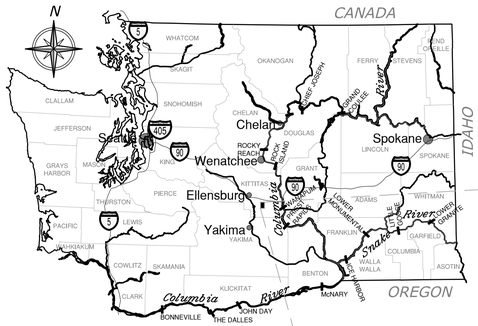
North Branch Pump Lateral Lining

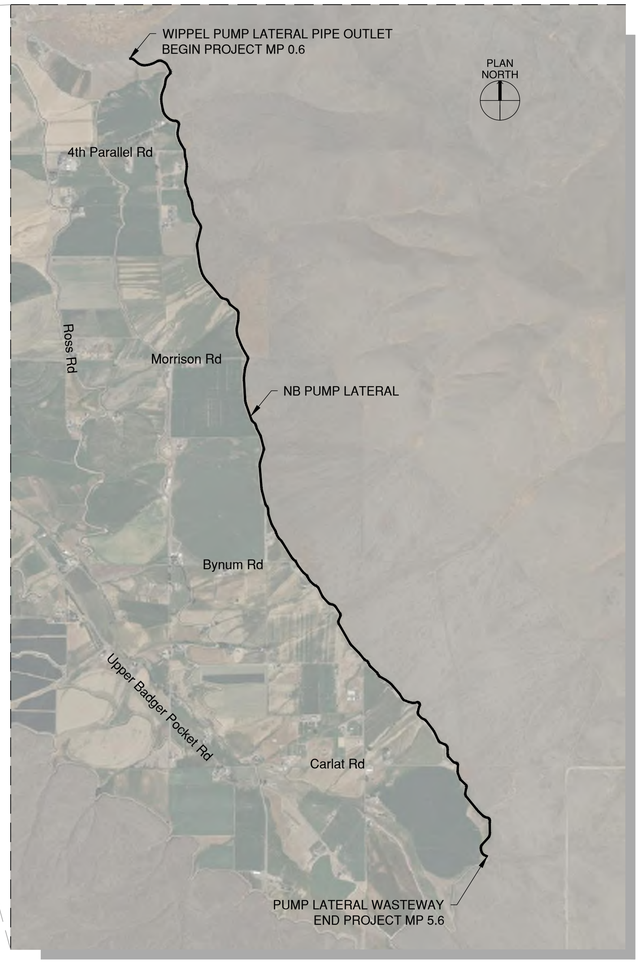
CONTRACT NO. KRD 2022-PS-01

MILEPOST MP 0.6 (STA 34+74)

TO MILEPOST MP 5.6 (STA 294+00)



Kittitas Reclamation District
315 North Water Street
P.O. Box 276
Ellensburg, WA 98926
Phone: (509) 925-6158 Fax: (509) 925-7425



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

DRAWING SET INDEX			
NO.	DRAWING	SHEET TITLE	SHEET SUBTITLE
1	G-001	INDEX COVER SHEET	LOCATION AND VICINITY MAP
2	G-002	GENERAL	ABBREVIATIONS, SYMBOLS AND LEGENDS
3	G-003	GENERAL	NOTES AND SPECIFICATIONS
4	G-004	GENERAL	TABLE CANAL ALIGNMENT 1 OF 2
5	G-005	GENERAL	TABLE CANAL ALIGNMENT 2 OF 2
6	G-101	GENERAL	SITE ALIGNMENT PLAN 1 OF 3
7	G-102	GENERAL	SITE ALIGNMENT PLAN 2 OF 3
8	G-103	GENERAL	SITE ALIGNMENT PLAN 3 OF 3
9	C-100	OVERALL SITE PLAN	KEY MAP
10	C-101	PLAN AND PROFILE	STA. 34+67 TO 45+27
11	C-102	PLAN AND PROFILE	STA. 45+27 TO 55+87
12	C-103	PLAN AND PROFILE	STA. 55+87 TO 66+47
13	C-104	PLAN AND PROFILE	STA. 66+47 TO 77+07
14	C-105	PLAN AND PROFILE	STA. 77+07 TO 87+67
15	C-106	PLAN AND PROFILE	STA. 87+67 TO 98+27
16	C-107	PLAN AND PROFILE	STA. 98+27 TO 108+87
17	C-108	PLAN AND PROFILE	STA. 108+87 TO 119+47
18	C-109	PLAN AND PROFILE	STA. 119+47 TO 130+07
19	C-110	PLAN AND PROFILE	STA. 130+07 TO 140+67
20	C-111	PLAN AND PROFILE	STA. 140+67 TO 151+27
21	C-112	PLAN AND PROFILE	STA. 151+27 TO 161+87
22	C-113	PLAN AND PROFILE	STA. 161+87 TO 172+47
23	C-114	PLAN AND PROFILE	STA. 172+47 TO 183+07
24	C-115	PLAN AND PROFILE	STA. 183+07 TO 193+67
25	C-116	PLAN AND PROFILE	STA. 193+67 TO 204+27
26	C-117	PLAN AND PROFILE	STA. 204+27 TO 214+87
27	C-118	PLAN AND PROFILE	STA. 214+87 TO 225+47
28	C-119	PLAN AND PROFILE	STA. 225+47 TO 236+07
29	C-120	PLAN AND PROFILE	STA. 236+07 TO 246+67
30	C-121	PLAN AND PROFILE	STA. 246+67 TO 257+27
31	C-122	PLAN AND PROFILE	STA. 257+27 TO 267+87
32	C-123	PLAN AND PROFILE	STA. 267+87 TO 278+47
33	C-124	PLAN AND PROFILE	STA. 278+47 TO 289+07
34	C-125	PLAN AND PROFILE	STA. 289+07 TO 294+00

DRAWING SET INDEX			
NO.	DRAWING	SHEET TITLE	SHEET SUBTITLE
35	C-301	ALIGNMENT SECTIONS	STA. 36+00 TO 58+00
36	C-302	ALIGNMENT SECTIONS	STA. 60+00 TO 82+00
37	C-303	ALIGNMENT SECTIONS	STA. 84+00 TO 106+00
38	C-304	ALIGNMENT SECTIONS	STA. 108+00 to 130+00
39	C-305	ALIGNMENT SECTIONS	STA. 132+00 TO 154+00
40	C-306	ALIGNMENT SECTIONS	STA. 156+00 TO 178+00
41	C-307	ALIGNMENT SECTIONS	STA. 180+00 TO 202+00
42	C-308	ALIGNMENT SECTIONS	STA. 204+00 TO 226+00
43	C-309	ALIGNMENT SECTIONS	STA. 228+00 TO 250+00
44	C-310	ALIGNMENT SECTIONS	STA. 252+00 TO 274+00
45	C-311	ALIGNMENT SECTIONS	STA. 276+00 TO 293+95
46	C-321	EXISTING AND PROPOSED CANAL CROSS-SECTIONS	SHEET 1
47	C-401	DETAILED PLAN	MP 4.18 - MP 4.21
48	C-501	TYPICAL CANAL LINER	PARTIAL PLAN, SECTION AND DETAILS
49	C-502	NEW OR REPLACEMENT TURN-OUTS	DETAILS 1 OF 3
50	C-503	NEW OR REPLACEMENT TURN-OUTS	DETAILS 2 OF 3
51	C-504	NEW OR REPLACEMENT TURN-OUTS	DETAILS 3 OF 3
52	C-505	CANAL LINING	TYPICAL DETAILS
53	C-506	TYPICAL OVERSHOT DRAINS	PARTIAL PLAN, SECTIONS AND DETAILS
54	C-507	TYPICAL CANAL CHECK STRUCTURE	PLAN, SECTIONS AND ELEVATIONS
55	C-508	TYPICAL ACCESS GANGWAY	PARTIAL PLAN, SECTION AND DETAILS
56	C-511	FENCING - WIRE AND BRACING	TYPICAL DETAILS
57	C-512	FENCING - WIRE STRETCH GATE, STILE AND ANCHOR POSTS	TYPICAL DETAILS
58	C-513	ELK FENCE	TYPICAL DETAILS
59	C-514	ELK FENCE GATE	TYPICAL DETAILS
60	C-515	DOUBLE GATE BARRIER	TYPICAL DETAILS
61	C-521	USFS STANDARD PLAN	PRECAST CONCRETE FOUNDATION FOR RS201M CATTLE GUARD
62	C-522	USFS STANDARD PLAN	WELDED CATTLE GUARD, OPTIONAL HINGED CLEANOUT
63	C-523	DISTRIBUTION BOX	DETAILS
64	C-524	WEIR BOX	DETAILS
65	C-525	TYPICAL UNDERSHOT DRAINS	DETAILS
66	C-531	RECORD DRAWING	PROFILE AND SECTIONS (REF DWG 24263)
67	C-532	RECORD DRAWING	CONCRETE PIPE CULVERTS REF DWG 33-D-324 (23183)

Kittitas Reclamation District

Jacobs
1001 120th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: T. PIOTROWSKI
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907G-001.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

STATE OF WASHINGTON — 24012780 — REGISTERED PROFESSIONAL ENGINEER — 10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - R2
REV NO	10-07-2026			A. Takeshi	ISSUED FOR BID - 2026/27 REACH 2
0					

X DRAWN

X ACCEPTED

10-07-2026

INDEX COVER SHEET

LOCATION AND VICINITY MAP

G-001

SHEET 1

SOLICITATION NO.: 33-NBC-1008

LAST SAVED DATE 2025-10-08
LAST SAVED BY WHITTLN

CAD SYSTEM AutoCAD 24.3S (LMS TECH)
CAD FILENAME W3Y10907G-001.DWG

ABBREVIATIONS

A,AMPS	AMPERES
ABT	ABOUT
ABV FF	ABOVE FINISH FLOOR
ACP	ASBESTOS CEMENT PIPE
ADA	AMERICANS WITH DISABILITIES ACT
ALUM	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
APPROX	APPROXIMATELY
AR	AIR RELEASE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AUX	AUXILIARY
@	AT
BE	BOTH ENDS
BETW	BETWEEN
BFV	BUTTERFLY VALVE
BLDG	BUILDING
BO	BLOW OFF
BOT	BOTTOM
BMP	BEST MANAGEMENT PRACTICE
BRG	BEARING
CL	CENTERLINE
C	CHANNEL STEEL, CONDUIT
CJ	CONSTRUCTION JOINT
CMP	CORRUGATED METAL PIPE
CLR	CLEAR
CO	COUNTY, CLEANOUT
COL'S	COLUMNS
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTROL, CONTINUED, CONTINUOUS
COEP	CORRUGATED POLYETHYLENE PIPE
CPP	CORRUGATED PLASTIC PIPE
CRES	CORROSION RESISTANT STEEL (STAINLESS STEEL)
Ø	DIAMETER, PHASE
DI	DUCTILE IRON
DIA	DIAMETER
DET	DETAIL
DIFF	DIFFERENTIAL
DWG	DRAWING
E	EAST, EASTING, ELECTRICAL (UNDERGROUND)
EA	EACH
EF	EACH FACE
ELECT	ELECTRICAL
EL, ELEV	ELEVATION
EMBED	EMBEDMENT
EMER	EMERGENCY
EOG	EDGE OF GRAVEL
EQ	EQUAL
EW	EACH WAY
EXIST/EX	EXISTING
FB	FLAT BAR
FF	FAR FACE
FFE	FINISHED FLOOR ELEVATION
FIG	FIGURE
FLNG, FLG	FLANGE
FM	FORCE MAIN, FLOW METER
FT	FEET
FTG	FOOTING
G	GROUND, GAS
GA	GAGE, GAUGE
GALV	GALVANIZED
GRT'G	GRATING
GV	GATE VALVE
GW	GROUND WATER
H	HIGH
HDPE	HIGH DENSITY POLYETHYLENE
HEX	HEXAGONAL
HORIZ	HORIZONTAL
HP	HORSEPOWER, HIGH POINT
HSS	HOLLOW STRUCTURAL SECTION
HT	HEIGHT
HTR	HEATER
HVAC	HEATING, VENTILATION, AND AIR CONDITIONING
ID	INSIDE DIAMETER
IE (INV EL)	INVERT ELEVATION
INFO	INFORMATION
INST	INSTRUMENT
JB	JUNCTION BOX
KSI	THOUSAND POUNDS PER SQUARE INCH
KV	KILOVOLT

ABBREVIATIONS (CONTINUED)

KVA	KILOVOLT AMPERE
KW	KILOWATT
L	ANGLE STEEL, LENGTH, LINE
LF	LINEAR FOOT
LG	LONG
LOC	LOCATION
LOC'D	LOCATED
LP	LOW POINT
LT	LIGHT, LEFT
LTG	LIGHTING
MAX	MAXIMUM
MC	MISCELLANEOUS CHANNEL
MECH	MECHANICAL
MH	MANHOLE
MFG	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
MON	MONOLITH
MP, M.P.	MILE POST
MS	MOTOR STARTER MACHINE SCREW
MTD	MOUNTED
MTG	MOUNTING
MTZ	MOTORIZED
N	NORTH, NORTHING
NEC	NATIONAL ELECTRIC CODE
NF	NEAR FACE, NEAR FLANGE
NIC	NOT IN CONTRACT
NMC	NON METALLIC CONDUIT
NMHW	NORMAL MAXIMUM HIGH WATER
NO, #	NUMBER
NOM	NOMINAL
NP	NAME PLATE
NTP	AMERICAN NATIONAL STANDARD TAPER PIPE THREAD
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTER DIAMETER
OHP	OVERHEAD POWER
OHT	OVERHEAD TELEPHONE
OHWM	ORDINARY HIGH WATER MARK
OPER	OPERATION
OPNG	OPENING
OPP HAND	OPPOSITE HAND
P	POLE, POWER
PA	POLLUTION ABATEMENT
PB	PULLBOX
PC	POINT OF CURVATURE
PE	POLYETHYLENE
PERF	PERFORATED
PG	PLATE GIRDER
PH	PHASE
PI	POINT OF INTERSECTION
PIV	POST-INDICATOR VALVE
PL	PLATE
PLCS	PLACES
PNL	PANEL
PNT	COORDINATE POINT
PSI	POUNDS PER SQUARE INCH
PT	POINT OF TANGENCY
PUD	PUBLIC UTILITY DISTRICT
PVC	POLYVINYL CHLORIDE CONDUIT OR PIPE, POLYVINYL CHLORIDE,
PVI	POINT OF VERTICAL CURVATURE POINT OF VERTICAL INTERSECTION
PVMT	PAVEMENT
PVT	POINT OF VERTICAL TANGENCY
PW	POTABLE WATER
R, RAD	RADIUS
RB	RIGHT BANK
RCP	REINFORCED CONCRETE PIPE
RED	REDUCER
REC, RECEPT	RECEPTACLE
REF	REFERENCE
REL	RELAY
REM	REMOTE
REQ'D	REQUIRED
RGS	RIGID GALVANIZED STEEL
RJ	RESTRAINED JOINT
ROW	RIGHT OF WAY
RT	RIGHT
S	S-SHAPE STEEL, SOUTH
SCH	SCHEDULE
SD	STORM DRAIN
SE	SOUTH EAST
SECT	SECTION
SF	SQUARE FEET
SHT	SHEET
SIM	SIMILAR

ABBREVIATIONS (CONTINUED)

SPA	SPACES, SPACING
SPEC	SPECIFICATION
SS	STAINLESS STEEL (CRES) SANITARY SEWER
STA	STATION
STD	STANDARD
STIFF	STIFFENER
STL	STEEL
STR	STRUCTURAL
SYMM	SYMMETRICAL
T&B	TOP AND BOTTOM
TB	THRUST BLOCK
TBE	THREADED BOTH ENDS
TESC	TEMPORARY EROSION AND SEDIMENT CONTROL
THD'D	THREADED
THRU	THROUGH
TOC	TOP OF CONCRETE, TOP OF CURB
TOB	TOP OF BANK
TOG	TOP OF GRATING
TOS	TOP OF STEEL
TS	TUBE SECTION
TYP	TYPICAL
UG	UNDERGROUND
UGP	UNDERGROUND POWER
UGD	UNDERGROUND DATE/TELEPHONE
UHMWPE	ULTRA HIGH MOLECULAR WEIGHT POLYETHYLENE
UNC	UNIFIED NATIONAL COARSE
UNO	UNLESS NOTED OTHERWISE
V	VOLTS
VC	VERTICAL CURVE
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
W	W-SHAPE STEEL, WIRE, WIDE WATER, WEST
W/	WITH
WG	WIRE GAUGE
WM	WATER METER
WP	WEATHERPROOF, WORK POINT
WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
WT	WT STEEL SHAPE
XFMR	TRANSFORMER
XMTR	TRANSMITTER
XS PIPE	EXTRA STRONG PIPE (SCHEDULE 80 PIPE)

SHEET SYMBOLS

PLAN

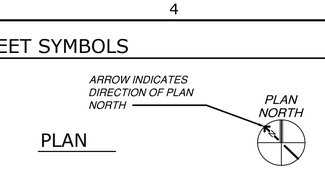
SECTION IDENTIFICATION

SECTION CUT ON SHEET XX

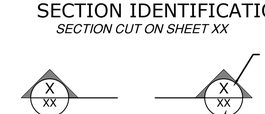
SECTION SHOWN ON SHEET XX

DETAIL IDENTIFICATION

DETAIL TAKEN FROM SHEET XX

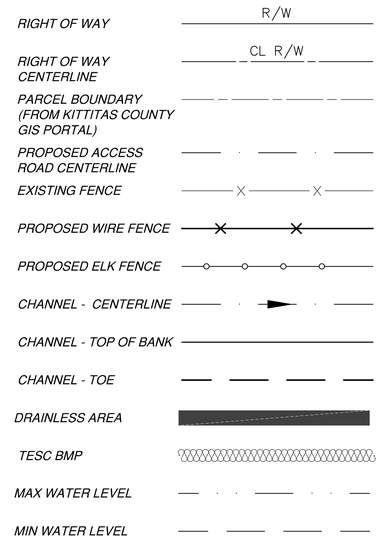


DETAIL SHOWN ON SHEET XX

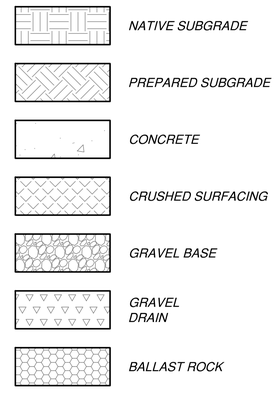


NOTE: IF DETAIL OR SECTION TAKEN AND SHOWN ON SAME SHEET, SHEET NUMBER IS REPLACED WITH A DASH

LINE TYPES



HATCH



Kittitas Reclamation District

Jacobs
1001 220th Avenue NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: T. PIOTROWSKI
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907G-002.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

STATE OF WASHINGTON · ANDREW M. TAKESHI · 24012780 · REGISTERED PROFESSIONAL ENGINEER · 10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - #2
REV NO 0	10-07-2026	A. Takeshi			ISSUED FOR BID - 2026/27 REACH 2

X
DRAWN

X
ACCEPTED

10-07-2026

GENERAL

ABBREVIATIONS, SYMBOLS AND LEGENDS

G-002

SHEET 2

SOLICITATION NO.: 33-NBC-1008

LAST SAVED DATE 2026-10-06
LAST SAVED BY WHITTLN

CAD SYSTEM AutoCAD 24.3S (LMS TECH)
CAD FILENAME W3Y10907G-002.DWG

GENERAL NOTES

G-1 THE WORK OF THIS CONTRACT SHALL BE PLANNED AND COORDINATED WITH OTHER WORK THAT MAY BE OCCURING AT OR IN THE VICINITY OF THE PROJECT SITE.

G-2 SOME WORK ACTIVITIES MAY ONLY OCCUR AT SPECIFIC TIMES TO MAINTAIN OPERATION OF EXISTING ADJACENT FACILITIES. THE CONTRACTOR SHALL COORDINATE HIS WORK SCHEDULE TO ACCOMMODATE THESE RESTRICTIONS. SEE CONTRACT SPECIFICATIONS.

G-3. REFER TO THE 2016 EDITION OF THE "STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION" BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT) FOR INFORMATION NOT CONTAINED IN THE NOTES.

G-4. ALL SECTIONS, DETAILS, AND NOTES SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS UNLESS OTHERWISE NOTED.

G-5. WHEN DISCREPANCIES BETWEEN THE PROJECT DOCUMENTS ARE FOUND, IMMEDIATELY NOTIFY THE DISTRICT REPRESENTATIVE, FOR FINAL COORDINATION PRIOR TO ORDERING, FABRICATION, OR CONSTRUCTION.

G-6. THE DESIGN ADEQUACY AND SAFETY OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, AND SIMILAR ITEMS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF ALL PIPING, STRUCTURES, AND RELATED ITEMS PRIOR TO THE COMPLETION OF ALL INSTALLATION.

G-7. CALLOUTS LABELED "REFERENCE" OR "REF" ARE TAKEN FROM ORIGINAL PROJECT CONSTRUCTION DRAWINGS AND HAVE NOT BEEN FIELD VERIFIED. SEE ALSO NOTE G-5

G-8. DIMENSIONS NOT SHOWN SHALL BE ESTABLISHED BY THE CONTRACTOR, SUBJECT TO THE APPROVAL OF THE DISTRICT REPRESENTATIVE.

G-9. CONTRACTOR SHALL VERIFY THE SIZE AND LOCATION OF ALL EXISTING ITEMS AFFECTING THIS WORK PRIOR TO FABRICATION. CONFLICTS IN SIZE OR LOCATION SHALL BE REFERRED TO THE DISTRICT REPRESENTATIVE FOR RESOLUTION. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT ALL INTERFERENCES ARE RESOLVED AS REQUIRED FOR PROPER OPERATION OF EACH EQUIPMENT ITEM. SHOP DRAWINGS, WHERE REQUIRED, SHALL BE CHECKED AND APPROVED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTING TO THE DISTRICT REPRESENTATIVE FOR REVIEW. THE CONTRACTOR SHALL NOTE ITS REVIEW AND APPROVAL ON THE SUBMITTED DOCUMENT.VALVES AND CONTROLS OF EXISTING WATER SYSTEMS SHALL BE OPERATED ONLY BY DISTRICT PERSONNEL.

G-10. RESTORE DISTURBED DRIVING SURFACES BY GRADING SMOOTH TO MATCH EXISTING GRADES. FINISH WITH A MINIMUM OF 3 INCHES OF CRUSHED SURFACING BASE COURSE COMPACTED TO 90% OF MAXIMUM DENSITY.

G-11. UPON COMPLETION OF CONSTRUCTION, THE STAGING AREAS SHALL BE RESTORED BY DECOMPACTING THE SOILS AND REVEGETATION WITH THE HYDRO-SEEDING GRASS MIX. DECOMPACTION SHALL BE ACCOMPLISHED USING RIPPER EQUIPMENT TO A MINIMUM DEPTH OF 18-INCHES. RIPPING SHOULD BE COMPLETED IN AT LEAST TWO PASSES IN DIFFERENT DIRECTIONS (PERPENDICULAR TO EACH OTHER). SOILS SHOULD THEN BE DISCED AND CULTIPACKED TO SMOOTH IN PREPARATION FOR PLANTING. LEVELING AND GRADING IS NOT PREFERRED DURING DISCING WITH PREFERRED FINISHED SURFACE FOLLOWING, OR RECREATING, NATURAL TOPOGRAPHY WHEN POSSIBLE.

G-12. SUBSURFACE GEOTECHNICAL ELEMENTS OF THE PROJECT ARE BASED ON INTERPRETATION OF SOIL AND GROUNDWATER CONDITIONS ALONG THE NORTH BRANCH PUMP LATERAL CANAL AS DOCUMENTED IN NORTH BRANCH PUMP LATERAL LINING PROJECT - GEOTECHNICAL STUDY MEMORANDOM DATED FEBRUARY 25, 2025 DEVELOPED BY JACOBS.

G-13. PARCEL BOUNDARIES SHOWN ON THE PLANS ARE BASED ON TAX PARCEL GIS LAYER REFERENCED FROM KITTITAS COUNTY OPEN DATA PORTAL. THE GIS PARCEL LINES SHOULD BE USED AS A REFERENCE ONLY AS THEY ARE NOT A SUBSTITUE FOR A PROPERTY BOUNDARY SURVEY AND LACK THE ACCURACY AND METHODOLOGY TO DEFINE LEGAL BOUNDARIES.

CIVIL NOTES

C-1. EARTH WORK MATERIAL, BACKFILL AND COMPACTION SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS. ALL TOPSOIL ORGANICS, DEBRIS AND LOOSE SURFACE SOIL SHALL BE REMOVED FROM BENEATH CONCRETE FOOTINGS, SLABS, OR LINERS.

C-2. EXISTING TOPOGRAPHY AND SURFACE FEATURES WITHIN DISTRICT RIGHT OF WAY AS OF OCTOBER 2024 FIELD WORK PROVIDED BY:
CRUSE AND ASSOCIATES
217 E 4TH AVENUE
ELLENSBURG, WASHINGTON 98926
PHONE: 509-962-8242

C-3. VERTICAL DATUM:
NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), BASED ON TIES TO GEODETIC SURVEY MONUMENTS: AA629, AA6030, AA6051 AND SB0089.

C-4. HORIZONTAL DATUM:
WASHINGTON STATE PLANE, SOUTH ZONE, HIGH ACCURACY REFERENCE NETWORK, U.S. SURVEY FOOT. APPLY THE COMBINED SCALE FACTOR OF 0.99983635 TO CONVERT TO GROUND DISTANCES.

C-5. UNLESS NOTED OTHERWISE, PLAN AND PROFILE MEASUREMENTS GIVEN ARE GRID DISTANCES WHILE SECTION AND DETAIL MEASUREMENTS ARE LOCAL GROUND DISTANCES.

C-6. FOLLOW MANUFACTURERS RECOMMENDATIONS AND METHODS FOR IMPERMEABLE GEOCOMPOSITE LINER, MECHANICALLY STABILIZING GEOTEXTILE FABRIC, NONWOVEN CONSTRUCTION GEOTEXTILE FABRIC, AND SEMI-RIDGID DRAINAGE COMPOSITE BOARD.

C-7. HYDRO-SEEDING: GRASS SEEDING FOR HYDRO-SEEDING FOR EROSION CONTROL AND SLOPE STABILITY ENHANCEMENT SHALL BE IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATION SECTION 8-01.3(2)B. SEED MIX APPLICATION RATE SHALL MEET THE FOLLOWING REQUIREMENTS:

Seed by Common Name, "Source" and (Botanical name)	Pounds Pure Live Seeds (PLS) per Acre
Bluebunch Wheatgrass "Goloar" (Pseudoroegneria spicata)	15.02
Thickspike Wheatgrass "Schwendimar" (Agropyron trachycaulum)	12.21
Idaho Fescue "CTUIR / Umatilla" (Artemesia tridentata)	3.99
Sandberg Bluegrass "Hanford" (Poa sandbergii)	2.44
Prairie Junegrass "Umatilla" (Koeleria cristata)	0.92
Sand Dropseed "Western" (Sporobolus cryptandrus)	0.40
Common Yarrow "Yakima" (Achillea millifolium)	0.02
Total Pounds PLS Per Acre	35.00

C-8. MULCHING: HYDRO-SEEDING FOR EROSION CONTROL AND SLOPE STABILITY ENHANCEMENT SHALL INCLUDE LONG TERM MULCH HYDRAULICALLY APPLIED AT A RATE OF 3,500 POUNDS PER ACRE IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATIONS SECTION 8-01.3(2)D.

C-9. WIRE FENCING: EXISTING BARBED WIRE FENCING SHALL BE REPLACED OR RESTORED WHERE DISTURBED OR RELOCATED BY CONSTRUCTION ACTIVITIES AS SHOWN ON PLANS AND IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATIONS SECTION 8-12.3(2). FENCE TYPE CONSIST OF FIVE EQUALLY SPACED HORIZONTAL RUNS OF 2-STRAND BARBED WIRE.

TESC NOTES

E-1 BMPS SHOWN ON PLANS ARE FOR REFERENCE ONLY. CONTRACTOR TO DEVELOP AND IMPLEMENT AN EROSION AND SEDIMENT CONTROL PLAN AS PART OF ENVIRONMENTAL MITIGATION PLAN AS DIRECTED IN THE SPECIFICATIONS.

E-2 CONTRACTOR TO REFER TO 2019 STORMWATER MANAGEMENT MANUAL FOR EASTERN WASHINGTON WASHINGTON STATE DEPARTMENT OF ECOLOGY FOR SWPPP AND BMPS.

STRUCTURAL NOTES

S-1. ALL CONCRETE WORK SHALL COMPLY WITH THE REQUIREMENTS OF ACI 301-10.

S-2. ALL CONCRETE MIXES SHALL COMPLY WITH THE CURRENT WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CLASS 4000 CONCRETE UNLESS NOTED OTHERWISE. ALL CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 PSI. WATER TO CEMENTITIOUS MATERIAL RATIO OF 0.45 SHALL NOT BE EXCEEDED. AIR ENTRAINMENT SHALL MEET SEVERE EXPOSURE PER ACI 350 SECTION 4.2.1 REQUIREMENTS. THE NOMINAL MAXIMUM COARSE AGGREGATE SIZE SHALL BE AT LEAST 3/4", BUT NOT GREATER THAN 1 1/2". CALCIUM CHLORIDE (CACL2) OR OTHER WATER-SOLUABLE CHLORIDE ION ADMIXTURES SHALL NOT BE USED.

S-3. THE CONSTRUCTION PERIOD FOR THIS WORK IS LATE FALL TO EARLY SPRING. ALL COLD WEATHER CONCRETE WORK SHALL COMPLY WITH ACI 306R-10.

S-4. PROVIDE THE MINIMUM SLAB THICKNESSES SHOWN IN THE DRAWINGS FOR THE TYPICAL CANAL CONCRETE BOTTOM AND SIDE SLABS. THE MINIMUM SLAB THICKNESS IS MEASURED AT THE BASE HIGH POINT. THE BASE OF THESE SLABS RESTS ON A CANAL LINER PLACED ON GRADE. THIS BASE SHALL BE PREPARED TO A TOLERANCE OF ZERO DISTANCE HIGH TO 1 INCH LOW FROM THE THEORETICAL STRAIGHT LINE AT THE BOTTOM OF THE SLAB AS MEASURED OVER ANY SINGLE PANEL (DISTANCE BETWEEN ISOLATION JOINTS).

S-5. THE TYPICAL CANAL CONCRETE BOTTOM SLABS SHALL BE REINFORCED WITH SYNTHETIC MACROFIBER AS AN EQUIVALENT REPLACEMENT FOR WELDED WIRE MESH SIZE 6X6-W5XW3.5. THESE BOTTOM SLABS SHALL HAVE A FLOAT FINISH.

S-6. THE TYPICAL CANAL CONCRETE SIDE SLABS SHALL BE REINFORCED WITH SYNTHETIC MACROFIBER AS AN EQUIVALENT REPLACEMENT FOR WELDED WIRE MESH SIZE 6X6-W3.5XW3.5 TO CONTROL CRACKING DUE TO TEMPERATURE/SHRINKAGE. ACCEPTABLE FIBER TYPES AND DOSAGES (POUNDS OF FIBER PER CUBIC YARD OF CONCRETE) ARE LISTED IN THE SCHEDULE BELOW. ANY PROPOSED ALTERATIVE MUST BE APPROVED BY THE DISTRICT. SYNTHETIC MICROFIBERS ARE NOT AN ACCEPTABLE ALTERNATIVE.

ACCEPTABLE MACROFIBER REINFORCEMENT			
NAME / MODEL	LENGTH	DOSAGE	MANUFACTURER
FORTA-FERRO	2.25"	3 lbs/cy	FORTA
MASTERFIBER MAC MATRIX	2.1"	3 lbs/cy	BASF

NOTE THAT THE ADDITION OF FIBERS IS ANTICIPATED TO REDUCE THE CONCRETE MIX SLUMP BY APPROXIMATELY 3 TO 4 INCHES. THE CONTRACTOR IS RESPONSIBLE TO ADJUST ANY STANDARD MIX AS REQUIRED FOR WORKABILITY AND FINISHING. ADJUSTMENTS TO COMPENSATE FOR LOSS OF SLUMP DUE TO THE ADDITION OF FIBERS SHALL BE ACCOMPLISHED BY THE ADDITION OF HIGH RANGE WATER REDUCER RATHER THAN THE ADDITION OF WATER UNLESS APPROVED BY THE DISTRICT.

S-7. THE TYPICAL CANAL BOTTOM CONCRETE SLABS SHALL HAVE LONGITUDINAL ISOLATION JOINTS ALONG THE CANAL BOTTOM EDGE ON BOTH SIDES.

S-8 THE TYPICAL CANAL BOTTOM CONCRETE SLABS AND THE CONCRETE SIDE SLABS SHALL HAVE TRANSVERSE CONTROL JOINTS SPACED LONGITUDINALLY ALONG THE CANAL CENTERLINE AT A NOMINAL SPACING OF 8'-0" .

S-9. CONTROL JOINTS PLACED USING THE SAW-CUTTING METHOD REQUIRES A MINIMUM DEPTH OF SAW CUT OF 1 1/2 INCH. SAW CUTTING SHALL BE PERFORMED IMMEDIATELY AFTER THE CONCRETE HAS ADEQUATELY HARDENED TO PREVENT SPALLING DURING CUTTING AND BEFORE SIGNIFICANT DRYING SHRINKAGE BEGINS. THE DELAY BETWEEN COMPLETION OF CONCRETE FINISHING AND SAW CUTTING SHALL NOT BE LESS THAN 4 HOURS FOR HOT WEATHER AND SHALL NOT BE MORE THAN 12 HOURS FOR COLD WEATHER UNLESS APPROVED BY THE DISTRICT.

STRUCTURAL NOTES (continued)

S-10. ALL REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60.

S-11. ALL REINFORCING BARS SHALL BE DETAILED AND FABRICATED IN ACCORDANCE WITH THE "ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" ACI 315-05 AND SHALL BE CLEAN AND FREE OF GREASE AND SCALING RUST.

S-12. ALL BARS SHALL BE CONTINUOUS AROUND CORNERS, OR CORNER BARS IN OUTSIDE FACE SHALL BE INSTALLED OF EQUAL SIZE AND SPACING. PROVIDE VERTICAL DOWELS OF SAME NUMBER, SIZE, AND SPACING AS VERTICAL BARS, LAP SPLICE WITH VERTICAL BARS.

S-13. DEVELOPMENT LENGTH AND LAP SPLICES FOR REINFORCING STEEL SHALL BE AS SHOWN IN THE SCHEDULE BELOW. STAGGER ADJACENT SPLICES 24 INCHES MINIMUM. MECHANICAL OR WELDED BUTT SPLICES SHALL NOT BE USED WITHOUT APPROVAL OF THE DISTRICT REPRESENTATIVE.

Development Length & Lap Splice				
Bar Size	Vertical Bars - Lengths		Horizontal Bars - Lengths	
	Development	Splice	Development	Splice
#3	1'-3"	1'-6"	1'-7"	2'-1"
#4	1'-7"	2'-1"	2'-1"	2'-9"
#5	2'-0"	2'-7"	2'-7"	3'-3"
#6	2'-6"	3'-3"	3'-1"	4'-0"
#7	3'-6"	4'-6"	4'-6"	5'-10"
#8	4'-0"	5'-3"	5'-3"	6'-9"

S-14. REQUIRED CONCRETE COVER TO REINFORCING:
UNFORMED SURFACES CAST AGAINST EARTH ..... 3"
FORMED SURFACES EXPOSED TO EARTH, WATER OR WEATHER ..... 2"

S-15. MINIMUM CONCRETE WALL REINFORCING SHALL BE REINFORCED AS FOLLOWS:

Minimum Wall Reinforcing Schedule			
Thickness	Horiz. Bars	Vert. Bars	Location
8" Wall	#6 @ 11" O.C.	#5 @ 12" O.C.	Center of Wall
10" Wall	#5 @ 12 O.C.	#4 @ 12" O.C.	Each Face
12" Wall	#5 @ 10" O.C.	#4 @ 11" O.C.	Each Face
14" Wall	#6 @ 12" O.C.	#4 @ 10 O.C.	Each Face

S-16. WHEN CONCRETE IS PLACED IN MULTIPLE LIFTS AGAINST HARDENED CONCRETE, THE INTERFACE SHALL BE CLEAN, FREE OF LAITANCE AND INTENTIONALLY ROUGHENED TO AN AMPLITUDE OF 1/4 INCH.

S-17. ALL EXPOSED CORNERS AND EDGES SHALL BE CHAMFERED 3/4" AND ALL RE-ENTRANT CORNERS, EXCEPT WALL TO FLOOR CONSTRUCTION JOINTS, SHALL HAVE A 3/4" FILLET UNLESS OTHERWISE DETAILED OR DIRECTED.

S-18. ADHESIVE ANCHORAGE SYSTEM: "RE 500" BY HILTI, INC. OR APPROVED EQUAL. ICC-ES EVALUATION REPORT REQUIRED, MINIMUM REINF. DOWEL AND THREADED ROD EMBEDMENT SHALL BE AS SHOWN IN THE SCHEDULES BELOW. EMBEDMENT LENGTH MAY BE INCREASED FOR ALTERNATE SYSTEMS.

Adhesive Anchor Minimum Embedment			
Reinforcing Dowels		Bolts / Threaded Rods	
Bar Size	Embedment	Rod Size	Embedment
#3	0'-9"	3/8"	0'-4"
#4	1'-0"	1/2"	0'-4 1/2"
#5	1'-3"	5/8"	0'-5"
#6	1'-6"	3/4"	0'-6"
#7	1'-9"	7/8"	0'-7 1/2"
#8	2'-0"	1"	0'-8"

STRUCTURAL NOTES (continued)

S-19. STEEL MATERIALS SHALL CONFORM TO THE FOLLOWING STANDARDS UNLESS NOTED OTHERWISE:

CARBON STEEL
STRUCTURAL STEEL ..... ASTM A992 GR. 50
CHANNELS, ANGLES AND MISC. STEEL ..... ASTM A36
PLATES, BARS & SHEET PILES ..... ASTM A572 GR. 50
STRUCTURAL TUBES ..... ASTM A500 GR. B
STEEL PIPE ..... ASTM A53 GR. B
ANCHOR BOLTS (HEAVY HEX) ..... ASTM F1554 GR. 55
THREADED ROD (HEAVY HEX) ..... ASTM A36
WELDING ELECTRODES E70XX

CRES (STAINLESS) STEEL
CRES BAR AND SHAPES..... ASTM A240 TYPE 304L
CRES PLATE ..... ASTM A240 TYPE 304L
NUTS AND WASHERS ..... ASTM A194
BOLTS AND ANCHOR BOLTS ..... ASTM A193

S-20. CARBON STEEL SHOWN TO BE GALVANIZED SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION PER ASTM A153 AND TOUCHED UP IN THE FIELD PER ASTM A780 UNLESS NOTED OTHERWISE.

S-21. ALL CARBON STEEL WELDS SHALL CONFORM TO ANS/AWS D1. WELDERS SHALL BE CERTIFIED FOR WELDING PROCESS, WELD TYPE AND POSITION BY THE WASHINGTON ASSOCIATION OF BUILDING OFFICIALS (WABO).

S-22. ALL CRES STEEL WELDING SHALL CONFORM TO AWS D1.6. WELDERS SHALL BE AWS CERTIFIED FOR WELDING PROCESS, WELD TYPE, AND POSITION. SELECT ELECTRODES PER AWS. MINIMUM FILLET WELD SIZE SHALL BE 3/16" (UNLESS NOTED OTHERWISE) OR LARGER WELD SIZE REQUIRED BY AISC 360 TABLE J2.4.S-18. MINIMUM FILLET WELD SIZE SHALL BE 3/16" (UNLESS NOTED OTHERWISE) OR LARGER WELD SIZE REQUIRED BY AISC 360 TABLE J2.4.

Kittitas Reclamation District

Jacobs
1020 120th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: T. PIOTROWSKI
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: K0622022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907G-003.dwg
DESIGNED BY: W. ZLOBRON
DATE: 2025-08-01

REGISTERED PROFESSIONAL ENGINEER — STATE OF WASHINGTON — 24012780 — WILLIAM ZLOBRON

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - R2
REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. Takeshi			ISSUED FOR BID - 2026/27 REACH 2

X DRAWN

X ACCEPTED

10-07-2026

GENERAL

NOTES AND SPECIFICATIONS

G-003

SHEET 3

SOLICITATION NO.: 33-NBC-1008

LAST SAVED DATE 2026-10-07 LAST SAVED BY WHITTLN

CAD SYSTEM AutoCAD 24.3S (LMS TECH)
CAD FILENAME W3Y10907G-003.DWG

KRD-NB-Pump-Des-Align					
ID No.	Distance (Grid)	Radius	Line/Chord Bearing	Start grid coordinate (SPCS HPGN/HARN, U.S. feet)	End grid coordinate (SPCS HPGN/HARN, U.S. feet)
L1	76.684		N80° 19' 48.36"E	33+98.10 / MP 0.64 (578266.26', 1684774.81')	34+74.79 / MP 0.66 (578279.14', 1684850.40')
C1	132.370	150.000	S74° 23' 20.76"E	34+74.79 / MP 0.66 (578279.14', 1684850.40')	36+07.16 / MP 0.68 (578244.66', 1684973.79')
L2	90.610		S49° 06' 29.87"E	36+07.16 / MP 0.68 (578244.66', 1684973.79')	36+97.77 / MP 0.70 (578185.35', 1685042.29')
C2	237.330	300.000	S71° 46' 17.78"E	36+97.77 / MP 0.70 (578185.35', 1685042.29')	39+35.10 / MP 0.75 (578113.03', 1685261.88')
L3	11.526		N85° 33' 54.31"E	39+35.10 / MP 0.75 (578113.03', 1685261.88')	39+46.62 / MP 0.75 (578113.92', 1685273.37')
C3	235.629	600.000	N74° 18' 52.70"E	39+46.62 / MP 0.75 (578113.92', 1685273.37')	41+82.25 / MP 0.79 (578177.22', 1685498.77')
L4	70.013		N63° 03' 51.09"E	41+82.25 / MP 0.79 (578177.22', 1685498.77')	42+52.26 / MP 0.81 (578208.93', 1685561.18')
C4	212.535	200.000	S86° 29' 32.74"E	42+52.26 / MP 0.81 (578208.93', 1685561.18')	44+64.80 / MP 0.85 (578196.53', 1685763.48')
L5	19.157		S56° 02' 56.57"E	44+64.80 / MP 0.85 (578196.53', 1685763.48')	44+83.96 / MP 0.85 (578185.83', 1685779.37')
C5	99.640	200.000	S41° 46' 36.15"E	44+83.96 / MP 0.85 (578185.83', 1685779.37')	45+83.59 / MP 0.87 (578112.29', 1685845.07')
L6	173.492		S27° 30' 15.72"E	45+83.59 / MP 0.87 (578112.29', 1685845.07')	47+57.09 / MP 0.90 (577958.41', 1685925.19')
C6	86.846	70.000	S08° 02' 15.68"W	47+57.09 / MP 0.90 (577958.41', 1685925.19')	48+43.93 / MP 0.92 (577877.83', 1685913.81')
L7	76.648		S43° 34' 47.09"W	48+43.93 / MP 0.92 (577877.83', 1685913.81')	49+20.58 / MP 0.93 (577822.30', 1685860.97')
C7	119.294	210.000	S27° 18' 20.92"W	49+20.58 / MP 0.93 (577822.30', 1685860.97')	50+39.87 / MP 0.95 (577717.72', 1685806.98')
L8	145.588		S11° 01' 54.76"W	50+39.87 / MP 0.95 (577717.72', 1685806.98')	51+85.46 / MP 0.98 (577574.82', 1685779.12')
C8	81.523	400.000	S16° 52' 13.81"W	51+85.46 / MP 0.98 (577574.82', 1685779.12')	52+66.99 / MP 1.00 (577496.94', 1685755.50')
L9	70.845		S22° 42' 32.85"W	52+66.99 / MP 1.00 (577496.94', 1685755.50')	53+37.83 / MP 1.01 (577431.59', 1685728.15')
C9	313.561	550.000	S06° 22' 35.89"W	53+37.83 / MP 1.01 (577431.59', 1685728.15')	56+51.39 / MP 1.07 (577124.17', 1685693.80')
L10	161.830		S09° 57' 21.08"E	56+51.39 / MP 1.07 (577124.17', 1685693.80')	58+13.22 / MP 1.10 (576964.78', 1685721.78')
C10	247.076	400.000	S27° 39' 05.02"E	58+13.22 / MP 1.10 (576964.78', 1685721.78')	60+60.30 / MP 1.15 (576749.38', 1685834.63')
L11	26.917		S45° 20' 48.96"E	60+60.30 / MP 1.15 (576749.38', 1685834.63')	60+87.21 / MP 1.15 (576730.47', 1685853.78')
C11	206.126	300.000	S65° 01' 49.83"E	60+87.21 / MP 1.15 (576730.47', 1685853.78')	62+93.34 / MP 1.19 (576645.16', 1686036.98')
L12	20.995		S84° 42' 50.71"E	62+93.34 / MP 1.19 (576645.16', 1686036.98')	63+14.34 / MP 1.20 (576643.22', 1686057.89')
C12	176.347	105.000	S36° 36' 00.64"E	63+14.34 / MP 1.20 (576643.22', 1686057.89')	64+90.68 / MP 1.23 (576517.71', 1686151.10')
L13	156.563		S11° 30' 49.43"W	64+90.68 / MP 1.23 (576517.71', 1686151.10')	66+47.25 / MP 1.26 (576364.30', 1686119.85')
C13	117.653	250.000	S01° 58' 06.01"E	66+47.25 / MP 1.26 (576364.30', 1686119.85')	67+64.90 / MP 1.28 (576247.80', 1686123.86')
L14	53.832		S15° 27' 01.44"E	67+64.90 / MP 1.28 (576247.80', 1686123.86')	68+18.73 / MP 1.29 (576195.91', 1686138.20')
C14	154.547	600.000	S22° 49' 46.06"E	68+18.73 / MP 1.29 (576195.91', 1686138.20')	69+73.28 / MP 1.32 (576053.86', 1686197.99')
L15	174.751		S30° 12' 30.67"E	69+73.28 / MP 1.32 (576053.86', 1686197.99')	71+48.03 / MP 1.35 (575902.84', 1686285.92')
C15	56.155	120.000	S16° 48' 09.07"E	71+48.03 / MP 1.35 (575902.84', 1686285.92')	72+04.18 / MP 1.36 (575849.57', 1686302.00')
L16	124.053		S03° 23' 47.47"E	72+04.18 / MP 1.36 (575849.57', 1686302.00')	73+28.24 / MP 1.39 (575725.74', 1686309.35')
C16	33.592	200.000	S08° 12' 29.59"E	73+28.24 / MP 1.39 (575725.74', 1686309.35')	73+61.83 / MP 1.39 (575692.53', 1686314.14')
L17	164.297		S13° 01' 11.71"E	73+61.83 / MP 1.39 (575692.53', 1686314.14')	75+26.13 / MP 1.43 (575532.46', 1686351.16')
C17	162.061	450.000	S02° 42' 10.04"E	75+26.13 / MP 1.43 (575532.46', 1686351.16')	76+88.19 / MP 1.46 (575371.45', 1686358.76')
L18	291.263		S07° 36' 51.64"W	76+88.19 / MP 1.46 (575371.45', 1686358.76')	79+79.45 / MP 1.51 (575082.75', 1686320.17')
C18	94.383	200.000	S05° 54' 17.89"E	79+79.45 / MP 1.51 (575082.75', 1686320.17')	80+73.83 / MP 1.53 (574989.74', 1686329.79')

KRD-NB-Pump-Des-Align					
ID No.	Distance (Grid)	Radius	Line/Chord Bearing	Start grid coordinate (SPCS HPGN/HARN, U.S. feet)	End grid coordinate (SPCS HPGN/HARN, U.S. feet)
L19	94.325		S19° 25' 27.43"E	80+73.83 / MP 1.53 (574989.74', 1686329.79')	81+68.16 / MP 1.55 (574900.79', 1686361.15')
C19	113.163	600.000	S14° 01' 16.16"E	81+68.16 / MP 1.55 (574900.79', 1686361.15')	82+81.32 / MP 1.57 (574791.16', 1686388.53')
L20	29.522		S08° 37' 04.89"E	82+81.32 / MP 1.57 (574791.16', 1686388.53')	83+10.84 / MP 1.57 (574761.97', 1686392.96')
C20	105.312	350.000	S17° 14' 16.65"E	83+10.84 / MP 1.57 (574761.97', 1686392.96')	84+16.15 / MP 1.59 (574661.76', 1686424.05')
L21	104.798		S25° 51' 28.41"E	84+16.15 / MP 1.59 (574661.76', 1686424.05')	85+20.95 / MP 1.61 (574567.46', 1686469.75')
C21	125.280	350.000	S15° 36' 12.96"E	85+20.95 / MP 1.61 (574567.46', 1686469.75')	86+46.23 / MP 1.64 (574447.44', 1686503.27')
L22	83.546		S05° 20' 57.51"E	86+46.23 / MP 1.64 (574447.44', 1686503.27')	87+29.78 / MP 1.65 (574364.26', 1686511.06')
C22	96.194	700.000	S09° 17' 09.96"E	87+29.78 / MP 1.65 (574364.26', 1686511.06')	88+25.97 / MP 1.67 (574269.40', 1686526.57')
L23	52.419		S13° 13' 22.42"E	88+25.97 / MP 1.67 (574269.40', 1686526.57')	88+78.39 / MP 1.68 (574218.37', 1686538.56')
C23	92.539	300.000	S22° 03' 35.12"E	88+78.39 / MP 1.68 (574218.37', 1686538.56')	89+70.93 / MP 1.70 (574132.94', 1686573.18')
L24	267.841		S30° 53' 47.82"E	89+70.93 / MP 1.70 (574132.94', 1686573.18')	92+38.77 / MP 1.75 (573903.11', 1686710.71')
C24	118.082	150.000	S08° 20' 40.57"E	92+38.77 / MP 1.75 (573903.11', 1686710.71')	93+56.85 / MP 1.77 (573789.27', 1686727.41')
L25	361.089		S14° 12' 26.69"W	93+56.85 / MP 1.77 (573789.27', 1686727.41')	97+17.94 / MP 1.84 (573439.23', 1686638.79')
C25	114.820	300.000	S03° 14' 34.33"W	97+17.94 / MP 1.84 (573439.23', 1686638.79')	98+32.76 / MP 1.86 (573325.29', 1686632.33')
L26	436.947		S07° 43' 18.04"E	98+32.76 / MP 1.86 (573325.29', 1686632.33')	102+69.71 / MP 1.95 (572892.31', 1686691.04')
C26	108.519	800.000	S11° 36' 27.77"E	102+69.71 / MP 1.95 (572892.31', 1686691.04')	103+78.23 / MP 1.97 (572786.09', 1686712.86')
L27	87.791		S15° 29' 37.50"E	103+78.23 / MP 1.97 (572786.09', 1686712.86')	104+66.02 / MP 1.98 (572701.49', 1686736.31')
C27	344.903	700.000	S29° 36' 32.69"E	104+66.02 / MP 1.98 (572701.49', 1686736.31')	108+10.92 / MP 2.05 (572404.65', 1686905.00')
L28	27.871		S43° 43' 27.88"E	108+10.92 / MP 2.05 (572404.65', 1686905.00')	108+38.79 / MP 2.05 (572384.51', 1686924.26')
C28	201.975	2000.000	S40° 49' 52.82"E	108+38.79 / MP 2.05 (572384.51', 1686924.26')	110+40.77 / MP 2.09 (572231.75', 1687056.27')
L29	280.963		S37° 56' 17.76"E	110+40.77 / MP 2.09 (572231.75', 1687056.27')	113+21.73 / MP 2.14 (572010.16', 1687229.01')
C29	92.672	150.000	S55° 38' 14.42"E	113+21.73 / MP 2.14 (572010.16', 1687229.01')	114+14.40 / MP 2.16 (571958.68', 1687304.29')
L30	93.872		S73° 20' 11.08"E	114+14.40 / MP 2.16 (571958.68', 1687304.29')	115+08.28 / MP 2.18 (571931.76', 1687394.22')
C30	107.090	110.000	S45° 26' 47.06"E	115+08.28 / MP 2.18 (571931.76', 1687394.22')	116+15.37 / MP 2.20 (571859.56', 1687467.56')
L31	10.905		S17° 33' 23.03"E	116+15.37 / MP 2.20 (571859.56', 1687467.56')	116+26.27 / MP 2.20 (571849.17', 1687470.85')
C31	78.377	130.000	S34° 49' 41.65"E	116+26.27 / MP 2.20 (571849.17', 1687470.85')	117+04.65 / MP 2.22 (571785.80', 1687514.93')
L32	170.219		S52° 06' 00.26"E	117+04.65 / MP 2.22 (571785.80', 1687514.93')	118+74.87 / MP 2.25 (571681.24', 1687649.25')
C32	196.122	200.000	S24° 00' 27.82"E	118+74.87 / MP 2.25 (571681.24', 1687649.25')	120+70.99 / MP 2.29 (571509.17', 1687725.89')
L33	105.955		S04° 05' 04.62"W	120+70.99 / MP 2.29 (571509.17', 1687725.89')	121+76.94 / MP 2.31 (571403.49', 1687718.34')
C33	67.699	500.000	S07° 57' 48.45"W	121+76.94 / MP 2.31 (571403.49', 1687718.34')	122+44.64 / MP 2.32 (571336.49', 1687708.97')
L34	131.857		S11° 50' 32.29"W	122+44.64 / MP 2.32 (571336.49', 1687708.97')	123+76.50 / MP 2.34 (571207.44', 1687681.91')
C34	117.153	350.000	S02° 15' 11.64"W	123+76.50 / MP 2.34 (571207.44', 1687681.91')	124+93.65 / MP 2.37 (571090.93', 1687677.32')
L35	88.466		S07° 20' 09.02"E	124+93.65 / MP 2.37 (571090.93', 1687677.32')	125+82.12 / MP 2.38 (571003.19', 1687688.62')
C35	47.512	200.000	S14° 08' 29.01"E	125+82.12 / MP 2.38 (571003.19', 1687688.62')	126+29.63 / MP 2.39 (570957.22', 1687700.20')
L36	165.331		S20° 56' 48.99"E	126+29.63 / MP 2.39 (570957.22', 1687700.20')	127+94.96 / MP 2.42 (570802.82', 1687759.31')
C36	203.885	1500.000	S24° 50' 27.12"E	127+94.96 / MP 2.42 (570802.82', 1687759.31')	129+98.85 / MP 2.46 (570617.94', 1687844.89')

KRD-NB-Pump-Des-Align					
ID No.	Distance (Grid)	Radius	Line/Chord Bearing	Start grid coordinate (SPCS HPGN/HARN, U.S. feet)	End grid coordinate (SPCS HPGN/HARN, U.S. feet)
L37	53.061		S28° 44' 05.24"E	129+98.85 / MP 2.46 (570617.94', 1687844.89')	130+51.91 / MP 2.47 (570571.41', 1687870.40')
C37	98.247	1500.000	S30° 36' 40.21"E	130+51.91 / MP 2.47 (570571.41', 1687870.40')	131+50.15 / MP 2.49 (570486.87', 1687920.42')
L38	52.620		S32° 29' 15.18"E	131+50.15 / MP 2.49 (570486.87', 1687920.42')	132+02.77 / MP 2.50 (570442.48', 1687948.68')
C38	138.062	150.000	S06° 07' 10.43"E	132+02.77 / MP 2.50 (570442.48', 1687948.68')	133+40.84 / MP 2.53 (570310.00', 1687962.89')
L39	90.214		S20° 14' 54.33"W	133+40.84 / MP 2.53 (570310.00', 1687962.89')	134+31.05 / MP 2.54 (570225.36', 1687931.67')
C39	183.526	800.000	S13° 40' 35.00"W	134+31.05 / MP 2.54 (570225.36', 1687931.67')	136+14.58 / MP 2.58 (570047.43', 1687888.37')
L40	125.213		S07° 06' 15.66"W	136+14.58 / MP 2.58 (570047.43', 1687888.37')	137+39.79 / MP 2.60 (569923.18', 1687872.88')
C40	106.286	600.000	S02° 01' 46.40"W	137+39.79 / MP 2.60 (569923.18', 1687872.88')	138+46.08 / MP 2.62 (569817.10', 1687869.12')
L41	528.303		S03° 02' 42.85"E	138+46.08 / MP 2.62 (569817.10', 1687869.12')	143+74.38 / MP 2.72 (569289.54', 1687897.19')
C41	111.479	400.000	S11° 01' 45.65"E	143+74.38 / MP 2.72 (569289.54', 1687897.19')	144+85.86 / MP 2.74 (569180.48', 1687918.45')
L42	424.417		S19° 00' 48.45"E	144+85.86 / MP 2.74 (569180.48', 1687918.45')	149+10.27 / MP 2.82 (568779.22', 1688056.72')
C42	96.201	200.000	S32° 47' 35.91"E	149+10.27 / MP 2.82 (568779.22', 1688056.72')	150+06.48 / MP 2.84 (568699.12', 1688108.32')
L43	57.090		S46° 34' 23.37"E	150+06.48 / MP 2.84 (568699.12', 1688108.32')	150+63.57 / MP 2.85 (568659.88', 1688149.78')
C43	65.440	120.000	S30° 57' 02.07"E	150+63.57 / MP 2.85 (568659.88', 1688149.78')	151+29.01 / MP 2.87 (568604.45', 1688183.02')
L44	52.528		S15° 19' 40.77"E	151+29.01 / MP 2.87 (568604.45', 1688183.02')	151+81.53 / MP 2.88 (568553.79', 1688196.91')
C44	61.848	300.000	S21° 14' 02.44"E	151+81.53 / MP 2.88 (568553.79', 1688196.91')	152+43.38 / MP 2.89 (568496.24', 1688219.27')
L45	152.974		S27° 08' 24.12"E	152+43.38 / MP 2.89 (568496.24', 1688219.27')	153+96.36 / MP 2.92 (568360.11', 1688289.05')
C45	92.203	400.000	S20° 32' 11.21"E	153+96.36 / MP 2.92 (568360.11', 1688289.05')	154+88.56 / MP 2.93 (568273.96', 1688321.32')
L46	280.286		S13° 55' 58.30"E	154+88.56 / MP 2.93 (568273.96', 1688321.32')	157+68.85 / MP 2.99 (568001.92', 1688388.81')
C46	52.855	100.000	S01° 12' 32.74"W	157+68.85 / MP 2.99 (568001.92', 1688388.81')	158+21.70 / MP 3.00 (567949.69', 1688387.71')
L47	342.760		S16° 21' 03.78"W	158+21.70 / MP 3.00 (567949.69', 1688387.71')	161+64.46 / MP 3.06 (567620.79', 1688291.22')
C47	92.541	250.000	S05° 44' 48.03"W	161+64.46 / MP 3.06 (567620.79', 1688291.22')	162+57.00 / MP 3.08 (567529.24', 1688282.00')
L48	572.090		S04° 51' 27.72"E	162+57.00 / MP 3.08 (567529.24', 1688282.00')	168+29.09 / MP 3.19 (566959.20', 1688330.45')
C48	81.472	500.000	S09° 31' 32.44"E	168+29.09 / MP 3.19 (566959.20', 1688330.45')	169+10.56 / MP 3.20 (566878.95', 1688343.92')
L49	334.096		S14° 11' 37.17"E	169+10.56 / MP 3.20 (566878.95', 1688343.92')	172+44.66 / MP 3.27 (566555.05', 1688425.84')
C49	52.338	150.000	S24° 11' 21.88"E	172+44.66 / MP 3.27 (566555.05', 1688425.84')	172+97.00 / MP 3.28 (566507.55', 1688447.17')
L50	53.994		S34° 11' 06.58"E	172+97.00 / MP 3.28 (566507.55', 1688447.17')	173+50.99 / MP 3.29 (566462.88', 1688477.51')
C50	107.908	180.000	S17° 00' 39.61"E	173+50.99 / MP 3.29 (566462.88', 1688477.51')	174+58.90 / MP 3.31 (566361.23', 1688508.61')
L51	25.139		S00° 09' 47.36"W	174+58.90 / MP 3.31 (566361.23', 1688508.61')	174+84.04 / MP 3.31 (566336.09', 1688508.54')
C51	104.082	350.000	S08° 21' 21.82"E	174+84.04 / MP 3.31 (566336.09', 1688508.54')	175+88.12 / MP 3.33 (566233.50', 1688523.61')
L52	180.802		S16° 52' 31.01"E	175+88.12 / MP 3.33 (566233.50', 1688523.61')	177+68.92 / MP 3.37 (566060.48', 1688576.09')
C52	111.120	500.000	S23° 14' 31.22"E	177+68.92 / MP 3.37 (566060.48', 1688576.09')	178+80.04 / MP 3.39 (565958.59', 1688619.85')
L53	145.495		S29° 36' 31.43"E	178+80.04 / MP 3.39 (565958.59', 1688619.85')	180+25.54 / MP 3.41 (565832.09', 1688691.74')
C53	65.076	300.000	S23° 23' 40.11"E	180+25.54 / MP 3.41 (565832.09', 1688691.74')	180+90.61 / MP 3.43 (565772.48', 1688717.53')
L54	40.848		S17° 10' 48.78"E	180+90.61 / MP 3.43 (565772.48', 1688717.53')	181+31.46 / MP 3.43 (565733.46', 1688729.59')
C54	134.581	300.000	S30° 01' 54.48"E	181+31.46 / MP 3.43 (565733.46', 1688729.59')	182+66.04 / MP 3.46 (565617.92', 1688796.38')

LAST SAVED DATE
2026-10-06
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y1090TG-004.DWG

Kittitas Reclamation District

Jacobs
Jacobs Engineering Group Inc.
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: L. KUC
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: K0D2022-PS-01 / W3Y10907
FILE NUMBER: W3Y1090TG-004.dwg

STATE OF WASHINGTON
ANNE M. TAKESHI
24012780
REGISTERED PROFESSIONAL ENGINEER

DESIGNED BY: W. ZLOBRON
DATE: 2025-08-01

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL

LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - R2
					ISSUED FOR BID - 2026/27 REACH 2
REV NO	10-07-2026				
DESIGNED BY	A. Takeshi				

X
DRAWN

X
ACCEPTED

10-07-2026

GENERAL

TABLE CANAL ALIGNMENT 1 OF 2

G-004

SHEET 4

SOLICITATION NO.:
33-NBC-1008

KRD-NB-Pump-Des-Align

ID No.	Distance (Grid)	Radius	Line/Chord Bearing	Start grid coordinate (SPCS HPGN/HARN, U.S. feet)	End grid coordinate (SPCS HPGN/HARN, U.S. feet)
L55	81.242		S42° 53' 00.19"E	182+66.04 / MP 3.46 (565617.92', 1688796.38')	183+47.28 / MP 3.47 (565558.39', 1688851.67')
C55	57.316	300.000	S37° 24' 36.41"E	183+47.28 / MP 3.47 (565558.39', 1688851.67')	184+04.60 / MP 3.49 (565512.93', 1688886.44')
L56	453.605		S31° 56' 12.63"E	184+04.60 / MP 3.49 (565512.93', 1688886.44')	188+58.21 / MP 3.57 (565127.99', 1689126.39')
C56	90.806	300.000	S40° 36' 29.28"E	188+58.21 / MP 3.57 (565127.99', 1689126.39')	189+49.01 / MP 3.59 (565059.31', 1689185.27')
L57	50.344		S49° 16' 45.93"E	189+49.01 / MP 3.59 (565059.31', 1689185.27')	189+99.36 / MP 3.60 (565026.47', 1689223.42')
C57	40.708	100.000	S37° 37' 02.62"E	189+99.36 / MP 3.60 (565026.47', 1689223.42')	190+40.06 / MP 3.61 (564994.45', 1689248.10')
L58	54.477		S25° 57' 19.30"E	190+40.06 / MP 3.61 (564994.45', 1689248.10')	190+94.54 / MP 3.62 (564945.46', 1689271.94')
C58	69.255	400.000	S30° 54' 55.46"E	190+94.54 / MP 3.62 (564945.46', 1689271.94')	191+63.80 / MP 3.63 (564886.12', 1689307.48')
L59	112.979		S35° 52' 31.62"E	191+63.80 / MP 3.63 (564886.12', 1689307.48')	192+76.78 / MP 3.65 (564794.58', 1689373.69')
C59	116.601	500.000	S42° 33' 22.32"E	192+76.78 / MP 3.65 (564794.58', 1689373.69')	193+93.38 / MP 3.67 (564708.88', 1689452.37')
L60	66.549		S49° 14' 13.02"E	193+93.38 / MP 3.67 (564708.88', 1689452.37')	194+59.93 / MP 3.69 (564665.43', 1689502.77')
C60	80.916	200.000	S37° 38' 47.56"E	194+59.93 / MP 3.69 (564665.43', 1689502.77')	195+40.84 / MP 3.70 (564601.80', 1689551.86')
L61	40.993		S26° 03' 22.09"E	195+40.84 / MP 3.70 (564601.80', 1689551.86')	195+81.83 / MP 3.71 (564564.97', 1689569.86')
C61	93.155	300.000	S34° 57' 06.36"E	195+81.83 / MP 3.71 (564564.97', 1689569.86')	196+74.99 / MP 3.73 (564488.92', 1689623.02')
L62	79.697		S43° 50' 50.62"E	196+74.99 / MP 3.73 (564488.92', 1689623.02')	197+54.69 / MP 3.74 (564431.45', 1689678.23')
C62	65.499	200.000	S53° 13' 45.72"E	197+54.69 / MP 3.74 (564431.45', 1689678.23')	198+20.18 / MP 3.75 (564392.41', 1689730.46')
L63	48.505		S62° 36' 40.83"E	198+20.18 / MP 3.75 (564392.41', 1689730.46')	198+68.69 / MP 3.76 (564370.10', 1689773.53')
C63	97.108	150.000	S44° 03' 54.07"E	198+68.69 / MP 3.76 (564370.10', 1689773.53')	199+65.80 / MP 3.78 (564301.54', 1689839.89')
L64	179.570		S25° 31' 07.32"E	199+65.80 / MP 3.78 (564301.54', 1689839.89')	201+45.37 / MP 3.82 (564139.48', 1689917.25')
C64	113.724	400.000	S33° 39' 48.86"E	201+45.37 / MP 3.82 (564139.48', 1689917.25')	202+59.09 / MP 3.84 (564045.15', 1689980.08')
L65	134.651		S41° 48' 30.40"E	202+59.09 / MP 3.84 (564045.15', 1689980.08')	203+93.74 / MP 3.86 (563944.78', 1690069.84')
C65	130.016	200.000	S60° 25' 54.92"E	203+93.74 / MP 3.86 (563944.78', 1690069.84')	205+23.76 / MP 3.89 (563881.75', 1690180.95')
L66	17.603		S79° 03' 19.44"E	205+23.76 / MP 3.89 (563881.75', 1690180.95')	205+41.36 / MP 3.89 (563878.41', 1690198.23')
C66	122.746	150.000	S55° 36' 45.74"E	205+41.36 / MP 3.89 (563878.41', 1690198.23')	206+64.11 / MP 3.91 (563811.00', 1690296.72')
L67	206.960		S32° 10' 12.03"E	206+64.11 / MP 3.91 (563811.00', 1690296.72')	208+71.07 / MP 3.95 (563635.81', 1690406.91')
C67	80.059	80.000	S03° 30' 04.11"E	208+71.07 / MP 3.95 (563635.81', 1690406.91')	209+51.13 / MP 3.97 (563559.20', 1690411.60')
L68	92.944		S25° 10' 03.81"W	209+51.13 / MP 3.97 (563559.20', 1690411.60')	210+44.07 / MP 3.99 (563475.08', 1690372.07')
C68	114.255	120.000	S02° 06' 30.89"E	210+44.07 / MP 3.99 (563475.08', 1690372.07')	211+58.33 / MP 4.01 (563365.16', 1690376.12')
L69	560.044		S29° 23' 05.60"E	211+58.33 / MP 4.01 (563365.16', 1690376.12')	217+18.37 / MP 4.11 (562877.17', 1690650.92')
C69	102.459	400.000	S36° 43' 22.68"E	217+18.37 / MP 4.11 (562877.17', 1690650.92')	218+20.83 / MP 4.13 (562795.27', 1690712.02')
L70	268.797		S44° 03' 39.75"E	218+20.83 / MP 4.13 (562795.27', 1690712.02')	220+89.63 / MP 4.18 (562602.12', 1690898.95')
C70	105.664	1000.000	S41° 02' 02.33"E	220+89.63 / MP 4.18 (562602.12', 1690898.95')	221+95.29 / MP 4.20 (562522.45', 1690968.28')
L71	89.090		S38° 00' 24.91"E	221+95.29 / MP 4.20 (562522.45', 1690968.28')	222+84.38 / MP 4.22 (562452.25', 1691023.14')
C71	53.404	150.000	S48° 12' 23.05"E	222+84.38 / MP 4.22 (562452.25', 1691023.14')	223+37.78 / MP 4.23 (562416.85', 1691062.75')
L72	59.780		S58° 24' 21.19"E	223+37.78 / MP 4.23 (562416.85', 1691062.75')	223+97.56 / MP 4.24 (562385.53', 1691113.67')
C72	68.399	100.000	S38° 48' 39.46"E	223+97.56 / MP 4.24 (562385.53', 1691113.67')	224+65.96 / MP 4.25 (562333.26', 1691155.70')

KRD-NB-Pump-Des-Align

ID No.	Distance (Grid)	Radius	Line/Chord Bearing	Start grid coordinate (SPCS HPGN/HARN, U.S. feet)	End grid coordinate (SPCS HPGN/HARN, U.S. feet)
L73	6.487		S19° 12' 57.73"E	224+65.96 / MP 4.25 (562333.26', 1691155.70')	224+72.45 / MP 4.26 (562327.14', 1691157.84')
C73	123.912	250.000	S33° 24' 55.22"E	224+72.45 / MP 4.26 (562327.14', 1691157.84')	225+96.36 / MP 4.28 (562224.76', 1691225.38')
L74	171.567		S47° 36' 52.72"E	225+96.36 / MP 4.28 (562224.76', 1691225.38')	227+67.93 / MP 4.31 (562109.11', 1691352.11')
C74	93.403	250.000	S36° 54' 41.38"E	227+67.93 / MP 4.31 (562109.11', 1691352.11')	228+61.33 / MP 4.33 (562034.86', 1691407.88')
L75	9.333		S26° 12' 30.04"E	228+61.33 / MP 4.33 (562034.86', 1691407.88')	228+70.67 / MP 4.33 (562026.49', 1691412.00')
C75	92.651	150.000	S43° 54' 12.26"E	228+70.67 / MP 4.33 (562026.49', 1691412.00')	229+63.32 / MP 4.35 (561960.79', 1691475.23')
L76	99.431		S61° 35' 54.49"E	229+63.32 / MP 4.35 (561960.79', 1691475.23')	230+62.75 / MP 4.37 (561913.49', 1691562.69')
C76	341.420	900.000	S50° 43' 50.67"E	230+62.75 / MP 4.37 (561913.49', 1691562.69')	234+04.17 / MP 4.43 (561698.68', 1691825.43')
L77	183.165		S39° 51' 46.85"E	234+04.17 / MP 4.43 (561698.68', 1691825.43')	235+87.33 / MP 4.47 (561558.09', 1691942.83')
C77	54.419	400.000	S35° 57' 55.95"E	235+87.33 / MP 4.47 (561558.09', 1691942.83')	236+41.75 / MP 4.48 (561514.08', 1691974.77')
L78	148.839		S32° 04' 05.06"E	236+41.75 / MP 4.48 (561514.08', 1691974.77')	237+90.59 / MP 4.51 (561387.95', 1692053.79')
C78	64.963	100.000	S50° 40' 42.83"E	237+90.59 / MP 4.51 (561387.95', 1692053.79')	238+55.55 / MP 4.52 (561347.50', 1692103.17')
L79	65.779		S69° 17' 20.60"E	238+55.55 / MP 4.52 (561347.50', 1692103.17')	239+21.33 / MP 4.53 (561324.24', 1692164.69')
C79	68.279	700.000	S72° 05' 00.26"E	239+21.33 / MP 4.53 (561324.24', 1692164.69')	239+89.61 / MP 4.54 (561303.24', 1692229.64')
L80	80.223		S74° 52' 39.91"E	239+89.61 / MP 4.54 (561303.24', 1692229.64')	240+69.83 / MP 4.56 (561282.31', 1692307.08')
C80	79.825	150.000	N89° 52' 36.66"E	240+69.83 / MP 4.56 (561282.31', 1692307.08')	241+49.66 / MP 4.57 (561282.48', 1692385.97')
L81	53.479		N74° 37' 53.23"E	241+49.66 / MP 4.57 (561282.48', 1692385.97')	242+03.14 / MP 4.58 (561296.66', 1692437.53')
C81	96.038	55.000	S55° 20' 42.31"E	242+03.14 / MP 4.58 (561296.66', 1692437.53')	242+99.18 / MP 4.60 (561248.72', 1692506.87')
L82	9.416		S05° 19' 17.85"E	242+99.18 / MP 4.60 (561248.72', 1692506.87')	243+08.59 / MP 4.60 (561239.35', 1692507.75')
C82	35.387	80.000	S07° 21' 01.82"W	243+08.59 / MP 4.60 (561239.35', 1692507.75')	243+43.98 / MP 4.61 (561204.54', 1692503.26')
L83	38.897		S20° 01' 21.48"W	243+43.98 / MP 4.61 (561204.54', 1692503.26')	243+82.88 / MP 4.62 (561167.99', 1692489.94')
C83	21.779	200.000	S16° 54' 10.77"W	243+82.88 / MP 4.62 (561167.99', 1692489.94')	244+04.66 / MP 4.62 (561147.16', 1692483.61')
L84	100.995		S13° 47' 00.06"W	244+04.66 / MP 4.62 (561147.16', 1692483.61')	245+05.65 / MP 4.64 (561049.08', 1692459.55')
C84	93.262	100.000	S12° 56' 03.02"E	245+05.65 / MP 4.64 (561049.08', 1692459.55')	245+98.91 / MP 4.66 (560961.44', 1692479.67')
L85	42.050		S39° 39' 06.11"E	245+98.91 / MP 4.66 (560961.44', 1692479.67')	246+40.96 / MP 4.67 (560929.06', 1692506.51')
C85	110.891	250.000	S52° 21' 32.03"E	246+40.96 / MP 4.67 (560929.06', 1692506.51')	247+51.85 / MP 4.69 (560861.89', 1692593.60')
L86	10.775		S65° 03' 57.95"E	247+51.85 / MP 4.69 (560861.89', 1692593.60')	247+62.63 / MP 4.69 (560857.35', 1692603.37')
C86	121.231	250.000	S51° 10' 26.47"E	247+62.63 / MP 4.69 (560857.35', 1692603.37')	248+83.86 / MP 4.71 (560782.09', 1692696.89')
L87	211.214		S37° 16' 54.98"E	248+83.86 / MP 4.71 (560782.09', 1692696.89')	250+95.07 / MP 4.75 (560614.03', 1692824.83')
C87	223.360	1000.000	S30° 52' 59.36"E	250+95.07 / MP 4.75 (560614.03', 1692824.83')	253+18.43 / MP 4.80 (560422.74', 1692939.24')
L88	146.522		S24° 29' 03.74"E	253+18.43 / MP 4.80 (560422.74', 1692939.24')	254+64.96 / MP 4.82 (560289.39', 1692999.97')
C88	72.066	100.000	S45° 07' 47.36"E	254+64.96 / MP 4.82 (560289.39', 1692999.97')	255+37.02 / MP 4.84 (560239.64', 1693049.94')
L89	128.753		S65° 46' 30.98"E	255+37.02 / MP 4.84 (560239.64', 1693049.94')	256+65.77 / MP 4.86 (560186.81', 1693167.36')
C89	150.596	130.000	S32° 35' 19.54"E	256+65.77 / MP 4.86 (560186.81', 1693167.36')	258+16.37 / MP 4.89 (560066.91', 1693244.01')
L90	99.790		S00° 35' 51.89"W	258+16.37 / MP 4.89 (560066.91', 1693244.01')	259+16.16 / MP 4.91 (559967.12', 1693242.97')
C90	20.954	200.000	S02° 24' 13.12"E	259+16.16 / MP 4.91 (559967.12', 1693242.97')	259+37.11 / MP 4.91 (559946.20', 1693243.85')

KRD-NB-Pump-Des-Align

ID No.	Distance (Grid)	Radius	Line/Chord Bearing	Start grid coordinate (SPCS HPGN/HARN, U.S. feet)	End grid coordinate (SPCS HPGN/HARN, U.S. feet)
L91	31.610		S05° 24' 18.14"E	259+37.11 / MP 4.91 (559946.20', 1693243.85')	259+68.72 / MP 4.92 (559914.73', 1693246.82')
C91	61.514	100.000	S23° 01' 39.44"E	259+68.72 / MP 4.92 (559914.73', 1693246.82')	260+30.24 / MP 4.93 (559859.00', 1693270.51')
L92	146.658		S40° 39' 00.75"E	260+30.24 / MP 4.93 (559859.00', 1693270.51')	261+76.90 / MP 4.96 (559747.73', 1693366.05')
C92	79.231	130.000	S58° 06' 36.70"E	261+76.90 / MP 4.96 (559747.73', 1693366.05')	262+56.13 / MP 4.97 (559706.52', 1693432.28')
L93	46.287		S75° 34' 12.64"E	262+56.13 / MP 4.97 (559706.52', 1693432.28')	263+02.41 / MP 4.98 (559694.99', 1693477.11')
C93	76.658	55.000	S35° 38' 27.95"E	263+02.41 / MP 4.98 (559694.99', 1693477.11')	263+79.07 / MP 5.00 (559637.61', 1693518.25')
L94	140.927		S04° 17' 16.74"W	263+79.07 / MP 5.00 (559637.61', 1693518.25')	265+20.00 / MP 5.02 (559497.08', 1693507.71')
C94	87.538	200.000	S08° 15' 03.47"E	265+20.00 / MP 5.02 (559497.08', 1693507.71')	266+07.54 / MP 5.04 (559411.13', 1693520.18')
L95	109.408		S20° 47' 23.68"E	266+07.54 / MP 5.04 (559411.13', 1693520.18')	267+16.95 / MP 5.06 (559308.85', 1693559.01')
C95	87.053	200.000	S33° 15' 33.59"E	267+16.95 / MP 5.06 (559308.85', 1693559.01')	268+04.00 / MP 5.08 (559236.63', 1693606.38')
L96	177.086		S45° 43' 43.50"E	268+04.00 / MP 5.08 (559236.63', 1693606.38')	269+81.08 / MP 5.11 (559113.01', 1693733.18')
C96	54.819	50.000	S14° 19' 11.54"E	269+81.08 / MP 5.11 (559113.01', 1693733.18')	270+35.90 / MP 5.12 (559062.52', 1693746.07')
L97	18.641		S17° 05' 20.41"W	270+35.90 / MP 5.12 (559062.52', 1693746.07')	270+54.54 / MP 5.12 (559044.70', 1693740.59')
C97	50.698	500.000	S14° 11' 03.30"W	270+54.54 / MP 5.12 (559044.70', 1693740.59')	271+05.24 / MP 5.13 (558995.57', 1693728.17')
L98	80.151		S11° 16' 46.19"W	271+05.24 / MP 5.13 (558995.57', 1693728.17')	271+85.39 / MP 5.15 (558916.97', 1693712.49')
C98	113.660	130.000	S13° 46' 03.44"E	271+85.39 / MP 5.15 (558916.97', 1693712.49')	272+99.05 / MP 5.17 (558810.06', 1693738.69')
L99	447.937		S38° 48' 53.08"E	272+99.05 / MP 5.17 (558810.06', 1693738.69')	277+46.99 / MP 5.26 (558461.03', 1694019.46')
C99	57.703	500.000	S42° 07' 15.20"E	277+46.99 / MP 5.26 (558461.03', 1694019.46')	278+04.69 / MP 5.27 (558418.26', 1694058.14')
L100	144.704		S45° 25' 37.32"E	278+04.69 / MP 5.27 (558418.26', 1694058.14')	279+49.40 / MP 5.29 (558316.70', 1694161.22')
C100	111.680	220.000	S59° 58' 10.86"E	279+49.40 / MP 5.29 (558316.70', 1694161.22')	280+61.08 / MP 5.31 (558261.41', 1694256.87')
L101	56.963		S74° 30' 44.40"E	280+61.08 / MP 5.31 (558261.41', 1694256.87')	281+18.04 / MP 5.33 (558246.20', 1694311.77')
C101	66.392	60.000	S42° 48' 45.57"E	281+18.04 / MP 5.33 (558246.20', 1694311.77')	281+84.43 / MP 5.34 (558199.94', 1694354.62')
L102	15.642		S11° 06' 46.73"E	281+84.43 / MP 5.34 (558199.94', 1694354.62')	282+00.07 / MP 5.34 (558184.59', 1694357.64')
C102	33.818	100.000	S01° 25' 29.31"E	282+00.07 / MP 5.34 (558184.59', 1694357.64')	282+33.89 / MP 5.35 (558150.95', 1694358.47')
L103	8.627		S08° 15' 48.12"W	282+33.89 / MP 5.35 (558150.95', 1694358.47')	282+42.52 / MP 5.35 (558142.41', 1694357.23')
C103	33.469	200.000	S03° 28' 09.47"W	282+42.52 / MP 5.35 (558142.41', 1694357.23')	282+75.99 / MP 5.36 (558109.04', 1694355.21')
L104	261.170		S01° 19' 29.18"E	282+75.99 / MP 5.36 (558109.04', 1694355.21')	285+37.16 / MP 5.40 (557847.94', 1694361.25')
C104	154.673	200.000	S20° 49' 49.62"W	285+37.16 / MP 5.40 (557847.94', 1694361.25')	286+91.83 / MP 5.43 (557706.95', 1694307.61')
L105	216.739		S42° 59' 08.43"W	286+91.83 / MP 5.43 (557706.95', 1694307.61')	289+08.57 / MP 5.48 (557548.40', 1694159.83')
C105	143.647	150.000	S15° 33' 04.25"W	289+08.57 / MP 5.48 (557548.40', 1694159.83')	290+52.22 / MP 5.50 (557415.24', 1694122.77')
L106	39.423		S11° 52' 59.93"E	290+52.22 / MP 5.50 (557415.24', 1694122.77')	290+91.64 / MP 5.51 (557376.66', 1694130.89')
C106	161.401	170.000	S39° 04' 55.63"E	290+91.64 / MP 5.51 (557376.66', 1694130.89')	292+53.04 / MP 5.54 (557256.03', 1694228.86')
L107	87.594		S66° 16' 51.33"E	292+53.04 / MP 5.54 (557256.03', 1694228.86')	293+40.63 / MP 5.56 (557220.80', 1694309.06')
C107	59.310	60.000	S37° 57' 44.18"E	293+40.63 / MP 5.56 (557220.80', 1694309.06')	293+99.94 / MP 5.57 (557175.92', 1694344.08')
L108	0.226		S09° 38' 37.04"E	293+99.94 / MP 5.57 (557175.92', 1694344.08')	294+00.17 / MP 5.57 (557175.69', 1694344.11')

LAST SAVED DATE
2025-08-01
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y1090/G-005.DWG

Kittitas Reclamation District

Jacobs
Jacobs Engineering Group Inc.
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: L. KUC
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: K0C2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907G-005.dwg

STATE OF WASHINGTON · KAMEHI · 24012780 · REGISTERED PROFESSIONAL ENGINEER

DESIGNED BY: W. ZLOBRON
DATE: 2025-08-01

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL

LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - #2
					ISSUED FOR BID - 2026/27 REACH 2

REV NO 0
10-07-2026
A. Takeshi

X
DRAWN

X
ACCEPTED

10-07-2026

GENERAL

TABLE CANAL
ALIGNMENT 2 OF 2

G-005

SHEET 5

SOLICITATION NO.:
33-NBC-1008

PARTIAL SITE PLAN
STA. 34+74 TO STA. 84+00

0 150' 300'

SCALE:1"=150'

PARTIAL SITE PLAN
STA. 84+00 TO STA. 127+00

0 150' 300'

SCALE:1"=150'

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: T. PIOTROWSKI
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01
FILE NUMBER: W3Y10907G-101.dwg

STATE OF WASHINGTON · ANDREW M. TAKESHI · 24012760 · REGISTERED PROFESSIONAL ENGINEER

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL

LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - R2
REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	ISSUED FOR BID - 2026/27 REACH 2
REV NO	10-07-2026				
0	A. Takeshi				

X DRAWN

X ACCEPTED

10-07-2026

GENERAL

SITE ALIGNMENT PLAN
1 OF 3

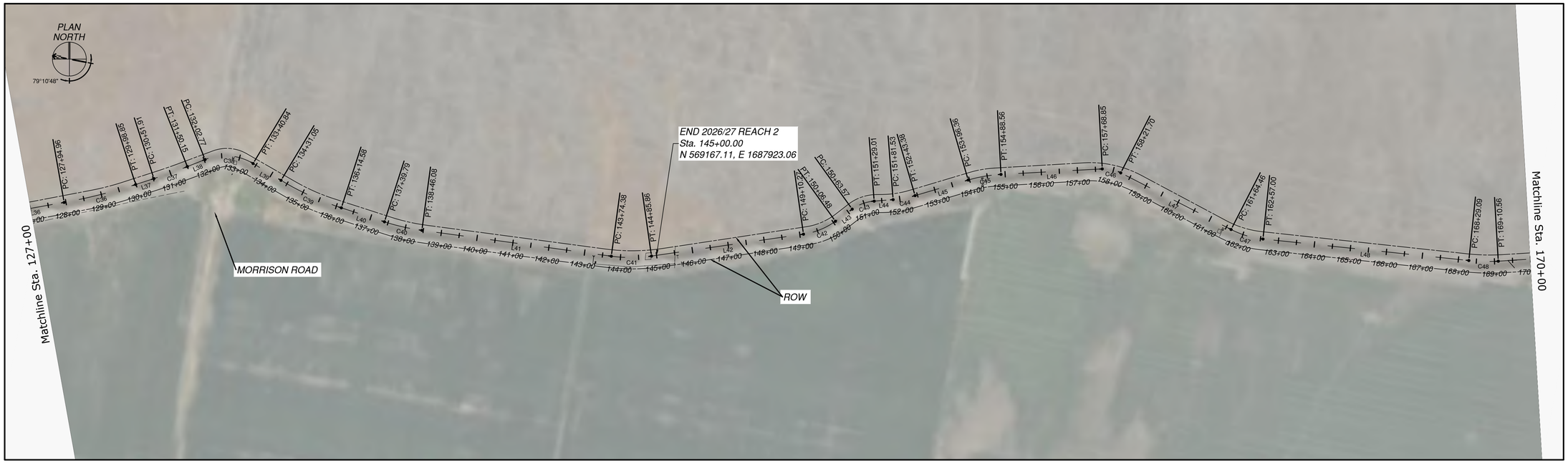
G-101

SHEET 6

SOLICITATION NO.:
33-NBC-1008

LAST SAVED DATE
2026-10-07
LAST SAVED BY
WHITTLN

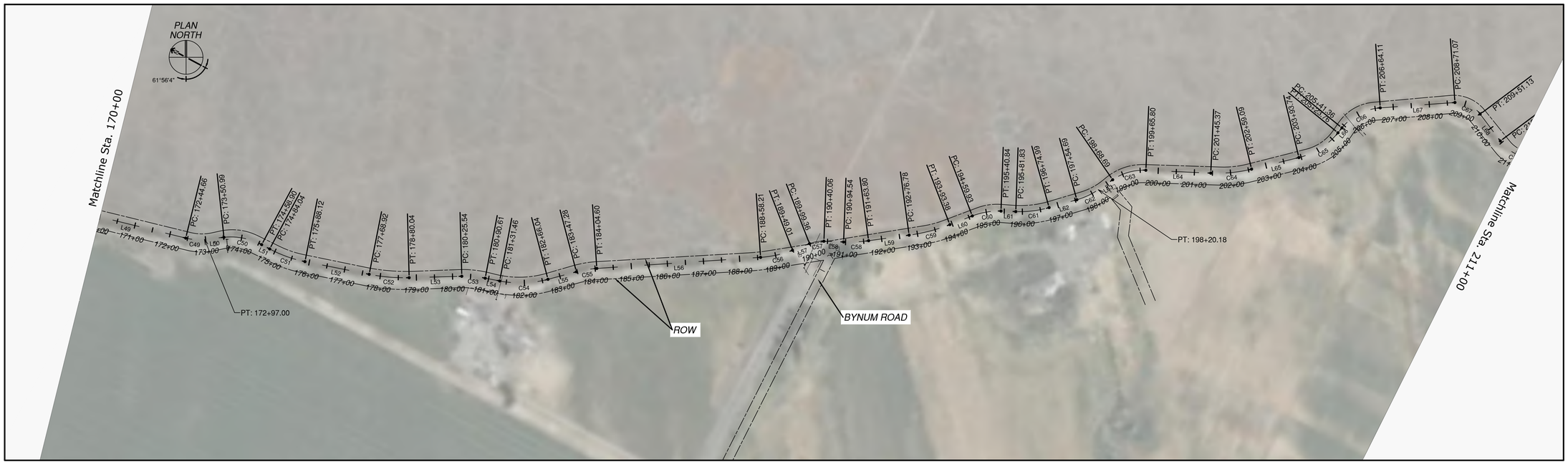
CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907G-101.DWG



PARTIAL SITE PLAN
STA. 127+00 TO STA. 170+00

0 150' 300'

SCALE:1"=150'



PARTIAL SITE PLAN
STA. 170+00 TO STA. 211+00

0 150' 300'

SCALE:1"=150'

Kittitas Reclamation District

Jacobs
1100 112th Avenue NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: T. PIOTROWSKI
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907G-102.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

STATE OF WASHINGTON · ANDREW TAKESHI · 24012780 · REGISTERED PROFESSIONAL ENGINEER

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL

LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - R2
REV NO 0	10-07-2026	A. Takeshi			ISSUED FOR BID - 2026/27 REACH 2

X DRAWN

X ACCEPTED

10-07-2026

GENERAL

SITE ALIGNMENT PLAN
2 OF 3

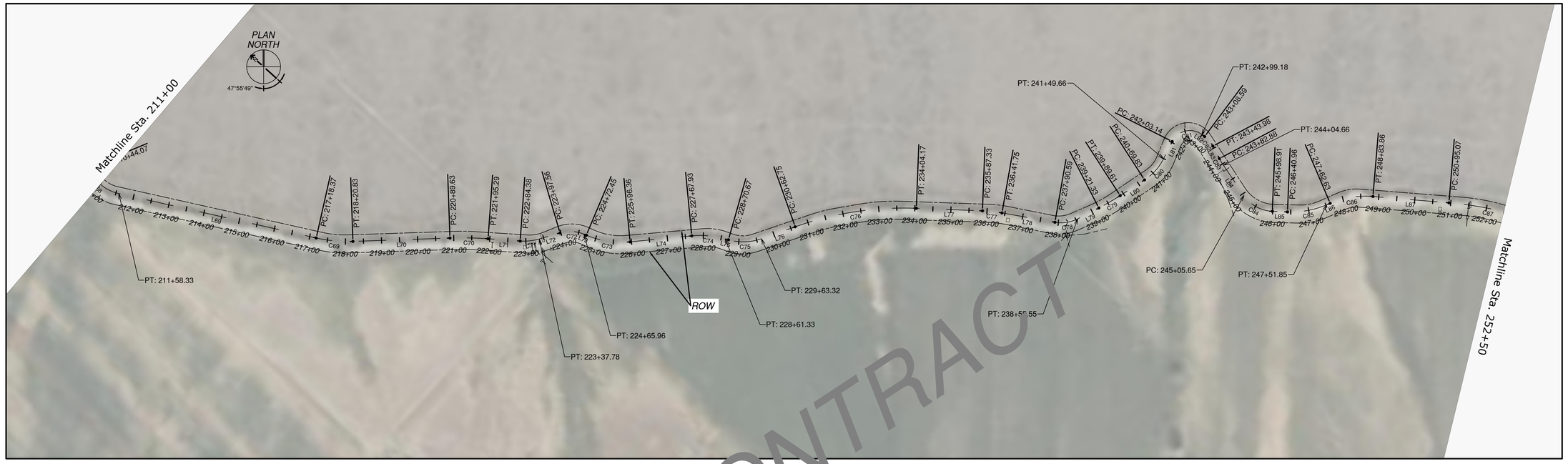
G-102

SHEET 7

SOLICITATION NO.:
33-NBC-1008

LAST SAVED DATE
2026-07-10
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907G-102.DWG



PARTIAL SITE PLAN
STA. 211+00 TO STA. 252+50

0 150' 300'

SCALE:1"=150'

PARTIAL SITE PLAN
STA. 252+50 TO STA. 293+50

0 150' 300'

SCALE:1"=150'

NOT IN CONTRACT

Kittitas Reclamation District

Jacobs
1001 220th Ave NE Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: T. PIOTROWSKI
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907G-103.dwg

STATE OF WASHINGTON ANDREW M. TAKESHI 24012760 REGISTERED PROFESSIONAL ENGINEER

DESIGNED BY: W. ZIOBRON
DATE: 10/13/2026
2025-08-01

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL
LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - R2
REV NO	10-07-2026				ISSUED FOR BID - 2026/27 REACH 2
0	A. Takeshi				

X
DRAWN

X
ACCEPTED

10-07-2026

GENERAL

SITE ALIGNMENT PLAN
3 OF 3

G-103

SHEET 8

SOLICITATION NO.:
33-NBC-1008

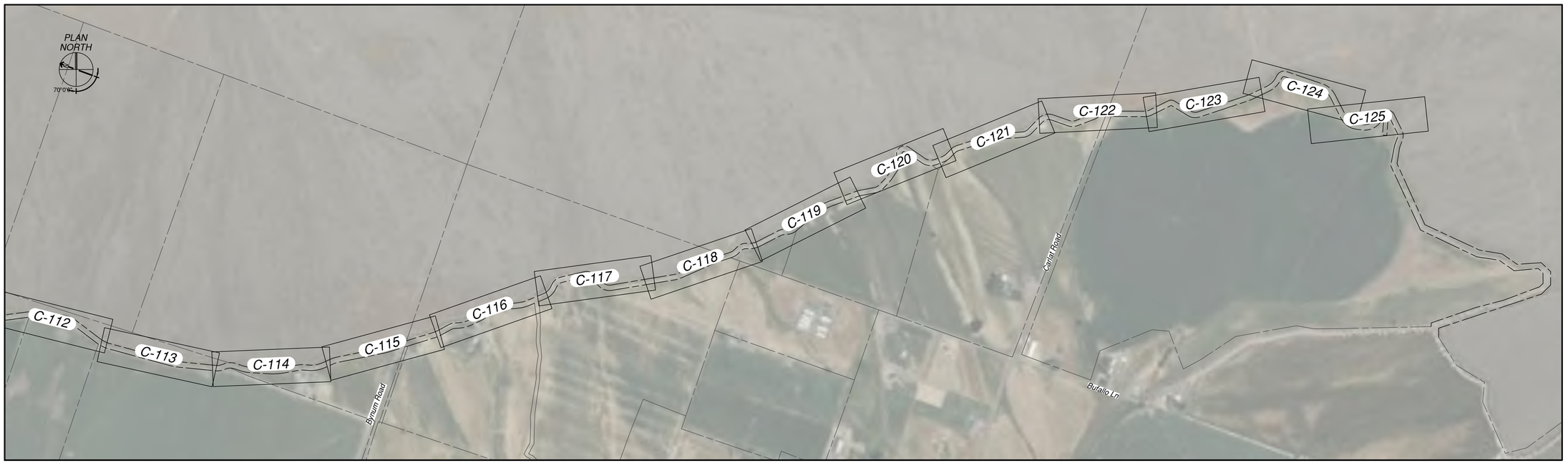
LAST SAVED DATE
2026-10-08
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907G-103.DWG

PARTIAL SITE PLAN

0 500' 1000'

SCALE:1"=500'



PARTIAL SITE PLAN

0 500' 1000'

SCALE:1"=500'

LAST SAVED DATE
2026-10-07
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y1090/C-100.DWG

Conserving water, promoting local agriculture, and enhancing the environment . . .

Kittitas Reclamation District

Jacobs
1001 120th Ave NE, Suite 300
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: T. PIOTROWSKI
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-100.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

ALAN TAKESHI STATE OF WASHINGTON 24012765 REGISTERED PROFESSIONAL ENGINEER
10/13/2026

NORTH BRANCH PUMP LATERAL

LINING PROJECT

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - #2
REV NO	10-07-2026	A. Takeshi			ISSUED FOR BID - 2026/27 REACH 2

X
DRAWN

X
ACCEPTED

10-07-2026

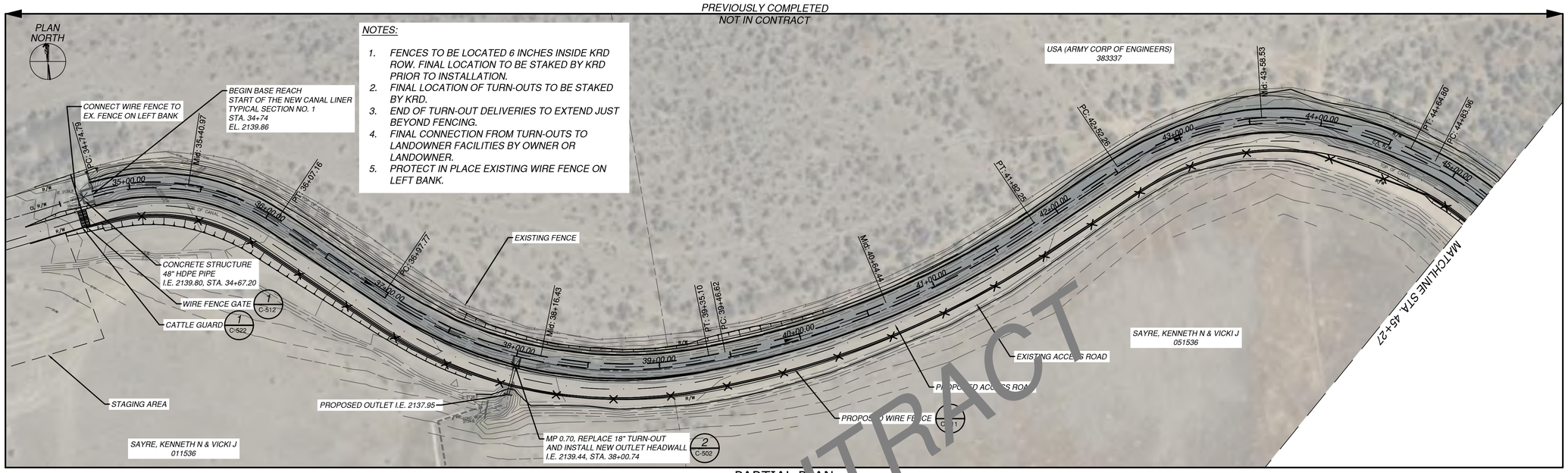
OVERALL SITE PLAN

KEY MAP

C-100

SHEET 9

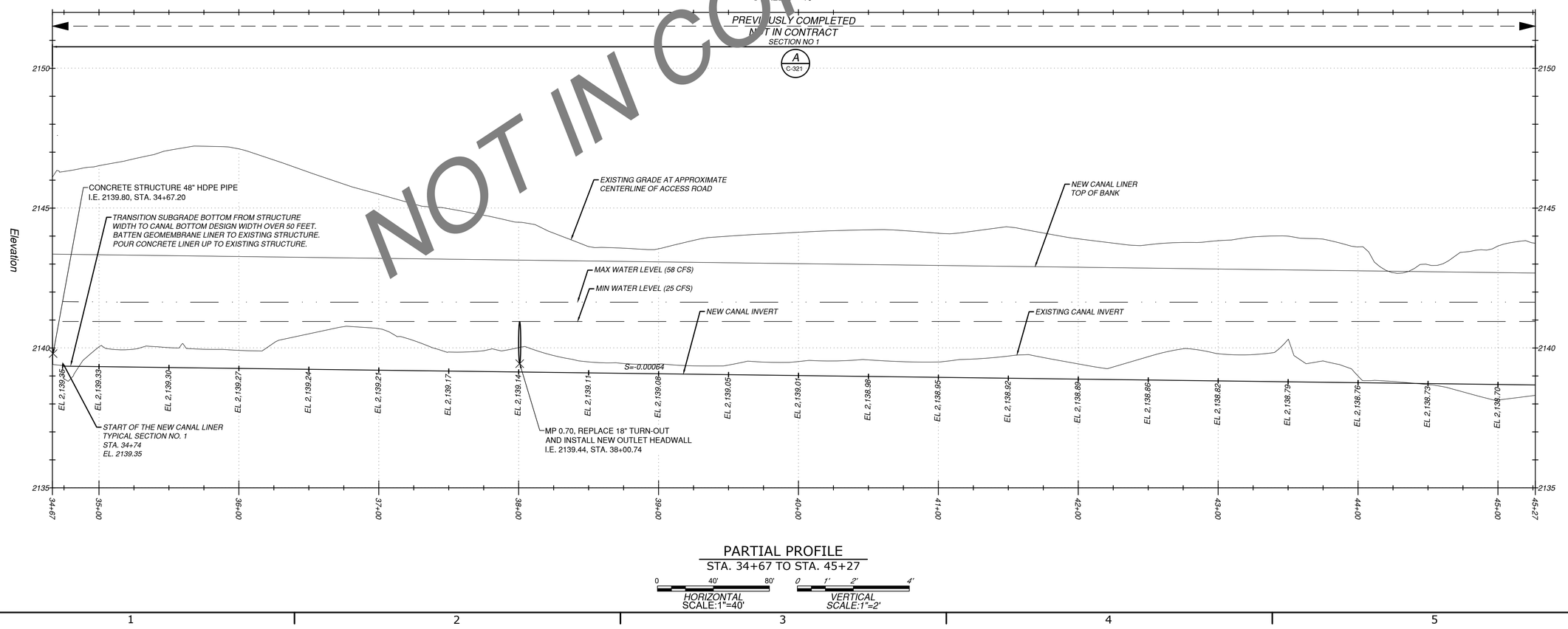
SOLICITATION NO.:
33-NBC-1008



PARTIAL PLAN
STA. 34+67 TO STA. 45+27

0 40' 80'

SCALE: 1"=40'



PARTIAL PROFILE
STA. 34+67 TO STA. 45+27

0 40' 80' HORIZONTAL SCALE:1"=40'

0 1' 2' 4' VERTICAL SCALE:1"=2'

NOT IN CONTRACT

Kittitas Reclamation District

Jacobs
1001 4th Ave, Suite 3200
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: T. PIOTROWSKI
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-101.dwg

STATE OF WASHINGTON · KAMEHI · 24012760 · REGISTERED PROFESSIONAL ENGINEER
DESIGNED BY: W. ZIOBRON
DATE: 10/13/2026
2025-08-01

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL
LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - 82
					ISSUED FOR BID - 2026/27 REACH 2

ISS'D NO 0 | 10-07-2026 | A. Takeshi

X DRAWN

X ACCEPTED

10-07-2026

PLAN AND PROFILE

STA. 34+67 TO 45+27

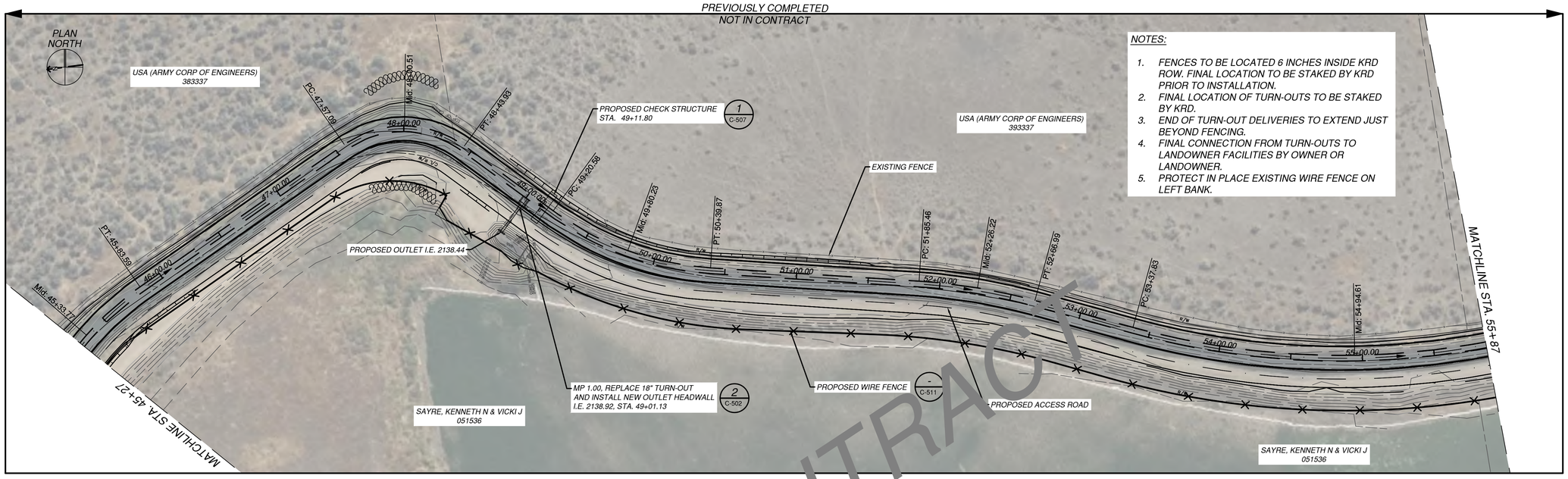
C-101

SHEET 10

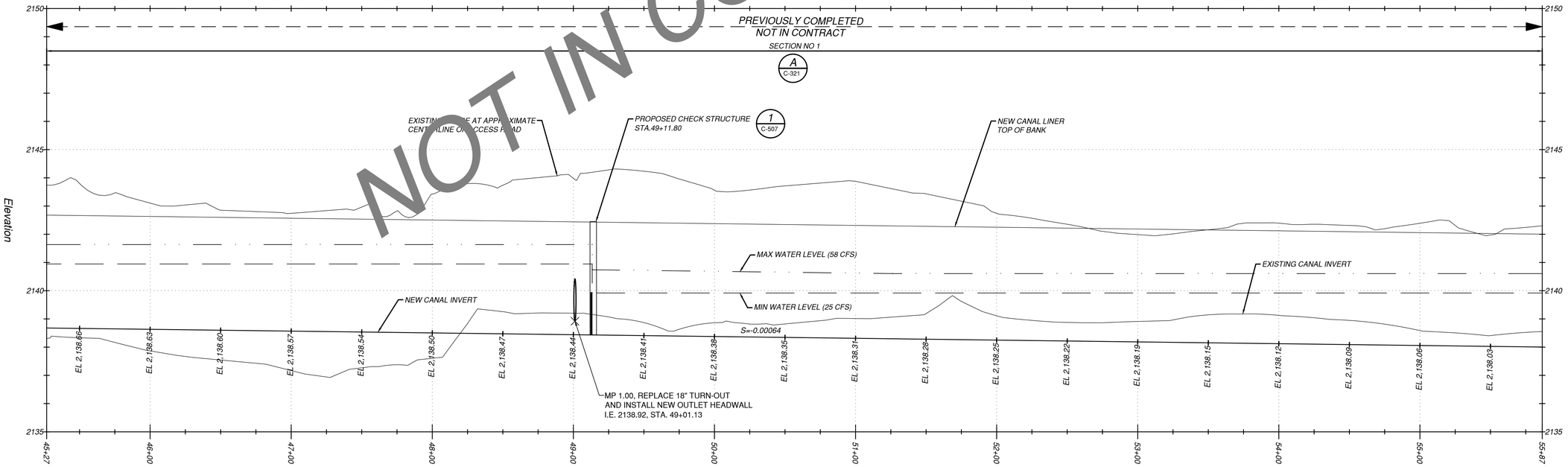
SOLICITATION NO.:
33-NBC-1008

LAST SAVED DATE
2026.10.08
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-101 (1).DWG



PARTIAL PLAN
STA. 45+27 TO STA. 55+87
0 40' 80'
SCALE:1"=40'



PARTIAL PROFILE
STA. 45+27 TO STA. 55+87
0 40' 80'
HORIZONTAL
SCALE:1"=40'
0 1' 2' 4'
VERTICAL
SCALE:1"=2'

NOT IN CONTRACT

Kittitas Reclamation District

Jacobs
1001 220th Street SW, Suite 500
Bothell, WA 98021 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: T. PIOTROWSKI
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-102.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

ANTHONY TAKESHI — STATE OF WASHINGTON — 24012760 — REGISTERED PROFESSIONAL ENGINEER
10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL
LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - #2
REV NO	10-07-2026				ISSUED FOR BID - 2026/27 REACH 2

X DRAWN
X ACCEPTED
10-07-2026

PLAN AND PROFILE

STA. 45+27 TO 55+87

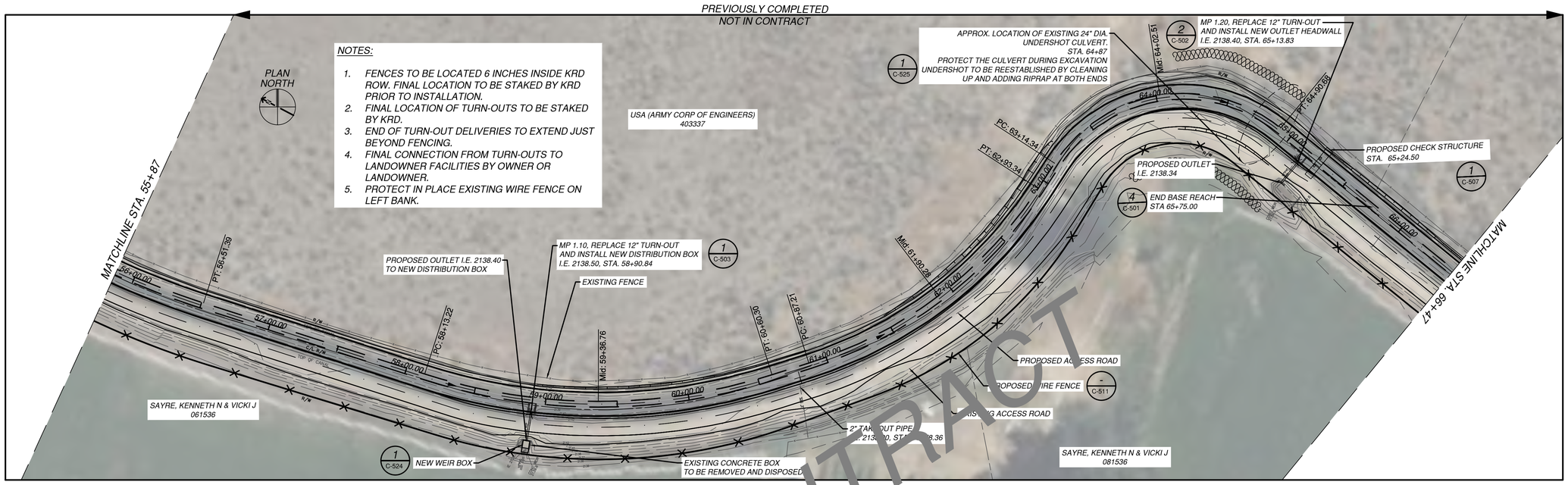
C-102

SHEET 11

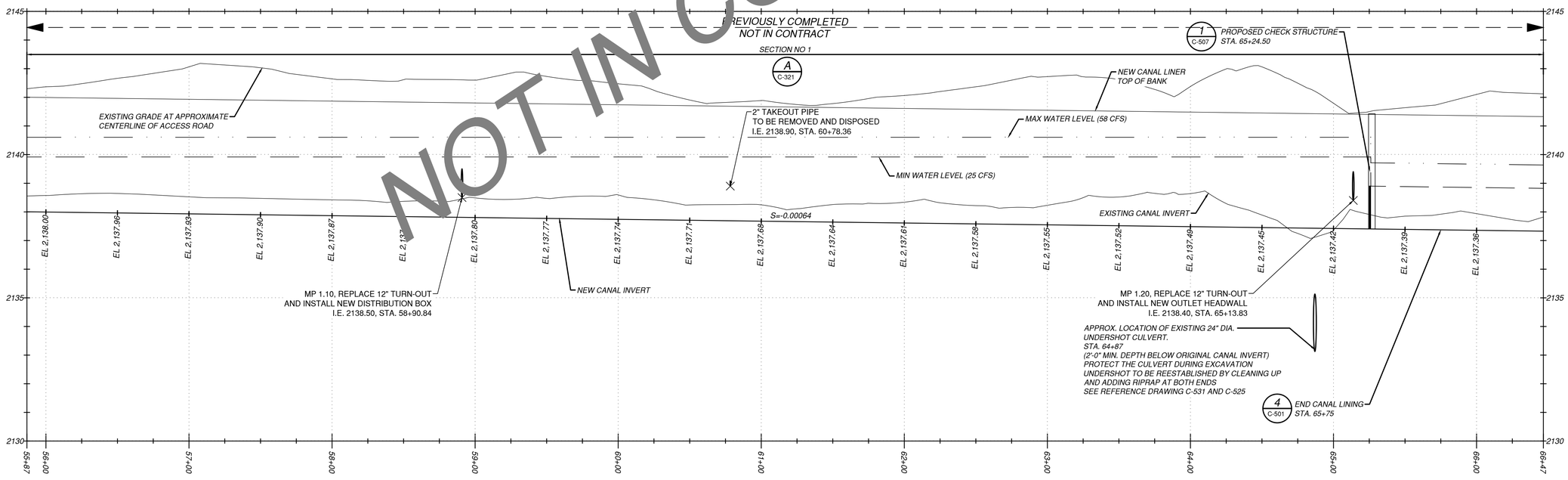
SOLICITATION NO.:
33-NBC-1008

LAST SAVED DATE
2026-10-08
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-102.DWG



PARTIAL PLAN
STA. 55+87 TO STA. 66+47
0 40' 80'
SCALE:1"=40'



PARTIAL PROFILE
STA. 55+87 TO STA. 66+47
HORIZONTAL SCALE:1"=40' (0 40' 80')
VERTICAL SCALE:1"=2' (0 1' 2' 4')

NOT IN CONTRACT

LAST SAVED DATE 2026-10-06
LAST SAVED BY WHITTLN
CAD SYSTEM AutoCAD 24.3S (LMS TECH)
CAD FILENAME W3Y1090/C-103.DWG

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: T. PIOTROWSKI
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-103.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

STATE OF WASHINGTON ANDREW TAKESHI 24012760 REGISTERED PROFESSIONAL ENGINEER
10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL
LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - 82
0	10-07-2026	A. Takeshi			ISSUED FOR BID - 2026/27 REACH 2

X DRAWN

X ACCEPTED

10-07-2026

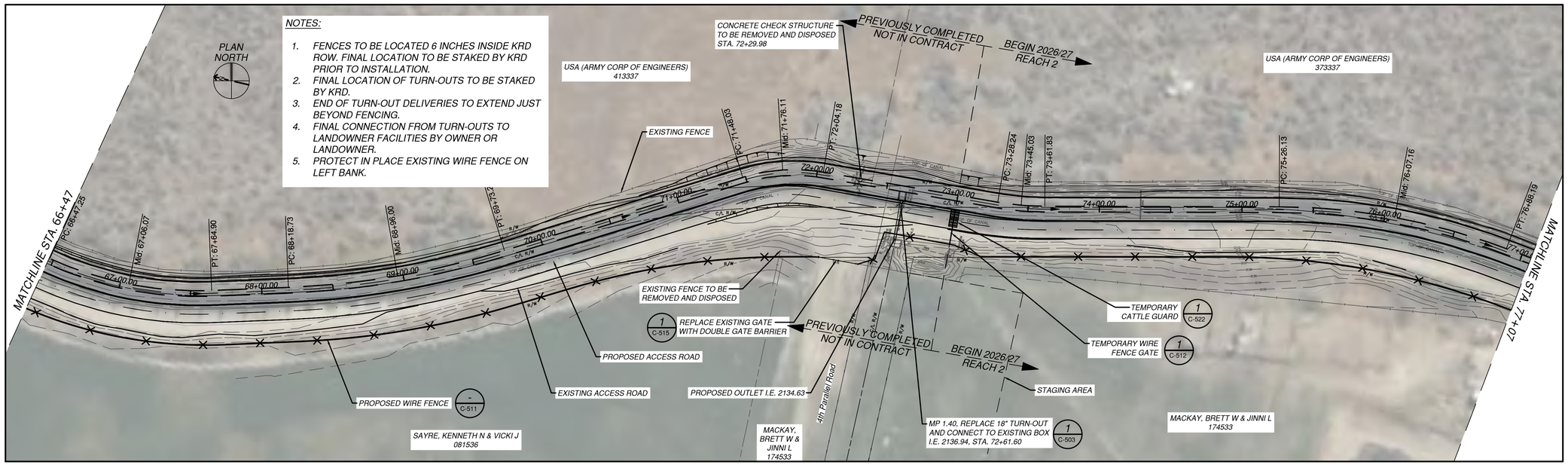
PLAN AND PROFILE

STA. 55+87 TO 66+47

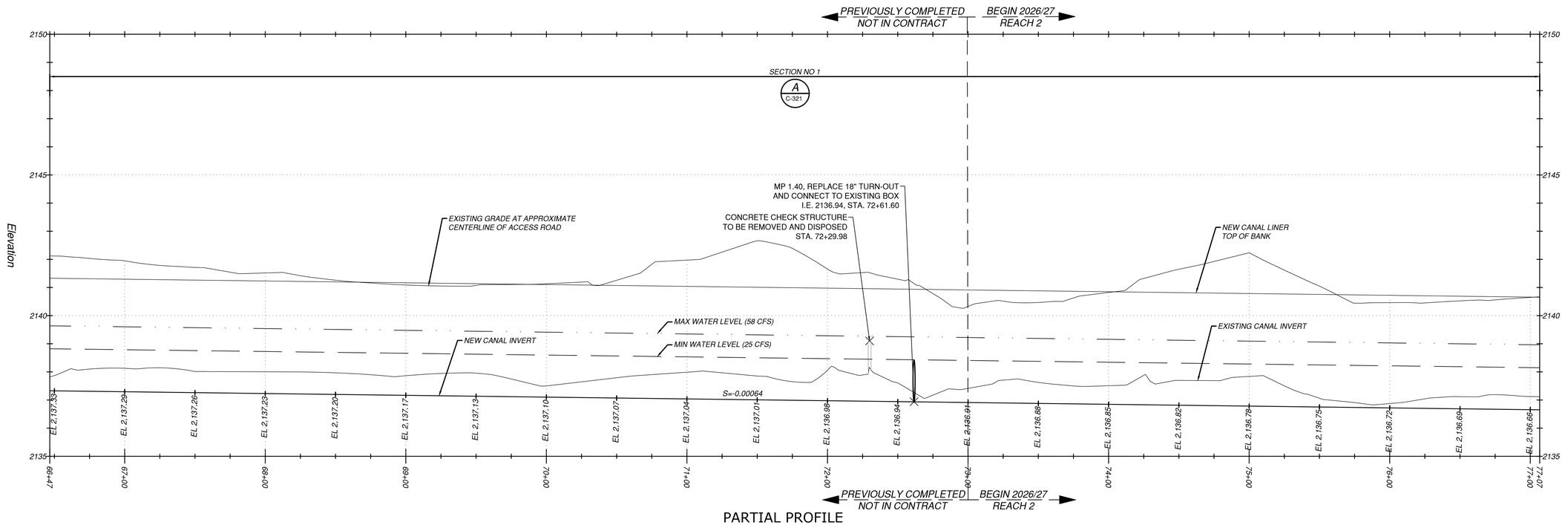
C-103

SHEET 12

SOLICITATION NO.: 33-NBC-1008



PARTIAL PLAN
STA. 66+47 TO STA. 77+07
0 40' 80'
SCALE:1"=40'



PARTIAL PROFILE
STA. 66+47 TO STA. 77+07
0 40' 80'
HORIZONTAL
SCALE:1"=40'
0 1' 2' 4'
VERTICAL
SCALE:1"=2'

LAST SAVED DATE
2026-07-10
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-104.DWG

Kittitas Reclamation District

Jacobs
1001 220th Ave NE Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: T. PIOTROWSKI
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-104.dwg

STATE OF WASHINGTON
ANNE M. TAKESHI
REGISTERED PROFESSIONAL ENGINEER
24012760
DESIGNED BY: W. ZIOBRON 10/13/2026
DATE: 2025-08-01

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL
LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - R2
REV NO 0	10-07-2026	A. Takeshi			ISSUED FOR BID - 2026/27 REACH 2

X DRAWN
X ACCEPTED
10-07-2026

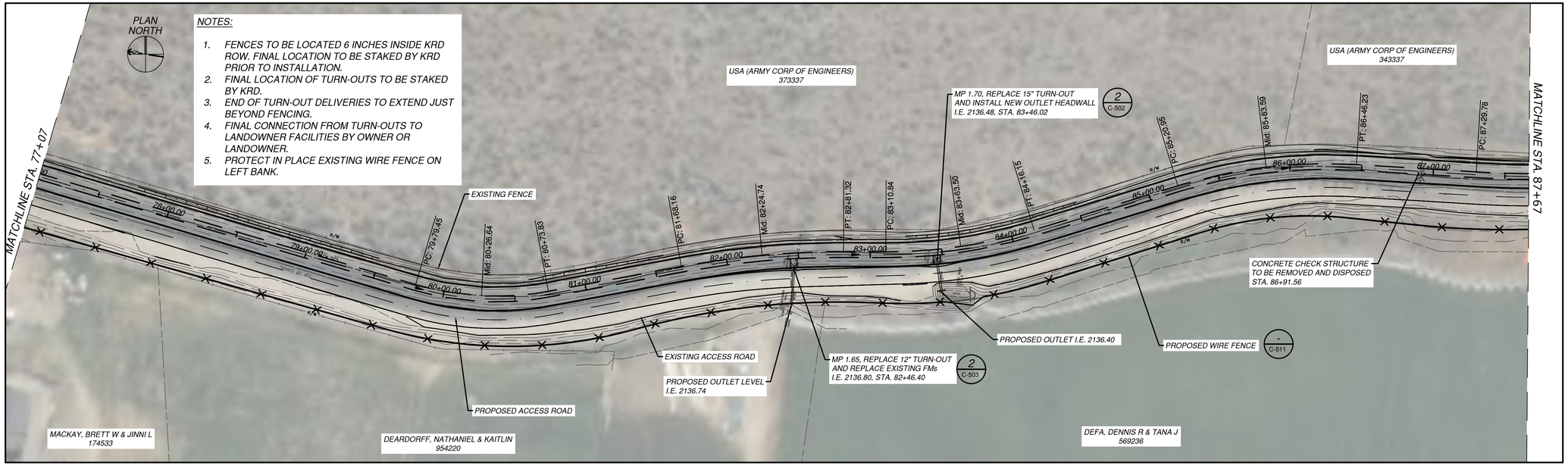
PLAN AND PROFILE

STA. 66+47 TO 77+07

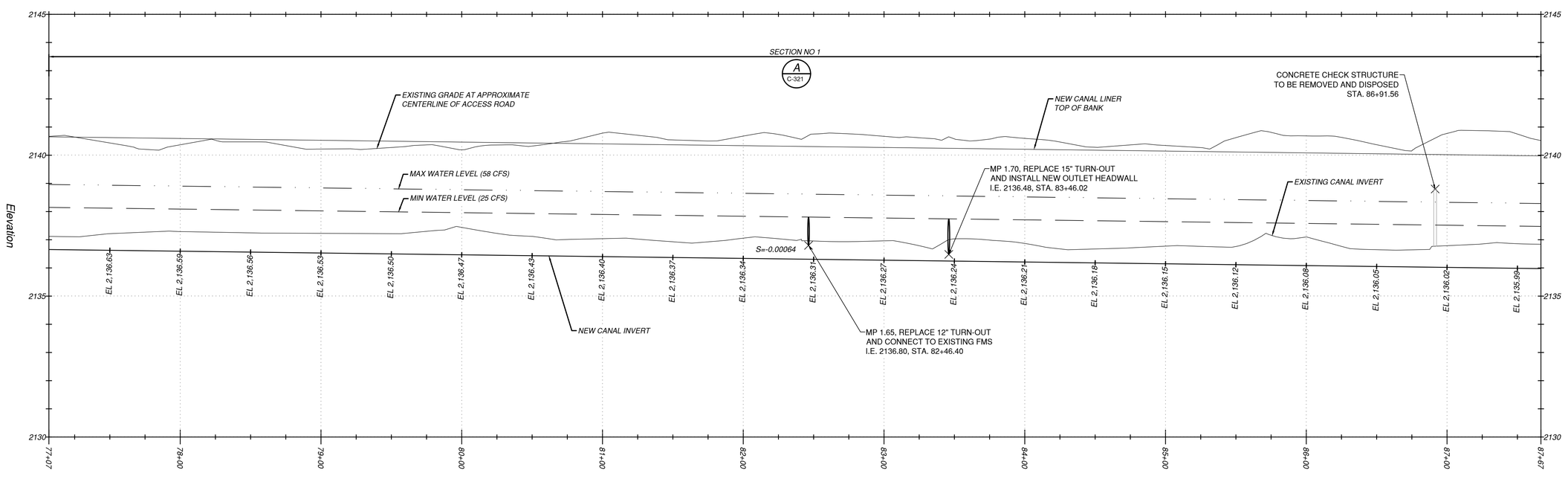
C-104

SHEET 13

SOLICITATION NO.:
33-NBC-1008



PARTIAL PLAN
STA. 77+07 TO STA. 87+67
0 40' 80'
SCALE:1"=40'



PARTIAL PROFILE
STA. 77+07 TO STA. 87+67
0 40' 80'
HORIZONTAL SCALE:1"=40'
0 1' 2' 4'
VERTICAL SCALE:1"=2'

Kittitas Reclamation District

Jacobs
1001 220th Ave NE Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: T. PIOTROWSKI
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-105.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01
10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL
LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - R2
REV NO 0	10-07-2026	A. Takeshi			ISSUED FOR BID - 2026/27 REACH 2

X DRAWN
X ACCEPTED
10-07-2026

PLAN AND PROFILE

STA. 77+07 TO 87+67

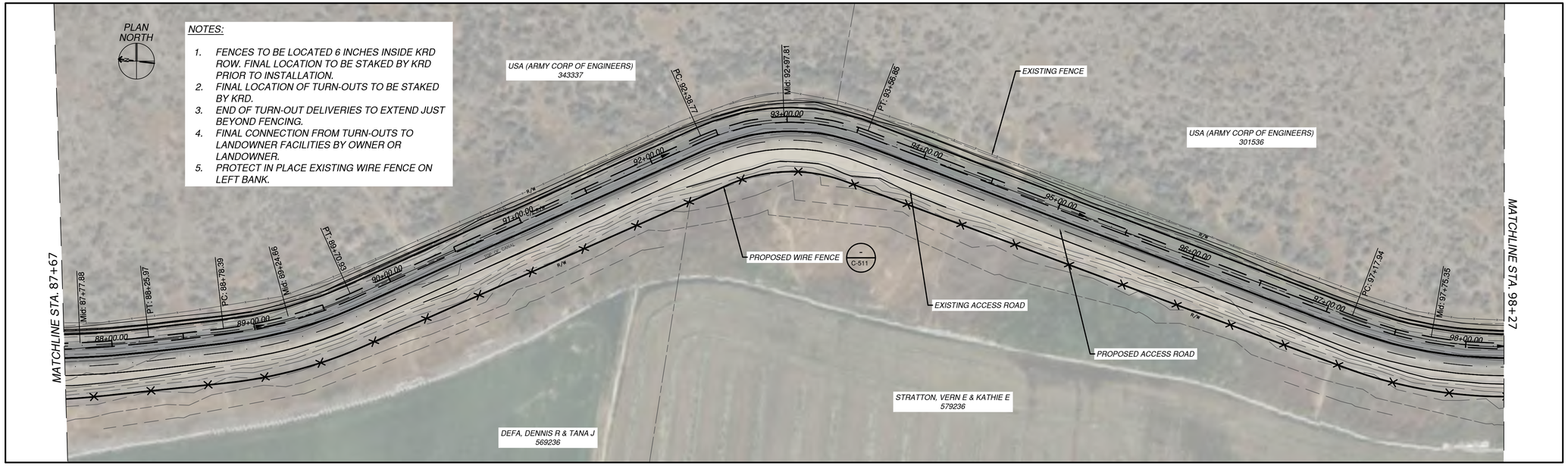
C-105

SHEET 14

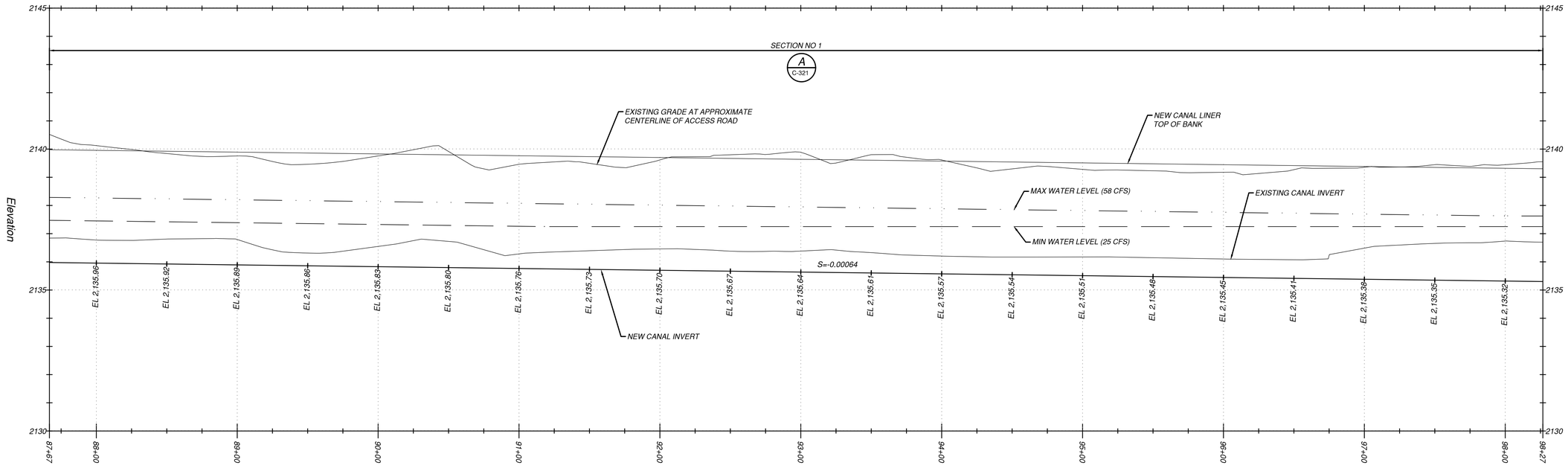
SOLICITATION NO.: 33-NBC-1008

LAST SAVED DATE 2026-10-08
LAST SAVED BY WHITTLN

CAD SYSTEM AutoCAD 24.3S (LMS TECH)
CAD FILENAME W3Y10907C-105.DWG



PARTIAL PLAN
STA. 87+67 TO STA. 98+27
0 40' 80'
SCALE:1"=40'



PARTIAL PROFILE
STA. 87+67 TO STA. 98+27
0 40' 80'
HORIZONTAL SCALE:1"=40'
0 1' 2' 4'
VERTICAL SCALE:1"=2'

LAST SAVED DATE 2025-08-01
LAST SAVED BY WHITTLN
CAD SYSTEM AutoCAD 24.3S (LMS TECH)
CAD FILENAME W3Y10907C-106.DWG

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: T. PIOTROWSKI
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-106.dwg
DESIGNED BY: W. ZLOBRON
DATE: 2025-08-01

STATE OF WASHINGTON ANNA TAKESHI REGISTERED PROFESSIONAL ENGINEER 24012760
10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL
LINING PROJECT

REV NO.	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - R2
REV NO.	10-07-2026	A. Takeshi			ISSUED FOR BID - 2026/27 REACH 2

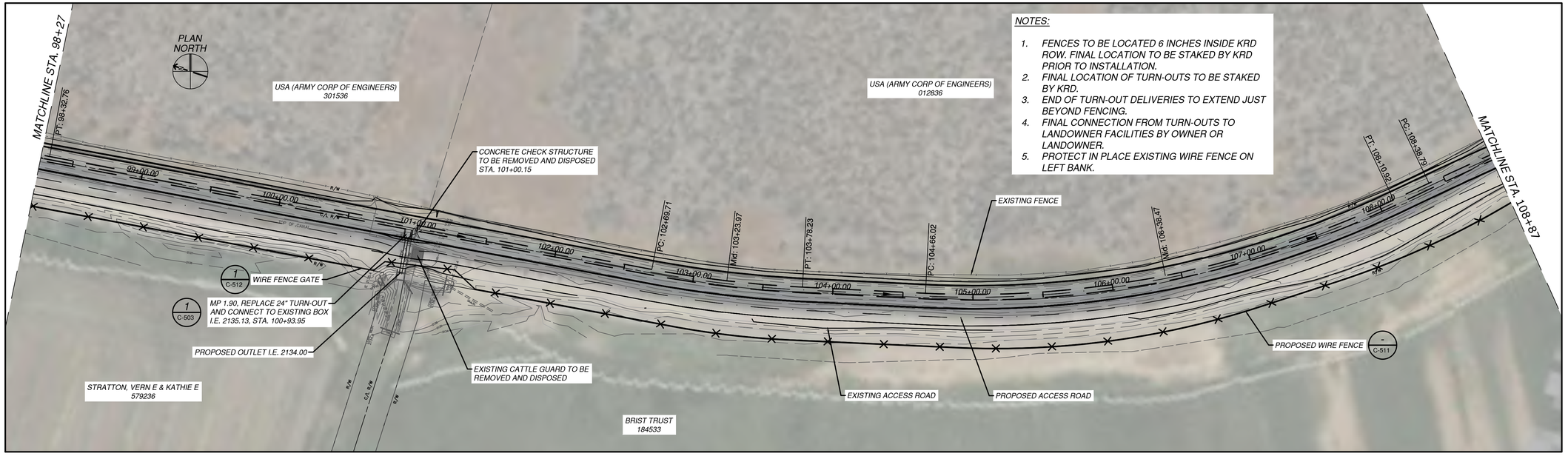
X DRAWN
X ACCEPTED
10-07-2026

PLAN AND PROFILE

STA. 87+67 TO 98+27

C-106
SHEET 15

SOLICITATION NO.: 33-NBC-1008



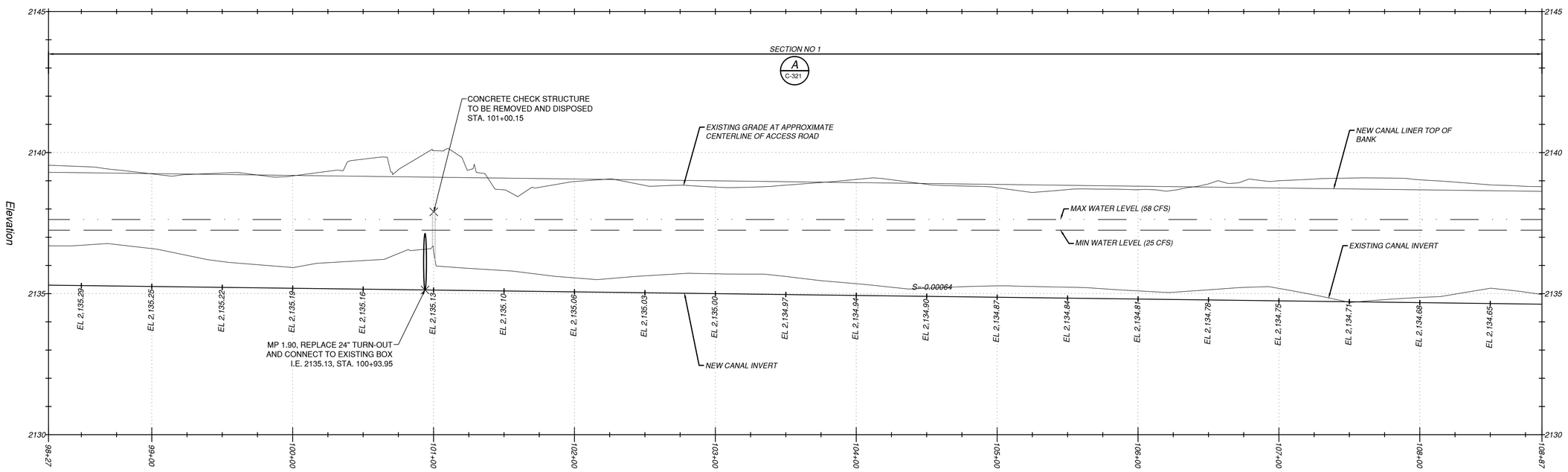
NOTES:

1. FENCES TO BE LOCATED 6 INCHES INSIDE KRD ROW. FINAL LOCATION TO BE STAKED BY KRD PRIOR TO INSTALLATION.
2. FINAL LOCATION OF TURN-OUTS TO BE STAKED BY KRD.
3. END OF TURN-OUT DELIVERIES TO EXTEND JUST BEYOND FENCING.
4. FINAL CONNECTION FROM TURN-OUTS TO LANDOWNER FACILITIES BY OWNER OR LANDOWNER.
5. PROTECT IN PLACE EXISTING WIRE FENCE ON LEFT BANK.

PARTIAL PLAN
STA. 98+27 TO STA. 108+87

0 40' 80'

SCALE:1"=40'



PARTIAL PROFILE
STA. 98+27 TO STA. 108+87

0 40' 80' HORIZONTAL SCALE:1"=40'

0 1' 2' 4' VERTICAL SCALE:1"=2'

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: T. PIOTROWSKI
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-107.dwg

DESIGNED BY: W. ZLOBRON
DATE: 2025-08-01

WASHINGTON STATE REGISTERED PROFESSIONAL ENGINEER WILLIAM ZLOBRON 24012780 10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL
LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - R2
REV NO	10-07-2026				ISSUED FOR BID - 2026/27 REACH 2
0	A. Takeshi				

X DRAWN

X ACCEPTED

10-07-2026

PLAN AND PROFILE

STA. 98+27 TO 108+87

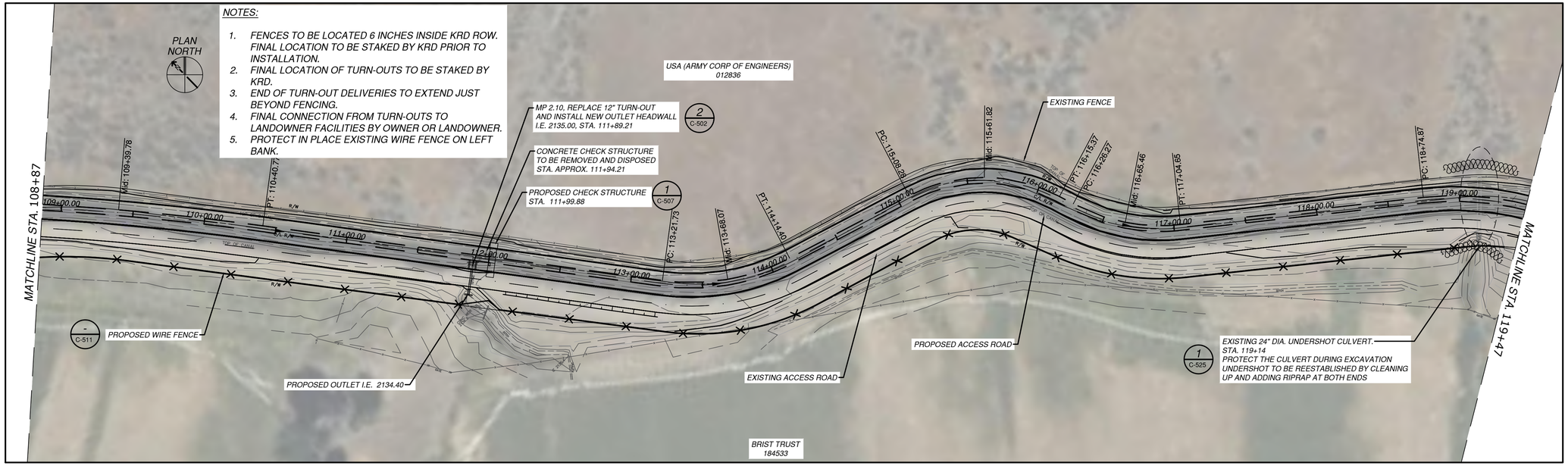
C-107

SHEET 16

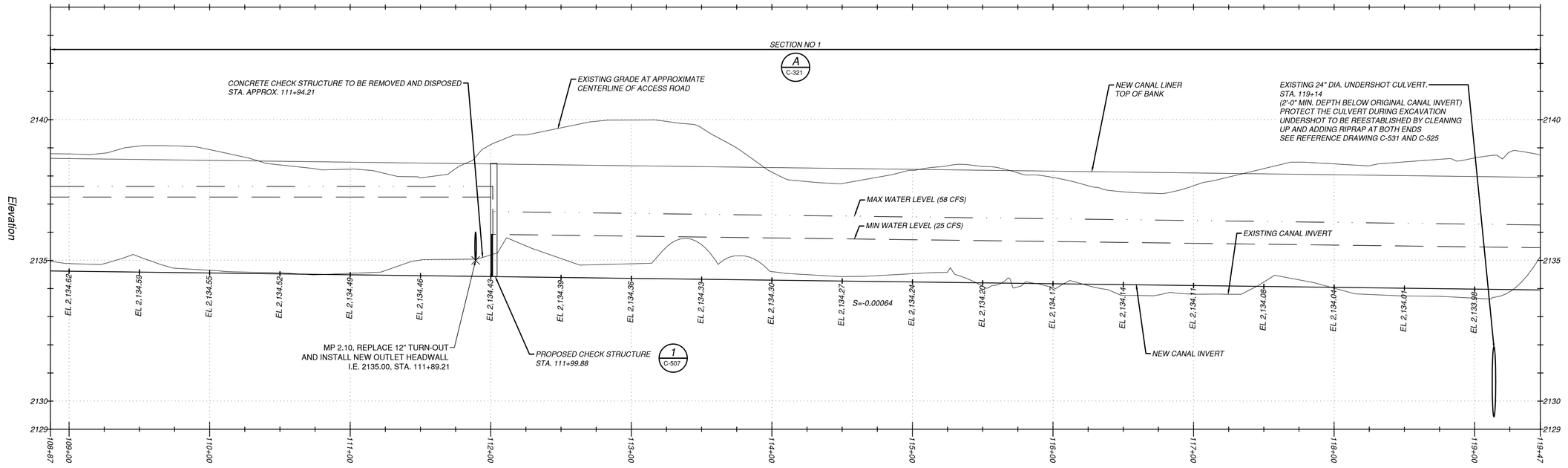
SOLICITATION NO.: 33-NBC-1008

LAST SAVED DATE
2026-10-06
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-107.DWG



PARTIAL PLAN
STA. 108+87 TO STA. 119+47
0 40' 80'
SCALE:1"=40'



PARTIAL PROFILE
STA. 108+87 TO STA. 119+47
0 40' 80' HORIZONTAL SCALE:1"=40'
0 1' 2' 4' VERTICAL SCALE:1"=2'

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: T. PIOTROWSKI
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-108.dwg

STATE OF WASHINGTON ANDREW M. TAKESHI 24012780 REGISTERED PROFESSIONAL ENGINEER
DESIGNED BY: W. ZIOBRON
DATE: 10/13/2026
2025-08-01

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL
LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - R2
REV NO	10-07-2026	A. Takeshi			ISSUED FOR BID - 2026/27 REACH 2

X DRAWN
X ACCEPTED
10-07-2026

PLAN AND PROFILE

STA. 108+87 TO 119+47

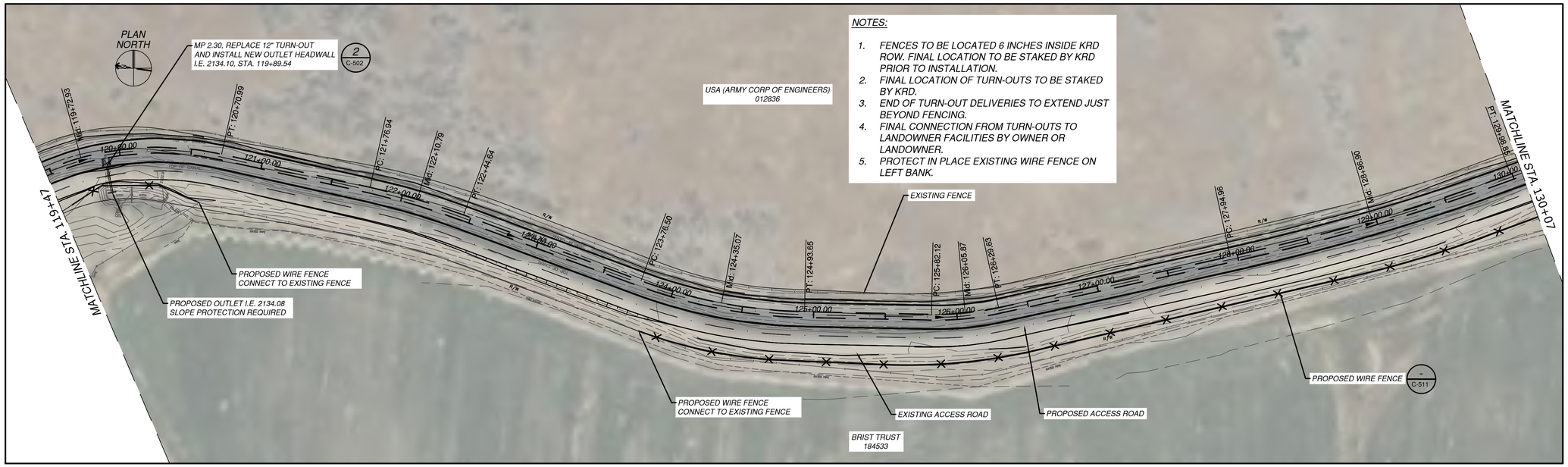
C-108

SHEET 17

SOLICITATION NO.: 33-NBC-1008

LAST SAVED DATE 2026-10-08
LAST SAVED BY WHITTLN

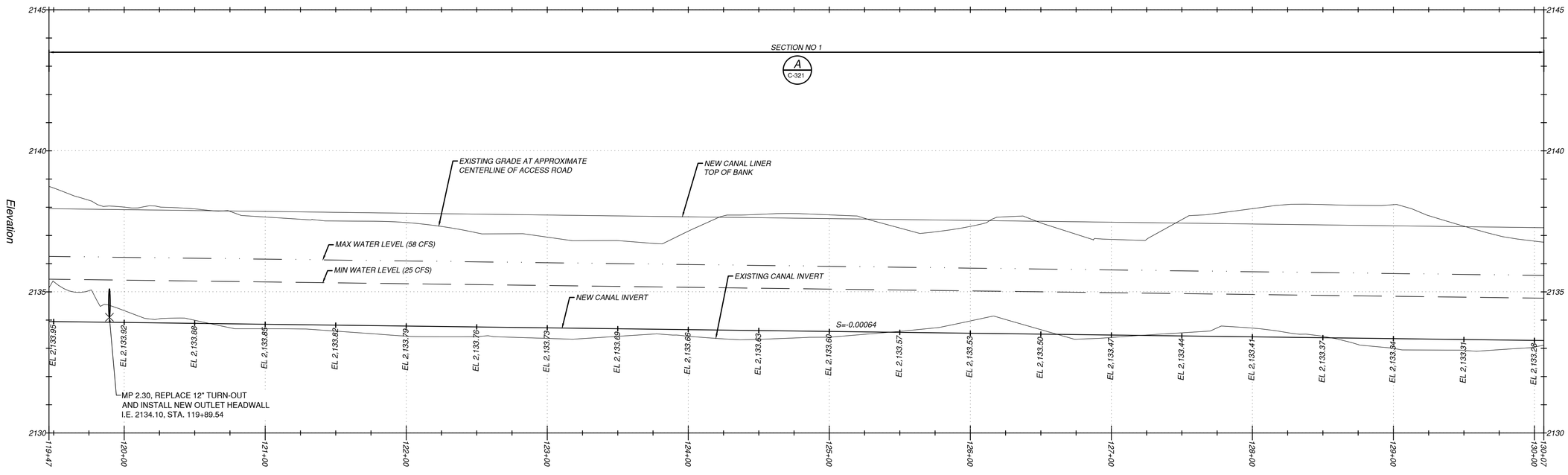
CAD SYSTEM AutoCAD 24.3S (LMS TECH)
CAD FILENAME W3Y10907C-108.DWG



PARTIAL PLAN
STA. 119+47 TO STA. 130+07

0 40' 80'

SCALE:1"=40'



PARTIAL PROFILE
STA. 119+47 TO STA. 130+07

0 40' 80' — HORIZONTAL SCALE:1"=40'

0 1' 2' 4' — VERTICAL SCALE:1"=2'

LAST SAVED DATE 2026-07-10 LAST SAVED BY WHITTLN

CAD SYSTEM AutoCAD 24.3S (LMS TECH) CAD FILENAME W3Y10907C-109.DWG

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: T. PIOTROWSKI
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-109.dwg

STATE OF WASHINGTON ANDREW M. EVANS REGISTERED PROFESSIONAL ENGINEER 24012760

DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01
10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL
LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - 82
REV NO	10-07-2026				ISSUED FOR BID - 2026/27 REACH 2
0	A. Takeshi				

X DRAWN

X ACCEPTED

10-07-2026

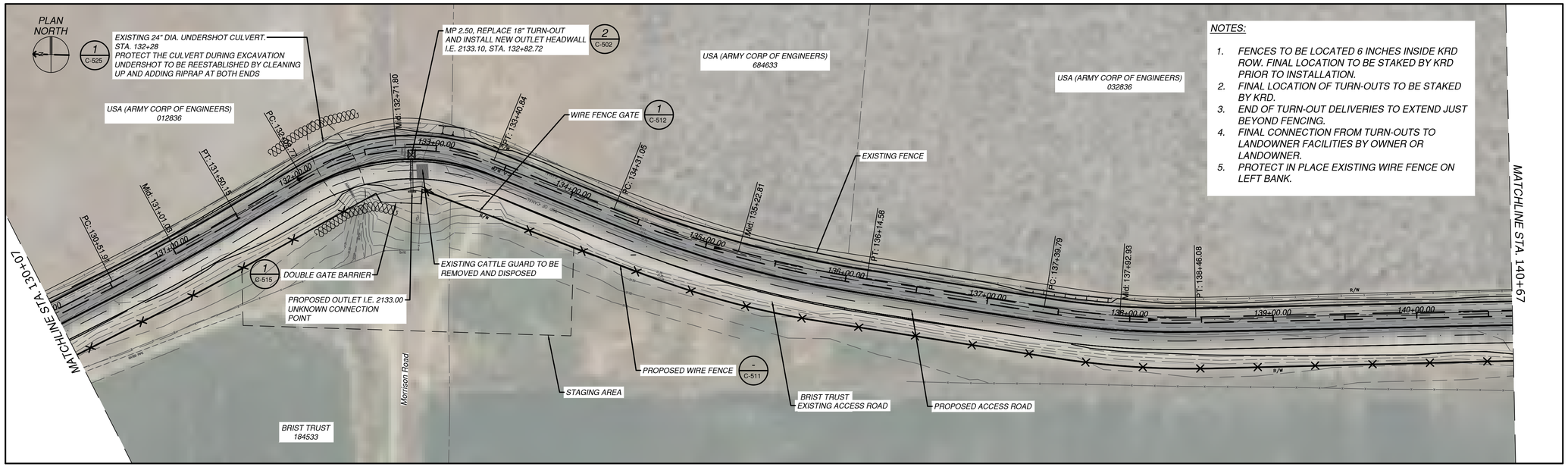
PLAN AND PROFILE

STA. 119+47 TO 130+07

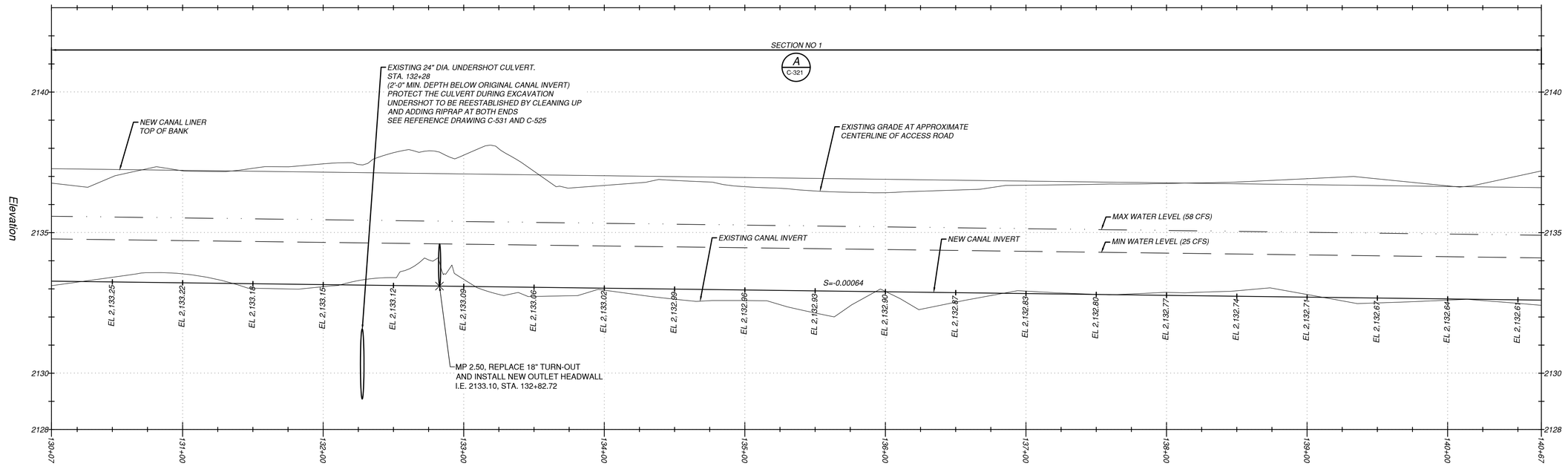
C-109

SHEET 18

SOLICITATION NO.: 33-NBC-1008



PARTIAL PLAN
STA. 130+07 TO STA. 140+67
0 40' 80'
SCALE:1"=40'



PARTIAL PROFILE
STA. 130+07 TO STA. 140+67
0 40' 80' HORIZONTAL SCALE:1"=40'
0 1' 2' 4' VERTICAL SCALE:1"=2'

LAST SAVED DATE 2026-07-10
LAST SAVED BY WHITTLN
CAD SYSTEM AutoCAD 24.3S (LMS TECH)
CAD FILENAME W3Y10907C-110.DWG

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: T. PIOTROWSKI
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: K0E2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-110.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

STATE OF WASHINGTON · NICOLE M. WHITTLESEY · 24012760 · REGISTERED PROFESSIONAL ENGINEER
10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL
LINING PROJECT

REV NO	DATE	REVISION	BY	CHECKED BY	APPROVED BY
0	10-07-2026	ISSUED FOR BID - R2	A. TAKESHI	N. WHITTLESEY	A. TAKESHI
REV NO 1	10-07-2026	ISSUED FOR BID - 2026/27 REACH 2	A. TAKESHI	A. TAKESHI	A. Takeshi

0

X DRAWN

X ACCEPTED

10-07-2026

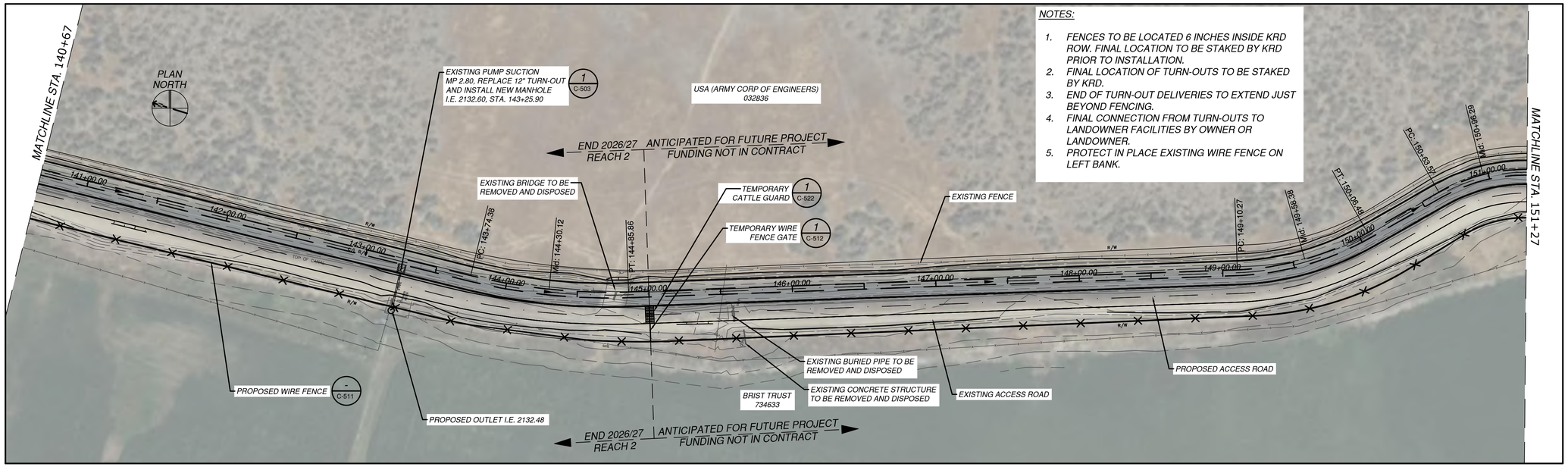
PLAN AND PROFILE

STA. 130+07 TO 140+67

C-110

SHEET 19

SOLICITATION NO.: 33-NBC-1008



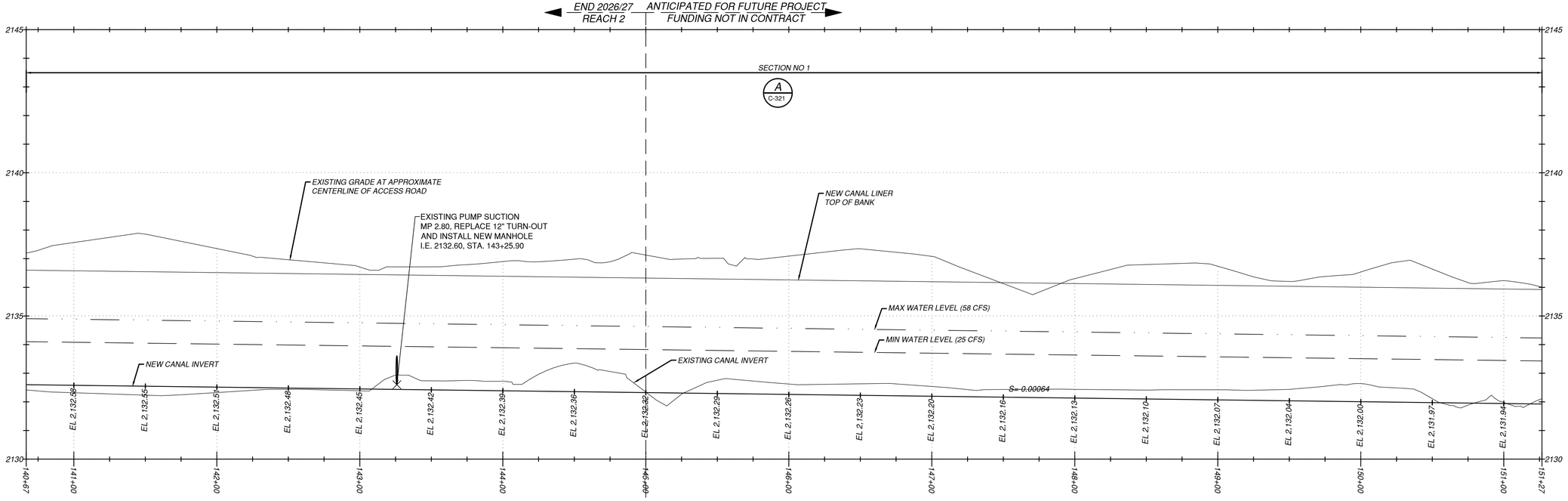
NOTES:

1. FENCES TO BE LOCATED 6 INCHES INSIDE KRD ROW. FINAL LOCATION TO BE STAKED BY KRD PRIOR TO INSTALLATION.
2. FINAL LOCATION OF TURN-OUTS TO BE STAKED BY KRD.
3. END OF TURN-OUT DELIVERIES TO EXTEND JUST BEYOND FENCING.
4. FINAL CONNECTION FROM TURN-OUTS TO LANDOWNER FACILITIES BY OWNER OR LANDOWNER.
5. PROTECT IN PLACE EXISTING WIRE FENCE ON LEFT BANK.

PARTIAL PLAN
STA. 140+67 TO STA. 151+27

0 40' 80'

SCALE:1"=40'



PARTIAL PROFILE
STA. 140+67 TO STA. 151+27

0 40' 80' — HORIZONTAL SCALE:1"=40'

0 1' 2' 4' — VERTICAL SCALE:1"=2'

LAST SAVED DATE 2026-07-10 LAST SAVED BY WHITTLN

CAD SYSTEM AutoCAD 24.3S (LMS TECH) CAD FILENAME W3Y1090?C-111.DWG

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: T. PIOTROWSKI
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: K0E2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-111.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

STATE OF WASHINGTON — ANDREW M. TAKESHI — REGISTERED PROFESSIONAL ENGINEER — 24012760

10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL
LINING PROJECT

REV NO	DATE	REVISION
0	10-07-2026	ISSUED FOR BID - R2

DESIGNED BY: A. TAKESHI
CHECKED BY: N. WHITTLESEY
APPROVED BY: A. TAKESHI
ISSUED FOR BID - 2026/27 REACH 2
10-07-2026
A. Takeshi

X DRAWN

X ACCEPTED

10-07-2026

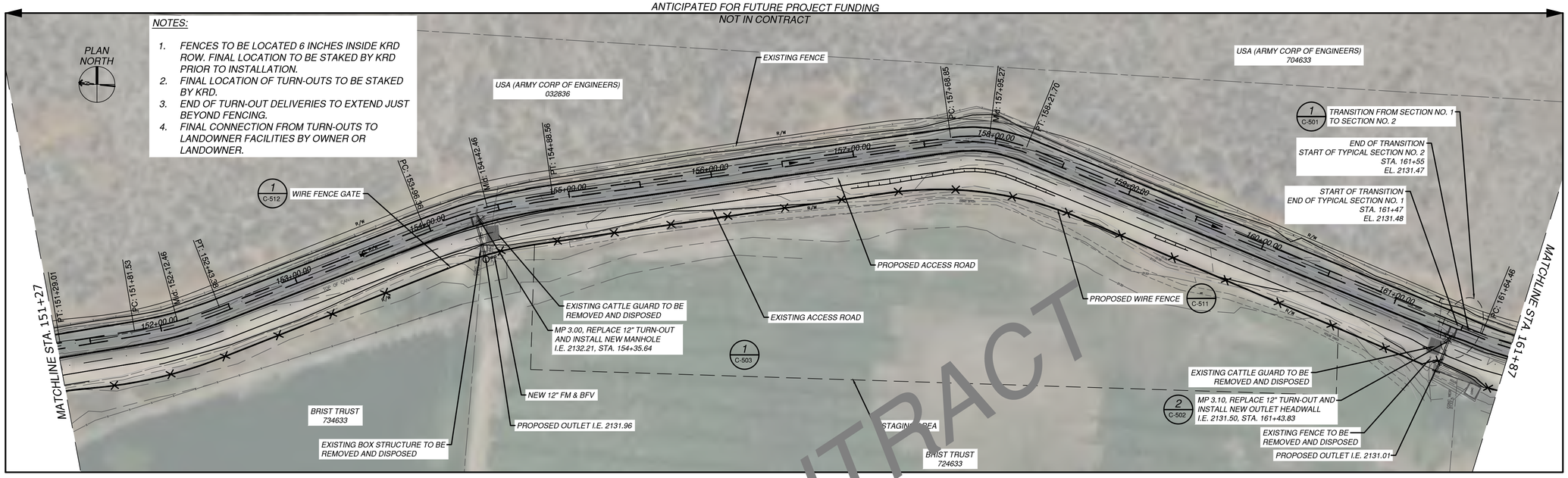
PLAN AND PROFILE

STA. 140+67 TO 151+27

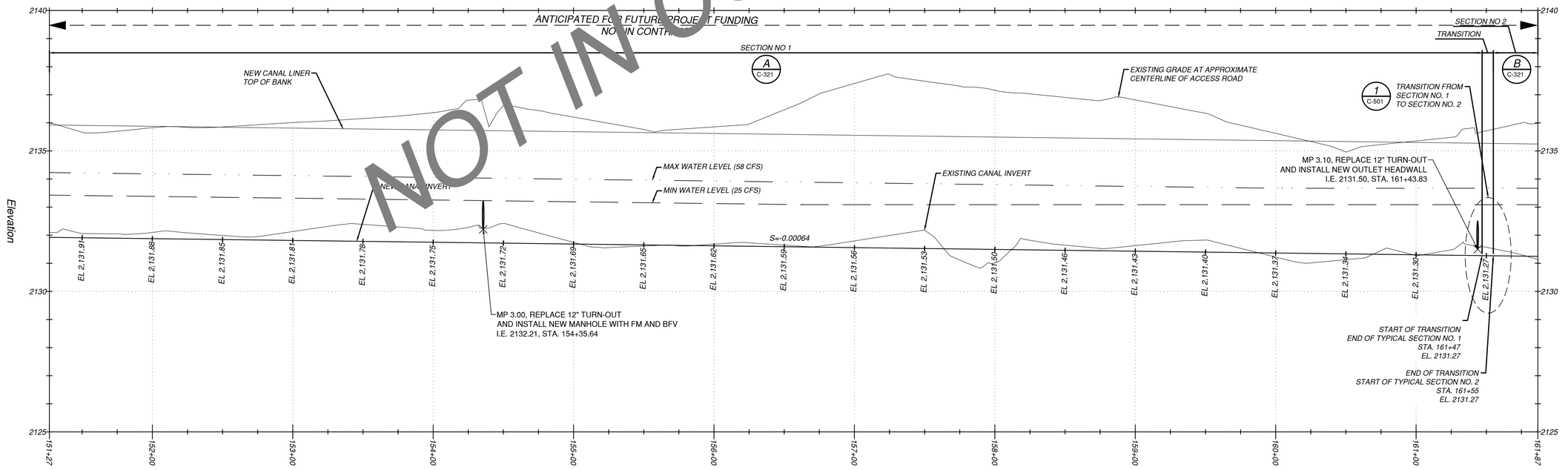
C-111

SHEET 20

SOLICITATION NO.: 33-NBC-1008



PARTIAL PLAN
STA. 151+27 TO STA. 161+87
0 40' 80'
SCALE:1"=40'



PARTIAL PROFILE
STA. 151+27 TO STA. 161+87
0 40' 80'
HORIZONTAL SCALE:1"=40'
0 1' 2' 4'
VERTICAL SCALE:1"=2'

NOT IN CONTRACT

Kittitas Reclamation District
Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com
DRAWN BY: T. PIOTROWSKI
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y1090?
FILE NUMBER: W3Y1090?C-112.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01
10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL
LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - #2
10-07-2026	A. Takeshi				ISSUED FOR BID - 2026/27 REACH 2

X DRAWN
X ACCEPTED
10-07-2026

PLAN AND PROFILE

STA. 151+27 TO 161+87

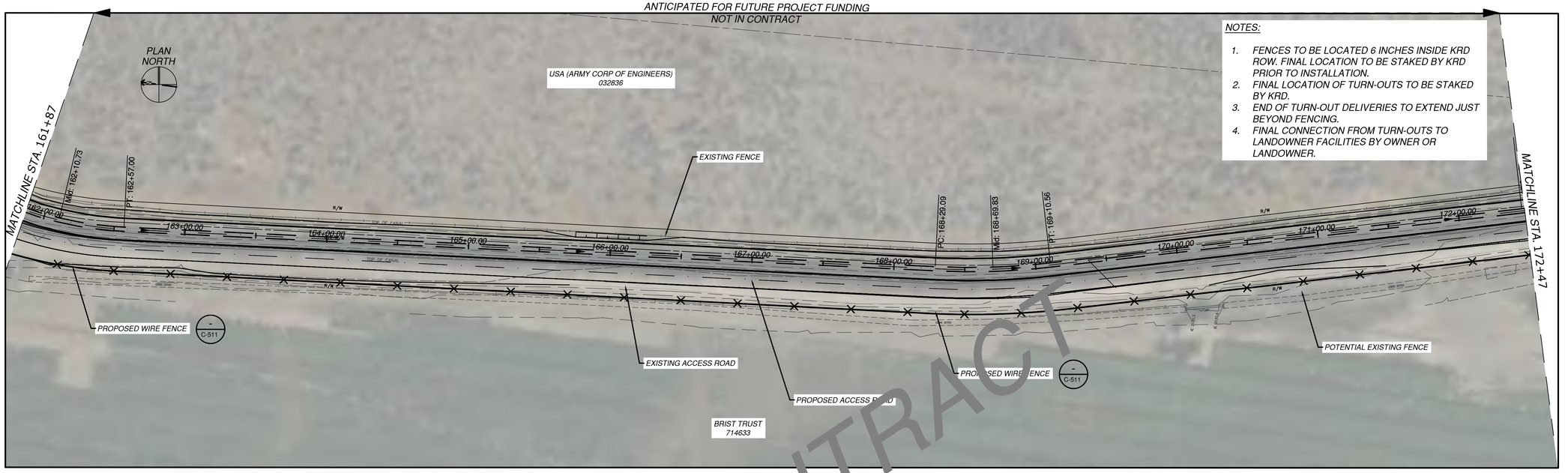
C-112

SHEET 21

SOLICITATION NO.:
33-NBC-1008

LAST SAVED DATE
2026-10-06
LAST SAVED BY
WHITTLN

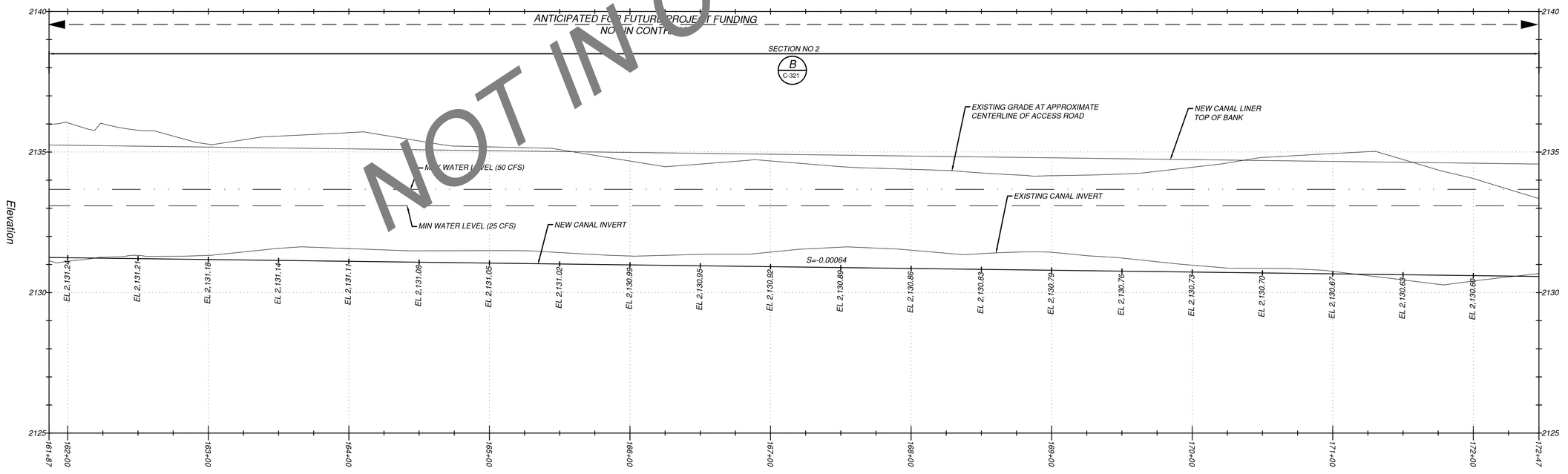
CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y1090?C-112.DWG



PARTIAL PLAN
STA. 161+87 TO STA. 172+47

0 40' 80'

SCALE:1"=40'



PARTIAL PROFILE
STA. 161+87 TO STA. 172+47

0 40' 80' — HORIZONTAL SCALE:1"=40'

0 1' 2' 4' — VERTICAL SCALE:1"=2'

NOT IN CONTRACT

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: T. PIOTROWSKI
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-113.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

STATE OF WASHINGTON · ANNE TAKESHI · REGISTERED PROFESSIONAL ENGINEER · 24012780 · 10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL
LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - #2
REV NO	10-07-2026				ISSUED FOR BID - 2026/27 REACH 2
	A. Takeshi				

X DRAWN

X ACCEPTED

2026-07-31

PLAN AND PROFILE

STA. 161+87 TO 172+47

C-113

SHEET 22

SOLICITATION NO.:
33-NBC-1008

LAST SAVED DATE
2026-10-08
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-113.DWG

ANTICIPATED FOR FUTURE PROJECT FUNDING
NOT IN CONTRACT

PLAN NORTH

MP 3.30, REPLACE 18" TURN-OUT AND CONNECT TO EXISTING BOX I.E. 2130.60, STA. 173+58.29 (1 / C-503)

PROPOSED CHECK STRUCTURE STA. 173+68.96 (2 / C-507)

USA (ARMY CORP OF ENGINEERS)
754633

NOTES:

1. FENCES TO BE LOCATED 6 INCHES INSIDE KRD ROW. FINAL LOCATION TO BE STAKED BY KRD PRIOR TO INSTALLATION.
2. FINAL LOCATION OF TURN-OUTS TO BE STAKED BY KRD.
3. END OF TURN-OUT DELIVERIES TO EXTEND JUST BEYOND FENCING.
4. FINAL CONNECTION FROM TURN-OUTS TO LANDOWNER FACILITIES BY OWNER OR LANDOWNER.

MATCHLINE STA. 172+47

MATCHLINE STA 183+07

PC: 172+44.66 · Mid: 172+70.83 · PT: 172+97.00 · PC: 173+50.99 · Mid: 174+04.95 · PT: 174+58.90 · PC: 174+84.04 · Mid: 175+36.08 · PT: 175+88.12 · PC: 177+68.92 · Mid: 178+24.48 · PT: 178+80.04 · PC: 180+25.54 · Mid: 180+58.06 · PT: 180+90.61 · PC: 181+31.46 · Mid: 181+98.75 · PT: 182+66.04

EXISTING FENCE

PROPOSED OUTLET I.E. 2130.30

EXISTING CATTLE GUARD TO BE REMOVED AND DISPOSED

REPLACE WIRE FENCE GATE (1 / C-512)

PROPOSED WIRE FENCE

EXISTING ACCESS ROAD

PROPOSED ACCESS ROAD

PROPOSED WIRE FENCE CONNECT TO EXISTING FENCE

WIRE FENCE GATE (1 / C-512)

PROPOSED WIRE FENCE (- / C-511)

POTENTIAL EXISTING FENCE

BRIST TRUST
714633

GOKEY, JASON E
744633

PARTIAL PLAN
STA. 172+47 TO STA. 183+07
0 40' 80'
SCALE:1"=40'

NOT IN CONTRACT

ANTICIPATED FOR FUTURE PROJECT FUNDING
NOT IN CONTRACT

SECTION NO 2 (B / C-321)

EXISTING GRADE AT APPROXIMATE CENTERLINE OF ACCESS ROAD

NEW CANAL LINER TOP OF BANK

MAX WATER LEVEL (50 CFS)

MIN WATER LEVEL (25 CFS)

EXISTING CANAL INVERT

NEW CANAL INVERT

S=-0.00064

Elevation

2140 · 2135 · 2130 · 2125

EL 2,130.57 · EL 2,130.54 · EL 2,130.51 · EL 2,130.48 · EL 2,130.44 · EL 2,130.41 · EL 2,130.38 · EL 2,130.35 · EL 2,130.32 · EL 2,130.28 · EL 2,130.25 · EL 2,130.22 · EL 2,130.19 · EL 2,130.16 · EL 2,130.12 · EL 2,130.09 · EL 2,130.06 · EL 2,130.03 · EL 2,130.00 · EL 2,129.97 · EL 2,129.93 · EL 2,129.90

PROPOSED CHECK STRUCTURE STA. 173+68.96 (2 / C-507)

MP 3.30, REPLACE 18" TURN-OUT AND CONNECT TO EXISTING BOX I.E. 2130.60, STA. 173+58.29

172+47 · 172+00 · 174+00 · 175+00 · 176+00 · 177+00 · 178+00 · 179+00 · 180+00 · 181+00 · 182+00 · 183+07

PARTIAL PROFILE
STA. 172+47 TO STA. 183+07
HORIZONTAL SCALE:1"=40' (0 40' 80')
VERTICAL SCALE:1"=2' (0 1' 2' 4')

LAST SAVED DATE 2025-10-08
LAST SAVED BY WHITTLN

CAD SYSTEM AutoCAD 24.3S (LMS TECH)
CAD FILENAME W3Y1090/C-114.DWG

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: T. PIOTROWSKI
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: K0E2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-114.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

STATE OF WASHINGTON · ANDREW M. TAKESHI · 24012760 · REGISTERED PROFESSIONAL ENGINEER
10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL
LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - 82
0	10-07-2026	A. Takeshi			ISSUED FOR BID - 2026/27 REACH 2

X DRAWN

X ACCEPTED

2026-07-31

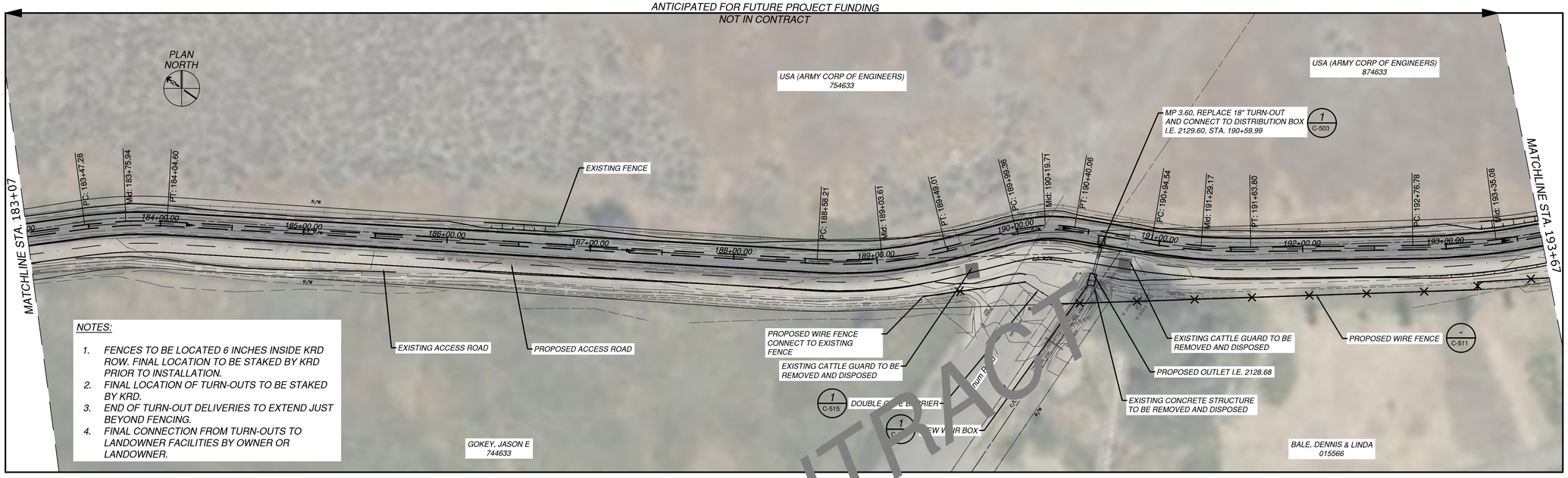
PLAN AND PLOFILE

STA. 172+47 TO 183+07

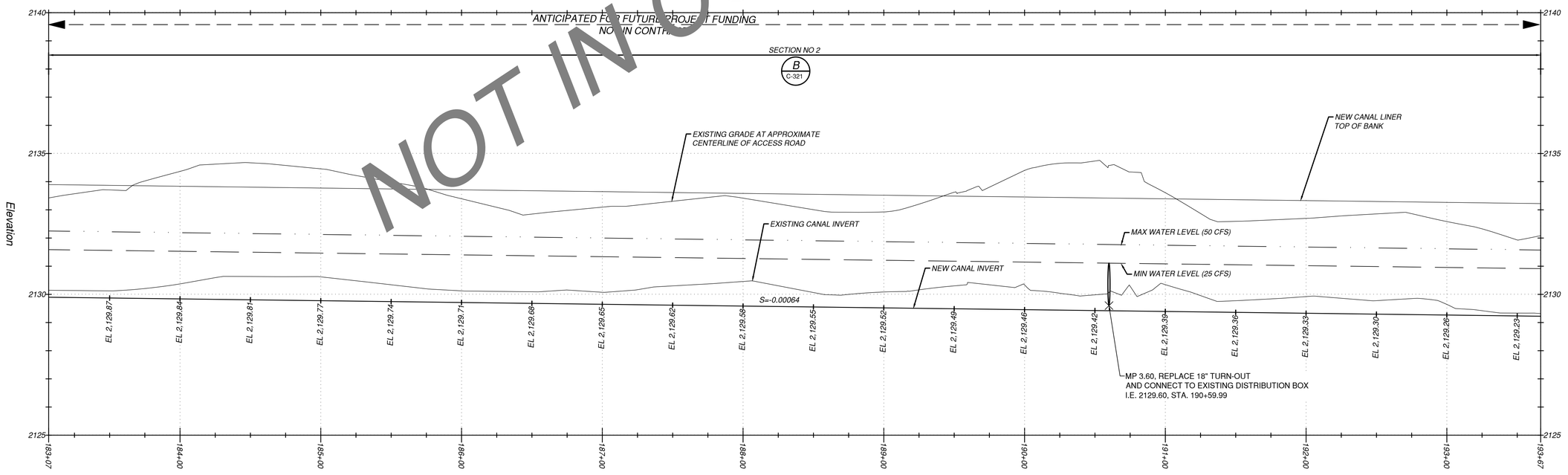
C-114

SHEET 23

SOLICITATION NO.:
33-NBC-1008



PARTIAL PLAN
STA. 183+07 TO STA. 193+67
0 40' 80'
SCALE: 1"=40'



PARTIAL PROFILE
STA. 183+07 TO STA. 193+67
0 40' 80'
HORIZONTAL SCALE:1"=40'
0 1' 2' 4'
VERTICAL SCALE:1"=2'

NOT IN CONTRACT

Kittitas Reclamation District
Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com
DRAWN BY: T. PIOTROWSKI
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: K0E2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-115.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01
STATE OF WASHINGTON ANDREW M. TAKESHI 24012780 REGISTERED PROFESSIONAL ENGINEER
10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL
LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - #2
REV NO	10-07-2026	A. Takeshi			ISSUED FOR BID - 2026/27 REACH 2

X DRAWN

X ACCEPTED

10-07-2026

PLAN AND PROFILE

STA. 183+07 TO 193+67

C-115

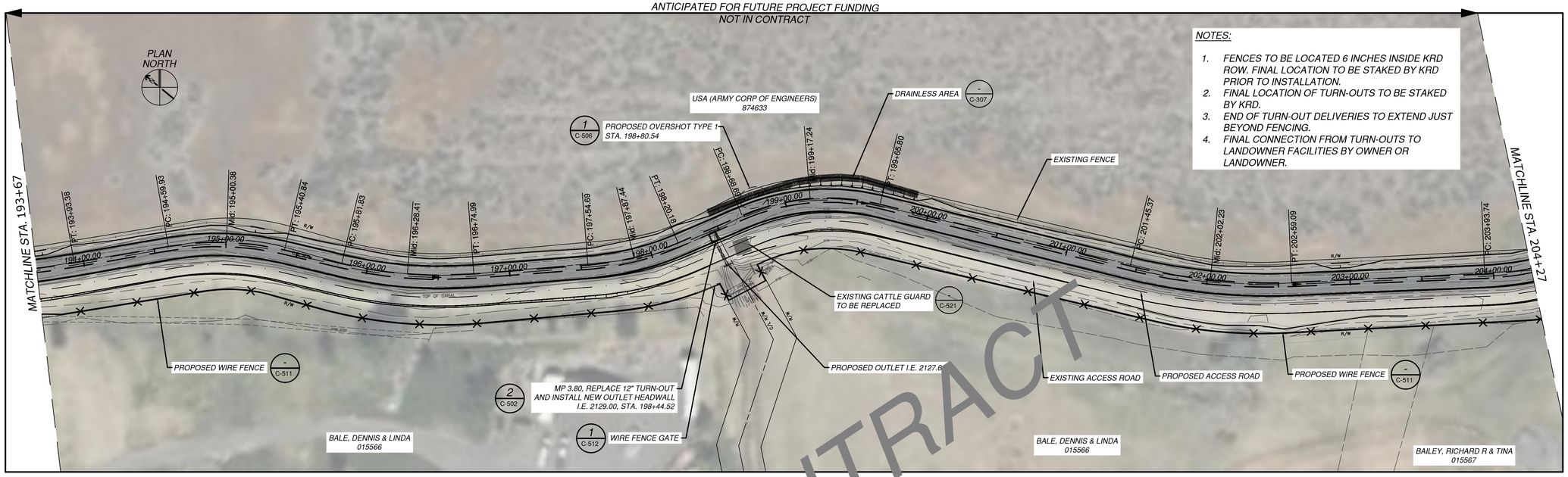
SHEET 24

SOLICITATION NO.: 33-NBC-1008

LAST SAVED DATE 2026-10-06
LAST SAVED BY WHITTLN

CAD SYSTEM AutoCAD 24.3S (LMS TECH)
CAD FILENAME W3Y10907C-115.DWG

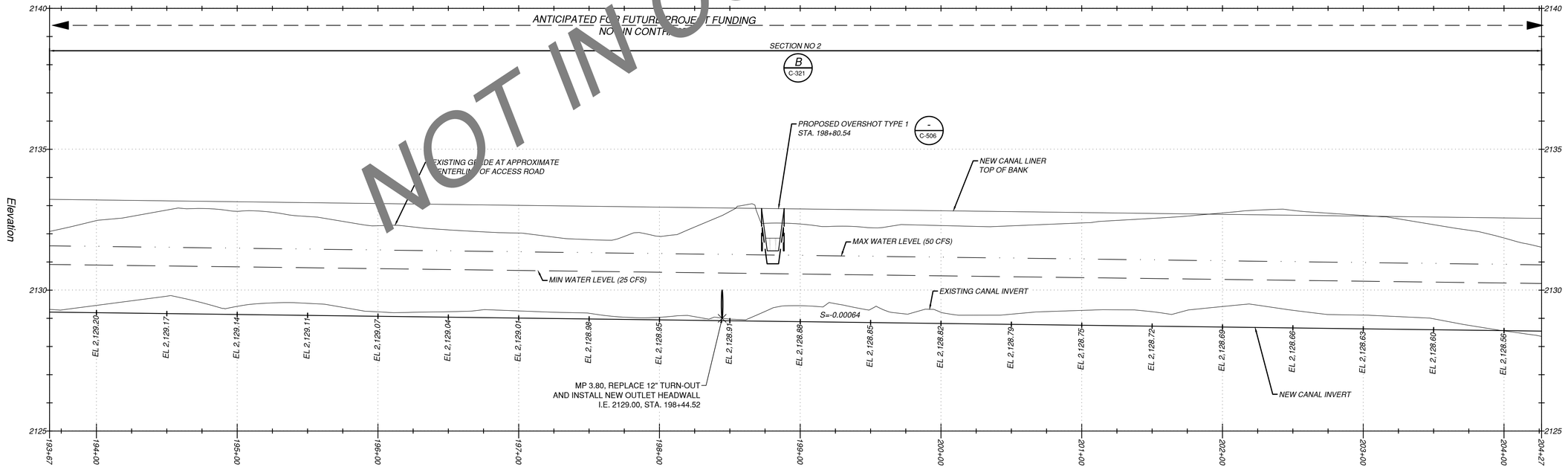
ANTICIPATED FOR FUTURE PROJECT FUNDING
NOT IN CONTRACT



NOTES:

1. FENCES TO BE LOCATED 6 INCHES INSIDE KRD ROW. FINAL LOCATION TO BE STAKED BY KRD PRIOR TO INSTALLATION.
2. FINAL LOCATION OF TURN-OUTS TO BE STAKED BY KRD.
3. END OF TURN-OUT DELIVERIES TO EXTEND JUST BEYOND FENCING.
4. FINAL CONNECTION FROM TURN-OUTS TO LANDOWNER FACILITIES BY OWNER OR LANDOWNER.

PARTIAL PLAN
STA. 193+67 TO STA. 204+27
0 80'
SCALE: 1"=40'



PARTIAL PROFILE
STA. 193+67 TO STA. 204+27
HORIZONTAL SCALE:1"=40' (0, 40', 80')
VERTICAL SCALE:1"=2' (0, 1', 2', 4')

NOT IN CONTRACT

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY:
CHECKED BY: T. PIOTROWSKI
APPROVED BY: A. EVANS
CONTRACT / PROJECT NO.: A. TAKESHI
FILE NUMBER: KRD2022-PS-01 / W3Y10907
W3Y10907C-116.dwg

STATE OF WASHINGTON MICHAEL K. TAKESHI 24012780 REGISTERED PROFESSIONAL ENGINEER
DESIGNED BY: W. ZLOBRON
DATE: 10/13/2026
2025-08-01

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL
LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - 82
REV NO	10-07-2026				ISSUED FOR BID - 2026/27 REACH 2
ISS'D BY	A. Takeshi				

X DRAWN

X ACCEPTED

2026-07-31

PLAN AND PROFILE

STA. 193+67 TO 204+27

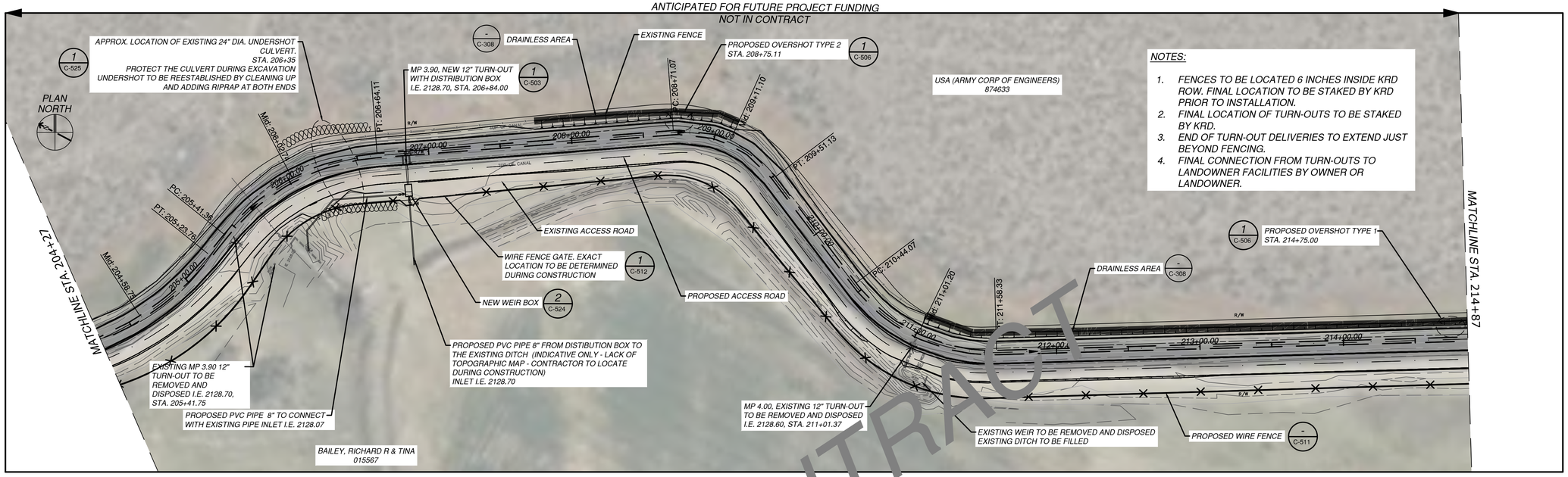
C-116

SHEET 25

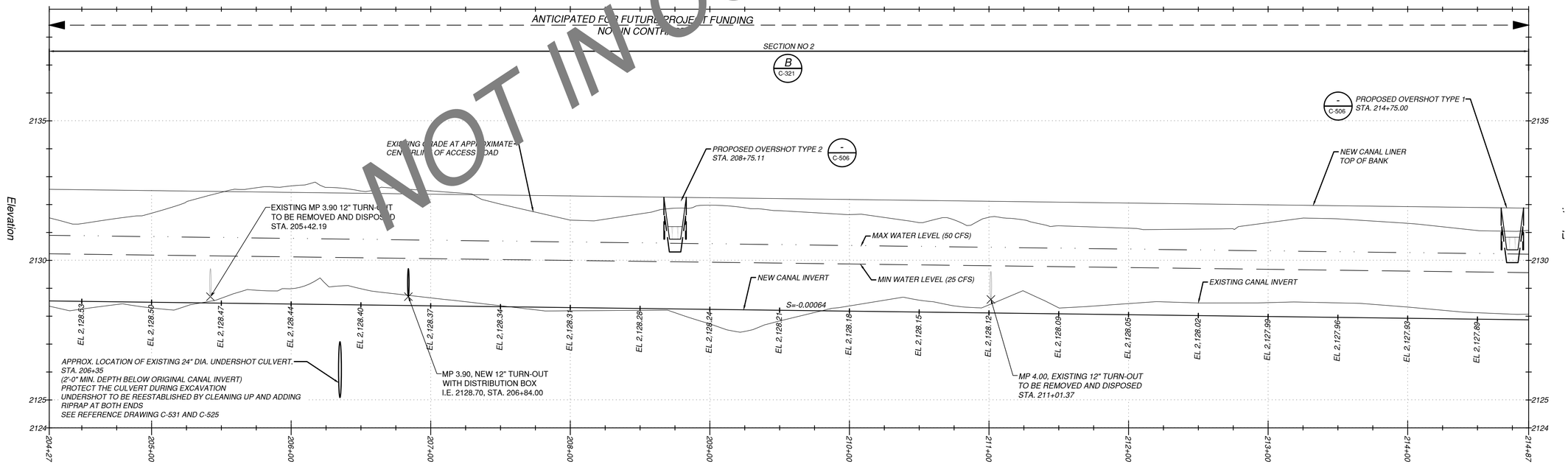
SOLICITATION NO.:
33-NBC-1008

LAST SAVED DATE
2026-10-08
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-116.DWG



PARTIAL PLAN
STA. 204+27 TO STA. 214+87
0 80'
SCALE: 1"=40'



PARTIAL PROFILE
STA. 204+27 TO STA. 214+87
0 40' 80' HORIZONTAL SCALE:1"=40'
0 1' 2' 4' VERTICAL SCALE:1"=2'

NOT IN CONTRACT

Kittitas Reclamation District

Jacobs
1001 4th Ave, Suite 3200
Seattle, WA 98154 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: T. PIOTROWSKI
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-117.dwg

STATE OF WASHINGTON ANDREW TAKESHI 24012780 REGISTERED PROFESSIONAL ENGINEER
DESIGNED BY: W. ZIOBRON
DATE: 10/13/2026
2025-08-01

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL
LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - #2
REV NO	10-07-2026	A. Takeshi			ISSUED FOR BID - 2026/27 REACH 2

X DRAWN
X ACCEPTED
10-07-2026

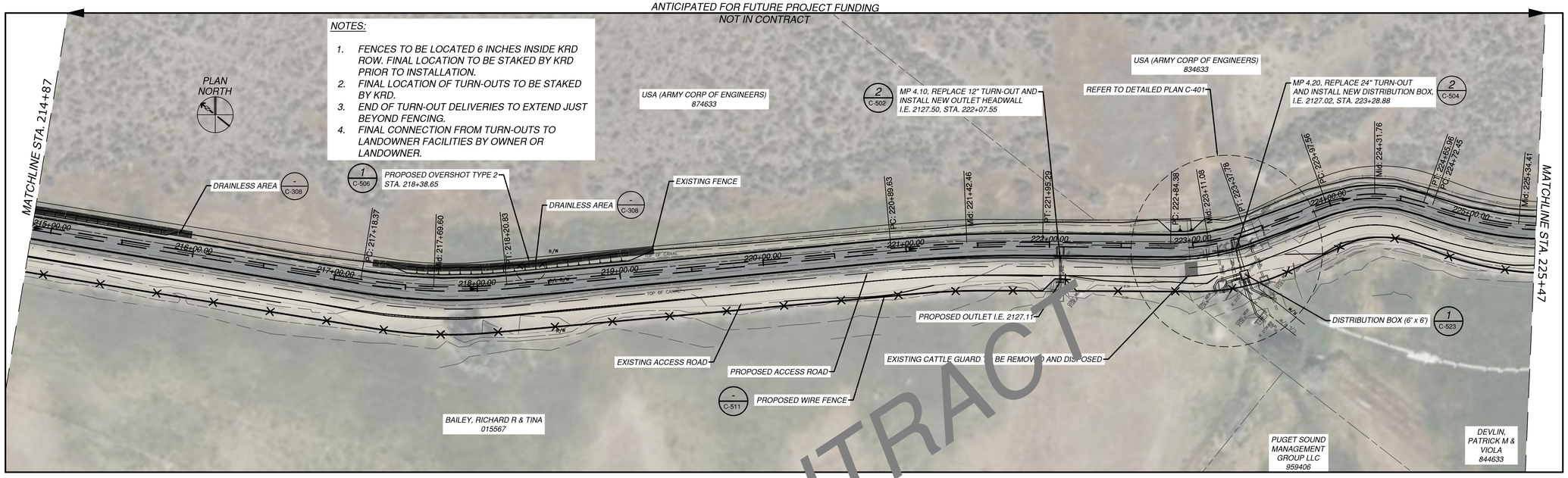
PLAN AND PLOT

STA. 204+27 TO 214+87

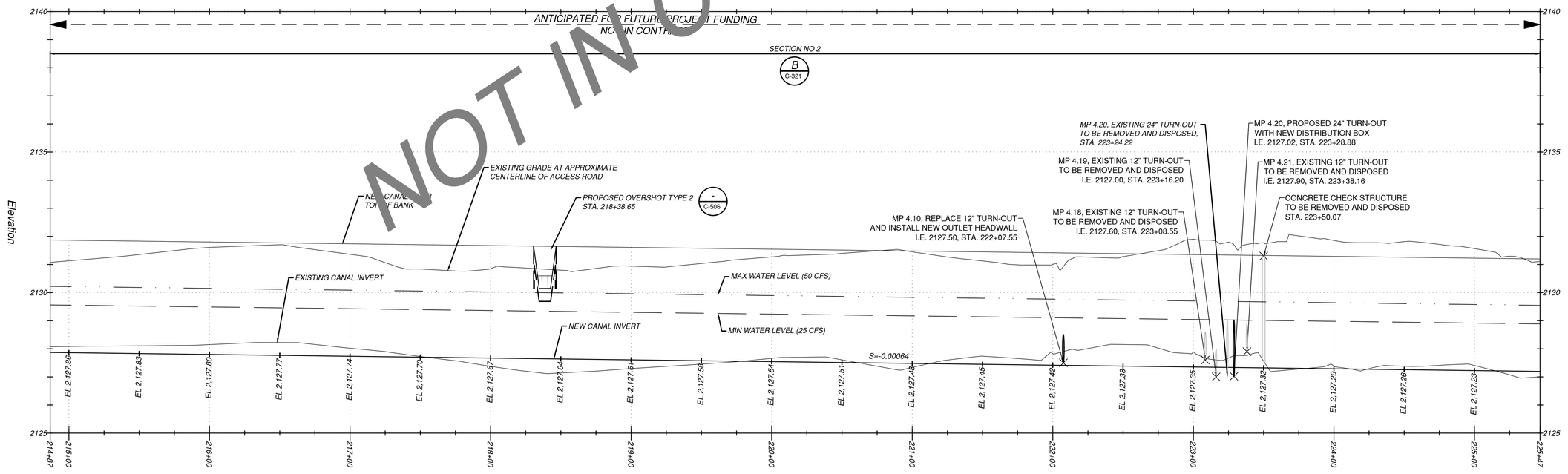
C-117
SHEET 26

SOLICITATION NO.:
33-NBC-1008

LAST SAVED DATE 2026-10-07
LAST SAVED BY WHITTLN
CAD SYSTEM AutoCAD 24.3S (LMS TECH)
CAD FILENAME W3Y10907C-117.DWG



PARTIAL PLAN
STA. 214+87 TO STA. 225+47
0 80'
SCALE:1"=40'



PARTIAL PROFILE
STA. 214+87 TO STA. 225+47
0 40' 80'
HORIZONTAL SCALE:1"=40'
0 1' 2' 4'
VERTICAL SCALE:1"=2'

NOT IN CONTRACT

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: T. PIOTROWSKI
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: K0E2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-118.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

STATE OF WASHINGTON · SHAWN M. KANEKOI · 24012780 · REGISTERED PROFESSIONAL ENGINEER
10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL
LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - #2
REV NO	10-07-2026				ISSUED FOR BID - 2026/27 REACH 2
	A. Takeshi				

0

X DRAWN

X ACCEPTED

10-07-2026

PLAN AND PROFILE

STA. 214+87 TO 225+47

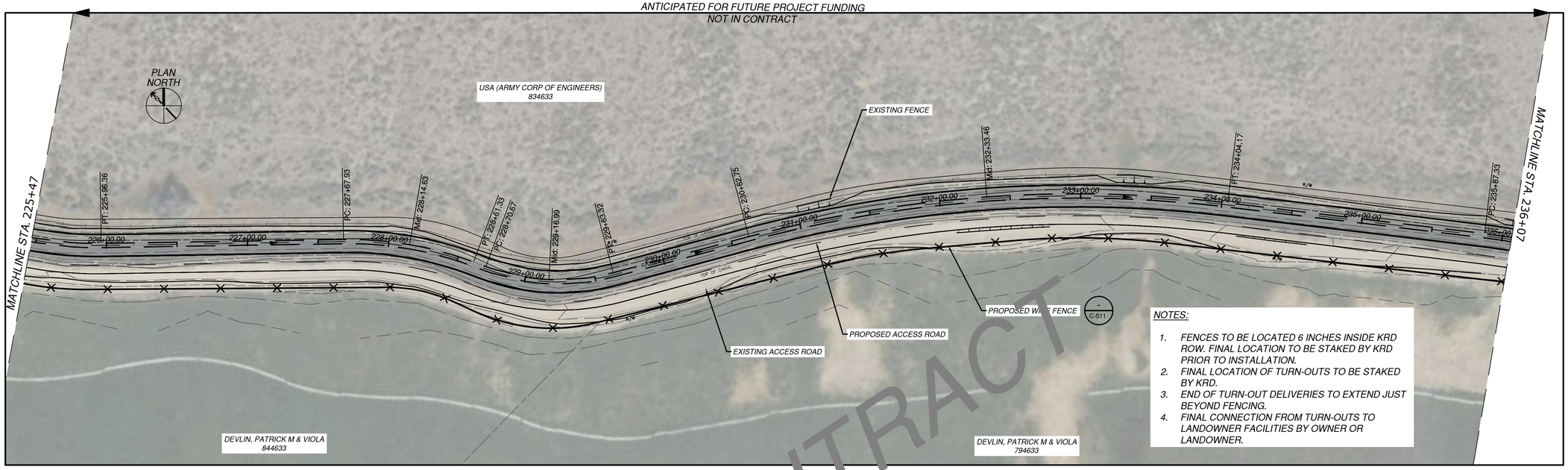
C-118

SHEET 27

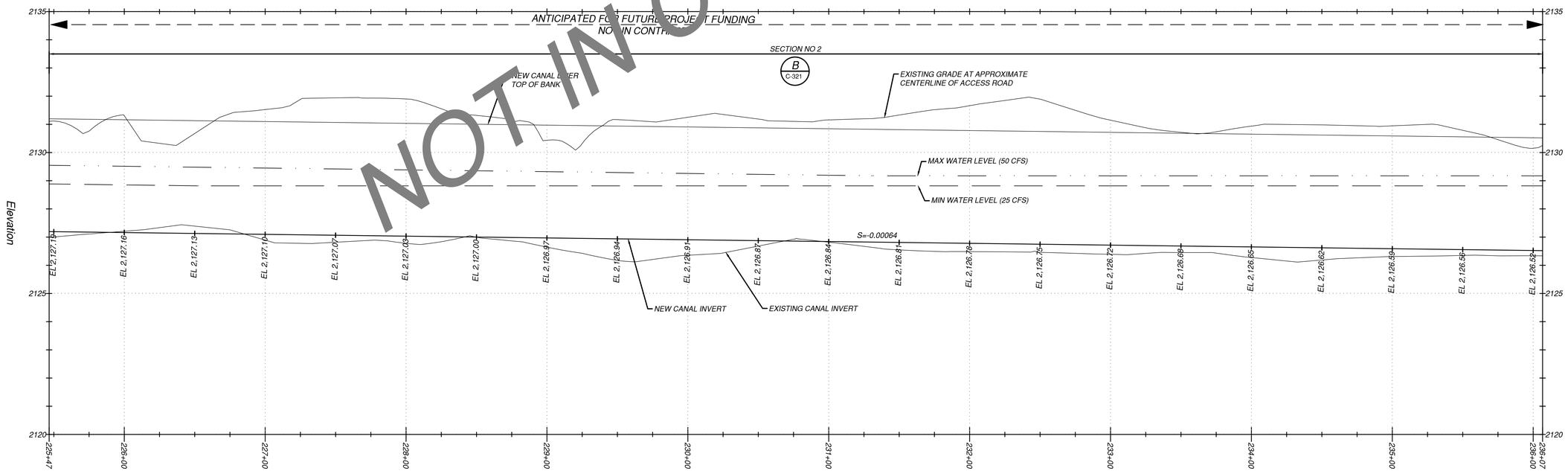
SOLICITATION NO.:
33-NBC-1008

LAST SAVED DATE
2025-10-08
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-118.DWG



PARTIAL PLAN
STA. 225+47 TO STA. 236+07
0 40' 80'
SCALE:1"=40'



PARTIAL PROFILE
STA. 225+47 TO STA. 236+07
0 40' 80'
HORIZONTAL SCALE:1"=40'
0 1' 2' 4'
VERTICAL SCALE:1"=2'

NOT IN CONTRACT

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: T. PIOTROWSKI
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-119.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01 10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL
LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - #2
0	10-07-2026	A. Takeshi			ISSUED FOR BID - 2026/27 REACH 2

X DRAWN
X ACCEPTED
10-07-2026

PLAN AND PROFILE

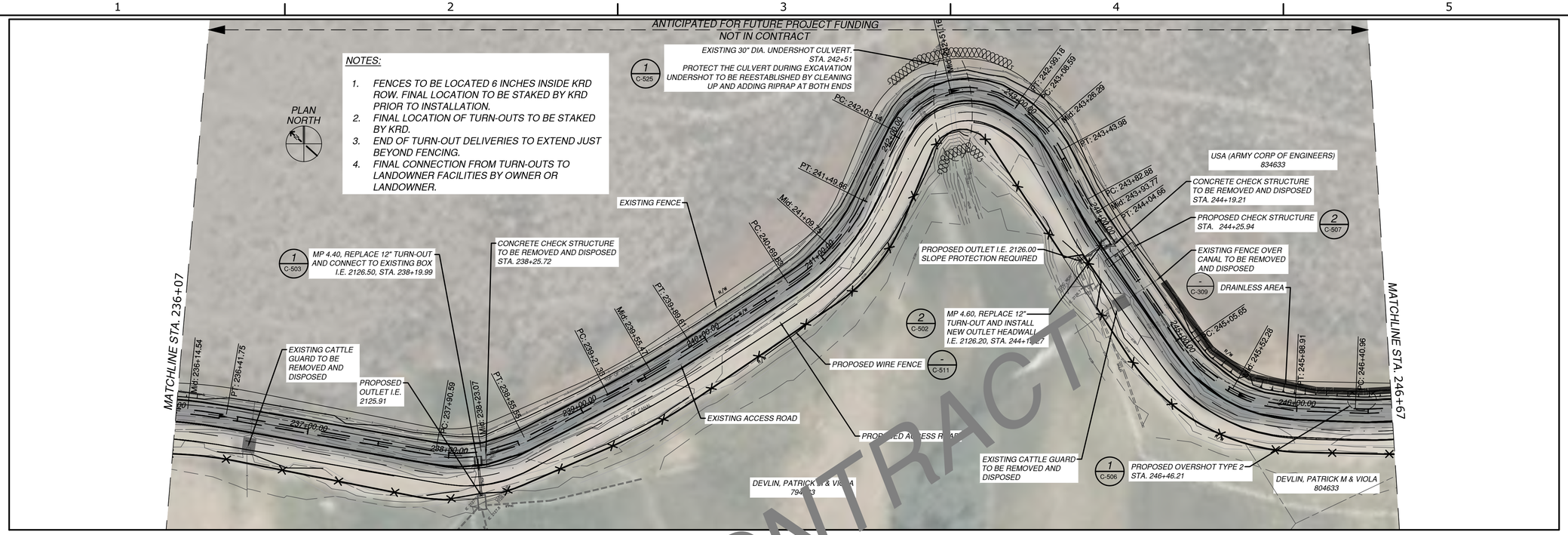
STA. 225+47 TO 236+07

C-119

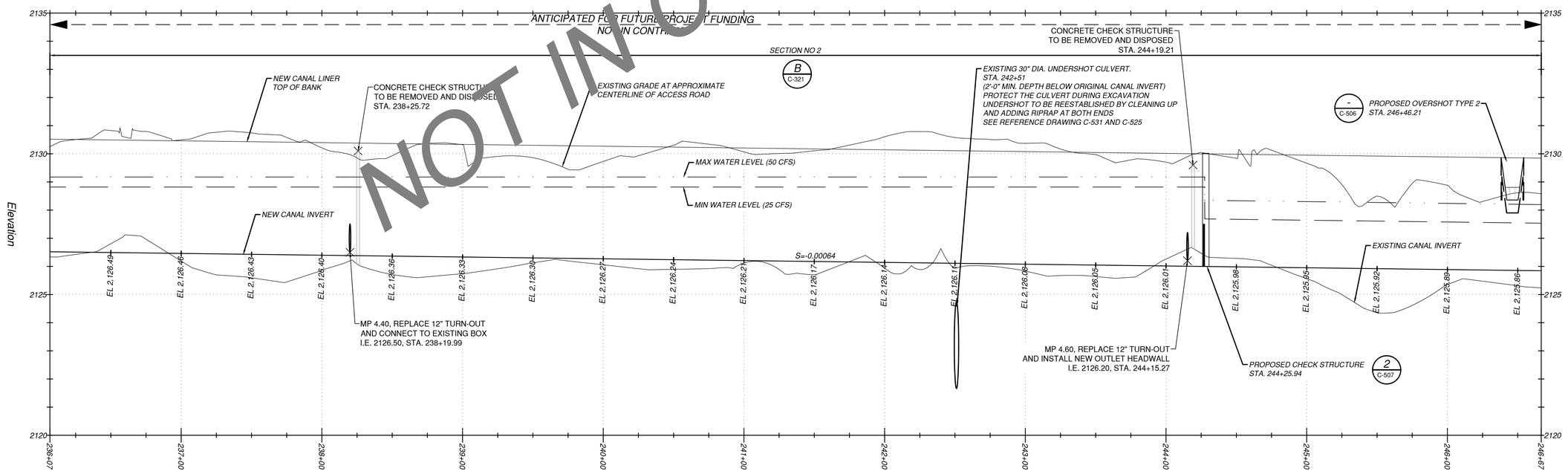
SHEET 28

SOLICITATION NO.: 33-NBC-1008

LAST SAVED DATE 2026-10-06
LAST SAVED BY WHITTLN
CAD SYSTEM AutoCAD 24.3S (LMS TECH)
CAD FILENAME W3Y10907C-119.DWG



PARTIAL PLAN
STA. 236+07 TO STA. 246+67
0 40 80'
SCALE:1"=40'



PARTIAL PROFILE
STA. 236+07 TO STA. 246+67
0 40' 80'
HORIZONTAL SCALE:1"=40'
0 1' 2' 4'
VERTICAL SCALE:1"=2'

NOT IN CONTRACT

Kittitas Reclamation District
Jacobs
1100 112th Avenue NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com
DRAWN BY: T. PIOTROWSKI
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-120.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01
10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL
LINING PROJECT

REV NO	DATE	REVISION	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	ISSUED FOR BID - #2	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - 2026/27 REACH 2
						10-07-2026 A. Takeshi

X DRAWN
X ACCEPTED
10-07-2026

PLAN AND PROFILE

STA. 236+07 TO 246+67

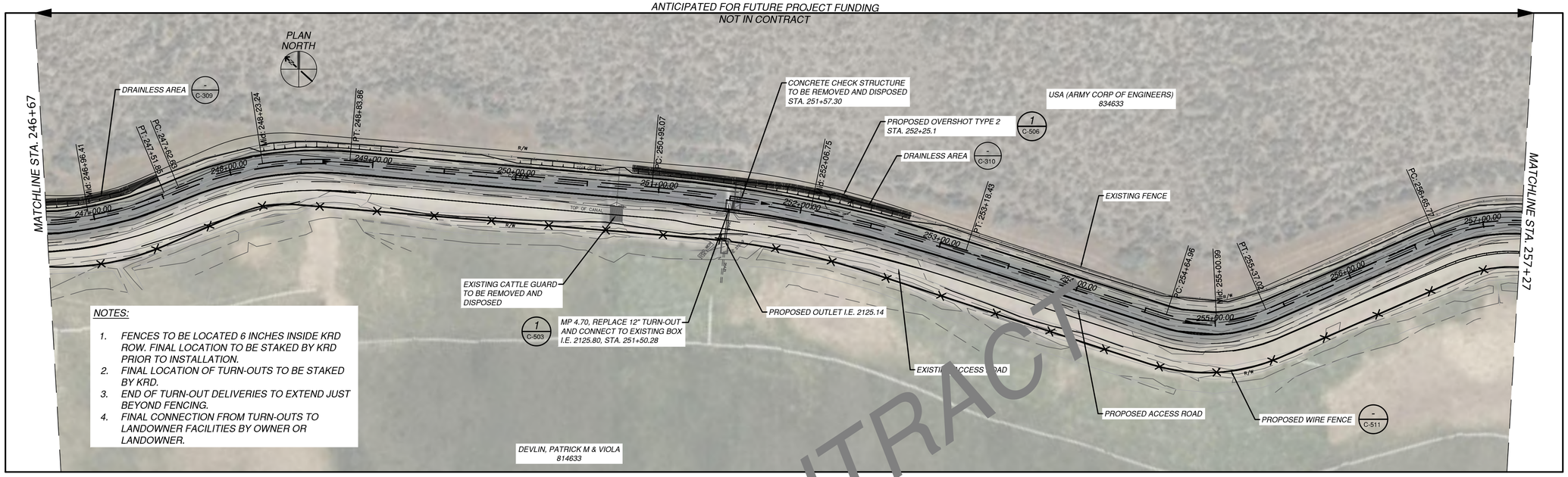
C-120

SHEET 29

SOLICITATION NO.: 33-NBC-1008

LAST SAVED DATE 2026-10-06
LAST SAVED BY WHITTLN

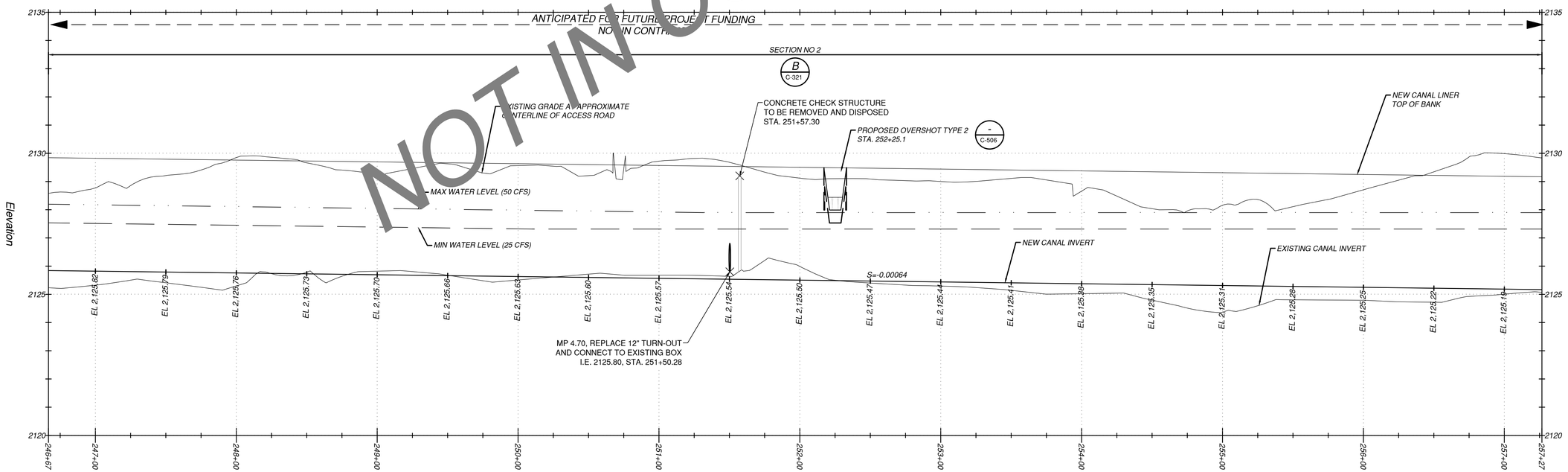
CAD SYSTEM AutoCAD 24.3S (LMS TECH)
CAD FILENAME W3Y10907C-120.DWG



NOTES:

1. FENCES TO BE LOCATED 6 INCHES INSIDE KRD ROW. FINAL LOCATION TO BE STAKED BY KRD PRIOR TO INSTALLATION.
2. FINAL LOCATION OF TURN-OUTS TO BE STAKED BY KRD.
3. END OF TURN-OUT DELIVERIES TO EXTEND JUST BEYOND FENCING.
4. FINAL CONNECTION FROM TURN-OUTS TO LANDOWNER FACILITIES BY OWNER OR LANDOWNER.

PARTIAL PLAN
STA. 246+67 TO STA. 257+27
0 40' 80'
SCALE:1"=40'



PARTIAL PROFILE
STA. 246+67 TO STA. 257+27
HORIZONTAL SCALE:1"=40' (0, 40', 80')
VERTICAL SCALE:1"=2' (0, 1', 2', 4')

NOT IN CONTRACT

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: T. PIOTROWSKI
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-121.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

STATE OF WASHINGTON · KAZUHIRO TAKESHI · 24012780 · REGISTERED PROFESSIONAL ENGINEER
10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL
LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - #2
REV NO	10-07-2026				ISSUED FOR BID - 2026/27 REACH 2
	A. Takeshi				

X DRAWN

X ACCEPTED

10-07-2026

PLAN AND PROFILE

STA. 246+67 TO 257+27

C-121

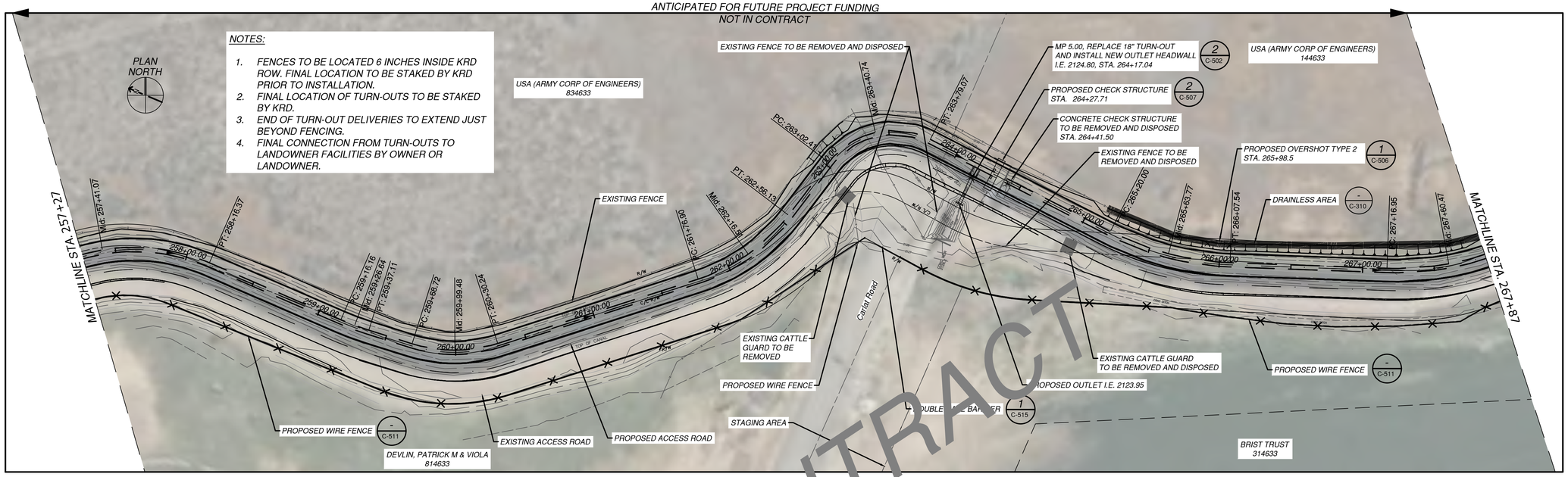
SHEET 30

SOLICITATION NO.:
33-NBC-1008

LAST SAVED DATE
2026-10-07
LAST SAVED BY
WHITTLN

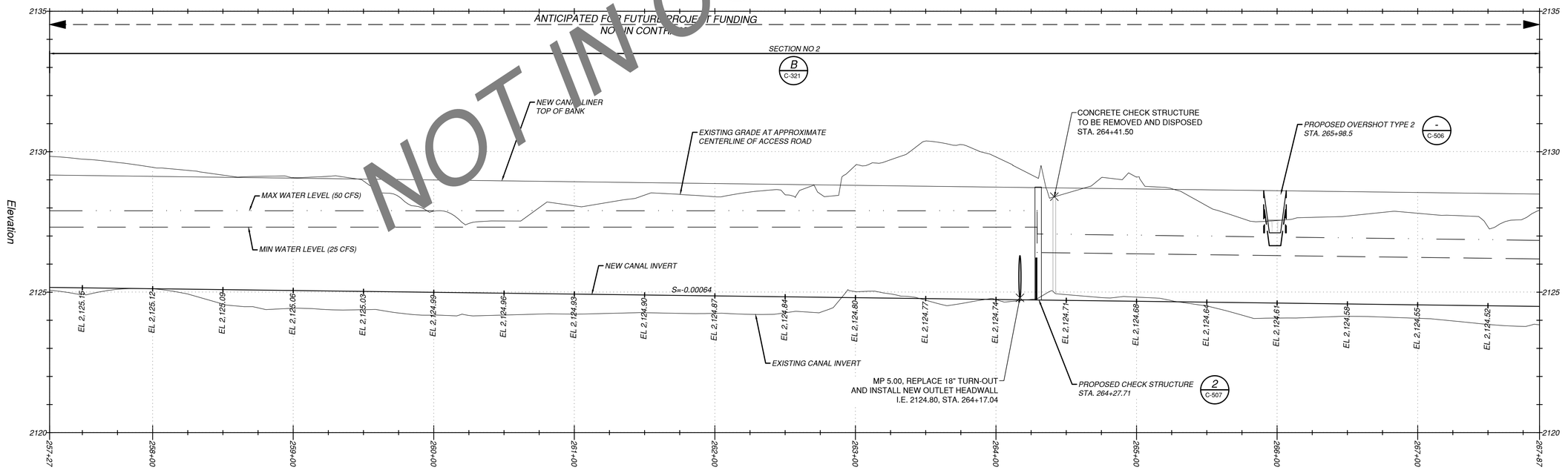
CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-121.DWG

ANTICIPATED FOR FUTURE PROJECT FUNDING
NOT IN CONTRACT



PARTIAL PLAN
STA. 257+27 TO STA. 267+87
0 40' 80'
SCALE:1"=40'

ANTICIPATED FOR FUTURE PROJECT FUNDING
NOT IN CONTRACT



PARTIAL PROFILE
STA. 257+27 TO STA. 267+87
0 40' 80'
HORIZONTAL SCALE:1"=40'
0 1' 2' 4'
VERTICAL SCALE:1"=2'

NOT IN CONTRACT

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: T. PIOTROWSKI
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: K0622022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-122.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

STATE OF WASHINGTON · ANDREW M. TAKESHI · 24012780 · REGISTERED PROFESSIONAL ENGINEER
10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL
LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - #2
REV NO	10-07-2026				ISSUED FOR BID - 2026/27 REACH 2
	A. Takeshi				

X DRAWN
X ACCEPTED
10-07-2026

PLAN AND PROFILE

STA. 257+27 TO 267+87

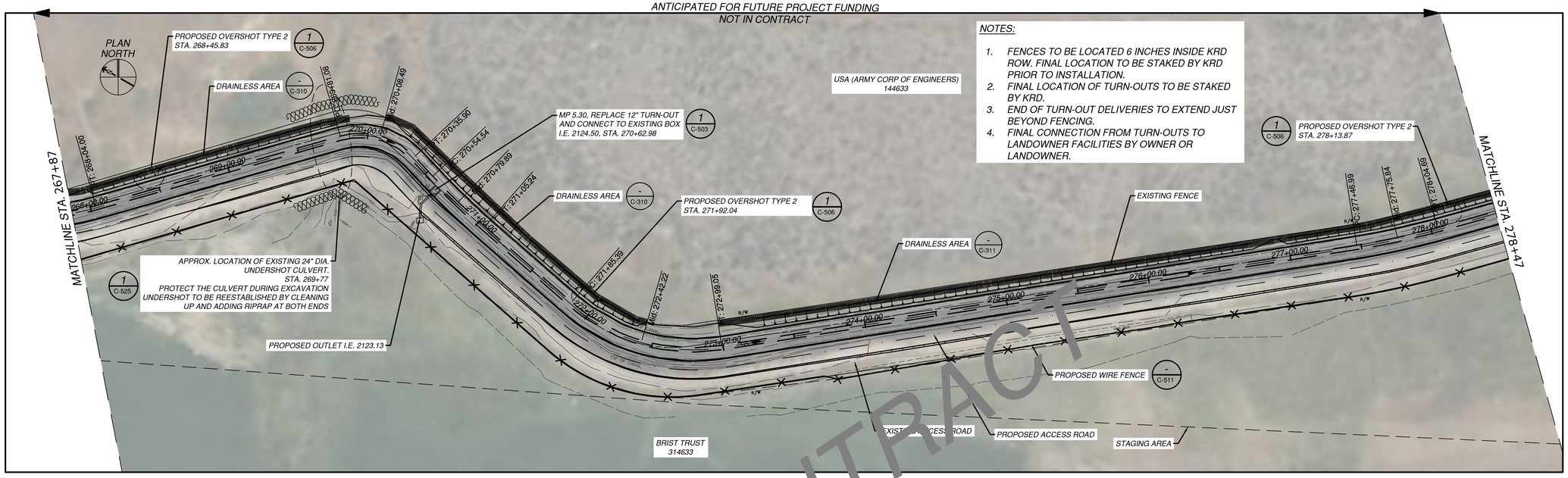
C-122

SHEET 31

SOLICITATION NO.:
33-NBC-1008

LAST SAVED DATE
2026-10-06
LAST SAVED BY
WHITTLN

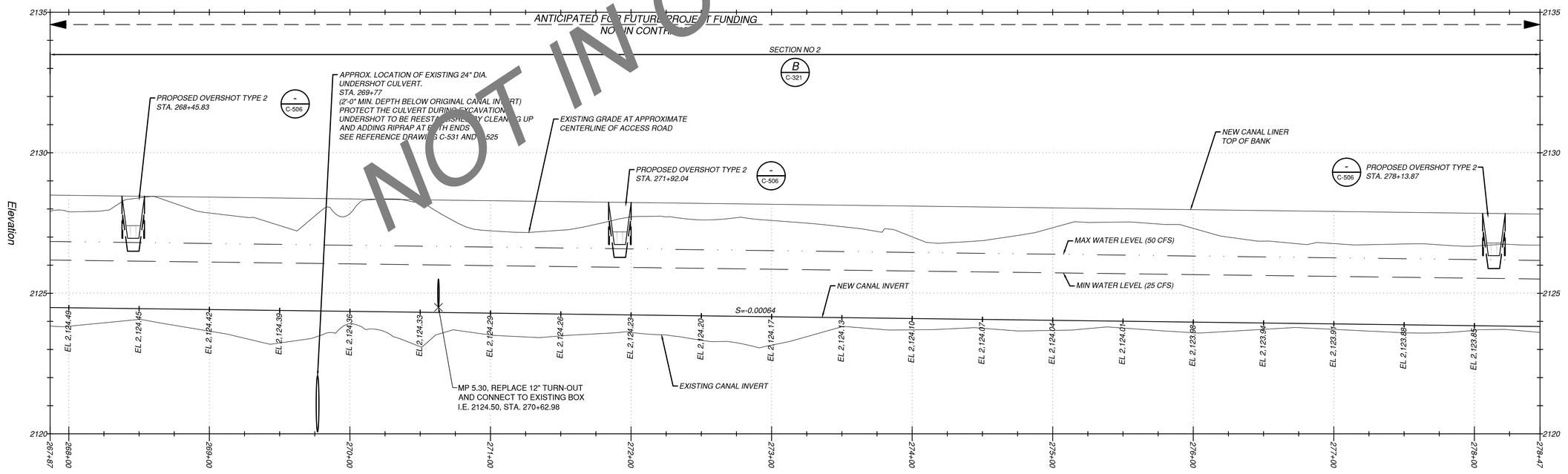
CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y1090/C-122.DWG



PARTIAL PLAN
STA. 267+87 TO STA. 278+47

0 40' 80'

SCALE:1"=40'



PARTIAL PROFILE
STA. 267+87 TO STA. 278+47

0 40' 80' — HORIZONTAL SCALE:1"=40'

0 1' 2' 4' — VERTICAL SCALE:1"=2'

NOT IN CONTRACT

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: T. PIOTROWSKI
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: K0622022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-123.dwg

STATE OF WASHINGTON · ANNE M. TAKESHI · 24012760 · REGISTERED PROFESSIONAL ENGINEER

DESIGNED BY: W. ZIOBRON 10/13/2026
DATE: 2025-08-01

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL
LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - #2
REV NO	10-07-2026	A. Takeshi			ISSUED FOR BID - 2026/27 REACH 2

0

X DRAWN

X ACCEPTED

10-07-2026

PLAN AND PROFILE

STA. 267+87 TO 278+47

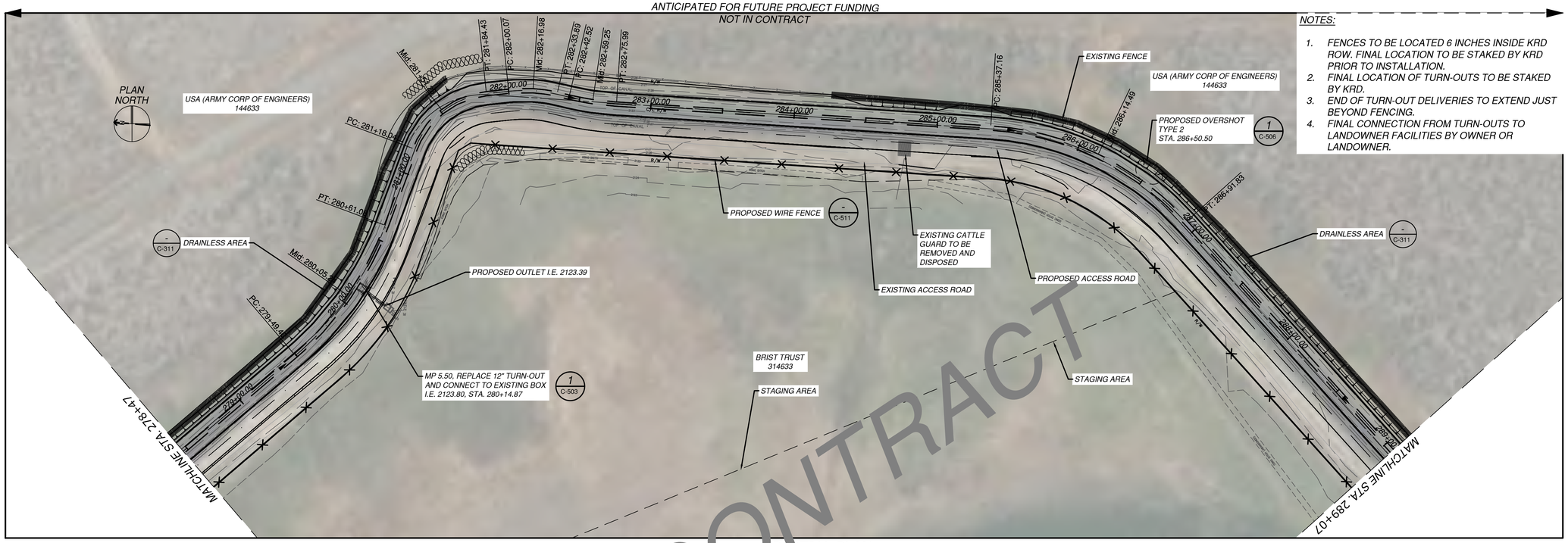
C-123

SHEET 32

SOLICITATION NO.:
33-NBC-1008

LAST SAVED DATE
2026-10-06
LAST SAVED BY
WHITTLN

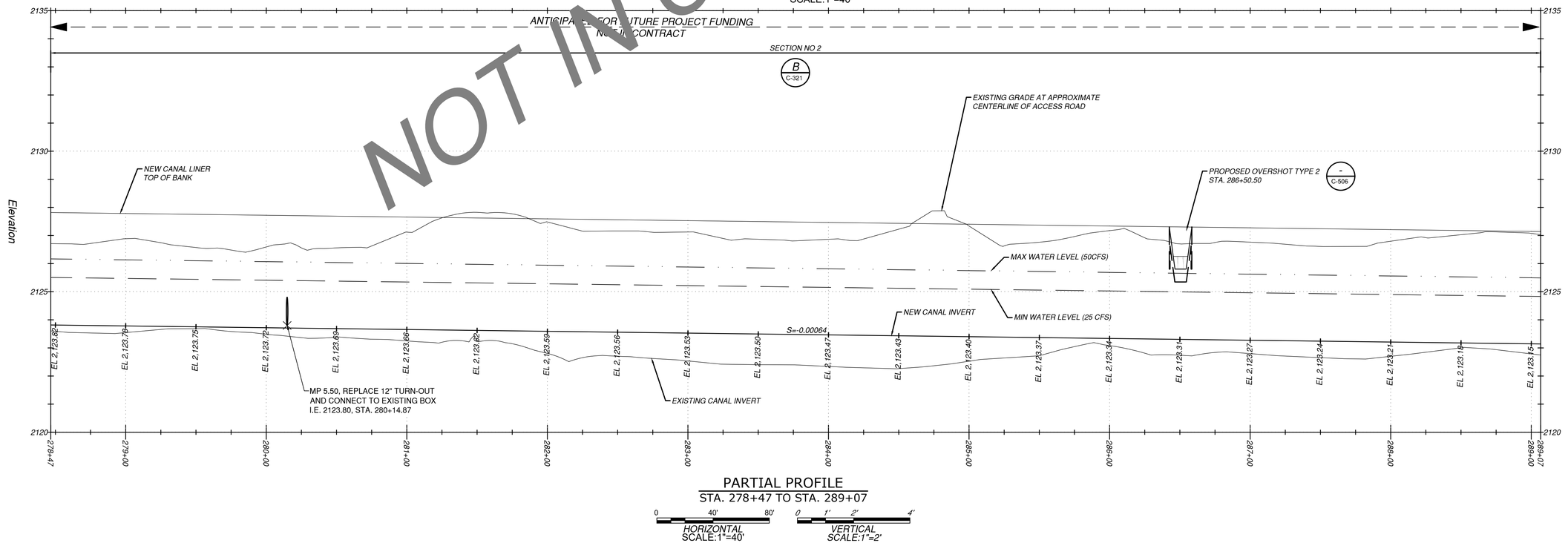
CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-123.DWG



PARTIAL PLAN
STA. 278+47 TO STA. 289+07

0 40' 80'

SCALE:1"=40'



PARTIAL PROFILE
STA. 278+47 TO STA. 289+07

0 40' 80' HORIZONTAL SCALE:1"=40'

0 1' 2' 4' VERTICAL SCALE:1"=2'

NOT IN CONTRACT

NOTES:

1. FENCES TO BE LOCATED 6 INCHES INSIDE KRD ROW. FINAL LOCATION TO BE STAKED BY KRD PRIOR TO INSTALLATION.
2. FINAL LOCATION OF TURN-OUTS TO BE STAKED BY KRD.
3. END OF TURN-OUT DELIVERIES TO EXTEND JUST BEYOND FENCING.
4. FINAL CONNECTION FROM TURN-OUTS TO LANDOWNER FACILITIES BY OWNER OR LANDOWNER.

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: T. PIOTROWSKI
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: K0E2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-124.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

STATE OF WASHINGTON ANNEMARIE TAKESHI 24012760 REGISTERED PROFESSIONAL ENGINEER
10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL
LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - #2
REV NO	10-07-2026				ISSUED FOR BID - 2026/27 REACH 2
	A. Takeshi				

X DRAWN

X ACCEPTED

10-07-2026

PLAN AND PROFILE

STA. 278+47 TO 289+07

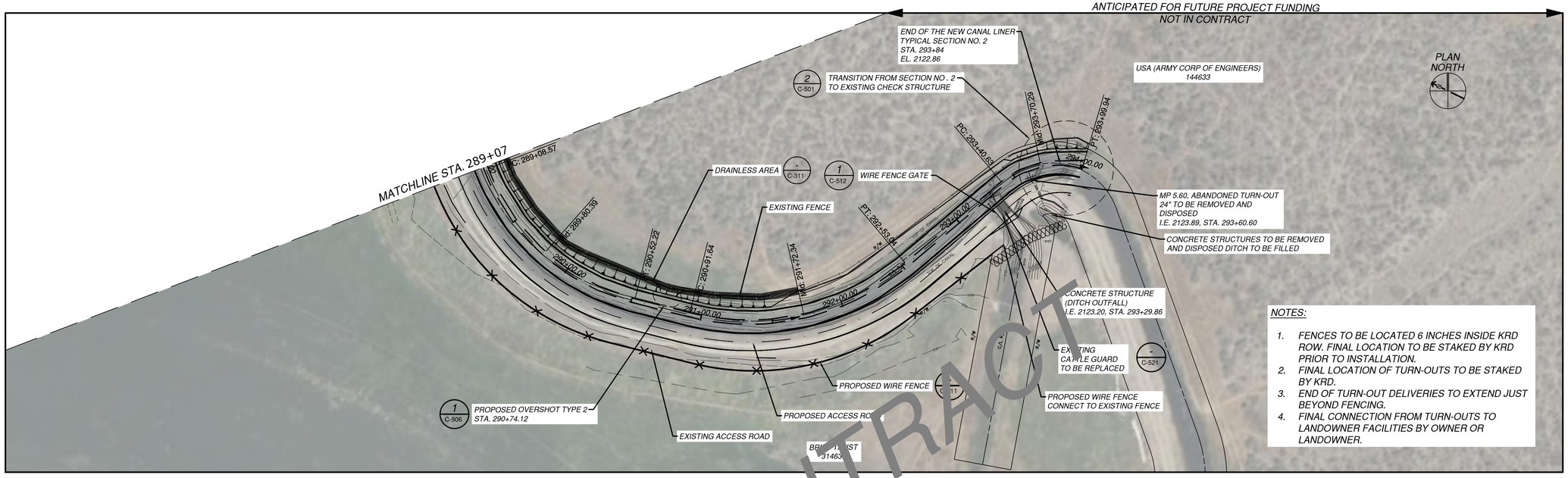
C-124

SHEET 33

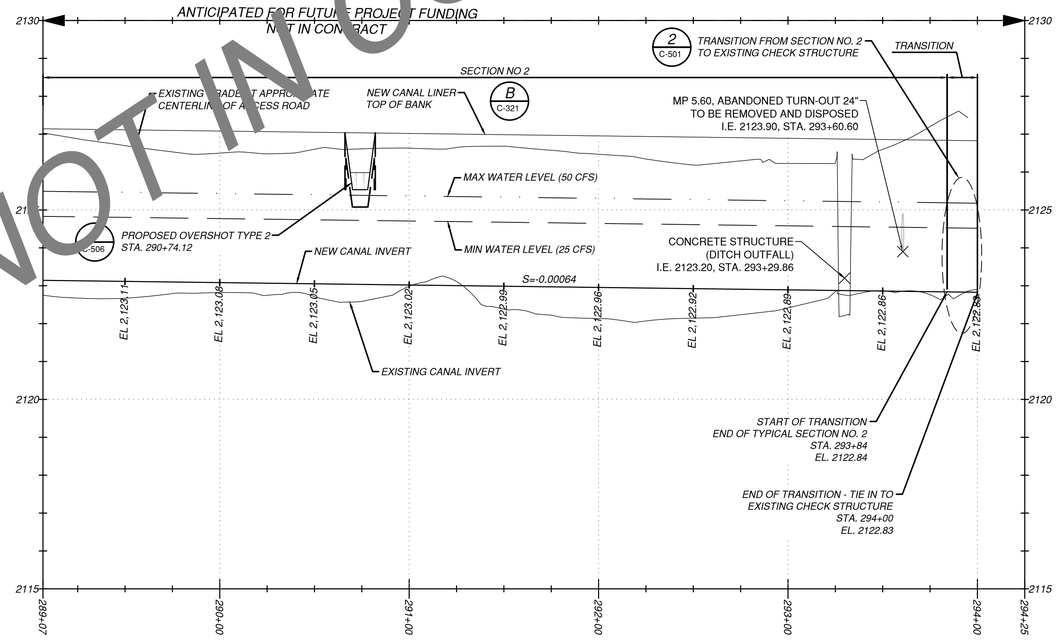
SOLICITATION NO.: 33-NBC-1008

LAST SAVED DATE 2026-10-06
LAST SAVED BY WHITTLN

CAD SYSTEM AutoCAD 24.3S (LMS TECH)
CAD FILENAME W3Y10907C-124.DWG



PARTIAL PLAN
STA. 289+07 TO STA. 294+00
0 80'
SCALE: 1"=40'



PARTIAL PROFILE
STA. 289+07 TO STA. 294+00
HORIZONTAL SCALE:1"=40'
VERTICAL SCALE:1"=2'

NOT IN CONTRACT

Kittitas Reclamation District

Jacobs
1100 112th Avenue NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: T. PIOTROWSKI
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: K0E2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-125.dwg

DESIGNED BY: W. ZLOBRON
DATE: 10/13/2026
2025-08-01

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL
LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - #2
REV NO	10-07-2026	A. Takeshi			ISSUED FOR BID - 2026/27 REACH 2

X
DRAWN

X
ACCEPTED

10-07-2026

PLAN AND PROFILE

STA. 289+07 TO 294+00

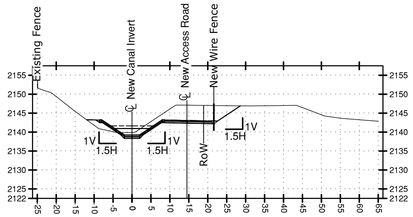
C-125

SHEET 34

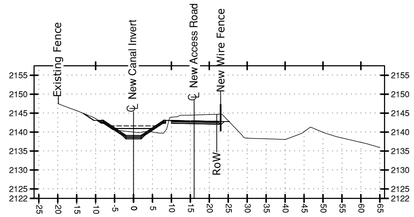
SOLICITATION NO.:
33-NBC-1008

LAST SAVED DATE
2025-10-08
LAST SAVED BY
WHITTLN

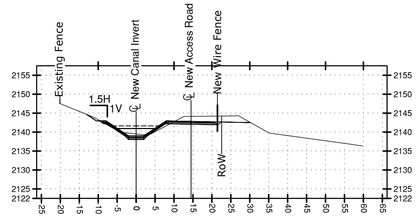
CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-125.DWG



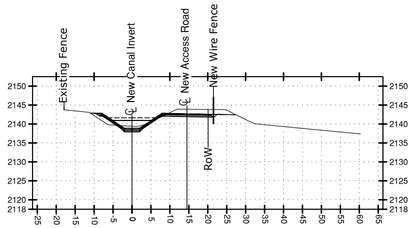
Sta. 36+00.00 (M.P. 0.68)



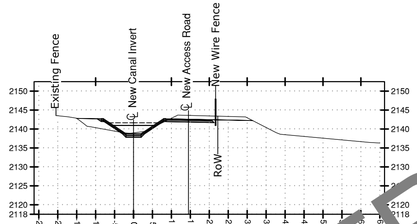
Sta. 38+00.00 (M.P. 0.72)



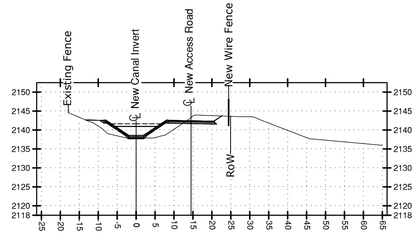
Sta. 40+00.00 (M.P. 0.76)



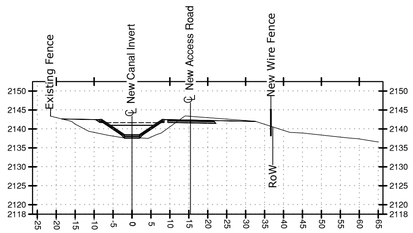
Sta. 42+00.00 (M.P. 0.80)



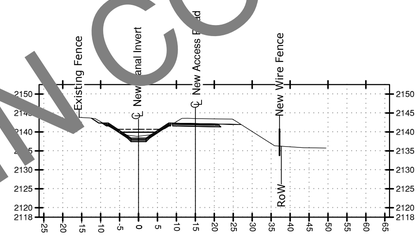
Sta. 44+00.00 (M.P. 0.83)



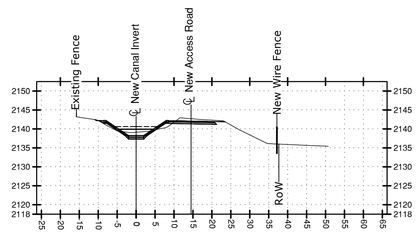
Sta. 46+00.00 (M.P. 0.87)



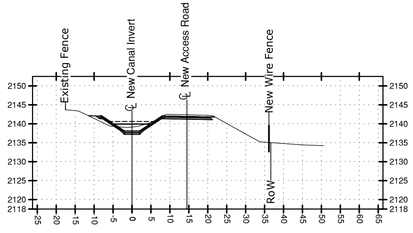
Sta. 48+00.00 (M.P. 0.91)



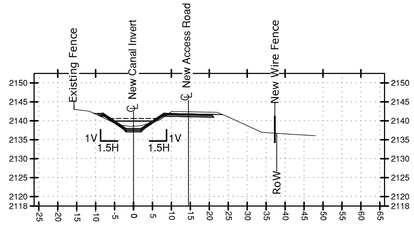
Sta. 50+00.00 (M.P. 0.95)



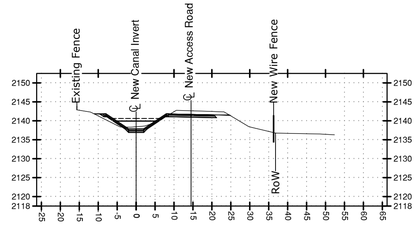
Sta. 52+00.00 (M.P. 0.98)



Sta. 54+00.00 (M.P. 1.02)



Sta. 56+00.00 (M.P. 1.06)



Sta. 58+00.00 (M.P. 1.10)

CANAL ALIGNMENT SECTIONS

HORIZONTAL SCALE:1"=20'

VERTICAL SCALE:1"=20'

NOT IN CONTRACT

LAST SAVED DATE
2026-10-08
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-301.DWG

Kittitas Reclamation District

Jacobs
1100 112th Avenue NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: L. KUC
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: K0E2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-301.dwg
DESIGNED BY: W. ZIOBRON
DATE: 10/13/2026
2025-08-01

STATE OF WASHINGTON · AKEMI TAKESHI · REGISTERED PROFESSIONAL ENGINEER · 24012760

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL

LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - R2
REV NO 0	10-07-2026	A. Takeshi			ISSUED FOR BID - 2026/27 REACH 2

X
DRAWN

X
ACCEPTED

10-07-2026

ALIGNMENT SECTIONS

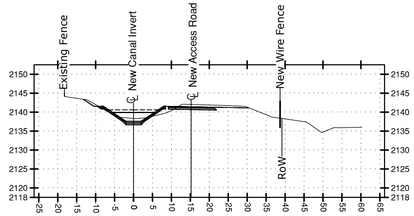
STA. 36+00 TO 58+00

C-301

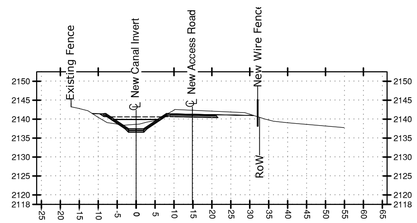
SHEET 35

SOLICITATION NO.:
33-NBC-1008

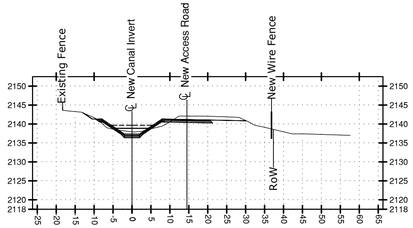
Sta. 60+00.00 (M.P. 1.14)



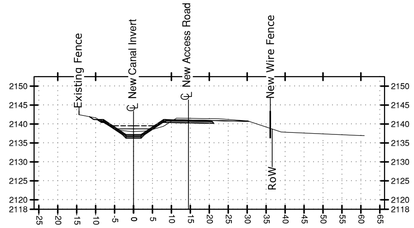
Sta. 62+00.00 (M.P. 1.17)



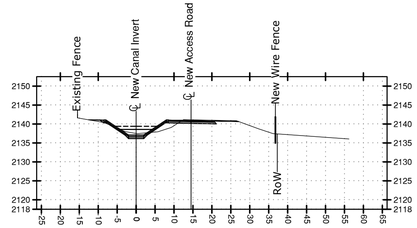
Sta. 64+00.00 (M.P. 1.21)



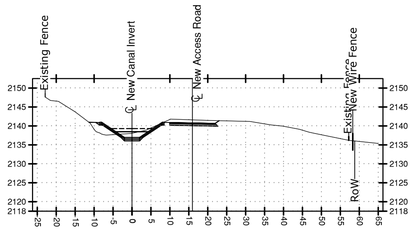
Sta. 66+00.00 (M.P. 1.25)



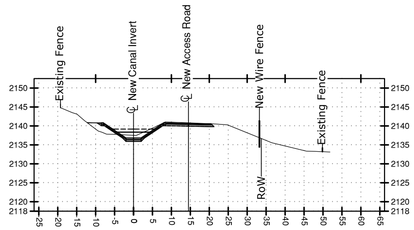
Sta. 68+00.00 (M.P. 1.29)



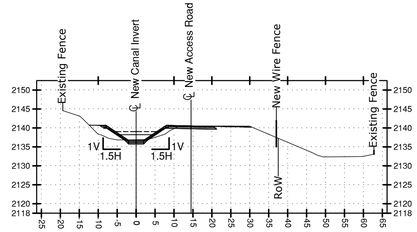
Sta. 70+00.00 (M.P. 1.33)



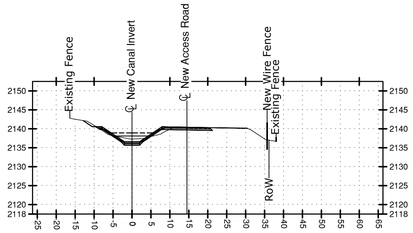
Sta. 72+00.00 (M.P. 1.36)



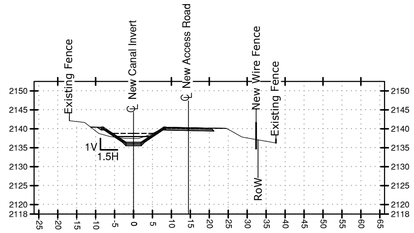
Sta. 74+00.00 (M.P. 1.40)



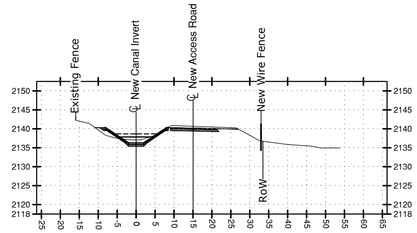
Sta. 76+00.00 (M.P. 1.44)



Sta. 78+00.00 (M.P. 1.48)



Sta. 80+00.00 (M.P. 1.52)



Sta. 82+00.00 (M.P. 1.55)

CANAL ALIGNMENT SECTIONS

HORIZONTAL
SCALE:1"=20'

VERTICAL
SCALE:1"=20'

LAST SAVED DATE
2026-07-10 13:08
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-302.DWG

Kittitas Reclamation District

Jacobs
1100 112th Avenue NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: L. KUC
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-302.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

STATE OF WASHINGTON · AKIRA TAKESHI · REGISTERED PROFESSIONAL ENGINEER · 24012760
10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL

LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - R2
REV NO 0	10-07-2026				ISSUED FOR BID - 2026/27 REACH 2
	A. Takeshi				

X
DRAWN

X
ACCEPTED

10-07-2026

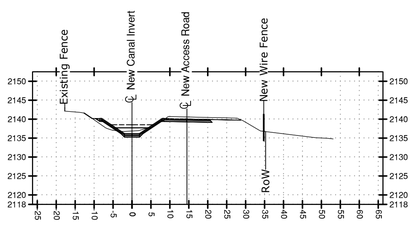
ALIGNMENT SECTIONS

STA. 60+00 TO 82+00

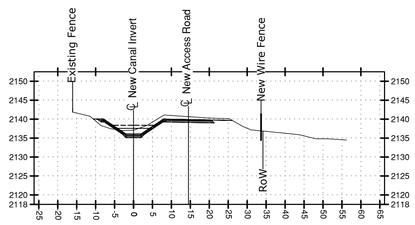
C-302

SHEET 36

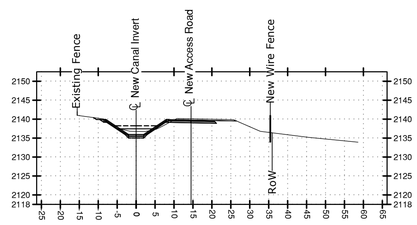
SOLICITATION NO.:
33-NBC-1008



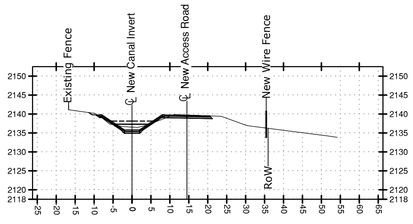
Sta. 84+00.00 (M.P. 1.59)



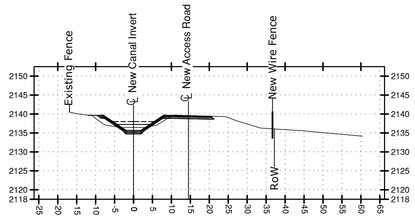
Sta. 86+00.00 (M.P. 1.63)



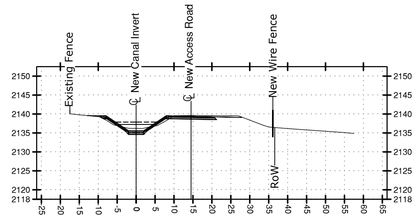
Sta. 88+00.00 (M.P. 1.67)



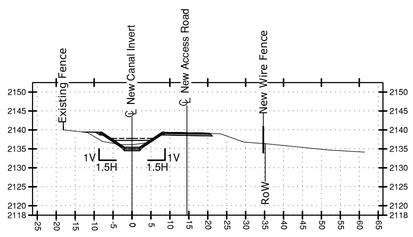
Sta. 90+00.00 (M.P. 1.70)



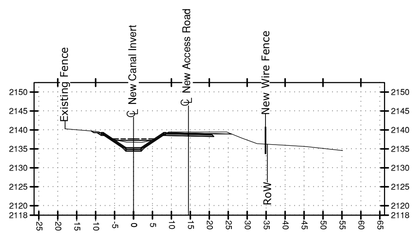
Sta. 92+00.00 (M.P. 1.74)



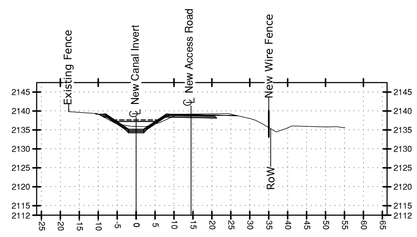
Sta. 94+00.00 (M.P. 1.78)



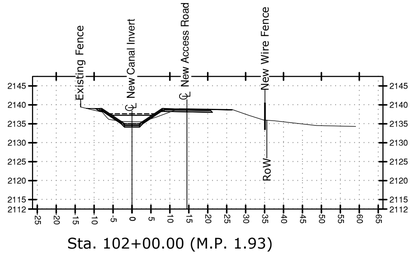
Sta. 96+00.00 (M.P. 1.82)



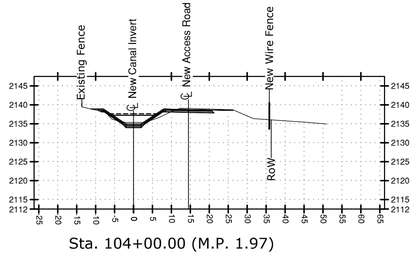
Sta. 98+00.00 (M.P. 1.86)



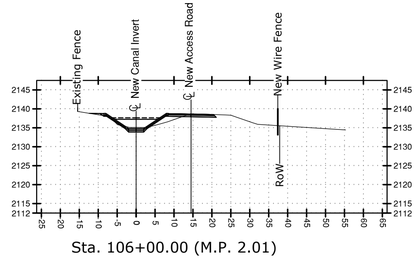
Sta. 100+00.00 (M.P. 1.89)



Sta. 102+00.00 (M.P. 1.93)



Sta. 104+00.00 (M.P. 1.97)



Sta. 106+00.00 (M.P. 2.01)

CANAL ALIGNMENT SECTIONS

HORIZONTAL SCALE:1"=20'

VERTICAL SCALE:1"=20'

LAST SAVED DATE
2026-07-10
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-303.DWG

Kittitas Reclamation District

Jacobs
1100 112th Avenue NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: L. KUC
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: K0E2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-303.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

STATE OF WASHINGTON · ALEX TAKESHI · REGISTERED PROFESSIONAL ENGINEER · 24012760
10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL

LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - R2
REV NO 0	DATE 10-07-2026	DESIGNED BY A. Takeshi			ISSUED FOR BID - 2026/27 REACH 2

X
DRAWN

X
ACCEPTED

10-07-2026

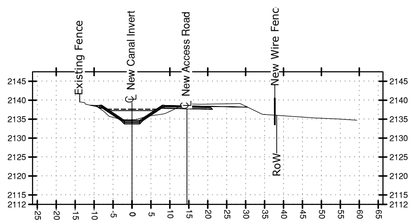
ALIGNMENT SECTIONS

STA. 84+00 TO 106+00

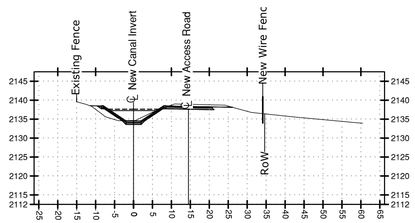
C-303

SHEET 37

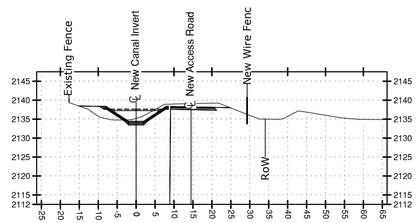
SOLICITATION NO.:
33-NBC-1008



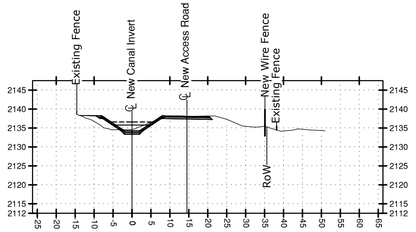
Sta. 108+00.00 (M.P. 2.05)



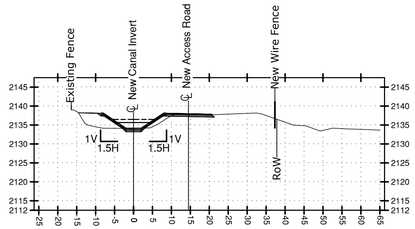
Sta. 110+00.00 (M.P. 2.08)



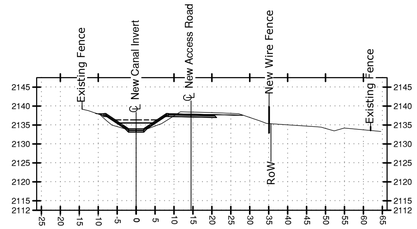
Sta. 112+00.00 (M.P. 2.12)



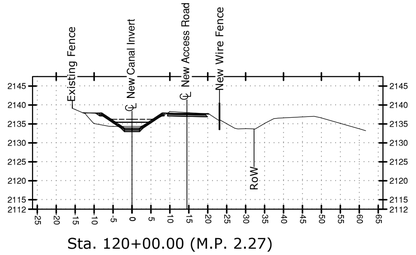
Sta. 114+00.00 (M.P. 2.16)



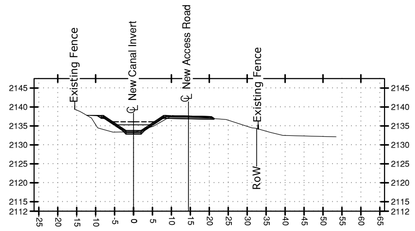
Sta. 116+00.00 (M.P. 2.20)



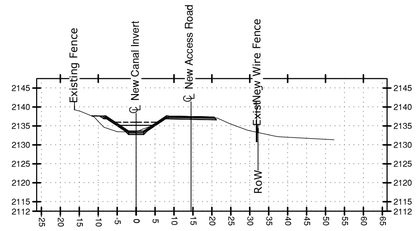
Sta. 118+00.00 (M.P. 2.23)



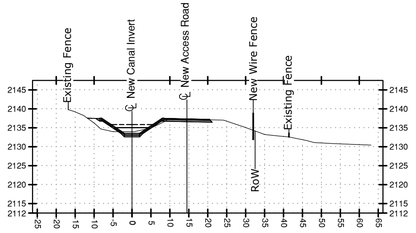
Sta. 120+00.00 (M.P. 2.27)



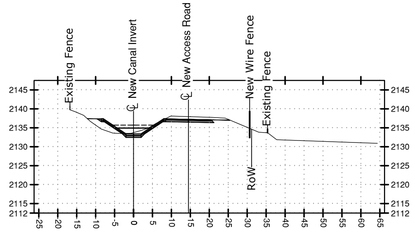
Sta. 122+00.00 (M.P. 2.31)



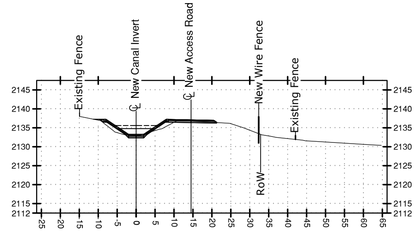
Sta. 124+00.00 (M.P. 2.35)



Sta. 126+00.00 (M.P. 2.39)



Sta. 128+00.00 (M.P. 2.42)



Sta. 130+00.00 (M.P. 2.46)

CANAL ALIGNMENT SECTIONS

0 10' 20' 40'
HORIZONTAL
SCALE:1"=20'

0 10' 20' 40'
VERTICAL
SCALE:1"=20'

LAST SAVED DATE
2026-07-10
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-304.DWG

Kittitas Reclamation District

Jacobs
1001 220th Ave NE Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: L. KUC
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-304.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

STATE OF WASHINGTON
ARASH TAKESHI
REGISTERED PROFESSIONAL ENGINEER
24012760
10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL

LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - R2
REV NO 0	10-07-2026 A. Takeshi				ISSUED FOR BID - 2026/27 REACH 2

X
DRAWN

X
ACCEPTED

10-07-2026

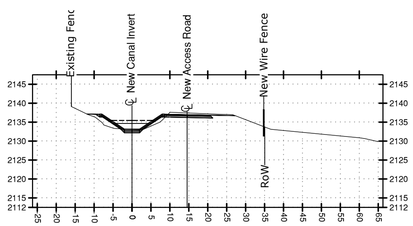
ALIGNMENT SECTIONS

STA. 108+00 to 130+00

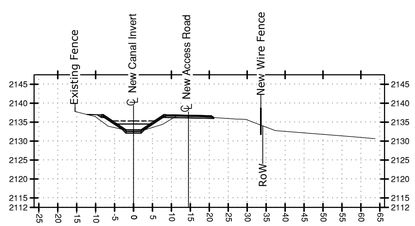
C-304

SHEET 38

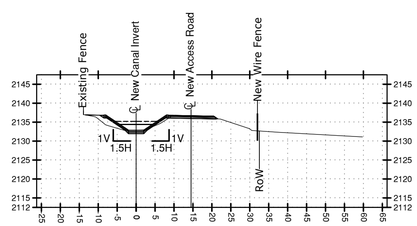
SOLICITATION NO.:
33-NBC-1008



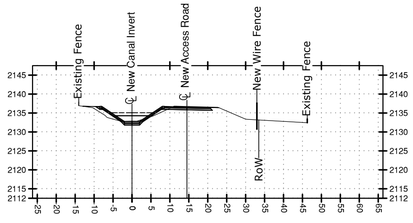
Sta. 132+00.00 (M.P. 2.50)



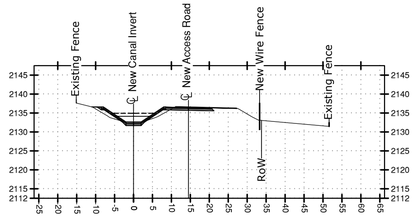
Sta. 134+00.00 (M.P. 2.54)



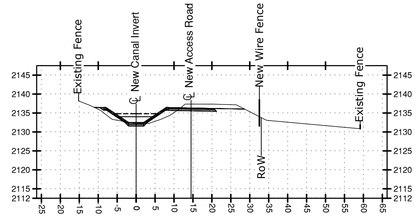
Sta. 136+00.00 (M.P. 2.58)



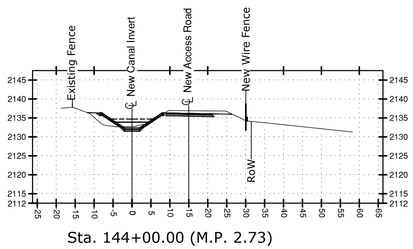
Sta. 138+00.00 (M.P. 2.61)



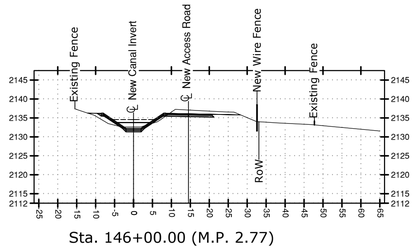
Sta. 140+00.00 (M.P. 2.65)



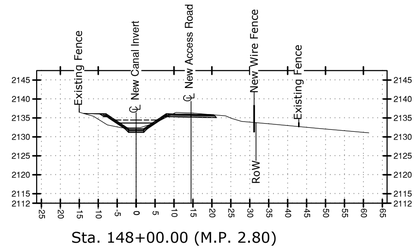
Sta. 142+00.00 (M.P. 2.69)



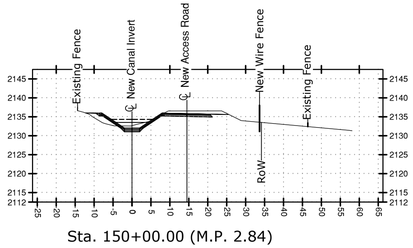
Sta. 144+00.00 (M.P. 2.73)



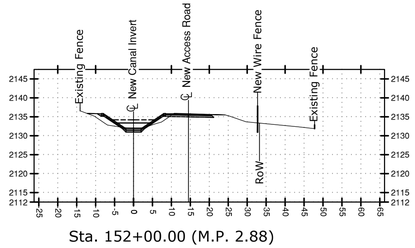
Sta. 146+00.00 (M.P. 2.77)



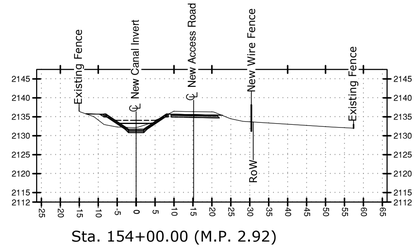
Sta. 148+00.00 (M.P. 2.80)



Sta. 150+00.00 (M.P. 2.84)



Sta. 152+00.00 (M.P. 2.88)



Sta. 154+00.00 (M.P. 2.92)

CANAL ALIGNMENT SECTIONS

HORIZONTAL SCALE:1"=20'

VERTICAL SCALE:1"=20'

LAST SAVED DATE
2026-07-10
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-305.DWG

Kittitas Reclamation District

Jacobs
1001 220th Avenue NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: L. KUC
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-305.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

STATE OF WASHINGTON · ANDREW J. EVANS · 24012780 · REGISTERED PROFESSIONAL ENGINEER · 10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL

LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - R2
REV NO 0	10-07-2026				ISSUED FOR BID - 2026/27 REACH 2
	A. Takeshi				

X DRAWN

X ACCEPTED

10-07-2026

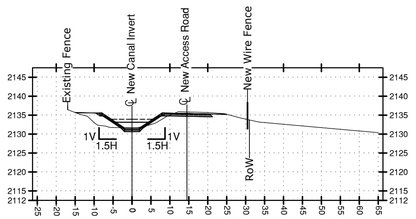
ALIGNMENT SECTIONS

STA. 132+00 TO 154+00

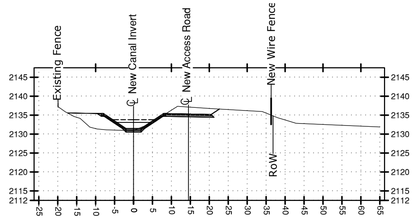
C-305

SHEET 39

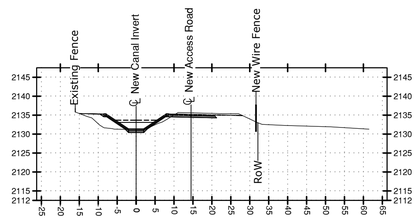
SOLICITATION NO.:
33-NBC-1008



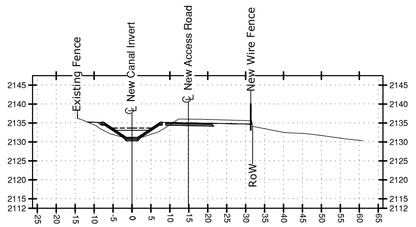
Sta. 156+00.00 (M.P. 2.95)



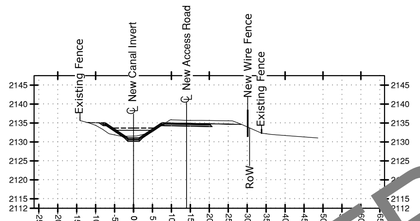
Sta. 158+00.00 (M.P. 2.99)



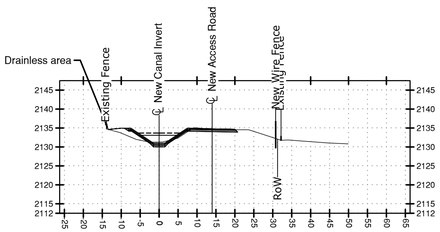
Sta. 160+00.00 (M.P. 3.03)



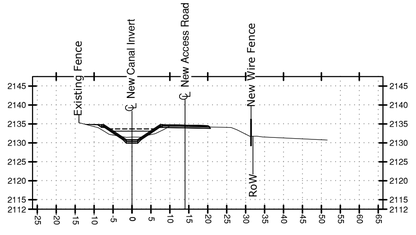
Sta. 162+00.00 (M.P. 3.07)



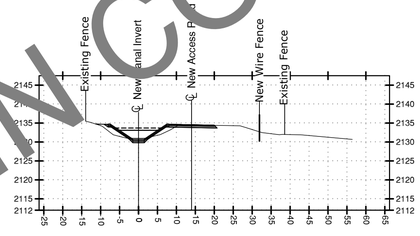
Sta. 164+00.00 (M.P. 3.11)



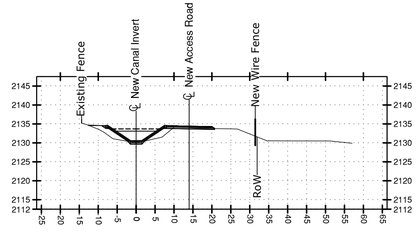
Sta. 166+00.00 (M.P. 3.14)



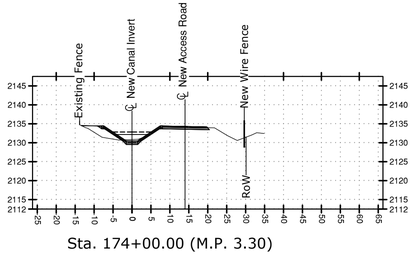
Sta. 168+00.00 (M.P. 3.18)



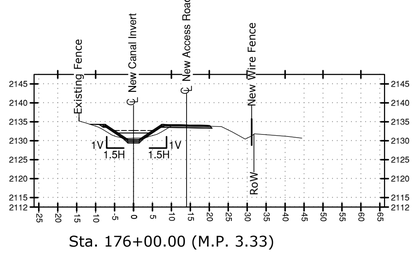
Sta. 170+00.00 (M.P. 3.22)



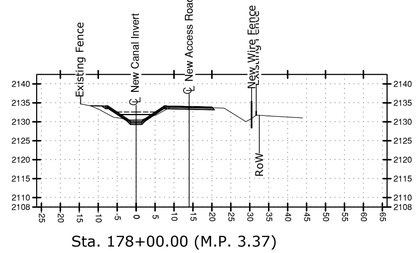
Sta. 172+00.00 (M.P. 3.26)



Sta. 174+00.00 (M.P. 3.30)



Sta. 176+00.00 (M.P. 3.33)



Sta. 178+00.00 (M.P. 3.37)

CANAL ALIGNMENT SECTIONS

HORIZONTAL SCALE:1"=20'

VERTICAL SCALE:1"=20'

NOT IN CONTRACT

LAST SAVED DATE
2026-10-08
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-306.DWG

Kittitas Reclamation District

Jacobs
1100 112th Avenue NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: L. KUC
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: K0E2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-306.dwg
DESIGNED BY: W. ZIOBRON
DATE: 10/13/2026
2025-08-01

STATE OF WASHINGTON
ALEX TAKESHI
REGISTERED PROFESSIONAL ENGINEER
24012760

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL

LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - #2
REV NO	10-07-2026				ISSUED FOR BID - 2026/27 REACH 2
0	A. Takeshi				

X
DRAWN

X
ACCEPTED

10-07-2026

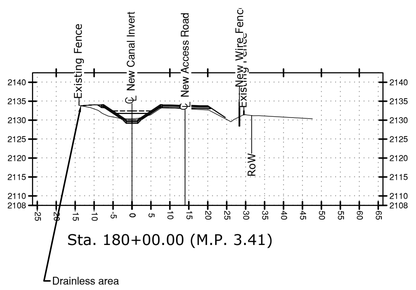
ALIGNMENT SECTIONS

STA. 156+00 TO 178+00

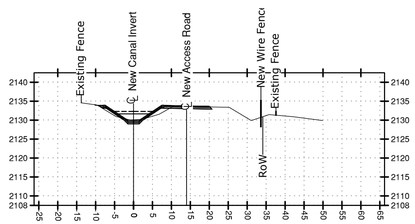
C-306

SHEET 40

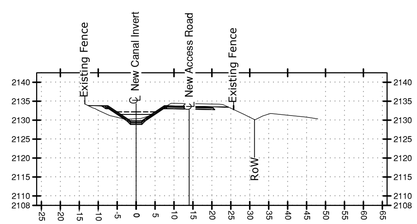
SOLICITATION NO.:
33-NBC-1008



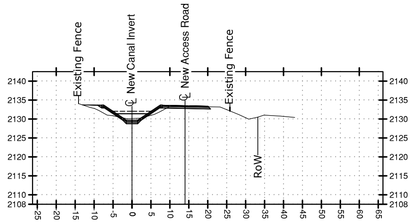
Sta. 180+00.00 (M.P. 3.41)



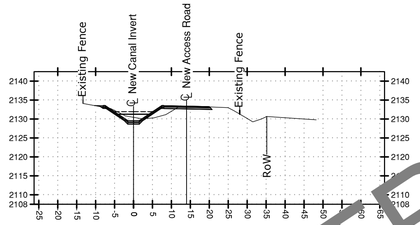
Sta. 182+00.00 (M.P. 3.45)



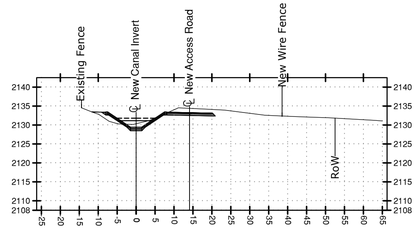
Sta. 184+00.00 (M.P. 3.48)



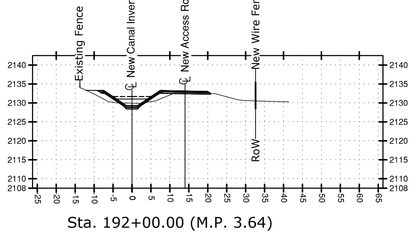
Sta. 186+00.00 (M.P. 3.52)



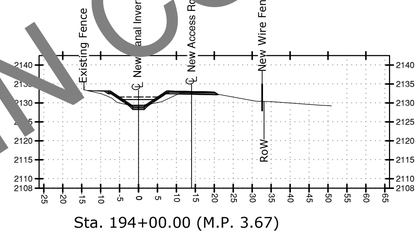
Sta. 188+00.00 (M.P. 3.56)



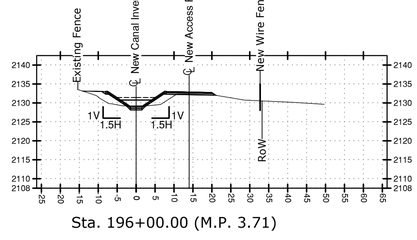
Sta. 190+00.00 (M.P. 3.60)



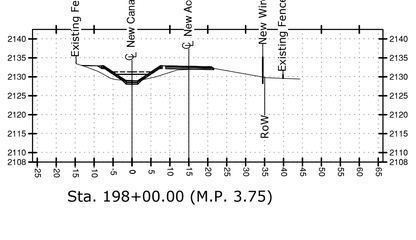
Sta. 192+00.00 (M.P. 3.64)



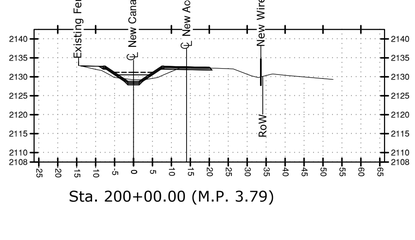
Sta. 194+00.00 (M.P. 3.67)



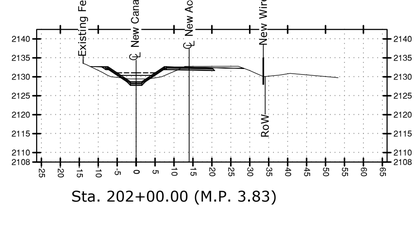
Sta. 196+00.00 (M.P. 3.71)



Sta. 198+00.00 (M.P. 3.75)



Sta. 200+00.00 (M.P. 3.79)



Sta. 202+00.00 (M.P. 3.83)

CANAL ALIGNMENT SECTIONS

HORIZONTAL SCALE:1"=20' (0, 10', 20', 40')

VERTICAL SCALE:1"=20' (0, 10', 20', 40')

NOT IN CONTRACT

LAST SAVED DATE
2026-10-06
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-307.DWG

Kittitas Reclamation District

Jacobs
1001 220th Avenue NE Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: L. KUC
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-307.dwg
DESIGNED BY: W. ZLOBRON
DATE: 10/13/2026
2025-08-01

STATE OF WASHINGTON · ANAND TAKESHI · 24012780 · REGISTERED PROFESSIONAL ENGINEER

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL

LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - #2
REV NO	10-07-2026				ISSUED FOR BID - 2026/27 REACH 2
	A. Takeshi				

X
DRAWN

X
ACCEPTED

10-07-2026

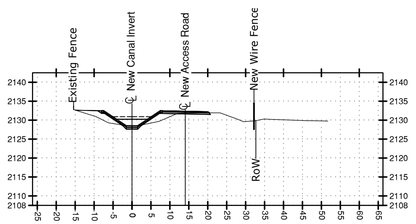
ALIGNMENT SECTIONS

STA. 180+00 TO 202+00

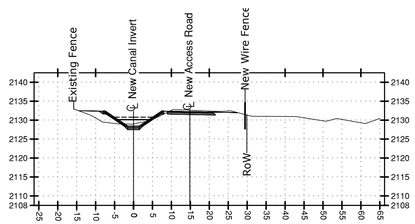
C-307

SHEET 41

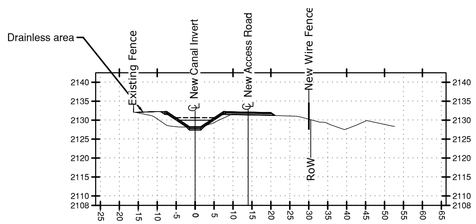
SOLICITATION NO.:
33-NBC-1008



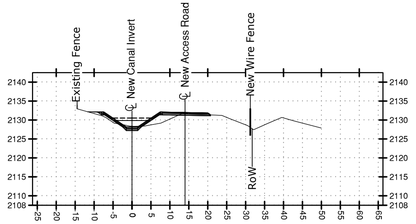
Sta. 204+00.00 (M.P. 3.86)



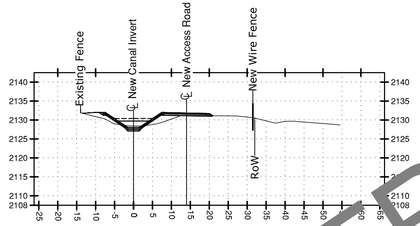
Sta. 206+00.00 (M.P. 3.90)



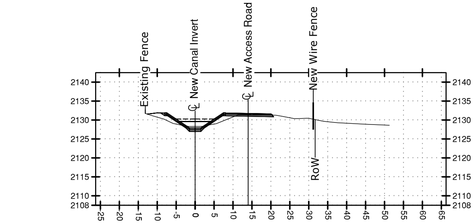
Sta. 208+00.00 (M.P. 3.94)



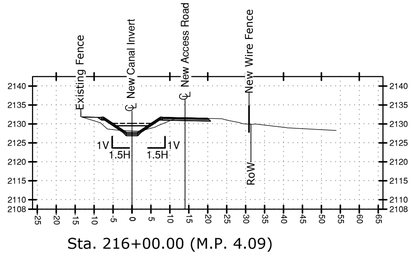
Sta. 210+00.00 (M.P. 3.98)



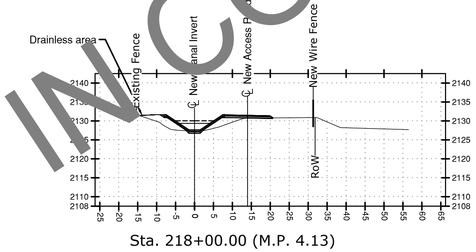
Sta. 212+00.00 (M.P. 4.02)



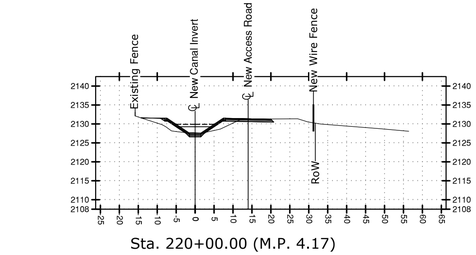
Sta. 214+00.00 (M.P. 4.05)



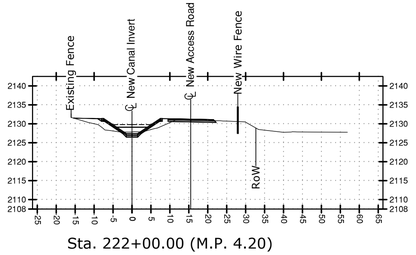
Sta. 216+00.00 (M.P. 4.09)



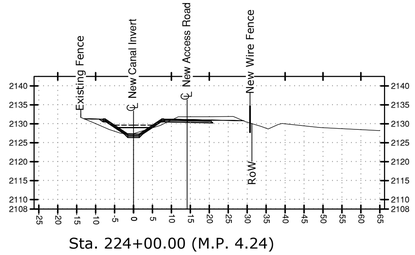
Sta. 218+00.00 (M.P. 4.13)



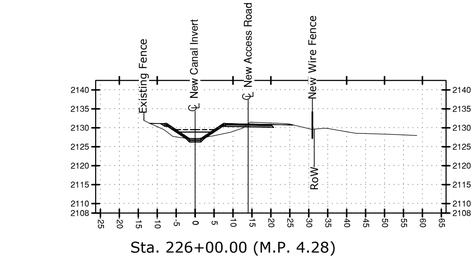
Sta. 220+00.00 (M.P. 4.17)



Sta. 222+00.00 (M.P. 4.20)



Sta. 224+00.00 (M.P. 4.24)



Sta. 226+00.00 (M.P. 4.28)

CANAL ALIGNMENT SECTIONS

HORIZONTAL SCALE:1"=20'

VERTICAL SCALE:1"=20'

NOT IN CONTRACT

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: L. KUC
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: K0E2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-308.dwg
DESIGNED BY: W. ZIOBRON
DATE: 10/13/2026
2025-08-01

STATE OF WASHINGTON · ALEX TAKESHI · REGISTERED PROFESSIONAL ENGINEER · 24012780

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL

LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - #2
REV NO 0	10-07-2026 A. Takeshi				ISSUED FOR BID - 2026/27 REACH 2

X
DRAWN

X
ACCEPTED

10-07-2026

ALIGNMENT SECTIONS

STA. 204+00 TO 226+00

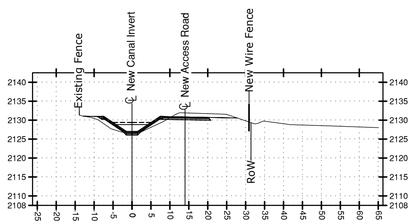
C-308

SHEET 42

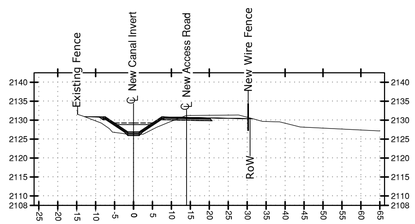
SOLICITATION NO.:
33-NBC-1008

LAST SAVED DATE
2026-10-08
LAST SAVED BY
WHITTLN

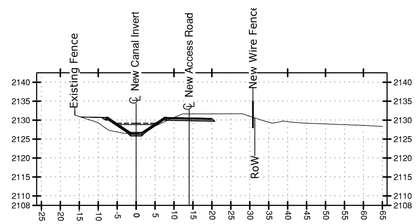
CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-308.DWG



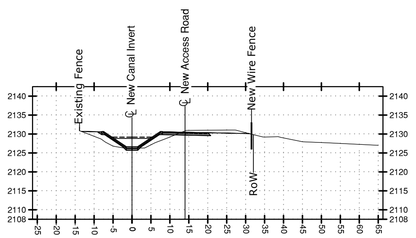
Sta. 228+00.00 (M.P. 4.32)



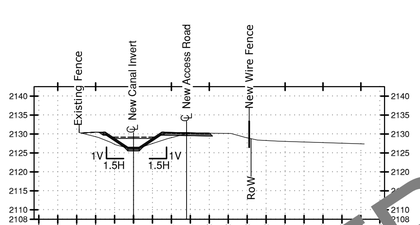
Sta. 230+00.00 (M.P. 4.36)



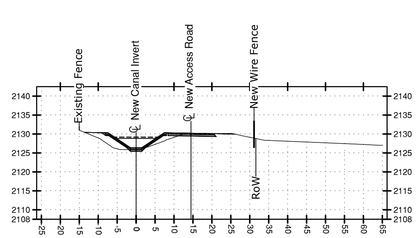
Sta. 232+00.00 (M.P. 4.39)



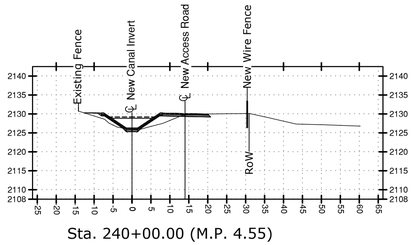
Sta. 234+00.00 (M.P. 4.43)



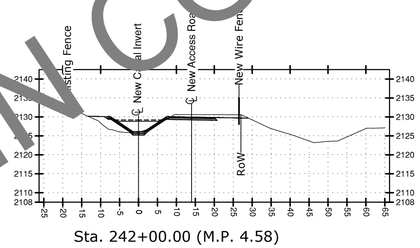
Sta. 236+00.00 (M.P. 4.47)



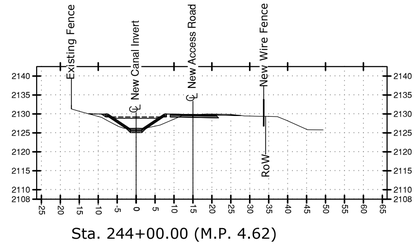
Sta. 238+00.00 (M.P. 4.51)



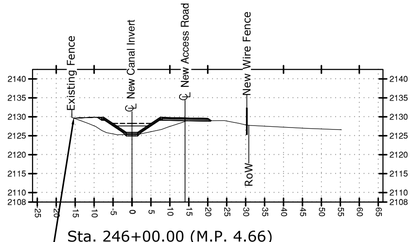
Sta. 240+00.00 (M.P. 4.55)



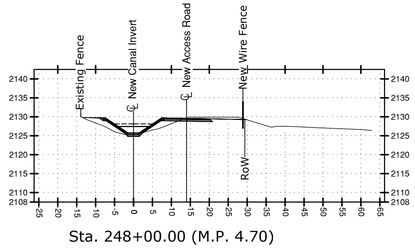
Sta. 242+00.00 (M.P. 4.58)



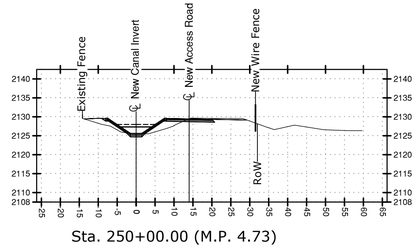
Sta. 244+00.00 (M.P. 4.62)



Sta. 246+00.00 (M.P. 4.66)



Sta. 248+00.00 (M.P. 4.70)



Sta. 250+00.00 (M.P. 4.73)

CANAL ALIGNMENT SECTIONS

HORIZONTAL SCALE:1"=20' (0, 10', 20', 40')

VERTICAL SCALE:1"=20' (0, 10', 20', 40')

NOT IN CONTRACT

LAST SAVED DATE
2026-10-08
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-309.DWG

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: L. KUC
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: K0E2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-309.dwg
DESIGNED BY: W. ZIOBRON
DATE: 10/13/2026
2025-08-01

STATE OF WASHINGTON · ANDREW TAKESHI · 24012780 · REGISTERED PROFESSIONAL ENGINEER

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL

LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - #2
REV NO	10-07-2026				ISSUED FOR BID - 2026/27 REACH 2
0	A. Takeshi				

X
DRAWN

X
ACCEPTED

10-07-2026

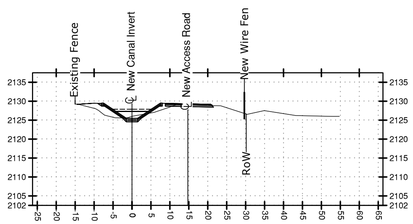
ALIGNMENT SECTIONS

STA. 228+00 TO 250+00

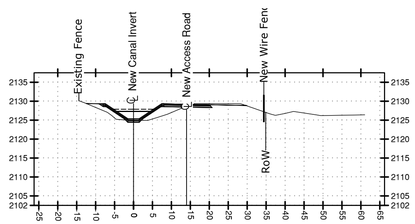
C-309

SHEET 43

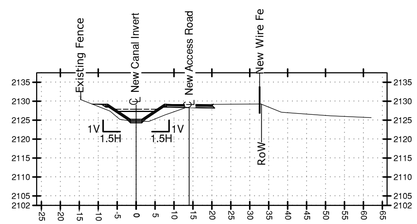
SOLICITATION NO.:
33-NBC-1008



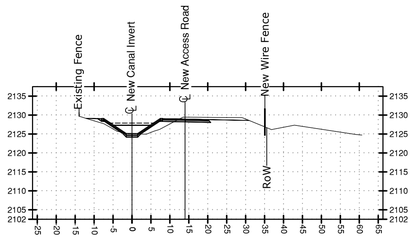
Sta. 252+00.00 (M.P. 4.77)



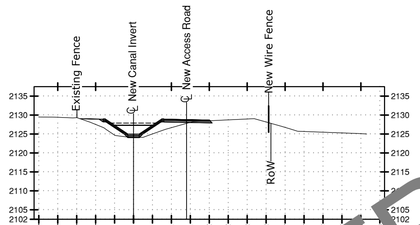
Sta. 254+00.00 (M.P. 4.81)



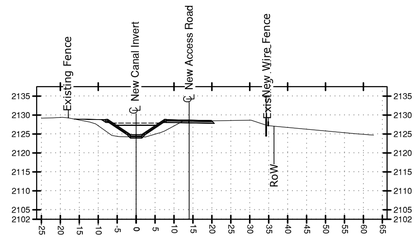
Sta. 256+00.00 (M.P. 4.85)



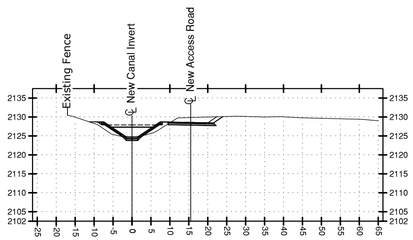
Sta. 258+00.00 (M.P. 4.89)



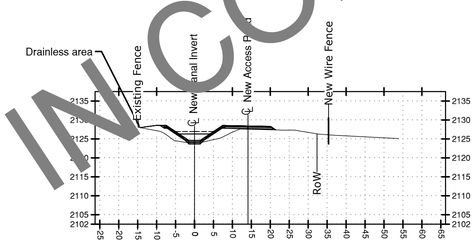
Sta. 260+00.00 (M.P. 4.92)



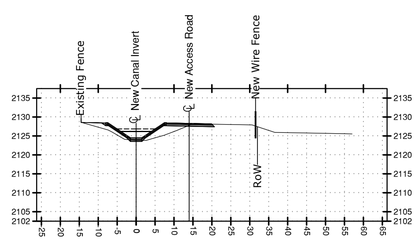
Sta. 262+00.00 (M.P. 4.96)



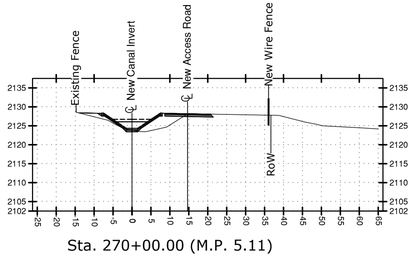
Sta. 264+00.00 (M.P. 5.00)



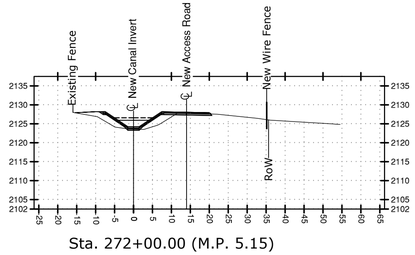
Sta. 266+00.00 (M.P. 5.04)



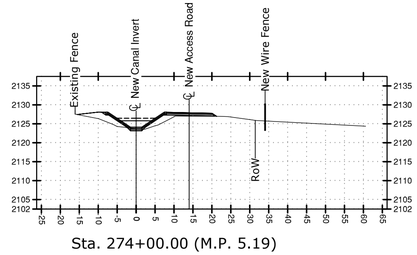
Sta. 268+00.00 (M.P. 5.08)



Sta. 270+00.00 (M.P. 5.11)



Sta. 272+00.00 (M.P. 5.15)



Sta. 274+00.00 (M.P. 5.19)

CANAL ALIGNMENT SECTIONS

HORIZONTAL SCALE:1"=20'

VERTICAL SCALE:1"=20'

NOT IN CONTRACT

LAST SAVED DATE
2026-10-06
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-310.DWG

Kittitas Reclamation District

Jacobs
1100 112th Avenue NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: L. KUC
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-310.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

STATE OF WASHINGTON
ANTHONY TAKESHI
24012765
REGISTERED PROFESSIONAL ENGINEER
10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL

LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - #2
REV NO	10-07-2026				ISSUED FOR BID - 2026/27 REACH 2
0	A. Takeshi				

X
DRAWN

X
ACCEPTED

10-07-2026

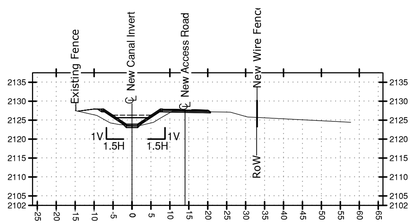
ALIGNMENT SECTIONS

STA. 252+00 TO 274+00

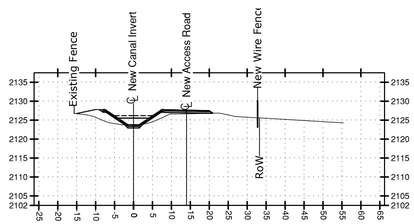
C-310

SHEET 44

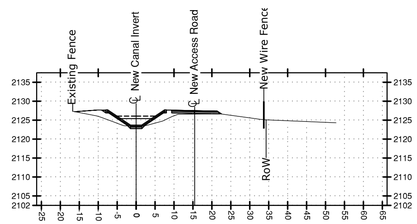
SOLICITATION NO.:
33-NBC-1008



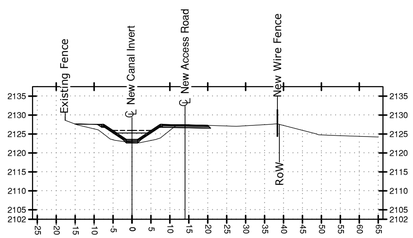
Sta. 276+00.00 (M.P. 5.23)



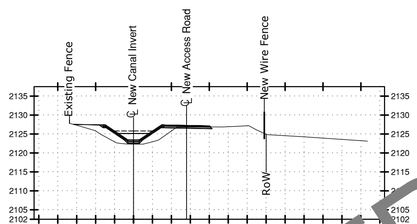
Sta. 278+00.00 (M.P. 5.27)



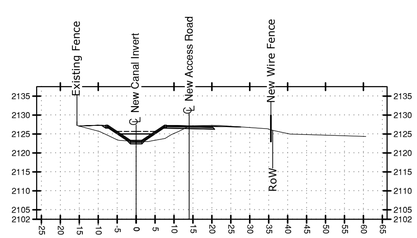
Sta. 280+00.00 (M.P. 5.30)



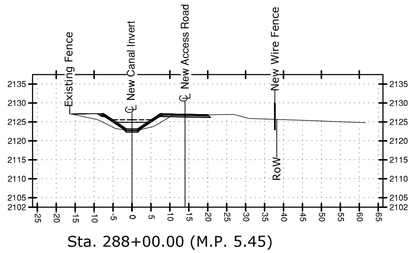
Sta. 282+00.00 (M.P. 5.34)



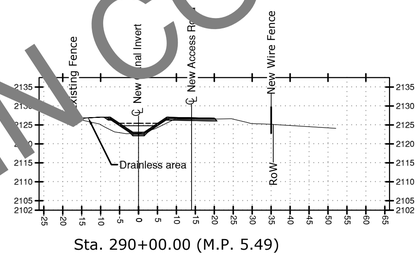
Sta. 284+00.00 (M.P. 5.38)



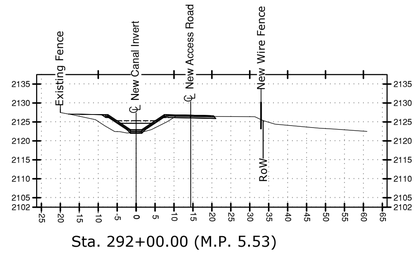
Sta. 286+00.00 (M.P. 5.42)



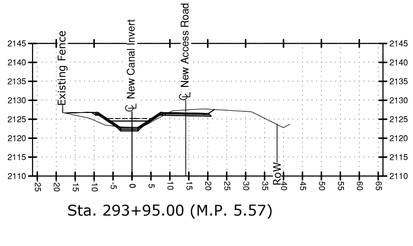
Sta. 288+00.00 (M.P. 5.45)



Sta. 290+00.00 (M.P. 5.49)



Sta. 292+00.00 (M.P. 5.53)



Sta. 293+95.00 (M.P. 5.57)

CANAL ALIGNMENT SECTIONS

HORIZONTAL SCALE:1"=20'

VERTICAL SCALE:1"=20'

NOT IN CONTRACT

LAST SAVED DATE
2026-10-06
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-311.DWG

Kittitas Reclamation District

Jacobs
1100 112th Avenue NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: L. KUC
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: K0E2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-311.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

STATE OF WASHINGTON · NATHAN T. WHITTLESEY · 24012780 · REGISTERED PROFESSIONAL ENGINEER · 10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL

LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - #2
					ISSUED FOR BID - 2026/27 REACH 2

REV NO 0
10-07-2026
A. Takeshi

X
DRAWN

X
ACCEPTED

10-07-2026

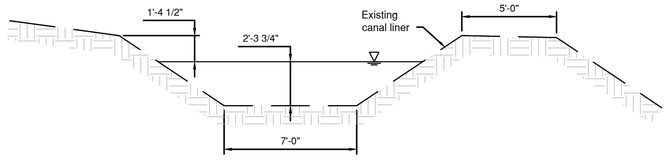
ALIGNMENT SECTIONS

STA. 276+00 TO 293+95

C-311

SHEET 45

SOLICITATION NO.:
33-NBC-1008



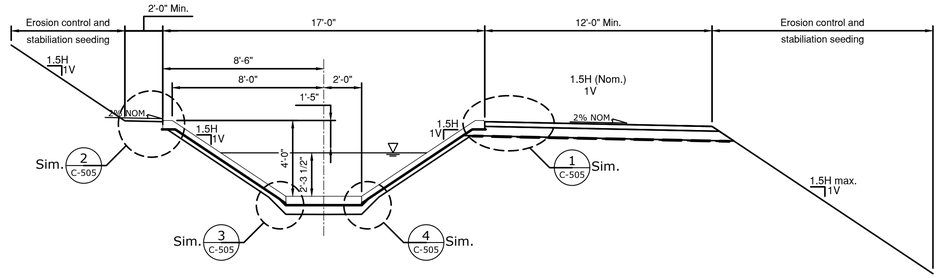
Original Section No. 01 Geometry

-- Typ. SECTION

0 2' 4' 8'

SCALE:1/4"=1'

HYDRAULIC PROPERTIES					
A	V	Q	r	n	s
24.29	2.14	52	1.58	0.025	0.0007
STATIONING					
START FEATURE		STOP FEATURE			
36+00		164+00			



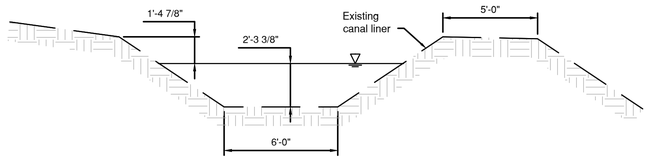
Typical Section No. 01 Replacement

A Typ. SECTION - No. 01

0 2' 4' 8'

SCALE:1/4"=1'

HYDRAULIC PROPERTIES					
A	V	Q	r	n	s
17.23	3.37	58.0	1.40	0.014	0.00064
STATIONING					
START FEATURE		STOP FEATURE			
34+74		161+47			



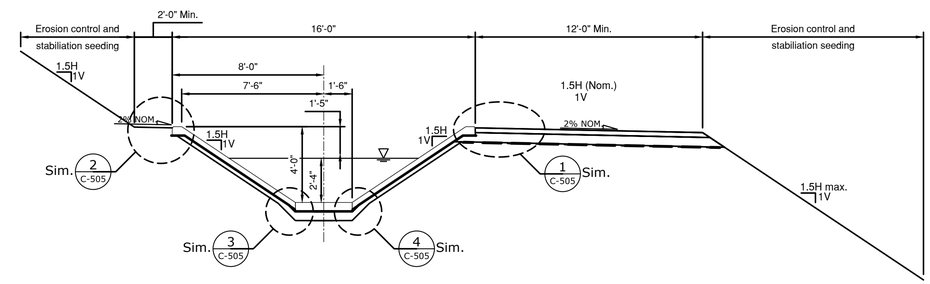
Original Section No. 02 Geometry

-- Typ. SECTION

0 2' 4' 8'

SCALE:1/4"=1'

HYDRAULIC PROPERTIES					
A	V	Q	r	n	s
21.62	2.08	45	1.52	0.025	0.0007
STATIONING					
START FEATURE		STOP FEATURE			
164+00		293+50			



Typical Section No. 02 Replacement

B Typ. SECTION - No. 02

0 2' 4' 8'

SCALE:1/4"=1'

HYDRAULIC PROPERTIES					
A	V	Q	r	n	s
15.31	3.27	50.0	1.34	0.014	0.00064
STATIONING					
START FEATURE		STOP FEATURE			
161+55		293+84			

Kittitas Reclamation District

Jacobs
1001 220th Avenue NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: W. ZIOBRON
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: K0E2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-321.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

STATE OF WASHINGTON ANNA TAKESHI 24012780 REGISTERED PROFESSIONAL ENGINEER
10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL

LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - R2
REV NO	10-07-2026				ISSUED FOR BID - 2026/27 REACH 2
REV NO	A. Takeshi				

X
DRAWN

X
ACCEPTED

10-07-2026

EXISTING AND PROPOSED CANAL CROSS-SECTIONS

SHEET 1

C-321

SHEET 46

SOLICITATION NO.:
33-NBC-1008

LAST SAVED DATE
2026-FEB-06
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-321.DWG

PARTIAL PLAN
STA. 214+87 TO STA. 225+47

0 3" 6" 9" 12"

SCALE: 3"=1'

LAST SAVED DATE
2026-10-07 09:08
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y1090\7C-401.DWG

Kittitas Reclamation District

Jacobs
Jacobs Engineering Group Inc.
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: T. PIOTROWSKI
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-401.dwg

STATE OF WASHINGTON
ANNE TAKESHI
24012780
REGISTERED PROFESSIONAL ENGINEER
DATE: 2025-08-01
DESIGNED BY: W. ZIOBRON

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL
LINING PROJECT

REV NO	REV DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - R2
					ISSUED FOR BID - 2026/27 REACH 2

REV NO 0

X
DRAWN

X
ACCEPTED

10-07-2026

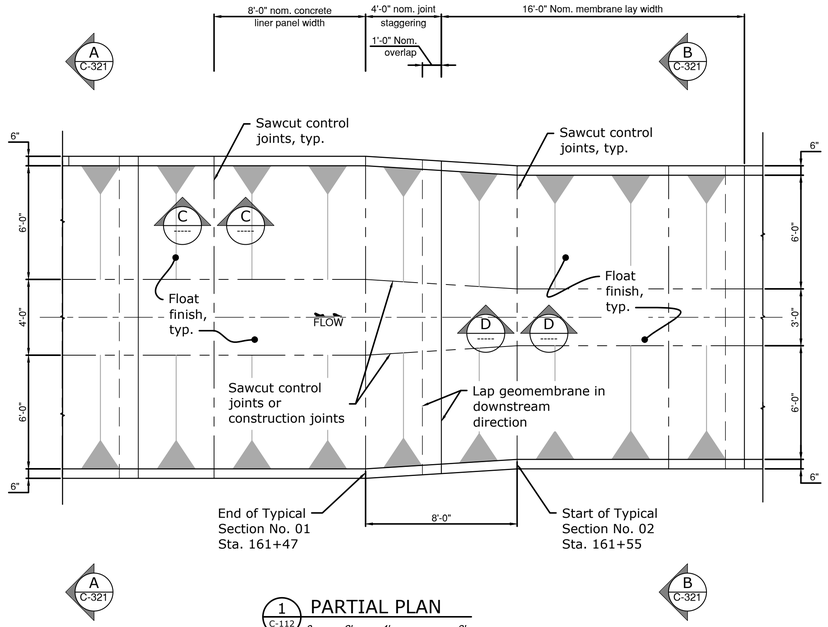
DETAILED PLAN

MP 4.18 - MP 4.21

C-401

SHEET 47

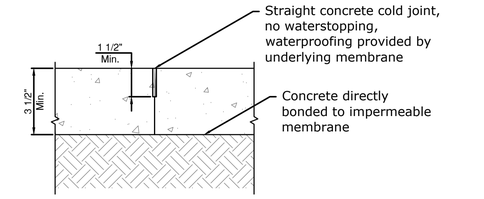
SOLICITATION NO.:
33-NBC-1008



1 C-112 PARTIAL PLAN

0 2' 4' 8'

SCALE:1/4"=1'

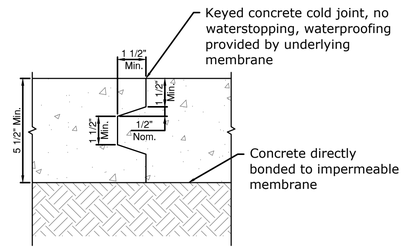


C SECTION

Typical Bank Slab Joint

0 3" 6" 9" 12"

SCALE: 3"=1'

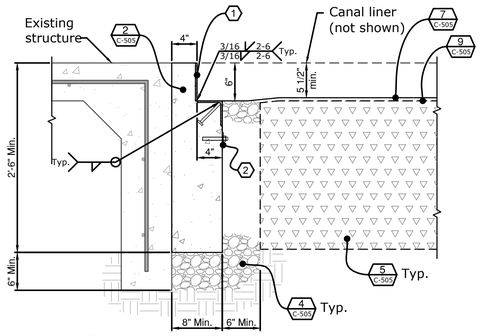


D DETAIL

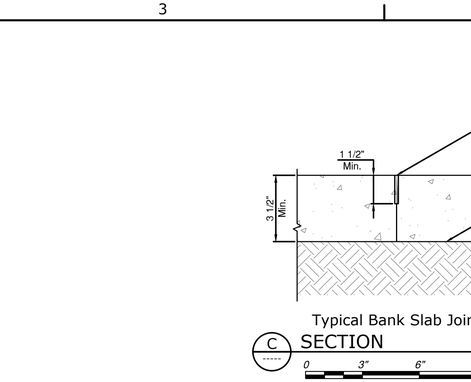
Typical Keyed Base Slab Joint

0 3" 6" 9" 12"

SCALE: 3"=1'



Existing Structure Termination

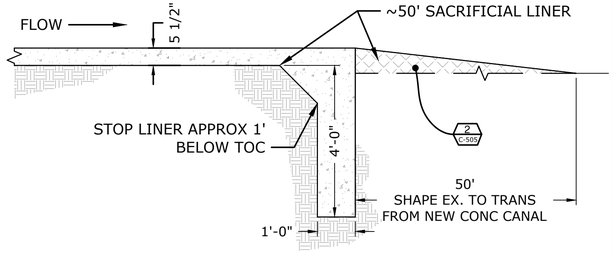


New Structure Termination

3 DETAIL - TYPICAL TRANSITION / TERMINATION OF LINER

0 1' 2'

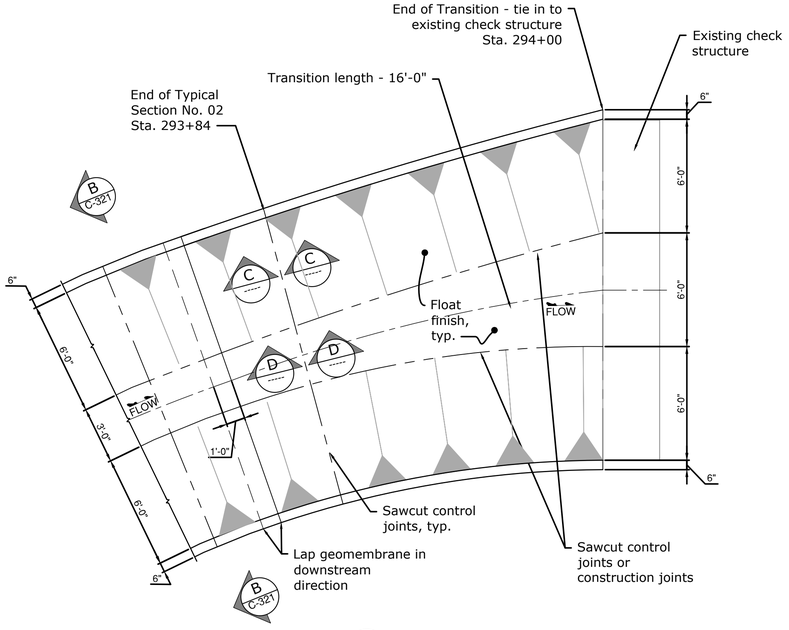
SCALE:1"=1'



4 CONCRETE CUTOFF WALL - PROFILE

0 1' 2' 4'

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



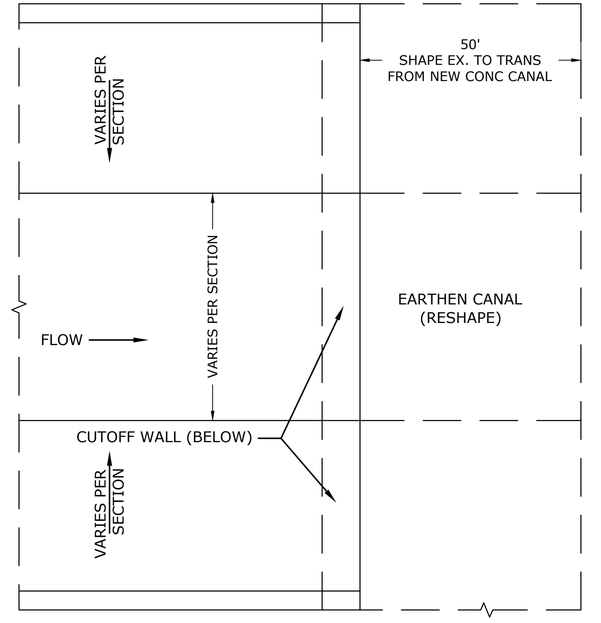
2 C-125 PARTIAL PLAN

0 2' 4' 8'

SCALE:1/4"=1'

KEYNOTE AND GRAPHICAL PATTERN OR SYMBOL LEGEND

No.	Name	Description
1	Ledger	Canal liner edge support ledger formed in terminal wall by CRES L4x4x1/4 and PL 1/4x6 anchord by 3/8" dia. x 4" headed studs at 12" o.c. spacing.
2	Anchor Strip	FB 2x1/8 galvanized steel batten strip anchoring impervious membrane to concrete with expansion anchors at 24" o.c. spacing max.



5 CONCRETE CUTOFF WALL - PLAN

0 1' 2' 4'

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

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: W. ZIOBRON
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: K0D2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-501.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

STATE OF WASHINGTON ANDREW M. TAKESHI 24012780 REGISTERED PROFESSIONAL ENGINEER
10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL
LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - R2
REV NO	10-07-2026				ISSUED FOR BID - 2026/27 REACH 2
REV BY	A. Takeshi				

X DRAWN

X ACCEPTED

10-07-2026

TYPICAL CANAL LINER

PARTIAL PLAN, SECTION AND DETAILS

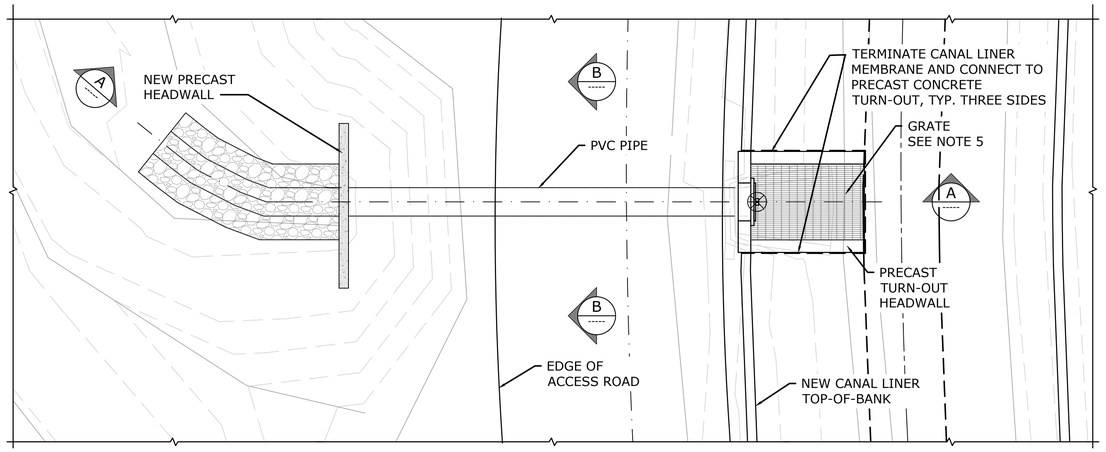
C-501

SHEET 48

SOLICITATION NO.: 33-NBC-1008

LAST SAVED DATE 2025-10-08
LAST SAVED BY WHITTLN

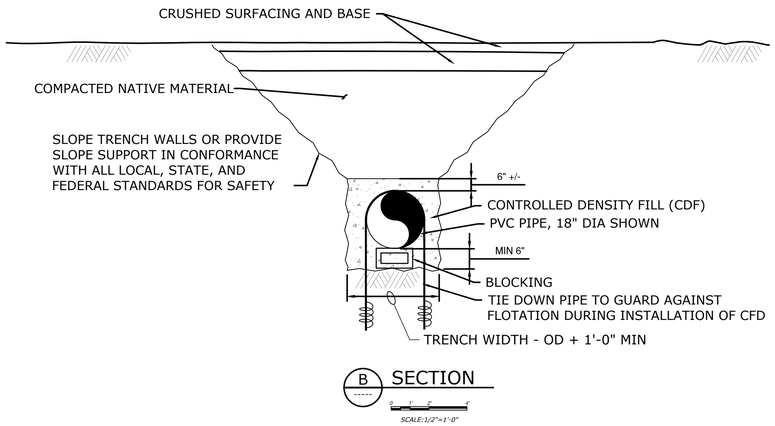
CAD SYSTEM AutoCAD 24.3S (LMS TECH)
CAD FILENAME W3Y10907C-501.DWG



2 PARTIAL PLAN

0 2' 4' 8'

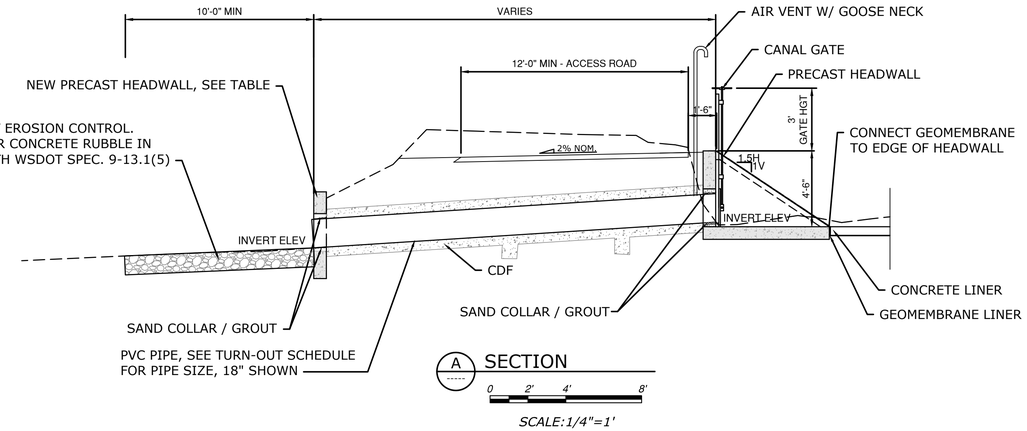
SCALE:1/4"=1'



B SECTION

0 1' 2' 4'

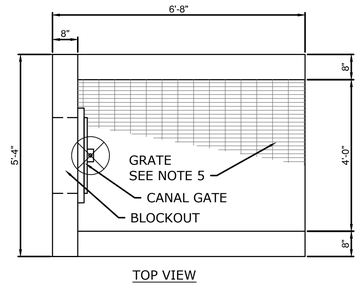
SCALE:1/2"=1'-0"



A SECTION

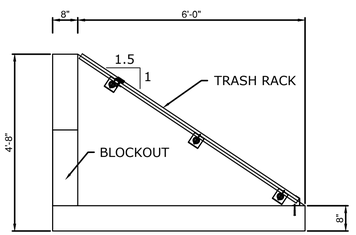
0 2' 4' 8'

SCALE:1/4"=1'

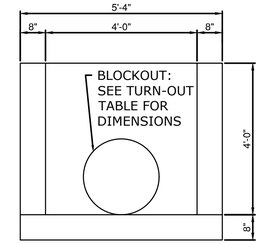


TOP VIEW

TURN-OUT TABLE	
PIPE SIZE	BLOCKOUT SIZE
6"	12"
8"	14"
10"	16"
12"	18"
18"	24"
24"	30"
36"	42"



SECTION VIEW



FRONT VIEW

1 PRECAST TURN-OUT HEADWALL DETAIL

SCALE 1/2 : 1

TURN-OUT SCHEDULE							
TURN-OUT #	STATION	PIPE SIZE	LENGTH	INLET I.E.	OUTLET I.E.	OUTLET STRUCTURE	NOTES
MP 0.70	38+00.74	18"	21.6'	2139.44	2137.95	PROVIDE NEW PRECAST HEADWALL	
MP 1.00	49+01.13	18"	23.4'	2138.92	2138.44	PROVIDE NEW PRECAST HEADWALL	
MP 1.20	65+13.83	12"	19.5'	2138.40	2137.90	PROVIDE NEW PRECAST HEADWALL	
MP 1.70	83+46.02	15"	19.4'	2136.48	2136.40	PROVIDE NEW PRECAST HEADWALL	
MP 2.10	111+89.21	12"	18.5'	2135.00	2134.40	PROVIDE NEW PRECAST HEADWALL	
MP 2.30	119+89.54	12"	18.6'	2134.10	2134.08	PROVIDE NEW PRECAST HEADWALL	
MP 2.50	132+82.72	18"	23.3'	2133.10	2133.00	PROVIDE NEW PRECAST HEADWALL	
MP 3.10	161+43.83	12"	27.3'	2131.50	2131.01	PROVIDE NEW PRECAST HEADWALL	EXISTING PIPE BURIED
MP 3.80	198+44.52	12"	19.4'	2129.00	2127.69	PROVIDE NEW PRECAST HEADWALL	
MP 4.10	222+07.55	12"	19.1'	2127.50	2127.11	PROVIDE NEW PRECAST HEADWALL	
MP 4.60	244+15.27	12"	18.9'	2126.20	2126.00	PROVIDE NEW PRECAST HEADWALL	
MP 5.00	264+17.04	18"	22.0'	2124.80	2123.95	PROVIDE NEW PRECAST HEADWALL	

SHEET NOTES

1. PROVIDE TRASHRACK CONSTRUCTED OF BAR GRATING ON FACE OF PRECAST CONCRETE TURNOUT HEADWALL.
2. PROVIDE SUPPORTS FOR THE BARS GRATING AND FASTEN TO TURNOUT.
3. INSTALL CROSSBARS ON THE BOTTOM SIDE TO ENSURE THE TRASH RAKE DOES NOT SNAG WHEN RAN ACROSS THE ENTIRE TOP LENGTH OF THE BARS.
4. THE BRACKETS DROP IN WITH ATTACHMENT ANCHORS IN THE TOP OF THE SLOPED WALLS SHALL REMAIN ACCESSIBLE.
5. FOR TURNOUTS 15" OR LARGER, BAR GRATE SPACING SHALL BE 2". FOR TURNOUTS LESS THAN 15", BAR GRATE SPACING SHALL BE 1".

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: W. ZIOBRON
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-502.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

STATE OF WASHINGTON ANNA TAKESHI REGISTERED PROFESSIONAL ENGINEER 24012780 10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL

LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - R2
					ISSUED FOR BID - 2026/27 REACH 2
REV NO 0	10-07-2026 A. Takeshi				

X DRAWN

X ACCEPTED

10-07-2026

NEW OR REPLACEMENT TURN-OUTS

DETAILS 1 OF 3

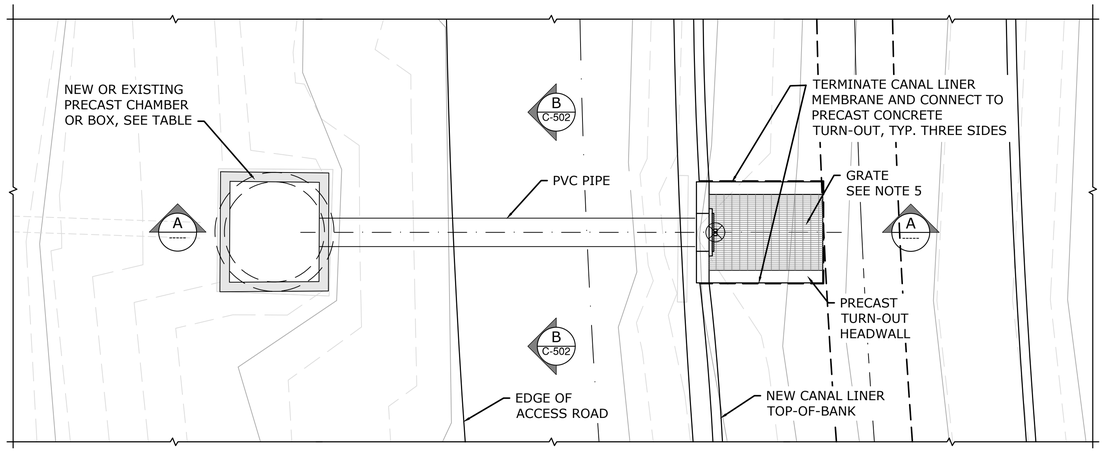
C-502

SHEET 49

SOLICITATION NO.: 33-NBC-1008

LAST SAVED DATE
2025-10-08
LAST SAVED BY
WHITTLN

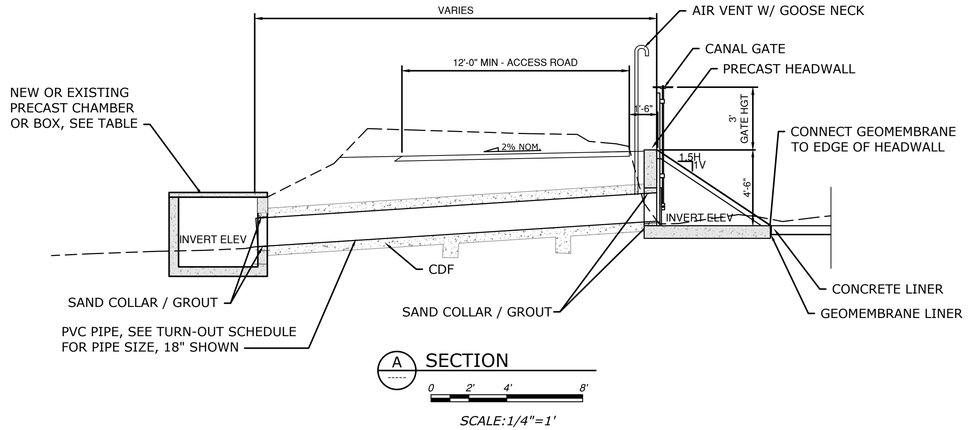
CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-502.DWG



1 PARTIAL PLAN

0 2' 4' 8'

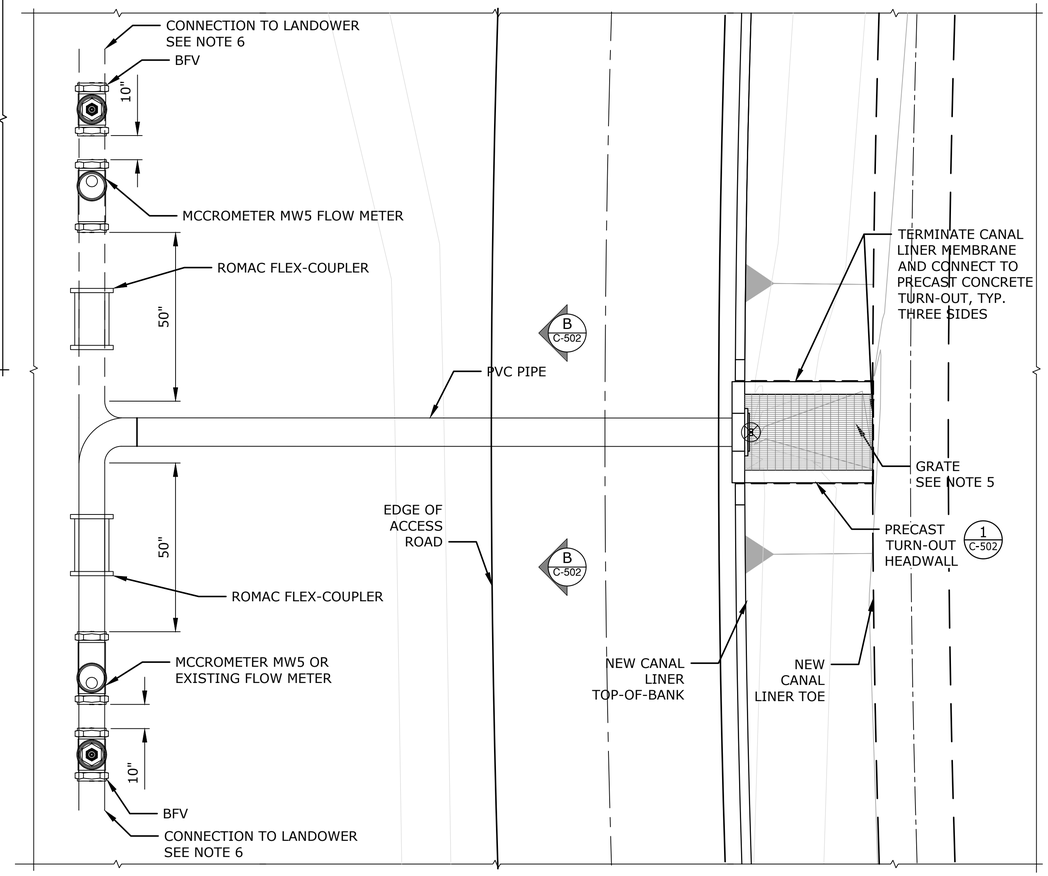
SCALE:1/4"=1'



A SECTION

0 2' 4' 8'

SCALE:1/4"=1'



2 C-105 PARTIAL PLAN

TURNOUT STA. 82+46.4

TURN-OUT SCHEDULE

TURN-OUT #	STATION	PIPE SIZE	LENGTH	INLET I.E.	OUTLET I.E.	OUTLET STRUCTURE	NOTES
MP 1.10	58+90.84	12"	20.6'	2138.50	2138.30	WEIR BOX	INSTALL NEW WEIR BOX WITH WEIR AND TWO PIPES (10" AND 3" PVC PIPES) (SEE SHEET C-524)
MP 1.40	72+61.60	18"	28.0'	2136.94	2134.63	BOX STRUCTURE	CONNECT TO EXISTING BOX
MP 1.65	82+46.40	12"	26.1'	2136.80	2136.74	EXISTING PIPE	CONNECT TO EXISTING PIPE AND REPLACE EX. FLOW METER, OUTLET ELEVATION APPROXIMATED, SEE NOTE 6
MP 1.90	100+93.95	24"	25.6'	2135.13	2134.00	BOX STRUCTURE	OUTLET ELEVATION APPROXIMATED, CONNECT TO EXISTING BOX
MP 2.80	143+25.90	12"	25.0'	2132.60	2132.48	MANHOLE STRUCTURE	INSTALL NEW MANHOLE
MP 3.00	154+35.64	12"	23.0'	2132.21	2131.96	MANHOLE STRUCTURE	INSTALL NEW MANHOLE WITH FMs AND BFV ON THE OUTLET PIPES OUTSIDE THE BOX. EXISTING WEIR AND BOX TO BE REMOVED.
MP 3.30	173+58.29	18"	16.4'	2130.60	2130.30	BOX STRUCTURE	CONNECT TO EXISTING BOX, OUTLET ELEVATION APPROXIMATED
MP 3.60	190+59.99	18"	22.4'	2129.60	2128.68	WEIR BOX	INSTALL NEW WEIR BOX WITH WEIR AND TWO 12" PIPES (SEE SHEET C-524)
MP 3.90	206+84.00	12"	14.5'	2128.70	2128.07	WEIR BOX	INSTALL NEW WEIR BOX WITH WEIR AND TWO PIPES. PIPE TO THE NORTH CONNECTING TO EXISTING 8" PVC PIPE. PIPE TO THE EAST DISCHARGING TO THE EXISTING DITCH COMING OFF OF TO 4.0 (SEE SHEET C-524)
MP 4.40	238+19.99	12"	21.6'	2126.50	2125.91	BOX STRUCTURE	CONNECT TO EXISTING BOX
MP 4.70	251+50.28	12"	22.3'	2125.80	2125.14	BOX STRUCTURE	CONNECT TO EXISTING BOX
MP 5.30	270+62.98	12"	20.4'	2124.50	2123.13	BOX STRUCTURE	CONNECT TO EXISTING BOX
MP 5.50	280+14.87	12"	17.3'	2123.80	2122.80	BOX STRUCTURE	CONNECT TO EXISTING BOX

SHEET NOTES

1. PROVIDE TRASHRACK CONSTRUCTED OF BAR GRATING ON FACE OF PRECAST CONCRETE TURNOUT HEADWALL.
2. PROVIDE SUPPORTS FOR THE BARS GRATING AND FASTEN TO TURNOUT.
3. INSTALL CROSSBARS ON THE BOTTOM SIDE TO ENSURE THE TRASH RAKE DOES NOT SNAG WHEN RAN ACROSS THE ENTIRE TOP LENGTH OF THE BARS.
4. THE BRACKETS DROP IN WITH ATTACHMENT ANCHORS IN THE TOP OF THE SLOPED WALLS SHALL REMAIN ACCESSIBLE.
5. FOR TURNOUTS 15" OR LARGER, BAR GRATE SPACING SHALL BE 2". FOR TURNOUTS LESS THAN 15", BAR GRATE SPACING SHALL BE 1".
6. CONNECTION TO EXISTING TURNOUT PIPES UNCLEAR ON SURVEY. CONTRACTOR TO VERIFY AND CONNECT TO EX. TURNOUT PIPES.

LAST SAVED DATE
2026-10-08
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y1090\C-503.DWG

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: W. ZIOBRON
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: K0E2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-503.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

ANDREW TAKESHI — STATE OF WASHINGTON — 24012780 — REGISTERED PROFESSIONAL ENGINEER
10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL

LINING PROJECT

REV NO.	DATE	REVISION
0	10-07-2026	ISSUED FOR BID - R2

DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - 2026/27 REACH 2

REV NO 0 | 10-07-2026 | A. Takeshi

X DRAWN

X ACCEPTED

10-07-2026

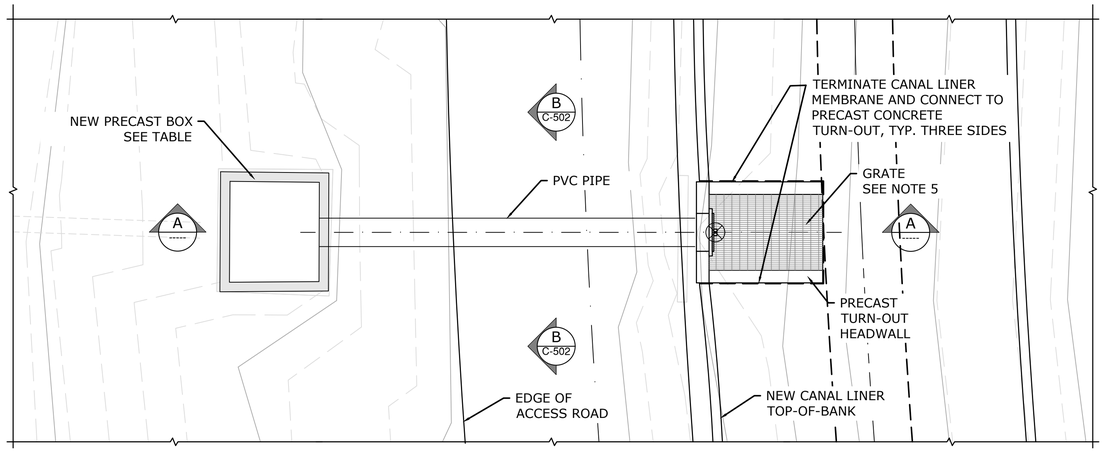
NEW OR REPLACEMENT TURN-OUTS

DETAILS 2 OF 3

C-503

SHEET 50

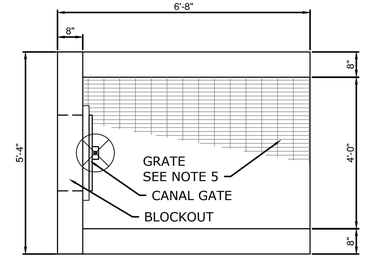
SOLICITATION NO.:
33-NBC-1008



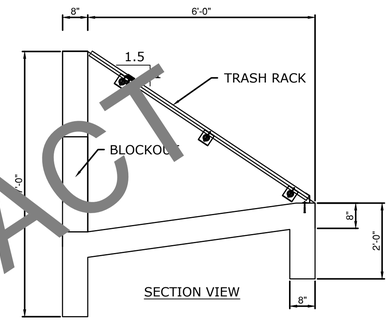
2 PARTIAL PLAN

0 2' 4' 8'

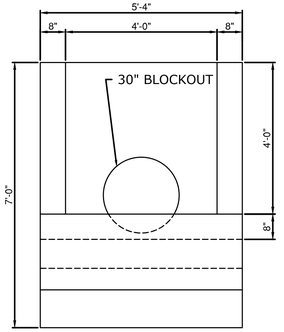
SCALE:1/4"=1'



TOP VIEW



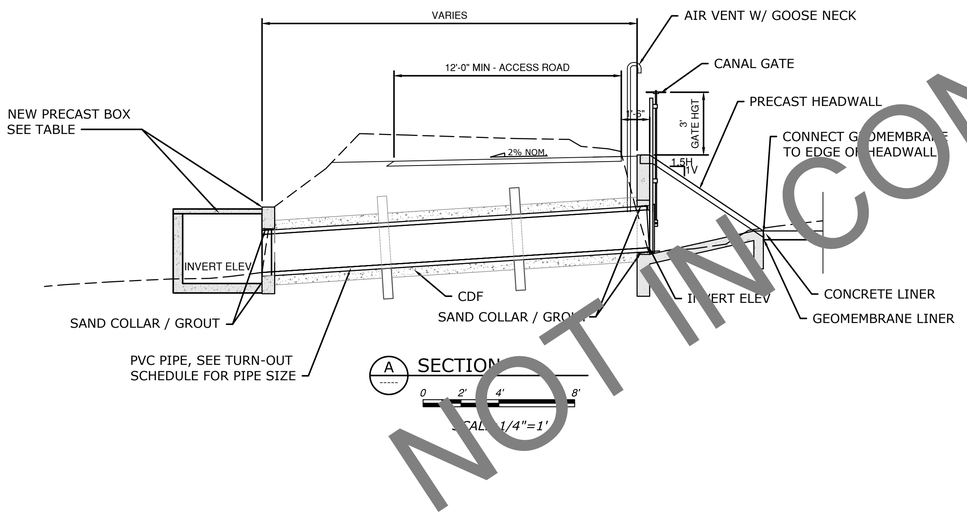
SECTION VIEW



FRONT VIEW

1 PRECAST TURN-OUT HEADWALL DETAIL

SCALE 1/2 : 1



A SECTION

0 2' 4' 8'

SCALE: 1/4"=1'

SHEET NOTES

1. PROVIDE TRASHRACK CONSTRUCTED OF BAR GRATING ON FACE OF PRECAST CONCRETE TURN-OUT HEADWALL.
2. PROVIDE SUPPORTS FOR THE BARS GRATING AND FASTEN TO TURN-OUT.
3. INSTALL CROSSBARS ON THE BOTTOM SIDE TO ENSURE THE TRASH RAKE DOES NOT SNAG WHEN RAN ACROSS THE ENTIRE TOP LENGTH OF THE BARS.
4. THE BRACKETS DROP IN WITH ATTACHMENT ANCHORS IN THE TOP OF THE SLOPED WALLS SHALL REMAIN ACCESSIBLE.
5. FOR TURNOUTS 15" OR LARGER, BAR GRATE SPACING SHALL BE 2". FOR TURNOUTS LESS THAN 15", BAR GRATE SPACING SHALL BE 1".

TURN-OUT SCHEDULE							
TURN-OUT #	STATION	PIPE SIZE	LENGTH	INLET I.E.	OUTLET I.E.	OUTLET STRUCTURE	NOTES
MP 4.20	223+28.88	24"	17.0'	2127.02	2126.77	DISTRIBUTION BOX, REFER TO C-523	INSTAL FMs ON ALL PIPES

NOT IN CONTRACT

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: W. ZIOBRON
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-504.dwg

STATE OF WASHINGTON ATSUSHI TAKESHI REGISTERED PROFESSIONAL ENGINEER 24012760

DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01
10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL

LINING PROJECT

REV NO	REV DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - R2
REV NO 0	10-07-2026	A. Takeshi			ISSUED FOR BID - 2026/27 REACH 2

X
DRAWN

X
ACCEPTED

10-07-2026

NEW OR REPLACEMENT TURN-OUTS

DETAILS 3 OF 3

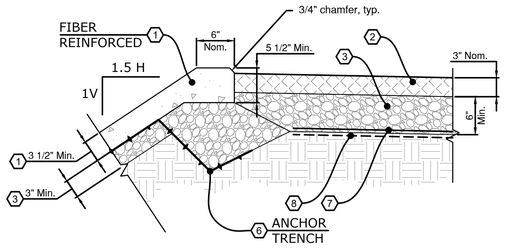
C-504

SHEET 51

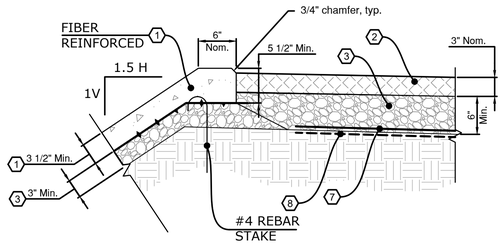
SOLICITATION NO.:
33-NBC-1008

LAST SAVED DATE
2026-10-08
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-504.DWG



Optional Anchor Trench

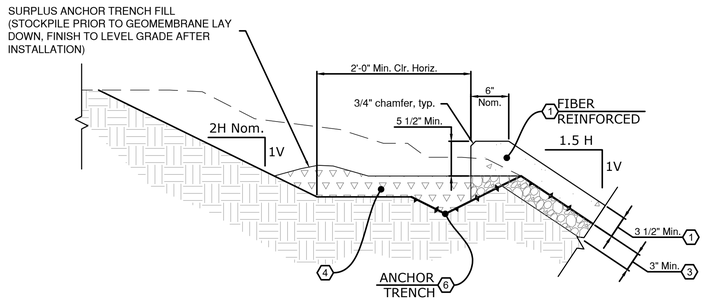


Optional Anchor Stake

1 C-321 TYPICAL DETAIL - RIGHT BANK CANAL LINER CURB

0 1' 2'

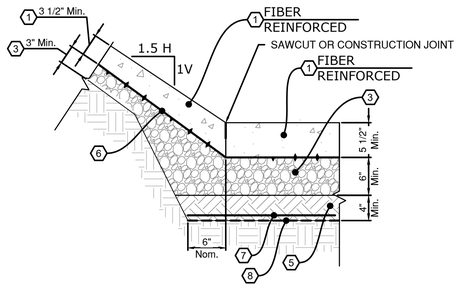
SCALE:1"=1'



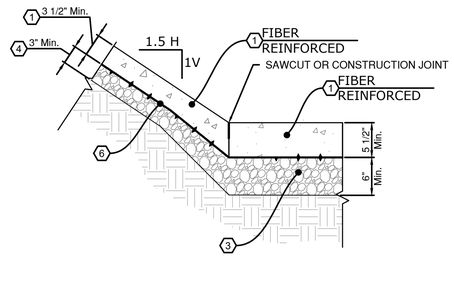
2 C-321 TYPICAL DETAIL - Left Bank Canal Liner Curb

0 1' 2'

SCALE:1"=1'



Canal Invert Liner Over Soft or Very Soft Soils

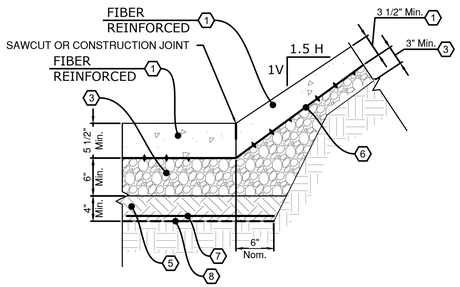


Canal Invert Liner Over Basalt Rock

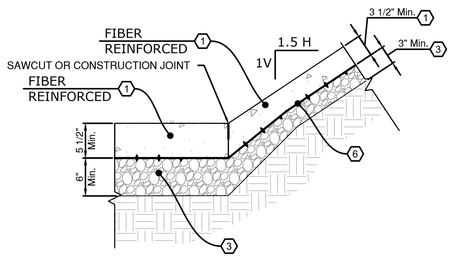
3 C-321 TYPICAL DETAIL - Left Bank Invert

0 1' 2'

SCALE:1"=1'



Canal Invert Liner Over Soft or Very Soft Soils



Canal Invert Liner Over Basalt Rock

4 C-321 TYPICAL DETAIL - Right Bank Invert

0 1' 2'

SCALE:1"=1'

KEYNOTE AND GRAPHICAL PATTERN OR SYMBOL LEGEND

No.	Graphic	Name	Description
–		Native Subgrade	Existing undisturbed and/or unclassified earthen soil, rock, or existing ground surfacing
1		Concrete	Portland cement concrete - see related typical details for specific mix and any related reinforcing requirements.
2		Crushed Surfacing	Crushed surfacing top course (CSTC) meeting requirements of WSDOT Standard Specification Section 9-03.9(3) for top course.
3		Gravel Base	Crushed or natural angular material meeting requirements of WSDOT Standard Specification Section 9-03.10 for gravel base material.
4		Gravel Drain	Gravel backfill for drains conforming with WSDOT Standard Specification Section 9-03.12(4) for drains.
5		Prepared Subgrade	Multiple and/or unclassified material placed to grades shown. See related typical details for specific material composition and any associated compaction requirements.
6		Impermeable Membrane	Impermeable geocomposite liner consisting of 30-mil minimum thickness polyethlyene geomembrane bonded on both sides by 12 oz/yd² minimum nonwoven fiber fabric. Huesker Canal®123012 or equal.
7		Stabilizing Fabric	Mechanically stabilizing geotextile fabric - Tensar TX7 TriAx® Geogrid or Equivalent.
8		Filter Fabric	Nonwoven construction geotextile for separation providing minimum flow rate of 100 gpm/sf. US Fabrics US 160NW® or Equivalent.

LAST SAVED DATE
2026-10-07
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-505.DWG

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: W. ZIOBRON
CHECKED BY: W. ZIOBRON
APPROVED BY: A. EVANS
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-505.dwg

STATE OF WASHINGTON
ANDREW TAKESHI
24012780
REGISTERED PROFESSIONAL ENGINEER

DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01
10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL

LINING PROJECT

REV NO.	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - R2
REV NO	10-07-2026	A. Takeshi			ISSUED FOR BID - 2026/27 REACH 2

X
DRAWN

X
ACCEPTED

10-07-2026

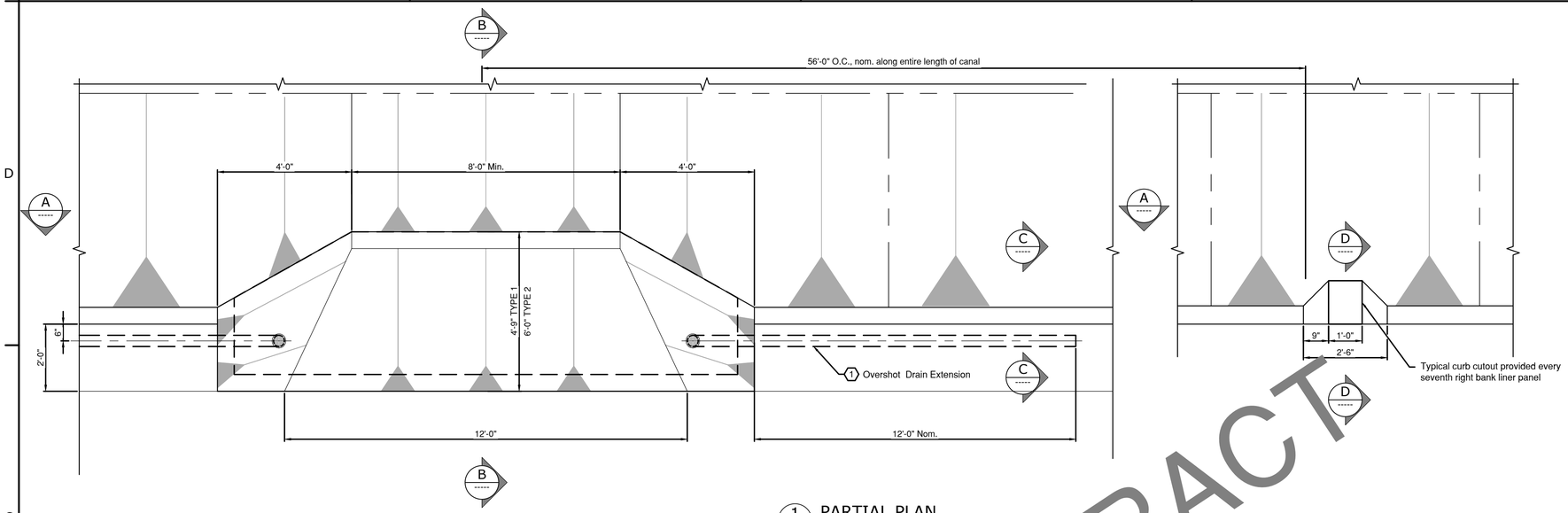
CANAL LINING

TYPICAL DETAILS

C-505

SHEET 52

SOLICITATION NO.:
33-NBC-1008



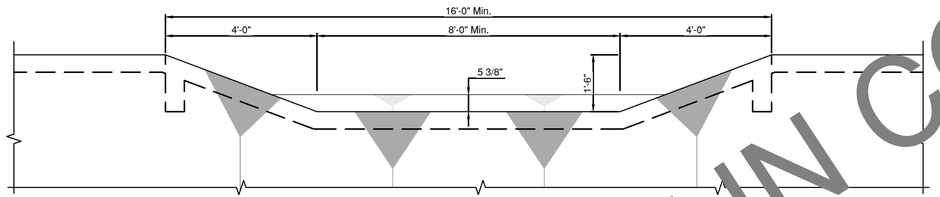
1 PARTIAL PLAN

0 1' 2' 4'

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

KEYNOTE AND SYMBOL LEGEND

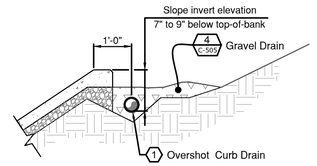
No.	Name	Description
1	Overshot Drain Extension	4-inch diameter corrugated polyethylene underdrain pipe with Class 2 perforation in accordance with WSDOT Spec. 9-05.2(7).
2	Grated End Cap	UV stabilized HDPE slotted grate yard drain pipe cap. RainBird black 4" plastic round grate model DG4RFB, or equal. Hold back as required from end of pipe for insertion into pipe for flush surface finish of grate with concrete side wall.



A SECTION

0 1' 2' 4'

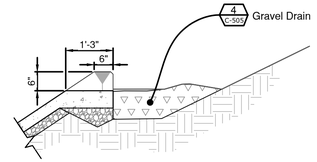
SCALE:1/2"=1'-0"



C SECTION

0 1' 2' 4'

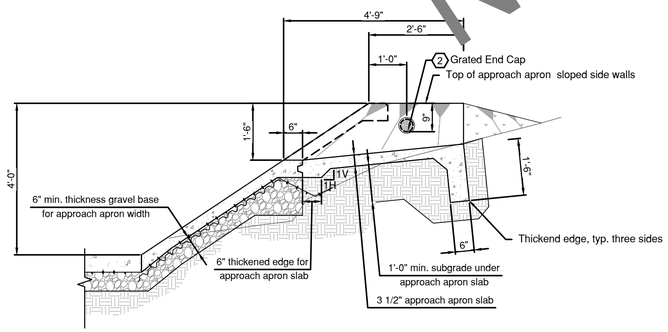
SCALE:1/2"=1'-0"



D SECTION

0 1' 2' 4'

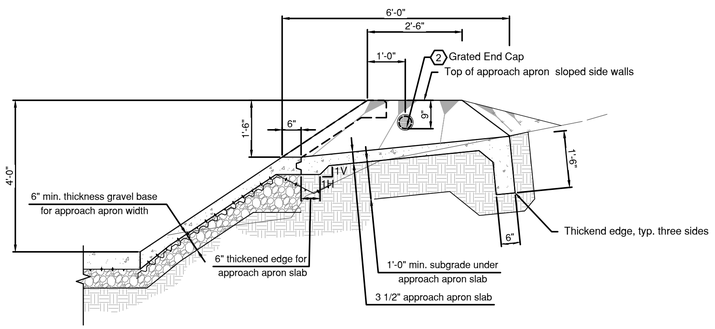
SCALE:1/2"=1'-0"



B SECTION - TYPE 1

0 1' 2' 4'

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



B SECTION - TYPE 2

0 1' 2' 4'

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

OVERSHOT SCHEDULE

OVERSHOT #	STATION	TYPE
MP 3.77	198+80.54	TYPE 1
MP 3.95	208.75.11	TYPE 2
MP 4.07	214+75.00	TYPE 1
MP 4.14	218+38.65	TYPE 2
MP 4.67	246+46.21	TYPE 2
MP 4.78	252+25.10	TYPE 2
MP 5.04	265+98.50	TYPE 2
MP 5.08	268+45.83	TYPE 2
MP 5.15	271+92.04	TYPE 2
MP 5.27	278+13.87	TYPE 2
MP 5.43	286+50.50	TYPE 2
MP 5.51	290+74.12	TYPE 2

NOT IN CONTRACT

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: W. ZIOBRON
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-506.dwg

STATE OF WASHINGTON NAVAL TAKESHI REGISTERED PROFESSIONAL ENGINEER 24012765

DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01
10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL

LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - R2
REV NO	10-07-2026				ISSUED FOR BID - 2026/27 REACH 2
0	A. Takeshi				

X
DRAWN

X
ACCEPTED

10-07-2026

TYPICAL OVERSHOT DRAINS

PARTIAL PLAN, SECTIONS AND DETAILS

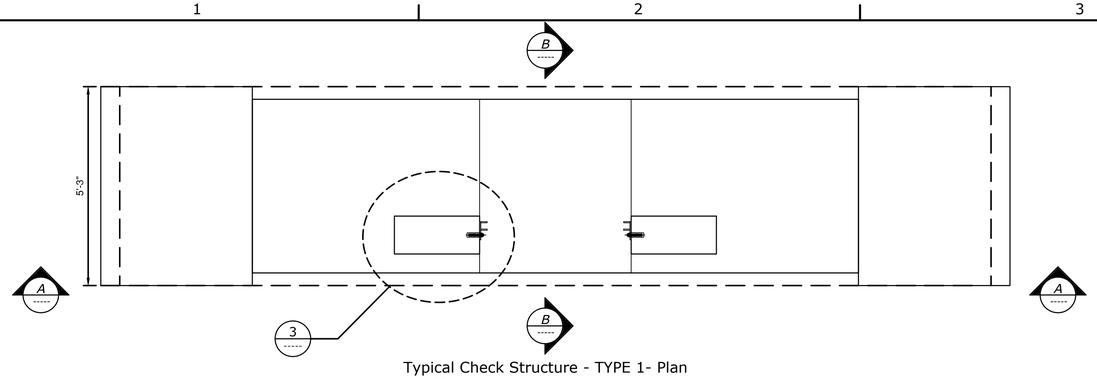
C-506

SHEET 53

SOLICITATION NO.:
33-NBC-1008

LAST SAVED DATE
2025-08-01 16:08
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-506.DWG

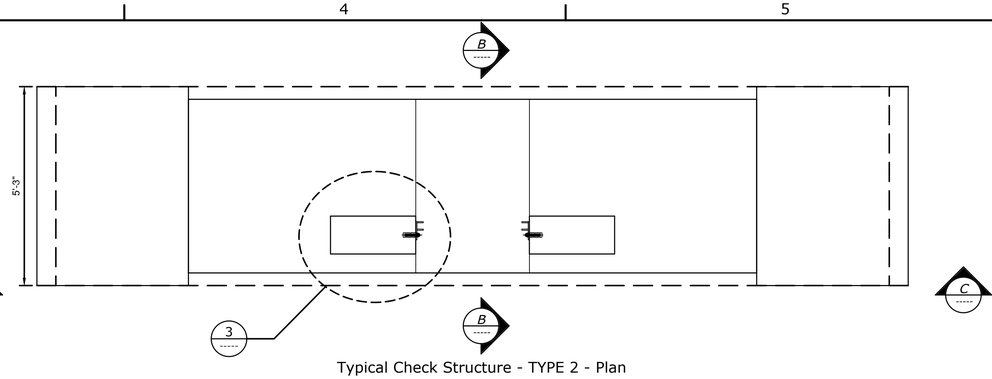


Typical Check Structure - TYPE 1- Plan

1 PARTIAL PLAN

0 1' 2' 4'

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

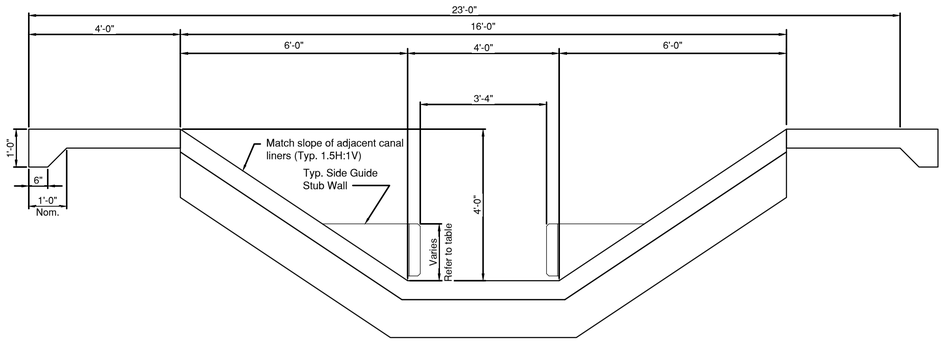


Typical Check Structure - TYPE 2 - Plan

2 PARTIAL PLAN

0 1' 2' 4'

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

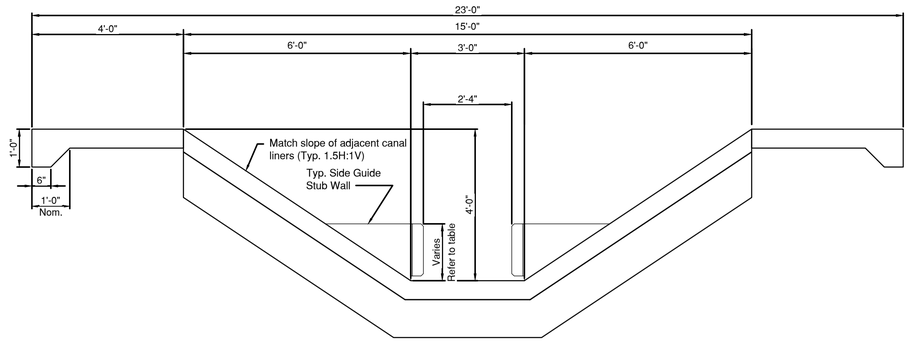


Typical Check Structure - TYPE 1

A ELEVATION

0 1' 2' 4'

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

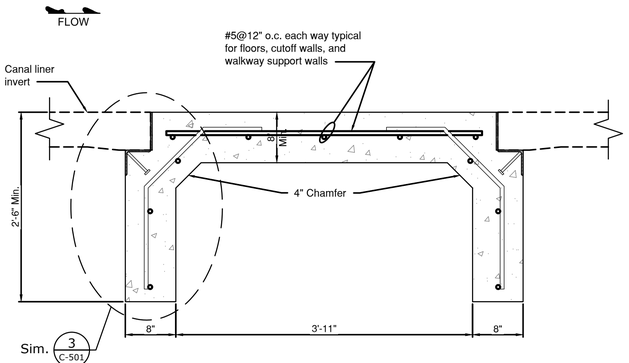


Typical Check Structure - TYPE 2

C ELEVATION

0 1' 2' 4'

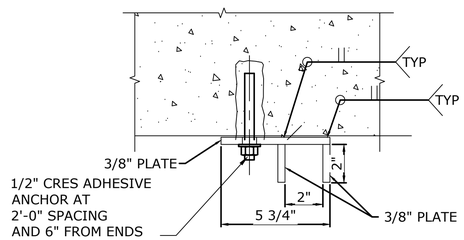
SCALE:1/2"=1'-0"



B SECTION

0 1' 2'

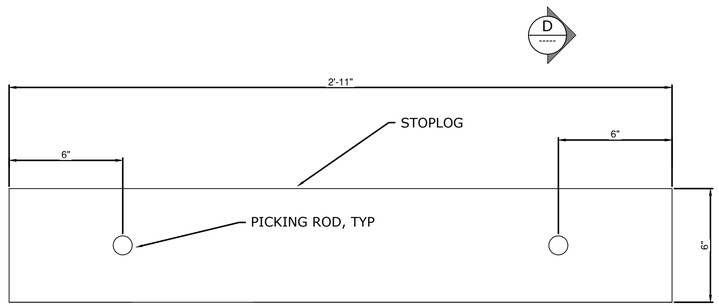
SCALE:1"=1'



3 STOPLOG GUIDE

0 3" 6" 9" 12"

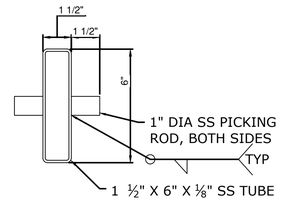
SCALE: 3"=1'



4 STOPLOG DETAIL

0 3" 6" 9" 12"

SCALE: 3"=1'



D SECTION

0 3" 6" 9" 12"

SCALE: 3"=1'

CHECK STRUCTURE SCHEDULE			
CHECK STRUCTURE #	STATION	TYPE	Height
MP 1.00	49+11.80	TYPE 1	1'-6"
MP 1.20	65+24.50	TYPE 1	1'-6"
MP 2.10	111+99.88	TYPE 1	2'-0"
MP 3.30	173+68.96	TYPE 2	1'-6"
MP 4.60	244+25.94	TYPE 2	2'-0"
MP 5.00	264+27.71	TYPE 2	1'-6"

NOTES:

1. CONTRACTOR TO PROVIDE STOP LOGS PER BID SCHEDULE TO BE DELIVERED TO THE KRD SHOP.
2. STOPLOG GUIDES TO BE STAINLESS STEEL.
3. STOPLOGS GUIDES TO BE ATTACHED WITH 5/8" SS CONCRETE ANCHORS AT APPROXIMATELY 1'-0" SPACING.
4. LOWER PLATE TO BE SS 3/8"X3" PLATE, TACK WELDED TO STOPLOG GUIDE EDGE. PLATE TO PROVIDE SEALING SURFACE FOR STOPLOGS.

Kittitas Reclamation District

Jacobs
1100 112th Avenue NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: W. ZIOBRON
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: K0E2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-507.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

STATE OF WASHINGTON · ANDREW TAKESHI · 24012780 · REGISTERED PROFESSIONAL ENGINEER
10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL

LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - #2
REV NO	10-07-2026	A. Takeshi			ISSUED FOR BID - 2026/27 REACH 2

X
DRAWN

X
ACCEPTED

10-07-2026

TYPICAL CANAL CHECK STRUCTURE

PLAN, SECTIONS AND ELEVATIONS

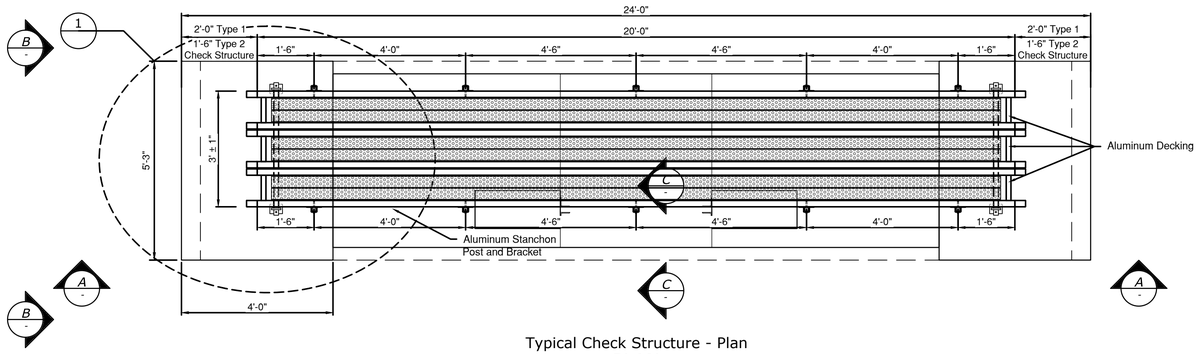
C-507

SHEET 54

SOLICITATION NO.:
33-NBC-1008

LAST SAVED DATE
2026-10-08
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y1090/C-507.DWG

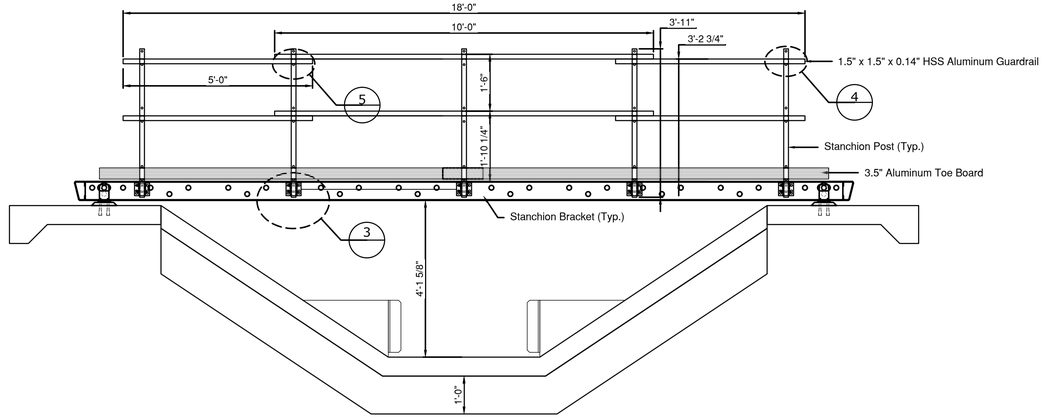


Typical Check Structure - Plan

PLAN

0 1' 2' 4'

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

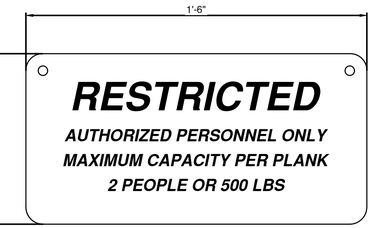


Typical Check Structure

A *ELEVATION*

0 1' 2' 4'

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

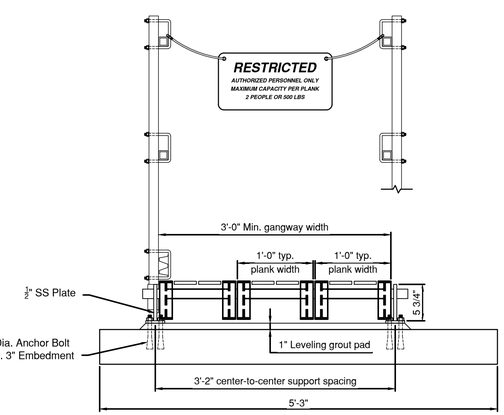


Entry Sign

No Scale

Notes:

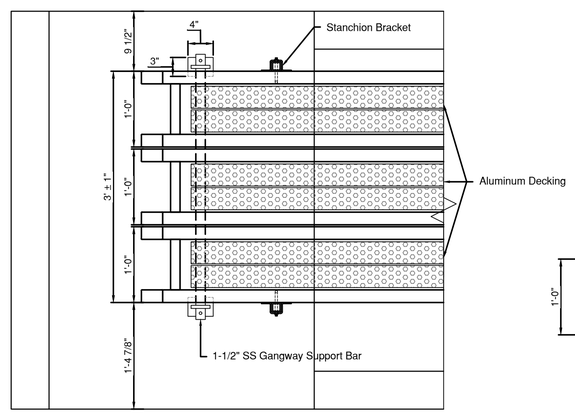
1. These drawings depict the new aluminum gangway to be fabricated and installed by The Contractor for the Kittitas Reclamation District at the XXX check structure (Sta. XXX+XX, MP X.XX) The gangway provides a fixed walking surface and will be a permanent installation
2. Aluminum: all aluminum shall be alloy 6061-T6 unless otherwise noted. Aluminum sheets and plates shall conform to ASTM B209. Aluminum structural shapes shall conform to the requirements of AWS D1.2. Where aluminum surfaces are permanently in contact with concrete provide dielectric isolation by painting aluminum surfaces with Zinc Chromate paint.
3. Steel: All steel shall be stainless (AISI Type 304 or 316) unless noted otherwise. Isolation washers shall be installed where aluminum and stainless steel are in contact and shall be of hard fiber, UHMW, or Nylon construction. Do not use plated or galvanized assembly with aluminum fabrications. All stainless steel welding shall conform to the requirements of AWS D1.6.
4. Anchors: All concrete anchors shall be Hilti Kwik-Bolt 3 Stainless Steel expansion anchors, or approved equal.
5. Gangway shall be comprised of three (3) - 20'-0" long, 12" wide aluminum stages, Werner Model #2320 or Equal. Gangway is intended for no more than 2 people, with a total max. capacity of 500 lbs per stage.
6. Stanchion posts and brackets shall be Werner Stanchion Post Assembly, Item # SSP-47 or Equal. Cut posts to length shown. See DWG XXX for typical connection details.
7. Guardrails shall be Werner Square Modular Bar System, Item # SGR-09 (x8) and SGR-13 (x4), 13'-0" Sections on the upstream side of the gangway shall be made removable by using 3" Min. Stainless Steel Locking Pins (McMaster-Carr Item # 98480A562 or Equal)
8. Provide aluminum entry sign to indicate gangway access is restricted to authorized personnel only and gangway has a maximum capacity of 2 people or 500 lbs. Sign shall be as shown or similar in size. Hang from guardrail extension at gangway entry using stainless steel eyebolts, snap hooks, and chain.



B *Section - Gangway Attachment*

0 1' 2'

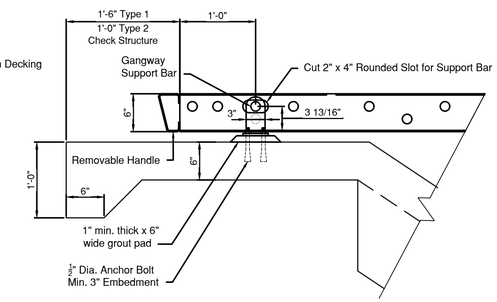
SCALE:1"=1'



1 *Detail - Gangway Attachment*

0 1' 2'

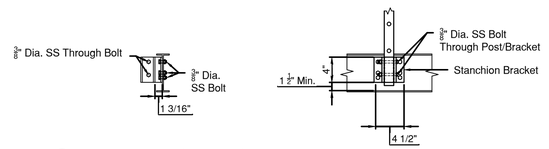
SCALE:1"=1'



2 *Detail - Gangway Attachment*

0 1' 2'

SCALE:1"=1'



C *Section - Stanchion Bracket*

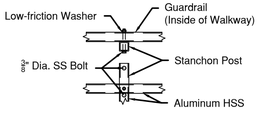
0 1' 2'

SCALE:1"=1'

3 *Detail - Stanchion Bracket (Typ.)*

0 1' 2'

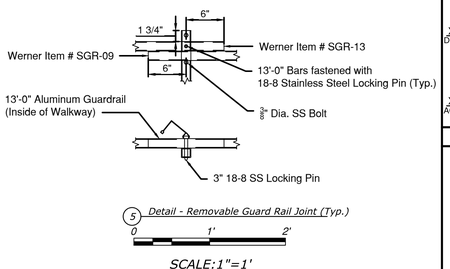
SCALE:1"=1'



4 *Detail - Guard Rail Joint (Typ.)*

0 1' 2'

SCALE:1"=1'



5 *Detail - Removable Guard Rail Joint (Typ.)*

0 1' 2'

SCALE:1"=1'

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: W. ZIOBRON
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-508.dwg

DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL LINING PROJECT

REV NO	DATE	REVISION
0	10-07-2026	ISSUED FOR BID - R2
REV NO	DATE	CHECKED BY
0	10-07-2026	N. WHITTLESEY
REV NO	DATE	APPROVED BY
0	10-07-2026	A. TAKESHI
REV NO	DATE	REVISION
0	10-07-2026	ISSUED FOR BID - 2026/27 REACH 2

X DRAWN

X ACCEPTED

10-07-2026

TYPICAL ACCESS GANGWAY

PARTIAL PLAN, SECTION AND DETAILS

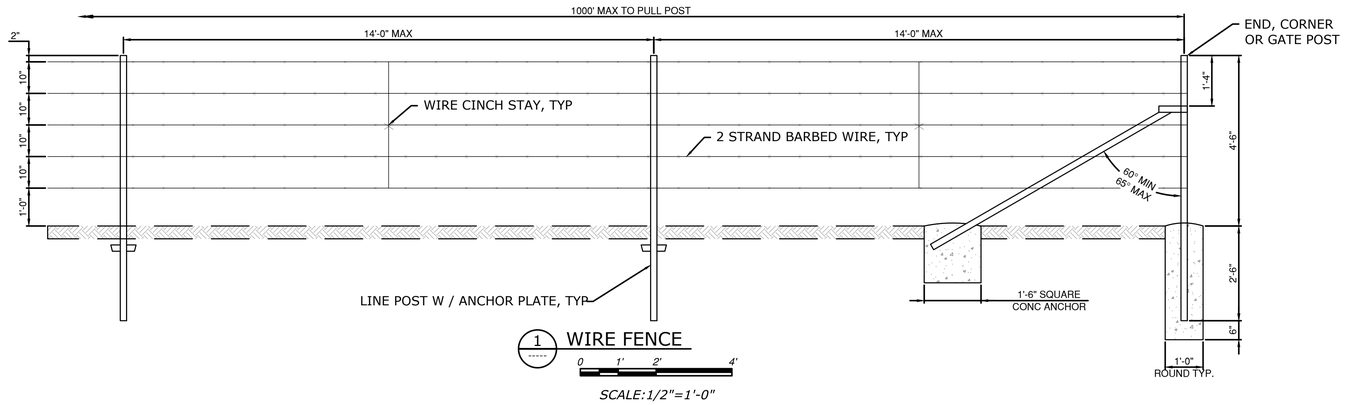
C-508

SHEET 55

SOLICITATION NO.: 33-NBC-1008

LAST SAVED DATE
2025-10-08
LAST SAVED BY
WHITTLN

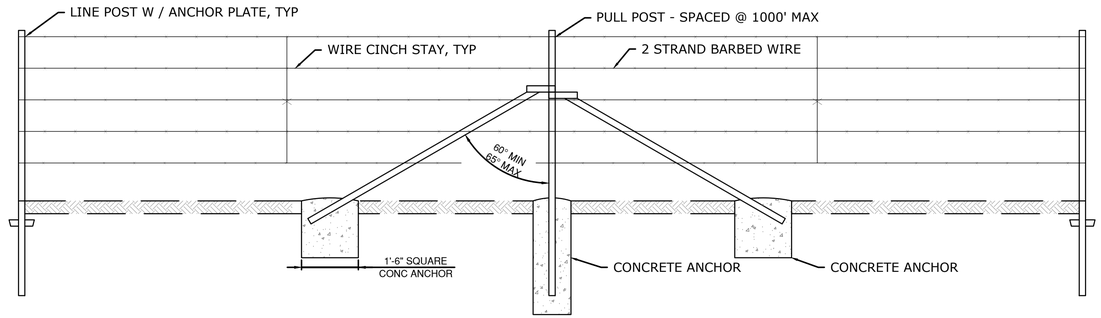
CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-508.DWG



1 WIRE FENCE

0 1' 2' 4'

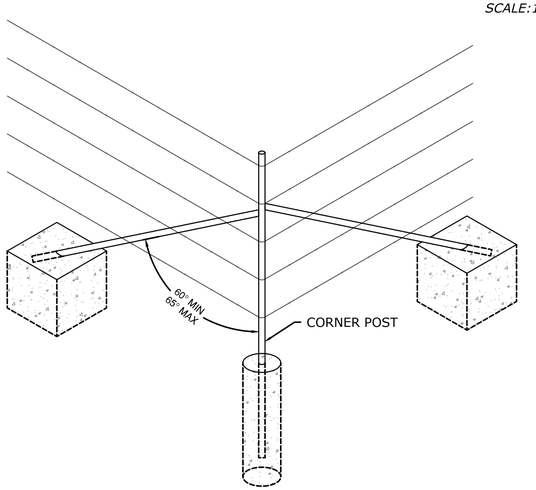
SCALE:1/2"=1'-0"



2 INTERMEDIATE BRACING / PULL POST

0 1' 2' 4'

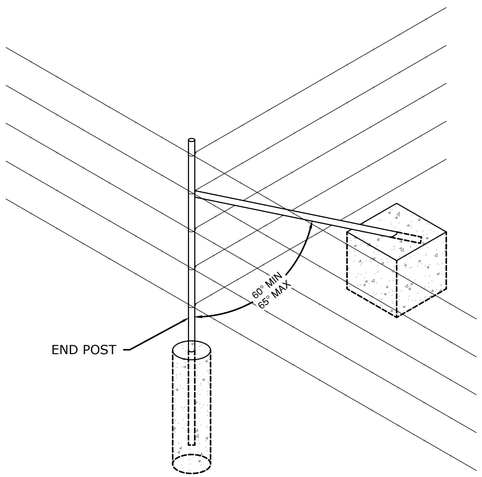
SCALE:1/2"=1'-0"



3 CORNER BRACING DETAIL

0 1' 2' 4'

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



4 INTERSECTION BRACING DETAIL

0 1' 2' 4'

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

NOTES

1. UNLESS OTHERWISE NOTED, ALL FENCING STEEL SHALL HAVE GALVANIZED FINISH.
2. FENCE POSTS SHALL BE SPACED AT A MAXIMUM OF 14 FEET ON CENTER, AND WILL BE PLACED VERTICALLY UNLESS OTHERWISE SPECIFIED BY ENGINEER.
3. POST DRIVING METHODS MUST NOT DAMAGE POSTS.
4. CORNERS, GATES, AND PULL POSTS WILL BE SET IN CONCRETE WITH A CROWN TO SHED ANY WATER.
5. WHERE SOLID ROCK OCCURS W/OUT SOIL, SHAFTS MUST BE DRILLED 1" GREATER THAN THE POST DIA. THE POSTS SHALL BE SET TO 14 INCHES MIN. FOR LINE POSTS AND 20" MIN. FOR CORNERS, GATES, AND PULL POSTS THEN FILLED WITH TYPE 4 GROUT.
6. STEEL BRACES SHALL BE ANCHORED WITH A CONCRETE FOOTING AT A MIN. OF 18 INCHES ON EITHER SIDE OF THE POST FOR TYP. EARTH, AND 10 INCHES MIN. EITHER SIDE FOR SOLID ROCK.
7. ALIGNMENT CHANGES OF 30° OR MORE SHALL BE CONSIDERED CORNERS.
8. AFTER TENSIONING LONGITUDINAL WIRE BETWEEN TWO PULL POSTS, WIRES WILL BE TIED TO POSTS AT THEIR PROPER HEIGHT.
9. WHERE UNUSUAL GROUND DEPRESSIONS OCCUR, A 'DEADMAN' CONSISTING OF A 100LB BLOCK OF CONCRETE BURIED 2 FEET BELOW THE SURFACE SHALL BE TIED TO THE LONGITUDINAL WIRE USING NO. 9 GAGE GALVANIZED WIRE.
10. VERTICAL CINCH STAYS SHALL BE INSTALLED AT MIDPOINTS BETWEEN POSTS TO HELP PROVIDE RIGIDITY TO THE LONGITUDINAL WIRE SPACING.
11. SEE WSDOT STANDARD PLAN L-10.10-01 FOR ADDITIONAL FENCING INFORMATION AND DETAILS.
12. FENCE ALIGNMENT IS APPROXIMATE. FINAL FENCE LOCATION TO BE FIELD VERIFIED WITH KRD.

POST SPECIFICATIONS		
POST	PIPE	T-POST
	NOM SIZE - I.D. (SCH. 40)	WEIGHT (LBS/FT)
END, CORNER, OR PULL POST	2" DIA.	
GATE POST	6" DIA.	
LINE OR BRACE POST	2" DIA.	1.33

Kittitas Reclamation District

Jacobs
1001 220th Ave NE Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: W. ZIOBRON
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-511.dwg

DESIGNED BY: W. ZIOBRON
DATE: 10/13/2026
2025-08-01

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL

LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - R2
REV NO	10-07-2026				ISSUED FOR BID - 2026/27 REACH 2
0	A. Takeshi				

X
DRAWN

X
ACCEPTED

10-07-2026

FENCING - WIRE AND BRACING

TYPICAL DETAILS

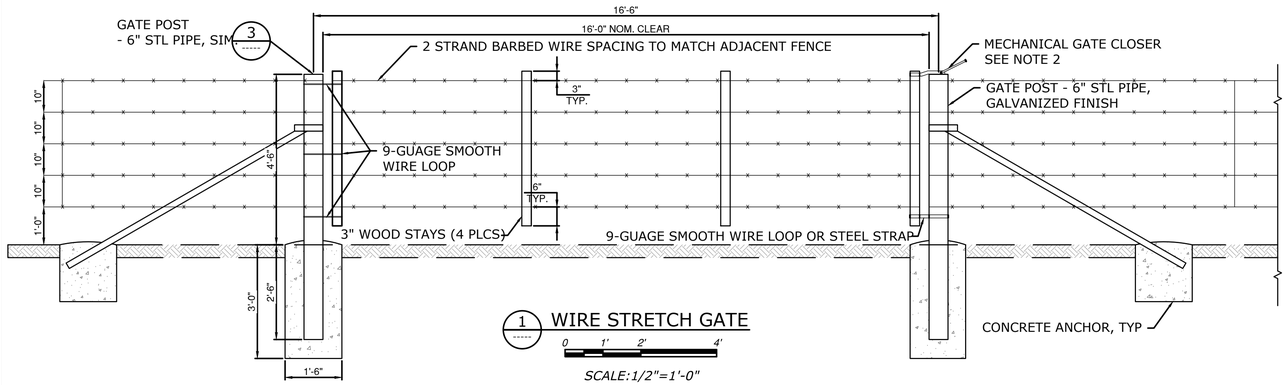
C-511

SHEET 56

SOLICITATION NO.:
33-NBC-1008

LAST SAVED DATE
2026-10-08
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-511.DWG



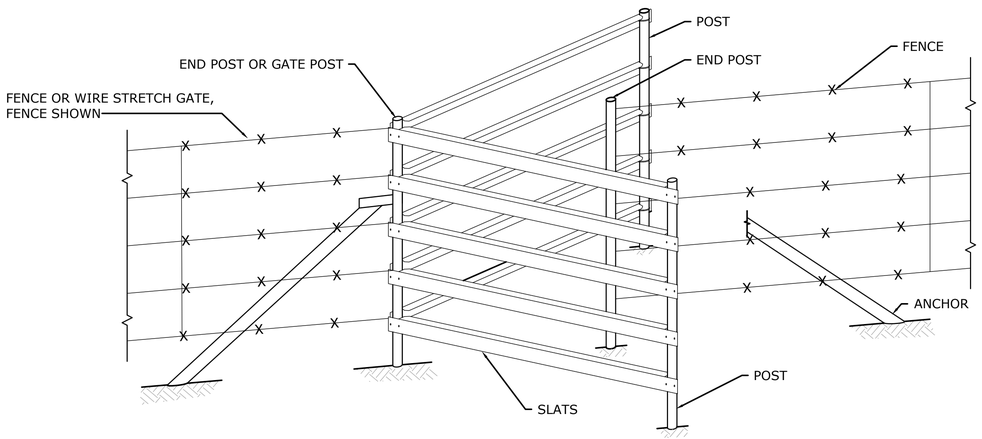
1 WIRE STRETCH GATE

0 1' 2' 4'

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

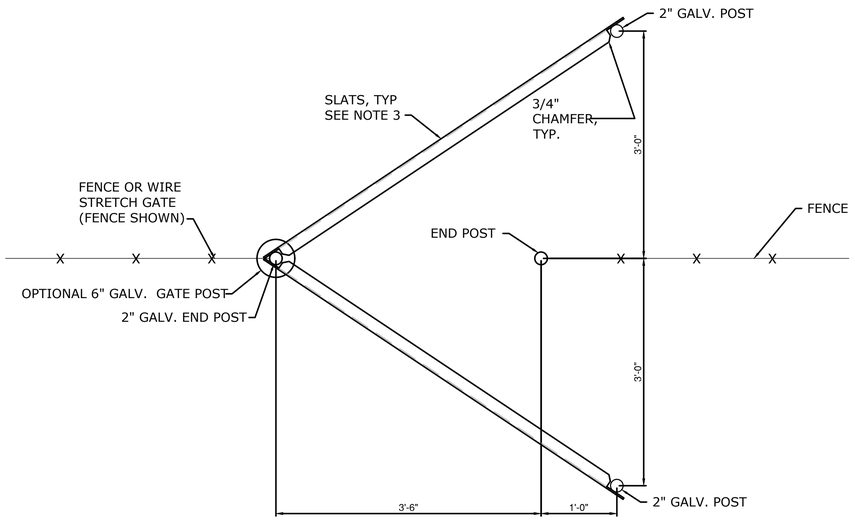
NOTES

1. 6" O,D, STEEL ANCHOR POSTS TO BE FILLED WITH CONCRETE AND PAINTED OSHA YELLOW.
2. MECHANICAL GATE CLOSER TO BE SPEECO GATE CLOSER, OR APPROVED EQUAL.
3. SLATS TO BE 2"x3"x¼" ANGLE IRON, OR APPROVED EQUAL. COPE FLANGE OF HORIZONTAL 2" LEG AT ENDS OF SLAT TO PROVIDE FLAT CONNECTION SURFACE. VERTICALLY STAGGER SLATS FOR CLEARANCE ON CENTER POST AND FASTEN VIA 3" FLANGE BY EITHER BOLTING THROUGH POST (GATE POSTS) OR USING U-BOLTS (END POSTS).



ISOMETRIC - WALK-THROUGH STILE

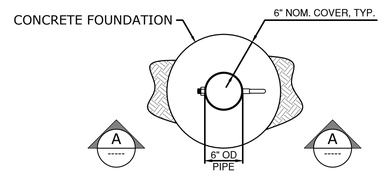
NOT TO SCALE



2 DETAIL PLAN - WALK-THROUGH STILE

0 1' 2'

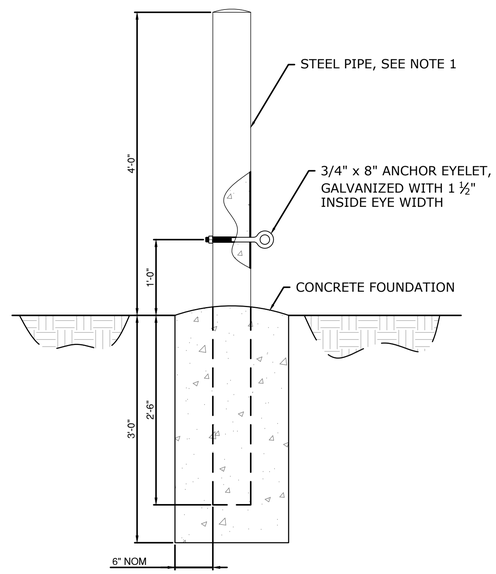
SCALE:1"=1'



3 DETAIL PLAN - SAFETY LINE ANCHOR

0 1' 2'

SCALE:1"=1'



A ELEVATION - SAFETY LINE ANCHOR

0 1' 2'

SCALE:1"=1'

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: W. ZIOBRON
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: K0E2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-512.dwg

STATE OF WASHINGTON ANDREW M. TAKESHI 24012700 REGISTERED PROFESSIONAL ENGINEER

DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01
10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - R2
REV NO	10-07-2026	A. TAKESHI			ISSUED FOR BID - 2026/27 REACH 2

X
DRAWN

X
ACCEPTED

10-07-2026

FENCING - WIRE STRETCH GATE, STILE AND ANCHOR POSTS

TYPICAL DETAILS

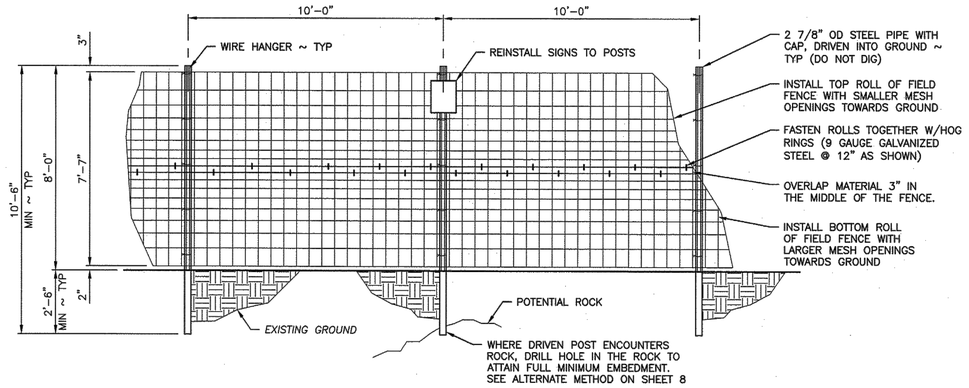
C-512

SHEET 57

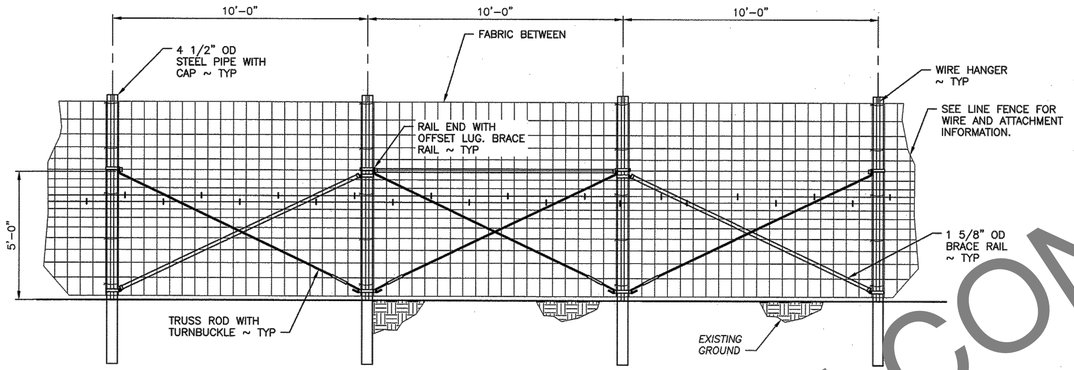
SOLICITATION NO.:
33-NBC-1008

LAST SAVED DATE
2026-10-08
LAST SAVED BY
WHITTLN

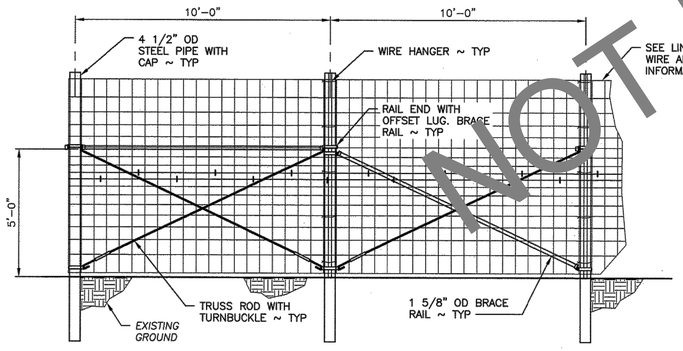
CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-512.DWG



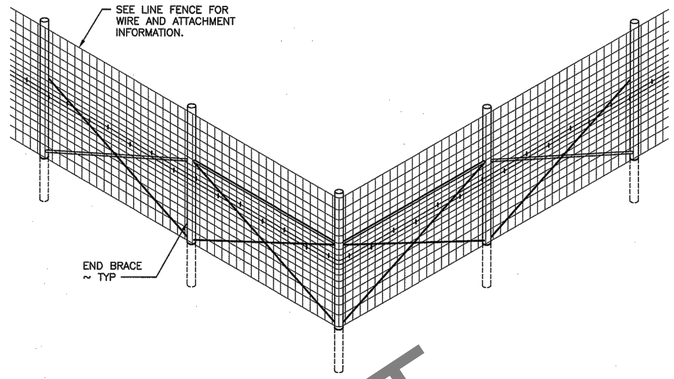
LINE FENCE
SCALE: 3/8" = 1'–0"



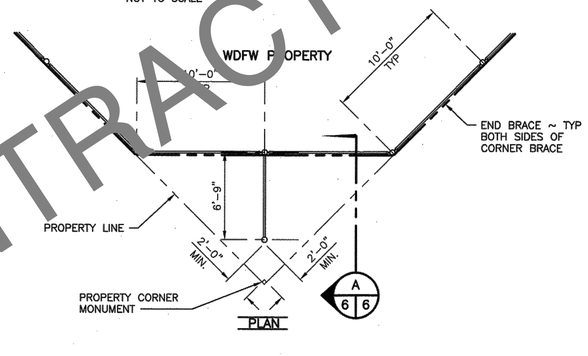
STRETCH BRACE
SCALE: 3/8" = 1'–0"



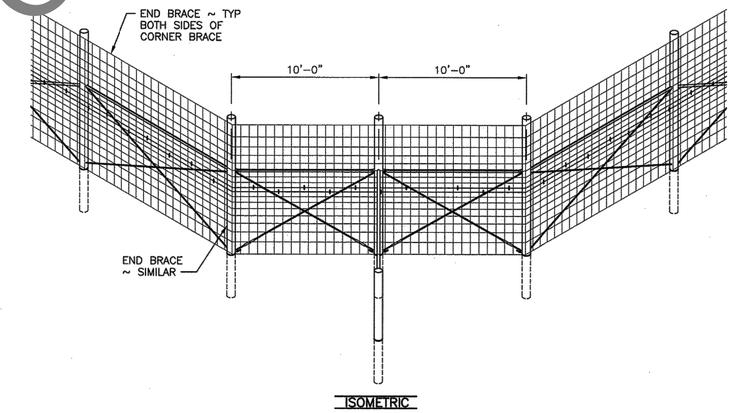
END OR GATE BRACE
SCALE: 3/8" = 1'–0"



CORNER BRACE
NOT TO SCALE

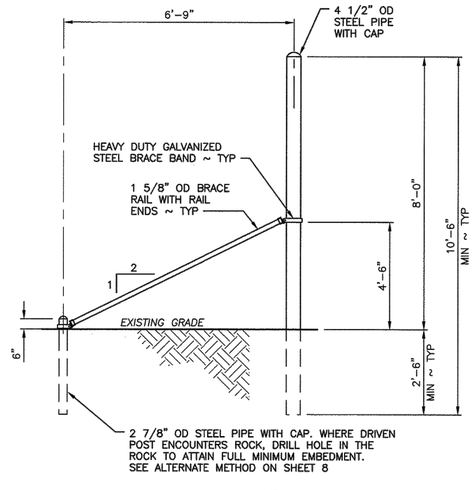


PLAN



ISOMETRIC

MODIFIED CORNER BRACE
NOT TO SCALE



SECTION
SCALE: 3/8" = 1'–0"

A
6 6

GENERAL NOTES:

A. ALL VERTICAL STEEL PIPE SHALL HAVE A GALVANIZED METAL POST CAP, OR APPROVED EQUIVALENT.

B. CATTLE PANELS AND HOG PANELS SHALL BE 4 GAUGE WIRE.

C. TRUSS ROD SHALL BE 3/8 INCH DIAMETER WITH A TURNBUCKLE INSTALLED.

D. FIELD FENCE SHALL BE TWO 47 INCH TALL SECTIONS OF FABRIC, 3 INCHES OVERLAPPED IN THE MIDDLE. INSTALL THE TOP ROLL OF FIELD FENCE FABRIC SO THAT THE SMALLER MESH OPENINGS ARE TOWARDS THE GROUND. INSTALL THE BOTTOM ROLL OF FIELD FENCE FABRIC SO THAT THE LARGER MESH OPENINGS ARE TOWARDS THE GROUND.

E. FASTEN FENCE FABRIC ROLLS TOGETHER WITH 9 GAUGE GALVANIZED HOG RINGS AT 12 INCH MAXIMUM SPACING.

F. SEE SPECIFICATIONS FOR FIELD FENCE TERMINATION.

G. INSTALL END BRACES ON EITHER SIDE OF DRAWS, GATES, OR STREAM CROSSINGS.

H. WHERE DRIVEN POST ENCOUNTER ROCK. DRILL HOLE IN THE ROCK TO ATTAIN FULL MINIMUM EMBEDMENT

LINE FENCE:

1. LINE FENCE POSTS SHALL BE 10 FEET 6 INCHES LONG X 2 7/8 INCHES IN DIAMETER, POSTS SHALL BE DRIVEN (DO NOT DIG) TO A MINIMUM DEPTH OF 30 INCHES.

STRETCH BRACE:

2. CORNER AND STRETCH BRACE POSTS SHALL BE AT LEAST 10 FEET 6 INCHES LONG X 4 1/2 INCHES IN DIAMETER, POSTS SHALL BE DRIVEN (DO NOT DIG) TO A MINIMUM DEPTH OF 30 INCHES.

3. HEAVY DUTY BRACE BAND SHALL BE FIXED IN PLACE WITH ON 0.27 CALIBER POWER ACTUATED NAIL OR 1/4 INCH SELF TAPPING SCREW.

4. SEE SPECIFICATIONS FOR MAXIMUM DISTANCE BETWEEN STRETCH BRACES.

5. INSTALL STRETCH BRACES AT CHANGES OF GRADE OF 10 DEGREES (1.75 RISE OR DROP ON 10 FEET OF RUN) OR MORE.

6. CHANGES IN ALIGNMENT OF 10 DEGREES OR MORE (1.75 FEET OF DIRECTION CHANGE IN 10 FEET OF RUN) SHALL BE CONSIDERED AS CORNERS, AND A CORNER BRACE STRUCTURE SHALL BE INSTALLED.

NOT IN CONTRACT

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: W. ZIOBRON
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-513.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

STATE OF WASHINGTON · ANDREW TAKESHI · 24012780 · REGISTERED PROFESSIONAL ENGINEER
10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL
LINING PROJECT

REV NO	REV DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - 2026/27 REACH 2
					ISSUED FOR BID - #2

REV NO 0 | REV DATE 10-07-2026 | DESIGNED BY A. Takeshi

X DRAWN

X ACCEPTED

10-07-2026

ELK FENCE

TYPICAL DETAILS

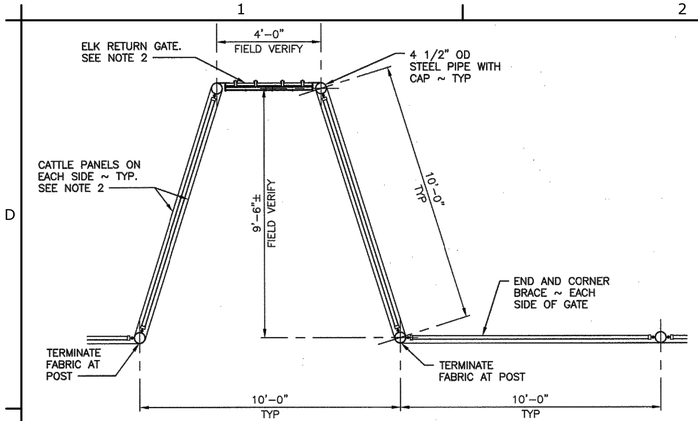
C-513

SHEET 58

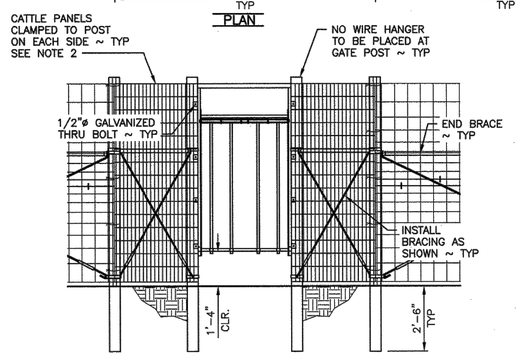
SOLICITATION NO.: 33-NBC-1008

LAST SAVED DATE
2026-10-06
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-513.DWG

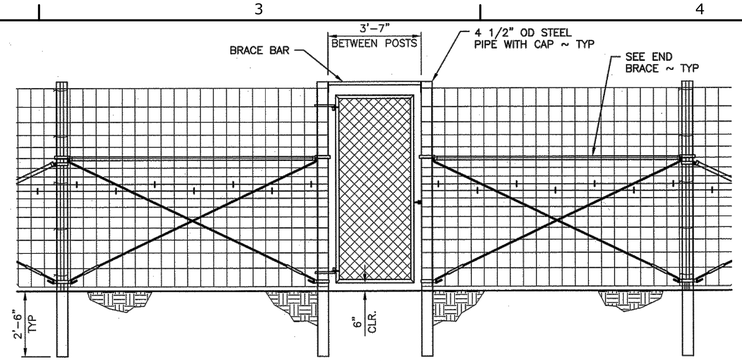


PLAN

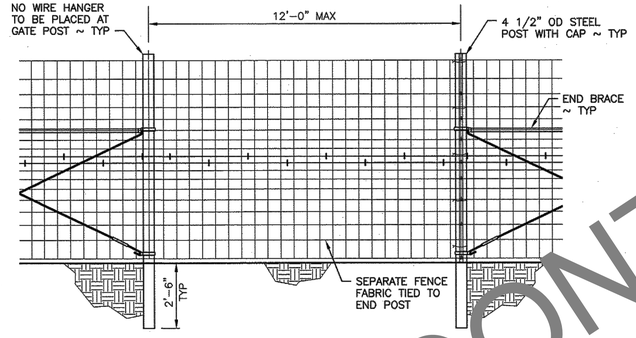


ELEVATION

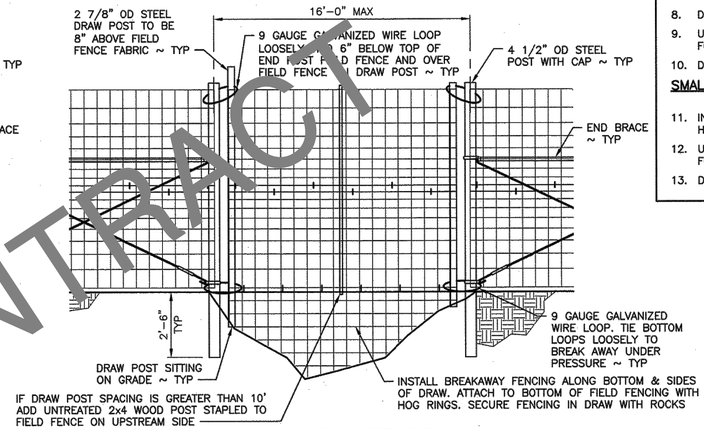
ELK RETURN
SCALE: 3/8" = 1'–0"



WALK–THROUGH GATE
SCALE: 3/8" = 1'–0"



EMERGENCY ACCESS OPENING
SCALE: 3/8" = 1'–0"



SMALL DRAW FENCE
SCALE: 3/8" = 1'–0"

NOTES:

ELK RETURN GATE:

1. USE BRACE BANDS TO FASTEN CATTLE PANELS TO VERTICAL POSTS WITH A MINIMUM OF 4 BRACE BANDS AND HOG WIRE THE PANELS, SEE LINE FENCE.
2. ELK RETURN AND CATTLE PANELS WILL BE PROVIDED BY OWNER.
3. USE 1/2 INCH DIAMETER GALVANIZED THROUGH BOLT TO ATTACH GATE ASSEMBLY TO VERTICAL POSTS.

VEHICLE ACCESS/HERD GATE:

4. GATE POSTS TO BE SECURED WITH CONCRETE AT BASE. SEE SPECS FOR CONCRETE.
5. GATES SHALL BE PROVIDED BY OWNER.
6. NO WIRE HANGERS TO BE INSTALLED ON VERTICAL POSTS CLOSEST TO GATE ASSEMBLY.

WALK–THROUGH GATE:

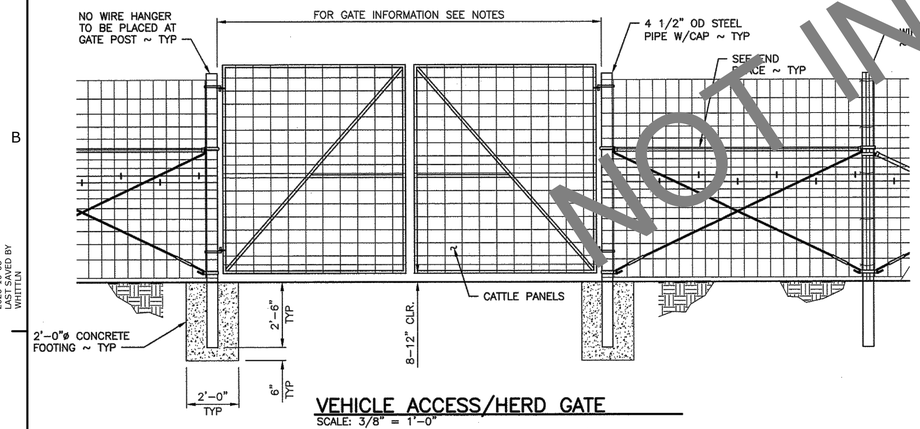
7. NO WIRE HANGERS TO BE INSTALLED ON VERTICAL POSTS CLOSEST TO GATE ASSEMBLY.

LARGE DRAW FENCE:

8. DRAW OPENING NOT EXCEED 60 FEET.
9. USE 9 GAUGE GALVANIZED WIRE AT TOP AND BOTTOM OF POSTS FOR BREAK AWAY.
10. DO NOT DRILL DRAW POSTS INTO ROCK.

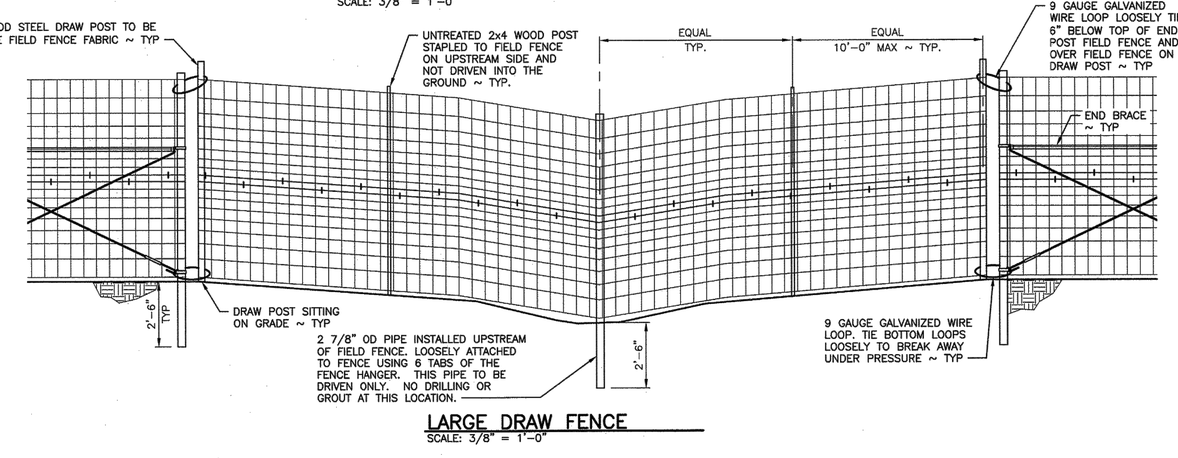
SMALL DRAW FENCE:

11. INSTALL BREAKAWAY FENCING ALONG BOTTOM OUT OF CATTLE OR HOG PANELS, ATTACH WITH HOG WIRE.
12. USE 9 GAUGE GALVANIZED WIRE AT TOP AND BOTTOM OF POSTS FOR BREAK AWAY. WIRE CANNOT GO THROUGH FABRIC.
13. DO NOT DRILL DRAW POSTS INTO ROCK.



VEHICLE ACCESS/HERD GATE
SCALE: 3/8" = 1'–0"

NOTE: IF USING A SINGLE GATE ONLY ADD CONCRETE TO THE HINGE POST.



LARGE DRAW FENCE
SCALE: 3/8" = 1'–0"

NOT IN CONTRACT

Kittitas Reclamation District

Jacobs
1001 220th Street SE, Suite 500
Bothell, WA 98021 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: W. ZIOBRON
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-514.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL
LINING PROJECT

REV NO	DATE	REVISION
0	10-07-2026	ISSUED FOR BID - R2

CHECKED BY: N. WHITTLESEY
APPROVED BY: A. TAKESHI
DESIGNED BY: A. TAKESHI
DATE: 10-07-2026
REV NO: 0
ISSUED FOR BID - 2026/27 REACH 2
A. Takeshi

X
DRAWN

X
ACCEPTED

10-07-2026

ELK FENCE GATE

TYPICAL DETAILS

C-514

SHEET 59

SOLICITATION NO.:
33-NBC-1008

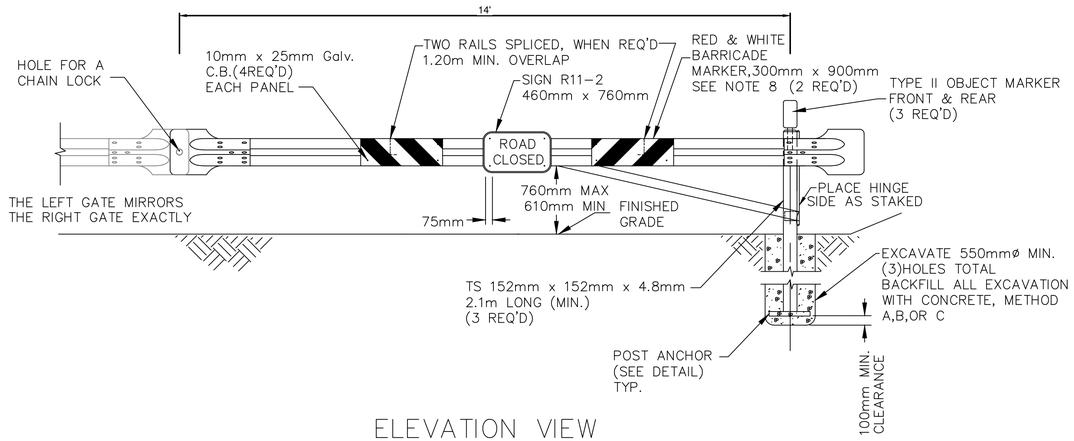
LAST SAVED DATE
2026-10-06
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-514.DWG

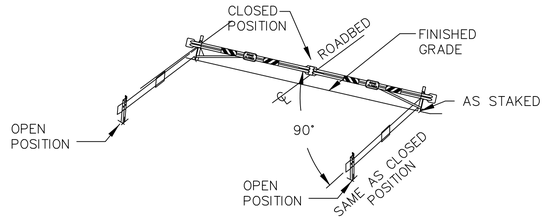
PROJECT	SHEET	TOTAL SHEETS

DOUBLE GATE BARRIER (28') – RAIL TYPE

SHEET 1 OF 2



ELEVATION VIEW



INSTALLATION ISOMETRIC

NOTES:

1. ALL STEEL COMPONENTS EXCEPT GUARDRAIL, END SECTIONS, PIPE & BOLTS PER A.S.T.M. DESIGNATION A36.
2. ALL WELDS 5mm EXCEPT AS SHOWN. WELDING TO BE PER STRUCTURAL WELDING CODE–AWSD1.1
3. GATE SECTION TO BE "ECONO–BEAM" GUARDRAIL AS MANUFACTURED BY ARMCO STEEL FABRICATORS OR EQUAL. END SECTIONS TO BE OF LIKE MATERIAL & CROSS SECTION USED FOR GATE SECTION.
4. TYPE II OBJECT MARKERS & R11–2 SIGN TO BE PER M.U.T.C.D. STANDARDS & CURRENT REVISIONS.
5. PEEN ALL BOLT ENDS TO PREVENT REMOVAL. BOLTS ON BRACE MUST BE CAPABLE OF BEING LOOSENED FOR ADJUSTING GATE.
6. FIELD VERIFY GROUND ELEVATIONS BEFORE CUTTING POSTS FOR LENGTH. ENTIRE STRUCTURE TO BE SHOP FABRICATED EXCEPT MINOR FIELD ADJUSTMENTS ARE PERMITTED IN LOCKING DEVICE & RECEIVING SLOTS.
7. ENTIRE STRUCTURE EXCEPT SIGN & OBJECT MARKER TO BE THOROUGHLY CLEANED OF RUST, SLAG, & OTHER FOREIGN MATTER & PRIMED WITH ONE COAT OF WHITE MACHINE PAINT IN ACCORDANCE WITH SECTION 708.
8. BARRICADE MARKER PANELS TO BE ALUMINUM OVERLAIN WITH "3M" REFLECTIVE SHEETING, WIDE ANGLE, FLAT–TOP, PRESSURE SENSITIVE, NO. 3280, IMPERIAL WHITE, TO WHICH TRANSPARENT "STOP SIGN RED", SPRAYING TO PRODUCE STRIPING. EQUAL PRODUCTS & PROCESSES MAY BE APPROVED.
9. LUBRICATE HINGE ASSEMBLY FULL LENGTH WITH MULTIPURPOSE MARINE A–LUBE OR EQUAL.

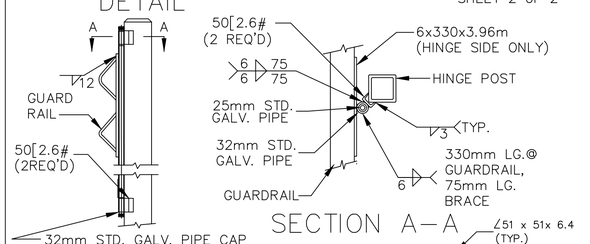
HM000028
1–22–97

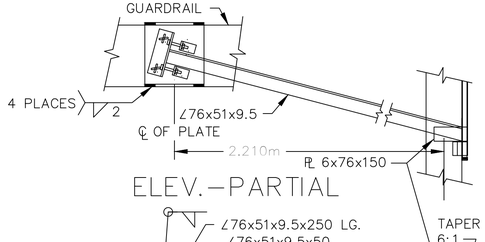
1 / - HM000028
NTS

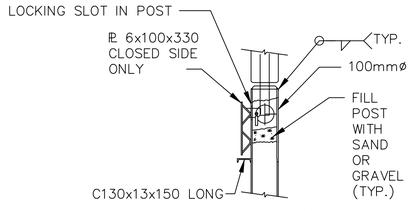
PROJECT	SHEET	TOTAL SHEETS

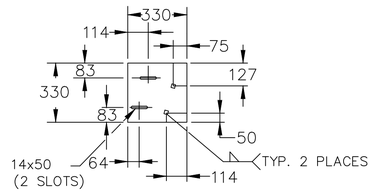
GATE BARRIER – RAIL TYPE

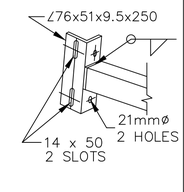
SHEET 2 OF 2











NOTE: ALL DIMENSIONS ARE mm UNLESS OTHERWISE NOTED.

HM000029
1–22–97

2 / - HM000029
NTS

LAST SAVED DATE 2026-07-08
LAST SAVED BY WHITTLN

CAD SYSTEM AutoCAD 24.3S (LMS TECH)
CAD FILENAME W3Y1090?C-515.DWG

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY:	CHECKED BY:	APPROVED BY:	CONTRACT / PROJECT NO.:	FILE NUMBER:
W. ZIOBRON	A. EVANS	A. TAKESHI	KRD2022-PS-01 / W3Y10907	W3Y10907C-515.dwg

STATE OF WASHINGTON JAMES A. EVANS 24012780 REGISTERED PROFESSIONAL ENGINEER

DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL
LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - R2
REV NO	10-07-2026				ISSUED FOR BID - 2026/27 REACH 2
0	A. Takeshi				

X
DRAWN

X
ACCEPTED

10-07-2026

DOUBLE GATE BARRIER

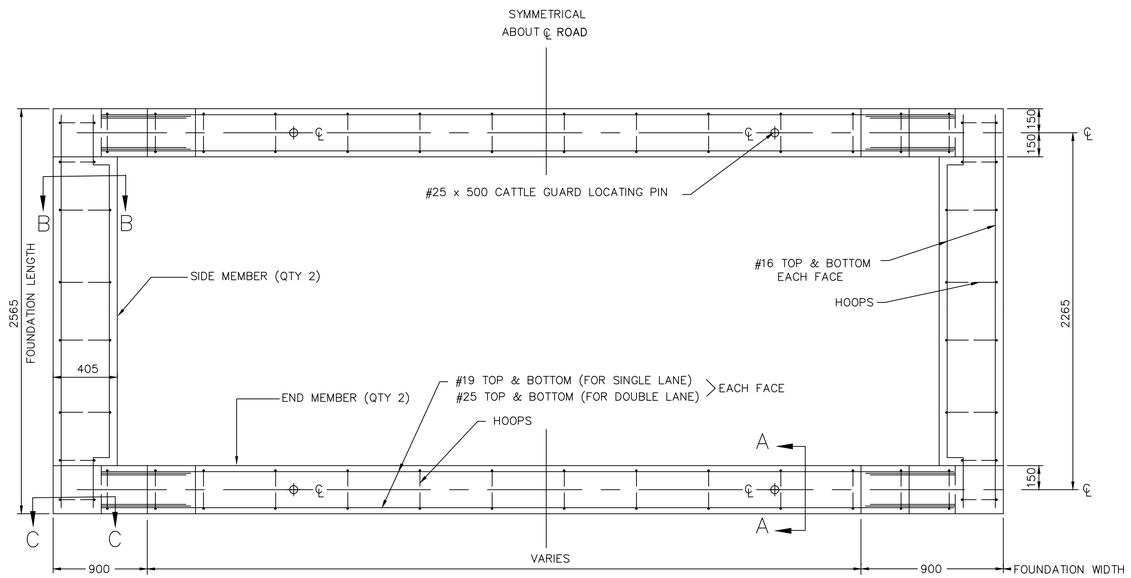
TYPICAL DETAILS

C-515

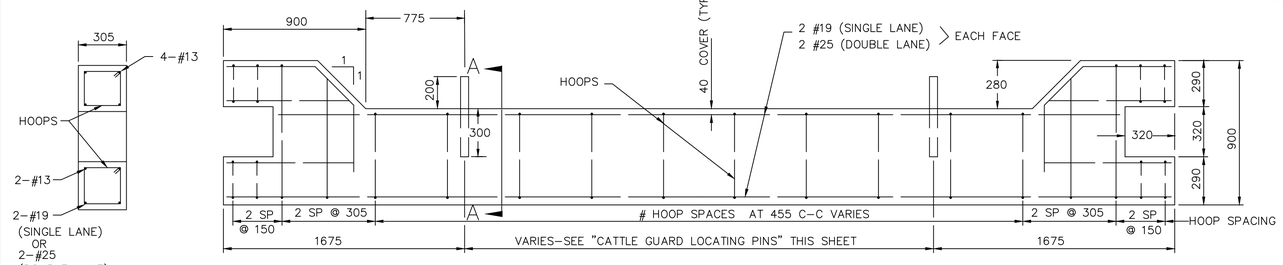
SHEET 60

SOLICITATION NO.:
33-NBC-1008

Dwg. of

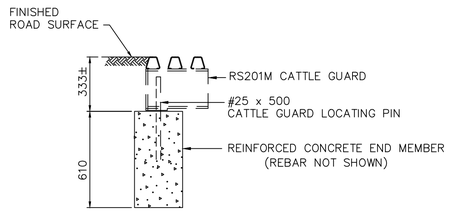


PLAN
NOT TO SCALE

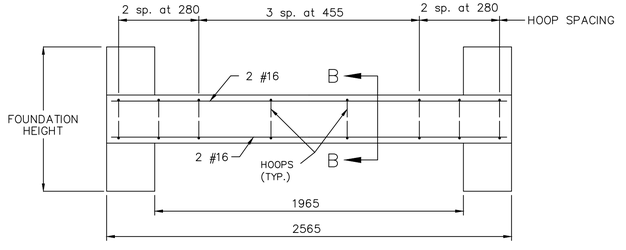


END ELEVATION
NOT TO SCALE

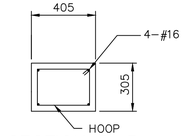
FRONT ELEVATION
NOT TO SCALE



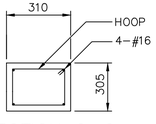
SECTION A–A
NOT TO SCALE



SIDE ELEVATION
NOT TO SCALE



SECTION B–B



SECTION C–C

GENERAL NOTES

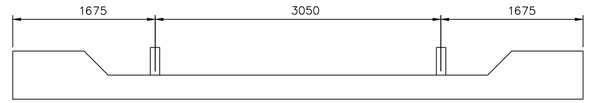
SPECIFICATIONS: FOREST SERVICE SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES, REVISED AUGUST 1996.

MATERIALS: CONCRETE SHALL MEET SPECIFICATION SECTION 602 METHOD A. PINS AND REINFORCING STEEL SHALL MEET AASHTO M31M GRADE 420.

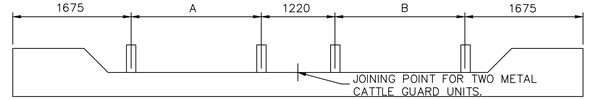
FABRICATION: CONSTRUCT FOUNDATION IN ACCORDANCE WITH SPECIFICATION SECTION 553A EXCEPT WHERE DRAWINGS DIFFER. PINS SHALL BE 25mm DIAMETER AND HOT DIPPED GALVANIZED TO MEET AASHTO M111 (ASTM A123). REINFORCING STEEL CONCRETE COVER IS 40mm. BAR SIZE IS NO. 13 EXCEPT WHERE NOTED.

INSPECTION AND CERTIFICATION: FURNISH THE COMPLIANCE CERTIFICATES AND TEST RESULTS CALLED FOR IN THE SPECIFICATIONS UPON DELIVERY OF THE CATTLE GUARD FOUNDATION AND BEFORE INSTALLATION.

CATTLE GUARD LOCATING PINS

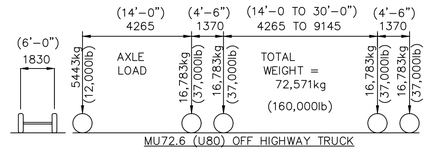


SINGLE LANE FOUNDATION UNIT
FOR 4.27m CATTLE GUARD WIDTH *



CATTLEGUARD WIDTH *	A	B
7.32M	2440	2440
7.93M	2440	3050
8.54M	3050	3050

DOUBLE LANE FOUNDATION UNIT
* SEE STANDARD DRAWING RS201M



MU72.6 (U80) OFF HIGHWAY TRUCK

THIS IS A METRIC DRAWING
ALL DIMENSIONS ARE IN mm (MILLIMETERS) UNLESS NOTED
DO NOT SCALE DRAWING

REV.	DESCRIPTION	APPROVED	DATE
0	CONVERTED RS221 REV. 3 TO METRIC AND UPDATED GENERAL NOTES.		

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
THE PACIFIC NORTHWEST REGION (R–6)

STANDARD
PRECAST CONCRETE FOUNDATION
FOR RS201M CATTLE GUARD

Forest:
Bridge No.:
Location:
Loading: MS18 (HS20–44) &
Length: 2565 MU72.6 (U80)
Width: VARIES

Designed: R.E.S. Drawn: C.L.Y. Checked:
Submitted: Date:
SUPERVISORY STRUCTURAL ENGINEER
Approved: Date:
REGIONAL BRIDGE ENGINEER

SHEET 1 of 1 | DWG.No. RS221M

1 / - RS221M
NTS

FOR INFORMATION ONLY

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: W. ZIOBRON
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: K0E2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-521.dwg

STATE OF WASHINGTON
ANDREW TAKESHI
24012765
REGISTERED PROFESSIONAL ENGINEER

DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL
LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - R2
REV NO	10-07-2026	A. Takeshi			ISSUED FOR BID - 2026/27 REACH 2
0					

X DRAWN
X ACCEPTED
10-07-2026

USFS STANDARD PLAN

PRECAST CONCRETE FOUNDATION FOR RS201M CATTLE GUARD

C-521

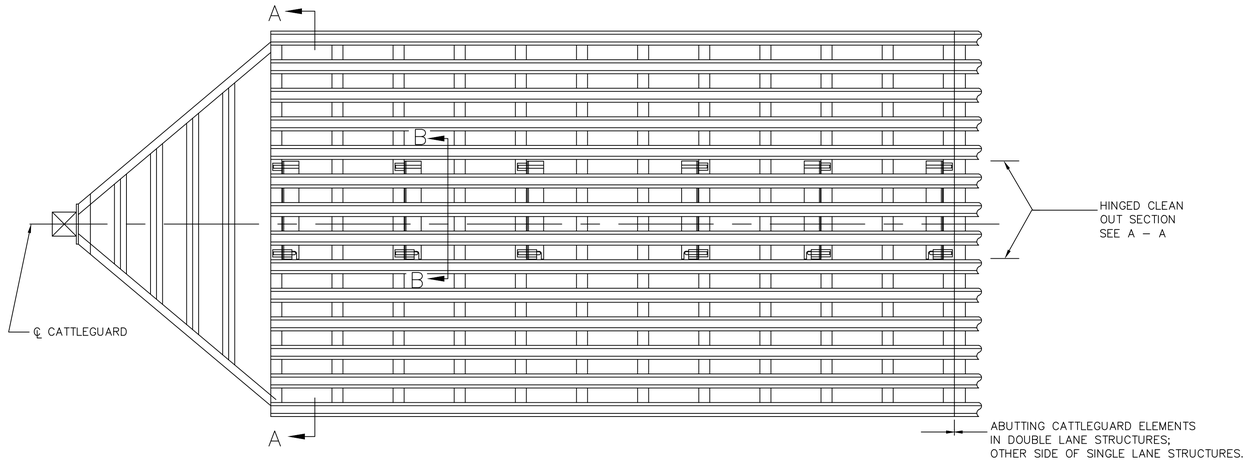
SHEET 61

SOLICITATION NO.: 33-NBC-1008

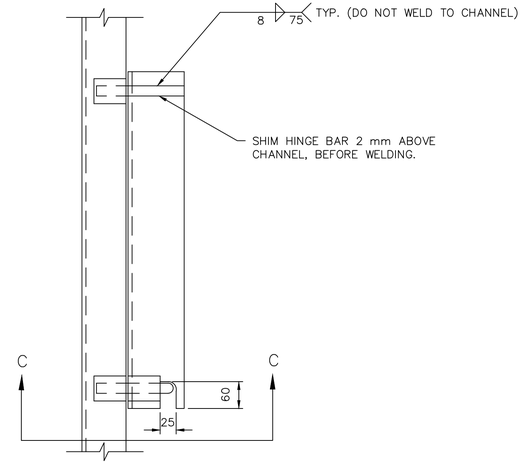
LAST SAVED DATE 2026-07-10
LAST SAVED BY WHITTLEY

CAD SYSTEM AutoCAD 24.3S (LMS TECH)
CAD FILENAME W3Y10907C-521.DWG

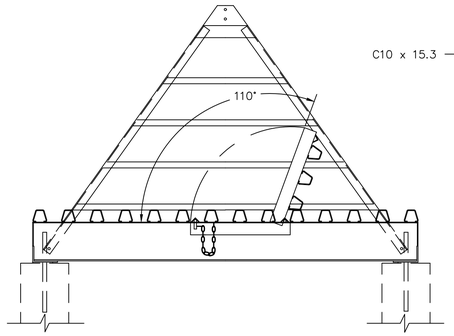
Dwg. of



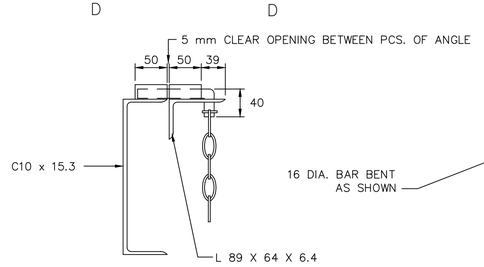
PLAN
NOT TO SCALE



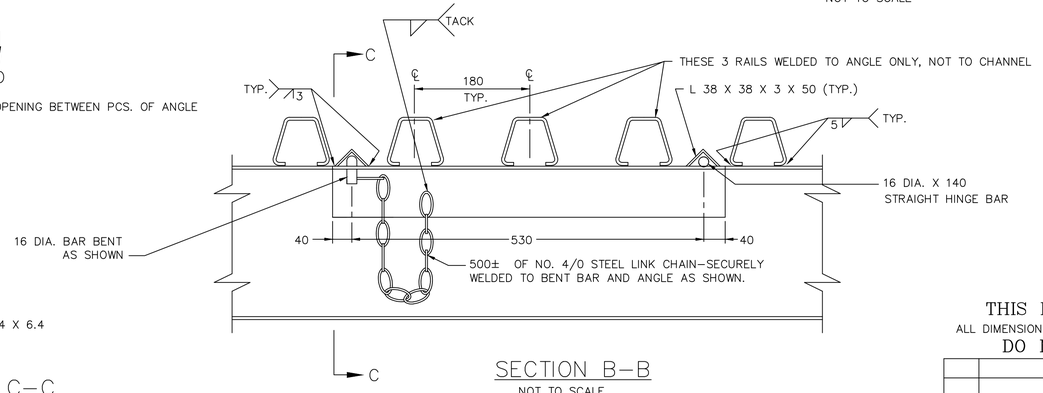
SECTION D–D
NOT TO SCALE



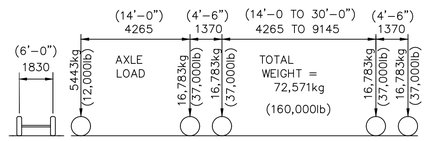
SECTION A–A
NOT TO SCALE



SECTION C–C
NOT TO SCALE



SECTION B–B
NOT TO SCALE



MU72.6 (U80) OFF HIGHWAY TRUCK

NOTE: THIS DRAWING TO BE USED IN CONJUNCTION WITH DRAWING RS201M STANDARD WELDED CATTLE GUARD AND ITS GENERAL NOTES.

THIS IS A METRIC DRAWING
ALL DIMENSIONS ARE IN mm (MILLIMETERS) UNLESS NOTED
DO NOT SCALE DRAWING

REV.	DESCRIPTION	APPROVED	DATE
A	CONVERTED RS200A REV 1 TO METRIC PLUS CHANGED DRAWING NO. RS200A TO RS230M		

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
THE PACIFIC NORTHWEST REGION (R-6)

STANDARD
WELDED CATTLE GUARD
OPTIONAL HINGED CLEANOUT

Forest:
Bridge No.:
Location:
Loading: MS18 (HS20–44) &
Length: 0.6m M72.6 (U80)
Width: SAME AS CATTLE GUARD

Designed: R.E.S. **Drawn:** C.L.Y. **Checked:** R.E.S.
Submitted: /S/ R.E. SCHMIDT **Date:** 4/80
SUPERVISORY STRUCTURAL ENGINEER
Approved: /S/ W.J. GRABNER **Date:** 4/80
REGIONAL BRIDGE ENGINEER

SHEET 1 of 1 | DWG.No. RS230M

1 / - RS230M
NTS

FOR INFORMATION ONLY

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: W. ZIOBRON
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: K622022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-S22.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL
LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - R2
REV NO 0	10-07-2026	A. Takeshi			ISSUED FOR BID - 2026/27 REACH 2

X DRAWN

X ACCEPTED

10-07-2026

USFS STANDARD PLAN

WELDED CATTLE GUARD, OPTIONAL HINGED CLEANOUT

C-522

SHEET 62

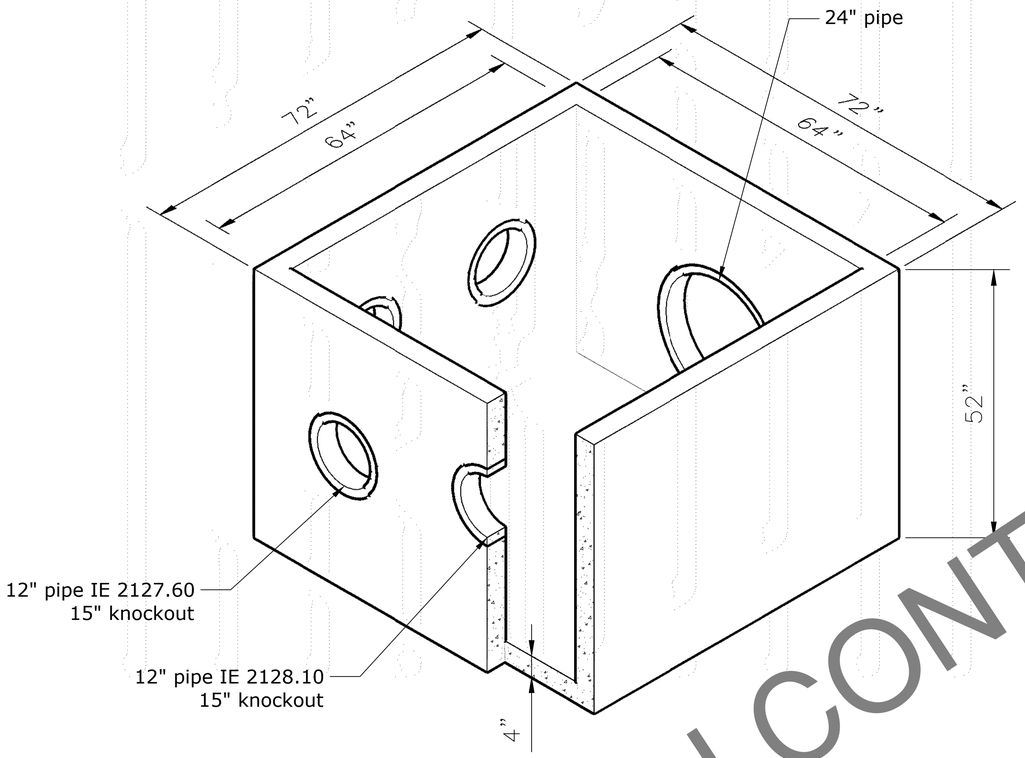
SOLICITATION NO.: 33-NBC-1008

LAST SAVED DATE
2026-10-06
LAST SAVED BY
WHITTLN

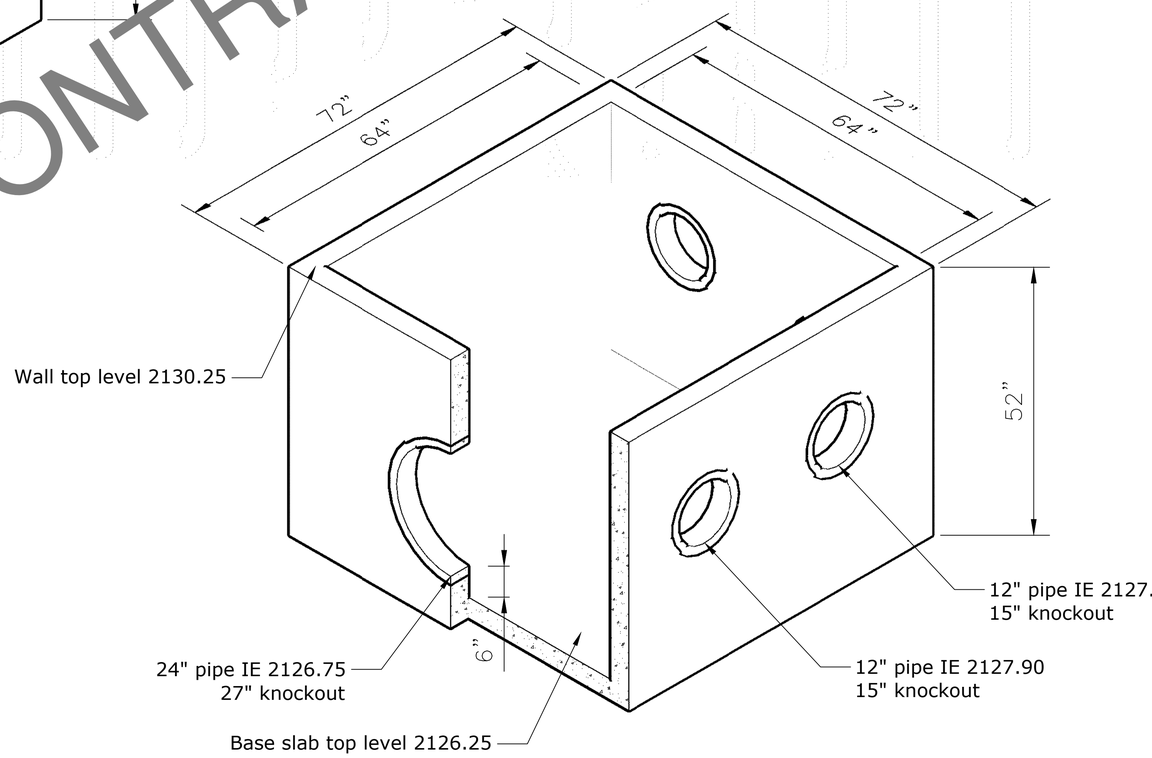
CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-S22.DWG

NOTES

1. THE KNOCKOUT SHALL NOT BE GREATER THAN 27" (in), IN ANY DIRECTION. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" (in) MINIMUM TO 2.5" (in) MAXIMUM. PROVIDE A 1.5" (in) MINIMUM GAP BETWEEN THE KNOCKOUT WALL AND THE OUTSIDE OF THE PIPE. AFTER THE PIPE IS INSTALLED, FILL THE GAP WITH JOINT MORTAR IN ACCORDANCE WITH **WSDOT STANDARD SPECIFICATION SECTION 9-04.3**.
2. ALL PICKUP HOLES SHALL BE GROUTED FULL AFTER THE BOX HAS BEEN PLACED.



ISOMETRIC VIEW FROM THE PROPERTY SIDE



ISOMETRIC VIEW FROM THE TOURN–OUT MP4.20

1 C-118 C-401 DISTRIBUTION BOX
SCALE: NTS

NOT IN CONTRACT

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: W. ZIOBRON
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-523.dwg
DESIGNED BY: W. ZIOBRON
DATE: 10/13/2026
2025-08-01

STATE OF WASHINGTON ATAKESHI REGISTERED PROFESSIONAL ENGINEER 24012780

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL

LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - 82
					ISSUED FOR BID - 2026/27 REACH 2

REV NO 0
10-07-2026
A. Takeshi

X DRAWN

X ACCEPTED

10-07-2026

DISTRIBUTION BOX

DETAILS

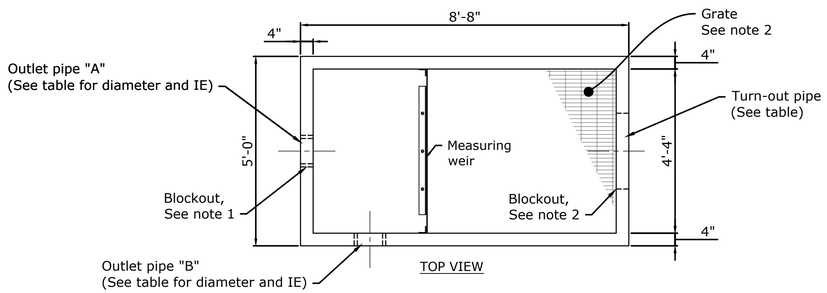
C-523

SHEET 63

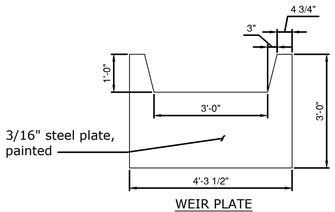
SOLICITATION NO.:
33-NBC-1008

LAST SAVED DATE
2026-10-08
LAST SAVED BY
WHITTLN

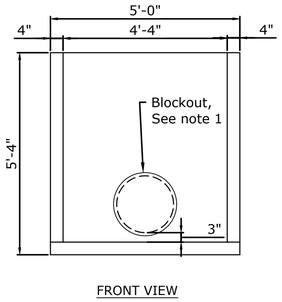
CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-523.DWG



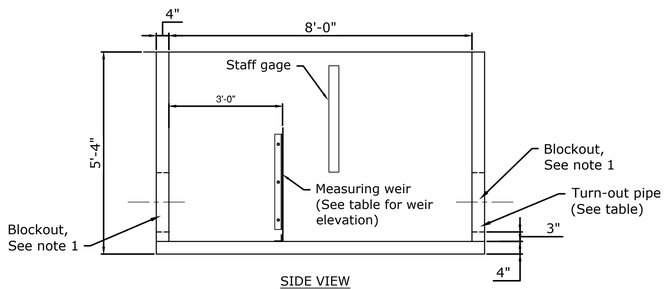
TOP VIEW



WEIR PLATE



FRONT VIEW



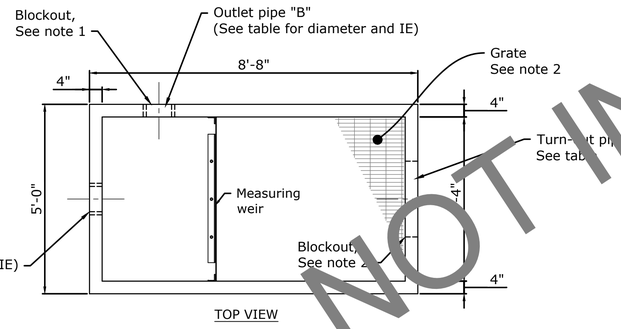
SIDE VIEW

1 WEIR BOX DETAIL - TYPE 1

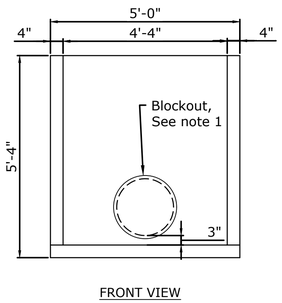
C-103
C-115

0 1' 2' 4'

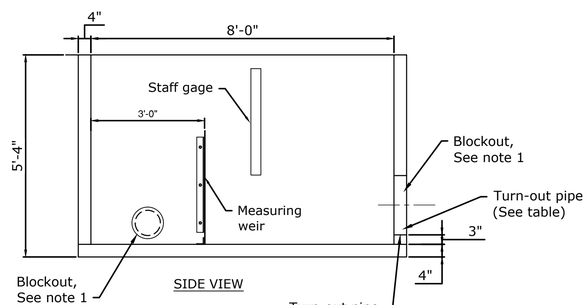
SCALE:1/2"=1'-0"



TOP VIEW



FRONT VIEW



SIDE VIEW

2 C-117 WEIR BOX DETAIL - TYPE 2

0 1' 2' 4'

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

NOTES:

1. CONTRACTOR TO FIELD VERIFY SIZE AND LOCATION OF CONNECTIONS TO EXISTING IRRIGATION SYSTEM PRIOR TO WEIR BOX ORDER. DIFFERING ORIENTATION OR MULTIPLE PIPE CONNECTIONS MAY BE REQUIRED.
2. PROVIDE BAR GRATING AND SUPPORTS AND ATTACH TO TOP OF WEIR BOX.
3. SEE G003 FOR CONCRETE AND MINIMUM REINFORCEMENT REQUIREMENTS.
4. ATTACH WEIR PLATE (1/2" BOLTS AT 12" SPACING) TO 2"X2"x1/4" ANGLE BRACKETS (GALVANIZED) AND CONNECT BRACKETS TO BOTTOM AND SIDES OF WEIR BOX WITH 1/2" ADHESIVE ANCHORS OR CONCRETE SCREWS AT 12" SPACING.

NOT IN CONTRACT

DISTRIBUTION BOX SCHEDULE

WEIR BOX	TURN-OUT PIPE		TYPE	OUTLET PIPE "A"		OUTLET PIPE "B"		WEIR ELEVATION	BASE SLAB TOP
	DIAMETER	I.E.		DIAMETER	I.E.	DIAMETER	I.E.	ft MSL	ft MSL
MP 1.10	12"	2138.40	Type 1	10"	2138.40	3"	2138.40	2139.72	2137.27
MP 3.60	18"	2128.68	Type 1	12"	2128.68	12"	2128.68	2130.43	2128.43
MP 3.90	12"	2128.07	Type 2	8"	2128.70	8"	2128.07	2129.74	2127.74

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: W. ZIOBRON
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: KRD2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-524.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

STATE OF WASHINGTON
ANNA TAKESHI
24012765
REGISTERED PROFESSIONAL ENGINEER
10/13/2026

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL

LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - R2
REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	ISSUED FOR BID - 2026/27 REACH 2
0	10-07-2026	A. Takeshi			

X DRAWN

X ACCEPTED

10-07-2026

WEIR BOX

DETAILS

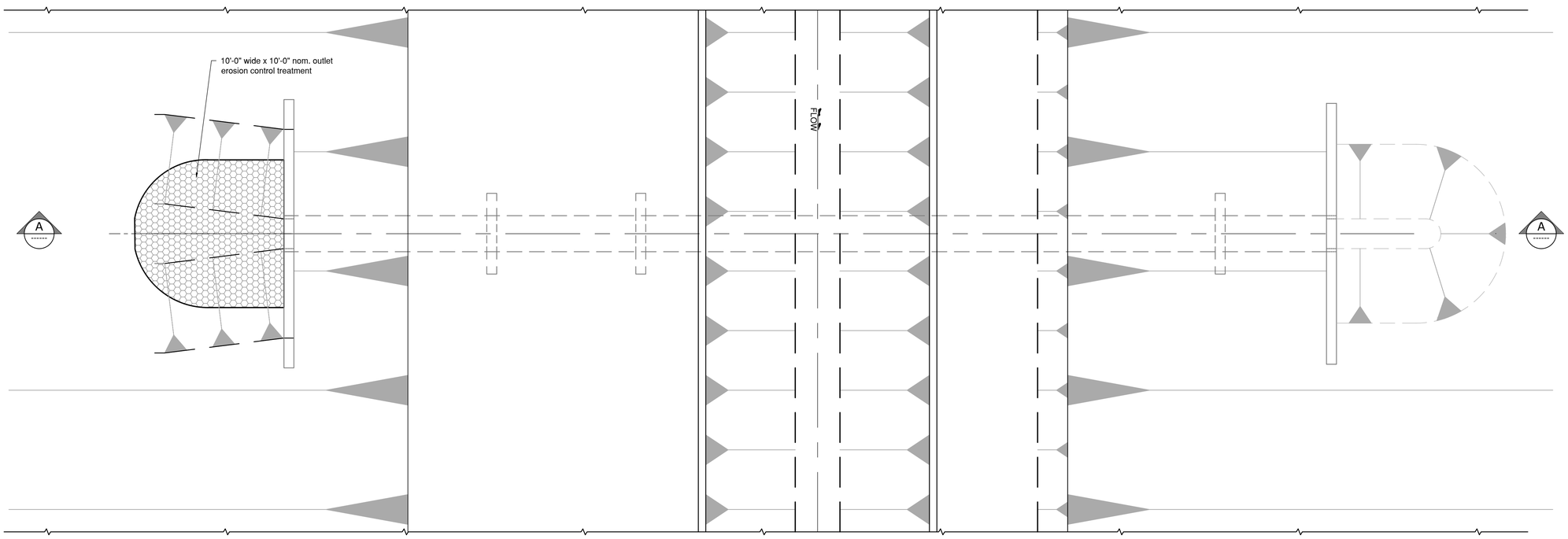
C-524

SHEET 64

SOLICITATION NO.:
33-NBC-1008

LAST SAVED DATE
2026-7-10 08:5
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-524.DWG

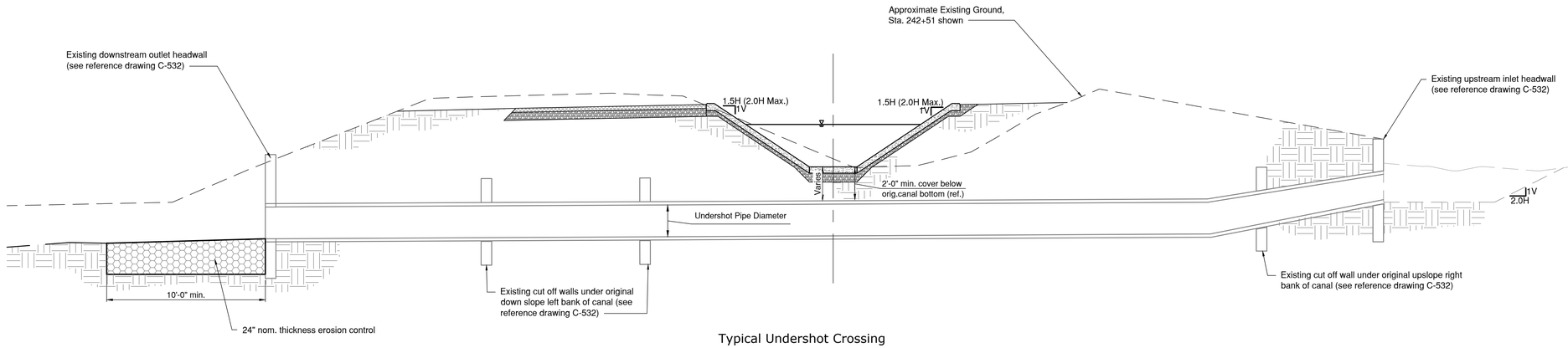


Typical Undershot Plan

1 PARTIAL PLAN

0 2' 4' 8'

SCALE:1/4"=1'



Typical Undershot Crossing

A SECTION

0 2' 4' 8'

SCALE:1/4"=1'

LAST SAVED DATE
2026-JAN-06
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-525.DWG

Kittitas Reclamation District

Jacobs
1001 220th Avenue NE Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY:
CHECKED BY: T. PIOTROWSKI
APPROVED BY: A. EVANS
CONTRACT / PROJECT NO: A. TAKESHI
FILE NUMBER: KRD2022-PS-01 / W3Y10907
W3Y10907C-525.dwg

STATE OF WASHINGTON
AKIHIRO TAKESHI
REGISTERED PROFESSIONAL ENGINEER
24012780
DESIGNED BY: W. ZIOBRON
DATE: 10/13/2026
2025-08-01

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL

LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - R2
REV NO 0	10-07-2026 A. Takeshi				ISSUED FOR BID - 2026/27 REACH 2

X DRAWN

X ACCEPTED

10-07-2026

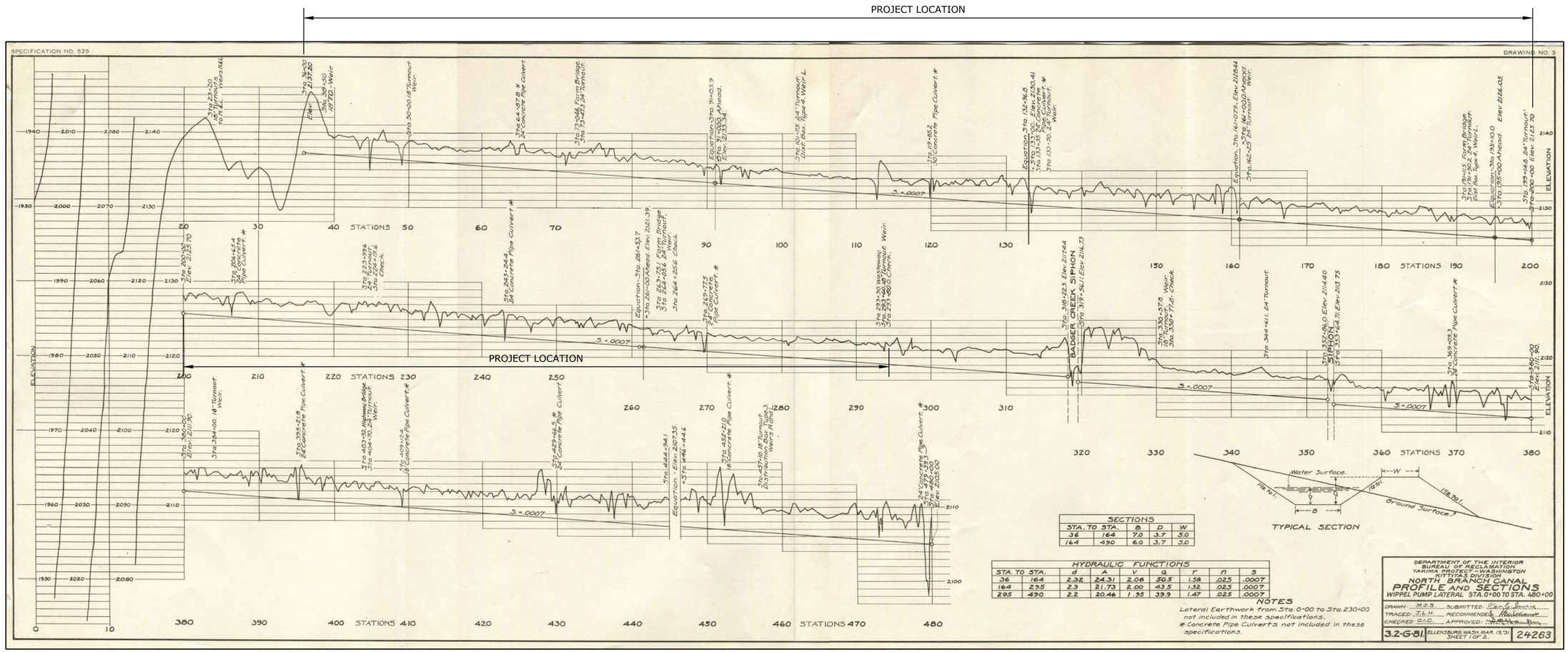
TYPICAL UNDERSHOT DRAINS

DETAILS

C-525

SHEET 65

SOLICITATION NO.: 33-NBC-1008



SECTIONS				
STA. TO STA.		B	D	W
36	164	7.0	3.7	5.0
164	490	6.0	3.7	5.0

HYDRAULIC FUNCTIONS							
STA. TO STA.		d	A	V	Q	r	n	S
36	164	2.32	24.31	2.06	50.5	1.58	.025	.0007
164	295	2.3	21.73	2.00	43.5	1.52	.025	.0007
295	490	2.2	20.46	1.95	39.9	1.47	.025	.0007

NOTES
Lateral Earthwork from Sta. 0+00 to Sta. 230+00 not included in these specifications.
* Concrete Pipe Culverts not included in these specifications.

DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
YAKIMA PROJECT - WASHINGTON
KITTITAS DIVISION
NORTH BRANCH CANAL
PROFILE AND SECTIONS
WIPPEL PUMP LATERAL STA. 0+00 TO STA. 480+00

DRAWN: M.O.S. SUBMITTED:
TRACED: J.L.H. RECOMMENDED:
CHECKED: D.I.C. APPROVED:

3.2-G-81 | ELLENSBURG WASH. MAR. 19, '31 SHEET 1 OF 2. | 24263

FOR INFORMATION ONLY

Kittitas Reclamation District

Jacobs
1100 112th Avenue NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY: W. ZIOBRON
CHECKED BY: A. EVANS
APPROVED BY: A. TAKESHI
CONTRACT / PROJECT NO.: K0D2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-531.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

STATE OF WASHINGTON
ANTHONY M. TAKESHI
24012780
REGISTERED PROFESSIONAL ENGINEER

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL

LINING PROJECT

REV NO	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	REVISION
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI	ISSUED FOR BID - R2
REV NO 0	10-07-2026 A. Takeshi				ISSUED FOR BID - 2026/27 REACH 2

X DRAWN

X ACCEPTED

10-07-2026

RECORD DRAWING

PROFILE AND SECTIONS (REF DWG 24263)

C-531

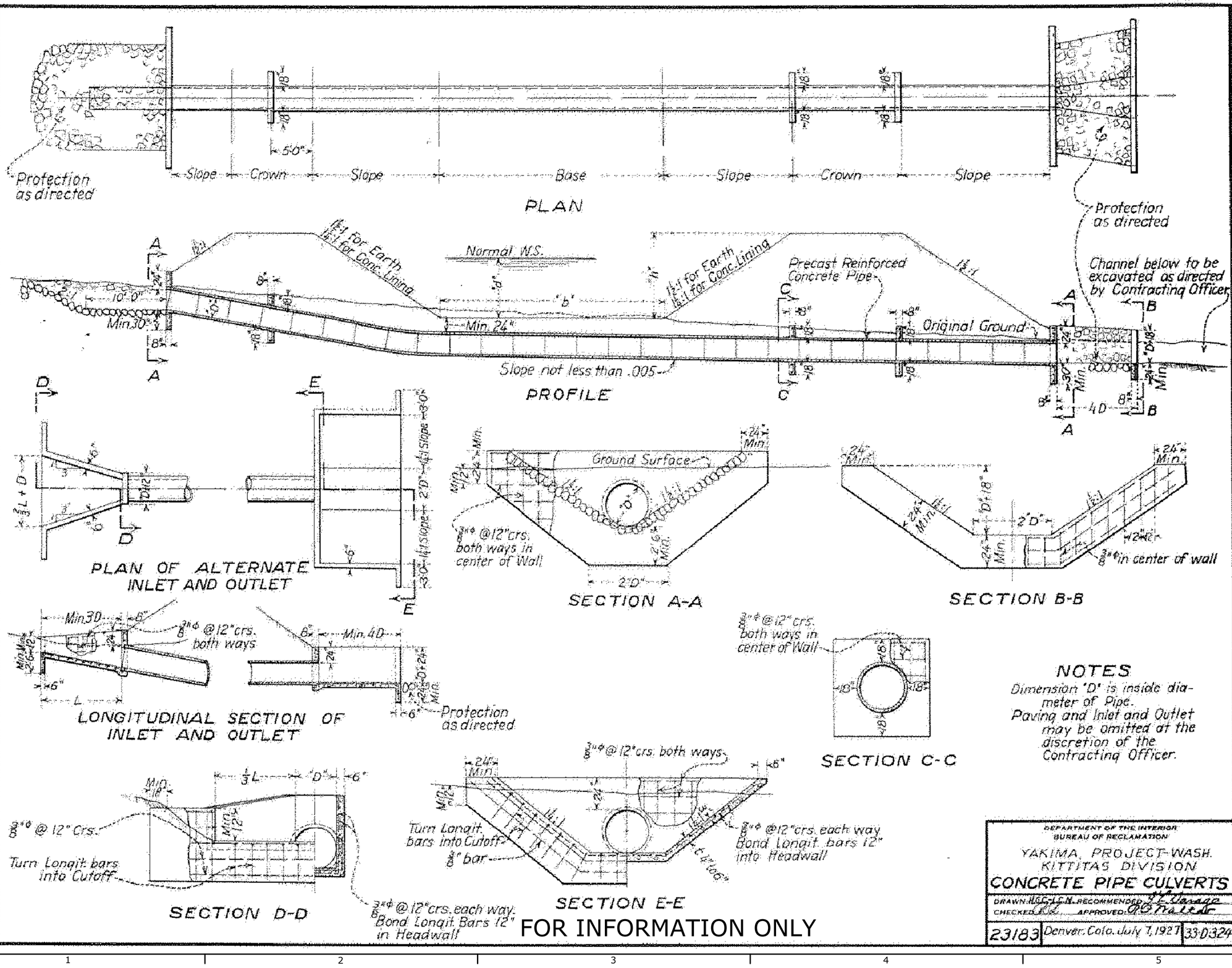
SHEET 66

SOLICITATION NO.: 33-NBC-1008

LAST SAVED DATE
2026-10-08
LAST SAVED BY
WHITTLN

CAD SYSTEM
AutoCAD 24.3S (LMS TECH)
CAD FILENAME
W3Y10907C-531.DWG

SPECIFICATIONS NO. 479



DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
YAKIMA, PROJECT-WASH.
KITTITAS DIVISION
CONCRETE PIPE CULVERTS
DRAWN: H.G.C.-I.C.N. RECOMMENDED: H.L. Savage
CHECKED: A.K. APPROVED: A.O. Walker
23183 | Denver, Colo. July 7, 1927 | 33-D-324

DRAWING NO. 23

Kittitas Reclamation District

Jacobs
1100 112th Ave NE, Suite 500
Bellevue, WA 98004 USA
+1.425.453.5000 Jacobs.com

DRAWN BY:
CHECKED BY: T. PIOTROWSKI
APPROVED BY: A. EVANS, A. TAKESHI
CONTRACT / PROJECT NO.: K0D2022-PS-01 / W3Y10907
FILE NUMBER: W3Y10907C-532.dwg
DESIGNED BY: W. ZIOBRON
DATE: 2025-08-01

STATE OF WASHINGTON · JAMES A. LAKEMAN · REGISTERED PROFESSIONAL ENGINEER · 24012780

Conserving water, promoting local agriculture, and enhancing the environment . . .

KITTITAS RECLAMATION DISTRICT
ELLENSBURG, WASHINGTON

NORTH BRANCH PUMP LATERAL

LINING PROJECT

REV NO	DATE	DESCRIPTION	CHECKED BY	APPROVED BY
0	10-07-2026	A. TAKESHI	N. WHITTLESEY	A. TAKESHI

REV NO 0 | 10-07-2026 | A. Takeshi | ISSUED FOR BID - 2026/27 REACH 2 | ISSUED FOR BID - #2

X DRAWN

X ACCEPTED

10-07-2026

RECORD DRAWING

CONCRETE PIPE CULVERTS REF DWG 33-D-324 (23183)

C-532

SHEET 67

SOLICITATION NO.: 33-NBC-1008

LAST SAVED DATE 2026-10-06
LAST SAVED BY WHITTLN

CAD SYSTEM AutoCAD 24.3S (LMS TECH)
CAD FILENAME W3Y10907C-532.DWG