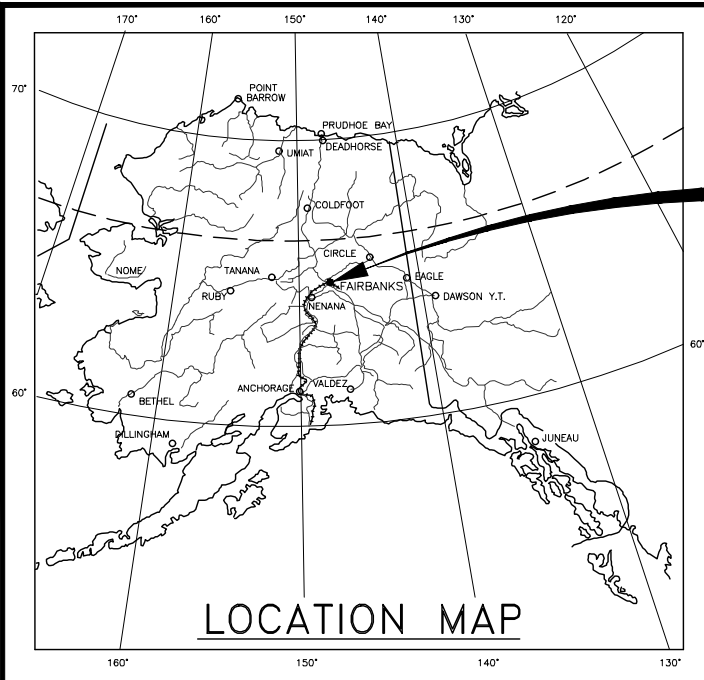


STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	A1	249
CDS ROUTE: 175900		MILEPOINT: 2.87 TO 3.60		



PROJECT LOCATION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

PROPOSED HIGHWAY PROJECT
PENDING/Z632130000

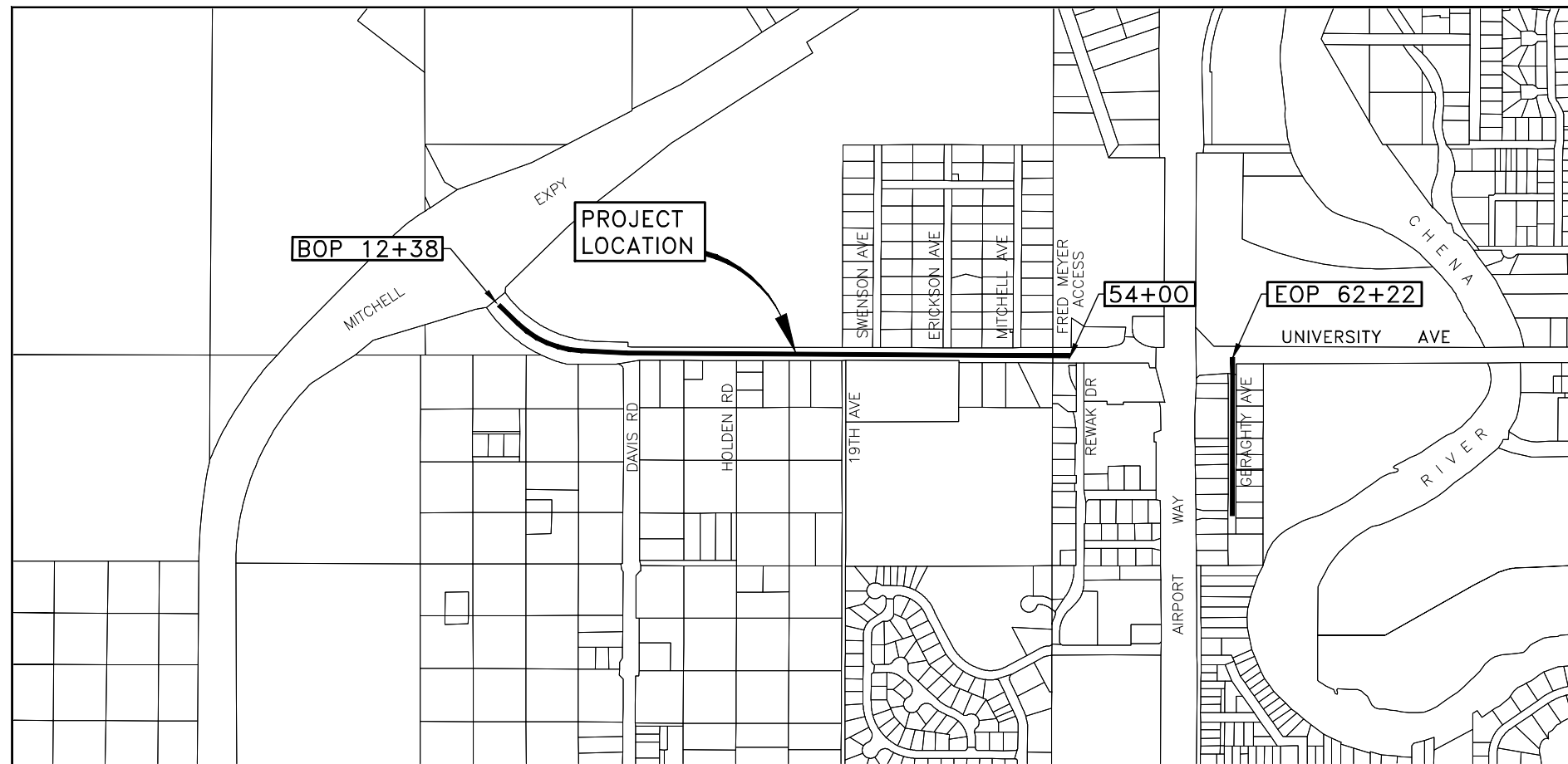
UNIVERSITY AVENUE REHABILITATION & WIDENING SEGMENT 2B —
REWAK DRIVE TO MITCHELL EXPRESSWAY
GRADING, DRAINAGE, PAVING, ILLUMINATION, SIGNALIZATION, & UTILITIES

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
A1	TITLE SHEET
A2-A3	LEGEND & GENERAL NOTES
A4	VICINITY MAP
A5	SURVEY CONTROL
A6-A7	ALIGNMENT CONTROL PLAN
B1-B3	TYPICAL SECTIONS
C1-C2	ESTIMATE OF QUANTITIES
E1-E12	DEMOLITION PLAN
F1-F11	PLANS
F12-F16	PROFILES
G1-G12	GRADING PLAN
G13-G22	APPROACH SUMMARY & DETAILS
H1-H19	SIGNING & STRIPING
H20-H62	ILLUMINATION & TRAFFIC SIGNAL PLANS
H63-H67	TEMPORARY SIGNAL PLANS
L1 - L11	LANDSCAPING PLANS & DETAILS
Q1	EROSION CONTROL NOTES, & DETAILS
Q2-Q12	EROSION SEDIMENT CONTROL PLANS
*S	CONSTRUCTION PHASING PLANS
T1-T7	TRAFFIC CONTROL PLANS
U100-U112	WATER PLAN AND PROFILES
U200-U211	STORM DRAIN PLAN AND PROFILES
U300-U305	ACS DUCT BANK LAYOUT AND TRENCH SECTIONS
U306	ACS DUCT BANK DETAILS
U307-U318	ACS DUCT BANK PLAN AND PROFILES
V1-V46	STANDARD PLANS

*NOT INCLUDED IN THIS SET.

THE FOLLOWING STANDARD PLANS APPLY TO THIS PROJECT:

- C-04.12, C-05.20
- D-01.02, D-04.22, D-06.10, D-20.05
- D-22.01, D-23.01, D-24.00, D-26.04, D-35.00
- I-21.12, I-22.11
- L-24.10, L-26.10
- M-20.15, M-23.13
- S-00.12, S-01.02, S-05.02, S-20.10, S-30.05, S-31.02
- T-20.04, T-21.04, T-22.04, T-23.01, T-30.12, T-31.01, T-52.21, T-53.01, T-55.10, T-56.10, T-57.10



VICINITY MAP

PROJECT SUMMARY

	UNIVERSITY AVE	GERAGHTY AVE
WIDTH OF PAVEMENT	57 FT	24 FT
LENGTH OF GRADING	0.80 MI	0.17 MI
LENGTH OF PAVING	0.80 MI	0.17 MI
LENGTH OF PROJECT	0.80 MI	0.17 MI

DESIGN DESIGNATIONS

	UNIVERSITY AVE	GERAGHTY AVE
ADT (2015)	17,750	(2018) 2,500
ADT (2035)	21,660	(2035) 2,960
DHV (2025)	10%	N/A
PERCENT TRUCKS (T)	5%	3%
DIRECTIONAL SPLIT (D)	45/55	N/A
DESIGN SPEED (V)	40 MPH	30 MPH
DESIGN EAL'S (2035)	1,458,275	(2038) 141,516

Preliminary PS&E
March 5, 2021
Northern Region

LAUREN LITTLE, P.E., PROJECT MANAGER
HEATHER D. ESTABROOK, P.E., DESIGN ENGINEER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

APPROVED BY: _____ DATE _____

Sarah E. Schacher, P.E.
Preconstruction Engineer, Northern Region
ACCEPTED FOR CONSTRUCTION

Ryan F. Anderson, P.E.
Regional Director, Northern Region

PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc.local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B\C\0001\cst1147.04fb_2b_42_mon_feb/22/21 10:17am

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	A2	A7

	RECOVERED	SET
BLM MONUMENT		
GLO MONUMENT		
USC&GS MONUMENT		
PRIMARY MONUMENT		
CENTERLINE MONUMENT IN CASING		
PRIMARY R.O.W. MONUMENT		
BEARING OBJECT		
MISCELLANEOUS MONUMENT		
LINE OF SIGHT MONUMENT		
CONCRETE R.O.W. MONUMENT		
BENCHMARK		
REBAR AND CAP		
REBAR		
IRON PIPE		
PK NAIL		
SPIKE		
HUB AND TACK		
CONSTRUCTION CENTERLINE		
MISCELLANEOUS CENTERLINE		
STATION EQUATION		
PROJECT RIGHT-OF-WAY LINE		
EXISTING RIGHT-OF-WAY LINE		
EXISTING PROPERTY LINE		
CONTROLLED ACCESS LINE		
EXISTING EASEMENT LINE		
PROPOSED EASEMENT LINE		
PROPOSED CUT SLOPE LIMIT		
PROPOSED FILL SLOPE LIMIT		
SECTION LINE		
1/4 SECTION LINE		
1/16 SECTION LINE		
TOWNSHIP & RANGE LINE		
MEANDER LINE		

	EXISTING	PROPOSED
SANITARY SEWER (FLOW DIRECTION →)		
SANITARY SEWER (FORCE MAIN)		
FUEL LINE		
GAS LINE		
WATER LINE		
METER, VALVE, FIRE HYDRANT		
EXISTING STORM DRAIN (FLOW DIRECTION →)		
PROPOSED STORM DRAIN		
FIBER OPTIC LINE		
DIRECT BURIAL TELEPHONE CABLE		
GPR DATA RECENTLY COLLECTED		
DIRECT BURIAL ELECTRIC CABLE		
ELECTRIC LINE (OVERHEAD)		
POWER POLE LINE		
JOINT USE POWER & TELEPHONE		
TELEPHONE POLE LINE		
POLE ANCHOR		
STUB POLE (POWER OR TELEPHONE)		
TELEPHONE DUCT		
TELEPHONE PEDESTAL		
BURIED CABLE MARKER		
PIPELINE MARKER OR VALVE		
CATCH BASIN OR DROP INLET		
MANHOLE		
SANITARY SEWER CLEAN OUT		

NOTES:
 ① UTILITIES INSTALLED WITH 2019-2021 CONSTRUCTION.

	EXISTING	PROPOSED
ROADWAY/PAVEMENT EDGE		
FENCE		
CURB AND GUTTER		
DETECTABLE WARNINGS		
GUARDRAIL		
CULVERT PIPE		
SIGN		
MAILBOX		
RAILROAD TRACKS		
RAILROAD DEVICES		
TREE LINE		
WATER BOUNDARY		
ORDINARY HIGH WATER LINE		
FLOW CENTERLINE		
FLOW DIRECTION		
WETLANDS		
RIPRAP		
EXISTING BUILDINGS		
POST OR BOLLARD		
WELL OR MONITORING WELL		
SEPTIC PIPE		
FUEL TANK FILL PIPE/VENT		
SATELLITE DISH		
TEST HOLE		
CONIFER TREE		
DECIDUOUS TREE		
GRAVE		
THERMOSIPHON		
PARKING METER		
VEHICLE PLUG-IN		
DELINEATOR/GUIDE MARKER		

H = HOUSE
 G = GARAGE
 M = MERCHANT/STORE
 B = BARN
 S = SHED
 P = PRIVY
 SS = SERVICE STATION
 W = WAREHOUSE

	EXISTING	PROPOSED
JUNCTION BOX, TYPE IA		
JUNCTION BOX, TYPE II		
JUNCTION BOX, TYPE III		
JUNCTION BOX, ABOVE GRADE		
SIGNAL FACE, VEHICULAR		
SIGNAL FACE, BACKPLATE		
SIGNAL FACE, LEFT TURN, BACKPLATE		
SIGNAL FACE, PEDESTRIAN		
LOOP DETECTOR		
VIDEO DETECTOR		
RADAR DETECTOR		
OPTICOM DETECTOR		
PAN, TILT, ZOOM CAMERA		
PEDESTRIAN PUSH BUTTON		
SIGNAL POST W/O MAST ARM		
SIGNAL POLE W/MAST ARM		
INTERCONNECT VAULT		
INTERCONNECT MANHOLE		
SIGNAL CONTROLLER		
LOAD CENTER		
POST MOUNTED TRANSFORMER AND DISCONNECT SWITCH		
LUMINAIRE		
RIGID METAL CONDUIT		
TRAFFIC SIGNAL INTERCONNECT		
BORING/ENCASED CONDUITS		

LEGEND AND NOTES



PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc.local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B(C)\0001\cst1147.04fb_2b-a3_mon_feb/22/21 10:17am

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	A3	A7

GENERAL NOTES

- APPROACH LOCATIONS; LENGTHS AND LOCATIONS OF CULVERTS, STORM DRAINS, AND DUCT BANKS SHOWN ON THESE PLANS ARE SUBJECT TO MINOR REVISIONS BY THE ENGINEER. ALL DISTANCES SHOWN IN THE PLAN VIEW ARE HORIZONTAL MEASUREMENTS.
- PROOF-ROLL THE BASE OF EXCAVATION. SEE SPECIAL PROVISIONS SECTION 203-3.06.
- ALL DISTURBED GROUND NOT TO BE COVERED IN ASPHALT, CONCRETE OR LANDSCAPING MATERIAL SHALL BE SEEDED.
- 4" TOPSOIL AND SEED ANY LOCATIONS WHERE FINISHED SLOPE WORK ABUTS THE LAWNS OF RESIDENTIAL OR COMMERCIAL PROPERTY OWNERS.
- CLEARING, GRUBBING AND SEEDING LIMITS SHALL BE AS SHOWN ON THE PLANS AND SHALL BE AS DIRECTED BY THE ENGINEER. RESTORE ALL DISTURBED AREAS DUE TO CONTRACTORS WORK OUTSIDE THE CLEARING AND GRUBBING LIMITS SHOWN ON THE PLANS. PAYMENT FOR THIS WORK SHALL BE SUBSIDIARY TO THE RESPECTIVE BID ITEM.
- DEWATERING, IF REQUIRED, WILL NOT BE PAID FOR SEPARATELY BUT WILL BE CONSIDERED SUBSIDIARY TO THE RESPECTIVE BID ITEM FOR WHICH THE DEWATERING IS NECESSARY.
- SAWCUT ALL MATCH LINES WHERE NEW CONSTRUCTION ABUTS EXISTING ASPHALT. APPLY STE-1 ASPHALT FOR TACK COAT ON THE VERTICAL FACE OF ALL SAWCUTS. SAWCUT EXISTING SIDEWALKS OR GO BACK TO NEAREST JOINT.
- REFERENCE GRADING PLAN SHEETS FOR INTERSECTION TRANSITION LAYOUTS.
- WORK IN PUE'S IS FOR UTILITY PURPOSES. PUE'S ARE NOT AVAILABLE FOR STAGING, ETC. FOR OTHER WORK ITEMS.
- WWM STEEL REINFORCEMENT FOR SIDEWALKS SHALL BE 6"x6"-W2.9XW2.9. WWM STEEL REINFORCEMENT FOR MEDIAN CONCRETE SHALL BE 6"x6"-W1.4XW1.4. ALL STEEL SHALL BE SET ON SPACERS AND PULLED UP AS REQUIRED TO POSITION STEEL 1 1/2" UP FROM BOTTOM OF CONCRETE.

UTILITY NOTES

- NUMEROUS UNDERGROUND UTILITIES EXIST WITHIN THE PROJECT CORRIDOR. CONTACT UTILITY OWNERS AND GET LOCATES PRIOR TO ANY EXCAVATION.
- THE DEPTH OF EXISTING UTILITIES SHOWN ON THE PLANS ARE BASED ON AVAILABLE INFORMATION FROM AS BUILT DRAWINGS AND ARE APPROXIMATE ONLY. DETERMINE ACTUAL DEPTH PRIOR TO INSTALLING NEW UTILITIES.
- PROTECT, OR REMOVE AND REPLACE IN SAME LOCATION OR TO THE SIDE OF ROADWAY, EXISTING MARKER POSTS FOR UTILITIES THAT ARE DISTURBED DURING CONSTRUCTION. THIS IS SUBSIDIARY TO OTHER ITEMS OF WORK.
- INSULATING PIPES, INLETS, MANHOLES, FITTINGS, APPURTENANCES AND CROSSING UTILITIES AS INDICATED ON THE PLANS WILL NOT BE MEASURED FOR PAYMENT. THIS WORK IS SUBSIDIARY TO ALL UTILITY AND STORM DRAIN INSTALLATIONS.
- SEE INDIVIDUAL U SERIES SHEETS FOR ADDITIONAL NOTES.
- CONTRACTOR SHALL PROVIDE SWPPP FOR THE CONCURRENT UTILITY RELOCATIONS. THIS WORK IS SUBSIDIARY TO 641 PAY ITEMS.
- UTILITY COMPANIES WILL BE WORKING CONCURRENTLY WITH THE CONTRACTOR TO COMPLETE THE WORK IN THIS SECTION. THIS WORK MAY INCLUDE, BUT IS NOT LIMITED TO INSTALLING CABLE, SPLICING CABLE, INSTALLING OTHER EQUIPMENT AND CONNECTING SERVICES. THE CONTRACTOR SHALL COOPERATE AND SUPPORT THIS WORK. INCLUDING PROVIDING ANY NECESSARY TRAFFIC CONTROL. TRAFFIC CONTROL FOR UTILITY COMPANY WORK WILL BE PAID UNDER 643 PAY ITEMS.

ABBREVIATIONS

ACS	ALASKA COMMUNICATION SYSTEMS	LHF	LEFT HAND FORWARD
ADA	AMERICANS WITH DISABILITIES ACT	LN	LANE
ARRC	ALASKA RAILROAD CORPORATION	LOC	LIP OF CURB
ATB	ASPHALT TREATED BASE	LP	LOW POINT
AVE	AVENUE	LT	LEFT
		LVC	LENGTH OF VERTICAL CURVE
BLM	THE BUREAU OF LAND MANAGEMENT	MAX	MAXIMUM
BOP	BEGINNING OF PROJECT	MH	MANHOLE
BP	BEGIN POINT	MIN	MINIMUM
BV	BUTTERFLY VALVE	MMA	METHYL METHACRYLATE
C/A	ACCESS CONTROL		
CL, CL	CENTERLINE	NO./#	NUMBER
C	CENTER	N	NORTHING
CB	CATCH BASIN	NFL	NORMAL FLOW LINE
CGP	CONSTRUCTION GENERAL PERMIT	NIC	NOT IN CONTRACT
CMP	CORRUGATED METAL PIPE	NTS	NOT TO SCALE
COM	COMMERCIAL		
COMM	COMMUNICATIONS	PC	POINT OF CURVATURE
CON	CONCRETE	PCC	PORTLAND CEMENT CONCRETE / POINT OF COMPOUND CURVE
CPM	CRITICAL PATH METHOD	PRC	POINT OF REVERSE CURVE
CSP	CORRUGATED STEEL PIPE	PI	POINT OF INTERSECTION
		PT	POINT OF TANGENCY
		PUE	PUBLIC UTILITY EASEMENT
DEMO	DEMOLITION		
DIP	DUCTILE IRON PIPE	R	RADIUS
DOT	DEPARTMENT OF TRANSPORTATION	RES	RESIDENTIAL
DNR	DEPARTMENT OF NATURAL RESOURCES	REHAB	REHABILITATION
DR	DRIVE	RHF	RIGHT HAND FORWARD
DRWY	DRIVEWAY	RD	ROAD
DWT	DETECTABLE WARNING TILE	ROW, R/W, R.O.W.	RIGHT OF WAY
		RP	RADIAL POINT
		RT	RIGHT
E	EASTING		
EA	EACH	SC	STRUCTURE CENTER
EG	EXISTING GROUND	SD	STORM DRAIN
ELEV, EL	ELEVATION	SDWK	SIDEWALK
EOP	END OF PROJECT	SHLDR	SHOULDER
EP	END POINT, END OF PAVEMENT	SS	SANITARY SEWER
EXPY, EXP	EXPRESSWAY	ST	STREET
EXP	EXPANSION JOINT	STD	STANDARD
EX	EXISTING	STA	STATION
		SW	SIDEWALK
FG	FINISHED GRADE	SWR	SEWER
FL	FLOW LINE	SWPPP	STORM WATER POLLUTION PREVENTION PLAN
FLG	FLANGE		
FM	FORCE MAIN	TBC	TOP BACK OF CURB
FNG	FAIRBANKS NATURAL GAS	TCE	TEMPORARY CONSTRUCTION EASEMENT
FT	FEET	TCP	TEMPORARY CONSTRUCTION PERMIT
		THK	THICK
GALV	GALVANIZE	TOC	TOP OF CASTING
GB	GRADE BREAK	TYP	TYPICAL
GCI	GENERAL COMMUNICATIONS INCORPORATED		
GPR	GROUND PENETRATING RADAR	VPC	VERTICAL POINT OF CURVATURE
GV	GATE VALVE	VPI	VERTICAL POINT OF INTERSECTION
GVEA	GOLDEN VALLEY ELECTRIC ASSOCIATION	VPT	VERTICAL POINT OF TANGENCY
HDPE	HIGH DENSITY POLYETHYLENE		
HMA	HOT MIX ASPHALT	W/	WITH
HMCP	HAZARDOUS MATERIAL CONTROL PLAN	W, WTR	WATER
		WWM	WELDED WIRE MESH/ STEEL WELDED WIRE FABRIC
INT	INTERSECTION		
INV	INVERT		

GENERAL NOTES



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	A4	A7



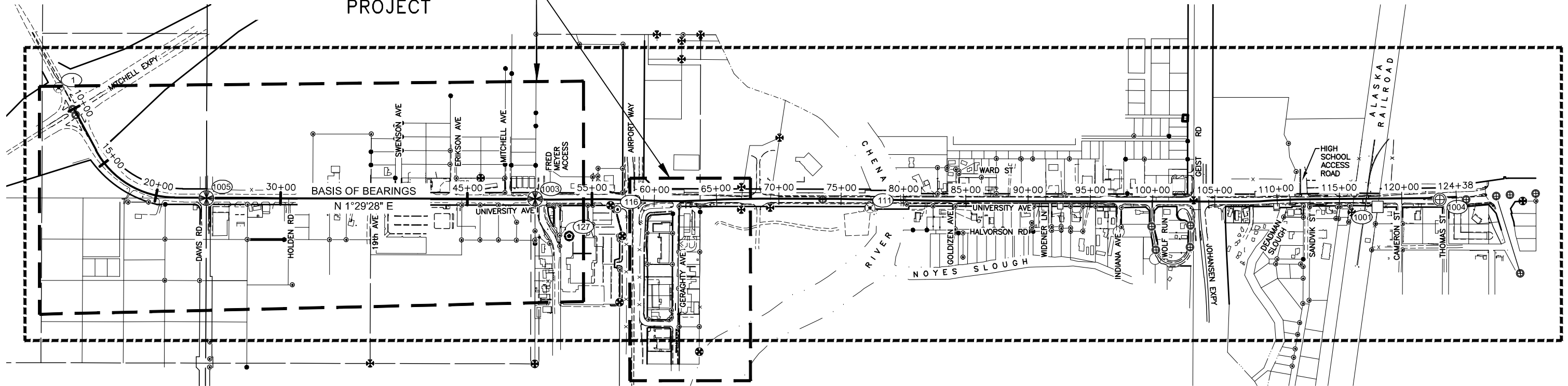
PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605. 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc.local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B\C\00002\cst1147.04FB_2B-AA_Mon_Feb/22/21_1024am

VICINITY MAP



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	A5	A7

LIMITS OF SEGMENT 2B PROJECT

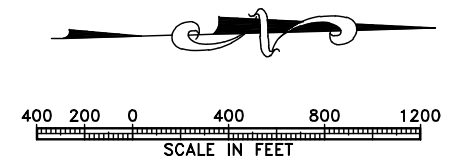


NOTES:

1. THE BASIS OF HORIZONTAL COORDINATES IS PDC CONTROL POINT #1005, A 3 1/2" ALUMINUM CAP STAMPED "RESET 2012 7621S" SET ON A 5/8" REBAR IN A CASING NEAR THE INTERSECTION OF UNIVERSITY AVENUE AND DAVIS ROAD. THIS MONUMENT MARKS THE POSITION OF THE 1/4 CORNER COMMON TO SECTIONS 17 AND 18. IT IS ADOT POINT # 1 ON THE ADOT RECORD OF SURVEY "CONTROL DRAWING OF UNIVERSITY AVENUE 63213" STAMPED AND DATED 4/21/2010 AND RECORDED AS PLAT 2010-112 IN THE FAIRBANKS RECORDING DISTRICT. THE LOCAL PROJECT COORDINATES FOR POINT #1005 ARE 61,145.76 NORTH, 18,085.340 EAST, US FEET.
2. THE BASIS OF BEARING IS THE LINE BETWEEN THE BASIS OF COORDINATES (PDC POINT #1005) AND PDC POINT #1003, THE SECTION CORNER COMMON TO SECTIONS 7, 8, 17, AND 18, MARKED BY A 3 1/2" ALUMINUM CAP ON A 5/8" REBAR STAMPED "RESET 2012, 7621S" IN A CASING NEAR THE INTERSECTION OF UNIVERSITY AVENUE AND REWAK DRIVE. THIS IS ADOT POINT #2 ON THE ADOT RECORD OF SURVEY "CONTROL DRAWING OF UNIVERSITY AVENUE 63213" STAMPED AND DATED 4/21/2010. THE LOCAL PROJECT BEARING IS N 1°29'28" E.
3. THIS PROJECT IS IN A LOCAL GROUND COORDINATE SYSTEM. UNITS ARE U.S. SURVEY FEET.
4. CONTROL MONUMENTS DEPICTED WITH POINT NUMBERS AND SHOWN IN THE CONTROL TABLES ARE LIMITED TO THOSE SURVEYED BY PDC, INC IN 2012. ALL OTHER MONUMENTS WERE SURVEYED BY R&M CONSULTANTS AND ADOT&PF AND ARE SHOWN GRAPHICALLY ON THESE SHEETS FOR INFORMATIONAL PURPOSES ONLY. CONTROL COORDINATES FOR R&M/ADOT&PF MONUMENTS ARE LISTED ON THE FOLLOWING DOCUMENTS: THE ADOT RECORD OF SURVEY "CONTROL DRAWING OF UNIVERSITY AVENUE 63213" STAMPED AND DATED 4/21/2010 AND RECORDED AS PLAT 2010-112 IN THE FAIRBANKS RECORDING DISTRICT, AND THE UNRECORDED RIGHT OF WAY MAP FOR THIS PROJECT, LAST REVISION DATE 8-9-2016, ON FILE AT THE ALASKA DEPARTMENT OF TRANSPORTATION.
5. THE BASIS OF ELEVATION IS ADOT BENCHMARK "NOYES", A 3 1/4" BRASS CAP MOUNTED ON THE TOP OF THE SOUTH WEST WING WALL IN THE NOYES SLOUGH BRIDGE NEAR THE JOHANSEN EXPRESSWAY. THE CAP IS STAMPED "SOA DOT/PF NOYES 1993 ELEV. 433.59 NAVD 1988".

LEGEND:

	RECOVERED	SET
BLM MONUMENT		
GLO MONUMENT		
USC&GS MONUMENT		
PRIMARY MONUMENT		
CENTERLINE MONUMENT IN CASING		
PRIMARY R.O.W. MONUMENT		
MISCELLANEOUS MONUMENT		
CONCRETE R.O.W. MONUMENT		
SURVEY PANEL POINT		
REBAR AND CAP		
REBAR		
IRON PIPE		
SPIKE		



CONTROL TABLE

POINT#	NORTHING	EASTING	STATION	OFFSET	DESCRIPTION
1	59979.81	17171.67	--	--	6" SPIKE SET THIS SURVEY
111	66468.05	18290.42	77+33.38	68.72'	6" SPIKE SET THIS SURVEY
116	64442.60	18254.44	57+08.26	81.64'	2" ALUMINUM CAP RECOVERED
127	64048.61	18458.69	53+10.32	294.26'	2" ALUMINUM CAP ON 5/8" REBAR SET THIS SURVEY
1001	70541.48	18377.83	118+06.37	67.21'	RECOVERED CONCRETE ROW MONUMENT
1003	63782.45	18153.97	50+43.20	-4.90'	3.25" ALUMINUM CAP IN CASING RECOVERED THIS SURVEY
1004	71042.43	18330.72	123+06.24	16.35'	2.5" BRASS CAP IN CASING RECOVERED THIS SURVEY
1005	61145.76	18085.34	24+05.56	3.95'	3.25" ALUMINUM CAP IN CASING RECOVERED THIS SURVEY

THE MONUMENTS IN THIS TABLE ARE LIMITED TO THOSE SURVEYED BY PDC, INC. ALL OTHER MONUMENTS DEPICTED ON THESE SHEETS WERE SURVEYED BY R&M CONSULTANTS AND ADOT&PF AND ARE SHOWN GRAPHICALLY FOR INFORMATIONAL PURPOSES ONLY. SEE NOTE 4.

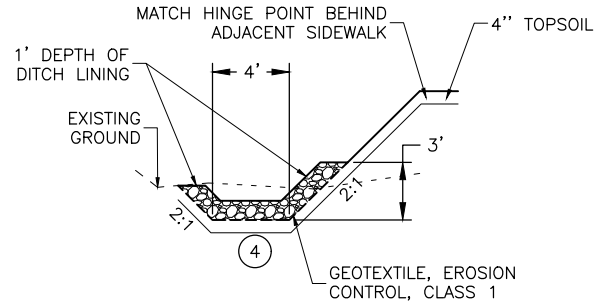
SURVEY CONTROL



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	B1	B3

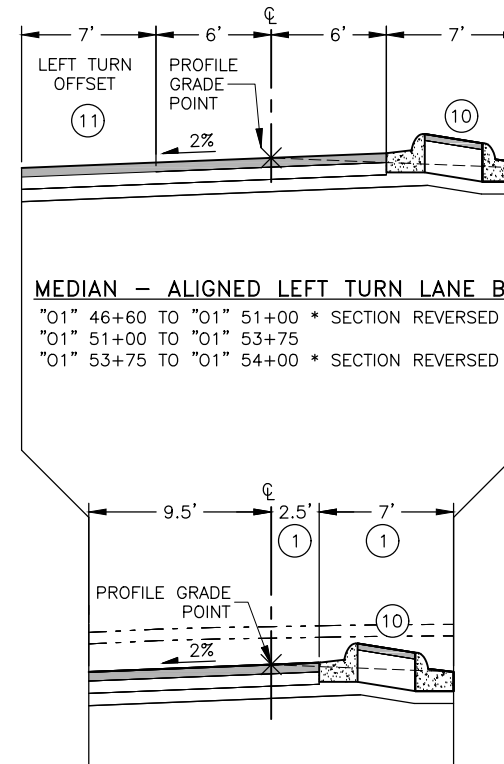
NOTES:

- ① 8' MEDIAN FROM "01" 12+38 TO "01" 13+00 AND 2' DIMENSION FROM CURB AND GUTTER LIP TO CL FROM "01" 12+38 TO "01" 13+00.
2. EXPRESSWAY CURB AND GUTTER IN THE MEDIANS SHALL BE SPILL, SEE SHEET G20 FOR CURB AND GUTTER DETAILS.
- ③ UNLESS OTHERWISE CONTROLLED BY A DITCH TYPICAL SECTION CATCH TO EXISTING GROUND AT 2:1 IN BOTH A CUT AND FILL CONDITION.
- ④ SEE GRADING SHEETS FOR DITCH CONTROL.
- ⑤ FROM "01" 51+73 TO "01" 54+87 INSTALL A CONCRETE SIDEWALK, 6" THICK THAT IS 8' WIDE WITH A 2' SHOULDER BETWEEN ALREADY CONSTRUCTED DITCH SLOPE AND CURB AND GUTTER INSTALLED DURING 2020 CONSTRUCTION.
- ⑥ 12' UTILITY BUFFER FROM "01" 19+00 TO "01" 30+47.
- ⑦ OVER EXCAVATE BELOW PROPOSED GRADE 5.5' OR TO THE BOTTOM OF ORGANICS FROM "01"19+50 TO "01"23+50. INSTALL GEOTEXTILE, REINFORCEMENT - TYPE 2 AS SHOWN IN NOTE 10.
- ⑧ OVER EXCAVATE THE ENTIRE PROPOSED UNIVERSITY AVENUE WIDTH BELOW PROPOSED GRADE 8' OR TO THE BOTTOM OF ORGANICS FROM "01" 12+48 TO "01" 19+50. INSTALL GEOTEXTILE, REINFORCEMENT - TYPE 2 AS SHOWN IN NOTE 10.
- ⑨ 2 LAYERS OF GEOTEXTILE, REINFORCEMENT-TYPE 2 WITH A MINIMUM OF 12" OF SELECTED MATERIAL, TYPE A IN BETWEEN AND AS DIRECTED BY THE ENGINEER.
- ⑩ MEDIAN SLOPE VARIES, CONTROLLED BY MEDIAN WIDTH AND HORIZONTAL LOCATION OF MEDIAN WITH RESPECT TO ϕ .
- ⑪ 3.5' DIMENSION FROM "01" 53+75 TO "01" 54+00 - EOP.



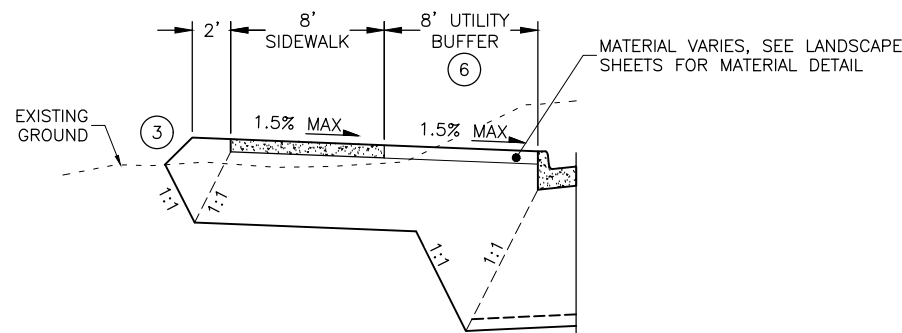
DITCH B

"01" 13+60 TO "01" 16+00
 "01" 20+80 TO "01" 36+40



MEDIAN - ALIGNED LEFT TURN LANE B

"01" 46+60 TO "01" 51+00 * SECTION REVERSED
 "01" 51+00 TO "01" 53+75
 "01" 53+75 TO "01" 54+00 * SECTION REVERSED

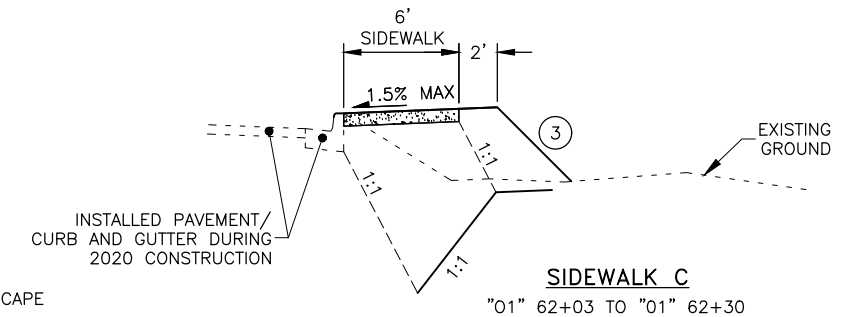


SIDEWALK B

"01" 19+00 TO "01" 30+50 LT

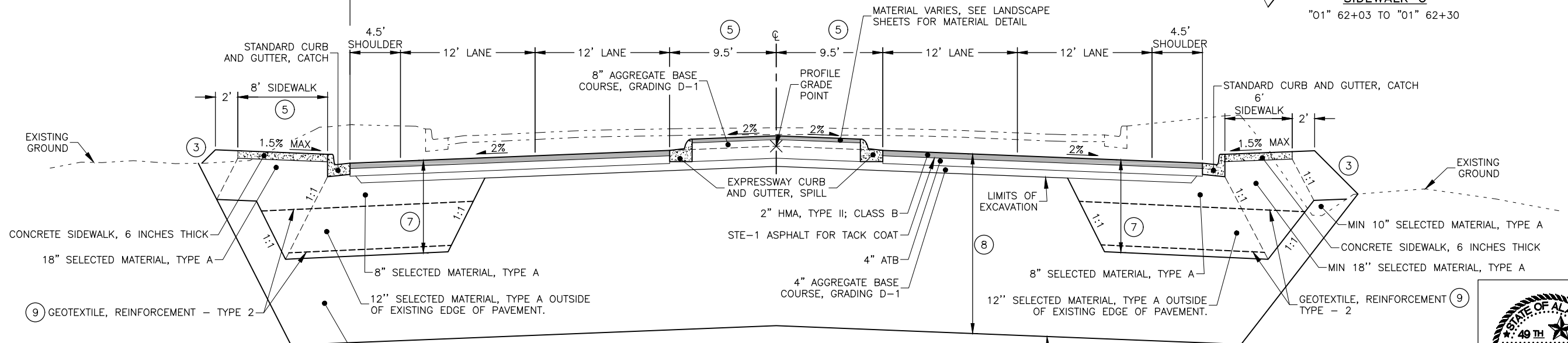
MEDIAN - OFFSET LEFT TURN LANE A

"01" 12+38 TO "01" 14+25
 "01" 22+36 TO "01" 24+00 * SECTION REVERSED
 "01" 24+00 TO "01" 28+70
 "01" 30+50 TO "01" 32+50
 "01" 32+50 TO "01" 34+50 * SECTION REVERSED
 "01" 41+30 TO "01" 44+00 * SECTION REVERSED
 "01" 44+00 TO "01" 46+60



SIDEWALK C

"01" 62+03 TO "01" 62+30



SIDEWALK A

"01" 12+38 TO "01" 19+00
 "01" 30+50 TO "01" 54+87

UNIVERSITY AVENUE

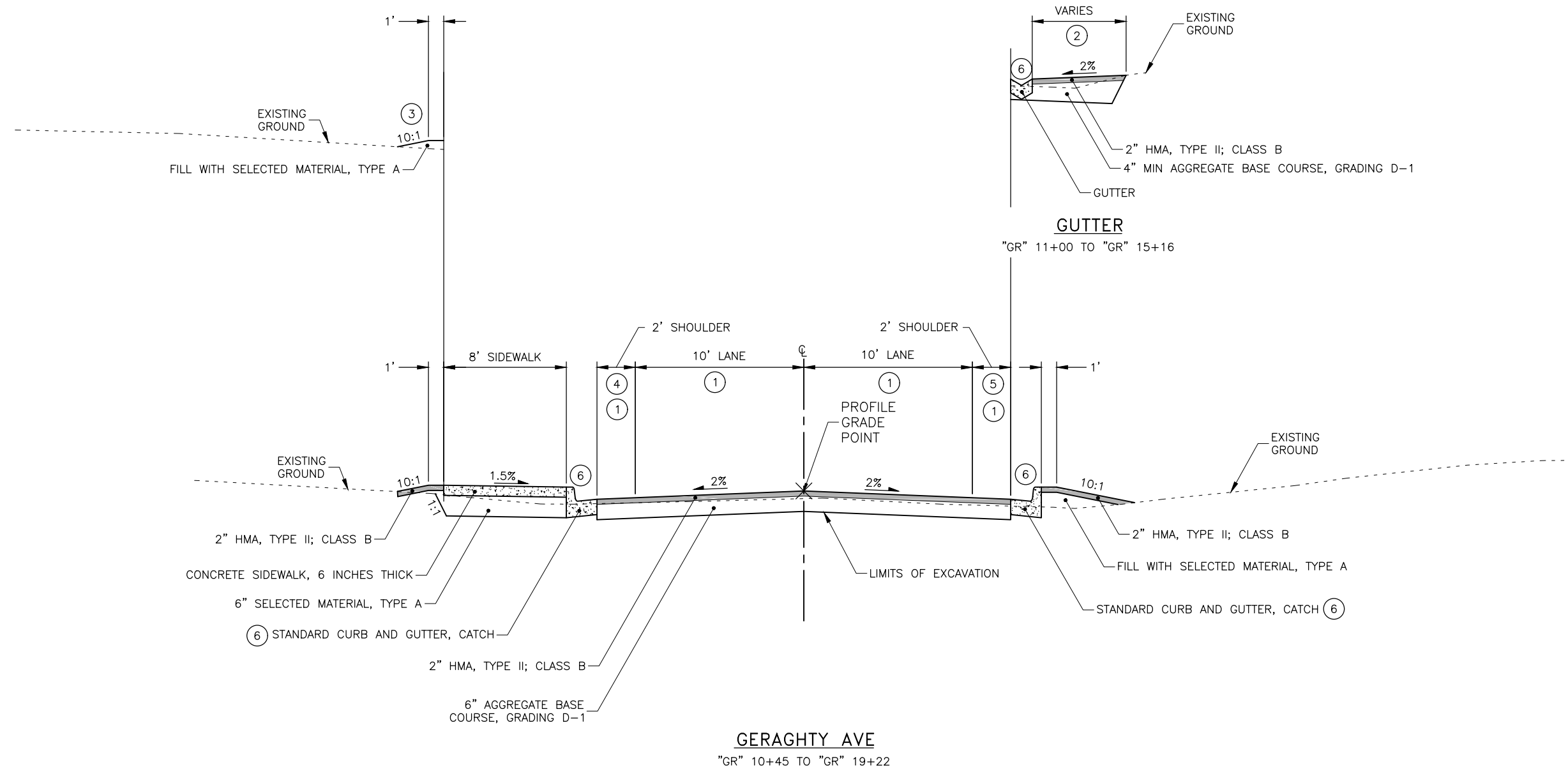
"01" 14+25 TO "01" 22+36
 "01" 28+70 TO "01" 30+50
 "01" 34+50 TO "01" 41+30

TYPICAL SECTIONS

PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	B2	B3



NOTES:

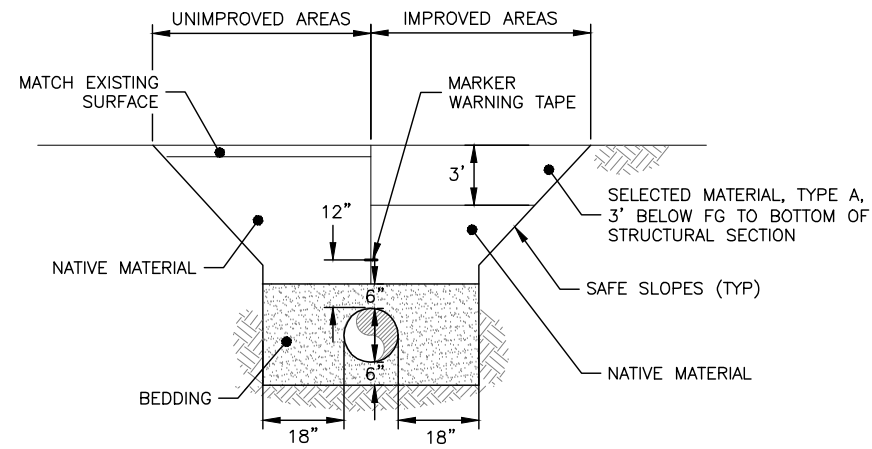
- ① FROM "GR" 10+45 TO "GR" 12+17 TRANSITION TO TIE INTO RADIi CONSTRUCTED DURING 2020 WITH ROADWAY LAYOUT OF 11' LANES, AND 2.5' SHOULDER.
- ② SEE GRADING SHEETS FOR WIDTH AND LAYOUT CONTROL.
- ③ SEED FROM "GR" 11+70 TO "GR" 13+00 AND FROM "GR" 13+95 TO "GR" 14+20.
- ④ LT SHOULDER VARIES TRANSITION TO EXISTING FROM "GR" 16+25 TO "GR" 19+22. SEE GRADING SHEETS G10-G11 FOR LAYOUT CONTROL.
- ⑤ RT SHOULDER VARIES TRANSITION TO EXISTING FROM "GR" 17+79 TO "GR" 19+22. SEE GRADING SHEETS G10-G11 FOR LAYOUT CONTROL.
- ⑥ TRANSITION FROM STANDARD CURB AND GUTTER TO GUTTER FROM "GR" 11+00 TO "GR" 16+48 RT. TRANSITION FROM STANDARD CURB AND GUTTER TO GUTTER FROM "GR" 16+31 TO "GR" 17+00 LT.

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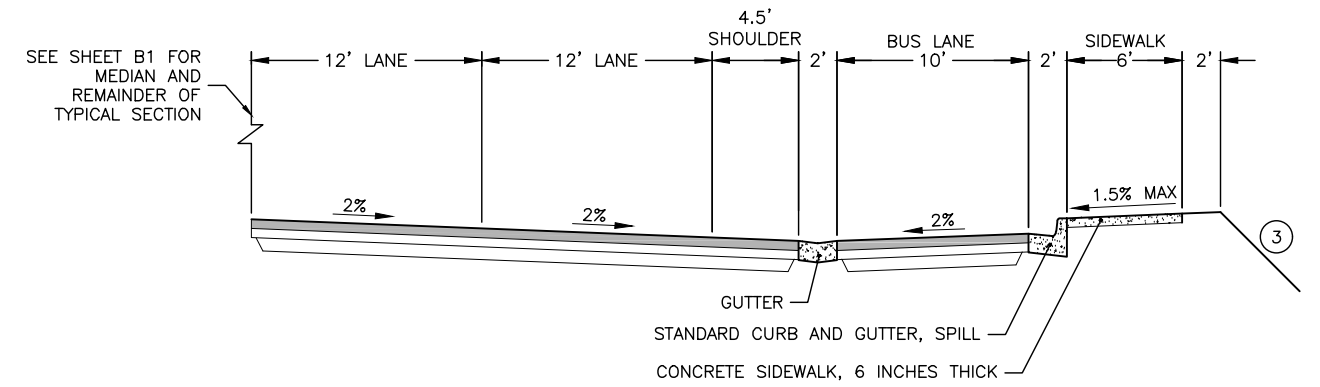
TYPICAL SECTIONS



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	B3	B3



TYPICAL TRENCH SECTION

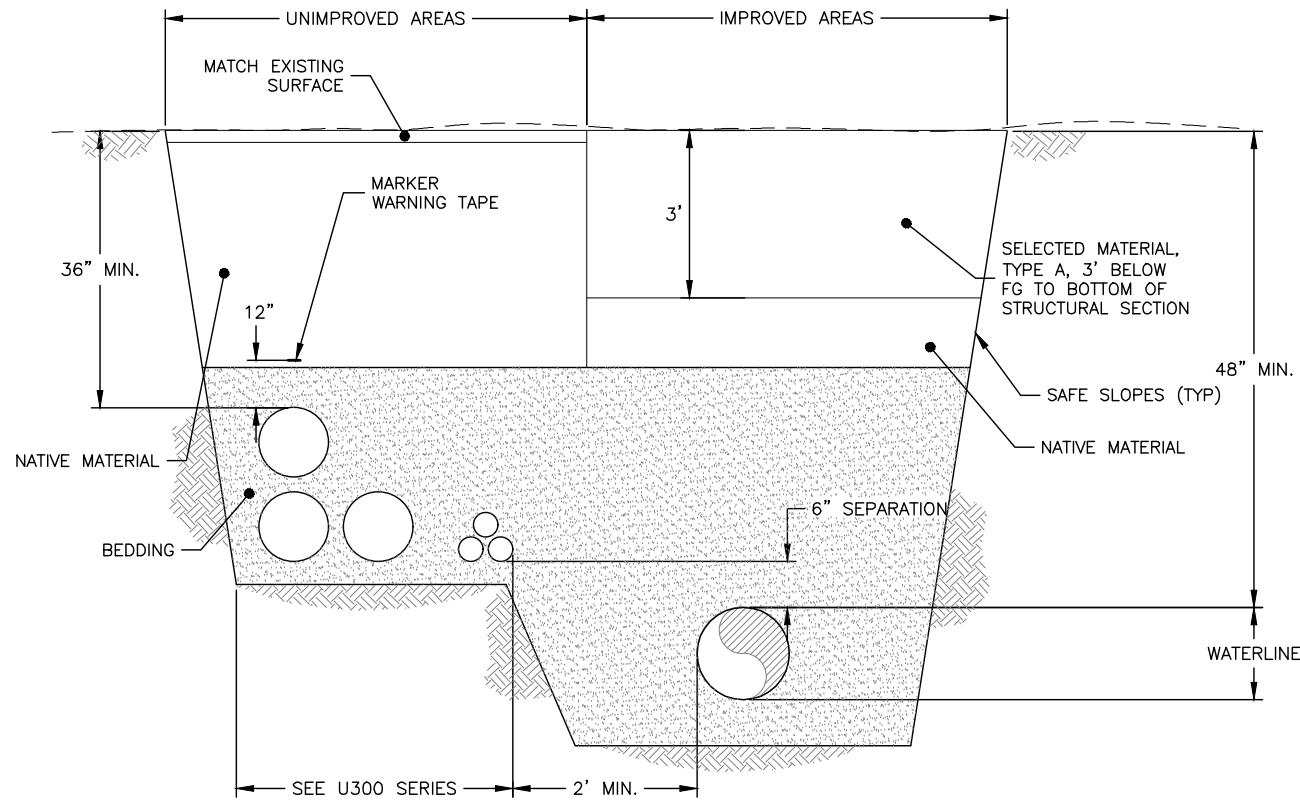


BUS PULLOUT

"01" 27+35 TO "01" 28+80

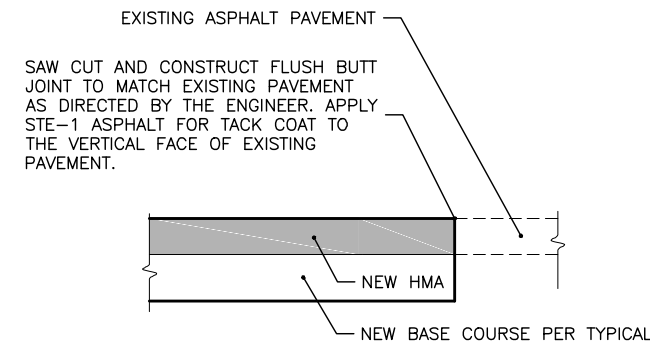
NOTES:

1. SEE UNIVERSITY AVENUE TYPICAL ON B1 AND GRADING SHEET G5 FOR LAYOUT AND ADDITIONAL INFORMATION.
2. MATCH UNIVERSITY AVENUE TYPICAL MATERIAL SECTION ON SHEET B1 FOR MATERIALS AT BUS PULLOUT AND SIDEWALK. REDUCE EXCAVATION TO 2 FEET OVER THE WATERLINE.
3. UNLESS OTHERWISE CONTROLLED BY A DITCH TYPICAL SECTION CATCH TO EXISTING GROUND AT 2:1 IN BOTH A CUT AND FILL CONDITION.



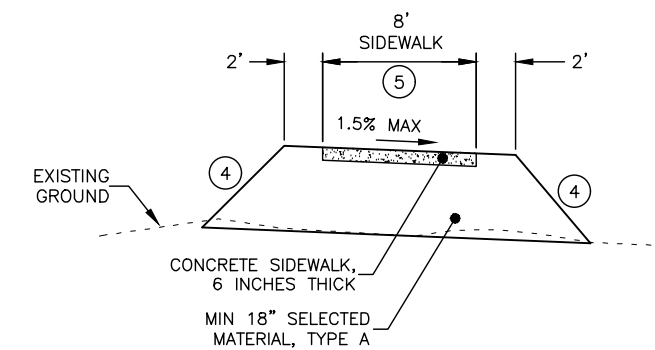
MULTIPLE TRENCH SECTION

"01" 23+00 TO "01" 32+00
 "01" 37+00 TO "01" 49+00



MATCH EXISTING PAVEMENT DETAIL

BOP, EOP, DAVIS RD, HOLDEN RD, 19TH AVE, SWENSON AVE, ERICKSON AVE, MITCHELL AVE, REWAK DR, GERAGHTY AVE, AND APPROACHES.



SEPARATED SIDEWALK

UNIVERSITY AVENUE
 "01" 11+25 TO "01" 12+52 (LT)
 "01" 11+50 TO "01" 12+60 (RT) *SECTION REVERSED

NOTES:

4. CATCH TO EXISTING GROUND AT 2:1 IN BOTH CUT AND FILL CONDITION.
5. FROM "01" 11+50 TO "01" 12+60 (RT) SIDEWALK IS 6 FEET WIDE.
6. SEE GRADING SHEET G2 FOR LAYOUT CONTROL.

TYPICAL SECTIONS



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PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AEC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	C1	C2

ESTIMATE OF QUANTITIES

ITEM NO.	DESCRIPTION	PAY UNIT	QUANTITY
201.0007.0000	CLEARING	LUMP SUM	ALL REQUIRED
201.0008.0000	GRUBBING	LUMP SUM	ALL REQUIRED
202.0001.0000	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LUMP SUM	ALL REQUIRED
202.0002.0000	REMOVAL OF PAVEMENT	SQUARE YARD	42,500
202.0003.0000	REMOVAL OF SIDEWALK	SQUARE YARD	650
202.0009.0000	REMOVAL OF CURB AND GUTTER	LINEAR FOOT	1,500
202.0010.0000	SINGLE MAIL BOX INSTALLATION	EACH	1
202.2029.0000	RESOLUTION OF CONFLICTS	CONTINGENT SUM	ALL REQUIRED
203.0003.0000	UNCLASSIFIED EXCAVATION	CUBIC YARD	36,000
203.0006.0000	BORROW	TON	24,900
301.0001.00D1	AGGREGATE BASE COURSE, GRADING D-1	TON	10,150
306.0001.0000	ATB	TON	7,000
306.0002.5228	ASPHALT BINDER, GRADE PG 52-28	TON	320
401.0001.002B	HMA, TYPE II; CLASS B	TON	4,010
401.0004.0000	ASPHALT BINDER, GRADE PG 52E-40	TON	221
401.0008.002B	HMA PRICE ADJUSTMENT, TYPE II; CLASS B	CONTINGENT SUM	ALL REQUIRED
401.0012.002B	HMA DRIVEWAY, TYPE II; CLASS B	TON	585
401.0015.0000	ASPHALT MATERIAL PRICE ADJUSTMENT	CONTINGENT SUM	ALL REQUIRED
402.0001.STE1	STE-1 ASPHALT FOR TACK COAT	TON	20
603.0001.0024	CSP 24 INCH	LINEAR FOOT	204
603.0001.0036	CSP 36 INCH	LINEAR FOOT	252
603.0001.0048	CSP 48 INCH	LINEAR FOOT	166
603.0002.0048	48X24 INCH CSP ARCH	LINEAR FOOT	670
603.0003.0024	END SECTION FOR CSP 24 INCH	EACH	8
603.0003.0036	END SECTION FOR CSP 36 INCH	EACH	4
603.0021.0012	CORRUGATED POLYETHYLENE PIPE 12 INCH	LINEAR FOOT	37
603.0021.0018	CORRUGATED POLYETHYLENE PIPE 18 INCH	LINEAR FOOT	2,201
603.0021.0024	CORRUGATED POLYETHYLENE PIPE 24 INCH	LINEAR FOOT	789
603.0021.0036	CORRUGATED POLYETHYLENE PIPE 36 INCH	LINEAR FOOT	104
604.0001.0000	STORM SEWER MANHOLE	EACH	15
604.0004.0000	ADJUST EXISTING MANHOLE	EACH	3
604.0005.000A	INLET, TYPE A	EACH	35
607.0004.0000	RECONSTRUCTED FENCE	LINEAR FOOT	80
608.0001.0006	CONCRETE SIDEWALK, 6 INCHES THICK	SQUARE YARD	7,305
608.0006.0000	CURB RAMP	EACH	28
608.2013.0001	CONCRETE SLABS, BROOM FINISH, 4 INCHES THICK	SQUARE YARD	450
608.2013.0005	CONCRETE SLABS, COLORED & PATTERN IMPRINTED, 4 INCHES THICK	SQUARE YARD	2,160
609.0001.0004	CURB, TYPE 4	LINEAR FOOT	3,640
609.0002.0001	CURB AND GUTTER, TYPE 1	LINEAR FOOT	17,950
610.0004.0000	DITCH LINING	LUMP SUM	ALL REQUIRED
613.0002.0000	CULVERT MARKER POST	EACH	18

ESTIMATE OF QUANTITIES

ITEM NO.	DESCRIPTION	PAY UNIT	QUANTITY
615.0001.0000	STANDARD SIGN	SQUARE FOOT	442.5
615.0006.0000	SALVAGE SIGN	EACH	57
618.0002.0000	SEEDING (GENERAL SEED MIX)	POUND	560
618.0002.0000	SEEDING (SIDEWALK BORDER SEED MIX)	POUND	8
620.0001.0000	TOPSOIL	SQUARE YARD	7,300
621.0001.0000	TREE, BIRCH (BETULA PAPYRIFERA), 1.5" CALIPER	EACH	10
621.0001.0000	TREE, SIBERIAN LARCH (LARIX SIBIRICA), 6' HT.	EACH	4
621.0001.0000	TREE, WHITE SPRUCE (PICEA GLAUCA), 5' HT.	EACH	8
621.0002.0000	SHRUB, ALPINE CURRANT (RIBES ALPINUM), 24" HT.	EACH	86
621.0002.0000	SHRUB, HANSA ROSE (ROSA RUGOSA 'HANSA'), 24" HT.	EACH	122
621.0002.0000	SHRUB, HIGHBUSH CRANBERRY (VIBURNUM EDULE), 36" HT.	EACH	49
621.0002.0000	SHRUB, SAND CHERRY (PRUNUS X CISTENA), 48" HT.	EACH	59
621.0002.0000	SHRUB, SERVICEBERRY (AMELANCHIER ALNIFOLIA), 36" HT.	EACH	84
621.0002.0000	SHRUB, SPIREA (SPIRAEA BEAUVERDIANA), 24" HT.	EACH	214
621.0004.0000	PERENNIAL, NATIVE IRIS (IRIS SETOSA), 1 GAL.	EACH	207
621.2016.0000	PLANT MAINTENANCE AND REPLACEMENT	CONTINGENT SUM	ALL REQUIRED
627.0001.0004	DUCTILE IRON WATER CONDUIT, 4 INCH, CLASS 350	LINEAR FOOT	25
627.0001.0008	DUCTILE IRON WATER CONDUIT, 8 INCH, CLASS 350	LINEAR FOOT	20
627.0001.0010	DUCTILE IRON WATER CONDUIT, 10 INCH, CLASS 350	LINEAR FOOT	2,720
627.0001.0012	DUCTILE IRON WATER CONDUIT, 12 INCH, CLASS 350	LINEAR FOOT	2,620
627.0001.0014	DUCTILE IRON WATER CONDUIT, 14 INCH, CLASS 350	LINEAR FOOT	380
627.0005.0000	FIRE HYDRANT INSTALLATION	EACH	16
627.0008.0000	WATER SERVICE CONNECTION	EACH	7
627.0009.0004	GATE VALVE, 4 INCH	EACH	2
627.0009.0008	GATE VALVE, 8 INCH	EACH	1
627.0009.0010	GATE VALVE, 10 INCH	EACH	12
627.0009.0012	GATE VALVE, 12 INCH	EACH	8
627.0009.0014	GATE VALVE, 14 INCH	EACH	2
627.2021.0000	WATER PIPE CASING, 24 INCH CORRUGATED POLYETHYLENE PIPE (CPP)	LINEAR FOOT	395
630.0003.0002	GEOTEXTILE, REINFORCEMENT - TYPE 2	SQUARE YARD	19,200
631.0002.0001	GEOTEXTILE, EROSION CONTROL, CLASS 1	SQUARE YARD	3,035
639.2000.0000	APPROACH	EACH	29
640.0001.0000	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQUIRED
641.0001.0000	EROSION, SEDIMENT AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	ALL REQUIRED
641.0003.0000	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL	LUMP SUM	ALL REQUIRED
641.0004.0000	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL ADDITIVES	CONTINGENT SUM	ALL REQUIRED
641.0005.0000	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL BY DIRECTIVE	CONTINGENT SUM	ALL REQUIRED
641.0006.0000	WITHHOLDING	CONTINGENT SUM	ALL REQUIRED
642.0001.0000	CONSTRUCTION SURVEYING	LUMP SUM	ALL REQUIRED
642.0003.0000	THREE PERSON SURVEY PARTY	HOURLY	90
642.0006.0000	REPLACE EXISTING WITH PRIMARY MONUMENT	EACH	3

ESTIMATE OF QUANTITIES



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	C2	C2

ESTIMATE OF QUANTITIES

ITEM NO.	DESCRIPTION	PAY UNIT	QUANTITY
643.0002.0000	TRAFFIC MAINTENANCE	LUMP SUM	ALL REQUIRED
643.0003.0000	PERMANENT CONSTRUCTION SIGNS	LUMP SUM	ALL REQUIRED
643.0023.0000	TRAFFIC PRICE ADJUSTMENT	CONTINGENT SUM	ALL REQUIRED
643.0025.0000	TRAFFIC CONTROL	CONTINGENT SUM	ALL REQUIRED
643.2005.0000	PUBLIC INFORMATION PROGRAM	LUMP SUM	ALL REQUIRED
643.0016.0000	ROAD CLOSURE, REWAK DR	LUMP SUM	ALL REQUIRED
643.2016.0000	ROAD CLOSURE, UNIVERSITY AVE	LUMP SUM	ALL REQUIRED
644.0001.0000	FIELD OFFICE	LUMP SUM	ALL REQUIRED
644.0002.0000	FIELD LABORATORY	LUMP SUM	ALL REQUIRED
644.0006.0000	VEHICLE	LUMP SUM	ALL REQUIRED
645.0001.0000	TRAINING PROGRAM, 2 TRAINEES / APPRENTICES	LABOR HOUR	2,000
646.0001.0000	CPM SCHEDULING	LUMP SUM	ALL REQUIRED
660.0001.0000	TRAFFIC SIGNAL SYSTEM COMPLETE, UNIVERSITY/REWAK	LUMP SUM	ALL REQUIRED
660.0003.0000	HIGHWAY LIGHTING SYSTEM COMPLETE, UNIVERSITY AVE	LUMP SUM	ALL REQUIRED
660.0007.0000	TEMPORARY SIGNAL SYSTEM COMPLETE, UNIVERSITY/REWAK	LUMP SUM	ALL REQUIRED
661.0001.0000	LOAD CENTER, TYPE 1	EACH	2
661.0005.0000	MODIFY LOAD CENTER	EACH	1
661.0006.0000	TRANSFORMER, 5 KVA	EACH	1
662.2005.0000	FIBER OPTIC INTERCONNECT	LUMP SUM	ALL REQUIRED
670.2006.0000	MMA PAVEMENT MARKINGS, LONGITUDINAL INLAID	LINEAR FOOT	22,793
670.2007.0000	MMA PAVEMENT MARKINGS, SYMBOLS AND ARROW(S) INLAID	EACH	37
670.2010.0000	MMA PAVEMENT MARKINGS, TRANSVERSE AND GORE INLAID	SQUARE FOOT	2,730
680.2001.0000	TELECOMMUNICATIONS VAULT, DUCTBANK, AND CONDUIT SYSTEM	LUMP SUM	ALL REQUIRED

ESTIMATING FACTORS

ITEM NUMBER	DESCRIPTION	FACTOR
203.0006.0000	BORROW	2 TONS/CUBIC YARD
301.0001.00D1	AGGREGATE BASE COURSE, GRADING D-1	1.96 TONS/CUBIC YARD
306.0001.0000	ATB	1.96 TONS/CUBIC YARD
306.0002.5228	ASPHALT BINDER, GRADE PG 52-28	4.5%/TON
401.0001.002B	HMA, TYPE II; CLASS B	1.96 TONS/CUBIC YARD
401.0004.0000	ASPHALT BINDER, GRADE PG 52E-40	5.5%/TON
401.0012.002B	HMA DRIVEWAY, TYPE II; CLASS B	1.96 TONS/CUBIC YARD
402.0001.STE1	STE-1 ASPHALT FOR TACK COAT	0.0003 TONS/SQUARE YARD
618.0002.0000	SEEDING (GENERAL SEED MIX)	4.0 LBS/1,000 SQUARE FEET
618.0002.0000	SEEDING (SIDEWALK BORDER SEED MIX)	2.5 LBS/1,000 SQUARE FEET

ESTIMATED LUMP SUM QUANTITIES

ITEM NUMBER	DESCRIPTION	QUANTITY
201.0007.0000	CLEARING	1.2 ACRE
201.0008.0000	GRUBBING	6.2 ACRE
202.0001.0000	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	
	LIGHTING LOAD CENTER	3 EACH
	MAILBOX	2 EACH
	SD PIPE	1,020 LINEAR FOOT
	SD MANHOLE	10 EACH
	SD CATCH BASIN	7 EACH
	WATER VALVE	21 EACH
	WATER HYDRANT	5 EACH
	WATER PIPE	5,251 LINEAR FOOT
	ACS/GCI DUCT BANK	6,330 LINEAR FOOT
	ACS/GCI PEDESTAL	8 EACH
	ACS/GCI MANHOLE	10 EACH
	ACS/GCI JUNCTION BOX	4 EACH
	FENCE	408 LINEAR FOOT
	CULVERT PIPE	2,234 LINEAR FOOT
	FNG PIPE	92 LINEAR FOOT
610.0004.0000	DITCH LINING	1,015 CUBIC YARD
680.2001.0000	TELECOMMUNICATIONS VAULT, DUCTBANK, AND CONDUIT SYSTEM	
	ACS CONDUIT	14,050 LINEAR FOOT
	ACS PEDS	14 EACH
	ACS HANDHOLE	4 EACH
	GCI CONDUIT	10,130 LINEAR FOOT
	GCI PEDS	10 EACH

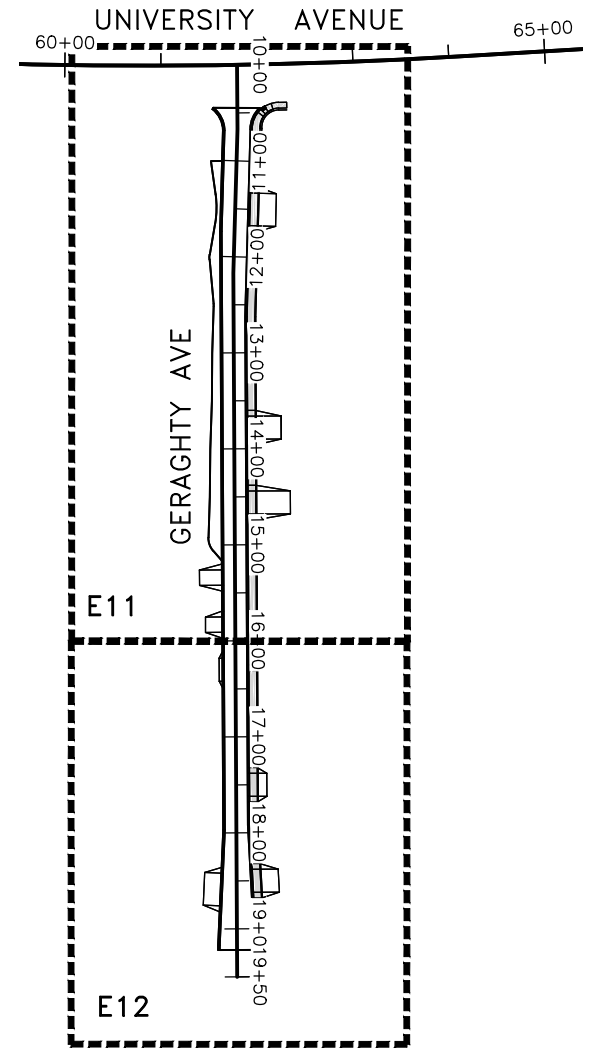
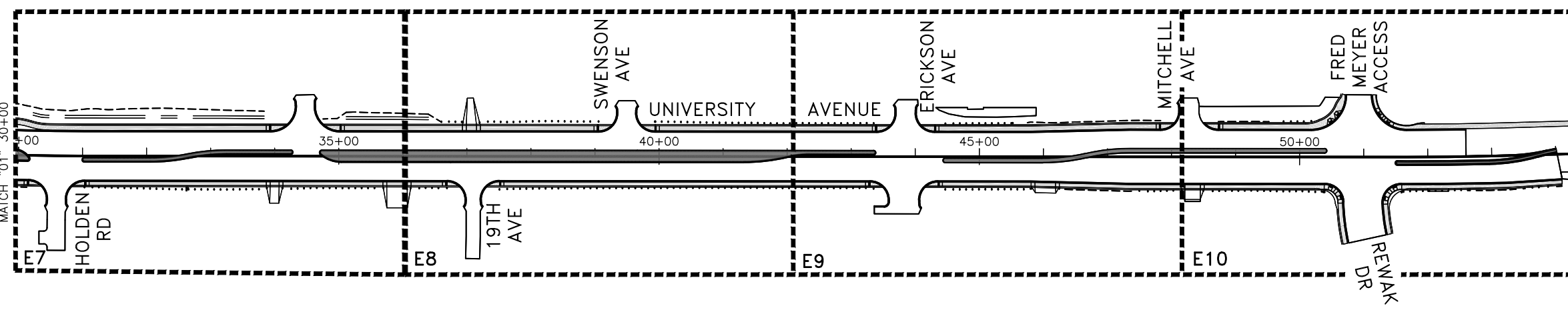
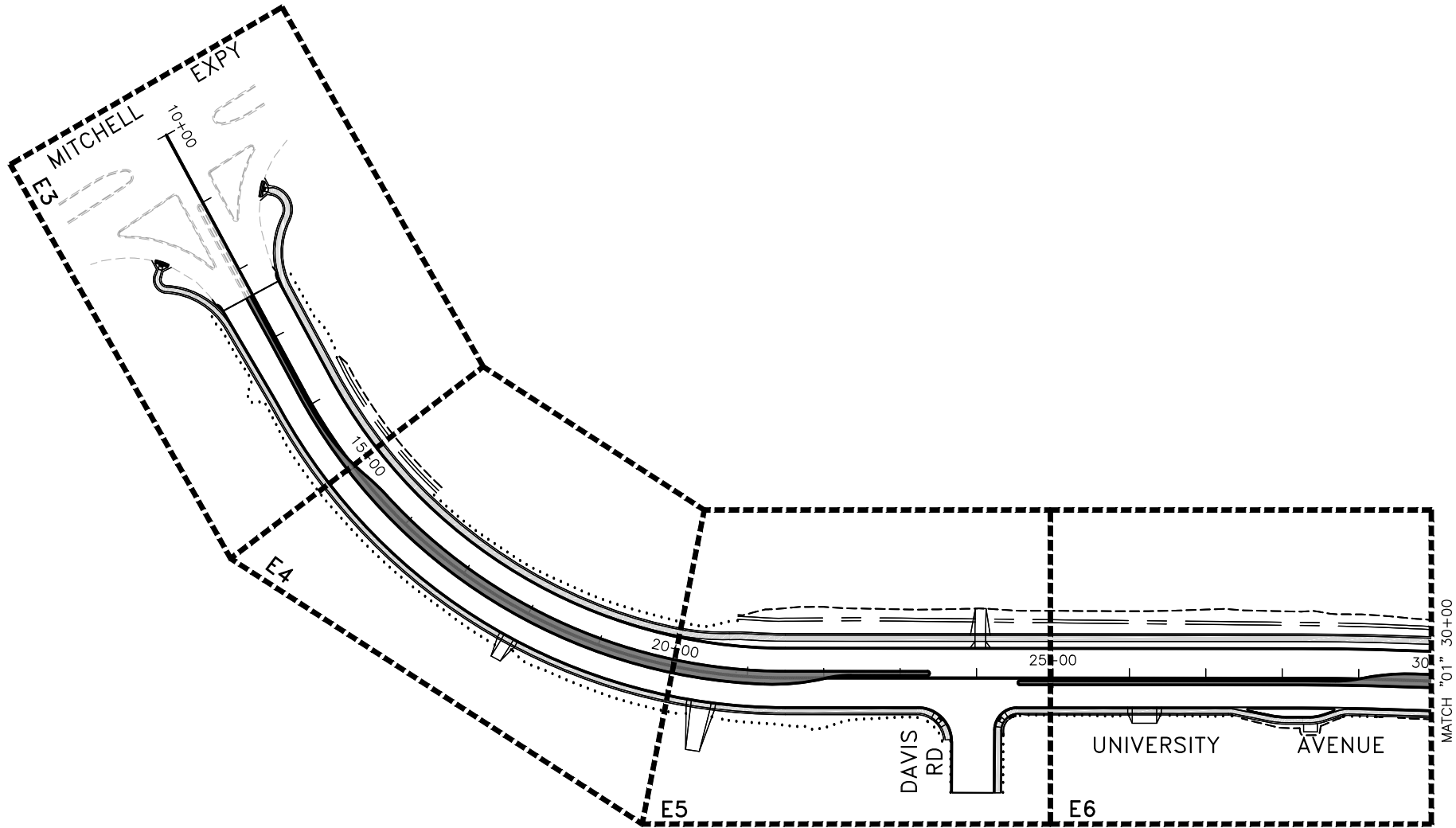
NOTES:

SEE H SHEETS FOR SIGNING AND STRIPING SUMMARIES.

ESTIMATE OF QUANTITIES



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	E1	E12

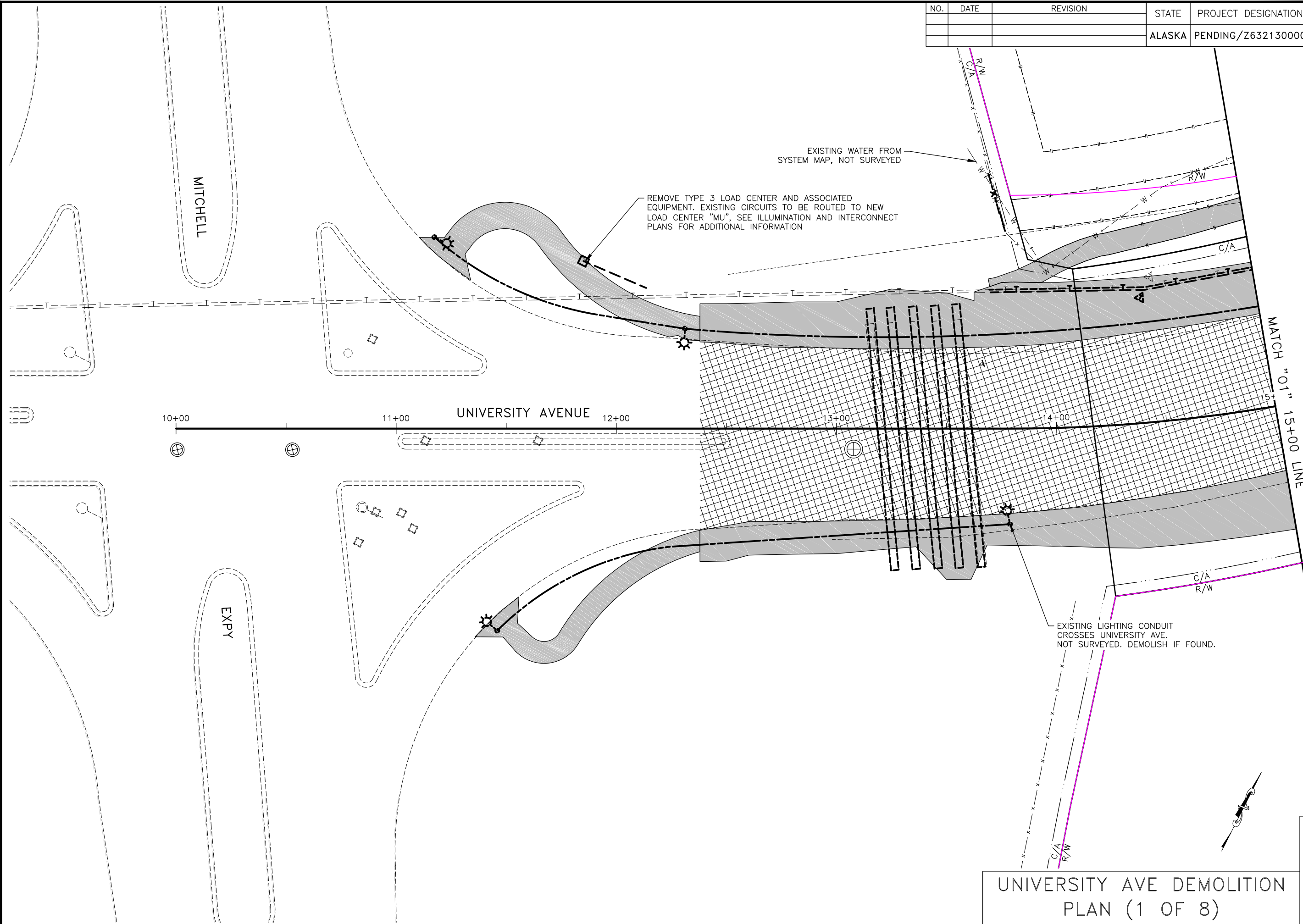


PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
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DEMOLITION SHEET LAYOUT INDEX



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	E3	E12



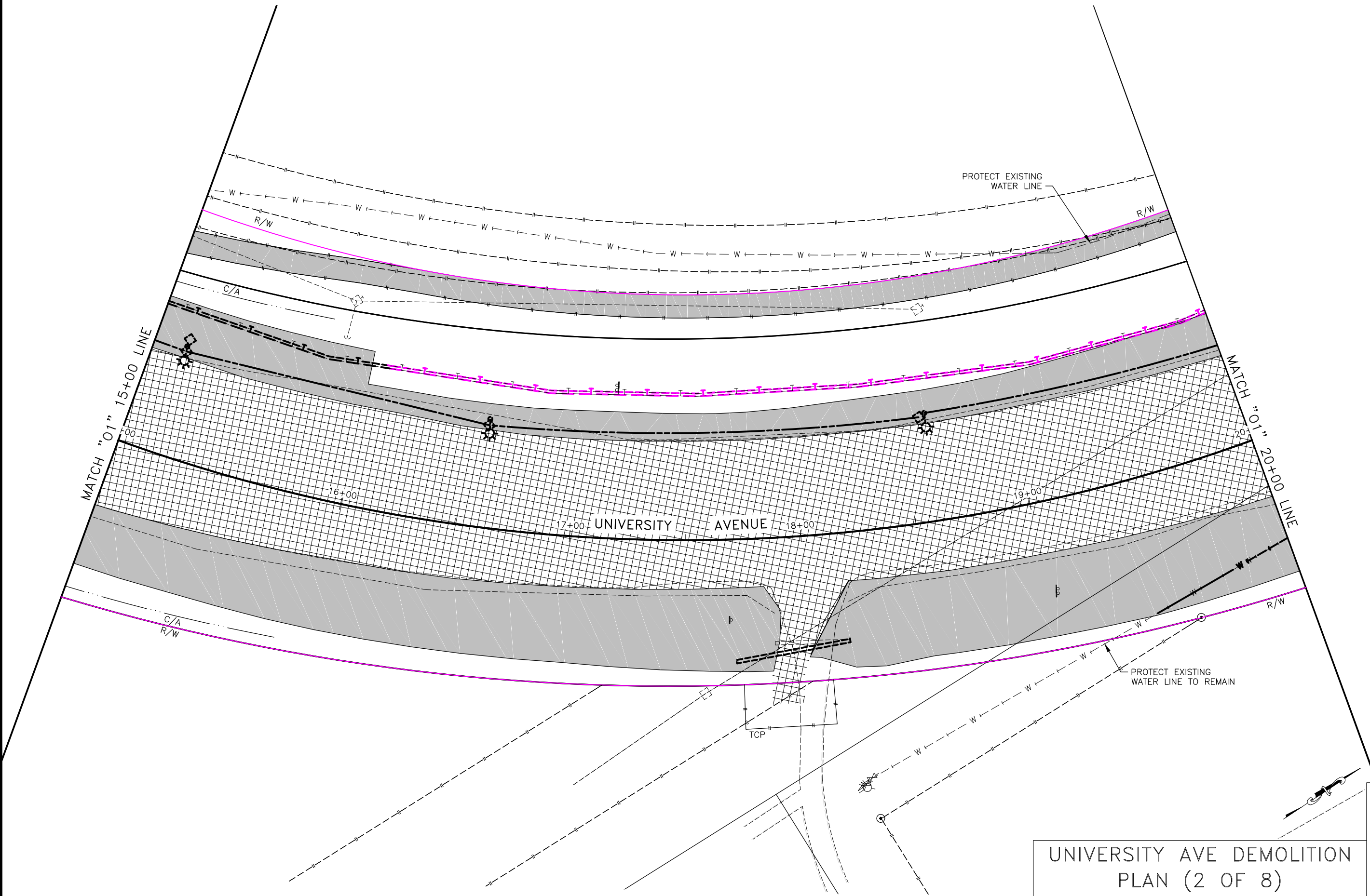
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UNIVERSITY AVE DEMOLITION
PLAN (1 OF 8)



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	E4	E12

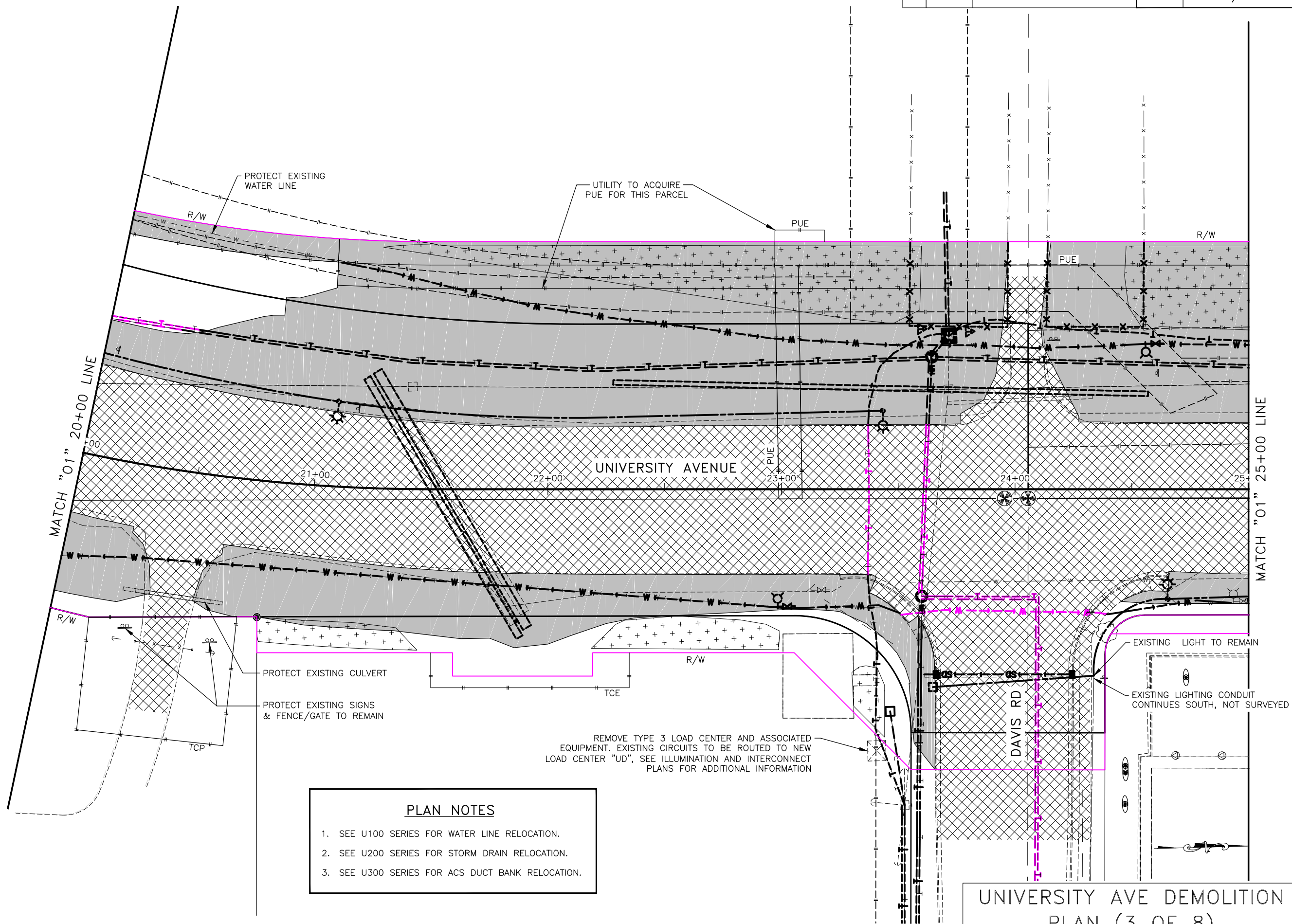
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UNIVERSITY AVE DEMOLITION
PLAN (2 OF 8)



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	E5	E12



- PLAN NOTES**
1. SEE U100 SERIES FOR WATER LINE RELOCATION.
 2. SEE U200 SERIES FOR STORM DRAIN RELOCATION.
 3. SEE U300 SERIES FOR ACS DUCT BANK RELOCATION.

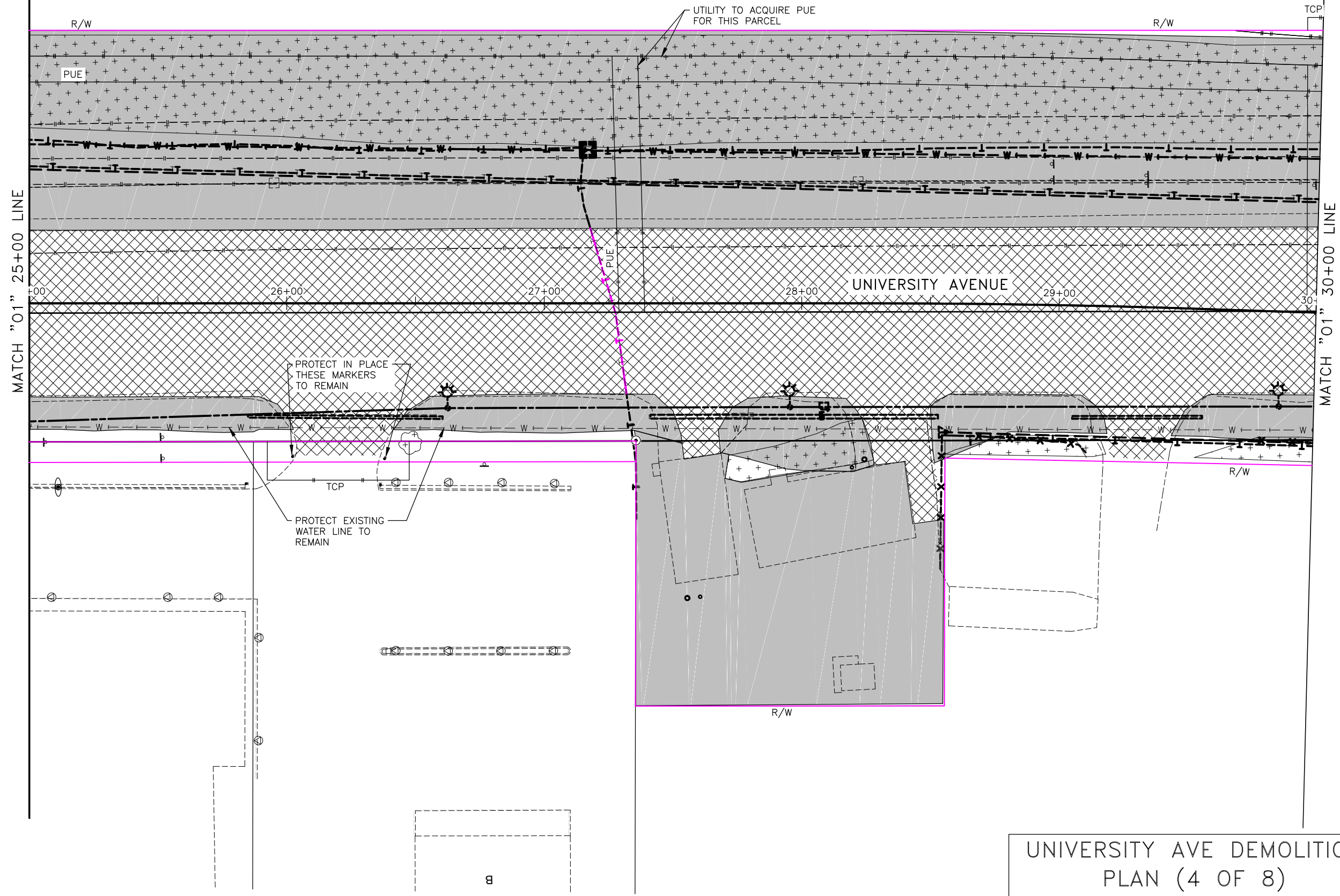
REMOVE TYPE 3 LOAD CENTER AND ASSOCIATED EQUIPMENT. EXISTING CIRCUITS TO BE ROUTED TO NEW LOAD CENTER "UD", SEE ILLUMINATION AND INTERCONNECT PLANS FOR ADDITIONAL INFORMATION

**UNIVERSITY AVE DEMOLITION
PLAN (3 OF 8)**



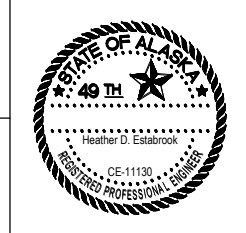
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	E6	E12

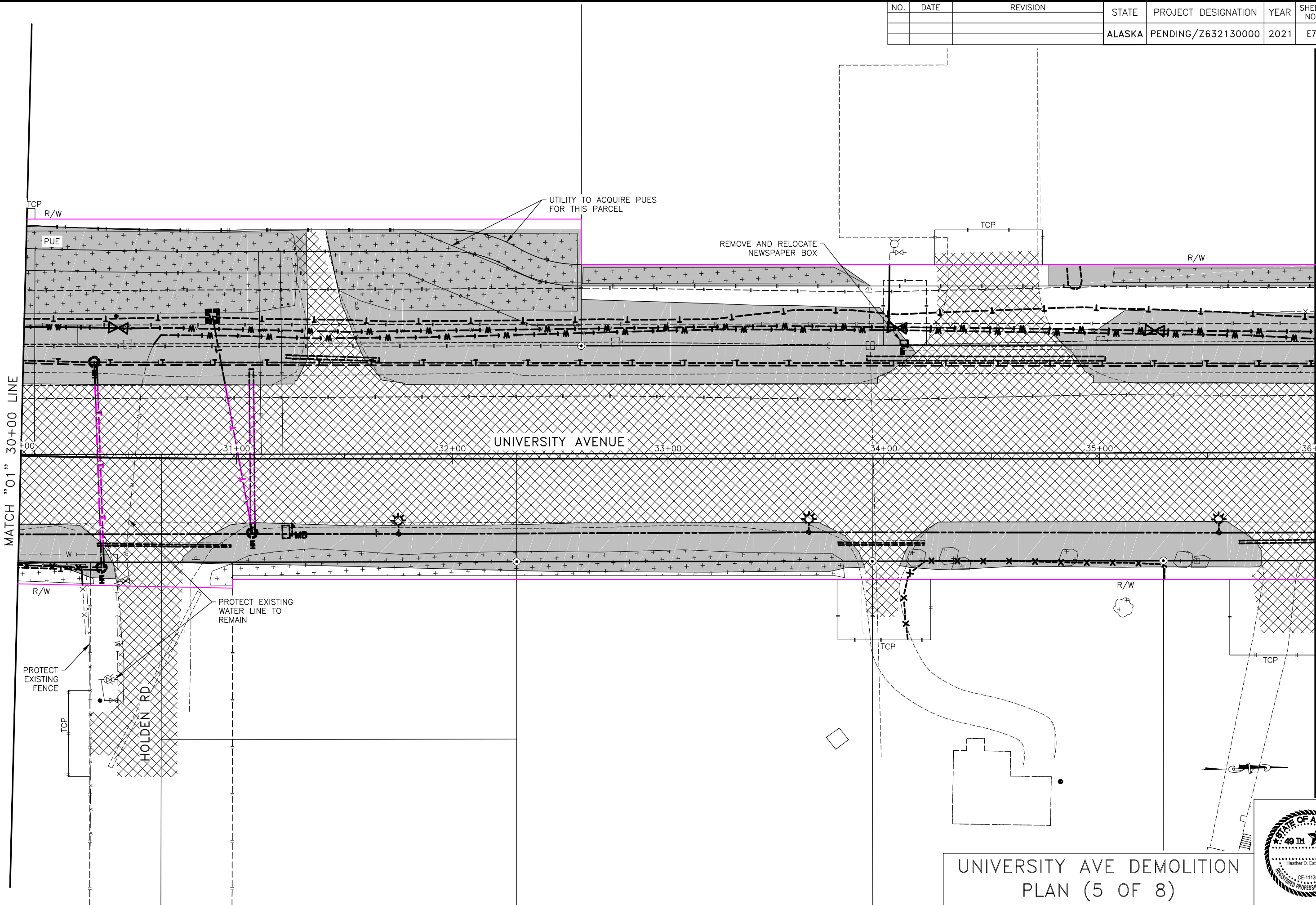


PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
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UNIVERSITY AVE DEMOLITION
PLAN (4 OF 8)



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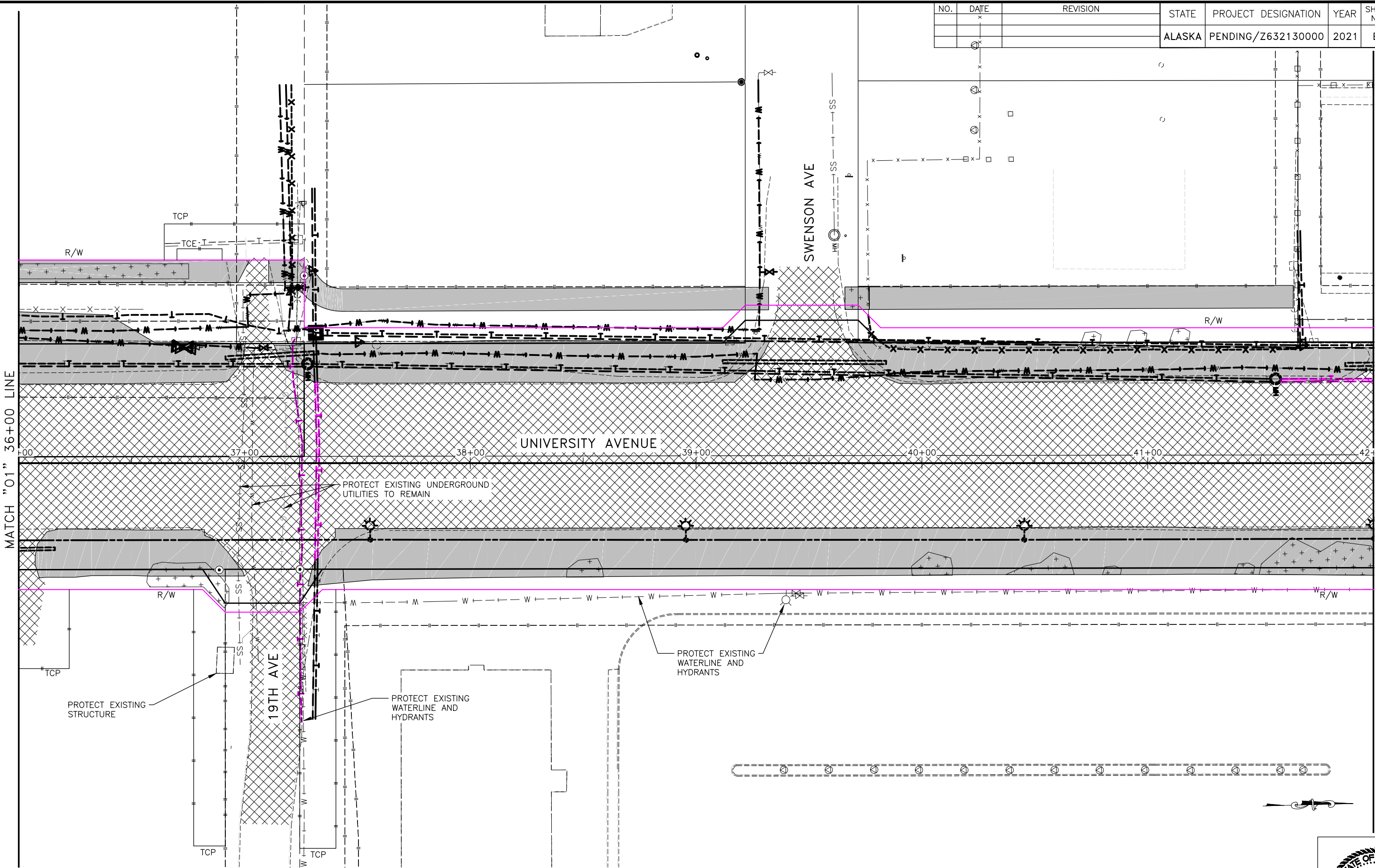


PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
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UNIVERSITY AVE DEMOLITION
PLAN (5 OF 8)



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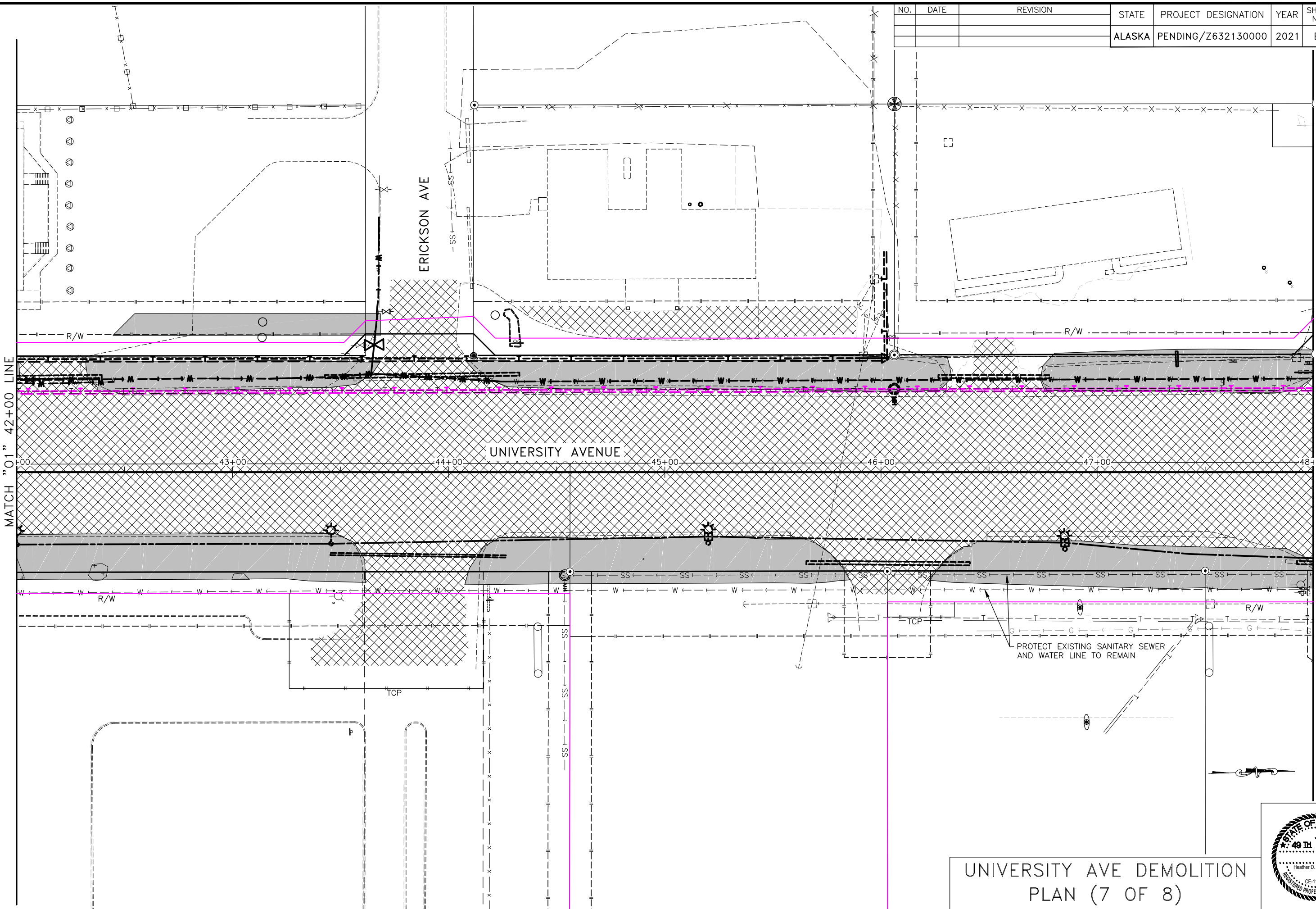


PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc.local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B\C\2007\cst1147.04FB_2B-EB_Web_Feb/24/21_02:09pm

UNIVERSITY AVE DEMOLITION
PLAN (6 OF 8)



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	E9	E12



PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc.local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B\C\2007\est1147.04FB_2B-E9_Web_Feb/24/21_02:10pm

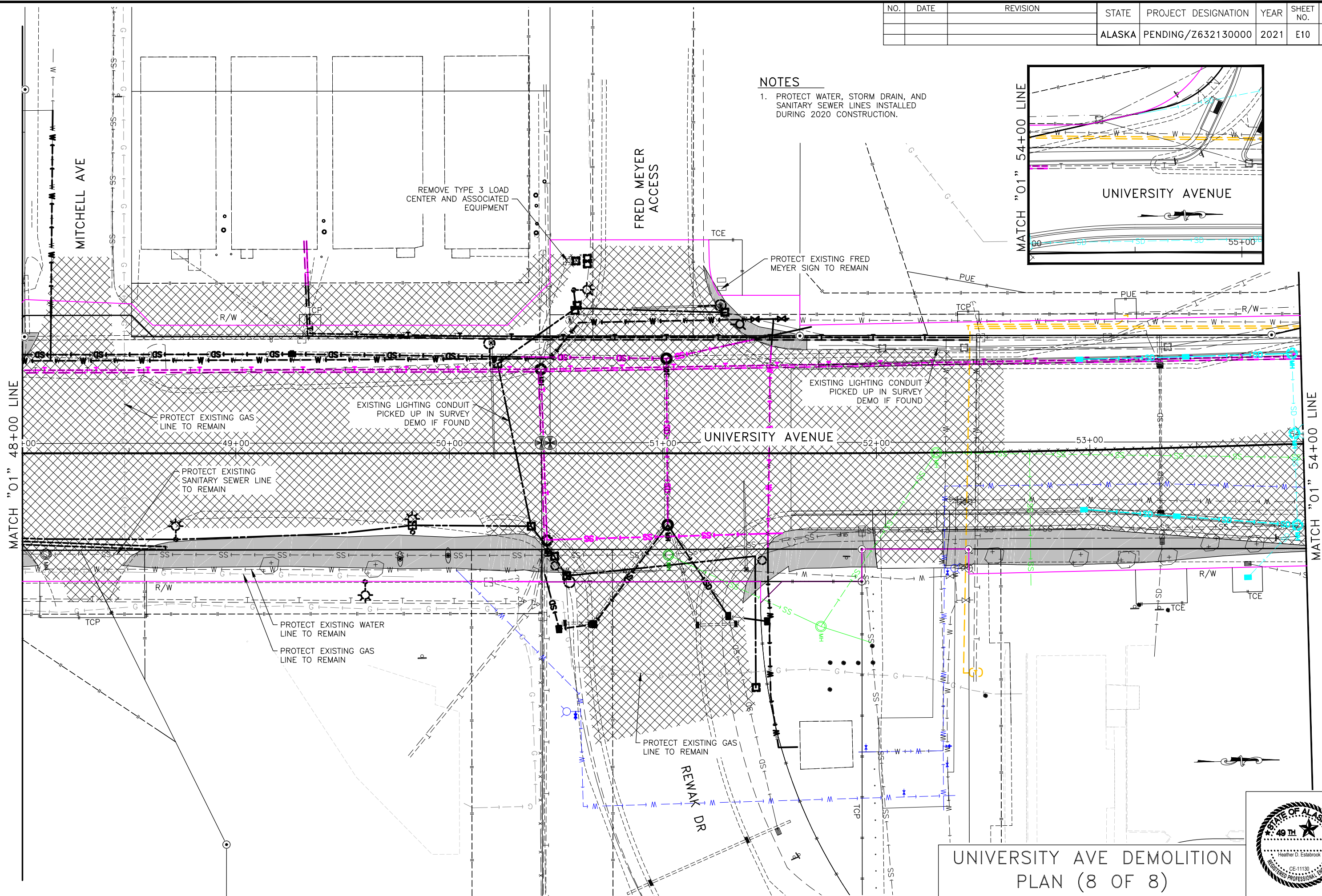
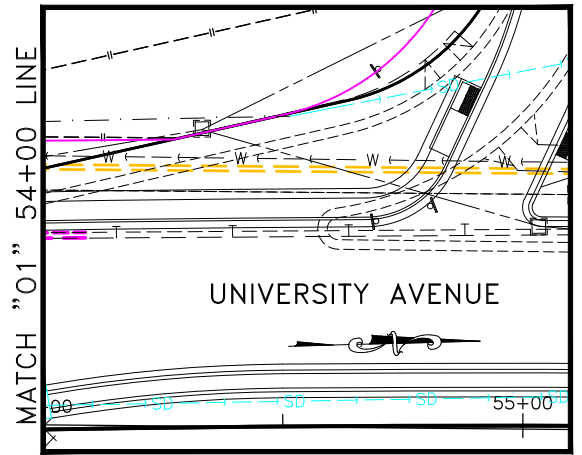
UNIVERSITY AVE DEMOLITION
 PLAN (7 OF 8)



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	E10	E12

NOTES

1. PROTECT WATER, STORM DRAIN, AND SANITARY SEWER LINES INSTALLED DURING 2020 CONSTRUCTION.



PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc.local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B\C\2007\esth1147.04FB_2B-E10 Wed, Feb/24/21 02:10pm

UNIVERSITY AVE DEMOLITION
 PLAN (8 OF 8)

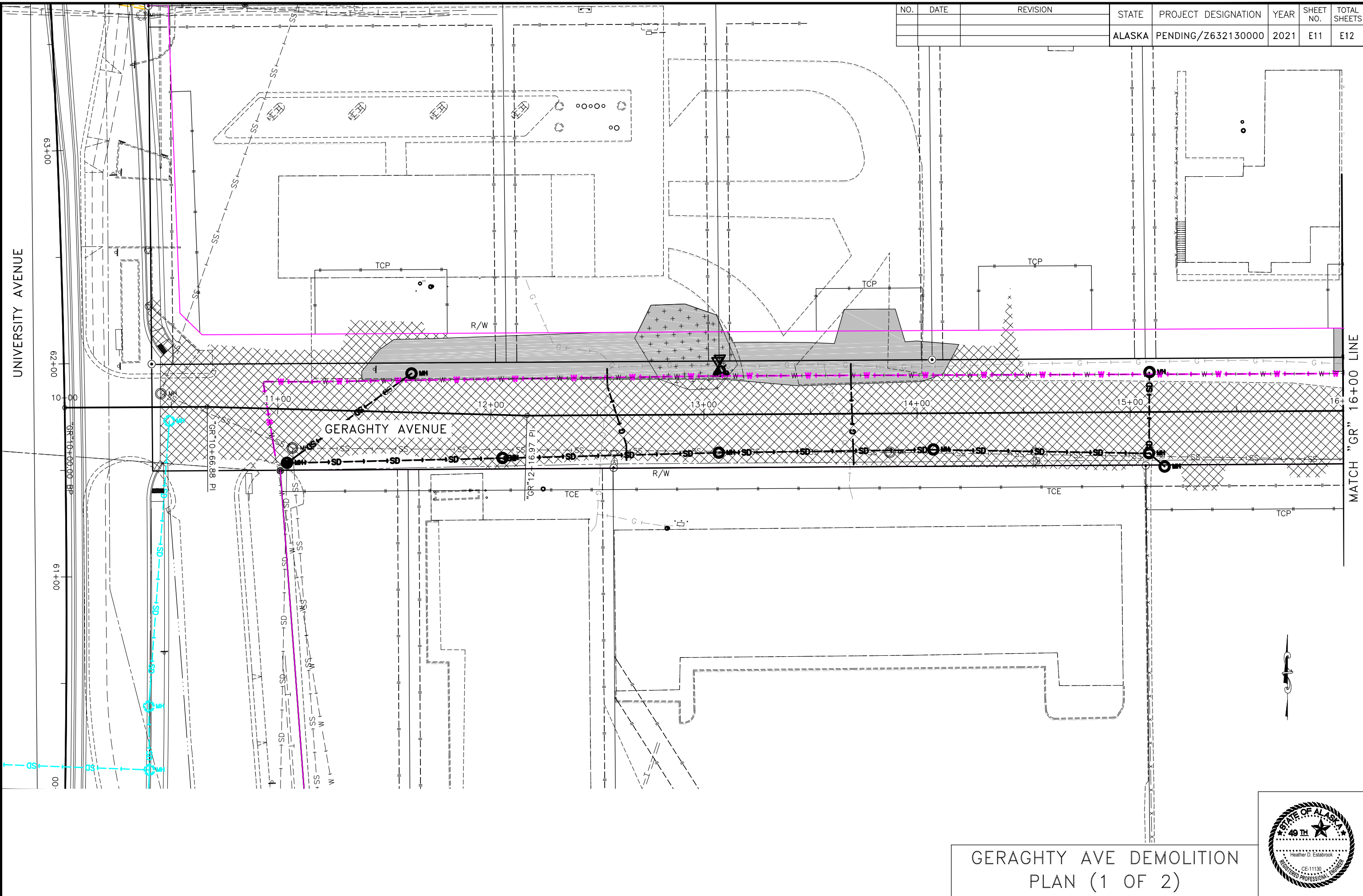


PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc.local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B\C\2007\est1147.04FB_2B-E11 Wed, Feb/24/21 02:12pm

UNIVERSITY AVENUE

63+00
62+00
10+00
61+00
00-

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	E11	E12

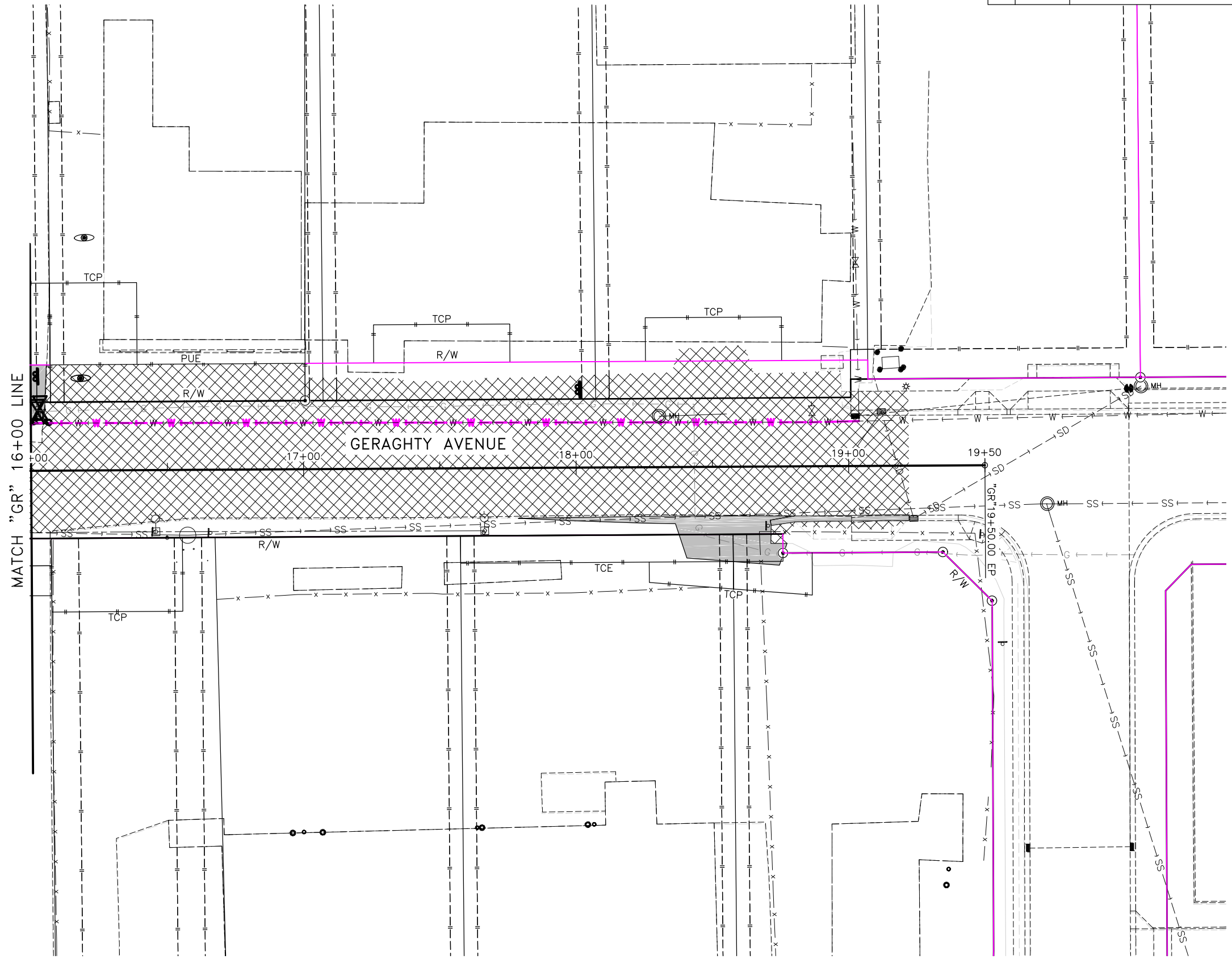


MATCH "GR" 16+00 LINE

GERAGHTY AVE DEMOLITION
 PLAN (1 OF 2)



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	E12	E12



MATCH "GR" 16+00 LINE

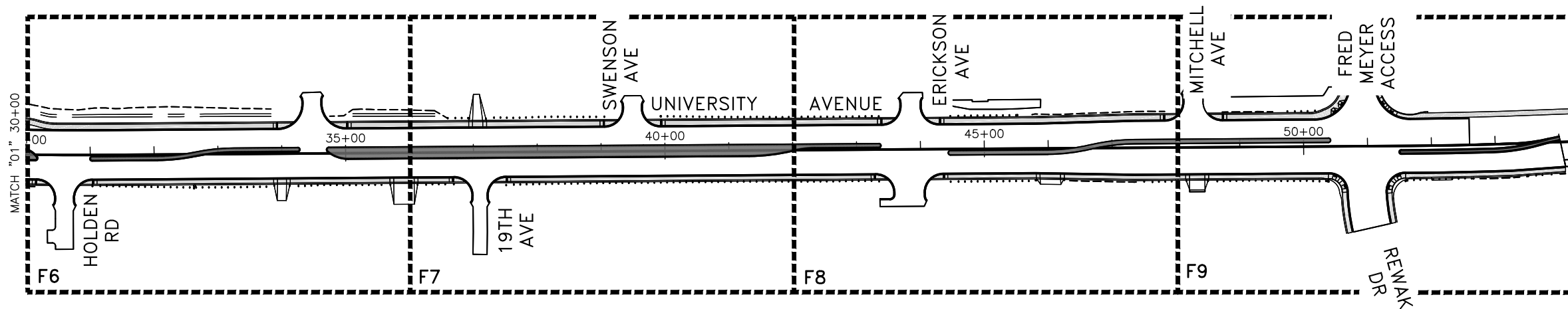
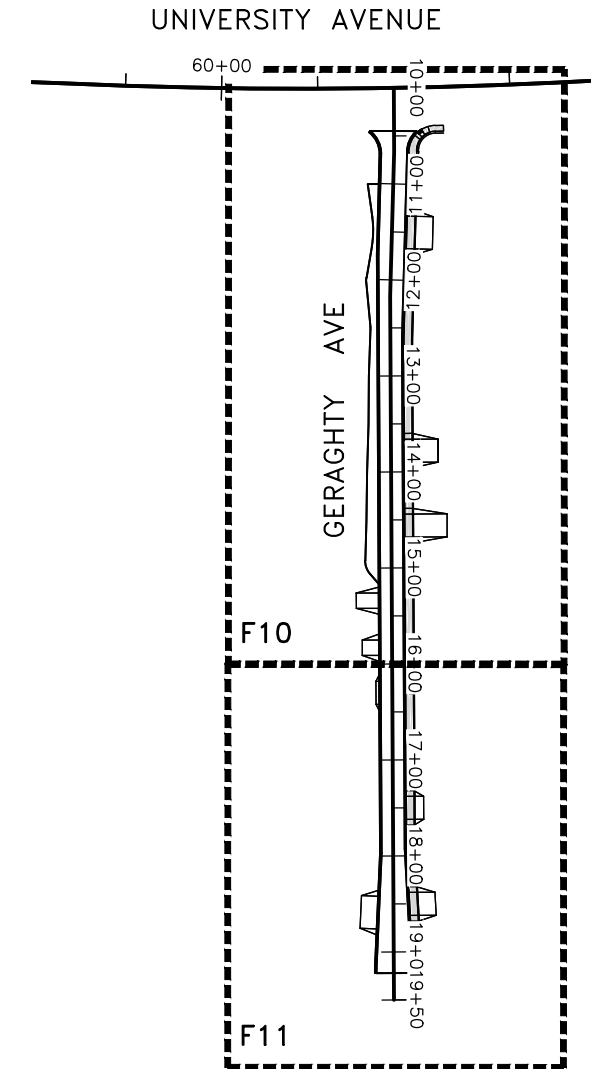
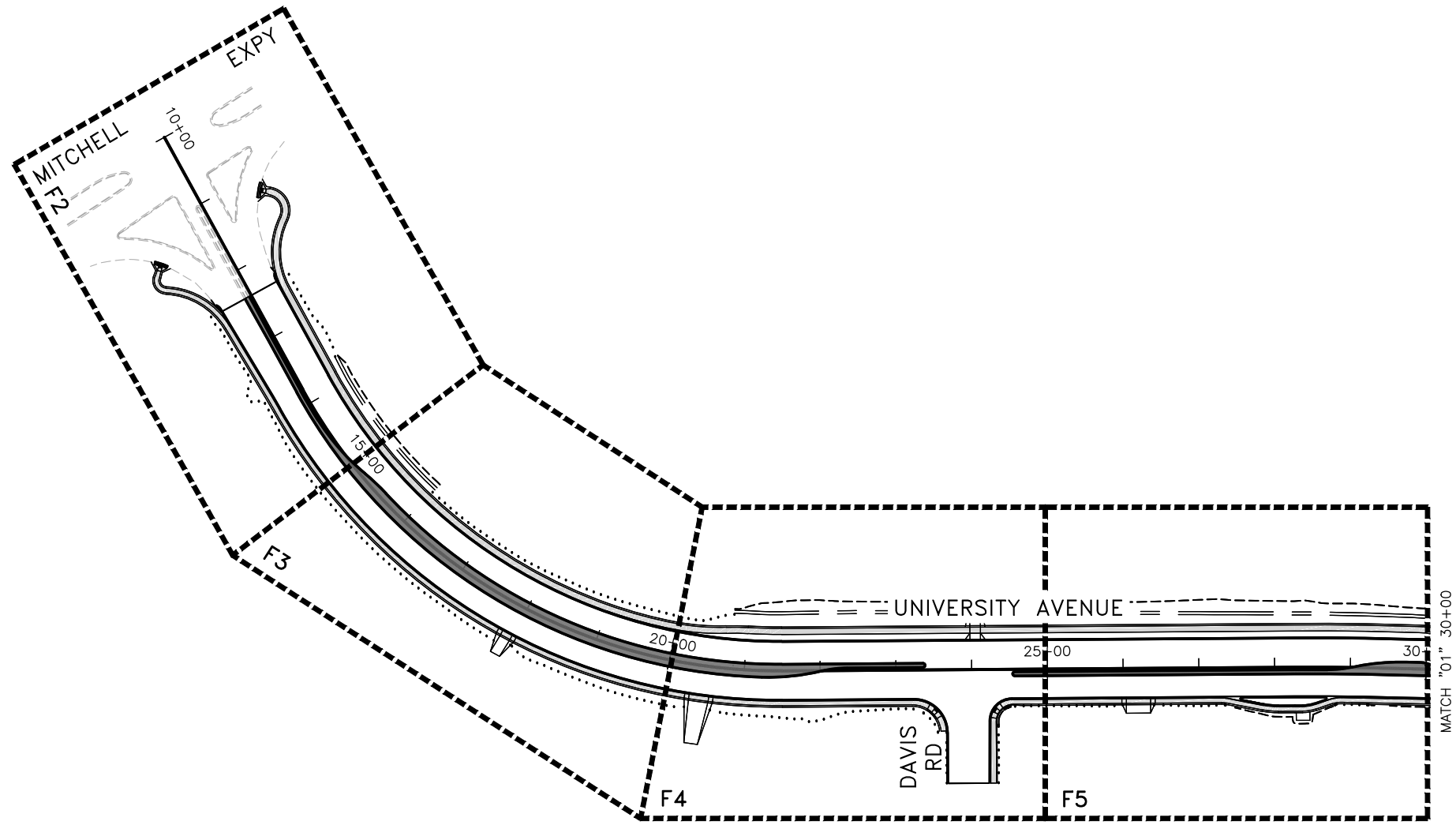
GERAGHTY AVENUE

GERAGHTY AVE DEMOLITION
PLAN (2 OF 2)



PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
\\pdc.local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B\C2007\est1147.04FB_2B-E12 Wed, Feb/24/21 02:13pm

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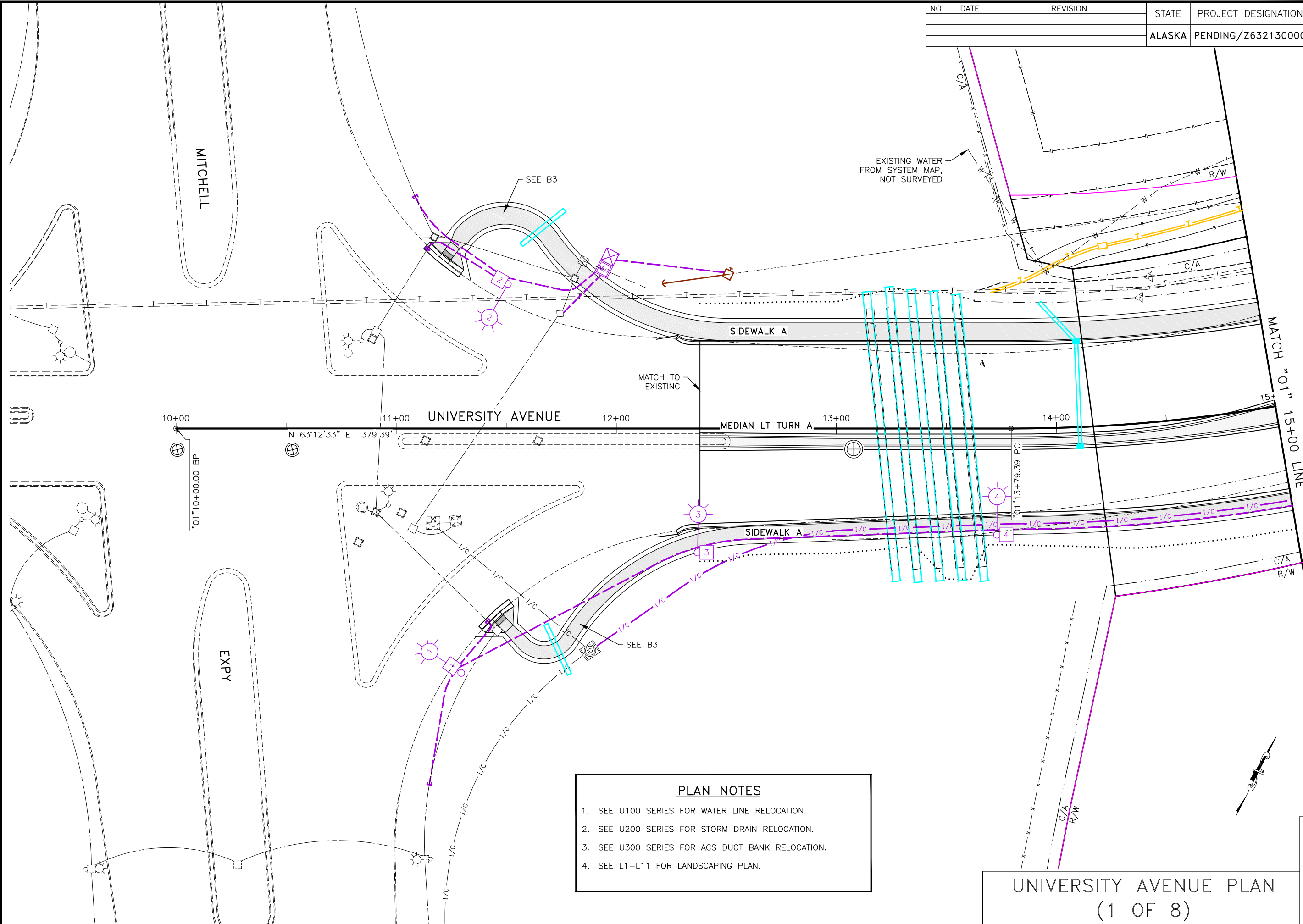


PLAN SHEET LAYOUT INDEX



PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	F2	F16



- PLAN NOTES**
1. SEE U100 SERIES FOR WATER LINE RELOCATION.
 2. SEE U200 SERIES FOR STORM DRAIN RELOCATION.
 3. SEE U300 SERIES FOR ACS DUCT BANK RELOCATION.
 4. SEE L1-L11 FOR LANDSCAPING PLAN.

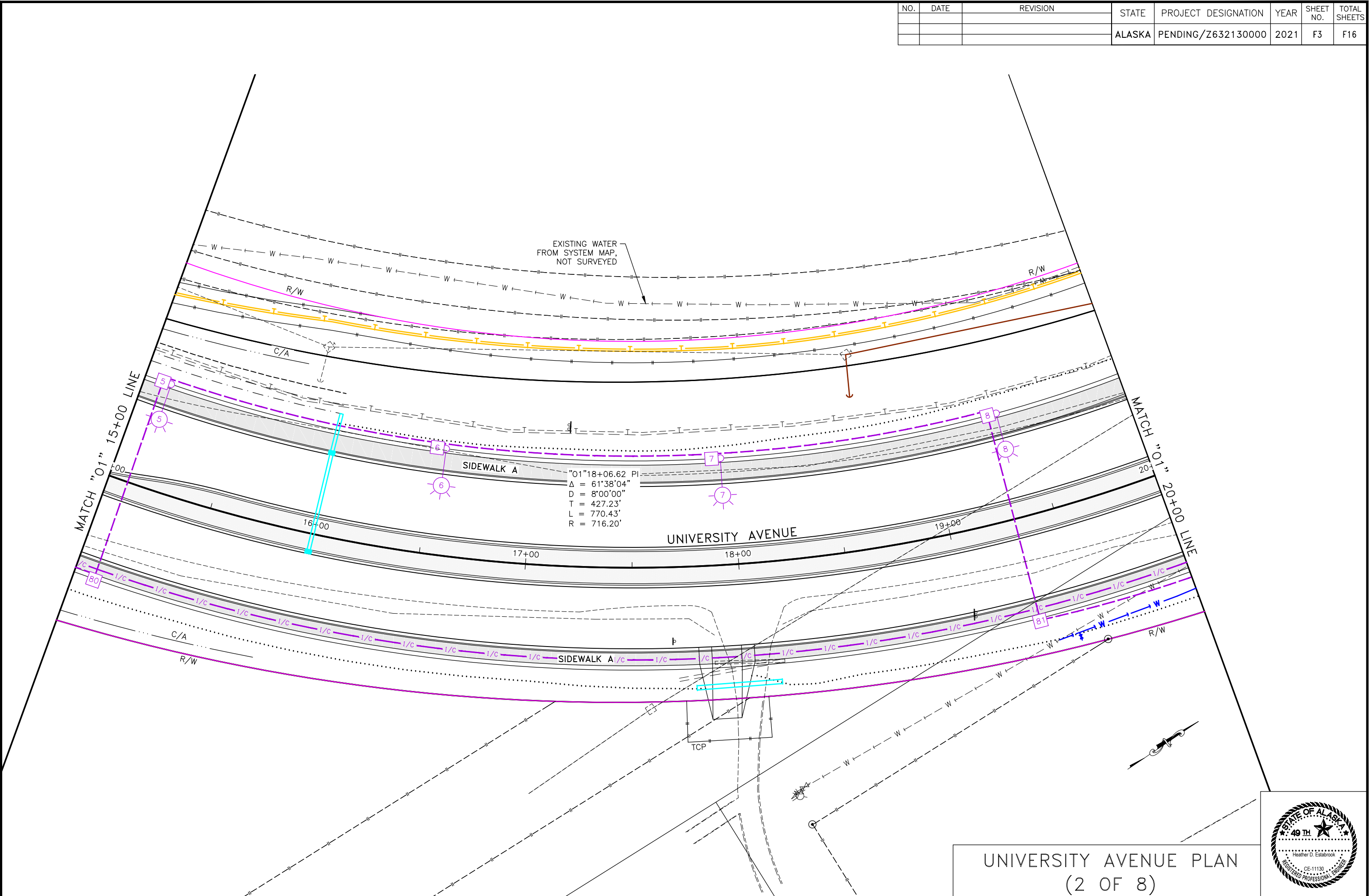
UNIVERSITY AVENUE PLAN
(1 OF 8)



PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
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UNIVERSITY AVENUE PLAN
(2 OF 8)



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	F4	F16

MATCH "01" 20+00 LINE

MATCH "01" 25+00 LINE

UTILITY TO ACQUIRE PUE FROM THIS PARCEL

PUE

SIDEWALK A

UNIVERSITY AVENUE

MEDIAN LT TURN A

MEDIAN LT TURN A

SIDEWALK A

DAVIS RD

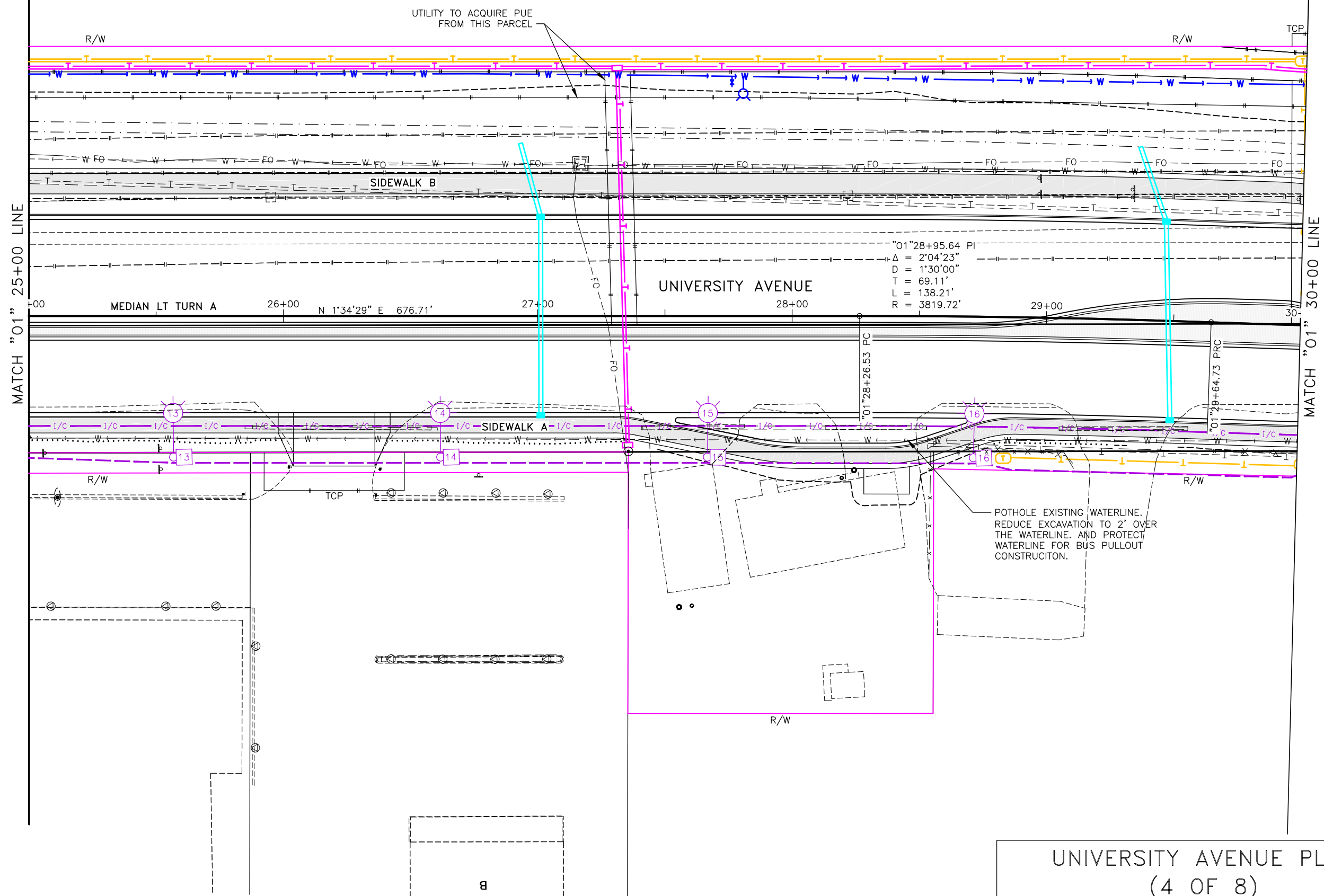
MATCH TO EXISTING

UNIVERSITY AVENUE PLAN
(3 OF 8)



PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
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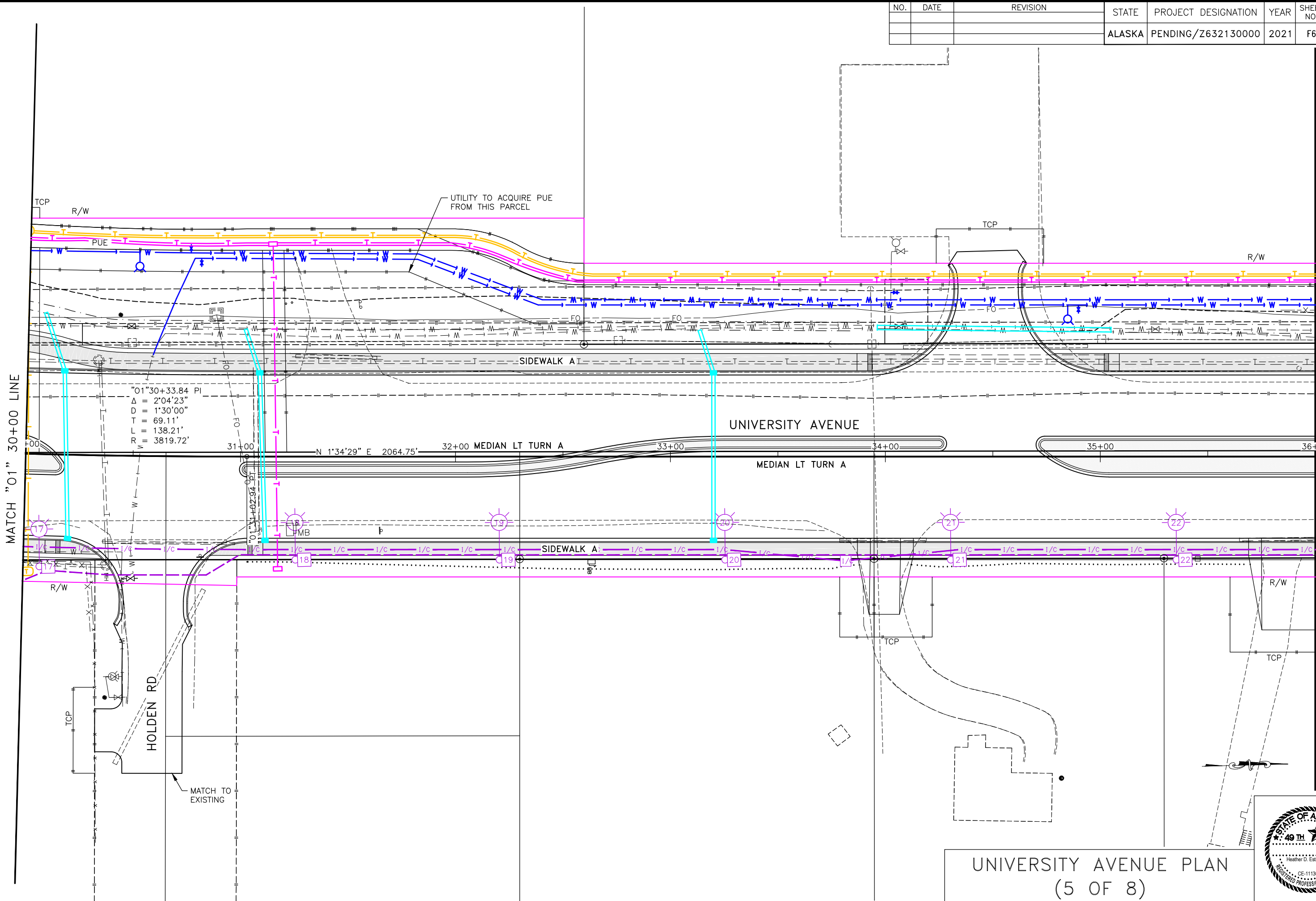


PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
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UNIVERSITY AVENUE PLAN
(4 OF 8)



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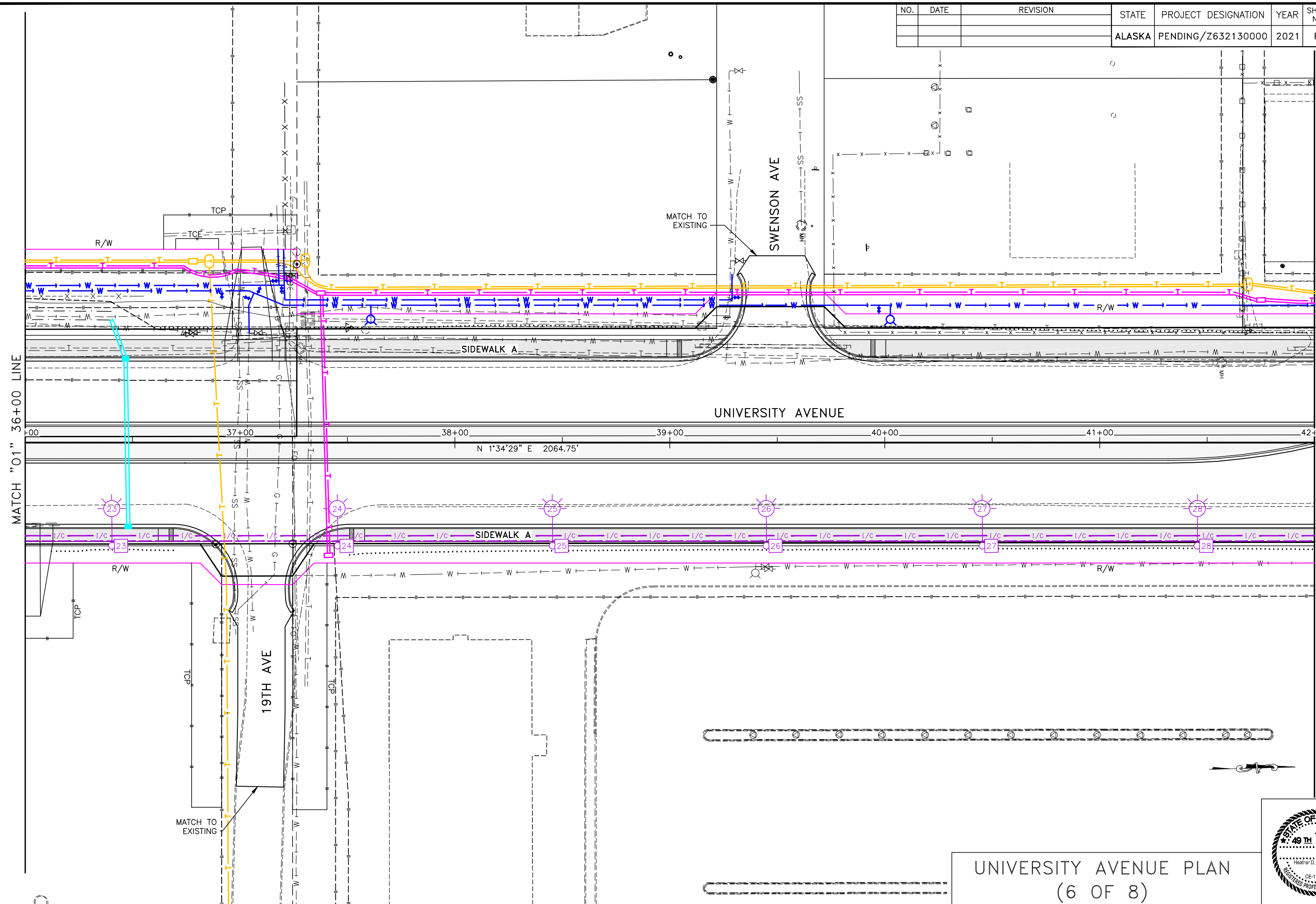
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UNIVERSITY AVENUE PLAN
(5 OF 8)

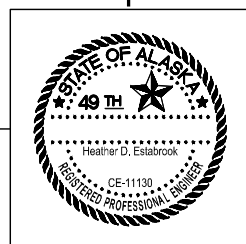


NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	F7	F16

PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
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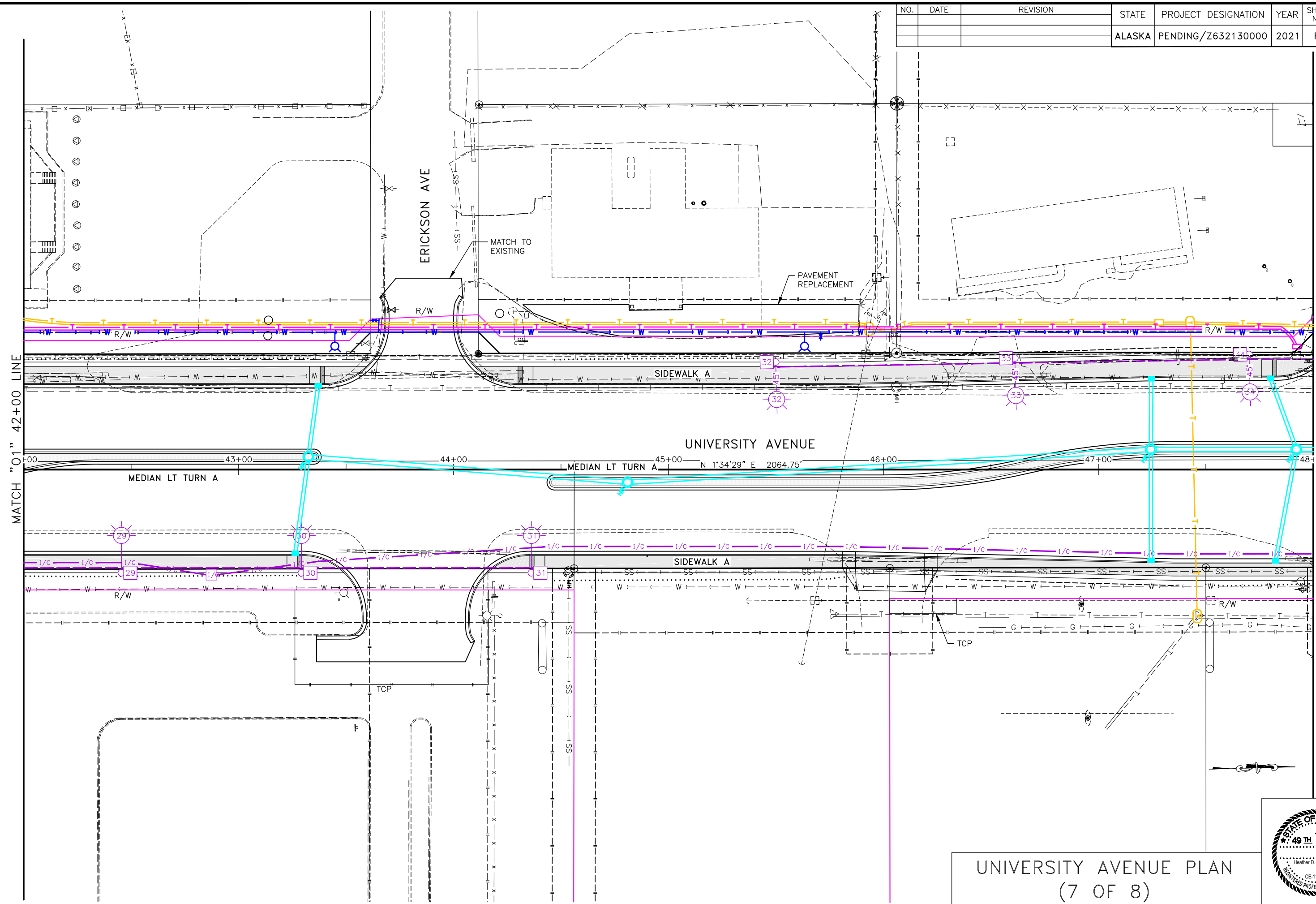


UNIVERSITY AVENUE PLAN
 (6 OF 8)

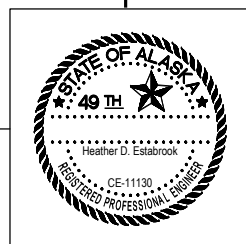


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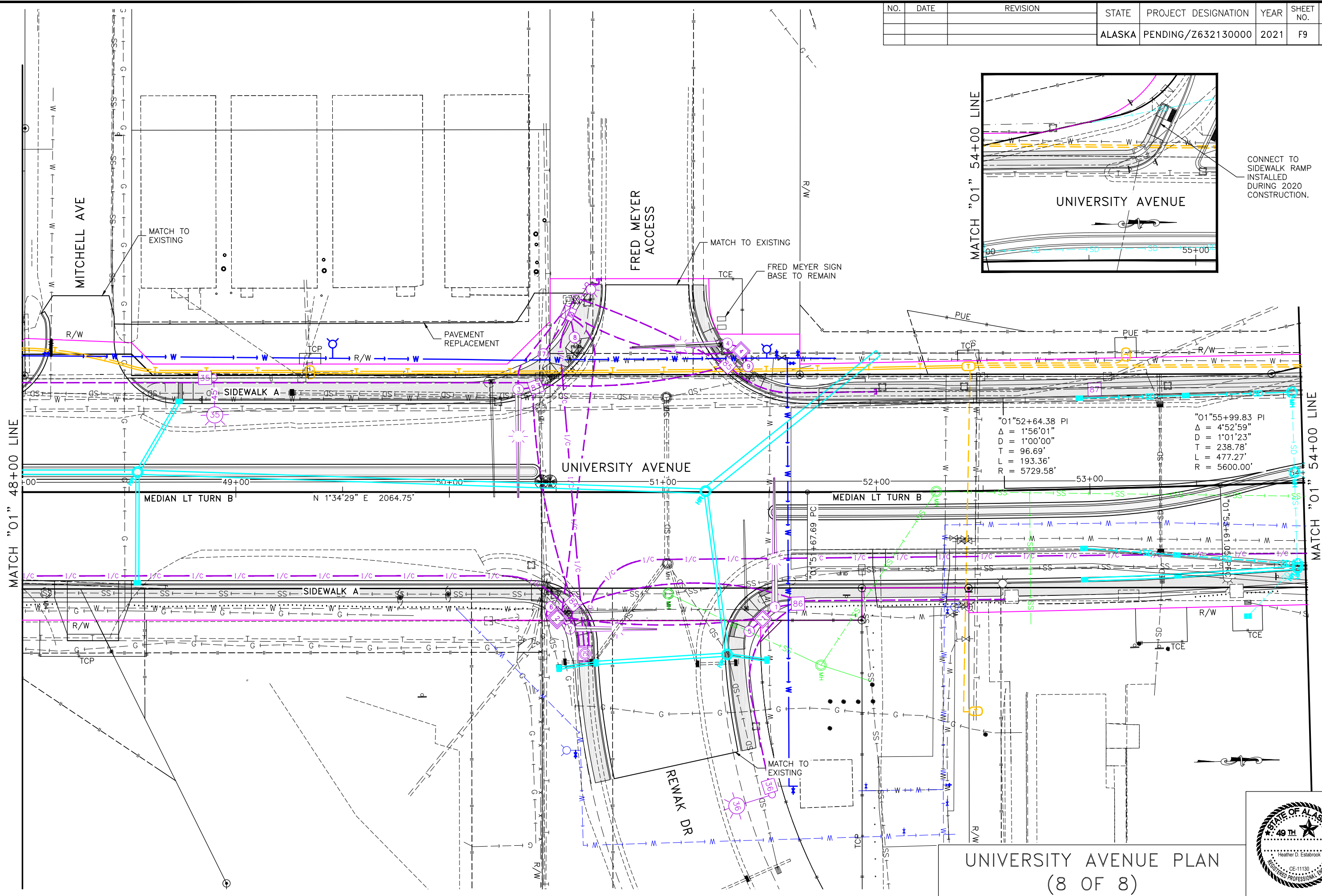
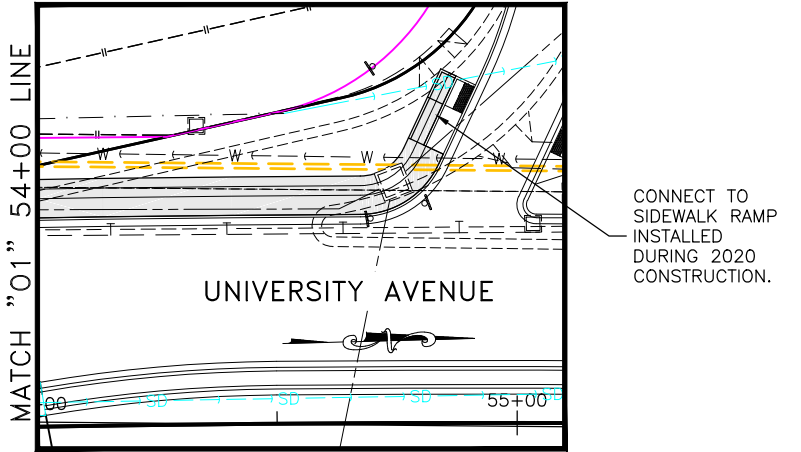
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UNIVERSITY AVENUE PLAN
(7 OF 8)



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	F9	F16



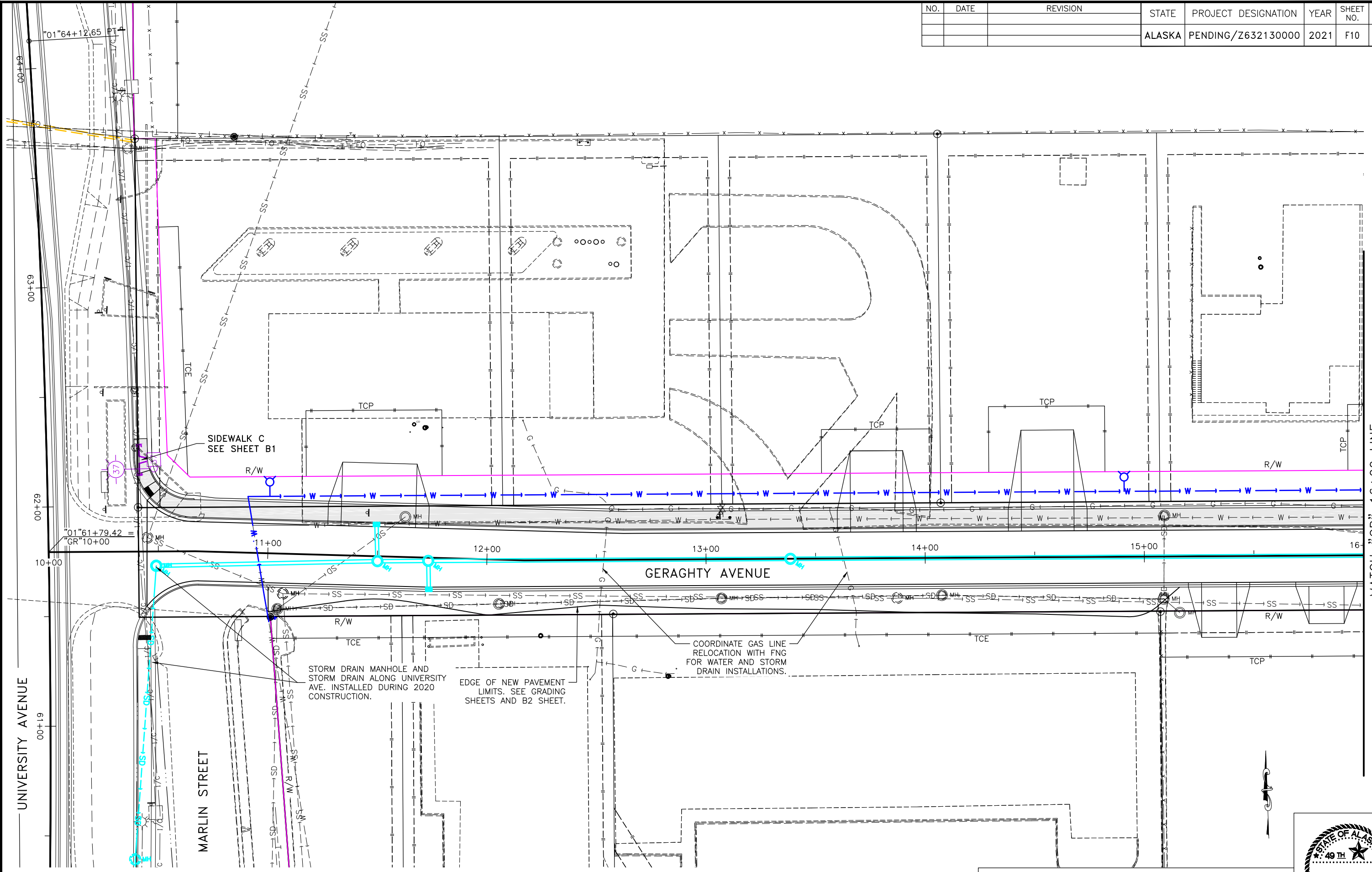
$^{\circ}01^{\circ}52+64.38$ PI $\Delta = 1^{\circ}56'01''$ $D = 1^{\circ}00'00''$ $T = 96.69'$ $L = 193.36'$ $R = 5729.58'$	$^{\circ}01^{\circ}55+99.83$ PI $\Delta = 4^{\circ}52'59''$ $D = 1^{\circ}01'23''$ $T = 238.78'$ $L = 477.27'$ $R = 5600.00'$
---	--

PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
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UNIVERSITY AVENUE PLAN
(8 OF 8)



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	F10	F16



PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
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MATCH "GR" 16+00 LINE

GERAGHTY AVENUE PLAN
(1 OF 2)

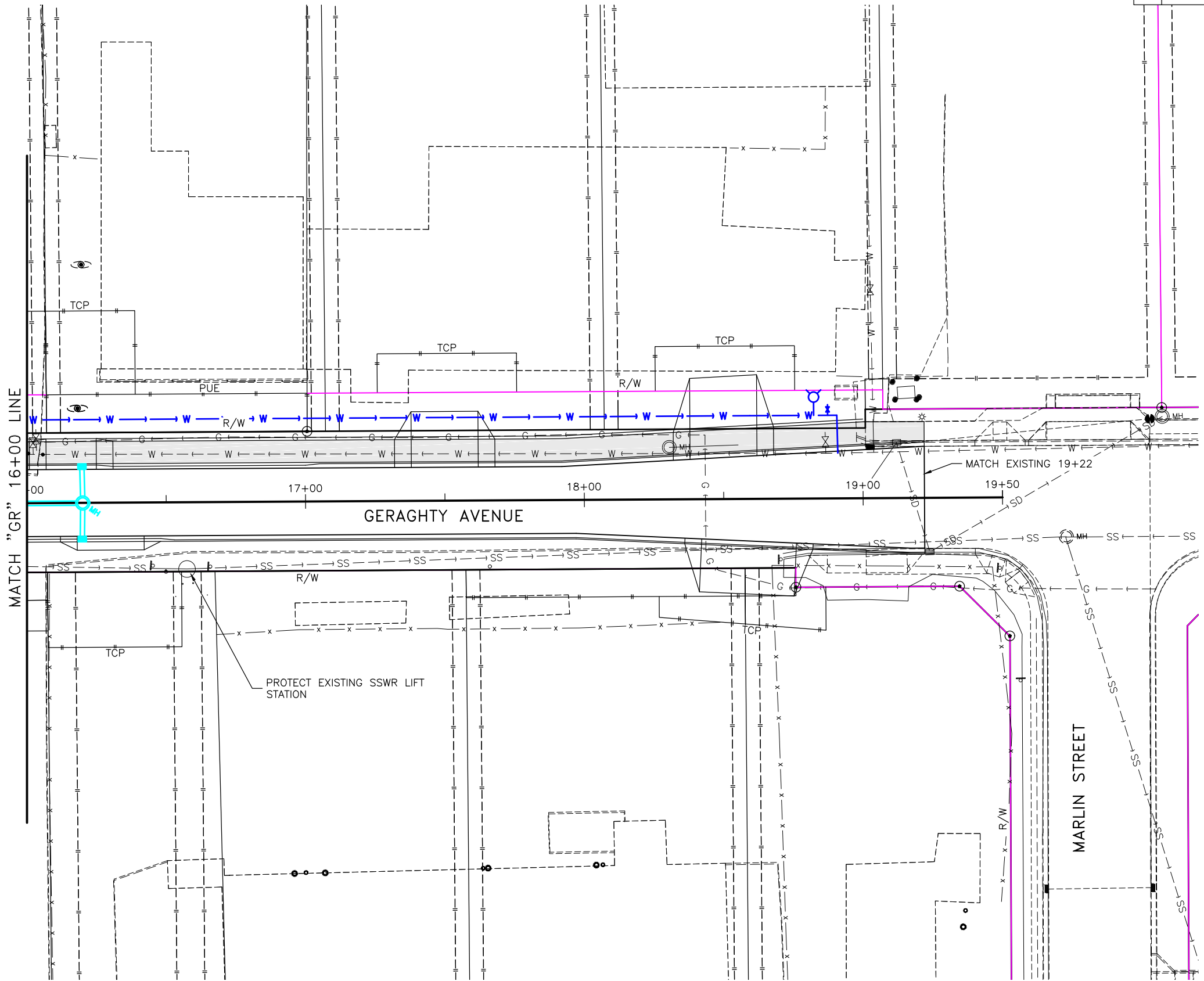


STORM DRAIN MANHOLE AND STORM DRAIN ALONG UNIVERSITY AVE. INSTALLED DURING 2020 CONSTRUCTION.

EDGE OF NEW PAVEMENT LIMITS. SEE GRADING SHEETS AND B2 SHEET.

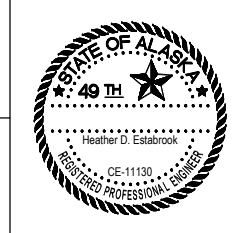
COORDINATE GAS LINE RELOCATION WITH FNG FOR WATER AND STORM DRAIN INSTALLATIONS.

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	F11	F16

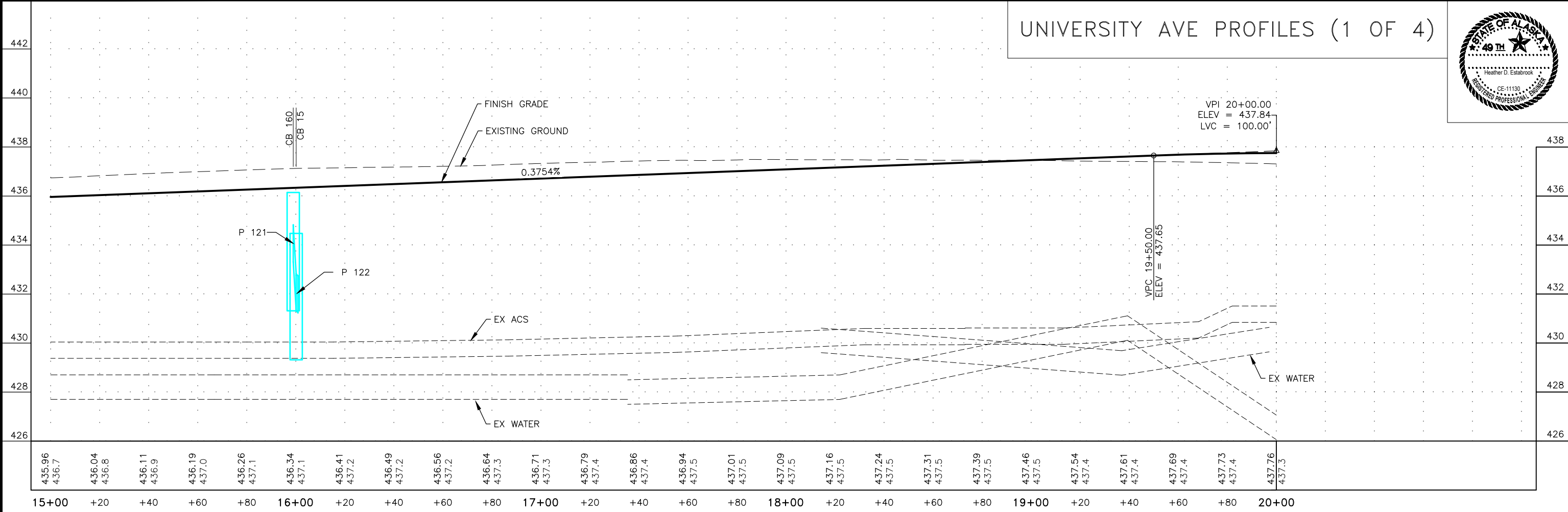
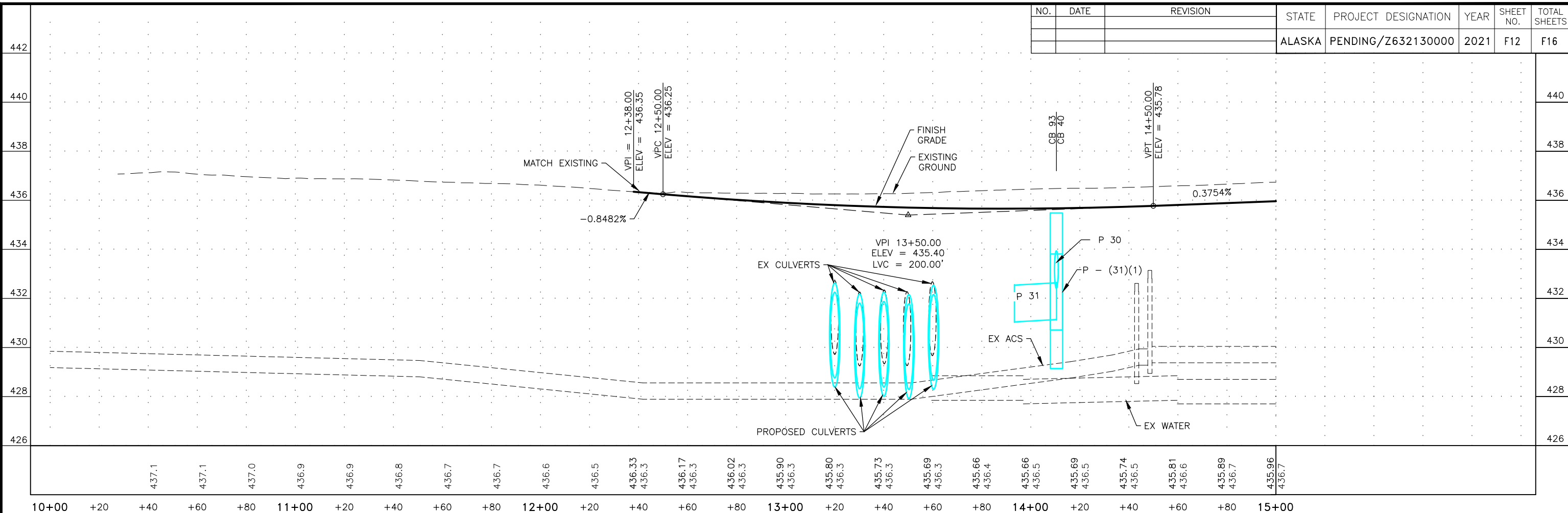


PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605. 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503. (907)743-3200
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GERAGHTY AVENUE PLAN
(2 OF 2)



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	F12	F16

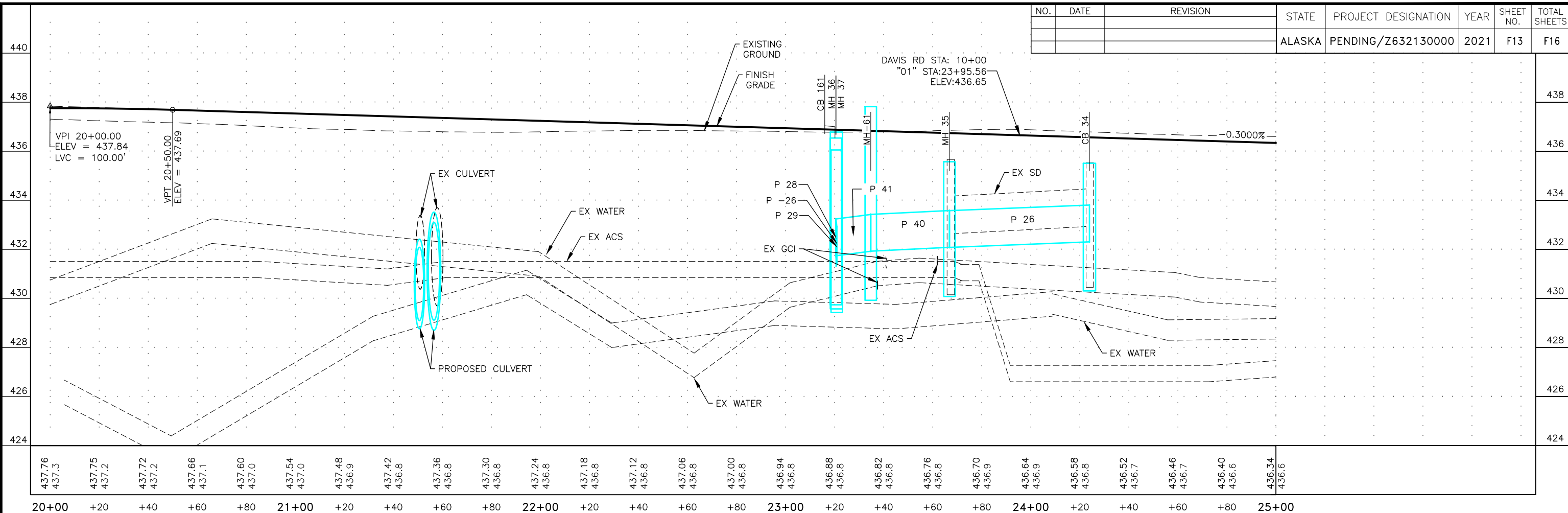


UNIVERSITY AVE PROFILES (1 OF 4)

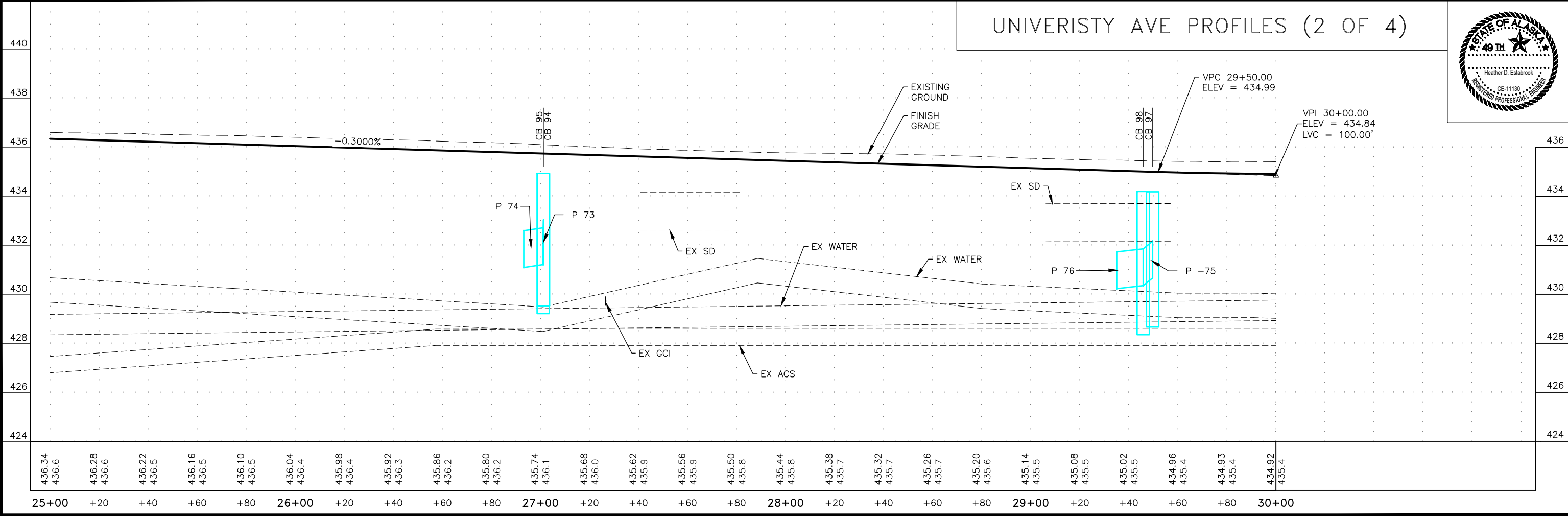


PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
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			ALASKA	PENDING/Z632130000	2021	F13	F16

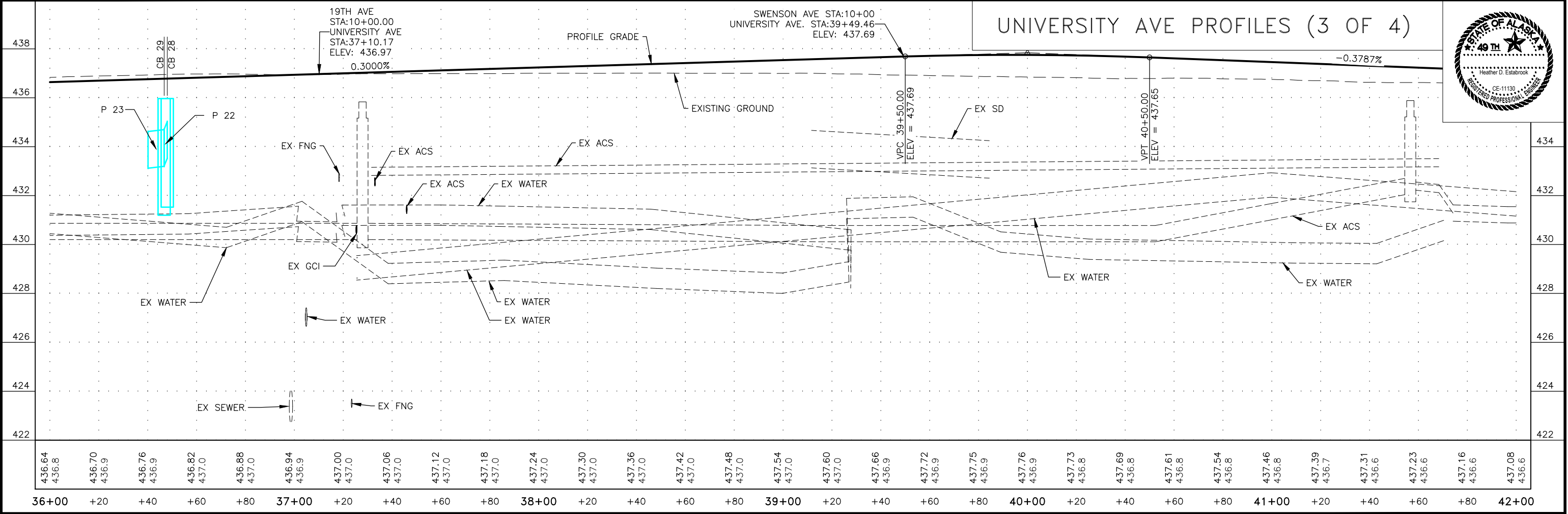
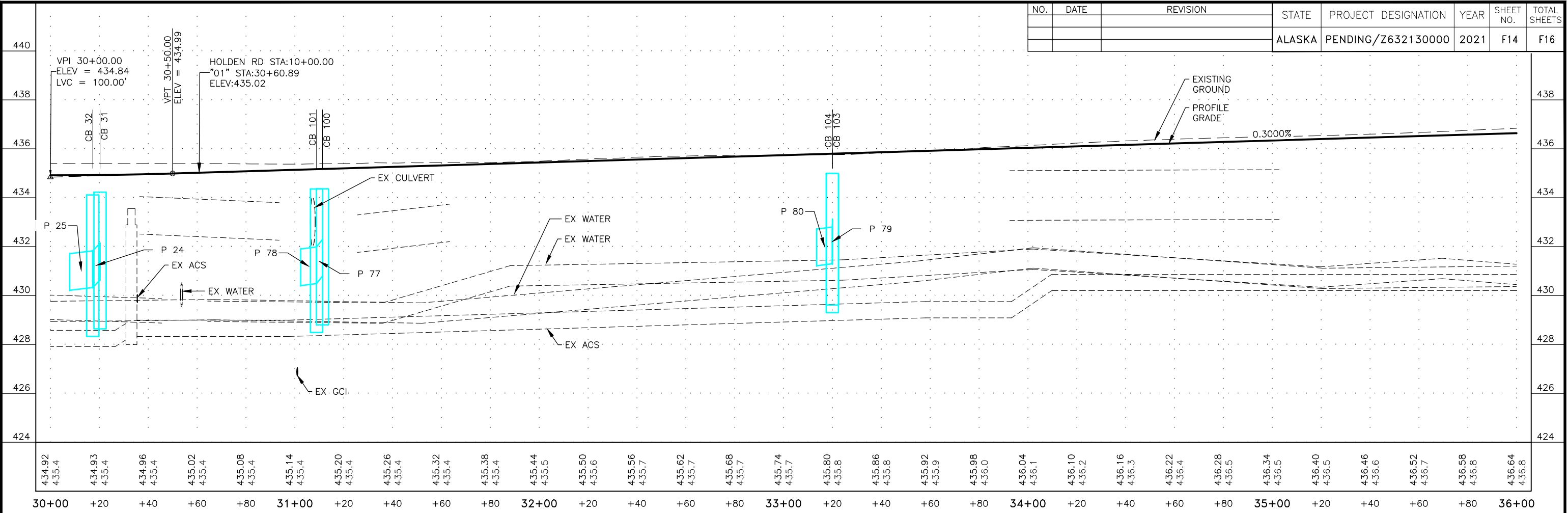


UNIVERISTY AVE PROFILES (2 OF 4)



PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
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			ALASKA	PENDING/Z632130000	2021	F14	F16

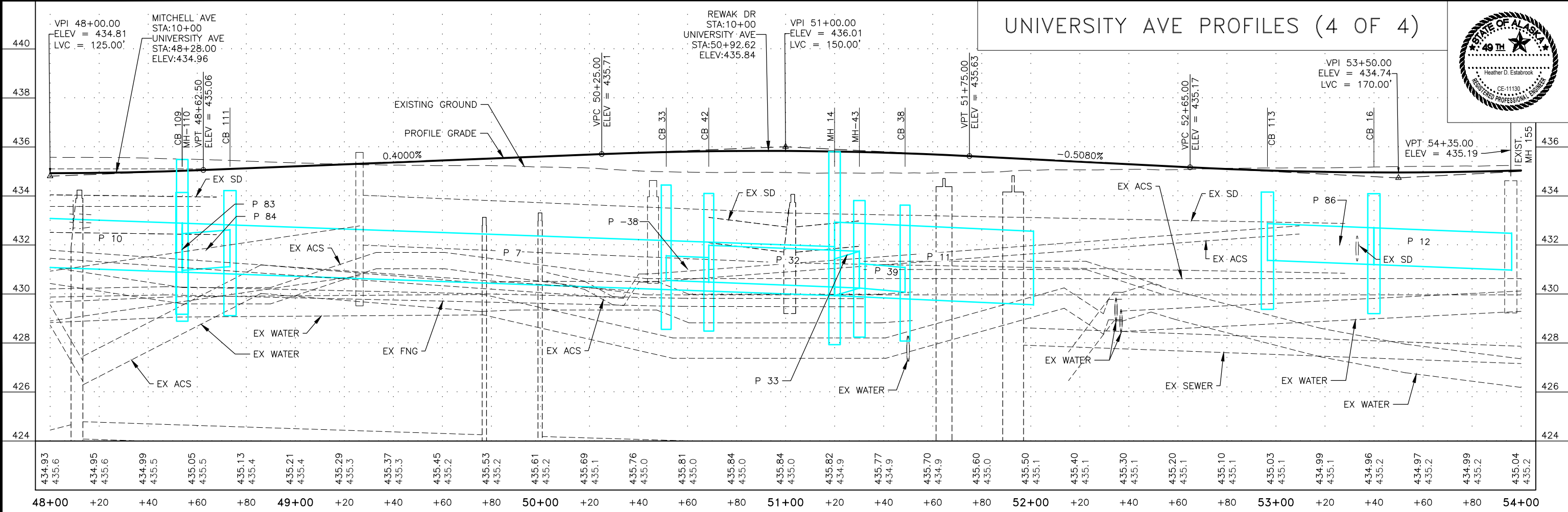
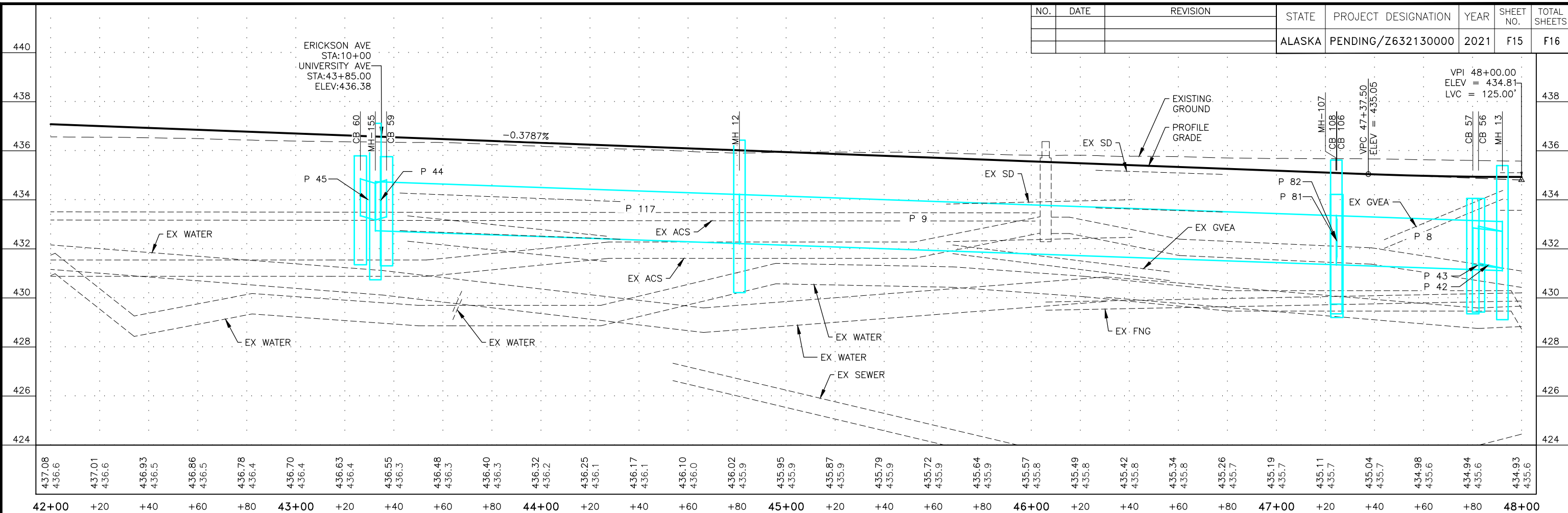


UNIVERSITY AVE PROFILES (3 OF 4)



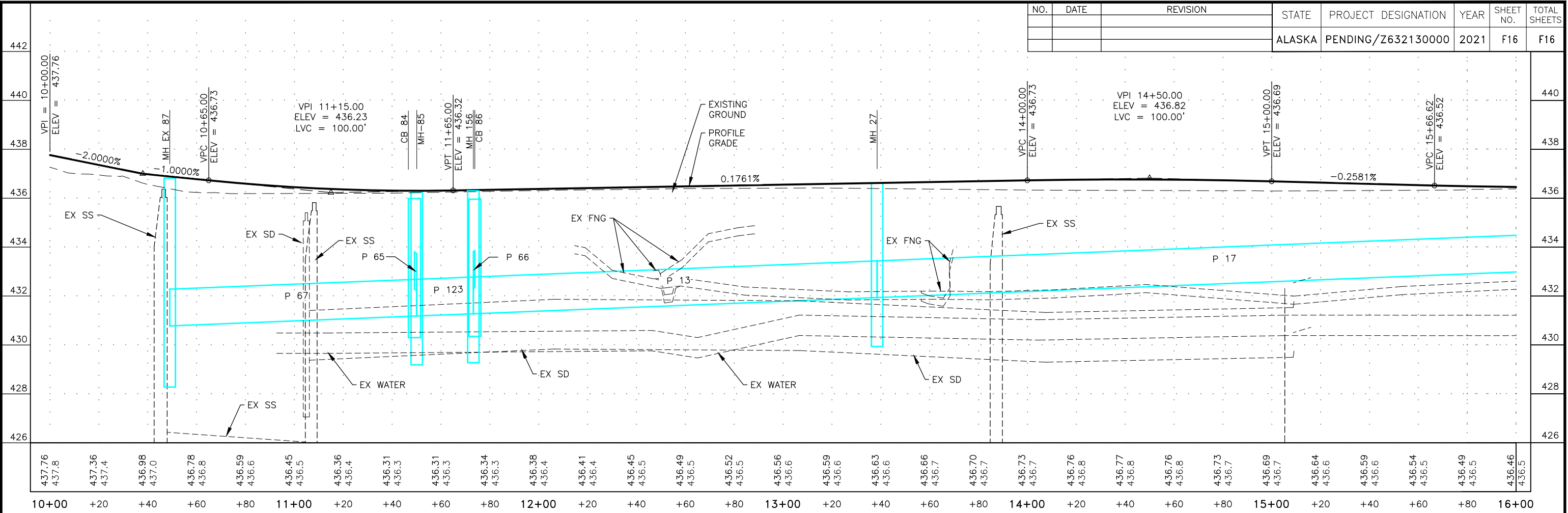
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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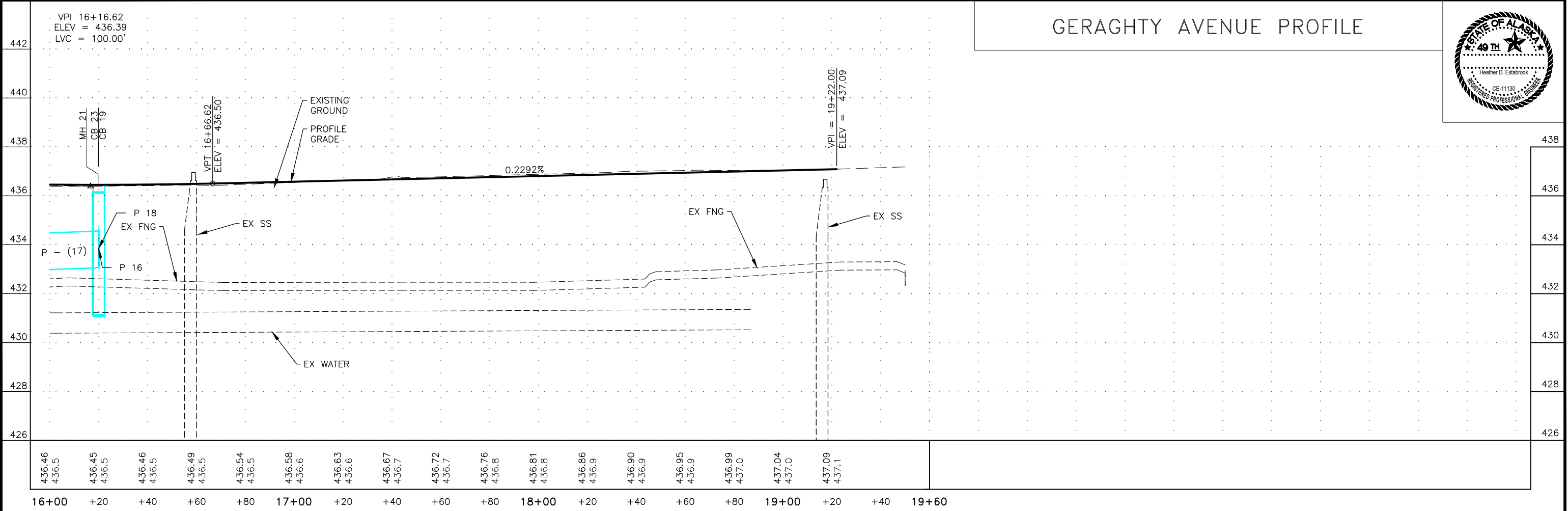
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	F16	F16



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10+00	+20	+40	+60	+80	11+00	+20	+40	+60	+80	12+00	+20	+40	+60	+80	13+00	+20	+40	+60	+80	14+00	+20	+40	+60	+80	15+00	+20	+40	+60	+80	16+00																															

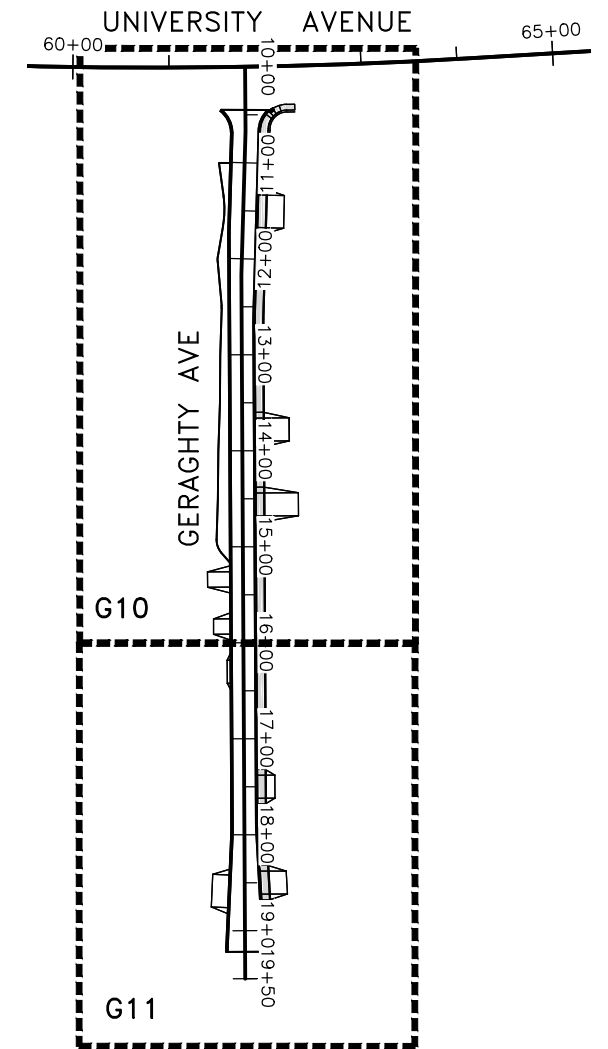
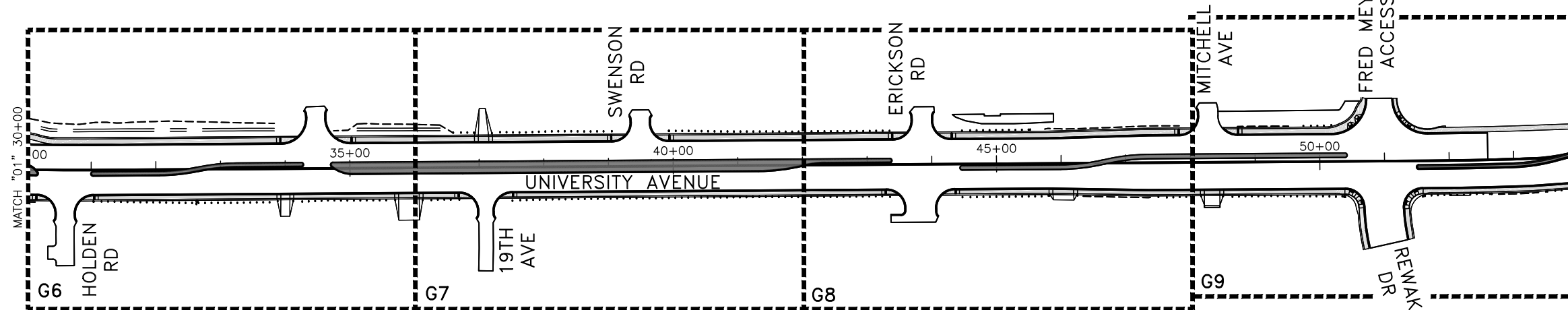
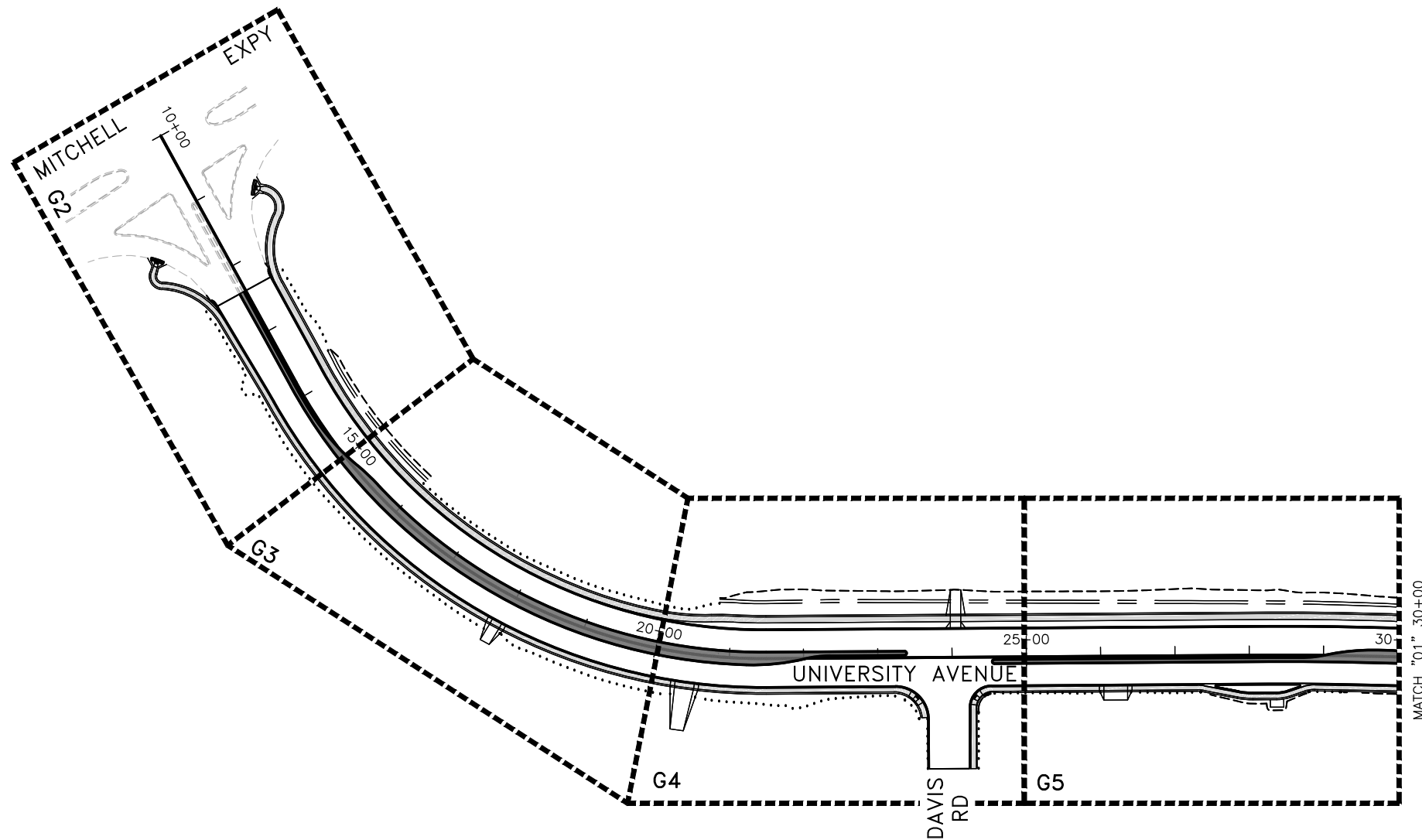
GERAGHTY AVENUE PROFILE



436.46	436.5	436.45	436.5	436.46	436.5	436.49	436.5	436.54	436.5	436.58	436.6	436.63	436.6	436.67	436.7	436.72	436.7	436.76	436.8	436.81	436.8	436.86	436.9	436.90	436.9	436.95	436.9	436.99	437.0	437.04	437.0	437.09	437.1
16+00	+20	+40	+60	+80	17+00	+20	+40	+60	+80	18+00	+20	+40	+60	+80	19+00	+20	+40	19+60															

PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc.local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B\C\200505081147.04FB_2B-F16 Wed, Feb/24/21 12:15pm

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	G1	G22



PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc.local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B(C:\0005\ss1147.04fb_2b-G1_Mon_Feb/22/21_08:17am

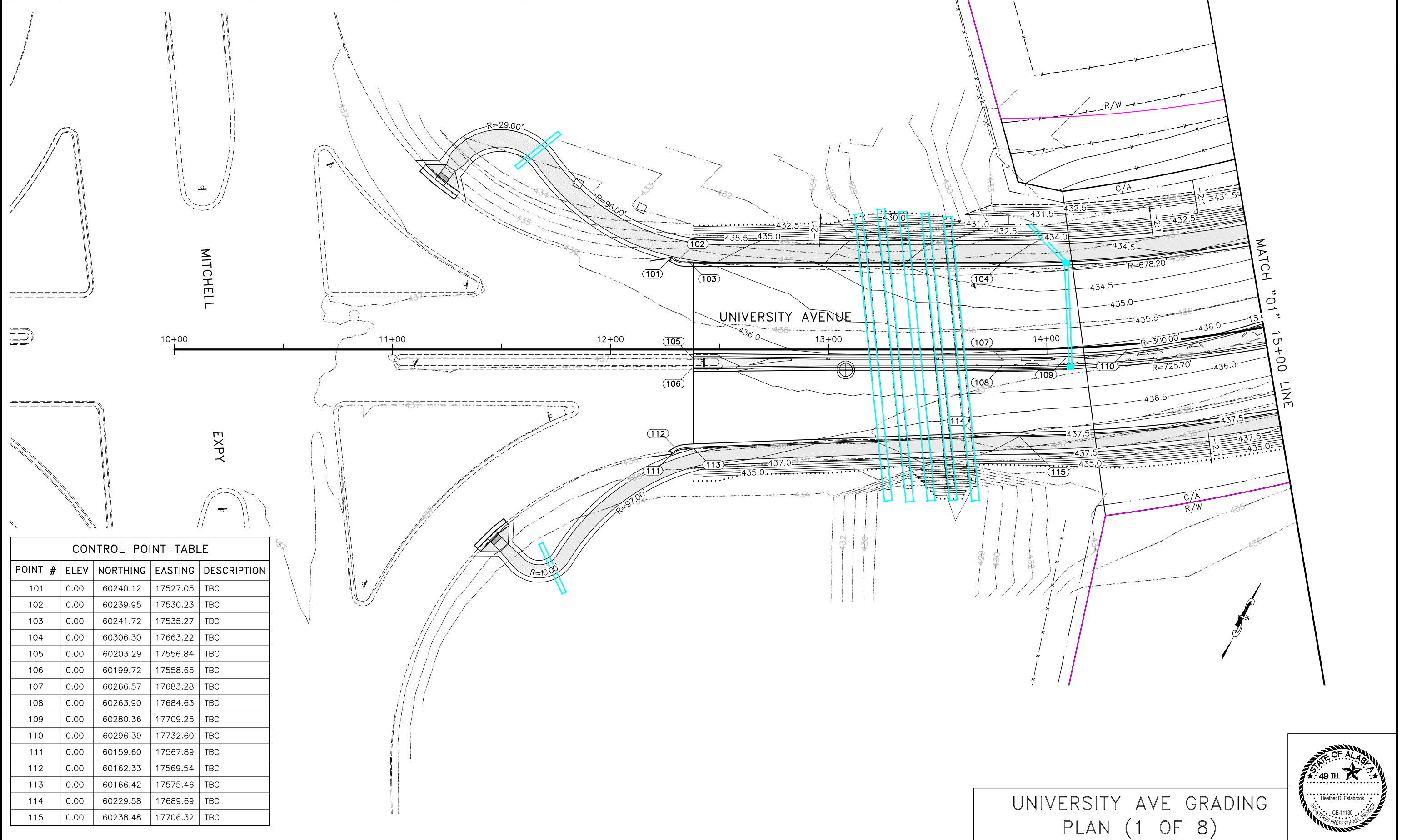
GRADING SHEET LAYOUT INDEX



PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECCE605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc.local\dfs\Projects\2011\1147_04FB-UNIV_AVE-SEGMENT_2B\C2003\consist\1147_04FB_2B-G2 Mon, Feb/22/21 08:19am

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	G2	G22

ALIGNMENT	SUPERELEVATION RATE (%)	RADIUS OF CURVE (FT)	BEGIN TRANSITION	BEGIN FULL SUPERELEVATION	END FULL SUPERELEVATION	END TRANSITION	REMARKS
"01"	5.7	716.20	11+57.98	13+97.09	21+32.12	23+71.22	



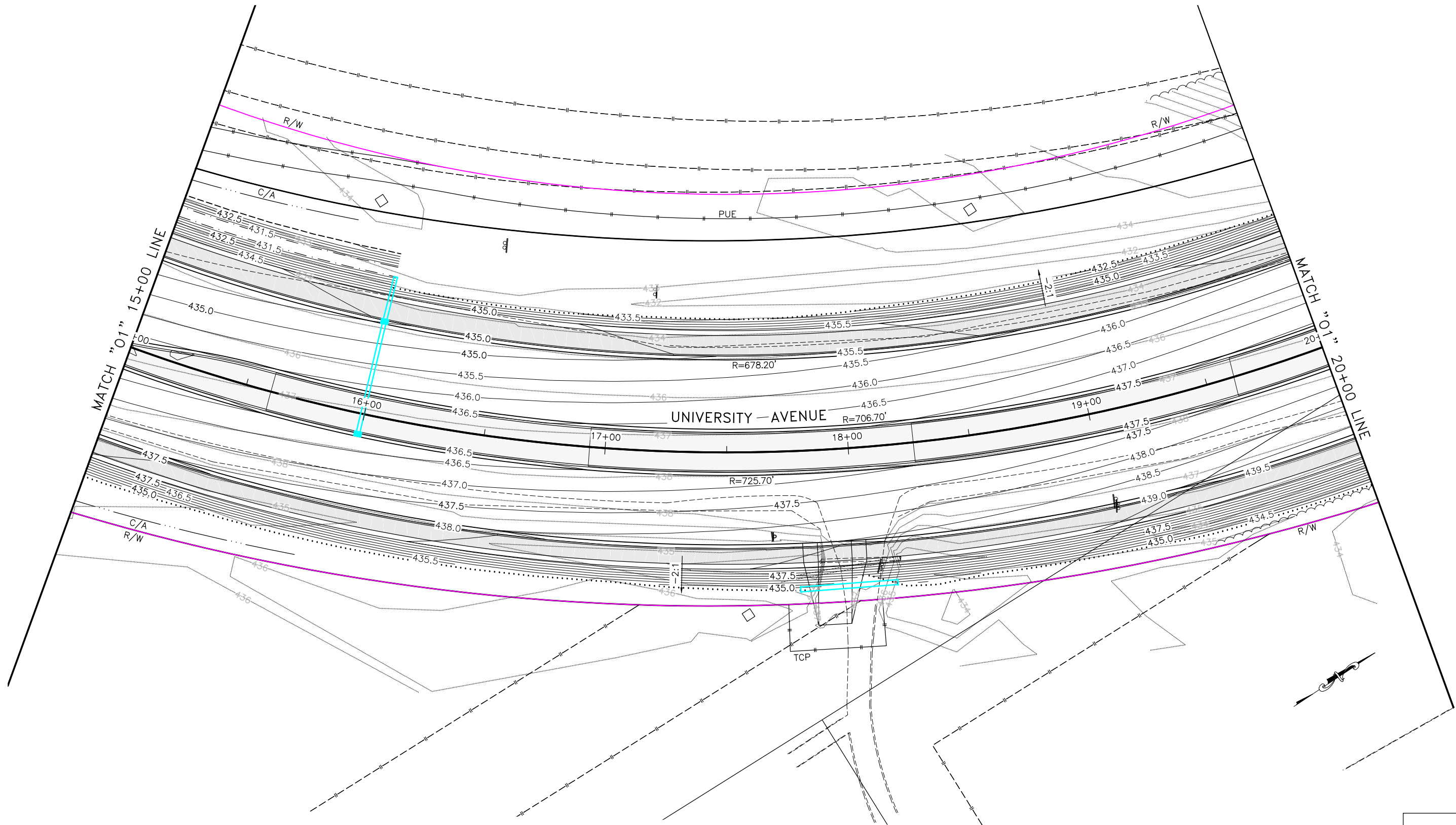
POINT #	ELEV	NORTHING	EASTING	DESCRIPTION
101	0.00	60240.12	17527.05	TBC
102	0.00	60239.95	17530.23	TBC
103	0.00	60241.72	17535.27	TBC
104	0.00	60306.30	17663.22	TBC
105	0.00	60203.29	17556.84	TBC
106	0.00	60199.72	17558.65	TBC
107	0.00	60266.57	17683.28	TBC
108	0.00	60263.90	17684.63	TBC
109	0.00	60280.36	17709.25	TBC
110	0.00	60296.39	17732.60	TBC
111	0.00	60159.60	17567.89	TBC
112	0.00	60162.33	17569.54	TBC
113	0.00	60166.42	17575.46	TBC
114	0.00	60229.58	17689.69	TBC
115	0.00	60238.48	17706.32	TBC

UNIVERSITY AVE GRADING
 PLAN (1 OF 8)



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	G3	G22

SUPERELEVATION TABLE							
ALIGNMENT	SUPERELEVATION RATE (%)	RADIUS OF CURVE (FT)	BEGIN TRANSITION	BEGIN FULL SUPERELEVATION	END FULL SUPERELEVATION	END TRANSITION	REMARKS
"01"	5.7	716.20	11+57.98	13+97.09	21+32.12	23+71.22	



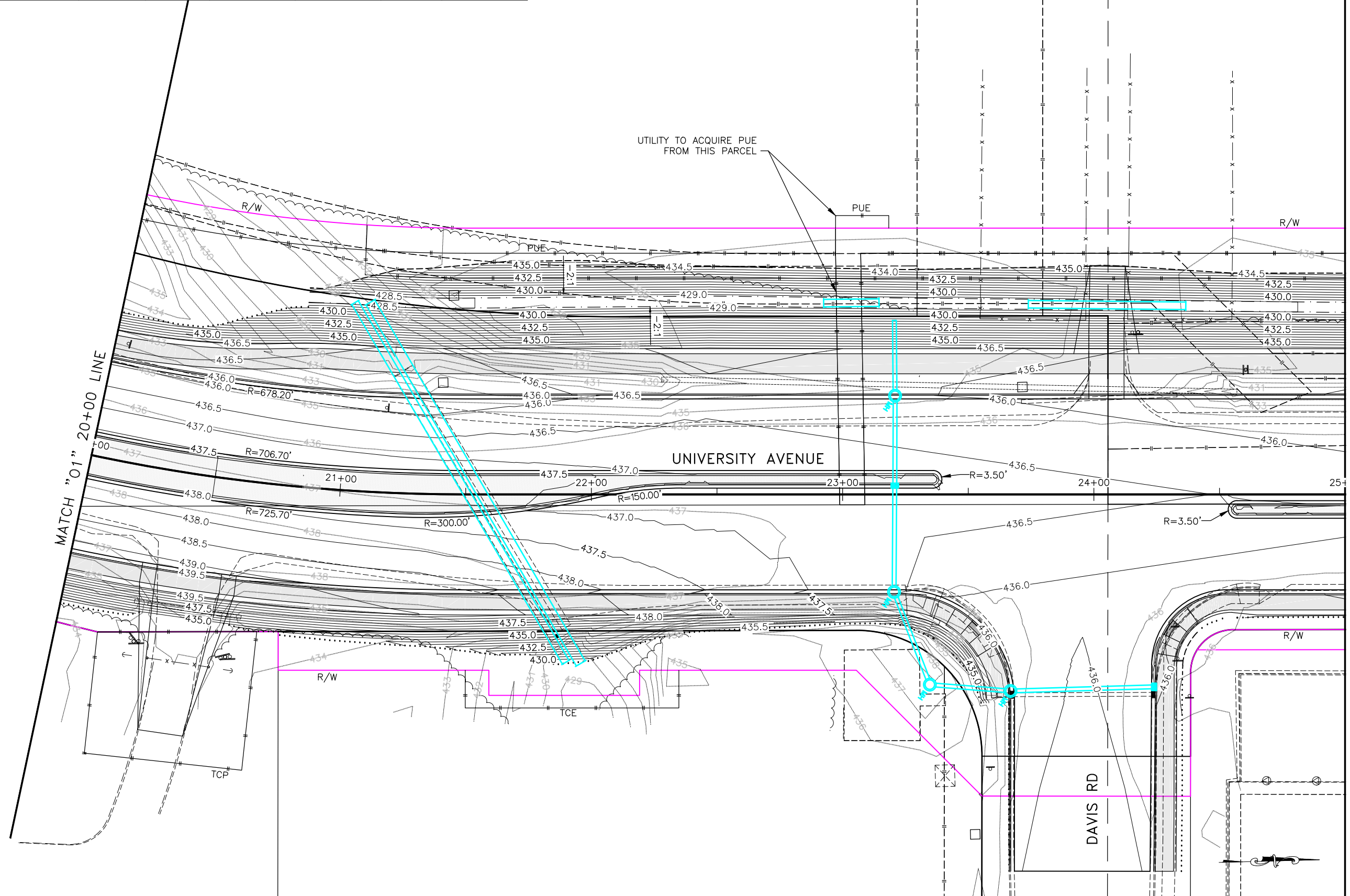
PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc.local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B\C\2003\1147.04FB_2B-G3 Mon, Feb/22/21 08:20am

UNIVERSITY AVE GRADING
PLAN (2 OF 8)



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	G4	G22

SUPERELEVATION TABLE							
ALIGNMENT	SUPERELEVATION RATE (%)	RADIUS OF CURVE (FT)	BEGIN TRANSITION	BEGIN FULL SUPERELEVATION	END FULL SUPERELEVATION	END TRANSITION	REMARKS
"01"	5.7	716.20	11+57.98	13+97.09	21+32.12	23+71.22	

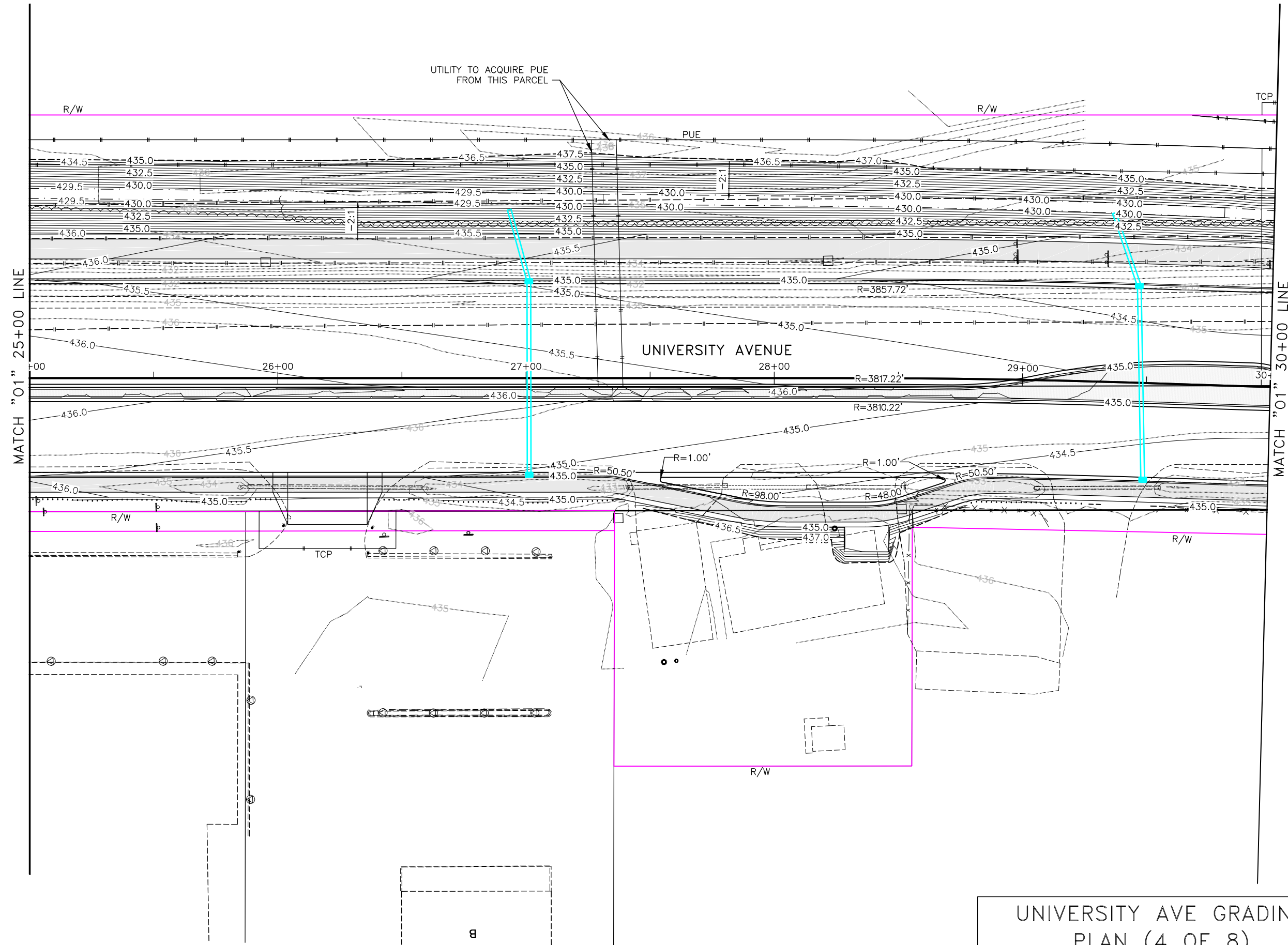


PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc.local\dfs\Projects\2011\1147_04FB-UNIV_AVE-SEGMENT_2B\C2003\crist1147_04FB_2B-G4 Mon, Feb 22/21 08:21am

UNIVERSITY AVE GRADING
PLAN (3 OF 8)



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	G5	G22



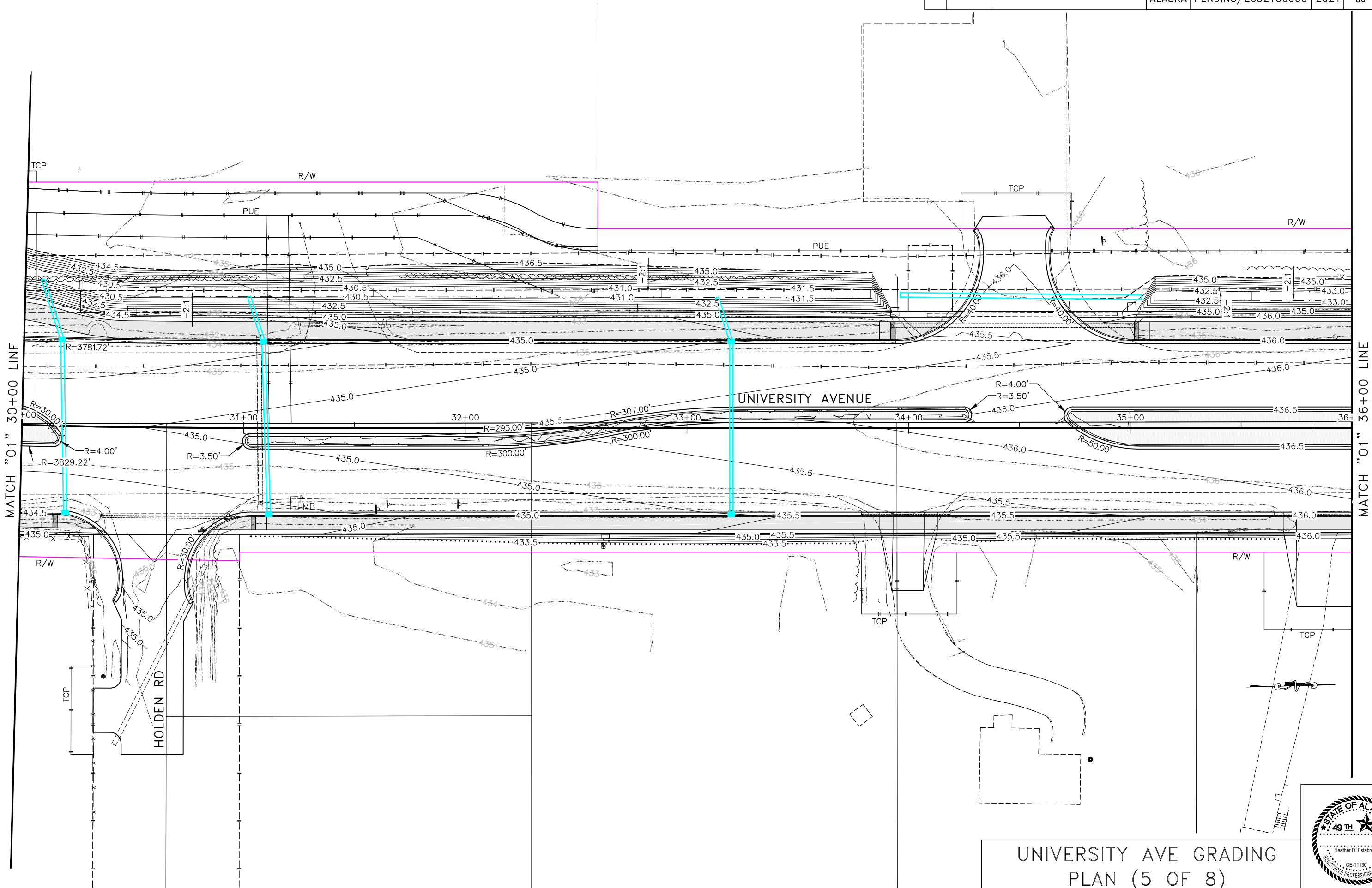
PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECCE605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc.local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B\C2003\crist1147.04FB_2B-G5 Mon, Feb/22/21 08:22am

UNIVERSITY AVE GRADING
PLAN (4 OF 8)



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	G6	G22

PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECCE605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc.local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B\C2003\1147.04FB_2B-G6 Mon, Feb 22/21 08:23am

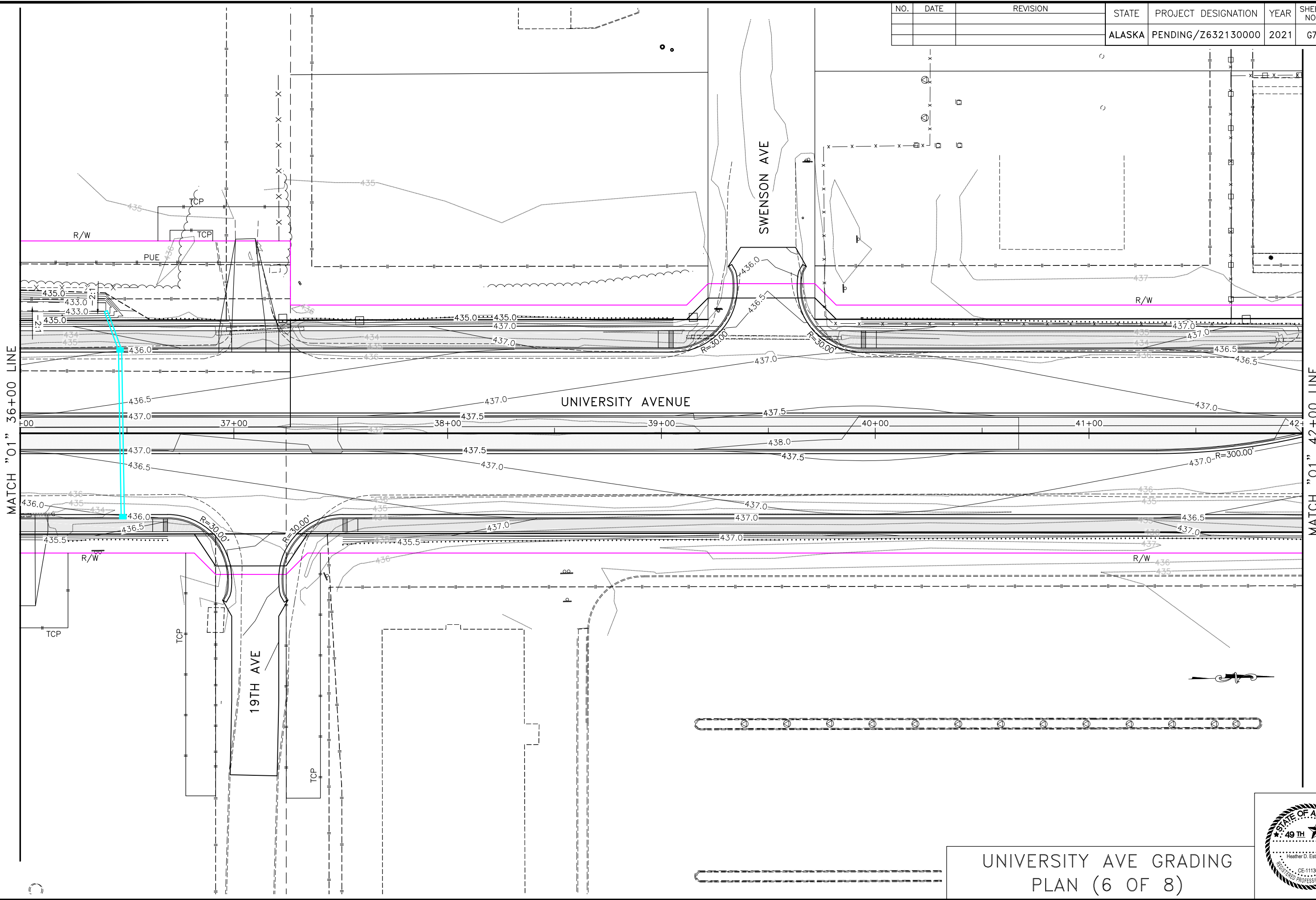


UNIVERSITY AVE GRADING
PLAN (5 OF 8)



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	G7	G22

PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc.local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B\C2003\asist1147.04FB_2B-G7 Mon, Feb/22/21 08:24am



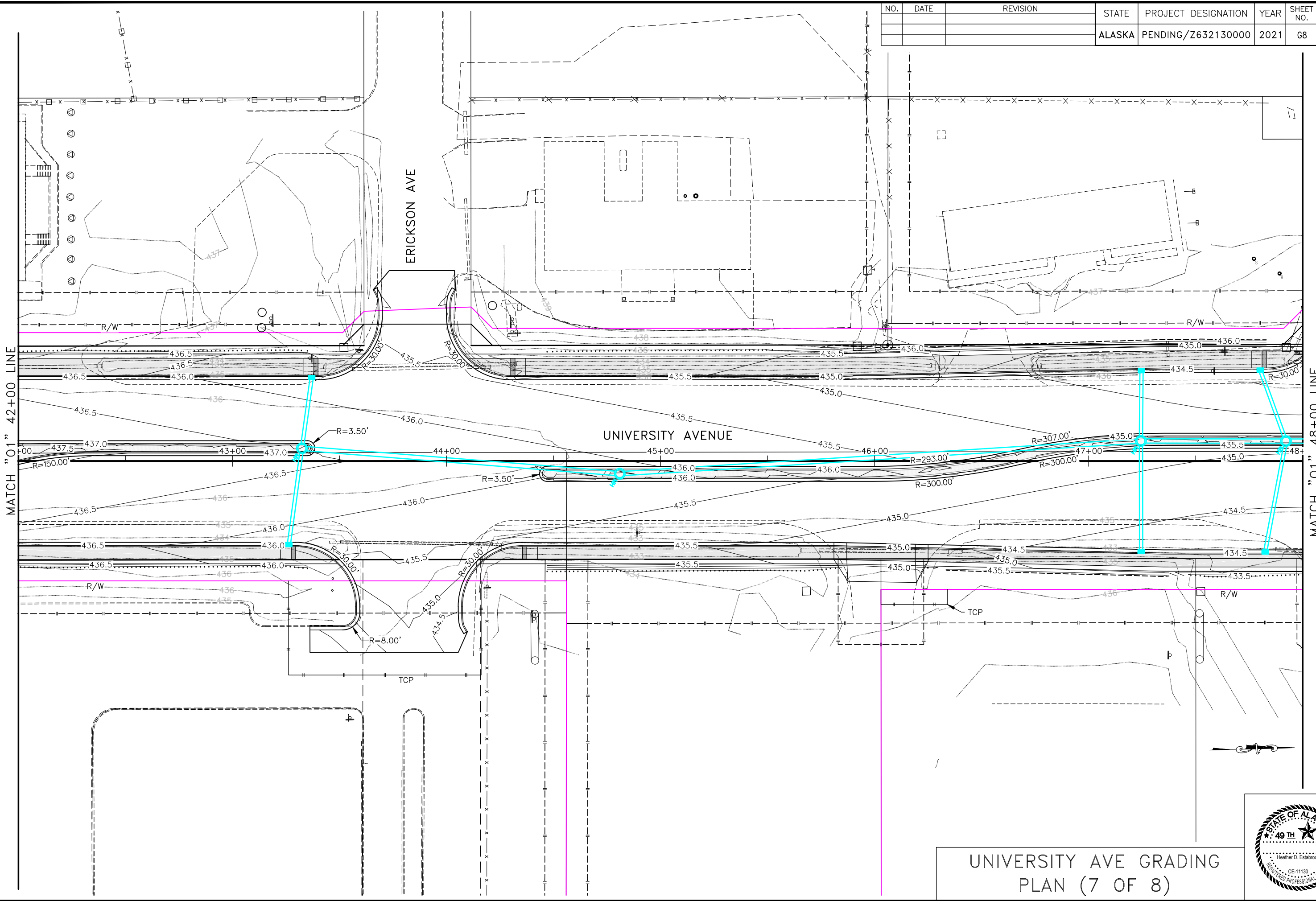
MATCH "01" 36+00 LINE

MATCH "01" 42+00 LINE

UNIVERSITY AVE GRADING
PLAN (6 OF 8)



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	G8	G22

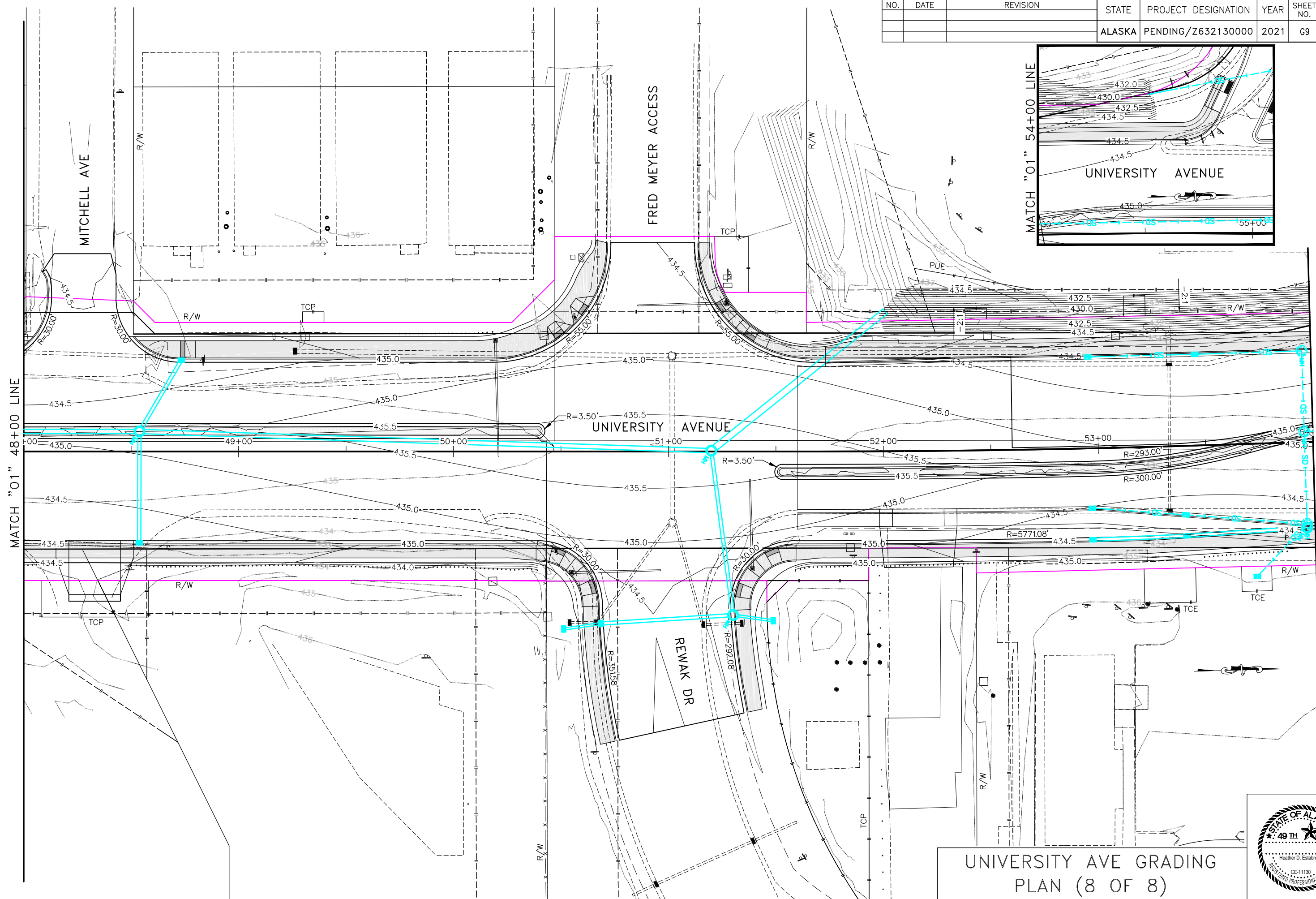
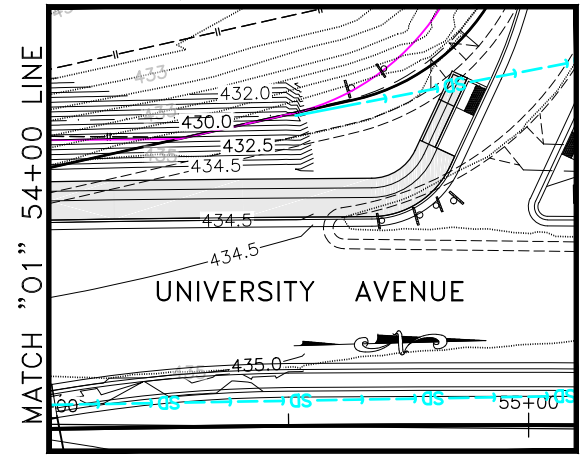


PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AEC6605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc.local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B\C\2003\inst1147.04FB_2B-08 Mon, Feb/22/21 08:26am

UNIVERSITY AVE GRADING
 PLAN (7 OF 8)



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	G9	G22

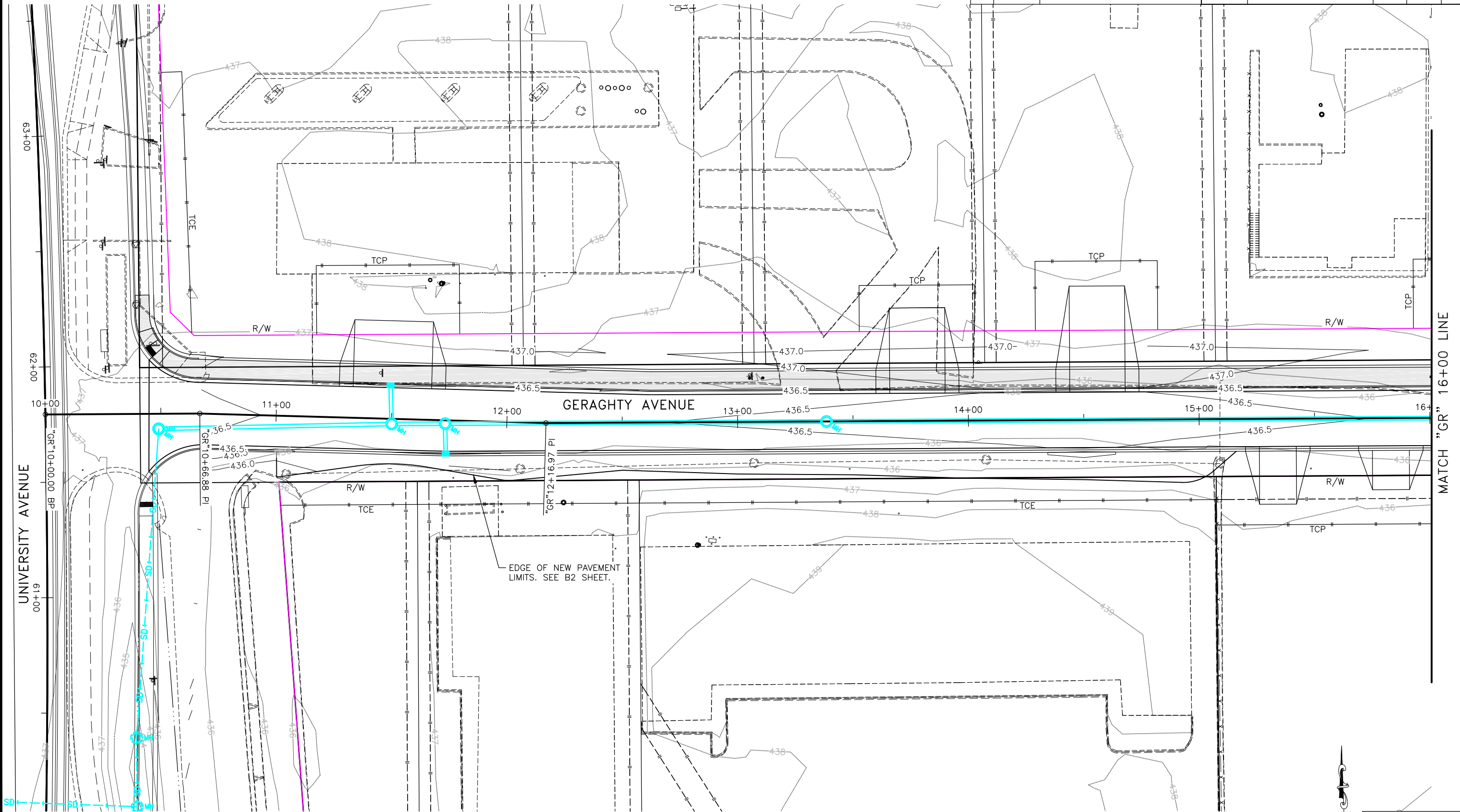


PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc.local\dfs\Projects\2011\1147_04FB-UNIV_AVE-SEGMENT_2B\C2003\inst1147_04FB_2B-G9 Mon, Feb/22/21 08:28am

UNIVERSITY AVE GRADING
PLAN (8 OF 8)



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	G10	G22



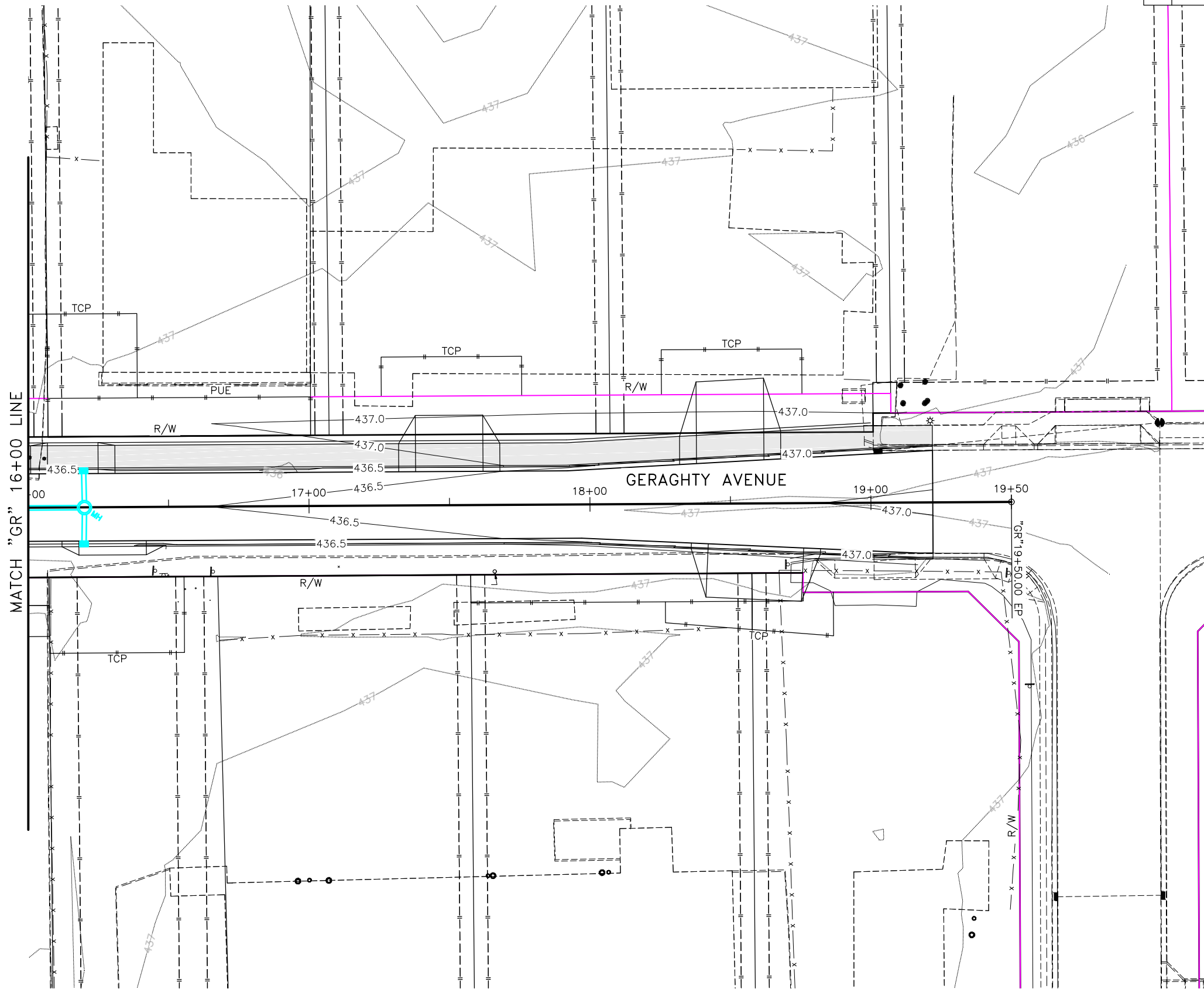
PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECCE605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc.local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B\C2003\consist\1147.04FB_2B-G10 Wed, Feb/24/21 01:21pm

MATCH "GR" 16+00 LINE

GERAGHTY AVENUE PLAN
(1 OF 2)



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	G11	G22



PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc.local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B\C2003\crist1147.04FB_2B-G11 Mon, Feb/22/21 08:30am

MATCH "GR" 16+00 LINE



GERAGHTY AVENUE PLAN
(2 OF 2)



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	G12	G22

CONTROL POINT TABLE				
POINT #	ELEV.	NORTHING	EASTING	DESCRIPTION
XXXX	XXXX	XXXX	XXXX	XXXX
XXXX	XXXX	XXXX	XXXX	XXXX
XXXX	XXXX	XXXX	XXXX	XXXX
XXXX	XXXX	XXXX	XXXX	XXXX

CONTROL POINTS AND TABLES TO BE DEVELOPED

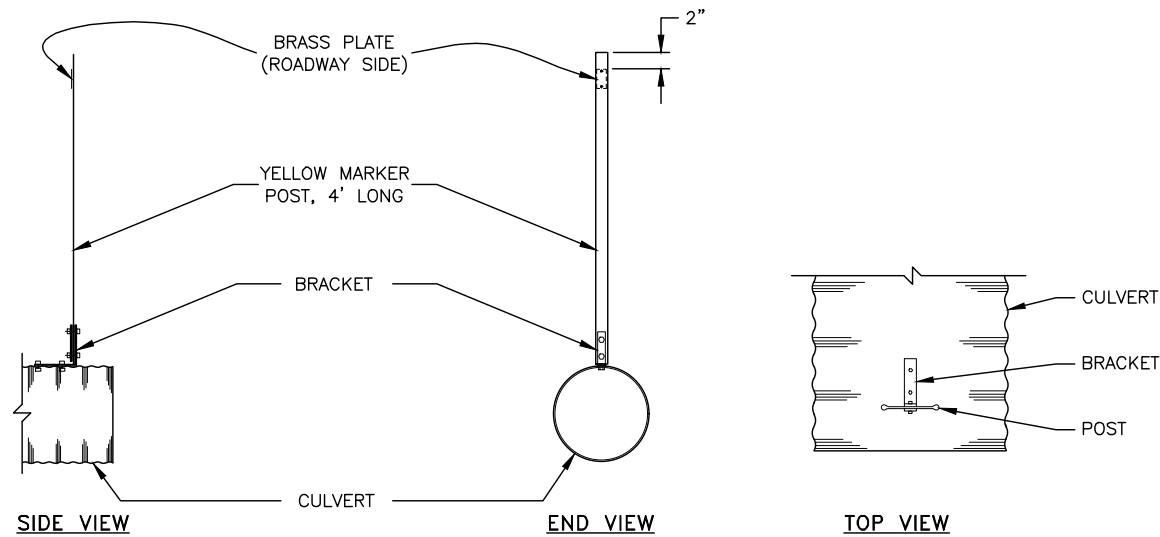
CONTROL POINTS TABLES



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	G13	G22

CULVERT SUMMARY

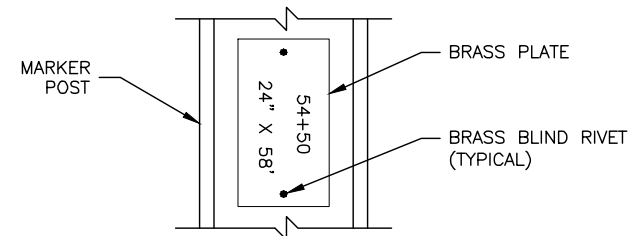
STATION	LT/C/RT	603(1)-24	603(1)-36	603(1)-48	603(1)-48X24	INVERT		613(2) CULVERT MARKER POST	SKEW ANGLE	END SECTION		REMARKS
		24"	36"	48"	48"X24"	IN	OUT			603(20)-24	603(20)-36	
"01" 11+67	LT	26				434.18	432.90	2		2		SEPARATED SWLK LT
"01" 11+72	RT	26				433.70	433.00	2		2		SEPARATED SWLK RT
"01" 13+20	C				134	429.24	428.21	2	6° RHF			
"01" 13+30	C				136	428.41	428.20	2	6° RHF			
"01" 13+40	C				134	428.53	428.22	2	6° RHF			
"01" 13+50	C				134	428.63	427.91	2	6° RHF			
"01" 13+60	C				132	429.03	428.26	2	6° RHF			
"01" 17+90	RT	42				434.76	434.73			2		
"01" 21+50	C		166			429.68	428.41	2	30° RHF			
"01" 21+56	C			166		429.71	428.42	2	30° RHF			
"01" 23+03	LT		22			428.82	428.78				2	
"01" 24+05	LT		64			429.07	428.94				2	APPROACH LT
"01" 34+50	LT	110				432.40	431.60			2		APPROACH LT
TOTAL:		204	252	166	670			18		8	4	



CULVERT MARKER POST NOTES:

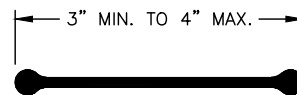
1. MARKER POSTS ARE TO BE INSTALLED AS SHOWN IN TABLE
2. IF CULVERTS ARE CLOSELY SPACED, MARK ONLY THE FIRST AND LAST CULVERT IN SERIES AS APPROVED BY THE ENGINEER.
3. DRILL AT BOLT HOLES. COAT HOLES WITH ZINC RICH PAINT. FLAME CUTTING SHALL NOT BE PERMITTED.
4. GASKET MATERIAL SHALL BE PLACED BETWEEN DISSIMILAR METALS. GASKET MATERIAL SHALL BE APPROVED PRIOR TO INSTALLATION.

CULVERT MARKER POST DETAIL NTS



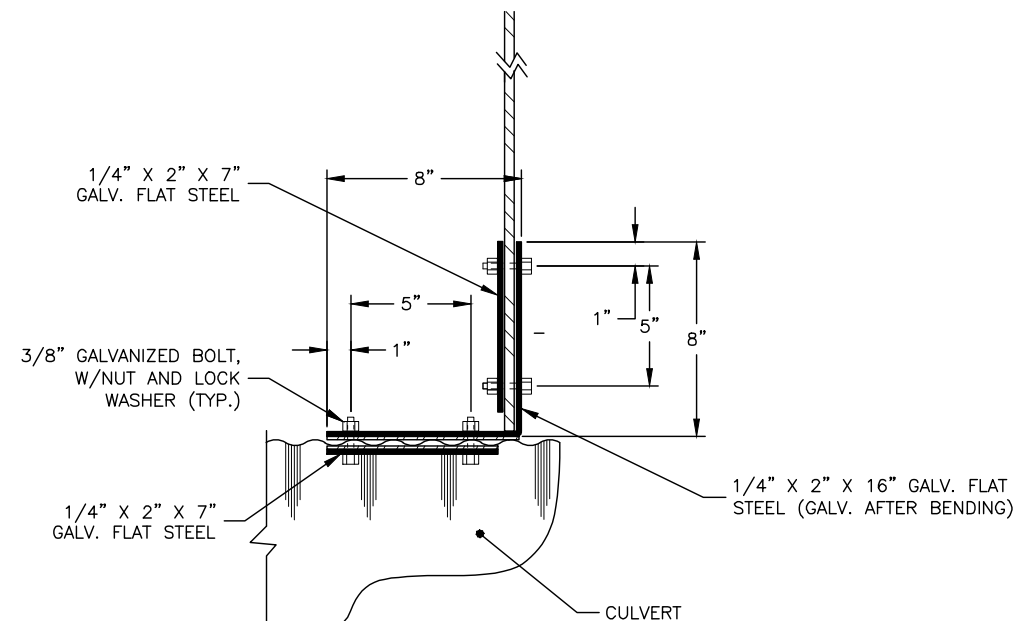
STAMP STATION AND PIPE SIZE, USING 3/8" HIGH MINIMUM LETTERS INTO A 2"X4"X 0.064" THICK BRASS PLATE. FASTEN PLATE TO THE SIDE FACING THE ROADWAY WITH TWO 1/8" BRASS BLIND RIVETS.

BRASS PLATE DETAIL NTS



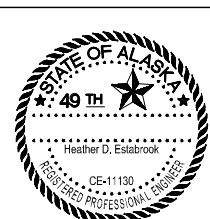
POST DETAIL NTS

CULVERT MARKER POST DETAILS

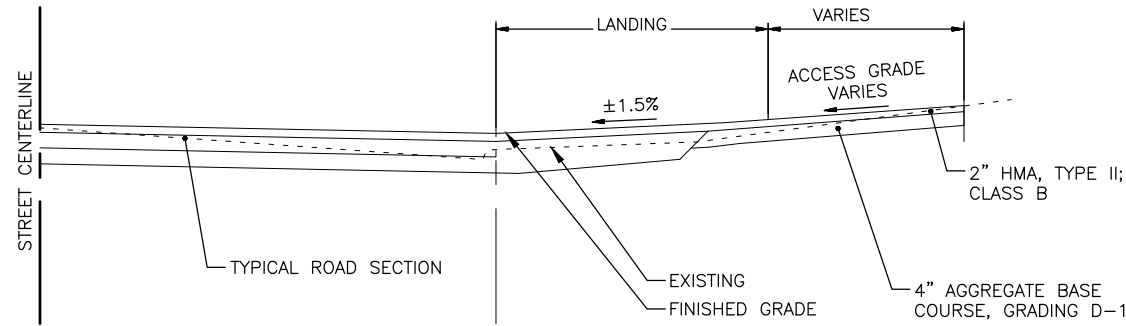


BRACKET DETAIL NTS

CULVERT DETAILS

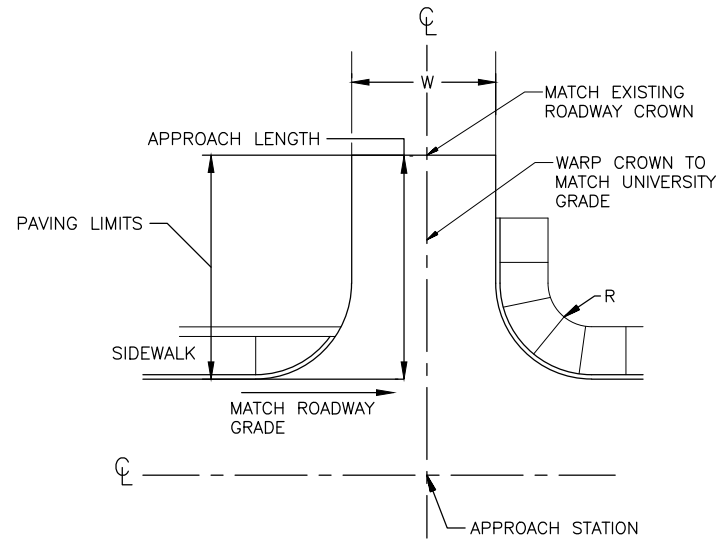


NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	G15	G22



APPROACH PLAN TYPE 1 SECTION DETAIL

NTS

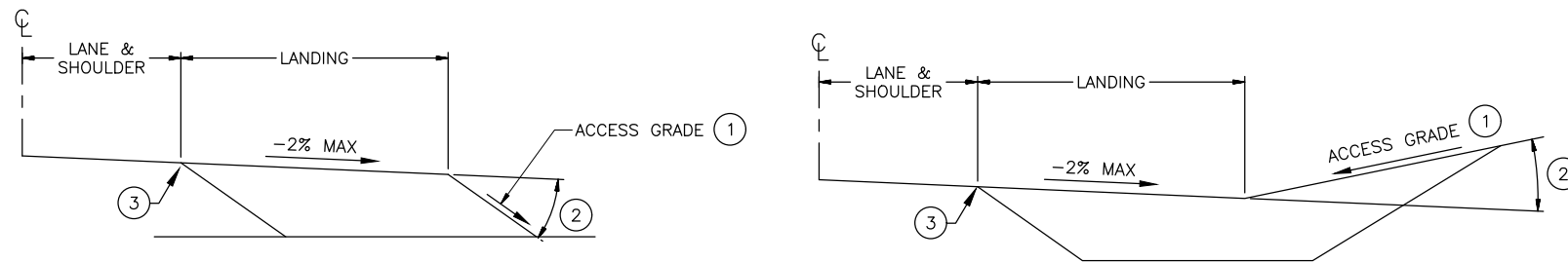


APPROACH PLAN TYPE 1 PLAN DETAIL

NTS

APPROACH NOTES:

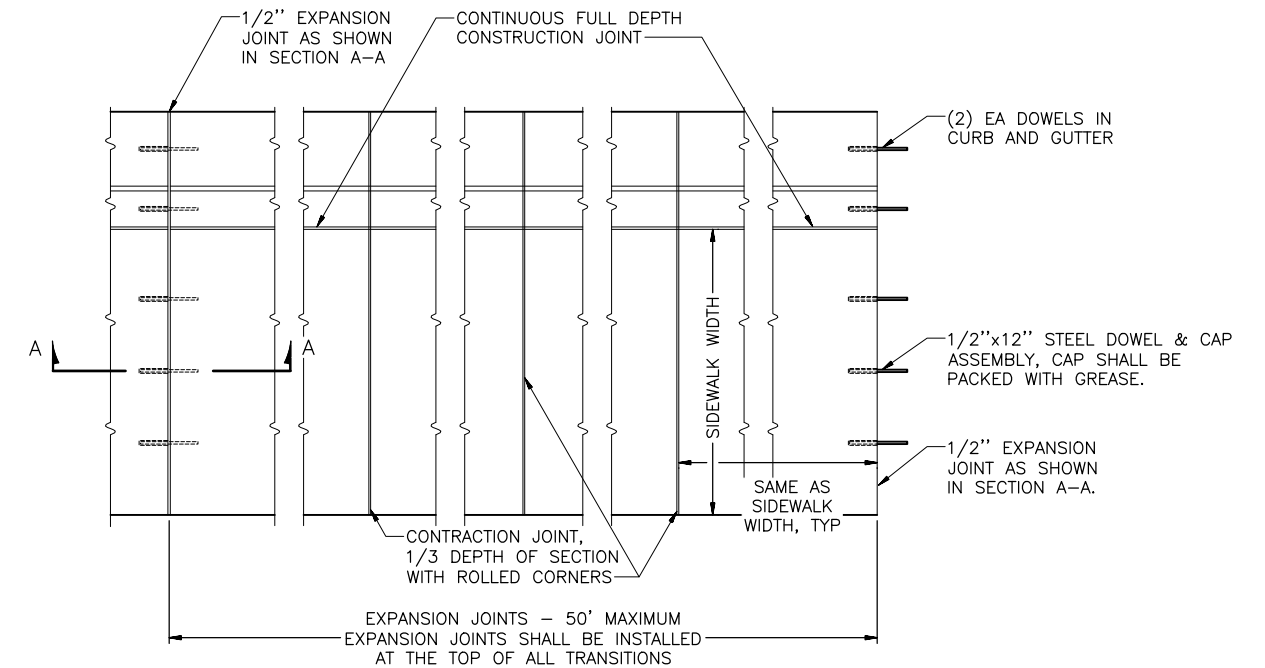
1. MATERIAL FOR CONSTRUCTION OF APPROACH IS PAID FOR UNDER THE RESPECTIVE PAY ITEM.



IN FILL

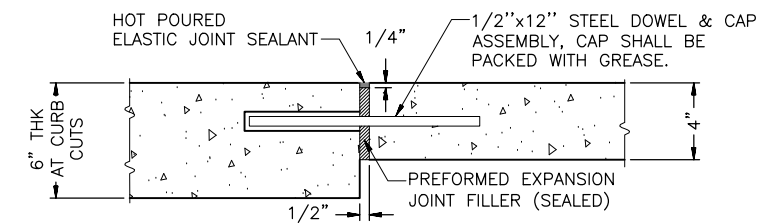
IN CUT

- 1 MAX RESIDENTIAL ACCESS GRADE IS 15%.
- 2 MAX ALGEBRAIC DIFFERENCE FOR COMMERCIAL ACCESS GRADE: 8%
RESIDENTIAL: NONE
- 3 FOR OTHER APPROACH PLAN TYPES FOLLOW THESE CUT AND FILL DETAILS FROM LANDING POINT FOR ACCESS GRADE. THE LANE SHOULDER AND LANDING CONFIGURATION IS DIFFERENT FOR APPROACH TYPE PLAN 2, 3, & 4.
4. SEE SECTION DETAIL FOR SPECIFIC LAYOUT FROM ROADWAY EDGE THROUGH LANDING



PLAN VIEW

NTS



PARTIAL SECTION VIEW A - A

NTS

EXPANSION SIDEWALK & CURB AND GUTTER JOINT DETAIL

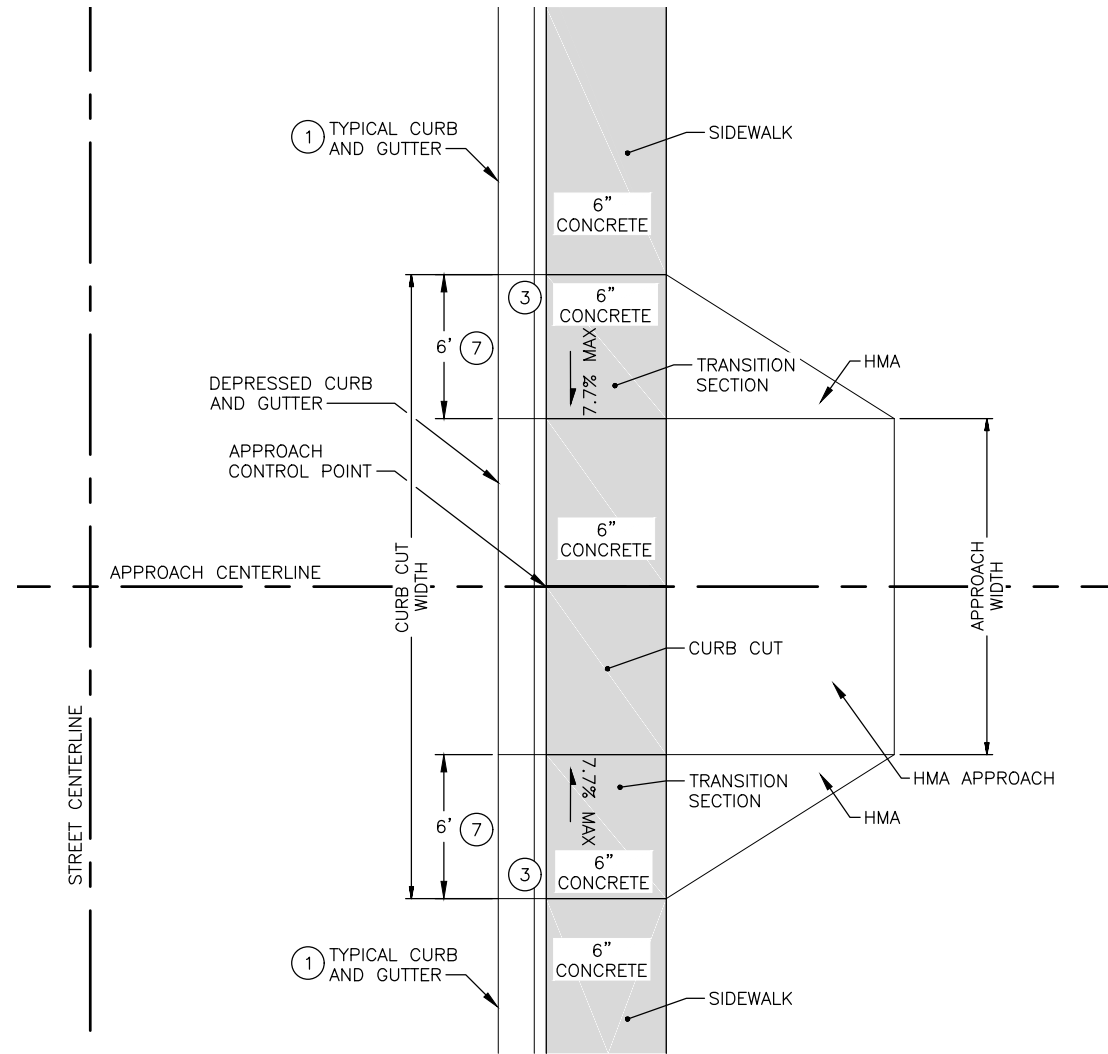
EXPANSION JOINT NOTES:

1. INSTALL CONTINUOUS FULL DEPTH 1/8" CONSTRUCTION JOINT AT ALL LOCATIONS WHERE SIDEWALK AND CURB (ANY TYPE) MEET.
2. PROTECT CONCRETE DURING CURE.
3. SEAL ALL EXPANSION JOINTS WITH HOT POURED ELASTIC TYPE JOINT SEAL CONFORMING TO AASHTO DESIGNATION M173-60.
4. FOR SIDEWALKS LARGER OR DIFFERENTLY CONFIGURED THAN SHOWN, PLACE EXPANSION AND CONTRACTION JOINTS AS ENGINEER DIRECTS.
5. EXPANSION AND CONTRACTION JOINTS IN THE SIDEWALK SHALL LINE UP WITH EXPANSION AND CONTRACTION JOINTS IN THE CURB.

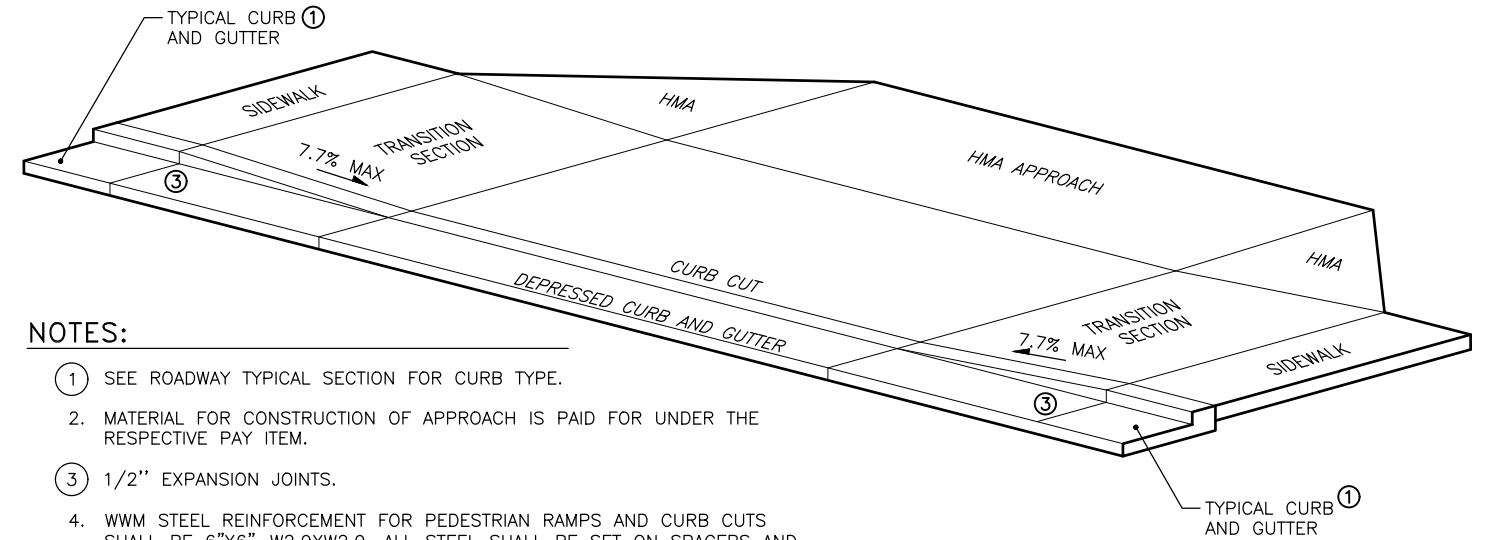
APPROACH DETAILS, SIDEWALK & CURB AND GUTTER EXPANSION JOINT DETAILS



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	G16	G22



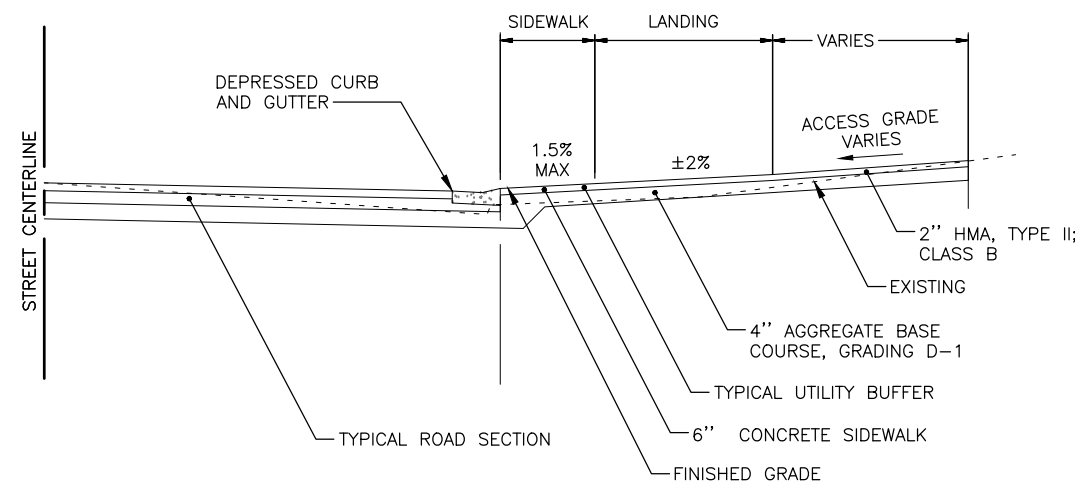
APPROACH PLAN TYPE 2 PLAN DETAIL
NTS



NOTES:

- ① SEE ROADWAY TYPICAL SECTION FOR CURB TYPE.
2. MATERIAL FOR CONSTRUCTION OF APPROACH IS PAID FOR UNDER THE RESPECTIVE PAY ITEM.
- ③ 1/2" EXPANSION JOINTS.
4. WWM STEEL REINFORCEMENT FOR PEDESTRIAN RAMPS AND CURB CUTS SHALL BE 6"x6"-W2.9XW2.9. ALL STEEL SHALL BE SET ON SPACERS AND PULLED UP AS REQUIRED TO POSITION STEEL 1 1/2" UP FROM BOTTOM OF SIDEWALK.
5. FOR SIDEWALK REINFORCEMENT, POSITION STEEL 1 1/2" UP FROM BOTTOM OF SIDEWALK.
6. SEE SHEET G15 FOR EXPANSION SIDEWALK & CURB AND GUTTER JOINT DETAIL.
- ⑦ TRANSITION SECTION LENGTHS SHOWN IN PLANS ARE APPROXIMATE. CONSTRUCT TRANSITIONS AT 7.7% MAX GRADE OR FLATTER. SLOPES MAY BE INCREASED TO A MAXIMUM OF 8.3% WHERE SITE CONDITIONS WARRANT.

APPROACH PLAN TYPE 2 DETAIL
NTS

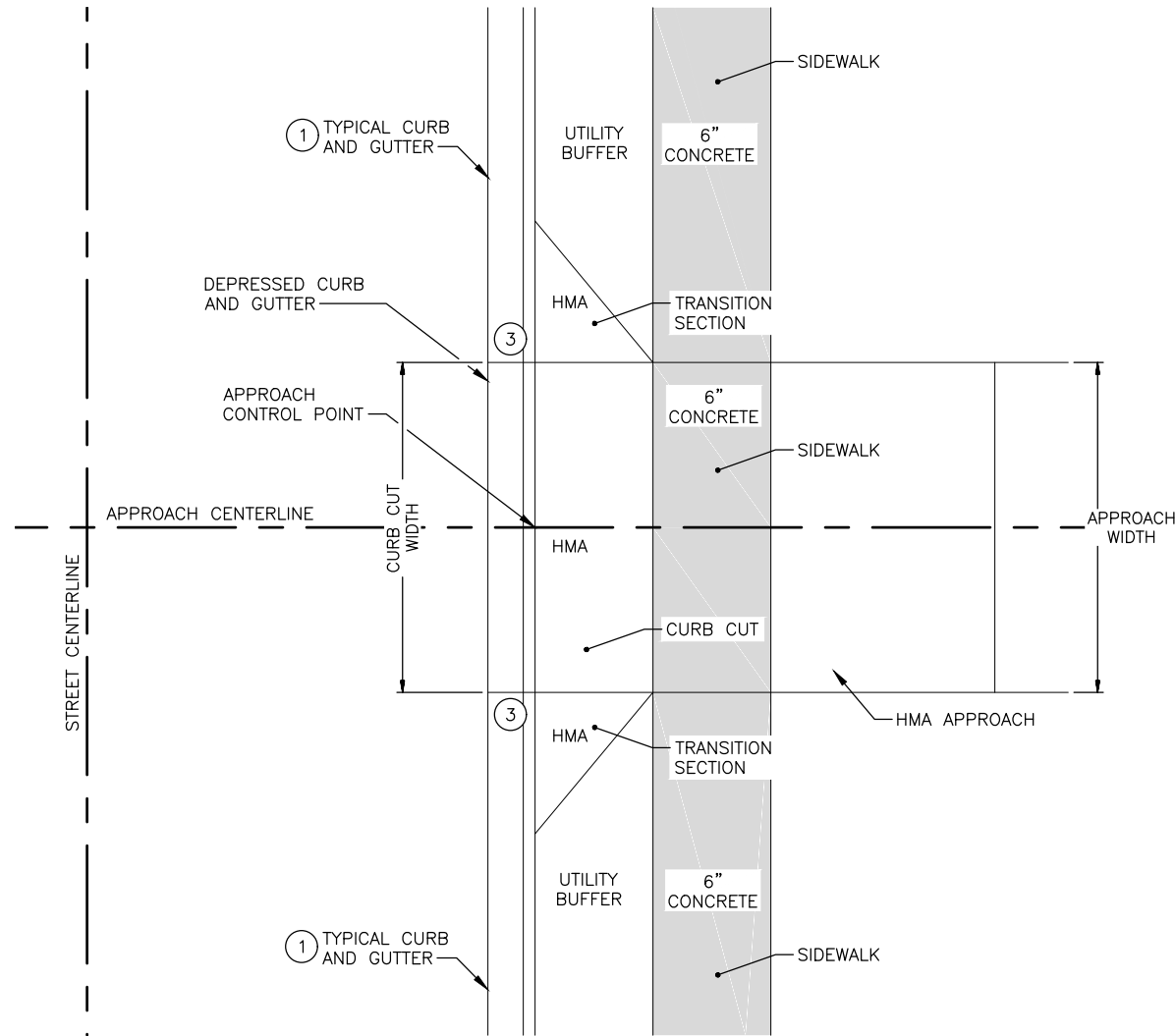


APPROACH PLAN TYPE 2 SECTION DETAIL
NTS

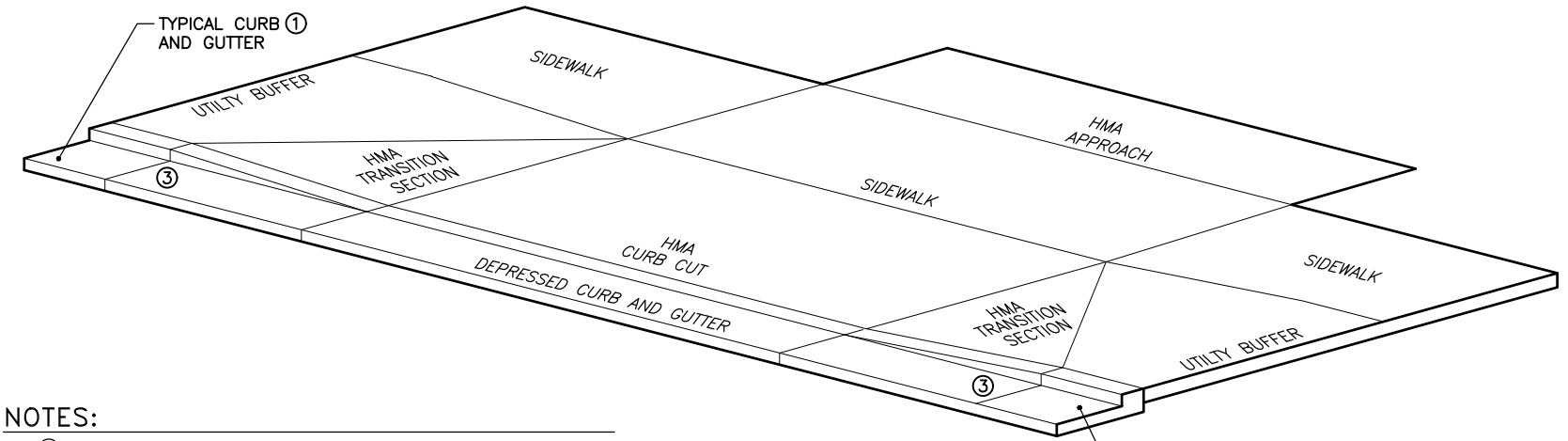
APPROACH DETAILS



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	G17	G22



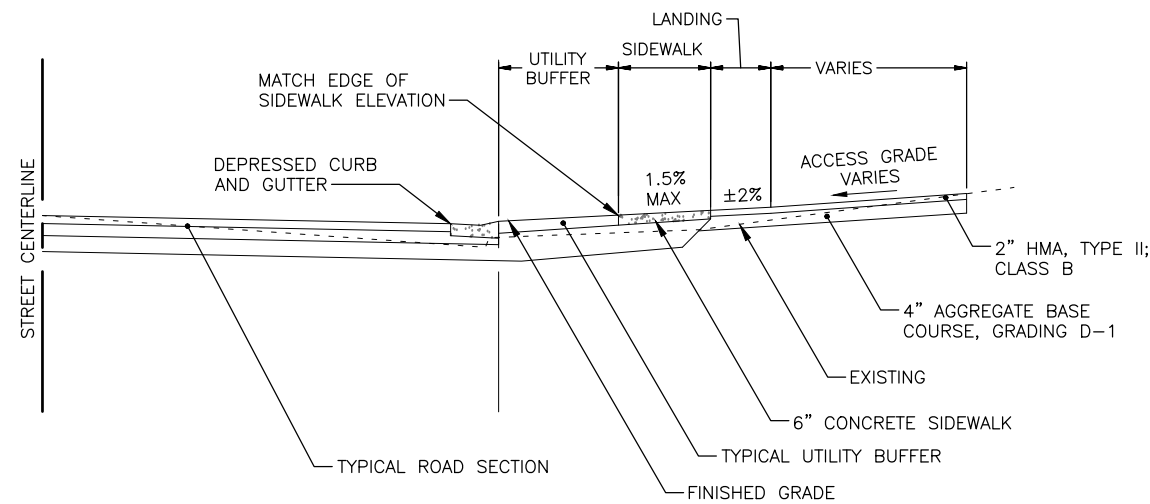
APPROACH PLAN TYPE 3 PLAN DETAIL
NTS



APPROACH PLAN TYPE 3 DETAIL
NTS

NOTES:

- ① SEE ROADWAY TYPICAL SECTION FOR CURB TYPE.
2. MATERIAL FOR CONSTRUCTION OF APPROACH IS PAID FOR UNDER THE RESPECTIVE PAY ITEM.
- ③ 1/2" EXPANSION JOINTS.
4. WWM STEEL REINFORCEMENT FOR PEDESTRIAN RAMPS AND CURB CUTS SHALL BE 6"x6"-W2.9XW2.9. ALL STEEL SHALL BE SET ON SPACERS AND PULLED UP AS REQUIRED TO POSITION STEEL 1 1/2" UP FROM BOTTOM OF SIDEWALK.
5. FOR SIDEWALK REINFORCEMENT, POSITION STEEL 1 1/2" UP FROM BOTTOM OF SIDEWALK.
6. SEE SHEET G15 FOR EXPANSION SIDEWALK & CURB AND GUTTER JOINT DETAIL.



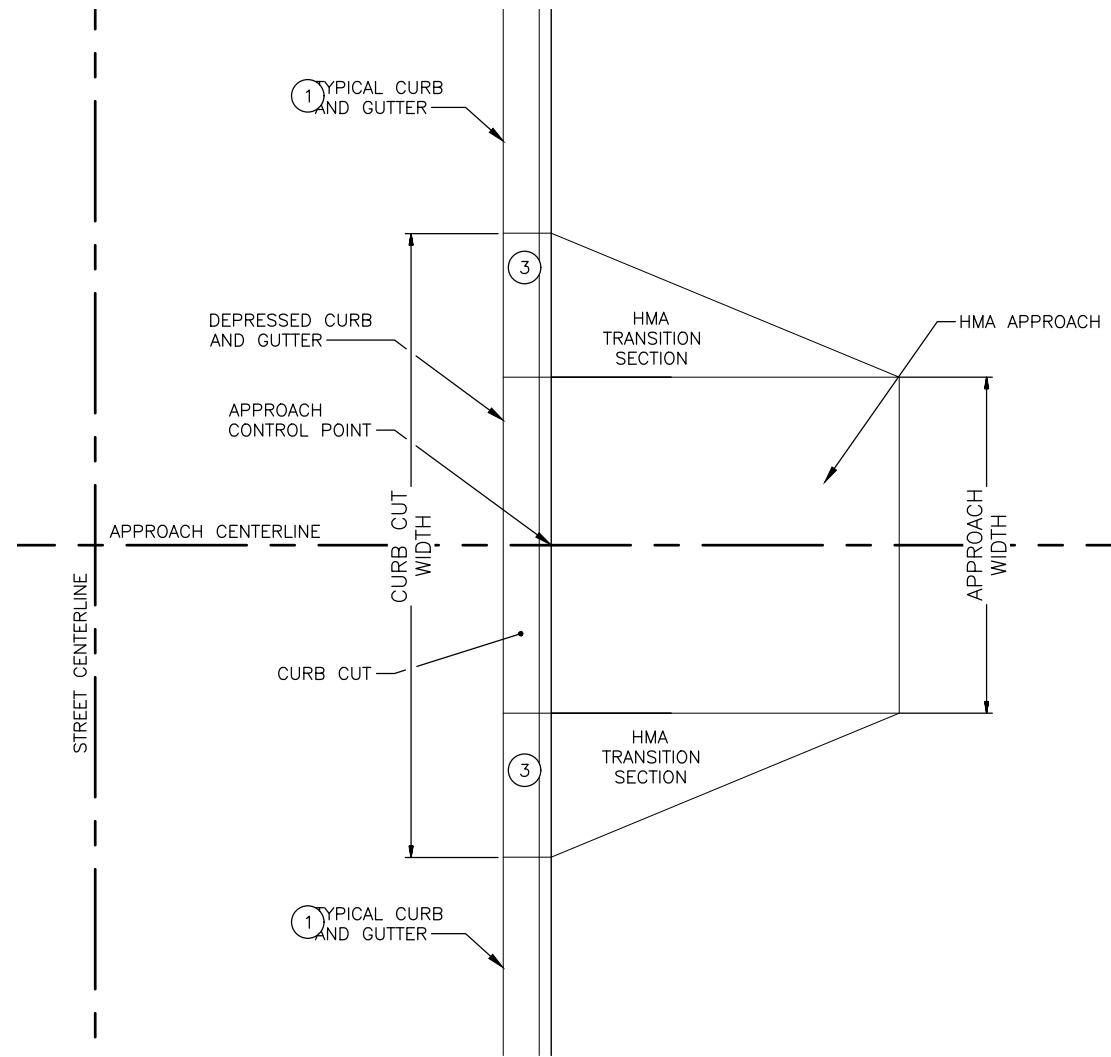
APPROACH PLAN TYPE 3 SECTION DETAIL
NTS

APPROACH DETAILS

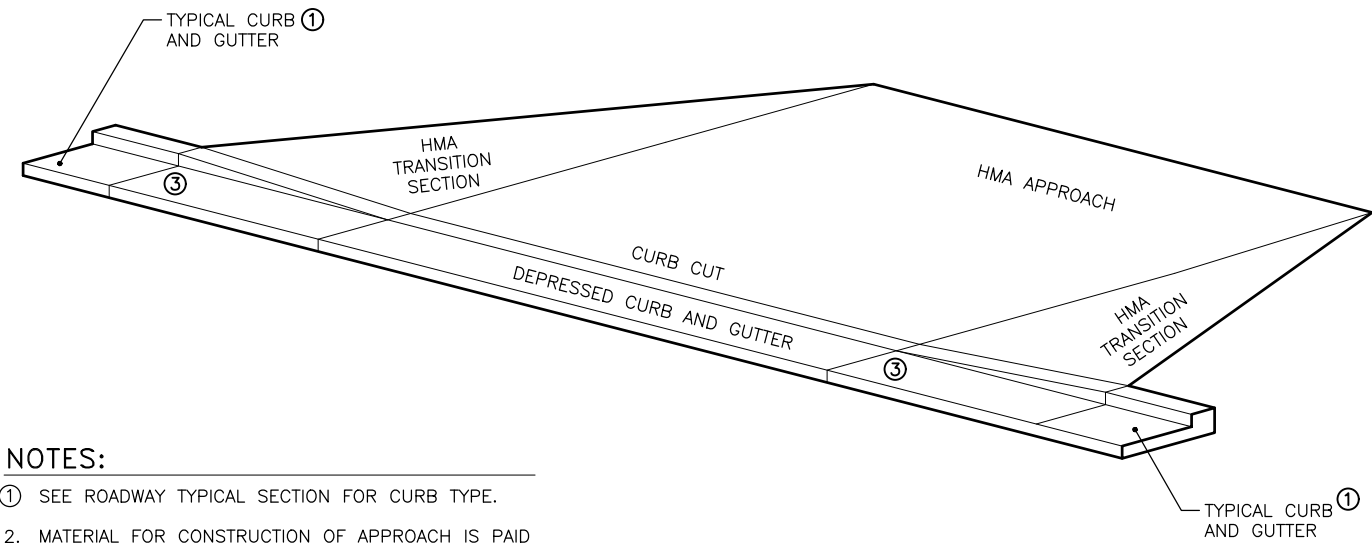


PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc.local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B(C)\C4001\esth1147.04FB_2B-G17 Mon, Feb/22/21 08:37am

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	G18	G22



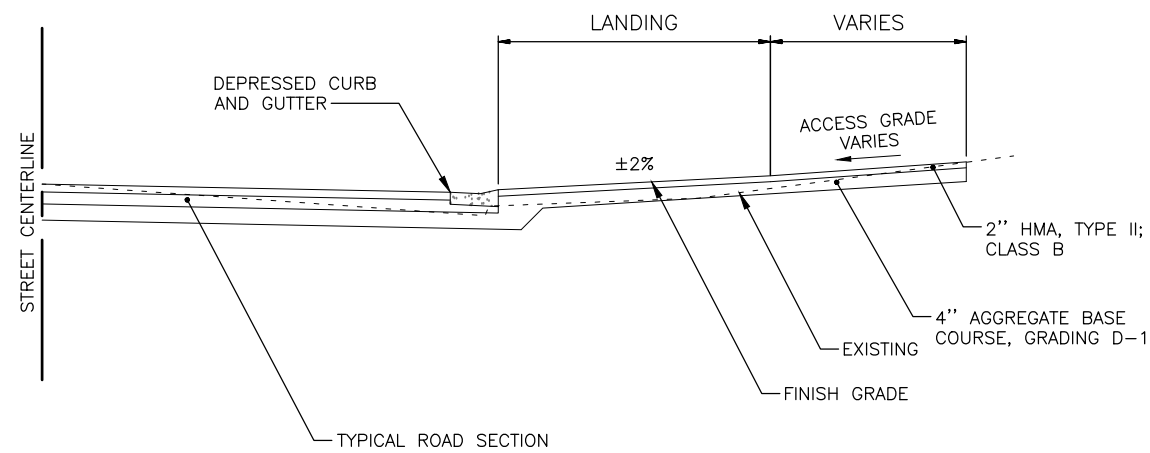
APPROACH PLAN TYPE 4 PLAN DETAIL
NTS



NOTES:

- SEE ROADWAY TYPICAL SECTION FOR CURB TYPE.
- MATERIAL FOR CONSTRUCTION OF APPROACH IS PAID FOR UNDER THE RESPECTIVE PAY ITEM.
- 1/2" EXPANSION JOINTS.
- SEE SHEET G15 FOR EXPANSION SIDEWALK & CURB AND GUTTER JOINT DETAIL.

APPROACH PLAN TYPE 4 DETAIL
NTS

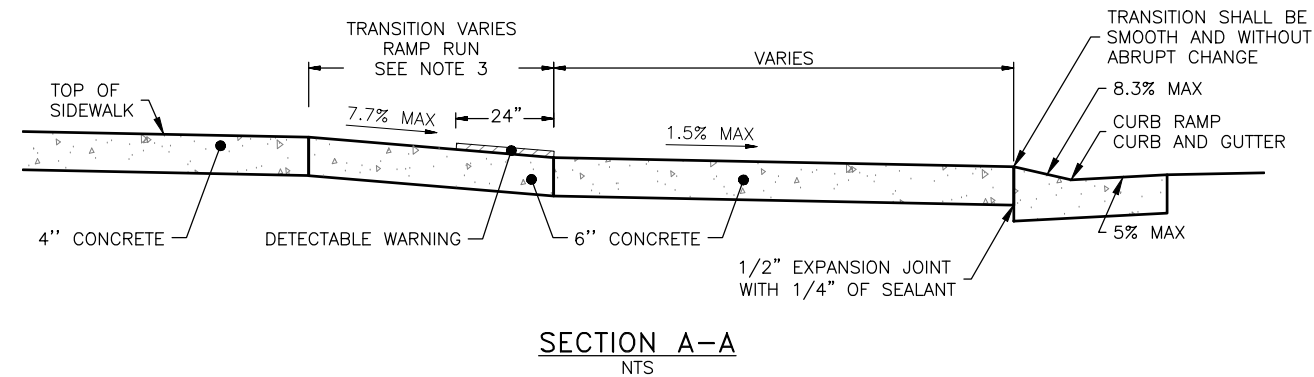
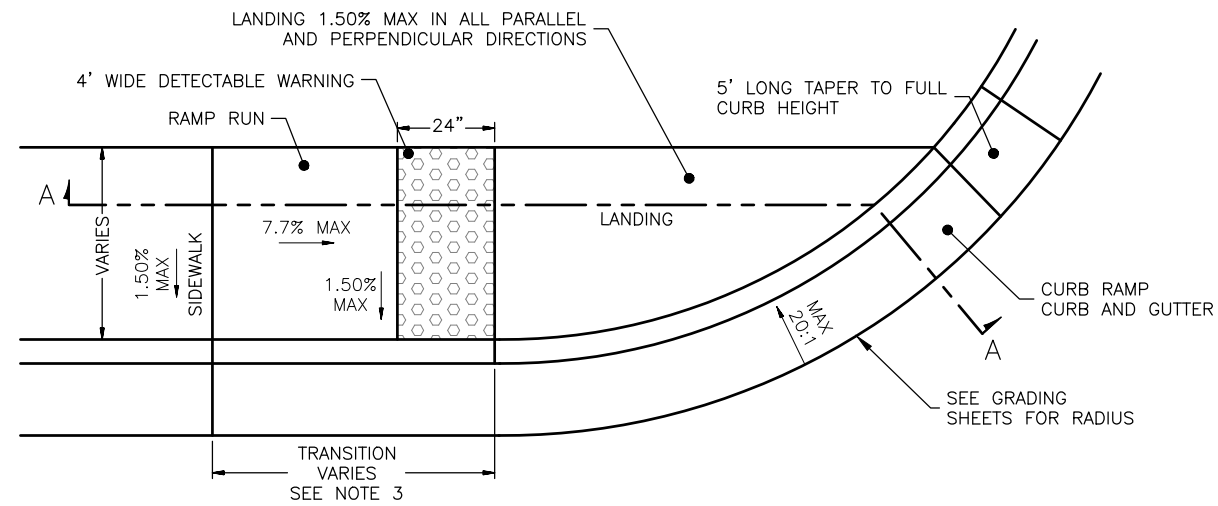


APPROACH PLAN TYPE 4 SECTION DETAIL
NTS

APPROACH DETAILS



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	G19	G22



DIRECTIONAL CURB RAMP DETAILS

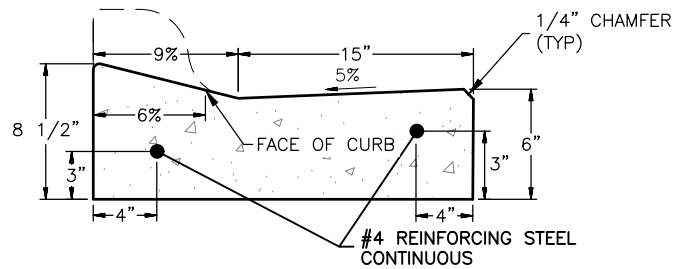
DIRECTIONAL CURB RAMP NOTES:

1. CONSTRUCT 6 INCH THICK RAMP AND LANDING OF CONCRETE.
2. CONCRETE SHALL RECEIVE A COARSE BROOMED FINISH RUNNING PERPENDICULAR TO THE CURB ON RAMP RUNS AND UPPER LANDINGS AND PARALLEL TO THE DIRECTION OF TRAVEL ON LOWER LANDINGS.
3. TRANSITION FROM STANDARD CURB AND GUTTER WHERE SIDEWALK SLOPE MAKES IT NECESSARY TO LENGTHEN A RAMP RUN TO AVOID EXCEEDING THE ALLOWABLE RAMP SLOPE.
4. INSTALL FEDERAL YELLOW CAST IRON DETECTABLE WARNINGS IN THE RAMP RUN.
5. SEE CURB RAMP SUMMARY FOR INSTALLATION LOCATIONS.
6. CONSTRUCT RAMP SLOPES AT A NOMINAL 7.7% GRADE, OR FLATTER. RAMP SLOPES MAY BE INCREASED TO A MAXIMUM OF 8.3% WHEN SITE CONDITIONS WARRANT IT. RAMP LENGTHS SHOULD BE INCREASED TO KEEP GRADES UNDER 8.3% MAXIMUM, BUT ARE NOT REQUIRED TO EXCEED 15.0 FEET. THE RESULTING RAMP GRADE AT A 15.0 FOOT RAMP LENGTH IS ACCEPTABLE EVEN IF IT EXCEEDS 8.3%.
7. CONSTRUCT LANDING AND SIDEWALK CROSS SLOPE AT NOMINAL 1.5% (1% MIN., 2% MAX) DO NOT CONSTRUCT LANDING AND SIDEWALK CROSS SLOPES STEEPER THAN 2%.
8. WWM STEEL REINFORCEMENT FOR PEDESTRIAN RAMPS, CURB CUTS, AND SIDEWALKS SHALL BE 6"x6"-W2.9XW2.9. ALL STEEL SHALL BE SET ON SPACERS AND PULLED UP AS REQUIRED TO POSITION STEEL 1 1/2" UP FROM BOTTOM OF CONCRETE.
9. FOR SIDEWALK REINFORCEMENT, POSITION STEEL 1 1/2" UP FROM BOTTOM OF SIDEWALK.
10. ALL CURB RAMP LAYOUTS AND DIMENSIONS IN THIS PLAN SET ARE APPROXIMATE AND NEED TO BE FIELD FIT AND SHALL MEET 2006 ADA STANDARDS FOR MAXIMUM SLOPES. FINAL LAYOUT TO BE APPROVED BY THE ENGINEER PRIOR TO CONCRETE POUR.
11. SEE SHEET G15 FOR EXPANSION SIDEWALK AND CURB AND GUTTER JOINT DETAIL.

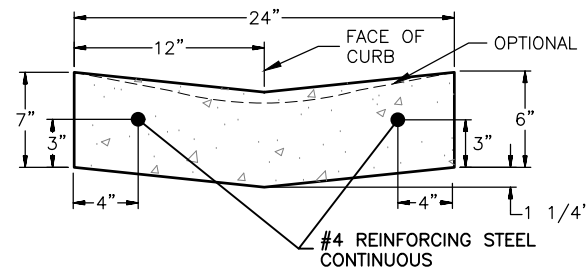
DIRECTIONAL CURB RAMP
DETAILS



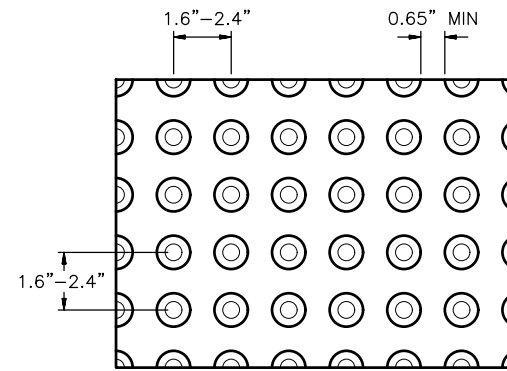
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	G20	G22



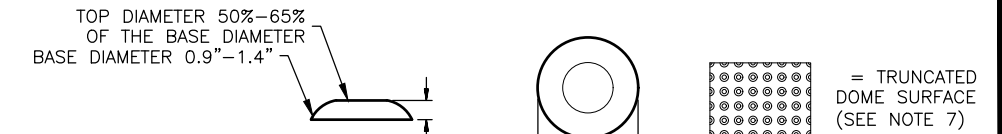
DEPRESSED CURB AND GUTTER



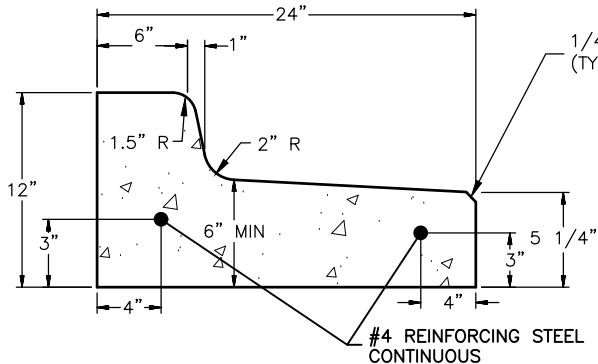
GUTTER



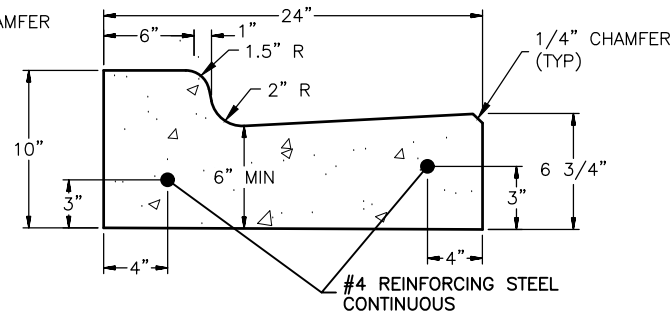
TRUNCATED PATTERN DETAIL



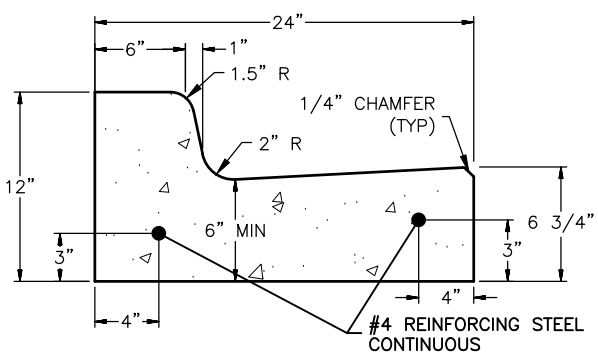
TRUNCATED DOME DETAILS



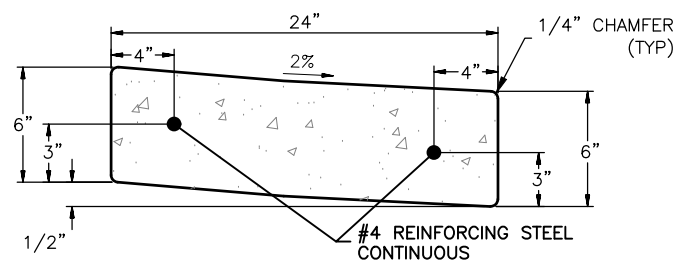
STANDARD CURB AND GUTTER SPILL



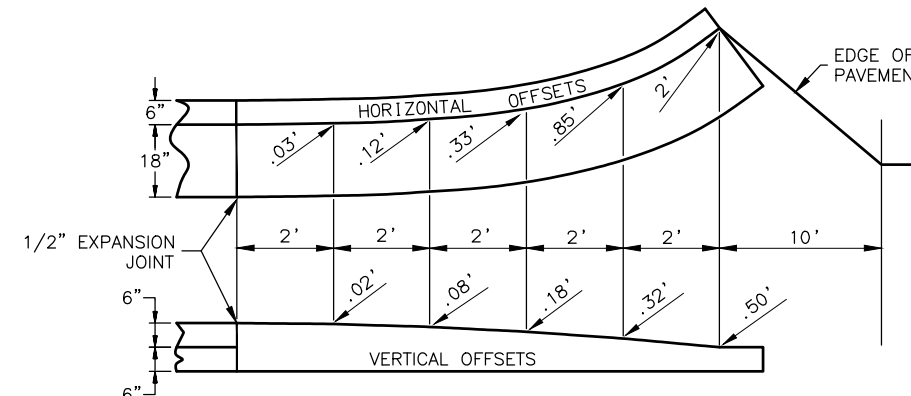
STANDARD CURB AND GUTTER CATCH FOR PARALLEL RAMPS UPPER LANDING



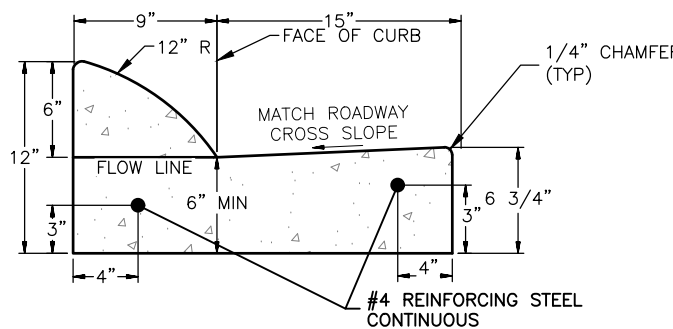
STANDARD CURB AND GUTTER CATCH



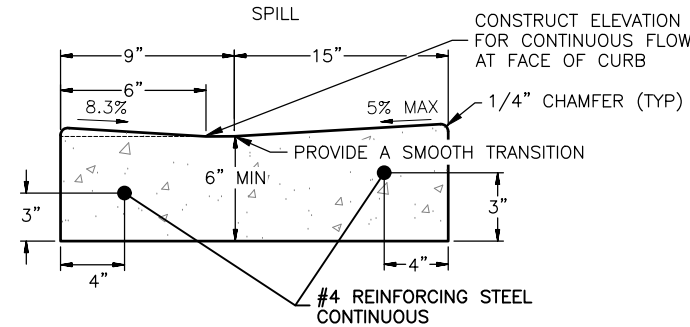
CURB RAMP CURB AND GUTTER SPILL



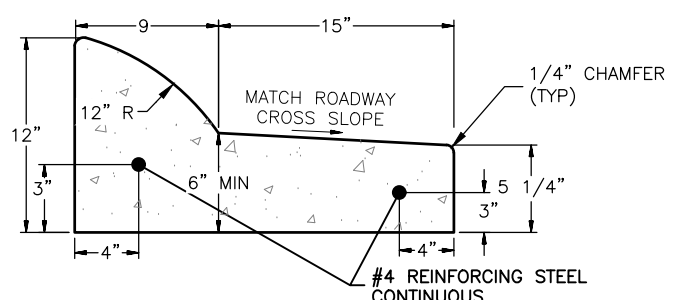
CURB AND GUTTER TERMINATION TRANSITIONS



EXPRESSWAY CURB AND GUTTER CATCH



CURB RAMP CURB AND GUTTER CATCH



EXPRESSWAY CURB AND GUTTER SPILL

GENERAL NOTES:

- USE THE TYPE OF CURB AND GUTTER SPECIFIED ON THE PLANS.
- CONSTRUCT RAMP RUNS AND LANDINGS OF CONCRETE REGARDLESS OF WHETHER THE SIDEWALK IS ASPHALT OR CONCRETE.
- CONSTRUCT RAMP SLOPES AT A 7.7% NOMINAL GRADE, OR FLATTER. RAMP SLOPES MAY BE INCREASED TO A MAXIMUM OF 8.3% WHEN SITE CONDITIONS WARRANT IT. RAMP LENGTHS SHOULD BE INCREASED TO KEEP GRADES UNDER THE 8.3% MAXIMUM, BUT ARE NOT REQUIRED TO EXCEED 15.0 FEET. THE RESULTING RAMP GRADE AT A 15.0 FOOT RAMP LENGTH IS ACCEPTABLE EVEN IF IT EXCEEDS 8.3%.
- CONSTRUCT FLARE SLOPES AT 8.3% (MEASURED PARALLEL TO THE CURB LINE ADJACENT TO THE TOP BACK OF CURB) OR FLATTER, AND SIDEWALK CROSS SLOPES AT 1.5% NOMINAL (1.0% MIN. AND 2.0% MAX) AND CURB RAMP CURB AND GUTTER PAN SLOPES AT 4.7% NOMINAL. CONSTRUCT GRADE BREAKS PERPENDICULAR TO RAMP RUNS.
- DO NOT CONSTRUCT FLARE SLOPES STEEPER THAN 10.0%, SIDEWALK CROSS SLOPES STEEPER THAN 2.0% AND CURB RAMP CURB AND GUTTER GUTTER PAN SLOPES STEEPER THAN 5.0%. THESE ARE THE STEEPEST SLOPES ALLOWED UNDER THE 2006 ADA STANDARDS FOR TRANSPORTATION FACILITIES.
- PROVIDE A COARSE BROOMED FINISH RUNNING PERPENDICULAR TO THE CURB ON RAMP RUNS AND UPPER LANDINGS AND PARALLEL TO THE CURB ON LOWER LANDINGS.
- INSTALL 24" WIDE DETECTABLE WARNING TILES FOR THE FULL WIDTH OF THE RAMP. PROVIDE TILES WITH TRUNCATED DOMES MEETING SECTION 705.1 OF THE 2006 ADA STANDARDS FOR TRANSPORTATION FACILITIES. ALIGN TRUNCATED DOME PATTERN IN THE PREDOMINANT DIRECTION OF WHEELCHAIR TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN DOMES.
- STANDARD CURB AND GUTTER, EXPRESSWAY CURB AND GUTTER, DEPRESSED CURB AND GUTTER, GUTTER, CURB RAMP CURB AND GUTTER, AND CURB AND GUTTER TERMINATION TRANSITIONS, AND TRANSITION CURB AND GUTTER OFFSETS SHALL ALL BE MEASURED AND PAID FOR UNDER ITEM 609(2).
- CURB AND GUTTER REINFORCING BARS TO BE SPLICED SHALL BE LAPPED AT LEAST 20 BAR DIAMETERS AND DOUBLE TIED. THE INNER AND OUTER BAR SPLICES SHALL BE OFFSET FROM EACH OTHER BY AT LEAST SIX INCHES.
- ALL DETECTABLE WARNINGS TO BE FEDERAL YELLOW AND CAST IRON. PROJECT ENGINEER TO APPROVE COLOR PRIOR TO PLACEMENT.
- ALL CURB RAMP LAYOUTS AND DIMENSIONS IN THIS PLAN SET ARE APPROXIMATE AND NEED TO BE FIELD FIT AND SHALL MEET 2006 ADA STANDARDS FOR MAXIMUM SLOPES. FINAL LAYOUT TO BE APPROVED BY THE ENGINEER PRIOR TO CONCRETE POUR.
- MAXIMUM CROSS SLOPE ON LOWER LANDINGS IS 2.0% MEASURED IN ANY DIRECTION. MAXIMUM CROSS SLOPE ON RAMPS IS 2.0% MEASURED PERPENDICULAR TO THE RAMP RUN.

CURB AND GUTTER DETAILS



PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \pdc.local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B\C\4001\est1147.04FB_2B-G20 Mon, Feb/22/21 08:33am

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	G21	G22

202(10) SINGLE MAILBOX INSTALLATION

ALIGNMENT	BEGIN STATION	OFFSET	QUANTITY	REMARKS
"01"	32+65.00	RT	1	
PAY ITEM TOTALS			1.00	
ROUNDED TOTALS			1.00	

NOTES:

- ALL STATIONS ARE APPROXIMATE FOR SIDEWALK AND CURB RAMPS. CURB RAMPS NEED TO BE FIELD FIT AND THEY SHALL MEET 2006 ADA STANDARDS FOR MAXIMUM SLOPES. FINAL LAYOUT TO BE APPROVED BY THE ENGINEER, PRIOR TO CONCRETE POUR.

607(4) RECONSTRUCTED FENCE

ALIGNMENT	START		PI/PC/PT		LENGTH (FT)	REMARKS		
	STATION	OFFSET	STATION	OFFSET				
"01"	37+21	168' LT	-	-	37+21	90' LT	77.5	
PAY ITEMS TOTALS					77.5			
ROUNDED TOTALS					80.0			

609(1) CURB, TYPE 4

ALIGNMENT	BEGIN STATION	END STATION	OFFSET	QUANTITY (LINEAR FOOT)	REMARKS
"01"	15+26	21+68	LT/RT	1,291	
"01"	21+05	21+40	LT	44	
"01"	21+45	23+65	LT	229	
"01"	24+47	25+93	LT	156	
"01"	25+98	28+19	LT	231	
"01"	28+24	29+91	LT	172	
"01"	29+37	30+06	LT/RT	144	
"01"	34+90	41+68	LT/RT	1,365	
PAY ITEM TOTALS				3632	
ROUNDED TOTALS				3,640	

608(6) CURB RAMP

ALIGNMENT	STATION	OFFSET	QUANTITY (EACH)	REMARKS
"01"	11+22.78	LT	1	PERPENDICULAR
"01"	11+46.74	RT	1	PERPENDICULAR
"01"	23+53.75	RT	1	PARALLEL
"01"	24+29.49	RT	1	PARALLEL
"01"	30+29.35	RT	1	UNIDIRECTIONAL
"01"	30+90.92	RT	1	UNIDIRECTIONAL
"01"	34+10.78	LT	1	UNIDIRECTIONAL
"01"	34+84.88	LT	1	UNIDIRECTIONAL
"01"	36+81.61	RT	1	UNIDIRECTIONAL
"01"	37+38.39	RT	1	UNIDIRECTIONAL
"01"	39+19.92	LT	1	UNIDIRECTIONAL
"01"	39+79.08	LT	1	UNIDIRECTIONAL
"01"	43+42.11	RT	1	UNIDIRECTIONAL
"01"	43+54.42	LT	1	UNIDIRECTIONAL
"01"	44+15.58	LT	1	UNIDIRECTIONAL
"01"	44+22.89	RT	1	UNIDIRECTIONAL
"01"	47+97.42	LT	1	UNIDIRECTIONAL
"01"	48+58.58	LT	1	UNIDIRECTIONAL
"01"	50+49.26	RT	1	PARALLEL
"01"	50+49.60	LT	1	PERPENDICULAR
"01"	50+61.17	LT	1	PERPENDICULAR
"01"	50+65.80	RT	1	PARALLEL
"01"	51+23.49	LT	1	PARALLEL
"01"	51+31.82	RT	1	PARALLEL
"01"	51+37.20	LT	1	PARALLEL
"01"	51+47.85	RT	1	PARALLEL
"01"	54+85.85	LT	1	PARALLEL (TIE INTO EXISTING RAMP)
"GR"	10+46.55	LT	1	PARALLEL (REPLACE EXISTING RAMP)
PAY ITEM TOTALS			28	
ROUNDED TOTALS			28	

608(111) CONCRETE SIDEWALK, 6 INCHES THICK

ALIGNMENT	BEGIN STATION	END STATION	OFFSET	QUANTITY (SQ. YARD)	REMARKS
"01"	11+15.26	34+17.14	LT	2015.4	
"01"	11+40.41	23+66.38	RT	881.6	
"01"	24+24.34	30+33.98	RT	480.2	
"01"	30+86.32	36+86.32	RT	392.8	
"01"	34+78.53	39+25.10	LT	384.9	
"01"	37+33.68	43+46.82	RT	401.4	
"01"	39+73.90	43+59.60	LT	332.0	
"01"	44+10.40	48+02.60	LT	337.8	
"01"	48+53.40	50+71.21	LT	227.1	
"01"	51+14.21	54+87.11	LT	328.1	
"01"	44+18.19	50+75.22	RT	491.5	
"01"	51+37.12	54+08.94	RT	236.2	
"GR"	10+39.17	19+22.00	LT	792.9	
PAY ITEM TOTALS				7301.8	
ROUNDED TOTALS				7305.0	

SUMMARY TABLE
(1 OF 2)



PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
\\pdc.local\dfs\Projects\2011\1147.04FB-UNIV-AVE-SEGMENT_2B\C\4001\est1147.04FB_2B-G21 Wed, Feb/24/21 01:21pm

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	G22	G22

608.2013.0001 CONCRETE SLABS, BROOM FINISH, 4 INCHES THICK					
ALIGNMENT	BEGIN STATION	END STATION	OFFSET	QUANTITY (SQUARE YARD)	REMARKS
"01"	20+06	23+98	LT	175	
"01"	24+12	30+42	LT	270	
PAY ITEMS TOTALS				445	
ROUNDED TOTALS				450	

608.2013.0005 CONCRETE SLABS, COLORED & PATTERN IMPRINTED, 4 INCHES THICK					
ALIGNMENT	BEGIN STATION	END STATION	OFFSET	QUANTITY (SQUARE YARD)	REMARKS
"01"	12+38	23+36	LT/RT	797	
"01"	24+57	30+16	LT/RT	262	
"01"	31+03	34+25	LT/RT	108	
"01"	34+73	43+35	LT/RT	706	
"01"	44+47	50+39	LT/RT	198	
"01"	51+53	54+01	LT/RT	83	
PAY ITEM TOTALS				2,154.00	
ROUNDED TOTALS				2,160	

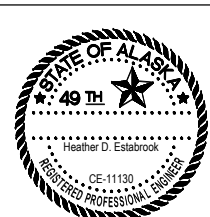
609(2) CURB AND GUTTER, TYPE I						
ALIGNMENT	BEGIN	END	OFFSET	QUANTITY (LINEAR FOOT)	SHAPE	REMARKS
"01"	11+15.26	11+30.78	LT	20.1	CURB RAMP CURB AND GUTTER	
"01"	11+40.41	11+53.50	RT	17.9	CURB RAMP CURB AND GUTTER	
"01"	12+27.75	34+29.64	LT	2196.4	STANDARD	
"01"	12+27.90	23+66.84	RT	1274.0	STANDARD	
"01"	12+38.00	23+38.25	LT/RT	2206.7	EXPRESSWAY	MEDIAN
"01"	24+23.84	30+42.52	RT	784.0	STANDARD	
"01"	24+54.75	30+16.89	LT/RT	1134.3	EXPRESSWAY	MEDIAN
"01"	30+77.55	36+95.13	RT	677.0	STANDARD	
"01"	31+00.75	34+27.25	LT/RT	659.7	EXPRESSWAY	MEDIAN
"01"	34+65.38	39+31.63	LT	532.3	STANDARD	
"01"	34+71.40	43+37.25	LT/RT	1741.0	EXPRESSWAY	MEDIAN
"01"	37+24.87	43+36.22	RT	707.2	STANDARD	
"01"	39+67.37	43+66.13	LT	459.5	STANDARD	
"01"	44+03.88	48+09.13	LT	468.2	STANDARD	
"01"	44+09.37	50+75.71	RT	769.5	STANDARD	
"01"	44+44.75	50+41.25	LT/RT	1200.5	EXPRESSWAY	MEDIAN
"01"	48+46.87	50+71.71	LT	287.5	STANDARD	
"01"	51+13.71	52+60.00	LT	176.7	STANDARD	
"01"	51+36.63	54+08.94	RT	346.3	STANDARD	
"01"	51+50.75	54+01.66	LT/RT	507.1	EXPRESSWAY	MEDIAN
"GR"	10+45.85	10+95.00	RT	52.1	STANDARD	
"GR"	10+46.18	16+25.00	LT	581.5	STANDARD	
"GR"	10+95.00	16+53.00	RT	558.5	GUTTER	
"GR"	16+25.00	17+05.00	LT	80.1	GUTTER	
"GR"	16+53.00	19+22.00	RT	269.2	STANDARD	
"GR"	17+05.00	19+22.00	LT	217.2	STANDARD	
PAY ITEM TOTALS				17,924.2		
PAY ITEM TOTALS				17,950		

642(6) REPLACE EXISTING WITH PRIMARY MONUMENT						
ALIGNMENT	EXISTING STATION	EXISTING OFFSET (FT)	PROPOSED STATION	PROPOSED OFFSET (FT)	QUANTITY (EA)	REMARKS
"01"	23+95.56	3.98 RT	23+95.56	3.98 RT	1	
"01"	50+43.20	4.93 LT	50+43.20	4.93 LT	1	
"01"	50+47.16	4.88 LT	50+47.16	4.88 LT	1	
PAY ITEM TOTALS					3	
ROUNDED TOTALS					3	

NOTES:

1. ALL STATIONS ARE APPROXIMATE FOR SIDEWALK AND CURB RAMPS. CURB RAMPS NEED TO BE FIELD FIT AND THEY SHALL MEET 2006 ADA STANDARDS FOR MAXIMUM SLOPES. FINAL LAYOUT TO BE APPROVED BY THE ENGINEER, PRIOR TO CONCRETE POUR.

SUMMARY TABLE
(2 OF 2)



ABBREVIATIONS

ABBREVIATIONS APPLY TO H SHEETS ONLY

AAWF	ACTIVE ADVANCE WARNING FLASHER
ADT	AVERAGE DAILY TRAFFIC
AH	AHEAD
ARRC	ALASKA RAILROAD CORPORATION
ASDS	ALASKA SIGN DESIGN SPECIFICATIONS
ATM	ALASKA TRAFFIC MANUAL
AVC	AUTOMATED VEHICLE COUNTER
BMP	BEST MANAGEMENT PRACTICE
C/A	CONTROLLED ACCESS
CF	CUBIC FOOT
C&G	CURB AND GUTTER
CGP	CONSTRUCTION GENERAL PERMIT
CKT	ELECTRICAL CIRCUIT
CRT	CONTROLLED RELEASE TERMINAL
DIA	DIAMETER
DIR	DIRECTION
DOT&PF	DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
EA	EACH
EB	EASTBOUND
EGC	EQUIPMENT GROUND CONDUCTOR
H	HORIZONTAL
HDG	HOT DIPPED GALVANIZING
HGT	HEIGHT
GVEA	GOLDEN VALLEY ELECTRIC ASSOCIATION
I/C	INTERCONNECT
IN OR "	INCH
JBOX, J-BOX	JUNCTION BOX
LBS	POUNDS
LFMC	LIQUIDTIGHT FLEXIBLE METAL CONDUIT
LF	LINEAR FOOT
L.O.C.	LIP OF CURB
MMA	METHYL METHACRYLATE
MUTCD	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
MTG	MOUNTING
NB	NORTHBOUND
NE	NORTHEAST
NO.	NUMBER
N.I.C.	NOT IN CONTRACT
NTS	NOT TO SCALE
NW	NORTHWEST
O/S	OFFSET
PED	PEDESTRIAN
PTZ	PAN, TILT, ZOOM
PHB	PEDESTRIAN HYBRID BEACON
PST	PERFORATED STEEL TUBING
RP	REFERENCE POINT
SB	SOUTHBOUND
SDB	SPEED DISPLAY BOARD
SE	SOUTHEAST
SQ	SQUARE
SF	SQUARE FOOT
SMFO	SINGLE MODE FIBER OPTIC
STA	STATION
STD	STANDARD
SW	SOUTHWEST
SWPPP	STORM WATER POLLUTION PREVENTION PLAN
SY	SQUARE YARD
TS	SQUARE STRUCTURAL STEEL TUBING
USACE	UNITED STATES ARMY CORPS OF ENGINEERS
V	VERTICAL
WB	WESTBOUND
W/	WITH
W/O	WITHOUT
Y	YELLOW

LEGEND

LEGEND APPLIES TO H SHEETS ONLY.

	EXISTING	PROPOSED
JUNCTION BOX, TYPE IA		
JUNCTION BOX, TYPE II		
JUNCTION BOX, TYPE III		
JUNCTION BOX, ABOVE GRADE		
SIGNAL FACE, VEHICULAR		
SIGNAL FACE, BACKPLATE		
SIGNAL FACE, LEFT TURN, BACKPLATE		
SIGNAL FACE, PEDESTRIAN		
LOOP DETECTOR		
VIDEO DETECTOR		
RADAR DETECTOR		
OPTICOM DETECTOR		
PAN, TILT, ZOOM CAMERA		
PEDESTRIAN PUSH BUTTON		
SIGNAL POST W/O MAST ARM		
SIGNAL POLE W/MAST ARM		
INTERCONNECT VAULT		
INTERCONNECT MANHOLE		
TRAFFIC CONTROLLER		
LOAD CENTER		
LUMINAIRE		
45' LUMINAIRE		
RIGID METAL CONDUIT		
TRAFFIC SIGNAL INTERCONNECT		
BORING		
TRANSFORMER		

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H1	H66

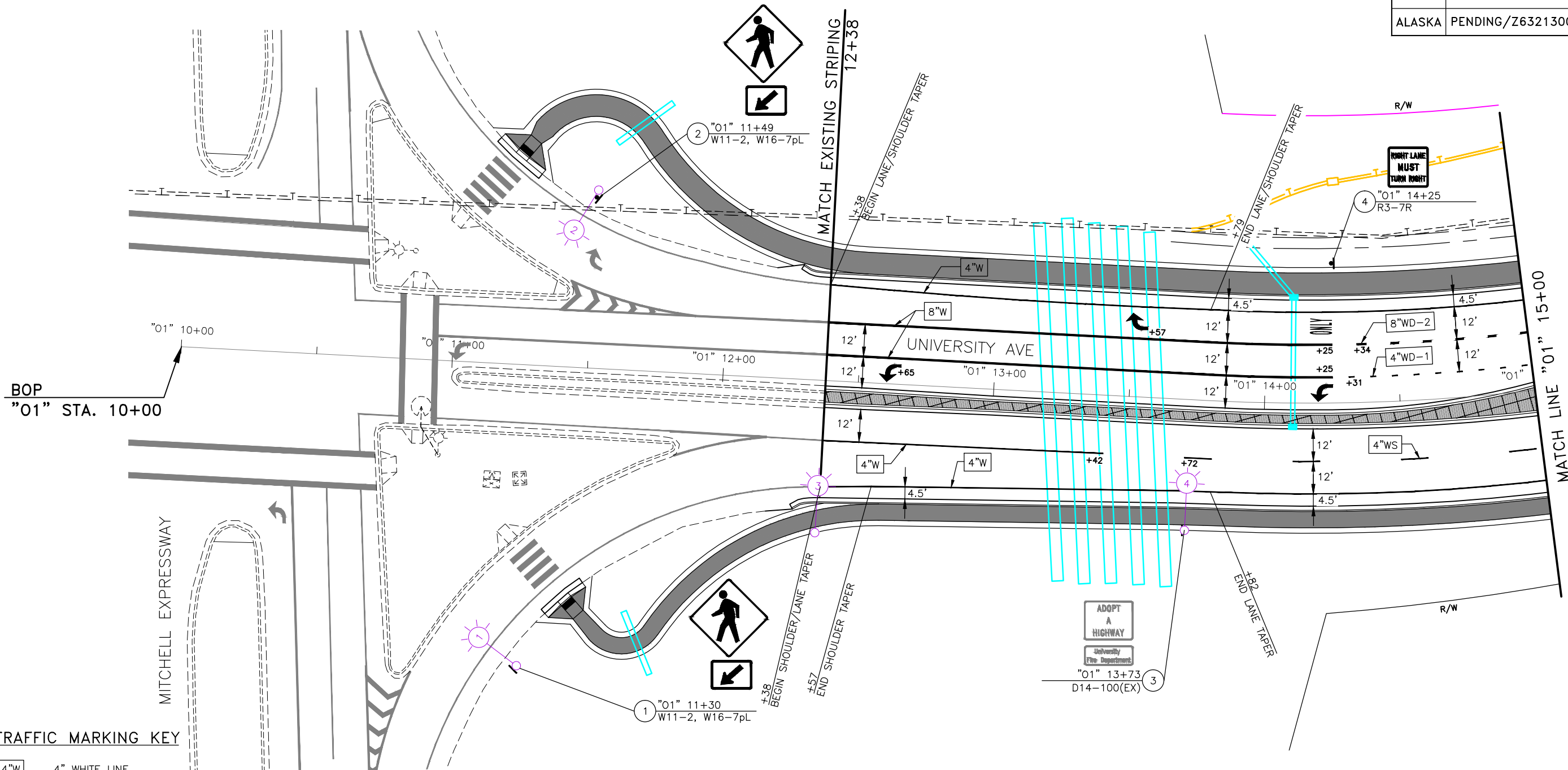
INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
H1	TRAFFIC LEGEND, ABBREVIATIONS, AND SHEET INDEX
H2-H13	SIGNING AND STRIPING
H14-H15	SIGN SUMMARY
H16	SIGN SALVAGE
H17-H19	SIGN DETAILS
H20-H30	ILLUMINATION AND INTERCONNECT PLANS
H31-H32	ELECTROLIER SUMMARIES
H33	JUNCTION BOX SUMMARIES
H34	ELECTROLIER DEMOLITION SUMMARY
H35	FIBER OPTIC INTERCONNECT
H36-H40	REWAK DRIVE SIGNAL PLANS, SCHEDULES, AND POLE ELEVATIONS
H41-H44	LOAD CENTER PLANS
H45-H50	SIGNAL DETAILS
H51-H56	INTERCONNECT DETAILS
H57	INTERCONNECT AND LIGHTING TRENCH DETAILS
H58-H61	LIGHTING DETAILS
H62-H63	REWAK DRIVE TEMPORARY SIGNAL PLAN
H64-H66	TEMPORARY TRAFFIC SIGNAL DETAILS

MMA TRAFFIC MARKINGS SUMMARY		
DESCRIPTION	QUANTITY	REMARKS
4"W	10,495 LF	
4"WS	6,775 LF	INCLUDES SKIPS
4"WD-1	865 LF	INCLUDES SKIPS
4"DY	1,290 LF	
8"W	3,800 LF	
8"WD-2	415 LF	INCLUDES SKIPS
24"W	2,210 SF	INCLUDES CROSSWALKS AND STOP BARS
WHITE CHEVRONS	425 SF	
YELLOW DIAGONALS	95 SF	
TURN ARROW SYMBOLS	31 EA	
ONLY SYMBOLS	6 EA	
YELLOW RAMPED MEDIAN NOSES	12 EA	
YELLOW CURB AND GUTTER	66 LF	MEASURED ALONG FACE OF CURB

TRAFFIC LEGEND,
ABBREVIATIONS,
AND SHEET INDEX

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
2/26/2021
REVIEW
PS&E
SUBMITTAL

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H2	H66



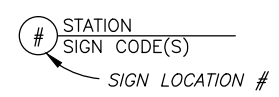
TRAFFIC MARKING KEY

4"W	4" WHITE LINE
4"WS	4" WHITE SKIP LINE (10' STRIPE/30' SKIP PATTERN)
4"WD-1	4" WHITE DOTTED LINE (2' STRIPE/6' SKIP PATTERN)
4"WD-2	4" WHITE DOTTED LINE (3' STRIPE/9' SKIP PATTERN)
4"Y	4" YELLOW LINE
4"YS	4" YELLOW SKIP LINE (10' STRIPE/30' SKIP PATTERN)
4"DY	4" DOUBLE YELLOW LINE
8"W	8" WHITE LINE
8"WD-1	8" WHITE WIDE DOTTED LINE (2' STRIPE/4' SKIP PATTERN)
8"WD-2	8" WHITE WIDE DOTTED LINE (3' STRIPE/9' SKIP PATTERN)
24"W	24" WHITE LINE
STD	SEE STANDARD PLAN
DTL	PAINTED MEDIAN NOSE, SEE NOTE 13 ON SHEET H2

TRAFFIC MARKING NOTES:

- ALL PROPOSED PAVEMENT MARKINGS SHALL BE INLAID METHYL METHACRYLATE (MMA).
- SEE SECTION 670 OF THE SPECIAL PROVISIONS FOR DEPTH OF INLAID MARKINGS.
- BEGIN PAVEMENT MARKINGS BY INSTALLING THE INTERSECTION CROSSWALKS FIRST. LAYOUT THE CROSSWALKS IN ACCORDANCE WITH STD. PLAN T-23.01. FOR SKEWED INTERSECTIONS AND WHERE CURB RAMPS ARE LOCATED IN NON-STANDARD LOCATIONS, CENTER THE CROSSWALK PAVEMENT MARKINGS ON THE CURB RAMP.
- "LADDER" STYLE CROSSWALK PAVEMENT MARKINGS SHALL BE COMPRISED OF 24"W LINES THAT ARE 10-FT LONG WITH 2-FT GAPS. CENTER THE 24"W 10-FT LONG PAVEMENT MARKINGS ON THE CURB RAMP. ALIGN THE 24"W PAVEMENT MARKINGS WITH THE VEHICLE TRAVEL DIRECTION AND CENTER THE 2-FT GAP ON THE WHEEL PATH.
- TRANSITION NEW PAVEMENT MARKINGS TO MATCH EXISTING MARKINGS AT A 100:1 TAPER.
- REMOVE ALL EXISTING PAVEMENT MARKINGS NOT COINCIDING WITH THE NEW INLAID MARKINGS. THIS WORK IS SUBSIDIARY TO 670 PAY ITEMS.
- DIMENSIONS REFER TO THE CENTER OF STRIPE, STRIPE GROUP, EDGE OF PAVEMENT OR LIP OF GUTTER WHEN PRESENT.
- ALL LANES ARE 12-FT WIDE UNLESS OTHERWISE NOTED.
- AT MINOR SIDE STREETS, BREAK 4"W FOG LINE PAVEMENT MARKINGS AT APPROACH RADII. DO NOT BREAK FOG LINE AT DRIVEWAYS.
- BREAK CENTERLINE STRIPING FOR DEDICATED LEFT TURN BAYS. CONTINUE CENTERLINE STRIPING FOR CENTER TWO-WAY LEFT TURN LANES AND WHEN THERE ARE NO LEFT TURN LANES.
- INSTALL THE "APPROACH TO OBSTRUCTIONS" PAVEMENT MARKINGS IN ACCORDANCE WITH STANDARD PLAN T-20.04 OR AS SHOWN ON THESE PLANS.
- INSTALL TURN ARROWS WHERE SHOWN AND ACCORDING TO STD. PLAN T-21.04. DO NOT INSTALL "ONLY" MARKINGS UNLESS SHOWN ON THE STRIPING PLAN.
- PAINT THE TOP AND FACE OF ALL RAMPED MEDIAN NOSES AND THE CURB AND GUTTER ISLAND NOSES WITH 20 MILS OF SURFACE APPLIED YELLOW METHYL METHACRYLATE TRAFFIC PAINT. THIS WORK IS SUBSIDIARY TO 670 PAY ITEMS.
- LOCATE STOP BARS A MINIMUM OF EITHER 4' FROM BACK OF SIDEWALK OR 10' FROM FACE OF CURB, WHICHEVER PROVIDES THE GREATER OFFSET FROM BACK OF SIDEWALK.
- STRIPING CONFIGURATIONS IN THIS PLAN SET ARE APPROXIMATE. THE CONTRACTOR SHALL PERFORM PRELIMINARY SPOTTING (RABBIT TRACKING) OF STRIPING AT LEAST 48 HOURS PRIOR TO FINAL MILLING AND APPLICATION OF MARKINGS. THE ENGINEER WILL THEN APPROVE THE LAYOUT OR MAKE MODIFICATIONS AS REQUIRED.

SIGNING KEY

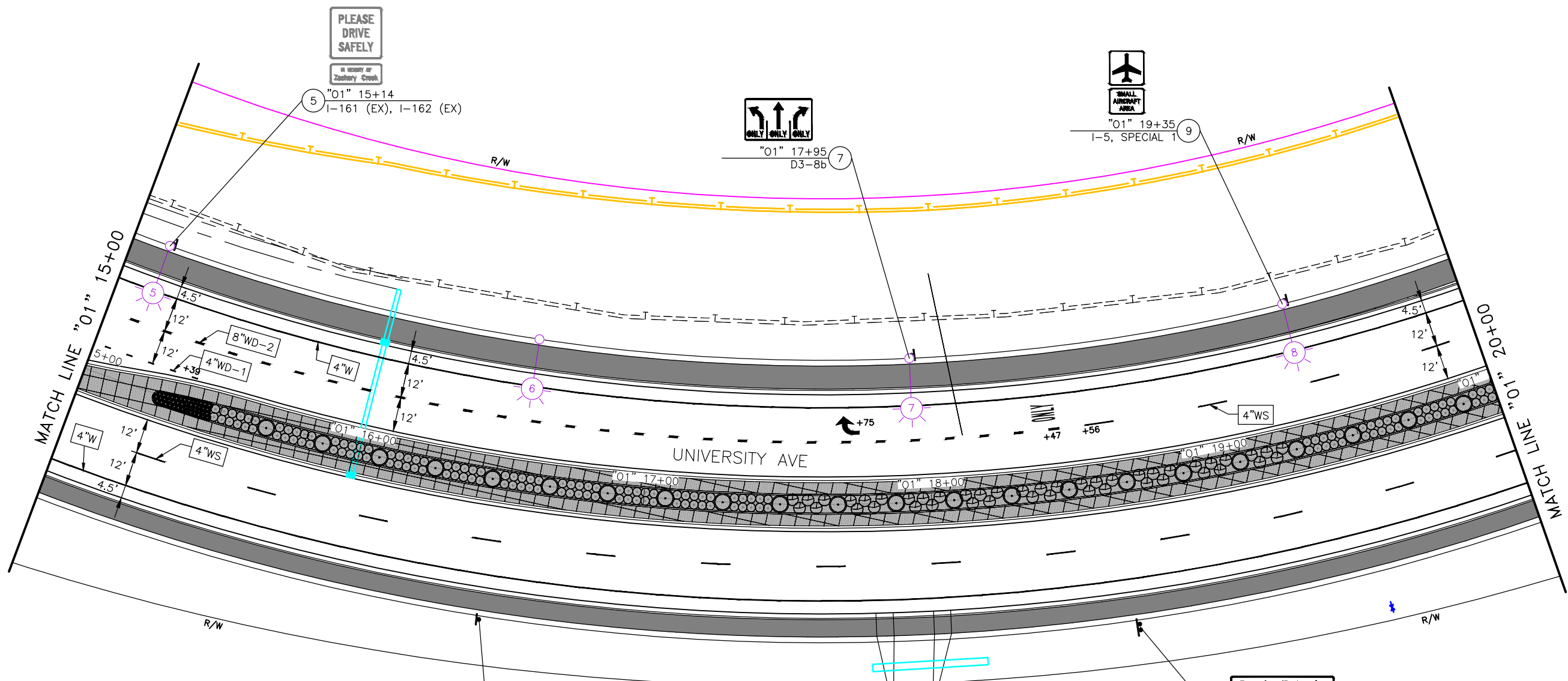


SIGNING AND STRIPING

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

**2/26/2021
REVIEW
PS&E
SUBMITTAL**

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H3	H66



TRAFFIC MARKING KEY

- 4"W 4" WHITE LINE
- 4"WS 4" WHITE SKIP LINE (10' STRIPE/30' SKIP PATTERN)
- 4"WD-1 4" WHITE DOTTED LINE (2' STRIPE/6' SKIP PATTERN)
- 4"WD-2 4" WHITE DOTTED LINE (3' STRIPE/9' SKIP PATTERN)
- 4"Y 4" YELLOW LINE
- 4"YS 4" YELLOW SKIP LINE (10' STRIPE/30' SKIP PATTERN)
- 4"DY 4" DOUBLE YELLOW LINE
- 8"W 8" WHITE LINE
- 8"WD-1 8" WHITE WIDE DOTTED LINE (2' STRIPE/4' SKIP PATTERN)
- 8"WD-2 8" WHITE WIDE DOTTED LINE (3' STRIPE/9' SKIP PATTERN)
- 24"W 24" WHITE LINE
- STD SEE STANDARD PLAN
- DTL PAINTED MEDIAN NOSE, SEE NOTE 13 ON SHEET H2

SIGNING KEY

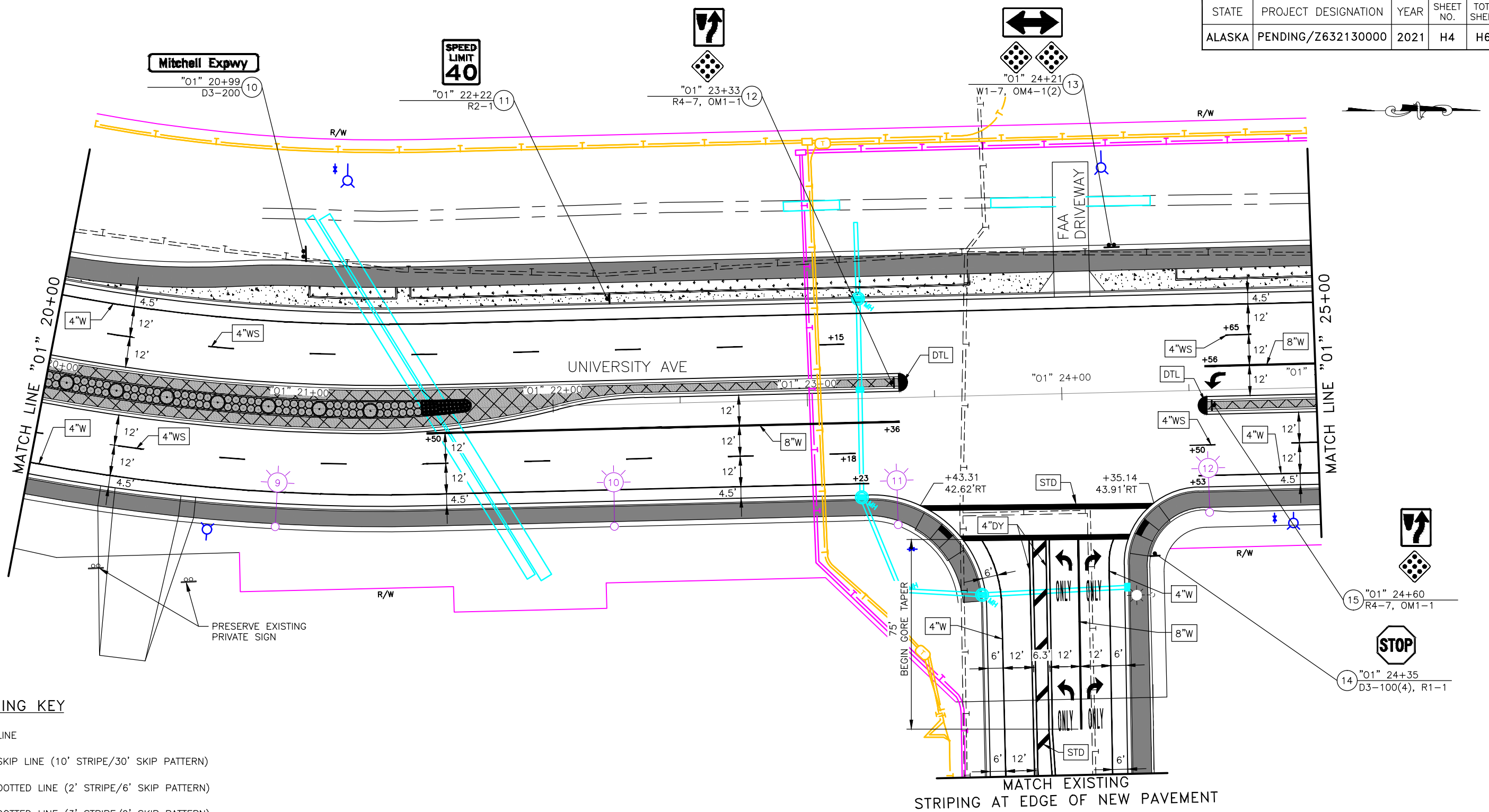
- # STATION
- SIGN CODE(S)
- SIGN LOCATION #

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SIGNING AND STRIPING

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H4	H66



TRAFFIC MARKING KEY

- 4"W 4" WHITE LINE
- 4"WS 4" WHITE SKIP LINE (10' STRIPE/30' SKIP PATTERN)
- 4"WD-1 4" WHITE DOTTED LINE (2' STRIPE/6' SKIP PATTERN)
- 4"WD-2 4" WHITE DOTTED LINE (3' STRIPE/9' SKIP PATTERN)
- 4"Y 4" YELLOW LINE
- 4"YS 4" YELLOW SKIP LINE (10' STRIPE/30' SKIP PATTERN)
- 4"DY 4" DOUBLE YELLOW LINE
- 8"W 8" WHITE LINE
- 8"WD-1 8" WHITE WIDE DOTTED LINE (2' STRIPE/4' SKIP PATTERN)
- 8"WD-2 8" WHITE WIDE DOTTED LINE (3' STRIPE/9' SKIP PATTERN)
- 24"W 24" WHITE LINE
- STD SEE STANDARD PLAN
- DTL PAINTED MEDIAN NOSE, SEE NOTE 13 ON SHEET H2

SIGNING KEY

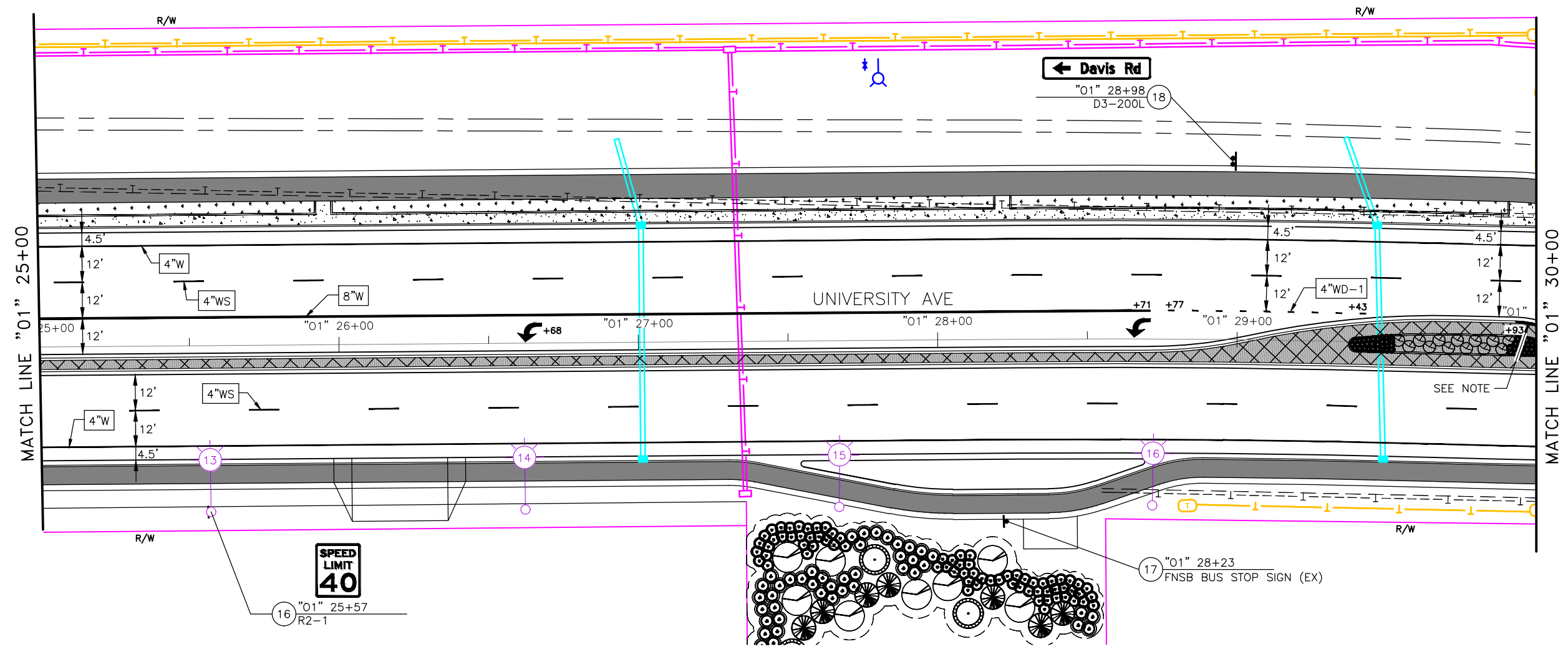
- # STATION SIGN CODE(S)
- SIGN LOCATION #

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SIGNING AND STRIPING

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H5	H66



TRAFFIC MARKING KEY

- 4"W 4" WHITE LINE
- 4"WS 4" WHITE SKIP LINE (10' STRIPE/30' SKIP PATTERN)
- 4"WD-1 4" WHITE DOTTED LINE (2' STRIPE/6' SKIP PATTERN)
- 4"WD-2 4" WHITE DOTTED LINE (3' STRIPE/9' SKIP PATTERN)
- 4"Y 4" YELLOW LINE
- 4"YS 4" YELLOW SKIP LINE (10' STRIPE/30' SKIP PATTERN)
- 4"DY 4" DOUBLE YELLOW LINE
- 8"W 8" WHITE LINE
- 8"WD-1 8" WHITE WIDE DOTTED LINE (2' STRIPE/4' SKIP PATTERN)
- 8"WD-2 8" WHITE WIDE DOTTED LINE (3' STRIPE/9' SKIP PATTERN)
- 24"W 24" WHITE LINE
- STD SEE STANDARD PLAN
- DTL PAINTED MEDIAN NOSE, SEE NOTE 13 ON SHEET H2

NOTE:

PAINT 27 LF OF CURB W/YELLOW MMA. SEE NOTE 13 ON SHEET H2.

SIGNING KEY

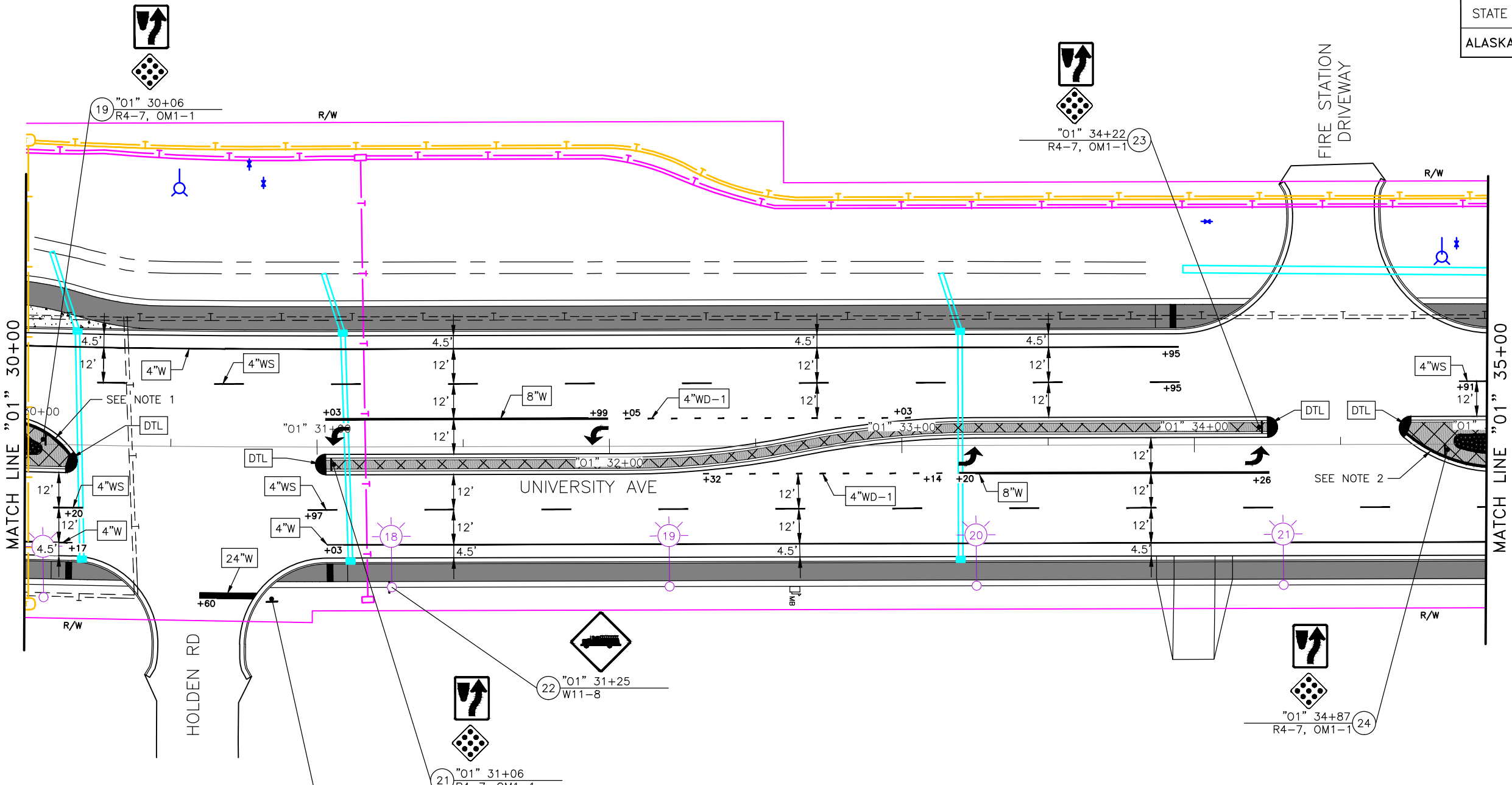
- # STATION SIGN CODE(S)
- SIGN LOCATION #

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SIGNING AND STRIPING

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H6	H66



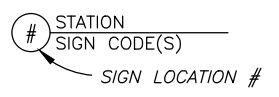
TRAFFIC MARKING KEY

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- 8"WD-2 8" WHITE WIDE DOTTED LINE (3' STRIPE/9' SKIP PATTERN)
- 24"W 24" WHITE LINE
- STD SEE STANDARD PLAN
- DTL PAINTED MEDIAN NOSE, SEE NOTE 13 ON SHEET H2

NOTES:

1. PAINT 27 LF OF CURB W/YELLOW MMA. SEE NOTE 13 ON SHEET H2.
2. PAINT 33 LF OF CURB W/YELLOW MMA. SEE NOTE 13 ON SHEET H2.

SIGNING KEY

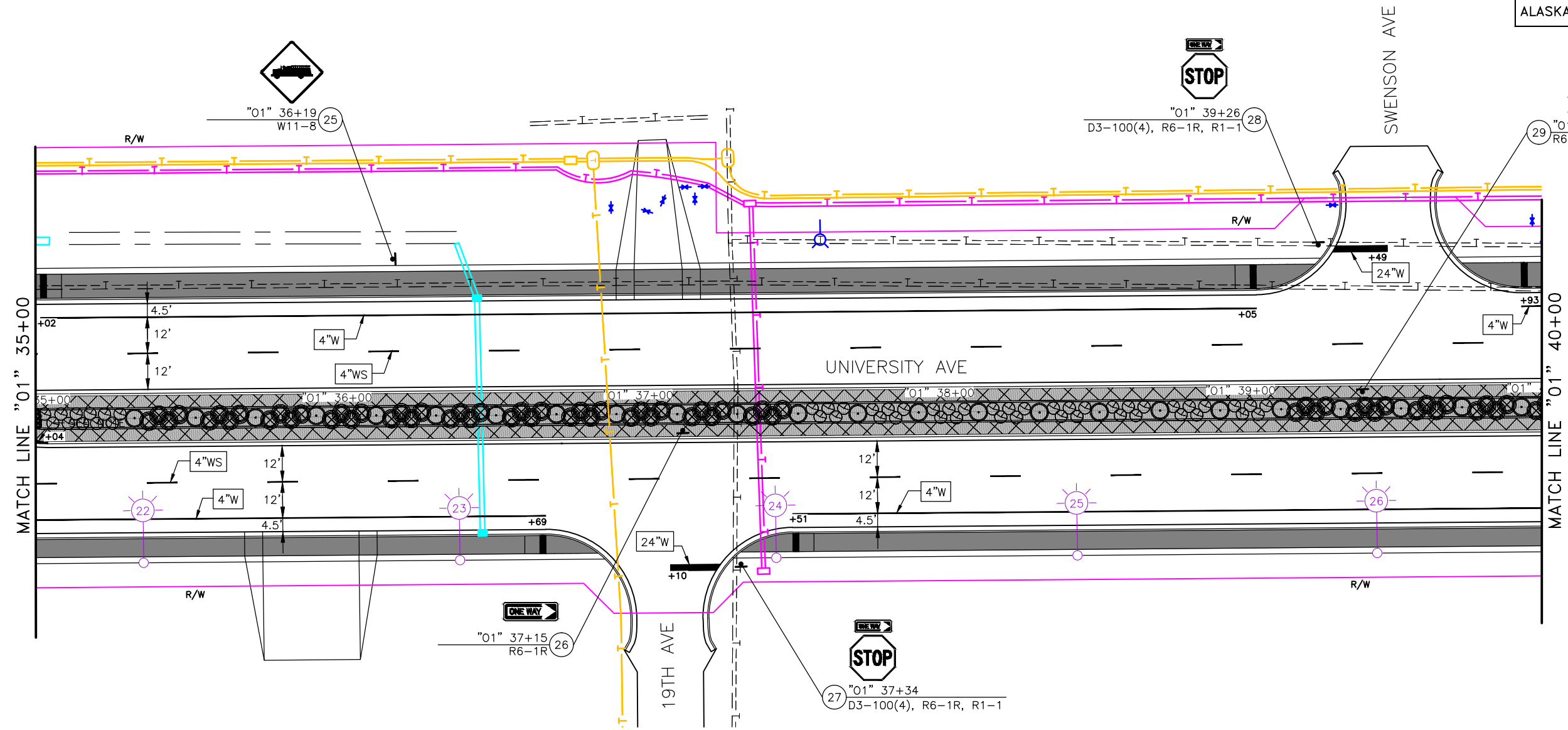


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SIGNING AND STRIPING

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H7	H66



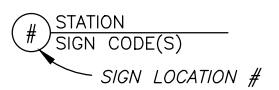
TRAFFIC MARKING KEY

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- 4"YS 4" YELLOW SKIP LINE (10' STRIPE/30' SKIP PATTERN)
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- 8"W 8" WHITE LINE
- 8"WD-1 8" WHITE WIDE DOTTED LINE (2' STRIPE/4' SKIP PATTERN)
- 8"WD-2 8" WHITE WIDE DOTTED LINE (3' STRIPE/9' SKIP PATTERN)
- 24"W 24" WHITE LINE
- STD SEE STANDARD PLAN
- DTL PAINTED MEDIAN NOSE, SEE NOTE 13 ON SHEET H2

NOTES:

- 1. PAINT 33 LF OF CURB W/YELLOW MMA. SEE NOTE 13 ON SHEET H2.

SIGNING KEY

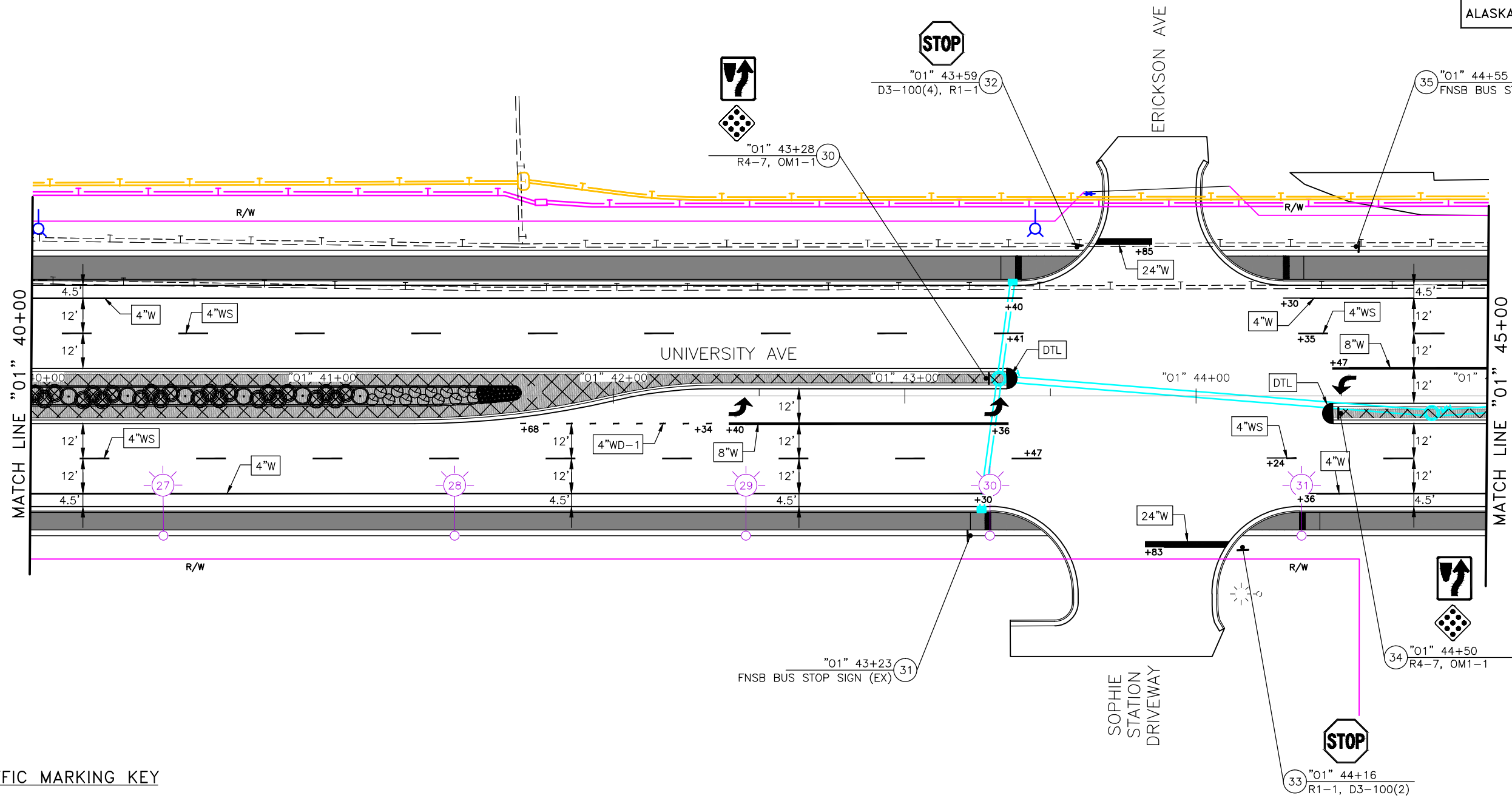


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SIGNING AND STRIPING

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H8	H66



TRAFFIC MARKING KEY

- 4"W 4" WHITE LINE
- 4"WS 4" WHITE SKIP LINE (10' STRIPE/30' SKIP PATTERN)
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- 4"YS 4" YELLOW SKIP LINE (10' STRIPE/30' SKIP PATTERN)
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- 8"W 8" WHITE LINE
- 8"WD-1 8" WHITE WIDE DOTTED LINE (2' STRIPE/4' SKIP PATTERN)
- 8"WD-2 8" WHITE WIDE DOTTED LINE (3' STRIPE/9' SKIP PATTERN)
- 24"W 24" WHITE LINE
- STD SEE STANDARD PLAN
- DTL PAINTED MEDIAN NOSE, SEE NOTE 13 ON SHEET H2

SIGNING KEY

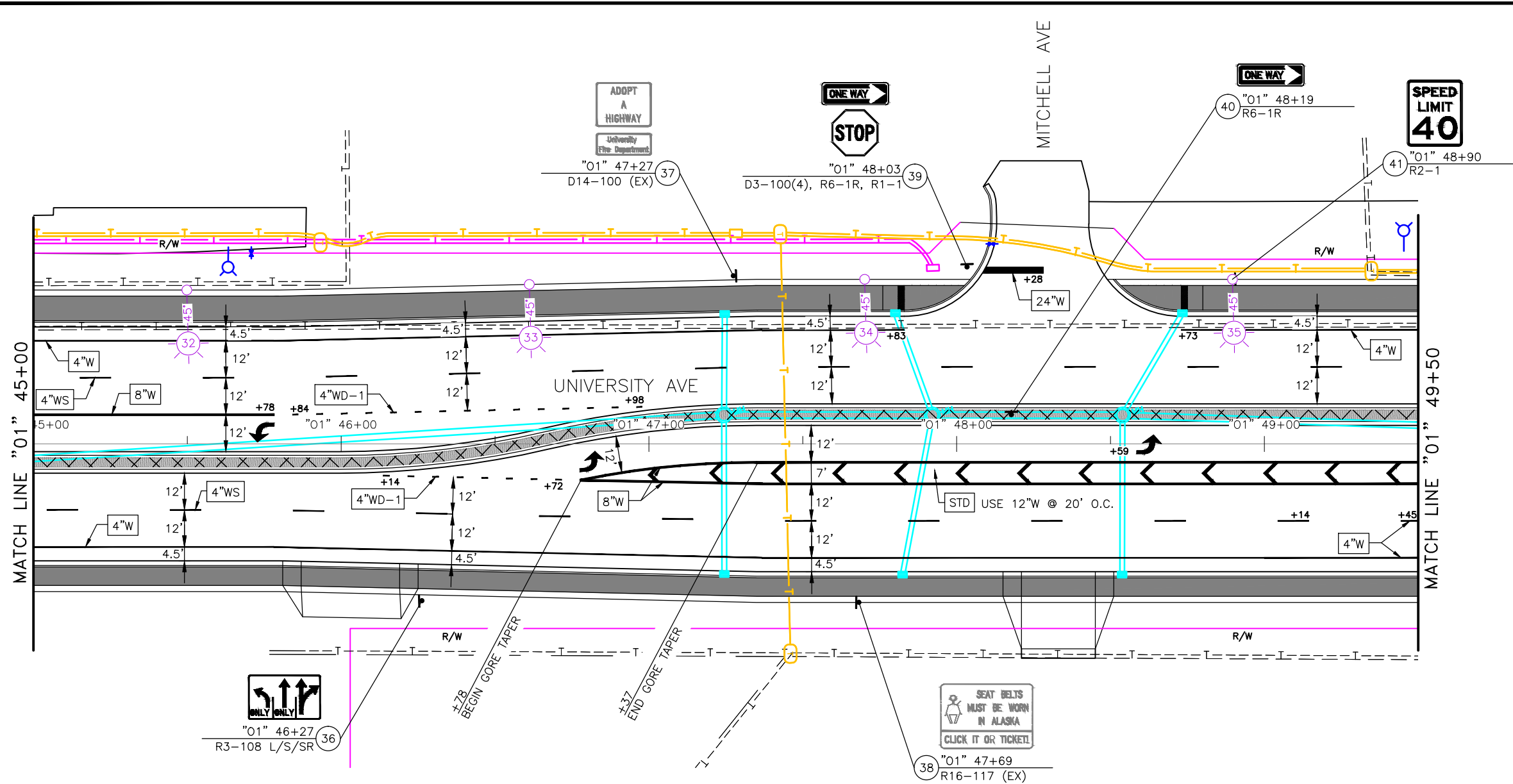
- # STATION SIGN CODE(S)
- SIGN LOCATION #

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SIGNING AND STRIPING

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H9	H66



TRAFFIC MARKING KEY

- 4"W 4" WHITE LINE
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- 8"WD-2 8" WHITE WIDE DOTTED LINE (3' STRIPE/9' SKIP PATTERN)
- 24"W 24" WHITE LINE
- STD SEE STANDARD PLAN
- DTL PAINTED MEDIAN NOSE, SEE NOTE 13 ON SHEET H2

SIGNING KEY

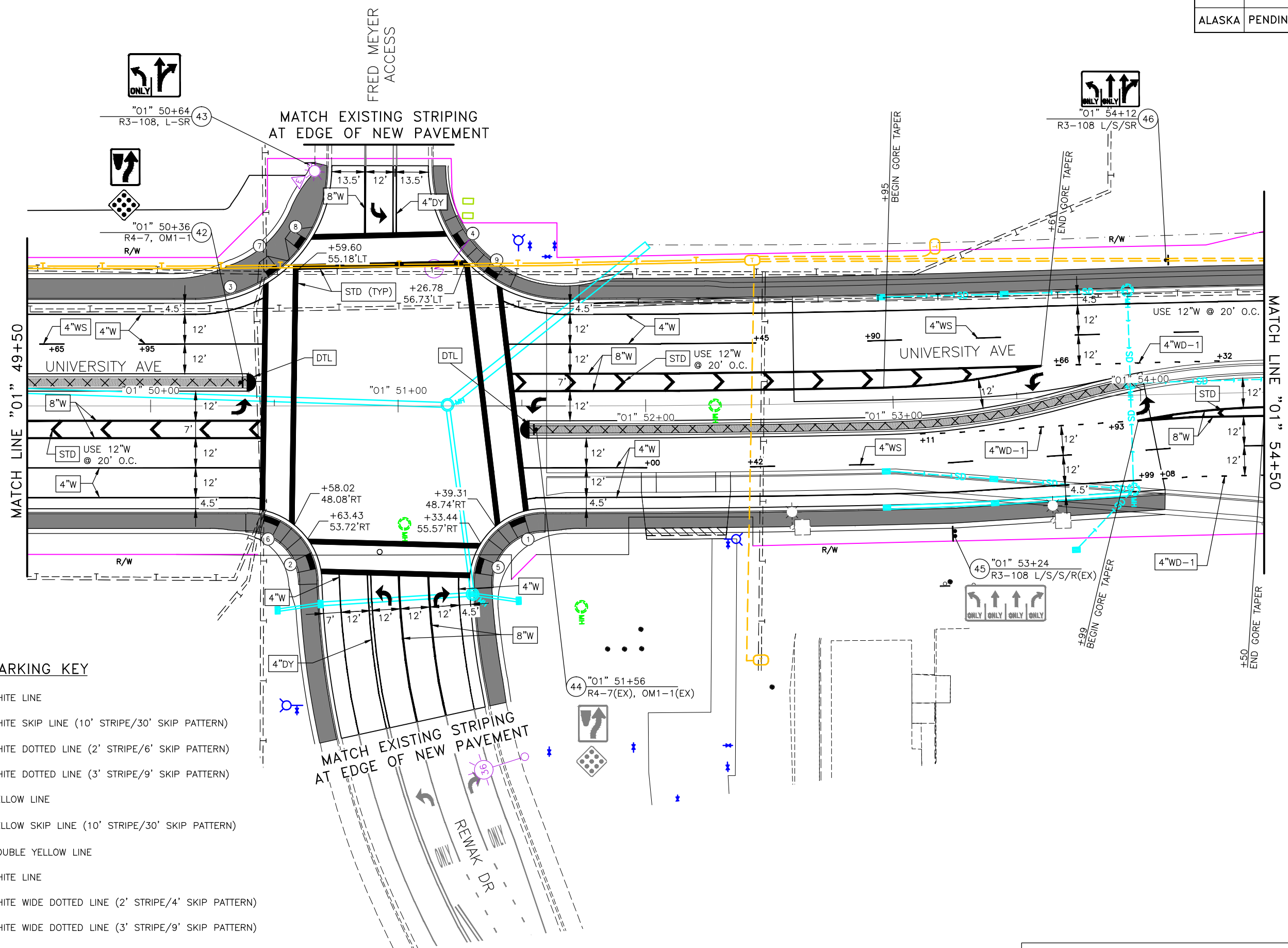
- # STATION SIGN CODE(S)
- SIGN LOCATION #

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SIGNING AND STRIPING

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H10	H66



TRAFFIC MARKING KEY

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- 8"WD-2 8" WHITE WIDE DOTTED LINE (3' STRIPE/9' SKIP PATTERN)
- 24"W 24" WHITE LINE
- STD SEE STANDARD PLAN
- DTL PAINTED MEDIAN NOSE, SEE NOTE 13 ON SHEET H2

SIGNING KEY

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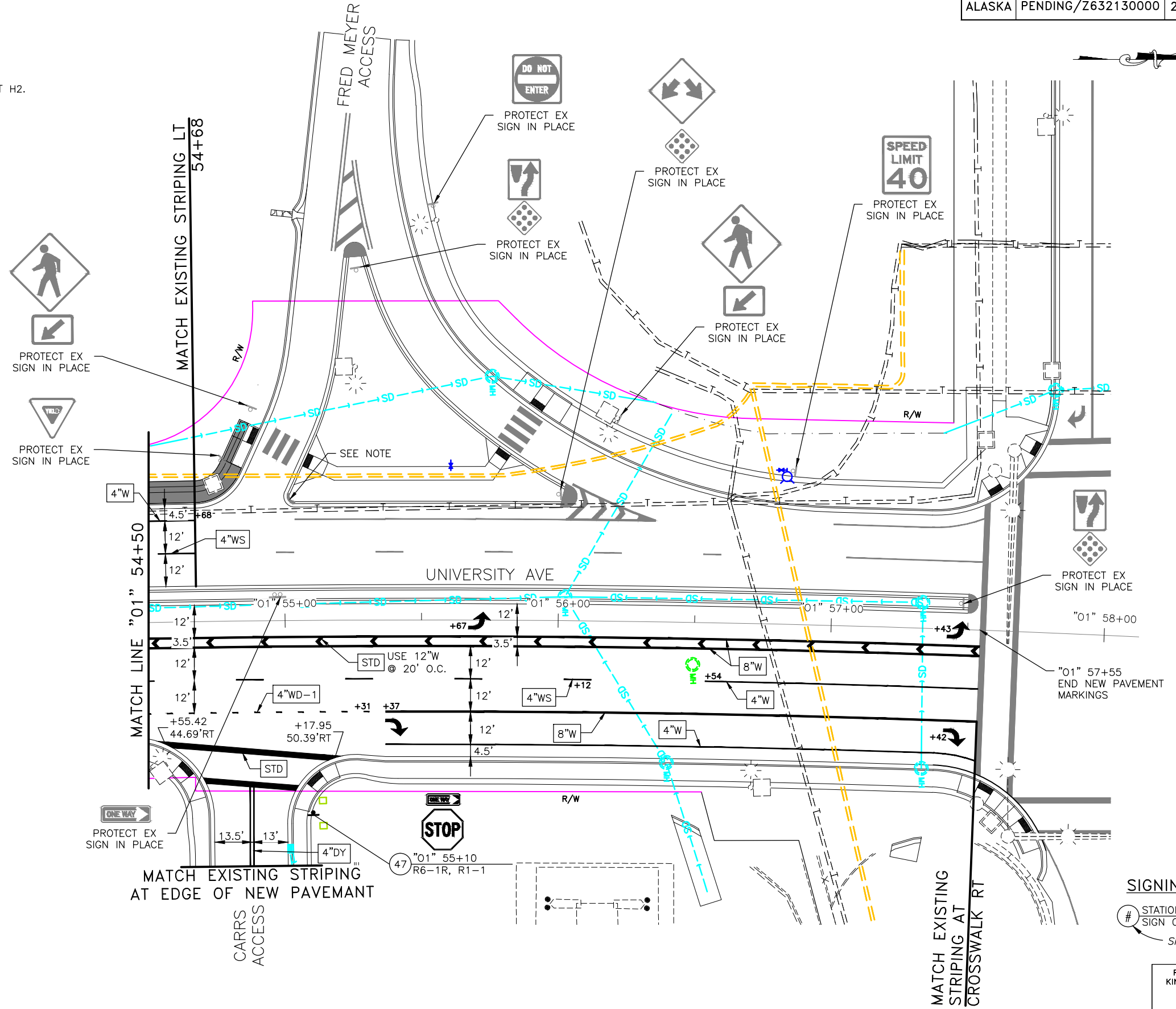
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SIGNING AND STRIPING

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H11	H66

NOTES:

1. PAINT 6 LF OF CURB W/YELLOW MMA. SEE NOTE 13 ON SHEET H2.



TRAFFIC MARKING KEY

- 4"W 4" WHITE LINE
- 4"WS 4" WHITE SKIP LINE (10' STRIPE/30' SKIP PATTERN)
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- 24"W 24" WHITE LINE
- STD SEE STANDARD PLAN
- DTL PAINTED MEDIAN NOSE, SEE NOTE 13 ON SHEET H2

SIGNING KEY

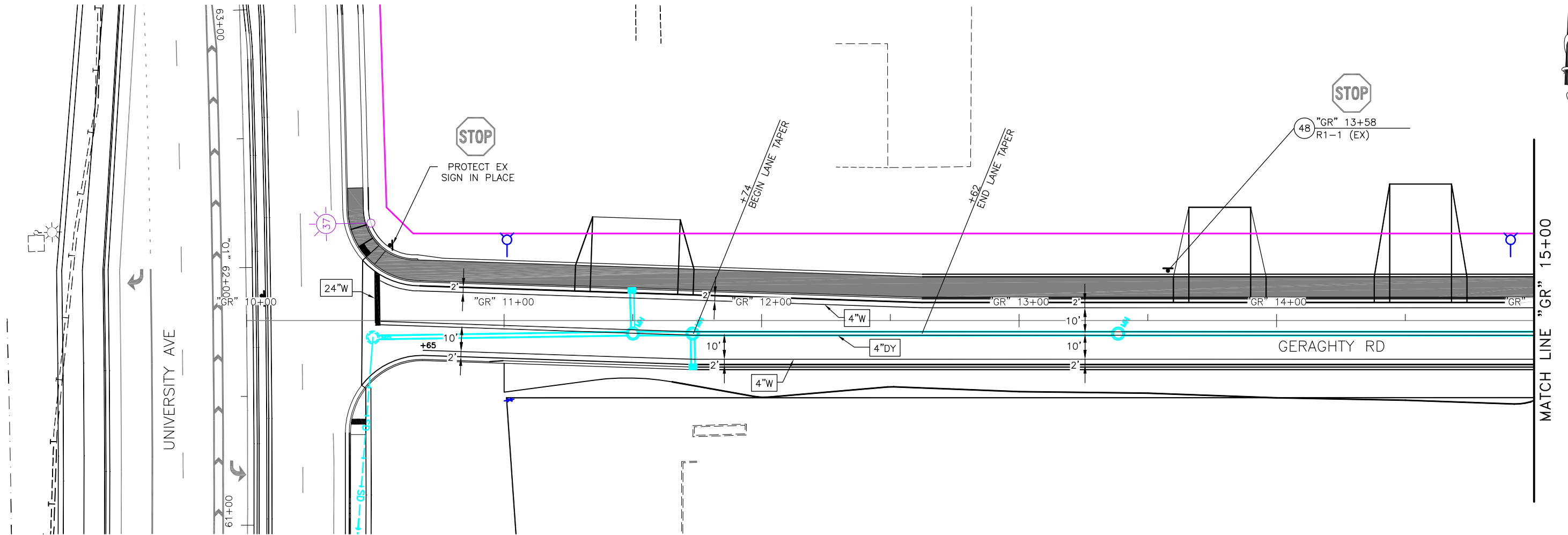
- # STATION SIGN CODE(S)
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PLANS DEVELOPED BY:
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PS&E
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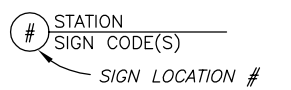
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H12	H66



TRAFFIC MARKING KEY

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- 8"W 8" WHITE LINE
- 8"WD-1 8" WHITE WIDE DOTTED LINE (2' STRIPE/4' SKIP PATTERN)
- 8"WD-2 8" WHITE WIDE DOTTED LINE (3' STRIPE/9' SKIP PATTERN)
- 24"W 24" WHITE LINE
- STD SEE STANDARD PLAN
- DTL PAINTED MEDIAN NOSE, SEE NOTE 13 ON SHEET H2

SIGNING KEY

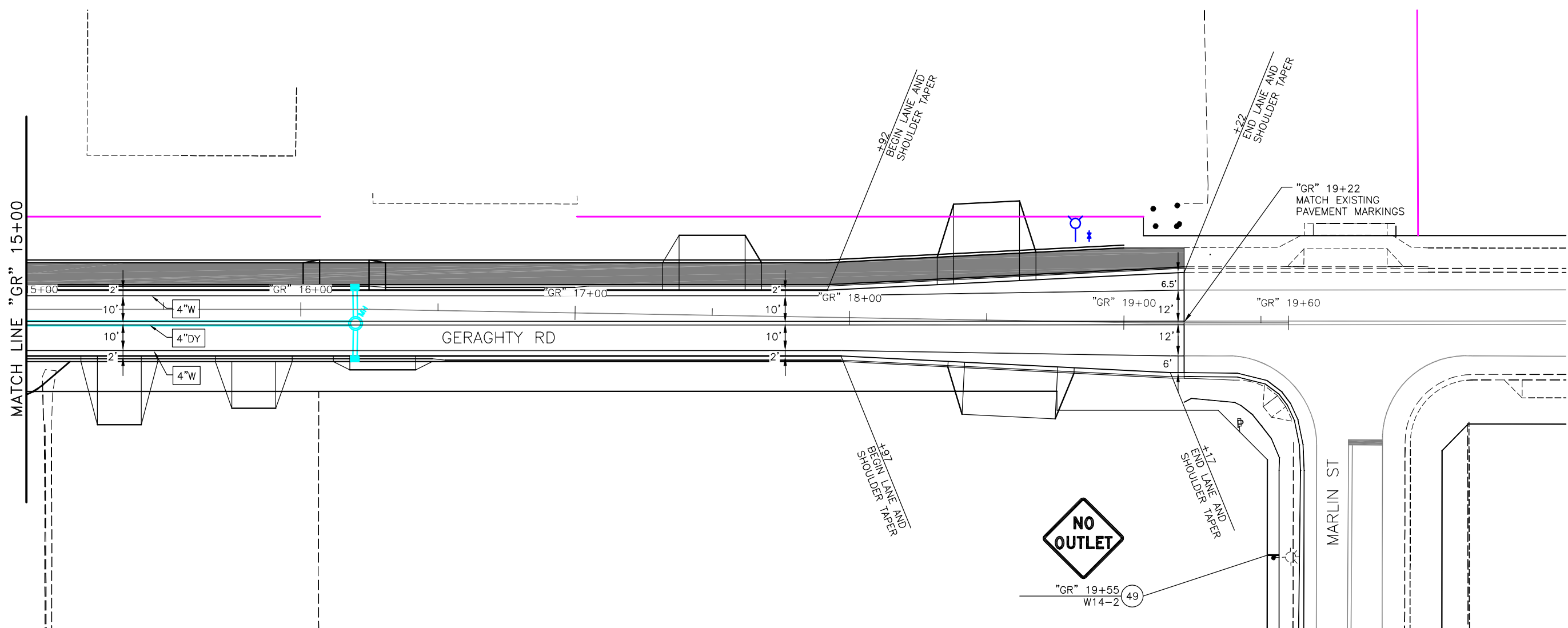


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SIGNING AND STRIPING

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H13	H66



TRAFFIC MARKING KEY

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- 4"YS 4" YELLOW SKIP LINE (10' STRIPE/30' SKIP PATTERN)
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- 8"W 8" WHITE LINE
- 8"WD-1 8" WHITE WIDE DOTTED LINE (2' STRIPE/4' SKIP PATTERN)
- 8"WD-2 8" WHITE WIDE DOTTED LINE (3' STRIPE/9' SKIP PATTERN)
- 24"W 24" WHITE LINE
- STD SEE STANDARD PLAN
- DTL PAINTED MEDIAN NOSE, SEE NOTE 13 ON SHEET H2

SIGNING KEY

- # STATION SIGN CODE(S)
- SIGN LOCATION #

SIGNING AND STRIPING

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SIGNING SUMMARY

LOC. NO	STATION	LOCATION		ASDS CODE	LEGEND	SIZE (INCHES)		BRACING/FRAMING		AREA (SQ.FT.)	MTG. HGT. (FT.)	DIR.	POST			REMARKS
		LT.	RT.			H	X	V	BRACED				FRAMED	TYPE	SIZE (INCHES)	
1	"01" 11+30		X	W11-2 W16-7pL	PEDESTRIANS SYMBOL (DOWN LEFT) ARROW	36 30	X X	36 18	X X	9.00 3.75		S				INSTALL ON NEW LIGHT POLE
2	"01" 11+49	X		W11-2 W16-7pL	PEDESTRIANS SYMBOL (DOWN LEFT) ARROW	36 30	X X	36 18	X X	9.00 3.75		E				INSTALL ON NEW LIGHT POLE
3	"01" 13+73		X	D14-100	ADOPT A HIGHWAY UNIVERSITY FIRE STATION				X X			SW				INSTALL EXISTING SIGNS ON NEW LIGHT POLE
4	"01" 14+25	X		R3-7R	RIGHT LANE MUST TURN RIGHT	36	X	36	X	9.00		NE	PST	2.5	1	
5	"01" 15+14	X		I-161 I-162	PLEASE DRIVE SAFELY IN MEMORY OF				X X			N				INSTALL EXISTING SIGNS ON NEW LIGHT POLE
6	"01" 16+50		X	R2-1	40 MPH SPEED LIMIT	30	X	36	X	7.50		S	PST	2.5	1	
7	"01" 17+95	X		R3-8b	(LEFT) ARROW ONLY, (THRU) ARROW ONLY, (RIGHT) ARROW ONLY	48	X	30	X	10.00		N				INSTALL ON NEW LIGHT POLE
8	"01" 18+65		X	D3-200R	DAVIS RD (RIGHT) ARROW	60	X	12	X	5.00		S	TS	3	2	SEE NOTES 20 & 21
9	"01" 19+35	X		I-5 SPECIAL 1	AIRPORT SYMBOL SMALL AIRCRAFT AREA	24	X	24	X X	4.00 3.00		N				INSTALL ON NEW LIGHT POLE. SEE SHEET H15 FOR SPECIAL SIGN DETAIL.
10	"01" 20+99	X		D3-200	MITCHELL EXPWY	72	X	12	X	6.00		N	TS	3	2	SEE NOTES 20 & 21
11	"01" 22+22	X		R2-1	40 MPH SPEED LIMIT	30	X	36	X	7.50		N	PST	2.5	1	
12	"01" 23+33	X		R4-7 OM1-1	KEEP RIGHT OBJECT MARKER	24 18	X X	30 18		5.00 2.25		N	PST	2.5	1	
13	"01" 24+21	X		W1-7 OM4-1	(LEFT-RIGHT) TURN ARROW (2) RED OBJECT MARKER	48 18	X X	24 18	X	8.00 4.50		E	TS	3	2	SEE NOTES 20 & 21 MOUNT 2 SIDE BY SIDE
14	"01" 24+35		X	D3-100(2) D3-100(2) R1-1	UNIVERSITY AVE DAVIS RD STOP	36 30 30	X X X	8 12 30	X X X	4.00 5.00 6.25		E/W N/S E	PST	2.5	1	SEE INSTALLATION DETAIL ON SHEET H18
15	"01" 24+60		X	R4-7 OM1-1	KEEP RIGHT OBJECT MARKER	24 18	X X	30 18		5.00 2.25		S	PST	2.5	1	
16	"01" 25+57		X	R2-1	40 MPH SPEED LIMIT	30	X	36	X	7.50		S				INSTALL ON NEW LIGHT POLE
17	"01" 28+23		X	FNSB	BUS STOP							S	PST	2.5	1	INSTALL EXISTING SIGN ON NEW POST
18	"01" 28+98	X		D3-200L	(LEFT) ARROW DAVIS RD	60	X	12	X	5.00		N	TS	3	2	SEE NOTES 20 & 21
19	"01" 30+06	X		R4-7 OM1-1	KEEP RIGHT OBJECT MARKER	24 18	X X	30 18		5.00 2.25		N	PST	2.5	1	
20	"01" 30+85		X	D3-100(2) D3-100(2) R1-1	UNIVERSITY AVE HOLDEN RD STOP	36 36 30	X X X	8 12 30	X X X	4.00 6.00 6.25		E/W N/S E	PST	2.5	1	SEE INSTALLATION DETAIL ON SHEET H18

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H14	H66

SIGNING NOTES:

- REMOVE AND DISPOSE OF ALL EXISTING SIGNS AND SIGN POST FOUNDATIONS WITHIN THE PROJECT LIMITS, EXCEPT SIGNS DESIGNATED FOR REINSTALLATION, SALVAGE, OR OTHERWISE NOTED.
- OFFSET DISTANCES FOR STOP SIGN ASSEMBLIES, SIGNS MOUNTED ON LIGHT POLES, AND POSTS IN THE MEDIAN ARE FROM DESIGN CENTERLINE TO CENTER OF POST. ALL OTHER OFFSET DISTANCES ARE FROM DESIGN CENTERLINE TO NEAR EDGE OF SIGN.
- MOUNT SIGNS PER STANDARD PLAN S-05.02. SIGNS THAT PROJECT OVER OR WITHIN 2 FEET OF THE SIDEWALK AND PATHWAYS SHALL BE MOUNTED TO A HEIGHT OF 8 FEET.
- DETERMINE POST LENGTHS IN THE FIELD. DO NOT EXTEND POSTS ABOVE TOP OF SIGN.
- INSTALL POSTS WITH SLEEVE TYPE CONCRETE FOUNDATIONS PER STANDARD PLAN S-30.05. ATTACH THE SIGN POST USING GALVANIZED 3/8" DIA. BOLT, NUT, SPLIT LOCK WASHER AND TWO FLAT WASHERS. INSTALL SIGN POSTS 12", 13" MAX IN PST CONCRETE HUBS, THIS MODIFIES THE STANDARD DRAWING.
- PROVIDE "TUBE POST BRACING" AS SHOWN ON STANDARD PLAN S-01.02 FOR ALL SIGNS MOUNTED ON A SINGLE POST AND HAVING A HORIZONTAL DIMENSION OF 30 INCHES OR GREATER, EXCEPT D3-100 SERIES SIGNS. INSTEAD OF 5/8" DIA. GALVANIZED BOLTS AND NYLON LOCKING NUTS SHOWN ON STANDARD PLAN S-01.02, USE GALVANIZED 3/8" DIA. BOLTS, SPLIT LOCK WASHERS AND NUTS. 1/4" T X 1-1/2" W ALUMINUM ALLOY 6061-T6 BAR MAY ALSO BE USED TO FABRICATE SIGN BRACES.
- ATTACH ALL SIGNS TO THEIR SUPPORTS WITH 3/8" DIA. BOLTS, EXCEPT ATTACH UNFRAMED SIGNS TO POSTS WITH ALUMINUM DRIVE RIVETS. WIND WASHERS ARE NOT REQUIRED WITH DRIVE RIVETS. INCLUDE SPLIT LOCK WASHERS WHEN BOLTS ARE USED.
- ALL FASTENER HARDWARE SHALL MEET THE REQUIREMENTS OF THE "FASTENER SPECIFICATION TABLE" ON SHEET H17.
- SIGNS INSTALLED ON LIGHT POLES MAY REQUIRE TEMPORARY INSTALLATION ON 2-1/2" PST POST UNTIL LIGHT POLES ARE IN PLACE. THIS WORK IS SUBSIDIARY TO PAY ITEM 615.0001.0000.
- SEE TRAFFIC SIGNAL SHEETS H36, H38-H39, AND H50-H51 FOR ADDITIONAL TRAFFIC SIGNS, MOUNTING LOCATIONS, AND MOUNTING DETAILS.
- STOP (R1-1) AND YIELD (R1-2) SIGN LOCATIONS, ESPECIALLY THOSE LOCATED AT LARGE RADIUS INTERSECTIONS, MAY NEED ADJUSTMENT IN THE FIELD. THE ENGINEER WILL APPROVE FINAL LOCATIONS.
- WHERE TWO DIFFERENT D3-100 SERIES SIGNS ARE TO BE LOCATED ON THE SAME POST, INSTALL THE CROSS-STREET PANEL IN THE LOWER POSITION. SEE SHEET H18 FOR DETAIL.
- D3-100(2) INDICATES TWO SEPARATE SINGLE SIDED SIGN PANELS; AND D3-100 INDICATES ONE SINGLE SIDED SIGN PANEL. PROVIDE SIGN BRACING AS INDICATED ON SHEET H18 AND STANDARD PLAN S-01.02.
- MAINTAIN EXISTING SIGNS UNTIL NEW SIGNS ARE INSTALLED. DO NOT LEAVE DUPLICATE OR CONFLICTING SIGNING UP AT ANY TIME.
- ALL SIGNS NOTED FOR REMOVAL AND REINSTALLATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE IF THEY ARE DAMAGED DURING THE RELOCATION EFFORT.
- USE SERIES C LETTERS FOR D3-100 SERIES SIGNS UNLESS OTHERWISE NOTED. USE 4.5-INCH FOR DIMENSION "E" FOR 12-INCH VERTICAL (V) D3-100 SIGNS. THE LETTERING INDICATING THE TYPE OF STREET (SUCH AS St, Ave, OR Rd) SHALL BE UPPER CASE AND LOWER CASE. THIS MODIFIES THE ASDS.
- LOCATE AND PROTECT ALL NEW AND EXISTING UNDERGROUND UTILITIES PRIOR TO INSTALLING SIGN POSTS. UTILITIES MAY NOT BE SHOWN ON THE SIGNING AND STRIPING PLANS. SEE OTHER PROJECT PLAN SHEETS AND AS-BUILT DRAWINGS FOR UTILITY INFORMATION.
- CLEARING OR TRIMMING OF VEGETATION AS DIRECTED BY THE ENGINEER MAY BE REQUIRED TO ENSURE ADEQUATE VISIBILITY OF SIGNS. THIS WORK IS SUBSIDIARY TO PAY ITEM 615.0001.0000.
- PROVIDE WEATHER TIGHT CAPS ON ALL TUBE POSTS, EXCEPT PERFORATED STEEL TUBES.
- PROVIDE FRANGIBLE COUPLING SYSTEMS IN ACCORDANCE WITH STANDARD PLAN S-31.02.
- HINGED JOINTS WITH FRANGIBLE FUSE PLATE ARE REQUIRED ON ALL MULTIPLE POST SIGNS WITH FRANGIBLE COUPLING SYSTEMS. THE HINGE LOCATION ON ALL POSTS SHALL BE THE SAME DISTANCE BELOW THE SIGNS, INSTEAD OF THE 6 INCH MINIMUM SHOWN ON STANDARD PLAN S-31.02. SEE MANUFACTURER'S SPECIFICATION FOR HINGE LOCATION BELOW SIGN.
- UNLESS OTHERWISE NOTED, RELOCATE EXISTING (SALVAGED) SIGNS TO LOCATIONS IDENTIFIED IN THE SIGNING SUMMARY USING NEW POSTS. FOUNDATIONS, BRACING/FRAMING, MOUNTING BRACKETS, AND FASTENERS. THIS WORK SHALL BE SUBSIDIARY TO PAY ITEM 615.0001.0000 STANDARD SIGN.
- PROVIDE SIDEWALK MOUNTING STUB FOR SIGN POSTS IN ACCORDANCE WITH DETAIL ON SHEET H19.

SIGN SUMMARY

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
2/26/2021
REVIEW
PS&E
SUBMITTAL

FILE: Z:\PROJECTS\0245_UNIV_AVE\PHASE_2\SEG-2\DWGS\C\DWGS\63213_H14-H15_SIGN_SMR.DWG PLOTTED: Feb. 26, 2021 - 3:12:08 PM
 (Brian Lewis) KE#: 00245

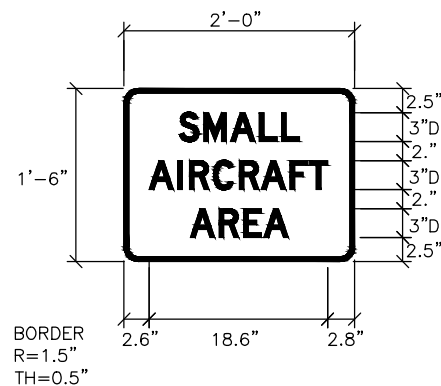
SIGNING SUMMARY

LOC. NO.	STATION	LOCATION		ASDS CODE	LEGEND	SIZE (INCHES)		BRACING/FRAMING		AREA (SQ.FT.)	MTG. HGT. (FT.)	DIR.	POST			REMARKS	
		LT.	RT.			H	X	V	BRACED				FRAMED	TYPE	SIZE (INCHES)		NO.
21	"01" 31+06		X	R4-7	KEEP RIGHT	24	X	30			5.00		S	PST	2.5	1	
				OM1-1	OBJECT MARKER	18	X	18			2.25						
22	"01" 31+25		X	W11-8	FIRE STATION SYMBOL	36	X	36		X	9.00		S				INSTALL ON NEW LIGHT POLE
23	"01" 34+22	X		R4-7	KEEP RIGHT	24	X	30			5.00		N	PST	2.5	1	
				OM1-1	OBJECT MARKER	18	X	18			2.25						
24	"01" 34+87		X	R4-7	KEEP RIGHT	24	X	30			5.00		S	PST	2.5	1	
				OM1-1	OBJECT MARKER	18	X	18			2.25						
25	"01" 36+19	X		W11-8	FIRE STATION SYMBOL	36	X	36	X		9.00		N	PST	2.5	1	
26	"01" 37+15		X	R6-1R	ONE WAY (RIGHT) ARROW	36	X	12	X		3.00		E	PST	2.5	1	
27	"01" 37+34		X	D3-100(2)	UNIVERSITY AVE	36	X	8	X		4.00		PST	2.5	1	SEE INSTALLATION DETAIL ON SHEET H18	
				D3-100(2)	19TH AVE	30	X	12	X		5.00						E/W
				R6-1R	ONE WAY (RIGHT) ARROW	36	X	12	X		3.00						N/S
				R1-1	STOP	30	X	30	X		6.25						E
28	"01" 39+26	X		D3-100(2)	UNIVERSITY AVE	36	X	8	X		4.00		PST	2.5	1	SEE INSTALLATION DETAIL ON SHEET H18	
				D3-100(2)	SWENSON AVE	48	X	12	X		8.00						E/W
				R6-1R	ONE WAY (RIGHT) ARROW	36	X	12	X		3.00						N/S
				R1-1	STOP	30	X	30	X		6.25						W
29	"01" 39+41	X		R6-1R	ONE WAY (RIGHT) ARROW	36	X	12	X		3.00		W	PST	2.5	1	
30	"01" 43+28	X		R4-7	KEEP RIGHT	24	X	30			5.00		N	PST	2.5	1	
				OM1-1	OBJECT MARKER	18	X	18			2.25						
31	"01" 43+23		X	FNSB	BUS STOP								S	PST	2.5	1	
32	"01" 43+59	X		D3-100(2)	UNIVERSITY AVE	36	X	8	X		4.00		PST	2.5	1	SEE INSTALLATION DETAIL ON SHEET H18	
				D3-100(2)	ERICKSON AVE	48	X	12	X		8.00						E/W
				R1-1	STOP	30	X	30	X		6.25						N/S
33	"01" 44+16		X	D3-100(2)	UNIVERSITY AVE	36	X	8	X		4.00		PST	2.5	1	SEE INSTALLATION DETAIL ON SHEET H18	
				R1-1	STOP	30	X	30	X		6.25						E
34	"01" 44+50	X		R4-7	KEEP RIGHT	24	X	30			5.00		S	PST	2.5	1	
				OM1-1	OBJECT MARKER	18	X	18			2.25						
35	"01" 44+55	X		FNSB	BUS STOP								N				INSTALL EXISTING SIGN ON NEW POST
36	"01" 45+55		X	R3-108 L/S/SR	(LEFT) ARROW, (THRU) ARROW, (THRU/RIGHT) ARROW	48	X	30		X	10.00		S				INSTALL ON NEW LIGHT POLE
37	"01" 47+27	X		I-150	ADOPT A HIGHWAY UNIVERSITY FIRE DEPARTMENT								N	PST	2.5	1	SALVAGE EXISTING SIGNS AND REINSTALL ON NEW POST

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H15	H66

SIGNING SUMMARY

LOC. NO.	STATION	LOCATION		ASDS CODE	LEGEND	SIZE (INCHES)		BRACING/FRAMING		AREA (SQ.FT.)	MTG. HGT. (FT.)	DIR.	POST			REMARKS	
		LT.	RT.			H	X	V	BRACED				FRAMED	TYPE	SIZE (INCHES)		NO.
38	"01" 47+69		X	R16-117	CLICK IT OR TICKET				X				S	PST	2.5	1	INSTALL EXISTING SIGN ON NEW POST
39	"01" 48+03	X		D3-100(2)	UNIVERSITY AVE	36	X	8	X		4.00		PST	2.5	1	SEE INSTALLATION DETAIL ON SHEET H17	
				D3-100(2)	MITCHELL AVE	42	X	12	X		7.00						E/W
				R6-1R	ONE WAY (RIGHT) ARROW	36	X	12	X		3.00						N/S
				R1-1	STOP	30	X	30	X		6.25						W
40	"01" 48+19	X		R6-1R	ONE WAY (RIGHT) ARROW	36	X	12	X		3.00		W	PST	2.5	1	SEE NOTE 23
41	"01" 48+90	X		R2-1	40 MPH SPEED LIMIT	30	X	36		X	7.50		N				INSTALL EXISTING SIGN ON NEW POST
42	"01" 50+36	X		R4-7	KEEP RIGHT	24	X	30			5.00		PST	2.5	1		
				OM1-1	OBJECT MARKER	18	X	18			2.25						N
43	"01" 50+64	X		R3-108 L-SR	LANE USE (L-SR)	36	X	30		X	7.50		W				INSTALL ON LIGHT POLE
44	"01" 51+56		X	R4-7	KEEP RIGHT								S	PST	2.5	1	SALVAGE EXISTING SIGNS AND REINSTALL ON NEW POST
				OM1-1	OBJECT MARKER												
45	"01" 53+24		X	R3-108 L/S/S/R	(LEFT) ARROW ONLY, (THRU) ARROW ONLY, (THRU) ARROW ONLY, (RIGHT) ARROW ONLY					X			S	TS	3.0	2	SEE NOTES 20 & 21. SALVAGE EXISTING SIGN AND REINSTALL ON NEW POSTS.
46	"01" 54+12	X		R3-108 L/S/SR	(LEFT) ARROW, (THRU) ARROW, (THRU/RIGHT) ARROW	48	X	30	X		10.00		N	PST	2.5	1	
47	"01" 55+10		X	R6-1R	ONE WAY (RIGHT) ARROW	36	X	12	X		3.00		E	PST	2.5	1	SEE INSTALLATION DETAIL ON SHEET H18
				R1-1	STOP	30	X	30	X		6.25						
48	"GR" 13+58	X		R1-1	STOP				X				N	PST	2.5	1	INSTALL EXISTING SIGN ON NEW POST
49	"GR" 19+55		X	W14-2	NO OUTLET	30	X	30		X	6.25		N				INSTALL ON LIGHT POLE
											SUBTOTAL =		365.00				
											SIGNAL SIGN SUBTOTAL =		77.50				
											TOTAL SIGN AREA =		442.50				



SPECIAL SIGN #1

SIGN SUMMARY

PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
 2/26/2021
 REVIEW
 PS&E
 SUBMITTAL

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H16	H66

SIGN SALVAGE SUMMARY					
ALIGNMENT	STATION	CL REF	ASDS CODE	LEGEND	REMARKS
01	12+42	6.1' RT	R4-7	KEEP RIGHT	
			OM1-1	OBJECT MARKER 1	
01	13+78	43.1' RT	I-150	ADOPT A HIGHWAY UNIVERSITY FIRE DEPARTMENT	MOUNTED ON LIGHT POLE. STORE SIGNS UNTIL THEY CAN BE INSTALLED IN NEW LOCATION
01	15+15	48.1' LT	R3-5L	(LEFT) ARROW ONLY	OVERHEAD MOUNTED ON MAST ARM
			R3-5A	(THRU) ARROW ONLY	
			R3-5R	(RIGHT) ARROW ONLY	
01	16+47	77.5' LT	D3-2	MITCHELL EXPY	
01	16+60	47.0' LT	I-161	PLEASE DRIVE SAFELY	MOUNTED ON LIGHT POLE. STORE SIGNS UNTIL THEY CAN BE INSTALLED IN NEW LOCATION
			I-162	IN MEMORY OF	
01	17+69	34.8' RT	R2-1	40 MPH SPEED LIMIT	
01	18+61	46.9' LT	I-5	AIRPORT (SYMBOL)	MOUNTED ON LIGHT POLE
				SMALL AIRCRAFT AREA	
01	18+10	48.6' RT	D3-200	DAVIS RD (RIGHT) ARROW	
01	21+08	36.4' LT	R2-1	40 MPH SPEED LIMIT	MOUNTED ON LIGHT POLE
01	24+18	64.6' LT	W1-7	(LEFT-RIGHT) ARROW	
			OM1-1	OBJECT MARKER 1	
			OM1-1	OBJECT MARKER 1	
01	24+33	65.4' RT	D3-1	DAVIS RD	
			R1-1	STOP	
01	24+34	79.8' RT	R3-8 L/R	(LEFT & RIGHT) ARROWS ONLY	MOUNTED ON LIGHT POLE
01	24+60	49.5' LT	M4-5	END	
			D1-11	BIKE ROUTE	
			D1-11	BIKE ROUTE	
01	25+04	49.5' RT	R8-3	NO PARKING	
01	28+96	48.5' LT	D3-200	(LEFT) ARROW DAVIS ROAD	
01	30+82	45.4' RT	D3-1	HOLDEN RD	
			R1-1	STOP	
01	31+61	36.5' RT	W11-8	FIRE STATION (SYMBOL)	

SIGN SALVAGE SUMMARY					
ALIGNMENT	STATION	CL REF	ASDS CODE	LEGEND	REMARKS
01	31+98	34.3' RT	FNSB	BUS STOP	MOUNTED ON LIGHT POLE. STORE SIGN UNTIL IT CAN BE INSTALLED IN NEW LOCATION
01	36+19	53.5' LT	W11-8	FIRE STATION (SYMBOL)	
01	39+27	57.3' LT	D3-1	SWENSON AVE	
			R1-1	STOP	
01	43+36	48.1' LT	FNSB	BUS STOP	STORE SIGN UNTIL IT CAN BE INSTALLED IN NEW LOCATION
01	43+59	51.1' LT	D3-1	ERICKSON AVE	
			R1-1	STOP	
01	44+16	45.1' RT	R1-1	STOP	
01	44+90	33.4' RT	FNSB	BUS STOP	STORE SIGN UNTIL IT CAN BE INSTALLED IN NEW LOCATION
01	45+20	32.8' RT	R16-117	BUCKLE UP IT'S THE LAW, CLICK IT OR TICKET	MOUNTED ON LIGHT POLE. STORE SIGN UNTIL IT CAN BE INSTALLED IN NEW LOCATION
01	47+63	51.2' LT	I-150	ADOPT A HIGHWAY	STORE SIGNS UNTIL THEY CAN BE INSTALLED IN NEW LOCATION
				UNIVERSITY FIRE DEPARTMENT	
01	47+83	50.8' LT	FNSB	BUS STOP	STORE SIGN UNTIL IT CAN BE INSTALLED IN NEW LOCATION
01	47+98	50.4' LT	D3-100 (2)	UNIVERSITY AVE	
			D3-100 (2)	MITCHELL AVE	
			R1-1	STOP	
01	48+50	54.1' RT	R1-1	STOP	
01	48+83	41.9' LT	R2-1	40 MPH SPEED LIMIT	
01	50+58	76.5' LT	R3-8 SR/L	(THRU/RIGHT & LEFT) ARROWS ONLY	MOUNTED ON LIGHT POLE
01	53+24	42.6' RT	R3-108 L/S/S/R	LANE USE	STORE SIGN UNTIL IT CAN BE INSTALLED IN NEW LOCATION
01	55+11	69.6' RT	R1-1	STOP	
01	54+05	6.0' RT	R4-7	KEEP RIGHT	STORE SIGNS UNTIL THEY CAN BE INSTALLED IN NEW LOCATION
			OM1-1	OBJECT MARKER 1	
GR	13+05	20.4' LT	R7-200	NO PARKING ANYTIME	
GR	14+04	25.3' LT	R1-1	STOP	STORE SIGNS UNTIL THEY CAN BE INSTALLED IN NEW LOCATION

SIGN SALVAGE AND DISPOSAL NOTES:

1. DELIVER SALVAGED SIGN PANELS, NOT IDENTIFIED FOR REUSE IN THE SIGNING SUMMARY, TO THE DOT&PF FAIRBANKS MAINTENANCE YARD LOCATED AT 2301 PEGER ROAD. CONTACT DANIEL SCHACHER (907) 451-5276 TO ARRANGE FOR DELIVERY.
2. SALVAGED SIGNS WILL BE PAID PER EACH SIGN PANEL DELIVERED IN ACCEPTABLE CONDITION.

SIGN SALVAGE

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
**2/26/2021
REVIEW
PS&E
SUBMITTAL**

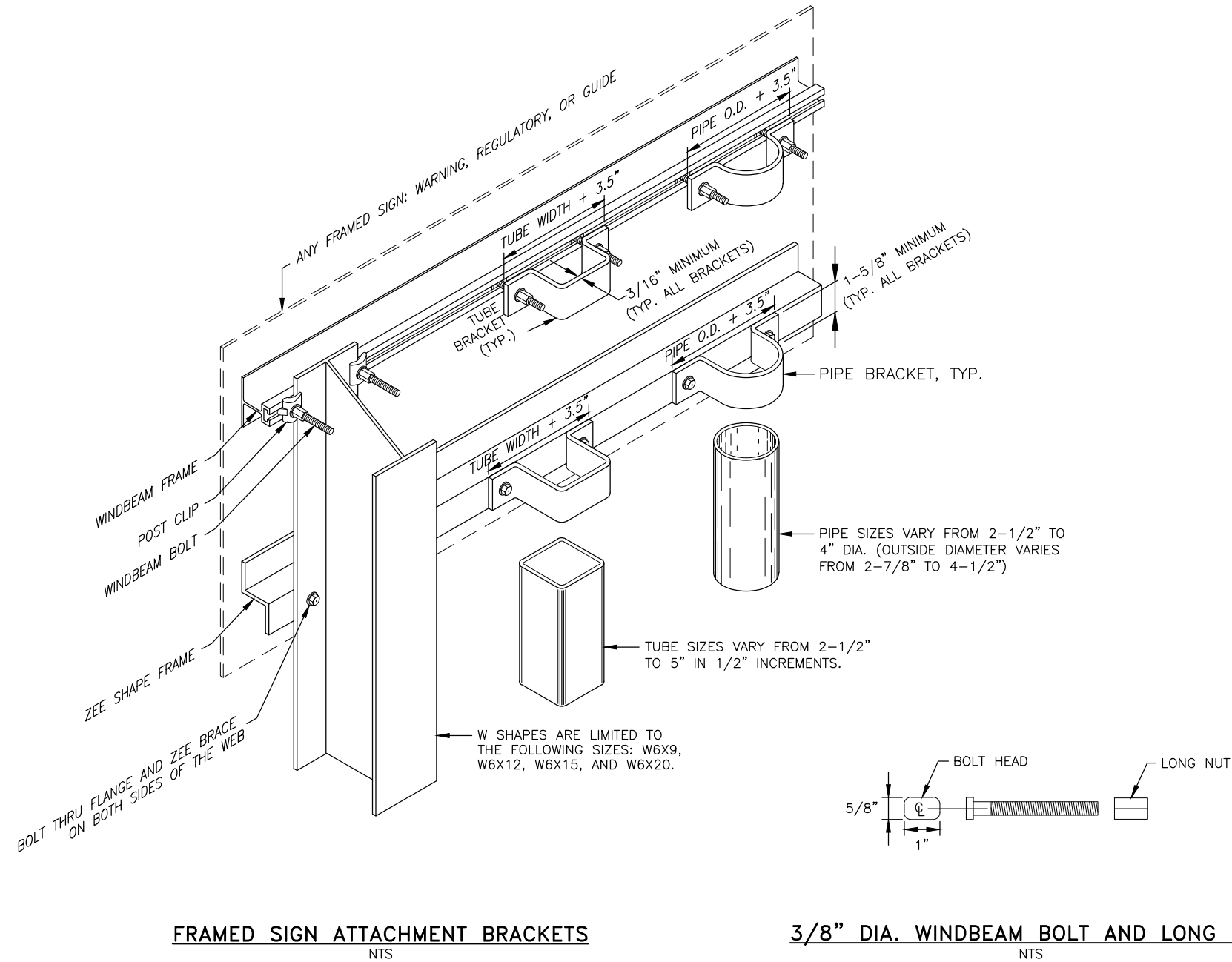
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H17	H66

FRAMED SIGN & BRACKET DETAIL NOTES:

1. ATTACH FRAMED SIGNS TO POSTS WHEREVER THE FRAMES CROSS THE POSTS. AT EACH CROSSING, ATTACH THE SIGN USING TWO POST CLIPS ON W-SHAPE POSTS, A U-SHAPED BRACKET ON PIPES OR A BRACKET WITH SQUARE CORNERS ON TUBES.
2. THE TUBE BRACKETS USED ON EVEN INCH SIZE TUBES MAY ALSO BE USED ON TUBES 1/2" SMALLER IN SIZE.
3. THE BRACKET DETAILS SHOWN INDICATE GENERAL DESIGNS ONLY. DESIGNS MAY VARY BY MANUFACTURER.
4. ALUMINUM ALLOY 6061-T6 SHALL BE USED FOR ZEE SHAPE FRAMING AND RIVETS.

FASTENER SPECIFICATION TABLE		
FASTENERS	STEEL	STAINLESS STEEL
BOLTS	ASTM A 307	ASTM F 593
NUTS	ASTM A 563	ASTM F 594
WASHERS	ASTM F 844	ASTM A 480

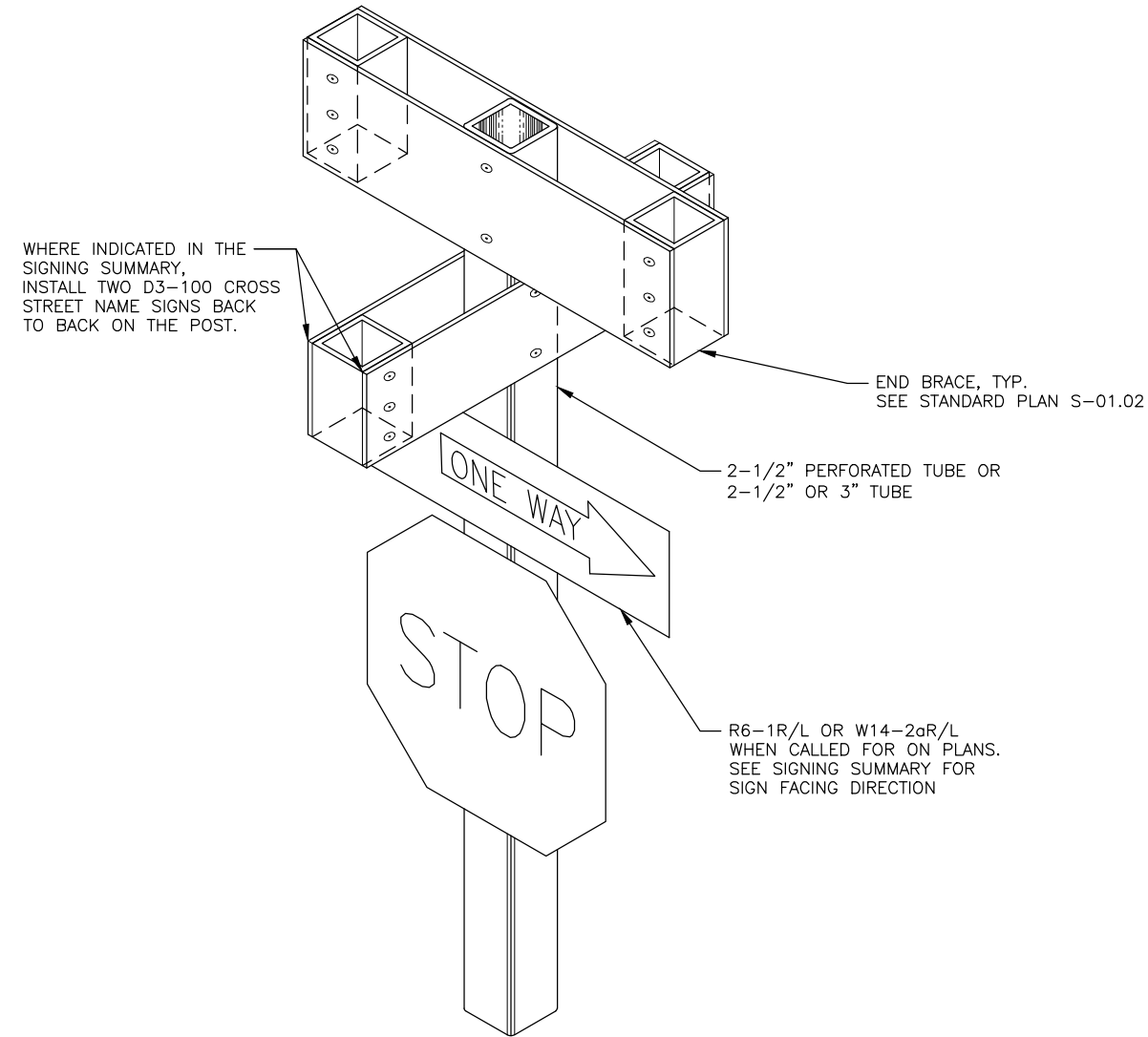
THESE SPECIFICATIONS APPLY TO ALL SIGN FASTENER HARDWARE ON THE PROJECT.



FRAMED SIGN ATTACHMENT BRACKETS
NTS

3/8" DIA. WINDBEAM BOLT AND LONG NUT
NTS

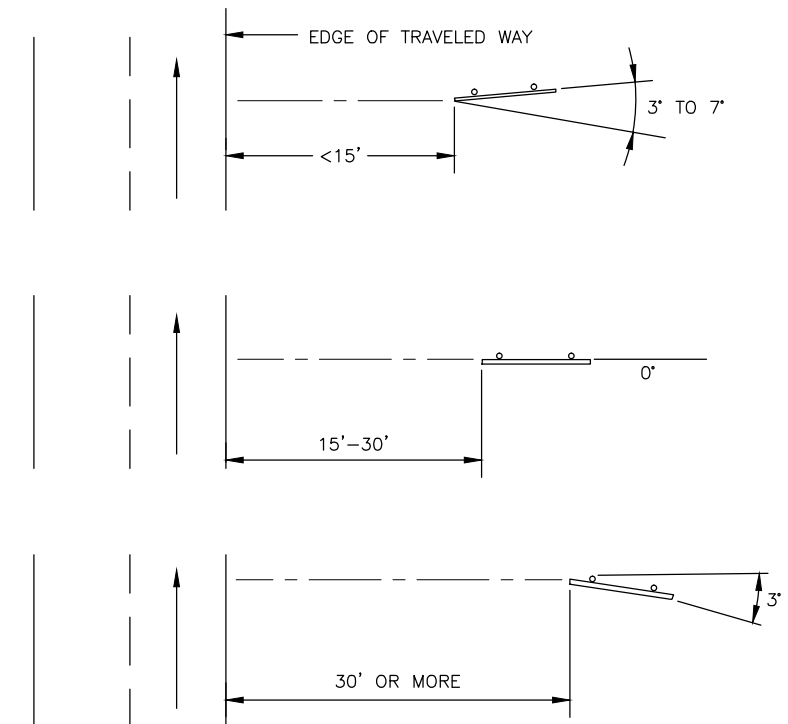
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H18	H66



STREET NAME SIGN NOTES:

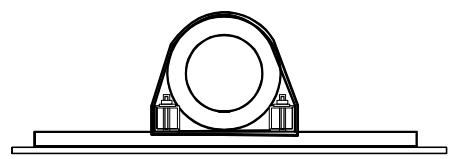
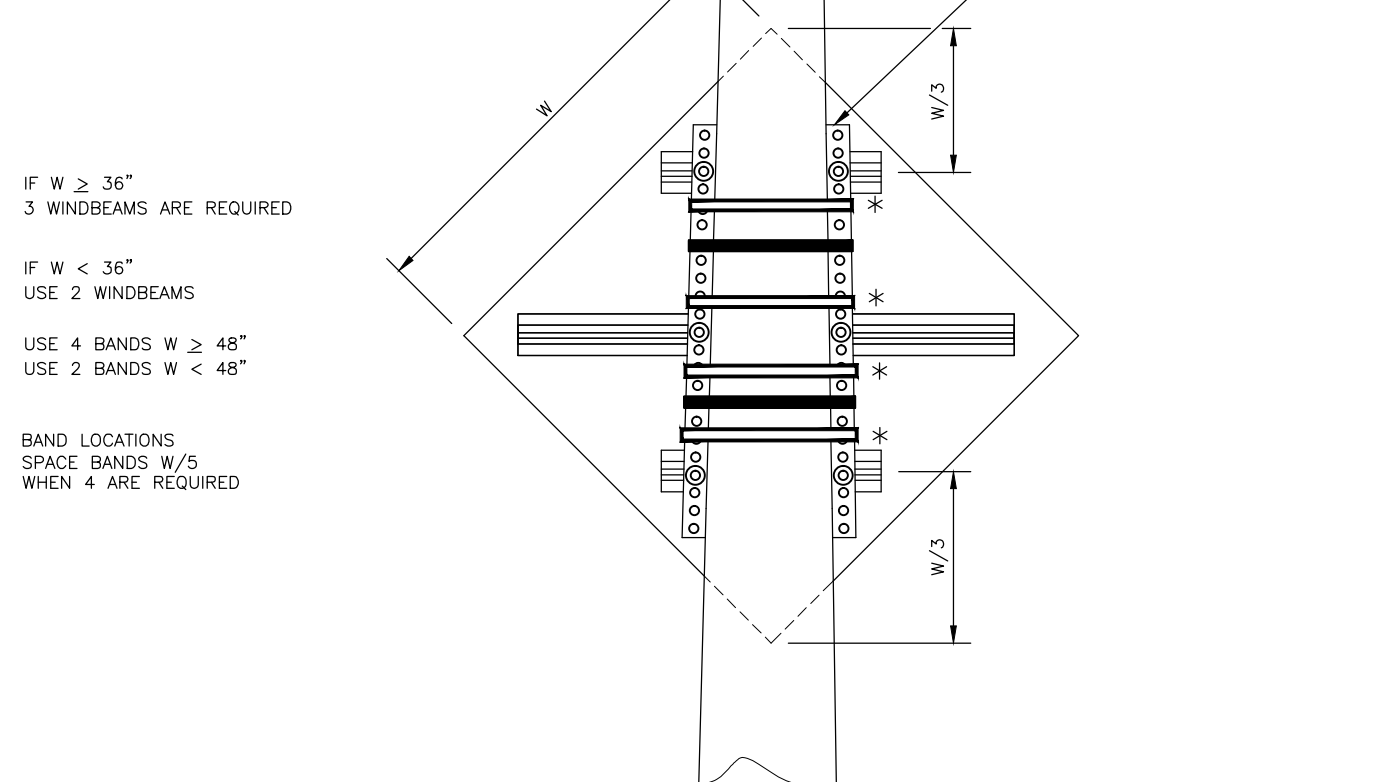
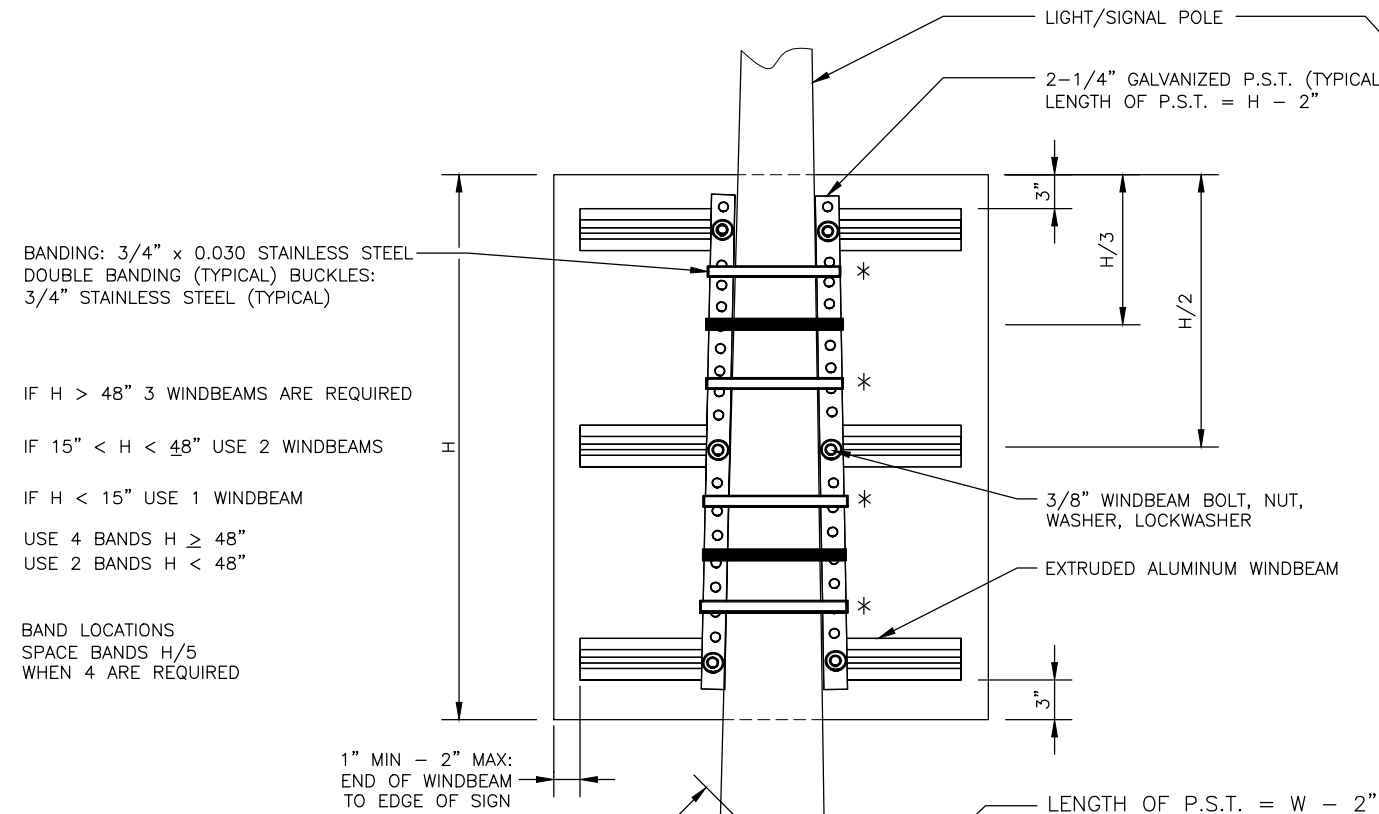
1. VERTICALLY SEPARATE MULTIPLE SIGNS MOUNTED ON THE SAME POST BY 2 1/2 INCHES.
2. WHERE CALLED FOR INSTALL W14-2aL AND W14-2aR SIGN BACK TO BACK USING END BRACING PER STANDARD PLAN S-01.02. MOUNT BELOW THE CROSS STREET NAME SIGNS.
3. WHERE A SINGLE SIGN THAT IS NOT MOUNTED BACK TO BACK IS CALLED FOR IN THE SIGNING SUMMARY, INSTALL USING FLAT GALVANIZED STEEL BRACE(S) IN ACCORDANCE WITH STANDARD PLAN S-01.02.

STREET NAME SIGN
NTS

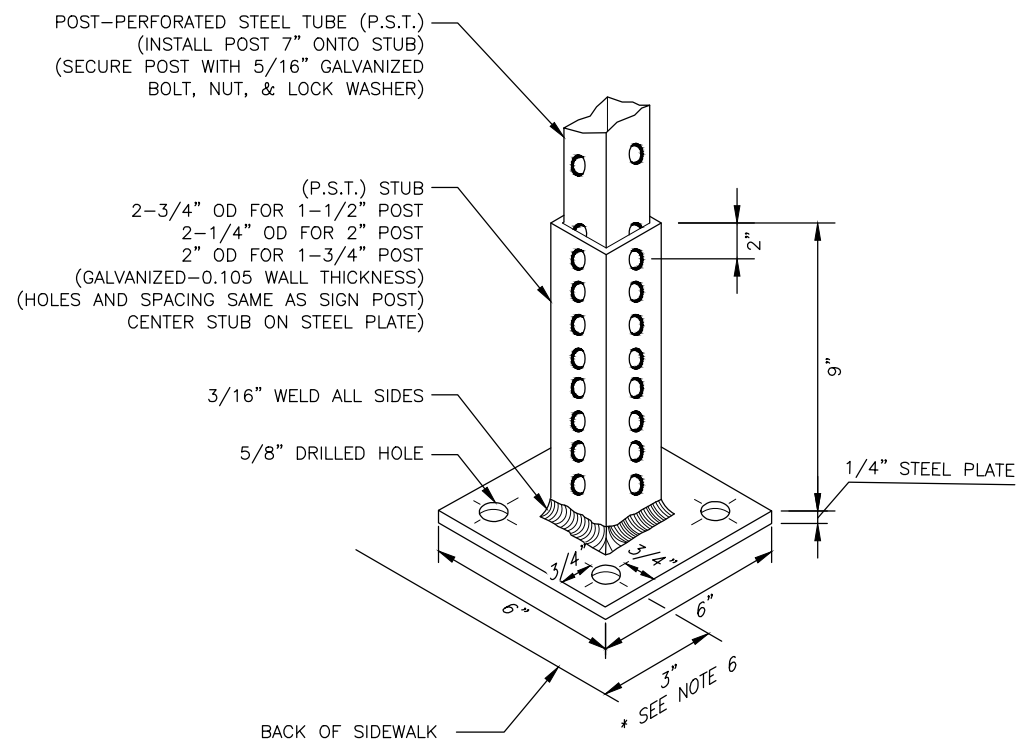


SIGN INSTALLATION ANGLES
NTS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H19	H66



NOTE:
ATTACH SIGN TO WINDBEAMS WITH 3/16" RIVETS AT 4" STAGGERED SPACING.



- NOTES:**
1. DRILL FOUR (4) 1/2" HOLES IN SIDEWALK USING PLATE AS TEMPLATE. (DEPTH AS REQUIRED)
 2. INSTALL STUB AND PLATE WITH FOUR (4) HILT EXPANSION ANCHORS CAT. NO. HDI 3/8" OR APPROVED EQUAL. USE FOUR (4) 3/8" GALVANIZED BOLTS AND FLAT WASHERS.
 3. DO NOT SHIM VASE, PLUMB STUB BY HEATING AT PLATE.
 4. PAINT STUB AND BASE WITH APPROVED MATERIAL AFTER INSTALLATION.
 5. INSTALL STUBS FOR NO PARKING SIGNS AT 45° FACING TRAFFIC.
 6. WHEN INSTALLED IN A MEDIAN CENTER THE POST IN THE MEDIAN. CONFIRM INSTALLATION LOCATION WITH THE ENGINEER PRIOR TO DRILLING HOLES.

SIDEWALK MOUNTING STUB FOR SIGN POST
NTS

LIGHT/SIGNAL POLE SIGN FRAMING & MOUNTING DETAILS
NTS

SIGN DETAILS
3 OF 3

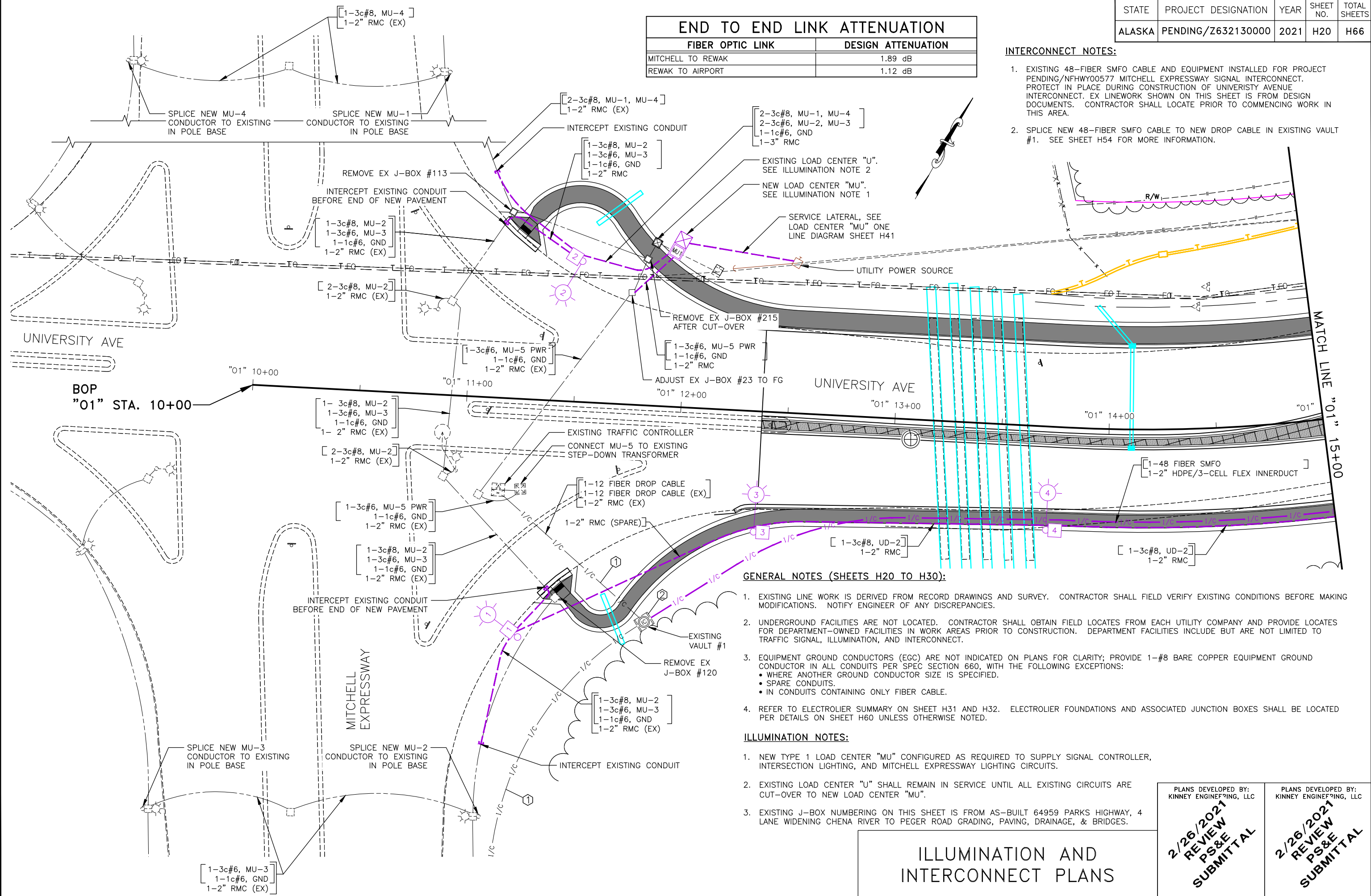
PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
**2/26/2021
REVIEW
PS&E
SUBMITTAL**

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STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H20	H66

END TO END LINK ATTENUATION	
FIBER OPTIC LINK	DESIGN ATTENUATION
MITCHELL TO REWAK	1.89 dB
REWAK TO AIRPORT	1.12 dB

- INTERCONNECT NOTES:**
- EXISTING 48-FIBER SMFO CABLE AND EQUIPMENT INSTALLED FOR PROJECT PENDING/NFHWHY00577 MITCHELL EXPRESSWAY SIGNAL INTERCONNECT. PROTECT IN PLACE DURING CONSTRUCTION OF UNIVERSITY AVENUE INTERCONNECT. EX LINWORK SHOWN ON THIS SHEET IS FROM DESIGN DOCUMENTS. CONTRACTOR SHALL LOCATE PRIOR TO COMMENCING WORK IN THIS AREA.
 - SPLICE NEW 48-FIBER SMFO CABLE TO NEW DROP CABLE IN EXISTING VAULT #1. SEE SHEET H54 FOR MORE INFORMATION.



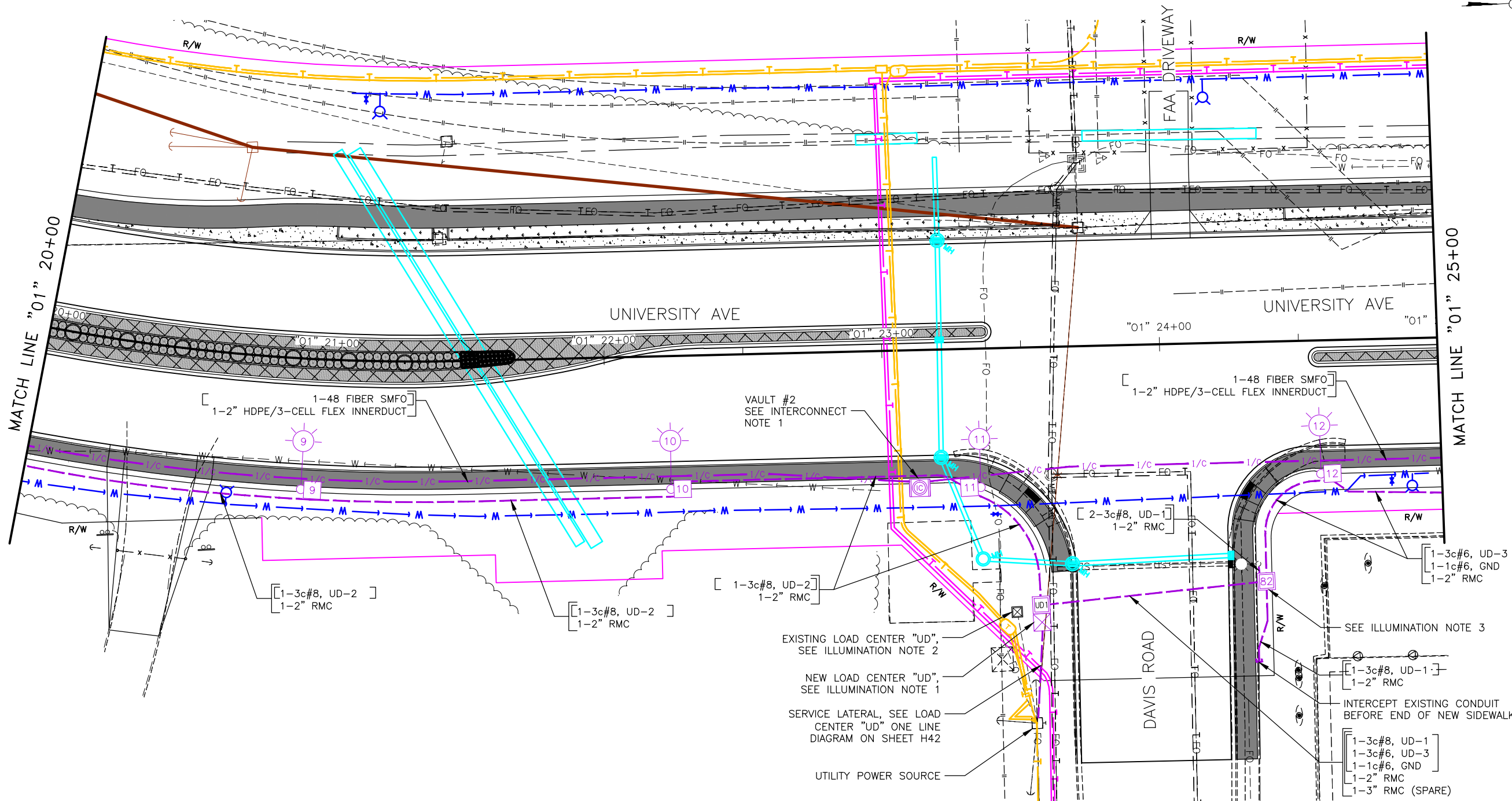
- GENERAL NOTES (SHEETS H20 TO H30):**
- EXISTING LINE WORK IS DERIVED FROM RECORD DRAWINGS AND SURVEY. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS BEFORE MAKING MODIFICATIONS. NOTIFY ENGINEER OF ANY DISCREPANCIES.
 - UNDERGROUND FACILITIES ARE NOT LOCATED. CONTRACTOR SHALL OBTAIN FIELD LOCATES FROM EACH UTILITY COMPANY AND PROVIDE LOCATES FOR DEPARTMENT-OWNED FACILITIES IN WORK AREAS PRIOR TO CONSTRUCTION. DEPARTMENT FACILITIES INCLUDE BUT ARE NOT LIMITED TO TRAFFIC SIGNAL, ILLUMINATION, AND INTERCONNECT.
 - EQUIPMENT GROUND CONDUCTORS (EGC) ARE NOT INDICATED ON PLANS FOR CLARITY; PROVIDE 1-#8 BARE COPPER EQUIPMENT GROUND CONDUCTOR IN ALL CONDUITS PER SPEC SECTION 660, WITH THE FOLLOWING EXCEPTIONS:
 - WHERE ANOTHER GROUND CONDUCTOR SIZE IS SPECIFIED.
 - SPARE CONDUITS.
 - IN CONDUITS CONTAINING ONLY FIBER CABLE.
 - REFER TO ELECTROLIER SUMMARY ON SHEET H31 AND H32. ELECTROLIER FOUNDATIONS AND ASSOCIATED JUNCTION BOXES SHALL BE LOCATED PER DETAILS ON SHEET H60 UNLESS OTHERWISE NOTED.

- ILLUMINATION NOTES:**
- NEW TYPE 1 LOAD CENTER "MU" CONFIGURED AS REQUIRED TO SUPPLY SIGNAL CONTROLLER, INTERSECTION LIGHTING, AND MITCHELL EXPRESSWAY LIGHTING CIRCUITS.
 - EXISTING LOAD CENTER "U" SHALL REMAIN IN SERVICE UNTIL ALL EXISTING CIRCUITS ARE CUT-OVER TO NEW LOAD CENTER "MU".
 - EXISTING J-BOX NUMBERING ON THIS SHEET IS FROM AS-BUILT 64959 PARKS HIGHWAY, 4 LANE WIDENING CHENA RIVER TO PEGER ROAD GRADING, PAVING, DRAINAGE, & BRIDGES.

ILLUMINATION AND INTERCONNECT PLANS

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 2/26/2021 REVIEW PS&E SUBMITTAL	PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 2/26/2021 REVIEW PS&E SUBMITTAL
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STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H22	H66

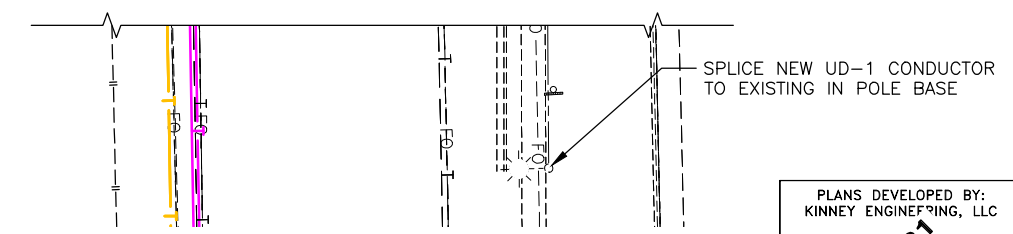


ILLUMINATION NOTES:

1. NEW TYPE 1 LOAD CENTER "UD" CONFIGURED AS REQUIRED TO SUPPLY NEW AND EXISTING STREET LIGHTING, AND FUTURE INTERSECTION SIGNALS AND LIGHTING.
2. EXISTING LOAD CENTER "UD" SHALL REMAIN IN SERVICE UNTIL ALL EXISTING CIRCUITS ARE CUT-OVER TO NEW LOAD CENTER "UD".
3. REPLACE EXISTING TYPE IA J-BOX WITH NEW TYPE II J-BOX AT SAME LOCATION NEAR ELECTROLIER, AS REQUIRED TO INTERCEPT DAVIS ROAD LIGHTING CIRCUITS.

INTERCONNECT NOTE:

1. PROVIDE SPLICE KIT AND EXPRESS ALL BUFFER TUBES IN VAULT #2.



ILLUMINATION AND INTERCONNECT PLANS

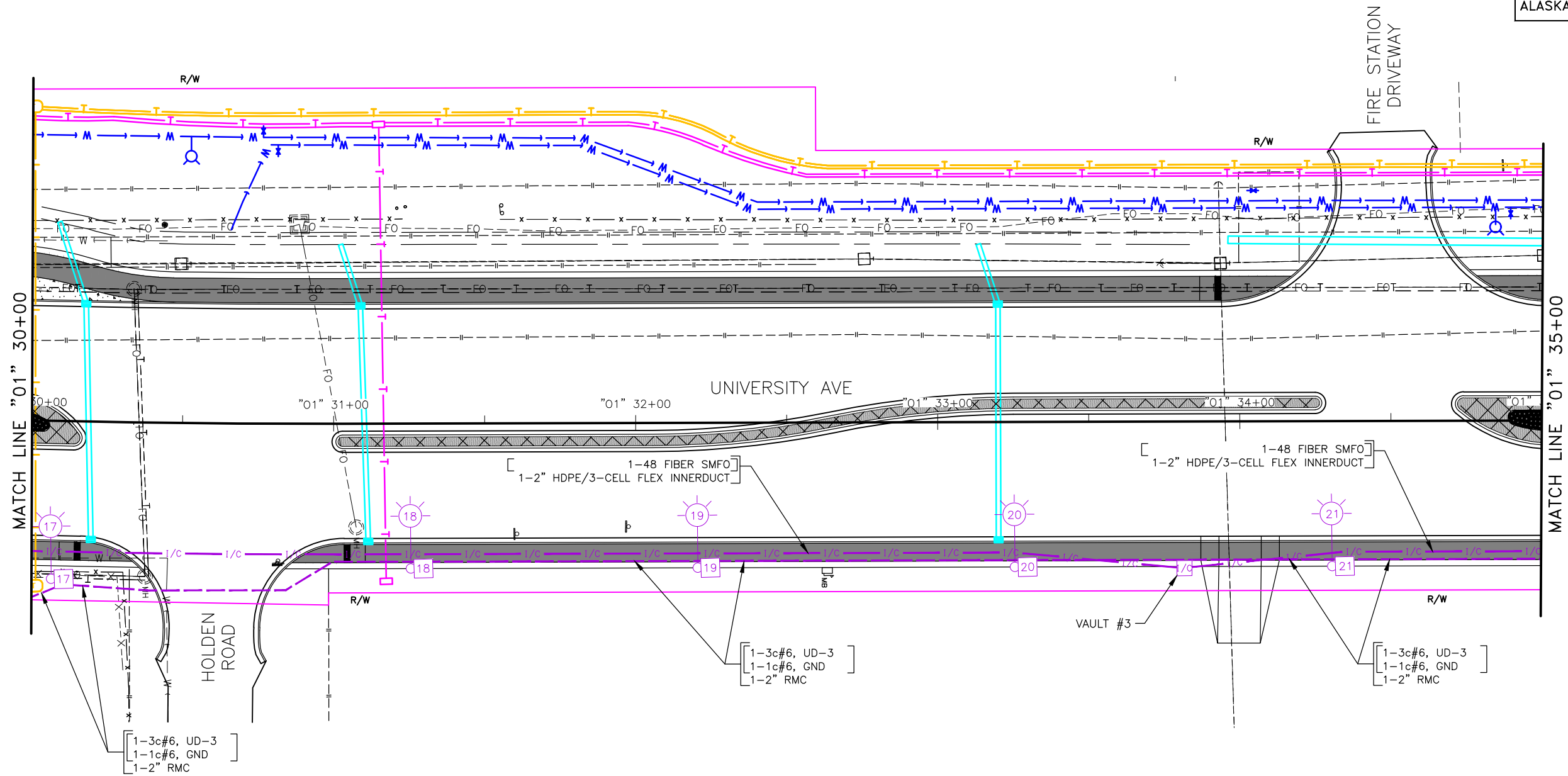
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STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H24	H66



ILLUMINATION AND INTERCONNECT PLANS

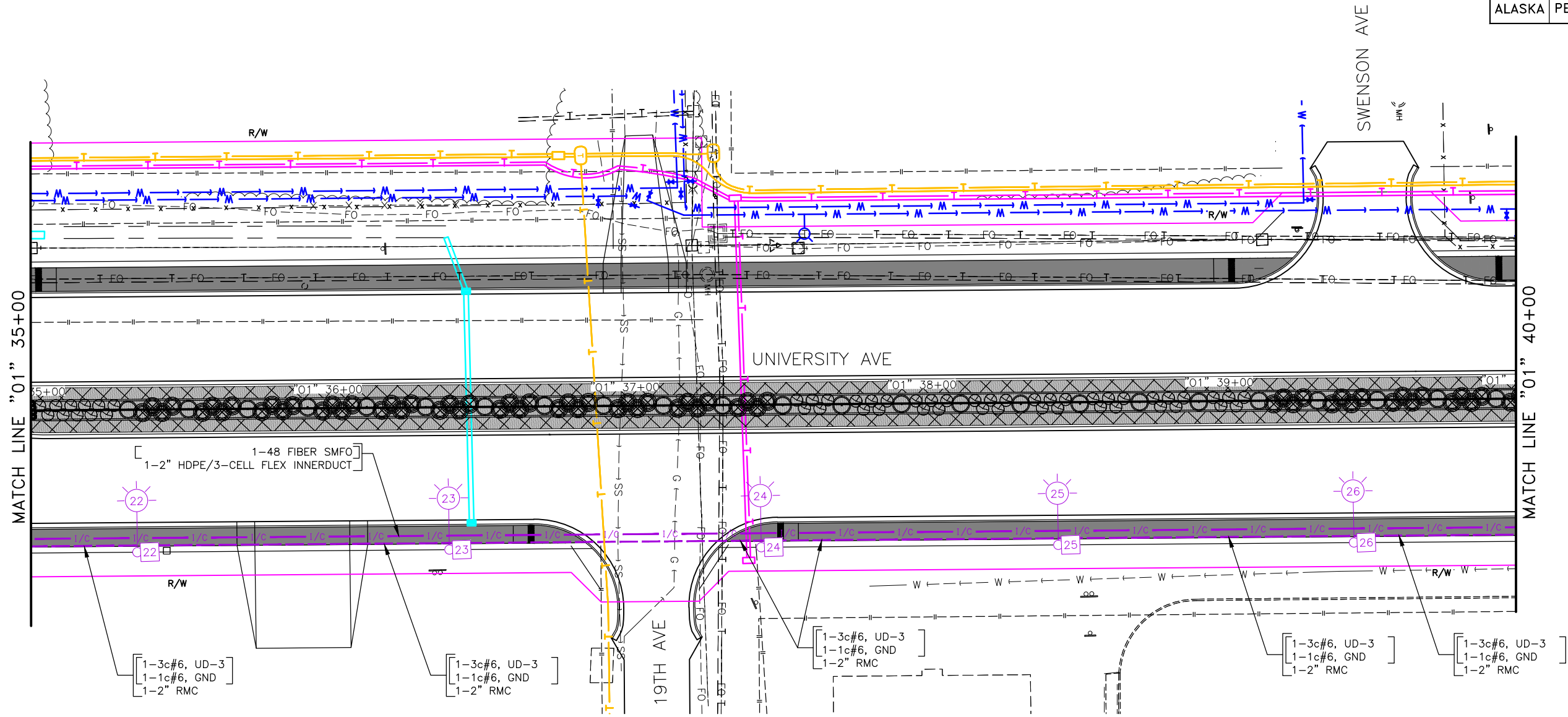
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ALASKA	PENDING/Z632130000	2021	H25	H66



ILLUMINATION AND INTERCONNECT PLANS

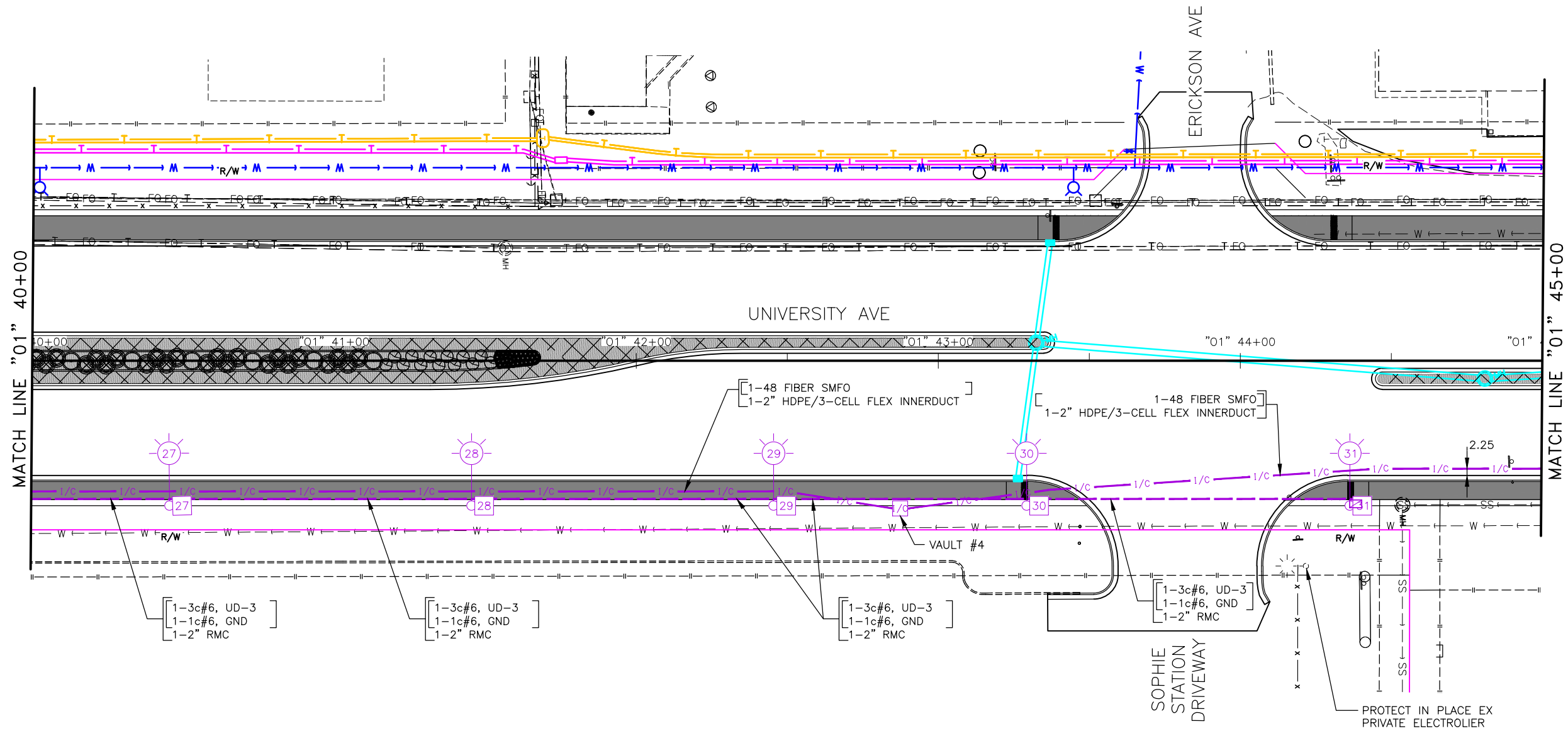
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STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H26	H66

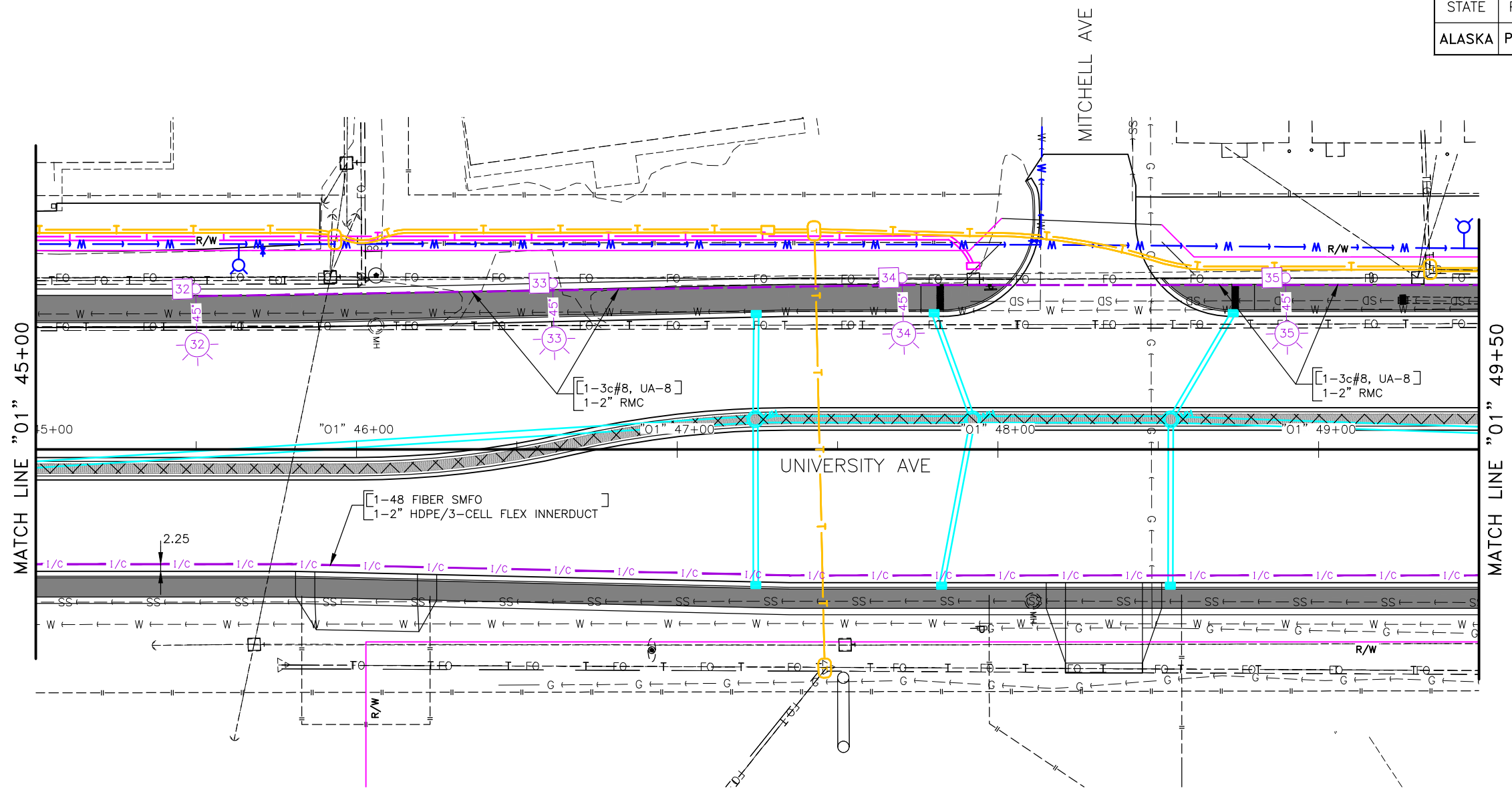


ILLUMINATION AND INTERCONNECT PLANS

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STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H27	H66

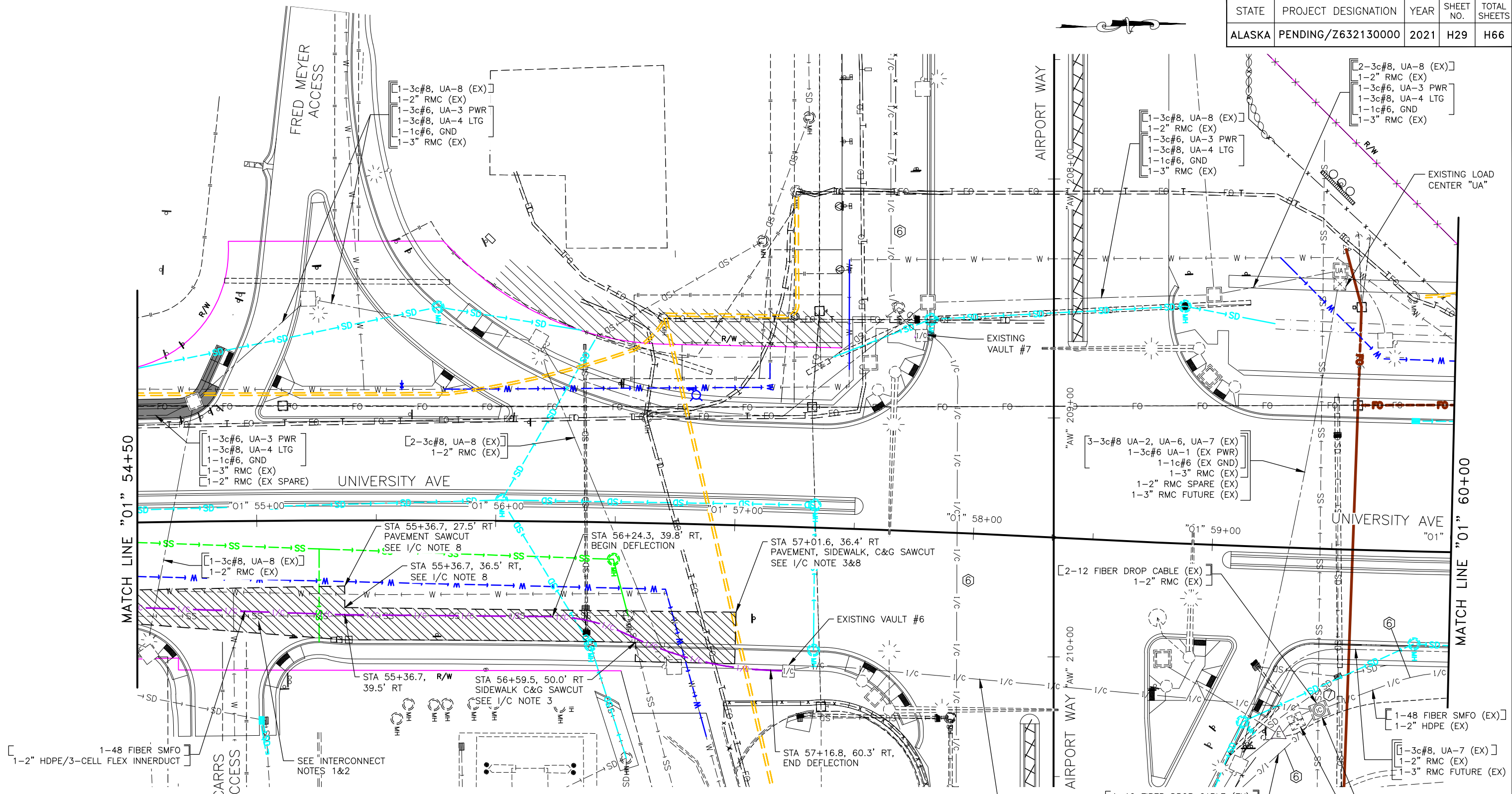


ILLUMINATION AND INTERCONNECT PLANS

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STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H29	H66



INTERCONNECT NOTES:

- REMOVE AND REPLACE ASPHALT, ATB, SIDEWALK, AND CURB AND GUTTER AS SHOWN TO ALLOW FOR TRENCHING AND INSTALLATION OF INTERCONNECT. NEW ASPHALT AND ATB THICKNESSES SHALL MATCH THICKNESSES SHOWN ON B SHEETS. RECONSTRUCT SIDEWALK PER DETAIL ON G20. RECONSTRUCT CURB AND GUTTER IN KIND PER DETAIL ON G15. PROVIDE DOWELS BETWEEN INTERFACE OF EXISTING AND NEW CONCRETE PER DETAIL ON G20. MATCH EXISTING SLOPES AND ELEVATIONS.
- PAVEMENT REMOVAL AND REPLACEMENT QUANTITIES (APPLIES TO H28-H29). WORK SHALL BE PAID FOR UNDER RESPECTIVE PAY ITEMS:
 REMOVAL OF PAVEMENT: 472 SY
 HMA, TYPE II; CLASS B: 52 TONS
 ATB (2 FT TRENCH): 13 TONS
 SIDEWALK (REMOVE AND 4" THICK NEW): 28 SY
 C&G (REMOVE AND NEW): 42 LF
- SAWCUT SIDEWALK AND CURB AND GUTTER ON EXISTING JOINTS. PARTIAL SLAB REMOVAL IS NOT PERMITTED. REMOVAL AND REPLACEMENT QUANTITIES WILL NEED TO BE FIELD VERIFIED.
- PROTECT IN PLACE EXISTING UTILITIES WHERE PROPOSED INTERCONNECT CROSSES.
- REMOVE ABANDONED UTILITIES WHERE IN CONFLICT WITH INSTALLATION. WORK SHALL BE SUBSIDIARY TO 662 PAY ITEM.
- PRESERVE AND PROTECT EXISTING INTERCONNECT AND CONDUIT.
- SPLICE NEW 48 FIBER SMFO CABLE TO EXISTING 12 FIBER DROP CABLE IN EXISTING VAULT #8. SEE SHEET H55 FOR MORE INFORMATION.
- MAKE AN INITIAL SAWCUT WITHIN 1 FT MIN. OF LOCATION SHOWN TO ALLOW FOR TRENCHING. PRIOR TO REINSTALLING NEW ASPHALT MAKE A FINAL SAWCUT AT LOCATION SHOWN. TACK COAT ALL FACES AND BETWEEN HMA AND ATB PRIOR TO INSTALLATION.

ILLUMINATION AND INTERCONNECT PLANS

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 2/26/2021 REVIEW PS&E SUBMITTAL	PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 2/26/2021 REVIEW PS&E SUBMITTAL
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STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H31	H66

ELECTROLIER SUMMARY

ELECTROLIER SUMMARY NOTES:

LUMINAIRE No.	ALIGN.	STATION	OFFSET	POLE TYPE	BASE TYPE	LUMINAIRE			DIMMING (NOTE 9)	CIRCUIT	MOUNT HEIGHT	MAST ARM LENGTH	REMARKS
						TYPE	VOLTAGE	WATTAGE					
1	"01"	11+29.6	R	STP	CIDH	B	480V	200W		MU-2	40'	12'	ORIENT MAST ARM PARALLEL W/ PED. CROSSWALK
2	"01"	11+50.7	65.7' LT	STP	CIDH	B	480V	200W		MU-2	40'	12'	ORIENT MAST ARM PARALLEL W/ PED. CROSSWALK. OFFSET DIFFERS TO PROVIDE 5 FT OF CLEARANCE TO UG DUCT
3	"01"	12+36.9	R	STP	CIDH	A	480V	245W		UD-2	40'	22'	
4	"01"	13+73.0	R	STP	CIDH	A	480V	245W		UD-2	40'	22'	
5	"01"	15+13.7	L	STP	CIDH	A	480V	245W		UD-2	40'	22'	
6	"01"	16+56.1	L	STP	CIDH	A	480V	245W		UD-2	40'	22'	
7	"01"	17+94.5	L	STP	CIDH	A	480V	245W		UD-2	40'	22'	
8	"01"	19+35.4	L	STP	CIDH	A	480V	245W		UD-2	40'	22'	
9	"01"	20+93.3	47.1' RT	STP	CIDH	A	480V	245W		UD-2	40'	22'	OFFSET DIFFERS TO PROVIDE 5 FT CLEARANCE TO WATER LINE
10	"01"	22+23.0	R	STP	CIDH	A	480V	245W		UD-2	40'	22'	
11	"01"	23+34.5	49.9' RT	STP	CIDH	A	480V	245W		UD-2	40'	22'	OFFSET DIFFERS TO PROVIDE 5 FT CLEARANCE TO WATER LINE
12	"01"	24+57.0	R	STP	CIDH	A	480V	245W		UD-3	40'	22'	
13	"01"	25+56.9	55.5' RT	STP	CIDH	A	480V	245W		UD-3	40'	22'	OFFSET DIFFERS TO PROVIDE 5 FT CLEARANCE TO WATER LINE
14	"01"	26+61.9	55.5' RT	STP	CIDH	A	480V	245W		UD-3	40'	22'	OFFSET DIFFERS TO PROVIDE 5 FT CLEARANCE TO WATER LINE
15	"01"	27+66.7	55.5' RT	STP	CIDH	A	480V	245W		UD-3	40'	22'	OFFSET DIFFERS TO PROVIDE 5 FT CLEARANCE TO WATER LINE
16	"01"	28+71.9	55.5' RT	STP	CIDH	A	480V	245W		UD-3	40'	22'	OFFSET DIFFERS TO PROVIDE 5 FT CLEARANCE TO WATER LINE
17	"01"	30+07.7	52.3' RT	STP	CIDH	A	480V	245W		UD-3	40'	22'	OFFSET DIFFERS TO PROVIDE 5 FT CLEARANCE TO WATER LINE
18	"01"	31+25.5	R	STP	CIDH	A	480V	245W		UD-3	40'	22'	
19	"01"	32+20.5	R	STP	CIDH	A	480V	245W		UD-3	40'	22'	
20	"01"	33+25.5	R	STP	CIDH	A	480V	245W		UD-3	40'	22'	
21	"01"	34+30.5	R	STP	CIDH	A	480V	245W		UD-3	40'	22'	
22	"01"	35+35.5	R	STP	CIDH	A	480V	245W		UD-3	40'	22'	
23	"01"	36+40.5	R	STP	CIDH	A	480V	245W		UD-3	40'	22'	
24	"01"	37+45.5	R	STP	CIDH	A	480V	245W		UD-3	40'	22'	
25	"01"	38+45.5	R	STP	CIDH	A	480V	245W		UD-3	40'	22'	
26	"01"	39+45.0	R	STP	CIDH	A	480V	245W		UD-3	40'	22'	
27	"01"	40+45.5	R	STP	CIDH	A	480V	245W		UD-3	40'	22'	
28	"01"	41+45.5	R	STP	CIDH	A	480V	245W		UD-3	40'	22'	
29	"01"	42+45.5	R	STP	CIDH	A	480V	245W		UD-3	40'	22'	
30	"01"	43+29.2	R	STP	CIDH	A	480V	245W		UD-3	40'	22'	
31	"01"	44+36.2	R	STP	CIDH	A	480V	245W		UD-3	40'	22'	
36	"01"	51+51.2	R	STP	CIDH	B	480V	200W	70%	UA-4	40'	10'	INSTALL CENTER OF FOUNDATION 2 FT BEHIND BACK OF SIDEWALK
37	"01"	62+16.4	R	STP	CIDH	A	480V	245W		UA-7	40'	22'	

- LUMINAIRES FOR CONTINUOUS STREET LIGHTING SHALL BE SUITABLE FOR 480V SUPPLY, AND COMPLY WITH SPECIAL PROVISIONS OF SECTION 740-2.18. LUMINAIRES SHALL PROVIDE THE AVERAGE INITIAL LUMINANCE, ILLUMINANCE, AND UNIFORMITIES SPECIFIED IN THE PERFORMANCE CRITERIA SCHEDULES. PROVIDE LIGHTING CALCULATIONS USING THE MANUFACTURER'S CURRENT PUBLISHED PHOTOMETRIC DATA IN ACCORDANCE WITH SPECIAL PROVISIONS OF SECTION 740-2.18 FOR LED ROADWAY LUMINAIRES.
 - PRIOR TO INSTALLATION, CONTRACTOR SHALL REQUEST LOCATES FOR EXISTING UNDERGROUND UTILITIES, AND RECEIVE WRITTEN CONFIRMATION THAT ALL FACILITIES HAVE BEEN IDENTIFIED.
 - POLE LOCATIONS SHALL BE STAKED AND APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. ADJUST POLE LOCATIONS AS DIRECTED BY THE ENGINEER. MINOR RELOCATIONS OF FOUNDATIONS, CONDUIT, AND JUNCTION BOXES SHALL BE CONSIDERED SUBSIDIARY TO THE SECTION 660.0003.0000 PAY ITEM.
 - JUNCTION BOXES AND CONDUIT RUNS SHOWN IN PLANS FOR THE LIGHTING SYSTEM ARE CONSIDERED SUBSIDIARY TO THE 660.0003.0000 HIGHWAY LIGHTING SYSTEM PAY ITEM.
 - UNLESS OTHERWISE NOTED, DESIGN MOUNTING HEIGHT AS SCHEDULED SHALL BE MEASURED FROM THE FINISHED ROAD SURFACE TO THE LUMINAIRE.
 - PROVIDE COBRA HEAD AND OFFSET ELECTROLIERS IN ACCORDANCE WITH STANDARD DRAWING L-03.10. PROVIDE 45' ELECTROLIERS PER DETAIL ON SHEET H58. SEE SHEET H61 FOR CIDH FOUNDATION DETAIL.
 - ORIENT POLE WITH LUMINAIRE MAST ARMS AS INDICATED ON THE PLANS, TYPICALLY PERPENDICULAR TO THE ROADWAY CENTERLINE, UNLESS A SPECIFIC ORIENTATION IS OTHERWISE NOTED.
 - ALL LED LUMINAIRES SHALL BE FURNISHED WITH A 0-10V DIMMING DRIVER. ALL LUMINAIRES SHALL BE FURNISHED WITH A NEMA 7-PIN TWIST-LOCK PHOTOCELL RECEPTACLE AND WIRELESS CONTROL NODE.
 - UNLESS OTHERWISE NOTED, LUMINAIRES SHALL NOT BE DIMMED FROM FULL OUTPUT.
 - REFER TO LIGHT POLE WIDENING DETAILS ON SHEET H60 FOR TYPICAL ELECTROLIER INSTALLATION, UNLESS OTHERWISE NOTED.
 - SEE TRAFFIC SIGNAL SHEETS FOR ADDITIONAL LUMINAIRES MOUNTED ON TRAFFIC SIGNAL POLE STRUCTURES.
 - UNLESS OTHERWISE NOTED, ALL ELECTROLIERS SHALL BE MOUNTED USING FRANGIBLE COUPLINGS.
 - ALL LIGHTING SYSTEM POLE SHAFTS SHALL BE ONE PIECE.
- ABBREVIATIONS:**
 CIDH CAST IN DRILLED HOLE, SEE SHEET H61
 STP STEEL TAPERED POLE

ELECTROLIER SUMMARY
1 OF 2

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

**2/26/2021
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STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H32	H66

45 DEGREE ELECTROLIER SUMMARY

LUMINAIRE No.	ALIGN.	STATION	OFFSET	POLE TYPE	BASE TYPE	LUMINAIRE			DIMMING (NOTE 9)	CIRCUIT	MOUNT HEIGHT	MAST ARM LENGTH	REMARKS
						TYPE	VOLTAGE	WATTAGE					
32	"01"	45+49.9	L	STP	CIDH	A	480V	245W		UA-8	40'	22'	
33	"01"	46+61.1	L	STP	CIDH	A	480V	245W		UA-8	40'	22'	
34	"01"	47+70.1	L	STP	CIDH	A	480V	245W		UA-8	40'	22'	
35	"01"	48+89.6	L	STP	CIDH	A	480V	245W		UA-8	40'	22'	

STREET LIGHTING DESIGN CRITERIA

ROADWAY CHARACTERISTICS		INTERSECTION ILLUMINANCE CRITERIA	
ROADWAY LIGHTING STANDARD:	IESNA RP-8-2014	UNIVERSITY AVE/REWAK DRIVE, ILLUMINANCE (MEDIUM PED. CONFLICT):	Eavg >= 2.0 FC Eavg/Emin <= 3.0
CALCULATION ZONE:	ENTIRE ROADWAY	UNIVERSITY AVE/DAVIS ROAD, ILLUMINANCE (LOW PED. CONFLICT):	Eavg >= 1.5 FC Eavg/Emin <= 3.0
STREET CLASSIFICATION (UNIV. AVE.):	MAJOR		
PEDESTRIAN AREA CLASSIFICATION:	MEDIUM (UNLESS NOTED OTHERWISE)		
PAVEMENT CLASSIFICATION:	R3		
TRAFFIC FLOW:	2-WAY		
LANE WIDTH:	12 FT.		
NO. OF LANES, LEFT / RIGHT:	2 BOTH DIRECTIONS		
MEDIAN:	VARIES		
ROADWAY LUMINANCE CRITERIA		PEDESTRIAN CROSSWALK ILLUMINANCE CRITERIA	
AVERAGE MAINTAINED (Eavg):	0.9 CD/SQ M	CROSSWALKS AT SIGNALIZED INTERSECTIONS, MEDIUM PEDESTRIAN CONFLICT:	Emin,v >= 0.2 FC METERED AT 5FT HEIGHT AND 1.64 FT SPACING IN DIRECTION OF APPROACHING TRAFFIC, CENTERED IN CROSSWALK
MINIMUM MAINTAINED (Lmin):	0.3 CD/SQ M	CROSSWALKS AT NON-SIGNALIZED, UNCONTROLLED TRAFFIC FREE-RIGHT SLIP LANES, HIGH PEDESTRIAN CONFLICT:	Emin,v >= 1.0 FC METERED AT 5FT HEIGHT AND 1.64 FT SPACING IN DIRECTION OF APPROACHING TRAFFIC, CENTERED IN CROSSWALK
Lavg/Lmin RATIO (MAXIMUM):	<= 3.0		
Lmax/Lmin RATIO (MAXIMUM):	<= 5.0		
Lvmax/Lavg VEILING LUMINANCE RATIO (MAXIMUM):	<= 0.3		
ROADWAY ILLUMINANCE CRITERIA		LUMINAIRE DEPRECIATION	
APPLICABLE FOR:	CURVED ROADWAY SECTIONS ONLY	LED - TOTAL LIGHT LOSS FACTOR (LLF):	0.85
AVERAGE MAINTAINED (Eavg):	1.35 FC		
Eavg/Emin RATIO (MAXIMUM):	<= 3.0		

LUMINAIRE SCHEDULE

TYPE	MANUFACTURER & MODEL NO.	LIGHT SOURCE	IES TYPE OPTICS	INITIAL LUMENS	COLOR TEMP (CCT)	DRIVER CURRENT	VOLTAGE WATTS	POWER FACTOR	MOUNTING	REMARKS
A	CREE # RSWX-A-HT 3ME-32L-40K7-UH-N	LED	TYPE III MED.	31,100	4000K	0.51 AMPS	480V 240W	>0.9	HORIZ. TENON	
B	CREE # RSWX-A-HT- 3ME-24L-40K7-UH-N	LED	TYPE III MED.	23,800	4000K	0.42 AMPS	480V 200W	>0.9	HORIZ. TENON	
C	CREE # OSQ-A-NM- 3ME-U-40K7-UH-SV	LED	TYPE III MED.	26,583	4000K	0.45 AMPS	480V 215W	>0.9	VERT. OSQ-B-AASV MOUNT	MOUNTING ORDERED SEPARATELY FROM LUMINAIRE

NOTES:

- ALL LUMINAIRES SHALL BE FURNISHED WITH 0-10V DIMMING BALLAST, 7-PIN NEMA PHOTOCELL RECEPTACLE AND WIRELESS CONTROL NODE.
- FIXTURES SHALL BE CAPABLE OF DIMMING IN APPROXIMATELY 10% INCREMENTS, DOWN TO AT LEAST 70% OF FULL OUTPUT.

ELECTROLIER SUMMARY
2 OF 2

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

**2/26/2021
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STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H33	H66

LUMINAIRE JUNCTION BOX SUMMARY

JUNCTION BOX No.	ALIGN.	STATION	OFFSET	TYPE	CIRCUIT	REMARKS
1	"01"	11+27.1	R	1A	MU-2, MU-3	
2	"01"	11+47.1	L	1A	MU-1-MU-4	
3	"01"	12+41.0	R	1A	UD-2	
4	"01"	13+77.1	R	1A	UD-2	
5	"01"	15+09.2	L	1A	UD-2	
6	"01"	16+51.7	L	1A	UD-2	
7	"01"	17+90.0	L	1A	UD-2	
8	"01"	19+30.9	L	1A	UD-2	
9	"01"	20+97.2	R	1A	UD-2	
10	"01"	22+27.1	R	1A	UD-2	
11	"01"	23+30.4	R	1A	UD-2	
12	"01"	24+61.2	R	1A	UD-3	
13	"01"	25+61.0	R	1A	UD-3	
14	"01"	26+66.0	R	1A	UD-3	
15	"01"	27+70.8	R	1A	UD-3	
16	"01"	28+76.1	R	1A	UD-3	
17	"01"	30+11.7	R	1A	UD-3	
18	"01"	31+29.6	R	1A	UD-3	
19	"01"	32+24.6	R	1A	UD-3	
20	"01"	33+29.6	R	1A	UD-3	
21	"01"	34+34.6	R	1A	UD-3	
22	"01"	35+39.6	R	1A	UD-3	
23	"01"	36+44.6	R	1A	UD-3	
24	"01"	37+49.6	R	1A	UD-3	
25	"01"	38+49.6	R	1A	UD-3	
26	"01"	39+49.1	R	1A	UD-3	
27	"01"	40+49.6	R	1A	UD-3	
28	"01"	41+49.6	R	1A	UD-3	
29	"01"	42+49.6	R	1A	UA-8	
30	"01"	43+33.4	R	1A	UD-3	
31	"01"	44+40.4	R	1A	UD-3	
32	"01"	45+45.7	L	1A	UA-8	
33	"01"	46+57.0	L	1A	UA-8	
34	"01"	47+66.0	L	1A	UA-8	
35	"01"	48+85.5	L	1A	UA-8	
36	"01"	51+49.9	R	1A	UA-4	
37	"01"	62+20.5	R	1A	UA-7	

JUNCTION BOX SUMMARY

JUNCTION BOX No.	ALIGN.	STATION	OFFSET	TYPE	CIRCUIT	REMARKS
80	"01"	15+09.2	R	1A	UD-2	
81	"01"	19+30.9	R	1A	UD-2	
82	"01"	24+36.5	R	II	UD-1, UD-3	
83	"01"	50+40.5	L	1A	UA-4, UA-8	
84	"01"	50+58.2	R	1A	UA-4, UA-8	
85	"01"	51+30.3	L	1A	UA-3, UA-4	
86	"01"	51+63.2	R	1A	UA-4, UA-8	
87	"01"	53+03.3	L	1A	UA-3, UA-4	INSTALL AT FRONT OF SIDEWALK
MU1	"01"	11+96.0	L	II	MU-1-MU-5	INSTALL ADJACENT TO LOAD CENTER "MU"
UD1	"01"	23+55.3	R	II	UD-1-UD-3	INSTALL ADJACENT TO LOAD CENTER "UD"

JUNCTION BOX SUMMARIES

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

**2/26/2021
REVIEW
PS&E
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FILE: Z:\PROJECTS\00245_UNIV_AVE\PHASE_2\PHASE_2-SEG-2\DWGS\2\DWGS\C\SHEETS\63213_H31-H34_ILUM_SMYR.DWG PLOTTED: Feb 26, 2021 - 3:15:05 PM (Brian Lewis) KE#: 00245

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H34	H66

ELECTROLIER DEMOLITION SUMMARY			
ALIGN.	STATION	OFFSET	REMARKS
"01"	11+17.4	LT	
"01"	11+45.9	RT	
"01"	12+31.1	LT	
"01"	13+78.9	RT	
"01"	15+15.2	LT	
"01"	16+59.6	LT	
"01"	18+60.9	LT	
"01"	21+08.5	LT	
"01"	23+43.3	LT	
"01"	24+65.3	RT	
"01"	26+62.5	RT	
"01"	27+95.4	RT	
"01"	29+86.4	RT	
"01"	31+75.2	RT	
"01"	33+65.3	RT	
"01"	35+55.4	RT	
"01"	37+55.7	RT	
"01"	38+95.5	RT	
"01"	40+45.4	RT	
"01"	42+00.2	RT	
"01"	43+45.5	RT	
"01"	45+20.2	RT	
"01"	46+85.1	RT	
"01"	48+71.9	RT	SALVAGE TYPE A LUMINAIRE
"01"	49+82.8	RT	SALVAGE TYPE A LUMINAIRE
"01"	50+58.2	LT	NON-DOT; SALVAGE ELECTROLIER AND REINSTALL. SEE SHEETS H26 AND H59

SALVAGE LUMINAIRE NOTES:

1. CONTRACTOR SHALL SALVAGE 2 EA TYPE A LUMINAIRES FROM EXISTING DEMOLISHED ELECTROLIERS.
2. ANY SALVAGE FIXTURE NOT REINSTALLED SHALL BE RETURNED TO DOT MAINTENANCE. CONTRACT ERIC SLAY (907) 451-5279 TO ARRANGE FOR DELIVERY.
3. UNLESS OTHERWISE NOTED REMOVE EXISTING ELECTROLIER FOUNDATION ALONG WITH POLES.

ELECTROLIER DEMOLITION
SUMMARY

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

**2/26/2021
REVIEW
PS&E
SUBMITTAL**

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H37	H66



SEE ILLUMINATION AND INTERCONNECT PLANS FOR CONTINUATION

SEE ILLUMINATION AND INTERCONNECT PLANS FOR CONTINUATION

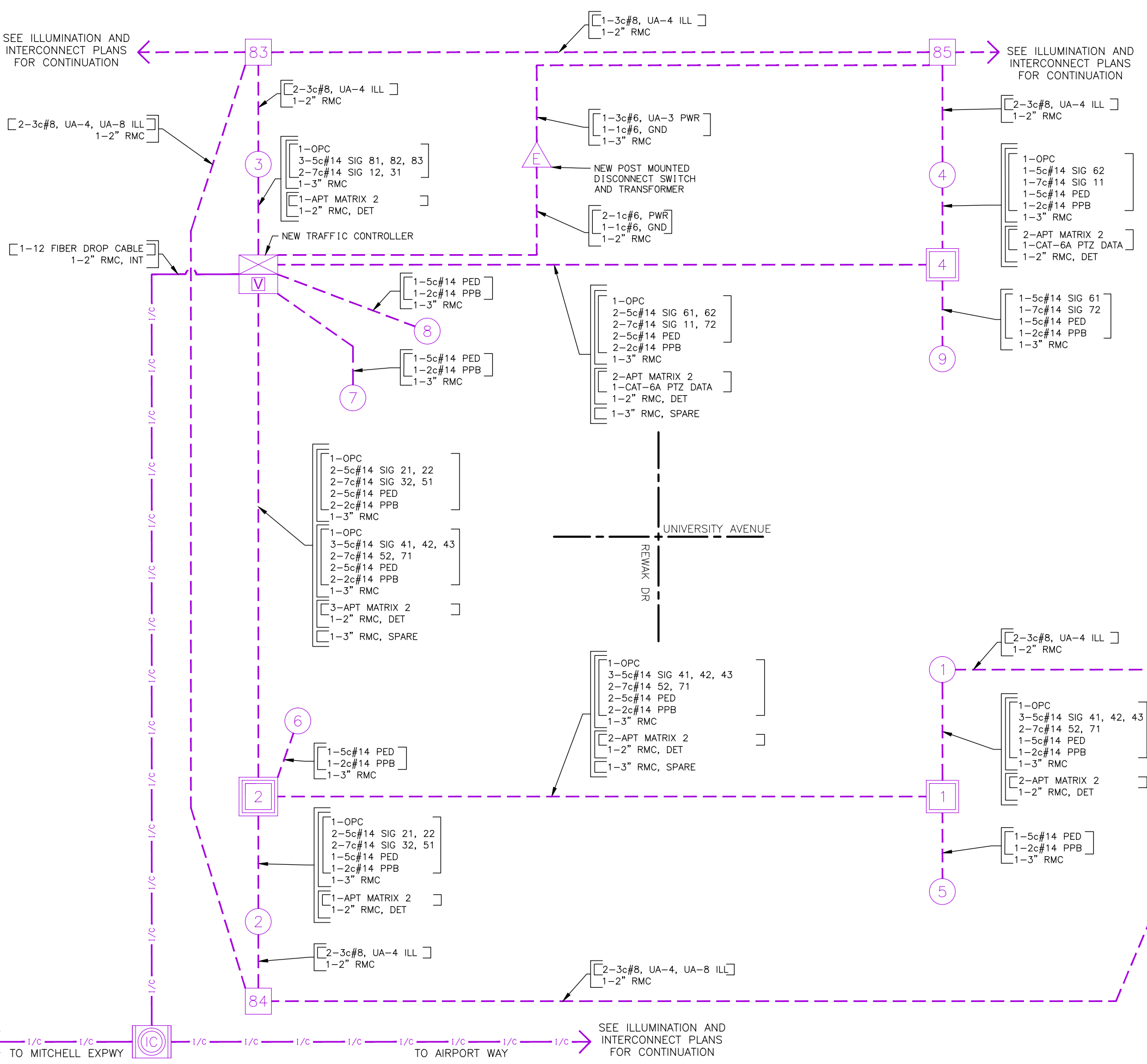
WIRING DIAGRAM CODING LEGEND		
OPC = OPTICOM CABLE	5c#14	TRAFFIC SIGNALS
LL = LOOP LEAD-IN	7c#14	PROTECTED-PERMITTED SIGNALS
INT = INTERCONNECT CABLE	5c#14	PEDESTRIAN SIGNALS
PWR = POWER CONDUCTORS FOR SIGNAL CONTROLLER	2c#14	PEDESTRIAN PUSH-BUTTON
T = TRANSFORMER	3pr#18	LOOP LEAD-IN CABLE & VDET
PTZ = PAN, TILT, ZOOM CAMERA	6pr#18	
GND = GROUND	9pr#18	
ILL = ILLUMINATION	15pr#18	
RMC = RIGID METAL CONDUIT	3c#8	ILLUMINATION
PVC = POLYVINYLCHLORIDE CONDUIT	3c#6	SIGNAL POWER
HDPE= HIGH DENSITY POLYETHYLENE	1c#8	BARE COPPER GROUND
PPB = PEDESTRIAN PUSH-BUTTON	18pr#19	PE-39 INTERCONNECT CABLE
SIG# = SIGNAL HEAD NUMBER	1c#6	BARE COPPER GROUND
PED = PEDESTRIAN SIGNAL	APT MATRIX 2	RDET HOME RUN CABLE
DET = DETECTION CONDUIT	CAT-6A	PTZ DATA
F = FUTURE USE	SMFO	SINGLE MODE FIBER OPTIC
VDET = VIDEO DETECTION		
EX = EXISTING		
AAWF = ACTIVE ADVANCED WARNING FLASHER		

NOTES:

- EXISTING SIGNAL LINE WORK IS FROM A COMBINATION OF SURVEY, AS-BUILTS AND SITE VISITS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS BEFORE MAKING MODIFICATIONS. NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
- INSTALL 1-1c#8 BARE COPPER GROUND CONDUCTOR IN ALL CONDUITS UNLESS ANOTHER GROUND CONDUCTOR IS SPECIFIED.
- SEE SHEET H55 FOR INTERCONNECT SPLICE DETAIL.
- POST MOUNTED 480/120V STEP-DOWN TRANSFORMER WITH PRIMARY AND SECONDARY DISCONNECTS. SEE SHEET H40 FOR SIGNAL CONTROLLER TRANSFORMER AND DISCONNECT DETAIL. INSTALLATION SHALL BE PAID FOR UNDER 661.0006.0000.
- ALL REQUIRED CONDUIT AND WIRING SHOWN ON THIS SHEET TO INSTALL FUNCTIONAL TRAFFIC SIGNAL SYSTEM COMPLETE, WITH EXCEPTION TO INSTALLATION OF LIGHTING JUNCTION BOXES 83-86, SHALL BE PAID FOR UNDER 660.0001.0000. INSTALLATION OF LIGHTING JUNCTION BOXES IS PAID FOR UNDER 660.0003.0000. THE CONDUIT AND WIRING REQUIRED FOR CONTINUATION OF SIGNAL POWER AND INTERSECTION LIGHTING TO REWAK DRIVE FROM EXISTING LOAD CENTER "UA" SHALL BE PAID FOR UNDER 660.0003.0000. SEE SHEETS H28-H29 FOR ROUTING OF SIGNAL POWER AND INTERSECTION LIGHTING FROM EXISTING LOAD CENTER "UA".

WIRING LEGEND:

- INDICATES NEW INTERCONNECT CONDUIT RUN
- INDICATES EXISTING CONDUIT RUN
- INDICATES NEW RIGID METAL CONDUIT RUN(S)
- INDICATES THE CONNECTION BETWEEN EXISTING AND NEW CONDUIT



REWAK DRIVE WIRING DIAGRAM

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

**2/26/2021
REVIEW
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FILE: Z:\PROJECTS\00245_UNIV_AVE\PHASE_2\SEG-2\DWGS\C\SHETS\63213_H38-H39_REWAK_SCHEDULE.DWG PLOTTED: Feb 26, 2021 - 3:16:20 PM (Biron Lewis) KE#: 00245

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H39	H66

BASE & JUNCTION BOX SCHEDULE												
LOCATION		DESCRIPTION			BASE TYPE*			JUNCTION BOX TYPE				REMARKS
STATION	OFFSET	POLE NO.	JUNCTION BOX NO.	CONTROLLER	CIDH	P	A	IA	II	III	IV	
"01" 51+52.5	53.9' RT	1			X							SEE NOTE 2
"01" 50+56.5	64.0' RT	2			X							SEE NOTE 2
"01" 50+32.2	48.1' LT	3			X							
"01" 51+30.2	69.7' LT	4			X							SEE NOTE 2
"01" 51+40.4	65.2' RT	5					X					SEE NOTES 1 AND 2
"01" 50+47.4	53.8' RT	6					X					SEE NOTES 1 AND 2
"01" 50+44.0	64.7' LT	7					X					SEE NOTES 1 AND 2
"01" 50+58.6	72.4' LT	8					X					SEE NOTE 1
"01" 51+39.8	59.0' LT	9					X					SEE NOTES 1 AND 2
"01" 51+44.6	58.9' RT		1					X				SEE NOTE 2
"01" 50+51.8	57.1' RT		2						X			SEE NOTE 2
"01" 51+34.1	65.2' LT		4					X				SEE NOTE 2
"01" 50+55.6	83.7' LT			X								SEE NOTE 2

BASE & JUNCTION BOX NOTES:

- USE ALTERNATE "PELCO" POST BASE, SEE STD. PLAN, T-31.01.
- INSTALL JUNCTION BOX/FOUNDATION AT BACK OF SIDEWALK.

- *P = PRECAST BASE (FOUNDATION)
 A = TYPE "A" SIGNAL BASE POST FOUNDATION. SEE STD. PLAN, T-31.01
 CIDH = CAST IN DRILLED HOLE

PEDESTRIAN DETECTION SCHEDULE			
POLE	PUSH BUTTON	PHASE	REMARKS
1	1	6	SEE NOTE 1
5	2	4	SEE NOTE 2
2	3	4	SEE NOTE 1
6	4	2	SEE NOTE 2
7	5	2	SEE NOTE 1
8	6	8	SEE NOTE 2
4	7	8	SEE NOTE 1
9	8	6	SEE NOTE 2

PEDESTRIAN DETECTION NOTES:

- INSTALL AN R10-3eL SIGN ABOVE PEDESTRIAN PUSH BUTTON. SIGN SHALL NOT BE MEASURED FOR PAYMENT AND IS SUBSIDIARY TO TRAFFIC SIGNAL PAY ITEMS.
- INSTALL AN R10-3eR SIGN ABOVE PEDESTRIAN PUSH BUTTON. SIGN SHALL NOT BE MEASURED FOR PAYMENT AND IS SUBSIDIARY TO TRAFFIC SIGNAL PAY ITEMS.

RADAR DETECTION EQUIPMENT	
QTY	DESCRIPTION
4	SMARTSENSOR MATRIX (WX-SS-225)
6	PELCO MOUNT (WX-SS-611)
6	SMARTSENSOR 6-CONDUCTOR CABLE (WX-SS-704-XXX)
2	SMARTSENSOR ADVANCED EXTENDED RANGE (WX-SS-200E)

NEMA CLOSURE EQUIPMENT	
QTY	DESCRIPTION
0	CLICK 710, SMARTSENSOR 6-CONDUCTOR CABLE JUNCTION BOX (WX-SS-710)

CABINET EQUIPMENT	
QTY	DESCRIPTION
0	CLICK! 112 RACK CARDS (WX-CLK-112)
0	CLICK! 114 RACK CARDS (WX-CLK-114)
0	INTERSECTION PREASSEMBLED BACKPLATE -AC, FOUR SENSOR, (WX-SS-B01-0005)
	1 CLICK! 204 4 AMP POWER SUPPLY
	5 CLICK! 210-02 2 AMP CIRCUIT BREAKERS (WX-CLK-210)
	2 CLICK! 222, SMARTSENSOR SURGE PROTECTOR (WX-CLK-222)
	1 CLICK! 230, AC SURGE PROTECTOR (WX-CLK-230)
	1 T-BUS 5-SCREW TERMINAL BLOCKS (LEFT END)
	5 T-BUS CONNECTORS (POWER AND COMMUNICATION)
	1 T-BUS CONNECTOR (POWER ONLY)
	5 END BRACKETS WITH LABELS
	1 END BRACKET WITHOUT LABEL
	4 TERMINAL BLOCKS FOR AC LINE INPUT: SPRING CAGE TO PLUG SPRING
	CAGE 10 AWG (2 GROUNDED)
	28 TERMINAL BLOCKS FOR CABLE TERMINATION: INSULATION DISPLACEMENT
	TO PLUG INSULATION DISPLACEMENT (4 GROUNDED)
	MOUNTING PLATFORM: TRAFFIC CABINET BACKPLATE
	1 8-FT POWER CORD
	1 8-FT 14 AWG GROUND CABLE
	1 5-FT BLACK RJ-11 PATCH CABLE
	4 5-FT WHITE RJ-11 PATCH CABLES
2	CLICK! 650, CABINET INTERFACE (WX-CLK-650)

ADDITIONAL EQUIPMENT	
QTY	DESCRIPTION
1	SMARTSENSOR MANAGER ADVANCE SOFTWARE (WX-550-0001)
1	SMARTSENSOR MANAGER MATRIX SOFTWARE (WX-550-0004)

OPTICOM DETECTOR SCHEDULE					
LOCATION	DET. NO.	PHASE CALL	FACING DIR.	PREEMPTOR PRIORITY	REMARKS
ON TOP OF SIGNAL HEAD 43	1	4, 7	SOUTH		
ON TOP OF SIGNAL HEAD 22	2	2, 5	WEST		
ON TOP OF SIGNAL HEAD 83	3	3, 8	NORTH		
ON TOP OF SIGNAL HEAD 62	4	1, 6	EAST		

—# OPTICOM DETECTOR NUMBER

RADAR DETECTION SCHEDULE						
DET. NO.	PHASE CALL	TYPE	FACING DIR.	POLE NO.	LOCATION	RADAR TYPE
1	3&8	STOP BAR	EAST	4	SIGNAL SHAFT	SMARTSENSOR MATRIX
2	1&6	STOP BAR	SOUTHEAST	1	SIGNAL SHAFT	SMARTSENSOR MATRIX
3	4&7	STOP BAR	SOUTHWEST	2	SIGNAL SHAFT	SMARTSENSOR MATRIX
4	2&5	STOP BAR	SOUTHWEST	4	SIGNAL MAST ARM	SMARTSENSOR MATRIX
1A	8	ADVANCE	NORTH	3	SIGNAL MAST ARM	SMARTSENSOR ADVANCE
3A	4	ADVANCE	SOUTH	1	SIGNAL MAST ARM	SMARTSENSOR ADVANCE

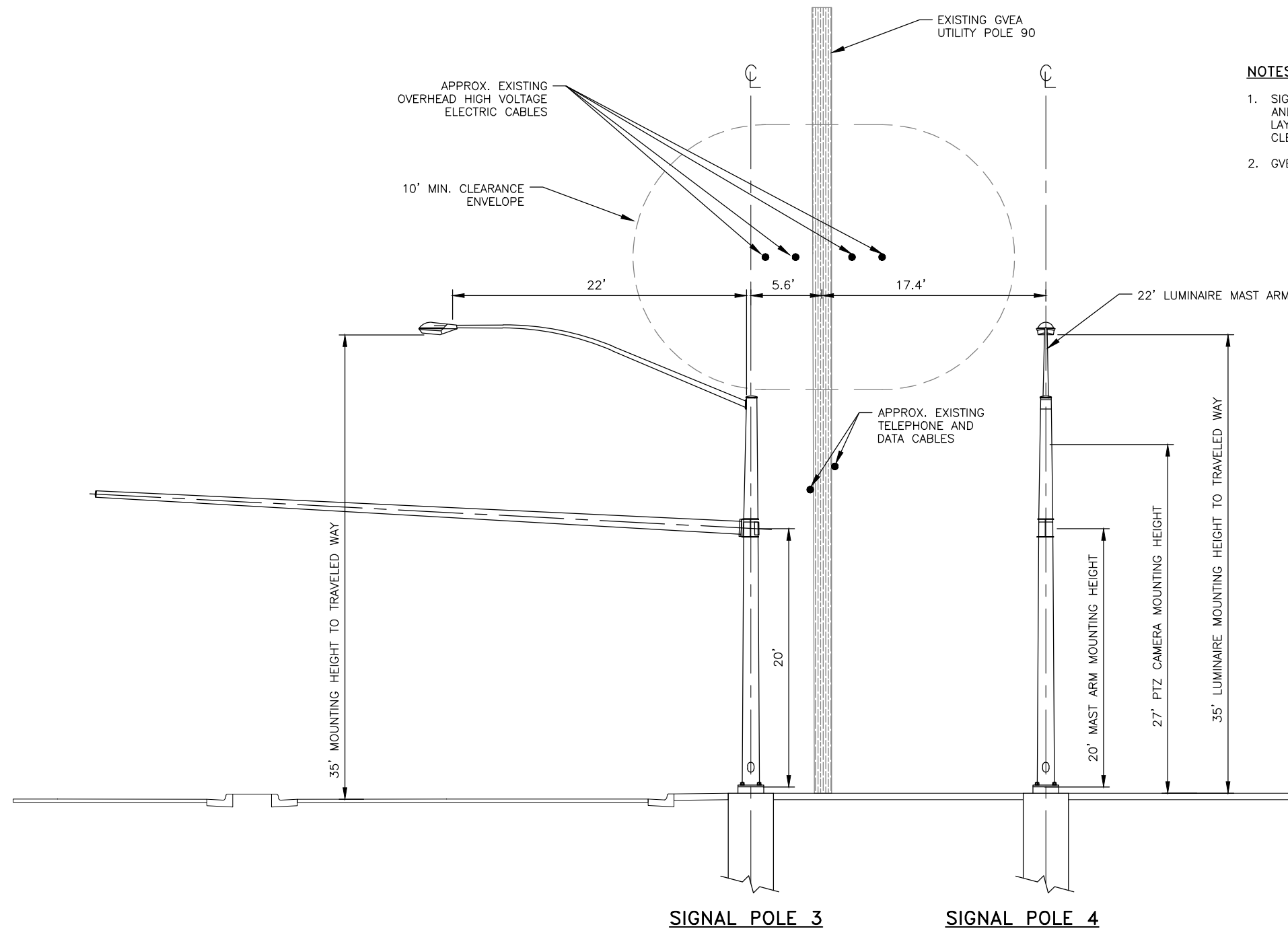
—A RADAR DETECTOR NUMBER

FLASH PROGRAM COLOR								
PHASE	1	2	3	4	5	6	7	8
COLOR	R	R	R	R	R	R	R	R

REWAK DRIVE SCHEDULES

PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
 2/26/2021
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STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H40	H66



NOTES:

1. SIGNAL HEADS, SIGNS, PEDESTRIAN HEADS, PUSH BUTTONS, RADAR DETECTORS, AND OPTICOM DETECTORS NOT SHOWN. SEE OTHER SIGNAL SHEETS FOR LAYOUT. INTENTION IS TO SHOW LUMINAIRE MOUNTING HEIGHT AND ELECTRIC CLEARANCE ENVELOPE.
2. GVEA POLE MOUNTED CROSS ARMS AND POLE TOP GUY CABLES NOT SHOWN.

REWAK SIGNAL POLE ELEVATIONS – LOOKING SOUTH
NTS

REWAK DRIVE
POLE ELEVATIONS

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
2/26/2021
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LOAD CENTER "MU" (NEW)

TYPE 1 LOAD CENTER, LOCATION "U" 11+97', 78' LT.
 SERVICE LOCATION "U" 12+51', 70' LT. APPROX. DISTANCE: 54'
 240/480V SINGLE PHASE SERVICE, 4-JAW METER
 100 AMP MAIN BREAKER, 10,000 AIC MIN.

CIRCUIT	BRANCH BREAKER	PURPOSE	CONTACTOR	LOAD
MU1	20 AMP, 2P, 480V	LIGHTING	LC-01:30 AMP	5.0 AMPS
MU2	20 AMP, 2P, 480V	LIGHTING	LC-01:30 AMP	6.7 AMPS
MU3	20 AMP, 2P, 480V	LIGHTING	LC-01:30 AMP	7.5 AMPS
MU4	20 AMP, 2P, 480V	LIGHTING	LC-01:30 AMP	5.8 AMPS
MU5	15 AMP, 2P, 480V	TRAFFIC CONTROLLER- M/UA	N/A	10.2 AMPS
MU6	15 AMP, 1P, 240V	LIGHTING CONTACTOR "LC-01"	N/A	0.1 AMPS
MU7	20 AMP, 2P, 480V	SPARE	LC-01:30 AMP	
MU8	20 AMP, 2P, 480V	SPARE	LC-01:30 AMP	
TOTAL LOAD				35.3 AMPS
NEC TOTAL LOAD (125%)				44.1 AMPS
DEMAND				21.2 KVA
SEE NOTE 5				

LOAD CENTER "UA" (EXISTING)

TYPE 1 LOAD CENTER, LOCATION: ALIGNMENT "U", STA. 59+50', 111' LT.
 SERVICE LOCATION: ALIGNMENT "U", STA. 61+62' LT. APPROX. DISTANCE: 214'
 240/480V SINGLE PHASE SERVICE, 4-JAW METER
 100 AMP MAIN BREAKER, 10,000 AIC MIN.

CIRCUIT	BRANCH BREAKER	PURPOSE	CONTACTOR	LOAD
UA1	25 AMP, 2P, 480V	TRAFFIC CONTROLLER- UA/AW	N/A	8.7 AMPS
UA2	20 AMP, 1P, 240V	LIGHTING	LC-01:30 AMP	4.3 AMPS
UA3	XX AMP, 2P, 480V	FUTURE TRAFFIC CONTR.- UA/R	N/A	
UA4	XX AMP, 1P, 240V	FUTURE LIGHTING	LC-01:30 AMP	
UA5	20 AMP, 2P, 480V	LIGHTING	LC-01:30 AMP	2.8 AMPS
UA6	20 AMP, 2P, 480V	LIGHTING	LC-01:30 AMP	2.4 AMPS
UA7	20 AMP, 2P, 480V	LIGHTING	LC-01:30 AMP	5.7 AMPS
UA8	20 AMP, 2P, 480V	LIGHTING	LC-01:30 AMP	3.8 AMPS
UA9	40 AMP, 2P, 480V	ESS/AVC	N/A	10.2 AMPS
UA10	15 AMP, 1P, 240V	LIGHTING CONTACTOR "LC-01"	N/A	0.1 AMPS
UA11	20 AMP, 2P, 480V	SPARE	LC-01:30 AMP	
UA12	20 AMP, 2P, 480V	SPARE	LC-01:30 AMP	
TOTAL LOAD				27.8 AMPS
NEC TOTAL LOAD(125%)				34.8 AMPS
DEMAND				16.7 KVA

NOTES:

- SERVING UTILITY IS GOLDEN VALLEY ELECTRIC ASSOCIATION LOCATED IN FAIRBANKS, ALASKA.
- COORDINATE INSTALLATION OF SERVICE TO LOAD CENTERS WITH GVEA. CONTACT GVEA FOR SERVICE REQUIREMENTS AND SPECIFICATIONS.
- SERVICE CONDUCTORS ARE TO BE COPPER, TYPE XHHW-2.
- PROVIDE INSULATED EQUIPMENT GROUNDING CONDUCTORS WITH ALL FEEDERS AND BRANCH CIRCUITS. TERMINATE EACH END ON SUITABLE LUG, BUS OR BUSING. SIZE EQUIPMENT GROUNDING CONDUCTORS IN ACCORDANCE WITH NEC AND ADOT PROJECT SPECIFICATION SECTION 660 AND 661, UNLESS OTHERWISE INDICATED, BUT NOT SMALLER THAN NO. 8 AWG.
- LIGHTING CIRCUITS ARE EXISTING, LOADS ARE BASED ON AS-BUILT DRAWINGS AND KNOWN MODIFICATIONS.
- LOAD CENTER UA WAS PROVIDED DURING SEGMENT 2A CONSTRUCTION, SUMMER 2020. SEE "LOAD CENTER "UA" (EXISTING)" SUMMARY FOR EXISTING CONDITIONS. PROVIDE NEW WORK AS INDICATED IN "LOAD CENTER "UA" (REVISED)" SUMMARY.
- CIRCUITS UA3 AND UA4: PROVIDE NEW BREAKER; SIZE AS INDICATED.
- CIRCUITS UA7 AND UA8: LIGHTING LOADS WERE REMOVED/ADDED TO EXISTING CIRCUIT, SEE UNIVERSITY AVE DEMOLITION PLANS AND ILLUMINATION AND INTERCONNECT PLANS FOR ADDITIONAL INFORMATION.
- UPDATE AND REPLACE EXISTING CIRCUIT DIRECTORY.

LOAD CENTER "UD" (NEW)

TYPE 1 LOAD CENTER, LOCATION "U" 23+56, 99' RT.
 SERVICE LOCATION "U" 23+54', 135' RT. APPROX. DISTANCE: 36'
 240/480V SINGLE PHASE SERVICE, 4-JAW METER
 100 AMP MAIN BREAKER, 10,000 AIC MIN.

CIRCUIT	BRANCH BREAKER	PURPOSE	CONTACTOR	LOAD
UD1	20 AMP, 2P, 480V	LIGHTING	LC-01:30 AMP	5.8 AMPS
UD2	20 AMP, 2P, 480V	LIGHTING	LC-01:30 AMP	4.5 AMPS
UD3	20 AMP, 2P, 480V	LIGHTING	LC-01:30 AMP	10.0 AMPS
UD4	15 AMP, 1P, 240V	LIGHTING CONTACTOR "LC-01"	N/A	0.1 AMPS
UD5	20 AMP, 2P, 480V	SPARE	LC-01:30 AMP	
UD6	20 AMP, 2P, 480V	SPARE	LC-01:30 AMP	
UD7	15 AMP, 2P, 480V	FUTURE TRAFFIC CONTR.	N/A	
TOTAL LOAD				20.4 AMPS
NEC TOTAL LOAD(125%)				25.5 AMPS
DEMAND				12.2 KVA

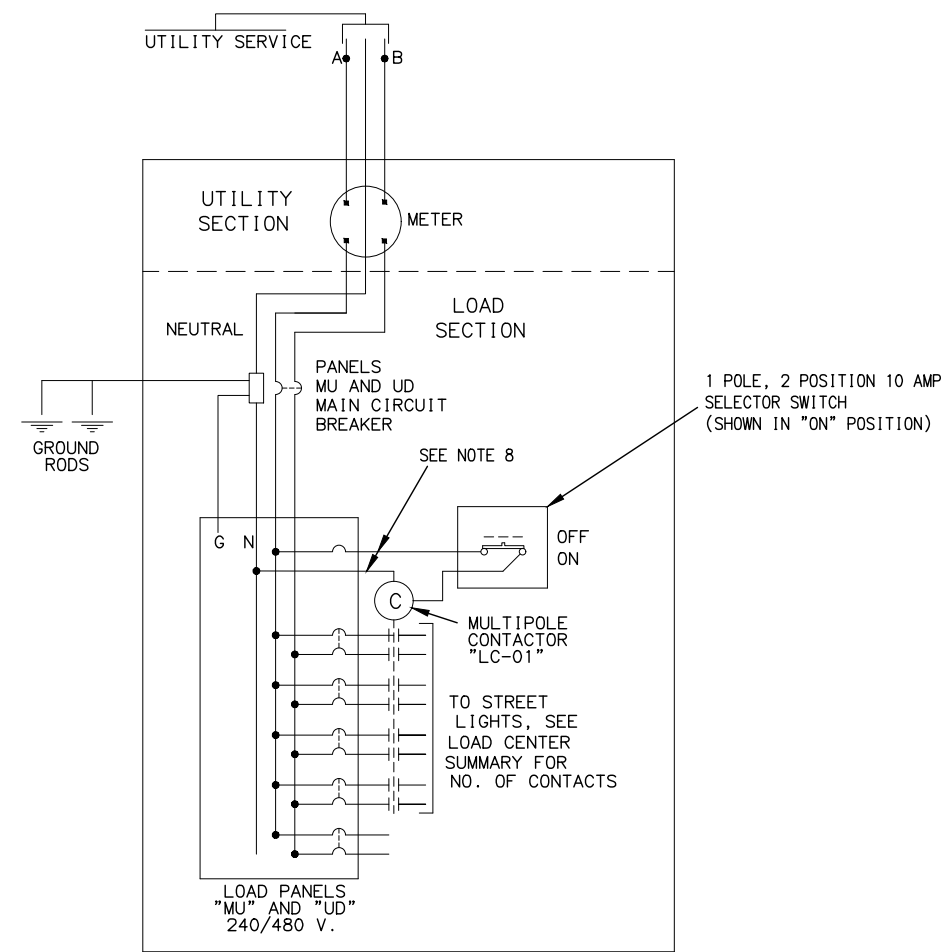
LOAD CENTER "UA" (REVISED)

TYPE 1 LOAD CENTER, LOCATION: ALIGNMENT "U", STA. 59+50', 111' LT.
 SERVICE LOCATION: ALIGNMENT "U", STA. 61+62' LT. APPROX. DISTANCE: 214'
 240/480V SINGLE PHASE SERVICE, 4-JAW METER
 100 AMP MAIN BREAKER, 10,000 AIC MIN.

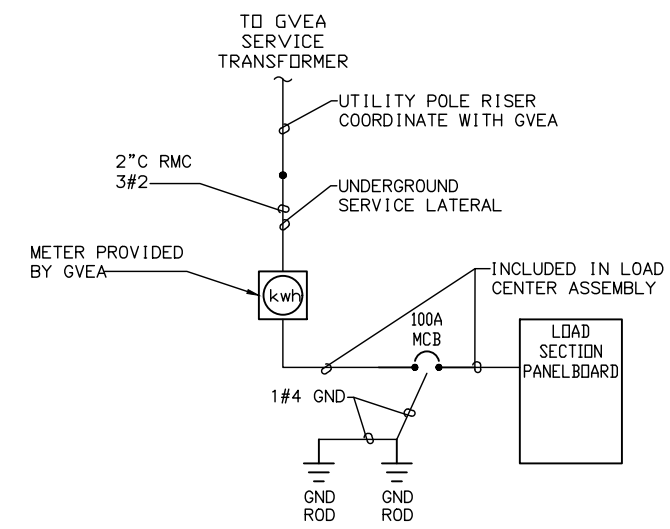
CIRCUIT	BRANCH BREAKER	PURPOSE	CONTACTOR	LOAD
UA1	25 AMP, 2P, 480V	TRAFFIC CONTROLLER- UA/AW	N/A	8.7 AMPS
UA2	20 AMP, 1P, 240V	LIGHTING	LC-01:30 AMP	4.3 AMPS
UA3	25 AMP, 2P, 480V	TRAFFIC CONTROLLER- UA/R	N/A	8.5 AMPS
UA4	20 AMP, 2P, 480V	LIGHTING	LC-01:30 AMP	2.2 AMPS
UA5	20 AMP, 2P, 480V	LIGHTING	LC-01:30 AMP	2.8 AMPS
UA6	20 AMP, 2P, 480V	LIGHTING	LC-01:30 AMP	2.4 AMPS
UA7	20 AMP, 2P, 480V	LIGHTING	LC-01:30 AMP	7.7 AMPS
UA8	20 AMP, 2P, 480V	LIGHTING	LC-01:30 AMP	4.8 AMPS
UA9	40 AMP, 2P, 480V	ESS/AVC	N/A	10.2 AMPS
UA10	15 AMP, 1P, 240V	LIGHTING CONTACTOR "LC-01"	N/A	0.1 AMPS
UA11	20 AMP, 2P, 480V	SPARE	LC-01:30 AMP	
UA12	20 AMP, 2P, 480V	SPARE	LC-01:30 AMP	
TOTAL LOAD				51.7 AMPS
NEC TOTAL LOAD(125%)				64.6 AMPS
DEMAND				31.0 KVA
SEE NOTE 7, NOTE 8 AND NOTE 9				

LOAD CENTER SUMMARY

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H42	H66



**LOAD CENTERS "MU" AND "UD"
WIRING DIAGRAM AND
SELECTOR SWITCH WIRING**



**LOAD CENTER "MU" AND "UD"
ONE-LINE DIAGRAM**

WIRING NOTES – FOR LOAD CENTER "MU" AND "UD":

- FURNISH ALL EQUIPMENT NOTED IN THE LOAD CENTER SUMMARY, PLUS TWO 20-AMP 2-POLE SPARE CIRCUIT BREAKERS, AND SPACE FOR A MINIMUM OF TWO ADDITIONAL 2-POLE CIRCUIT BREAKERS IN EACH LOAD PANEL. SEE THE LOAD CENTER SUMMARY FOR THE LOAD PANEL VOLTAGES, CURRENT RATINGS, SHORT CIRCUIT INTERRUPTING RATINGS, AND THE NAME OF THE SERVING UTILITY.
- SIZE THE LOAD CENTER CABINETS TO HOLD THE EQUIPMENT SHOWN IN THE WIRING DIAGRAM AND DETAILED IN EACH LOAD CENTER SUMMARY, ALLOWING SPACE FOR WIRING PER THE NATIONAL ELECTRICAL CODE. INSTALLING A METER BASE AND MAIN BREAKER IN A SEPARATE ENCLOSURE IS ALLOWABLE.
- LABEL ALL CIRCUIT BREAKERS AS TO LOAD SUPPLIED. LABEL THE SELECTOR SWITCH "LIGHTING" AND ITS POSITIONS "ON-OFF".
- STORE A SCHEMATIC DIAGRAM, A CIRCUIT DIRECTORY AND A MATERIALS LIST THAT INCLUDES THE MANUFACTURER'S NAME AND PART/CATALOG NUMBERS, ALL LAMINATED IN PLASTIC IN A METAL POCKET ATTACHED TO THE INSIDE OF THE LOAD CENTER. INSTALL THE POCKET ON THE LOAD CENTER DOOR, PROVIDING DRAIN HOLES TO PREVENT WATER ACCUMULATION.
- SEE LOAD CENTER SUMMARIES AND ILLUMINATION AND INTERCONNECT PLANS FOR THE STATION AND OFFSET OF THE LOAD CENTER AND POWER SOURCE, AND THE APPROXIMATE DISTANCE BETWEEN THE TWO.
- ILLUMINATION AND INTERCONNECT PLANS FOR ROUTING OF UNDERGROUND SERVICE LATERAL AND FEEDERS.
- SEE LOAD CENTER SUMMARIES FOR FEATURES AND OTHER OVERCURRENT PROTECTIVE DEVICES NOT INDICATED ON THE ELECTRICAL ONE-LINE DIAGRAM.
- SWITCH AND CONTACTOR ARE POWERED FROM THE FOLLOWING CIRCUIT IN THE INDICATED LOAD CENTER:
LOAD CENTER MU: CIRCUIT MU6
LOAD CENTER UD: CIRCUIT UD4

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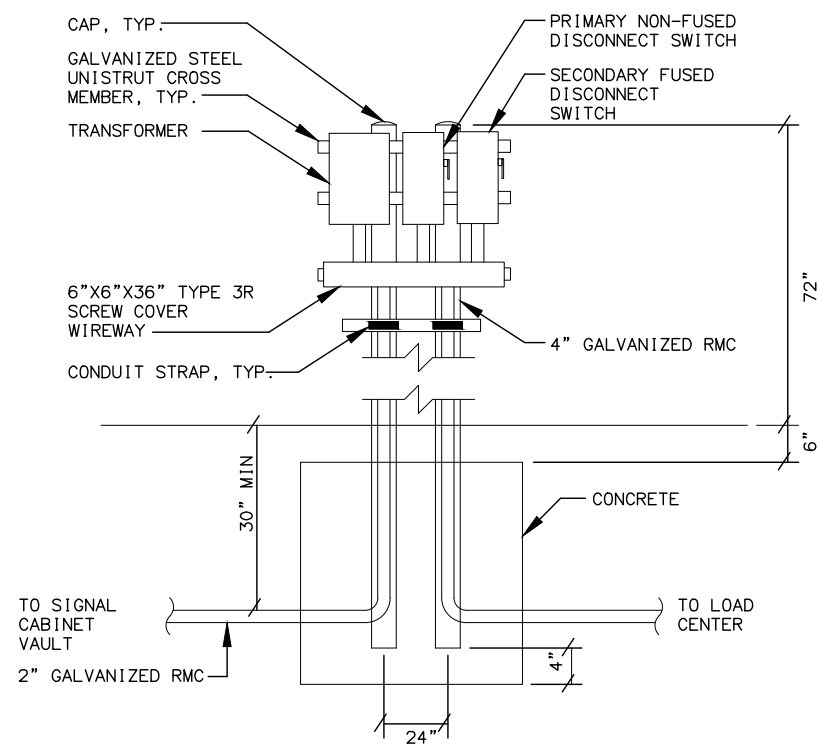
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H43	H66

WIRING NOTES- FOR LOAD CENTERS "UA"

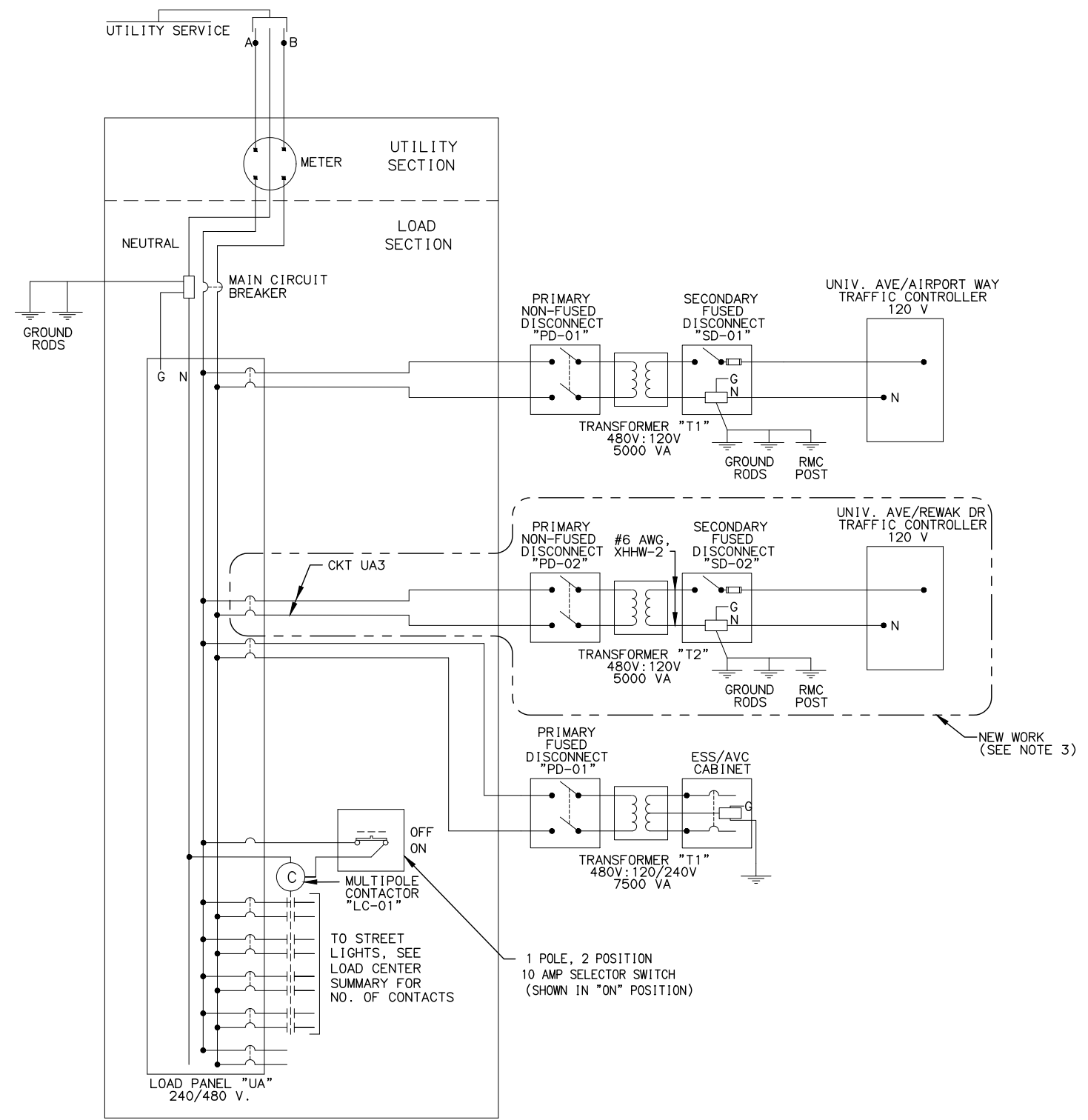
1. THIS DRAWING SHOWS EXISTING CONDITIONS, UNLESS OTHERWISE INDICATED.
2. SEE THE LOAD CENTER SUMMARIES AND PLANS FOR THE STATION AND OFFSET OF THE LOAD CENTER AND POWER SOURCE.
3. SEE ILLUMINATION AND INTERCONNECT PLANS FOR EQUIPMENT LOCATIONS AND CONDUCTOR IN RACEWAY ROUTING.
4. PRIMARY NON-FUSED DISCONNECT "PD-02" SHALL BE TYPE HD "HEAVY DUTY", RATED FOR 30 AMPS, 600V AND NEMA TYPE 3R ENCLOSURE.
5. SECONDARY FUSED DISCONNECT "SD-02" SHALL BE TYPE HD "HEAVY DUTY", RATED FOR 60 AMPS, 240V AND NEMA TYPE 3R ENCLOSURE. FUSE TO BE SIZED AT 55 AMPS. DISCONNECT TO ALSO INCLUDE: FACTORY INSTALLED PROVISIONS TO ALLOW DISCONNECT TO BE LOCKED IN THE "ON" POSITION, MATER LOCK MODEL TYPE 1KA KEYED TO "2001".
6. SEE ILLUMINATION AND INTERCONNECT PLANS FOR TRANSFORMER "T2" PRIMARY SIDE CONDUCTOR SIZE.
7. SEE POST-MOUNT TRANSFORMER AND DISCONNECT DETAIL FOR ADDITIONAL INFORMATION AND CONSTRUCTION OF ASSEMBLY.

POST-MOUNTED TRANSFORMER AND DISCONNECT NOTES:

1. SEE ILLUMINATION AND INTERCONNECT PLANS FOR LOCATION OF EQUIPMENT.
2. THE DIMENSIONS OF THE CONCRETE BLOCK IS 36"x36"x24" (HxWxD).



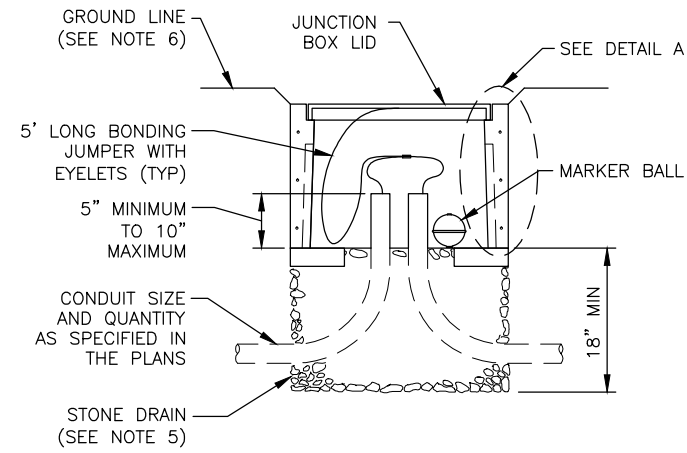
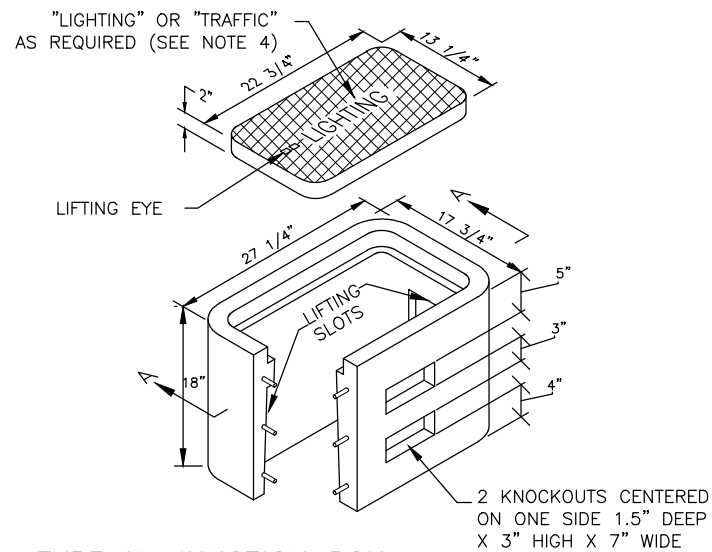
**NEW WORK
POST-MOUNTED TRANSFORMER AND DISCONNECT**



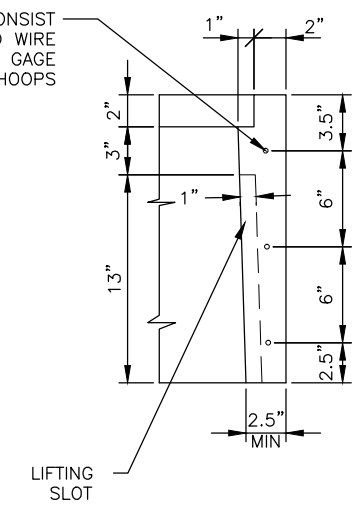
**LOAD CENTER "UA"
WIRING DIAGRAM AND
SELECTOR SWITCH WIRING**

LOAD CENTER DETAILS

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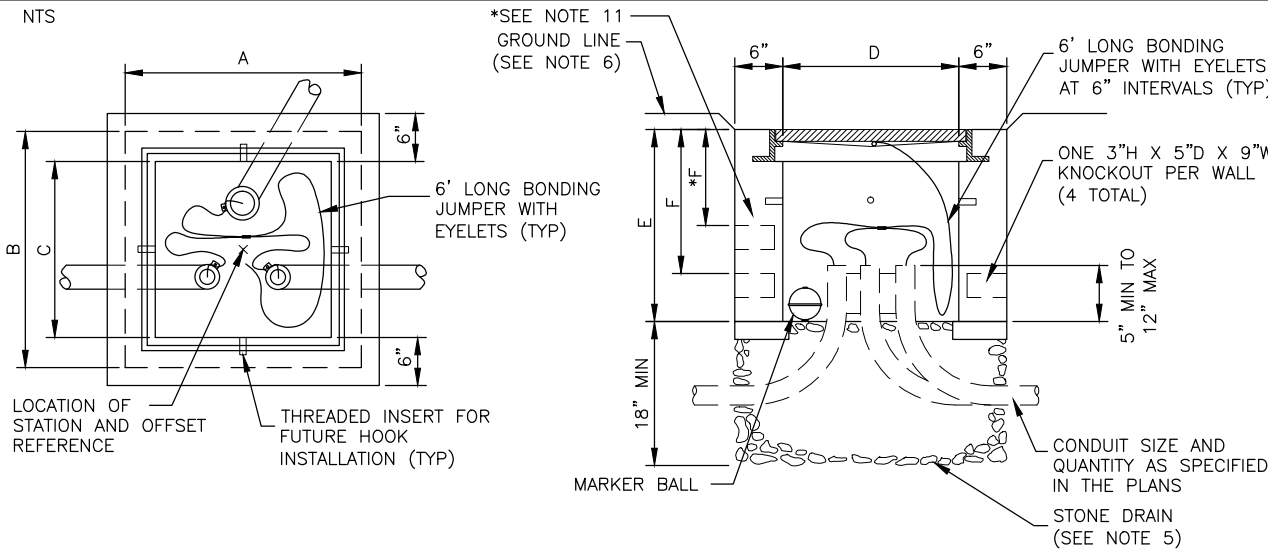


REINFORCEMENT MAY CONSIST OF: A 9 GAGE WELDED WIRE FRAME OR 3-6 GAGE HORIZONTAL WIRE HOOPS



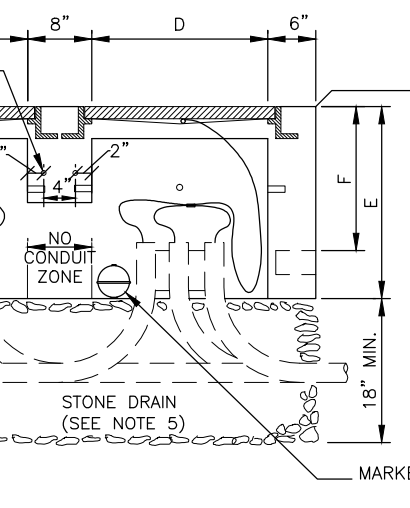
TYPE IA JUNCTION BOX

NTS



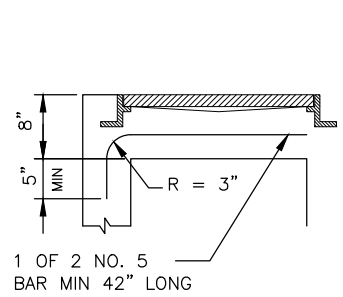
LID FOR TYPE II, MOD. TYPE II & TYPE III J-BOX

NTS



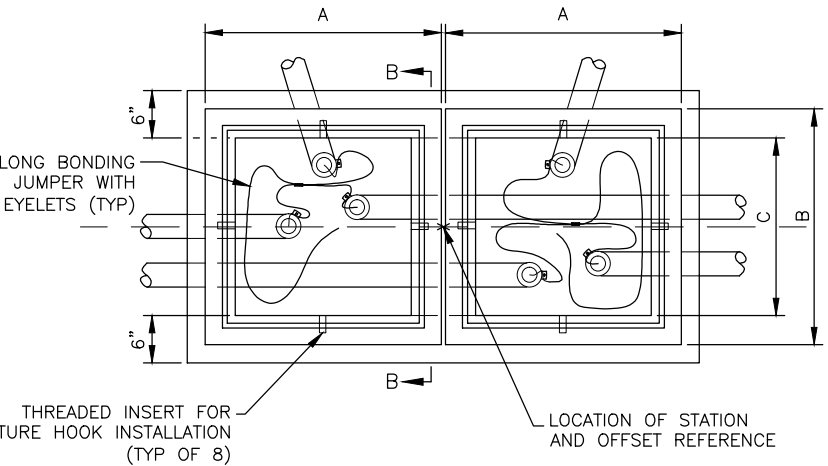
LID FOR TYPE IV J-BOX

NTS



TYPE II/MODIFIED TYPE II JUNCTION BOX

NTS *APPLICABLE TO MODIFIED TYPE II JUNCTION BOX



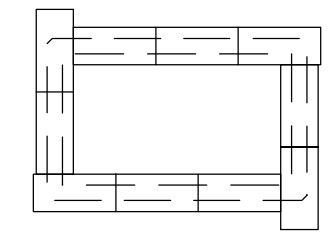
TYPE III/IV JUNCTION BOX

NTS

J-BOX DIMENSIONS						
J-BOX TYPE	DIMENSIONS					
	A (MAX.)	B (MAX.)	C (MIN.)	D (MIN.)	E (MIN.)	F
II	29 1/2"	29 1/2"	22"	22"	24"	18"
MOD. II	29 1/2"	29 1/2"	22"	22"	24"	12"
III	29 1/2"	29 1/2"	22"	22"	24"	18"
IV	30"	36"	30"	24"	30"	18"

BRICK BASE TYPE IA AND TYPE II ONLY

NTS



JUNCTION BOX DETAILS

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC

2/26/2021
REVIEW
PS&E
SUBMITTAL

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
3/16" 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 STAINLESS STEEL HARDWARE.
8. INSTALL A 1/2" THICK PREFORMED BITUMINOUS JOINT MATERIAL AROUND JUNCTION BOXES INSTALLED IN PORTLAND CEMENT CONCRETE WALKWAYS.
9. INSTALL AN ELECTRONIC MARKER BALL IN ALL JUNCTION BOXES PER SUBSECTION 660-3.04.
10. PROVIDE CONDUIT GROUNDING BUSHINGS AND BOND TO 3/4"x10' COPPER CLAD GROUND ROD WITH #8 BARE COPPER BONDING WIRE (AS REQUIRED).
11. 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.

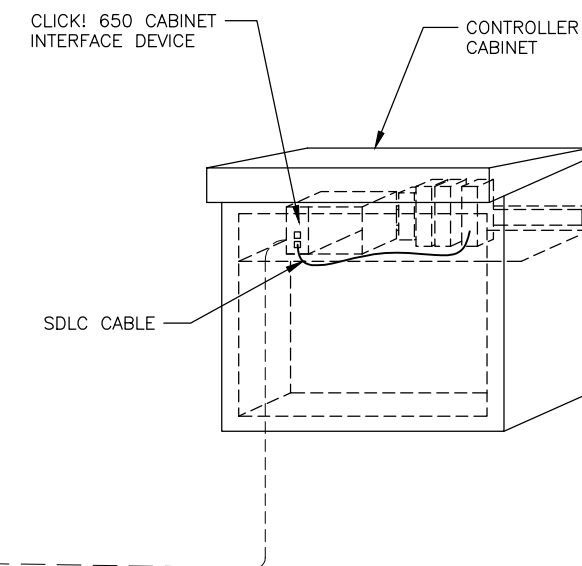
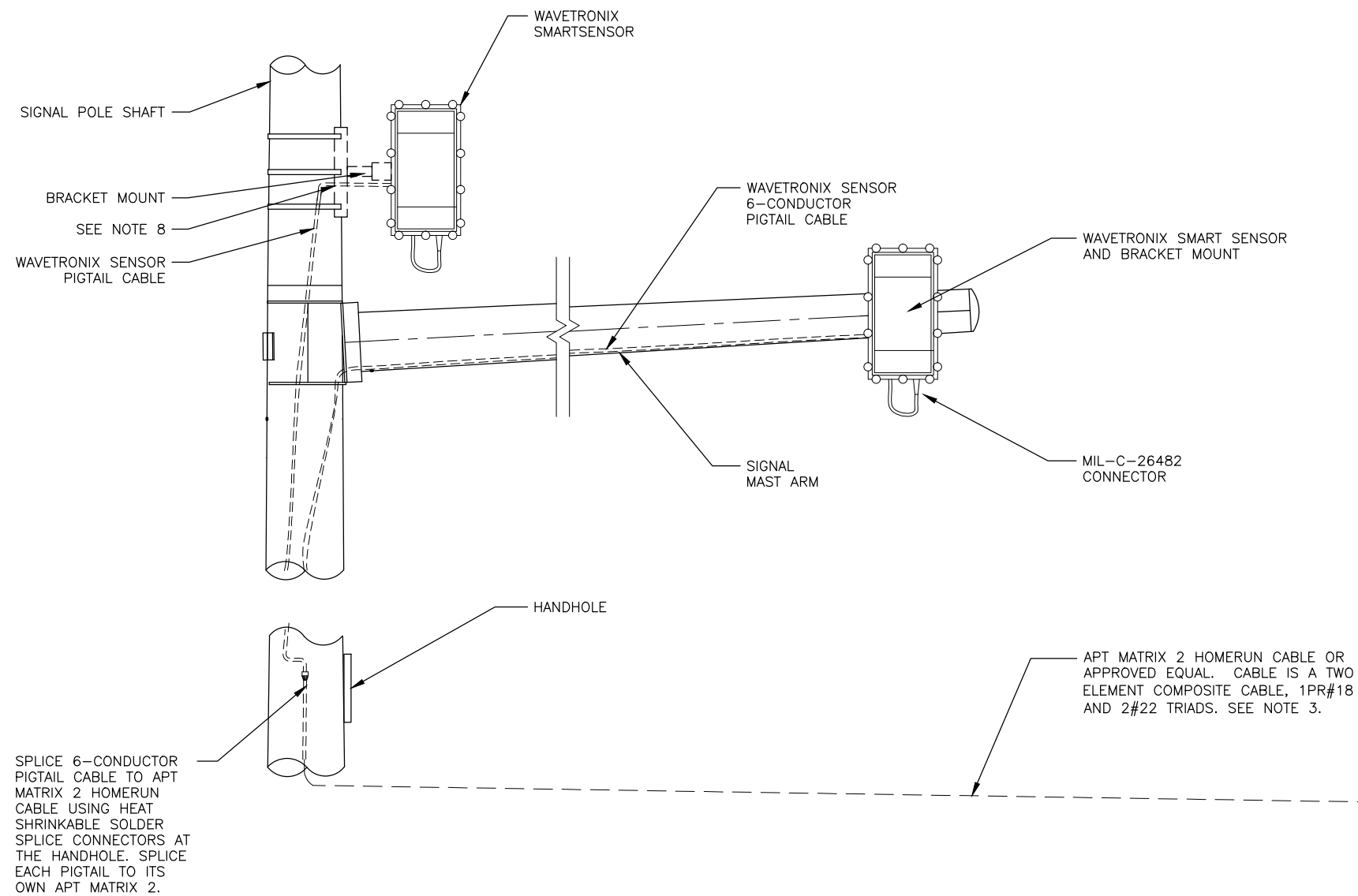
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H45	H66

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STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H46	H66

RADAR INSTALLATION NOTES:

1. PROTECT CABLE ENDS FROM MOISTURE AT ALL TIMES.
2. PULL CABLE IN ACCORDANCE WITH SECTION 660 OF THE SPECIAL PROVISIONS. PULL CABLE SO THAT THERE IS SUFFICIENT LENGTH TO REACH THE TOP OF THE CONTROLLER CABINET. CABLES ARE TO BE PULLED WITHOUT CONNECTORS ATTACHED. WHEN CABLE HAS BEEN PULLED TO FINAL LOCATIONS INSTALL AND MAKE FINAL CONNECTIONS.
3. CABLE RUNS ARE TO BE MADE CONTINUOUS WITHOUT SPLICES.
4. CABLE WITH DAMAGED INSULATION, OR THAT HAS BEEN CRIMPED OR BENT BEYOND THE MINIMUM BEND RADIUS MUST BE REPLACED AT CONTRACTORS EXPENSE.
5. THE MINIMUM BEND RADIUS SHALL NOT EXCEED MANUFACTURERS RECOMMENDATIONS.
6. ENSURE ADEQUATE LENGTH OF EACH CABLE TO ALLOW WORK ON THE ENDS OF THE CABLE IN THE CONTROLLER CABINET, AT THE POLE MOUNT ENCLOSURE AND RADAR MOUNTING LOCATION.
7. MOUNT THE RADAR AT THE LOCATION STATED IN THE PLANS. PLACEMENT MAY BE ADJUSTED BY THE ENGINEER TO ALLOW FOR BETTER AIMING OF THE RADAR OR TO AVOID OTHER HAZARDS.
8. INSTALL WATERTIGHT RUBBER GROMMETS WHERE CABLE PASSES THROUGH THE POLE.
9. FURNISH ONLY NEW EQUIPMENT OF THE BRAND AND TYPE LISTED OR ITS APPROVED EQUAL. PROVIDE AT NO ADDITIONAL COST ALL NECESSARY DEVICES, WIRES, BRACKETS/HARDWARE ETC. TO PROVIDE A FULLY FUNCTIONING RADAR DETECTION SYSTEM.



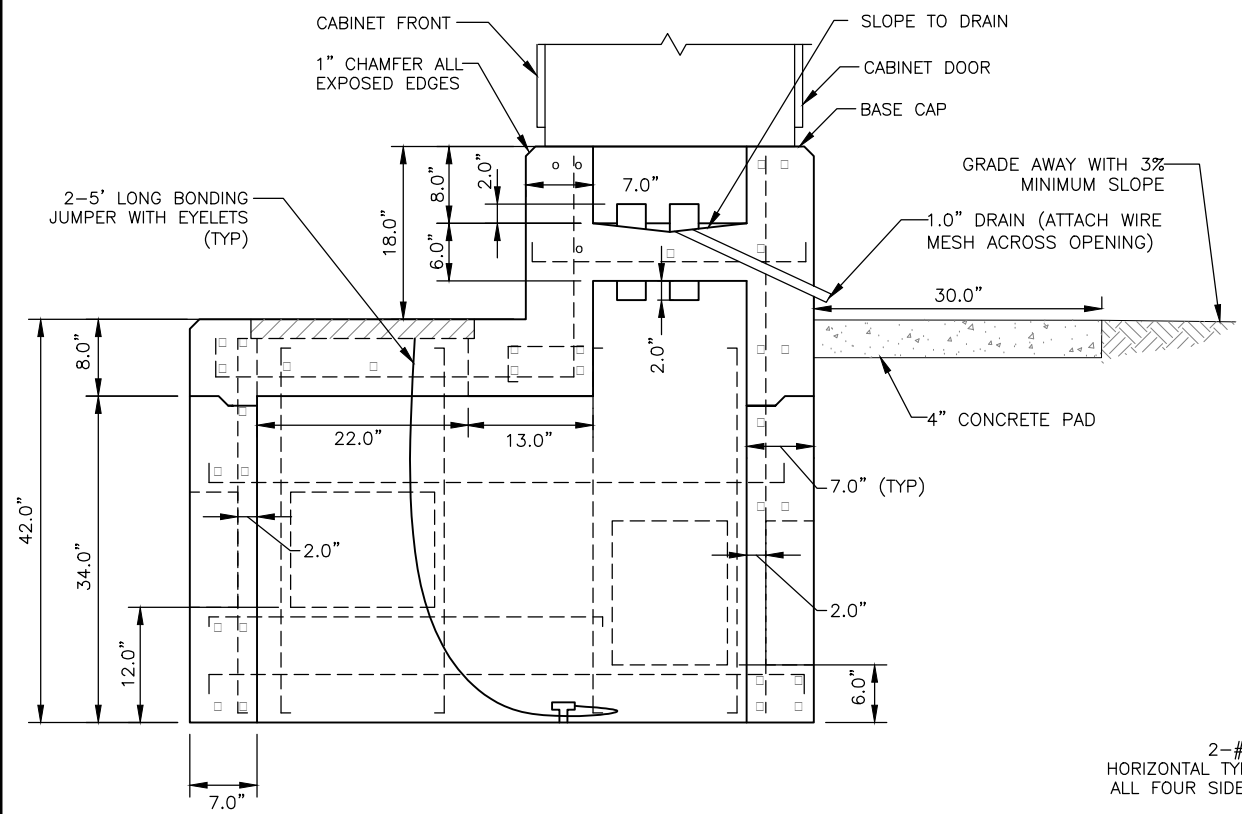
RADAR INSTALLATION DETAIL
NTS

RADAR DETAILS

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
2/26/2021
REVIEW
PS&E
SUBMITTAL

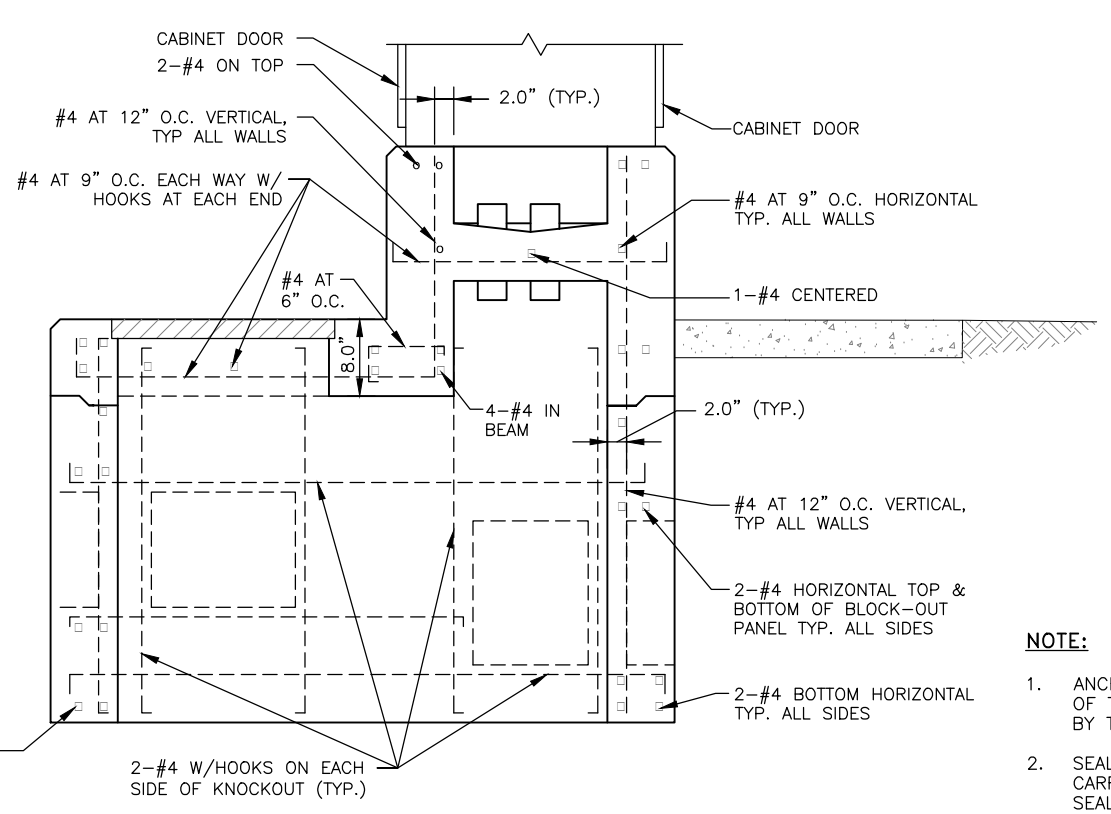
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STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H47	H66



SECTION A-A

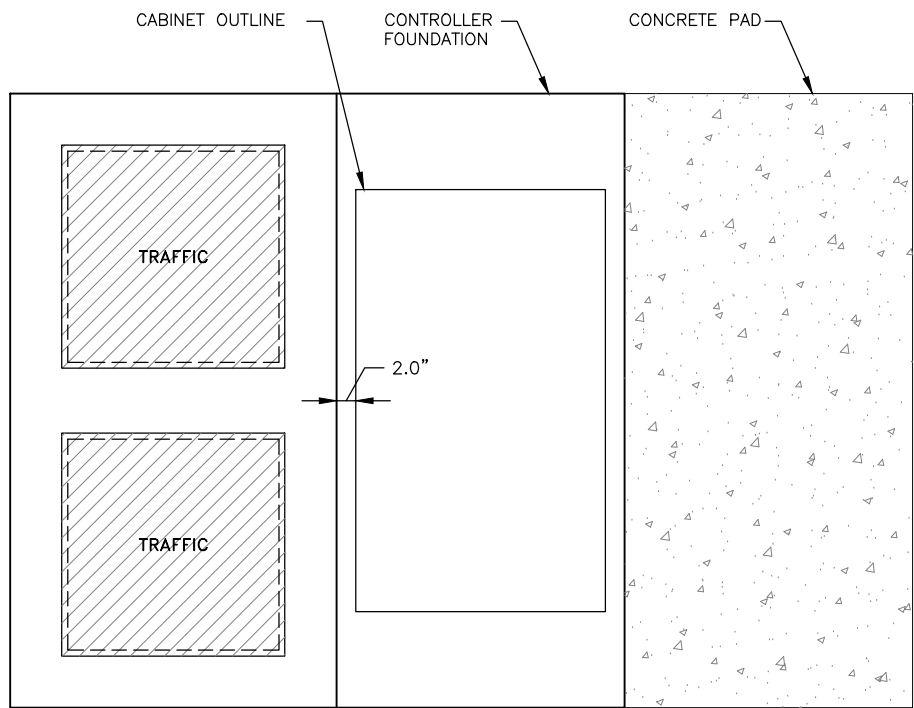
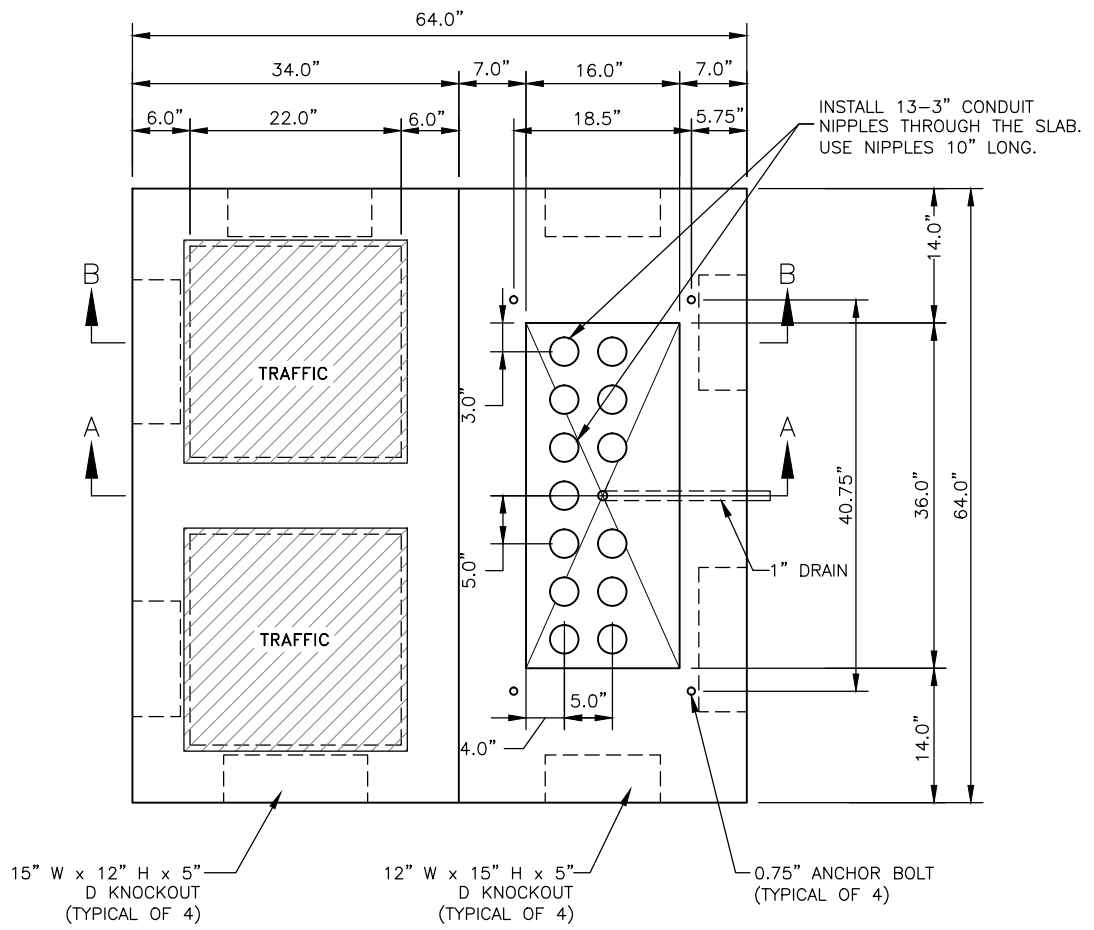
NOTE: SEE SECTION B-B FOR REBAR DETAILS



SECTION B-B

NOTE:

- ANCHOR BOLTS SHALL NOT PROTRUDE MORE THAN 1.5" ABOVE THE TOP OF THE FOUNDATION. ANCHOR BOLT DIMENSIONS SHALL BE AS SPECIFIED BY THE CABINET MANUFACTURER.
- SEAL UNUSED CONDUIT STUBS WITH WATERTIGHT CAPS. SEAL STUBS CARRYING CONDUCTORS WITH WATERTIGHT SEALING BUSHINGS DESIGNED TO SEAL AROUND CONDUCTORS AND AGAINST THE CONDUIT WALLS.
- ROUTE THE FIVE FOOT COPPER GROUNDING JUMPER THROUGH THE 2" PIPE NIPPLE AND ATTACH IT TO THE GROUNDING BUSHING ON THE FEEDER CONDUIT.
- STOP HORIZONTAL & VERTICAL STEEL AT THE BLOCK-OUT PANELS & THE JOINT USING 90 DEGREE HOOKS. USE 2 EXTRA #4 HORIZONTAL & VERTICAL BARS. ALL SIDES AS SHOWN.
- INSTALL TRAFFIC CONTROLLER WITHIN 1-DEGREE OF PLUMB.
- CONCRETE PAD SHALL BE SUBSIDIARY TO THE SIGNAL PAY ITEM.



PLAN VIEW

SIZE 6 OR 7 CONTROLLER CABINET FOUNDATION

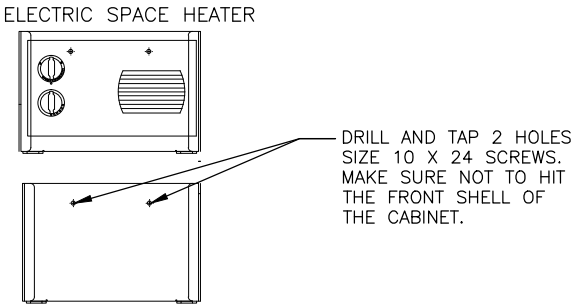
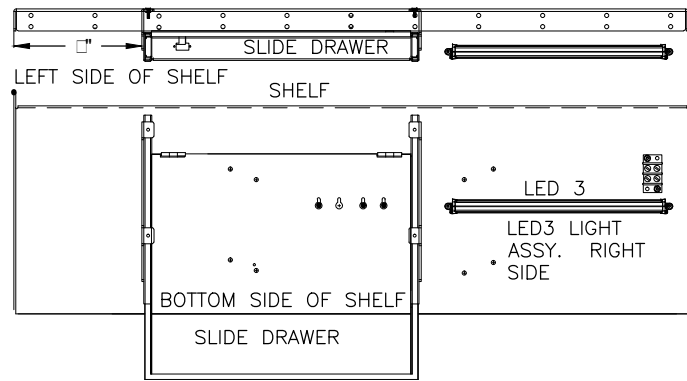
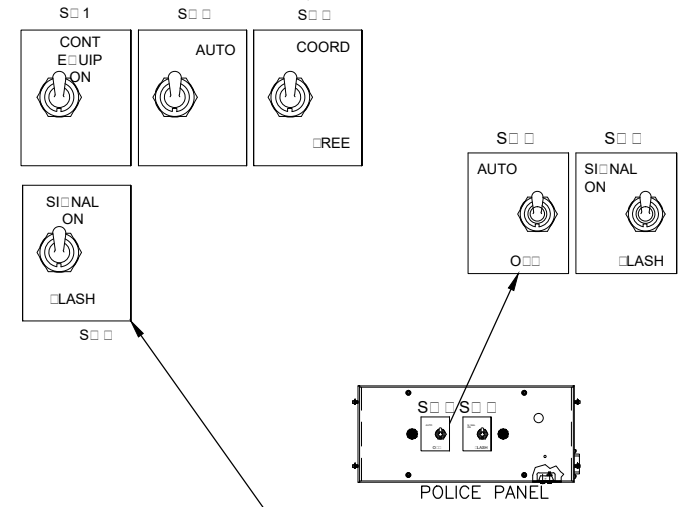
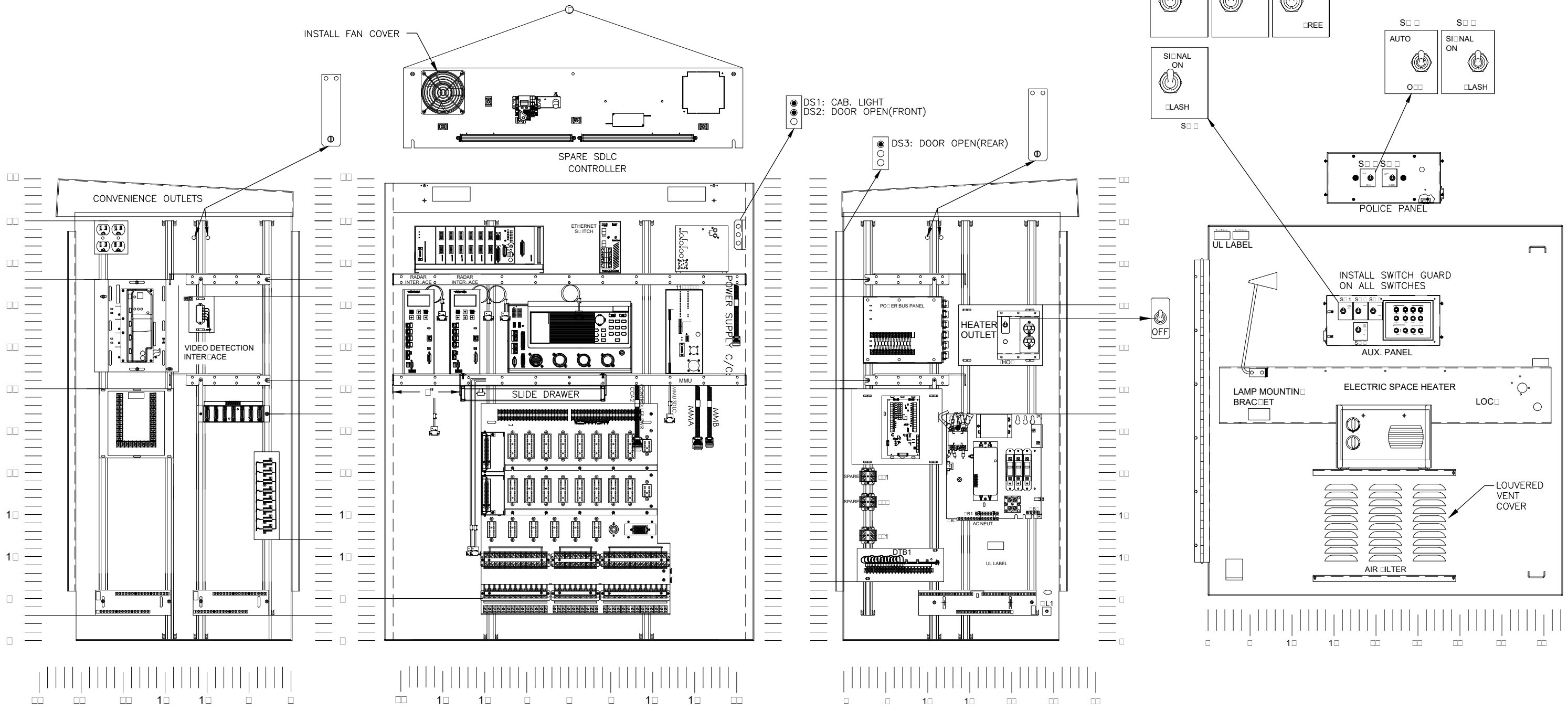
NOTE: BOLT SPACING DIMENSIONS SHOWN FOR TS2 CONTROLLER CABINETS.

SIGNAL CONTROLLER FOUNDATION DETAILS

PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
 2/26/2021
 REVIEW
 PS&E
 SUBMITTAL

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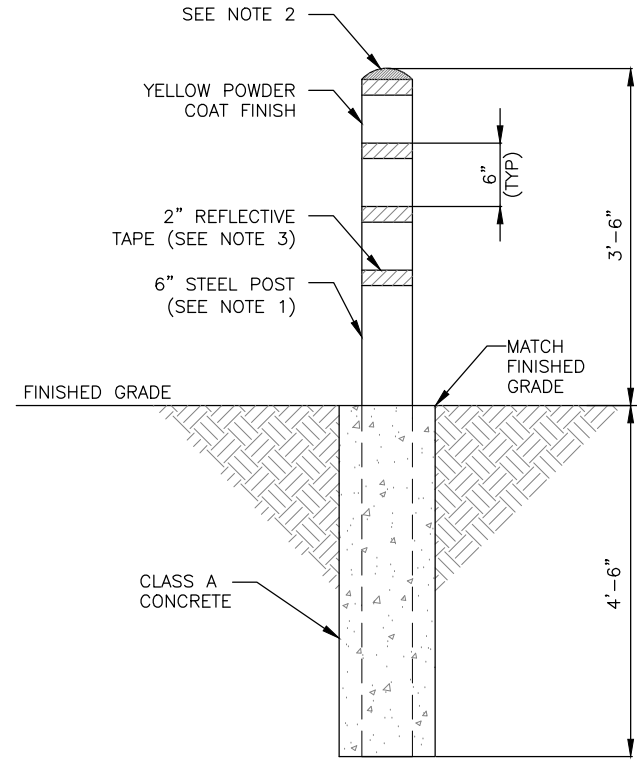
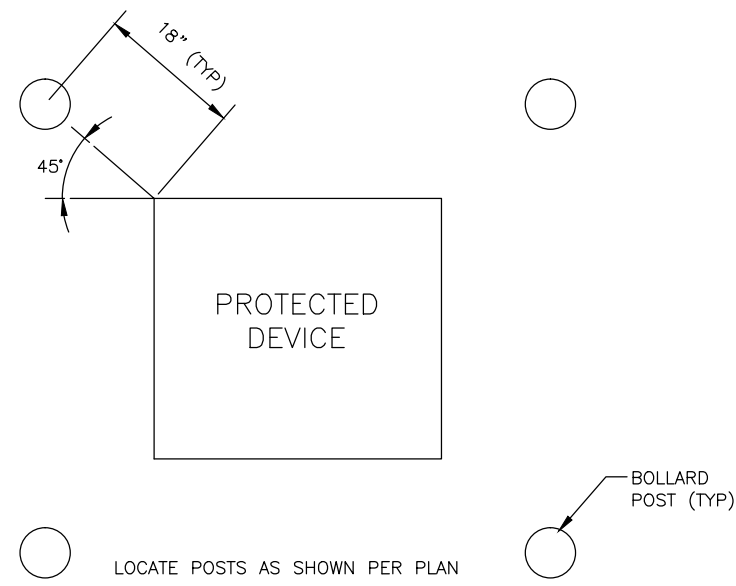
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H48	H66



CONTROLLER CABINET LAYOUT

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC

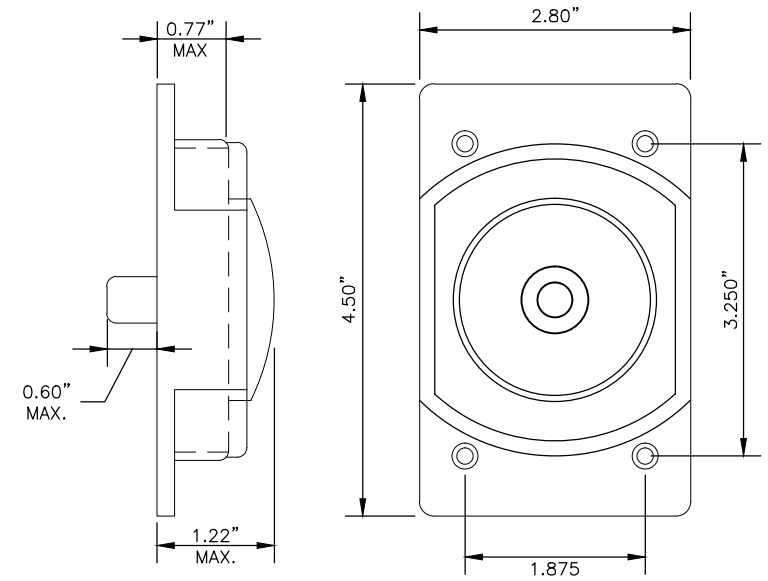
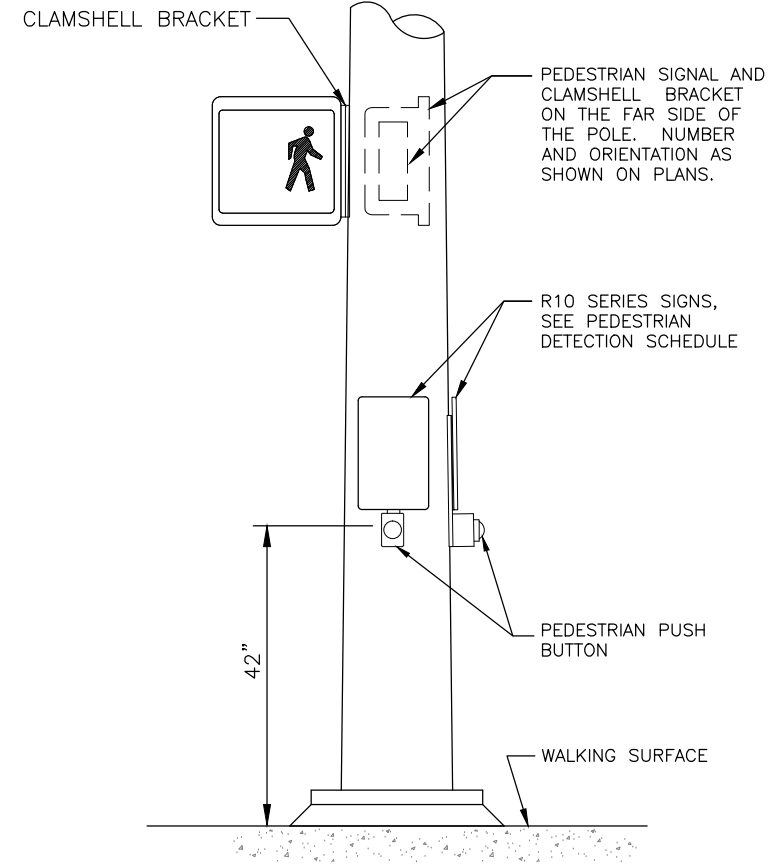
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H49	H66



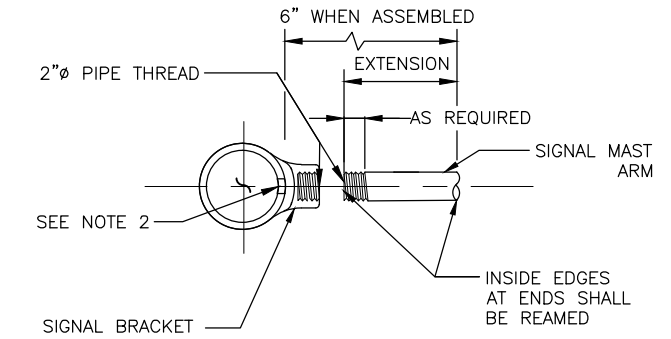
BOLLARD AND PLACEMENT DETAIL
NTS

BOLLARD NOTES:

1. PROVIDE 6" DIA. GALVANIZED STEEL, SCHEDULE #40 PIPE, FILLED WITH CONCRETE.
2. ROUND CONCRETE AT TOP OF POST SMOOTH AND PAINT YELLOW. USE EXTERIOR ACRYLIC-EPOXY CONCRETE PAINT.
3. INSTALL 4-2" BANDS OF YELLOW REFLECTIVE TAPE AS SHOWN.
4. LOCATION AND QUANTITY OF POSTS AS INDICATED ON DRAWINGS.



PEDESTRIAN PUSH BUTTON DETAIL
NTS



PLUMBIZER SIGNAL MOUNTING DETAIL

(REQUIRED FOR ALL NEW OR RELOCATED PLUMBIZER [MAST ARM] MOUNTED SIGNALS)

NOTES

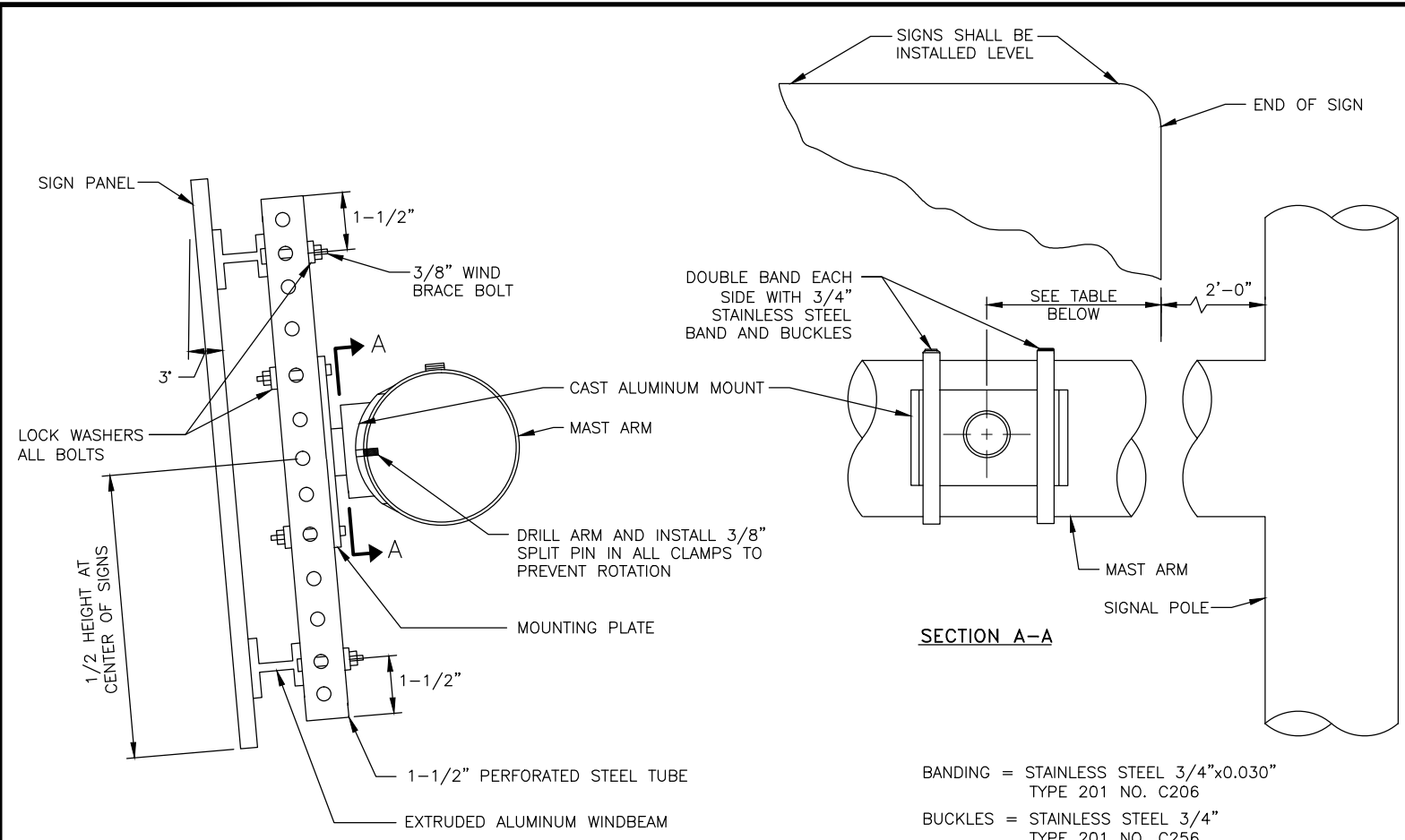
1. THESE DETAILS MODIFY STANDARD DRAWING T-30.11.
2. FIELD DRILL WIRING ACCESS HOLE AS REQUIRED. REAM INSIDE & OUTSIDE AND PAINT WITH COLD ZINC GALVANIZING COMPOUND CONFORMING TO DOD-P-21035A, MIL-P-26915A, OR TT-P-460.
3. ONE 2" GALVANIZED SCHEDULE 40 RIGID METAL CONDUIT EXTENSION SHALL BE FURNISHED WITH EACH SIGNAL BRACKET.
4. SIGNAL BRACKETS SHALL BE ASTRO-BRAC AB-3008AK OR APPROVED EQUAL AND SHALL BE INSTALLED AS RECOMMENDED BY THE MANUFACTURER. THE ACTUAL LOCATION OF BRACKETS ON EACH ARM SHALL BE DETERMINED BY THE ENGINEER AFTER THE POLES AND ARMS HAVE BEEN INSTALLED.

PED PUSH BUTTON POST AND SIGNAL MOUNTING BRACKET DETAIL

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
2/26/2021
REVIEW
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SUBMITTAL

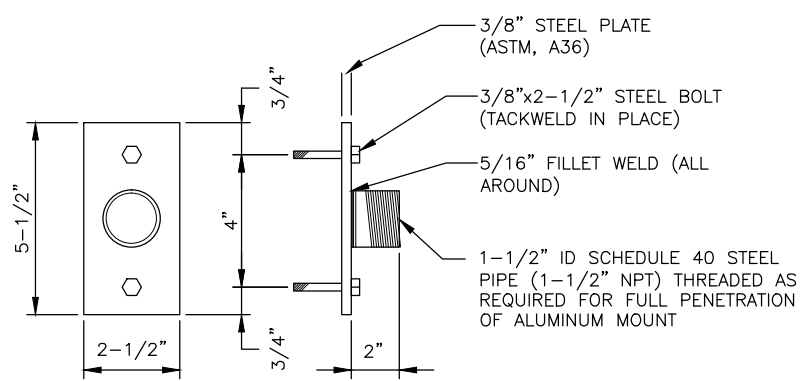
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 (Brian Lewis) KE#: 00245

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H50	H66



- BANDING = STAINLESS STEEL 3/4"x0.030" TYPE 201 NO. C206
- BUCKLES = STAINLESS STEEL 3/4" TYPE 201 NO. C256
- ALUMINUM MOUNT (SIGNAL) = 1-1/2"NPT NO. D040
- PIN = NO. D042

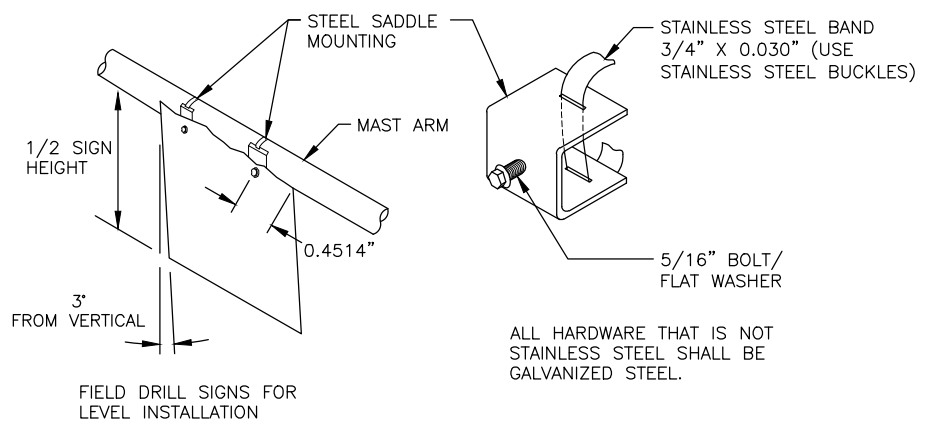
SIGNAL MAST ARM MOUNTED SIGNS (NOT FOR "R" SERIES SIGNS)
NTS



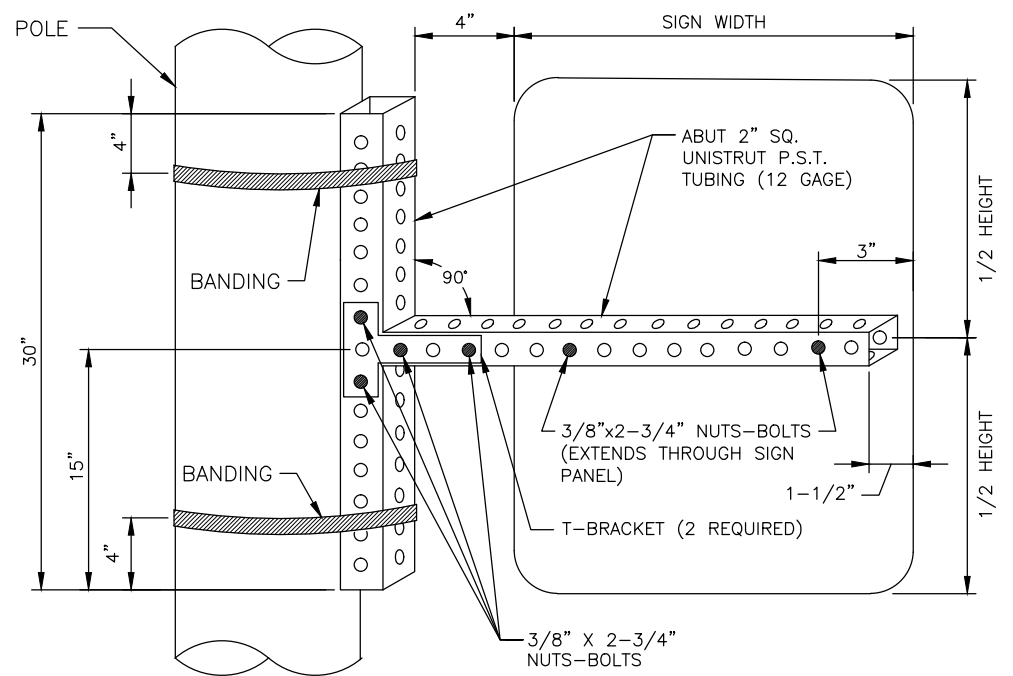
- NOTES:**
- CAST ALUMINUM MOUNTS AND BANDING MATERIALS SHALL BE "BAND-IT" OR APPROVED EQUAL.
 - MOUNTING PLATE SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123.
 - ALL WELDING SHALL MEET AMERICAN WELDING SOCIETY SPECS.
 - BOLTS, NUTS AND WASHERS SHALL MEET THE REQUIREMENTS OF STANDARD DRAWING S-20.10.

MOUNTING PLATE DETAIL
NTS

SIGN WIDTH(W)	NO. OF CLAMPS	CLAMP SPACING		
		OVERHANG	BETWEEN CLAMPS	OVERHANG
0-12.5'	2	0.2W	1 SPACE AT 0.6W	0.2W
13' TO 21'	3	0.15W	2 SPACES AT 0.35W	0.15W



MAST ARM MOUNTING FOR "R" SERIES SIGNS
NTS



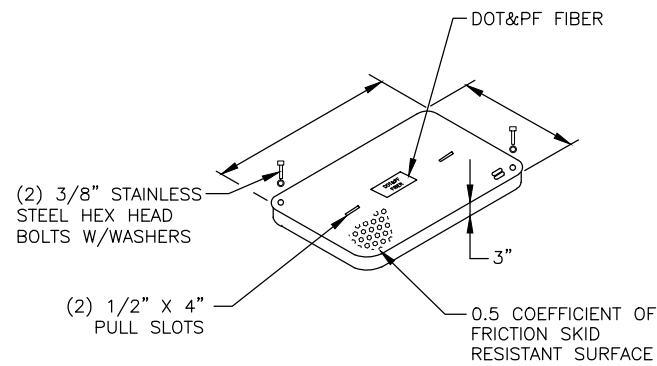
- ALL NUTS SHALL BE INSTALLED WITH LOCK WASHERS
- BANDING = STAINLESS STEEL 3/4" X 0.030" (DOUBLE BANDING REQUIRED)
- BUCKLES = STAINLESS STEEL 3/4"

POLE/POST SIDE MOUNTED SIGN BRACKET
NTS

SIGNAL MOUNTED SIGN DETAILS

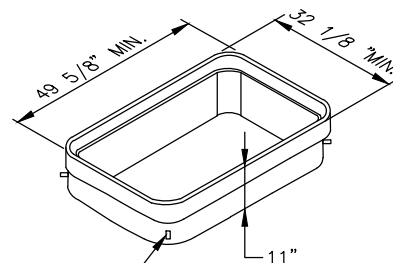
PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
 2/26/2021
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STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H51	H66



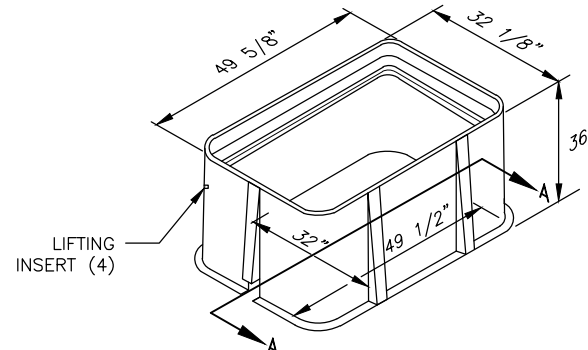
COVER

NTS
HUBBELL QUAZITE NO. PG3048HH00
OR APPROVED EQUIVALENT



TOP EXTENSION

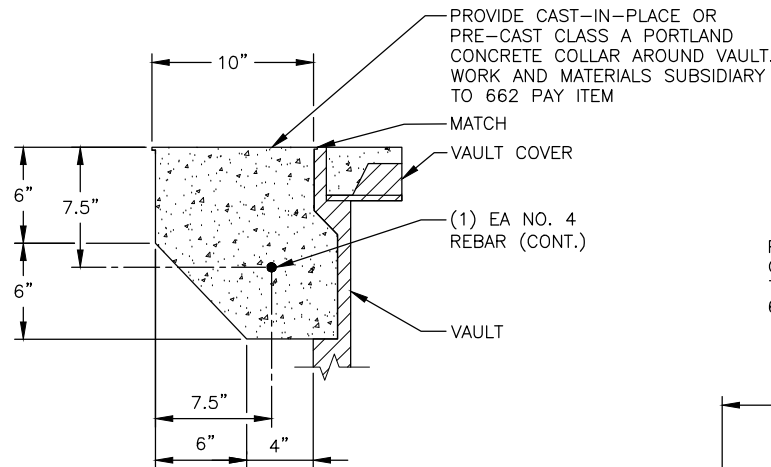
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HUBBELL QUAZITE NO. PG3048EA11
OR APPROVED EQUIVALENT



BOTTOM

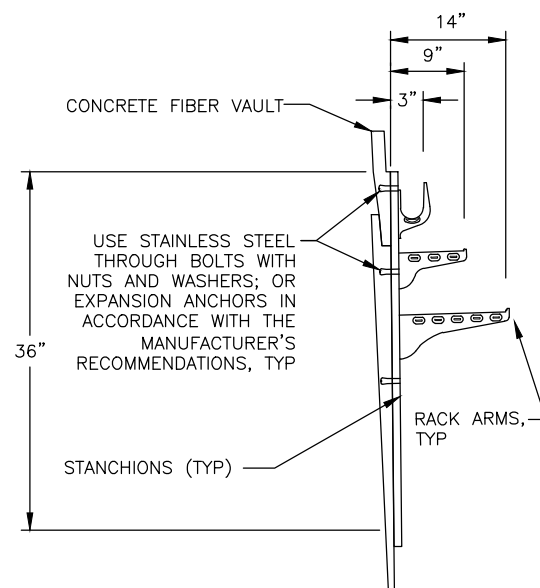
TYPE I VAULT

NTS
HUBBELL QUAZITE NO. PG3048BA36
OR APPROVED EQUIVALENT



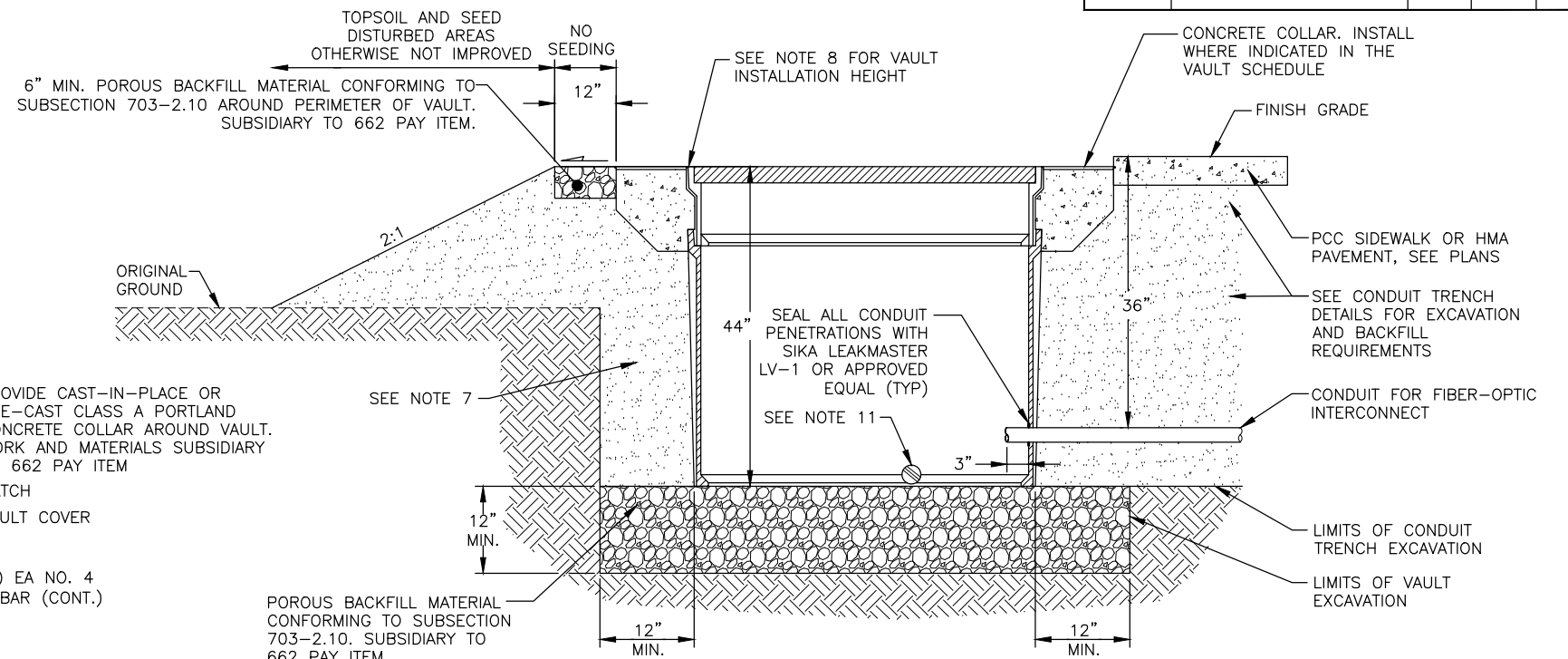
CONCRETE COLLAR DETAIL

NTS



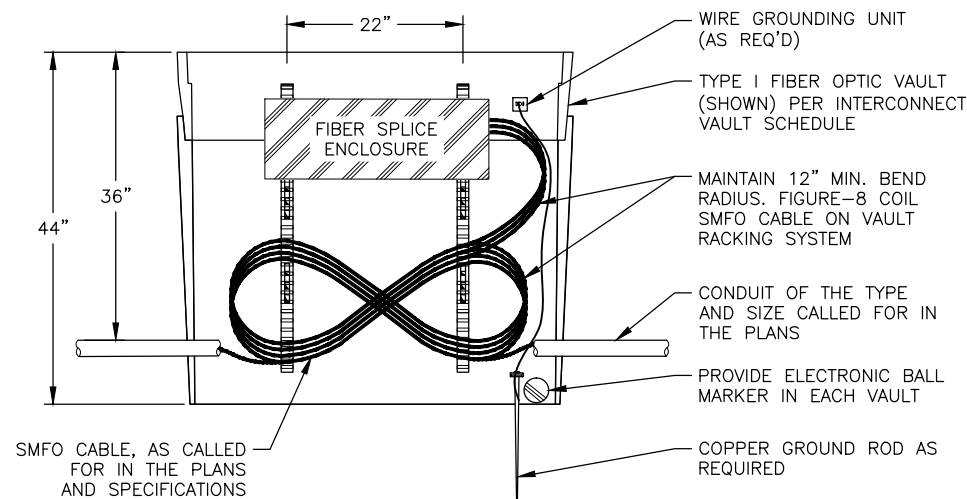
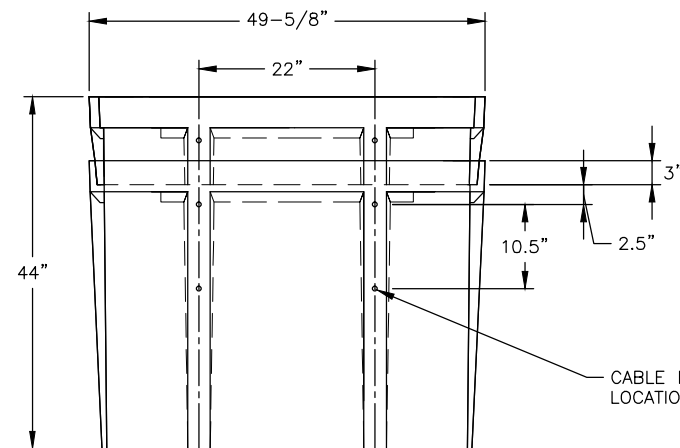
TYPICAL CABLE RACK

NTS



SECTION

NTS



VAULT EQUIPMENT LAYOUT

NTS

NOTES:

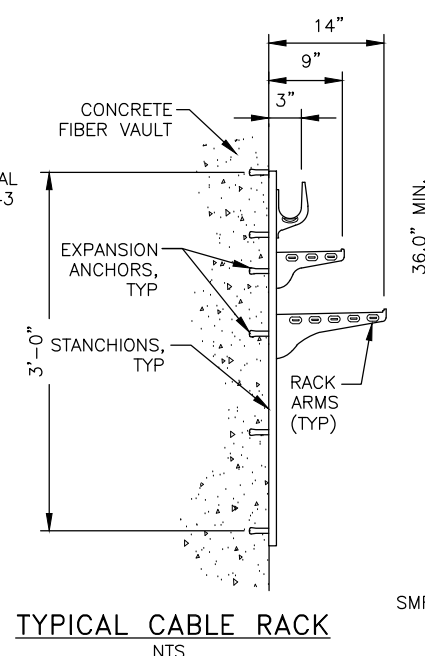
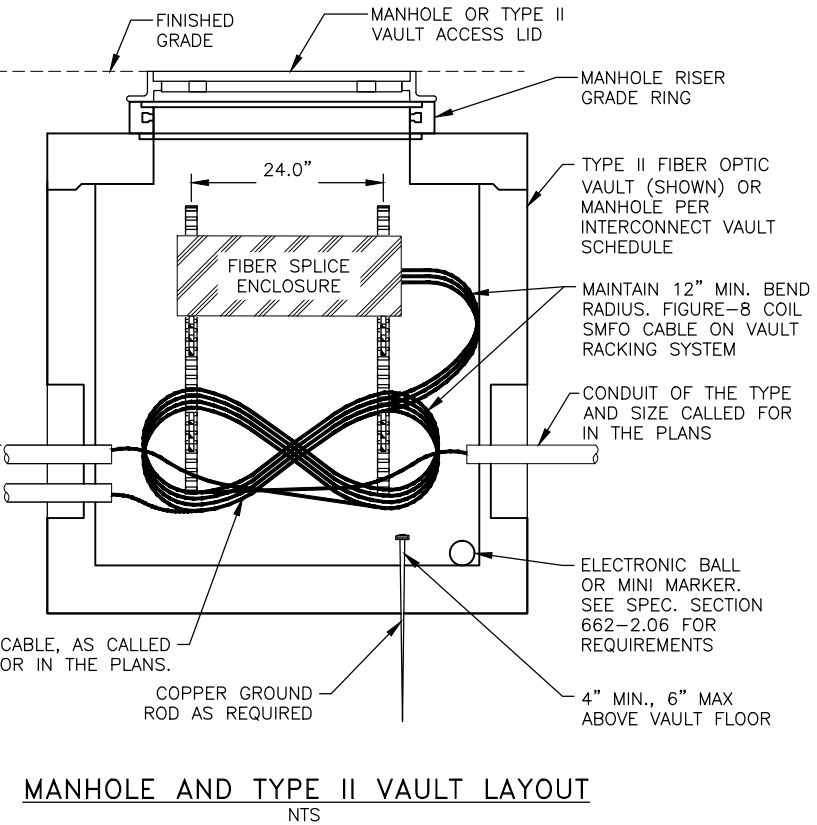
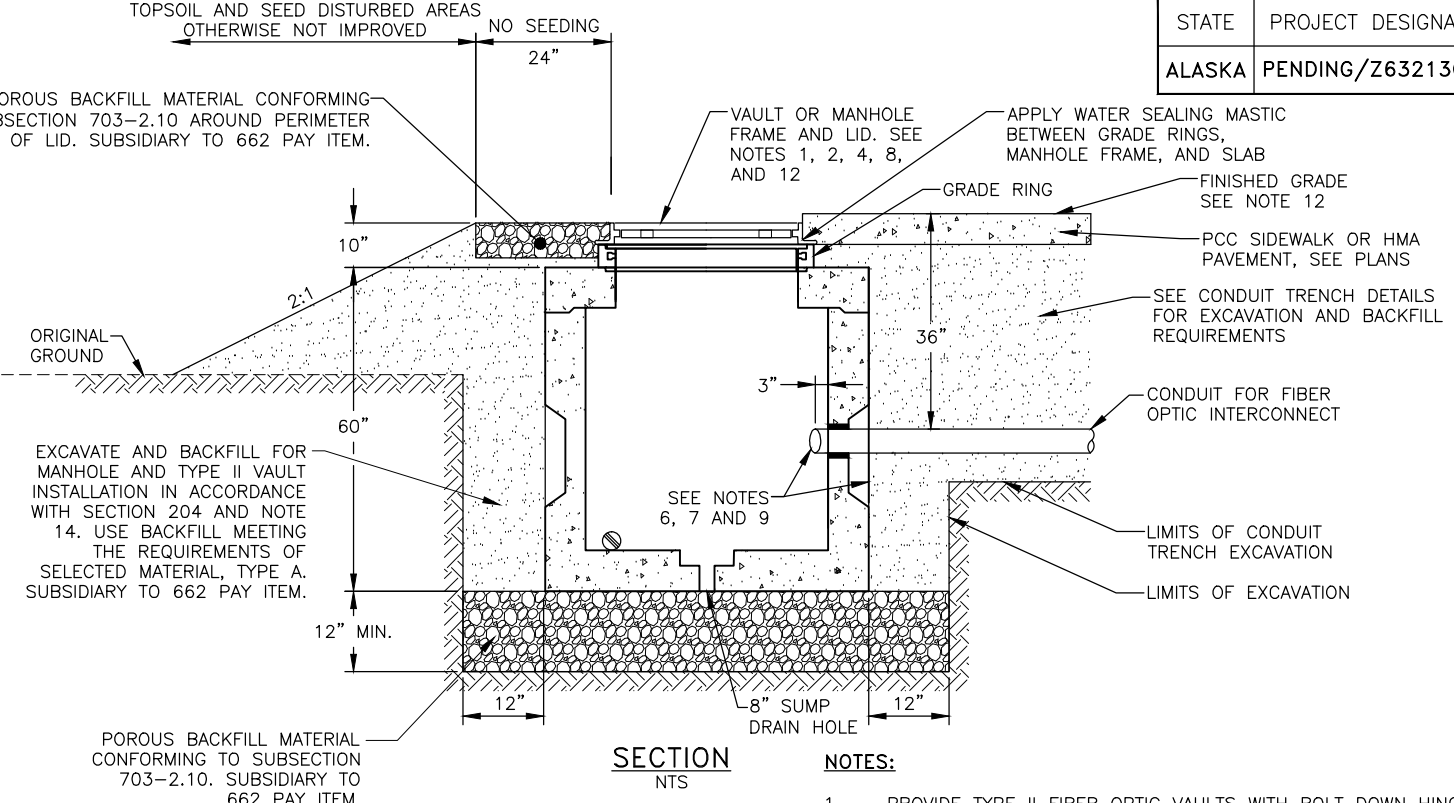
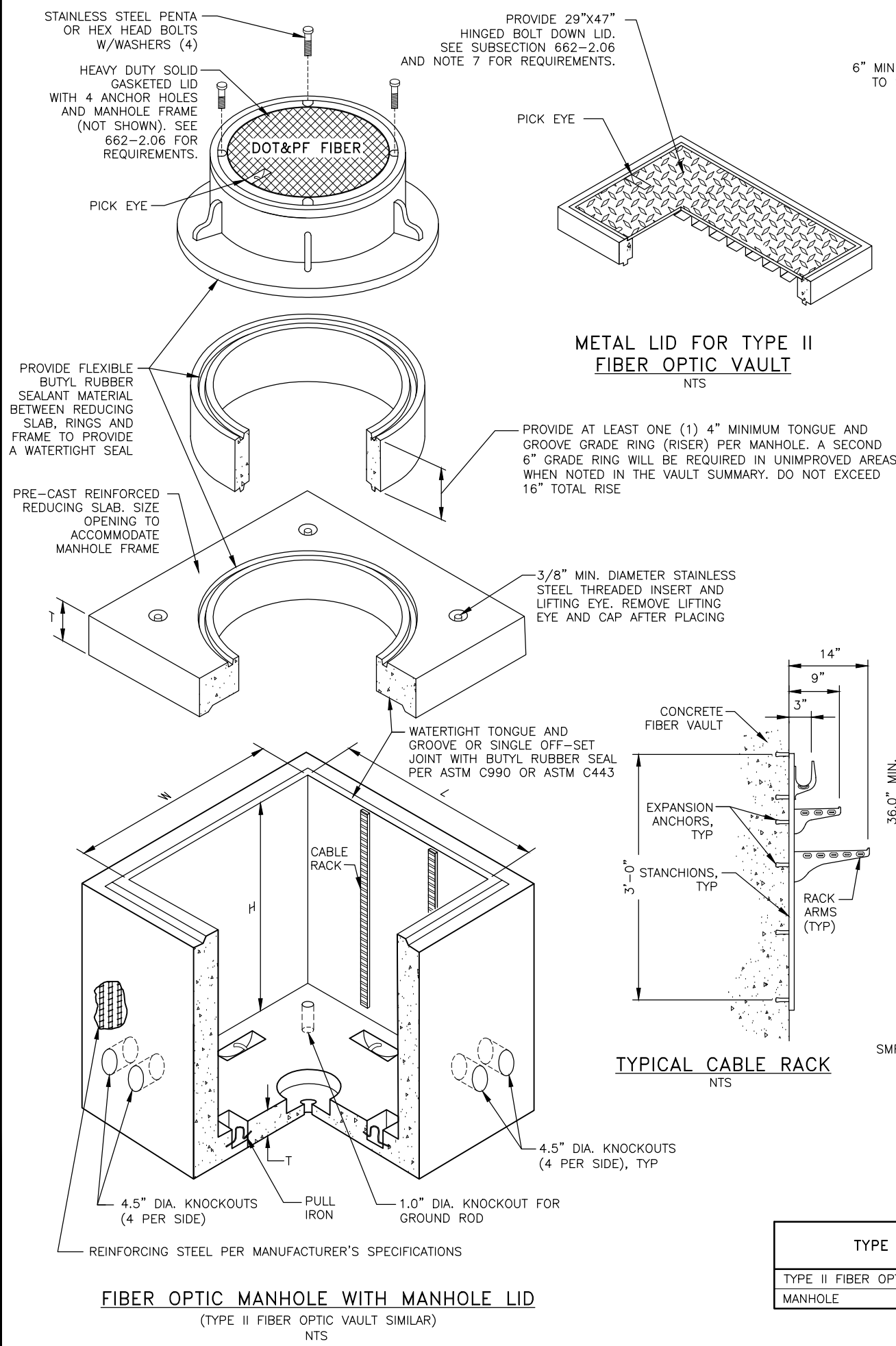
1. PROVIDE TYPE I FIBER-OPTIC VAULTS WHERE NOTED IN THE PLANS.
2. TYPE 1 FIBER-OPTIC VAULTS SHALL BE PRECAST POLYMER CONCRETE, HAVE OPEN FLARED BOTTOMS, AND CONFORM TO PLAN DETAILS AND PROJECT SPECIFICATIONS.
3. THE DESIGN/TEST LOAD STRENGTH OF THE BOX SHALL BE MINIMUM OF 22,500/33,750 LBS.
4. THE STANDARD COVER (LID) SHALL HAVE NOMINAL DIMENSIONS OF 30 1/8 in. WIDE X 47 5/8 in. LONG X 3 in. DEEP.
5. THE DESIGN/TEST LOAD STRENGTH OF THE COVER SHALL BE A MINIMUM OF 22,500/33,750 LBS.
6. THE COVER SHALL BE CAPABLE OF BEING SECURED TO THE BOX WITH TWO BOLTS, AND EMBOSSED WITH: "DOT&PF FIBER".
7. EXCAVATE AND BACKFILL FOR VAULT INSTALLATION IN ACCORDANCE WITH SECTION 204. USE BACKFILL MEETING THE REQUIREMENTS OF SELECTED MATERIAL TYPE A. WORK AND MATERIALS SHALL BE SUBSIDIARY TO 662 PAY ITEM.
8. UNLESS OTHERWISE NOTED, TYPE I FIBER OPTIC VAULT LIDS SHALL BE INSTALLED:
 - A. BETWEEN 1/16" TO 3/16" BELOW FINISHED GRADE WHEN INSTALLED IN SIDEWALK, PATHWAY, DRIVEWAY, ROADWAY, OR PARKING LOT. 1" WHEN LOCATED BEHIND SIDEWALK.
 - B. 6" ABOVE FINISHED GRADE IN UNIMPROVED AREAS.
9. FIBER-OPTIC VAULTS SHALL NOT INCLUDE ELECTRICAL CONDUCTORS.
10. DO NOT INSTALL VAULTS IN DRAINAGE COLLECTION AREAS.
11. PROVIDE ONE MARKER BALL IN EACH VAULT, SEE PROJECT SPECIFICATIONS.
12. ALL TRENCHING AND EXCAVATION SHALL COMPLY WITH OSHA SAFETY STANDARDS AND REGULATIONS.
13. TOPSOIL AND SEED SHALL BE PAID FOR UNDER THEIR RESPECTIVE PAY ITEMS.

TYPE I FIBER OPTIC VAULT

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
2/26/2021
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 (Brian Lewis) KE# 00245

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H52	H66



TYPE	"L" INCH	"W" INCH	"H" INCH	"T" INCH	LID
TYPE II FIBER OPTIC VAULT	30	48	48	6 MIN	HINGED METAL
MANHOLE	48	48	48	6 MIN	MANHOLE

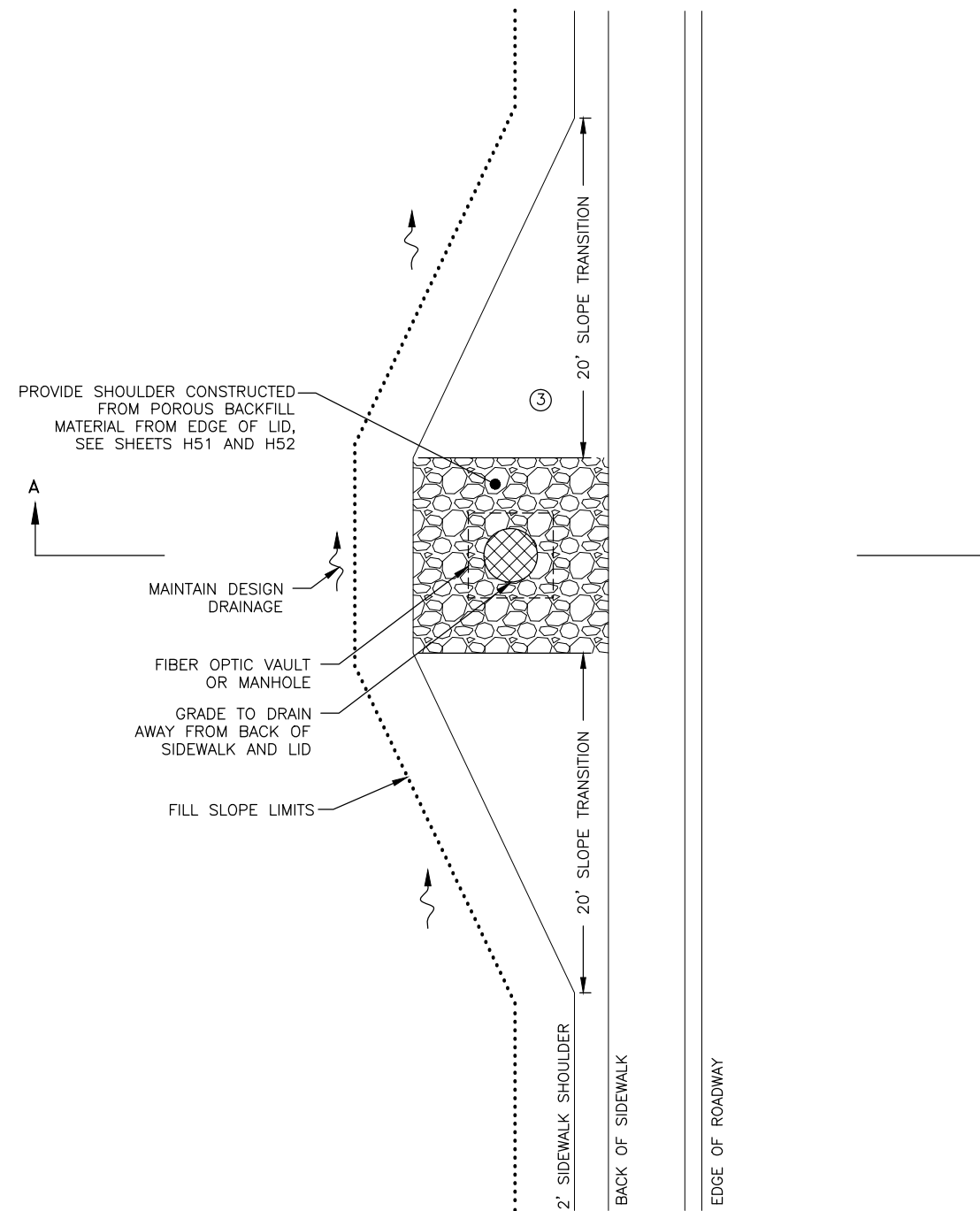
- NOTES:**
- PROVIDE TYPE II FIBER OPTIC VAULTS WITH BOLT DOWN HINGED METAL LID. SUPPLY FIBER VAULTS, LIDS, AND COVERS RATED FOR AASHTO HS-20-44 LOADING.
 - SUPPLY ALL LIDS WITH WITH A HOLE OR SLOT FOR REMOVAL WITH A LEVER OR HOOK.
 - WHERE REQUIRED BY OSHA, PROVIDE A PORTABLE ENTRY LADDER MEETING OSHA REQUIREMENTS.
 - PROVIDE FIBER VAULT AND MANHOLE LIDS MARKED, "DOT&PF FIBER".
 - PROVIDE FIBER MANHOLES AND VAULTS WITH A HEAVY-DUTY NON-METALLIC CABLE STORAGE RACK SYSTEM. PROVIDE RACK ARMS OR STANCHIONS CAPABLE OF SUPPORTING A MINIMUM OF 250 LBS. INCLUDE A MINIMUM OF 36 INCH RACK STANCHIONS AND 4 RACK ARMS.
 - INSTALL CONDUITS INTO FIBER VAULT AT THINWALL SECTIONS ONLY. CORE DRILL IN THE THINWALL SECTION TO CONDUIT SIZE PLUS 1/4 INCH ALL AROUND. DO NOT "KNOCK OUT" THE THINWALL SECTION.
 - SEAL CONDUIT PENETRATIONS USING SIKA LEAKMASTER LV-1 OR APPROVED ADEKA PRODUCT EQUIVALENT.
 - BOND AND GROUND ALL METALLIC COMPONENTS OF THE FIBER VAULT, INCLUDING RACK, FRAME AND LIDS PER STANDARD SPECIFICATION 660-3.06.
 - PLUG CONDUITS ENDS TO EXCLUDE WATER UNTIL FIBER OPTIC CABLE IS INSTALLED. SEE SECTIONS 660 AND 662.
 - EXTEND GROUND ROD A MINIMUM OF 4 INCHES AND A MAXIMUM OF 6 INCHES ABOVE BOTTOM OF VAULTS AND MANHOLES.
 - USE A SPLIT BOLT CONNECTOR TO ATTACH GROUND WIRES TO GROUND ROD. ATTACH NO MORE THAN TWO WIRES PER BOLT.
 - UNLESS OTHERWISE NOTED, VAULT AND MANHOLE LIDS SHALL BE INSTALLED:
 - FROM 0" TO 3/16" BELOW FINISHED GRADE WHEN LOCATED IN A SIDEWALK OR PATHWAY AND 1" WHEN LOCATED BEHIND SIDEWALK;
 - 3/8" BELOW FINISHED GRADE WHEN LOCATED IN A PAVED PARKING LOT, MEDIAN, OR ROADWAY;
 - FROM 4" TO 8" ABOVE FINISHED GRADE IN UNIMPROVED AREAS, AWAY FROM HARDSCAPED SURFACES;
 - OR AS DIRECTED BY THE ENGINEER.
 - DO NOT PLACE VAULTS AND MANHOLES IN THE BOTTOM OF DRAINAGE COLLECTION AREAS.
 - ALL TRENCHING AND EXCAVATION SHALL COMPLY WITH OSHA SAFETY STANDARDS AND REGULATIONS.
 - TOPSOIL AND SEED SHALL BE PAID FOR UNDER THEIR RESPECTIVE PAY ITEMS.

TYPE II FIBER OPTIC VAULT AND FIBER OPTIC MANHOLE

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC

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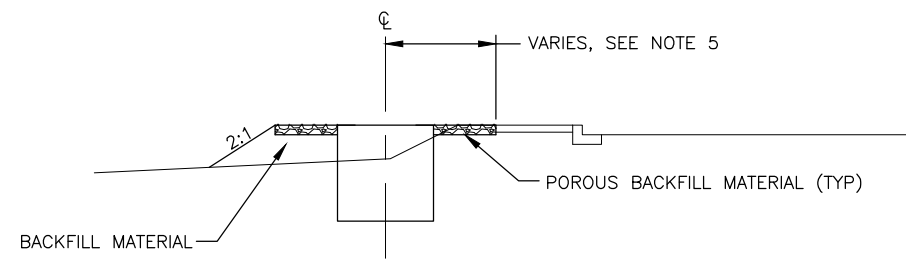
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H53	H66



PLAN

VAULT GRADING ON ROADWAY FORESLOPE

NTS



SECTION A-A

VAULT GRADING AND LOCATION

NTS

- NOTES:**
1. WHEN VAULT IS LOCATED ADJACENT TO A PATHWAY DEPRESS LID 1".
 2. SEE B SHEETS FOR TYPICAL SECTIONS.
 3. TOPSOIL AND SEED DISTURBED AREAS OTHERWISE NOT IMPROVED AND AS DIRECTED BY THE ENGINEER.
 4. DO NOT EXCEED R.O.W. LIMITS.
 5. OFFSET VAULT FROM BACK OF SIDEWALK TO ALLOW FOR CONSTRUCTION OF THE POROUS BACKFILL MATERIAL SHOULDER, AS SHOWN ON SHEETS H51 AND H52, BETWEEN LID AND BACK OF SIDEWALK.

VAULT WIDENING DETAIL

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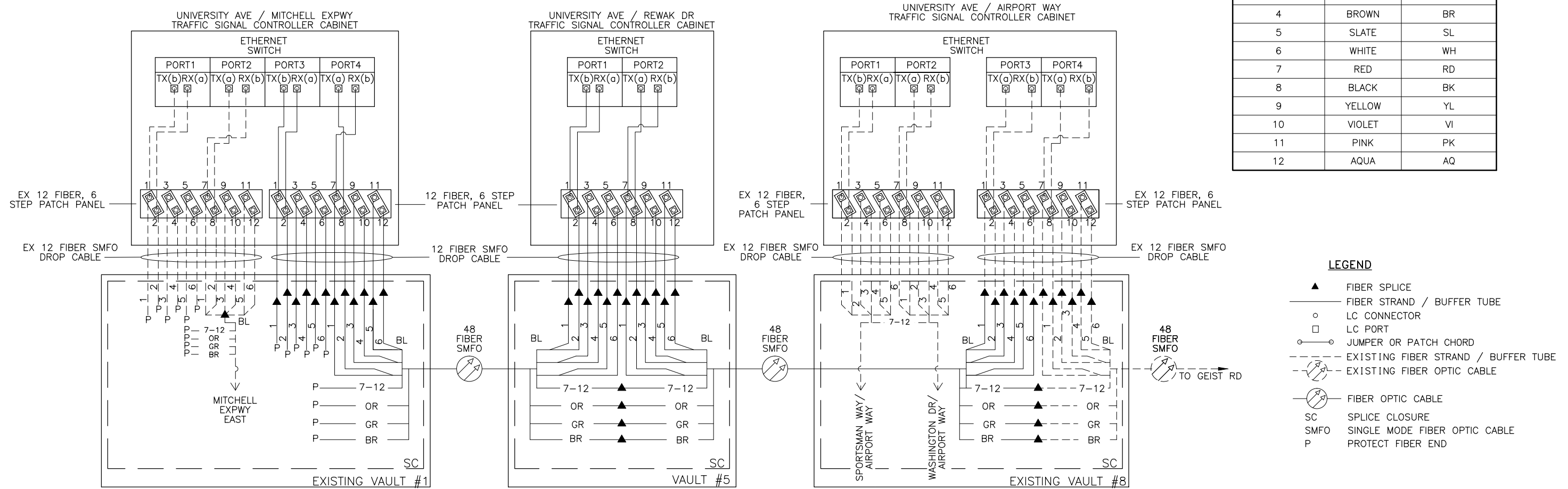
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H55	H66

NOTES:

1. REFER TO PLANS FOR CABLE ROUTING TO/FROM CABINETS.
2. ALL ETHERNET SWITCHES, ARE SINGLE MODE, OPERATING AT 1310 nm, UNLESS OTHERWISE SPECIFIED.
3. ETHERNET SWITCHES AND TERMINAL SERVERS SHALL INCLUDE POWER ADAPTERS CONVERTING 120 VAC TO APPROPRIATE OPERATING VOLTAGES.
4. ALL SPLICE TRAYS SHALL BE CONTAINED WITHIN ONE CLOSURE PER VAULT.
5. DROP CABLES SHALL BE PRECONNECTORIZED IN THE FACTORY. CONNECTORS INSTALLED IN THE FIELD WILL NOT BE ALLOWED.
6. COMMUNICATION COMPONENTS ARE SHOWN SCHEMATICALLY. VERIFY TX-RX FIBER PORTS PRIOR TO MAKING FINAL CONNECTIONS.
7. CONNECT ETHERNET SWITCH TO EACH PATCH PANEL WITH TWO SINGLE MODE FIBER PATCH CABLES. THE CABLES SHALL BE OF SUFFICIENT LENGTH TO ALLOW FOR MOVING OF THE ETHERNET SWITCH TO ANY SHELF LOCATION IN THE CABINET ONCE THE PATCH PANEL HAS BEEN INSTALLED. LABEL EACH PATCH CABLE ACCORDING TO THE TRANSMISSION DIRECTION TABLE.
8. PROVIDE THREE (EACH) ETHERNET CABLES OF SIX FOOT LENGTH FOR EACH CABINET RECEIVING AN ETHERNET SWITCH, TO BE CONNECTED TO CABINET COMPONENTS ACCORDING TO THE SWITCH COMMUNICATIONS WIRING DIAGRAM ON SHEET H56.
9. NO SPLICES ARE PERMITTED EXCEPT WHERE SPECIFICALLY INDICATED IN THE FIBER OPTIC SPLICE DIAGRAM. SPLICE CLOSURES MUST CONFORM TO SECTION 662-3.10 OF THE SPECIFICATIONS
10. MOUNT PATCH PANEL TO CABINET WALL AND IN A LOCATION AS TO NOT INTERFERE WITH OTHER EQUIPMENT AND SUCH THAT IT IS READILY ACCESSIBLE. PROVIDE SUFFICIENT SLACK CABLE IN CABINET TO ALLOW THE PATCH CABLE TO BE RELOCATED AT ANY LOCATION IN THE CABINET.

TRANSMIT DIRECTION	ABBREVIATION	
	TRANSMIT	RECEIVE
SOUTH TO NORTH	TX(a)	RX(a)
NORTH TO SOUTH	TX(b)	RX(b)
WEST TO EAST	TX(a)	RX(a)
EAST TO WEST	TX(b)	RX(b)

BUFFER COLOR CODING		
FIBER / POSITION NO.	BASE COLOR	ABBREVIATION
1	BLUE	BL
2	ORANGE	OR
3	GREEN	GR
4	BROWN	BR
5	SLATE	SL
6	WHITE	WH
7	RED	RD
8	BLACK	BK
9	YELLOW	YL
10	VIOLET	VI
11	PINK	PK
12	AQUA	AQ



FIBER OPTIC SPLICE DIAGRAM

FIBER OPTIC SPLICE
DETAILS

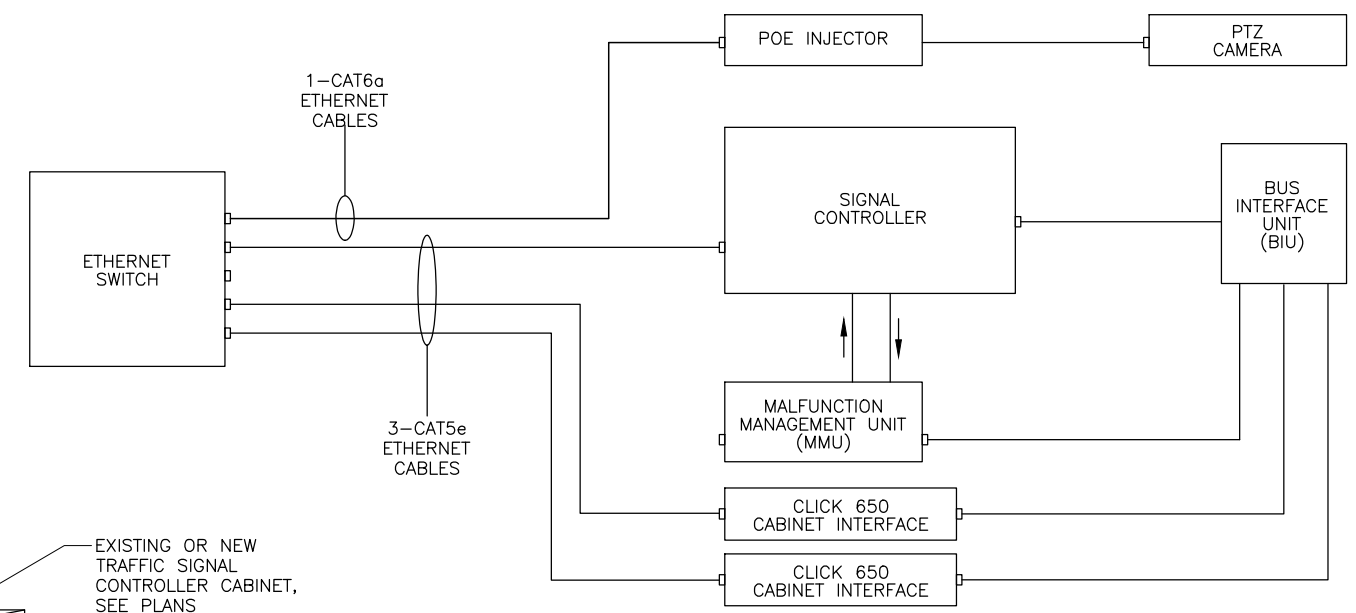
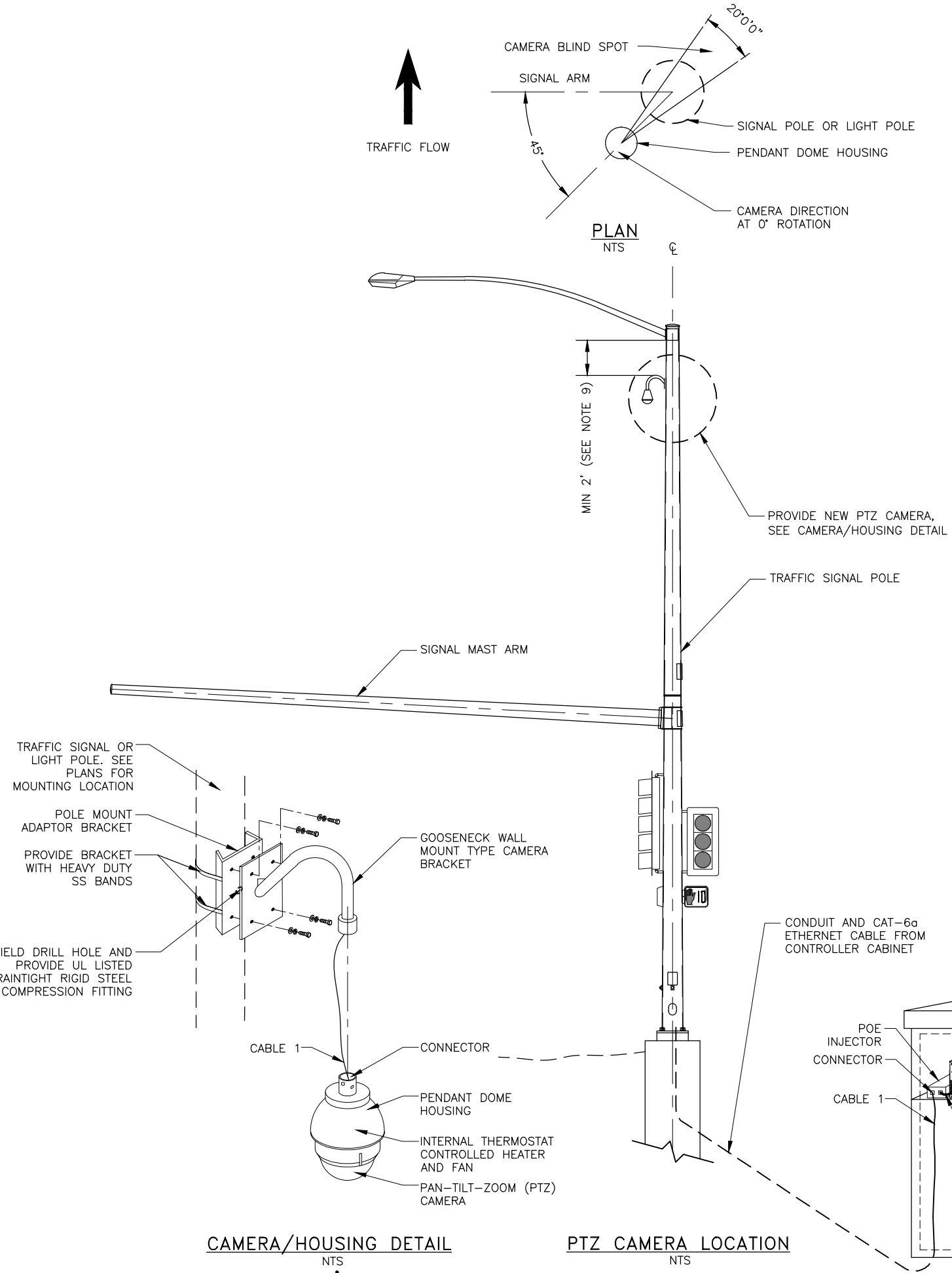
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STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H56	H66

MATERIAL REQUIREMENTS	
ALL ASSEMBLIES	
MOUNTING BRACKET	PELCO TRITON BRACKET OR APPROVED EQUAL
POLE MOUNT ADAPTOR	AXIS T91A57 OR APPROVED EQUAL
GOOSENECK WALL MOUNT	AXIS T91G61 OR APPROVED EQUAL
CABLE 1	CAT-6a, FOILED
POE INJECTOR	AXIS T8134 60W OR APPROVED EQUAL
CONNECTOR	ENVIRONMENTALLY HARDENED RJ-45
STRAIN RELIEF	REMKE 2201-013 OR APPROVED EQUAL
CAMERA	
PTZ CAMERA	UNLESS OTHERWISE NOTED, PROVIDE AXIS Q6155-E OR APPROVED EQUAL
HOUSING	
PENDANT DOME HOUSING	OUTDOOR, INTEGRATED WITH CAMERA OR APPROVED EQUAL

- NOTES:**
1. PROTECT ETHERNET CABLE ENDS FROM MOISTURE AT ALL TIMES.
 2. WHEN NEW ETHERNET CABLE IS BEING ADDED TO EXISTING CONDUITS, CONFORM TO SECTIONS 660-3.03, 3.05, and 3.06 OF THE SPECIFICATIONS. PROVIDE CABLE SO THAT THERE IS SUFFICIENT LENGTH TO REACH THE TOP OF THE CONTROLLER CABINET. CABLE IS TO BE PULLED WITHOUT CONNECTORS ATTACHED. WHEN CABLE HAS BEEN PULLED TO FINAL LOCATIONS PROVIDE, RJ45 CONNECTORS AND MAKE FINAL CONNECTIONS.
 3. CABLE RUNS ARE TO BE MADE CONTINUOUS WITHOUT SPLICES.
 4. CABLE WITH DAMAGED INSULATION, OR HAS BEEN CRIMPED OR BENT BEYOND THE MINIMUM BEND RADIUS MUST BE REPLACED AT NO ADDITIONAL COST.
 5. THE MINIMUM CABLE BEND RADIUS SHALL NOT EXCEED THE MANUFACTURER'S RECOMMENDATIONS DURING INSTALLATION.
 6. MOUNT THE PENDANT DOME HOUSING AT A 45° ANGLE AT THE REQUIRED HEIGHT. ANGLE AND HEIGHT MAY BE ADJUSTED BY THE ENGINEER TO AVOID WELDS, AND SIGNAL APPURTENANCES AND TO IMPROVE CAMERA VIEWS.
 7. ADJUST CAMERA INSIDE THE PENDANT DOME HOUSING AS SHOWN. ENSURE THAT THE CAMERA IS MOUNTED AT A 0° TILT ANGLE.
 8. AT CABLE END CONNECTOR LOCATION PROVIDE A SECURE CONNECTION USING CONNECTOR PARTS SPECIFIED. AFTER CONNECTION IS MADE COVER SPLICE WITH WATER PROOF HEAT SHRINK TUBING. PROVIDE A STRAIN RELIEF CABLE AS NECESSARY.
 9. CAT6a TOTAL CABLE LENGTH SHALL NOT EXCEED 325 FEET FROM THE ETHERNET SWITCH TO THE PTZ CAMERA. WHEN MOUNTED ON THE SAME POLE WITH WIRELESS LIGHTING CONTROL GATEWAY, MOUNT THE PTZ CAMERA BELOW THE GATEWAY WITH 2-FEET MIN. OF SEPARATION BETWEEN THE TOP OF THE PTZ MOUNTING BRACKET AND THE BOTTOM OF THE GATEWAY ENCLOSURE, OR AT THE ENGINEER'S DIRECTION.



SWITCH COMMUNICATIONS WIRING DIAGRAM

PAN, TILT, ZOOM, CAMERA DETAILS

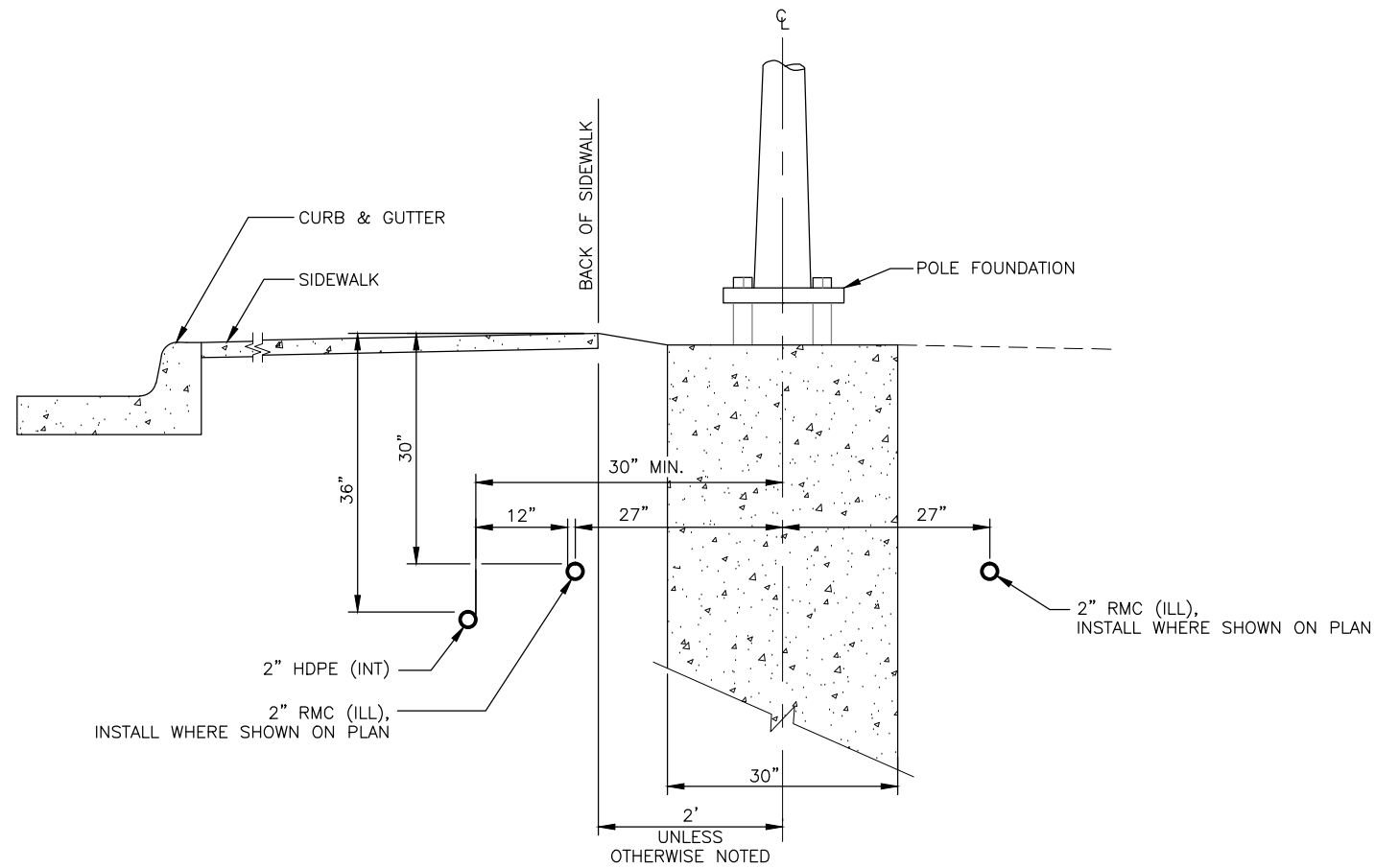
PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC

STATE OF ALASKA
2/26/2021
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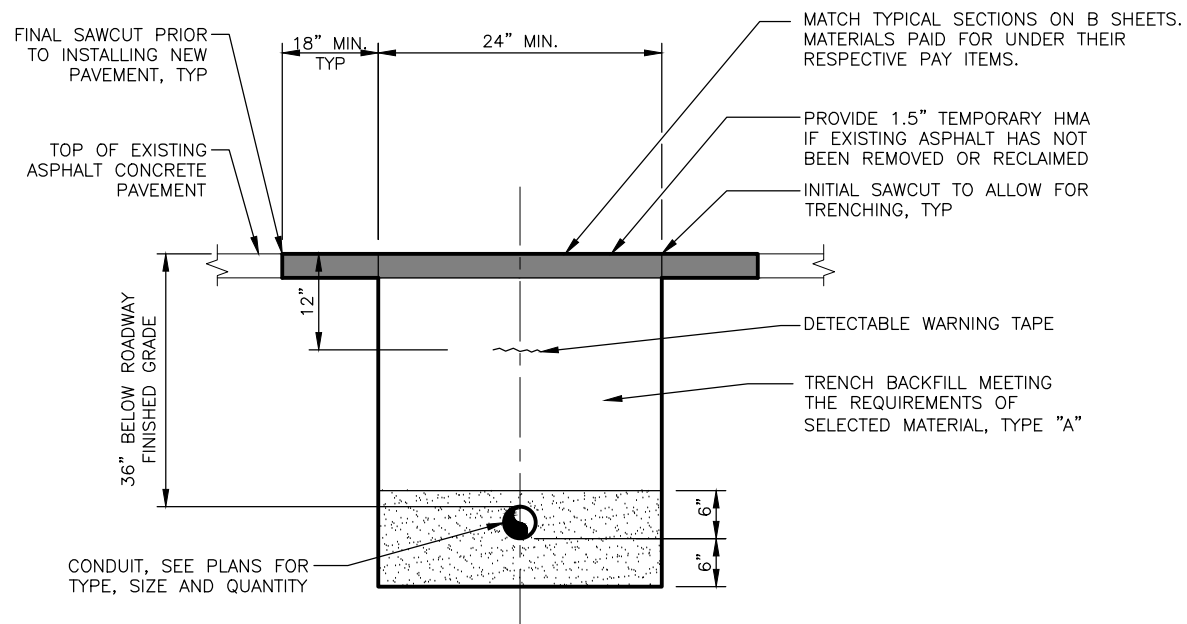
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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TYPICAL PLACEMENT ADJACENT TO CIDH LIGHT POLE FOUNDATIONS

UTILITY PLACEMENT DETAILS

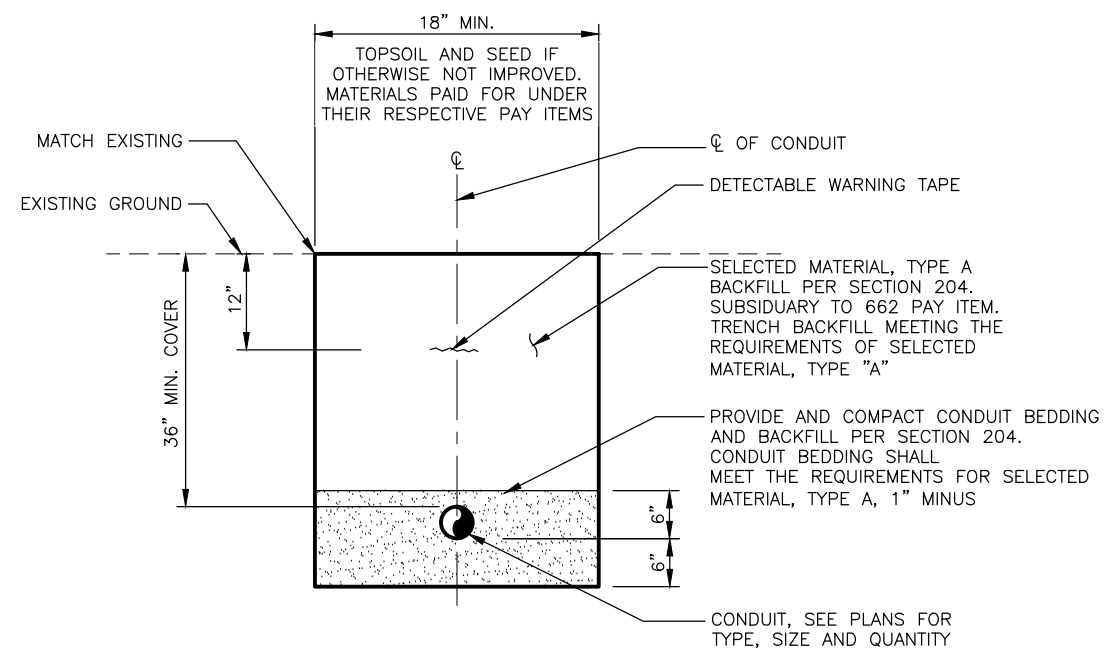
NTS



TYPICAL DETAIL FOR CONDUIT TRENCH AND EXCAVATION BENEATH PAVED ASPHALT SURFACES

TRENCH DETAILS

NTS



TYPICAL CONDUIT TRENCH ADJACENT TO ROADWAYS

INTERCONNECT AND LIGHTING TRENCH DETAILS

TRENCH NOTES:

1. ALL ASPHALT PAVEMENT OR CONCRETE SIDEWALK SHALL BE SAWCUT PRIOR TO REMOVAL. EXCEPTION: WHERE APPLICABLE, THE CONCRETE SIDEWALK SHALL BE REMOVED TO THE NEAREST CONSTRUCTION JOINT UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
2. ALL CONDUIT TRENCH AND EXCAVATION BENEATH ASPHALT OR CONCRETE PAVED SURFACES SHALL BE COMPLETED BEFORE FINAL PAVING.
3. SEE SPECIAL PROVISIONS SUBSECTION 643-3.08 FOR ADDITIONAL PAVING REQUIREMENTS.

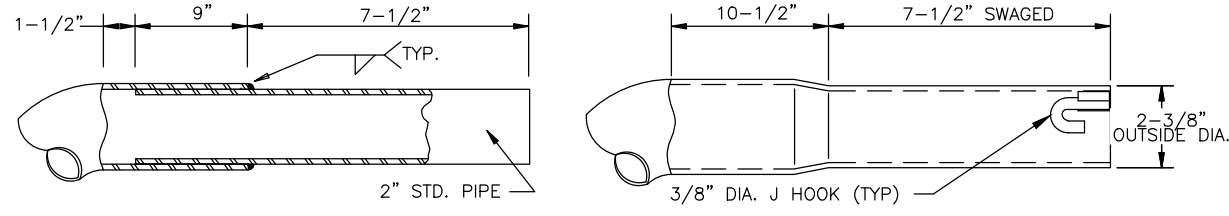
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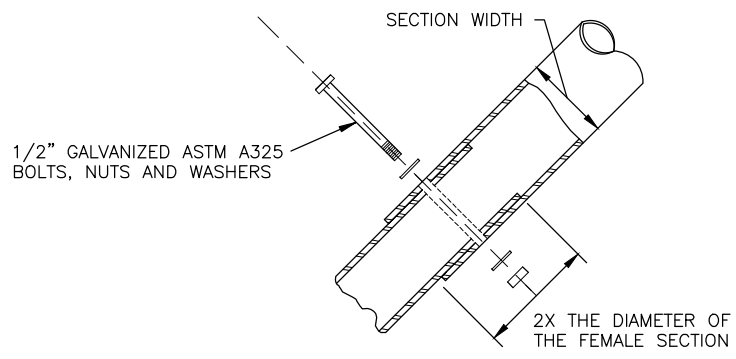
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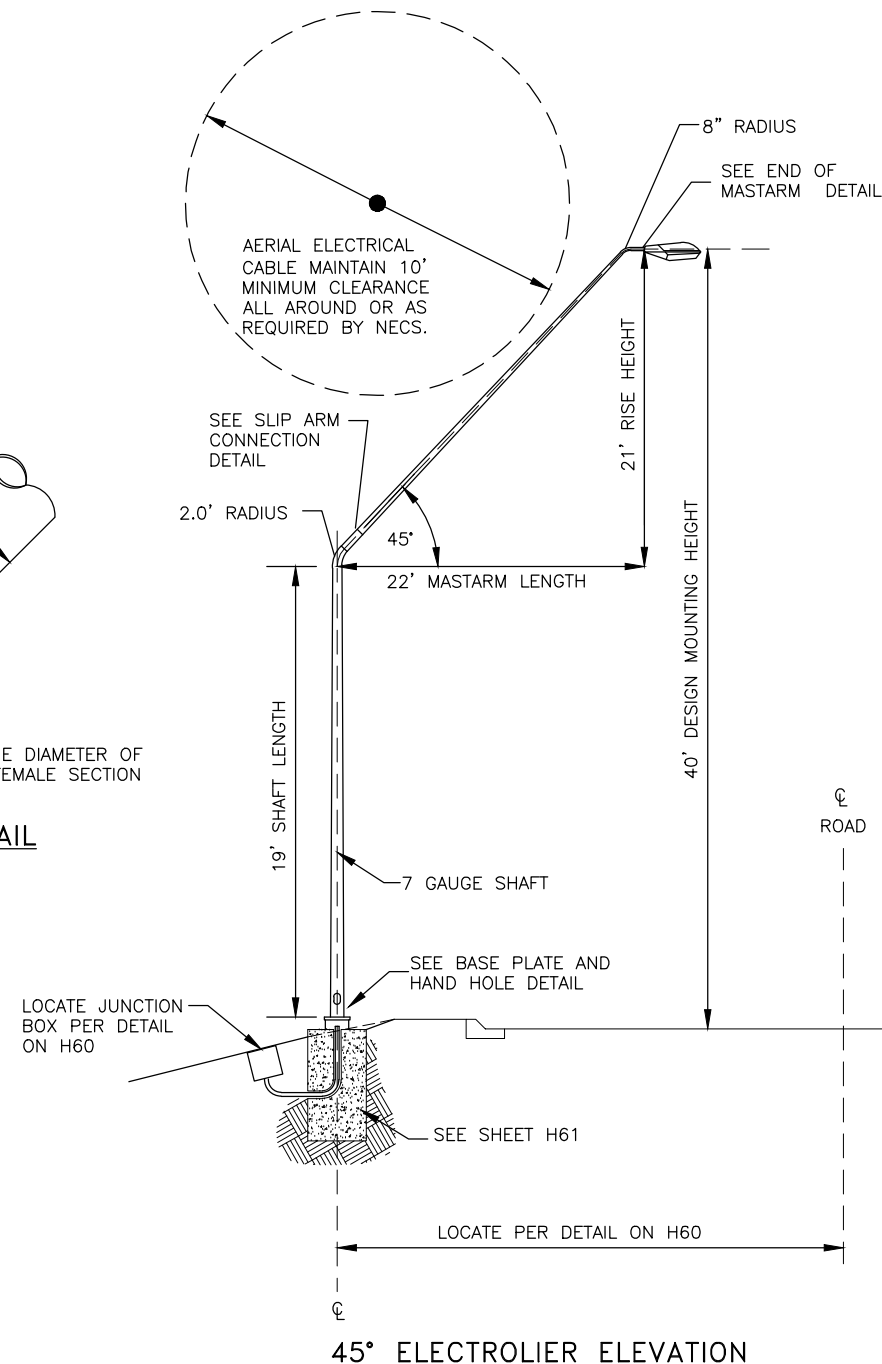


TENON
END OF MASTARM DETAIL
OPTIONAL SWAGED TENON

NTS



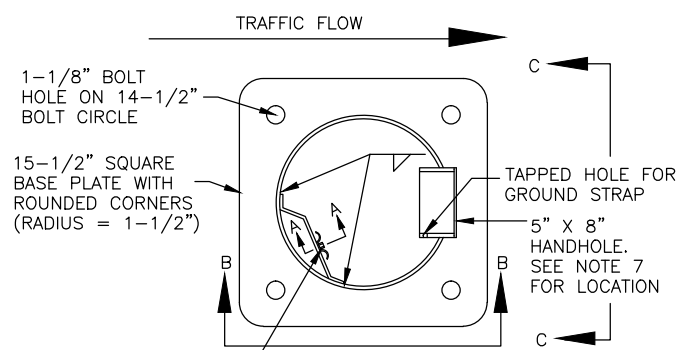
SLIP CONNECTION DETAIL



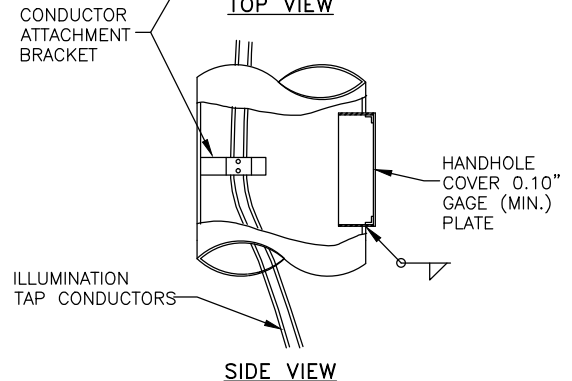
45° ELECTROLIER ELEVATION

NOTES:

- DESIGN AND FABRICATE ALL SHAFTS TO SUPPORT A MASTARM 22 FEET LONG WITH LUMINAIRE. ASSUME EACH LUMINAIRE WEIGHS 55 POUNDS AND HAS AN EFFECTIVE PROJECTED AREA OF 1.2 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 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 RISE MAY VARY ±6" FROM THE VALUES LISTED IN THE TABLE.
- LOCATE THE HANDHOLE 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. FURNISH ALL MASTARM POLES WITH A REMOVABLE RAIN TIGHT CAP.
- 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 12-7/8" SQUARE.

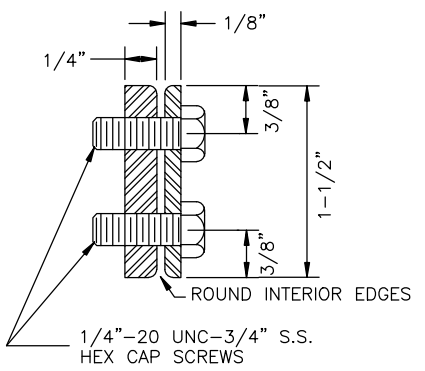


TOP VIEW

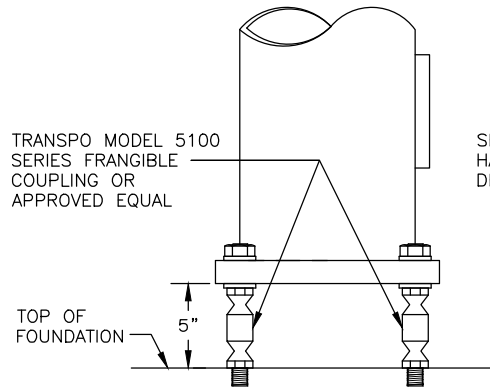


SIDE VIEW

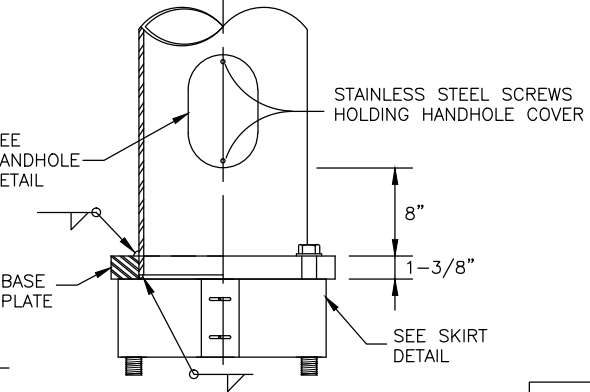
BASE PLATE AND HAND HOLE DETAIL



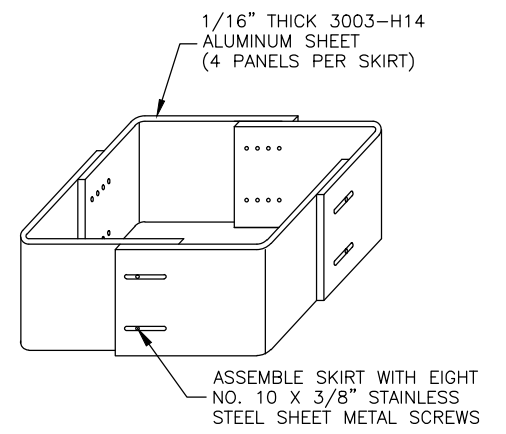
SECTION A-A



VIEW B-B



VIEW C-C

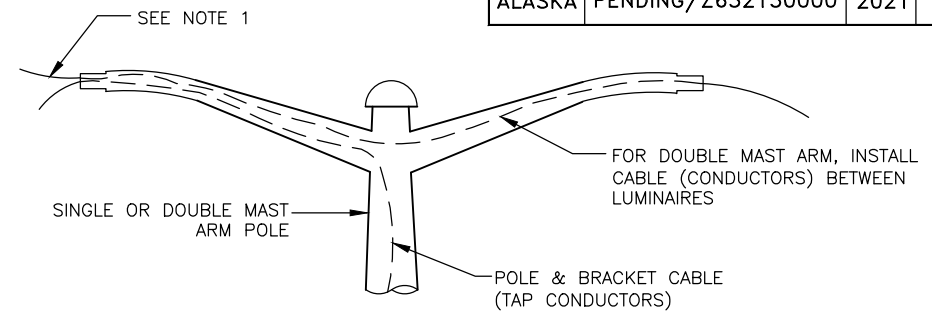
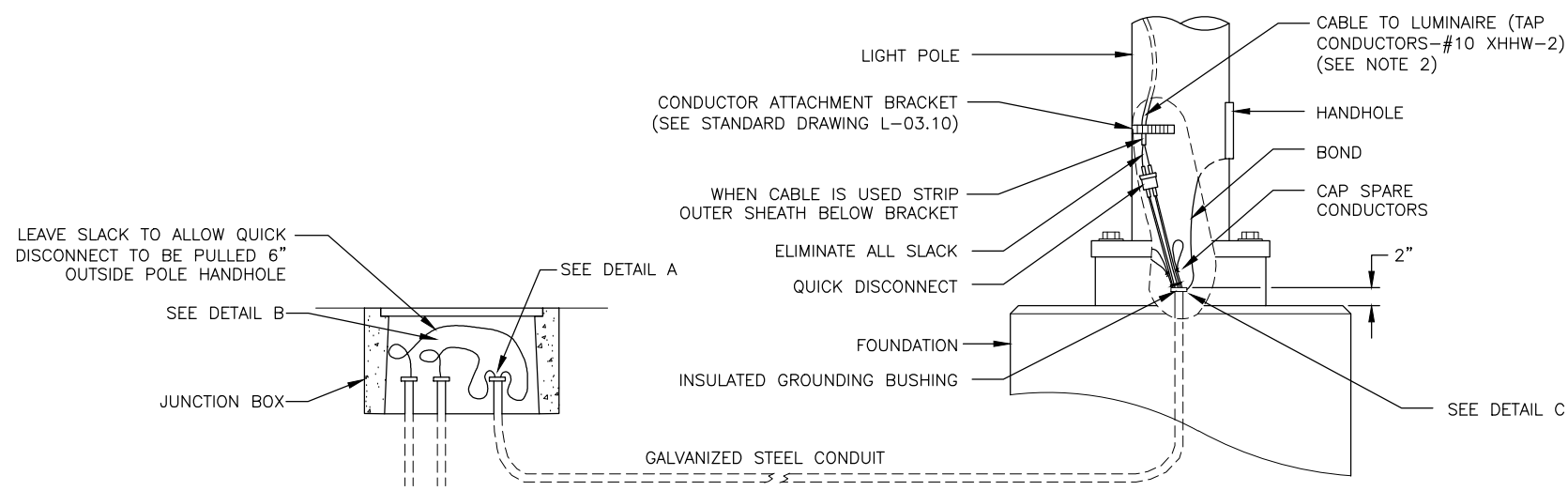


SKIRT DETAIL

45 DEGREE ELECTROLIER DETAIL

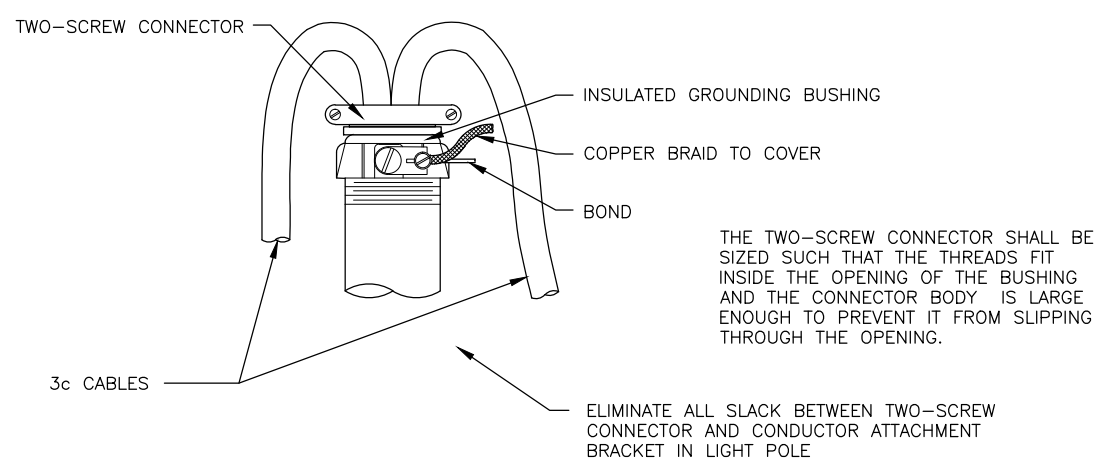
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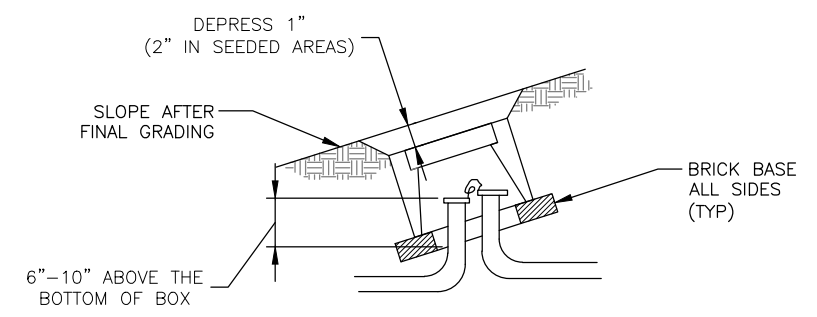


NOTE:
 1. INSTALL 2"x1" REDUCING WASHER AND 1" CONNECTOR TO SECURE CONDUCTORS AT THE END OF THE MAST ARM

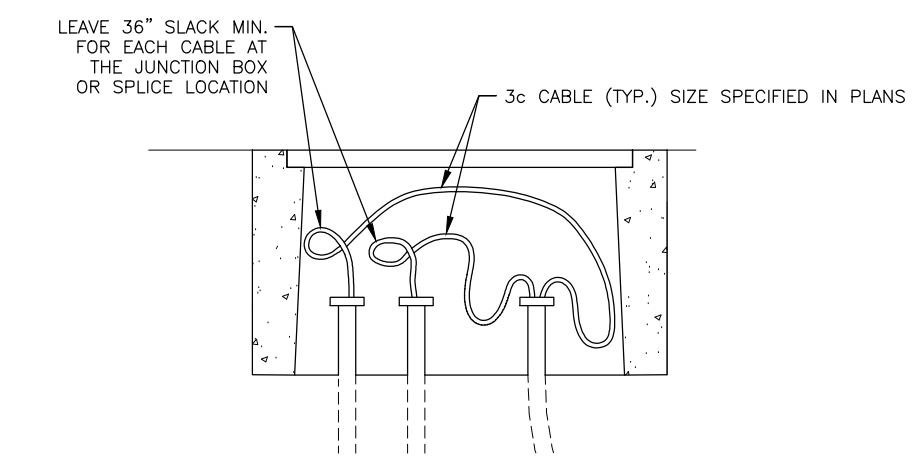
LIGHT STANDARD MAST ARM WIRING DETAIL
 NTS



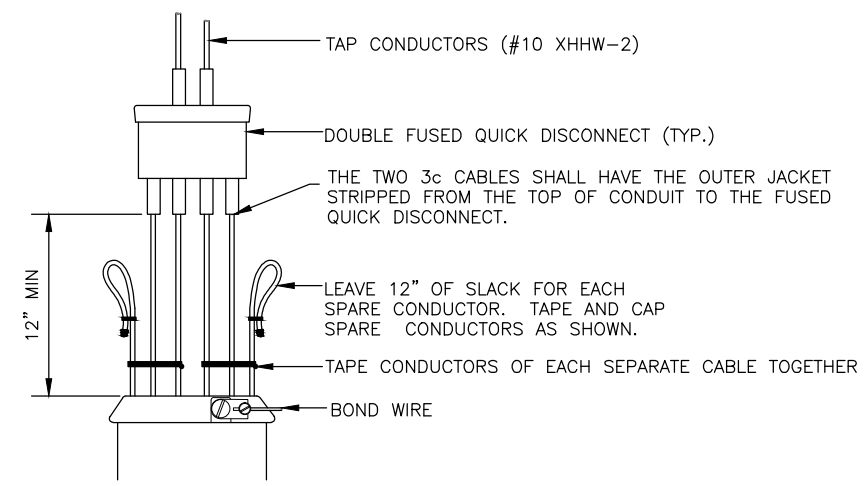
DETAIL A



TYPE IA J-BOX INSTALLATION ON SLOPE
 NTS



DETAIL B



DETAIL C

- NOTES:**
1. LABEL ALL CABLES AND CONDUCTORS IN POLE BASE AND J-BOX.
 2. LEAVE ENOUGH SLACK ABOVE THE CONDUCTOR ATTACHMENT BRACKET TO ALLOW THE QUICK DISCONNECT TO BE PULLED 6" OUTSIDE OF HANDHOLE.
 3. NOT ALL GROUNDING CONDUCTORS, AS REQUIRED BY SECTION 660-3.06, ARE SHOWN IN THESE DETAILS.

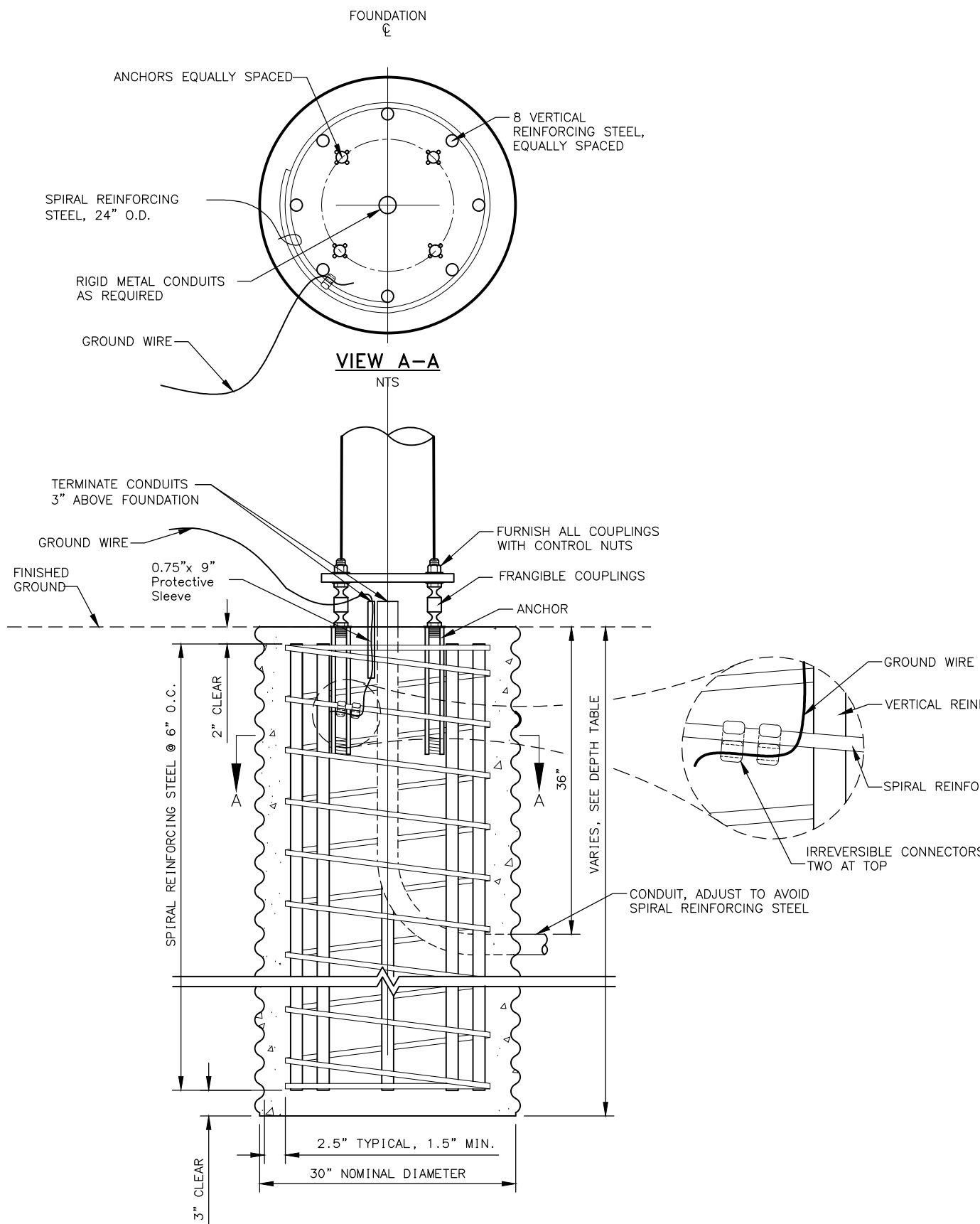
LIGHTING SYSTEM POLE AND J-BOX WIRING DETAILS
 NTS

**LIGHTING SYSTEM POLE
 J-BOX DETAILS**

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STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H61	H66



FOUNDATION DETAILS
 NTS
 (SKIRT OMITTED FOR CLARITY)

MATERIAL REQUIREMENTS		
CONCRETE	CLASS A	F'C = 4000 PSI
CMP	AASHTO M218	14 GA.
VERTICAL REINFORCING STEEL	AASHTO M31 #11	GR 60
SPIRAL REINFORCING STEEL	AASHTO M31 #5	GR 60
GROUND WIRE		#4 awg
FRANGIBLE COUPLING	NCHRP 350 TL3 FRANGIBLE COUPLING	VU = 5.5 KIPS TU = 43.2 KIPS
ANCHOR	NCHRP 350 TL3 FRANGIBLE COUPLING ANCHOR	
CONDUIT	SCH 40	RMC
PROTECTIVE SLEEVE	SCH 40	PVC

DEPTH TABLE		
GRADE	FOUNDATION DEPTH BY APPLICATION (ft.)	
	ELECTROLIER * SEE NOTE 9	BREAKAWAY TRAFFIC SIGNAL
FLAT TO 6:1	8	6
>=6:1 TO 3:1	9	7
>=3:1 TO 1.5:1	10	8

SAND SLURRY MIX DESIGN		
ITEM	BATCHING QUANTITIES PER CYD BATCH (lbs.)	APPLICABLE SPECS.
PORTLAND CEMENT CONCRETE	188	701-2.01
WATER (52.1 GAL.)	435	712-2.01
FINE AGGREGATE SSD	3041	703-2.01
ADMIXTURE: MICROAIR	2.0 OZ.	711-2.02
TOTAL	3664	

BOLT CIRCLE	
NORTHERN REGION PROJECTS	14.5"

DESIGN NOTES:

- DESIGN STANDARD: SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, LFRD 1ST EDITION, AASHTO, 2015, WITH 2017 AND 2018 INTERIM REVISIONS.
- DESIGN LOAD: 1,000 LBS AXIAL, 2,000 LBS SHEAR, 50,000 FT-LBS MOMENT.
- CONSTRUCTION STANDARD: LATEST EDITION OF THE STATE OF ALASKA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION WITH SPECIAL PROVISIONS.

NOTES:

- THIS FOUNDATION IS APPROVED FOR ELECTROLIER AND BREAKAWAY TRAFFIC SIGNAL APPLICATIONS IN COHESIONLESS SOILS WITH AN N1-60 VALUE OF 10 OR GREATER PER AASHTO T-206, "STANDARD PENETRATION TEST" (SPT). THIS FOUNDATION SHALL NOT BE USED IF ANY OF THE FOLLOWING ARE ENCOUNTERED; WATER TABLE ABOVE THE BOTTOM OF FOUNDATION, VERY LOOSE SOILS, ORGANIC SOILS, COHESIVE SOILS (CLAY), OR SOILS SUSCEPTIBLE TO FROST JACKING. IF ANY OF THESE CONDITIONS ARE ENCOUNTERED, STOP FOUNDATION WORK AND CONTACT THE ENGINEER.
- PLACE FOUNDATION IN DRILLED OR EXCAVATED HOLE WITH CENTERLINE OF FOUNDATION LOCATED AT THE STATION, OFFSET, AND ELEVATION SPECIFIED IN PLANS. SET FOUNDATION TO SATISFY THE CONDITIONS DEPICTED IN CLEARANCE DETAIL.
- FORM THE FOUNDATION IN CORRUGATED METAL PIPE CONFORMING TO SUBSECTION 707-2.01 OF THE SPECIFICATIONS.
- PROVIDE 1.5 EXTRA TURNS AT EACH END OF THE SPIRAL REINFORCING STEEL. REINFORCING STEEL SHALL NOT BE SPLICED. TIE VERTICAL REINFORCING STEEL TO EACH INTERSECTION OF THE SPIRAL REINFORCING STEEL.
- CONNECT GROUND WIRE NEAR THE TOP OF SPIRAL REINFORCING STEEL WITH TWO IRREVERSIBLE CONNECTORS AS SHOWN. FASTEN CONNECTORS ACCORDING TO THE MANUFACTURERS' RECOMMENDATIONS INCLUDING THE USE OF MANUFACTURER SPECIFIED TOOLS. THE GROUND WIRE MAY BE BARE SOLID, STRANDED, OR BRAIDED COPPER. PROTECT GROUND WIRE WITH PROTECTIVE SLEEVE AS SHOWN AND FILL WITH SILICON SEALANT.
- COMPLETE ALL CONCRETE WORK IN CONFORMANCE WITH SECTIONS 501, 503, AND 660 OF THE SPECIFICATIONS. USE A TUBE WITH A HOPPER HEAD OR OTHER APPROVED DEVICE WHEN DROPPING CONCRETE MORE THAN 5 FEET PER SUBSECTION 501-3.08. VIBRATE CONCRETE DURING PLACEMENT BY MECHANICAL VIBRATION PER SUBSECTION 501-3.08. ENSURE ANCHOR THREADS ARE PROTECTED FROM CONTACT WITH CONCRETE DURING POUR.
- BACKFILL AND COMPACT ACCORDING TO SECTION 205, AND SUBSECTIONS 203-3.04 AND 660-3.01 OF THE SPECIFICATIONS. USE SELECT MATERIAL, TYPE A OR SAND SLURRY AS BACKFILL MATERIAL. ENSURE AREA BELOW FOUNDATION MEETS COMPACTION REQUIREMENTS AND IS FREE OF LOOSE MATERIAL AND DEBRIS PRIOR TO CONCRETE WORK.
- INSTALL ALL ANCHORS ACCORDING TO THE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS. ANCHORS SHALL BE INSTALLED PLUMB. ANCHORS GREATER THAN 1:40 OUT-OF-PLUMB WILL RESULT IN FOUNDATION REJECTION.
- WHEN USED FOR ELECTROLIER REDUCE THE FOUNDATION DEPTH 1 FOOT WHEN THERE IS NO LUMINAIRE ARM OR THE LUMINAIRE ARM IS LESS THAN OR EQUAL TO 12 FEET.
- GRADE IN DEPTH TABLE REFERS TO FILL SLOPES. IF FOUNDATION IS IN A CUT SLOPE ASSUME FLAT GRADE IN TABLE. TO DETERMINE GRADE IN FILL SLOPES, USE THE MOST SEVERE GRADE FOUND WITHIN AN 8 FOOT RADIUS OF THE CENTER OF THE FOUNDATION. SLOPES STEEPER THAN 1.5:1 REQUIRE ENGINEERED DEPTH CALCULATION.

CIDH LIGHT POLE
 FOUNDATION DETAILS

PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
**2/26/2021
 REVIEW
 PS&E
 SUBMITTAL**

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H62	H66

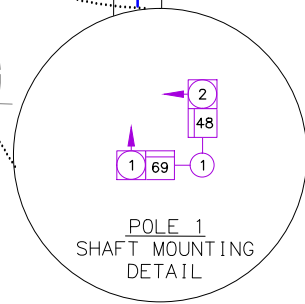
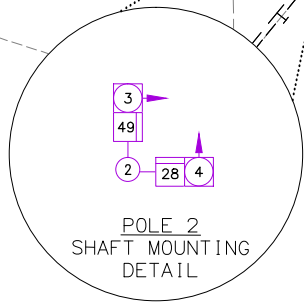
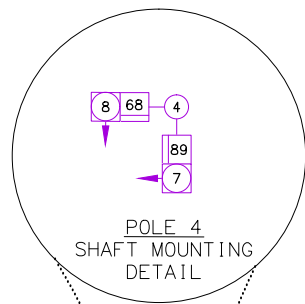
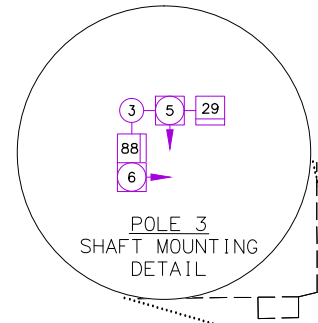
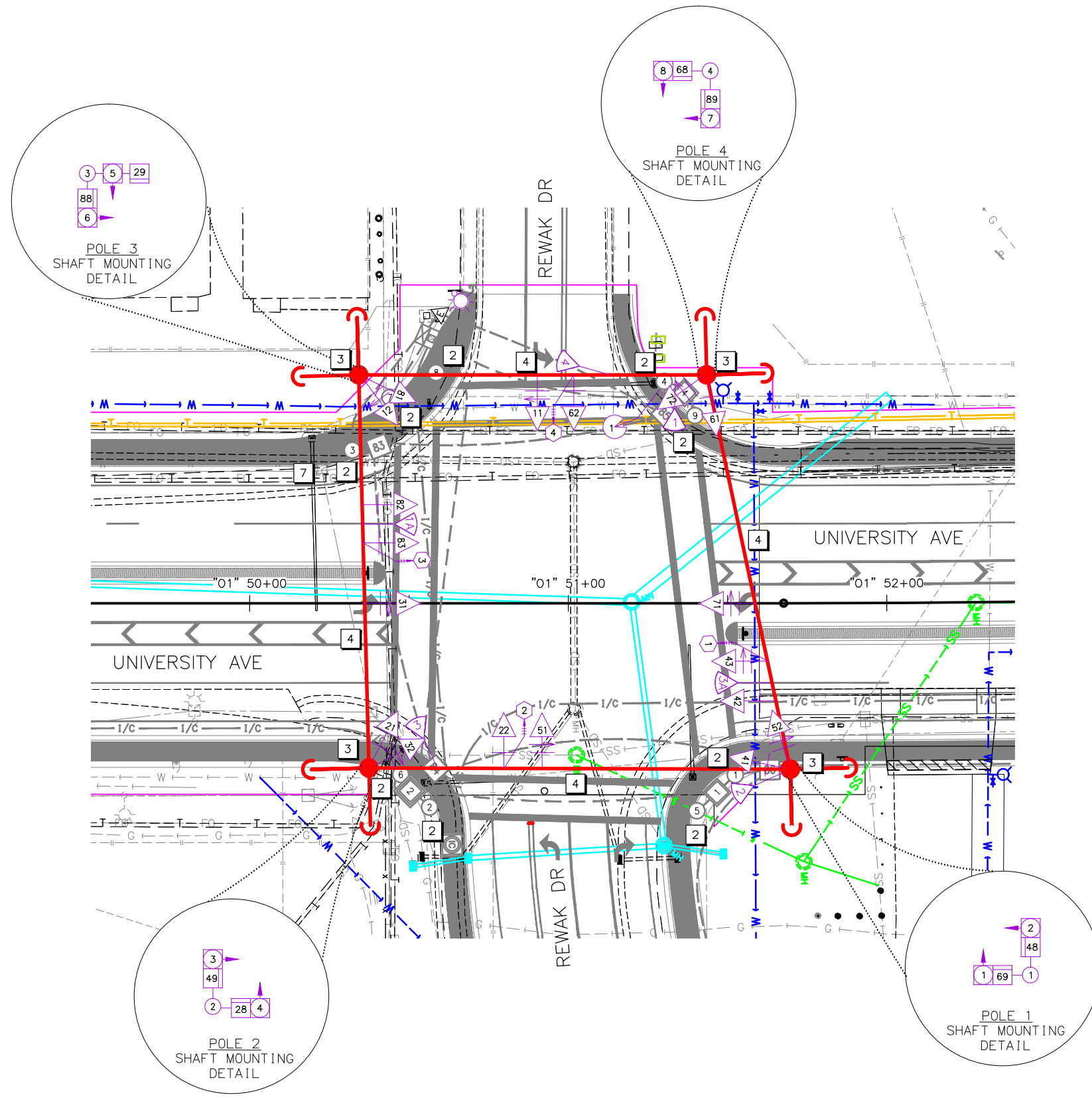


GENERAL SHEET NOTES:

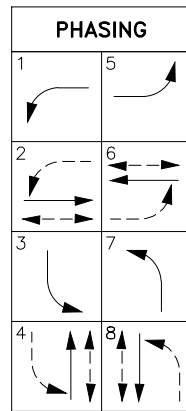
1. THE TEMPORARY SIGNAL SYSTEM SHOWN IS IN THE FINAL LANE CONFIGURATION. MODIFICATIONS TO THE TEMPORARY TRAFFIC SIGNAL WILL BE REQUIRED DURING CONSTRUCTION TO ACCOMMODATE VARYING TRAFFIC LANE CONFIGURATIONS AND OPERATIONS.
2. SUBMIT A TEMPORARY TRAFFIC PLAN FOR APPROVAL BY THE ENGINEER PRIOR TO IMPLEMENTING ALTERATIONS TO THE TEMPORARY TRAFFIC SIGNAL.
3. VEHICLE DETECTION WILL BE REQUIRED THROUGHOUT CONSTRUCTION. ADJUST AS NEEDED TO ACCOMMODATE CONSTRUCTION WORK. SEE SPECIFICATIONS FOR RADAR VEHICLE DETECTION REQUIREMENTS.
4. DURING CONSTRUCTION, CONTRACTOR SHALL RE-AIM AND/OR RE-POSITION VEHICLE SIGNAL HEADS, OPTICOM, AND RADAR DETECTION AS REQUIRED OR AS DIRECTED BY THE ENGINEER TO ACCOMMODATE THE IMPROVEMENTS OR MIS-ALIGNMENT.
5. PROVIDE AND MAINTAIN TEMPORARY SIGNING AND PAVEMENT MARKINGS AS REQUIRED BY THE ALASKA TRAFFIC MANUAL, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, PLANS, AND SPECIFICATIONS. REMOVE OR COVER CONFLICTING TRAFFIC SIGNS AND PAVEMENT MARKINGS.
6. MAINTAIN EXISTING PEDESTRIAN AND BICYCLE ACCESS THROUGH THE WORK ZONE AND IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT GUIDELINES, PLANS, AND SPECIFICATIONS.
7. ALL WORK SHALL BE CONTAINED WITHIN ROW OR TCP/TCE LIMITS.
8. OBTAIN THE ENGINEER'S APPROVAL TO DECOMMISSION AND SALVAGE THE TEMPORARY TRAFFIC SIGNAL SYSTEM ONCE THE PERMANENT TRAFFIC SIGNAL SYSTEM IS FUNCTIONAL AND ACCEPTED. SEE SPECIFICATIONS FOR DELIVERY REQUIREMENTS.
9. TEMPORARY TRAFFIC SIGNALIZATION WORK AT THIS INTERSECTION SHALL BE PAID FOR UNDER 660.0007.0000.

SHEET NOTES:

- 1 EXISTING TRAFFIC SIGNAL POLE TO BE DEMOLISHED.
- 2 PROPOSED PERMANENT TRAFFIC OR PEDESTRIAN SIGNAL POLE.
- 3 TEMPORARY WOOD TRAFFIC POLE. PLACED OUTSIDE OF PROPOSED ROADWAY AND WITHIN ROW OR TCE. POLE GUYS SHALL BE PLACED WITHIN ROW OR TCE.
- 4 MESSENGER, TETHER, SIGNAL, OPTICOM, LIGHT, AND RADAR DETECTION CABLES.
- 5 PROPOSED PERMANENT TRAFFIC CONTROLLER.
- 6 PROPOSED PERMANENT LOAD CENTER.
- 7 PROPOSED PERMANENT INTERCONNECT VAULT.
- 8 TEMPORARY PEDESTRIAN SIGNAL POLE.
- 9 PROVIDE SIDEWALK DOWN GUY. PROVIDE 12 FT. CLEARANCE OVER PATHWAY.
- 10 TEMPORARY SIGNING
- 11 USE VACTOR TRUCK AND/OR WATER KNIFE FOR NEW TEMP POLE EXCAVATION, DUE TO PROXIMITY TO UNDERGROUND UTILITIES.



PHASE SEQUENCE



- PED MOVEMENT
- VEH. MOVEMENT
- LEFT TURN MOVEMENT (PROTECTED)
- LEFT TURN MOVEMENT (PERMISSIVE)

**REWAK DRIVE
TEMPORARY SIGNAL PLAN**

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

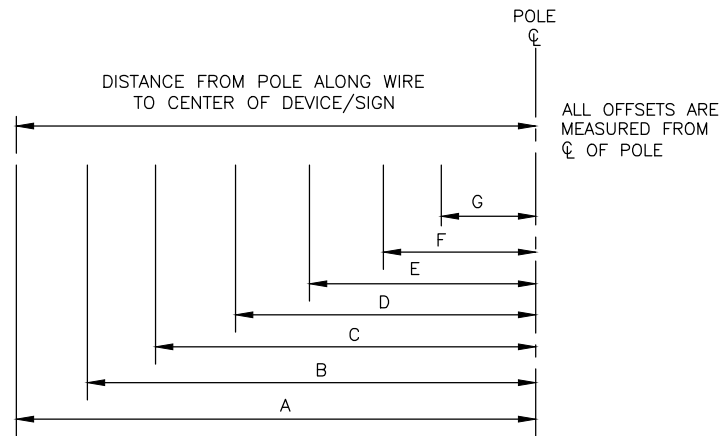
**2/26/2021
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SUBMITTAL**

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H63	H66

TEMPORARY POLE-POST DESIGN LOADING SCHEDULE										
TEMP POLE NO.	CORNER		A	B	C	D	E	F	G	REMARKS
1	NE	SIG. OR SIGN	RADAR	SIGNAL	RADAR	SIGNAL	SIGN			
		LOC. OFFSET	137.4	93.8	84.5	75.6	58.6			
		LxW OR S.F.	1.0	11.5	1.0	11.5	25.0			
2	SE	SIG. OR SIGN	RADAR	SIGNAL	SIGNAL	SIGNAL	RADAR	SIGNAL	SIGN	
		LOC. OFFSET	130.6	71.9	59.8	47.7	42.4	35.5	24.8	
		LxW OR S.F.	1.0	11.5	11.5	11.5	1.0	11.5	20.0	
3	SW	SIG. OR SIGN	SIGNAL	RADAR	SIGN	SIGNAL	RADAR	SIGN		
		LOC. OFFSET	81.9	73.0	68.5	64.0	55.8	40.5		
		LxW OR S.F.	11.5	1.0	7.5	11.5	1.0	25.0		
4	NW	SIG. OR SIGN	SIGNAL	SIGNAL	SIGNAL	RADAR	SIGNAL	SIGN		
		LOC. OFFSET	64.6	52.5	40.8	35.0	28.5	22.0		
		LxW OR S.F.	11.5	11.5	11.5	1.0	11.5	20.0		

TEMPORARY POLE-POST DESIGN LOADING SCHEDULE NOTES:

- LAYOUT AND OFFSET DISTANCES ARE FOR FINAL LANE CONFIGURATION. OFFSETS MAY BE ALTERED WITH APPROVAL OF ENGINEER. SIGNAL HEADS, RADAR DETECTION, AND SIGNS MAY BE OMITTED WITH APPROVAL OF ENGINEER.



POLE/POST NO.	FACE NO.	PED SIGNAL HEAD SCHEDULE	
		MOUNTING TYPE	REMARKS
1	48	P	REUSE OF EXISTING SIGNAL HEADS IS PERMITTED, AS APPROVED BY ENGINEER
	69	P	
2	28	P	
	49	P	
3	29	P	
	88	P	
4	68	P	
	89	P	

PEDESTRIAN DETECTION SCHEDULE			
POLE	PUSH BUTTON	PHASE	REMARKS
1	1	6	SEE NOTE 1
	2	4	SEE NOTE 1
2	3	4	SEE NOTE 2
	4	2	SEE NOTE 1
3	5	2	SEE NOTE 2
	6	8	SEE NOTE 1
4	7	8	SEE NOTE 2
	8	8	SEE NOTE 1

PEDESTRIAN DETECTION NOTES:

- INSTALL A R10-3eL SIGN ABOVE PEDESTRIAN PUSH BUTTON. SIGN SHALL NOT BE MEASURED FOR PAYMENT AND IS SUBSIDIARY TO PAY ITEM 660(7).
- INSTALL A R10-3eR SIGN ABOVE PEDESTRIAN PUSH BUTTON. SIGN SHALL NOT BE MEASURED FOR PAYMENT AND IS SUBSIDIARY TO PAY ITEM 660(7).

TEMPORARY SIGNAL NOTES:

- LOCATION OFFSETS ARE FROM CENTER OF OBJECT TO CL OF TEMPORARY POLE. OFFSETS MAY BE ALTERED AS APPROVED BY ENGINEER.
- LAYOUT AND NUMBER OF DEVICES MAY BE ALTERED AS APPROVED BY ENGINEER.
- SEE SHEET H38 FOR POLE/POST SIGNAL HEAD SIDE MOUNTING TYPES AND SIGNAL HEAD CONFIGURATIONS.
- SEE SHEET H38 FOR SIGNAL SIGN SCHEDULE. REUSE OF EXISTING SIGNS FOR TEMPORARY TRAFFIC CONTROL IS PERMITTED, AS APPROVED BY ENGINEER.
- SEE SHEET H39 FOR OPTICOM DETECTION SCHEDULE. LOCATION OF OPTICOM SENSORS MAY BE ALTERED WITH APPROVAL OF ENGINEER.
- SEE SHEET H39 FOR FLASH PROGRAM SCHEDULE.

RADAR DETECTION SCHEDULE						
DET. NO.	PHASE CALL	TYPE	FACING DIR.	POLE NO.	LOCATION	RADAR TYPE
1	3&8	STOP BAR	EAST	4	TEMP CABLE	SMARTSENSOR MATRIX
2	1&6	STOP BAR	SOUTHEAST	1	TEMP CABLE	SMARTSENSOR MATRIX
3	4&7	STOP BAR	SOUTHEAST	2	TEMP POLE	SMARTSENSOR MATRIX
4	1&5	STOP BAR	SOUTHEAST	4	TEMP CABLE	SMARTSENSOR MATRIX
1A	8	ADVANCE	NORTH	3	TEMP CABLE	SMARTSENSOR ADVANCE EXTENDED RANGE
3A	4	ADVANCE	SOUTH	1	TEMP CABLE	SMARTSENSOR ADVANCE EXTENDED RANGE

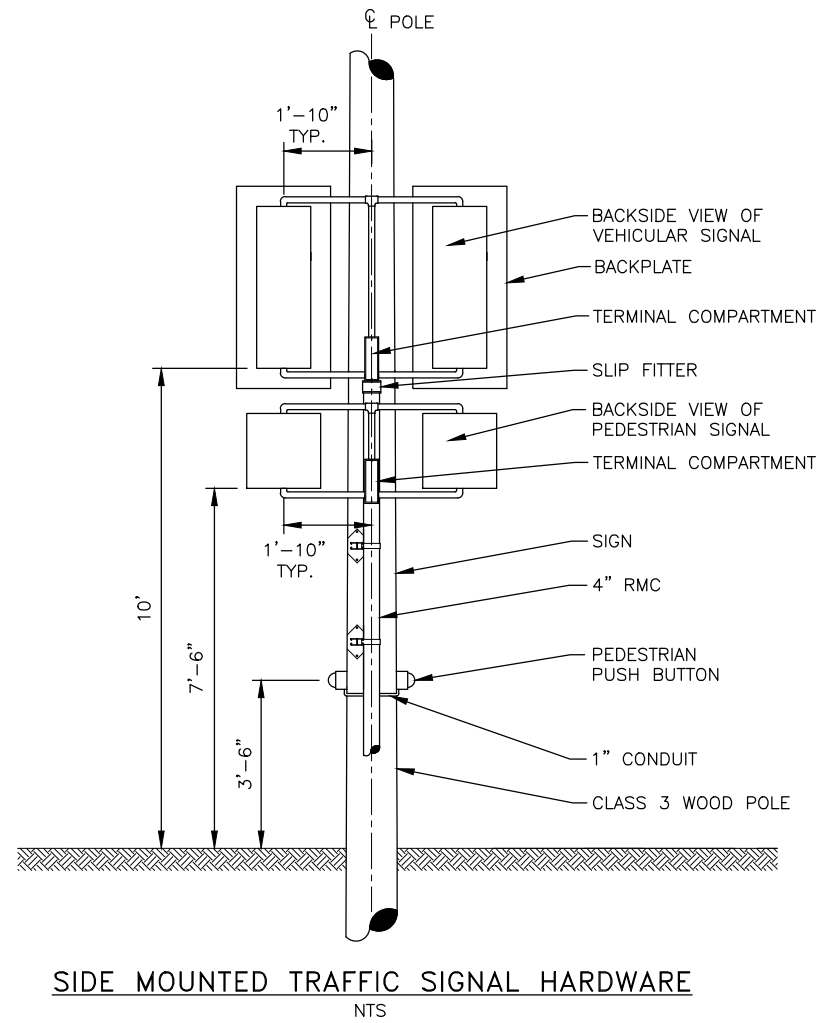


TEMP POLE/POST NO.	FACE NO.	SIGNAL HEAD SCHEDULE												REMARKS	
		INDICATIONS						MOUNTING							
		12" BALL		12" ARROW		8" BALL		TEMP CABLE		SIDE MTNG. TYPE		TOP OF POST			
R	Y	G	R	Y	FYA	G	R	Y	G		LOC. OFFSET		ELEV. PLUMB		
1	41	X	X	X										D	REUSE OF EXISTING SIGNAL HEADS IS PERMITTED, AS APPROVED BY ENGINEER
	52				L	L	L	L						D	
	42	X	X	X							23.6	X			
	43	X	X	X							35.6	X			
2	71				L	L	L	L			56.6				
	21	X	X	X									D		
	32				L	L	L	L					D		
	22	X	X	X							23.3	X			
3	51				L	L	L	L			35.3	X			
	81	X	X	X									D		
	12				L	L	L	L					D		
	82	X	X	X							17.1	X			
4	83	X	X	X							29.1	X			
	31				L	L	L	L			48.1	X			
	62	X	X	X							30.5	X			
	11				L	L	L	L			42.3	X			

REWAK DRIVE TEMPORARY SIGNAL SCHEDULE

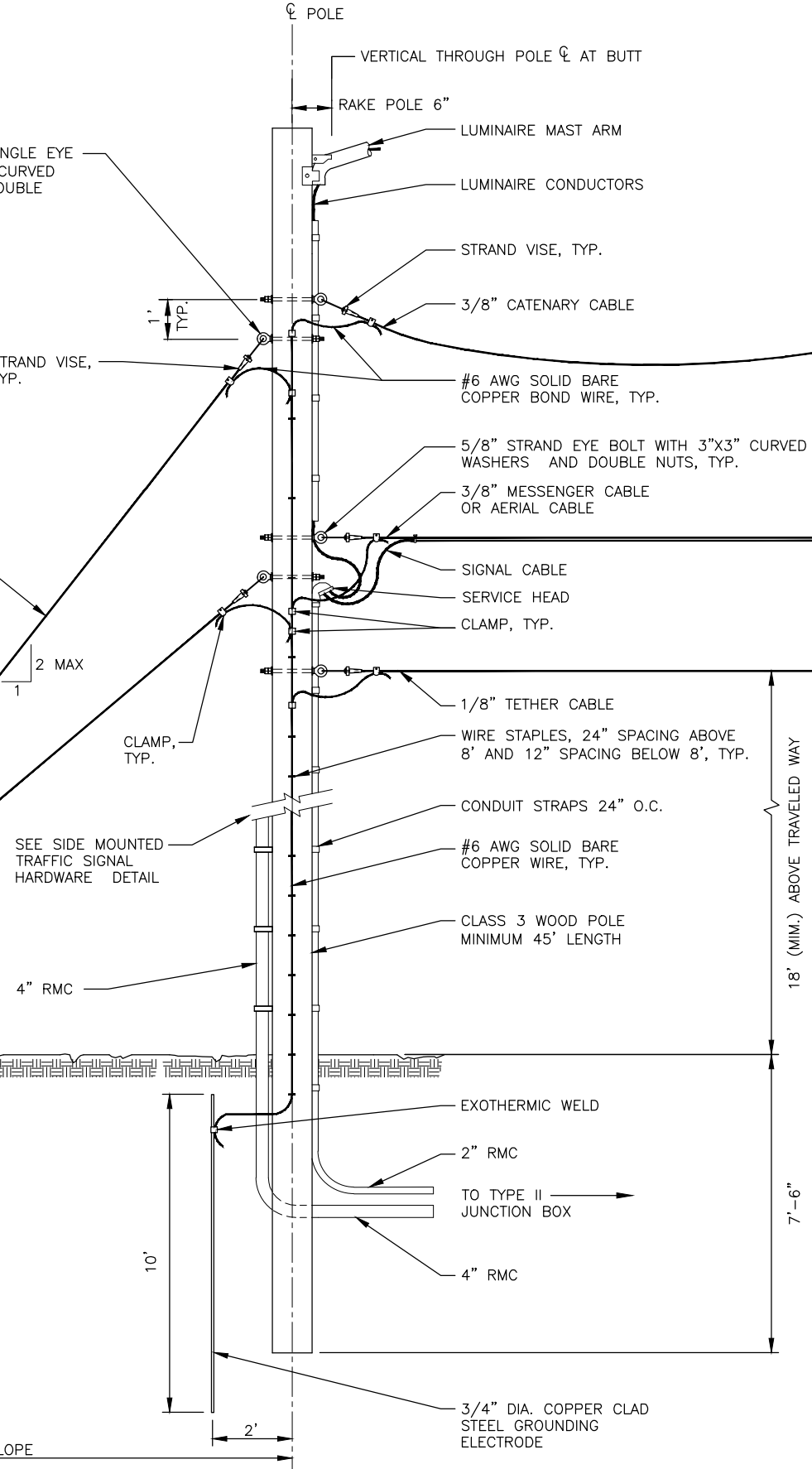
PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
**2/26/2021
REVIEW
PS&E
SUBMITTAL**

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H64	H66



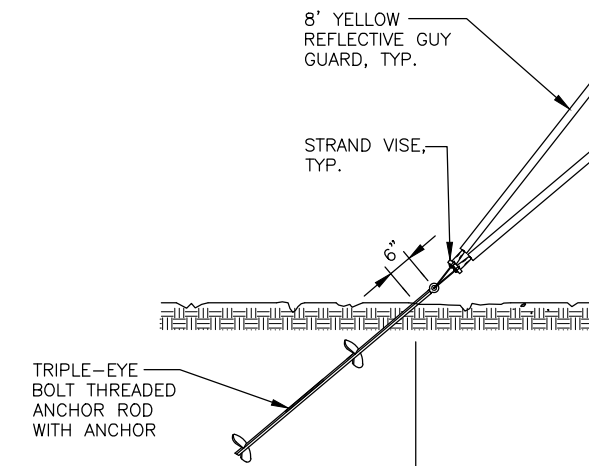
5/8" SHOULDER ANGLE EYE BOLT WITH 3"x3" CURVED WASHERS AND DOUBLE NUTS, TYP.

3/8" DOWN GUY CABLE, TYP.



GENERAL NOTES:

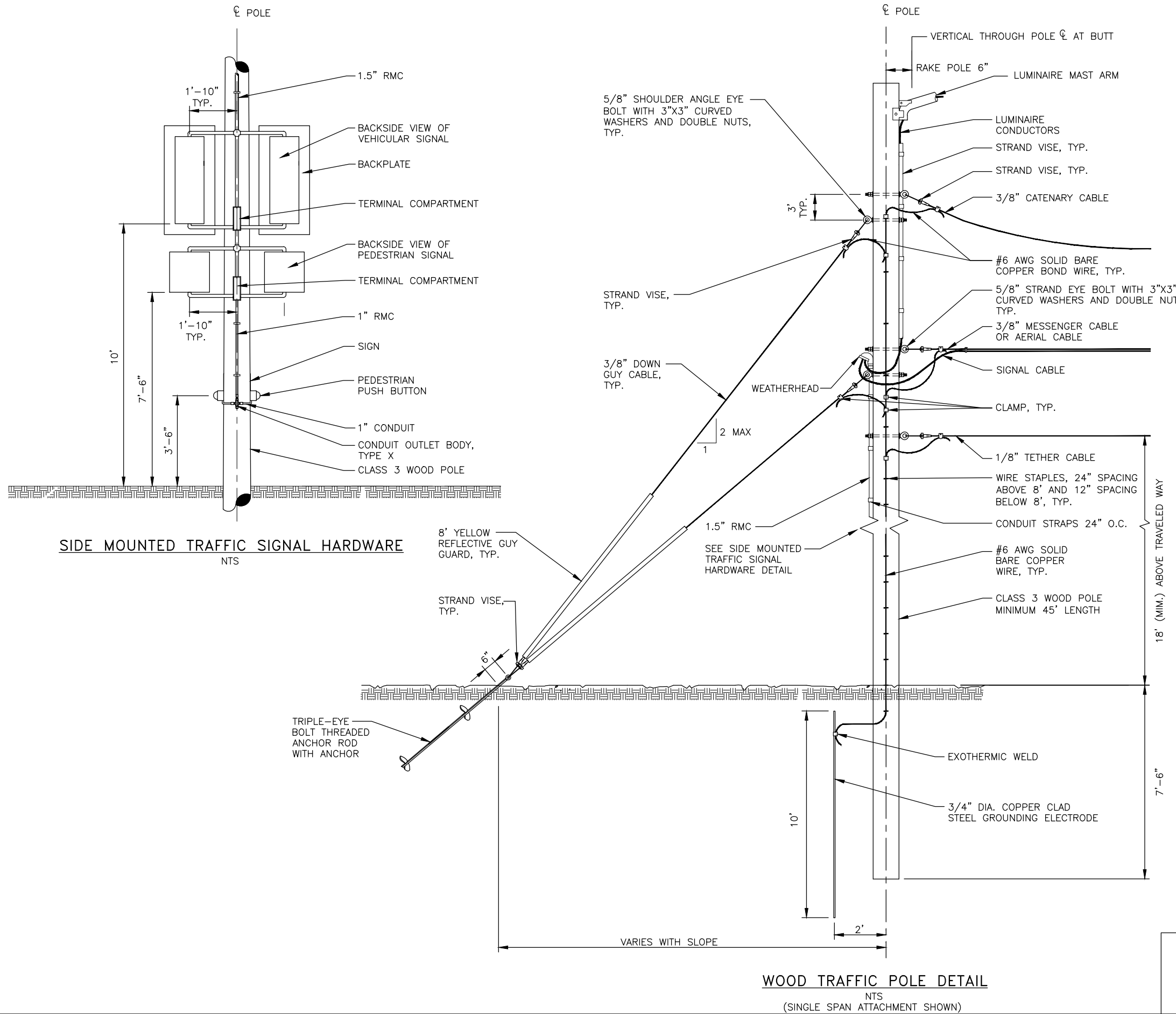
1. ATTACH A 4 INCH RIGID METAL CONDUIT TO THE WOOD POLE, USING UNISTRUT P9014 WITH P4101 CHANNEL, AND P1121 PIPE CLAMPS, OR APPROVED EQUAL.
2. INSTALL THE 4 INCH CONDUIT ON THE SIDE OF THE POLE AT A LOCATION WHERE A LINE PARALLEL TO THE LONG CORD (P.C. TO P.T.) OF THE RADIUS IS TANGENT TO THE POLE, AS SHOWN IN STANDARD PLAN T-30.12 OR THE SIGNAL HARDWARE DETAIL SHEET IN PLANS FOR TERMINAL COMPARTMENT LOCATIONS.
3. USE POST TOP SIGNAL FRAMES WITH TERMINAL COMPARTMENTS TO INSTALL THE VEHICULAR SIGNAL HEADS ON TOP OF THE 4 INCH CONDUIT.
4. USE SIDE MOUNTED SIGNAL FRAMES WITH TERMINAL COMPARTMENTS TO INSTALL THE PEDESTRIAN SIGNAL HEADS ON THE 4 INCH CONDUIT.
5. THE VERTICAL CLEARANCES SHOWN ARE FROM THE WALKING SURFACE FOR THE PEDESTRIAN GEAR AND THE TRAVELED WAY FOR THE VEHICULAR SIGNALS.
6. TERMINATE POLES WITH NO LUMINAIRE A MINIMUM OF 2 FEET ABOVE THE CATENARY CABLE CONNECTION.
7. SEE STANDARD PLAN T-30.12 OR THE SIGNAL HARDWARE DETAIL SHEET IN PLANS FOR ADDITIONAL TRAFFIC SIGNAL HARDWARE DETAILS.
8. ALL 3/8 INCH SPAN AND GUY CABLE SHALL BE HEAVY DUTY (HD) STEEL WITH MINIMUM 9,700 LB BREAKING STRENGTH. ALL OTHER CABLES SHALL ALSO BE HD RATED.
9. GUY ANCHOR SHALL BE INSTALLED PER MANUFACTURER RECOMMENDATIONS. SOIL CLASSIFICATION SHALL BE USED TO DETERMINE ANCHOR SIZE, FOLLOW MANUFACTURE GUIDELINES AND CONFIRM SOIL CLASSIFICATION WITH ENGINEER PRIOR TO ANCHOR SELECTION.



UNDERGROUND SERVICE
TEMPORARY WOOD
DETAILS

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
**2/26/2021
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STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	H65	H66



GENERAL NOTES:

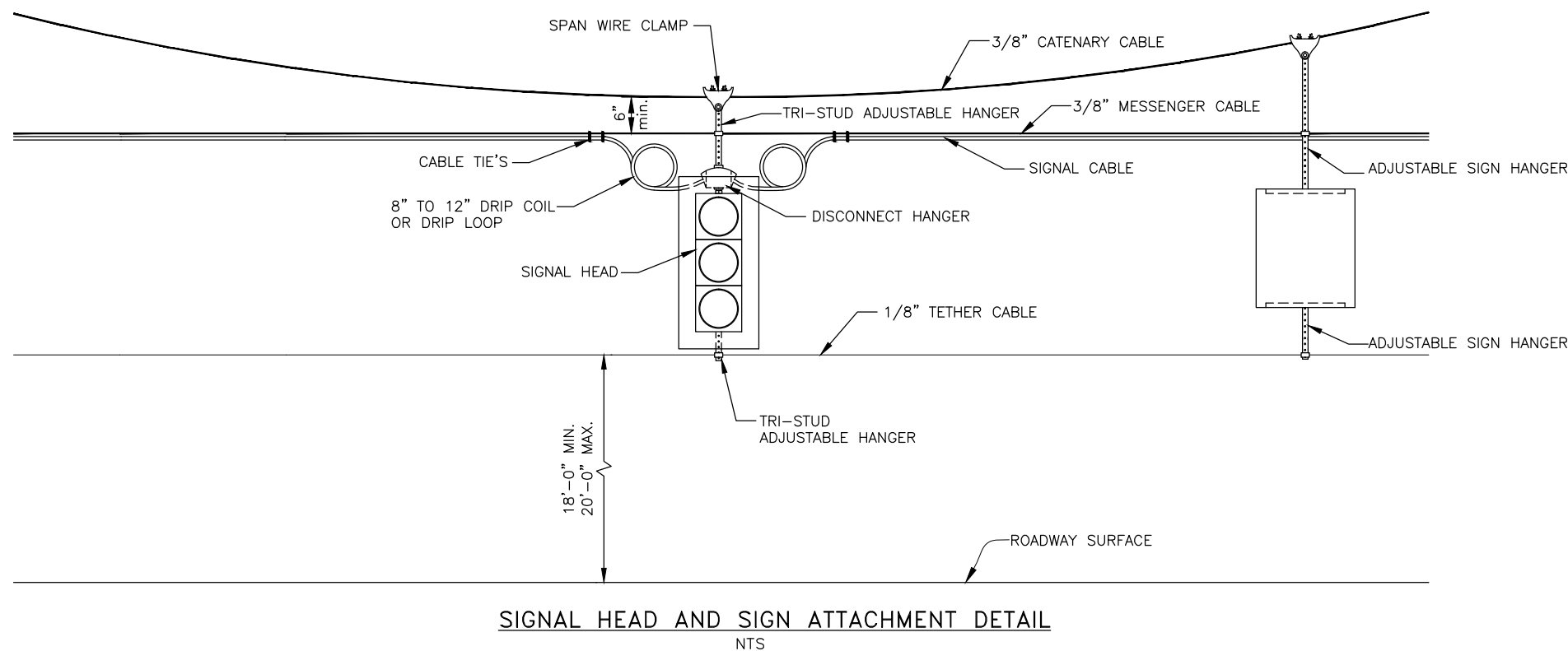
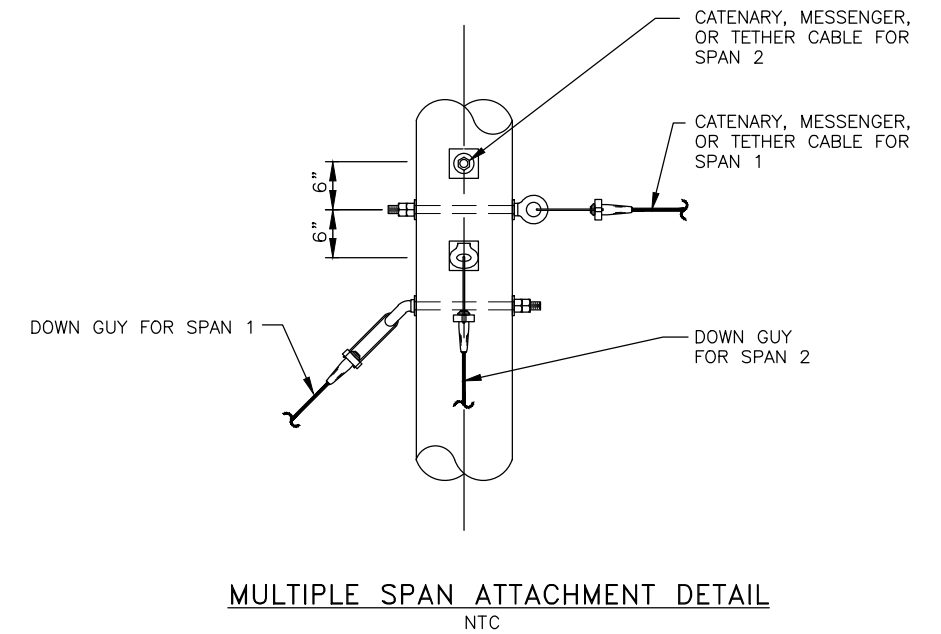
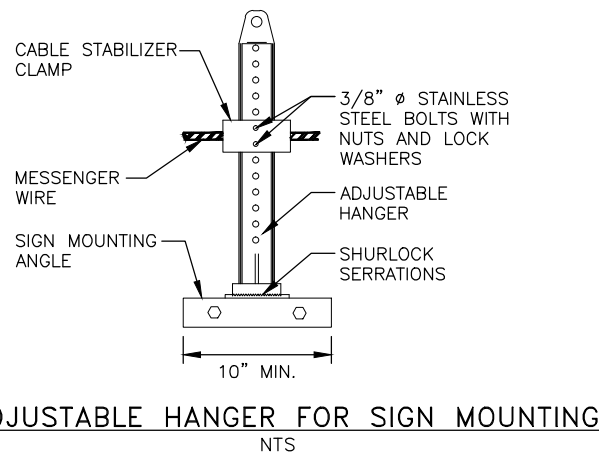
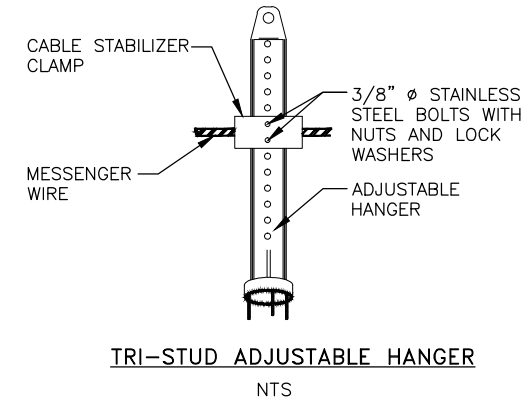
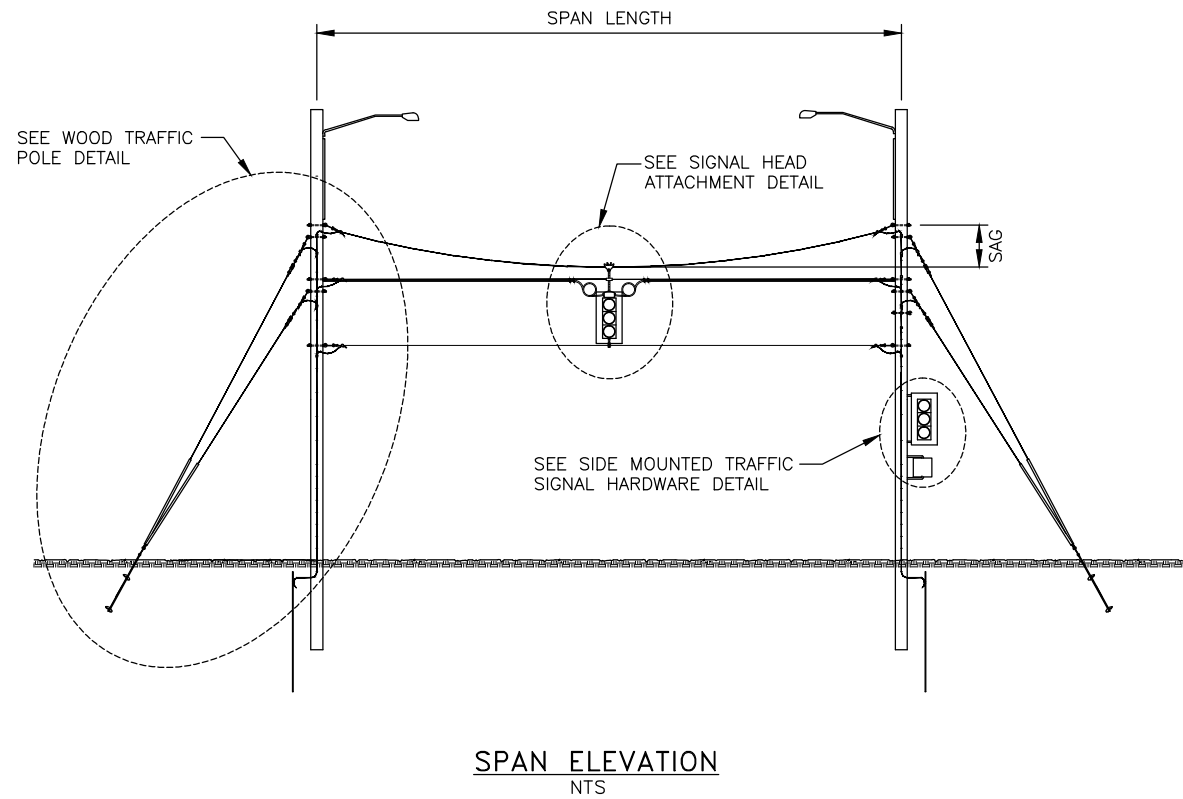
1. ATTACH A 4 INCH RIGID METAL CONDUIT TO THE WOOD POLE, USING UNISTRUT P9014 WITH P4101 CHANNEL, AND P1121 PIPE CLAMPS, OR APPROVED EQUAL.
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3. USE POST TOP SIGNAL FRAMES WITH TERMINAL COMPARTMENTS TO INSTALL THE VEHICULAR SIGNAL HEADS ON TOP OF THE 4 INCH CONDUIT.
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9. GUY ANCHOR SHALL BE INSTALLED PER MANUFACTURER RECOMMENDATIONS. SOIL CLASSIFICATION SHALL BE USED TO DETERMINE ANCHOR SIZE, FOLLOW MANUFACTURE GUIDELINES AND CONFIRM SOIL CLASSIFICATION WITH ENGINEER PRIOR TO ANCHOR SELECTION.

WOOD TRAFFIC POLE DETAIL
NTS
(SINGLE SPAN ATTACHMENT SHOWN)

OVERHEAD SERVICE
TEMPORARY WOOD
SIGNAL POLE DEATILS

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
**2/26/2021
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GENERAL NOTES:

1. ATTACH ADJUSTABLE HANGERS TO THE MESSENGER AND TETHER CABLES WITH CABLE STABILIZER CLAMPS.
2. ATTACH SIGNAL CABLES TO MESSENGER CABLE EVERY 1' USING 3M HEAVY DUTY BLACK CABLE TIES OR APPROVED EQUAL. CABLE TIES SHALL BE WEATHER RESISTANT BLACK NYLON GREATER THAN 0.065" THICK, HAVE A TENSILE STRENGTH GREATER THAN 110LBS, AND HAVE A TEMPERATURE RANGE BETTER THAN -35°F TO 180°F. USE TWO TIES BEFORE/AFTER DRIP LOOPS. CABLE TIES SHALL BE ATTACHED "SNUG TIGHT", DO NOT OVER TIGHTEN.
3. INSTALL SIGNS SO THAT THE BOTTOM EDGES ARE AT APPROXIMATELY THE SAME ELEVATION.
4. SAG=4% TO 5% OF SPAN LENGTH.

TEMPORARY TRAFFIC SIGNAL DETAILS




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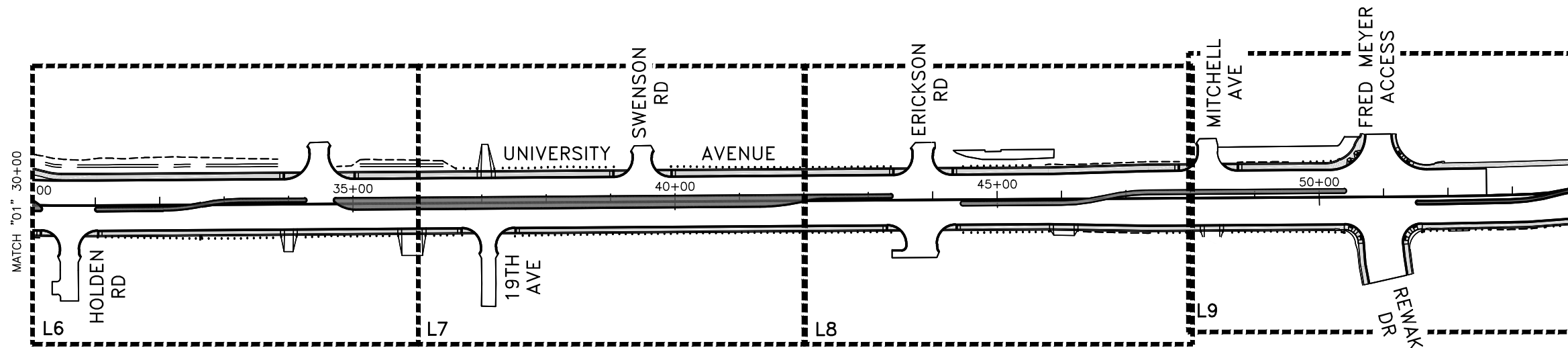
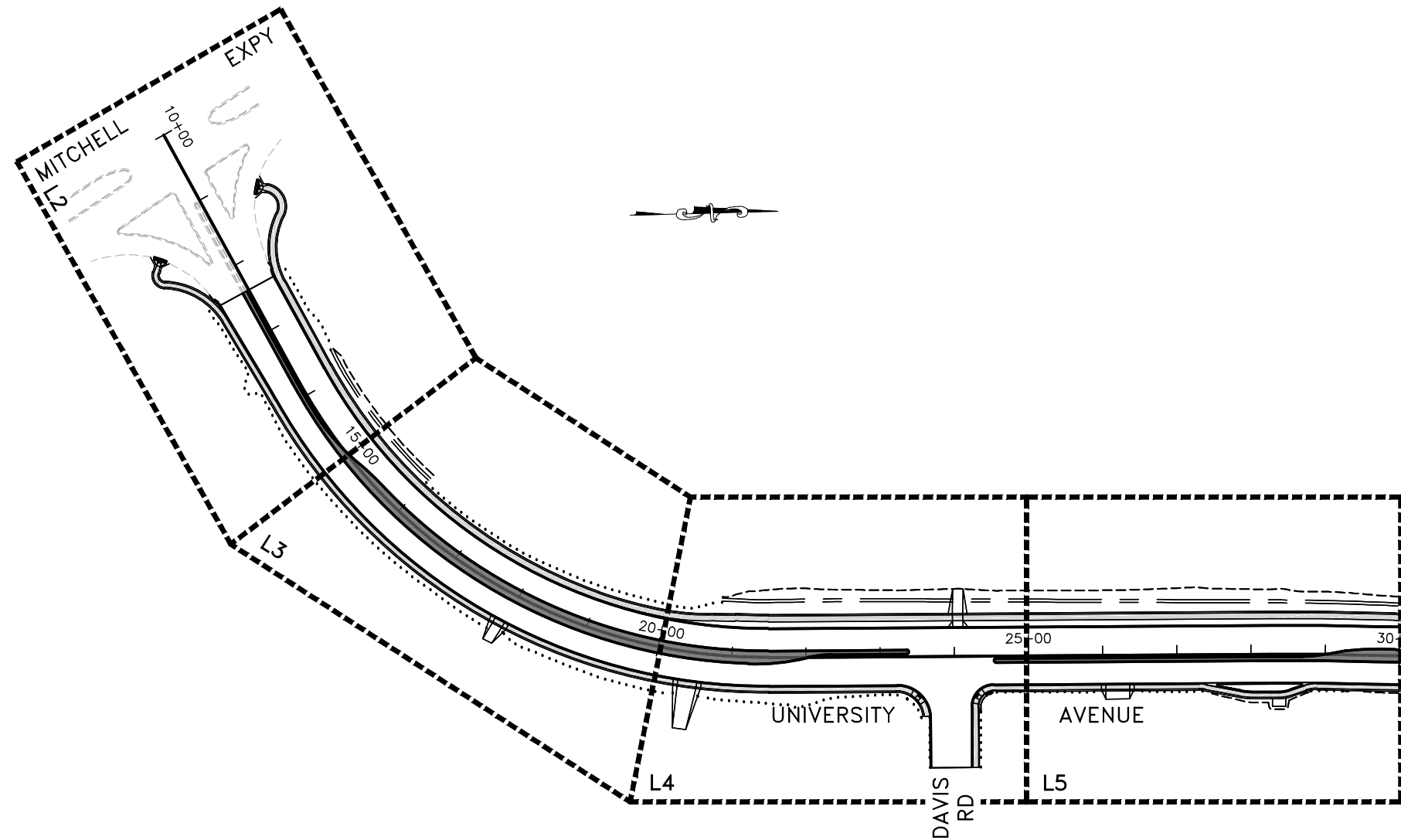
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	L1	L11

PLANT SCHEDULE					
COMMON NAME	BOTANICAL NAME	QUANTITY	SPACING (MIN)	SIZE	NOTES
TREES					
BIRCH	BETULA POPYRIFERA	10	10' O.C.	1.5" CAL	NURSERY GROWN
SIBERIAN LARCH	LARIX SIBIRICA	4	10' O.C.	6' HT.	NURSERY GROWN
WHITE SPRUCE	PICEA GLAUCA	8	10' O.C.	5' HT.	NURSERY GROWN
SHRUBS					
ALPINE CURRANT	RIBES ALPINUM	86	3' O.C.	24" HT.	NURSERY GROWN
HANSA ROSE	ROSA RUGOSA 'HANSA'	122	4' O.C.	24" HT.	NURSERY GROWN
HIGHBUSH CRANBERRY	VIBURNUM EDULE	49	4' O.C.	36" HT.	NURSERY GROWN
SAND CHERRY	PRUNUS X CISTENA	59	20' O.C.	48" HT.	NURSERY GROWN
SERVICEBERRY	AMELANCHIER ALNIFOLIA	84	4' O.C.	36" HT.	NURSERY GROWN
SPIREA	SPIRAEA BEAUVERDIANA	214	4' O.C.	24" HT.	NURSERY GROWN
PERENNIAL					
IRIS NATIVE	IRIS SETOSA	207	18" O.C.	1 GAL.	NURSERY GROWN

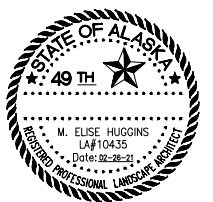
- ALL PLANTS SHALL MEET AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2014), AMERICANHORT. 2130 STELLA COURT, COLUMBUS OH 43215 WWW.AMERICANHORT.ORG.
- MULCH CONTINUOUSLY THROUGHOUT ALL PLANTING BEDS WITH 3" SHREDDED BARK MULCH. SEE SPECIFICATIONS FOR MULCH; KEEP MULCH 6" AWAY FROM STEMS AND TRUNKS. TRANSITION MULCH TO ADJACENT SURFACES. SEE MULCH LIMITS DETAIL.
- SEE PLANTING DETAILS FOR ADDITIONAL INFORMATION.

LANDSCAPE LEGEND:

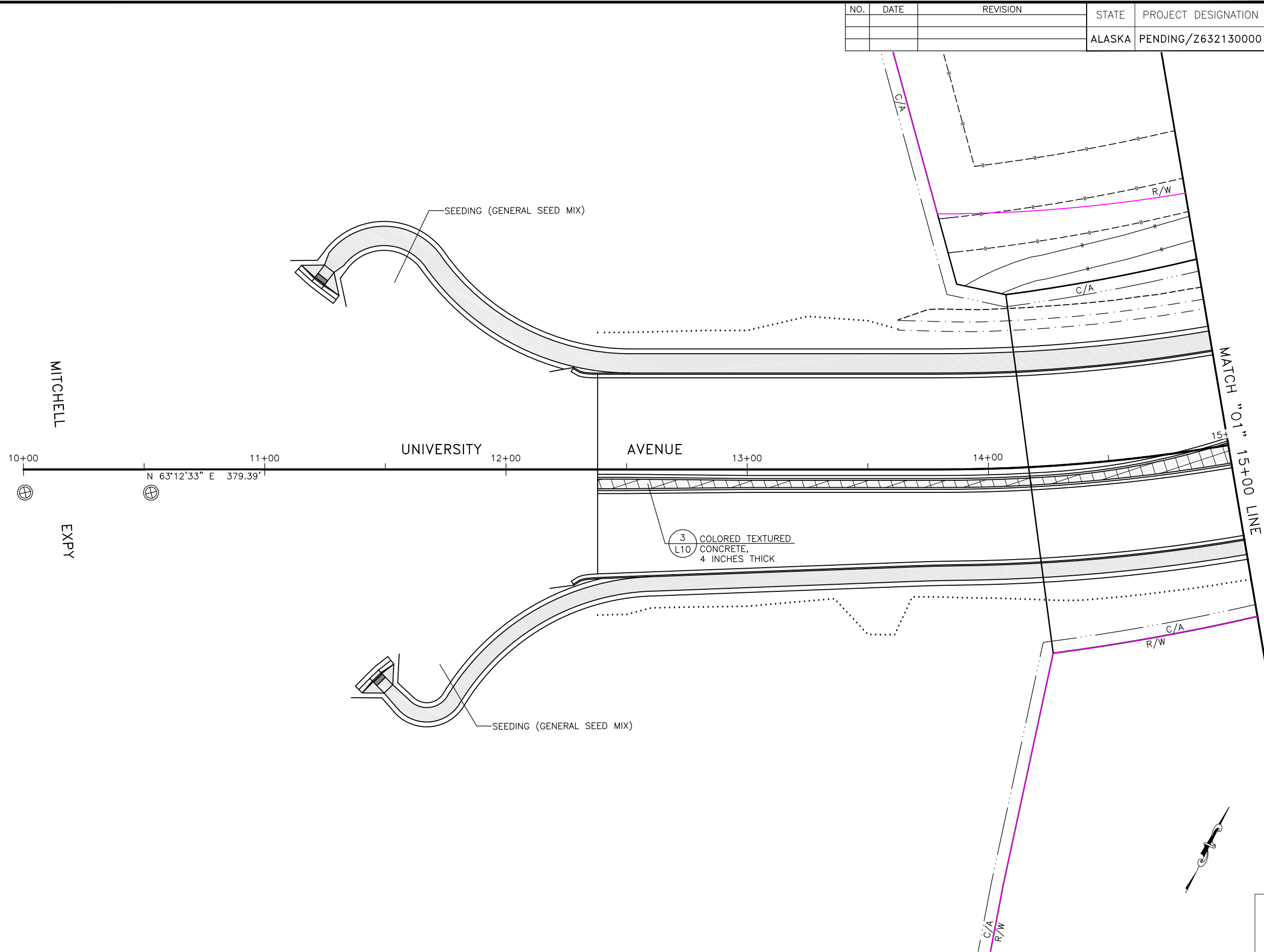
-  COLORED TEXTURED CONCRETE, 4 INCHES THICK
-  CONCRETE, 4 INCHES THICK
-  SEEDING (SIDEWALK BORDER SEED MIX)



LANDSCAPE SHEET
LAYOUT INDEX



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	L2	L11



MITCHELL
EXPY

10+00 11+00 12+00 13+00 14+00 15+00

N 63°12'33" E 379.39'

UNIVERSITY AVENUE

3
L10
COLORED TEXTURED
CONCRETE,
4 INCHES THICK

SEEDING (GENERAL SEED MIX)

SEEDING (GENERAL SEED MIX)

MATCH "01" 15+00 LINE

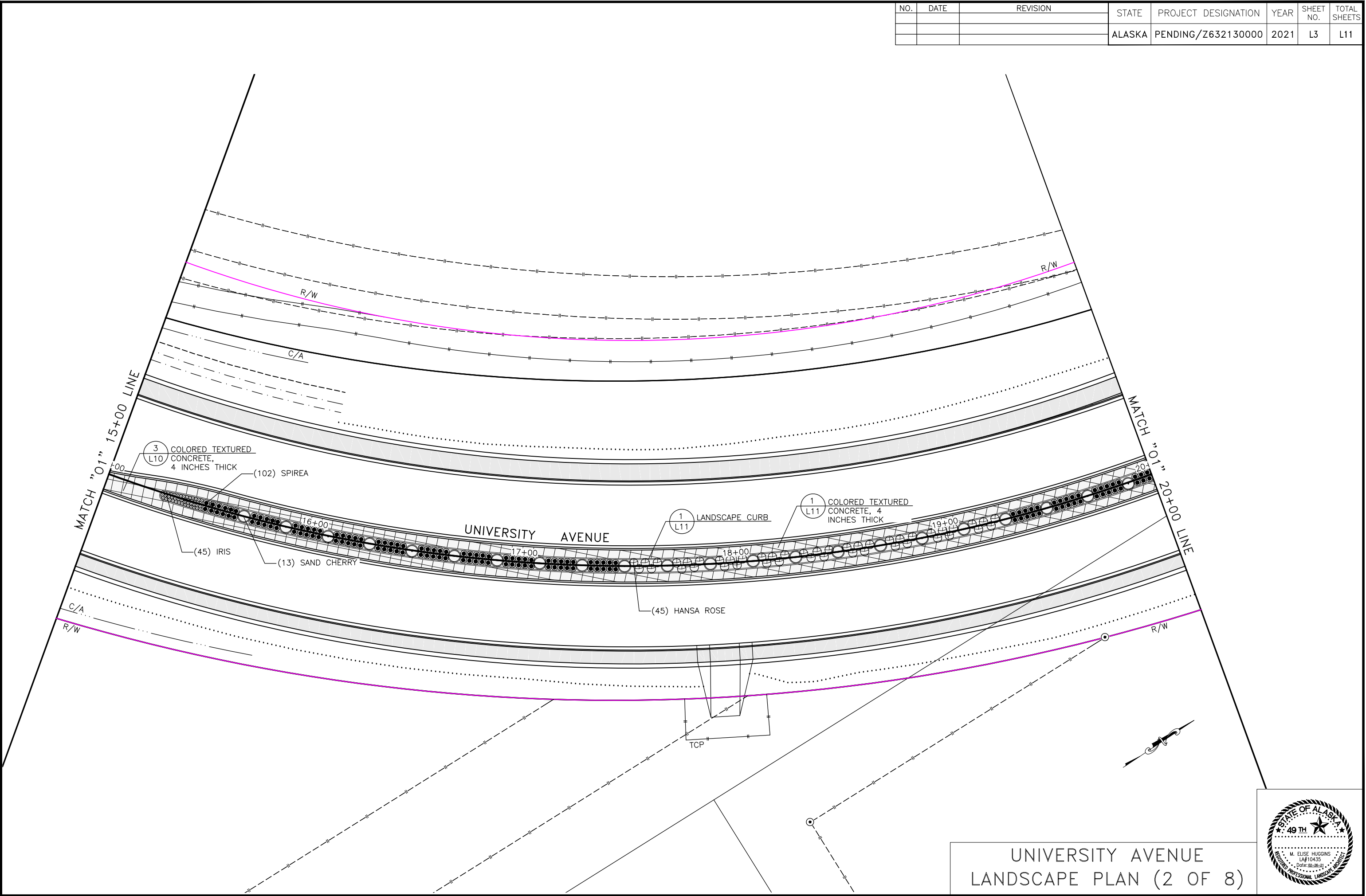
UNIVERSITY AVENUE
LANDSCAPE PLAN (1 OF 8)



PLANS DEVELOPED BY: EARTHSCAPE, LLC, CERT. OF AUTHORIZATION NO.: AECL 1007, 729 N. STREET, ANCHORAGE, AK 99501, (907)279-2688
 \\pdc.local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B\C\200\crist1147.04FB_2B-L2_Mon_Feb/22/21_08:39pm

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	L3	L11

PLANS DEVELOPED BY: EARTHSCAPE, LLC, CERT. OF AUTHORIZATION NO.: AECL 1007, 729 N. STREET, ANCHORAGE, AK 99501, (907)279-2688
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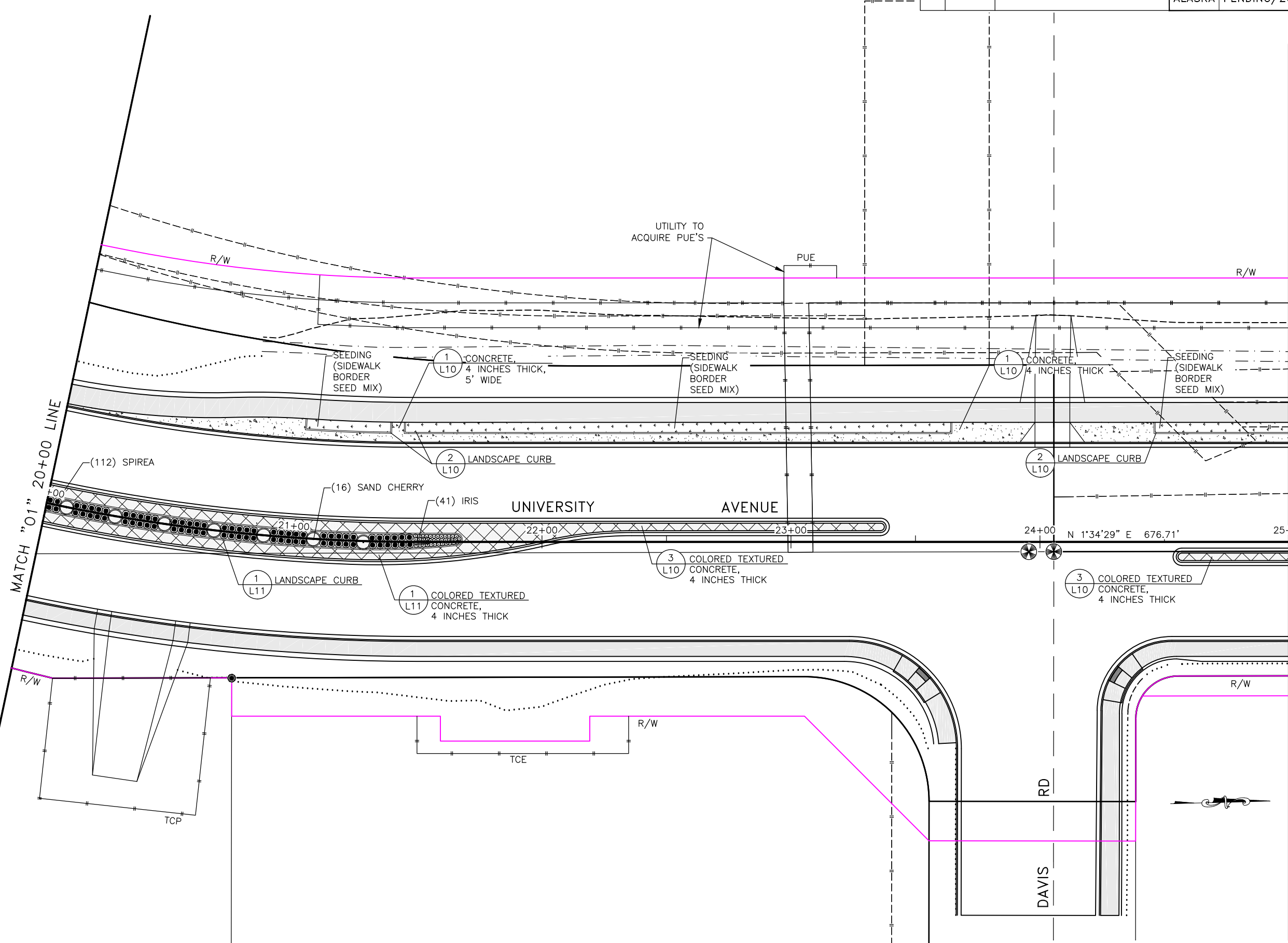
UNIVERSITY AVENUE
 LANDSCAPE PLAN (2 OF 8)



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	L4	L11

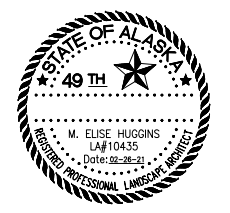
MATCH "01" 20+00 LINE

MATCH "01" 25+00 LINE

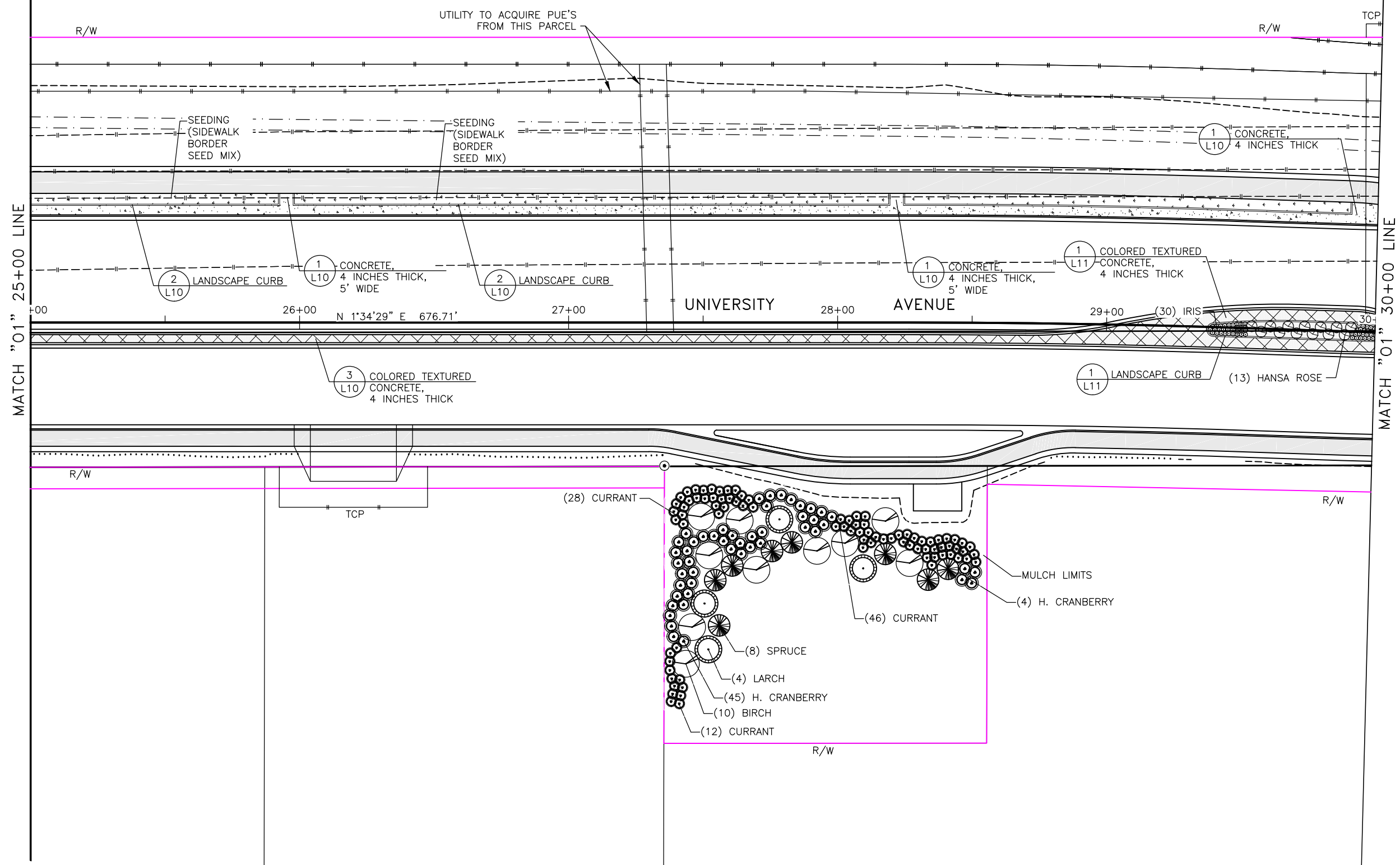


PLANS DEVELOPED BY: EARTHSCAPE, LLC, CERT. OF AUTHORIZATION NO.: AECL 1007, 729 N. STREET, ANCHORAGE, AK 99501, (907)279-2688
 \\pdc.local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B\C\200\crist1147.04FB_2B-L4_Mon_Feb/22/21_08:40pm

UNIVERSITY AVENUE
LANDSCAPE PLAN (3 OF 8)

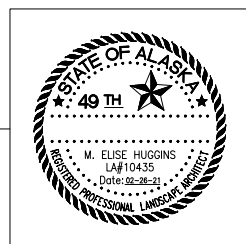


NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	L5	L11

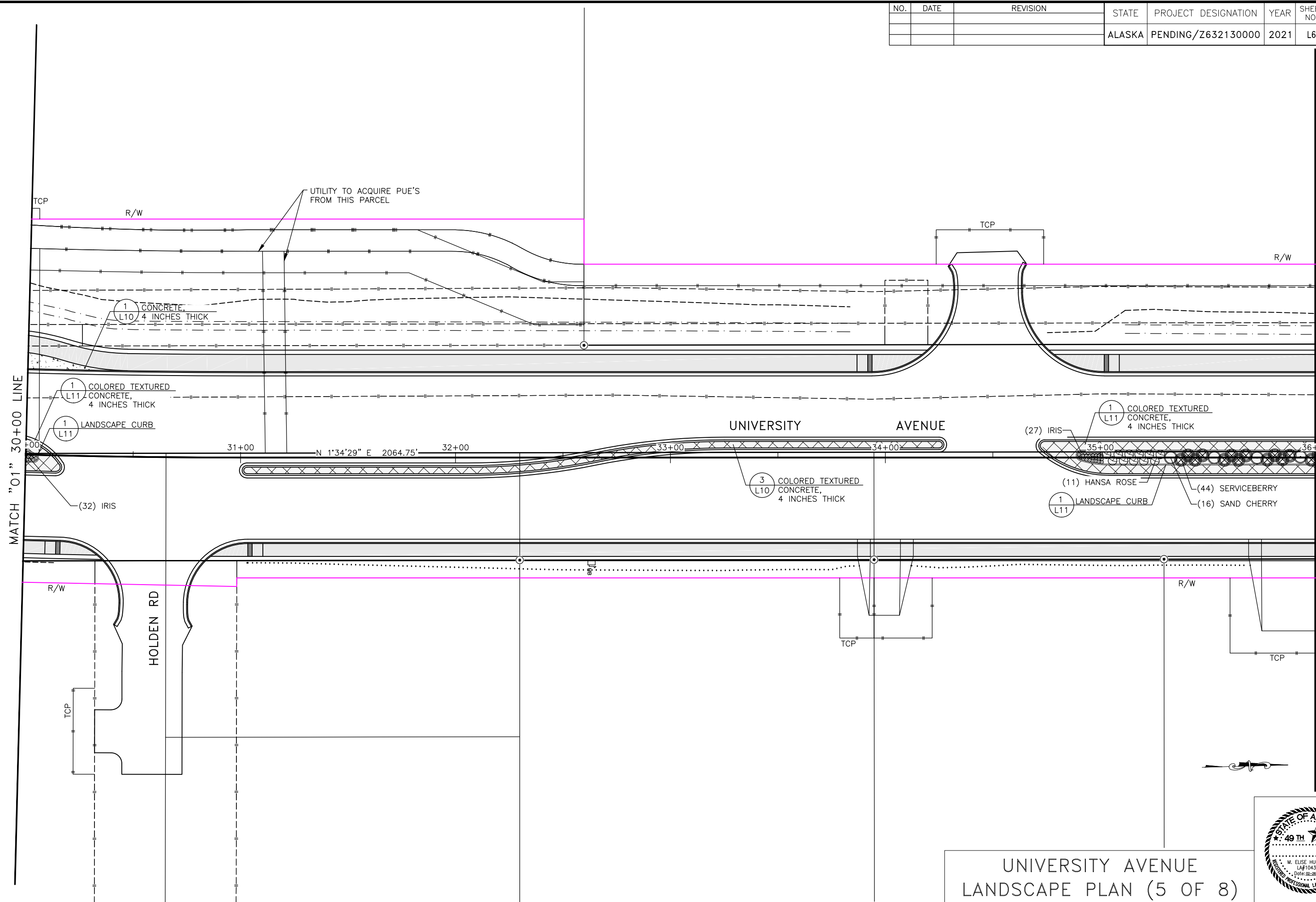


PLANS DEVELOPED BY: EARTHSCAPE, LLC, CERT. OF AUTHORIZATION NO.: AECL 1007, 729 N. STREET, ANCHORAGE, AK 99501, (907)279-2688
 \\pdc.local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B\C\200\inst1147.04FB_2B-L5_Mon_Feb/22/21_08:40pm

UNIVERSITY AVENUE
LANDSCAPE PLAN (4 OF 8)



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	L6	L11

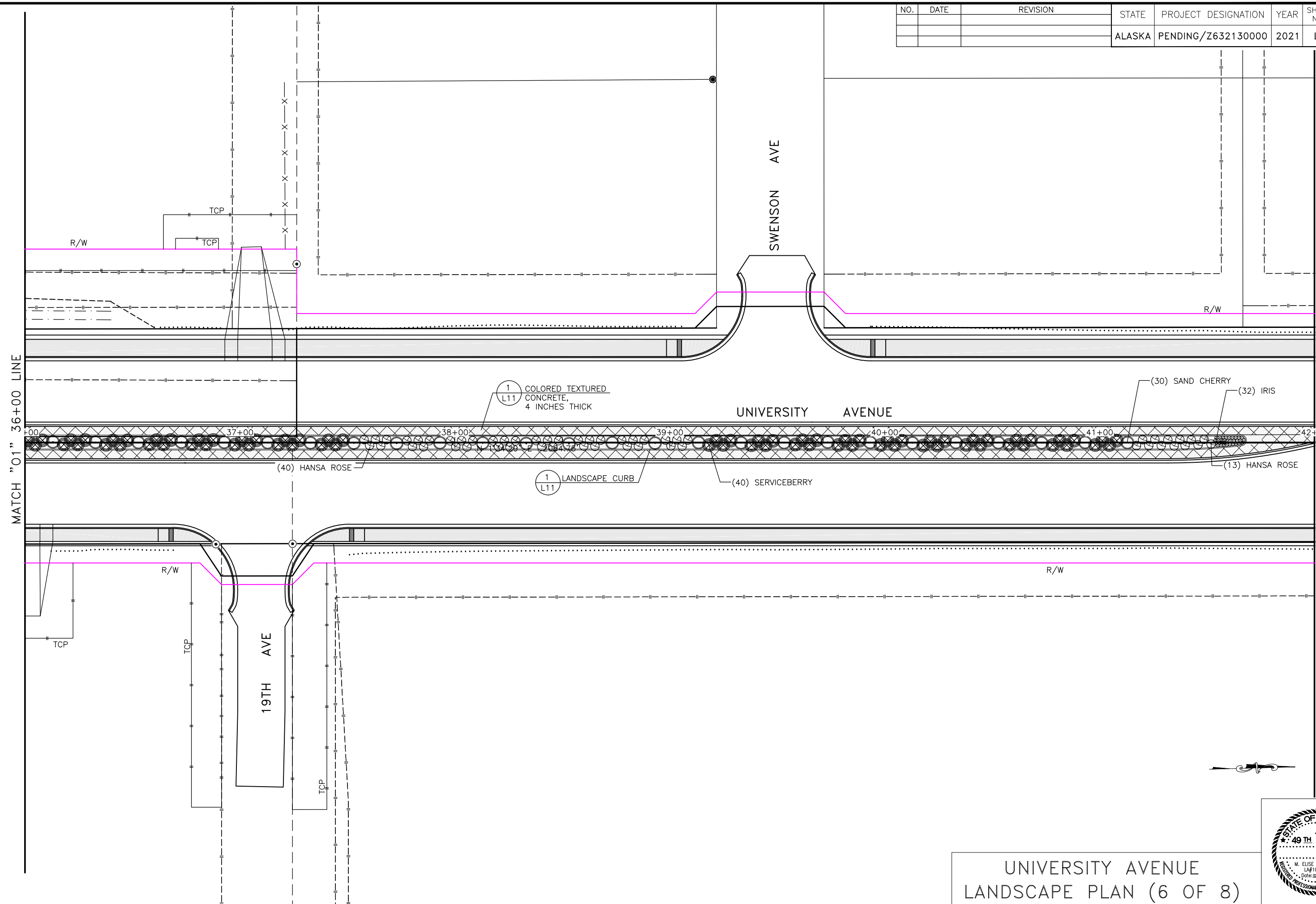


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UNIVERSITY AVENUE
LANDSCAPE PLAN (5 OF 8)

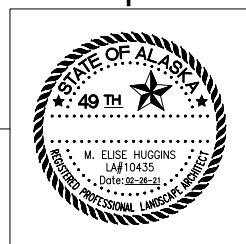


NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	L7	L11



PLANS DEVELOPED BY: EARTHSCAPE, LLC, CERT. OF AUTHORIZATION NO.: AECL 1007, 729 N. STREET, ANCHORAGE, AK 99501, (907)279-2688
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UNIVERSITY AVENUE
LANDSCAPE PLAN (6 OF 8)



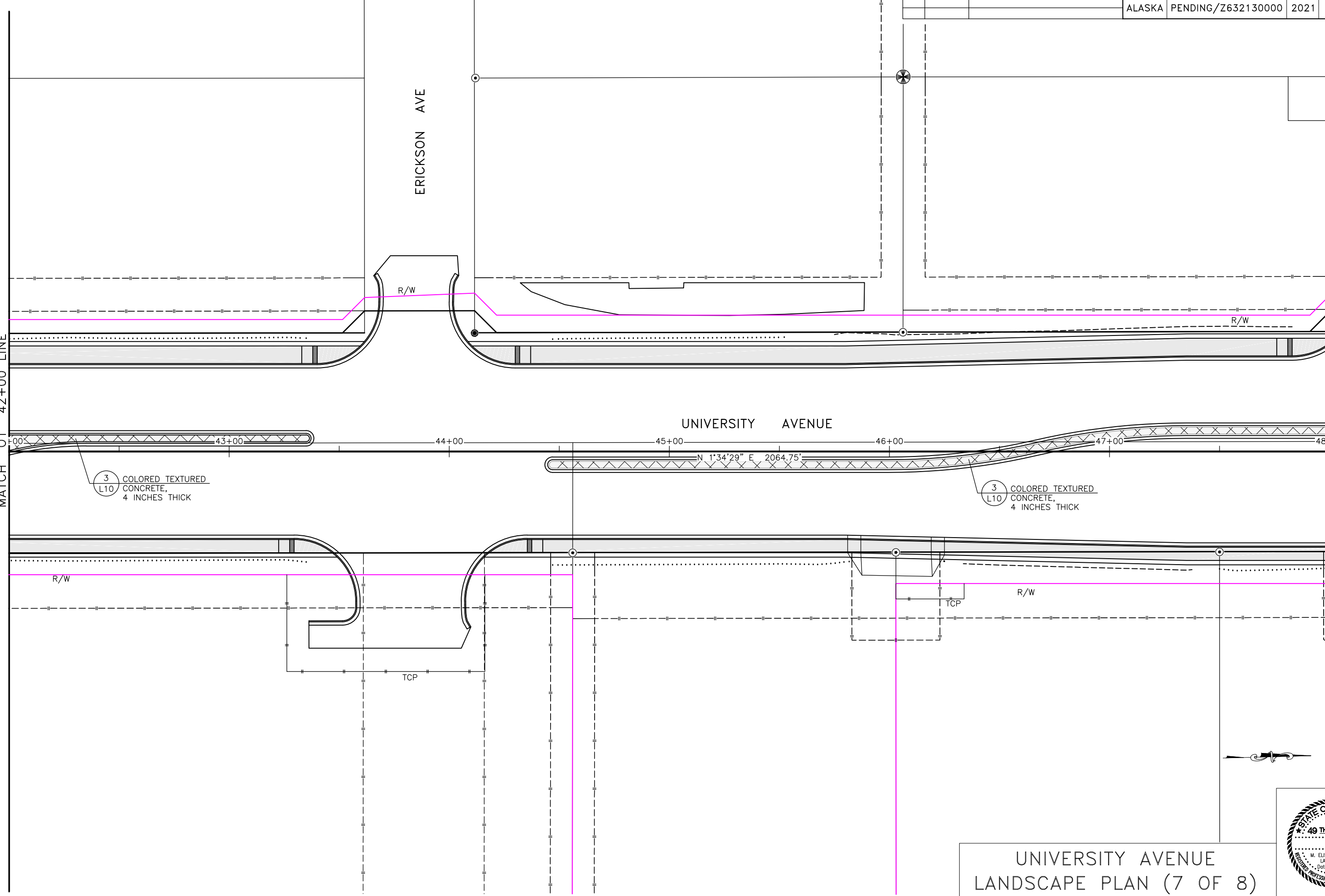
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	L8	L11

ERICKSON AVE

UNIVERSITY AVENUE

MATCH "O1" 42+00 LINE

MATCH "O1" 48+00 LINE



3
L10
COLORED TEXTURED
CONCRETE,
4 INCHES THICK

3
L10
COLORED TEXTURED
CONCRETE,
4 INCHES THICK

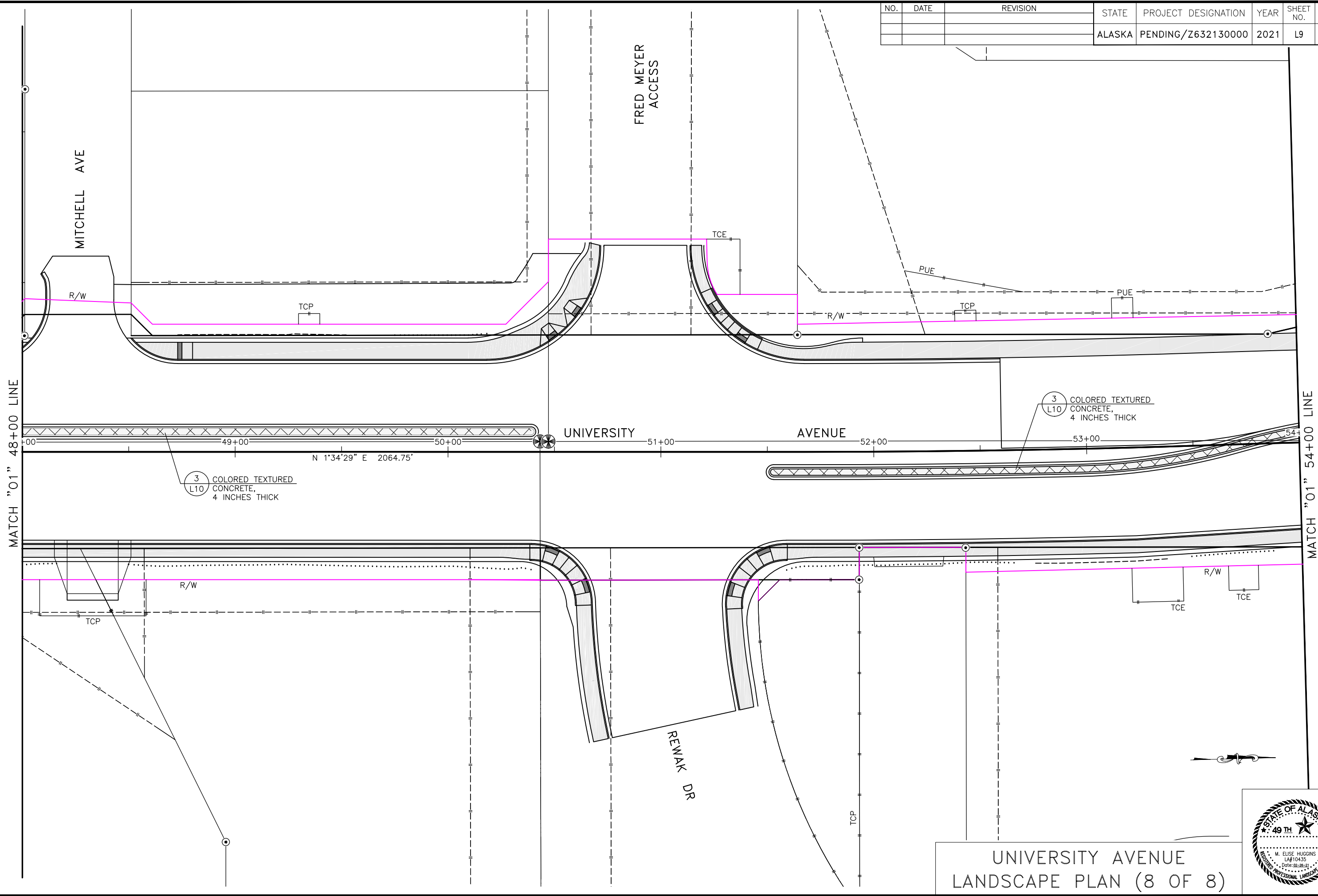
PLANS DEVELOPED BY: EARTHSCAPE, LLC, CERT. OF AUTHORIZATION NO.: AECL 1007, 729 N. STREET, ANCHORAGE, AK 99501, (907)279-2688
 \\pdc.local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B\C\200\crst1147.04FB_2B-L8_Mon_Feb/22/21_08:40pm

UNIVERSITY AVENUE
 LANDSCAPE PLAN (7 OF 8)



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	L9	L11

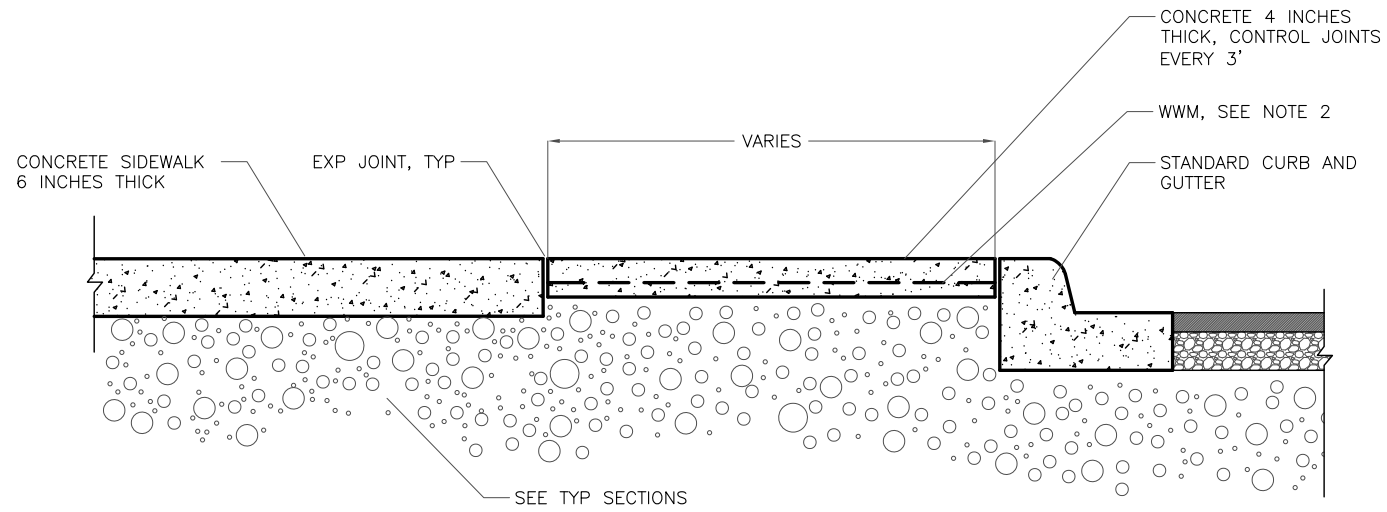
PLANS DEVELOPED BY: EARTHSCAPE, LLC, CERT. OF AUTHORIZATION NO.: AECL 1007, 729 N. STREET, ANCHORAGE, AK 99501, (907)279-2688
 \\pdc.local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B\C\2001\const\1147.04FB_2B-L9_Mon_Feb/22/21_08:40pm



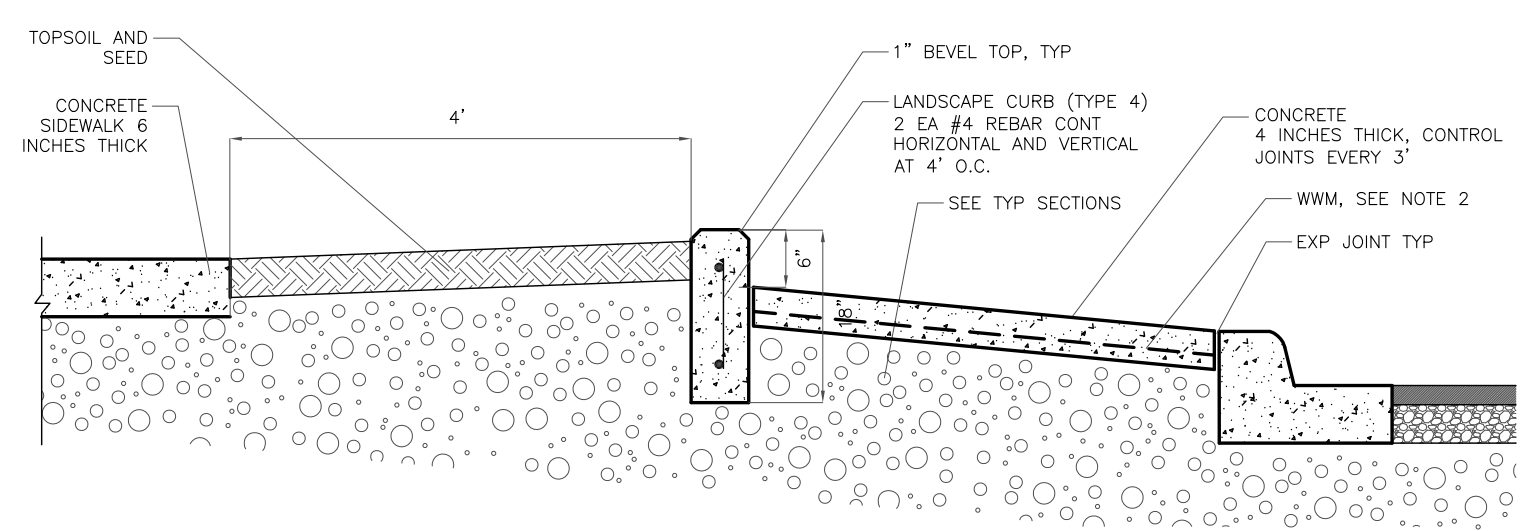
UNIVERSITY AVENUE
LANDSCAPE PLAN (8 OF 8)



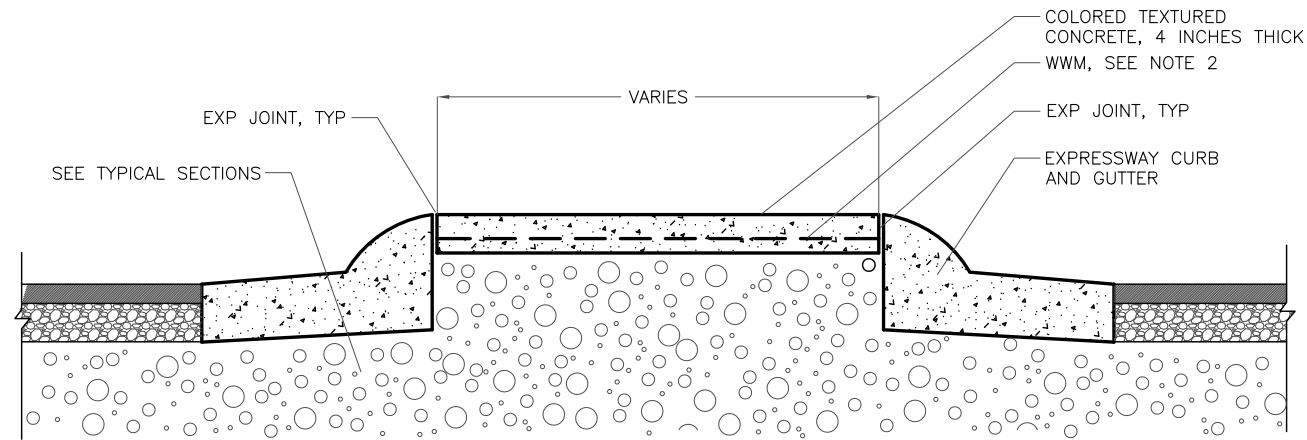
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	L10	L11



① ROADSIDE APRON AT SEPARATED PATHWAY



② ROADSIDE APRON WITH SEEDING AT SEPARATED PATHWAY



③ MEDIAN TREATMENT - NARROW

NOTES:

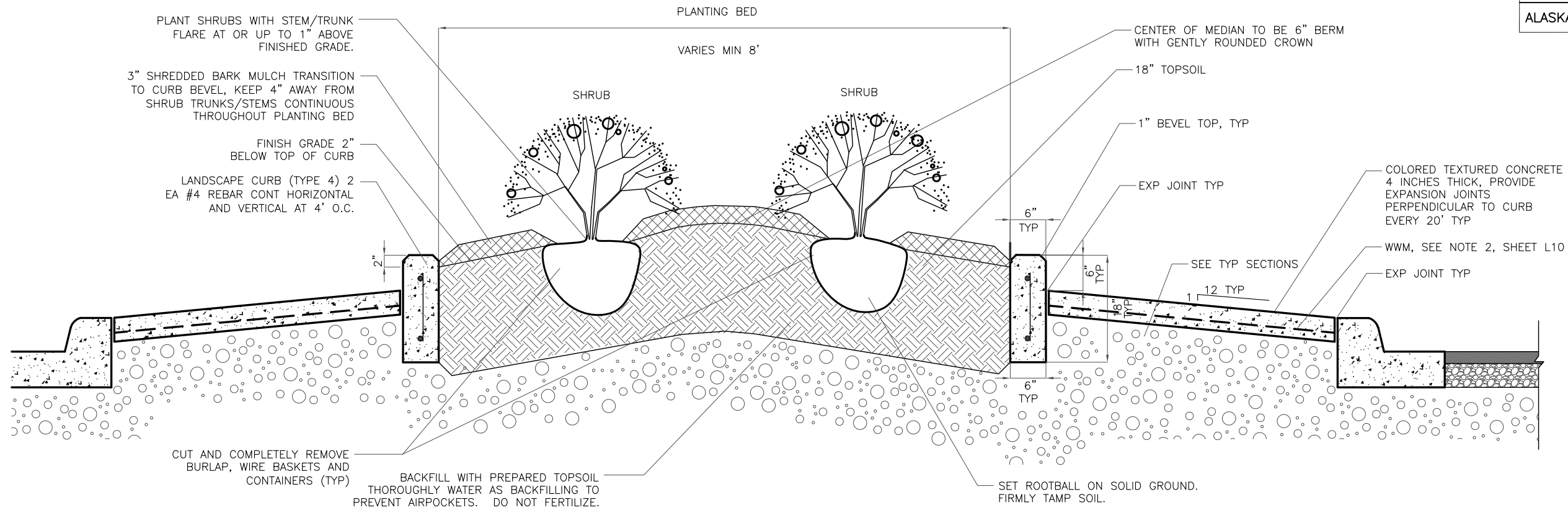
1. PROVIDE EXPANSION JOINTS PERPENDICULAR TO CURB EVERY 20' FOR LENGTH OF MEDIAN AND ROADSIDE APRON.
2. USE WWM STEEL REINFORCEMENT FOR MEDIAN AND APRON CONCRETE. WWM SHALL BE 6"X6"-W1.4X1.4. ALL STEEL SHALL BE SET ON SPACERS AND PULLED UP AS REQUIRED TO POSITION STEEL 1/2" FROM BOTTOM OF CONCRETE.
3. ALL DISTURBED AREAS TO RECEIVE 4" TOPSOIL AND SEED.

PLANS DEVELOPED BY: EARTHSCAPE, LLC. CERT AUTHORIZATION NO. AECL1007, 1643 W 10TH AVE., ANCHORAGE AK 99501 (907)279-2688
 \\earth-srv\Projects\University_Segment_2B-PDC-Layout1_Thu, Feb/18/21 06:12pm

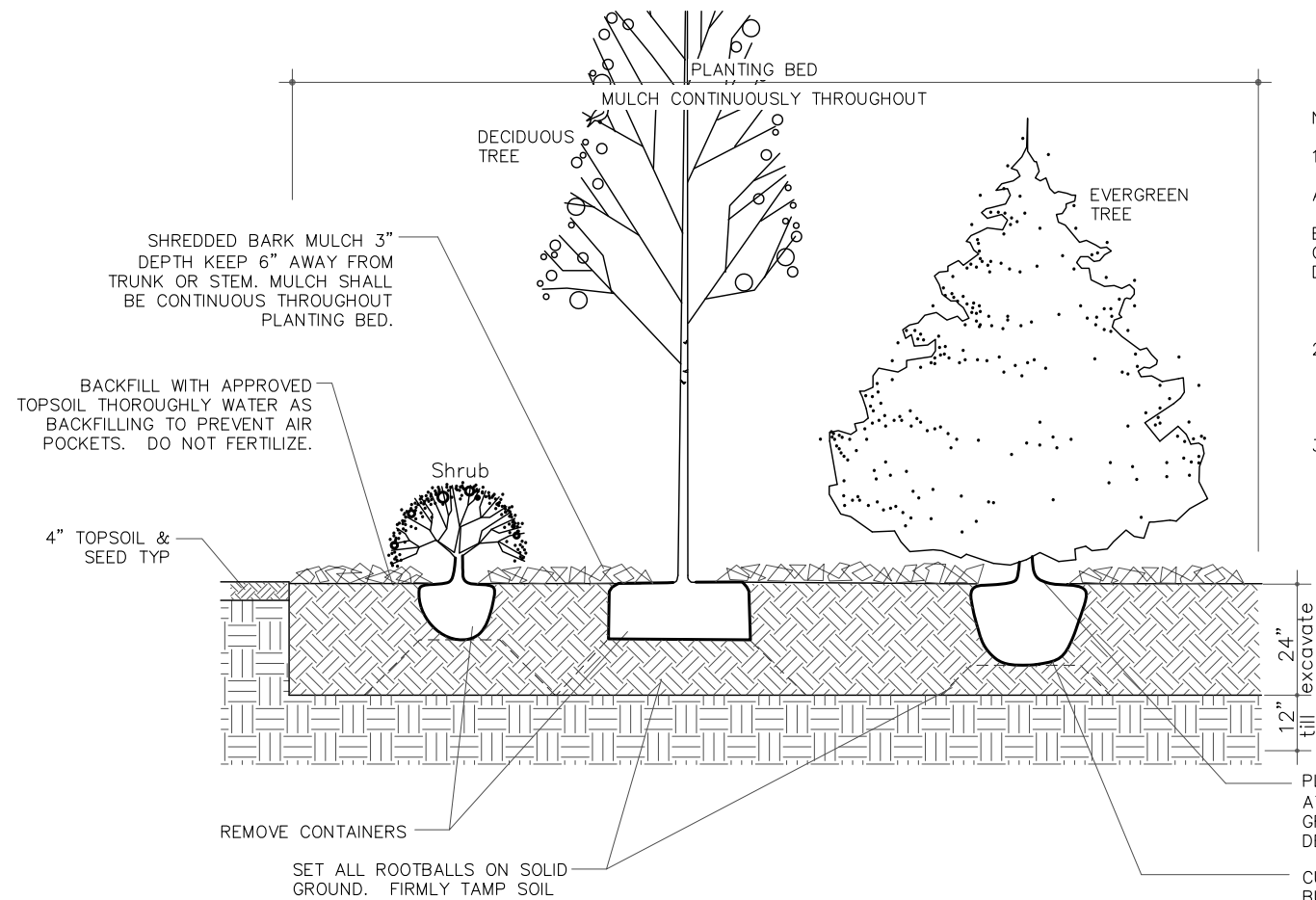
LANDSCAPE
DETAILS



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	L11	L11



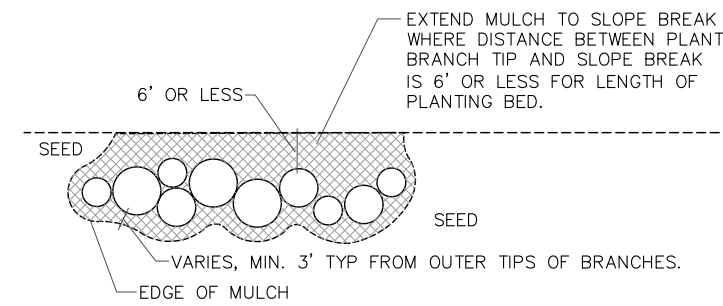
1 MEDIAN TREATMENT - WIDE



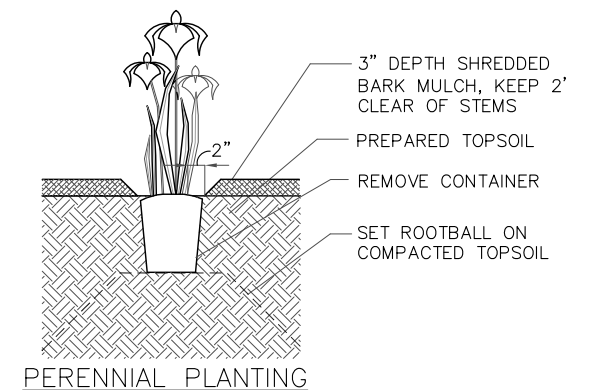
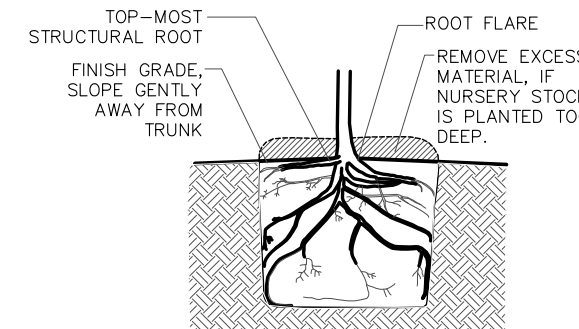
2 PLANTING BED

NOTES:

- PREPARE PLANTING BED AS SHOWN ON PLANS:
 - STAKE OR PAINT PLANT LOCATIONS FOR APPROVAL
 - EXCAVATE AND REMOVE SOIL
 - TILL SUBGRADE
 - BACKFILL WITH APPROVED TOPSOIL AND TAMP TO REMOVE ALL AIR POCKETS
- PLANT TREES AND SHRUBS AFTER ENGINEER HAS APPROVED STAKED LOCATIONS
- CONTRACTOR TO VERIFY LOCATION OF UTILITIES PRIOR TO EXCAVATION

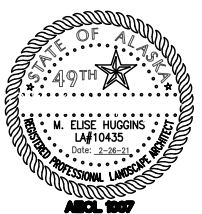


MULCH LIMITS



PLANS DEVELOPED BY: EARTHSCAPE, LLC. CERT AUTHORIZATION NO. AECL1007, 1643 W. 10TH AVE., ANCHORAGE AK 99501 (907)279-2688

LANDSCAPE
DETAILS




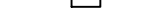
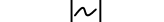



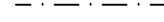
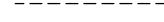




NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	Q1	Q12

GENERAL NOTES

- THIS ESCP IS A GENERAL PLAN FOR GUIDING THE DEVELOPMENT OF THE CONTRACTOR'S SWPPP, A TEMPLATE IS INCLUDED IN APPENDIX C OF THE CONTRACT. THE CONTRACTOR IS EXPECTED TO PROVIDE ADDITIONAL DETAILS AND BMP'S BASED ON THE CONTRACTOR'S ACTUAL SCHEDULE AND CONSTRUCTION METHODS, AS REQUIRED TO COMPLY WITH THE AKR100000 CONSTRUCTION GENERAL PERMIT AND SECTION 641 OF THE PROJECT SPECIFICATIONS.
- A SWPPP AND HMCP ARE REQUIRED FOR THIS PROJECT.
- EROSION AND SEDIMENT CONTROL FEATURES MUST BE BASED ON THE DOT&PF MANUAL ALASKA STORM WATER POLLUTION PREVENTION PLAN GUIDE (MARCH 2017 OR LATEST VERSION) AND LATEST BMPs.
- INITIATE EROSION AND SEDIMENT CONTROLS PRIOR TO ANY EARTH DISTURBING ACTIVITIES.
- DEVICES MAY NEED TO BE REMOVED AND REINSTALLED TO ALLOW CONSTRUCTION ACTIVITIES TO PROCEED. MAINTAIN ALL DEVICES DAILY INCLUDING, BUT NOT LIMITED TO REMOVAL AND DISPOSAL OF ACCUMULATED SOILS, CLEANING DEVICES AND REPLACEMENT OF DAMAGED DEVICES.
- STOCKPILE AND STAGING LOCATIONS MUST BE RECLAIMED TO THEIR ORIGINAL CONDITION. STOCKPILES AND/OR STAGING AREAS ARE NOT ALLOWED IN WETLANDS.
- ENSURE LOADS ARE STABLE OR COVERED SO THAT NO MATERIAL ESCAPES DURING HAULING ACTIVITIES.
- PROVIDE CONCRETE WASHOUT FACILITIES.
- PROVIDE VEHICLE CLEANING EQUIPMENT OR OTHER APPROVED CONTROLS TO PREVENT TRACKING OF DIRT AND GRAVEL ONTO PAVED SURFACES.
- PROVIDE INLET PROTECTION AT ALL INLETS IN AND ADJACENT TO WORK AREAS (SEE BMP 25.00 - 29.00 DOT&PF SWPPP GUIDE).
- AVOID UNNECESSARY GROUND DISTURBANCE AND MAINTAIN NATIVE VEGETATION WHERE PRACTICABLE THROUGH THE USE OF BMPs AND DOT&PF REVIEW OF PROPOSED SWPPP.
- FOLLOW BMPs, SOPs, AND THE SWPPP TO AVOID IMPACTS TO A CONTAMINATED SITE IF THE AREA MUST BE USED FOR CONSTRUCTION STAGING. DEVELOP A CONTINGENCY PLAN IN THE EVENT THAT CONTAMINATION IS UNEXPECTEDLY ENCOUNTERED, AND PHASE UNDERGROUND CONSTRUCTION WORK IN KNOWN GROUNDWATER-CONTAMINATED AREAS DURING PERIODS OF LOW GROUNDWATER.
- VEGETATIVE BUFFERS IS THE PREFERRED METHOD OF PERIMETER CONTROL FOR THIS PROJECT. WHERE VEGETATION IS NOT 25 FEET WIDE, THEN A BMP MUST BE INSTALLED FOR PERIMETER CONTROL.
- SWEEP CLEAN STABILIZED CONSTRUCTION EXITS EACH SHIFT OR AS DIRECTED BY ENGINEER.

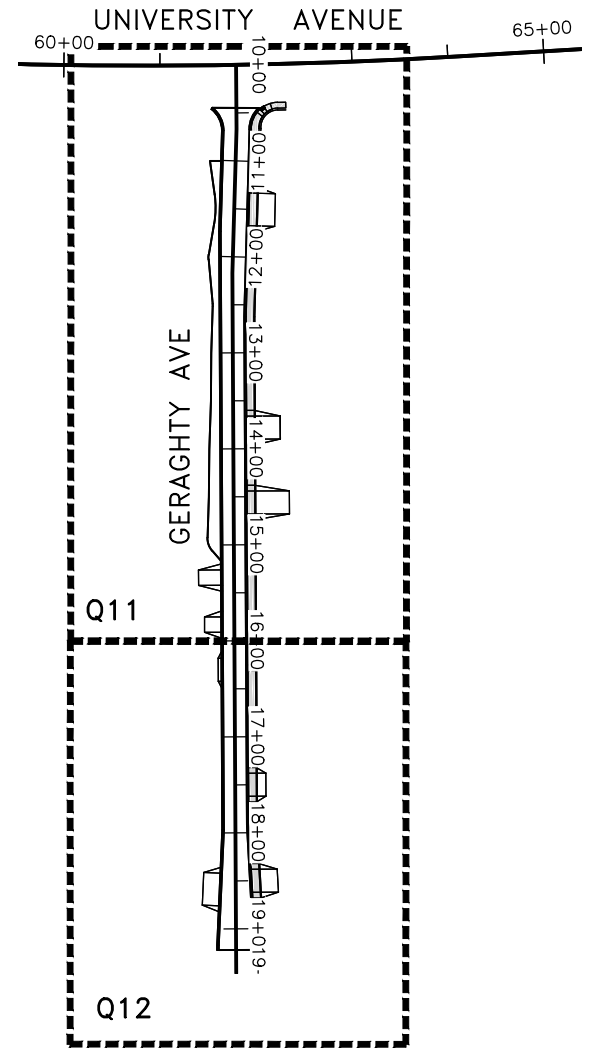
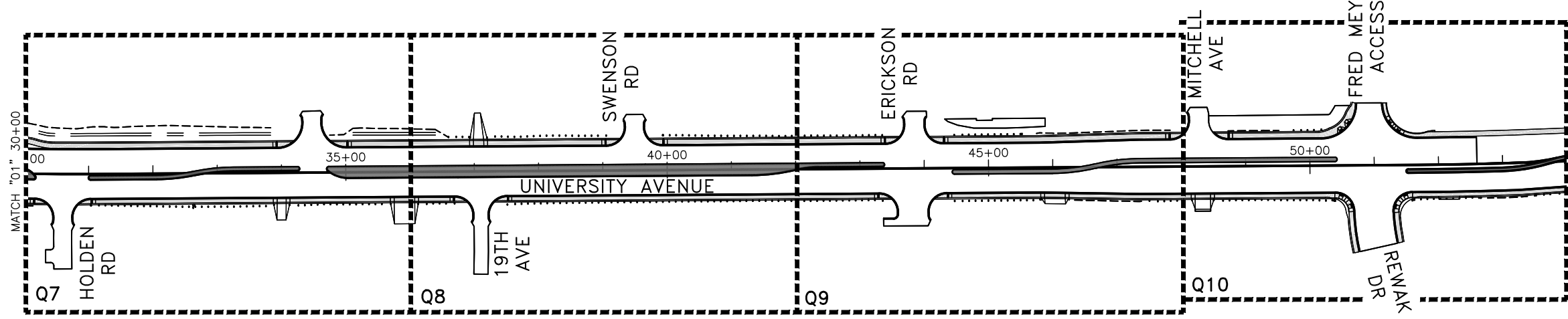
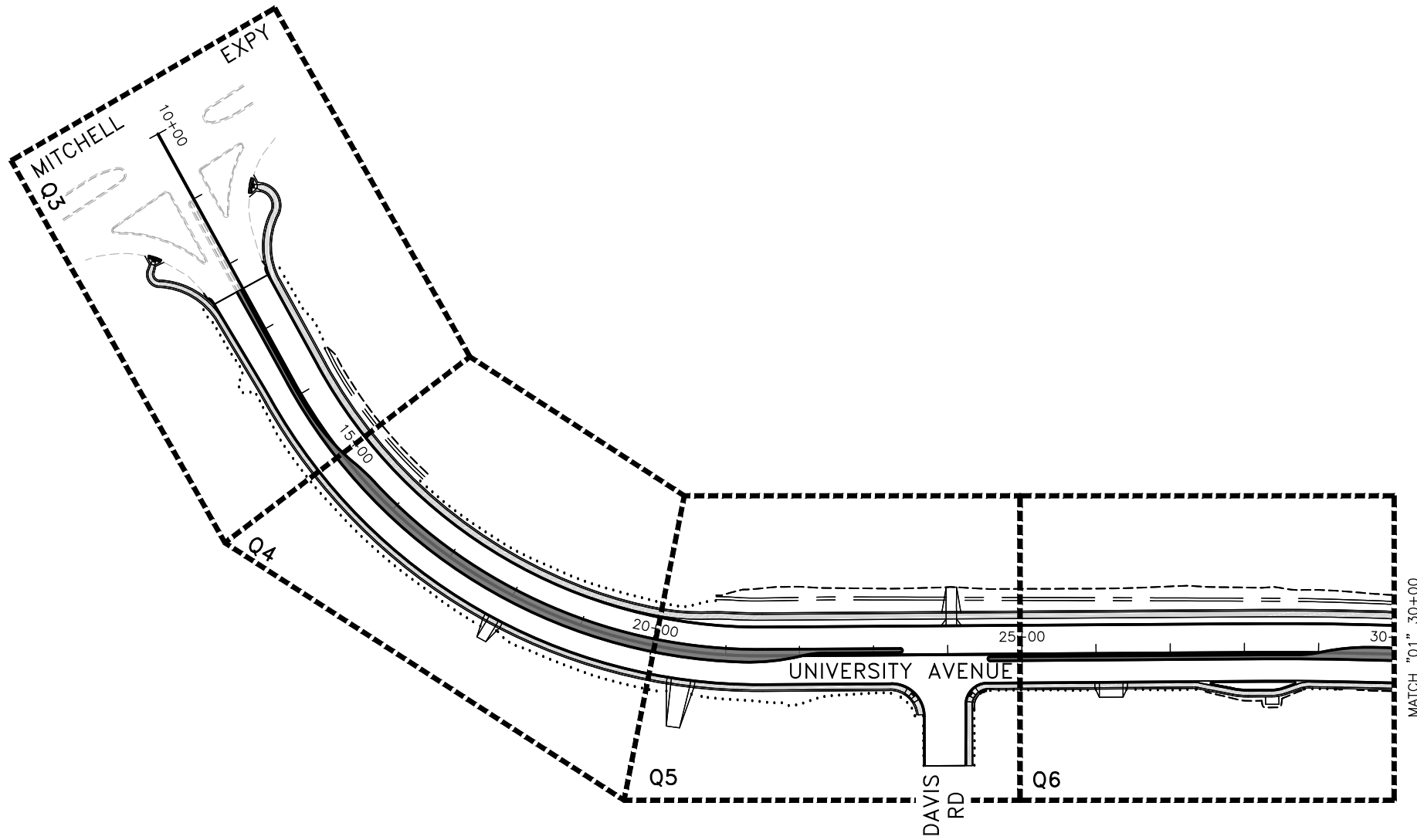
ESCP LEGEND:

-  PARCEL BOUNDARY
-  SURFACE WATER FLOW DIRECTION
-  INLET PROTECTION (SEE BMP 08.00 DOT&PF SWPPP GUIDE)
-  VELOCITY DISSIPATOR (RIPRAP CLASS II OR FUNCTIONAL EQUIVALENT)
-  WETLANDS
-  UPLANDS
-  DITCH LINE
-  EXISTING EMBANKMENT CATCHLINE (CUT OR FILL)
-  APPROXIMATE LIMITS OF EARTH DISTURBANCE
-  PERIMETER CONTROL
-  TEMPORARY CHECK DAM (SEE BMP 31.00-33.00 DOT&PF SWPPP GUIDE)
-  VEHICLE TRACKING ENTRANCE/EXIT



EROSION CONTROL
NOTES & DETAILS

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	Q2	Q12



PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
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EROSION AND SEDIMENT CONTROL
PLAN SHEET LAYOUT INDEX

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	Q3	Q12

WETLANDS CONTINUE IN THIS GENERAL DIRECTION

DRAINAGE DITCH

MATCH "01" 15+00 LINE

10+00
"01" 10+00.00 BP

11+00

UNIVERSITY AVENUE

12+00

13+00

14+00

"01" 13+79.39 PC

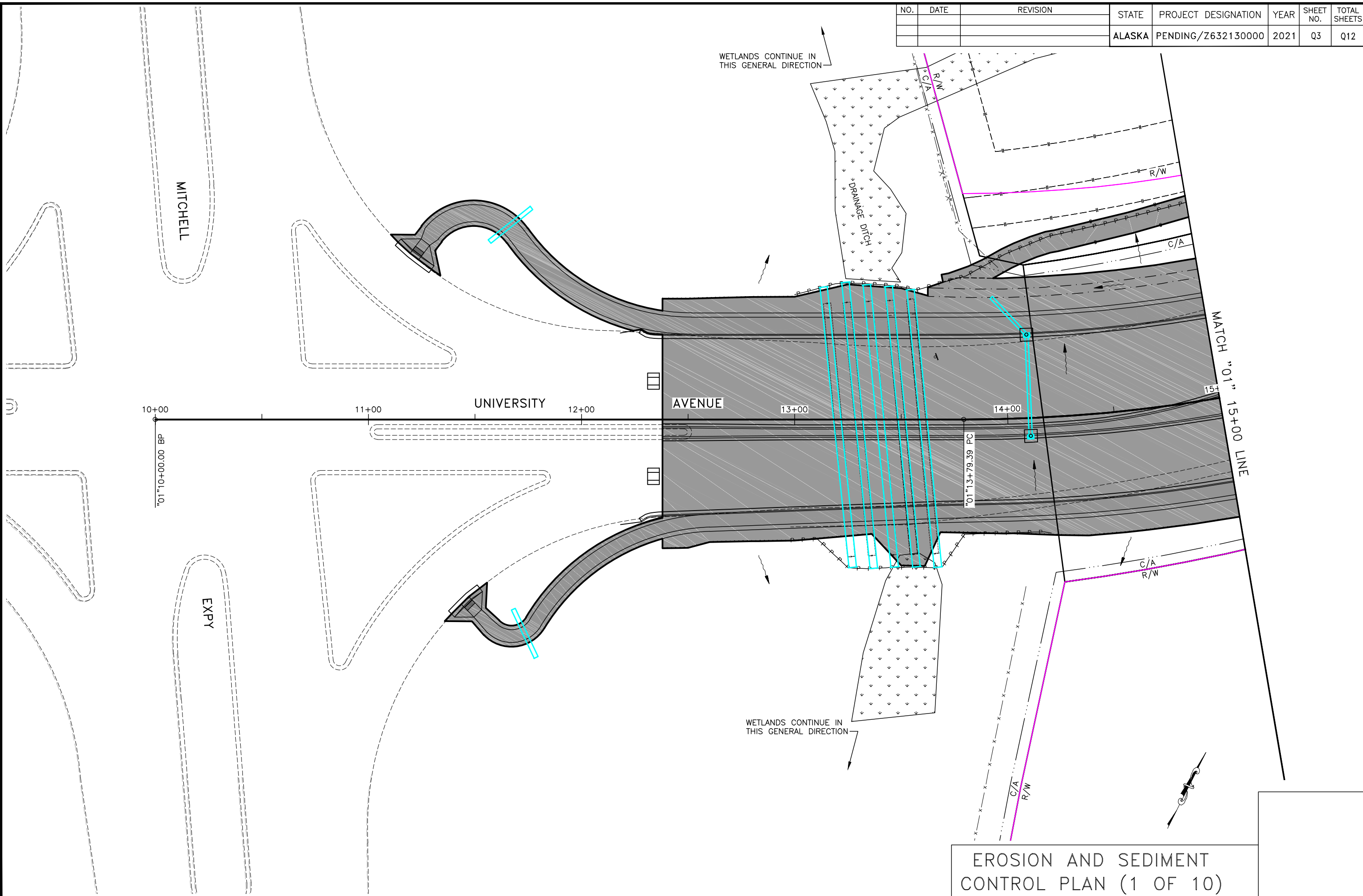
MITCHELL

EXPY

WETLANDS CONTINUE IN THIS GENERAL DIRECTION

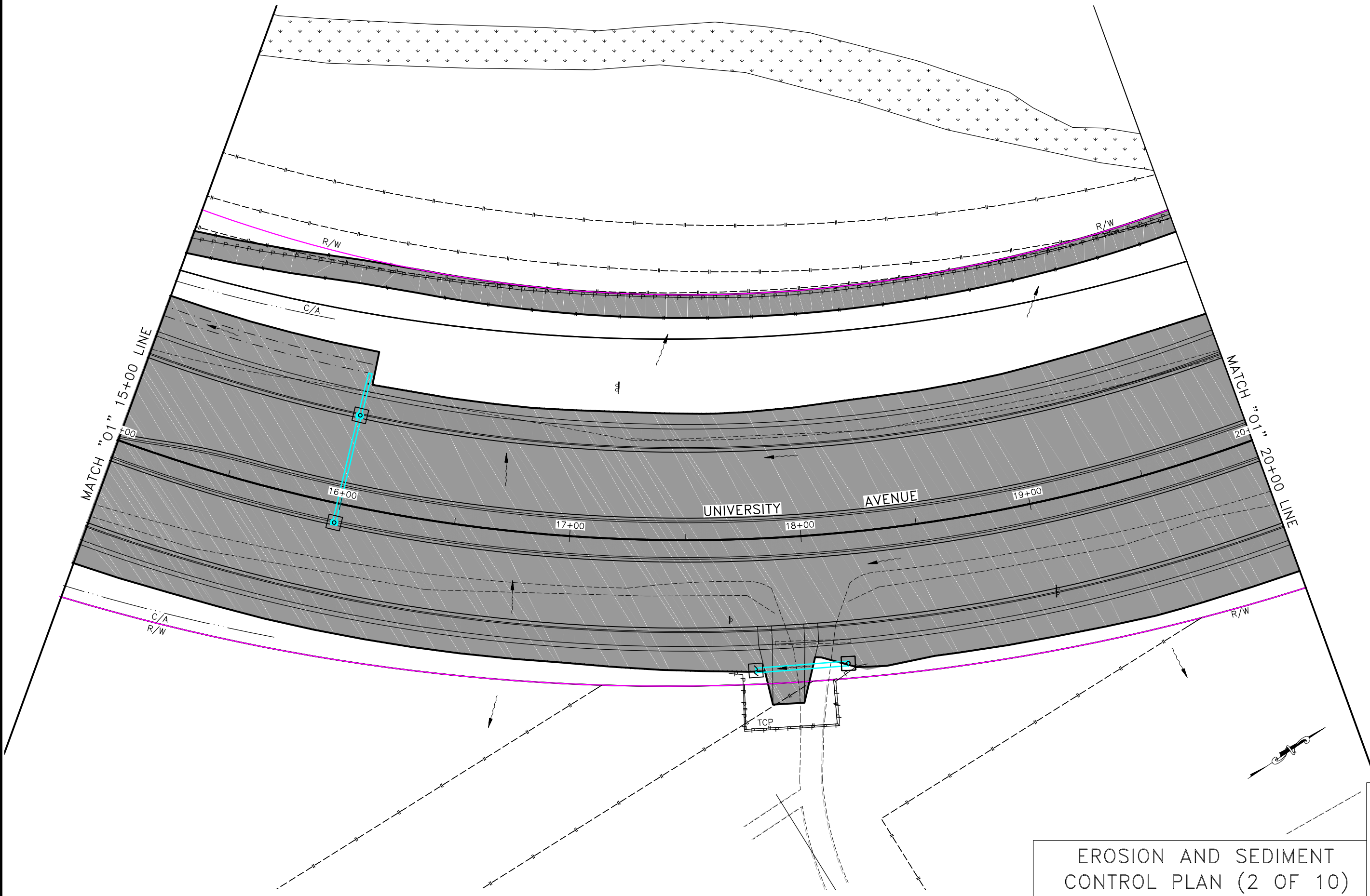
EROSION AND SEDIMENT CONTROL PLAN (1 OF 10)

PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605. 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503. (907)743-3200
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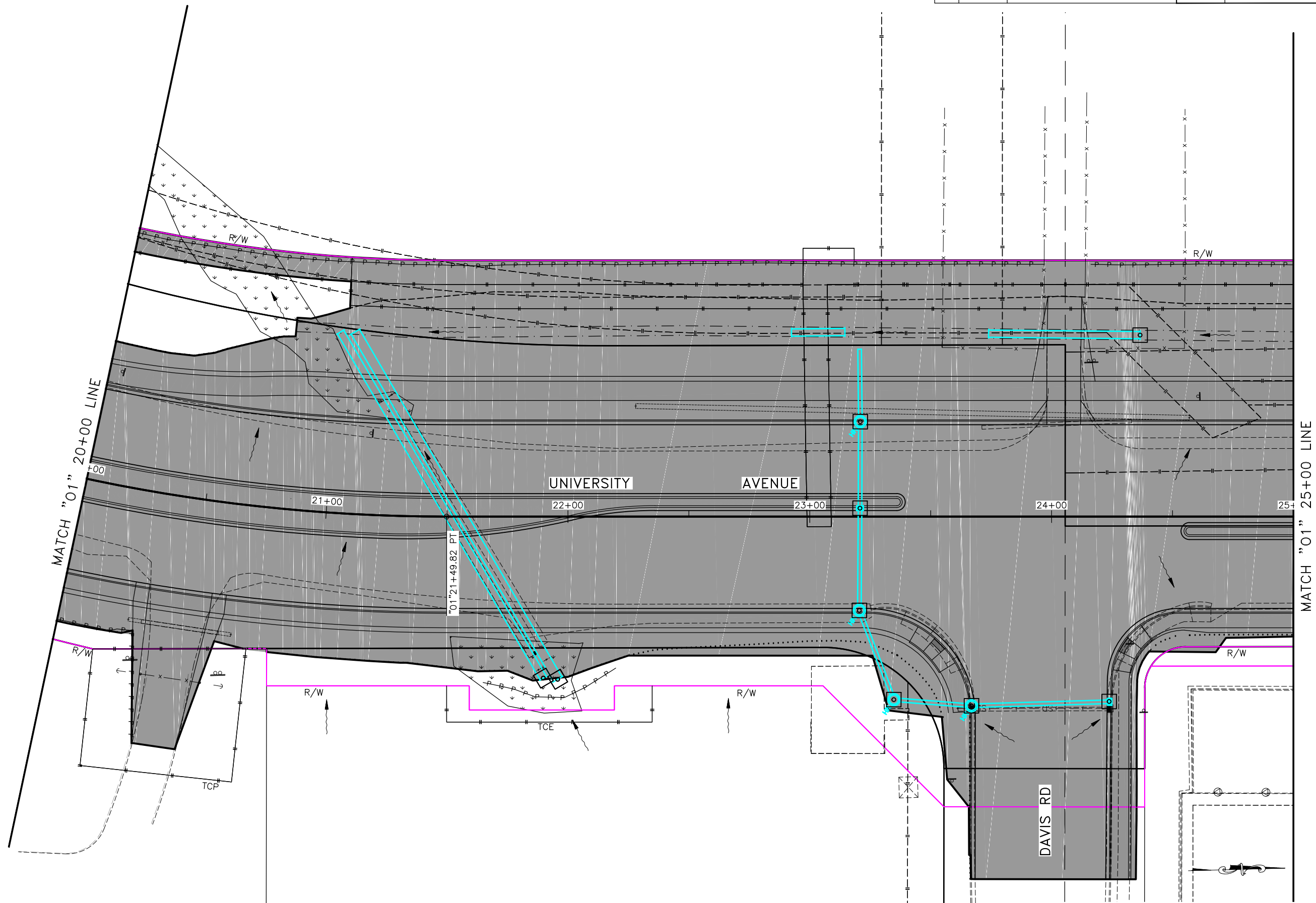
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	Q4	Q12

PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
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EROSION AND SEDIMENT CONTROL PLAN (2 OF 10)

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	Q5	Q12



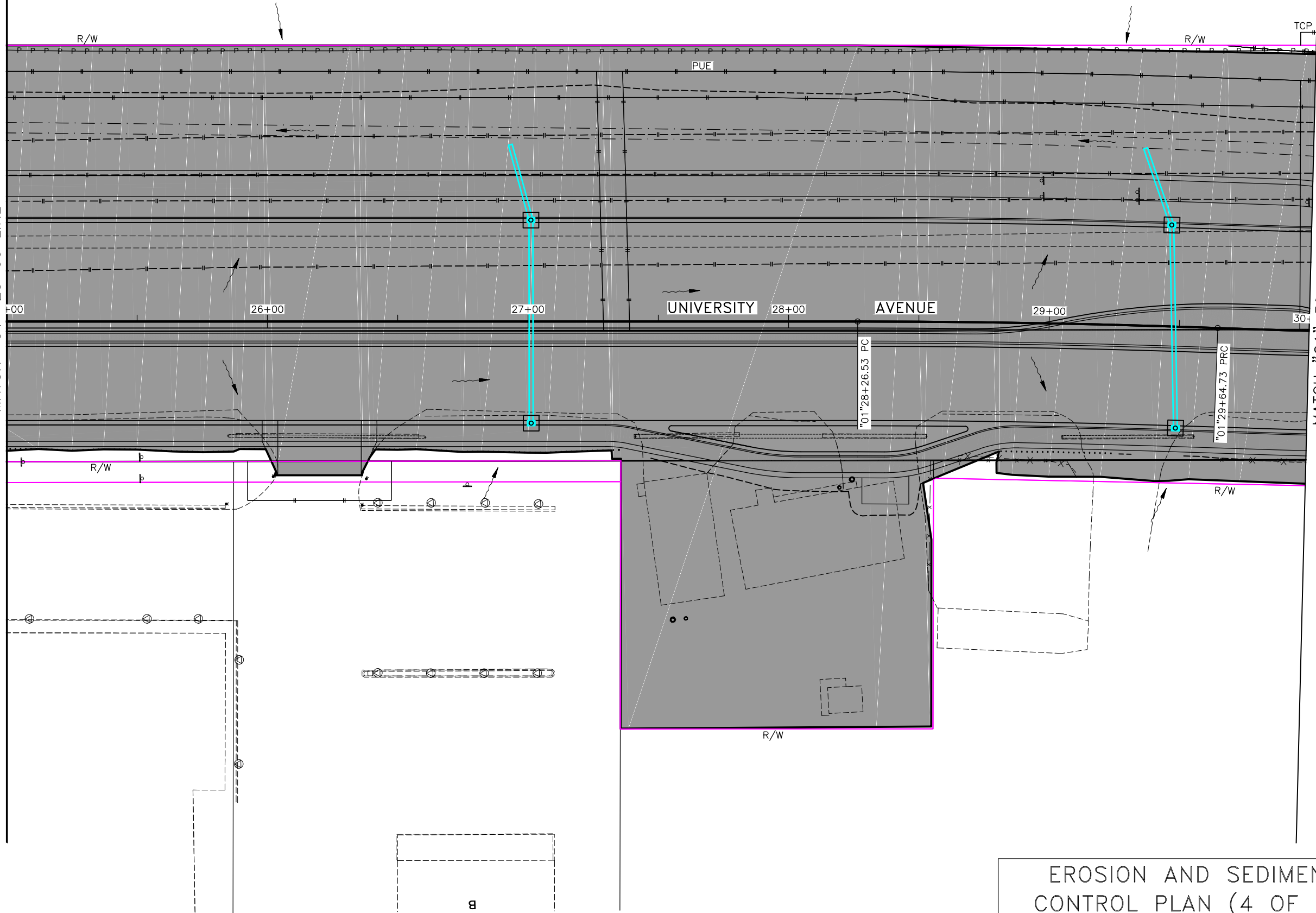
EROSION AND SEDIMENT CONTROL PLAN (3 OF 10)

PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	Q6	Q12

MATCH "01" 25+00 LINE

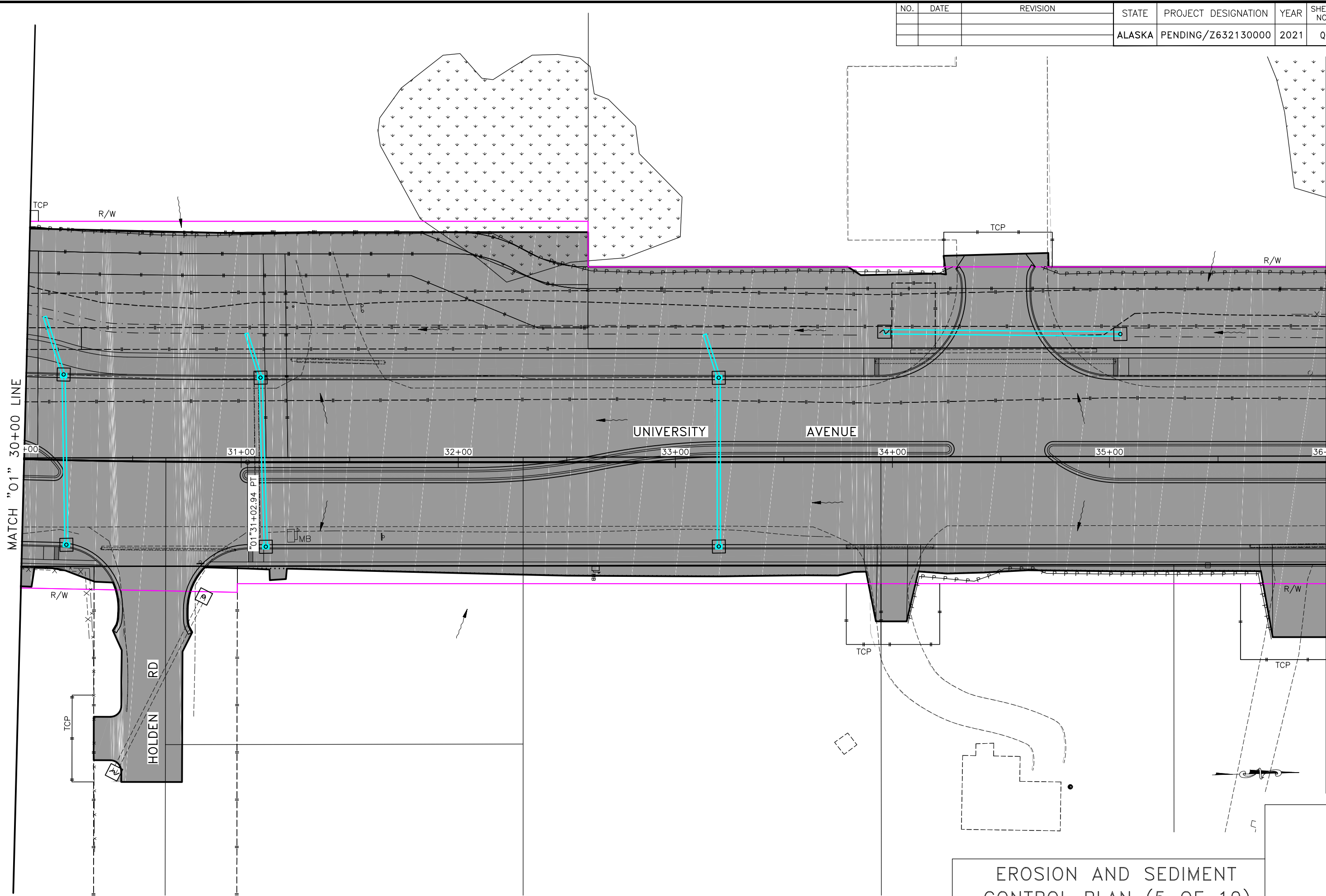
MATCH "01" 30+00 LINE



EROSION AND SEDIMENT CONTROL PLAN (4 OF 10)

PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	Q7	Q12

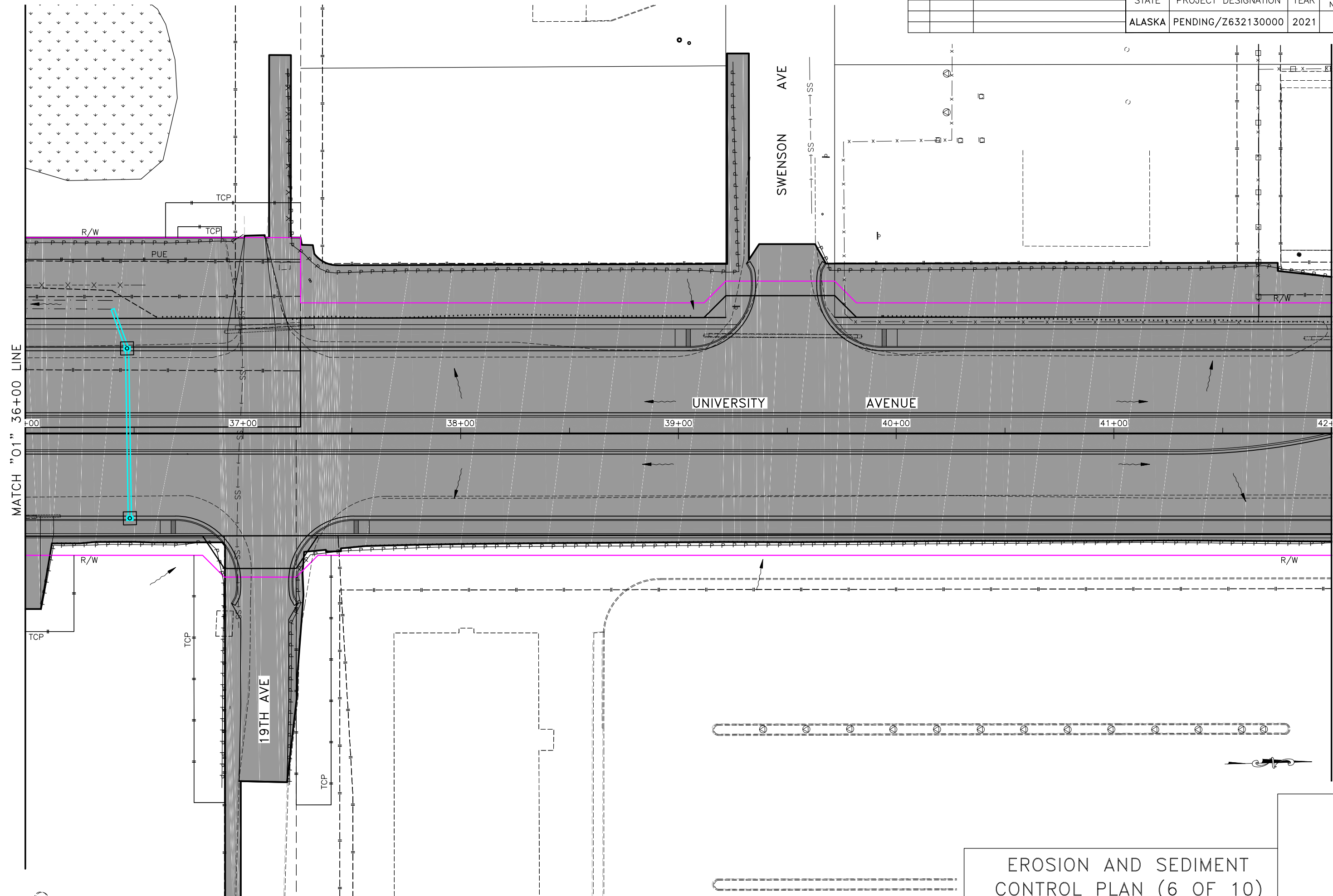


EROSION AND SEDIMENT CONTROL PLAN (5 OF 10)

PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	Q8	Q12

PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
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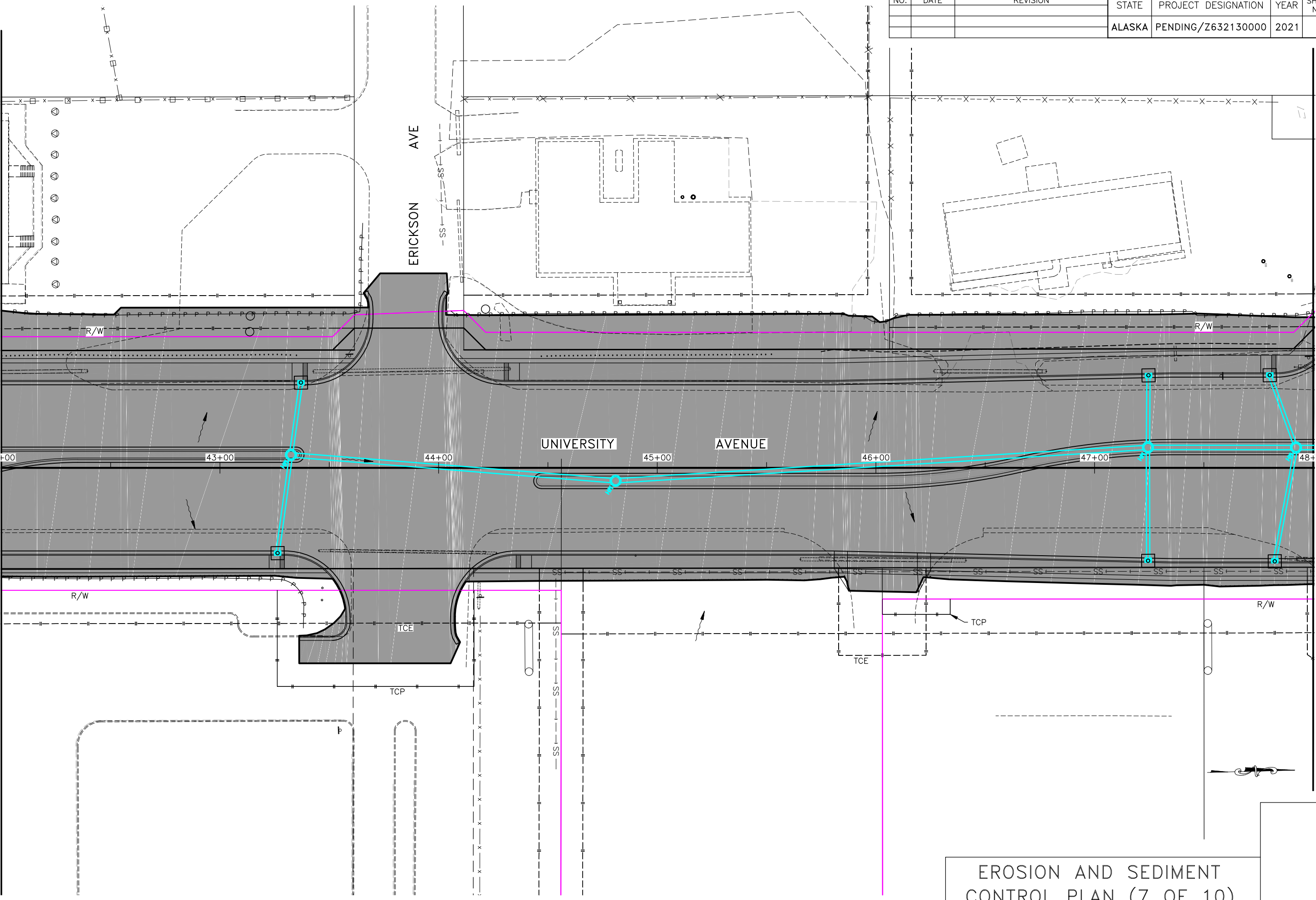
EROSION AND SEDIMENT CONTROL PLAN (6 OF 10)

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	Q9	Q12

PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc.local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B\C\6001\er1147.04FB_2B-09 Mon, Feb/22/21 08:55am

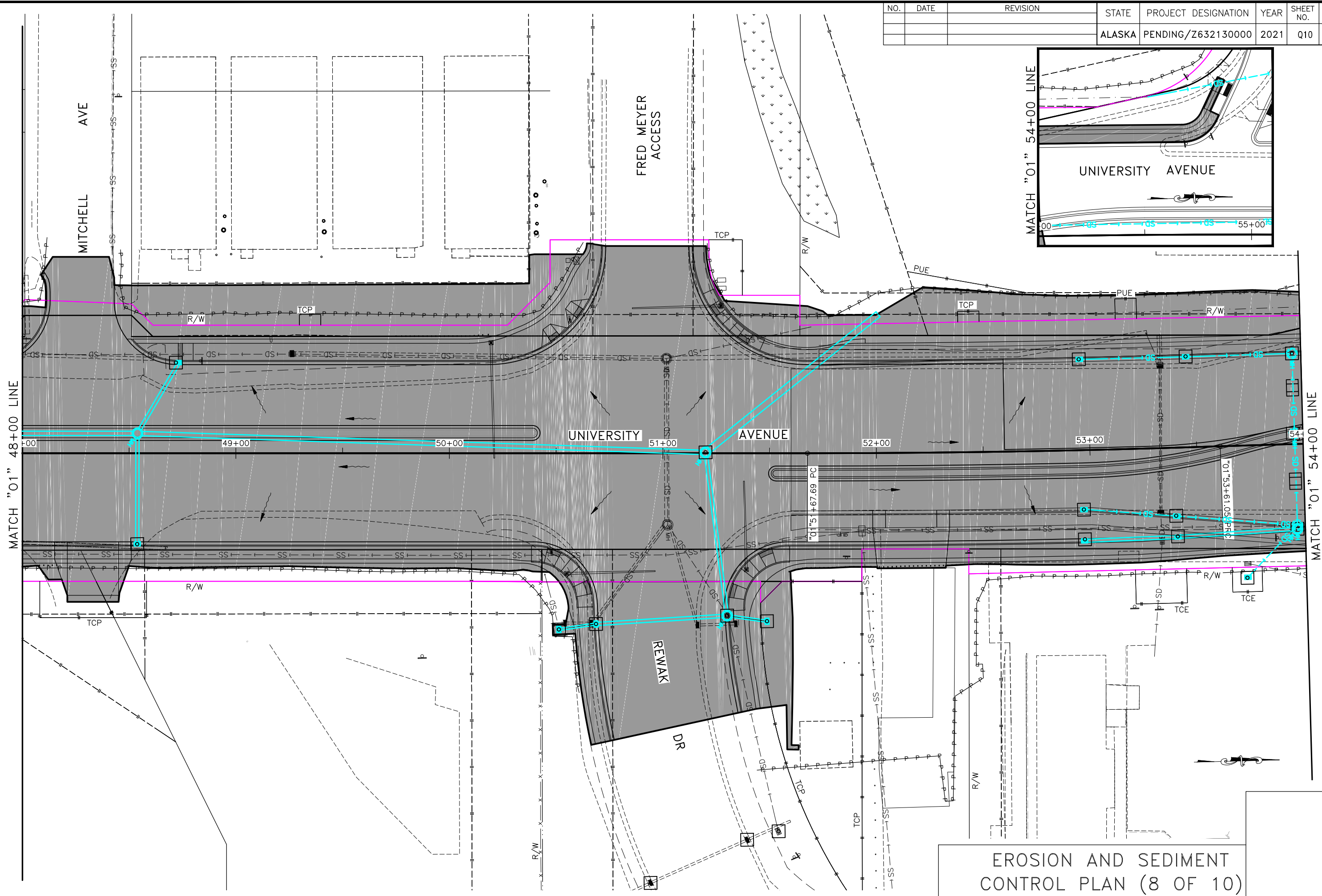
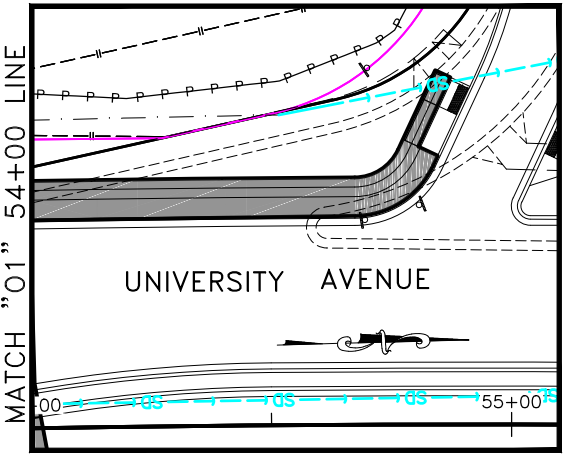
MATCH "O1" 42+00 LINE

MATCH "O1" 48+00 LINE



EROSION AND SEDIMENT CONTROL PLAN (7 OF 10)

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	Q10	Q12

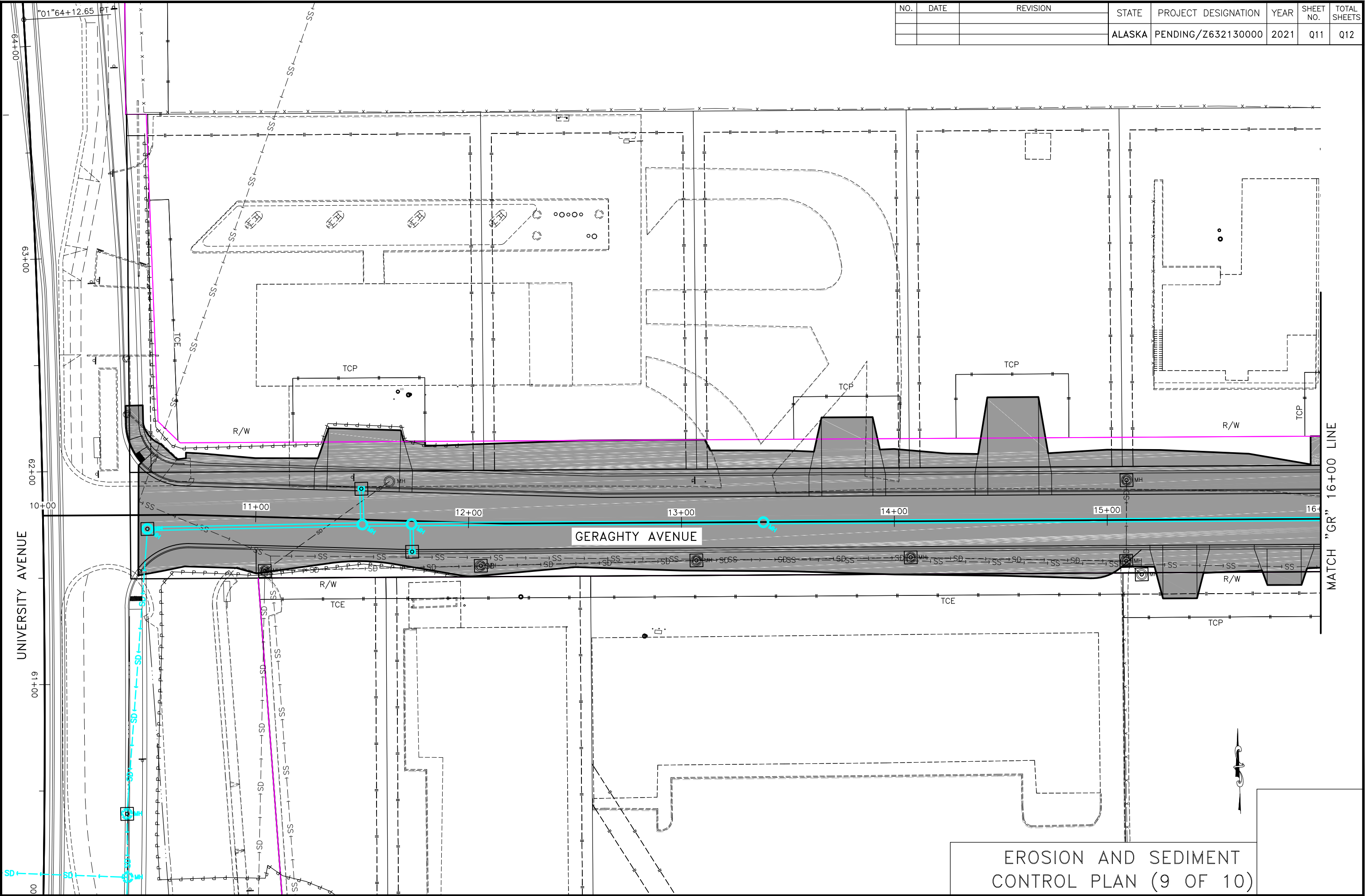


EROSION AND SEDIMENT CONTROL PLAN (8 OF 10)

PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc.local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B\C\06001\est1147.04FB_2B-Q10 Mon, Feb/22/21 08:56am

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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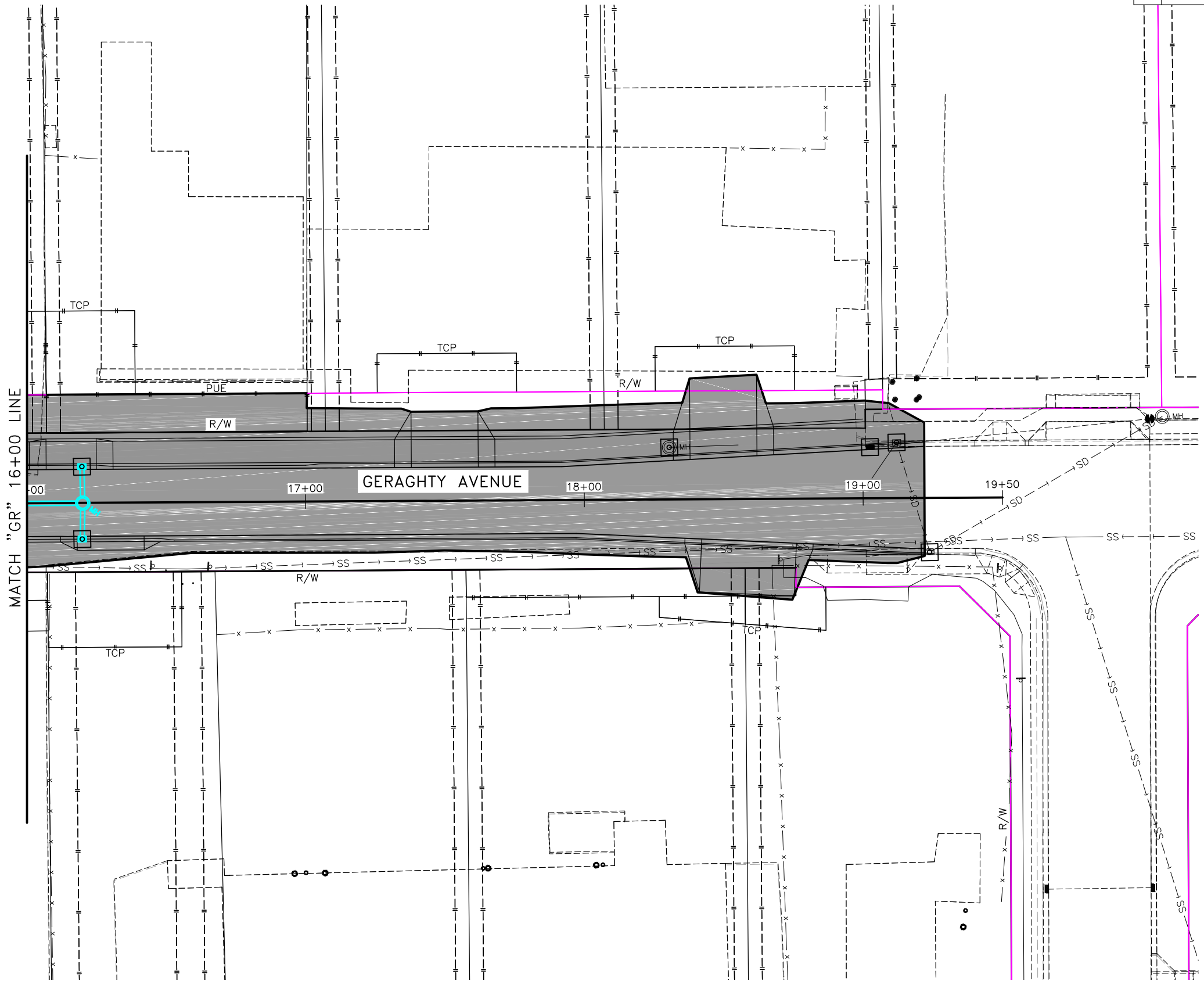
PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc.local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B\C\06001\est1147.04FB_2B-Q11 Mon, Feb/22/21 08:57 am



EROSION AND SEDIMENT CONTROL PLAN (9 OF 10)

MATCH "GR" 16+00 LINE

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	Q12	Q12



MATCH "GR" 16+00 LINE

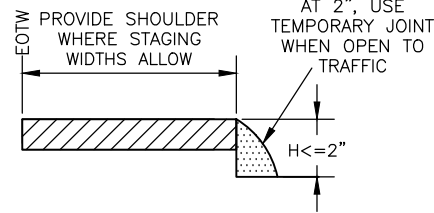
GERAGHTY AVENUE

EROSION AND SEDIMENT CONTROL PLAN (10 OF 10)

PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc.local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B\C\6001\er1147.04FB_2B-Q12 Mon, Feb/22/21 08:58am

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	T1	T7

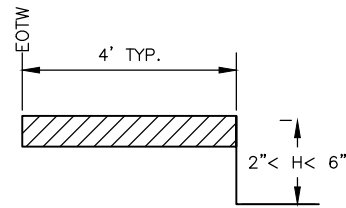
VERTICAL DROP-OFFS



CASE A

DROP-OFFS < 2 INCHES
(PAVED SURFACES ONLY)

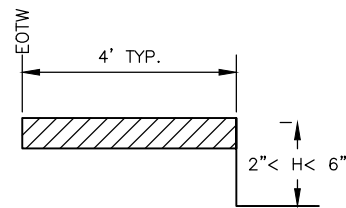
1. USE "UNEVEN LANES" (CW8-11) SIGNS FOR ALL DROP-OFFS IN BETWEEN TRAFFIC LANES.
2. LEAVE NO DROP-OFFS > 1.5" IN THE



CASE B

2" < DROP-OFFS < 6"
(ALL ROADWAY SURFACES)

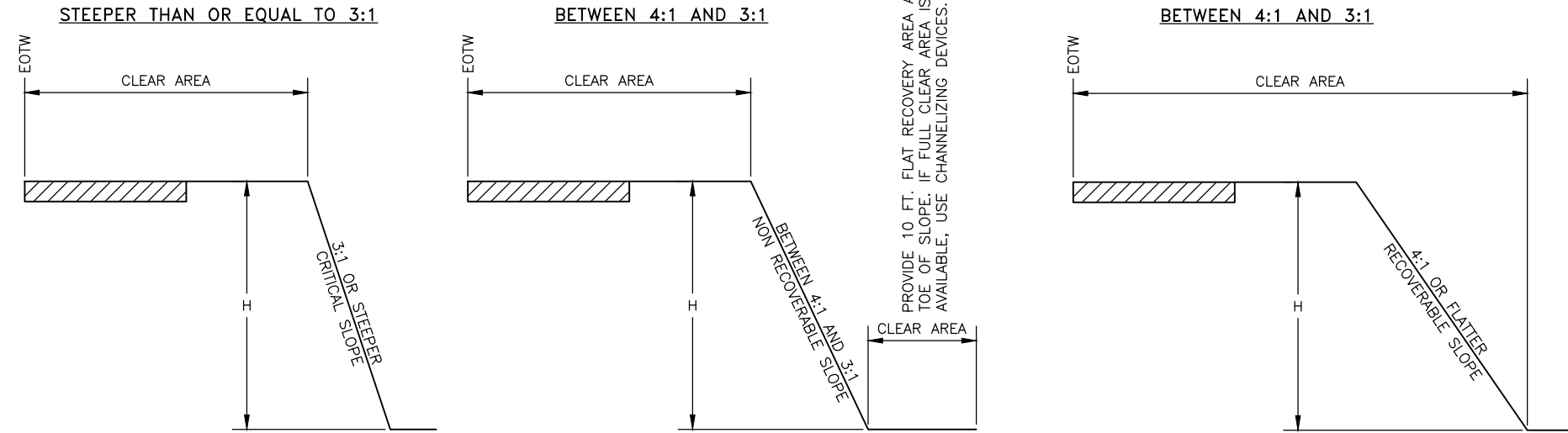
1. PLACE CONES OR CANDLES FOR DROP-OFFS > 4 FEET AND ≤ 30 FEET FROM THE EOTW.
2. USE DRUMS OR TYPE II BARRICADES FOR DROP-OFFS ≤ 4 FEET FROM THE EOTW.



CASE C

DROP-OFFS > 6"
(ALL ROADWAY SURFACES AND
ROADSIDE SLOPES)

1. PLACE DRUMS OR TYPE II BARRICADES FOR DROP-OFFS < 24" WITHIN THE CLEAR AREA.
2. PROVIDE PORTABLE CONCRETE BARRIER FOR DROP-OFFS > 24" WITHIN 15 FEET OF THE EOTW. USE DRUMS OR TYPE II BARRICADES IF BEYOND 15 FEET.



CLEAR AREA REQUIREMENTS			
	LOW SPEED < = 35 MPH	INTERMEDIATE SPEED 40 MPH TO 45 MPH	HIGH SPEED > = 50 MPH
RURAL	15'	24'	30'
URBAN	10' DITCH SECTION, OR 2' BEHIND CURB	15' DITCH CONDITIONS, OR 2' BEHIND CURB	15' DITCH SECTIONS, OR 2' BEHIND CURB

CHANNELIZING DEVICE REQUIREMENTS FOR SLOPES 3:1 OR STEEPER WITHIN THE CLEAR AREA

	H ≤ 15'	H > 15'
< 2000 VPD LOW VOLUME	CANDLES OR CONES	TYPE II BARRICADES OR DRUMS
> 2000 VPD	TYPE II BARRICADE OR DRUMS	PORTABLE CONCRETE BARRIER OR TEMPORARY GUARDRAIL

TRAFFIC CONTROL NOTES:

1. USE THE EXISTING CROSS-SECTION (PRIOR TO CONSTRUCTION) AS A BASIS FOR DETERMINING WHEN CHANNELIZING DEVICES ARE NEEDED.
2. INSTALL CHANNELIZING DEVICES WHEN THE HORIZONTAL OR VERTICAL CURVATURE IS MADE MORE SEVERE.
3. INSTALL FLEXIBLE DELINEATORS WHEN ALL VEGETATION OVER 4 FEET HIGH IS CLEARED FROM FILL SLOPES THAT ARE 3:1 OR STEEPER IN THE CLEAR AREA.
4. USE PORTABLE CONCRETE BARRIER FOR WARRANTING CONDITIONS WHICH LAST LONGER THAN 3 DAYS. FOR CONDITIONS LASTING LESS THAN 3 DAYS, OTHER CHANNELIZING DEVICES MAY BE INSTALLED.
5. TERMINATE RUNS OF PORTABLE CONCRETE BARRIER USING THE FOLLOWING METHODS:
 - 5.A. CONNECT TO A PORTABLE CRASH CUSHION, OR
 - 5.B. PROVIDE A CONCRETE BARRIER WITH THRIE BEAM TRANSITION TO W-BEAM GUARDRAIL, TREATED WITH A PARALLEL GUARDRAIL TERMINAL, OR
 - 5.C. FLARE THE ENDS OF THE PORTABLE CONCRETE BARRIER AWAY FROM THE ROADWAY AT A RATE OF 7:1 ON A COMPACTED SLOPE OF 6:1 OR FLATTER, OUTSIDE OF THE CLEAR AREA. INSTALL A SLOPING PORTABLE CONCRETE BARRIER END TREATMENT, OR
 - 5.D. BURY IN THE BACKSLOPE.
6. TERMINATE THE RUNS OF TEMPORARY W-BEAM GUARDRAIL USING THE FOLLOWING METHODS.
 - 6.A. PROVIDE A PARALLEL GUARDRAIL TERMINAL TO W-BEAM GUARDRAIL, OR
 - 6.B. FLARE THE ENDS OF THE TEMPORARY GUARDRAIL AWAY FROM THE ROADWAY AT A RATE OF 6:1 ON A COMPACTED SLOPE OF 6:1 OR FLATTER OUTSIDE OF THE CLEAR AREA, TERMINATE WITH A STANDARD W-BEAM END SECTION, OR
 - 6.C. BURY IN THE BACKSLOPE.

EQUIPMENT NOTES:

1. WHEN THERE IS ACTIVE, NONMOBILE CONSTRUCTION EQUIPMENT WITHIN THE CLEAR AREA, DELINEATE THE ROADSIDE WITH TRAFFIC CONES.
2. SEPARATE PROCEDURES ARE REQUIRED FOR MOBILE WORK ZONE OPERATIONS AND SHORT DURATION WORK OF LESS THAN 12 HOURS.

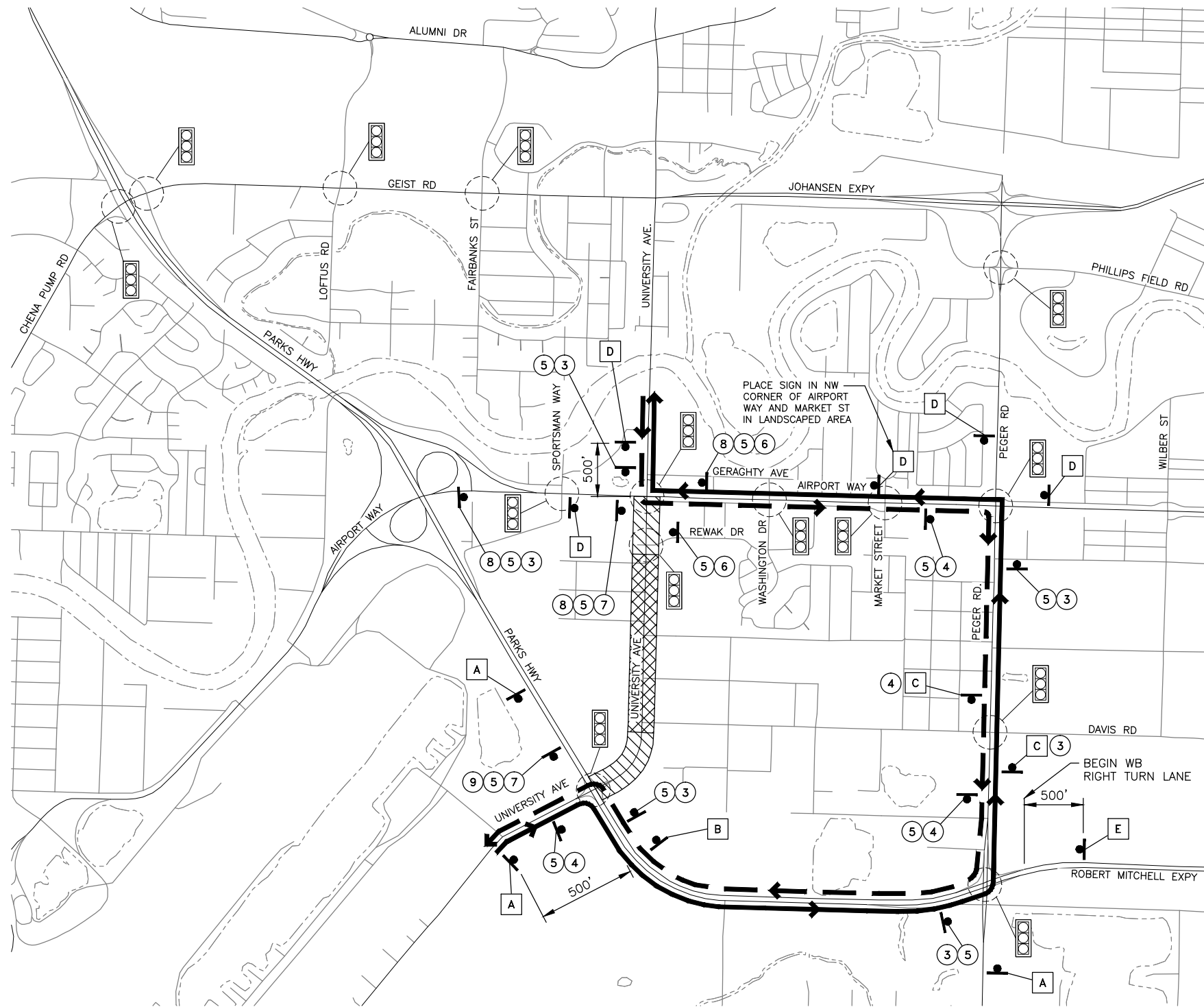
WINTER SHUTDOWN NOTES:

1. WHEN REQUIRED, USE CHANNELIZING DEVICES WHICH CAN BE MAINTAINED OVER WINTER.
2. NO CHANNELIZING DEVICES ARE REQUIRED IF:
 - 2.A. CONSTRUCTION SLOPES ARE RECOVERABLE, AND
 - 2.B. SLOPES ARE SMOOTH AND COMPACTED, AND
- 2.C. REQUIRED CLEAR AREA IS PROVIDED

TRAFFIC CONTROL DETAILS

NOT STAMP
REQUIRED

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	T3	T7



LEGEND:

- UNDER CONSTRUCTION – CLOSED TO THRU TRAFFIC
- UNDER CONSTRUCTION – MAINTAIN TWO LANE TWO-WAY TRAFFIC
- TRAFFIC SIGN
- EXISTING TRAFFIC SIGNAL
- NORTHBOUND DETOUR ROUTE
- SOUTHBOUND DETOUR ROUTE
- TYPE 3 BARRICADE

- ① R3-1 (24" X 24")
- ② R3-2 (24" X 24")
- ③ M4-9L (30" X 24")
- ④ M4-9R (30" X 24")
- ⑤ SPECIAL (36" X 12")
- ⑥ R11-4 (60" X 30")
- ⑦ M4-103 (30" X 24")
- ⑧ M3-3 (24" X 12")
- ⑨ M3-1 (24" X 12")

DETOUR SPECIAL SIGNS

SEE SPECIAL CONSTRUCTION SIGNS, SHEETS T23-T25 FOR SIGN LAYOUT.

- A UNIVERSITY CLOSED AT MITCHELL EXPWY USE PEGER RD
- B UNIVERSITY CLOSED
- C UNIVERSITY AVE ACCESS DAVIS TO REWAK
- D UNIVERSITY CLOSED TO THRU TRAFFIC USE PEGER RD
- E UNIVERSITY CLOSED AT MITCHELL EXPWY

NOTES:

1. ALL TRAFFIC CONTROL DEVICES MUST BE IN ACCORDANCE WITH THE CURRENT ALASKA TRAFFIC MANUAL (ATM).
2. A TRAFFIC CONTROL PLAN SHALL BE SUBMITTED AND APPROVED PRIOR TO IMPLEMENTATION.
3. DETOUR SPECIAL SIGNS SHALL BE LOCATED AS SHOWN OR IN ADVANCE OF ROAD WORK AHEAD SIGNING ON CLOSED ROUTES.
4. WHERE DIMENSIONS ARE NOT INCLUDED, ADVANCE DETOUR SIGNS SHALL BE INSTALLED APPROXIMATELY 100'-200' IN ADVANCE OF POINT OF DETOUR.

THE FOLLOWING CLOSURE PLANS ARE ASSOCIATED WITH THIS DETOUR PLAN

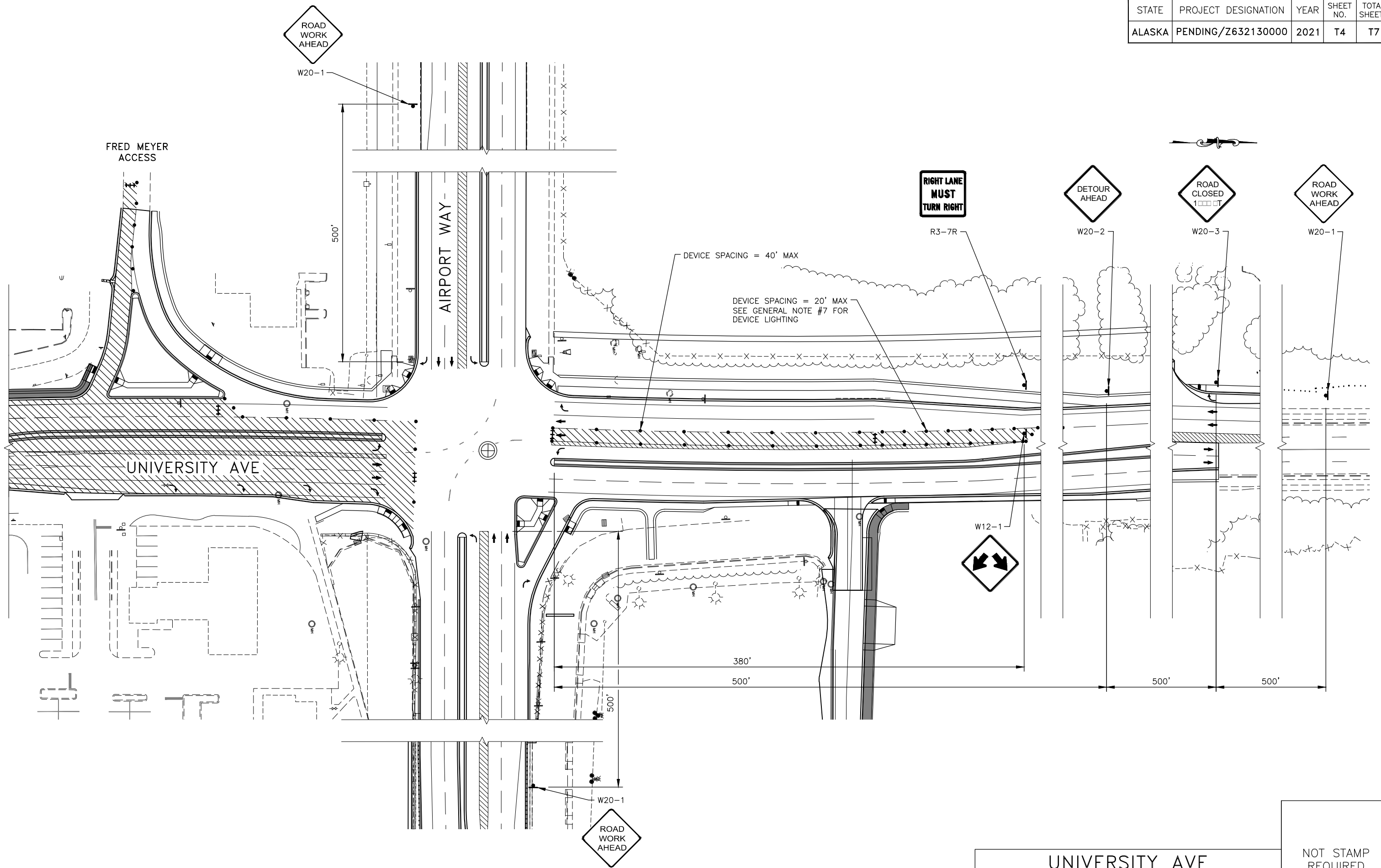
- T4 UNIVERSITY AVENUE SOUTHBOUND APPROACH CLOSURE AT AIRPORT WAY.
- T5 UNIVERSITY AVENUE SOUTHBOUND APPROACH CLOSURE AT GOLDIZEN AVE.
- T6 AIRPORT WAY LANE CLOSURES AND SHIFT.
- T7 UNIVERSITY AVENUE AT DAVIS ROAD

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC

NOT STAMP
REQUIRED

UNIVERSITY AVE CLOSURE
DETOUR PLAN

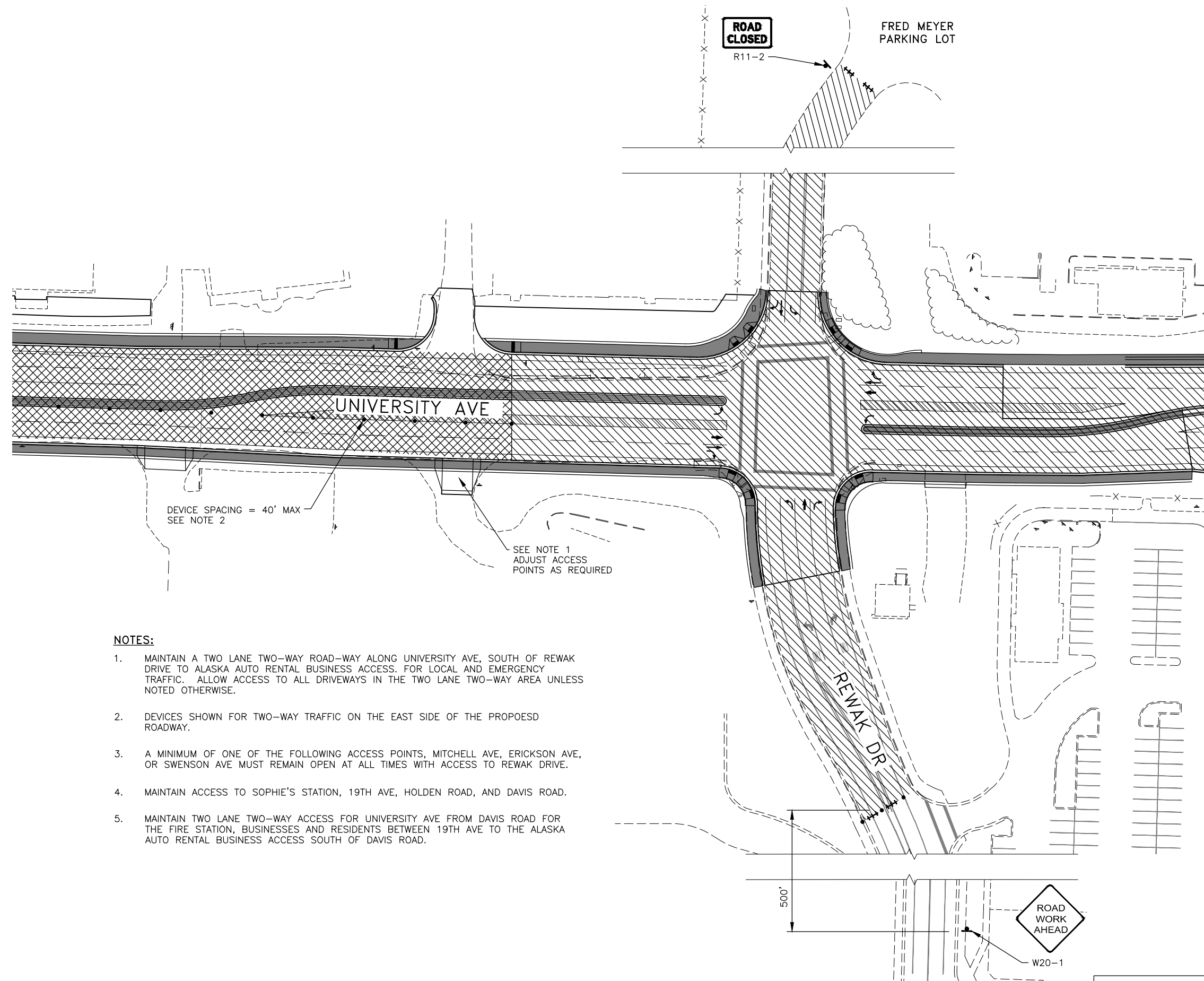
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	T4	T7



UNIVERSITY AVE
SOUTHBOUND APPROACH
CLOSURE AT AIRPORT WAY

NOT STAMP
REQUIRED

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	T5	T7



DEVICE SPACING = 40' MAX
SEE NOTE 2

SEE NOTE 1
ADJUST ACCESS
POINTS AS REQUIRED

NOTES:

1. MAINTAIN A TWO LANE TWO-WAY ROAD-WAY ALONG UNIVERSITY AVE, SOUTH OF REWAK DRIVE TO ALASKA AUTO RENTAL BUSINESS ACCESS. FOR LOCAL AND EMERGENCY TRAFFIC. ALLOW ACCESS TO ALL DRIVEWAYS IN THE TWO LANE TWO-WAY AREA UNLESS NOTED OTHERWISE.
2. DEVICES SHOWN FOR TWO-WAY TRAFFIC ON THE EAST SIDE OF THE PROPOSED ROADWAY.
3. A MINIMUM OF ONE OF THE FOLLOWING ACCESS POINTS, MITCHELL AVE, ERICKSON AVE, OR SWENSON AVE MUST REMAIN OPEN AT ALL TIMES WITH ACCESS TO REWAK DRIVE.
4. MAINTAIN ACCESS TO SOPHIE'S STATION, 19TH AVE, HOLDEN ROAD, AND DAVIS ROAD.
5. MAINTAIN TWO LANE TWO-WAY ACCESS FOR UNIVERSITY AVE FROM DAVIS ROAD FOR THE FIRE STATION, BUSINESSES AND RESIDENTS BETWEEN 19TH AVE TO THE ALASKA AUTO RENTAL BUSINESS ACCESS SOUTH OF DAVIS ROAD.

500'

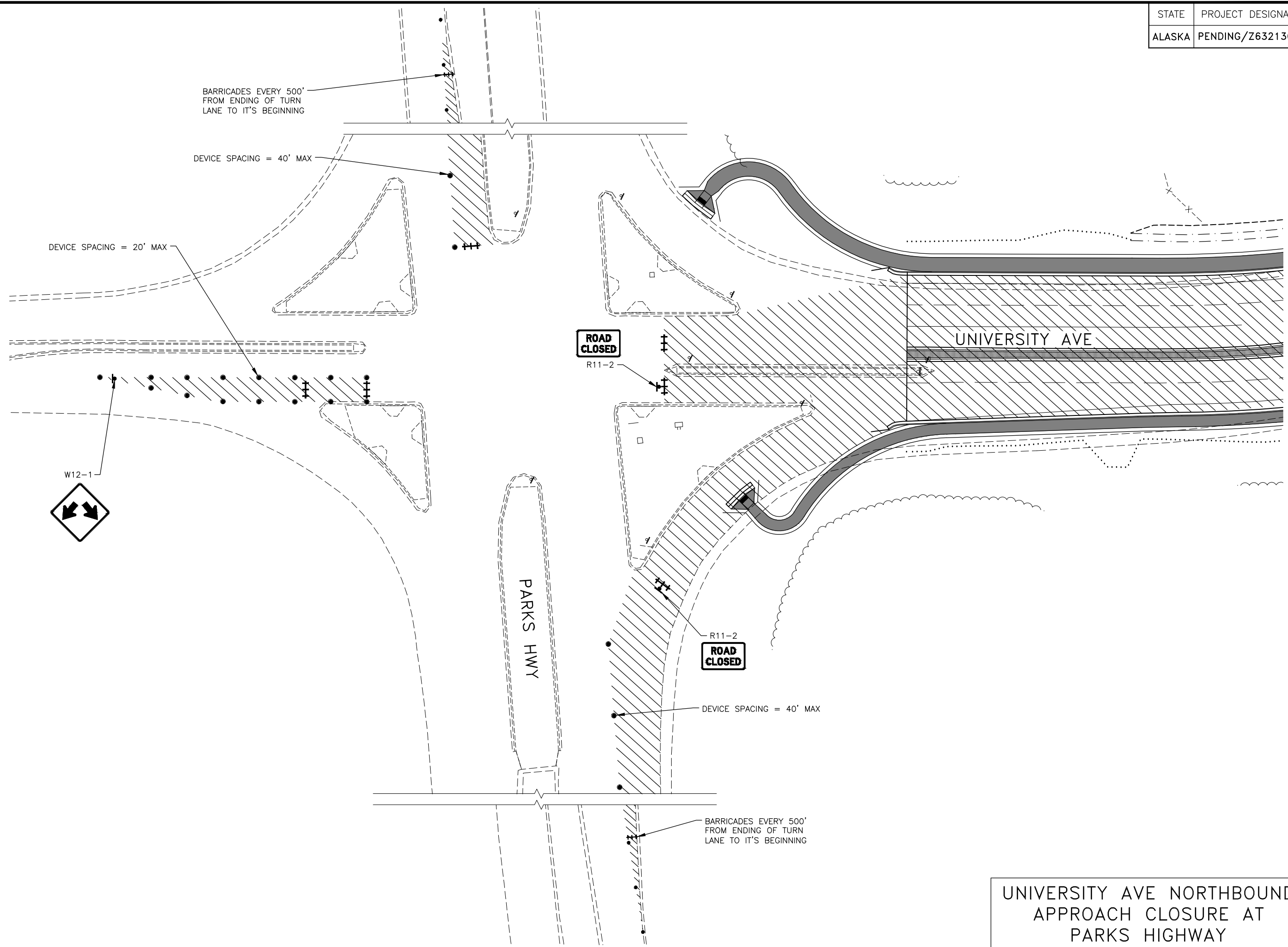


W20-1

UNIVERSITY AVE CLOSURE
AT REWAK DRIVE

NOT STAMP
REQUIRED

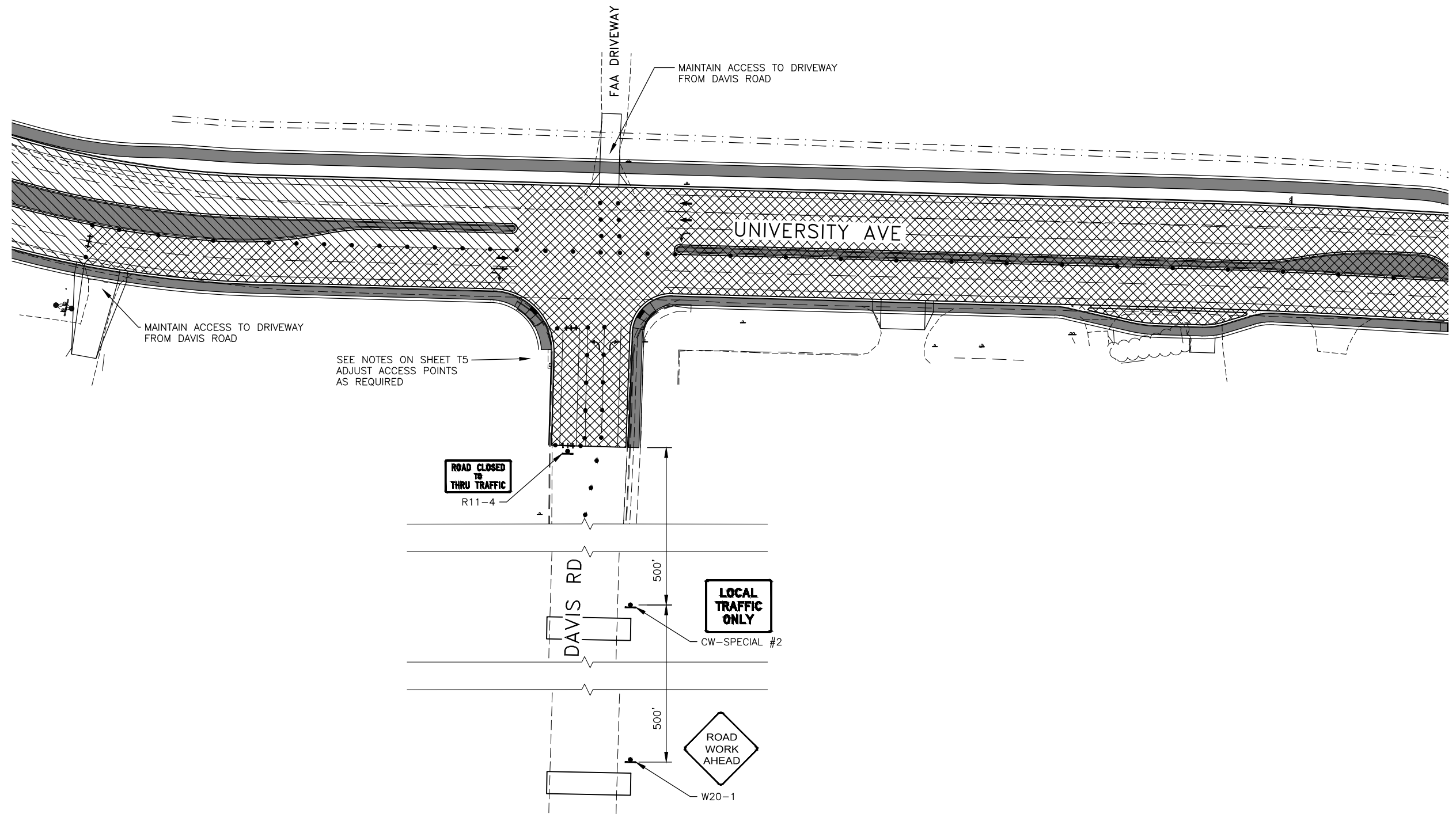
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	T6	T7



UNIVERSITY AVE NORTHBOUND
 APPROACH CLOSURE AT
 PARKS HIGHWAY

NOT STAMP
 REQUIRED

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	PENDING/Z632130000	2021	T7	T7



UNIVERSITY AVE
AT DAVIS RD


NOT STAMP
REQUIRED


NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U100	U318

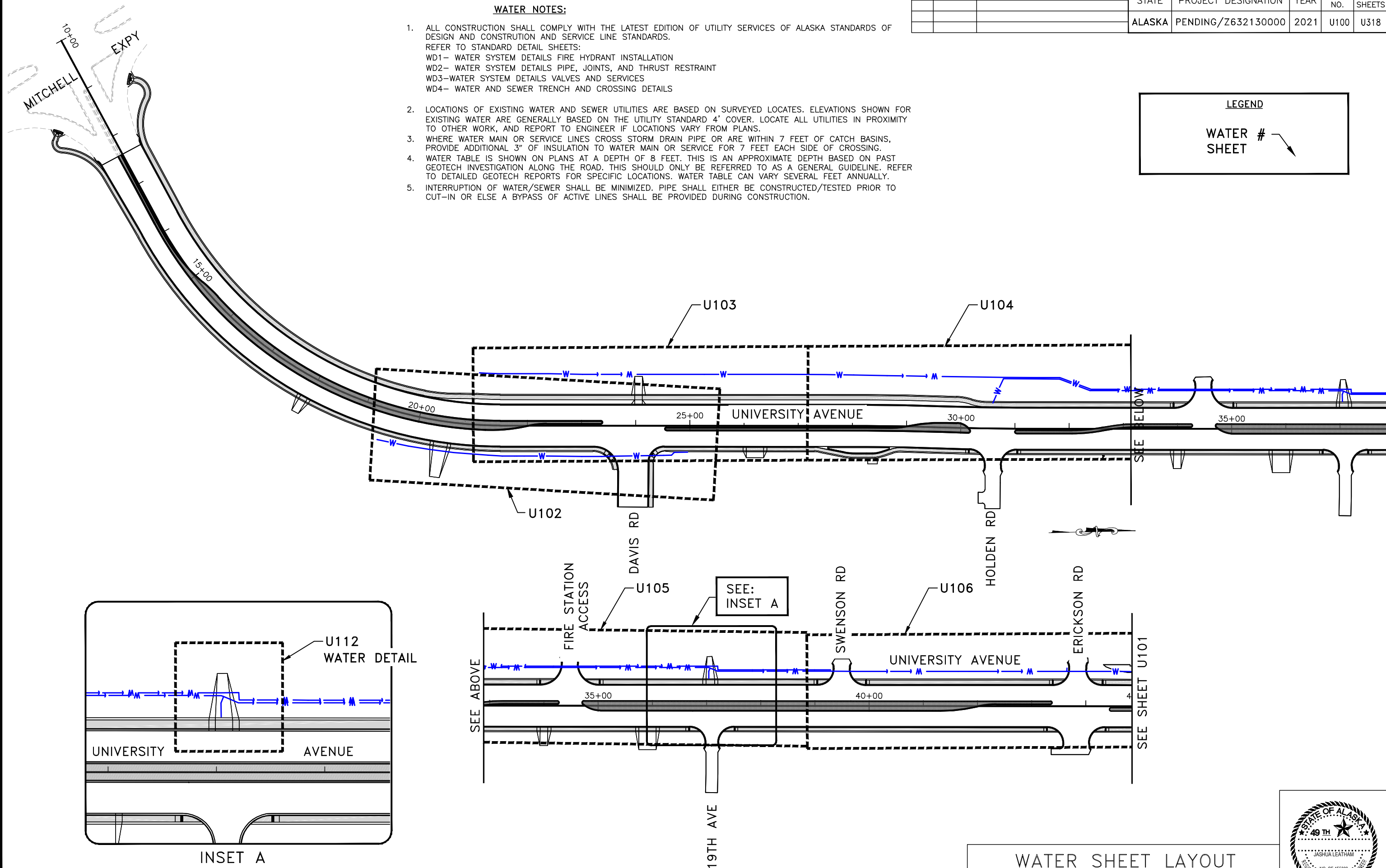
WATER NOTES:

- ALL CONSTRUCTION SHALL COMPLY WITH THE LATEST EDITION OF UTILITY SERVICES OF ALASKA STANDARDS OF DESIGN AND CONSTRUCTION AND SERVICE LINE STANDARDS.
REFER TO STANDARD DETAIL SHEETS:
WD1- WATER SYSTEM DETAILS FIRE HYDRANT INSTALLATION
WD2- WATER SYSTEM DETAILS PIPE, JOINTS, AND THRUST RESTRAINT
WD3- WATER SYSTEM DETAILS VALVES AND SERVICES
WD4- WATER AND SEWER TRENCH AND CROSSING DETAILS
- LOCATIONS OF EXISTING WATER AND SEWER UTILITIES ARE BASED ON SURVEYED LOCATES. ELEVATIONS SHOWN FOR EXISTING WATER ARE GENERALLY BASED ON THE UTILITY STANDARD 4' COVER. LOCATE ALL UTILITIES IN PROXIMITY TO OTHER WORK, AND REPORT TO ENGINEER IF LOCATIONS VARY FROM PLANS.
- WHERE WATER MAIN OR SERVICE LINES CROSS STORM DRAIN PIPE OR ARE WITHIN 7 FEET OF CATCH BASINS, PROVIDE ADDITIONAL 3" OF INSULATION TO WATER MAIN OR SERVICE FOR 7 FEET EACH SIDE OF CROSSING.
- WATER TABLE IS SHOWN ON PLANS AT A DEPTH OF 8 FEET. THIS IS AN APPROXIMATE DEPTH BASED ON PAST GEOTECH INVESTIGATION ALONG THE ROAD. THIS SHOULD ONLY BE REFERRED TO AS A GENERAL GUIDELINE. REFER TO DETAILED GEOTECH REPORTS FOR SPECIFIC LOCATIONS. WATER TABLE CAN VARY SEVERAL FEET ANNUALLY.
- INTERRUPTION OF WATER/SEWER SHALL BE MINIMIZED. PIPE SHALL EITHER BE CONSTRUCTED/TESTED PRIOR TO CUT-IN OR ELSE A BYPASS OF ACTIVE LINES SHALL BE PROVIDED DURING CONSTRUCTION.

LEGEND

WATER # 

SHEET # 

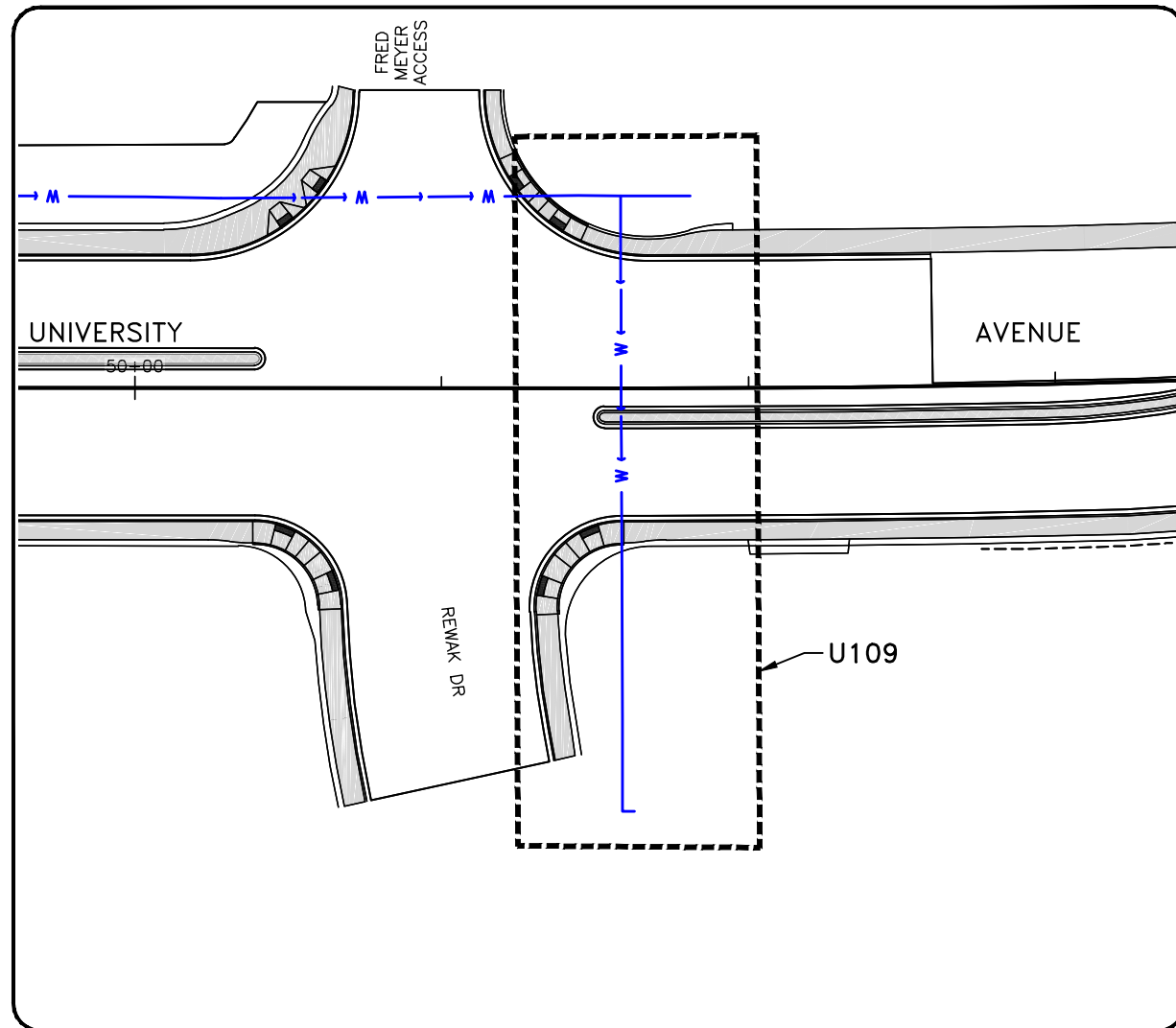
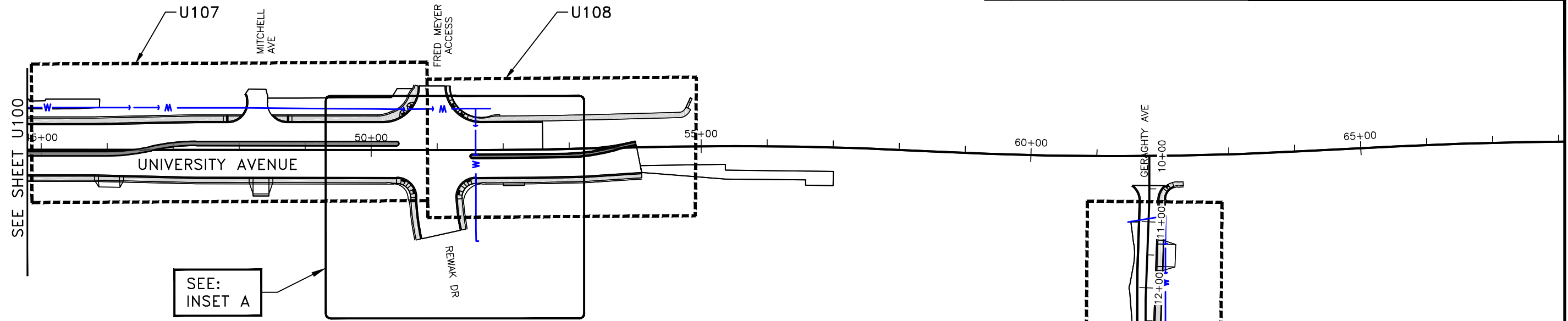


PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605. 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503. (907)743-3200
 \\pdc.local\dfs\Projects\2011\1147.04EP-UNIV_AVE-SEGMENT_2B\C:\0005\cst1147.04fb_2b-U100 Tue, Feb/23/21 02:44pm

WATER SHEET LAYOUT INDEX



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U101	U318



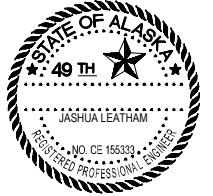
INSET A

LEGEND

WATER #

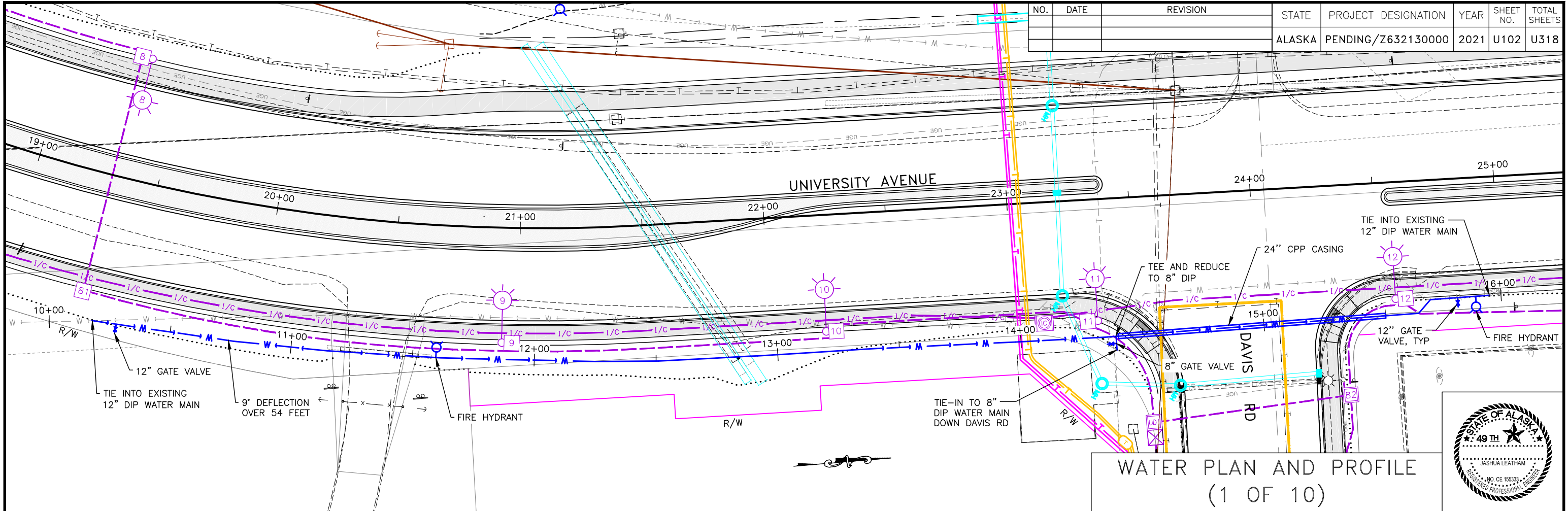
SHEET

WATER SHEET LAYOUT
INDEX



PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605. 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503. (907)743-3200
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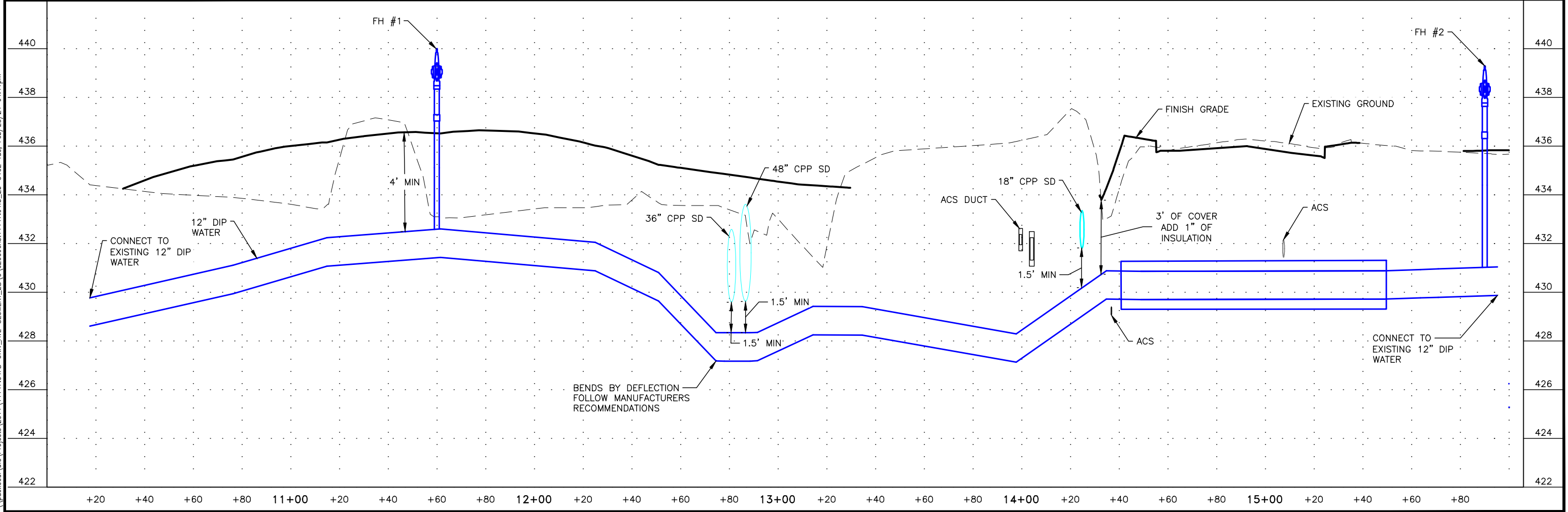
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			ALASKA	PENDING/Z632130000	2021	U102	U318



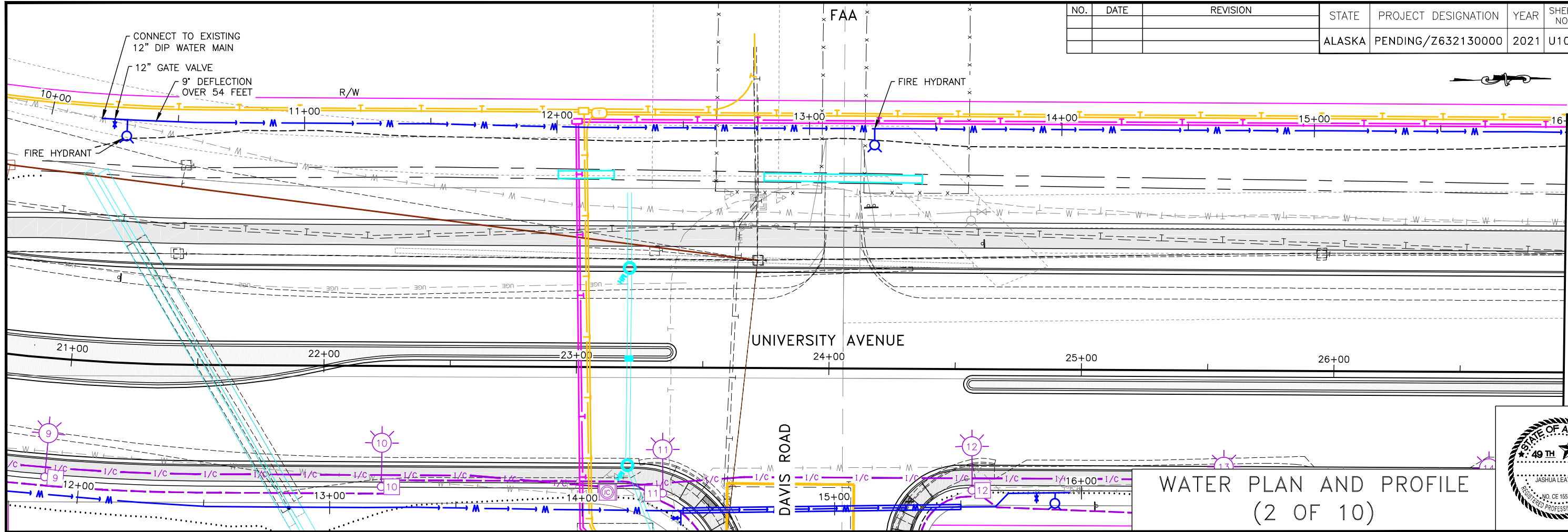
WATER PLAN AND PROFILE
(1 OF 10)



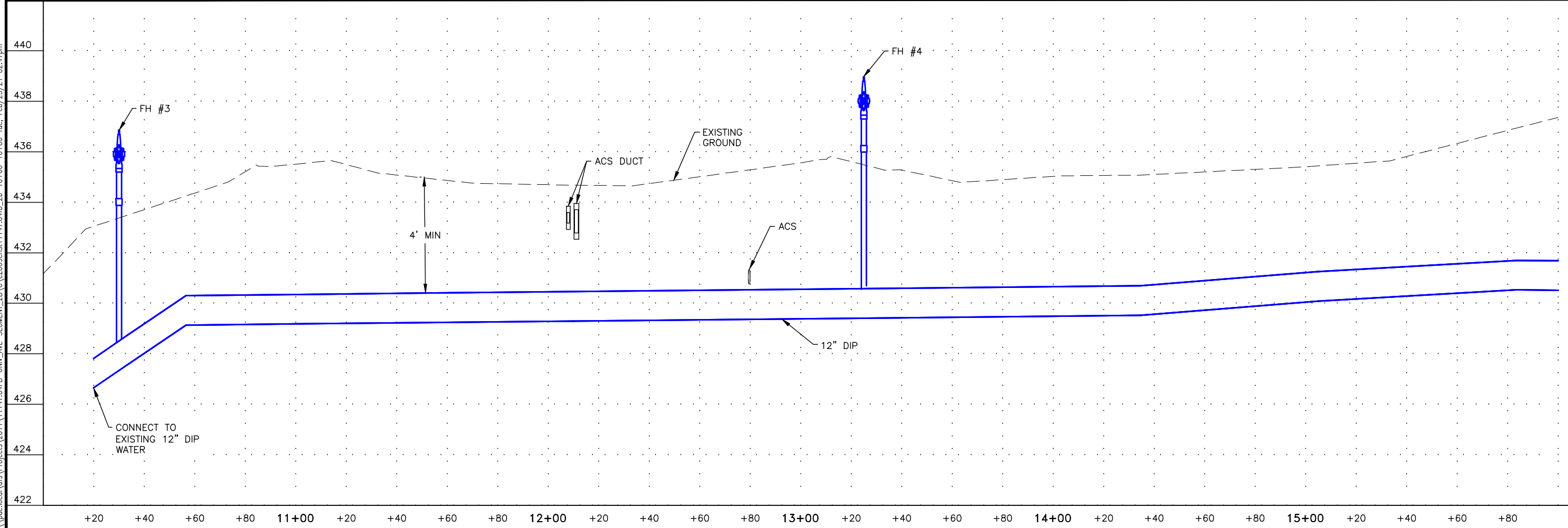
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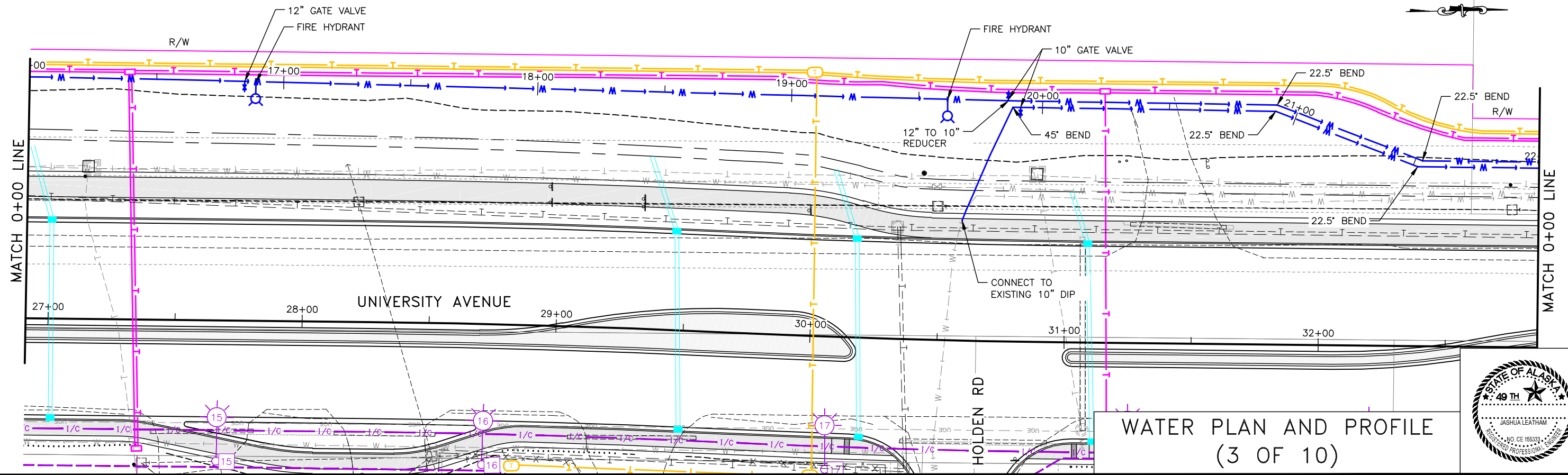


WATER PLAN AND PROFILE
(2 OF 10)

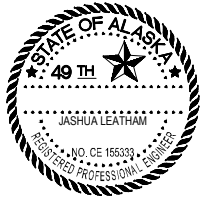


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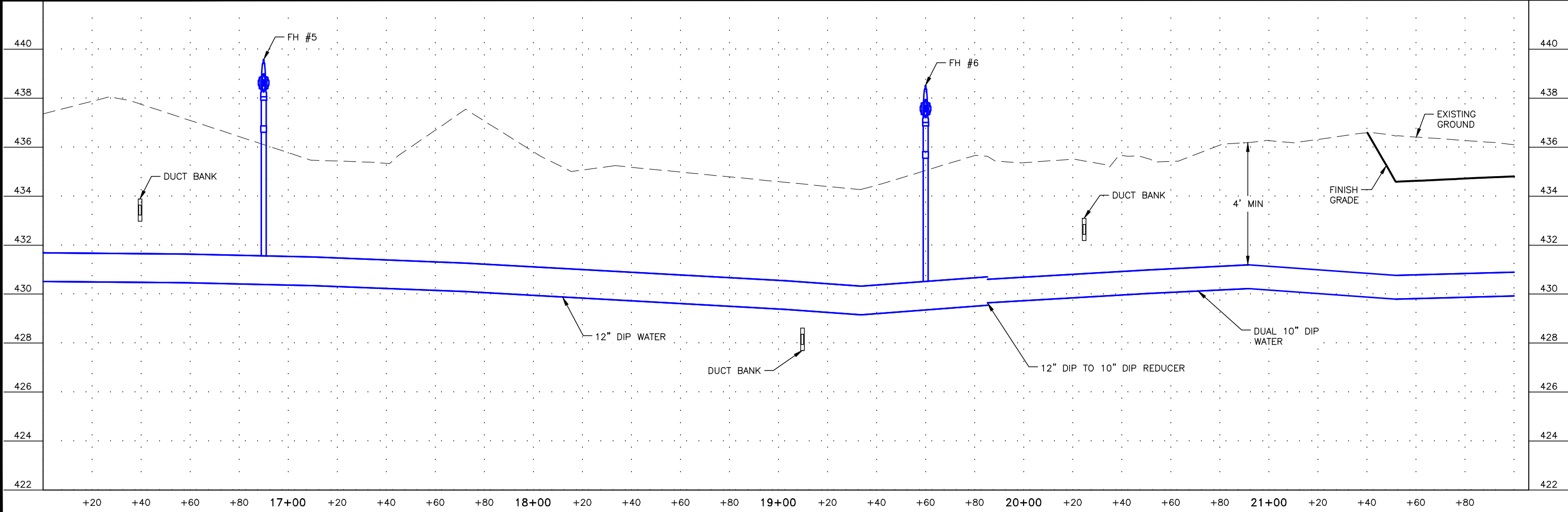
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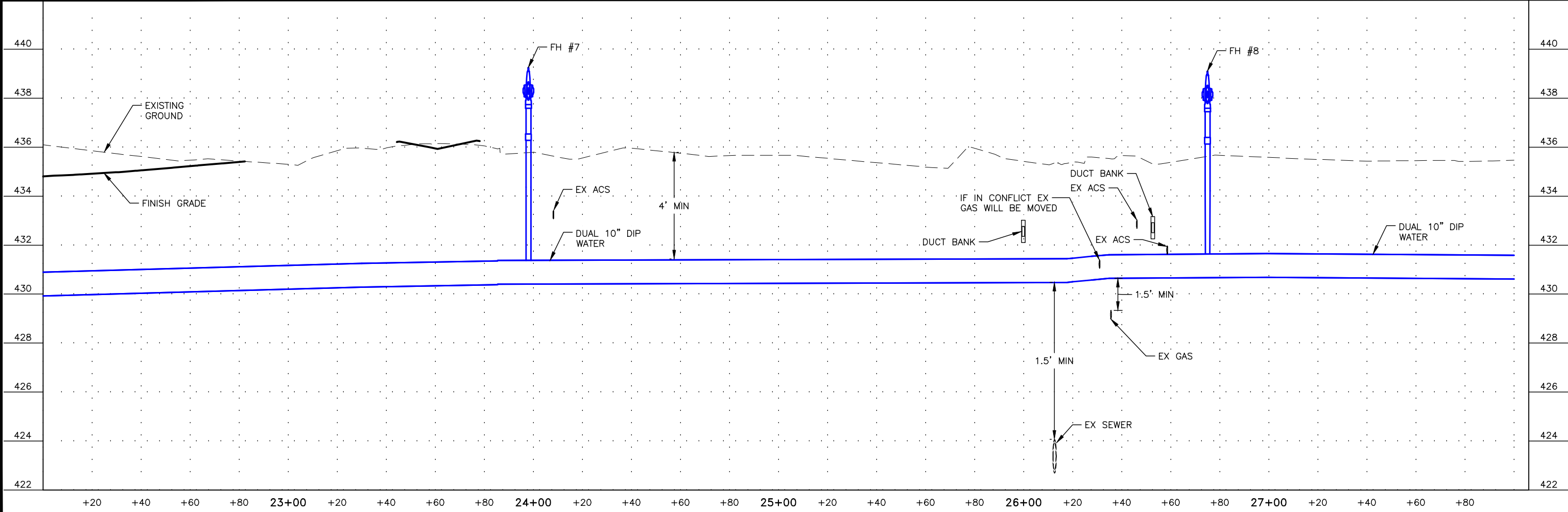
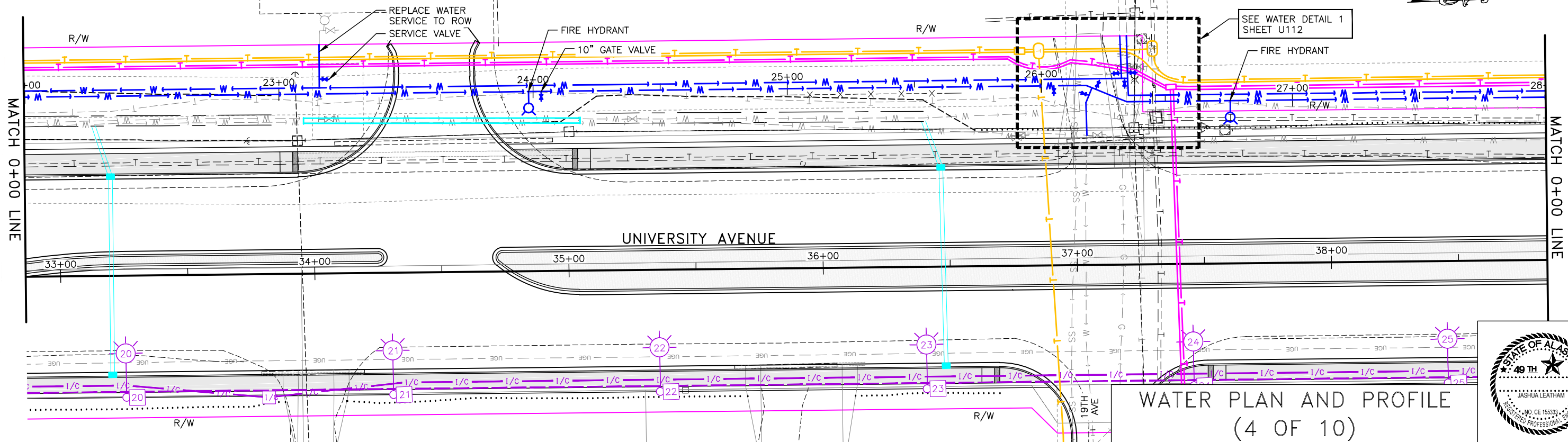
WATER PLAN AND PROFILE
(3 OF 10)



PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
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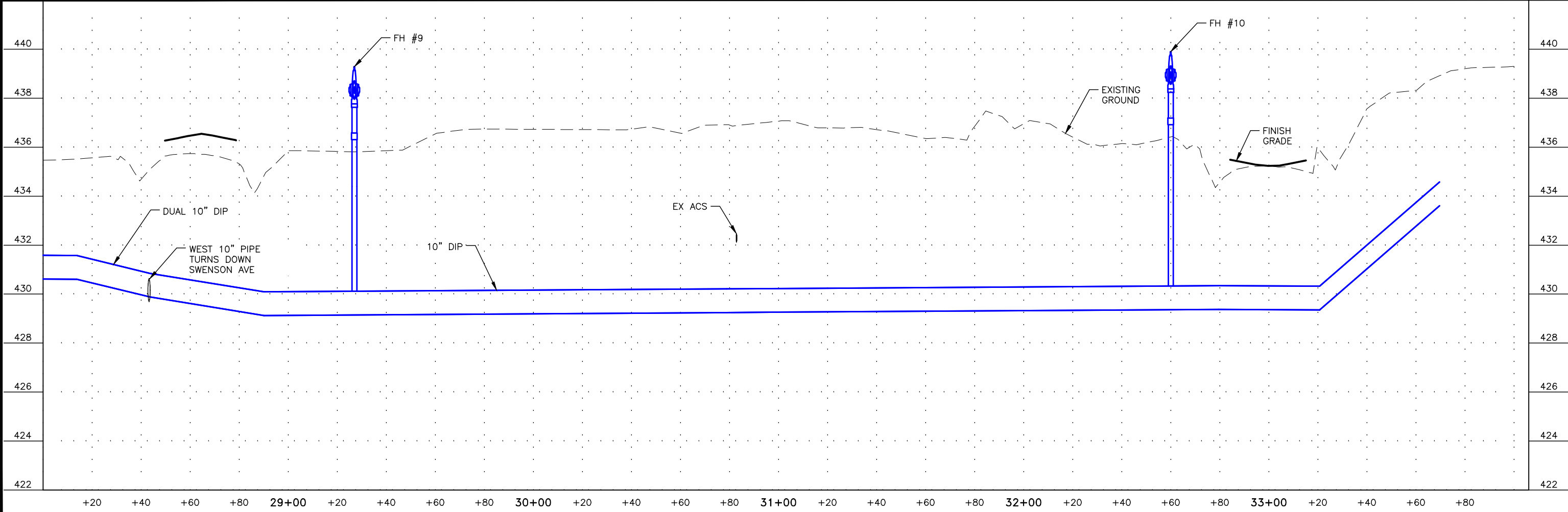
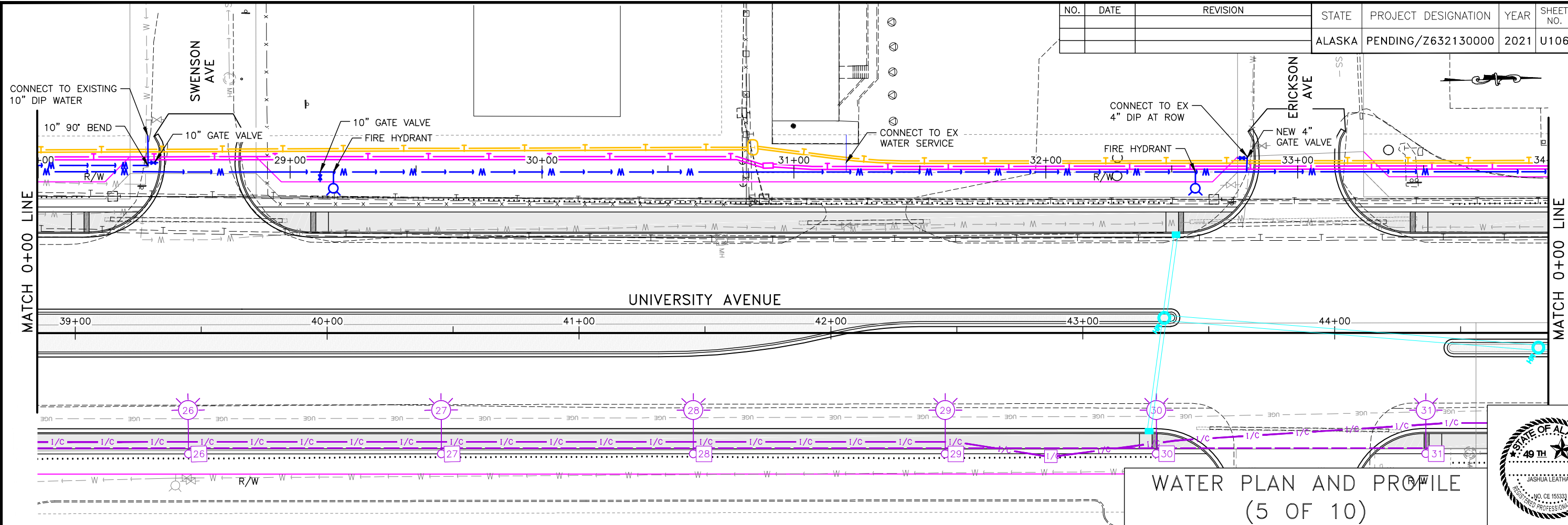


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			ALASKA	PENDING/Z632130000	2021	U105	U318



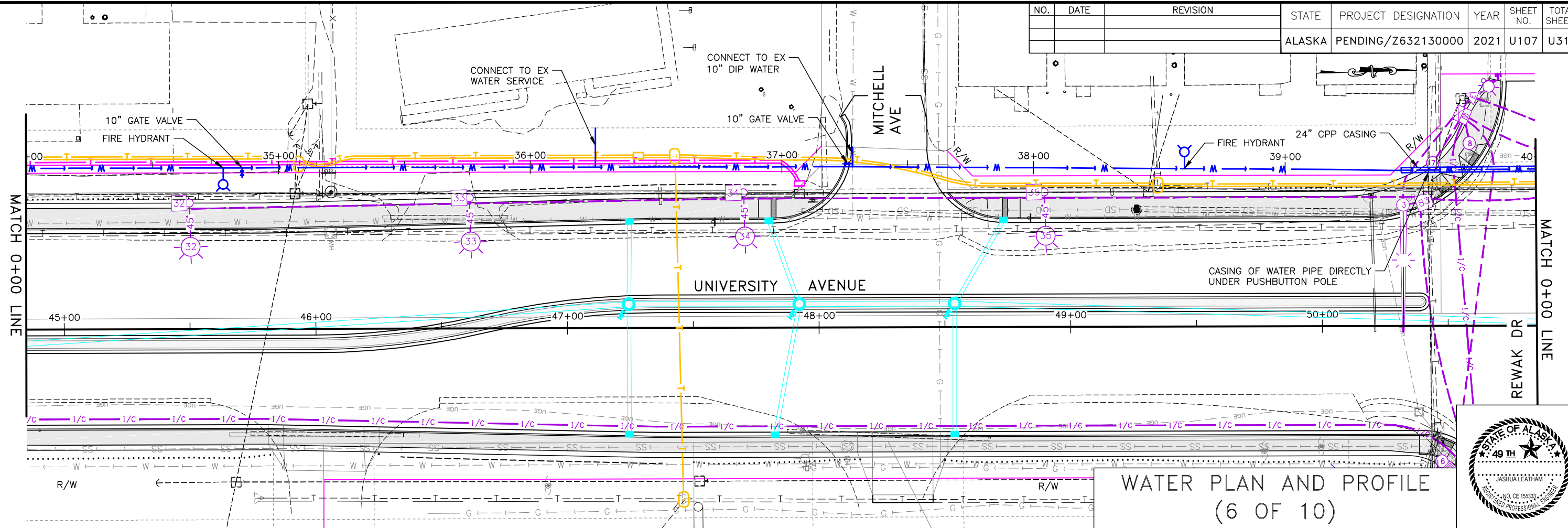
PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
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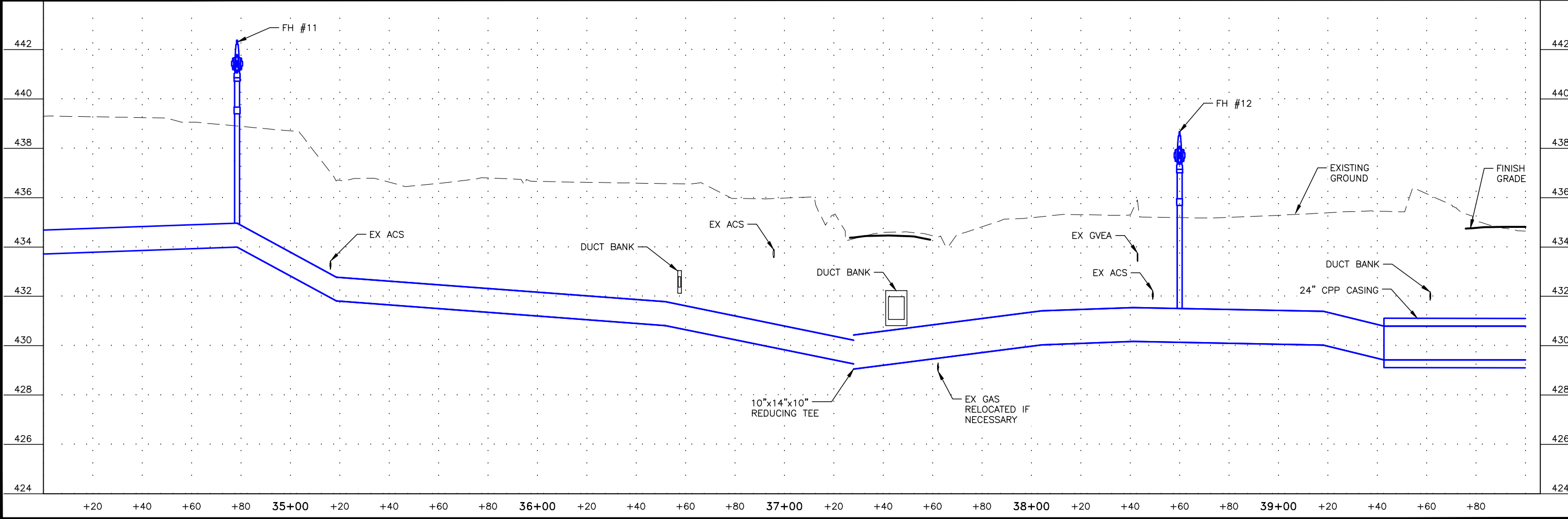


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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U107	U318

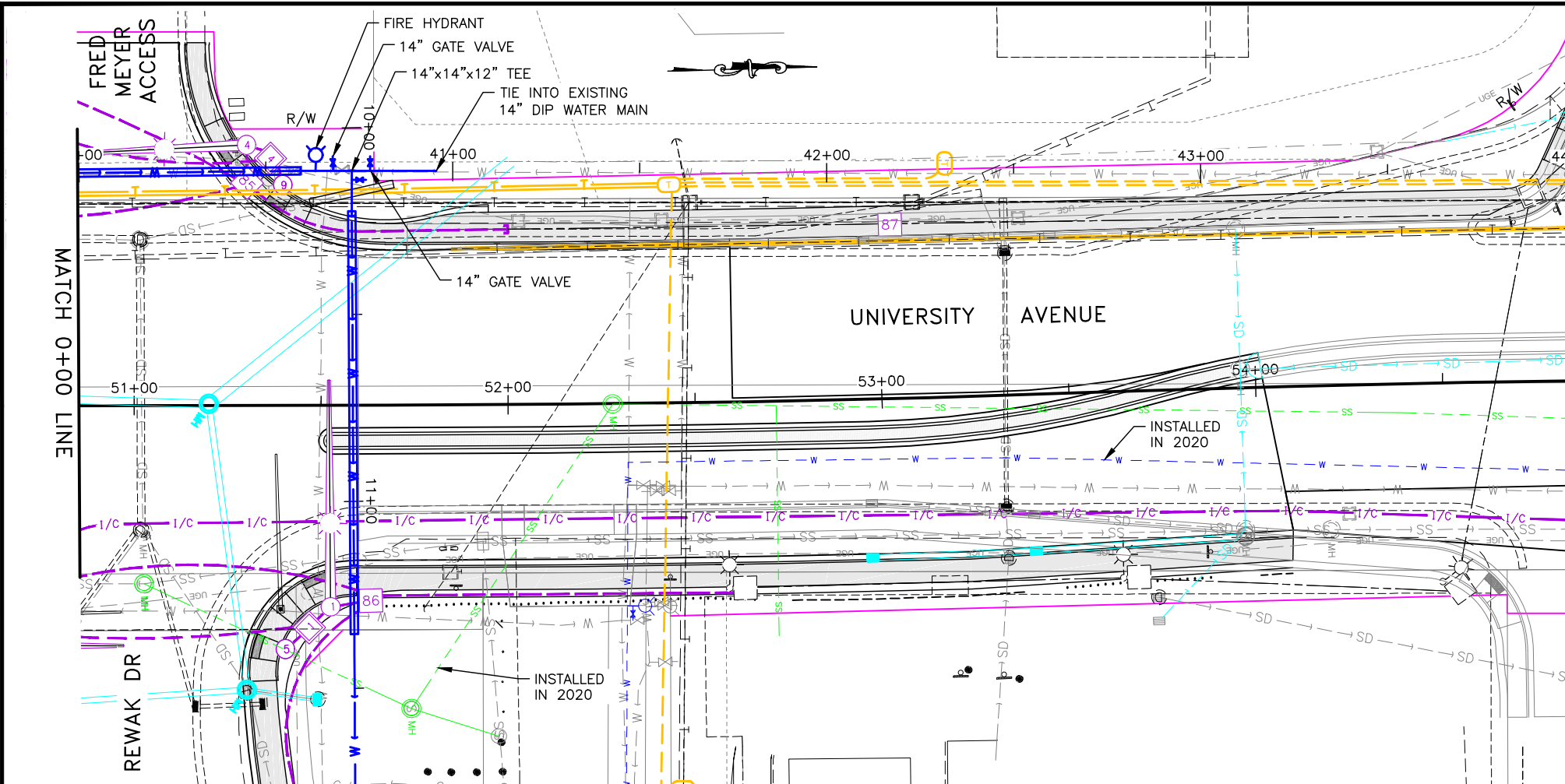


WATER PLAN AND PROFILE
(6 OF 10)

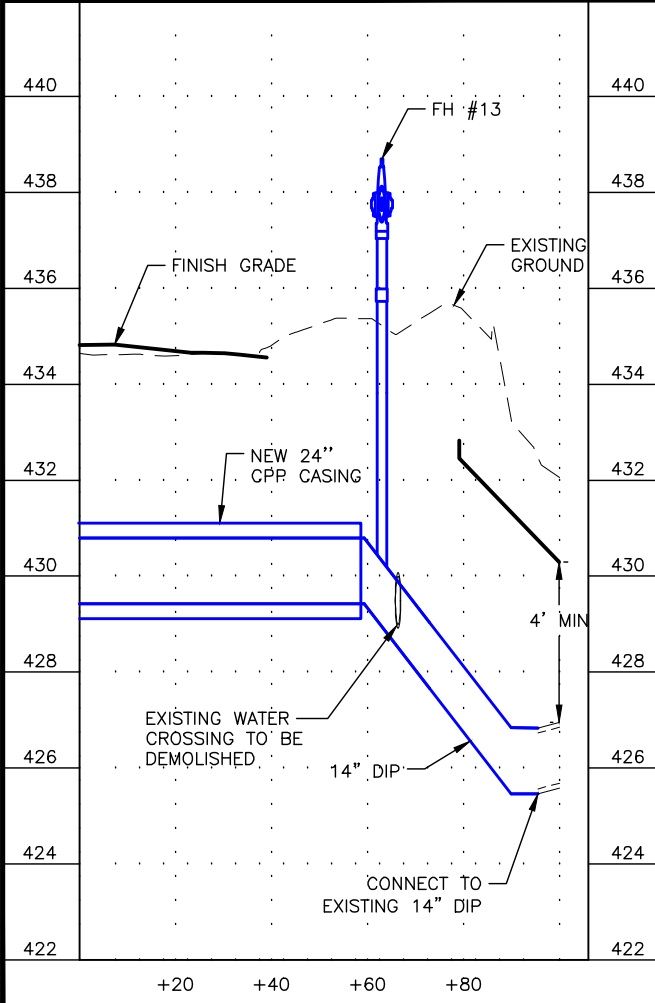


PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AEC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \pdc\local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B\C\2009\asst1147.04fb_2b_34+00-40+00 Tue, Feb/23/21 02:49pm

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U108	U318

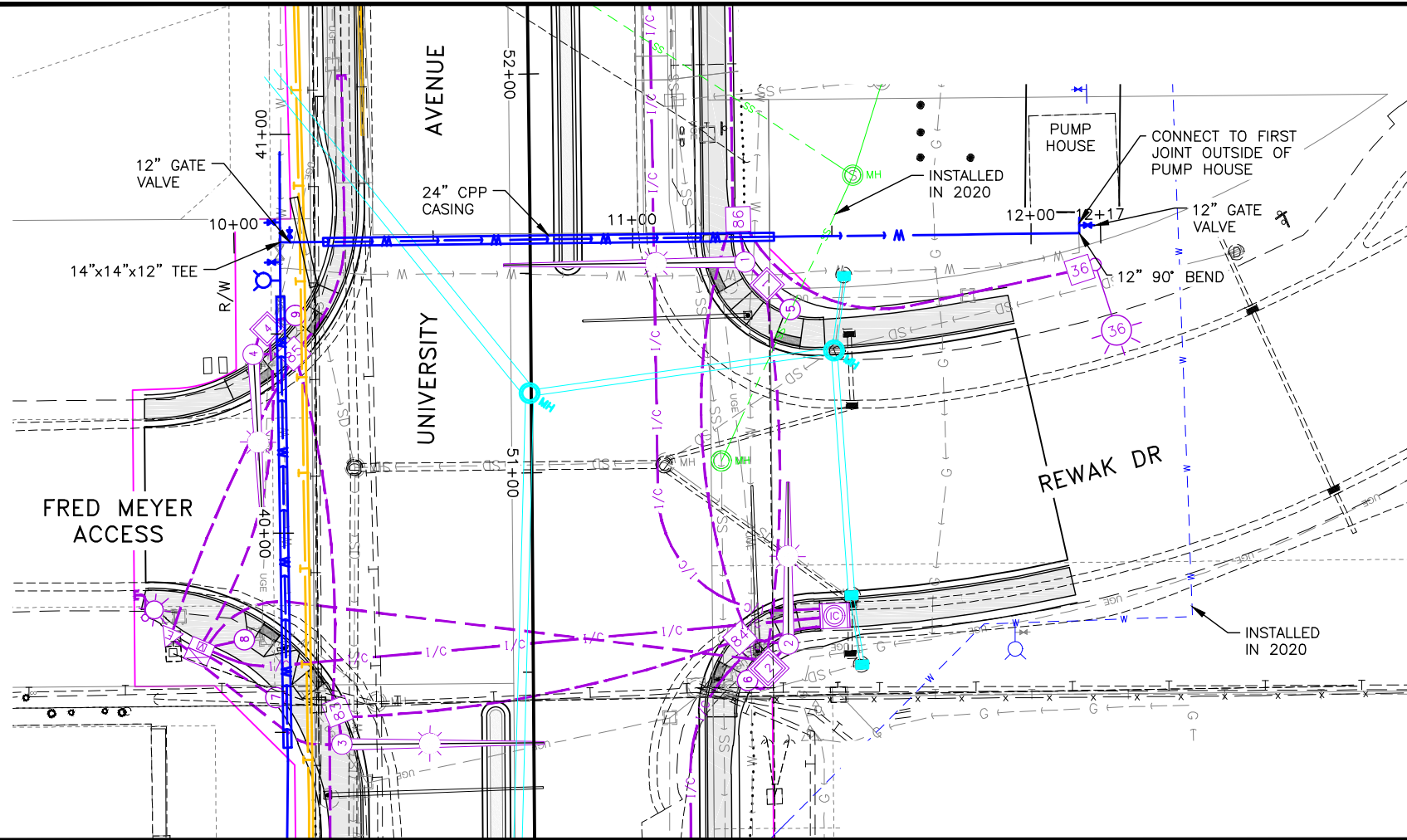


WATER PLAN AND PROFILE
(7 OF 10)

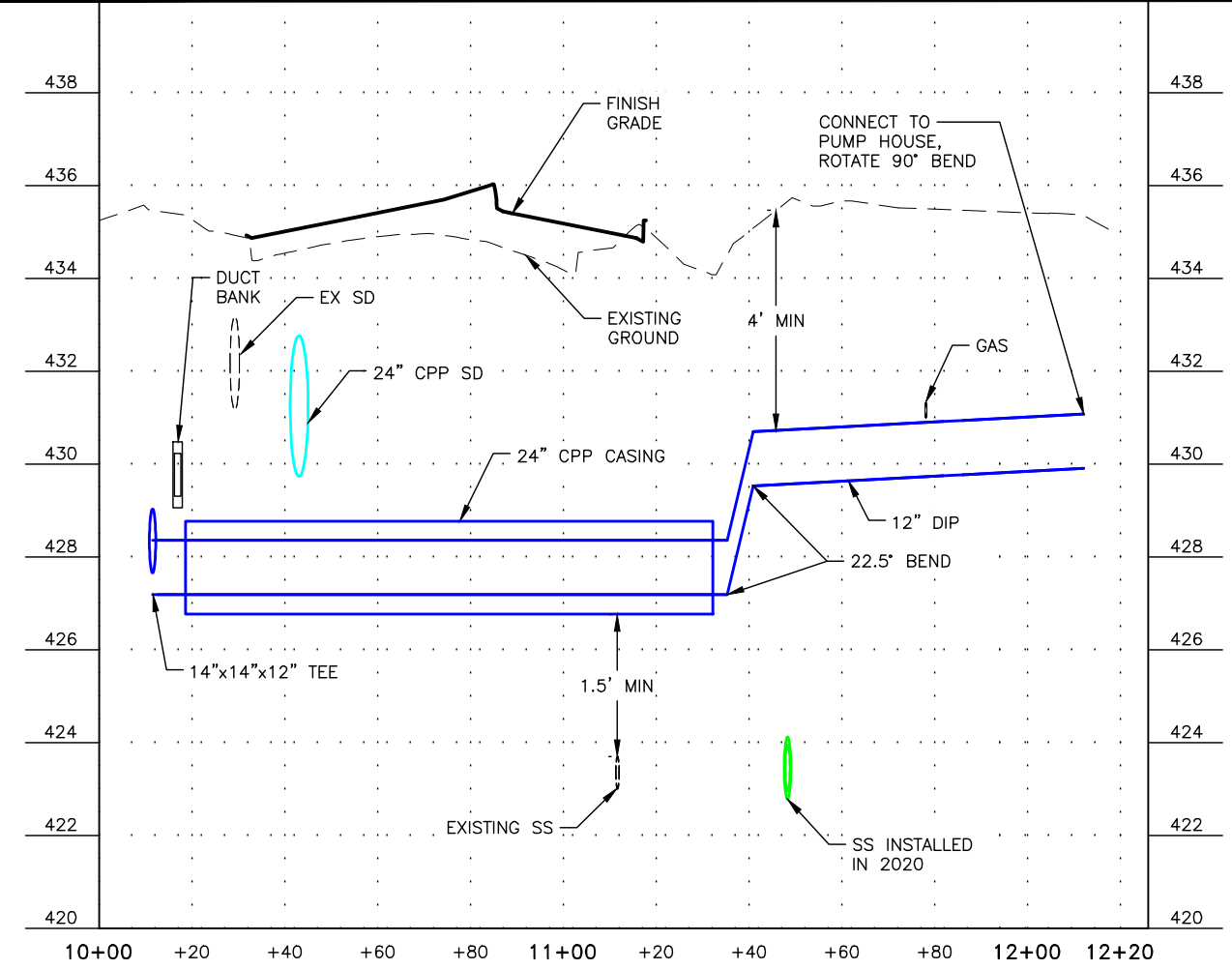
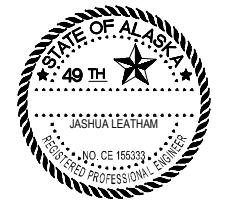


PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AEC0605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc.local\dfs\Projects\2011\1147_04FB-UNIV_AVE-SEGMENT_2B\C\2009\asst1147_04fb_2b-40+00-44+46 Tue, Feb/23/21 02:49pm

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U109	U318

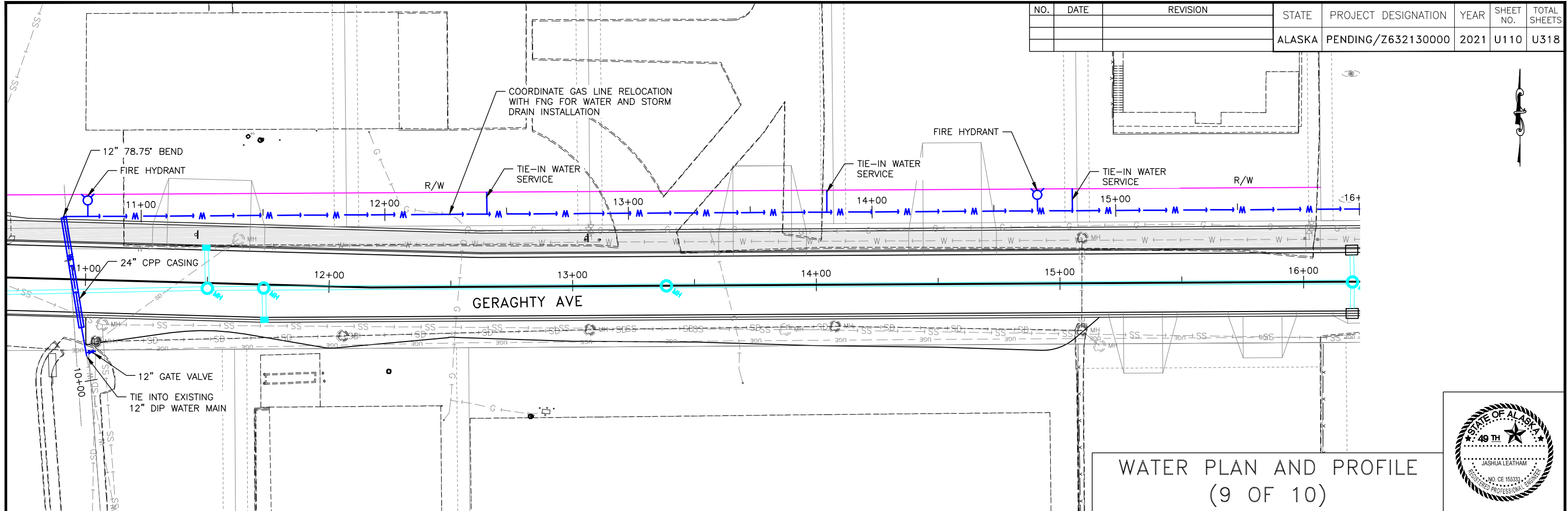


WATER PLAN AND PROFILE
(8 OF 10)



PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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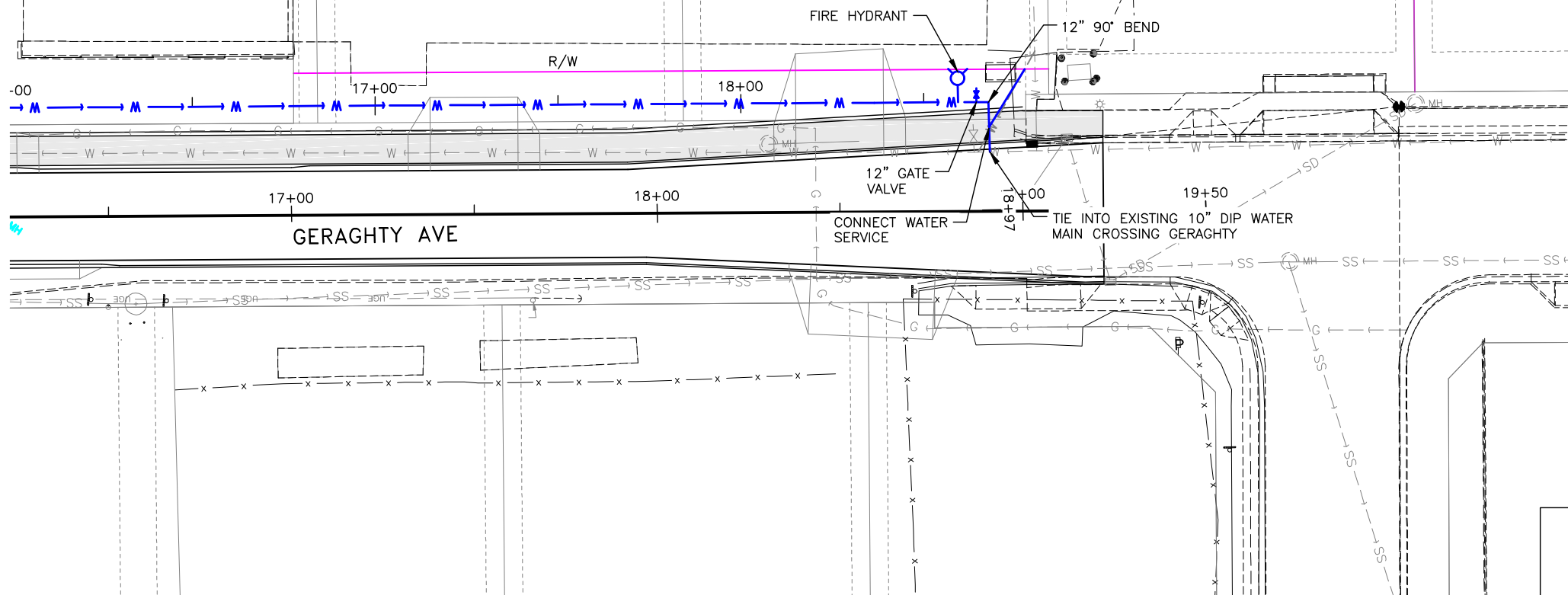


WATER PLAN AND PROFILE
(9 OF 10)

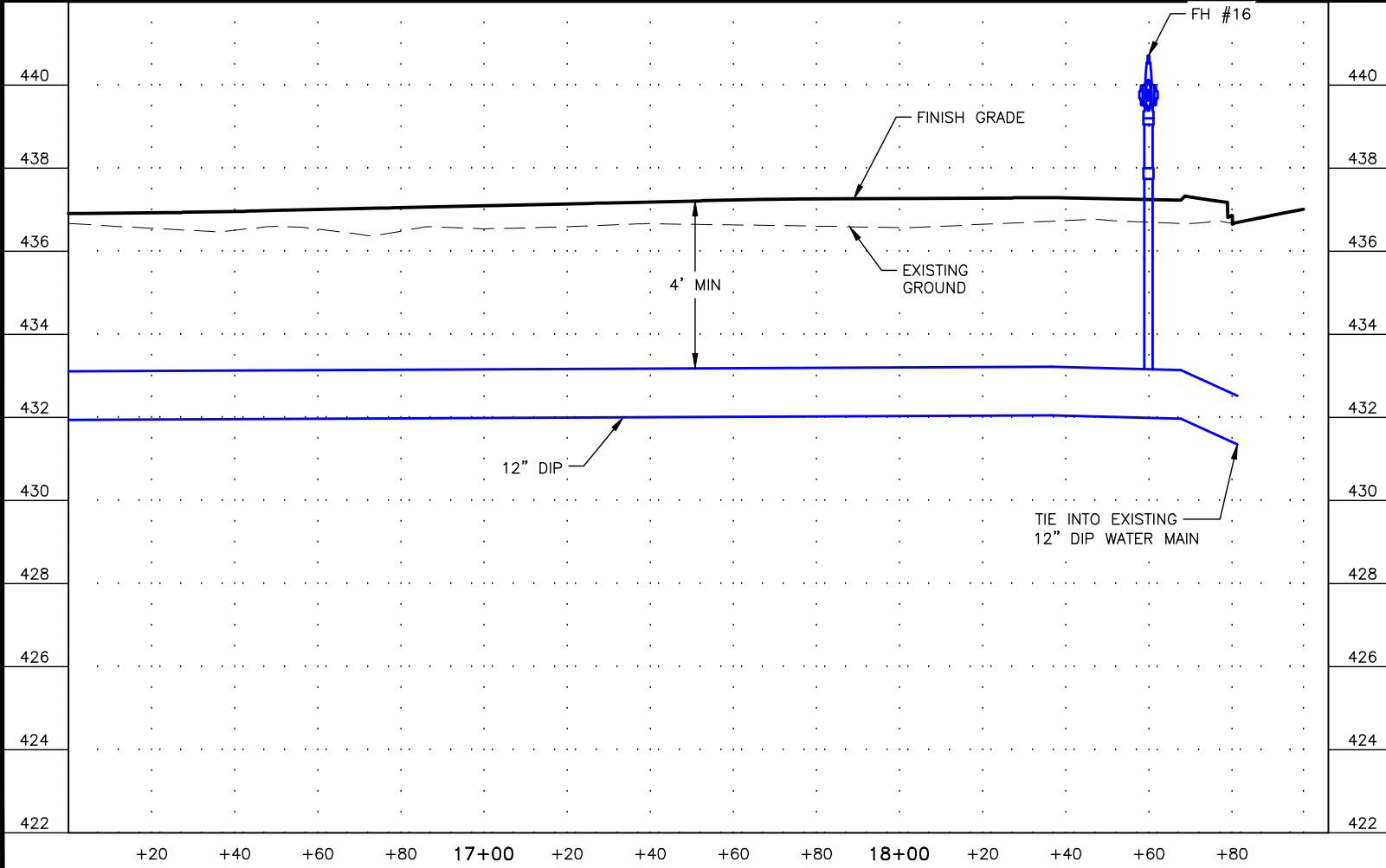
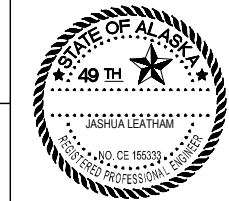


PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U111	U318

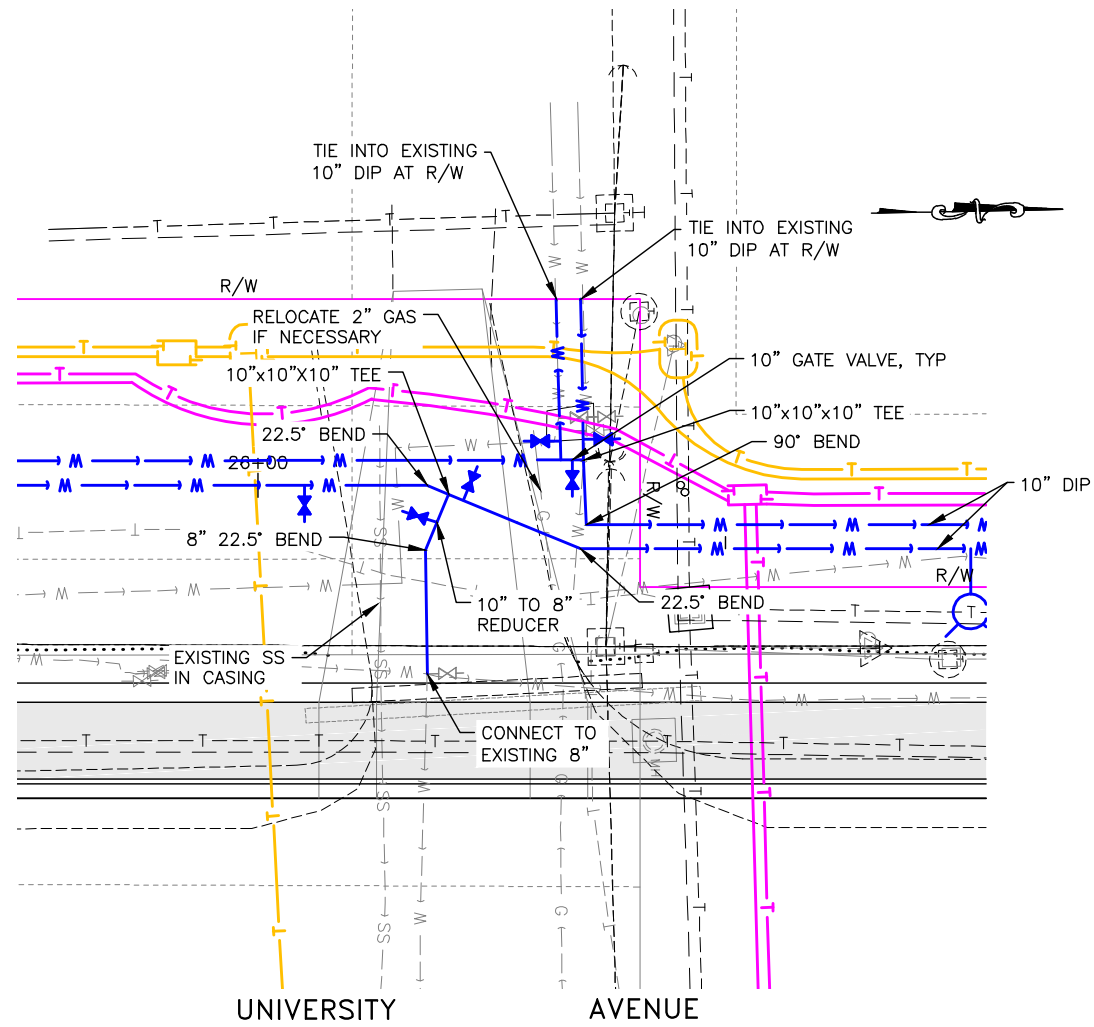


WATER PLAN AND PROFILE
(10 OF 10)



PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc.local\dfs\Projects\2011\1147.04EP-UNIV_AVE-SEGMENT_2B\C\2009\asst1147.04fb_2b-U111 Tue, Feb/23/21 02:51pm

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U112	U318



WATER DETAIL 1
SCALE: 1" = 10'

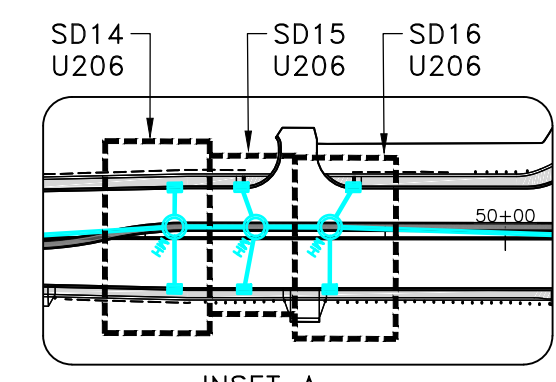
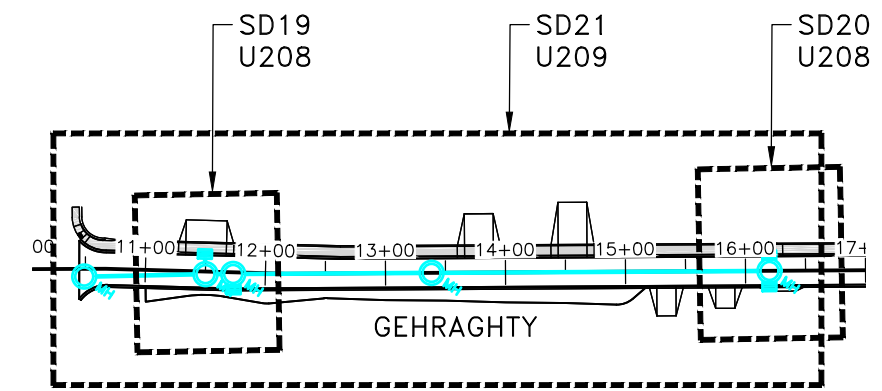
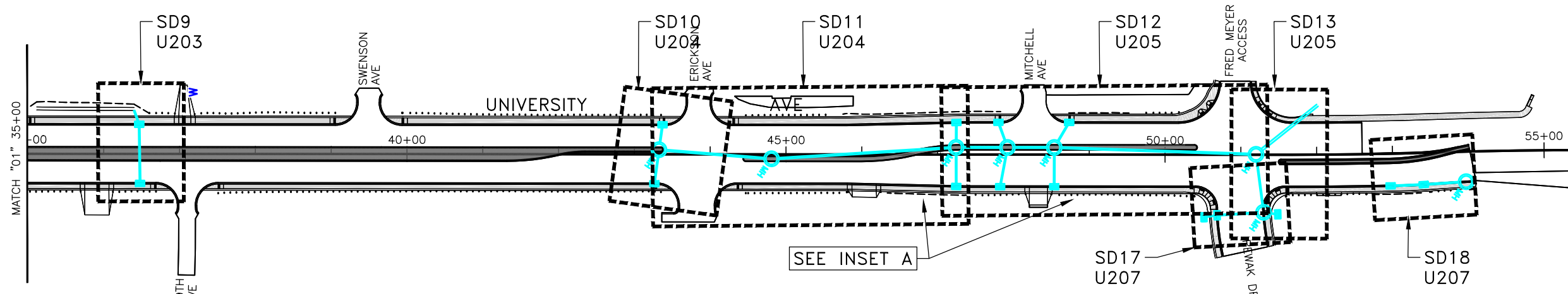
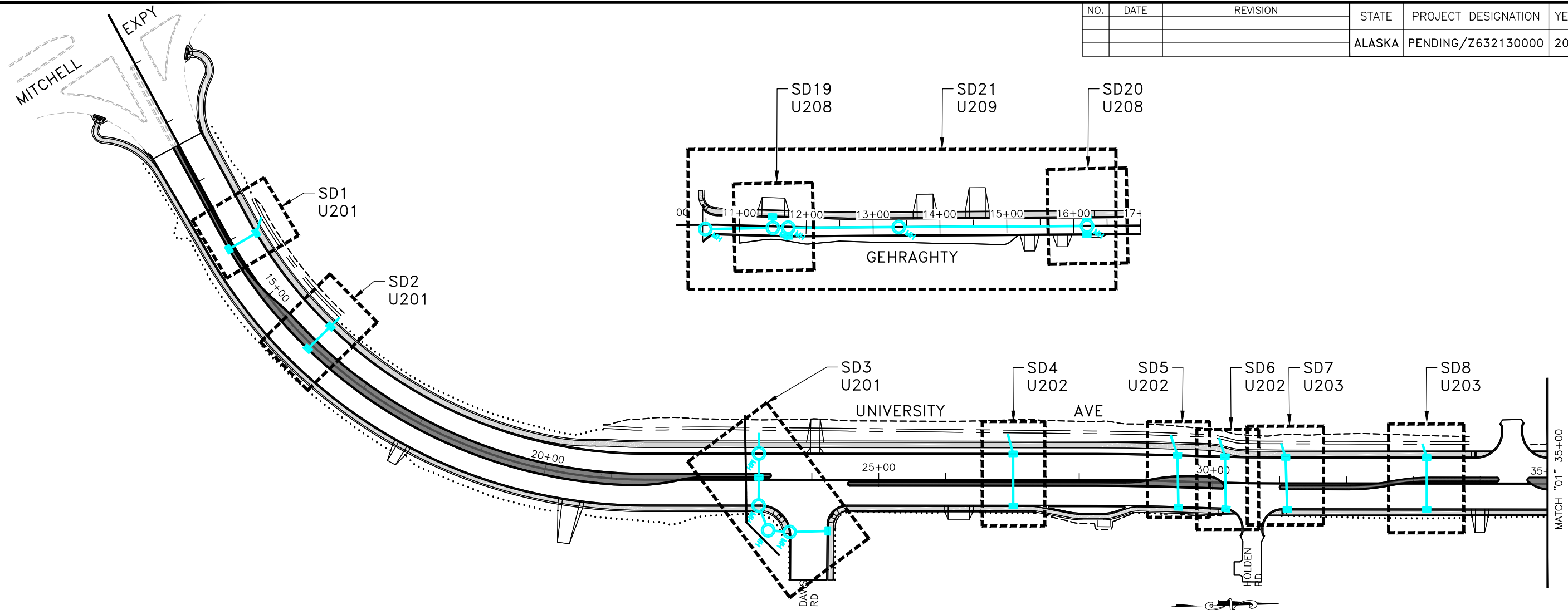
UNIVERSITY AVE 37+10

PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
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DETAILS



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U200	U318

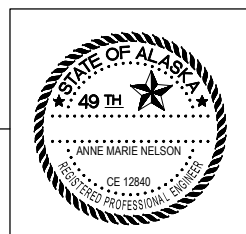


LEGEND

STORM DRAIN #

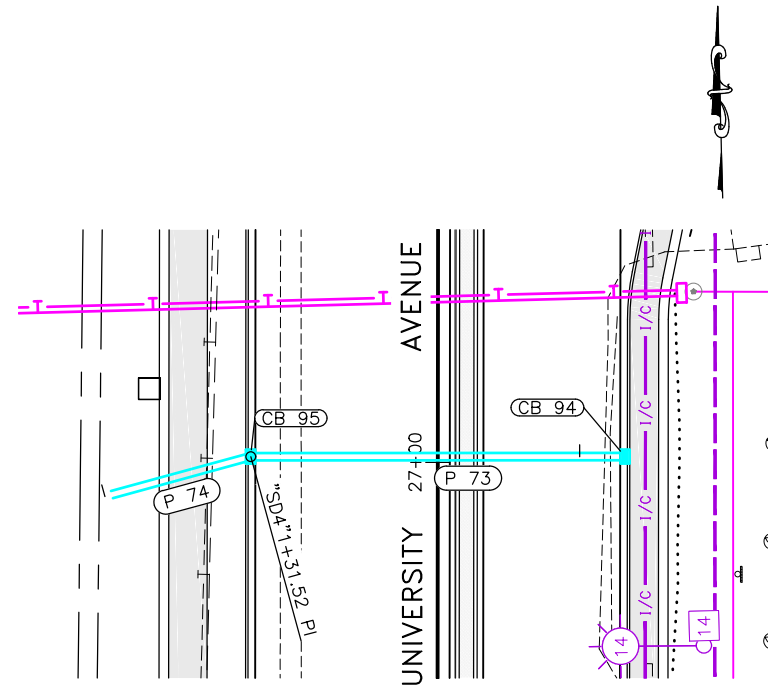
SHEET #

STORM DRAIN SHEET LAYOUT INDEX

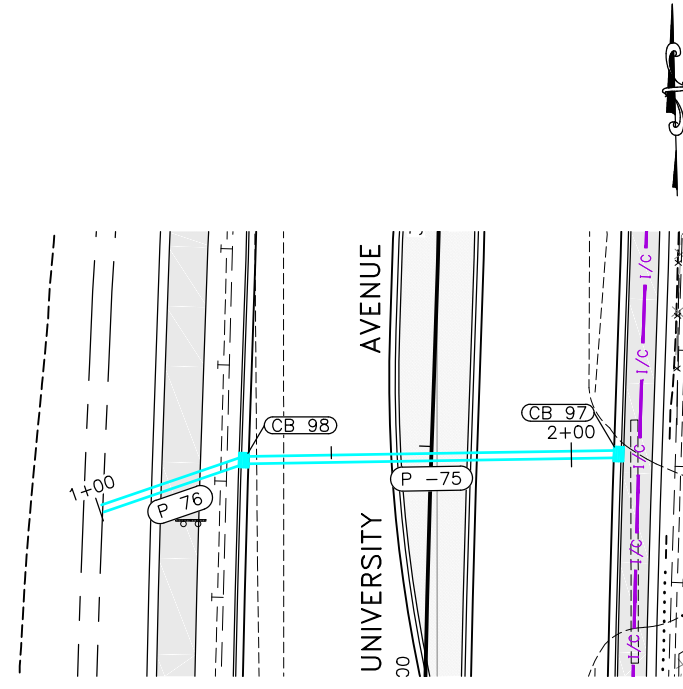


PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc.local\dfs\Projects\2011\1147.04EP-UNIV_AVE-SEGMENT_2B\C\0005\ss1147.04fb_2b-U200_Thu_Feb/25/21_09:43am

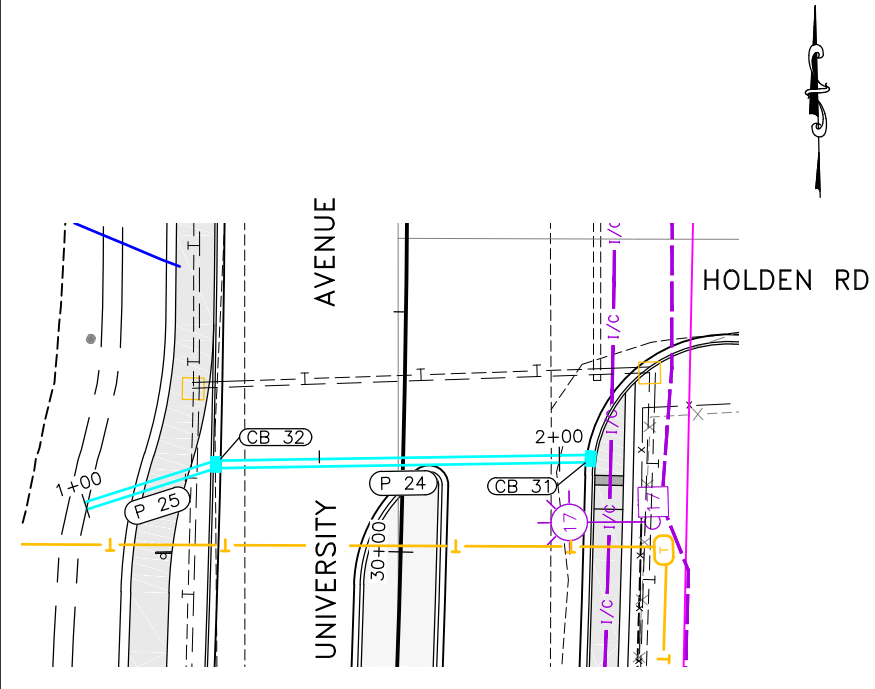
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U202	U318



SD 4

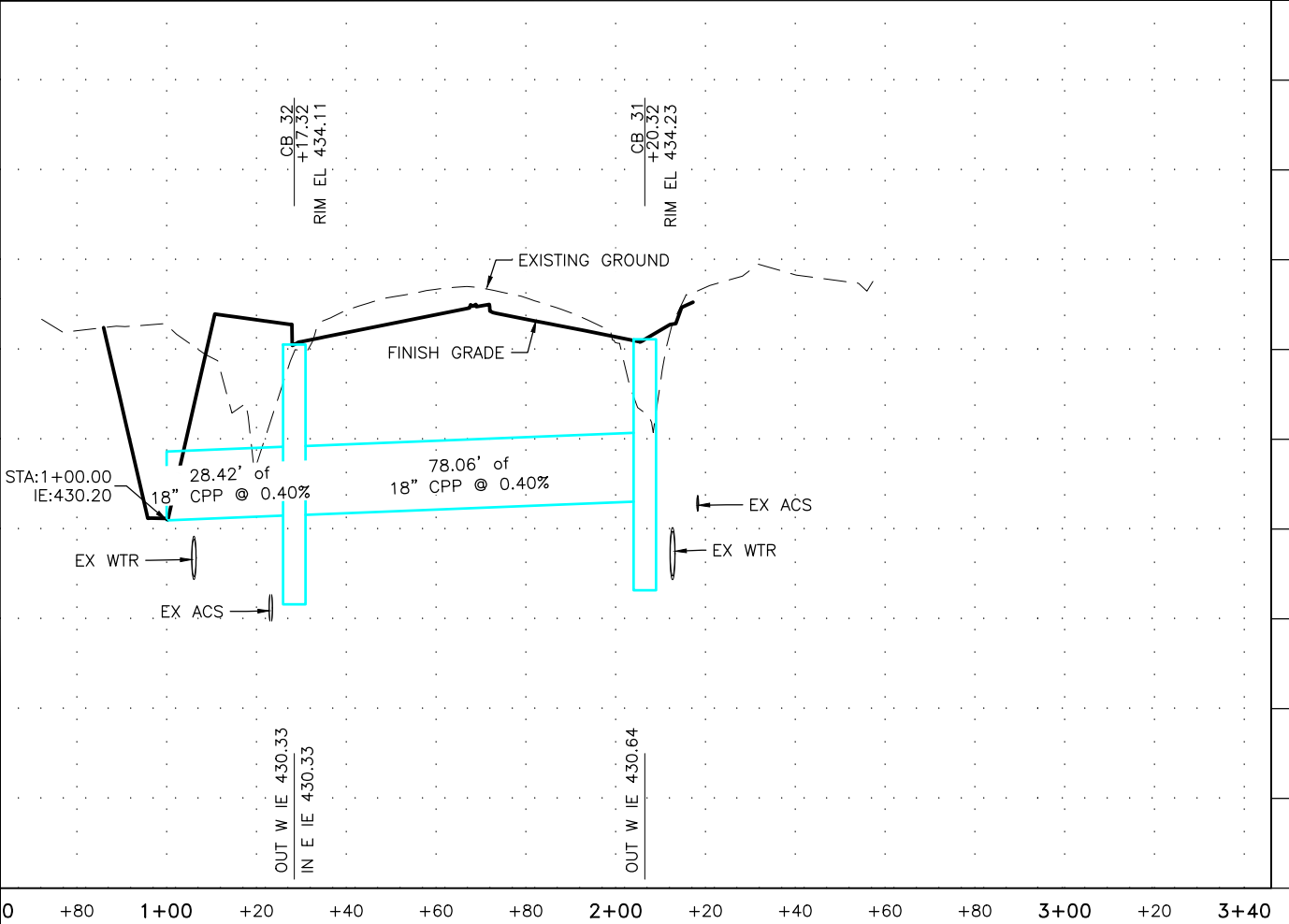
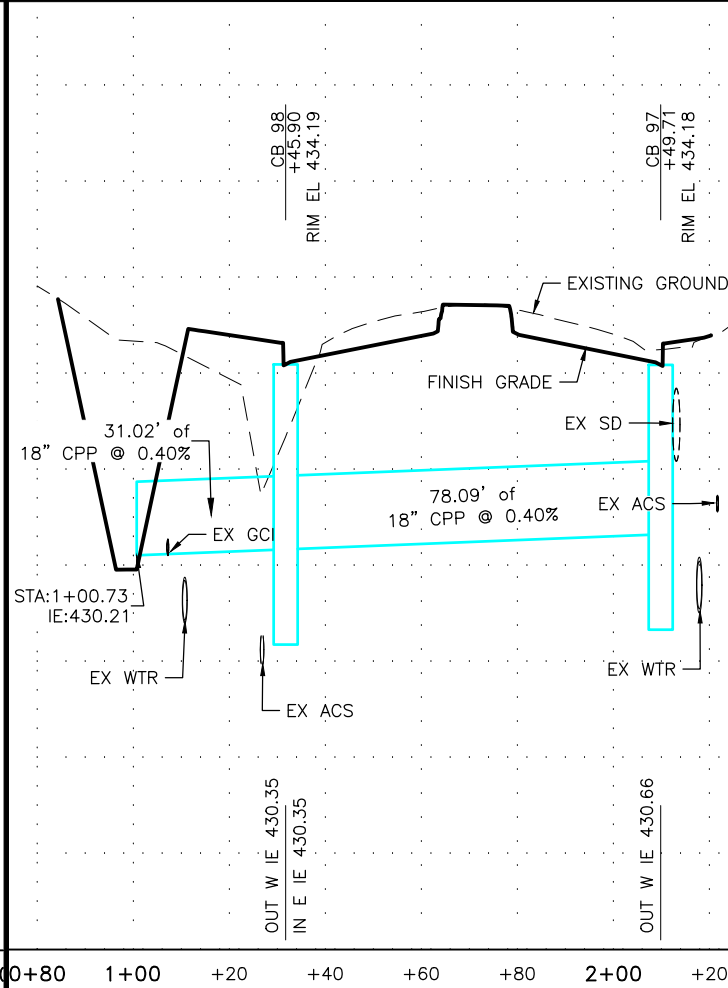
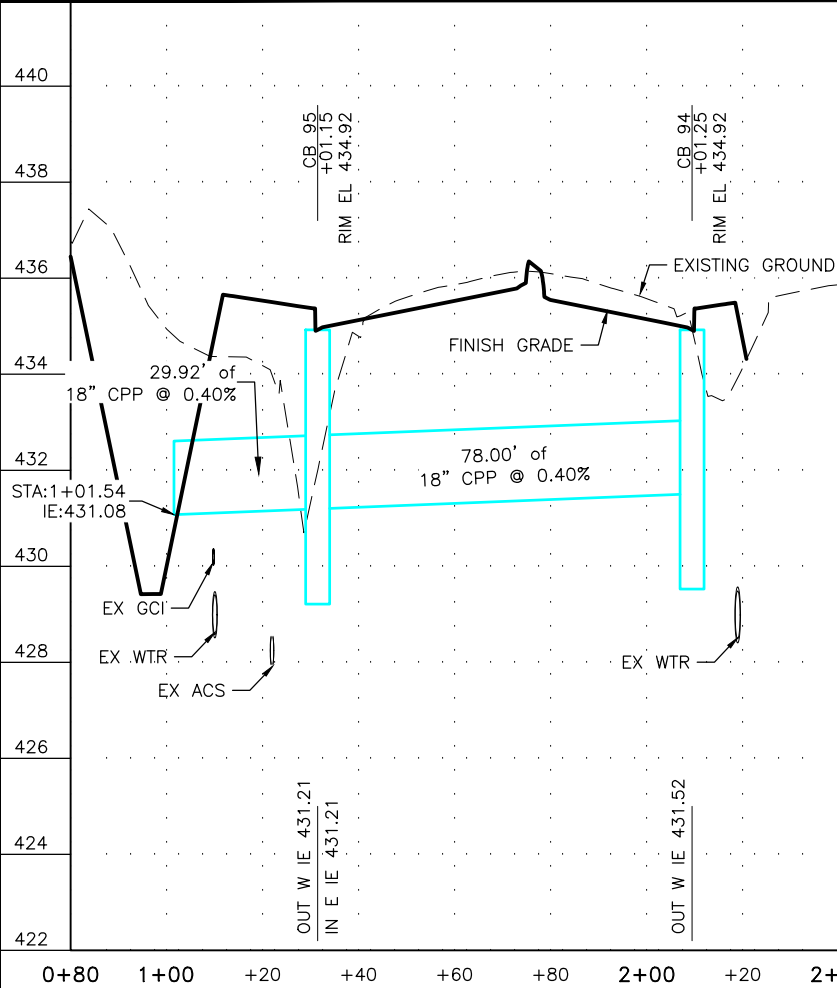


SD 5



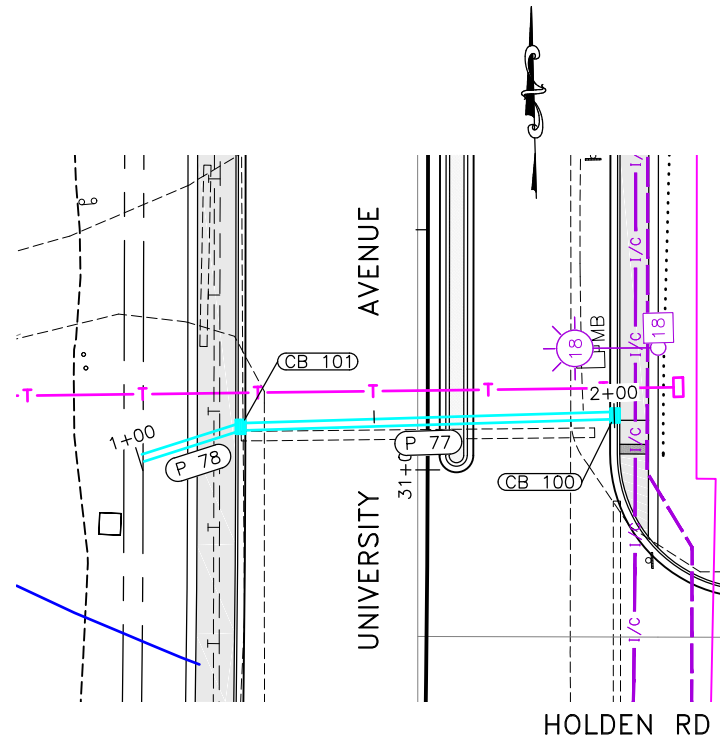
SD 6

STORM DRAIN PLAN AND PROFILE (2 OF 9)

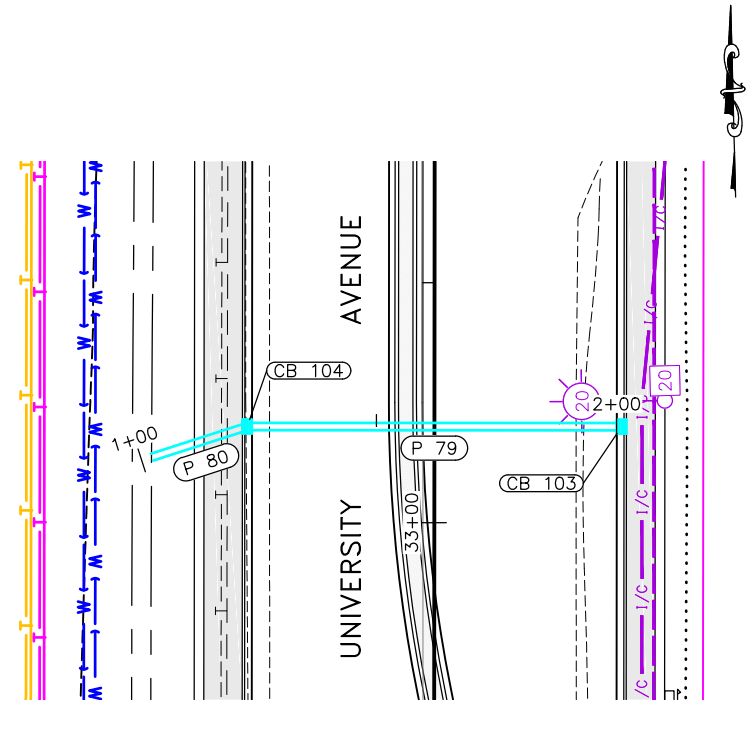


PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc.local\dfs\Projects\2011\1147.04EP-UNIV_AVE-SEGMENT_2B\C\2008\res1147.04hb_2b-U202_Thu_Feb/25/21_09:48am

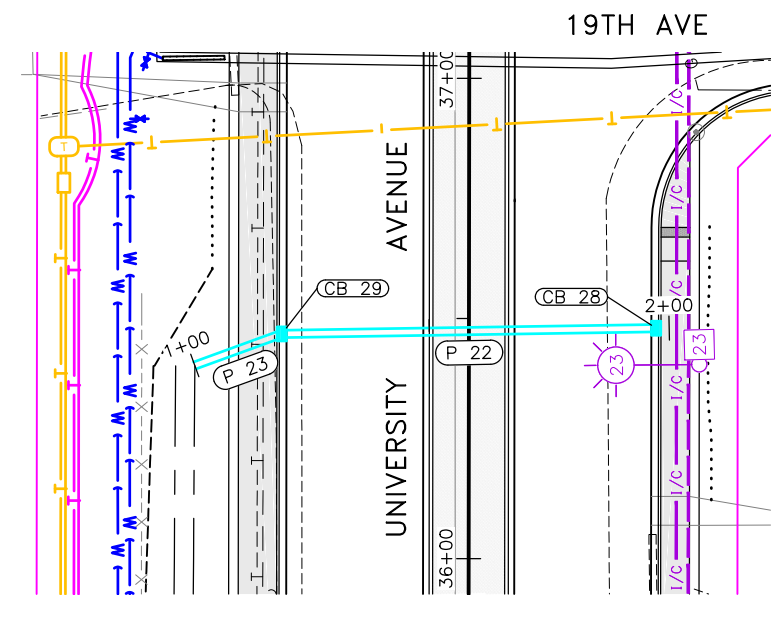
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U203	U318



SD 7



SD 8

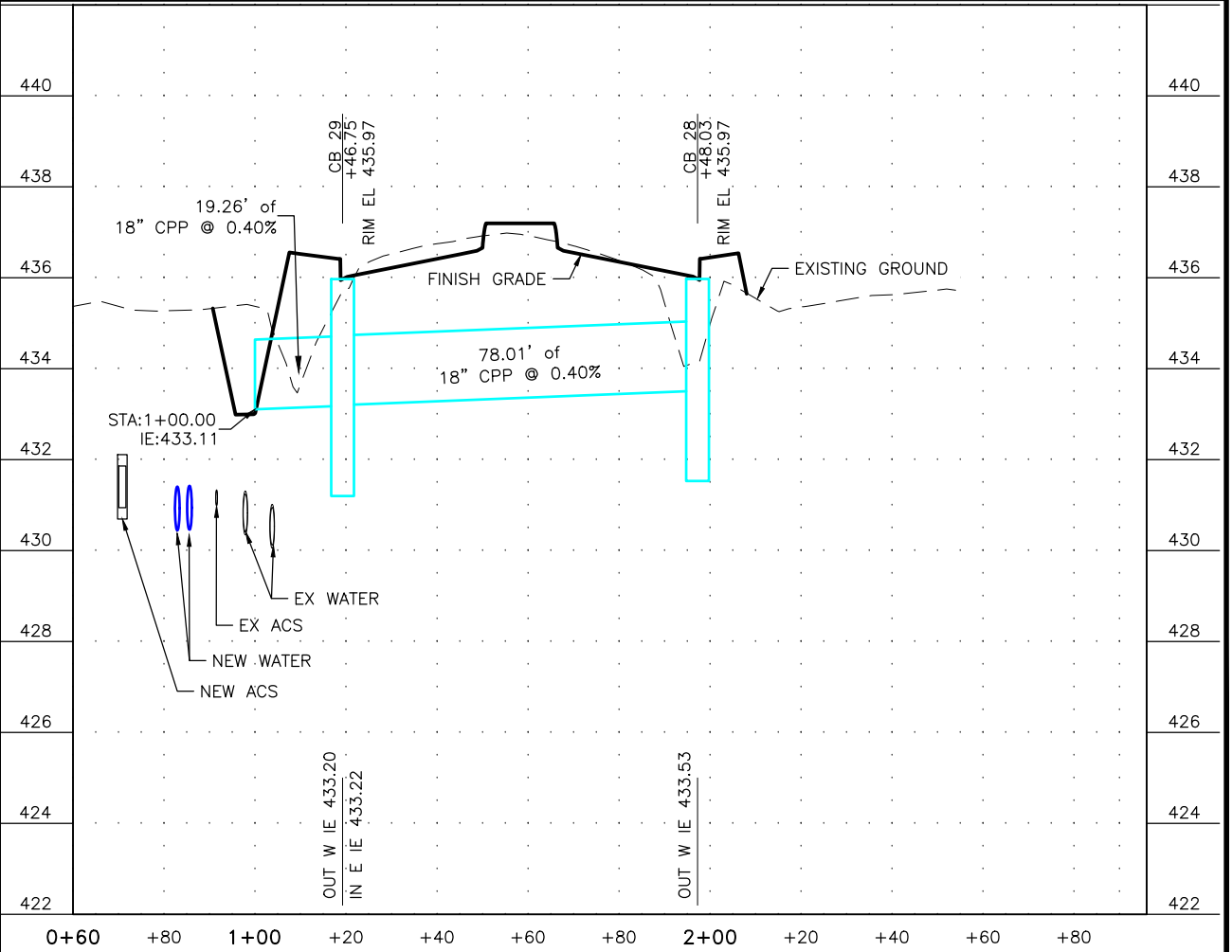
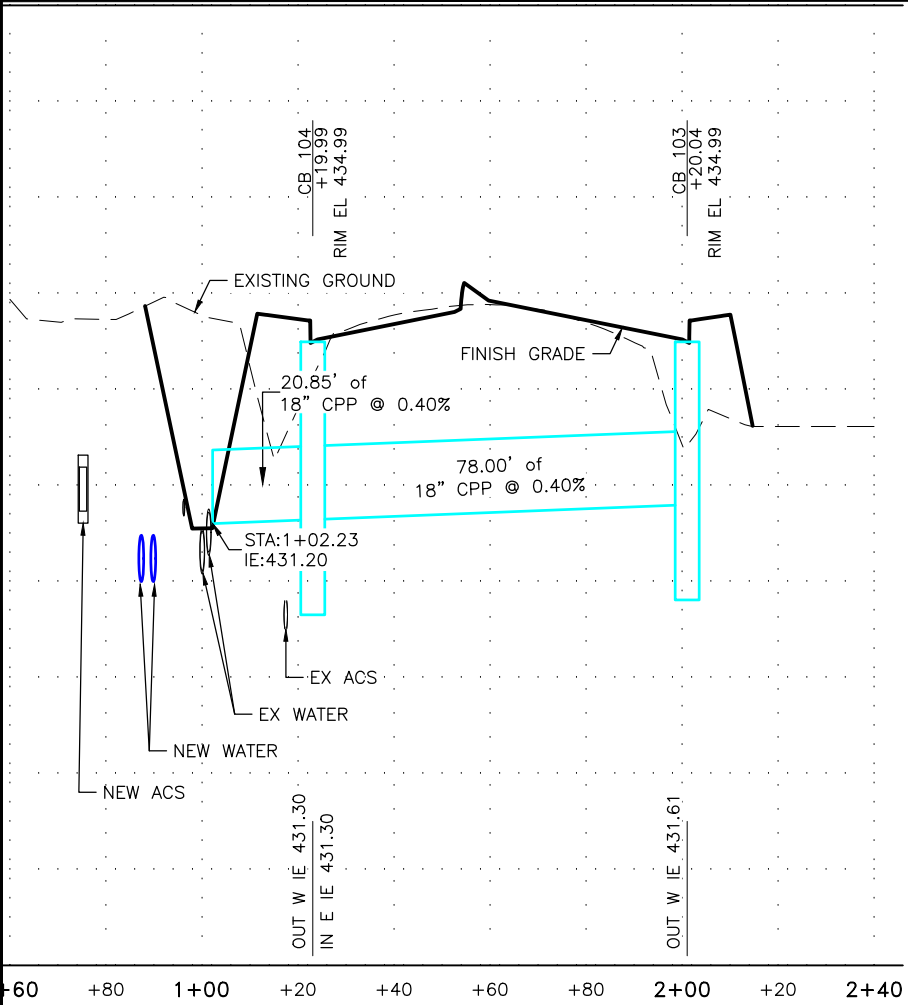
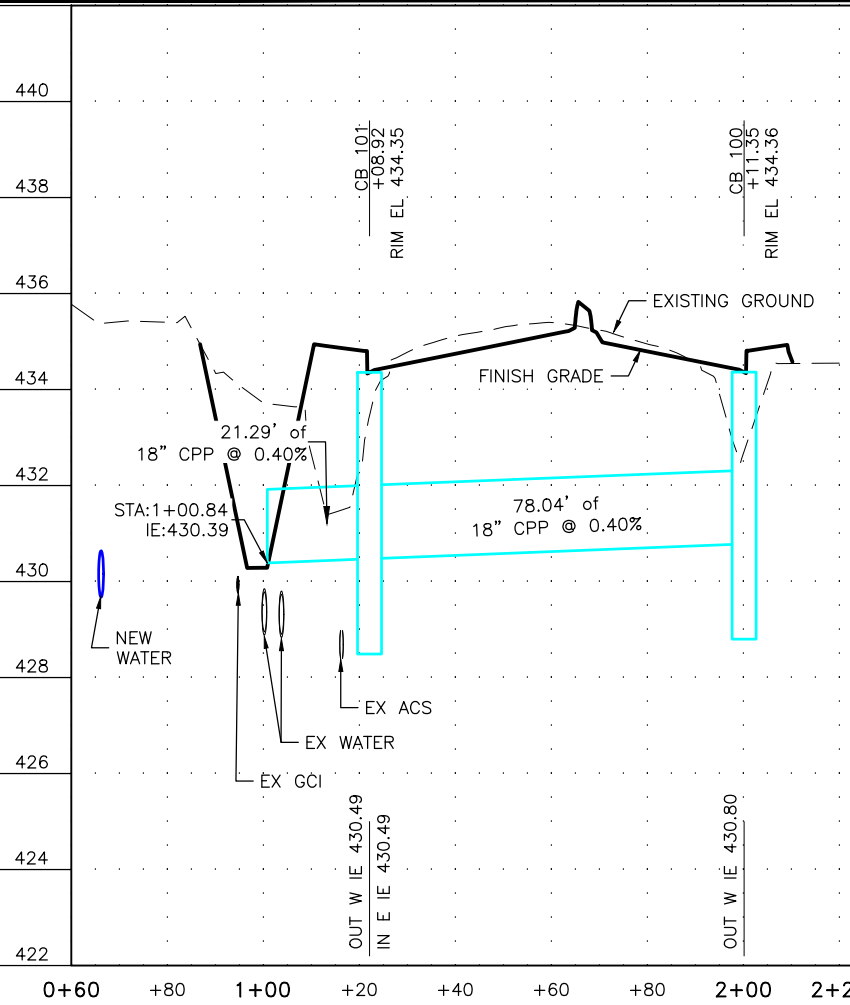


SD 9

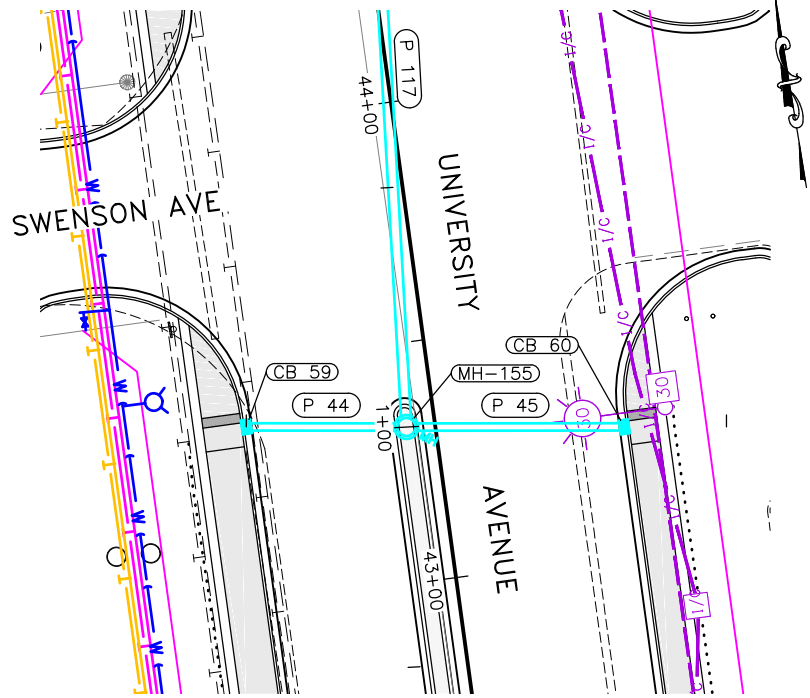
STORM DRAIN PLAN AND PROFILE (3 OF 9)



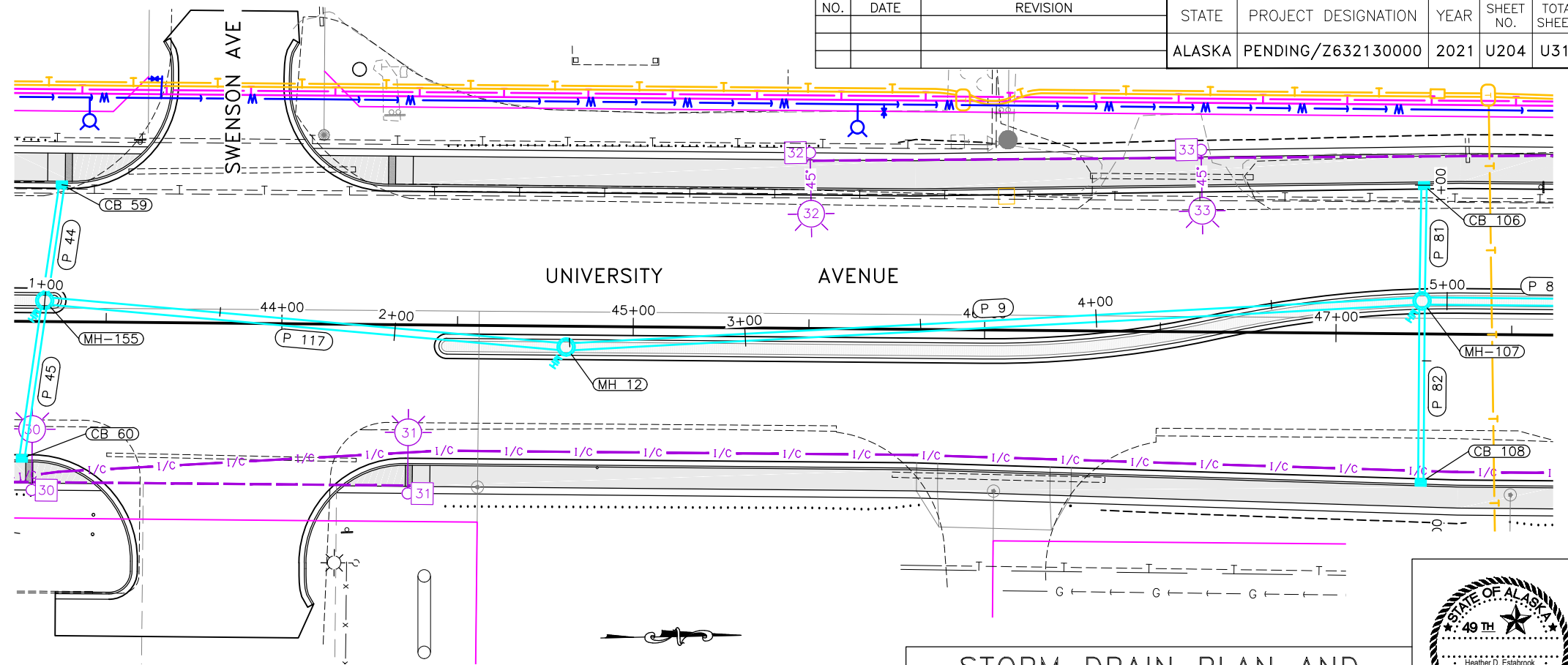
PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC, CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U204	U318



SD 10

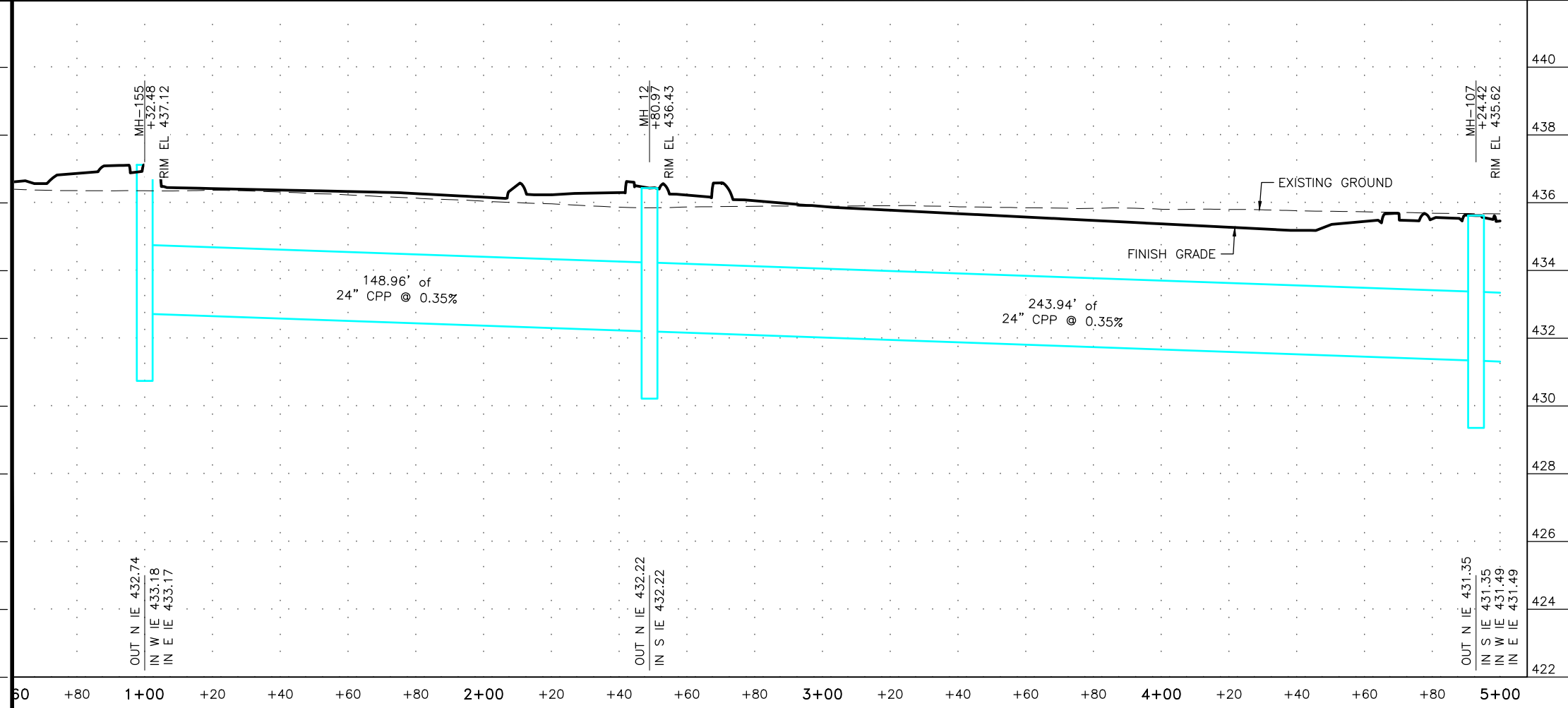
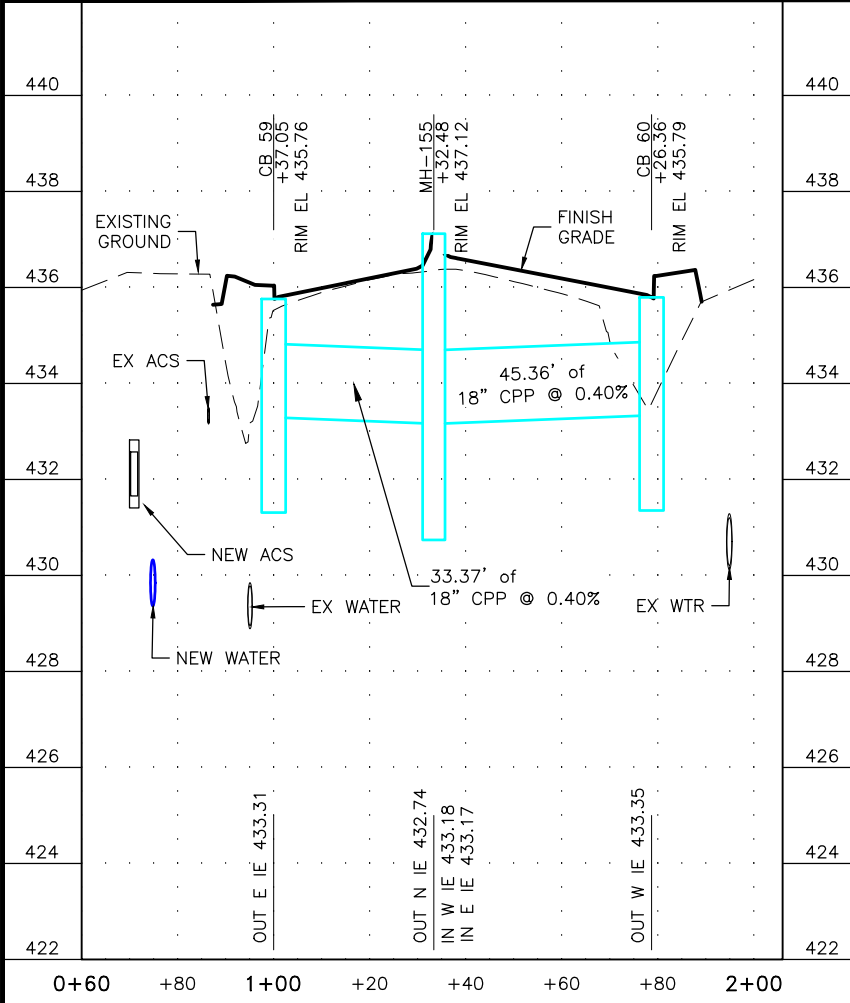


SD 11

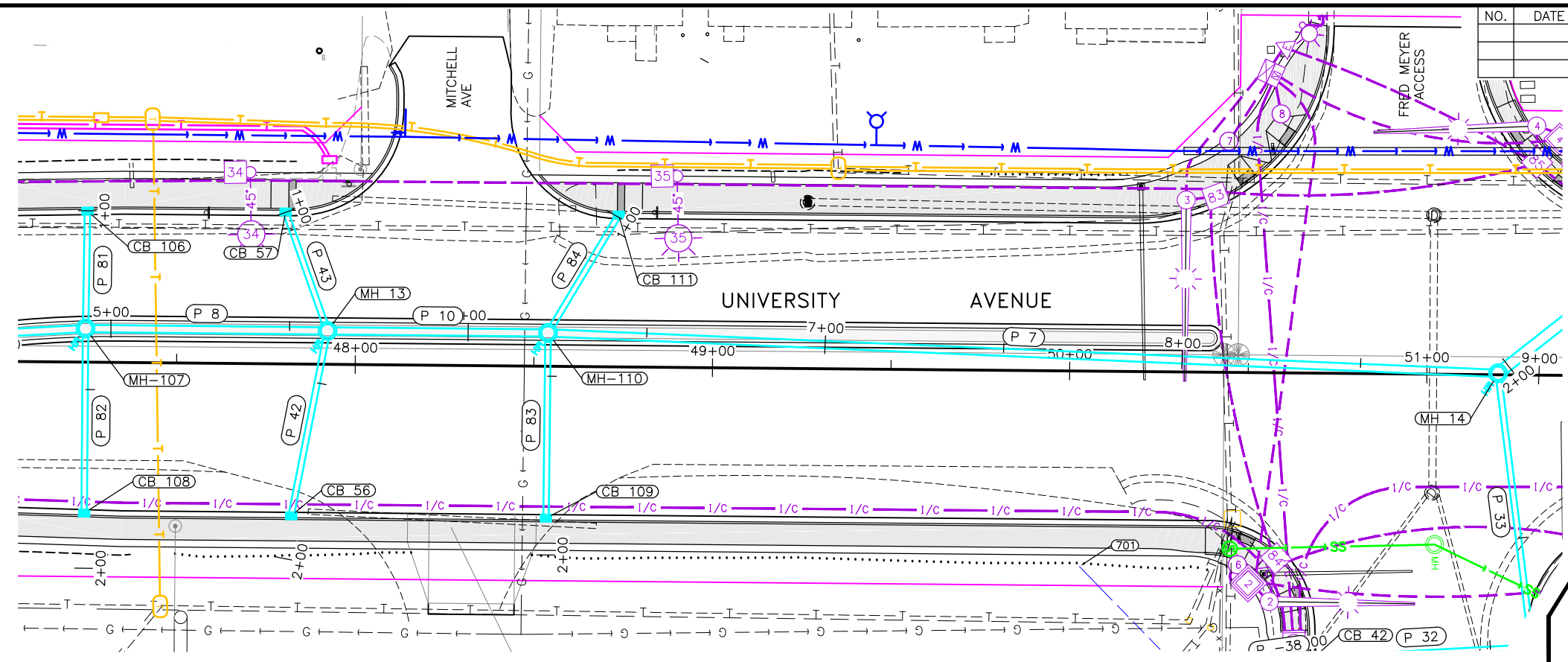
STORM DRAIN PLAN AND PROFILE (4 OF 9)



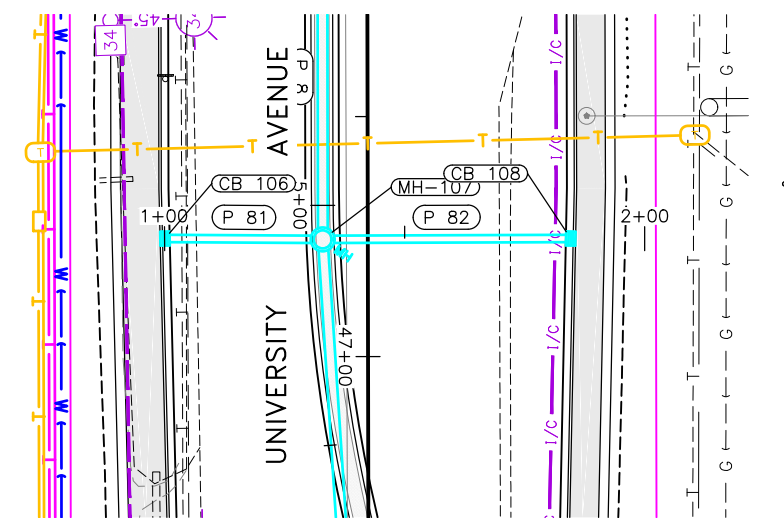
PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc.local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B\C\2008\res\1147.04fb_2b-0204_Thu_Feb/25/21 09:53.am



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U205	U318



SD 12

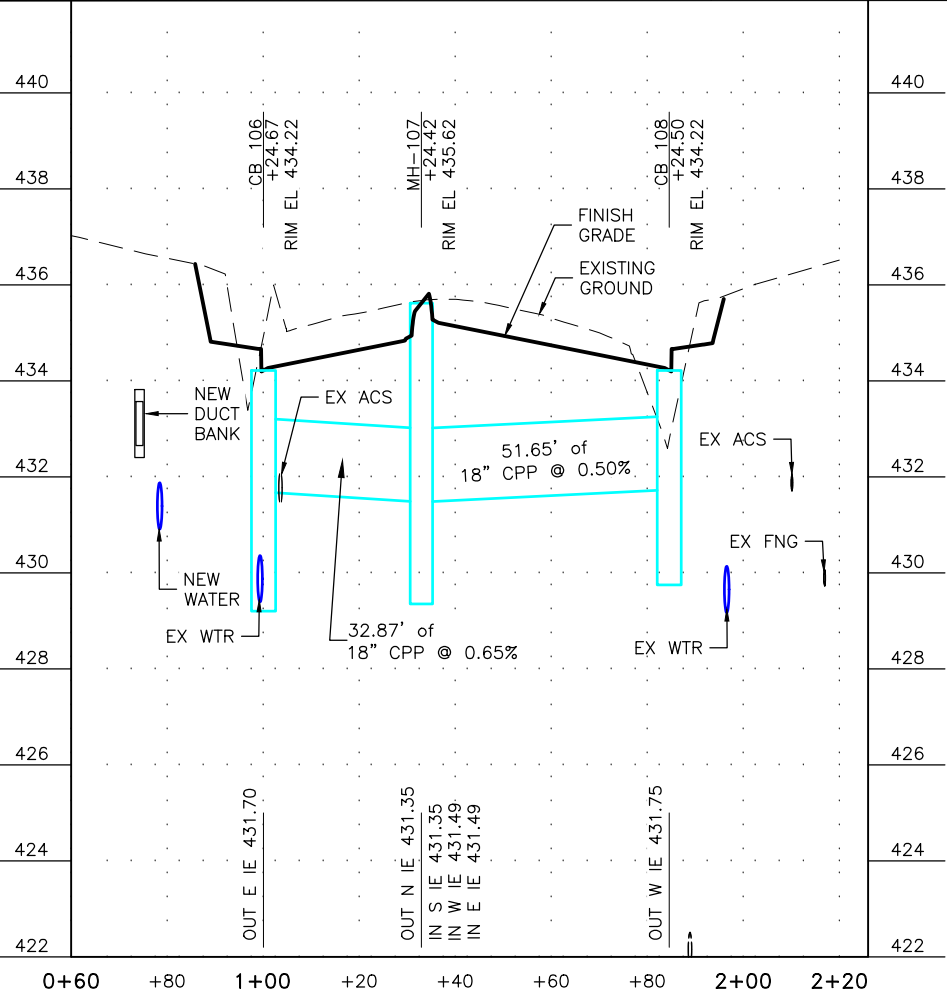
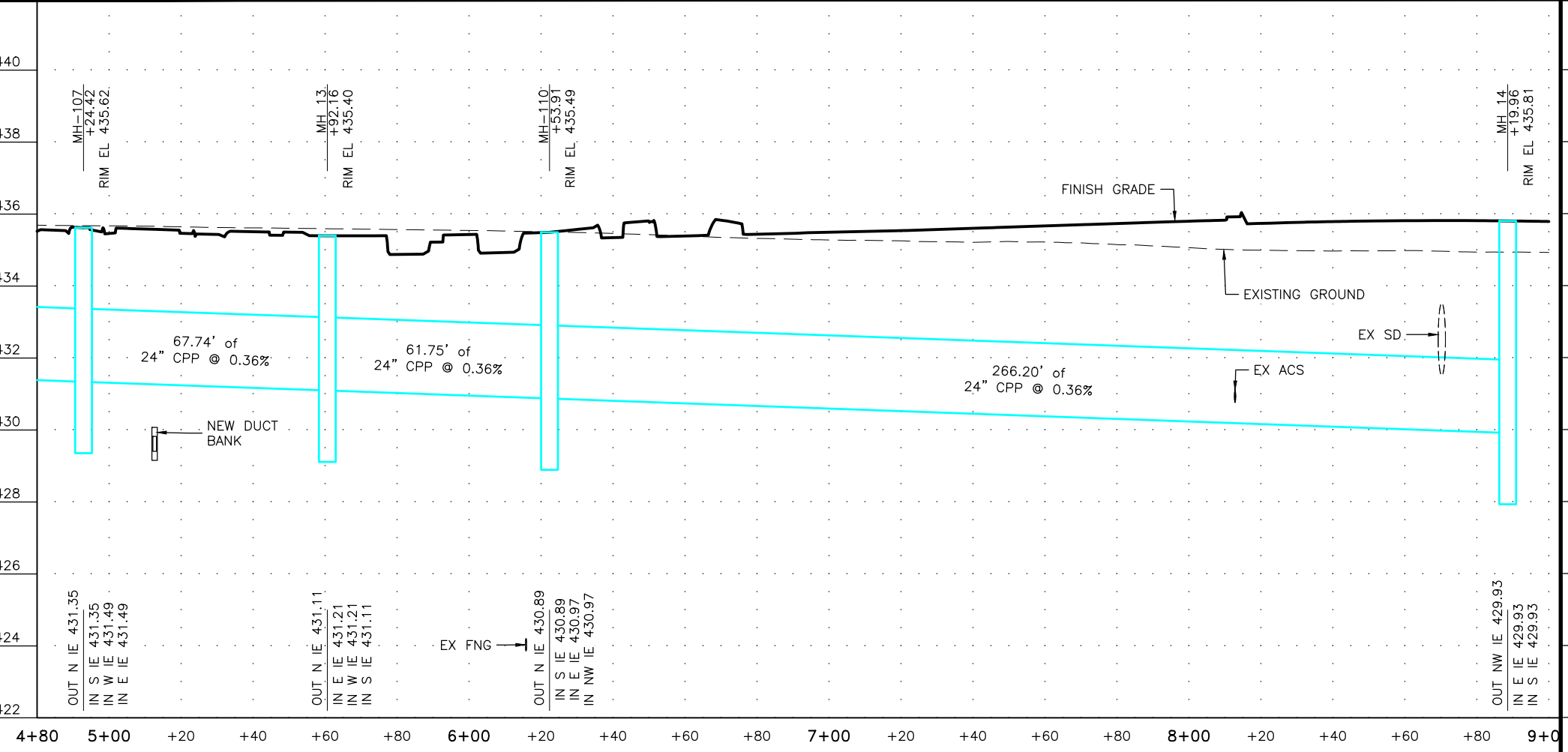


SD 13

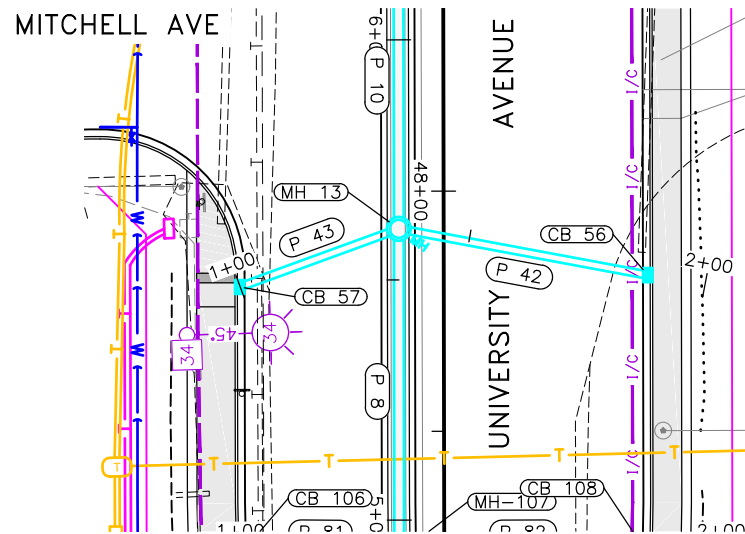
STORM DRAIN PLAN AND PROFILE (5 OF 9)



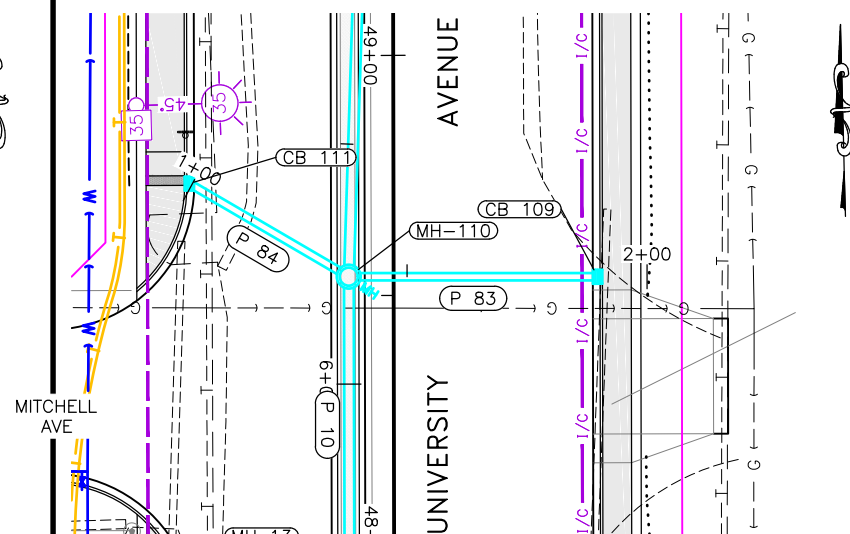
PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
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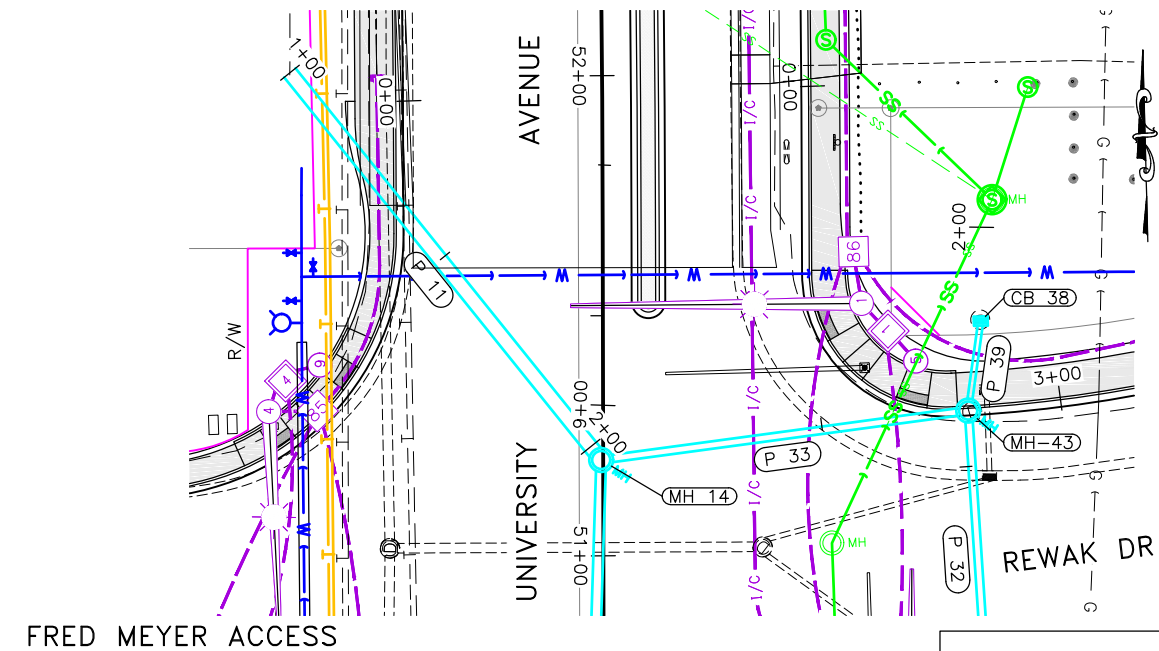
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U206	U318



SD 14



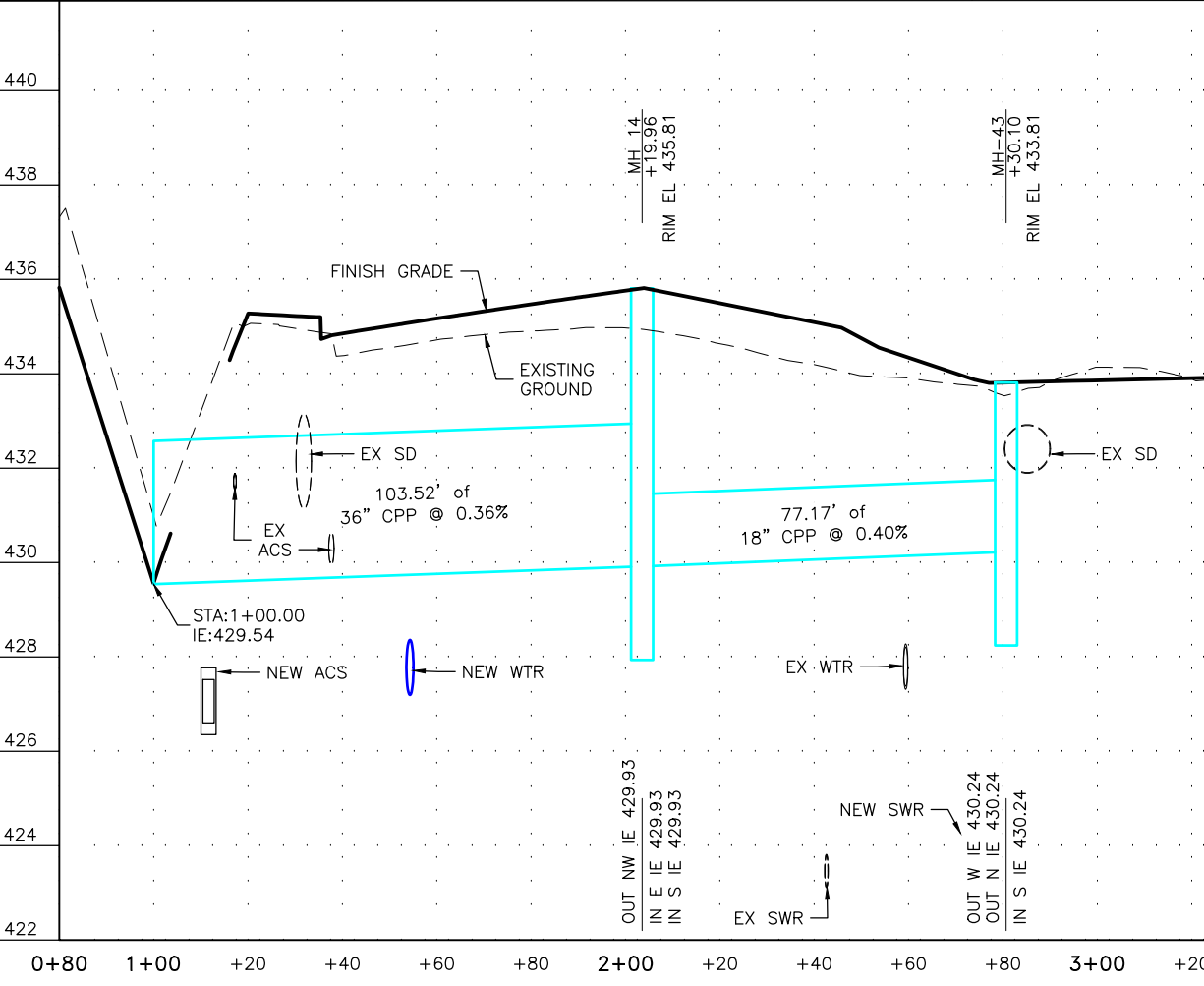
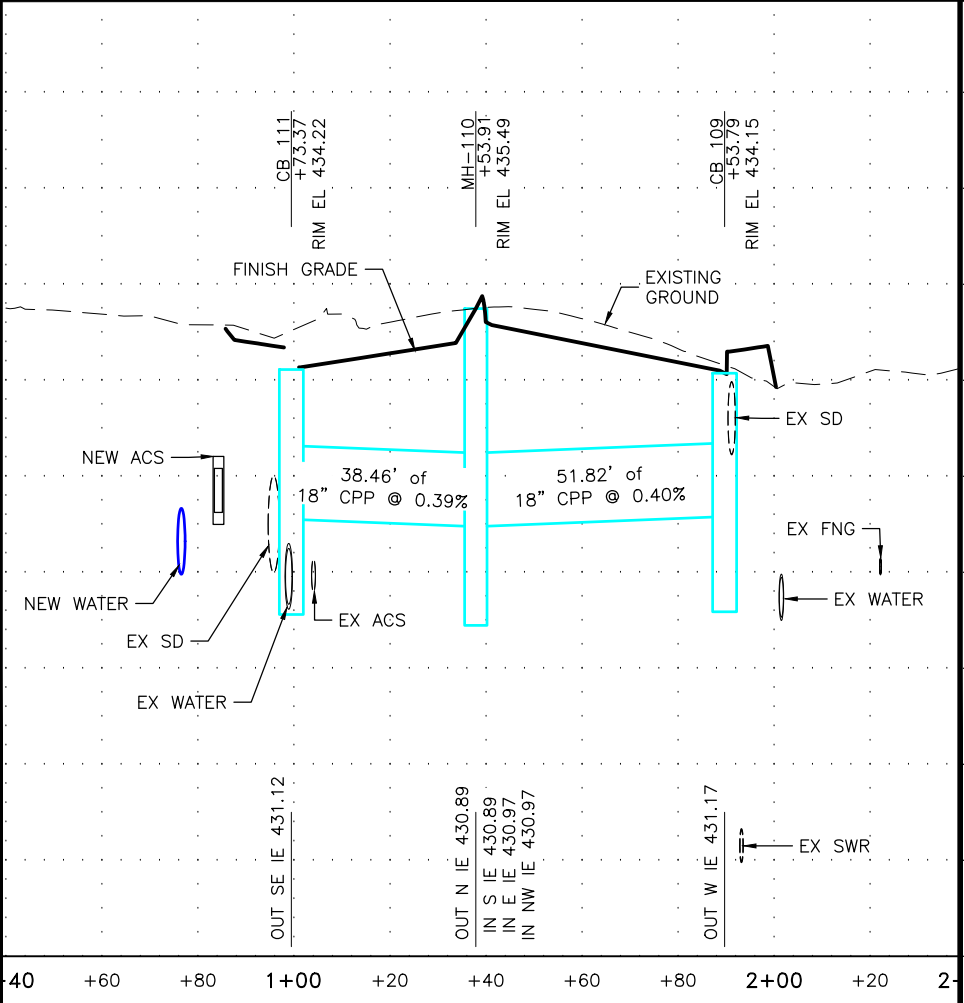
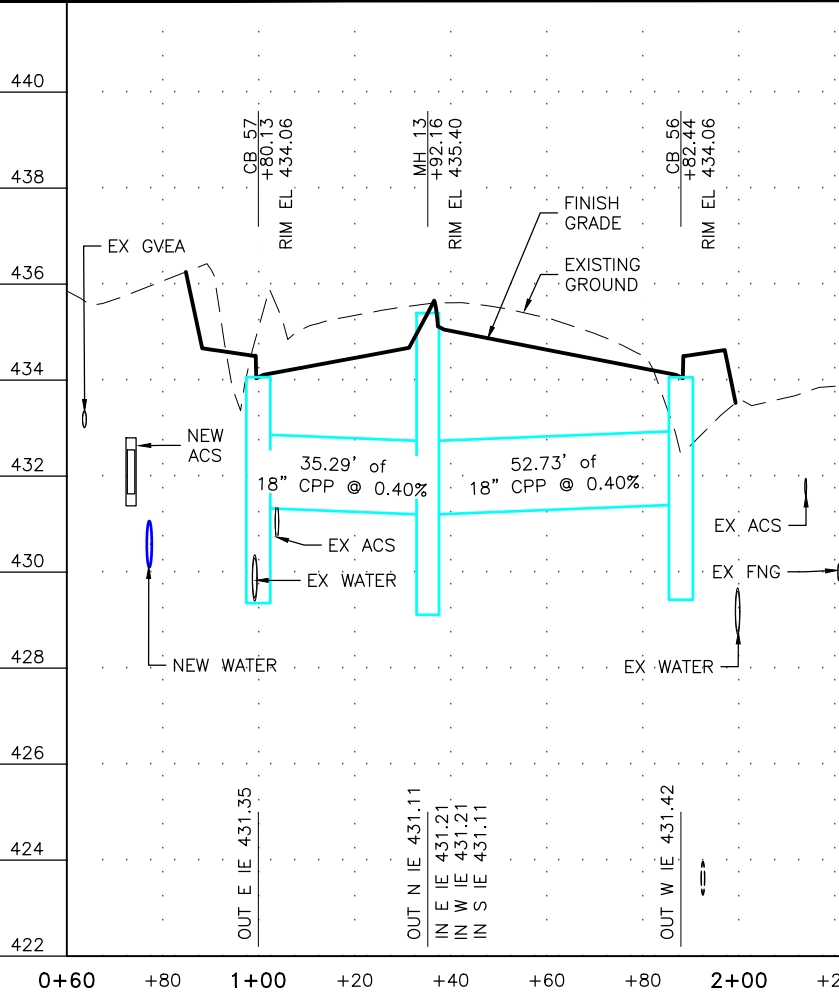
SD 15



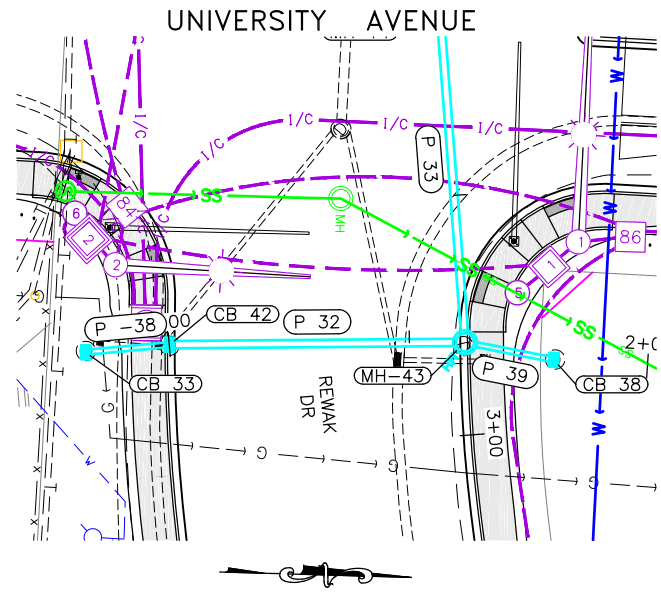
SD 16
STORM DRAIN PLAN AND PROFILE (6 OF 9)



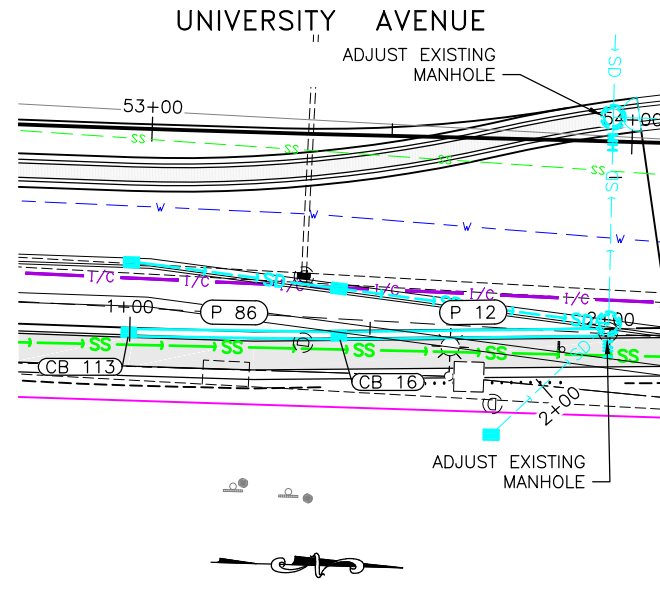
PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U207	U318

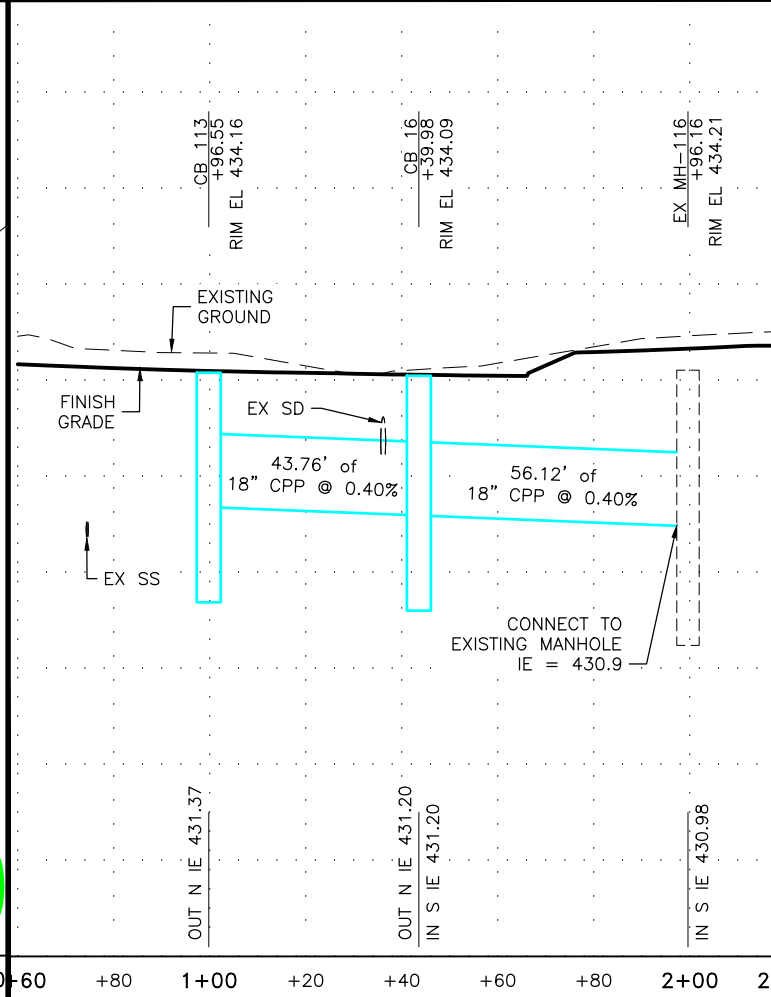
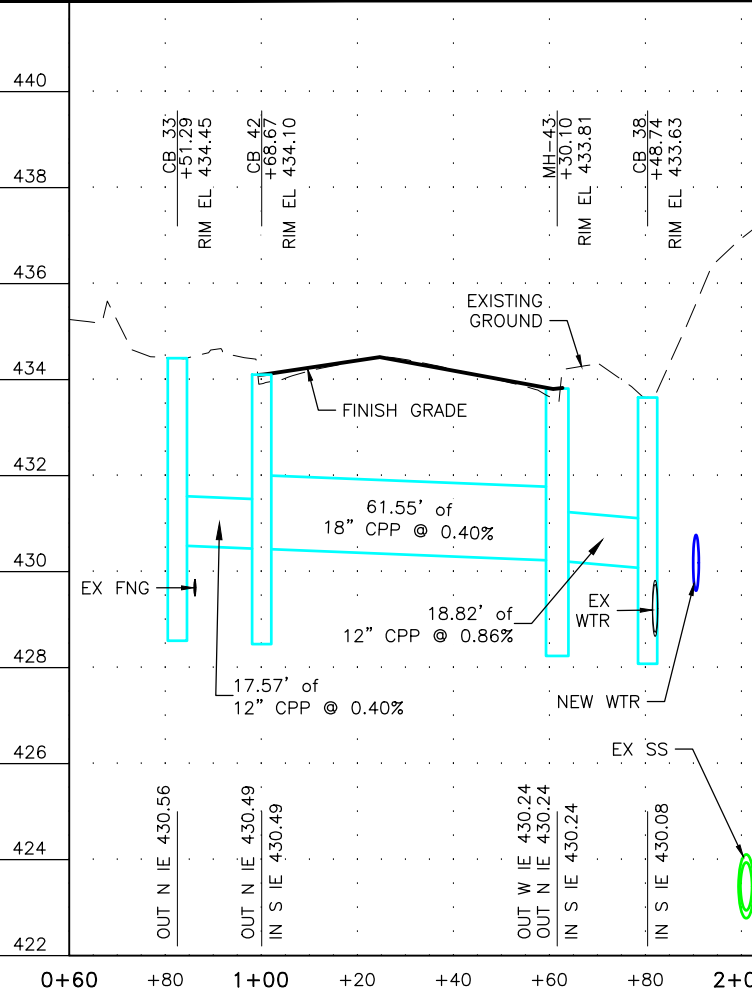


SD 17



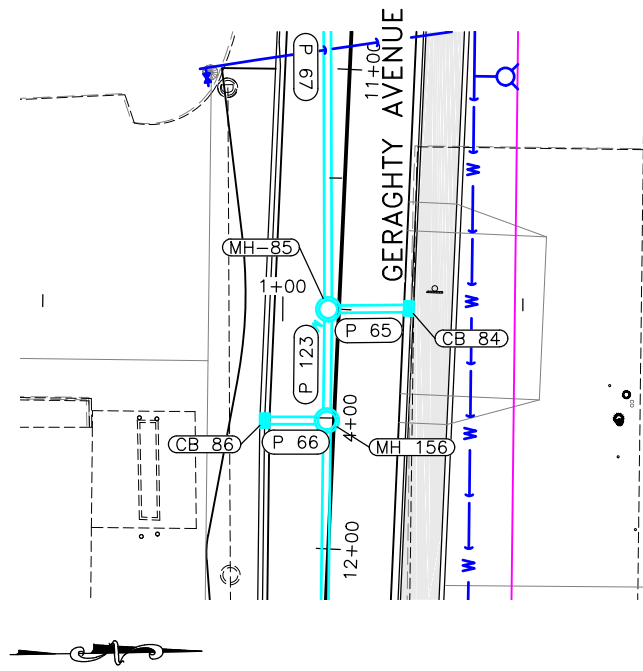
SD 18

STORM DRAIN PLAN AND PROFILE (7 OF 9)

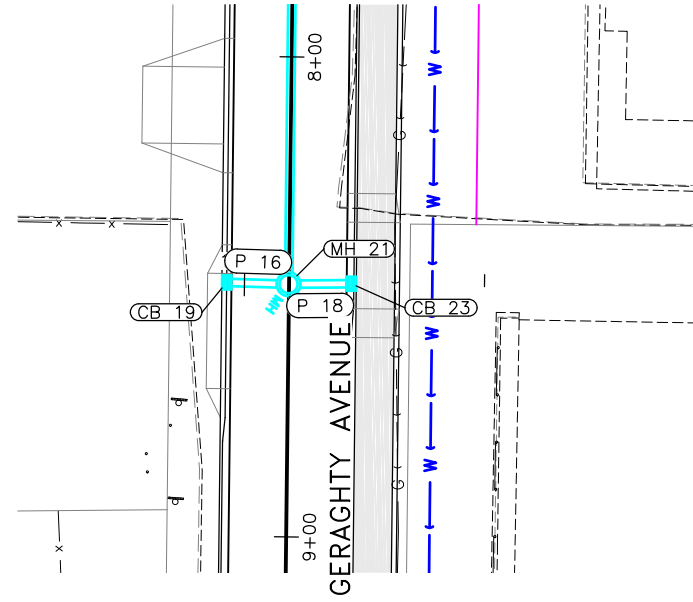


PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AEC0605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U208	U318



SD 19

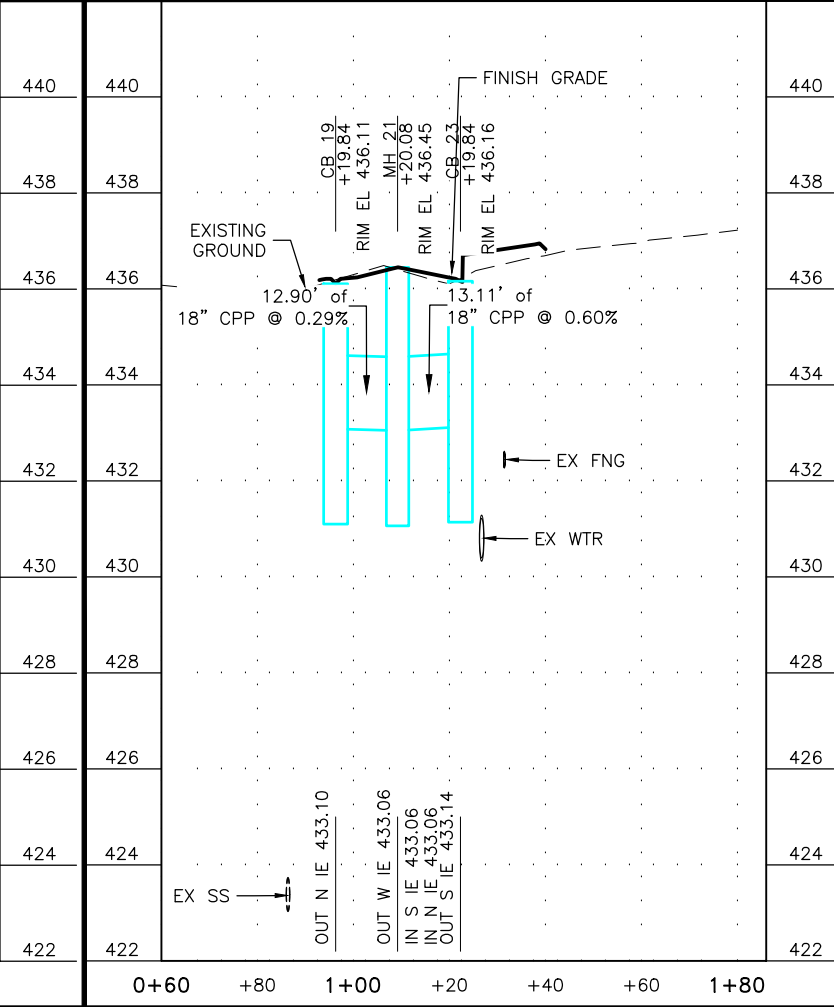
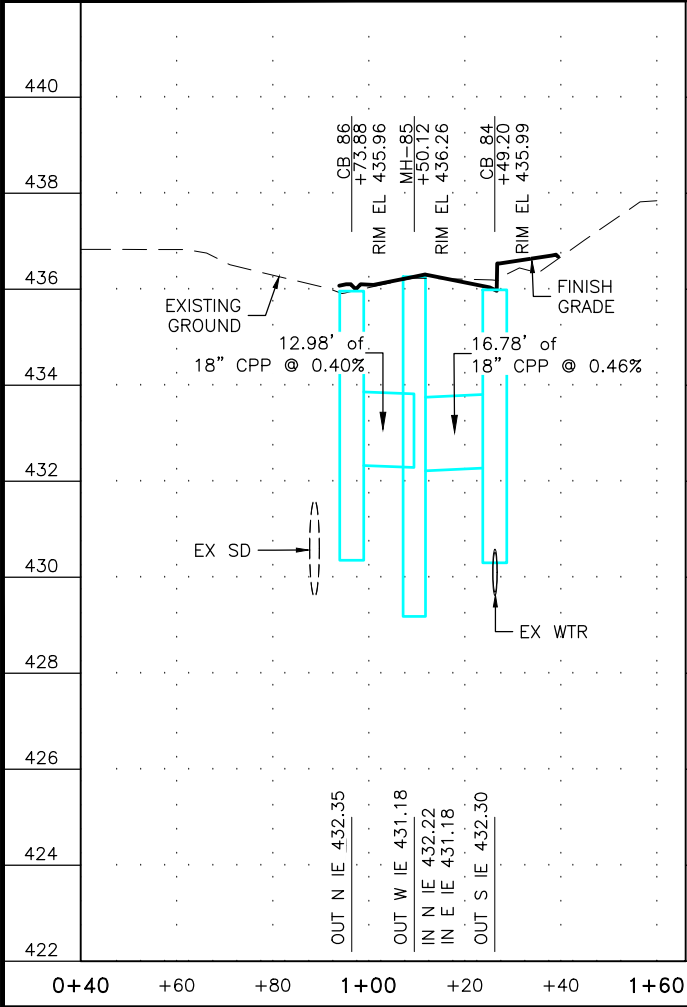


SD 20

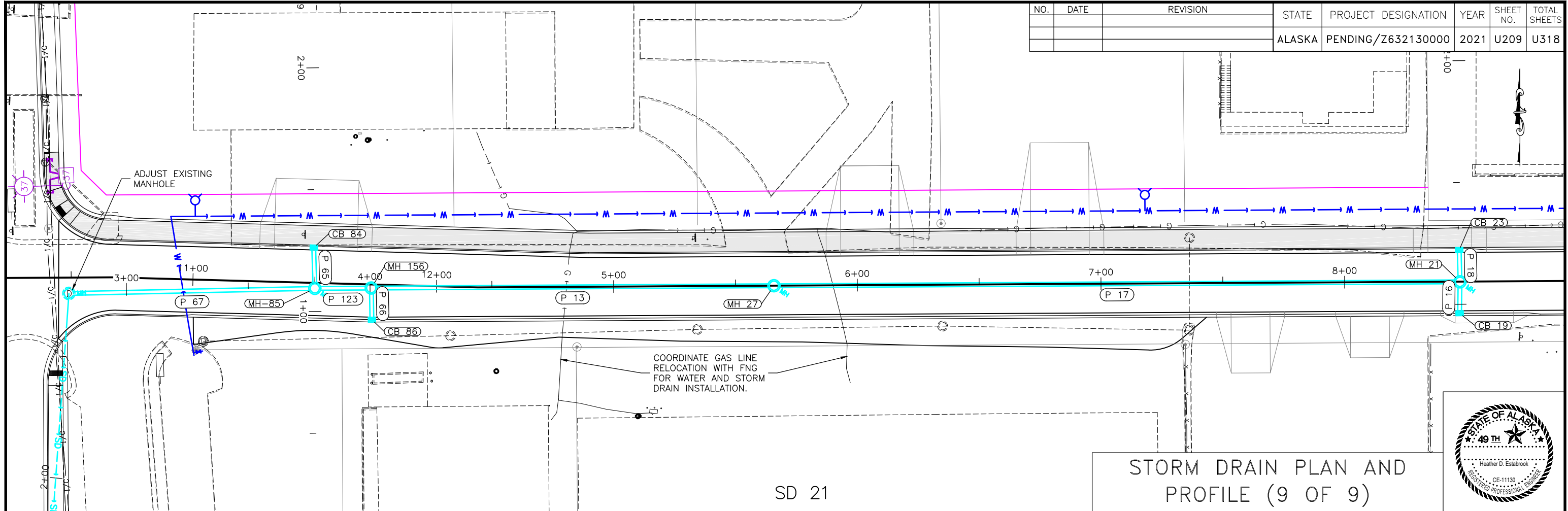
STORM DRAIN PLAN AND PROFILE (8 OF 9)



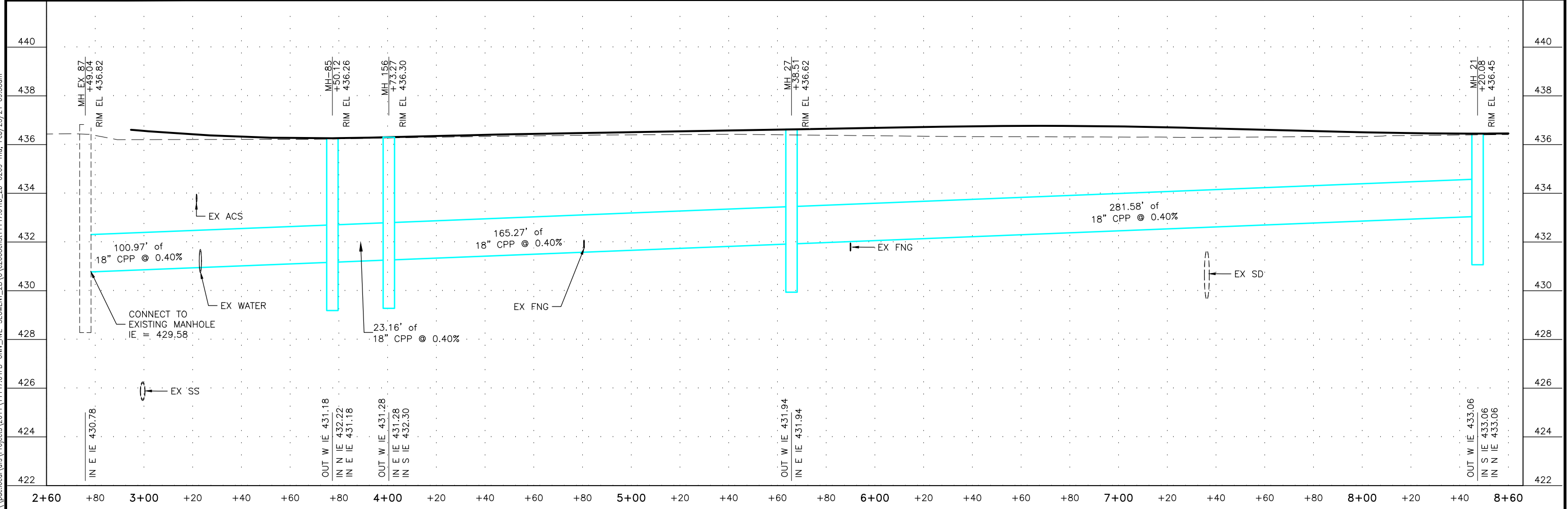
PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U209	U318



PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
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PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc.local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B(C)\2008\res1147.04fb_2b-0210 Thu, Feb/25/21 09:59am

PIPE SUMMARY

NAME	SIZE (IN)	MATERIAL	SLOPE	START INVERT	END INVERT	LENGTH (FT)	REMARKS
P -26	18	CPP	0.41%	431.57'	431.43'	36	
P -38	12	CPP	0.40%	430.56'	430.49'	18	
P -75	18	CPP	0.40%	430.66'	430.35'	78	
P 7	24	CPP	0.36%	430.89'	429.93'	266	
P 8	24	CPP	0.36%	431.35'	431.11'	68	
P 9	24	CPP	0.35%	432.22'	431.35'	244	
P 10	24	CPP	0.36%	431.11'	430.89'	62	
P 11	36	CPP	0.36%	429.93'	429.56'	104	
P 12	18	CPP	0.40%	431.20'	430.98'	56	
P 13	18	CPP	0.40%	431.94'	431.28'	165	
P 16	18	CPP	0.29%	433.10'	433.06'	13	
P 17	18	CPP	0.40%	433.06'	431.94'	282	
P 18	18	CPP	0.60%	433.14'	433.06'	13	
P 22	18	CPP	0.40%	433.53'	433.22'	78	
P 23	18	CPP	0.40%	433.20'	433.12'	19	
P 24	18	CPP	0.40%	430.64'	430.33'	78	
P 25	18	CPP	0.40%	430.33'	430.21'	28	
P 26	18	CPP	0.40%	432.31'	432.08'	57	
P 28	18	CPP	0.39%	431.74'	431.57'	42	
P 29	18	CPP	0.38%	431.43'	431.32'	30	
P 30	18	CPP	3.28%	432.72'	431.15'	48	
P 31	18	CPP	0.40%	431.14'	431.04'	24	
P 32	18	CPP	0.40%	430.49'	430.24'	62	
P 33	18	CPP	0.40%	430.24'	429.93'	77	
P 39	12	CPP	0.86%	430.08'	430.24'	19	
P 40	18	CPP	0.49%	432.08'	431.93'	32	
P 41	18	CPP	0.46%	431.93'	431.74'	40	
P 42	18	CPP	0.40%	431.42'	431.21'	53	
P 43	18	CPP	0.40%	431.35'	431.21'	35	
P 44	18	CPP	0.40%	433.31'	433.18'	33	
P 45	18	CPP	0.40%	433.17'	433.35'	45	
P 65	18	CPP	0.46%	432.30'	432.22'	17	
P 66	18	CPP	0.40%	432.35'	432.30'	13	
P 67	18	CPP	0.40%	431.18'	430.78'	101	
P 73	18	CPP	0.40%	431.52'	431.21'	78	
P 74	18	CPP	0.40%	431.21'	431.09'	30	
P 76	18	CPP	0.40%	430.35'	430.23'	31	
P 77	18	CPP	0.40%	430.80'	430.49'	78	
P 78	18	CPP	0.40%	430.49'	430.40'	21	
P 79	18	CPP	0.40%	431.61'	431.30'	78	
P 80	18	CPP	0.40%	431.30'	431.22'	21	
P 81	18	CPP	0.65%	431.70'	431.49'	33	
P 82	18	CPP	0.50%	431.49'	431.75'	52	
P 83	18	CPP	0.40%	431.17'	430.97'	52	
P 84	18	CPP	0.39%	430.97'	431.12'	38	

PIPE SUMMARY

NAME	SIZE (IN)	MATERIAL	SLOPE	START INVERT	END INVERT	LENGTH (FT)	REMARKS
P 86	18	CPP	0.40%	431.37'	431.20'	44	
P 117	24	CPP	0.35%	432.22'	432.74'	149	
P 121	18	CPP	4.21%	433.32'	431.32'	48	
P 122	18	CPP	0.39%	431.32'	431.24'	19	
P 123	18	CPP	0.40%	431.28'	431.18'	23	

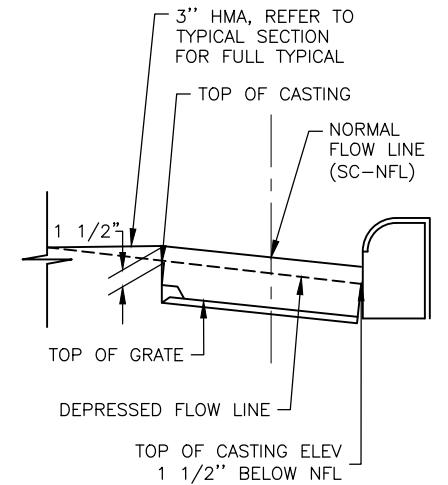
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U210	U318

NOTES:

1. STATIONS AND OFFSETS MEASURED FROM UNIVERSITY AVENUE, AND GERAGHTY AVENUE ALIGNMENTS.
2. SC-NFL REPRESENTS CENTER OF STRUCTURE AT NORMAL FLOW LINE. SEE CURB INLET DETAIL.
3. TOP OF CASTING 1 1/2" BELOW NORMAL FLOW LINE
4. SEE STANDARD DRAWING D-23.01 AND D-22.01 FOR INLET CONSTRUCTION DETAILS.
5. ALL TYPE "A" INLETS REQUIRE AN 18" SUMP. SEE STANDARD DRAWING D-26.03 FOR TYPE "A" INLET BOX DETAILS.

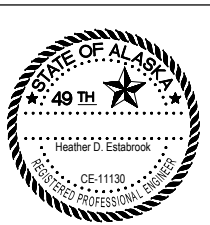
STRUCTURE SUMMARY

NAME:	TYPE	STATION	OFFSET	SC-NFL	TOC	PIPES IN INVERTS	PIPES OUT INV.	SUMP	COVER	REMARKS
CB 15	INLET, TYPE A	16+00.18	39.02 L	434.47	434.35	(P 121) 431.32' SE	(P 122) 431.32' NW	1.5	STD INLET FRAME AND GRATE	
CB 16	INLET, TYPE A	53+39.98	41.86 R	434.09	433.97	(P 86) 431.20' S	(P 12) 431.20' N	1.5	STD INLET FRAME AND GRATE	
CB 19	INLET, TYPE A	16+19.84	13.00 R	436.11	436.01		(P 16) 433.10' N	1.5	STD INLET FRAME AND GRATE	
CB 23	INLET, TYPE A	16+19.84	13.00 L	436.16	436.01		(P 18) 433.14' S	1.5	STD INLET FRAME AND GRATE	
CB 28	INLET, TYPE A	36+48.03	39.00 R	435.97	435.85		(P 22) 433.53' W	1.5	STD INLET FRAME AND GRATE	
CB 29	INLET, TYPE A	36+46.75	39.00 L	435.97	435.84	(P 22) 433.22' E	(P 23) 433.20' W	1.5	STD INLET FRAME AND GRATE	
CB 31	INLET, TYPE A	30+20.32	39.00 R	434.23	434.101		(P 24) 430.64' W	1.5	ROLLED CURB INLET FRAME AND GRATE	
CB 32	INLET, TYPE A	30+17.32	39.00 L	434.11	433.99	(P 24) 430.33' E	(P 25) 430.33' W	1.5	STD INLET FRAME AND GRATE	
CB 33	INLET, TYPE A	50+51.29	82.57 R	434.45	--		(P -38) 430.56' N	1.5	FIELD INLET	
CB 34	INLET, TYPE A	24+23.94	76.61 R	435.51	435.38		(P 26) 432.31' S	1.5	STD INLET FRAME AND GRATE	
CB 38	INLET, TYPE A	51+48.74	78.72 R	433.63	--	(P 39) 430.08' S		1.5	FIELD INLET	
CB 40	INLET, TYPE A	14+10.52	39.01 L	433.81	433.69	(P 30) 431.15' SE	(P 31) 431.14' W	1.5	STD INLET FRAME AND GRATE	
CB 42	INLET, TYPE A	50+68.67	80.01 R	434.10	433.98	(P -38) 430.49' S	(P 32) 430.49' N	1.5	STD INLET FRAME AND GRATE	
CB 56	INLET, TYPE A	47+82.44	42.50 R	434.06	433.93		(P 42) 431.42' W	1.5	STD INLET FRAME AND GRATE	
CB 57	INLET, TYPE A	47+80.13	42.50 L	434.06	433.93		(P 43) 431.35' E	1.5	STD INLET FRAME AND GRATE	
CB 59	INLET, TYPE A	43+37.05	39.00 L	436.04	435.63		(P 44) 433.31' E	1.5	STD INLET FRAME AND GRATE	
CB 60	INLET, TYPE A	43+26.36	39.00 R	435.79	435.67		(P 45) 433.35' W	1.5	STD INLET FRAME AND GRATE	
CB 84	INLET, TYPE A	11+49.20	14.51 L	435.99	435.87		(P 65) 432.30' S	1.5	STD INLET FRAME AND GRATE	
CB 86	INLET, TYPE A	11+73.88	14.44 R	435.96	--		(P 66) 432.35' N	1.5	VALLEY GUTTER FRAME AND GRATE	
CB 93	INLET, TYPE A	14+10.45	8.74 R	435.60	435.36		(P 30) 432.72' NW	1.5	STD INLET FRAME AND GRATE	
CB 94	INLET, TYPE A	27+01.25	39.00 R	434.92	434.80		(P 73) 431.52' W	1.5	STD INLET FRAME AND GRATE	
CB 95	INLET, TYPE A	27+01.15	39.00 L	434.92	434.80	(P 73) 431.21' E	(P 74) 431.21' W	1.5	STD INLET FRAME AND GRATE	
CB 97	INLET, TYPE A	29+49.71	39.00 R	434.18	434.05		(P -75) 430.66' W	1.5	STD INLET FRAME AND GRATE	
CB 98	INLET, TYPE A	29+45.90	39.00 L	434.19	434.06	(P -75) 430.35' E	(P 76) 430.35' W	1.5	STD INLET FRAME AND GRATE	
CB 100	INLET, TYPE A	31+11.35	39.00 R	434.36	434.24		(P 77) 430.80' W	1.5	STD INLET FRAME AND GRATE	
CB 101	INLET, TYPE A	31+08.92	39.00 L	434.35	434.23	(P 77) 430.49' E	(P 78) 430.49' W	1.5	STD INLET FRAME AND GRATE	
CB 103	INLET, TYPE A	33+20.04	39.00 R	434.99	434.86		(P 79) 431.61' W	1.5	STD INLET FRAME AND GRATE	
CB 104	INLET, TYPE A	33+19.99	39.00 L	434.99	434.86	(P 79) 431.30' E	(P 80) 431.30' W	1.5	STD INLET FRAME AND GRATE	
CB 106	INLET, TYPE A	47+24.67	42.25 L	434.22	434.09		(P 81) 431.70' E	2.0	STD INLET FRAME AND GRATE	
CB 108	INLET, TYPE A	47+24.50	42.26 R	434.22	434.63		(P 82) 431.75' W	1.5	STD INLET FRAME AND GRATE	
CB 109	INLET, TYPE A	48+53.79	42.50 R	434.15	434.02		(P 83) 431.17' W	1.5	STD INLET FRAME AND GRATE	
CB 111	INLET, TYPE A	48+73.37	42.50 L	434.22	434.09		(P 84) 431.12' SE	1.5	STD INLET FRAME AND GRATE	
CB 113	INLET, TYPE A	52+96.55	42.50 R	434.16	434.03		(P 86) 431.37' N	1.5	STD INLET FRAME AND GRATE	



CURB INLET DETAIL

STORM DRAIN SUMMARY AND DETAIL



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U211	U318

STRUCTURE SUMMARY

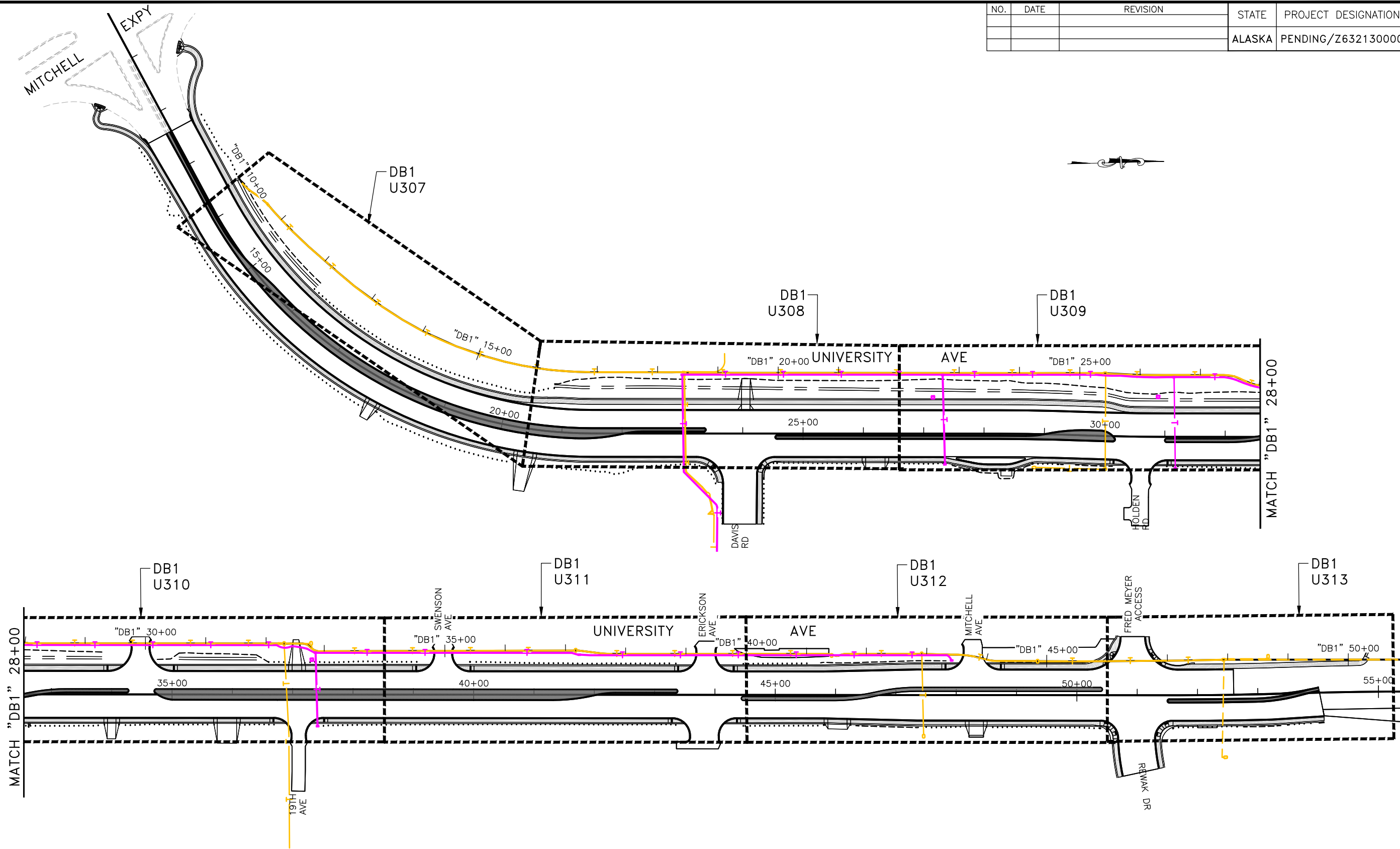
NAME:	TYPE	STATION	OFFSET	SC-NFL	TOC	PIPES IN INVERTS	PIPES OUT INV.	SUMP	COVER	REMARKS
CB 160	INLET, TYPE A	15+98.97	8.47 R	436.20	436.02		(P 121) 433.32' NW	1.5	STD INLET FRAME AND GRATE	
CB 161	INLET, TYPE A	23+20.76	3.50 L	436.78	436.66	(P 28) 431.57' E	(P -26) 431.57' W	1.5	STD INLET FRAME AND GRATE	
MH-43	STORM SEWER MANHOLE, 48 INCH	51+30.10	76.10 R	433.81	433.69	(P 32) 430.24' S	(P 33) 430.24' W (P 39) 430.24' N	1.5	STD INLET FRAME AND GRATE	
MH-61	STORM SEWER MANHOLE, 48 INCH	23+34.73	75.74 R	437.82	--	(P 40) 431.93' N	(P 41) 431.93' W	1.5	SOLID LID	
MH-85	STORM SEWER MANHOLE, 48 INCH	11+50.12	2.25 R	436.26	--	(P 65) 432.22' N (P 123) 431.18' E	(P 67) 431.18' W	1.5	SOLID LID	
MH-107	STORM SEWER MANHOLE, 48 INCH	47+24.42	9.39 L	435.62	--	(P 9) 431.35' S (P 81) 431.49' W (P 82) 431.49' E	(P 8) 431.35' N	1.5	SOLID LID	
MH-110	STORM SEWER MANHOLE, 48 INCH	48+53.91	9.32 L	435.49	--	(P 10) 430.89' S (P 83) 430.97' E (P 84) 430.97' NW	(P 7) 430.89' N	1.5	SOLID LID	
MH-155	STORM SEWER MANHOLE, 48 INCH	43+32.48	5.95 L	437.12	--	(P 44) 433.18' W (P 45) 433.17' E	(P 117) 432.74' N	1.5	SOLID LID	
MH 12	STORM SEWER MANHOLE, 48 INCH	44+80.97	5.93 R	436.43	--	(P 117) 432.22' S	(P 9) 432.22' N	1.5	SOLID LID	
MH 13	STORM SEWER MANHOLE, 48 INCH	47+92.16	9.33 L	435.40	--	(P 42) 431.21' E (P 43) 431.21' W (P 8) 431.11' S	(P 10) 431.11' N	1.5	SOLID LID	
MH 14	STORM SEWER MANHOLE, 48 INCH	51+19.96	0.41 L	435.81	--	(P 33) 429.93' E (P 7) 429.93' S	(P 11) 429.93' NW	1.5	SOLID LID	
MH 21	STORM SEWER MANHOLE, 48 INCH	16+20.08	0.11 R	436.45	--	(P 16) 433.06' S (P 18) 433.06' N	(P 17) 433.06' W	1.5	SOLID LID	
MH 27	STORM SEWER MANHOLE, 48 INCH	13+38.51	0.05 R	436.62	--	(P 17) 431.94' E	(P 13) 431.94' W	1.5	SOLID LID	
MH 35	STORM SEWER MANHOLE, 48 INCH	23+66.84	78.26 R	435.57	435.45	(P 26) 432.08' N	(P 40) 432.08' S	1.5	STD INLET FRAME AND GRATE	
MH 36	STORM SEWER MANHOLE, 48 INCH	23+20.50	38.84 R	436.54	436.42	(P 41) 431.74' E	(P 28) 431.74' W	1.5	STD INLET FRAME AND GRATE	
MH 37	STORM SEWER MANHOLE, 48 INCH	23+20.88	39.26 L	436.05	435.93	(P -26) 431.43' E	(P 29) 431.43' W	1.5	STD INLET FRAME AND GRATE	
MH 156	STORM SEWER MANHOLE, 48 INCH	11+73.27	1.48 R	436.30	--	(P 13) 431.28' E (P 66) 432.30' S	(P 123) 431.28' W	1.5	SOLID LID	
MH EX 87	EXIST MH 87	10+49.04	6.52 R	436.82	--	(P 67) 430.78' E		2.0	SOLID LID	EXISTING MANHOLE
MH EX 116	EXIST MH 116	53+96.16	39.77 R	434.21	434.088	(P 12) 430.98' S		2.0	STD FRAME AND GRATE	EXISTING MANHOLE

PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605. 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503. (907)743-3200
 \\pdc.local\dfs\Projects\2011\1147.04EP-UNIV-AVE-SEGMENT_2B\C\2008cons1147.04b_2b-0211_Thu, Feb/25/21 09:59am

STORM DRAIN SUMMARY



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U300	U318



LEGEND

DUCT BANK # ↗

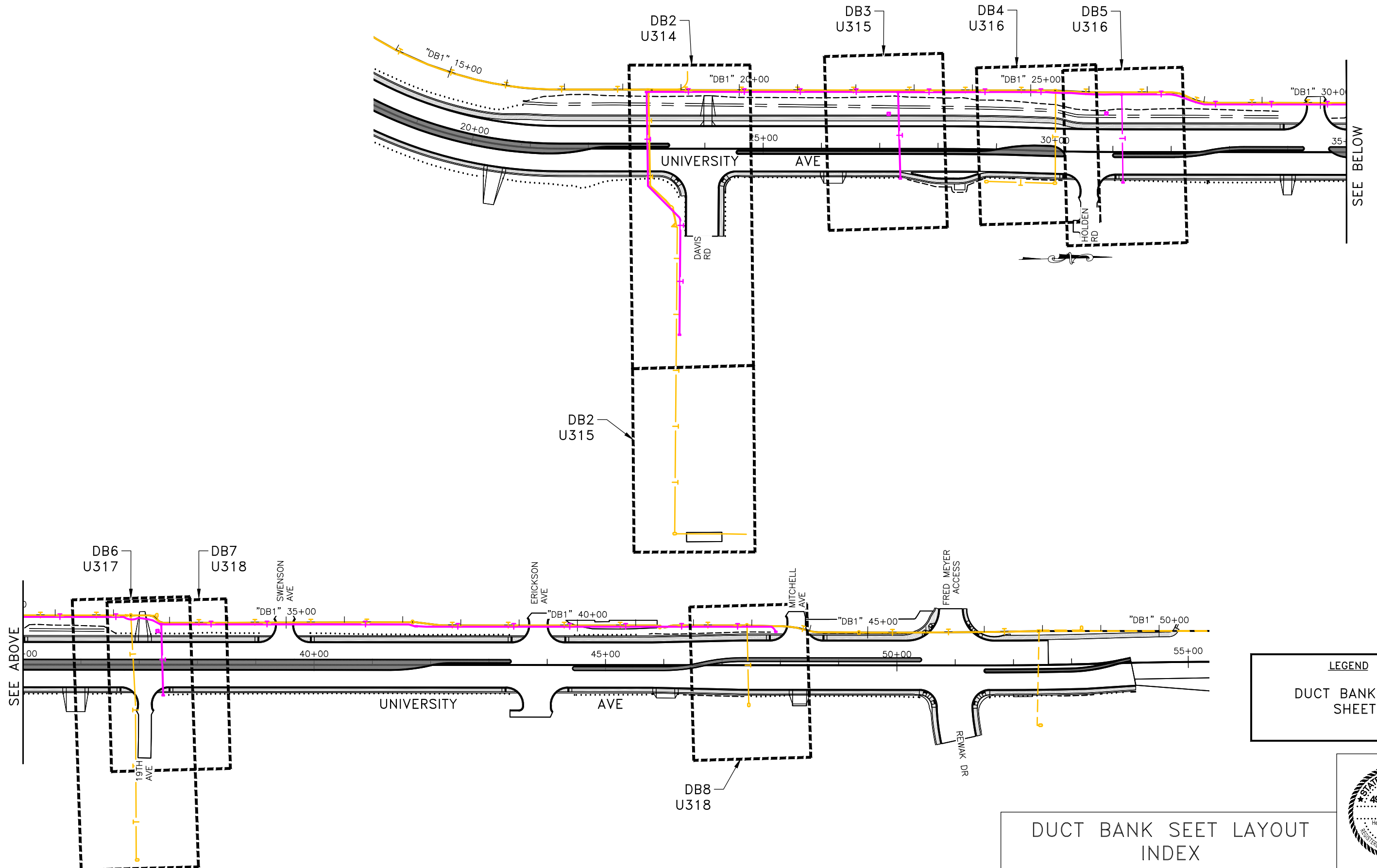
SHEET # ↘

DUCT BANK SEET LAYOUT INDEX



PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc.local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B\C\0005\ss1147.04fb_2b-U300 Mon, Feb/22/21 09:47am

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U301	U318

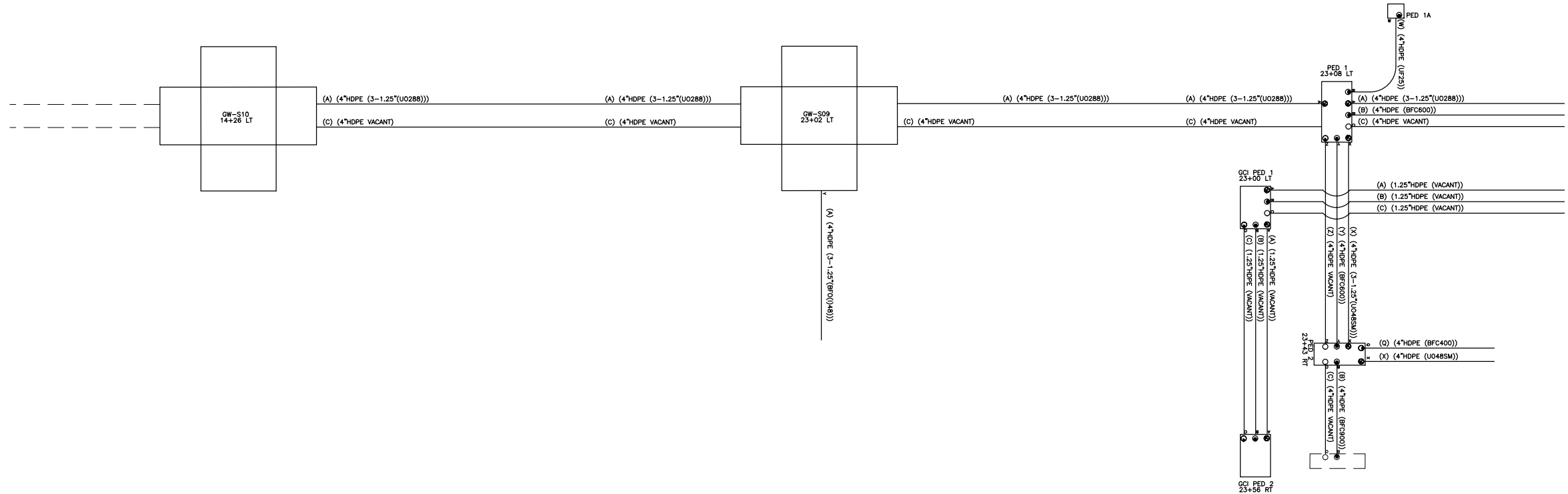


PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
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DUCT BANK SEET LAYOUT INDEX

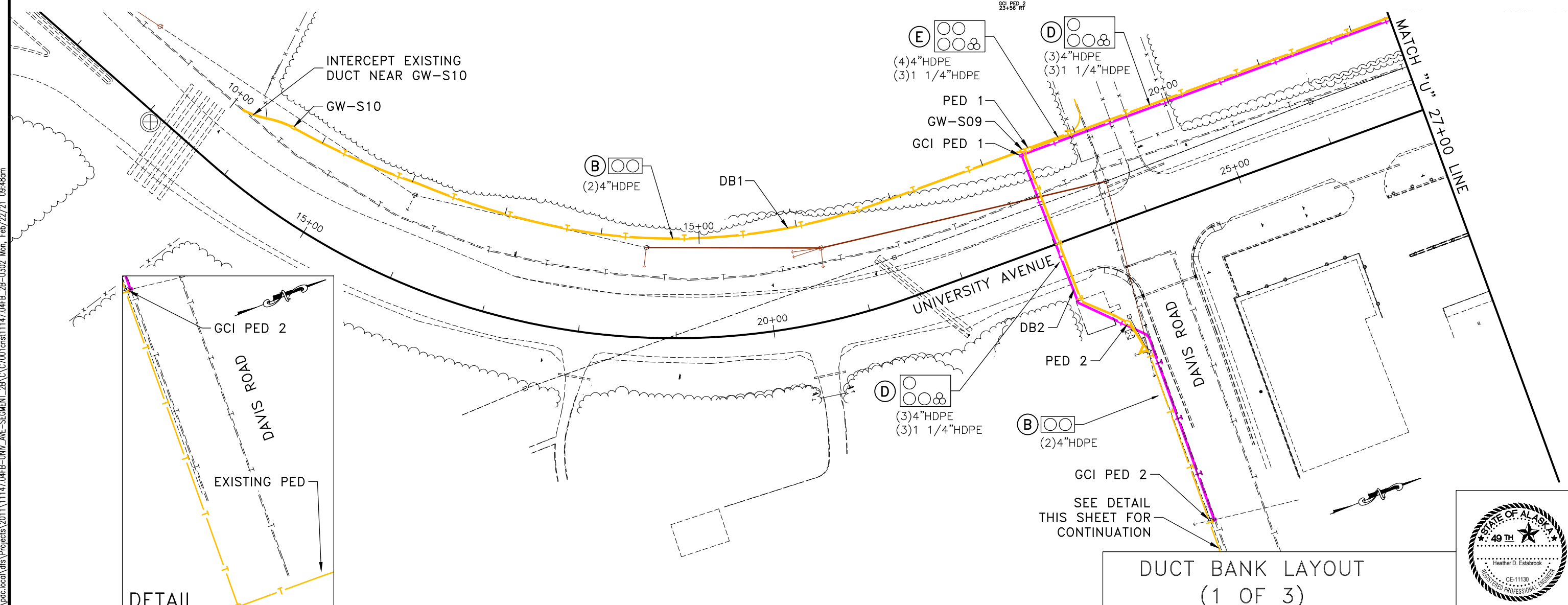


NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U302	U318



ONE LINE DIAGRAM NOTES:
 ① CABLE INSTALLATION NOT IN CONTRACT (NIC)

ONE LINE DIAGRAM LEGEND:
 — PROPOSED CONDUIT
 - - - EXISTING CONDUIT INSTALLED IN 2019

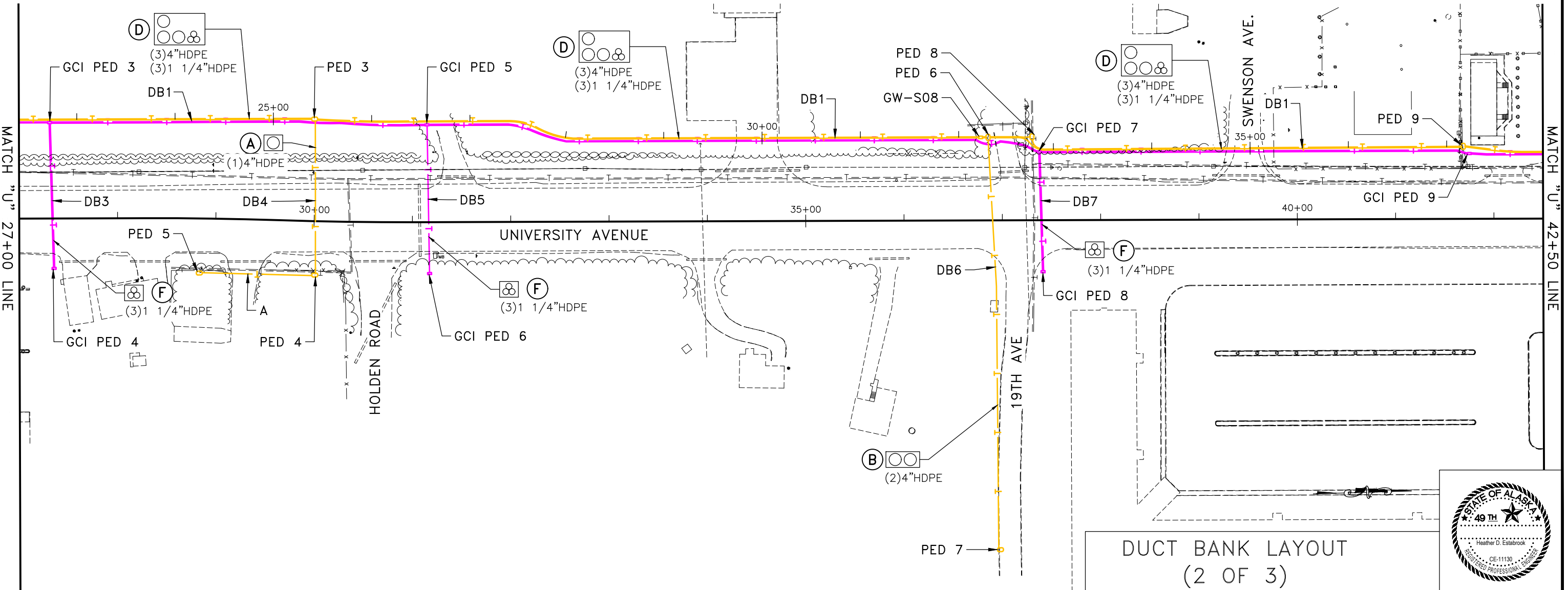
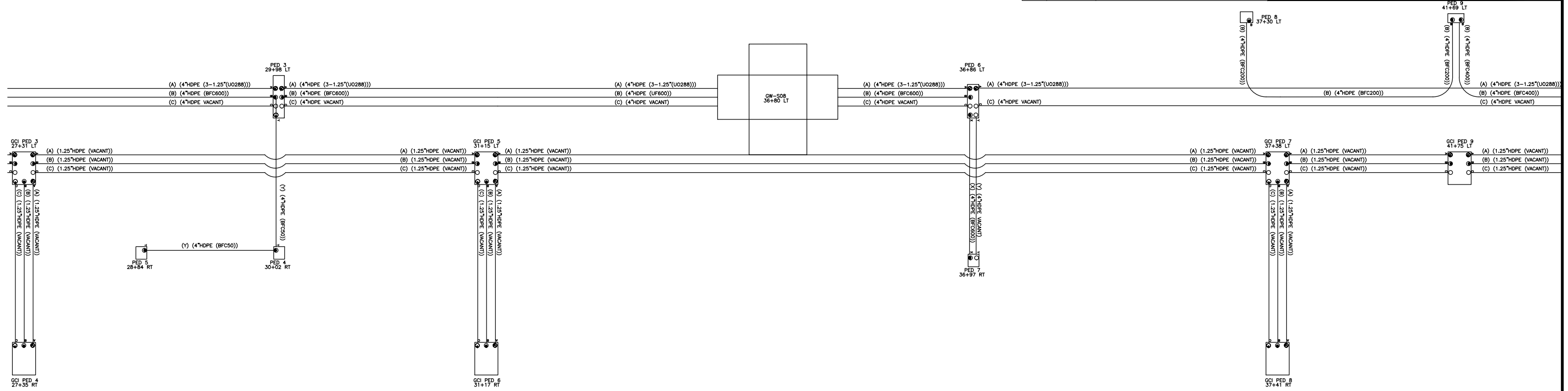


DUCT BANK LAYOUT
(1 OF 3)



PLANS DEVELOPED BY: PDC INC. ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECCE605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U303	U318

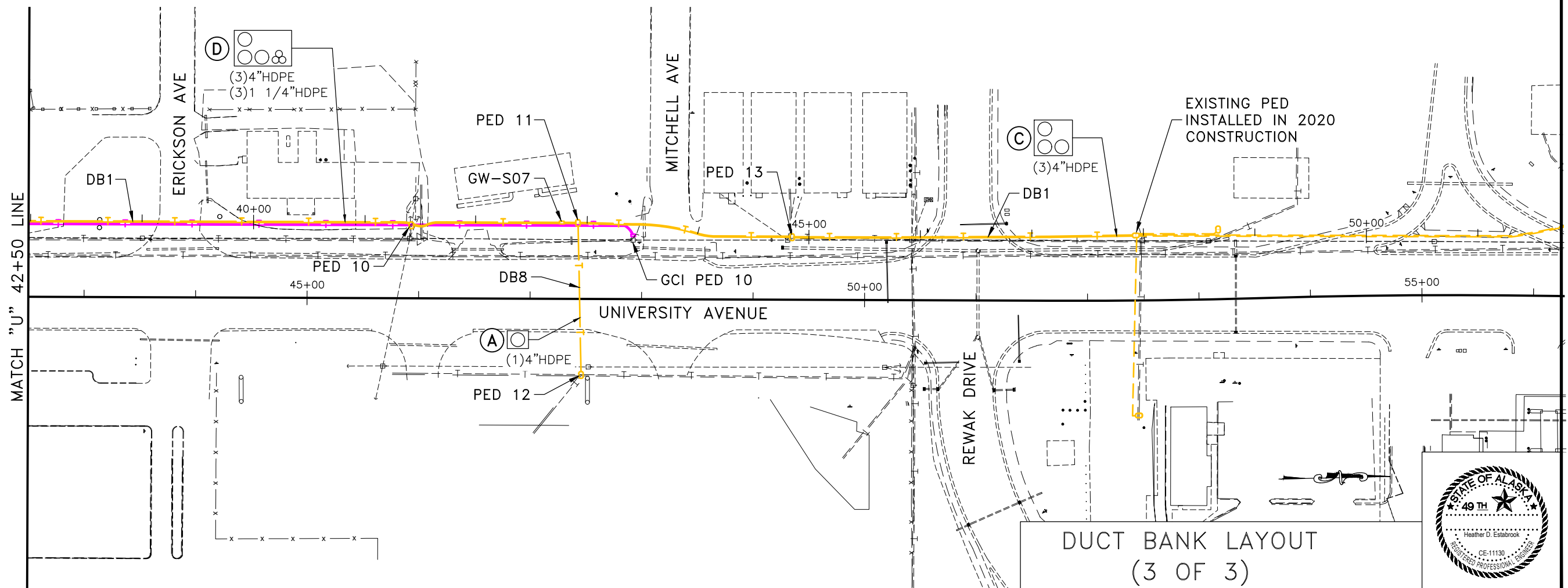
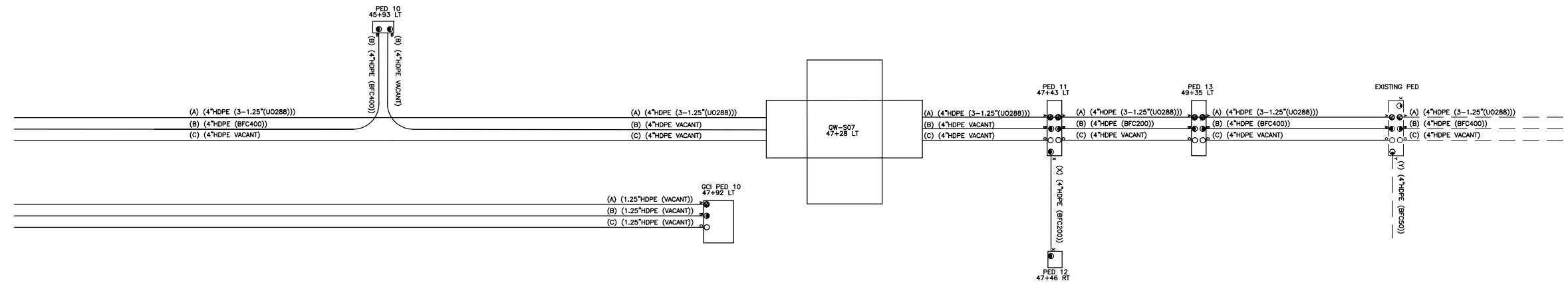


PLANS DEVELOPED BY: PDC INC. ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECCE605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
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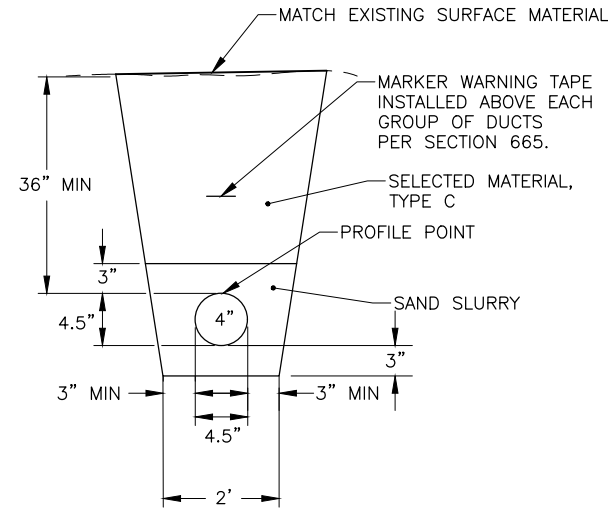
DUCT BANK LAYOUT
 (2 OF 3)

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U304	U318

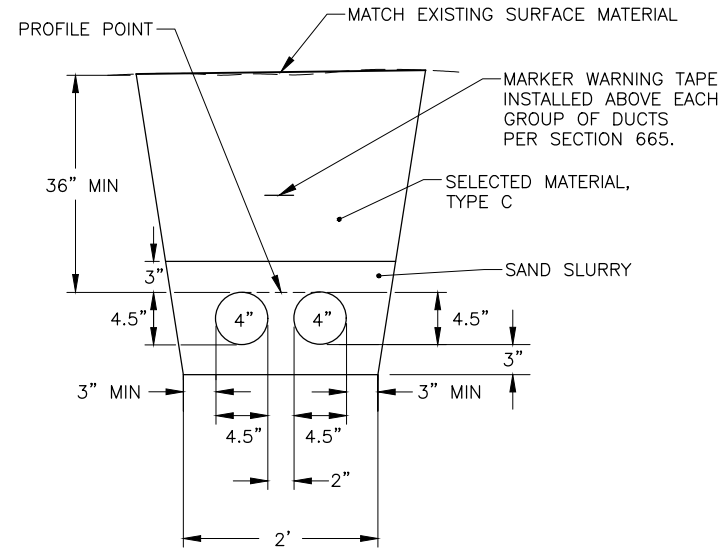


PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AEC6605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
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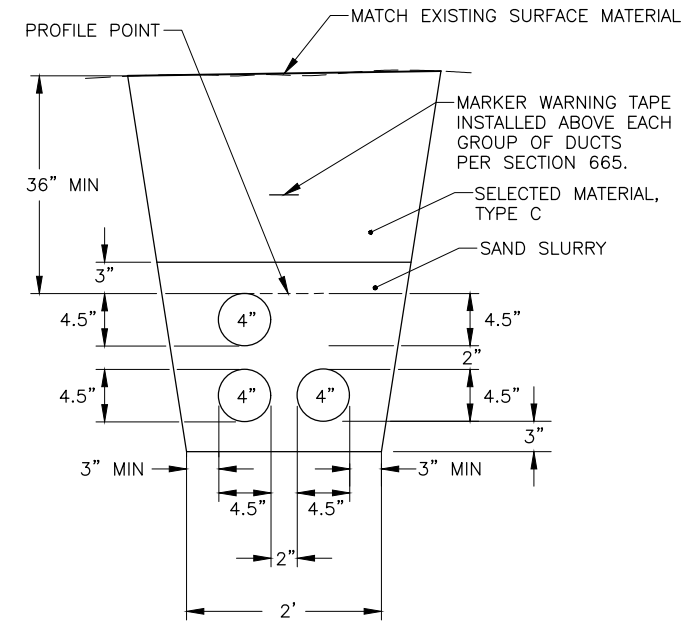
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U305	U318



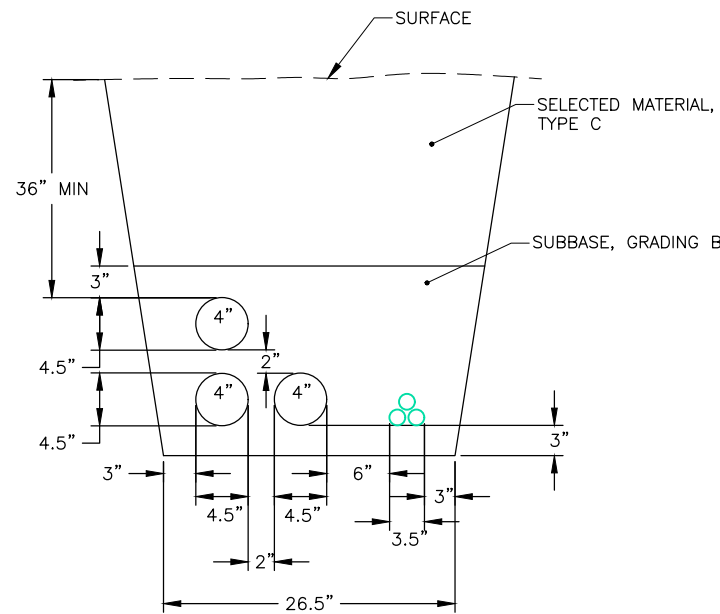
A (1) 4" HDPE CONDUITS
 STA "DB4" 10+13 TO "DB4" 12+90
 STA "DB8" 10+12 TO "DB8" 11+53



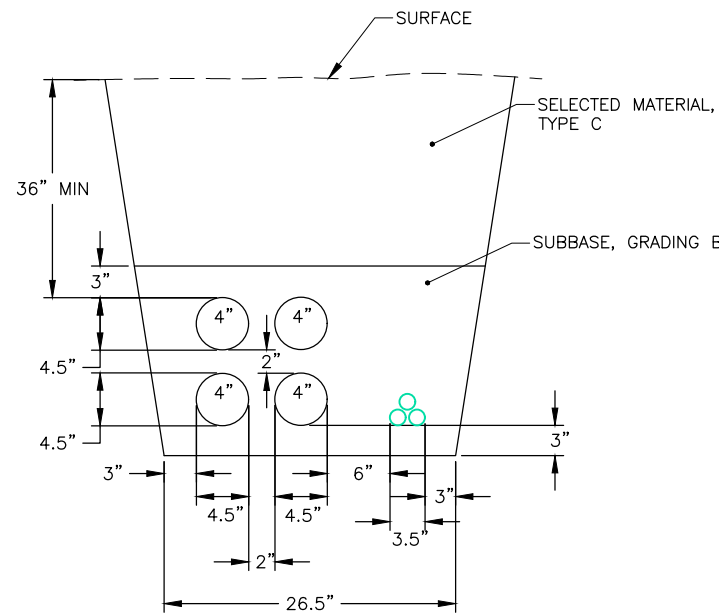
B (2) 4" HDPE CONDUITS
 STA "DB1" 10+00 TO "DB1" 18+45
 STA "DB2" 12+00 TO "DB2" 18+75
 STA "DB6" 10+12 TO "DB6" 14+29



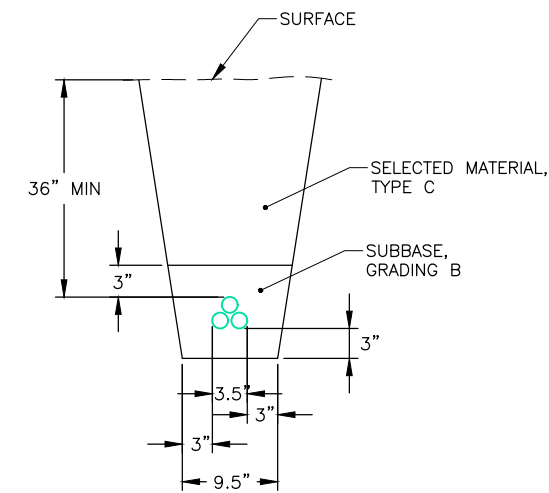
C (3) 4" HDPE CONDUITS
 STA "DB1" 43+50 TO "DB1" 48+00



D (3) 4" HDPE CONDUITS, (3) 1 1/4" HDPE CONDUIT
 STA "DB1" 19+10 TO STA "DB1" 43+50
 STA "DB2" 10+37 TO STA "DB2" 12+50



E (4) 4" HDPE CONDUITS, (3) 1 1/4" HDPE CONDUIT
 STA "DB1" 18+45 TO STA "DB1" 19+10



F (3) 1 1/4" HDPE CONDUITS
 STA "DB2" 12+50 TO STA "DB2" 14+79
 STA "DB3" 10+13 TO STA "DB3" 11+62
 STA "DB5" 10+12 TO STA "DB5" 11+64
 STA "DB7" 10+12 TO STA "DB7" 11+40

NOTES:

1. DUCT BANK SHALL BE INSTALLED WITHIN THE RIGHT-OF-WAY.
2. DUCT PLACEMENT CAN SHIFT WITHIN THE TRENCH SECTION, MAINTAIN MINIMUM SEPARATION BETWEEN DUCT EDGE AND TRENCH EDGE.
3. SECTIONS A, B, AND F ARE SHOWN AS 5" DB IN PROFILES. SECTIONS C, D, AND E ARE SHOWN AS 11" DB IN PROFILES

PLANS DEVELOPED BY: PDC INC. ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AEC0605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc.local\dfs\Projects\2011\11147.04FB-UNV-AVE-SEGMENT_2B\C\7002\11147.04FB_2B-U305 Mon, Feb/22/21 09:49am

DUCT BANK TRENCH SECTIONS

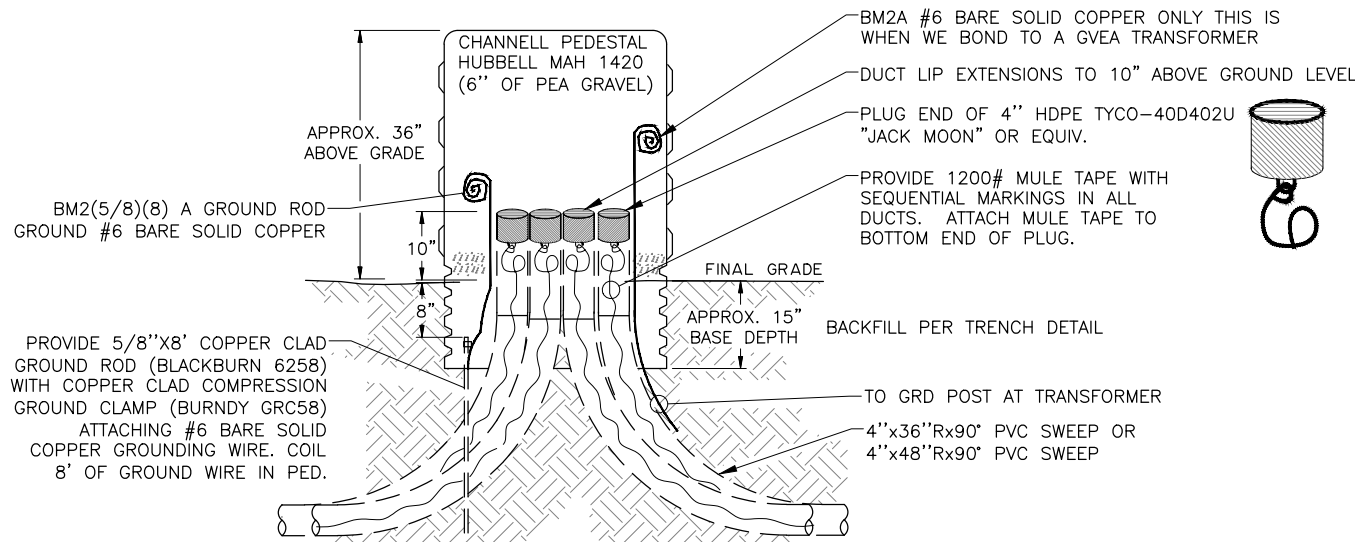
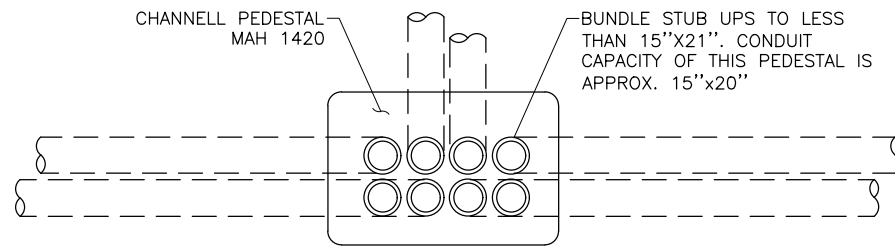


NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U306	U318

ACS CODE S3808

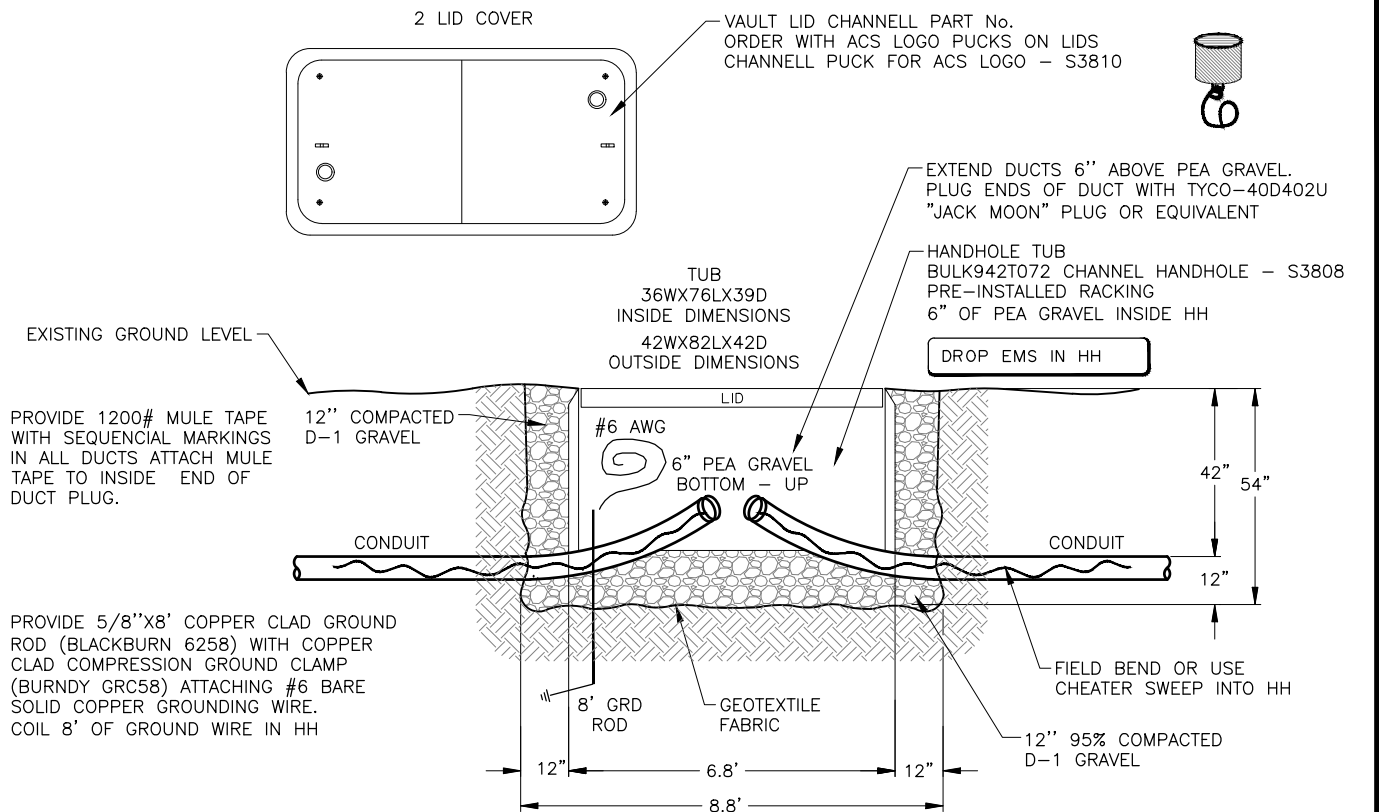
CHANNELL PEDESTAL NOTES

- COLOR OF PEDESTAL SHALL BE STANDARD COLOR GREEN.



PVC SPEC CHANNEL PEDESTAL

CALL LOCATE: 1-800-478-3121
2 WORKING DAYS PRIOR TO CONSTRUCTION
FOR UNDERGROUND SERVICES LOCATING

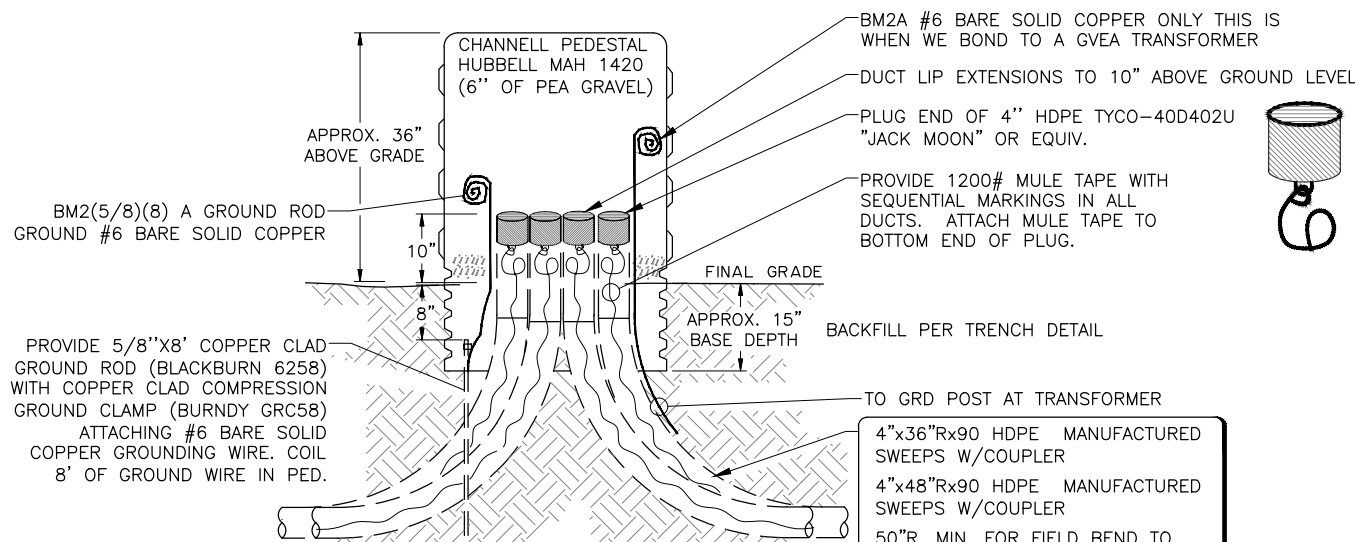
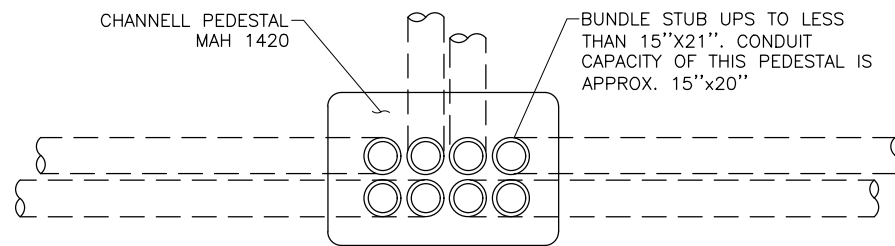


TYPICAL 36X76X42 BULK942T072 CHANNELL HANDHOLE DETAIL INSTALLATION DETAIL

NTS

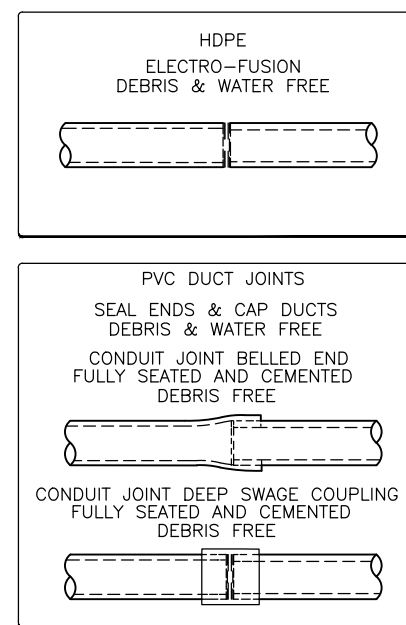
CARLON PLASTIC SPACER DETAIL NOTES

- INSTALL CARLON PLASTIC DUCT SPACERS AT 4 FOOT INTERVALS MINIMUM
- INSTALL CONTRACTOR PROVIDED POLY BANDING AT EVERY THIRD SPACER MINIMUM
- STAGGER JOINTS IN HDPE SO THAT NO TWO JOINTS ARE CLOSER THAN 2 FEET

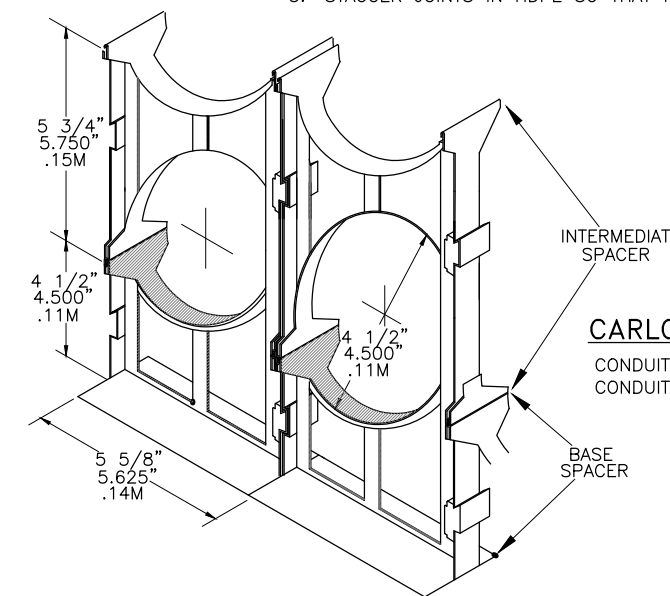


HDPE SPEC CHANNEL PEDESTAL

CALL LOCATE: 1-800-478-3121
2 WORKING DAYS PRIOR TO CONSTRUCTION
FOR UNDERGROUND SERVICES LOCATING



DUCT JOINT DETAILS



CONDUIT SPACING DETAIL

CARLON PLASTIC DUCT SPACERS:

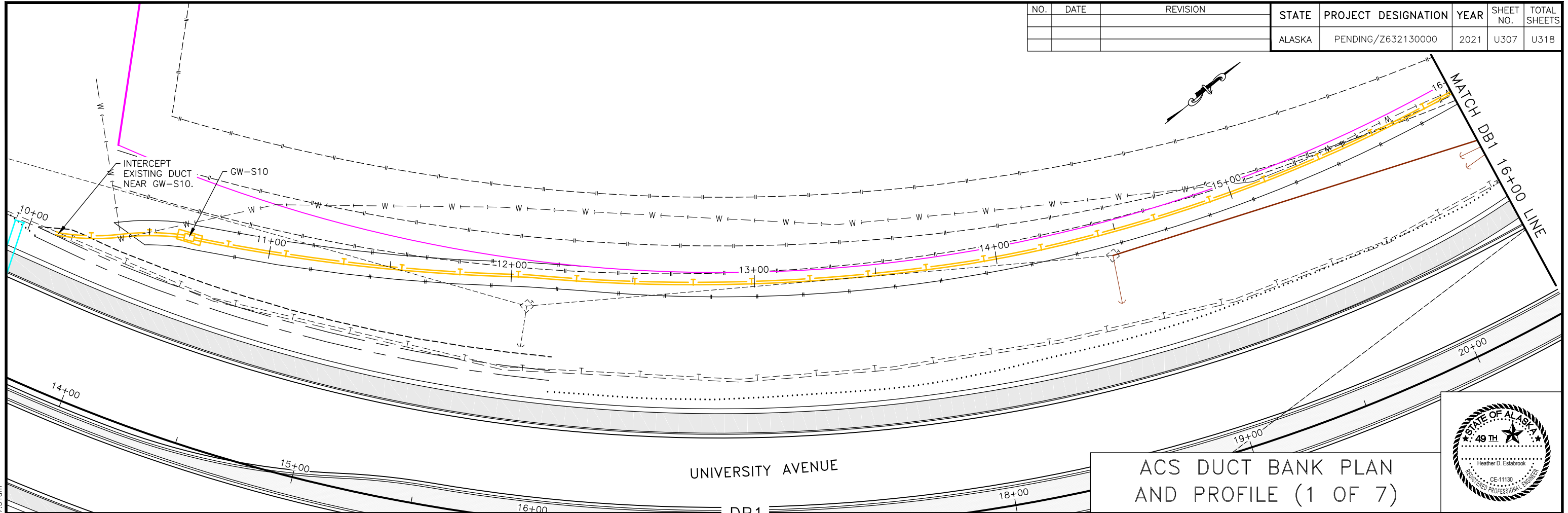
CONDUIT SPACER BASE 4" CARLON #S288NLN
CONDUIT SPACER INTERMEDIATE 4" CARLON #S289NLN

DETAILS



PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AEC6605. 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503. (907)743-3200

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U307	U318

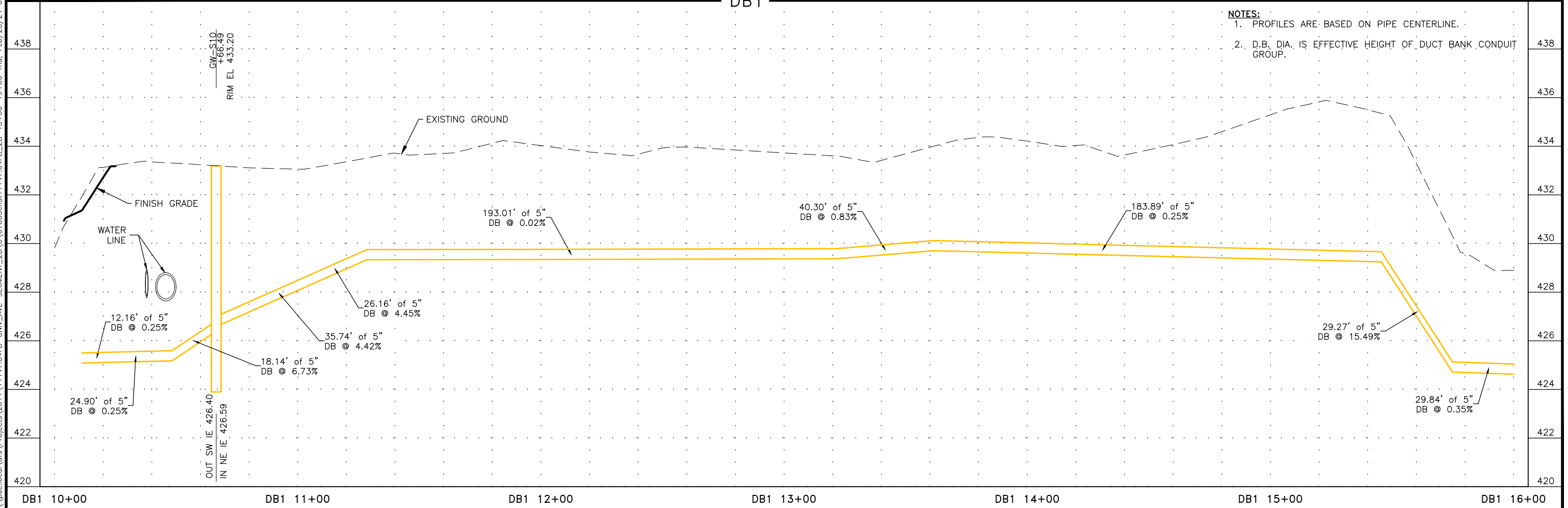


UNIVERSITY AVENUE

ACS DUCT BANK PLAN AND PROFILE (1 OF 7)

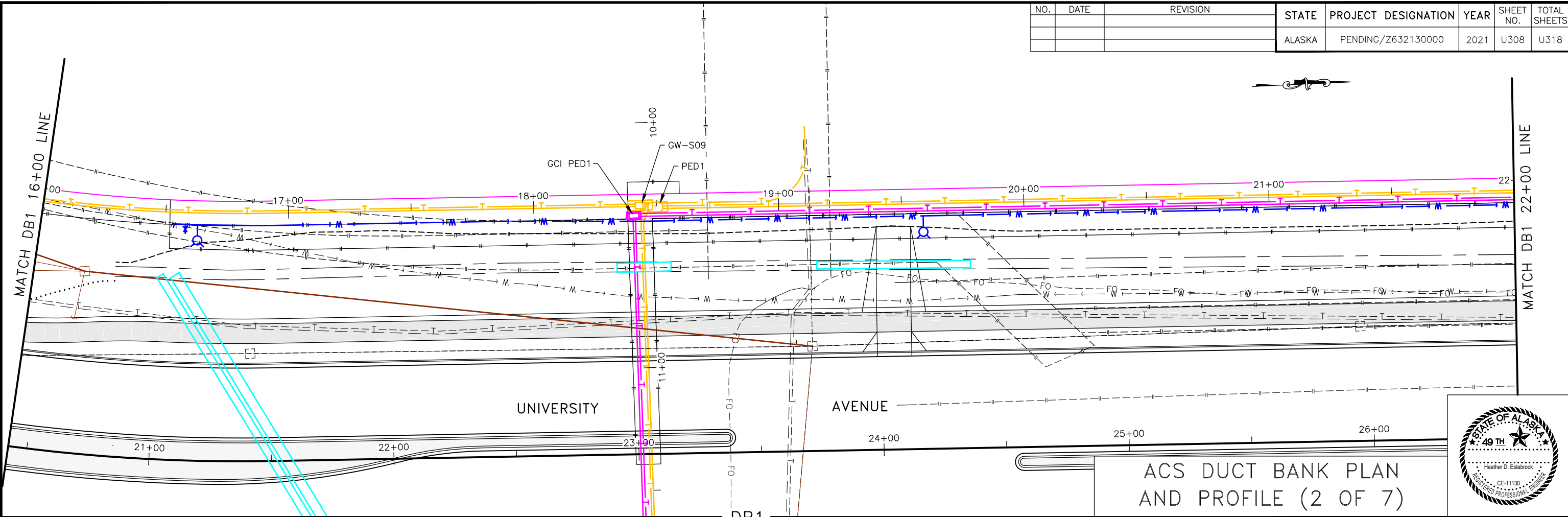


- NOTES:**
- PROFILES ARE BASED ON PIPE CENTERLINE.
 - D.B. DIA. IS EFFECTIVE HEIGHT OF DUCT BANK CONDUIT GROUP.



PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECCE605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200

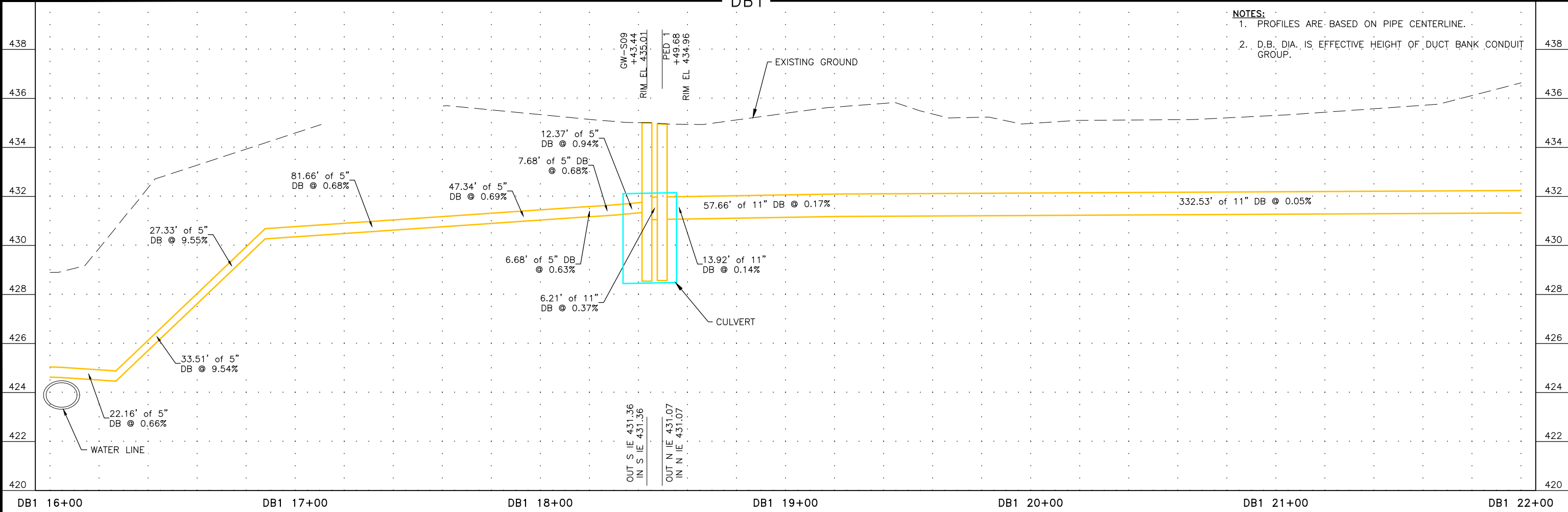
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U308	U318



ACS DUCT BANK PLAN AND PROFILE (2 OF 7)



- NOTES:**
1. PROFILES ARE BASED ON PIPE CENTERLINE.
 2. D.B. DIA. IS EFFECTIVE HEIGHT OF DUCT BANK CONDUIT GROUP.

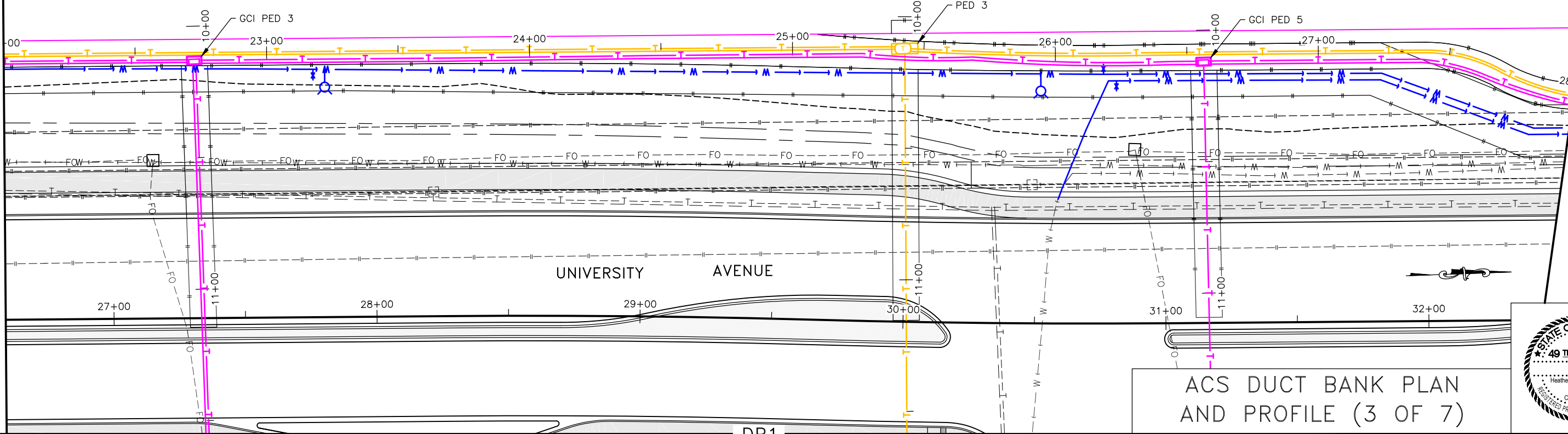


PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: ACC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U309	U318

MATCH DB1 22+00 LINE

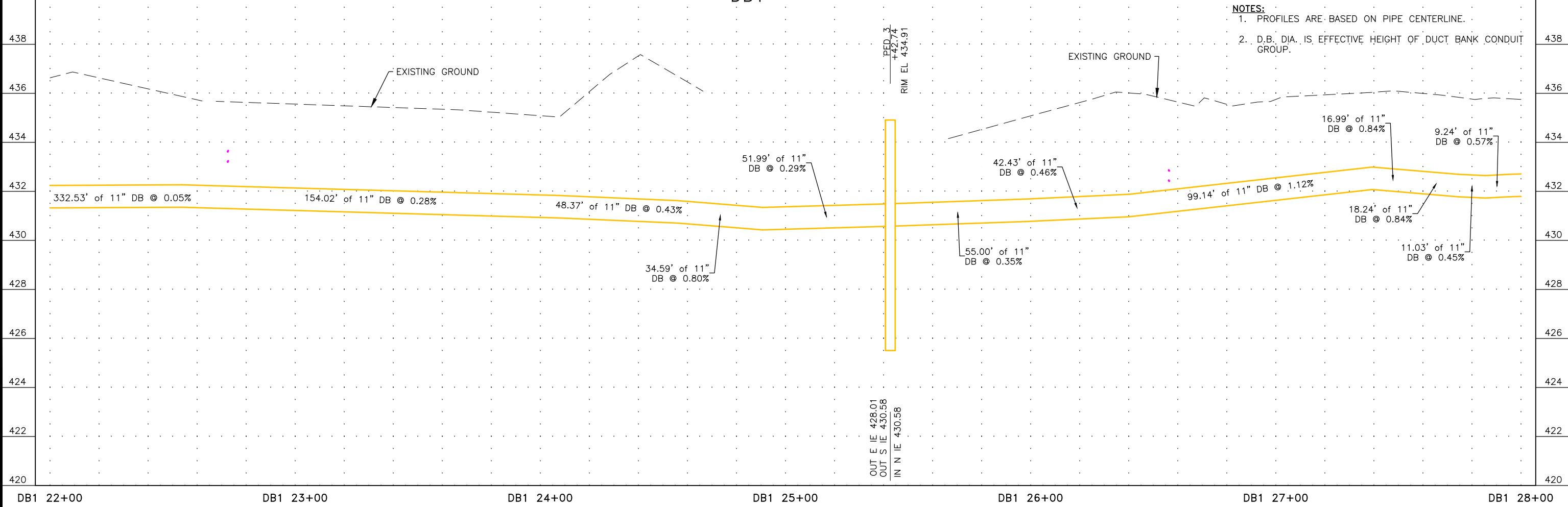
MATCH DB1 28+00 LINE



ACS DUCT BANK PLAN AND PROFILE (3 OF 7)



- NOTES:**
1. PROFILES ARE BASED ON PIPE CENTERLINE.
 2. D.B. DIA. IS EFFECTIVE HEIGHT OF DUCT BANK CONDUIT GROUP.

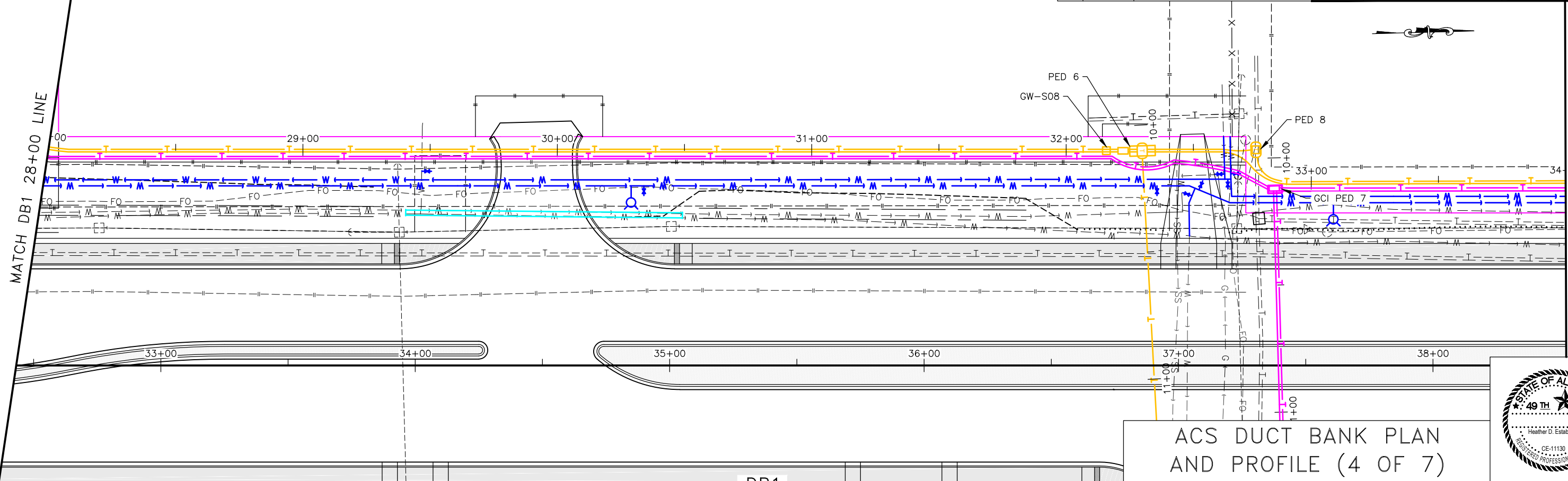


PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: ACC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U310	U318

MATCH DB1 28+00 LINE

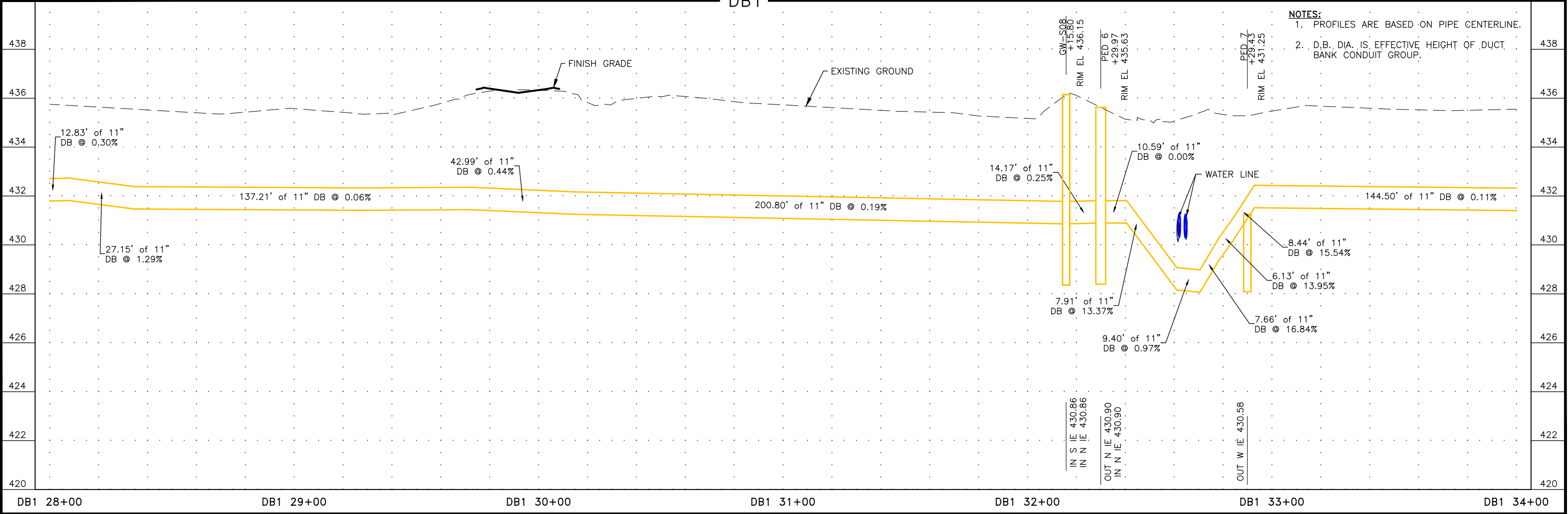
MATCH DB1 34+00 LINE



ACS DUCT BANK PLAN AND PROFILE (4 OF 7)

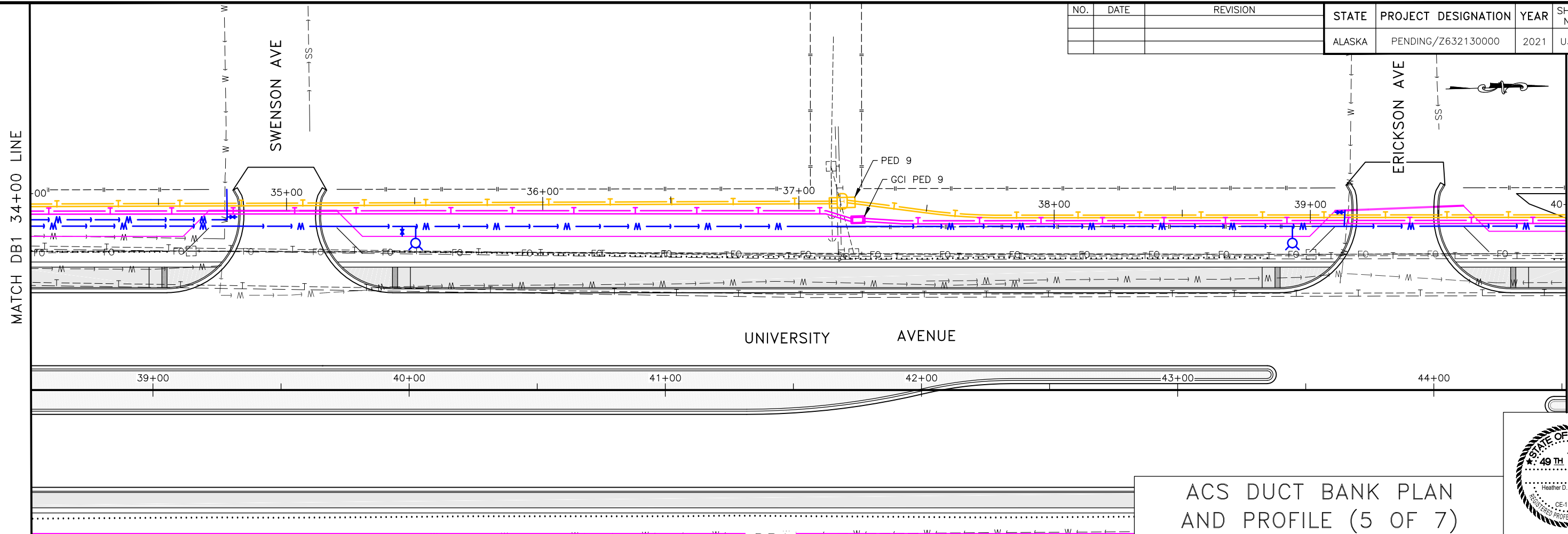


DB1



PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AEC6605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc\local\dfs\Projects\2011\11147.04FB-UNIV_AVE-SEGMENT_2B\C7003\scans\11147.04FB_28-31+00-37+00_Thu, Feb/25/21 07:53am

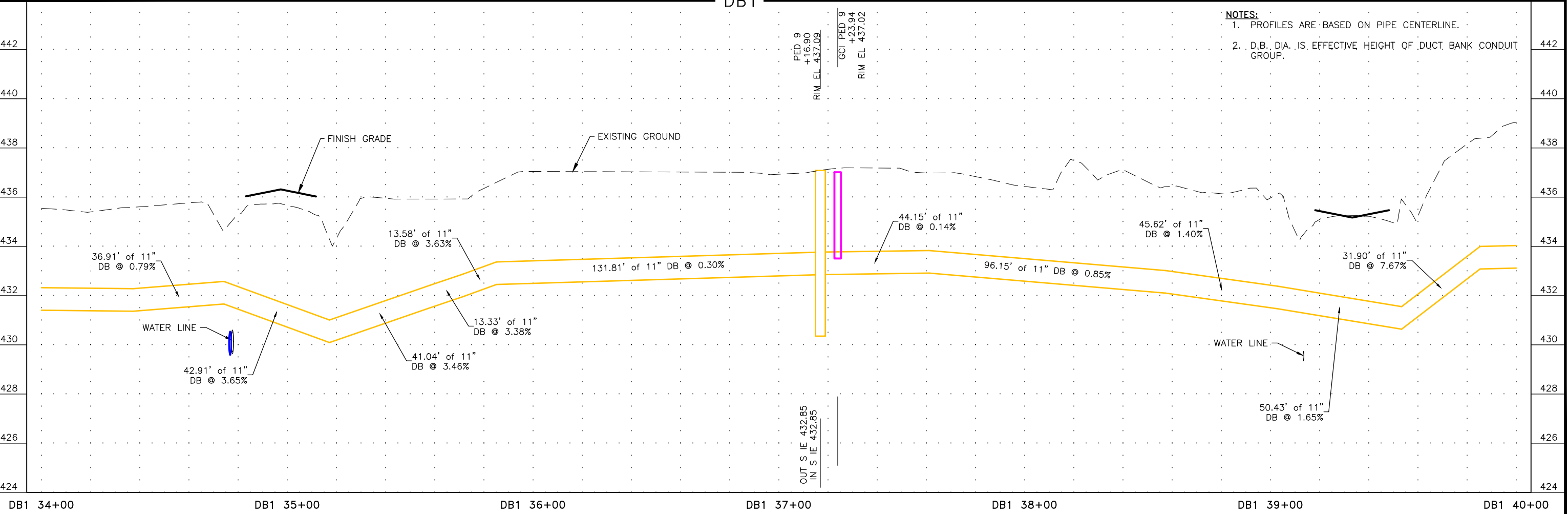
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U311	U318



ACS DUCT BANK PLAN AND PROFILE (5 OF 7)



- NOTES:**
- PROFILES ARE BASED ON PIPE CENTERLINE.
 - D.B., DIA., IS EFFECTIVE HEIGHT OF DUCT BANK CONDUIT GROUP.

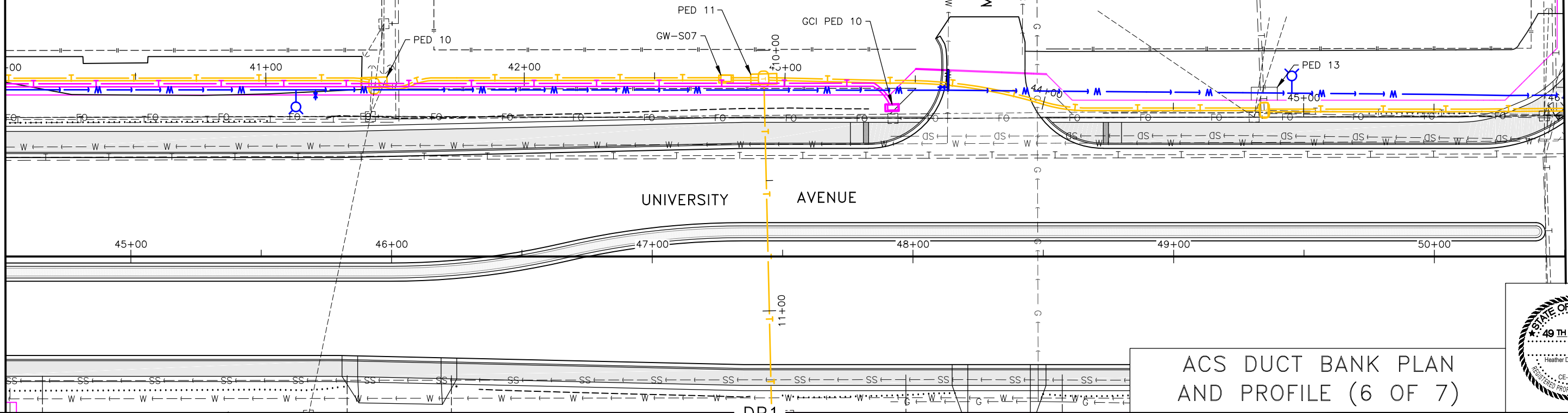


PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AEC6605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U312	U318

MATCH DB1 40+00 LINE

MATCH DB1 46+00 LINE

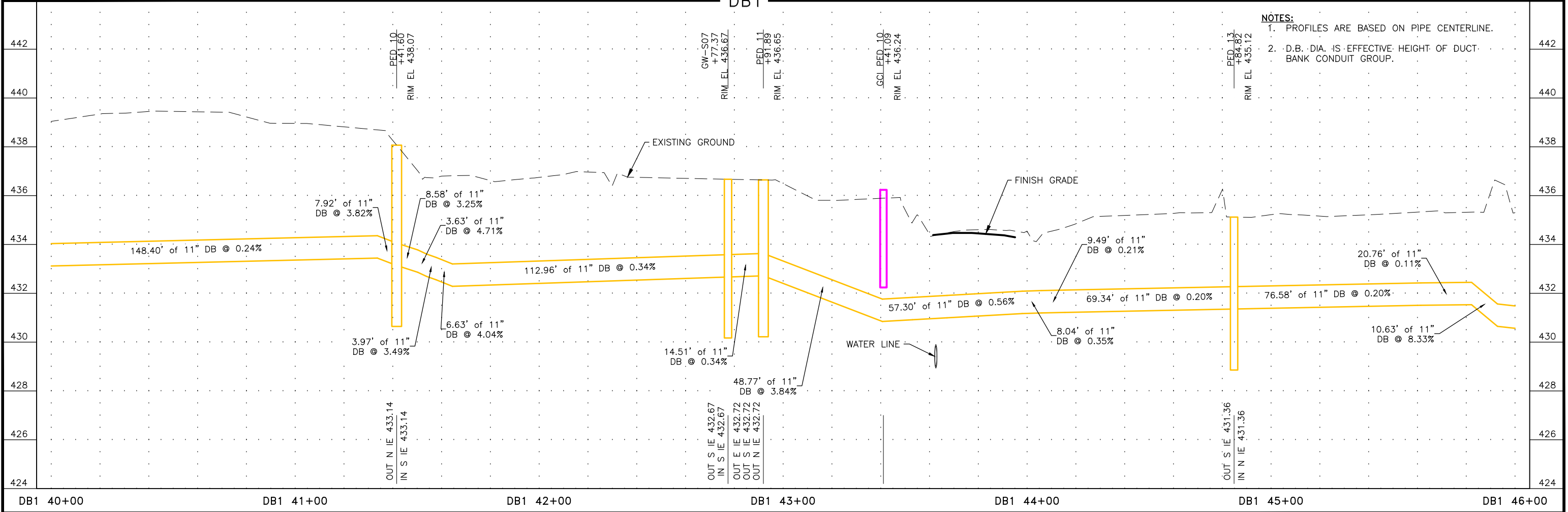


ACS DUCT BANK PLAN AND PROFILE (6 OF 7)



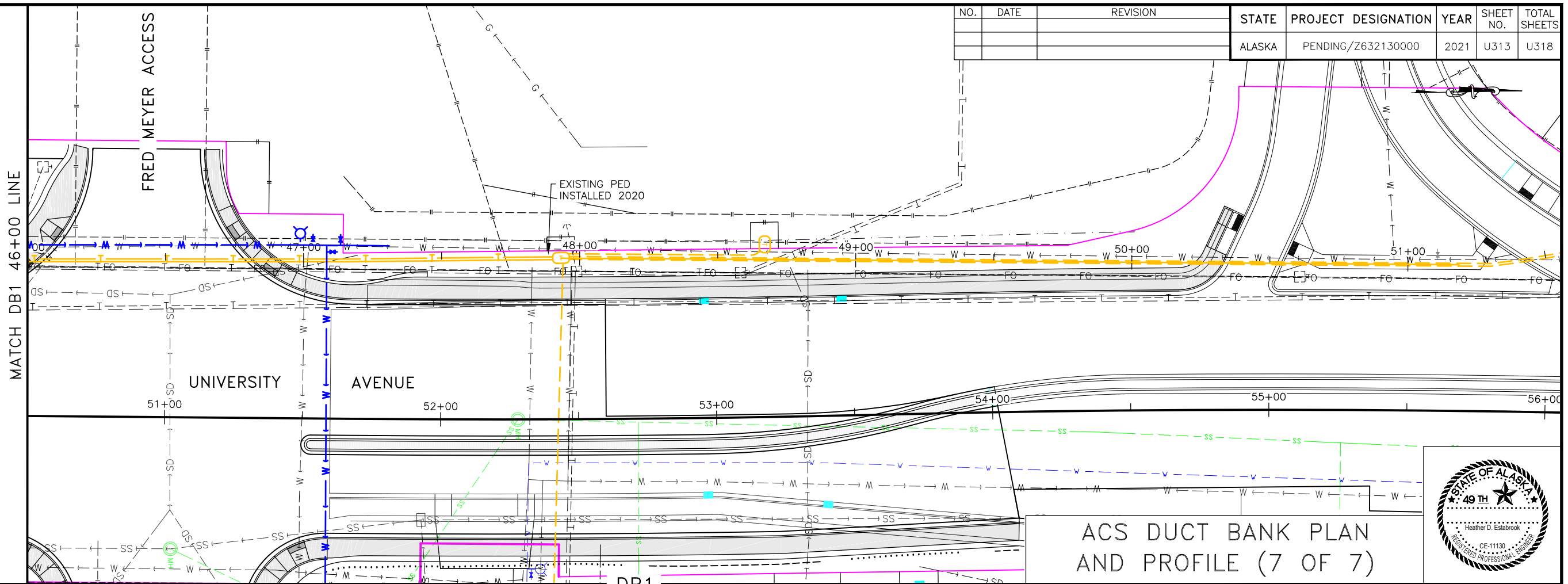
PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AEC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200

- NOTES:**
1. PROFILES ARE BASED ON PIPE CENTERLINE.
 2. D.B. DIA. IS EFFECTIVE HEIGHT OF DUCT BANK CONDUIT GROUP.

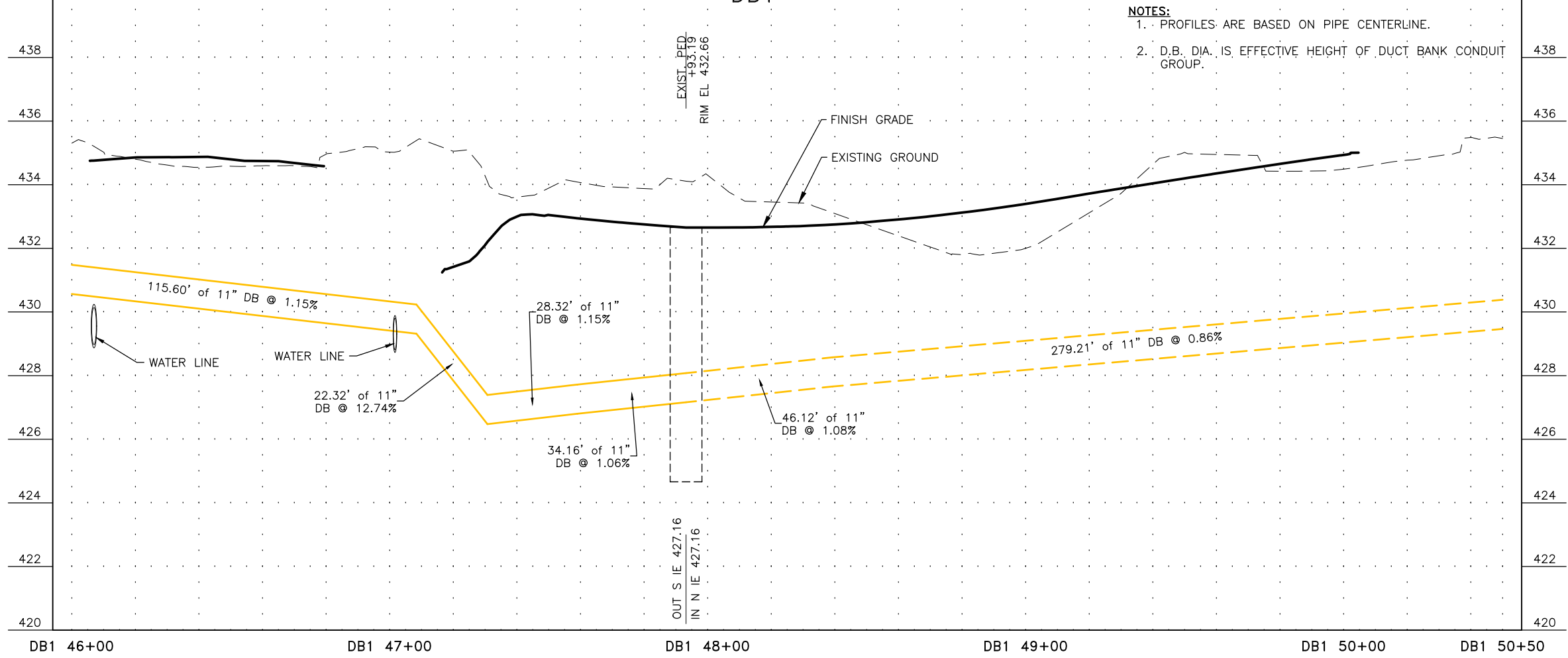


PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc\local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B\C\7003\scans\1147.04FB_28-49+00 - 54+00 Thu, Feb/25/21 07:55am

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U313	U318

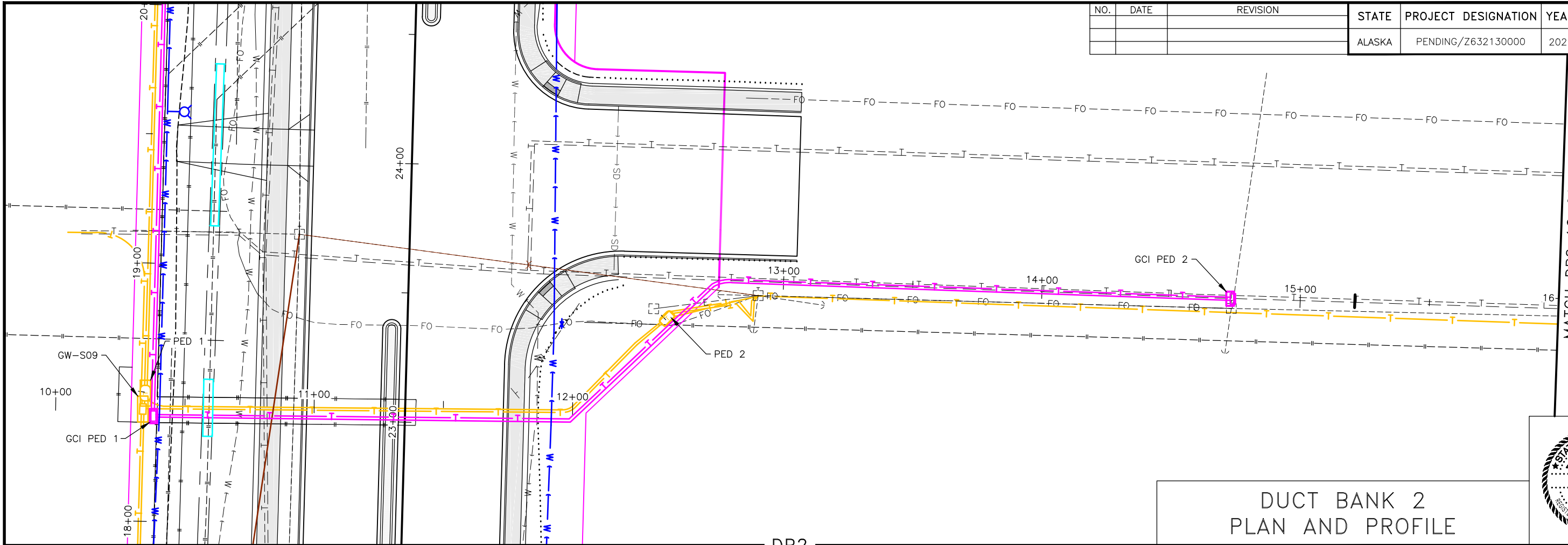


ACS DUCT BANK PLAN AND PROFILE (7 OF 7)



DB1 46+00 DB1 47+00 DB1 48+00 DB1 49+00 DB1 50+00 DB1 50+50

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U314	U318



MATCH DB2 16+00 LINE

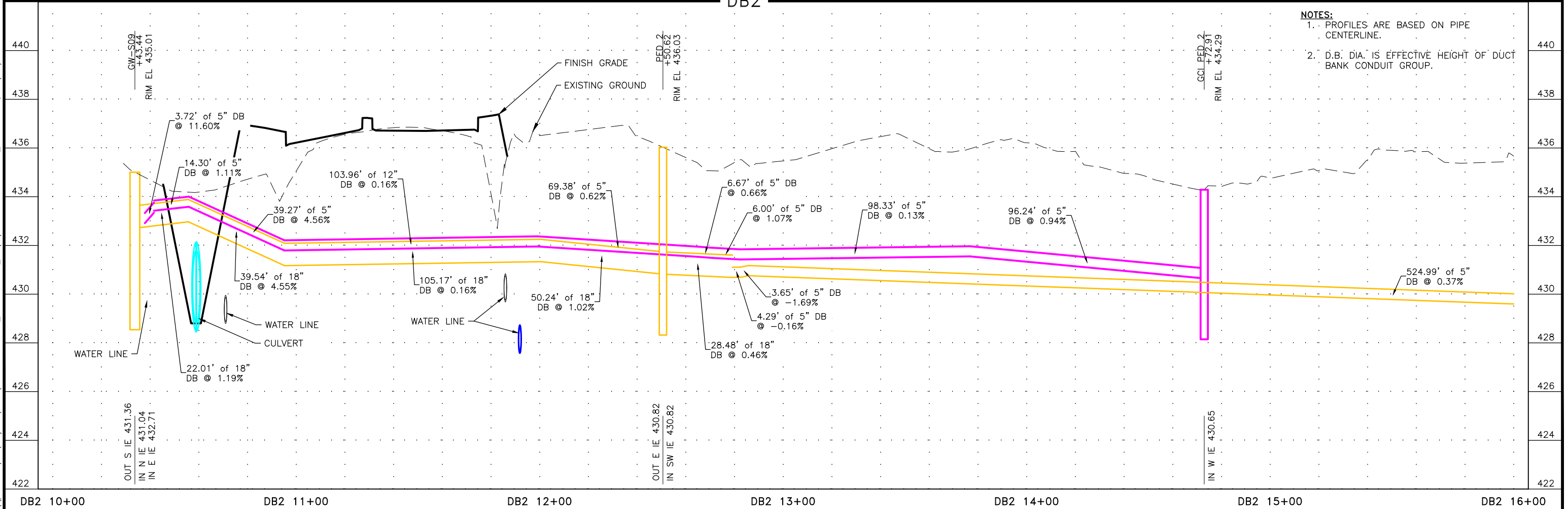


DUCT BANK 2 PLAN AND PROFILE



PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AEC6605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200

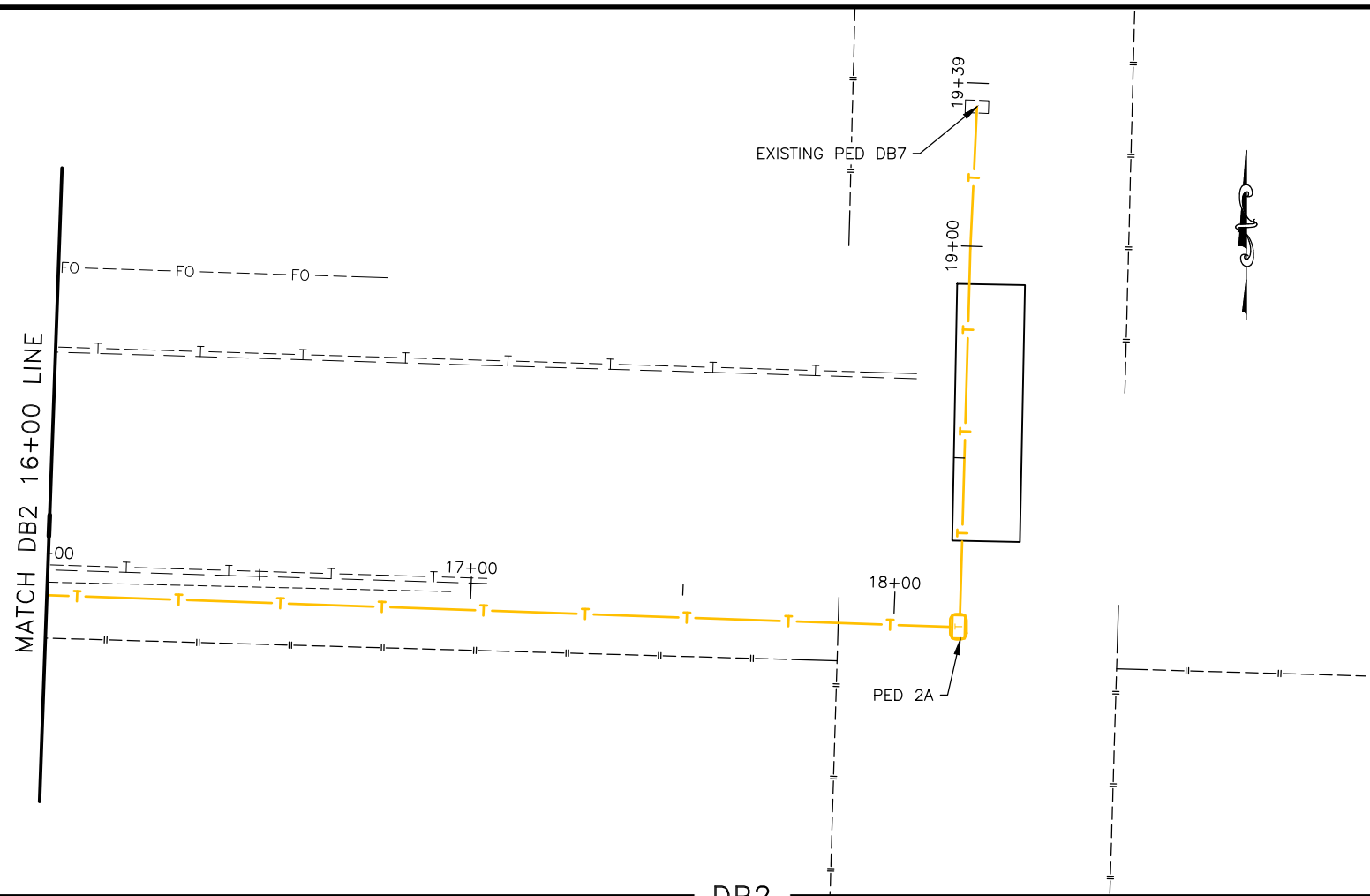
DB2



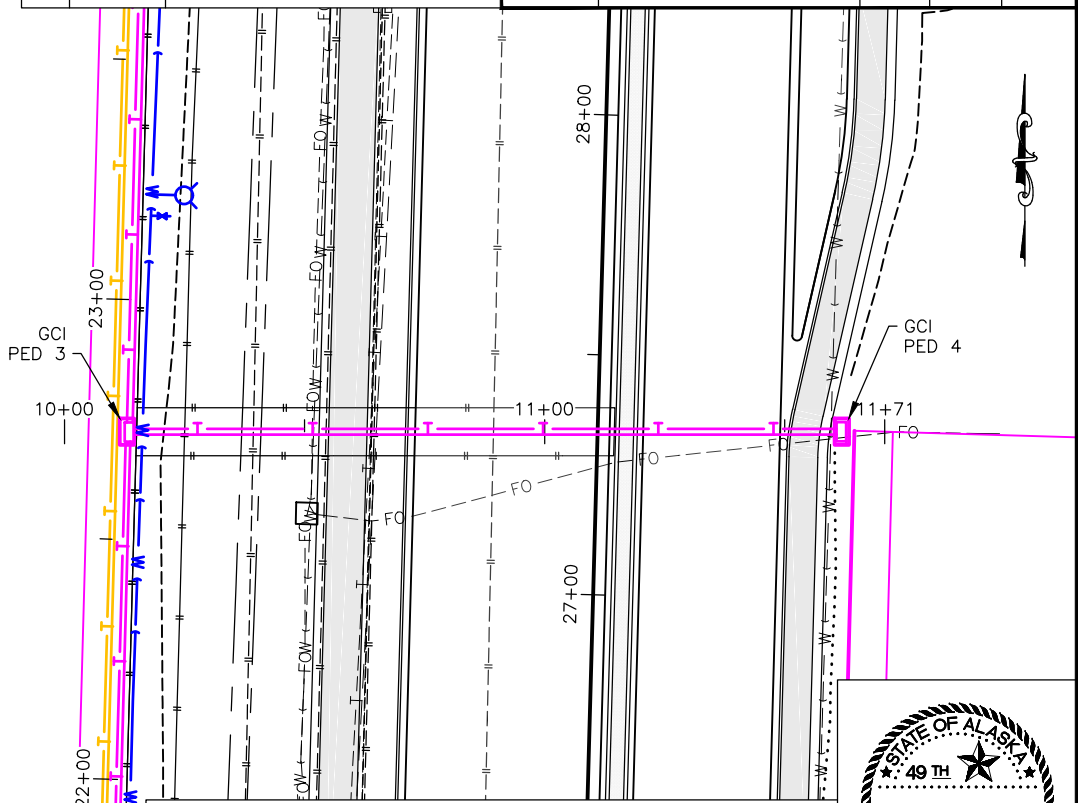
- NOTES:**
- PROFILES ARE BASED ON PIPE CENTERLINE.
 - D.B. DIA. IS EFFECTIVE HEIGHT OF DUCT BANK CONDUIT GROUP.

DB2 10+00 DB2 11+00 DB2 12+00 DB2 13+00 DB2 14+00 DB2 15+00 DB2 16+00

PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC, CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc.local\dfs\Projects\2011\11147.04FB-UNIV_AVE-SEGMENT_2B\C7003crnst11147.04FB-DB2 and 3 Thu, Feb/25/21 07:57am



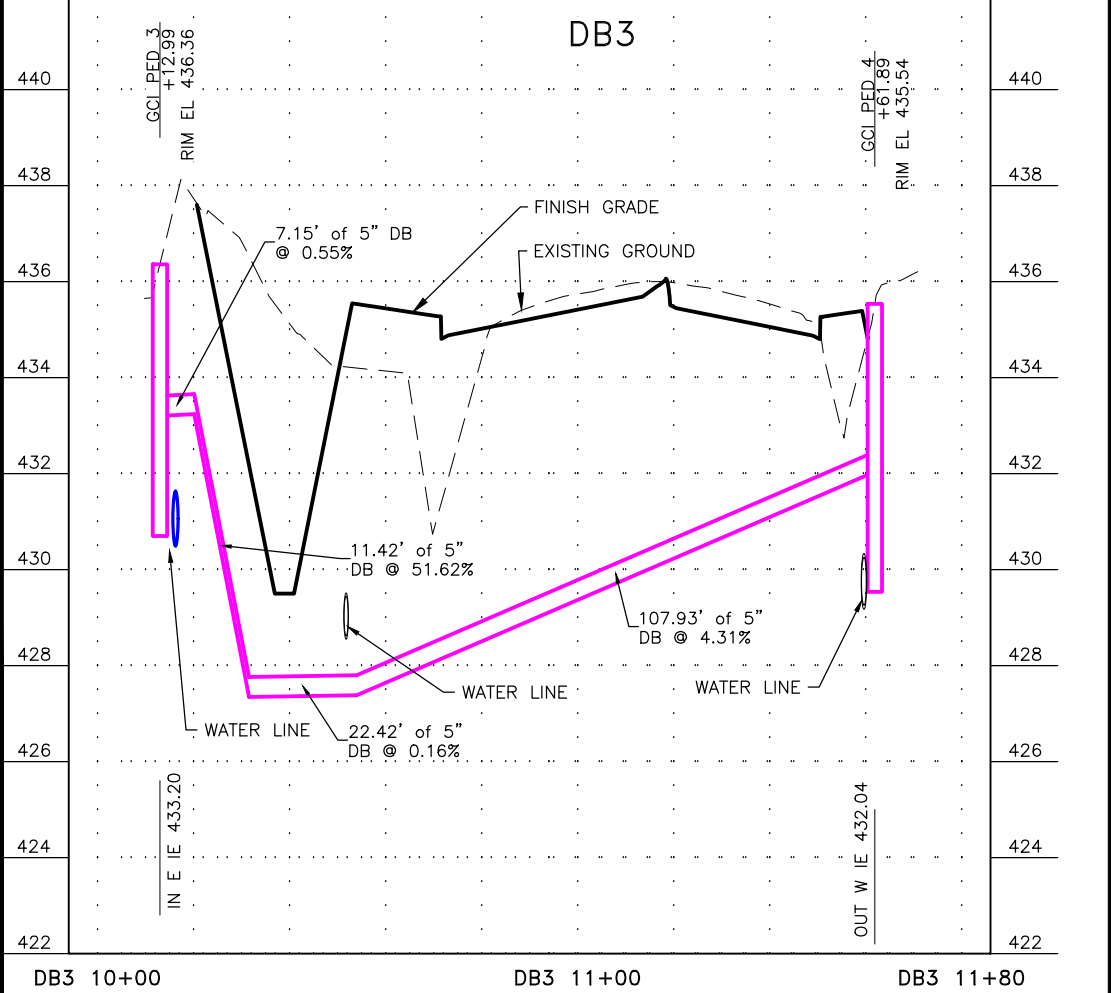
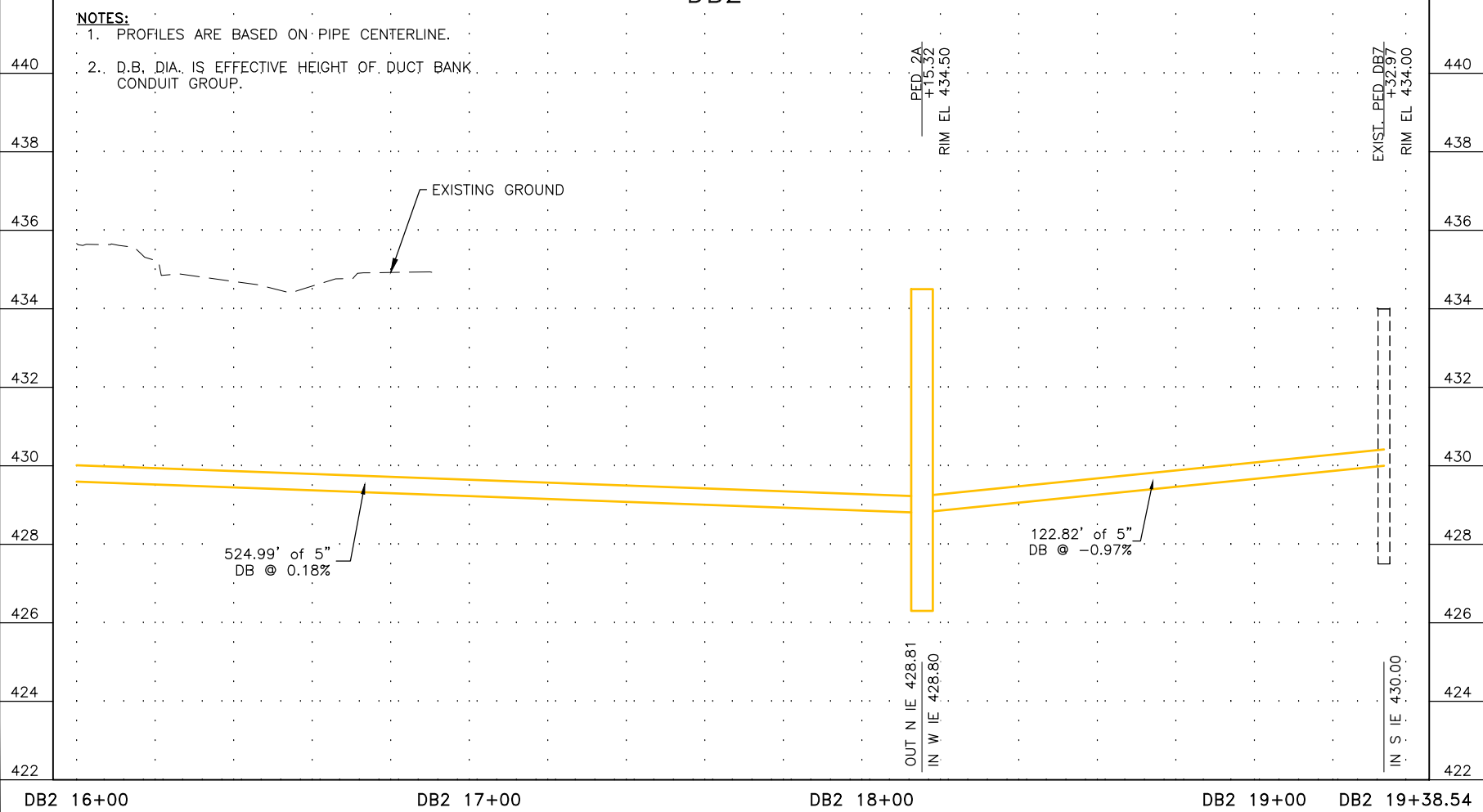
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U315	U318



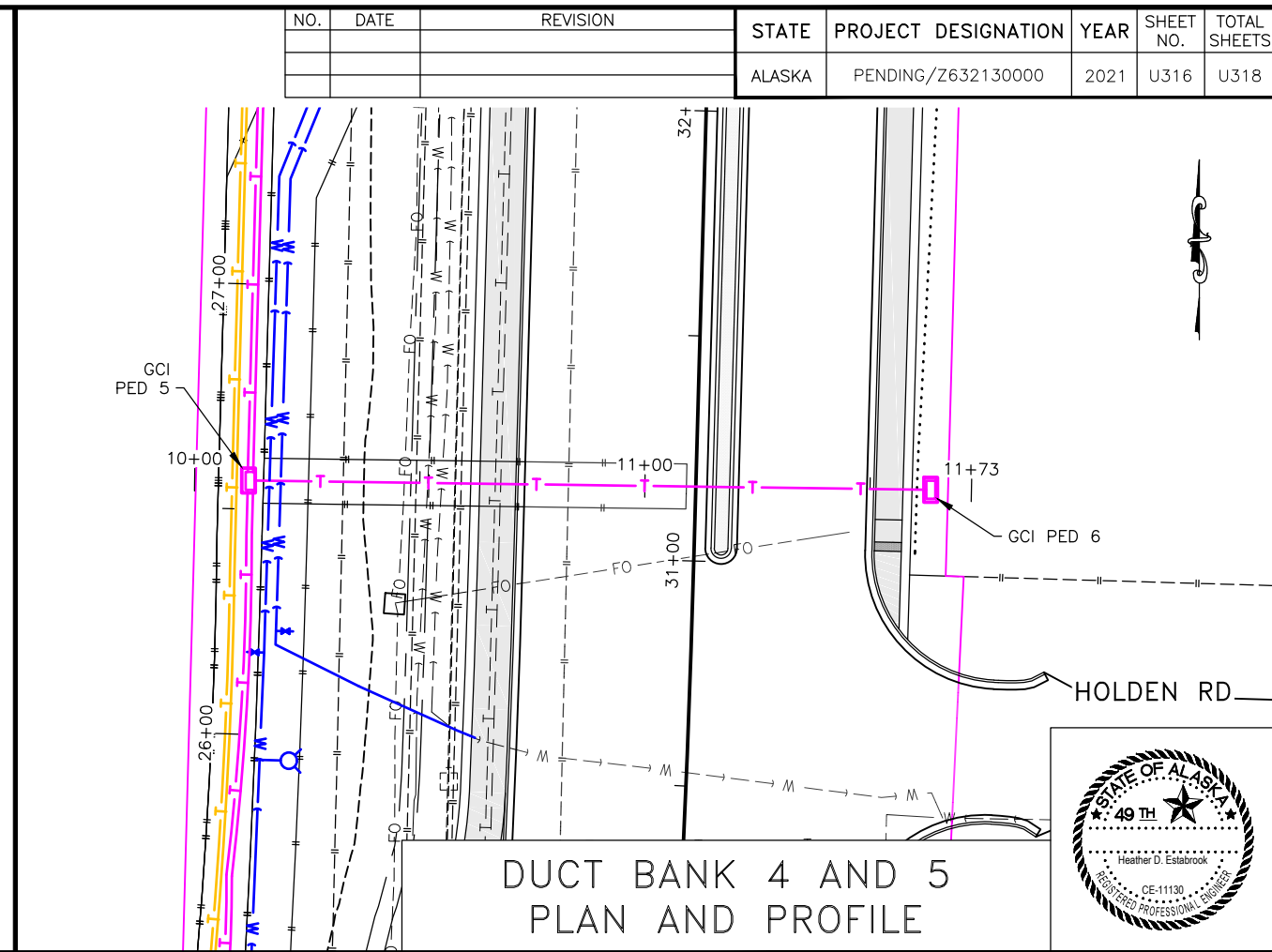
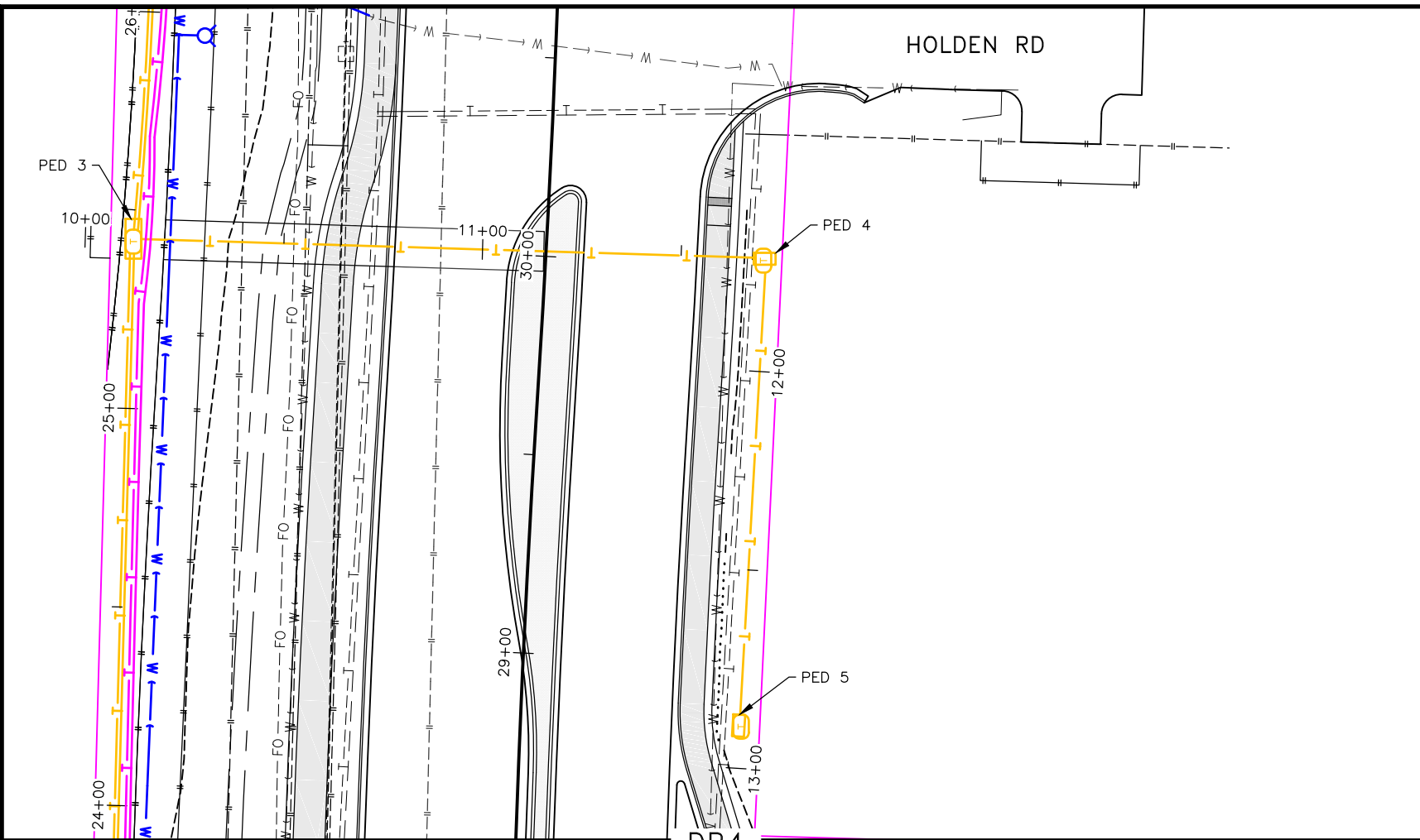
DUCT BANK 2 AND 3
PLAN AND PROFILE



- NOTES:**
- PROFILES ARE BASED ON PIPE CENTERLINE.
 - D.B. DIA. IS EFFECTIVE HEIGHT OF DUCT BANK CONDUIT GROUP.



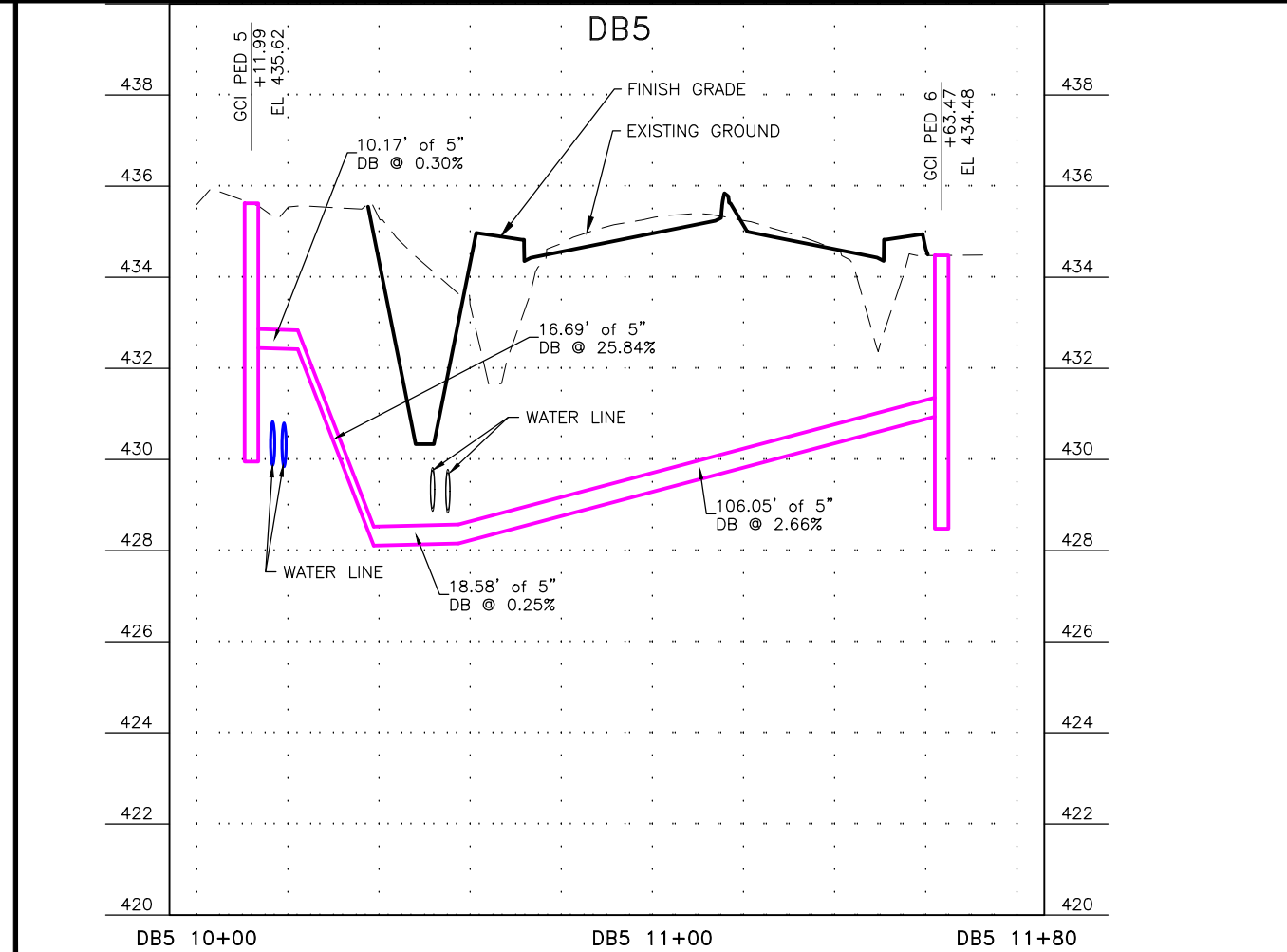
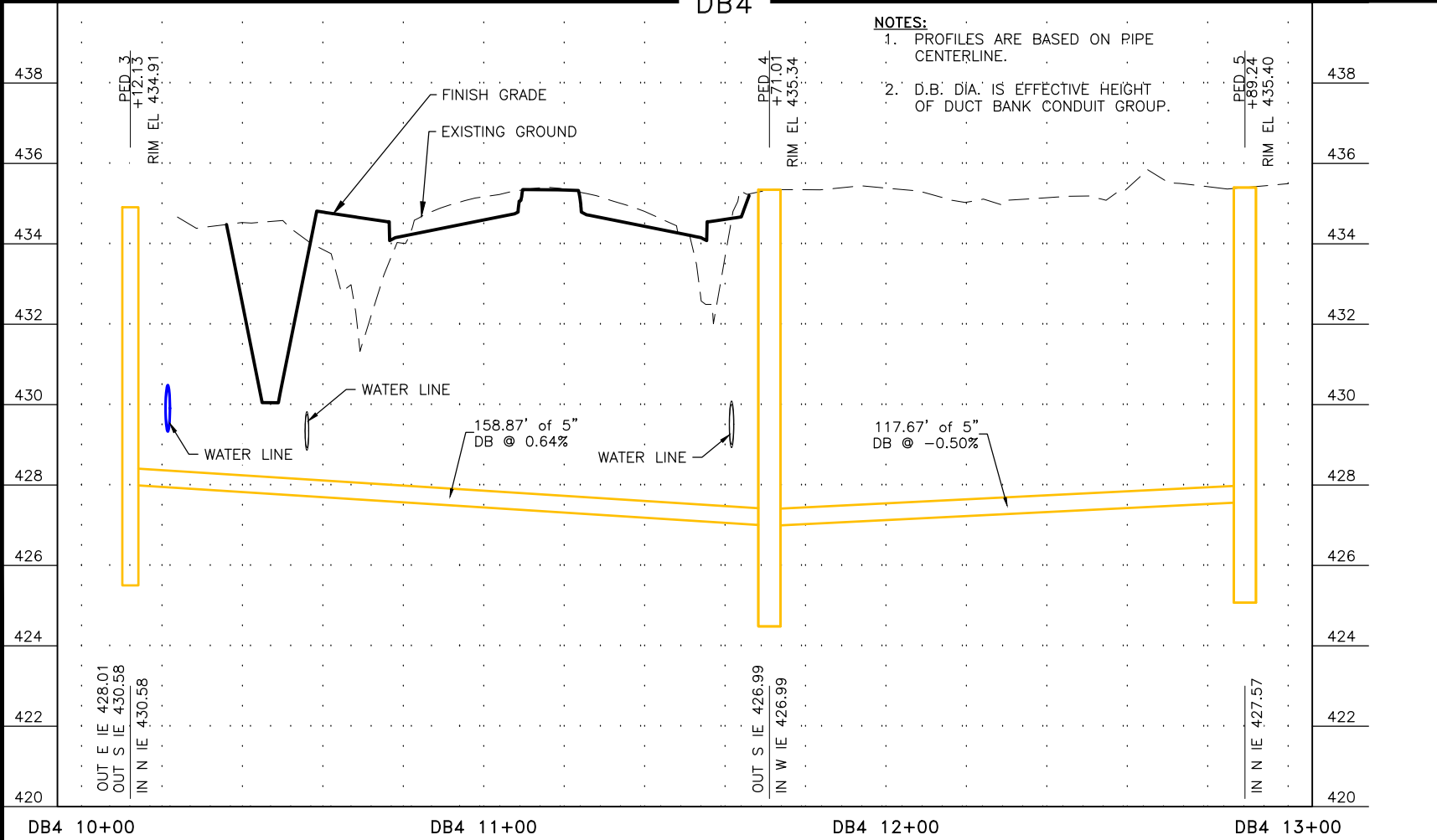
PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AEC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc\local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B\C\7003\enr\1147.04FB_DB4 and 5_Tnu_Feb/25/21_07:58am



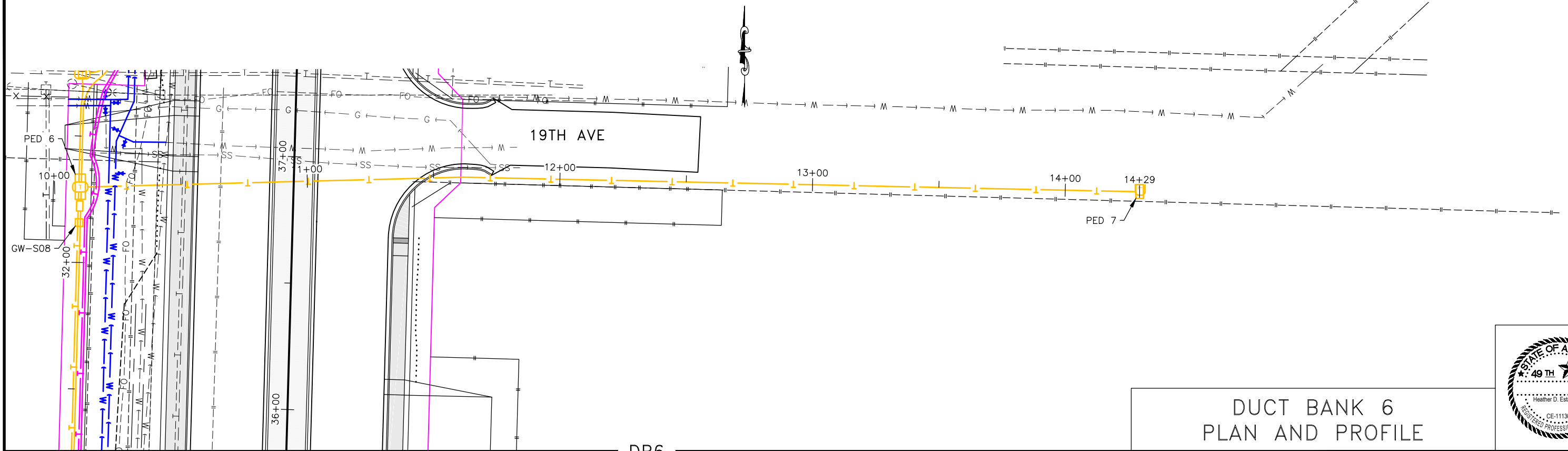
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U316	U318



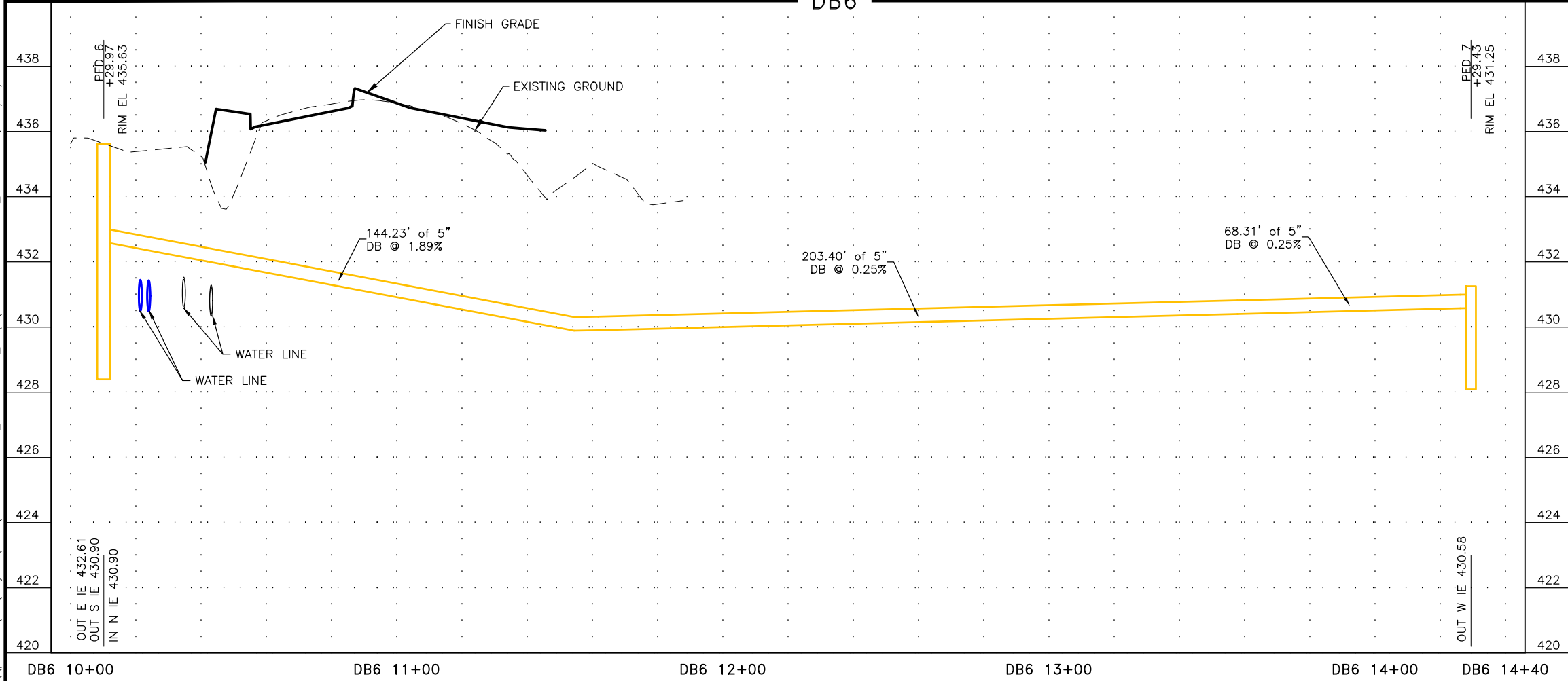
**DUCT BANK 4 AND 5
PLAN AND PROFILE**



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U317	U318



DUCT BANK 6 PLAN AND PROFILE

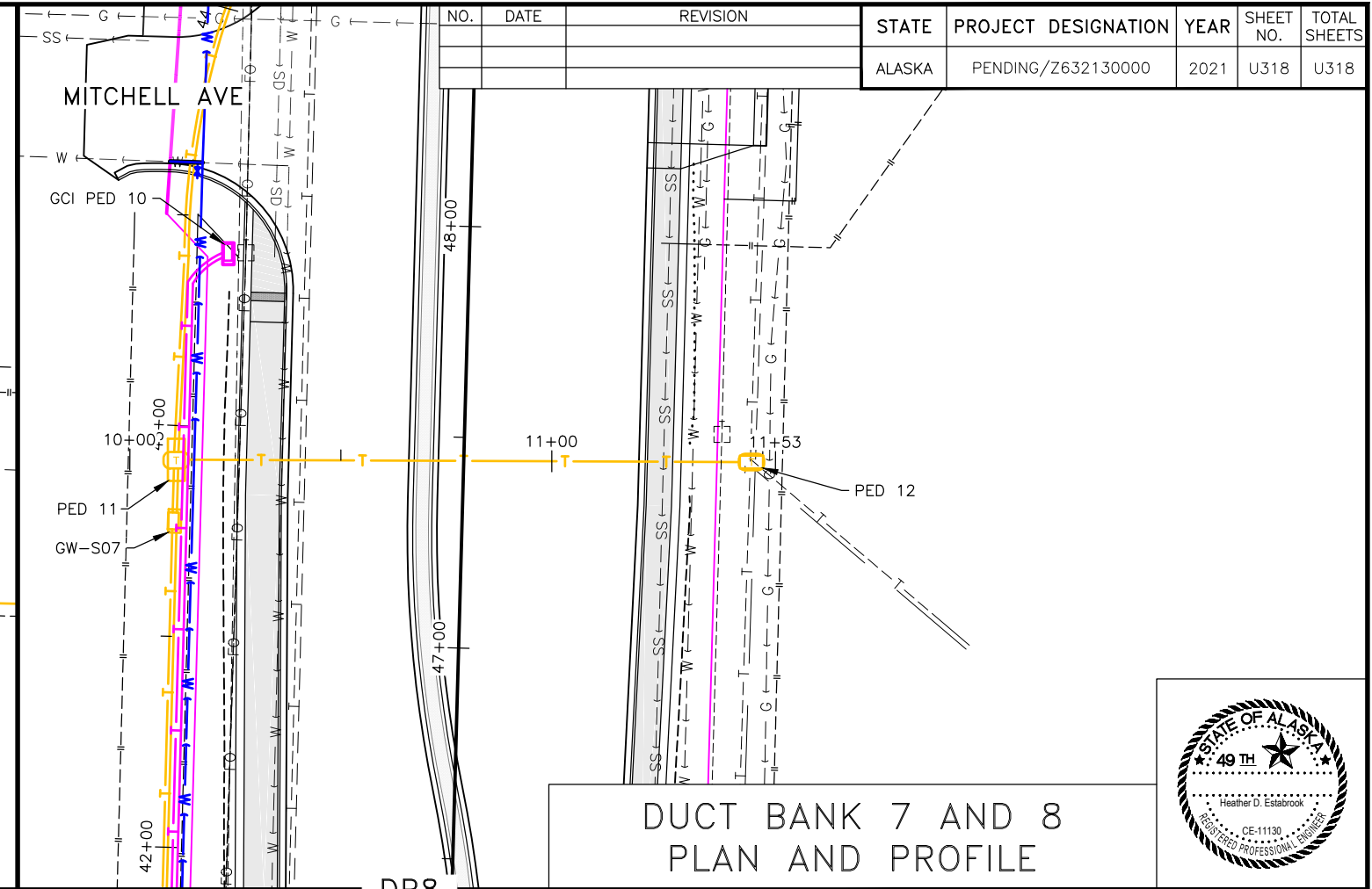
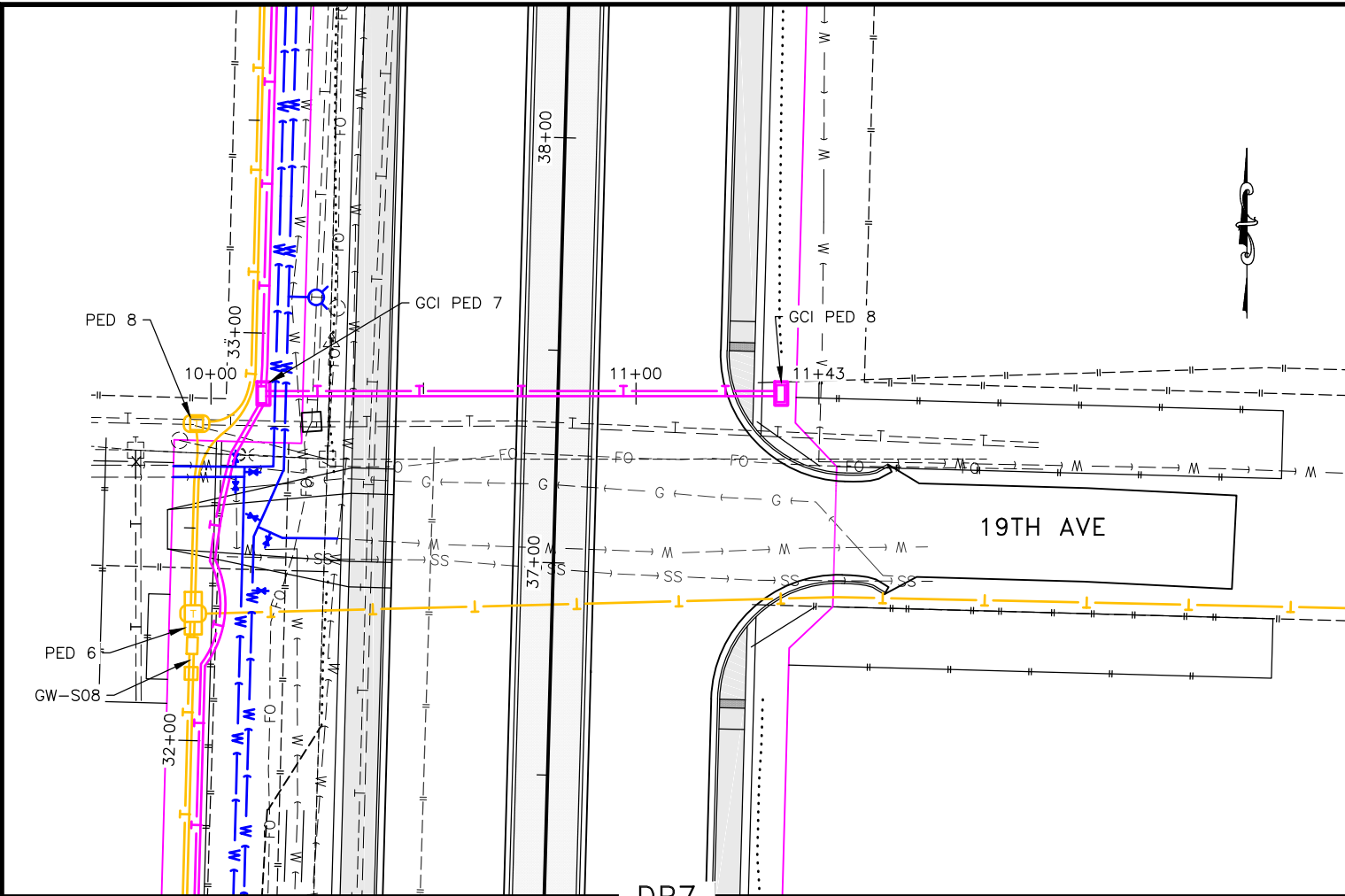


- NOTES:**
1. PROFILES ARE BASED ON PIPE CENTERLINE.
 2. D.B. DIA. IS EFFECTIVE HEIGHT OF DUCT BANK CONDUIT GROUP.

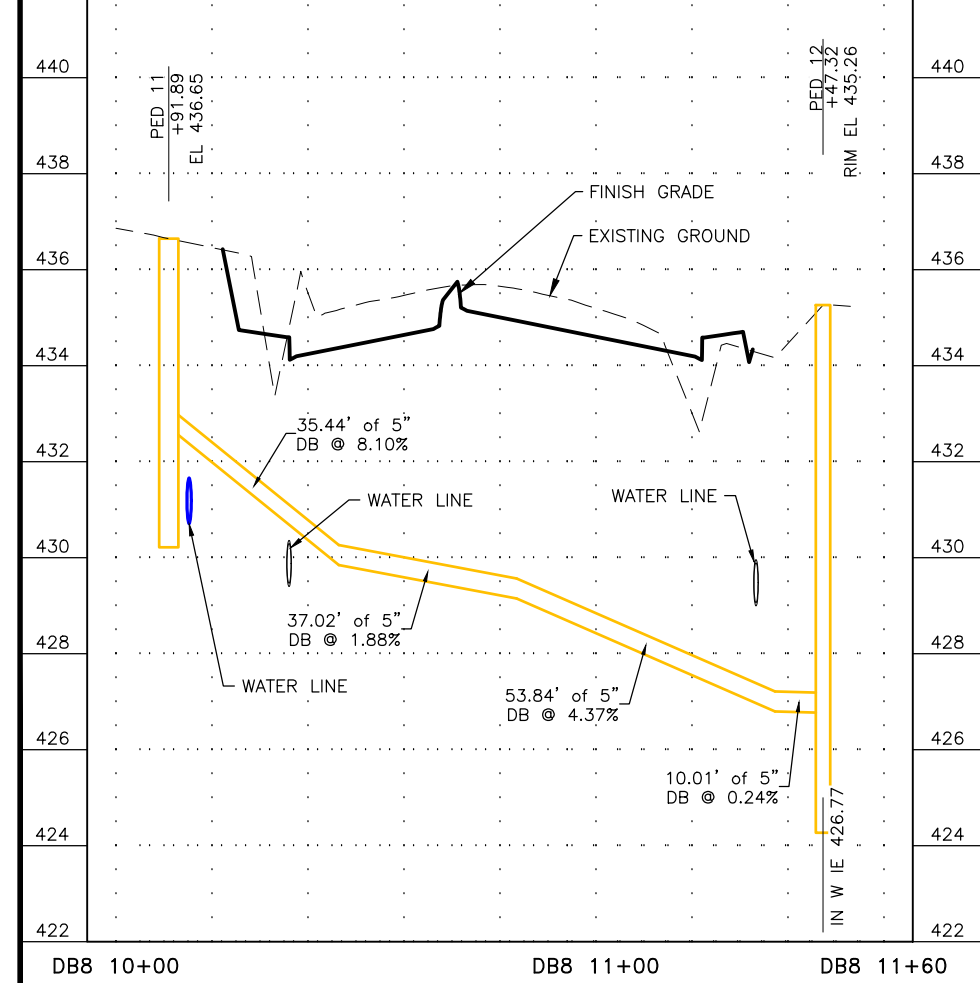
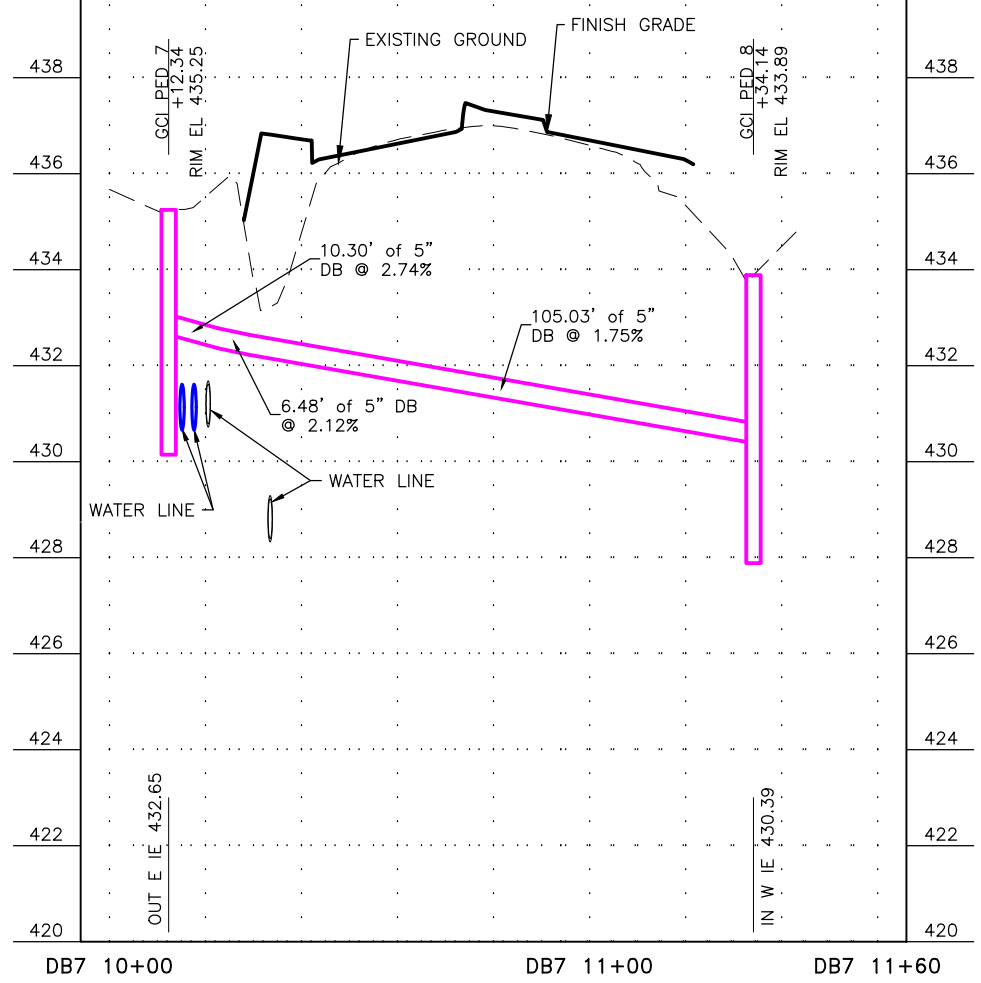
PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AECC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc\local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B\C\7003\scrist1147.04FB_2B-DB6 Thu, Feb/25/21 07:59am

PLANS DEVELOPED BY: PDC INC ENGINEERS, LLC. CERT. OF AUTHORIZATION NO.: AEC605, 2700 GAMBELL STREET, SUITE 500, ANCHORAGE, AK 99503, (907)743-3200
 \\pdc\local\dfs\Projects\2011\1147.04FB-UNIV_AVE-SEGMENT_2B\C7003\scans\1147.04FB_2B-DB7 and 8 Plan, Feb/25/21 08:00am

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	PENDING/Z632130000	2021	U318	U318



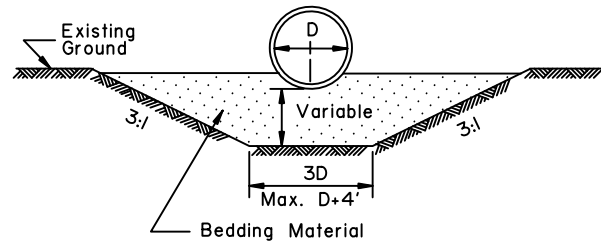
**DUCT BANK 7 AND 8
PLAN AND PROFILE**



- NOTES:**
1. PROFILES ARE BASED ON PIPE CENTERLINE.
 2. D.B. DIA. IS EFFECTIVE HEIGHT OF DUCT BANK CONDUIT GROUP.

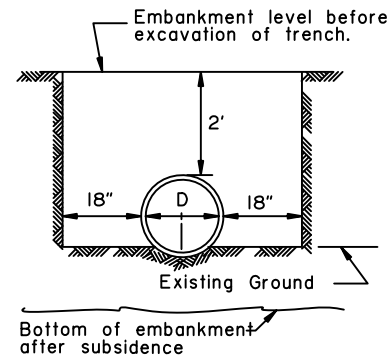
GENERAL NOTES:

1. Sidefill shall be placed and compacted with care under haunches of pipe and shall be brought up evenly and simultaneously on both sides of pipe to 1 foot above the top of the full length of the pipe.
2. Alternate installation methods may only be used when specified or approved by the Engineer.

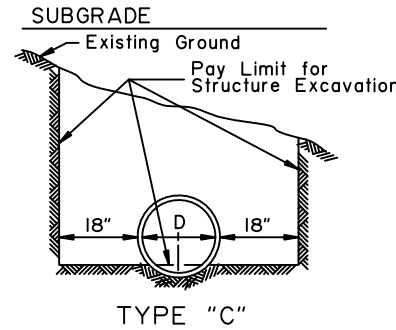


TYPE "A"
FOUNDATION STABILIZATION

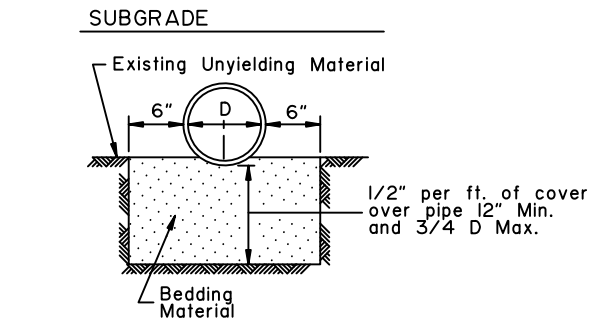
To be used in unstable areas as directed by the Engineer.



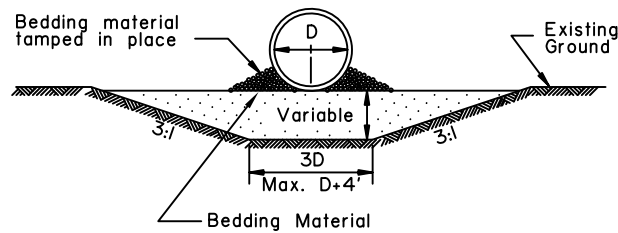
TYPE "B"



TYPE "C"

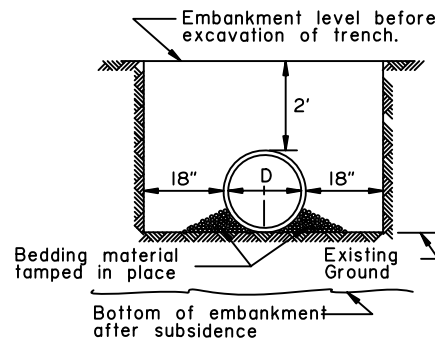


TYPE "D"
ROCK OR UNYIELDING MATERIAL

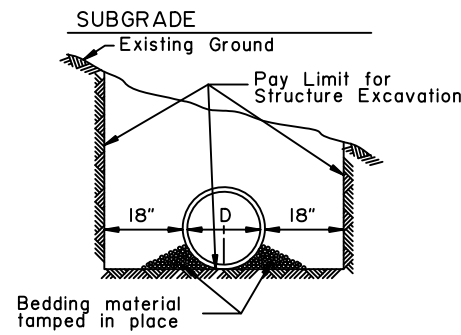


'ALTERNATE'
TYPE "A"
FOUNDATION STABILIZATION

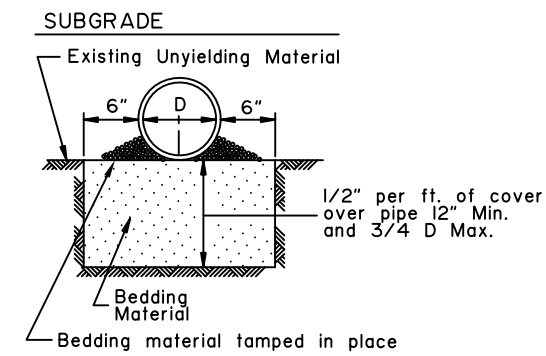
To be used in unstable areas as directed by the Engineer.



'ALTERNATE'
TYPE "B"

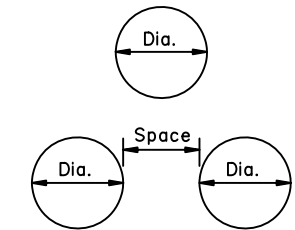


'ALTERNATE'
TYPE "C"



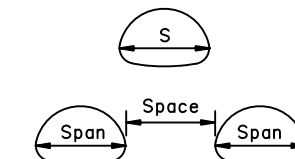
'ALTERNATE' TYPE "D"
ROCK OR UNYIELDING MATERIAL

D = Nominal Pipe Diameter



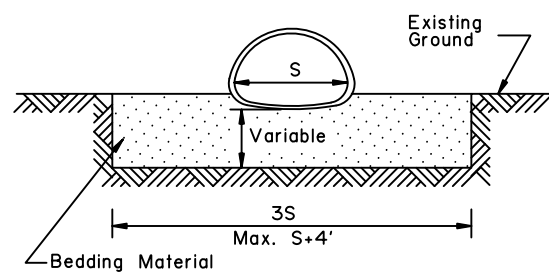
MULTIPLE INSTALLATIONS	
Dia.	Minimum Space Between Pipes
0" - 42"	24"
48" & Over	1/2 Dia. of pipe or 3', whichever is less.

S = Nominal Pipe Arch Span



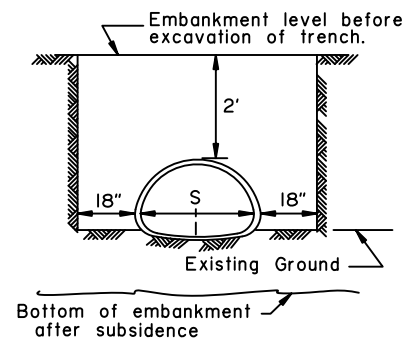
MULTIPLE INSTALLATIONS	
Dia.	Minimum Space Between Pipes
0" - 42"	24"
48" & Over	1/2 Span of pipe arch or 3', whichever is less.

CULVERT PIPE

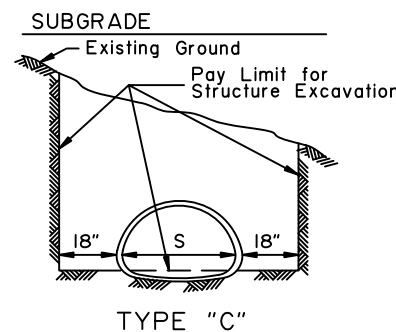


TYPE "A"
FOUNDATION STABILIZATION

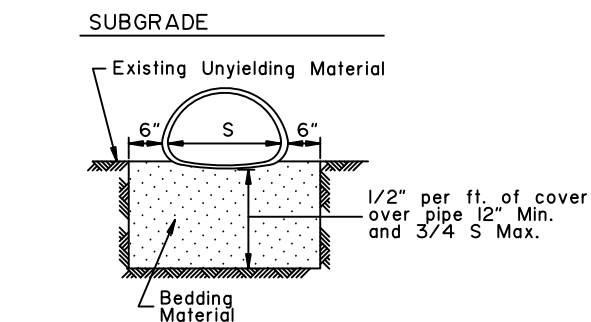
To be used in unstable areas as directed by the Engineer.



TYPE "B"



TYPE "C"



TYPE "D"
ROCK OR UNYIELDING MATERIAL

ARCH

State of Alaska DOT&PF
ALASKA STANDARD PLAN
CULVERT PIPE & ARCH
INSTALLATION DETAILS

Adopted as an Alaska Standard Plan by: *Kenneth J. Fisher*
Kenneth J. Fisher, P.E.
Chief Engineer

Adoption Date: 02/08/2019

Last Code and Stds. Review
By: Date:

Next Code and Standards Review date: 02/08/2029

GENERAL NOTES:

- All material and workmanship shall be in accordance with the State of Alaska, Standard Specifications for Highway Construction.
- The contractor shall select only pipes that meet specific height of cover criteria shown on the plans or in the special provisions.
- No more than one type of pipe may be used on any single installation or installation grouping.
- All structural plate pipes shall be placed on a pre-shaped foundation conforming to the depth of the bottom plates with clearance for assembling to the adjacent plates allowed.
- See Standard Plan D-01 "Culvert Pipe & Arch Installation Details" for foundation and structural backfill details.
- Minimum cover shall be measured from the top of pipe to the top of rigid pavement or to the bottom of flexible pavement subgrade. In all cases, the minimum cover shall not be less than 12". Minimum cover during construction shall be that required to protect the pipe from damage or deflection.
- These tables have been developed for an HL-93 live load and for compacted soil weighing 120 lbs. per cubic foot or less. If compacted soil cover exceeds 120 lbs. per cubic foot, the contractor shall use the depth of cover shown in the plans for the specific pipe. Where compacted soil cover exceeds 120 lbs. per cubic foot and no specific cover requirements are provided in the plans, the contractor shall determine the required minimum pipe cover in accordance with Section 12 of the 2017 AASHTO "LRFD Bridge Design Specifications".

Gage		16	14	12	10	8
Thickness		0.060	0.075	0.105	0.135	0.164
Dia. (In)	Min. (In)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)
12	12	100+	100+	100+	100+	100+
15	12	100	100+	100+	100+	100+
18	12	83	100+	100+	100+	100+
21	12	71	89	100+	100+	100+
24	12	62	78	100+	100+	100+
27	12		69	97	100+	100+
30	12		62	87	100+	100+
36	12		51	73	94	100+
42	12			62	80	100+
48	12			54	70	85
54	15			48	62	76
60	15				52	64
66	18					52
72	18					43

Gage		16	14	12	10	8
Thickness		0.060	0.075	0.105	0.135	0.164
Dia. (In)	Min. (In)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)
30	12	57	72	100+	100+	100+
36	12	47	60	84	100+	100+
42	12	40	51	72	96	100+
48	12	35	44	62	84	99
54	15	31	39	55	74	88
60	15	28	35	50	67	79
66	18	25	32	45	61	72
72	18	23	29	41	56	66
78	21		27	38	51	61
84	21			35	48	56
90	24			33	44	52
96	24			31	41	49
102	24				39	46
108	24				37	43
114	24					39
120	24					36

Thickness	0.125		0.150	
Dia. (In)	Min. (In)	Max. (Ft)	Min. (In)	Max. (Ft)
84	18	31		
90	18	27		
96	18	27		
102	18	24		
108	18	24		
114	18	21		
120	24	21		
126	24	19		
132	30	19		
138	30	18		
144	30	18		
150	30		22	
156	30		22	
162	36		20	
168	36		20	

*5.33 - 3/4" dia. steel bolts per foot.

————— CORRUGATED CIRCULAR ALUMINUM PIPE —————

————— CORRUGATED ALUMINUM PIPE-ARCH —————

Span (Ft.-In.)	Rise (Ft.-In.)	Corner Radius (In)	Min. Thickness (In)	2 Tons/Sf Corner Bearing Pressure	
				Min. Cover (In)	Max. Cover (Ft)
17	13	3 4/8	16 (0.060)	12	13
21	15	4 1/8	16 (0.060)	12	12
24	18	4 7/8	16 (0.060)	12	12
28	20	5 4/8	14 (0.075)	12	12
35	24	6 7/8	14 (0.075)	12	12
42	29	8 2/8	12 (0.105)	12	12
49	33	9 5/8	12 (0.105)	15	12
57	38	11	10 (0.135)	15	12
64	43	12 3/8	10 (0.135)	18	12
71	47	13 6/8	8 (0.164)	18	12

Span (Ft.-In.)	Rise (Ft.-In.)	Corner Radius (In)	Min. Thickness (In)	2 Tons/Sf Corner Bearing Pressure	
				Min. Cover (In)	Max. Cover (Ft)
60	46	18 6/8	14 (0.075)	15	20
66	51	20 6/8	14 (0.075)	18	20
73	55	22 7/8	14 (0.075)	21	20
81	59	20 7/8	12 (0.105)	21	16
87	63	22 7/8	12 (0.105)	24	16
95	67	24 3/8	12 (0.105)	24	16
103	71	26 1/8	10 (0.135)	24	16
112	75	27 6/8	8 (0.164)	24	16

Span (Ft.-In.)	Rise (Ft.-In.)	Corner Radius (In)	Min. Thickness (In)	Min. Cover (In)	2 Tons/Sf Corner Bearing Pressure
					Max. Cover (Ft)
6-7	5-8	31.75	0.125	24	24
6-11	5-9	31.75	0.125	24	24
7-3	5-11	31.75	0.125	24	18
7-9	6-0	31.75	0.125	24	18
8-5	6-3	31.75	0.125	24	16
9-3	6-5	31.75	0.125	24	15
10-3	6-9	31.75	0.125	30	13
10-9	6-10	31.75	0.125	30	13
11-5	7-1	31.75	0.125	30	13
12-7	7-5	31.75	0.125	30	11
12-11	7-6	31.75	0.125	30	11
13-1	8-2	31.75	0.125	30	11
13-11	8-5	31.75	0.125	36	10
14-8	9-8	31.75	0.125	36	9
15-4	10-0	31.75	0.150	36	8
16-1	10-4	31.75	0.150	36	8
16-9	10-8	31.75	0.150	42	7
17-3	11-0	31.75	0.150	42	7
18-0	11-4	31.75	0.175	42	7
18-8	11-8	31.75	0.175	42	7

*5.33 - 3/4" dia. steel bolts per foot.

State of Alaska DOT&PF
ALASKA STANDARD PLAN
PIPE AND ARCH TABLES

Adopted as an Alaska Standard Plan by: *Carolyn Morehouse*
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

Last Code and Stds. Review
By: KLH Date: 7/8/2020

Next Code and Standards Review date: 7/8/2030

Minimum & Maximum Cover for 2 2/3" x 1/2" Steel Pipe

Gage		16	14	12	10	8
Thickness		0.060	0.075	0.105	0.135	0.164
Dia. (In)	Min. (In)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)
12	12	100+	100+	100+	100+	100+
15	12	100+	100+	100+	100+	100+
18	12	100+	100+	100+	100+	100+
21	12	100+	100+	100+	100+	100+
24	12	100+	100+	100+	100+	100+
30	12	83	100+	100+	100+	100+
36	12	69	86	100+	100+	100+
42	12	59	74	100+	100+	100+
48	12	51	64	91	100+	100+
54	12		57	80	100+	100+
60	12			72	93	100+
66	12			66	85	100+
72	12				78	95
78	12					84
84	12					73

Minimum & Maximum Cover for 3" x 1" Steel Pipe

Gage		16	14	12	10	8
Thickness		0.060	0.075	0.105	0.135	0.164
Dia. (In)	Min. (In)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)
36	12			100+	100+	100+
42	12			100+	100+	100+
48	12		74	100+	100+	100+
54	12	53	66	93	100+	100+
60	12	47	59	83	100+	100+
66	12	43	54	76	98	100+
72	12	39	49	69	89	100+
78	12	36	45	64	82	100+
84	12	33	42	59	77	94
90	12	31	39	55	71	87
96	12	29	37	52	67	82
102	18	27	34	49	63	77
108	18		32	46	59	73
114	18		31	43	56	69
120	18		29	41	53	65
126	18			39	51	62
132	18			37	48	59
138	18			36	46	57
144	18			44	54	

Minimum & Maximum Cover for 5" x 1" Steel Pipe

Gage		16	14	12	10	8
Thickness		0.060	0.075	0.105	0.135	0.164
Dia. (In)	Min. (In)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)
36	12	71	88	100+	100+	100+
42	12	60	76	100+	100+	100+
48	12	53	66	93	100+	100+
54	12	47	59	82	100+	100+
60	12	42	53	74	96	100+
66	12	38	48	67	87	100+
72	12	35	44	62	79	97
78	12	32	40	57	73	90
84	12	30	37	53	68	83
90	12	28	35	49	63	78
96	12	26	33	46	59	73
102	18	24	31	43	56	69
108	18		29	41	53	65
114	18		27	39	50	61
120	18		26	37	47	58
126	18			35	45	55
132	18			33	43	53
138	18			32	41	50
144	18			39	48	

Minimum & Maximum Cover for 6" x 2" Steel Multiplate Pipe*

Gage		12	10	8	7	5	3	1
Thickness		0.111	0.140	0.170	0.188	0.218	0.249	0.280
Dia. (In)	Min. (In)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)
60	12	46	67	87	100	100+	100+	100+
66	12	42	60	79	91	100+	100+	100+
72	12	38	55	73	83	100+	100+	100+
78	12	35	51	67	77	93	100+	100+
84	12	32	47	62	71	86	100+	100+
90	12	30	44	58	67	80	95	100+
96	12	28	41	54	62	75	89	97
102	18	27	39	51	59	71	84	91
108	18	25	37	48	55	67	79	86
114	18	24	35	45	52	63	75	82
120	18	22	33	43	50	60	71	77
126	18	21	31	41	47	57	68	74
132	18	20	30	39	45	54	64	70
138	18	19	28	37	43	52	62	67
144	18	18	27	36	41	50	59	64

*4 - 3/4" dia. steel bolts per foot.

GENERAL NOTES

- All material and workmanship shall be in accordance with the State of Alaska, Standard Specifications for Highway Construction.
- The contractor shall select only pipes that meet specific height of cover criteria shown on the plans or in the special provisions.
- No more than one type of pipe may be used on any single installation or installation grouping.
- All structural plate pipes shall be placed on a pre-shaped foundation conforming to the depth of the bottom plates with clearance for assembling to the adjacent plates allowed.
- See Standard Plan D-01 "Culvert Pipe & Arch Installation Details" for foundation and structural backfill details.
- Minimum cover shall be measured from the top of pipe to the top of rigid pavement or to the bottom of flexible pavement subgrade. In all cases, the minimum cover shall not be less than 12". Minimum cover during construction shall be that required to protect the pipe from damage or deflection.
- These tables have been developed for an HL-93 live load and for compacted soil weighing 120 lbs. per cubic foot or less. If compacted soil cover exceeds 120 lbs. per cubic foot, the contractor shall use the depth of cover shown in the plans for the specific pipe. Where compacted soil cover exceeds 120 lbs. per cubic foot and no specific cover requirements are provided in the plans, the contractor shall determine the required minimum pipe cover in accordance with Section 12 of the 2017 AASHTO "LRFD Bridge Design Specifications".

CORRUGATED CIRCULAR STEEL PIPE

CORRUGATED STEEL PIPE-ARCH

Minimum & Maximum Cover for 2 2/3" X 1/2" Steel Pipe-Arch

2 Tons/Sf Corner Bearing Pressure						
Span (Ft.-In.)	Rise (Ft.-In.)	Corner Radius (In)	Min. Thickness (In)	Min. Cover (In)	Max. Cover (Ft)	
17	13	3 4/8	16 [0.060]	12	11	
21	15	4 1/8	16 [0.060]	12	11	
24	18	4 7/8	16 [0.060]	12	11	
28	20	5 4/8	16 [0.060]	12	11	
35	24	6 7/8	16 [0.060]	12	11	
42	29	8 2/8	16 [0.060]	12	11	
49	33	9 5/8	14 [0.075]	12	11	
57	38	11	12 [0.109]	12	11	
64	43	12 3/8	12 [0.109]	12	11	
71	47	13 6/8	10 [0.138]	12	11	
77	52	15 1/8	10 [0.138]	12	11	
83	57	16 4/8	8 [0.168]	12	11	

Minimum & Maximum Cover for 3" X 1" Steel Pipe-Arch

2 Tons/Sf Corner Bearing Pressure						
Span (Ft.-In.)	Rise (Ft.-In.)	Corner Radius (In)	Min. Thickness (In)	Min. Cover (In)	Max. Cover (Ft)	
53	41	10 2/8	14 [0.079]	12	10	
60	46	18 6/8	14 [0.079]	15	29	
66	51	20 6/8	14 [0.079]	15	29	
73	55	22 7/8	14 [0.079]	18	18	
81	59	20 7/8	14 [0.079]	18	15	
87	63	22 7/8	14 [0.079]	18	15	
95	67	24 3/8	14 [0.079]	18	15	
103	71	26 1/8	14 [0.079]	18	14	
112	75	27 6/8	14 [0.079]	21	14	
117	79	29 4/8	12 [0.109]	21	14	
128	83	31 2/8	10 [0.138]	24	14	
137	87	33	10 [0.138]	24	14	
142	91	34 6/8	10 [0.138]	24	13	
150	96	36	10 [0.138]	30	13	
157	96	38	10 [0.138]	30	13	
164	105	40	10 [0.138]	30	14	
171	110	41	10 [0.138]	30	13	

Minimum & Maximum Cover for 5" X 1" Steel Pipe-Arch

2 Tons/Sf Corner Bearing Pressure						
Span (Ft.-In.)	Rise (Ft.-In.)	Corner Radius (In)	Min. Thickness (In)	Min. Cover (In)	Max. Cover (Ft)	
53	41	10 2/8	14 [0.079]	12	10	
60	46	18 6/8	14 [0.079]	15	29	
66	51	20 6/8	14 [0.079]	15	29	
73	55	22 7/8	14 [0.079]	18	18	
81	59	20 7/8	14 [0.079]	18	15	
87	63	22 7/8	14 [0.079]	18	15	
95	67	24 3/8	14 [0.079]	18	15	
103	71	26 1/8	14 [0.079]	18	14	
112	75	27 6/8	14 [0.079]	21	14	
117	79	29 4/8	12 [0.109]	21	14	
128	83	31 2/8	10 [0.138]	24	14	
137	87	33	10 [0.138]	24	14	
142	91	34 6/8	10 [0.138]	24	13	
150	96	36	10 [0.138]	30	13	
157	96	38	10 [0.138]	30	13	
164	105	40	10 [0.138]	30	14	
171	110	41	10 [0.138]	30	13	

Minimum & Maximum Cover for Steel Multiplate Pipe-Arch 6" x 2" *

2 Tons/Sf Corner Bearing Pressure						
Span (Ft.-In.)	Rise (Ft.-In.)	Corner Radius (In)	Min. Gage (In)	Min. Cover (In)	Max. Cover (Ft)	
6-1	4-7	18	12 [0.111]	12	14	
7-0	5-1	18	12 [0.111]	12	12	
7-11	5-7	18	12 [0.111]	12	10	
8-10	6-1	18	12 [0.111]	18	9	
9-9	6-7	18	12 [0.111]	18	8	
10-11	7-1	18	12 [0.111]	18	6	
11-10	7-7	18	12 [0.111]	18	5	
12-10	8-4	18	12 [0.111]	24	5	
13-3	9-4	31	10 [0.140]	24	11	
14-2	9-10	31	10 [0.140]	24	10	
15-4	10-4	31	10 [0.140]	24	9	
16-3	10-10	31	10 [0.140]	30	8	
17-2	11-4	31	10 [0.140]	30	8	
18-1	11-10	31	10 [0.140]	30	7	
19-3	12-4	31	10 [0.140]	30	7	
19-11	12-10	31	10 [0.140]	30	6	
20-7	13-2	31	10 [0.140]	36	6	

*4 - 3/4" dia. steel bolts per foot.

State of Alaska DOT&PF
ALASKA STANDARD PLAN

PIPE AND ARCH TABLES

Adopted as an Alaska Standard Plan by: *Carolyn Morehouse*
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

Last Code and Stds. Review
By: KLH Date: 7/8/2020

Next Code and Standards Review date: 7/8/2030

GENERAL NOTES

1. All materials and workmanship shall be in accordance with the State of Alaska Standard Specifications for Highway Construction.
2. For foundation and structural backfill details see Standard Plan D-01 "Culvert Pipe & Arch Installation Details".
3. Pipe cover height is measured from top of the pipe to top of rigid pavement, or to the bottom of subgrade for flexible pavement. In all cases the minimum cover shall be no less than 2 ft. Where loads traverse the culvert during construction minimum cover shall be no less than 4 ft.

Maximum Cover for Type S Corrugated Polyethylene Pipe	
Size (in)	Max. Cover (ft)
12	24
15	25
18	24
24	20
30	20
36	18
42	16
48	17

State of Alaska DOT&PF
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GENERAL NOTES

- All material and workmanship shall be in accordance with the State of Alaska, Standard Specifications for Highway Construction.
- The contractor shall select only pipes that meet specific height of cover criteria shown on the plans or in the special provisions.
- No more than one type of pipe may be used on any single installation or installation grouping.
- All structural plate pipes shall be placed on a pre-shaped foundation conforming to the depth of the bottom plates with clearance for assembling to the adjacent plates allowed.
- See Standard Plan D-01 "Culvert Pipe & Arch Installation Details" for foundation and structural backfill details.
- Minimum cover shall be measured from the top of pipe to the top of rigid pavement or to the bottom of flexible pavement subgrade. In all cases, the minimum cover shall not be less than 12". Minimum cover during construction shall be that required to protect the pipe from damage or deflecton.
- These tables have been developed for an HL-93 live load and for compacted soil weighing 120 lbs. per cubic foot or less. If compacted soil cover exceeds 120 lbs. per cubic foot, the contractor shall use the depth of cover shown in the plans for the specific pipe. Where compacted soil cover exceeds 120 lbs. per cubic foot and no specific cover requirements are provided in the plans, the contractor shall determine the required minimum pipe cover in accordance with Section 12 of the 2017 AASHTO "LRFD Bridge Design Specifications".

Minimum & Maximum Cover for Aluminum Spiral Rib Circular Pipe*					
Gage		16	14	12	10
Thickness		0.064	0.079	0.109	0.138
Dia. (In)	Min. (In)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)
18	12	43	61		
21	12	38	52	84	
24	12	33	45	73	
30	15	26	36	58	
36	18	21	30	49	69
42	21		25	41	59
48	24			36	51
54	24			32	46
60	24			29	41
66	24				37
72	30				34

*3/4 x 3/4 x 7/2 in. Corrugations

Minimum & Maximum Cover for Aluminum Spiral Rib Pipe-Arch*					
Gage		16	14	12	10
Thickness		0.060	0.075	0.105	0.135
Span (Ft.-In.)	Rise (Ft.-In.)	Min. Cover (In)	Max. Cover (Ft)		
20	16	12	16		
23	19	12	15		
27	21	15	13	13	
33	26	18	13	13	13
40	31	21		13	13
46	36	24			13
53	41	24			13
60	46	24			13
66	51	24			13

*3/4 x 3/4 x 7/2 in. Corrugations

ALUMINUM SPIRAL RIB PIPE

STEEL SPIRAL RIB PIPE

Minimum & Maximum Cover for Steel and Aluminized Steel Spiral Rib Circular Pipe*					
Gage		16	14	12	10
Thickness		0.064	0.079	0.109	0.138
Dia. (In)	Min. (In)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)
18	12	91			
24	12	68	95	100+	
30	12	54	76	100+	
36	12	45	63	100+	
42	12	38	54	90	
48	12	33	47	79	
54	18	30	42	70	
60	18	27	38	63	92
66	18	24	34	57	83
72	18		31	52	76
78	24		29	48	70
84	24		27	45	65
90	24			42	61
96	24			39	56
102	30			36	50
108	30			32	45

*3/4 x 3/4 x 7/2 in. Corrugations.

Minimum & Maximum Cover for Steel Spiral Rib Pipe-Arch*					
2 Tons/Sf Corner Bearing Pressure					
Thickness		0.064	0.079	0.109	
Span (Ft.-In.)	Rise (Ft.-In.)	Min. Cover (In)	Max. Cover (Ft)		
20	16	12	13		
23	19	12	13		
27	21	12	11		
33	26	12	11		
40	31	12	11		
46	36	12	11		
53	41	18		11	
60	46	18		19	
66	51	18		19	
73	55	18			18
81	59	18			15
87	63	18			15
95	67	18			15

*3/4 x 3/4 x 7/2 in. Corrugations

State of Alaska DOT&PF
ALASKA STANDARD PLAN

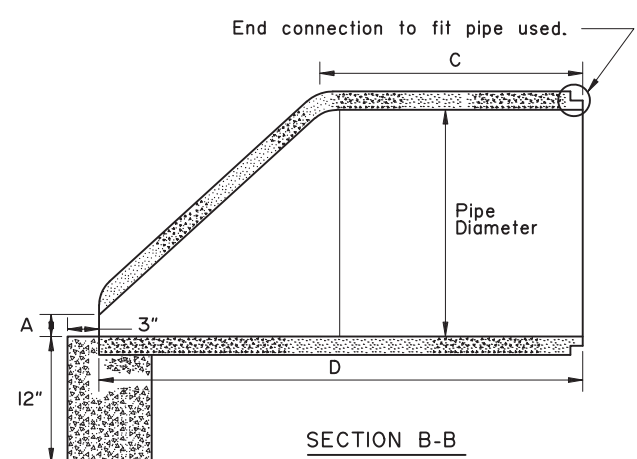
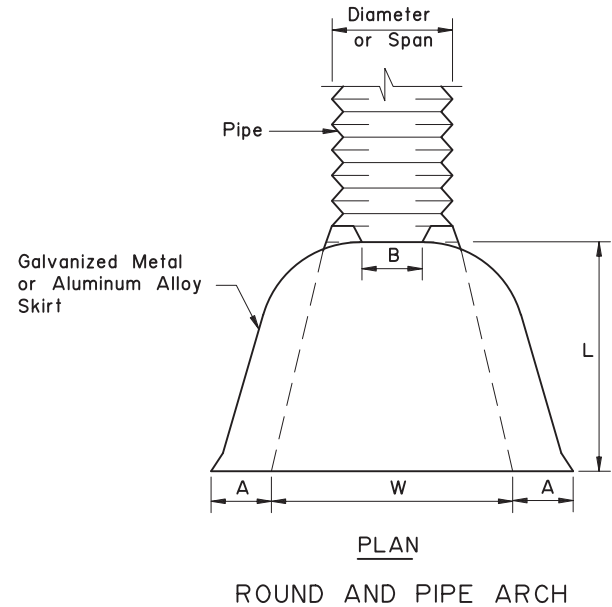
PIPE AND ARCH TABLES

Adopted as an Alaska Standard Plan by: *Carolyn Morehouse*
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

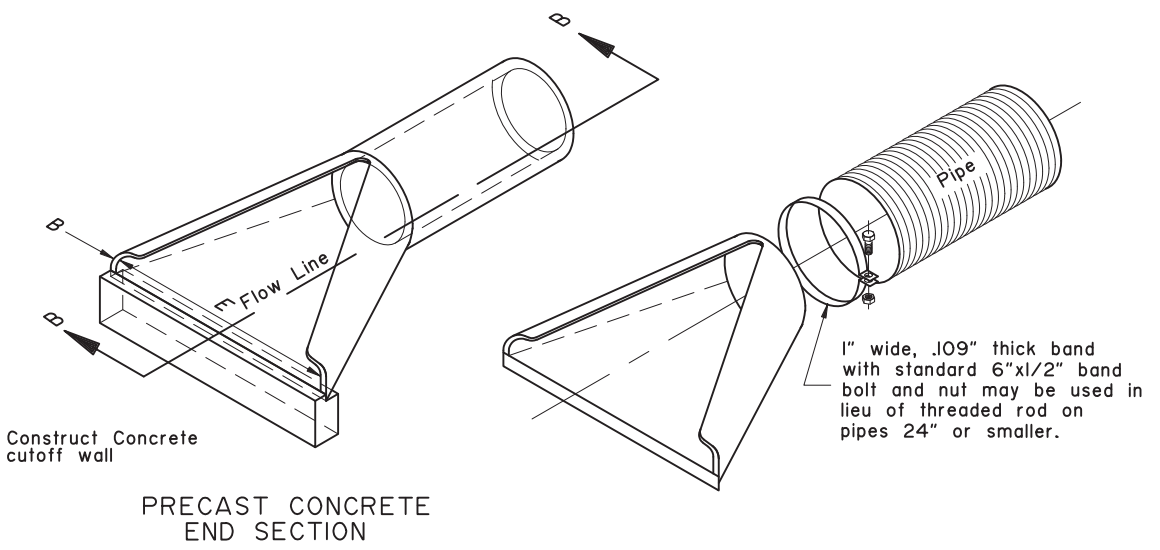
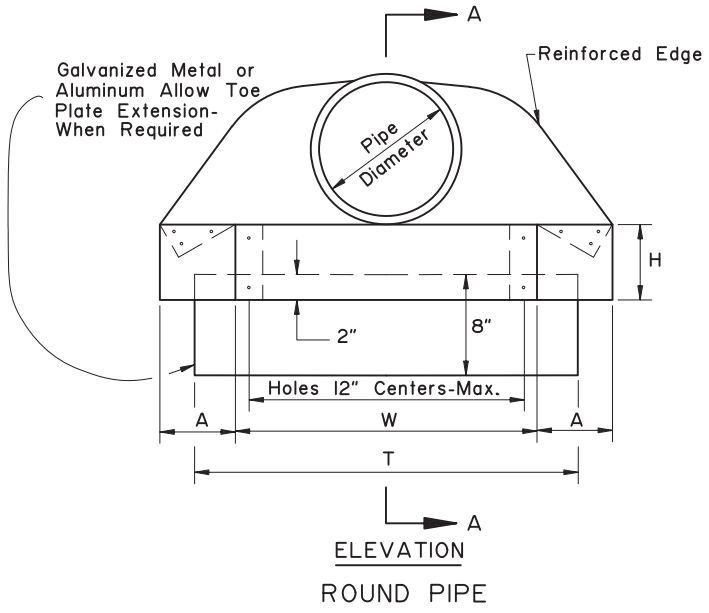
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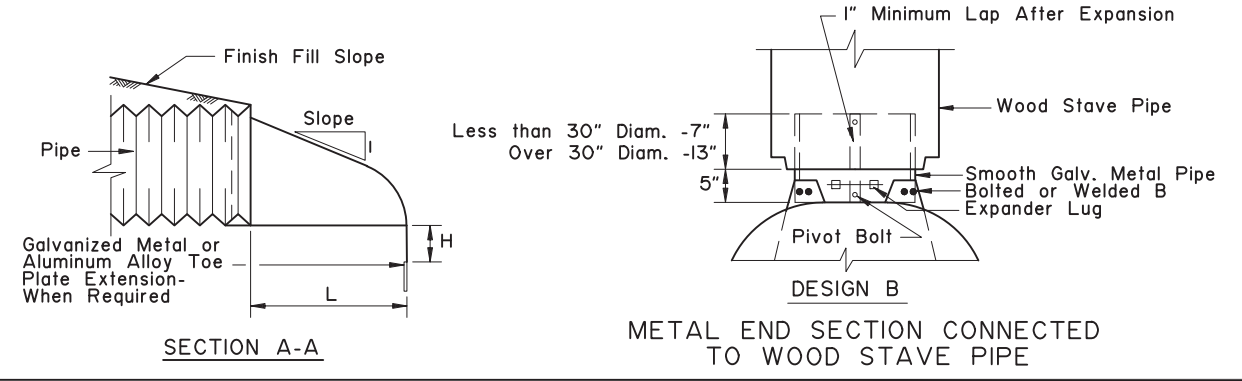
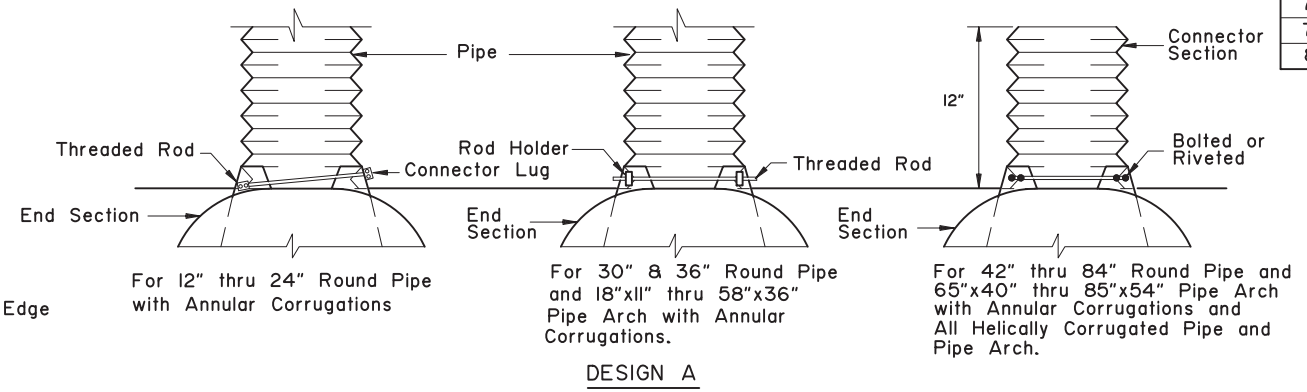
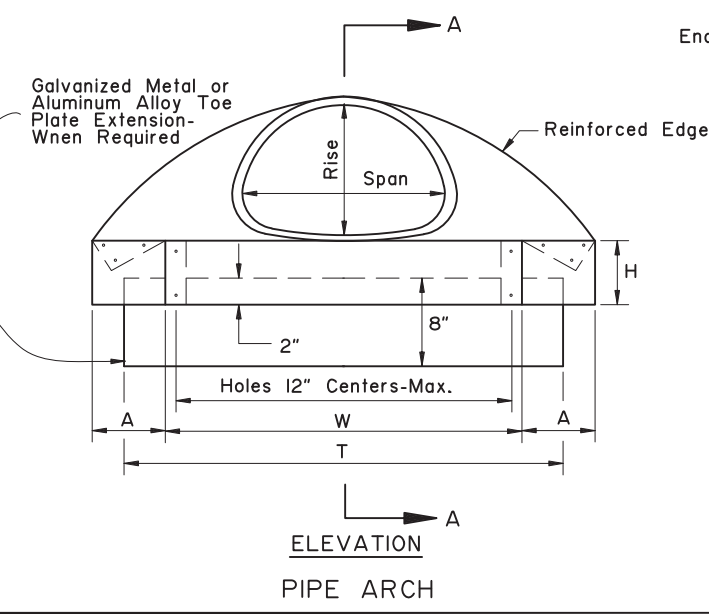


MINIMUM DIMENSIONS					
Pipe Diameter	A	B	C	D	E
12"	4"	1 3/4"	24"	46"	24"
18"	9"	2"	25"	50"	36"
24"	9 1/2"	2 1/2"	30"	72"	48"
30"	12"	3"	20"	73"	60"
36"	15"	3 3/8"	35"	97"	72"
42"	21"	3 3/4"	35"	98"	78"
48"	24"	4 1/4"	26"	98"	84"
54"	27"	4 5/8"	33"	99"	82"

ROUND PIPE										
Pipe Diam. Inches	Thickness For Aluminum	Thk. for Galv. Metal	Dimension Inches						Skirt	Approx. Slope
			A Tol.	B Max.	H Tol.	L 1/2" Tol.	W Tol.	T Tol.		
12"	0.060	0.064	6"	6"	6"	21"	24"	34"	1 Pc.	2 1/2
15"	0.060	0.064	7"	8"	6"	26"	30"	40"	1 Pc.	2 1/2
18"	0.060	0.064	8"	10"	6"	31"	36"	46"	1 Pc.	2 1/2
21"	0.060	0.064	9"	12"	6"	36"	42"	52"	1 Pc.	2 1/2
24"	0.075	0.064	10"	13"	6"	41"	48"	58"	1 Pc.	2 1/2
30"	0.075	0.079	12"	16"	8"	51"	60"	70"	1 Pc.	2 1/2
36"	0.105	0.079	14"	19"	9"	60"	72"	94"	2 Pc.	2 1/2
42"	0.105	0.109	16"	22"	11"	69"	84"	106"	2 Pc.	2 1/2
48"	0.105	0.109	18"	27"	12"	78"	90"	112"	2 Pc.	2 1/4
54"	0.105	0.109	18"	30"	12"	84"	102"	122"	2 Pc.	2 1/4
60"	0.135	0.109	18"	33"	12"	87"	114"	134"	3 Pc.	2 1/4
66"	0.135	0.109	18"	36"	12"	87"	120"	142"	3 Pc.	2 1/4
72"	0.135	0.109	18"	39"	12"	87"	126"	146"	3 Pc.	2 1/4
78"	—	0.109	18"	42"	12"	87"	132"	152"	3 Pc.	1 1/4
84"	—	0.109	18"	45"	12"	87"	138"	158"	3 Pc.	1 1/6



PIPE-ARCH												
Pipe-Arch Dimension Inches	Span	Rise	Thickness for Aluminum	Thk. for Galv. Metal	Dimension Inches						Skirt	Approx. Slope
					A Tol.	B Max.	H Tol.	L 1/2" Tol.	W Tol.	T Tol.		
17"	13"	0.060	0.064	7"	9"	6"	19"	30"	40"	1 Pc.	2 1/2	
21"	15"	0.060	0.064	7"	10"	6"	23"	36"	46"	1 Pc.	2 1/2	
24"	18"	0.060	0.064	8"	12"	6"	28"	42"	52"	1 Pc.	2 1/2	
28"	20"	0.075	0.064	9"	14"	6"	32"	48"	58"	1 Pc.	2 1/2	
35"	24"	0.075	0.079	10"	16"	6"	39"	60"	70"	1 Pc.	2 1/2	
42"	29"	0.105	0.079	12"	18"	8"	46"	75"	85"	1 Pc.	2 1/2	
49"	33"	0.105	0.109	13"	21"	9"	53"	85"	103"	2 Pc.	2 1/2	
57"	38"	0.105	0.109	18"	26"	12"	63"	90"	114"	2 Pc.	2 1/2	
64"	43"	0.105	0.109	18"	30"	12"	70"	102"	130"	2 Pc.	2 1/4	
71"	47"	0.135	0.109	18"	33"	12"	77"	114"	144"	3 Pc.	2 1/4	
77"	52"	0.135	0.109	18"	36"	12"	84"	120"	158"	3 Pc.	2 1/4	
83"	57"	0.135	0.109	18"	39"	12"	90"	126"	170"	3 Pc.	2 1/4	



GENERAL NOTES:

1. Toe plate extensions will be required only when provided for on the plans. When required, the toe plate extensions shall be punched with holes to match those in lip of skirt and fastened with 3/8 inch or larger galvanized nuts and bolts and shall be the same gage as the end section.
2. Galvanized Metal or Aluminum Alloy End Sections may be used on Wood Stave and Plastic Pipe.
3. All 3 piece bodies shall have 12 gage sides and 10 gage center panels. Multiple panel bodies shall have lap seams which are to be tightly joined by 3/8" galvanized rivets or bolts.

State of Alaska DOT&PF
ALASKA STANDARD PLAN

CULVERT END SECTIONS

Adopted as an Alaska Standard Plan by: *Kenneth J. Fisher*
Kenneth J. Fisher, P.E.
Chief Engineer

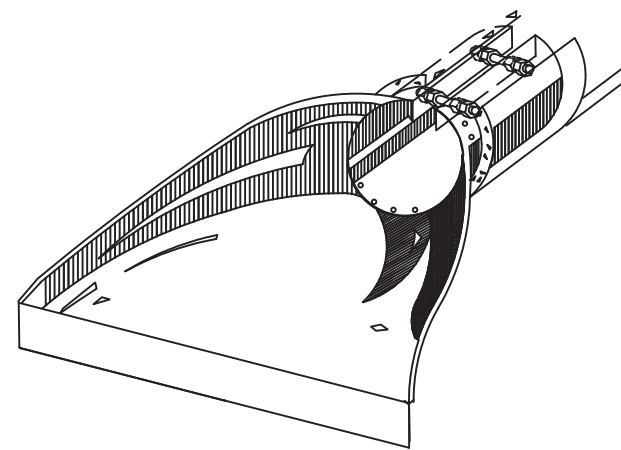
Adoption Date: 02/08/2019

Last Code and Stds. Review By: _____ Date: _____

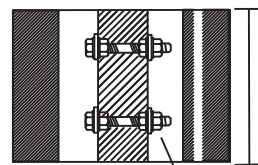
Next Code and Standards Review date: 02/08/2029

GENERAL NOTES

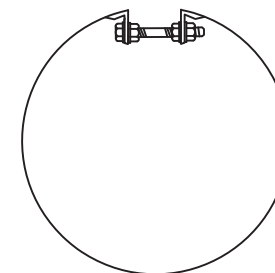
1. See general notes on sheet 1 of 3.
2. See sheet 1 of 3 for metal end section dimensions.
3. Insert bolts, washers and rivets shall be galvanized. Insert thickness is the same as the end section.
4. Use culvert inserts only at inlet.



FOR CONNECTING CONCRETE PIPE OR CORRUGATED POLYETHYLENE PIPE TO METAL END SECTION.



SEE NOTE 2



5/8" GALV.BOLTS

METAL INSERTS FOR USE WITH CORRUGATED PLASTIC
PIPE AND
METAL END SECTIONS

State of Alaska DOT&PF
ALASKA STANDARD PLAN

CULVERT END SECTIONS

Adopted as an Alaska
Standard Plan by:

Kenneth J. Fisher
 Kenneth J. Fisher, P.E.
 Chief Engineer

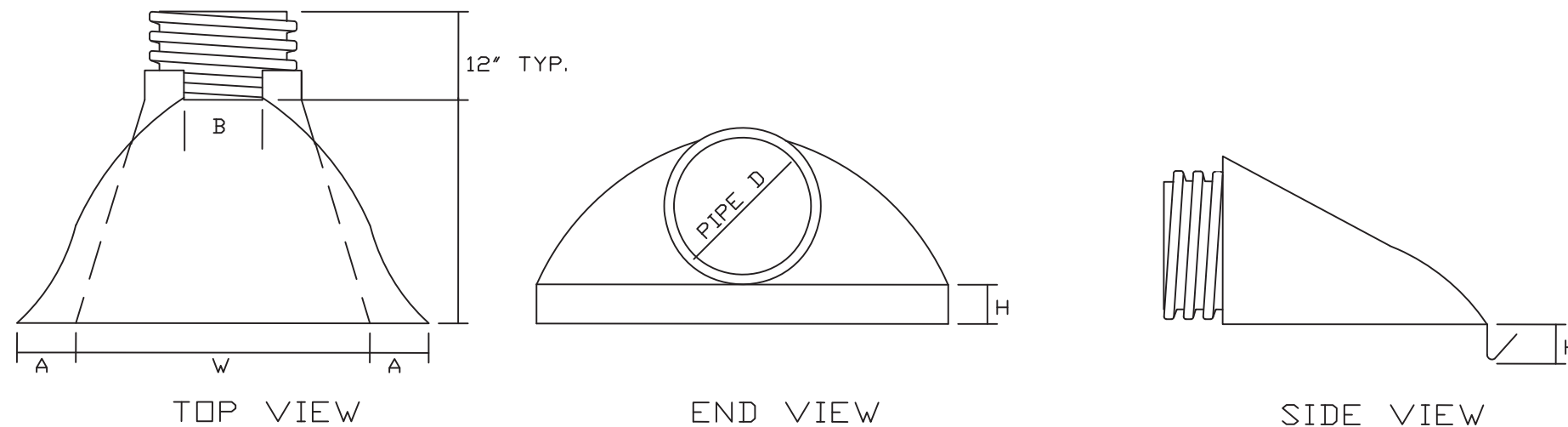
Adoption Date: 02/08/2019

Last Code and Stds. Review
By: Date:

Next Code and Standards Review date: 02/08/2029

GENERAL NOTES

1. Plastic flared end sections may be used with HDPE corrugated culvert pipes where noted in project plans or approved by project engineer.
2. Consult manufacturer's recommendations for proper sizing and coupling devices. Recommended fasteners may include connecting bands or cinch ties. Fittings across dimension B may include threaded rods with wing nuts or bolts and washers. plastic welds may be recommended.
3. Align coupling to accommodate pipe corrugations.
4. Metal components e.g. bolts or washers must be galvanized.
5. Attachment of end section should preserve culvert alignment and not impair pipe function. Use end sections only on culvert inlet.
6. Toe plate extensions will be required only when designated on the plans.
7. End sections will not be used on HDPE culvert pipes larger than 36" unless indicated by project plans or approved by the Engineer.



PIPE DIAMETER	DIMENSIONS IN MILLIMETERS				
	A(1"±)	B MAX	H(1"±)	L(1/2"±)	W(2"±)
12" and 15"	6 1/2"	10"	6 1/2"	25"	29"
18"	7 1/2"	15"	6 1/2"	32"	35"
24"	7 1/2"	18"	6 1/2"	36"	45"
30"	10 1/2"	N/A	7"	53"	68"
36"	10 1/2"	N/A	7"	53"	68"

PLASTIC END SECTION FOR CORRUGATED PLASTIC PIPE

State of Alaska DOT&PF
ALASKA STANDARD PLAN

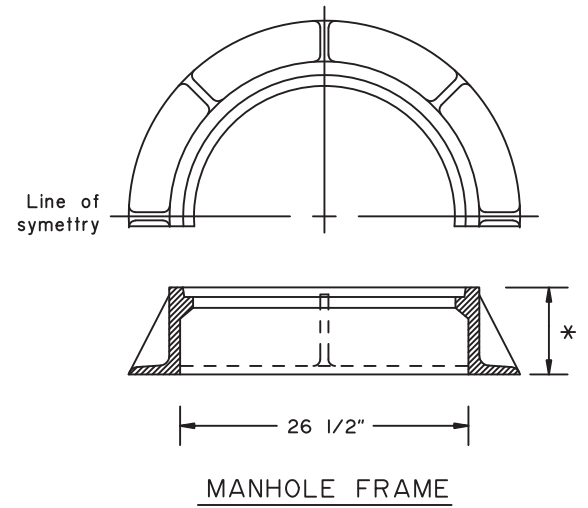
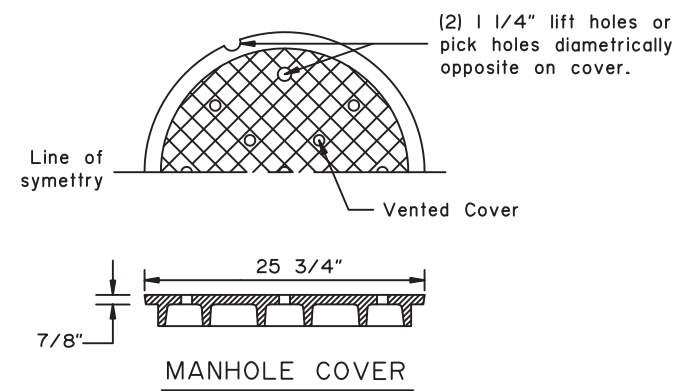
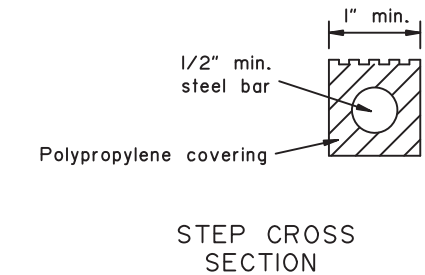
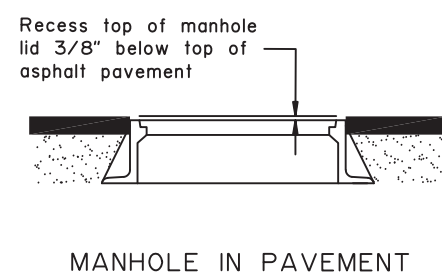
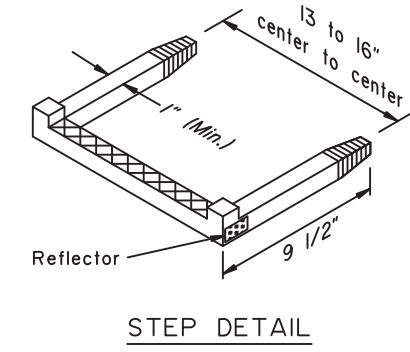
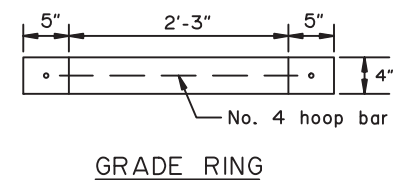
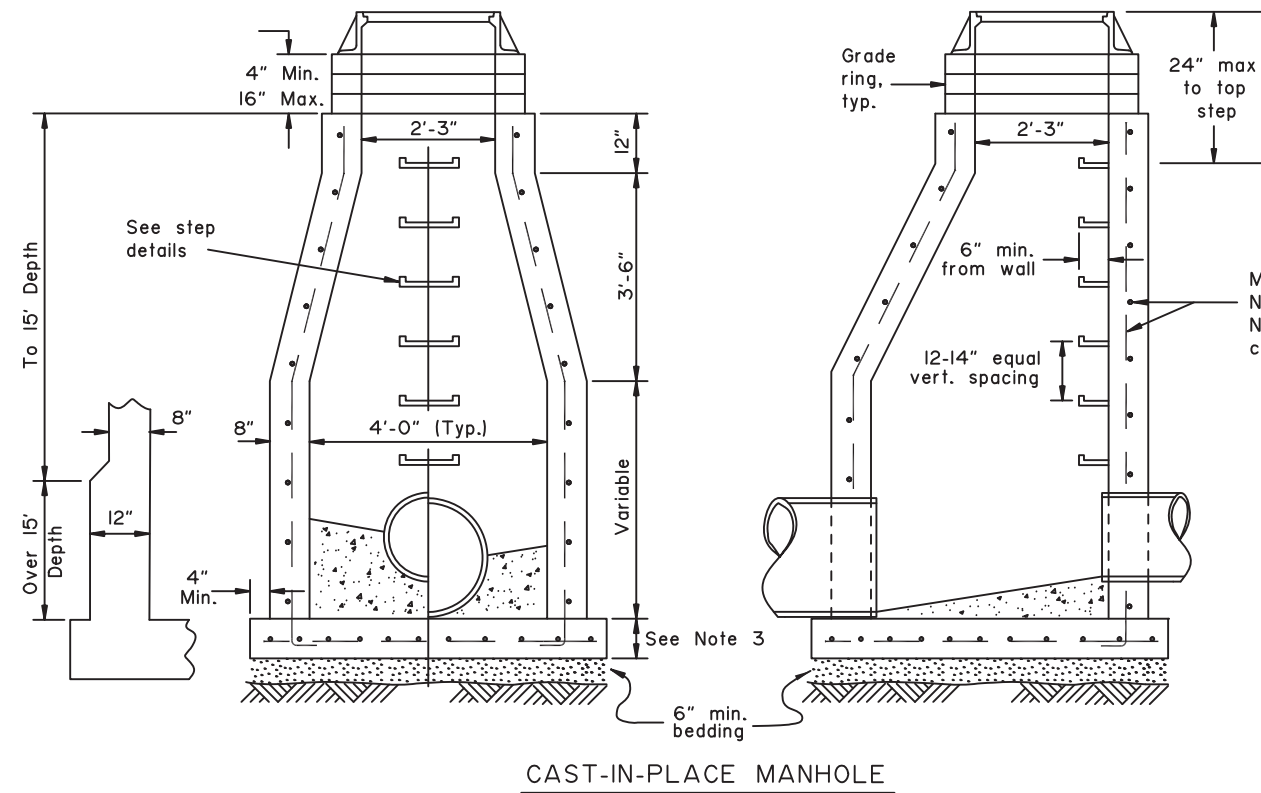
CULVERT END SECTIONS

Adopted as an Alaska
Standard Plan by: *Kenneth J. Fisher*
Kenneth J. Fisher, P.E.
Chief Engineer

Adoption Date: 02/08/2019

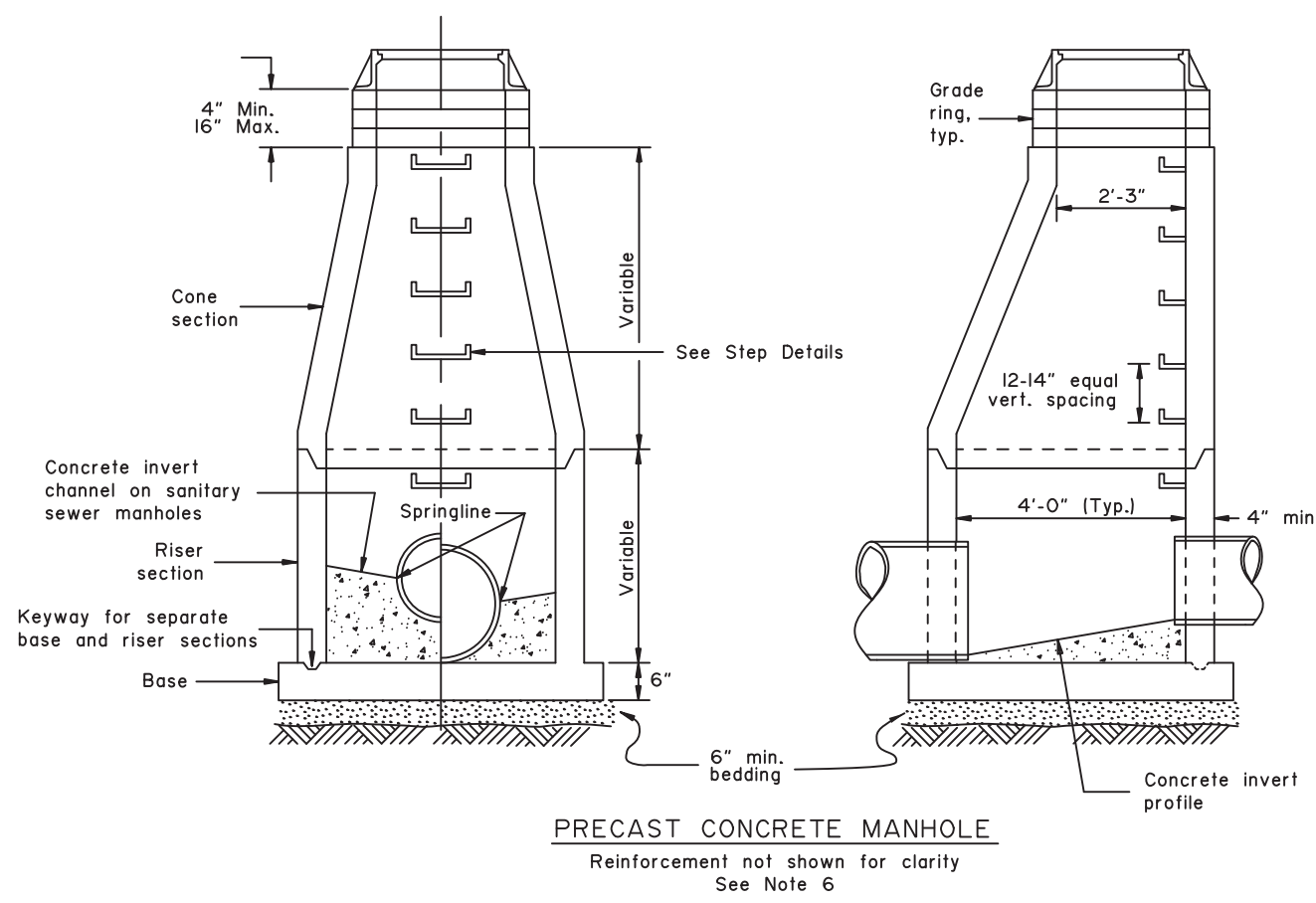
Last Code and Stds. Review
By: Date:

Next Code and Standards Review date: 02/08/2029



MANHOLE FRAME & COVER MINIMUM WEIGHT	
* Depth	6"
	7"
	8"
	9"
	10"
	380 lbs
	400 lbs
	440 lbs
	470 lbs
	500 lbs

- GENERAL NOTES:**
1. Either precast or cast-in-place manholes may be used.
 2. Details for manhole frame, cover and step are generic in nature and may vary from shown depending on manufacturer
 3. Use 8" thick cast-in-place concrete bases for depths less than 15' and 12" thick bases for depths 15' or greater.
 4. Manhole frames shall have a depth of 6" unless otherwise indicated on the plans.
 5. Step requirements:
 - a. 18" max. vertical clearance to bottom of manhole or concrete invert.
 - b. 3" minimum embedment.
 - c. 1,500 lb. min. pullout force.
 - d. ASTM A-615 grade 60 steel bar.
 - e. Injection molded polypropylene covering meeting ASTM D-41010
 - f. Slip resistant foot tread with "wings" to prevent feet from sliding off the edge.
 - g. Reflectors at step corners
 6. Reinforcement for precast manhole sections shall meet AASHTO M 199.



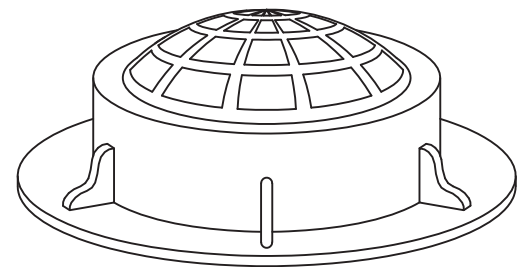
State of Alaska DOT&PF
ALASKA STANDARD PLAN
MANHOLES, FRAME AND COVER

Adopted as an Alaska Standard Plan by: *Kenneth J. Fisher*
Kenneth J. Fisher, P.E.
Chief Engineer

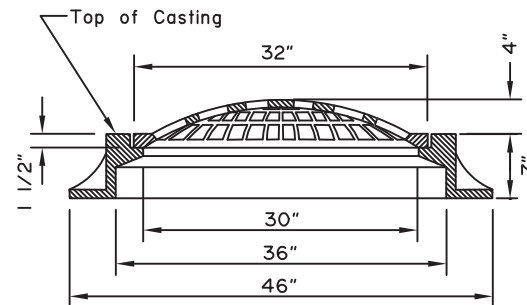
Adoption Date: 02/08/2019

Last Code and Stds. Review By: Date:

Next Code and Standards Review date: 02/08/2029

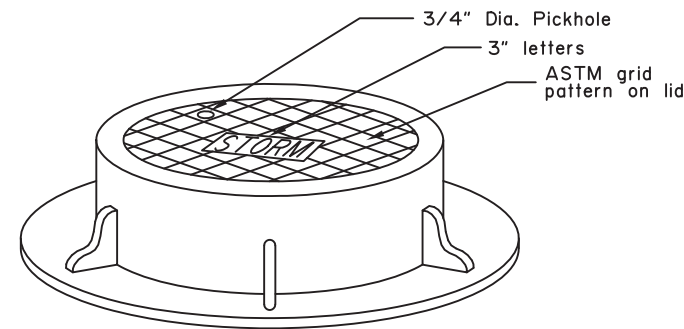


Surround field inlets with a 24" wide rock rubble collar 10" deep, 3" maximum size rock.



FIELD INLET FRAME & GRATE

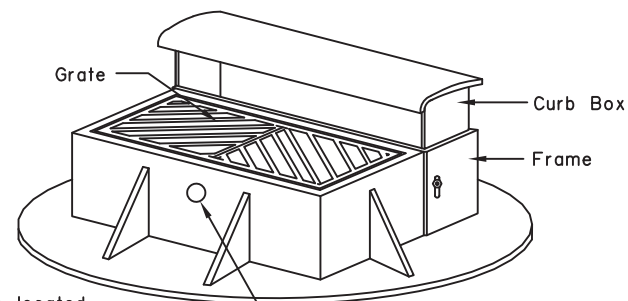
To be supplied for storm drain manholes where field inlets are specified. Field inlet frame and grate shall have a Minimum total weight of 525 lb.



MANHOLE LID FRAME AND GRATE

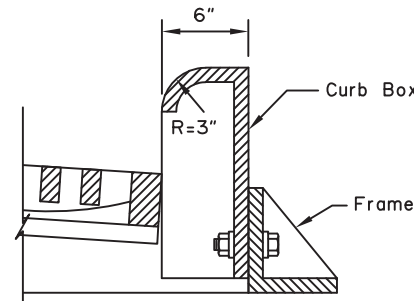
NOTES:

- Details shown are to indicate general design only. Dimensions and design may vary among the manufacturers, except that inlet grate shall be within $\frac{1}{4}$ "± of dimensions shown on this drawing.
- Manhole lids shall be 32" in diameter and may be used with field inlet frames.
- Type A field inlet frame inside dimensions shall be 24" x 36". Lugs will not protrude outside the concrete surface of the inlet box.
- Grates shall be bicycle safe. Where high capacity grates are called for on the plans, they shall conform to Std. Dwg. D-25.
- Frame and grate casting types are identified by the following abbreviations:
C.I. = Curb Inlet
F.I. = Field Inlet
M.H. = Manhole
- Flowline depression shall conform to Std. Dwg. D-23 for an on grade or sag point conditions.
- These are the default frames and grates to be used unless shown otherwise on the drainage plans or drainage structure summary.



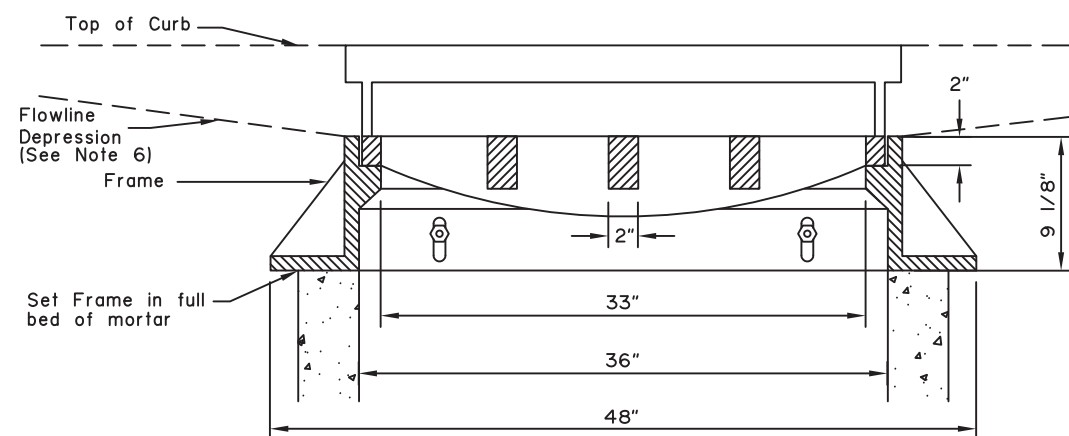
Pickhole located 3" from the top of frame

NOTE: Curb Box, Grate and frame shall have a minimum total weight of 725 lb.



SIDE VIEW
MOUNTABLE CURB AND GUTTER

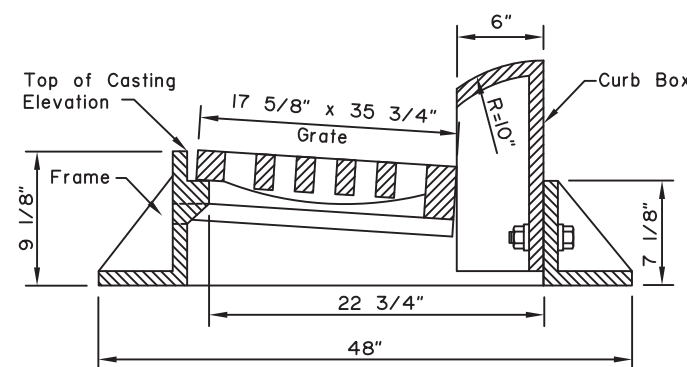
REQUIRED FRAME AND GRATES (See Note 7)			
STRUCTURE	INLET TYPE	CURB TYPE	TYPE FRAME AND GRATE
INLET BOX, TYPE A	Curb	Mountable	Standard Curb Inlet
	Curb	Expressway	Mountable Curb Inlet
	Curb	Rolled Curb	Depressed Inlet
	Field	-----	Field Inlet
STORM DRAIN MANHOLES, TYPE I, II AND III	Curb	Mountable	Mountable Curb Inlet
	Curb	Expressway	Expressway Curb Inlet
	Curb	Rolled Curb	Depressed Inlet
	Field	-----	Field Inlet
	Manhole Lids	-----	Field Inlet Frame, Solid MH. Lid



FRONT VIEW

CURB INLET FRAME AND GRATE

To be supplied for storm drain manholes Type I, Type II and Type III where curb inlets are specified.



SIDE VIEW
EXPRESSWAY CURB AND GUTTER

NOT TO SCALE

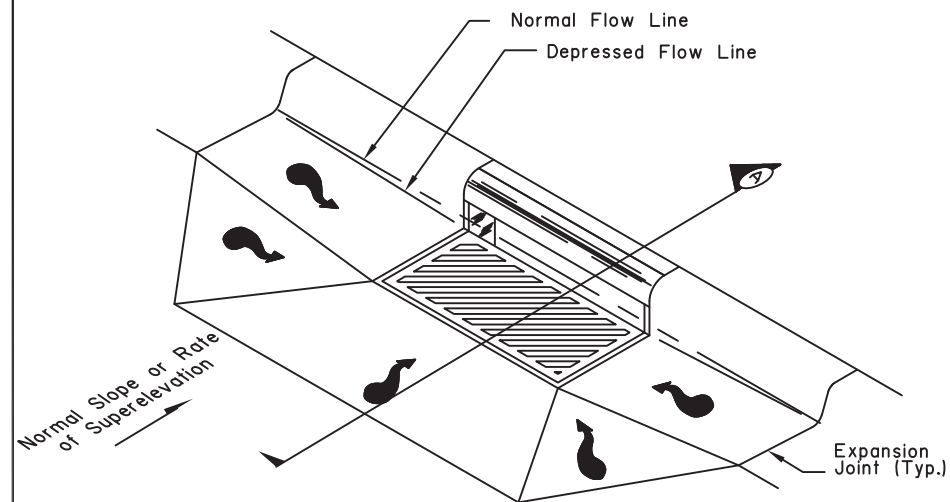
State of Alaska DOT&PF
ALASKA STANDARD PLAN
STORMDRAIN MANHOLE
FRAME AND GRATE
DETAILS

Adopted as an Alaska Standard Plan by: *Kenneth J. Fisher*
Kenneth J. Fisher, P.E.
Chief Engineer

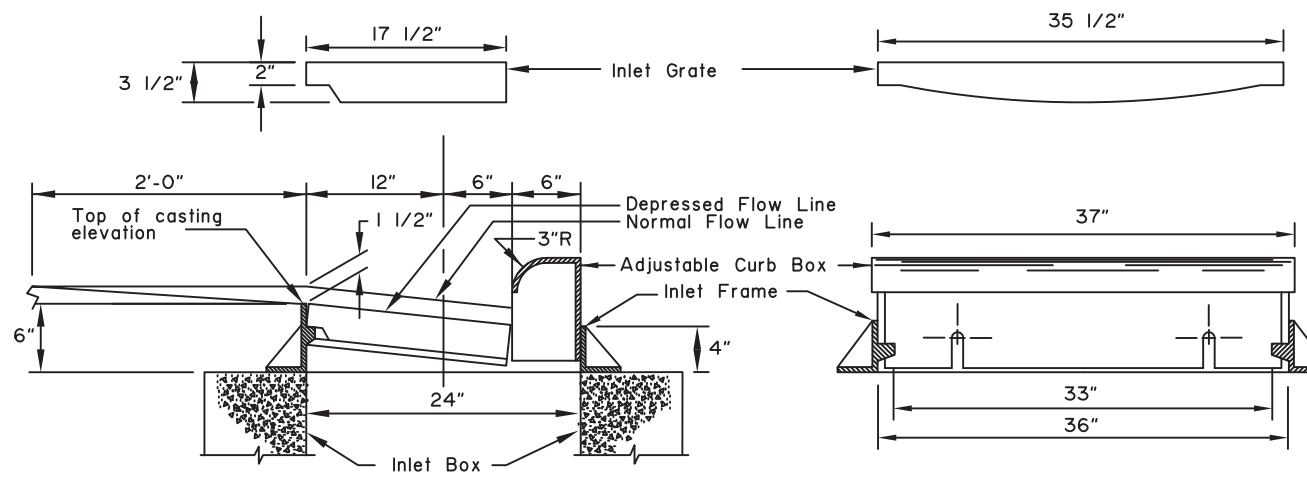
Adoption Date: 02/08/2019

Last Code and Stds. Review
By: Date:

Next Code and Standards Review date: 02/08/2029

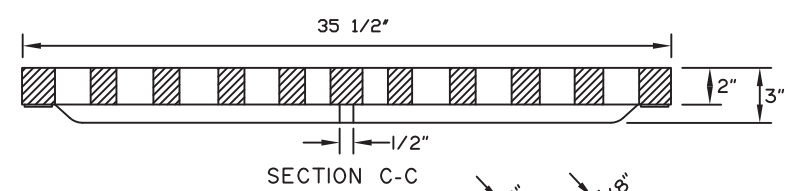


STANDARD CURB INLET INSTALLATION

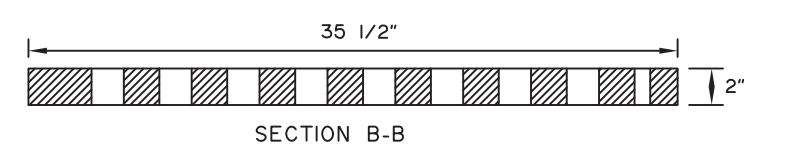


SECTION A

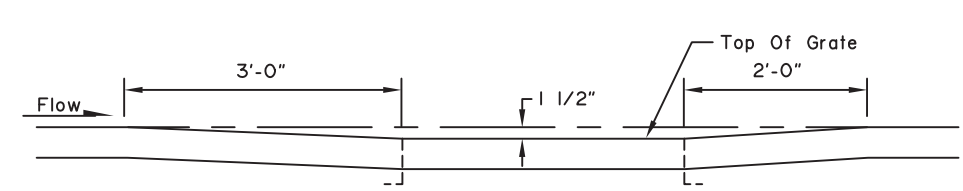
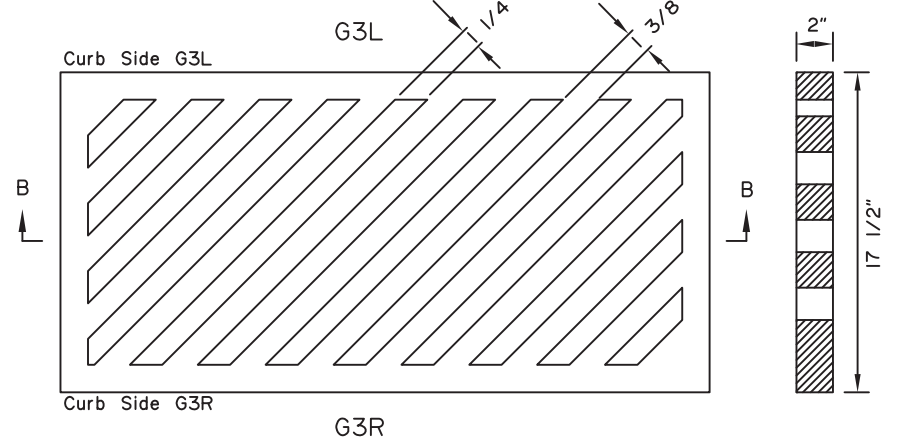
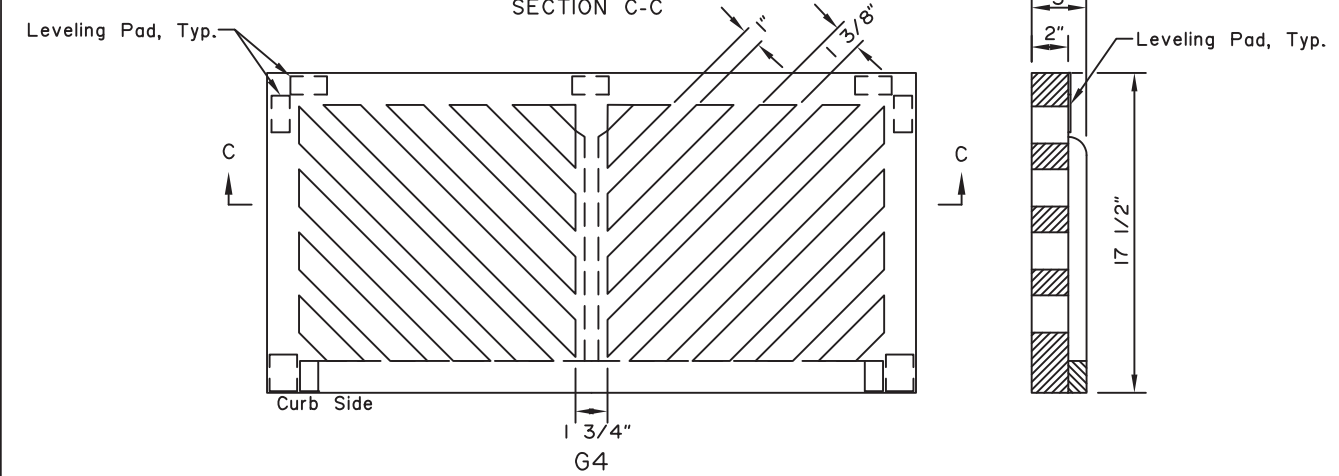
- GENERAL NOTES:**
1. Details shown are to indicate general design only. Dimensions and design may vary among the manufacturers.
 2. Minimum casting weight shall be 330 lbs for Curb Inlet Frame with Curb Box and 200 lbs. for Inlet Gate.
 3. The outside dimensions of Inlet Gate shall be 35 1/2" x 17 1/2" and all grates shall be interchangeable.
 4. Minimum drainage area of Inlet Gate shall be 255 square inches.
 5. Inlet Gate type G-3R or G-3L shall be used in all cases except where drainage is from both directions, in which case type G-4 shall be used.



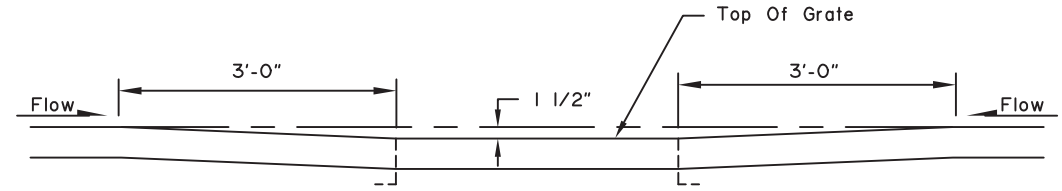
SECTION C-C



SECTION B-B



ON GRADE



AT LOW POINT

DEPRESSION IN FLOW LINE AT INLET CONSTRUCTION DETAILS

State of Alaska DOT&PF
ALASKA STANDARD PLAN
**CURB INLET BOX,
FRAME & GRATE**

Adopted as an Alaska
Standard Plan by: *Kenneth J. Fisher*
Kenneth J. Fisher, P.E.
Chief Engineer

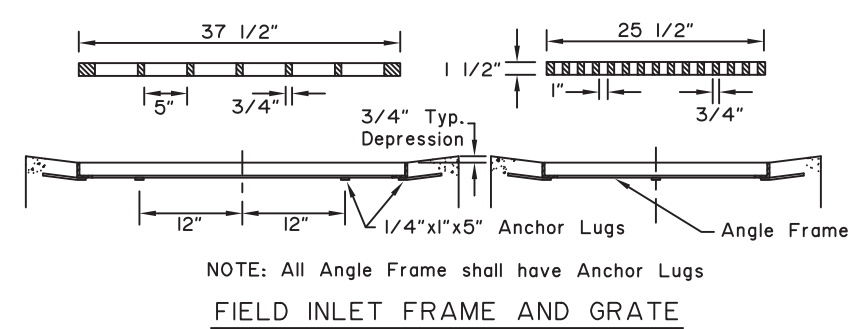
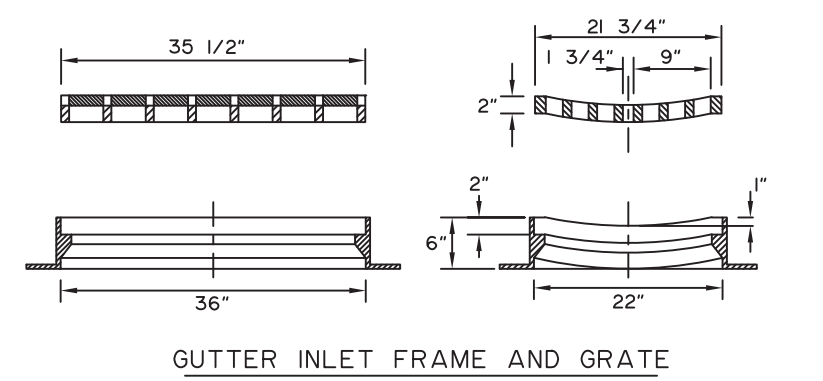
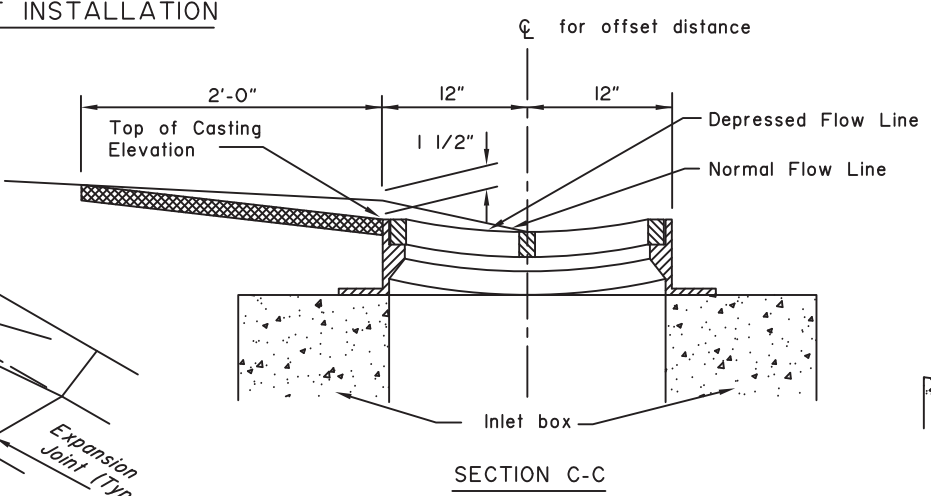
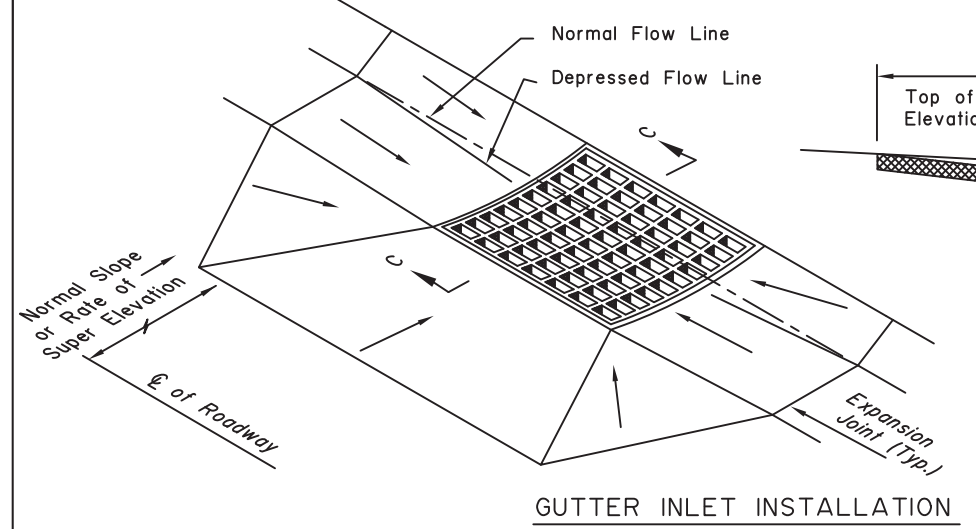
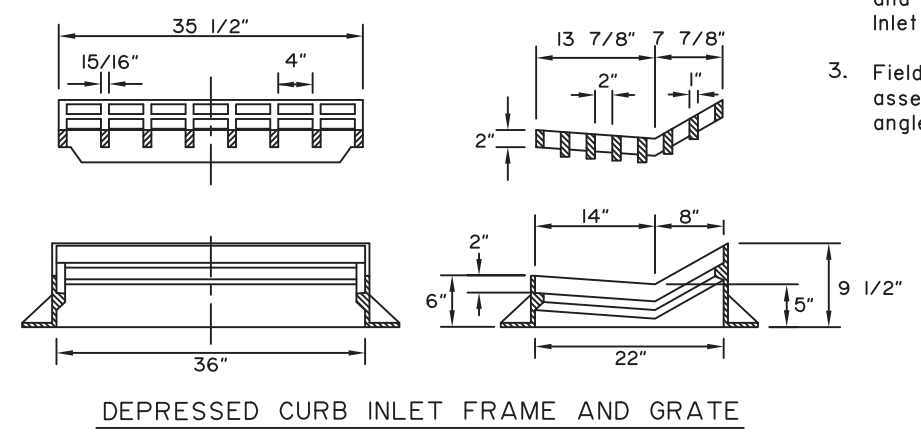
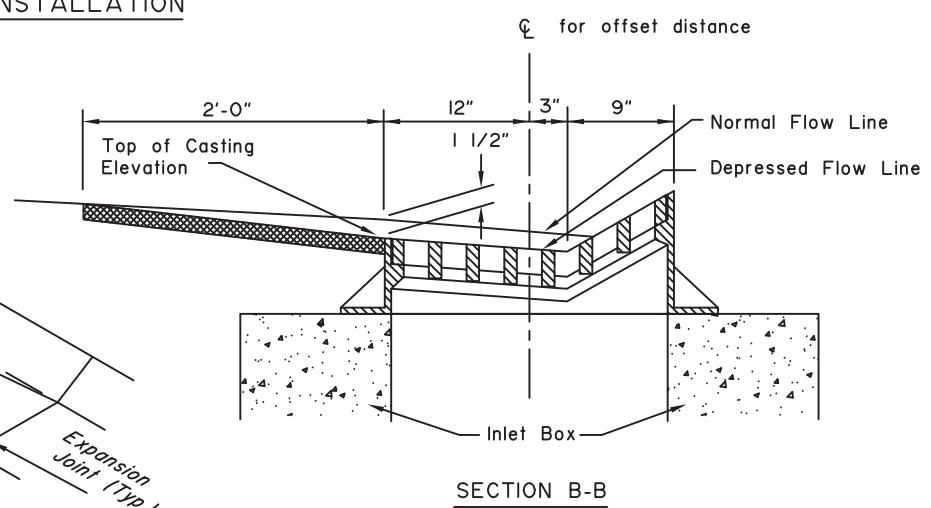
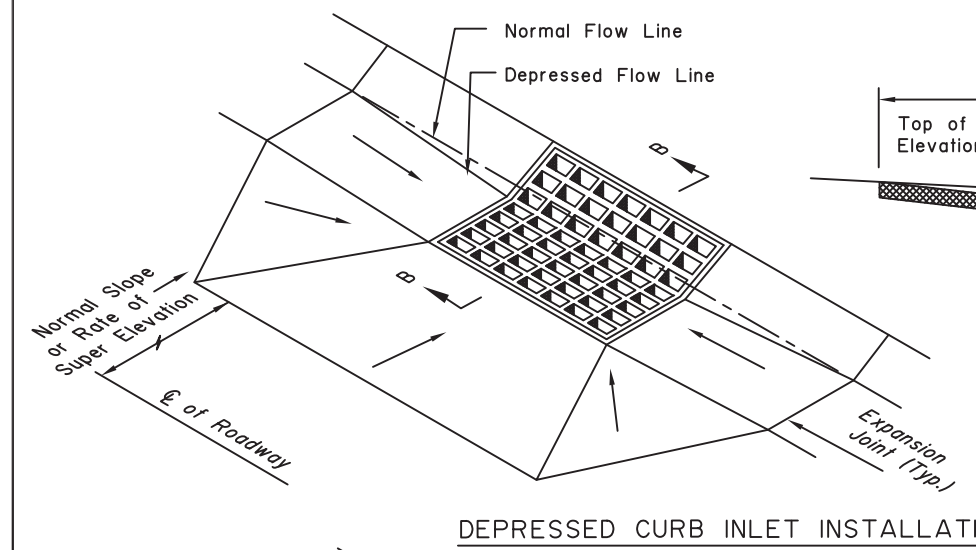
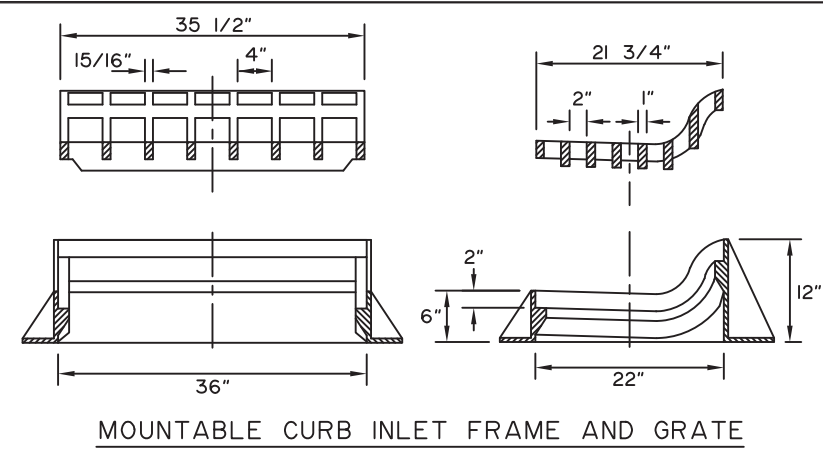
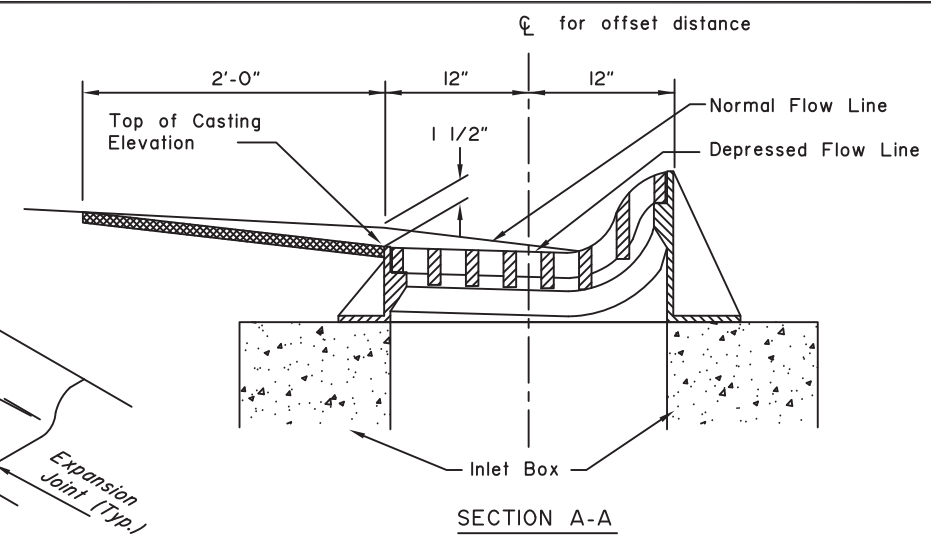
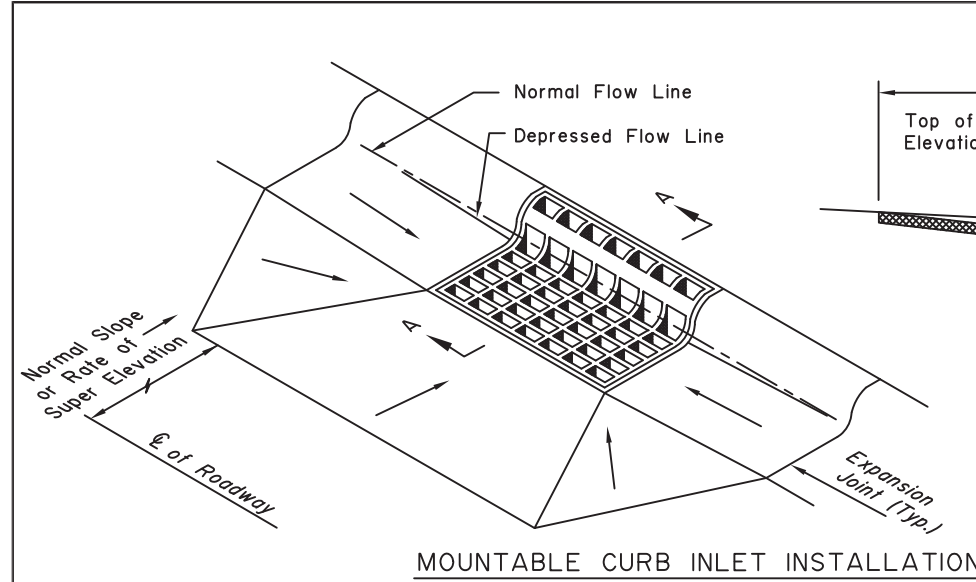
Adoption Date: 02/08/2019

Last Code and Stds. Review
By: Date:
Next Code and Standards Review date: 02/08/2029

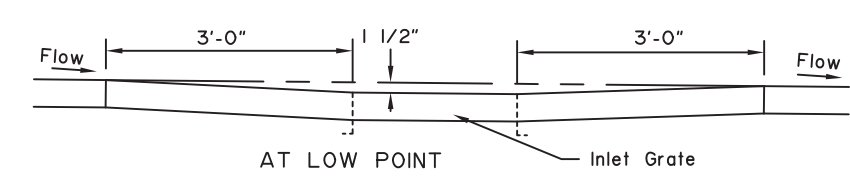
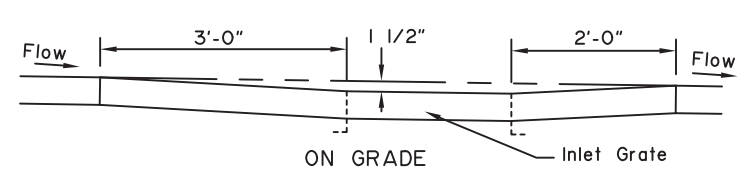
NOT TO SCALE

GENERAL NOTES:

1. Details shown are to indicate general design only. Dimensions and design may vary among the manufacturers. Except inlet grate outside dimension shall be as shown on this drawing.
2. Minimum casting weight shall be 550lbs. for Curb Inlet Frame and Grate, 450lbs. for Gutter Inlet Frame and Grate, and 300lbs. for Field Inlet Frame and Grate.
3. Field Inlet Frame may be welded assembly of L 1 3/4"x1 3/4"x1/4" angle equivalent to ASTM A-36 steel.



NOTE: All Angle Frame shall have Anchor Lugs



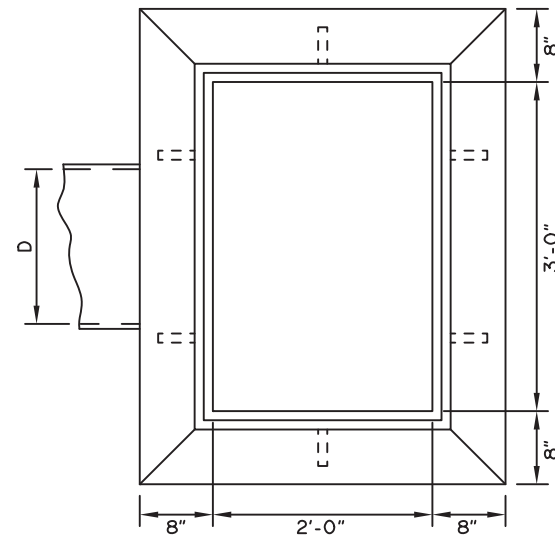
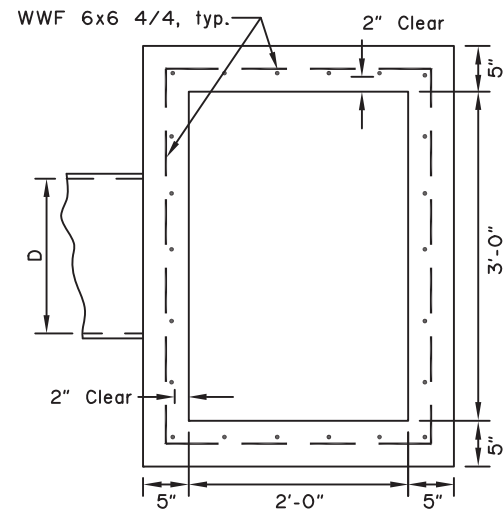
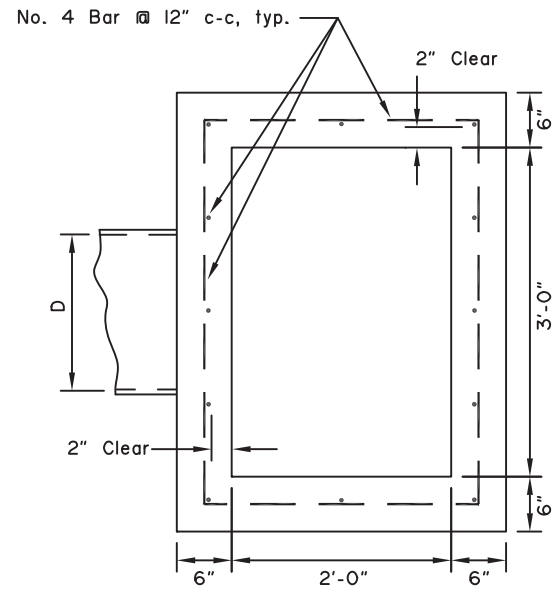
DEPRESSION IN FLOW LINE AT INLET CONSTRUCTION DETAILS

State of Alaska DOT&PF
ALASKA STANDARD PLAN
INLET FRAMES AND GRATES

Adopted as an Alaska Standard Plan by: *Kenneth J. Fisher*
Kenneth J. Fisher, P.E.
Chief Engineer

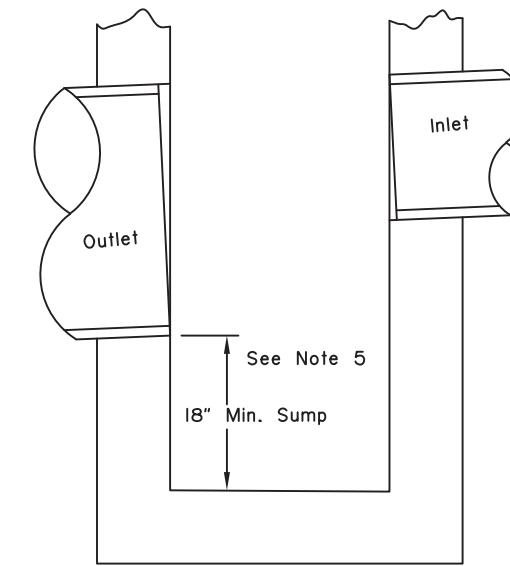
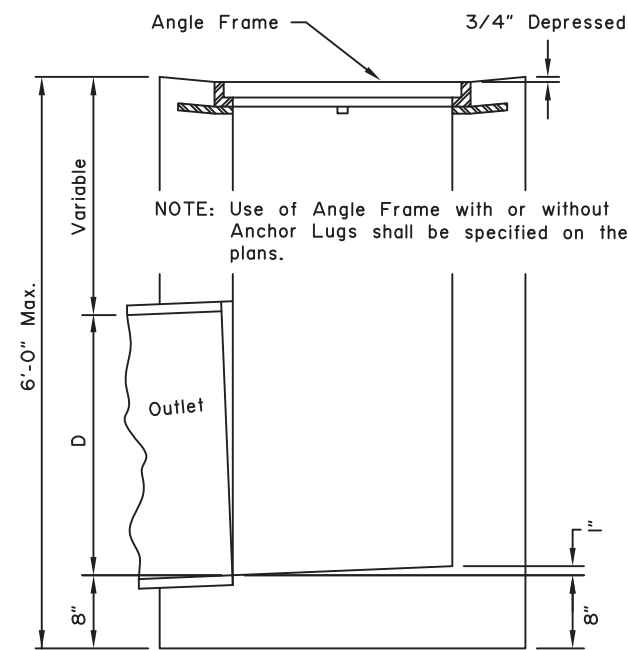
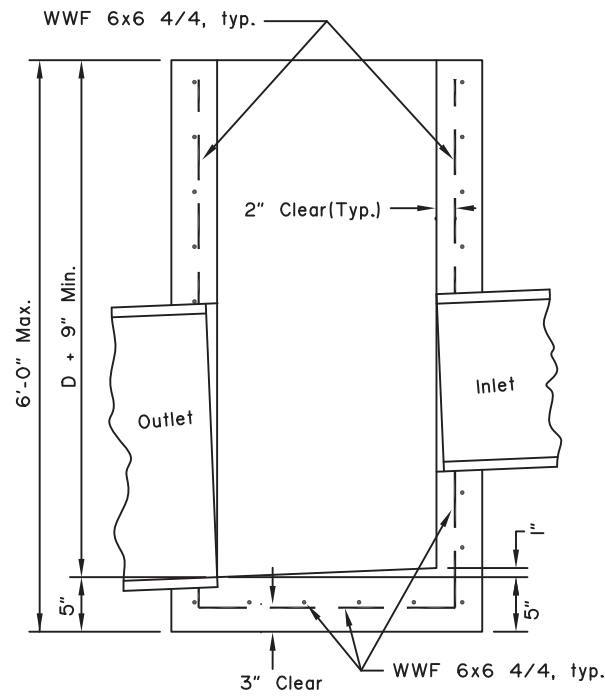
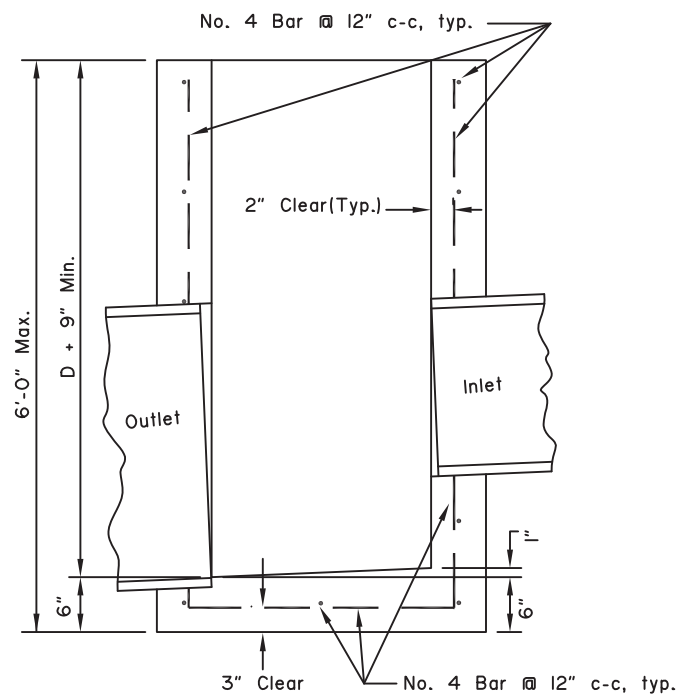
Adoption Date: 02/08/2019

Last Code and Stds. Review By: Date:
Next Code and Standards Review date: 02/08/2029



GENERAL NOTES:

1. Install inlet boxes parallel to the curb line.
2. The plans will indicate which inlet boxes require a sump.
3. Shape floors to drain.
4. Use Grade 40 minimum reinforcing steel.
5. The plans will indicate which inlet boxes require sumps.



SUMP DETAIL

REINFORCED
CAST IN PLACE

PRECAST

FIELD INLET BOX
CAST* IN PLACE

TYPE "A" CONCRETE INLET BOXES

* May be Precast or Reinforced Cast-In-Place Box.

State of Alaska DOT&PF
ALASKA STANDARD PLAN

TYPE "A"
INLET BOX

Adopted as an Alaska Standard Plan by: *Kenneth J. Fisher*
Kenneth J. Fisher, P.E.
Chief Engineer

Adoption Date: 02/08/2019

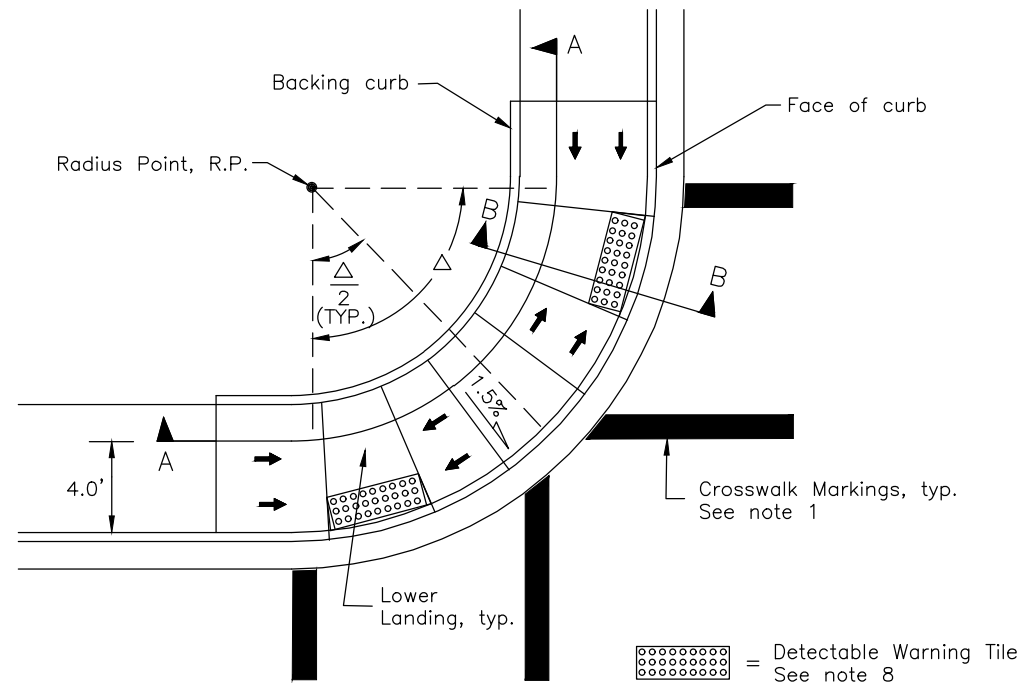
Last Code and Stds. Review
By: Date:

Next Code and Standards Review date: 02/08/2029

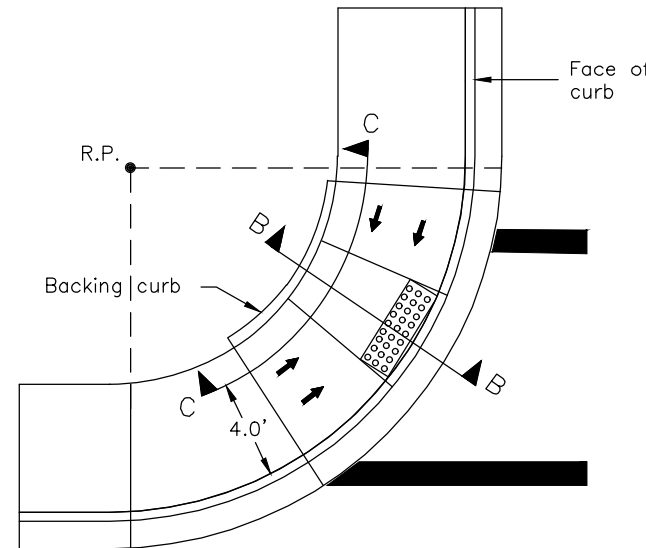
NOT TO SCALE

CONSTRUCTION NOTES:

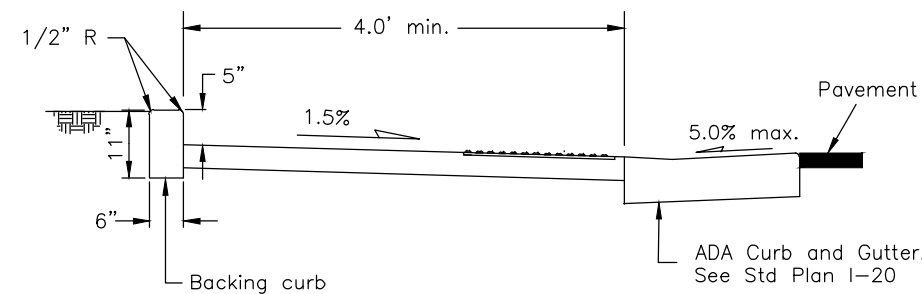
1. See plans for ramp type at specific locations. See striping plans for crosswalk layouts.
2. Construct ramp runs and landings of concrete, regardless of whether the sidewalk is asphalt or concrete.
3. When one parallel curb ramp will serve two directions, use the One Crossing Direction detail and refer to the striping plans for crosswalk layouts.
4. Ramp run lengths are shown for a flat sidewalk grade. For other sidewalk grades, increase or decrease ramp and flare lengths to maintain the slopes shown.
5. Construct ramp slopes at a nominal 7.7% grade, or flatter. Ramp slopes may be increased to a maximum of 8.3% when site conditions warrant it. Ramp lengths should be increased to keep grades under the 8.3% maximum, but are not required to exceed 15.0 feet. The resulting ramp grade at a 15.0 foot ramp length is acceptable even if it exceeds 8.3%.
6. Construct sidewalk cross slopes at 1.5% nominal (1.0% min. and 2.0% max).
7. Provide a coarse broomed finish running perpendicular to the curb on ramp runs and upper landings and parallel to the curb on lower landings.
8. Install 24" detectable warning tiles meeting Section 705.1 of the 2006 ADA Standards for Transportation Facilities for the full width of the ramp.
9. Maximum cross slope on lower landings is 2.0% as measured in any direction. Maximum cross slope on ramps is 2.0% measured perpendicular to the ramp run.
10. Provide 4" minimum thick concrete on ramps and landings.



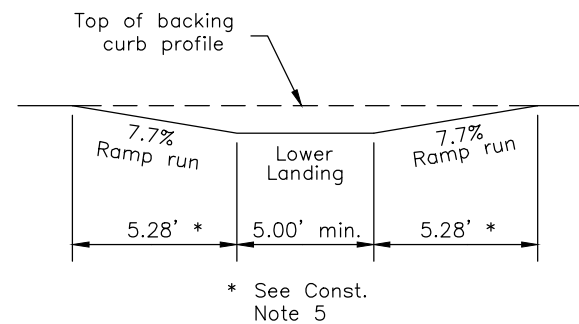
TWO CROSSING DIRECTIONS
At corner



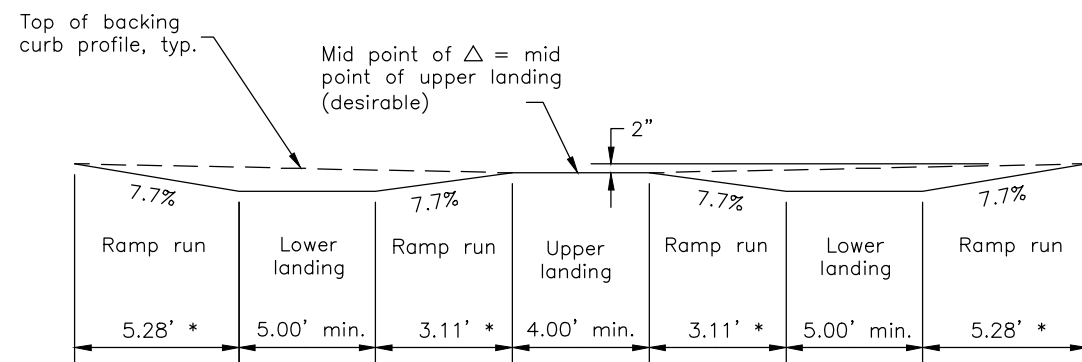
ONE CROSSING DIRECTION
At corner - generic location shown



SECTION B-B

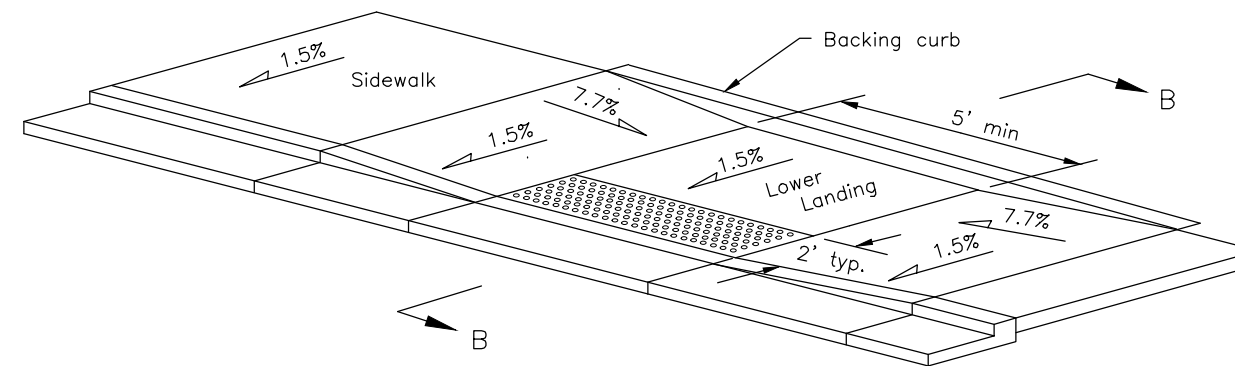


PROFILE C-C



* See Const. Note 5

PROFILE A-A



MID-BLOCK

Note: Drawing not to scale

State of Alaska DOT&PF
ALASKA STANDARD PLAN

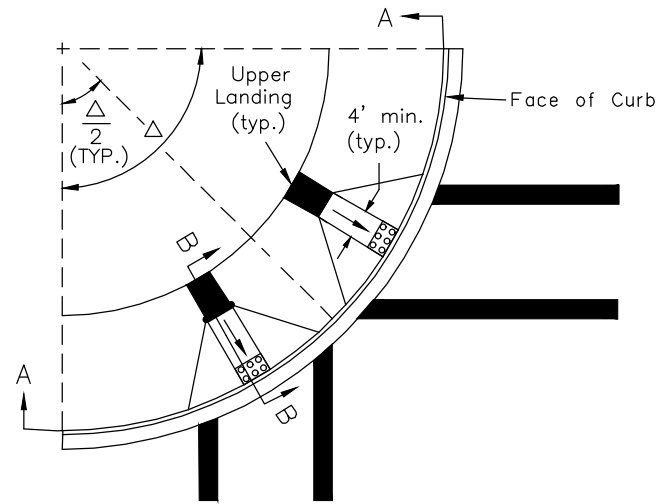
PARALLEL CURB RAMP

Adopted as an Alaska Standard Plan by: *Carolyn Morehouse*
Carolyn Morehouse, P.E.
Chief Engineer

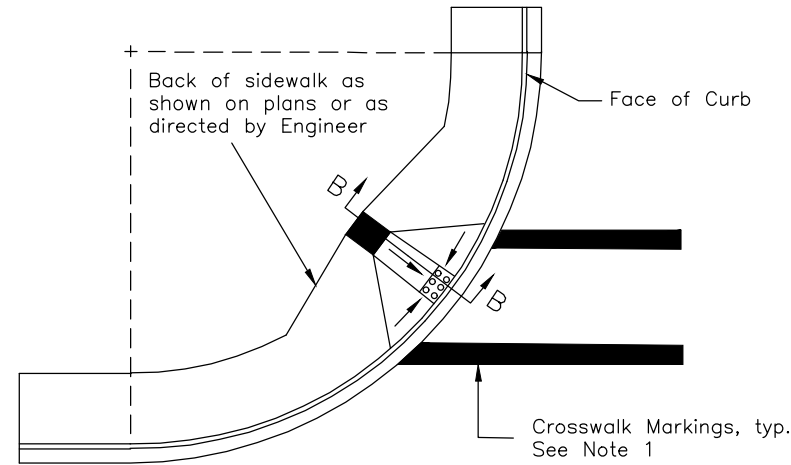
Adoption Date: 7/17/2020

Last Code and Stds. Review
By: KLH Date: 7/8/2020

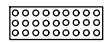
Next Code and Standards Review date: 7/8/2030

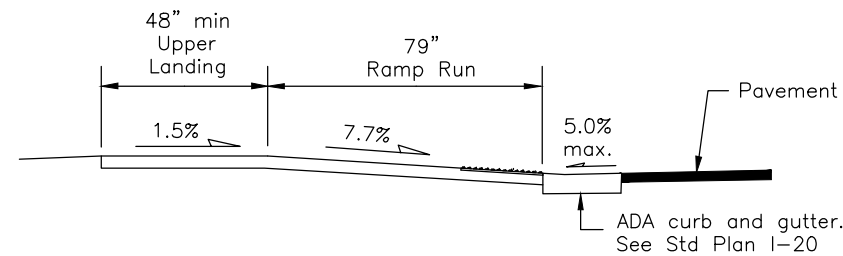


TWO CROSSING DIRECTIONS
At corner

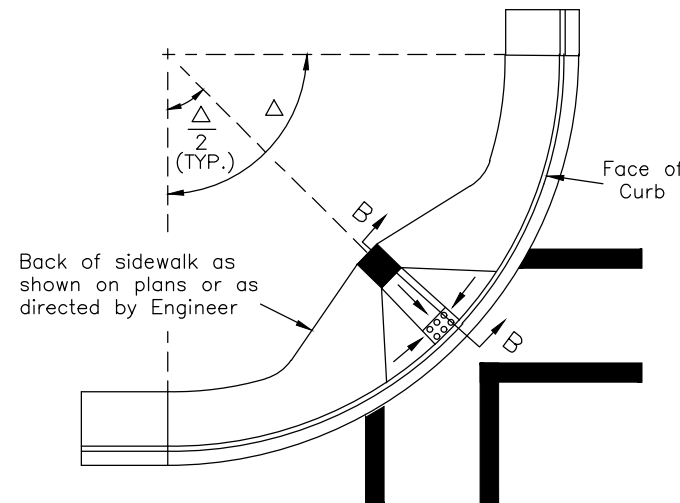


ONE CROSSING DIRECTION
At corner

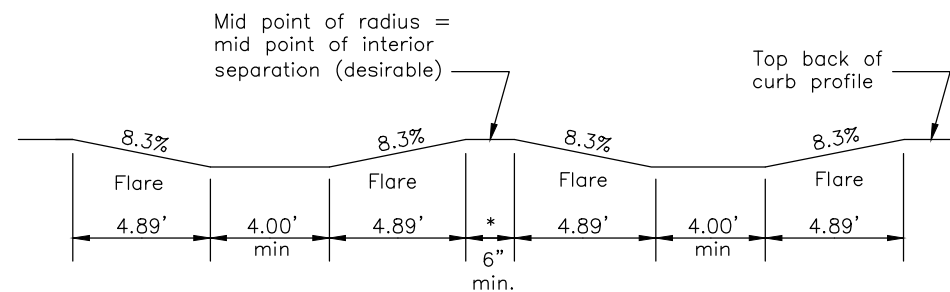
 = Detectable Warning Tile
See Note 9



SECTION B-B

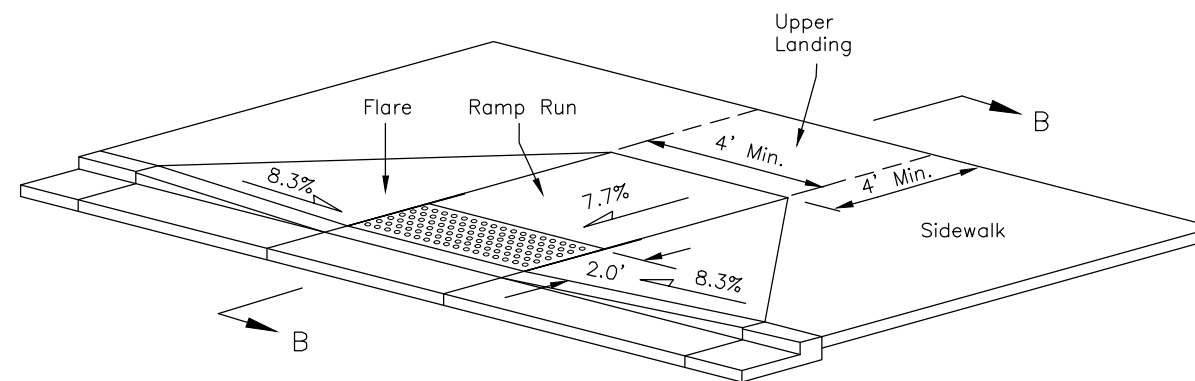


ONE RAMP - TWO DIRECTIONS
At corner



PROFILE A-A

* This dimension is adjustable depending on the curb radius and location of ramps



MID-BLOCK

CONSTRUCTION NOTES

1. See plans for ramp type at specific locations. See striping plans for crosswalk layouts.
2. Construct ramp runs perpendicular to the curb face.
3. Construct ramp runs, flares, and upper landings of concrete, regardless of whether the sidewalk is asphalt or concrete.
4. Ramp run and flare lengths are shown for a flat sidewalk grade. For other sidewalk grades, increase or decrease ramp and flare lengths to maintain the slopes shown.
5. Construct ramp slopes at a nominal 7.7% grade, or flatter. Ramps slopes may be increased to a maximum of 8.3% when site conditions warrant it. Ramp lengths should be increased to keep grades under the 8.3% maximum, but are not required to exceed 15.0 feet. The resulting ramp grade at a 15.0 foot ramp length is acceptable even if it exceeds 8.3%.
6. Construct flare slopes at 8.3% (measured parallel to the curb line adjacent to the top back of curb) or flatter, and sidewalk cross slopes at a nominal 1.5% (1.0% min., 2.0% max). Do not construct flare slopes steeper than 10.0%, or sidewalk cross slopes steeper than 2.0%.
7. Provide a coarse broomed finish running parallel to the curb on ramp runs and flares.
8. When approved by the Engineer, flares may be replaced with a curb at locations where access to the side of a ramp run is blocked by poles, utility boxes, other obstructions, or by a non-accessible surface such as a dirt planter strip. See Standard Plan I-20 for details.
9. Install 24" detectable warning tiles for the full width of the ramp. Provide tiles with truncated domes meeting Section 705.1 of the 2006 ADA Standards for Transportation Facilities.
10. Maximum cross slope on upper landings, measured in any direction, is 2.0%. Maximum cross slope on ramps is 2.0% measured perpendicular to the ramp run.
11. Provide 4" minimum thick concrete on ramps, flares and landings

Note: Drawing not to scale

State of Alaska DOT&PF
ALASKA STANDARD PLAN

PERPENDICULAR
CURB RAMP

Adopted as an Alaska
Standard Plan by: *Carolyn Morehouse*
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

Last Code and Stds. Review
By: KLH Date: 7/8/2020

Next Code and Standards Review date: 7/8/2030

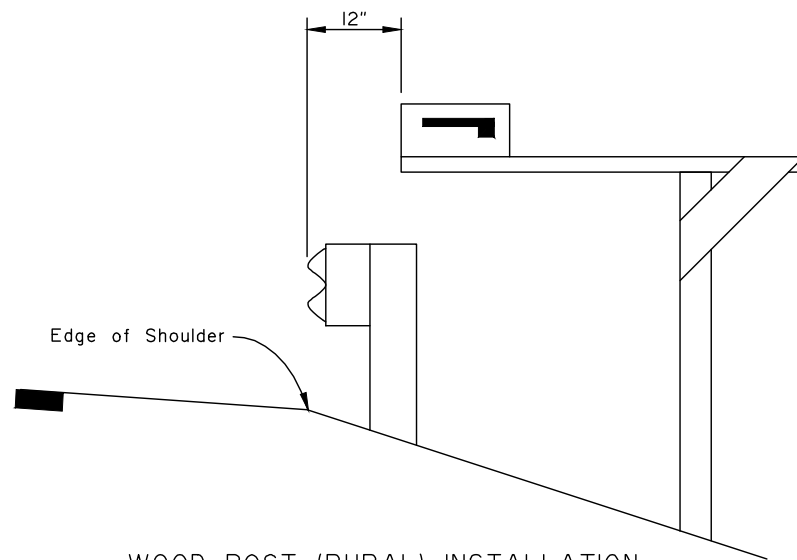
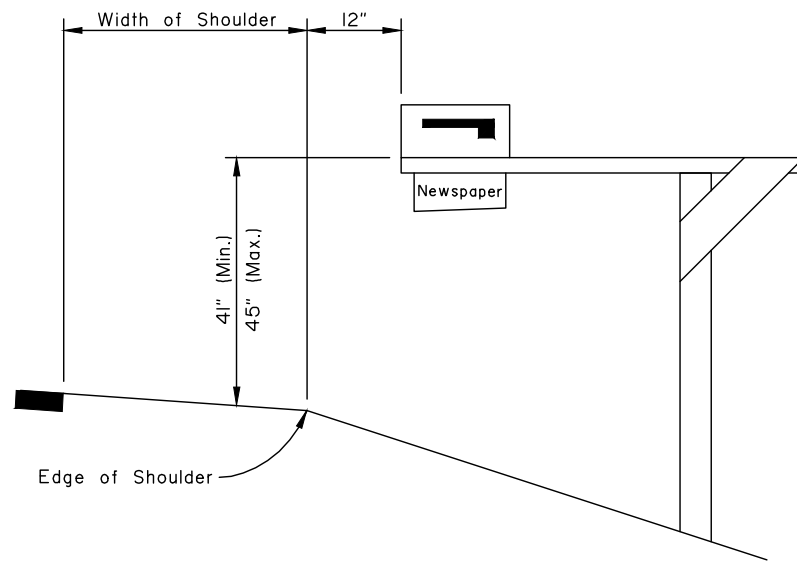
V_c = Average Daily Traffic on Cross Road (vehicles per day)
 V_m = Average Daily Traffic on Main Road (vehicles per day)
 n = Number of Mailboxes at Mail Stop

Posted Main Road Speed Limit	"D1" Distance (ft)	
	$n \times V_c \times V_m \leq 4000$	$n \times V_c \times V_m > 4000$
≤ 40	65	200
> 40	65	295

Posted Main Road Speed Limit	"D2" Distance (ft)	
	≤ 4000	> 4000
≤ 40	100	100
> 40	150	200

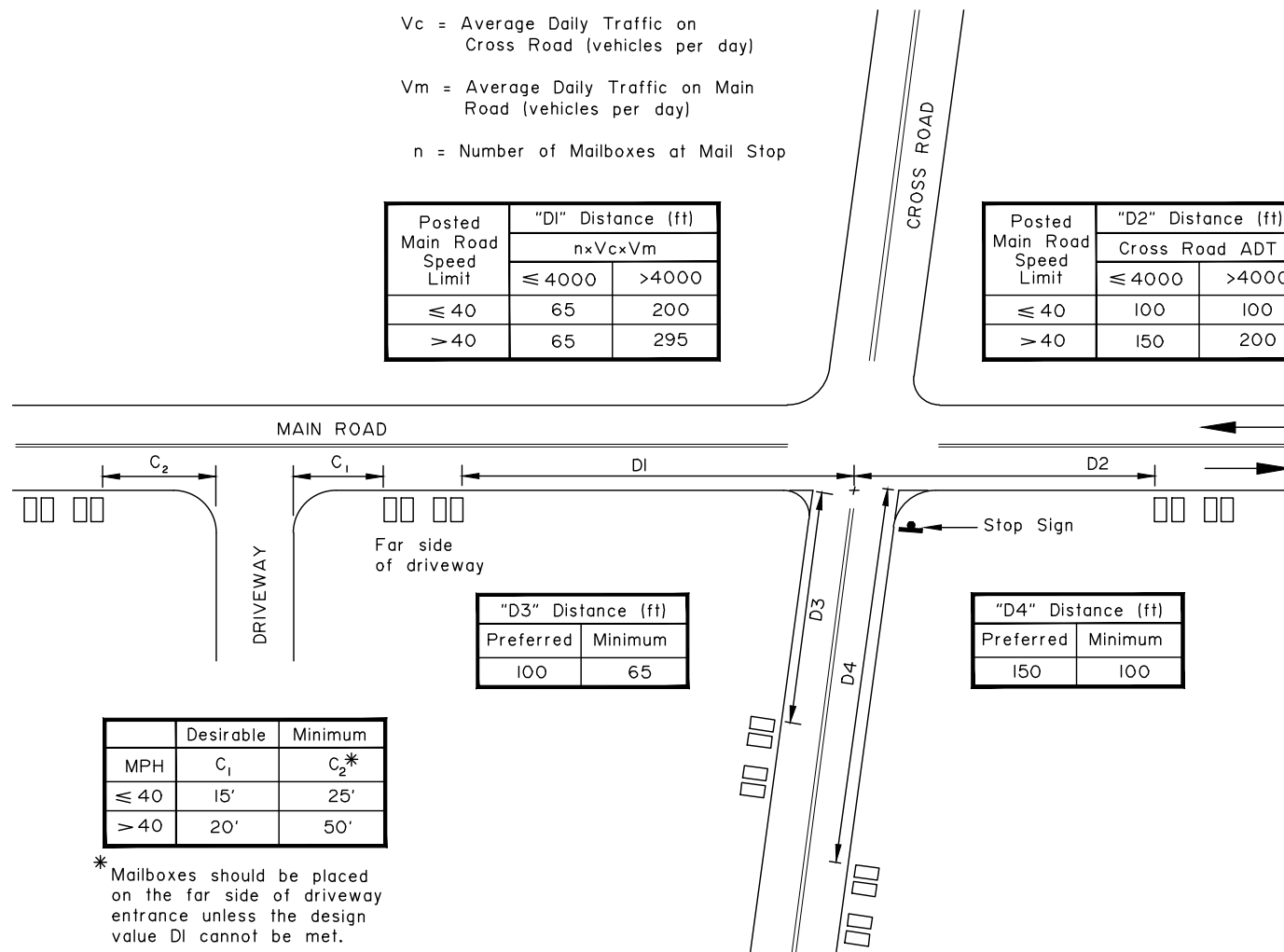
GENERAL NOTES:

1. Install mailboxes conforming to U.S. Postal Service requirements.
2. Mailbox supports shall not present a rigid, unyielding impact resistant hazard to road traffic, but shall be flexible and yielding to vehicular impact. Install crashworthy supports in accordance with Standard Plan M-23.
3. Installation shall be on the right side of roadway in the direction of mail carrier travel with the exception of one-way streets where they may be placed on either side.
4. Locate mailboxes to minimize dangers to road traffic, carriers and postal recipients.
5. Provide a minimum shoulder width of 8' unless otherwise approved by Engineer. Install single and double mailbox supports separated by at least 3', and desirably 4', from each other. More than two boxes on a single support is allowable only as shown on Standard Plan M-23.
6. Newspaper receptacles shall conform to the same setback and support regulations as mailboxes. Where newspaper receptacles and mailboxes are to be mounted together, the newspaper receptacle may be mounted beneath the mailbox or on the side of the mailbox support opposite the reflecting marker.



WOOD POST (RURAL) INSTALLATION

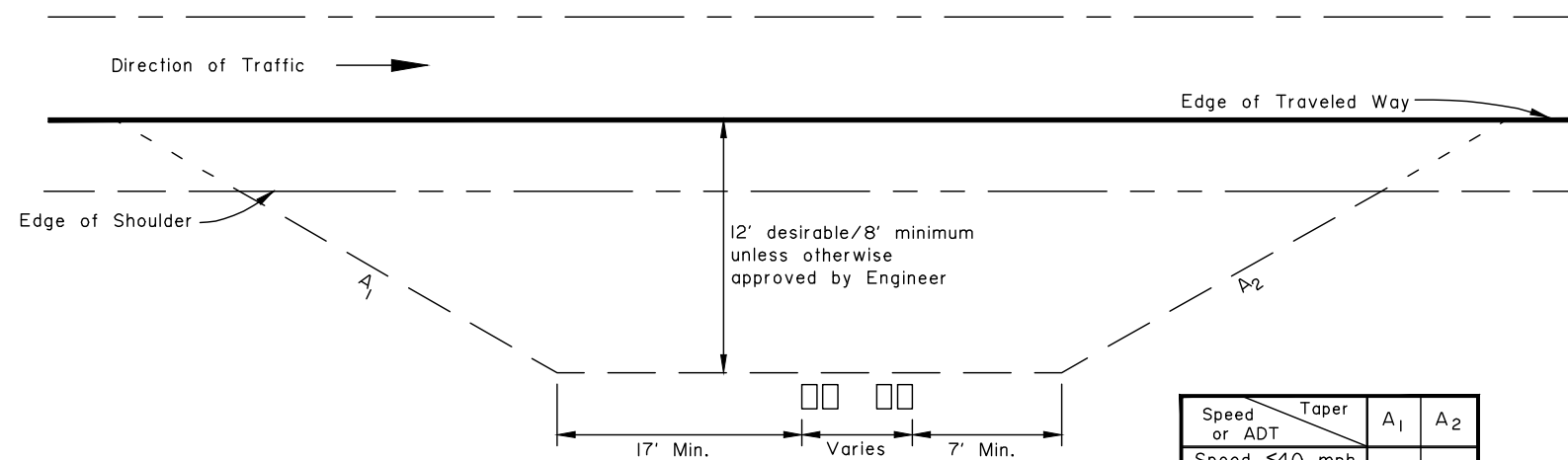
Single or Double Box



MPH	Desirable	Minimum
≤ 40	C ₁	C ₂ *
> 40	20'	50'

* Mailboxes should be placed on the far side of driveway entrance unless the design value D1 cannot be met.

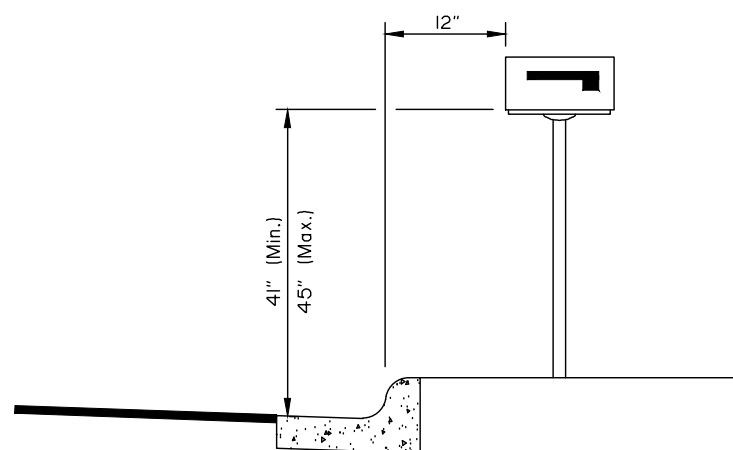
MAILBOX LOCATION AT INTERSECTIONS AND DRIVEWAYS



Speed or ADT	Taper	A ₁	A ₂
Speed ≤ 40 mph and ADT ≤ 400		4:1	2.5:1
Speed > 40 mph or ADT > 400		20:1	12:1

TURNOUTS FOR GROUPED BOXES

TURNOUT TAPERS



METAL POST (URBAN) INSTALLATION

Single or Double Box

State of Alaska DOT&PF
 ALASKA STANDARD PLAN

MAILBOX LOCATION

Adopted as an Alaska Standard Plan by: *Carolyn Morehouse*
 Carolyn Morehouse, P.E.
 Chief Engineer

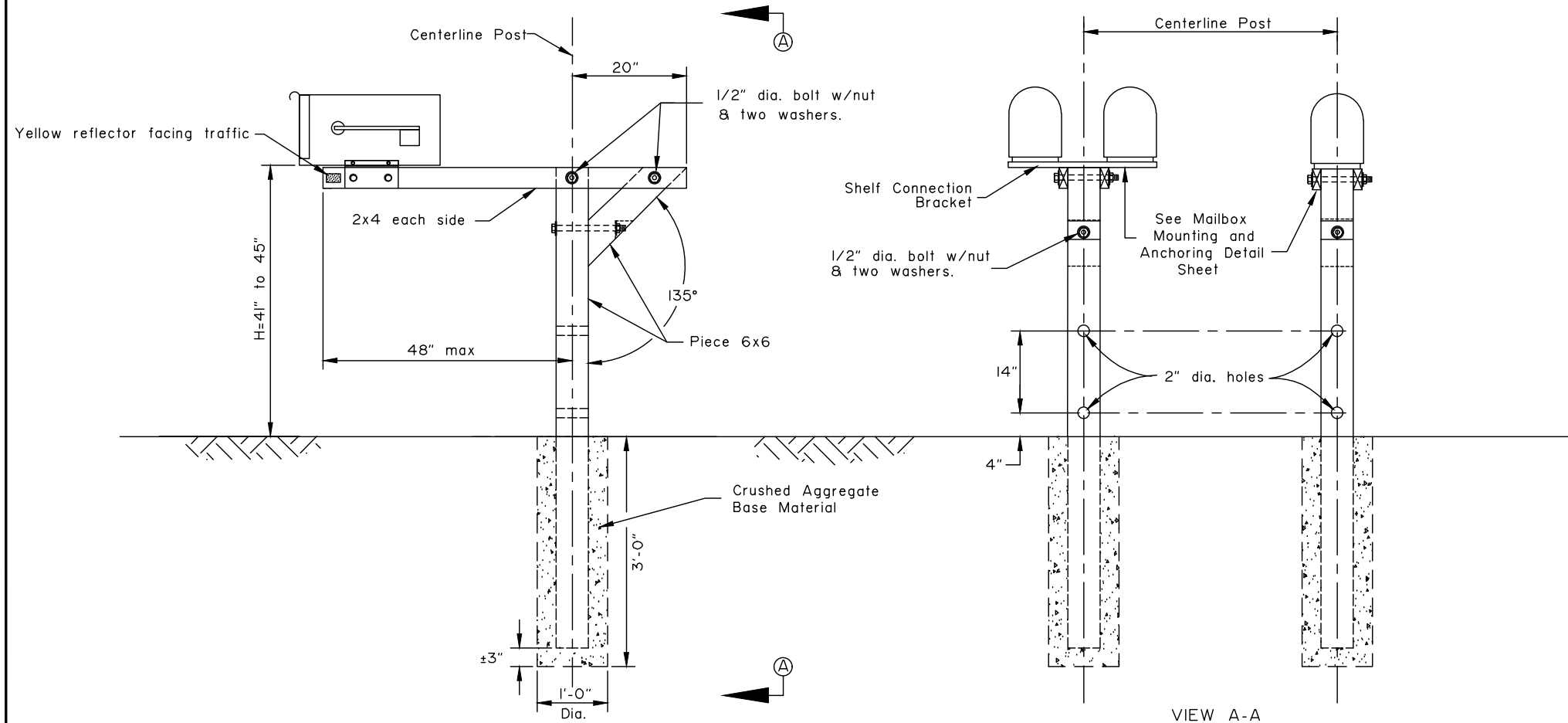
Adoption Date: 7/17/2020

Last Code and Stds. Review
 By: KLH Date: 7/8/2020

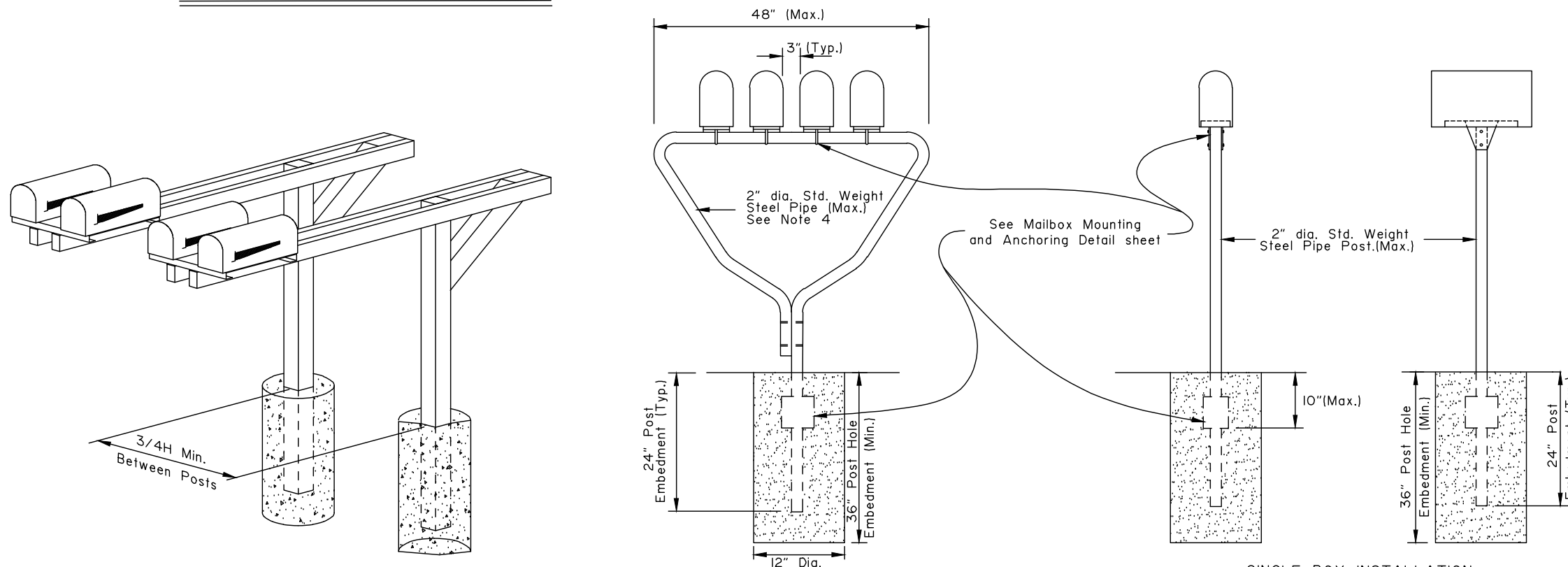
Next Code and Standards Review date: 7/8/2030

GENERAL NOTES:

1. See Standard Plan M-20 for locating posts and boxes along roadway.
2. Posts shall be 6"x6" Treated Wood Post S4S or 2" (Max.) Standard Weight Steel Pipe.
3. Each support structure shall not accommodate more than two mailboxes unless the support structure conforms to the requirements of the U.S. Postal Service and is approved by the Engineer.
4. Other steel or aluminum structural sections may be used except, the stiffness properties equivalent to the 2" dia. standard weight steel pipe shall not be exceeded.
5. Reflectors shall have a minimum area of 4.5 sq. in.



TYPICAL WOOD CANTILEVER INSTALLATION



TYPICAL GANG BOX INSTALLATION

MULTIPLE BOX INSTALLATION
(U.S.P.S. Approved)

METAL POST SUPPORTS (URBAN ONLY)

State of Alaska DOT&PF
ALASKA STANDARD PLAN

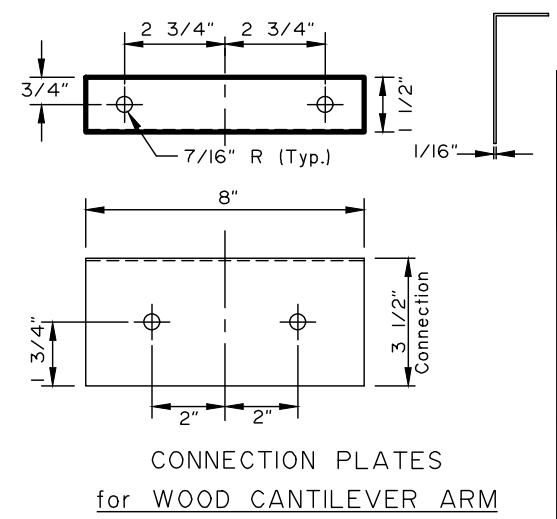
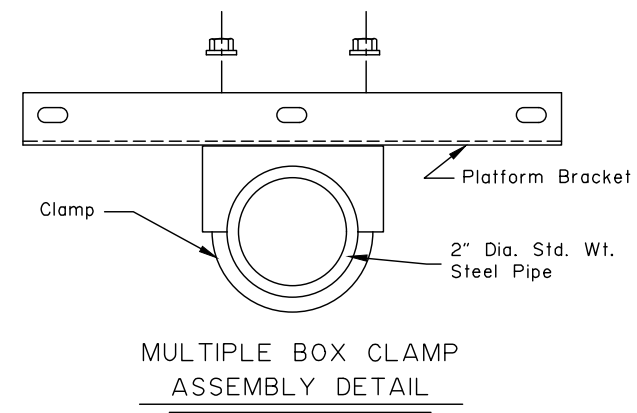
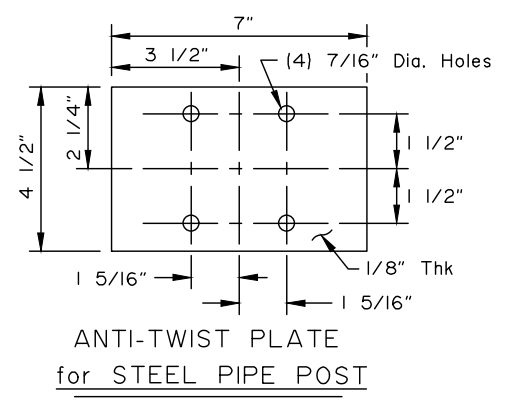
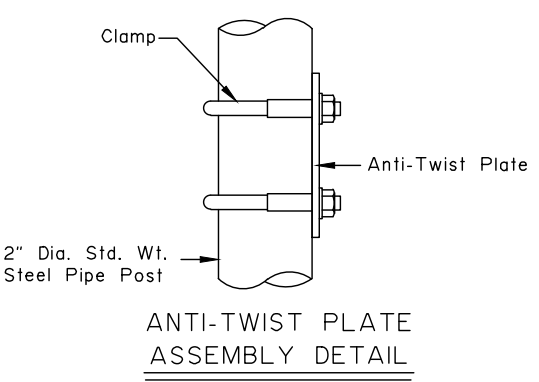
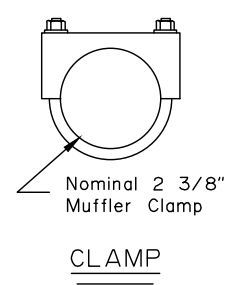
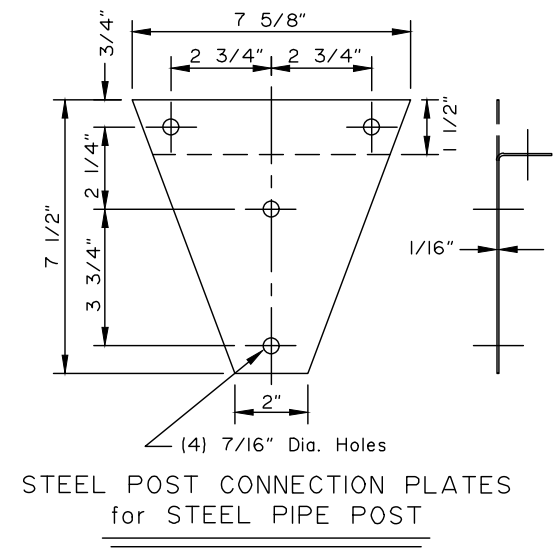
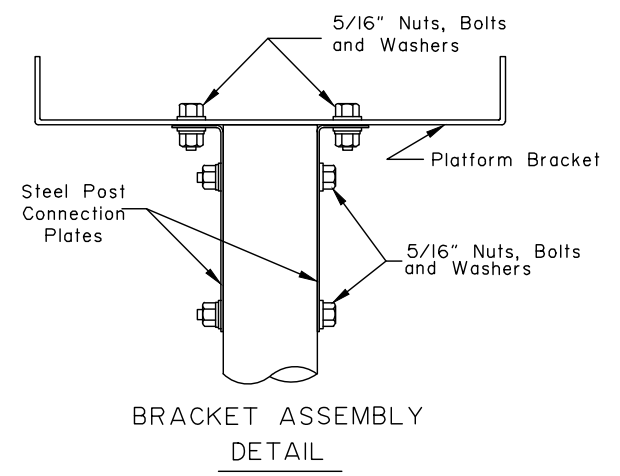
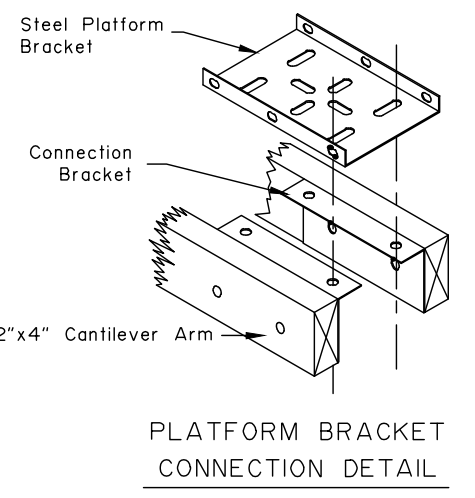
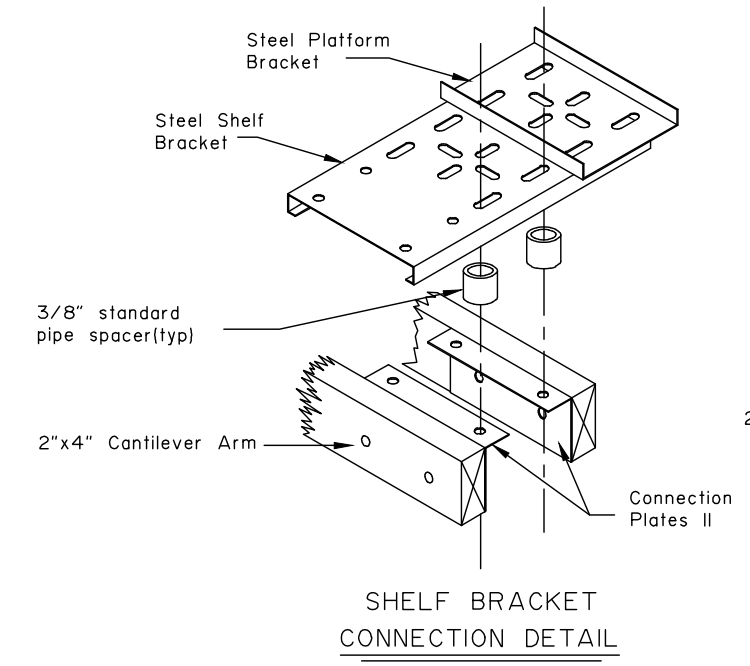
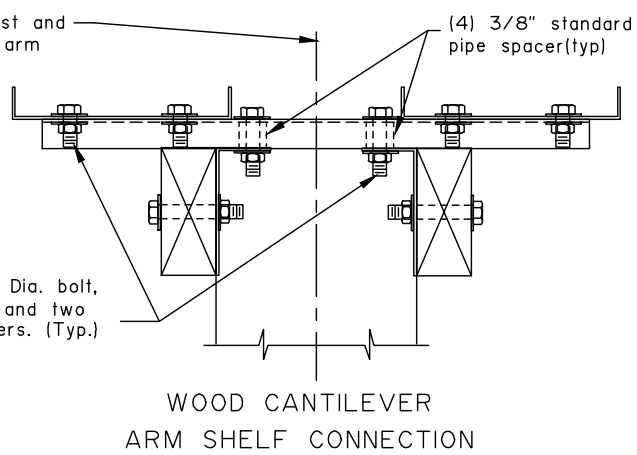
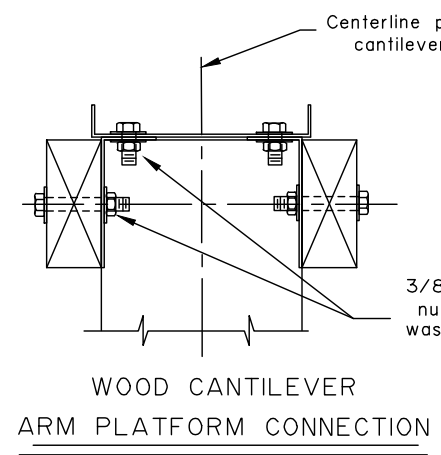
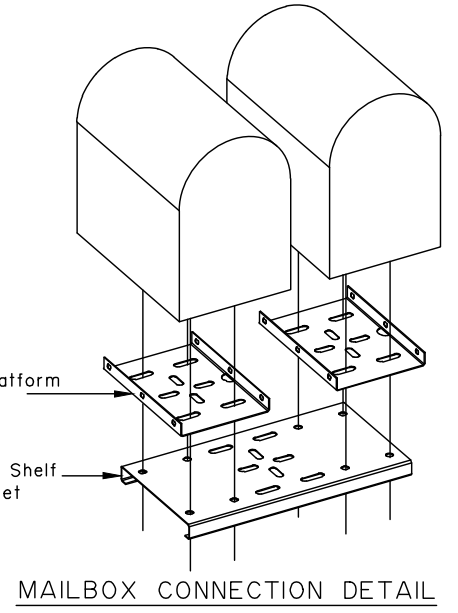
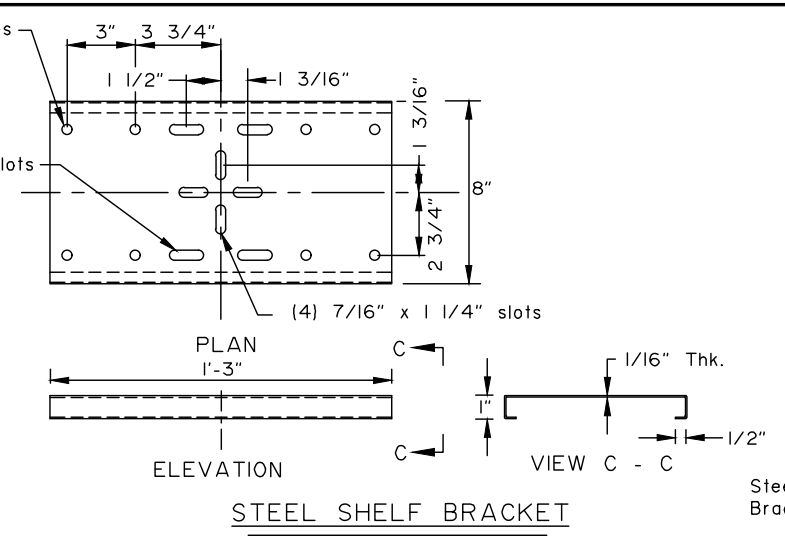
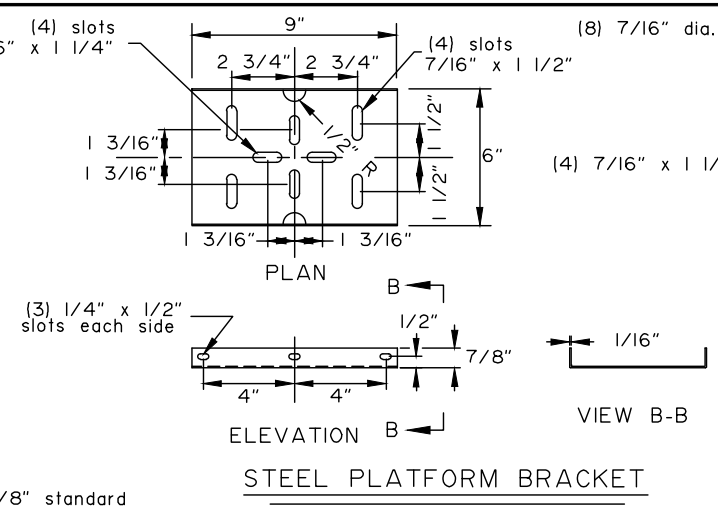
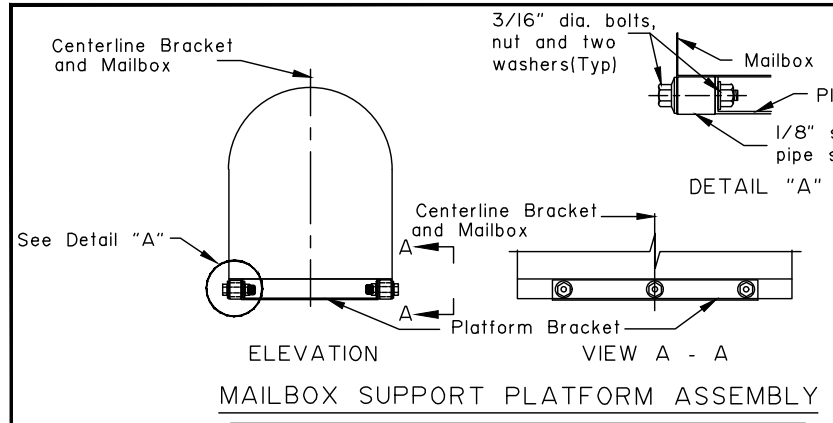
MAILBOX
INSTALLATION

Adopted as an Alaska Standard Plan by: *Carolyn Morehouse*
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

Last Code and Stds. Review
By: KLH Date: 7/8/2020

Next Code and Standards Review date: 7/8/2030



State of Alaska DOT&PF
ALASKA STANDARD PLAN
MAILBOX MOUNTING AND ANCHORING DETAILS
Adopted as an Alaska Standard Plan by: *Carolyn Morehouse*
Carolyn Morehouse, P.E.
Chief Engineer
Adoption Date: 7/17/2020
Last Code and Stds. Review By: KLH Date: 7/8/2020
Next Code and Standards Review date: 7/8/2030