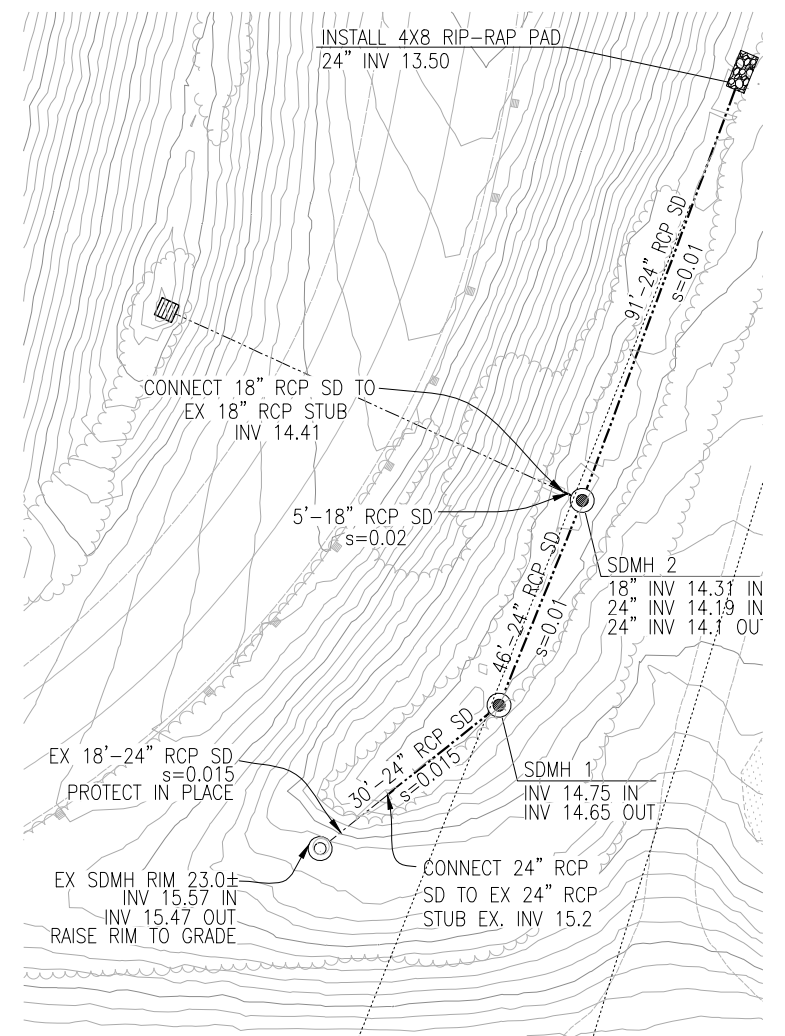
PLAN VIEW

SCALE: 1"=40'

LEGEND

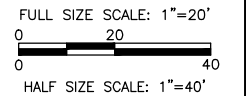
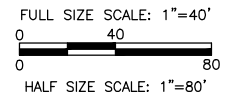
- EXISTING GAS LINE
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING IRRIGATION/SD LINE
- PROPOSED IRRIGATION/SD LINE
- CONFORM
- TOP TOE NEW SEEPAGE BERM SLOPE
- EX TOE
- OVER-EXCAVATE
- EX SEEPAGE BERM (1997) REMOVE

NOTE:
 1. REMOVE EX 1997 SEEPAGE BERM AND EX ACCESS RAMP, GRADE TO 2% SUBGRADE PER SECTION B SHEET 5. CONFORM TO EX ELEMENT VII-C SEEPAGE BERM.



STORM DRAIN DETAIL

SCALE: 1"=20'



NOTE:
 STORM DRAIN PIPE TO BE LOCATED IN DRAIN ROCK LAYER OF SEEPAGE BERM. 1' MIN DRAIN ROCK COVER. SEE CROSS SECTIONS FOR DETAILS.

WARNING • CAUTION
 EXISTING UNDERGROUND UTILITIES
 CONTACT: UNDERGROUND SERVICE ALERT
 PHONE: (800) 227-2600
 FOR MARKING PRIOR TO DIGGING

PLANS REVIEWED AND APPROVED BY:

K S N KJELSDEN SINNOCK NEUDECK INC. Consulting Engineers and Land Surveyors

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 711 N. Pershing Avenue
 Stockton, CA 95201-0844
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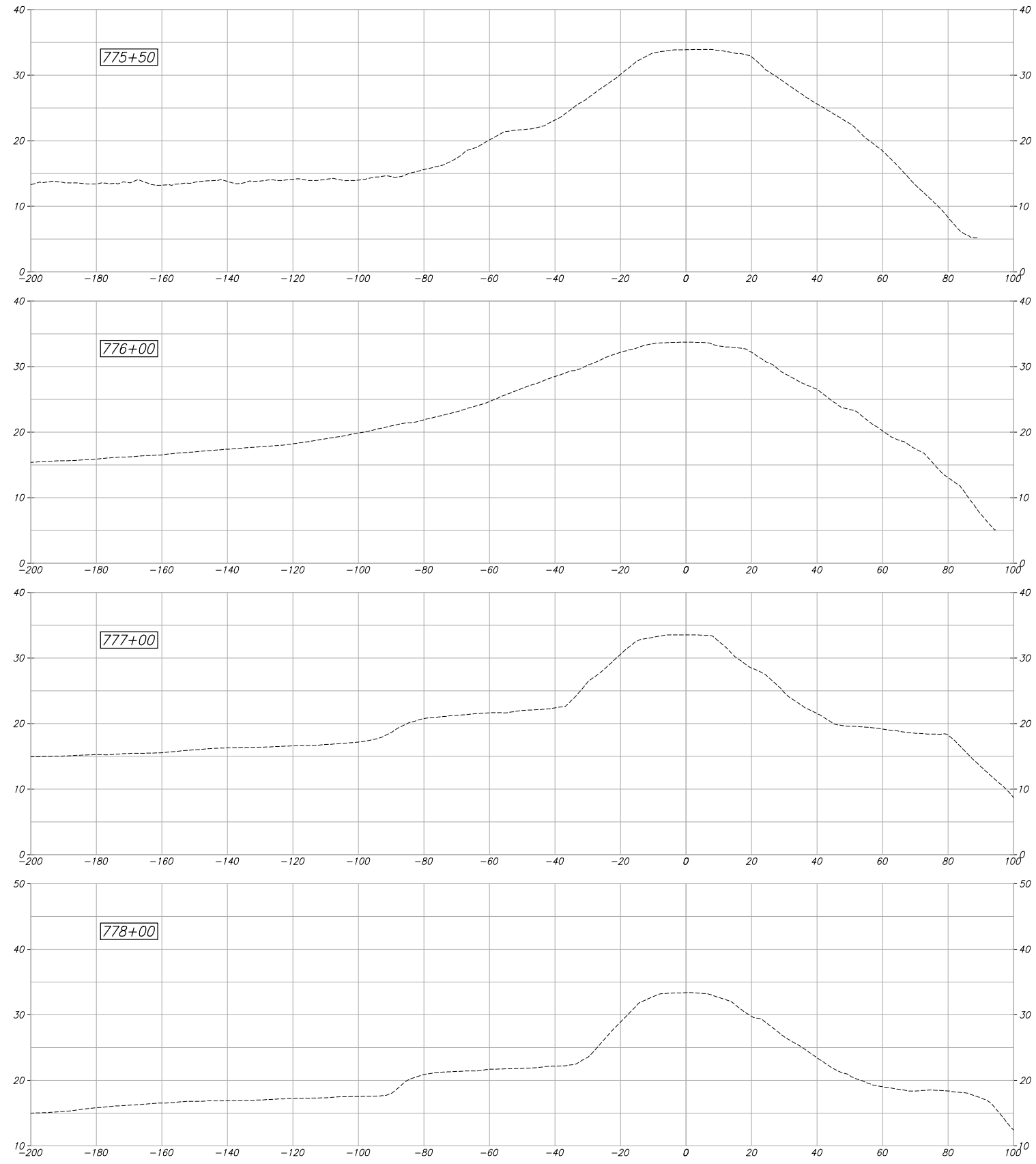
PLANS PREPARED UNDER THE DIRECTION OF:

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 5142 Franklin Drive, Suite B, Pleasanton, CA 94588 (925) 225-0690

RECLAMATION DISTRICT NO. 17
 ELEMENT VII-B

SAN JOAQUIN COUNTY CALIFORNIA

DATE: JAN 2014	PROJECT NO. 25182.010
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DATE _____	



DESIGN DETAILS WILL BE ADDED TO THESE SECTIONS AFTER 65% COMMENTS ARE RECEIVED. PLEASE SEE TYPICAL SECTIONS FOR 65% REVIEW.

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RECLAMATION DISTRICT NO. 17
ELEMENT VII-B
CROSS SECTIONS

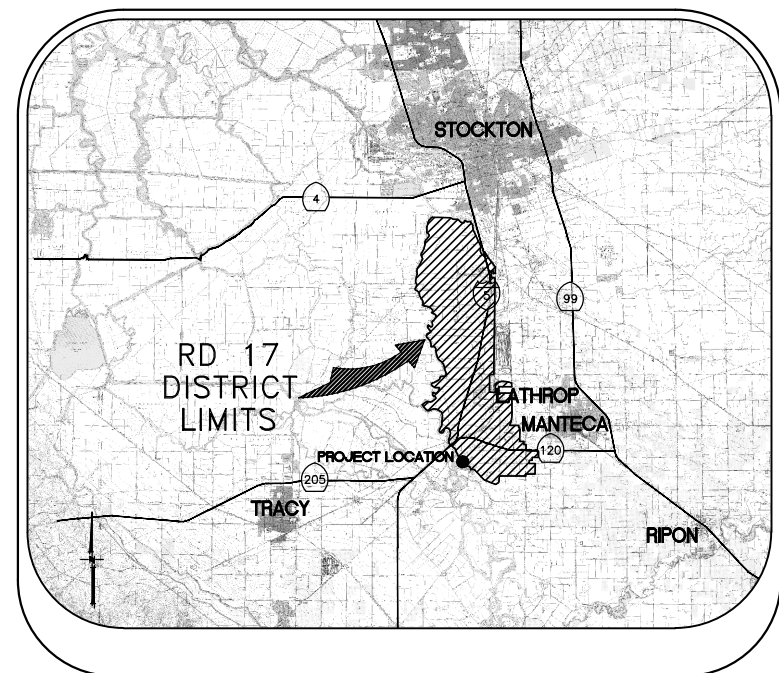
SAN JOAQUIN COUNTY CALIFORNIA

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: H:1"=40' V:1"=20'	SHT 8
DRAWN BY: GB	OF 8
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	DATE

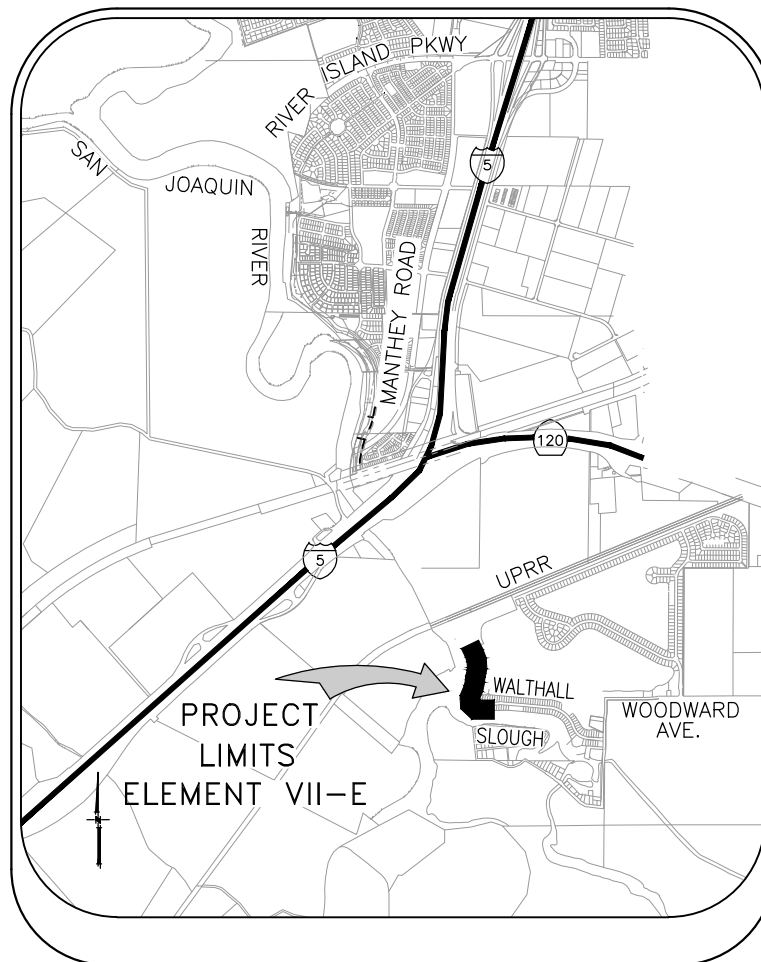
RECLAMATION DISTRICT NO. 17 LEVEE SEEPAGE PROJECT

ELEMENT VII-E

**RD17 STATION 803+00 THRU 828+00 (FEET)
USACE STATION 13.30 THRU 13.77 (MILES)**



VICINITY MAP



PROJECT SITE MAP

SHEET	DESCRIPTION
1.	COVER SHEET
2.	NOTES
3.	NOTES
4.	TYPICAL SECTIONS & DETAILS
5.	BORING LOCATIONS, HAUL ROUTE PLAN & CONTROL POINTS
6.	KEY MAP & ACCESS PLAN
7.	PLAN VIEW - 800+00 to 820+50
8.	PLAN VIEW - 820+50 to 828+00
9.	PROFILE VIEW - 803+00 to 828+00
10.	CROSS SECTIONS - 803+00 to 809+00
11.	CROSS SECTIONS - 810+00 to 816+00
12.	CROSS SECTIONS - 817+00 to 823+00
13.	CROSS SECTIONS - 824+00 to 828+00

INDEX

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RECLAMATION DISTRICT NO. 17
ELEMENT VII-E
COVER SHEET
SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: NOT TO SCALE	SHT 1
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DESIGNED BY: GJ	
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THE PERFORMANCE OF THE LEVEE SYSTEMS IS DEPENDANT UPON THE DESIGN CRITERIA AND THE LONG TERM OPERATION AND MAINTENANCE OF THE LEVEES. THE DESIGN TEAM HAS PREPARED THESE PLANS AND ASSOCIATED SPECIFICATIONS AND REPORTS IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICE USING INFORMATION FROM MULTIPLE SOURCES. IF EXTREME FLOODS (EXCEEDING THE DESIGN PROFILE), EARTHQUAKES OR OTHER LOADING CONDITIONS NOT EVALUATED IN THE DESIGN OCCUR, THE INTEGRITY OF THE LEVEE SYSTEM MAY BE COMPROMISED.

ROLES:

THE "DISTRICT" AS REFERRED TO IN THESE NOTES MEANS RECLAMATION DISTRICT 17(RD 17). THE DISTRICT IS THE PROJECT OWNER.

THE "ENGINEER" AS REFERRED TO IN THESE NOTES MEANS THE DISTRICT ENGINEER: KJELDSSEN, SINNOCK, AND NEUDECK. THE ENGINEER SHALL PROVIDE INSPECTION OF THE PROJECT AND OVERALL CONSTRUCTION MANAGEMENT INCLUDING COORDINATION WITH PUBLIC UTILITIES, PUBLIC AGENCIES, THE DESIGN ENGINEER AND THE GEOTECHNICAL ENGINEER.

THE "DESIGN ENGINEER" AS REFERRED TO IN THESE NOTES MEANS MACKAY & SOMPS, CIVIL ENGINEERS INC. THE DESIGN ENGINEER WILL PERFORM DISTRICT PROVIDED CONSTRUCTION STAKING AND "AS-GRADED" SURVEYS.

THE "GEOTECHNICAL ENGINEER" AS REFERRED TO IN THESE NOTES MEANS ENGEO INC. THE GEOTECHNICAL ENGINEER WILL PROVIDE MATERIALS TESTING, COMPACTION TESTING AND OTHER GEOTECHNICAL RELATED TESTING.

CONTRACTOR SHALL BE RESPONSIBLE FOR SUPERVISION OF ALL CONTRACTOR'S EMPLOYEES, SUBCONTRACTORS, INCLUDING SCHEDULING AND ALL SAFETY MATTERS.

THESE PLANS ARE TO BE USED IN CONJUNCTION WITH THE FOLLOWING:

- a. SOILS REPORT PREPARED BY ENGEO INC. ENTITLED, SEEPAGE EVALUATION PROJECT # 5747.000.000.
- b. SPECIFICATIONS PREPARED BY KSN DATED _____

GENERAL NOTES:

1. PRIOR TO THE COMMENCEMENT OF WORK, A JOINT INSPECTION BETWEEN THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER, THE GEOTECHNICAL ENGINEER, THEIR REPRESENTATIVES, AND THE CONTRACTOR (OR HIS REPRESENTATIVE) WILL BE CONDUCTED TO REVIEW THE PRE-CONSTRUCTION CONDITIONS (E.G. ROADS, PUMPS, DISCHARGE PIPES, SIPHONS, RAMPS, GATES, SIGNS, ETC.) IF SUCH EXISTING FACILITIES ARE DAMAGED BY THE CONTRACTOR'S OPERATIONS, THE CONTRACTOR, AT THEIR OWN EXPENSE, SHALL REPLACE OR RESTORE THEM TO THE CONDITION THAT EXISTED PRIOR TO THE COMMENCEMENT OF WORK.
2. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT (209) 946-0268, A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY WORK.
3. THE DISTRICT RESERVES THE RIGHT TO SUSPEND CONSTRUCTION AT ANY TIME IN THE EVENT OF EXTREME HIGH OR LOW TIDES, FLOOD EVENTS, OTHER CONDITIONS OR EMERGENCIES THAT MAY JEOPARDIZE THE INTEGRITY OF THE DISTRICT'S LEVEE AND ROAD SYSTEM.
4. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, COUNTY AND LOCAL REQUIREMENTS, AS REQUIRED FOR TRAFFIC CONTROL AND PUBLIC SAFETY DURING PROJECT CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL OUTLINED IN THESE PLANS AND THE REFERENCED SPECIFICATIONS.
5. THE DISTRICT WILL FURNISH ALL RIGHT-OF-WAY FOR ALL LEVEE ROADS AND DESIGNATED ACCESS HAUL ROADS AS SHOWN ON THESE PLANS. SHOULD THE CONTRACTOR WANT TO USE OTHER ROADWAYS OR ACCESS AREAS NOT SHOWN, THE CONTRACTOR SHALL AT THEIR OWN EXPENSE SECURE RIGHT-OF-WAY & NECESSARY PERMITS.
6. IF DELIVERING MATERIAL OR EQUIPMENT BY TRUCK, ALL TRUCK TRAFFIC SHALL BE LIMITED TO THE DISTRICT LEVEE ROADS AND/OR PUBLIC ROADS AS SHOWN ON HAUL ROUTE PLAN, UNLESS OTHERWISE APPROVED.
7. MAXIMUM SPEED LIMIT ON DISTRICT LEVEE ROADS IS 30 MPH, AS POSTED, OR AS OTHERWISE INDICATED ON THE CONSTRUCTION DRAWINGS. CONTRACTOR SHALL POST LARGE SLOW/CAUTION SIGNS AND SPEED LIMIT SIGNS FOR PURPOSES OF NOTIFYING BOTH CONTRACTOR'S EMPLOYEES AND THE PUBLIC. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SAFETY AT ALL TIMES ALONG ALL HAUL ROUTES AND IN ALL PROJECT AREAS (PUBLIC AND PRIVATE).

8. THE DISTRICT WILL PROVIDE SURVEY STAKES AS DESCRIBED IN THE SPECIFICATIONS WITHIN THE CONSTRUCTION SURVEYING SECTION. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL CONSTRUCTION STAKING AND SURVEYING AT THEIR OWN EXPENSE BEYOND THAT PROVIDED BY THE DISTRICT. PLEASE CONTACT THE ENGINEER IN WRITING WITH STAKING REQUESTS (209) 946-0268 WITH AT LEAST TWO WORKING DAYS ADVANCE NOTICE.
9. THE CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER AND THE GEOTECHNICAL ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER OR THE GEOTECHNICAL ENGINEER.
10. ANY DEFICIENCIES NOTED DURING INTERIM AND FINAL INSPECTIONS BY THE ENGINEER AND/OR DISTRICT SHALL BE CORRECTED BY THE CONTRACTOR PRIOR TO FINAL ACCEPTANCE BY THE DISTRICT. ANY ADDITIONAL COSTS AND EXPENSES FOR MOBILIZATION AND/OR DEMOBILIZATION, LABOR, EQUIPMENT AND OTHER ASSOCIATED COSTS REQUIRED TO CORRECT THE DEFICIENCIES NOTED, EXCEPT SPECIFIED MATERIAL(S), SHALL BE BORNE BY THE CONTRACTOR.
11. THE CONTRACTOR SHALL NOT CLOSE ANY ROAD, STREET, OR HIGHWAY TO THE PUBLIC EXCEPT WITH THE PERMISSION OF THE ENGINEER AND THE PROPER GOVERNMENTAL AUTHORITY. TEMPORARY PROVISIONS SHALL BE MADE BY THE CONTRACTOR TO ENSURE CONTINUOUS ACCESS TO PUBLIC AND PRIVATE DRIVEWAYS, AND PROPER FUNCTIONING OF CULVERTS, DRAINAGE AND IRRIGATION DITCHES, AND NATURAL WATER COURSES.
12. THE CONTRACTOR IS RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER, AND HE SHALL NOTIFY THE ENGINEER WHENEVER THERE IS A CHANGE IN SITE CONDITIONS OR AN ADJUSTMENT TO BE MADE IN WORK REQUIREMENTS.
13. SHOULD IT APPEAR THAT THE WORK TO BE DONE, OR ANY MATTER RELATIVE THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE ENGINEER AT (209) 946-0268 FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.
14. THE INTENT OF THESE PLANS IS TO SERVE AS A GUIDE AND TO PROVIDE THE CONTRACTOR WITH INFORMATION AND DETAILS NECESSARY TO CONSTRUCT THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY REGARDING ANY DISCREPANCIES AND AMBIGUITIES WHICH MAY EXIST IN THE PLANS OR SPECIFICATIONS. IF THE PLANS 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 FINEST QUALITY ARE TO BE USED.
15. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE OSHA REGULATIONS AND SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS.
16. THE CONTRACTOR SHALL AT ALL TIMES BE RESPONSIBLE FOR THE SECURITY OF THE JOBSITE AND EQUIPMENT. THE DISTRICT WILL NOT BE RESPONSIBLE FOR MISSING OR DAMAGED EQUIPMENT, TOOLS, OR PERSONAL BELONGINGS.

ENVIRONMENTAL NOTES:

1. THE CONTRACTOR SHALL NOT DISCHARGE SMOKE, DUST, OR ANY OTHER AIR CONTAMINANTS INTO THE ATMOSPHERE IN SUCH QUANTITY AS WILL VIOLATE THE REGULATIONS OF ANY LEGALLY CONSTITUTED AUTHORITY. HE SHALL ALSO ABATE DUST NUISANCE BY CLEANING, SWEEPING AND SPRINKLING WITH WATER, OR OTHER MEANS AS NECESSARY. THE USE OF WATER IN AN AMOUNT WHICH RESULTS IN MUD ON PUBLIC ROADS IS NOT ACCEPTABLE AS A SUBSTITUTE FOR SWEEPING OR OTHER METHODS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ADJACENT PUBLIC ROADS CLEAN & CLEAR FROM CONSTRUCTION IMPACTS OR DEBRIS. ADDITIONAL DETAILS FOR MUD AND DUST CONTROL IS INCLUDED IN SUBSEQUENT SECTIONS OF THESE NOTES.
2. THE CONTRACTOR SHALL EXERCISE EVERY REASONABLE PRECAUTION TO PROTECT STREAMS, WATERWAYS AND OTHER BODIES OF WATER FROM POLLUTION WITH FUELS, OIL, BITUMEN'S, CALCIUM CHLORIDE, AND OTHER HAZARDOUS MATERIALS AND SHALL CONDUCT AND SCHEDULE HIS OPERATIONS SO AS TO AVOID OR MINIMIZE MUDDYING AND SILTING OF SAID WATERS. CARE SHALL BE EXERCISED TO PRESERVE ROADSIDE VEGETATION BEYOND THE LIMITS OF CONSTRUCTION.

3. THROUGHOUT ALL PHASES OF CONSTRUCTION, INCLUDING SUSPENSION OF WORK, AND UNTIL FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL KEEP THE WORK SITE CONDITIONS CLEAN AND FREE FROM RUBBISH AND DEBRIS. ALL RUBBISH AND REFUSE SHALL BE DISPOSED OF IN A MANNER SATISFACTORY TO THE ENGINEER.

DUST AND MUD CONTROL:

1. DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL KEEP ALL CONSTRUCTION AREAS, FILL AREAS, HAUL ROADS, OTHER ROADWAYS, AND OTHER USE AREAS WHERE DUST IS GENERATED WELL WATERED: AND DURING WET CONDITIONS, AREAS USED BY LOCAL TRAFFIC, FREE AND CLEAR FROM MUD. CONTRACTOR SHALL PROVIDE EFFORTS NECESSARY TO MINIMIZE DUST AND OTHER DISTURBANCES NEAR EXISTING RESIDENCES AND ALL BUILDINGS NEAR HAUL ROUTES AND THE PROJECT SITE.
 - a. CROP DAMAGE: THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL TO PREVENT CROP DAMAGE AND FOR ANY AREAS SUBJECT TO CONSTRUCTION OR CONSTRUCTION TRAFFIC THAT GENERATE DUST AND/OR OTHER CONDITIONS WHICH MIGHT DAMAGE CROPS.
 - b. NON WORK DAYS: THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL THROUGHOUT THE DURATION OF THE PROJECT INCLUDING NON WORKDAYS IN ALL PROJECT AREAS, INCLUDING CONSTRUCTION ROADS AND CROP AREAS WHICH ARE USED BY THE CONTRACTOR, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. THE CONTRACTOR SHALL HAVE AT LEAST ONE (1) WATER TRUCK AVAILABLE TO THE PROJECT AT ALL TIMES (OR MORE AS NEEDED OR DIRECTED BY THE ENGINEER) TO MAINTAIN ADEQUATE DUST CONTROL FOR THE FOLLOWING AREAS:
 - a. PROJECT AREAS
 - b. ACCESS AND HAUL ROADS
 - c. LEVEE TOE BERM FILL AREAS
 - d. OTHER CONSTRUCTION USE AREAS
 - e. CROP DAMAGE PREVENTION
 - f. RESIDENTIAL CONSTRUCTION ZONES
 - g. ADJACENT PUBLIC STREETS, TRAILS & BIKEWAYS

UTILITY NOTES:

1. UTILITIES AS NOTED ON THE PLAN SET HAVE BEEN DETERMINED BASED ON RECORD INFORMATION AND FIELD INSPECTION, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE ACTUAL LOCATION OF ALL UNDERGROUND, SURFACE, OVERHEAD, AND SUBMARINE IMPROVEMENTS, OR FACILITIES WHICH MAY BE SUBJECT TO DAMAGE BY REASON OF HIS OPERATIONS.
2. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES AND SHALL CONTACT THE RESPECTIVE UTILITY COMPANIES & PRIVATE OWNERS PRIOR TO COMMENCEMENT OF WORK.
3. THE CONTRACTOR SHALL NOTIFY AFFECTED UTILITIES FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY CONSTRUCTION. (UNDERGROUND SERVICE ALERT (800) 642-2444) AND SHALL BE RESPONSIBLE FOR THE LOCATION AND PRESERVATION OF ALL FACILITIES IN THE AREA OF CONSTRUCTION.

PLANS REVIEWED AND APPROVED BY:



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RECLAMATION DISTRICT NO. 17
ELEMENT VII-E

NOTES

SAN JOAQUIN COUNTY CALIFORNIA

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ACCESS ROADS:

1. THE CONTRACTOR SHALL IMPROVE, MAINTAIN, AND REPAIR UPON COMPLETION, THE ACCESS ROADS AND HAUL ROUTES AS REQUIRED FOR TRANSPORTATION AND HAULING MATERIAL. AT THE COMPLETION OF WORK THE CONTRACTOR SHALL RESTORE ALL ACCESS ROADS AND HAUL ROUTES TO PRE-CONSTRUCTION CONDITION IN A MANNER SATISFACTORY TO THE ENGINEER.
2. THE CONTRACTOR SHALL REVIEW THE ACCESS ROAD ROUTES AND DETERMINE THE LOCATION FOR TURNOUTS, RAMPS, ROAD DRAINAGE, ALIGNMENT, ETC. UPON COMPLETION OF THE PROJECT, SOME PORTIONS OF THE ACCESS ROADS MAY REQUIRE MINOR MODIFICATIONS AND ALTERATIONS. THE ACCESS ROADS WHICH REMAIN SHALL BE LEFT IN GOOD CONDITION FOR THE DISTRICT, FARMERS, AND OTHER LOCAL TRAFFIC.
3. THE CONTRACTOR SHALL NOT DEVIATE FROM IDENTIFIED HAUL ROUTES AND STAGING AREAS UNLESS PERMISSION IS OBTAINED FROM THE PROPERTY OWNER, ENGINEER AND PERMITS ARE OBTAINED FROM THE LOCAL AGENCY.
4. THE CONTRACTOR SHALL EXTEND, STRENGTHEN, REPLACE, OR OTHERWISE MODIFY THE EXISTING CROSSINGS (E.G. CULVERTS, SIPHONS, DRAIN PIPES, IRRIGATION PIPES, PUMP DISCHARGE PIPES, WET SPOTS, ETC.) AS NECESSARY TO ACCOMMODATE HIS EQUIPMENT. THE CONTRACTOR SHALL PROVIDE WHATEVER MEASURES ARE NECESSARY TO PRESERVE, PROTECT, AND MAINTAIN THE CROSSINGS SO AS TO ENSURE CONTINUOUS AND UNINTERRUPTED CONSTRUCTION OPERATIONS DURING THE ENTIRE TERM OF THIS CONTRACT.
5. THE HAUL ROADS MAY REQUIRE TEMPORARY IRRIGATION OR DISCHARGE PIPE EXTENSIONS AND RAMPING DURING CONSTRUCTION OPERATIONS. TEMPORARY EXTENSIONS AND RAMPING WILL BE PROVIDED AND INSTALLED BY THE CONTRACTOR AT HIS EXPENSE, INCLUDING REMOVAL IF REQUIRED, IN A MANNER WHICH MEETS WITH THE APPROVAL OF THE ENGINEER AND THE LANDOWNERS.
6. NEITHER THE DISTRICT NOR THE ENGINEER MAKES ANY WARRANTY OR GUARANTEE AS TO THE ADEQUACY OF THE EXISTING MATERIALS TO SUPPORT THE CONSTRUCTION TRAFFIC ON THE ACCESS ROADS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MAKING THE NECESSARY IMPROVEMENTS AND PROVIDING THE NECESSARY MEASURES REQUIRED TO ACCOMMODATE HIS ANTICIPATED NEEDS. REPAIRS TO ROADWAYS DAMAGED BY THE CONTRACTOR SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
7. CONTRACTOR MUST MAINTAIN HAUL ROUTE ACCESS AT ALL TIMES FOR USE BY THE DISTRICT AND/OR PUBLIC (AS APPLICABLE) DURING CONSTRUCTION.

CLEARING & GRUBBING:

1. UNLESS OTHERWISE INDICATED, THE WORK AREAS SHALL BE CLEARED AND GRUBBED BY THE CONTRACTOR. CONTRACTOR SHALL USE CAUTION WHILE CLEARING AND GRUBBING AROUND POWER LINES, BURIED ELECTRICAL CABLES AND OTHER EX FACILITIES/UTILITIES. ALL MATERIAL CLEARED AND REMOVED SHALL BECOME THE PROPERTY AND RESPONSIBILITY OF THE CONTRACTOR FOR REMOVAL AND DISPOSAL OFFSITE. SOME PRUNING/TRIMMING/THINNING OF BRANCHES OR TREES MAY BE REQUIRED.

FILL MATERIALS:

1. THE CONTRACTOR SHALL FURNISH, DELIVER, AND PLACE THE SPECIFIED FILL MATERIALS (PER THE DISTRICT ENGINEERS SPECIFICATIONS) TO THE DESIGNATED SITES.
2. THE FILL SHALL BE CONSTRUCTED WITH ACCEPTABLE MATERIALS SUFFICIENT TO MEET DESIGN GRADES AND SPECIFICATIONS.
3. ALL SUBGRADE AREAS RECEIVING FILL MATERIAL SHALL BE PREPARED AS REQUIRED BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR MAY BE REQUIRED TO PERFORM ADDITIONAL SUBGRADE PREPARATION WORK WITHIN THE FILL AREAS PRIOR TO THE ACCEPTANCE OF THE MATERIAL.
4. THE CONTRACTOR SHALL DELIVER THE FILL MATERIALS TO THE REQUIRED SECTIONS AS UNIFORM MIXTURES. THE MIXTURE SHALL BE DEPOSITED AND SPREAD TO THE REQUIRED COMPACTED THICKNESS. SEGREGATION OF MATERIAL SHALL BE AVOIDED AND EACH LAYER OF MATERIAL, AS SPREAD, SHALL BE FREE FROM POCKETS OF COARSE OR FINE MATERIAL.

- a. THE FILL MATERIALS SHALL BE PLACED IN LOOSE HORIZONTAL LAYERS NOT MORE THAN SIX INCHES (6") IN THICKNESS PRIOR TO COMPACTION. THE MATERIAL SHALL BE GENTLY SPREAD OUT. UNDER NO CIRCUMSTANCES SHALL ANY MATERIAL BE DROPPED FROM ANY HEIGHT ONTO THE FILL SECTION.
- b. IF SEGREGATION OCCURS, MATERIAL SHALL BE WORKED UNTIL IT IS UNIFORMLY AND SATISFACTORILY BLENDED. AFTER SPREADING, THE MATERIAL SHALL BE WATERED AND SHAPED TO THE REQUIRED SECTION AND THEN COMPACTED AS SPECIFIED.
- c. AT THE TIME MATERIALS ARE SPREAD, IT SHALL HAVE A MOISTURE CONTENT IN CONFORMANCE WITH THE PROJECT SPECIFICATIONS. SUCH MOISTURE SHALL BE UNIFORMLY DISTRIBUTED THROUGHOUT THE MATERIAL.

FINISHING AND SLOPING GRADING

1. THE SURFACE OF THE TOP LAYER SHALL BE FINISHED TO THE DESIGNATED GRADE AND CROSS SECTION. THE FINISHED SURFACE SHALL BE OF UNIFORM TEXTURE, DRESSED AND GRADED TO DRAIN AND PREVENT WATER PONDING.

COMPACTION EQUIPMENT:

1. COMPACTION SHALL BE PERFORMED WITH A NON-VIBRATORY TYPE ROLLER COMPACTOR. VIBRATORY EQUIPMENT WILL NOT BE PERMITTED ON DISTRICT LEVEES AND FILLS.

TESTING:

1. THE DISTRICT WILL RETAIN THE SERVICES OF AN INDEPENDENT SOILS CONSULTANT AND TESTING LABORATORY TO PERFORM SAMPLING AND TESTING AS REQUIRED AND TO CHECK FOR COMPLIANCE WITH THE SPECIFICATIONS. THE CONTRACTOR SHALL REMOVE SURFACE MATERIALS AT LOCATIONS DESIGNATED BY THE TESTING ENGINEER AT NO COST TO THE DISTRICT. THE INDEPENDENT TESTING LABORATORY WILL SAMPLE AND PERFORM ALL REQUIRED TESTS SUCH AS MOISTURE CONTENT; GRADATION, AND MOISTURE DENSITY RELATIONSHIPS ON THE EXCAVATED AND EMBANKMENT FILL MATERIALS

SWPPP:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DEVELOPMENT, INSTALLATION AND MAINTENANCE OF A SWPPP AND REQUIRE PROTECTION FEATURES. THESE FEATURES INCLUDE, BUT ARE NOT LIMITED TO, THOSE IDENTIFIED BELOW:
 - A. EROSION CONTROL FACILITIES
 - B. CONSTRUCTION ENTRANCE
 - C. STREET SWEEPING
 - D. THE CONTRACTOR IS RESPONSIBLE FOR ALL FINES, FEES, PENALTIES IMPOSED BY FEDERAL AND LOCAL AGENCIES DUE TO THE CONTRACTOR'S ACTIVITIES ASSOCIATED WITH THE SWPPP.
2. THE CONTRACTOR SHALL CONSTRUCT A STABILIZED CONSTRUCTION ENTRANCE AT ALL ENTRANCES TO THE PROJECT SITE AS APPROVED BY THE ENGINEER.
3. EROSION CONTROL FACILITIES AS SHOWN ON THESE PLANS HAVE BEEN PREPARED TO MEET THE REQUIREMENTS OF THE DISTRICT. THE PROJECT WILL REQUIRE A SWPPP, PREPARED BY A QUALIFIED DEVELOPER (QSD) WHO WILL ASSUME RESPONSIBILITY FOR THE PROJECT COMPLIANCE WITH THE STATE GENERAL CONSTRUCTION PERMIT AND WHOSE RECOMMENDATIONS WILL SUPERCEDE THIS PLAN ACCORDINGLY.


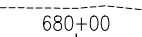

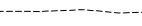
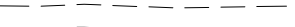

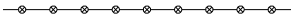
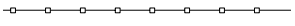
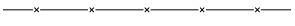
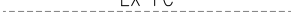
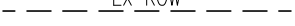
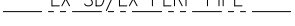
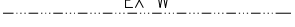

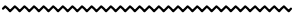
ABBREVIATIONS:

CL	CENTERLINE	N	NORTH, NORTHING
CONST	CONSTRUCTION	NTS	NOT TO SCALE
DWSEL	DESIGN WATER SURFACE ELEVATION	PROP	PROPOSED
E	EAST, EASTING	RC	RELATIVE COMPACTION
ELEV	ELEVATION	R/W	RIGHT OF WAY
ESMT	EASEMENT	STA	STATION
EX	EXISTING	TCE	TEMPORARY CONSTRUCTION EASEMENT
FT	FOOT, FEET	TEMP	TEMPORARY
H	HORIZONTAL	TYP	TYPICAL
MIN	MINIMUM	V	VERTICAL
		WS	WATERSIDE


ABBREVIATIONS

APPROX	-	APPROXIMATE
EL	-	ELEVATION
EX	-	EXISTING
MIN	-	MINIMUM
P	-	POINT
SD	-	STORM DRAIN
TYP	-	TYPICAL

LEGEND

	STAGING AREA
	APPROX. EDGE OF CROWN
	LEVEE STATIONING LINE
	APPROX. EDGE OF CROWN
	ACCESS ROAD
	HAUL ROUTE
	SLURRY CONTAINMENT
	ORANGE PLASTIC FENCING
	EXISTING FENCE
	EXISTING FACE OF CURB
	EXISTING RIGHT OF WAY
	EXISTING STORM DRAIN OR EXISTING PERFORATED DRAINAGE PIPE
	EXISTING WATER LINE
	EXISTING STREET LIGHT
	EXISTING SHEET PILE WALL

PLANS REVIEWED AND APPROVED BY:



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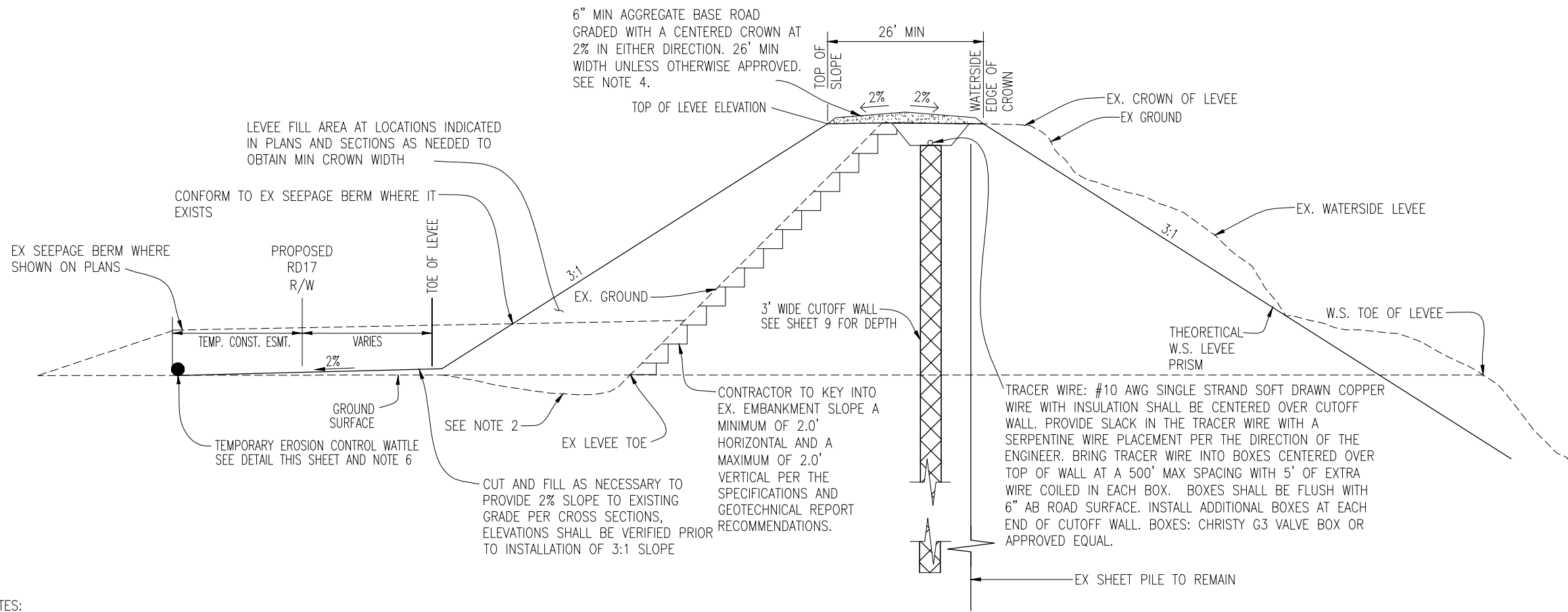
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RECLAMATION DISTRICT NO. 17
ELEMENT VII-E

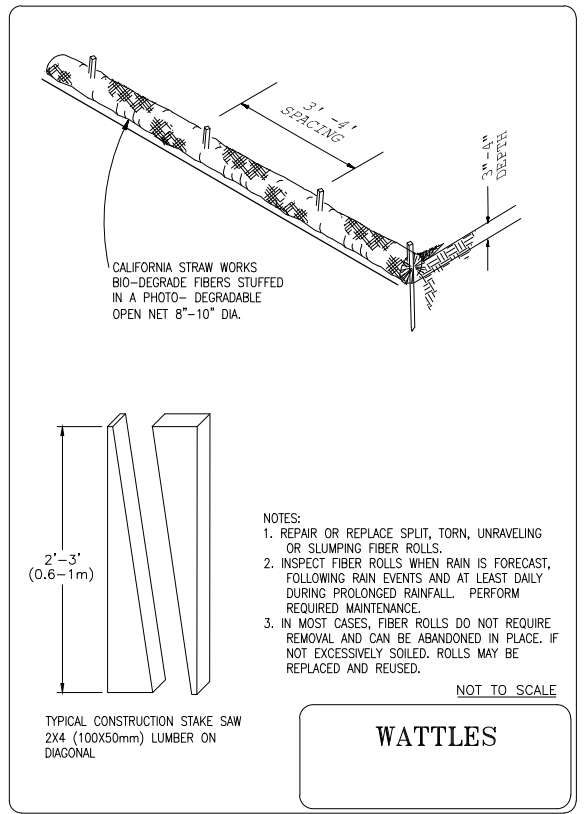
NOTES

SAN JOAQUIN COUNTY CALIFORNIA

DATE: JAN 2014	PROJECT NO. 25182.010
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	DATE

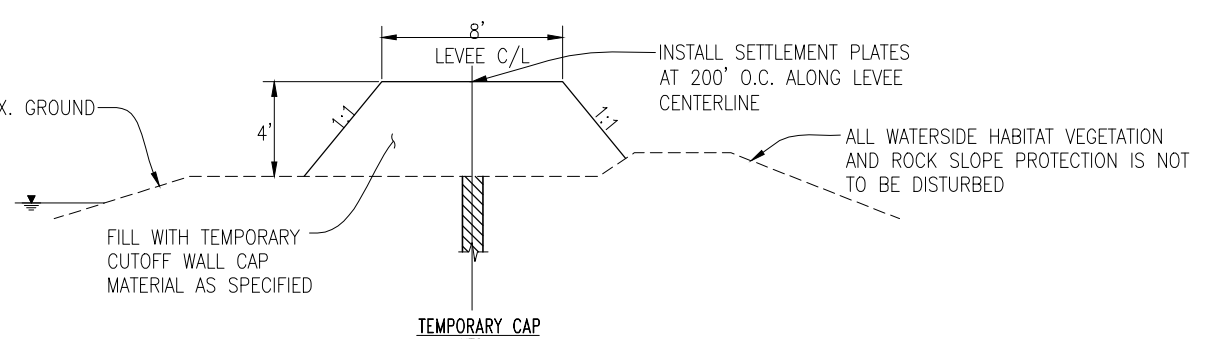


SECTION A-A: STATION 806+00 THRU 822+20
NTS



- NOTES:
1. REPAIR OR REPLACE SPLIT, TORN, UNRAVELING OR SLUMPING FIBER ROLLS.
 2. INSPECT FIBER ROLLS WHEN RAIN IS FORECAST, FOLLOWING RAIN EVENTS AND AT LEAST DAILY DURING PROLONGED RAINFALL. PERFORM REQUIRED MAINTENANCE.
 3. IN MOST CASES, FIBER ROLLS DO NOT REQUIRE REMOVAL AND CAN BE ABANDONED IN PLACE. IF NOT EXCESSIVELY SOILED, ROLLS MAY BE REPLACED AND REUSED.
- NOT TO SCALE

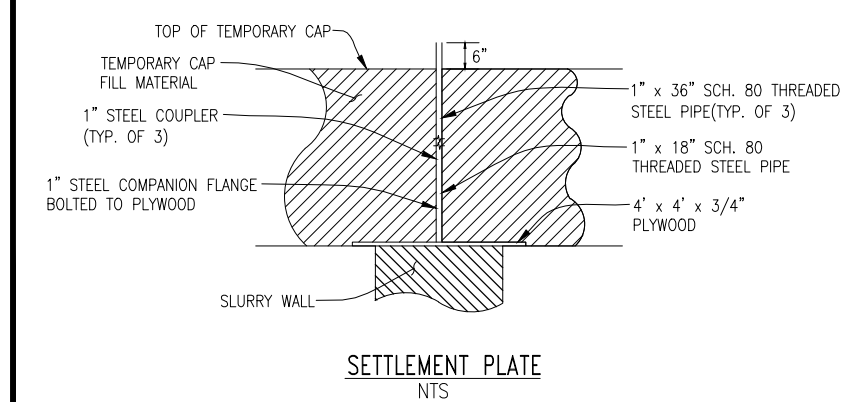
WATTLES



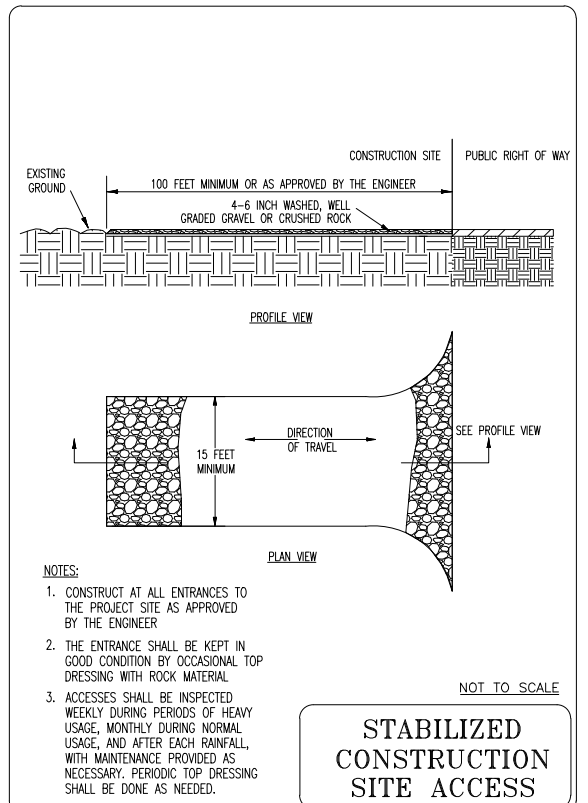
- TEMPORARY CAP NOTES:
1. AFTER SLURRY WALL HAS BEEN CONSTRUCTED. FILL LEVEE TO ELEVATION 25.00 WITH TEMPORARY CUTOFF WALL CAP MATERIAL.
 2. INSTALL SETTLEMENT PLATES @ 200' O.C. ALONG LEVEE CENTERLINE. CONTRACTOR SHALL BE RESPONSIBLE TO SURVEY THE TOP OF EACH RISER PIPE EVERY OTHER DAY FOR A MINIMUM 2 WEEKS AND UNTIL SETTLEMENT HAS CEASED. AS APPROVED BY THE ENGINEER. THE SURVEYING OF SETTLEMENT PLATES SHALL BE PERFORMED BY A LICENSED SURVEYOR.
 3. AFTER SETTLEMENT HAS CEASED, REMOVE TEMPORARY CUTOFF WALL CAP MATERIAL. SOIL MAY BE USED AS CROWN WIDENING SLOPE FILL.. ANY EXCESS SOIL SHALL BE DISPOSED OF OFFSITE AT THE CONTRACTOR'S EXPENSE

TEMPORARY CAP NTS

- NOTES:
1. RD17 RIGHT OF WAY EXTENDS FROM THE SAN JOAQUIN RIVER WATER'S EDGE (AT ORDINARY HIGH WATER) TO THE PROPOSED RD17 RIGHT OF WAY SHOWN ABOVE AND ON THE DETAILED CROSS-SECTIONS WITHIN THIS PLAN SET. TEMPORARY CONSTRUCTION EASEMENTS WILL BE OBTAINED BY RD17 TO COVER THE LIMITS OF WORK AS SHOWN.
 2. CLEAR AND GRUB WORKING AREAS. SCARIFY AND RECOMPACT EXISTING GROUND WORKING AREAS PER GEOTECHNICAL ENGINEER'S RECOMMENDATION.
 3. ALL FILTER FABRIC SHALL BE MIRAFI FW700 OR APPROVED EQUAL. EDGES SHALL BE SEWN PER SPECIFICATIONS.
 4. STRIP AND STOCKPILE EX. AB AS APPROVED BY ENGINEER PRIOR TO CONSTRUCTION. EACH LAYER OF AB PLACED SHALL BE NO LESS THAN 95% COMPACTION.
 5. PLACE WATTLES ALONG THE LIMIT OF THE TEMPORARY CONSTRUCTION EASEMENT PRIOR TO BEGINNING WORK, ALL SUBSEQUENT EROSION CONTROL MEASURES SHALL BE INSTALLED PER THE PROVISIONS OF THE SWPPP.
 6. FILL LEVEE AFTER SLURRY WALL HAS CURED AT THE DIRECTION OF THE SOILS ENGINEER.



SETTLEMENT PLATE
NTS



- NOTES:
1. CONSTRUCT AT ALL ENTRANCES TO THE PROJECT SITE AS APPROVED BY THE ENGINEER
 2. THE ENTRANCE SHALL BE KEPT IN GOOD CONDITION BY OCCASIONAL TOP DRESSING WITH ROCK MATERIAL
 3. ACCESSES SHALL BE INSPECTED WEEKLY DURING PERIODS OF HEAVY USAGE, MONTHLY DURING NORMAL USAGE, AND AFTER EACH RAINFALL, WITH MAINTENANCE PROVIDED AS NECESSARY. PERIODIC TOP DRESSING SHALL BE DONE AS NEEDED.
- NOT TO SCALE

STABILIZED
CONSTRUCTION
SITE ACCESS

PLANS REVIEWED AND APPROVED BY:

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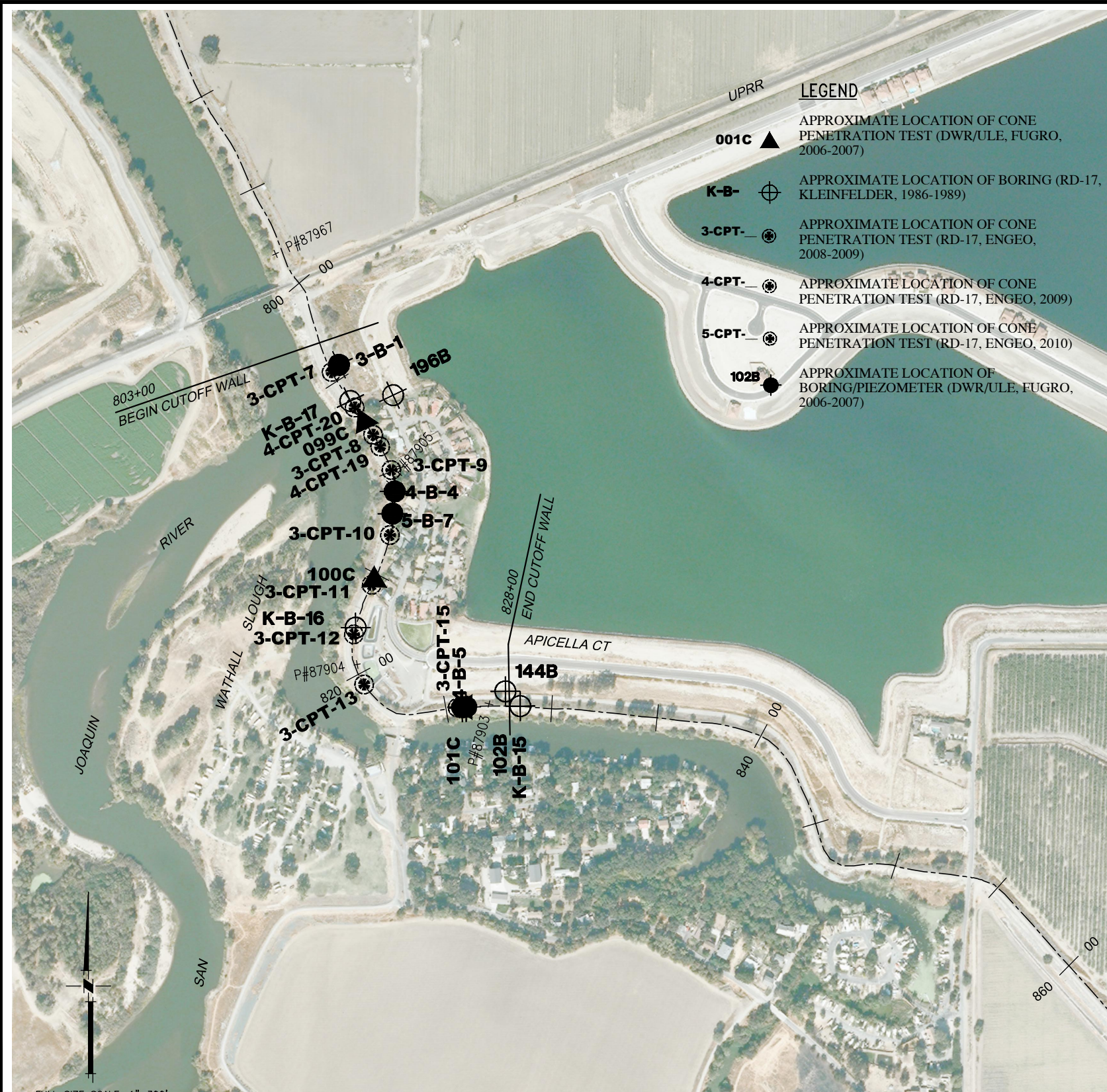
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RECLAMATION DISTRICT NO. 17
ELEMENT VII-E
TYPICAL SECTIONS & DETAILS

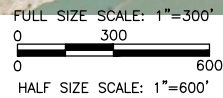
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BORING LOCATIONS & CONTROL POINTS

SCALE: 1"=300'

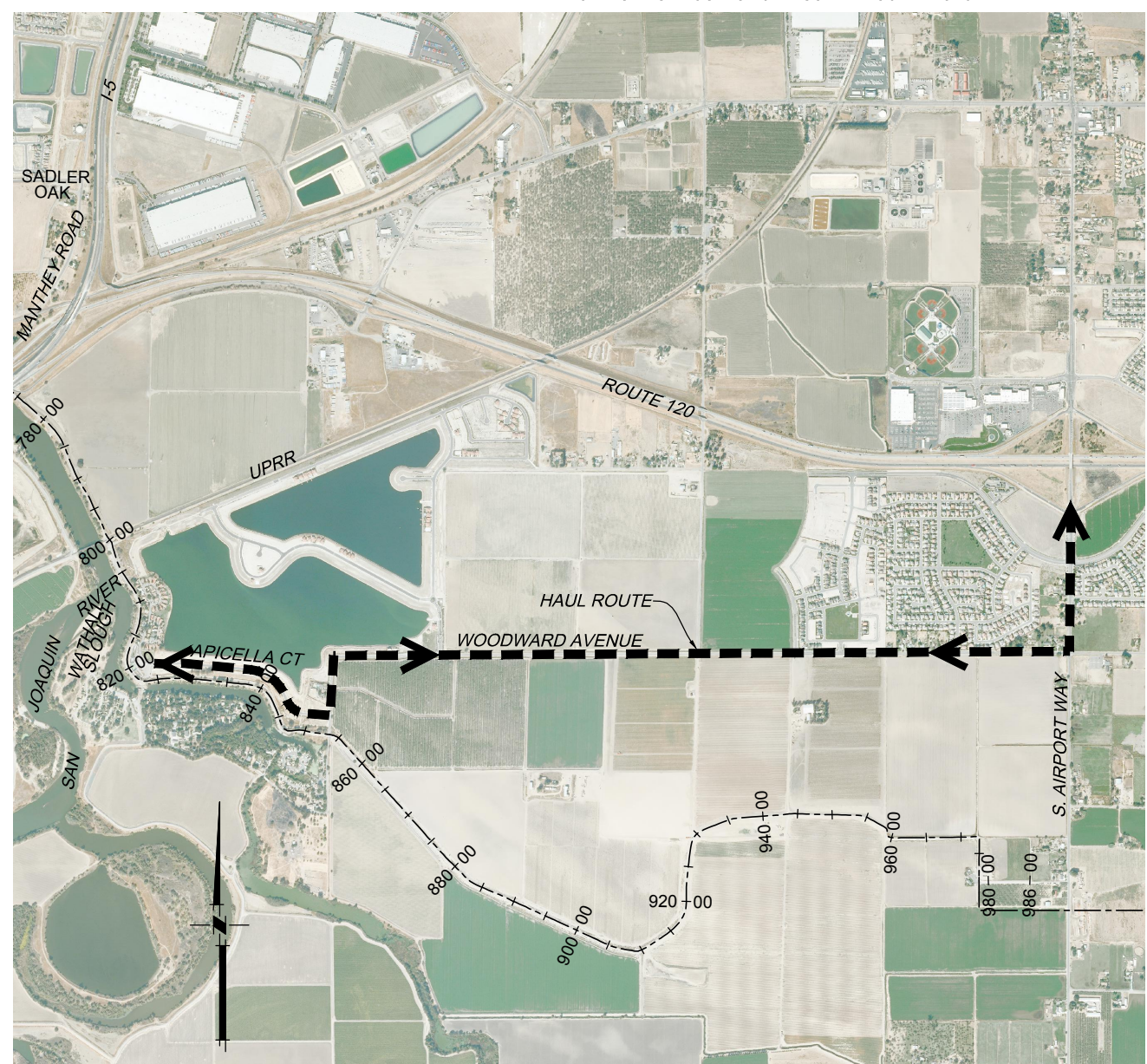


- LEGEND**
- 001C** ▲ APPROXIMATE LOCATION OF CONE PENETRATION TEST (DWR/ULE, FUGRO, 2006-2007)
 - K-B-** ⊕ APPROXIMATE LOCATION OF BORING (RD-17, KLEINFELDER, 1986-1989)
 - 3-CPT-** ⊙ APPROXIMATE LOCATION OF CONE PENETRATION TEST (RD-17, EN GEO, 2008-2009)
 - 4-CPT-** ⊙ APPROXIMATE LOCATION OF CONE PENETRATION TEST (RD-17, EN GEO, 2009)
 - 5-CPT-** ⊙ APPROXIMATE LOCATION OF CONE PENETRATION TEST (RD-17, EN GEO, 2010)
 - 102B** ● APPROXIMATE LOCATION OF BORING/PIEZOMETER (DWR/ULE, FUGRO, 2006-2007)

- CONTROL POINTS**
- | | | | |
|---------|------------------------------|----------|---------------|
| P#87903 | N2105392.795
E6331321.478 | EL=34.13 | IP/CAP |
| P#87904 | N2105583.156
E6330702.860 | EL=34.25 | IP/CAP |
| P#87905 | N2106439.348
E6330868.883 | EL=34.29 | IP/CAP |
| P#87967 | N2107542.123
E6330358.479 | EL=35.26 | DWR-BCAP56.8R |
- ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

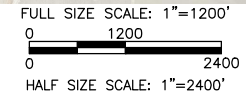
BASIS OF BEARINGS

THE BASIS OF BEARINGS IS NORTH 12D33'37.56" EAST BETWEEN NATIONAL GEODETIC SURVEY HORIZONTAL CONTROL POINTS HPGN-D CA 10 HG (PID AA4256) AND MATTHEW (PID HS0118), CALIFORNIA COORDINATE SYSTEM ZONE 3, NAD83, EPOCH DATE 1997.30, AS CALCULATED AND ADJUSTED BY THE NATIONAL GEODETIC SURVEY IN JULY, 1998, AS SHOWN ON RECORD OF SURVEY RECORDED AT BOOK 34 PAGES 163 - 163B, OF SAN JOAQUIN COUNTY RECORDS. ALL DISTANCES SHOWN HEREON ARE GROUND DISTANCES. TO CONVERT TO GRID DISTANCE, MULTIPLY GROUND DISTANCE BY AVERAGE COMBINED SCALE FACTOR OF 0.999929125.



HAUL ROUTE

SCALE: 1"=1200'



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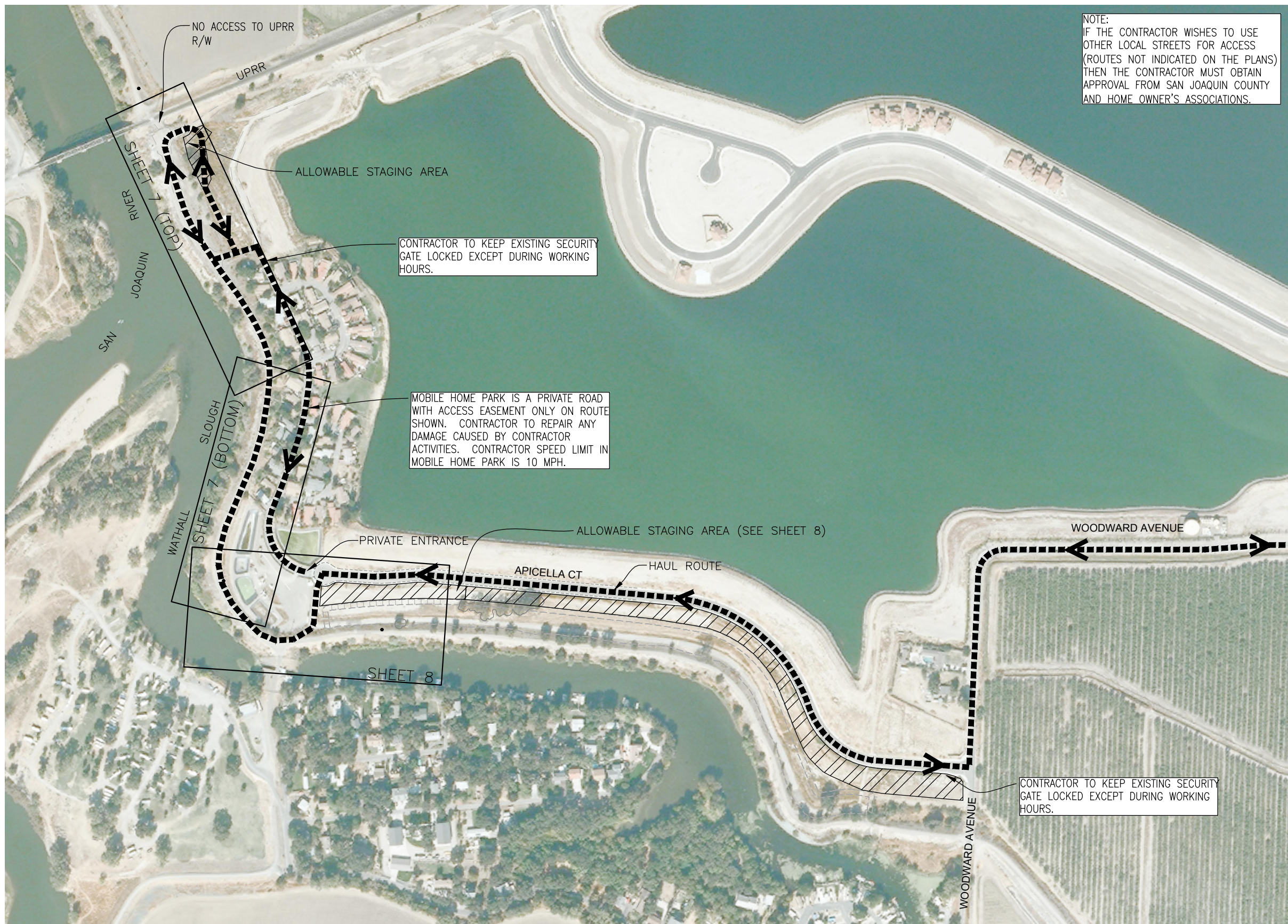
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RECLAMATION DISTRICT NO. 17
ELEMENT VII-E
BORING LOCATIONS, HAUL ROUTE, & CONTROL POINTS
SAN JOAQUIN COUNTY CALIFORNIA

No.	REVISION	DATE

DATE:	JAN 2014	PROJECT NO.	25182.010
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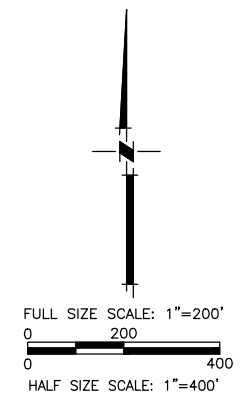


NOTE:
IF THE CONTRACTOR WISHES TO USE OTHER LOCAL STREETS FOR ACCESS (ROUTES NOT INDICATED ON THE PLANS) THEN THE CONTRACTOR MUST OBTAIN APPROVAL FROM SAN JOAQUIN COUNTY AND HOME OWNER'S ASSOCIATIONS.

CONTRACTOR TO KEEP EXISTING SECURITY GATE LOCKED EXCEPT DURING WORKING HOURS.

MOBILE HOME PARK IS A PRIVATE ROAD WITH ACCESS EASEMENT ONLY ON ROUTE SHOWN. CONTRACTOR TO REPAIR ANY DAMAGE CAUSED BY CONTRACTOR ACTIVITIES. CONTRACTOR SPEED LIMIT IN MOBILE HOME PARK IS 10 MPH.

CONTRACTOR TO KEEP EXISTING SECURITY GATE LOCKED EXCEPT DURING WORKING HOURS.



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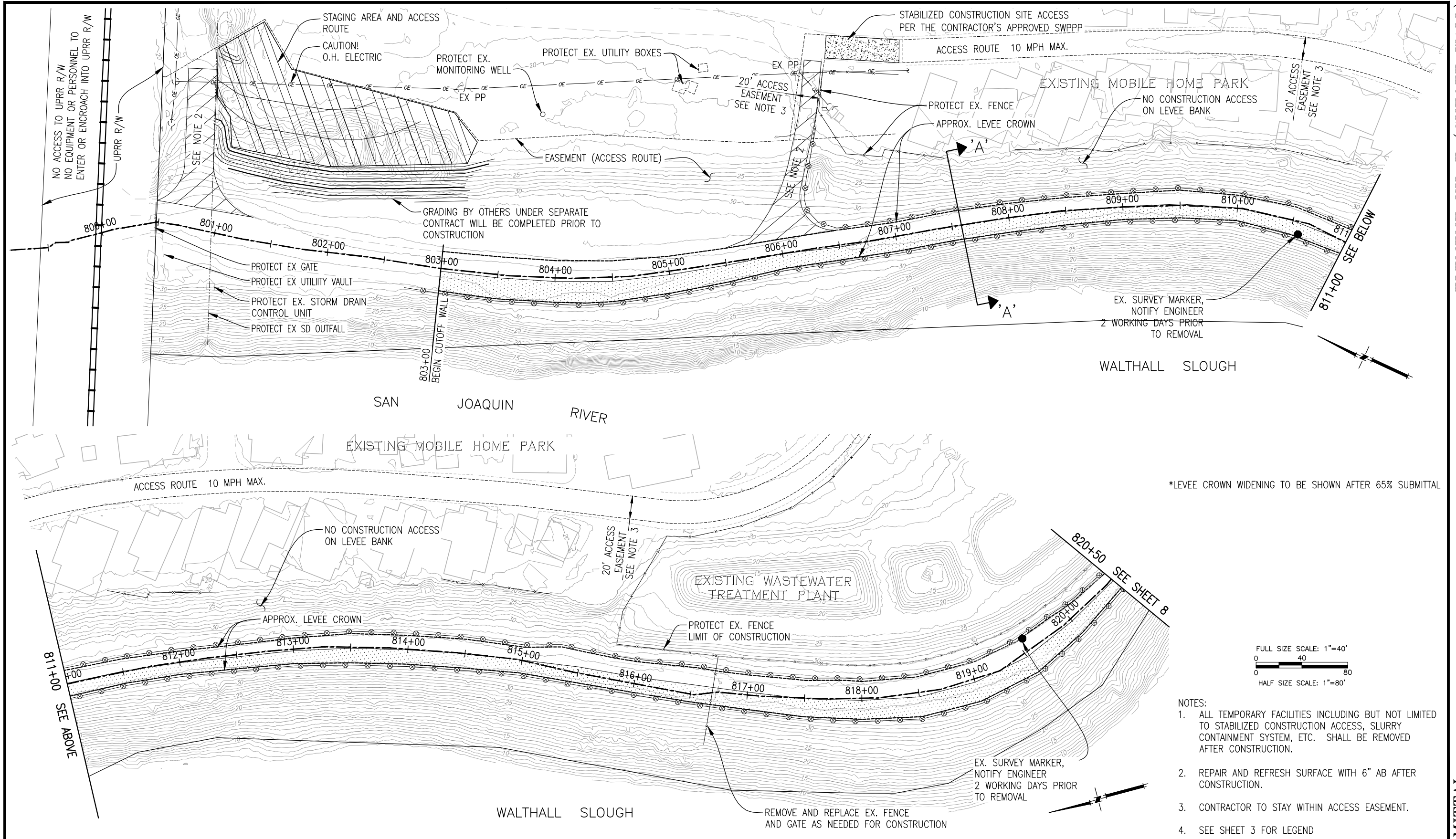
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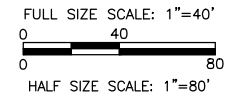
RECLAMATION DISTRICT NO. 17
ELEMENT VII-E
KEY MAP & ACCESS PLAN
SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
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*LEVEE CROWN WIDENING TO BE SHOWN AFTER 65% SUBMITTAL



- NOTES:
1. ALL TEMPORARY FACILITIES INCLUDING BUT NOT LIMITED TO STABILIZED CONSTRUCTION ACCESS, SLURRY CONTAINMENT SYSTEM, ETC. SHALL BE REMOVED AFTER CONSTRUCTION.
 2. REPAIR AND REFRESH SURFACE WITH 6" AB AFTER CONSTRUCTION.
 3. CONTRACTOR TO STAY WITHIN ACCESS EASEMENT.
 4. SEE SHEET 3 FOR LEGEND

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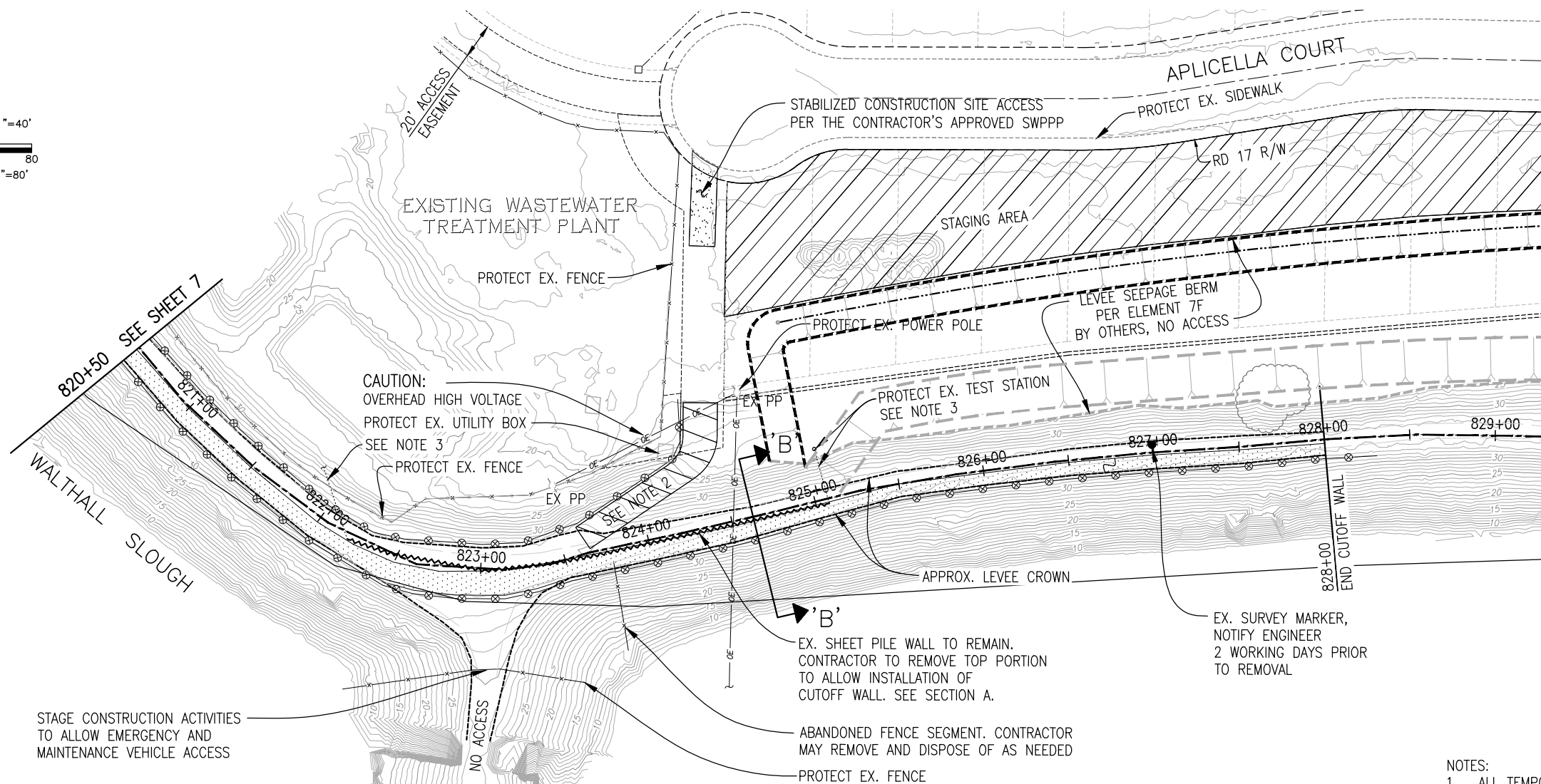
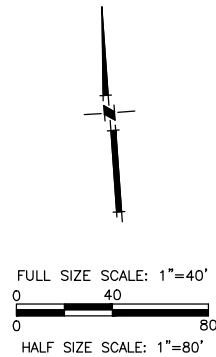
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RECLAMATION DISTRICT NO. 17
ELEMENT VII-E

PLAN VIEW
STA. 800+00 TO STA. 820+50

SAN JOAQUIN COUNTY CALIFORNIA

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STAGE CONSTRUCTION ACTIVITIES TO ALLOW EMERGENCY AND MAINTENANCE VEHICLE ACCESS

*LEVEE CROWN WIDENING TO BE SHOWN AFTER 65% SUBMITTAL

- NOTES:
1. ALL TEMPORARY FACILITIES INCLUDING BUT NOT LIMITED TO STABILIZED CONSTRUCTION ACCESS, SLURRY CONTAINMENT SYSTEM, ETC. SHALL BE REMOVED AFTER CONSTRUCTION.
 2. REPAIR AND REFRESH SURFACE WITH 6" AB AFTER CONSTRUCTION.
 3. EX SHEET PILE WALL CATHODIC PROTECTION WIRES, ANODE BEDS AND CATHODIC PROTECTION TEST STATIONS MAY BE ABANDONED IN PLACE OR REMOVED AS NEEDED.
 4. EXISTING OVERHEAD ELECTRIC WIRES TO BE REMOVED BY PG&E FOR UP TO 7 DAYS TO FACILITATE CONSTRUCTION. TEMPORARY POWER SOURCE TO BE PROVIDED BY PG&E. CONTRACTOR TO NOTIFY PG&E 5 WEEKS IN ADVANCE TO COORDINATE SHUTDOWN OF FACILITIES.
 5. SEE SHEET 3 FOR LEGEND

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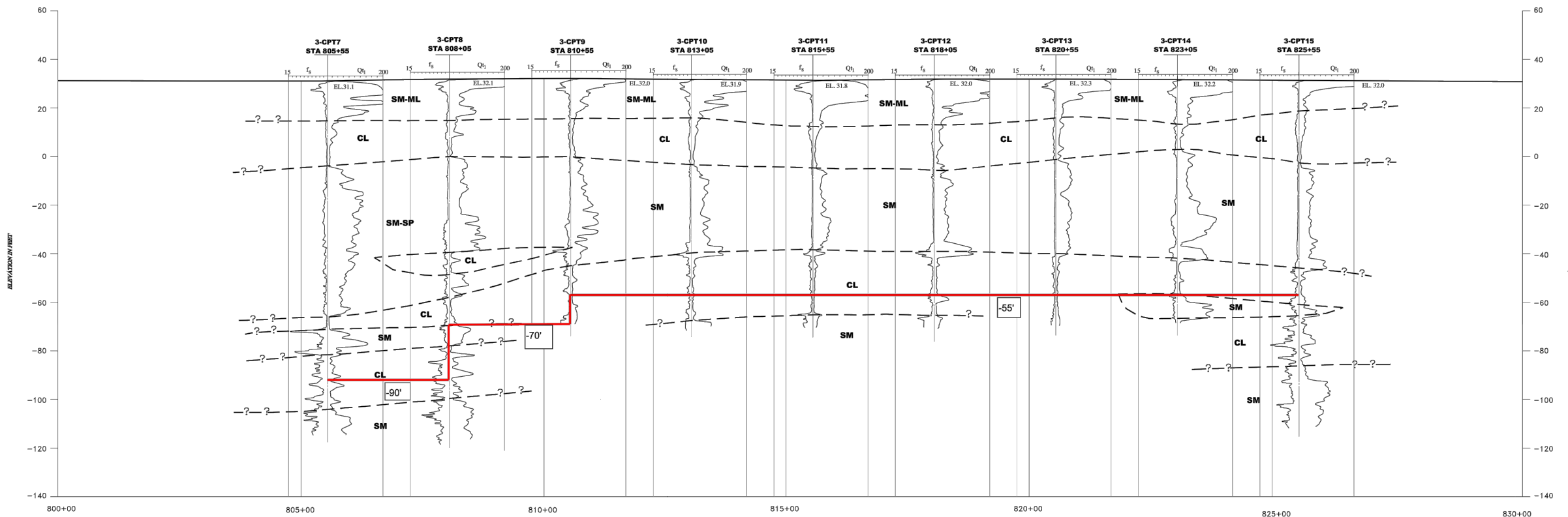
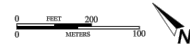
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RECLAMATION DISTRICT NO. 17
ELEMENT VII-E
PLAN VIEW
STA. 820+50 TO STA. 828+00
SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

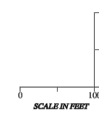
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EXPLANATION

- CL** INORGANIC SILTY TO SANDY CLAY WITH LOW TO MEDIUM PLASTICITY
- SM-SP** SILTY SAND TO POORLY GRADED SAND
- CL-ML** INORGANIC SILTY CLAY, CLAYEY SILT, SILT, AND SANDY SILT WITH LOW PLASTICITY
- 3-CPT38** APPROXIMATE LOCATION OF CONE PENETRATION TEST (ENGEO)
- 086C** APPROXIMATE LOCATION OF CONE PENETRATION TEST (PUGRO)
- f_s** SLEEVE FRICTION
- Q_t** NORMALIZED TIP RESISTANCE
- F_r** FRICTION RATIO
- Q_r** TIP RESISTANCE



SUBSURFACE PROFILE STA. 803+20 TO 827+84
 RECLAMATION DISTRICT 17
 SAN JOAQUIN COUNTY, CALIFORNIA

PROJECT NO. 5747.000.000
 DATE: FEBRUARY 2009
 DRAWN BY: SSP
 CHECKED BY: JLT
 ORIGINAL FIGURE PRINTED IN COLOR

FIGURE NO. 8

PLANS REVIEWED AND APPROVED BY:

K S N KJELSDEN SINNOCK NEUDECK INC. Consulting Engineers and Land Surveyors

Post Office Box 844
 711 N. Pershing Avenue
 Stockton, CA 95201-0844
 Office: (209) 946-0268
 Faxes: (209) 946-0296
 E-mail: KSN@ksninc.com

THESE PLANS CONFORM TO THE GEOTECHNICAL REPORT ENTITLED: SEEPAGE EVALUATION PROJECT #5747.000.000

ENGE INCORPORATED
 EXCELLENT SERVICE SINCE 1971

PLANS PREPARED UNDER THE DIRECTION OF:

MACKAY & SOMPS
 ENGINEERS PLANNERS SURVEYORS
 5142 Franklin Drive, Suite B, Pleasanton, CA 94588 (925) 225-0690

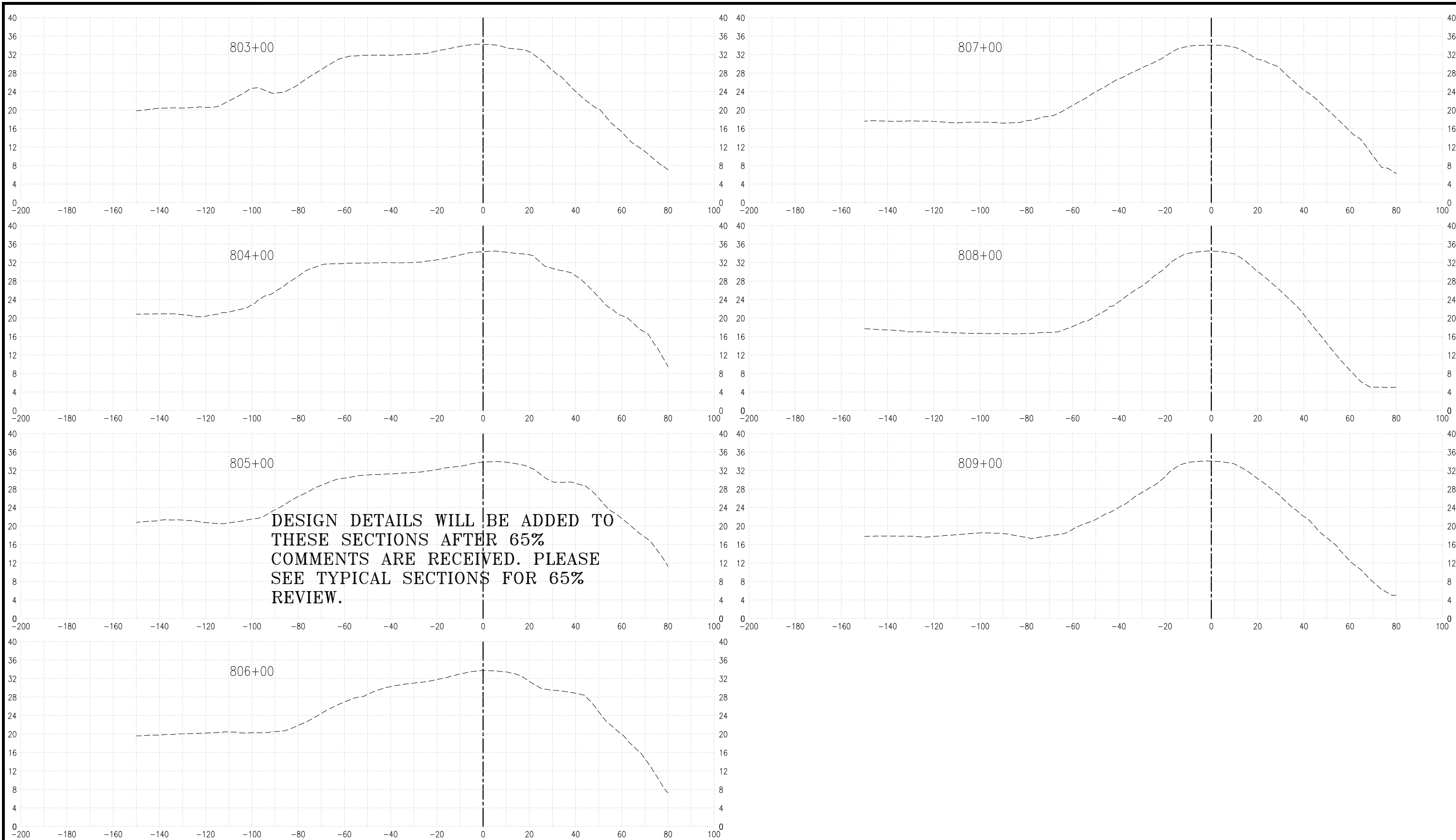
RECLAMATION DISTRICT NO. 17
 ELEMENT VII-E

PROFILE VIEW
 STA. 803+00 TO STA. 828+00

SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: 1"=200'	SHT 9
DRAWN BY: GB	OF 13
DESIGNED BY: GJ	
CHECKED BY: JSL	



ELEMENT VII-E (CUTOFF WALL)

65% SUBMITTAL

PLANS REVIEWED AND APPROVED BY:



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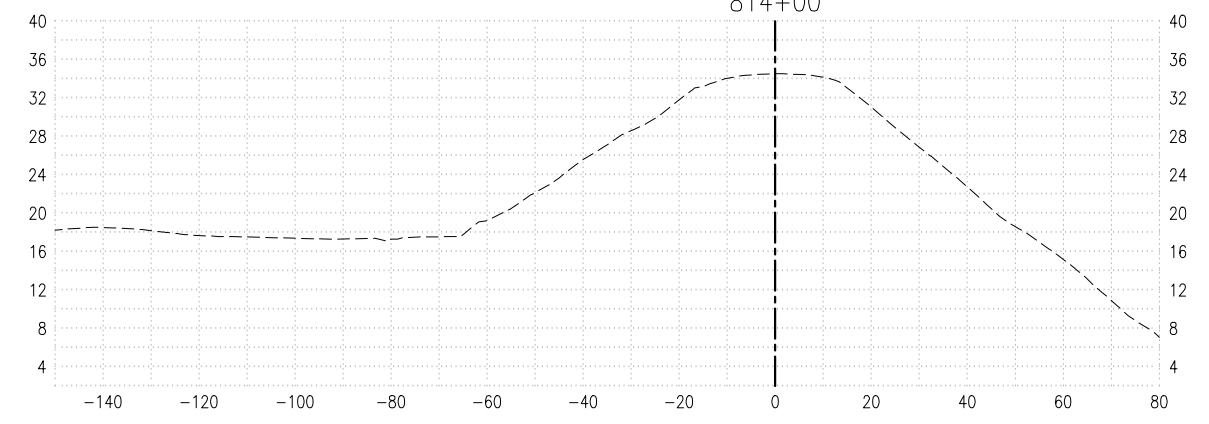
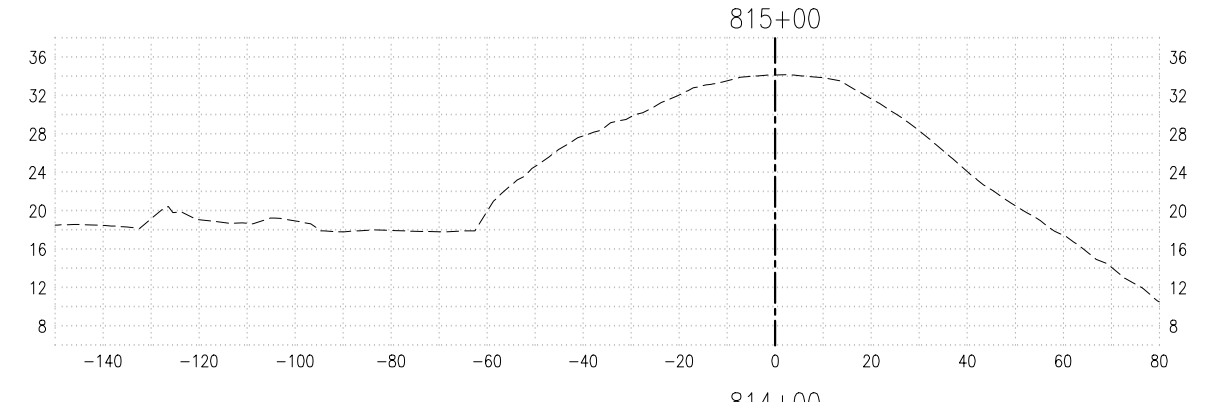
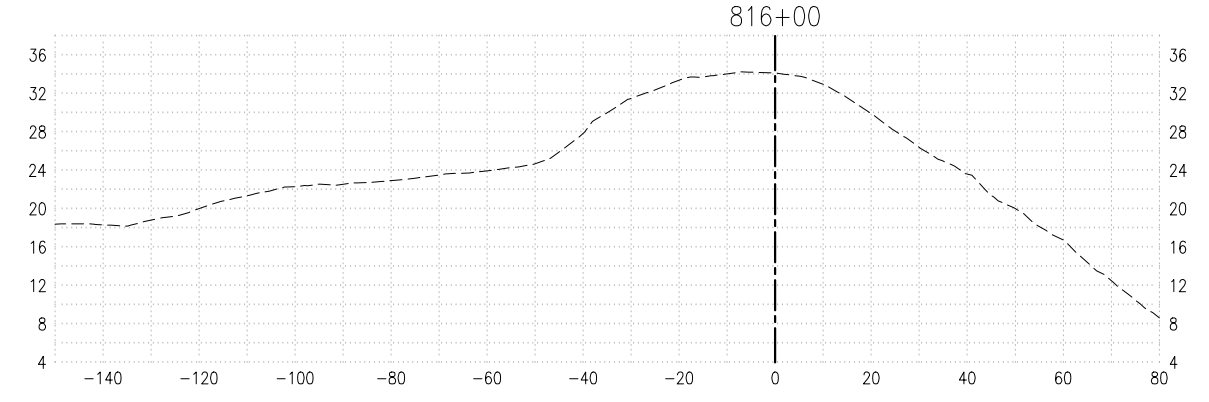
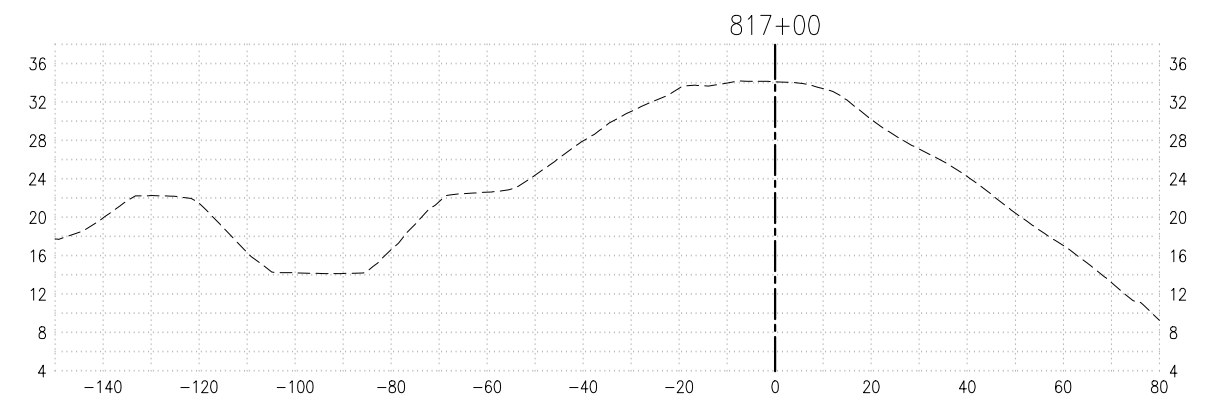
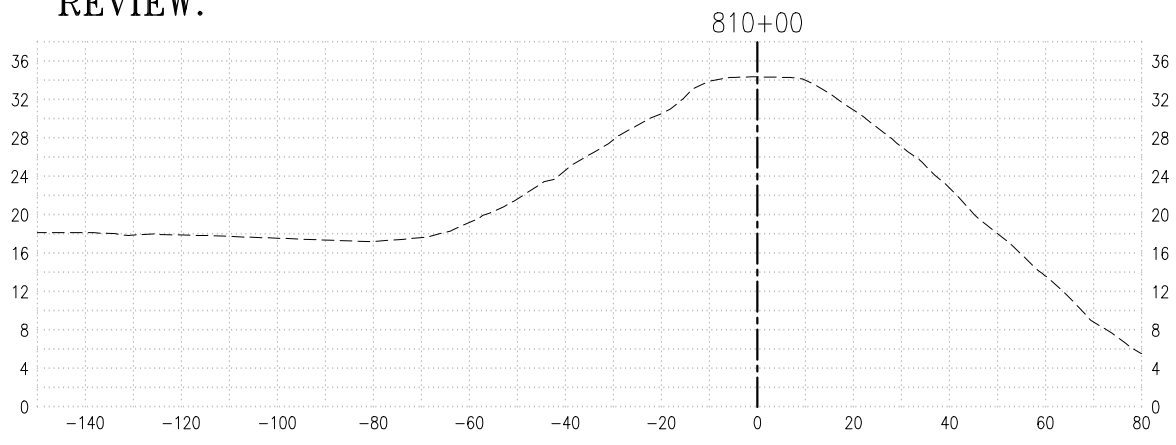
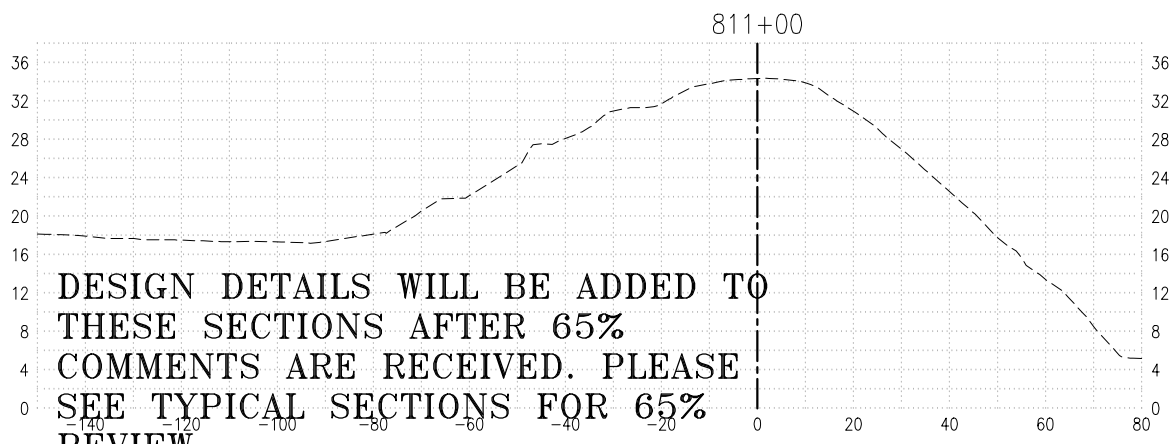
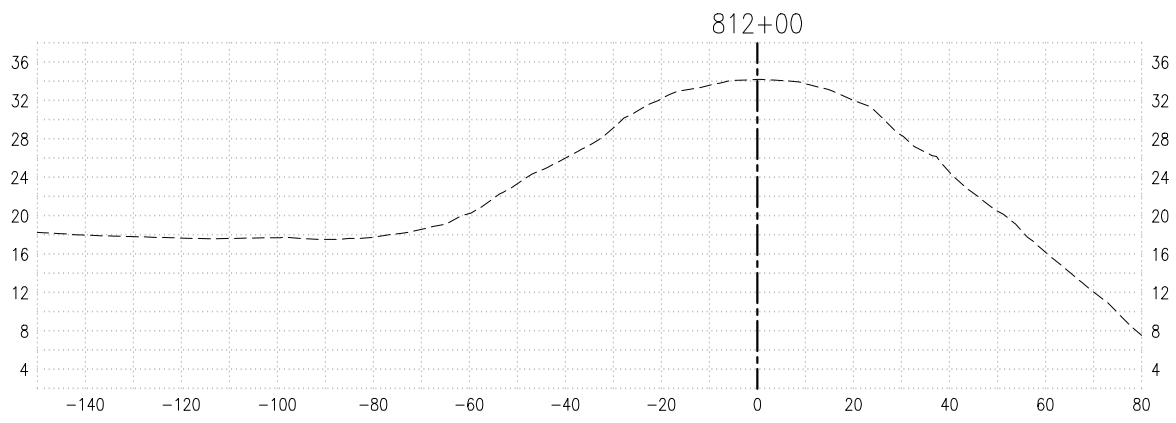
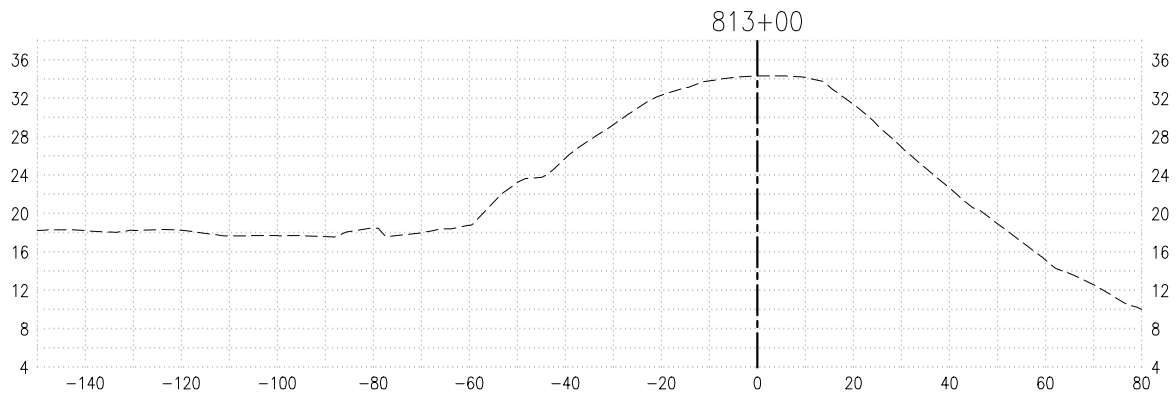
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RECLAMATION DISTRICT NO. 17
ELEMENT VII-E
CROSS-SECTIONS
STA. 803+00 TO STA. 809+00
SAN JOAQUIN COUNTY CALIFORNIA

No.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: _____	SHT 10
DRAWN BY: GB	OF 13
DESIGNED BY: GJ	
CHECKED BY: JSL	



DESIGN DETAILS WILL BE ADDED TO THESE SECTIONS AFTER 65% COMMENTS ARE RECEIVED. PLEASE SEE TYPICAL SECTIONS FOR 65% REVIEW.

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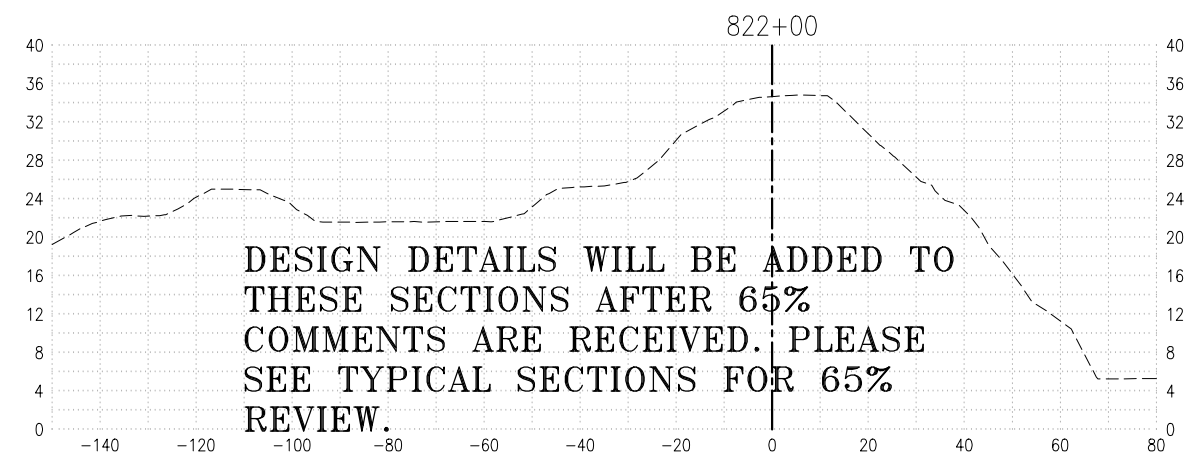
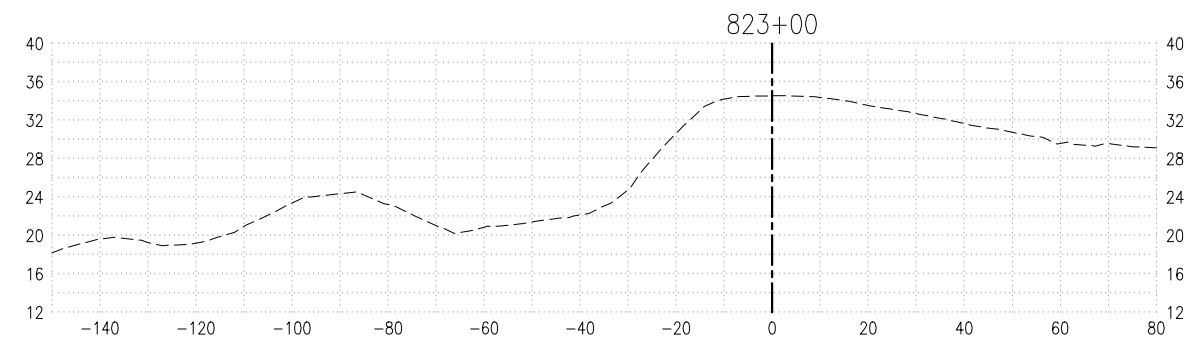
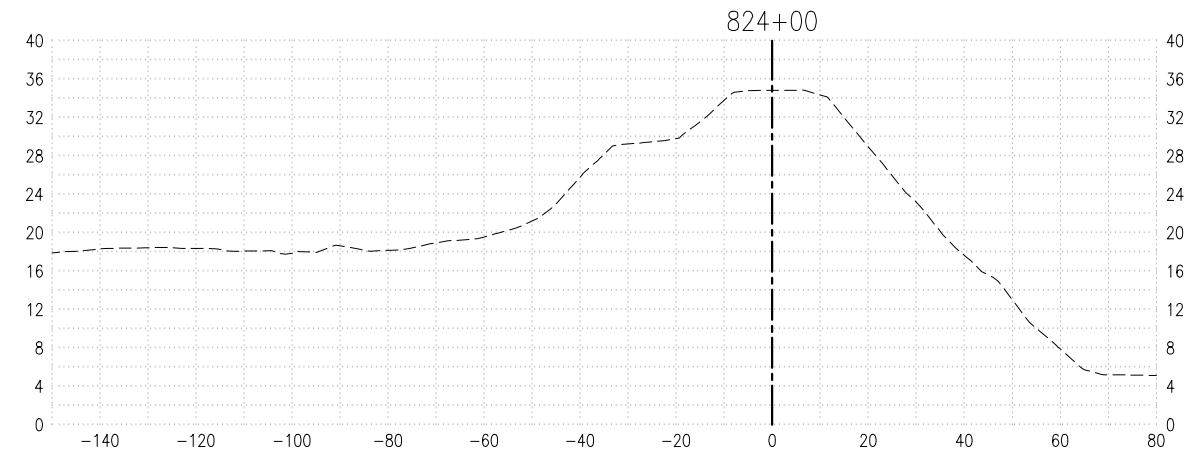
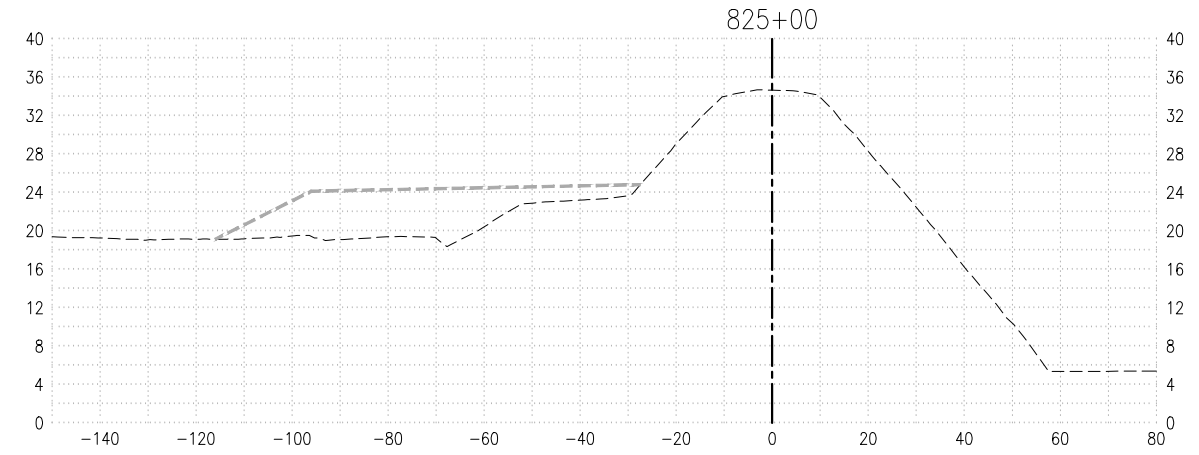
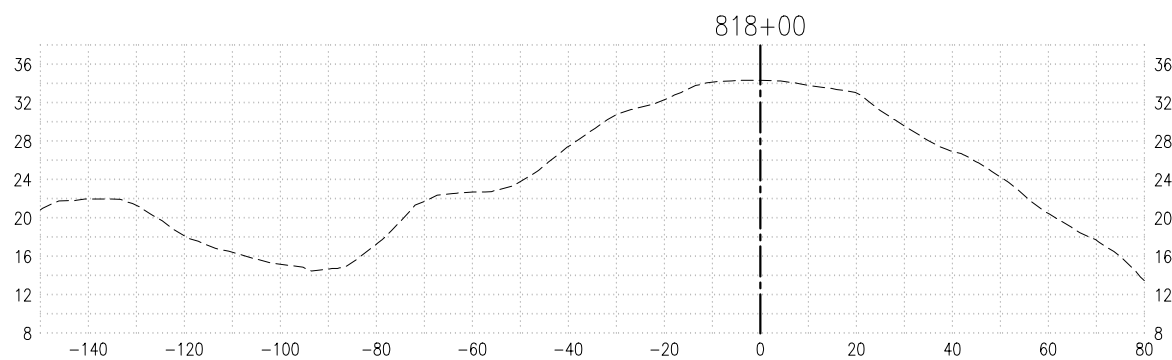
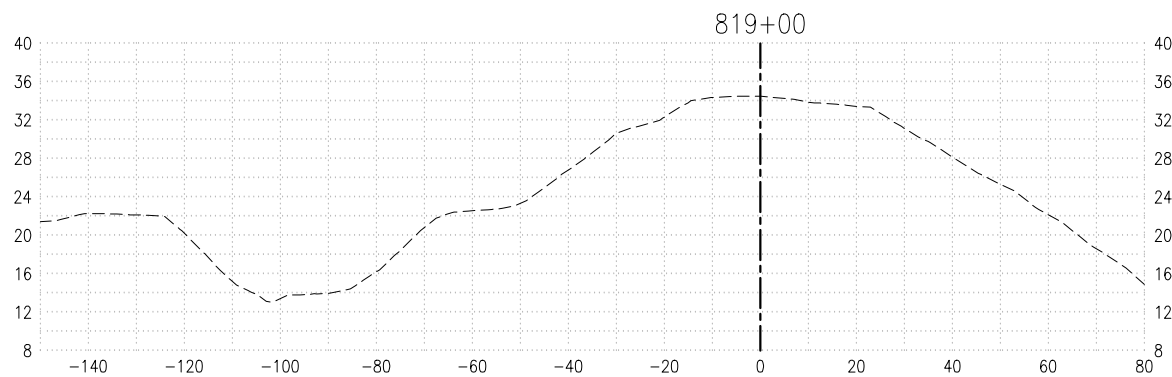
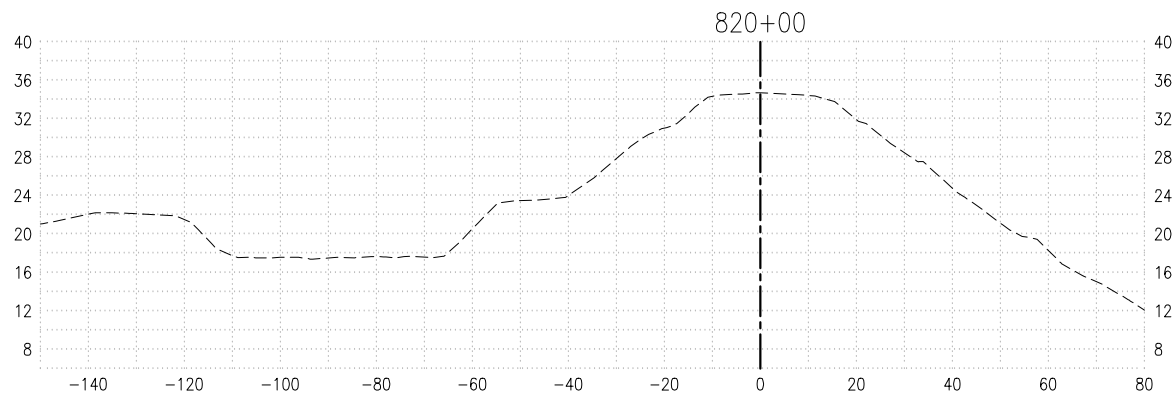
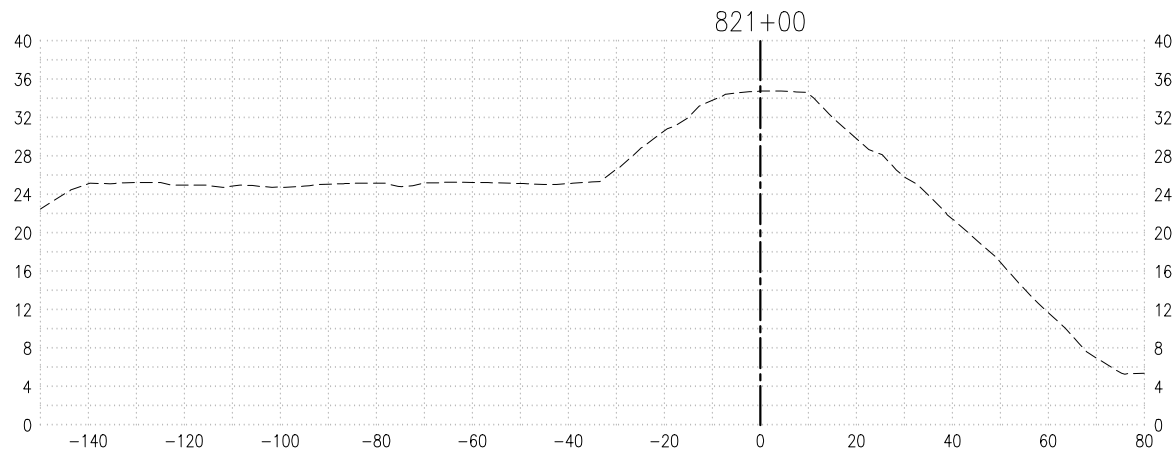
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RECLAMATION DISTRICT NO. 17
ELEMENT VII-E
CROSS-SECTIONS
STA. 810+00 TO STA. 816+00
SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: _____	SHT 11
DRAWN BY: GB	OF 13
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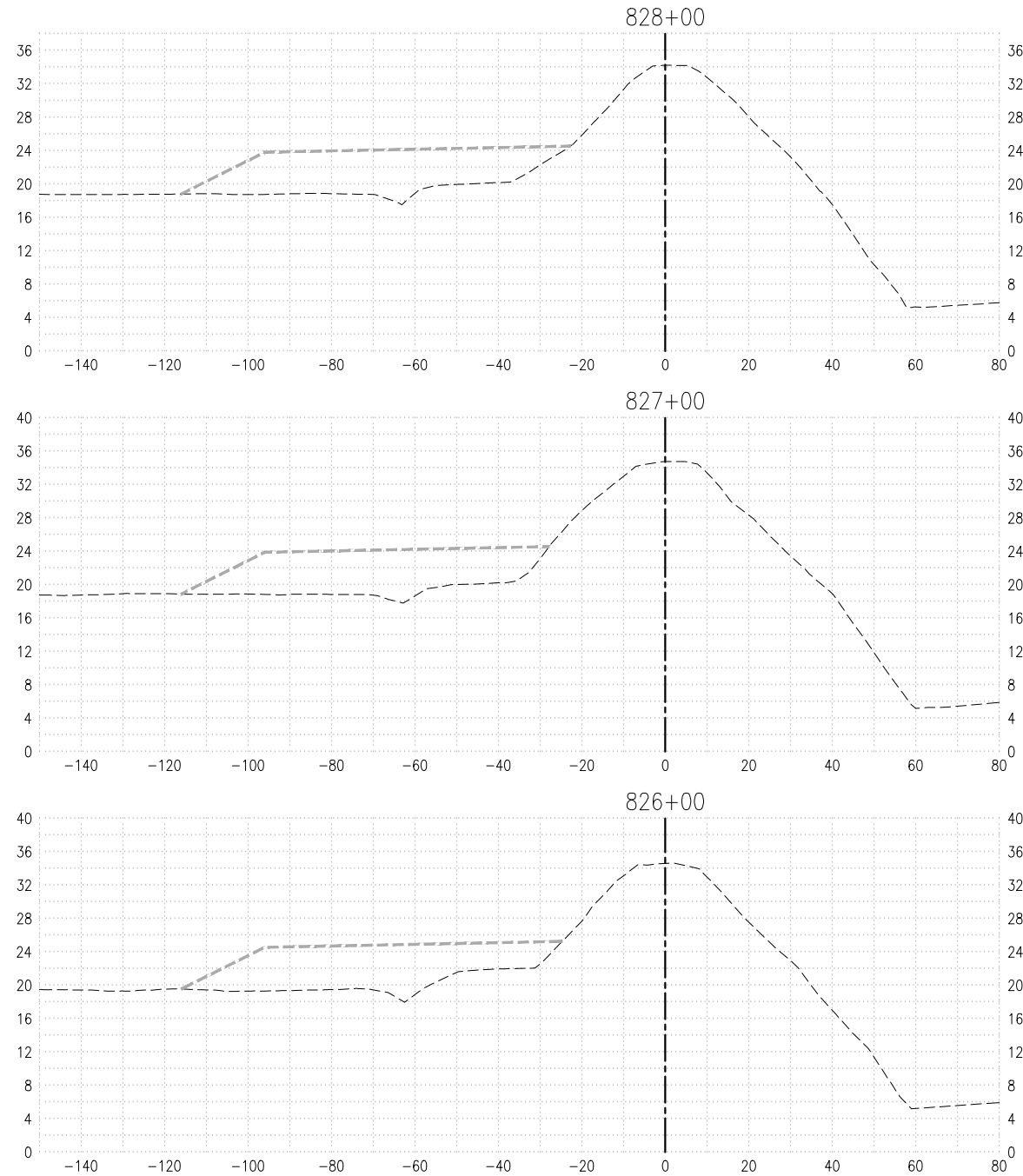
RECLAMATION DISTRICT NO. 17
ELEMENT VII-E

CROSS-SECTIONS
STA. 817+00 TO STA. 823+00

SAN JOAQUIN COUNTY CALIFORNIA

No.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: _____	SHT 12
DRAWN BY: GB	OF 13
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RECLAMATION DISTRICT NO. 17
ELEMENT VII-E

CROSS-SECTIONS
STA. 824+00 TO STA. 828+00

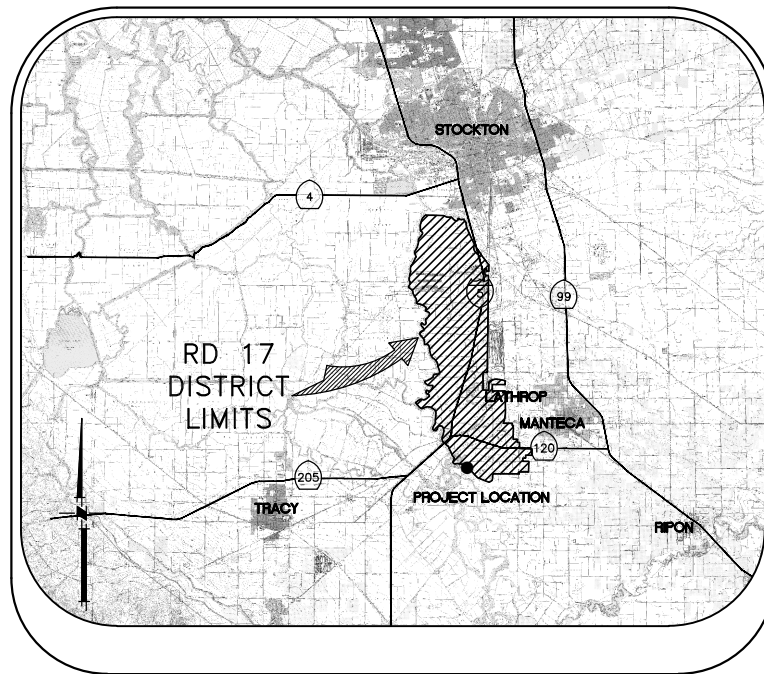
SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

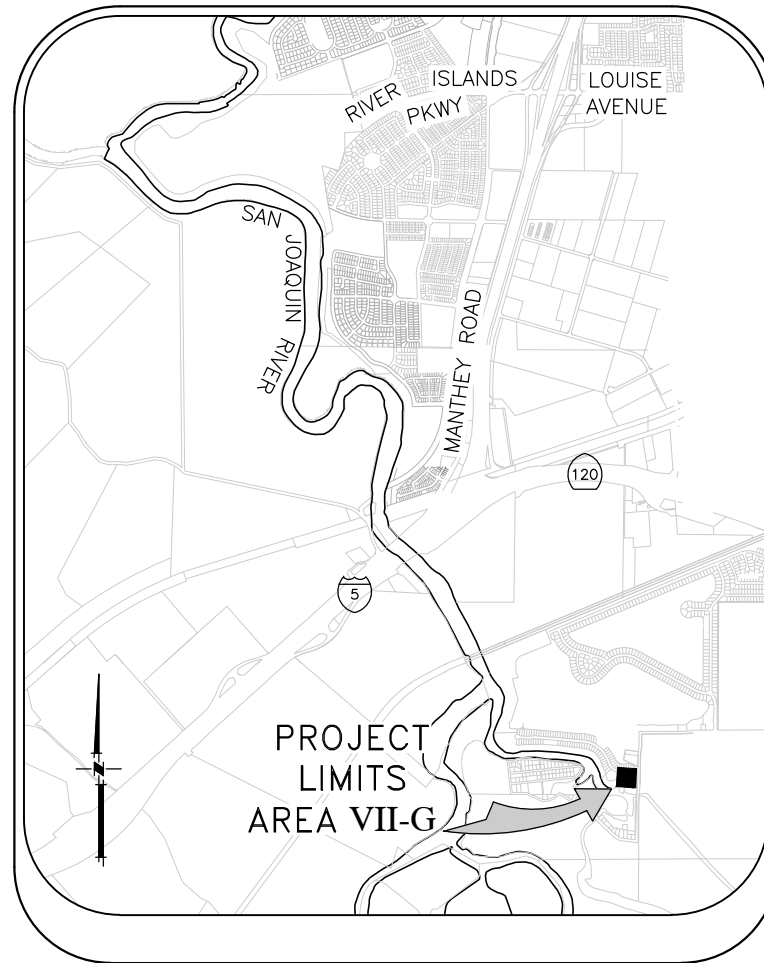
DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: _____	SHT 13
DRAWN BY: GB	OF 13
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CHECKED BY: JSL	

RECLAMATION DISTRICT NO. 17 LEVEE SEEPAGE PROJECT

ELEMENT VII-G - SEEPAGE BERM RD17 STATION 849+65 THRU 853+50 (FEET) USACE STATION 14.19 THRU 14.26 (MILES)



VICINITY MAP



PROJECT SITE MAP

SHEET	DESCRIPTION
1.	COVER SHEET
2.	NOTES
3.	NOTES & BORING LOCATIONS
4.	HAUL ROUTE & CONTROL POINTS
5.	TYPICAL SECTIONS & DETAILS
6.	TYPICAL SECTIONS & DETAILS
7.	GRADING PLAN (AREA VII-G)
8.	CROSS SECTIONS

INDEX

WARNING • CAUTION
EXISTING UNDERGROUND UTILITIES
CONTACT : UNDERGROUND SERVICE ALERT
PHONE: (800) 642-2444
FOR MARKING PRIOR TO DIGGING

PLANS REVIEWED AND APPROVED BY:

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RECLAMATION DISTRICT NO. 17
ELEMENT VII-G
COVER SHEET
SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
SCALE: NOT TO SCALE	SHT 1
DRAWN BY: GB	OF 8
DESIGNED BY: JBM	
CHECKED BY: JSL	

THE PERFORMANCE OF THE LEVEE SYSTEMS IS DEPENDANT UPON THE DESIGN CRITERIA AND THE LONG TERM OPERATION AND MAINTENANCE OF THE LEVEES. THE DESIGN TEAM HAS PREPARED THESE PLANS AND ASSOCIATED SPECIFICATIONS AND REPORTS IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICE USING INFORMATION FROM MULTIPLE SOURCES. IF EXTREME FLOODS (EXCEEDING THE DESIGN PROFILE), EARTHQUAKES OR OTHER LOADING CONDITIONS NOT EVALUATED IN THE DESIGN OCCUR, THE INTEGRITY OF THE LEVEE SYSTEM MAY BE COMPROMISED.

ROLES:

THE "DISTRICT" AS REFERRED TO IN THESE NOTES MEANS RECLAMATION DISTRICT 17(RD 17). THE DISTRICT IS THE PROJECT OWNER.

THE "ENGINEER" AS REFERRED TO IN THESE NOTES MEANS THE DISTRICT ENGINEER: KJELDSSEN, SINNOCK, AND NEUDECK. THE ENGINEER SHALL PROVIDE INSPECTION OF THE PROJECT AND OVERALL CONSTRUCTION MANAGEMENT INCLUDING COORDINATION WITH PUBLIC UTILITIES, PUBLIC AGENCIES, THE DESIGN ENGINEER AND THE GEOTECHNICAL ENGINEER.

THE "DESIGN ENGINEER" AS REFERRED TO IN THESE NOTES MEANS MACKAY & SOMPS, CIVIL ENGINEERS INC. THE DESIGN ENGINEER WILL PERFORM DISTRICT PROVIDED CONSTRUCTION STAKING AND "AS-GRADED" SURVEYS.

THE "GEOTECHNICAL ENGINEER" AS REFERRED TO IN THESE NOTES MEANS ENGEO INC. THE GEOTECHNICAL ENGINEER WILL PROVIDE MATERIALS TESTING, COMPACTION TESTING AND OTHER GEOTECHNICAL RELATED TESTING.

CONTRACTOR SHALL BE RESPONSIBLE FOR SUPERVISION OF ALL CONTRACTOR'S EMPLOYEES, SUBCONTRACTORS, INCLUDING SCHEDULING AND ALL SAFETY MATTERS.

THESE PLANS ARE TO BE USED IN CONJUNCTION WITH THE FOLLOWING:

- a. SOILS REPORT PREPARED BY ENGEO INC. ENTITLED, SEEPAGE EVALUATION PROJECT # 5747.000.000.
- b. SPECIFICATIONS PREPARED BY KSN DATED _____

GENERAL NOTES:

1. PRIOR TO THE COMMENCEMENT OF WORK, A JOINT INSPECTION BETWEEN THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER, THE GEOTECHNICAL ENGINEER, THEIR REPRESENTATIVES, AND THE CONTRACTOR (OR HIS REPRESENTATIVE) WILL BE CONDUCTED TO REVIEW THE PRE-CONSTRUCTION CONDITIONS (E.G. ROADS, PUMPS, DISCHARGE PIPES, SIPHONS, RAMPS, GATES, SIGNS, ETC.) IF SUCH EXISTING FACILITIES ARE DAMAGED BY THE CONTRACTOR'S OPERATIONS, THE CONTRACTOR, AT THEIR OWN EXPENSE, SHALL REPLACE OR RESTORE THEM TO THE CONDITION THAT EXISTED PRIOR TO THE COMMENCEMENT OF WORK.
2. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT (209) 946-0268, A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY WORK.
3. THE DISTRICT RESERVES THE RIGHT TO SUSPEND CONSTRUCTION AT ANY TIME IN THE EVENT OF EXTREME HIGH OR LOW TIDES, FLOOD EVENTS, OTHER CONDITIONS OR EMERGENCIES THAT MAY JEOPARDIZE THE INTEGRITY OF THE DISTRICT'S LEVEE AND ROAD SYSTEM.
4. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, COUNTY AND LOCAL REQUIREMENTS, AS REQUIRED FOR TRAFFIC CONTROL AND PUBLIC SAFETY DURING PROJECT CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL OUTLINED IN THESE PLANS AND THE REFERENCED SPECIFICATIONS.
5. THE DISTRICT WILL FURNISH ALL RIGHT-OF-WAY FOR ALL LEVEE ROADS AND DESIGNATED ACCESS HAUL ROADS AS SHOWN ON THESE PLANS. SHOULD THE CONTRACTOR WANT TO USE OTHER ROADWAYS OR ACCESS AREAS NOT SHOWN, THE CONTRACTOR SHALL AT THEIR OWN EXPENSE SECURE RIGHT-OF-WAY & NECESSARY PERMITS.
6. IF DELIVERING MATERIAL OR EQUIPMENT BY TRUCK, ALL TRUCK TRAFFIC SHALL BE LIMITED TO THE DISTRICT LEVEE ROADS AND/OR PUBLIC ROADS AS SHOWN ON HAUL ROUTE PLAN, UNLESS OTHERWISE APPROVED.
7. MAXIMUM SPEED LIMIT ON DISTRICT LEVEE ROADS IS 30 MPH, AS POSTED, OR AS OTHERWISE INDICATED ON THE CONSTRUCTION DRAWINGS. CONTRACTOR SHALL POST LARGE SLOW/CAUTION SIGNS AND SPEED LIMIT SIGNS FOR PURPOSES OF NOTIFYING BOTH CONTRACTOR'S EMPLOYEES AND THE PUBLIC. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SAFETY AT ALL TIMES ALONG ALL HAUL ROUTES AND IN ALL PROJECT AREAS (PUBLIC AND PRIVATE).

8. THE DISTRICT WILL PROVIDE SURVEY STAKES AS DESCRIBED IN THE SPECIFICATIONS WITHIN THE CONSTRUCTION SURVEYING SECTION. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL CONSTRUCTION STAKING AND SURVEYING AT THEIR OWN EXPENSE BEYOND THAT PROVIDED BY THE DISTRICT. PLEASE CONTACT THE ENGINEER IN WRITING WITH STAKING REQUESTS (209) 946-0268 WITH AT LEAST TWO WORKING DAYS ADVANCE NOTICE.
9. THE CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER AND THE GEOTECHNICAL ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DISTRICT, THE ENGINEER, THE DESIGN ENGINEER OR THE GEOTECHNICAL ENGINEER.
10. ANY DEFICIENCIES NOTED DURING INTERIM AND FINAL INSPECTIONS BY THE ENGINEER AND/OR DISTRICT SHALL BE CORRECTED BY THE CONTRACTOR PRIOR TO FINAL ACCEPTANCE BY THE DISTRICT. ANY ADDITIONAL COSTS AND EXPENSES FOR MOBILIZATION AND/OR DEMOBILIZATION, LABOR, EQUIPMENT AND OTHER ASSOCIATED COSTS REQUIRED TO CORRECT THE DEFICIENCIES NOTED, EXCEPT SPECIFIED MATERIAL(S), SHALL BE BORNE BY THE CONTRACTOR.
11. THE CONTRACTOR SHALL NOT CLOSE ANY ROAD, STREET, OR HIGHWAY TO THE PUBLIC EXCEPT WITH THE PERMISSION OF THE ENGINEER AND THE PROPER GOVERNMENTAL AUTHORITY. TEMPORARY PROVISIONS SHALL BE MADE BY THE CONTRACTOR TO ENSURE CONTINUOUS ACCESS TO PUBLIC AND PRIVATE DRIVEWAYS, AND PROPER FUNCTIONING OF CULVERTS, DRAINAGE AND IRRIGATION DITCHES, AND NATURAL WATER COURSES.
12. THE CONTRACTOR IS RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER, AND HE SHALL NOTIFY THE ENGINEER WHENEVER THERE IS A CHANGE IN SITE CONDITIONS OR AN ADJUSTMENT TO BE MADE IN WORK REQUIREMENTS.
13. SHOULD IT APPEAR THAT THE WORK TO BE DONE, OR ANY MATTER RELATIVE THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE ENGINEER AT (209) 946-0268 FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.
14. THE INTENT OF THESE PLANS IS TO SERVE AS A GUIDE AND TO PROVIDE THE CONTRACTOR WITH INFORMATION AND DETAILS NECESSARY TO CONSTRUCT THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY REGARDING ANY DISCREPANCIES AND AMBIGUITIES WHICH MAY EXIST IN THE PLANS OR SPECIFICATIONS. IF THE PLANS 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 FINEST QUALITY ARE TO BE USED.
15. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE OSHA REGULATIONS AND SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS.
16. THE CONTRACTOR SHALL AT ALL TIMES BE RESPONSIBLE FOR THE SECURITY OF THE JOBSITE AND EQUIPMENT. THE DISTRICT WILL NOT BE RESPONSIBLE FOR MISSING OR DAMAGED EQUIPMENT, TOOLS, OR PERSONAL BELONGINGS.

ENVIRONMENTAL NOTES:

1. THE CONTRACTOR SHALL NOT DISCHARGE SMOKE, DUST, OR ANY OTHER AIR CONTAMINANTS INTO THE ATMOSPHERE IN SUCH QUANTITY AS WILL VIOLATE THE REGULATIONS OF ANY LEGALLY CONSTITUTED AUTHORITY. HE SHALL ALSO ABATE DUST NUISANCE BY CLEANING, SWEEPING AND SPRINKLING WITH WATER, OR OTHER MEANS AS NECESSARY. THE USE OF WATER IN AN AMOUNT WHICH RESULTS IN MUD ON PUBLIC ROADS IS NOT ACCEPTABLE AS A SUBSTITUTE FOR SWEEPING OR OTHER METHODS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ADJACENT PUBLIC ROADS CLEAN & CLEAR FROM CONSTRUCTION IMPACTS OR DEBRIS. ADDITIONAL DETAILS FOR MUD AND DUST CONTROL IS INCLUDED IN SUBSEQUENT SECTIONS OF THESE NOTES.
2. THE CONTRACTOR SHALL EXERCISE EVERY REASONABLE PRECAUTION TO PROTECT STREAMS, WATERWAYS AND OTHER BODIES OF WATER FROM POLLUTION WITH FUELS, OIL, BITUMEN'S, CALCIUM CHLORIDE, AND OTHER HAZARDOUS MATERIALS AND SHALL CONDUCT AND SCHEDULE HIS OPERATIONS SO AS TO AVOID OR MINIMIZE MUDDYING AND SILTING OF SAID WATERS. CARE SHALL BE EXERCISED TO PRESERVE ROADSIDE VEGETATION BEYOND THE LIMITS OF CONSTRUCTION.

3. THROUGHOUT ALL PHASES OF CONSTRUCTION, INCLUDING SUSPENSION OF WORK, AND UNTIL FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL KEEP THE WORK SITE CONDITIONS CLEAN AND FREE FROM RUBBISH AND DEBRIS. ALL RUBBISH AND REFUSE SHALL BE DISPOSED OF IN A MANNER SATISFACTORY TO THE ENGINEER.

DUST AND MUD CONTROL:

1. DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL KEEP ALL CONSTRUCTION AREAS, FILL AREAS, HAUL ROADS, OTHER ROADWAYS, AND OTHER USE AREAS WHERE DUST IS GENERATED WELL WATERED: AND DURING WET CONDITIONS, AREAS USED BY LOCAL TRAFFIC, FREE AND CLEAR FROM MUD. CONTRACTOR SHALL PROVIDE EFFORTS NECESSARY TO MINIMIZE DUST AND OTHER DISTURBANCES NEAR EXISTING RESIDENCES AND ALL BUILDINGS NEAR HAUL ROUTES AND THE PROJECT SITE.
 - a. CROP DAMAGE: THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL TO PREVENT CROP DAMAGE AND FOR ANY AREAS SUBJECT TO CONSTRUCTION OR CONSTRUCTION TRAFFIC THAT GENERATE DUST AND/OR OTHER CONDITIONS WHICH MIGHT DAMAGE CROPS.
 - b. NON WORK DAYS: THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL THROUGHOUT THE DURATION OF THE PROJECT INCLUDING NON WORKDAYS IN ALL PROJECT AREAS, INCLUDING CONSTRUCTION ROADS AND CROP AREAS WHICH ARE USED BY THE CONTRACTOR, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. THE CONTRACTOR SHALL HAVE AT LEAST ONE (1) WATER TRUCK AVAILABLE TO THE PROJECT AT ALL TIMES (OR MORE AS NEEDED OR DIRECTED BY THE ENGINEER) TO MAINTAIN ADEQUATE DUST CONTROL FOR THE FOLLOWING AREAS:
 - a. PROJECT AREAS
 - b. ACCESS AND HAUL ROADS
 - c. LEVEE TOE BERM FILL AREAS
 - d. OTHER CONSTRUCTION USE AREAS
 - e. CROP DAMAGE PREVENTION
 - f. RESIDENTIAL CONSTRUCTION ZONES
 - g. ADJACENT PUBLIC STREETS, TRAILS & BIKEWAYS

UTILITY NOTES:

1. UTILITIES AS NOTED ON THE PLAN SET HAVE BEEN DETERMINED BASED ON RECORD INFORMATION AND FIELD INSPECTION, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE ACTUAL LOCATION OF ALL UNDERGROUND, SURFACE, OVERHEAD, AND SUBMARINE IMPROVEMENTS, OR FACILITIES WHICH MAY BE SUBJECT TO DAMAGE BY REASON OF HIS OPERATIONS.
2. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES AND SHALL CONTACT THE RESPECTIVE UTILITY COMPANIES & PRIVATE OWNERS PRIOR TO COMMENCEMENT OF WORK.
3. THE CONTRACTOR SHALL NOTIFY AFFECTED UTILITIES FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY CONSTRUCTION. (UNDERGROUND SERVICE ALERT (800) 642-2444) AND SHALL BE RESPONSIBLE FOR THE LOCATION AND PRESERVATION OF ALL FACILITIES IN THE AREA OF CONSTRUCTION.

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NEUDECK
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MACKAY & SOMPS
ENGINEERS PLANNERS SURVEYORS
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RECLAMATION DISTRICT NO. 17
ELEMENT VII-G

NOTES

SAN JOAQUIN COUNTY CALIFORNIA

DATE: JAN 2014	PROJECT NO.
SCALE: TO SCALE	25182.010
DRAWN BY: GB	SHT 2
DESIGNED BY: JBM	OF 8
CHECKED BY: JSL	
No.	REVISION
	DATE

ACCESS ROADS:

1. THE CONTRACTOR SHALL IMPROVE, MAINTAIN, AND REPAIR UPON COMPLETION, THE ACCESS ROADS AND HAUL ROUTES AS REQUIRED FOR TRANSPORTATION AND HAULING MATERIAL. AT THE COMPLETION OF WORK THE CONTRACTOR SHALL RESTORE ALL ACCESS ROADS AND HAUL ROUTES TO PRE-CONSTRUCTION CONDITION IN A MANNER SATISFACTORY TO THE ENGINEER.
2. THE CONTRACTOR SHALL REVIEW THE ACCESS ROAD ROUTES AND DETERMINE THE LOCATION FOR TURNOUTS, RAMPS, ROAD DRAINAGE, ALIGNMENT, ETC. UPON COMPLETION OF THE PROJECT, SOME PORTIONS OF THE ACCESS ROADS MAY REQUIRE MINOR MODIFICATIONS AND ALTERATIONS. THE ACCESS ROADS WHICH REMAIN SHALL BE LEFT IN GOOD CONDITION FOR THE DISTRICT, FARMERS, AND OTHER LOCAL TRAFFIC.
3. THE CONTRACTOR SHALL NOT DEVIATE FROM IDENTIFIED HAUL ROUTES AND STAGING AREAS UNLESS PERMISSION IS OBTAINED FROM THE PROPERTY OWNER, ENGINEER AND PERMITS ARE OBTAINED FROM THE LOCAL AGENCY.
4. THE CONTRACTOR SHALL EXTEND, STRENGTHEN, REPLACE, OR OTHERWISE MODIFY THE EXISTING CROSSINGS (E.G. CULVERTS, SIPHONS, DRAIN PIPES, IRRIGATION PIPES, PUMP DISCHARGE PIPES, WET SPOTS, ETC.) AS NECESSARY TO ACCOMMODATE HIS EQUIPMENT. THE CONTRACTOR SHALL PROVIDE WHATEVER MEASURES ARE NECESSARY TO PRESERVE, PROTECT, AND MAINTAIN THE CROSSINGS SO AS TO ENSURE CONTINUOUS AND UNINTERRUPTED CONSTRUCTION OPERATIONS DURING THE ENTIRE TERM OF THIS CONTRACT.
5. THE HAUL ROADS MAY REQUIRE TEMPORARY IRRIGATION OR DISCHARGE PIPE EXTENSIONS AND RAMPING DURING CONSTRUCTION OPERATIONS. TEMPORARY EXTENSIONS AND RAMPING WILL BE PROVIDED AND INSTALLED BY THE CONTRACTOR AT HIS EXPENSE, INCLUDING REMOVAL IF REQUIRED, IN A MANNER WHICH MEETS WITH THE APPROVAL OF THE ENGINEER AND THE LANDOWNERS.
6. NEITHER THE DISTRICT NOR THE ENGINEER MAKES ANY WARRANTY OR GUARANTEE AS TO THE ADEQUACY OF THE EXISTING MATERIALS TO SUPPORT THE CONSTRUCTION TRAFFIC ON THE ACCESS ROADS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MAKING THE NECESSARY IMPROVEMENTS AND PROVIDING THE NECESSARY MEASURES REQUIRED TO ACCOMMODATE HIS ANTICIPATED NEEDS. REPAIRS TO ROADWAYS DAMAGED BY THE CONTRACTOR SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
7. CONTRACTOR MUST MAINTAIN HAUL ROUTE ACCESS AT ALL TIMES FOR USE BY THE DISTRICT AND/OR PUBLIC (AS APPLICABLE) DURING CONSTRUCTION.

CLEARING & GRUBBING:

1. UNLESS OTHERWISE INDICATED, THE WORK AREAS SHALL BE CLEARED AND GRUBBED BY THE CONTRACTOR. CONTRACTOR SHALL USE CAUTION WHILE CLEARING AND GRUBBING AROUND POWER LINES, BURIED ELECTRICAL CABLES AND OTHER EX FACILITIES/UTILITIES. ALL MATERIAL CLEARED AND REMOVED SHALL BECOME THE PROPERTY AND RESPONSIBILITY OF THE CONTRACTOR FOR REMOVAL AND DISPOSAL OFFSITE. SOME PRUNING/TRIMMING/THINNING OF BRANCHES OR TREES MAY BE REQUIRED.

FILL MATERIALS:

1. THE CONTRACTOR SHALL FURNISH, DELIVER, AND PLACE THE SPECIFIED FILL MATERIALS (PER THE DISTRICT ENGINEERS SPECIFICATIONS) TO THE DESIGNATED SITES.
2. THE FILL SHALL BE CONSTRUCTED WITH ACCEPTABLE MATERIALS SUFFICIENT TO MEET DESIGN GRADES AND SPECIFICATIONS.
3. ALL SUBGRADE AREAS RECEIVING FILL MATERIAL SHALL BE PREPARED AS REQUIRED BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR MAY BE REQUIRED TO PERFORM ADDITIONAL SUBGRADE PREPARATION WORK WITHIN THE FILL AREAS PRIOR TO THE ACCEPTANCE OF THE MATERIAL.
4. THE CONTRACTOR SHALL DELIVER THE FILL MATERIALS TO THE REQUIRED SECTIONS AS UNIFORM MIXTURES. THE MIXTURE SHALL BE DEPOSITED AND SPREAD TO THE REQUIRED COMPACTED THICKNESS. SEGREGATION OF MATERIAL SHALL BE AVOIDED AND EACH LAYER OF MATERIAL, AS SPREAD, SHALL BE FREE FROM POCKETS OF COARSE OR FINE MATERIAL.

- a. THE FILL MATERIALS SHALL BE PLACED IN LOOSE HORIZONTAL LAYERS NOT MORE THAN SIX INCHES (6") IN THICKNESS PRIOR TO COMPACTION. THE MATERIAL SHALL BE GENTLY SPREAD OUT. UNDER NO CIRCUMSTANCES SHALL ANY MATERIAL BE DROPPED FROM ANY HEIGHT ONTO THE FILL SECTION.
- b. IF SEGREGATION OCCURS, MATERIAL SHALL BE WORKED UNTIL IT IS UNIFORMLY AND SATISFACTORILY BLENDED. AFTER SPREADING, THE MATERIAL SHALL BE WATERED AND SHAPED TO THE REQUIRED SECTION AND THEN COMPACTED AS SPECIFIED.
- c. AT THE TIME MATERIALS ARE SPREAD, IT SHALL HAVE A MOISTURE CONTENT IN CONFORMANCE WITH THE PROJECT SPECIFICATIONS. SUCH MOISTURE SHALL BE UNIFORMLY DISTRIBUTED THROUGHOUT THE MATERIAL.

FINISHING AND SLOPING GRADING

1. THE SURFACE OF THE TOP LAYER SHALL BE FINISHED TO THE DESIGNATED GRADE AND CROSS SECTION. THE FINISHED SURFACE SHALL BE OF UNIFORM TEXTURE, DRESSED AND GRADED TO DRAIN AND PREVENT WATER PONDING.

COMPACTION EQUIPMENT:

1. COMPACTION SHALL BE PERFORMED WITH A NON-VIBRATORY TYPE ROLLER COMPACTOR. VIBRATORY EQUIPMENT WILL NOT BE PERMITTED ON DISTRICT LEVEES AND FILLS.

TESTING:

1. THE DISTRICT WILL RETAIN THE SERVICES OF AN INDEPENDENT SOILS CONSULTANT AND TESTING LABORATORY TO PERFORM SAMPLING AND TESTING AS REQUIRED AND TO CHECK FOR COMPLIANCE WITH THE SPECIFICATIONS. THE CONTRACTOR SHALL REMOVE SURFACE MATERIALS AT LOCATIONS DESIGNATED BY THE TESTING ENGINEER AT NO COST TO THE DISTRICT. THE INDEPENDENT TESTING LABORATORY WILL SAMPLE AND PERFORM ALL REQUIRED TESTS SUCH AS MOISTURE CONTENT; GRADATION, AND MOISTURE DENSITY RELATIONSHIPS ON THE EXCAVATED AND EMBANKMENT FILL MATERIALS





SWPPP:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DEVELOPMENT, INSTALLATION AND MAINTENANCE OF A SWPPP AND REQUIRE PROTECTION FEATURES. THESE FEATURES INCLUDE, BUT ARE NOT LIMITED TO, THOSE IDENTIFIED BELOW:
 - A. EROSION CONTROL FACILITIES
 - B. CONSTRUCTION ENTRANCE
 - C. STREET SWEEPING
 - D. THE CONTRACTOR IS RESPONSIBLE FOR ALL FINES, FEES, PENALTIES IMPOSED BY FEDERAL AND LOCAL AGENCIES DUE TO THE CONTRACTOR'S ACTIVITIES ASSOCIATED WITH THE SWPPP.
2. THE CONTRACTOR SHALL CONSTRUCT A STABILIZED CONSTRUCTION ENTRANCE AT ALL ENTRANCES TO THE PROJECT SITE AS APPROVED BY THE ENGINEER.
3. EROSION CONTROL FACILITIES AS SHOWN ON THESE PLANS HAVE BEEN PREPARED TO MEET THE REQUIREMENTS OF THE DISTRICT. THE PROJECT WILL REQUIRE A SWPPP, PREPARED BY A QUALIFIED DEVELOPER (QSD) WHO WILL ASSUME RESPONSIBILITY FOR THE PROJECT COMPLIANCE WITH THE STATE GENERAL CONSTRUCTION PERMIT AND WHOSE RECOMMENDATIONS WILL SUPERCEDE THIS PLAN ACCORDINGLY.

ABBREVIATIONS:

CL	CENTERLINE	N	NORTH, NORthing
CONST	CONSTRUCTION	NTS	NOT TO SCALE
DWSEL	DESIGN WATER SURFACE ELEVATION	PROP	PROPOSED
E	EAST, EASTING	RC	RELATIVE COMPACTION
ELEV	ELEVATION	R/W	RIGHT OF WAY
ESMT	EASEMENT	STA	STATION
EX	EXISTING	TCE	TEMPORARY CONSTRUCTION EASEMENT
FT	FOOT, FEET	TEMP	TEMPORARY
H	HORIZONTAL	TYP	TYPICAL
MIN	MINIMUM	V	VERTICAL
		WS	WATERSIDE

LEGEND

- 5-CPT-**  APPROXIMATE LOCATION OF CONE PENETRATION TEST (RD-17, ENGEO, 2010)
- 102B**  APPROXIMATE LOCATION OF BORING/PIEZOMETER (DWR/ULE, FUGRO, 2006-2007)
- 001C**  APPROXIMATE LOCATION OF CONE PENETRATION TEST (DWR/ULE, FUGRO, 2006-2007)
- K-B-**  APPROXIMATE LOCATION OF BORING (RD-17, KLEINFELDER, 1986-1989)



BORING LOCATIONS
SCALE 1"=800'

PLANS REVIEWED AND APPROVED BY:



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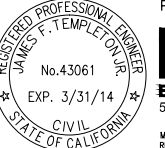
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ENGEO INCORPORATED
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RECLAMATION DISTRICT NO. 17
ELEMENT VII-G
NOTES & BORING LOCATIONS

SAN JOAQUIN COUNTY CALIFORNIA

DATE:	JAN 2014	PROJECT NO.	25182.010
SCALE:	NOT TO SCALE	SHT	3
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CHECKED BY:	JSL		

ELEMENT VII-G (SEEPAGE BERM) 65% SUBMITTAL

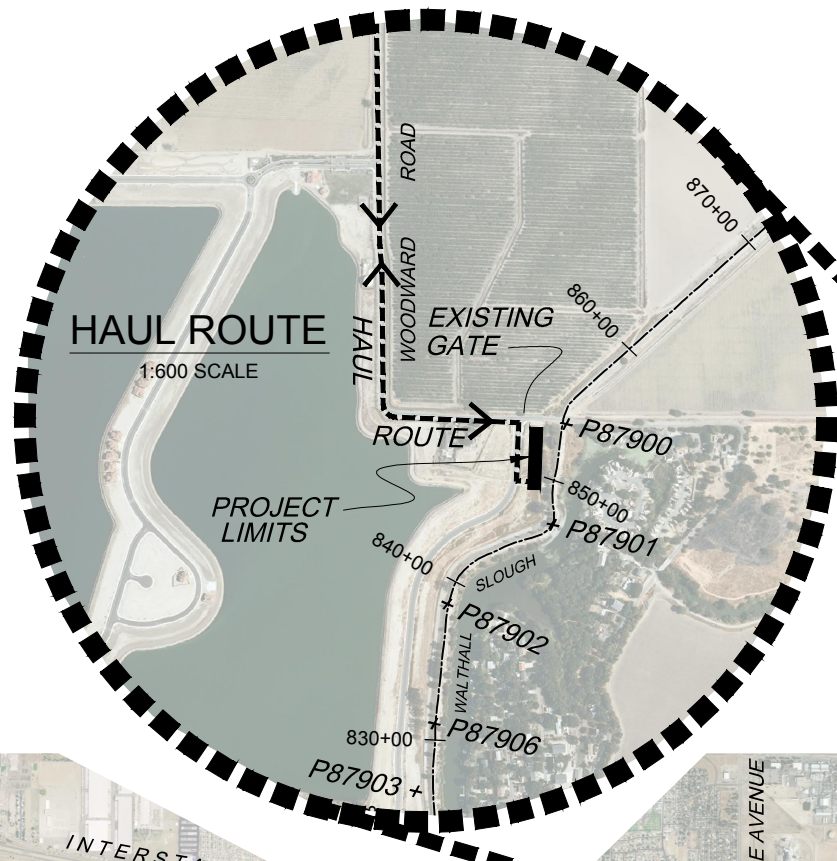
CONTROL POINTS

P#87900 - N=2104553.066 E=6333596.037 ELEV=34.15 IP/CAP
 P#87901 - N=2104636.095 E=6332966.263 ELEV=33.81 IP/CAP
 P#87902 - N=2105295.978 E=6332471.387 ELEV=34.03 IP/CAP
 P#87903 - N=2105392.795 E=6331321.478 ELEV=34.13 IP/CAP
 P#87906 - N=2105377.344 E=6331724.812 ELEV=34.40 SPINDLE WP1

ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

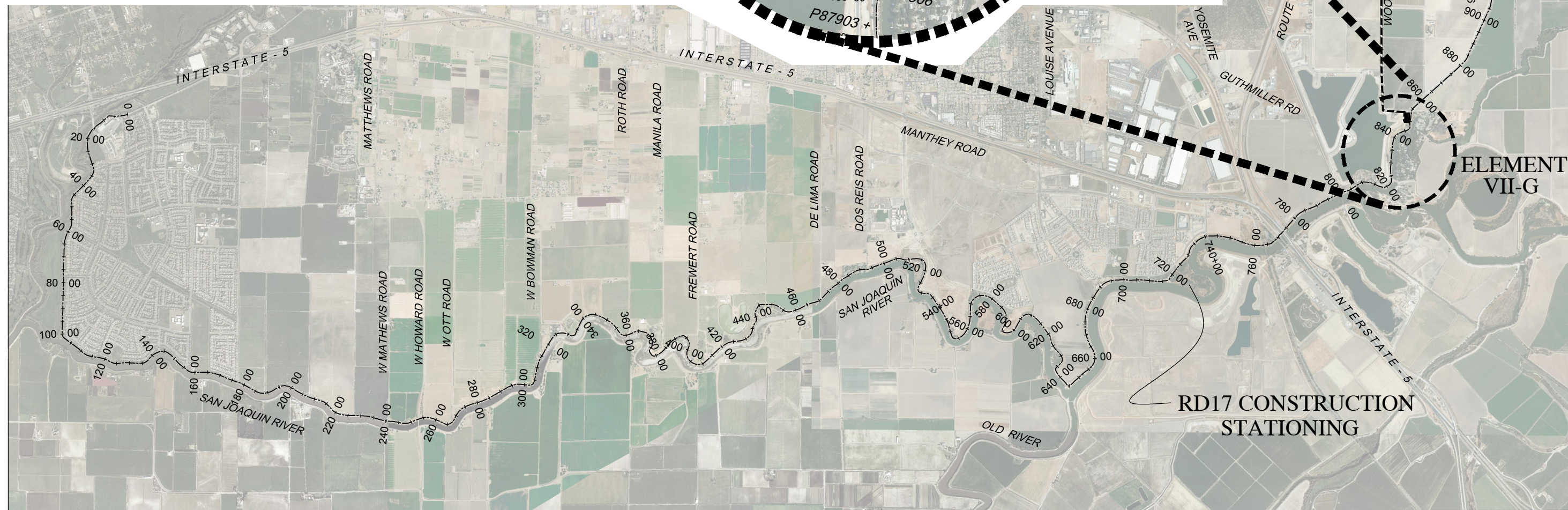
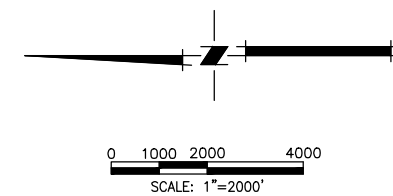
BASIS OF BEARING

THE BASIS OF BEARINGS IS NORTH 12D33'37.56" EAST BETWEEN NATIONAL GEODETIC SURVEY HORIZONTAL CONTROL POINTS HPGN-D CA 10 HG (PID AA4256) AND MATTHEW (PID HSO118), CALIFORNIA COORDINATE SYSTEM ZONE 3, NAD83, EPOCH DATE 1997.30, AS CALCULATED AND ADJUSTED BY THE NATIONAL GEODETIC SURVEY IN JULY, 1998, AS SHOWN ON RECORD OF SURVEY RECORDED AT BOOK 34 PAGES 163 - 163B, OF SAN JOAQUIN COUNTY RECORDS. ALL DISTANCES SHOWN HEREON ARE GROUND DISTANCES. TO CONVERT TO GRID DISTANCE, MULTIPLY GROUND DISTANCE BY AVERAGE COMBINED SCALE FACTOR OF 0.999929125.

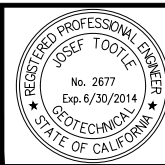


SITE SECURITY NOTES:

- TEMPORARY GATES SHALL BE INSTALLED BY THE CONTRACTOR TO PREVENT UNAUTHORIZED ACCESS TO THE SITE. ACCESS KEYS SHALL BE PROVIDED TO THE DISTRICT TO ALLOW ACCESS TO THE FARMER AND DISTRICT DURING CONSTRUCTION.



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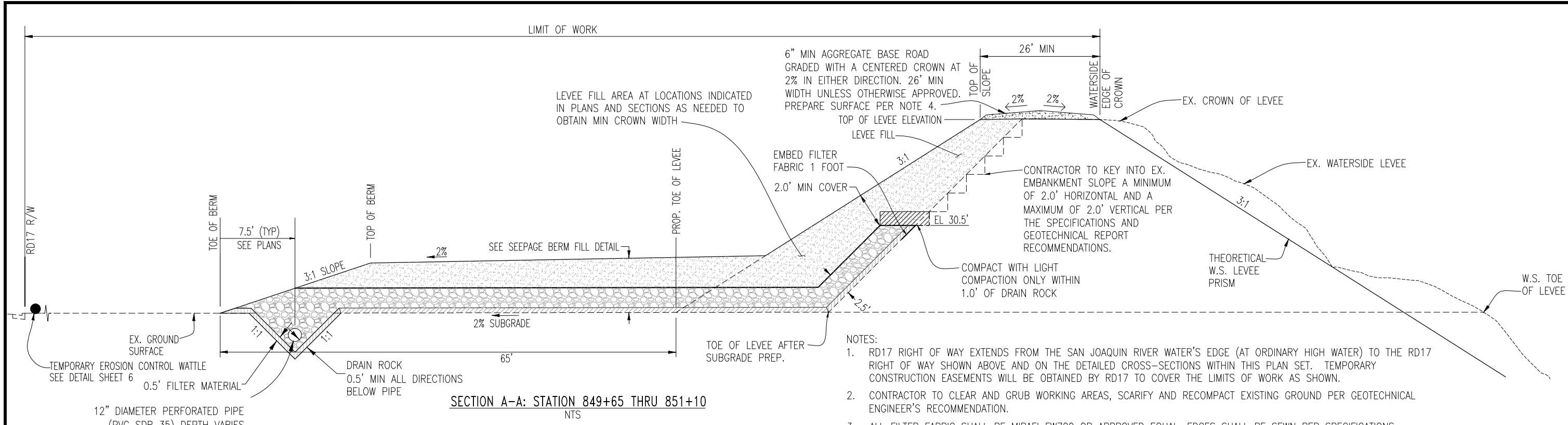
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RECLAMATION DISTRICT NO. 17
 ELEMENT VII-G
 HAUL ROUTE & CONTROL POINTS
 SAN JOAQUIN COUNTY CALIFORNIA

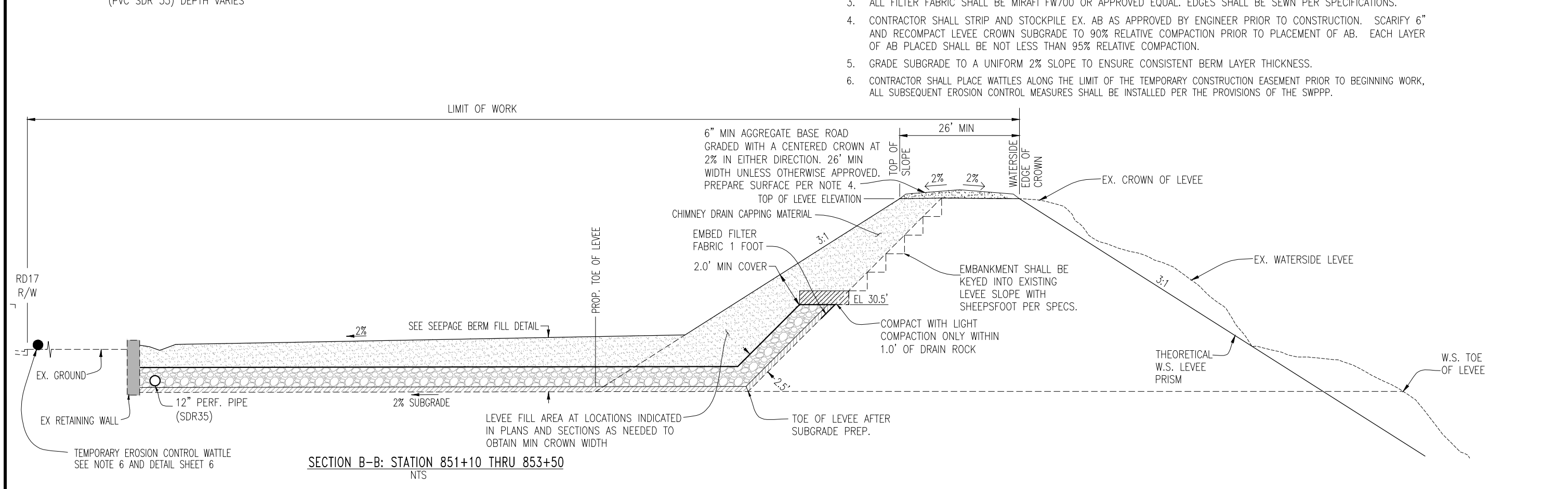
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DRAWN BY: GB	OF 8
DESIGNED BY: JBM	
CHECKED BY: JSL	

ELEMENT VII-G (SEEPAGE BERM) 65% SUBMITTAL



- NOTES:
- RD17 RIGHT OF WAY EXTENDS FROM THE SAN JOAQUIN RIVER WATER'S EDGE (AT ORDINARY HIGH WATER) TO THE RD17 RIGHT OF WAY SHOWN ABOVE AND ON THE DETAILED CROSS-SECTIONS WITHIN THIS PLAN SET. TEMPORARY CONSTRUCTION EASEMENTS WILL BE OBTAINED BY RD17 TO COVER THE LIMITS OF WORK AS SHOWN.
 - CONTRACTOR TO CLEAR AND GRUB WORKING AREAS, SCARIFY AND RECOMPACT EXISTING GROUND PER GEOTECHNICAL ENGINEER'S RECOMMENDATION.
 - ALL FILTER FABRIC SHALL BE MIRAFI FW700 OR APPROVED EQUAL. EDGES SHALL BE SEWN PER SPECIFICATIONS.
 - CONTRACTOR SHALL STRIP AND STOCKPILE EX. AB AS APPROVED BY ENGINEER PRIOR TO CONSTRUCTION. SCARIFY 6" AND RECOMPACT LEVEE CROWN SUBGRADE TO 90% RELATIVE COMPACTION PRIOR TO PLACEMENT OF AB. EACH LAYER OF AB PLACED SHALL BE NOT LESS THAN 95% RELATIVE COMPACTION.
 - GRADE SUBGRADE TO A UNIFORM 2% SLOPE TO ENSURE CONSISTENT BERM LAYER THICKNESS.
 - CONTRACTOR SHALL PLACE WATTLES ALONG THE LIMIT OF THE TEMPORARY CONSTRUCTION EASEMENT PRIOR TO BEGINNING WORK. ALL SUBSEQUENT EROSION CONTROL MEASURES SHALL BE INSTALLED PER THE PROVISIONS OF THE SWPPP.



PLANS REVIEWED AND APPROVED BY:

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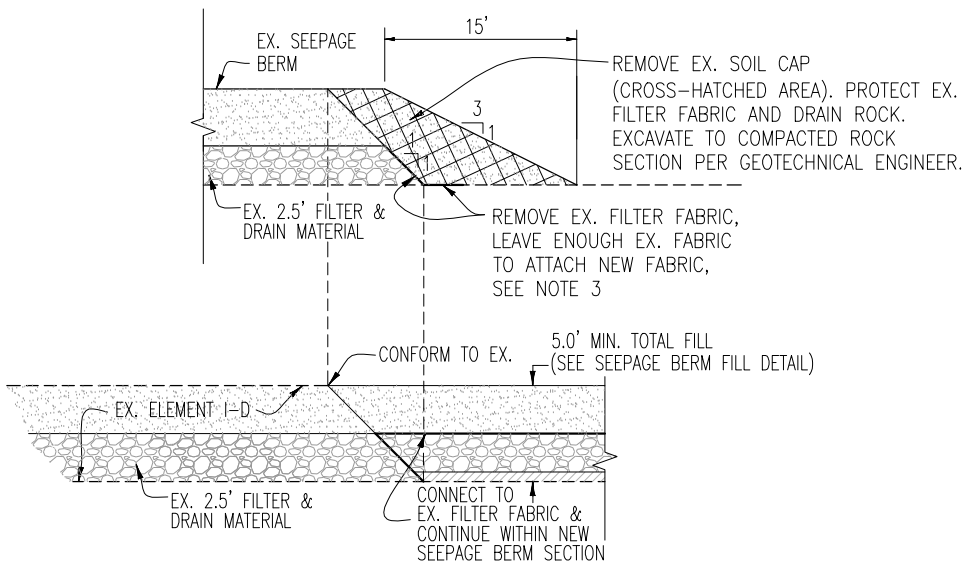
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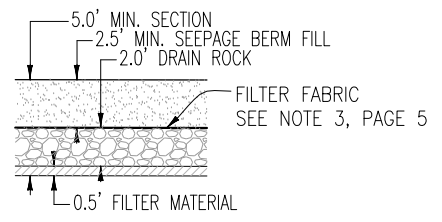
RECLAMATION DISTRICT NO. 17
ELEMENT VII-G
TYPICAL SECTIONS & DETAILS

SAN JOAQUIN COUNTY CALIFORNIA

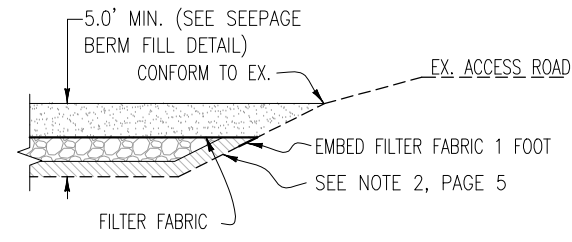
DATE: JAN 2014	PROJECT NO. 25182.010
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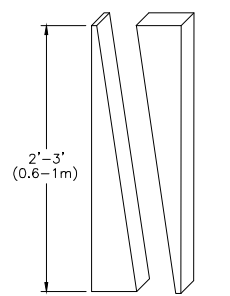
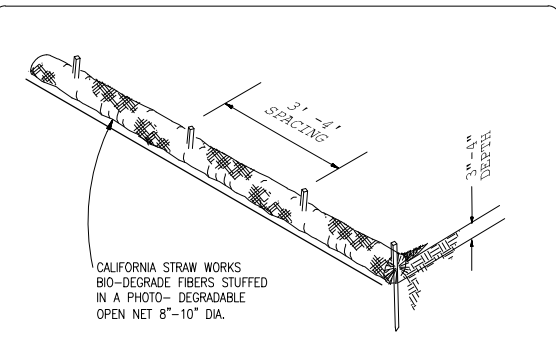
SECTION A-A: BERM CONFORM
NTS



SEEPAGE BERM FILL DETAIL
NTS

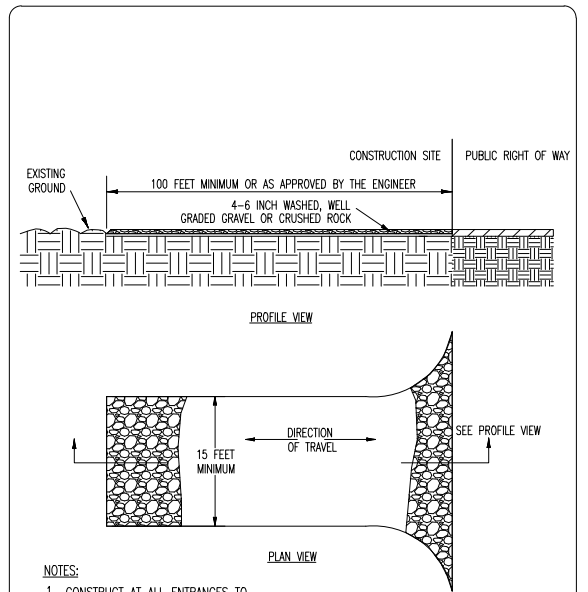


SECTION C-C: END OF BERM TRANSITION
NTS



- NOTES:
1. REPAIR OR REPLACE SPLIT, TORN, UNRAVELING OR SLUMPING FIBER ROLLS.
 2. INSPECT FIBER ROLLS WHEN RAIN IS FORECAST, FOLLOWING RAIN EVENTS AND AT LEAST DAILY DURING PROLONGED RAINFALL. PERFORM REQUIRED MAINTENANCE.
 3. IN MOST CASES, FIBER ROLLS DO NOT REQUIRE REMOVAL AND CAN BE ABANDONED IN PLACE. IF NOT EXCESSIVELY SOILED, ROLLS MAY BE REPLACED AND REUSED.

NOT TO SCALE
WATTLES



- NOTES:
1. CONSTRUCT AT ALL ENTRANCES TO THE PROJECT SITE AS APPROVED BY THE ENGINEER
 2. THE ENTRANCE SHALL BE KEPT IN GOOD CONDITION BY OCCASIONAL TOP DRESSING WITH ROCK MATERIAL
 3. ACCESSES SHALL BE INSPECTED WEEKLY DURING PERIODS OF HEAVY USAGE, MONTHLY DURING NORMAL USAGE, AND AFTER EACH RAINFALL, WITH MAINTENANCE PROVIDED AS NECESSARY. PERIODIC TOP DRESSING SHALL BE DONE AS NEEDED.

NOT TO SCALE
STABILIZED CONSTRUCTION SITE ACCESS

PLANS REVIEWED AND APPROVED BY:

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ENGEO INCORPORATED
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REGISTERED PROFESSIONAL ENGINEER
JOSEF TOOTLE
No. 2677
Exp. 6/30/2014
STATE OF CALIFORNIA

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REGISTERED PROFESSIONAL ENGINEER
JAMES F. TEMPLETON JR.
No. 43061
Exp. 3/31/14
STATE OF CALIFORNIA









RECLAMATION DISTRICT NO. 17
ELEMENT VII-G
TYPICAL SECTIONS & DETAILS

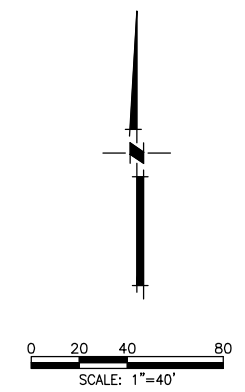
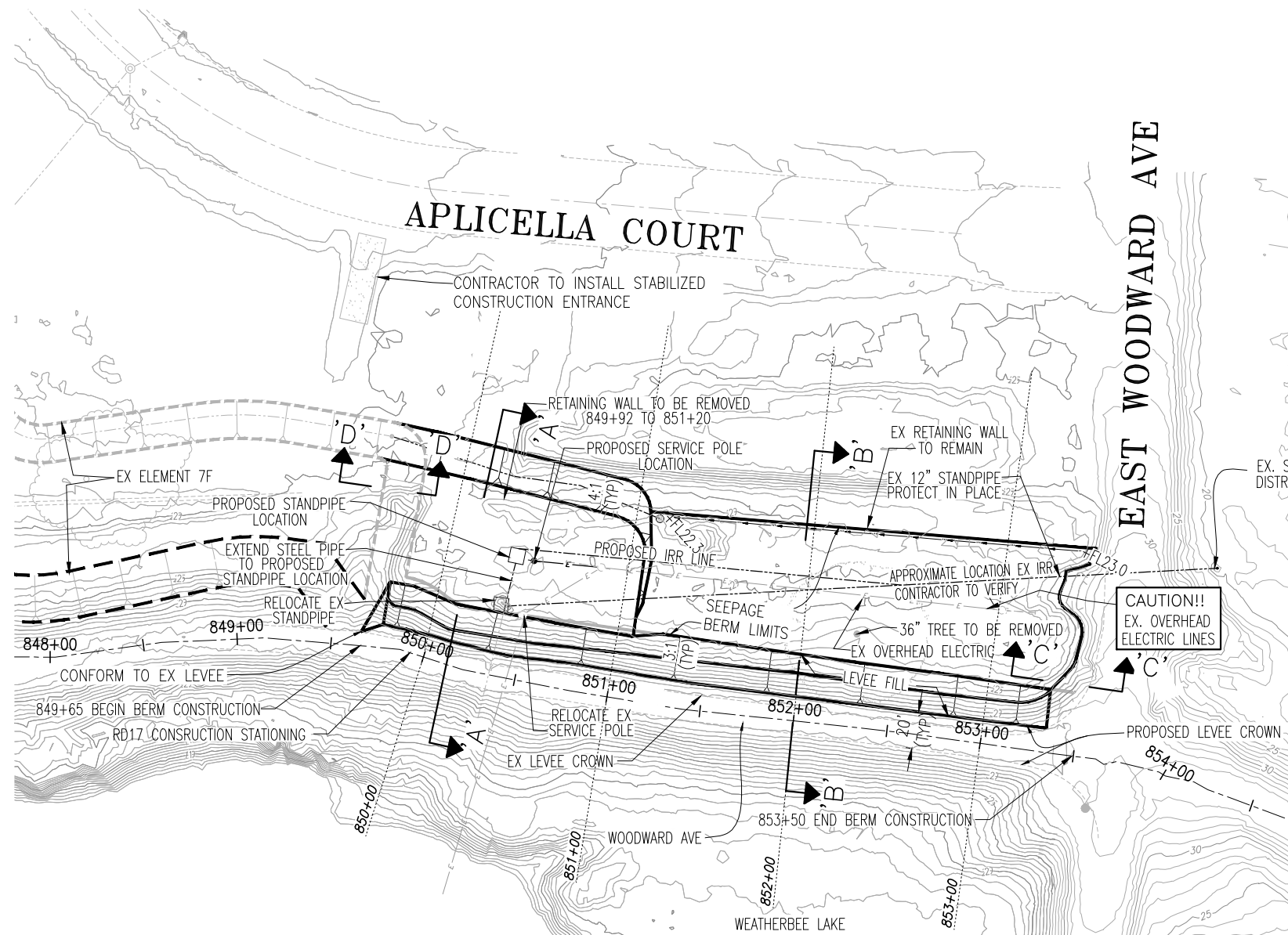
SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

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LEGEND

-  EXISTING GAS LINE
-  EXISTING OVERHEAD ELECTRIC LINE
-  EXISTING UNDERGROUND ELECTRIC LINE
-  EXISTING IRRIGATION/SD LINE
-  PROPOSED IRRIGATION/SD LINE
-  CONFORM
-  TOP NEW SEEPAGE BERM SLOPE
-  EX TOE



NOTE:
 TREE REMOVAL SHALL BE COMPLETE PRIOR TO SEEPAGE BERM CONSTRUCTION INCLUDING REMOVAL OF STUMP AND ROOTS LARGER THAN 1 1/2" IN DIAMETER.

WARNING • CAUTION
 EXISTING UNDERGROUND UTILITIES
 CONTACT: UNDERGROUND SERVICE ALERT
 PHONE: (800) 227-2600
 FOR MARKING PRIOR TO DIGGING

PLANS REVIEWED AND APPROVED BY:



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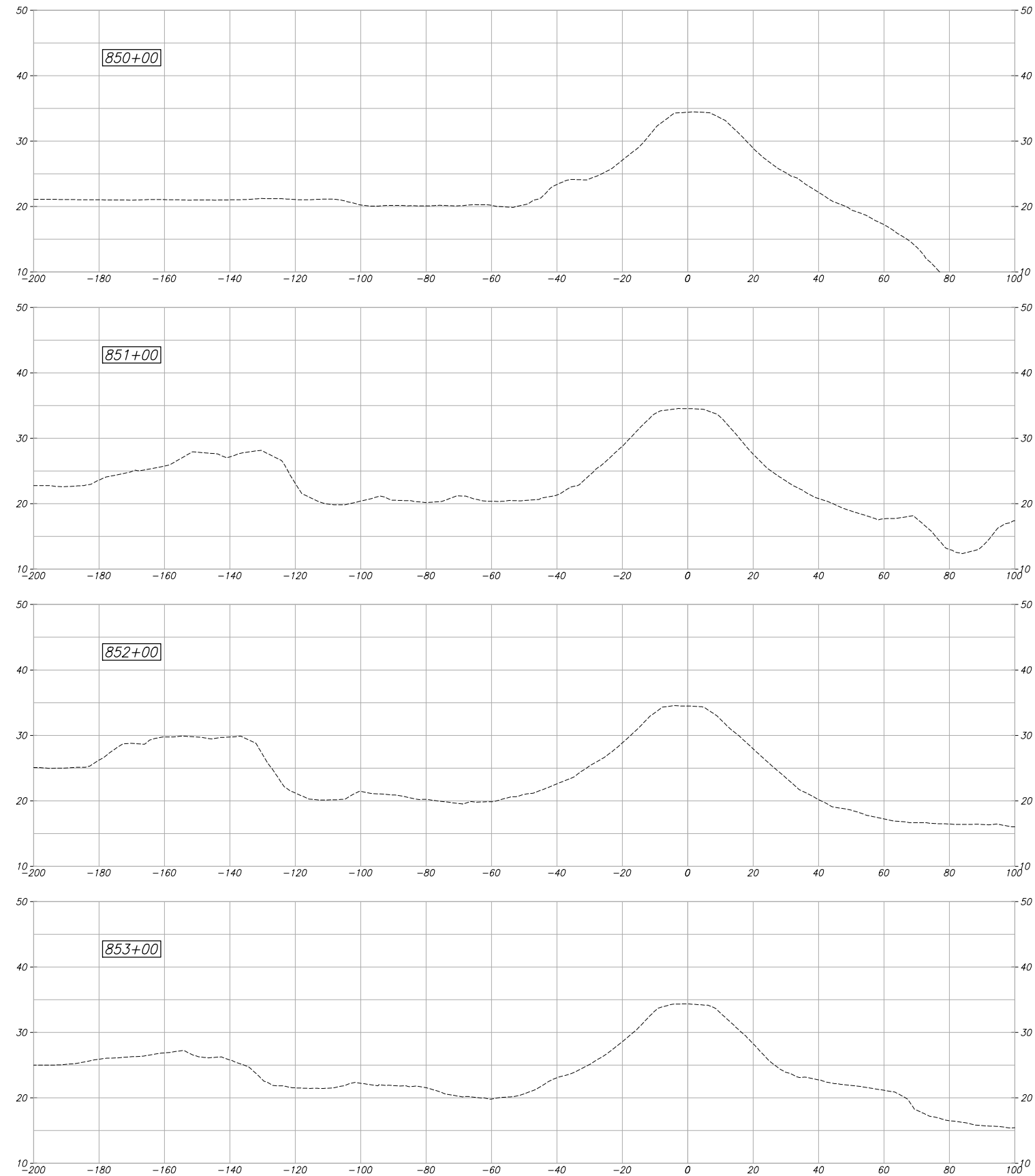
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RECLAMATION DISTRICT NO. 17
 ELEMENT VII-G
 GRADING PLAN

SAN JOAQUIN COUNTY CALIFORNIA

NO.	REVISION	DATE

DATE: JAN 2014	PROJECT NO. 25182.010
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DESIGN DETAILS WILL BE ADDED TO THESE SECTIONS AFTER 65% COMMENTS ARE RECEIVED. PLEASE SEE TYPICAL SECTIONS FOR 65% REVIEW.

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RECLAMATION DISTRICT NO. 17
ELEMENT VII-G
CROSS SECTIONS

SAN JOAQUIN COUNTY CALIFORNIA

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