RECLAMATION DISTRICT NO. 900
SOUTH AREA DRAINAGE BASIN

PROJECT PLANS FOR CONSTRUCTION ON

BLACKER DRAINAGE CANAL
SLOPE REHABILITATION PROJECT

YOLO COUNTY, CALIFORNIA

ISSUED FOR BID

OWNER:

RECLAMATION DISTRICT NO. 900
889 DREVER STREET
WEST SACRAMENTO, CALIFORNIA 95691
PHONE: (916) 371-1483

PROJECT CONSULTANTS:

1. CIVIL ENGINEER:
MHM INCORPORATED (ATTN SEAN MINARD)
1204 E STREET, P.O. BOX B
MARYSVILLE, CALIFORNIA 95901
PHONE: (530) 742-6485
FAX: (530) 742-5639

2. LAND SURVEYORS:
MHM INCORPORATED (ATTN JOHN MALLEN)
1204 E STREET, P.O. BOX B
MARYSVILLE, CALIFORNIA 95901
PHONE: (530) 742-6485
FAX: (530) 742-5639

4. ENVIRONMENTAL:
ECORP (ATTN PETER BALFOUR)
2525 WARREN DRIVE
ROCKLIN, CALIFORNIA 95677
PHONE: (916) 782-9100
FAX: (916) 782-5323

CALL BEFORE YOU DIG
48 HOURS
CALL "USA" TOLL FREE
1-800-227-2600

UNDERGROUND SERVICE ALERT
THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES TWO (2) WORKING DAYS PRIOR TO GRADING OR DIGGING

UTILITY REPRESENTATIVES

UTILITY	AGENCY	CONTACT	PHONE NUMBER
FIRE PROTECTION	CITY OF WEST SAC. FIRE DEPT.	STEVE BINNS	(916) 617-4600
GAS	PACIFIC GAS & ELECTRIC	DWAYNE LEMMOND	(916) 386-5068
ELECTRICITY	PACIFIC GAS & ELECTRIC	BRIAN SWEENEY	(916) 386-5117
WATER	CITY OF WEST SACRAMENTO	WILLIAM ROBERTS	(916) 617-4850
SEWER	CITY OF WEST SACRAMENTO	WILLIAM ROBERTS	(916) 617-4850
STORM DRAINAGE	RD 900	BLAKE JOHNSON	(916) 204-6869
	UNDERGROUND SERVICE ALERT		(800) 227-2600

HORIZONTAL CONTROL INFORMATION

THE BEARINGS SHOWN HEREON ARE BASED UPON CALIFORNIA COORDINATES ZONE 2, NAD 83 DATUM (EPOCH 2011) AND ORIGINATE FROM NGS SURVEY CONTROL POINTS AC9220 "HPGN D CA 03 CH" (N 1970975.88, E 6681965.29) A CALTRANS BM DISC LOCATED WITHIN THE LANDSCAPE AREA BOUNDED BY EAST BOUND INTERSTATE 80 AND THE ON/OFF RAMPS TO ENTERPRISE BLVD AND CONTROL POINT DH6510 "PALA" (N 1966300.53, E 6693555.88) A CALTRANS BM DISK LOCATED IN THE CONCRETE SIDEWALK ON THE EAST SIDE OF LAKE WASHINGTON BLVD AT THE SOUTHERN END OF THE PALAMIDESSI BRIDGE OVER THE YOLO BARGE CANAL.

VERTICAL CONTROL INFORMATION

ELEVATIONS ORIGINATE FROM NGS SURVEY CONTROL POINT DH6510 "PALA" (N 1966300.53, E 6693555.88) A CALTRANS BM DISK, WITH AN NGS PUBLISH NAVD(1988) ELEVATION OF 42.5.

APPROVED BY:

RECLAMATION DISTRICT NO. 900
BLAKE JOHNSON
GENERAL MANAGER

DATE

SUBMITTED BY:

PREPARED UNDER THE SUPERVISION OF

MHM INCORPORATED
SEAN MINARD, P.E.
R.C.E.# 52593 EXP. 12-31-24

5-29-2024
DATE

NOTE: THE CONTRACTOR SHALL POSSESS THE FOLLOWING CONTRACTOR LICENSE(S) AT THE TIME THIS CONTRACT IS AWARDED:

A. GENERAL ENGINEERING

PWGR 16-00XX
WDID # XXXXXXXXXXXXX

REGISTERED PROFESSIONAL ENGINEER — SEAN M. MINARD — No. C52593 — Exp. 12/31/24 — CIVIL — STATE OF CALIFORNIA

DATE OF TOPOGRAPHIC SURVEY: 06-22-16
DATE OF PLANS: 05-23-24
DATE OF SPECIAL PROVISIONS: 05-23-24

M·H·M
ENGINEERS & SURVEYORS SINCE 1906
ENGINEERING-SURVEYING
1204 "E" STREET
MARYSVILLE, CALIF. 95901-0053
Ph: (530)742-6485

Symbol	Description	Date	Approved

Rev.

Date: 05-23-24
Design file no: 16137
Drawing Code: G1
File name: 16137_G1
Plot date: 05-23-24
Plot scale: AS NOTED

Designed by: MHM INCORPORATED
Drawn by: KAS
Spec No: 16137
Reviewed by: SMM
Submitted by:
Civil Engineer

TITLE SHEET
BLACKER DRAINAGE CANAL

Job Title:

CONSTRUCTION DOCUMENTS FOR:
Blacker Drainage Canal
Slope Rehabilitation Project
Yolo County, California
Reclamation District No. 900

Sheet reference number:
G1
Sheet 1 of 14

INDEX OF SHEETS

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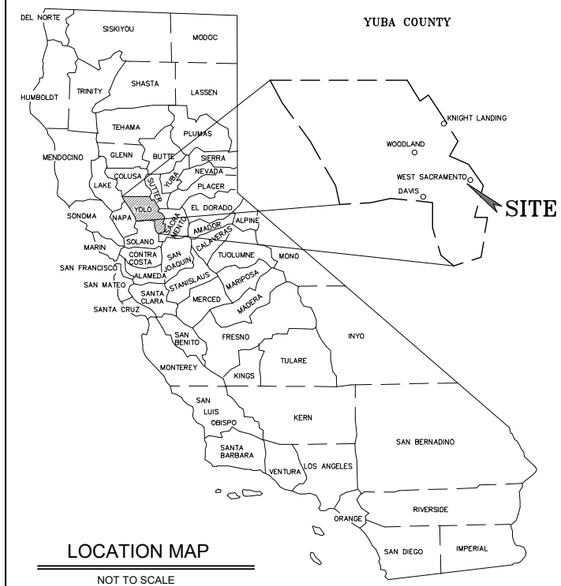

LOCATION MAP

NOT TO SCALE

MHM INCORPORATED OR RECLAMATION DISTRICT NO. 900 SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
BRIAN M. MUNRO
No. C62503
Exp. 12/31/24
CIVIL
STATE OF CALIFORNIA

M·H·M
ENGINEERS & SURVEYORS SINCE 1968
ENGINEERING-SURVEYING
1204 "E" STREET
MARYSVILLE, CALIF. 95901-0053
Ph: (530)742-6485

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Drawn by: KAS
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Reviewed by: SMM
Submitted by:
Civil Engineer

SHEET INDEX, LOCATION, VICINITY MAP
BLACKER DRAINAGE CANAL

Job Title:

CONSTRUCTION DOCUMENTS FOR:
Blacker Drainage Canal
Slope Rehabilitation Project
Yolo County, California
Reclamation District No. 900

Sheet reference number:
G2
Sheet 2 of 14

DISTRICT STANDARD NOTES

THE CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT WILL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THE CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD CONSULTING ENGINEER AND RD 900 HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE CONSULTING ENGINEER.

ALL MATERIALS, METHODS, AND WORKMANSHIP SHALL CONFORM WITH THE APPROPRIATE PROVISIONS OF THE SPECIFICATIONS ENTITLED "STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS," DATED MAY 2015, INSOFAR AS THE SAME MAY APPLY AND IN ACCORDANCE WITH THE FOLLOWING SPECIAL PROVISIONS. ALL WORK IS SUBJECT TO THE APPROVAL OF THE DISTRICT ENGINEER OR HIS AUTHORIZED REPRESENTATIVE. CERTIFICATION FOR CONFORMANCE WITH DISTRICT SPECIFICATIONS WILL BE REQUIRED FOR ALL MATERIALS USED ON THE PROJECT UNLESS SPECIFICALLY WAIVED BY THE DISTRICT ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING RD 900 FOR A PRE-CONSTRUCTION CONFERENCE 72-HOURS IN ADVANCE OF ANY CONSTRUCTION ACTIVITIES. ALSO, CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE DISTRICT OPERATIONS MANAGER 48-HOURS PRIOR TO COMMENCING WORK AND 24-HOURS PRIOR TO RESUMPTION AFTER INTERRUPTION. REQUESTS FOR INSPECTION OF SHALL BE GIVEN 48-HOURS IN ADVANCE, AND BE PERFORMED BY THE DISTRICT OR THEIR AUTHORIZED REPRESENTATIVE. NO CONSTRUCTION WORK SHALL COMMENCE UNTIL AFTER THE PRECONSTRUCTION CONFERENCE IS HELD AND THE DISTRICT OR AUTHORIZED REPRESENTATIVE APPROVES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF EXISTING PUBLIC AND PRIVATE IMPROVEMENTS WITHIN THE WORK AREA AND SHALL ADEQUATELY BARRICADE PROJECT TO KEEP THE GENERAL PUBLIC FROM THE SITE. ANY DAMAGE TO CITY OR PRIVATE IMPROVEMENTS SHALL BE REPLACED BY THE CONTRACTOR.

THE TYPES, LOCATIONS, SIZES, AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE PLANS WERE OBTAINED FROM SOURCES OF VRYING RELIABILITY. THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATING WILL REVEAL THE TYPES, SIZE, LOCATION, AND DEPTH OF SUCH UNDERGROUND UTILITIES. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE ALL UNDERGROUND WORKS, HOWEVER, THE CONSULTING ENGINEER CAN ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF ITS DELINEATION OF SUCH UNDERGROUND WORKS NOR FOR THE EXISTENCE OF OTHER BURIED OBJECTS WHICH MAY BE ENCOUNTERED BUT WHICH ARE NOT SHOWN ON THESE PLANS. IF NO ELEVATION IS SHOWN IN THE PLANS THE CONTRACTOR SHALL ASSUME THE ELEVATION TO BE UNKNOWN.

THE CONTRACTOR IS TO EXPOSE THE END OF EXISTING UTILITY LINES FOR THE SURVEYOR TO VERIFY LOCATION AND DEPTH OF WORKS PRIOR TO CONNECTION OF PROPOSED UTILITY. ALL COSTS FOR SUCH EXCAVATION SHALL BE INCLUDED IN PRICES FOR VARIOUS ITEMS OF WORK.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPORTING ALL CONFLICTS, ERRORS, OMISSIONS, ETC. TO THE CONSULTING ENGINEER IMMEDIATELY UPON DISCOVERY. IF SO DIRECTED BY THE ENGINEER OR DISTRICT OPERATIONS MANGER, THE CONTRACTOR SHALL STOP WORK UNTIL MITIGATION CAN BE MADE, ANY COSTS INCURRED RESULTING FROM THE CONTRACTOR'S FAILURE TO STOP WORK AS DIRECTED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

THE CONTRACTOR SHALL AT ALL TIMES COORDINATE HIS WORK WITH THAT OF OTHERS ON THE SITE. THE CONTRACTOR SHALL HAVE A RESPONSIBLE PARTY, WHO SHALL HAVE THE AUTHORITY TO REPRESENT AND ACT FOR THE CONTRACTOR, ON THE JOB SITE DURING ALL WORKING HOURS. CONTRACTOR SHALL ALSO HAVE A CONTACT PERSON FOR NON-WORKING HOURS UNTIL ACCEPTANCE OF IMPROVEMENTS BY THE CITY.

THE CONTRACTOR SHALL HAVE A CURRENT BUSINESS LICENSE AND SHALL BE HELD RESPONSIBLE TO SEE THAT ALL SUBCONTRACTORS AND SUPPLIERS HAVE CURRENT BUSINESS LICENSES. THE WORK WILL NOT BE ACCEPTED FOR THE COMPLETION UNTIL SUBMITTAL OF A COMPLETE LIST WITH LICENSE NUMBERS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH ALL CURRENTLY APPLICABLE SAFETY LAWS OF ANY JURISDICTIONAL BODY. FOR INFORMATION, PLEASE CONTACT THE STATE INDUSTRIAL SAFETY DEPARTMENT (916-455-5818).

EARTHWORK:

A) THE CONTRACTOR SHALL PROVIDE OBSERVATION AND TESTING FOR COMPACTION AND MATERIALS. A SOILS ENGINEER SHALL CERTIFY THAT THE VARIOUS ITEMS OF COMPACTION AND MATERIALS HAVE BEEN ACCOMPLISHED.
B) ALL COMPACTION TESTING SHALL BE PERFORMED BY THE SOILS ENGINEER IN ACCORDANCE WITH THE SPECIFICATIONS AND SHALL BE PAID FOR BY THE CONTRACTOR. ALL TESTING SHALL BE CERTIFIED BY THE SOILS ENGINEER FOR THE PROJECT.
C) ALL UNSUITABLE AND SURPLUS MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE UNLESS SPECIFIED OTHERWISE BY THE OWNER.
D) SUFFICIENT EQUIPMENT SHALL BE AVAILABLE TO PROVIDE MUD AND DUST CONTROL AT ALLTIMES DURING CONSTRUCTION DURING NON-WORKING HOURS A WATER TRUCK SHALL BE USED, WHEN REQUIRED, TO MAINTAIN ADEQUATE DUST CONTROL. AREAS SURROUNDING THE WORK SHALL BE KEPT CLEAN AND RETURNED TO ORIGINAL CONDITION UPON COMPLETION OF CONTRACT.
E) ROUTES TO OR FROM THE PROJECT, IF REQUIRED, FOR HEAVY EQUIPMENT AND MATERIALS SHALL BE APPROVED BY THE COUNTY, AS IT RELATES TO EXISTING COUNTY ROADS. THE COUNTY REQUIRES A CONSTRUCTION ROUTE PLAN FOR CONSTRUCTION TRAFFIC BE SUBMITTED TO THE COUNTY PRIOR TO CONSTRUCTION APPROVAL BY THE DISTRICT.
F) EROSION CONTROL HYDROSEEDING SHALL BE APPLIED TO ALL GRADED OR DISTURBED SOILS WITHIN THE WORK AREA AFTER THE COMPLETION OF IMPROVEMENTS PRIOR TO OCTOBER 15TH
G) WINTERIZATION NOTE * THE FOLLOWING ARE REQUIRED IF GRADING AND CLEARING IMPROVEMENTS ARE INCOMPLETE BY OCTOBER 15TH;
   * EROSION PROTECTION ON SLOPES 10:1 OR STEEPER SWALES WITH SLOPES 2% OR GREATER
   * NO SEDIMENT SHALL LEAVE THE PROJECT AREA
   * GRADE GUTTER SAG POINTS TO DRAIN. PROVIDE FOR DRAINAGE OF IMPROVEMENTS
   * PREVENT SEDIMENTATION IN EXISTING STORM DRAIN SYSTEM AND CLEAN PIPES PER
   * SEAL OF ALL SANITARY SEWER CONNECTION TO EXISTING SYSTEMS.
   * IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN WINTERIZATION WORKS AT ALLTIMES OR UNTIL IMPROVEMENTS ARE FINAL.
H) WHEN COMPACTION CAN NOT BE MEASURED, A FULL TIME GEOTECH INSPECTOR SHALL BEPRESENT TO OBSERVE PERFORMANCE OF BACKFILLS. THE DISTRICT RESERVES THE RIGHT TO REJECT ANY BACKFILL WHERE INSPECTOR IS NOT PRESENT.

UTILITIES:

SEWER:
WATER:
STORM DRAIN:
STREETS:
*ELECTRIC:
*GAS:

FOR TELEPHONE NUMBERS OF UTILITY AGENCIES, SEE COVER SHEET

A) ALL ABOVE UTILITIES ARE MEMBERS OF THE UNDERGROUND SERVICE ALERT (U.S.A.) ONE-CALL PROGRAM. THE CONTRACTOR OR ANY SUBCONTRACTOR FOR THIS PROJECT WILL BE REQUIRED TO NOTIFY (U.S.A.) 48-HOURS IN ADVANCE OF PERFORMING EXCAVATION WORK BY CALLING THE TOLL-FREE NUMBER (800) 227-2600. EXCAVATION FOR THE PURPOSE OF THE REQUIREMENT, IS DEFINED AS BEING 18" OR MORE IN DEPTH BELOW THE EXISTING SURFACE.
B) FOR ALL TRENCH EXCAVATIONS 5 FEET OR MORE IN DEPTH, THE CONTRACTOR SHALL OBTAIN A PERMIT FROM THE DIVISION OF SAFETY (2422 ARDEN WAY, SUITE 55, SACRAMENTO, CA 916-920-6123) PRIOR TO BEGINNING OF CONSTRUCTION SITE AT ALL TIMES.

CONSTRUCTION STAKING:

A) THE SURVEYOR FOR THIS PROJECT SHALL PROVIDE ONE (1) SET OF CONSTRUCTION STAKES FOR LINE AND GRADE UNLESS OTHERWISE REQUESTED BY OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING MONUMENTS AND OTHER SURVEY MARKERS DURING CONSTRUCTION. ALL SUCH MONUMENTS OR MARKERS DESTROYED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

B) IN THE EVENT OF A DISAGREEMENT OR DESTROYED STAKE OR MONUMENT, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE SURVEYOR PRIOR TO ANY FURTHER CONSTRUCTION.

C) THE CONTRACTOR SHALL GIVE THE SURVEYOR 48-HOURS WRITTEN NOTICE PRIOR TO EACH PHASE OF CONSTRUCTION STAKING OR IN THE EVENT OF NEEDED RESTAKING.

D) PRIOR TO REQUESTING ACCEPTANCE OF IMPROVEMENTS, THE SURVEYOR FOR THIS PROJECT SHALL SET SURVEY MONUMENTS AS SPECIFIED IN THE IMPROVEMENT STANDARDS.

E) (1) THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING MONUMENTS AND OTHER SURVEY MARKERS.
(2) NO FINAL ACCEPTANCE OF THE CONSTRUCTION SHALL BE ISSUED UNTIL THE SURVEY MONUMENTS ARE IN PLACE AND THE CENTERLINE MONUMENT TIES ARE FURNISHED TO THE CITY ENGINEER'S OFFICE.

F) PRIOR TO COMMENCING WORK, DISTRICT INSPECTOR SHALL RECEIVE TWO COPIES OF CUT SHEETS.

EROSION CONTROL AND WINTERIZATION:

A) IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PREVENT DISCHARGE OF SEDIMENT FROM THE SITE TO ANY WATERCOURSE, DRAINAGE SYSTEM, OR ONTO ADJACENT PROPERTIES AND TO PREVENT DAMAGE BY EROSION OR DEPOSITION OF SEDIMENT WHICH MAY RESULT FROM THE WORK.

B) THE CONTRACTOR MUST COMPLY WITH ALL FEDERAL, STATE AND LOCAL GOVERNMENT LAWS AND REGULATIONS RELATING TO THE DISCHARGE OF STORM WATER RUNOFF ASSOCIATED WITH CONSTRUCTION ACTIVITIES WHETHER OR NOT THE REQUIRED WORKS OR METHODS ARE STATED ON THESE PLANS.

C) THE CONTRACTOR SHALL CONDUCT INSPECTIONS OF THE SITE BEFORE AND AFTER STORM EVENTS AND ONCE EACH 24-HOUR PERIOD DURING EXTENDED STORM EVENTS TO IDENTIFY BMP EFFECTIVENESS AND IMPLEMENT REPAIRS OR DESIGN CHANGES AS FEASIBLE DEPENDING UPON FIELD CONDITIONS.

D) THE CONTRACTOR SHALL HAVE ON SITE AT ALL TIMES THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR THE PROJECT. A COPY SHALL BE PROVIDED TO THE DISTRICT PRIOR TO START OF CONSTRUCTION.

GENERAL NOTES

A) CONSTRUCTION SHALL STOP IF CULTURAL RESOURCES ARE SUSPECTED. IT IS POSSIBLE THAT PREVIOUS ACTIVITIES HAVE OBSCURED SURFACE EVIDENCE OF CULTURAL RESOURCES. IF SIGNS OF AN ARCHEOLOGICAL SITE, SUCH AS ANY UNUSUAL AMOUNT OF STONE, BONE, OR SHELL ARE UNCOVERED DURING GRADING OR OTHER CONSTRUCTION ACTIVITIES, WORK SHALL BE HALTED WITHIN 100 FEET OF THE FIND AND THE CONTRACTOR SHALL NOTIFY THE OWNER. A QUALIFIED ARCHEOLOGIST SHALL BE CONSULTED FOR AN ON-SITE EVALUATION. ADDITIONAL MITIGATION MAY REQUIRE THE ARCHEOLOGIST.

B) CONTRACTOR SHALL SUBMIT SHOP DRAWINGS/MATERIALS LIST AND CONSTRUCTION METHODS TO DISTRICT FOR REVIEW IN ADVANCE OF CONSTRUCTION. THESE SHOP DRAWINGS SHALL INCLUDE ALL APPURTENANCES, HORIZONTAL AND VERTICAL ALIGNMENT CHANGES AND PIPE ENDS.

C) THE COUNTY REQUIRES ENCROACHMENT PERMITS FOR ALL CONSTRUCTION DONE IN EXISTING RIGHT OF WAY INCLUDING, BUT NOT LIMITED TO, THE CONSTRUCTION OF WATER, SEWER, STORM DRAIN, STREET IMPROVEMENTS, AND DRY UTILITY CROSSINGS. THE ENCROACHMENT PERMITS SHALL BE ON FILE WITH THE COUNTY PRIOR TO CONSTRUCTION.

D) THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR FURNISHING, INSTALLING AND MAINTAINING ALL WARNING SIGNS AND DEVICES NECESSARY TO SAFEGUARD THE GENERAL PUBLIC AND THE WORK AND PROVIDE FOR THE PROPER AND SAFE ROUTING OF VEHICULAR AND PEDESTRIAN TRAFFIC DURING THE PERFORMANCE OF THE WORK.

E) THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING RECORD DRAWINGS FOR ALL WORK THROUGHOUT THE COURSE OF CONSTRUCTION. SUCH DRAWINGS SHALL RECORD THE LOCATION AND GRADE OF ALL IMPROVEMENTS AND FILLS THAT ARE CONSTRUCTED AND COPIES SHALL BE DELIVERED TO RD 900 AND THE DESIGN ENGINEER PRIOR TO THE ACCEPTANCE OF THE WORK.

F) PRIOR TO START OF WORK THE CONTRACTOR SHALL HAVE APPROVED PLANS IN HIS POSSESSION AND SHALL GIVE THE DISTRICT 48 HOURS NOTICE. THE CONTRACTOR SHALL DESIGNATE A PERSON, WHO SHALL HAVE THE AUTHORITY TO REPRESENT AND ACT FOR THE CONTRACTOR, ON THE JOB SITE DURING ALL WORKING HOURS.

G) THE CONTRACTOR SHALL CONSTRUCT ALL IMPROVEMENTS TO THE LINES AND GRADE SHOWN ON THESE PLANS. ANY DEVIATION FROM THE PLANS SHALL REQUIRE THE APPROVAL OF THE DESIGN ENGINEER.

F) ALL GRADING SHALL CONFORM TO YOLO COUNTY STANDARDS AND THE REQUIRMENTS OF GRADING PERMIT PWGR 16-____.

LEGEND

	EXISTING	PROPOSED
SURVEY MONUMENT/BENCH MARK	▲	▲
UTILITY POLE		
STREET LIGHT		
GUY WIRE AND ANCHOR		
CONSTRUCTION CENTERLINE		25
TOP OF CANAL EMBANKMENT		
TOE OF CANAL		
STORM DRAIN	12"SD	12"SD
SANITARY SEWER	12"SS	12"SS
WATER MAIN	8"W	8"W
SEWER FORCE MAIN	20"FM	20"FM
GAS MAIN	UG	
UNDERGROUND TELEPHONE	UT	
OVERHEAD ELECTRIC	OE	
FENCE	—X—X—X—	—X—X—X—
SPOT ELEVATION	X (E) 25.0	+ 25.0
CONTOUR LINE	25	
ASSESSOR'S PARCEL NO.	25-025-254	
PROPERTY LINE		
TREE		TO BE REMOVED
BUILDING		TO BE REMOVED
TEST PIT LOCATION		
IRRIGATION CONTROLLER		
TRANSMISSION LINE TOWER		
DITCH FLOWLINE		
WATER SERVICE		
SEWER SERVICE		
POSTAL CBU		
FIRE HYDRANT		
WATER MAIN BLOW-OFF		
STORM DRAIN MANHOLE		
DRAINAGE INLET		
HANDICAP RAMP		
SANITARY SEWER MANHOLE		
CURB TRANSITION		
TRAFFIC CALMING DEVICE		
MASONRY BLOCK WALL		

ABBREVIATIONS

AB	AGGREGATE BASE
AC	ASPHALT CONCRETE
ADA	AMERICANS WITH DISABILITIES ACT
ADT	AVERAGE DAILY TRAFFIC COUNT
apn	ASSESSOR'S PARCEL NO.
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
ATT	AT&T COMMUNICATION
BC	BEGINNING OF CURVE
BCR	BEGIN CURB RETURN
BM	BENCHMARK
BW	BARBED WIRE FENCE
CALTRANS	CALIFORNIA DEPARTMENT OF TRANSPORTATION CG
	CURB AND GUTTER
CIP	CAST-IN-PLACE
CJ	CONSTRUCTION JOINT
CL	CENTERLINE
CO	CITY ENGINEER
cmp	CORRUGATED METAL PIPE
CVFPB	CENTRAL VALLEY FLOOD PROTECTION BOARD
CY	CUBIC YARD
D	DEPTH IN FEET
DI	DRAINAGE INLET
DIA	DIAMETER DIA
DIP	DUCTILE IRON PIPE
DWG	DRAWING
DWR	DEPARTMENT OF WATER RESOURCES
(E)	EXISTING
EC	END OF CURVE
ECR	END CURB RETURN
EF	EACH FACE
EL	ELEVATION
EP	ELEVATION EDGE OF PAVEMENT
ETW	EDGE OF TRAVELED WAY
ES	EDGE OF SHOULDER
EW	EACH WAY
FES	FLARED END SECTION
FG	FINISH GRADE
FL	FLOWLINE
FM	FORCE MAIN
G	GAS
GB	GRADE BREAK
HDPE	HIGH DENSITY POLYETHYLENE
HGL	HYDRAULIC GRADE LINE
HP	HINGE POINT
ID	INSIDE DIAMETER
IN	INCH
INV	INVERT INV
IRR	IRRIGATION
L	LENGTH OF CURVE
LF	LINEAR FEET
LIP	LIP OF CURB AND GUTTER
(M)	MEASURED
MH	MAINTENANCE HOLE
NIC	NOT IN CONTRACT
OC	ON CENTER
OD	OUTSIDE DIAMETER
OG	ORIGINAL GROUND
OH	OVERHEAD
PG	PROFILE GRADE
PRC	POINT OF REVERSE CURVE
PCC	PORTLAND CEMENT CONCRETE
PG&E	PACIFIC GAS & ELECTRIC
PL	PROPERTY LINE
PP	POWER POLE
PUE	PUBLIC UTILITY EASEMENT
PVC	POLY VINYL CHLORIDE
R	RADIUS
RCP	REINFORCED CONCRETE PIPE RCP
RCB	REINFORCED CONCRETE BOX
RD 784	RECLAMATION DISTRICT NO. 784
R/W	RIGHT-OF-WAY R/W
S	SLOPE PROFILE S
SD	STORM DRAIN
SD MH	STORM DRAIN MAINTENANCE HOLE
SD JB	STORM DRAIN JUNCTION BOX
SG	SUBGRADE SG
SHT	SHEET
SMUD	SACRAMENTO MUNICIPAL UTILITY DISTRICT
SS	SANITARY SEWER
SSMH	SANITARY SEWER MAINTENANCE HOLE
STA	STATION
SWPPP	STORM WATER POLLUTION PREVENTION PLAN
t	PIPE WALL THICKNESS
TBDI	TOP BACK OF DRAINAGE INLET
TBC	TOP BACK OF CURB
TCE	TEMPORARY CONSTRUCTION EASEMENT TURNOUT
TOB	TOP OF BANK
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
UPRR	UNION PACIFIC RAILROAD UPRR
VCP	VITRIFIED CLAY PIPE
WM	WATER MAIN
WM BO	WATER MAIN BLOW OFF
WSEL	WATER SURFACE
WDID	WASTE DISCHARGE IDENTIFICATION NUMBER
WM	WATER MAIN
WWF	WELDED WIRE FABRIC

ALSO REFER TO ABBREVIATIONS IN STATE STANDARDS PLAN - DRAWING A10A

REGISTERED PROFESSIONAL ENGINEER — JEAN M. MURRAY — No. C82593 — Exp. 12-31-24 — CIVIL — STATE OF CALIFORNIA

M·H·M ENGINEERING & SURVEYORS SINCE 1960
ENGINEERING-SURVEYING
1204 "E" STREET
MARYSVILLE, CALIF. 95901-0053
Ph: (530)742-6485

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GENERAL NOTES, ABBREVIATIONS AND LEGEND
BLACKER DRAINAGE DITCH

Job Title:

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Slope Rehabilitation Project
Yolo County, California
Reclamation District No. 900

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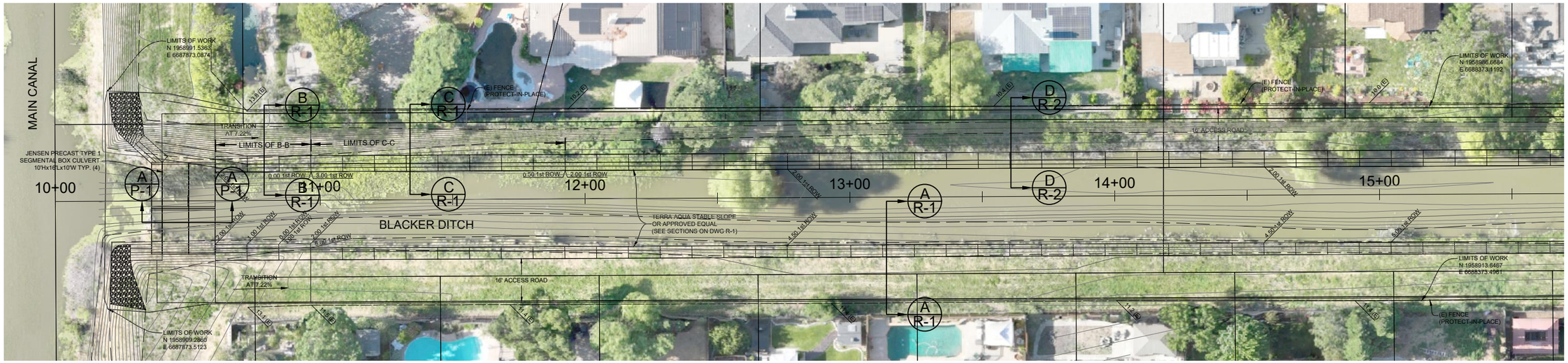

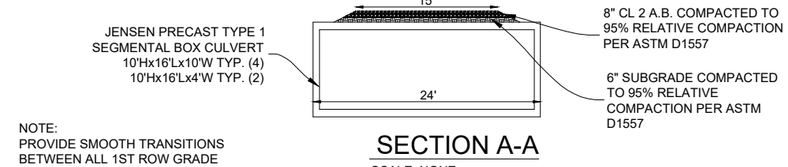

NOTE:
PROVIDE SMOOTH TRANSITIONS
BETWEEN ALL 1ST ROW GRADE
ELEVATION CHANGES

SECTION A-A

SCALE: NONE

REGISTERED PROFESSIONAL ENGINEER
DEAN M. MINANO
No. C52593
Exp. 12-31-24
CIVIL
STATE OF CALIFORNIA

M·H·M
ENGINEERING & SURVEYORS SINCE 1962
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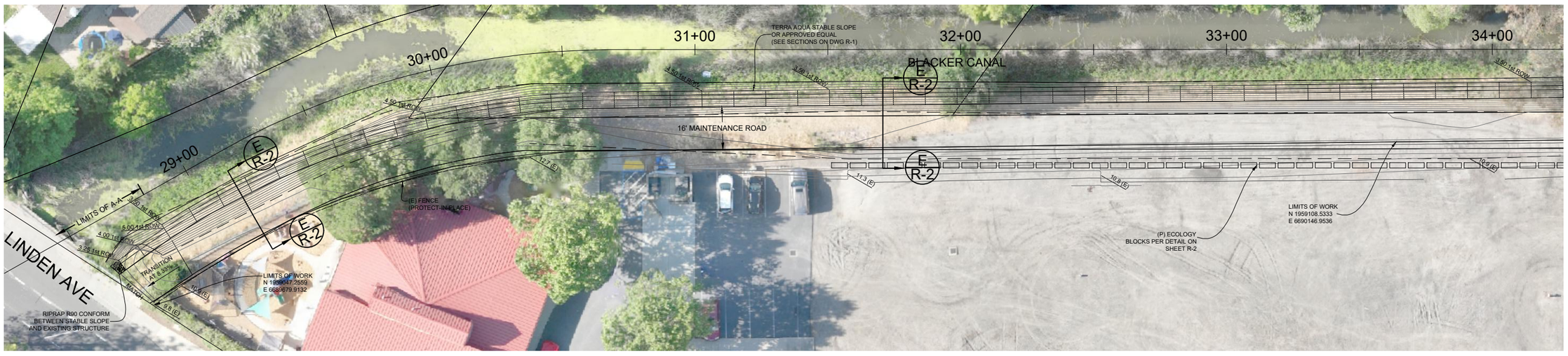
File name: 05-23-24
Plot date:
Plot scale: AS NOTED
Civil Engineer

BLACKER DRAINAGE CANAL
STA 10+00 TO 21+00

Job Title:

CONSTRUCTION DOCUMENTS FOR:
Blacker Drainage Canal
Slope Rehabilitation Project
Yolo County, California
Reclamation District No. 900

Sheet reference number:
P1
Sheet 4 of 14



NOTE:
PROVIDE SMOOTH TRANSITIONS
BETWEEN ALL 1ST ROW GRADE
ELEVATION CHANGES

REGISTERED PROFESSIONAL ENGINEER
SEAN M. MINARO
No. C82593
Exp. 12-31-24
CIVIL
STATE OF CALIFORNIA

M·H·M
ENGINEERS & SURVEYORS SINCE 1905
ENGINEERING-SURVEYING
1204 "E" STREET
MARYSVILLE, CALIF. 95901-0053
Ph: (530)742-6485

Symbol	Description	Date	Approved

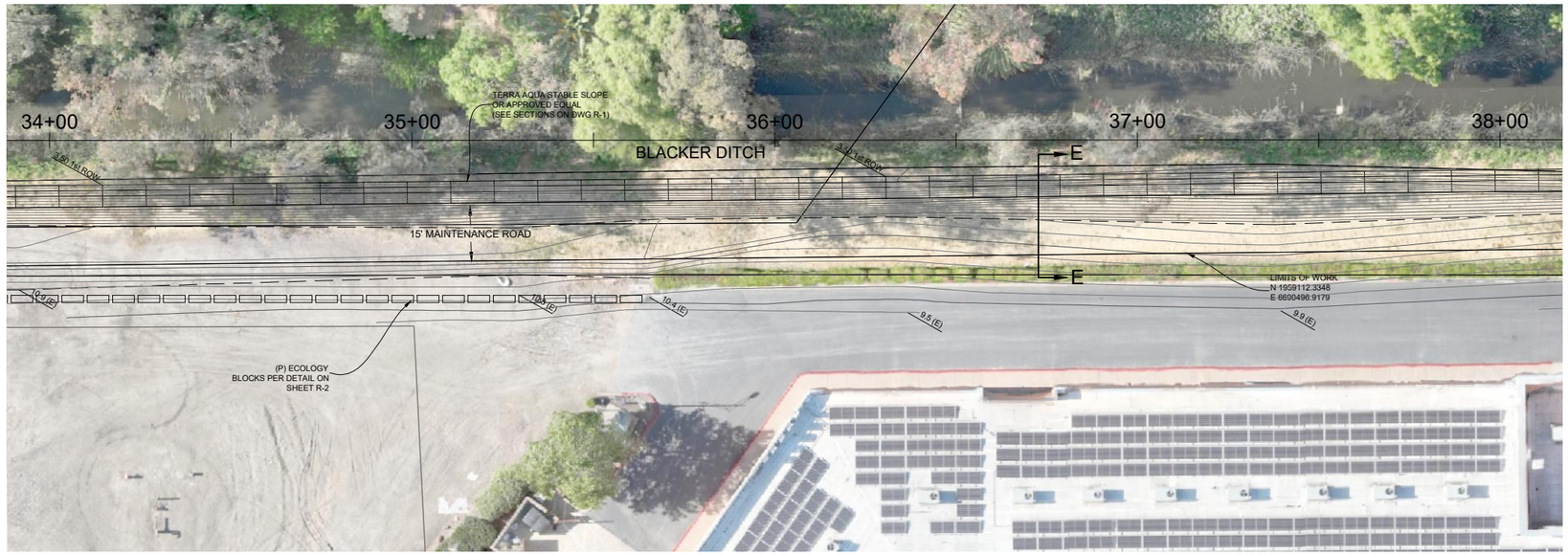
Designed by: MHM INCORPORATED
Drawn by: KAS
Spec No.: 16137
Reviewed by: SMM
Submitted by:
Civil Engineer
Date: 05-23-24
Design file no: 16137
Drawing Code:
File name: 06-23-24
Print scale: AS NOTED
Rev:

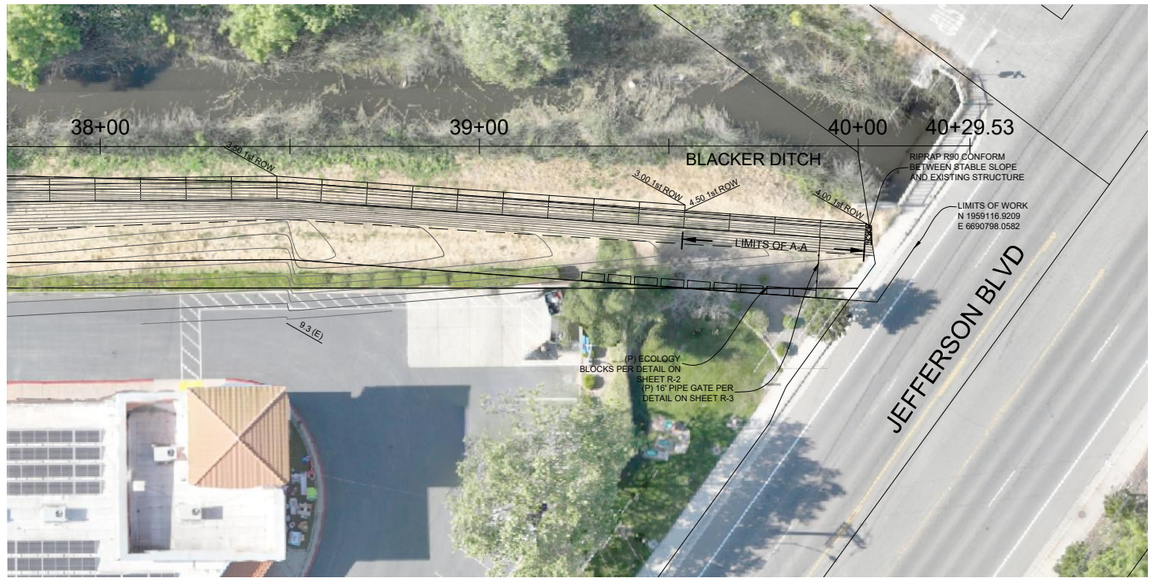
BLACKER DRAINAGE CANAL
STA 21+00 TO 34+00

Job Title:

CONSTRUCTION DOCUMENTS FOR:
Blacker Drainage Canal
Slope Rehabilitation Project
Yolo County, California
Reclamation District No. 900

Sheet reference number:
P2
Sheet 5 of 14





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M·H·M
ENGINEERS & SURVEYORS SINCE 1962
ENGINEERING-SURVEYING
1204 "E" STREET
MARYSVILLE, CALIF. 95901-0053
Ph: (530)742-6485

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BLACKER DRAINAGE CANAL
STA 34+00 TO 40+30

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Reclamation District No. 900

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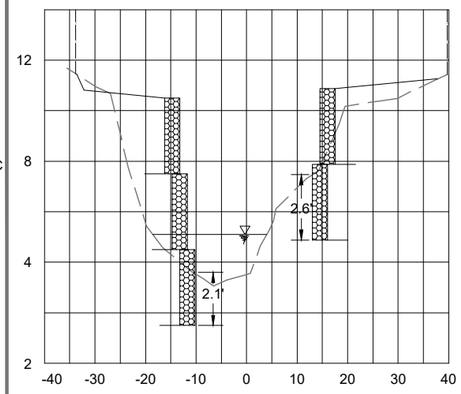
Sheet 6 of 14

REGISTERED PROFESSIONAL ENGINEER
BRIAN M. MINARO
No. C58593
Exp. 12-31-24
CIVIL
STATE OF CALIFORNIA

11+50



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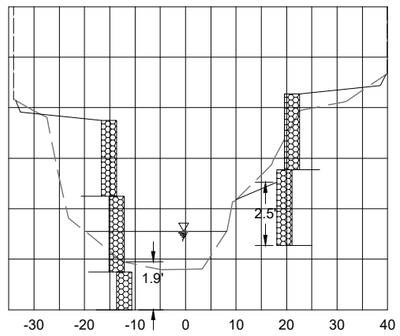

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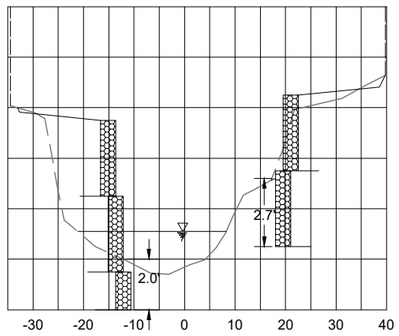

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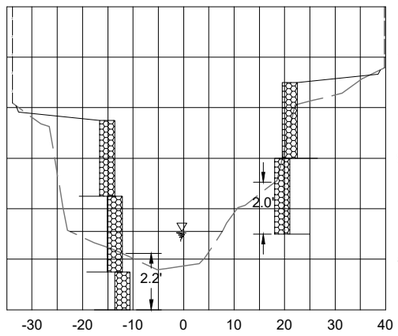

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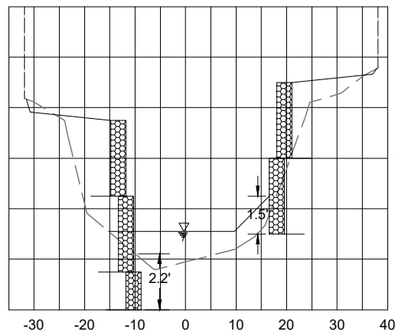

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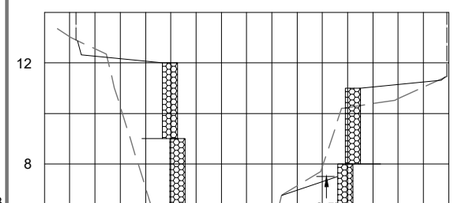

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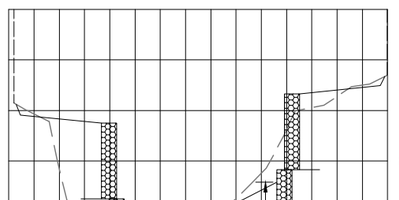

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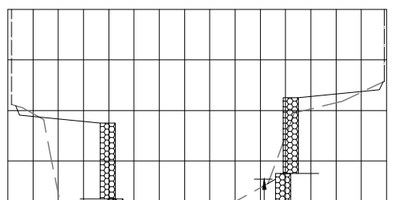

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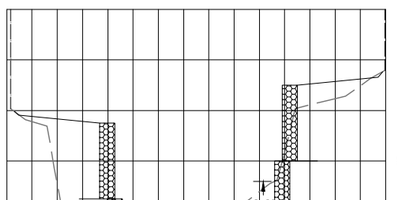

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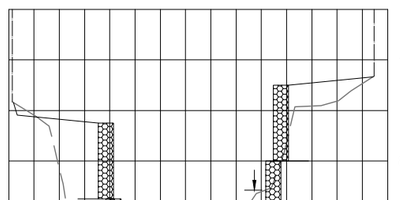

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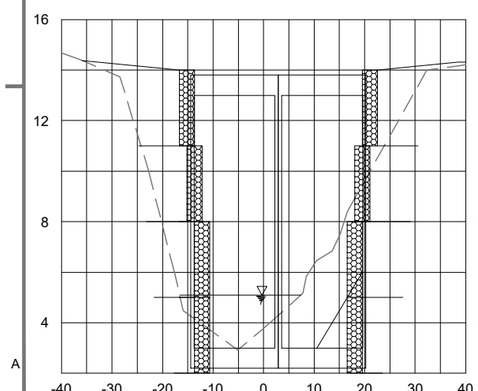

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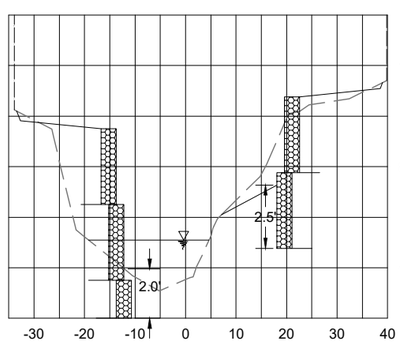

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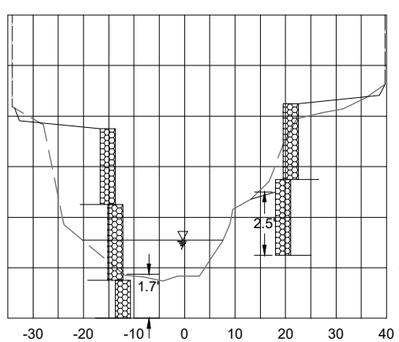

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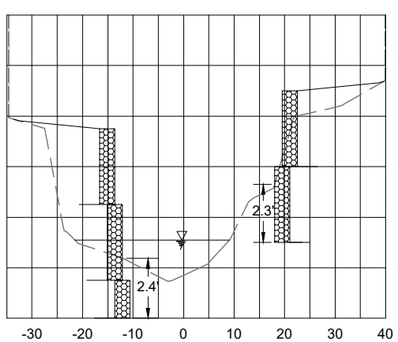

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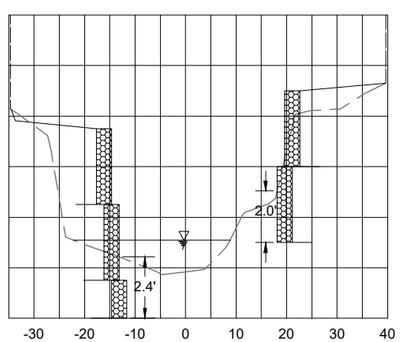

REGISTERED PROFESSIONAL ENGINEER
BRIAN M. MUNRO
No. C62593
Exp. 12-31-24
CIVIL
STATE OF CALIFORNIA

M·H·M
ENGINEERING & SURVEYING SINCE 1905
ENGINEERING-SURVEYING
1204 "E" STREET
MARYSVILLE, CALIF. 95901-0053
Ph: (530)742-6485

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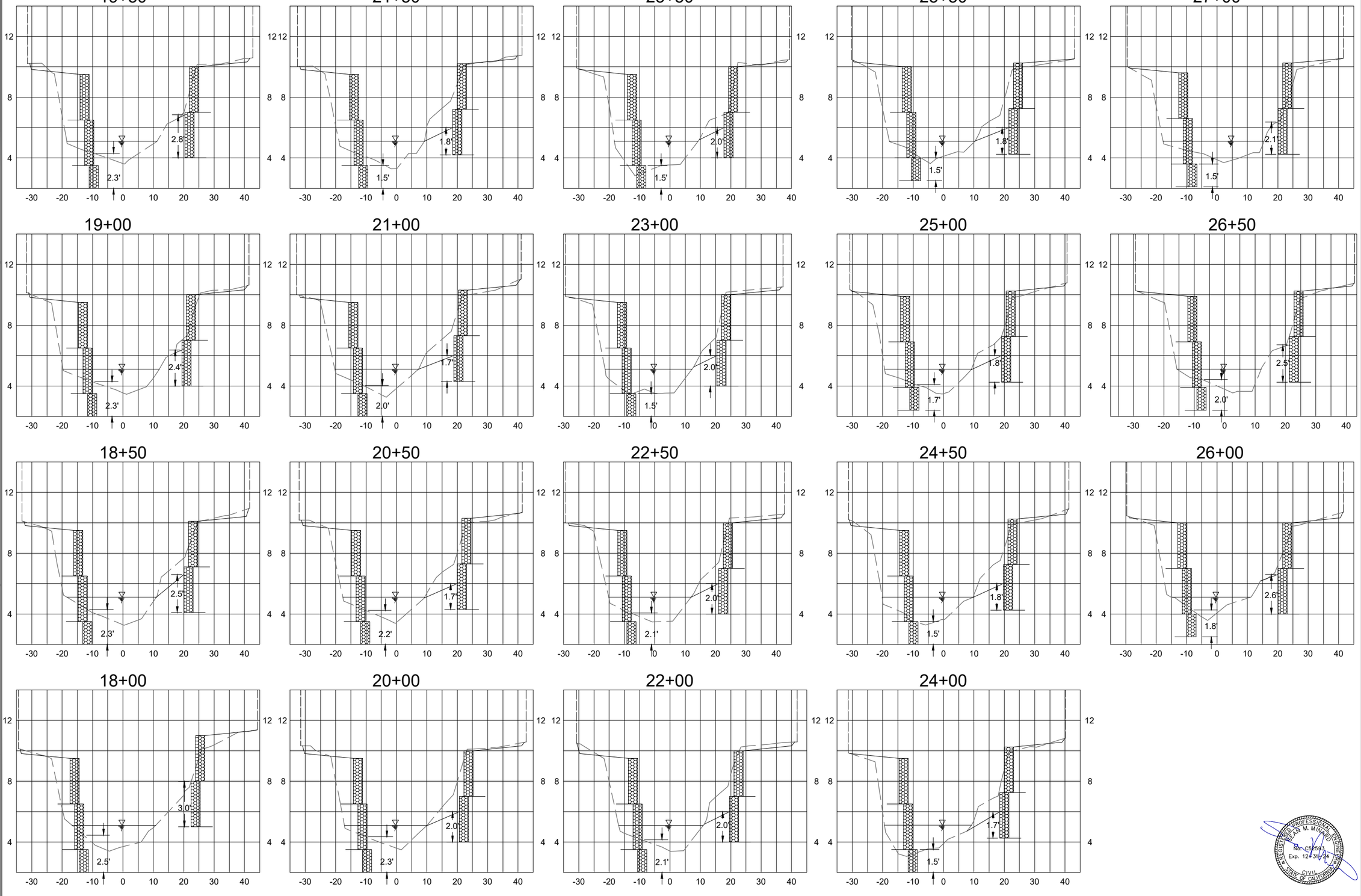
BLACKER DRAINAGE CANAL
CROSS SECTIONS

Job Title:

CONSTRUCTION DOCUMENTS FOR:
Blacker Drainage Canal
Slope Rehabilitation Project
Yolo County, California
Reclamation District No. 900

Sheet reference number:
X1
Sheet 7 of 14



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ENGINEERING & SURVEYING SINCE 1962
ENGINEERING-SURVEYING
1204 "F" STREET
MARYSVILLE, CALIF. 95901-0053
Ph: (530)742-6485

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BLACKER DRAINAGE CANAL
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Blacker Drainage Canal
Slope Rehabilitation Project
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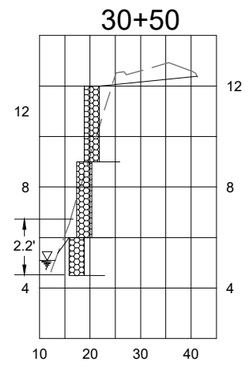
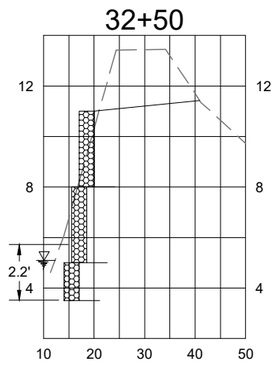
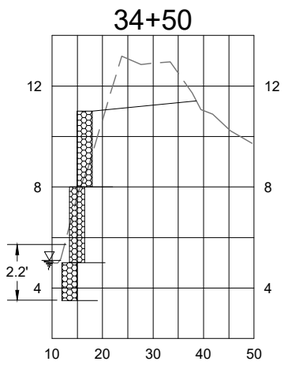
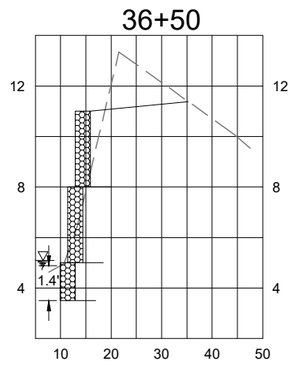
X2
Sheet 8 of 14

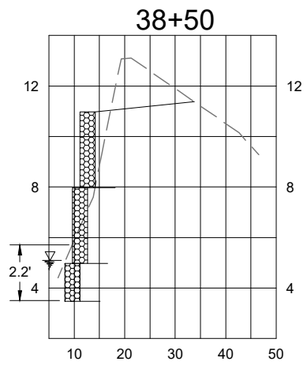
REGISTERED PROFESSIONAL ENGINEER
BRIAN M. MINARD
No. C52593
Exp. 12-31-24
CIVIL
STATE OF CALIFORNIA

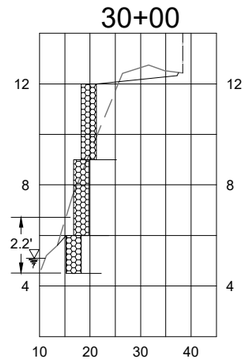


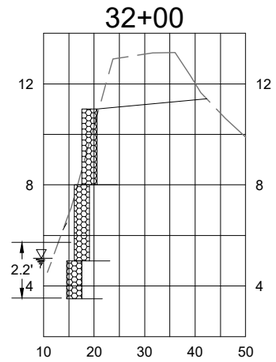


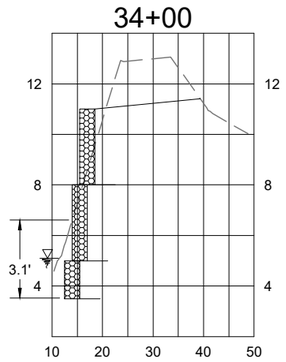


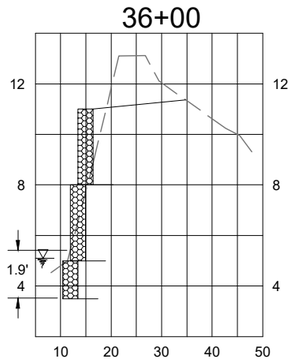


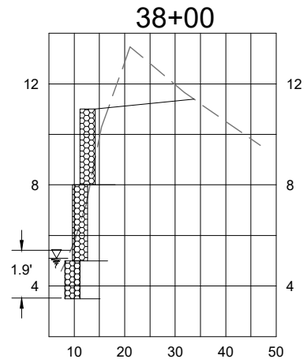


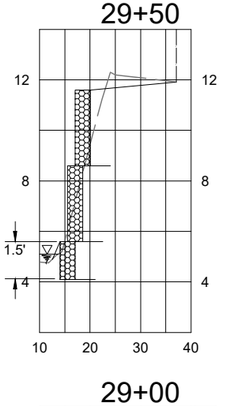


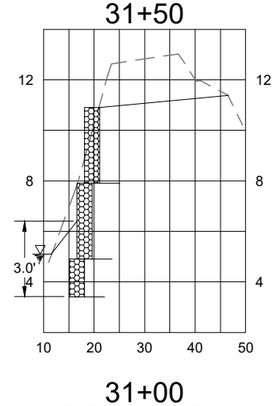


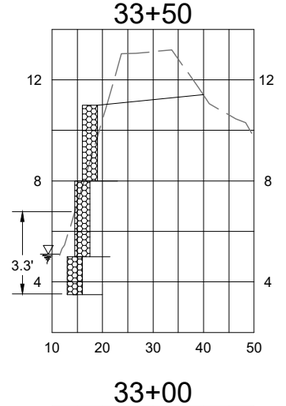


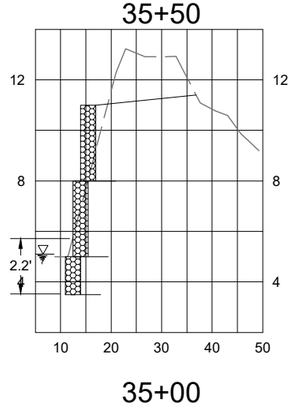


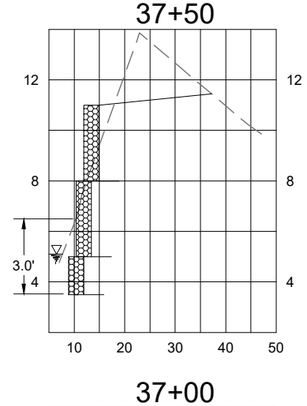


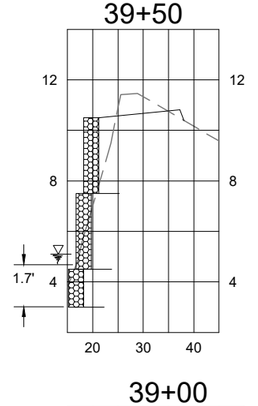


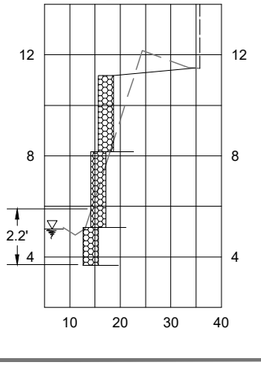


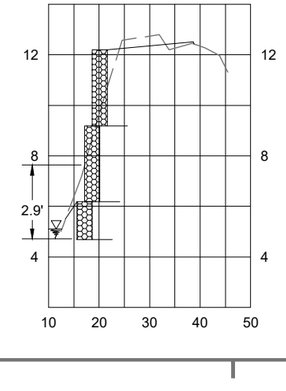


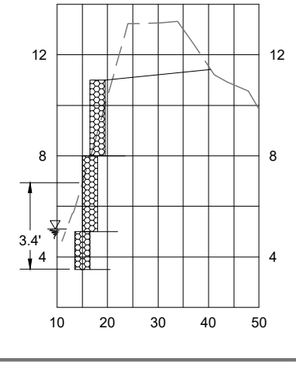


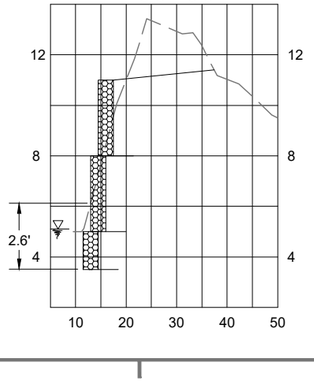


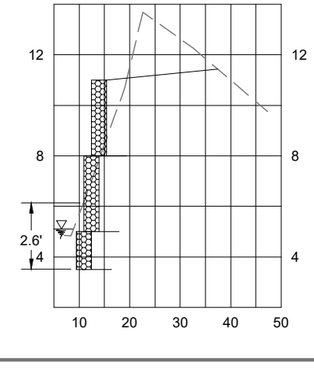


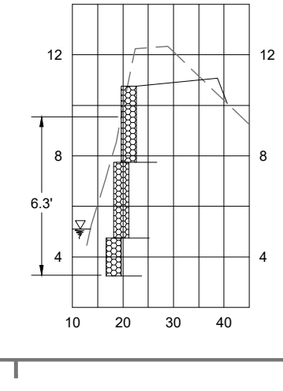












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Job Title:

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Sheet reference number:
X3
Sheet 9 of 14

REGISTERED PROFESSIONAL ENGINEER
BRIAN M. MINKINEN
No. C52593
Exp. 12-31-24
CIVIL
STATE OF CALIFORNIA

GENERAL NOTES:

1. NOTIFY THE ENGINEER OF ANY DISCREPANCIES FOUND BEFORE PROCEEDING WITH THE WORK.

2. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY SITE CONDITIONS NOT REFLECTED ON THE DRAWINGS; OF DISCREPANCIES IN MIN. DIMENSIONS INDICATED, SUCH AS GREATER RETAINED EARTH HEIGHTS, CONFLICT IN GRADES, EXTENTS OF BAD SOIL, HEIGHT OF GROUND WATER, DEPTHS OF FOUNDATIONS, ETC., AND ESPECIALLY OF UNCOVERED AND UNEXPECTED UTILITY LINES.

3. ALL WORK NOT DETAILED OR NOTED SHALL BE CONSTRUCTED IN ACCORDANCE WITH OTHER SIMILAR WORK SHOWN ON THE DRAWINGS AND ON TYPICAL DETAILS.

4. NO PIPES OR DUCTS SHALL BE PLACED IN SLABS OR WALLS UNLESS SPECIFICALLY DETAILED OR APPROVED BY THE ENGINEER.

5. DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION INCLUDING SHORING, FORMING, AND TEMPORARY BRACING.

6. UNLESS OTHERWISE SHOWN, LOCATION OF ALL CONSTRUCTION JOINTS SHALL HAVE THE APPROVAL OF THE ENGINEER. IN FLUID RETAINING STRUCTURES. PVC WATERSTOPS SHALL BE PROVIDED IN ALL CONSTRUCTION JOINTS.

TERRA AQUA STABLE SLOPE

1. GABION BASKET FILLING

1. THE GABION BASKET FACING SHALL BE FILLED WITH HARD, DURABLE STONE FILL VARYING IN DIMENSIONS FROM 4-8 IN DIAMETER. THE ROCK SHALL NOT EXCEED 50% WEAR AS DETERMINED BY AASHTO DESIGNATION: T96. THE ROCK SHALL NOT EXCEED 12% WEIGHTED LOSS AFTER FIVE CYCLES OF THE SODIUM SULFATE SOUNDNESS OF AGGREGATE TEST AASHTO DESIGNATION: T104.

2. ASSEMBLING

1. UNITS SHALL BE ASSEMBLED AND ERECTED ACCORDING TO MANUFACTURER'S INSTRUCTIONS AND PROJECT SPECIFICATIONS. UNITS ARE SUPPLIED FOLDED FLAT AND PACKED IN BUNDLES. SINGLE UNITS SHALL BE REMOVED FROM THE BUNDLE, UNFOLDED ON A HARD FLAT SURFACE, AND HAVE ALL KINKS AND BENDS WORKED OUT BEFORE ASSEMBLY. THE REINFORCEMENT PANELS MAY BE LEFT FOLDED UP UNTIL THE BASKETS ARE PLACED IN POSITION. THE UNIT SHALL THEN BE ASSEMBLED INDIVIDUALLY BY ERECTING THE FRONT AND BACK, ENDS AND DIAPHRAGMS, ENSURING THAT ALL CREASES ARE IN THE CORRECT POSITION AND THE TOPS OF ALL SIDES SATISFACTORILY.
2. THE FOUR CORNERS OF THE UNIT SHALL BE CONNECTED FIRST FOLLOWED BY THE EDGE WIRES OF INTERNAL DIAPHRAGMS TO THE SIDES. THE EDGE SEAM CONNECTION AND THE DIAPHRAGMS TO SIDE CONNECTION SHOULD BE ACCOMPLISHED BY USING LACING WIRE OR APPROVED INTERLOCKING FASTENERS.
3. ACCEPTABLE LACING WIRE IS DESCRIBED IN MANUFACTURER MATERIAL. RECOMMENDED PROCEDURE TO APPLY LACING WIRE CONSISTS OF CUTTING A SUFFICIENT LENGTH OF LACING WIRE, APPROXIMATELY 4.5' - 5' LONG. SECURE ONE END OF THE WIRE BY LOOPING AND TWISTING, THEN PROCEED TO LACE WITH ALTERNATING SINGLE AND DOUBLE LOOPS AT APPROXIMATELY 5" INTERVALS. THEN SECURELY FASTEN THE OTHER END OF THE LACING WIRE. THIS PROCEDURE SHALL DEVELOP A JOINT STRENGTH OF 1200 LBS / FT FOR PVC AND 1400 LBS / FT FOR GALVANIZED GABIONS.
4. THE INSTALLATION OF RECOMMENDED FASTENERS SHOULD BE CARRIED OUT IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS. ACCEPTABLE FASTENERS FOR JOINING PVC COATED UNITS SHALL BE FORMED FROM 0.120 INCH MINIMUM DIAMETER STAINLESS STEEL WIRE HAVING HIGH TENSILE STRENGTH AND SHALL CONFORM TO ASTM A313, TYPE 302, CLASS 1. FASTENERS SHALL PRODUCE A FOUR-WIRE SELVEDGE JOINT OF 1200 LBS / FT FOR PVC AND 1400 LBS / FT FOR GALVANIZED GABIONS, WHILE REMAINING LOCKED OR OVERLAPPED A MINIMUM OF 1 INCH.

3. INSTALLATION AND PLACEMENT

1. THE ASSEMBLED UNITS ARE CARRIED TO THE JOB SITE AND PLACED IN THEIR PROPER LOCATION. FOR STRUCTURAL INTEGRITY, THE ADJOINING EMPTY UNITS MUST BE SECURELY JOINED TOGETHER USING THE SAME CONNECTING PROCEDURES DESCRIBED IN SECTION 1, PARAGRAPHS 3 AND 4 ALONG WITH THE VERTICAL EDGES AND THE TOP EDGE OF THEIR CONTRACT SURFACES IN ORDER TO OBTAIN A MONOLITHIC STRUCTURE. AN APPROVED CORNER CLOSURE TOOLS SHALL BE USED TO ADJOIN ADJACENT GABIONS TO INSURE A TIGHT NEAT SEAM AND MINIMIZE GABION WIRE JOINT DEFORMATION.
2. THE REINFORCEMENT PANELS ARE THEN UNFOLDED ONTO THE COMPACTED BACKFILL. IT IS NOT NECESSARY TO ATTACH THE REINFORCEMENT PANELS TO EACH OTHER WITH LACING WIRE OR FASTENERS EXCEPT AT ONE POINT APPROXIMATELY 3 BEHIND THE BACK PANEL FOR ALIGNMENT PURPOSES.
3. AFTER THE LOWER TIER OF UNITS IS FILLED, CLOSED AND THE BACKFILL COMPACTED, THE NEXT TIER OF UNITS IS PLACED ON TOP AND SHALL BE CONNECTED TO THE LOWER TIER ALONG THE FRONT EDGE OF THE CONTACT SURFACE, USING THE SAME CONNECTING PROCEDURE DESCRIBED IN SECTION 2, PARAGRAPHS 3 AND 4.

4. FILLING

1. UNITS SHALL BE FILLED WITH STONE AS DESCRIBED IN BASKET FILL SECTION 1.
2. UNITS MAY BE FILLED BY ALMOST ANY TYPE OF EARTH HANDLING EQUIPMENT. SOME MANUAL STONE ADJUSTMENT DURING THE FILLING OPERATION IS REQUIRED TO MINIMIZE VOIDS. IT IS ALSO RECOMMENDED THAT THE STONE AGAINST THE EXPOSED FACES OF THE UNITS BE HAND-STACKED TO GIVE A NEAT, COMPACT AND ATTRACTIVE APPEARANCE. CARE SHALL BE TAKEN WHEN PLACING FILL MATERIAL TO ASSURE THAT THE SHEATHING OF THE PVC COATED UNITS WILL NOT BE BROKEN OR DAMAGED. THE STONE SHOULD NOT BE DUMPED FROM A HEIGHT GREATER THAN 2' - 3' ABOVE THE TOP OF THE GABION UNITS.
3. THE INDIVIDUAL CELLS OF THE UNITS IN ANY ROW SHALL BE FILLED IN STAGES SO THAT LOCAL DEFORMATION MAY BE AVOIDED. THAT IS, AT NO TIME SHALL ANY CELL BE FILLED TO A DEPTH EXCEEDING 1 MORE THAN AN ADJOINING CELL. IT IS ALSO RECOMMENDED TO SLIGHTLY OVERFILL THE GABION ON APPROXIMATELY 2" - 4" ABOVE THE TOP OF THE GABION UNIT TO ALLOW FOR SETTLEMENT.
4. WELL-PACKED FILLING OF UNITS WITHOUT UNDUE BULGING, AND SECURE LACING AND/OR FASTENING, IS ESSENTIAL IN ALL STRUCTURES.

5. FILTER FABRIC PLACEMENT

1. FILTER FABRIC SHALL BE PLACED SO AS TO COMPLETELY COVER THE BACK OF THE UNIT WITH 1' OF EXCESS MATERIAL TO BE FOLDED TOWARD THE BACKFILL AT BOTH THE TOP AND BOTTOM ALONG THE REINFORCEMENT PANELS. THE FABRIC SHALL BE ATTACHED TO THE TOP OF THE BACK PANEL WITH EITHER LACING WIRE OR APPROVED FASTENERS EVERY 18 INCHES. THE TYPE OF FABRIC WILL BE DEPENDENT UPON THE FILL MATERIAL FURNISHED. THE FABRIC SHALL BE SELECTED BASED UPON GRADATION SAMPLES AND APPROVED BY THE DESIGN ENGINEER.

6. INTERNAL CONNECTING WIRES

1. INTERNAL CONNECTING WIRES ARE USED TO PREVENT THE FRONT FACE OF THE UNITS FROM BULGING AS ADDITIONAL ROWS OR LAYERS ARE PLACED ON TOP OF THE EXISTING LAYERS.
2. 3' HIGH UNITS SHALL BE FILLED IN THREE LAYERS 1' AT A TIME. AFTER THE PLACEMENT OF EACH LAYER, TWO CONNECTING WIRES SHALL BE PLACED TO CONNECT THE EXPOSED FACE OF A CELL TO THE OPPOSITE SIDE OF THE CELL. THE WIRE SHALL BE LOOPED AROUND TWO MESH OPENINGS AND THE ENDS OF THE WIRES SHALL BE SECURELY TWISTED TO PREVENT ITS LOOSENING. AN EXPOSED FRONT FACE IS ANY SIDE OF A CELL THAT WILL BE EXPOSED OR UNSUPPORTED AFTER THE STRUCTURE IS COMPLETED.
3. 1.5' HIGH UNITS SHALL BE FILLED IN TWO LAYERS 9" AT A TIME. AFTER THE PLACEMENT OF EACH LAYER TWO CONNECTING WIRES SHALL BE PLACED TO CONNECT THE EXPOSED FACE OF A CELL TO THE OPPOSITE SIDE OF THE CELL. L THE WIRE SHALL E LOOPED AROUND TWO MESH OPENINGS AND THE ENDS OF THE WIRE SHALL BE TWISTED TO PREVENT ITS LOOSENING.

7. LID CLOSING

1. THE LID SHALL BE STRETCHED TIGHT OVER THE FILLING OF THE STONE UNTIL THE LID MEETS THE PERIMETER EDGES OF THE UNIT. THIS OPERATION SHALL BE ACCOMPLISHED BY USING AN APPROVED LID CLOSING TOOL. THE LID SHALL THEN BE TIGHTLY FASTENED ALONG ALL EDGES, ENDS AND TOPS OF THE DIAPHRAGMS IN THE SAME MANNER AS DESCRIBED IN SECTION 2, PARAGRAPHS 3 AND 4.
2. UPON COMPLETION, THE STRUCTURE SHALL BE CHECKED AND ALL ENDS OF WIRE SHALL BE FOLDED INTO THE STRUCTURE. WELL-PACKED FILLING WITHOUT UNDUE BULGING AND SECURE LACING AND/OR FASTENING IS ESSENTIAL IN ALL STRUCTURES. ALL TERRA AQUA GABION MATERIAL IS MANUFACTURED ACCORDING TO ASTM A975-97 GUIDELINES FOR DOUBLE TWISTED HEXAGONAL MESH GABIONS.

CONCRETE:

1. REFER TO STRUCTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR ALL MOLDS, GROOVES, ETC., TO BE CAST IN CONCRETE.

2. ALL REINFORCING BARS, ANCHOR BOLTS AND INSERTS SHALL BE WELL SECURED PRIOR TO POURING CONCRETE.

3. ALL EXPOSED CONCRETE EDGES SHALL HAVE 3/4" CHAMFER.

4. NO PLACEMENT OF CONCRETE UNTIL STEEL & FORMS HAVE BEEN APPROVED BY ENGINEER.

SOIL & FOUNDATIONS:

1. NO CONCRETE OR REBAR SHALL BE PLACED IN ANY FOUNDATION UNTIL THE EXCAVATION HAS BEEN APPROVED BY THE ENGINEER.

2. BACKFILLING AND COMPACTING AGAINST BELOW GRADE WALLS SHALL NOT TAKE PLACE UNTIL ALL CONCRETE IS ALLOWED TO CURE A MINIMUM OF 7-DAYS, AND REACHED AT LEAST 75% OF THE SPECIFIED DESIGN STRENGTH.

3. BACKFILL SHALL BE COMPACTED TO A MINIMUM OF 90% ASTM D 1557A IN SIX-INCH LIFTS.

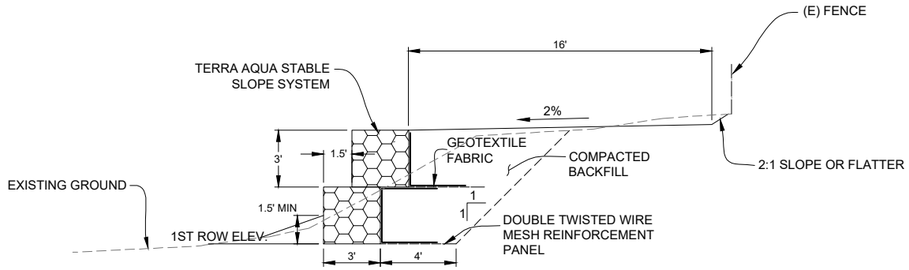
SPECIAL INSPECTION

1. SPECIAL INSPECTION AS SPECIFIED BY SECTION 1701 OF THE UBC, REFERENCED EDITION IS REQUIRED FOR:

   A. ALL CONCRETE WORK.

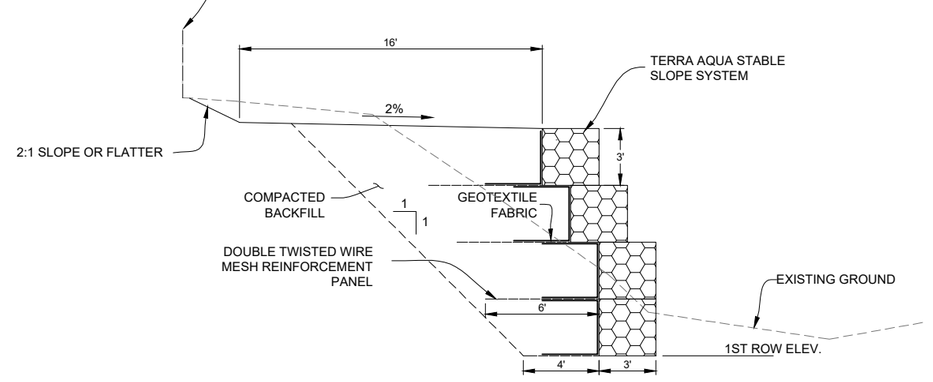
   B. ALL ANCHOR BOLT INSTALLATIONS INTO CONCRETE.

   C. ALL WELDING OF ALUM., AND STEEL.



SECTION A-A

SCALE: NONE



SECTION B-B

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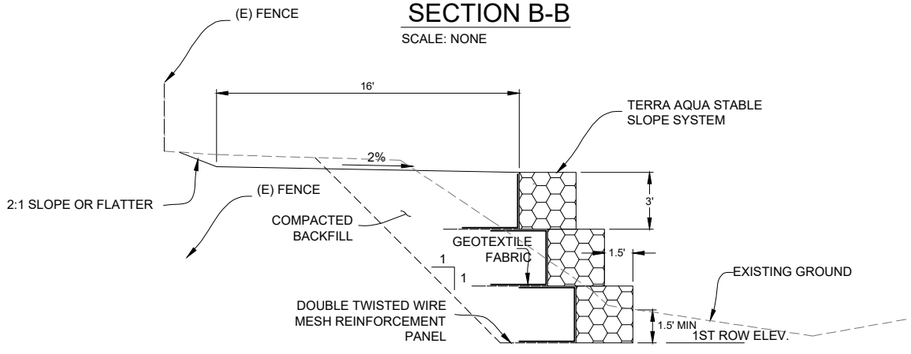

SECTION C-C

SCALE: NONE

REGISTERED PROFESSIONAL ENGINEER
BRIAN M. MILLER
No. C58593
Exp. 12-31-24
CIVIL
STATE OF CALIFORNIA

M·H·M
ENGINEERING & SURVEYORS SINCE 1962
ENGINEERING-SURVEYING
1204 "E" STREET
MARYSVILLE, CALIF. 95901-0053
Ph: (530)742-6485

Symbol	Description	Date	Approved

Designed by: MHM INCORPORATED
Drawn by: KAS
Spec No: 16137
Date: 05-23-24
Design file no: 16137
Drawing Code: R1
Reviewed by: SMM
Submitted by:
Civil Engineer
File name: 16137_R1_.dgds
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Plot scale: AS NOTED
Rev:

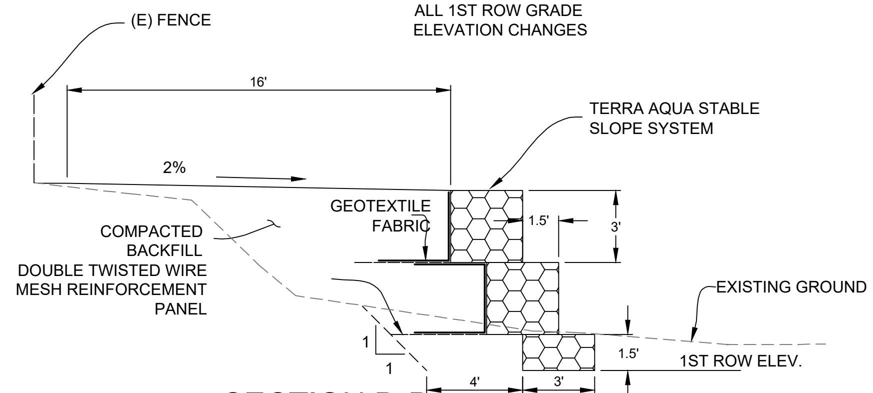
TYPICAL CROSS SECTIONS
BLACKER DRAINAGE CANAL

Job Title:

CONSTRUCTION DOCUMENTS FOR:
Blacker Drainage Canal
Slope Rehabilitation Project
Yolo County, California
Reclamation District No. 900

Sheet reference number:
R1
Sheet 10 of 14

NOTE:
PROVIDE SMOOTH TRANSITIONS BETWEEN ALL 1ST ROW GRADE ELEVATION CHANGES



SECTION D-D
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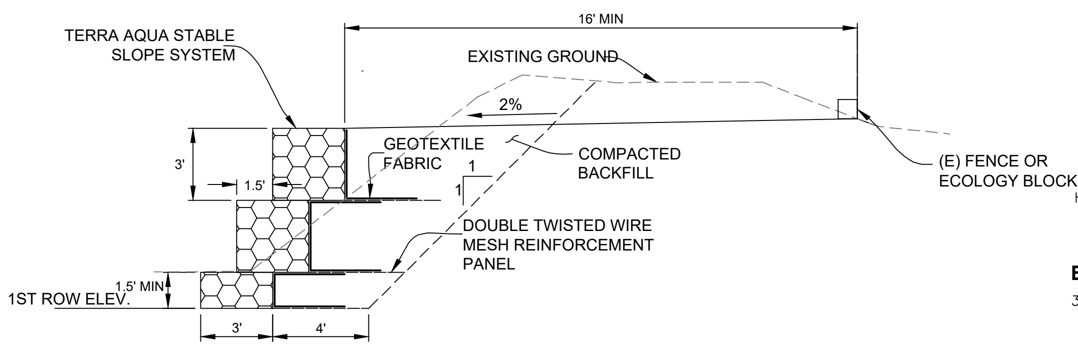

SECTION E-E
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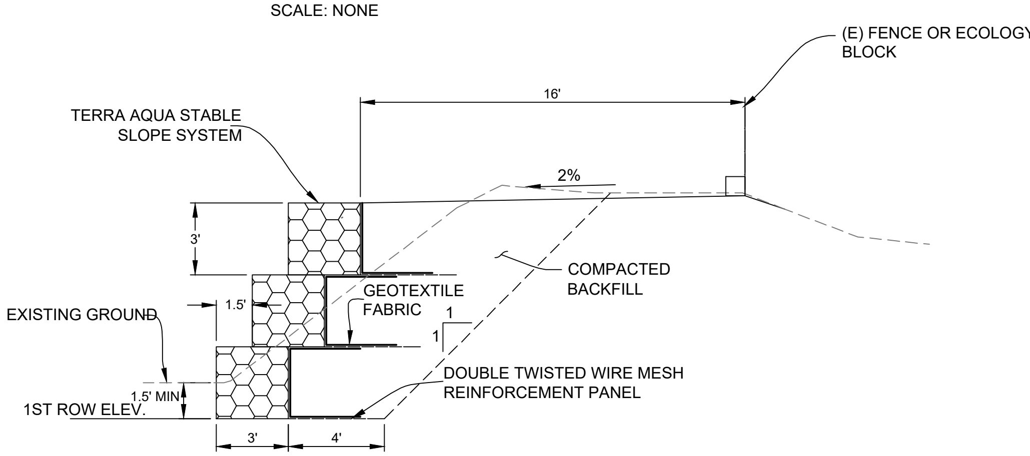
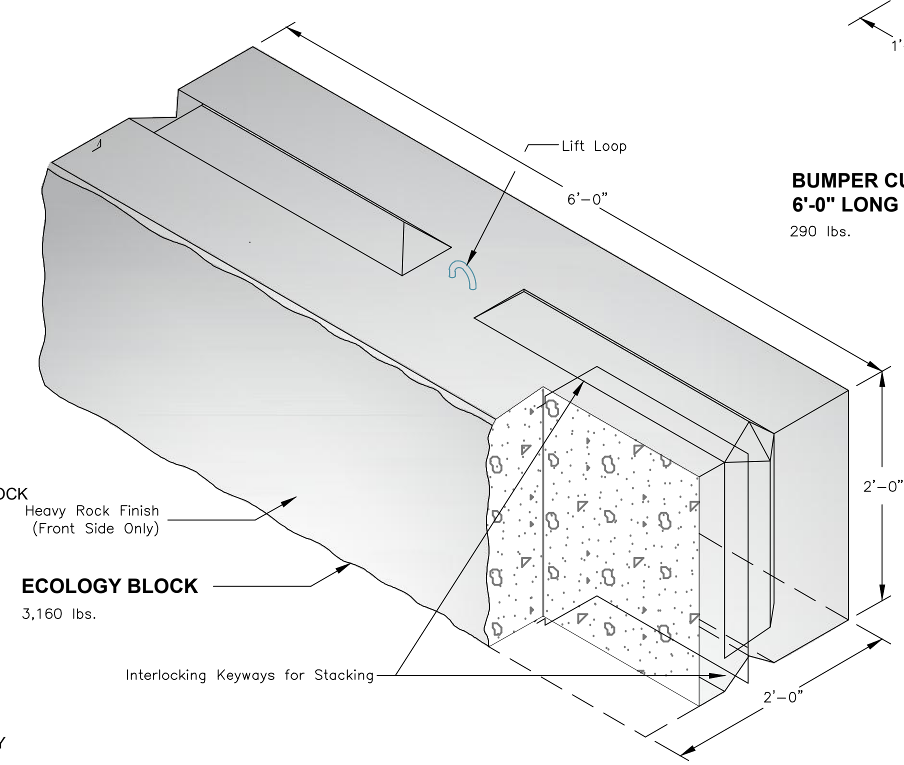
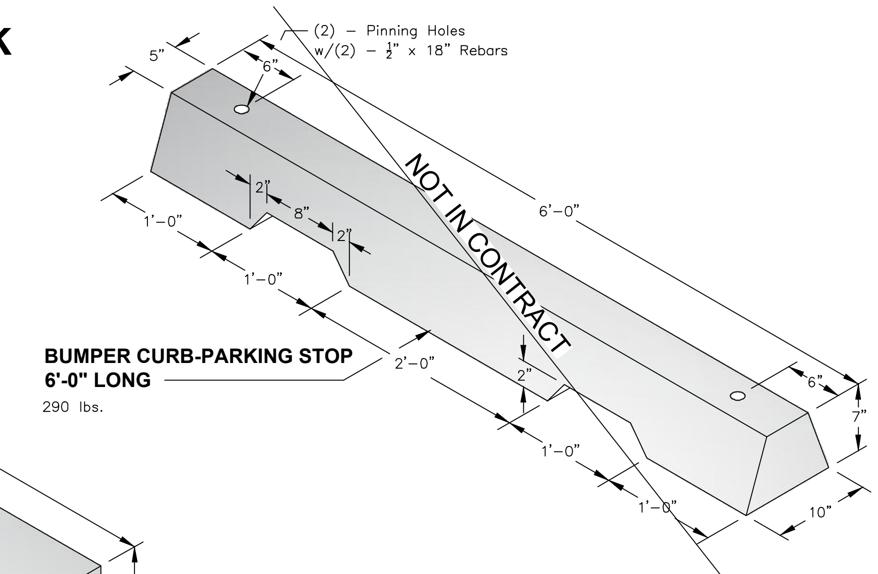


SECTION E-E (ALTERNATE)
SCALE: NONE

BUMPER CURBS / ECOLOGY BLOCK





***CONCRETE BLOCKS SHALL BE PLACED ON SUBGRADE COMPACTED TO 90 PERCENT RELATIVE COMPACTION.**

Oldcastle Precast® PO Box 323, Wilsonville, Oregon 97070-0323 Tel: (503) 682-2844 Fax: (503) 682-2657	B. CURB / E. BLOCK	BUMPER CURBS ECOLOGY BLOCK
	File Name: 020-CRBBLK	
	Issue Date: 2016	
	oldcastleprecast.com/wilsonville	

M·H·M
ENGINEERS & SURVEYORS SINCE 1932
ENGINEERING-SURVEYING
1204 "E" STREET
MARYSVILLE, CALIF. 95901-0053
Ph: (530)742-6485

Symbol	Description	Date	Approved

Designed by: MHM INCORPORATED
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Rev.
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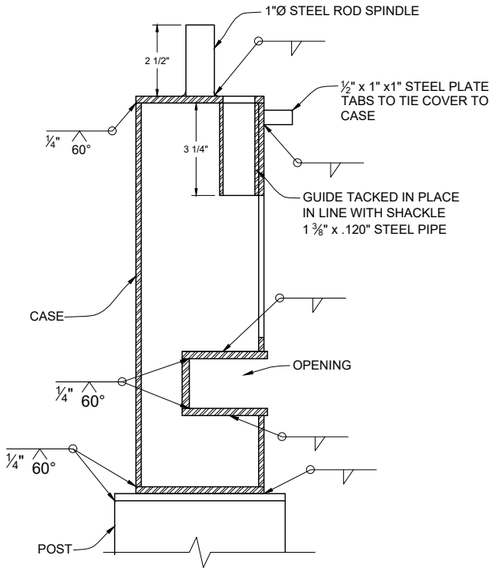
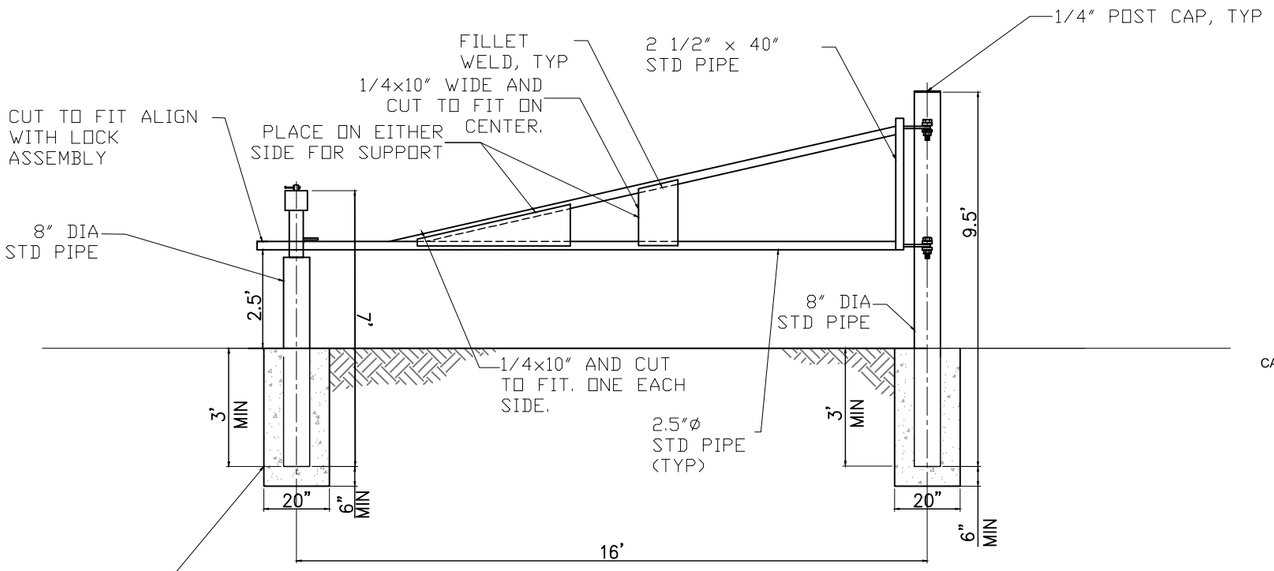
Design file no: 16137
Reviewed by: SMM
Drawing Code: R1
Submitted by: Civil Engineer
File name: 16137_R1_60ds
Plot date: 05-23-24
Plot scale: AS NOTED

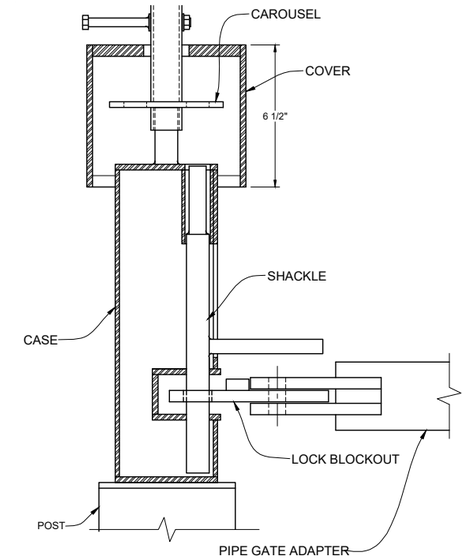
TYPICAL CROSS SECTIONS AND ECOLOGY BLOCKS BLACKER DRAINAGE CANAL

Job Title:
CONSTRUCTION DOCUMENTS FOR:
Blacker Drainage Canal
Slope Rehabilitation Project
Yolo County, California
Reclamation District No. 900

Sheet reference number:
R2
Sheet 11 of 14





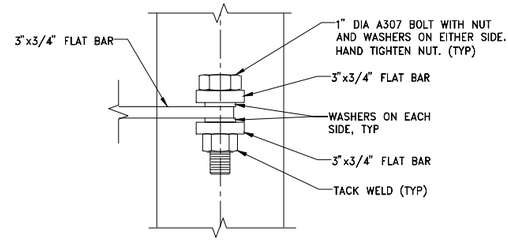


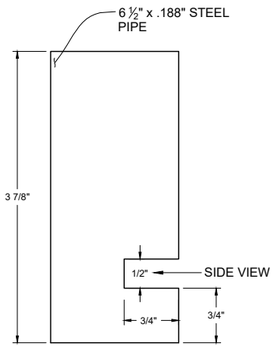
1/– TYPICAL CAROUSEL PIPE GATE DETAIL
SCALE: NTS

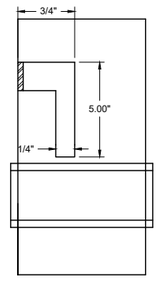
ROTARY LOCK SIDE
NOT TO SCALE

PIPE GATE NOTES:

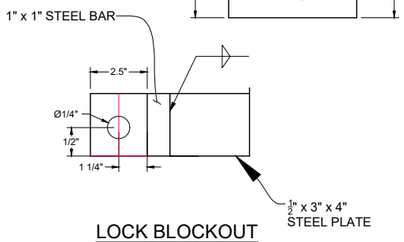
1. PROVIDE POST SUPPORTS (HOLD BACK POSTS) IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
2. PAINT GATE WITH 2 COATS OF YELLOW PAINT.
3. 1/4" CAP ON ALL POSTS.
4. ALL PIPE SHALL BE GALVANIZED STEEL



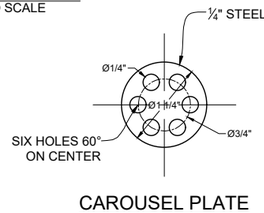




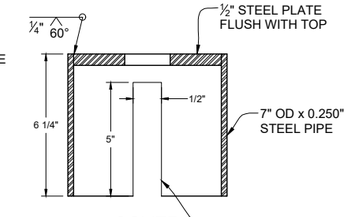
CASE BODY SIDE
NOT TO SCALE



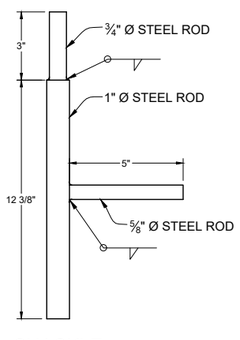
LOCK BLOCKOUT
NOT TO SCALE



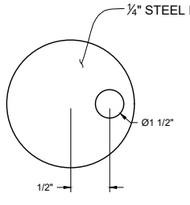
CAROUSEL PLATE
NOT TO SCALE



COVER
NOT TO SCALE



SHACKLE
NOT TO SCALE



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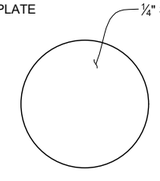

CASE BOTTOM
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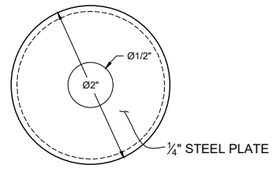
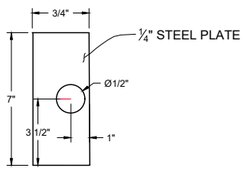
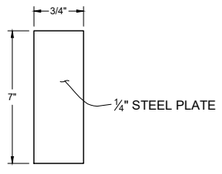


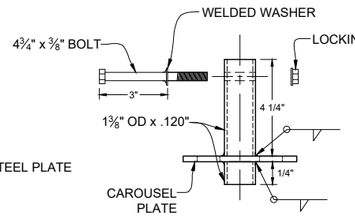
COVER PLAN VIEW
NOT TO SCALE



OPENING TOP/BOTTOM
NOT TO SCALE

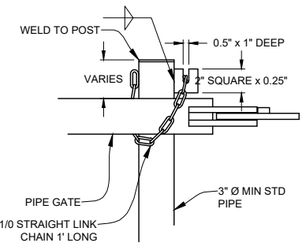


OPENING BACK
NOT TO SCALE



CAROUSEL
NOT TO SCALE

2/– GATE HINGE ASSEMBLY
NOT TO SCALE



BUMPER AND GATE KEEPER 2
NOT TO SCALE

M·H·M
ENGINEERING & SURVEYING SINCE 1962
ENGINEERING-SURVEYING
1204 "F" STREET
MARYSVILLE, CALIF. 95901-0053
Ph: (530)742-6485

Rev.	Description	Date	Approved

Date: 05-23-24
Design file no: 16137
Drawing Code: R1
File name: 16137_R1_00cfs
Plot date: 05-23-24
Plot scale: AS NOTED

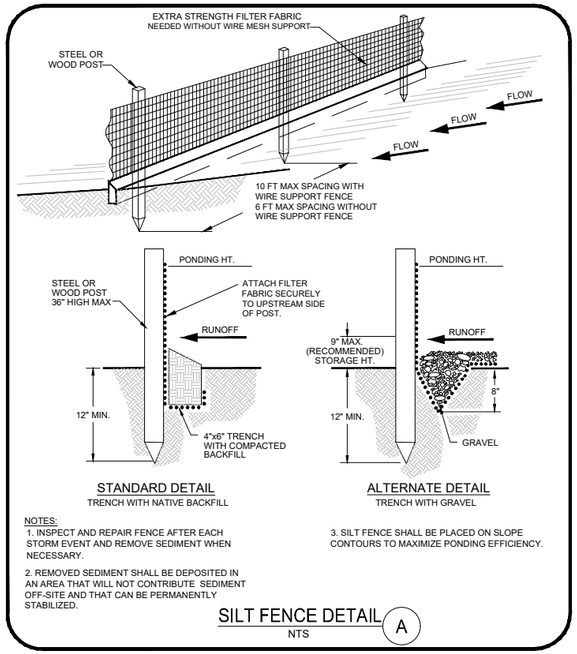
Designed by: MHM INCORPORATED
Drawn by: K4S
Spec No.: 16137
Reviewed by: SMM
Submitted by: Civil Engineer

PIPE GATE DETAIL
BLACKER DRAINAGE CANAL

Job Title:

CONSTRUCTION DOCUMENTS FOR:
Blacker Drainage Canal
Slope Rehabilitation Project
Yolo County, California
Reclamation District No. 900

Sheet reference number:
R3
Sheet 12 of 14



STANDARD DETAIL
TRENCH WITH NATIVE BACKFILL

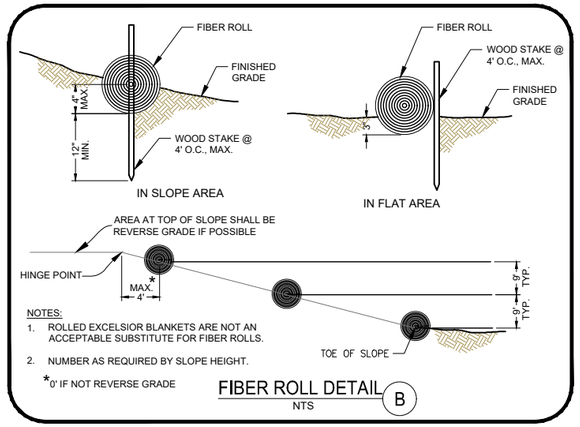
ALTERNATE DETAIL
TRENCH WITH GRAVEL

NOTES:
1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.

2. REMOVED SEDIMENT SHALL BE DEPOSITED IN AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND THAT CAN BE PERMANENTLY STABILIZED.

3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.

SILT FENCE DETAIL A
NTS

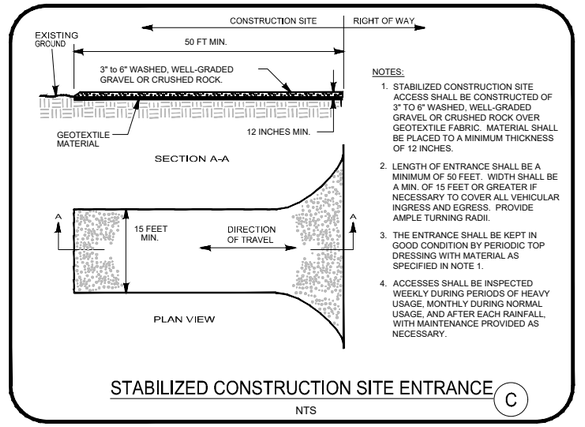


NOTES:
1. ROLLED EXCELSIOR BLANKETS ARE NOT AN ACCEPTABLE SUBSTITUTE FOR FIBER ROLLS.

2. NUMBER AS REQUIRED BY SLOPE HEIGHT.

*0' IF NOT REVERSE GRADE

FIBER ROLL DETAIL B
NTS



NOTES:
1. STABILIZED CONSTRUCTION SITE ACCESS SHALL BE CONSTRUCTED OF 3" TO 6" WASHED, WELL-GRADED GRAVEL OR CRUSHED ROCK OVER GEOTEXTILE FABRIC. MATERIAL SHALL BE PLACED TO A MINIMUM THICKNESS OF 12 INCHES.

2. LENGTH OF ENTRANCE SHALL BE A MINIMUM OF 50 FEET. WIDTH SHALL BE A MIN. OF 15 FEET OR GREATER IF NECESSARY TO COVER ALL VEHICULAR INGRESS AND EGRESS. PROVIDE AMPLE TURNING RADII.

3. THE ENTRANCE SHALL BE KEPT IN GOOD CONDITION BY PERIODIC TOP DRESSING WITH MATERIAL AS SPECIFIED IN NOTE 1.

4. ACCESSES SHALL BE INSPECTED WEEKLY DURING PERIODS OF HEAVY USAGE, MONTHLY DURING NORMAL USAGE, AND AFTER EACH RAINFALL, WITH MAINTENANCE PROVIDED AS NECESSARY.

STABILIZED CONSTRUCTION SITE ENTRANCE C
NTS

LEGEND

- SILT FENCE, SC-1 & 21(A)
- STABILIZED CONSTRUCTION ENTRANCE, TC-1 & 21(C)
- VEC — VEHICLE & EQUIPMENT CLEANING, NS-8
- VEF — VEHICLE & EQUIPMENT FUELING, NS-9
- VEM — VEHICLE & EQUIPMENT MAINTENANCE, NS-10
- GENERAL FIBER ROLLS, SC-5 (2) & 21(B)
- STREET SWEEPING AND VACUUMING, SC-7
- STORMWATER DISCHARGE LOCATION / SAMPLE LOCATION

NOTES:
1.) CONTRACTOR SHALL KEEP THE SITE CLEAN UTILIZING "GOOD HOUSEKEEPING" PRACTICES DESCRIBED IN THE PROJECT "STORM WATER POLLUTION PREVENTION PLAN" (SWPPP) / PERMIT.
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DETAILS CAN BE FOUND IN THE PROJECT SWPPP OR THE CALTRANS STORM WATER QUALITY HANDBOOK "CURRENT EDITION"

50 25 0 50 150
SCALE 1"=50'

REGISTERED PROFESSIONAL ENGINEER
BRIAN M. MINARD
No. C52593
Exp. 12-31-24
CIVIL
STATE OF CALIFORNIA

M·H·M
ENGINEERS & SURVEYORS SINCE 1962
ENGINEERING-SURVEYING
1204 "E" STREET
MARYSVILLE, CALIF. 95901-0053
Ph: (530)742-6485

Symbol	Description	Date	Approved

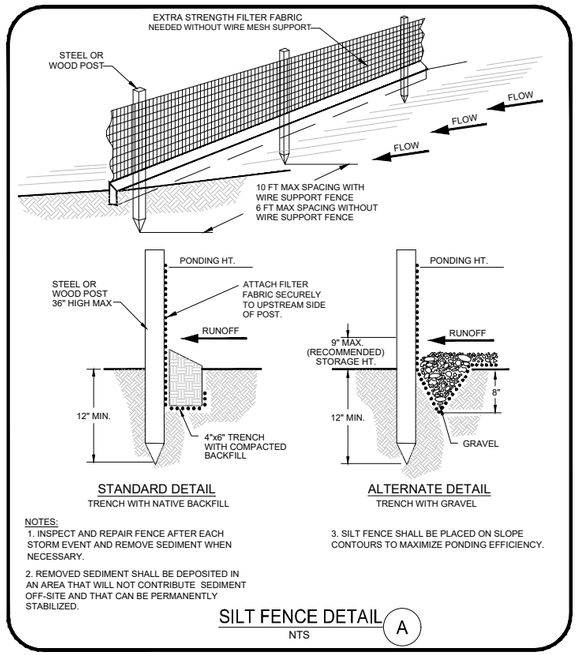
Designed by: MHM INCORPORATED
Drawn by: K&S
Spec No.: 16137
Date: 05-23-24
Design file no: 16137
Drawing Code: EC1
Reviewed by: SMM
Submitted by:
Civil Engineer
Rev:
File name: 16137_EC1_60ds
Plot date: 05-23-24
Plot scale: AS NOTED

EROSION CONTROL PLAN
BLACKER DRAINAGE DITCH

Job Title:

CONSTRUCTION DOCUMENTS FOR:
Blacker Drainage Canal
Slope Rehabilitation Project
Yolo County, California
Reclamation District No. 900

Sheet reference number:
EC1
Sheet 13 of 14



STANDARD DETAIL
TRENCH WITH NATIVE BACKFILL

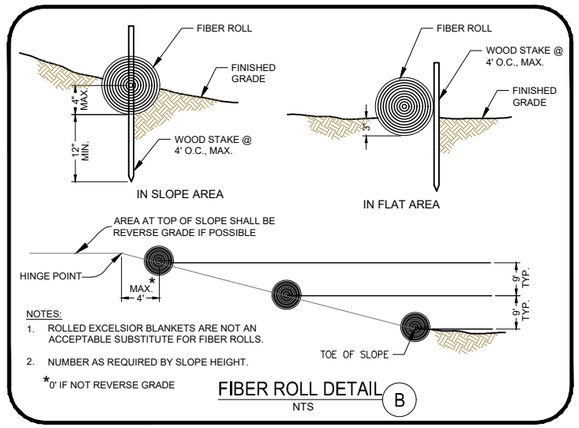
ALTERNATE DETAIL
TRENCH WITH GRAVEL

NOTES:
1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.

2. REMOVED SEDIMENT SHALL BE DEPOSITED IN AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND THAT CAN BE PERMANENTLY STABILIZED.

3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.

SILT FENCE DETAIL (A)
NTS

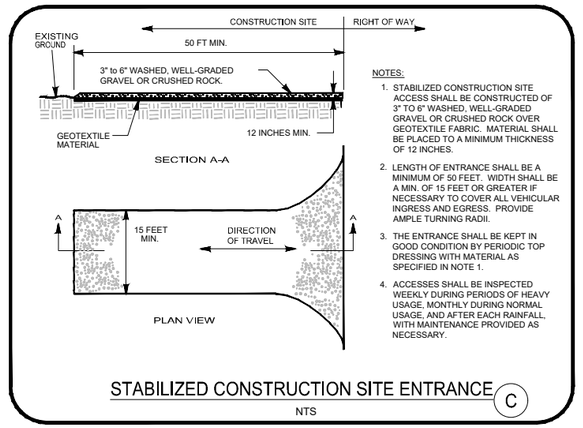


NOTES:
1. ROLLED EXCELSIOR BLANKETS ARE NOT AN ACCEPTABLE SUBSTITUTE FOR FIBER ROLLS.

2. NUMBER AS REQUIRED BY SLOPE HEIGHT.

*0' IF NOT REVERSE GRADE

FIBER ROLL DETAIL (B)
NTS



NOTES:
1. STABILIZED CONSTRUCTION SITE ACCESS SHALL BE CONSTRUCTED OF 3" TO 6" WASHED, WELL-GRADED GRAVEL OR CRUSHED ROCK OVER GEOTEXTILE FABRIC. MATERIAL SHALL BE PLACED TO A MINIMUM THICKNESS OF 12 INCHES.

2. LENGTH OF ENTRANCE SHALL BE A MINIMUM OF 50 FEET. WIDTH SHALL BE A MIN. OF 15 FEET OR GREATER IF NECESSARY TO COVER ALL VEHICULAR INGRESS AND EGRESS. PROVIDE AMPLE TURNING RADII.

3. THE ENTRANCE SHALL BE KEPT IN GOOD CONDITION BY PERIODIC TOP DRESSING WITH MATERIAL AS SPECIFIED IN NOTE 1.

4. ACCESSES SHALL BE INSPECTED WEEKLY DURING PERIODS OF HEAVY USAGE, MONTHLY DURING NORMAL USAGE, AND AFTER EACH RAINFALL, WITH MAINTENANCE PROVIDED AS NECESSARY.

STABILIZED CONSTRUCTION SITE ENTRANCE (C)
NTS

LEGEND

- SILT FENCE, SC-1 & 21 (A)
- STABILIZED CONSTRUCTION ENTRANCE, TC-1 & 21 (C)
- VEC — VEHICLE & EQUIPMENT CLEANING, NS-8
- VEF — VEHICLE & EQUIPMENT FUELING, NS-9
- VEM — VEHICLE & EQUIPMENT MAINTENANCE, NS-10
- GENERAL FIBER ROLLS, SC-5 (2) & 21 (B)
- STREET SWEEPING AND VACUUMING, SC-7
- STORMWATER DISCHARGE LOCATION / SAMPLE LOCATION

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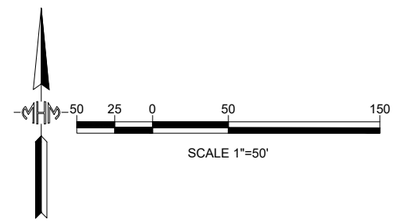

M·H·M
ENGINEERS & SURVEYORS SINCE 1962
ENGINEERING-SURVEYING
1204 "E" STREET
MARYSVILLE, CALIF. 95901-0053
Ph: (530)742-6485

No.	Description	Date	Approved

Designed by: MHM INCORPORATED
Drawn by: KAS
Spec No.: 16137
Reviewed by: SMM
Submitted by:
Civil Engineer
Date: 05-23-24
Design file no: 16137
Drawing Code: EC2
File name: 16137_EC2_60ds
Plot date: 10-31-24
Plot scale: AS NOTED
Rev:

EROSION CONTROL PLAN
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Sheet 14 of 14