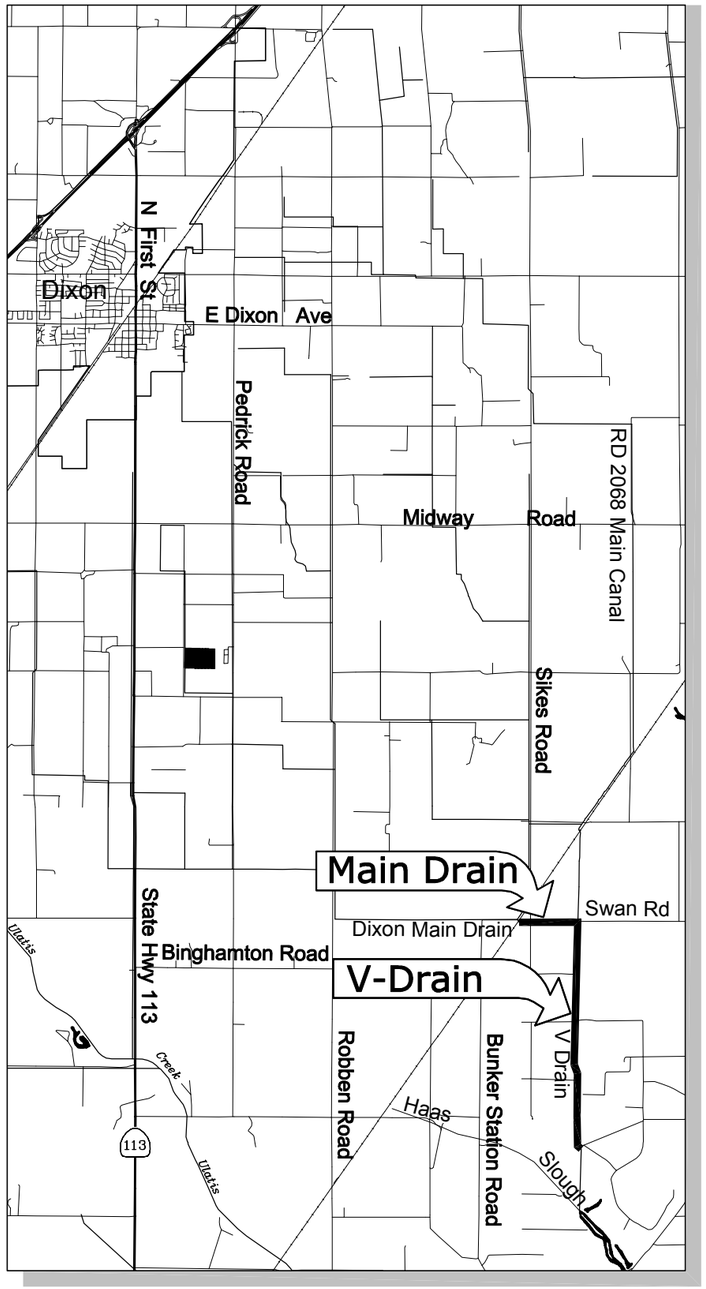
APPENDIX A

1) Supporting Documents – 95% complete Improvement Plans for the Dixon Main Drain/V-Drain Enlargement Project
2) Dixon Watershed Management Plan Prepared for Solano County Water Agency, West Yost Associates, August 24, 2001
3) New South Channel Conceptual Design Prepared for Solano County Water Agency, West Yost Associates, December, 2002
4) Report to the Dixon Watershed Joint Powers Authority, Conceptual Design of the New South Channel, Enlarging the Dixon Main Drain and V-Drain and the Three Mile Extension, West Yost Associates, June 22, 2006
5) Report to the Dixon Watershed Joint Powers Authority, Dixon Main Drain and V-Drain Project Recommendations, West Yost Associates, September 13, 2006
6) Eastside Drain Project Conceptual Design Report Prepared for Dixon Watershed Joint Powers Authority, West Yost Associates, January 2008
7) Report to the Dixon Watershed Joint Powers Authority, Main Drain and V-Drain Hydraulic Study, West Yost Associates, May 10, 2012
8) Drainage Project Benefits and Agricultural Drainage Payment Capacity for the Dixon Watershed Drainage Plan Alternatives, Solano County, California, Hazard Mitigation Economics Inc., June 9, 1999
9) Mitigation and Monitoring Plan Dixon Main Drain and V-Drain Enlargement Project, Monk & Associates, May 27, 2009

Dixon Regional Watershed Joint Powers Authority

PLANS FOR

Dixon Main Drain and V-Drain Enlargement



VICINITY MAP

LOCATION MAP

SHEET INDEX

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2	G2	ABBREVIATIONS, LEGEND & NOTES
3	G3	NOTES
4	G4	OVERALL PLAN, KEY MAP, TEMPORARY FACILITIES & SURVEY CONTROL
5	G5	CONSTRUCTION SEQUENCING HIGHLINE IRRIGATION DITCH
6	C1	PLAN PROFILE 1
7	C2	PLAN PROFILE 2
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11	C6	PLAN PROFILE 6
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14	C9	PLAN PROFILE 9
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24	C19	CROSS SECTIONS 7
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33	C30	PIPE PROFILE
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Accepted by Dixon Regional Watershed Joint Powers Authority

_____

REGISTERED PROFESSIONAL ENGINEER MARY LEWIS YOUNG No. 39713 Exp. 12-31-13 CIVIL STATE OF CALIFORNIA

SUBMITTED: _____ DATE: _____

APPROVED: _____ DATE: _____

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PROJ. MGR. : MLY

No.	ZONE	REVISIONS	BY	DATE

WEST YOST ASSOCIATES Consulting Engineers
2020 Research Park Drive
Suite 100
Davis, California 95618
(530) 756-5905
FAX (530) 756-5991

DIXON WATERSHED JOINT POWERS AUTHORITY MAIN DRAIN AND V-DRAIN ENLARGEMENT

TITLE SHEET AND LOCATION MAPS

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER 298-01-07-02
DRAWING NUMBER G1
SHEET NUMBER 1 OF 41
REVISION

N:\Clients\298 Dixon RWJPA\00-07-02 Main Drain and V-Drain\CAD\Design\298-0702-G1nG2.dwg 10/29/2012 5:15 PM myoung

LEGEND

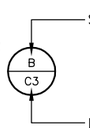
—X——X—	EXISTING FENCE		EXISTING SLOPE
——110——	EXISTING CONTOUR		FINISH GRADE SLOPE
— — —	PROPERTY BOUNDARY	—G—G—	EX GAS LINE
—X——X—	BARBED WIRE FENCE		EXISTING PIPE
× 120.0	EXISTING SPOT ELEVATION		NEW PIPE
X 110.50	FINISHED GRADE SPOT ELEVATION		SURVEY MONUMENT
	EARTH DRAINAGE DITCH		EXISTING EASEMENT
——OHE——	EXISTING OVERHEAD ELECTRIC		PROPOSED EASEMENT
	RIP RAP		TEMPORARY CONSTRUCTION EASEMENT

ABBREVIATIONS

@	AT	INV	INVERT	S	SOUTH
BM	BENCH MARK	JPA	DIXON REGIONAL WATERSHED JOINT POWERS AUTHORITY	SAN	SANITARY SEWER
CIP	CAST IRON PIPE			SD	STORM DRAIN
CL, ℄	CENTER LINE			SF	SQUARE FEET
CLSM	CONTROLLED LOW STRENGTH MATERIAL	IRR,IRRIG	IRRIGATION	SIM	SIMILAR
		LAT	LATERAL	SHT	SHEET
CMP	CORRUGATED METAL PIPE	LF	LINEAR FEET	SP	STAND PIPE
CONC	CONCRETE	LG	LONG	SPEC	SPECIFICATION
CONST	CONSTRUCTION	LP	LOW POINT	SS	SIDE SLOPE
CONT	CONTOUR	MAX	MAXIMUM	STA	STATION
CPP	CORRUGATED POLYETHYLENE PIPE	MIN	MINIMUM	STD	STANDARD
		N	NORTH	SW	SIDEWALK
CY	CUBIC YARDS	NTS	NOT TO SCALE		
DIA, ø	DIAMETER	OC	ON CENTER	TEL	TELEPHONE
DET	DETAIL	OD	OUTSIDE DIAMETER	TEMP	TEMPORARY
DEMO	DEMOLISH/DEMOLITION	OF	OVERFLOW	T&B	TOP & BOTTOM
DIP	DUCTILE IRON PIPE	PROP	PROPERTY	T O	TOP OF
DRCD	DIXON RESOURCE CONSERVATION DISTRICT	PP	POWER POLE	TOC	TOP OF CONCRETE
		PVC	POLYVINYL CHLORIDE PIPE	TP	TANGENT POINT
DS	DOWNSTREAM			TYP	TYPICAL
DWG	DRAWING	PVI	POINT OF VERTICAL INTERSECTION	US	UPSTREAM
DWY	DRIVEWAY			VAR	VARIOUS
E	EAST	PJF	PREFORMED JOINT FILLER	VERT	VERTICAL
EA	EACH			W	WEST
EC	END OF CURVE	R	RADIUS		
EL, ELEV.	ELEVATION	RCP	REINFORCED CONCRETE PIPE		
ELEC	ELECTRIC				
EP	EDGE OF PAVEMENT	REQ'D	REQUIRED		
ESMT	EASEMENT	REINF	REINFORCEMENT		
EX	EXISTING	R/W	RIGHT OF WAY		
FG	FINISHED GRADE				
FL	FLOW LINE				
FLG	FLANGE				
GRD	GRADE				
HDPE	HIGH DENSITY POLYETHYLENE PIPE				
HORIZ	HORIZONTAL				
HP	HIGH POINT				

SECTION & DETAIL DESIGNATIONS

SECTION CUT ON DWG C2

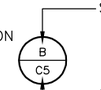


SECTION LETTER

DRAWING WHERE SECTION APPEARS

DETAILS ARE CROSS REFERENCED IN A SIMILAR MANNER, EXCEPT THAT DETAILS ARE IDENTIFIED BY NUMBER RATHER THAN LETTER

ON DWG C3 THIS SECTION IS IDENTIFIED AS:



SECTION LETTER

DRAWING FROM WHICH SECTION WAS TAKEN

GENERAL NOTES

1. THE CONTRACTOR SHALL PREPARE AND IMPLEMENT A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND OBTAIN COVERAGE UNDER THE STATE WATER RESOURCES CONTROL BOARD, NDPDES GENERAL PERMIT (CONSTRUCTION SITE STORM WATER PERMIT). .
2. FINISHED GRADE SHALL BE TO THE LINE AND GRADE SHOWN ON THE PLANS TO WITHIN A VERTICAL TOLERANCE OF PLUS OR MINUS 0.1' AND A HORIZONTAL TOLERANCE OF PLUS OR MINUS 0.1'. FINISH GRADE OF CHANNEL INVERT SHALL MAINTAIN A POSITIVE SLOPE.
3. PIPE AND HEADWALL ELEVATIONS SHALL BE TO WITHIN A VERTICAL TOLERANCE OF 0.04' AND A HORIZONTAL TOLERANCE OF PLUS OR MINUS 0.5'.
4. CONSTRUCTION ACCESS AND STAGING IS SHOWN ON SHEET G3. CONTRACTOR SHALL NOT WORK OR ALLOW EQUIPMENT OR PERSONNEL OUTSIDE OF EASEMENT OR TEMPORARY CONSTRUCTION EASEMENT AREA.
5. EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND ALL UTILITIES MAY NOT BE SHOWN. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF LOCATION AND DEPTH OF ALL EXISTING UTILITIES AS CONSTRUCTION PROCEEDS. CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (USA) AT LEAST 3 WORKING DAYS PRIOR TO STARTING EXCAVATION BY CALLING 1–800–227–2600. CONTRACTOR SHALL PROVIDE A MINIMUM OF 48 HOURS ADVANCE NOTICE FOR LOCATING UTILITIES.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING SUCH FACILITIES AND FOR REPAIRING ANY SUCH FACILITIES THAT ARE DAMAGED DURING CONSTRUCTION. PAYMENT FOR LOCATING, COORDINATING, AND REPAIRING EXISTING ELECTRICAL FACILITIES WILL BE DEEMED INCLUDED IN OTHER ITEMS OF WORK, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED. CONTRACTOR IS RESPONSIBLE FOR POTHOLING ALL UTILITIES (GAS, WATER, ETC...) TO PREVENT ANY CONFLICT WITH THE WORK OF THIS PROJECT.
7. ALL PIPE LENGTHS ARE HORIZONTAL LENGTHS, UNLESS OTHERWISE SHOWN.
8. THE CONTRACTOR SHALL OBTAIN A TRENCH SAFETY PERMIT FROM THE CALIFORNIA DIVISION OF INDUSTRIAL SAFETY PRIOR TO EXCAVATION OF ANY TRENCH.
9. CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR MANAGEMENT OF THE JOB SITE CONSTRUCTION ACTIVITIES DURING THE COURSE OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE JPA AND ITS REPRESENTATIVES HARMLESS FROM ANY AND ALL LIABILITY, REAL AND/OR ALLEGED IN CONJUNCTION WITH PERFORMANCE OF THIS PROJECT.
10. CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY AND ALL DAMAGE TO EXISTING STRUCTURES AND UTILITIES OR RESIDENT PROPERTIES DURING CONSTRUCTION.
11. CONTRACTOR SHALL VERIFY LOCATIONS, ELEVATIONS, DISTANCES, AND FEATURES THAT MAY AFFECT THE WORK. SHOULD EXISTING CONDITIONS DIFFER FROM THOSE SHOWN OR INDICATED, OR IF IT APPEARS THAT THESE PLANS, STANDARD SPECIFICATIONS, AND SPECIAL PROVISIONS DO NOT ADEQUATELY DETAIL THE WORK TO BE DONE, CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONTINUING WITH ANY RELATED WORK. NO ALLOWANCE WILL BE MADE ON HIS BEHALF FOR ANY EXTRA EXPENSE RESULTING FROM FAILURE OR NEGLECT IN DETERMINING THE CONDITIONS UNDER WHICH WORK IS TO BE PERFORMED. NOTED DIMENSIONS TAKE PRECEDENCE OVER SCALE.
12. CONTRACTOR SHALL EXPOSE AND CHECK LOCATIONS OF EXISTING PIPE INVERTS PRIOR TO CONSTRUCTION.
13. CONTRACTOR SHALL NOTIFY ALL PUBLIC OR PRIVATE UTILITY COMPANIES 48 HOURS PRIOR TO COMMENCEMENT OF WORK ADJACENT TO EXISTING UTILITY LINES.
14. THE CONTRACTOR SHALL HAVE A CLASS "A" GENERAL ENGINEERING CONTRACTOR'S LICENSE.
15. CONTRACTOR SHALL PROVIDE RECORD DRAWINGS PER SPECIFICATIONS.
16. CONTRACTOR SHALL COORDINATE WITH THE ADJACENT PROPERTY OWNERS PRIOR TO THE START OF CONSTRUCTION. ACCESS OR STAGING ON PRIVATE PROPERTY OTHER THAN AS SHOWN ON THESES DRAWINGS IS PROHIBITED UNLESS THE CONTRACTOR PROVIDES THE JPA WITH WRITTEN AUTHORIZATION FROM THE OWNER AND JPA APPROVES THE WRITTEN AGREEMENT.
17. CONTRACTOR SHALL DOCUMENT THE PRE–CONSTRUCTION CONDITION OF THE PROJECT SITE USING EITHER A VIDEO CAMERA OR STILL CAMERA OR BOTH. THE CAMERA SHALL BE ABLE TO RECORD/STAMP THE DATE ON THE FILM.
18. CONTRACTOR SHALL PROTECT EXISTING AND NEW FACILITIES INCLUDING UTILITIES, ROAD PAVEMENT, AND PRIVATE PROPERTY FROM DAMAGE BY FORCES GENERATED BY THE CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH THE SPECIFICATIONS. ANY DAMAGE TO ANY EXISTING FACILITIES, AS A RESULT OF THE CONSTRUCTION OPERATION, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND THE COST TO REPAIR OR REPLACE THE DAMAGED FACILITY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
19. CONTRACTOR SHALL VISIT THE SITE TO VERIFY SITE CONDITIONS AND UNDERSTAND THE REQUIRED SCOPE OF WORK BEFORE SUBMITTING BID.

SURVEY CONTROL

1. SITE TOPOGRAPHY AND STRUCTURE ELEVATIONS ON DRAWINGS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
2. HORIZONTAL CONTROL – NORTH AMERICAN DATUM OF 1983 (NAD83), CALIFORNIA COORDINATES, ZONE 2 (CCZ2).
3. SURVEY CONTROL MONUMENTS ARE SHOWN ON SHEET G3.
4. AN AUTOCAD FILE OF THE PROJECT PLANS WILL BE PROVIDED TO THE CONTRACTOR. IN THE CASE OF DISCREPANCIES BETWEEN THE AUTOCAD FILE AND THE HARD COPY OF THE PLANS, THE HARD COPY GOVERNS.

MITIGATION MEASURE NOTES

1. PERMITS FROM VARIOUS JURISDICTIONAL AGENCIES ARE INCLUDED IN THE APPENDIX TO THE SPECIFICATION OF THIS PROJECT. CONTRACTOR SHALL BE FAMILIAR WITH THE REQUIREMENTS OF THE PERMITS AND KEEP A COPY OF THE PERMITS ON SITE AT ALL TIMES.
2. CONTRACTORS EMPLOYEES AND SUBCONTRACTORS WILL BE INFORMED AND TRAINED ON THE REQUIREMENTS OF THE PERMITS.
3. WORK WITHIN THE CHANNEL BANKS IS RESTRICTED TO THE PERIOD FROM AUGUST 1 TO OCTOBER 15. WORK IN THE UPLAND AREA IS RESTRICTED TO THE PERIOD FROM MAY 1 TO OCTOBER 15.
4. IF CULTURAL RESOURCES ARE SUSPECTED, SUCH AS ANY UNUSUAL AMOUNTS OF STONE, BONE OR SHELL, CONSTRUCTION SHALL STOP IN THE AREA OF THE FIND. CONTRACTOR SHALL NOTIFY THE JPA. A QUALIFIED ARCHAEOLOGIST SHALL BE CONSULTED FOR AN ONSITE EVALUATION. THE ARCHEOLOGIST MAY REQUIRE ADDITIONAL MITIGATION.
5. IF HUMAN REMAINS ARE FOUND, CONSTRUCTION SHALL STOP IN THE AREA OF THE FIND. CONTRACTOR SHALL CONTACT THE SOLANO COUNTY CORONER'S OFFICE AND THE JPA IMMEDIATELY. IF THE REMAINS ARE DETERMINED TO BE NATIVE AMERICAN, THE NATIVE AMERICAN HERITAGE COMMISSION SHALL BE CONTACTED.
6. CONTRACTOR SHALL POST A SIGN AT THE CONSTRUCTION SITE WHICH INCLUDES CONTRACTOR'S CONTACT NAME AND PHONE NUMBER.
7. THE EXISTING PUMP STATION AT THE RD 2068 IRRIGATION CANAL, AT THE SOUTHERN END OF THE PROJECT, WILL BE EMPLOYED TO CAPTURE SUSPENDED SEDIMENTS. COORDINATE OPERATION OF THE PUMP STATION WITH THE JPA. CONTRACTOR SHALL NOT OPERATE RD 2068 PUMPS.
8. SPECIAL STATUS SPECIES SURVEYS FOR BURROWING OWL, LOGGERHEAD SHRIKE, TRICOLORED BLACKBIRD, SWAINSON'S HAWK, WHITE TAILED KITE, NORTHERN HARRIER, PACIFIC POND TURTLE AND GIANT GARTER SNAKE WILL BE PERFORMED BY THE JPA PRIOR TO CONSTRUCTION. IF SPECIAL STATUS SPECIES ARE FOUND DURING CONSTRUCTION, CONTRACTOR SHALL STOP WORK IN THE VICINITY IMMEDIATELY AND CONTACT JPA. A QUALIFIED BIOLOGIST WILL BE CONSULTED FOR AN EVALUATION. THE BIOLOGIST MAY REQUIRE MITIGATION SUCH AS FENCING OFF A SETBACK ZONE IN A PERIMETER AROUND THE NEST.
9. NO GRADING OR SITE CLEARING WORKS SHALL TAKE PLACE WITHOUT THE JPA'S BIOLOGIST PRESENT. BIOLOGIST HAS THE AUTHORITY TO STOP WORK.
10. RESTRICT HEAVY EQUIPMENT TO EXISTING ROADS.
11. IMMEDIATELY REPORT UNINTENTIONALLY INJURED, HARMED OR KILLED STATE PROTECTED SPECIES AND GENERAL FISH AND WILDLIFE SPECIES TO THE JPA
12. ALL CONSTRUCTION PERSONNEL INCLUDING SUBCONTRACTORS WILL RECEIVE INSTRUCTION FROM THE JPA BIOLOGIST REGARDING THE POTENTIAL PRESENCE OF FEDERALLY LISTED SPECIES AND THE IMPORTANCE OF AVOIDING THEIR HABITATS PRIOR TO THE DATE OF INITIAL CONSTRUCTION ACTIVITIES.
13. ALL FOOD–RELATED TRASH ITEMS SUCH AS WRAPPERS, CANS, BOTTLES AND FOOD SCRAPS SHALL BE DISPOSED OF IN CLOSED CONTAINERS, AT THE END OF EACH WORKING DAY, FROM THE ENTIRE PROJECT SITE.
14. ALLOW ACCESS TO THE SITE TO PERSONNEL FROM THE DEPARTMENT OF FISH AND GAME, THE DEPARTMENT OF FISH AND WILDLIFE, THE WATER QUALITY CONTROL BOARD AND THE ARMY CORPS OF ENGINEERS.
15. NOTIFY JPA 14 DAYS IN ADVANCE OF ANY IN WATER ACTIVITIES.
16. RESTORE TEMPORARY WORK AREAS TO PRE–CONSTRUCTION CONTOURS AND CONDITIONS UPON THE COMPLETION OF CONSTRUCTION.
17. THE USE OF NETTING MATERIAL (E.G. MONOFILAMENT–BASED EROSION BLANKETS) THAT COULD TRAP AQUATIC DEPENDENT WILDLIFE IS PROHIBITED.
18. SPRAYING HERBICIDES WITHIN OR ON TOP OF THE PROJECT CHANNELS MUST BE DONE IN ACCORDANCE WITH STATE AND FEDERAL GUIDELINES.
19. TEMPORARY DAMS OR OBSTRUCTIONS SHALL BE BUILT FROM CLEAN MATERIALS SUCH AS SANDBAGS, GRAVEL BAGS, WATER DAMS OR CLEAN/WASHED GRAVEL WHICH WILL CAUSE LITTLE OR NO SILTATION. CONSTRUCTION DEWATERING AND REMOVAL OF TEMPORARY COFFERDAMS SHALL NOT CREATE CONDITIONS WHERE CRITERIA FOR TURBIDITY, SETTLEABLE MATTER, OIL/GREASE OR FOAM ARE EXCEEDED.
20. ANY DAM OR STREAM OBSTRUCTION SHALL ALLOW SUFFICIENT WATER TO PASS DOWNSTREAM TO MAINTAIN BENEFICIAL USE.
21. TURBIDITY BARRIERS MUST BE INSTALLED DOWNSTREAM OF THE CONSTRUCTION AREAS. IN SOME INSTANCES (LOW FLOW OR TIDAL) TURBIDITY BARRIERS MUST BE INSTALLED UPSTREAM OF CONSTRUCTION.
22. GAS LINES EXIST AT THE SITE. CONTRACTOR SHALL PREPARE A HEALTH AND SAFETY PLAN OUTLINING MEASURES THAT WILL BE EMPLOYED TO PROTECT CONSTRUCTION WORKERS AND THE PUBLIC FROM EXPOSURE TO HAZARDS.

REGISTERED PROFESSIONAL ENGINEER MARK LEWIS YOUNG No. 39713 Exp. 12–31–13 CIVIL STATE OF CALIFORNIA

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WEST YOST ASSOCIATES
Consulting Engineers
2020 Research Park Drive
Suite 100
Davis, California 95618
(530) 756-5905
FAX (530) 756-5991

DIXON WATERSHED JOINT POWERS AUTHORITY MAIN DRAIN AND V-DRAIN ENLARGEMENT

ABBREVIATIONS, LEGEND & NOTES

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WATER QUALITY MONITORING NOTES

1. PERFORM SURFACE WATER MONITORING 1) WHEN PERFORMING ANY IN–WATER WORK; 2) IN THE EVENT THAT PROJECT ACTIVITIES RESULT IN ANY MATERIAL REACHING SURFACE WATERS OR 3) WHEN ANY ACTIVITIES RESULT IN THE CREATION OF A VISIBLE PLUM IN THE SURFACE WATERS. THE FOLLOWING MONITORING SHALL BE CONDUCTED IMMEDIATELY UPSTREAM OUT OF THE INFLUENCE OF THE PROJECT AND 300 FEET DOWNSTREAM OF THE ACTIVE WORK AREA. SUBMIT SAMPLING RESULTS TO THE JPA WITHIN ONE WEEK OF INITIATING OF SAMPLING AND EVERY TWO WEEKS THEREAFTER.

PARAMETER	UNIT	TYPE OF SAMPLE	FREQUENCY OF SAMPLE
TURBIDITY	NTU	GRAB	EVERY 4 HOURS DURING IN WATER WORK
SETTLEABLE MATERIAL	ml/l	GRAB	EVERY 4 HOURS DURING IN WATER WORK
VISIBLE CONSTRUCTION RELATED POLLUTANTS	OBSERVATION	VISUAL INSPECTION	CONTINUOUS THROUGH OUT CONSTRUCTION PERIOD

2. ACTIVITIES SHALL NOT CAUSE TURBIDITY INCREASES IN SURFACE WATER TO EXCEED THE FOLLOWING LIMITS:
   A. WHERE NATURAL TURBIDITY IS LESS THAN 1 NTU, CONTROLLABLE FACTORS SHALL NOT CAUSE DOWNSTREAM TURBIDITY TO EXCEED 2 NTU.
   B. WHERE NATURAL TURBIDITY IS BETWEEN 5 AND 50 NTU, INCREASES SHALL NOT EXCEED 1 NTU.
   C. WHERE NATURAL TURBIDITY IS BETWEEN 5 AND 50 NTU, INCREASES SHALL NOT EXCEED 20 NTU.
   D. WHERE NATURAL TURBIDITY IS GREATER THAN 100 NTU, INCREASED SHALL NOT EXCEED 10 PERCENT.
   E. LIMITS WILL BE INCREASED DRUING IN WATER WORKING PERIODS TO ALLOW A TURBIDITY INCREASE OF 15 NTU OVER BACKGROUND TURBIDITY AS MEASURED 300 FEET DOWNSTREAM FROM THE WORKING AREA.

3. ACTIVITIES SHALL NOT CAUSE SETTLEABLE MATTER TO EXCEED 0.1 ml/l IN SURFACE WATERS MEASURED 300 FEET DOWNSTREAM FROM THE PROJECT.

4. THE DISCHARGE OF PETROLEUM PRODUCTS OR OTHER EXCAVATED MATERIALS TO SURFACE WATER IS PROHIBITED. ACTIVITIES SHALL NOT CAUSE VISIBLE OIL, GREASE, OR FOAM IN THE WORK AREA OR DOWNSTREAM. NOTIFY THE JPA IMMEDIATELY OF ANY SPILL OF PETROLEUM PRODUCTS OR OTHER ORGANIC OR EARTHEN MATERIALS.

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WEST YOST ASSOCIATES
Consulting Engineers
2020 Research Park Drive
Suite 100
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DIXON WATERSHED
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MAIN DRAIN AND V-DRAIN ENLARGEMENT

NOTES

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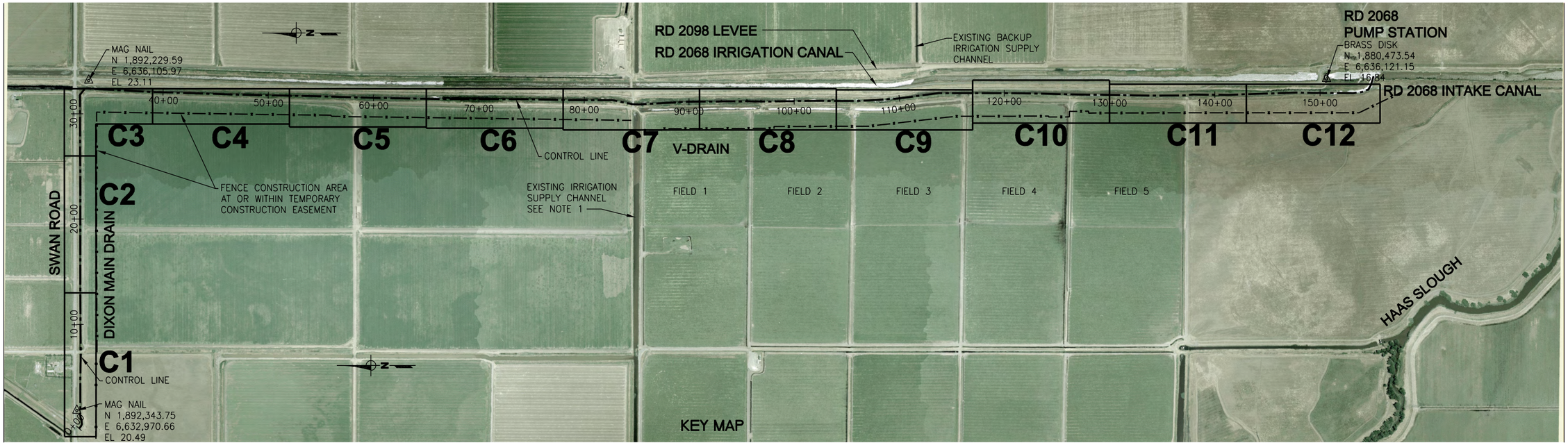

0 500 1000
SCALE IN FEET

CONTROL LINE DATA

PI Station	Northing	Easting	Distance	Direction
0+00	1,892,321.22	6632800.15		
			22.82	S 48-31-00 E
0+22.82	1,892,306.10	6632817.25		
			25.29	S 63-46-43 E
0+48.11	1,892,294.93	6632839.93		
			37.57	N 85-59-16 E
0+85.68	1,892,297.56	6632877.42		
			26.94	N 70-01-32 E
1+12.62	1,892,306.76	6632902.73		
			32.00	N 80-32-31 E
1+44.62	1,892,312.02	6632934.29		
			33.53	S 86-00-09 E
1+78.14	1,892,309.68	6632967.74		
			399.33	S 89-56-25 E
5+77.47	1,892,309.27	6633367.06		
			140.39	S 88-22-32 E
7+17.86	1,892,305.29	6633507.40		
			31.13	N 88-52-11 E
7+48.99	1,892,305.90	6633538.52		
			231.64	N 89-14-33 E
9+80.63	1,892,308.96	6633770.14		
			398.04	N 89-49-29 E
13+78.67	1,892,310.18	6634168.18		
			402.00	S 89-57-38 E
17+80.67	1,892,309.90	6634570.18		
			99.01	S 89-42-22 E

CONTROL LINE DATA

PI Station	Northing	Easting	Distance	Direction
18+79.67	1,892,309.40	6634669.18		
			300.69	N 89-53-16 E
21+80.37	1,892,309.99	6634969.88		
			399.52	N 89-51-05 E
25+79.89	1,892,311.02	6635369.39		
			401.56	N 89-41-22 E
29+81.44	1,892,313.20	6635770.94		
			199.08	N 89-44-19 E
31+80.52	1,892,314.11	6635970.02		
			77.85	S 50-35-30 E
32+58.37	1,892,264.68	6636030.17		
			97.21	S 03-34-09 W
33+55.59	1,892,167.66	6636024.12		
			116.85	S 02-16-22 W
34+72.44	1,892,050.90	6636019.49		
			401.66	S 03-07-11 W
38+74.10	1,891,649.83	6635997.63		
			401.03	S 01-42-23 W
42+75.13	1,891,248.98	6635985.69		
			400.80	S 01-54-06 W

CONTROL LINE DATA

PI Station	Northing	Easting	Distance	Direction
46+75.94	1,890,848.39	6635972.39		
			396.73	S 01-13-45 W
50+72.67	1,890,451.75	6635963.88		
			400.92	S 01-05-50 W
54+73.58	1,890,050.91	6635956.20		
			397.66	S 01-47-55 W
58+71.24	1,889,653.45	6635943.72		
			401.32	S 01-02-51 W
62+72.56	1,889,252.20	6635936.38		
			401.55	S 01-03-18 W
66+74.11	1,888,850.72	6635928.98		
			367.78	S 00-07-03 W
70+41.89	1,888,482.94	6635928.23		
			431.75	S 00-04-51 W
74+73.63	1,888,051.19	6635927.62		
			397.90	S 01-10-29 W
78+71.53	1,887,653.38	6635919.46		
			402.95	S 00-06-26 E

CONTROL LINE DATA

PI Station	Northing	Easting	Distance	Direction
82+74.48	1,887,250.44	6635920.22		
			189.62	S 12-09-20 W
84+64.10	1,887,065.07	6635880.29		
			16.56	S 00-13-48 W
84+80.66	1,887,048.50	6635880.22		
			41.98	S 03-07-39 W
85+22.64	1,887,006.58	6635877.93		
			459.78	S 03-18-50 E
89+82.43	1,886,547.57	6635904.51		
			393.17	S 00-28-46 E
93+75.59	1,886,154.41	6635907.80		
			398.66	S 00-12-52 W
97+74.26	1,885,755.75	6635906.31		
			407.06	S 00-52-51 E
101+81.32	1,885,348.74	6635912.57		
			398.04	S 00-16-36 W
105+79.36	1,884,950.70	6635910.65		
			403.31	S 03-17-38 E

CONTROL LINE DATA

PI Station	Northing	Easting	Distance	Direction
109+82.67	1,884,548.06	6635933.82		
			393.60	S 07-35-38 E
113+76.27	1,884,157.91	6635985.83		
			399.40	S 00-01-47 E
117+75.68	1,883,758.51	6635986.04		
			397.82	S 00-09-19 W
121+73.49	1,883,360.69	6635984.96		
			456.50	S 01-24-55 W
126+29.99	1,882,904.34	6635973.69		
			376.54	S 00-40-31 W
130+06.53	1,882,527.82	6635969.25		
			383.00	S 00-54-37 W
133+89.53	1,882,144.87	6635963.17		
			308.50	S 00-13-06 E
136+98.03	1,881,836.37	6635964.34		
			93.72	S 04-53-25 E
137+91.74	1,881,743.00	6635972.33		
			324.18	S 00-27-27 W

CONTROL LINE DATA

PI Station	Northing	Easting	Distance	Direction
141+15.92	1,881,418.84	6635969.74		
			643.60	S 01-52-50 E
147+59.51	1,880,775.58	6635990.86		
			553.57	S 00-26-08 W

CONTROL LINE DATA

PI Station	Northing	Easting	Distance	Direction
153+13.09	1,880,222.03	6635986.66		
			81.67	S 06-58-52 E
153+94.75	1,880,140.97	6635996.58		
			67.56	S 20-25-30 E

CONTROL LINE DATA

PI Station	Northing	Easting	Distance	Direction
154+62.31	1,880,077.66	6636020.16		
			50.47	S 59-37-14 E
155+12.78	1,880,052.13	6636063.70		
			87.22	S 73-01-18 E
156+00	1,880,026.66	6636147.11		

NOTES:

1. SEE G5 FOR CONSTRUCTION SEQUENCING OF HIGHLINE IRRIGATION DITCH FOR FIELDS 1 THROUGH 5.
2. PROVIDE TEMPORARY FENCING TO COMPLETELY ENCLOSE CONSTRUCTION AREA AT OR WITHIN THE LIMITS OF THE TEMPORARY CONSTRUCTION EASEMENT TO PREVENT CATTLE FROM ENTERING WORK AREA.

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PROJ. MGR. : MLY

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Consulting Engineers
2020 Research Park Drive
Suite 100
Davis, California 95618
(530) 756-5905
FAX (530) 756-5991

DIXON WATERSHED
JOINT POWERS AUTHORITY
MAIN DRAIN AND V-DRAIN ENLARGEMENT

OVERALL PLAN, KEY MAP, TEMPORARY FACILITIES AND SURVEY CONTROL

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER 298-01-07-02
DRAWING NUMBER **G4**
SHEET NUMBER 4 OF 41
REVISION

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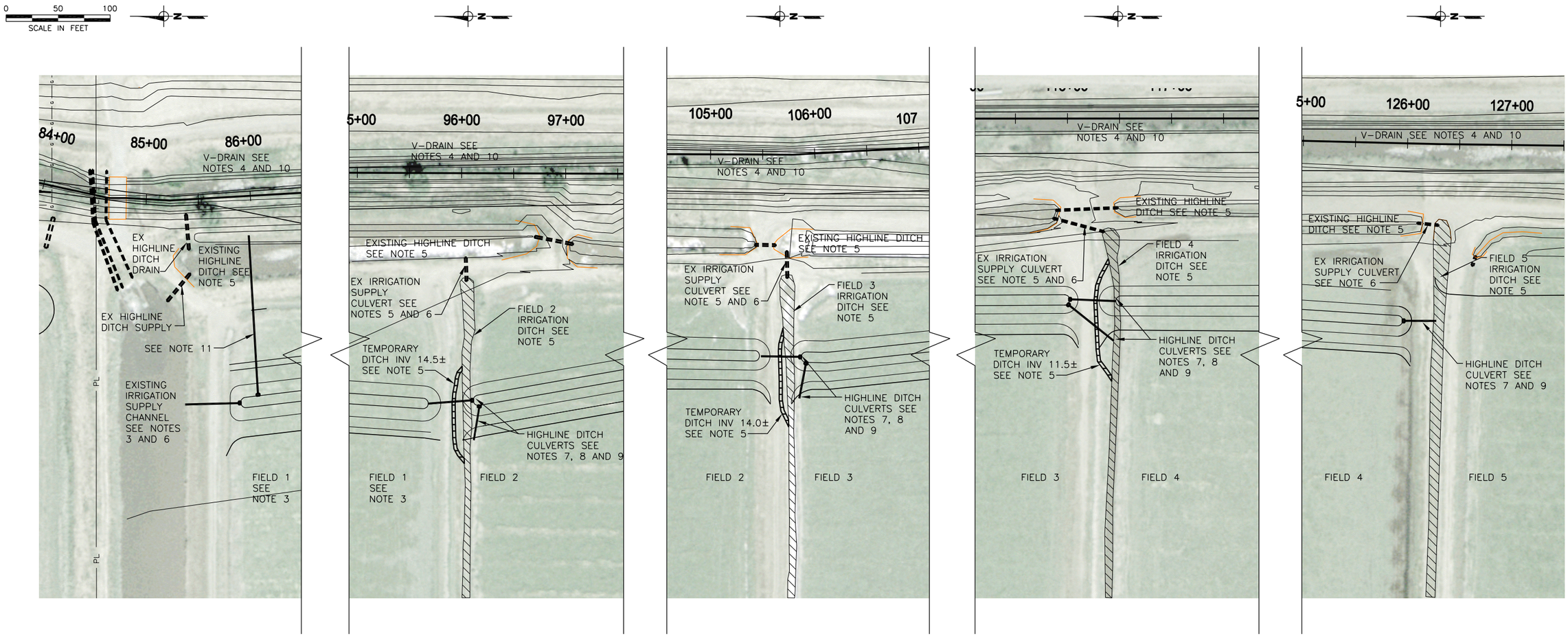

HIGHLINE IRRIGATION DITCH CONSTRUCTION SEQUENCING:

1. CONSTRUCTION OF THE HIGHLINE DITCH SHALL BE SEQUENCED SO THAT THE FIELDS IRRIGATED BY THE EXISTING HIGHLINE DITCH CAN BE CONTINUOUSLY IRRIGATED THROUGHOUT CONSTRUCTION. EACH FIELD SHALL RECEIVE IRRIGATION WATER FOR FIVE CONSECUTIVE DAYS WITH A BREAK OF NO MORE THAN 15 DAYS BETWEEN IRRIGATION CYCLES. NO TWO FIELDS ARE IRRIGATED AT THE SAME TIME.

2. THE SEQUENCING PLAN SHOWN IN THIS DRAWING IS ONE METHOD OF ACHIEVING THE IRRIGATION REQUIREMENTS. THE CONTRACTOR MAY SUGGEST OTHER SEQUENCING THAT ACCOMPLISHES THE SAME PURPOSE AS PART OF THE CONTRACTOR'S PRELIMINARY BASE SCHEDULE. SEQUENCING MUST BE APPROVED BY OWNER.

3. IRRIGATE FIELD 1 FROM THE EXISTING IRRIGATION SUPPLY CHANNEL LOCATED DIRECTLY NORTH OF FIELD 1. IRRIGATION OF FIELD 1 IS INDEPENDENT OF THE HIGHLINE DITCH CONSTRUCTION.

4. CONSTRUCT HIGHLINE DITCH PRIOR TO FULL EXCAVATION OF THE ADJACENT V-DRAIN .

5. EXISTING HIGHLINE DITCH, PIPES AND FIELD IRRIGATION DITCHES MUST REMAIN IN SERVICE DURING NEW HIGHLINE DITCH GRADING. CONSTRUCT A SEGMENT OF TEMPORARY FIELD IRRIGATION DITCH TO ALLOW UNIMPEDED FLOW OF WATER.

6. PROVIDE ACCESS FOR LAND OWNER TO IRRIGATE FIELDS. COORDINATE WORK WITH LANDOWNER'S OPERATIONS.

7. WHEN HIGHLINE DITCH GRADING IS COMPLETE CONSTRUCT CULVERTS BETWEEN HIGHLINE DITCH SEGMENTS AND CULVERTS SUPPLYING FIELD IRRIGATION DITCHES.

8. TEMPORARY DITCHES MAY BE TAKEN OUT OF SERVICE FOR A LIMITED TIME TO ALLOW CULVERT CONSTRUCTION AS LONG AS IRRIGATION WATER CAN BE PROVIDED AS DESCRIBED IN NOTE 1.

9. CONSTRUCT CULVERTS FROM NORTH TO SOUTH SO THAT IRRIGATION WATER CAN BE CONVEYED IN NEW HIGHLINE DITCH AS SEGMENTS ARE COMPLETED.

10. FULL EXCAVATION OF THE V-DRAIN CAN OCCUR WHEN NEW HIGHLINE DITCH AND CULVERTS ARE IN SERVICE IN THE ADJACENT FIELD.

11. CONSTRUCT CULVERT SEGMENT BETWEEN HIGHLINE DITCH AND V-DRAIN WHEN V-DRAIN GRADING IS COMPLETE.

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Davis, California 95618
(530) 756-5905
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MAIN DRAIN AND V-DRAIN ENLARGEMENT

CONSTRUCTION SEQUENCING
HIGHLINE IRRIGATION DITCH

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER 298-01-07-02
DRAWING NUMBER **G5**
SHEET NUMBER 5 OF 41
REVISION

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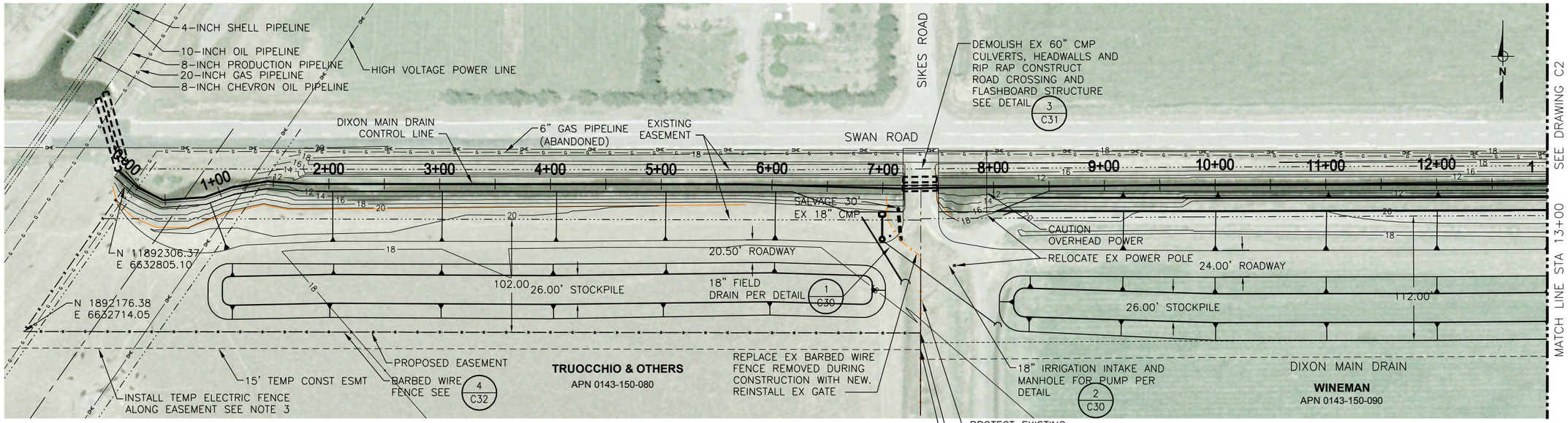
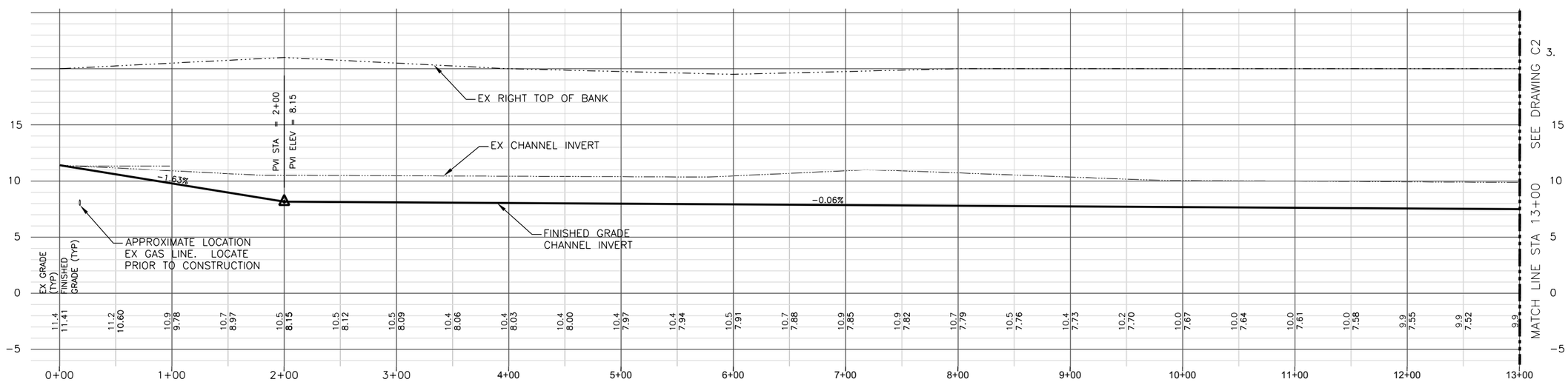


PLAN

0 50 100
SCALE IN FEET

NOTES:

1. SEE SHEETS C13–C27 FOR CHANNEL CROSS SECTIONS
2. HYDROSEED EXCAVATED CHANNEL BANK, ROADWAY, STOCKPILE AND OTHER DISTURBED AREAS, SEE SPECIFICATION SECTION 02910
3. TEMPORARY ELECTRIC FENCE SHALL BE IN PLACE PRIOR TO CONSTRUCTION AND SHALL BE REMOVED AFTER CONSTRUCTION IS COMPLETE. EXTEND FENCE TO MAIN DRAIN ALONG WIRE FENCE ALIGNMENT.



PROFILE

SCALE: H:1"=50', V:1"=5'

REGISTERED PROFESSIONAL ENGINEER MARY LEWIS YOUNG No. 39713 Exp. 12-31-13 CIVIL STATE OF CALIFORNIA

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PLAN AND PROFILE 1

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER 298-01-07-02
DRAWING NUMBER **C1**
SHEET NUMBER 6 OF 41
REVISION

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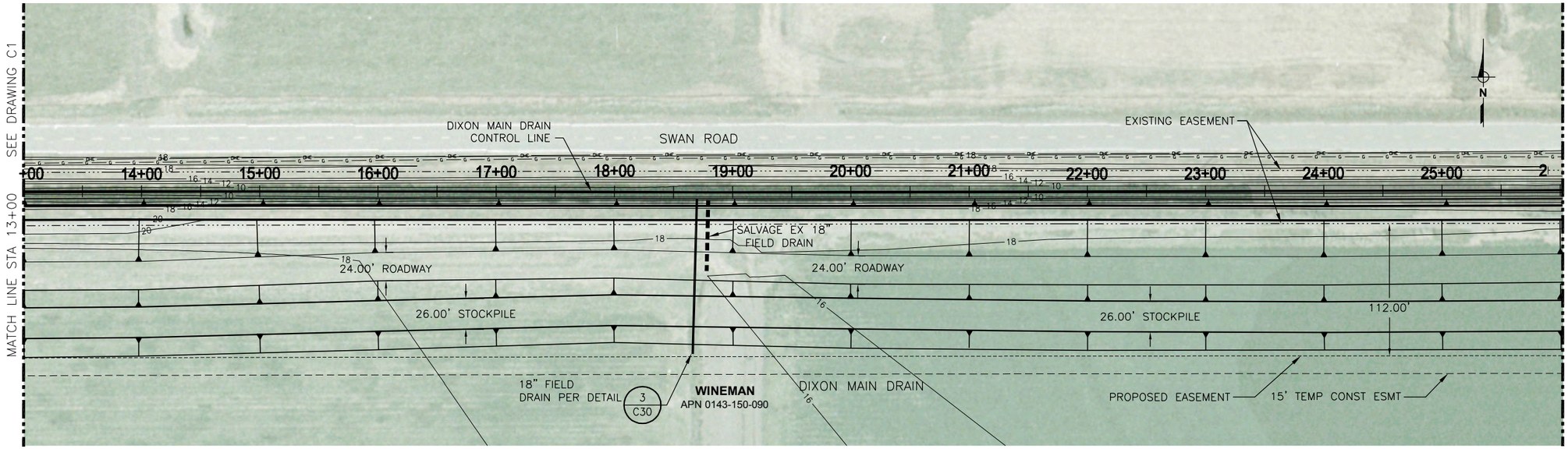
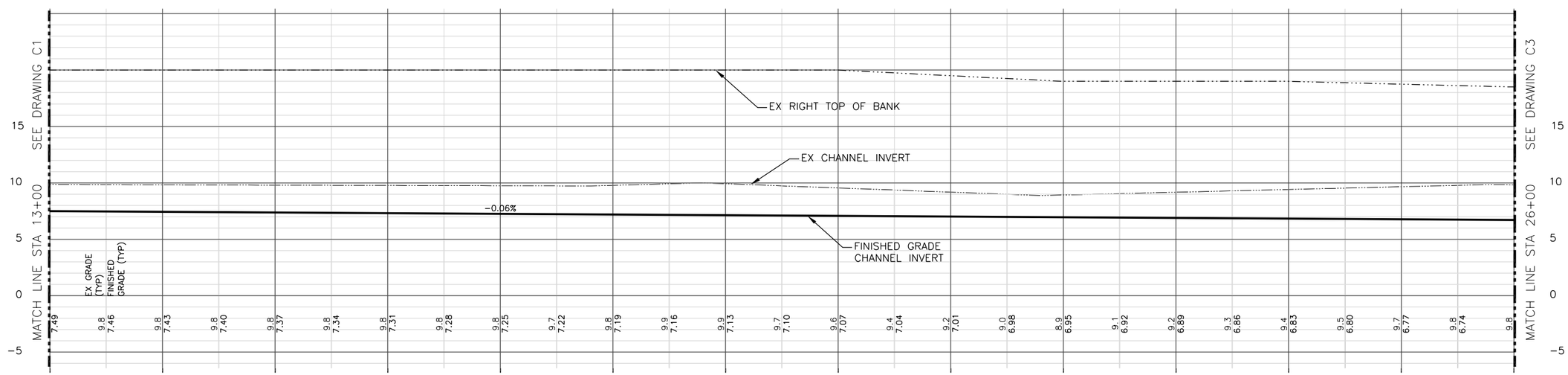


PLAN

0 50 100
SCALE IN FEET

NOTES:

1. SEE SHEETS C13–C27 FOR CHANNEL CROSS SECTIONS
2. HYDROSEED EXCAVATED CHANNEL BANK, ROADWAY, STOCKPILE AND OTHER DISTURBED AREAS, SEE SPECIFICATION SECTION 02910



PROFILE

SCALE: H:1"=50', V:1"=5'

REGISTERED PROFESSIONAL ENGINEER
MARY LEWIS YOUNG
No. 39713
Exp. 12-31-13
CIVIL
STATE OF CALIFORNIA

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DATE: _____
APPROVED: _____
DATE: _____

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DIXON WATERSHED
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PLAN AND PROFILE 2

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER
298-01-07-02
DRAWING NUMBER
C2
SHEET NUMBER
7 OF 41
REVISION

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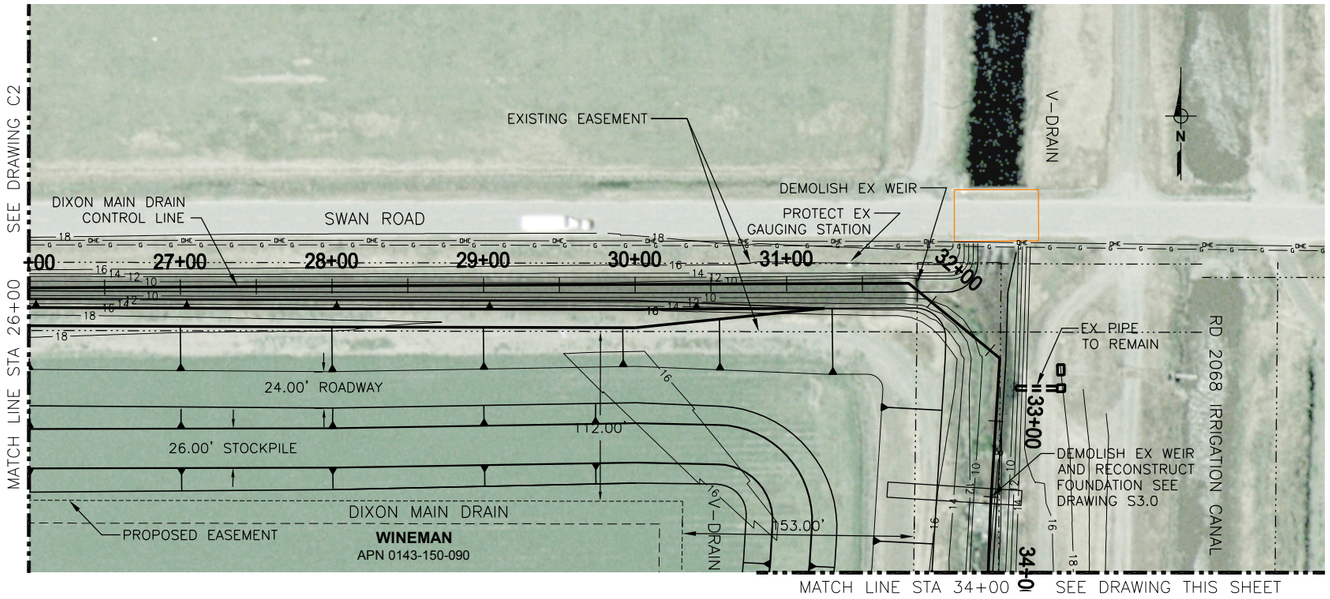

PLAN

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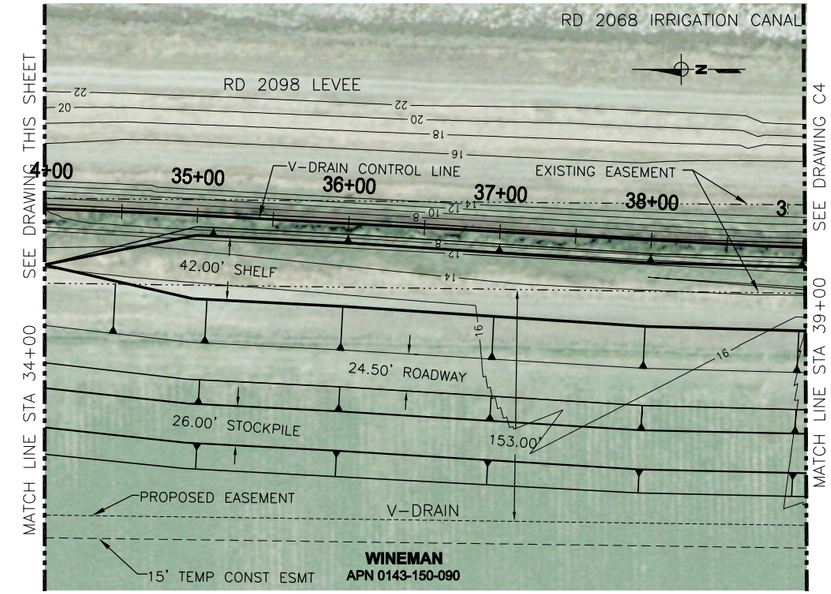
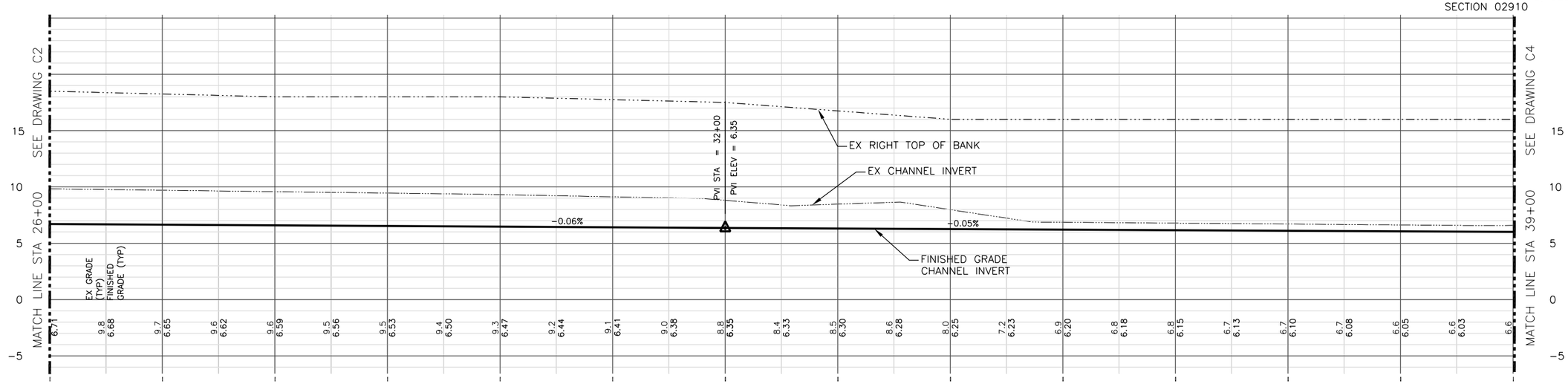
SCALE IN FEET



NOTES:

1. SEE SHEETS C13–C27 FOR CHANNEL CROSS SECTIONS
2. HYDROSEED EXCAVATED CHANNEL BANK, ROADWAY, STOCKPILE AND OTHER DISTURBED AREAS, SEE SPECIFICATION SECTION 02910



PROFILE

SCALE: H:1"=50', V:1"=5'

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PLAN AND PROFILE 3

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER 298-01-07-02
DRAWING NUMBER **C3**
SHEET NUMBER 8 OF 41
REVISION

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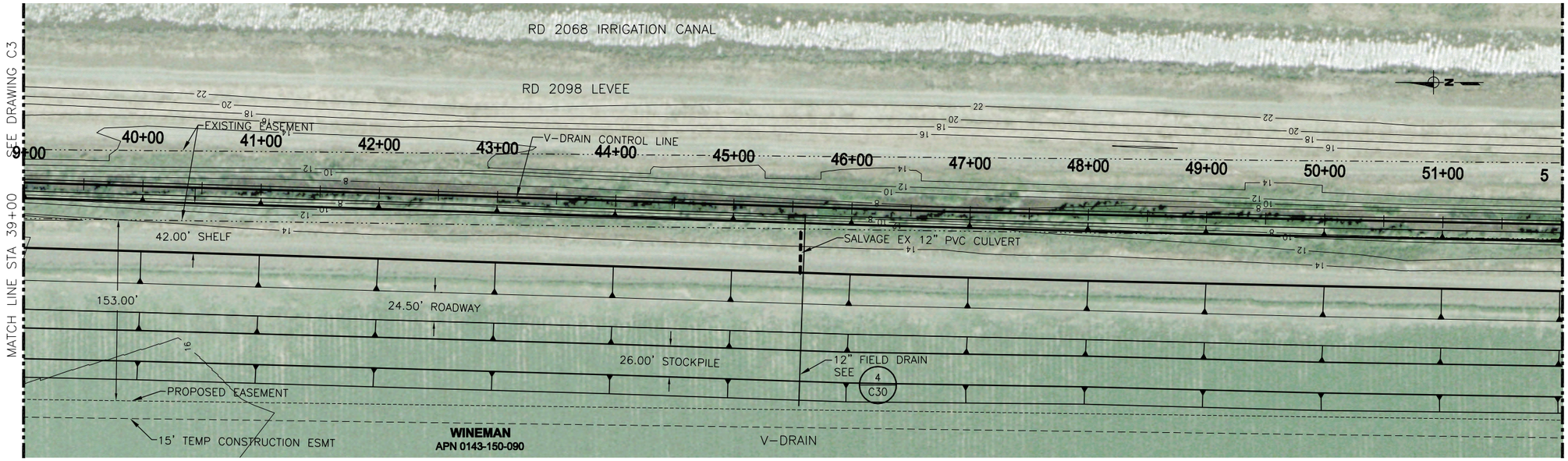
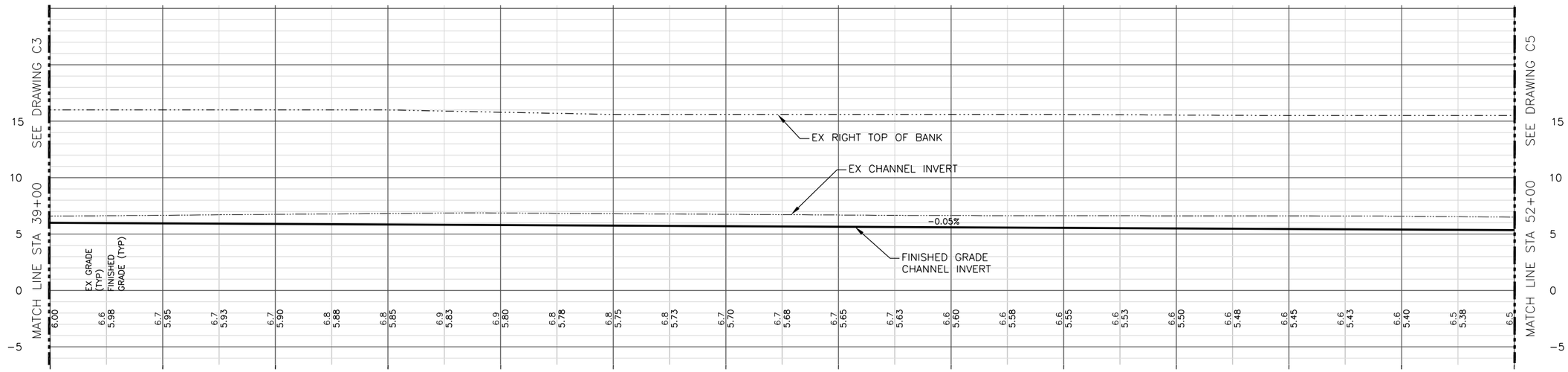


PLAN

0 50 100
SCALE IN FEET

NOTES:

1. SEE SHEETS C13–C27 FOR CHANNEL CROSS SECTIONS
2. HYDROSEED EXCAVATED CHANNEL BANK, ROADWAY, STOCKPILE AND OTHER DISTURBED AREAS, SEE SPECIFICATION SECTION 02910



PROFILE

SCALE: H:1"=50', V:1"=5'

REGISTERED PROFESSIONAL ENGINEER
MARY LEWIS YOUNG
No. 39713
Exp. 12-31-13
CIVIL
STATE OF CALIFORNIA

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DATE: _____
APPROVED: _____
DATE: _____

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DIXON WATERSHED
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PLAN AND PROFILE 4

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER 298-01-07-02
DRAWING NUMBER **C4**
SHEET NUMBER 9 OF 41
REVISION

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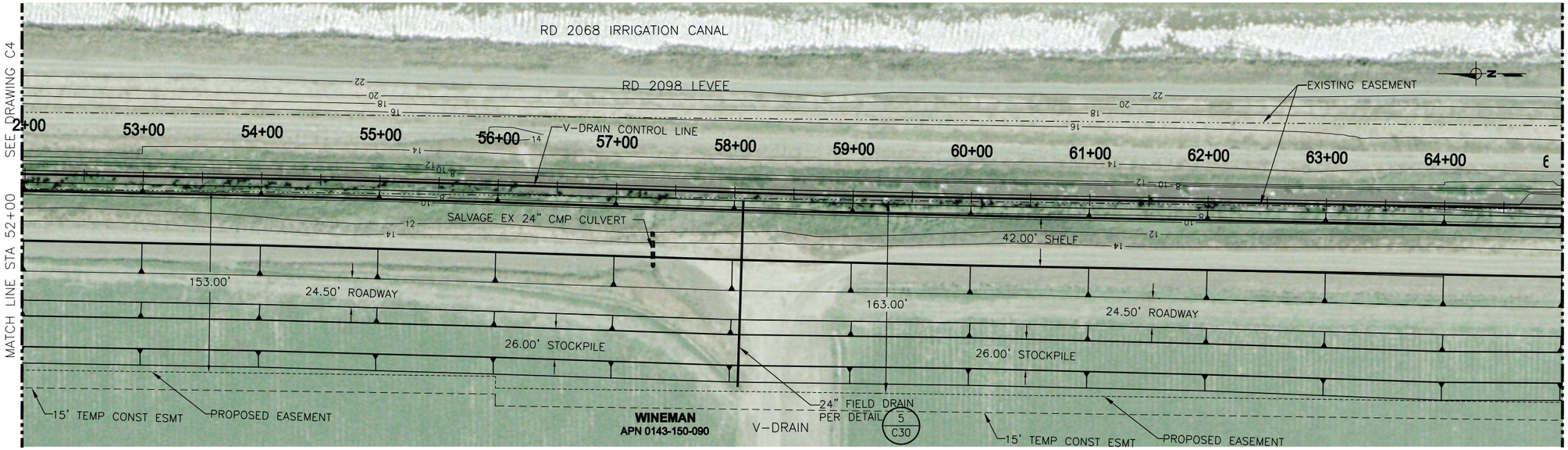
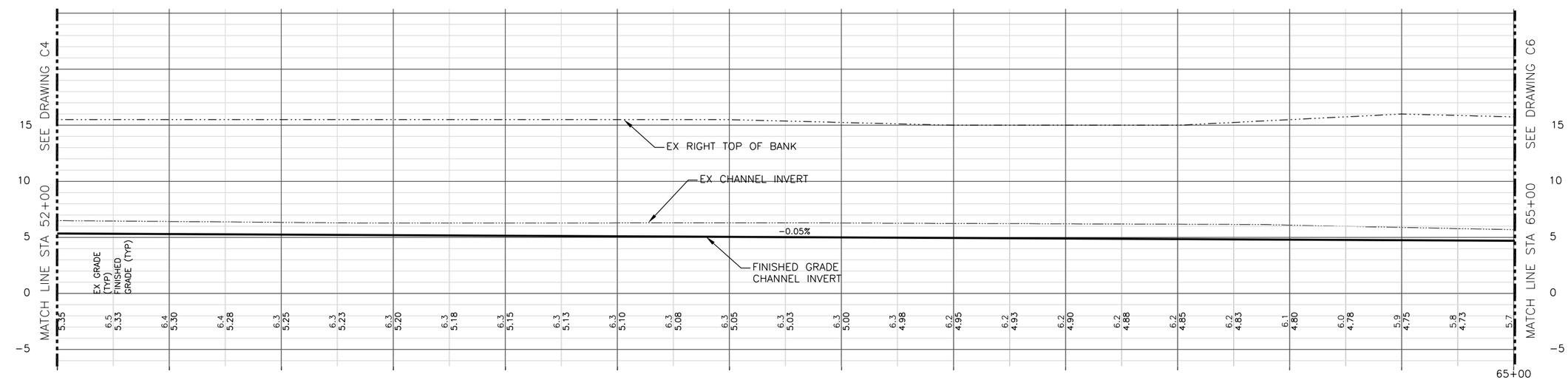


PLAN

0 50 100
SCALE IN FEET

NOTES:

1. SEE SHEETS C13–C27 FOR CHANNEL CROSS SECTIONS
2. HYDROSEED EXCAVATED CHANNEL BANK, ROADWAY, STOCKPILE AND OTHER DISTURBED AREAS, SEE SPECIFICATION SECTION 02910



PROFILE

SCALE: H:1"=50', V:1"=5'

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Suite 100
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(530) 756-5905
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DIXON WATERSHED
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PLAN AND PROFILE 5

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER 298-01-07-02
DRAWING NUMBER **C5**
SHEET NUMBER 10 OF 41
REVISION

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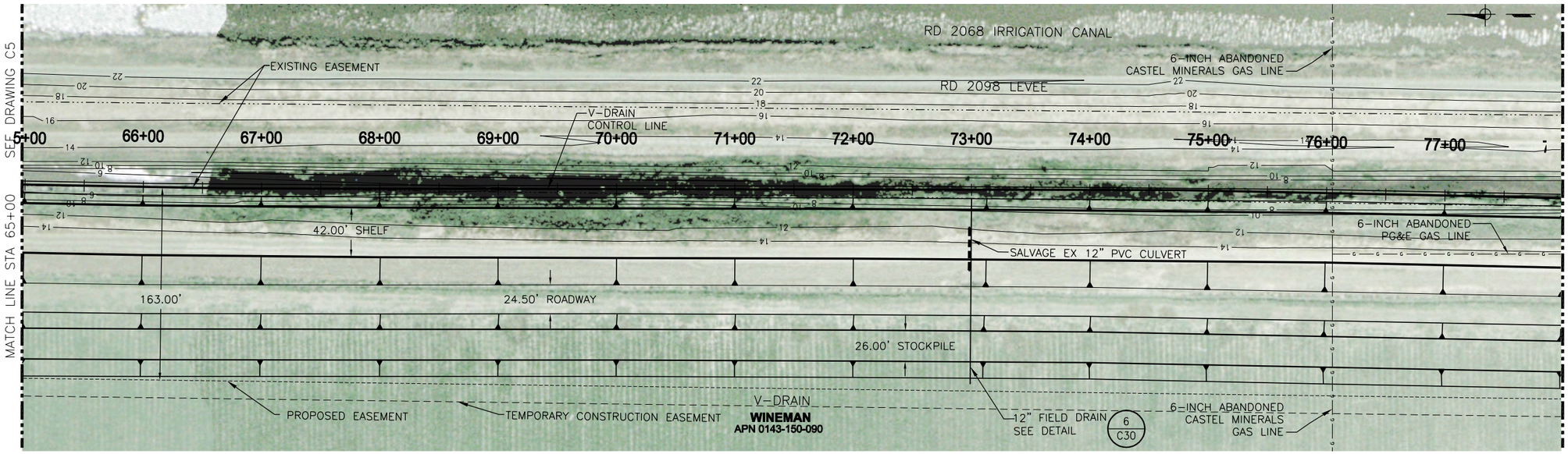
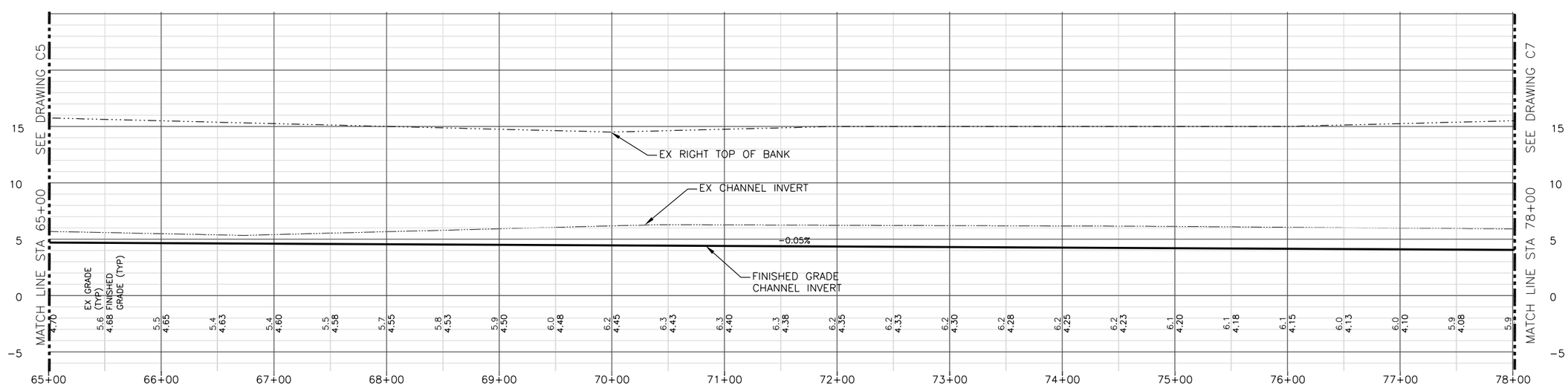


PLAN

0 50 100
SCALE IN FEET

NOTES:

1. SEE SHEETS C13–C27 FOR CHANNEL CROSS SECTIONS
2. HYDROSEED EXCAVATED CHANNEL BANK, ROADWAY, STOCKPILE AND OTHER DISTURBED AREAS, SEE SPECIFICATION SECTION 02910



PROFILE

SCALE: H:1"=50', V:1"=5'

REGISTERED PROFESSIONAL ENGINEER MARY LEWIS YOUNG No. 39713 Exp. 12-31-13 CIVIL STATE OF CALIFORNIA

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DIXON WATERSHED JOINT POWERS AUTHORITY
MAIN DRAIN AND V-DRAIN ENLARGEMENT

PLAN AND PROFILE 6

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER 298-01-07-02
DRAWING NUMBER **C6**
SHEET NUMBER 11 OF 41
REVISION

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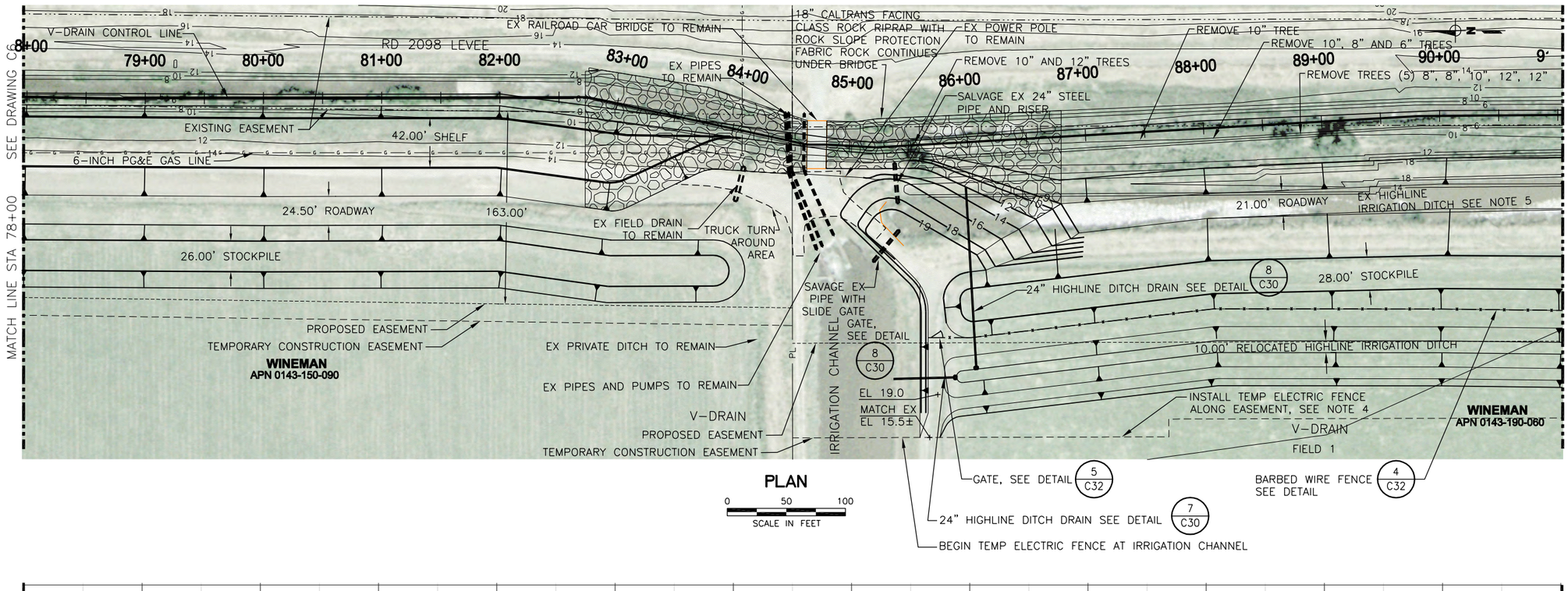
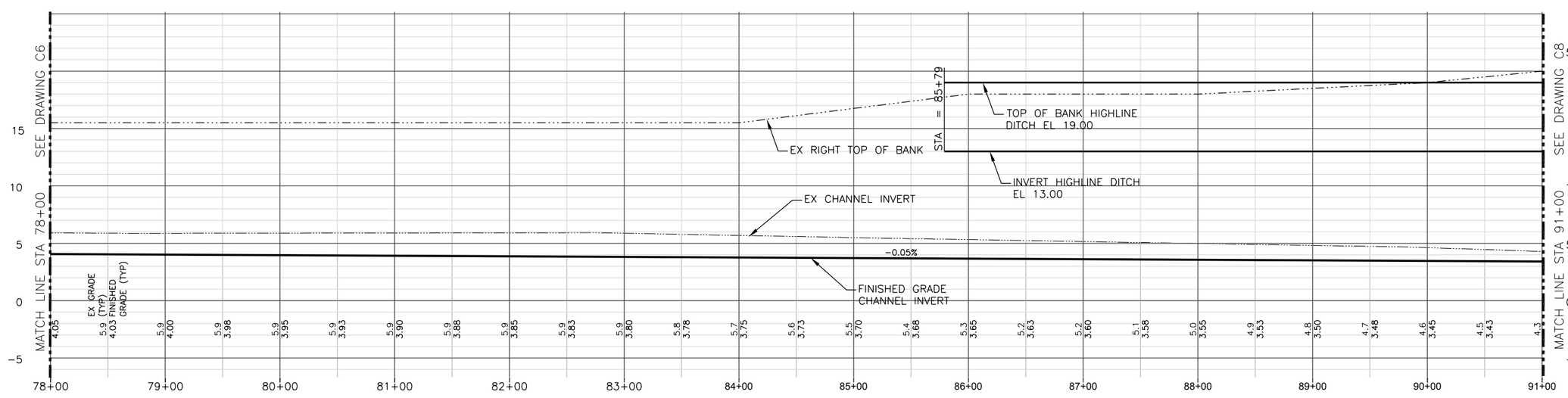


PLAN

NOTES:

1. SEE SHEETS C13–C27 FOR CHANNEL CROSS SECTIONS
2. HYDROSEED EXCAVATED CHANNEL BANK, ROADWAY, STOCKPILE AND OTHER DISTURBED AREAS, SEE SPECIFICATION SECTION 02910
3. SEE G5 FOR HIGHLINE DITCH CONSTRUCTION SEQUENCING
4. INSTALL TEMPORARY FENCE PRIOR TO THE START OF CONSTRUCTION AND REMOVE FENCE WHEN CONSTRUCTION IS COMPLETE.
5. CONSTRUCTION OF THE HIGHLINE IRRIGATION CANAL SHALL BE SEQUENCED SO THAT FIELDS CAN BE CONTINUOUSLY IRRIGATED THROUGHOUT CONSTRUCTION SEE DRAWING G5.



PROFILE

SCALE: H:1"=50', V:1"=5'

REGISTERED PROFESSIONAL ENGINEER MARY LEWIS YOUNG No. 39713 Exp. 12-31-13 CIVIL STATE OF CALIFORNIA

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DIXON WATERSHED JOINT POWERS AUTHORITY
MAIN DRAIN AND V-DRAIN ENLARGEMENT

PLAN AND PROFILE 7

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER 298-01-07-02
DRAWING NUMBER C7
SHEET NUMBER 12 OF 41
REVISION

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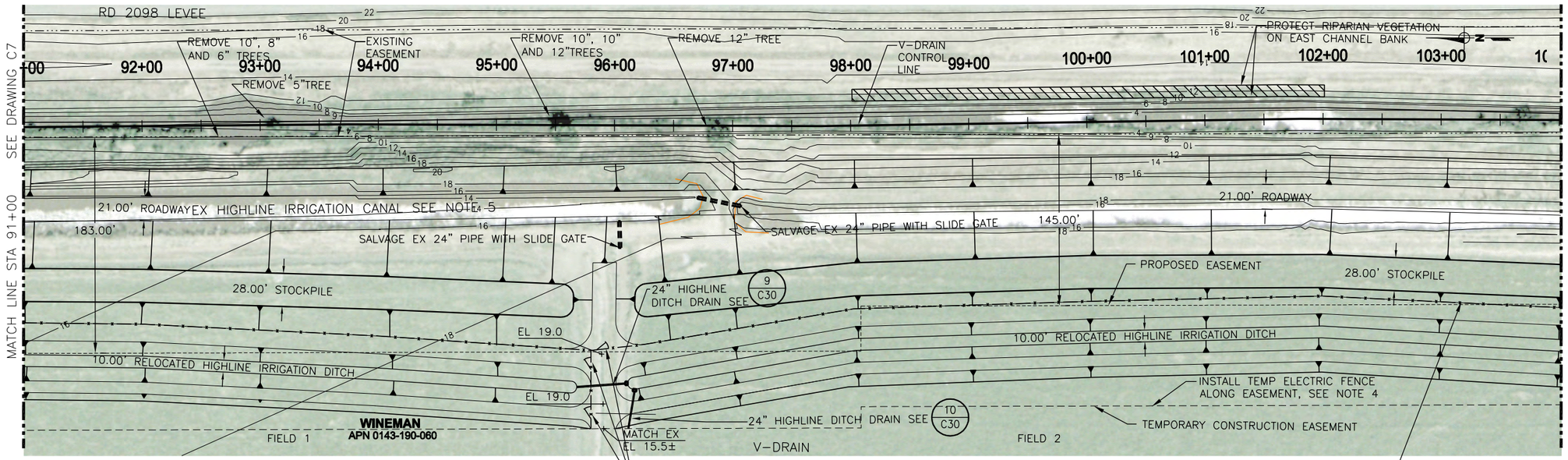

PLAN

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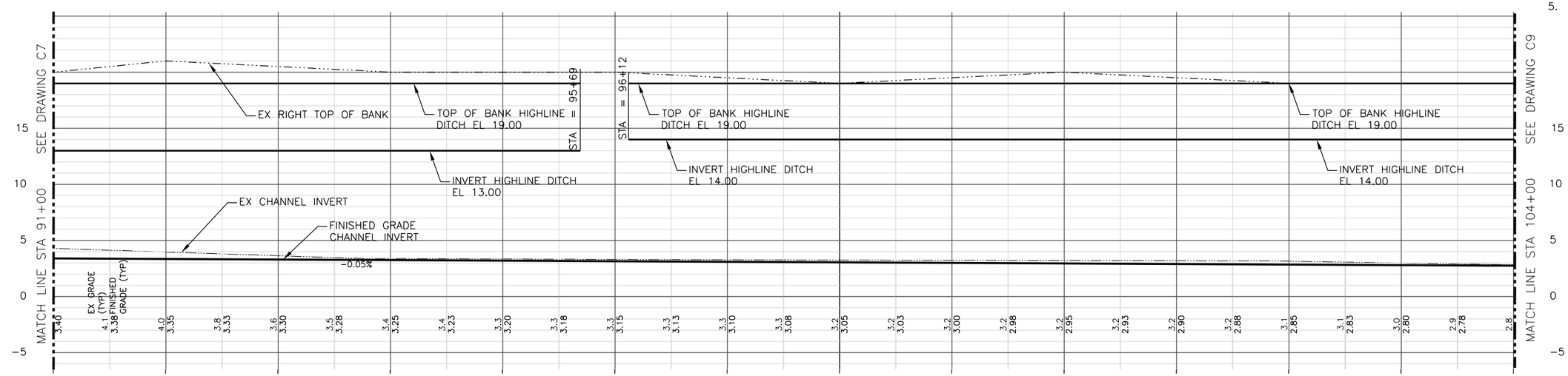
SCALE IN FEET



PROFILE

SCALE: H:1"=50', V:1"=5'

NOTES:

1. SEE SHEETS C13-C27 FOR CHANNEL CROSS SECTIONS
2. HYDROSEED EXCAVATED CHANNEL BANK, ROADWAY, STOCKPILE AND OTHER DISTURBED AREAS, SEE SPECIFICATION SECTION 02910
3. SEE G5 FOR HIGHLINE DITCH CONSTRUCTION SEQUENCING.
4. INSTALL TEMPORARY FENCE PRIOR TO CONSTRUCTION AND REMOVE FENCE WHEN CONSTRUCTION IS COMPLETE.
5. CONSTRUCTION OF THE HIGHLINE IRRIGATION CANAL SHALL BE SEQUENCED SO THAT FIELDS CAN BE CONTINUOUSLY IRRIGATED THROUGHOUT CONSTRUCTION SEE DRAWING G5.

REGISTERED PROFESSIONAL ENGINEER MARY LEWIS YOUNG No. 39713 Exp. 12-31-13 CIVIL STATE OF CALIFORNIA

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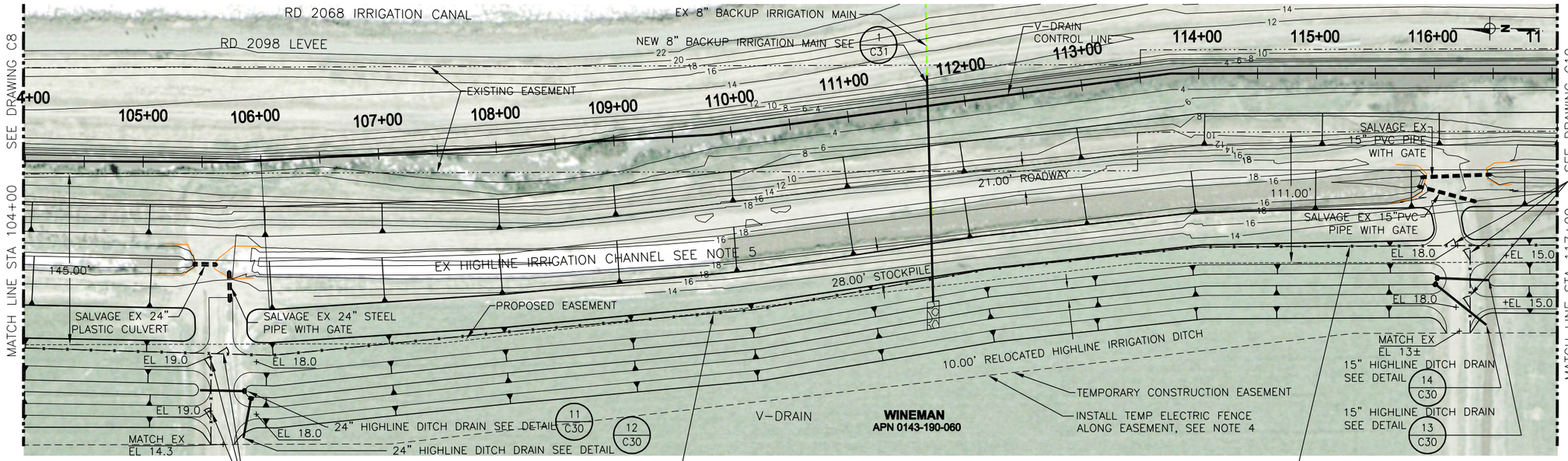
DIXON WATERSHED
JOINT POWERS AUTHORITY
MAIN DRAIN AND V-DRAIN ENLARGEMENT

PLAN AND PROFILE 8

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER 298-01-07-02
DRAWING NUMBER **C8**
SHEET NUMBER 13 OF 41
REVISION

N:\Clients\298 Dixon RWJPA\00-07-02 Main Drain and V-Drain\CAD\Design\298-0702-C6-C12.dwg 10/29/2012 5:28 PM myoung

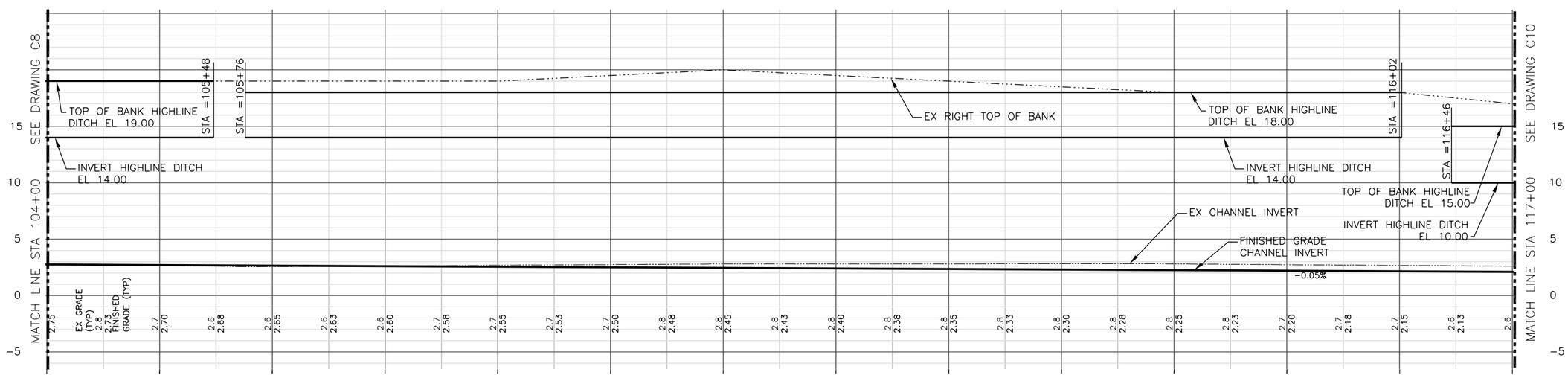


PLAN

0 50 100
SCALE IN FEET

NOTES:

1. SEE SHEETS C13–C27 FOR CHANNEL CROSS SECTIONS
2. HYDROSEED EXCAVATED CHANNEL BANK, ROADWAY, STOCKPILE AND OTHER DISTURBED AREAS, SEE SPECIFICATION SECTION 02910.
3. SEE G5 FOR HIGHLINE DITCH CONSTRUCTION SEQUENCING.
4. INSTALL TEMPORARY FENCE PRIOR TO CONSTRUCTION AND REMOVE FENCE WHEN CONSTRUCTION IS COMPLETE.
5. CONSTRUCTION OF THE HIGHLINE IRRIGATION CANAL SHALL BE SEQUENCED SO THAT FIELDS CAN BE CONTINUOUSLY IRRIGATED THROUGHOUT CONSTRUCTION SEE DRAWING G5.



PROFILE

SCALE: H:1"=50', V:1"=5'

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PLAN AND PROFILE 9

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER 298-01-07-02
DRAWING NUMBER C9
SHEET NUMBER 14 OF 41
REVISION

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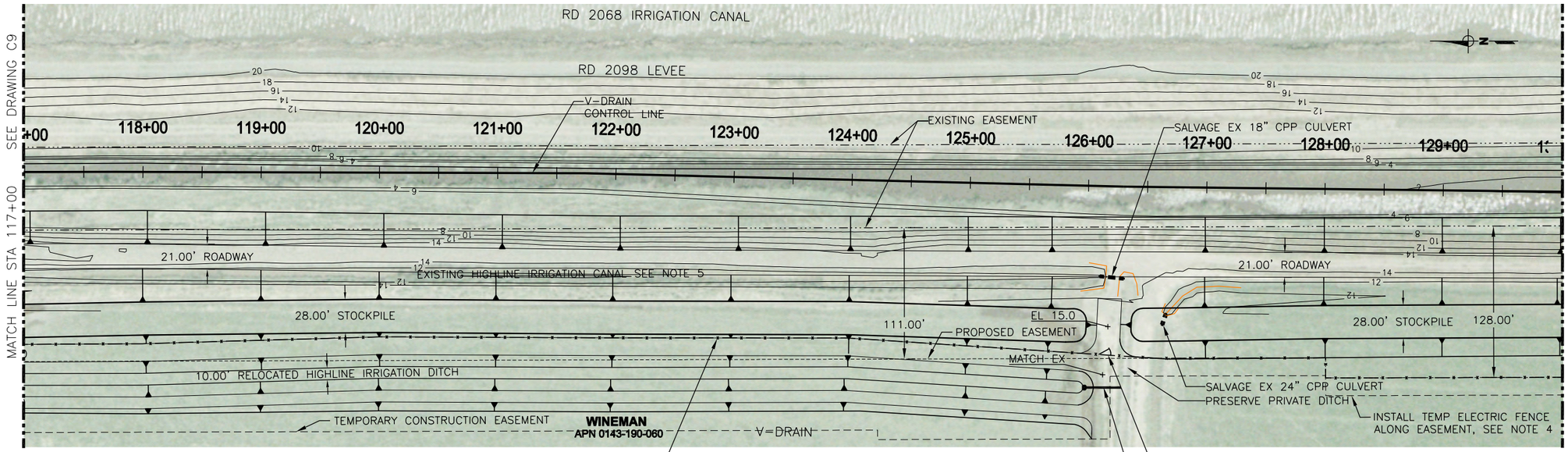
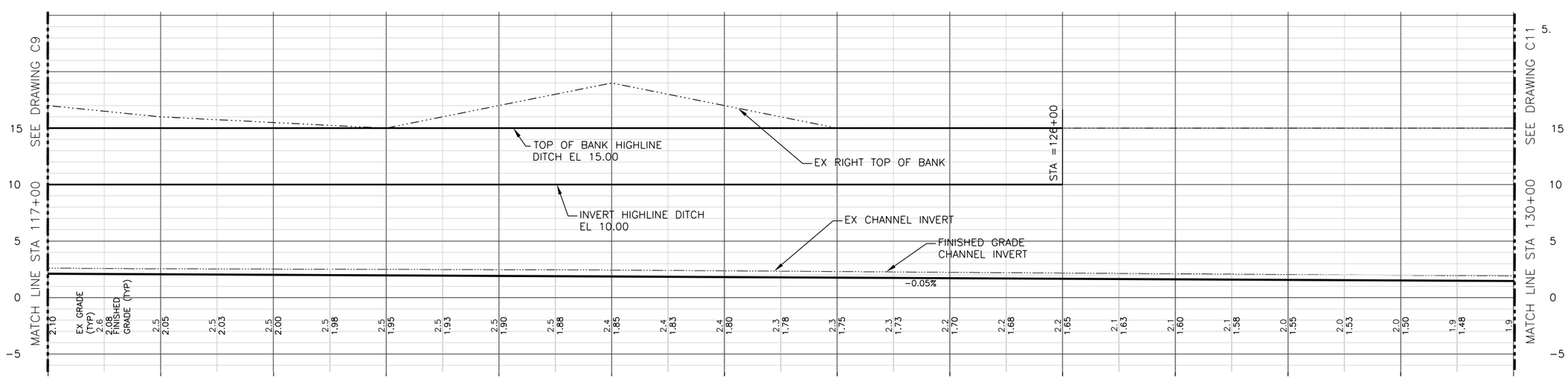


PLAN



PROFILE

SCALE: H:1"=50', V:1"=5'

NOTES:

1. SEE SHEETS C13–C27 FOR CHANNEL CROSS SECTIONS
2. HYDROSEED EXCAVATED CHANNEL BANK, ROADWAY, STOCKPILE AND OTHER DISTURBED AREAS, SEE SPECIFICATION SECTION 02910.
3. SEE G5 FOR HIGHLINE DITCH CONSTRUCTION SEQUENCING.
4. INSTALL TEMPORARY FENCE PRIOR TO CONSTRUCTION AND REMOVE FENCE WHEN CONSTRUCTION IS COMPLETE.
5. CONSTRUCTION OF THE HIGHLINE IRRIGATION CANAL SHALL BE SEQUENCED SO THAT FIELDS CAN BE CONTINUOUSLY IRRIGATED THROUGHOUT CONSTRUCTION SEE DRAWING G5.

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PLAN AND PROFILE 10

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER 298-01-07-02
DRAWING NUMBER **C10**
SHEET NUMBER 15 OF 41
REVISION

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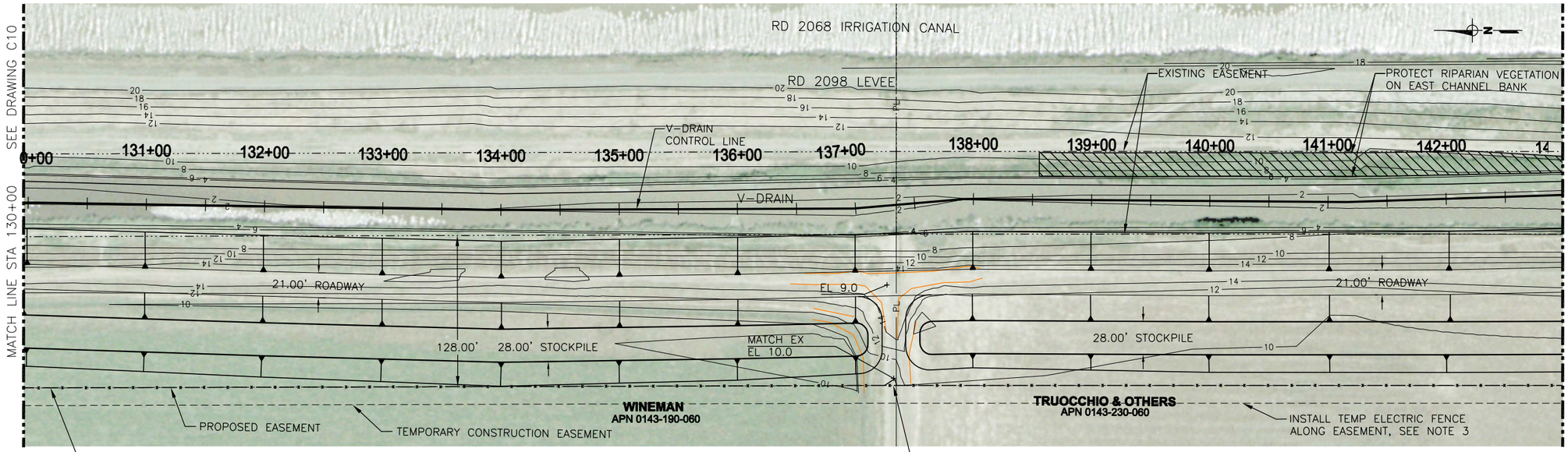
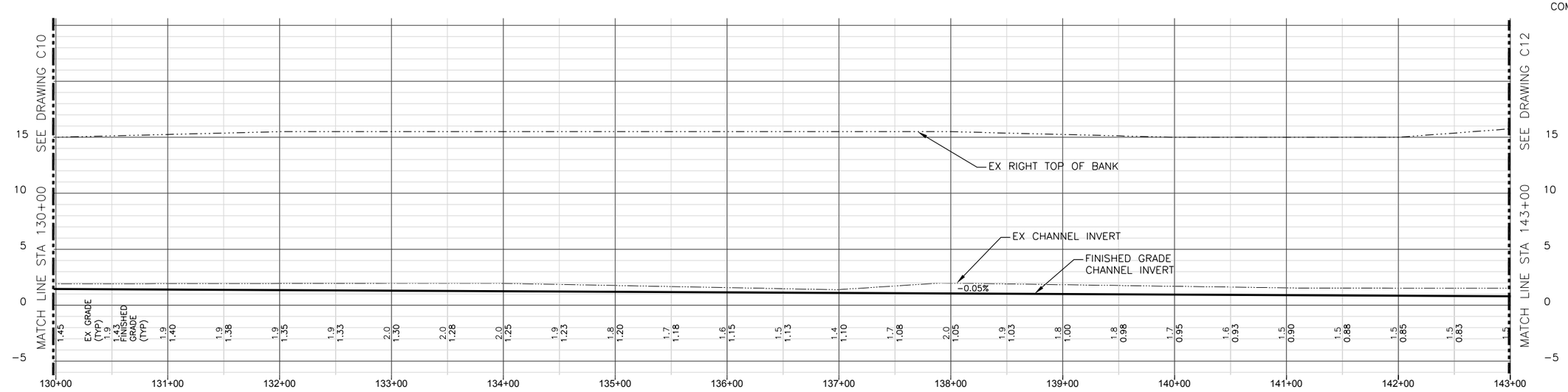


PLAN

0 50 100
SCALE IN FEET

NOTES:

1. SEE SHEETS C13–C27 FOR CHANNEL CROSS SECTIONS
2. HYDROSEED EXCAVATED CHANNEL BANK, ROADWAY, STOCKPILE AND OTHER DISTURBED AREAS, SEE SPECIFICATION SECTION 02910
3. INSTALL TEMPORARY FENCE PRIOR TO CONSTRUCTION AND REMOVE WHEN CONSTRUCTION IS COMPLETE.



PROFILE

SCALE: H:1"=50', V:1"=5'

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DIXON WATERSHED JOINT POWERS AUTHORITY
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PLAN AND PROFILE 11

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER 298-01-07-02
DRAWING NUMBER **C11**
SHEET NUMBER 16 OF 41
REVISION

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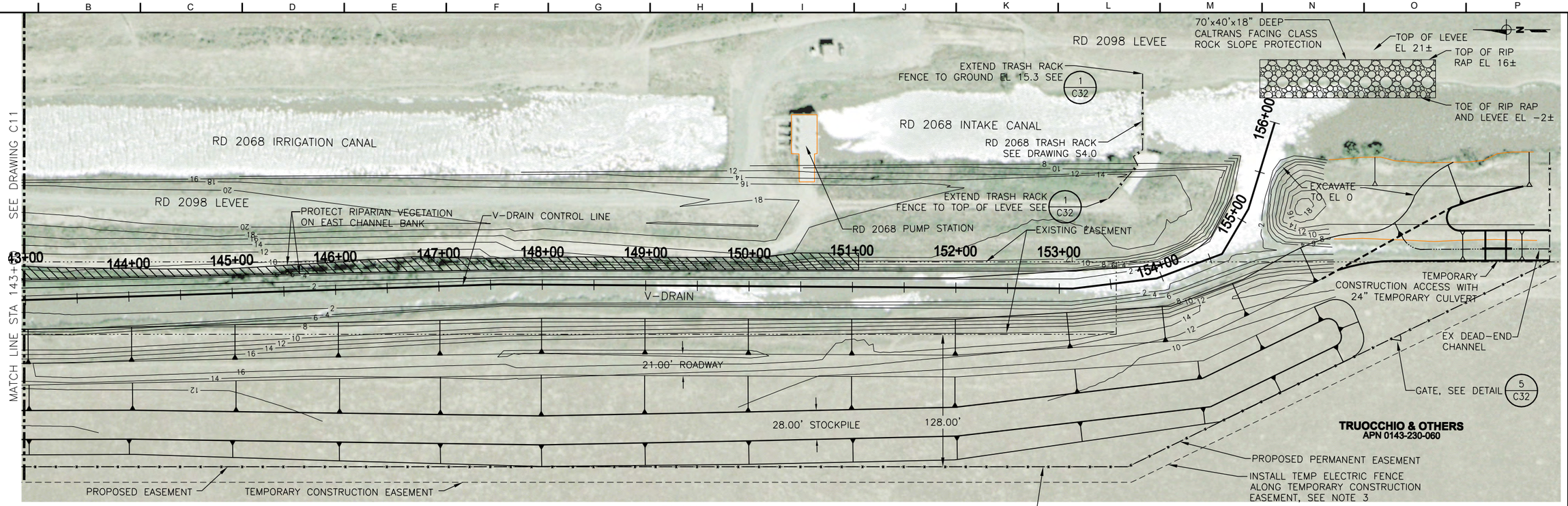
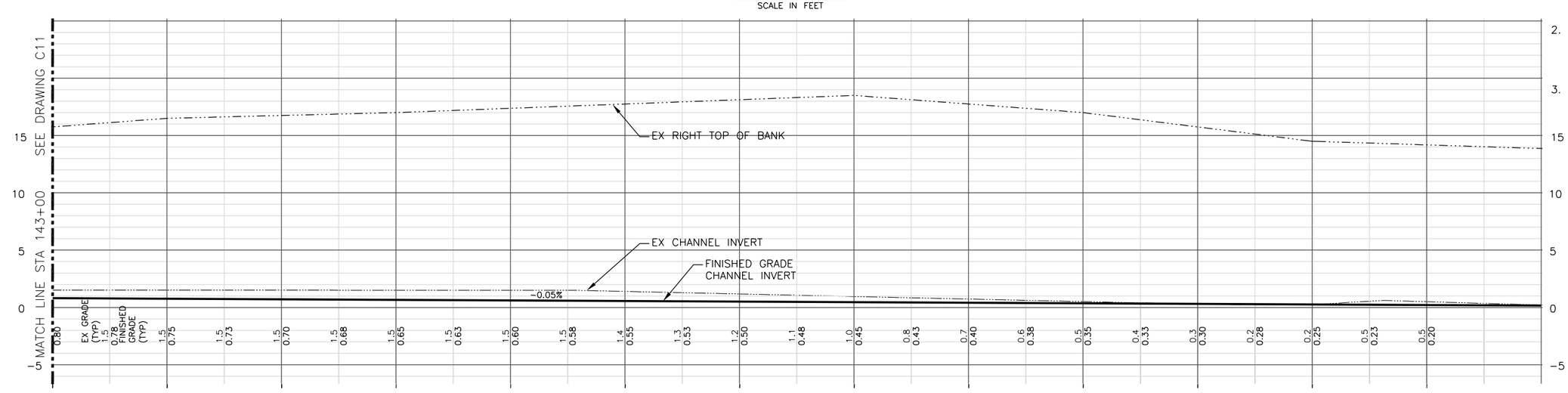


PLAN

0 50 100
SCALE IN FEET

NOTES:

1. SEE SHEETS C13–C27 FOR CHANNEL CROSS SECTIONS
2. HYDROSEED EXCAVATED CHANNEL BANK, ROADWAY, STOCKPILE AND OTHER DISTURBED AREAS, SEE SPECIFICATION SECTION 02910
3. INSTALL TEMPORARY FENCE PRIOR TO CONSTRUCTION AND REMOVE WHEN CONSTRUCTION IS COMPLETE.



PROFILE

SCALE: H:1"=50', V:1"=5'

REGISTERED PROFESSIONAL ENGINEER MARK LEWIS YOUNG No. 39713 Exp. 12-31-13 CIVIL STATE OF CALIFORNIA

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DIXON WATERSHED JOINT POWERS AUTHORITY
MAIN DRAIN AND V-DRAIN ENLARGEMENT

PLAN AND PROFILE 12

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER 298-01-07-02
DRAWING NUMBER **C12**
SHEET NUMBER 17 OF 41
REVISION

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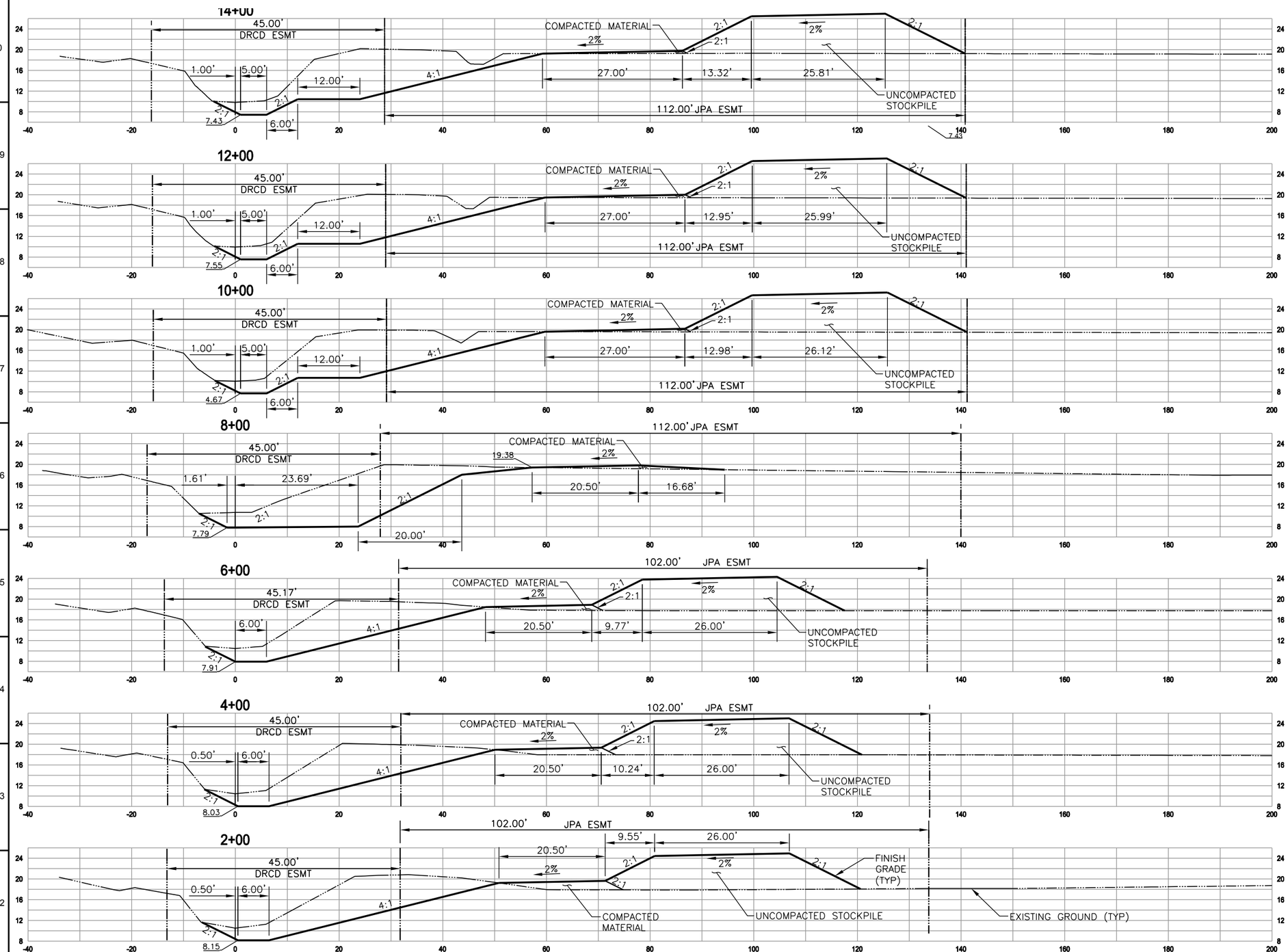

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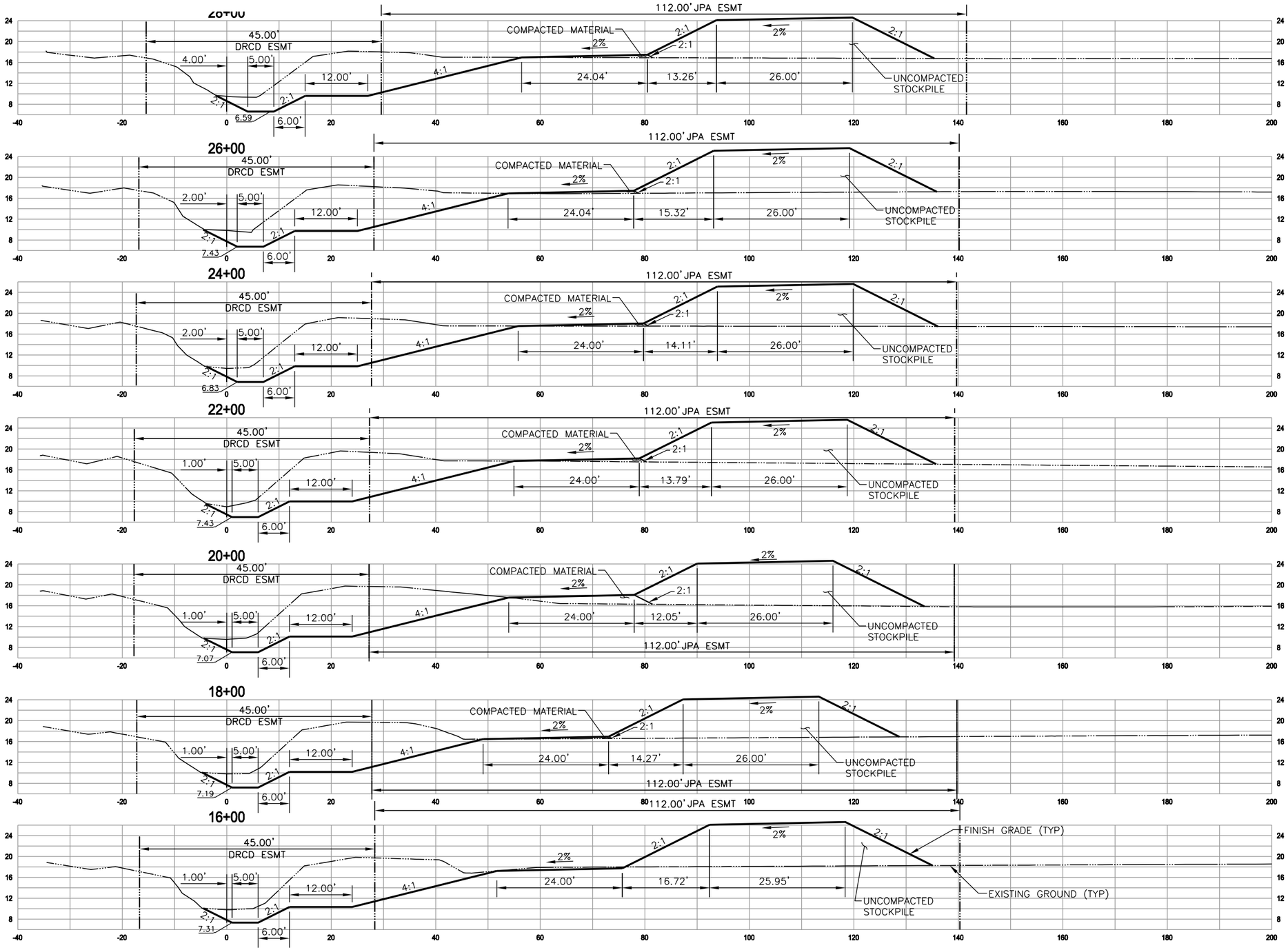
CROSS SECTION 1

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER 298-01-07-02
DRAWING NUMBER **C13**
SHEET NUMBER 18 OF 41
REVISION



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DIXON WATERSHED
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CROSS SECTION 2

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER 298-01-07-02
DRAWING NUMBER **C14**
SHEET NUMBER 19 OF 41
REVISION

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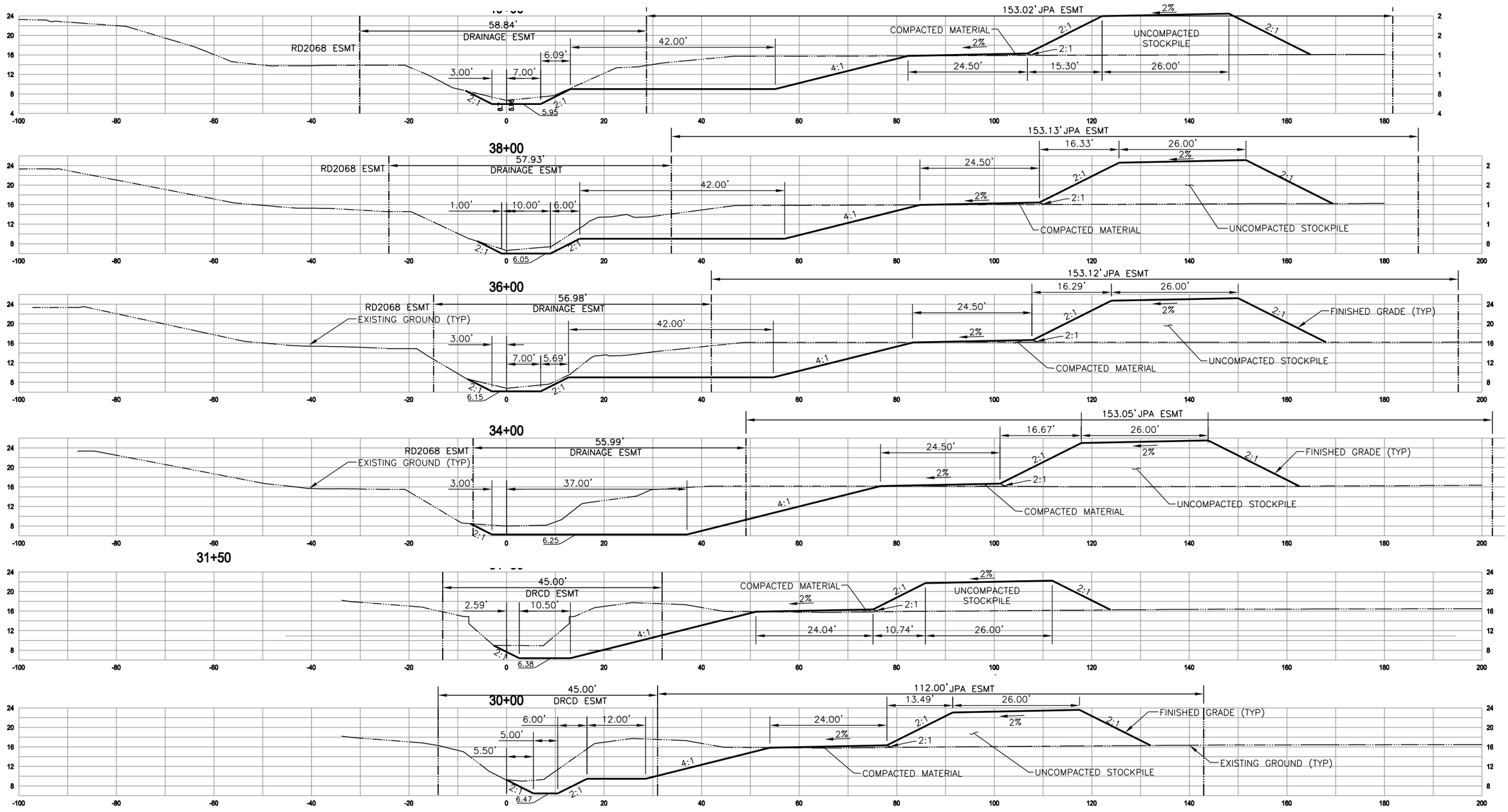

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REGISTERED PROFESSIONAL ENGINEER
MARY LEWIS YOUNG
No. 39713
Exp. 12-31-13
CIVIL
STATE OF CALIFORNIA

SUBMITTED: _____
DATE: _____
APPROVED: _____
DATE: _____

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Consulting Engineers
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Davis, California 95618
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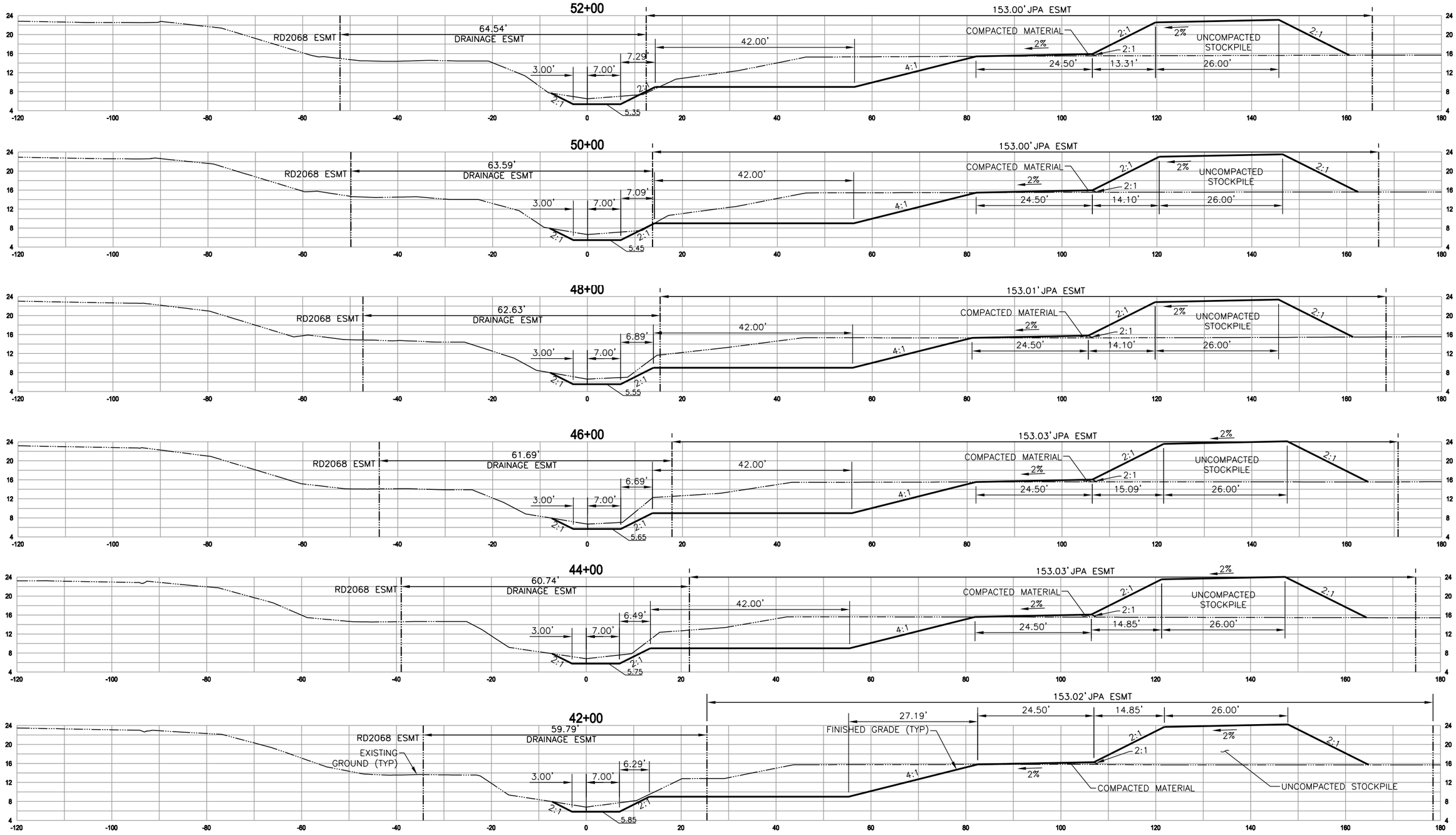
FAX (530) 756-5991

DIXON WATERSHED
JOINT POWERS AUTHORITY
MAIN DRAIN AND V-DRAIN ENLARGEMENT

CROSS SECTION 3

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER 298-01-07-02
DRAWING NUMBER **C15**
SHEET NUMBER 20 OF 41
REVISION



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REGISTERED PROFESSIONAL ENGINEER
MARK LEWIS YOUNG
No. 39713
Exp. 12-31-13
CIVIL
STATE OF CALIFORNIA

SUBMITTED: _____ DATE: _____

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DIXON WATERSHED
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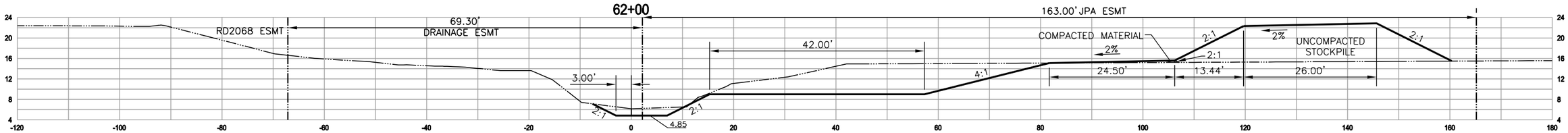
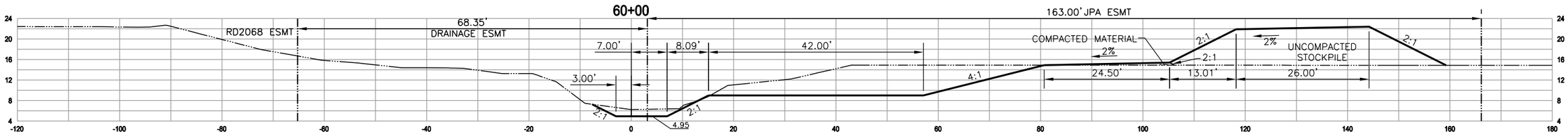
MAIN DRAIN AND V-DRAIN ENLARGEMENT

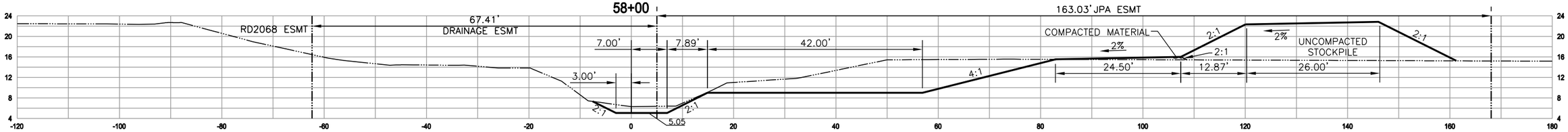
CROSS SECTION 4

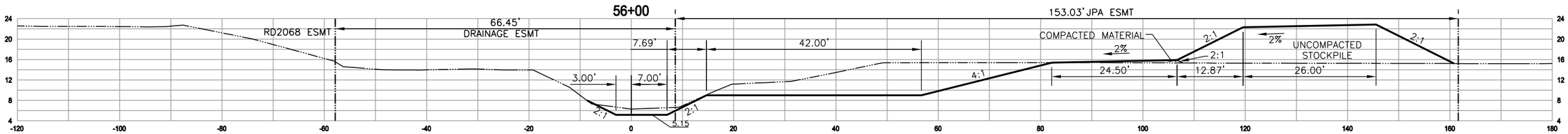
PRELIMINARY, NOT FOR CONSTRUCTION

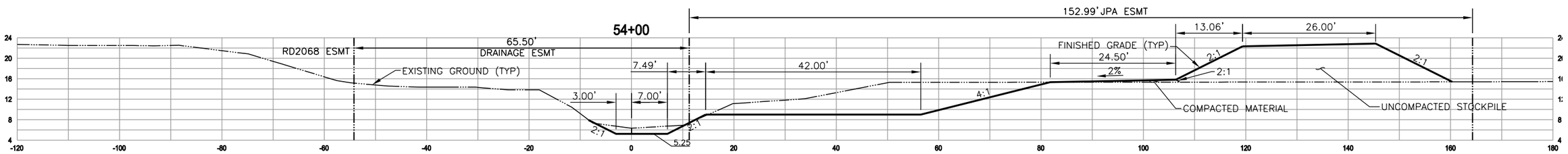
JOB NUMBER 298-01-07-02
DRAWING NUMBER **C16**
SHEET NUMBER 21 OF 41
REVISION











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DIXON WATERSHED
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CROSS SECTION 5

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER 298-01-07-02
DRAWING NUMBER **C17**
SHEET NUMBER 22 OF 41
REVISION

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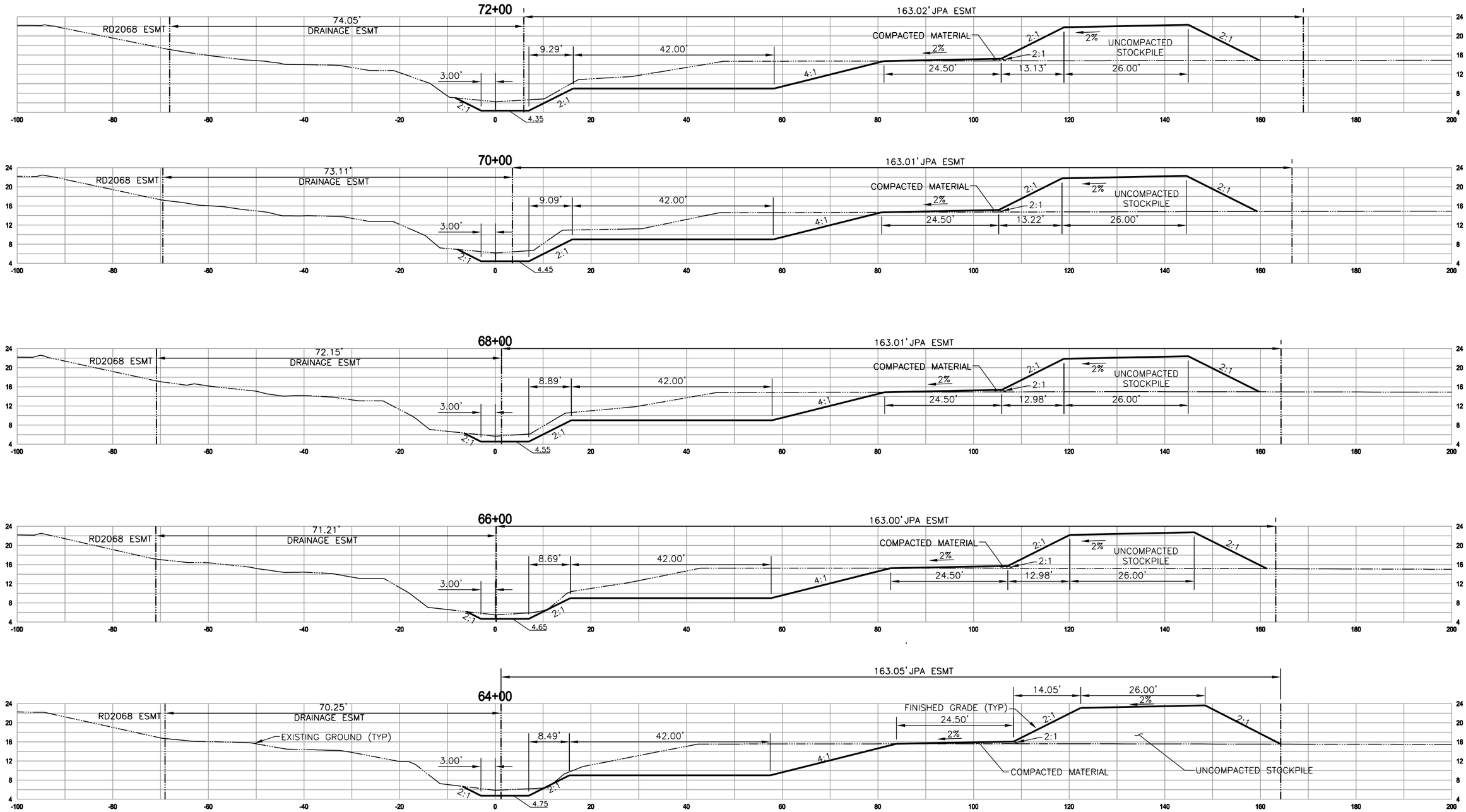

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APPROVED: _____ DATE: _____

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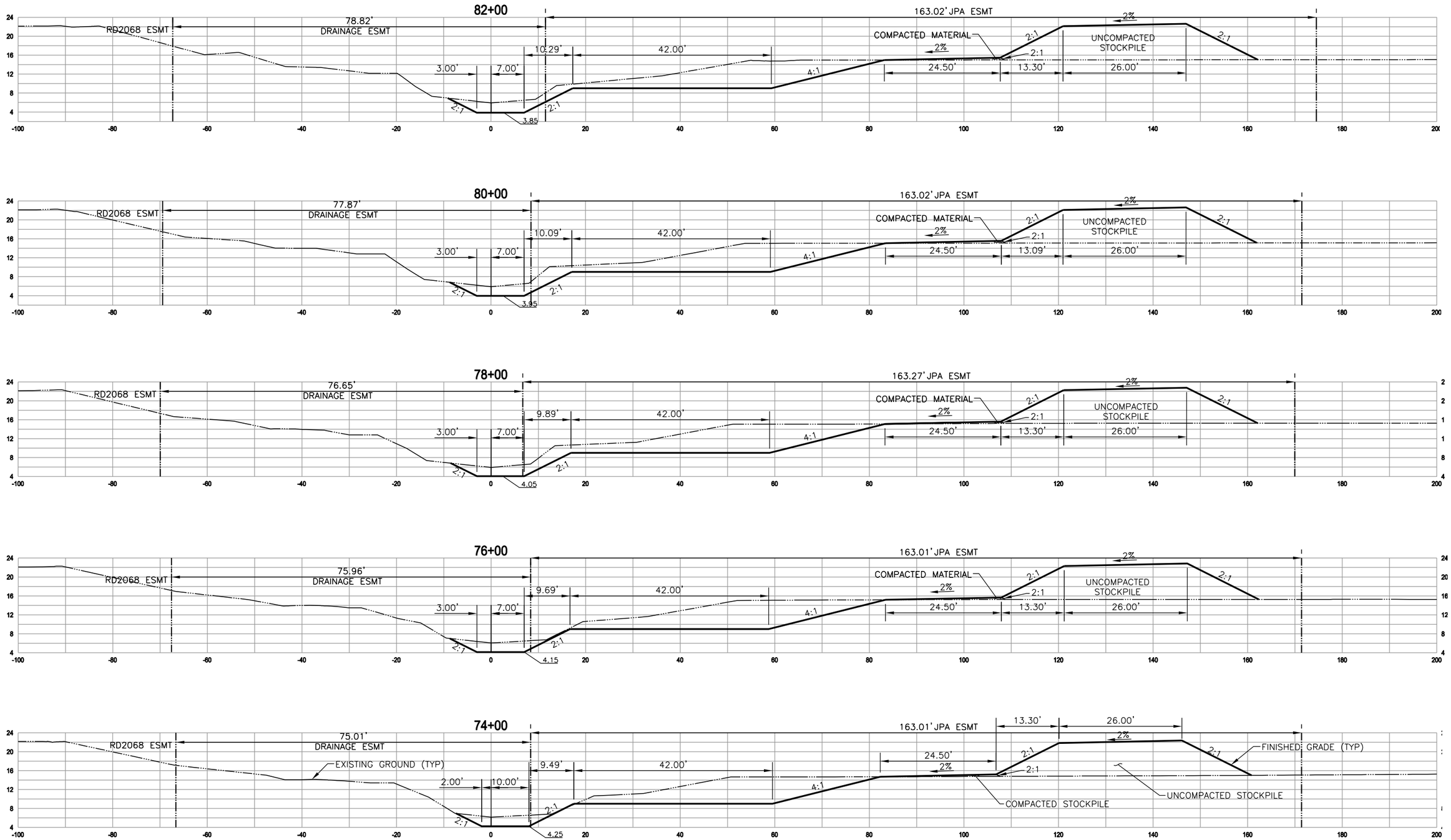
CROSS SECTION 6

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER 298-01-07-02
DRAWING NUMBER **C18**
SHEET NUMBER 23 OF 41
REVISION



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REGISTERED PROFESSIONAL ENGINEER
MARY LEWIS YOUNG
No. 39713
Exp. 12-31-13
CIVIL
STATE OF CALIFORNIA

SUBMITTED: _____
DATE: _____
APPROVED: _____
DATE: _____

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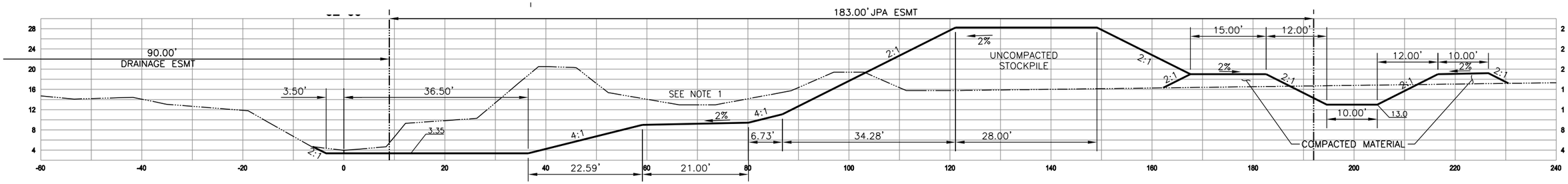
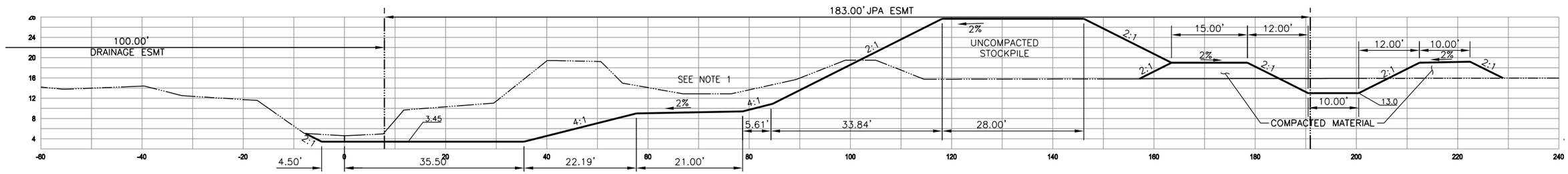
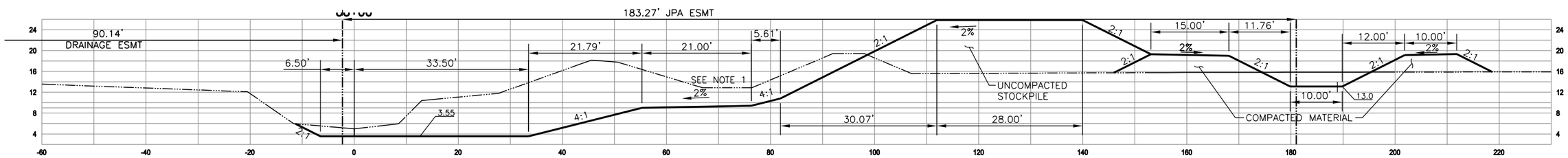
CROSS SECTION 7

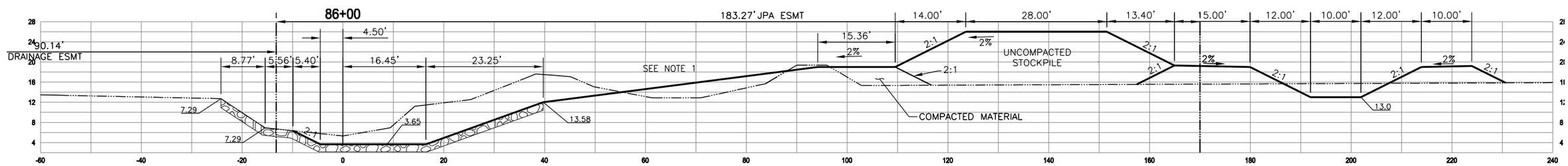
PRELIMINARY, NOT FOR CONSTRUCTION

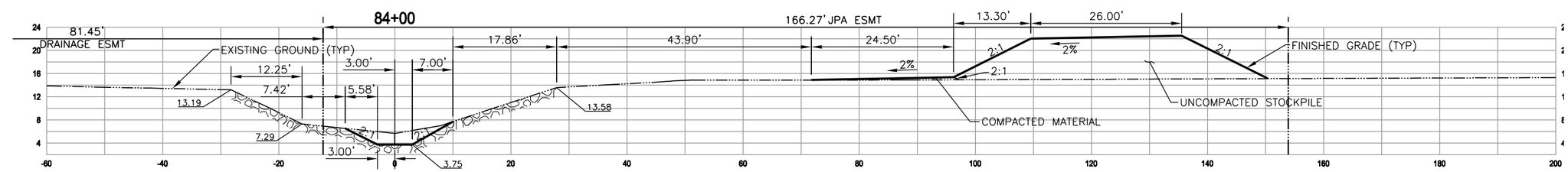
JOB NUMBER 298-01-07-02
DRAWING NUMBER **C19**
SHEET NUMBER 24 OF 41
REVISION











NOTES:

1. SEQUENCE CONSTRUCTION PER DRAWING G5

REGISTERED PROFESSIONAL ENGINEER
MARK LEWIS YOUNG
No. 39713
Exp. 12-31-13
CIVIL
STATE OF CALIFORNIA

SUBMITTED: _____ DATE: _____

APPROVED: _____ DATE: _____

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WEST YOST ASSOCIATES
Consulting Engineers

2020 Research Park Drive
Suite 100
Davis, California 95618
(530) 756-5905
FAX (530) 756-5991

DIXON WATERSHED
JOINT POWERS AUTHORITY
MAIN DRAIN AND V-DRAIN ENLARGEMENT

CROSS SECTION 8

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER 298-01-07-02
DRAWING NUMBER **C20**
SHEET NUMBER 25 OF 41
REVISION

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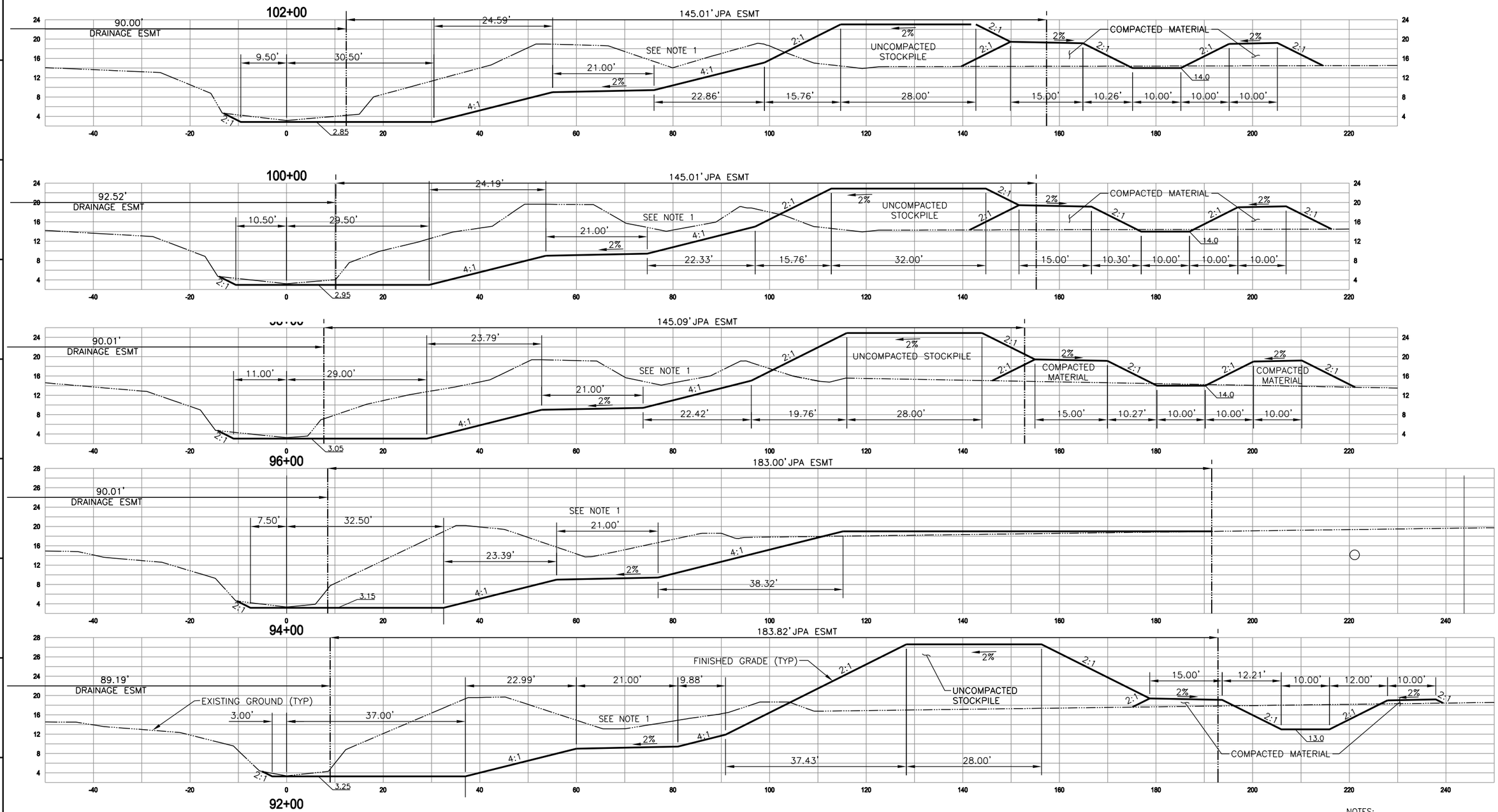

NOTES:

1. SEQUENCE CONSTRUCTION PER DRAWING G5

N:\Clients\298 Dixon RWJPA\00-07-02 Main Drain and V-Drain\CAD\Design\298-0702-C18-C22.dwg 10/29/2012 5:47 PM myoung

REGISTERED PROFESSIONAL ENGINEER MARY LEWIS YOUNG No. 39713 Exp. 12-31-13 CIVIL STATE OF CALIFORNIA

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APPROVED: _____ DATE: _____

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PROJ. MGR. : MLY

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Consulting Engineers

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Davis, California 95618
(530) 756-5905
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DIXON WATERSHED
JOINT POWERS AUTHORITY
MAIN DRAIN AND V-DRAIN ENLARGEMENT

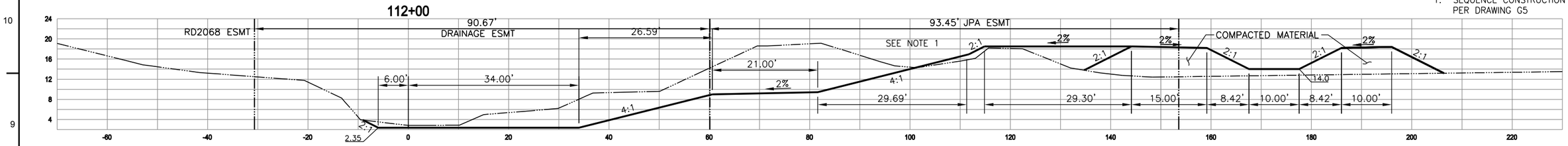
CROSS SECTION 9

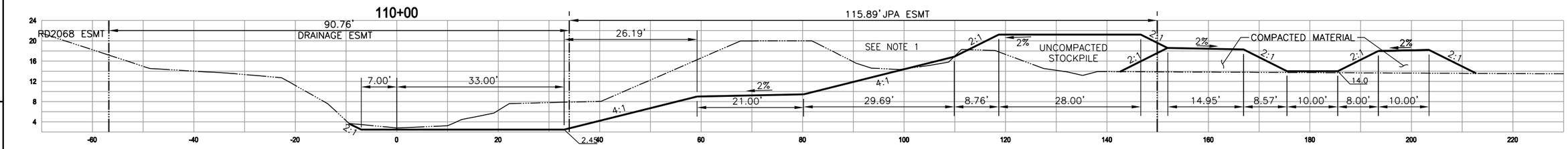
PRELIMINARY, NOT FOR CONSTRUCTION

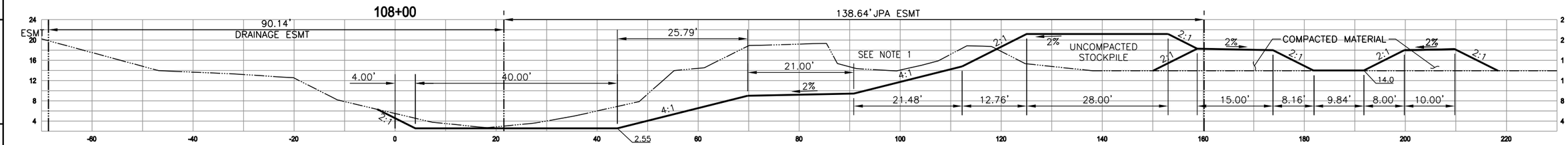
JOB NUMBER 298-01-07-02
DRAWING NUMBER **C21**
SHEET NUMBER 26 OF 41
REVISION

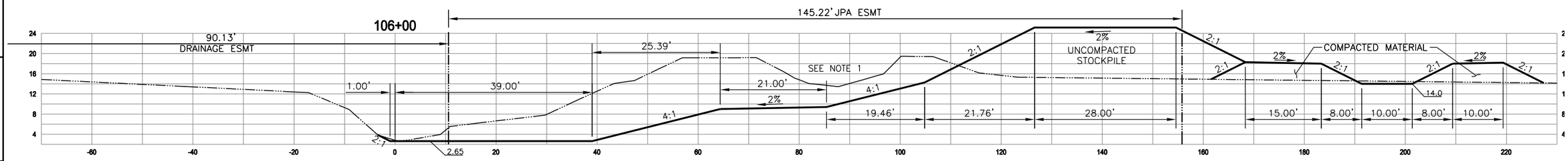
NOTES:

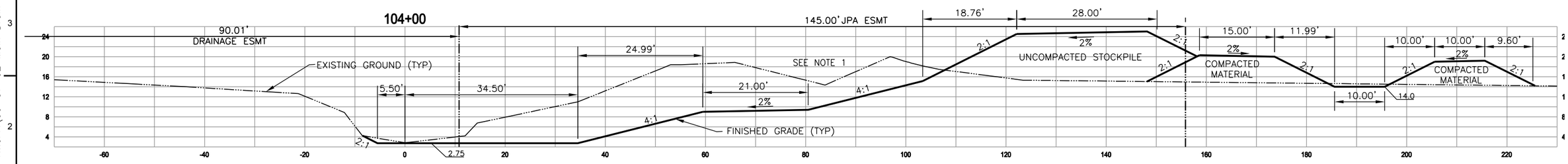
1. SEQUENCE CONSTRUCTION PER DRAWING G5











REGISTERED PROFESSIONAL ENGINEER MARK LEWIS YOUNG No. 39713 Exp. 12-31-13 CIVIL STATE OF CALIFORNIA

SUBMITTED: _____ DATE: _____

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2020 Research Park Drive
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Davis, California 95618
(530) 756-5905
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DIXON WATERSHED
JOINT POWERS AUTHORITY
MAIN DRAIN AND V-DRAIN ENLARGEMENT

CROSS SECTION 10

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER 298-01-07-02
DRAWING NUMBER C22
SHEET NUMBER 27 OF 41
REVISION

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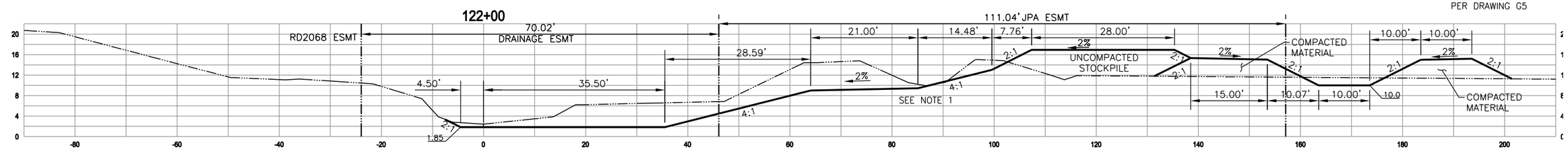
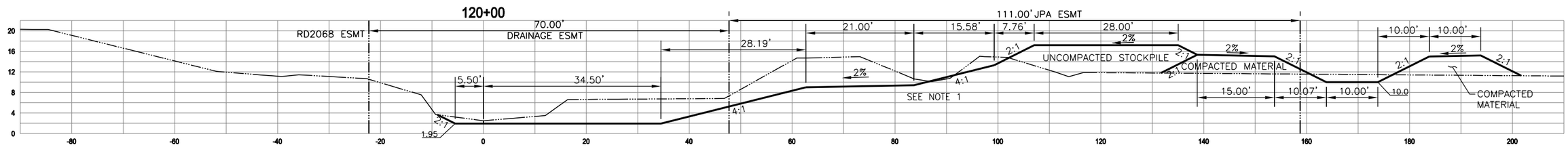
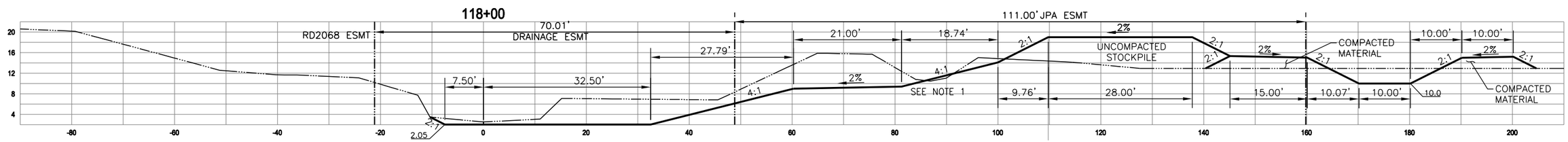
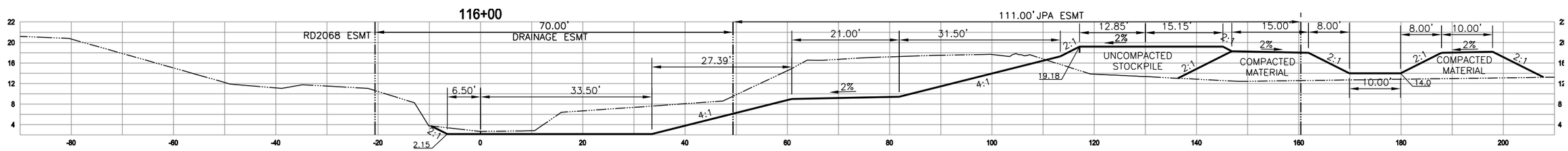
NOTES:

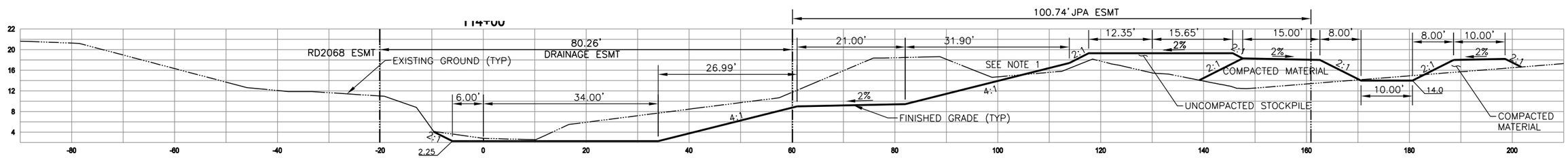
1. SEQUENCE CONSTRUCTION PER DRAWING G5











REGISTERED PROFESSIONAL ENGINEER MARY LEWIS YOUNG No. 39713 Exp. 12-31-13 CIVIL STATE OF CALIFORNIA

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WEST YOST ASSOCIATES
Consulting Engineers
2020 Research Park Drive
Suite 100
Davis, California 95618
(530) 756-5905
FAX (530) 756-5991

DIXON WATERSHED
JOINT POWERS AUTHORITY
MAIN DRAIN AND V-DRAIN ENLARGEMENT

CROSS SECTION 11

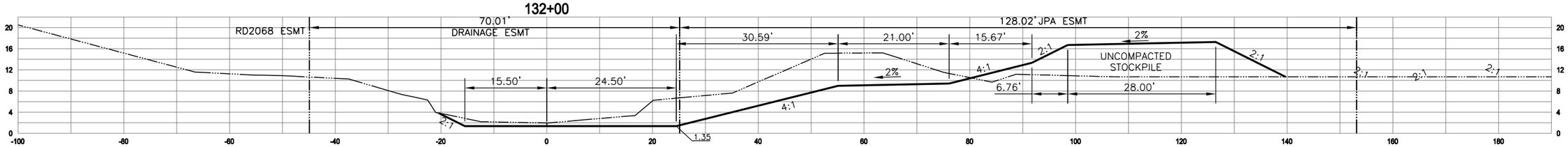
PRELIMINARY, NOT FOR CONSTRUCTION

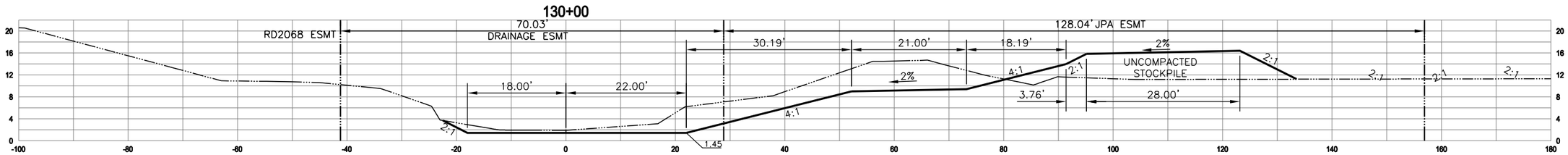
JOB NUMBER 298-01-07-02
DRAWING NUMBER **C23**
SHEET NUMBER 28 OF 41
REVISION

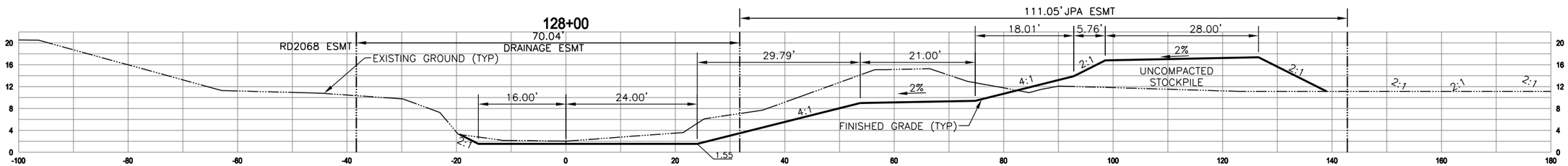
N:\Clients\298 Dixon RWJPA\00-07-02 Main Drain and V-Drain\CAD\Design\298-0702-C23-C27.dwg 10/29/2012 5:53 PM myoung

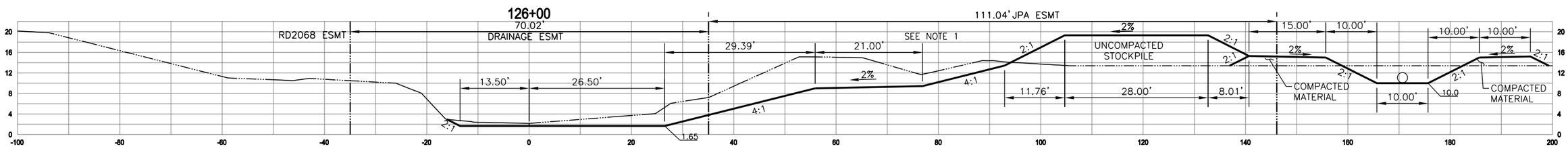
NOTES:

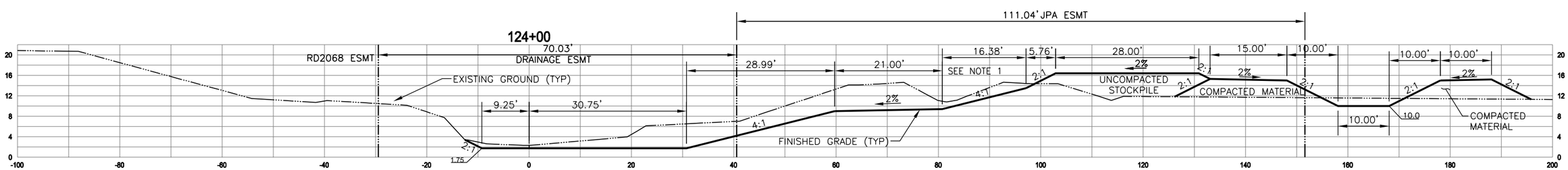
1. SEQUENCE CONSTRUCTION PER DRAWING G5











REGISTERED PROFESSIONAL ENGINEER MARY LEWIS YOUNG No. 39713 Exp. 12-31-13 CIVIL STATE OF CALIFORNIA

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DIXON WATERSHED
JOINT POWERS AUTHORITY
MAIN DRAIN AND V-DRAIN ENLARGEMENT

CROSS SECTION 12

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER 298-01-07-02
DRAWING NUMBER **C24**
SHEET NUMBER 29 OF 41
REVISION

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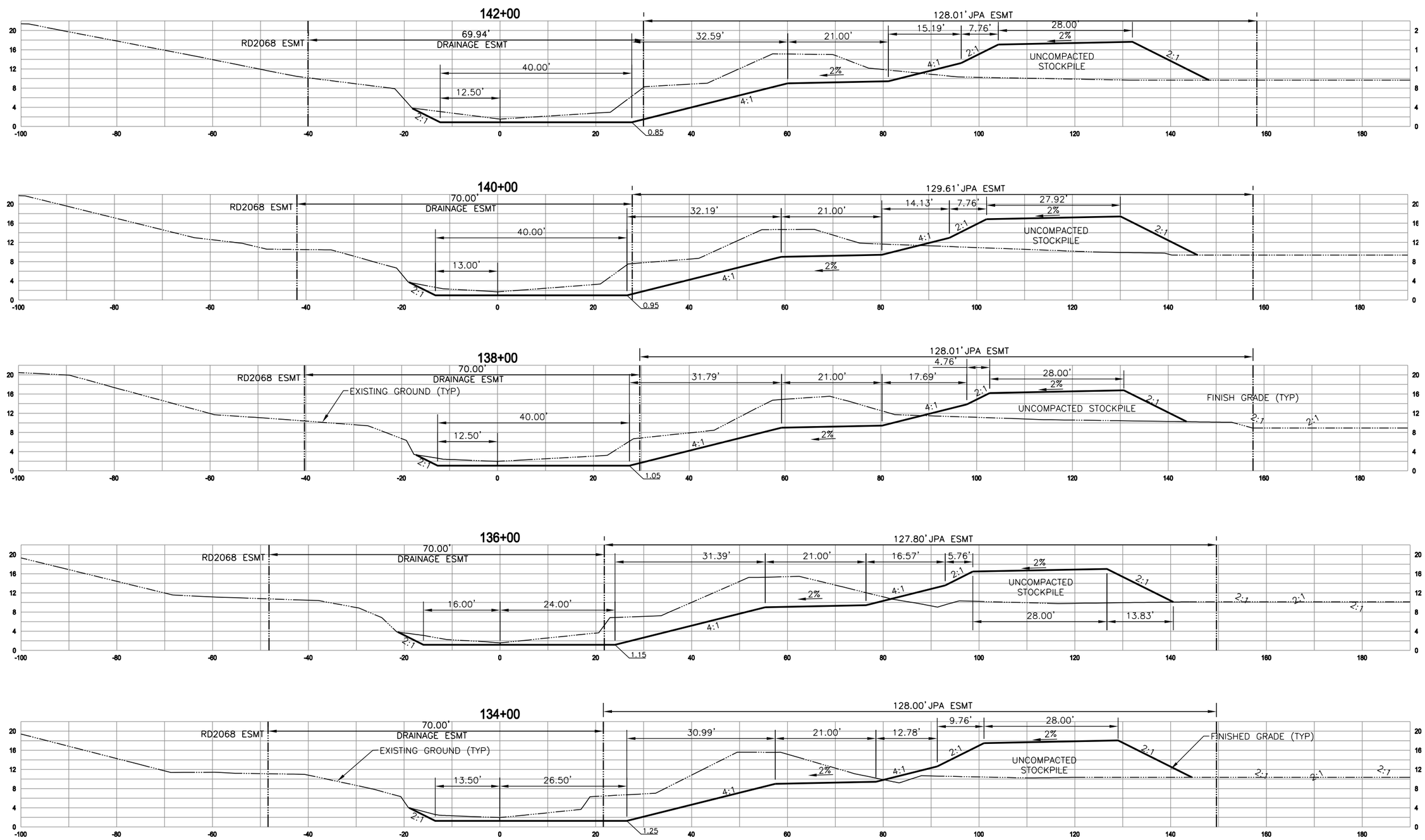

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REGISTERED PROFESSIONAL ENGINEER MARY LEWIS YOUNG No. 39713 Exp. 12-31-13 CIVIL STATE OF CALIFORNIA

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DIXON WATERSHED
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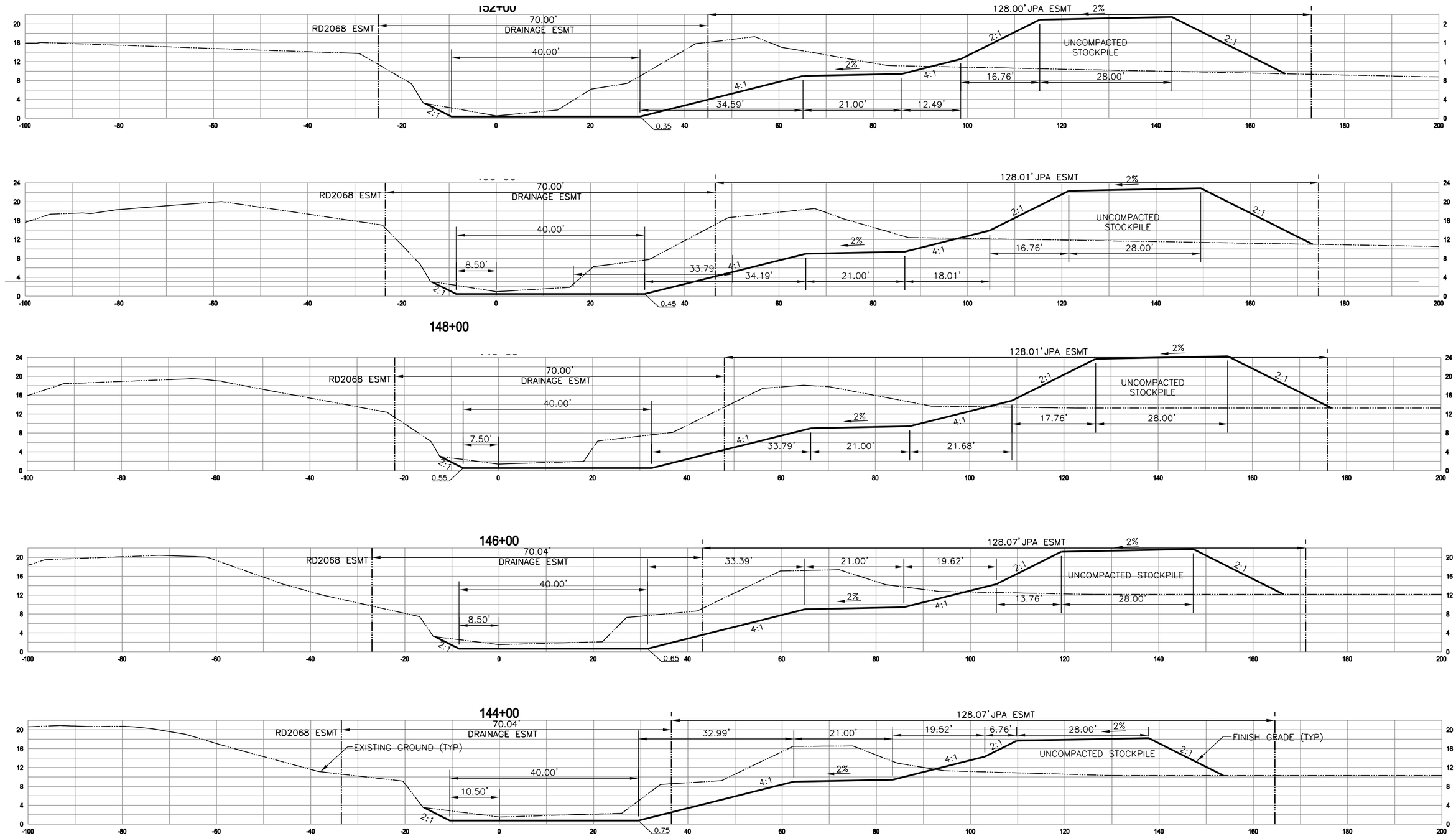
MAIN DRAIN AND V-DRAIN ENLARGEMENT

CROSS SECTION 13

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER 298-01-07-02
DRAWING NUMBER **C25**
SHEET NUMBER 30 OF 41
REVISION



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REGISTERED PROFESSIONAL ENGINEER MARY LEWIS YOUNG No. 39713 Exp. 12-31-13 CIVIL STATE OF CALIFORNIA

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DIXON WATERSHED
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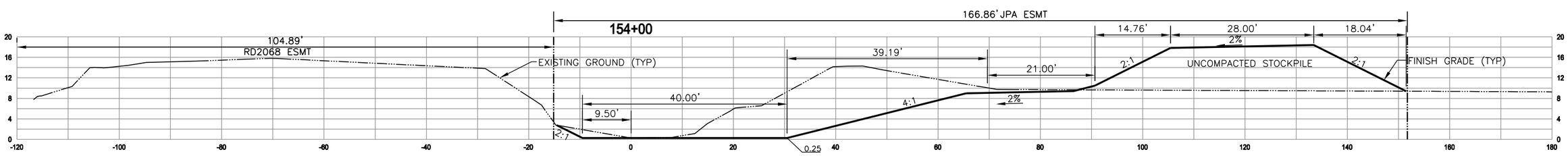
MAIN DRAIN AND V-DRAIN ENLARGEMENT

CROSS SECTION 14

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER 298-01-07-02
DRAWING NUMBER **C26**
SHEET NUMBER 31 OF 41
REVISION



REGISTERED PROFESSIONAL ENGINEER
MARY LEWIS YOUNG
No. 39713
Exp. 12-31-13
CIVIL
STATE OF CALIFORNIA

SUBMITTED: _____
DATE: _____
APPROVED: _____
DATE: _____

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Consulting Engineers
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Suite 100
Davis, California 95618
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FAX (530) 756-5991

DIXON WATERSHED
JOINT POWERS AUTHORITY
MAIN DRAIN AND V-DRAIN ENLARGEMENT

CROSS SECTION 15
AND DETAILS

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER 298-01-07-02
DRAWING NUMBER **C27**
SHEET NUMBER 32 OF 41
REVISION

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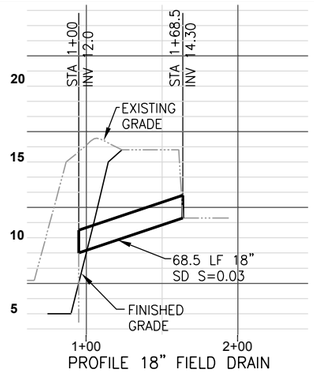
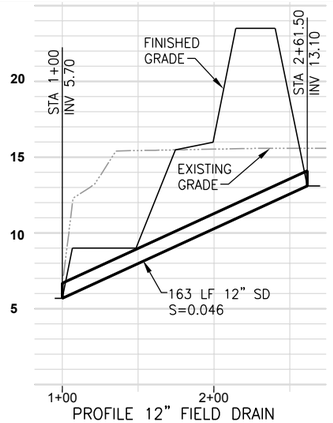


PROFILE 18" FIELD DRAIN

DETAIL 1 / C1,C3

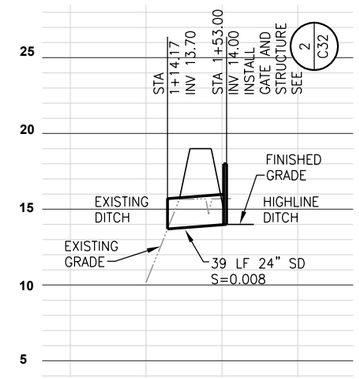
1"=50' HORIZ, 1"=5' VERT



PROFILE 12" FIELD DRAIN

DETAIL 4 / C4

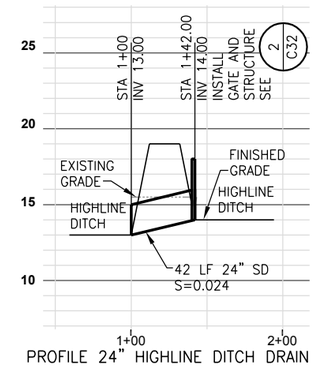
1"=50' HORIZ, 1"=5' VERT



PROFILE 24" HIGHLINE DITCH DRAIN

DETAIL 7 / C7

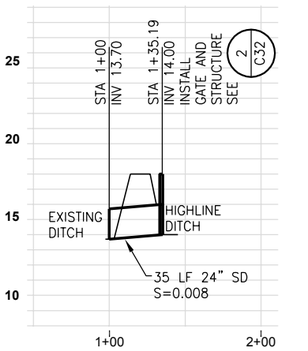
1"=50' HORIZ, 1"=5' VERT



PROFILE 24" HIGHLINE DITCH DRAIN

DETAIL 9 / C8

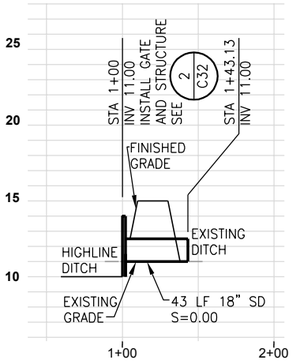
1"=50' HORIZ, 1"=5' VERT



PROFILE 24" HIGHLINE DITCH DRAIN

DETAIL 12 / C9

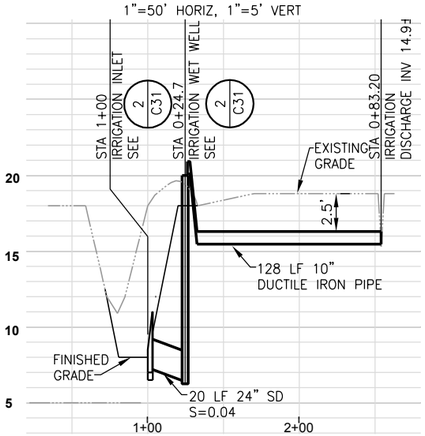
1"=50' HORIZ, 1"=5' VERT



PROFILE 18" HIGHLINE DITCH DRAIN

DETAIL 15 / C10

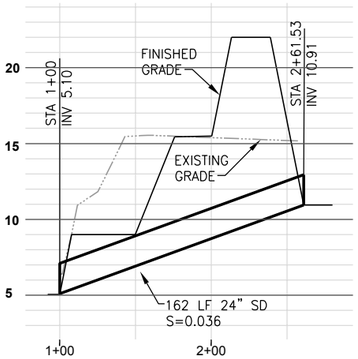
1"=50' HORIZ, 1"=5' VERT



PROFILE 18" IRRIGATION INTAKE

DETAIL 2 / C1,C3

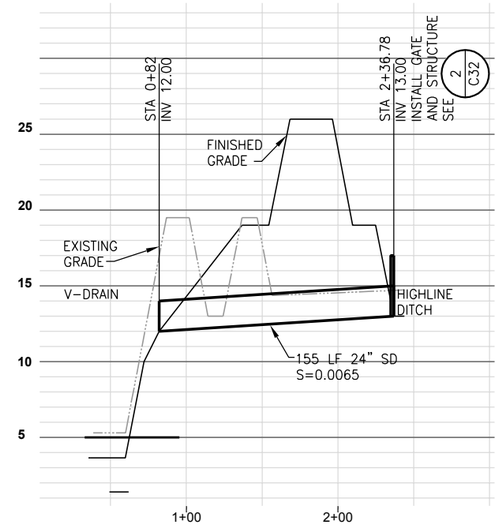
1"=50' HORIZ, 1"=5' VERT



PROFILE 24" FIELD DRAIN

DETAIL 5 / C5

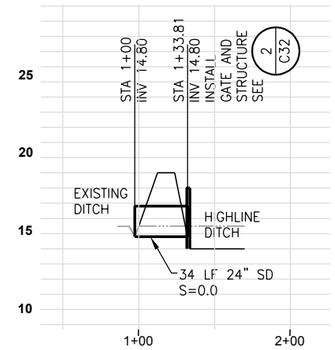
1"=50' HORIZ, 1"=5' VERT



PROFILE 24" HIGHLINE DITCH DRAIN

DETAIL 8 / C7

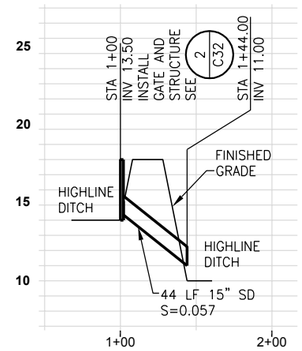
1"=50' HORIZ, 1"=5' VERT



PROFILE 24" HIGHLINE DITCH DRAIN

DETAIL 10 / C8

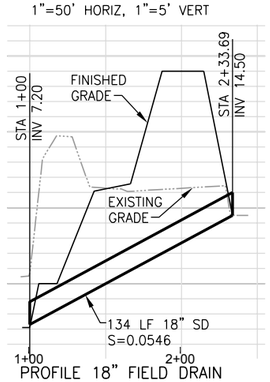
1"=50' HORIZ, 1"=5' VERT



PROFILE 15" HIGHLINE DITCH DRAIN

DETAIL 13 / C9

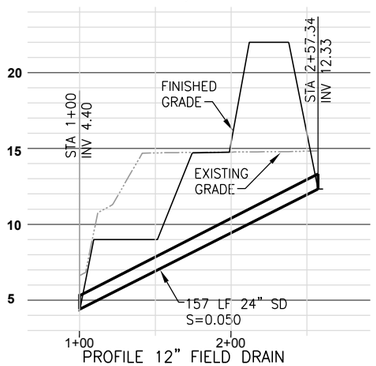
1"=50' HORIZ, 1"=5' VERT



PROFILE 18" FIELD DRAIN

DETAIL 3 / C2

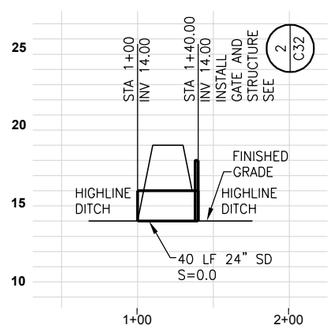
1"=50' HORIZ, 1"=5' VERT



PROFILE 12" FIELD DRAIN

DETAIL 6 / C6

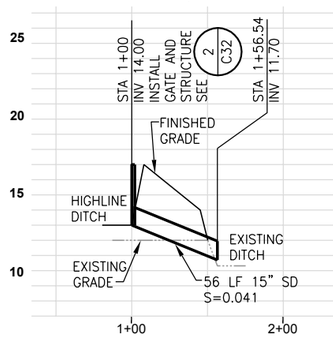
1"=50' HORIZ, 1"=5' VERT



PROFILE 24" HIGHLINE DITCH DRAIN

DETAIL 11 / C9

1"=50' HORIZ, 1"=5' VERT



PROFILE 15" HIGHLINE DITCH DRAIN

DETAIL 14 / C9

1"=50' HORIZ, 1"=5' VERT

REGISTERED PROFESSIONAL ENGINEER MARY LEWIS YOUNG No. 39713 Exp. 12-31-13 CIVIL STATE OF CALIFORNIA

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WEST YOST ASSOCIATES
Consulting Engineers
2020 Research Park Drive
Suite 100
Davis, California 95618
(530) 756-5905
FAX (530) 756-5991

DIXON WATERSHED
JOINT POWERS AUTHORITY
MAIN DRAIN AND V-DRAIN ENLARGEMENT

PIPE PROFILES

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER 298-01-07-02
DRAWING NUMBER **C30**
SHEET NUMBER 33 OF 41
REVISION

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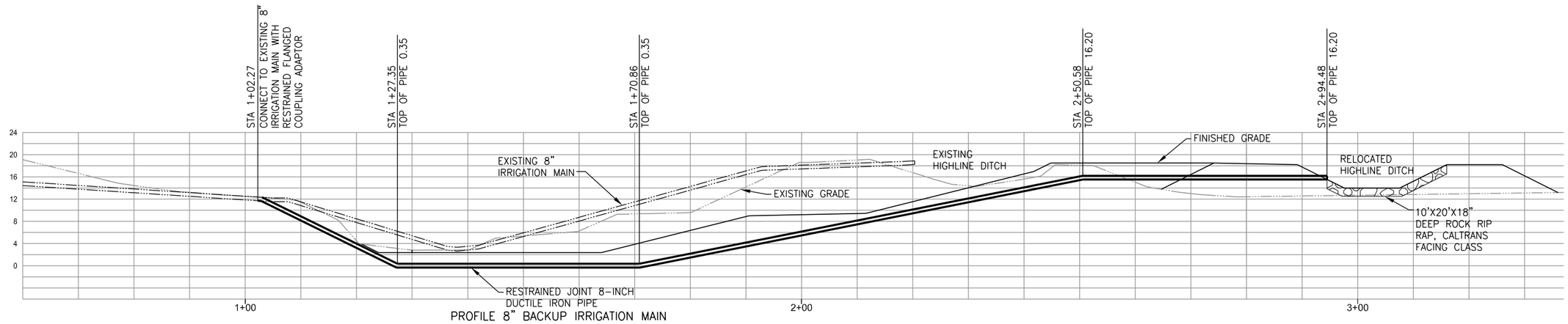


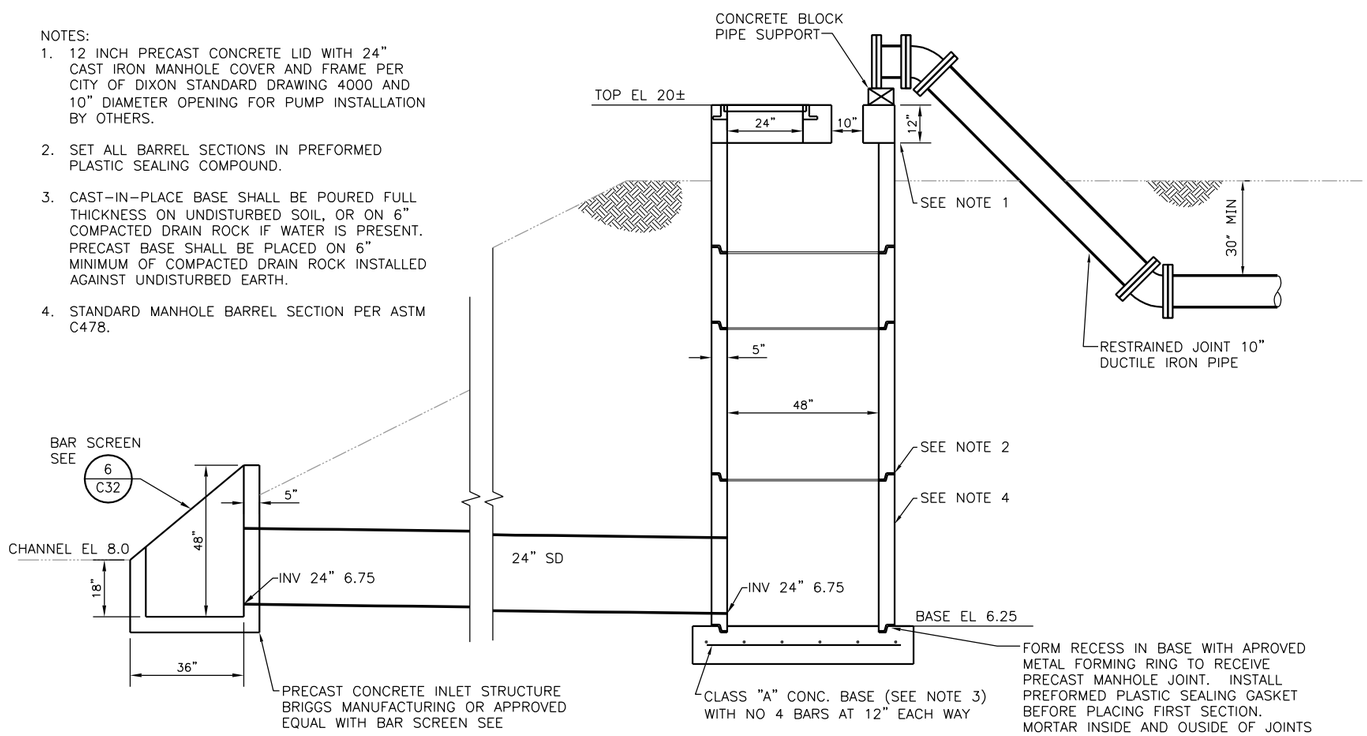
PROFILE 8" BACKUP IRRIGATION MAIN

DETAIL 1/C9

1"=10' HORIZ, 1"=10' VERT

NOTES:

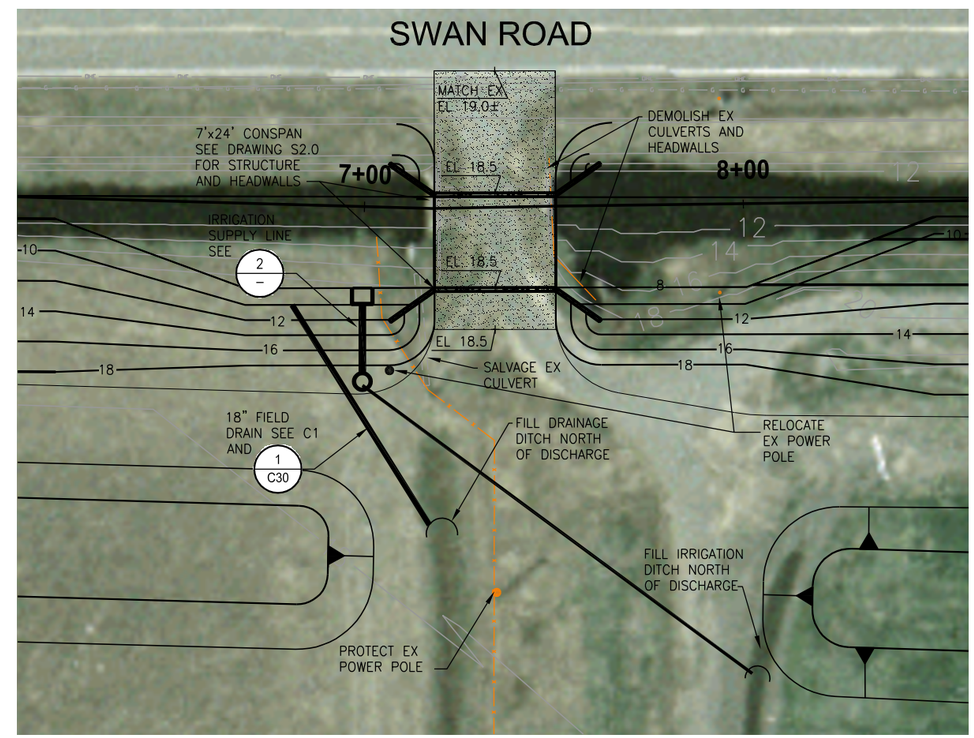
1. 12 INCH PRECAST CONCRETE LID WITH 24" CAST IRON MANHOLE COVER AND FRAME PER CITY OF DIXON STANDARD DRAWING 4000 AND 10" DIAMETER OPENING FOR PUMP INSTALLATION BY OTHERS.
2. SET ALL BARREL SECTIONS IN PREFORMED PLASTIC SEALING COMPOUND.
3. CAST-IN-PLACE BASE SHALL BE POURED FULL THICKNESS ON UNDISTURBED SOIL, OR ON 6" COMPACTED DRAIN ROCK IF WATER IS PRESENT. PRECAST BASE SHALL BE PLACED ON 6" MINIMUM OF COMPACTED DRAIN ROCK INSTALLED AGAINST UNDISTURBED EARTH.
4. STANDARD MANHOLE BARREL SECTION PER ASTM C478.



IRRIGATION INTAKE

DETAIL 2/VAR

1/2"=1'-0"



ROADWAY CROSSING AT DIXON MAIN DRAIN

DETAIL 3/C1

1"=20'

REGISTERED PROFESSIONAL ENGINEER MARY LEWIS YOUNG No. 39713 Exp. 12-31-13 CIVIL STATE OF CALIFORNIA

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Consulting Engineers
2020 Research Park Drive
Suite 100
Davis, California 95618
(530) 756-5905
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DIXON WATERSHED
JOINT POWERS AUTHORITY
MAIN DRAIN AND V-DRAIN ENLARGEMENT

DETAILS

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER 298-01-07-02
DRAWING NUMBER **C31**
SHEET NUMBER 34 OF 41
REVISION

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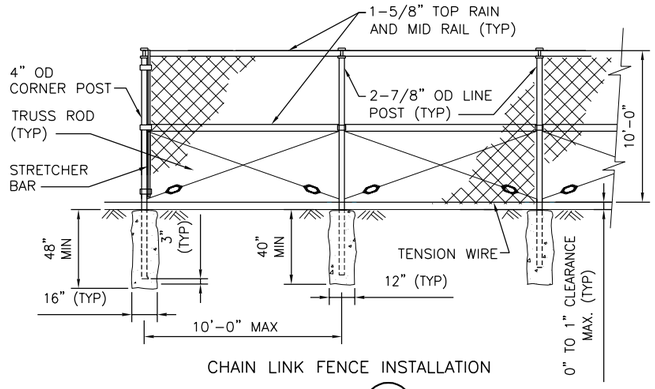
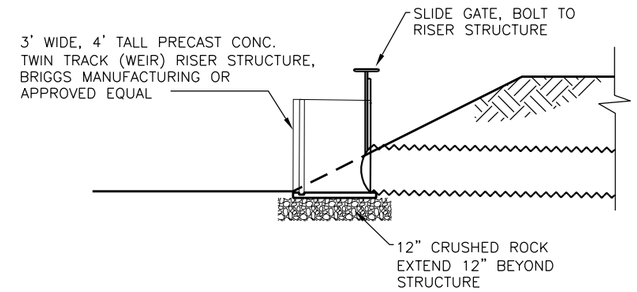


CHAIN LINK FENCE INSTALLATION

DETAIL 1/C12

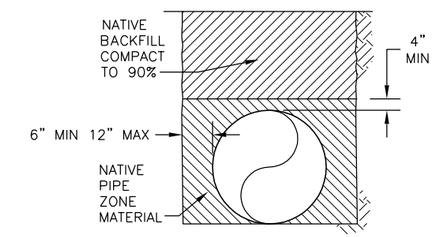
NOT TO SCALE



SLIDE GATE AND STRUCTURE

DETAIL 2/C30

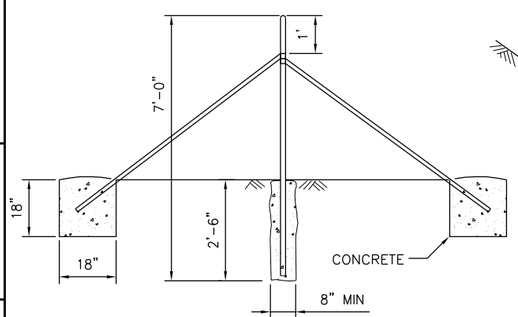
NOT TO SCALE



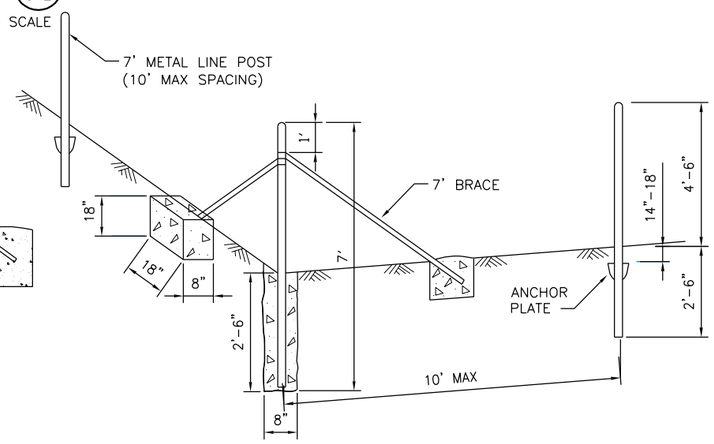
PIPE TRENCH

DETAIL 3/VAR

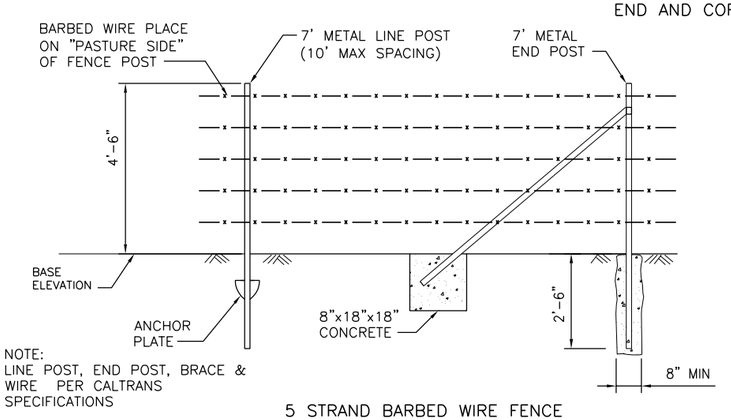
NOT TO SCALE



BARBED WIRE FENCE PULL POST ASSEMBLY



BARBED WIRE FENCE END AND CORNER POST ASSEMBLY

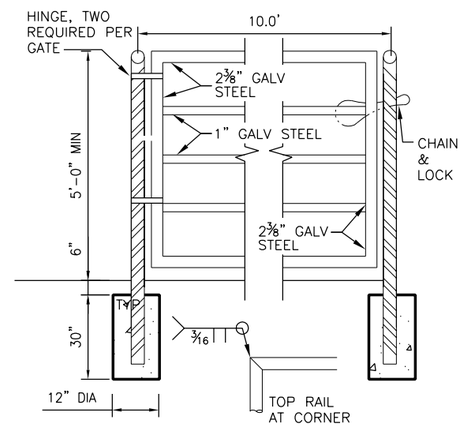


NOTE:
LINE POST, END POST, BRACE & WIRE PER CALTRANS SPECIFICATIONS

5 STRAND BARBED WIRE FENCE

DETAIL 4/VAR

NOT TO SCALE

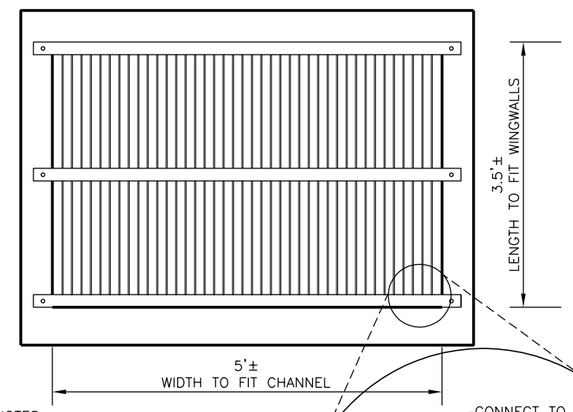


NOTES:
1. GATE POSTS: 6" X8'-0" SCHEDULE 40 GALVANIZED POSTS. SET IN CONCRETE, 30" MINIMUM DEPTH.
2. TOPRAIL: RUN 2⅜" SCHEDULE 40 GALVANIZED TOP RAIL
3. CROSS-BRACES: 1" SCHEDULE 40 GALVANIZED.

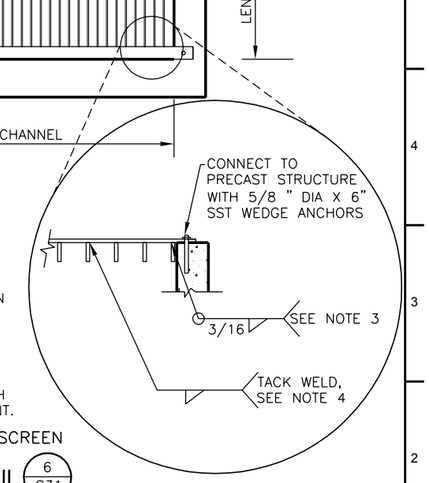
GATE

DETAIL 5/VAR

NOT TO SCALE



NOTES:
1. BAR SCREEN SHALL BE CONSTRUCTED OF 1"x3/16" ALUMINUM BAR
2. CROSS BRACES SHALL BE 2"x3/16" ALUMINUM BAR
3. WELD 1 VERTICAL BAR AS SHOWN EVERY 6" TOP AND BOTTOM
4. TACK WELD REMAINING VERTICAL BARS TO CROSS BRACES
5. COAT ALUMINUM IN CONTACT WITH CONCRETE WITH BITUMINOUS PAINT.



BAR SCREEN

DETAIL 6/C31

NOT TO SCALE

REGISTERED PROFESSIONAL ENGINEER MARK LEWIS YOUNG No. 39713 Exp. 12-31-13 CIVIL STATE OF CALIFORNIA

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WEST YOST ASSOCIATES Consulting Engineers
2020 Research Park Drive
Suite 100
Davis, California 95618
(530) 756-5905
FAX (530) 756-5991

DIXON WATERSHED JOINT POWERS AUTHORITY MAIN DRAIN AND V-DRAIN ENLARGEMENT

DETAILS

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER 298-01-07-02
DRAWING NUMBER C32
SHEET NUMBER 35 OF 41
REVISION

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GENERAL NOTES:

1. TYPICAL DETAILS AND NOTES SHALL APPLY UNLESS OTHERWISE SHOWN OR NOTED ON PLANS.
2. DETAILS OF CONSTRUCTION NOT FULLY SHOWN SHALL BE OF THE SAME NATURE AS SHOWN FOR SIMILAR CONDITION.
3. CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE CODES AND REGULATIONS.
4. PRIOR TO FABRICATION, SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW BY THE ENGINEER ON ALL REINFORCING STEEL. SHOP DRAWINGS:
   CONTRACTOR AGREES THAT SHOP DRAWING SUBMITTALS PROCESSED BY THE ENGINEER ARE NOT CHANGE ORDERS AND THAT THE PURPOSE OF SHOP DRAWING SUBMITTALS BY THE CONTRACTOR IS TO DEMONSTRATE TO THE ENGINEER THAT THE CONTRACTOR UNDERSTANDS THE DESIGN CONCEPT BY INDICATING WHICH MATERIAL HE INTENDS TO FURNISH AND INSTALL AND BY DETAILING THE FABRICATION AND INSTALLATION METHODS HE INTENDS TO USE.
5. SAFETY NOTE:
   IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PERTINENT SECTIONS OF THE A) "CONSTRUCTION SAFETY ORDERS" ISSUED BY THE STATE OF CALIFORNIA, LATEST EDITION, AND ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJECT. THE ENGINEER AND THE OWNER DO NOT ACCEPT ANY RESPONSIBILITY FOR THE CONTRACTOR'S B) FAILURE TO COMPLY WITH THESE REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATE DESIGN AND CONSTRUCTION OF ALL C) FORMS AND SHORING REQUIRED.
6. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC. ON THE JOB.
7. CONTRACTOR SHALL NOTIFY THE ENGINEER WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DRAWINGS OR DOCUMENTS. CONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF STRUCTURES THAT IS IN CONFLICT UNTIL CONFLICT IS RESOLVED WITH THE AFFECTED PARTIES.

CONCRETE AND REINFORCING STEEL:

1. CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 318-05.
2. THE MINIMUM 28 DAY STRENGTH AND TYPE OF CONCRETE SHALL BE AS FOLLOWS:
   CONCRETE . . . . . .150 PCF, F'c = 2500 PSI (MINIMUM SIX SACKS CEMENT PER CU. YD.)
3. CEMENT SHALL CONFORM TO ASTM C-150 TYPE II.
4. CONCRETE AGGREGATES: NATURAL SAND AND ROCK AGGREGATES CONFORMING TO ASTM C-33.
5. REINFORCING SHALL CONFORM TO ASTM A615 GRADE 60, EXCEPT #3 & #4 STIRRUPS AND TIES MAY BE GRADE 40.
6. WELDING OF REINFORCING STEEL SHALL CONFORM TO AWS D1.4 USING PROPER LOW HYDROGEN ELECTRODES. TACK WELDING TO REBAR IS STRICTLY PROHIBITED. SEE "REBAR WELDING".
7. REINFORCING STEEL SHALL BE DETAILED, FABRICATED, AND INSTALLED ACCORDING TO "MANUAL OF STANDARD PRACTICE FOR REINFORCED CONCRETE CONSTRUCTION" BY WCRSI.
8. WIRE FABRIC SHALL CONFORM TO ASTM A-185.
9. DIMENSIONS SHOWN FOR LOCATION OF REINFORCING ARE TO THE FACE OF MAIN BARS AND DENOTE CLEAR COVERAGE. UNLESS OTHERWISE NOTED, CONCRETE COVERAGE SHALL BE AS FOLLOWS:

CONCRETE DEPOSITED DIRECTLY AGAINST GROUND (EXCEPT SLABS)	3"
FORMED CONCRETE EXPOSED TO WEATHER OR GROUND OR LIQUID	
#6 AND LARGER	2"
#5 AND SMALLER	2"
BEAMS (TOP BARS)	1½"
BEAMS (ALL OTHER MAIN REINFORCING)	2"
COLUMN MAIN REINFORCING	2"
WALLS AND SLABS (INTERIOR DRY FACES)	¾"
SLABS ON GROUND WITH ONE LAYER OF REINFORCEMENT	POSITION IN CENTER OF SLAB

10. A) ALL BARS SHOWN WITH LAPS OR SPLICES SHALL HAVE MIN LAP LENGTH UNLESS OTHERWISE NOTED.
    B) DOWEL ALL VERTICAL REBARS IN WALLS AND COLUMNS FROM FOUNDATION WITH SAME SIZE BAR.
    C) SPLICES IN ADJACENT BARS SHALL BE NOT LESS THAN 5'-0" APART.
    D) SPLICE CONTINUOUS BARS IN SOIL-BEARING GRADE BEAMS AS FOLLOWS: BOTTOM BARS AT MID-SPAN, TOP BARS AT CENTERLINE OF SUPPORT, UNLESS NOTED OTHERWISE.
    E) SPLICE CONTINUOUS BARS IN BEAMS, SPANDRELS, WALL BEAMS ETC. AS FOLLOWS: BOTTOM BARS AT CENTERLINE OF SUPPORT, TOP BARS AT MIDSPAN, UNLESS NOTED OTHERWISE.
    F) REINFORCING BARS SHALL BE RUN IN A MANNER THAT FORMS A CONTINUOUS SYSTEM OF BARS TYING ALL PARTS OF THE STRUCTURE TOGETHER. EXTEND ALL REINFORCING BARS AS FAR AS POSSIBLE IN EACH CONCRETE MEMBER AND TERMINATE BAR TO PROVIDE 2" OF CONCRETE COVER OVER END OF BAR OR FACE OR BEND.
    G) BEAM STIRRUPS AND COLUMN TIES SHALL HOOK 135 DEGREES AROUND A CORNER BAR UNLESS NOTED OTHERWISE.
11. GENERAL:
    B) NO PIPES OR DUCTS SHALL BE PLACED IN CONCRETE SLABS, BEAMS, WALLS OR GRADE BEAMS UNLESS SPECIFICALLY DETAILED.
    C) REFER TO ARCHITECTURAL, STRUCTURAL, ELECTRICAL AND MECHANICAL DRAWINGS FOR ALL OPENINGS, FLANGES, MOULDS, GROOVES, CLIPS AND GROUNDS TO BE CAST IN CONCRETE.
12. CONSTRUCTION JOINTS SHALL BE MADE ROUGH AND ALL LAITANCE REMOVED FROM THE SURFACE. CONCRETE MAY BE ROUGHENED BY CHIPPING THE ENTIRE SURFACE, SANDBLASTING, OR HOSING THE SURFACE 4 TO 6 HOURS AFTER THE POUR WITH A FINE SPRAY.
13. REMOVE ALL DEBRIS FROM THE FORMS BEFORE PLACING ANY CONCRETE.
14. REINFORCING, DOWELS, BOLTS, ANCHORS, SLEEVES, ETC. TO BE EMBEDDED IN CONCRETE SHALL BE SECURELY POSITIONED BEFORE PLACING CONCRETE. OBTAIN APPROVAL OF ALL AFFECTED TRADES PRIOR TO PLACING CONCRETE.
15. MAXIMUM FREE FALL OF CONCRETE SHALL BE 4'-0".
16. WALLS SHALL BE PLACED IN HORIZONTAL LAYERS OF 2'-0" MAX DEPTH.
17. CONCRETE IN WALLS, PIERS, OR COLUMNS SHALL SET AT LEAST 2 HOURS BEFORE PLACING CONCRETE IN BEAMS, SPANDRELS, OR SLABS SUPPORTED THEREON.
18. REINFORCE ALL SLABS ON GRADE AS SHOWN ON DRAWINGS.
19. HORIZONTAL WALL BARS IN DOUBLE LAYER WALLS SHALL BE STAGGERED. USE #2 SPREADERS APPROXIMATELY EVERY THIRD INTERSECTION EACH DIRECTION FOR ALL DOUBLE LAYER WALLS. PLACE SPREADERS IN VERTICAL LINES WITH FORM TIES.
20. NO WOOD SPREADERS ARE ALLOWED. NO WOOD STAKES ARE ALLOWED IN AREAS TO BE CONCRETED.
21. MINIMUM WALL REINFORCING SHALL BE:

WALL THICKNESS	SINGLE LAYER	DOUBLE LAYER
7" OR LESS	#4 @ 12" OC EW	
8"	#4 @ 10" OC EW	
9" AND 10"		#4 @ 16" OC EW
11" AND 12"		#4 @ 12" OC EW

22. CONCRETE MIX DESIGN SHALL BE SUBMITTED FOR ENGINEER'S REVIEW PRIOR TO PLACING CONCRETE.
23. NOTIFY THE ENGINEER 48 HOURS PRIOR TO PLACING CONCRETE.
24. REINFORCEMENT LAP SPLICE LENGTHS ARE:

	TOP BARS	OTHER BARS
#6 OR SMALLER	53db	40db
#7 OR LARGER	66db	51db

TOP REINFORCING IS HORIZONTAL REINFORCEMENT THAT HAS MORE THAN 12" OF CONCRETE PLACED BELOW IT.

25. MAXIMUM SPACING OF WALL CONST. JOINTS IS 30 FT.

STRUCTURAL STEEL:

1. FABRICATION, ERECTION AND MATERIALS SHALL CONFORM WITH THE AISC SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS AND UBC, 1997 EDITION.
2. STRUCTURAL STEEL SHALL CONFORM TO ASTM GR 36.
3. PIPE COLUMNS SHALL CONFORM TO ASTM A53, TYPE E OR S, GRADE B.
4. TUBE COLUMNS SHALL CONFORM TO ASTM A500, GRADE B.
5. WELDING SHALL BE DONE BY THE ELECTRIC ARC PROCESS IN ACCORDANCE WITH "AWS" STANDARDS, USING ONLY CERTIFIED WELDERS. ALL BUTT WELDS SHALL HAVE COMPLETE PENETRATION. ALL EXPOSED BUTT WELDS SHALL BE GROUND.
6. PLACE NON-SHRINK GROUT UNDER ALL BEARINGS ON CONCRETE OR MASONRY 6. BEFORE ADDING VERTICAL LOAD.
7. ALL STRUCTURAL STEEL SHALL BE ERECTED PLUMB AND TRUE TO LINE. TEMPORARY BRACING SHALL BE INSTALLED AND SHALL BE LEFT IN PLACE UNTIL OTHER MEANS ARE PROVIDED TO ADEQUATELY BRACE THE STRUCTURE.
8. HOLES FOR BOLTS SHALL BE OF THE SAME NOMINAL DIAMETER AS THE BOLT PLUS 1/16".
9. USE STANDARD AISC GAGE AND PITCH FOR BOLTS EXCEPT AS NOTED OTHERWISE.
10. WRAP STRUCTURAL STEEL EMBEDDED IN CONCRETE WITH 6x6-W1.4xW1.4 WWF. DO NOT PAINT EMBEDDED AREAS.
11. HIGH STRENGTH BOLTS SHALL BE 3/4" DIAMETER ASTM A-325X UNO. USE TC BOLTS OR LOAD INDICATING WASHERS UNDER NUT.

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WEST YOST ASSOCIATES
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Suite 100
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DIXON WATERSHED
JOINT POWERS AUTHORITY
MAIN DRAIN AND V-DRAIN ENLARGEMENT

STRUCTURAL NOTES

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER 298-01-07-02
DRAWING NUMBER **S1.0**
SHEET NUMBER 36 OF 41
REVISION

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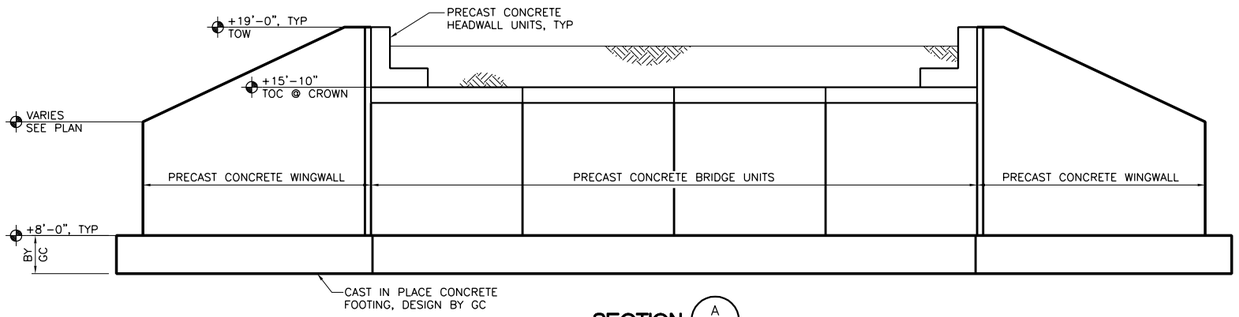
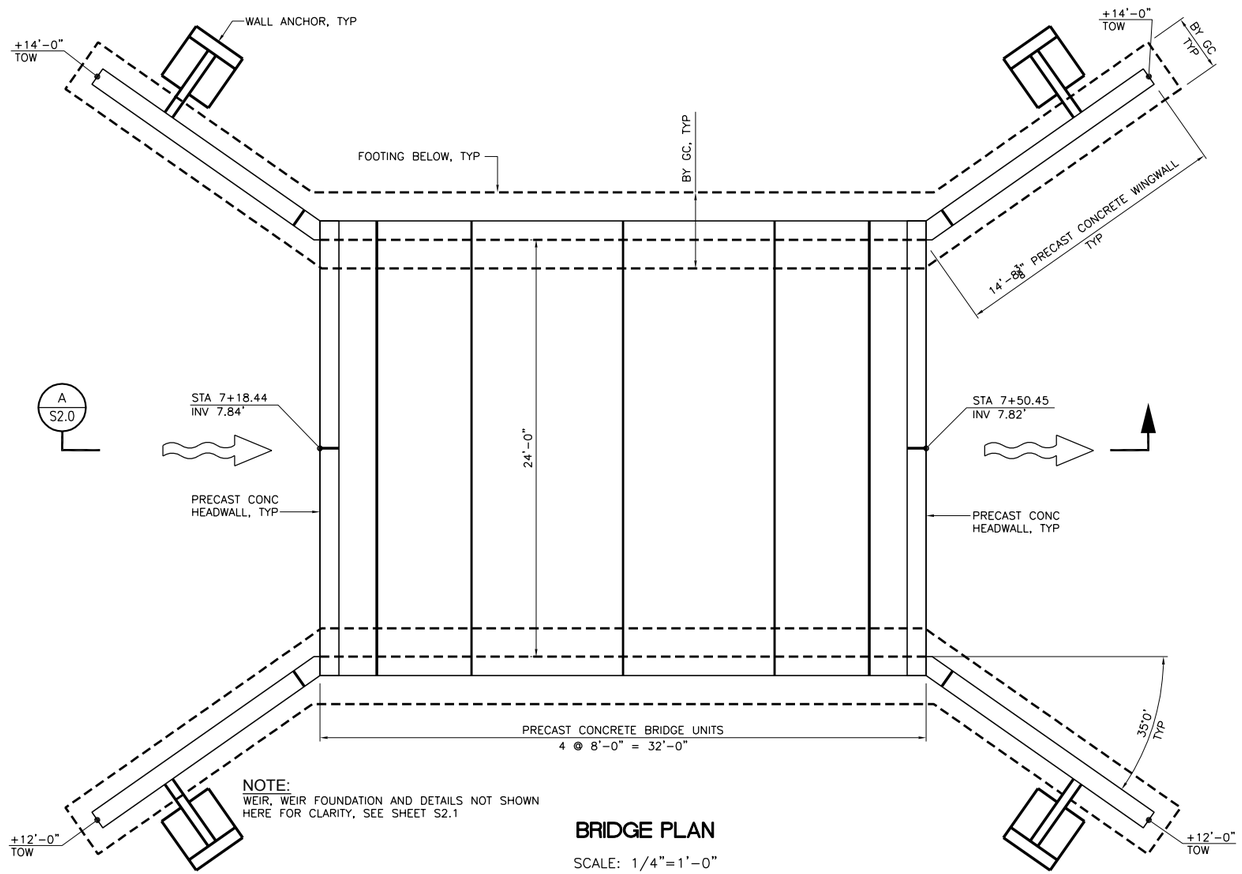


SECTION A / S2.0

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

NOTES:

1. PROVIDE PRE-ENGINEERED, PRECAST CONCRETE BRIDGE AND FOUNDATION AS SHOWN. SPAN=24.0' RISE=7.0'
2. DESIGN FOR HS-20 LOADS.
3. SUBMIT SHOP DRAWINGS AND CALCULATIONS FOR REVIEW PRIOR TO FABRICATION.



NOTE:
WEIR, WEIR FOUNDATION AND DETAILS NOT SHOWN HERE FOR CLARITY, SEE SHEET S2.1

BRIDGE PLAN

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

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BRIDGE LAYOUT AND SECTIONS

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER 298-01-07-02
DRAWING NUMBER **S2.0**
SHEET NUMBER 37 OF 41
REVISION

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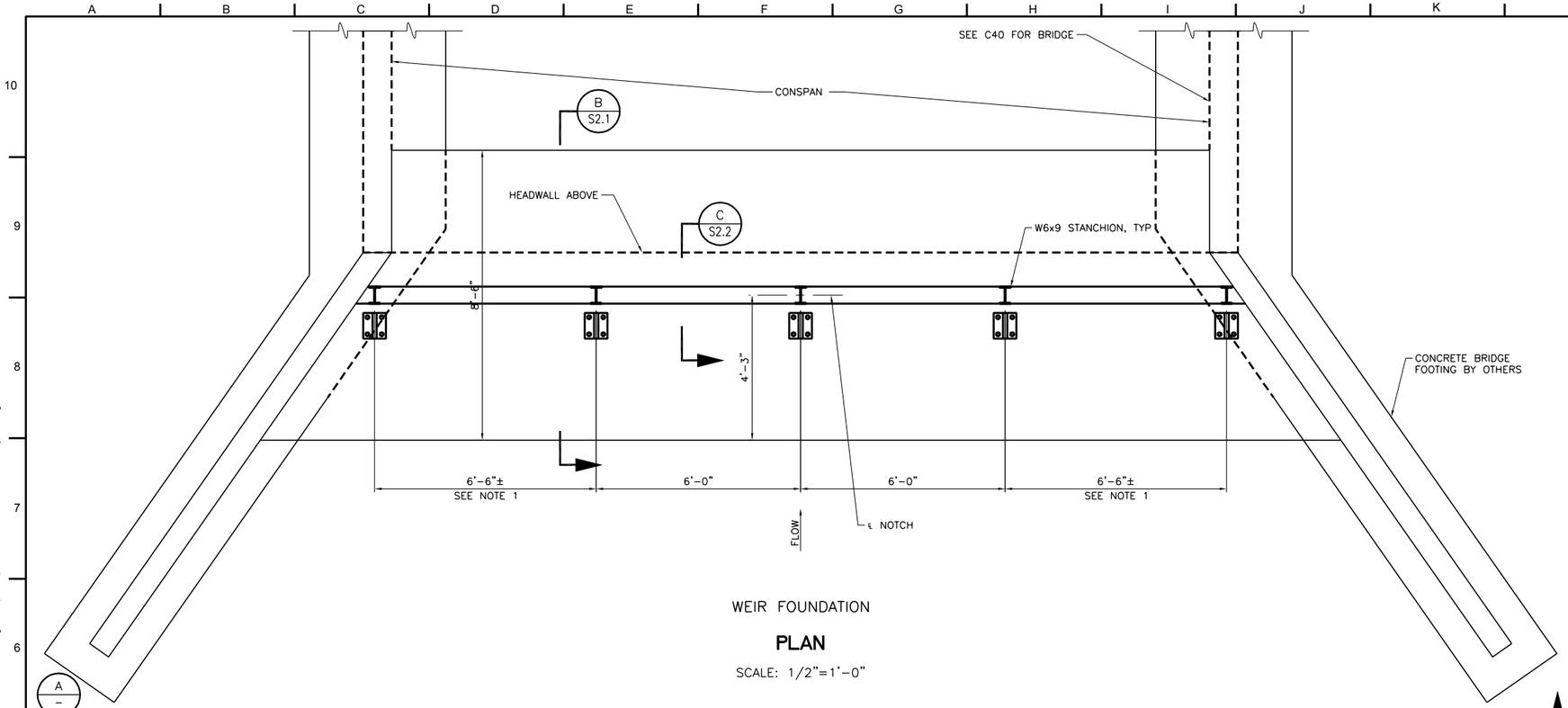
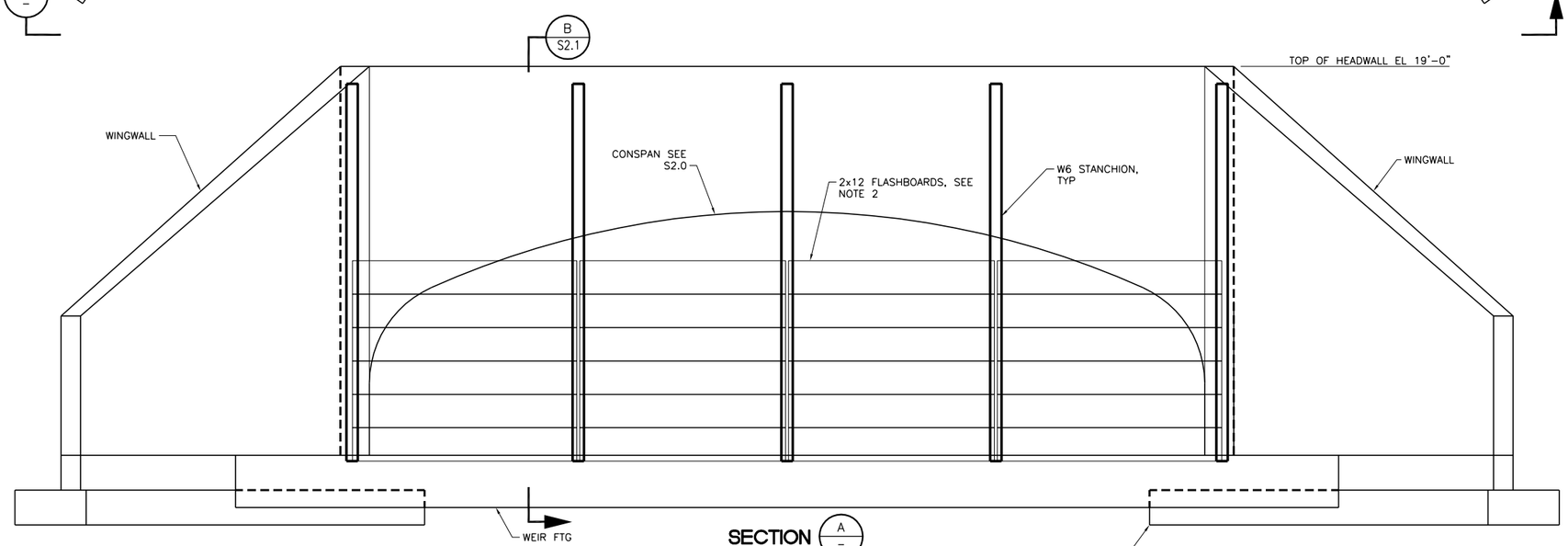


WEIR FOUNDATION

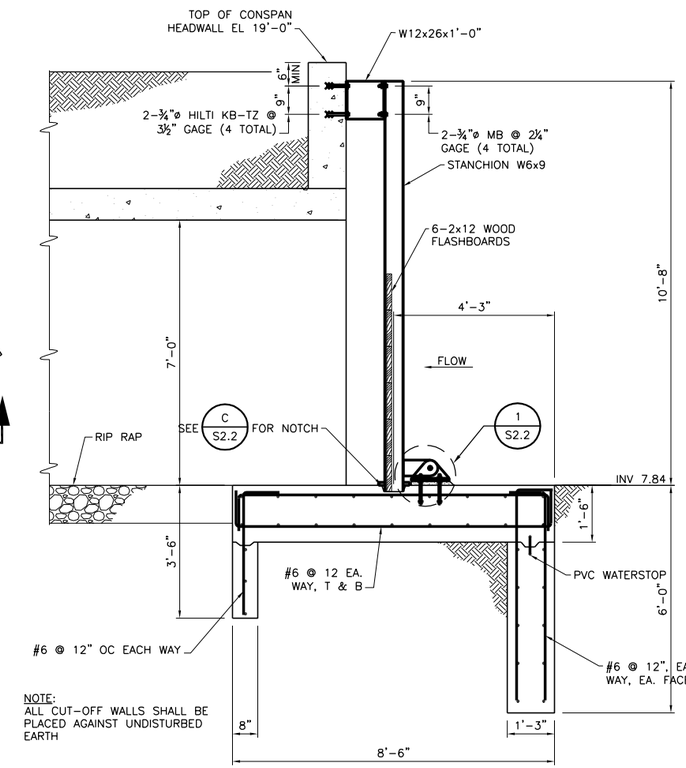
PLAN

SCALE: 1/2"=1'-0"



SECTION A –

SCALE: 1/2"=1'-0"



NOTE:
ALL CUT-OFF WALLS SHALL BE PLACED AGAINST UNDISTURBED EARTH

SECTION B –

SCALE: 1/2"=1'-0"

NOTES:

1. FIELD VERIFY DIMENSION.
2. FLASHBOARDS FOR CENTER SPANS SHALL BE 5'-11" LONG. LENGTH OF FLASHBOARDS FOR OUTSIDE SPANS SHALL BE FIELD VERIFIED.

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MAIN DRAIN AND V-DRAIN ENLARGEMENT

DIXON MAIN DRAIN WEIR AT CONSPAN
DETAIL 1

PRELIMINARY, NOT FOR CONSTRUCTION

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REVISION

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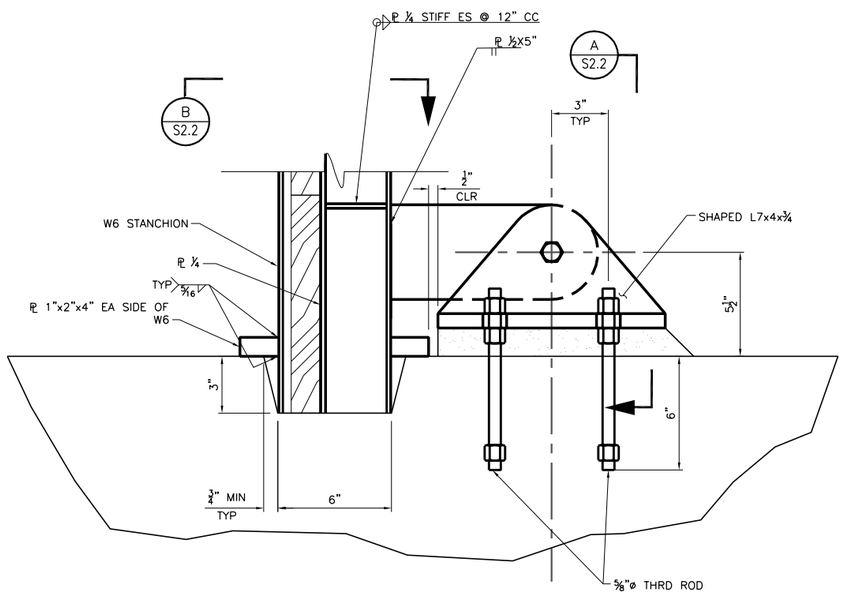
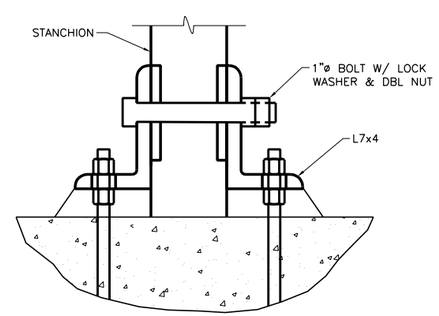


STANCHION HINGE ASSEMBLY

DETAIL 1 / S2.1

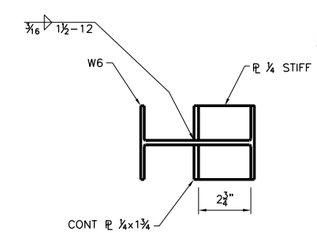
SCALE: 3"=1'-0"



STANCHION HINGE SECTION

SECTION A / S2.2

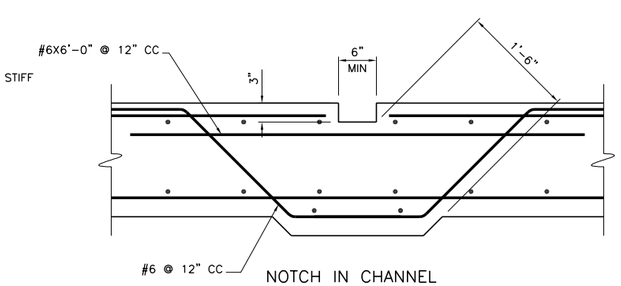
3"=1'-0"



STANCHION

SECTION B / S2.2

3"=1'-0"



NOTCH IN CHANNEL

SECTION C / S2.1

SCALE: 1"=1'-0"

SUBMITTED: _____ DATE: _____

APPROVED: _____ DATE: _____

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY

SCALE : AS SHOWN
DESIGNED BY : BAF
CHECKED BY : BAF
PROJ. MGR. :

No.	ZONE	REVISIONS	BY	DATE

WEST YOST ASSOCIATES
Consulting Engineers
2020 Research Park Drive
Suite 100
Davis, California 95618
(530) 756-5905
FAX (530) 756-5991

DIXON WATERSHED
JOINT POWERS AUTHORITY
MAIN DRAIN AND V-DRAIN ENLARGEMENT

DIXON MAIN DRAIN WEIR AT CONSPAN
DETAIL 2

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER 298-01-07-02
DRAWING NUMBER **S2.2**
SHEET NUMBER 39 OF 41
REVISION

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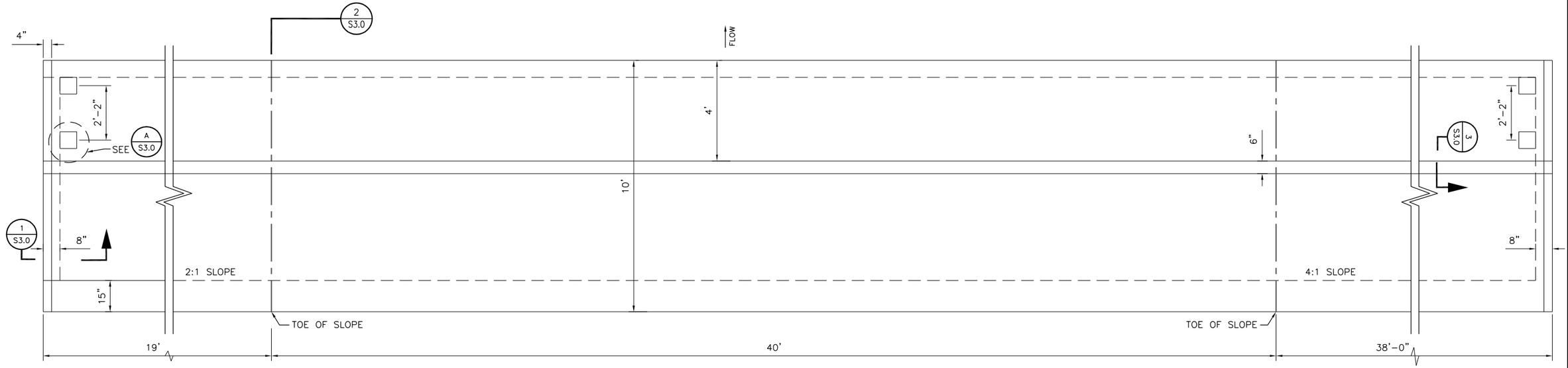
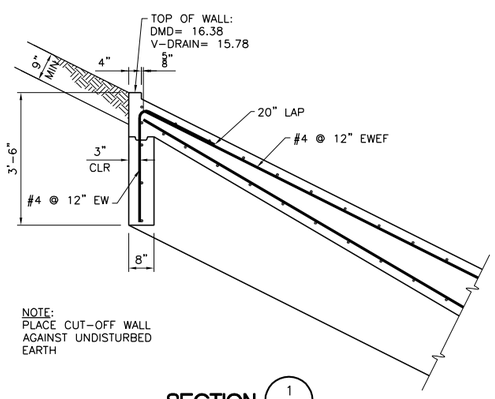


V DRAIN ABUTMENT

PLAN

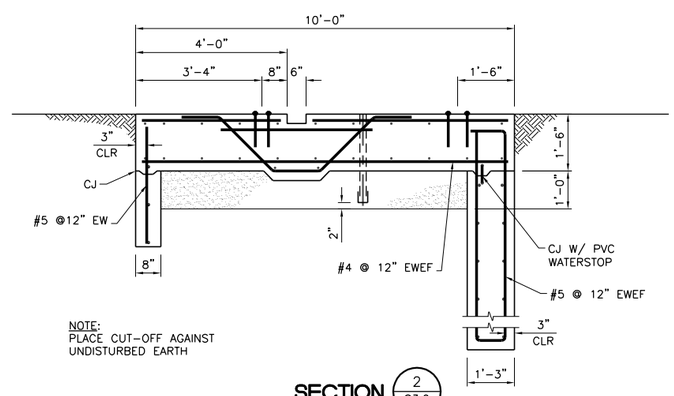
SCALE: 1/2"=1'-0"



NOTE:
PLACE CUT-OFF WALL AGAINST UNDISTURBED EARTH

SECTION 1 / S3.0

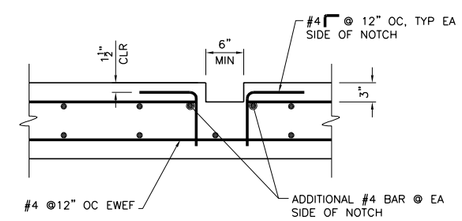
SCALE: 1/2"=1'-0"



NOTE:
PLACE CUT-OFF AGAINST UNDISTURBED EARTH

SECTION 2 / S3.0

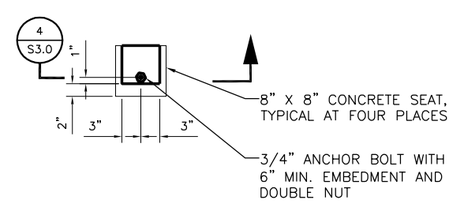
SCALE: 1/2"=1'-0"



NOTCH

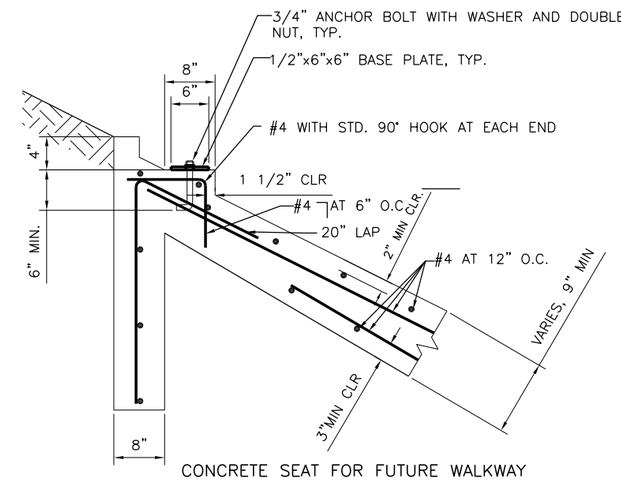
SECTION 3 / S3.0

SCALE: 1"=1'-0"



CONCRETE SEAT FOR FUTURE WALKWAY

DETAIL A / S3.0



CONCRETE SEAT FOR FUTURE WALKWAY

SECTION 4 / S3.0

SCALE: 1"=1'-0"

NOTE:

WALKWAY STANCHION, HINGE, STRUT, AND FLASHBOARDS TO BE CONSTRUCTED BY OTHERS IN THE FUTURE. ABUTMENT IS DESIGNED TO RETAIN A MAXIMUM OF 5.0' FEET OF WATER. FUTURE FLASHBOARDS SHOULD NOT EXCEED THIS HEIGHT.

SUBMITTED: _____ DATE: _____

APPROVED: _____ DATE: _____

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PROJ. MGR. : _____

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WEST YOST ASSOCIATES
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2020 Research Park Drive
Suite 100
Davis, California 95618
(530) 756-5905
FAX (530) 756-5991

DIXON WATERSHED
JOINT POWERS AUTHORITY
MAIN DRAIN AND V-DRAIN ENLARGEMENT

V-DRAIN WEIR ABUTMENT
DETAIL 1

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER 298-01-07-02
DRAWING NUMBER **S3.0**
SHEET NUMBER 40 OF 41
REVISION

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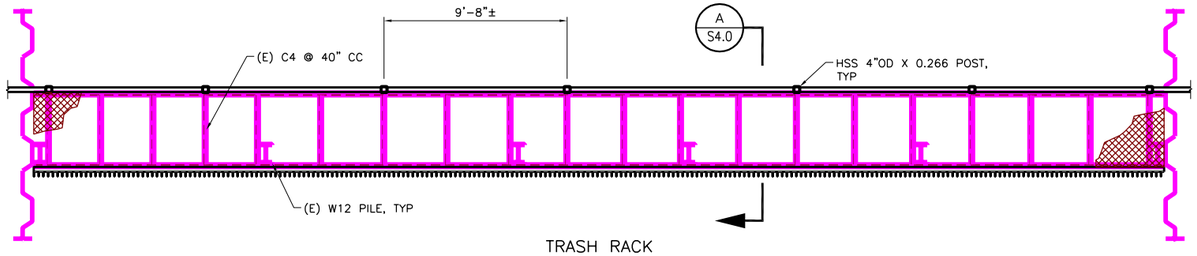
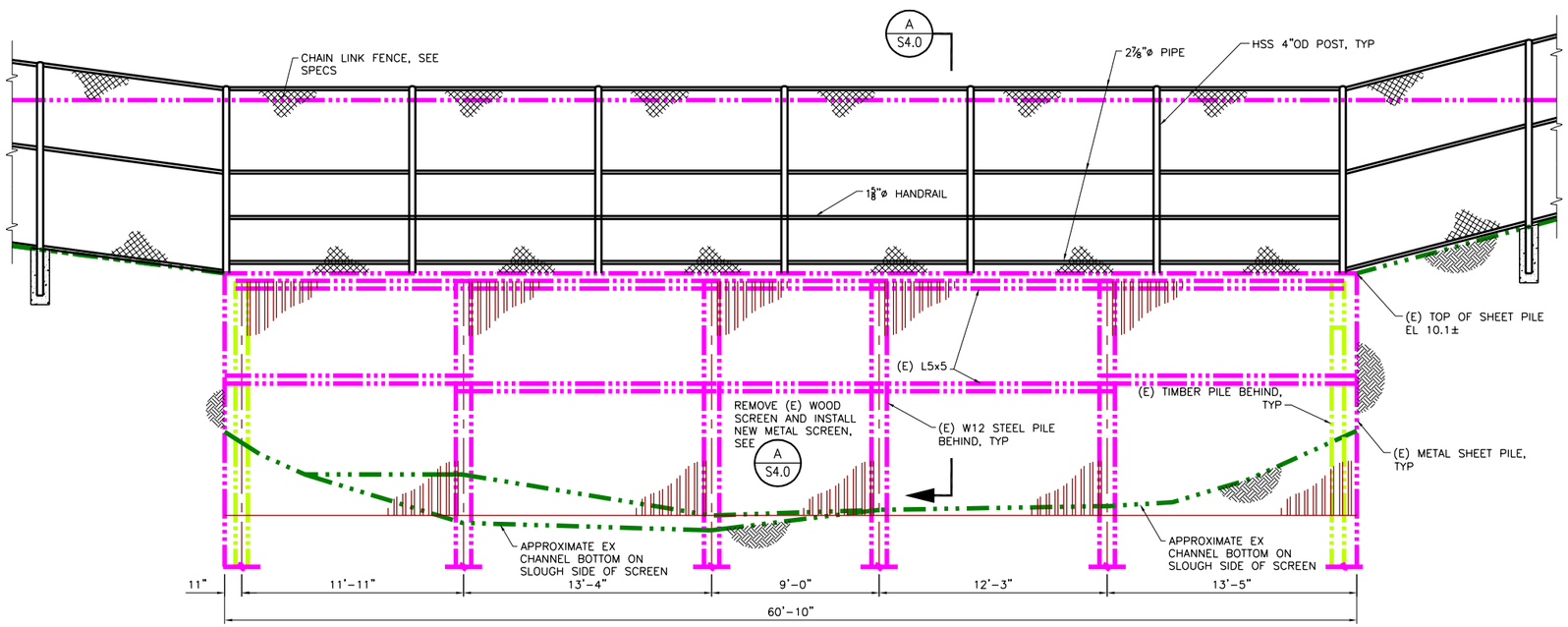


TRASH RACK

PLAN

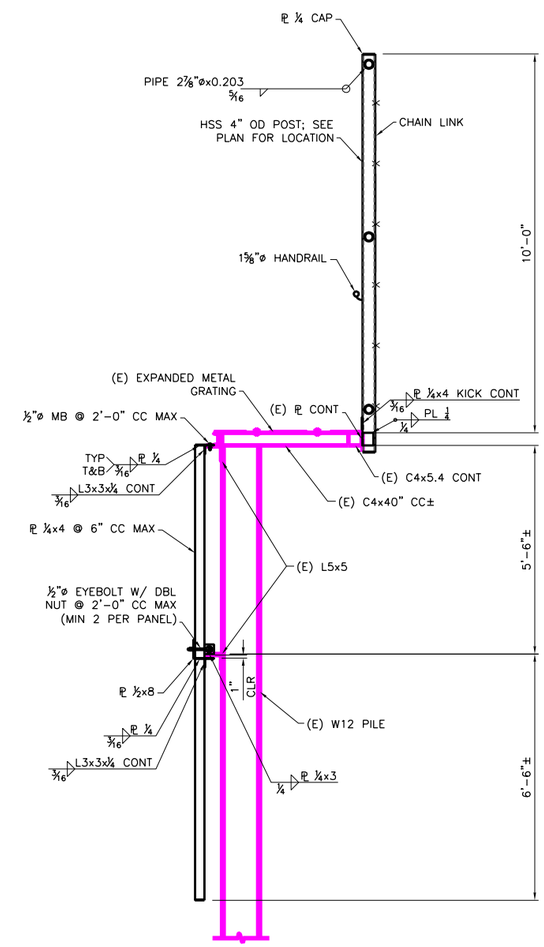
SCALE: 1/4"=1'-0"



TRASH RACK

ELEVATION

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



SECTION A S4.0

SCALE: 1/2"=1'-0"

SUBMITTED: _____ DATE: _____

APPROVED: _____ DATE: _____

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY

SCALE : AS SHOWN
DESIGNED BY : BAF
CHECKED BY : BAF
PROJ. MGR. : _____

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Consulting Engineers
2020 Research Park Drive
Suite 100
Davis, California 95618
(530) 756-5905
FAX (530) 756-5991

DIXON WATERSHED
JOINT POWERS AUTHORITY
MAIN DRAIN AND V-DRAIN ENLARGEMENT

TRASH RACK MODIFICATIONS
DETAIL 1

PRELIMINARY, NOT FOR CONSTRUCTION

JOB NUMBER 298-01-07-02
DRAWING NUMBER **S4.0**
SHEET NUMBER 41 OF 41
REVISION

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