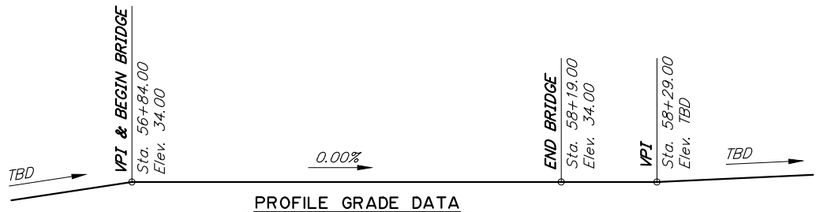
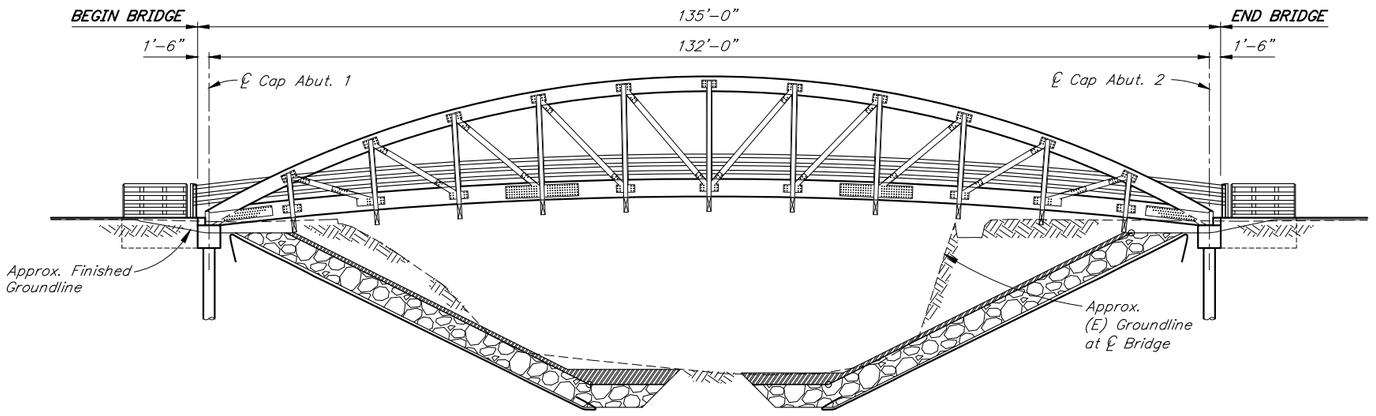
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00259/TA18010	2022	N1	TBD



PROFILE GRADE DATA

No Scale, See Note 1

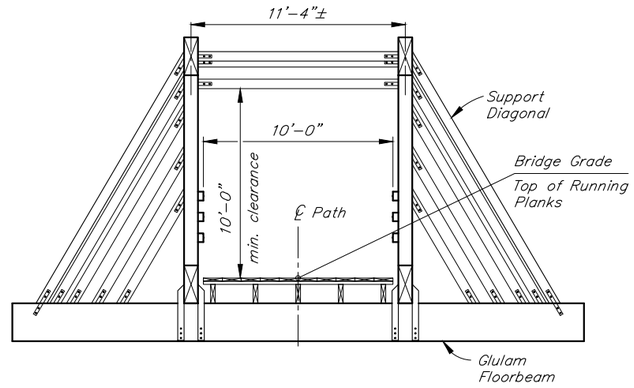


ELEVATION

10 5 0 10 20
Feet

PLAN

10 5 0 10 20
Feet



TYPICAL SECTION

12 0 4 8
In. Feet

PRELIMINARY PLAN

BRIDGE DRAWING INDEX

TITLE	DWG. NO.
GENERAL LAYOUT	1
SITE PLAN	2
RIPRAP LAYOUT	3
ABUTMENTS	4
WINGWALLS	5
APPROACH RAILS	6
TEST BORING LOGS AND LOCATIONS	TBD

NOTES:

1. *Provide camber in addition to grade shown. Minimum camber of 24 inches and maximum camber of 48 inches is required.*

⑦ *Approximate location of Bridge Number plate*

DESIGNED BY: *Leslie Daugherty*	CHECKED: *Checker*	LAYOUT BY: *Leslie Daugherty*	CHECKED BY: *Checker*
DRAWN BY: *Javier De Leon*	CHECKED: *Leslie Daugherty*	SPECIFICATIONS BY: *Leslie Daugherty*	P S & E COMPARED: *Checker*
QUANTITIES BY: *Leslie Daugherty*	CHECKED: *Checker*	APPROVAL RECOMMENDED BY: *Richard Pratt*	

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

MONTANA CREEK PEDESTRIAN BRIDGE

KAXDEGOOWU HEEN DEI (BROTHERHOOD BRIDGE) TRAIL

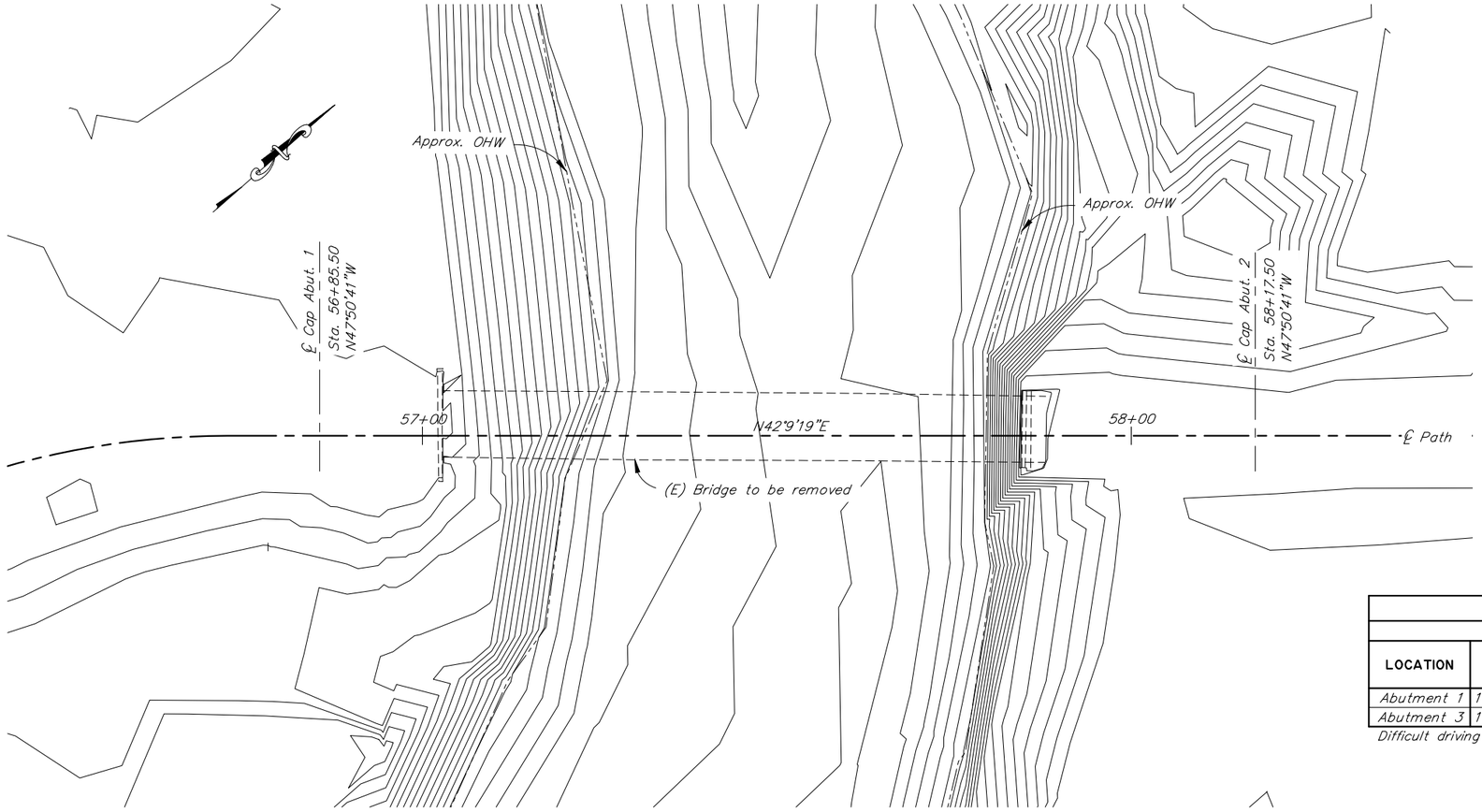
GENERAL LAYOUT

BRIDGE NO. 1955

DWG. NO. 1

R:\cad\1955\1955-GENERAL LAYOUT Thu, Jan/06/22 10:02am

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00259/TA18010	2022	N2	TBD



SITE PLAN

10 5 0 10 20
Feet

GENERAL NOTES

DESIGN: ..... *AASHTO LRFD Bridge Design Specifications, 2021 Edition, with latest interim specifications.*

AASHTO LRFD Guide Specifications for Design of Pedestrian Bridges, 2nd Edition with latest interim revisions.

LIVE LOAD: ..... *90 psf pedestrian or H10 service vehicles whichever produces maximum effect.*

DEAD LOAD: ..... *Includes 70 psf for snow loads.*

SEISMIC PARAMETERS: ..... *PGA = 0.17*
Ss = 0.39
S1 = 0.21
Site Class = C
Liquefaction Potential = High
AASHTO 7% probability of exceedance in 75 years.

REINFORCEMENT: ..... *ASTM A706, Grade 60, Fy = 60,000 psi*
Space reinforcement evenly unless otherwise noted.

CONCRETE: ..... *Class A Concrete unless otherwise noted, f'c = 4,000 psi*

STRUCTURAL STEEL: ..... *ASTM A709, Grade 36T3, Fy = 36,000 psi*
Galvanize structural steel in accordance with AASHTO M111 unless noted otherwise.

STRUCTURAL STEEL PILING: ..... *API 5L X52 PSL2, Fy = 52,000 psi.*
or ASTM A709 Grade, 50T3, Fy = 50,000 psi.
Open-ended pile tip reinforcing is required.

PILE DATA TABLE

LOCATION	PILE TYPE	DRIVING CRITERIA: MINIMUM PENETRATION (ft)	DRIVING CRITERIA: ESTIMATED PILE TIP ELEVATION (ft)	DRIVING CRITERIA: DRIVING RESISTANCE (K)	DESIGN DATA: STRENGTH I FACTORED LOAD (K)	DESIGN DATA: NOMINAL RESISTANCE (K)	DESIGN DATA: RESISTANCE FACTOR, ϕ
Abutment 1	*1'-6"ø x 3/8" Pipe*						
Abutment 3	*1'-6"ø x 3/8" Pipe*						

Difficult driving conditions are expected. Pilot bore hole required for each pile.

BRIDGE BASIS OF ESTIMATE

ITEM NO.	ITEM	PAY UNIT	EST UNIT	SUBST.	SUPERST.	TOTAL
202.0023.0000	*Removal of Bridge No. 1955*	*LS*	*LS*	*All Req'd*	*All Req'd*	*All Req'd*
205.0006.0000	*Structrual Fill*	*CY*	*CY*	*80*	*---*	*80*
501.0001.0000	*Class A Concrete*	*LS*	*CY*	*14.2*	*---*	*14.2*
503.0001.0000	*Reinforcing Steel*	*LS*	*LBS*	*4,910*	*---*	*4,910*
505.0005.0005	*Furnish Structural Steel Piles*	*LF*	*LF*			
505.0006.0006	*Drive Structual Steel Piles*	*EA*	*EA*	*4*	*---*	*4*
506.0001.0000	*Treated Timber, Prefabricated Pedestrian Bridge*	*LS*	*LS*	*---*	*All Req'd*	*All Req'd*
507.0002.0000	*Pedestrian Bridge Railing, Timber*	*LF*	*LF*	*---*	*42*	*42*
*611.0001.000_*	*Riprap, Class _*	*CY*	*CY*			

Item numbers are for reference only. Quantities shown are not necessarily the pay quantities nor the total quantity of the particular item.

ABBREVIATIONS:

℄	= centerline	EA	= each	max.	= maximum
℗	= plate	Elev.	= elevation	min.	= minimum
&	= and	e.a.	= each face	n.f.	= near face
@	= at	e.w.	= each way	No.	= number
ø	= diameter	Ext.	= exterior	o.c.	= on center
±	= approximate	F	= fixed	O.H.W.	= ordinary high water
Abut.	= abutment	f.f.	= front/air face	pcf	= pounds per cubic foot
Approx.	= approximate	f'c	= specified concrete compressive strength	psf	= pounds per square foot
b.f.	= back/dirt face			psi	= pounds per square inch
bot.	= bottom	Ft.	= feet	R	= radius
Br.	= bridge	Fy	= yield stress	R.O.W.	= right of way
btwn.	= between	Glav.	= galvanize	RT.	= right
Brg.	= bearings	H.S.	= high strength	spcs.	= space, spaces
C.A.	= center of gravity	ID	= internal diameter	Sta.	= station
C.I.P.	= cast in place	Int.	= interior	SF	= square feet
CJP	= complete joint penetration	Jt.	= joint	SY	= square yard
Clr.	= clear, clearance	K	= kips	Std.	= standard
CMP	= corrugated metal pipe	ksf	= 1000 pounds per square foot	Symm.	= symmetric
CY	= cubic yard	ksi	= 1000 pounds per square inch	Typ.	= typical
Dia.	= diameter	LBS or lb	= pounds	UT	= ultrasonic testing
Dwg.	= drawing	LF	= linear foot	V.P.C.	= point of vertical curve
E	= expansion	LS	= lump sum	V.P.I.	= point of vertical intersection
(E)	= existing	LT.	= left	V.P.T.	= point of vertical tangent
				w/	= with

DESIGNED BY: *Leslie Daugherty*	CHECKED: *Checker*	FOUNDATIONS REVIEWED BY: *Dave Hemstreet*	
DRAWN BY: *Javier De Leon*	CHECKED: *Leslie Daugherty*	**PRELIMINARY PLAN**	
QUANTITIES BY: *Leslie Daugherty*	CHECKED: *Checker*		

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

MONTANA CREEK PEDESTRIAN BRIDGE

KAXDEGOOWU HEEN DEI (BROTHERHOOD BRIDGE) TRAIL

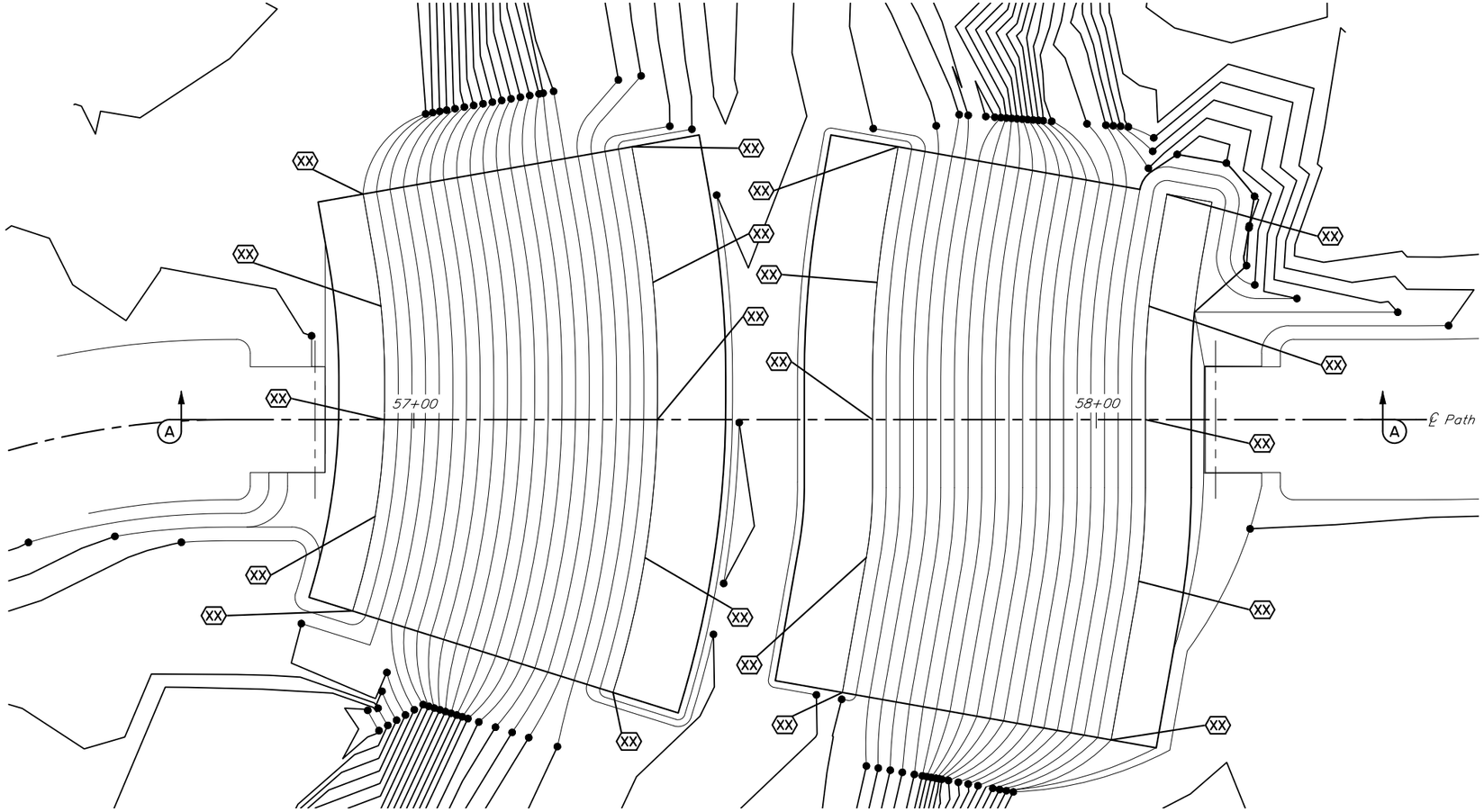
SITE PLAN

BRIDGE NO. 1955

DWG. NO. 2

R:\cad\1955\1955-SITE PLAN Thu, Jan/06/22 10:02am

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00259/TA18010	2022	N3	TBD



RIPRAP LAYOUT

10 5 0 10 20
Feet

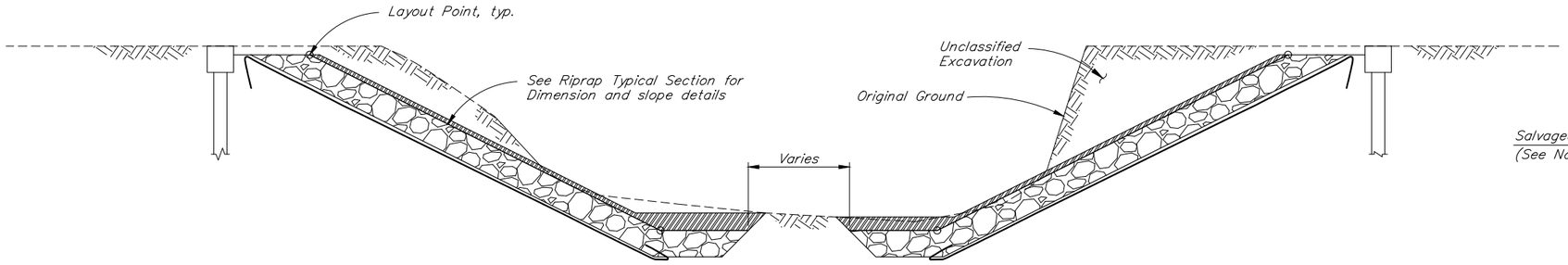
RIPRAP TABLE

POINT	STATION	OFFSET	ELEVATION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

HYDRAULIC & HYDROLOGIC SUMMARY

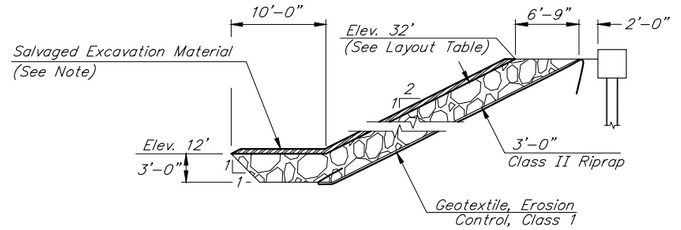
Flood Frequency (Yr.)	*50*	*100*	*500*
Exceedance Probability (%)	*2*	*1*	*0.2*
Discharge (cfs)	*XX*	*XX*	*XX*
*Water Surface Elevation (ft)**		*XX*	
Anticipated Add'l Backwater (ft)		*XX*	
Contraction Scour (ft)		*XX*	
Pier Scour (ft)		*XX*	
Abutment Scour (ft)		*XX*	
Long-Term Degradation (ft)		*XX*	

Drainage Area: .....XX square miles
XX



SECTION A-A

12 0 4 8 12
In. Feet



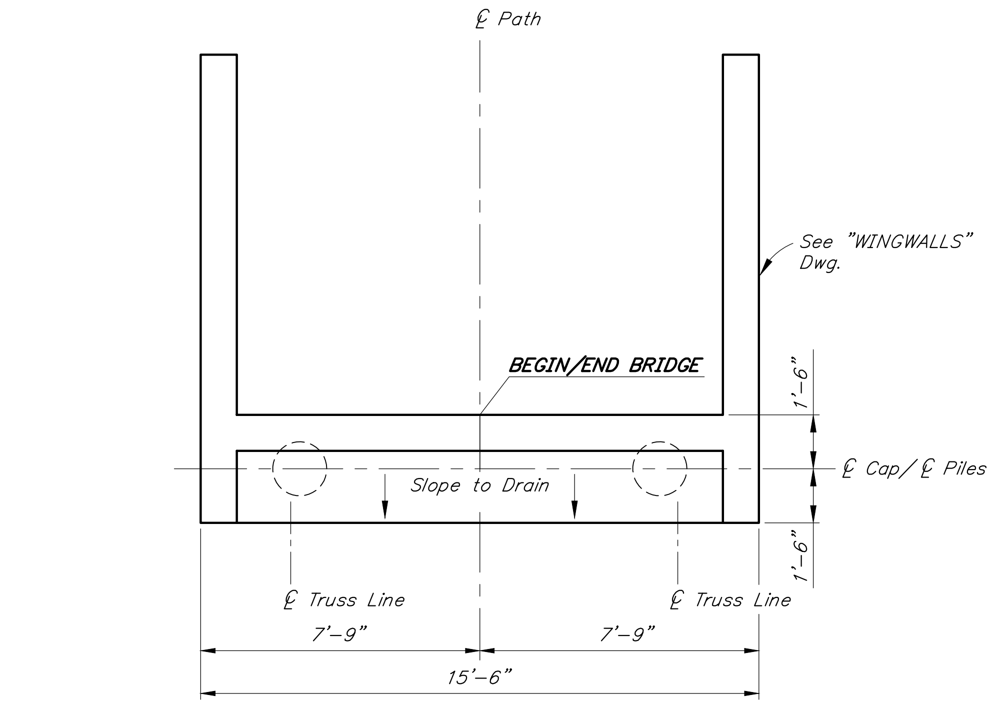
RIPRAP TYPICAL SECTION

12 0 4 8 12
In. Feet

DESIGNED BY: *Michael Knapp*	CHECKED: *Checker*	**PRELIMINARY PLAN**	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975	**MONTANA CREEK PEDESTRIAN BRIDGE** KAXDEGOOWU HEEN DEI (BROTHERHOOD BRIDGE) TRAIL **RIPRAP LAYOUT**
DRAWN BY: *Javier De Leon*	CHECKED: *Checker*			BRIDGE NO. 1955 DWG. NO. 3
QUANTITIES BY: *Michael Knapp*	CHECKED: *Checker*			

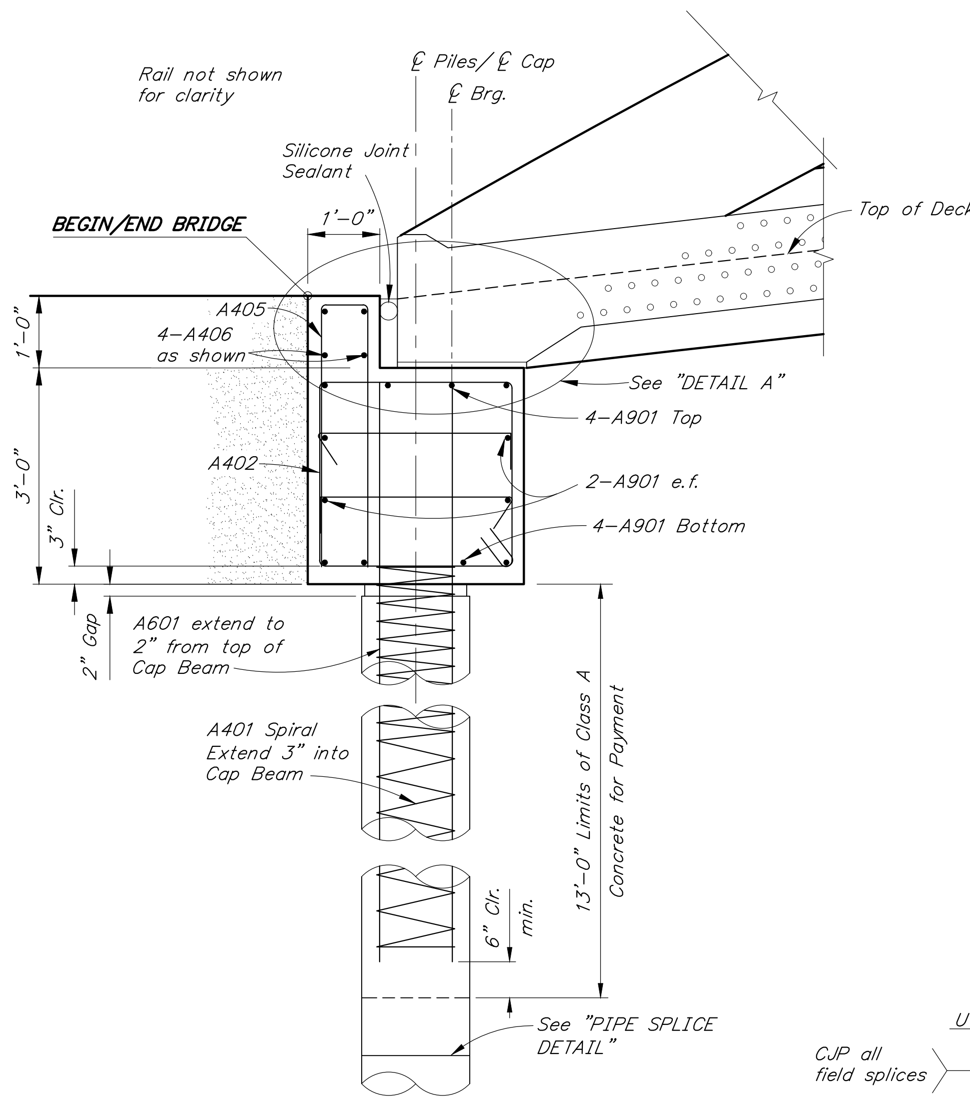
R:\cad\1955\1955-RIP Thu, Jan/06/22 10:02am

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00259/TA18010	2022	N4	TBD



PLAN

(Abutment 1 shown, Abutment 2 similar)

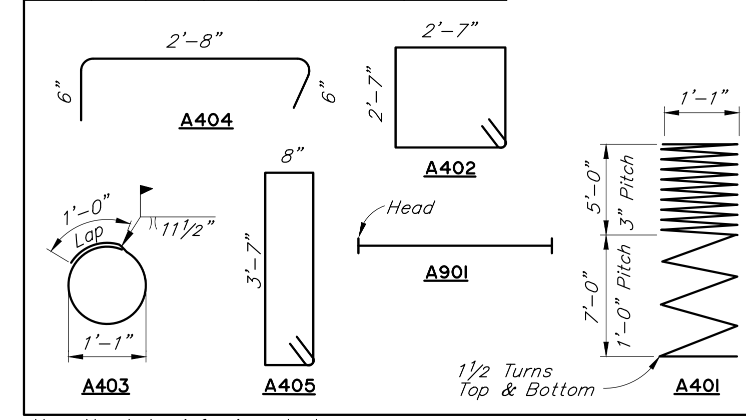


℄ Piles/℄ Cap
℄ Brg.
Rail not shown for clarity
Silicone Joint Sealant
BEGIN/END BRIDGE
1'-0"
Top of Deck
A405
4-A406 as shown
1'-0"
See "DETAIL A"
4-A901 Top
A402
3'-0"
3" Clr.
2-A901 e.f.
4-A901 Bottom
2" Gap
A601 extend to 2" from top of Cap Beam
A401 Spiral Extend 3" into Cap Beam
13'-0" Limits of Class A Concrete for Payment
6" Clr. min.
See "PIPE SPLICE DETAIL"

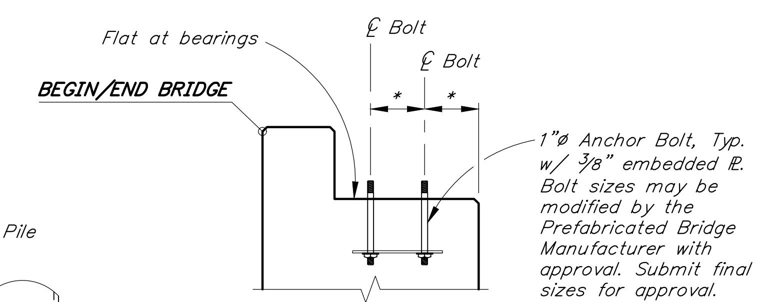
SECTION A-A

REINFORCING STEEL - ONE ABUTMENT

MARK	NOTE	SIZE	NO.	LENGTH	TYPE
A401		4	4	107'-2½"	SPIRAL
A402		4	23	11'-1"	STIRRUP
A403		4	14	4'-5"	HOOP
A404		4	8	3'-8"	BENT
A405		4	22	9'-3"	STIRRUP
A406		4	6	15'-2"	---
A601		6	16	15'-4"	---
A901	H	9	12	15'-2"	---

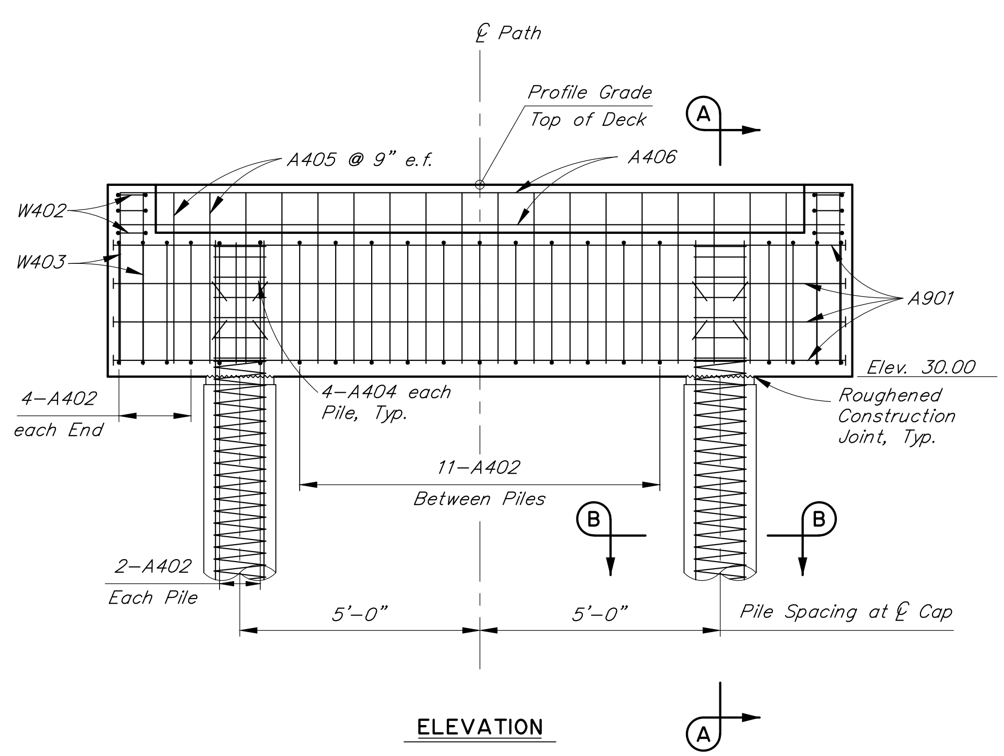


H - Headed reinforcing steel

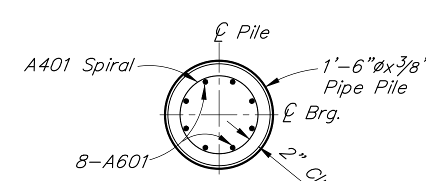


DETAIL A

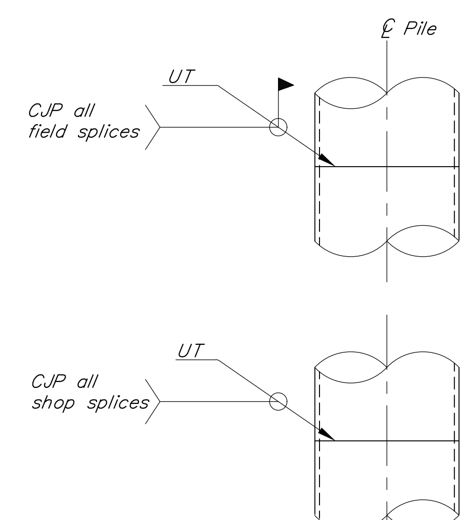
* To be determined by Prefabricated Bridge Manufacturer. Submit dimensions for approval.



ELEVATION



SECTION B-B



PIPE SPLICE DETAIL

No Scale

DESIGNED BY: Leslie Daugherty	CHECKED: Checker	
DRAWN BY: Javier De Leon	CHECKED: Leslie Daugherty	PRELIMINARY PLAN
QUANTITIES BY: Leslie Daugherty	CHECKED: Checker	

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975

MONTANA CREEK PEDESTRIAN BRIDGE

KAXDEGOOWU HEEN DEI (BROTHERHOOD BRIDGE) TRAIL

ABUTMENTS

BRIDGE NO. 1955

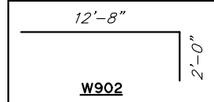
DWG. NO. 4

R:\cad\1955\1955-ABUT Thu, Jan/06/22 10:03am

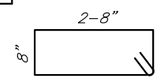
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00259/TA18010	2022	N5	TBD

REINFORCING STEEL - ONE ABUTMENT

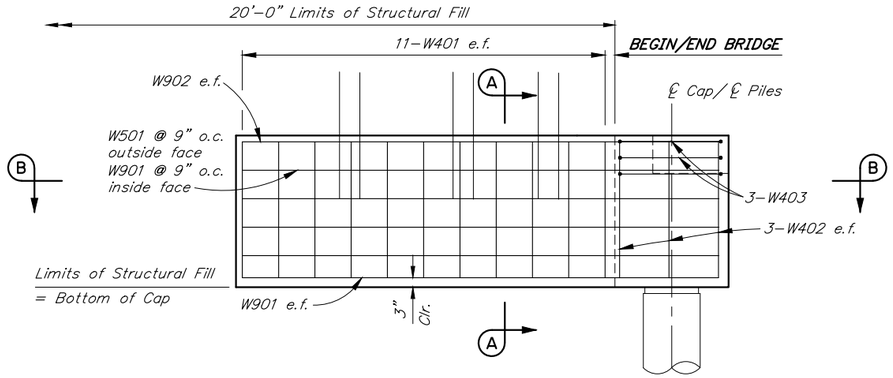
MARK	NOTE	SIZE	NO.	LENGTH	TYPE	BENDING DIAGRAM
W401		4	56	3'-7"	---	
W402		4	6	7'-5"	HOOP	
W501		5	8	12'-8"	---	
W901		9	12	12'-8"	BENT	
W902		9	4	14'-8"	---	



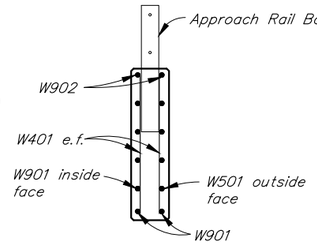
W902



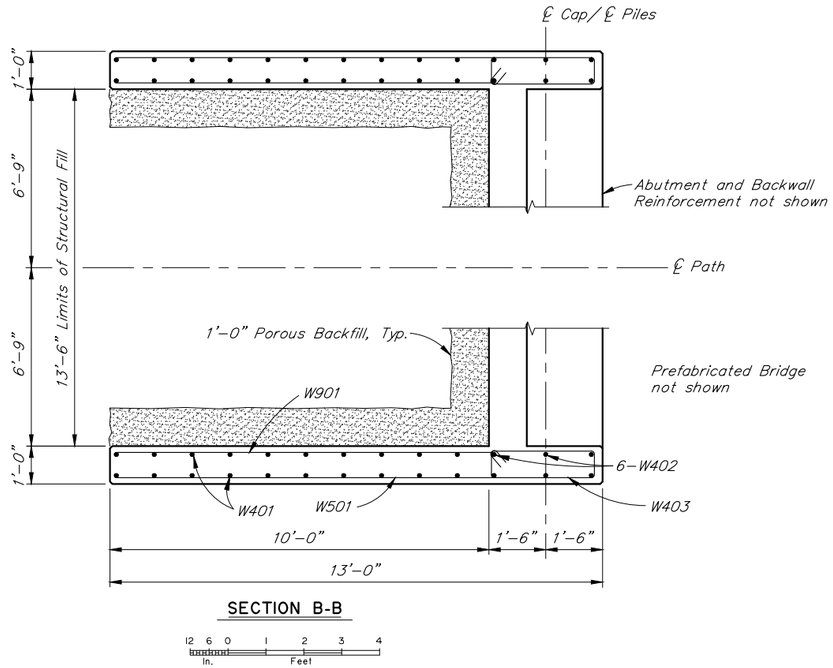
W402



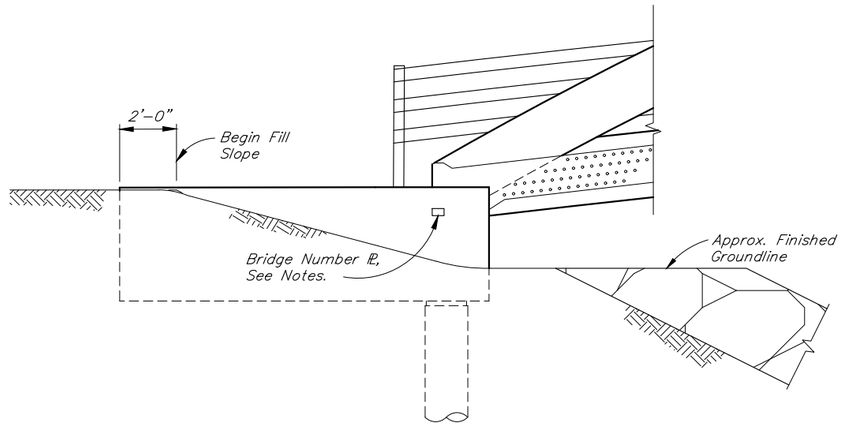
ELEVATION



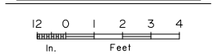
SECTION A-A



SECTION B-B



FINISHED ELEVATION



NOTES:

1. Locate bridge number plates on right-hand side of approaching traffic near each end as shown (2 total).
2. Furnish bridge number plates. Use "Century" type style lettering. Epoxy bond rods into 3/8"ø holes in wingwall blockout. Use epoxy suitable for exterior application and compatible with materials to be bonded. Follow epoxy manufacturer's instructions. Mount plate such that face of plate is flush with the face of wingwall.
3. See "BRONZE BRIDGE NO. PLATE DETAIL" on "APPROACH RAIL" Dwg.

DESIGNED BY: Leslie Daugherty	CHECKED: Checker	**PRELIMINARY PLAN**	STATE OF ALASKA **DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES** BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975
DRAWN BY: Javier De Leon	CHECKED: Leslie Daugherty		
QUANTITIES BY: Leslie Daugherty	CHECKED: Checker		

MONTANA CREEK PEDESTRIAN BRIDGE

KAXDEGOOWU HEEN DEI (BROTHERHOOD BRIDGE) TRAIL

WINGWALLS

BRIDGE NO. 1955

DWG. NO. 5

R:\cad\1955\1955-WINGWALL Thu, Jan/06/22 10:03am