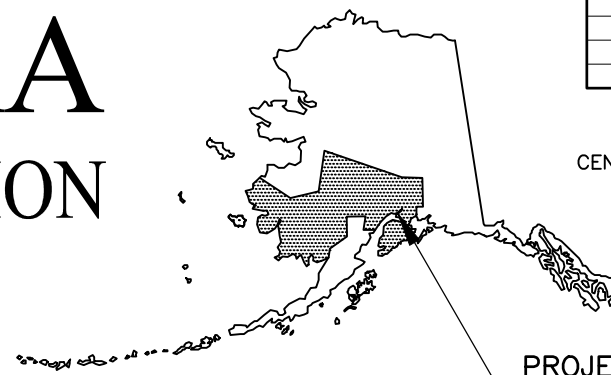


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STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

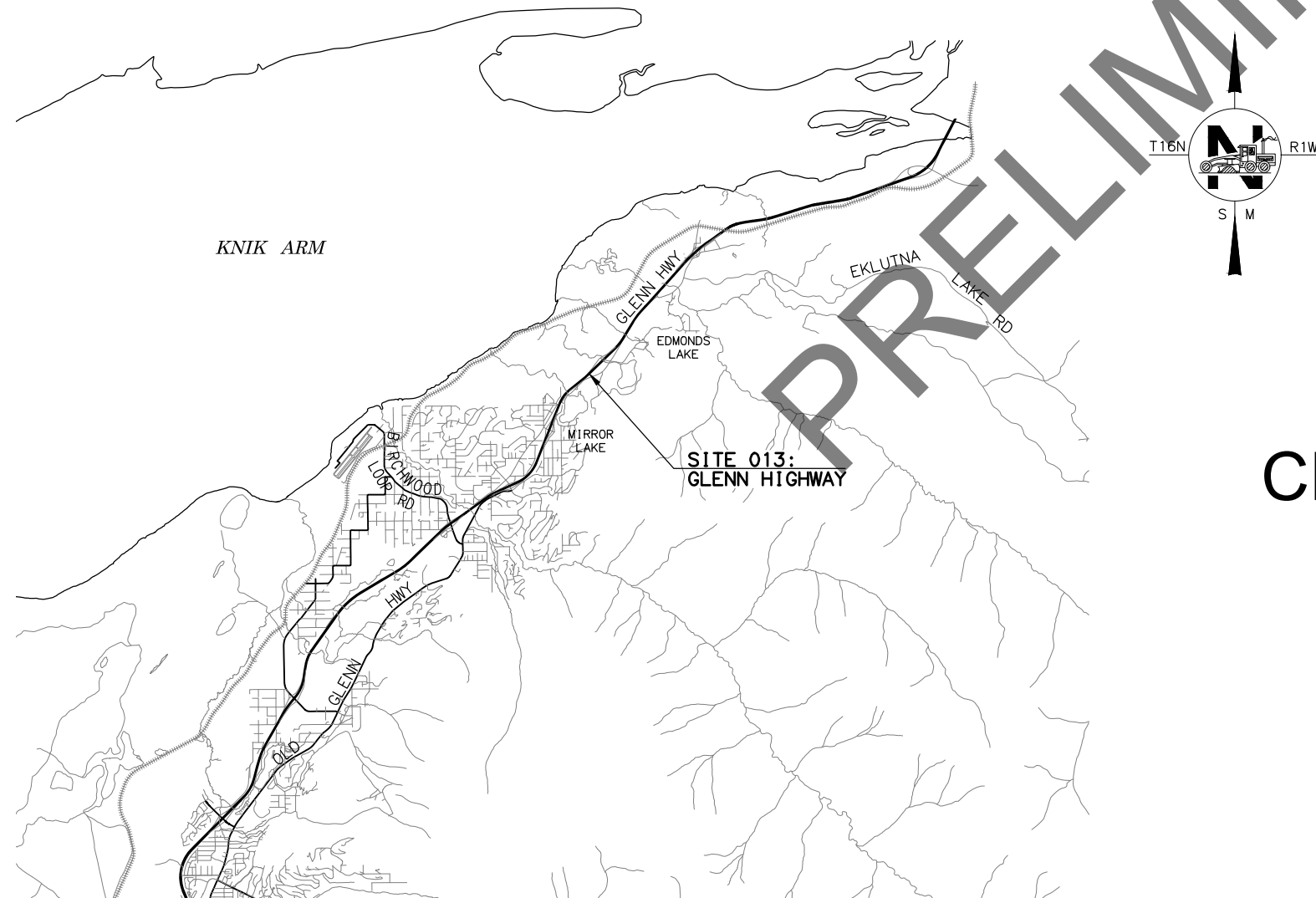
PROPOSED HIGHWAY PROJECT
**GLENN HIGHWAY AT MIRROR LAKE -
NOV 2018 EQ PR**
PROJECT NO. 0091007/CFHWY00583
GRADING, DRAINAGE, AGGREGATE COLUMNS,
PAVING, GUARDRAIL, LIGHTING & STRIPING



PROJECT LOCATION
M&O STATION: ANCHORAGE

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0091007/CFHWY00583	2020	A1	30
ROUTE ID	1060000I000	MILEPOINT	22.019 - 23.478				
LATITUDE	61.436947°	LONGITUDE	149.397525°				
ROUTE ID	1060000D000	MILEPOINT	10.823 - 12.503				
LATITUDE	61.433556°	LONGITUDE	149.4054361°				
ROUTE ID	1060000F121	MILEPOINT	0.000 - 0.208				
LATITUDE	61.436522°	LONGITUDE	149.399560°				
ROUTE ID	1060000N121	MILEPOINT	0.000 - 0.280				
LATITUDE	61.433806°	LONGITUDE	149.405550°				

PROJECT SUMMARY		
ROADWAY	WIDTH	LENGTH
GLENN HIGHWAY (NB)	36 FT	1.46 MILES
GLENN HIGHWAY (SB)	36 FT	1.68 MILES
GLENN HIGHWAY - MIRROR LAKE SB OFF RAMP	40 FT	0.21 MILES
GLENN HIGHWAY - MIRROR LAKE SB ON RAMP	40 FT	0.28 MILES



CERTIFICATION
SET

PLANS DEVELOPED BY: STANTEC CONSULTING SERVICES INC.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
4111 AVIATION AVENUE, ANCHORAGE, AK 99502
(907)269-0590

APPROVED:

REGIONAL PRE-CONSTRUCTION ENGINEER DATE

CONCUR:

REGIONAL CONSTRUCTION ENGINEER DATE

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0091007/CFHWY00583	2020	A2	A6

ABBREVIATIONS:

ATB - ASPHALT TREATED BASE
BH# - BOREHOLE WITH NUMBER
C/A - CONTROLLED ACCESS
CL - CENTER LINE
CY - CUBIC YARD
ELEV - ELEVATION
FT - FOOT
FT³ - CUBIC FOOT
GAL - GALLON
HDPE - HIGH DENSITY POLYETHYLENE CONDUIT
HMA - HOT MIX ASPHALT
L - ARC LENGTH
LT - LEFT
LTG - LIGHTING
lb - POUND
MAX - MAXIMUM
MIN - MINIMUM
PC - POINT OF CURVATURE
PT - POINT OF TANGENCY
PI - POINT OF INTERSECTION
PGL - PROFILE GRADE LINE
R - RADIUS
RMC - RIGID METAL CONDUIT

ROW - RIGHT-OF-WAY
RT - RIGHT
SHLD - SHOULDER
SF - SQUARE FOOT
STA - STATION
SY - SQUARE YARD
T - TANGENT
TYP - TYPICAL
VPC - VERTICAL POINT OF CURVATURE
VPI - VERTICAL POINT OF INTERSECTION
VPT - VERTICAL POINT OF TANGENCY

N - NORTHING
E - EASTING
NB - NORTH BOUND
EB - EAST BOUND
SB - SOUTH BOUND
WB - WEST BOUND

GENERAL NOTES:

- ALL CONSTRUCTION SHALL BE CONTAINED WITHIN THE RIGHT-OF-WAY. NO EXCESS MATERIAL SHALL BE DISPOSED OF WITHIN THE RIGHT-OF-WAY, UNLESS SPECIFICALLY CALLED FOR IN THE PLANS OR DIRECTED BY THE ENGINEER.
- THE ROW LINES SHOWN WERE DRAWN ON THE PLANS USING INFORMATION FROM DOT&PF, PLATTED SUBDIVISIONS, AND SURVEYED MONUMENTS ON THE GROUND. THE ROW LINES WERE INSERTED USING A COMMON COORDINATE SYSTEM.
- ALL PAVEMENT CUTS SHALL BE MADE WITH A SAW OR ALTERNATE METHOD APPROVED BY THE ENGINEER.
- PLACE 4" TOPSOIL AND SEED ON ANY AREAS DISTURBED BY CONSTRUCTION AND AS DIRECTED BY THE ENGINEER.
- THE EXISTING INFORMATION SHOWN IN THE PLANS IS FROM AS-BUILTS AND HAS BEEN PARTIALLY FIELD VERIFIED. FIELD CONDITIONS MAY NOT BE ACCURATELY REPRESENTED AND/OR MAY HAVE CHANGED. ADJUST INSTALLATIONS AS DIRECTED BY THE ENGINEER.
- ALL PARALLEL GUARDRAIL TERMINALS ARE 50 FEET LONG AND USE AN END OFFSET OF 2 FEET.
- UTILITIES SHOWN IN THE PLANS ARE BASED ON AS-BUILT DRAWINGS AND WERE NOT SURVEYED OR VERIFIED. LOCATE ALL OVERHEAD AND UNDERGROUND UTILITIES PRIOR TO BEGINNING WORK.
- RUMBLE STRIPS NOT SHOWN FOR CLARITY. REFER TO SUMMARY TABLE AND STANDARD PLANS FOR LOCATIONS.
- USE GUARDRAIL FLEXIBLE DELINEATORS EXCEPT ON GUARDRAIL TERMINALS PER STANDARD PLAN G-00.05.

INDEX

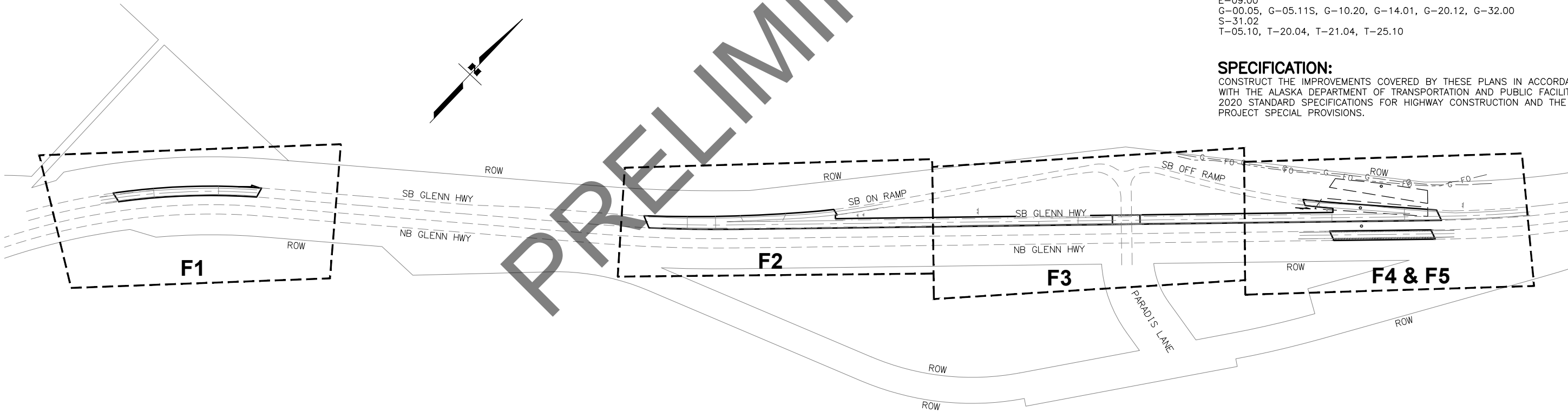
SHEET NO.	DESCRIPTION
A1	TITLE SHEET
A2	SHEET LAYOUT, INDEX, AND GENERAL NOTES
A3	LEGEND
A4-A6	SURVEY CONTROL
B1-B5	TYPICAL SECTIONS
C1	ESTIMATE OF QUANTITIES
D1	SUMMARY TABLES
E1	PAVING AND TRANSITION DETAILS
E2	AGGREGATE COLUMNS
F1-F5	PLAN AND PROFILE SHEETS
H1	ILLUMINATION PLAN
H2	ILLUMINATION DETAILS
H3	SPLICE DETAILS AND LOAD CENTER SUMMARY
H4	ARC FLASH AND SHOCK HAZARD LABELING DETAILS
H5	POLE WIRING AND GROUNDING DETAIL
H6	LIGHTING STANDARD
H7	JUNCTION BOX DETAILS
H8-H9	STRIPING PLANS
J1	DETOUR PLAN AND SECTION

THE FOLLOWING ALASKA STANDARD PLANS APPLY TO THIS PROJECT:

C-04.12, C-05.20
E-09.00
G-00.05, G-05.11S, G-10.20, G-14.01, G-20.12, G-32.00
S-31.02
T-05.10, T-20.04, T-21.04, T-25.10

SPECIFICATION:

CONSTRUCT THE IMPROVEMENTS COVERED BY THESE PLANS IN ACCORDANCE WITH THE ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES 2020 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND THE PROJECT SPECIAL PROVISIONS.



PLANS DEVELOPED BY:
STANTEC CONSULTING SERVICES INC.
725 EAST FIREWEED LANE, SUITE 200
ANCHORAGE, AK 99503-2245
907-276-4245
CERTIFICATE OF AUTHORIZATION #126386

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY AT
MIRROR LAKE -
NOV 2018 EQ PR

SHEET LAYOUT, INDEX,
AND GENERAL NOTES

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ROADWAY			UTILITIES			TRAFFIC			PAVEMENT MARKINGS		

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0091007/CFHWY00583	2020	A4	A6

HORIZONTAL CONTROL STATEMENT

Coordinate System:
This project is located entirely within the Anchorage Bowl 2000 adjustment, a U.S. Survey Foot local surface grid coordinate system developed by the Alaska Department of Transportation.

Basis of Coordinates:
The Basis of Coordinates is NGS Station O'Malley, located near the intersection of the New Seward Highway and O'Malley Road. Said station has Anchorage Bowl 2000 coordinates of 303,939.2310 N, 353,362.5446 E.

Basis of Bearings:
The Basis of Bearings is a local plane bearing between NGS Station O'Malley and NGS Station Loop 2 USE RM 3 1964. NGS Station Loop 2 USE RM 3 1964 bears N 01°43'26.4"E a distance of 49,488.45 U.S. Survey Feet from NGS Station O'Malley. NGS Station Loop 2 USE RM 3 1964 has Anchorage Bowl 2000 coordinates of 353,405.2778 N, 354,851.3982 E.

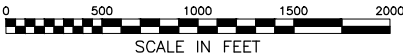
Translation Parameters:
To convert the local coordinates to NAD83 (92) State Plane foot coordinates, translate using +2,296,868.6878 N, +1,312,517.4905 E, and scale using 0.9998910192.

VERTICAL CONTROL

Elevations were established through third order differential leveling using a Trimble DiNi digital level, holding the elevation of Station Coyote at 371.28'.

PROJECT NOTES

- The information shown hereon is based on a field survey performed by Stantec Consulting Inc. from September 12th through October 17th, 2019.
- This is not a boundary survey. Property information shown hereon is for general reference only. This drawing was prepared without the benefit of a title commitment and may not show easements and other encumbrances.
- All dimensions, coordinates, and elevations shown are in U.S. Survey Feet unless otherwise noted.
- Horizontal control points shown on this sheet were surveyed using networked static GNSS techniques and processed using Trimble Business Center software. Recovered property corners were surveyed using RTK GNSS techniques. GNSS observations were taken with Trimble R6-3 and R8 receivers.
- Record documents shown here are recorded in the Anchorage Recording District.
- It is the responsibility of the contractor to verify the horizontal and vertical positions of control points shown hereon.



CONTROL SYMBOLS LEGEND

- CENTERLINE ALIGNMENT
- RIGHT-OF-WAY LINE
- PARCEL LINE

Surveyor's Certificate

I hereby certify that I am properly Registered and Licensed to practice Land Surveying in the State of Alaska, and that this drawing represents a survey made by me or under my direct supervision, and that the monuments shown hereon actually exist as described, and that all dimensions and other details are correct to the extent shown hereon.

Dean Cimmiyotti LS-7613 Date MAY 18 2020



Preliminary

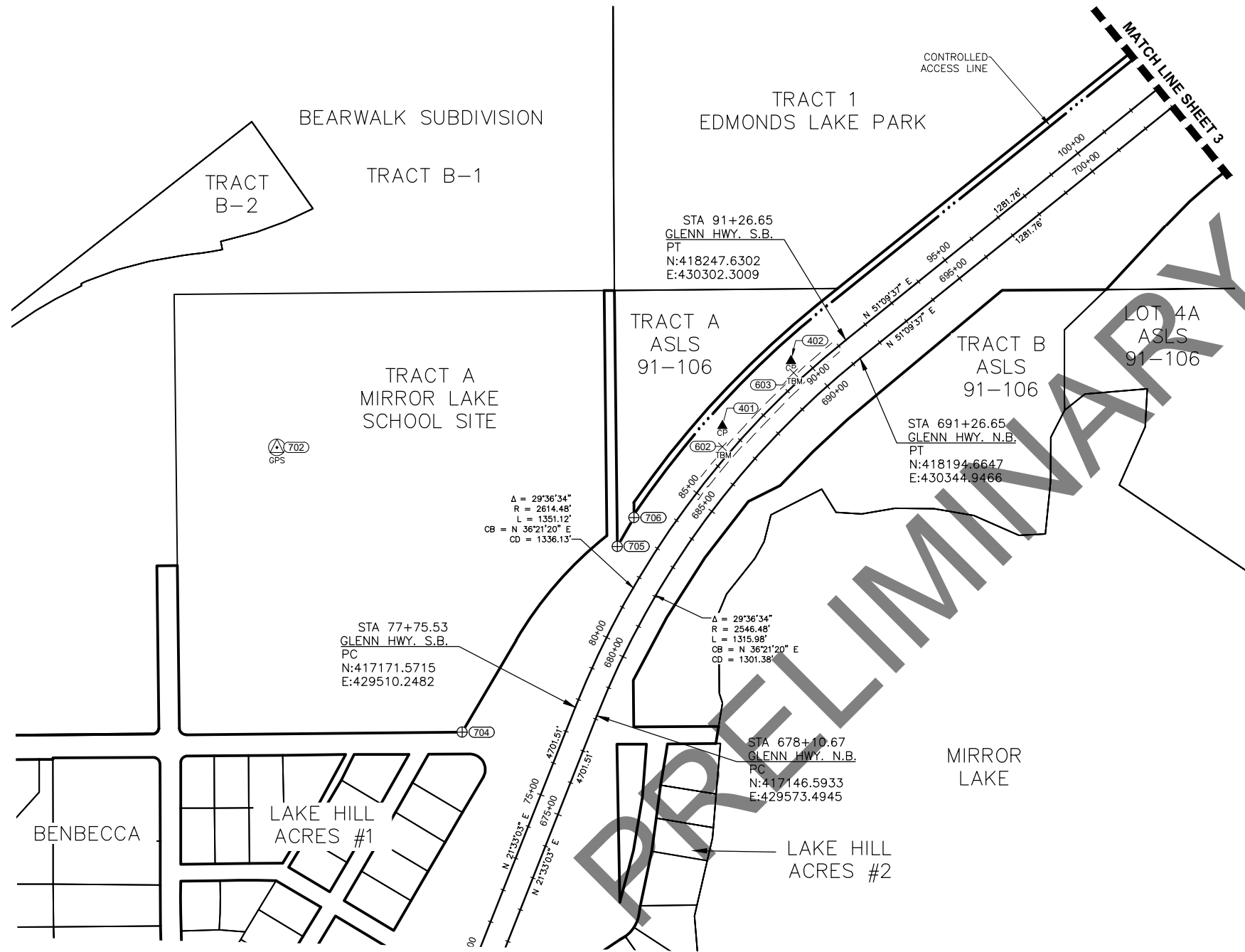
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY AT
MIRROR LAKE –
NOV 2018 EQ PR

SURVEY CONTROL

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0091007/CFHWY00583	2020	A5	A6



NOTE: STATION AND OFFSET SHOWN IS IN REFERENCE TO THE N.B. GLENN HIGHWAY CENTERLINE ALIGNMENT.

RECOVERED PROJECT CONTROL						
Point #	Northing	Easting	Elevation	Station	Offset	Description
702	417933.2099	428635.6925	371.28	680+75.61	1181.35L	STA COYOTE

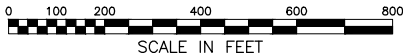
RECOVERED MONUMENTS					
Point #	Northing	Easting	Station	Offset	Description
704	417098.6850	429178.8345	676+21.15	349.47L	Fnd. 1 1/2 in. Alcap[3143-S]: 1994
705	417643.1863	429633.0467	682+66.51	170.44L	Fnd. 2 1/2 in. Alcap[LS 6918]: ASLS 91-106 TR. A C6 1992
706	417727.6704	429681.9967	683+57.85	175.12L	Fnd. 2 1/2 in. Alcap[LS 6918]: ASLS 91-106 TR. A C5 1992

SET TEMPOARY BENCHMARKS						
Point #	Northing	Easting	Elevation	Station	Offset	Description
602	417935	429941	343.67	686+63.77	94.78L	NE Bolt on LP
603	418152	430150	343.55	689+54.20	95.39L	NE Bolt on LP

SET PROJECT CONTROL					
Point #	Northing	Easting	Station	Offset	Description
401	417996.2687	429941.2166	687+07.95	134.83L	Set Rbr/RPC[STANTEC]: CONTROL POINT
402	418186.5527	430141.9495	689+71.04	125.98L	Set Rbr/RPC[STANTEC]: CONTROL POINT

CONTROL SYMBOLS LEGEND

(XXX)	POINT NUMBER IDENTIFIER	_____	CENTERLINE ALIGNMENT
(A) GPS	RECOVERED STAINLESS STEEL DRIVE ROD MONUMENT	=====	RIGHT-OF-WAY LINE
▲	SET HORIZONTAL CONTROL POINT	_____	PARCEL LINE
✕	SET TEMPORARY BENCHMARK		CONTROLLED ACCESS LINE
⊕	RECOVERED PRIMARY PROPERTY MONUMENT	-----	EDGE OF ASPHALT



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

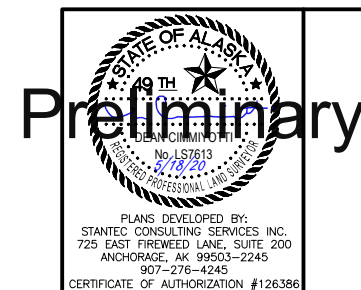
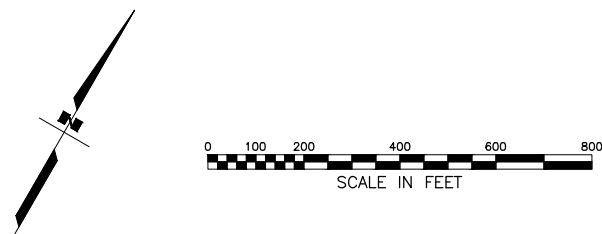
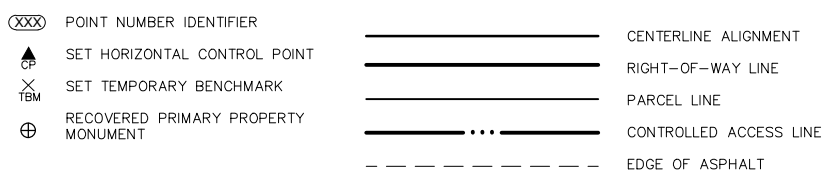
GLENN HIGHWAY AT
MIRROR LAKE –
NOV 2018 EQ PR

SURVEY CONTROL

SET PROJECT CONTROL					
Point #	Northing	Easting	Station	Offset	Description
403	419722.2837	431940.2900	713+41.80	127.63L	Set Rbr/RPC[STANTEC]: CONTROL POINT
404	420074.9591	432327.8963	718+65.54	110.09L	Set Rbr/RPC[STANTEC]: CONTROL POINT
405	420585.3934	432596.2702	724+13.85	288.77L	Set Rbr/RPC[STANTEC]: CONTROL POINT
406	420799.8405	433071.1763	729+03.77	111.27L	Set Rbr/RPC[STANTEC]: CONTROL POINT
407	421029.9843	433232.6077	731+79.97	163.64L	Set Rbr/RPC[STANTEC]: CONTROL POINT
408	421076.7108	433333.9679	732+85.20	126.45L	Set Magnail in Asph

SET TEMPORARY BENCHMARKS						
Point #	Northing	Easting	Elevation	Station	Offset	Description
604	419503	431734	331.44	710+41.03	114.02L	NE Bolt on LP
607	420748	433003	284.50	728+18.79	121.72L	NW Bolt on LP

RECOVERED MONUMENTS					
Point #	Northing	Easting	Station	Offset	Description
707	422390.6553	434303.9425	749+67.35	200.03L	Fnd. 2 in. Alcap[6714-S]; DOWL ELPS S29 TR 1 2008



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
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GLENN HIGHWAY AT
MIRROR LAKE –
NOV 2018 EQ PR

SURVEY CONTROL

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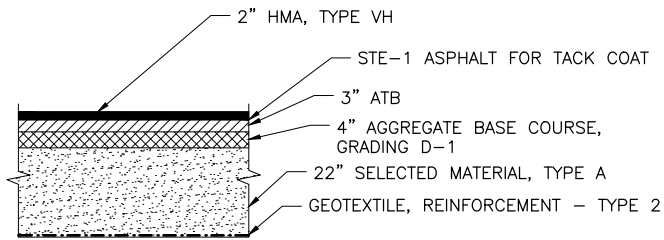
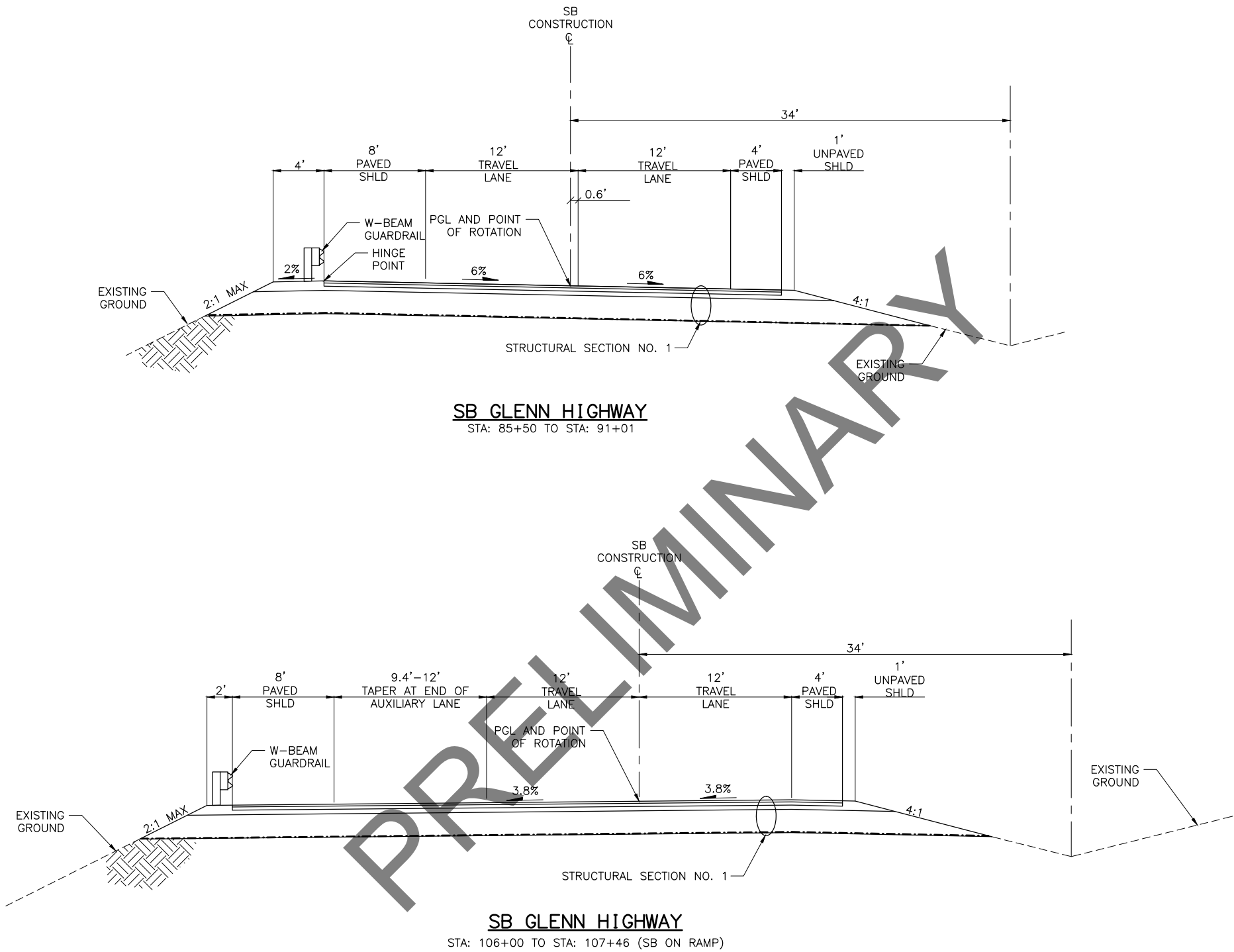
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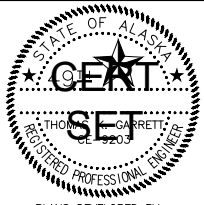
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0091007/CFHWY00583	2020	B1	B5



TYPICAL SECTION NOTES:

1. REFER TO SUPERELEVATION PARAMETERS SHOWN ON PLAN AND PROFILE SHEETS.
2. WITHIN TWO (2) DAYS AFTER PAVING, PLACE AGGREGATE BASE COURSE, GRADING D-1 AGAINST PAVEMENT EDGE TO ENSURE THERE IS NO VERTICAL DROP AT THE EDGE OF PAVEMENT.
3. CONSTRUCT UNPAVED SHOULDERS AND AREAS ADJACENT TO PAVED SHOULDERS WITH AGGREGATE BASE COURSE, GRADING D-1.
4. PROTECT EXISTING LIGHTING SYSTEM CONDUIT AND JUNCTION BOXES.



PLANS DEVELOPED BY:
STANTEC CONSULTING SERVICES INC.
725 EAST FIREWEED LANE, SUITE 200
ANCHORAGE, AK 99503-2245
907-276-4245
CERTIFICATE OF AUTHORIZATION #126386

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY AT
MIRROR LAKE –
NOV 2018 EQ PR

TYPICAL SECTIONS

STRUCTURAL SECTION NO. 1

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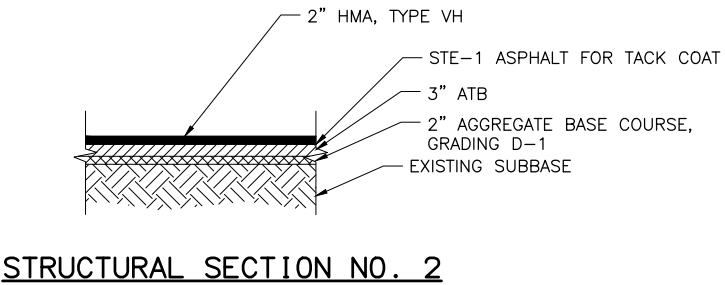
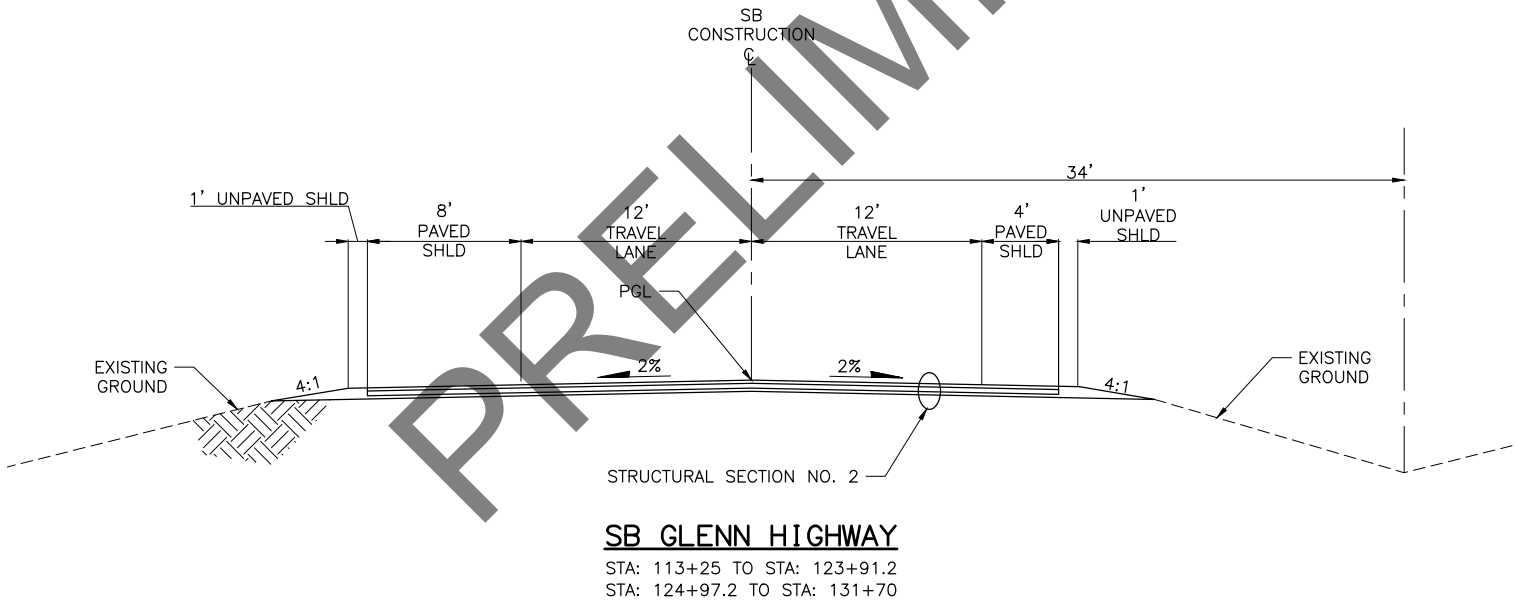
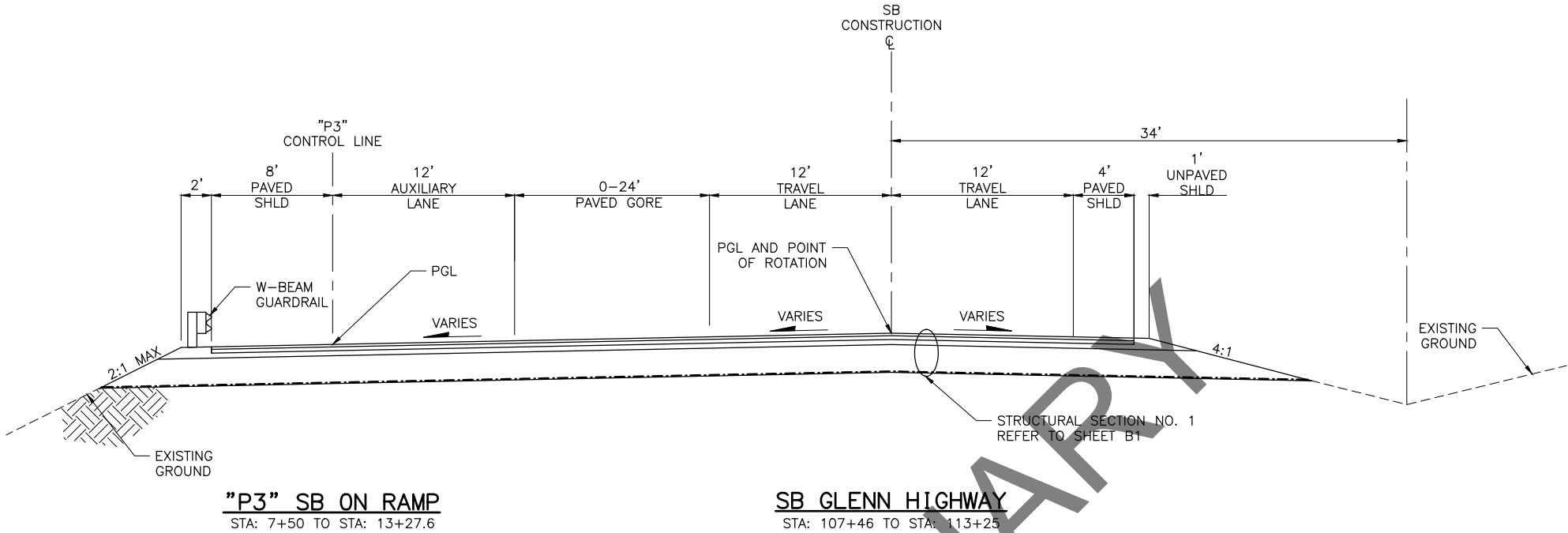
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0091007/CFHWY00583	2020	B2	B5



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

**GLENN HIGHWAY AT
MIRROR LAKE –
NOV 2018 EQ PR**

TYPICAL SECTIONS

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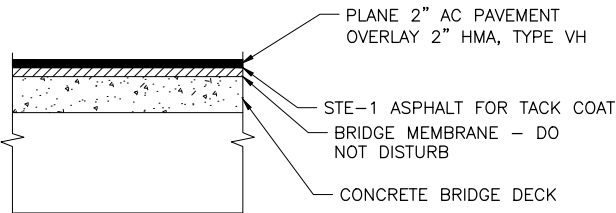
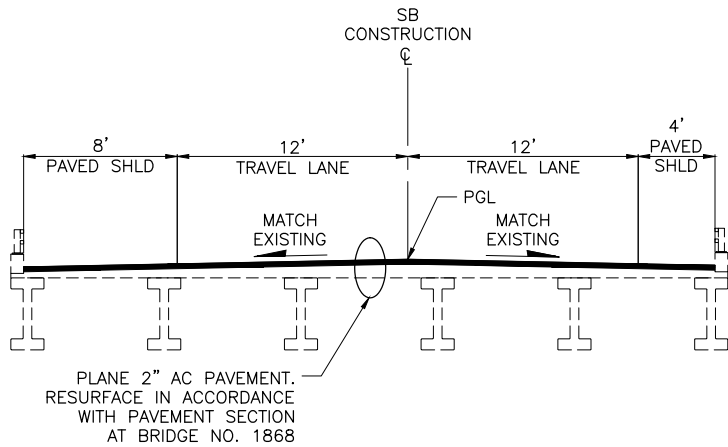
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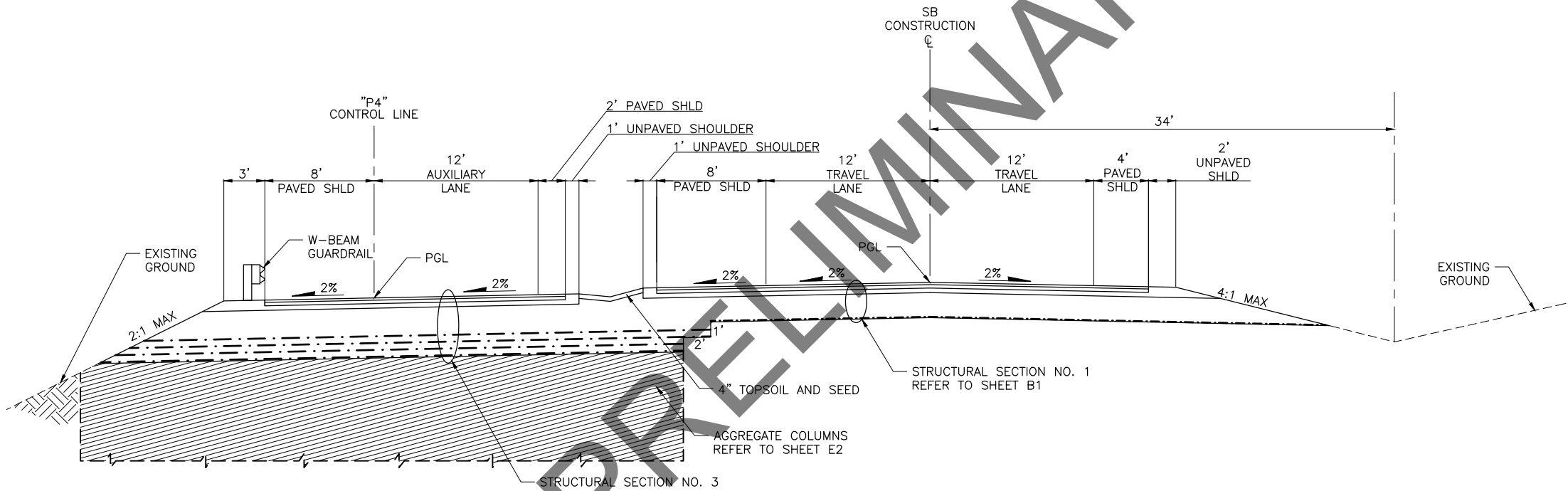
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0091007/CFHWY00583	2020	B3	B5



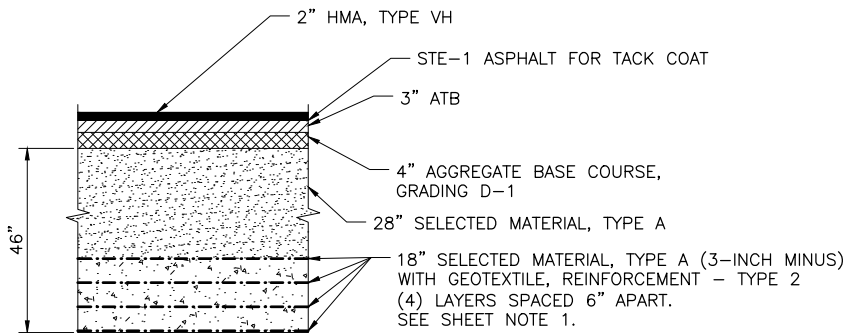
PAVEMENT SECTION AT BRIDGE NO.1868

BRIDGE NO. 1868
STA: 123+91.2 TO STA: 124+97.2



"P4" SB OFF RAMP
STA: 31+33 TO STA: 32+45.3

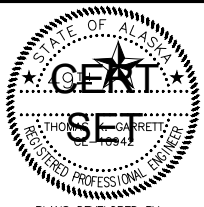
SB GLENN HIGHWAY
STA: 131+70 TO STA: 132+40 (SB OFF RAMP)



STRUCTURAL SECTION NO. 3

SHEET NOTE:

1. SELECTED MATERIAL, TYPE A, 3-INCH MINUS WITHIN REINFORCED ZONE.



PLANS DEVELOPED BY:
STANTEC CONSULTING SERVICES INC.
725 EAST FIREWEED LANE, SUITE 200
ANCHORAGE, AK 99503-2245
907-276-4245
CERTIFICATE OF AUTHORIZATION #126386

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
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GLENN HIGHWAY AT
MIRROR LAKE –
NOV 2018 EQ PR

TYPICAL SECTIONS

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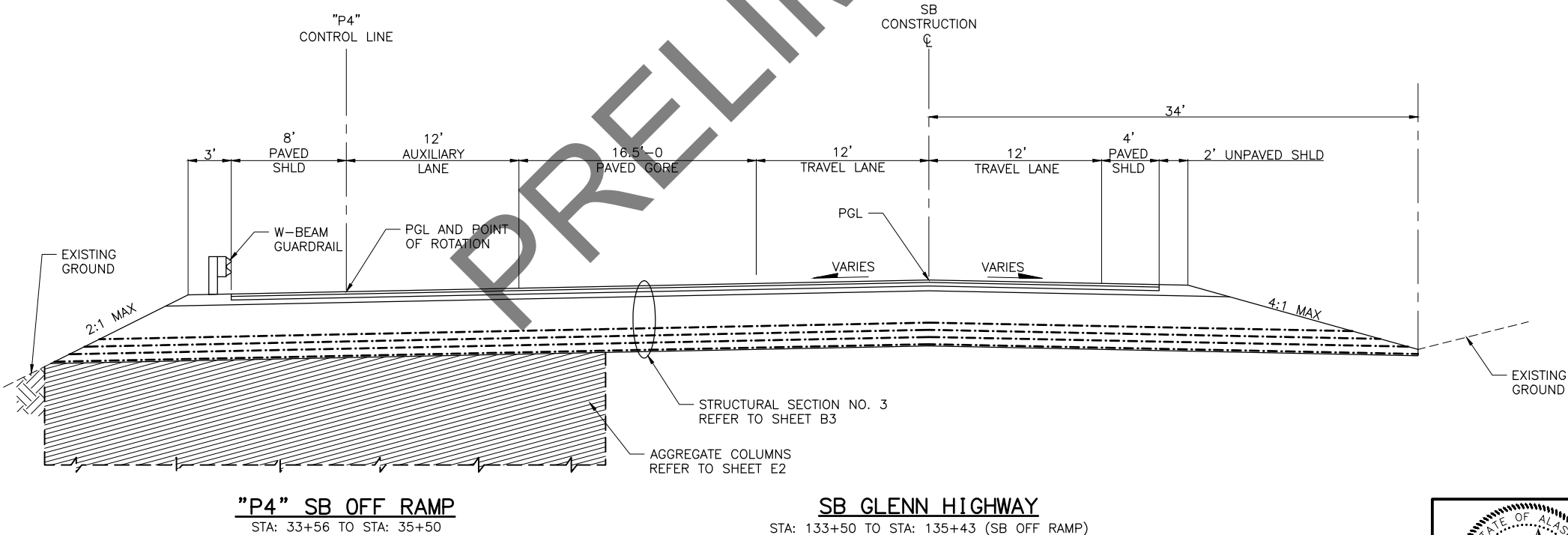
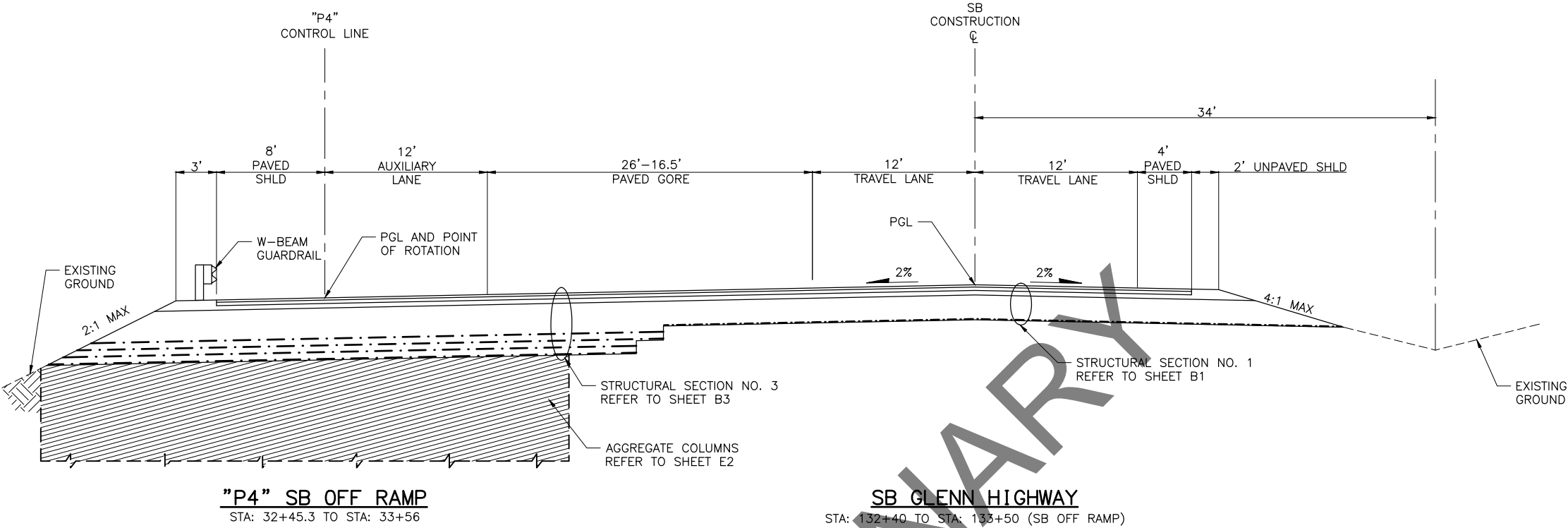
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0091007/CFHWY00583	2020	B4	B5



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
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GLENN HIGHWAY AT
MIRROR LAKE –
NOV 2018 EQ PR

TYPICAL SECTIONS

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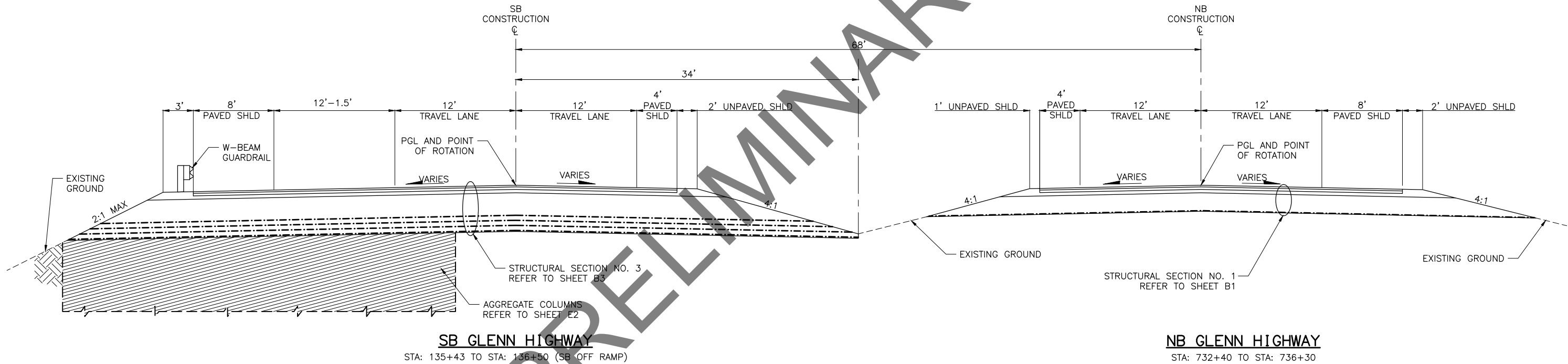
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0091007/CFHWY00583	2020	B5	B5



STATE OF ALASKA

CERT

THOMAS GARRETT

REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY:
STANTEC CONSULTING SERVICES INC.
725 EAST FIREWEED LANE, SUITE 200
ANCHORAGE, AK 99503-2245
907-276-4245
CERTIFICATE OF AUTHORIZATION #126386

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
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GLENN HIGHWAY AT
MIRROR LAKE –
NOV 2018 EQ PR

TYPICAL SECTIONS

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0091007/CFHWY00583	2020	C1	C1

ESTIMATE OF QUANTITIES			
ITEM NO.	ITEM DESCRIPTION	PAY UNIT	TOTAL QUANTITY
201.0009.0000	CLEARING AND GRUBBING	LS	ALL REQ'D
202.0001.0000	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LS	ALL REQ'D
202.0002.0000	REMOVAL OF PAVEMENT	SY	19,200
203.0003.0000	UNCLASSIFIED EXCAVATION	CY	15,600
203.0006.000A	BORROW, TYPE A	TON	26,000
203.2054.000A	EMBANKMENT IMPROVEMENTS - AGGREGATE COLUMNS	LS	ALL REQ'D
203.2055.0000	STANDARD PENETRATION TEST (SPT)	EACH	12
301.0001.00D1	AGGREGATE BASE COURSE, GRADING D-1	TON	5,350
306.0001.0000	ATB	TON	3,230
306.0002.6440	ASPHALT BINDER, GRADE PG 64-40E	TON	172
306.2002.0000	ASPHALT MATERIAL PRICE ADJUSTMENT	CS	ALL REQ'D
406.0008.0000	RUMBLE STRIPS, SHOULDERS	MILE	1.2
406.2001.0000	SWEEPING AND DISPOSAL OF MILLINGS, SHOULDERS	LS	ALL REQ'D
408.2001.00VH	HMA, TYPE VH	TON	2,220
408.2004.6440	ASPHALT BINDER, GRADE PG 64-40E	TON	118
408.2014.0000	JOINT ADHESIVE	LF	5,460
408.2022.0000	COMBINED PRICE ADJUSTMENT	CS	ALL REQ'D
606.0001.0000	W-BEAM GUARDRAIL	LF	2,787.5
606.0006.0000	REMOVING AND DISPOSING OF GUARDRAIL	LF	2,256
606.0013.0000	PARALLEL GUARDRAIL TERMINAL	EACH	5
606.0016.0000	TRANSITION RAIL	EACH	2
615.0002.0000	REMOVE AND RELOCATE SIGN	EACH	1
615.0004.0000	DELINEATOR, RIGID	EACH	3
618.0002.0000	SEEDING	LB	100
618.0003.0000	WATER FOR SEEDING	MGAL	66
620.0001.0000	TOPSOIL	SY	7,300
630.0003.0002	GEOTEXTILE, REINFORCEMENT - TYPE 2	SY	28,500
640.0001.0000	MOBILIZATION AND DEMOBILIZATION	LS	ALL REQ'D
641.0001.0000	EROSION, SEDIMENT AND POLLUTION CONTROL ADMINISTRATION	LS	ALL REQ'D
641.0005.0000	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL BY DIRECTIVE	CS	ALL REQ'D
641.0006.0000	WITHHOLDING	CS	ALL REQ'D
641.0007.0000	SWPPP MANAGER	LS	ALL REQ'D

ESTIMATE OF QUANTITIES CONT.			
ITEM NO.	ITEM DESCRIPTION	PAY UNIT	TOTAL QUANTITY
642.0001.0000	CONSTRUCTION SURVEYING	LS	ALL REQ'D
642.0003.0000	THREE PERSON SURVEY PARTY	HR	60
643.0002.0000	TRAFFIC MAINTENANCE	LS	ALL REQ'D
643.0003.0000	PERMANENT CONSTRUCTION SIGNS	LS	ALL REQ'D
643.0023.0000	TRAFFIC PRICE ADJUSTMENT	CS	ALL REQ'D
643.0025.0000	TRAFFIC CONTROL	CS	ALL REQ'D
643.0032.0000	FLAGGING	CS	ALL REQ'D
643.0033.0000	DETOUR	LS	ALL REQ'D
644.0001.0000	FIELD OFFICE	LS	ALL REQ'D
644.0002.0000	FIELD LABORATORY	LS	ALL REQ'D
644.2004.0000	ENGINEERING COMMUNICATYONS	CS	ALL REQ'D
646.0001.0000	CPM SCHEDULING	LS	ALL REQ'D
660.2033.0000	ELECTROLIER - REMOVE AND REPLACE	LS	ALL REQ'D
670.2000.0000	MMA PAVEMENT MARKINGS	LS	ALL REQ'D
682.2000.0000	VAC-TRUCK POTHOLE	CS	ALL REQ'D

TABLE OF ESTIMATING FACTORS		
ITEM NO.	ITEM DESCRIPTION	UNIT
203.0006.000A	BORROW, TYPE A	144 LB/CF
301.0001.00D1	AGGREGATE BASE COURSE, GRADING D-1	144 LB/CF
306.0001.0000	ATB	151 LB/CF
306.0002.6440	ASPHALT BINDER, GRADE PG 64-40E	5.3% OF TOTAL WEIGHT OF 306.0001.0000
408.2001.00VH	HMA, TYPE VH	151 LB/CF
408.2004.6440	ASPHALT BINDER, GRADE PG 64-40E	5.3% OF TOTAL WEIGHT OF 408.2001.00VH
618.0003.0000	WATER FOR SEEDING	1 GAL/SF



STATE OF ALASKA
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GLENN HIGHWAY AT
MIRROR LAKE -
NOV 2018 EQ PR

ESTIMATE OF QUANTITIES

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0091007/CFHWY00583	2020	D1	D1

REMOVAL OF STRUCTURES AND OBSTRUCTIONS – 202.0001.0000				
SHEET	ALIGNMENT	STATION	OFFSET	REMARKS
F4	SOUTHBOUND GLENN HWY	134+00	LT	REMOVE AND RETURN TO OWNER APPROXIMATELY 350 FEET OF PORTABLE CONCRETE BARRIER
F4	SOUTHBOUND OFF RAMP	31+51	20 LT	RIGID DELINEATOR
F4	SOUTHBOUND OFF RAMP	31+68	23 RT	RIGID DELINEATOR
F4	SOUTHBOUND GLENN HWY	131+59	27 LT	RIGID DELINEATOR
F4	SOUTHBOUND GLENN HWY	133+49	34 RT	BH1 – STANDPIPE PIEZOMETER
F4	SOUTHBOUND GLENN HWY	133+46	36 LT	BH2 – INCLINOMETER AND VIBRATING WIRE PIEZOMETER
F4	SOUTHBOUND GLENN HWY	134+27	118 LT	BH3 – STANDPIPE PIEZOMETER

GUARDRAIL SUMMARY – 606 ITEMS								
SHEET	STATION TO STATION			606.0001.0000	606.0006.0000	606.0013.0000	606.0016.0000	REMARKS
	FROM	TO	OFFSET	W-BEAM GUARDRAIL (FT)	REMOVING AND DISPOSING OF GUARDRAIL (FT)	PARALLEL GUARDRAIL TERMINAL (EACH)	TRANSITION RAIL (EACH)	
F1	86+00	90+21	LT	425	391	1		
F2	107+10	117+31	LT	1,025	714	1		
F3	121+42	123+66	LT	225	214		1	G–32.00 – THRIE BEAM TO BRIDGE RAIL TO REMAIN
F3	123+29	123+67	RT	37.5	26		1	TRANSITION RAIL TO REMAIN
F3	125+22	128+97	LT	375	253	1	1	G–32.00 – THRIE BEAM TO BRIDGE RAIL TO REMAIN
F3	125+21	127+85	RT	262.5	410	1		TRANSITION RAIL TO REMAIN
F4	132+48	138+84	LT	437.5	248	1		
			TOTAL:	2,787.5	2,256	5	2	5

REMOVAL OF PAVEMENT – 202.0002.0000					
SHEET	STATION		202.0002.0000	PAVEMENT PLANING (SY)	REMARKS
	FROM	TO	REMOVAL OF PAVEMENT (SY)		
F1	85+50	91+01	2,280	36	PAVEMENT PLANING PAID UNDER 202.0002.0000
F2–F3	106+00	123+91.2	8,895	34	"
F3	123+91.2	124+97.2	425	425	"
F3–F4	124+97.2	136+50	5,990	31	"
F5	733+20	736+30	1,610	36	"
		PAY ITEM QUANTITY:	19,200		

REMOVE AND RELOCATE SIGN – 615.0002.0000						
SHEET	FROM		TO		SIGN DESIGNATION	REMARKS
	STATION	OFFSET	STATION	OFFSET		
F4	132+16.1	29.6 LT	132+16.1	29.6 LT	E5–1	SB GLENN HIGHWAY ALIGNMENT

DELINEATOR, RIGID – 615.0004.0000				
SHEET	ALIGNMENT	STATION	OFFSET	REMARKS
F4	SOUTHBOUND OFF RAMP	31+51	20 LT	WHITE
F4	SOUTHBOUND OFF RAMP	31+68	23 RT	YELLOW
F4	SOUTHBOUND GLENN HWY	131+59	27 LT	WHITE
	TOTAL:		3	

RUMBLE STRIPS, SHOULDERS – 406.0008.0000				
SHEET	STATION		MILES	OFFSET
	FROM	TO		
F1	85+50	91+01	0.2	LT/RT
F2–F3	106+00	123+76	0.3	RT
F2–F3	113+25	123+76	0.2	LT
F3–F4	125+12	132+40	0.1	LT
F3–F4	125+12	136+50	0.2	RT
F4	732+40	736+30	0.2	LT/RT
		TOTAL:	1.2	

ELECTROLIER – REMOVE AND REPLACE – 660.2033.0000							
SHEETS	STATION	OFFSET	ELECTROLIER	JBOX	SHAFT LENGTH	FOUNDATION	REMARKS
H1	134+12	LT	OFFSET TYPE	TYPE II	49 FT	PILE	SB GLENN HIGHWAY ALIGNMENT



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
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GLENN HIGHWAY AT
MIRROR LAKE –
NOV 2018 EQ PR

SUMMARY TABLES

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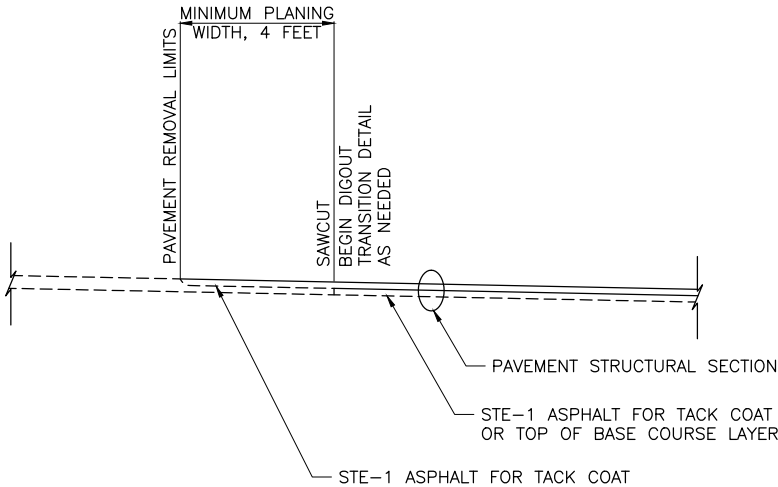
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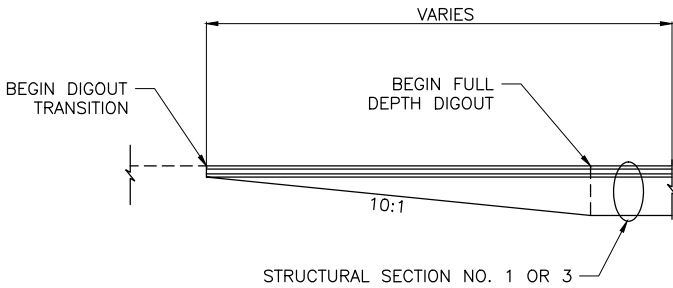
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0091007/CFHWY00583	2020	E1	E2



SHEET NOTES:

1. PLANE 2 INCHES FOR A MINIMUM DISTANCE OF 4 FEET FROM THE PAVEMENT REMOVAL LIMITS.
2. FOUR FEET FROM THE PAVEMENT REMOVAL LIMITS, SAWCUT EXISTING PAVEMENT.

TRANSVERSE JOINT DETAIL



DIGOUT TRANSITION DETAIL

NOTE:
PAVEMENT LIMITS SHOWN ON THE PLAN SHEETS
ARE INCLUSIVE OF DIGOUT TRANSITIONS.



STATE OF ALASKA
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GLENN HIGHWAY AT
MIRROR LAKE –
NOV 2018 EQ PR

PAVING AND TRANSITION DETAILS

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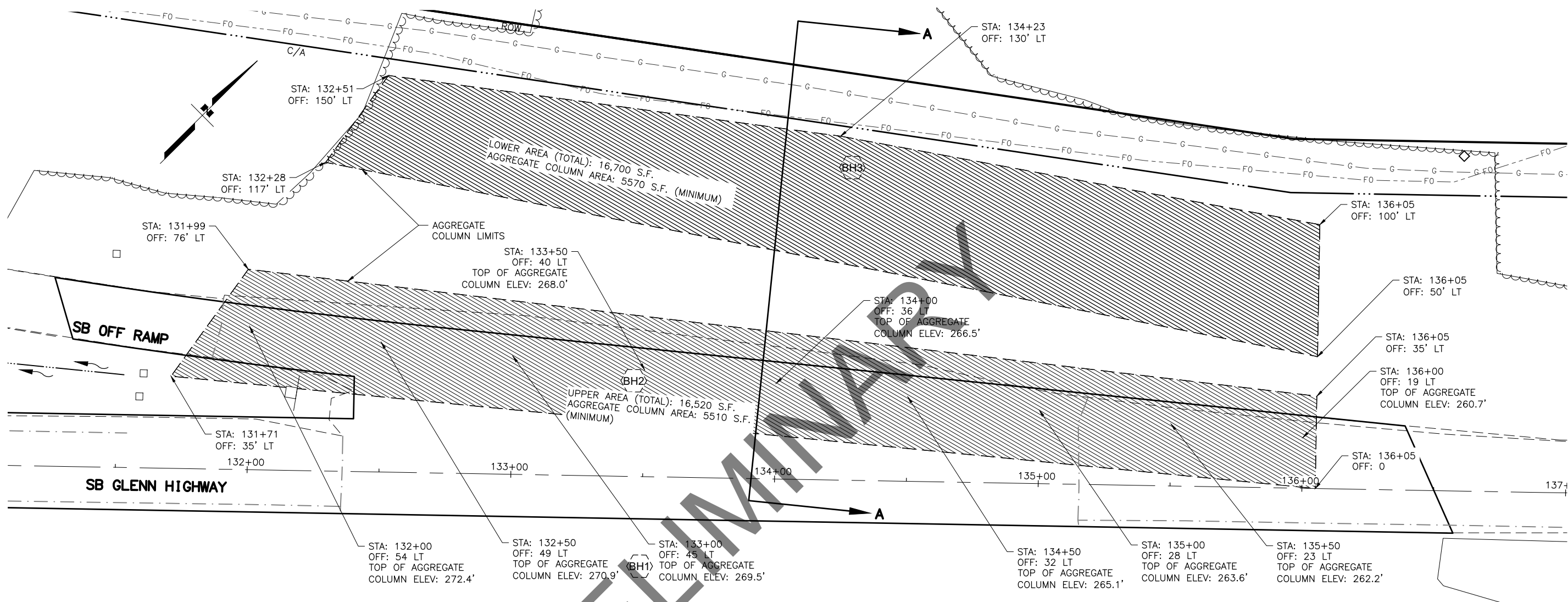
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			ALASKA	0091007/CFHWY00583	2020	E2	E2



SB OFF RAMP

SB GLENN HIGHWAY

LEGEND:

AGGREGATE COLUMN LIMITS

SHEET NOTES:

1. CONSTRUCT AGGREGATE COLUMNS IN ACCORDANCE WITH PROJECT SPECIFICATIONS. THE AGGREGATE COLUMN AREA IS A MINIMUM OF 33% OF THE TOTAL AREA. TYPICAL FOR UPPER AND LOWER AREAS.
2. STATION AND OFFSET LABELS REFERENCE SOUTHBOUND GLENN HIGHWAY ALIGNMENT.
3. MODIFY EXCAVATION LIMITS AS NEEDED TO CONSTRUCT AGGREGATE COLUMNS.
4. USE SELECTED MATERIAL, TYPE A FOR BACKFILL MATERIAL BELOW STRUCTURAL SECTION NO. 3. USE SELECTED MATERIAL, TYPE A FOR BACKFILL MATERIAL OUTSIDE THE STRUCTURAL SECTION.
5. THE BOTTOM OF COLUMN ELEVATIONS DO NOT VARY.

ROW

TOP OF COLUMN ELEV: 243'

FIBER OPTIC

GAS

BOTTOM OF COLUMN ELEV: 223'

EXISTING GROUND

2:1 MAX

BOTTOM OF COLUMN ELEV: 235'

SECTION A-A

"P4" CONTROL LINE

SB CONSTRUCTION

STRUCTURAL SECTION NO. 3 REFER TO SHEET B3

VARIES



PLANS DEVELOPED BY:
STANTEC CONSULTING SERVICES INC.
725 EAST FIREWEED LANE, SUITE 200
ANCHORAGE, AK 99503-2245
907-276-4245
CERTIFICATE OF AUTHORIZATION #126386

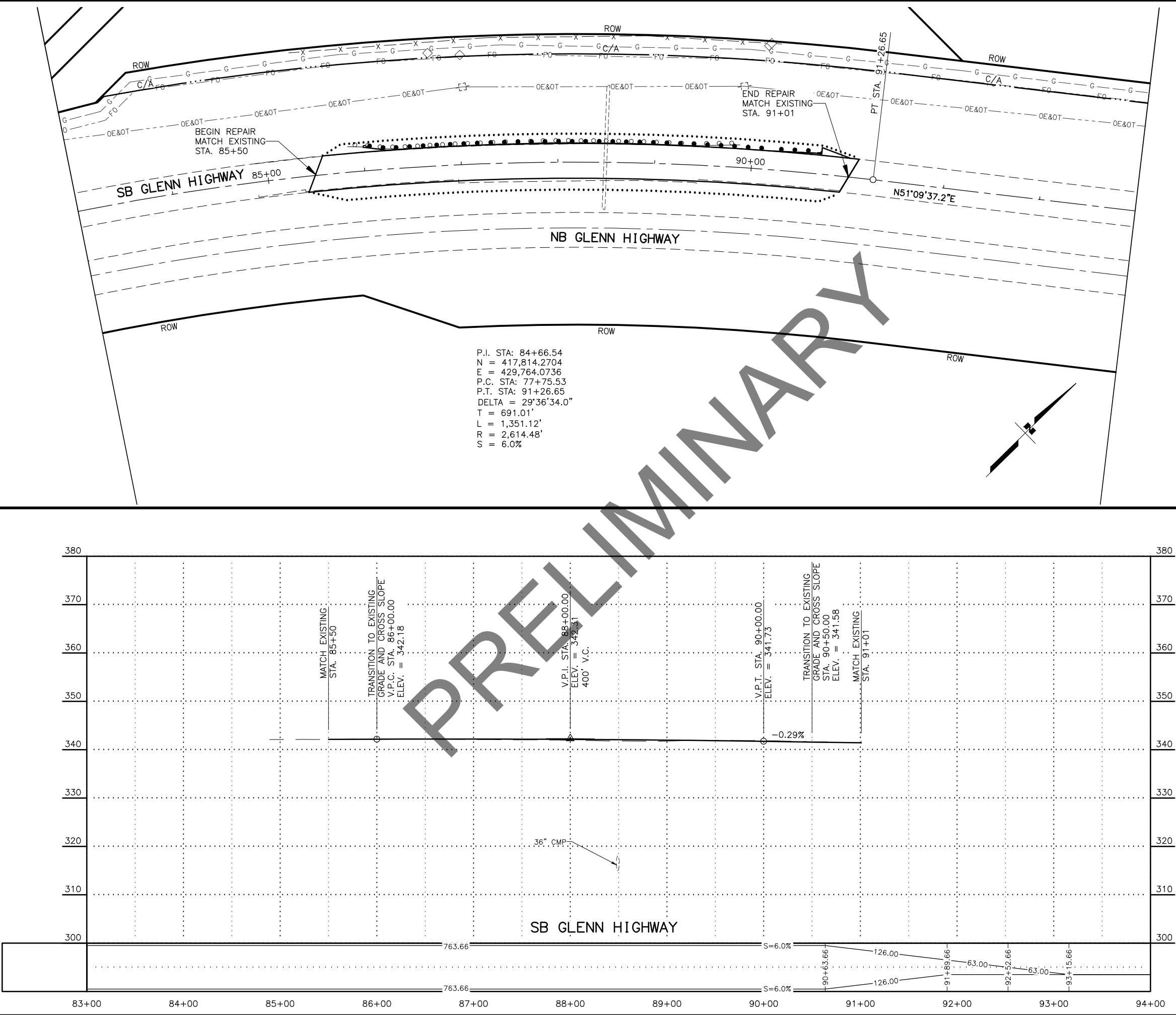
STATE OF ALASKA
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GLENN HIGHWAY AT
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AGGREGATE COLUMNS

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PROJECT DESIGNATION	
0091007/ CFHWY00583	
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GLENN HIGHWAY AT
MIRROR LAKE –
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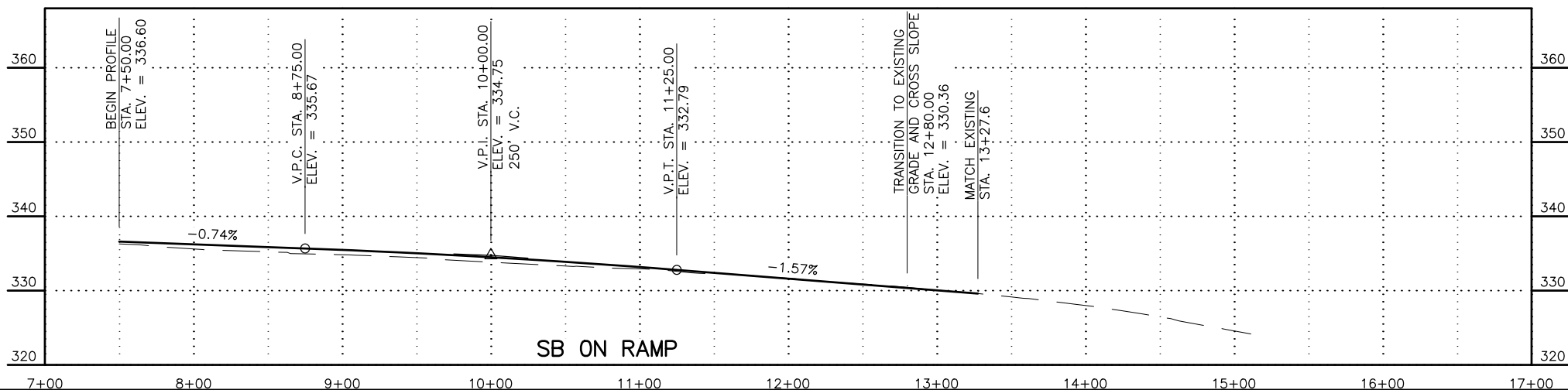
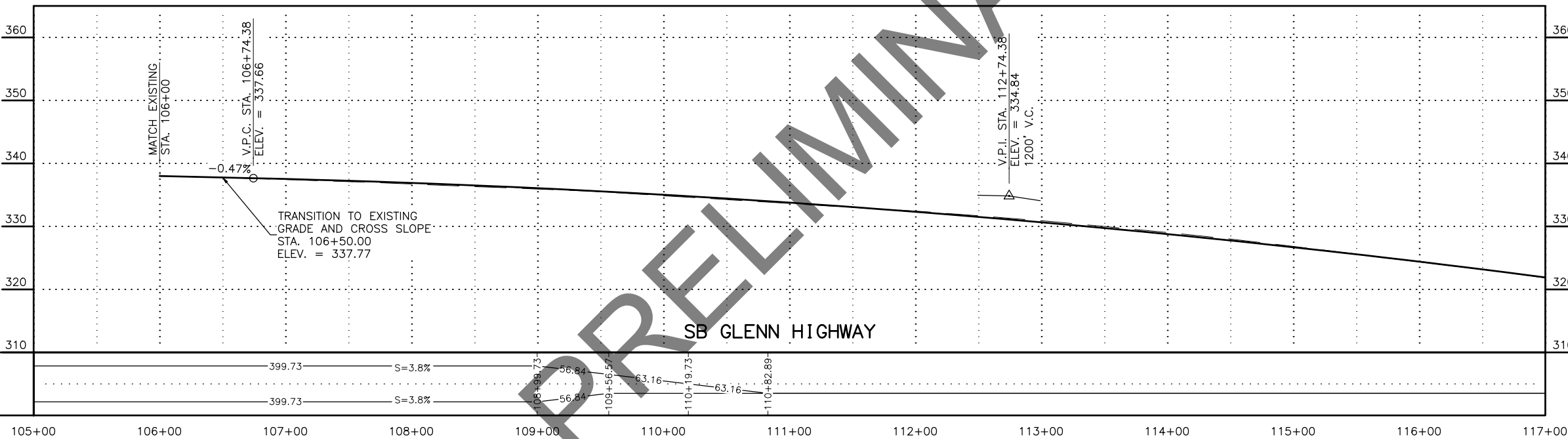
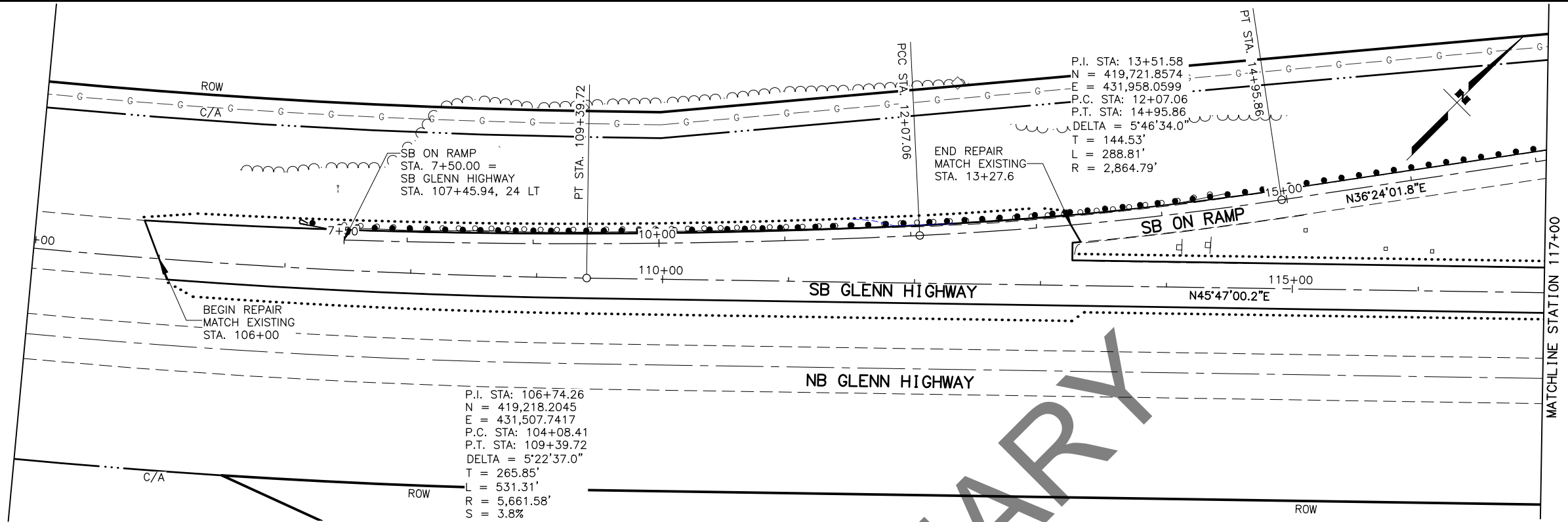
PLANS DEVELOPED BY:
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ANCHORAGE, AK 99503-2245
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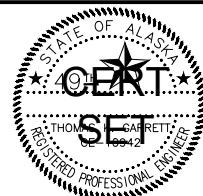
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GLENN HIGHWAY AT
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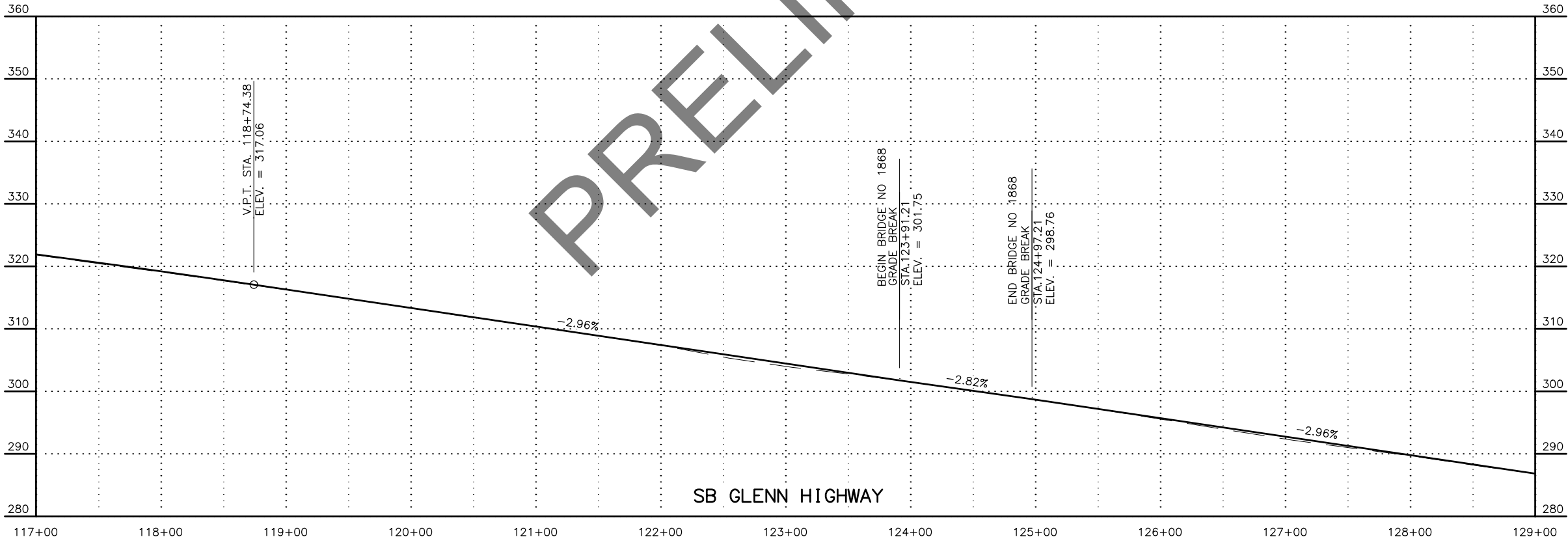
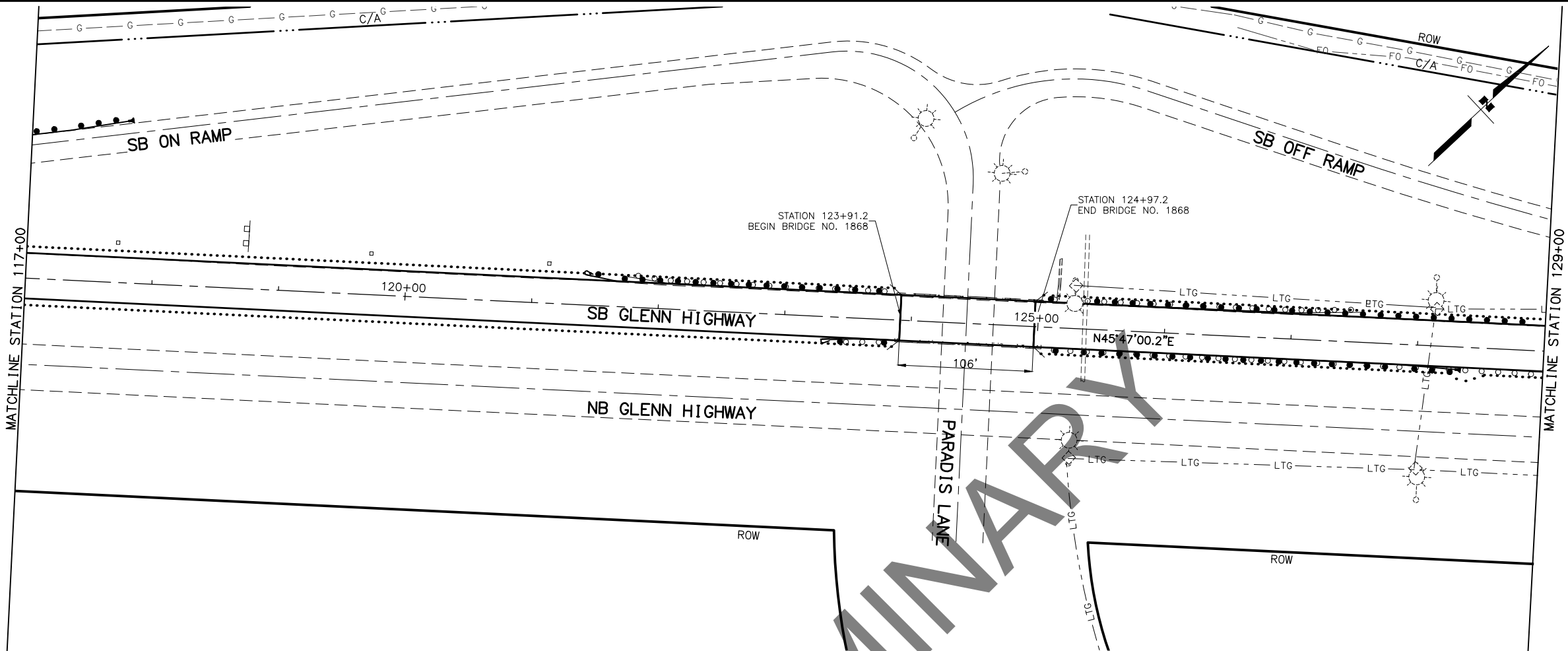
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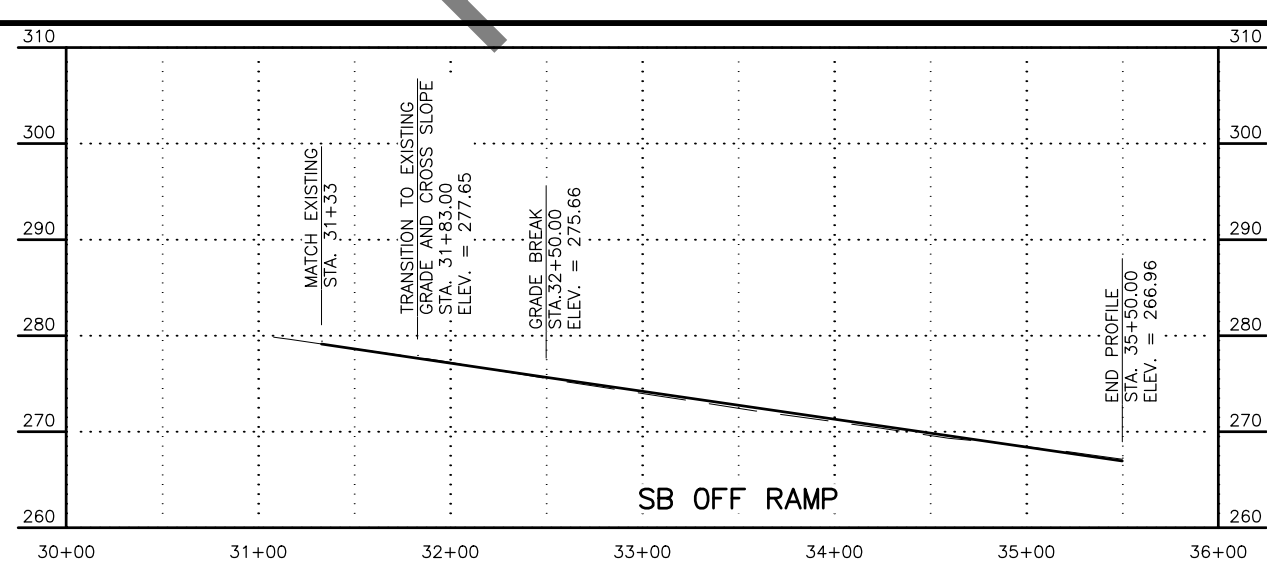
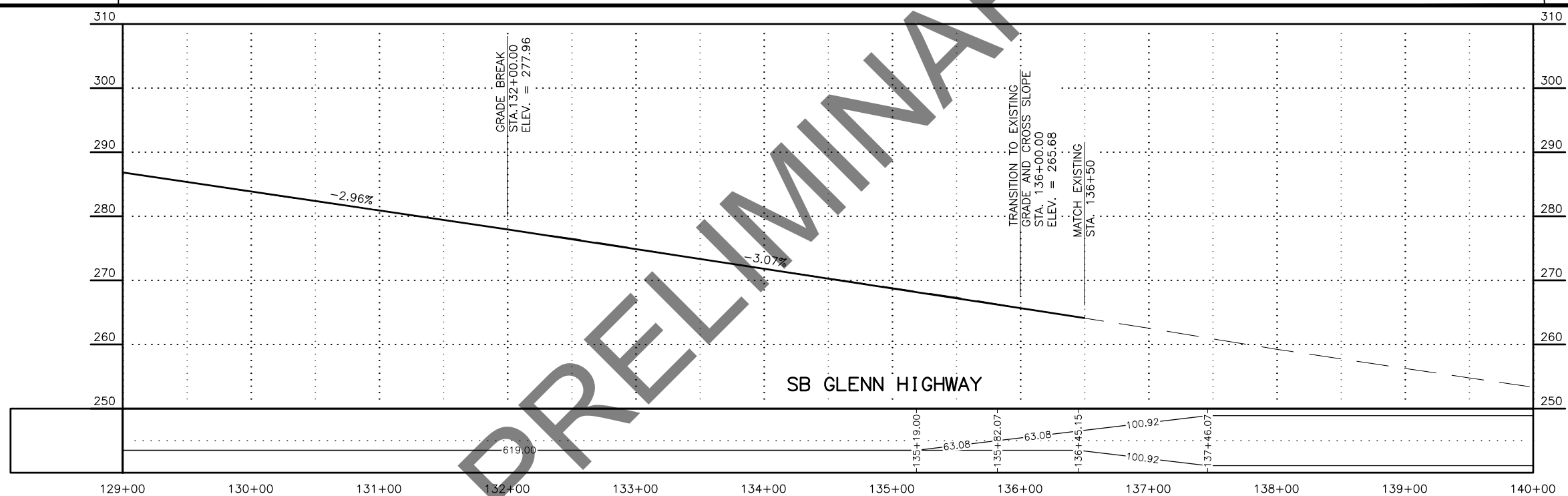
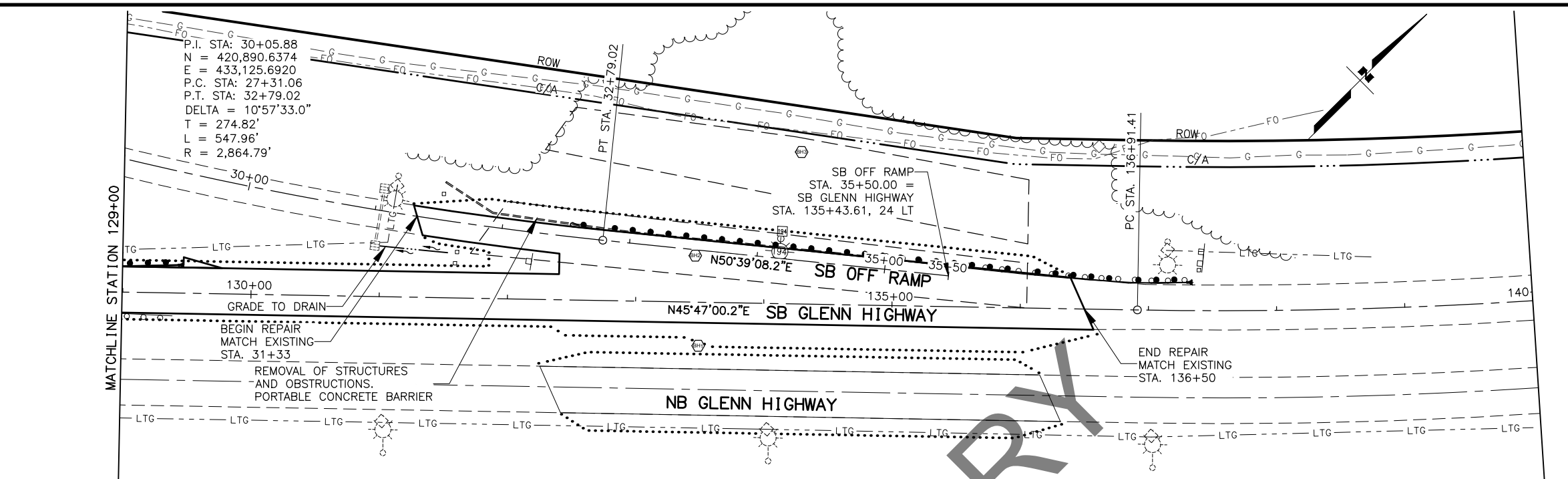
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NOV 2018 EQ PR

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STATE OF ALASKA
REGISTERED PROFESSIONAL ENGINEER
THOMAS J. GARRETT
CE 15942



SHEET NO.		TOTAL SHEETS	
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STATE		YEAR	
ALASKA		2020	
PROJECT DESIGNATION			
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STATE OF ALASKA
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GLENN HIGHWAY AT
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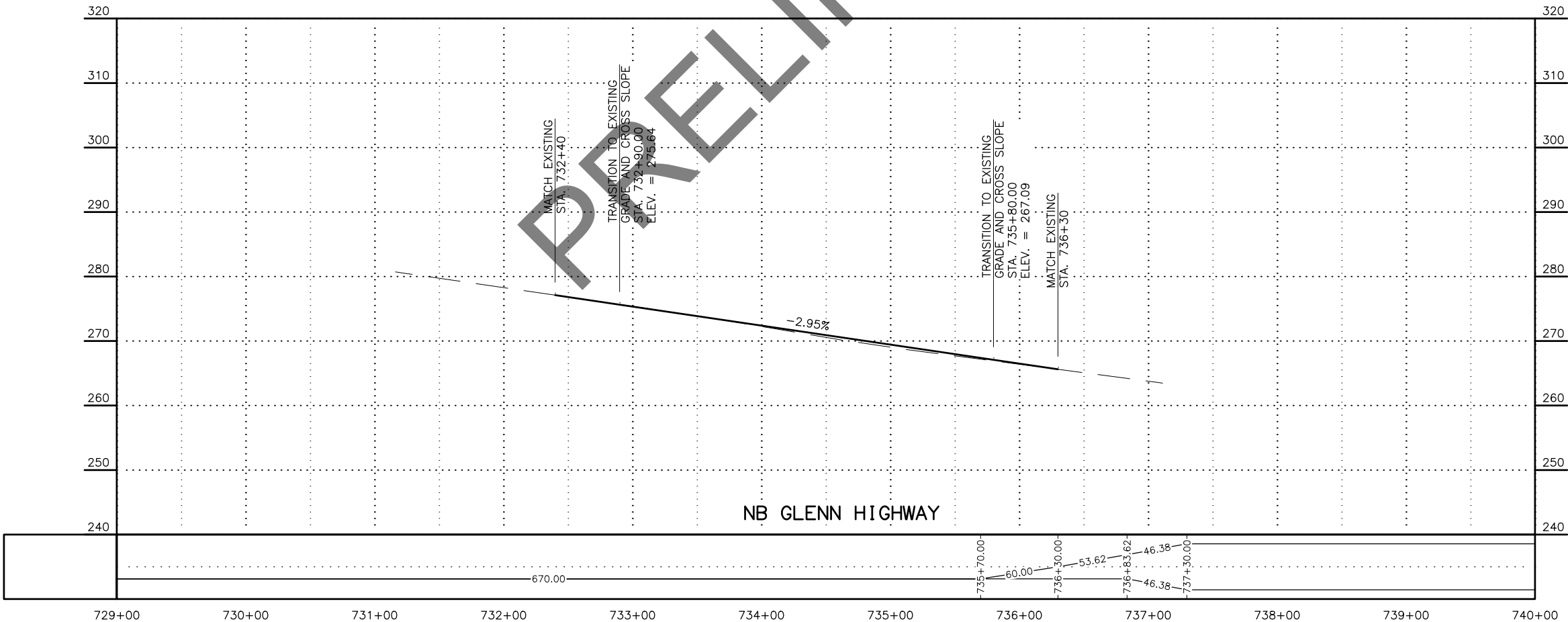
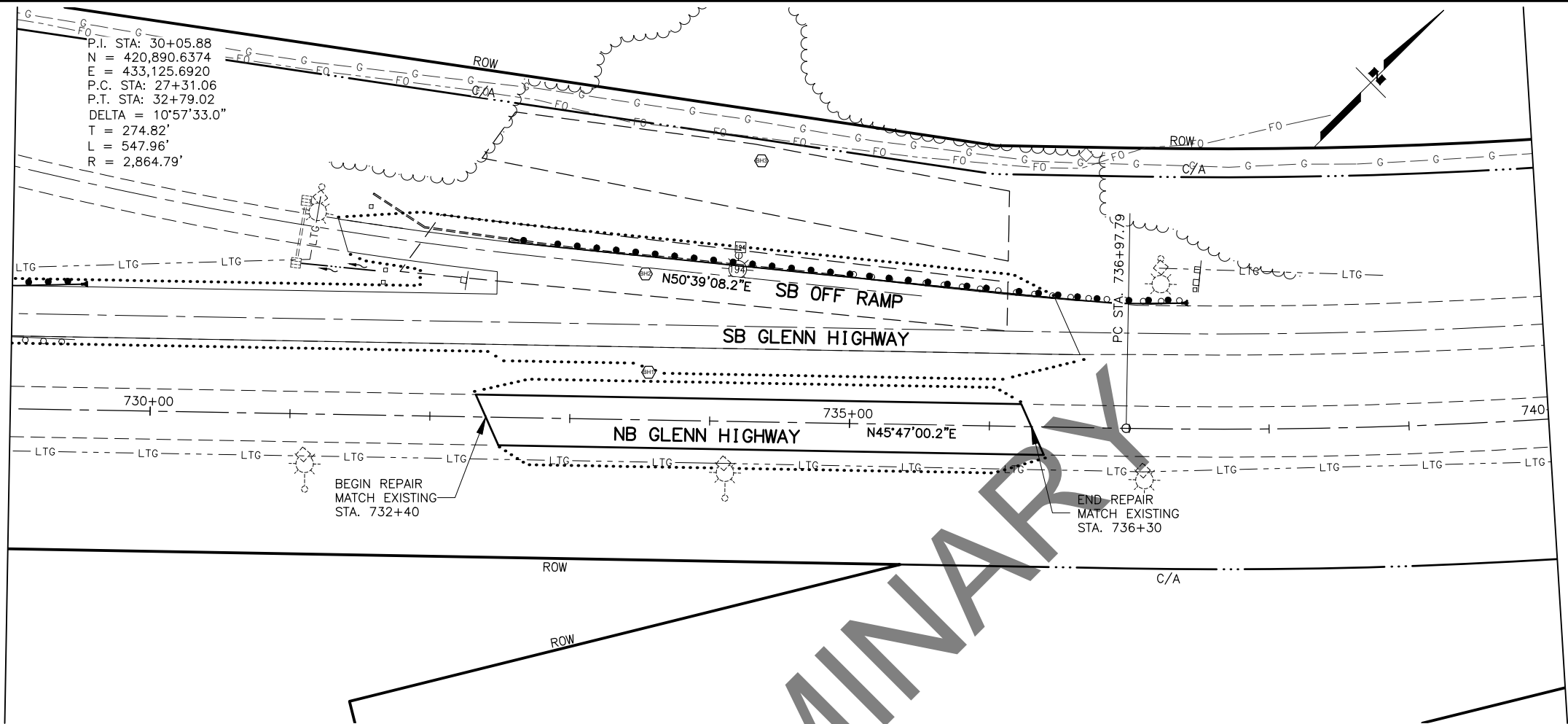
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ALASKA	2020
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NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

STATE OF ALASKA
CERT. SET
THOMAS GARRETT
REGISTERED PROFESSIONAL ENGINEER
CE 15942

PLANS DEVELOPED BY:
STANTEC CONSULTING SERVICES INC.
725 EAST FIREWEED LANE, SUITE 200
ANCHORAGE, AK 99503-2245
907-276-4245
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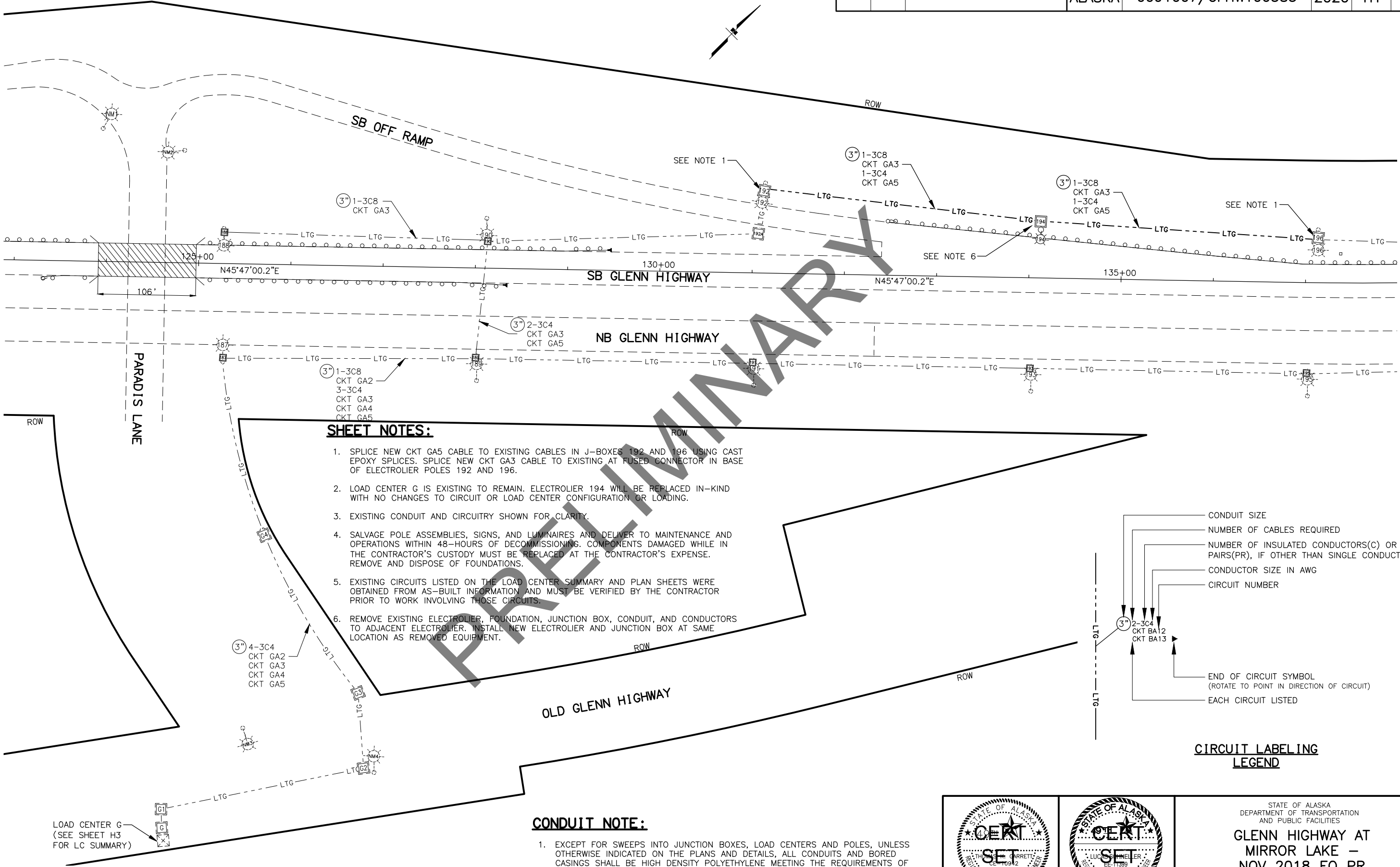
STATE OF ALASKA
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GLENN HIGHWAY AT
MIRROR LAKE -
NOV 2018 EQ PR

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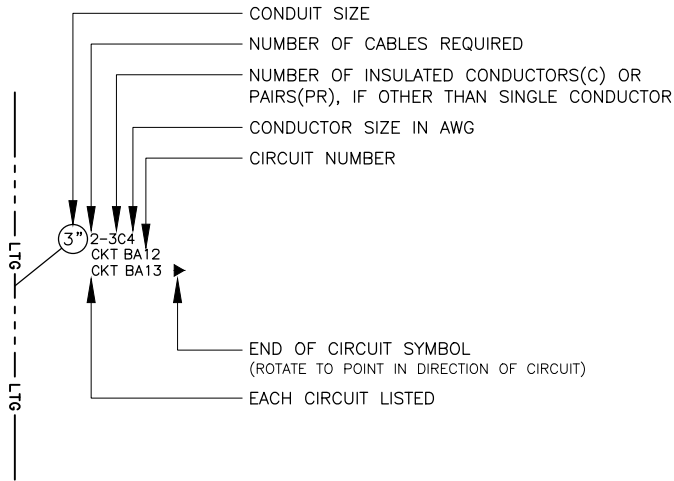


SHEET NOTES:

1. SPLICE NEW CKT GA5 CABLE TO EXISTING CABLES IN J-BOXES 192 AND 196 USING CAST EPOXY SPLICES. SPLICE NEW CKT GA3 CABLE TO EXISTING AT FUSED CONNECTOR IN BASE OF ELECTROLIER POLES 192 AND 196.
2. LOAD CENTER G IS EXISTING TO REMAIN. ELECTROLIER 194 WILL BE REPLACED IN-KIND WITH NO CHANGES TO CIRCUIT OR LOAD CENTER CONFIGURATION OR LOADING.
3. EXISTING CONDUIT AND CIRCUITRY SHOWN FOR CLARITY.
4. SALVAGE POLE ASSEMBLIES, SIGNS, AND LUMINAIRES AND DELIVER TO MAINTENANCE AND OPERATIONS WITHIN 48-HOURS OF DECOMMISSIONING. COMPONENTS DAMAGED WHILE IN THE CONTRACTOR'S CUSTODY MUST BE REPLACED AT THE CONTRACTOR'S EXPENSE. REMOVE AND DISPOSE OF FOUNDATIONS.
5. EXISTING CIRCUITS LISTED ON THE LOAD CENTER SUMMARY AND PLAN SHEETS WERE OBTAINED FROM AS-BUILT INFORMATION AND MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO WORK INVOLVING THOSE CIRCUITS.
6. REMOVE EXISTING ELECTROLIER, FOUNDATION, JUNCTION BOX, CONDUIT, AND CONDUCTORS TO ADJACENT ELECTROLIER. INSTALL NEW ELECTROLIER AND JUNCTION BOX AT SAME LOCATION AS REMOVED EQUIPMENT.

CONDUIT NOTE:

1. EXCEPT FOR SWEEPS INTO JUNCTION BOXES, LOAD CENTERS AND POLES, UNLESS OTHERWISE INDICATED ON THE PLANS AND DETAILS, ALL CONDUITS AND BORED CASINGS SHALL BE HIGH DENSITY POLYETHYLENE MEETING THE REQUIREMENTS OF SPECIFICATION 740-2.06 AND BE THE SIZE INDICATED ON THE PLANS. SPLICES ARE ONLY PERMITTED IN HDPE CONDUIT RUNS IN EXCESS OF 1,000 LINEAR FEET AND ARE NOT PERMITTED WITHIN 1,000 LINEAR FEET OF EACH OTHER. THIS EXCLUDES SPLICES TO RMC SWEEPS. WHEN SPLICING HDPE USE THE HEAT FUSION JOINING PROCESS ACCORDING TO ASTM F2620-09E1.



**CIRCUIT LABELING
LEGEND**



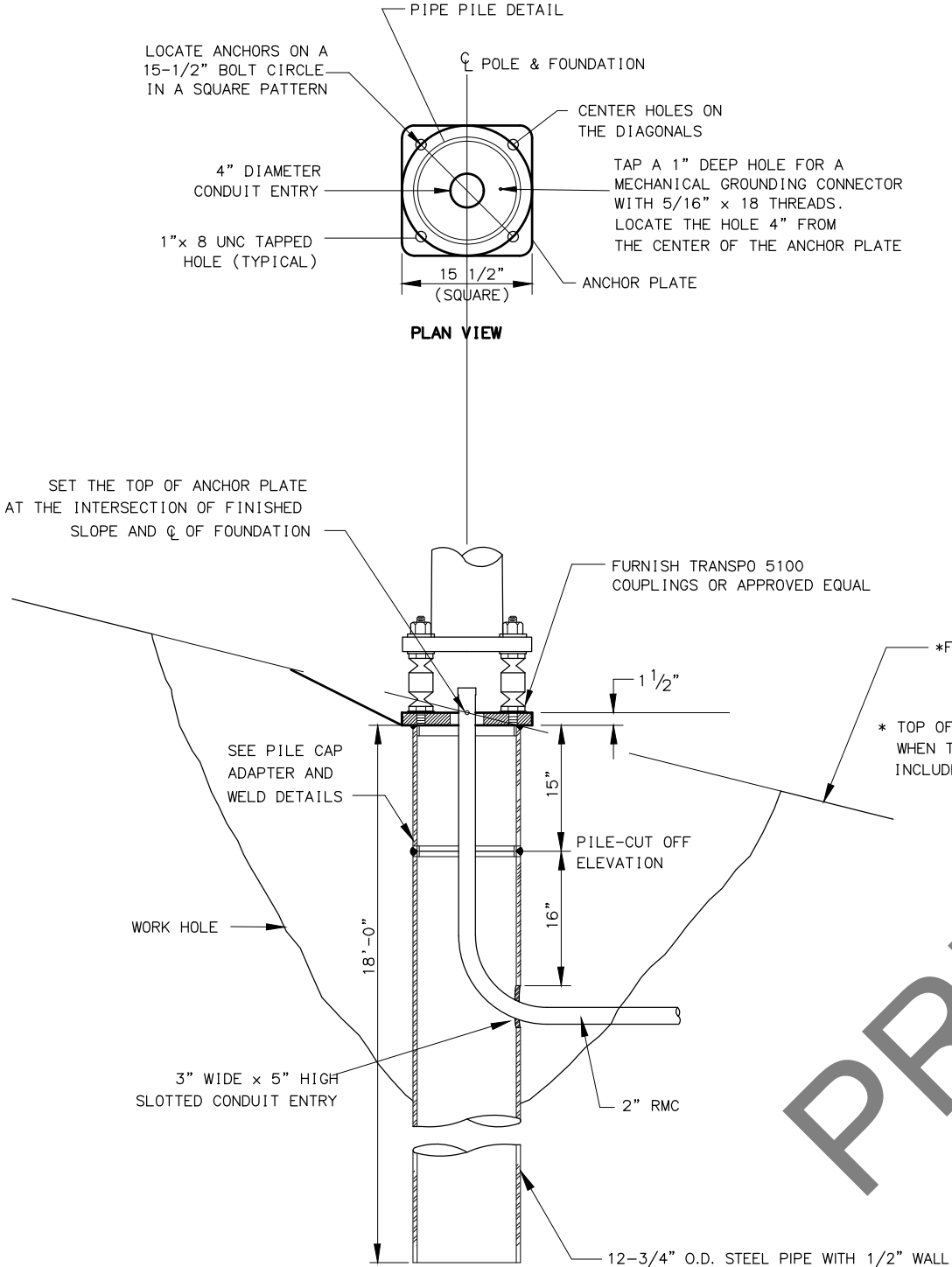
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GLENN HIGHWAY AT
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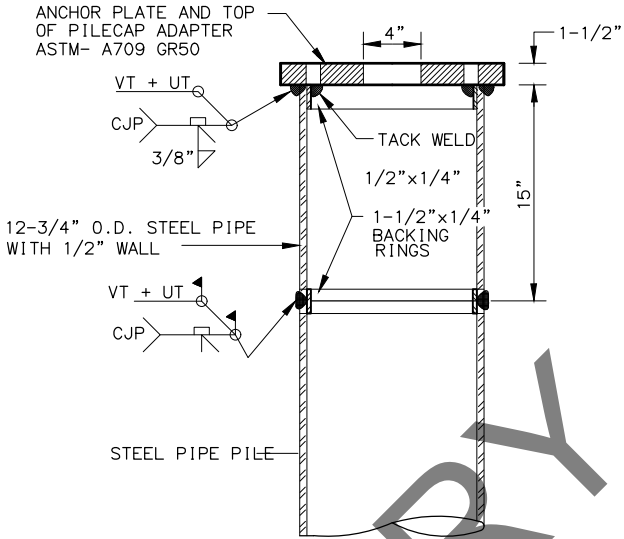
ILLUMINATION PLAN

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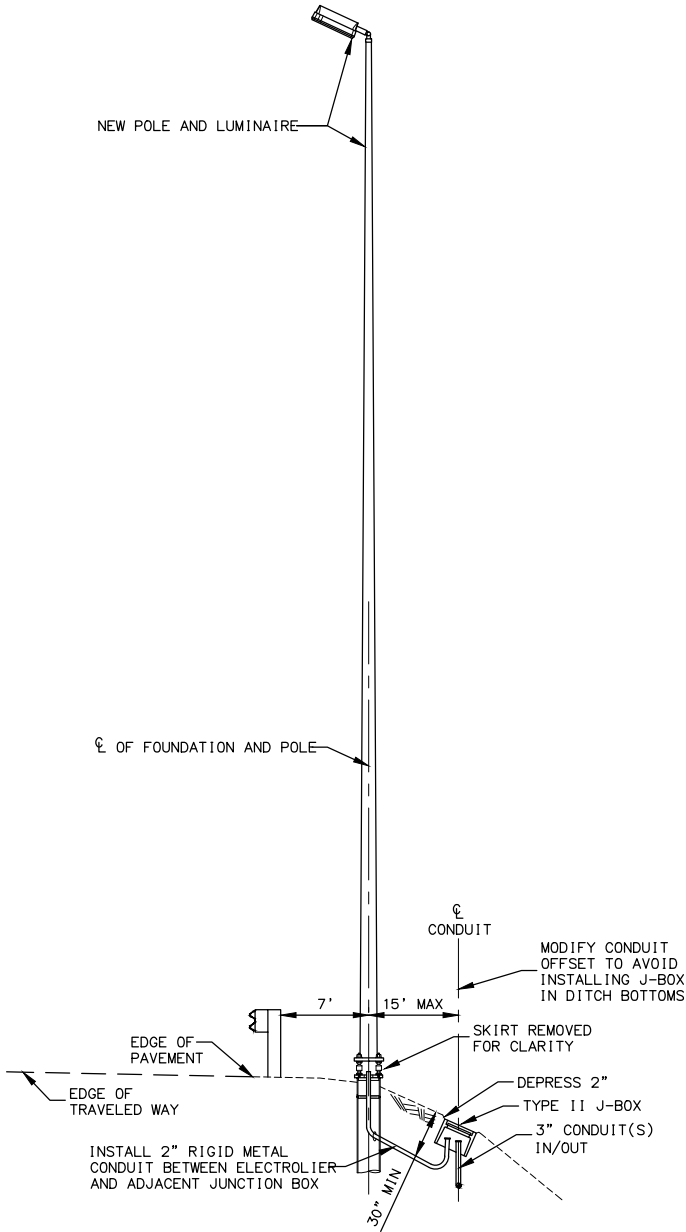
PIPE PILE FOUNDATION
(SHOWN WITH FRANGIBLE COUPLINGS)



PILECAP ADAPTER AND WELD DETAIL

PILE FOUNDATION NOTES:

1. FURNISH STEEL PIPE PILES AND PILECAP ADAPTERS THAT CONFORM TO SECTION 660, 715 AND 740 OF THE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS. INCLUDE STAMPED ENGINEERING CALCULATIONS, DRAWINGS, MILL CERTIFICATIONS AND WELDING PLANS FOR PILECAP ADAPTERS.
2. FURNISH SHOP FABRICATED PILECAP ADAPTERS.
3. DRIVE PILES OPEN ENDED. COMPLETE PILE WORK ACCORDING TO SECTIONS 505, 660 AND 715 OF THE STATE OF ALASKA STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
4. REMOVE AND REINSTALL PILES OUT OF PLUMB MORE THAN 1/8 INCH PER FOOT.
5. FRESH HEAD THE TOP OF PILES IN A LEVEL PLANE.
6. CUT THE CONDUIT ENTRANCE HOLE AFTER INSTALLING THE PILE.
7. WELDING SHALL CONFORM TO SECTION 504 OF THE STATE OF ALASKA STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
8. AT EACH FOUNDATION, EXCAVATE A CONE SHAPED WORK HOLE 6.5' DIAMETER OR LARGER AT THE SURFACE DOWN TO 1 FOOT BELOW THE CONDUIT HOLE. AFTER CUTTING THE CONDUIT ENTRANCE HOLE AND WELDING ON THE PILECAP ADAPTER, BACKFILL AND COMPACT THE WORK HOLE IN 8" LIFTS WITH A CEMENT-SOIL MIXTURE, CONSISTING OF 2 SACKS OF PORTLAND CEMENT PER CUBIC YARD OF SOIL. SUFFICIENT COMPACTIVE EFFORT WILL BE DETERMINED BY THE ENGINEER.
9. WAIT AT LEAST 3 DAYS AFTER BACKFILLING THE WORK HOLE BEFORE ERECTING THE LUMINAIRE POLE.
10. TERMINATE THE 2" CONDUIT 3" ABOVE THE TOP OF THE ANCHOR PLATE. INSTALL A GROUNDING BUSHING ON THE END OF THE RIGID METAL CONDUIT. BOND GROUNDING BUSHING AND POLE TO FOUNDATION ANCHOR PLATE.
11. STEEL PIPE USED SHALL CONFORM TO ASTM A709 GRADE 50T3. STRUCTURAL STEEL PLATE SHALL CONFORM TO ASTM 709 GRADE 50.
12. NO SPLICES ALLOWED BELOW PILE CAP ADAPTER.



TYPICAL CONDUIT & J-BOX
INSTALLATION BEHIND GUARDRAIL
NOT TO SCALE



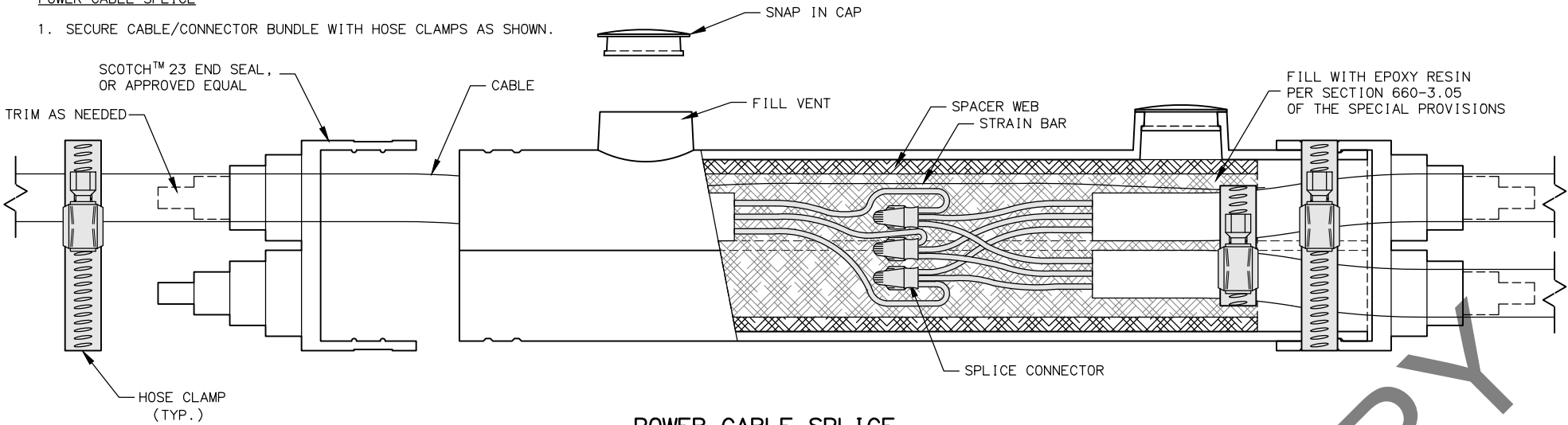
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
GLENN HIGHWAY AT
MIRROR LAKE –
NOV 2018 EQ PR
ILLUMINATION DETAILS

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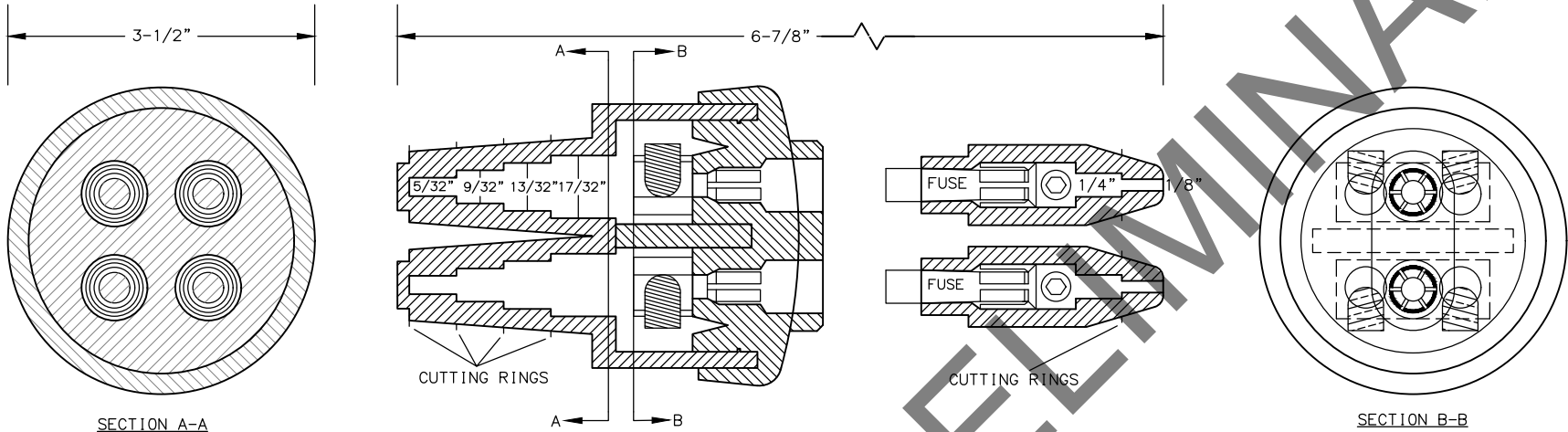
NOTES:

POWER CABLE SPLICE

1. SECURE CABLE/CONNECTOR BUNDLE WITH HOSE CLAMPS AS SHOWN.



POWER CABLE SPLICE



DOUBLE FUSED CONNECTOR

LUMINAIRE PERFORMANCE CRITERIA	
ROADWAY LUMINAIRE	
LAMP DESCRIPTION	400W HPS CLEAR ED18 HORIZ. DUAL ARC TUBE
LAMP LUMENS	47500
LIGHT LOSS FACTOR	0.72
WATTAGE	400W
TILT	25 DEGREES
LIGHT DISTRIBUTION	MC3
POLE CHARACTERISTICS	
MOUNTING HEIGHT	45 FEET

MATERIAL PROPERTIES	
POWER CABLE SPLICE	
SPLICE KIT	3M MODEL 78R, OR APPROVED EQUAL
SPLICE CONNECTOR	SCOTCHLOCK G, R, OR Y SPRING CONNECTOR, OR APPROVED EQUAL
HOSE CLAMP	(4)- STAINLESS STEEL
EPOXY RESIN	PER SECTION 660-3.05
DOUBLE FUSED CONNECTOR	
DOUBLE FUSED CONNECTOR	SEC CONNECTOR MODEL SEC 1791-DF, OR APPROVED EQUAL
FUSES	(2) - COMPATIBLE 10-AMP

SUMMARY OF EXISTING LOAD CENTER G				
LOAD CENTER TYPE:		1A (EXISTING)		
SERVING UTILITY:		MATANUSKA ELECTRIC ASSOCIATION		
SERVICE CONDUIT TYPE:		RIGID METAL CONDUIT		
LOCATION DATA				
LOAD CENTER:		N 420023.8, E 433233.6		
POWER SOURCE:		EXISTING		
PHOTOELECTRIC CONTROL:		YES		
SERVICE VOLTAGE:		1 PHASE, 3 WIRE, 240/480 VOLTS AC WITH GROUNDED NEUTRAL		
PROVIDE METER SOCKET?		YES - 200 AMP		
MAIN BREAKER A:		480 VOLT, 2 POLE, 100 AMPERES ***		
CONTACTOR:		(5) 600 VOLT, 3 POLE, 30 AMPERES		
PANEL A				
CIRCUIT NUMBER	DESCRIPTION	KVA LOAD	BREAKER	
			AMPS	POLES
GA1	P.E. CELL	0.1	15	1
GA2*	LUMINAIRES 187,189,191,193,195,197,199,201,203	4.4	20	2
GA3*	LUMINAIRES 188,190,192,194,196,198,200,202,204	4.4	20	2
GA4*	LUMINAIRES 205,207,209,211,213,215	2.9	20	2
GA5*	LUMINAIRES 206,208,210,212,214,216	2.9	20	2
GA6*	LUMINAIRES EXISTING NM1, NM2, NM3, NM4	2.0	20	2
GA7*	SPARE	0.0	20	2
GA8*	SPARE	0.0	20	2
	SPACE ****			3
	TOTAL KVA LOAD FOR PANELS	16.7		

* CIRCUIT THROUGH CONTACTOR
*** PROVIDE SEPARATE MAIN CIRCUIT BREAKER
**** SPACE BASED ON 18 POLE PANEL - UNUSED SPACE MAY BE OMITTED
NOTE:NO CHANGES WILL BE MADE TO THE CONFIGURATION OF OR THE ELECTRICAL LOAD ON LOAD CENTER G OR THE ASSOCIATED LIGHTING CIRCUITS AS PART OF THIS PROJECT, SHOWN FOR REFERENCE ONLY.



STATE OF ALASKA
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GLENN HIGHWAY AT
MIRROR LAKE –
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SPlice DETAILS AND
LOAD CENTER SUMMARY

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0091007/CFHWY00583	2020	H4	H9

- NOTES:
1. APPLICABLE STATE OF ALASKA DOT&PF ELECTRICAL EQUIPMENT MUST BE LABELED WITH DOT&PF-DEFINED SITE-SPECIFIC PPE LEVELS, AS DEFINED IN NFPA 70E 130.5(H)(3)(c). THE LEVELS ARE: LEVEL 1 (0 TO 4 CAL/CM²), 2 (4.1 TO 8.0 CAL/CM²), 3 (8.1 TO 25.0 CAL/CM²), 4 (25.1 TO 39.9 CAL/CM²), OR WP (WORK PROHIBITED, FOR EQUIPMENT IN WHICH THE CALCULATED ARC FLASH INCIDENT ENERGY IS ≥ 40 CAL/CM²).
 2. MINIMUM PPE REQUIREMENTS FOR EACH PPE LEVEL DESCRIBED IN NOTE 1 ARE THE SAME REQUIREMENTS AS DESCRIBED IN NFPA 70E TABLE 130.7(C)(15)(c). THESE PPE REQUIREMENTS ARE TO BE USED AS THE SITE-SPECIFIC PPE LEVELS.

4"

FLAG LEGEND COLOR, BLACK

FLAG BACKGROUND COLOR, HAZARD ORANGE

!WARNING

ARC FLASH AND SHOCK HAZARD PRESENT

APPROPRIATE PPE REQUIRED

Arc Flash Boundary

Incident Energy in cal/cm²

Working Distance

Ft

In

Shock Hazard Exposure

Insulating Gloves Class

Shock Hazard

VAC

Limited Approach Boundary

Restricted Approach Boundary

Ft

Ft

ENCLOSURE TAG OR NAME

SEE NOTE 1

SEE NOTE 2

Minimum PPE Requirements

INSERT DESCRIPTION OF MINIMUM PPE REQUIREMENTS.

Calculated available fault current:

SITE INFORMATION, IF APPLICABLE

DATE CALCULATION WAS PERFORMED

WATERMARK IS OPTIONAL. WATERMARK COLOR, GRAY

MAIN BACKGROUND COLOR, WHITE

6"

STATIC LEGEND COLOR, BLACK

FILL CALCULATION VALUES AND NOTES WITH BOLD TEXT. VALUE AND NOTE LEGEND COLOR, BLACK

STATE OF ALASKA

CERT

THOMAS GARRETT

REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY:
STANTEC CONSULTING SERVICES INC.
725 EAST FIREWEED LANE, SUITE 200
ANCHORAGE, AK 99503-2245
907-276-4245
CERTIFICATE OF AUTHORIZATION #126386

STATE OF ALASKA

CERT

LUCAS SCHNEIDER

REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY:
STANTEC CONSULTING SERVICES INC.
725 EAST FIREWEED LANE, SUITE 200
ANCHORAGE, AK 99503-2245
907-276-4245
CERTIFICATE OF AUTHORIZATION #126386

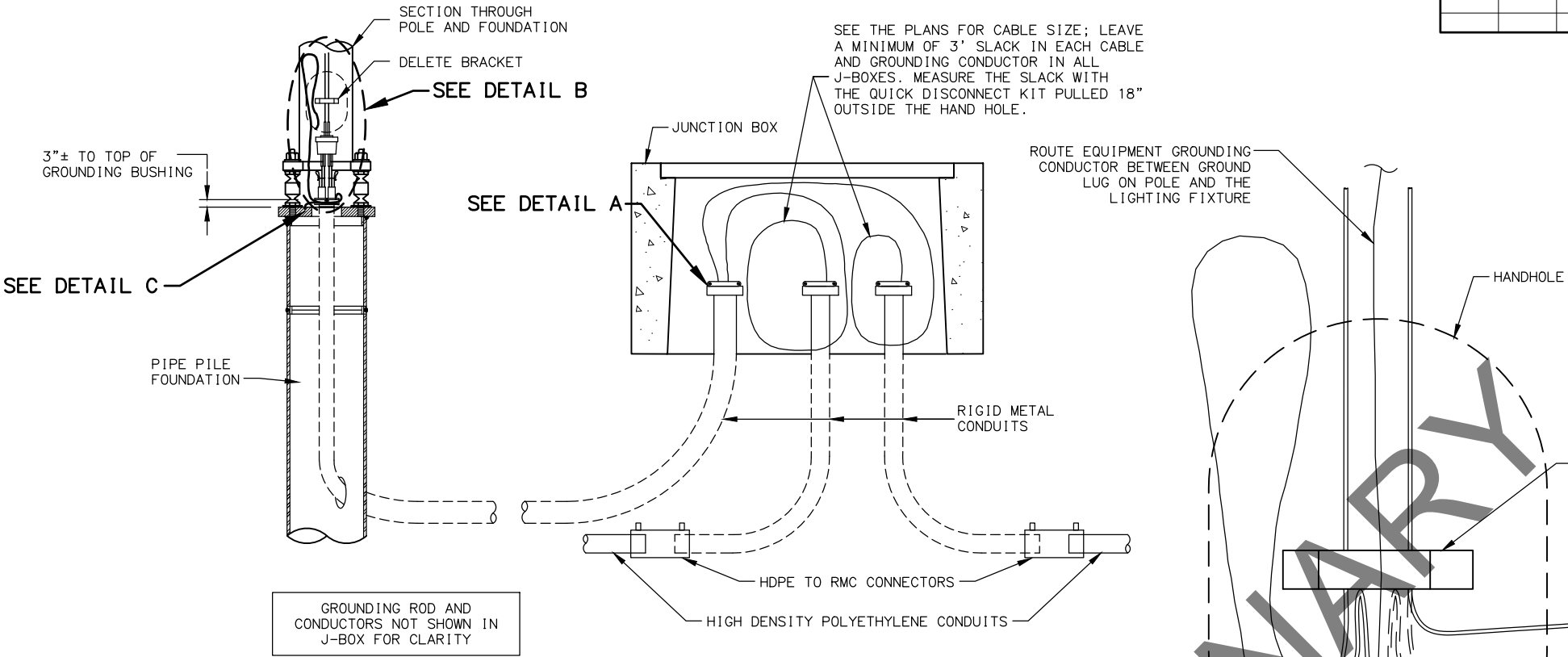
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY AT
MIRROR LAKE –
NOV 2018 EQ PR

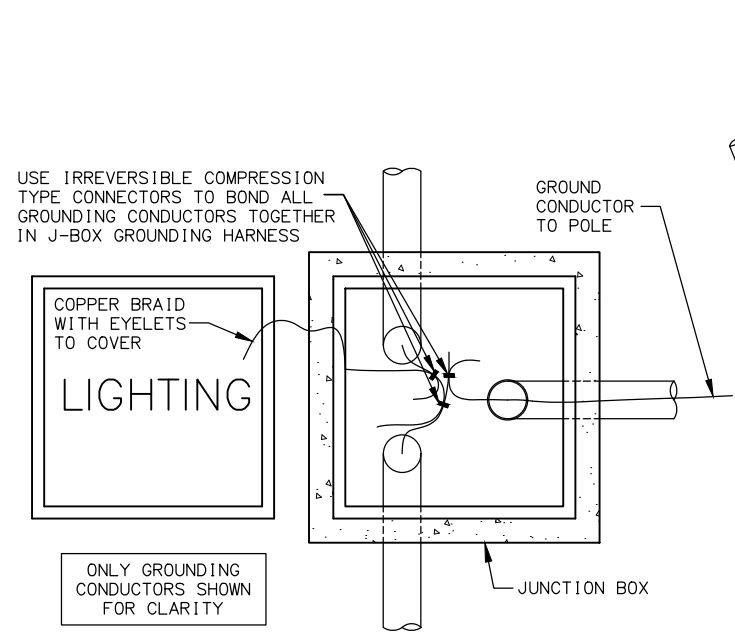
ARC FLASH AND SHOCK
HAZARD LABELING DETAILS

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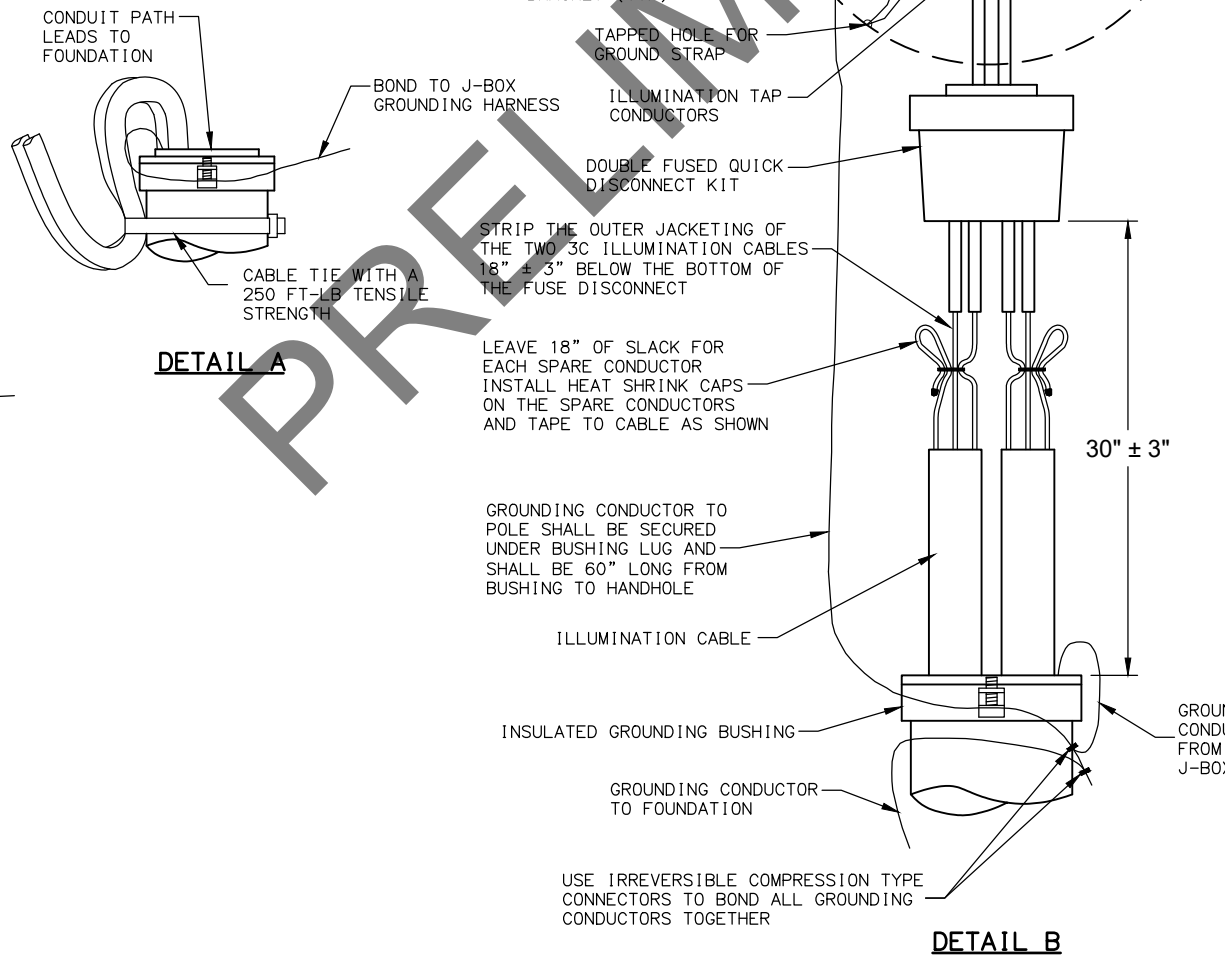
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0091007/CFHWY00583	2020	H5	H9



LIGHTING SYSTEM POLE AND J-BOX WIRING DETAILS



GROUNDING CONDUCTOR BONDING CONNECTIONS

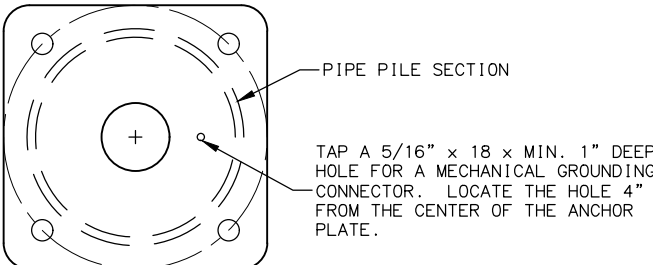


DETAIL B

- NOTES:**
1. APPLICATION FOR SLIP BASE IS THE SAME EXCEPT FOR BONDING. SEE SUBSECTION 660-3.06 FOR BONDING.
 2. LABEL ALL CABLES AND CONDUCTORS IN POLE BASE AND J-BOX. SEE SUBSECTION 660-3.05.
 3. MAKE ALL GROUNDING AND BONDING WIRE #8 AWG, EXCEPT IN THOSE CONDUITS THAT CONTAIN CIRCUIT CONDUCTORS LARGER THAN #8 AWG. IN THIS CASE USE WIRE EQUAL IN SIZE TO THE LARGEST CONDUCTOR. THE GROUNDING CONDUCTOR TO THE FOUNDATION SHALL BE #4 AWG.
 4. USE LISTED IRREVERSIBLE COMPRESSION TYPE CONNECTORS SIZED FOR EACH APPLICATION AND INSTALLED PER MANUFACTURERS SPECIFICATIONS.

ATTACHMENT BRACKET SECURE ILLUMINATION TAP CONDUCTORS TO BRACKET AFTER INSTALLING THE QUICK DISCONNECT KIT

LIMIT ILLUMINATION TAP CONDUCTOR LENGTH TO 24" ± 3" PULLED OUTSIDE THE HAND HOLE



DETAIL C

STATE OF ALASKA
REGISTERED PROFESSIONAL ENGINEER
LUCAS SCHNEIDER
E.E. 11389
CERT. SET

PLANS DEVELOPED BY:
STANTEC CONSULTING SERVICES INC.
725 EAST FIREWEED LANE, SUITE 200
ANCHORAGE, AK 99503-2245
907-276-4245
CERTIFICATE OF AUTHORIZATION #126386

STATE OF ALASKA
REGISTERED PROFESSIONAL ENGINEER
LUCAS SCHNEIDER
E.E. 11389
CERT. SET

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY AT
MIRROR LAKE –
NOV 2018 EQ PR

POLE WIRING AND GROUNDING
DETAIL

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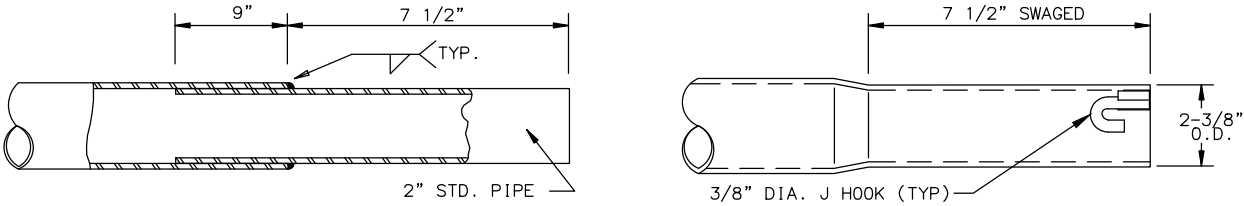
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LAYOUT

DATE/TIME 12/4/2019 8:16 AM

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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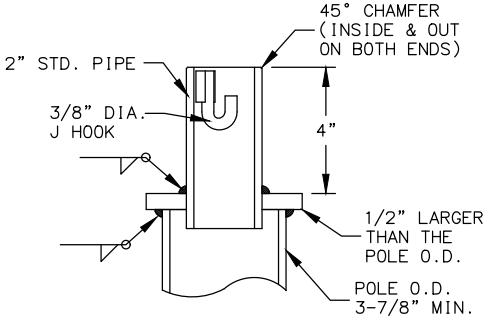


TENON

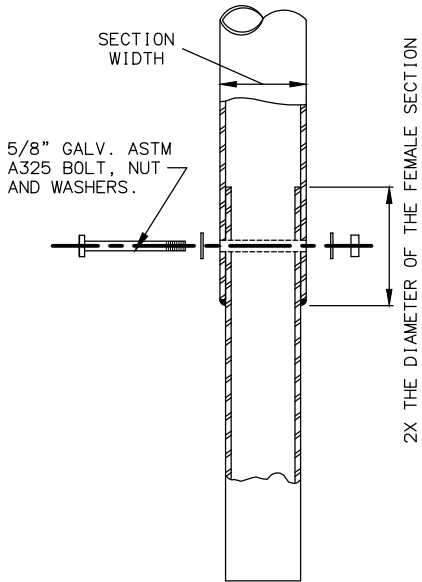
OPTIONAL SWAGED TENON

END OF MASTARM DETAIL

NTS

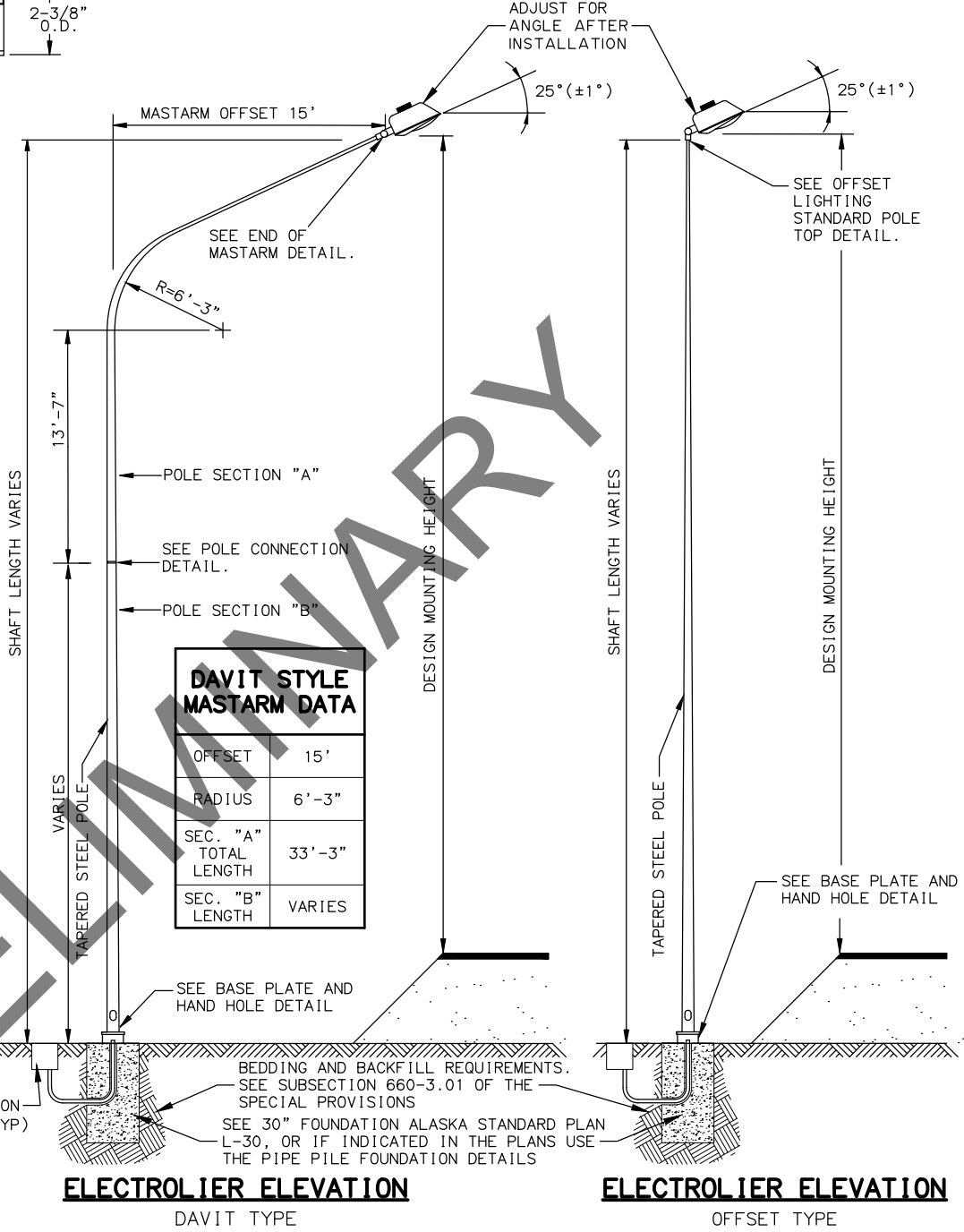


OFFSET LIGHTING
STANDARD POLE TOP DETAIL
(CUTAWAY FOR CLARITY)



POLE CONNECTION DETAIL

DAVIT STYLE MASTARM DATA	
OFFSET	15'
RADIUS	6'-3"
SEC. "A" TOTAL LENGTH	33'-3"
SEC. "B" LENGTH	VARIES

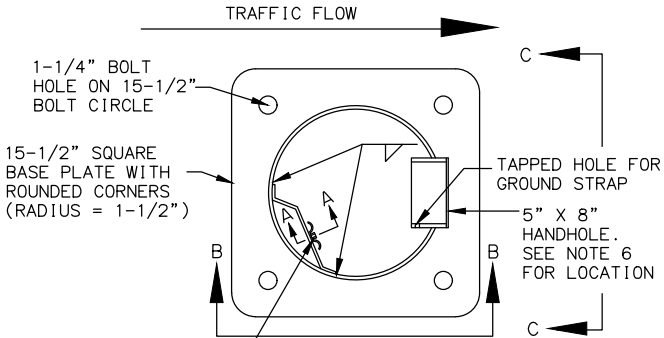


ELECTROLIER ELEVATION

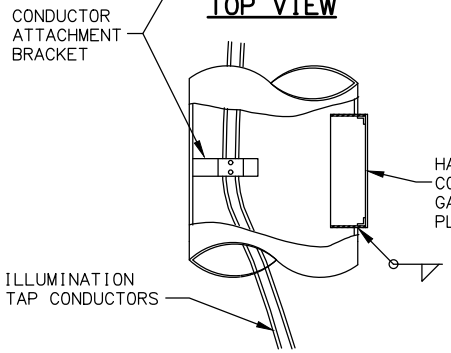
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ELECTROLIER ELEVATION

OFFSET TYPE

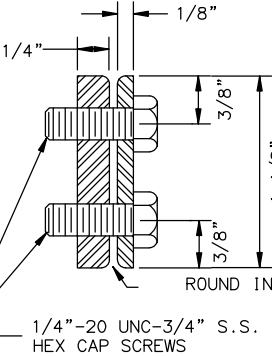


TOP VIEW



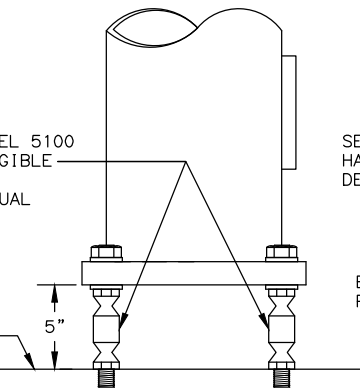
SIDE VIEW

BASE PLATE AND HAND HOLE DETAIL

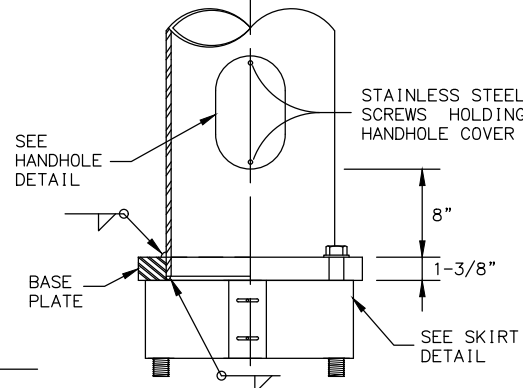


SECTION A-A

TRANSCO MODEL 5100
SERIES FRANGIBLE
COUPLING OR
APPROVED EQUAL



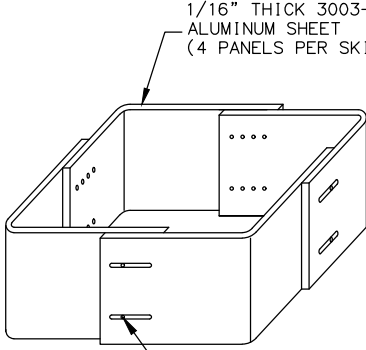
VIEW B-B



VIEW C-C

NOTES:

- DESIGN AND FABRICATE OFFSET TYPE SHAFTS AS SHOWN WITH AN OFFSET FIXTURE. FOR DAVIT TYPE SHAFTS, SECTION "A" IS CONSTRUCTED AS SHOWN AND SECTION "B" VARIES IN LENGTH. SECURE THE SLIP FIT CONNECTION BETWEEN THE TWO SECTIONS WITH A 5/8" THROUGH BOLT AND SELF LOCKING NUT. ASSUME EACH OFFSET FIXTURE WEIGHS 60 POUNDS AND HAS AN EFFECTIVE PROJECTED AREA OF 2.8 SQUARE FEET. WITH THIS DEAD LOAD, LIMIT THE ANGULAR ROTATION TO THE POLE TOP 1°40'0" MAXIMUM.
- WELD SIZE TO BE DETERMINED BY THE MANUFACTURER.
- MOUNTING HEIGHT, IF SPECIFIED IN THE PLANS, REFERS TO THE HEIGHT OF LUMINAIRE ABOVE THE ROADWAY. ADJUST EACH POLE'S SHAFT LENGTH TO MAINTAIN THIS DIFFERENCE IN ELEVATION WHENEVER SLOPE AND/OR OFFSET VARIES.
- MINIMUM OUTSIDE DIAMETER AT THE TOP OF AN OFFSET TYPE POLE EQUALS 3-7/8" AND FOR A DAVIT TYPE POLE EQUALS 2-3/8". POLE DIAMETER SHALL TAPER UNIFORMLY FROM THE TOP OF THE POLE TO THE BASE PLATE, WITH A MAXIMUM TAPER RATE OF 0.14" PER FOOT.
- APPLY AN ANTI-SEIZING COMPOUND TO ALL THREADED SURFACES, INCLUDING THOSE IN THE ANCHOR PLATE AND ON THE COUPLINGS.
- MASTARM ANGLE MUST NOT VARY MORE THEN ±1° FROM THE 25° SPECIFIED.
- LOCATE THE HANDHOLD AT 90 DEGREES TO THE MASTARM ON THE SIDE OF POLE DOWNSTREAM FROM TRAFFIC FLOW.
- FURNISH ALL POLES WITH A J-HOOK TO SUPPORT THE ILLUMINATION TAP CONDUCTORS.
- MOUNT LIGHTING STANDARDS UPON TRANSPO MODEL NO. 5100 FRANGIBLE COUPLINGS AND TRANSPO TYPE B FEMALE ANCHORS, OR APPROVED EQUAL.
- INSTALL ALL COMPONENTS OF THE BREAKAWAY SUPPORT SYSTEM IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
- FABRICATE THE SKIRT FROM FOUR PIECES OF 1/16" THICK 3003 H-14 ALUMINUM SHEET. BEND EACH PLATE TO PROVIDE CORNERS WITH A 3/4" RADIUS. ASSEMBLE THE SKIRT WITH #10 X 3/8" SELF TAPPING STAINLESS SCREWS OR POP RIVETS. THE ASSEMBLED SKIRT MEASURES ABOUT 12-3/4" SQUARE.
- A JUNCTION BOX IS REQUIRED AT EACH NEW ELECTROLIER. INSTALL THE JUNCTION BOX IMMEDIATELY BEHIND THE FOUNDATION. APPROXIMATELY 7' FROM POLE UNLESS OTHERWISE SPECIFIED IN THE PLANS.

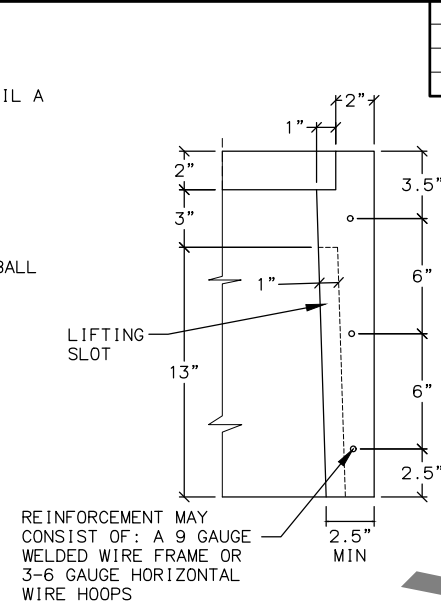
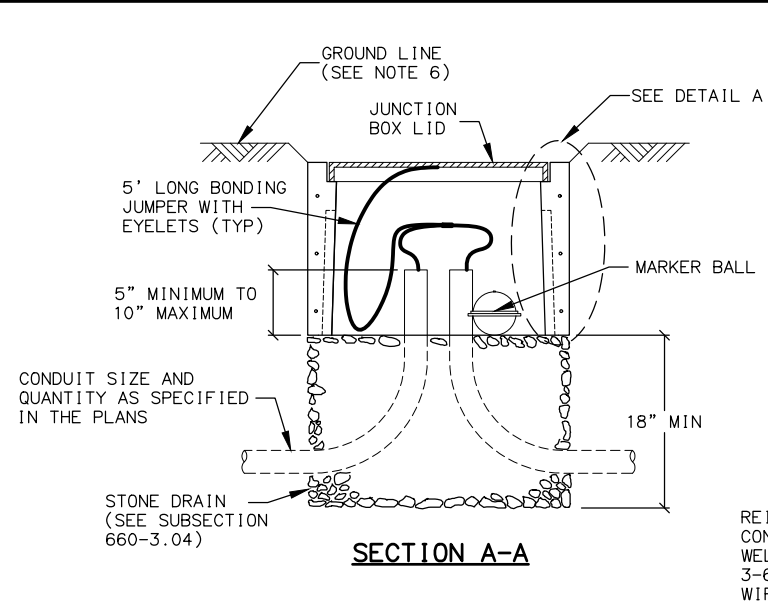
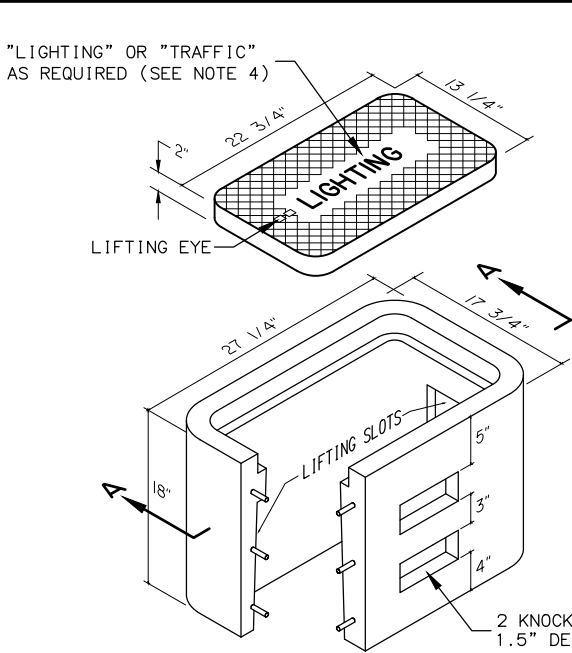


SKIRT DETAIL

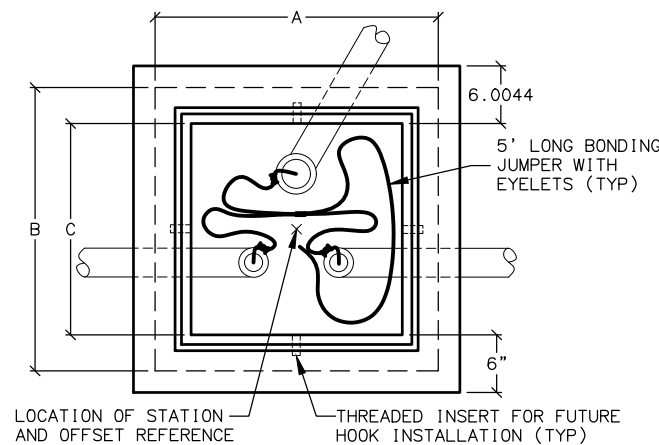


STATE OF ALASKA
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GLENN HIGHWAY AT
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NOV 2018 EQ PR
LIGHTING STANDARD

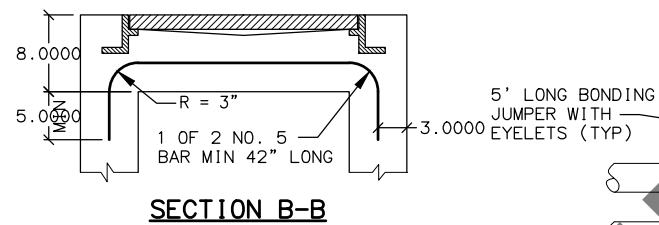
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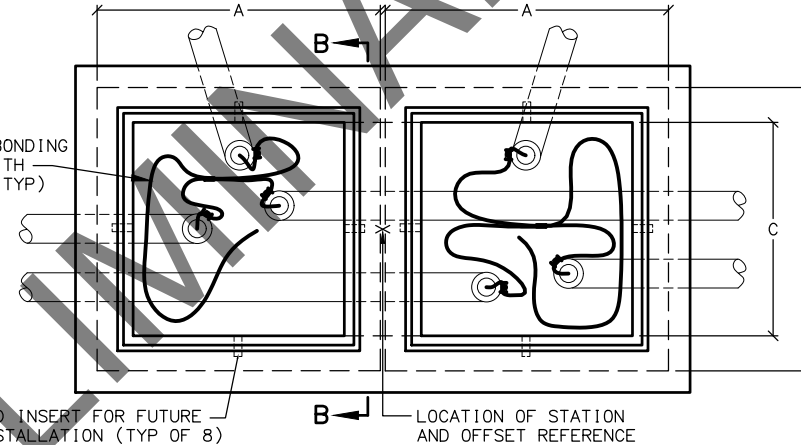
TYPE IA JUNCTION BOX



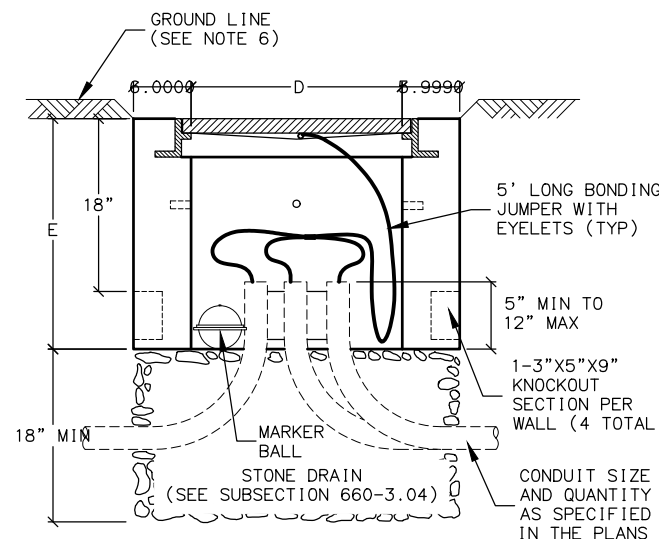
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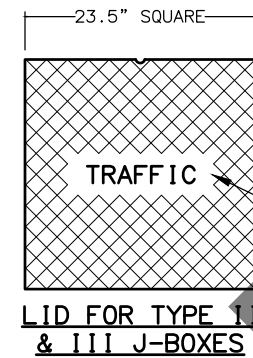
SECTION B-B



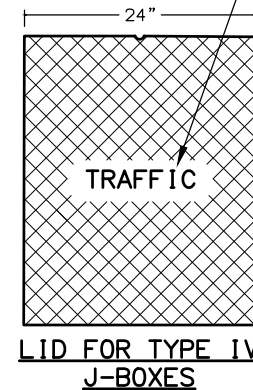
PLAN



TYPE II JUNCTION BOX
ELEVATION

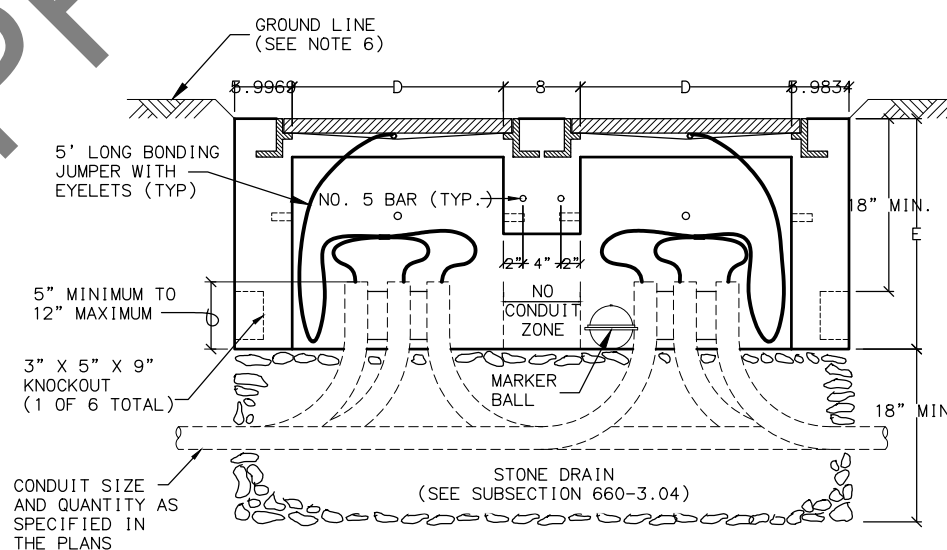


LID FOR TYPE II
& III J-BOXES



LID FOR TYPE IV
J-BOXES

"LIGHTING" OR "TRAFFIC"
AS REQUIRED (SEE NOTE 4)



TYPE III/IV JUNCTION BOX
ELEVATION (TYPE III LAYOUT DEPICTED)

NOTES:

1. AVOID INSTALLING TYPE IA JUNCTION BOXES IN DRIVEWAYS OR IN LOCATIONS SUBJECT TO USE BY HEAVY TRUCKS. INSTALL JUNCTION BOXES ONLY AT THE LATERAL LOCATIONS ALLOWED IN SUBSECTION 660-3.04.
2. FURNISH TYPE II, III AND IV JUNCTION BOXES WITH CAST IRON FRAMES AND LIDS THAT WEIGH A MINIMUM OF 210 POUNDS AND ARE RATED FOR HEAVY TRAFFIC LOADS IN COMPLIANCE WITH AASHTO M306. FURNISH TYPE IA JUNCTION BOXES WITH CAST IRON LIDS THAT WEIGH A MINIMUM OF 50 POUNDS.
3. CONSTRUCT JUNCTION BOXES ACCORDING TO SECTION 501 USING CLASS A CONCRETE. REINFORCE TYPE IA JUNCTION BOXES AS SHOWN. SYNTHETIC STRUCTURAL FIBER-REINFORCED CONCRETE THAT MEETS ASTM C 1116 AND CONTAINS FIBER IN PROPORTIONS AS RECOMMENDED BY THE FIBER MANUFACTURER MAY BE ADDED FOR STRENGTH.
4. FOR JUNCTION BOXES THAT CONTAIN ILLUMINATION CONDUCTORS EXCLUSIVELY, FURNISH LIDS WITH THE WORD "LIGHTING" INSCRIBED INTO THEM. FOR OTHER JUNCTION BOXES, FURNISH LIDS WITH THE WORD "TRAFFIC" INSCRIBED INTO THEM.
5. UNDER JUNCTION BOXES, INSTALL STONE DRAINS THAT CONSIST OF POROUS BACKFILL MATERIAL CONFORMING TO SUBSECTION 703-2.10.
6. SET THE TOPS OF JUNCTION BOXES WITH THE FOLLOWING DIMENSIONS BELOW THE FINISHED SURROUNDING SURFACE:
1" IN PAVED MEDIANS AND ADJACENT TO PEDESTRIAN FACILITIES
1/4" IN PEDESTRIAN FACILITIES
2" IN ALL OTHER AREAS
7. BOND JUNCTION BOX LIDS TO THE SYSTEM OF EQUIPMENT GROUNDING CONDUCTORS ACCORDING TO SUBSECTION 660-3.06. ATTACH BONDING JUMPERS TO THE JUNCTION BOX LIDS WITH BRASS OR STAINLESS STEEL HARDWARE.
8. INSTALL LOOP DETECTOR TAILS THROUGH ONE OF THE KNOCKOUTS OF TYPE IA JUNCTION BOXES. AFTER SETTING THE BOXES TO GRADE, INSTALL GROUT IN THE GAPS THAT REMAIN IN THE KNOCKOUT.
9. INSTALL A 1/2" THICK PREFORMED BITUMINOUS JOINT MATERIAL AROUND JUNCTION BOXES INSTALLED IN PORTLAND CEMENT CONCRETE WALKWAYS.
10. INSTALL AN ELECTRONIC MARKER BALL IN ALL JUNCTION BOXES PER SUBSECTION 660-3.04.
11. PRIOR TO INSTALLATION MARK ALL JUNCTION BOX LOCATIONS WITH A WIRE STAFF VINYL FLAG. THE FLAG SHALL BE RED IN COLOR AND MINIMUM 4-INCHES TALL BY 5-INCHES WIDE. THE WIRE STAFF SHALL BE 21-INCHES IN LENGTH AND CONSTRUCTED OF MINIMUM 15.5 GAUGE STEEL.
12. WHERE MODIFIED TYPE II JUNCTION BOXES ARE REQUIRED FOR DETECTOR LOOP TAIL INSTALLATIONS, ADD ONE(1) ADDITIONAL 5" DEEP X 3" HIGH X 18" WIDE KNOCKOUT 12" BELOW TOP OF JUNCTION BOX.

J-BOX DIMENSIONS

J-BOX TYPE	DIMENSIONS				
	A (MAX.)	B (MAX.)	C (MIN.)	D (MIN.)	E (MIN.)
II	29 1/2"	29 1/2"	22"	22"	24"
III	29 1/2"	29 1/2"	22"	22"	24"
IV	30"	36"	30"	24"	30"



STATE OF ALASKA
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**GLENN HIGHWAY AT
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NOV 2018 EQ PR**

JUNCTION BOX DETAILS

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DATE/TIME

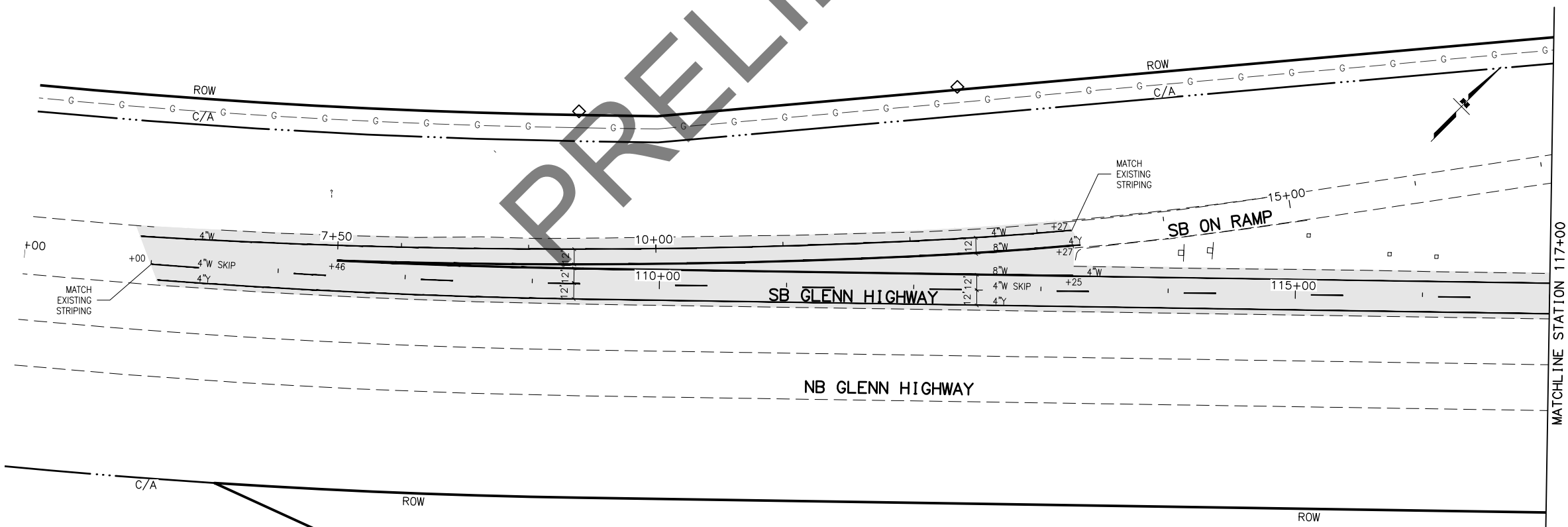
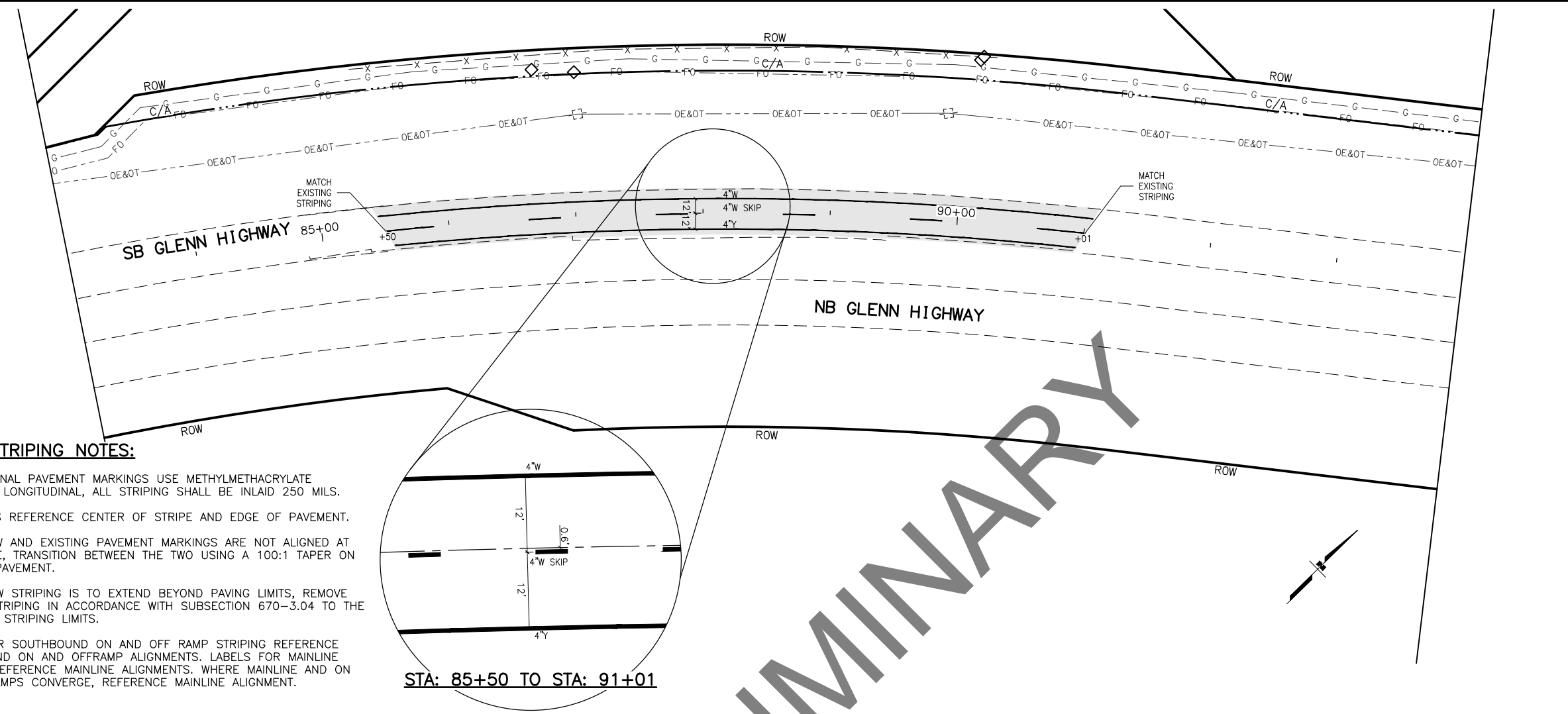
LAYOUT

MODEL

DESIGNED

CHECKED

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SHEET NO.	TOTAL SHEETS
H8	H9
STATE	YEAR
ALASKA	2020
PROJECT DESIGNATION	
0091007/ CFHWY00583	
NO.	REVISION
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DATE	



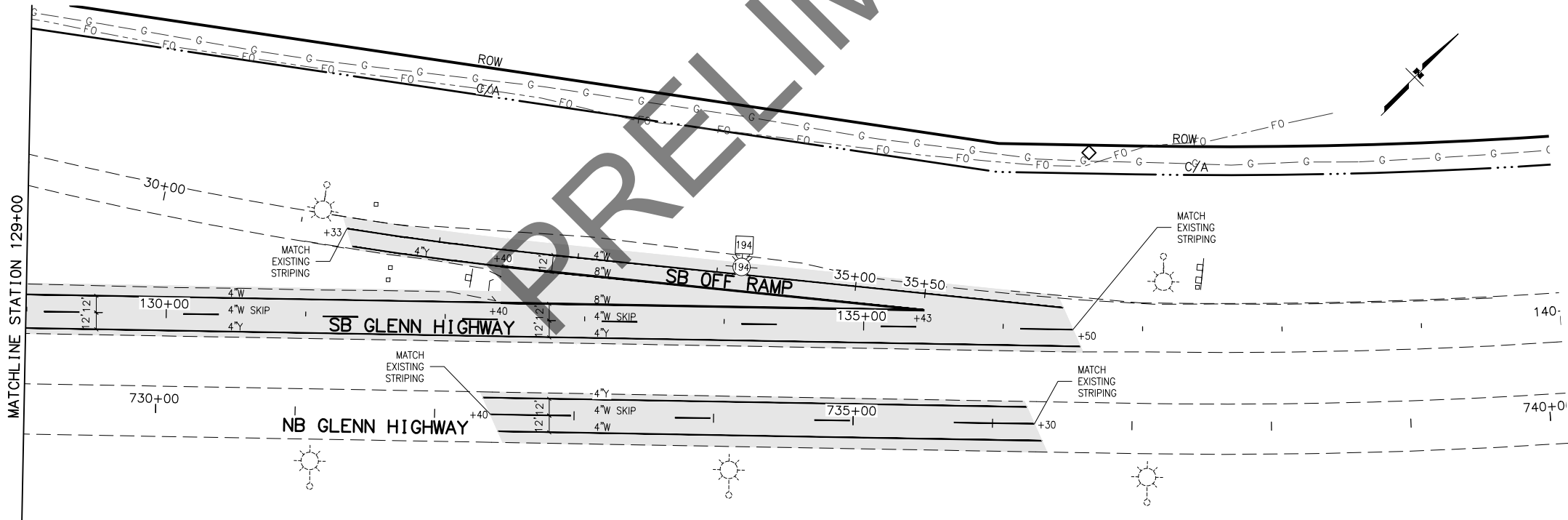
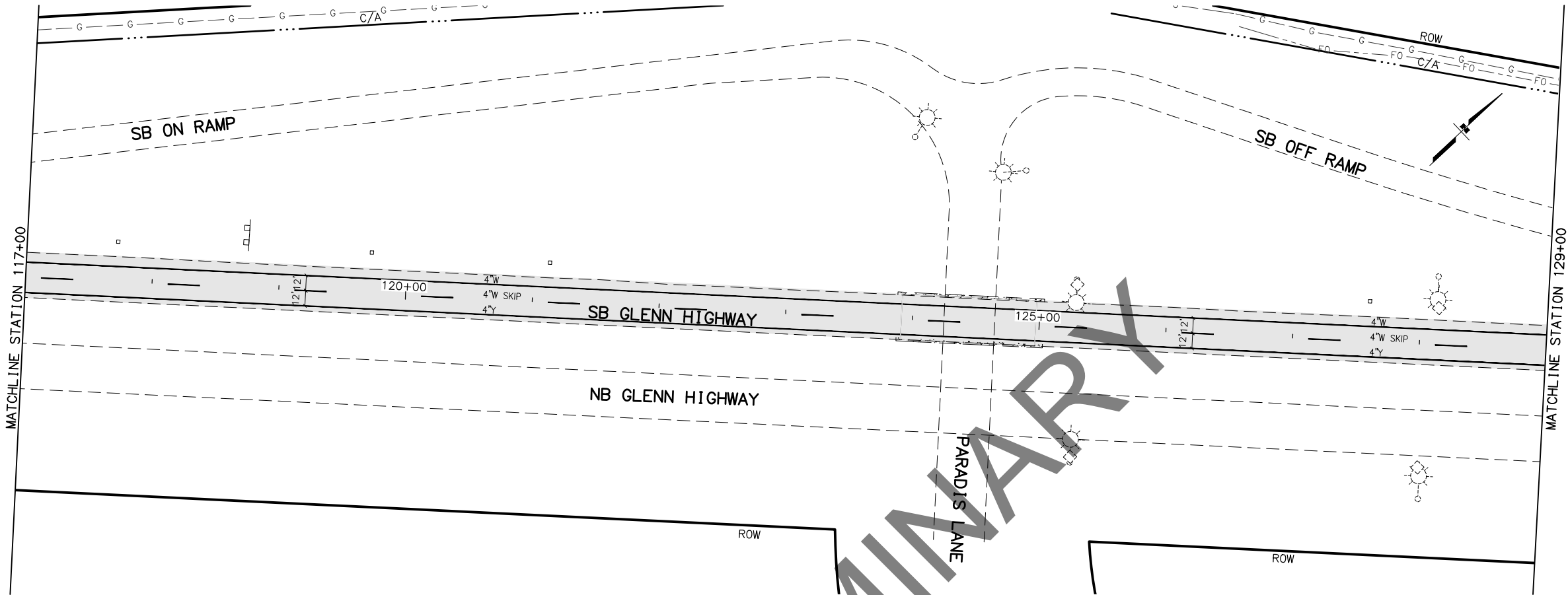
PLANS DEVELOPED BY:
STANTEC CONSULTING SERVICES INC.
725 EAST FIREWEED LANE, SUITE 200
ANCHORAGE, AK 99503-2245
907-276-4245
CERTIFICATE OF AUTHORIZATION #126386

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
GLENN HIGHWAY AT
MIRROR LAKE —
NOV 2018 EQ PR

STRIPING

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DATE/TIME LAYOUT MODEL DESIGNED CHECKED DRAFTED



SHEET NO.	TOTAL SHEETS
H9	H9
STATE	YEAR
ALASKA	2020
PROJECT DESIGNATION	
0091007/ CFHWY00583	
NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



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GLENN HIGHWAY AT
MIRROR LAKE —
NOV 2018 EQ PR

STRIPING

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DRAFTED

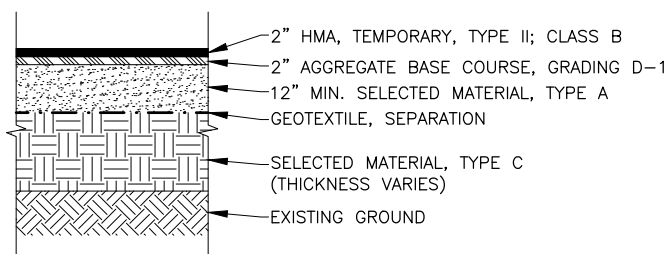
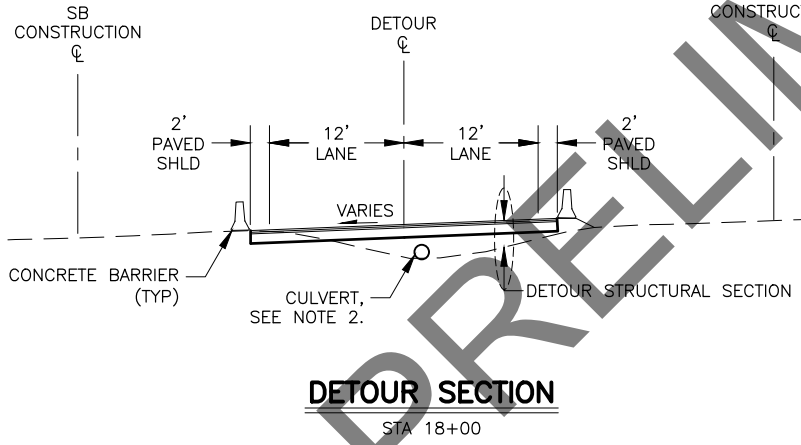
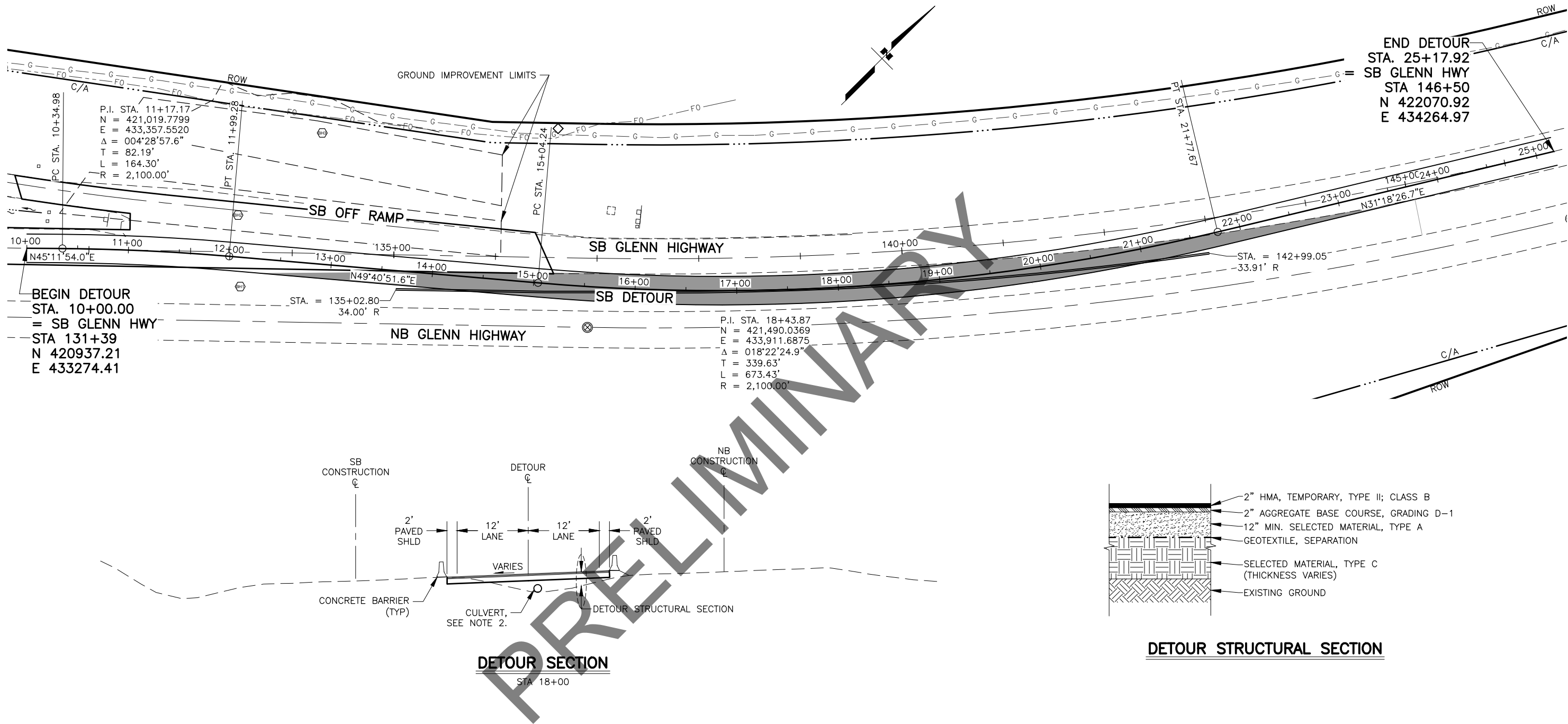
CHECKED

DESIGNED

LAYOUT

DATE/TIME 8/10/2020 1:29 PM

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0091007/CFHWY00583	2020	J1	J1



- NOTES:**
1. REMOVE ORGANICS BENEATH PROPOSED DETOUR.
 2. INSTALL CULVERT SIZED TO ACCOMMODATE A DESIGN FLOW OF 3.2 CFS.
 3. LEVEL MEDIAN USING SELECTED MATERIAL TYPE B BEFORE CONSTRUCTING DETOUR STRUCTURAL SECTION.
 4. MATCH CROSS SLOPE AND SUPERELEVATION OF SOUTHBOUND LANES.
 5. WORKZONE SPEED LIMIT IS 55 MPH.



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DETOUR PLAN AND SECTION