NEVADA IRRIGATION DISTRICT
HEMPHILL DIVERSION PROJECT
PLACER COUNTY, CALIFORNIA

VOLUME 2 - CONSTRUCTION DRAWINGS
MARCH 2022

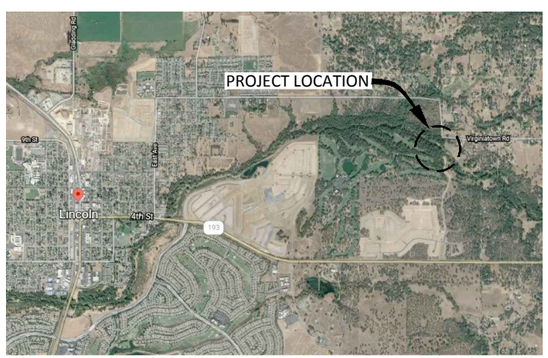
90% DESIGN SUBMITTAL

C:\Vault20\Nevada Irrigation District\Hemphill Diversion\COVER.dwg

NEVADA IRRIGATION DISTRICT

HEMPHILL DIVERSION PROJECT
PLACER COUNTY, CALIFORNIA
90% DESIGN

N LOCATION MAP
NTS



N VICINITY MAP
NTS

N PROJECT LIMITS
NTS

REV	DATE	BY	DESCRIPTION
B	03/04/22	JB	SUBMITTED FOR 90% DESIGN REVIEW
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

NEVADA IRRIGATION DISTRICT
HEMPHILL DIVERSION PROJECT
LOCATION MAP, VICINITY MAP AND PROJECT LIMITS

DESIGNED K. JENSEN
DRAWN J. NEVES
CHECKED V. AUTIER
PROJECT DATE 03/04/22

DRAWING
G001

JOB NO: 0000000

Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\G001.dwg Plot date: Mar 01, 2022 01:33pm, CAD User: JoeNeves

SHEET NO.	DRAWING DESCRIPTION	90% SUBMITTAL
	GENERAL	
	COVER SHEET	Y
G001	LOCATION MAP, VICINITY MAP AND PROJECT LIMITS	Y
G002	DRAWING INDEX	Y
G003	STANDARD ABBREVIATIONS	Y
G004	STANDARD SYMBOLS	Y
G005	OVERALL SITE PLAN AND PROJECT CONTROL	Y
G006	GENERAL SITE PLAN, CONTRACTOR STAGING, AND GENERAL ARRANGMENT	Y
G007	HYDRAULIC PROFILE AND DESIGN CRITERIA	Y
G008	PIPING SCHEDULE	Y
	DEMOLITION	
D101	DEMOLITION KEY PLAN	Y
D102	EXISTING DIVERSION - DEMOLITION PLAN AND PHOTOS	Y
D103	EXISTING HEADWORKS - DEMOLITION PLAN AND PHOTOS	Y
D104	EXISTING CANAL GAGE - DEMOLITION PLAN AND PHOTOS	Y
	EROSION AND SEDIMENT CONTROL	
EC001	EROSION AND SEDIMENT CONTROL - STANDARD DETAILS	Y
EC101	EROSION AND SEDIMENT CONTROL PLAN	Y

SHEET NO.	DRAWING DESCRIPTION	90% SUBMITTAL
	CIVIL	
GC001	GENERAL CIVIL NOTES	Y
C001	OVERALL SITE KEY PLAN	Y
C051	COFFERDAM AND DEWATERING PLAN	Y
C201	ROUGHENED CHANNEL - PLAN AND PROFILE	Y
C202	ROUGHENED CHANNEL - SECTIONS 1	Y
C203	ROUGHENED CHANNEL - SECTIONS 2	Y
C204	ROUGHENED CHANNEL - SECTIONS 3 AND DETAILS	Y
C205	HEADWORKS AND FISH SCREEN - PLAN AND PROFILE	Y
C206	HEMHILL CANAL - SECTION	Y

SHEET NO.	DRAWING DESCRIPTION	90% SUBMITTAL
	STRUCTURAL	
GS001	STANDARD STRUCTURAL NOTES	Y
GS002	STANDARD STRUCTURAL DETAILS 1	Y
GS003	STANDARD STRUCTURAL DETAILS 2	Y
GS004	STANDARD STRUCTURAL DETAILS 3	Y
GS005	STANDARD STRUCTURAL DETAILS 4	Y
S001	STRUCTURAL KEY PLAN	Y
S301	CONE SCREEN ALCOVE - PLANS	Y
S302	CONE SCREEN ALCOVE - SECTIONS	Y
S401	HEAD GATE - PLANS	Y
S402	HEAD GATE - SECTIONS	Y
	MECHANICAL	
GM001	STANDARD MECHANICAL SCHEDULE	
GM002	STANDARD MECHANICAL DETAILS 1	
M301	CONE SCREEN PLAN AND SECTION	
M302	CONE SCREEN DETAILS	
M401	HEAD GATE - PLAN, ELEVATION, AND SECTIONS	
M402	HEAD GATE - DETAILS 1	
	ELECTRICAL	
E101	ELECTRICAL SITE PLAN AND ELEVATION	Y

REV	DATE	BY	DESCRIPTION
B	03/04/22	JB	SUBMITTED FOR 90% DESIGN REVIEW
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

NEVADA IRRIGATION DISTRICT

HEMPHILL DIVERSION PROJECT

DRAWING INDEX

DESIGNED K. JENSEN

DRAWN J. NEVES

CHECKED V. AUTIER

PROJECT DATE 03/04/22

DRAWING

G002

JOB NO: 000000

Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\G002.dwg Plot date: Mar 04, 2022 09:57am, CAD User: JoeNeves

A/C	AIR CONDITIONING
A/E	ARCHITECT/ENGINEER
A	ARCHITECTURAL (DWG DISCIPLINE), AMP
AB	ANCHOR BOLT
ABC	AGGREGATE BASE COURSE
ABAN	ABANDON
AC	ALTERNATING CURRENT
ACST	ACOUSTIC
AD	ADDENDUM, AREA DRAIN
ADDL	ADDITIONAL
ADH	ADHESIVE
ADJ	ADJUSTABLE, ADJACENT
AEP	ANNUAL EXCEEDANCE PROBABILITY
AF	AMP FRAME, AMP FUSE
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
AGGR	AGGREGATE
AIC	AMPS INTERRUPTING CAPACITY
ALIG	ALIGNMENT
ALUM	ALUMINUM
ALT	ALTERNATE, ALTITUDE
AMB	AMBIENT
ANC	ANCHOR
AP	ACCESS PANEL
APRX	APPROXIMATE
APVD	APPROVED ARCH ARCHITECTURAL
ASSY	ASSEMBLY
AT	AMP TRIP
ATM	ATMOSPHERE
AUTO	AUTOMATIC
AUX	AUXILIARY
AVE	AVENUE
AVG	AVERAGE
AWG	AMERICAN WIRE GAGE
B/B	BACK TO BACK
BAL	BALANCE
BBD	BULLETIN BOARD
BC	BASE CABINET, BOTTOM CHORD, BOLT CENTER, BOLT CIRCLE
BD	BOARD
BE	BOTH ENDS, BELL END
BF	BOTH FACES, BOTTOM FACE, BLIND FLANGE, BOARD FEET
BFV	BUTTERFLY VALVE
BITUM	BITUMINOUS
BKG	BACKING
BL	BASE LINE
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BENCHMARK, BEAM
BOC	BACK OF CURB
BOD	BOTTOM OF DUCT
BOG	BOTTOM OF GRILLE
BOL	BOTTOM OF LOUVER
BOP	BOTTOM OF PIPE
BOR	BOTTOM OF REGISTER
BOT	BOTTOM
BOU	BOTTOM OF UNIT
BP	BASE PLATE
BRG	BEARING
BRGP	BEARING PLATE
BRKT	BRACKET
BS	BOTH SIDES
BTU	BRITISH THERMAL UNIT
BTW	BETWEEN
BTWLD	BUTT WELD
BV	BALL VALVE
BW	BOTH WAYS
BYP	BYPASS
C TO C	CENTER TO CENTER
C&G	CURB & GUTTER
C	CHANNEL SHAPE, CENTIGRADE, CONDUIT, CIVIL (DRAWING DISCIPLINE)
CAB	CABINET
CAP	CAPACITY
CAT	CATALOG
CAV	CAVITY
CB	CATCH BASIN
CCB	CONCRETE BLOCK
CCW	COUNTER CLOCKWISE
CF	CUBIC FEET (FOOT)
CHFR	CHAMFER
CHD	CHORD
CHH	COMMUNICATION HANDHOLE
CI	CURB INLET
CIP	CAST-IN-PLACE
CIPB	CONCRETE INTERLOCKING PAVER BALLAST
CIRC	CIRCULATION, CIRCULAR
CJ	CONSTRUCTION JOINT, CONTROL JOINT
CKT	CIRCUIT

CL	CENTERLINE, CLASS, CLOSE
CLR	CLEAR
CMH	COMMUNICATION MANHOLE
CMU	CONCRETE MASONRY UNIT
CO	CLEAN OUT, CONCRETE OPENING
COL	COLUMN
COM	COMMON
COMB	COMBINATION
COMM	COMMUNICATION
COMP	COMPOSITION, COMPRESSIBLE, COMPOSITE
CONC	CONCENTRIC, CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS, CONTINUED
COORD	COORDINATE
CORR	CORROSIVE, CORRUGATED
CP	CHECKER PLATE, CONTROL POINT
CPLG	COUPLING
CSK	COUNTERSINK
CTR	CENTER
CTRL	CONTROL
CU	COPPER, CUBIC
CW	CLOCKWISE
CY	CUBIC YARD
D	PENNY (NAIL MEASURE)
D	DEEP, DIFFUSER
DB	DUCT BANK, DECIBEL, DRY BULB
DBA	DEFORMED BAR ANCHOR
DBL	DOUBLE
DC	DIRECT CURRENT
DEG	DEGREE
DEG C	DEGREE CENTIGRADE
DEG F	DEGREE FAHRENHEIT
DEMO	DEMOLITION
DEP	DEPRESSED
DEPT	DEPARTMENT
DET	DETAIL
DI	DROP INLET, DUCTILE IRON
DIA	DIAMETER
DIAG	DIAGONAL, DIAGRAM
DIFF	DIFFERENTIAL, DIFFERENCE
DIM	DIMENSION
DISCH	DISCHARGE
DIST	DISTANCE, DISTRIBUTION
DIV	DIVISION
DL	DEAD LOAD
DN	DOWN
DP	DEPTH
DS	DOWN SPOUT
DT	DOUBLE TEE, DRIP TRAP ASSEMBLY
DUP	DUPLICATE
DWG	DRAWING
DWL	DOWEL
E	EAST, ELECTRICAL (DWG DISCIPLINE)
EA	EACH, EXHAUST AIR
EC	ELECTRICAL CONTRACTOR
ECC	ECCENTRIC
EDB	ELECTRICAL DUCT BANK
EE	EACH END
EF	EACH FACE
EG	EXISTING GRADE
EGL	ENERGY GRADE LINE
EFF	EFFLUENT, EFFICIENCY
EHH	ELECTRICAL HANDHOLE
EIFS	EXTERIOR INSULATION & FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELBOW, ELEVATION
ELEC	ELECTRICAL
EMBD	EMBEDDED
EMER	EMERGENCY
EMH	ELECTRICAL MANHOLE
ENCL	ENCLOSURE
ENGR	ENGINEER
ENTR	ENTRANCE
EOP	EDGE OF PAVEMENT
EOW	EDGE OF WATER
EQ	EQUAL
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
ES	EACH SIDE, EQUAL SPACE, EMERGENCY SHOWER
ESEW	EMERGENCY SHOWER AND EYE WASH
EST	ESTIMATE
EW	EACH WAY, EMERGENCY EYE/FACE WASH
EWC	ELECTRIC WATER COOLER
EWEF	EACH WAY, EACH FACE
EWTB	EACH WAY, TOP AND BOTTOM
EXC	EXCAVATION
EXH	EXHAUST
EXIST	EXISTING
EXP	EXPANSION, EXPOSED

EXT	EXTERIOR, EXTERNAL, EXTENSION
F TO F	FACE TO FACE
FAB	FABRICATE
FBO	FURNISHED BY OWNER
FC	FLUSHING CONNECTION
FCA	FLANGED COUPLING ADAPTER
FCV	FIXED CONE VALVE
FD	FLOOR DRAIN
FDC	FLEXIBLE DUCT CONNECTION
FDR	FEEDER
FE	FLANGED END
FEC	FIRE EXTINGUISHER CABINET
FEXT	FIRE EXTINGUISHER
FF	FAR FACE, FACTORY FINISH, FLAT FACE
FG	FINISHED GRADE
FIG	FIGURE
FH	FIRE HYDRANT
FIN	FINISH
FL	FLOW, FLOW LINE
FLEX	FLEXIBLE
FLG	FLANGE
FLOR	FLUORESCENT
FLR	FLOOR
FLS	FLASHING, FLUSH
FND	FOUNDATION
FNC	FENCE
FO	FINISHED OPENING
FOB	FLAT ON BOTTOM
FOC	FACE OF CONCRETE, FACE OF CURB, FIBER OPTIC CABLE
FOF	FACE OF FINISH
FOM	FACE OF MASONRY
FOS	FACE OF STUDS
FOT	FLAT ON TOP
FPT	FEMALE PIPE THREAD
FR	FRAME
FRP	FIBERGLASS REINFORCED PLASTIC
FS	FLOOR SINK, FAR SIDE
FT	FEET, FOOT
FTG	FOOTING, FITTING FUR FURRED, FURRING
FURN	FURNITURE, FURNISH
FUT	FUTURE
FV	FACE VELOCITY
FW	FIELD WELD, FIRE WALL
FWD	FORWARD
FWE	FURNISHED WITH EQUIPMENT
FXTR	FIXTURE
G	GRILLE, GROUND, GENERAL (DWG DISCIPLINE)
GA	GAGE (METAL THICKNESS)
GAL	GALLON
GALV	GALVANIZED
GB	GRADE BREAK
GD	GUARD
GEN	GENERAL
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GL	GLASS
GP	GUY POLE
GR	GRADE
GRND	GROUND
GRTG	GRATING
GT	GREASE TRAP
GWB	GYPSUM WALLBOARD
GYP	GYPSUM HARDBOARD
H	HIGH
HB	HOSE BIB
HBD	HARDBOARD
HC	HANDICAPPED, HOLLOW CORE, HORIZONTAL CURVE
HC	HORIZONTAL CENTERLINE
HDR	HEADER
HDW	HARDWARE
HEX	HEXAGONAL
HH	HANDHOLE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HP	HIGH POINT, HORSEPOWER
HPC	HORIZONTAL POINT OF CURVATURE
HPS	HIGH PRESSURE SODIUM
HPT	HORIZONTAL POINT OF TANGENCY
HR	HOUR
HS	HEADED STUD, HIGH STRENGTH
HSS	HOLLOW STRUCTURAL SHAPE
HT	HEIGHT
HV	HIGH VOLTAGE
HVAC	HEATING, VENTILATION & AIR CONDITIONING
HWD	HARDWOOD
HWL	HIGH WATER LEVEL
HYD	HYDRAULIC HZ HERTZ, CYCLES PER SECOND
I	INSTRUMENTATION (DWG DISCIPLINE)
ID	INSIDE DIAMETER, INTERIOR DIMENSION

IE	INVERT ELEVATION
IF	INSIDE FACE
IH	INTAKE HOOD
IMP	IMPACT
IN	INCH
INC	INCLUDE, INCANDESCENT
INF	INFLUENT
INSTR	INSTRUMENTATION
INSUL	INSULATION
INT	INTERIOR, INTERSECTION
INTR	INTERMEDIATE, INTERIOR
INV	INVERT
IP	IRON PIPE
IPS	IRON PIPE SIZE
IPT	INTERNAL PIPE THREAD
IRR	IRRIGATION
ISO	ISOMETRIC
JB	JUNCTION BOX
JCT	JUNCTION
JF	JOINT FILLER
JT	JOINT
K	KIP
KB	KNEE BRACE
KCMIL	THOUSAND CIRCULAR MILS
KD	KNOCK DOWN
KO	KNOCK OUT
KSI	KIPS PER SQUARE INCH
L	ANGLE, LENGTH, LAVATORY
LAM	LAMINATE
LATL	LATERAL
LB	LAG BOLT, POUND
LDR	LEADER
LF	LINEAR FOOT
LG	LONG
LH	LEFT HAND
LIN	LINEAR
LIQ	LIQUID
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LMLU	LIQUID MARKER LECTURE UNIT
LNG	LONGITUDINAL
LOC	LOCATION
LP	LOW POINT
LPS	LOW PRESSURE SODIUM
LR	LONG RADIUS
LT	LEFT
LTD	LIMITED
LTG	LIGHTING
LTL	LINTEL
LTNG	LIGHTNING
LV	LOW VOLTAGE
LVR	LOUVER
LW	LIGHTWEIGHT
LWC	LIGHTWEIGHT CONCRETE
LWL	LOW WATER LEVEL
M	MECHANICAL (DWG DISCIPLINE)
MA	MIXED AIR
MAINT	MAINTENANCE
MAN	MANUAL
MAOP	MAXIMUM ALLOWABLE OPERATING PRESSURE
MATL	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MBR	MEMBER
MCJ	MASONRY CONTROL JOINT
MECH	MECHANICAL
MED	MEDIUM
MFR	MANUFACTURER
MH	MANHOLE, METAL HALIDE
MIN	MINIMUM
MIR	MIRROR
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
MMB	MEMBRANE
MO	MASONRY OPENING
MOD	MODULAR, MODIFY
MON	MONUMENT
MPT	MALE PIPE THREAD
MSL	MEAN SEA LEVEL
MT	MOUNT
MU	MASONRY UNIT
MULL	MULLION
MV	MEDIUM VOLTAGE
MW	MONITORING WELL
N	NORTH, NEUTRAL
NA	NOT APPLICABLE
NAT	NATURAL
NC	NORMALLY CLOSED

NEG	NEGATIVE
NF	NEAR FACE, NON-FUSED
NG	NATURAL GAS
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN, NUMBER
NOM	NOMINAL
NPS	NOMINAL PIPE SIZE
NPT	NATIONAL PIPE THREAD
NS	NEAR SIDE
NTS	NOT TO SCALE
NWL	NORMAL WATER LEVEL
O TO O	OUT-TO-OUT
OA	OUTSIDE AIR, OVERALL
OC	ON CENTER
OCPD	OVER CURRENT PROTECTION DEVICE
OD	OUTSIDE DIAMETER
OH	OVERHEAD
OPNG	OPENING
OPP	OPPOSITE
OPT	OPTIONAL
ORD	OVERFLOW ROOF DRAIN
ORIG	ORIGINAL
OVFL	OVERFLOW
OVHG	OVERHANG
OZ	OUNCE
P	PAINT, PROCESS (DWG DISCIPLINE)
PAR	PARALLEL, PARAPET
PB	PANIC BAR, PULL BOX
PBD	PARTICLE BOARD
PC	POINT OF CURVE, PIECE, PRECAST
PCC	POINT OF COMPOUND CURVATURE
PCF	POUNDS PER CUBIC FOOT
PCT	PERCENT
PE	PLAIN END
PED	PEDESTAL
PEN	PENETRATION
PERF	PERFORATED
PERM	PERMANENT
PERP	PERPENDICULAR
PF	POWER FACTOR
PH	PHASE
PI	POINT OF INTERSECTION
PKG	PACKAGE
PL	PLATE, PROPERTY LINE
PLBG	PLUMBING
PLF	POUNDS PER LINEAR FOOT
PNEU	PNEUMATIC
POL	POLISH
POS	POSITIVE, POSITION
PP	POLYPROPYLENE, POWER POLE
PRC	POINT OF REVERSE CURVATURE
PREF	PREFINISHED
PREFAB	PREFABRICATED
PRELIM	PRELIMINARY
PREP	PREPARE
PRES	PRESSURE
PROP	PROPERTY
PROT	PROTECTION
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCH ABSOLUTE
PSIG	POUNDS PER SQUARE INCH GAGE
PT	POINT, POINT OF TANGENCY
PTN	PARTITION
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
PWD	PLYWOOD
PZ	PIEZOMETER
Q	RATE OF FLOW
QTR	QUARTER
QTY	QUANTITY
QUAL	QUALITY
R&R	REMOVE AND REPLACE
R&S	REMOVE AND SALVAGE
R	RADIUS, REGISTER, RISER
RA	RETURN AIR
RB	RESILIENT BASE, ROCK BERM
RBR	REBAR
RCPT	RECEPTACLE
RD	ROOF DRAIN, ROAD
REC	RECESS
RECD	RECEIVED
RECT	RECTANGULAR
RED	REDUCER
REF	REFERENCE
REINF	REINFORCING
REQD	REQUIRED
RESIL	RESILIENT
RET	RETAINING, RETURN

REV	REVISION, REVERSE
RFL	REFLECTED, REFLECTOR
RGS	RIGID GALVANIZED STEEL
RH	RELIEF HOOD, RIGHT HAND, RELATIVE HUMIDITY
RL	REQUIRED LAP
RND	ROUND
RNG	RENEWABLE NATURAL GAS
RO	ROUGH OPENING
ROW	RIGHT-OF-WAY
RPM	REVOLUTIONS PER MINUTE
RR	RAILROAD
RT	RIGHT
S	SOUTH, SINK, STRUCTURAL (DWG DISCIPLINE)
SA	SUPPLY AIR
SAN	SANITARY
SC	SOLID CORE
SCH	SCHEDULE
SCHEM	SCHEMATIC
SCRN	SCREEN
SE	STEEL/ALUMINUM EDGE
SEC	SECONDARY, SECONDS
SECT	SECTION
SEP	SEPARATE
SF	SQUARE FOOT
SH	SHOWER
SHT	SHEET
SHTG	SHEATHING
SIM	SIMILAR
SL	SLOPE
SLTD	SLOTTED
SLV	SLEEVE
SMLS	SEAMLESS
SOG	SLAB ON GRADE
SP	SOUNDPROOF, STANDPIPE
SPC	SPACING
SPEC	SPECIFICATION
SPLY	SUPPLY
SPT	SET POINT
SQ	SQUARE
SR	SHORT RADIUS
SS	SERVICE SINK
SST	STAINLESS STEEL
ST	STREET
STA	STATION
STD	STANDARD
STIF	STIFFENER
STIR	STIRRUP
STL	STEEL
STOR	STORAGE
STR	STRUCTURAL, STRAIGHT
SUB	SUBSTITUTE
SUC	SUCTION
SUSP	SUSPENDED
SY	SQUARE YARD
SYM	SYMBOL
SYMM	SYMMETRICAL
SYN	SYNTHETIC
SYS	SYSTEM
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
T	TILE, TREAD
TA	TEMPERED AIR
TAN	TANGENT
TBM	TEMPORARY BENCHMARK
TEMP	TEMPORARY, TEMPERATURE
THK	THICK
THRD	THREAD
THRU	THROUGH
TOB	TOP OF BOLT, TOP OF BANK, TOP OF BEAM
TOC	TOP OF CURB, TOP OF CONCRETE
TOD	TOP OF DUCT
TOF	TOP OF FOOTING
TOG	TOP OF GRATING
TOL	TOLERANCE, TOP OF LEDGER
TOM	TOP OF MASONRY
TOP	TOP OF PLATE
TOPO	TOPOGRAPHY
TOS	TOP OF SLAB, TOP OF STEEL
TOW	TOP OF WALL
TP	TELEPHONE POLE, TOE PLATE, TRAP PRIMER
TPG	TOPPING
TRANS	TRANSITION
TRD	TRENCH DRAIN
TYP	TYPICAL
U	URINAL
UG	UNDERGROUND
ULT	ULTIMATE
UNFN	UNFINISHED
UNO	UNLESS NOTED OTHERWISE

UTIL	UTILITY
V	VENT, VELOCITY, VOLT
VA	VOLT AMPERE
VAC	VACUUM
VAR	VARNISH, VARIABLE, VOLT AMPERES REACTIVE
VB	VAPOR BARRIER, VINYL BASE, VALVE BOX
VC	VERTICAL CURVE
VCT	VINYL COMPOSITION TILE, VERTICAL CENTERLINE
VEL	VELOCITY
VENT	VENTILATION
VERT	VERTICAL
VS	VERSES, VAPOR SEAL
VOL	VOLUME
VPC	VERTICAL POINT OF CURVATURE
VPI	VERTICAL POINT OF INTERSECTION
VPT	VERTICAL POINT OF TANGENCY
VTR	VENT THROUGH ROOF
VWC	VINYL WALL COVERING
W/	WITH
W/O	WITHOUT
W	WATT, WEST, WIDE, WINDOW, WIRE, WIDE FLANGE BEAM
WC	WATER CLOSET, WATER COLUMN
WD	WIDTH
WF	WIDE FLANGE, WASH FOUNTAIN
WG	WIRE GLASS, WATER GAGE
WH	WALL HYDRANT, WEEP HOLE
WL	WATER LEVEL
WLD	WELDED
WM	WIRE MESH
WP	WATERPROOF, WORKING POINT
WTHP	WEATHERPROOF
WS	WATERSTOP, WATER SURFACE
WSEL	WATER SURFACE ELEVATION
WT	WEIGHT, WATER TIGHT
WWF	WELDED WIRE FABRIC
XS	EXTRA STRONG
XXS	DOUBLE EXTRA STRONG
XSECT	CROSS SECTION
YH	YARD HYDRANT
YS	YIELD STRENGTH

GENERAL NOTES:

1. THESE ABBREVIATIONS APPLY TO THE ENTIRE SET OF CONTRACT DRAWINGS.
2. LISTING OF ABBREVIATIONS DOES NOT IMPLY ALL ABBREVIATIONS ARE USED IN THE CONTRACT DRAWINGS.
3. ABBREVIATIONS SHOWN ON THIS SHEET INCLUDE VARIATIONS OF THE WORD. FOR EXAMPLE, "MOD" MAY MEAN MODIFY OR MODIFICATION; "INC" MAY MEAN INCLUDED OR INCLUDING; "REINF" MAY MEAN EITHER REINFORCE OR REINFORCING.
4. SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE PROPOSED IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK. REFER TO CONTEXT OF EACH SHEET FOR USAGE.
5. SEE SHEET PF001 FOR PROJECT SPECIFIC EQUIPMENT SYMBOLS, EQUIPMENT ABBREVIATIONS AND PIPING SYSTEM ABBREVIATIONS.

REV	DATE	BY	DESCRIPTION
B	03/04/22	JB	SUBMITTED FOR 90% DESIGN REVIEW
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

NEVADA IRRIGATION DISTRICT

HEMPHILL DIVERSION PROJECT

STANDARD ABBREVIATIONS

DESIGNED K. JENSEN

DRAWN J. NEVES

CHECKED V. AUTIER

PROJECT DATE 03/04/22

DRAWING

G003

JOB NO: 1000000

Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\G003.dwg Plot date: Mar 01, 2022 01:51pm, CAD User: JoeNeves

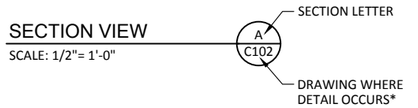
SHEET SYMBOLS

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

SECTION IDENTIFICATION

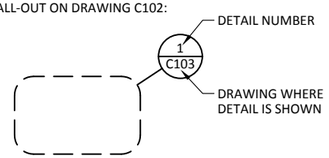
(1) SECTION CUT ON DRAWING C102:

(2) ON DRAWING C103 THIS SECTION IS IDENTIFIED AS:

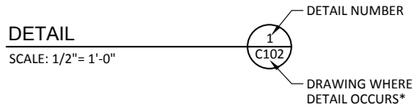


DETAIL IDENTIFICATION

(1) DETAIL CALL-OUT ON DRAWING C102:



(2) ON DRAWING C103 THIS SECTION IS IDENTIFIED AS:

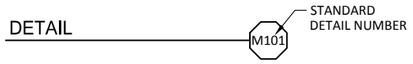


*NOTE: IF PLAN AND SECTION (OR DETAIL CALL-OUT AND DETAIL) ARE SHOWN ON SAME DRAWING. DRAWING NUMBER IS REPLACED BY A LINE.

STANDARD DETAIL IDENTIFICATION

(1) DETAIL CALL-OUT ON PLAN OR SECTION:

(2) ON DETAIL DRAWINGS, IDENTIFIED AS:



ELEVATION/IMAGE IDENTIFICATION

SITE PLAN LINE TYPES

X X	FENCE LINE
P P	OVERHEAD POWER
455	MAJOR CONTOUR
456	MINOR CONTOUR
. . .	EDGE OF WATERLINE
TOE	TOE OF SLOPE
TOB	TOP OF BANK
SS SS	SANITARY SEWER
SD SD	STORM DRAIN
EP EP	EDGE OF PAVEMENT
EG EG	EDGE OF GRAVEL
W	WATTLE
CF CF	CONSTRUCTION FENCE
GAS	GAS LINE
IRR IRR	IRRIGATION LINE
WTR	WATER LINE
TEL	TELEPHONE LINE
COM	COMMUNICATION LINE
OHP	OVERHEAD ELECTRICAL/POWER
EUG	UNDERGROUND ELECTRICAL
P/L	PROPERTY LINE
OHP	EXISTING OVERHEAD POWER LINE
OHP&T	EXISTING OVERHEAD POWER & TELEPHONE LINE
T	EXISTING OVERHEAD TELEPHONE LINE
BT	EXISTING BURIED TELEPHONE LINE EVIDENCED BY PEDESTALS & WARNING PADDLES
	EXISTING FENCE LINE
	PROJECT BOUNDARY
	TREE PROTECTION FENCE
TC	TURBIDITY CURTAIN
SF SF	SILT FENCE

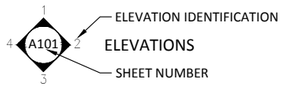
SITE PLAN SYMBOLS

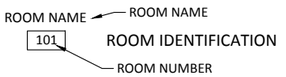
N	ARROW INDICATES DIRECTION OF PLAN NORTH
	CONIFER TREE: FIR, SPRUCE, LARCH OR PINE, 8" DIAMETER OR LARGER.
	DECIDUOUS TREE: COTTONWOOD, HAWTHORN, ASPEN, 8" DIAMETER OR LARGER.
MH	MANHOLE
EB	ELECTRIC BOX
	STORM DRAIN MANHOLE
FH	FIRE HYDRANT
YH-X	YARD HYDRANT
	SURVEY CONTROL POINT, AS NOTED.
	POLE ANCHOR
	POWER POLE
	LIGHT POLE
	SIGN
	SURVEY HUB
	SECTION CORNER
	BENCH MARK
	EXISTING HEADWALL
	EXISTING MONITORING STATION
X X	EXISTING FENCE
	STATE PLANE COORDINATE MARKER
	EXISTING TREE LINE
	EXISTING BUILDING, STRUCTURES
	EXISTING SECTION CORNER MONUMENT FOUND AS DESCRIBED
	EXISTING 5/8" REBAR CONTROL POINT MONUMENT, BORING LOCATION
W	EXISTING HOSE BIB
	EXISTING PORTABLE IRRIGATION WATER PUMP
WELL	EXISTING 6" WATER WELL
	EXISTING ELECTRICAL OUTLET
P	EXISTING POWER POLE
T	EXISTING TELEPHONE PEDESTAL
	CONTROL POINT
	PUMP
	PUMP
TP	TEST PIT LOCATION

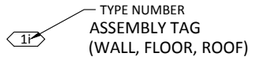
MISCELLANEOUS SYMBOLS

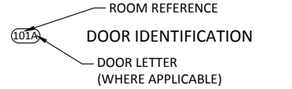
	CHANGE OF PIPE MTL
OR	END OF PIPE
℄	CENTERLINE
Ø	DIAMETER
∠	ANGLE
PL	PLATE
±	PLUS/MINUS

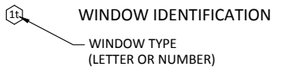
ARCHITECTURAL SYMBOLS











HATCH SYMBOLS

	ROCK, TYPE AS NOTED (PLAN/SECTION)
	BED ROCK
	EXISTING GRADE (SECTION)
	NEW SOIL (SECTION)
	CONCRETE (SECTION/PLAN)
	SAND, GROUT (PLAN/SECTION)
	STEEL (SECTION)
	GRATING (PLAN)
	MASONRY (PLAN)
	WOOD, SIZE/TYPE AS NOTED (PLAN)
	WOOD, SIZE/TYPE AS NOTED (SECTION)
	RIP RAP (PLAN/SECTION)
	RIGID INSULATION (SECTION)
	ASPHALT CONCRETE PAVEMENT SURFACE (PLAN/SECTION)
	GRASS/VEGETATION (PLAN)
	BATT INSULATION (SECTION)
	NEW CONSTRUCTION
	EXISTING
	EXISTING TO BE REMOVED OR DEMOLISHED
	CLEARING AND GRUBBING
	ASPHALT
	GRASS/VEGETATION
	GRAVEL

GENERAL NOTES:

1. ALL SYMBOLS ARE NOT NECESSARILY USED. THIS IS A STANDARD DRAWING SHOWING COMMON SYMBOLS ON THIS PROJECT.
2. SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE PROPOSED IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK. REFER TO CONTEXT OF EACH DRAWING FOR USAGE.

REV	DATE	BY	DESCRIPTION
B	03/04/22	JB	SUBMITTED FOR 90% DESIGN REVIEW
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

NEVADA IRRIGATION DISTRICT
HEMPHILL DIVERSION PROJECT

STANDARD SYMBOLS

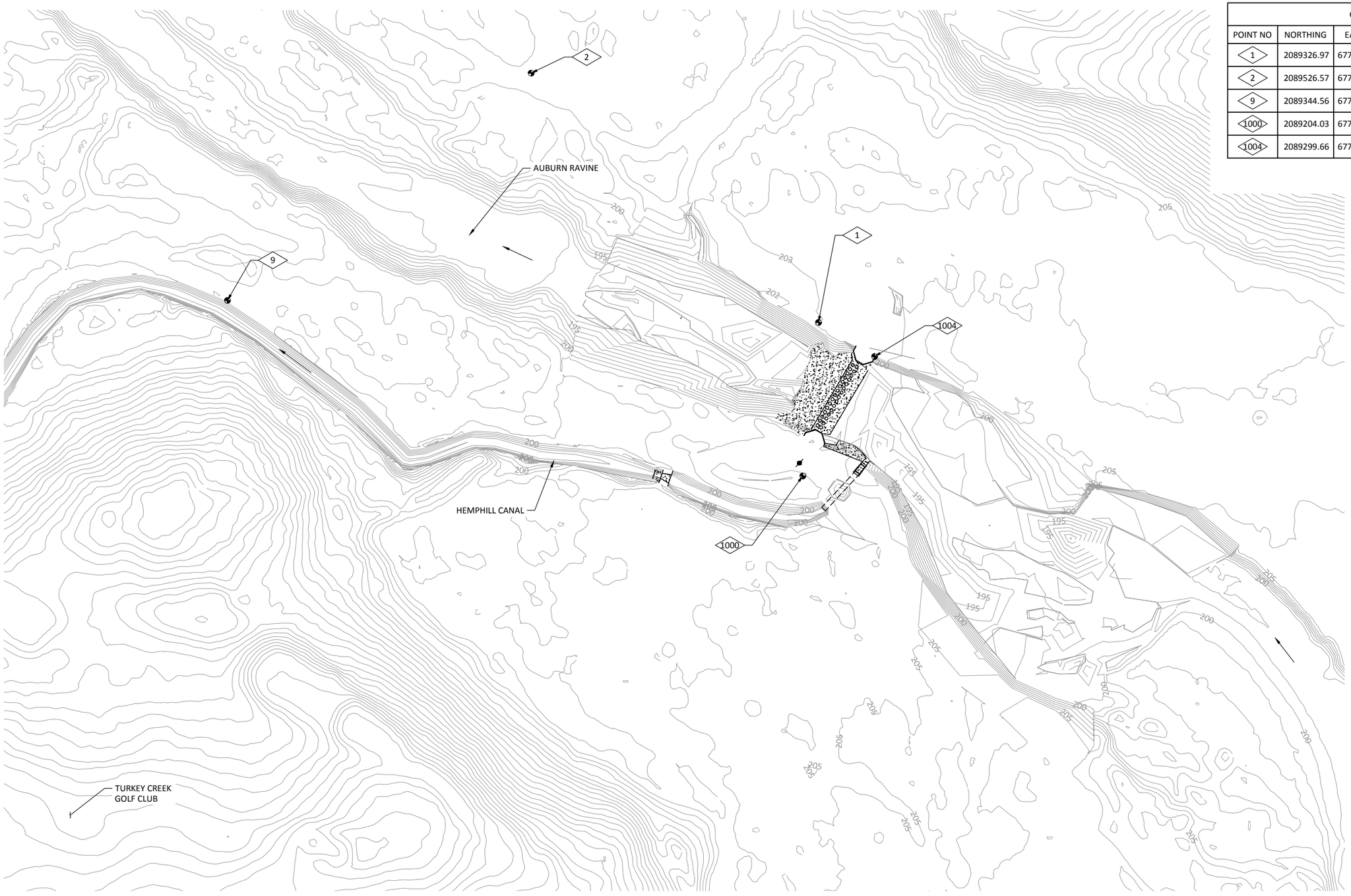
DESIGNED K. JENSEN
DRAWN J. NEVES
CHECKED V. AUTIER
PROJECT DATE 03/04/22

DRAWING
G004

JOB NO: 0000000

Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\G004.dwg Plot date: Mar 01, 2022 01:50pm, CAD User: JoeNeves

CONTROL POINTS			
POINT NO	NORTHING	EASTING	DESCRIPTION
1	2089326.97	6774549.86	IP NID CONTROL
2	2089526.57	6774319.84	IP NID CONTROL
9	2089344.56	6774076.80	IP NID CONTROL
1000	2089204.03	6774537.25	1/4 RBR NID CONTROL
1004	2089299.66	6774594.71	BOLT NID BM



PLAN
SCALE: 1"= 40'

0" 40' 80'

REV	DATE	BY	DESCRIPTION
B	03/04/22	JB	SUBMITTED FOR 90% DESIGN REVIEW
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

NEVADA IRRIGATION DISTRICT

HEMPHILL DIVERSION PROJECT

OVERALL SITE PLAN AND PROJECT CONTROL

DESIGNED K. JENSEN

DRAWN J. NEVES

CHECKED V. AUTIER

PROJECT DATE 03/04/22

DRAWING

G005

JOB NO: 000000

Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\G005.dwg Plot date: Mar 04, 2022 09:59am, CAD User: JoeNeves

PLAN

SCALE: 1"= 50'

0' 50' 100'

REV	DATE	BY	DESCRIPTION
B	03/04/22	JB	SUBMITTED FOR 90% DESIGN REVIEW
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

NEVADA IRRIGATION DISTRICT

HEMPHILL DIVERSION PROJECT

GENERAL SITE PLAN, CONTRACTOR STAGING AND GENERAL ARRANGEMENT

DESIGNED K. JENSEN

DRAWN J. NEVES

CHECKED V. AUTIER

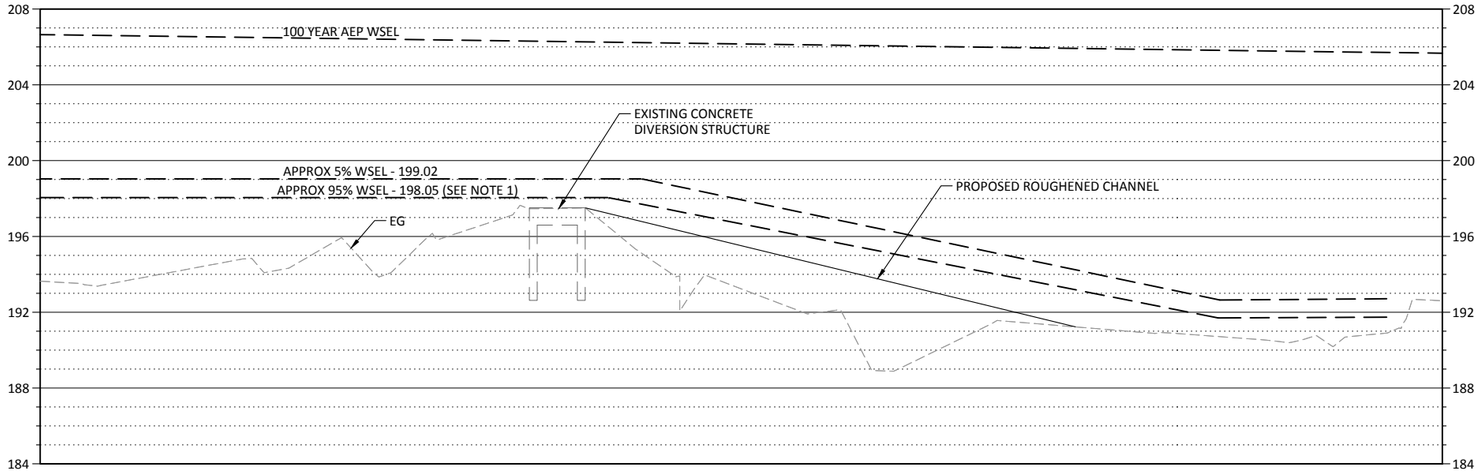
PROJECT DATE 03/04/22

DRAWING

G006

JOB NO: 000000

Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\G006.dwg Plot date: Mar 04, 2022 10:24am, CAD User: JoeNeves



HYDRAULIC PROFILE - AUBURN RAVINE

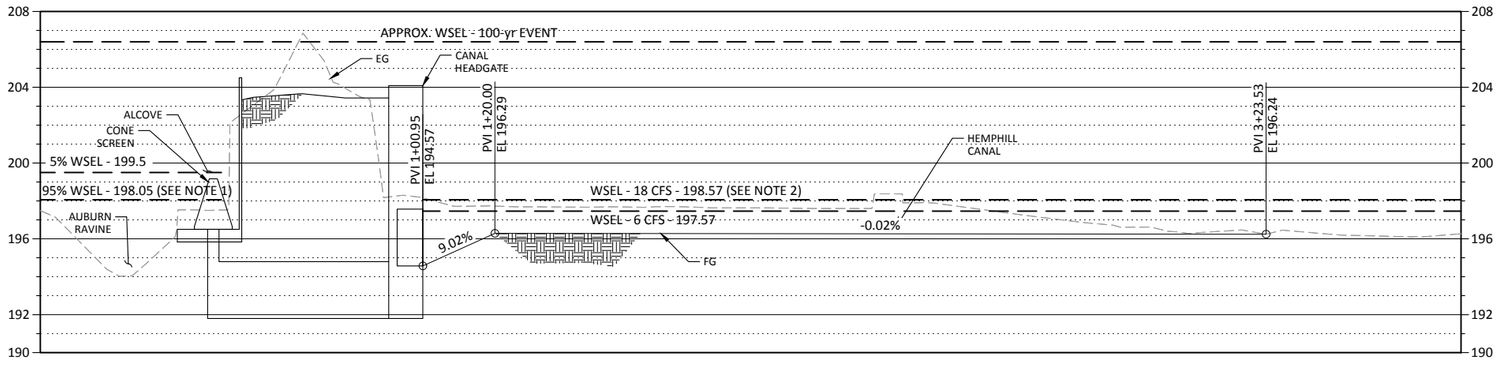
SCALE: NTS

SHEET NOTES:

1. WSEL ASSOCIATED WITH 95% EXCEEDANCE FLOW INCLUDES A DIVERSION OF 6 CFS TO THE HEMPHILL CANAL.
2. WSEL ASSOCIATED WITH 18 CFS DIVERISON TO HEMPHILL CANAL ASSUMES ROUGHENED CHANNEL AND FISH SCREEN DESIGN CRITERIA ARE MET.

AUBURN RAVINE HYDROLOGIC DESIGN CRITERIA		
CRITERIA	DISCHARGE (CFS)	COMMENTS
5% EXCEEDANCE	172	HIGH FLOW FOR FISH PASSAGE
95% EXCEEDANCE	13	LOW FLOW FOR FISH PASSAGE
100-YR AEP	15643	100-YR FLOW FROM FEMA FIS

ROUGHENED CHANNEL DESIGN CRITERIA			
CRITERIA	UNIT	VALUE	COMMENTS
SLOPE	%	4	MAX SLOPE PER CDFW
LENGTH	FT	160	
MIN DEPTH OF FLOW	FT	1	FOR UPSTREAM ADULT PASSAGE



HYDRAULIC PROFILE - HEMPHILL CANAL

SCALE: NTS

HEMPHILL CANAL HYDROLOGIC DESIGN CRITERIA		
CRITERIA	DISCHARGE (CFS)	COMMENTS
LOW FLOW	3	NORMAL LOW FLOW
NORMAL FLOW	6	CURRENT AVERAGE FLOW
MAX FLOW	18	MAX FLOW PER WATER MASTER PLAN

FISH SCREEN CRITERIA		
CRITERIA	UNIT	VALUE
MAX APPROACH VELOCITY	FPS	0.33

REV	DATE	BY	DESCRIPTION
B	03/04/22	JB	SUBMITTED FOR 90% DESIGN REVIEW
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

NEVADA IRRIGATION DISTRICT

HEMPHILL DIVERSION PROJECT

HYDRAULIC PROFILE AND DESIGN CRITERIA

DESIGNED K. JENSEN

DRAWN J. NEVES

CHECKED V. AUTIER

PROJECT DATE 03/04/22

DRAWING

G007

JOB NO: 000000

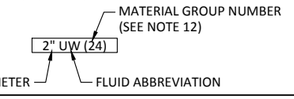
Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\G007.dwg Plot date: Mar 04, 2022 10:45am, CAD User: JoeNeves

FLUID ABBREVIATION	FUNCTION	ALLOWABLE PIPING MATERIAL GROUP NO. (SEE NOTE 1 AND 4)				FIELD TEST REQUIREMENTS (SEE NOTE 3 AND NOTE 4)		
	THIS LIST MAY INCLUDE FLUIDS NOT USED IN THIS PROJECT	EXPOSED PIPING (SEE NOTE 14)		BURIED PIPING (SEE NOTE 13)		MINIMUM TEST PRESSURE PSI	TEST MEDIUM	LEAKAGE ALLOWANCE (SEE NOTE 2)
	(* SEE NOTE 5)	3" DIA AND SMALLER	4" DIA AND LARGER	3" DIA AND SMALLER	4" DIA AND LARGER			
COMMONLY USED FUNCTIONS								
IW	IRRIGATION WATER			19	19	75	WATER	(A)

PIPING MATERIAL SCHEDULE (SEE NOTE 1)

GROUP NO.	PIPE MATERIAL	FITTINGS / JOINTS	LININGS AND COATINGS (SEE NOTE 13)
19	POLYVINYL CHLORIDE PRESSURE PIPE AWWA C900 (FOR DIA'S 4"-12") OR AWWA C905 (FOR DIA'S 14"-36") WITH BELL AND SPIGOT JOINTS.	DUCTILE IRON FITTINGS, 150 PSI, FOR POLYVINYL CHLORIDE PIPE, AWWA C110 CEMENT MORTAR LINED, AWWA C104.	SEE SECTION 331110 & 331121 (FOR FITTINGS)

TYPICAL PIPE DESIGNATION:



NOTES:

NOTE 1
ALTHOUGH SEVERAL PIPE MATERIAL GROUPS MAY BE LISTED ON THIS SHEET FOR A GIVEN FLUID SERVICE, CONTRACTOR SHALL PROVIDE ONLY THE PIPE MATERIAL GROUP SHOWN ON THE DRAWINGS AND SPECIFIED FOR THAT FLUID SERVICE.

NOTE 2
LEAKAGE ALLOWANCE IS AS FOLLOWS
A. PIPES SO DESIGNATED SHALL SHOW ZERO LEAKAGE.
B. PIPES SO DESIGNATED SHALL SHOW ZERO LEAKAGE FOR UNBURIED PIPE AND NOT MORE THAN 0.02 GALLON PER HOUR PER INCH DIAMETER PER 100 FEET OF BURIED PIPE.
C. PIPES SO DESIGNATED SHALL NOT SHOW A LEAKAGE OF MORE THAN 0.15 GALLON PER HOUR PER INCH OF DIAMETER PER 100 FEET OF PIPE.
D. PIPES SO DESIGNATED SHALL NOT SHOW A LOSS OF PRESSURE OF MORE THAN 5 PERCENT.
E. PIPE SO DESIGNATED SHALL NOT SHOW A LOSS OF VACUUM OF MORE THAN 4 INCHES MERCURY COLUMN.

NOTE 3
FOR FIELD TEST PROCEDURES AND ADDITIONAL TEST REQUIREMENTS, SEE PIPING SECTION OF SPECIFICATIONS.

NOTE 4
NO SUBSTITUTIONS U.N.O. IN THE SPECIFICATIONS.

NOTE 5
PIPING GROUP FUNCTION SHOWN THUS * SHALL BE INSULATED PER SPECIFICATIONS.

NOTE 6
STATIC WATER TEST WITH SURFACE 5 FEET ABOVE HIGH POINT OF PIPE.

NOTE 7
INSPECTION AND TESTING SHALL BE IN ACCORDANCE WITH APPLICABLE PLUMBING CODE.

NOTE 8
NO APPARENT LEAKS UNDER NORMAL OPERATING CONDITIONS.

NOTE 9
INSPECTION AND TESTING SHALL BE IN ACCORDANCE WITH APPLICABLE NATIONAL FIRE PROTECTION ASSOCIATION STANDARDS.

NOTE 10
PIPING MATERIALS SHALL BE IN ACCORDANCE WITH NATIONAL FIRE PROTECTION ASSOCIATION STANDARDS.

NOTE 11
FOR VALVES 4" AND LARGER SEE VALVE SCHEDULE FOR SPECIAL VALVES SEE SPECIFICATIONS.

NOTE 12
CHANGE IN PIPING MATERIAL GROUP NUMBER IS INDICATED THUS: ——◆

NOTE 13
FOR FULL PIPE LINING AND COATING REQUIREMENTS, SEE SPECIFICATIONS.

NOTE 14
EXPOSED OUTDOOR PIPING SHALL BE PAINTED IN ACCORDANCE WITH SPECIFICATIONS. COLORS TO BE SELECTED BY OWNER.

NOTE 15
NATURAL GAS BURIED PIPE SHALL BE POLYETHYLENE BASED PIPE IN ACCORDANCE W/ LOCAL GAS UTILITY PIPE REQUIREMENTS FOR PRESSURE GAS SERVICE.

NOTE 16
ALL FISH RELEASE PIPE BENDS SHALL HAVE A MINIMUM RADIUS OF 5 TIMES THE PIPE DIAMETER. FITTINGS FOR FISH RELEASE PIPE SHALL BE OF THE SAME MATERIAL AS THE PIPING. ALL FISH RELEASE PIPING SHALL BE FREE OF BURRS AND ROUGH SURFACES. ALL PIPING JOINTS SHALL BE SMOOTH AND FREE OF SURFACE BLEMISHES.

NOTE 17
FOR HDPE PIPING THE SIZE OF PIPE SHOWN ON DRAWING CALL-OUTS SHALL BE THE MINIMUM INSIDE DIAMETER. PIPE WALL THICKNESS SHALL BE PER DR RATING REQUIREMENT.

REV	DATE	BY	DESCRIPTION
B	03/04/22	JB	SUBMITTED FOR 90% DESIGN REVIEW
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

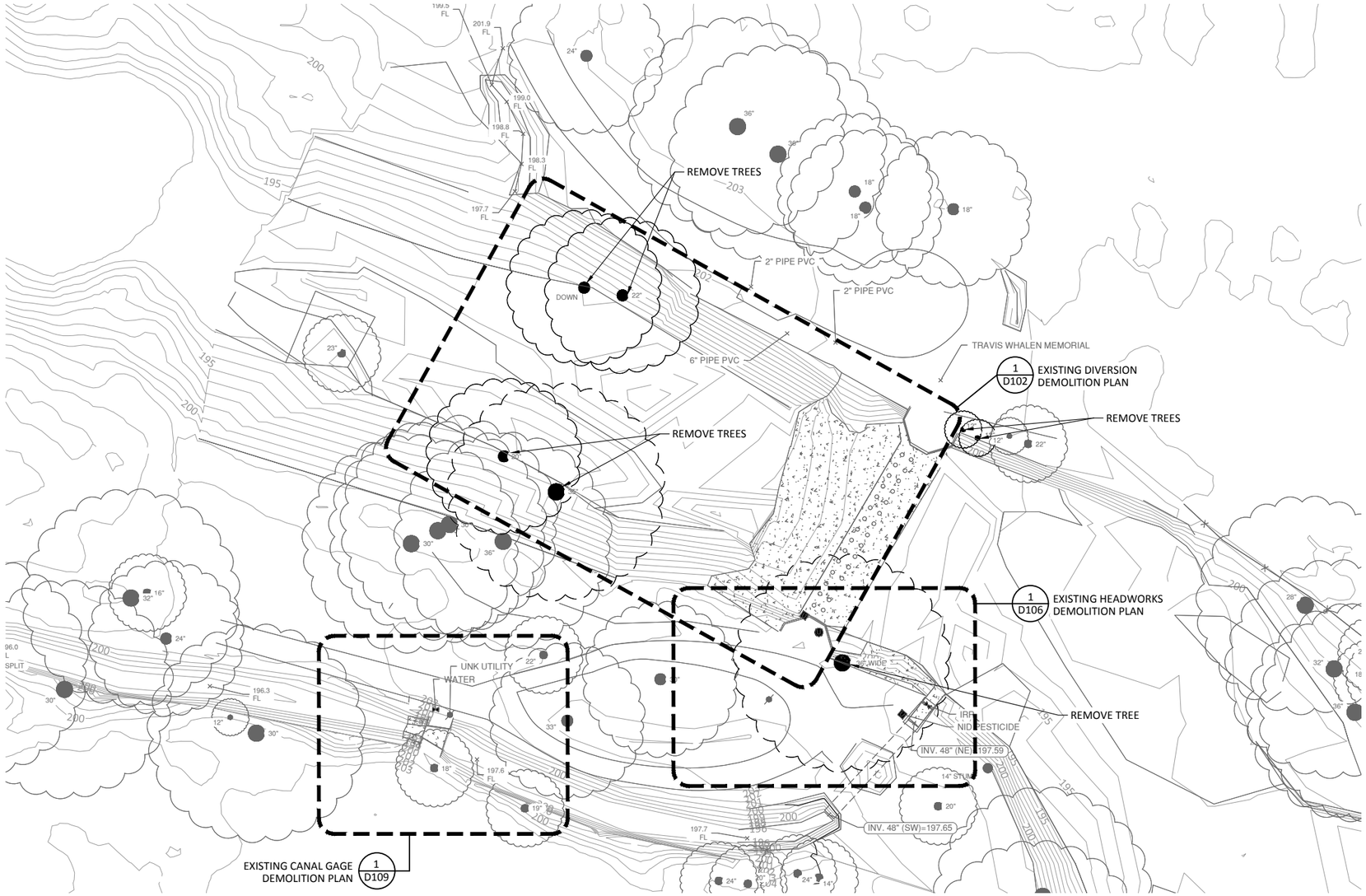
NEVADA IRRIGATION DISTRICT
HEMPHILL DIVERSION PROJECT
PIPING SCHEDULE

DESIGNED K. JENSEN
DRAWN J. NEVES
CHECKED V. AUTIER
PROJECT DATE 03/04/22

DRAWING
G008

JOB NO: 000000

Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\G008.dwg Plot date: Mar 04, 2022 11:02am, CAD User: JoeNeves



N

PLAN

SCALE: 1"= 20'

0" 20' 40'

REV	DATE	BY	DESCRIPTION
B	03/04/22	JB	SUBMITTED FOR 90% DESIGN REVIEW
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

NEVADA IRRIGATION DISTRICT

HEMPHILL DIVERSION PROJECT

DEMOLITION KEY PLAN

DESIGNED K. JENSEN

DRAWN J. NEVES

CHECKED V. AUTIER

PROJECT DATE 03/04/22

DRAWING

D101

JOB NO: 000000

Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\D101.dwg Plot date: Mar 04, 2022 11:04am, CAD User: JoeNeves

SHEET KEY NOTES:

A REMOVE EXISTING GROUTED AND NON-GROUTED RIPRAP.

B REMOVE EXISTING DIVERSION STRUCTURE.

PLAN
SCALE: 1"= 10'
0' 10' 20'
1
D101

PHOTO
SCALE: NTS
2
-

PHOTO
SCALE: NTS
3
-

REV	DATE	BY	DESCRIPTION
B	03/04/22	JB	SUBMITTED FOR 90% DESIGN REVIEW
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

NEVADA IRRIGATION DISTRICT
HEMPHILL DIVERSION PROJECT

EXISTING DIVERSION DEMOLITION PLAN AND PHOTOS

DESIGNED K. JENSEN
DRAWN J. NEVES
CHECKED V. AUTIER
PROJECT DATE 03/04/22

DRAWING
D102

JOB NO: 000000

Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\D102.dwg Plot date: Mar 02, 2022 03:06pm, CAD User: JoeNeves

SHEET KEY NOTES:

A REMOVE EXISTING HEADGATE STRUCTURE AND PIPE CANAL.

PLAN
SCALE: 1"= 10'
0" 10' 20'
1 / D101

PHOTO
SCALE: NTS
2 / -

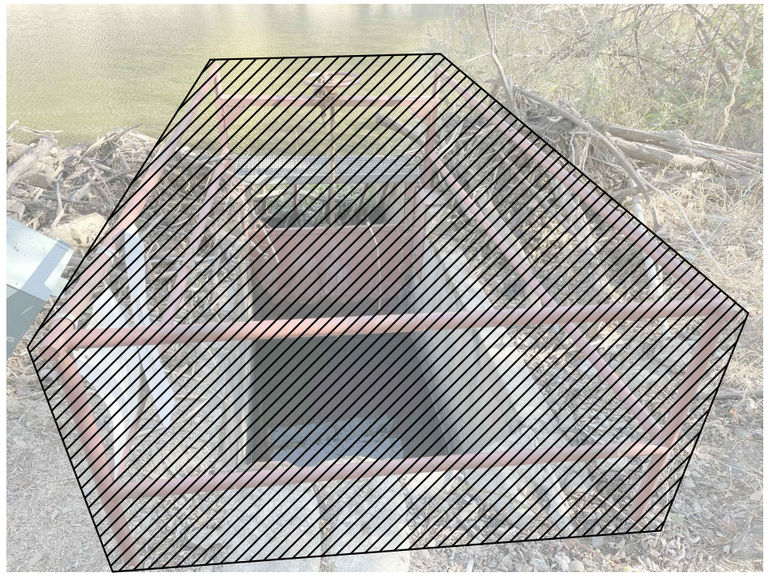


PHOTO
SCALE: NTS
3 / -

REV	DATE	BY	DESCRIPTION
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

NEVADA IRRIGATION DISTRICT
HEMPHILL DIVERSION PROJECT

EXISTING HEADWORKS DEMOLITION PLAN AND PHOTOS

DESIGNED K. JENSEN
DRAWN J. NEVES
CHECKED V. AUTIER
PROJECT DATE 01/19/21

DRAWING
D103

JOB NO: 0000000

Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\D103.dwg Plot date: Jan 26, 2022 12:18pm, CAD User: JoeNeves

SHEET KEY NOTES:

A REMOVE EXISTING FLOW MEASUREMENT FLUME.

PLAN
SCALE: 1"= 10'
0" 10' 20'
1
D101

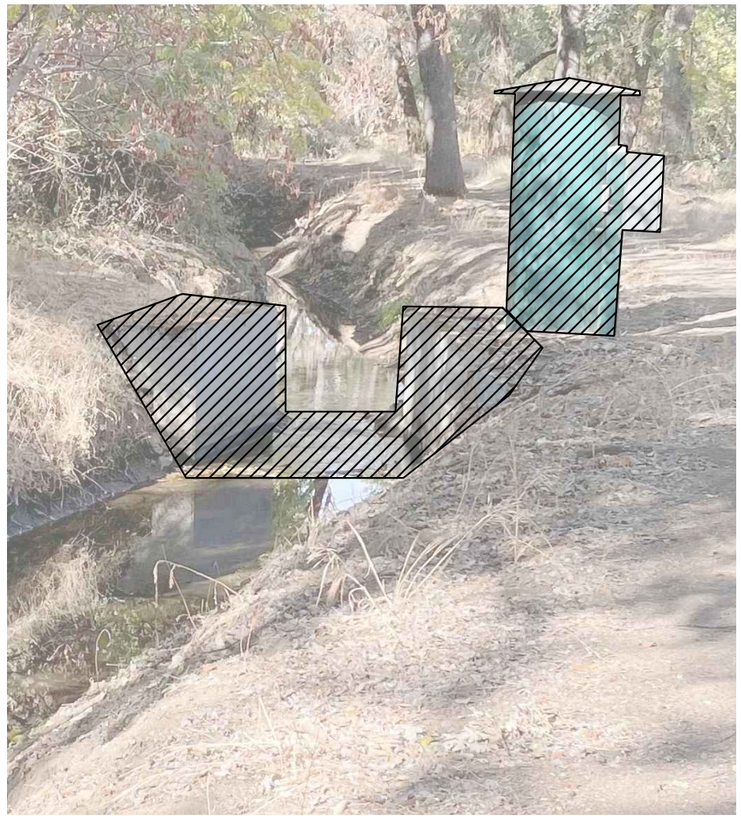


PHOTO
SCALE: NTS
2
-

REV	DATE	BY	DESCRIPTION
B	03/04/22	JB	SUBMITTED FOR 90% DESIGN REVIEW
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

NEVADA IRRIGATION DISTRICT
HEMPHILL DIVERSION PROJECT

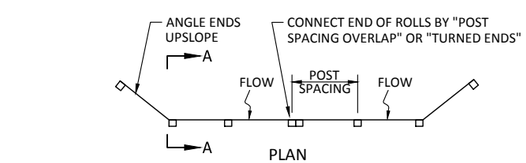
EXISTING CANAL GAGE DEMOLITION PLAN AND PHOTOS

DESIGNED K. JENSEN
DRAWN J. NEVES
CHECKED V. AUTIER
PROJECT DATE 03/04/22

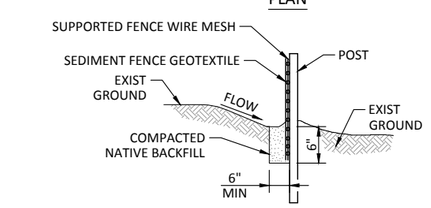
DRAWING
D104

JOB NO: 000000

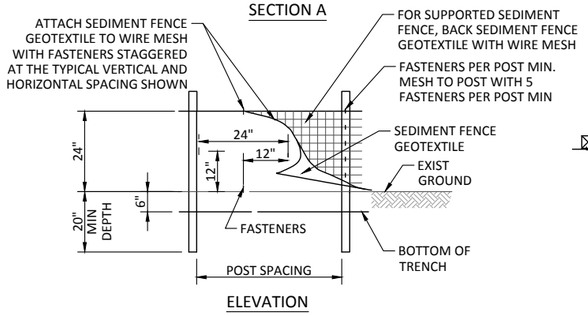
Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\D104.dwg Plot date: Mar 02, 2022 03:13pm, CAD User: JoeNeves



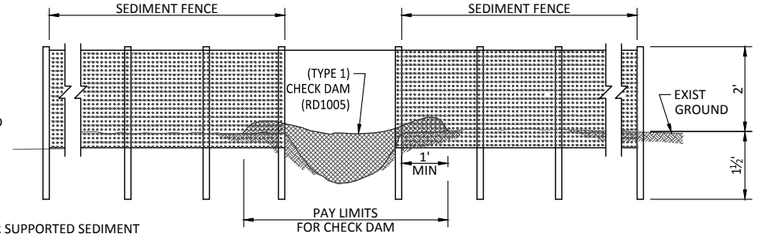
PLAN



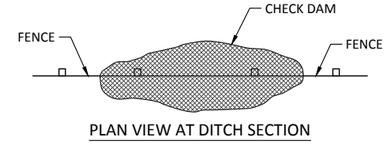
SECTION A



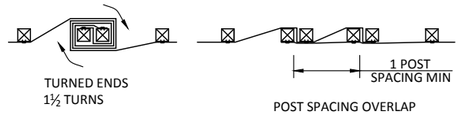
ELEVATION



ELEVATION VIEW AT DITCH SECTION OR LOW AREAS



PLAN VIEW AT DITCH SECTION



POST SPACING OVERLAP

GEOTEXTILE END CONNECTIONS

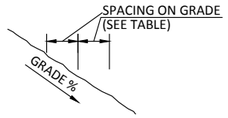


TABLE 1
FENCE SPACING FOR GENERAL APPLICATION

INSTALL PARALLEL ALONG CONTOURS AS FOLLOWS	
GRADE	MAXIMUM SPACING ON GRADE
GRADE ≤ 0%	300'
10% ≤ GRADE < 15%	150'
15% ≤ GRADE < 20%	100'
20% ≤ GRADE < 30%	50'
30% ≤ GRADE	25'

TABLE 2

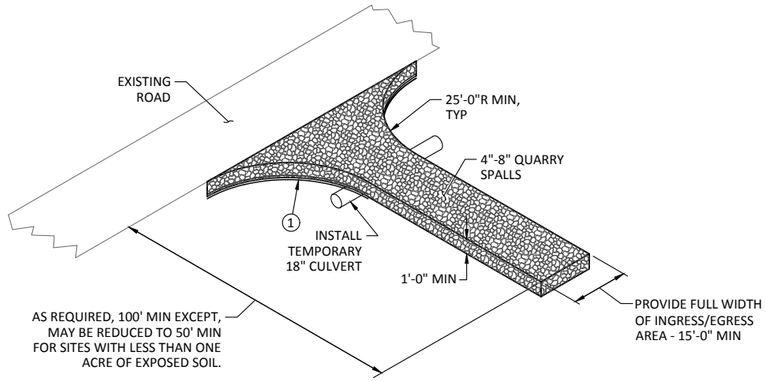
POST SPACING	
4'	SUPPORTED SEDIMENT FENCE
6'	UNSUPPORTED SEDIMENT FENCE WITH GEOTEXTILE ELONGATION * LESS THAN 50%
4'	UNSUPPORTED SEDIMENT FENCE WITH GEOTEXTILE ELONGATION * MORE THAN 50%

* GEOTEXTILE GRAB ELONGATION VALUE AS DOCUMENTED BY "LEVEL B" MANUFACTURER'S DOCUMENTATION (SEE STANDARD SPECIFICATIONS).

SILT FENCE DETAIL

SCALE: NTS

EC101

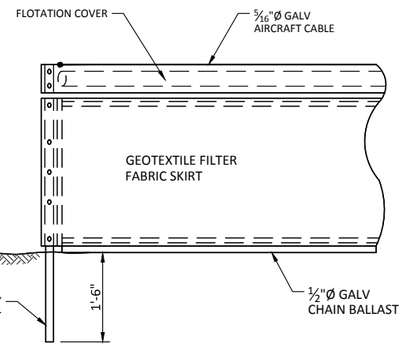


1 PLACE CONSTRUCTION GEOTEXTILE FOR SOIL STABILIZATION AND A MINIMUM OF 0.15' CRUSHED ROCK UNDER THE SPALLS, FROM THE EDGE OF THE EXISTING ROADWAY TO THE RADIUS RETURNS, OR AS DIRECTED BY THE ENGINEER.

TEMPORARY ENTRANCE

SCALE: NTS

EC103



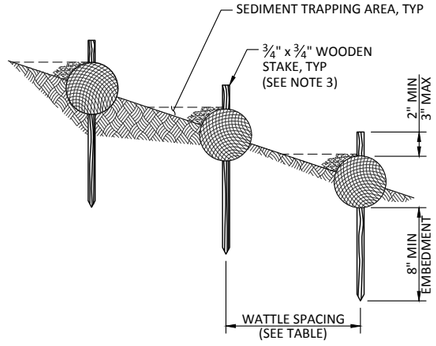
NOTE:

1. TURBIDITY BLANKET TO BE CSI GEOSYNTHETICS OR EQUAL.

TURBIDITY CURTAIN

SCALE: NTS

EC105

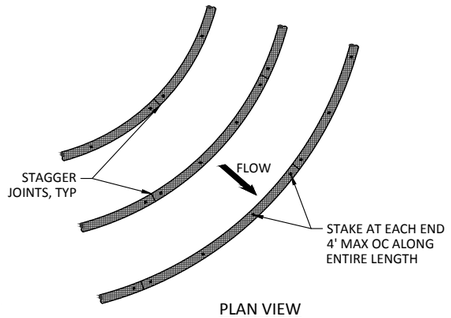


ELEVATION

NOTES

1. INSTALL WATTLES ALONG CONTOURS. SEE TABLE FOR SPACING.
2. WATTLES SHALL BE INSPECTED REGULARLY, AND IMMEDIATELY AFTER A RUNOFF PRODUCING RAINFALL, TO ENSURE THEY REMAIN THOROUGHLY ENTRENCHED AND IN CONTACT WITH THE SOIL.
3. LIVE STAKES MAY BE USED FOR PERMANENT INSTALLATIONS.
4. INSTALL WATTLES SNUGLY INTO THE TRENCH. ABUT ADJACENT WATTLES TIGHTLY, END TO END, WITHOUT OVERLAPPING THE ENDS.
5. PILOT HOLES MAY BE DRIVEN THROUGH THE WATTLE AND INTO THE SOIL, WHEN SOIL CONDITIONS REQUIRE.
6. INSTALL AT TOE OF SLOPES. SLOPES GREATER THAN 15' IN LENGTH SHALL HAVE A WATTLE INSTALLED MID SLOPE.

WATTLE SPACING TABLE	
SLOPE	MAXIMUM SPACING
1:1	10 FEET
2:1	20 FEET
3:1	30 FEET
4:1	40 FEET
>4:1	80 FEET

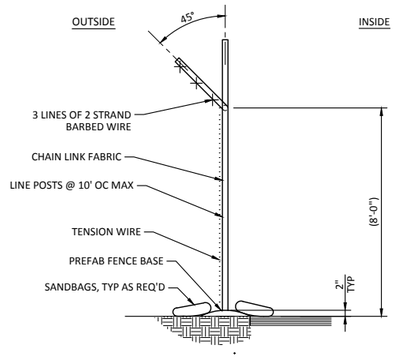


PLAN VIEW

WATTLE

SCALE: NTS

EC107



NOTES:

1. SEE SPECIFICATIONS FOR FENCE MATERIAL, COATINGS, AND INSTALLATION REQUIREMENTS.
2. EXTENSION ARM MAY BE TURNED IN AT OPTION OF OWNER.

CONSTRUCTION FENCING DETAIL

SCALE: NTS

EC111

REV	DATE	BY	DESCRIPTION
B	03/04/22	JB	SUBMITTED FOR 90% DESIGN REVIEW
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

NEVADA IRRIGATION DISTRICT

HEMPHILL DIVERSION PROJECT

EROSION AND SEDIMENT CONTROL - STANDARD DETAILS

DESIGNED K. JENSEN

DRAWN J. NEVES

CHECKED V. AUTIER

PROJECT DATE 03/04/22

DRAWING

EC001

JOB NO: 000000

Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\EC001.dwg Plot date: Mar 02, 2022 03:27pm, CAD User: JoeNeves

ESC PLAN
SCALE: 1"= 60'
0" 60' 120'

SHEET NOTES:

1. ALL SURFACES DISTURBED BY THE CONTRACTOR'S ACTIVITIES SHALL BE SEEDED AND MULCHED AS SHOWN.
2. ALL FILL MATERIALS AND COMPACTION REQUIREMENTS ARE DEFINED IN SPECIFICATION SECTION 31 00 00.
3. MATCH EXISTING GRADE AND PROVIDE SMOOTH TRANSITION BETWEEN ALL NEW SURFACING AND EXISTING GRADE.

SHEET KEY NOTES:

A. CONSTRUCTION ACCESS ROAD
B. CLEAR AND GRUB VEGETATION

MIXTURE	LBS/ACRE
ACHILLEA MILLEFOLIUM (YARROW)	5
UHLENBERGIA RIGENS (BASKET GRASS)	8
FESTUCA RUBRA (RED FESCUE)	8
ESCHSCHOLZIA CA (CA POPPY)	1-2
LUPINUS NANUS (DWARF LUPINE)	1-2
FERTILZER 16-20-0 OR 10-10-`0 RATIO*	150
NATIVE GRASS STRAW**	3,000

*COMMON LAWN FERTILIZER ACCEPTABLE.
**CDFA CERTIFIED AS NOXIOUS-WEED FREE; IF NOT AVAILABLE, SUBSTITUTE WITH RICE STRAW.
***OR DEFINED IN THE CEQA DOCUMENT

EROSION AND SEDIMENT CONTROL NOTES:

GENERAL NOTES:

1. THE CONTRACTOR SHALL SUBMIT AN EROSION AND SEDIMENT CONTROL PLAN FOR WORK DURING CONSTRUCTION THAT MEETS ALL FEDERAL, STATE, AND LOCAL REQUIREMENTS.
   A. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTATION AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES (MULCHING OF STRAW, SAND DIVERSION DITCHES, ETC.) DICTATED BY FIELD CONDITIONS TO PREVENT EROSION OR THE INTRODUCTION OF DIRT, MUD, OR DEBRIS TO EXIST PUBLIC OR PRIVATE ROADWAY, ONTO ADJACENT PROPERTIES, OR INTO AUBURN RAVINE DURING ANY PHASE OF CONSTRUCTION OPERATIONS. SPECIAL ATTENTION SHALL BE GIVEN TO ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES NOTED BELOW.
   B. THE GENERAL EROSION AND SEDIMENT CONTROL PLAN ON THE EC DRAWINGS ARE PROVIDED TO AID THE CONTRACTOR IN DEVELOPING THE EROSION AND SEDIMENT CONTROL PLAN ACCORDING TO CONTRACTOR SCHEDULE AND PHASING OF THE PROJECT.
   C. EROSION CONTROL DETAILS ARE FOR INFORMATION ONLY TO AID THE CONTRACTOR. THE FINAL LOCATIONS AND DETAIL SHALL BE SHOWN ON THE CONTRACTOR'S PREPARED STORMWATER POLLUTION PREVENTION PLAN (SWPPP) DOCUMENT.
   D. CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL NECESSARY EROSION CONTROL MEASURES FOR THE DURATION OF THE PROJECT. MAINTENANCE OF BOTH TEMPORARY AND PERMANENT EROSION CONTROL MEASURES SHALL BE CONSIDERED INCIDENTAL.
   E. ALL BMP REQUIRED MATERIALS SHALL MEET OR EXCEED STATE OF CALIFORNIA STORMWATER QUALITY ASSOCIATION (CASQA) REQUIREMENTS.
   F. CONTRACTOR SHALL DEVELOP A SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLAN THAT WILL BE ATTACHED TO THE SWPPP.
   G. THE CONTRACTOR'S ECP SHALL MEET OR EXCEED THE REQUIREMENTS OUTLINED IN SPECIFICATION SECTION 31 25 00 EROSION SEDIMENTATION CONTROLS.

GRADING AND FINAL STABILIZATION:

1. CLEARING, GRUBBING, AND GROUND DISTURBING ACTIVITIES SHALL BE CONFINED TO WITHIN CLEARING LIMITS AND SHALL MEET THE REQUIREMENTS OF SPECIFICATION 31 11 00. NO GRADING OR CONSTRUCTION ACTIVITIES SHALL OCCUR OUTSIDE OF THE PROPOSED IMPROVEMENTS SHOWN ON THE CONSTRUCTION PLANS FOR THIS PROJECT. PRESERVE EXIST VEGETATION BEYOND DISTURBED AREA - UTILIZE AS NATURAL BUFFER STRIPS.
2. DURING CONSTRUCTION, PROVIDE POSITIVE DRAINAGE AWAY FROM FACILITIES.
3. CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL FACILITIES, FENCING, AND STAGING AREA MATERIALS WHEN CONSTRUCTION IS COMPLETE. NO CONSTRUCTION DEBRIS, DEMOLITION MATERIALS, OR EXCESS EQUIPMENT SHALL BE LEFT ON SITE.
4. CONTRACTOR SHALL REGRADE DISTURBED SLOPED TO NEAR EXIST CONDITION AS APPROVED BY THE OWNER.
5. ESTABLISH A TEMPORARY VEGETATIVE COVER ON ALL DISTURBED AREAS AS SOON AS PRACTICAL AFTER THE LAST GROUND DISTURBING ACTIVITIES IN THE AREA. CONTRACTOR SHALL RESEED ALL DISTURBED AREAS WITH NATIVE VEGETATION, PER SPECIFICATION 31 25 00.

BMP MEASURES:

1. ALL RUNOFF FROM SITE CONSTRUCTION ACTIVITIES AND FROM RAINFALL EVENTS SHALL BE DETAINED ON SITE AND FILTERED PRIOR TO DISCHARGE. STORMWATER RUNOFF SHALL NOT BE ALLOWED TO LEAVE THE SITE UNTREATED (LADEN W/ SUSPENDED SEDIMENT). IF THIS OCCURS, THE CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR ANY PERMIT VIOLATIONS AND FINES.
2. CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO PREVENT ACCUMULATION OF CONSTRUCTION WASTE AND LITTER ON-SITE.
3. CONTRACTOR SHALL INSTALL SILT FENCE AND/OR STRAW WATTLES AS INDICATED AND IN ANY ADDITIONAL LOCATIONS WHERE MATERIAL COULD LEAVE THE CONSTRUCTION SITE, AT CONTRACTOR'S EXPENSE.
4. THE SILT FENCE AND/OR STRAW WATTLES SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITIES.
5. CONTRACTOR SHALL HAVE AVAILABLE AT ALL TIMES ADEQUATE SPRINKLER EQUIPMENT TO FACILITATE DUST ABATEMENT AND CONTROL. CONTRACTOR SHALL PROVIDE ALL WATER NECESSARY FOR SPRINKLER OPERATIONS.
6. STOCKPILED EXCAVATION MATERIALS SHALL BE PROTECTED FROM WATER AND WIND EROSION BY COVERING AS APPROPRIATE. WHEN EXPOSED FOR MORE THAN 14 DAYS, COVER STOCKPILES WITH IMPERMEABLE TARPS TO PROTECT DISTURBED SOILS AND SLOPES.
7. ALL TOP SOIL SHALL BE STRIPPED AND PLACED IN SEPARATE STOCKPILE. AFTER BANK RESTORATION TO EXIST GRADE, TOP SOIL SHALL BE PLACED AND RESEEDED.
8. CONTRACTOR SHALL HAVE ON-SITE AT ALL TIMES SPILL PREVENTION AND CONTROL MEASURES.
9. ENSURE ALL EQUIPMENT IS CLEAN AND FREE OF OIL/FUEL LEAKS, DIRT, PLANTS, AND ANIMALS OR FRAGMENTS OF PLANTS, AQUATIC INVASIVE SPECIES, AND OTHER VEGETATIVE MATTER.

REV	DATE	BY	DESCRIPTION
B	03/04/22	JB	SUBMITTED FOR 90% DESIGN REVIEW
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

NEVADA IRRIGATION DISTRICT
HEMPHILL DIVERSION PROJECT
EROSION AND SEDIMENT CONTROL PLAN

DESIGNED K. JENSEN
DRAWN J. NEVES
CHECKED V. AUTIER
PROJECT DATE 03/04/22

DRAWING
EC101

JOB NO: 000000

Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\EC101.dwg Plot date: Mar 04, 2022 12:01pm, CAD User: JoeNeves

CIVIL GENERAL NOTES:

1. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL LOCATE ALL EXIST UTILITIES IN AND AROUND THE AREAS OF NEW CONSTRUCTION. THE CONTRACTOR SHALL POTHOLE FOR EXIST UTILITIES PRIOR TO SUBMITTAL OF SHOP DRAWINGS, FOR POINTS OF CONNECTIONS.

2. THE CONTRACTOR SHALL PROTECT ALL EXIST UTILITIES TO REMAIN.

3. LOCATIONS OF UNDERGROUND UTILITIES SHOWN ON THE DRAWINGS WERE OBTAINED FROM AVAILABLE RECORDS. NEITHER THE OWNER NOR ENGINEER ASSUMES ANY RESPONSIBILITY FOR UTILITIES NOT SHOWN OR NOT IN THE LOCATION SHOWN. THE CONTRACTOR SHALL VERIFY ALL LOCATIONS AND ELEVATIONS AND SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT UTILITY LINES WHETHER SHOWN OR NOT SHOWN.

4. THE CONTRACTOR SHALL CONTACT THE UTILITY AGENCIES FOR FIELD LOCATION OF UTILITIES, AT LEAST 72 HOURS PRIOR TO START OF CONSTRUCTION.

5. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXIST IMPROVEMENTS WHICH ARE TO REMAIN IN PLACE FROM DAMAGE. ALL IMPROVEMENTS DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE EXPEDITIOUSLY REPAIRED OR RECONSTRUCTED AT THE CONTRACTOR'S EXPENSE WITHOUT ADDITIONAL COMPENSATION.

6. ALL TRENCHING AND BACKFILL SHALL BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

7. PRIOR TO ANY CONNECTION TO AN EXIST UTILITY, THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY AGENCIES.

8. A DIG ALERT IDENTIFICATION NUMBER MUST BE ISSUED BEFORE A PERMIT TO EXCAVATE WILL BE VALID. FOR THE DIG ALERT ID NUMBER, CONTRACTOR SHALL CALL THE LOCAL UTILITY AT LEAST 48 HOURS BEFORE ANY EXCAVATION IN THE VICINITY OF ANY EXIST UNDERGROUND FACILITIES PER THE CONTRACT DOCUMENTS.

9. CONTRACTOR SHALL RESTORE ALL SURVEY MONUMENTS THAT ARE DAMAGED OR DESTROYED DURING CONSTRUCTION.

10. EXIST SURFACE FEATURES SHOWN ON ALL SHEETS HEREIN ARE BASED ON AERIAL AND FIELD SURVEYS. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL EXIST SURFACE FEATURES WHETHER SHOWN OR NOT ON CIVIL SHEETS.

11. ALL CONSTRUCTION ACTIVITIES SHALL BE PERFORMED IN COMPLIANCE WITH FEDERAL, STATE AND LOCAL PERMITS OBTAINED FOR THE PROJECT.

12. ALL CONTRACTORS WORKING WITHIN THE PROJECT BOUNDARIES ARE RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE SAFETY LAWS.

13. CONTRACTOR SHALL FURNISH PROOF THAT ALL MATERIALS INSTALLED ON THIS PROJECT MEET THE REQUIREMENTS OF THE CONTRACT DRAWINGS AND SPECIFICATIONS.

14. ONLY PLAN SETS STAMPED "ISSUED FOR CONSTRUCTION" SHALL BE USED BY THE PROJECT CONTRACTOR(S).

15. THE CONTRACTOR SHALL KEEP ON SITE AT ALL TIMES A COPY OF THE APPROVED CONSTRUCTION PLANS AND RECORD THE ACTUAL LOCATIONS OF THE CONSTRUCTED WORK AND ANY UTILITIES ENCOUNTERED. THE CONTRACTOR SHALL PROVIDE THESE LOCATIONS TO BE SUBMITTED BY THE CONTRACTOR AS PER THE CONTRACT SPECIFICATIONS IN THE PRODUCTION OF RECORD DRAWINGS.

16. UNLESS NOTED OTHERWISE, THE CONTRACTOR(S) SHALL REMOVE ALL OBSTRUCTIONS, BOTH ABOVE AND BELOW GROUND, AS REQUIRED FOR CONSTRUCTION OF THE PROPOSED IMPROVEMENTS. THIS SHALL INCLUDE CLEARING AND GRUBBING WHICH CONSISTS OF CLEARING THE GROUND SURFACE OF ALL TREES, STUMPS, BRUSH, UNDERGROWTH, HEDGES, HEAVY GROWTH OF GRASS OR WEEDS, FENCES, STRUCTURES, DEBRIS, RUBBISH, AND SUCH MATERIAL WHICH, IN THE OPINION OF CONTRACTING OFFICER, IS UNSUITABLE FOR THE FOUNDATION OF CONSTRUCTED WORKS. ALL MATERIAL NOT SUITABLE FOR FUTURE USE ON SITE SHALL BE DISPOSED OF AT A COMMERCIAL DISPOSAL FACILITY.

REV	DATE	BY	DESCRIPTION
B	03/04/22	JB	SUBMITTED FOR 90% DESIGN REVIEW
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

NEVADA IRRIGATION DISTRICT

HEMPHILL DIVERSION PROJECT

GENERAL CIVIL NOTES

DESIGNED XXX

DRAWN XXX

CHECKED XXX

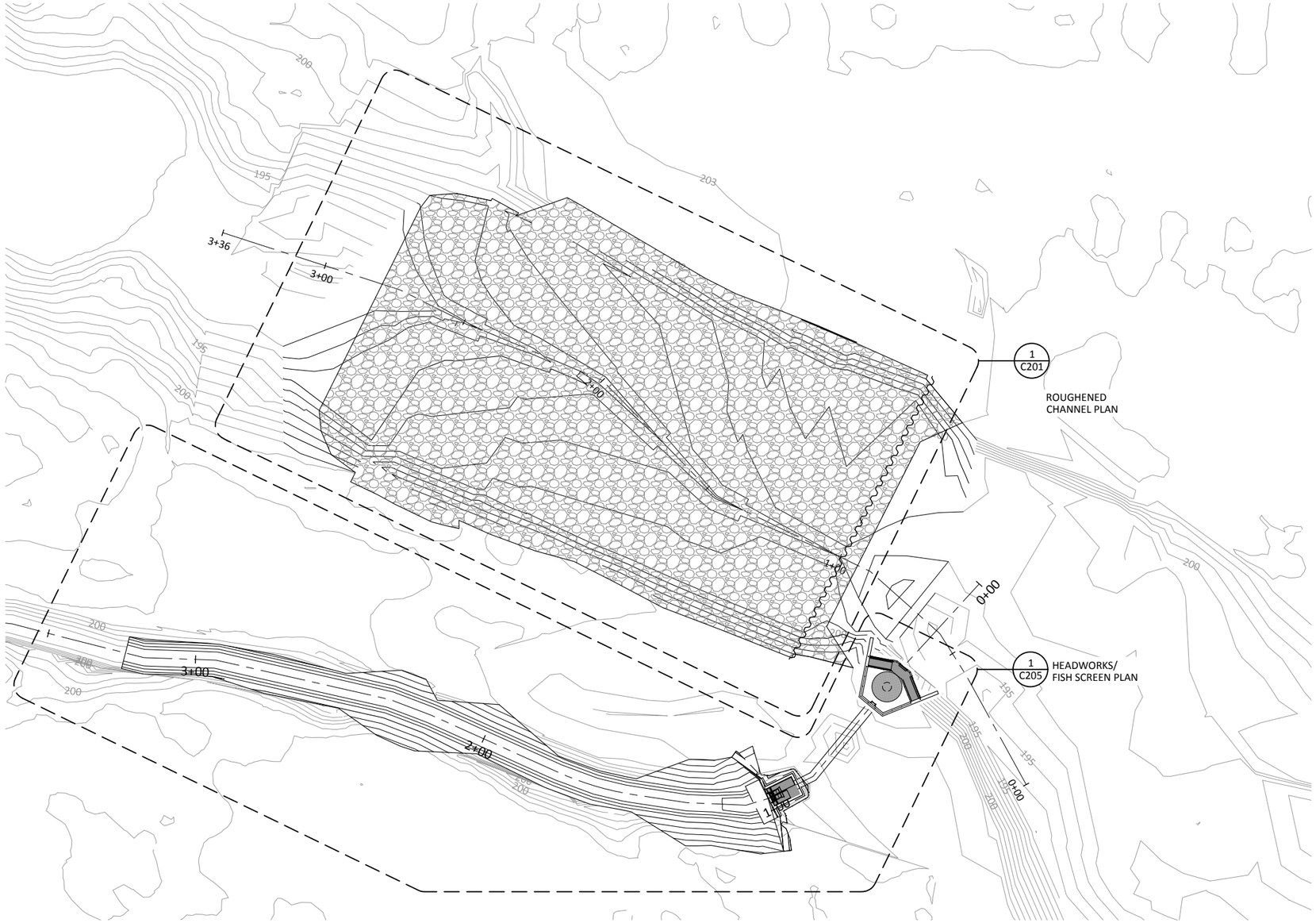
PROJECT DATE 03/04/22

DRAWING

GC001

JOB NO: 000000

Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\GC001.dwg Plot date: Mar 02, 2022 04:11pm, CAD User: JoeNeves



PLAN

SCALE: 1"= 20'

REV	DATE	BY	DESCRIPTION
B	03/04/22	JB	SUBMITTED FOR 90% DESIGN REVIEW
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

NEVADA IRRIGATION DISTRICT

HEMPHILL DIVERSION PROJECT

OVERALL SITE KEY PLAN

DESIGNED K. JENSEN

DRAWN J. NEVES

CHECKED V. AUTIER

PROJECT DATE 03/04/22

DRAWING

C001

JOB NO: 000000

Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\C001.dwg Plot date: Mar 04, 2022 12:52pm, CAD User: JoeNeves

SHEET NOTES:

1. THIS DEWATERING PLAN IS PROVIDED AS A GUIDE AND AN EXAMPLE OF HOW THE CONTRACTOR COULD DEWATER THE SITE FOR THE PURPOSES OF CONSTRUCTION.
2. CONTRACTOR MUST SUBMIT A DEWATERING PLAN FOR REVIEW AND APPROVAL PRIOR TO INITIATING THE DEWATERING OF AUBURN RAVINE.
3. PRIOR TO DEWATERING THE WORK AREA, A FISH RESCUE AND RELOCATION OPERATION WILL BE CONDUCTED. CONTRACTOR WILL COORDINATE THE PLANNED DEWATERING WITH THE ENGINEER.
4. CONTRACTOR WILL MONITOR AND MAINTAIN THE COFFERDAMS THROUGHOUT THE PERIOD OF CONSTRUCTION.

SHEET KEY NOTES:

A. INSTALL UPSTREAM COFFERDAM. WATER SURFACE ELEVATION UPSTREAM OF THIS COFFERDAM MUST BE SUFFICIENT TO SUPPLY IRRIGATION WATER TO HEMPHILL CANAL (APPROX. 200 FT)

B. INSTALL DOWNSTREAM COFFERDAM.

C. INSTALL HEMPHILL CANAL COFFERDAM.

D. PIPE OR CANAL TO CONVEY AUBURN RAVINE FLOW. AUBURN RAVINE VARIES IN FLOWS DEPENDENT ON ENVIORNMENTAL CONDITIONS, FLOWS OVER THE PAST 9 YEARS HAVE PEAKED AT APPROXIMATLY 65 CFS.

E. PIPE OR CANAL TO CONVEY HEMPHILL CANAL FLOW. FLOW RATE OF IRRIGATION WATER TO HEMPHILL CANAL WILL BE DETERMINED BY NID AND CAN FLUCTUATE FROM 3 CFS TO 8 CFS. CONTRACTOR IS RESPONSIBLE TO PROVIDE UNINTERUPTED FLOW THROUGHOUT THE IRRIGATION SEASON.

N

DEWATERING PLAN

SCALE: 1"= 30'

0" 30' 60'

REV	DATE	BY	DESCRIPTION
B	03/04/22	JB	SUBMITTED FOR 90% DESIGN REVIEW
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

NEVADA IRRIGATION DISTRICT

HEMPHILL DIVERSION PROJECT

DEWATERING PLAN

DESIGNED J. BURGI

DRAWN J. NEVES

CHECKED XXX

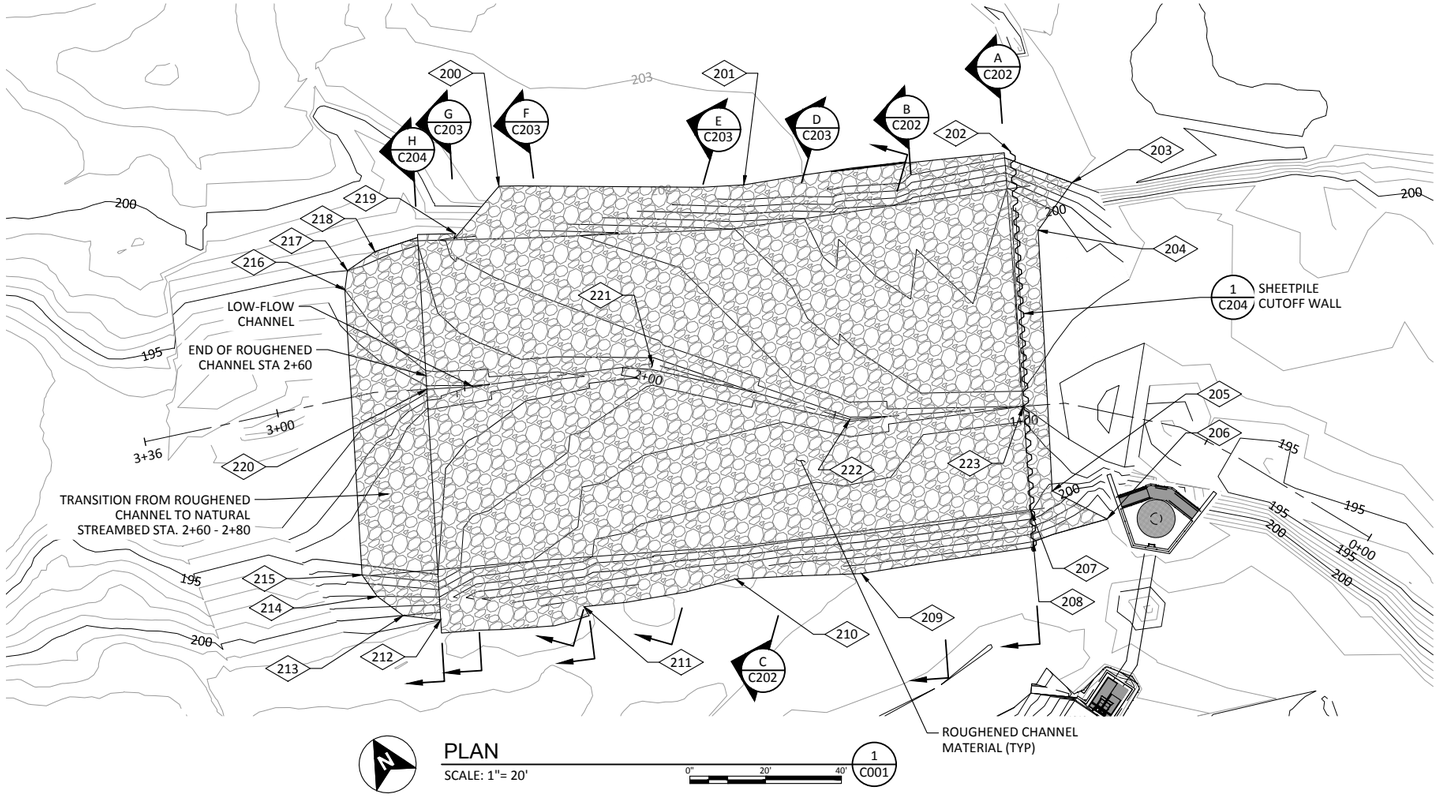
PROJECT DATE 03/04/22

DRAWING

C051

JOB NO: 000000

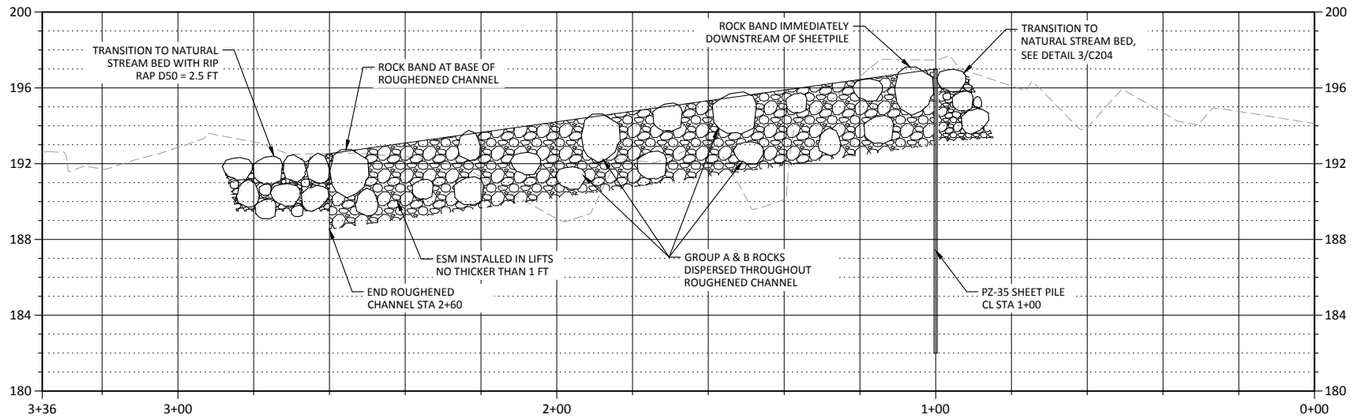
Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\C051.dwg Plot date: Mar 04, 2022 12:26pm, CAD User: JoeNeves



PLAN

SCALE: 1"= 20'

1 C001



PROFILE

SCALE: HORIZ 1"= 20'

VERT 1"= 4'

SHEET NOTES:

1.

COORDINATE POINTS			
POINT NO	NORTHING (FT)	EASTING (FT)	DESCRIPTION
200	2089372.61	6774476.86	ROUGHENED CHANNEL
201	2089340.61	6774533.02	ROUGHENED CHANNEL
202	2089313.20	6774598.37	ROUGHENED CHANNEL
203	2089297.80	6774608.32	ROUGHENED CHANNEL
204	2089291.42	6774594.32	ROUGHENED CHANNEL
205	2089229.94	6774563.16	ROUGHENED CHANNEL
206	2089216.29	6774571.99	ROUGHENED CHANNEL
207	2089228.08	6774555.60	ROUGHENED CHANNEL
208	2089220.87	6774552.12	ROUGHENED CHANNEL
209	2089236.27	6774508.64	ROUGHENED CHANNEL
210	2089251.64	6774479.10	ROUGHENED CHANNEL
211	2089265.30	6774440.86	ROUGHENED CHANNEL
212	2089281.23	6774406.34	ROUGHENED CHANNEL
213	2089287.14	6774398.33	ROUGHENED CHANNEL
214	2089294.98	6774394.92	ROUGHENED CHANNEL
215	2089301.85	6774394.28	ROUGHENED CHANNEL
216	2089369.27	6774427.97	ROUGHENED CHANNEL
217	2089373.34	6774431.10	ROUGHENED CHANNEL
218	2089374.05	6774439.88	ROUGHENED CHANNEL
219	2089367.55	6774460.65	ROUGHENED CHANNEL
220	2089335.75	6774433.58	LOW-FLOW CHANNEL CL
221	2089311.85	6774488.54	LOW-FLOW CHANNEL CL
222	2089273.04	6774526.37	LOW-FLOW CHANNEL CL
223	2089253.13	6774567.67	LOW-FLOW CHANNEL CL

REV	DATE	BY	DESCRIPTION
B	03/04/22	JB	SUBMITTED FOR 90% DESIGN REVIEW
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

NEVADA IRRIGATION DISTRICT

HEMPHILL DIVERSION PROJECT

ROUGHENED CHANNEL - PLAN AND PROFILE

DESIGNED K. JENSEN

DRAWN J. NEVES

CHECKED V. AUTIER

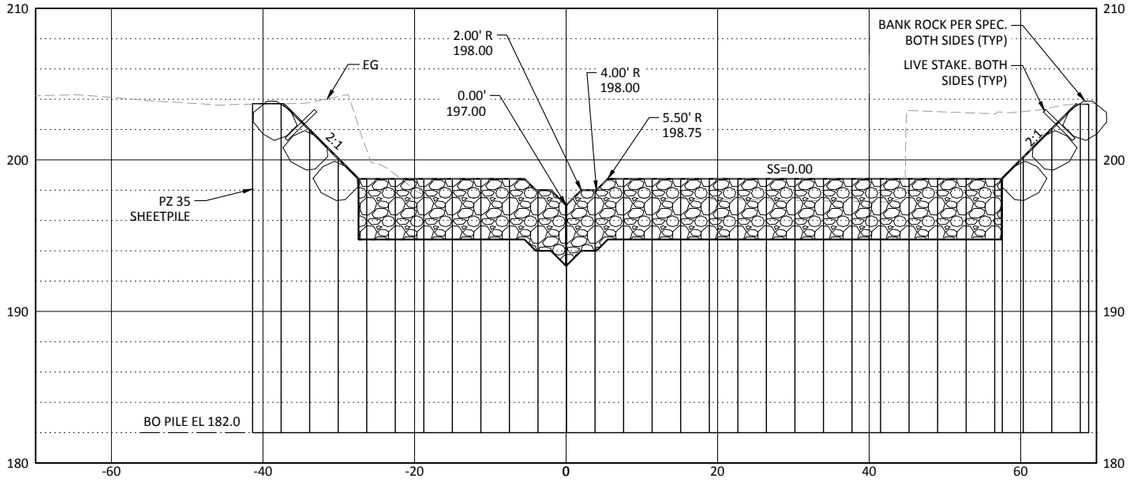
PROJECT DATE 03/04/22

DRAWING

C201

JOB NO: 000000

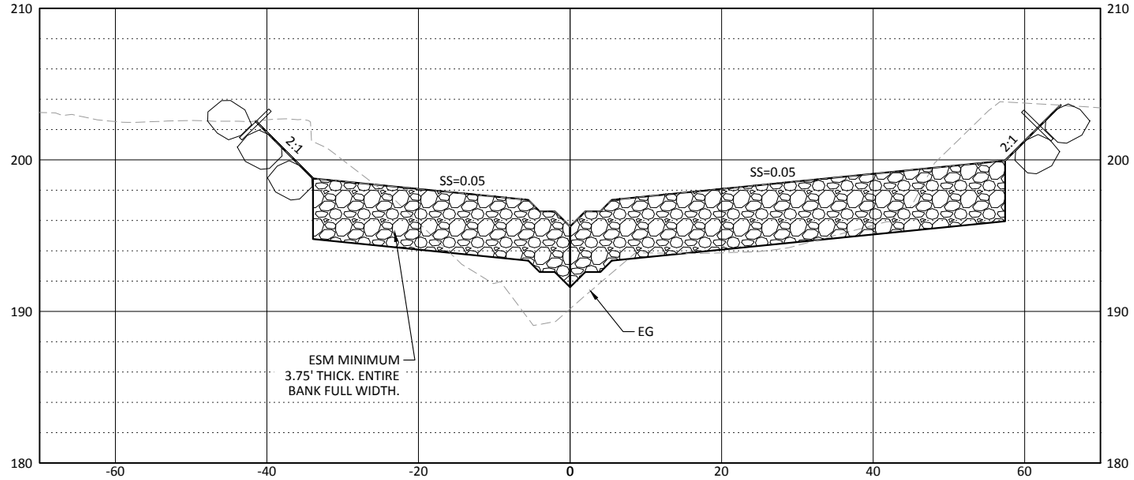
Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\C201.dwg Plot date: Mar 04, 2022 03:37pm, CAD User: JoeNeves



STATION 1+00.00

SCALE: HORIZ 1"= 10'
VERT 1"= 5'

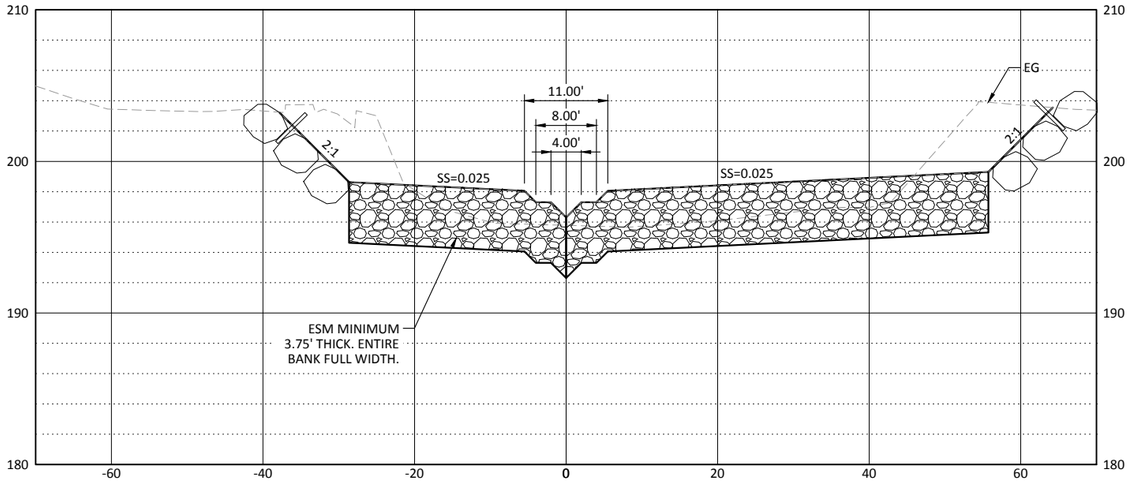
A C201



STATION 1+50.00

SCALE: HORIZ 1"= 10'
VERT 1"= 5'

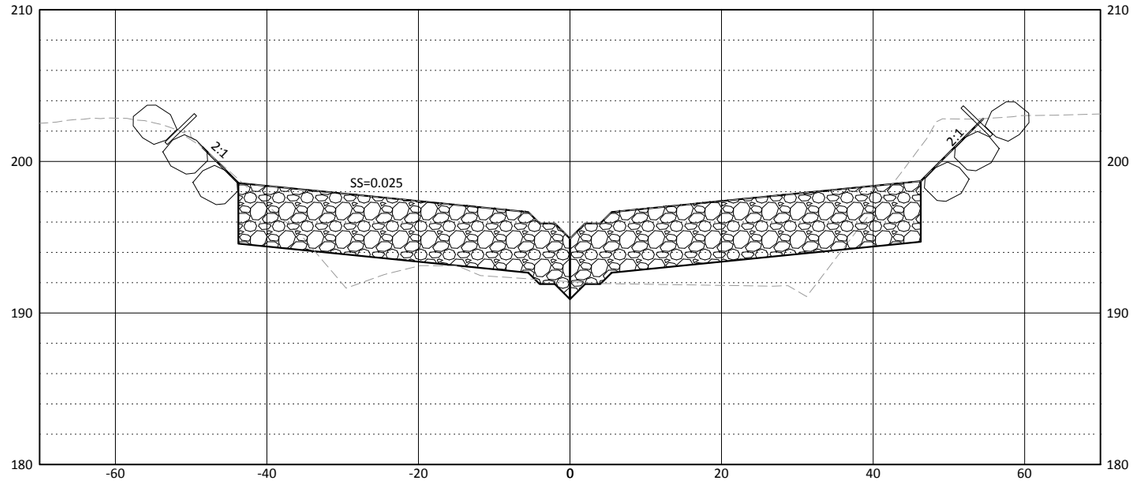
C C201



STATION 1+25.00

SCALE: HORIZ 1"= 10'
VERT 1"= 5'

B C201



STATION 1+75.00

SCALE: HORIZ 1"= 10'
VERT 1"= 5'

D C201

REV	DATE	BY	DESCRIPTION
B	03/04/22	JB	SUBMITTED FOR 90% DESIGN REVIEW
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

NEVADA IRRIGATION DISTRICT

HEMPHILL DIVERSION PROJECT

ROUGHENED CHANNEL - SECTIONS 1

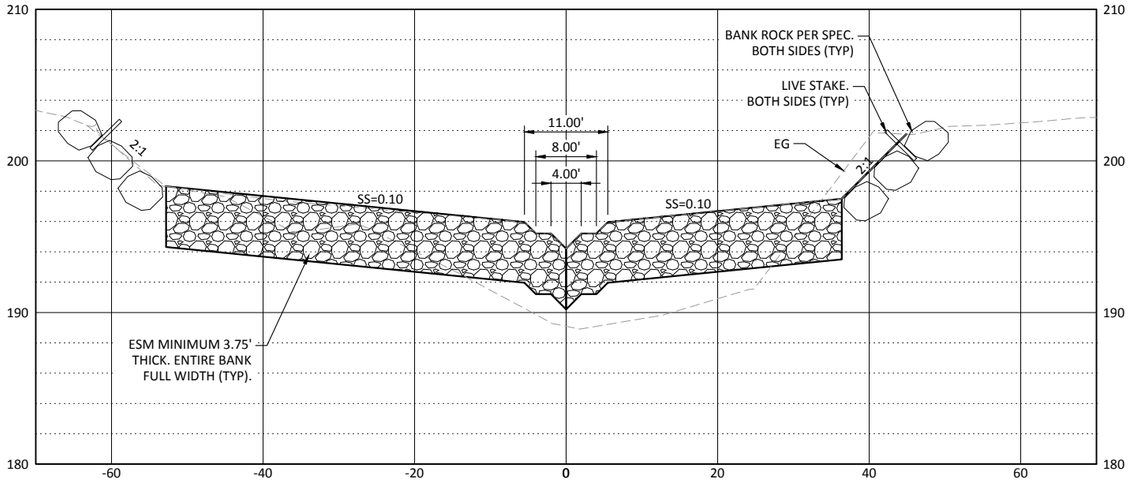
DESIGNED K. JENSEN
DRAWN J. NEVES
CHECKED V. AUTIER
PROJECT DATE 03/04/22

DRAWING

C202

JOB NO: 000000

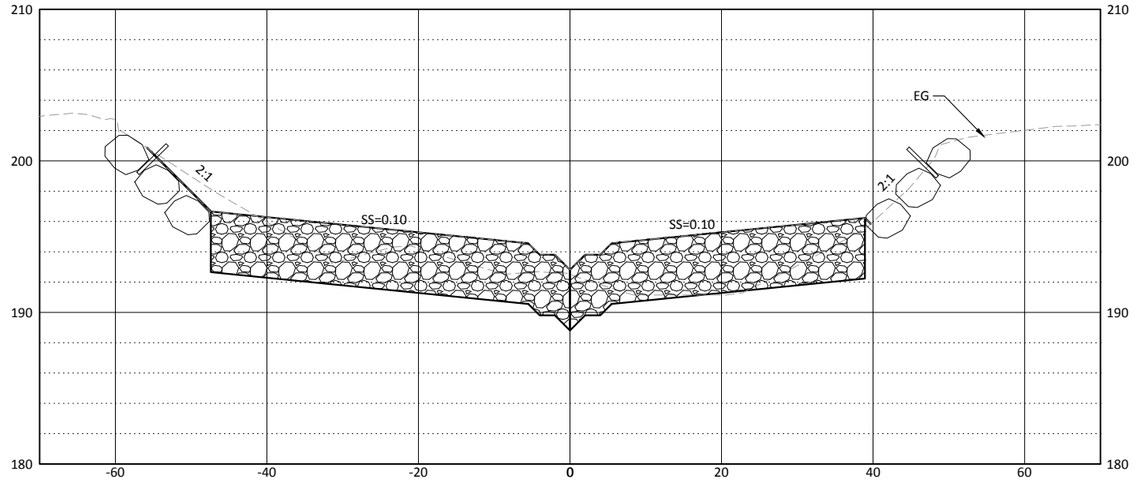
Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\C202.dwg Plot date: Mar 04, 2022 01:02pm, CAD User: JoeNeves



STATION 2+00.00

SCALE: HORIZ 1"= 10'
VERT 1"= 5'

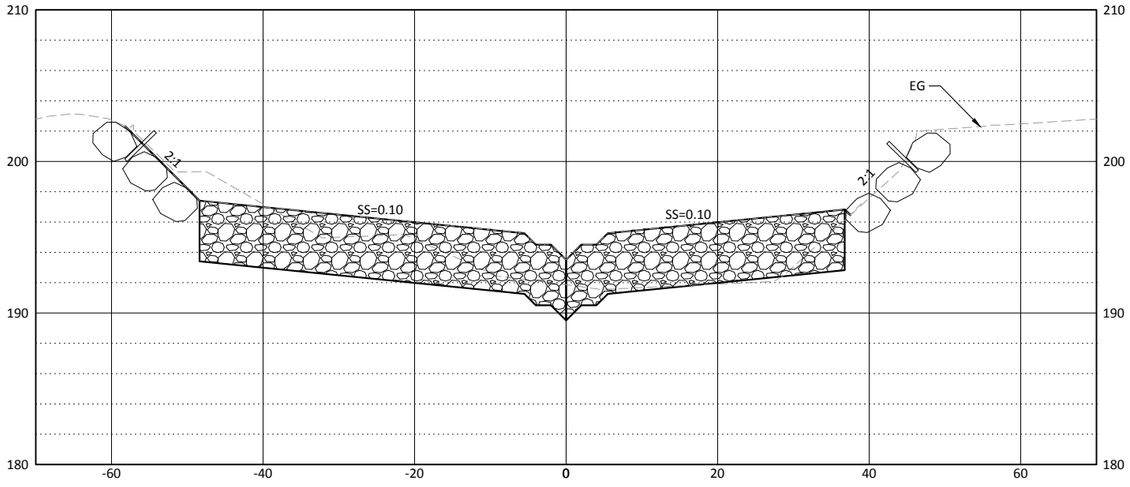
E C201



STATION 2+50.00

SCALE: HORIZ 1"= 10'
VERT 1"= 5'

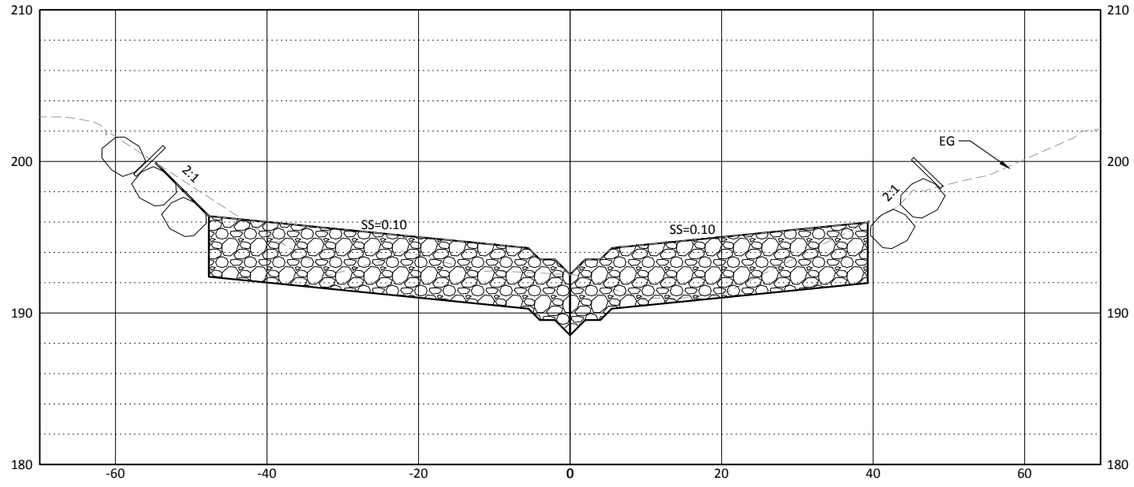
G C201



STATION 2+25.00

SCALE: HORIZ 1"= 10'
VERT 1"= 5'

F C201



STATION 2+60.00

SCALE: HORIZ 1"= 10'
VERT 1"= 5'

H C201

REV	DATE	BY	DESCRIPTION
B	03/04/22	JB	SUBMITTED FOR 90% DESIGN REVIEW
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

NEVADA IRRIGATION DISTRICT

HEMPHILL DIVERSION PROJECT

ROUGHENED CHANNEL - SECTIONS 2

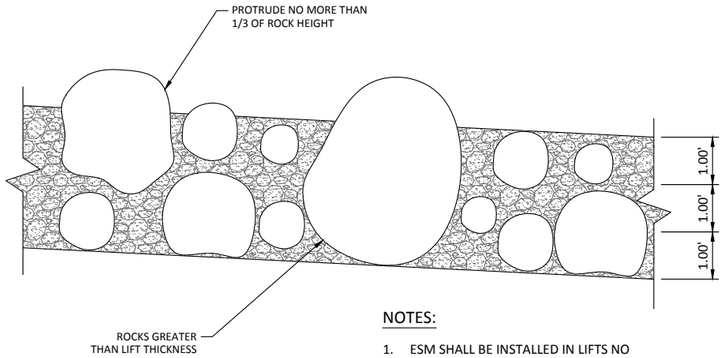
DESIGNED K. JENSEN
DRAWN J. NEVES
CHECKED V. AUTIER
PROJECT DATE 03/04/22

DRAWING

C203

JOB NO: 000000

Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\C203.dwg Plot date: Mar 03, 2022 01:27pm, CAD User: JoeNeves



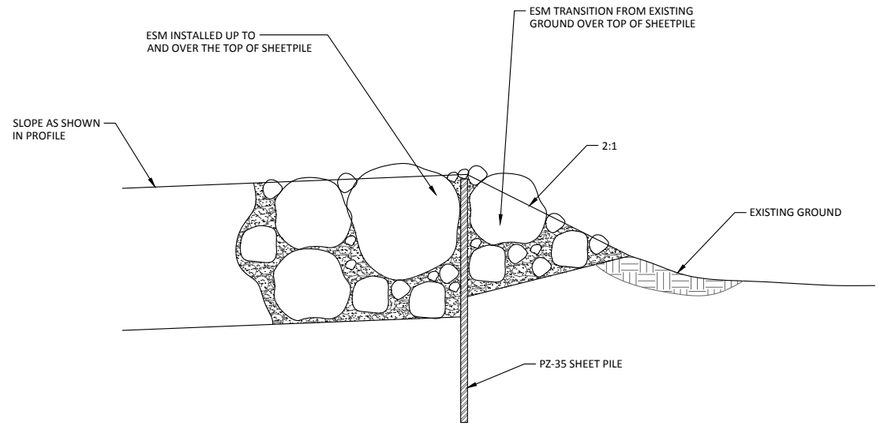
NOTES:

1. ESM SHALL BE INSTALLED IN LIFTS NO GREATER THAN 1 FOOT.
2. EACH LIFT SHALL BE COMPACTED USING FLOODING OR JETTING METHODS UNTIL WATER REMAINS FLOWING ON SURFACE.

TYPICAL ESM LIFT PLACEMENT

1

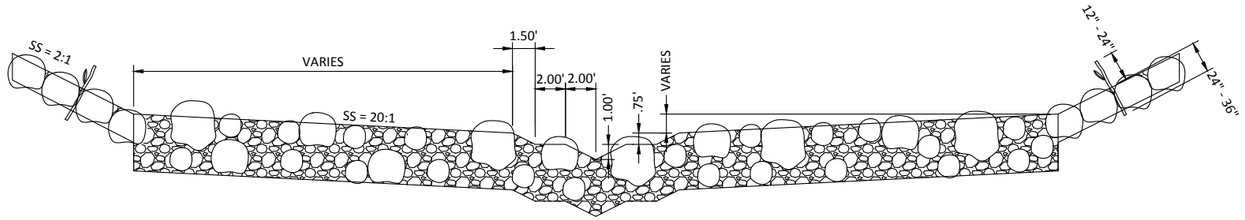
SCALE: NTS



SHEETPILE CUTOFF WALL DETAIL

3

SCALE: NTS



TYPICAL SECTION

2

SCALE: NTS

REV	DATE	BY	DESCRIPTION
B	03/04/22	JB	SUBMITTED FOR 90% DESIGN REVIEW
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

NEVADA IRRIGATION DISTRICT

HEMPHILL DIVERSION PROJECT

ROUGHENED CHANNEL - DETAILS

DESIGNED K. JENSEN

DRAWN J. NEVES

CHECKED V. AUTIER

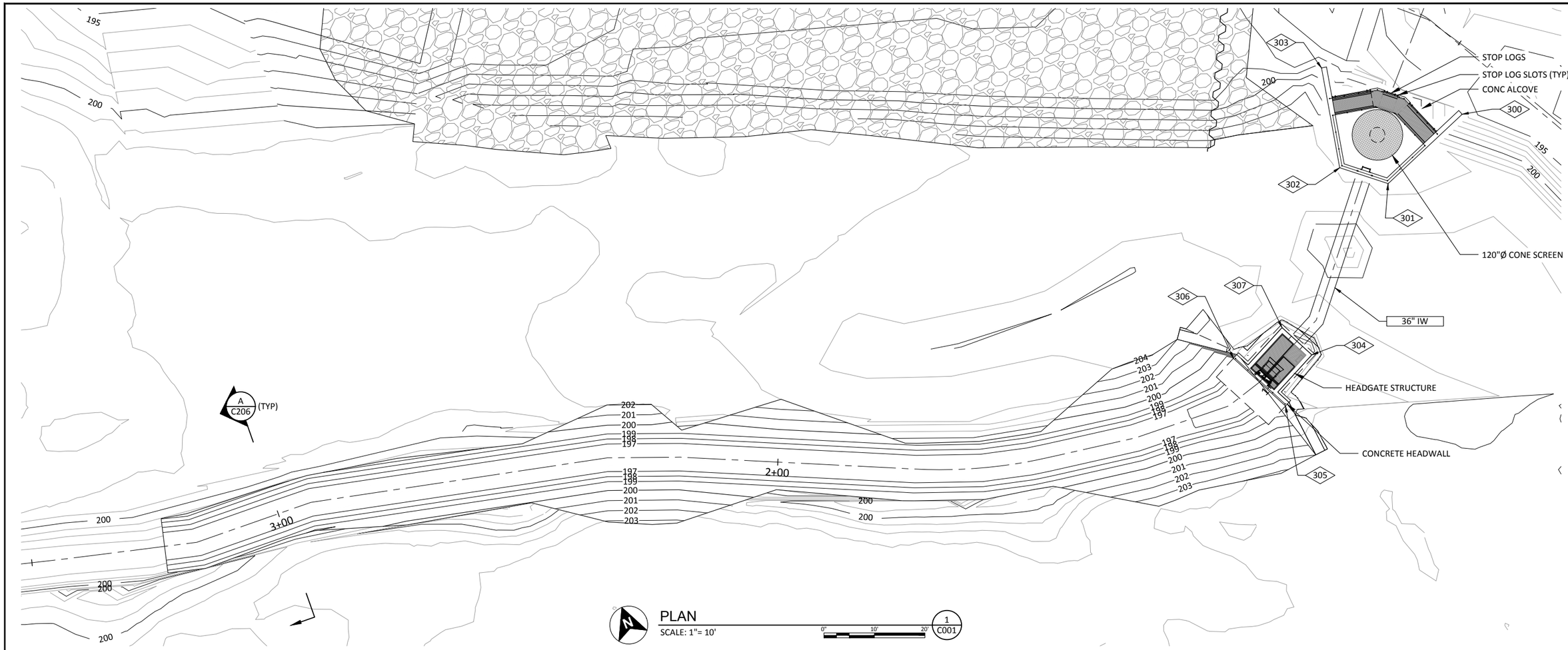
PROJECT DATE 03/04/22

DRAWING

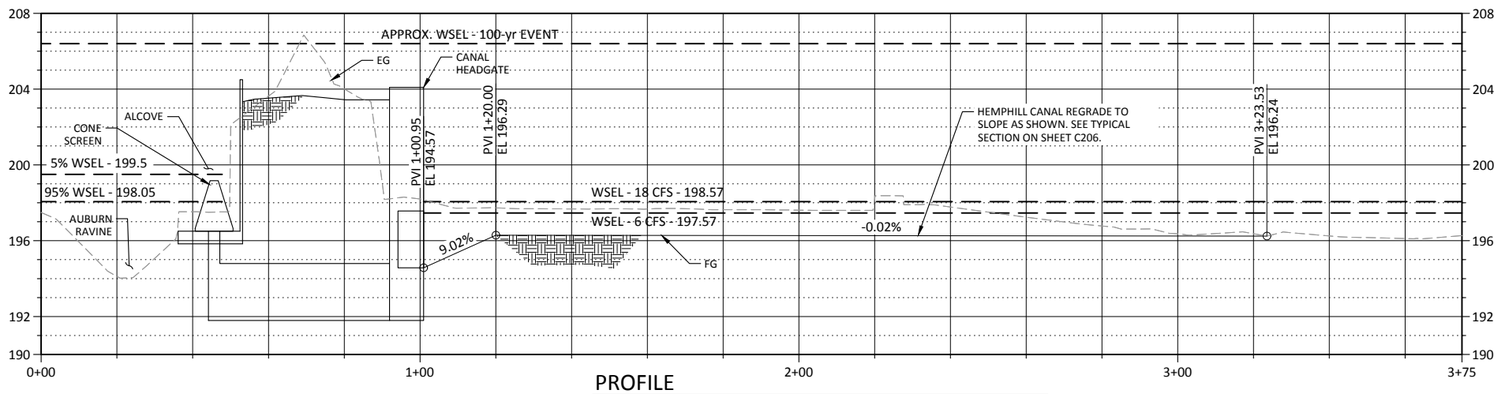
C204

JOB NO: 000000

Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\C204.dwg Plot date: Mar 04, 2022 03:42pm, CAD User: JoeNeves



PLAN
SCALE: 1"= 10'



PROFILE
SCALE: HORIZ 1"= 20'
VERT 1"= 4'

COORDINATE POINTS			
POINT NO	NORTHING (FT)	EASTING (FT)	DESCRIPTION
300	2089207.65	6774600.37	CONE SCREEN ALCOVE
301	2089200.16	6774581.71	CONE SCREEN ALCOVE
302	2089206.59	6774573.92	CONE SCREEN ALCOVE
303	2089226.33	6774577.74	CONE SCREEN ALCOVE
304	2089174.04	6774555.31	HEAD GATE STRUCTURE
305	2089166.49	6774546.77	HEAD GATE STRUCTURE
306	2089179.04	6774540.58	HEAD GATE STRUCTURE
307	2089181.22	6774551.77	HEAD GATE STRUCTURE

REV	DATE	BY	DESCRIPTION
B	03/04/22	JB	SUBMITTED FOR 90% DESIGN REVIEW
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

NEVADA IRRIGATION DISTRICT
HEMPHILL DIVERSION PROJECT

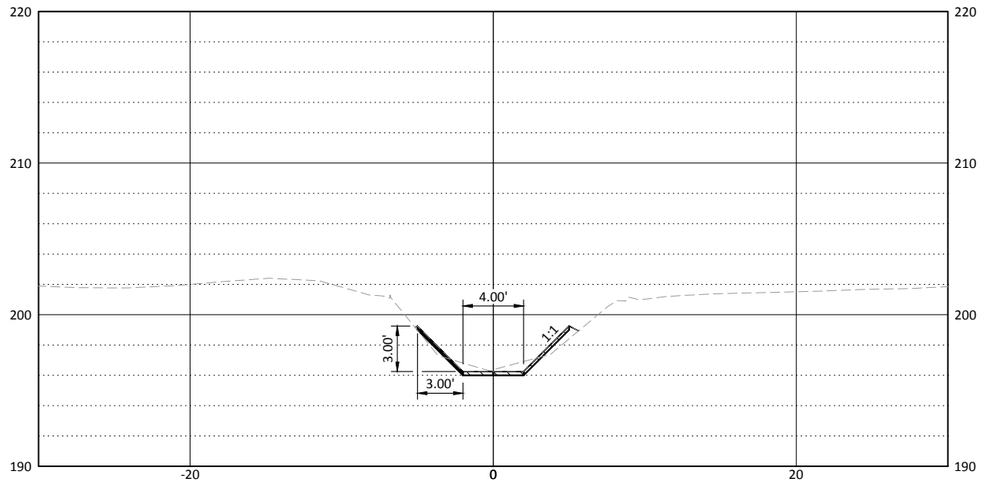
HEADWORKS AND FISH SCREEN PLAN

DESIGNED K. JENSEN
DRAWN J. NEVES
CHECKED V. AUTIER
PROJECT DATE 03/04/22

DRAWING
C205

JOB NO: 000000

Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\C205.dwg Plot date: Mar 04, 2022 01:29pm, CAD User: JoeNeves



SECTION @ STATION 3+00.00 (TYPICAL)

A C205

SCALE: HORIZ 1"= 5'
VERT 1"= 5'

0" 5' 10'
0" 5' 10'

REV	DATE	BY	DESCRIPTION
B	03/04/22	JB	SUBMITTED FOR 90% DESIGN REVIEW
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

NEVADA IRRIGATION DISTRICT

HEMPHILL DIVERSION PROJECT

HEMPHILL CANAL SECTION

DESIGNED K. JENSEN
DRAWN J. NEVES
CHECKED V. AUTIER
PROJECT DATE 03/04/22

DRAWING

C206

Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\C206.dwg Plot date: Mar 04, 2022 01:39pm, CAD User: JoeNeves

JOB NO: 000000

GENERAL STRUCTURAL NOTES:
THE FOLLOWING NOTES ARE GENERAL AND APPLY TO THE ENTIRE PROJECT, UNLESS SPECIFICALLY NOTED OTHERWISE (UNO)

1) GENERAL:

A. CONSTRUCTION DOCUMENTS:
   1. THE CONTRACTOR SHALL REVIEW THE APPROVED CONTRACT DOCUMENTS AND NOTIFY THE ENGINEER OF ANY ERRORS OR DISCREPANCIES PRIOR TO THE START OF CONSTRUCTION.
   2. THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY IF ANY UNIDENTIFIED EXISTING UNDERGROUND UTILITIES ARE DISCOVERED.
   3. THE STRUCTURAL CONTRACT DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO, BRACING AND/OR SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC.
   4. UNDER NO CIRCUMSTANCES CAN STRUCTURAL COMPONENTS BE SUBSTITUTED, OMITTED, OR ALTERED FROM THE APPROVED SET OF CONSTRUCTION DOCUMENTS WITHOUT WRITTEN APPROVAL FROM THE ENGINEER.

B. DIMENSIONS AND NOTATIONS:
   1. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS. DO NOT SCALE DRAWINGS.
   2. ABBREVIATIONS USED ON THE APPROVED CONSTRUCTION DOCUMENTS SHALL BE CONSIDERED TYPICAL ABBREVIATIONS FOR THE INDUSTRY. THE CONTRACTOR SHALL BE RESPONSIBLE TO NOTIFY THE ENGINEER IMMEDIATELY OF ANY ABBREVIATIONS THAT ARE UNKNOWN TO THE CONTRACTOR.

C. TYPICAL NOTES AND DETAILS:
   1. SPECIFIC NOTES AND DETAILS SHALL TAKE PRECEDENCE OVER STANDARD TYPICAL NOTES AND DETAILS.
   2. STANDARD TYPICAL NOTES AND DETAILS ARE TO BE USED WHEN REFERRED TO OR WHEN NO OTHER MORE RESTRICTIVE OR DIFFERENT DETAILS ARE SHOWN ON THE DRAWINGS.
   3. WORK NOT PARTICULARLY SHOWN OR SPECIFIED SHALL BE THE SAME AS SIMILAR PARTS THAT ARE SHOWN OR SPECIFIED.

D. CODE REQUIREMENTS:
   1. ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF REGULATING AGENCIES WHICH MAY HAVE AUTHORITY OVER ANY PORTION OF THE WORK.
   2. SPECIFICATIONS, CODES AND STANDARDS NOTED SHALL BE OF THE LATEST APPROVED ISSUE, INCLUDING SUPPLEMENTS, UNLESS NOTED OTHERWISE.

2) CODES, STANDARDS, AND REFERENCES:

A. ASCE 7-16: MINIMUM DESIGN LOADS AND ASSOCIATED CRITERIA FOR BUILDINGS AND OTHER STRUCTURES
B. ACI 318-14: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
C. ACI 350-06: CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES
D. 2019 CALIFORNIA BUILDING CODE (CBC)
E. AISC DESIGN GUIDE 27 - STRUCTURAL STAINLESS STEEL, 2013
F. ALUMINUM DESIGN MANUAL 2020 (AA)

3) STEEL

S1. GENERAL

STRUCTURAL STEEL WORK (EXCLUDING THE GATE ASSEMBLY) SHALL COMPLY WITH THE REQUIREMENTS OF THE AISC SPECIFICATIONS, THE AISC CODE OF STANDARD PRACTICE, AND SECTION 05 12 00 (STRUCTURAL STEEL) OF THE TECHNICAL SPECIFICATIONS.

S2. MATERIALS

STRUCTURAL STEEL SHALL COMPLY WITH THE FOLLOWING ASTM STANDARDS:
1. GATE HOIST STRUCTURE ELEMENTS (ABOVE SPILLWAY)
   A. WIDE FLANGE SHAPES (W) - A992, GR 50 GALV
   B. OTHER SHAPES, PLATES, BARS - A36 GALV
   C. BOLTS - A325, TYPE 1 GALV
   D. NUTS AND WASHERS - A563, TYPE 1 GALV
2. ANCHOR BOLTS
   A. STAINLESS STEEL F593, TYPE 316
   B. GALV STEEL F1554 GR 36/F2329

S3. FASTENERS

ALL HIGH-STRENGTH BOLTS SHALL BE INSTALLED, TIGHTENED, AND INSPECTED IN ACCORDANCE WITH THE RCSC FOR A PRETENSIONED JOINT TYPE, UNLESS NOTED OTHERWISE.

S4. WELDING

WELDING SHOWN FOR STRUCTURAL STEEL (EXCLUDING THE GATE ASSEMBLY) WILL COMPLY WITH AWS D1.1 AND SECTION 05 12 00 (STRUCTURAL STEEL) OF THE TECHNICAL SPECIFICATIONS.

WELDING SHOWN FOR STAINLESS STEEL ELEMENTS WILL COMPLY WITH AWS D1.6/D1.6M.

FIELD WELDING SYMBOLS HAVE NOT NECESSARILY BEEN INDICATED ON THE DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE USE OF SHOP AND FIELD WELDS.

4) CONCRETE:

A. ALL CONCRETE WORK SHALL CONFORM TO THE LATEST EDITION OF ACI 301 AND ACI 117, EXCEPT AS MODIFIED BY THE FOLLOWING SUPPLEMENTAL REQUIREMENTS:
B. ALL CONCRETE SHALL BE NORMAL WEIGHT CONCRETE.
C. CONCRETE MIX DESIGN SHALL BE ESTABLISHED IN ACCORDANCE WITH CHAPTER 5 OF ACI 350.
D. COMPRESSIVE STRENGTH (28 DAYS)
   $F'C$ 4,500 PSI
E. REINFORCEMENT FOR CONCRETE:
1. ALL REINFORCING SHALL BE SUPPORTED IN FORMS SPACED WITH NECESSARY ACCESSORIES AND SHALL BE SECURELY WIRED TOGETHER IN ACCORDANCE WITH THE LATEST EDITION OF THE CRSI "MANUAL OF STANDARD PRACTICE"
2. CLEAR COVER
   a) CONCRETE CAST AGAINST EARTH = 3"
   b) ALL OTHER CONCRETE, UNO = 2"
F. FORMWORK: DESIGN, ERECT, SUPPORT, BRACE AND MAINTAIN FORMWORK TO SUPPORT VERTICAL, LATERAL, STATIC AND DYNAMIC LOADS THAT MIGHT BE APPLIED UNTIL STRUCTURE CAN SUPPORT SUCH LOADS.

5) ALUMINUM:

A. ALL ALUMINUM WORK SHALL CONFORM TO THE LATEST EDITION OF THE ALUMINUM DESIGN MANUAL BY THE ALUMINUM ASSOCIATION.
B. UNLESS OTHERWISE INDICATED, ALUMINUM METALWORK SHALL BE FABRICATED FROM ALLOY 6061-T6, EXCEPT GRATING WHICH SHALL BE PER DESIGN.
C. ALUMINUM IN CONTACT WITH CONCRETE, MASONRY, WOOD, POROUS MATERIALS OR DISSIMILAR METALS SHALL HAVE CONTACT SURFACES COATED WITH:
   a) AMERCOAT 351
   b) SHERWIN WILLIAMS MACROPOXY 646
   c) TNEMEC EPOXOLINE 80
   d) OR APPROVED EQUAL

6) REINFORCEMENT:

A. ASTM A615 - FY = 60,000 PSI
B. SEE SPECIFICATIONS FOR REINFORCING PLACEMENT REQUIREMENTS.
C. ABSOLUTELY NO WELDING OF REINFORCING BARS OR TORCHING TO BEND REINFORCING BARS SHALL BE ALLOWED WITHOUT SPECIFIC APPROVAL FROM THE STRUCTURAL ENGINEER.

7) TESTS AND INSPECTIONS:

A. INSPECTIONS
   1. CONSTRUCTION SHALL BE SUBJECT TO INSPECTION BY THE BUILDING OFFICIAL OR THE AUTHORITY HAVING JURISDICTION AND SUCH CONSTRUCTION OR WORK SHALL REMAIN ACCESSIBLE AND EXPOSED FOR INSPECTION PURPOSES UNTIL APPROVED.
   2. THE CONTRACTOR IS RESPONSIBLE TO NOTIFY THE BUILDING OFFICIAL OR THE AUTHORITY HAVING JURISDICTION WHEN WORK IS READY FOR INSPECTION. IN ADDITION, THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ACCESS TO AND MEANS FOR INSPECTIONS OF SUCH WORK THAT ARE REQUIRED BY THE BUILDING OFFICIAL OR AUTHORITY HAVING JURISDICTION.

DESIGN LOADS - GENERAL	
PROJECT COORDINATES	
LATITUDE:	38.896722
LONGITUDE:	-121.251928
LIVE LOADS	
ELEVATED PLATFORMS	60 PSF
HYDROSTATIC LOADS	
UNIT WEIGHT OF WATER	62.4 PCF
EARTH LOADS	
Ka	0.33
Ko	0.5
Ke (SEISMIC EARTH PRESSURE)	0.288
NATIVE SOIL	
FRICTION ANGLE	30 DEGREES
COHESION	0 PSF
UNIT WEIGHT	130 PCF
STRUCTURAL FILL	
COEFFICIENT OF FRICTION - SOIL TO CIP CONCRETE	0.60
COEFFICIENT OF FRICTION - SOIL TO PRECAST CONCRETE	0.50
WIND DESIGN DATA	
ULTIMATE DESIGN WIND SPEED (Vult)	88 MPH
RISK CATEGORY	I
WIND EXPOSURE	B
EARTHQUAKE DESIGN DATA	
RISK CATEGORY	I
IMPORTANCE FACTOR (Ie)	1.0
SPECTRAL RESPONSE PARAMETER (Ss)	0.447
SPECTRAL RESPONSE PARAMETER (S1)	0.2220
SITE CLASS	D
DESIGN SPECTRAL RESPONSE PARAMETER (Sds)	0.430
GEOTECHNICAL INFORMATION	
DESIGN LOAD BEARING VALUE (ASD, STANDARD)	3000 PSF

REV	DATE	BY	DESCRIPTION
B	03/04/22	JB	SUBMITTED FOR 90% DESIGN REVIEW
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

NEVADA IRRIGATION DISTRICT
HEMPHILL DIVERSION PROJECT
STANDARD STRUCTURAL NOTES

DESIGNED Z. AUTIN
DRAWN R. GUERRERO
CHECKED T. BOWEN
PROJECT DATE 03/04/22

DRAWING
GS001

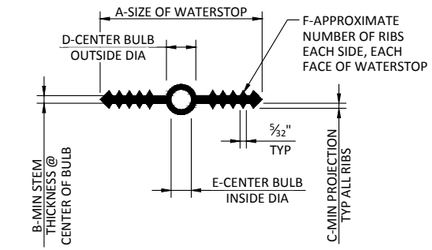
JOB NO: 0000000

Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\GS001.dwg Plot date: Mar 02, 2022 12:17pm, CAD User: HaberFlavia

TYPICAL LAP SPLICE LENGTHS IN INCHES, PER ACI 318/350					
		CLASS B LAP LENGTH		Ld	
BAR SIZE (#)	BAR POSITION	SPACING >= 6"	SPACING < 6"	SPACING >= 6"	SPACING < 6"
3	BOTTOM	16	16	12	12
	TOP	16	16	12	12
4	BOTTOM	16	18	12	14
	TOP	19	23	14	18
5	BOTTOM	18	26	14	20
	TOP	23	34	18	26
6	BOTTOM	21	35	17	27
	TOP	28	46	21	35
7	BOTTOM	31	51	24	40
	TOP	40	67	31	51
8	BOTTOM	35	59	27	45
	TOP	46	76	35	59
9	BOTTOM	44	66	34	51
	TOP	56	86	44	66
10	BOTTOM	52	73	40	56
	TOP	68	95	52	73
11	BOTTOM	62	80	48	62
	TOP	80	104	62	80

NOTES:
1. FOR GRADE 60 REINFORCING STEEL BARS.
2. FOR CONCRETE COMPRESSIVE STRENGTH f'c=4,500 PSI
3. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BARS.
4. ALL REINFORCING HOOKS SHALL BE PER ACI STANDARDS.

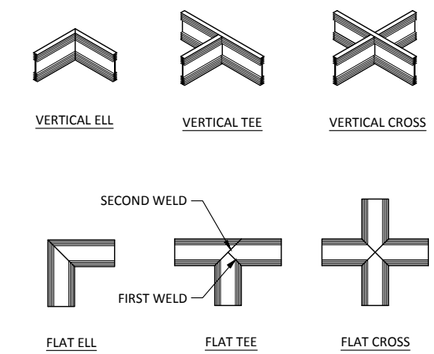
LAP SPLICE AND DEVELOPMENT LENGTH SCHEDULE — S101
SCALE: NTS



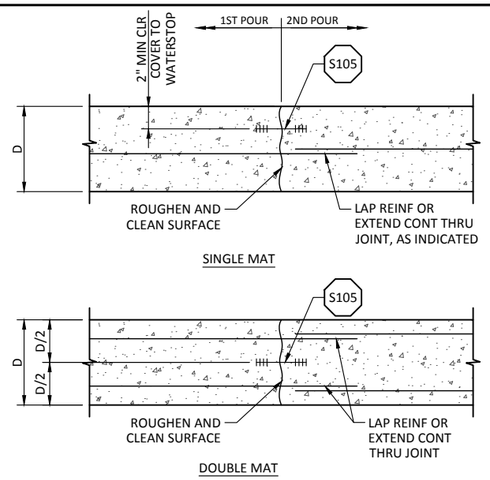
SIKA MODEL NO.	A	B	C	D	E	F
702	4"	3/16"	1/8"	3/4"	1/4"	5

NOTES:
1. MATERIAL QUALITY PER SPECIFICATIONS.
2. DIMENSION REQUIREMENTS INDICATED SHOULD BE GIVEN TO SUPPLIERS PRIOR TO PLACING ORDERS.
3. NON-ROUND CENTER BULBS SHALL HAVE A MINIMUM OUTSIDE DIMENSION OF "D".
4. WATERSTOP SHALL BE SIKA GREENSTREAK NO. 702 OR APPROVED EQUAL.

PVC WATERSTOP DETAIL — S105
SCALE: NTS

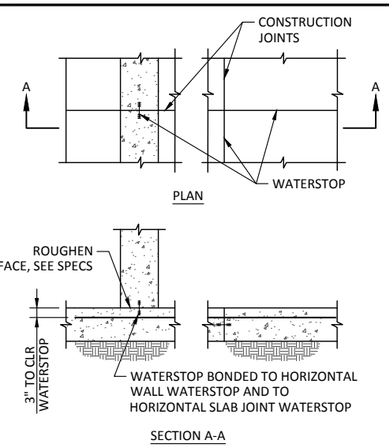


PREFABRICATED WATERSTOP JOINTS — S108
SCALE: NTS



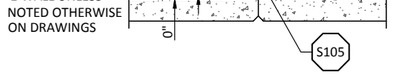
NOTES:
1. UNLESS OTHERWISE INDICATED, JOINTS IN WATER-BEARING STRUCTURES SHALL BE PROVIDED WITH A WATERSTOP.
2. DETAIL APPLIES TO WALLS OR SLABS (ELEVATED OR SLAB-ON-GRADE).

CONSTRUCTION JOINTS (CJ) — S112
SCALE: NTS



NOTE:
1. CONSTRUCTION JOINTS PASSING THROUGH VARIOUS MEMBERS OF A WATER RETAINING STRUCTURE SHALL BE SEALED WITH WATERSTOPS BONDED TOGETHER, SO AS TO PROVIDE A CONTINUOUS WATERTIGHT JOINT.

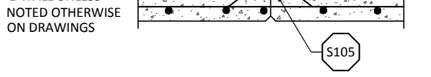
CONSTRUCTION JOINT (WALL TO SLAB) — S118
SCALE: NTS



SINGLE CURTAIN REINF

NOTES:
1. WHERE WATERSTOP IS REQUIRED IN SINGLE CURTAIN WALL REINFORCEMENT, PLACE WATERSTOP ON WATER SIDE OF WALL.
2. UNLESS OTHERWISE NOTED ¾" CHAMFERS SHALL BE OMITTED IN SURFACES TO RECEIVE ARCHITECTURAL TREATMENT.
3. UNLESS SPECIFICALLY NOTED OTHERWISE #5 AND LARGER BARS SHALL BE CONTINUOUS THRU JOINT. #4 AND SMALLER BARS SHALL STOP ALTERNATE BARS AT JOINT.
4. STAGGER SPLICES UNLESS NOTED OTHERWISE.

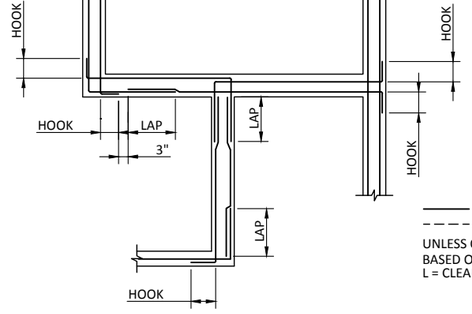
VERTICAL WALL CONSTRUCTION JOINT WITH WATERSTOP — S121
SCALE: NTS



DOUBLE CURTAIN REINF

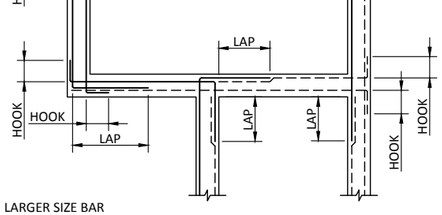
NOTES:
1. WHERE WATERSTOP IS REQUIRED IN SINGLE CURTAIN WALL REINFORCEMENT, PLACE WATERSTOP ON WATER SIDE OF WALL.
2. UNLESS OTHERWISE NOTED ¾" CHAMFERS SHALL BE OMITTED IN SURFACES TO RECEIVE ARCHITECTURAL TREATMENT.
3. UNLESS SPECIFICALLY NOTED OTHERWISE #5 AND LARGER BARS SHALL BE CONTINUOUS THRU JOINT. #4 AND SMALLER BARS SHALL STOP ALTERNATE BARS AT JOINT.
4. STAGGER SPLICES UNLESS NOTED OTHERWISE.

VERTICAL WALL CONSTRUCTION JOINT WITH WATERSTOP — S123
SCALE: NTS



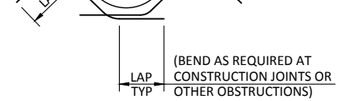
LARGER SIZE BAR
SMALLER SIZE BAR

UNLESS OTHERWISE NOTED LAPS ARE BASED ON THE SMALLER SIZE BARS
L = CLEAR SPAN



*USE THIS DETAILING PROCEDURE WHEN LARGER OR CLOSER SPACED BARS ARE CALLED OUT FOR CORNERS

HORIZONTAL REINFORCEMENT AT WALL INTERSECTIONS — S141
SCALE: NTS



NOTES:
1. CUT NORMAL REINFORCEMENT 2" CLEAR OF OPENING.
2. DIAGONAL BARS TO BE PLACED;
   A. AT CENTERLINE OF WALL OR SLAB WHERE ONE LAYER OF REINFORCEMENT IS PROVIDED.
   B. AT EACH FACE OF WALL OR SLAB WHERE TWO LAYERS OF REINFORCEMENT ARE PROVIDED.
3. UNLESS OTHERWISE NOTED, SIZE OF DIAGONAL BARS SHALL BE THE SIZE OF THE LARGEST NORMAL REINFORCING BAR CUT.
4. THIS DETAIL TO BE USED WHEN CALLED FOR ON THE DRAWINGS OR WHEN NO OTHER DETAIL IS SPECIFIED.

ADDITIONAL REINFORCEMENT AT CIRCULAR OPENINGS (<12" DIA) — S142
SCALE: NTS

REV	DATE	BY	DESCRIPTION
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

NEVADA IRRIGATION DISTRICT
HEMPHILL DIVERSION PROJECT

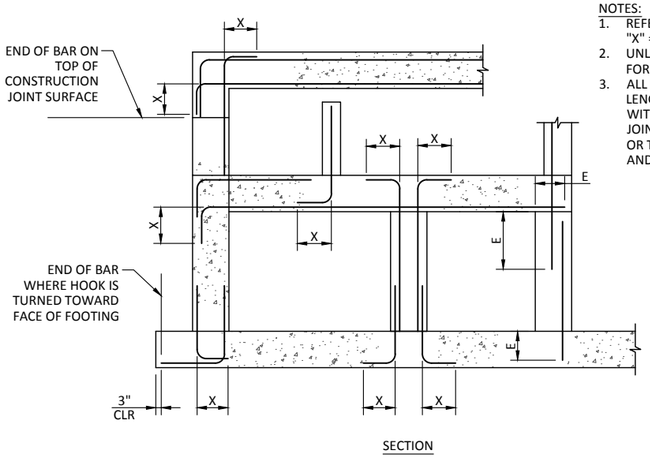
STRUCTURAL
STANDARD DETAILS 1

DESIGNED Z. AUTIN
DRAWN R. GUERRERO
CHECKED T. BOWEN
PROJECT DATE 01/19/21

DRAWING
GS002

JOB NO: 000000

Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\GS002.dwg Plot date: Jan 26, 2022 12:12pm, CAD User: JoeN



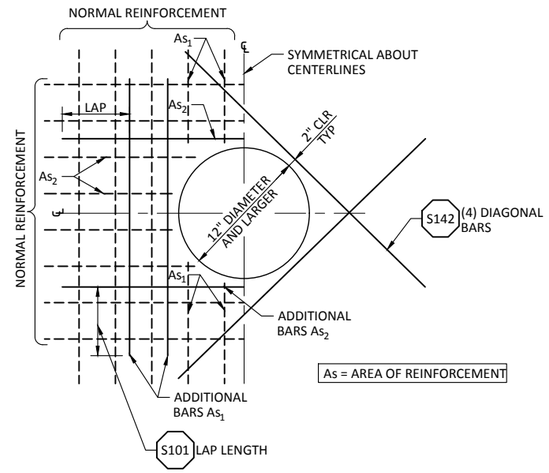
SECTION

NOTES:
1. REFER TO STD DETAIL S101 FOR REBAR LAP LENGTHS. "X" = HOOK LENGTH "E" = EMBEDMENT LENGTH
2. UNLESS NOTED OTHERWISE USE REBAR COUPLERS FOR SPLICES OF #11 AND LARGER BARS.
3. ALL DOWEL BARS SHALL EXTEND AN EMBEDMENT LENGTH E INTO ANOTHER MEMBER IN ACCORDANCE WITH ACI 350-06 OR ACROSS A CONSTRUCTION JOINT UNLESS SHOWN TO SPLICE WITH OTHER BARS OR TO EXTEND TO THE FAR FACE OF THE MEMBER AND END WITH A STANDARD HOOK.

STANDARD 90° BAR HOOKS, EMBEDMENT LENGTHS AND LAP LENGTHS

S143

SCALE: NTS



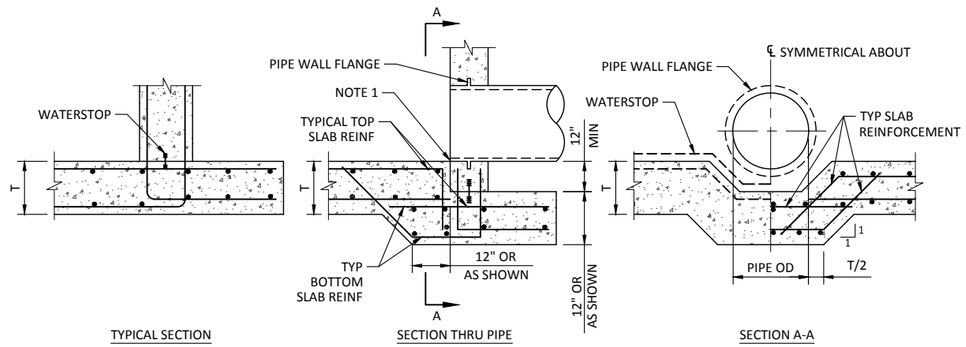
As = AREA OF REINFORCEMENT

NOTES:
1. CUT NORMAL REINFORCEMENT AT OPENINGS: As_1 AND As_2 = ½ AREA OF CUT BARS TO BE ADDED ON EACH SIDE OF OPENING.
2. ADDITIONAL BARS As_1 AND As_2 TO BE PLACED:
   A. AT CENTERLINE OF WALLS OR SLABS WHERE ONE LAYER OF REINFORCEMENT IS PROVIDED.
   B. AT EACH FACE OF WALLS OR SLABS WHERE TWO LAYERS OF REINFORCEMENT ARE PROVIDED.
3. INCREASE SIZE OF ADDITIONAL BARS AS NEEDED TO FIT WITHIN A DISTANCE OF 2 X WALL/SLAB THICKNESS FROM OPENING, PROVIDE 2" MIN CLEAR BETWEEN BARS.
4. THIS DETAIL TO BE USED ONLY WHEN NO OTHER DETAIL IS INDICATED ON THE DRAWINGS.
5. WHERE A SLAB OR INTERSECTING WALL CONNECTS WITHIN ONE WALL THICKNESS OF THE OPENINGS, ADDITIONAL BARS ON THAT SIDE MAY BE OMITTED.

ADDITIONAL REINFORCEMENT AT CIRCULAR OPENINGS (12" DIA OR LARGER)

S144

SCALE: NTS



NOTES:
1. SET PIPE INVERT FLUSH WITH SLAB.
2. DETAIL IS SIMILAR FOR RCP.

FOOTING AT WALL PIPE CONNECTION

S150

SCALE: NTS

REV	DATE	BY	DESCRIPTION
B	03/04/22	JB	SUBMITTED FOR 90% DESIGN REVIEW
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

NEVADA IRRIGATION DISTRICT
HEMPHILL DIVERSION PROJECT

STRUCTURAL
STANDARD DETAILS 2

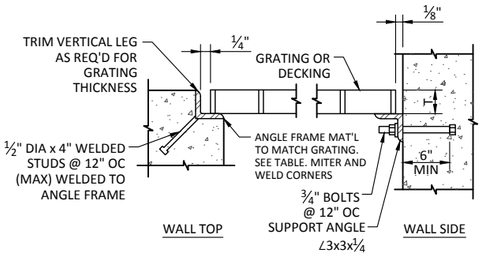
DESIGNED Z. AUTIN
DRAWN R. GUERRERO
CHECKED T. BOWEN
PROJECT DATE 03/04/22

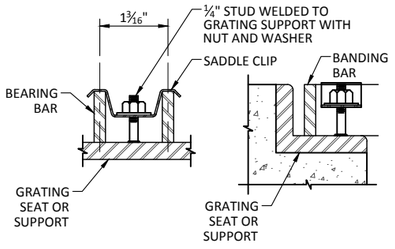
DRAWING
GS003

JOB NO: 0000000

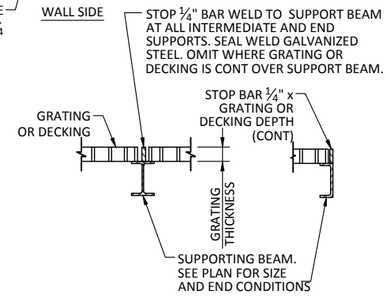
Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\GS003.dwg Plot date: Mar 02, 2022 12:22pm, CAD User: HaberFlavia

STEEL GRATING TABLE		
MAXIMUM SPAN	GRATING DEPTH	FRAME ANGLE
STANDARD GRATING (100 PSF)		
4'-0"	1"	1¾x1¼x¼
5'-0"	1¼"	2x1½x¼
6'-0"	1½"	1¾x1¾x¼
7'-0"	1¾"	2x2x¼
MEDIUM DUTY GRATING (500 PSF)		
2'-0"	1"	1¾x1¼x¼
3'-0"	1¼"	2x1½x¼
4'-0"	1½"	1¾x1¾x¼
5'-0"	1¾"	2x2x¼
6'-0"	2¼"	2½x2½x¼
HEAVY DUTY GRATING (HS20 WHEEL LOAD)		
1'-0"	2"x3/16"	2½x2½x½
2'-0"	2½"x⅜"	3x3x⅜
3'-0"	3½"x⅜"	4x3x½





GRATING CLIP DETAIL



GRATING OR DECKING STOP DETAIL

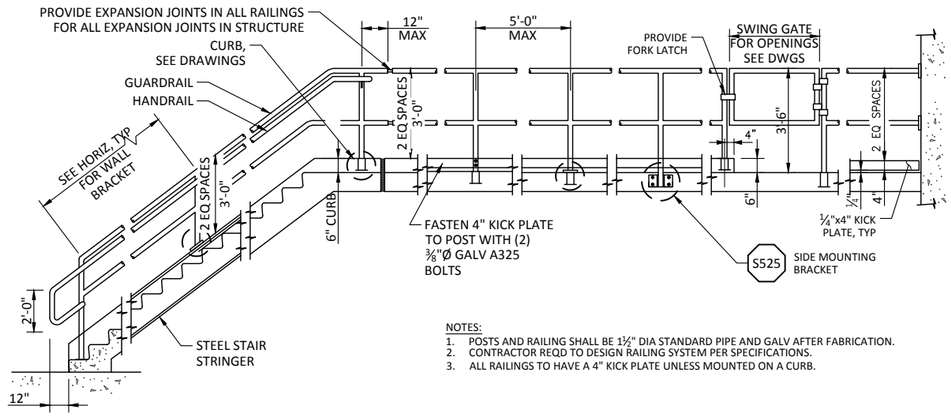
NOTES:

1. UNO ON PLANS, GRATING SHALL BE STANDARD DUTY TYPE.
2. ALL ENDS AND OPENINGS SHALL BE BANDED.
3. ALL GRATINGS SHALL BE SECURED IN PLACE WITH REMOVABLE FASTENERS.
4. FOR STANDARD OR MEDIUM DUTY GRATING WITH SERRATED BEARING BARS, INCREASE GRATING THICKNESS SHOWN IN TABLE BY ¼" AND USE ASSOCIATED FRAME ANGLE.
5. ¾"Ø ADHESIVE ANCHORS MAY BE SUBSTITUTED FOR ¾"Ø BOLTS. PROVIDE 6" MIN. EMBED.
6. FOR GRATING SPAN, SEE PLANS.
7. GRATING BEARING THICKNESS TO BE 3/16" MINIMUM. SEE SPECIFICATIONS FOR SPACING OF BEARING AND CROSS BARS.
8. WALL SIDE SUPPORT ONLY FOR STANDARD AND MEDIUM DUTY GRATING.

GRATING

SCALE: NTS

S501



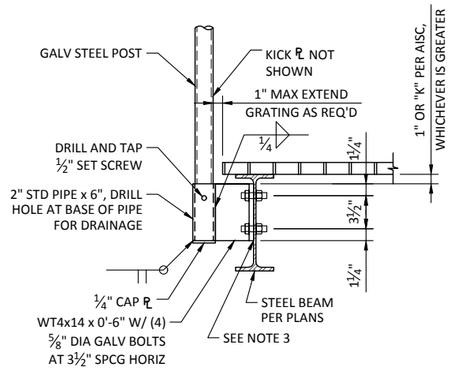
NOTES:

1. POSTS AND RAILING SHALL BE 1½" DIA STANDARD PIPE AND GALV AFTER FABRICATION.
2. CONTRACTOR REQD TO DESIGN RAILING SYSTEM PER SPECIFICATIONS.
3. ALL RAILINGS TO HAVE A 4" KICK PLATE UNLESS MOUNTED ON A CURB.

GUARDRAIL

SCALE: NTS

S511



NOTES:

1. HOT DIP GALV POST ANCHORAGE ASSEMBLY AFTER FABRICATION.
2. COORDINATE LOCATION OF WT WITH PERPENDICULAR MEMBER CONNECTIONS TO STEEL BEAM.
3. PACK W/SHIM PL'S WHERE NOTED ON DWGS.

POST TOP MOUNT ANCHORAGE AT STEEL BEAM - STEEL

SCALE: NTS

S525

REV	DATE	BY	DESCRIPTION
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

NEVADA IRRIGATION DISTRICT

HEMPHILL DIVERSION PROJECT

STRUCTURAL
STANDARD DETAILS 3

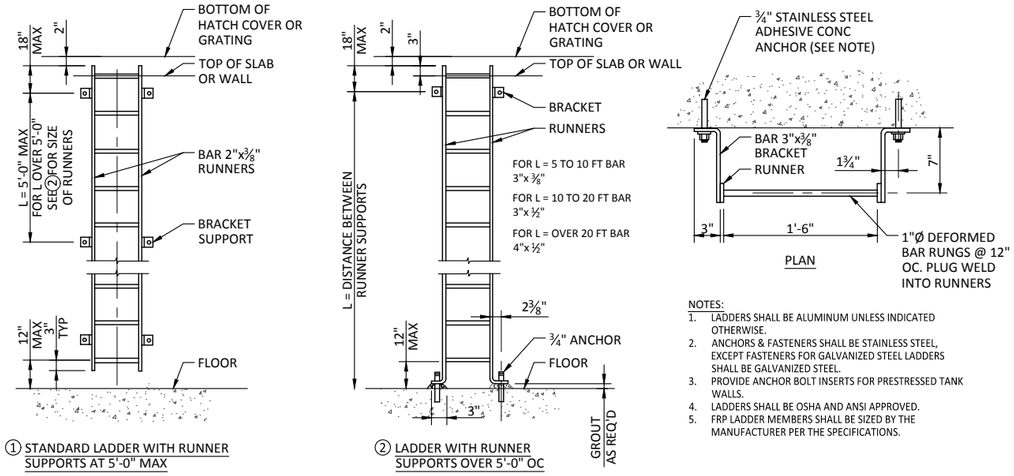
DESIGNED Z. AUTIN
DRAWN R. GUERRERO
CHECKED T. BOWEN
PROJECT DATE 01/19/21

DRAWING

GS004

JOB NO: 000000

Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\GS004.dwg Plot date: Feb 22, 2022 02:12pm, CAD User: JoeNeves

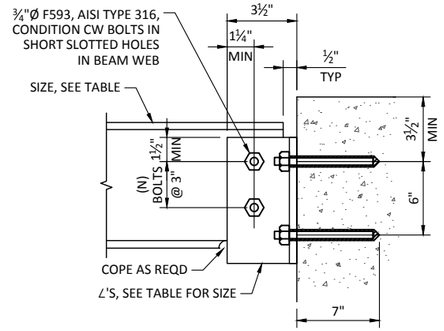


NOTES:
1. LADDERS SHALL BE ALUMINUM UNLESS INDICATED OTHERWISE.
2. ANCHORS & FASTENERS SHALL BE STAINLESS STEEL, EXCEPT FASTENERS FOR GALVANIZED STEEL LADDERS SHALL BE GALVANIZED STEEL.
3. PROVIDE ANCHOR BOLT INSERTS FOR PRESTRESSED TANK WALLS.
4. LADDERS SHALL BE OSHA AND ANSI APPROVED.
5. FRP LADDER MEMBERS SHALL BE SIZED BY THE MANUFACTURER PER THE SPECIFICATIONS.

FIXED LADDER

SCALE: NTS

S531

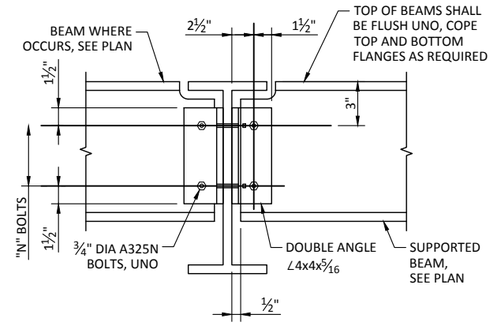


CONNECTION SCHEDULE			
BEAM SIZE	DOUBLE ANGLE SIZE	# OF BOLTS (N)	ADHESIVE ANCHORS NUMBER AND SIZE
W8	4x3-1/2x3/8x0'-8-1/2"	2	(4) 3/4" DIA. ANCHORS AT 6" OC, EW

BEAM TO CONC CONNECTION

SCALE: NTS

S563

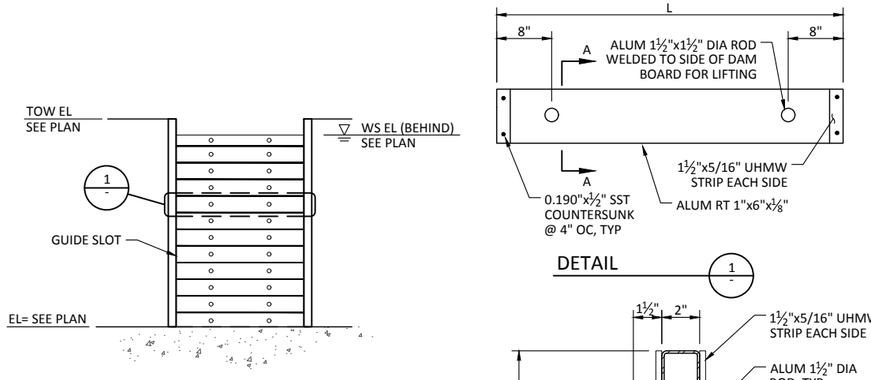


BEAM TO BEAM CONNECTION SCHEDULE								
SUPPORTED BEAM SIZE	W8 C8	W10 C10	W12 C12	W14 C15	W16	W18	W21	W24
NO. OF BOLTS "N"	2	2	3	3	4	4	5	6

BEAM TO BEAM CONNECTION (DOUBLE ANGLE CONNECTION)

SCALE: NTS

S568



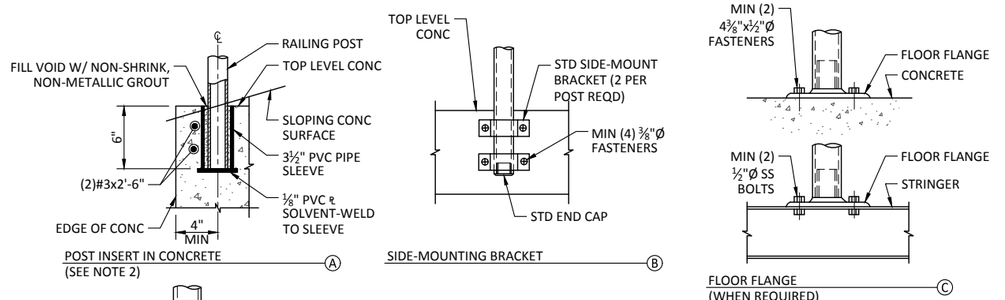
NOTES:
1. LENGTH (L) PER LOCATION - SEE TABLE.
2. DAM BOARD LENGTH TO BE FIELD VERIFIED BEFORE FABRICATION.

DAM BOARD SCHEDULE		
LOCATION	LENGTH (L)	# BOARDS
S2A	7'-9"	13
S2B	3'-0"	13
S2C	7'-9"	13

DAM BOARD GUIDE SLOT

SCALE: NTS

S588



NOTES:
1. IF FASTENING TO CONCRETE, FASTENERS SHALL BE ADHESIVE ANCHORS.
2. POST INSERTS NOT ALLOWED IN APPLICATIONS SUBJECT TO FREQUENT FREEZING.
3. USE POST INSERT UNLESS INDICATED OTHERWISE.
4. USE DETAIL C IN LIEU OF POST INSERT WHERE WALL/ CURB THICKNESS IS LESS THAN 8".
5. CONTRACTOR REQUIRED TO DESIGN RAILING SYSTEM PER SPECIFICATIONS.

RAILING, GUARDRAIL AND HANDRAIL SUPPORT DETAIL

SCALE: NTS

S512

REV	DATE	BY	DESCRIPTION
B	03/04/22	JB	SUBMITTED FOR 90% DESIGN REVIEW
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

NEVADA IRRIGATION DISTRICT

HEMPHILL DIVERSION PROJECT

STRUCTURAL
STANDARD DETAILS 4

DESIGNED Z. AUTIN

DRAWN R. GUERRERO

CHECKED T. BOWEN

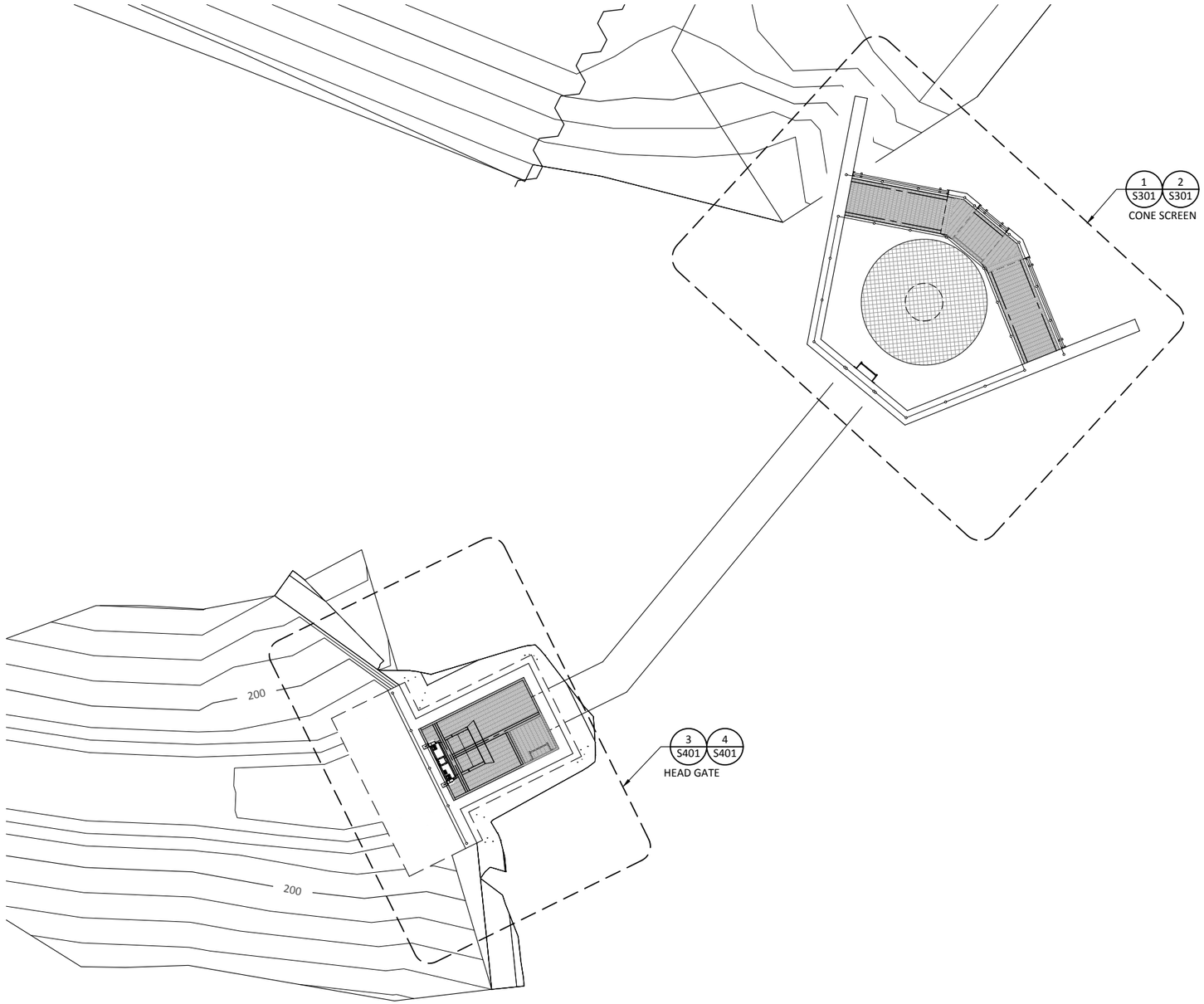
PROJECT DATE 03/04/22

DRAWING

GS005

JOB NO: 000000

Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\GS005.dwg Plot date: Mar 03, 2022 01:28pm, CAD User: HaberFlavia



SHEET KEY NOTES

1. INSTALL NEW CONCRETE CONE SCREEN ALCOVE STRUCTURE WITH ALUMINUM STOPLOGS AND STEEL CATWALK.
2. INSTALL NEW CONCRETE HEAD GATE STRUCTURE.

N

PLAN

SCALE: 1"= 5'

0" 5' 10'

REV	DATE	BY	DESCRIPTION
B	03/04/22	JB	SUBMITTED FOR 90% DESIGN REVIEW
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

NEVADA IRRIGATION DISTRICT

HEMPHILL DIVERSION PROJECT

STRUCTURAL KEY PLAN

DESIGNED K. JENSEN

DRAWN J. NEVES

CHECKED V. AUTIER

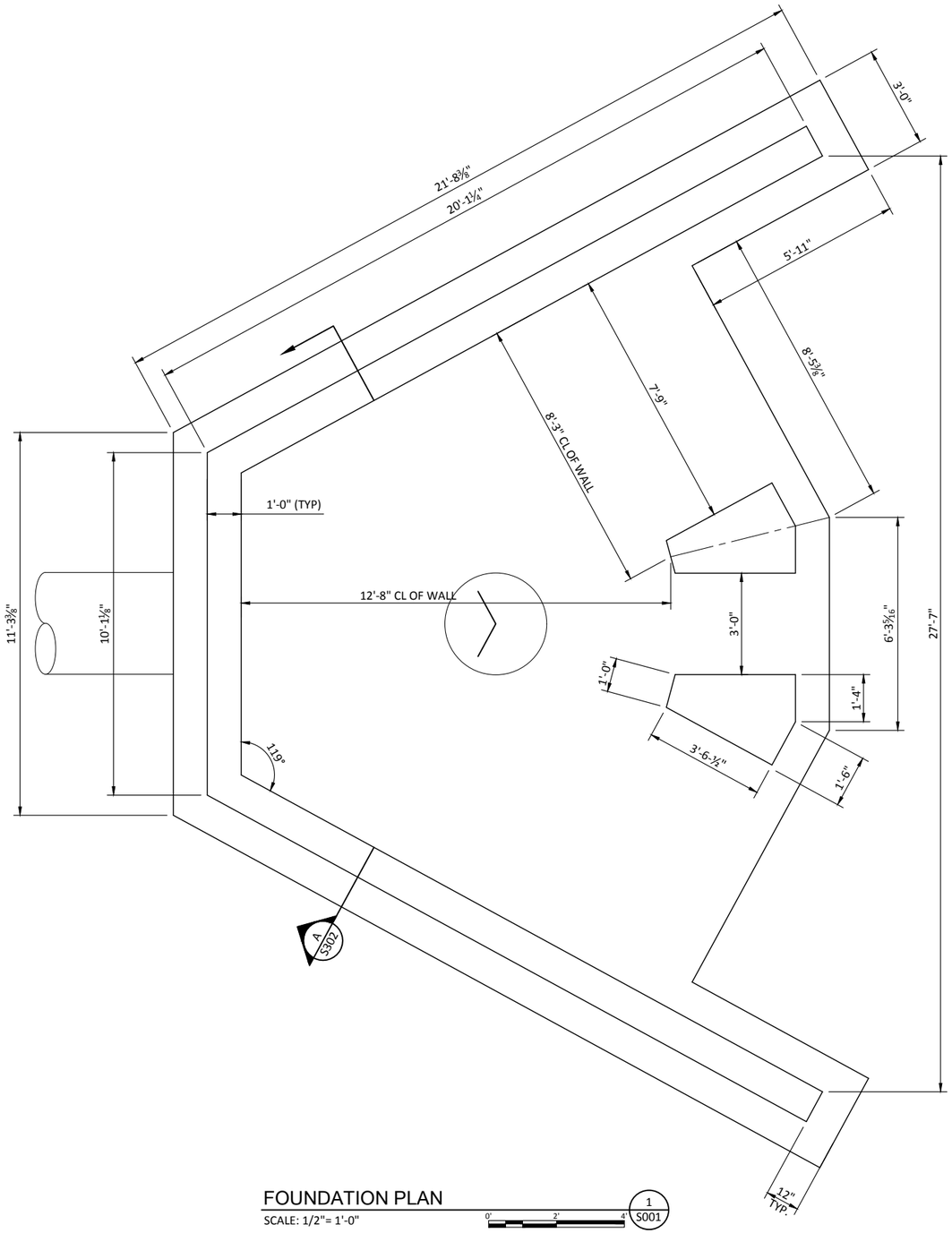
PROJECT DATE 03/04/22

DRAWING

S001

JOB NO: 0000000

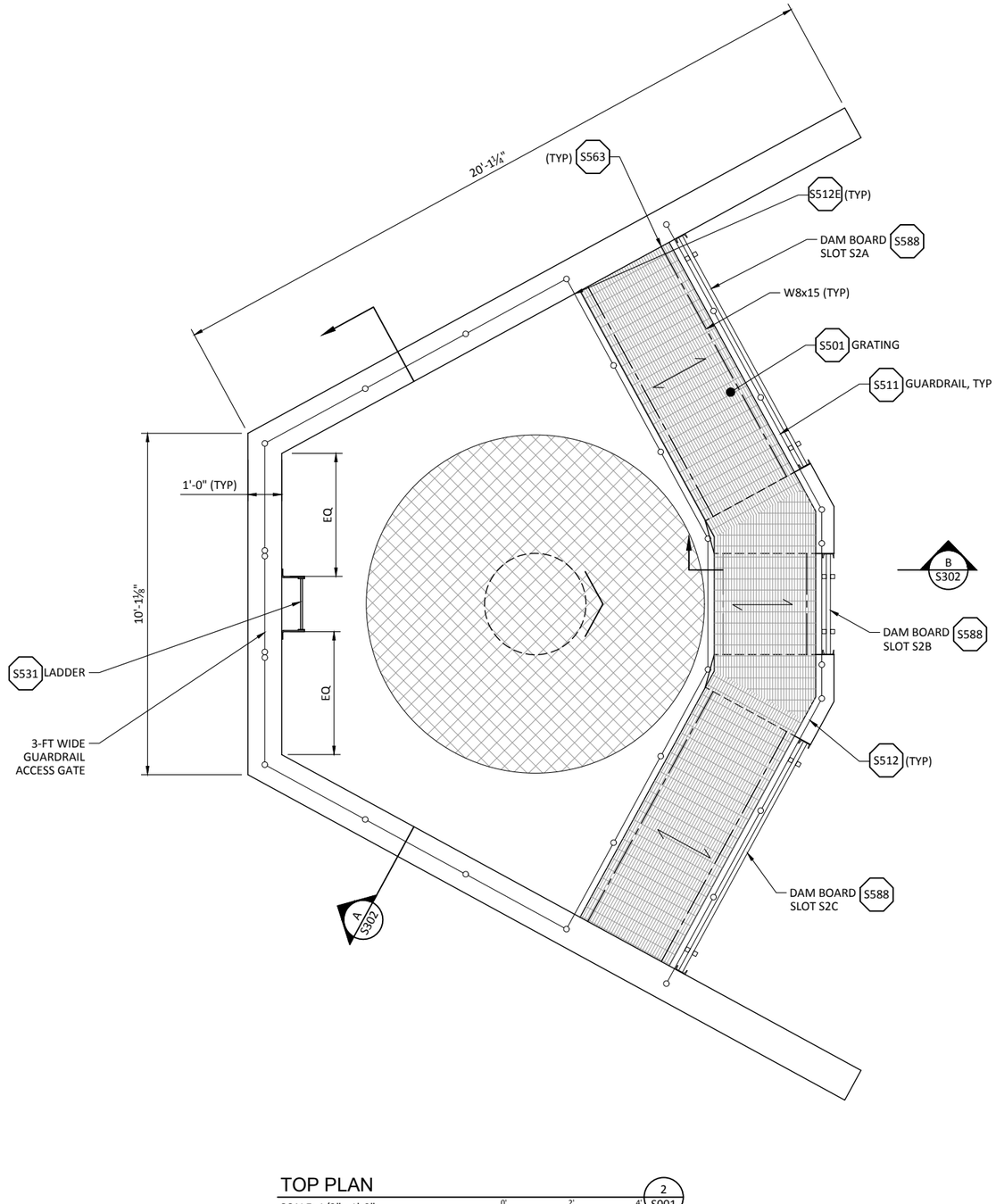
Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\S001.dwg Plot date: Mar 02, 2022 01:14pm, CAD User: HaberFlavia



FOUNDATION PLAN

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

1 S001



TOP PLAN

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

2 S001

REV	DATE	BY	DESCRIPTION
B	03/04/22	JB	SUBMITTED FOR 90% DESIGN REVIEW
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

NEVADA IRRIGATION DISTRICT

HEMPHILL DIVERSION PROJECT

CONE SCREEN ALCOVE - PLANS

DESIGNED K. JENSEN

DRAWN J. NEVES

CHECKED V. AUTIER

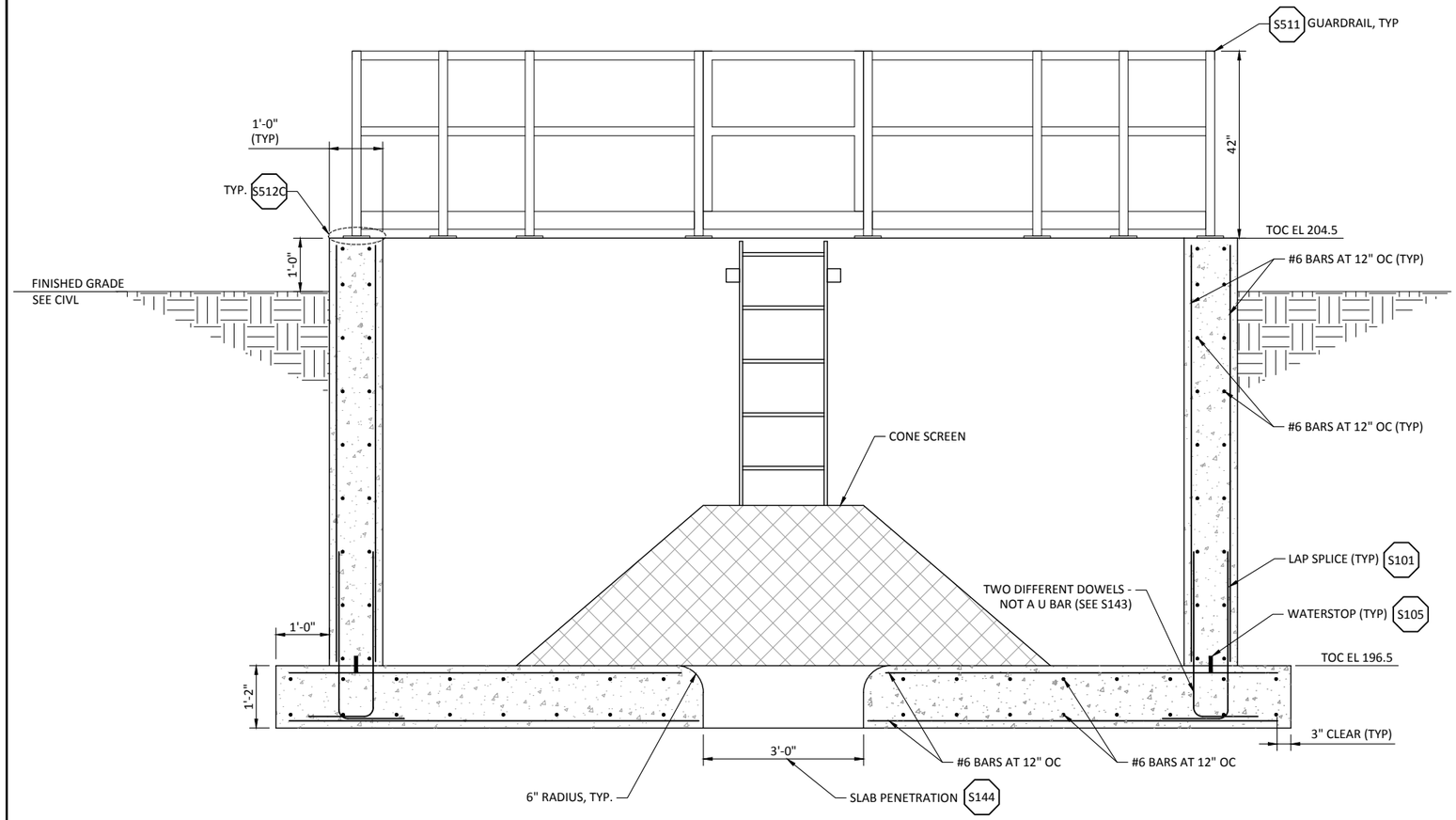
PROJECT DATE 03/04/22

DRAWING

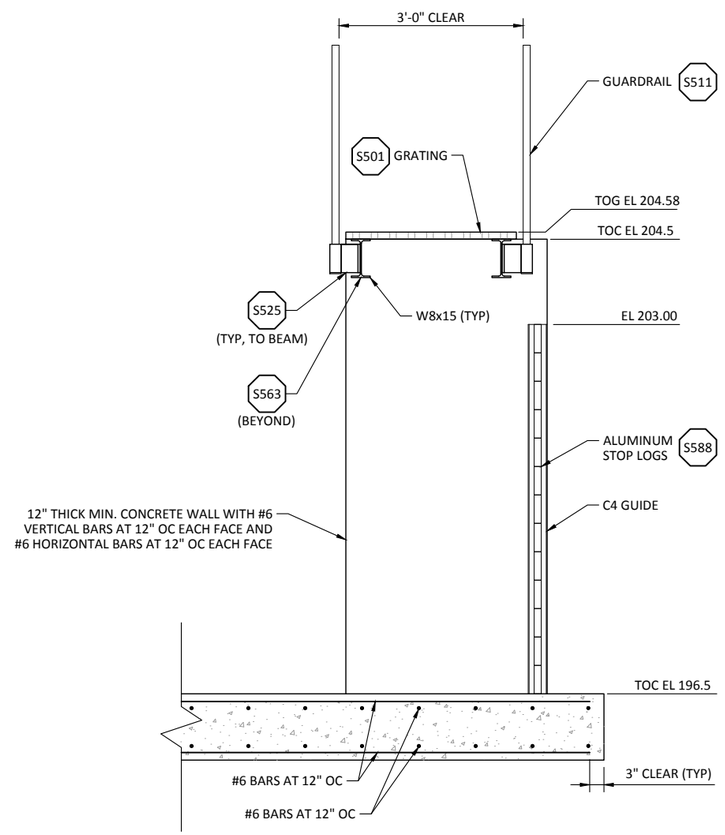
S301

JOB NO: 000000

Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\S301.dwg Plot date: Mar 04, 2022 01:07pm, CAD User: JoeNeves



SECTION
SCALE: 3/4"= 1'-0"
A S301



NOTES:

1. WALL REINFORCING NOT SHOWN FOR CLARITY. SEE SECTION A AND STANDARD DETAILS FOR ADDITIONAL INFORMATION

SECTION
SCALE: 3/4"= 1'-0"
B S301

REV	DATE	BY	DESCRIPTION
B	03/04/22	JB	SUBMITTED FOR 90% DESIGN REVIEW
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

NEVADA IRRIGATION DISTRICT
HEMPHILL DIVERSION PROJECT

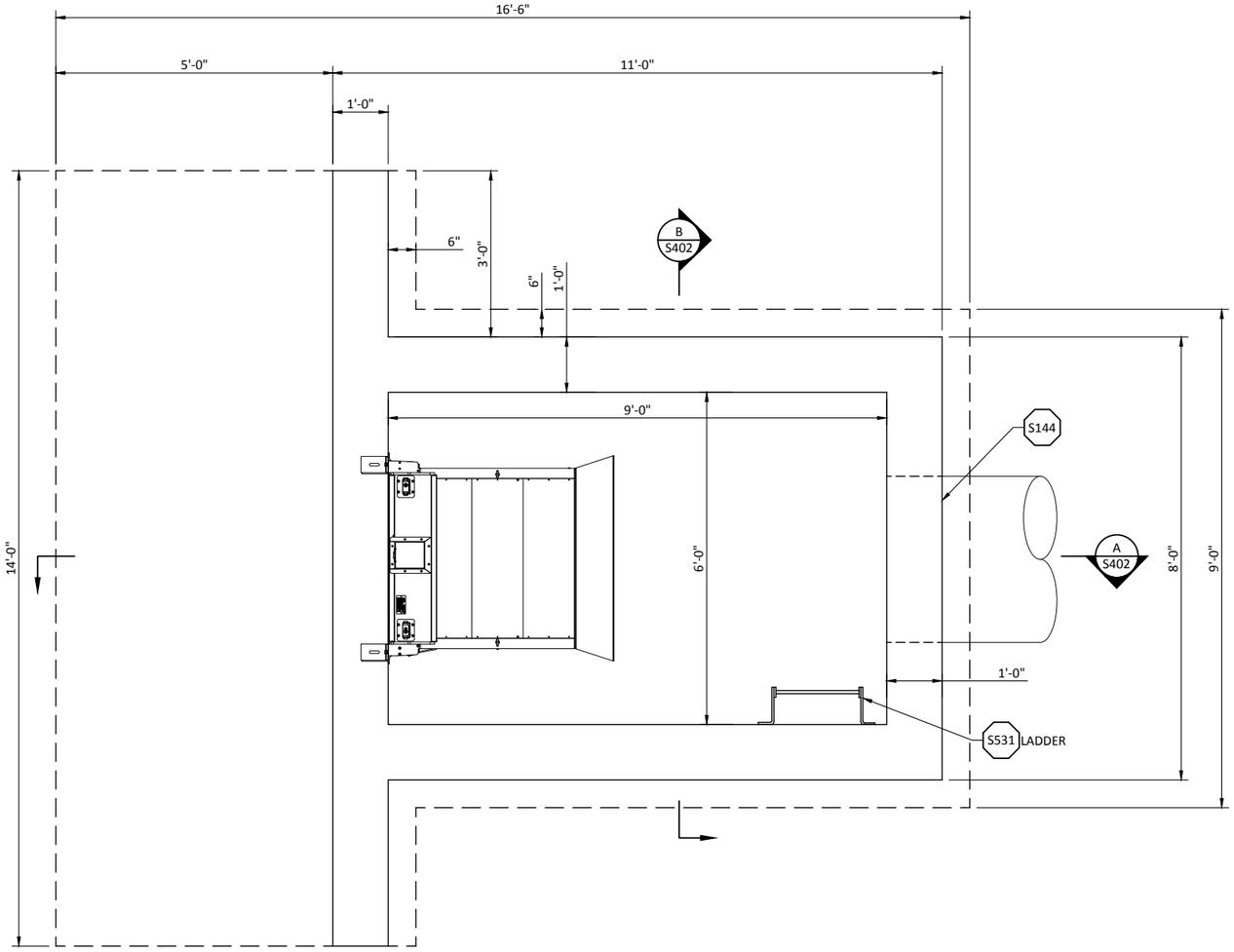
CONE SCREEN ALCOVE - SECTIONS

DESIGNED K. JENSEN
DRAWN J. NEVES
CHECKED V. AUTIER
PROJECT DATE 03/04/22

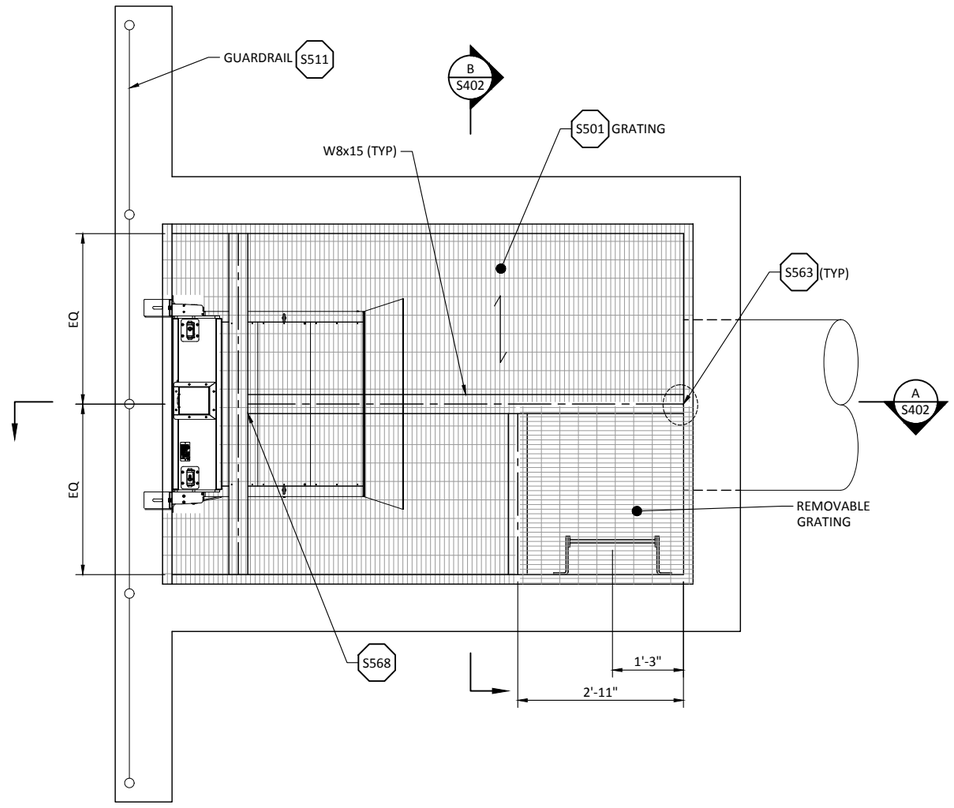
DRAWING
S302

JOB NO: 000000

Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\S302.dwg Plot date: Mar 03, 2022 01:49pm, CAD User: HaberFlavia



FOUNDATION PLAN
SCALE: 3/8"= 1'-0"
3 S001



TOP PLAN
SCALE: 3/8"= 1'-0"
4 S001

REV	DATE	BY	DESCRIPTION
B	03/04/22	JB	SUBMITTED FOR 90% DESIGN REVIEW
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

NEVADA IRRIGATION DISTRICT
HEMPHILL DIVERSION PROJECT

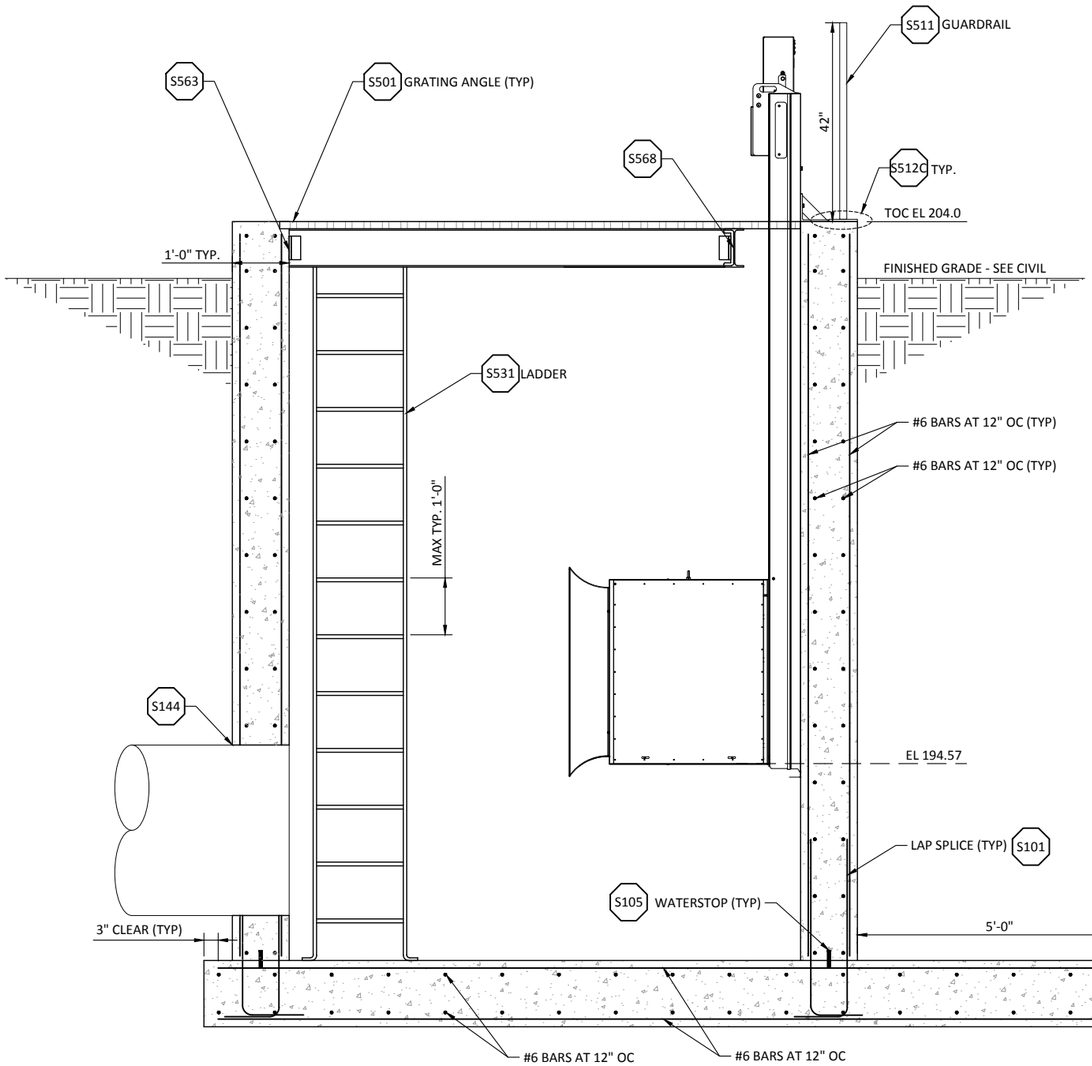
HEAD GATE STRUCTURE - PLANS

DESIGNED K. JENSEN
DRAWN J. NEVES
CHECKED V. AUTIER
PROJECT DATE 03/04/22

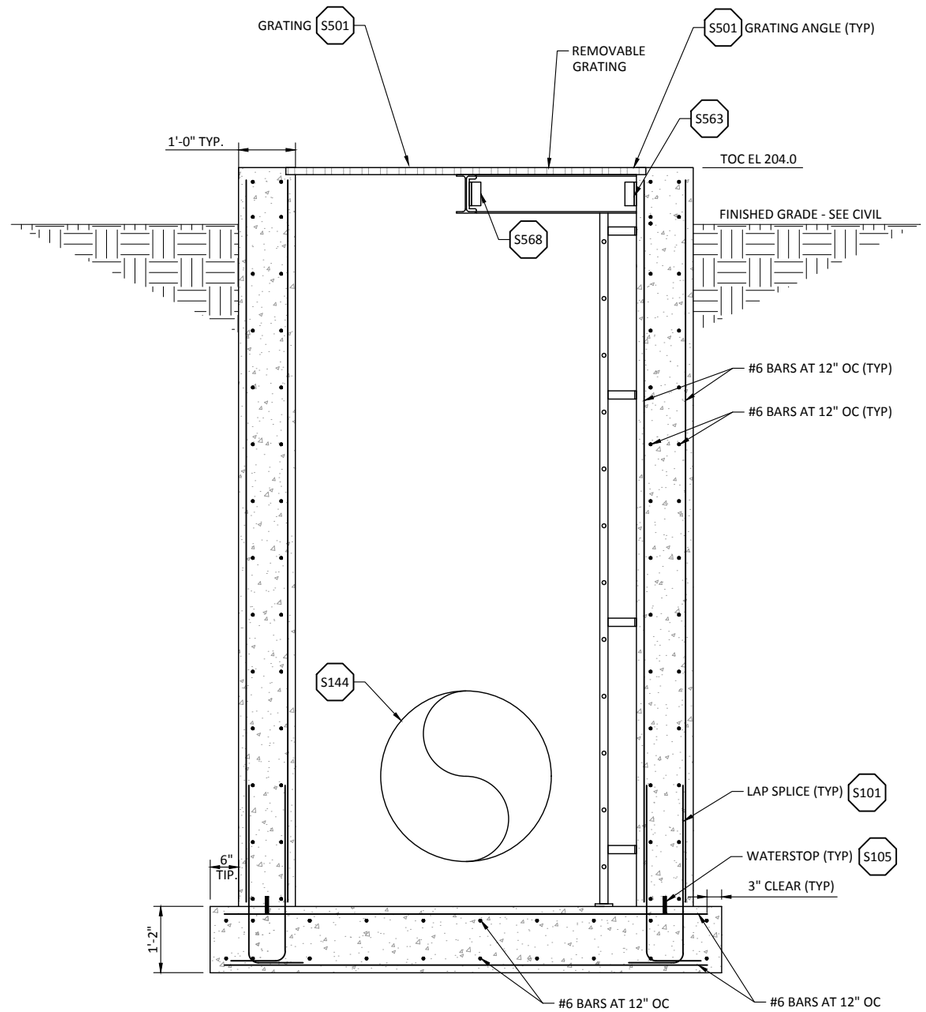
DRAWING
S401

JOB NO: 0000000

Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\S401.dwg Plot date: Mar 03, 2022 01:39pm, CAD User: HaberFlavia



SECTION
SCALE: 3/4"= 1'-0"
A S401



SECTION
SCALE: 3/4"= 1'-0"
B S401

REV	DATE	BY	DESCRIPTION
B	03/04/22	JB	SUBMITTED FOR 90% DESIGN REVIEW
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

NEVADA IRRIGATION DISTRICT
HEMPHILL DIVERSION PROJECT

HEAD GATE STRUCTURE - SECTIONS

DESIGNED K. JENSEN
DRAWN J. NEVES
CHECKED V. AUTIER
PROJECT DATE 03/04/22

DRAWING
S402

JOB NO: 000000

Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\S402.dwg Plot date: Mar 03, 2022 02:20pm, CAD User: HaberFlavia

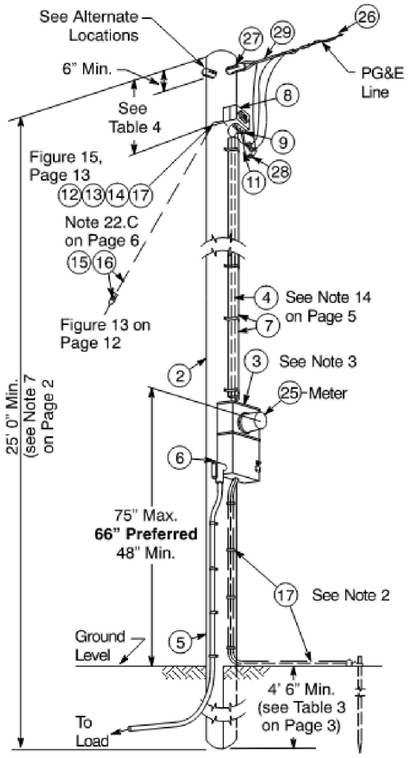


Figure 5
Service Drop Cable to Underground Line

Table 5 Materials to Be Furnished and Installed by the Customer

Item	Description
1	Pole, 6" x 6" Timber, Class 6 Round, or Equivalent Metal (length as required, see Note 2 on Page 1)
2	Pole, Wood, or Equivalent Metal (see Note 6, Note 7, and Note 8 on Page 2). (See Table 1 on Page 3 for approved list of wood pole suppliers.)
3	Meter Socket, Main Service Switch
4	Conduit, Service (see Note 14 on Page 5)
5	Conduit, Load Side (see Note 14 on Page 5)
6	Conduit Fitting, Threaded, With Cover and Gasket
7 [1]	Covering, PVC Conduit, or PVC Moulding (see Page 9)
8 [1]	Wood Block (4" x 4" x 6" or two 2" x 4" x 6" nailed together)
9	Service Head
10	Service Knob
11	Wire, Insulated (size as required) (18" minimum extension from service head)
12	Bolt, Machine, 5/8 or 3/4, (as required), Galvanized
13	Washer, Curved, 3" x 3" (for 5/8" Bolt) or 4" x 4" (for 3/4" Bolt), Galvanized
14	Guy Hook or Guy Pole Plate and Thimble Assembly
15	Guy Strand Cable, 7/32" or 1/4" Minimum Galvanized Steel or Equivalent
16	Insulator, Guy Strain (10,000 lbs. minimum)
17	Guy Grip, Preform, (as required)
18	Anchor Rod, 5/8" x 6' 0" Minimum, and Fittings (as required)
19	Anchor, 16" Cross Plate, or 8" Expanding
20	Guy Marker
21	Push Brace, 2" x 4" Minimum Timber (securely bolted to pole). See Figure 14 on Page 12.
22	Grounding by Customer (see Pages 8 and 10)

[1] Omit conduit covering, Item 7, and wood block, Item 8, on a metal pole or on a wood pole with plastic conduit (see Note 15 on Page 5). **Exception:** The wood block is required for a wood pole with plastic conduit when the service head is metallic and the neutral service entrance conductor is uninsulated (see Note 15 on Page 5).

Table 3 Pole Setting Depths

Pole Length (feet)	Setting Depth (feet)	
	Firm Soil	Rock
25	5-1/2	3
30	6	3
35	6-1/2	3-1/2
40	7	3-1/2
45	7-1/2	4

[1] Do not use a 25 foot pole when the service crosses a street or road

Table 4 Customer's Service Attachment Location [1, 2]

Panel Rating (amps)	Weatherhead Distance From Top of Pole (inches)		PG&E Service Attachment (type)
	Minimum	Maximum	
200	18	20	Service Knob
226-400 (1-Phase) [3]	34	36	3 Spool & Clevis [4, 5]
226-400 (3-Phase) [3]	42	44	4 Spool & Clevis [4, 5]

[1] All open wire services require vertical construction. See Figure 7 on Page 11 and Figure 4 on Page 9.
[2] A longer pole may be necessary to obtain the required service clearances from the ground. See note 9D on Page 4.
[3] See Note 26 on Page 6.
[4] See Figure 7 on Page 11. PG&E service must be insulated wire.
[5] The installation of extended rack brackets is no longer allowed. Use Vertical construction.

Permanent Installations

Notes

1. Locate the guy in line with the service drop. The guy must be maintained taut.
2. Grounding and bonding, by the customer, must be in accordance with NEC and local ordinances (see Note 20 on Page 5). The ground rod must be located no less than 12 inches from the pole surface.
3. Customer's equipment must not be installed in the climbing space or over the pole brand. See Note 20 on Page 5 for grounding requirements.
4. For customer-owned poles, span lengths are limited to 150 feet. The vertical separation between conductors in vertical construction is 8 inches minimum.
5. If the poles are to be set in **firm** soil, use the setting depths from the "Firm Soil" column of Table 3 on Page 3. If the poles are to be set in rock, use the setting depths from "Rock" column of Table 3 on Page 3. If the poles are to be set in **soft** soil, the poles must be set deeper than the depths shown in Table 3 on Page 3. Consult the PG&E project coordinator for the other approved methods for **soft** soil.

UTILITY POLE ELEVATION PER PG&E - REQUIREMENTS FOR CUSTOMERS OWNED POLES - 025055 REV. 19 (1 / E102)

SCALE: NTS

N

PLAN

SCALE: 1"= 50'

0" 50' 100'

EUG — UNDERGROUND ELECTRICAL WIRE

REV	DATE	BY	DESCRIPTION
B	03/04/22	JB	SUBMITTED FOR 90% DESIGN REVIEW
A	01/19/21	JB	SUBMITTED FOR 50% DESIGN REVIEW

WARNING

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMILLEN JACOBS ASSOCIATES

CELEBRATING 100 YEARS 1921 2021 NID

NEVADA IRRIGATION DISTRICT

HEMPHILL DIVERSION PROJECT

ELECTRICAL SITE PLAN AND ELEVATION

DESIGNED J. BURGI

DRAWN J. NEVES

CHECKED

PROJECT DATE 03/04/22

DRAWING

E101

JOB NO: 000000

Path: C:\Vault20\Nevada Irrigation District\Hemphill Diversion\E101.dwg Plot date: Mar 04, 2022 02:07pm, CAD User: JoeNeves