

MEMORANDUM

CITY/BOROUGH OF JUNEAU
155 South Seward Street, Juneau, Alaska 99801

DATE: October 20, 2014

TO: Planning Commission

FROM: Beth McKibben, Planner 
Community Development Department

FILE NO.: CSP2014 0017

PROPOSAL: Local consistency review of DOT&PF project to remove and replace the Jordan Creek Bike Path Bridge on the southerly side of Egan Drive near the Nugget intersection; repave and lower four cross culverts on the multi-use path on the northerly side of Egan Drive between the Nugget intersection and Fred Meyer.

GENERAL INFORMATION

Applicant: State of Alaska DOT & PF

Property Owner: State of Alaska DOT & PF

Property Address: Egan Drive

Site Size: 0

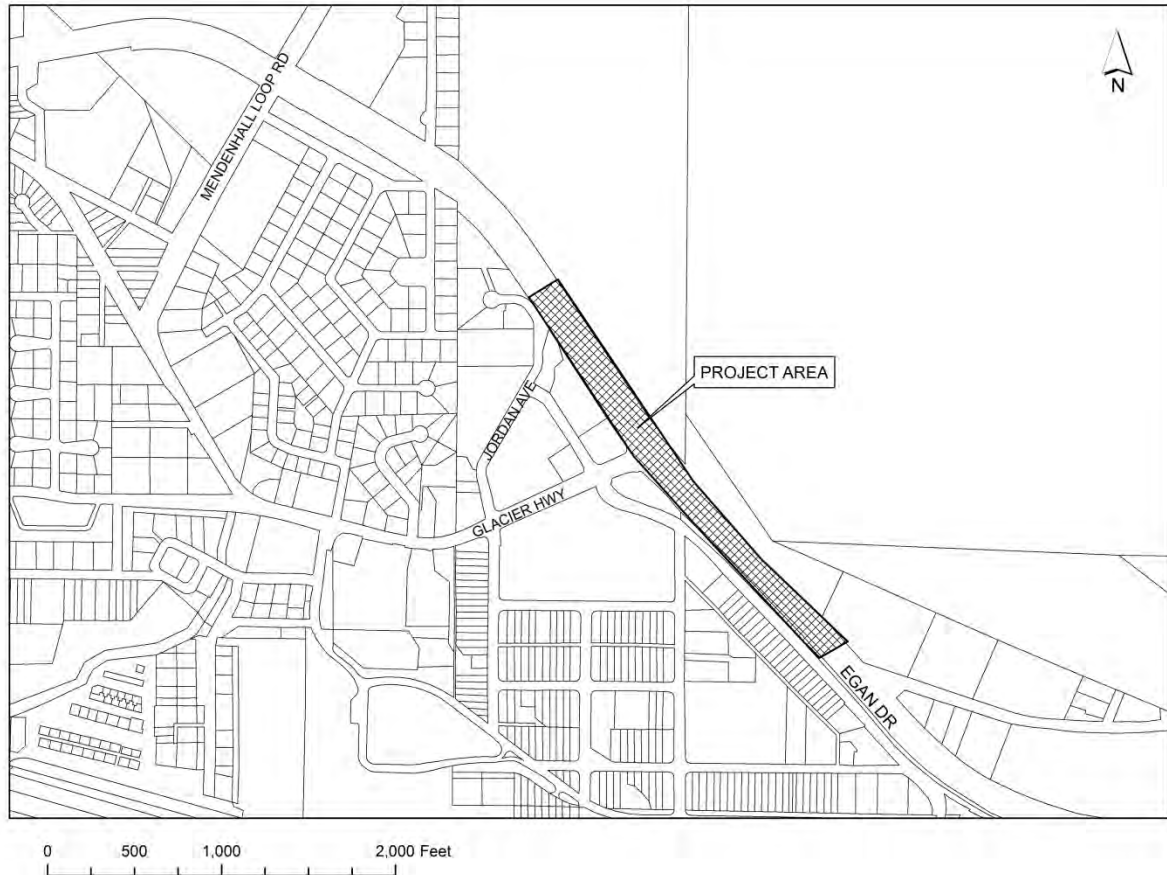
Access: Egan Drive

Roadway Classification: Arterial

Adjacent Zones: GC, LC, D15

Surrounding Land Use: North - D15 Residential/vacant LC Commercial
South - GC Commercial





ATTACHMENTS

A- Flood Narrative - Michael Knapp P.E., DOT Hydrologist

PROJECT DESCRIPTION

Egan Drive is a major arterial. The proposed project will repave the existing ten-foot-wide separated path on the north side of Egan Drive between the Nugget Intersection and Fred Meyer and replace four culverts. The Jordan Creek pedestrian bridge on the south side of Egan will be replaced.

The project is listed on the DOT&PF website as Need ID 68092, and is budgeted for design in

the 2012-2015 Statewide Transportation Improvement Program (STIP) project list for \$75,000 in 2014. The project is described in the STIP as follows:

Repair the frost heave created grade breaks on the shared use path on the northbound side of Egan Drive and repave the shared use path. Replace the Jordan Creek bridge (BR No 4067) on the shared use path on the southbound side of Egan Drive.

ANALYSIS

CBJ 49.15.580 State project review:

The commission shall review proposed Alaska State Capital Improvement Projects for consistency with this title pursuant to AS 35.30.010, and may impose conditions on and modifications to such projects.

The proposed project was reviewed for conformance with the following CBJ-adopted plans:

Comprehensive Plan (2013)
Non-Motorized Transportation Plan (2009) (NMTP)
Area-Wide Transportation Plan (2001) (AWTP)
CBJ 42.20 Offenses Against the Public Order
CBJ 49.70.310 Habitat
CBJ 72.17 Street Closure Permits

Comprehensive Plan

Several policies and implementing actions call for the facilitation and development of multi-use paths and other non-motorized transportation facilities:

POLICY 8.5. TO PROMOTE A BALANCED, WELL-INTEGRATED MULTI-MODAL SURFACE TRANSPORTATION SYSTEM THAT PROVIDES SAFE, CONVENIENT AND ENERGY-EFFICIENT ACCESS AND TRANSPORT FOR PEOPLE AND COMMODITIES.

POLICY 8.6. TO PROMOTE AND FACILITATE TRANSPORTATION ALTERNATIVES TO PRIVATE VEHICLES AS A MEANS OF REDUCING TRAFFIC CONGESTION, AIR POLLUTION AND THE CONSUMPTION OF FOSSIL FUELS, AND TO PROVIDE SAFE AND HEALTHY MEANS OF TRANSPORTATION TO ALL PEOPLE.

Implementing Action: 8.8 IA17 Require sidewalks and bicycle paths or lanes along newly constructed arterial and collector streets where appropriate, and provide or work with DOT&PF to provide such amenities along existing roads to provide safe and efficient access and recreation and to reduce pedestrian/automobile conflicts.

Non-Motorized Transportation Plan

The Non-motorized Transportation plan makes both general policy recommendations for trail development in Juneau and specific recommendations. The plan identifies this project as a mid-low Priority. The Plan includes a recommendation for signs and pavement markings. The Plan recommends wayfinding signs along the length of the trail as part of the Cross Juneau Bikeway. To ensure the continued and consistent implementation of bicycle wayfinding in Juneau, a signage plan reviewed and approved by CDD will be required as a condition of consistency.

Area Wide Transportation Plan

The Area Wide Transportation Plan (2001) has six top priorities. Number four is particularly relevant to this project:

4. Establish and maintain bicycle lanes, pathways, sidewalks and bus stops where they are needed. Maintain bicycle lanes, pathways, sidewalks and bus stops with regular re-striping, re-surfacing, street sweeping and snow removal.

CBJ 42.20 Offenses Against the Public Order

As a pavement rehabilitation project, the proposed project will necessarily result in inconveniences for many residents and visitors to the project area. CBJ staff expects that the contractor awarded the project by DOT&PF will need to use heavy machinery and that lane closures and traffic revisions may be required in the course of the project. It is also likely that some portion of the project may be completed at night to avoid or minimize impacts to traffic during peak hours. CBJ 42.20.095(b) establishes hours of operation for heaving equipment to ensure quiet hours for area residents. These provisions are in local ordinance, and apply to the project. Staff recommends that an advisory condition reiterating the provisions of CBJ 42.20.095(b) be placed on the finding of local concurrence so as to ensure that the prohibition against use of heavy construction equipment during specified hours is not a surprise to the contractor:

CBJ 42.20.095(b) *Construction of buildings and projects*. It is unlawful to operate any pile driver, power shovel, pneumatic hammer, derrick, power hoist, or similar heavy construction equipment, before 7:00 a.m. or after 10:00 p.m., Monday through Friday, or before 9:00 a.m. or after 10:00 p.m., Saturday and Sunday, unless a permit shall first be obtained from the City and Borough building official. Such permit shall be issued by the building official only upon a determination that such operation during hours not otherwise permitted under this section is necessary and will not result in unreasonable disturbance to surrounding residents.

Capital City Fire/Rescue staff have, in the past, expressed concern that they have not been notified of street closures and traffic revisions, which could have serious consequences in the

event of an emergency requiring access through or within the project area. Staff recommends that an advisory condition alerting the project contractor to notify both the Juneau Police Department and Capital City Fire/Rescue prior to modifying traffic patterns be placed on the finding of consistency with locally adopted plans.

CBJ 49.70.310 Habitat

CBJ 49.70.925(b) also requires the reasonable preservation of salmon habitat, or mitigation of its disturbance: *“Where roads and trails cross anadromous streams, the design and construction of bridges and culverts shall allow free passage of fish, and shall take all feasible and prudent steps to prevent habitat disturbance. Phasing and construction shall be done to avoid critical migration periods for salmon and other anadromous species.”*

The existing pedestrian bridge across Jordan Creek will be replaced across an anadromous fish stream. Because the proposed project is for a public structure to cross the stream, the development is exempt from CBJ’s anadromous fish stream and lake setbacks, as per CBJ 49.70.950(f).

CBJ 49.70.400 Flood Hazard Areas

According to the effective Flood Insurance Rate Map of the CBJ the new pedestrian bridge that will cross Jordan Creek near McDonalds is located in an AE high risk flood zone with a base flood elevation of 30 feet above Mean Lower Low Water (MLLW). According to the submitted narrative (attachment A) from Michael Knapp P.E., DOT Hydrologist, the proposed Jordan Creek pedestrian bridge will be built to allow for greater water flow during a flood event than the existing bridge. The proposed bridge elevation will be slightly below the flood elevation. The CBJ flood regulations do not require roads, trails, and bridges be built at or above the 100-year flood elevation. CDD always encourages this and during some circumstances it is necessary, having the bridge be re-designed above the flood elevation would significantly increase the cost of the project as the adjacent trail would have to be raised to match the bridge elevation. The proposed bridge will be higher than the existing bridge and provide more openings to facilitate water flow. The existing bridge design consists of a large solid wall which does not allow for water passage. The proposed project will improve the flood management of Jordan Creek. For these reasons, CDD staff finds the project consistent with CBJ flood regulations.

FINDINGS

The project is consistent with CBJ 49 and the plans adopted therein, with the recommended conditions placed upon it.

RECOMMENDATION

Staff recommends that the Planning Commission find the proposed project, remove and replace the Jordan Creek Bike Path Bridge on the southerly side of Egan Drive near the Nugget intersection; repave and lower four cross culverts on the multi-use path on the northerly side of Egan Drive between the Nugget intersection and Fred Meyer, consistent with CBJ 49 and the plans adopted therein, with the following condition:

1. The length of the project shall be signed with wayfinding signs where appropriate as part of the Cross Juneau Bikeway. The applicant must submit a signage and striping plan for review and approval by the Community Development Department for consistency with the Non-Motorized Transportation Plan.

Staff further recommends that two advisory conditions be placed on the finding of consistency in order to provide all possible notice to the applicant and the project contractor that a construction noise permit will be required for heavy equipment work during night-time hours as provided at CBJ 42.20.095(b), and that notice must be provided to JPD and to CCF/R prior to any street closures.

Advisory Condition:

1. CBJ 42.20.095(b) Construction of buildings and projects. It is unlawful to operate any pile driver, power shovel, pneumatic hammer, derrick, power hoist, or similar heavy construction equipment, before 7:00 a.m. or after 10:00 p.m., Monday through Friday, or before 9:00 a.m. or after 10:00 p.m., Saturday and Sunday, unless a permit shall first be obtained from the City and Borough building official. Such permit shall be issued by the building official only upon a determination that such operation during hours not otherwise permitted under this section is necessary and will not result in unreasonable disturbance to surrounding residents.
2. At least three business days prior to any traffic revision or road closure of any public street or portion thereof, the contractor shall provide written notification of the traffic revision plan to the CBJ Fire Marshall and Chief of Police. Failure to provide such notice may result in suspension of any CBJ-issued permits for such work, and is punishable by fine as an unlawful street closure under CBJ 72.17.010.

DEVELOPMENT PERMIT APPLICATION

Project Number CSP20140017	CITY and BOROUGH of JUNEAU	Date Received: 8/5/14
Project Name (City Staff to Assign Name)		

INFORMATION	Project Description 1) Remove and replace the Jordan Creek Bike Path Bridge #6011 on southerly of Egan Drive near Nugget Intersection 2) Lower four cross culverts on multi-use path on northerly side of Egan Drive between Nugget intersection and Fred Meyer's and repave.			
	PROPERTY LOCATION			
	Street Address Egan Drive, CDS 296000 MP 7.8121 to 8.177, CDS 29600SB 0.891 to 0		City/Zip Juneau, 99801	
	Legal Description(s) of Parcel(s) (Subdivision, Survey, Block, Tract, Lot)			
	Assessor's Parcel Number(s) 			
	LANDOWNER/ LESSEE			
	Property Owner's Name State of Alaska		Contact Person: Chuck Tripp	
	Mailing Address P.O. 112506, 6860 Glacier Highway, Juneau Alaska 99811-2506		Work Phone: 465-4439	
	E-mail Address chuck.tripp@alaska.gov		Home Phone: 465-4414	
			Other Contact Phone Number(s):	
PROJECT / APPLICANT	LANDOWNER/ LESSEE CONSENT ****Required for Planning Permits, not needed on Building/ Engineering Permits****			
	I am (we are) the owner(s) or lessee(s) of the property subject to this application and I (we) consent as follows: A. This application for a land use or activity review for development on my (our) property is made with my complete understanding and permission. B. I (we) grant permission for officials and employees of the City and Borough of Juneau to inspect my property as needed for purposes of this application.			
	X _____ Landowner/Lessee Signature		_____ Date	
	X _____ Landowner/Lessee Signature		_____ Date	
	NOTICE: The City and Borough of Juneau staff may need access to the subject property during regular business hours and will attempt to contact the landowner in addition to the formal consent given above. Further, members of the Planning Commission may visit the property before the scheduled public hearing date.			
	APPLICANT If the same as OWNER, write "SAME" and sign and date at X below			
	Applicant's Name Same		Contact Person:	
	Mailing Address		Home Phone:	
	E-mail Address		Work Phone:	
			Fax Number:	
STAFF APPROVALS	X _____ Applicant's Signature		_____ Date of Application	
	-----OFFICE USE ONLY BELOW THIS LINE-----			
	<input checked="" type="checkbox"/>	Permit Type	***SIGN	Date Received
	<input checked="" type="checkbox"/>	Building/Grading Permit		
	<input checked="" type="checkbox"/>	City/State Project Review and City Land Action		8/5/2014
	<input type="checkbox"/>	Inquiry Case (Fee In Lieu, Letter of ZC, Use Not Listed)		CSP20140017
	<input type="checkbox"/>	Mining Case (Small, Large, Rural, Extraction, Exploration)		
	<input type="checkbox"/>	Sign Approval (If more than one, fill in all applicable permit #'s)		
	<input type="checkbox"/>	Subdivision (Minor, Major, PUD, St. Vacation, St. Name Change)		
	<input type="checkbox"/>	Use Approval (Allowable, Conditional, Cottage Housing, Mobile Home Parks, Accessory Apartment)		
<input type="checkbox"/>	Variance Case (De Minimis and all other Variance case types)			
<input type="checkbox"/>	Wetlands Permits			
<input type="checkbox"/>	Zone Change Application			
<input type="checkbox"/>	Other (Describe)			
***Public Notice Sign Form filled out and in the file.				
Comments:			Permit Intake Initials	

CITY/STATE PROJECT AND LAND ACTION REVIEW APPLICATION

Project Number	Project Name (15 characters)	Case Number CSP20140017	Date Received 8/5/14
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TYPE OF PROJECT REVIEW:

☐ City Project Review
 ☐ City Land Acquisition /Disposal
 ☒ State Project Review

DESCRIPTION OF PROJECT

1) Remove and replace the Jordan Creek Bike Path Bridge #6011 on the southerly side of Egan Drive near the Nugget Intersection, 2) lower four cross culverts on the multi-use path on the northerly side of Egan Drive between the Nugget Intersection and Fred Meyer's and repave.

Please attach a cover letter to fully explain the project if there is not adequate space on this form.

CURRENT USE OF LAND OR BUILDING(S):

Transportation

PROPOSED USE OF LAND OR BUILDING(S):

Transportation

PROJECT NUMBERS ASSOCIATED WITH PROPOSAL:

Is this project associated with any other Land Use Permits? ☒ No ☐ Yes Case No.: _____

Capital Improvement Program # (CIP) _____

Local Improvement District # (LID) _____

State Project # 68092

ESTIMATED PROJECT COST: \$ 900,000

For more information regarding the permitting process and the submittals required for a complete application, please see the reverse side. If you need any assistance filling out this form, please contact the Permit Center at 586-0770.	CITY/STATE PROJECT FEES				
		Fees	Check No.	Receipt	Date
	Application Fees	\$ _____	_____	_____	_____
Total Fee	\$ <u>Ø</u>	_____	_____	_____	

TO BE COMPLETED BY THE APPLICANT

NOTE: MUST BE ACCOMPANIED BY DEVELOPMENT PERMIT APPLICATION FORM &

EVEN IF THE PROPOSED PROJECT IS ASSOCIATE WITH OTHER LAND USE PERMITS, THIS APPLICATION MUST BE FILLED OUT

CITY/STATE PROJECT REVIEW REQUIREMENTS

Each application for a City/State Project is reviewed by the Planning Commission at a public hearing. The permit procedure is intended to provide the Commission the flexibility necessary to make recommendations tailored to individual applications.

Application: An application for a City/State Project Review will not be accepted by the Community Development Department until it is determined to be complete. The items needed for a complete application are:

Forms: A completed City/State Project Review Application form and Development Permit Application form. The "land owner or lessee consent" signature is mandatory for all landowners on the Development Permit Application form.

Fees: No fee required for projects that cost less than \$2.5 million. For projects costing more than this amount, the fee is \$1,600.00. All fees are subject to change.

Project Description: A detailed letter or narrative describing the project.

Plans: All plans are to be drawn to scale and clearly show the items listed below:

- A. Plat, site plan, floor plan and elevation views of existing and proposed structures and land;
- B. Existing and proposed parking areas, including dimensions of the spaces, aisle width and driveway entrances;
- C. Proposed traffic circulation within the site including access/egress points and traffic control devices;
- D. Existing and proposed lighting (including cut sheets for each type of lighting);
- E. Existing and proposed vegetation with location, area, height and type of plantings; and,
- F. Existing physical features of the site (i.e. drainage, eagle trees, hazard areas, salmon streams, wetlands, etc.)

Document Format: All information that is submitted as part of an application shall be submitted in either of the following formats:

- A. Electronic copies may be submitted by CD, DVD or E-mail in the following formats: .doc, .txt, .xls, .bmp, .pdf, .jpg, .gif, .xlm, .rtf or other formats pre-approved by the Community Development Department.
- B. Paper copies may not be larger than 11" X 17" (Unless a larger paper size is preapproved by the Community Development Department).

Application Review & Hearing Procedure: Once the application is determined to be complete, the Community Development Department will initiate the review and scheduling of the application. This process includes:

Review: As part of the review process the Community Development Department will evaluate the application for consistency with all applicable City & Borough of Juneau codes and adopted plans. Depending on unique characteristics of the permit request the application may be required to be reviewed by other municipal boards and committees. Review comments may require the applicant to provide additional information, clarification, or submit modifications/alterations for the proposed project.

Hearing: All City/State Project Review Permit Applications must be reviewed by the Planning Commission. Once an application has been deemed complete and has been reviewed by all applicable parties the Community Development Department will schedule the requested permit for the next appropriate meeting. The Planning Commission will make a recommendation based on staff's analysis and forward it to the Assembly for final approval/denial.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

**Department of Transportation
and Public Facilities
Southeast Region**

PROJECT No. 0932(052) / 68092

**Plans In Hand** & 7/30/2014
DATE

PROJECT SUMMARY

CDS ROUTE NO.	=	296000
CDS MILEPOINT	=	7.812 to 8.177
CDS MILEPOINT (29600SB)	=	0.891 to 0.906
LENGTH OF PROJECT	=	2300 FT
LENGTH OF PAVING	=	2117 FT
WIDTH OF PAVING	=	10' FT

THE FOLLOWING STANDARD DRAWINGS APPLY TO THIS PROJECT:

A-1	S-05.01
C-03.10	S-20.10
D-01.02	S-30.03
D-04.21	
E-13.00	
S-00.10	

[illegible]

HORIZONTAL CONTROL

Horizontal Control for this project is based on the DOT/PF 2000 Juneau Grid

The DOT/PF Juneau Grid-2000 System is a local ground coordinate system based at USC&GS first order control station EDD1E. It relates to AKSPC zone 1 NAD83 (1992) through the following parameters:
Zone = NAD83 (1992) AKSPC ZONE 1
Grid Scale = 0.999928875
Convergence = -0°45'27.26"
Translation about USC&GS point EDD1E as follows:
AKSPC Northing = 2383469.17310 FT US
AKSPC Easting = 2512570.06318 FT US
Local Northing = 500000.0000 FT US
Local Easting = 500000.0000 FT US

Project Specific Horizontal Control

100 : Survspike and washer set by others in asphalt bike path North West of Jordan Creek pedestrian bridge.

JNU-Grid N 503783.86 FT US, E 498195.11 FT US
AKSPC ZONE1 N 2387276.29 FT US, E 2510815.48 FT US

101 : Mag nail with orange plastic washer set in asphalt bike path South East of Jordan Creek pedestrian bridge

JNU-Grid N 503516.07 FT US, E 498394.89 FT US
AKSPC ZONE1 N 2387005.91 FT US, E 2511011.69 FT US

VERTICAL CONTROL

The Vertical Datum for JNU Grid-2000 is MLLW Gastineau Channel tidal datum based on third order differential levels and supplemented with GEOD '99 modeled orthometric heights. The tidal epoch is 1960-1978, but this epoch has been updated with a 5 year observation period from Jan '94 to Dec '98 published Nov '99. The latest NOS publication (10-2011) on the 1983-2001 tidal epoch indicates the datum has risen 0.32'.

The Project Specific Basis of Vertical Control is point # 517 "TBM BROTHER". Which is a 3.5" brass cap located in the north east abutment of Brotherhood Bridge. TBM-Brother has an observed elevation of 39.41 feet above MLLW.

JORDAN CREEK ALIGNMENT

Number	START STATION	NORTHING	EASTING	TANGENT DISTANCE	TANGENT BEARING	NORTHING CENTER	EASTING CENTER	RADIUS	LENGTH	DELTA
L1	14+99.76	503343.90	498495.06	108.10	N33° 30' 53.6"W					
L2	16+07.86	503434.03	498435.37	28.17	N30° 58' 23.3"W					
L3	16+36.03	503458.19	498420.87	45.88	N26° 56' 04.7"W					
C1	16+81.91	503499.09	498400.09			503453.79	498310.94	100.00	19.81	11° 21' 04.2"
L4	17+01.72	503515.75	498389.43	102.96	N38° 17' 08.9"W					
L5	18+04.68	503596.57	498325.64	35.67	N38° 49' 03.8"W					
L6	18+40.36	503624.36	498303.27	48.29	N33° 47' 39.1"W					

Point Table				
Point #	Northing	Easting	Elevation	Description
100	503783.86	498195.11	30.31	SURVSPIKE
101	503516.07	498394.89	29.72	MAG/WASH
102	503265.46	498552.70	31.18	MAG/WASH
150	501626.87	500216.42	26.82	MAG/WASH
151	501365.96	501056.05	31.18	ALCAP_DIGMON
204	502854.72	499069.81	29.04	MAG/WASH_SET
205	503081.89	498888.33	29.30	MAG/WASH_SET

ALL MONUMENTS IN THE CONTROL TABLE ARE PROVIDED STRICTLY FOR SURVEY CONTROL. SHOULD ANY OF THEM BE DESTROYED DURING CONSTRUCTION THEY SHALL NOT BE REPLACED.

PATH: Q:\JNU\68092\PLANSET\68092_A2_SURVEY.CO

SCHLICHTING, SARAH J (DOT)
TAB: A2 Tuesday, July 29, 2014 4:12:07 PM

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

MONUMENT NOTES:

1. If any pair of control points disagrees from published value by more than 1:10,000 horizontally or vertically then a third network point must be tied to ascertain which point is in error or has been disturbed.

2. Whether listed or not, all monuments, property markers, or accessories that will be disturbed or buried shall be referenced prior to being disturbed, and re-established in their original position and a record of monument form in accordance with A.S.34.65.040 shall be submitted to the construction engineer for review prior to recording. Coordinate values listed are for informational purposes and should be used to reset monuments only as a last resort.

CHECKED BY: D.Ignatov



DESIGNED BY: J.Johnson

DRAWN BY: J.Johnson

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
SOUTHEAST REGION

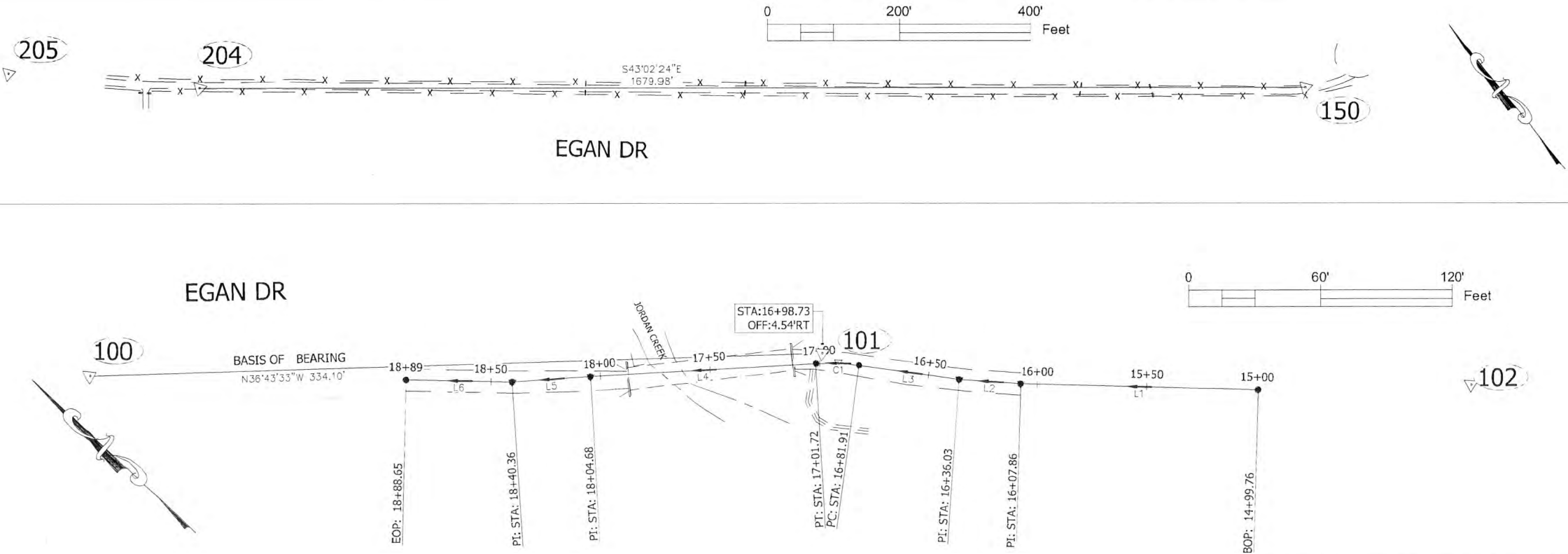
JNU EGAN DRIVE MULTI-USE
PATH REPAIR AND BRIDGE
#6011 REPLACEMENT
PROJECT No. 0932(052) / 68092

SURVEY
CONTROL

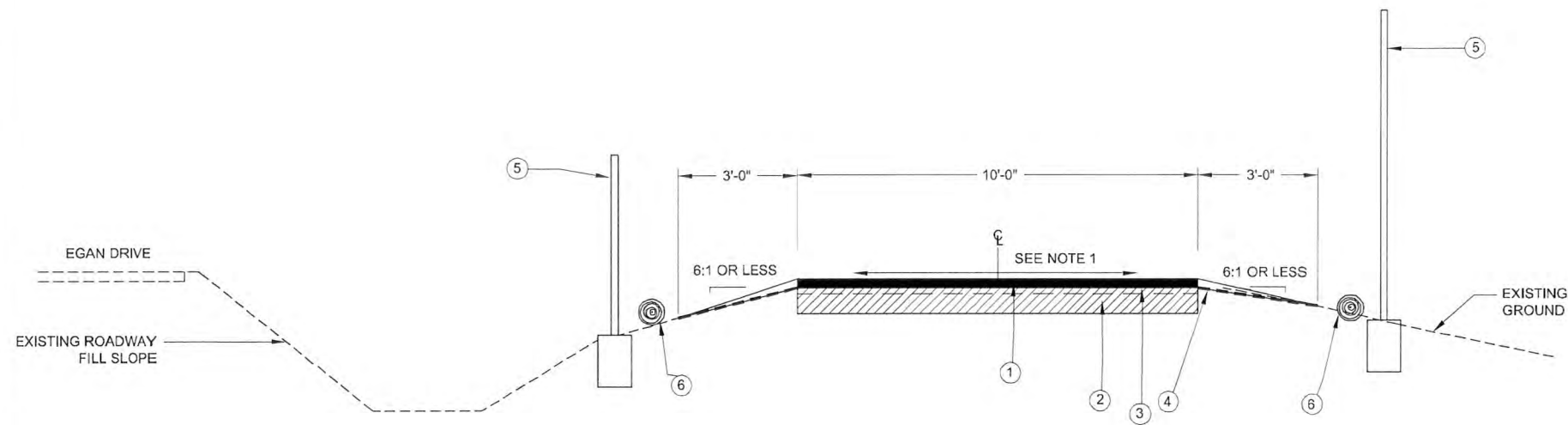
PROJECT DESIGNATION

0932(052) / 68092

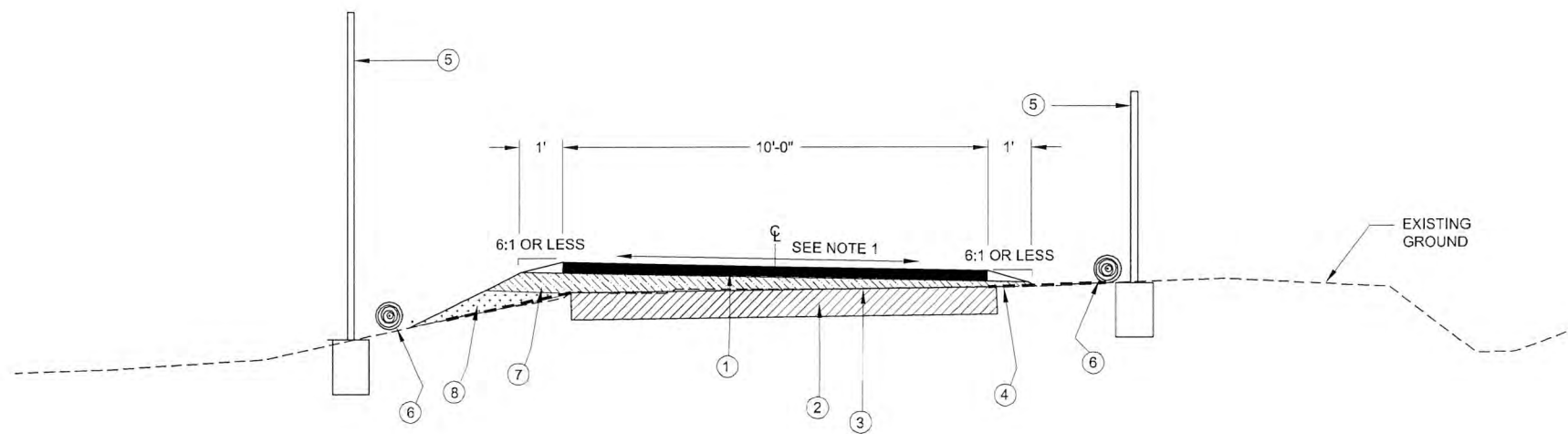
STATE	YEAR
ALASKA	2014
SHEET NUMBER	TOTAL SHEETS
A2	17



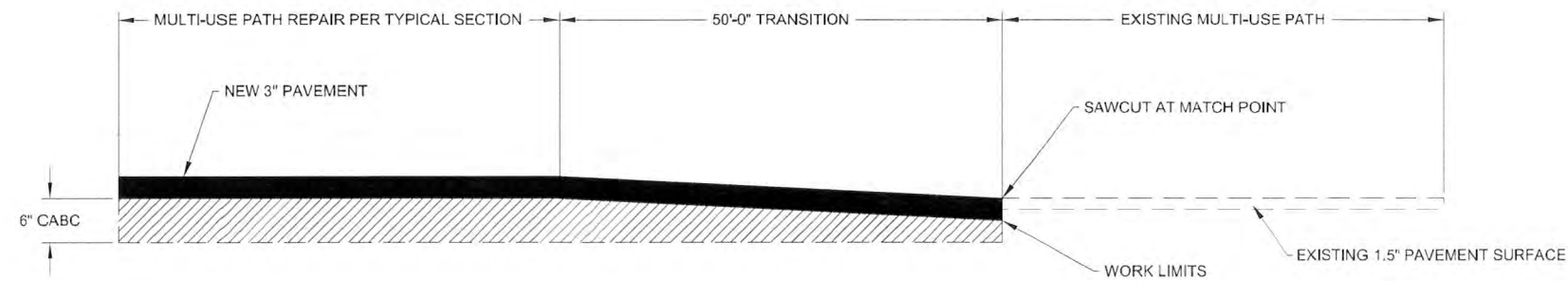
DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS



TYPICAL SECTION ALIGNMENT "A"
N.T.S.



TYPICAL SECTION ALIGNMENT "B"
N.T.S.



PAVEMENT TRANSITION DETAIL

GENERAL TYPICAL SECTION NOTES:

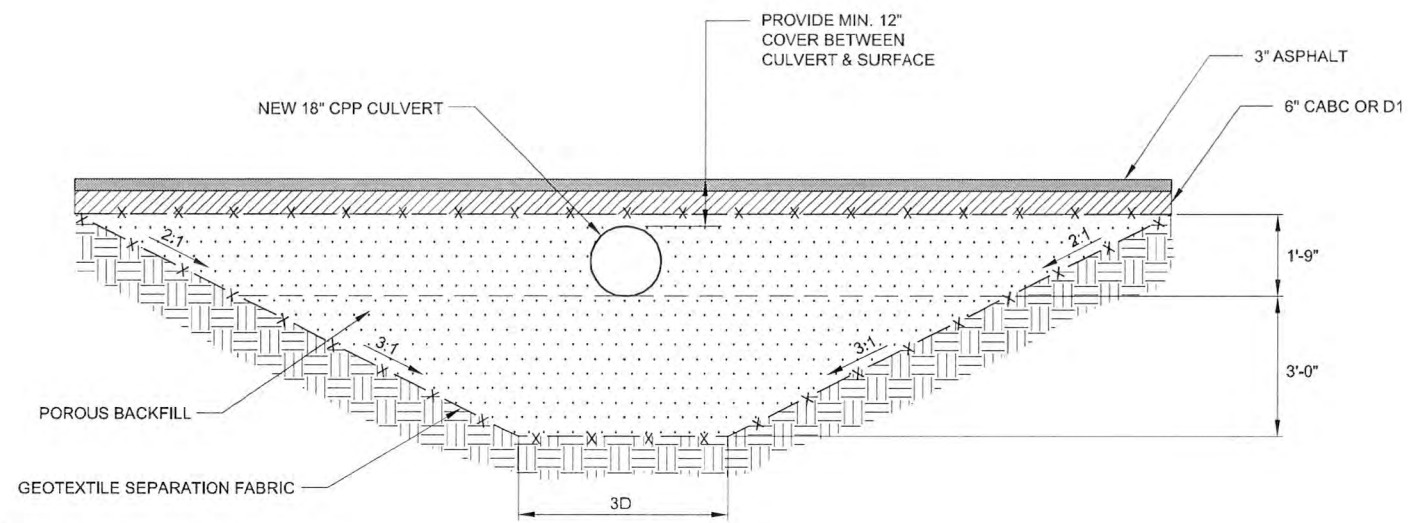
1. CROSS SLOPE WILL BE 1.5% MAX. DIRECTION OF CROSS SLOPE WILL VARY BY LOCATION AS INDICATED IN THE PLANS OR AS DIRECTED.
2. LINEAR GRADE 3' MIN. OR TO THE EDGE OF THE FENCE, EITHER SIDE OF PAVED PATH TO REMOVE VEGETATION PRIOR TO PULVERIZING EXISTING PAVEMENT.
3. ON ALIGNMENT "B": CLEAR AND GRUB TO THE TOE OF NEW EMBANKMENT.

MATERIAL LEGEND

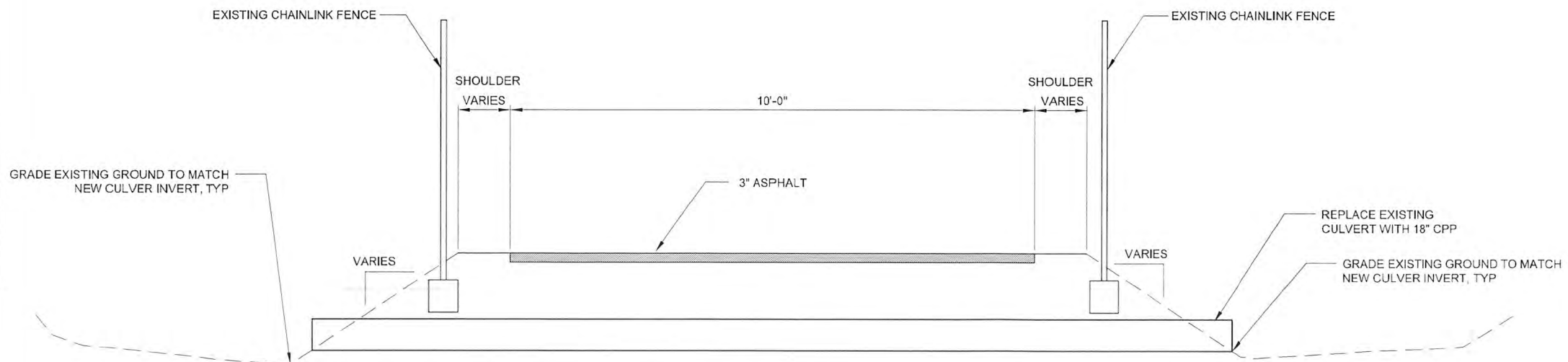
- 1 3" ASPHALT CONCRETE TYPE II, CLASS B
- 2 6" CRUSHED ASPHALT BASE COURSE (CABC)
- 3 GRIND EXISTING 1.5" ASPHALT IN PLACE PER SECTION 308
- 4 LINEAR GRADING PRIOR TO GRINDING EXISTING ASPHALT
- 5 EXISTING CHAIN LINK FENCE
- 6 SEDIMENT BARRIER
- 7 ADD AGGREGATE BASE COURSE GRADING D-1, TO ACHIEVE PROFILE GRADE
- 8 SELECT MATERIAL, TYPE A

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

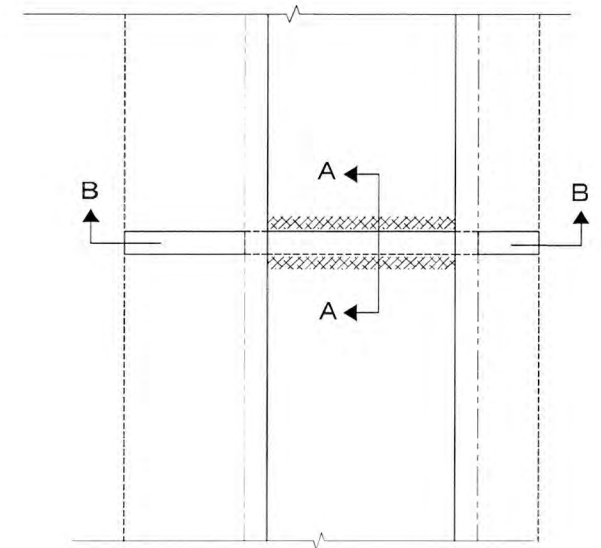
CHECKED BY: C. TRIPP 		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES SOUTHEAST REGION JNU EGAN DRIVE MULTI-USE PATH REPAIR AND BRIDGE #6011 REPLACEMENT Project No. 0932(052) / 68092												
DESIGNED BY: S. SCHLICHTING DRAWN BY: S. SCHLICHTING		TYPICAL SECTIONS												
PATH: Q:\JNU\68092\PLANSET\68092_B1-B2_TYPICAL.DWG TAB: B1 Tuesday, July 29, 2014 11:18:31 AM SCHLICHTING, SARAH J (DOT)														
<table border="1"> <thead> <tr> <th colspan="3">REVISIONS</th> </tr> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		REVISIONS			NO.	DATE	DESCRIPTION				PROJECT DESIGNATION 0932(052) / 68092	YEAR 2014	SHEET NO. B1	TOTAL SHEETS 17
REVISIONS														
NO.	DATE	DESCRIPTION												



SECTION A-A
NTS




SECTION B-B
NTS



CULVERT PLAN
NTS

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: C. TRIPP 		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES SOUTHEAST REGION			
DESIGNED BY: S. SCHLICHTING DRAWN BY: S. SCHLICHTING		JNU EGAN DRIVE MULTI-USE PATH REPAIR AND BRIDGE #6011 REPLACEMENT Project No. 0932(052) / 68092 CULVERT TYPICAL SECTIONS			
PATH: Q:\JNU\68092\PLANSET\68092_B1-B2_TYPICAL.DWG TAB: B2 Tuesday, July 29, 2014 11:18:53 AM		SCHLICHTING, SARAH J (DOT)			
REVISIONS NO. DATE DESCRIPTION		PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
		0932(052) / 68092	2014	B2	17

ESTIMATE OF QUANTITIES			
ITEM NO.	PAY ITEM	PAY UNIT	PLAN QUANTITY
202(2)	REMOVAL OF PAVEMENT	SQUARE YARD	136
202(4)	REMOVAL OF CULVERT PIPE	LINEAR FOOT	85
202(17)	REMOVAL OF EXISTING BRIDGE NO. 6011	LUMP SUM	ALL REQUIRED
203(6)	BORROW, SELECT MATERIAL, TYPE A	TON	62
205(3)	STRUCTUAL FILL	CUBIC YARD	103
301(1)	AGGREGATE BASE COURSE, GRADING D-1	TON	38
303(3)	LINEAR GRADING	STATION	20
308(1)	CRUSHED ASPHALT BASE COURSE	SQUARE YARD	2300
401(2)	ASPHALT CEMENT, GRADE PG 58-28	TON	3
501(1)	CLASS A CONCRETE	LUMP SUM	ALL REQUIRED
503(1)	REINFORCING STEEL	LUMP SUM	ALL REQUIRED
504(3)	FURNISH AND ERECT PEDESTRIAN BRIDGE	LUMP SUM	ALL REQUIRED
505(9)	STRUCTURAL STEEL SHEET PILES	SQUARE FOOT	1980
603(21-18)	18 INCH CORRUGATED POLYETHYLENE PIPE	LINEAR FOOT	85
608(3)	ASPHALT SIDEWALK	SQUARE YARD	2260
615(1)	STANDARD SIGN	SQUARE FOOT	10
618(1)	SEEDING	ACRE	0.28
619(3)	BONDED FIBER MATRIX (BFM)	POUND	200
630(1)	GEOTEXTILE, SEPARATION	SQUARE YARD	472
633(2)	SEDIMENT BARRIER	LINEAR FOOT	1000
640(1)	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQUIRED
641(1)	EROSION, SEDIMENT AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	ALL REQUIRED
641(3)	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL	LUMP SUM	ALL REQUIRED
641(6)	WITHOLDING	CONTINGENT SUM	ALL REQUIRED
642(1)	CONSTRUCTION SURVEYING	LUMP SUM	ALL REQUIRED
643(2)	TRAFFIC MAINTENANCE	LUMP SUM	ALL REQUIRED
643(3)	PERMANENT CONSTRUCTION SIGNS	LUMP SUM	ALL REQUIRED
643(12)	PORTABLE CONCRETE BARRIER	EACH	4
643(15)	FLAGGING	CONTINGENT SUM	ALL REQUIRED
643(25)	TRAFFIC CONTROL	CONTINGENT SUM	ALL REQUIRED
644(6)	VEHICLES	LUMP SUM	ALL REQUIRED
645(1)	SHUTTLE SERVICE	LUMP SUM	ALL REQUIRED
646(1)	CPM SCHEDULING	LUMP SUM	ALL REQUIRED
690(1)	TEMPORARY ROCK CHECK DAM	EACH	8

BASIS OF ESTIMATE		
ITEM NO.	DESCRIPTION	QUANTITY
203(6)	BORROW, SELECT MATERIAL, TYPE A	1.81 TON/CY
301(1)	AGGREGATE BASE COURSE, GRADING D-1	1.95 TON/CY
603(21-18)	POROUS BACKFILL TO GO IN NEW CULVERT EXCAVATION	7.5 SY/LF
608(3)	ASPHALT SIDEWALK	117 LB/SY/IN
619(3)	BONDED FIBER MATRIX (BFM)	4000 LB/ACRE

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

<div>CHECKED BY: C. TRIPP</div> <div></div> <div>DESIGNED BY: S. SCHLICHTING</div> <div>DRAWN BY: S. SCHLICHTING</div>		<div>STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES SOUTHEAST REGION</div> <div>JNU EGAN DRIVE MULTI-USE PATH REPAIR AND BRIDGE #6011 REPLACEMENT Project No. 0932(052) / 68092</div> <div>ESTIMATE OF QUANTITIES</div>				
PATH: Q:\JNU\68092\PLANSET\68092_C1_EST.DWG						
TAB: C1		Tuesday, July 29, 2014 4:08:28 PM		SCHLICHTING, SARAH J (DOT)		
REVISIONS				PROJECT DESIGNATION	YEAR	SHEET NO.
NO.	DATE	DESCRIPTION		0932(052) / 68092	2014	C1
						TOTAL SHEETS
						17

202 (4) REMOVAL OF CULVERT PIPE		
ITEM	ESTIMATED QTY	UNIT
24" CSP STATION 13+22	20	LINEAR FEET
18" CSP STATION 14+29	20	LINEAR FEET
18" CSP STATION 19+29	23	LINEAR FEET
18" CSP STATION 21+72	22	LINEAR FEET


202 (17) REMOVAL OF STRUCTURES AND OBSTRUCTIONS SUMMARY		
ITEM	ESTIMATED QTY	UNIT
REMOVAL OF EXISITING BRIDGE NO. 6011	1	LUMP SUM

603(21-18) PIPE SUMMARY									
PIPE #	LENGTH	INLET			OUTLET			SLOPE	REMARKS
		STATION	OFFSET (FT)	INV. ELEV	STATION	OFFEST (FT)	INV. ELEV		
P-1	20	13+22	9.6 RT	24.0	13+16	9.6 LT	24	0%	
P-2	20	14+29	12.1 RT	24.3	14+26	7.5 LT	24.3	0%	
P-3	23	19+29	12.7 RT	25.0	19+36	9.7 LT	25.0	0%	
P-4	22	21+72	10.7 RT	25.7	21+80	10.8 LT	25.7	0%	

615(1) STANDARD SIGN								
#	DESCRIPTION	OFFSET	ASDS CODE	WIDTH (IN)	HEIGHT (IN)	AREA (SQ FT)	POST SIZE	REMARKS
1	WEIGHT LIMIT *10 TONS	LT	R12-1	24	30	5	2.5	Locate 10-feet ahead of each bridge approach and 4- feet from the pavement edge.
2	WEIGHT LIMIT *10 TONS	RT	R12-1	24	30	5	2.5	Locate 10-feet ahead of each bridge approach and 4- feet from the pavement edge.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: C. TRIPP



DESIGNED BY: S. SCHLICHTING

DRAWN BY: S. SCHLICHTING

PATH: Q:\JNU\68092\PLANSET\68092_D1_SUMS.DWG

TAB: D1

Tuesday, July 29, 2014 11:27:20 AM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
SOUTHEAST REGION

JNU EGAN DRIVE MULTI-USE PATH
REPAIR AND BRIDGE #6011
REPLACEMENT
Project No. 0932(052) / 68092

SUMMARIES

REVISIONS		PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS	
NO.	DATE	DESCRIPTION	0932(052) / 68092	2014	D1	17

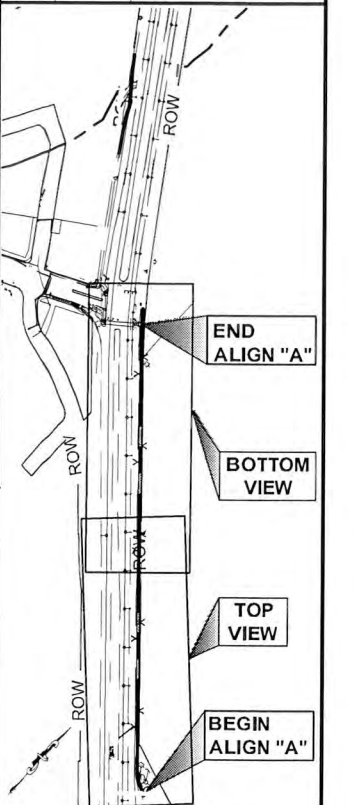
SCHLICHTING, SARAH J (DOT)
TAB: F1 Tuesday, July 29, 2014 4:19:57 PM

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



PLAN LEGEND

CHECKED BY: C. TRIPP



DESIGNED BY: S. SCHLICHTING

DRAWN BY: S. SCHLICHTING

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
SOUTHEAST REGION

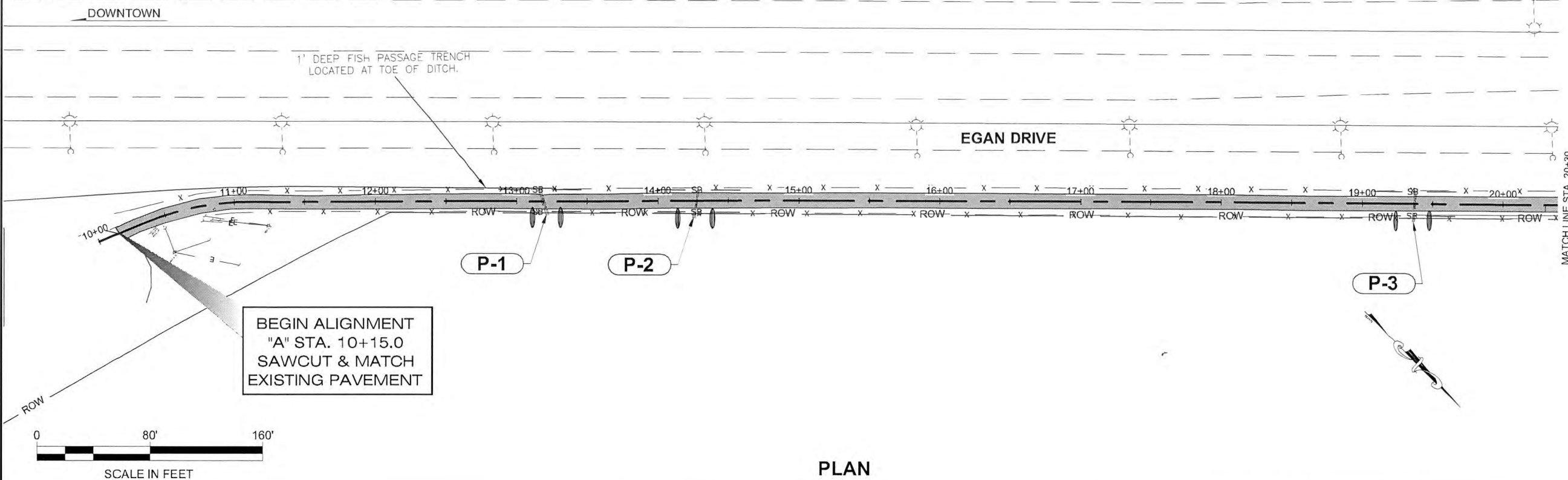
JNU EGAN DRIVE MULTI-USE
PATH REPAIR AND BRIDGE
#6011 REPLACEMENT
Project No. 0932(052) / 68092

PLAN VIEW

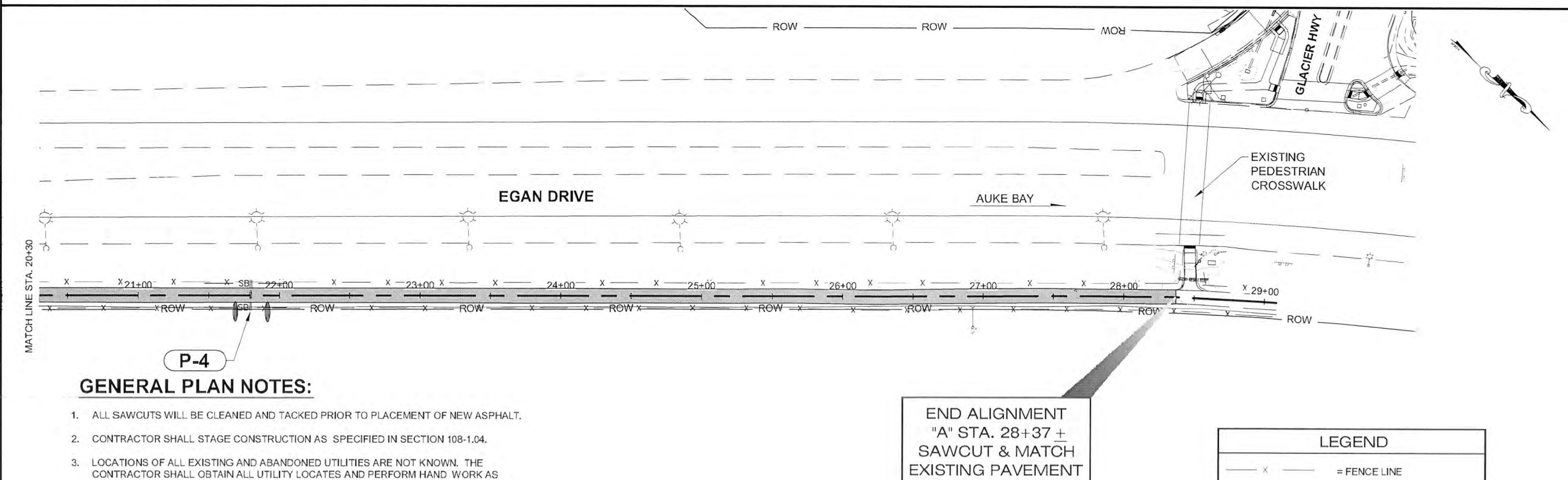
PROJECT DESIGNATION
0932(052) / 68092

STATE	YEAR
ALASKA	2014

SHEET NUMBER	TOTAL SHEETS
F1	17



PLAN



PLAN

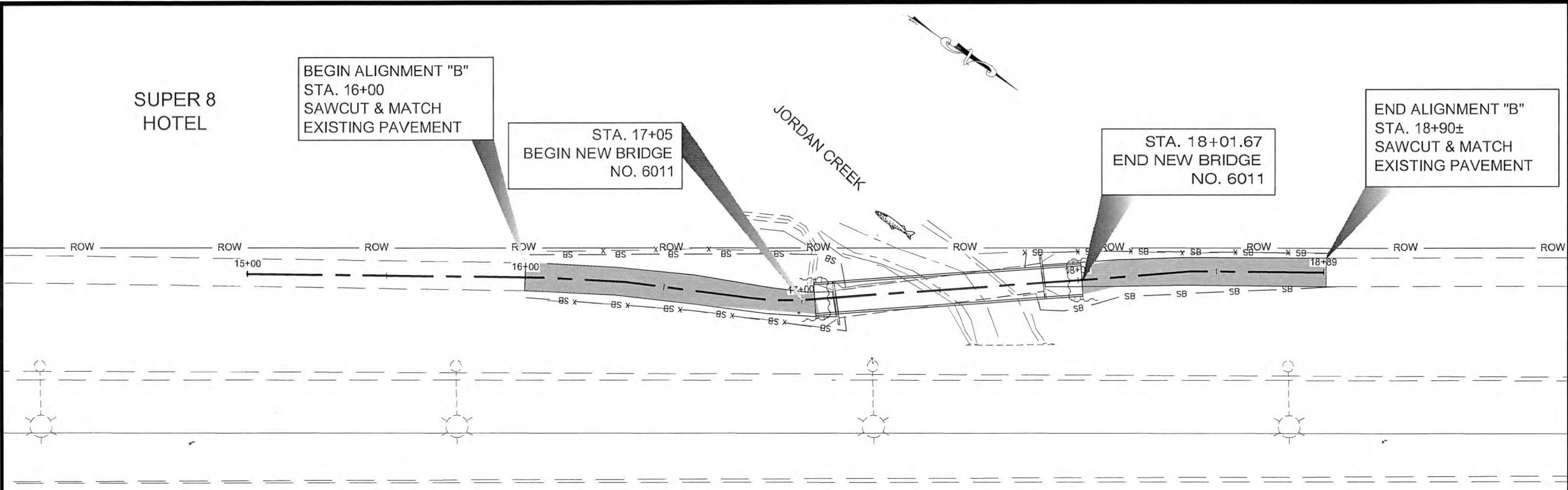
GENERAL PLAN NOTES:

- ALL SAWCUTS WILL BE CLEANED AND TACKED PRIOR TO PLACEMENT OF NEW ASPHALT.
- CONTRACTOR SHALL STAGE CONSTRUCTION AS SPECIFIED IN SECTION 108-1.04.
- LOCATIONS OF ALL EXISTING AND ABANDONED UTILITIES ARE NOT KNOWN. THE CONTRACTOR SHALL OBTAIN ALL UTILITY LOCATES AND PERFORM HAND WORK AS NECESSARY TO AVOID ALL UTILITY DAMAGE. SEE SPECIAL PROVISION 105 AND 107-1.16.
- ALL COSTS FOR DAMAGING ANY UTILITY LINE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- THE AREA BETWEEN FRED MEYERS AND ST. PAUL'S CATHOLIC CHURCH (EGAN DRIVE RIGHT) IS SUBJECT TO FLOODING.

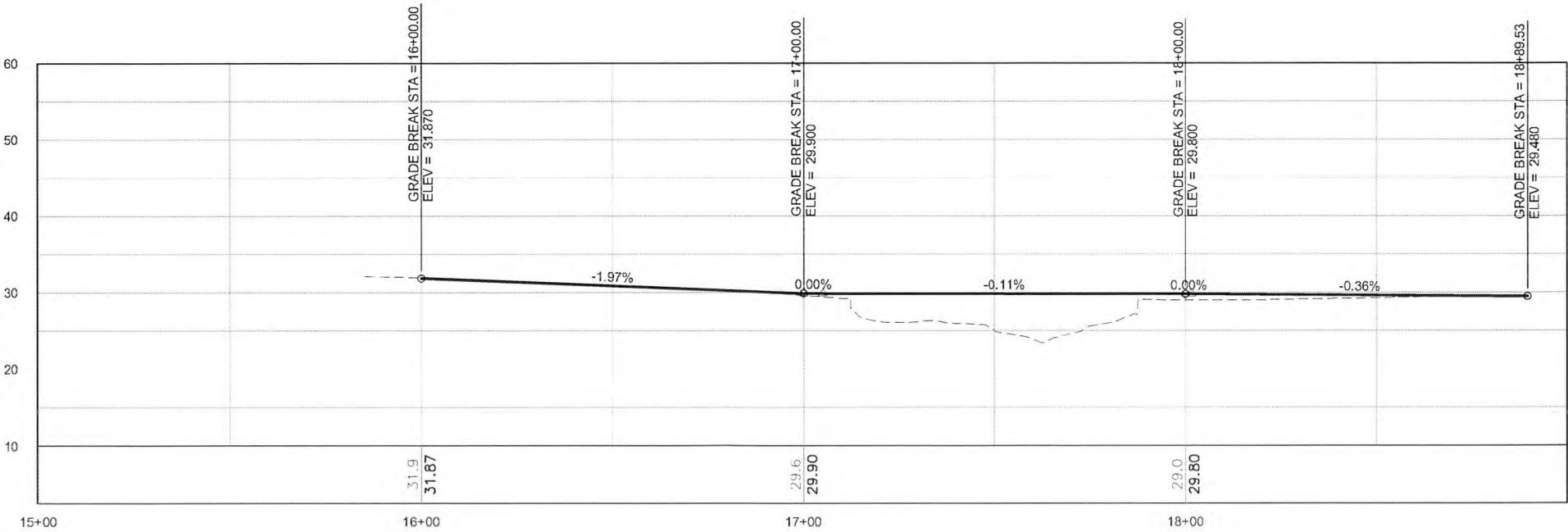
END ALIGNMENT
"A" STA. 28+37 ±
SAWCUT & MATCH
EXISTING PAVEMENT

LEGEND	
— X —	= FENCE LINE
— SB —	= SEDIMENT BARRIER
○	= TEMPORARY CHECK DAM

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS



PLAN



PROFILE



DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

PATH:Q:\JNU\68092\PLANSET\68092_F1-F2_PLAN.DWG

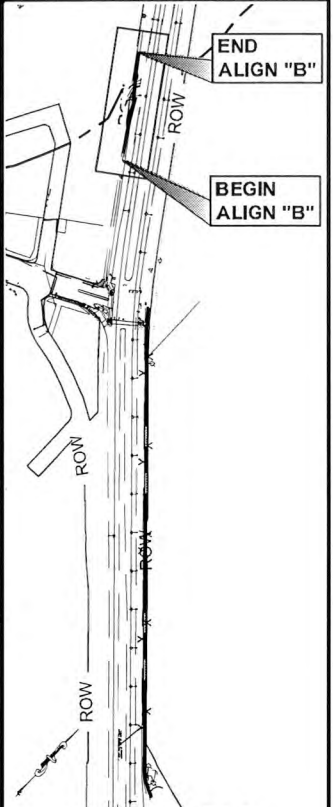
SCHLICHTING, SARAH J (DOT)
TAB: F2 Tuesday, July 29, 2014 11:33:07 AM

ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



PLAN LEGEND

CHECKED BY: C. TRIPP



DESIGNED BY: S. SCHLICHTING

DRAWN BY: S. SCHLICHTING

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
SOUTHEAST REGION

JNU EGAN DRIVE MULTI-USE
PATH REPAIR AND BRIDGE
#6011 REPLACEMENT
Project No. 0932(052) / 68092

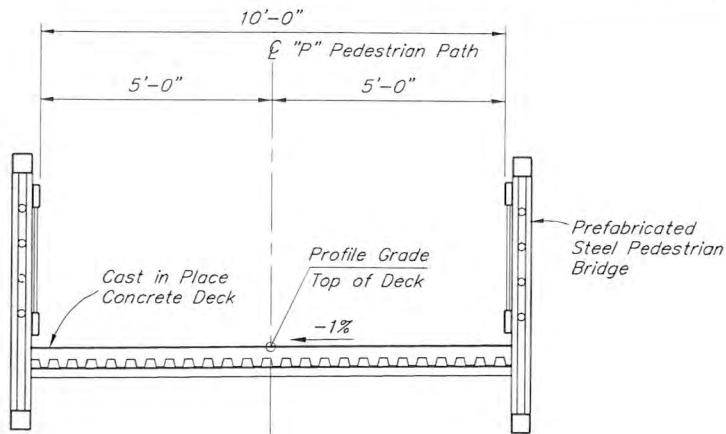
PLAN & PROFILE

PROJECT DESIGNATION

0932(052) / 68092

STATE	YEAR
ALASKA	2014
SHEET NUMBER	TOTAL SHEETS
F2	17

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA		2015		



TYPICAL SECTION

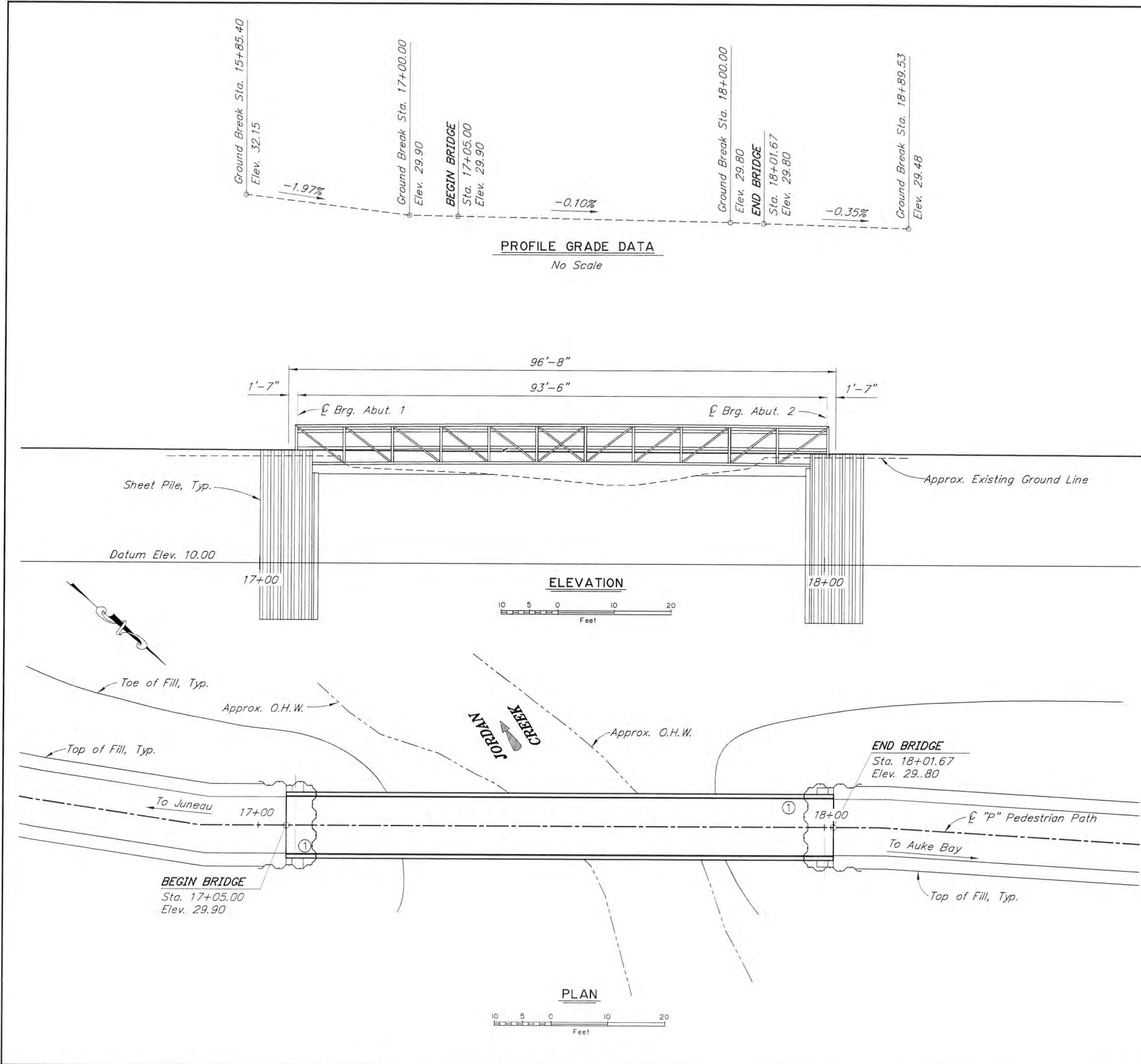


BRIDGE DRAWING INDEX	
TITLE	DWG. NO.
GENERAL LAYOUT	1
SITE PLAN	2
SHEET PILE LAYOUT	3
ABUTMENTS	4

PRELIMINARY PLAN

NOTES:

① Denotes location of Bridge No. Plate.



DESIGNED BY: Travis Arndt	CHECKED: Scott Litchfield	LAYOUT BY: Travis Arndt	CHECKED BY: Scott Litchfield
DRAWN BY: Sam Sollie Jr.	CHECKED: Travis Arndt	SPECIFICATIONS BY: Travis Arndt	P S & E COMPARED: Scott Litchfield
QUANTITIES BY: Travis Arndt	CHECKED: Scott Litchfield	APPROVAL RECOMMENDED BY: Rich Pratt	

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
BRIDGE SECTION

JORDAN CREEK PEDESTRIAN BRIDGE
EGAN DRIVE
GENERAL LAYOUT



BRIDGE NO. 6011
DWG. NO. 1

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA		2015		

GENERAL NOTES

DESIGN:..... AASHTO LRFD Bridge Design Specifications, 2012 Edition, with latest interim specifications.
Seismic design per AASHTO Guide Specifications for LRFD Seismic Bridge Design, 2011 with latest interim specifications.

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

DEAD LOAD:..... Includes 75 psf for all wearing surfacing.

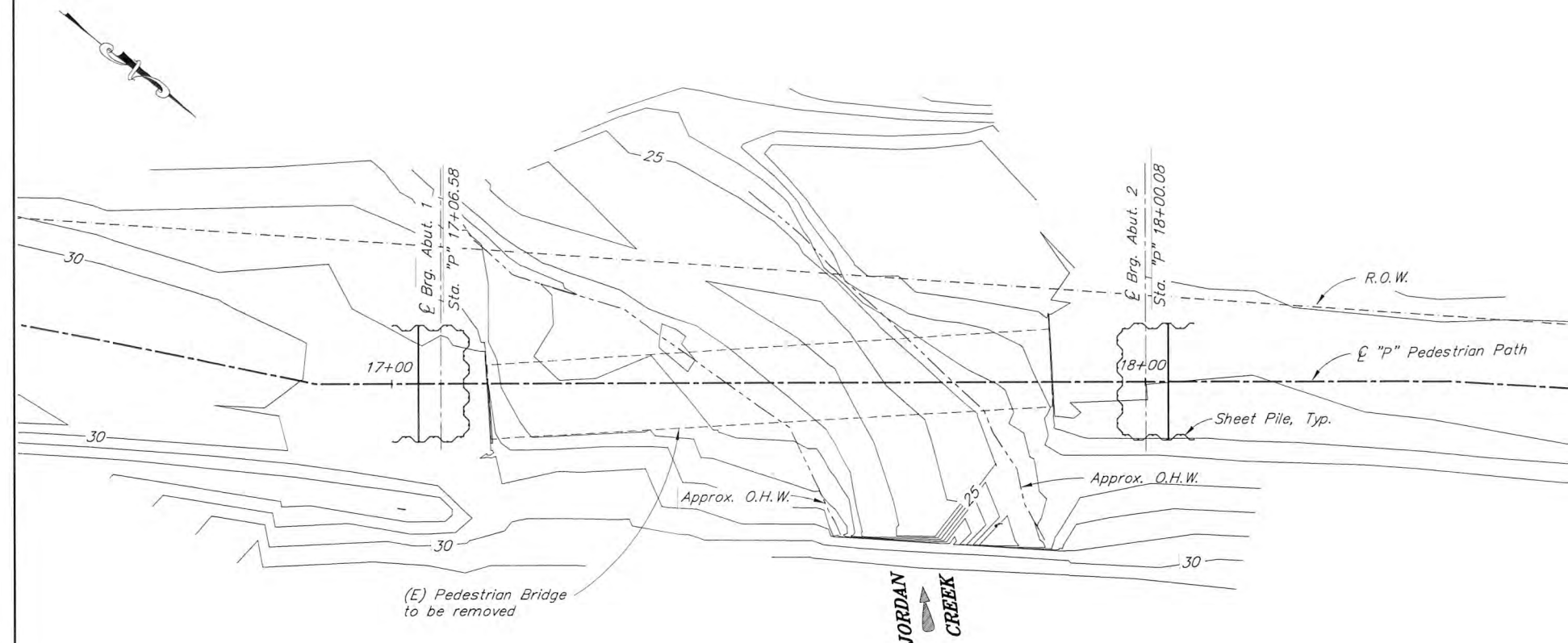
SEISMIC PARAMETERS:..... PGA = 0.17
 S_s = 0.39
 S_I = 0.21
 Site Class = E
 Liquefaction Potential = High
 AASHTO 7% probability of exceedance in 75 years.

REINFORCEMENT:..... ASTM A706, Grade 60, $F_y = 60,000$ psi
Space reinforcement evenly unless otherwise noted.
Use ASTM A970 Headed bars, Class HA.

CONCRETE:.....Class A Concrete, $f'_c = 4000$ psi.

STRUCTURAL STEEL:.....ASTM A709, Grade 36T3, $F_y = 36,000$ psi
Galvanize all structural steel in accordance with AASHTO M111
unless shown otherwise.

STRUCTURAL STEEL
SHEET PILE:..... ASTM A709, Grade 50, $F_y = 50,000$ psi.
Galvanize all structural steel in accordance with AASHTO M111



FOOTING PRESSURE TABLE			
LOCATION	STRENGTH I FACTORED LOAD (KSF)	NOMINAL BEARING RESISTANCE (KSF)	BEARING RESISTANCE FACTOR, ϕ
<i>Abutment 1</i>	<i>3.60</i>	<i>8 *</i>	<i>0.50</i>
<i>Abutment 2</i>	<i>3.60</i>	<i>8 *</i>	<i>0.50</i>


* Presumptive value based on AASHTO LRFD TC10.6.2.6.1-1

ABBREVIATIONS:

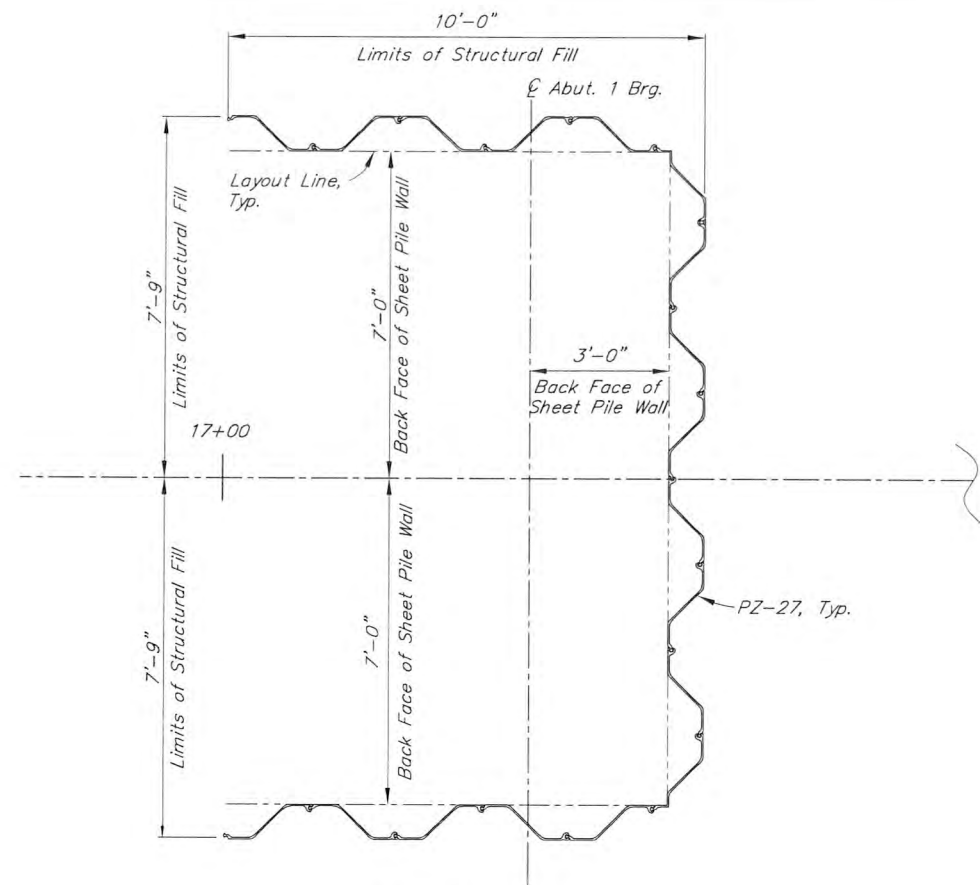
C	= centerline	Hwy.	= highway
P	= plate	kSF	= 1000 pounds per square foot
&	= and	LB	= pound
@	= at	LF	= linear foot
Ø	= diameter	LS	= lump sum
±	= approximate	Lt.	= left
Abut.	= abutment	max.	= maximum
Approx.	= approximate	min.	= minimum
b.f.	= back/dirt face	n.f.	= near face
bot.	= bottom	No.	= number
Br.	= bridge	o.c.	= on center
btwn.	= between	O.H.W.	= ordinary high water
Brg.	= Bearings	psf	= pounds per square foot
C.I.P.	= cast in place	psi	= pounds per square inch
Clr.	= clear, clearance	PVC	= point of vertical curve
CY	= cubic yard	PVI	= point of vertical intersection
dia.	= diameter	PVT	= point of vertical tangent
Dwg.	= drawing	R.O.W.	= right of way
E	= expansion	Rt.	= right
(E)	= existing	Rd.	= road
EA	= each	spc.	= space, spaces
Elev.	= elevation	Sta.	= station
e.f.	= each face	SF	= square feet
e.w.	= each way	Symm.	= symmetric
F	= fixed	Typ.	= typical
f.f.	= front/air face	w/	= with

BRIDGE BASIS OF ESTIMATE						
ITEM NO.	ITEM	PAY UNIT	EST UNIT	SUBST.	SUPERST.	TOTAL
202(17)	Removal of Existing Bridge No. 6011	LS	SF	All Req'd	All Req'd	All Req'd
205(3)	Structural Fill	CY	CY	103	---	103
501(1)	Class A Concrete	LS	CY	27.0	---	27.0
503(1)	Reinforcing Steel	LS	LBS	2300	---	2300
504(3)	Furnish and Erect Pedestrian Bridge	LS	LS	---	1	1
509(9)	Structural Steel Sheet Piles	SF	SF	1980	---	1980

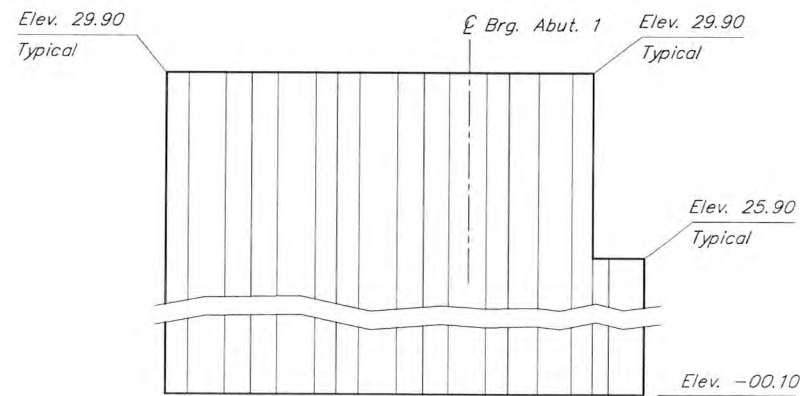
Item numbers are for reference only. Quantities shown are not necessarily the pay quantities nor the total quantity of the particular item.

DESIGNED BY: <i>Travis Arndt</i>	CHECKED: <i>Scott Litchfield</i>	HYDRAULICS BY:	CHECKED BY:	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES BRIDGE SECTION	JORDAN CREEK PEDESTRIAN BRIDGE EGAN DRIVE SITE PLAN	 BRIDGE NO. <u>6011</u> DWG. NO. <u>2</u>
DRAWN BY: <i>Sara Solie</i>	CHECKED: <i>Travis Arndt</i>	FOUNDATIONS REVIEWED BY:				
QUANTITIES BY: <i>Travis Arndt</i>	CHECKED: <i>Scott Litchfield</i>					

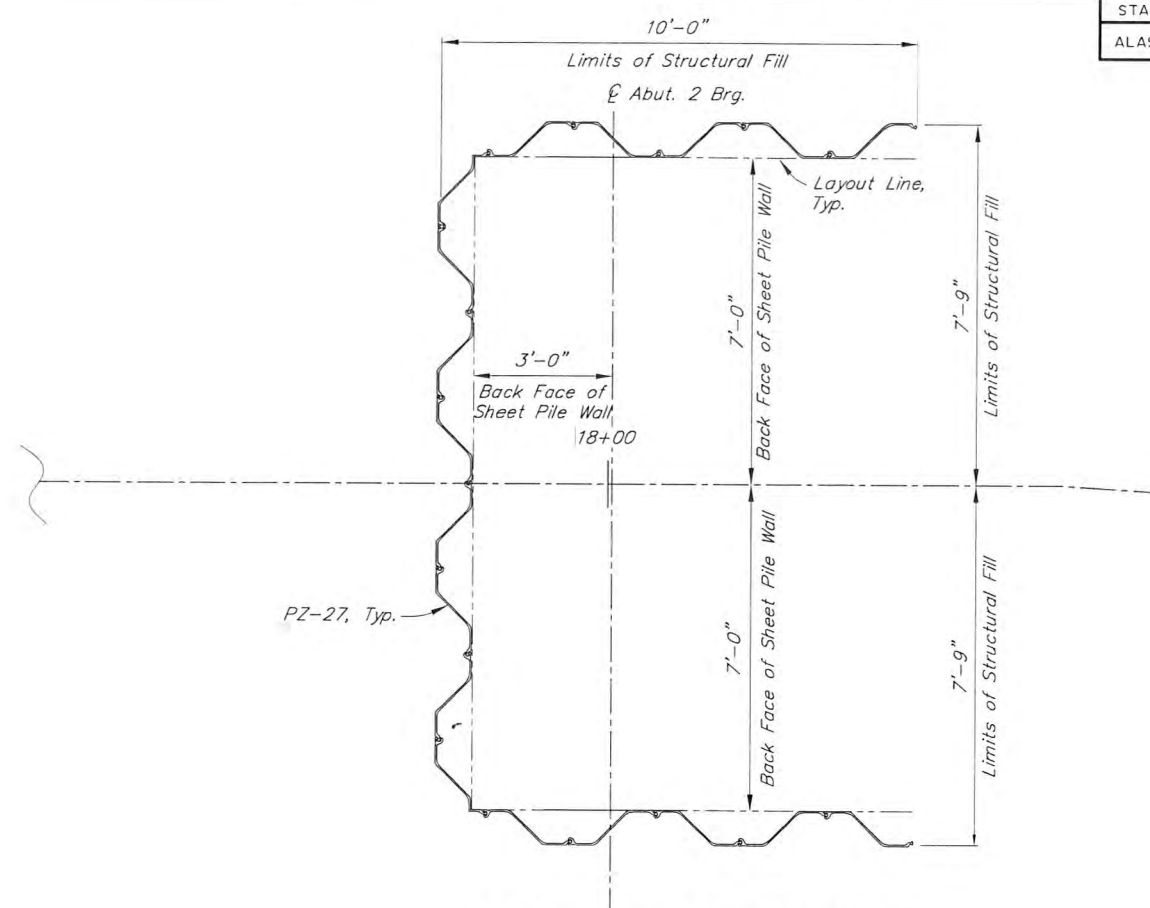
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA		2015		



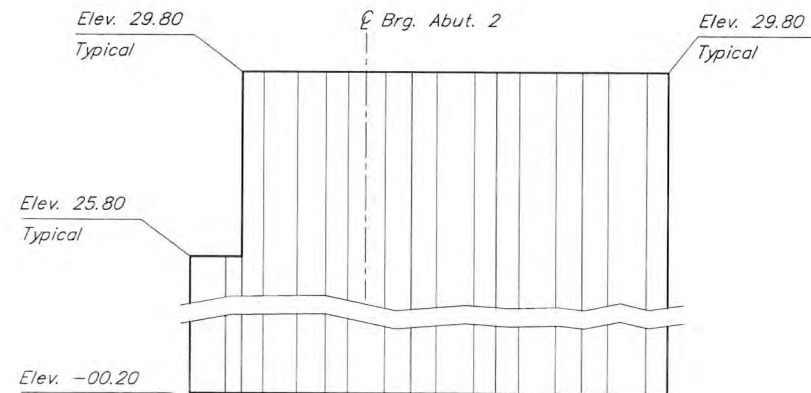
ABUTMENT 1 - SHEET PILE LAYOUT



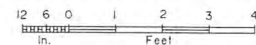
ABUTMENT 1 - ELEVATION VIEW



ABUTMENT 2 - SHEET PILE LAYOUT



ABUTMENT 2 - ELEVATION VIEW



DESIGNED BY: Travis Arndt	CHECKED: Scott Litchfield
DRAWN BY: Sam Sollie	CHECKED: Travis Arndt
QUANTITIES BY: Travis Arndt	CHECKED: Scott Litchfield

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
BRIDGE SECTION

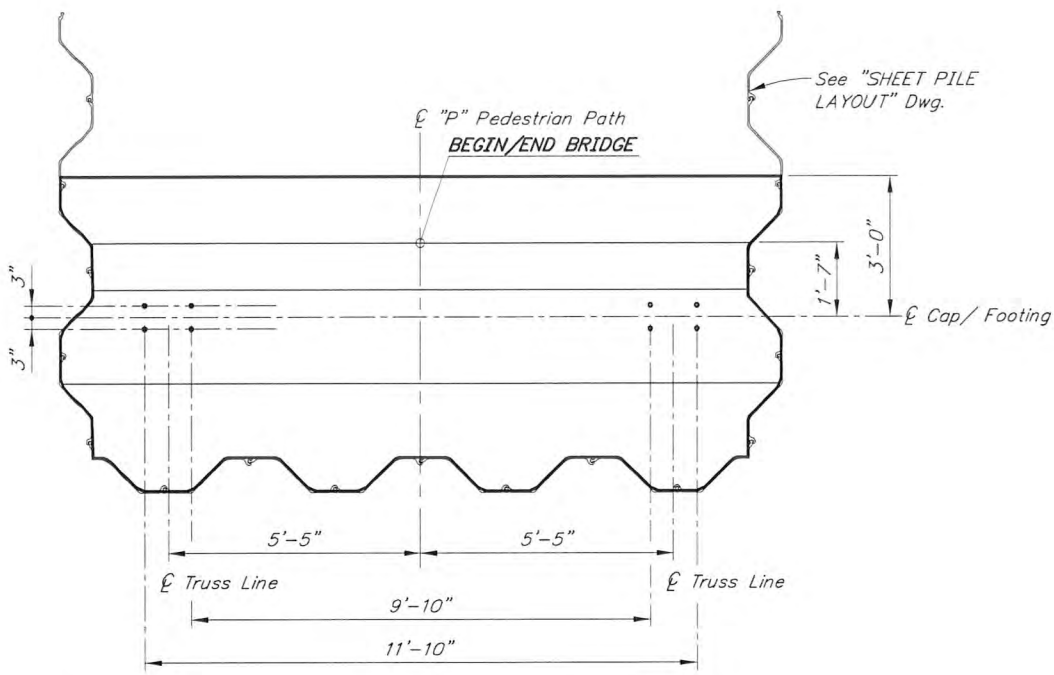
JORDAN CREEK PEDESTRIAN BRIDGE
EGAN DRIVE
SHEET PILE LAYOUT



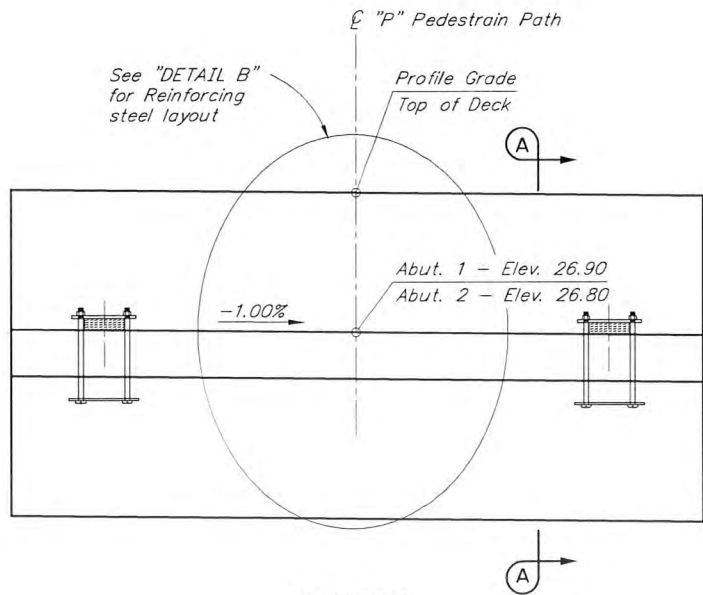
BRIDGE NO. 6011
DWG. NO. 3

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA		2015		

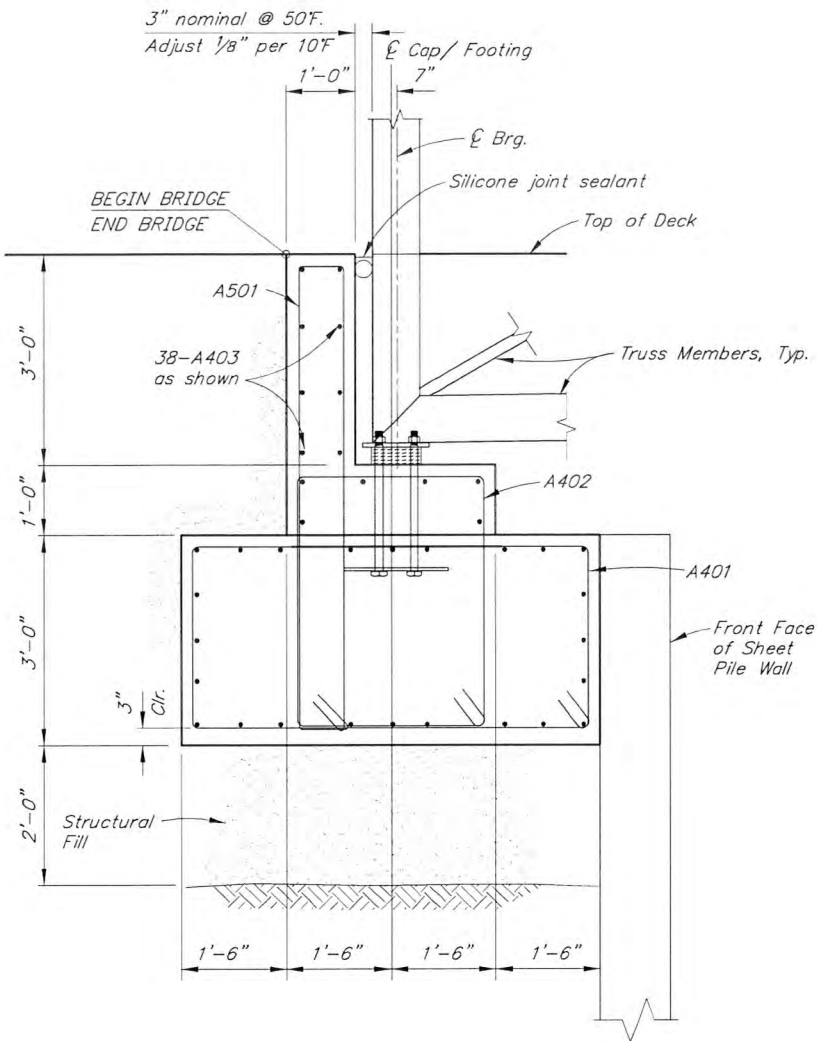
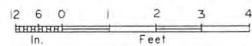
REINFORCING STEEL - ONE ABUTMENT					
MARK	NOTE	SIZE	NO.	LENGTH	TYPE
A401		4	22	17'-3"	STIRRUP
A402		4	22	13'-3"	STIRRUP
A403		4	38	13'-8"	---
A501		5	22	15'-5"	STIRRUP
BENDING DIAGRAM					



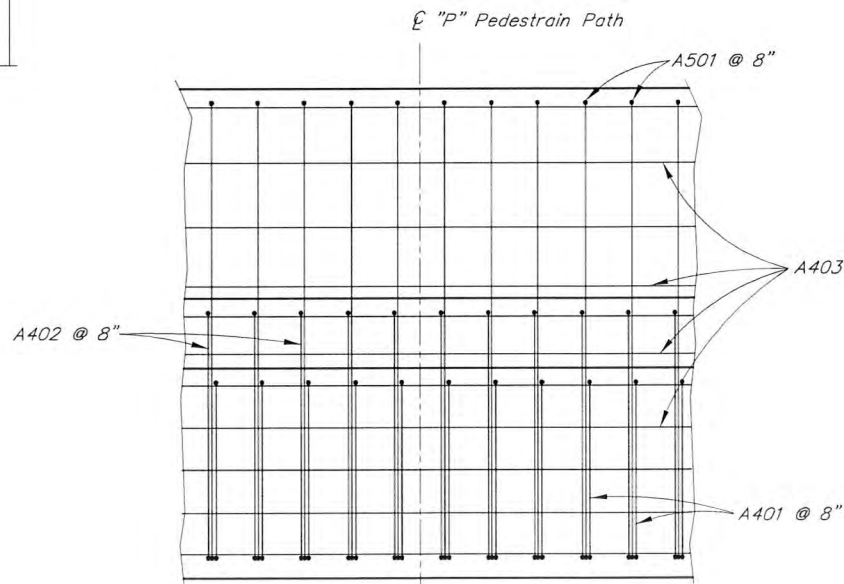
PLAN
(Abutment 1 shown, Abutment 2 Similar)



ELEVATION
(Looking Back on Station)
(Abutment 1 shown, Abutment 2 Similar)



SECTION A-A



DETAIL B



DESIGNED BY:	Travis Arndt	CHECKED:	Scott Litchfield
DRAWN BY:	Sam Sollie	CHECKED:	Travis Arndt
QUANTITIES BY:	Travis Arndt	CHECKED:	Scott Litchfield

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
BRIDGE SECTION

JORDAN CREEK PEDESTRIAN BRIDGE
EGAN DRIVE
ABUTMENTS



BRIDGE NO. 6011
DWG. NO. 4

Site Characteristics:

A. PHYSICAL LOCATION:
JUNEAU IS SITUATED AT THE NORTHERN END OF THE ALEXANDER ARCHIPELAGO.
58°21'38.24" N. LATITUDE
134°34'02.14" W. LONGITUDE
HORIZONTAL DATUM: NAD-83
SECTIONS 30 & 31, TOWNSHIP 040 SOUTH, RANGE 066 EAST, COPPER RIVER MERIDIAN

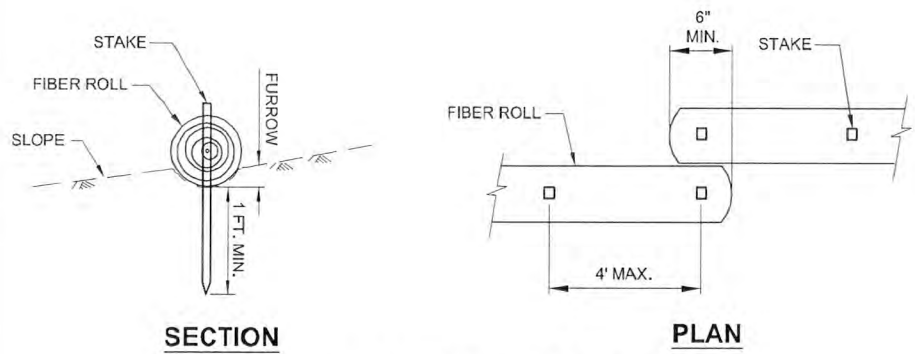
B. PRECIPITATION AND HYDROLOGY INFORMATION:
JUNEAU AVERAGES 54" INCHES OF PRECIPITATION PER YEAR AND 100 INCHES OF SNOW.
ESTIMATED PRE-CONSTRUCTION RUNOFF COEFFICIENT: C=0.40
ESTIMATED POST-CONSTRUCTION RUNOFF COEFFICIENT: C=0.40
RECEIVING WATERS ARE JORDAN CREEK.
AREA OF PROJECT = 0.7 ACRES.

Description of Construction Activity:

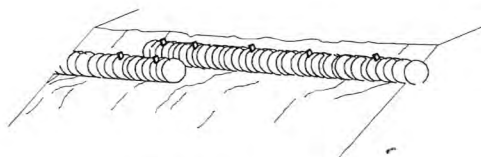
A. PATH RECONSTRUCTION:
THE PLANS CALL FOR GRINDING AND RE-PAVING THE EXISTING 10-FOOT WIDE PAVED PATH. FOUR CULVERTS WILL BE REMOVED AND REPLACED WITH NEW 18" CORRUGATED POLYETHYLENE PIPE.

B. PED. BRIDGE APPROACH CONSTRUCTION:
THE PLANS CALL FOR CONSTRUCTION OF PATH APPROACHES AT BOTH ENDS OF THE JORDAN CREEK PEDESTRIAN BRIDGE #6011. THE APPROACHES LINK THE BRIDGE WITH THE MULTI-USE PATH AND TRANSITION TO MEET THE GRADE OF THE NEW PEDESTRIAN BRIDGE. THE CONTRACTOR HAS SEVERAL OPTIONS ON HOW TO BUILD THE APPROACHES, BUT ENVIRONMENTAL PERMITTING DOES NOT ALLOW THE PLACEMENT OF FILL ONTO CLASS B WETLANDS OR BELOW ORIGINAL HIGH WATER (OHW) LEVELS. ONCE THE BRIDGE FOUNDATIONS ARE COMPLETED, THE PATH APPROACHES AT BOTH ENDS CAN BE CONSTRUCTED. THE REMAINING WORK WILL INVOLVE PLACEMENT OF SELECT A MATERIAL TO THE LINE, GRADE AND SLOPES INDICATED ON THE CONTRACTOR-FURNISHED APPROACH PLAN SHEETS. THE PATH WILL BE FINE GRADED WITH CRUSHED AGGREGATE BASE COURSE AND A 3-INCH LIFT OF ASPHALT PAVEMENT. SOIL SLOPES WILL BE STABILIZED WITH SEEDING AND BONDED FIBER MATRIX TO REDUCE EROSION.

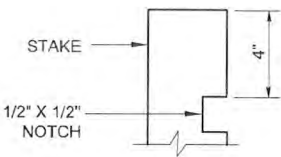
C. PEDESTRIAN BRIDGE CONSTRUCTION:
INSTALLATION OF THE PEDESTRIAN BRIDGE WILL BEGIN ONCE THE FOUNDATIONS AND APPROACHES HAVE BEEN CONSTRUCTED. ACCESS TO THE JORDAN CREEK BRIDGE SITE MAY BE REACHED BY EGAN DRIVE OR JORDAN AVENUE. INSTALLATION MAY ONLY OCCUR WITHIN THE OFF-PEAK HOUR (SEE NOISE ORDINANCE PERMIT) TIME WINDOW. BRIDGES SHALL BE LOADED ON A FLAT-BED TRUCK AND TRANSPORTED TO THE SITE FROM THE CONTRACTORS' TEMPORARY STORAGE LOCATION. A CRANE OR PROPERLY LOAD-RATED BOOM TRUCK WILL MOVE THE BRIDGE FROM THE FLAT-BED TRUCK TO ITS FINAL RESTING PLACE ON THE FOUNDATION.



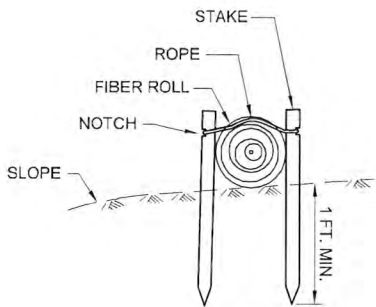
FIBER ROLL (TYPE 1)



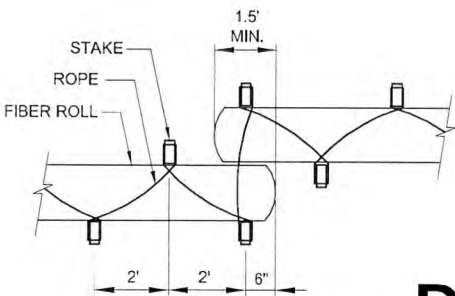
PERSPECTIVE
FIBER ROLL (TYPE 1)



STAKE
TYPICAL FIBER ROLL DETAIL

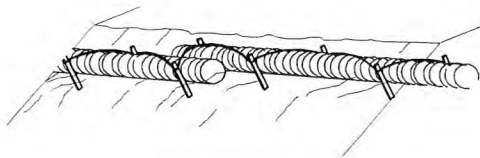


SECTION
FIBER ROLL (TYPE 2)



PLAN

FIBER ROLL (TYPE 2)

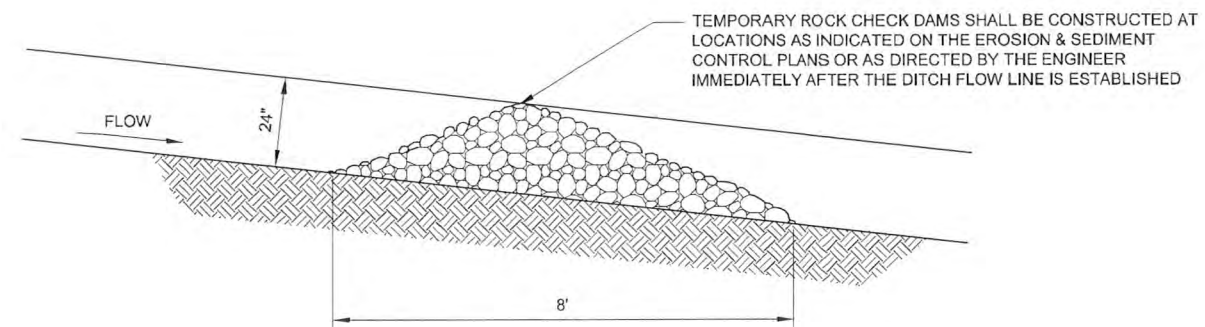


PERSPECTIVE
FIBER ROLL (TYPE 2)

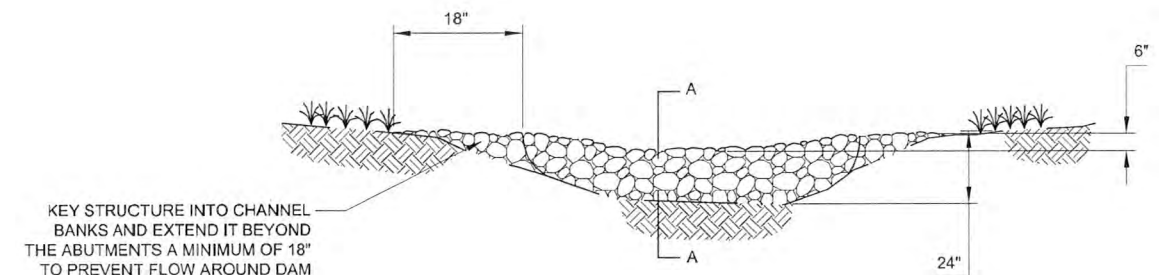
- NOTES:
1. THE PROJECT IS LOCATED IN THE JORDAN CREEK WATERSHED. A PORTION OF THE DRAINAGE FROM THE PROJECT WORK LIMITS DISCHARGES INTO THESE CREEKS. JORDAN CREEK IS CLASSIFIED BY THE EPA AS DESIGNATED IMPAIRED WATERBODY, LISTED UNDER SECTION 303(D) OF THE CLEAN WATER ACT SPECIAL CONTROLS ARE REQUIRE TO RESTORE JORDAN CREEK'S WATER QUALITY. THE STREAM IS THE FOCUS OF A JOINT AGENCY RECOVERY EFFORT.
 2. THE FISH PASSAGE CHANNEL, EXISTING AS A TRENCH IN THE BOTTOM OF THE DITCH ALONG ALIGNMENT "A" (STATION 10+00 TO 13+28 LEFT) MUST NOT BE DISTURBED EXCEPT FOR ANY CONSTRUCTION NECESSARY AT EITHER END OF THE CULVERT.
 3. MAINTAIN DEVICES, MONITOR DAILY, EXCAVATE CHECK DAMS WHEN 4" OF SEDIMENT ACCUMULATES. ENSURE SEDIMENT BARRIER IS TIGHT AGAINST THE GROUND.
 4. IF INSPECTION REVEALS WATER IS DISCHARGING BEYOND THE PROJECT WORK LIMITS, IMMEDIATELY IMPLEMENT CORRECTIVE ACTION. ADDITIONAL SEDIMENT BARRIERS OR CHECK DAMS MAY BE REQUIRED.
 5. STABILIZE DISTURBED GROUND AS SOON AS POSSIBLE. UNSTABILIZED SURFACES MUST BE TEMPORARILY STABILIZED WITH BONDED FIBER MATRIX OR OTHER EFFECTIVE MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING EROSION AND SEDIMENT CONTROL UNTIL PROJECT WORK AREAS ARE PAVED AND SEEDED AREAS HAVE ACHIEVED 70% VEGETATIVE COVER.
 6. SEE SHEETSTS F1-F2 FOR EROSION AND SEDIMENT CONTROL PLAN (PLAN SHEETS).
 7. REFER TO APPENDIX B OF THE SPECIAL PROVISIONS FOR THE ENVIRONMENTAL COMMITMENTS.
 8. EROSION CONTROL MEASURES WILL BE EVALUATED BY THE ENGINEER BASED ON EFFECTIVENESS. THOSE FOUND INEFFECTIVE MUST BE REPLACED OR REPAIRED WITHIN 24 HOURS FOLLOWING NOTIFICATION.
 9. THE LOCATIONS OF TEMPORARY EROSION & SEDIMENT POLLUTION CONTROLS ARE RECOMMENDATIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PREPARE AND IMPLEMENT A SWPPP ACCORDING TO SECTION 641 OF THE SPECS.
 10. INSTALL EROSION AND SEDIMENT CONTROL DEVICES BEFORE BEGINNING EARTH DISTURBING ACTIVITIES OR AS SPECIFIED ELSEWHERE.
 11. THE LOCATION AND LENGTH OF FIBER ROLLS IS DEPENDENT ON THE CONDITIONS OF THE SITE.
 12. ANCHOR AS NECESSARY TO FIRMLY SECURE FIBER ROLLS AND PROVIDE CONTINUOUS CONTACT WITH THE SURFACE ON WHICH IT IS INSTALLED.
 13. LAP ADJACENT FIBER ROLLS TO PREVENT SEDIMENT BYPASS.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

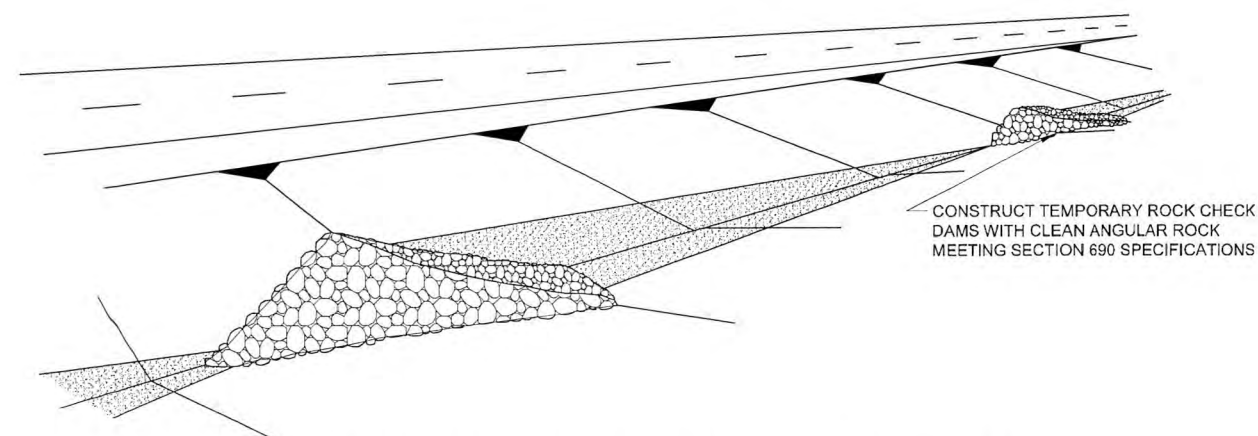
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DESIGNED BY: S. SCHLICHTING					
DRAWN BY: S. SCHLICHTING					
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NO.	DATE				
		0932(052) / 68092	2014	P1	17



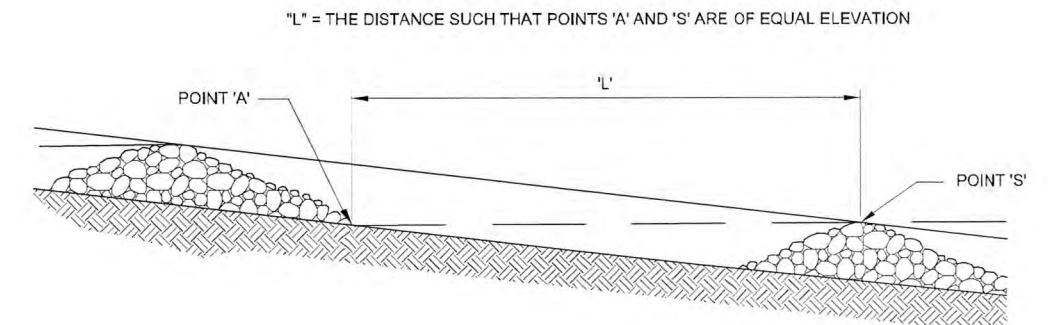
SECTION A-A



VIEW LOOKING UPSTREAM TEMPORARY ROCK CHECK DAM



TEMPORARY ROCK CHECK DAM ISOMETRIC VIEW

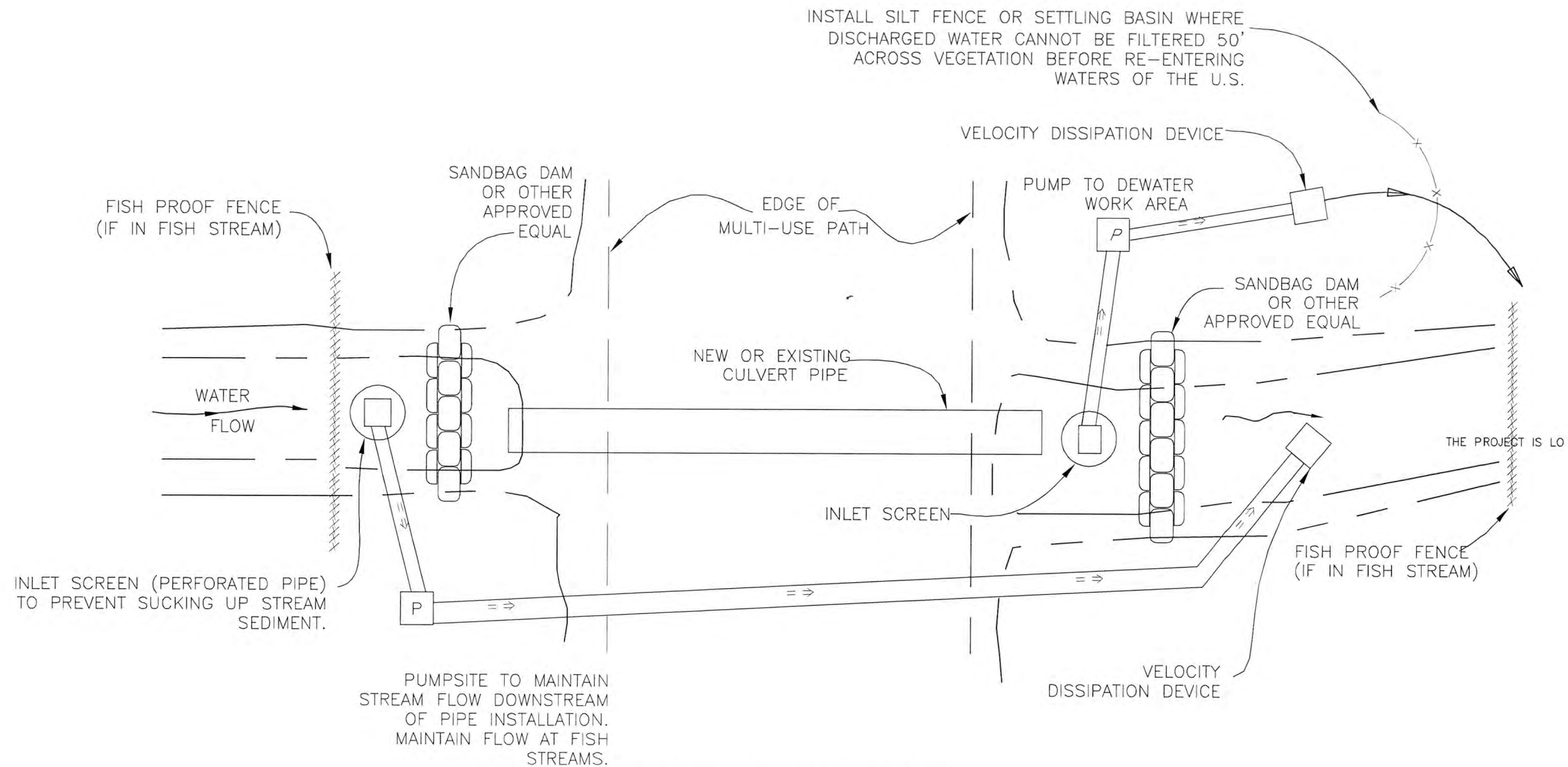


SPACING BETWEEN TEMPORARY ROCK CHECK DAMS

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DO NOT SCALE FROM THESE DRAWINGS OR DIMENSIONS

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	EROSION SEDIMENT CONTROL DETAILS
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DRAWN BY: S. SCHLICHTING	
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NO.	DATE
DESCRIPTION	
0932(052) / 68092	
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MAINTAINING FLOW AT CULVERTS

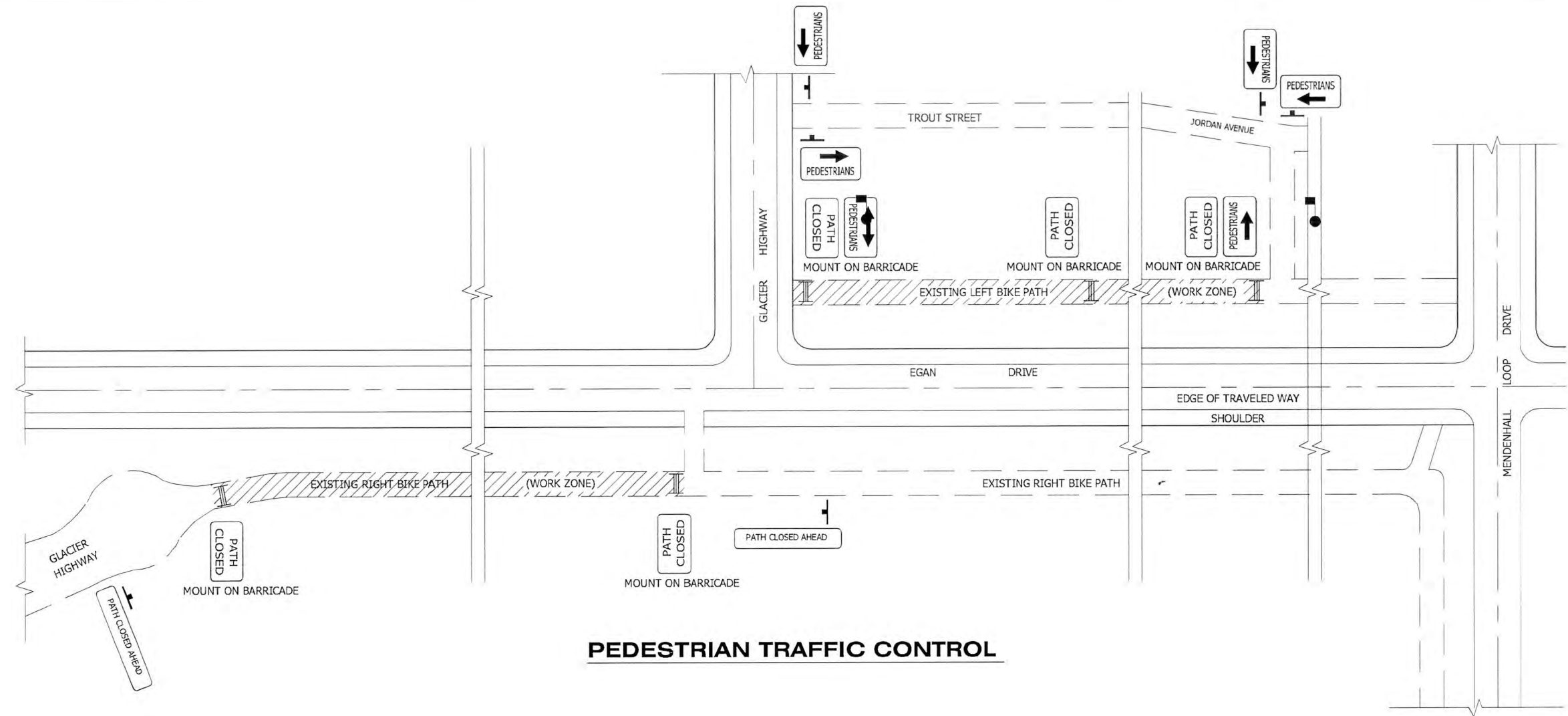
NTS

NOTES:

1. MULTIPLE PUMPS MAY BE NECESSARY TO DEWATER WORK AREAS AND/OR MAINTAIN STREAM BYPASS FLOW. THE CONTRACTOR SHALL PROVIDE ADEQUATE QUANTITIES AND SIZES OF PUMPS.
2. THIS PLAN IS A RECOMMENDATION ONLY. CONTRACTOR SHALL SUBMIT A FINAL WORK PLAN FOR APPROVAL BY THE PROJECT ENGINEER FOR EACH PIPE AT LEAST 10 DAYS BEFORE PLANNED INSTALLATION.
3. FOR PUMPING OPERATIONS, THE WATER INTAKE STRUCTURE SHALL BE CENTERED AND ENCLOSED IN A SCREENED BOX DESIGNED TO PREVENT FISH ENTRAPMENT, ENTRAINMENT, OR INJURY. THE INTAKE STRUCTURE MUST BE ENCLOSED AND CENTERED WITHIN A SCREENED BOX MADE OF NON-CORROSIVE MATERIAL WITH A MAXIMUM SCREEN-MESH SIZE OF 0.04 INCHES (1 mm). TO REDUCE FISH IMPINGEMENT ON SCREEN SURFACES, WATER VELOCITY AT THE SCREEN/WATER INTERFACE MAY NOT EXCEED 0.4 FEET PER SECOND WHEN THE PUMP IS OPERATING.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: C. TRIPP		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES SOUTHEAST REGION				
		JNU EGAN DRIVE MULTI-USE PATH REPAIR AND BRIDGE #6011 REPLACEMENT Project No. 0932(052) / 68092				
DESIGNED BY: S. SCHLICHTING		EROSION SEDIMENT CONTROL DETAILS				
DRAWN BY: S. SCHLICHTING						
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NO.	DATE	DESCRIPTION				
			0932(052) / 68092	2014	P3	17



PEDESTRIAN TRAFFIC CONTROL

1. IT IS THE INTENT OF THIS TRAFFIC CONTROL PLAN (TCP) TO ILLUSTRATE SOME BUT NOT ALL OF THE TRAFFIC CONTROL CONFIGURATIONS THAT WILL BE REQUIRED BY THIS PROJECT. TRAFFIC CONTROL PLANS FOR CONFIGURATIONS NOT COVERED BY THIS TCP SHALL BE DEVELOPED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO USE.
2. PEDESTRIAN TRAFFIC BETWEEN GLACIER HIGHWAY AND MENDENHALL LOOP ROAD SHALL BE MAINTAINED AT ALL TIMES.
3. A FLAGGER SHALL BE USED TO DIRECT TRUCKS AND CONSTRUCTION EQUIPMENT WHEN THEY ENTER OR CROSS THE TRAVELED WAY.
4. CONSTRUCTION SIGNING SHALL BE IN PLACE ONLY WHEN THE CONDITIONS EXIST FOR WHICH THE SIGNS ARE INTENDED.
5. CHANNELIZATION DEVICES WILL BE LIT IN ACCORDANCE WITH THE ALASKA TRAFFIC MANUAL IF USED AT NIGHT.
6. THE CONTRACTOR SHALL KEEP THE PUBLIC INFORMED OF HIS CONSTRUCTION ACTIVITIES THROUGH THE USE OF THE LOCAL NEWS MEDIA. NEWS RELEASES SHALL BE APPROVED BY THE PROJECT ENGINEER PRIOR TO THEIR RELEASE. NEWS RELEASES WILL BE REQUIRED BUT NOT LIMITED TO, THE ONSET OF WORK, PATH CLOSURES, AND PEDESTRIAN BRIDGE CONSTRUCTION ACTIVITIES.
7. CONSTRUCTION OF ALIGNMENT "A" BETWEEN THE CUL-DE-SAC AND PEDESTRIAN CROSSWALK AT THE INTERSECTION OF EGAN DRIVE AND GLACIER HIGHWAY SHALL BE CONDUCTED IN THE EVENING HOURS OF 9pm - 6am. THE PATH SHALL BE LEFT IN A FULLY TRAVERSABLE CONDITION EACH DAY AT THE END OF NIGHT TIME OPERATIONS.
8. THE CONTRACTOR MAY NOT STAGE EQUIPMENT ANYWHERE ALONG EGAN DRIVE AND/OR WITHIN THE CLEAR ZONE (30 FEET FROM THE EDGE OF PAVEMENT).
9. TRAFFIC LANES SHALL BE A MINIMUM OF 10'ft WIDE.
10. ALL ROADS WITHIN THE PROJECT LIMITS SHALL REMAIN OPEN TO TRAFFIC. SHORT-TERM SINGLE LANE CLOSURES ARE ALLOWED FOR BRIDGE PLACEMENT AND OTHER MISC. BRIDGE WORK.

LEGEND

..... SIGN

..... CONE

..... DRUM

..... TYPE III BARRICADE

FLAGGING STATION

WHERE

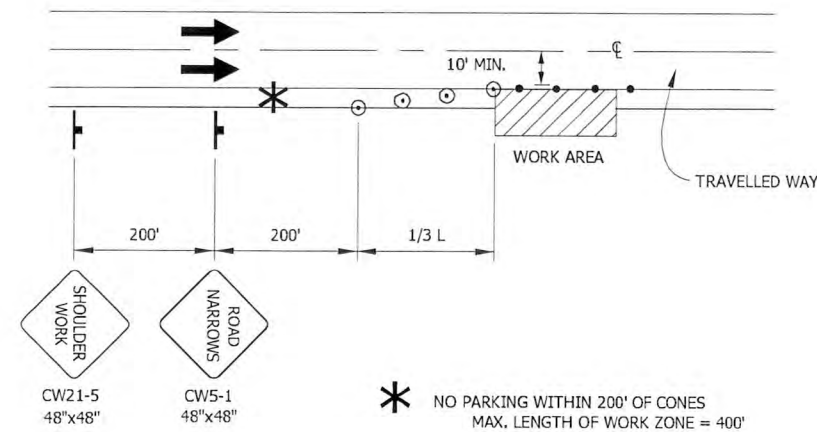
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W = WIDTH OF OFFSET

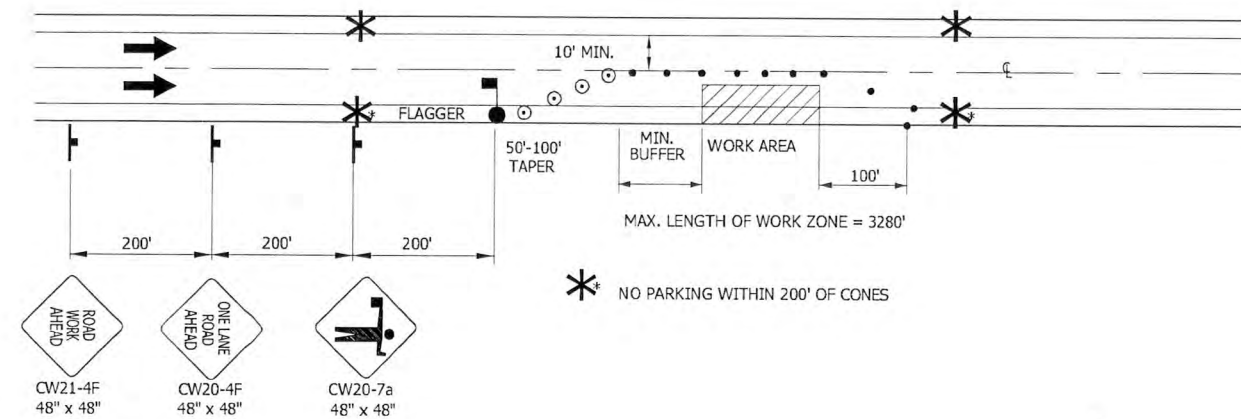
T = TAPER RATE

L = W x T

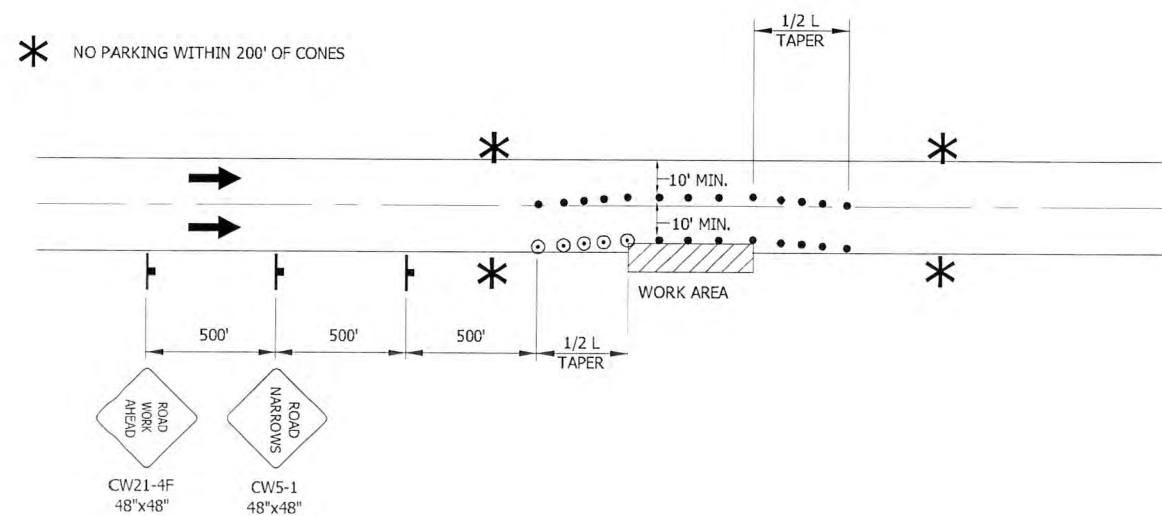
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DESIGNED BY: S. SCHLICHTING		PEDESTRIAN TRAFFIC CONTROL			
DRAWN BY: S. SCHLICHTING					
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NO.	DATE	DESCRIPTION			
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					17



SHOULDER WORK



SINGLE LANE CLOSURE TWO LANE ROAD



ROADWAY ENCROACHMENT

NOTE: IF ONLY ONE LANE IS AFFECTED BY ROAD WORK (THAT IS, THE CONES ALONG THE WORK AREA ARE NO CLOSER THAN 10' TO CENTERLINE) THE CENTERLINE CONES FOR THE OPPOSING LANE MAY BE DELETED.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: C. TRIPP		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES SOUTHEAST REGION			
TCP NOT SEALED IN ACCORDANCE WITH ALASKA HIGHWAY PRECONSTRUCTION MANUAL SECTION 1400.3.5 DATED JANUARY 30, 2012.		JNU EGAN DRIVE MULTI-USE PATH REPAIR AND BRIDGE #6011 REPLACEMENT Project No. 0932(052) / 68092			
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				2014	TOTAL SHEETS 17

CBJ Land Use Code Title 49.70, Article IV

DOT&PF's replacement project for Bridge No. 6011 Jordan Creek features a rapid delivery schedule. Therefore, in order to ensure compliance with CBJ's flood plain ordinance, I instructed our bridge designer to specify that the new bridge be longer and higher than the existing bridge, thus providing more flood conveyance than the existing structure. Like the bridge to be replaced, the lower parts of the new bridge (low chord of the superstructure) would be inundated during the base flood (aka the "100-year" or "1% annual chance" flood). The new bridge superstructure will be a truss. The open spaces between the structural members of the truss provide additional flood conveyance potential, whereas the solid arch superstructure of the existing bridge offered none. Figures 1 & 2 illustrate the differences between the bridge types.



FIGURE 1. Existing Bridge No. 6011 Jordan Creek.



FIGURE 2. An example of the truss type of superstructure to be used for the Bridge No. 6011 replacement. The photo is of a pedestrian bridge in Anchorage over Ship Creek. (The concrete bridge in the background is the Glenn Highway.)

Flood Protections

The new bridge will be supported by shallow spread footings behind sheet piling retaining walls. The likelihood of the bridge being moved off the bearings by hydraulic forces is very low due to the weight of the bridge. However, if that *were* to happen, the sheet piling would prevent any significant displacement downstream. Figure 3 illustrates how the bridge superstructure would be “contained” within these sheet piling supports.

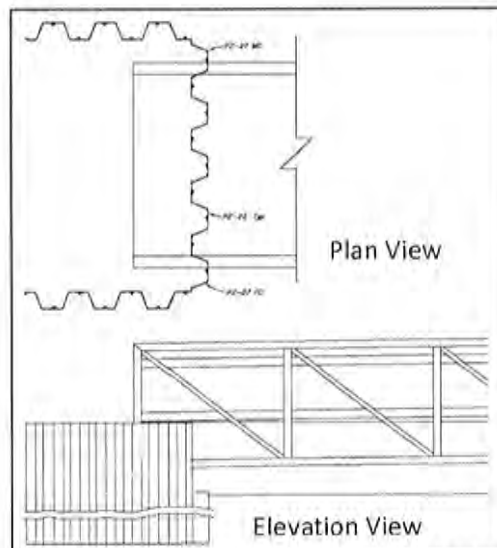


FIGURE 3. Abutment provisions that serve to protect against lateral displacement.

It is unlikely that debris accumulation will be an issue for the new bridge. Immediately upstream of the bridge site are the two Egan Drive culverts (both 8'-2" x 5'-9" pipe arches). If the upper reaches of Jordan Creek are able to float large wood downstream, that debris would likely accumulate at the upstream ends of the Egan Drive culverts.

Flood Analysis Background

The Flood Insurance Study (FIS) for Juneau, adopted in August 2013, includes a defined regulatory floodway for Jordan Creek. The lower reaches of Jordan Creek downstream of Egan Drive is a designated flood hazard area. As noted above, the existing Bridge No. 6011 is partially inundated during the base flood conditions. This obstruction was included in FIS study that defined the regulatory floodway for the creek. Figure 4 shows published flood profile for Jordan Creek.

In 2007, the U.S. Geological Survey (USGS) published a report titled, “Hydrology and flood Profiles of Duck Creek and Jordan Creek Downstream from Egan Drive, Juneau, Alaska” (Scientific Investigations Report 2006-5323). The Federal Emergency Management Agency (FEMA) contractor responsible for the 2013 FIS revision was Northwest Hydraulics Consultants (NHC). NHC included the USGS work in its restudy effort of Jordan Creek. Water surface profiles were computed during the restudy using the U.S.

Army Corps of Engineer's "HEC-RAS" software. The effects of various hydraulic structures (culverts and bridges) were accounted for in the analysis. The USGS profile for Jordan Creek is illustrated on page 28 of the aforementioned report.

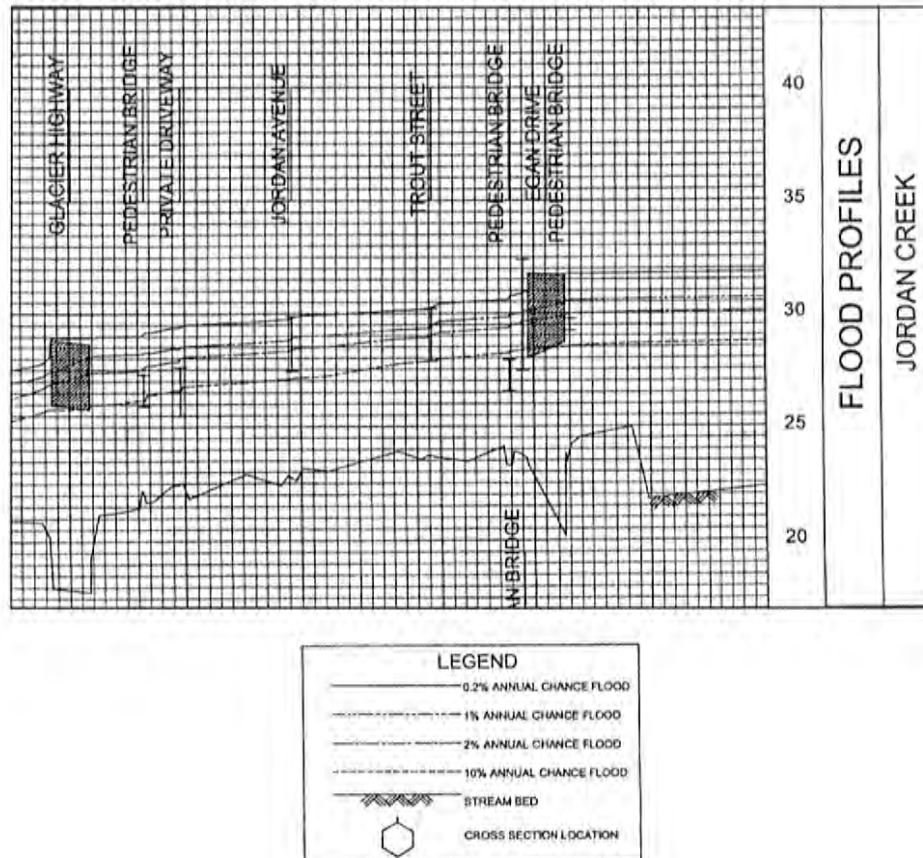


FIGURE 4. An excerpt from the 2013 Flood Insurance Study for Jordan Creek. Note that Bridge No. 6011 is immediately downstream (to the left) of Egan Drive.

DOT&PF has a copy of the HEC-RAS model that was used by the USGS when completing its 2007 report. In that model, the predicted "100-year" flood water surface at the Bridge No. 6011 is about 29.5 ft. If the CBJ requests that DOT&PF demonstrate that the new bridge will not introduce new hazards, I am willing to do so. From years of modeling experience, I can say with certainty that by a longer and slightly higher bridge will have a smaller effect on the flood profile than the existing bridge.