CITY AND BOROUGH OF WRANGELL

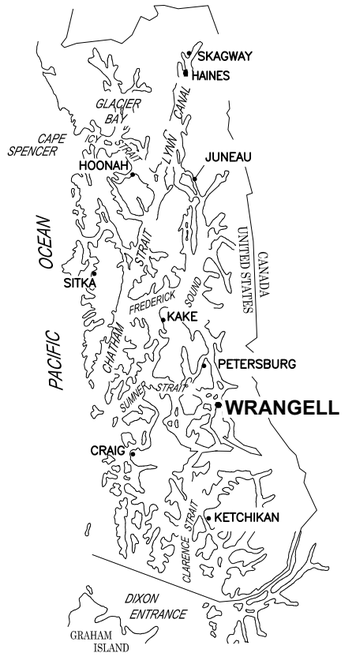
WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM

PLANS

Volume 2 of 2

JULY 27, 2023

LOCATION MAP



SOUTHEAST ALASKA

CITY AND BOROUGH OF WRANGELL
NON-MOTORIZED TRANSPORTATION SYSTEM

VICINITY MAP

IMAGERY FROM:
2022 MAXAR TECHNOLOGIES

SCALE IN MILES

0 ⅛ ¼

DRAWING INDEX

DWG. NO.	TITLE
1	COVER SHEET, VICINITY MAP AND DRAWING INDEX
2	LEGEND AND ABBREVIATIONS
3	EXISTING CONDITIONS AND SURVEY CONTROL
4	OVERALL SITE PLANS
5	TRAIL LAYOUT POINT SUMMARY TABLES
6	TRAIL PARKING PLAN AND SECTIONS
7	TRAIL PLAN AND PROFILE
8	TRAIL PLAN AND PROFILE
9	TRAIL PLAN AND PROFILE
10	TRAIL PLAN AND PROFILE
11	TRAIL PLAN AND PROFILE
12	TRAIL PLAN AND PROFILE
13	TRAIL PLAN AND PROFILE
LANDSCAPE	
L501	DETAILS
L502	SIGN SCHEDULE
USFS STANDARD DETAILS	
910-01	STANDARD TRAIL TERMS
911-01	TYPICAL CROSS SECTION & SLOPE FINISH
911-03	TYPICAL RETAINERS
912-01	CLEARING LIMITS – TREES AND LOGS
913-01	TYPICAL SURFACING SECTIONS
913-02	TYPICAL SURFACING SECTIONS WITH RETAINERS
921-10-01	STANDARD CULVERT
921-40-01	TREATED TIMBER BOX CULVERT
933-40-01	BARRIER RAIL ON POST
936-40-01	STAIRCASE
938-20-01	ELEVATED BOARDWALK
938-20-02	ELEVATED BOARDWALK
938-20-03	ELEVATED BOARDWALK
938-20-04	ELEVATED BOARDWALK
938-30-01	STEP AND RUN
962-10-01	SAWN TIMBER STRINGER TRAIL BRIDGE
962-10-02a	SAWN TIMBER STRINGER TRAIL BRIDGE
962-10-03a	SAWN TIMBER STRINGER TRAIL BRIDGE
962-10-04	SAWN TIMBER STRINGER TRAIL BRIDGE

REVISIONS

REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

PND ENGINEERS, INC.
9360 Glacier Highway, Ste. 100
Juneau, Alaska 99801
Phone: 907-586-2093
Fax: 907-586-2099
www.pndengineers.com

DESIGN: BMI CHECKED: CRS
DRAWN: PJD APPROVED: CRS
SCALE: AS SHOWN
DATE: 6/28/23

STATE OF ALASKA 49TH
Charles R. Somerville
CE-8845
REGISTERED PROFESSIONAL ENGINEER

WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM

SHEET TITLE: COVER SHEET, VICINITY MAP AND DRAWING INDEX

PND PROJECT NO.: 212038 C.A.N. NO.: AECC250

1

GENERAL NOTES

1. CONTRACTOR SHALL INSTALL TEMPORARY DEVICES CONSISTING OF BUT NOT LIMITED TO STRAW BALES, FILTER FABRIC FENCES, SETTLING POND, ETC., TO PROHIBIT SILT LADEN DEWATERING EFFLUENT AND OTHER CONSTRUCTION RUNOFF FROM ENTERING ADJACENT STREAMS OR WATER BODIES. CONTRACTOR IS RESPONSIBLE FOR THE QUALITY OF THE DEWATERING EFFLUENT AND OTHER CONSTRUCTION RUNOFF THAT ENTERS ADJACENT STREAMS OR WATER BODIES AND IS, THEREFORE, RESPONSIBLE FOR VIOLATIONS AND PENALTIES FROM HIS OPERATIONS.
2. MATCH EXISTING GRADES AT PROJECT LIMITS AND WHERE REQUIRED TO MATCH ELEVATIONS AT EXISTING ROADS.
3. ALL REMOVED MATERIALS THAT ARE NOT SUITABLE FOR REUSE ON THE PROJECT SHALL BE PROPERLY DISPOSED OF OFF SITE BY THE CONTRACTOR. ANY SALVAGED MATERIALS TO BE REUSED ON SITE SHALL BE APPROVED IN ADVANCED BY OWNER.
4. THE LOCATIONS OF EXISTING FEATURES AND UTILITIES SHOWN ON THE DRAWINGS ARE APPROXIMATE. ADDITIONAL UTILITIES MAY BE PRESENT HOWEVER ARE NOT SHOWN. SEE ALSO OWNER PROVIDED RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS IN THE FIELD AS NECESSARY, PRIOR TO BEGINNING WORK. THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL UTILITIES ENCOUNTERED IN THE FIELD SHALL BE RECORDED ON THE CONTRACTOR'S RECORD DRAWINGS. CONTACT LOCAL UTILITY COMPANIES PRIOR TO ANY/ ALL EXCAVATIONS AT THE FOLLOWING TELEPHONE NUMBERS:

DIAL BEFORE YOU DIG!
907-228-4727
UNDERGROUND POWER, TELEPHONE, T.V., COMMUNICATIONS, WATER AND SEWER LINES ARE IN THE AREA. UTILITIES SHOWN ON THE PLANS DO NOT SUBSTITUTE FOR FIELD LOCATES.

5. PROPERTY DISTURBED DURING CONSTRUCTION OUTSIDE OF PROJECT LIMITS SHALL BE RESTORED TO ITS PRE-CONSTRUCTION CONDITION.
6. GRADING AND ALIGNMENT OF PIPE, STRUCTURES & FINAL SURFACING ARE SUBJECT TO MINOR REVISIONS BY THE ENGINEER TO FIT SITE CONDITIONS. GRADE ALL IMPROVEMENTS WITH POSITIVE DRAINAGE AWAY FROM STRUCTURES.
7. PROPERTY LINE LOCATIONS USED IN THESE PLANS ARE DERIVED FROM RECORD PLATS AND DO NOT REPRESENT A BOUNDARY SURVEY.

LEGEND

EXISTING	THIS PROJECT	
		POWER POLE
		CENTER OF CREEK OR SWALE
OHE		OVERHEAD ELECTRIC
		PROPERTY LINE
		LAYOUT POINT
		CONIFEROUS TREE
		POWER POLE
		FEDERAL CONTROL STATION
GPS		GNSS CONTROL POINT
SCP		TEMPORARY WORK POINT
		RECOVERED REBAR W/ ALUM. CAP
		RECOVERED CONC. MONUMENT
		RECOVERED IRON PIPE
		RECOVERED CHISELED ROCK MONUMENT

ABBREVIATIONS

A	
@	AT
AC	ASBESTOS CEMENT PIPE
ACP	ASPHALT CONCRETE PAVEMENT
ADA	AMERICANS WITH DISABILITIES ACT
ADJ	ADJUSTABLE
APF	ASSOCIATED PILE AND FITTING CORP.
APPROX. or APPX.	APPROXIMATE
ASSOC.	ASSOCIATED
ATS	ALASKA TIDELANDS SURVEY
AV	AIR RELEASE VALVE
B	
BCC	BEGINNING OF CURB CUT
BFV	BUTTERFLY VALVE
BLDG	BUILDING
BOP	BEGINNING OF PROJECT
BTM, BOT	BOTTOM
BTWN	BETWEEN
C	
C&G	CURB & GUTTER
CB	CATCH BASIN
CI	CAST IRON
CIP	CAST-IN-PLACE
CJ	CONTROL JOINT
℄	CENTER LINE
CLR	CLEAR
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
C.O.E.	CORPS OF ENGINEERS
COMM	COMMUNICATION
CONC.	CONCRETE
CONT	CONTINUOUS
CP	COMPLETE PENETRATION
CPEP/CPP	CORRUGATED POLYETHYLENE PIPE
COR	CORNER
CSC	COUNTERSINK
CTE	CONNECT TO EXISTING
CTR	CENTER
CY	CUBIC YARD
D	
DPC	DISSIMILAR PIPE COUPLING
D/DIA	DIAMETER
DBL	DOUBLE
DEMO	DEMOLITION
DFT	DRY FILM THICKNESS
DL	DEAD LOAD
DIP	DUCTILE IRON PIPE
DIM	DIMENSION
DN	DOWN
DTL	DETAIL
E	
E	EAST
EA.	EACH
EC	EDGE OF CONCRETE
ECC	END OF CURB CUT
EG	EXISTING GRADE
EJ	EXPANSION JOINT
EL/ELEV	ELEVATION
ELEL	ELECTRICAL
EOP	END OF PAVEMENT
EQ	EQUAL
EQUIP	EQUIPMENT
EST	ESTIMATE
EW	EACH WAY
EXC	EXCAVATE
EXIST	EXISTING
F	
FC	FACE OF CURB
FD	FLOOR DRAIN
FF	FINISHED FLOOR
FG/FGRD	FINISHED GRADE
FH	FIRE HYDRANT, FLAT HEAD
FIN	FINISH (ED)
FM	FORCE MAIN SEWER
FND	FOUNDATION
FOC	FACE OF CURB
FT	FOOT
FT-LBS	FOOT POUNDS
FTG	FOOTING
FL	FLOWLINE OR FLANGE
G	
GALV	GALVANIZED
GB	GRADE BREAK
GRD	GROUND
GRS	GALVANIZED RIGID STEEL
GV	GATE VALVE
H	
H&T	HUB & TACK
HD	HEAVY DUTY
HDG	HOT-DIPPED GALVANIZED
HDPE	HIGH DENSITY POLYETHYLENE
HORIZ	HORIZONTAL
HSE	HOUSE
HT	HEIGHT
HWY.	HIGHWAY
I	
IAW	IN ACCORDANCE WITH
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IN	INCH
IP	IRON PIPE
INCL	INCLUDE (D) (ING)
INSUL	INSULATE (D) (ION)
INV	INVERT
J	
JB	JUNCTION BOX
L	
LBS	POUNDS
LF	LINEAR FEET
LL	LIVE LOAD
LOC	LOCATION
LS	LUMP SUM
M	
MAX	MAXIMUM
M.E.	MATCH EXISTING
MECH	MECHANICAL
MFR	MANUFACTURE (R)
MH	MANHOLE
MJ	MECHANICAL JOINT
MI	MALLEABLE IRON
MIN	MINIMUM
MLLW	MEAN LOWER LOW WATER
MSF	1000 SQUARE FEET
MSE	MECHANICALLY STABILIZED EARTH
MTL	MATERIAL (S)
N	
N	NORTH
NFS	NON FROST SUSCEPTIBLE
NIC	NOT IN CONTRACT
NO	NUMBER
NTS	NOT TO SCALE
O	
OBD	OVERBURDEN
OC	ON CENTER
OD	OUTSIDE DIAMETER
OG	ORIGINAL GOUND
OHE	OVERHEAD ELECTRICAL
OS	OWNER SUPPLIED
OWS	OIL-WATER SEPARATOR
OPP	OPPSITE
P	
P	PIPE
PC	POINT OF CURVATURE, PIECE
PCC	PRECAST CONCRATE
	POINT OF COMPOUND CURVATURE
PE	POLYETHYLENE
PED	PEDESTAL
PER	PERIMETER
PERF	PERFORATE (D)
PI	POINT OF INTERSECTION
PLWD	PLYWOOD
PL	PROPERTY LINE, PLATE
POC	POINT OF CURVE
PP	POLYPROPYLENE
PRC	POINT OF REVERSE CURVATURE
PROJ	PROJECT
PRKG	PARKING
PRV	PRESSURE REDUCING VALVE
PSI	POUND PER SQUARE INCH
PT	POINT, PRESSURE TREATED, POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE, POLY-VINYL CHLORIDE
PVI	POINT OF VERTICAL INTERSECTION
Q	
QA	QUALITY ASSURANCE
QC	QUALITY CONTROL
QTY	QUANTITY
R	
RAD	RADIUS
RE	RIM ELEVATION
REF	REFERENCE
REINF	REINFORCEMENT
REQD	REQUIRED
RTW	RETAINING WALL
RO	ROUGH OPENING
ROW	RIGHT OF WAY
S	
S	SOUTH
SCHED/SCH	SCHEDULE
SD	STORM DRAIN
SDI	STORM DRAIN INLET STRUCTURE
SDO	STORM DRAIN OUTLET STRUCTURE
SDR	STANDARD DIMENSION RATIO
SF	SQUARE FOOT
SHLDR	SHOULDER
SI	STREET INTERSECTION
SPEC	SPECIFICATION (S)
SQ	SQUARE
SRB	SHOT ROCK BORROW
SSC	SANITARY SEWER CONNECTION
SS	STAINLESS STEEL, SANITARY SEWER
SDMH	STORM DRAIN MANHOLE
SSMH	SANITARY SEWER MANHOLE
STA	STATION
STD	STANDARD
STL	STEEL
STRG	STRONG
SW	SIDEWALK
SWR	SEWER
SY	SQUARE YARD
SYM	SYMMETRICAL
T	
t	THICK
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TBC	TOP BACK OF CURB
TBD	TO BE DETERMINED
TBM	TEMPORARY BENCH MARK
TD	TRENCH DRAIN
TEL	TELEPHONE
TEMP	TEMPERATURE, TEMPORARY
TH	TEST HOLE
THK	THICK
TRANS	TRANSVERSE
TSM	THERMAL SPRAY METALIZE
TV	TELEVISION
TYP	TYPICAL
U	
UAMH	UTILITY ACCESS MANHOLE
UBC	UNIFORM BUILDING CODE
UE	UNDERGROUND ELECTRIC
UMC	UNIFORM MECHANICAL CODE
UHMW	ULTRA HIGH MOLECULAR WEIGHT
UON/UNO	UNLESS OTHERWISE NOTED
UPC	UNIFORM PLUMBING CODE
UV	ULTRAVIOLET
V	
VB	VALVE BOX
VERT	VERTICAL
VG	VALLEY GUTTER
W	
W	WEST
W/	WITH
WD	WOOD
WELDMT	WELDMENT
WL	WATERLINE
WQU	WATER QUALITY UNIT
WV	WATER VALVE
WW	WATER WATER
WWTP	WASTE WATER TREATMENT PLANT
W/O	WITHOUT
X	
XFMR	TRANSFORMER
<PT	ANGLE POINT

REVISIONS

REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

PND ENGINEERS, INC.
9360 Glacier Highway, Ste. 100
Juneau, Alaska 99801
Phone: 907-586-2093
Fax: 907-586-2099
www.pndengineers.com

DESIGN: BMI CHECKED: CRS
DRAWN: PJD APPROVED: CRS
SCALE: AS SHOWN
DATE: 6/28/23

STATE OF ALASKA 49TH — Charles R. Somerville CE-8845 — REGISTERED PROFESSIONAL ENGINEER

WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM

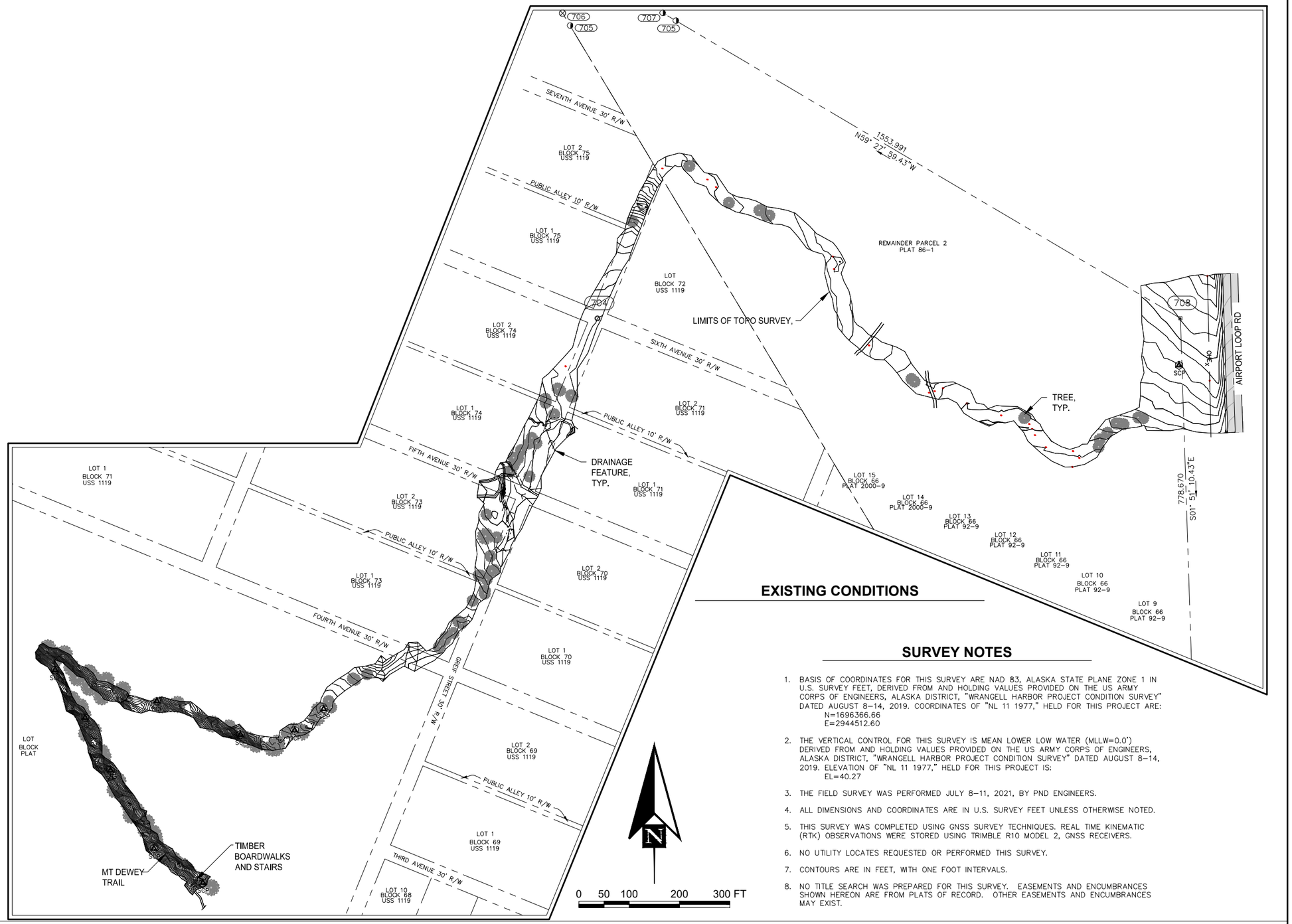
SHEET TITLE: **LEGEND AND ABBREVIATIONS**

PND PROJECT NO.: 212038 C.A.N. NO.: AECC250

2

RECOVERED MONUMENTATION			
POINT #	NORTHING	EASTING	DESCRIPTION
704	1698845.063	2946115.195	FIP [BURIED IRON PIPE]
705	1699634.704	2945935.536	FAC [2.5 IN]
706	1699668.125	2945915.428	FD ROCK WITH X [ROCK WITH SCRIBED X]
707	1699657.315	2945897.438	FAC [2.5 IN]
708	1698845.259	2947273.965	FD CONC MON [CONC MON DISTURBED FELL OVER]

SURVEY CONTROL				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
201	1696448.860	2945337.040	57.71	FBC [USACE– 1204 BM 5]
204	1694521.220	2944940.270	14.66	FBC [USACE– NL 1 1977]
210	1694239.540	2944835.110	20.15	FBC [USACE– NL 11 1977]
211	1696366.660	2944512.600	40.27	FBC [USCGS– NO 6 1954]
401	1697510.782	2945062.035	391.20	SNL [PK/FLASHER]
402	1697552.142	2945228.642	390.20	SNL [PK/FLASHER]
403	1697598.920	2945313.974	351.29	SNL [PK/FLASHER]
404	1697723.296	2945330.518	302.22	SNL [PK – WP]
405	1697790.965	2945233.448	302.30	SNL [PK – WP]
406	1697946.290	2945147.193	273.16	SNL [PK – WP]
408	1698751.850	2947271.270	128.45	SNL [SPIKE – WP]
411	1698051.103	2945096.476	243.19	SNL [SPIKE – WP]
412	1698146.051	2945036.931	232.44	SNL [SPIKE – WP]
413	1698084.139	2945239.284	191.41	SNL [SPIKE – WP]
414	1698017.367	2945405.651	160.36	SNL [SPIKE – WP]
415	1698025.979	2945513.250	146.53	SNL [SPIKE – WP]
416	1698068.725	2945570.861	141.24	SNL [SPIKE – WP]



EXISTING CONDITIONS

SURVEY NOTES

1. BASIS OF COORDINATES FOR THIS SURVEY ARE NAD 83, ALASKA STATE PLANE ZONE 1 IN U.S. SURVEY FEET, DERIVED FROM AND HOLDING VALUES PROVIDED ON THE US ARMY CORPS OF ENGINEERS, ALASKA DISTRICT, "WRANGELL HARBOR PROJECT CONDITION SURVEY" DATED AUGUST 8–14, 2019. COORDINATES OF "NL 11 1977," HELD FOR THIS PROJECT ARE:
   N=1696366.66
   E=2944512.60
2. THE VERTICAL CONTROL FOR THIS SURVEY IS MEAN LOWER LOW WATER (MLLW=0.0') DERIVED FROM AND HOLDING VALUES PROVIDED ON THE US ARMY CORPS OF ENGINEERS, ALASKA DISTRICT, "WRANGELL HARBOR PROJECT CONDITION SURVEY" DATED AUGUST 8–14, 2019. ELEVATION OF "NL 11 1977," HELD FOR THIS PROJECT IS:
   EL=40.27
3. THE FIELD SURVEY WAS PERFORMED JULY 8–11, 2021, BY PND ENGINEERS.
4. ALL DIMENSIONS AND COORDINATES ARE IN U.S. SURVEY FEET UNLESS OTHERWISE NOTED.
5. THIS SURVEY WAS COMPLETED USING GNSS SURVEY TECHNIQUES. REAL TIME KINEMATIC (RTK) OBSERVATIONS WERE STORED USING TRIMBLE R10 MODEL 2, GNSS RECEIVERS.
6. NO UTILITY LOCATES REQUESTED OR PERFORMED THIS SURVEY.
7. CONTOURS ARE IN FEET, WITH ONE FOOT INTERVALS.
8. NO TITLE SEARCH WAS PREPARED FOR THIS SURVEY. EASEMENTS AND ENCUMBRANCES SHOWN HEREON ARE FROM PLATS OF RECORD. OTHER EASEMENTS AND ENCUMBRANCES MAY EXIST.

REVISIONS

REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

PND ENGINEERS, INC.
9360 Glacier Highway, Ste. 100
Juneau, Alaska 99801
Phone: 907-586-2093
Fax: 907-586-2099
www.pndengineers.com

DESIGN: BMI CHECKED: CRS
DRAWN: PJD APPROVED: CRS
SCALE: AS SHOWN

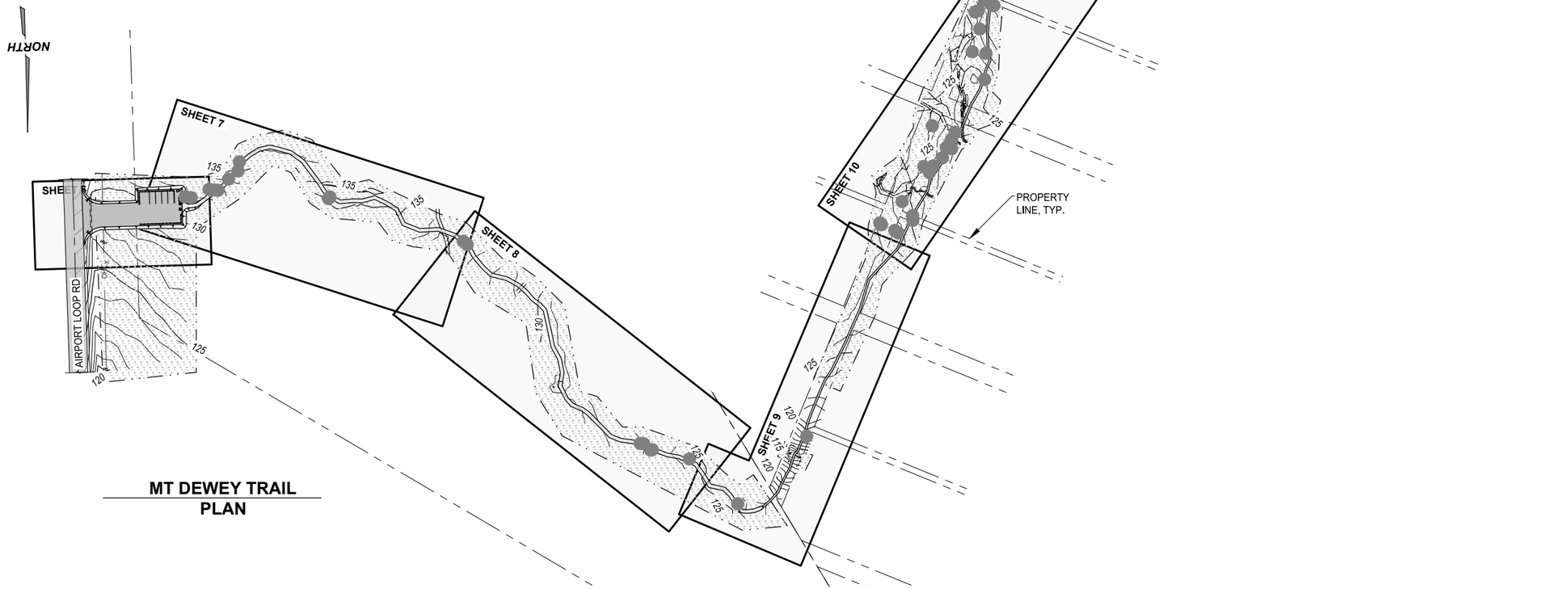
STATE OF ALASKA 49TH
Charles R. Somerville
CE-8845
REGISTERED PROFESSIONAL ENGINEER
DATE: 6/28/23

WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM

SHEET TITLE: EXISTING CONDITIONS AND SURVEY CONTROL

3

PND PROJECT NO.: 212038 C.A.N. NO.: AECC250



MT DEWEY TRAIL
PLAN

REVISIONS

REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

P N D ENGINEERS, INC.
9360 Glacier Highway, Ste. 100
Juneau, Alaska 99801
Phone: 907-586-2093
Fax: 907-586-2099
www.pndengineers.com

DESIGN: BMI CHECKED: CRS
DRAWN: PJD APPROVED: CRS
SCALE:

STATE OF ALASKA 49TH
Charles R. Somerville
CE-8845
REGISTERED PROFESSIONAL ENGINEER
DATE: 6/28/23

WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM

SHEET TITLE: **OVERALL SITE PLANS**

PND PROJECT NO.: 212038 C.A.N. NO.: AECC250

4

TRAIL LAYOUT SUMMARY TABLE

POINT NO.	NORTHING	EASTING
25	1698662.28	2947204.08
26	1698661.76	2947188.23
27	1698659.58	2947178.79
28	1698653.37	2947170.30
29	1698638.62	2947150.11
30	1698622.84	2947130.72
31	1698603.71	2947114.79
32	1698584.12	2947099.56
33	1698569.93	2947078.94
34	1698566.99	2947054.81
35	1698573.45	2947030.53
36	1698586.93	2947009.74
37	1698606.13	2946993.96
38	1698626.17	2946979.01
39	1698645.82	2946964.10
40	1698654.88	2946941.46
41	1698653.46	2946916.53
42	1698648.98	2946892.16
43	1698657.84	2946869.45
44	1698673.40	2946850.80
45	1698693.26	2946837.53
46	1698701.75	2946814.18
47	1698700.48	2946789.22
48	1698707.37	2946765.44
49	1698721.29	2946745.11
50	1698740.28	2946729.52
51	1698759.98	2946714.28
52	1698775.46	2946695.30
53	1698782.14	2946671.31
54	1698795.27	2946650.14
55	1698812.99	2946632.58
56	1698829.41	2946613.86
57	1698852.94	2946606.91
58	1698877.40	2946601.71
59	1698900.84	2946593.76
60	1698924.09	2946585.34
61	1698948.72	2946585.63
62	1698971.71	2946578.80
63	1698989.21	2946561.97
64	1699001.54	2946540.44

TRAIL LAYOUT SUMMARY TABLE

POINT NO.	NORTHING	EASTING
65	1699019.18	2946522.72
66	1699037.05	2946505.24
67	1699045.27	2946481.90
68	1699050.03	2946457.45
69	1699059.23	2946434.27
70	1699068.71	2946411.18
71	1699074.29	2946386.95
72	1699084.98	2946364.58
73	1699105.52	2946350.36
74	1699120.98	2946333.23
75	1699131.47	2946311.55
76	1699151.88	2946297.23
77	1699160.34	2946276.01
78	1699151.28	2946253.23
79	1699133.96	2946235.25
80	1699112.17	2946223.65
81	1699090.30	2946211.53
82	1699066.93	2946203.13
83	1699045.03	2946191.68
84	1699021.34	2946183.80
85	1698997.95	2946175.02
86	1698974.52	2946166.37
87	1698951.55	2946156.50
88	1698930.40	2946143.29
89	1698908.02	2946132.17
90	1698885.56	2946121.21
91	1698862.64	2946111.21
92	1698839.82	2946101.00
93	1698816.31	2946092.68
94	1698792.35	2946085.53
95	1698771.44	2946072.97
96	1698753.07	2946056.02
97	1698735.09	2946038.65
98	1698713.06	2946027.24
99	1698690.28	2946016.95
100	1698667.96	2946005.79
101	1698646.66	2945992.70
102	1698623.75	2945983.76
103	1698602.51	2945971.21
104	1698581.22	2945958.15

TRAIL LAYOUT SUMMARY TABLE

POINT NO.	NORTHING	EASTING
105	1698559.52	2945945.75
106	1698538.47	2945932.41
107	1698515.30	2945923.01
108	1698492.37	2945913.13
109	1698471.13	2945901.30
110	1698446.82	2945893.21
111	1698423.34	2945885.25
112	1698398.50	2945888.15
113	1698373.53	2945888.45
114	1698348.64	2945886.14
115	1698323.71	2945884.31
116	1698298.72	2945883.46
117	1698278.04	2945870.37
118	1698257.00	2945857.16
119	1698239.74	2945839.09
120	1698220.95	2945822.64
121	1698200.61	2945808.13
122	1698180.31	2945793.54
123	1698171.44	2945771.10
124	1698171.57	2945746.10
125	1698167.14	2945721.97
126	1698151.77	2945702.40
127	1698145.22	2945678.56
128	1698139.64	2945654.29
129	1698133.47	2945630.74
130	1698118.84	2945610.51
131	1698105.53	2945589.37
132	1698084.62	2945576.35
133	1698063.52	2945564.25
134	1698045.75	2945548.01
135	1698027.70	2945532.24
136	1698026.86	2945508.30
137	1698008.51	2945491.70
138	1697997.33	2945471.22
139	1697998.77	2945446.41
140	1698009.03	2945423.76
141	1698021.12	2945402.31
142	1698022.31	2945382.89
143	1698033.87	2945361.21
144	1698044.46	2945339.30

TRAIL LAYOUT SUMMARY TABLE

POINT NO.	NORTHING	EASTING
145	1698055.42	2945319.06
146	1698068.38	2945299.47
147	1698074.33	2945275.42
148	1698080.99	2945251.80
149	1698077.73	2945227.29
150	1698075.15	2945202.88
151	1698084.87	2945180.00
152	1698097.13	2945158.47
153	1698107.66	2945135.64
154	1698118.42	2945114.10
155	1698136.40	2945097.17
156	1698150.86	2945077.09
157	1698168.49	2945059.77
158	1698178.36	2945038.43
159	1698183.54	2945016.40
160	1698163.10	2945024.14
161	1698144.71	2945040.92
162	1698122.67	2945051.24
163	1698100.44	2945060.65
164	1698076.36	2945066.90
165	1698060.59	2945084.82
166	1698039.86	2945097.78
167	1698018.24	2945109.88
168	1697995.07	2945118.89
169	1697971.61	2945114.72
170	1697959.31	2945134.83
171	1697939.50	2945149.43
172	1697918.04	2945161.59
173	1697895.21	2945170.75
174	1697878.62	2945187.86
175	1697857.26	2945200.26
176	1697838.81	2945216.38
177	1697817.15	2945226.20
178	1697793.71	2945233.81
179	1697781.51	2945255.18
180	1697763.89	2945272.12
181	1697750.79	2945293.03
182	1697737.82	2945313.79
183	1697734.64	2945317.32

ISHIYAMA TRAIL LAYOUT SUMMARY TABLE

POINT NO.	NORTHING	EASTING
200	1697320.00	2948986.26
201	1697295.55	2948981.62
202	1697272.98	2948971.72
203	1697253.21	2948956.42
204	1697229.31	2948950.46
205	1697205.29	2948944.80
206	1697181.70	2948937.25
207	1697158.43	2948932.32
208	1697134.40	2948938.78
209	1697109.62	2948941.89
210	1697084.97	2948938.16
211	1697060.13	2948936.57
212	1697036.71	2948929.18
213	1697033.74	2948926.15

NOTE: TRAIL LAYOUT POINTS ARE INTENDED TO PROVIDE A GENERAL CENTER OF TRAIL ALIGNMENT. FINAL TRAIL ALIGNMENT MAY MAKE MINOR DEVIATIONS (+/- 6FT) TO BEST FIT THE SITE CONDITIONS AND TO AVOID AND MINIMIZE ROUTING TRAIL THROUGH OBSTRUCTIONS SUCH AS SMALL TREES, DITCHES, DRAINAGES, ETC.

LAYOUT TABLE

POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	1694724.61	2955063.05	131.40	EP, ME, PC
2	1694748.20	2955050.27	130.60	PT, EBC
3	1694747.02	2955014.49	132.11	EBC, COR
4	1694727.03	2955015.15	132.81	EBC, COR
5	1694724.65	2954943.19	135.33	EBC, COR
6	1694782.62	2954941.28	133.33	EBC, COR
7	1694786.18	2955049.01	129.40	EBC, PC
9	1694750.48	2955043.54		BR, POST, CL
10	1694749.43	2955011.91		BR, COR, CL
11	1694729.44	2955012.57		BR, COR, CL
12	1694727.56	2954955.58		BR, COR, CL
13	1694746.88	2954954.97		BR, POST,CL
14	1698691.95	2947272.52		BR, POST, CL
15	1694780.20	2954943.86		BR, COR, CL
16	1694767.04	2954944.27		BR, POST, CL
17	1694727.92	2954949.80		TC, CENTER
18	1694727.38	2954946.19		DBD, CENTER
19	1694732.47	2954948.09		COR, BENCH
20	1694740.46	2954947.83		COR, BENCH

REVISIONS

REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

PND ENGINEERS, INC.
9360 Glacier Highway, Ste. 100
Juneau, Alaska 99801
Phone: 907-586-2093
Fax: 907-586-2099
www.pndengineers.com

DESIGN: BMI CHECKED: CRS
DRAWN: PJD APPROVED: CRS
SCALE: NA
DATE: 6/28/23

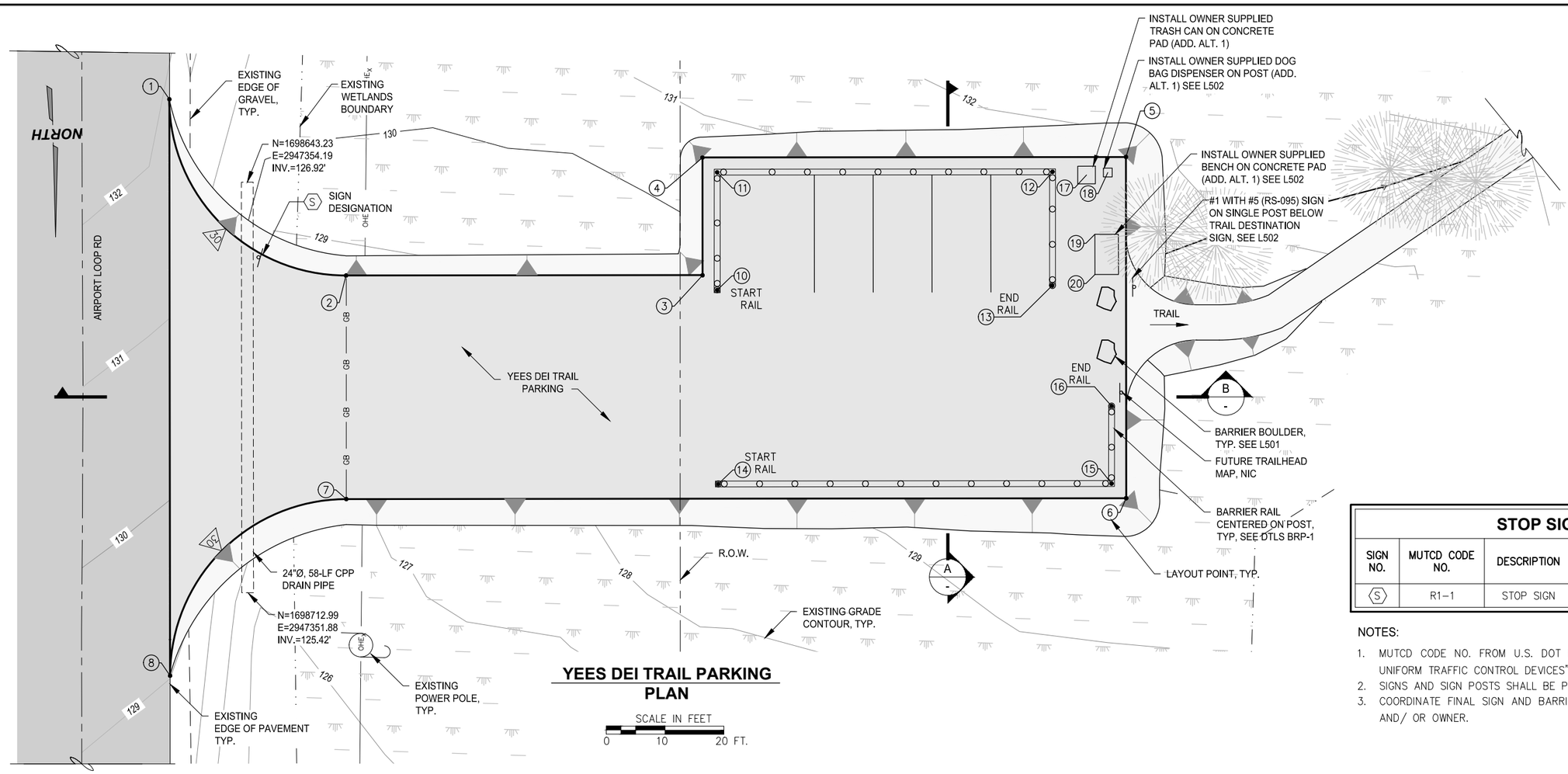
STATE OF ALASKA 49TH
Charles R. Somerville
CE-8845
REGISTERED PROFESSIONAL ENGINEER

WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM

SHEET TITLE:
TRAIL LAYOUT POINT SUMMARY TABLES

PND PROJECT NO.: 212038 C.A.N. NO.: AECC250

5



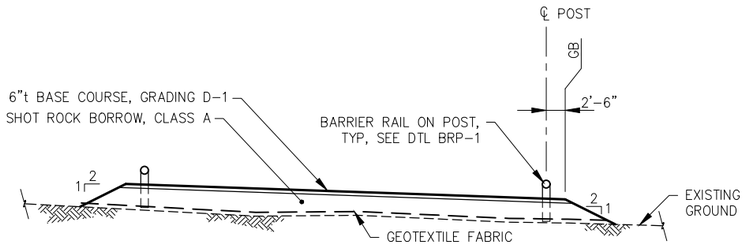
YEES DEI TRAIL PARKING PLAN

SCALE IN FEET
0 10 20 FT.

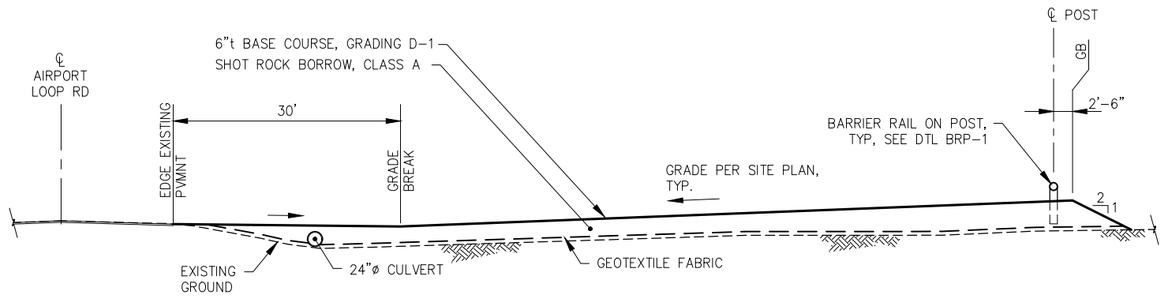
STOP SIGN SCHEDULE				
SIGN NO.	MUTCD CODE NO.	DESCRIPTION	SIGN SIZE (INCH)	POST SIZE (INCH)
S	R1-1	STOP SIGN	30 x 30	2.0 x 2.0 PERFORATED TUBE

NOTES:

1. MUTCD CODE NO. FROM U.S. DOT FEDERAL HIGHWAY ADMINISTRATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", 2009.
2. SIGNS AND SIGN POSTS SHALL BE PROVIDED & INSTALLED IAW CBJ STANDARD 127A.
3. COORDINATE FINAL SIGN AND BARRIER BOULDER LOCATIONS IN FIELD WITH ENGINEER AND/ OR OWNER.



A TYPICAL PARKING LOT SECTION



B TYPICAL PARKING LOT SECTION

REVISIONS

REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

PND ENGINEERS, INC.
9360 Glacier Highway, Ste. 100
Juneau, Alaska 99801
Phone: 907-586-2093
Fax: 907-586-2099
www.pndengineers.com

DESIGN: BMI CHECKED: CRS
DRAWN: PJD APPROVED: CRS
SCALE: AS SHOWN
DATE: 6/28/23

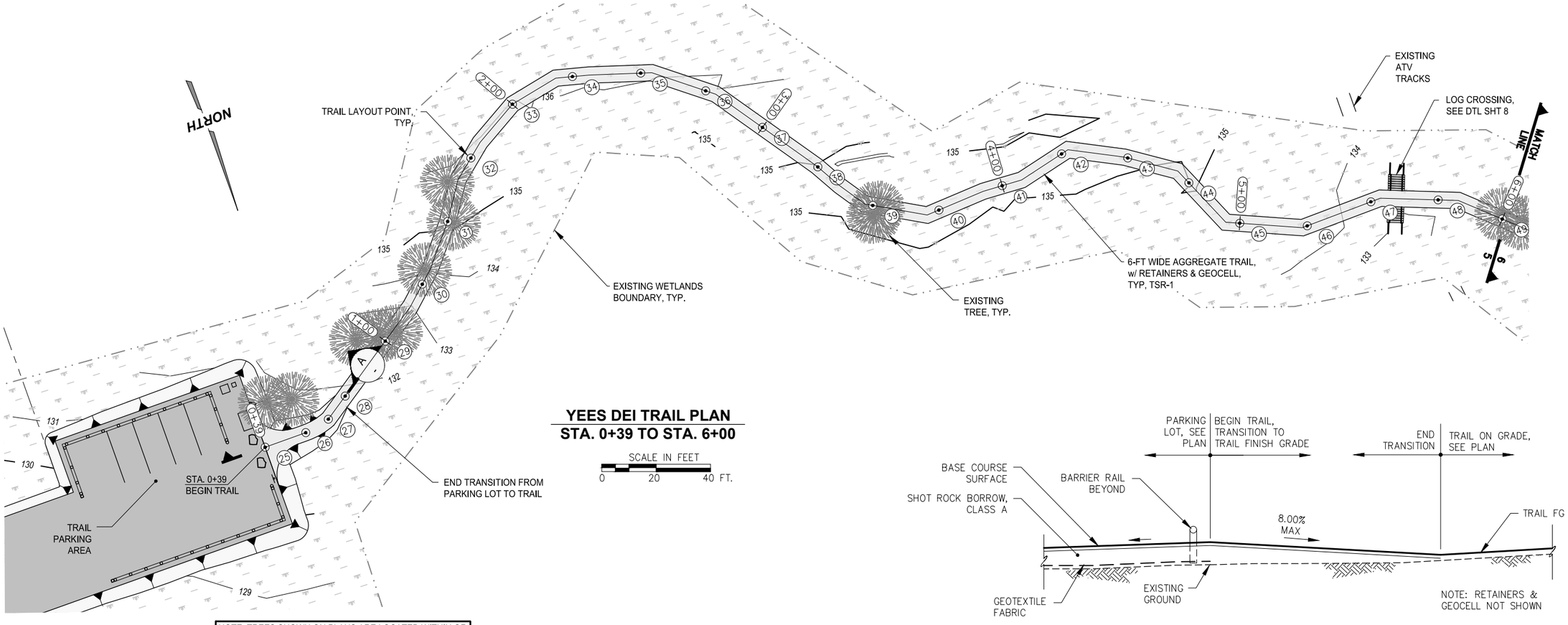
STATE OF ALASKA 49TH — Charles R. Somerville CE-8845 — REGISTERED PROFESSIONAL ENGINEER

WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM

SHEET TITLE: MT DEWEY TRAIL PARKING PLAN AND SECTIONS

PND PROJECT NO.: 212038 C.A.N. NO.: AECC250

6

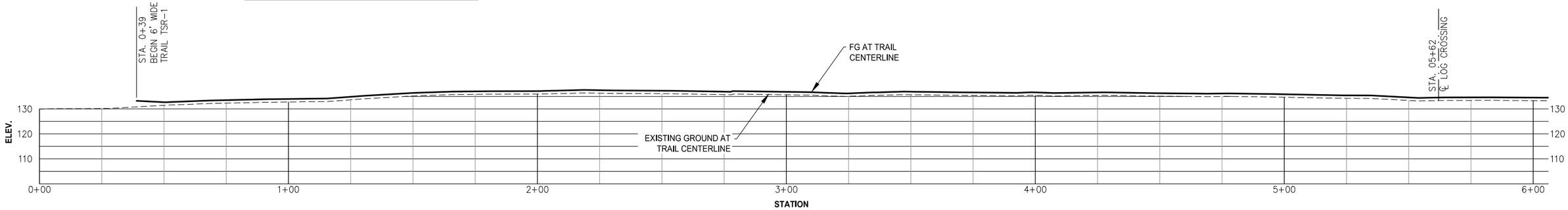


NOTE: TREES SHOWN ON PLANS ARE LOCATED WITHIN OR ADJACENT TO THE TRAIL CORRIDOR THAT MAY REQUIRE REMOVAL. TREES SHOWN ARE 6" DIA. OR GREATER AND NUMEROUS SMALLER TREES AND SHRUBS LOCATED ALONG CORRIDOR WILL ALSO REQUIRE REMOVAL.

YEES DEI TRAIL PLAN
STA. 0+39 TO STA. 6+00

SCALE IN FEET
0 20 40 FT.

A PARKING LOT / TRAIL TRANSITION PROFILE



YEES DEI TRAIL PROFILE
STA. 0+00 TO STA. 6+00

REVISIONS

REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

PND ENGINEERS, INC.
9360 Glacier Highway, Ste. 100
Juneau, Alaska 99801
Phone: 907-586-2093
Fax: 907-586-2099
www.pndengineers.com

DESIGN: BMI CHECKED: CRS
DRAWN: PJD APPROVED: CRS
SCALE:

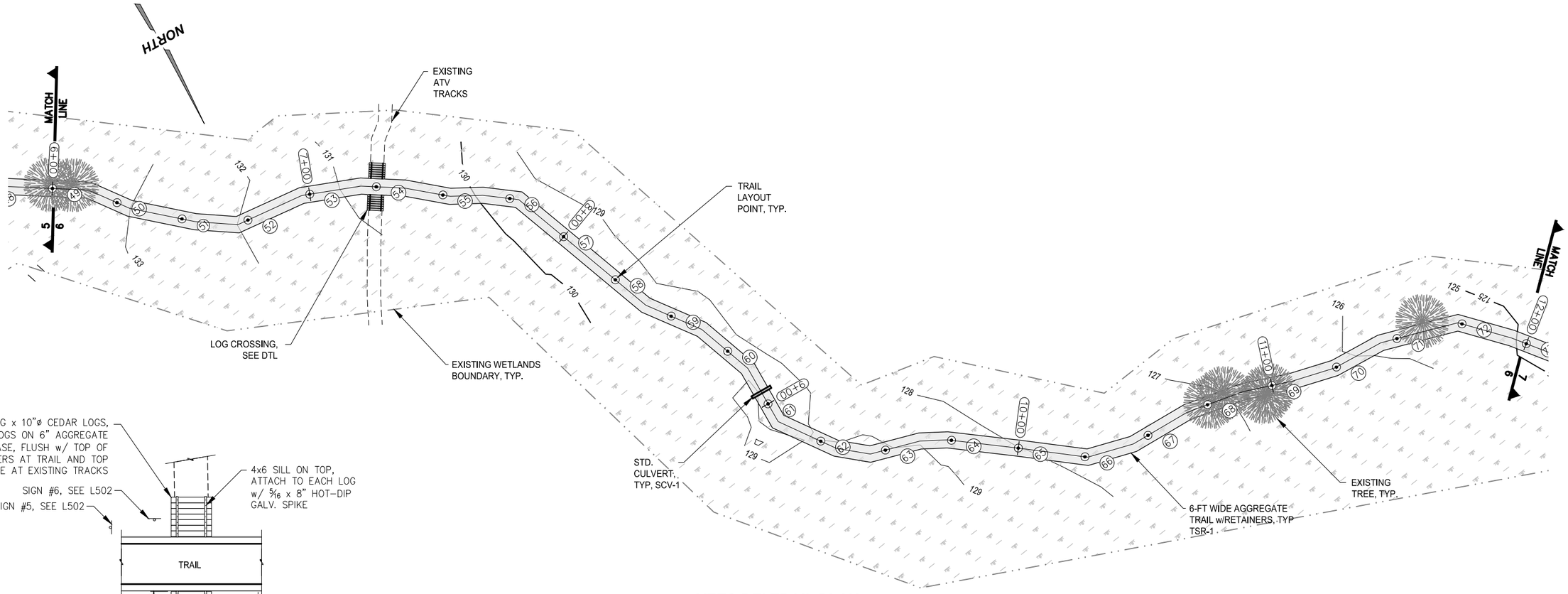
STATE OF ALASKA 49TH
Charles R. Somerville
CE-8845
REGISTERED PROFESSIONAL ENGINEER
DATE: 6/28/23

WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM

SHEET TITLE: **MT DEWEY TRAIL PLAN AND PROFILE**

PND PROJECT NO.: 212038 C.A.N. NO.: AECC250

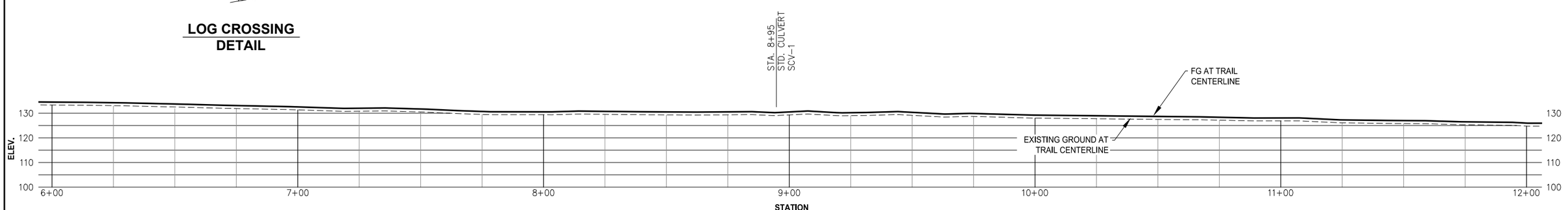
7



YEES DEI TRAIL PLAN
STA. 6+00 TO STA. 12+00

SCALE IN FEET
0 20 40 FT.

LOG CROSSING DETAIL



YEES DEI TRAIL PROFILE
STA. 6+00 TO STA. 12+00

REVISIONS

REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

PND ENGINEERS, INC.
9360 Glacier Highway, Ste. 100
Juneau, Alaska 99801
Phone: 907-586-2093
Fax: 907-586-2099
www.pndengineers.com

DESIGN: BMI CHECKED: CRS
DRAWN: PJD APPROVED: CRS
SCALE:

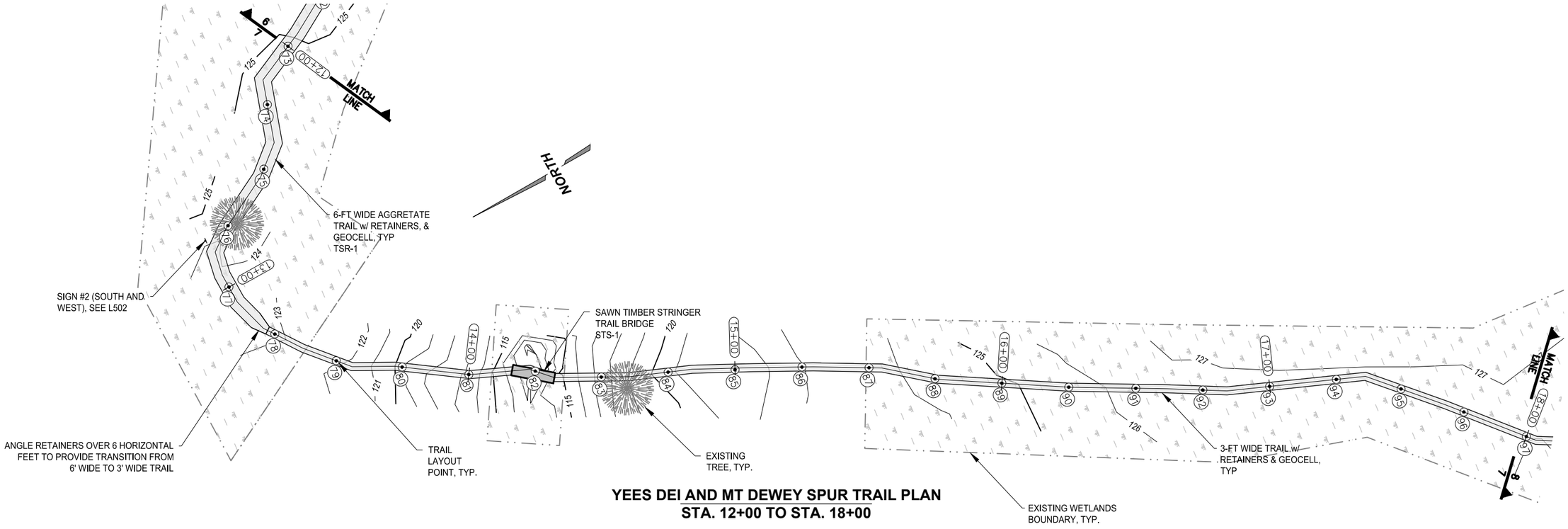
STATE OF ALASKA 49TH
Charles R. Somerville CE-8845
REGISTERED PROFESSIONAL ENGINEER
DATE: 6/28/23

WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM

SHEET TITLE: **MT DEWEY TRAIL PLAN AND PROFILE**

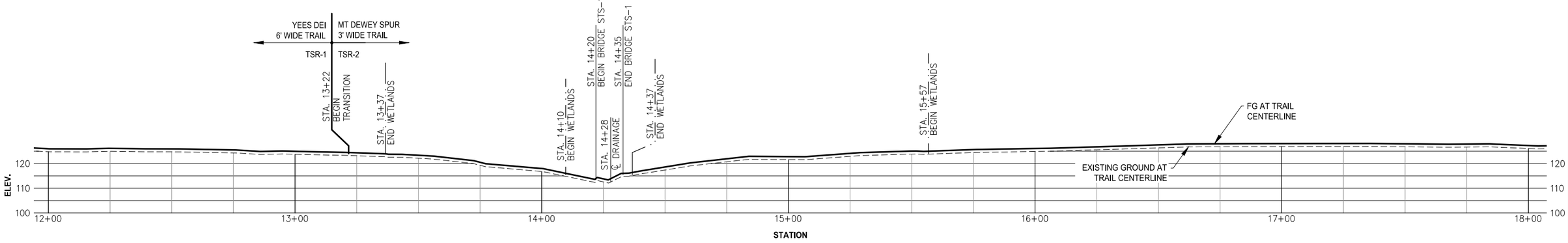
PND PROJECT NO.: 212038 C.A.N. NO.: AECC250

8



YEES DEI AND MT DEWEY SPUR TRAIL PLAN
STA. 12+00 TO STA. 18+00

SCALE IN FEET
0 20 40 FT.



YEES DEI AND MT DEWEY TRAIL PROFILE
STA. 12+00 TO STA. 18+00

REVISIONS

REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

PND ENGINEERS, INC.
9360 Glacier Highway, Ste. 100
Juneau, Alaska 99801
Phone: 907-586-2093
Fax: 907-586-2099
www.pndengineers.com

DESIGN: BMI CHECKED: CRS
DRAWN: PJD APPROVED: CRS
SCALE: AS SHOWN

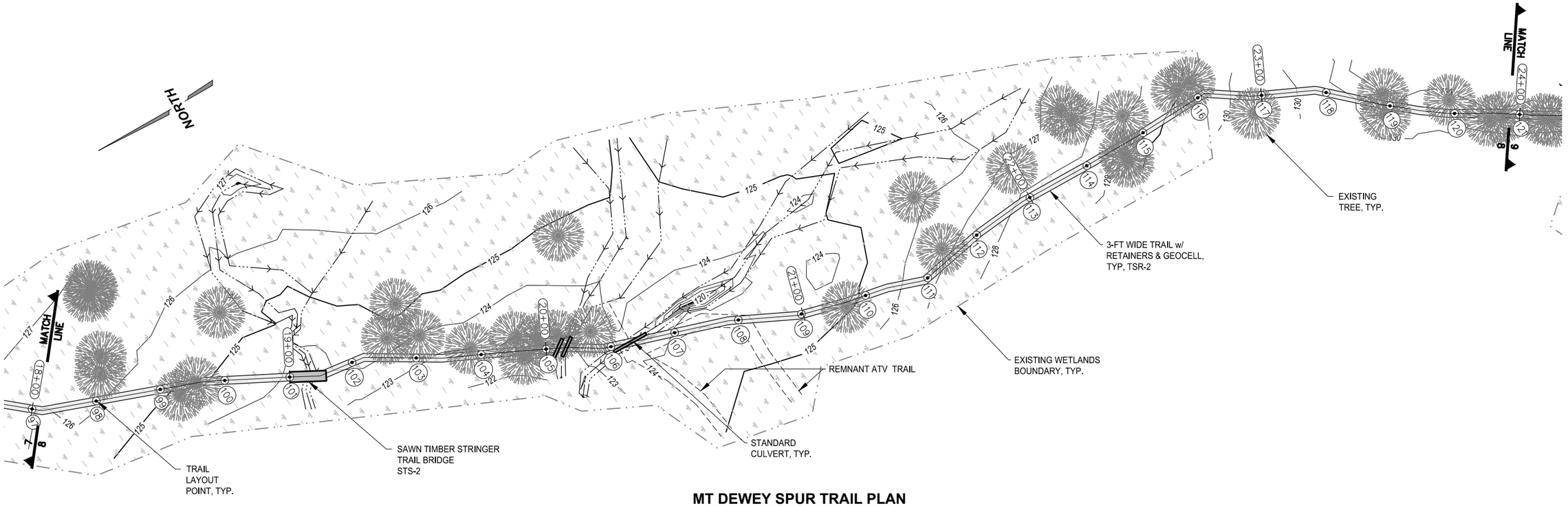
STATE OF ALASKA 49 TH
Charles R. Somerville
CE-8845
REGISTERED PROFESSIONAL ENGINEER
DATE: 6/28/23

WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM

SHEET TITLE: **MT DEWEY TRAIL PLAN AND PROFILE**

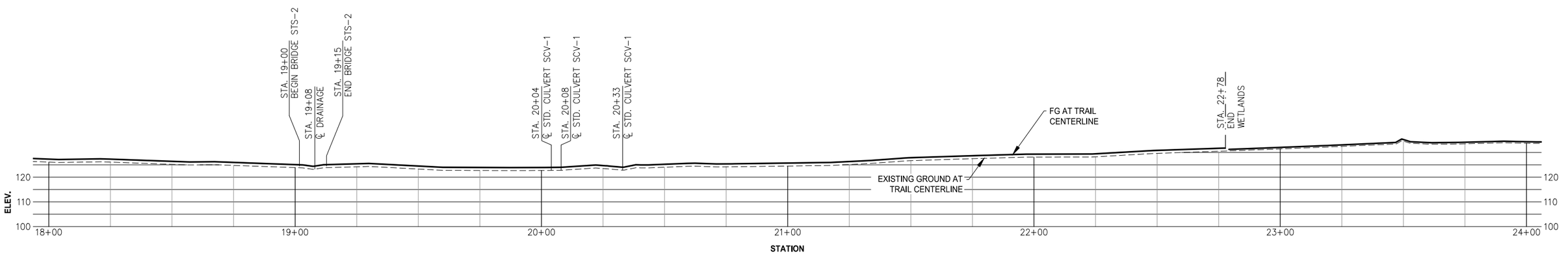
PND PROJECT NO.: 212038 C.A.N. NO.: AECC250

9



MT DEWEY SPUR TRAIL PLAN
STA. 18+00 TO STA. 24+00

SCALE IN FEET
0 20 40 FT.



MT DEWEY SPUR TRAIL PROFILE
STA. 18+00 TO STA. 24+00

REVISIONS

REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

PND ENGINEERS, INC.
9360 Glacier Highway, Ste. 100
Juneau, Alaska 99801
Phone: 907-586-2093
Fax: 907-586-2099
www.pndengineers.com

DESIGN: BMI CHECKED: CRS
DRAWN: PJD APPROVED: CRS
SCALE: AS SHOWN

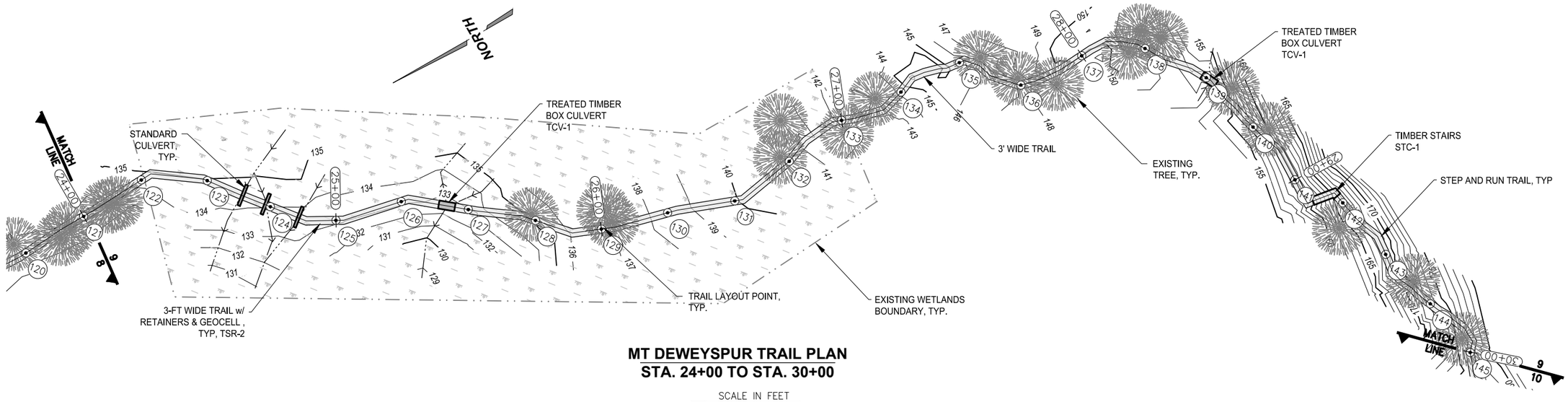
STATE OF ALASKA 49TH
Charles R. Somerville
CE-8845
REGISTERED PROFESSIONAL ENGINEER
DATE: 6/28/23

WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM

SHEET TITLE: MT DEWEY TRAIL PLAN AND PROFILE

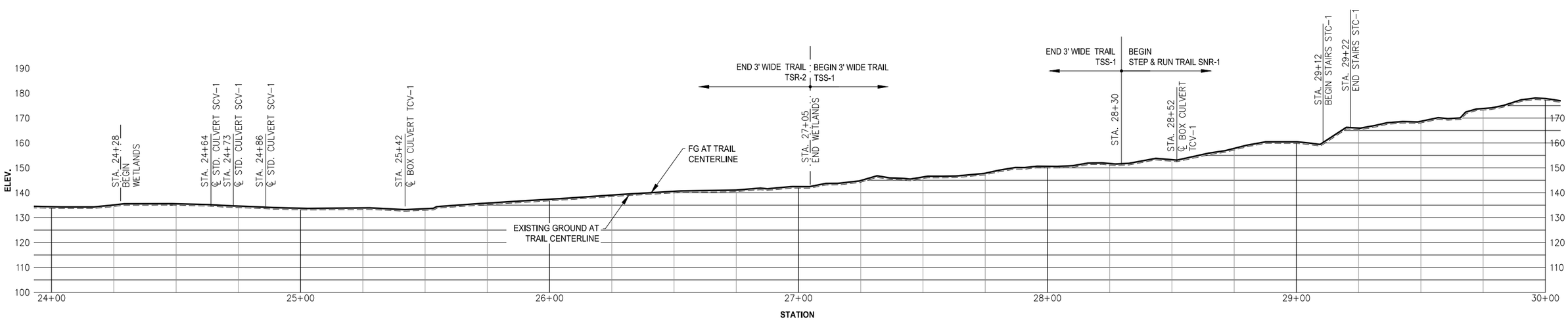
PND PROJECT NO.: 212038 C.A.N. NO.: AECC250

10



MT DEWEYSPUR TRAIL PLAN
STA. 24+00 TO STA. 30+00

SCALE IN FEET
0 20 40 FT.



MT DEWEY SPUR TRAIL PROFILE
STA. 24+00 TO STA. 30+00

REVISIONS

REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

PND ENGINEERS, INC.
9360 Glacier Highway, Ste. 100
Juneau, Alaska 99801
Phone: 907-586-2093
Fax: 907-586-2099
www.pndengineers.com

DESIGN: BMI CHECKED: CRS
DRAWN: PJD APPROVED: CRS
SCALE:

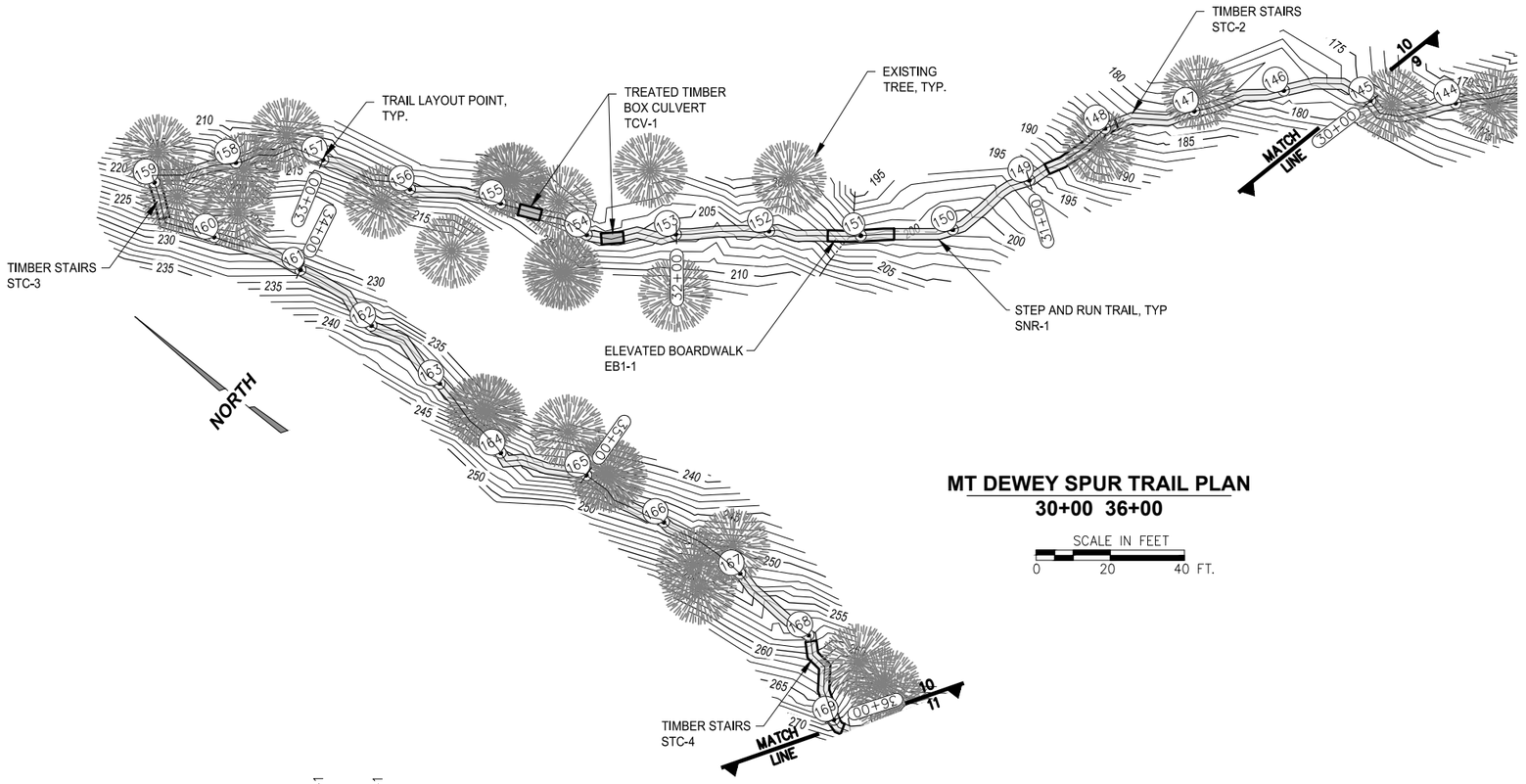
STATE OF ALASKA 49 TH
Charles R. Somerville CE-8845
REGISTERED PROFESSIONAL ENGINEER
DATE: 6/28/23

WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM

SHEET TITLE: MT DEWEY TRAIL PLAN AND PROFILE

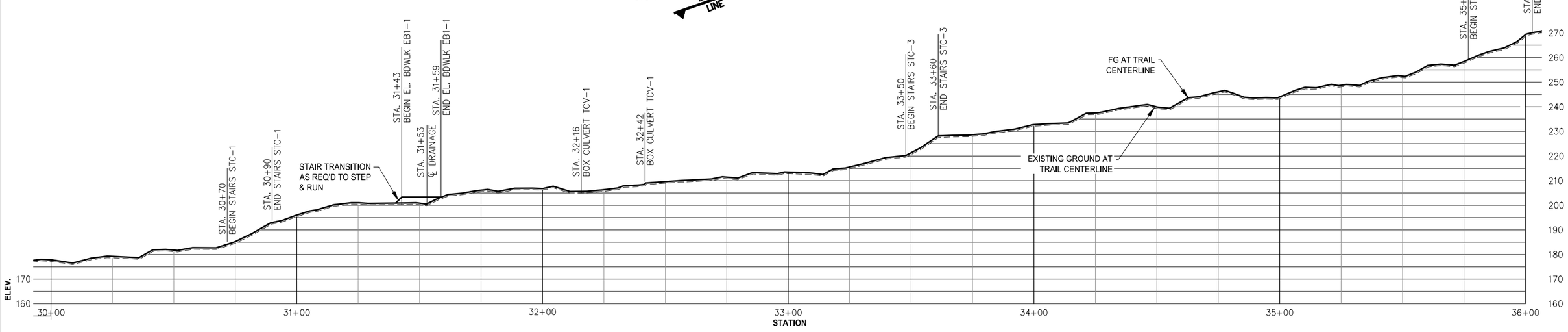
PND PROJECT NO.: 212038 C.A.N. NO.: AECC250

11



MT DEWEY SPUR TRAIL PLAN
30+00 36+00

SCALE IN FEET
0 20 40 FT.



MT DEWEY SPUR TRAIL PROFILE
STA. 30+00 TO STA. 36+00

REVISIONS

REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

PND ENGINEERS, INC.
9360 Glacier Highway, Ste. 100
Juneau, Alaska 99801
Phone: 907-586-2093
Fax: 907-586-2099
www.pndengineers.com

DESIGN: BMI CHECKED: CRS
DRAWN: PJD APPROVED: CRS
SCALE:

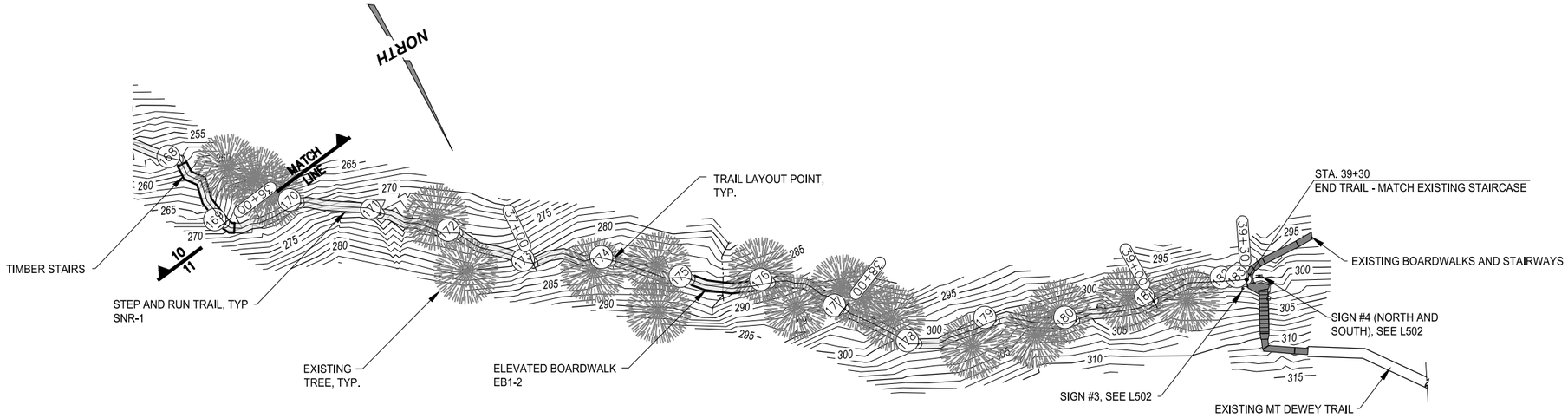
STATE OF ALASKA 49 TH
Charles R. Somerville CE-8845
REGISTERED PROFESSIONAL ENGINEER
DATE: 6/28/23

WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM

SHEET TITLE: MT DEWEY TRAIL PLAN AND PROFILE

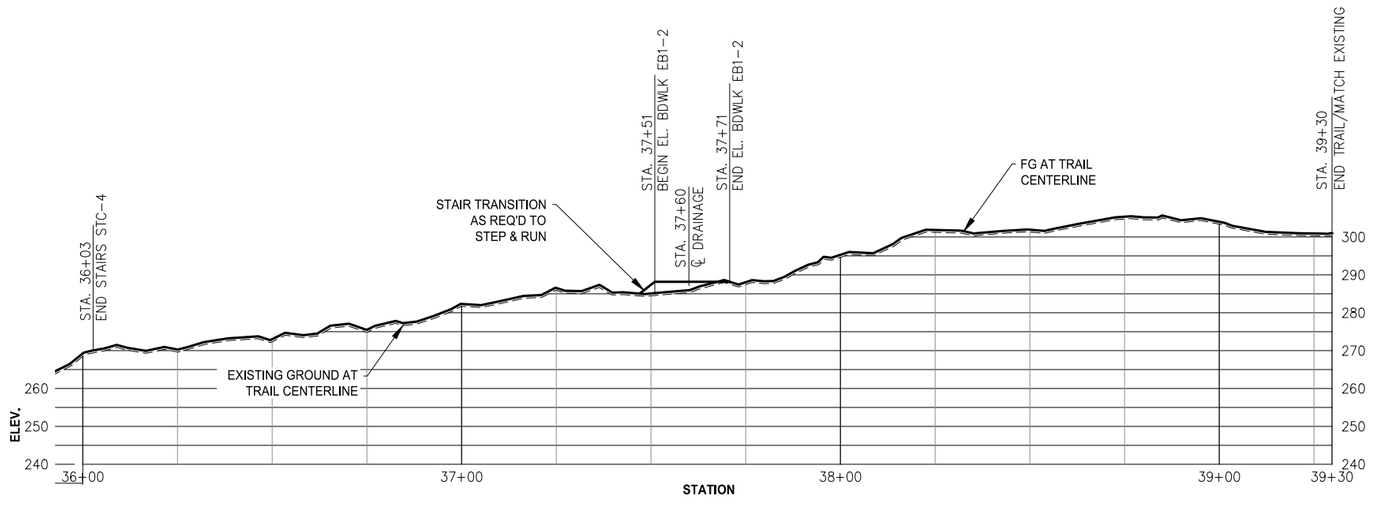
PND PROJECT NO.: 212038 C.A.N. NO.: AECC250

12



MT DEWEY SPUR TRAIL PLAN
STA. 36+00 TO STA. 39+30

SCALE IN FEET
0 20 40 FT.



MT DEWEY SPUR TRAIL PROFILE
STA. 36+00 TO STA. 39+30

REVISIONS

REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

PND ENGINEERS, INC.
9360 Glacier Highway, Ste. 100
Juneau, Alaska 99801
Phone: 907-586-2093
Fax: 907-586-2099
www.pndengineers.com

DESIGN: BMI CHECKED: CRS
DRAWN: PJD APPROVED: CRS
SCALE:

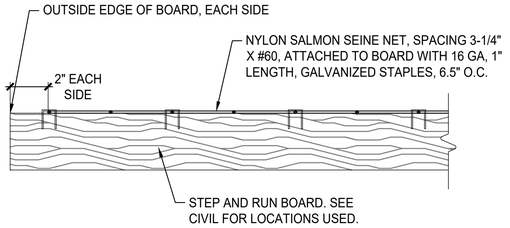
STATE OF ALASKA 49 TH
Charles R. Somerville
CE-8845
REGISTERED PROFESSIONAL ENGINEER
DATE: 6/28/23

WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM

SHEET TITLE: MT DEWEY TRAIL PLAN AND PROFILE

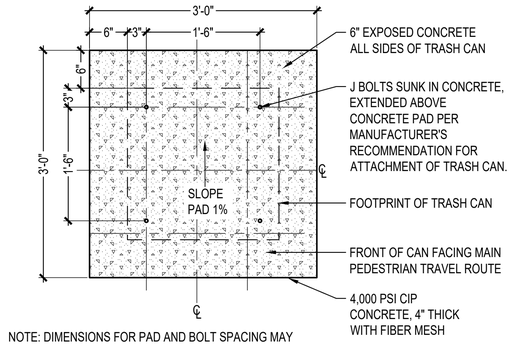
PND PROJECT NO.: 212038 C.A.N. NO.: AECC250

13



3 L501 STEP AND RUN - NET NON-SKID MATERIAL

SCALE: NTS @22x34



NOTE: DIMENSIONS FOR PAD AND BOLT SPACING MAY VARY TO ACCOMMODATE OWNER PROVIDED TRASH CAN.

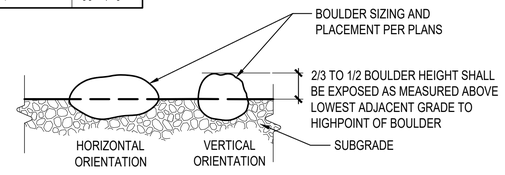
OWNER FURNISHED TRASH CAN, CONTRACTOR INSTALLED
MANUFACTURER: BEAR SAVER
MODEL: HA-P, HA SERIES SINGLE TRASH ENCLOSURE, 40 GAL. CAPACITY, ADA COMPLIANT
ATTACHMENT: SURFACE MOUNT TO PAD

1 L501 TRASH CAN

SCALE: 1" = 1'-0" @22x34

BARRIER BOULDER SIZING SCHEDULE

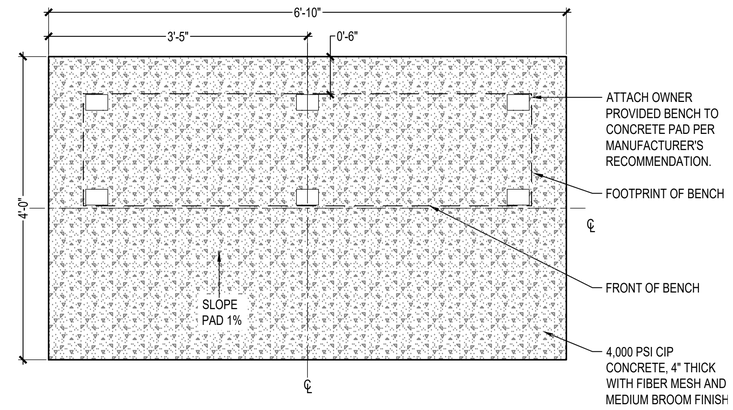
Boulder Symbol	Circumference	Height
	9' +/- 1'	33" +/- 3"



NOTES:
1. LOCATION AND ORIENTATION OF PLACED ROCKS SHALL BE FIELD APPROVED BY OWNER'S REPRESENTATIVE.
2. BOULDERS SHOULD BE NO HIGHER THAN 30" ABOVE ANY ADJACENT GRADE.
3. CIRCUMFERENCE REFERS TO THE LARGEST CIRCUMFERENCE OF THE BOULDER.
4. HEIGHT IS MEASURED PERPENDICULAR TO AXIS USED FOR DETERMINING CIRCUMFERENCE.
5. SPACING BETWEEN BOULDERS AND ADJACENT OPENINGS TO BE 38" MIN AND 44" MAX.

4 L501 BARRIER BOULDERS

SCALE: NTS @22x34



NOTE: DIMENSIONS FOR PAD AND BOLT SPACING MAY VARY TO ACCOMMODATE BENCH.

MANUFACTURER: MAX-R
MODEL: TERRA, 6FT LENGTH
FINISH: POWDERCOATED BLACK WITH CEDAR COLORED RECYCLED PLASTIC SLATS
ATTACHMENT: SURFACE MOUNT TO PAD

2 L501 BENCH

SCALE: NTS @22x34

100% DESIGN

REVISIONS

REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

PND ENGINEERS, INC.
9360 Glacier Highway, Ste. 100
Juneau, Alaska 99801
Phone: 907-586-2093
Fax: 907-586-2099
www.pndengineers.com

DESIGN: BL CHECKED: CM
DRAWN: BL APPROVED:
SCALE:

STATE OF ALASKA 49TH
Christopher R. Merrill
4/10/2023
No.10440
REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT
Corporate License #1195
DATE: APRIL 15, 2023

WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM

SHEET TITLE: DETAILS

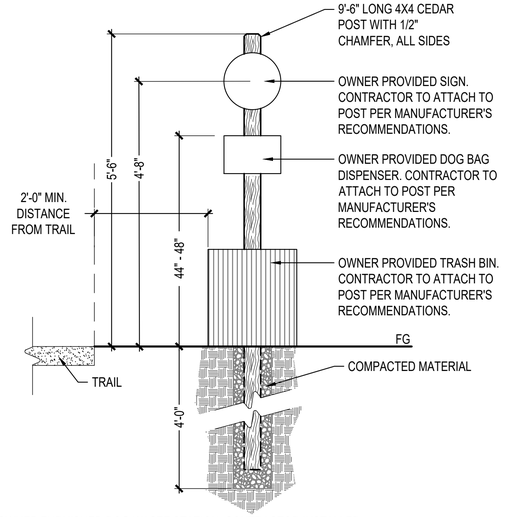
PND PROJECT NO.: 212038 C.A.N. NO.: AECC250

L501

SIGN SCHEDULE

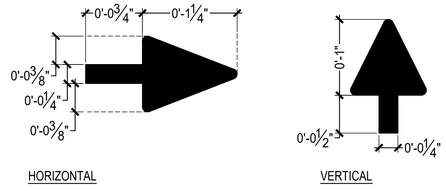
SIGN #	SIGN TYPE	SIGN NUMBER AND SHAPE	SIGN MATERIAL	SIGN FACE	TEXT/SYMBOLS	POSTS
1	TRAIL DESTINATION SIGN DETAIL 2/L502	TD-3	YELLOW CEDAR	UNFINISHED WOOD WITH BLACKENED ROUTED TEXT	"YÉES DEI TRAIL" "MOUNT DEWEY SPUR TRAIL 1/4" ARROW: UP "MOUNT DEWEY TRAIL 3/4" ARROW: UP	(1) 4X4
2 (SOUTH)	TRAIL DESTINATION SIGN DETAIL 2/L502	TD-2	YELLOW CEDAR	UNFINISHED WOOD WITH BLACKENED ROUTED TEXT	"MOUNT DEWEY SPUR TRAIL" ARROW: LEFT "MOUNT DEWEY TRAIL 1/2" ARROW: LEFT	(1) 4X4
2 (WEST)	TRAIL DESTINATION SIGN DETAIL 2/L502	TD-2	YELLOW CEDAR	UNFINISHED WOOD WITH BLACKENED ROUTED TEXT	"YÉES DEI TRAIL" ARROW: RIGHT "YÉES DEI TRAILHEAD 1/4" ARROW: RIGHT	(1) 4X4
3	TRAIL DESTINATION SIGN DETAIL 2/L502	TD-3	YELLOW CEDAR	UNFINISHED WOOD WITH BLACKENED ROUTED TEXT	"MOUNT DEWEY TRAIL" "MOUNT DEWEY TRAILHEAD 1/2" ARROW: LEFT "MOUNT DEWEY OVERLOOK 1/4" ARROW RIGHT	(1) 4X4
4 (SOUTH)	TRAIL DESTINATION SIGN DETAIL 2/L502	TD-3	YELLOW CEDAR	UNFINISHED WOOD WITH BLACKENED ROUTED TEXT	MOUNT DEWEY OVERLOOK 1/4" ARROW UP "MOUNT DEWEY SPUR TRAIL" ARROW RIGHT "YÉES DEI TRAIL 1/2" ARROW RIGHT	(1) 4X4
4 (NORTH)	TRAIL DESTINATION SIGN DETAIL 2/L502	TD-3	YELLOW CEDAR	UNFINISHED WOOD WITH BLACKENED ROUTED TEXT	MOUNT DEWEY TRAILHEAD 1/2" ARROW UP "MOUNT DEWEY SPUR TRAIL" ARROW LEFT "YÉES DEI TRAIL 1/2" ARROW LEFT	(1) 4X4
5	MUTCD SIGN DETAIL: 1/L502	RS-095 (PROHIBITION) (9"X9")	0.08" THICK ALUMINUM	WHITE BACKGROUND WITH BLACK SYMBOL AND BORDER AND RED PROHIBITION SYMBOL	NO ATV-PROHIBITION MUTCD SYMBOL	(1) 4X4
6	MUTCD SIGN DETAIL: 1/L502	RS-095 (ALLOWABLE) (12"X12") WITH M6-3 (9"X12") UP DIRECTIONAL ARROW	0.08" THICK ALUMINUM	BROWN BACKGROUND WITH WHITE BORDER AND SYMBOL, FULLY RETROFLECTIVE	ATV-ALLOWABLE MUTCD SYMBOL WITH UP DIRECTIONAL ARROW	(1) 4X4

NOTE: ALL SIGNS INCLUDING MATERIALS, DIMENSIONS, LAYOUT AND INSTALLATION TO FOLLOW THE MOST RECENT "FOREST SERVICE MANUAL 7100, CHAPTER 7160—SIGNS AND POSTERS" AND SIGN STANDARD AS SHOWN IN THE MANAGEMENT OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE ENGINEERING MANAGEMENT SERIES 7100-15 "SIGN AND POSTER GUIDELINES FOR THE FOREST SERVICE".

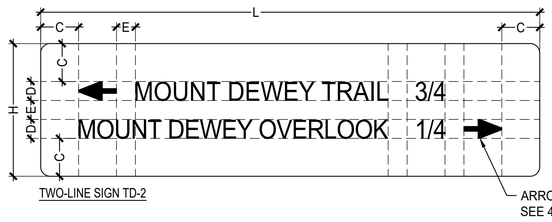


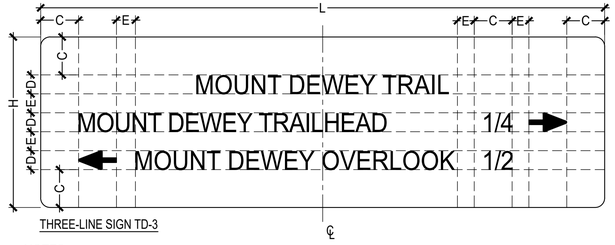
OWNER FURNISHED DOG WASTE STATION, CONTRACTOR INSTALLED
MANUFACTURER: MAX-R
MODEL: DOG WASTE STATION
ATTACHMENT: ATTACH TO 4X4 BURIED POST PER MANUFACTURER'S SPECIFICATIONS

5/L502 **DOG BAG DISPENSER**
SCALE: 3/4" = 1'-0" @22x34



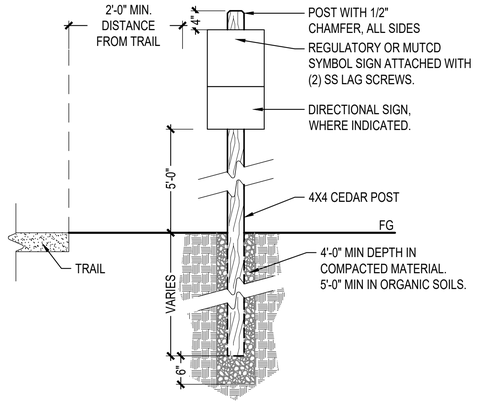
4/L502 **ARROW**
SCALE: 1" = 1'-0" @22x34



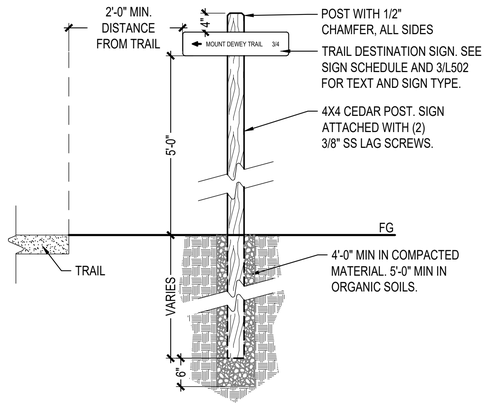


NOTES:
1. SEE SIGN LAYOUT DIMENSION TABLE.
2. TRAIL NAME (NON-DIRECTIONAL) SHALL BE CENTERED HORIZONTALLY. ALL DIRECTIONAL TRAIL NAME SHALL BE LEFT JUSTIFIED.

3/L502 **SIGN LAYOUT**
SCALE: 3" = 1'-0" @22x34



1/L502 **REGULATORY (MUTCD) SIGN**
SCALE: 3/4" = 1'-0" @22x34



2/L502 **TRAIL DESIGNATION SIGN**
SCALE: 3/4" = 1'-0" @22x34

SIGN LAYOUT DIMENSIONS (INCHES)					
SIGN NUMBER	H	L	C	D	E
TD-2	7	VARIES	2	1	1
TD-3	9	VARIES	2	1	1
TEXT TO BE CAPITAL ASA SERIES C, 1-INCH ROUTED ¼" DEEP, PAINTED PLACK					

100% DESIGN

REVISIONS

REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

PND ENGINEERS, INC.
9360 Glacier Highway, Ste. 100
Juneau, Alaska 99801
Phone: 907-586-2093
Fax: 907-586-2099
www.pndengineers.com

DESIGN: BL CHECKED: CM
DRAWN: BL APPROVED:
SCALE:

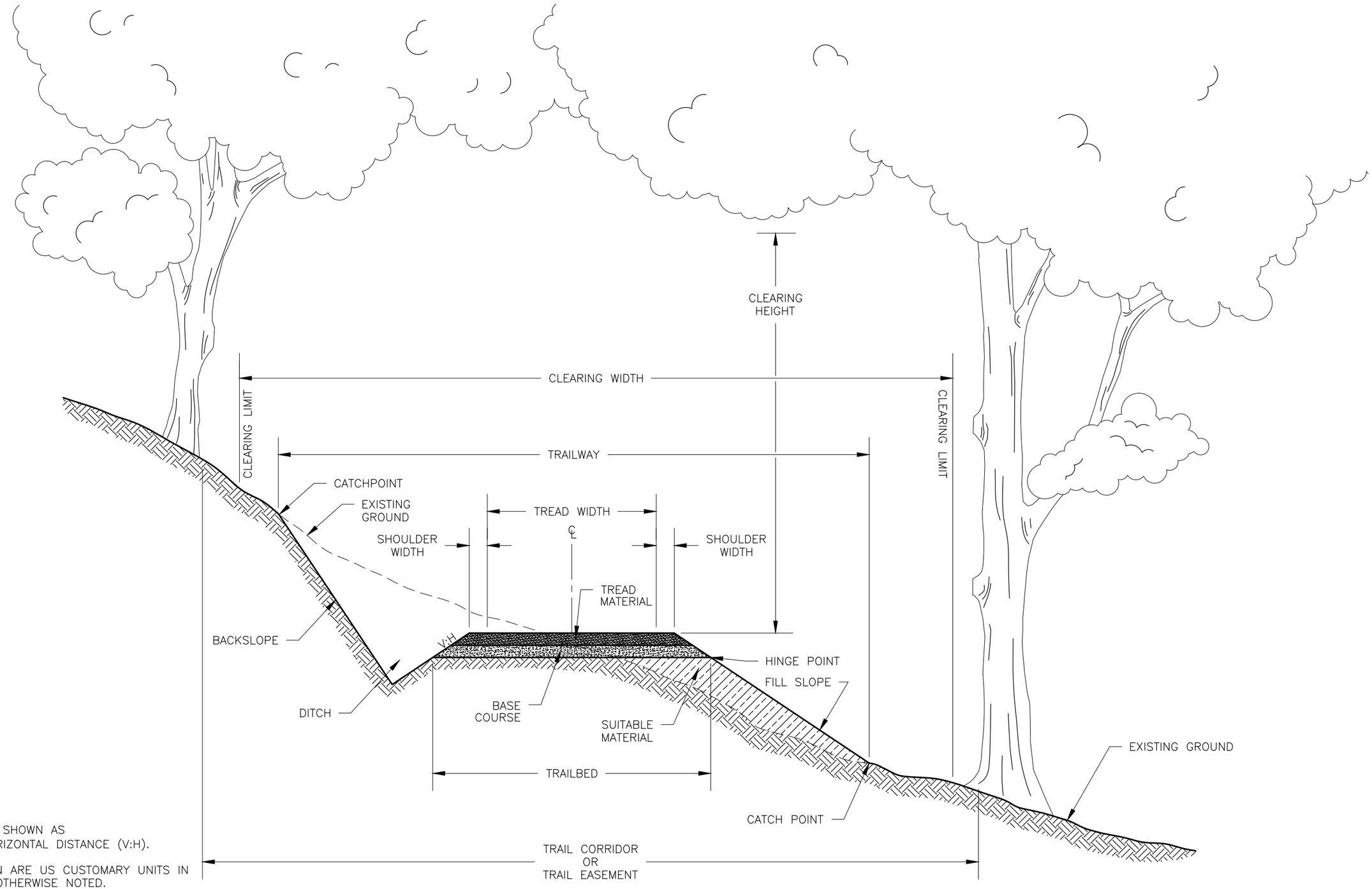
STATE OF ALASKA 49 TH
Christopher R. Mertl
4/10/2023
No.10440
REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT
Corporate License #1195
DATE: APRIL 15, 2023

WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM

SHEET TITLE: SIGN SCHEDULE

PND PROJECT NO.: 212038 C.A.N. NO.: AECC250

L502



NOTES:

ALL SLOPES ARE SHOWN AS VERTICAL–TO–HORIZONTAL DISTANCE (V:H).

ALL UNITS SHOWN ARE US CUSTOMARY UNITS IN INCHES UNLESS OTHERWISE NOTED.

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE

STANDARD TRAIL PLAN

PROJECT NAME & LOCATION

WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM
WRANGELL RANGER DISTRICT

DRAWING NAME

STANDARD TRAIL TERMS

SECTION **910 - TRAILWAY**

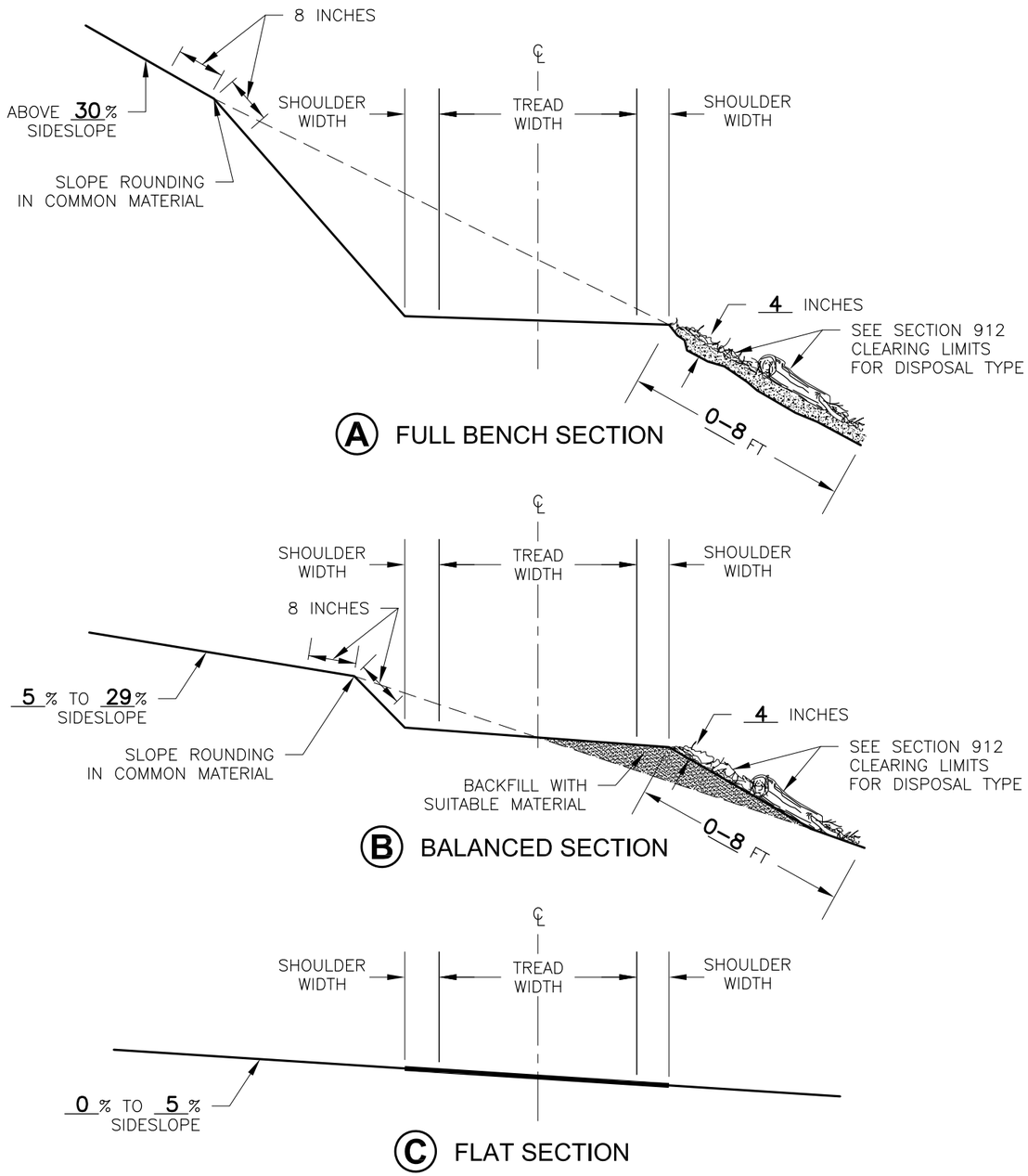
TYPICAL ID **STT**

REVISION DATE **6/28/23**

NOT TO SCALE

DRAWING NO. **STD_910-01**

TYPICAL TRAIL CROSS SECTIONS



TYPICAL TRAIL TREAD AND SHOULDER WIDTH

TYPICAL ID	SECTION TYPE	TREAD FINISH	TREAD WIDTH	SHOULDER WIDTH		COMMENTS
				UPHILL	DOWNHILL	
TSF-1	A		36"	6"	6"	USE AS REQ'D TO BEST FIT SITE FOR STEP AND RUN CONSTRUCTION, STA. 22+75 TO 29+22
TSF-2	B		36"	6"	6"	
TSF-3	C		36"	6"	6"	

TREAD CROSS SLOPE

TYPICAL ID	OUTSLOPE	INSLOPE	CROWNED SECTION	COMMENTS

SLOPE AND TRAILBED FINISH

TREAD FINISH	ROOTS	LOOSE ROCK	EMBEDDED ROCK	COMMENTS
T1				
T2				
T3				
T4				
T5				
T6				

TRAILBED AND SLOPE FINISH

SLOPE FINISH

REMOVE ROOTS THAT PROTRUDE FROM THE BACKSLOPE WITH DIAMETERS GREATER THAN SHOWN IN THE SLOPE AND TRAILBED FINISH TABLE.

TRAILBED FINISH

REMOVE LOOSE ROCK ON THE TRAILBED WITH A DIMENSION GREATER THAN SHOWN IN THE SLOPE AND TRAILBED FINISH TABLE.

REMOVE OR REDUCE EMBEDDED ROCK THAT PROTRUDES MORE THAN THE DIMENSIONS SHOWN IN THE SLOPE AND TRAILBED FINISH TABLE.

NOTES:

1. SLASH CONSISTS OF LOGS, LIMBS, BRUSH, AND ROCKS PLACED RANDOMLY IN A WAY TO CATCH SEDIMENT MOVEMENT.
2. LIMB ALL TREES AND SHRUBS AND TAMP SLASH INTO GROUND SO THAT 80% OF SLASH IS IN CONTACT WITH THE GROUND.

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
STANDARD TRAIL PLAN

PROJECT NAME & LOCATION
WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM
WRANGELL RANGER DISTRICT

DRAWING NAME
TYPICAL CROSS SECTION & SLOPE FINISH
SECTION: **911 - TREAD AND PRISM**
TYPICAL ID: **TSF/TCS**

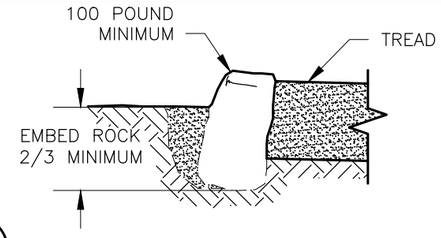
REVISION DATE: **6/28/23**
NO SCALE

DRAWING NO.: **STD_911-01**

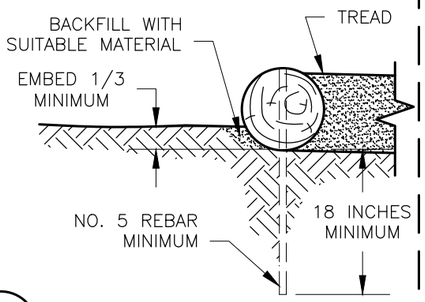
TYPICAL RETAINER TYPE

RETAINER TYPE	MATERIAL	SIZE	SPECIES/ GRADE	PRESERV. TYPE	JOINT TYPE	COMMENTS
R1	ROCK					
R2a	LOG	10"	YC	NA	L2	YC= YELLOW CEDAR
R2b	LOG					
R2c	LOG					
R3a	SAWN TIMBER					
R3b	SAWN TIMBER					
R3c	RAIL ROAD TIES					
	X					
	X					
	X					
	X					

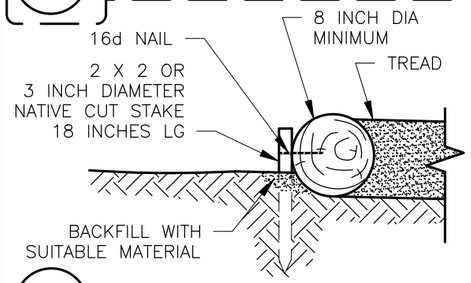
N/A WHEN NOT APPLICABLE



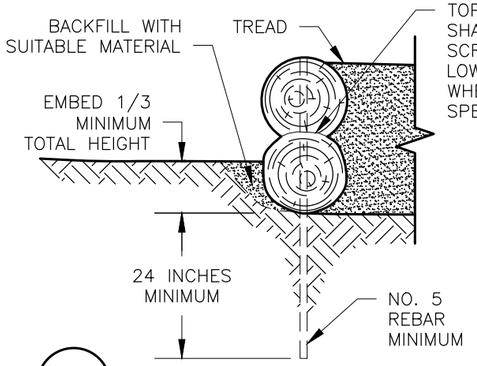
R1 TYPICAL ROCK RETAINER



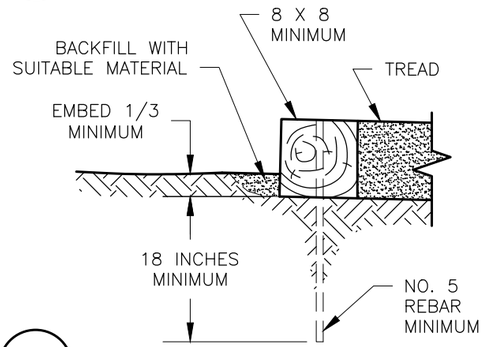
R2a TYPICAL LOG RETAINER



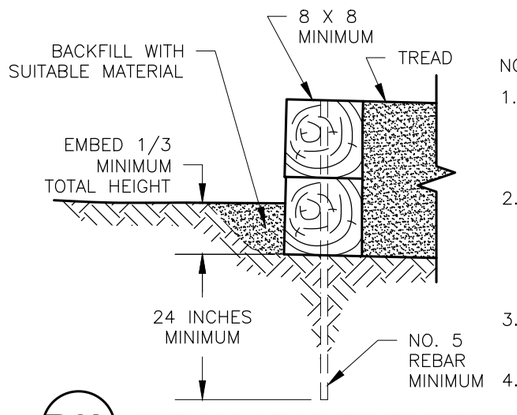
R2b TYPICAL LOG RETAINER



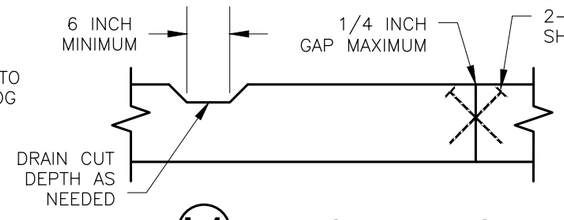
R2c TYPICAL STACKED LOG RETAINER



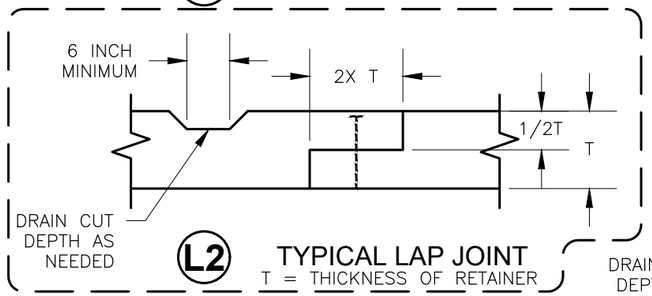
R3a TYPICAL TIMBER RETAINER



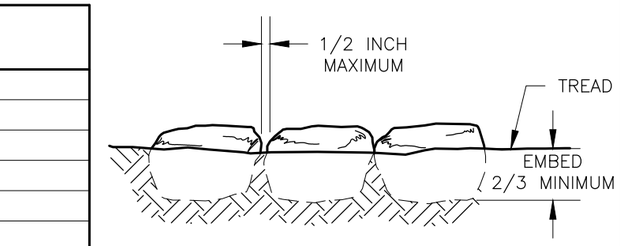
R3b TYPICAL STACKED TIMBER RETAINER



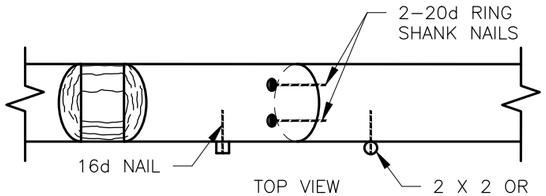
L1 TYPICAL BUTT JOINT

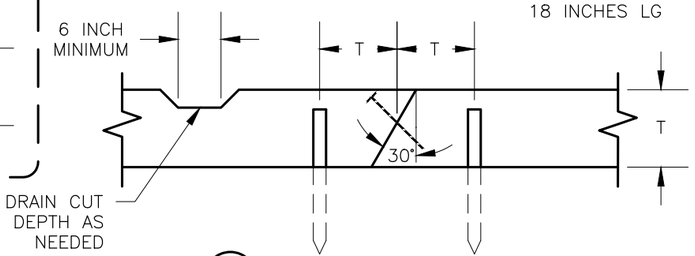


L2 TYPICAL LAP JOINT
T = THICKNESS OF RETAINER



TYPICAL ROCK SPACING





L3 TYPICAL SCARF JOINT
T = THICKNESS OF RETAINER

NOTES:

1. PRE–DRILL HOLES FOR REBAR TO PREVENT SPLITTING OF LOGS OR SAWN TIMBERS. RECESS END OF REBAR 1/2 INCH BELOW TOP OF TIMBER.
2. PLACE REBAR, ANCHOR BOLT OR STAKE 6 INCHES FROM EACH END OF TIMBER WITH MAXIMUM SPACING OF 36 INCHES. FOR STACKED RETAINERS STAGGER JOINTS 24 INCHES MINIMUM.
3. COMPACT BACKFILL IN 6 INCH LIFTS UNTIL NO VISUAL DISPLACEMENT.
4. ALL FIELD DRILLED HOLES AND CUTS SHALL BE FIELD TREATED.
5. REMOVE AND DISPOSE OF DUFF AND TOP ORGANIC LAYERS DOWN TO MINERAL SOIL.

PRESERVATIVE TREATMENT – (REFER TO AWPA USE CATEGORY SYSTEM)			
PRESERVATIVE TYPE	TREATMENT TYPE	USE CATEGORY	COMMENTS
P1	WB	UC4A	
P2	WB	UC3B	
P3	XX	XXXX	

TREATMENT TYPE

WB = WATERBORNE
OT = OIL–BORNE

USE CATEGORY

UC3B = ABOVE GROUND – EXPOSED
UC4A = GROUND CONTACT – GENERAL USE
UC4B = GROUND CONTACT – HEAVY DUTY

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE

STANDARD TRAIL PLAN

PROJECT NAME & LOCATION

WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM
WRANGELL RANGER DISTRICT

DRAWING NAME

TYPICAL RETAINERS

SECTION

911 - TREAD AND PRISM

TYPICAL ID

TRT

REVISION DATE

6/28/23

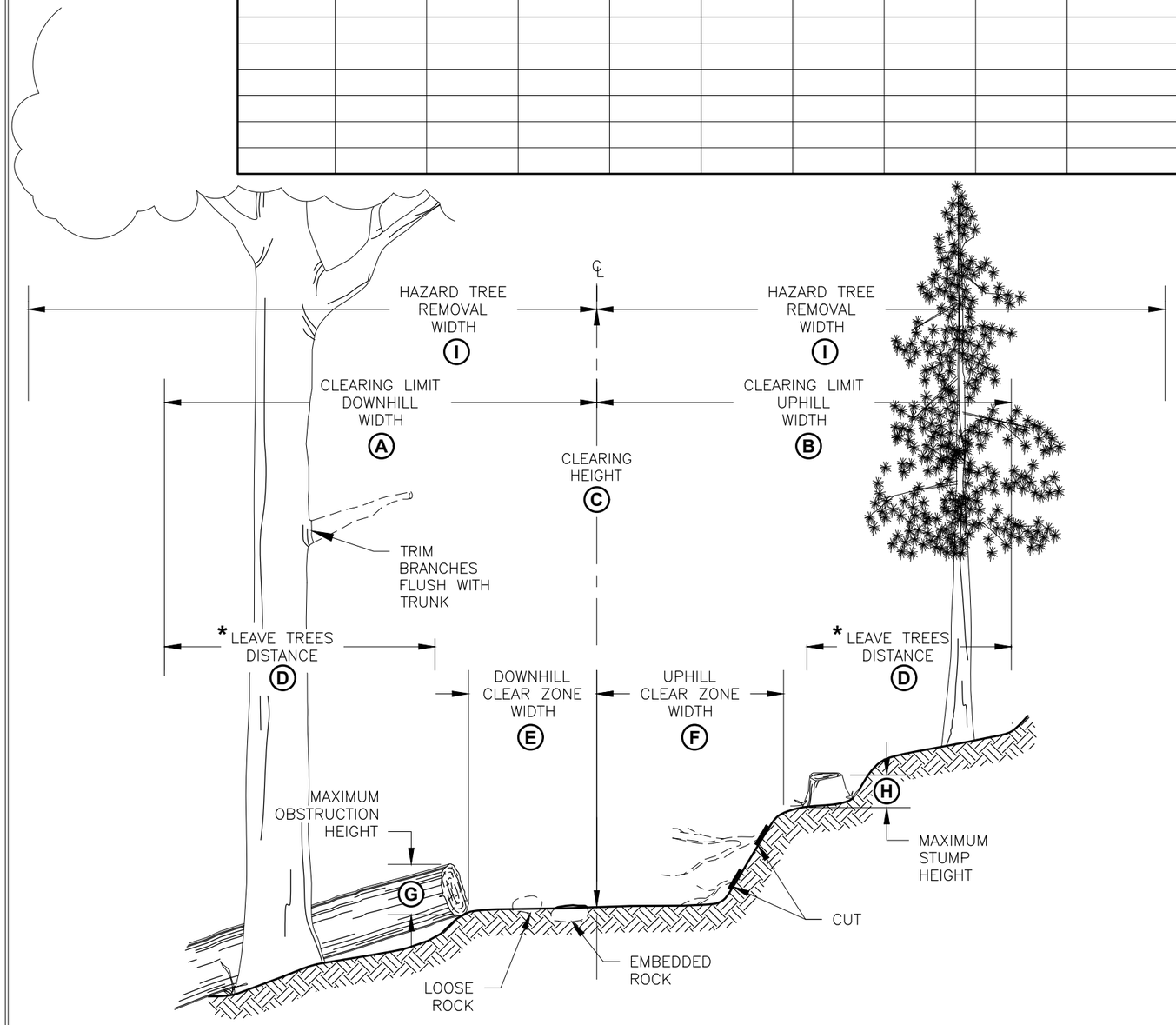
NO SCALE

DRAWING NO.

STD_911-03

CLEARING LIMITS - TREES AND LOGS

		CLEARING LIMITS			* LEAVE TREES		CLEAR ZONE			STUMPS	HAZARD TREE		
TYPICAL ID	CLEARING METHOD	DOWNHILL WIDTH (A)	UPHILL WIDTH (B)	CLEARING HEIGHT (C)	DISTANCE (FEET) (D)	DIAMETER (INCHES)	DOWNHILL WIDTH (E)	UPHILL WIDTH (F)	MAXIMUM OBSTRUCTION HEIGHT (G)	MAXIMUM HEIGHT (H)	REMOVAL WIDTH (I)	DISPOSAL METHOD	COMMENTS
CLT–1	C1	5’	5’	8’	2’	10	5’	5’	24”	12”	10’	D1	USE AS REQUIRED STA. 0+00 TO 29+22.



CLEARING METHOD

CLEARING TYPE	CLEARING METHOD	COMMENTS
C1	NEW CONSTRUCTION	TREES, PRUNING, & BRUSH
C2	CLEARING LIMIT RESTORATION	TREES, PRUNING, LOGS, BRUSH & MAINTENANCE
C3	TRAIL OPENING	LOGGING OUT, LOOSE ROCK & DRAINAGE CLEARING
C4	HAZARD TREE REMOVAL	ALONG TRAIL CORRIDOR
C5	HAZARD TREE REMOVAL	INDIVIDUAL (AS MARKED)
C6	LOOSE ROCK & ROOT REMOVAL	
C7		

LEAVE TREES: LEAVE TREES SHOULD BE LIVE, SOUND & UNDAMAGED WITH UNCOMPROMISED ROOT SYSTEMS.

HAZARD TREES: HAZARD TREES ARE TREES THAT ARE STANDING OR LEANING DEAD TREES LARGER THAN 8 INCHES IN DIAMETER AND GREATER THAN 90 FEET IN HEIGHT.

DISPOSAL METHOD

DISPOSAL TYPE	DISPOSAL METHOD	COMMENTS
D1	LOP AND SCATTER OUTSIDE TRAILWAY	
D2	LOP AND SCATTER ON FILL SLOPE	
D3	PILE AND BURN	
D4	CHIP	
D5	HAUL TO DISPOSAL SITE	
D6		

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
STANDARD TRAIL PLAN

PROJECT NAME & LOCATION
WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM
WRANGELL RANGER DISTRICT

DRAWING NAME
CLEARING LIMITS-TREES AND LOGS
SECTION **912 - CLEARING LIMITS**
TYPICAL ID **CLT**

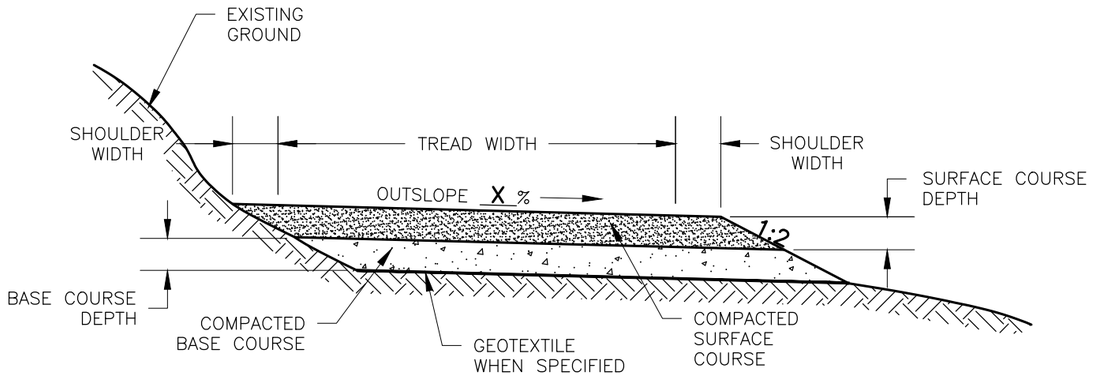
REVISION DATE **6/28/23**
NO SCALE

DRAWING NO. **STD_912-01**

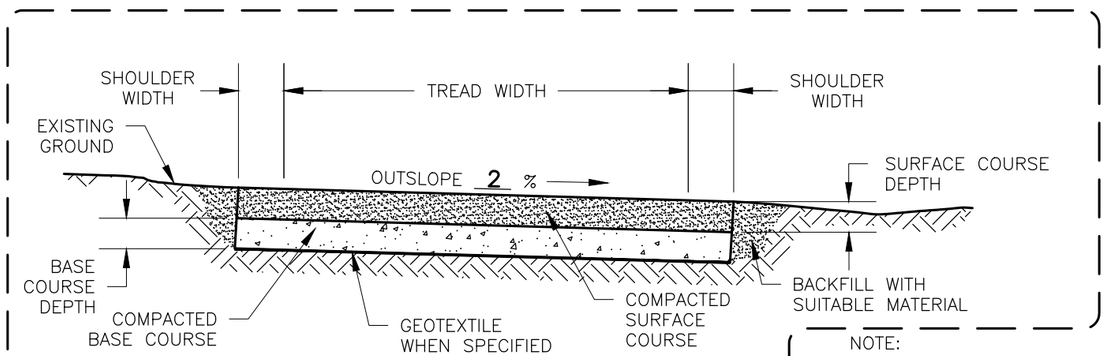
SURFACING SECTIONS

TYPICAL ID	SECTION TYPE	TREAD WIDTH	SHOULDER WIDTH		GEOTEXTILE TYPE	BASE COURSE		SURFACE COURSE		COMMENTS
			UPHILL	DOWNHILL		TYPE	DEPTH	TYPE	DEPTH	
TSS–1	B	2’	6”	6”	6	B 2	6”	S 2	4”	

N/A WHEN NOT APPLICABLE



(A) OUTSLOPED SECTION



(B) EXCAVATED SECTION

NOTE:

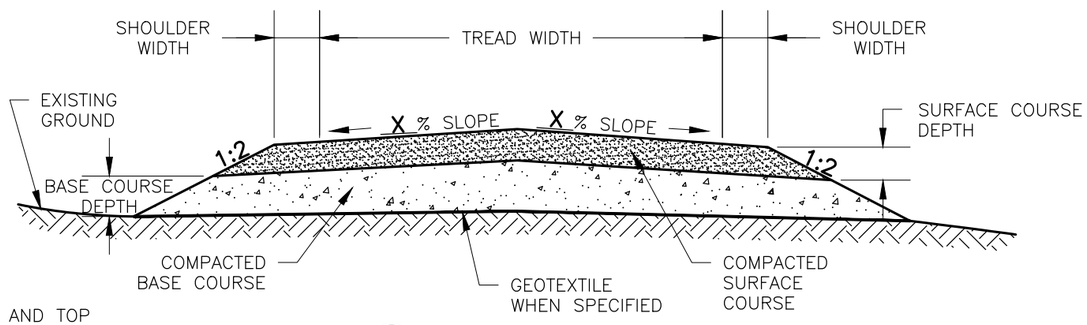
1. REMOVE AND DISPOSE OF DUFF AND TOP ORGANIC LAYERS DOWN TO MINERAL SOIL.
2. COMPACT BACKFILL IN 6 INCH LIFTS UNTIL NO VISUAL DISPLACEMENT.

BASE COURSE MATERIAL TYPE

TYPE	MATERIAL	GRADATION	COMMENTS
B1	PITRUN		
B2	AGGREGATE	A	
B3			

SURFACE COURSE MATERIAL TYPE

TYPE	MATERIAL	GRADATION	COMMENTS
S1	PITRUN		
S2	AGGREGATE	B	
S3	CLAY		
S4	WOODCHIPS		
S5			



(C) RAISED SECTION

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
STANDARD TRAIL PLAN

PROJECT NAME & LOCATION
WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM
WRANGELL RANGER DISTRICT

DRAWING NAME
TYPICAL SURFACING SECTIONS

SECTION: **913 - SURFACING**
TYPICAL ID: **TSS**

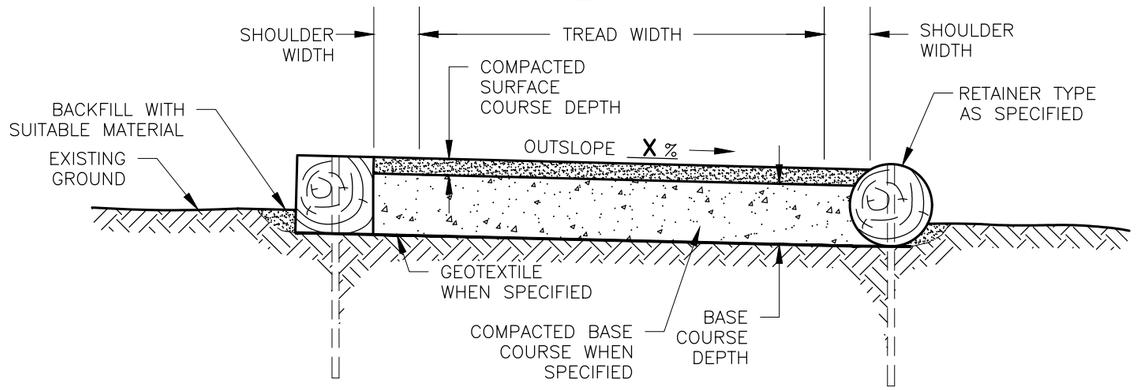
REVISION DATE: **6/28/23**
NO SCALE

DRAWING NO.: **STD_913-01**

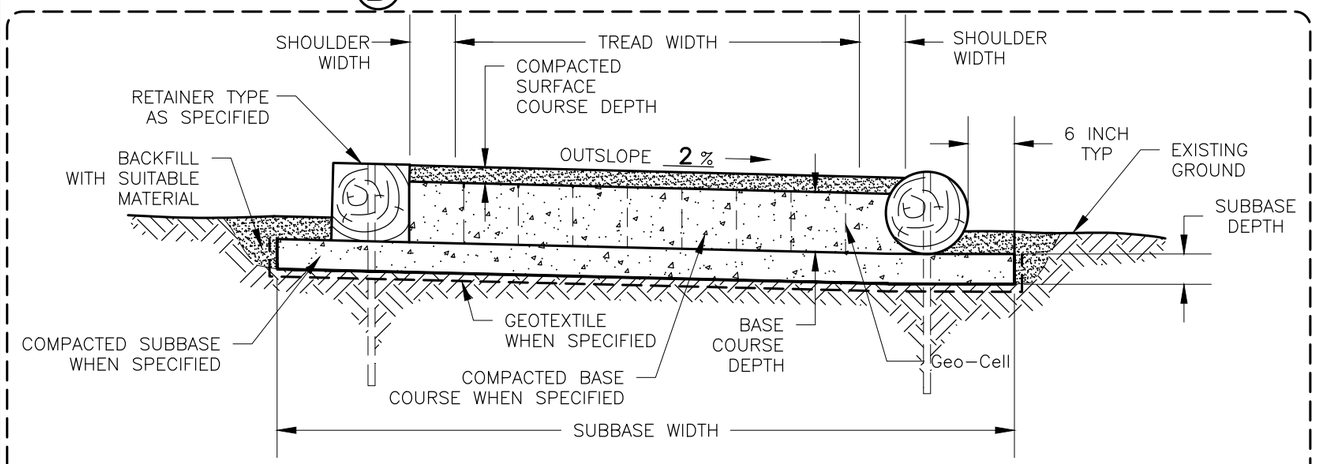
SURFACING SECTIONS

TYPICAL ID	SECTION TYPE	TREAD WIDTH	SHOULDER WIDTH		GEOTEXTILE TYPE	RETAINER*	SUBBASE			BASE COURSE		SURFACE COURSE		COMMENTS
			UPHILL	DOWNHILL		TYPE	TYPE	DEPTH	WIDTH	TYPE	DEPTH	TYPE	DEPTH	
TSR–1	E	5'	6"	6"	B	R2a	SB2	4"	9'	B2	6"	S2	4"	6" BASE COURSE SHALL BE PLACED WITHIN 6" GEO–CELL "GC40" AS MANUFACTURED BY 'BASELOK' OR APPROVED EQUAL. STAPLE GEO–CELL TO RETAINER LOGS AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
TSR–2	E	2'	6"	6"	B	R2a	SB2	4"	6'	B2	6"	S2	4"	

N/A WHEN NOT APPLICABLE
*FOR TYPICAL RETAINERS SEE SHEET STD_911–03



Ⓓ SURFACING SECTION WITH RETAINERS



Ⓔ SURFACING SECTION WITH RETAINERS AND SUB BASE

SUBBASE MATERIAL TYPE

TYPE	MATERIAL	GRADATION	COMMENTS
SB1	PITRUN		
SB2	AGGREGATE	A	
SB3			

BASE COURSE MATERIAL TYPE

TYPE	MATERIAL	GRADATION	COMMENTS
B1	PITRUN		
B2	AGGREGATE	A	
B3			

SURFACE COURSE MATERIAL TYPE

TYPE	MATERIAL	GRADATION	COMMENTS
S1	PITRUN		
S2	AGGREGATE	B	
S3	CLAY		
S4	WOODCHIPS		
S5			

NOTE:

1. REMOVE AND DISPOSE OF DUFF AND TOP ORGANIC LAYERS DOWN TO MINERAL SOIL.
2. COMPACT BACKFILL IN 6 INCH LIFTS UNTIL NO VISUAL DISPLACEMENT.

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
STANDARD TRAIL PLAN

PROJECT NAME & LOCATION
WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM
WRANGELL RANGER DISTRICT

DRAWING NAME **TYPICAL SURFACING SECTIONS WITH RETAINERS**
SECTION **913 - SURFACING**
TYPICAL ID **TSR**

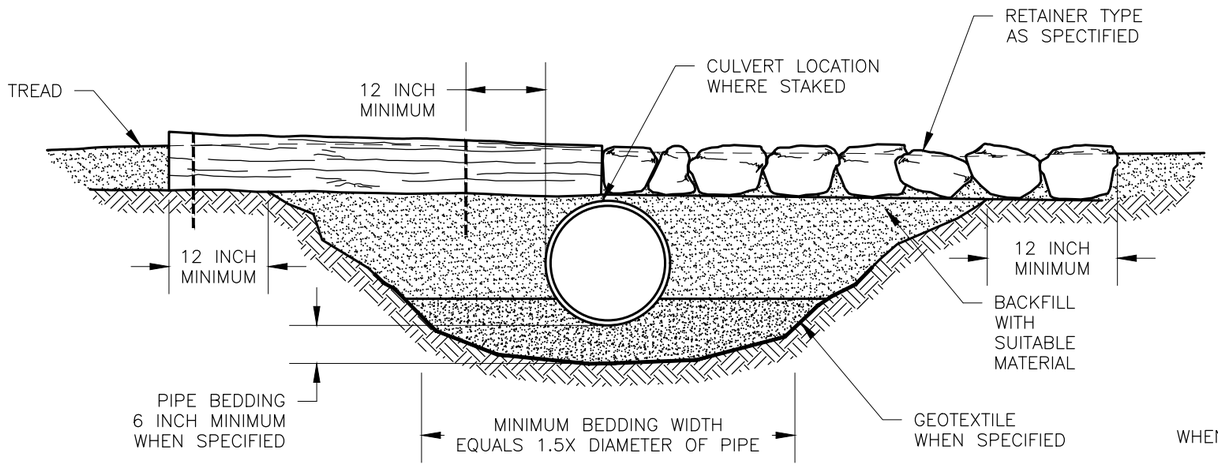
REVISION DATE **6/28/23**
NO SCALE

DRAWING NO. **STD_913-02**

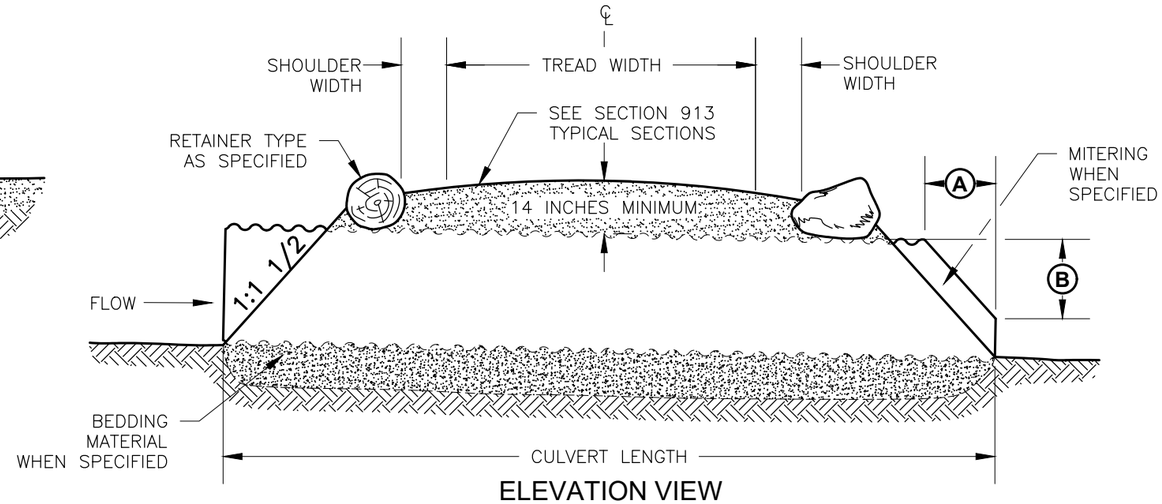
STANDARD CULVERT

TYPICAL ID	GEOTEXTILE TYPE	BEDDING TYPE	CULVERT TYPE	MITERING Ⓐ	MITERING Ⓑ	RETAINER* TYPE	COMMENTS
SCV–1	B	B2	C2	18	12	R2a	

N/A WHEN NOT APPLICABLE
*FOR TYPICAL RETAINERS SEE SHEET STD_911–03



END VIEW



ELEVATION VIEW

CULVERT TYPE

TYPE	MATERIAL	COMMENTS
C1	CMP – GALV	
C2	HDPE	12”
C3	PLASTIC	
C4	ALUMINUM	
C5	CONCRETE	
C6		

NOTE:
1. COMPACT BACKFILL IN 6 INCH LIFTS UNTIL NO VISUAL DISPLACEMENT.
2. NO ROCKS LARGER THAN 1 1/2 INCHES WITHIN 12 INCHES OF PIPE.

BEDDING MATERIAL TYPE

TYPE	MATERIAL	GRADATION	COMMENTS
B1	PITRUN		
B2	AGGREGATE	B	
B3			

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
STANDARD TRAIL PLAN

PROJECT NAME & LOCATION
WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM
WRANGELL RANGER DISTRICT

DRAWING NAME
STANDARD CULVERT
SECTION
921 - CULVERTS
TYPICAL ID
SCV

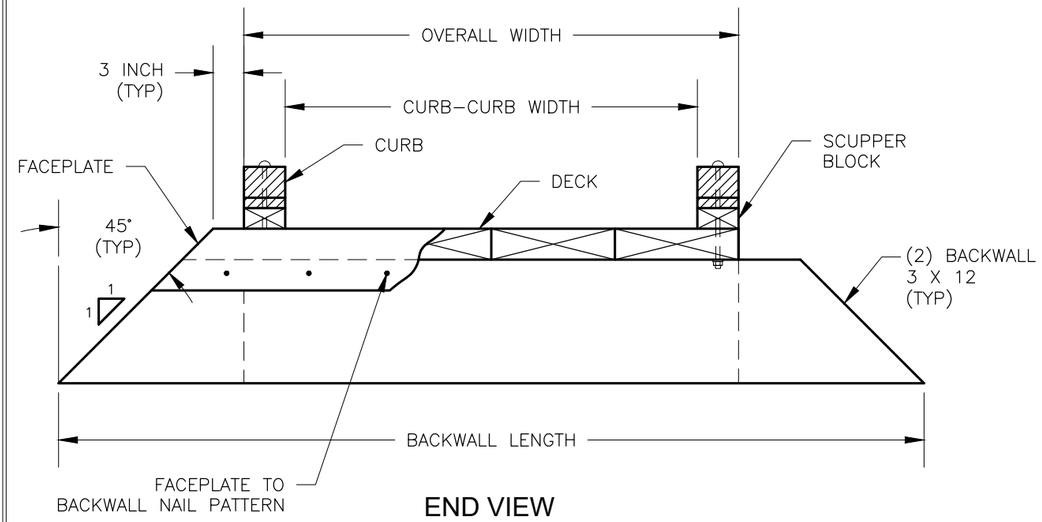
REVISION DATE
12/5/22
NO SCALE

DRAWING NO.
STD_921-10-01

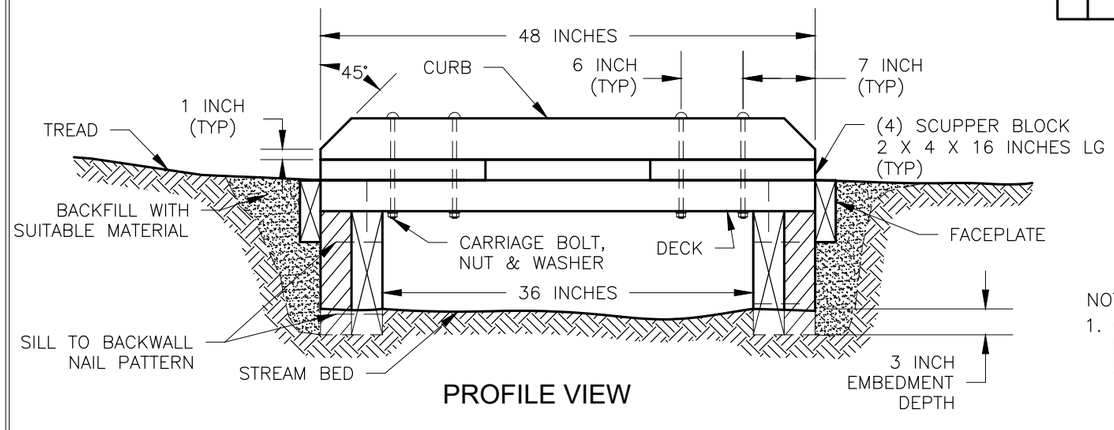
TREATED TIMEBER BOX CULVERT & CURB

			BACKWALL/SILL/FACEPLATE			DECK		CURBS/SCUPPER BLOCKS		
TYPICAL ID	CURB–CURB WIDTH	OVERALL WIDTH	LENGTH	SPECIES	PRESERV. TYPE	SPECIES	PRESERV. TYPE	SPECIES	PRESERV. TYPE	COMMENTS
TCV–1	3'–0"	3'–8"	6'	DF	P3	YC	NA	YC	NA	

N/A WHEN NOT APPLICABLE

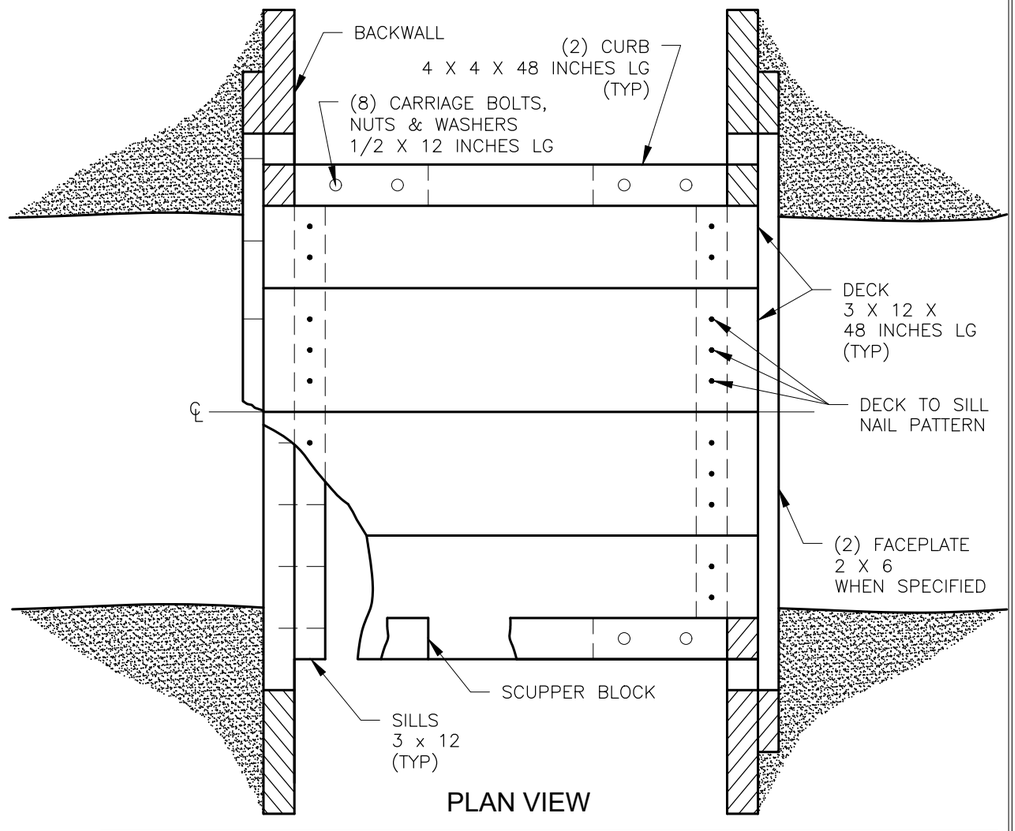


END VIEW



PROFILE VIEW

NAIL PATTERN		
	FACEPLATE TO BACKWALL	30d NAILS @ 12 INCHES ON CENTER.
	SILL TO BACKWALL	30d NAILS IN TWO 6 INCH STAGGERED ROWS, 2 INCH MINIMUM FROM EDGE OF SILL.
	DECK TO SILL	(3) 60d NAILS THROUGH EACH END OF DECK PLANK INTO SILL, 6 INCHES FROM EDGE OF DECK PLANK.



PLAN VIEW

NOTES:
1. COMPACT BACKFILL IN 6 INCH LIFTS UNTIL NO VISUAL DISPLACEMENT.

PRESERVATIVE TREATMENT – (REFER TO AWPA USE CATEGORY SYSTEM)			
PRESERVATIVE TYPE	TREATMENT TYPE	USE CATEGORY	COMMENTS
P1	WB	UC4A	
P2	WB	UC3B	
P3	WB	UC4B	

TREATMENT TYPE
WB = WATERBORNE
OT = OIL–BORNE

USE CATEGORY
UC3B = ABOVE GROUND – EXPOSED
UC4A = GROUND CONTACT – GENERAL USE
UC4B = GROUND CONTACT – HEAVY DUTY

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
STANDARD TRAIL PLAN

PROJECT NAME & LOCATION
WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM
WRANGELL RANGER DISTRICT

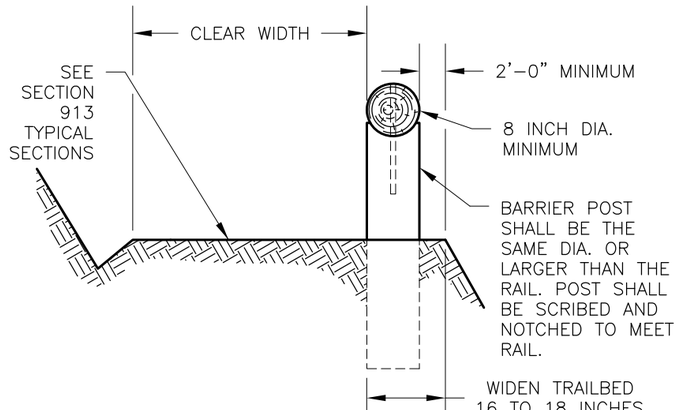
DRAWING NAME
TREATED TIMBER BOX CULVERT
SECTION **921 - CULVERTS**
TYPICAL ID **TCV**

REVISION DATE **6/28/23**
NO SCALE

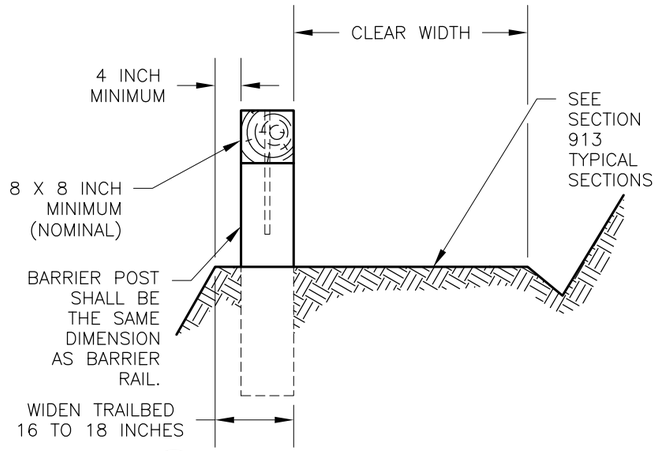
DRAWING NO. **STD_921-40-01**

BARRIER RAIL ON POST

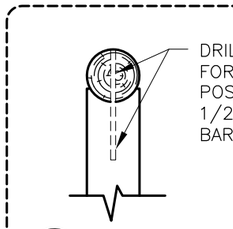
			BARRIER POST					BARRIER RAIL				
TYPICAL ID	CLEAR WIDTH	SECTION TYPE	SIZE	HEIGHT	EMBEDMENT DEPTH	SPECIES	PRESERV. TYPE	SIZE	SPECIES	PRESERV. TYPE	CONNECTION DETAIL TYPE	COMMENTS
BRP–1	VARIES	A	12”	29”	3’–6”	DF	P1	12”	YC		C	



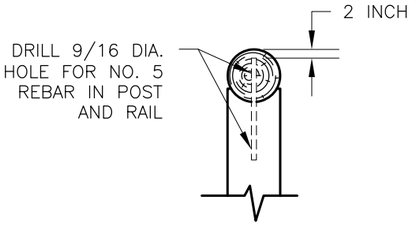
A TYPICAL LOG BARRIER SECTION



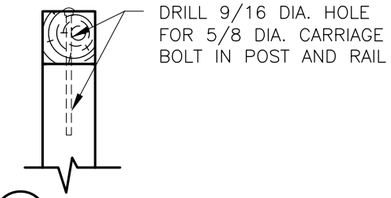
B TYPICAL TIMBER BARRIER SECTION



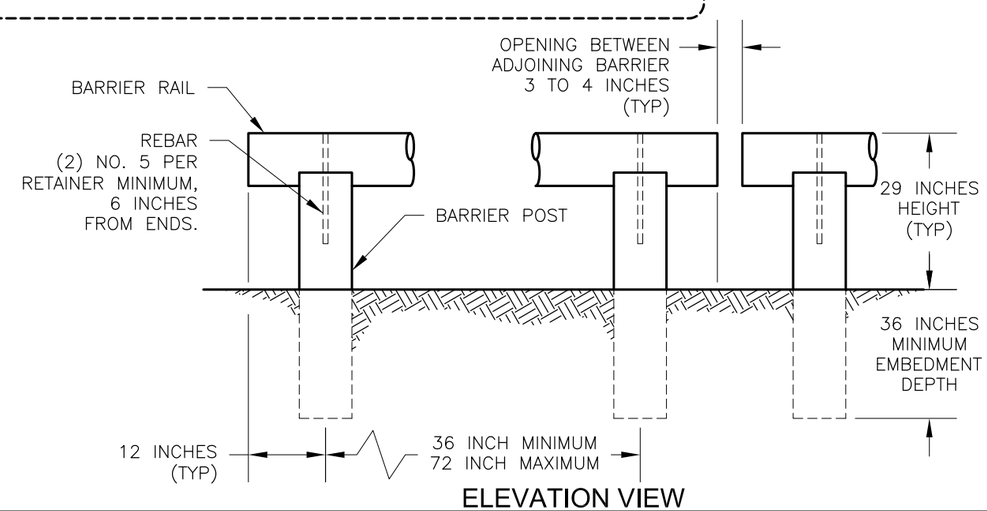
C RECESSED REBAR DETAIL



D EMBEDDED REBAR DETAIL



E CARRIAGE BOLT DETAIL



ELEVATION VIEW

NOTES:

1. PRE–DRILL HOLES FOR FASTENERS TO PREVENT SPLITTING OF LOGS OR SAWN TIMBERS.
2. REBAR LENGTH SHALL BE 2.5X THE DEPTH OF THE RAIL WITH A MINIMUM OF 18 INCHES LONG.
3. COMPACT AND BACKFILL POST HOLES IN 6 INCH LIFTS UNTIL NO VISUAL DISPLACEMENT.
4. FIELD TREAT ALL FIELD CUTS AND PRE–DRILLED HOLES.
5. CLEAR WIDTH IS GREATER OR EQUAL TO THE TREAD AND SHOULDER WIDTHS DEFINED IN SECTION 911.

PRESERVATIVE TREATMENT – (REFER TO AWPA USE CATEGORY SYSTEM)			
PRESERVATIVE TYPE	TREATMENT TYPE	USE CATEGORY	COMMENTS
P1	WB	UC4A	
P2	WB	UC3B	
P3	XX	XXXX	

TREATMENT TYPE

WB = WATERBORNE
OT = OIL–BORNE

USE CATEGORY

UC3B = ABOVE GROUND – EXPOSED
UC4A = GROUND CONTACT – GENERAL USE
UC4B = GROUND CONTACT – HEAVY DUTY

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
STANDARD TRAIL PLAN

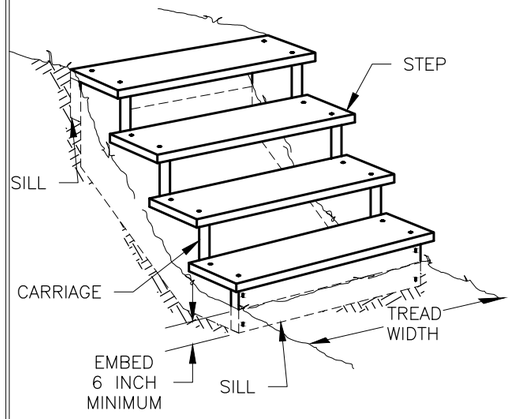
PROJECT NAME & LOCATION
WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM
WRANGELL RANGER DISTRICT

DRAWING NAME
BARRIER RAIL ON POST
SECTION **933 - SIDE BARRIERS**
TYPICAL ID **BRP**

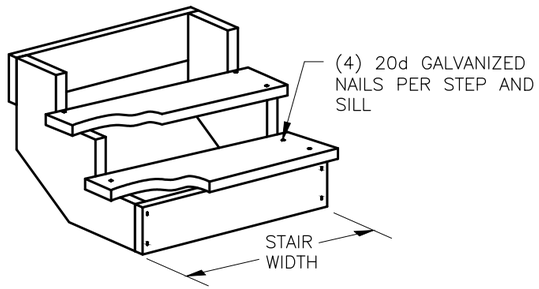
REVISION DATE **6/28/23**
NO SCALE

DRAWING NO. **STD_933-40-01**

STAIRCASE

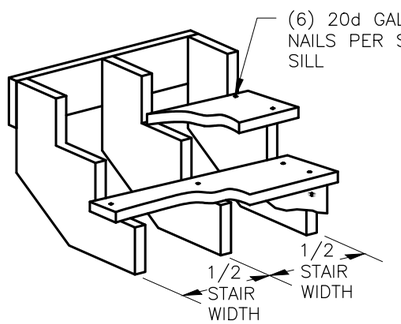


TYPICAL ID	SPAN	CARRIAGE NO. OF CARRIAGES	CARRIAGE MATERIAL DIMENSION	SILL MATERIAL DIMENSION	STEP WIDTH	STEP MATERIAL DIMENSION	STEP RUN	STEP RISE	SPECIES	PRESERV. TYPE	COMMENTS
STC–1	10’	3	3 X 12	3 X 12	48”	3 X 12	11	7	DF	P3	INSTALL HANDRAIL ON DOWNHILL SIDE SIMILAR TO ELEVATED BOARDWALK. *CONSTRUCT 4’ LONG LANDING AT SPAN CENTER AT STAIR LOCATIONS WITH SPAN LENGTHS LONGER THAN 10’.
STC–2	20’*	3	3 X 12	3 X 12	48”	3 X 12	11	7	DF	P3	
STC–3	10’	3	3 X 12	3 X 12	48”	3 X 12	11	7	DF	P3	
STC–4	16’*	3	3 X 12	3 X 12	48”	3 X 12	11	7	DF	P3	



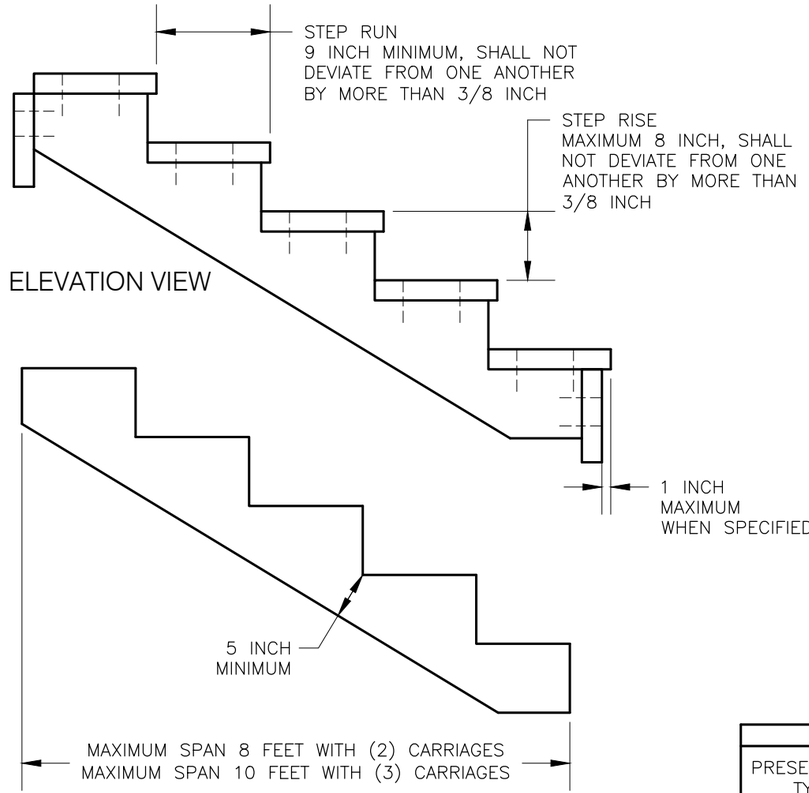
TWO CARRIAGE OPTION

FOR 3 FOOT OR LESS STEP WIDTH



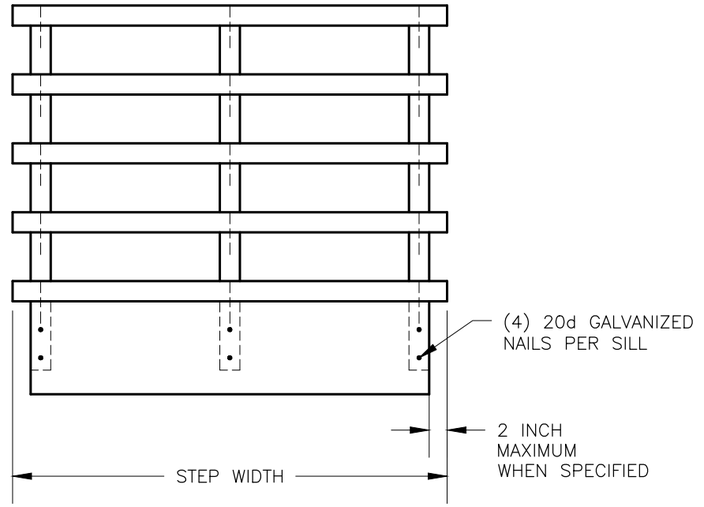
THREE CARRIAGE OPTION

FOR 3 TO 6 FOOT STEP WIDTH



ELEVATION VIEW

CARRIAGE DETAIL



FRONT VIEW

NOTES:

1. COMPACT BACKFILL IN 6 INCH LIFTS UNTIL NO VISUAL DISPLACEMENT.
2. REMOVE AND DISPOSE OF DUFF AND TOP ORGANIC LAYERS DOWN TO MINERAL SOIL.

PRESERVATIVE TREATMENT – (REFER TO AWPA USE CATEGORY SYSTEM)			
PRESERVATIVE TYPE	TREATMENT TYPE	USE CATEGORY	COMMENTS
P1	WB	UC4A	
P2	WB	UC3B	
P3	WB	UC4B	

TREATMENT TYPE

WB = WATERBORNE
OT = OIL–BORNE

USE CATEGORY

UC3B = ABOVE GROUND – EXPOSED
UC4A = GROUND CONTACT – GENERAL USE
UC4B = GROUND CONTACT – HEAVY DUTY

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
STANDARD TRAIL PLAN

PROJECT NAME & LOCATION
WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM
WRANGELL RANGER DISTRICT

DRAWING NAME
STAIRCASE

SECTION
936 - STAIRWAYS

TYPICAL ID
STC

REVISION DATE
6/28/23

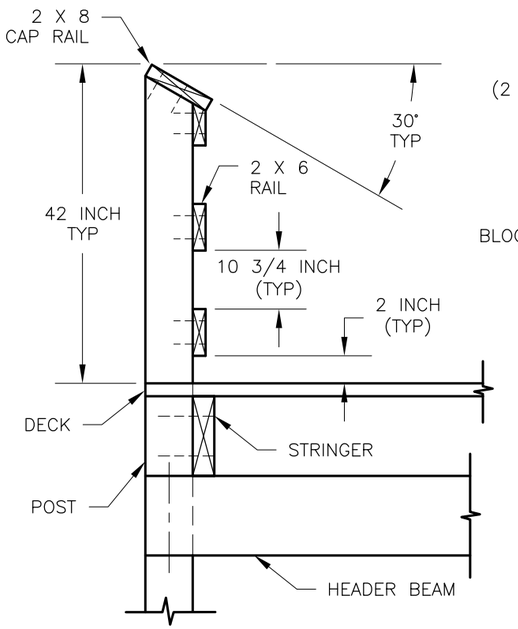
NO SCALE

DRAWING NO.
STD_936-40-01

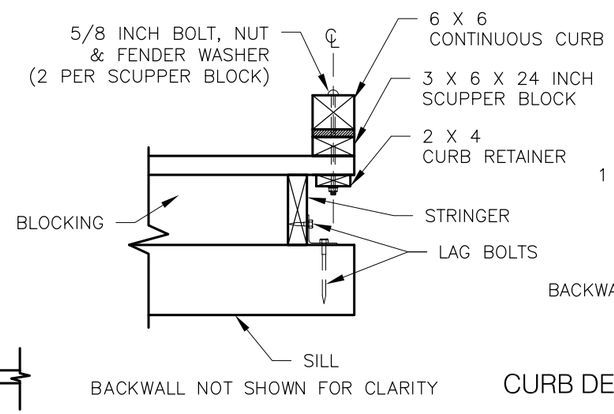
ELEVATED BOARDWALK

TYPICAL ID	SECTION TYPE	OVERALL WIDTH	SURFACE WIDTH	FOOTING MATERIAL: TYPE	FOOTING MATERIAL: DEPTH	FOOTING MATERIAL: WIDTH	POST/SILLS/BACKWALLS: POST HEIGHT	POST/SILLS/BACKWALLS: POST EMBEDMENT DEPTH	POST/SILLS/BACKWALLS: SPECIES	POST/SILLS/BACKWALLS: PRESERV. TYPE	HEADER BEAM/STRINGERS/DECK/CURB/RAILING SYSTEM: DECK SIZE	HEADER BEAM/STRINGERS/DECK/CURB/RAILING SYSTEM: SPECIES	HEADER BEAM/STRINGERS/DECK/CURB/RAILING SYSTEM: PRESERV. TYPE	COMMENTS
EB1–1	A,B,C	5'	3'	FT2	6"	24"	42"	36"	DF	P 3	2x8	YC		INSTALL STAIRCASE ON DOWNHILL SIDE OF BOARDWALK PER STD 936–40
EB1–2	A,B,C	5'	3'	FT2	6"	24"	42"	36"	DF	P 3	2x8	YC		

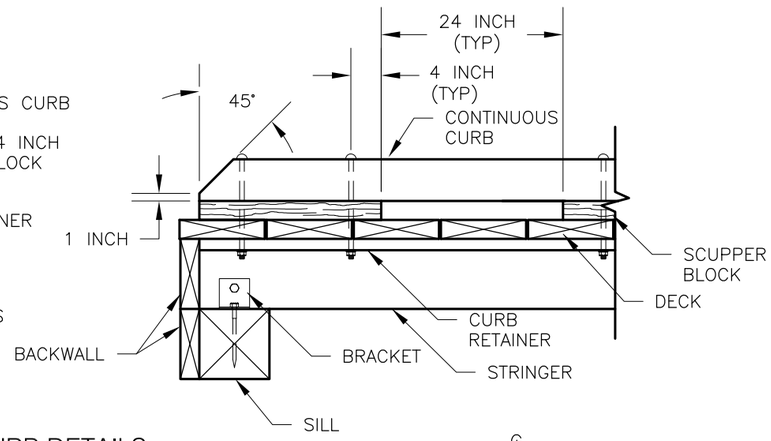
N/A WHEN NOT APPLICABLE



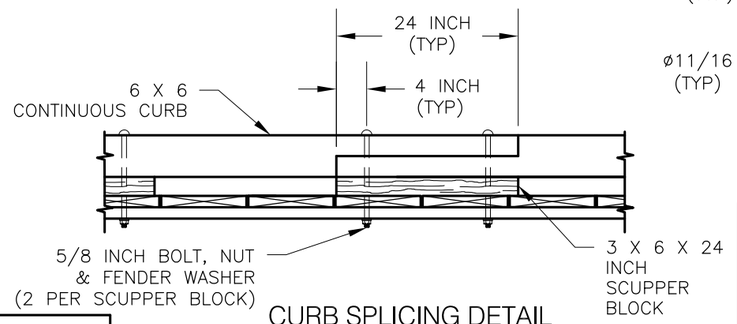
RAIL SYSTEM DETAIL



BACKWALL NOT SHOWN FOR CLARITY



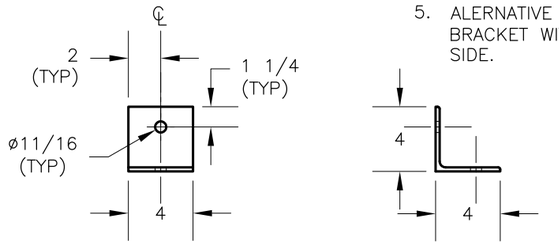
CURB DETAILS



CURB SPLICING DETAIL

NOTES:

1. DESIGN LOAD: 100 PSF PEDESTRIAN LOAD.
2. ALL MATERIAL TYPE SHALL BE DOUGLAS FIR OR SOUTHERN PINE NO. 2 OR BETTER AS SPECIFIED IN THE ABOVE TABLE.
3. ALL FASTENERS SHALL BE GALVANIZED.
4. FASTENERS:
   - DECKING: 60d 6 INCH RING SHANK NAILS OR DECK SCREWS 2 PER DECK STRINGER CONNECTION.
   - RAILING: NO. 10 X 4 INCH LONG WOOD SCREWS 2 PER RAIL POST CONNECTION.
   - STRINGERS & BACKWALLS: 40d 5 INCH LONG RING SHANK NAILS.
5. ALERNATIVE FOR 7/8 BOLTS FOR HEADER BEAM IS BRACKET WITH AN ALLOWABLE LOAD OF 1100 LBS EACH SIDE.



BRACKET DETAIL

FOOTING MATERIAL

TYPE	MATERIAL	GRADATION	COMMENTS
FT1	CONCRETE		
FT2	AGGREGATE	A	
FT3			

PRESERVATIVE TREATMENT – (REFER TO AWPA USE CATEGORY SYSTEM)			
PRESERVATIVE TYPE	TREATMENT TYPE	USE CATEGORY	COMMENTS
P1	WB	UC4A	
P2	WB	UC3B	
P3	WB	UC4B	

TREATMENT TYPE

WB = WATERBORNE
OT = OIL–BORNE

USE CATEGORY

UC3B = ABOVE GROUND – EXPOSED
UC4A = GROUND CONTACT – GENERAL USE
UC4B = GROUND CONTACT – HEAVY DUTY

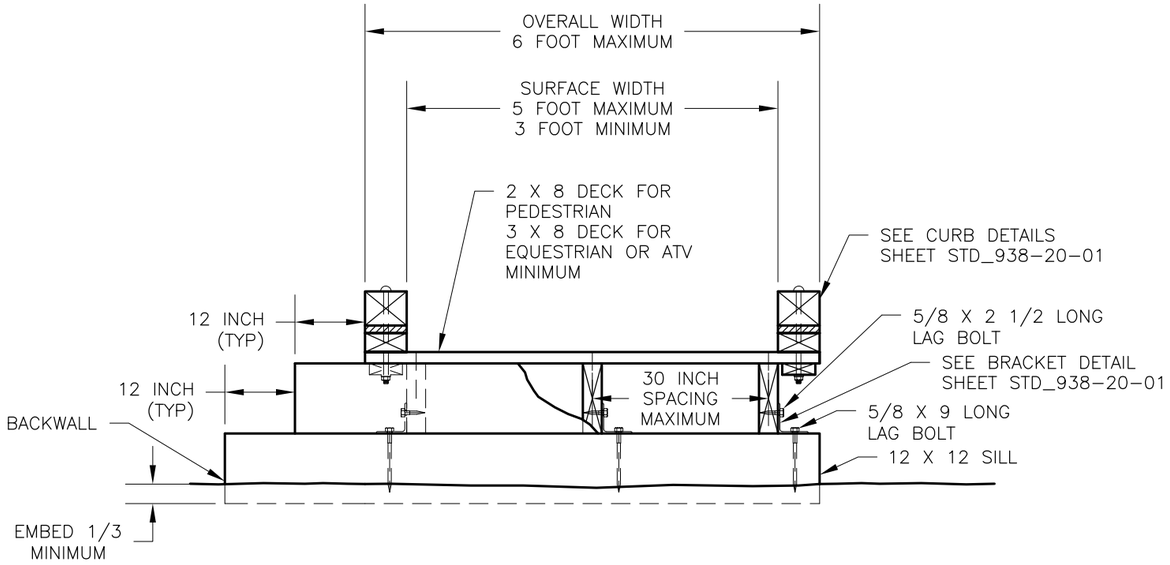
U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
STANDARD TRAIL PLAN

PROJECT NAME & LOCATION
WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM
WRANGELL RANGER DISTRICT

DRAWING NAME
ELEVATED BOARDWALK
SECTION **938 - BOARDWALKS**
TYPICAL ID **EB1**

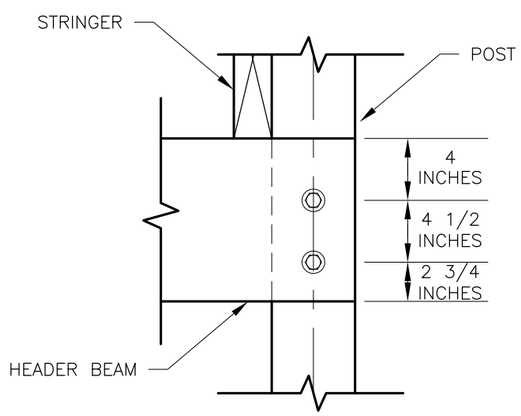
REVISION DATE **6/28/23**
NO SCALE

DRAWING NO. **STD_938-20-01**

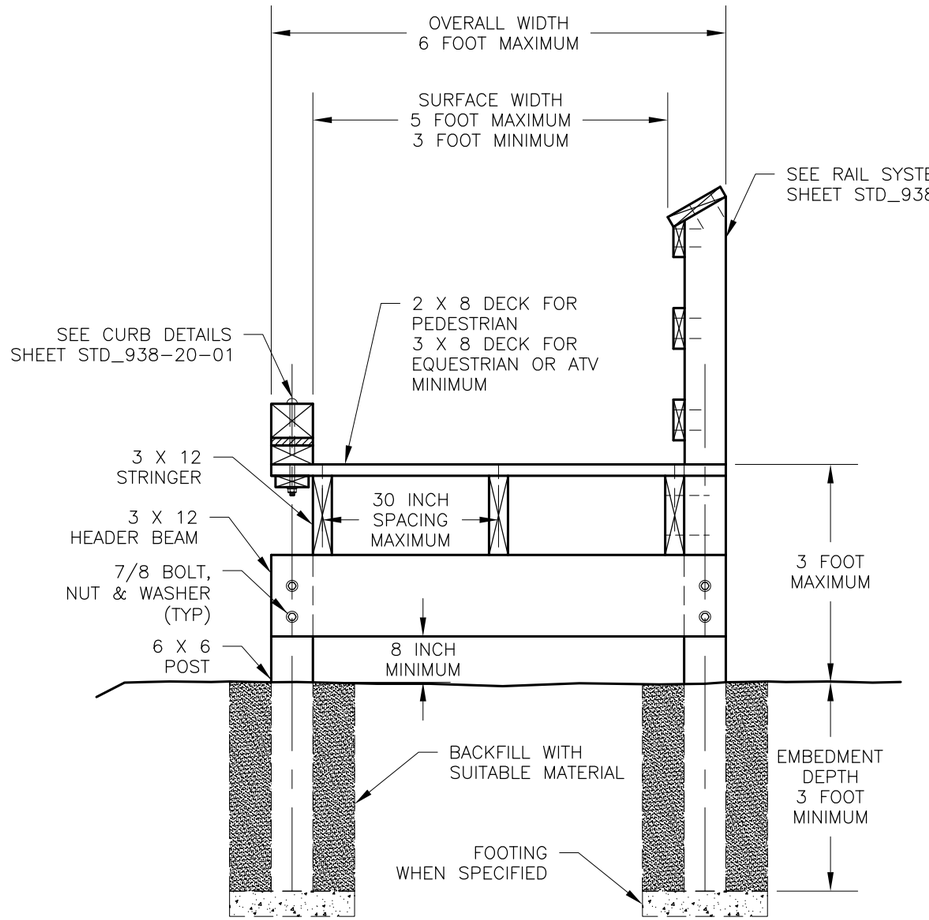


(A) TYPICAL GROUND SECTION

BLOCKING REQUIRED AT EVERY SUPPORT NOT SHOWN FOR CLARITY



BOLT DETAIL



(B) TYPICAL ELEVATED SECTION

LESS THAN 3 FEET WITH CURB
BLOCKING REQUIRED AT EVERY SUPPORT
NOT SHOWN FOR CLARITY

(C) TYPICAL ELEVATED SECTION

LESS THAN 3 FEET WITH CURB
BLOCKING REQUIRED AT EVERY SUPPORT
NOT SHOWN FOR CLARITY

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE

STANDARD TRAIL PLAN

PROJECT NAME & LOCATION

WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM
WRANGELL RANGER DISTRICT

DRAWING NAME
ELEVATED BOARDWALK

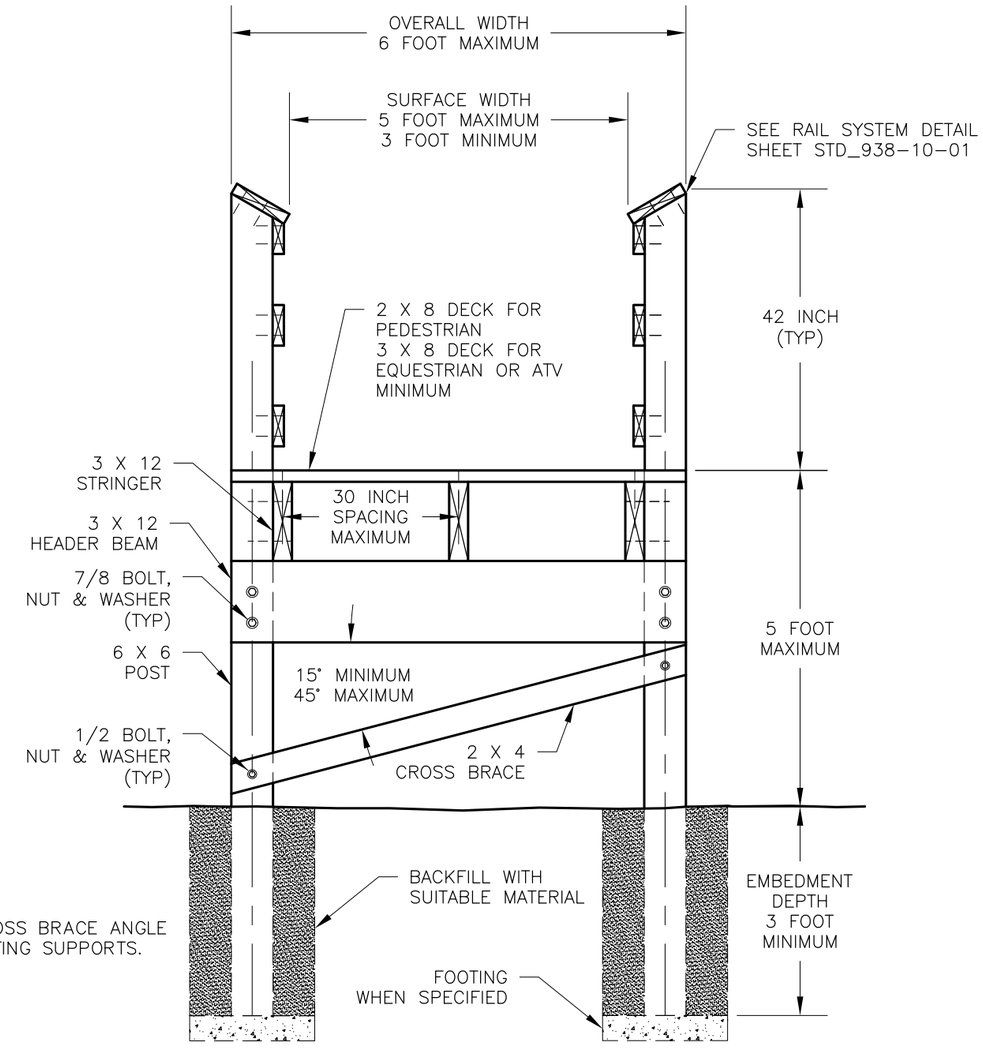
SECTION **938 - BOARDWALKS**

TYPICAL ID **EB2**

REVISION DATE **6/28/22**

NO SCALE

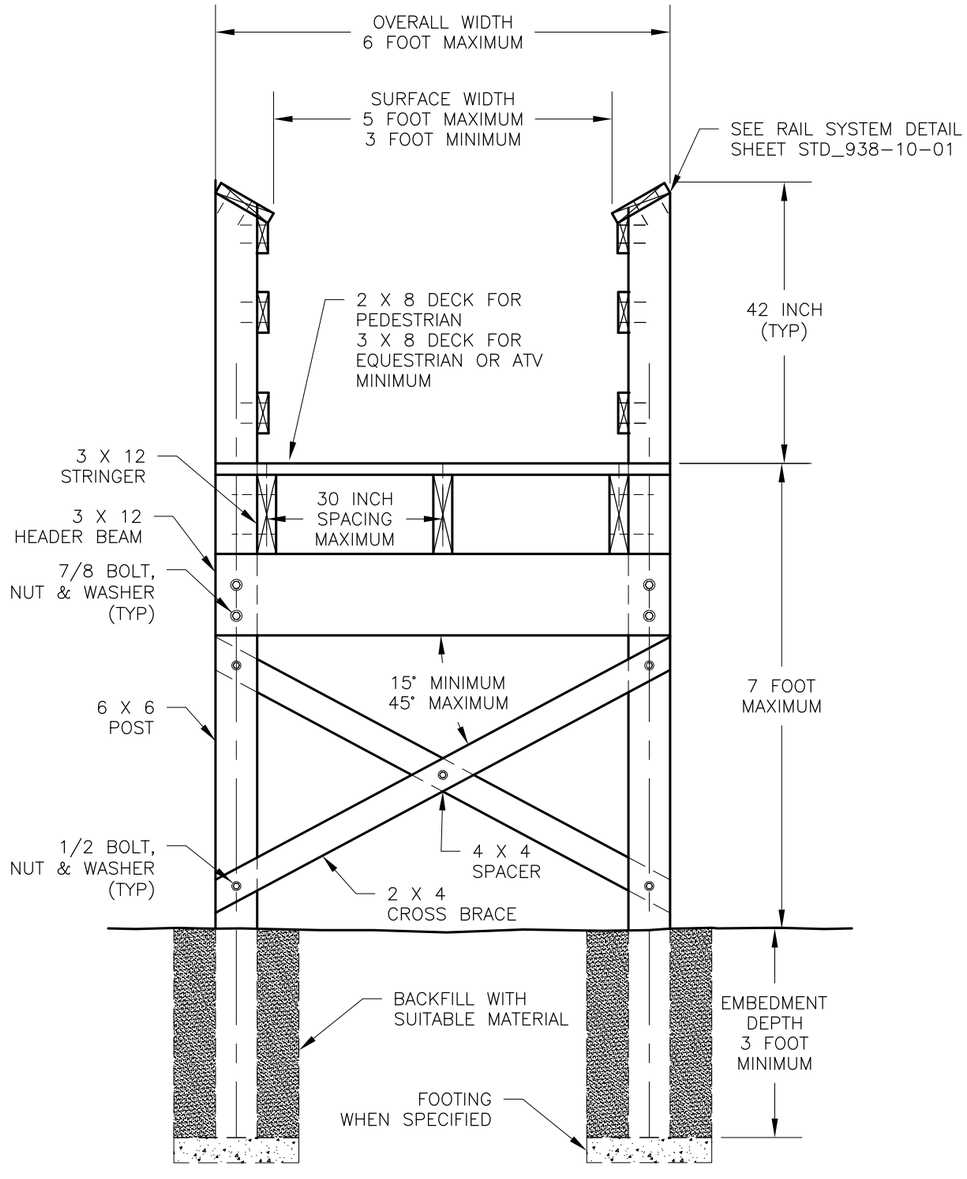
DRAWING NO. **STD_938-20-02**



NOTE:
REVERSE CROSS BRACE ANGLE AT ALTERNATING SUPPORTS.

(D) TYPICAL ELEVATED SECTION

GREATER THAN 3 FEET LESS THAN 5 FEET BLOCKING REQUIRED AT EVERY SUPPORT NOT SHOWN FOR CLARITY



(E) TYPICAL ELEVATED SECTION

GREATER THAN 5 FEET LESS THAN 7 FEET BLOCKING REQUIRED AT EVERY SUPPORT NOT SHOWN FOR CLARITY

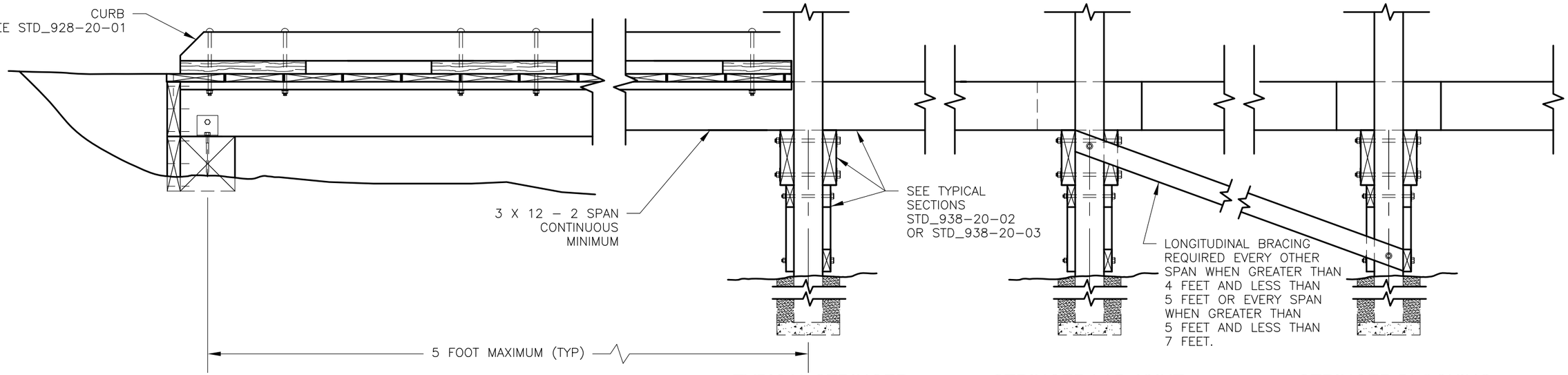
U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
STANDARD TRAIL PLAN

PROJECT NAME & LOCATION
WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM
WRANGELL RANGER DISTRICT

DRAWING NAME
ELEVATED BOARDWALK
SECTION
938 - BOARDWALKS
TYPICAL ID
EB3

REVISION DATE
6/28/23
NO SCALE

DRAWING NO.
STD_938-20-03

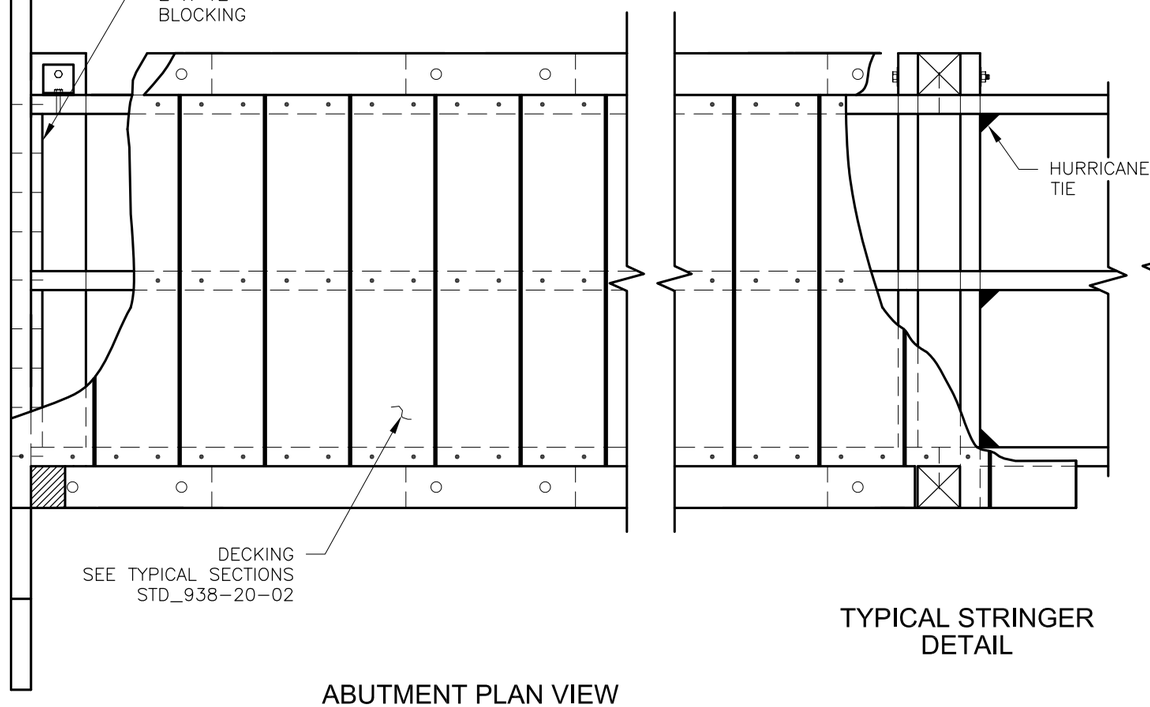


TYPICAL STRINGER DETAIL

STRINGER LAP JOINT DETAIL

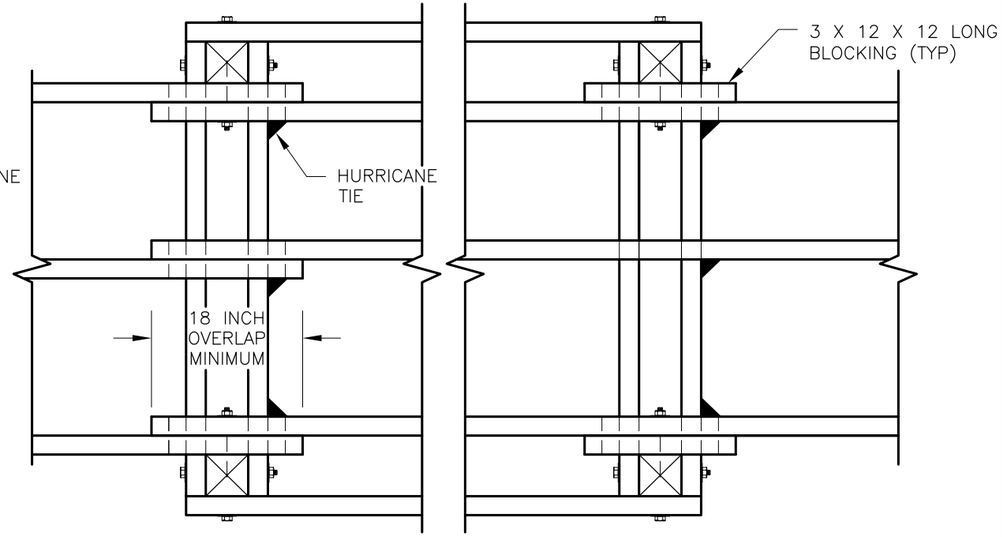
STRINGER BLOCKING DETAIL

ABUTMENT PROFILE VIEW



PIER PROFILE VIEW

BLOCKING, DECKING AND RAIL SYSTEM NOT SHOWN FOR CLARITY



TYPICAL STRINGER DETAIL

STRINGER LAP JOINT DETAIL

STRINGER BLOCKING DETAIL

ABUTMENT PLAN VIEW

CROSS BRACING NOT SHOWN FOR CLARITY

PIER PLAN VIEW

BLOCKING, CROSS BRACING, DECKING AND RAIL SYSTEM NOT SHOWN FOR CLARITY

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE

STANDARD TRAIL PLAN

PROJECT NAME & LOCATION

WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM
WRANGELL RANGER DISTRICT

DRAWING NAME

ELEVATED BOARDWALK

SECTION **938 - BOARDWALKS**

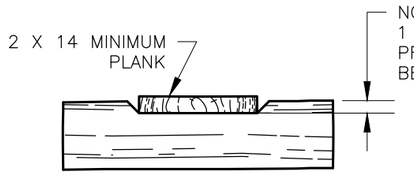
TYPICAL ID **EB4**

REVISION DATE **6/28/23**

NO SCALE

DRAWING NO. **STD_938-20-04**

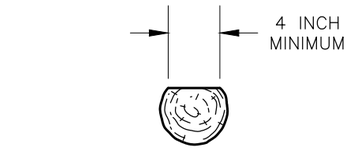
STEP AND RUN



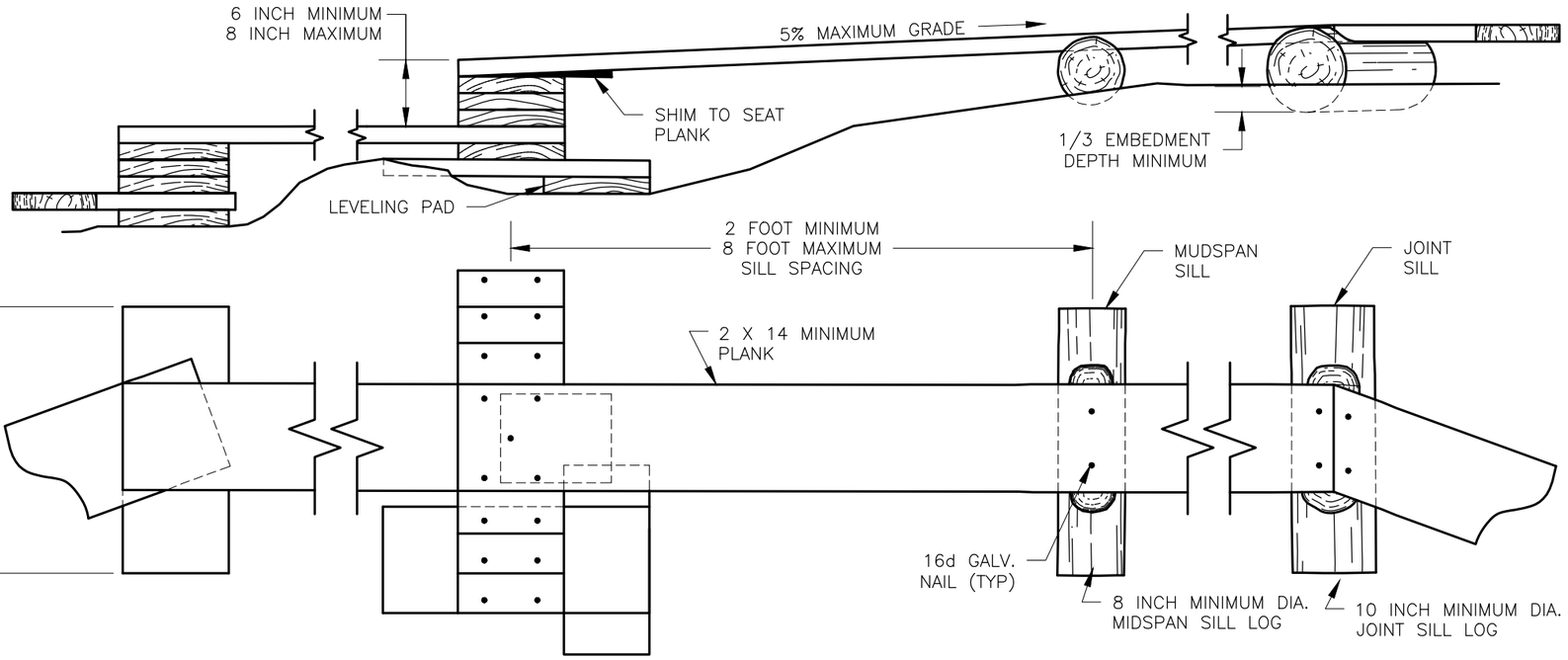
SILL LOG JOINT DETAIL

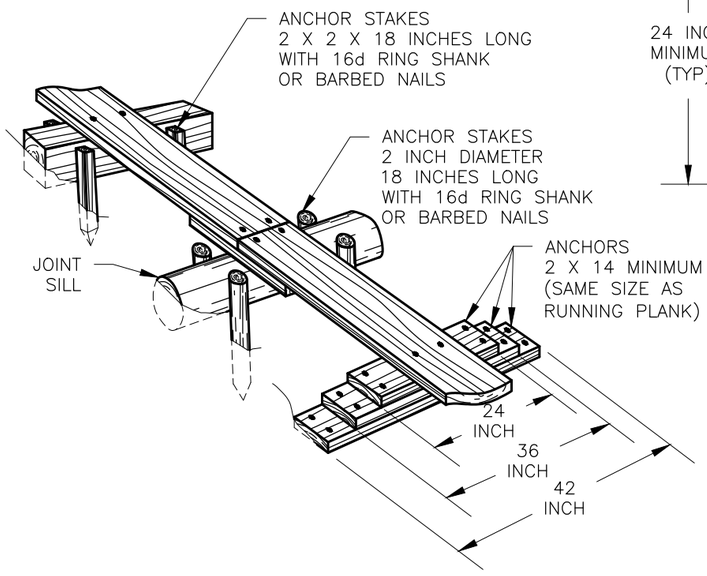
	SILL				PLANK			
TYPICAL ID	TYPE	SIZE	SPECIES	PRESERV. TYPE	SIZE	SPECIES	PRESERV. TYPE	COMMENTS
SNR–1	DF	6x12	DF	P3	2x14	YC		(2) PLANKS SHALL BE PLACED SIDE BY SIDE WITH 1/2" GAP BETWEEN BOARDS. SEE LANDSCAPE DRAWINGS FOR SIENE NET NON–SKID ON RUNNING PLANK SURFACE. YC BOARDS SHALL BE ROUGHSAWN TO PROVIDE TRACTION ON WALKING SURFACE.
	DF	2x12	DF	P3				

N/A WHEN NOT APPLICABLE



LOG DETAIL





NOTES:

1. KEEP PLANKS LOW TO THE GROUND. FOLLOW TOPOGRAPHY THROUGH SMALL DIPS.
2. AVOID STACKING PLANKS FOR SILL ON SIDE HILLS. DIG THE SILL INTO THE BANK.

PRESERVATIVE TREATMENT – (REFER TO AWPA USE CATEGORY SYSTEM)			
PRESERVATIVE TYPE	TREATMENT TYPE	USE CATEGORY	COMMENTS
P1	WB	UC4A	X
P2	WB	UC3B	
P3	WB	UC4B	

TREATMENT TYPE

WB = WATERBORNE
OT = OIL–BORNE

USE CATEGORY

UC3B = ABOVE GROUND – EXPOSED
UC4A = GROUND CONTACT – GENERAL USE
UC4B = GROUND CONTACT – HEAVY DUTY

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
STANDARD TRAIL PLAN

PROJECT NAME & LOCATION
WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM
WRANGELL RANGER DISTRICT

DRAWING NAME
STEP AND RUN

SECTION
938 - BOARDWALKS

TYPICAL ID
SNR

REVISION DATE
12/5/22

NO SCALE

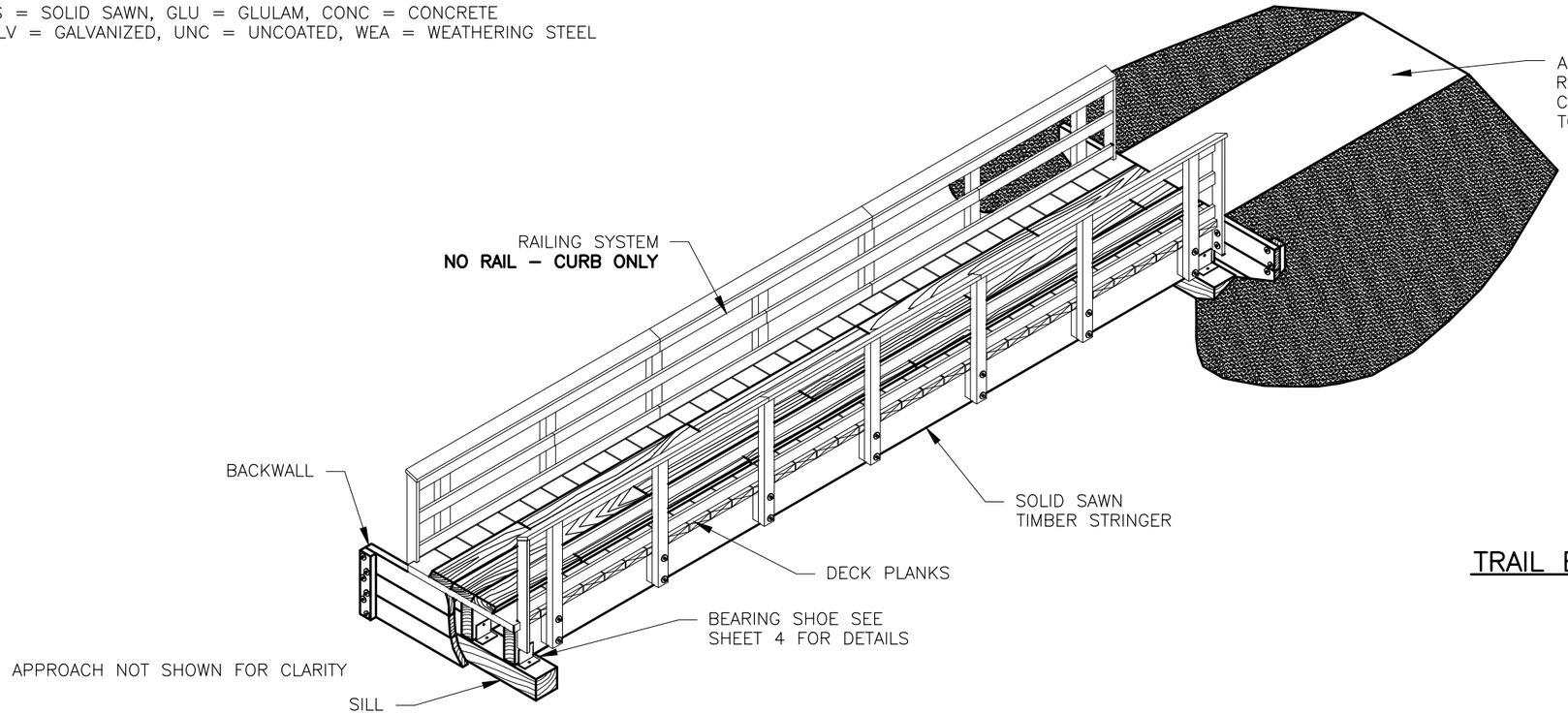
DRAWING NO.
STD_938-30-01

STRUCTURE NUMBER	TRAIL NO.	BRIDGE LOCATION	BRIDGE LENGTH OUT-TO-OUT	STRINGER SPAN ℄–℄ BRNG	BRIDGE CLEAR WIDTH	PEDESTRIAN LOAD	GROUND SNOW LOAD	STRINGERS					DECK			BACKWALL					
								SPECIES	NUMBER	MATERIAL SIZE	TREATMENT YES	TREATMENT NO	SPECIES	SIZE	TREATMENT	TYPE	SPECIES	SIZE	WIDTH	HEIGHT	TREATMENT
STS-1	DEWEY	14+20 TO 14+35	15'	14'	48"	90	120	DF	3	4x12	X		DF	3x10	YES	SS	YC	3x10	8'	20"	UCB4
STS-2	DEWEY	19+00 TO 19+15	15'	14'	48"	90	120	DF	3	4x12	X		DF	3x10	YES	SS	YC	3x10	8'	20"	UCB4

NA = NOT APPLICABLE

STRUCTURE NUMBER	RAILING SYSTEM/CURB						RUNNING PLANK					SILL			APPROACHES – PER SITE PLAN						HARDWARE	
	SPECIES	TYPE	HEIGHT	MATERIAL TYPE	TREATMENT YES	TREATMENT NO	SPECIES	SIZE	WIDTH	TREATMENT YES	TREATMENT NO	TYPE	SIZE	TREATMENT	LENGTH NEAR	LENGTH FAR	WIDTH	MATERIAL TYPE	MATERIAL DEPTH	GEO-SYNTHETIC TYPE	COATINGS	COMMENTS
STS-1	YC	SS	9"	SS		X	YC	2x10	4'		X	SS	12x12	UC4B							GALV	
STS-2	YC	SS	9"	SS		X						SS	12x12	UC4B							GALV	

ABUTMENT MATERIAL TYPE: SS = SOLID SAWN, GLU = GLULAM, CONC = CONCRETE
HARDWARE COATING TYPE: GALV = GALVANIZED, UNC = UNCOATED, WEA = WEATHERING STEEL



TRAIL BRIDGE W/RAILING SYSTEM

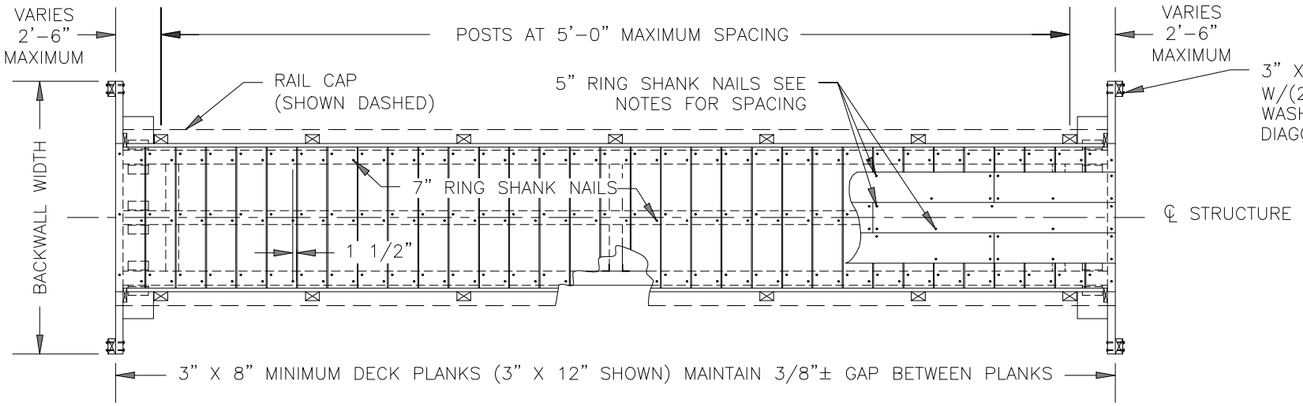
U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
STANDARD TRAIL PLAN

PROJECT NAME & LOCATION
WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM
WRANGELL RANGER DISTRICT

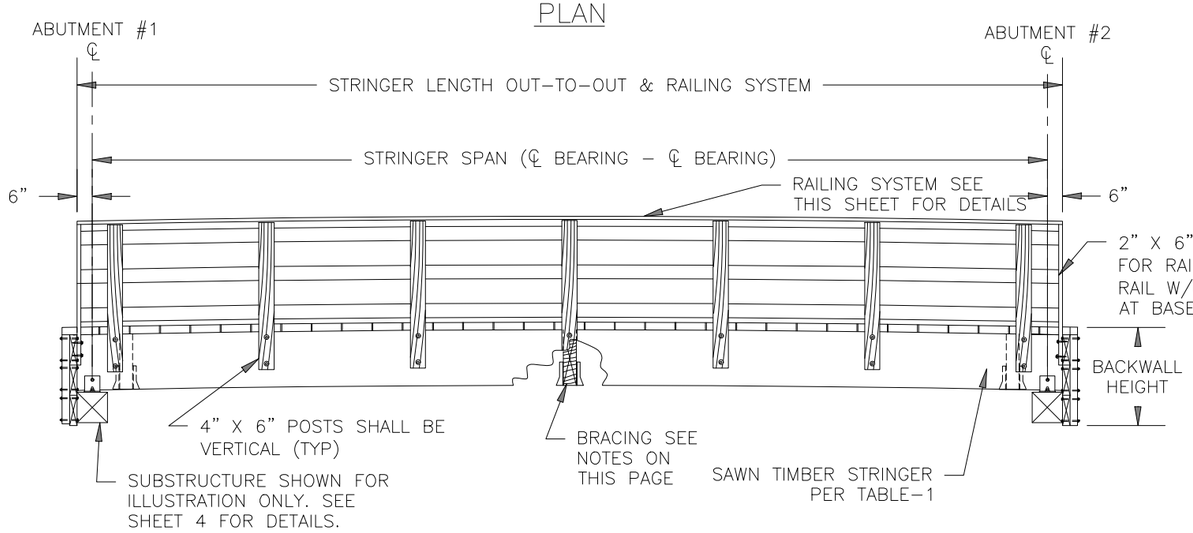
DRAWING NAME
SAWN TIMBER STRINGER TRAIL BRIDGE
SECTION **962 - SAWN TIMBER TRAIL BRIDGE**
TYPICAL ID **STS**

REVISION DATE **6/26/23**
NOT TO SCALE

DRAWING NO. **STD_962-10-01**

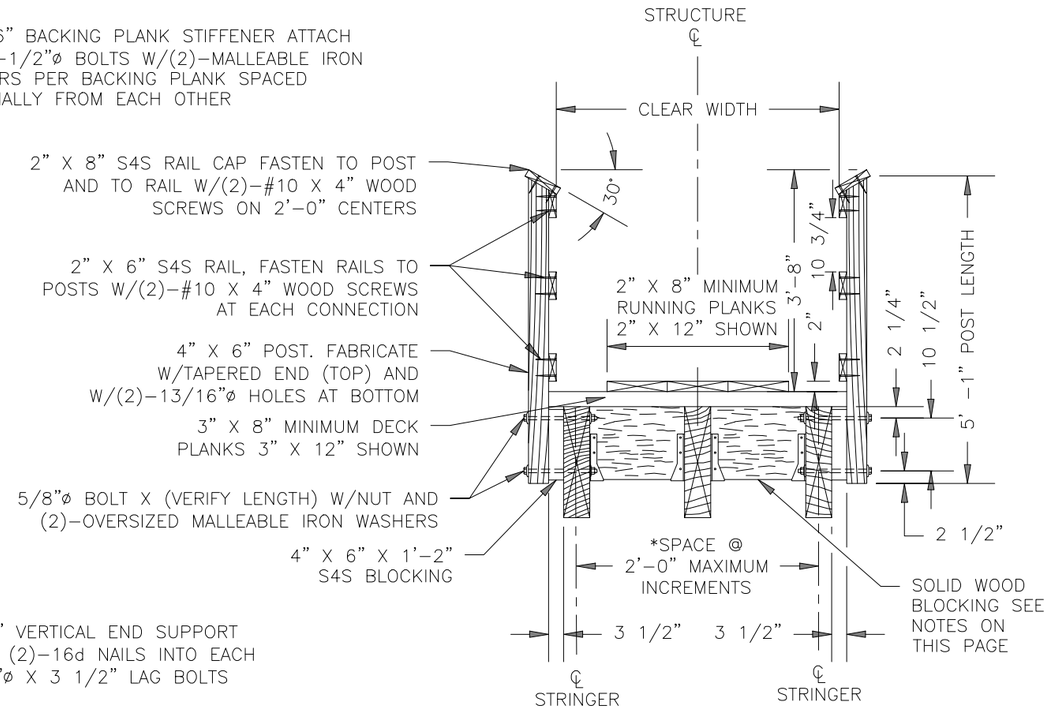


PLAN



ELEVATION

GRADE SHOWN = 0.0%, RUNNING PLANKS NOT SHOWN FOR CLARITY



TYPICAL DECK SECTION W/RAILING SYSTEM

NOTES:

1. ALL DIMENSIONS IN TABLE-1 ARE NOMINAL (ROUGH SAWN). THE MINIMUM STRINGER DEPTH FOR BRIDGES WITH A PEDESTRIAN RAILING SYSTEM IS 15-INCHES. BRIDGES WITH STRINGER DEPTHS LESS THAN 15-INCHES SHALL HAVE CURBS ONLY. THE MINIMUM NUMBER OF STRINGERS IS THREE.
2. FASTEN DECK PLANKS TO STRINGERS WITH TWO ROWS 5/16-INCH DIAMETER X 7-INCH RING SHANK NAILS PER PLANK AT EACH STRINGER. ALTERNATE SIDES.
3. FASTEN RUNNING PLANKS TO DECK WITH 40d (5-INCH RING SHANK) NAILS AT 24-INCH SPACING. ALTERNATE SIDES WITH TWO AT EACH END.
4. PROVIDE A MINIMUM 1/2-INCH SPACE BETWEEN BLOCKING AND BACKWALL FOR AIR CIRCULATION.
5. SPLICE RAILS AT POSTS. RAILS SHALL BE CONTINUOUS FOR TWO POST SPACES. DO NOT LOCATE MORE THAN ONE RAIL SPLICE AT ANY ONE POST.
6. BRACING REQUIRED AT THE ENDS OF EACH MEMBER. THE BRACING SHALL BE THREE-QUARTERS TO FULL DEPTH AND PLACED WITHIN A DISTANCE OF THE DEPTH OF THE BEAM FROM THE CENTERLINE OF BEARING. BRACING REQUIRED AT MID-SPAN FOR SPANS OVER 20 FEET LONG.
7. WOOD BLOCKING SHALL BE BOLTED TO STRINGERS WITH STEEL ANGLES OR SUSPENDED IN STEEL HANGERS THAT ARE NAILED TO BLOCKS AND STRINGER SIDES

*TABLE-1: SOLID SAWN STRINGER SIZE REQUIREMENTS - LRFD

**STRINGER SPAN (FEET)	TIMBER SPECIES - DOUGLAS FIR - LARCH GRADE - NO.1				
	DESIGN LOADING IN POUNDS PER SQUARE FOOT				
	PEDESTRIAN LIVE LOAD	GROUND SNOW LOAD			
	***65	90	120	150	200
●10	3" X 8"	3" X 10"	3" X 12"	4" X 10"	4" X 12"
●15	4" X 10"	4" X 12"	4" X 14"	4" X 16"	6" X 12"
●20	4" X 14"	6" X 12"	6" X 12"	6" X 14"	6" X 16"
▲25	6" X 14"	6" X 14"	6" X 16"	6" X 18"	6" X 20"
▲30	6" X 16"	6" X 18"	6" X 20"	6" X 20"	8" X 20"

●INSTALL BRACING WITHIN A DISTANCE OF THE DEPTH OF THE BEAM FROM THE CENTERLINE OF BEARING
▲INSTALL BRACING WITHIN A DISTANCE OF THE DEPTH OF THE BEAM FROM THE CENTERLINE OF BEARING & MID-SPAN
* STRINGER SIZE SHALL BE THE LARGER OF THE PEDESTRIAN OR GROUND SHOW LOAD SIZE REQUIRED FOR THE SITE CONDITIONS
** STRINGER LENGTH EQUAL TO STRINGER SPAN PLUS ONE FOOT
*** REQUIRES REGIONAL BRIDGE ENGINEER APPROVAL

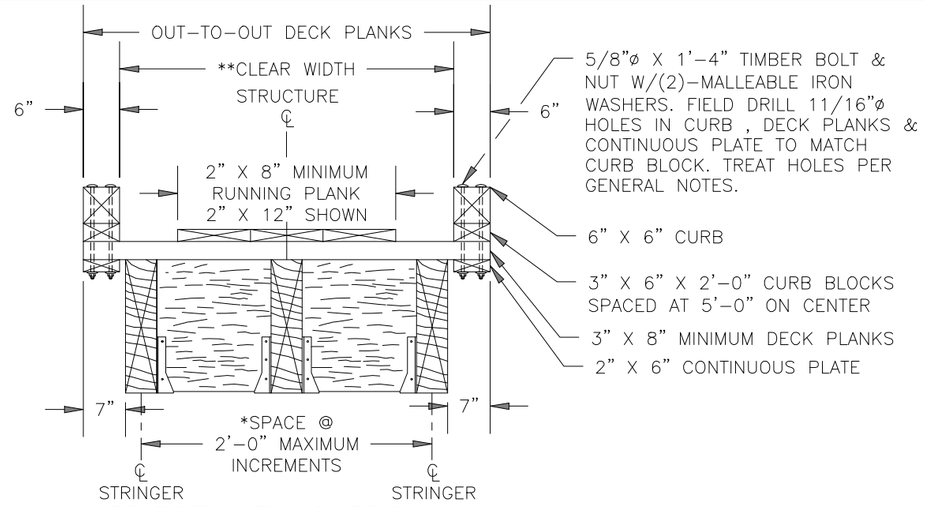
U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
STANDARD TRAIL PLAN

PROJECT NAME & LOCATION
WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM
WRANGELL RANGER DISTRICT

DRAWING NAME
SAWN TIMBER STRINGER TRAIL BRIDGE
SECTION
962 - SAWN TIMBER TRAIL BRIDGE
TYPICAL ID
STS

REVISION DATE
6/26/23
NOT TO SCALE

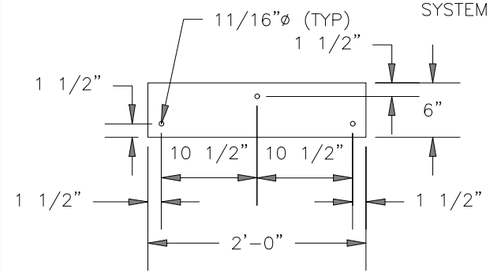
DRAWING NO.
STD_962-10-02a



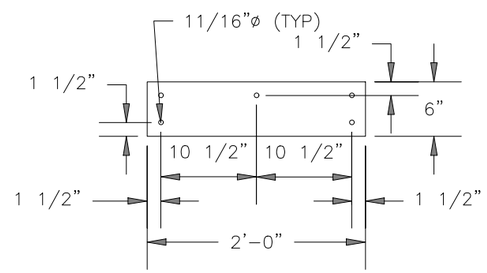
BRIDGE WITH CURBS ONLY

DECK SECTION W/STRINGERS @2'–0" O.C.

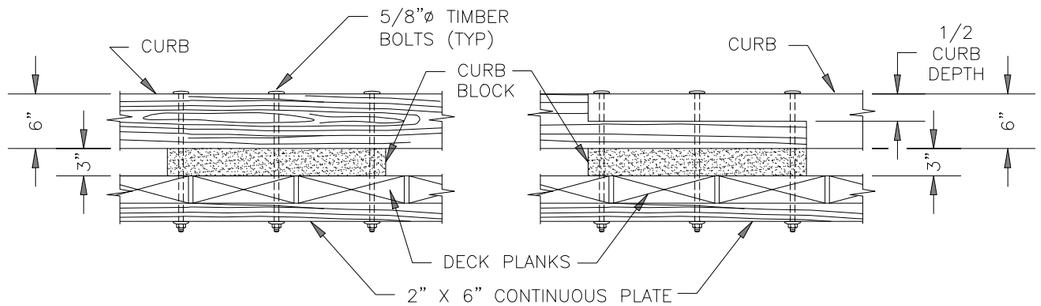
* MINIMUM NUMBER OF STRINGERS IS THREE
** INSIDE FACE TO INSIDE FACE OF RAILING SYSTEM



PLAN–CURB BLOCK



PLAN–CURB BLOCK AT SPLICE



ELEVATION–TYPICAL CONNECTION

ELEVATION–CONNECTION AT SPLICE

SOLID SAWN CURB CONNECTION DETAILS

GENERAL NOTES:

SPECIFICATIONS: MATERIALS AND CONSTRUCTION OF THIS STRUCTURE SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATION FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAY PROJECTS (FP–03) AND STANDARD SPECIFICATIONS FOR CONSTRUCTION OF TRAILS AND TRAIL BRIDGES ON FEDERAL PROJECTS,

TIMBER & LUMBER: SOLID SAWN TIMBER MEMBERS SHALL CONFORM TO THE REQUIREMENTS OF THE GRADING RULES AGENCY FOR THE SPECIES, TYPE, AND GRADE SPECIFIED BELOW.

DECK PLANKS, CURBS, SILLS, & BACKING PLANKS
- COASTAL REGION DOUGLAS FIR–LARCH ROUGH SAWN NO.1 GRADE, GRADING RULES AGENCY – WWPA, WCLIB

RUNNING PLANKS
- COASTAL REGION DOUGLAS FIR–LARCH ROUGH SAWN NO.2 GRADE, GRADING RULES AGENCY – WWPA, WCLIB

RAILS & POSTS (SEE PROJECT CRITERIA)

UNTREATED
- REDWOOD, S4S, NO.1 GRADE GRADING RULES AGENCY – RIS
- WESTERN RED CEDAR, S4S, SELECT STRUCTURAL GRADE GRADING RULES AGENCY – WWPA, WCLIB

TREATED
- HEM–FIR/DOUGLAS FIR, S4S, NO.1 GRADE GRADING RULES AGENCY – WWPA, WCLIB

TREATMENT: SEE PROJECT CRITERIA FOR MEMBERS IDENTIFIED TO BE TREATED AND FOR TREATMENT TYPE. PRESERVATIVE TREATMENT SHALL BE IN ACCORDANCE WITH THE CURRENT AMERICAN WOOD PROTECTION ASSOCIATION (AWPA) SPECIFICATIONS USING THE TREATMENT MATERIALS LISTED BELOW. TREATMENT WILL COMPLY WITH THE REQUIREMENTS OF THE CURRENT EDITION OF WESTERN WOOD PRESERVERS INSTITUTE (WWPI) "BEST MANAGEMENT PRACTICES FOR THE USE OF TREATED WOOD IN AQUATIC ENVIRONMENTS".

STRINGERS, DECKING, RUNNING PLANKS, & RAILING SYSTEM, IF TREATED
- AWPA USE CATEGORY SYSTEM (U1) FOR USE CATEGORY 3B ABOVE GROUND–EXPOSED (UC3B)
- PENTACHLOROPHENOL IN LIGHT OIL (TYPE C SOLVENT)
- COPPER NAPHTHENATE (CuN) IN LIGHT OIL (TYPE C SOLVENT)

SILLS, BACKING PLANKS, CRIBS, & TIMBER WALLS, IF TREATED
- AWPA USE CATEGORY SYSTEM (U1) FOR USE CATEGORY 4B GROUND CONTACT–HEAVY DUTY (UC4B)
- PENTACHLOROPHENOL IN HEAVY OIL (TYPE A SOLVENT)
- COPPER NAPHTHENATE (CuN) IN HEAVY OIL (TYPE A SOLVENT)

FIELD TREATMENT: COPPER NAPHTHENATE (2% SOLUTION) SHALL BE FURNISHED FOR FIELD TREATING OD WOOD. ALL ABRASIONS AND FIELD CUTS –APPROVED BY THE C.O.R.– SHALL BE CAREFULLY TRIMMED AND GIVEN THREE BRUSH COATS OF THE FIELD TREATMENT SOLUTION. WHERE APPROVED FIELD DRILLING OF BOLT OR NAIL HOLES IS REQUIRED, THE HOLES SHALL BE FILLED WITH PRESERVATIVE PRIOR TO INSERTING THE FASTENERS.

HARDWARE AND STRUCTURAL STEEL: SEE PROJECT DESIGN CRITERIA FOR STEEL HARDWARE FINISH. GALVANIZED OR UNFINISHED HARDWARE SHALL MEET THE REQUIREMENTS OF AASHTO M270, GRADE 36, WITH NUTS AND BOLTS CONFORMING TO ASTM A307, GRADE A. WEATHERING STEEL AND HARDWARE SHALL MEET THE REQUIREMENTS OF AASHTO M270, GRADE 50W, WITH BOLTS AND NUTS CONFORMING TO ASTM A325, TYPE 3. USE MALLEABLE IRON WASHERS AGAINST WOOD UNLESS OTHERWISE NOTED.

WHEN STRUCTURAL STEEL IS TO BE WELDED, THE WELDING PROCEDURE SHALL BE IN ACCORDANCE WITH AWS D1.1 AND SHALL BE SUITABLE FOR THE GRADE OF STEEL AND INTENDED USE OR SERVICE.

FABRICATION: SUBMIT SHOP DRAWINGS FOR ALL BRIDGE COMPONENTS (EXCEPT TIMBER RUNNING PLANKS). SHOW ALL DIMENSIONS AND FABRICATION DETAILS FOR ALL CUT OR BORED TIMBER. FIELD DRILLING OF HOLES SHALL NOT BE ALLOWED UNLESS OTHERWISE NOTED ON THE PLANS.

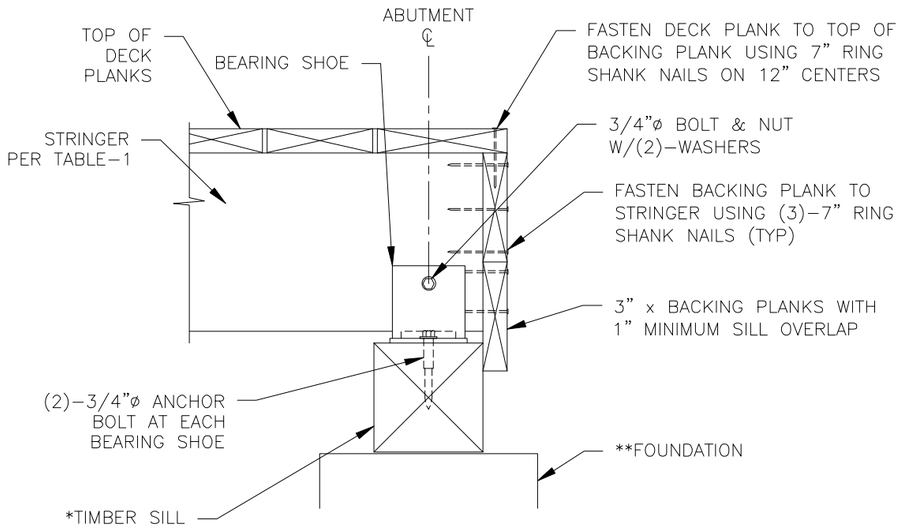
U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
STANDARD TRAIL PLAN

PROJECT NAME & LOCATION
WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM
WRANGELL RANGER DISTRICT

DRAWING NAME
SAWN TIMBER STRINGER TRAIL BRIDGE
SECTION **910 - TRAILWAY**
TYPICAL ID **STT**

REVISION DATE **6/26/23**
NOT TO SCALE

DRAWING NO. **STD_962-10-03a**

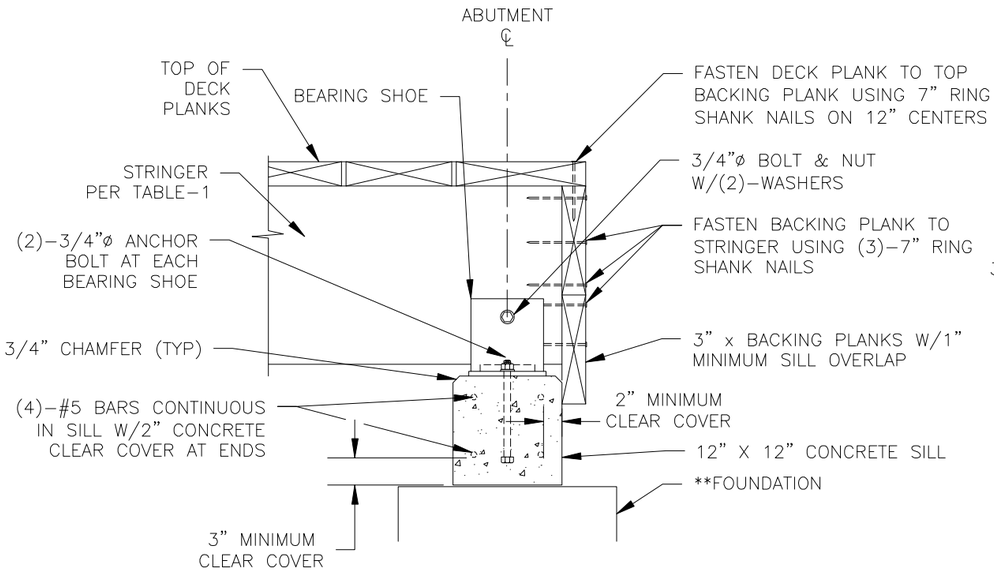


GLU–LAM/SAWN TIMBER SILL CONNECTION DETAIL

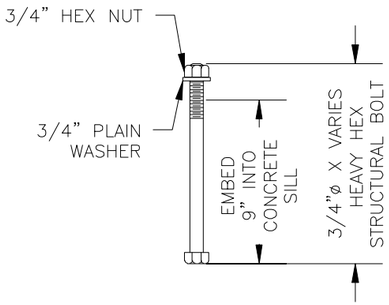
BACKING PLANK STIFFENER NOT SHOWN FOR CLARITY

** TIMBER SILL CAN BE EITHER 12" X 12" SOLID SAWN 10 3/4" X 12" GLUE–LAMINATED, BUILT–UP 3" X 12", 4" X 12", & 6" X 12" TREATED MEMBERS.

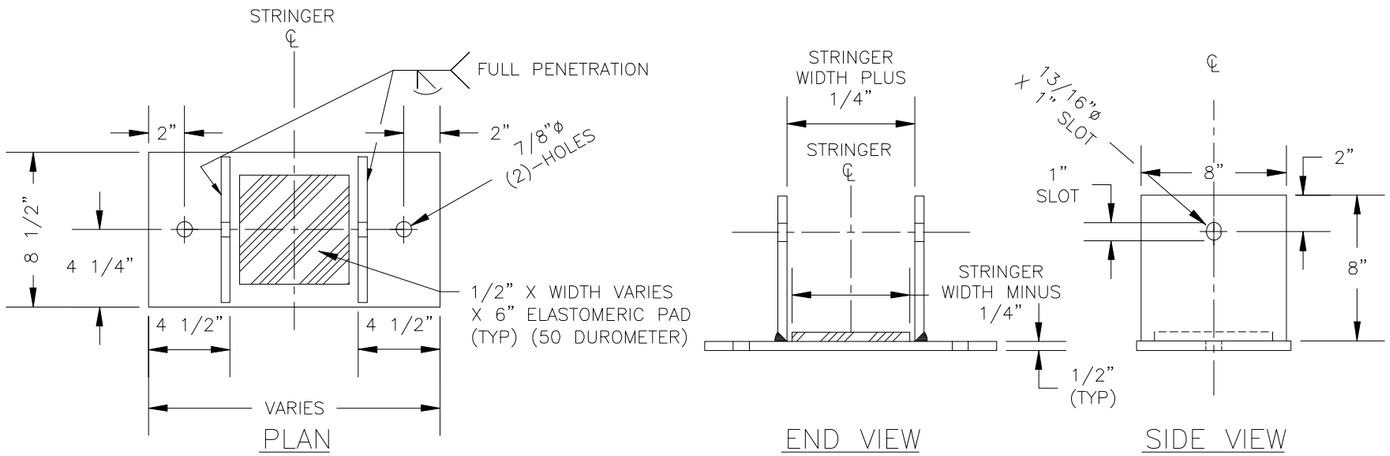
** SEE STANDARD DRAWINGS 965–10, 965–20, 965–30, & 965–40 FOR FOUNDATION ALTERNATIVES



CONCRETE SILL CONNECTION DETAIL



CONCRETE SILL ANCHOR BOLT DETAIL



BEARING SHOE DETAIL

MATERIAL = 1/2" STEEL PLATE A36

NOTES:

SPECIFICATIONS: MATERIALS AND CONSTRUCTION OF THIS STRUCTURE SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATION FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAY PROJECTS (FP–03) AND STANDARD SPECIFICATIONS FOR CONSTRUCTION OF TRAILS AND TRAIL BRIDGES ON FEDERAL PROJECTS,

CONCRETE: USE STRUCTURAL CONCRETE WITH 7 SACK MINIMUM MIX APPROVED BY THE C.O., CONCRETE SHALL RECEIVE A TOWELED SURFACE FINISH. CONCRETE SHALL HAVE 4%–6% ENTRAINED AIR. MAXIMUM SIZE AGGREGATE SHALL BE 3/4–INCH AND CONCRETE SLUMP SHALL NOT EXCEED 4–INCHES.

REINFORCING STEEL: PROVIDE REINFORCING STEEL THAT CONFORMS TO ASTM A615 (AASHTO M31), GRADE 40 OR 60. PROVIDE 2–INCH CLEAR CONCRETE COVER FOR ALL REBAR, UNLESS NOTED OTHERWISE ON THE PLANS.

HARDWARE AND STRUCTURAL STEEL: SEE SHEET 3 FOR PROJECT DESIGN CRITERIA AND GENERAL NOTES.

TREATED TIMBER & LUMBER: REFER TO THE GENERAL NOTES ON THE SUBSTRUCTURE DRAWINGS FOR TREATED TIMBER & LUMBER SPECIFICATIONS AND FIELD TREATING OF WOOD

LAG SCREW INSTALLATION: PRE–BORE LAG SCREW HOLES USING TWO DIAMETERS, ONE FOR THE SHANK AND ONE FOR THE THREADS. THE LEAD HOLE FOR THE SHANK IS TO BE 1/16–INCH LARGER THAN THE SHANK DIAMETER AND IS TO BE BORED TO THE DEPTH OF PENETRATION OF THE SHANK. THE LEAD HOLE FOR THE THREADED PORTION IS TO BE 70% OF THE BOLT DIAMETER AS SHOWN ON THE PLANS AND IS TO BE BORED AT LEAST TO THE LENGTH OF THE THREADS. DO NOT DRIVE LAG SCREWS WITH A HAMMER.

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
STANDARD TRAIL PLAN

PROJECT NAME & LOCATION
WRANGELL NON-MOTORIZED TRANSPORTATION SYSTEM
WRANGELL RANGER DISTRICT

DRAWING NAME
SAWN TIMBER STRINGER TRAIL BRIDGE
SECTION
962 - SAWN TIMBER TRAIL BRIDGE
TYPICAL ID
STS

REVISION DATE
6/28/23
NOT TO SCALE

DRAWING NO.
STD_962-10-04