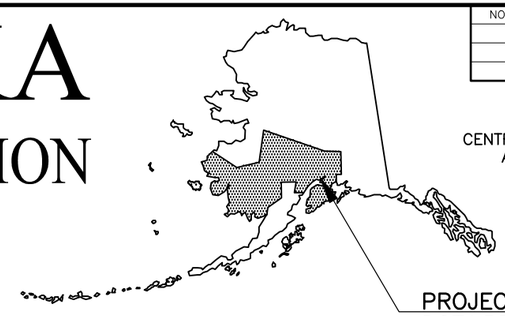
STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001630/CFHWY00453	2026	A01	A05

ROUTE ID	2381095X000	MILEPOINT	4.450 – 4.750
ROUTE ID	2383139X000	MILEPOINT	0.000 – 0.180
LATITUDE	61.614575	LONGITUDE	149.254353



CENTRAL REGION
ALASKA

PROJECT LOCATION
DOT&PF M&O STATION: PALMER
MAT SU BOROUGH O&M

PROPOSED HIGHWAY PROJECT

HSIP: BOGARD ROAD AT ENGSTROM ROAD/ GREEN FOREST DRIVE INTERSECTION IMPROVEMENTS PROJECT NO. 0001(630)/CFHWY00453

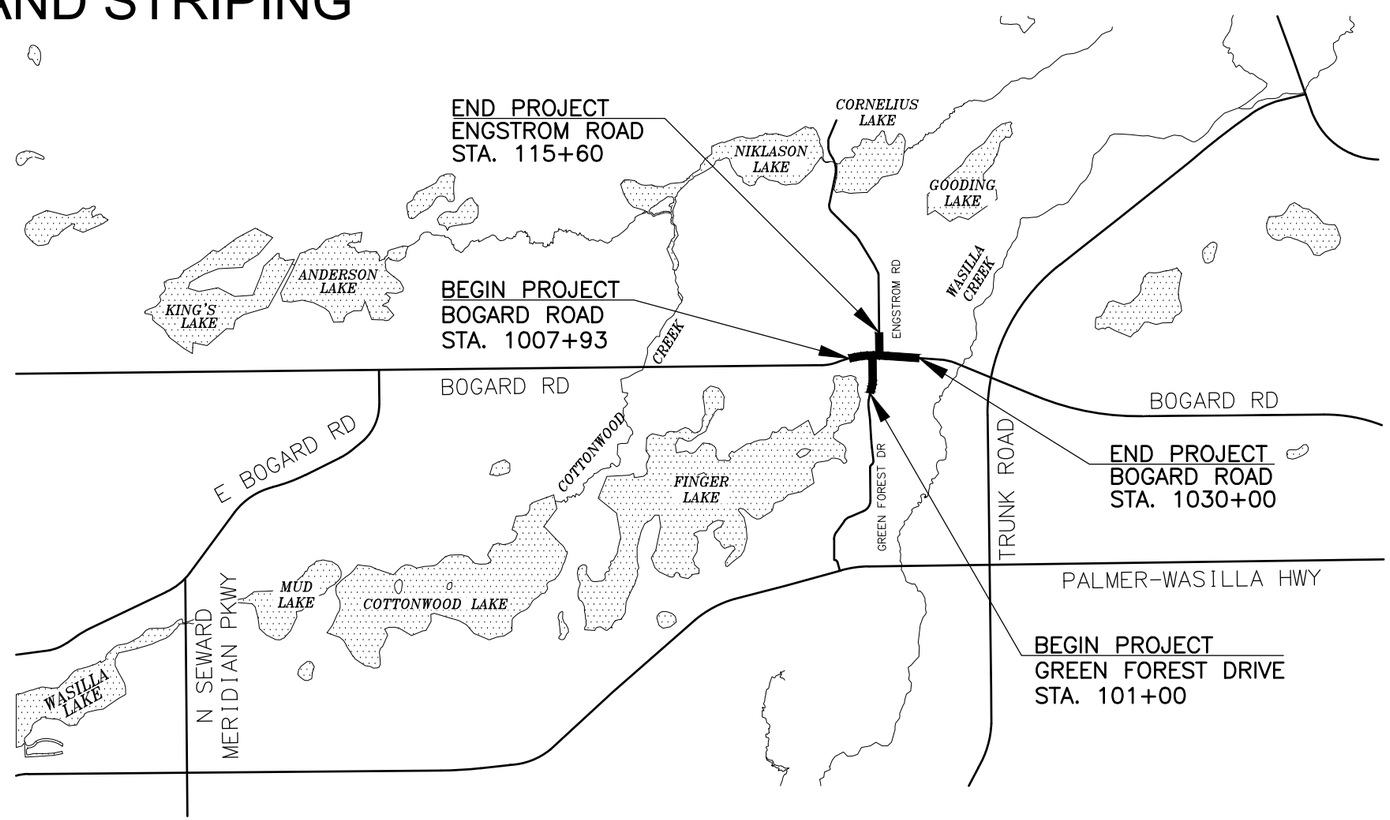
GRADING, DRAINAGE, PAVING, ILLUMINATION, SIGNING, AND STRIPING

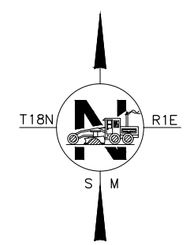
PROJECT SUMMARY

ROADWAY	WIDTH	LENGTH
BOGARD ROAD MP 4.45-4.75	36 FT	0.3 MILES
ENGSTROM ROAD MP 0.00-0.10	24 FT	0.1 MILES
GREEN FOREST DRIVE MP 0.95-1.15	20 FT	0.2 MILES

DESIGN DESIGNATIONS

	BOGARD ROAD	ENGSTROM ROAD	GREEN FOREST DRIVE
FUNCTIONAL CLASS	URBAN ARTERIAL	URBAN COLLECTOR	URBAN LOCAL RD
AADT (2023)	9,945	2,360	1,235
AADT (2033)	12,431	2,950	1,544
DESIGN SPEED (V) (MPH)	50	35	25
DHV (2023)	10.90%	N/A	N/A
DHV (2033)	10.90%	N/A	N/A
T-PERCENT COMMERCIAL TRUCKS (%)	6.77%	N/A	N/A
D-DIRECTIONAL DISTRIBUTION (%)	50%	N/A	N/A





PS&E REVIEW
JUNE 2025

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
4111 AVIATION AVENUE, ANCHORAGE, AK 99502
(907)269-0555

APPROVED:

REGIONAL PRECONSTRUCTION ENGINEER DATE

CONCUR:

REGIONAL CONSTRUCTION ENGINEER DATE

DESIGNED BY
CHECKED BY
DRAFTED BY
SCALE N/A
DATE 5/22/2025 TIME 11:01 AM

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\00453_A01NA02_TTL.DWG

NO.	DATE	REVISION

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ALASKA	0001630/CFHWY00453	2026	A02	A05

GENERAL NOTES:

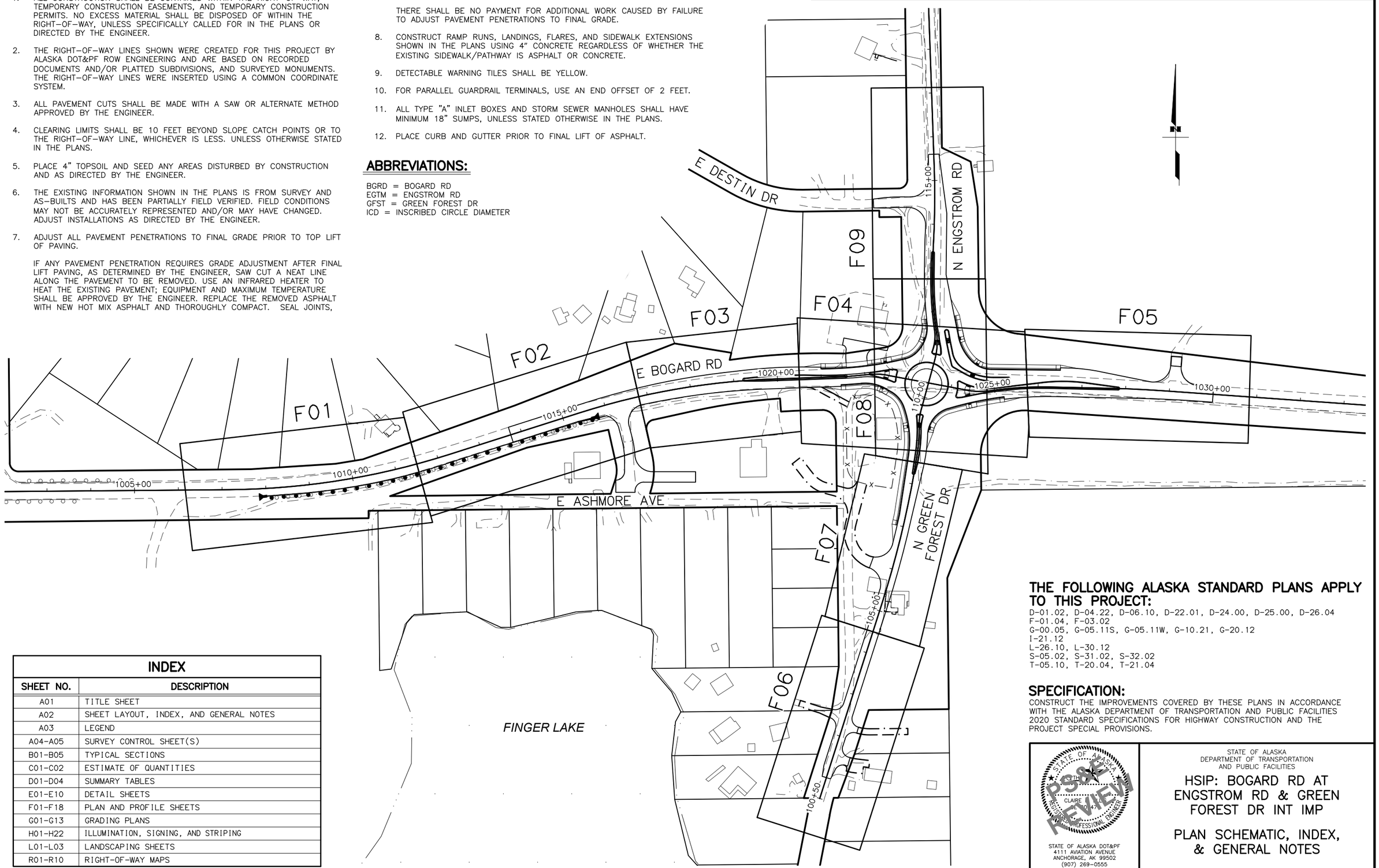
1. ALL CONSTRUCTION SHALL BE CONTAINED WITHIN THE RIGHT-OF-WAY, TEMPORARY CONSTRUCTION EASEMENTS, AND TEMPORARY CONSTRUCTION PERMITS. NO EXCESS MATERIAL SHALL BE DISPOSED OF WITHIN THE RIGHT-OF-WAY, UNLESS SPECIFICALLY CALLED FOR IN THE PLANS OR DIRECTED BY THE ENGINEER.
2. THE RIGHT-OF-WAY LINES SHOWN WERE CREATED FOR THIS PROJECT BY ALASKA DOT&PF ROW ENGINEERING AND ARE BASED ON RECORDED DOCUMENTS AND/OR PLATTED SUBDIVISIONS, AND SURVEYED MONUMENTS. THE RIGHT-OF-WAY LINES WERE INSERTED USING A COMMON COORDINATE SYSTEM.
3. ALL PAVEMENT CUTS SHALL BE MADE WITH A SAW OR ALTERNATE METHOD APPROVED BY THE ENGINEER.
4. CLEARING LIMITS SHALL BE 10 FEET BEYOND SLOPE CATCH POINTS OR TO THE RIGHT-OF-WAY LINE, WHICHEVER IS LESS. UNLESS OTHERWISE STATED IN THE PLANS.
5. PLACE 4" TOPSOIL AND SEED ANY AREAS DISTURBED BY CONSTRUCTION AND AS DIRECTED BY THE ENGINEER.
6. THE EXISTING INFORMATION SHOWN IN THE PLANS IS FROM SURVEY AND AS-BUILTS AND HAS BEEN PARTIALLY FIELD VERIFIED. FIELD CONDITIONS MAY NOT BE ACCURATELY REPRESENTED AND/OR MAY HAVE CHANGED. ADJUST INSTALLATIONS AS DIRECTED BY THE ENGINEER.
7. ADJUST ALL PAVEMENT PENETRATIONS TO FINAL GRADE PRIOR TO TOP LIFT OF PAVING.

   IF ANY PAVEMENT PENETRATION REQUIRES GRADE ADJUSTMENT AFTER FINAL LIFT PAVING, AS DETERMINED BY THE ENGINEER, SAW CUT A NEAT LINE ALONG THE PAVEMENT TO BE REMOVED. USE AN INFRARED HEATER TO HEAT THE EXISTING PAVEMENT; EQUIPMENT AND MAXIMUM TEMPERATURE SHALL BE APPROVED BY THE ENGINEER. REPLACE THE REMOVED ASPHALT WITH NEW HOT MIX ASPHALT AND THOROUGHLY COMPACT. SEAL JOINTS, AT LEAST 12 INCHES WIDE CENTERED ON JOINT, USING ASPHALT SYSTEMS GSB-88, OR APPROVED EQUAL, WHILE THE HOT MIX ASPHALT IS CLEAN, FREE OF MOISTURE AND PRIOR TO STRIPING.

   THERE SHALL BE NO PAYMENT FOR ADDITIONAL WORK CAUSED BY FAILURE TO ADJUST PAVEMENT PENETRATIONS TO FINAL GRADE.
8. CONSTRUCT RAMP RUNS, LANDINGS, FLARES, AND SIDEWALK EXTENSIONS SHOWN IN THE PLANS USING 4" CONCRETE REGARDLESS OF WHETHER THE EXISTING SIDEWALK/PATHWAY IS ASPHALT OR CONCRETE.
9. DETECTABLE WARNING TILES SHALL BE YELLOW.
10. FOR PARALLEL GUARDRAIL TERMINALS, USE AN END OFFSET OF 2 FEET.
11. ALL TYPE "A" INLET BOXES AND STORM SEWER MANHOLES SHALL HAVE MINIMUM 18" SUMPS, UNLESS STATED OTHERWISE IN THE PLANS.
12. PLACE CURB AND GUTTER PRIOR TO FINAL LIFT OF ASPHALT.

ABBREVIATIONS:

BGRD = BOGARD RD
EGTM = ENGSTROM RD
GFST = GREEN FOREST DR
ICD = INSCRIBED CIRCLE DIAMETER



INDEX

SHEET NO.	DESCRIPTION
A01	TITLE SHEET
A02	SHEET LAYOUT, INDEX, AND GENERAL NOTES
A03	LEGEND
A04-A05	SURVEY CONTROL SHEET(S)
B01-B05	TYPICAL SECTIONS
C01-C02	ESTIMATE OF QUANTITIES
D01-D04	SUMMARY TABLES
E01-E10	DETAIL SHEETS
F01-F18	PLAN AND PROFILE SHEETS
G01-G13	GRADING PLANS
H01-H22	ILLUMINATION, SIGNING, AND STRIPING
L01-L03	LANDSCAPING SHEETS
R01-R10	RIGHT-OF-WAY MAPS

THE FOLLOWING ALASKA STANDARD PLANS APPLY TO THIS PROJECT:

D-01.02, D-04.22, D-06.10, D-22.01, D-24.00, D-25.00, D-26.04
F-01.04, F-03.02
G-00.05, G-05.11S, G-05.11W, G-10.21, G-20.12
I-21.12
L-26.10, L-30.12
S-05.02, S-31.02, S-32.02
T-05.10, T-20.04, T-21.04

SPECIFICATION:

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

STATE OF ALASKA
CLAIRE E. HULL
CE 70 47
REGISTERED PROFESSIONAL ENGINEER
PSSR REVIEW

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0555

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT ENGSTROM RD & GREEN FOREST DR INT IMP

PLAN SCHEMATIC, INDEX, & GENERAL NOTES

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
5/22/2025	11:09 AM	1" = 80'	ZDK	KRV/CLE	PGH

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\00453_A01NA02_TTL.DWG

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ROADWAY

EXISTING / PROPOSED

- EDGE OF PAVEMENT
- LIMIT OF CUT SLOPE & FILL SLOPE (CUT / FILL)
- GRAVEL EDGE
- SIDEWALK AND PATH/TRAIL
- CONCRETE CURB & GUTTER
- CONCRETE CURB CUT
- PARALLEL CURB RAMP / PERPENDICULAR CURB RAMP
- UNIDIRECTIONAL CURB RAMP & MID-BLOCK CURB RAMP
- DETECTABLE WARNING TILE
- GUARDRAIL
- END & PARALLEL END SECTIONS
- ROADWAY OBLITERATION
- FENCE
- STONE FENCE
- NOISE BARRIER
- RETAINING WALL
- HEADWALL & WINGWALL
- BOTTOM OF DITCH
- SPECIAL DITCH
- FLAT BOTTOM DITCH
- BERM
- RIPRAP
- BOULDER OR BOULDERS
- PRIVATE SIGN, MAILBOX (MB)
- POST, BOLLARD
- MISCELLANEOUS CONCRETE
- MISCELLANEOUS WALL

UTILITIES

EXISTING / PROPOSED

- STORM DRAIN (SD)
- STORM DRAIN MANHOLE, CLEANOUT (SD, CO)
- CURB INLET CATCH BASIN / FIELD INLET CATCH BASIN (FI)
- PIPE CULVERT WITH END SECTION
- SANITARY SEWER (SS)
- SANITARY SEWER MANHOLE, CLEANOUT (SS, CO)
- SEPTIC VENT, SEWER SERVICE CONNECTION (S)
- WATER (W)
- FIRE HYDRANT, VALVE OR RISER
- WELL, WATER SERVICE CONNECTION (W)
- NATURAL GAS (G)
- NATURAL GAS METER
- OIL OR GASOLINE PIPELINE (OIL)
- TANKS (ABOVE GROUND, UNDERGROUND) (U)
- ELECTRIC (OE) (OVERHEAD); (UE) (UNDERGROUND); (OE|OT) (OVERHEAD)
- UTILITY POLE, POLE WITH LUMINAIRE
- UTILITY POLE WITH TRANSFORMER
- GUY POLE, GUY WIRE ANCHOR (GP)
- TRANSMISSION TOWER (WOOD, STEEL) (W, S)
- ELECTRIC PEDESTAL, TRANSFORMER (E)
- ELECTRIC MANHOLE, METER (E)
- ELECTRIC OUTLET, LANDSCAPE LIGHT
- TELEPHONE (OT) (OVERHEAD); (UT) (UNDERGROUND); (UT|UTV) (UNDERGROUND)
- TELEPHONE MANHOLE, PEDESTAL (T)
- FIBER OPTIC (OFO) (OVERHEAD); (FO) (UNDERGROUND)
- FIBER OPTIC MANHOLE (FO)
- CABLE TV (OTV) (OVERHEAD); (UTV) (UNDERGROUND)
- CABLE TV PEDESTAL, SATELLITE DISH
- UNDERGROUND DUCT, UTILIDOR (ELECTRIC, TELEPHONE, FIBER OPTIC)
- VENT

TOPOGRAPHY

EXISTING

- LAKE OR POND, WETLANDS (LAKE/POND)
- TREE (CONIFER/DECIDUOUS) TREELINE (EDGE OF VEGETATION)
- PLANTER (P)
- BUILDING OR FOUNDATION

EXISTING / PROPOSED

- CONTOUR, MAJOR OR MINOR (520)
- DRAINAGE FLOW
- CREEK (CENTERLINE)
- RIVER (EDGE OF WATER)

TRAFFIC

EXISTING / PROPOSED

- LOAD CENTER
- STATE TRAFFIC, MOA TRAFFIC, & BEACON CONTROLLER — ARROW INDICATES DOOR LOCATION
- TYPE 1A, II, III, IV JUNCTION BOX
- FIBER OPTIC VAULT (F/O, F/O ##)
- ELECTROLIER
- HIGHTOWER (HT#)
- SIGNAL POLE WITH MASTARM (14)
- PEDESTRIAN PUSH BUTTON & SIGNAL
- VEHICULAR SIGNAL
- VEHICULAR SIGNAL LEFT & RIGHT
- OPTICAL, CAMERA, RADAR, AND GPS DETECTOR (CAM, RAD, GPS)
- SIGNAL CONDUIT (TR)
- LIGHTING CONDUIT (LTG)
- SIGNAL & LIGHTING CONDUIT (T/L)
- INTERCONNECT (I/C)
- SIGN POST (##)
- DELINEATOR

PAVEMENT MARKINGS

PROPOSED

- TRAFFIC PROJECT CENTERLINE
- 8" & 4" WHITE SOLID STRIPE (8"W, 4"W)
- 4" WHITE SKIP STRIPE — BROKEN LANE LINE (10' STRIPE, 30' GAP; 4"W SKIP)
- 4" WHITE LANE ADD/DROP SKIP — EXIT LANE ADDS, MERGE/TAPER LANE DROPS WEAVE POINTS (3' STRIPE, 9' GAP; 4"W LADS)
- 8" WHITE LANE ADD/DROP SKIP — EXIT LANE ADDS, MERGE/TAPER LANE DROPS WEAVE POINTS (3' STRIPE, 9' GAP; 8"W LADS)
- 4" WHITE LANE EXTENSION SKIP — TURN POCKET AND BIKE LANE EXTENSION (2' STRIPE, 6' GAP; 4"W LES)
- 8" WHITE LANE EXTENSION SKIP — TURN POCKET AND BIKE LANE EXTENSION (2' STRIPE, 6' GAP; 8"W LES)
- 8" WHITE INTERSECTION GUIDE SKIP — INTERSECTION TURNING GUIDE (1' STRIPE, 3' GAP; 8"W IGS)
- 24" WHITE ROUNDABOUT ENTRANCE LINE — ROUNDABOUT ENTRANCE YIELD LINE (2' STRIPE, 2' GAP; 24"W RBEL)
- 8" & 4" YELLOW SOLID STRIPE (8"Y, 4"Y)
- 4" YELLOW SKIP STRIPE — BROKEN LANE LINE (10' STRIPE, 30' GAP; 4"Y SKIP)
- STRIPING CHANGE STATION MARKER (14)
- 2' CROSSWALK OR STOPBAR (24"W (TYP))
- GAP LADDER CROSSWALK LAYOUT — 2' WIDE RUNGS WITH 2' SPACES ALIGNED TO AVOID TIRE PATHS (12')
- LADDER CROSSWALK LAYOUT — 2' WIDE RUNGS WITH 2' SPACES ALIGNED TO AVOID TIRE PATHS (10')
- TYPICAL PAINTED MEDIAN (12', (2)-4"Y 3" APART, VARIES, 18"Y @ 45°)

RIGHT-OF-WAY

RECOVERED / SET THIS PROJECT

- FEDERAL GOV'T SURVEY MONUMENT
- GOV'T CONTROL STATION
- PRIMARY MONUMENT (BRASS/AL CAP)
- MISC SECONDARY CORNER
- PRIMARY CENTERLINE MONUMENT
- SECONDARY CENTERLINE MONUMENT
- RANDOM CONTROL MONUMENT (RCM)
- PRIMARY GPS CONTROL POINT (GPS)
- HORIZONTAL CONTROL POINT (CP)
- SECONDARY CONTROL POINT (SCP)
- VERTICAL BENCHMARK (BM)
- TEMPORARY BENCHMARK (TBM)
- TOWNSHIP AND RANGE LINES (T13N, T12N, R2W, R3W)
- SECTION LINE
- 1/4 SECTION LINE
- 1/16 SECTION LINE
- CORPORATE or CITY LIMITS
- EXISTING RIGHT-OF-WAY
- RIGHT-OF-WAY OR EASEMENT REQUIRED
- PROJECT RIGHT-OF-WAY LINE
- EXISTING RIGHT-OF-WAY EASEMENT
- EXISTING PROPERTY LINE
- CONTROLLED ACCESS LINE
- EXISTING UTILITY EASEMENT
- PROPOSED UTILITY EASEMENT
- EXISTING CENTERLINE
- RAILROAD CENTERLINE
- TEMPORARY CONSTRUCTION EASEMENT
- TEMPORARY CONSTRUCTION PERMIT

PSSR REVIEW — STATE OF ALASKA, CLAIRE M. LEE, PROFESSIONAL ENGINEER

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0555

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT ENGSTROM RD & GREEN FOREST DR INT IMP

LEGEND

DESIGNED BY ---
CHECKED BY KRV
DRAFTED BY ---
SCALE 1" =1"
DATE 5/22/2025 TIME 11:09 AM
DRAWING LOCATION W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\00453_A03_LGND.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001630/CFHWY00453	2026	B01	B05

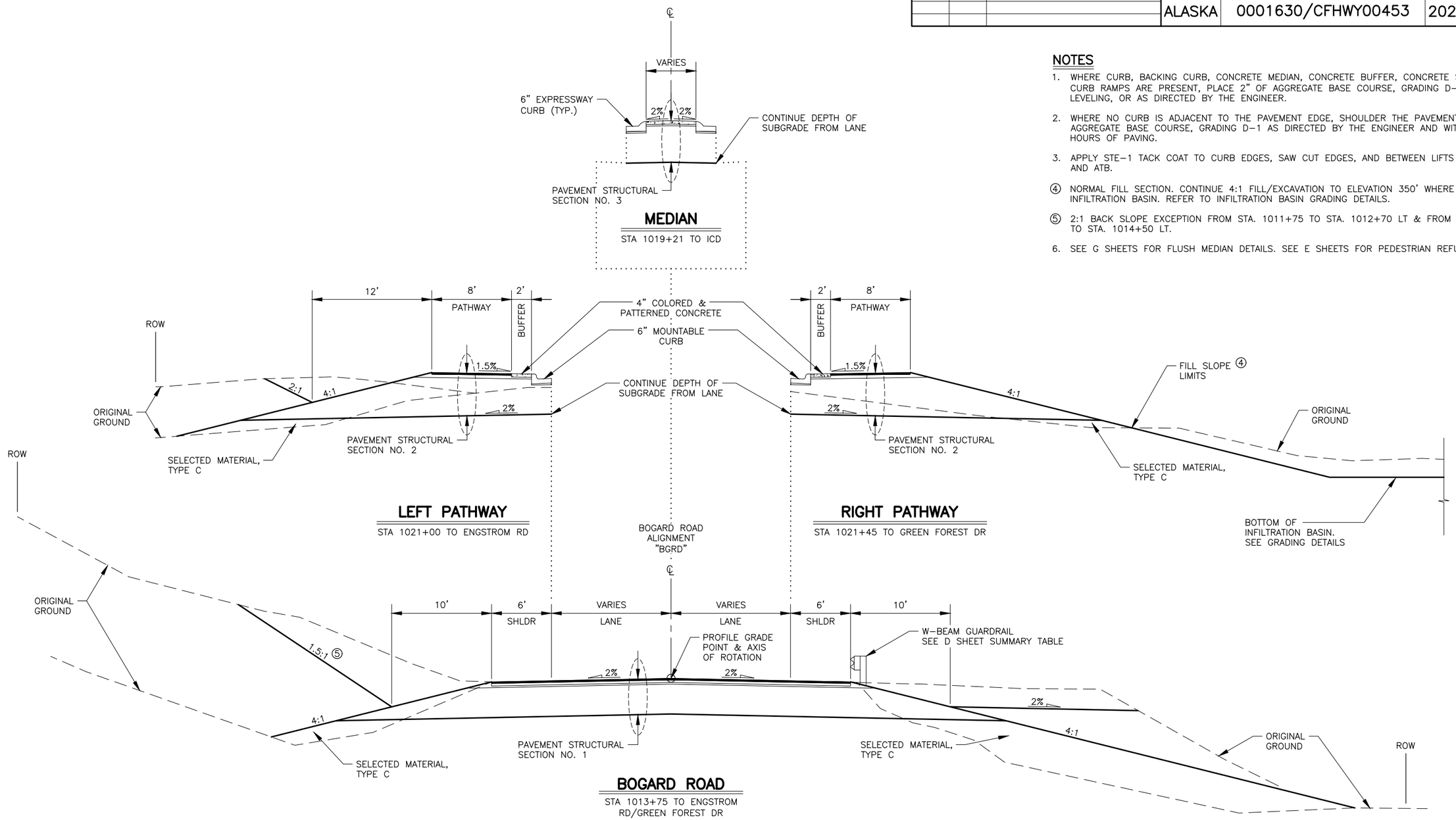
NOTES

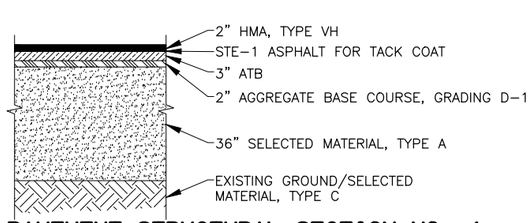
1. WHERE CURB, BACKING CURB, CONCRETE MEDIAN, CONCRETE BUFFER, CONCRETE SIDEWALK OR CURB RAMPS ARE PRESENT, PLACE 2" OF AGGREGATE BASE COURSE, GRADING D-1 FOR LEVELING, OR AS DIRECTED BY THE ENGINEER.
2. WHERE NO CURB IS ADJACENT TO THE PAVEMENT EDGE, SHOULDER THE PAVEMENT EDGE WITH AGGREGATE BASE COURSE, GRADING D-1 AS DIRECTED BY THE ENGINEER AND WITHIN 48 HOURS OF PAVING.
3. APPLY STE-1 TACK COAT TO CURB EDGES, SAW CUT EDGES, AND BETWEEN LIFTS OF PAVEMENT AND ATB.

④ NORMAL FILL SECTION. CONTINUE 4:1 FILL/EXCAVATION TO ELEVATION 350' WHERE ADJACENT TO INFILTRATION BASIN. REFER TO INFILTRATION BASIN GRADING DETAILS.

⑤ 2:1 BACK SLOPE EXCEPTION FROM STA. 1011+75 TO STA. 1012+70 LT & FROM STA. 1013+60 TO STA. 1014+50 LT.

6. SEE G SHEETS FOR FLUSH MEDIAN DETAILS. SEE E SHEETS FOR PEDESTRIAN REFUGE DETAILS.





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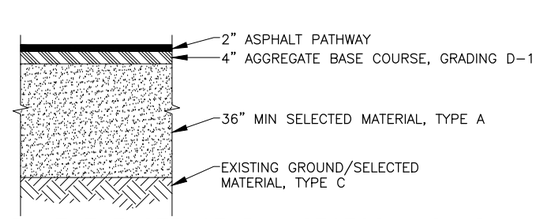

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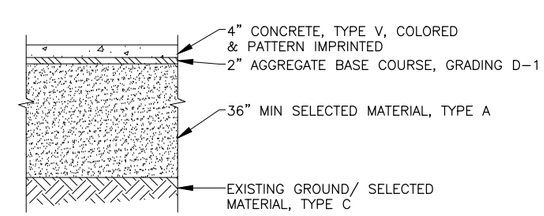

PAVEMENT STRUCTURAL SECTION NO. 3

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
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(907) 269-0555

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

HSIP: BOGARD RD AT ENGSTROM RD & GREEN FOREST DR INT IMP

TYPICAL SECTIONS

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
5/22/2025	11:09 AM	1" =5'	ZDK	KRV/CLE	PGH/ZDK

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\00453_B01_TYP.DWG

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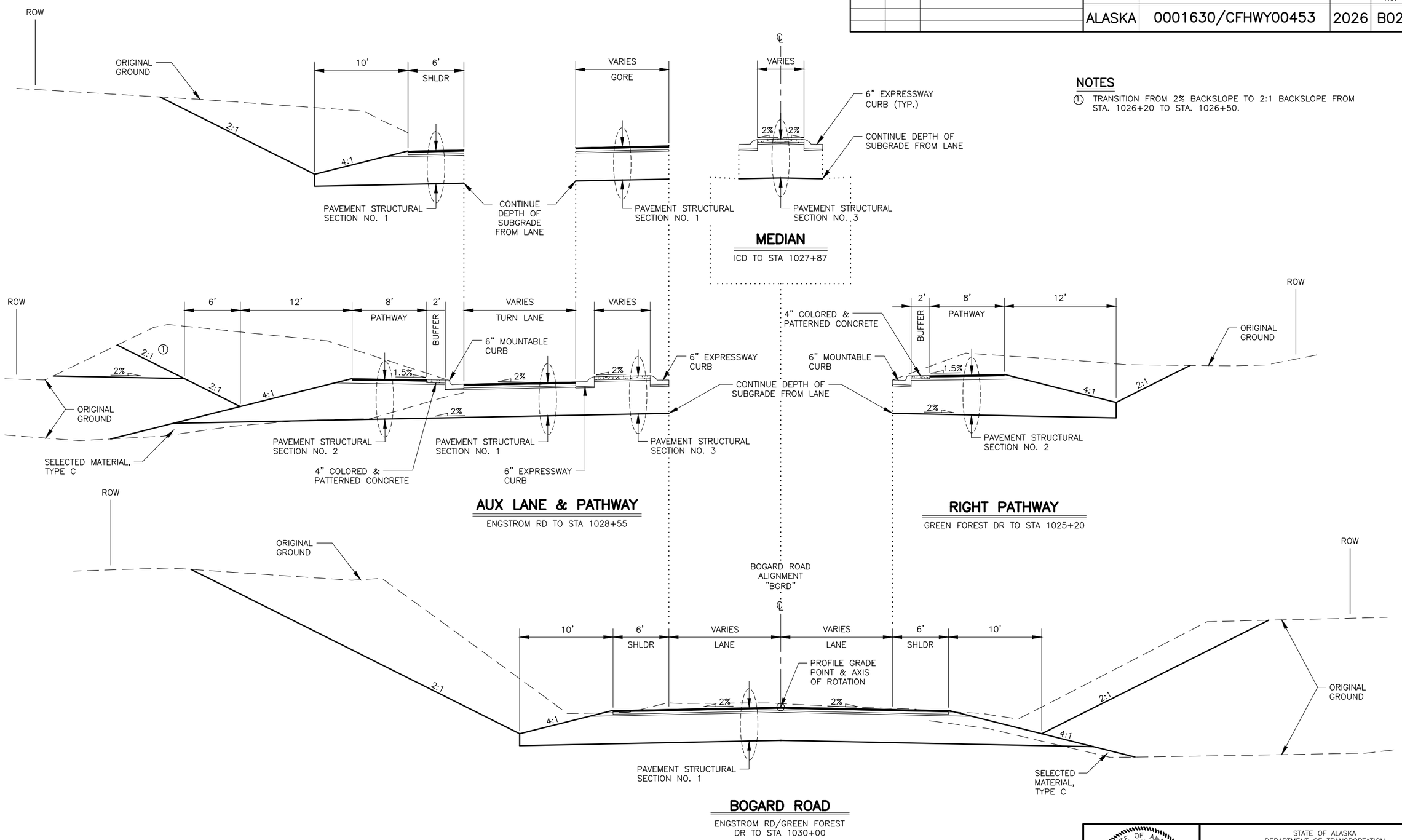
ALASKA	0001630/CFHWY00453	2026	B02	B05



NOTES

① TRANSITION FROM 2% BACKSLOPE TO 2:1 BACKSLOPE FROM STA. 1026+20 TO STA. 1026+50.

PSSC REVIEW

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TYPICAL SECTIONS

DRAWING LOCATION	
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\00453_B01_TYP.DWG	
DATE 5/22/2025	TIME 11:09 AM
SCALE 1" =5'	
DESIGNED BY ZDK	CHECKED BY KRV/CLE
DRAFTED BY PGH/ZDK	

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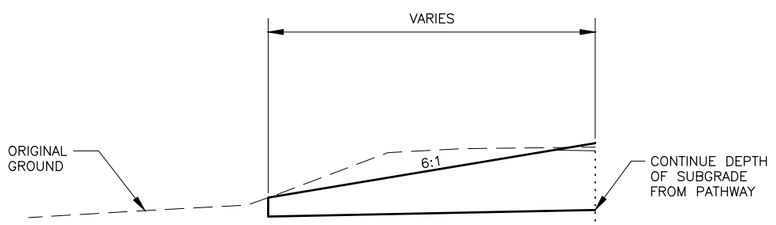
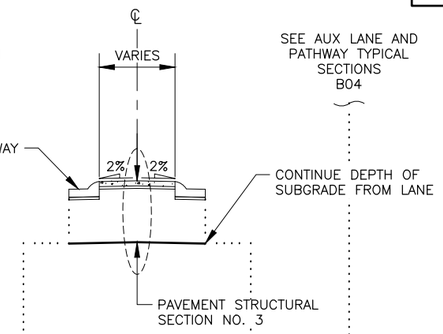
ALASKA	0001630/CFHWY00453	2026	B03	B05



MODIFIED FORESLOPE

BOGARD RD TO STA. 111+85

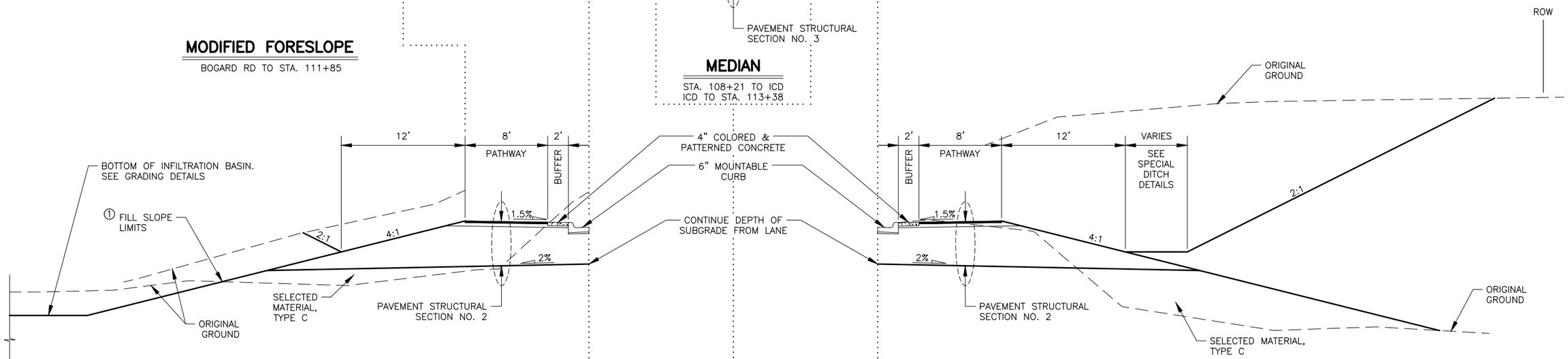


MEDIAN

STA. 108+21 TO ICD
ICD TO STA. 113+38

NOTES

1. NORMAL FILL SECTION. CONTINUE 4:1 FILL/EXCAVATION TO ELEVATION 350' WHERE ADJACENT TO INFILTRATION BASIN. REFER TO INFILTRATION BASIN GRADING DETAILS.



BASIN ON LEFT

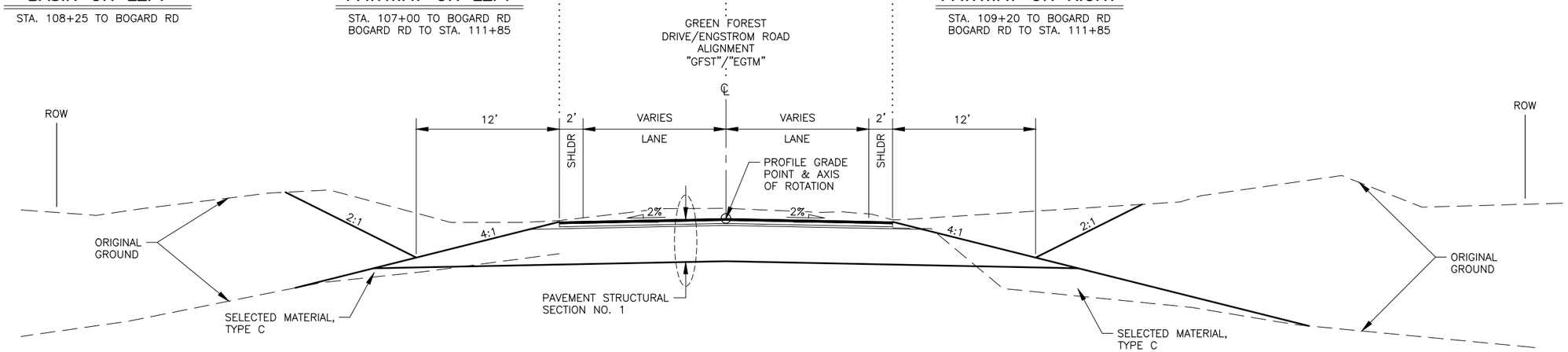
STA. 108+25 TO BOGARD RD

PATHWAY ON LEFT

STA. 107+00 TO BOGARD RD
BOGARD RD TO STA. 111+85

PATHWAY ON RIGHT

STA. 109+20 TO BOGARD RD
BOGARD RD TO STA. 111+85



GREEN FOREST DRIVE & ENGSTROM ROAD

STA. 101+00 TO BOGARD RD
BOGARD RD TO STA. 115+60

STATE OF ALASKA DOT&PF
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TYPICAL SECTIONS

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\00453_B01_TYP.DWG

DATE 5/22/2025 TIME 11:10 AM
SCALE 1" =5'
DESIGNED BY ZDK
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DRAWING LOCATION
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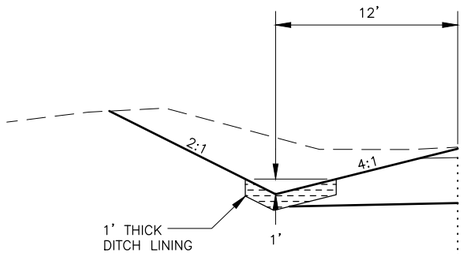
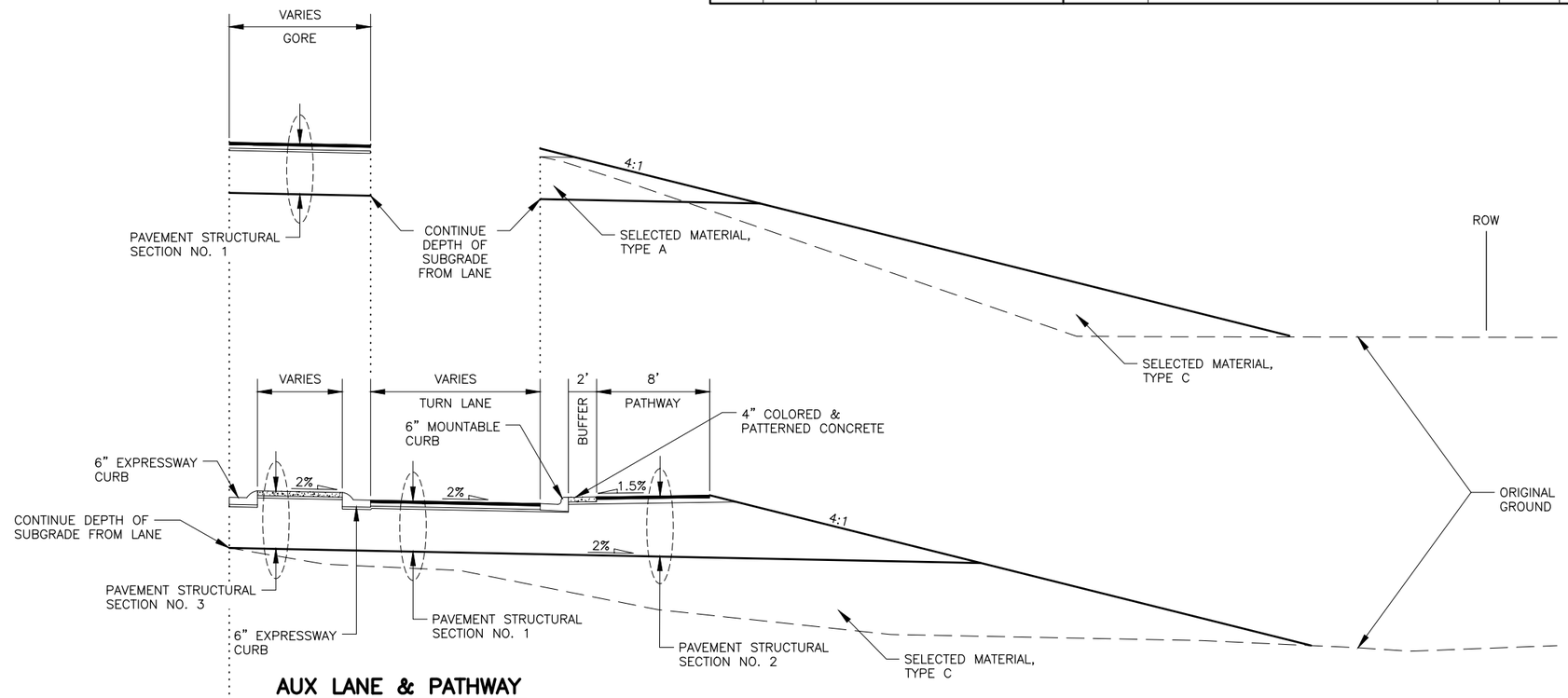


DITCH EROSION PROTECTION LT/RT

STA. 104+10 LT TO STA. 105+60 LT
STA. 104+20 RT TO STA. 106+50 RT
STA. 112+45 LT TO STA. 114+27 LT

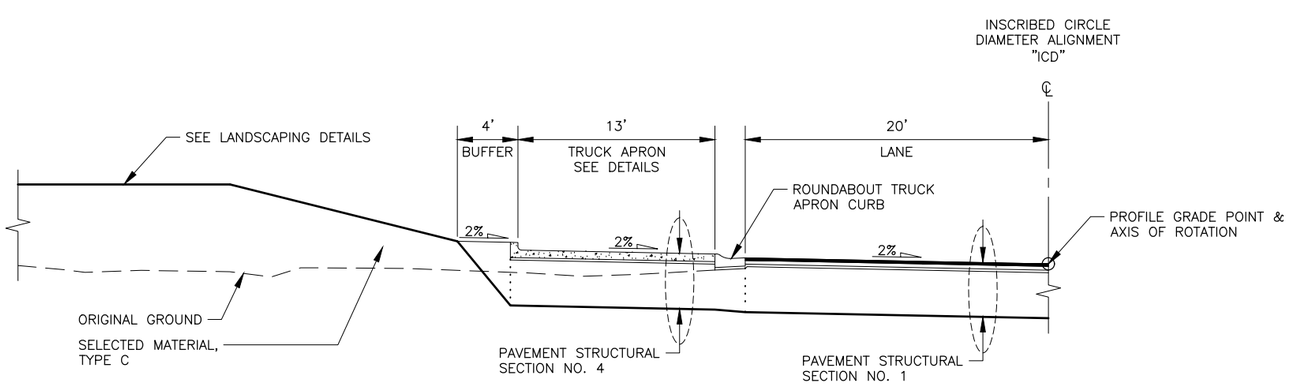
SEE GREEN FOREST DRIVE AND ENGSTROM ROAD TYPICAL SECTIONS B03



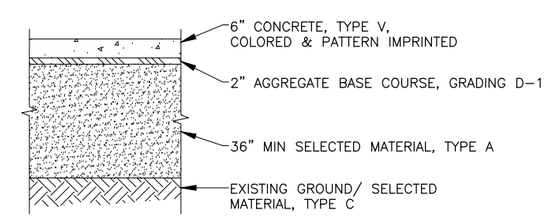
AUX LANE & PATHWAY

BOGARD RD TO STA 113+47

SEE GREEN FOREST DRIVE AND ENGSTROM ROAD TYPICAL SECTIONS B03



ICD



PAVEMENT STRUCTURAL SECTION NO. 4

SEE TRUCK APRON DETAIL

STATE OF ALASKA
PROFESSIONAL ENGINEER
CLAIRE E. 10047 LEE
PSE REVIEW

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4111 AVIATION AVENUE
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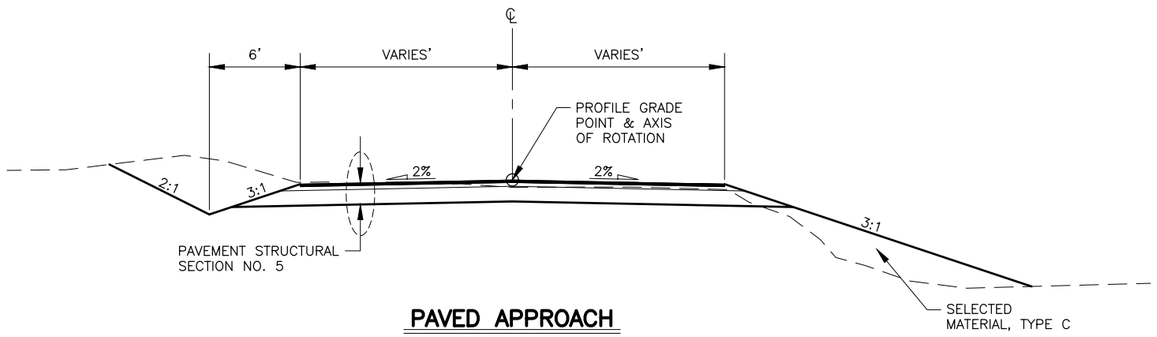
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT ENGSTROM RD & GREEN FOREST DR INT IMP

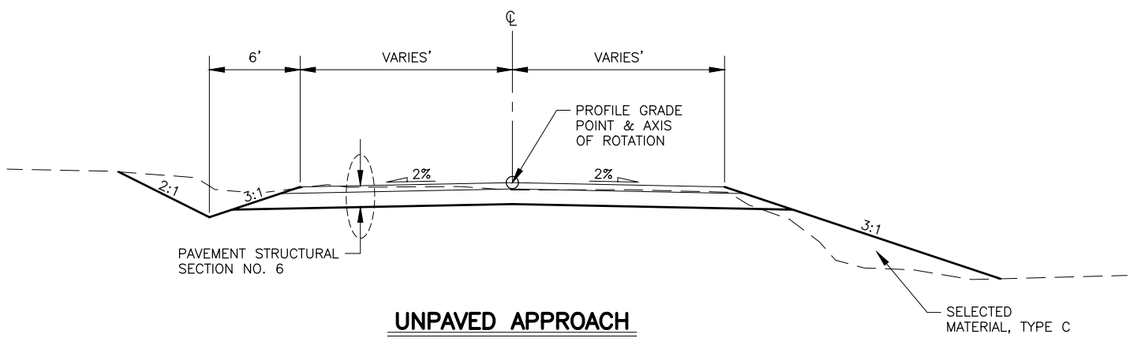
TYPICAL SECTIONS

NO.	DATE	REVISION

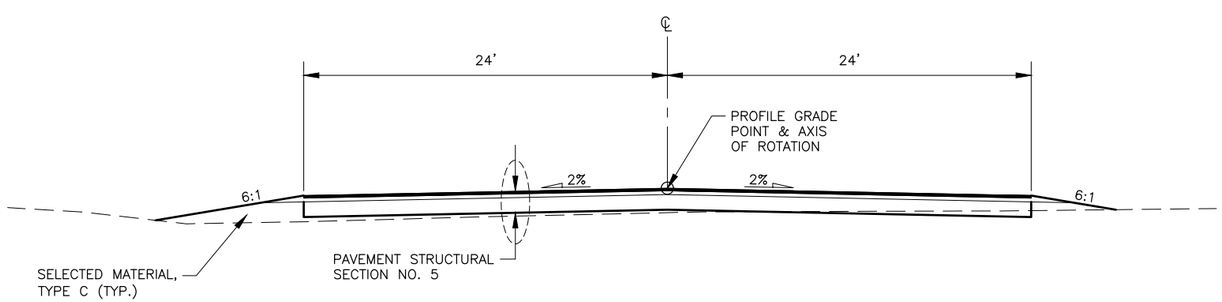
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001630/CFHWY00453	2026	B05	B05



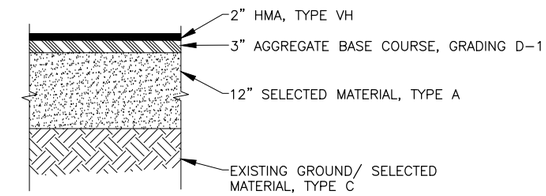
PAVED APPROACH



UNPAVED APPROACH



DRIVEWAY 1021+84 LT



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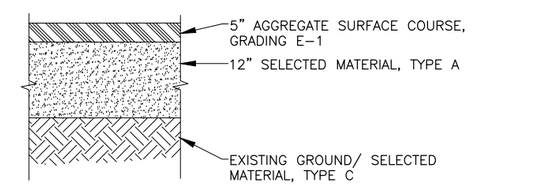
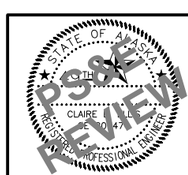


PAVEMENT STRUCTURAL SECTION NO. 6



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STATE OF ALASKA
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HSIP: BOGARD RD AT ENGSTROM RD & GREEN FOREST DR INT IMP

TYPICAL SECTIONS

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DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
5/22/2025	11:10 AM	1" =5'	ZDK	KRV/CLE	PGH/ZDK

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001630/CFHWY00453	2026	C01	C02

ESTIMATE OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	PAY UNIT	TOTAL QUANTITY
201.0003.0000	CLEARING AND GRUBBING	ACRE	11
202.0001.0000	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LS	ALL REQ'D
202.0002.0000	REMOVAL OF PAVEMENT	SY	12,200
202.0004.0000	REMOVAL OF CULVERT PIPE	LF	145
202.2012.0000	GROUND WATER WELL DECOMMISSIONING	EA	2
202.2022.0000	REMOVAL OF FENCE	LF	1,250
202.2025.0000	REMOVAL OF SEPTIC SYSTEM	LS	ALL REQ'D
203.0003.0000	UNCLASSIFIED EXCAVATION	CY	68,000
203.0006.0000	BORROW	TON	55,000
203.0009.0000	OBLITERATION OF ROADWAY	SY	1,400
203.2013.0000	CONTAMINATED MATERIAL TESTING, HANDLING & DISPOSAL	CS	ALL REQ'D
205.0004.0000	POROUS BACKFILL MATERIAL	CY	770
301.0001.00D1	AGGREGATE BASE COURSE, GRADING D-1	TON	2,150
301.0003.00E1	AGGREGATE SURFACE COURSE, GRADING E-1	TON	450
306.0001.0000	ATB	TON	2,200
306.0002.6440	ASPHALT BINDER, GRADE PG 64-40 E	TON	120
306.2002.0000	ASPHALT MATERIAL PRICE ADJUSTMENT	CS	ALL REQ'D
402.0001.STE1	STE-1 ASPHALT FOR TACK COAT	TON	4.5
408.2001.00VH	HMA, TYPE VH	TON	1,750
408.2004.6440	ASPHALT BINDER, GRADE PG 64-40 E	TON	95
408.2008.00VH	HMA PRICE ADJUSTMENT, TYPE VH	CS	ALL REQ'D
408.2009.0000	LONGITUDINAL JOINT DENSITY PRICE ADJUSTMENT	CS	ALL REQ'D
408.2010.0001	PAVEMENT SMOOTHNESS PRICE ADJUSTMENT, METHOD 1	CS	ALL REQ'D
408.2014.0000	JOINT ADHESIVE	LF	4,100
408.2021.0000	ASPHALT BINDER PRICE ADJUSTMENT	CS	ALL REQ'D
411.2000.0000	INTELLIGENT COMPACTION	LS	ALL REQ'D
603.2032.0018	CORRUGATED HDPE PIPE 18 INCH	LF	178
603.2032.0024	CORRUGATED HDPE PIPE 24 INCH	LF	1,489
603.2033.0018	END SECTION FOR CORRUGATED HDPE PIPE 18 INCH	EA	6
603.2033.0024	END SECTION FOR CORRUGATED HDPE PIPE 24 INCH	EA	4
604.0001.0001	STORM SEWER MANHOLE, TYPE I	EA	18
604.0005.000A	INLET TYPE A	EA	4
605.2008.0012	PERFORATED CORRUGATED HDPE PIPE 12 INCH	LF	78
606.0001.0000	W-BEAM GUARDRAIL	LF	700
606.0006.0000	REMOVING AND DISPOSING OF GUARDRAIL	LF	797
606.0013.0000	PARALLEL GUARDRAIL TERMINAL	EA	2
607.0003.0000	CHAIN LINK FENCE	LF	514
607.0005.0000	DRIVE GATE DOUBLE SWING GATES	EA	2
608.0006.0000	CURB RAMP	EA	20
608.2002.0000	ASPHALT PATHWAY	TON	120
608.2013.E004	CONCRETE, TYPE V, 4 INCHES THICK, COLORED AND PATTERN IMPRINTED, BUFFER AND MEDIAN	SY	1,175
608.2013.E006	CONCRETE, TYPE V, 6 INCHES THICK, COLORED AND PATTERN IMPRINTED, TRUCK APRON & FLUSH MEDIAN	SY	445
609.0002.0001	CURB AND GUTTER, TYPE 1	LF	4,200
610.0002.0000	DITCH LINING	TON	600
615.0001.0000	STANDARD SIGN	SF	493
615.0005.0000	DELINEATOR, FLEXIBLE	EA	28
615.0006.0000	SALVAGE SIGN	EA	22

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FOREST DR INT IMP

ESTIMATE OF QUANTITIES

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ALASKA	0001630/CFHWY00453	2026	C02	C02

ESTIMATE OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	PAY UNIT	TOTAL QUANTITY
618.0002.0000	SEEDING	LB	610
618.0003.0000	WATER FOR SEEDING	MGAL	405
619.2002.0000	TURF REINFORCEMENT MAT	SY	2,500
620.0001.0000	TOPSOIL	SY	45,000
621.0001.0000	TREE, ASPEN-SINGLE STEM (POPULUS TREMULA ERECTA), 2" CAL.	EA	6
621.0001.0000	TREE, WHITE SPRUCE (PICEA GLAUCA), 6' HEIGHT	EA	5
621.0002.0000	SHRUB, COTONEASTER (CONTONEASTER ACTUIFOLIUS), 18" HEIGHT	EA	42
621.0002.0000	SHRUB, LILAC (SYRINGA X PRESTONIAE), 18" HEIGHT	EA	28
621.0002.0000	SHRUB, LILAC (SYRINGA VILLOSA), 18" HEIGHT	EA	28
621.2007.0000	LANDSCAPE EDGING	LF	435
621.2008.0001	LANDSCAPE BOULDER - SMALL	EA	2
621.2008.0002	LANDSCAPE BOULDER - MEDIUM	EA	13
621.2008.0003	LANDSCAPE BOULDER - LARGE	EA	7
621.2018.0000	ROCK MULCH - TYPE A	SY	17
621.2018.0000	ROCK MULCH - TYPE B	SY	11
621.2018.0000	ROCK MULCH - TYPE C	SY	35
639.2000.0000	APPROACH	EA	11
640.0001.0000	MOBILIZATION AND DEMOBILIZATION	LS	ALL REQ'D
641.0001.0000	EROSION, SEDIMENT, AND POLLUTION CONTROL ADMINISTRATION	LS	ALL REQ'D
641.0005.0000	TEMPORARY EROSION, SEDIMENT, AND POLLUTION CONTROL BY DIRECTIVE	CS	ALL REQ'D
641.0006.0000	WITHHOLDING	CS	ALL REQ'D
641.0007.0000	SWPPP MANAGER	LS	ALL REQ'D
642.0001.0000	CONSTRUCTION SURVEYING	LS	ALL REQ'D
642.0003.0000	THREE PERSON SURVEY PARTY	HR	150
642.2005.0000	CONTRACTOR-FURNISHED COMPUTATIONS	LS	ALL REQ'D
642.2006.0000	CONTRACTOR-FURNISHED ENGINEERING TOOLS	CS	ALL REQ'D
643.0002.0000	TRAFFIC MAINTENANCE	LS	ALL REQ'D
643.0003.0000	PERMANENT CONSTRUCTION SIGNS	LS	ALL REQ'D
643.0023.0000	TRAFFIC PRICE ADJUSTMENT	CS	ALL REQ'D
643.0025.0000	TRAFFIC CONTROL	CS	ALL REQ'D
643.0032.0000	FLAGGING	CS	ALL REQ'D
644.0001.0000	FIELD OFFICE	LS	ALL REQ'D
644.2004.0000	ENGINEERING COMMUNICATIONS	CS	ALL REQ'D
644.2007.0000	VEHICLE (LT/SUV)	EACH	2
645.0001.0000	TRAINING PROGRAM, 1 TRAINEE/APPRENTICE	LH	300
646.0001.0000	CPM SCHEDULING	LS	ALL REQ'D
647.2002.0000	BACKHOE 4WD, 1 CY BUCKET, 75-HP MINIMUM,15 FT DEPTH	CS	ALL REQ'D
660.0003.0000	HIGHWAY LIGHTING SYSTEM COMPLETE, BOGARD/ENGSTROM/GREEN FOREST	LS	ALL REQ'D
661.0003.0000	LOAD CENTER, TYPE 2	EA	1
670.2000.0000	MMA PAVEMENT MARKINGS	LS	ALL REQ'D
682.2000.0000	VAC-TRUCK POTHOLE	CS	ALL REQ'D
688.2001.0000	UTILITY SUPPORT	CS	ALL REQ'D
688.2002.0000	UTILITY SUPPORT PRICE ADJUSTMENT	CS	ALL REQ'D

TABLE OF ESTIMATING FACTORS

ITEM NO.	ITEM DESCRIPTION	ESTIMATING FACTOR
203.0006.0000	BORROW	144 LB/FT^3
301.0001.00D1	AGGREGATE BASE COURSE, GRADING D-1	144 LB/FT^3
306.0001.0000	ATB	151 LB/FT^3
306.0002.6440	ASPHALT BINDER, GRADE PG 64-40 V	5.3% OF TOTAL WEIGHT OF 306.0001.0000
402.0001.STE1	STE-1 ASPHALT FOR TACK COAT	0.000316 TON/YD^2
408.2001.00VH	HMA, TYPE VH	151 LB/FT^3
408.2004.6440	ASPHALT BINDER, GRADE PG 64-40 V	5.3% OF TOTAL WEIGHT OF 408.2001.00VH
608.2002.0000	ASPHALT PATHWAY	151 LB/FT^3
610.0001.0000	DITCH LINING	110 LB/FT^3
618.0002.0000	SEEDING	1.5 LB/1000 FT^2
618.0003.0000	WATER FOR SEEDING	1.0 GAL/FT^2

STATE OF ALASKA
CLAIRE E. SMITH
PE 12147
REGISTERED PROFESSIONAL ENGINEER
PSSE REVIEW

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STATE OF ALASKA
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ESTIMATE OF QUANTITIES

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ALASKA	0001630/CFHWY00453	2026	D00	D04

FOR REVIEW ONLY.

EARTHWORK SUMMARY

SHEET	STATION		ESTIMATED EXCAVATION					ESTIMATED EMBANKMENT				
	FROM	TO	UNCLASSIFIED EXCAVATION (CY)	UNCLASSIFIED EXCAVATION MISCELLANEOUS (CY)	WASTE EST. @ 30% MAINLINE (CY)	UNCLASSIFIED EXCAVATION (USABLE) (CY)	SHRUNK UNCL. EX. USABLE AS SELECTED MATERIAL TYPE C (CY)	SELECTED MATERIAL, TYPE A MAINLINE (CY)	SELECTED MATERIAL, TYPE A MISCELLANEOUS (CY)	SELECTED MATERIAL, TYPE C MAINLINE (CY)	SELECTED MATERIAL, TYPE C MISCELLANEOUS (CY)	TOTAL EMBANKMENT (CY)
F02	1011+75	1016+80	3,181.5	201.7	954.5	2,428.8	2,064.5	1,646.7	386.6	0.2	736.7	2,770.2
F03	1016+80	1020+50	4,288.0	-	1,286.4	3,001.6	2,551.4	2,344.2	120.6	250.1	-	2,714.9
F04	1020+50	1025+75	4,576.3	14,473.6	1,372.9	17,677.0	15,025.5	3,259.0	7,850.5	367.8	4,019.3	15,496.6
F05	1025+75	1030+00	4,459.8	192.2	1,338.0	3,314.1	2,817.0	2,094.8	373.3	0.0	2.1	2,470.2
F06	101+00	104+50	1,066.1	174.8	319.8	921.1	782.9	1,764.4	280.7	1,022.8	265.0	3,332.8
F07	104+50	108+50	13,859.6	1,478.1	4,157.9	11,179.8	9,502.8	2,401.0	497.9	357.4	149.0	3,405.3
F08	108+50	112+75	15,113.9	-	4,534.2	10,579.8	8,992.8	2,856.1	-	1,831.0	-	4,687.2
F09	112+75	115+60	4,236.1	404.8	1,270.8	3,370.1	2,864.6	1,760.7	199.6	459.3	29.1	2,448.7
TOTAL			67,706.5		15,234.4	52,472.1	44,601.3	27,836.0		9,489.9		37,325.9
TOTAL PAY ITEM QUANTITY (ROUNDED)			68,000					55,000				
UNIT			(CY)					(TON)				

NOTES:

1. WASTE = 0.3 × UNCLASSIFIED EXCAVATION
2. UNCLASSIFIED EXCAVATION (USABLE) = UNCLASSIFIED EXCAVATION - WASTE
3. ESTIMATED SHRUNK COMMON EXCAVATION (USABLE) = 0.85 × UNCLASSIFIED EXCAVATION (USABLE)
4. TOTAL EMBANKMENT = SELECTED MATERIAL, TYPE C + SELECTED MATERIAL, TYPE A

THIS SHEET WILL BE REMOVED FOR ADVERTISEMENT UNLESS THE CONSTRUCTION PROJECT MANAGER REQUIRES IT. IF IT'S REQUIRED, THE SHEET NUMBER WILL BECOME D1.

STATE OF ALASKA
CLAIRE 10/47
REGISTERED PROFESSIONAL ENGINEER
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SUMMARY TABLES

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CLEARING AND GRUBBING - 201.0003.0000

SHEET	STATION FROM	STATION TO	OFFSET	AREA (ACRES)	REMARKS
F02	1011+75	1016+80	LT/RT	0.93	
F03	1016+80	1020+50	LT/RT	0.80	CLEAR & GRUB TO ROW
F04/F08	1020+50	1025+50	LT/RT	2.52	CLEAR & GRUB TO ROW
F05	1025+50	1030+00	LT/RT	1.40	CLEAR & GRUB TO ROW
F06	101+00	104+50	LT/RT	1.38	CLEAR & GRUB TO ROW
F07	104+50	108+50	LT/RT	2.40	CLEAR & GRUB TO ROW
F09	112+75	115+60	LT/RT	1.22	CLEAR & GRUB TO ROW
F06	101+00	104+50	LT/RT	1.34	CLEAR & GRUB TO ROW
			PAY ITEM QUANTITY:	11.0	

REMOVAL OF STRUCTURES AND OBSTRUCTIONS - 202.0001.0000

SHEET	STATION	OFFSET	REMARKS
F04/F08	1022+78	119.5 RT	COMMERCIAL SHOP
F07	105+05	120.0 RT	SHED
F07	105+35	32.0 RT	HOUSE
F07	105+56	23.0 LT	GARAGE

REMOVAL OF PAVEMENT - 202.0002.0000

SHEET	STATION FROM	STATION TO	AREA (SY)	REMARKS
F02	1014+00	1016+80	1,348.0	
F03	1016+80	1020+50	1,505.8	
F04/F08	1020+50	1025+50	3,707.4	
F05	1025+50	1030+00	1,787.4	
F06	101+00	104+50	602.3	
F07	104+50	108+50	464.9	
F08	111+74	112+75	514.8	
F09	112+75	115+60	1,102.2	
		PAY ITEM QUANTITY:	12,200	

REMOVAL OF CULVERT PIPE - 202.0004.0000

SHEET	STATION	OFFSET	LENGTH (LF)	REMARKS
F03	1019+60	CL	65.0	
F03	1021+56	165.4 RT	35.3	
F08	114+51	22.2 LT	43.8	
		PAY ITEM QUANTITY:	88.0	

GROUND WATER WELL DECOMMISSIONING - 202.2012.0000

SHEET	STATION	OFFSET	REMARKS
F04	1022+00	75.0 RT	NW CORNER OF SHOP
F07	105+41	8.0 RT	BETWEEN HOUSE AND GARAGE

REMOVAL OF SEPTIC SYSTEM - 202.2025.0000

SHEET	STATION	OFFSET	REMARKS
F04/F08	1023+09	132.00	SOUTH OF STRUCTURE
F07	105+46	46.00	BACKYARD

REMOVAL OF FENCE - 202.2022.0000

SHEET	FROM STATION	FROM OFFSET	TO STATION	TO OFFSET	LENGTH (LF)	REMARKS
F02	1015+30	51.1 RT	1015+77	167.0 RT	194.8	ALREADY RELOCATED
F03/F04/F07	1019+78	48.4 RT	1021+14	261.8 RT	343.7	
F03/F04/F07	1020+33	54.2 RT	1021+19	203.0 RT	218.5	
F07	104+54	20.6 RT	106+42	19.5 RT	676.3	RESIDENTIAL LOT
				PAY ITEM QUANTITY:	1,250	

OBLITERATION OF ROADWAY - 203.0009.0000

SHEET	FROM STATION	FROM OFFSET	TO STATION	TO OFFSET	AREA (SY)	REMARKS
F04	1021+52	50.4 LT	1021+56	69.2 LT	2.8	FIRE STATION
F04	1022+15	43.2 LT	1022+44	55.5 LT	37.1	FIRE STATION
F06	101+16	29.5 RT	101+28	38.6 RT	6.8	DRIVEWAY
F06	101+68	31.5 RT	101+81	45.0 RT	10.8	DRIVEWAY
F06-F07	103+16	32.0 LT	107+24	154.0 LT	1,297.5	OLD GREEN FOREST DR
F07-F08	107+69	142.5 LT	109+54	180.0 LT	411.0	OLD GREEN FOREST DR
				PAY ITEM QUANTITY:	1,400	

STATE OF ALASKA
CLAIRE E. DOUGLAS
NO. 12047
PROFESSIONAL ENGINEER
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ALASKA	0001630/CFHWY00453	2026	D02	D04

PIPE SUMMARY - 603.2032.0018, 603.2032.0024, 603.2033.0018, 603.2033.0024, & 605.2008.0012

SHEET	PIPE	SIZE (IN)	LENGTH (LF)	INLET		OUTLET		SLOPE (%)	REMARKS
				FROM	ELEVATION	TO	ELEVATION		
F04	P4-1	24	63.1	S4-1	353.68	S4-2	353.05	1.00%	HDPE
F04	P4-2	24	94.0	S4-3	355.08	S4-2	353.2	2.00%	HDPE
F04	P4-3	24	45.1	S4-2	352.88	STA 1021+76.5 62.0 RT	352.2	1.50%	HDPE
F06	P6-3	24	102.0	S6-1	344.93	STA 104+20 50 RT	344.4	0.50%	HDPE
F07	P7-1	24	185.7	S7-1	346.03	S6-1	345.1	0.50%	HDPE
F07	P7-2	24	119.9	S7-2	346.8	S7-1	346.2	0.50%	HDPE
F07	P7-3	24	64.5	S7-3	347.27	S7-2	346.95	0.50%	HDPE
F07	P7-4	12	78.0	STA. 108+75 115.0 LT	347.84	S7-3	347.45	0.50%	PERFORATED HDPE
F08	P8-1	18	21.0	S8-1	356.31	S8-3	356.1	1.00%	HDPE
F08	P8-2	18	40.0	S8-2	356.38	S8-3	356.1	0.70%	HDPE
F08	P8-3	24	59.4	S8-3	355.94	S8-4	355.35	1.00%	HDPE
F08	P8-4	24	54.1	S8-4	355.18	S8-5	354.1	2.00%	HDPE
F08	P8-5	24	46.8	S8-5	353.94	STA 109+55 85.0 LT	353	2.00%	HDPE
F08	P8-6	24	50.5	S8-6	356.36	S8-4	355.35	2.00%	HDPE
F08	P8-7	24	49.9	S8-7	355.1	S8-5	354.1	2.00%	HDPE
F08	P8-8	24	52.6	S8-8	357.6	S8-6	356.55	2.00%	HDPE
F08	P8-9	24	48.5	S8-9	358.48	S8-8	357.75	1.50%	HDPE
F08	P8-10	24	63.1	S8-10	356.51	S8-7	355.25	2.00%	HDPE
F08	P8-11	24	33.1	S8-11	358.98	S8-9	358.65	1.00%	HDPE
F08	P8-12	24	37.5	S8-12	359.53	S8-11	359.15	1.00%	HDPE
F08	P8-13	24	33.4	S8-13	360.03	S8-12	359.7	1.00%	HDPE
F08	P8-14	24	28.8	S8-14	360.49	S8-13	360.2	1.00%	HDPE
F08	P8-15	24	152.7	S8-15	361.23	S8-10	356.65	3.00%	HDPE

SHEET	PIPE	SIZE (IN)	LENGTH (LF)	INLET				OUTLET				SLOPE (%)	REMARKS
				STATION	OFFSET	ELEVATION	END SECTION	STATION	OFFSET	ELEVATION	END SECTION		
F03	P3-1	24	65.0	1019+30	34.0 LT	351.2	X	1019+30.00	31.0 RT	349.25	X	3.00%	HDPE
F05	P5-1	18	41.6	1028+93	50.0 LT	357.64	X	1029+34	43.0 LT	357.29	X	0.85%	HDPE
F06	P6-1	18	40.5	101+30	26.0 RT	342.76	X	101+70	26.0 RT	342.56	X	0.50%	HDPE
F06	P6-2	18	34.6	102+08	32.5 RT	341.27	X	102+42	39.0 RT	340.75	X	1.50%	HDPE
F09	P9-1	24	39.1	114+70	47.0 LT	381.90'	X	114+29	47.0 LT	381.61	X	0.75%	HDPE

STATE OF ALASKA
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STATE OF ALASKA
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HSIP: BOGARD RD AT
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SUMMARY TABLES

DESIGNED BY ZDK
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SCALE 1" = 1"
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DRAWING LOCATION
W:\PROJECTS\HSIP_BOGARD_ENGSTROM_RA - CFHWY00453\CIV3D\PLANSET\00453_D01_SUM.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001630/CFHWY00453	2026	D03	D04

STRUCTURE INSTALLATION SUMMARY - 604.0001.0001 & 604.0005.000A

SHEET	STRUCTURE	TYPE	STATION	OFFSET	TOP OF CASTING ELEVATION	TYPE OF CASTING	REMARKS
F04	S4-1	I	1021+15	19.2 LT	358.0	CI	HIGH CAPACITY INLET GRATE, ON GRADE
F04	S4-2	I	1021+65	18.6 RT	359.0	CI	HIGH CAPACITY INLET GRATE, ON GRADE
F04	S4-3	A	1022+25	50.0 LT	358.8	FI	
F06	S6-1	I	104+20	52.0 LT	352.9	MH	
F07	S7-1	I	106+00	110.0 LT	358.5	MH	
F07	S7-2	I	107+25	98.5 LT	352.2	FI	
F07	S7-3	I	107+92	106.0 LT	352.0	FI	
F08	S8-1	A	109+00	21.0 LT	362.2	CI	HIGH CAPACITY INLET GRATE, ON GRADE
F08	S8-2	A	109+00	40.0 RT	359.0	FI	
F08	S8-3	I	109+00	0.0 RT	363.1	MH	
F08	S8-4	I	109+59	0.0 RT	362.7	CI	HIGH CAPACITY INLET GRATE, ON GRADE
F08	S8-5	I	109+78	50.2 LT	361.6	CI	HIGH CAPACITY INLET GRATE, ON GRADE
F08	S8-6	I	109+80	46.8 RT	363.8	CI	HIGH CAPACITY INLET GRATE, ON GRADE
F08	S8-7	I	110+22	73.7 LT	362.1	CI	HIGH CAPACITY INLET GRATE, ON GRADE
F08	S8-8	I	110+28	68.3 RT	365.1	CI	HIGH CAPACITY INLET GRATE, ON GRADE
F08	S8-9	I	110+76	74.9 RT	365.7	CI	HIGH CAPACITY INLET GRATE, ON SAG
F08	S8-10	I	110+82	54.3 LT	363.5	CI	HIGH CAPACITY INLET GRATE, ON GRADE
F08	S8-11	I	111+02	84.1 RT	365.0	CI	HIGH CAPACITY INLET GRATE, ON SAG
F08	S8-12	I	111+20	58.3 RT	365.4	CI	HIGH CAPACITY INLET GRATE, ON GRADE
F08	S8-13	A	111+10	27.5 RT	366.1	CI	HIGH CAPACITY INLET GRATE, ON GRADE
F08	S8-14	I	111+02	0.0 RT	365.3	CI	HIGH CAPACITY INLET GRATE, ON GRADE
F08	S8-15	I	112+50	30.3 LT	368.2	FI	

CONCRETE, TYPE V, 4 INCHES THICK, COLORED AND PATTERN IMPRINTED - 608.2013.E004

SHEET	FROM		TO		AREA (SY)	REMARKS
	STATION	OFFSET	STATION	OFFSET		
F03/F04	1019+24.45	CL	1022+70.84	CL	227.2	BOGARD W RAISED MEDIAN
F04	1021+00.12	LT	111+85.00	LT	43.8	NW QUADRANT BUFFER
F04/F07/F08	1021+45.00	RT	107+00.00	LT	86.3	SW QUADRANT BUFFER
F04/F08	109+45.24	RT	1025+20.00	RT	34.0	SE QUADRANT BUFFER
F04/F05/F08	111+85.27	RT	1026+49.92	LT	59.6	NE QUADRANT BUFFER
F04/F05	1024+16.41	CL	1027+83.01	CL	380.6	BOGARD E RAISED MEDIAN
F07/F08	108+24.79	CL	109+57.87	CL	79.5	GREEN FOREST RAISED MEDIAN
F04/F08	111+53.36	RT	1025+34.55	LT	124.7	YRTL MEDIAN
F08/F09	111+03.90	CL	113+34.05	CL	129.3	ENGSTROM RAISED MEDIAN
				PAY ITEM QUANTITY:	1,175	

CONCRETE, TYPE V, 6 INCHES THICK, COLORED AND PATTERN IMPRINTED - 608.2013.E006

SHEET	FROM		TO		AREA (SY)	REMARKS
	STATION	OFFSET	STATION	OFFSET		
F04	102155.5	CL	102244.4	CL	54.3	FLUSH MEDIAN
F04	1022+95.60	CL	1023+91.40	CL	388.8	TRUCK APRON
				PAY ITEM QUANTITY:	445	

CURB AND GUTTER SUMMARY - 609.0002.0001

SHEET	FROM		TO		LENGTH (LF)	REMARKS
	STATION	OFFSET	STATION	OFFSET		
F03/F04	1019+22.31	CL	1021+58.61	CL	479.0	W BOGARD MEDIAN
F04/F08	1021+00.10	LT	111+85.00	LT	305.8	NW QUADRANT
F04/F07/F08	1021+45.00	RT	107+00.00	LT	436.6	SW QUADRANT
F04	1022+11.20	CL	1022+71.60	CL	152.4	W BOGARD MEDIAN
F04	1022+94.60	CL	1023+92.40	CL	307.9	OUTSIDE OF TRUCK APRON
F04/F08	109+19.80	RT	1025+20.00	RT	203.7	SE QUADRANT
F04/F05	111+85.10	RT	1026+50.00	LT	318.7	NE QUADRANT
F04/F05	1024+15.50	CL	1027+85.20	CL	784.2	E BOGARD MEDIAN
F07/F08	108+22.60	CL	109+57.90	CL	286.2	GREEN FOREST MEDIAN
F04/F08	1025+34.60	RT	111+54.10	LT	436.7	YRTL MEDIAN
F08/F09	111+02.85	CL	113+36.25	CL	488.8	ENGSTROM MEDIAN
				PAY ITEM QUANTITY:	4,200	

DITCH LINING - 610.0002.0000

SHEET	FROM		TO		DITCH LINING (TON)	REMARKS
	STATION	OFFSET	STATION	OFFSET		
F04/F07/F08	107+99	LT	109+57	LT	385.1	INFILTRATION BASIN; SEE G SHEETS
F05/F06	104+10	LT	105+60	LT	52.4	GREEN FOREST LT
F05/F06	104+20	RT	106+50	RT	88.0	GREEN FOREST RT
F08/F09	112+45	LT	114+23	LT	65.5	ENGSTROM LT
				PAY ITEM QUANTITY:	600	

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ALASKA	0001630/CFHWY00453	2026	D04	D04

GUARDRAIL SUMMARY - 606.0001.0000, 606.0006.0000, 606.0009.0000, & 606.0013.0000

SHEET	STATION			W-BEAM GUARDRAIL (LF) 606.0001.0000	REMOVING & DISPOSING OF GUARDRAIL (LF) 606.0006.0000	PARALLEL GUARDRAIL TERMINAL (EA) 606.0013.0000	GUARDRAIL CASE SEE NOTE 4	REMARKS
	FROM	TO	OFFSET					
F01	1007+85	1015+80	RT	700.0	797.0	2	5	

APPROACH SUMMARY - 639.2000.0000

SHEET	STATION	OFFSET	SKEW ANGLE (90° TYP.)	TYPE			WIDTH (FT)	LENGTH (FT)	REMARKS
				PUB.	RES.	COM.			
F10	1016+30.0	RT		X			24	210	E ASHMORE RD
F11	1016+30.0	RT-A				X	24	150	BUSINESS ACCESS
F12	1020+50.0	RT				X	12	130	BASIN ACCESS
F13	1021+84.7	LT				X	48	80	FIRE STATION
F13	1029+11.0	RT				X	24	80	DAIRY FARM
F14	101+50.0	RT			X		20	85	RESIDENTIAL
F14	102+25.0	RT			X		14	150	RESIDENTIAL
F15	102+43.0	LT			X		14	110	RESIDENTIAL
F16	106+00.0	LT				X	24	254	BUSINESS/BASIN ACCESS
F17	106+00.0	LT-A				X	24	180	BUSINESS ACCESS
F18	114+50.0	LT		X			24	140	E DESTIN DR

CURB RAMP SUMMARY - 608.0006.0000

SHEET	STATION	OFFSET	TYPE	ASP OR DETAIL	ESTIMATED MEASUREMENT (FT)						DETECETABLE WARNING TILE		REMARKS
					I	J	K	L	M	N	RADIUS (FT)	LENGTH (FT)	
F04	1022+43.8	26.5 LT	PARALLEL	ASP	10	6	10	10	10	12	798	6.00	W BOGARD
F04	1022+44.3	27.9 RT	PARALLEL	ASP	10	12.7	10	6	10	6	93	6.25	W BOGARD
F04	1022+48.3	12.1 LT	REFUGE	DETAIL	-	-	-	-	-	-	800	10.00	W BOGARD
F04	1022+48.7	9.9 RT	REFUGE	DETAIL	-	-	-	-	-	-	145	10.00	W BOGARD
F04	1024+38.4	12.4 LT	REFUGE	DETAIL	-	-	-	-	-	-	134	10.00	E BOGARD
F04	1024+41.5	13.4 RT	REFUGE	DETAIL	-	-	-	-	-	-	800	10.00	E BOGARD
F04	1024+41.8	30.7 LT	REFUGE	DETAIL	-	-	-	-	-	-	133	10.00	E BOGARD
F04	1024+45.7	40.5 LT	REFUGE	DETAIL	-	-	-	-	-	-	127	10.00	E BOGARD
F04	1024+46.5	27.4 RT	PARALLEL	ASP	10	12	10	6	10	6	800	6.00	E BOGARD
F04	1024+53.5	59.8 LT	PARALLEL	ASP	10	6	10	6	10	8	63	6.40	E BOGARD
F08	109+28.7	21.8 RT	PARALLEL	ASP	10	12	10	6	10	5.5	63	6.40	GREEN FOREST
F08	109+32.3	23.3 LT	PARALLEL	ASP	10	8	10	6	10	6	223	6.00	GREEN FOREST
F08	109+34.4	5.5 RT	REFUGE	DETAIL	-	-	-	-	-	-	102	10.00	GREEN FOREST
F08	109+34.8	5.1 LT	REFUGE	DETAIL	-	-	-	-	-	-	352	10.00	GREEN FOREST
F08	111+28.9	6.9 LT	REFUGE	DETAIL	-	-	-	-	-	-	102	10.00	ENGSTROM
F08	111+29.7	6.5 RT	REFUGE	DETAIL	-	-	-	-	-	-	800	10.00	ENGSTROM
F08	111+31.9	20.2 RT	REFUGE	DETAIL	-	-	-	-	-	-	782	10.00	ENGSTROM
F08	111+33.3	30.1 RT	REFUGE	DETAIL	-	-	-	-	-	-	776	10.00	ENGSTROM
F08	111+35.7	49.6 RT	PARALLEL	ASP	10	12	10	6	10	5.5	108	6.20	ENGSTROM
F08	111+36.9	27.3 LT	PARALLEL	ASP	10	8	10	6	10	6	78	6.30	ENGSTROM

GUARDRAIL SUMMARY NOTES:

1. INSTALL GUARDRAIL FLEXIBLE DELINEATORS AND GUARDRAIL REFLECTORS PER STANDARD PLAN G-00 ON ALL GUARDRAIL RUNS.
2. GUARDRAIL FLEXIBLE DELINEATORS AND GUARDRAIL REFLECTORS ARE TO BE SPACED AS FOLLOWS:
   - 2.1. 50' ON TANGENTS.
   - 2.2. 12.5' ON CURVES STARTING 100' BEFORE THE POINT OF CURVATURE (PC) AND 100' AFTER THE POINT OF TANGENCY (PT).
3. ALL PARALLEL END TERMINALS SHALL BE 50' IN LENGTH AND HAVE AN END OFFSET OF 2'.
4. SEE ALASKA STANDARD PLAN G-10 FOR GUARDRAIL CASES.

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STATE OF ALASKA
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SUMMARY TABLES

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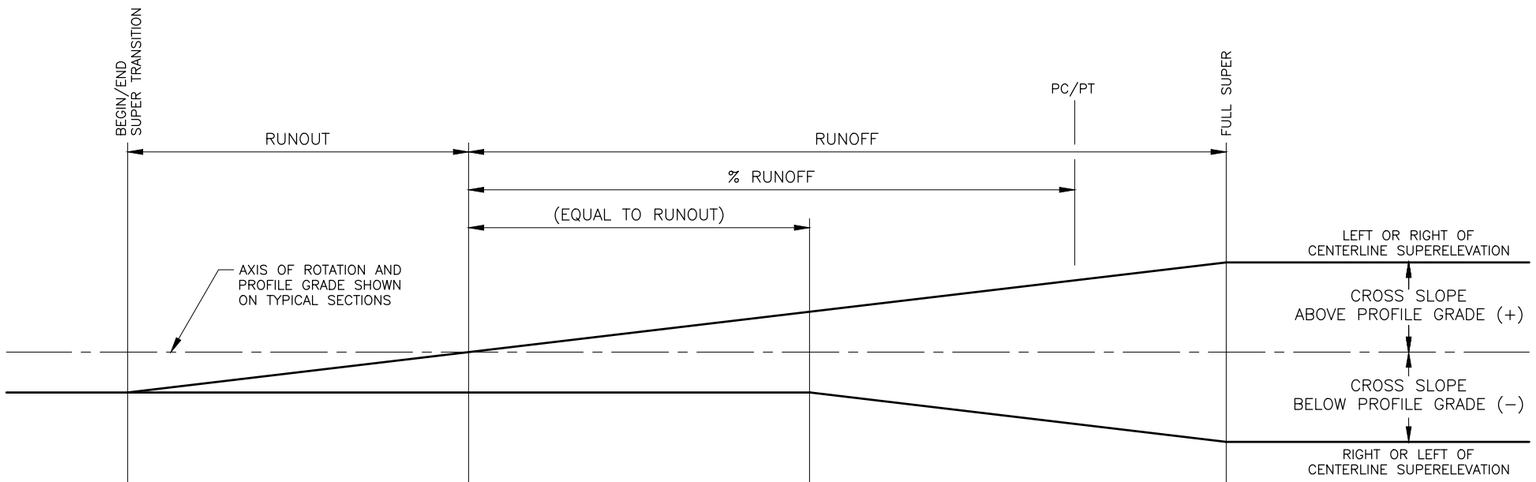
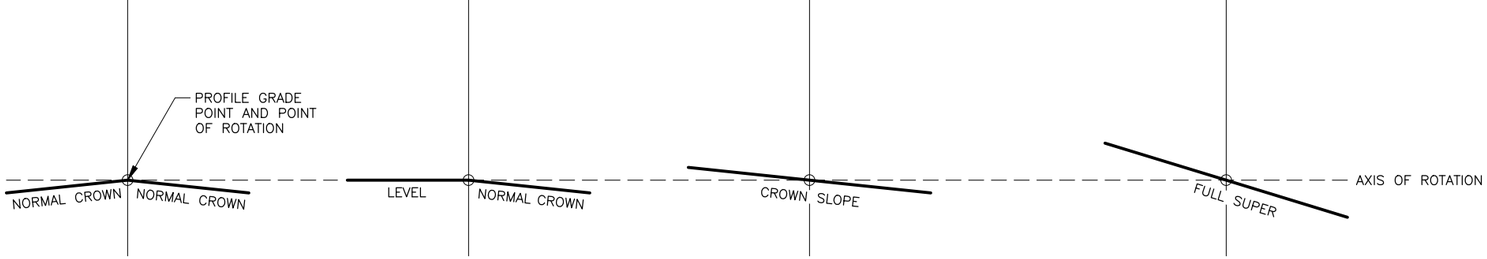
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001630/CFHWY00453	2026	E01	E10



SUPERELEVATION DIAGRAM SHOWN IN PROFILE



SUPERELEVATION TRANSITION

SUPERELEVATION NOTES:

1. REFER TO PLAN AND PROFILE SHEETS FOR SUPERELEVATION VALUES AND SPECIAL CASES.
2. BUILD SUPERELEVATION INTO SUBGRADE AND CARRY THROUGH SHOULDERS.
3. % RUNOFF = PORTION OF RUNOFF ON TANGENT.
4. WIDENING FOR GUARDRAIL OR CURVATURE DOES NOT CHANGE THE LOCATION OF THE AXIS OF ROTATION.

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SUPERELEVATION TRANSITIONS

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\00453_E01_SUPERS.DWG

DATE	TIME	SCALE	DESIGNED BY	CRDOT
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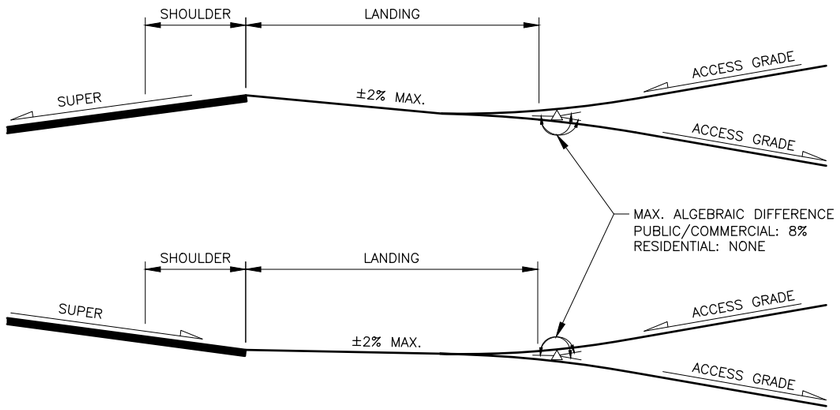
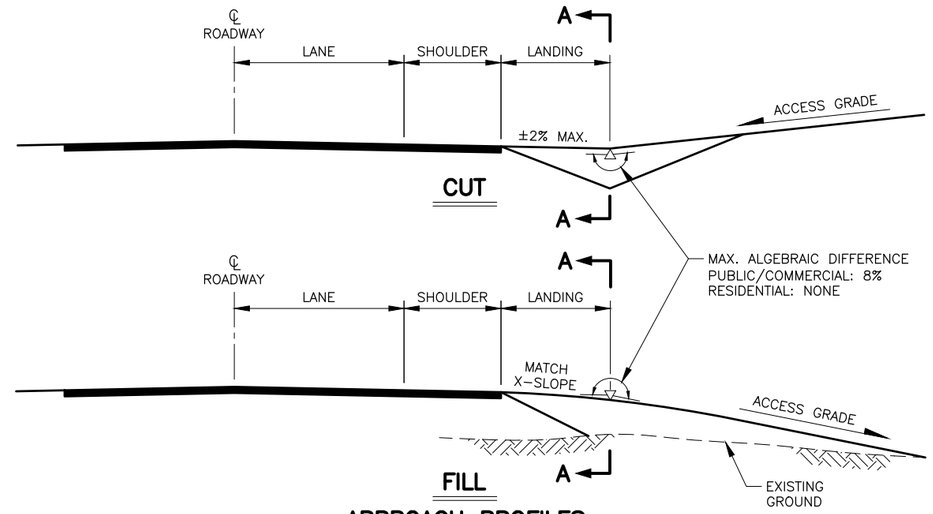
			DRAFTED BY	CRDOT

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001630/CFHWY00453	2026	E02	E10



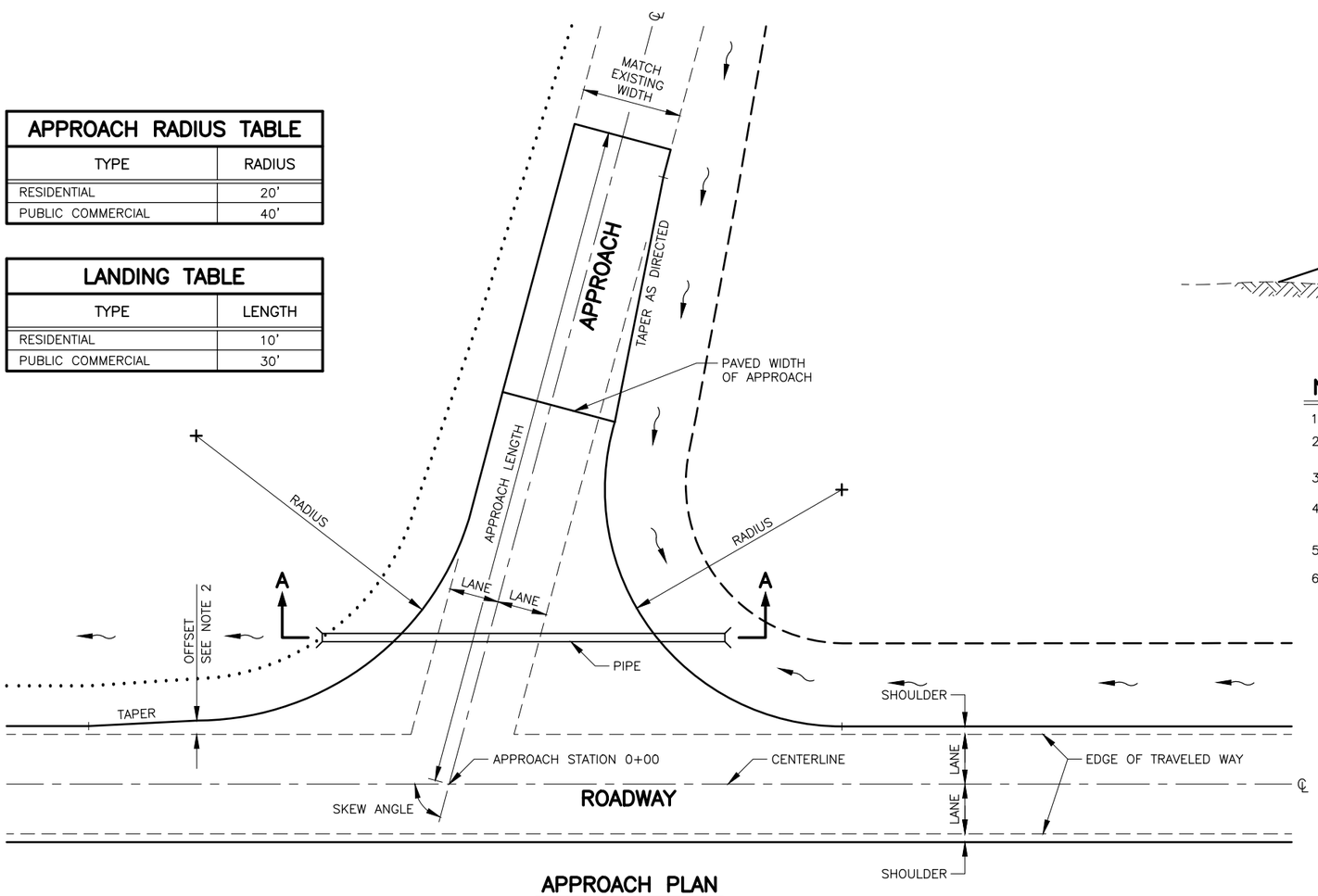
APPROACH PROFILES ON SUPER ELEVATED ROADWAY



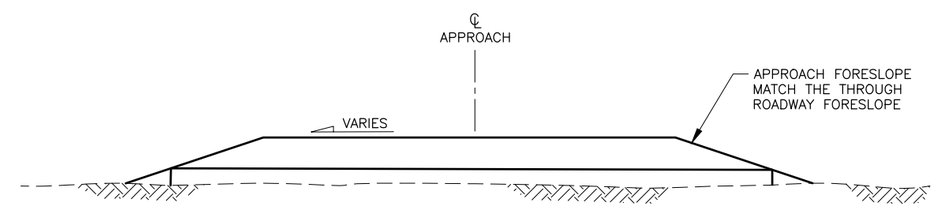
APPROACH PROFILES

APPROACH RADIUS TABLE	
TYPE	RADIUS
RESIDENTIAL	20'
PUBLIC COMMERCIAL	40'

LANDING TABLE	
TYPE	LENGTH
RESIDENTIAL	10'
PUBLIC COMMERCIAL	30'



APPROACH PLAN



SECTION A–A
APPROACH TYPICAL

NOTES:

1. SEE APPROACH SUMMARY FOR APPROACH STATION, LENGTH, WIDTH, SKEW ANGLE, AND TYPE.
2. THE TAPER OFFSET FROM TRAVELED WAY = ASSIGNED VALUE OR SHOULDER WIDTH WHICHEVER IS LARGER. TAPER WILL BE 10 FEET IN LENGTH FOR EACH FOOT OF OFFSET.
3. SEE PUBLIC APPROACH AND DRIVEWAY TYPICAL SECTIONS.
4. APPROACH VERTICAL CURVE REQUIREMENTS: CREST – 2½ INCH MAXIMUM IN A 10–FOOT CHORD
   SAG – 2 INCH MAXIMUM IN A 10–FOOT CHORD
5. WHERE SIDEWALK IS PRESENT BEGIN DRIVEWAY LANDING AT BACK OF SIDEWALK.
6. ACCESS GRADE MAX. 15%

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PSAL REVIEW

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			DRAFTED BY	CRDOT

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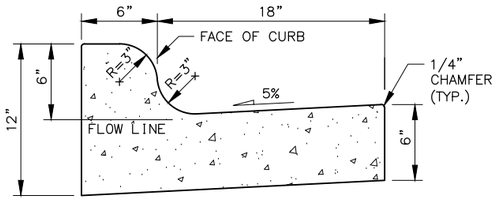
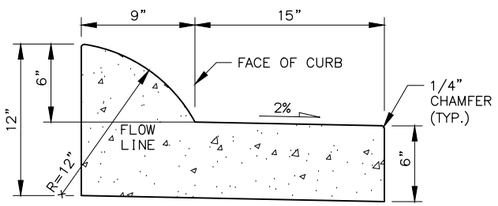
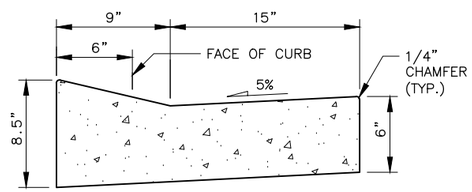


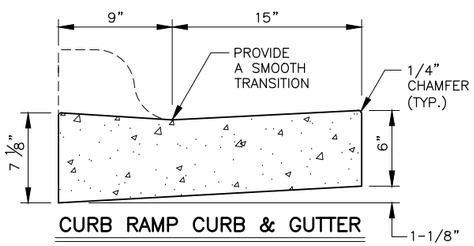
6" MOUNTABLE CURB & GUTTER



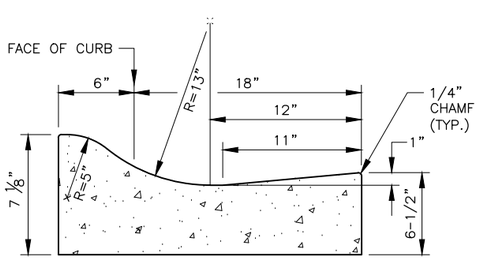
EXPRESSWAY CURB & GUTTER



DEPRESSED CURB & GUTTER (CURB CUT)



CURB RAMP CURB & GUTTER

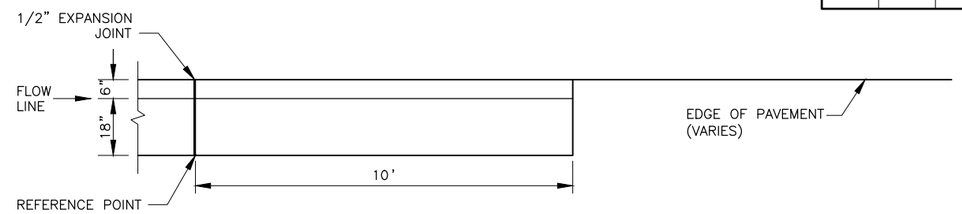


TRUCK APRON CURB & GUTTER

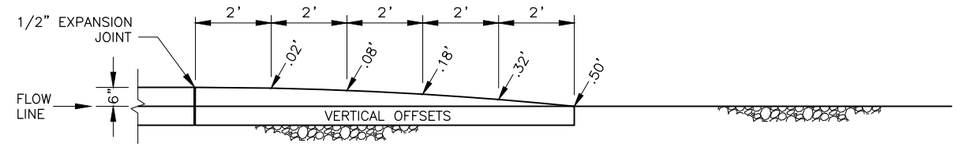
CURBS

CURB NOTE:

MOUNTABLE, DEPRESSED, ROLLED, AND EXPRESSWAY GUTTER PANS SHALL MATCH THE ROADWAY CROSS SLOPE IN THE HIGH SIDE OF SUPER ELEVATED AREAS.



PLAN

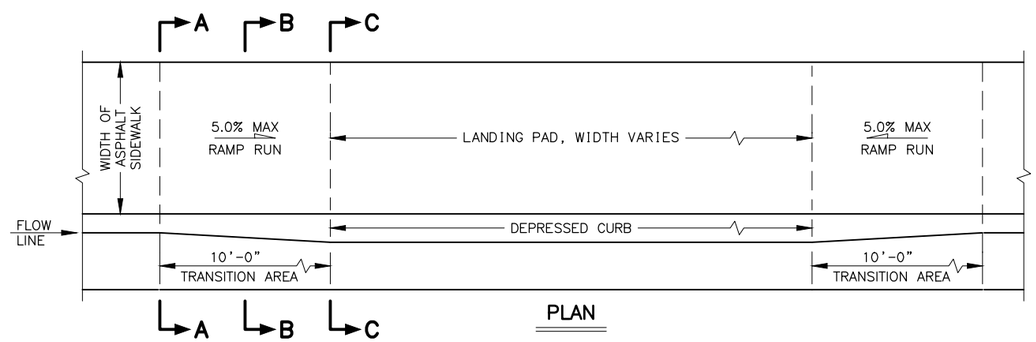


PROFILE

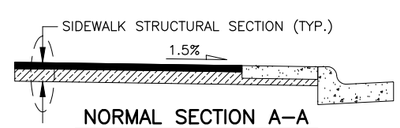
CURB & GUTTER TERMINATION TRANSITIONS

TERMINATION NOTES:

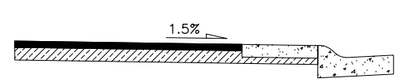
1. CONCRETE BUFFER ADJACENT TO CURB TERMINATIONS SHALL FOLLOW THE HORIZONTAL AND VERTICAL OFFSETS DETAILED IN THE CURB & GUTTER TERMINATION TRANSITIONS.
2. MAINTAIN 4" MINIMUM THICKNESS OF CONCRETE BUFFER THROUGHOUT CURB & GUTTER TERMINATION TRANSITIONS.



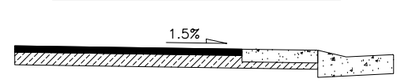
PLAN



NORMAL SECTION A–A



TRANSITION SECTION B–B



DEPRESSED SECTION C–C

CURB CUT NOTES:

1. TRANSITION WIDTH IS SHOWN FOR 6 INCH HIGH CURB & GUTTER.
2. WHERE THE SIDEWALK SLOPE MAKES IT NECESSARY TO LENGTHEN A RAMP RUN TO AVOID EXCEEDING THE ALLOWABLE RAMP SLOPE, DO NOT EXCEED A RAMP LENGTH OF 15 FEET. THE SLOPE RESULTING FROM THAT RUN LENGTH IS ACCEPTABLE, EVEN IF IT EXCEEDS THE MAXIMUM SLOPE SHOWN.
3. CONSTRUCT RAMP RUNS AND LANDINGS OF CONCRETE WHEN CONCRETE SIDEWALK IS PRESENT.
4. PROVIDE A BROOMED FINISH ON CONCRETE RAMP RUNS PERPENDICULAR TO THE RAMP SLOPE.
5. SEE B SHEETS FOR SIDEWALK STRUCTURAL SECTION.

VEHICULAR CURB CUT DETAILS

STATE OF ALASKA
CLAIRE
PSSLF
REVIEW
PROFESSIONAL ENGINEER

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT ENGSTROM RD & GREEN FOREST DR INT IMP

VEHICULAR CURB CUT DETAILS
CURB & GUTTER DETAILS

DESIGNED BY ZDK
CHECKED BY KRV/CLE
DRAFTED BY ZDK
SCALE 1"=1'/2'
DATE 5/22/2025 TIME 11:11 AM

DRAWING LOCATION
W:\PROJECTS\HSIP_BOGARD_ENGSTROM_RA - CFHWY00453\CIV3D\PLANSET\00453_E03_C&G DTLS.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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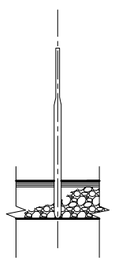
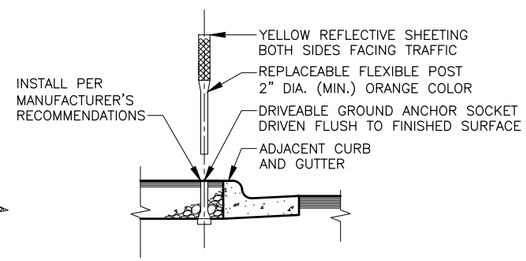
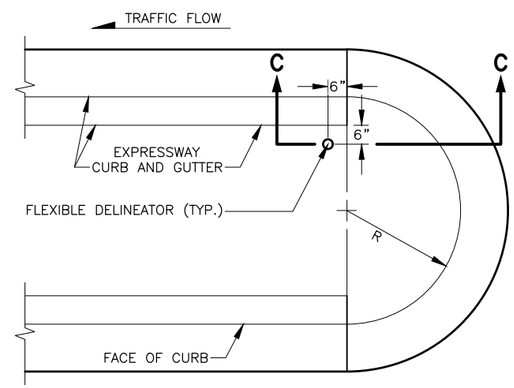


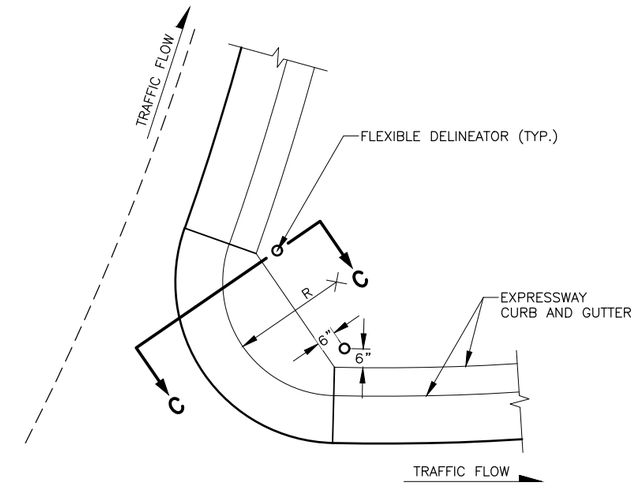
SECTION B-B



SECTION A-A



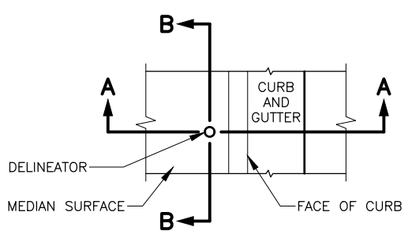
PLAN
NORMAL
MEDIAN NOSE



PLAN
ROUNDABOUT
MEDIAN NOSE

DELINEATOR NOTE:

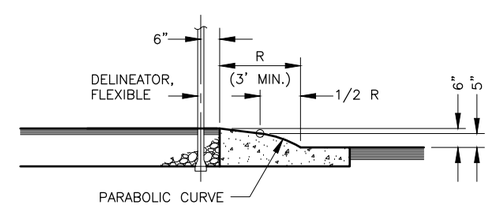
1. CENTER POINT OF THE DELINEATOR SHALL BE 6 INCHES FROM THE BACK OF CURB.



FLEXIBLE DELINEATOR

MEDIAN NOTES:

1. MEDIAN NOSE SHALL BE PAINTED WITH YELLOW REFLECTORIZED PAINT. SHAPING AND PAINTING WILL BE SUBSIDIARY.
2. INSTALL DELINEATOR 6 INCHES FROM TOP BACK OF CURB FOR ONCOMING TRAFFIC SIDE.



SECTION C-C

MEDIAN NOSE DETAIL

PSSE REVIEW

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0555

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
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FLEXIBLE DELINEATOR & MEDIAN NOSE DETAILS

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
5/22/2025	11:11 AM	1" = 2'	ZDK	KRV/CLE	ZDK

DRAWING LOCATION
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NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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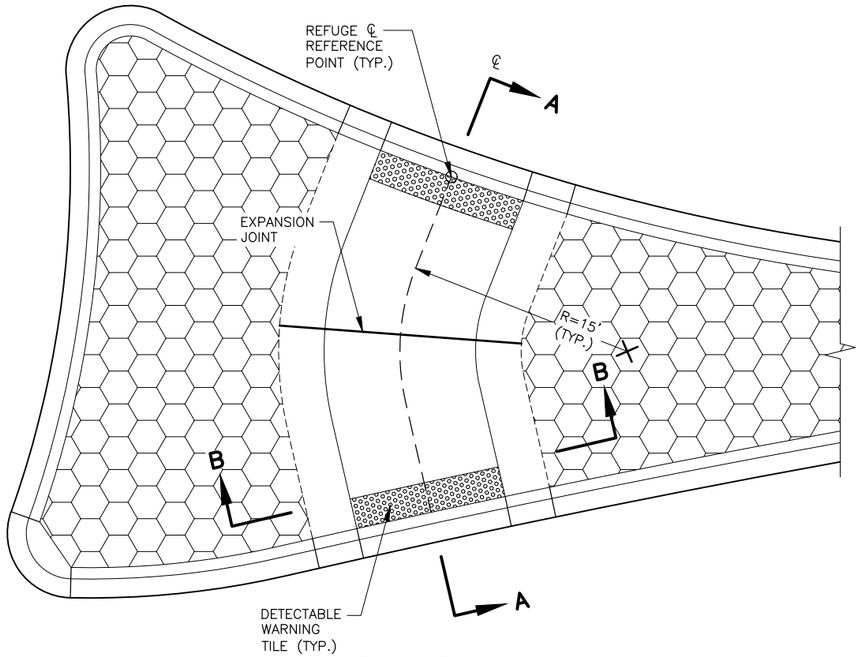
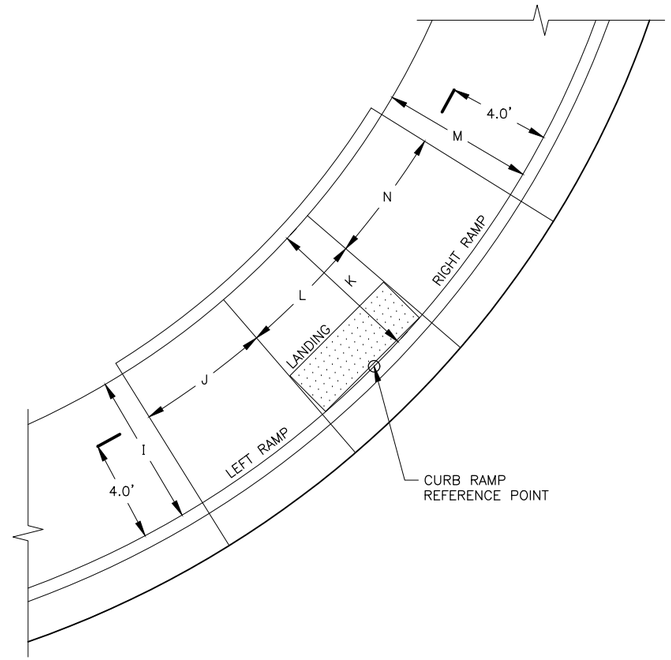
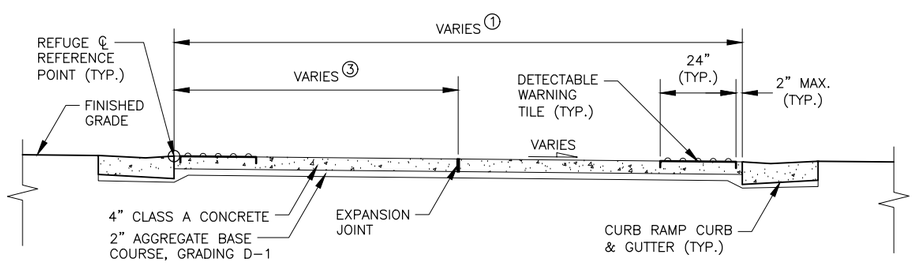


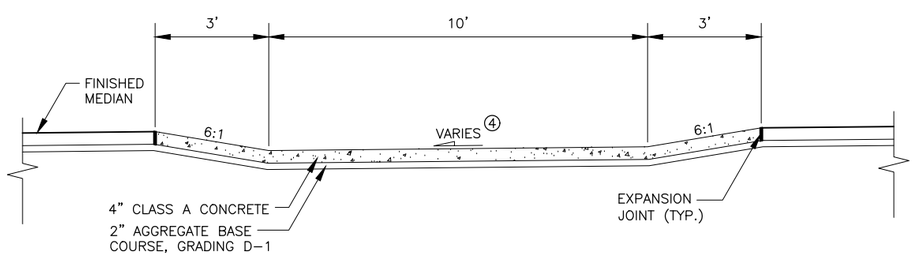
PLAN VIEW



PARALLEL CURB RAMP



SECTION A–A



SECTION B–B

PEDESTRIAN REFUGE

PEDESTRIAN REFUGE NOTES:

① CENTERLINE LENGTH OF PEDESTRIAN REFUGE VARIES. SEE D SHEET TABLES FOR REFERENCE POINT LOCATIONS. WHERE REFUGE CENTERLINE CHANGES DIRECTIONS BETWEEN ADJACENT CROSS WALKS USE A 15 FOOT RADIUS AS SHOWN ON THE PLANS.

2. CONSTRUCT PEDESTRIAN REFUGES ENTIRELY OF CLASS "A" CONCRETE. DO NOT COLOR OR PATTERN THE CONCRETE. PROVIDE A COURSE BROOMED FINISH RUNNING PERPENDICULAR TO THE REFUGE CENTERLINE.

③ INSTALL EXPANSION JOINTS AT THE OUTER GRADE BREAK BETWEEN THE COLORED & PATTERNED CONCRETE MEDIAN AND THE REFUGE. WHEN THE REFUGE CENTERLINE LENGTH IS GREATER THAN 20 FEET, INSTALL AN EXPANSION JOINT AT THE MID POINT OF THE REFUGE AS SHOWN ON THE PLANS. INSTALL EXPANSION JOINTS AND DUMMY JOINTS PER THE SPECIFICATIONS.

④ PEDESTRIAN REFUGE CROSS SLOPE IS TO BE PITCHED TOWARD THE DOWN HILL DIRECTION OF THE ADJACENT LANES. REFUGE CROSS SLOPE IS NOT TO EXCEED 2% GRADE EXCEPT AT THE ENGSTROM RD REFUGE. CONSTRUCT ENGSTROM RD REFUGE CROSS SLOPE AS FLAT AS THE CONDITIONS WILL ALLOW FOR.

5. REFUGE CENTERLINE SLOPE VARIES AND IS DICTATED BY THE ADJACENT LANE AND CURB LINE GRADING. DO NOT EXCEED 5% LONGITUDINAL SLOPE ALONG THE REFUGE CENTERLINE.

PARALLEL CURB RAMP NOTES:

1. CURB RAMP DIMENSIONS ARE INCLUDED IN THE D SHEET TABLES AND CORRESPOND TO THE CENTRAL REGION CURB RAMP INSPECTION FORM NOTATION. DIMENSIONS INCLUDED IN THE TABLE ARE FOR REFERENCE AS DESIGNED IN THE PLANS. ADJUST DIMENSIONS AS NECESSARY IN THE FIELD TO COMPLY WITH THE CENTRAL REGION INSPECTION FORM OR AS DIRECTED BY THE ENGINEER.

2. SEE D SHEET TABLES FOR CURB RAMP REFERENCE POINT LOCATIONS.

3. INSTALL PARALLEL CURB RAMPS PER STANDARD PLAN I–21.12.

4. CONSTRUCT CURB RAMPS AND DETECTABLE WARNING TILES IN ACCORDANCE WITH THE REQUIREMENTS FOR THE AMERICANS WITH DISABILITIES ACT (ADA), THE PLANS, AND THE SPECIFICATIONS.

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT ENGSTROM RD & GREEN FOREST DR INT IMP

PEDESTRIAN REFUGE & CURB RAMP DETAILS

DESIGNED BY ZDK
CHECKED BY KRV/CLE
DRAFTED BY ZDK

SCALE 1"=2/3/5

DATE 5/22/2025 TIME 11:11 AM

DRAWING LOCATION
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NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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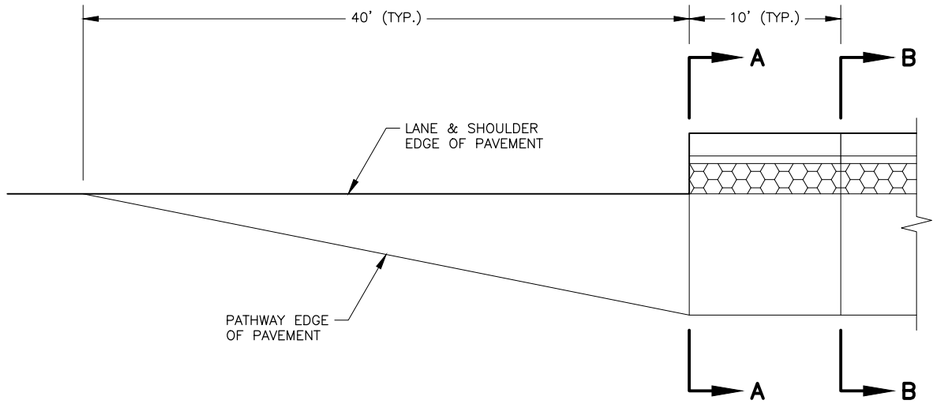
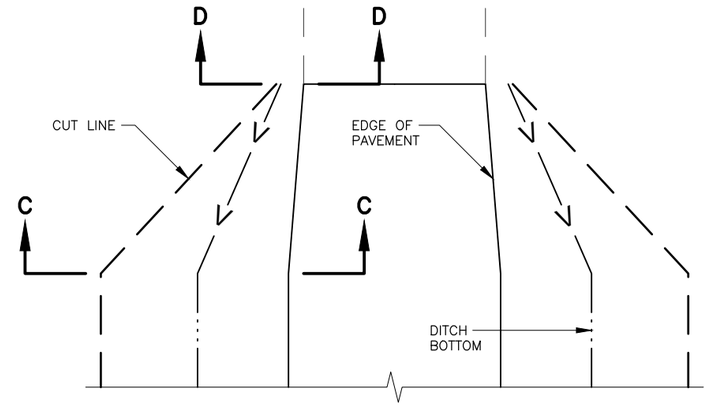
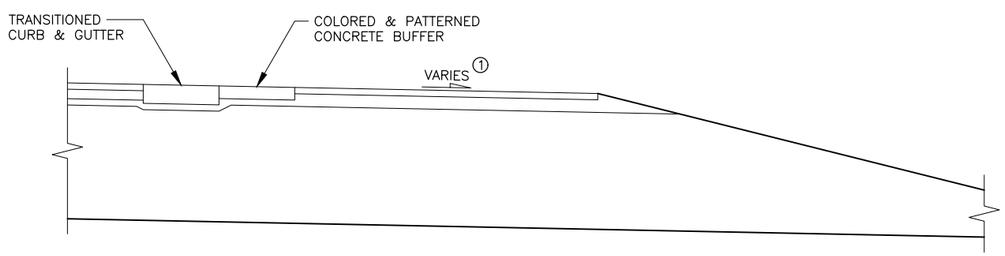


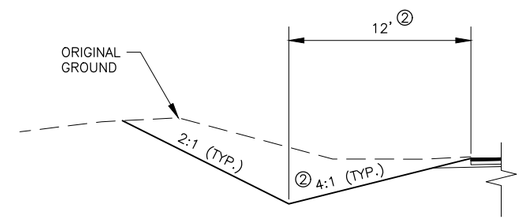
PLAN VIEW



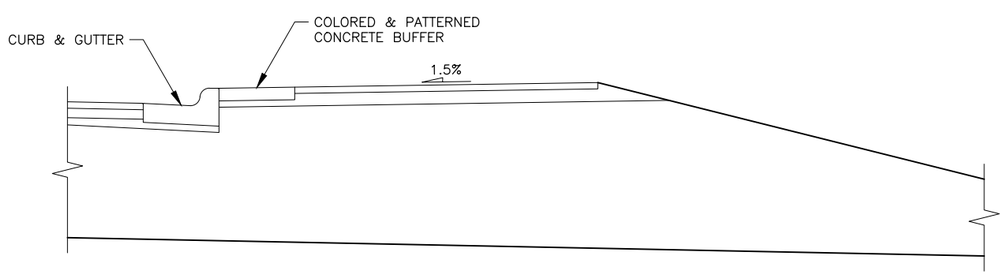
PLAN VIEW



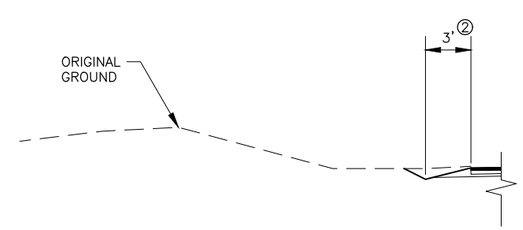
SECTION A–A



SECTION C–C



SECTION B–B



SECTION D–D

PATHWAY TRANSITION

DITCH TRANSITION

NOTES:

① SECTION A–A: MATCH ADJACENT LANE CROSS SLOPE IN SUPERELEVATED AREAS. MAINTAIN A CROSS SLOPE OF TWO PERCENT MAX AND POSITIVE DRAINAGE AT ALL OTHER LOCATIONS.

2. DITCH TRANSITION DETAILS APPLY TO THE TERMINATIONS OF BOTH GREEN FOREST DR., ENGSTROM DR., & DESTIN DR. ADJUST DITCH DEPTH AT TERMINATION (SECTION D–D) TO BEST FIT EXISTING FIELD CONDITIONS. FLATTEN FORESLOPES AS NECESSARY AND AS DIRECTED BY THE ENGINEER.

USE 6' WIDTH FOR SECTION C–C, 3' WIDTH FOR SECTION D–D, AND 3:1 FORESLOPE AT DESTIN DR. DITCH TRANSITIONS.

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

PATHWAY & DITCH
TRANSITION DETAILS

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
5/22/2025	11:11 AM	1"=2/5/10'	ZDK	KRV	ZDK

DRAWING LOCATION
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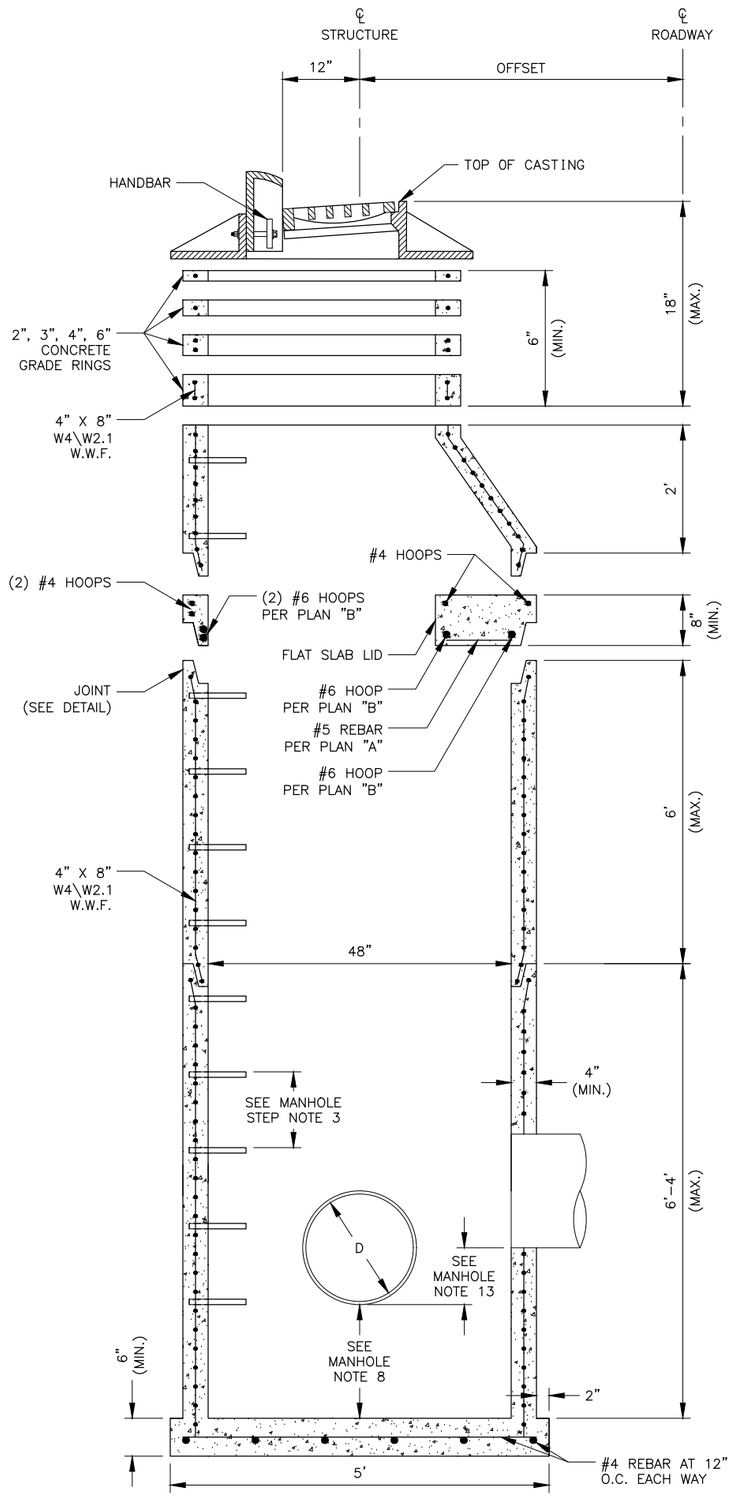
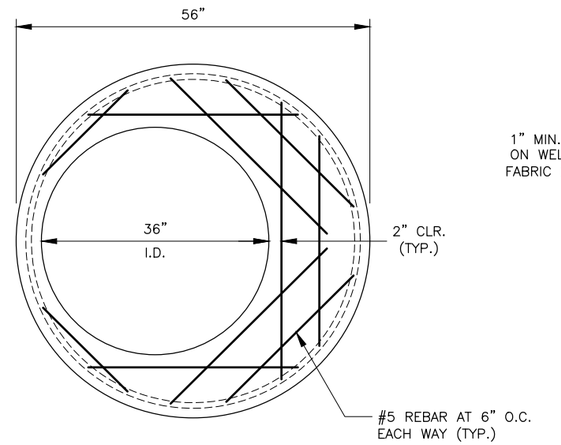
NO.	DATE	REVISION

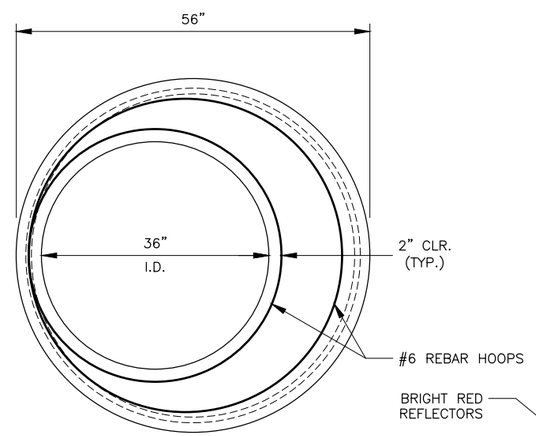
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001630/CFHWY00453	2026	E07	E10



ELEVATION VIEW



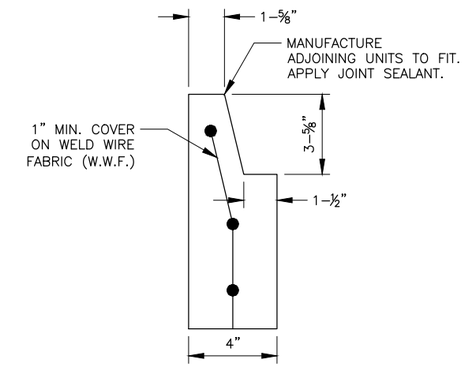
FLAT SLAB LID PLAN "A"



FLAT SLAB LID PLAN "B"

PLAN "B" NOTES:

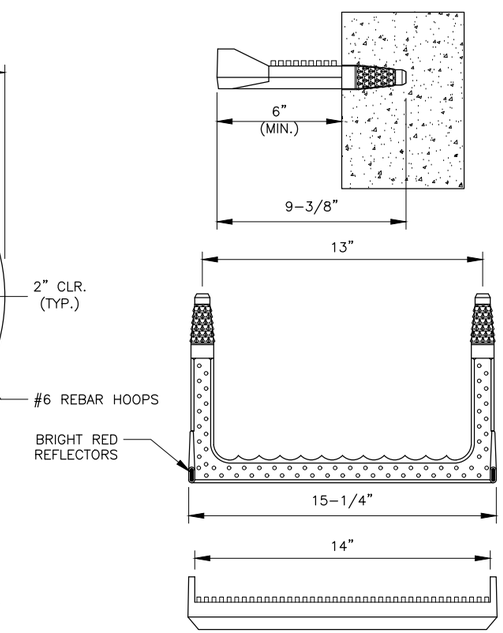
1. SEE ELEVATION VIEW FOR LOCATIONS OF #4 HOOPS.
2. #6 REBAR HOOPS ARE LOCATED ABOVE #5 REBAR AND WITHIN 3" OF BASE.



JOINT DETAIL

JOINT DETAIL NOTES:

1. DIMENSIONS ARE NOMINAL.



MANHOLE STEP

MANHOLE STEP NOTES:

1. MANHOLE STEPS SHALL BE INJECTION MOLDED, POLYPROPYLENE COVERED GRADE 60 STEEL, TIGHTLY IMBEDDED AT LEAST 3" INTO CONCRETE.
2. THE INSTALLED STEPS SHALL RESIST A PULLOUT FORCE OF 1500 LB.
3. STEPS SHALL BE PLACED 12" O.C. ON AN UNOBSTRUCTED SIDE OF THE STRUCTURE, 24" MAX. FROM TOP OF CASTING AND 18" FROM MANHOLE BASE.

MANHOLE NOTES:

1. THESE DRAWINGS ARE FOR PRECAST REINFORCED CONCRETE FOR HIGHWAY USE.
2. MAXIMUM KNOCKOUT SIZE FOR PIPES IS 32". MINIMUM DISTANCE BETWEEN KNOCKOUTS IS 4".
3. 24" AND LARGER AND PIPES < 90° APART, NEED 8" VERTICAL CLEARANCE.
4. USE CONCRETE WITH A MINIMUM 4000 PSI 28 DAY COMPRESSIVE STRENGTH AND 6% ± 1.5% AIR ENTRAINMENT. MAXIMUM WATER/CEMENT RATIO IS 0.45.
5. MINIMUM STEEL REQUIRED FOR BARREL AS PER AASHTO M199 SHALL BE EMBEDDED IN BASE SO THAT THE FIRST BARREL SECTION IS CONNECTED TO THE BASE BY CONTINUOUS STEEL.
6. MINIMUM COVER ON REINFORCING STEEL IS 1".
7. FORM ALL BLOCKOUTS.
8. ALL STORM DRAIN MANHOLES AND INLETS SHALL HAVE 18" MINIMUM SUMPS. MANHOLES WITH PETROLEUM SEPARATORS SHALL HAVE 24" MINIMUM SUMPS. UNLESS SHOWN OTHERWISE ON THE PLANS.
9. A FLAT LID WITH A SMALLER OPENING MAY ALSO BE USED IF CALLED FOR. THIS REQUIRES ADDITIONAL #5 REBAR REINFORCEMENT AT THE SAME SPACING AS SHOWN IN PLAN "A". ALSO, ADJUST HOOP DIAMETERS AROUND THE OPENING TO PROVIDE THE SAME COVER.
10. MANHOLES PLACED ALONG CURB LINE SHALL HAVE STEPS ALIGNED UNDER THE CURB INLET.
11. PLACE MANHOLE BASE ON 6" MIN. COMPACTED AGGREGATE BASE COURSE.
12. EXTEND PIPE A MINIMUM OF 2" INTO MANHOLE.
13. MINIMUM DROP BETWEEN PIPES IS 1.5".
14. PIPE LENGTH AND INVERT, AND SLOPE ARE MEASURED FROM CENTER OF MANHOLE.

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STATE OF ALASKA
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HSIP: BOGARD RD AT ENGSTROM RD & GREEN FOREST DR INT IMP

STORM SEWER MANHOLE, TYPE I DETAILS

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
5/22/2025	11:11 AM	1" = 1'	CRROOT	KRV/CLE	CRDOT

DRAWING LOCATION
W:\PROJECTS\HSIP_BOGARD_ENGSTROM_RA - CFHWY00453\CIV3D\PLANSET\00453_E07_MH_DTLS.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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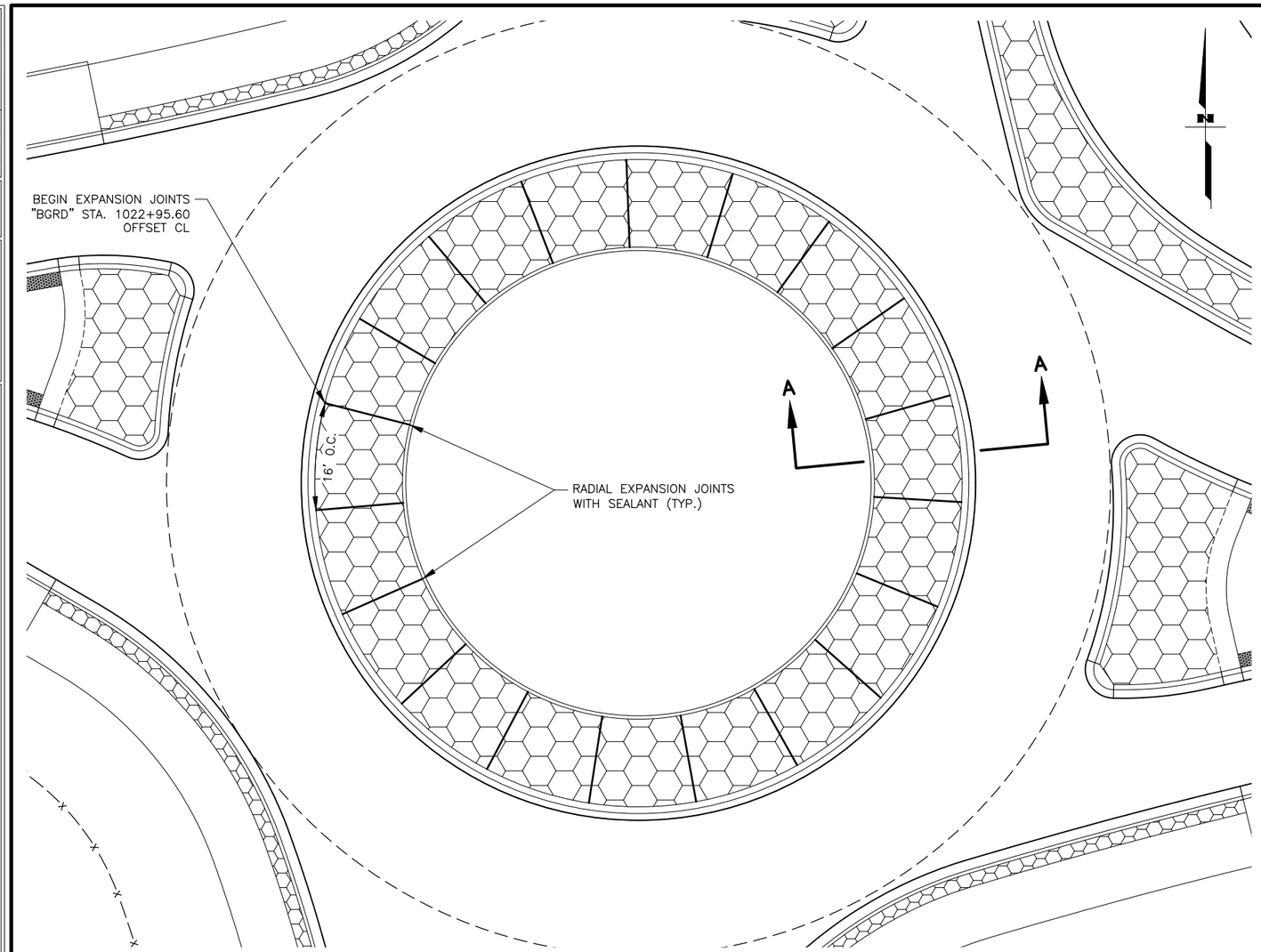
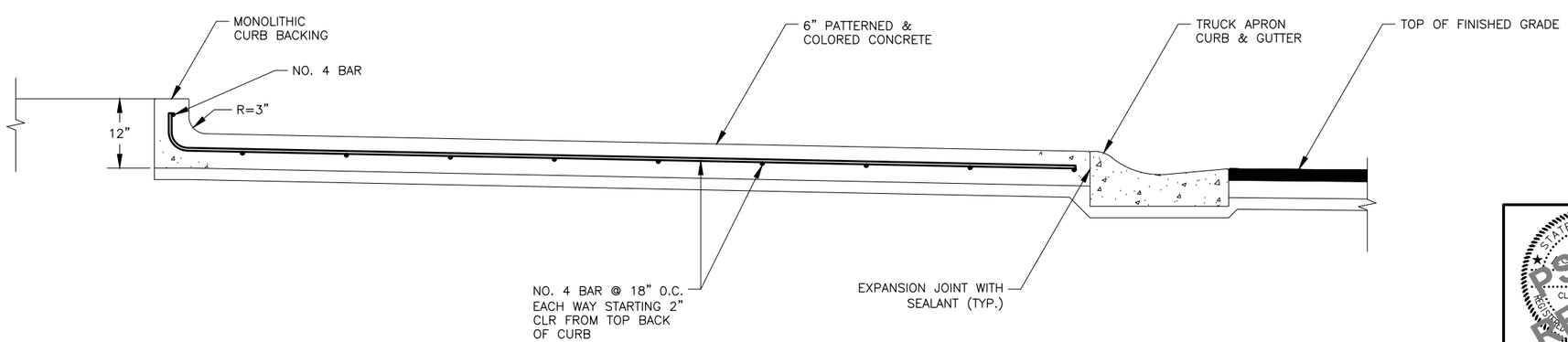
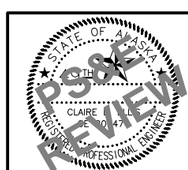


TRUCK APRON NOTES:

1. EPOXY-COATED ASTM A706, GRADE 60 REINFORCING STEEL, FY = 60,000 PSI.
2. PLACE REINFORCEMENT 2" CLEAR FROM SURFACE OF CONCRETE.
3. CHAMFER ALL EXPOSED CONCRETE CORNERS 1/4".
4. PLACE EXPANSION JOINTS AS SHOWN ON THE PLANS AND SEAL EXPANSION JOINTS PER THE SPECIFICATIONS.
5. SEE B SHEETS FOR ROADWAY AND TRUCK APRON STRUCTURAL SECTIONS.



SECTION A–A



STATE OF ALASKA DOT&PF
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT ENGSTROM RD & GREEN FOREST DR INT IMP

TRUCK APRON EXPANSION JOINTS AND REINFORCEMENT DETAILS

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\00453_E08_TRK APN DTLS.DWG

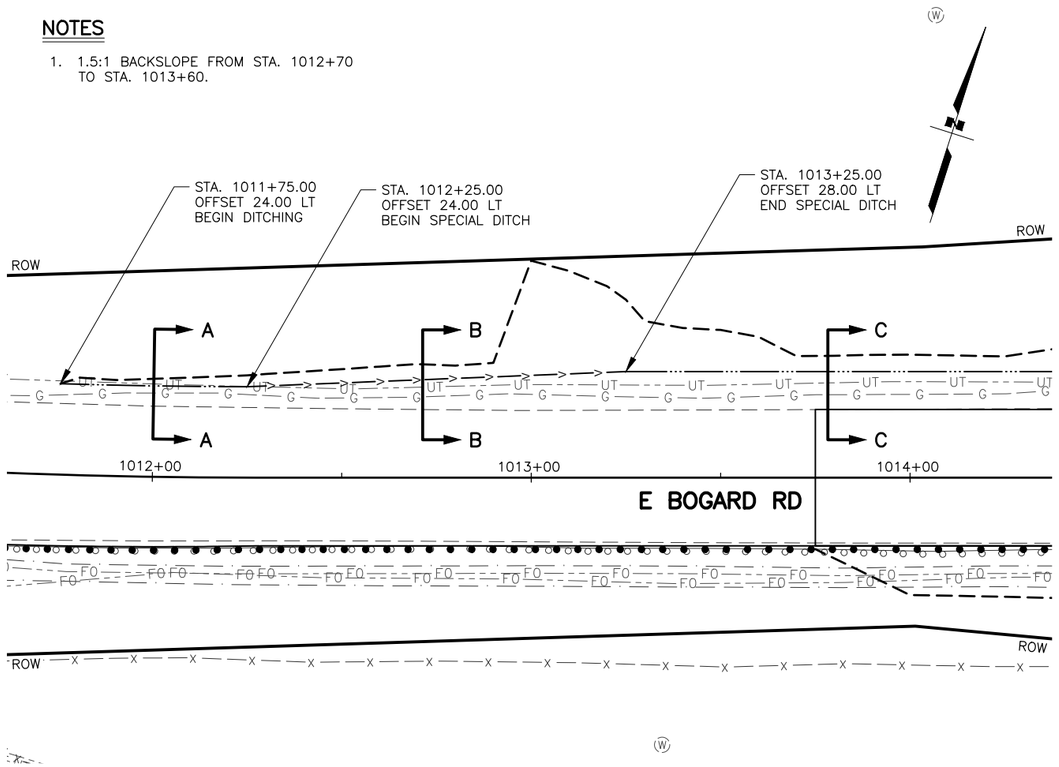
DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
5/22/2025	11:11 AM	1"=1'-10"	ZDK	KRV/CLE	ZDK

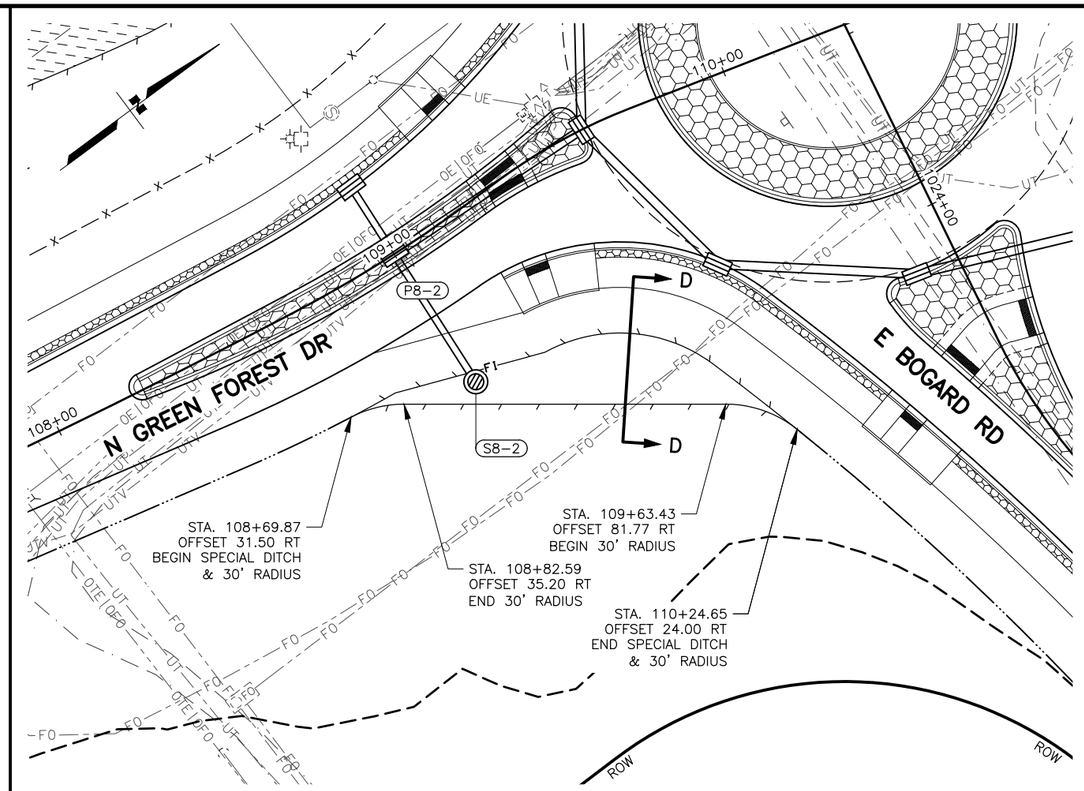
DATE	TIME	SCALE	DESIGNED BY	ZDK
5/22/2025	11:11 AM	1" = 20'	CHECKED BY	KRV/CLE
			DRAFTED BY	PGH/ZDK

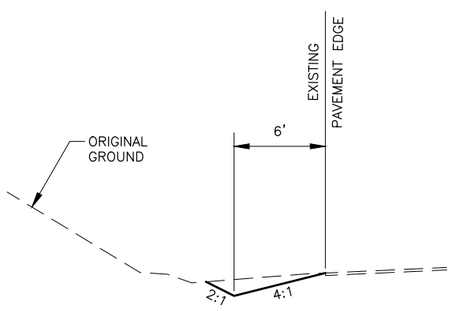
DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\00453_E09_E10 SPCL DTCH DTLS.DWG

NOTES

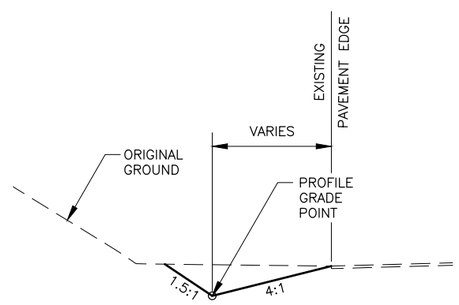
1. 1.5:1 BACKSLOPE FROM STA. 1012+70 TO STA. 1013+60.



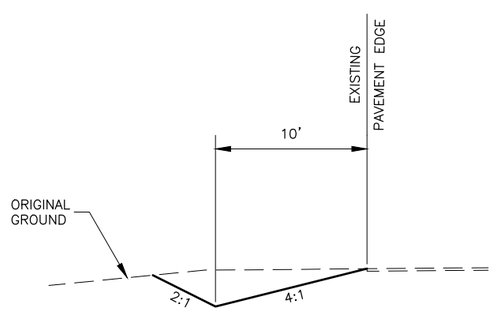




SECTION A–A



SECTION B–B



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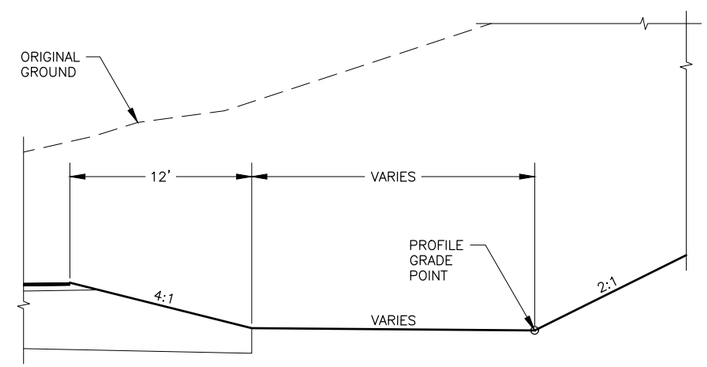
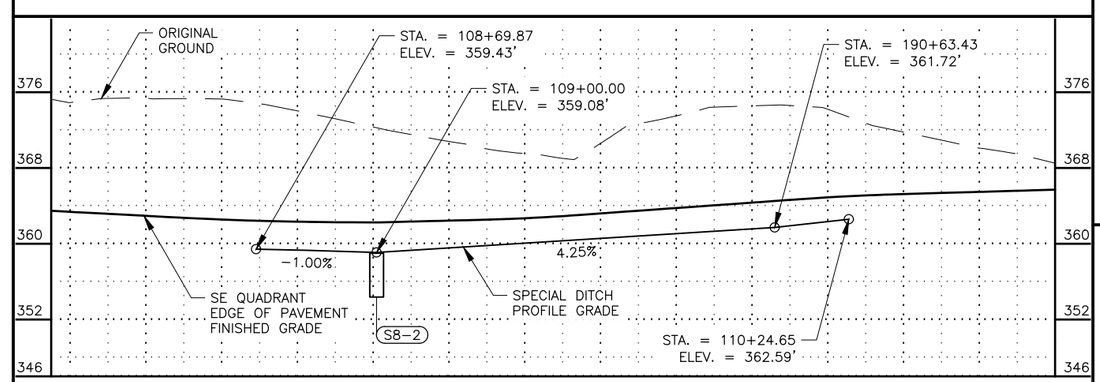


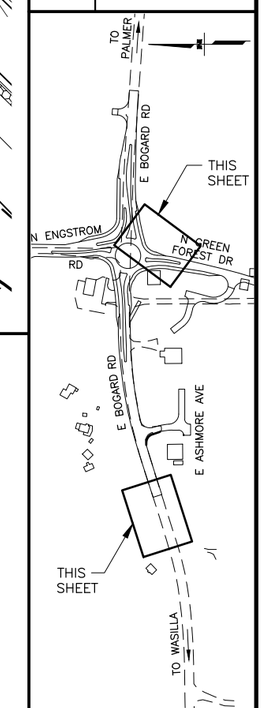
SECTION D–D



SHEET NO.	TOTAL SHEETS
E09	E10
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION
0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



STATE OF ALASKA
CLAIRE
PROFESSIONAL ENGINEER
PSBF REVIEW

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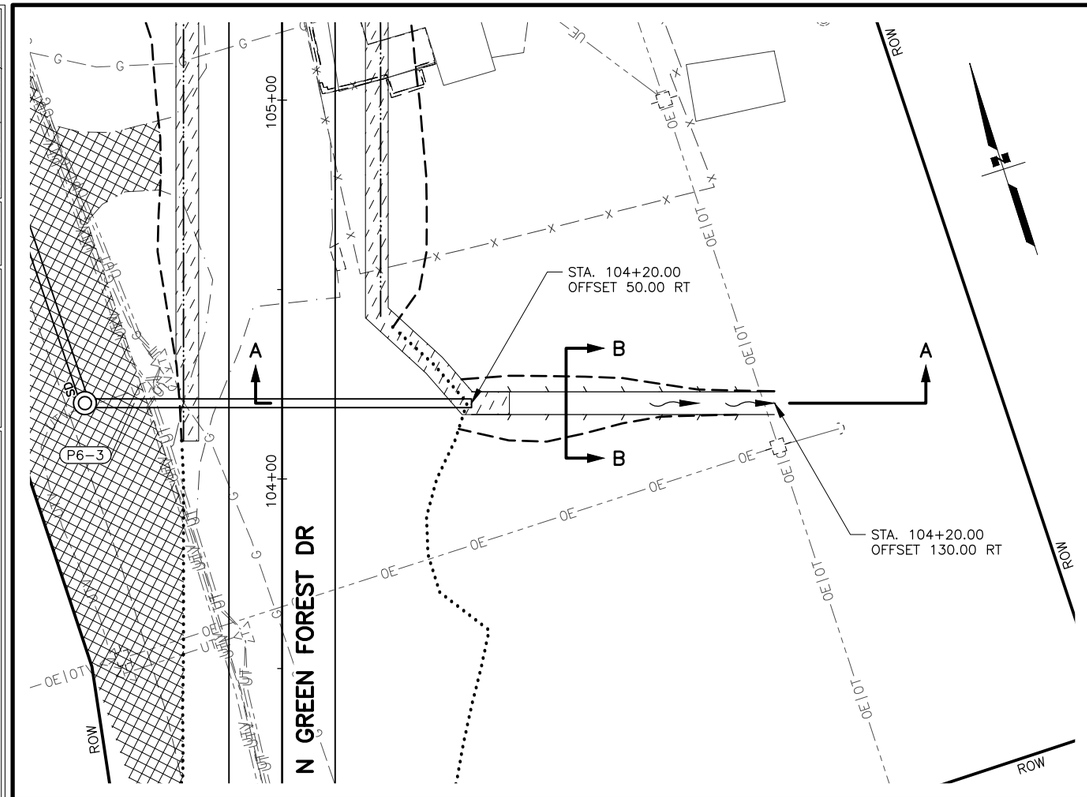
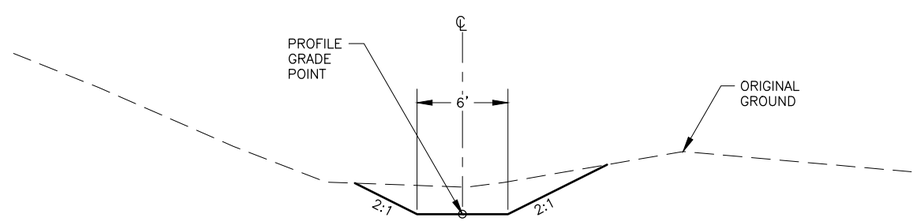
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

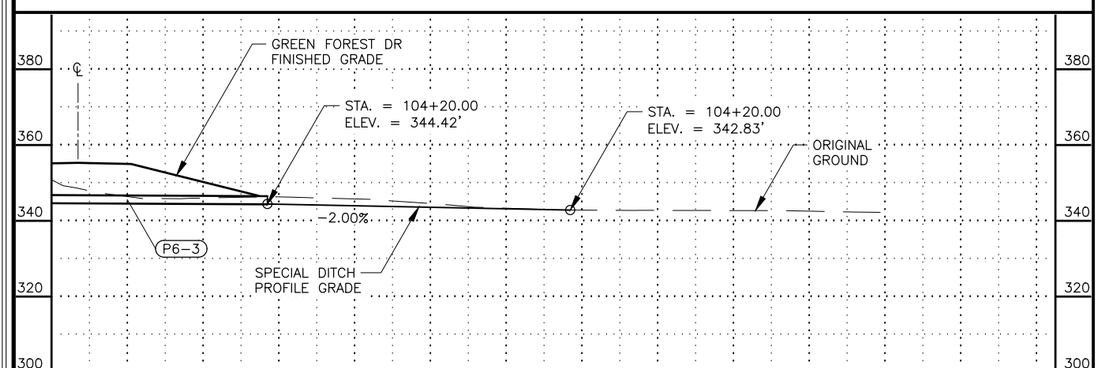
HSIP: BOGARD RD AT ENGSTROM RD & GREEN FOREST DR INT IMP

SPECIAL DITCH DETAILS





SECTION B–B



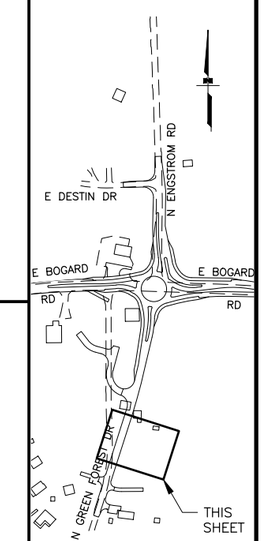
SECTION A–A

SHEET NO.	TOTAL SHEETS
E10	E10
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION

0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

SPECIAL DITCH
DETAILS

DATE	TIME	SCALE	DESIGNED BY	ZDK
5/22/2025	11:11 AM	1" = 20'	CHECKED BY	KRV/CLE
			DRAFTED BY	PGH/ZDK

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\00453_E09_E10 SPCL DITCH DTLS.DWG

DATE	TIME
5/22/2025	11:12 AM

SCALE
1" = 20'

DESIGNED BY	ZDK
CHECKED BY	KRV/CLE
DRAFTED BY	PGH/ZDK

DRAWING LOCATION
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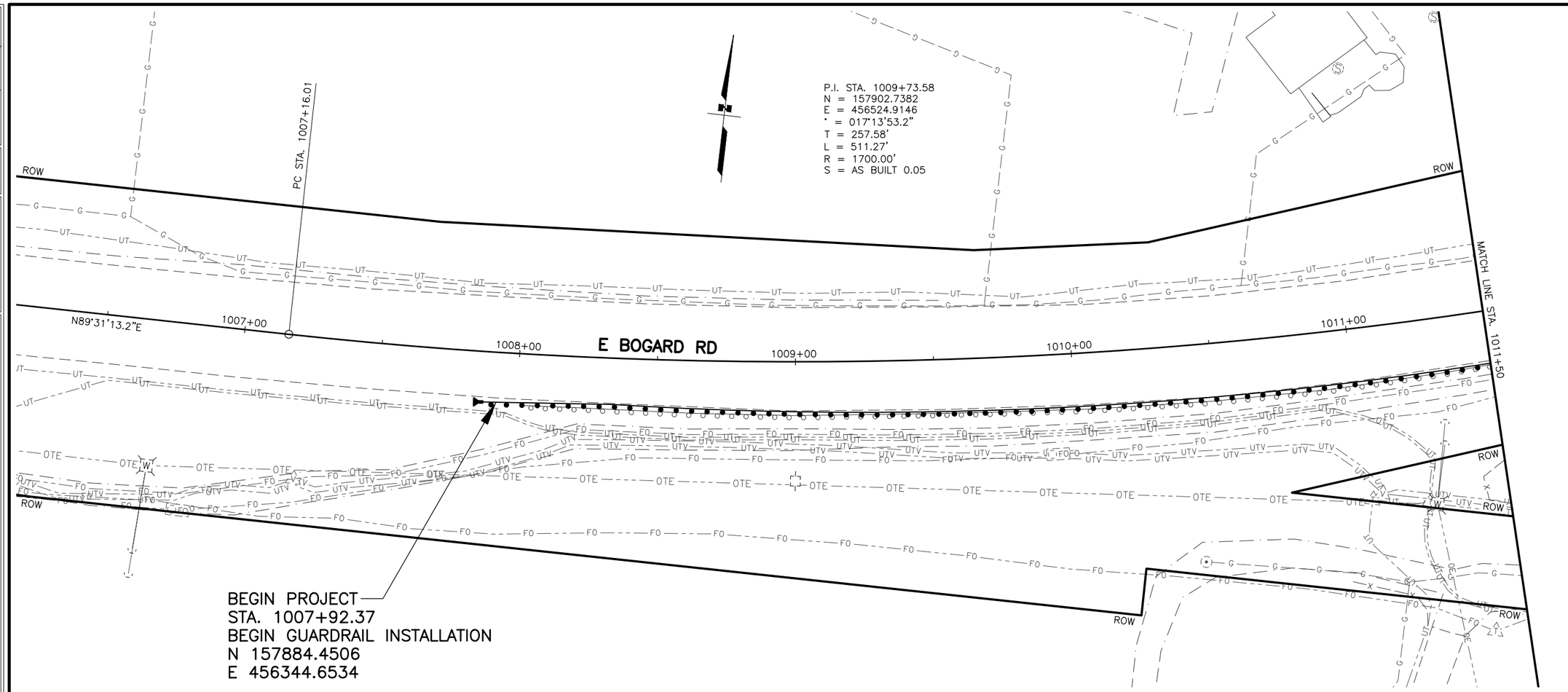
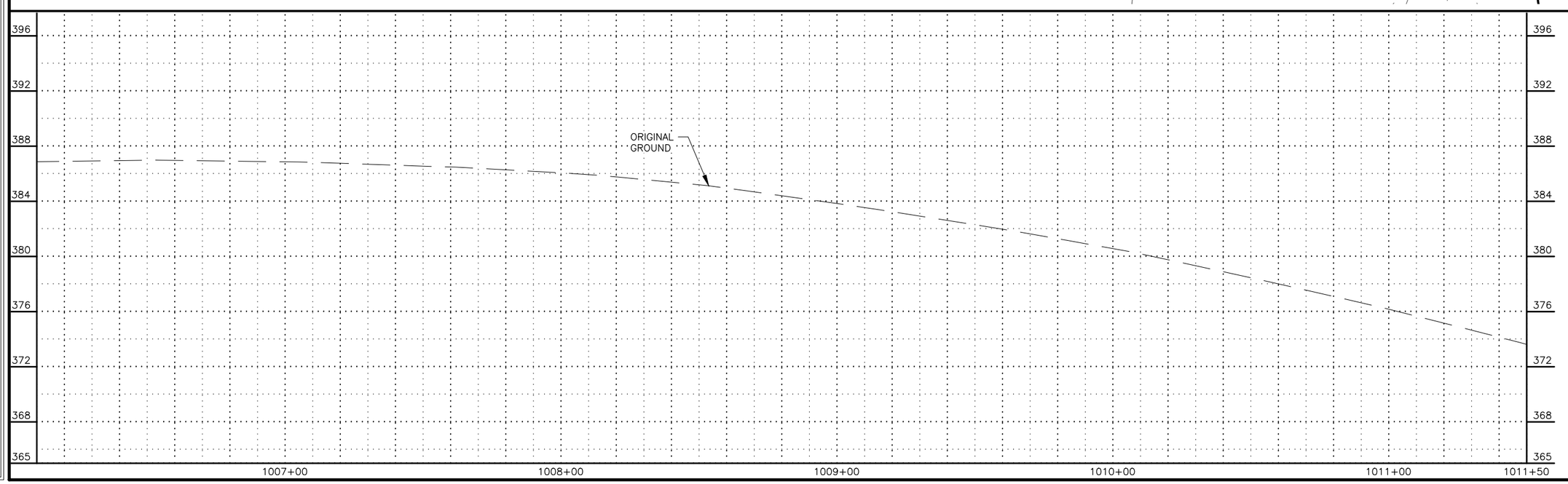
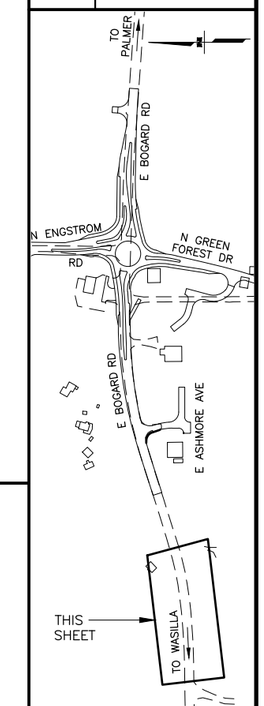




SHEET NO.	TOTAL SHEETS
F01	F18
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION
0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

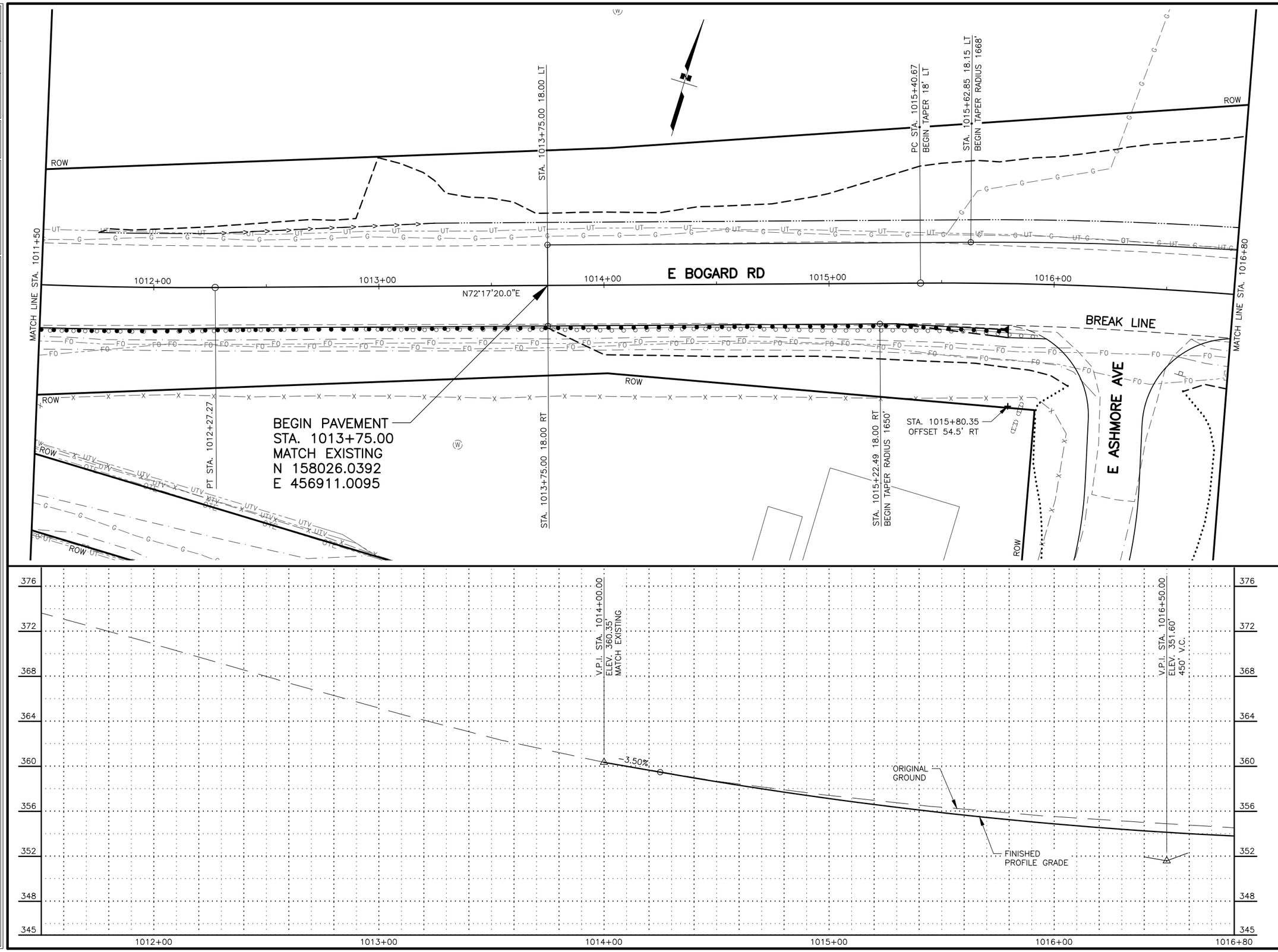
HSIP: BOGARD RD AT ENGSTROM RD & GREEN FOREST DR INT IMP

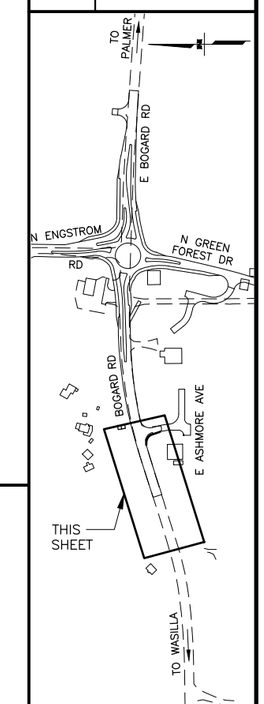
PLAN AND PROFILE BOP TO STA. 1011+50

SHEET NO.	TOTAL SHEETS
F02	F18
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION
0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	





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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT ENGSTROM RD & GREEN FOREST DR INT IMP

PLAN AND PROFILE STA. 1011+50 TO STA. 1016+80

DATE	TIME	SCALE	DESIGNED BY	ZDK
5/22/2025	11:12 AM	1" = 20'	CHECKED BY	KRV/CLE
			DRAFTED BY	PGH/ZDK

DRAWING LOCATION
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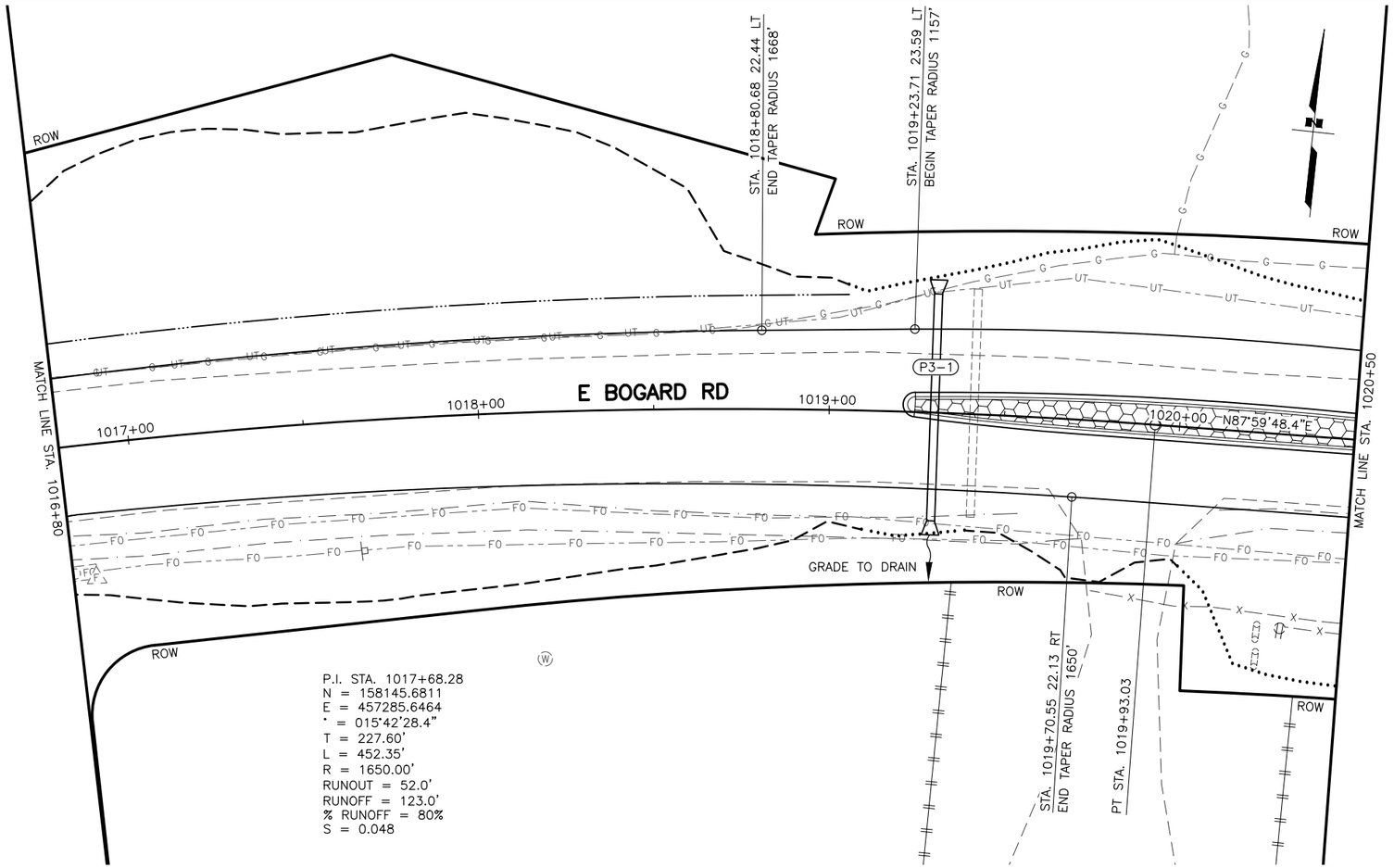
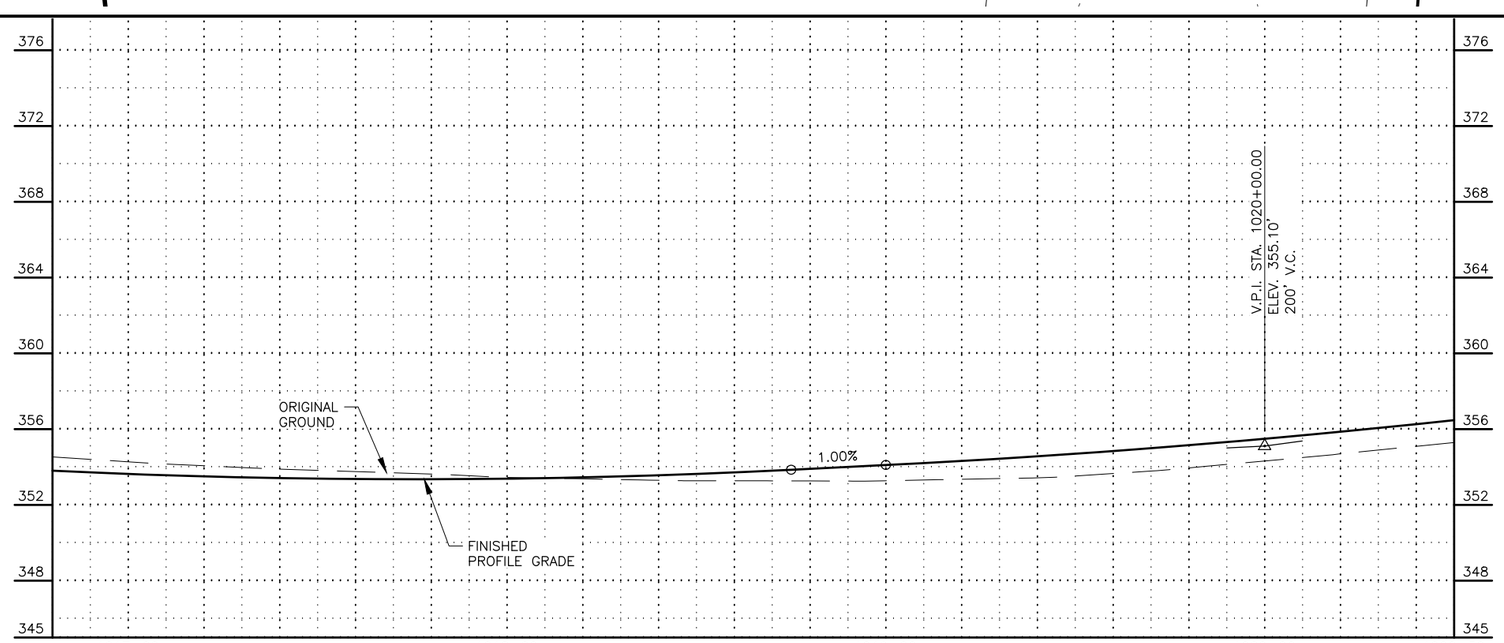
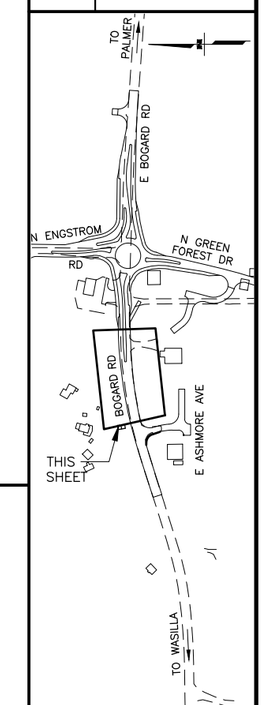




SHEET NO.	TOTAL SHEETS
F03	F18
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION
0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

PLAN AND PROFILE
STA. 1016+80 TO
STA. 1020+50

DESIGNED BY	ZDK
CHECKED BY	KRV/CLE
DRAFTED BY	PGH/ZDK
SCALE	1" = 20'
DATE	5/22/2025
TIME	11:12 AM

DRAWING LOCATION
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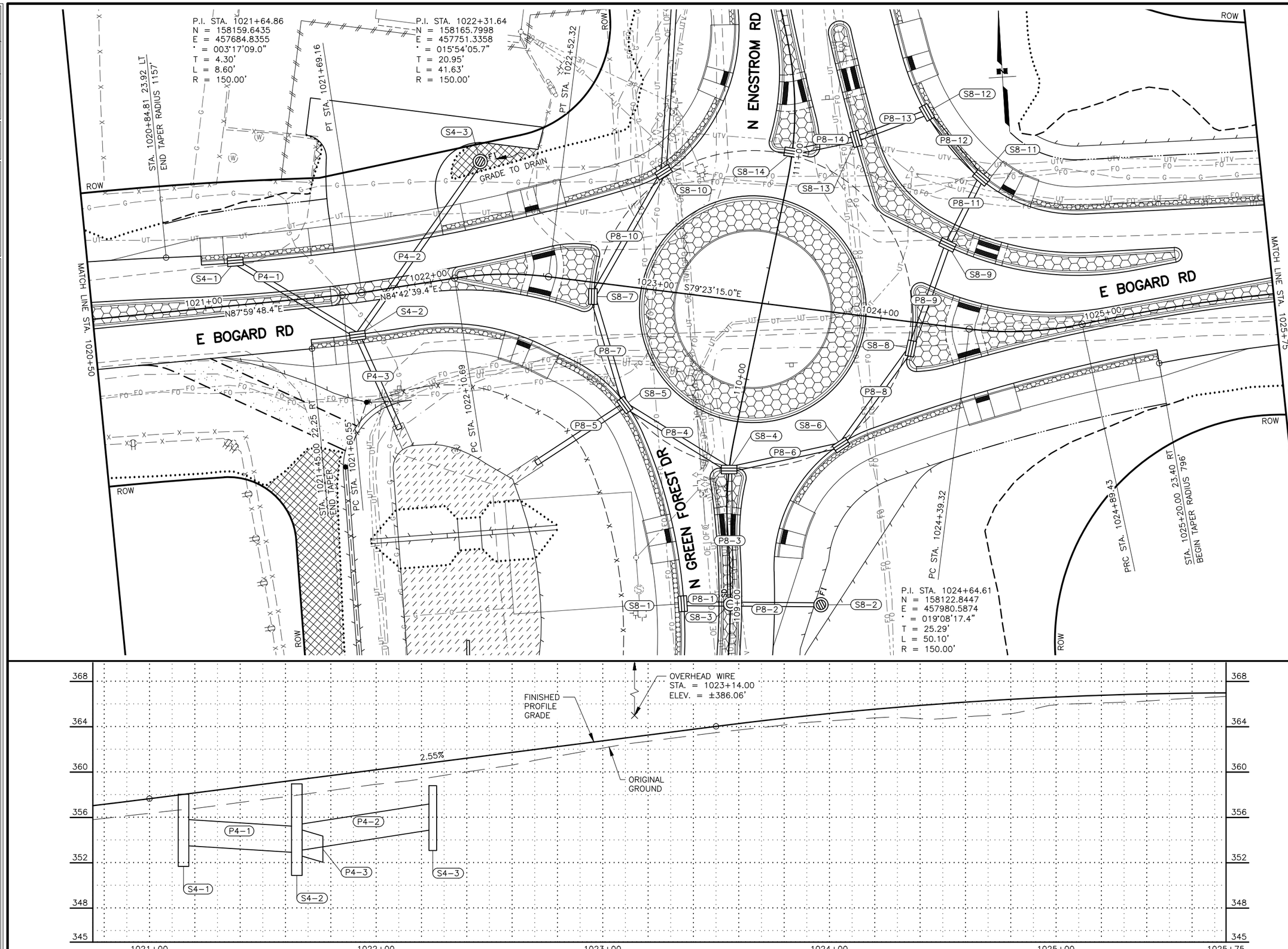

SHEET NO.	TOTAL SHEETS
F04	F18
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION

0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

PLAN AND PROFILE
STA. 1020+50 TO
STA. 1025+75

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
5/22/2025	11:12 AM	1" = 20'	ZDK	KRV/CLE	PGH/ZDK

DRAWING LOCATION
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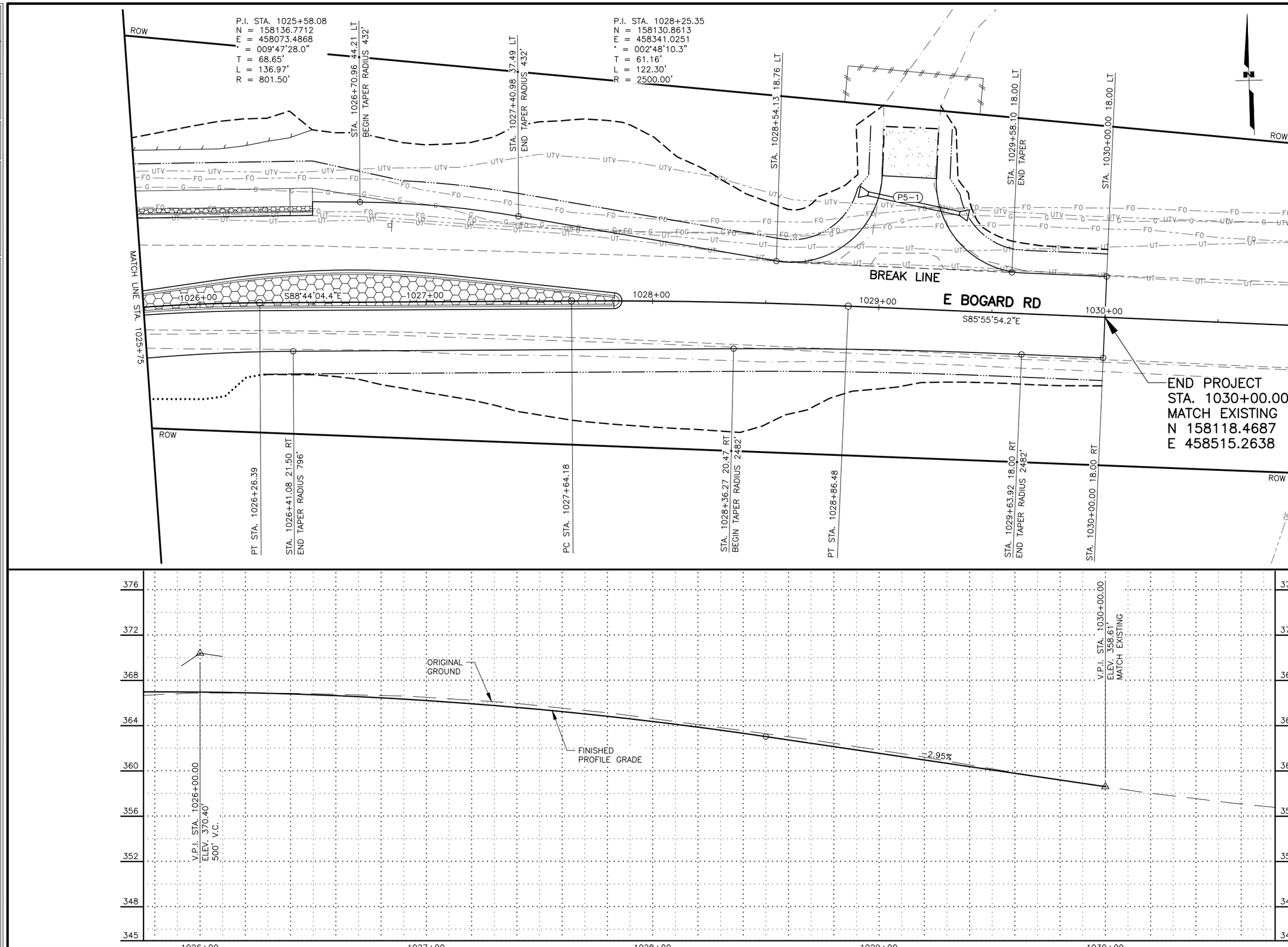
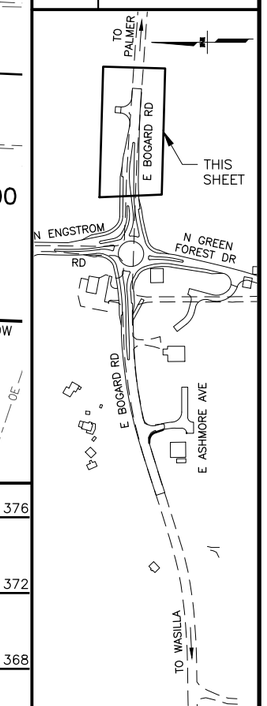


SHEET NO.	TOTAL SHEETS
F05	F18
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION
0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



STATE OF ALASKA DOT&PF
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

PLAN AND PROFILE
STA. 1025+75 TO
EOP

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
5/22/2025	11:12 AM	1" = 20'	ZDK	KRV/CLE	PGH/ZDK

DRAWING LOCATION
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DATE	TIME	SCALE	DESIGNED BY	ZDK
5/22/2025	11:12 AM	1" = 20'	CHECKED BY	KRV/CLE
			DRAFTED BY	PGH/ZDK

DRAWING LOCATION
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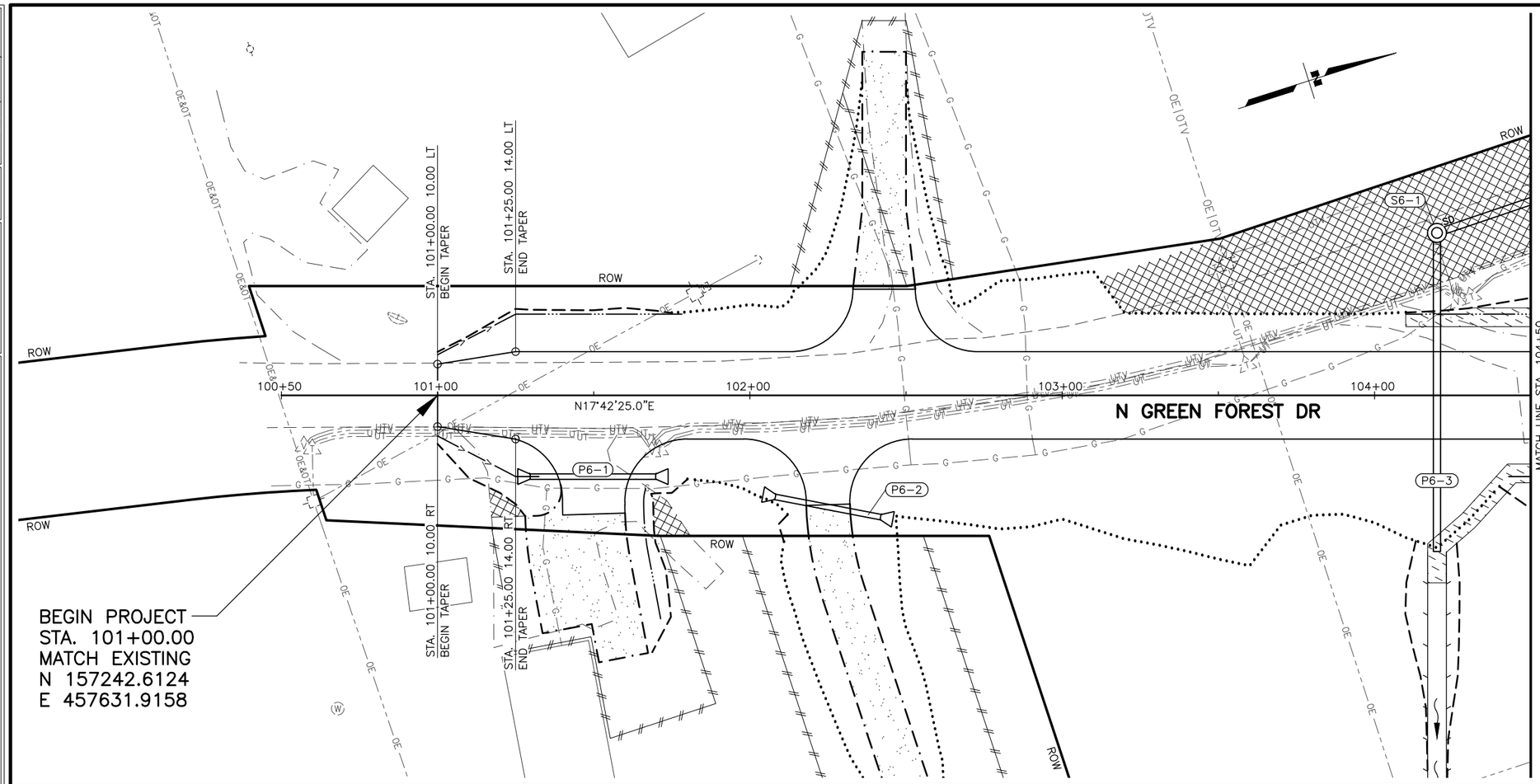
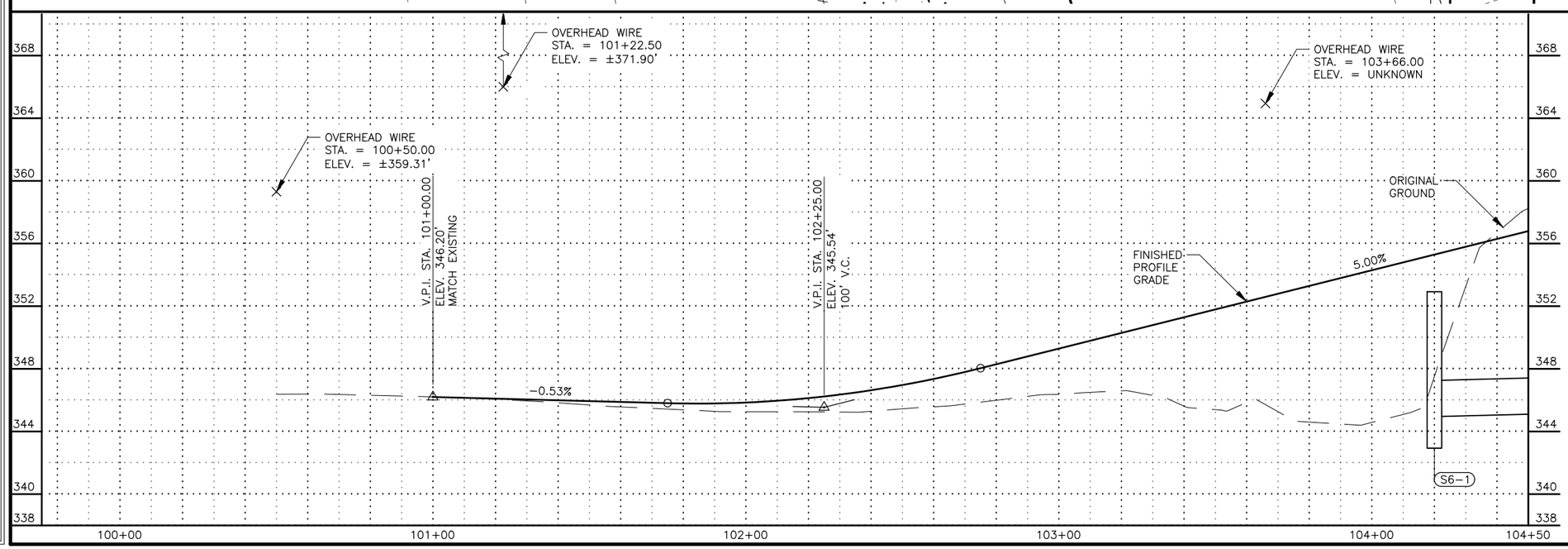
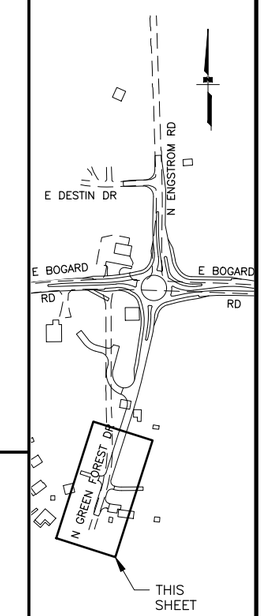


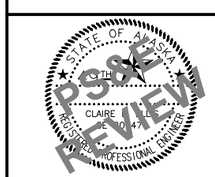


SHEET NO.	TOTAL SHEETS
F06	F18
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION
0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	





STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

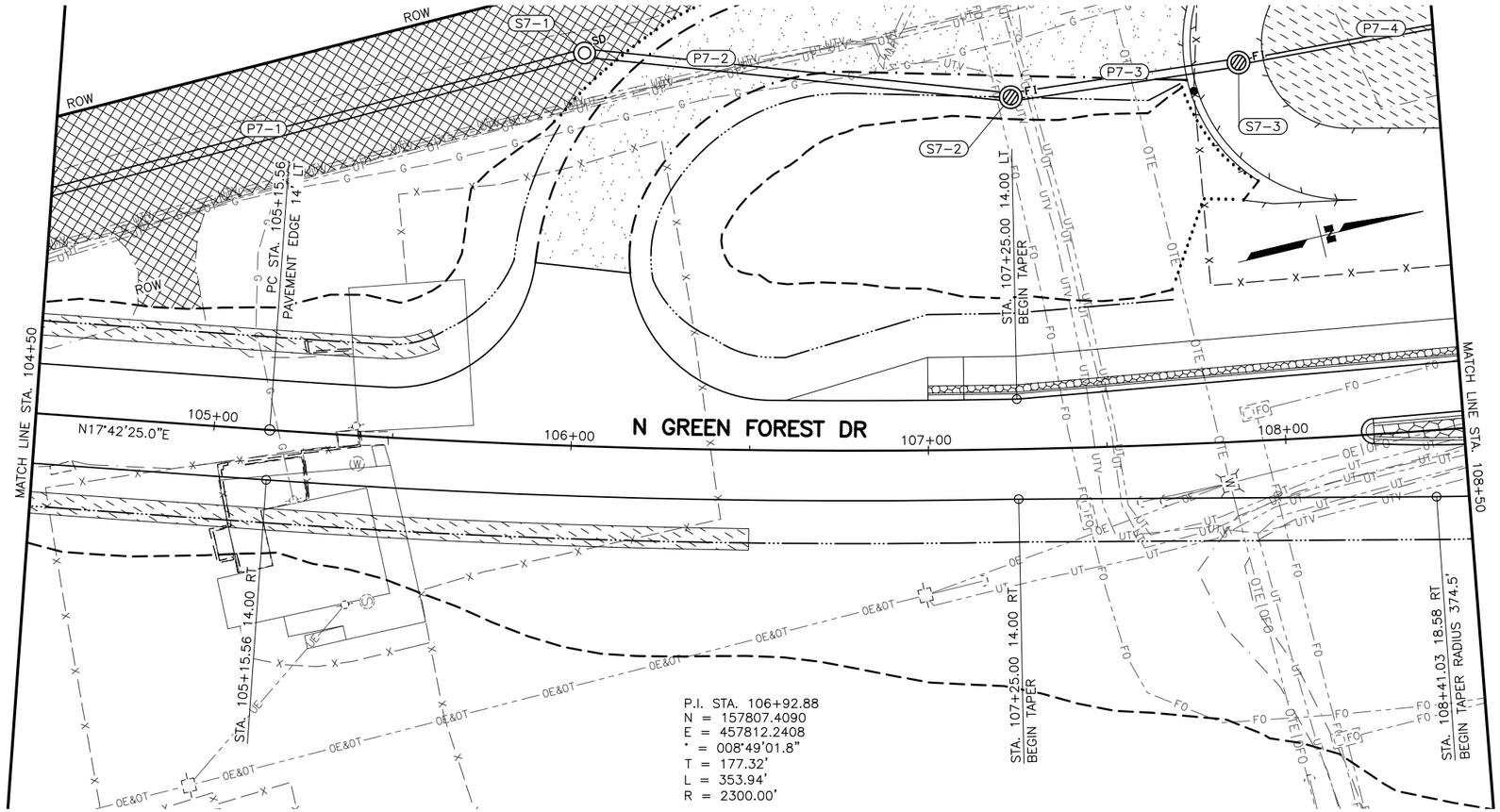
PLAN AND PROFILE
BOP TO
STA. 104+75

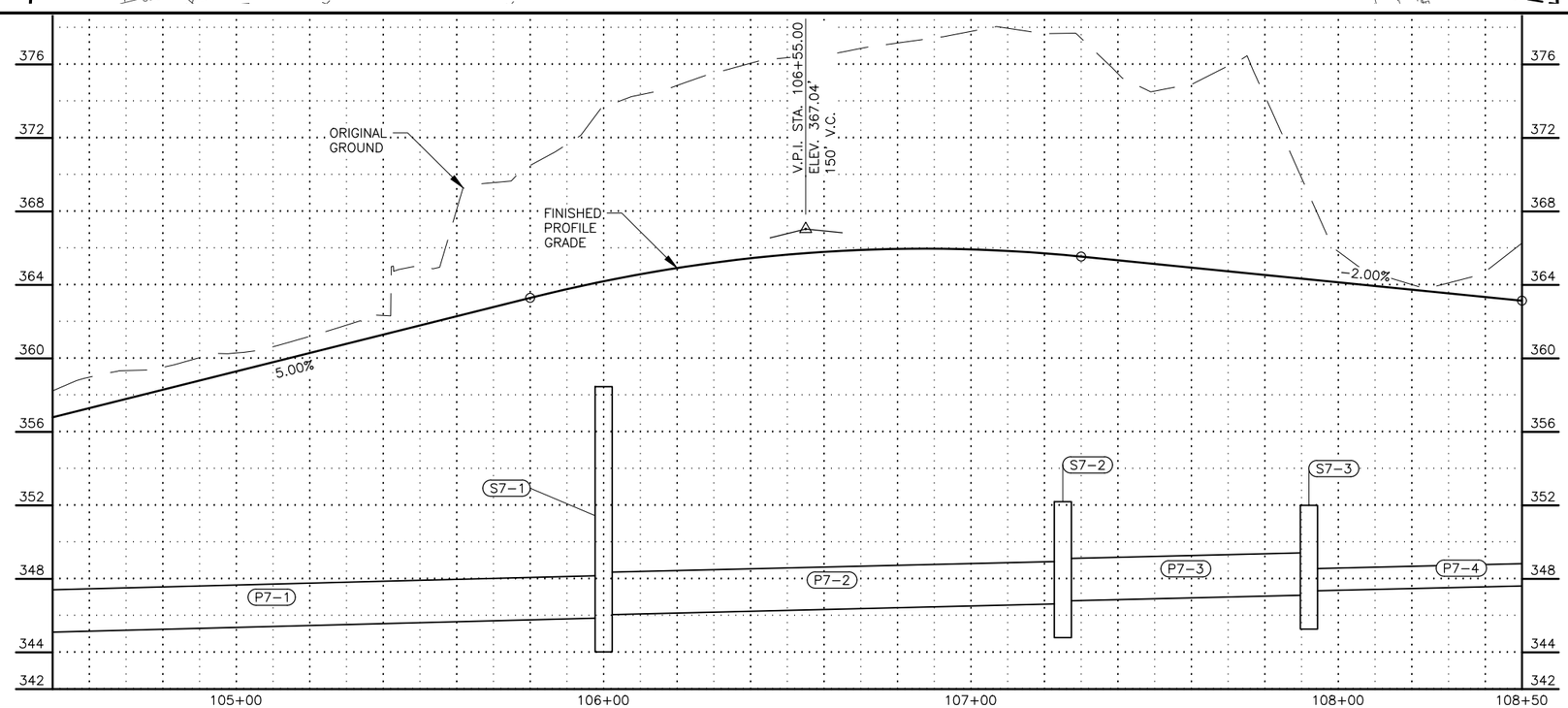
SHEET NO.	TOTAL SHEETS
F07	F18
STATE	YEAR
ALASKA	2026

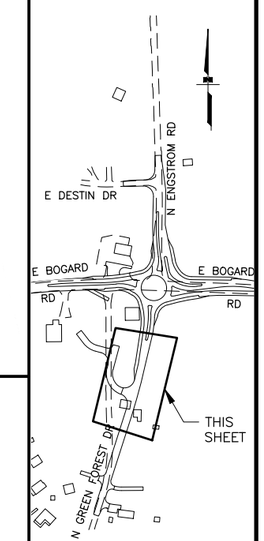
PROJECT DESIGNATION

0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	







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ANCHORAGE, AK 99502
(907) 269-0555

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT ENGSTROM RD & GREEN FOREST DR INT IMP

PLAN AND PROFILE STA 104+75 TO STA 108+75

DATE	TIME	SCALE	DESIGNED BY	ZDK
5/22/2025	11:12 AM	1" = 20'	CHECKED BY	KRV/CLE
			DRAFTED BY	PGH/ZDK

DRAWING LOCATION
W:\PROJECTS\HSIP_BOGARD_ENGSTROM_RA - CFHWY00453\CIV3D\PLANSET\00453_F_PNP.DWG

DATE	TIME	SCALE	DESIGNED BY	ZDK
5/22/2025	11:12 AM	1" = 20'	CHECKED BY	KRV/CLE
			DRAFTED BY	PGH/ZDK

DRAWING LOCATION
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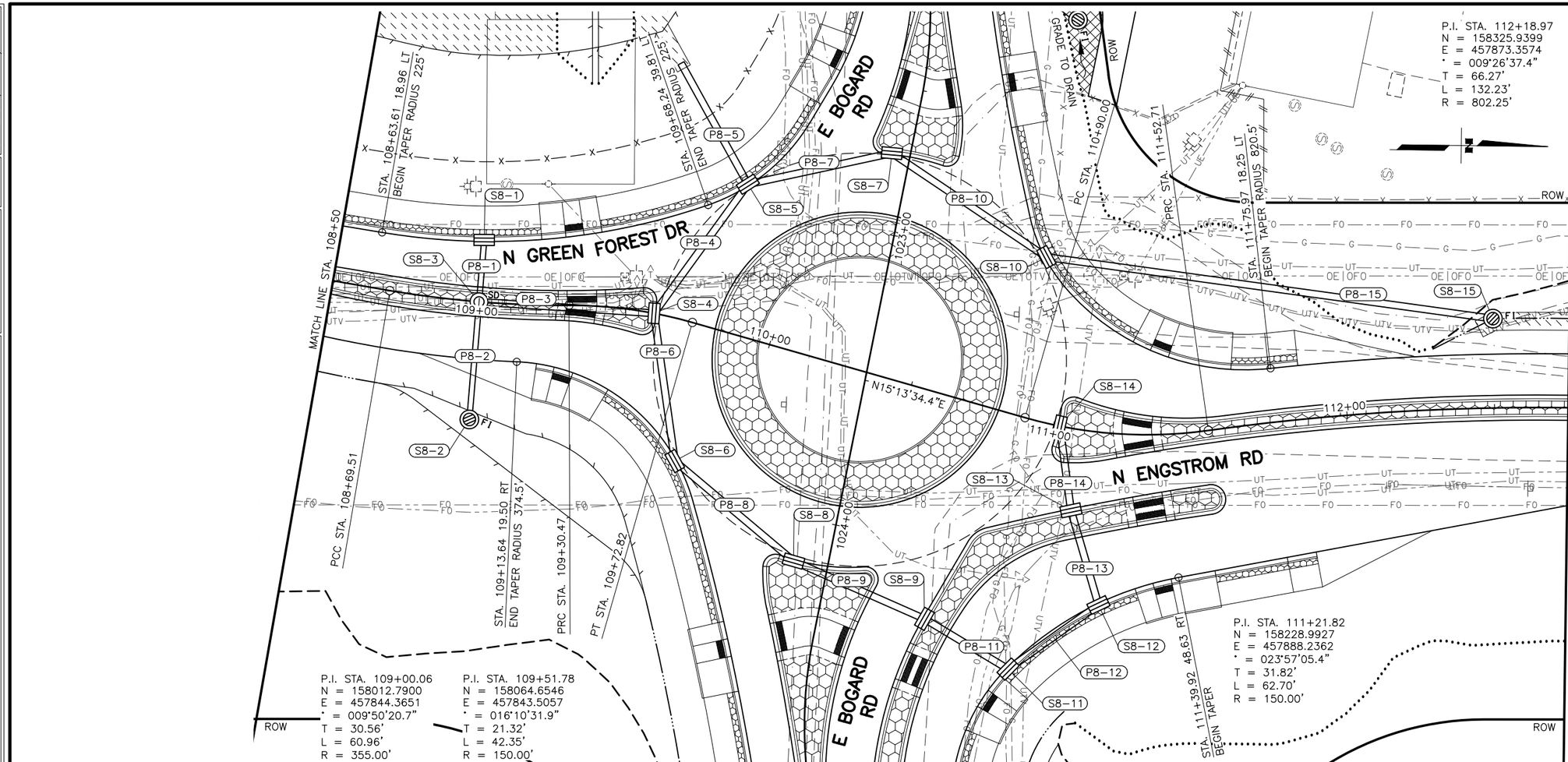
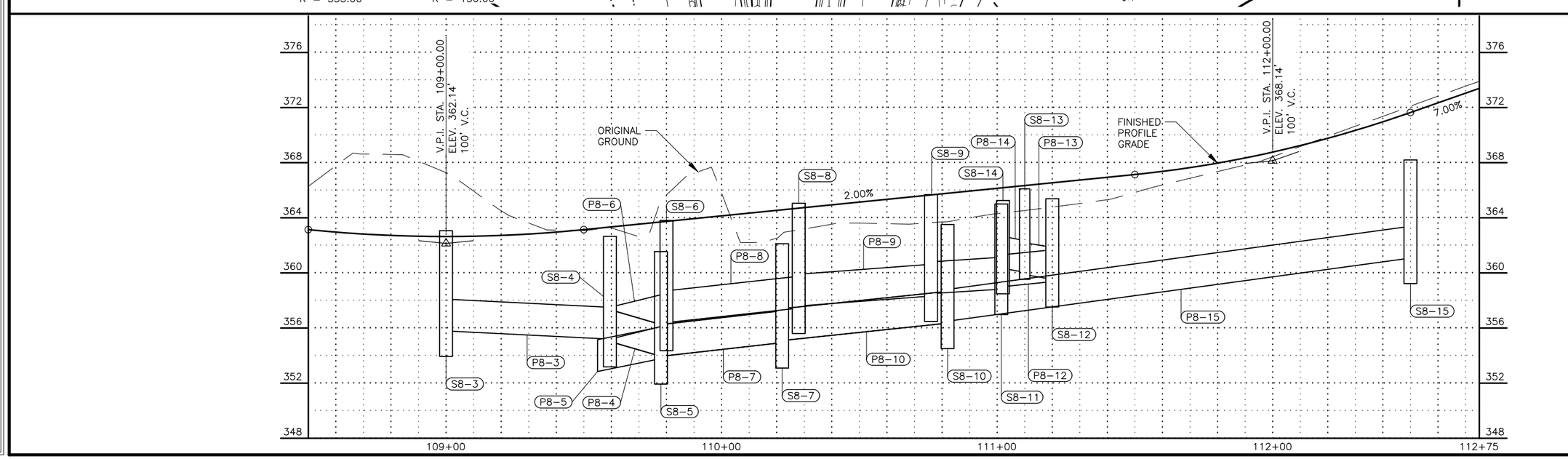
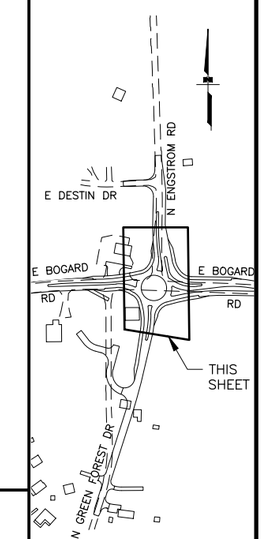


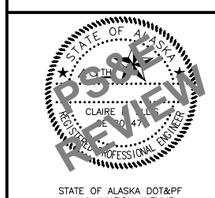


SHEET NO.	TOTAL SHEETS
F08	F18
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION
0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	





STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

PLAN AND PROFILE
STA 108+50 TO
STA 112+75

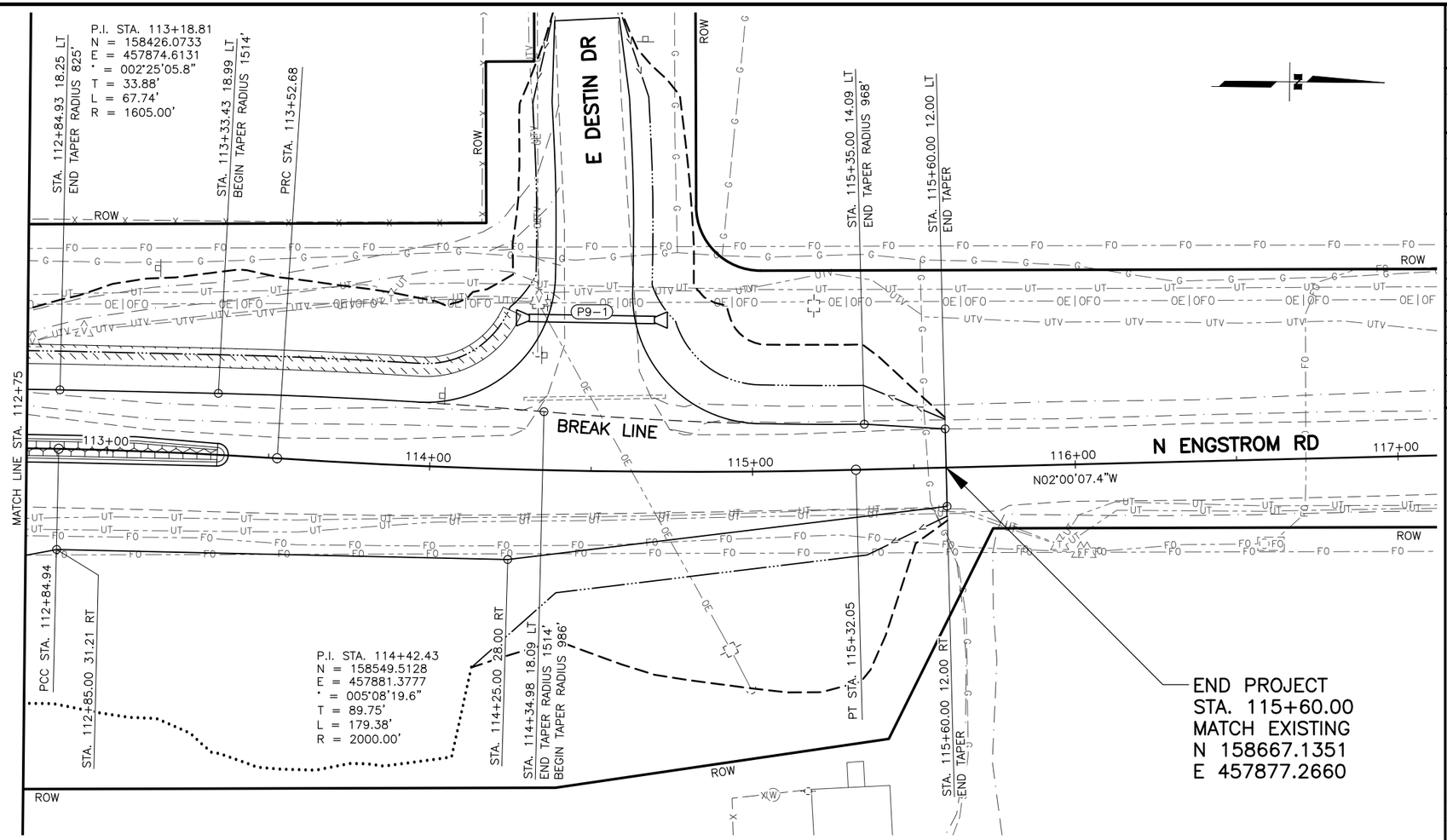
DATE	TIME	SCALE	DESIGNED BY	ZDK
5/22/2025	11:12 AM	1" = 20'	CHECKED BY	KRV/CLE
			DRAFTED BY	PGH/ZDK

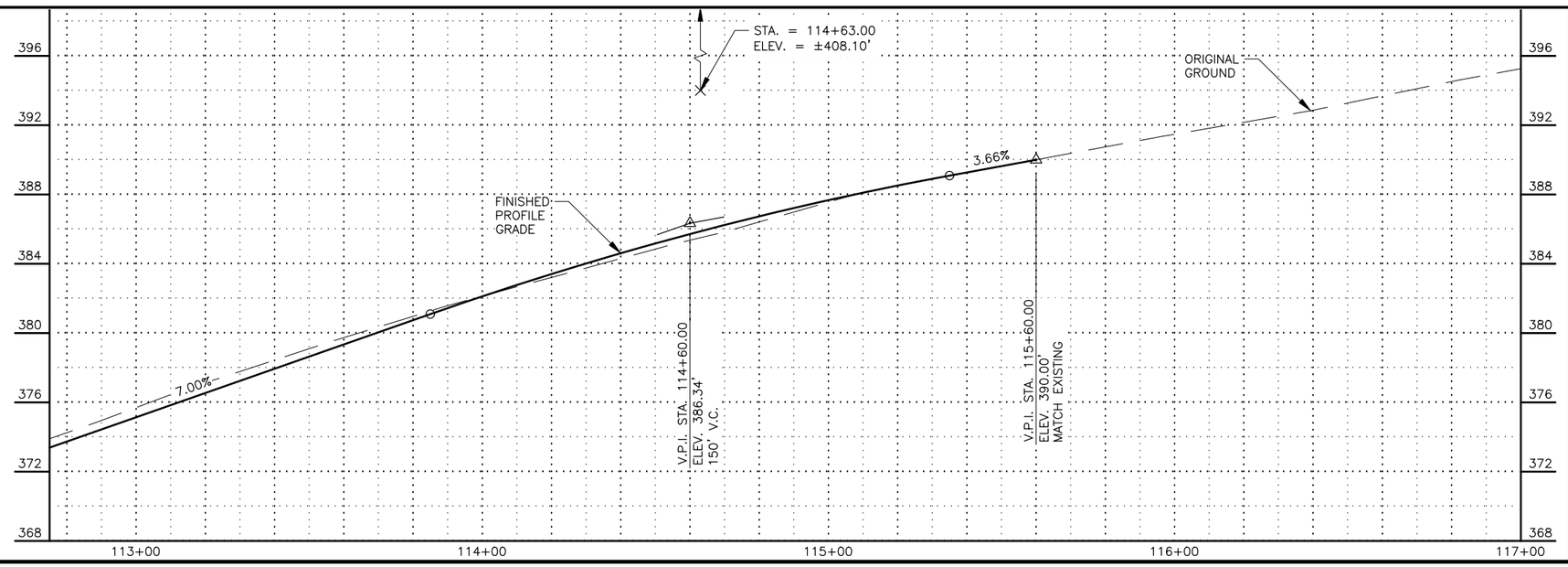
DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\00453_F _PNP.DWG

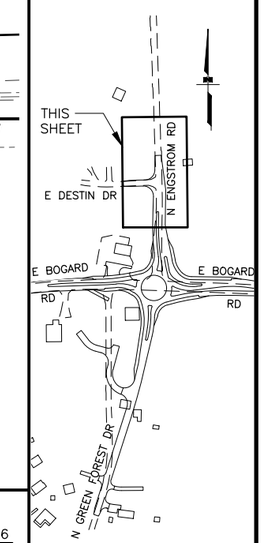
SHEET NO.	TOTAL SHEETS
F09	F18
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION
0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	







STATE OF ALASKA
CLAIRE E. KRAMER
PROFESSIONAL ENGINEER
PE
REVIEW

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0555

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

PLAN AND PROFILE
STA 112+75 TO
EOP

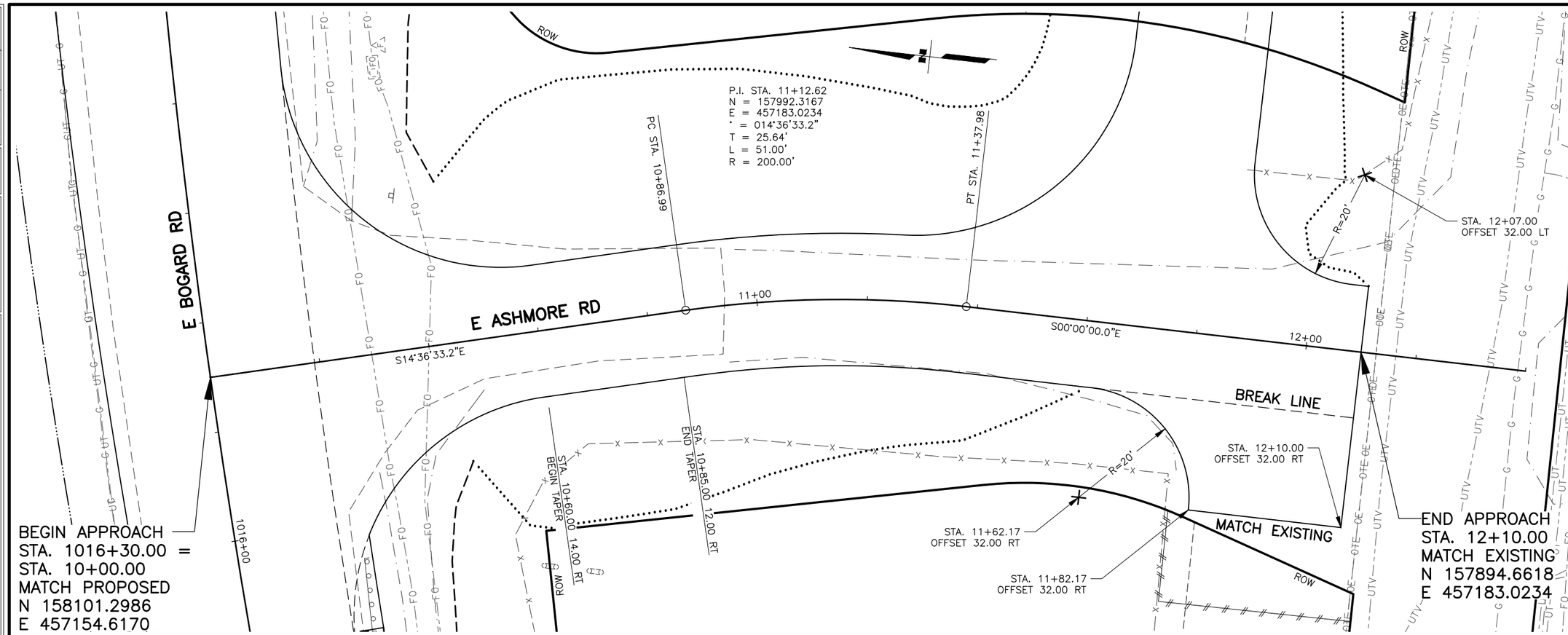
DATE	TIME	SCALE	DESIGNED BY	ZDK
5/22/2025	11:13 AM	1" = 10'	CHECKED BY	KRV/CLE
			DRAFTED BY	PGH/ZDK

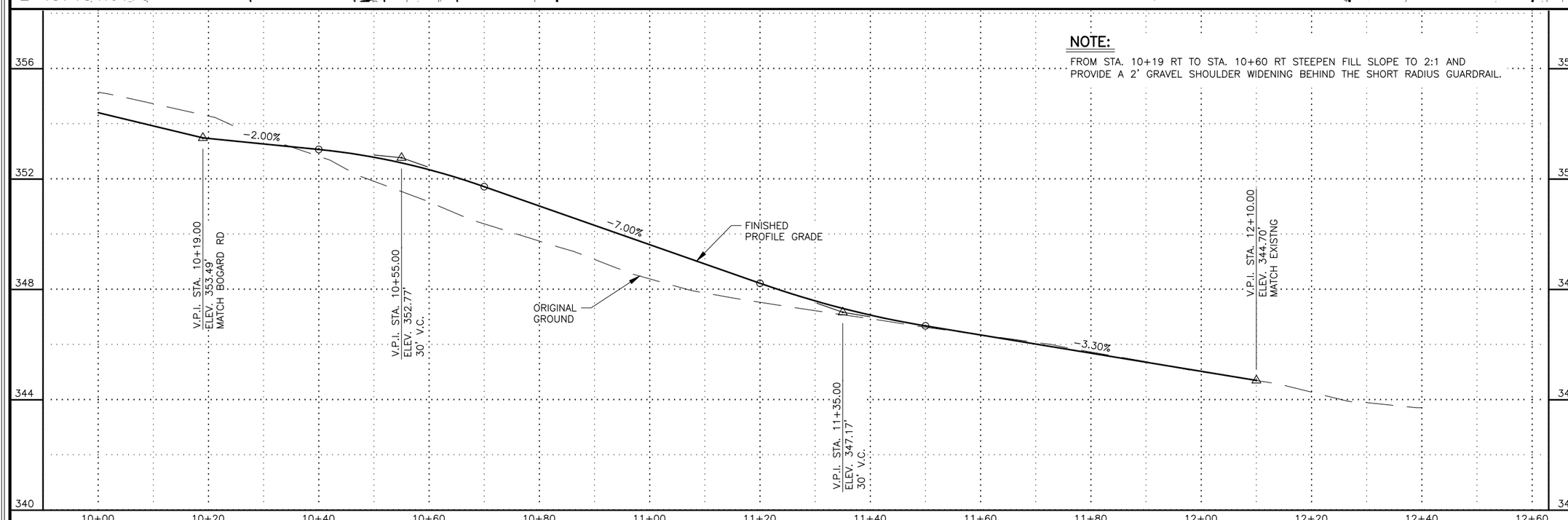
DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\00453_F _PNP_APPROACH.DWG

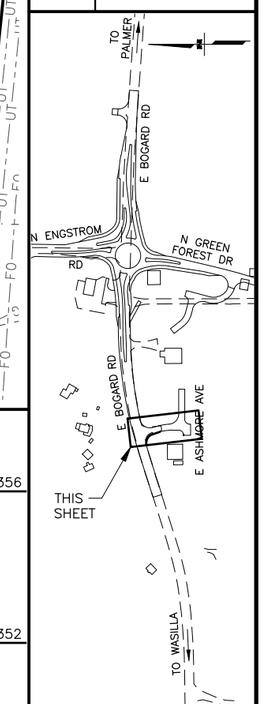
SHEET NO.	TOTAL SHEETS
F10	F18
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION
0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	







STATE OF ALASKA DOT&PF
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(907) 269-0555

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

PLAN AND PROFILE
DRIVEWAY
STA. 1016+30 RT

DATE	TIME	SCALE	DESIGNED BY	ZDK
5/22/2025	11:13 AM	1" = 10'	CHECKED BY	KRV/CLE
			DRAFTED BY	PGH/ZDK

DRAWING LOCATION
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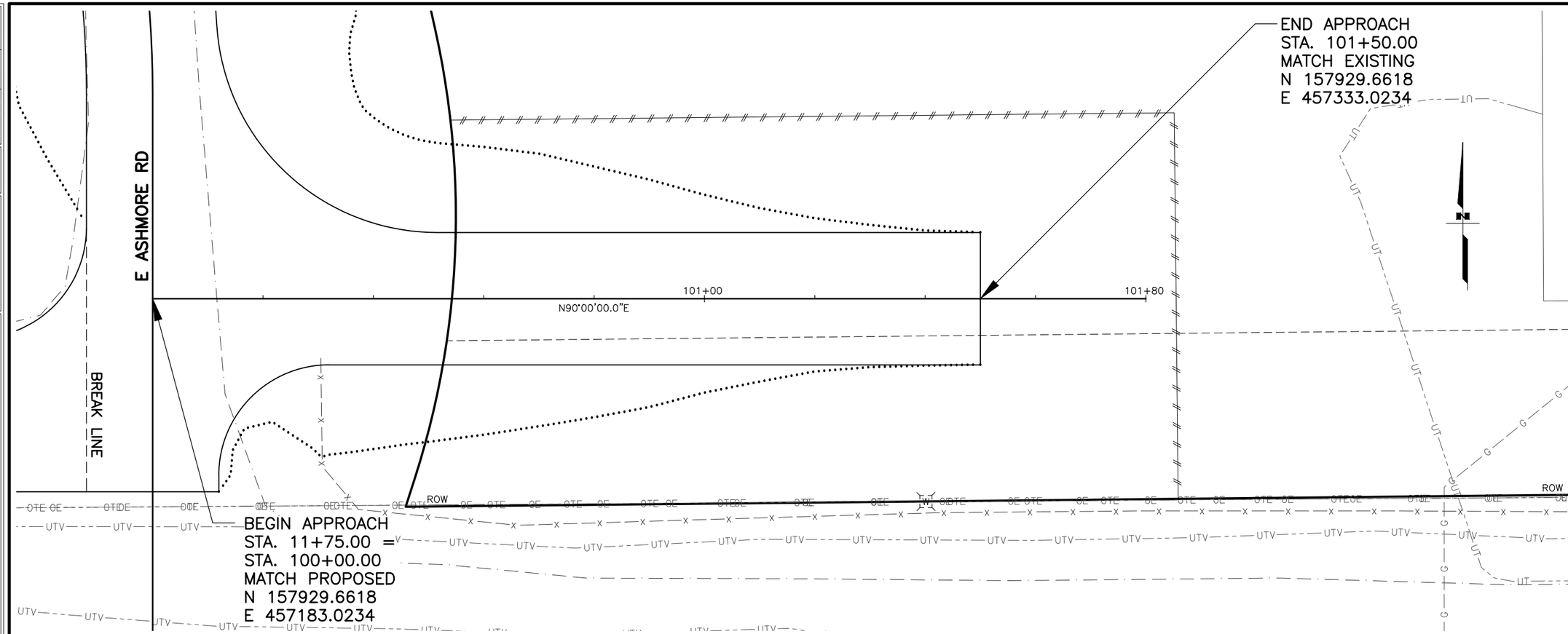
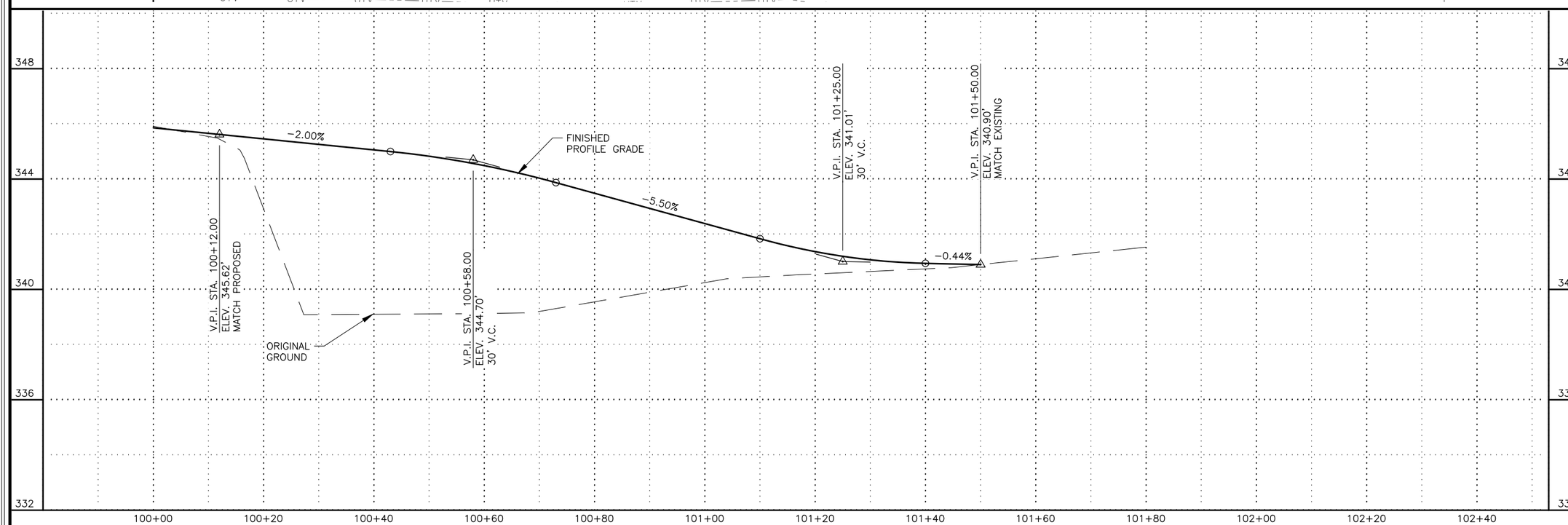
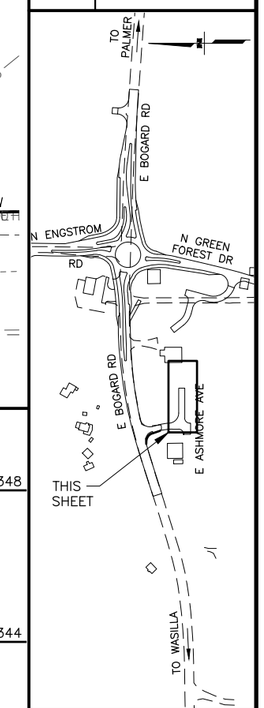




SHEET NO.	TOTAL SHEETS
F11	F18
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION
0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



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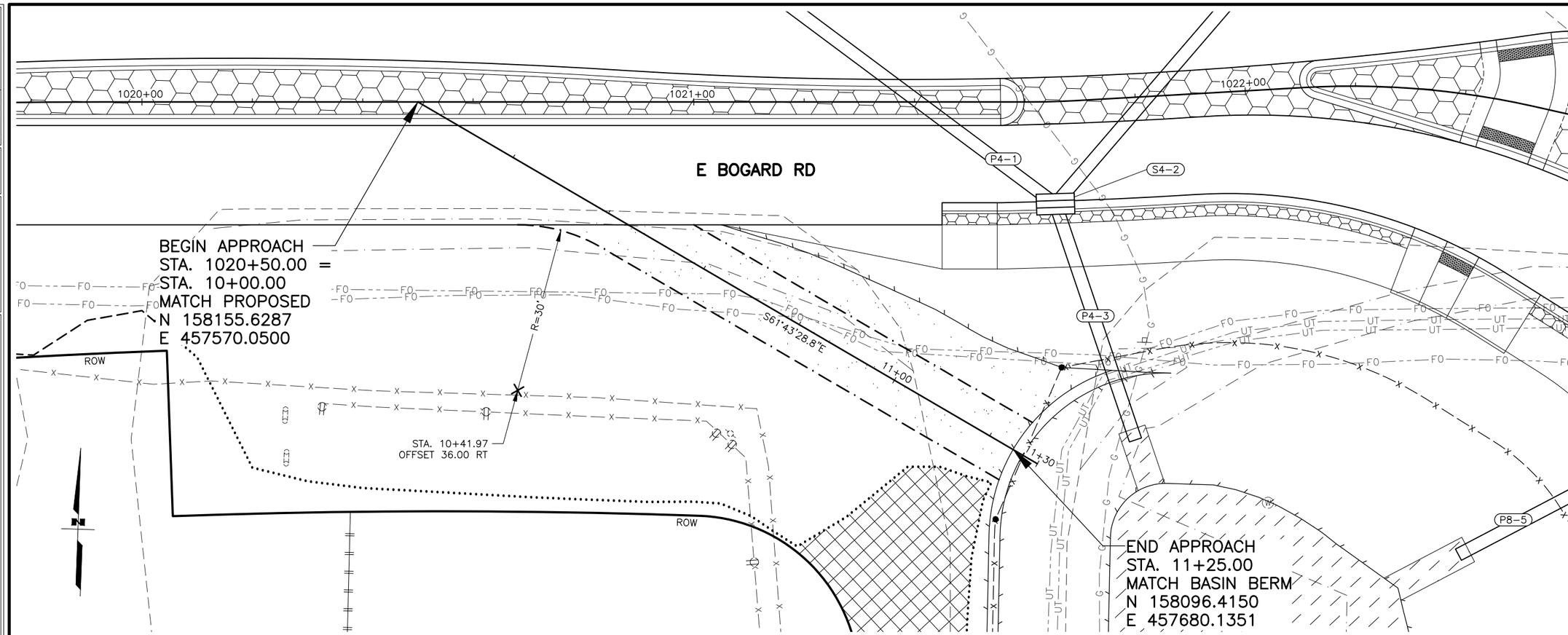
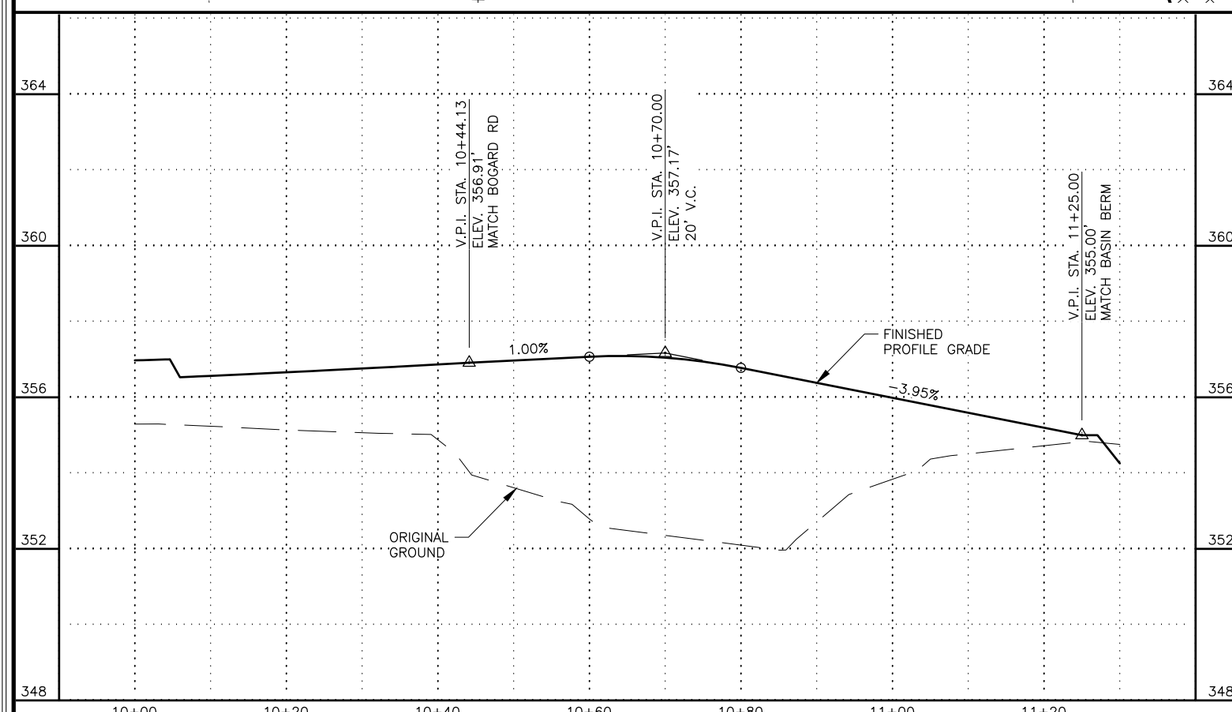
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

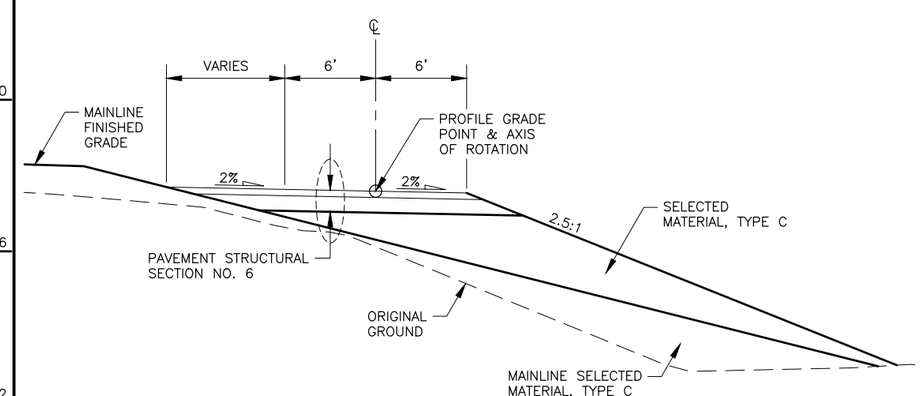
PLAN AND PROFILE
DRIVEWAY
STA. 1016+30 RT A





NOTE:

FROM STA. 10+27 RT TO STA. 10+45 RT FLATTEN FILL SLOPE TO 3:1.

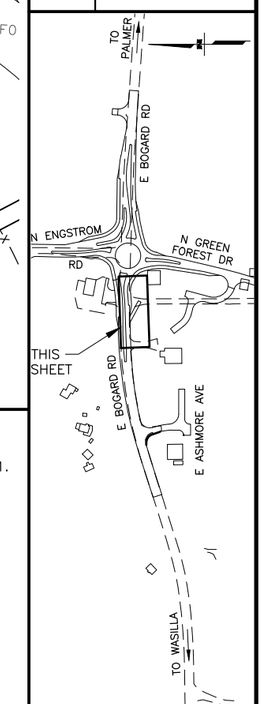


N BASIN ACCESS

SHEET NO.	TOTAL SHEETS
F12	F18
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION
0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



STATE OF ALASKA DOT&PF
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

PLAN AND PROFILE
N BASIN ACCESS
STA. 1020+50 RT

DATE	TIME
5/22/2025	11:13 AM

SCALE 1" = 10'

DESIGNED BY ZDK
CHECKED BY KRV/CLE
DRAFTED BY ZDK

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\00453_F _PNP_APPROACH.DWG

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
5/22/2025	11:13 AM	1" = 10'	ZDK	KRV/CLE	PGH/ZDK

DRAWING LOCATION
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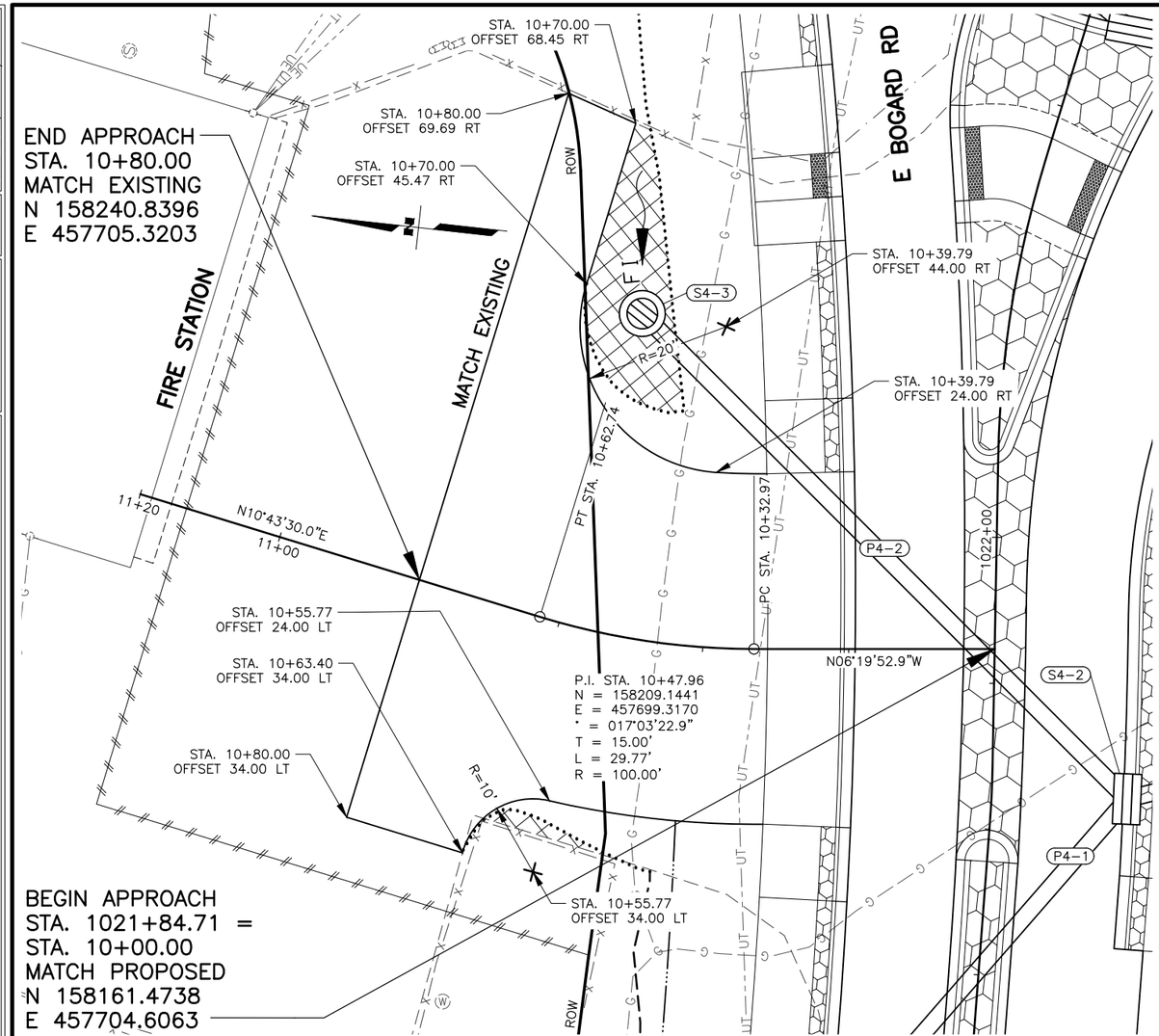
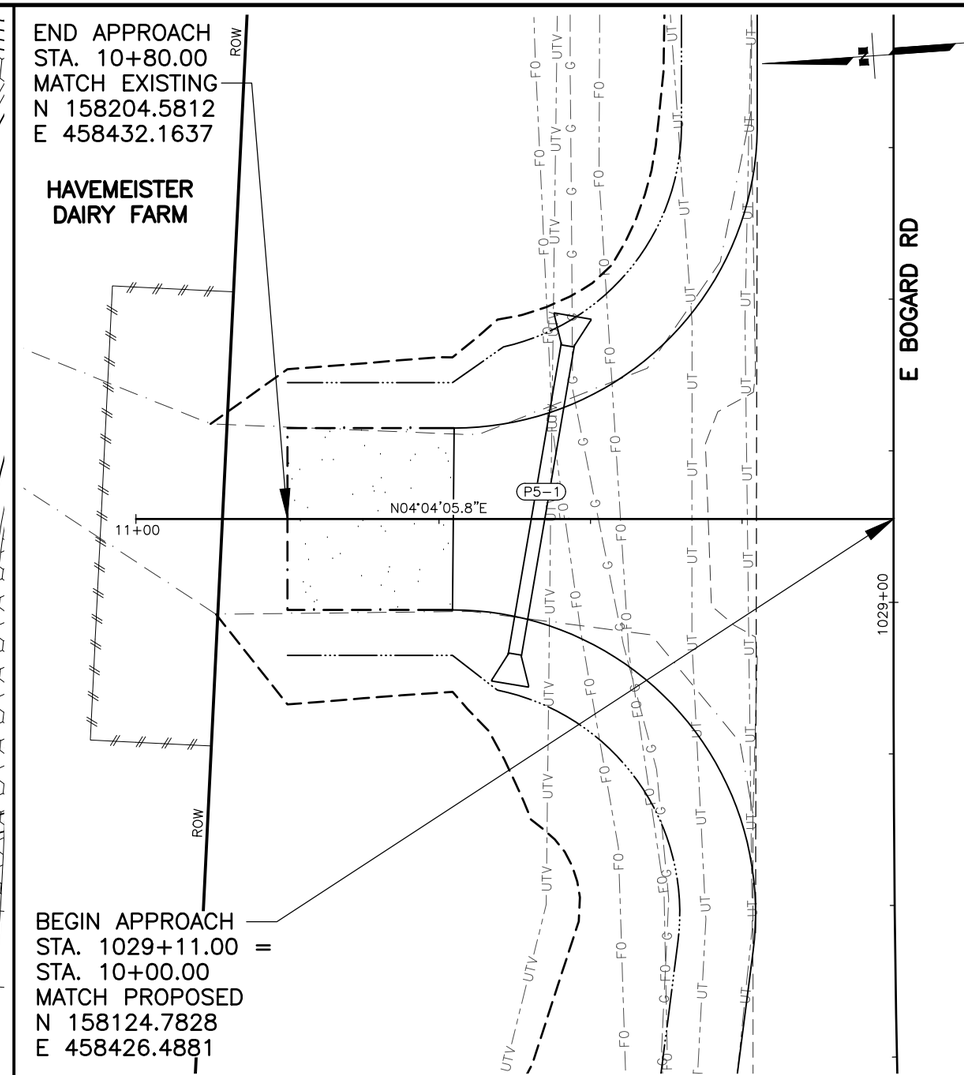
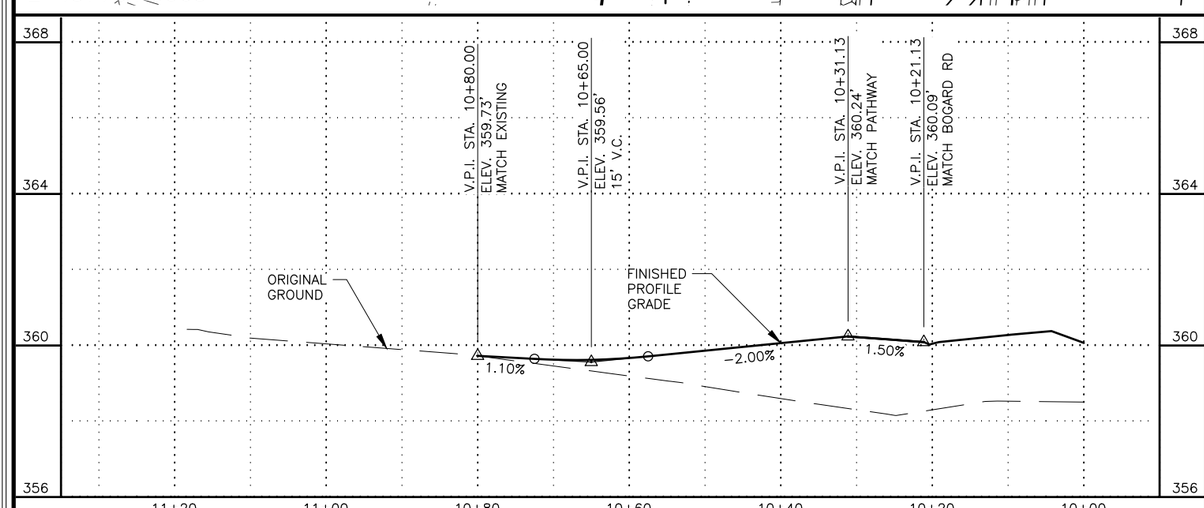
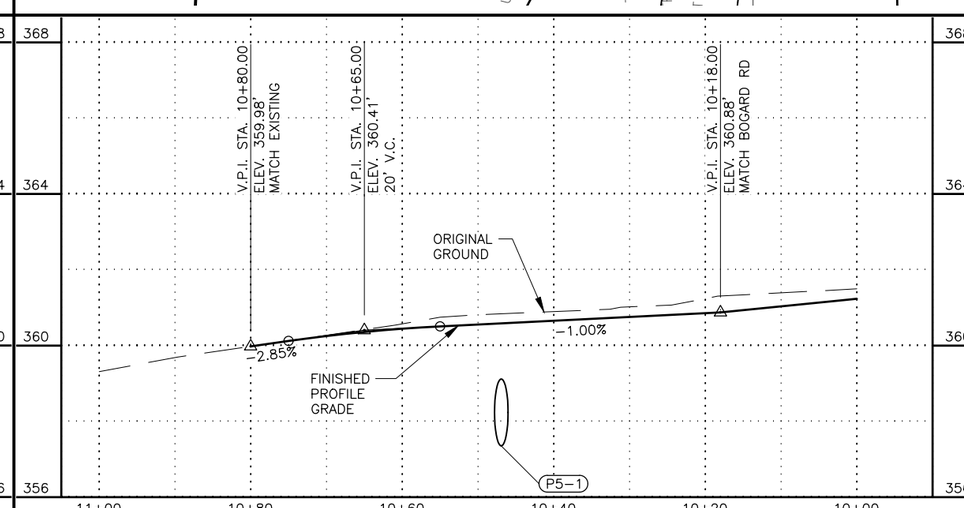




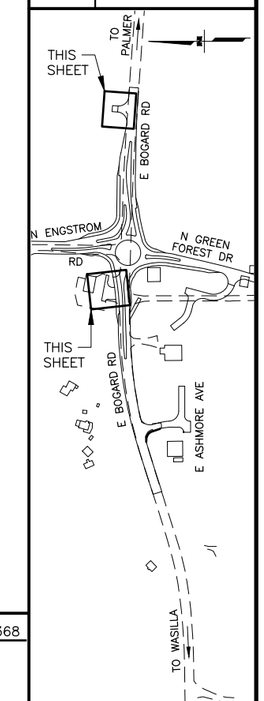




SHEET NO.	TOTAL SHEETS
F13	F18
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION
0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



STATE OF ALASKA DOT&PF
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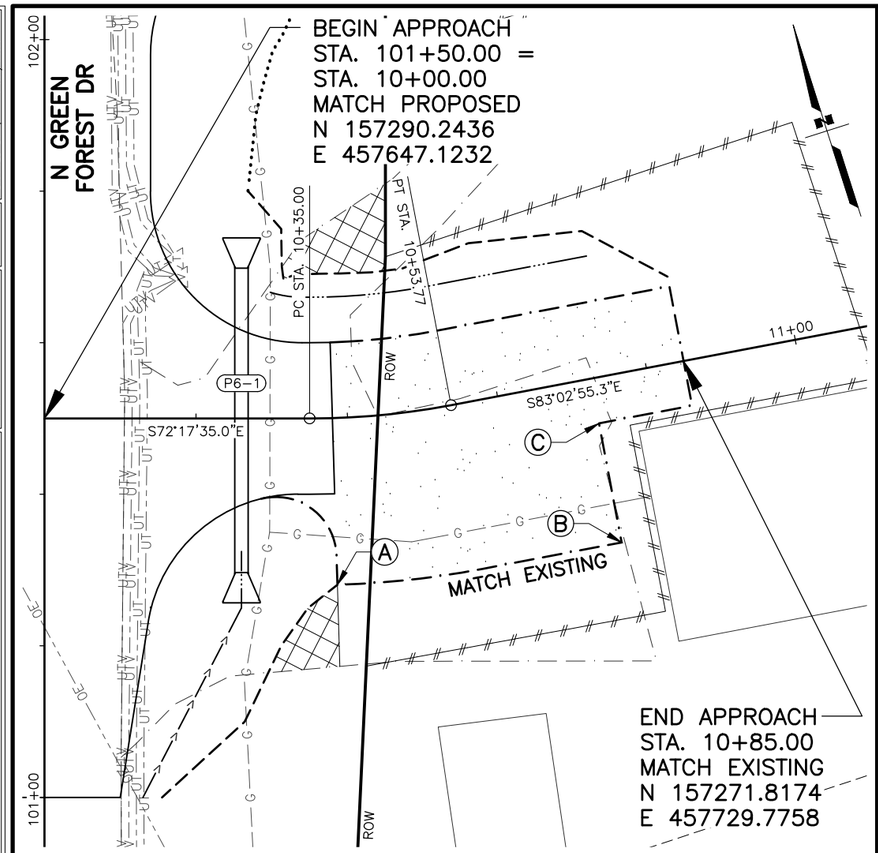
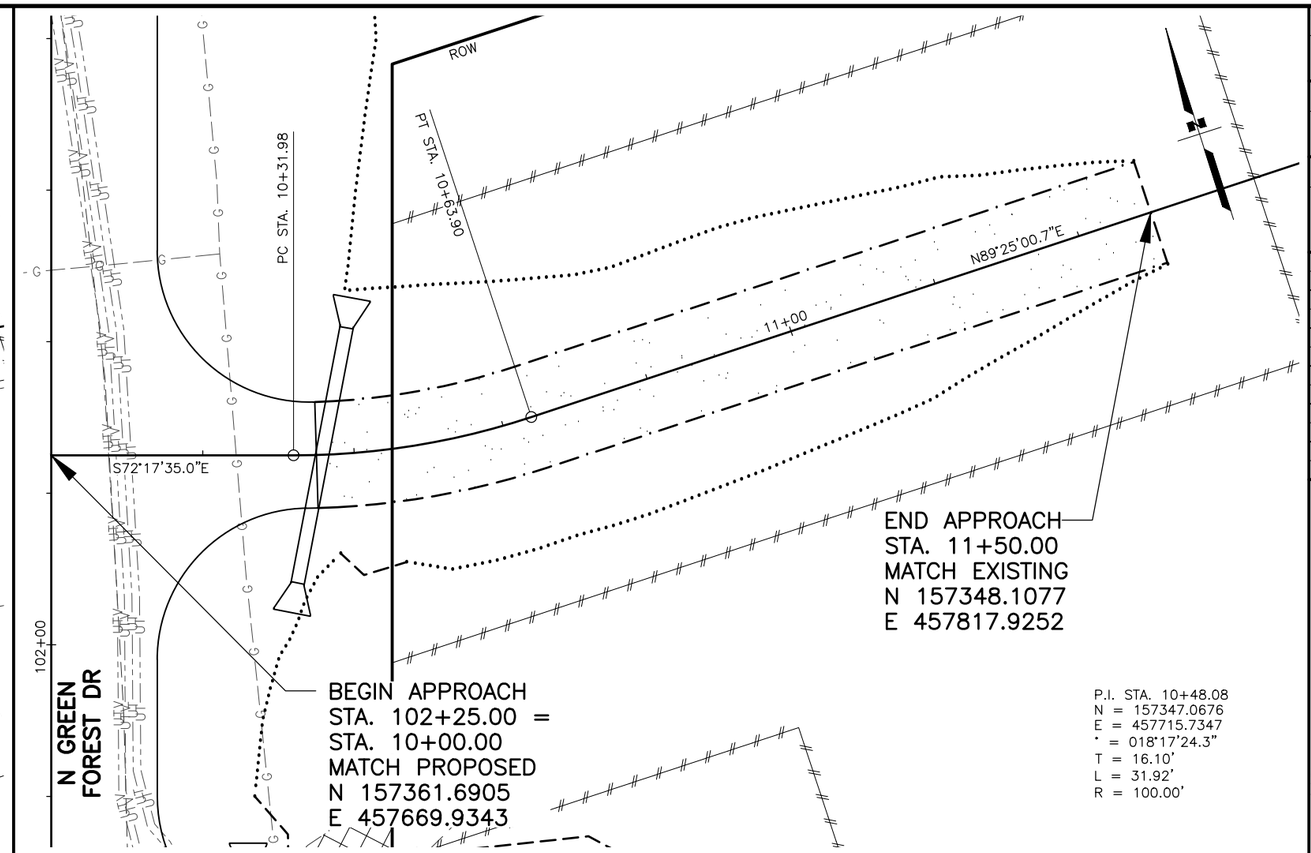
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

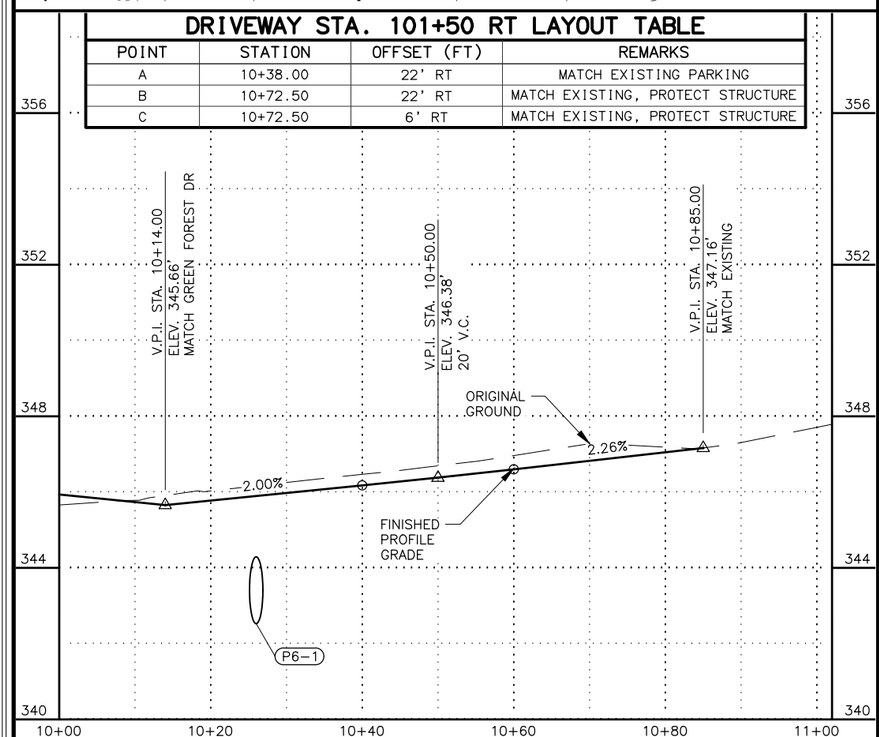
PLAN AND PROFILE
DRIVEWAY STA 1021+85 LT
DRIVEWAY STA 1029+11 LT

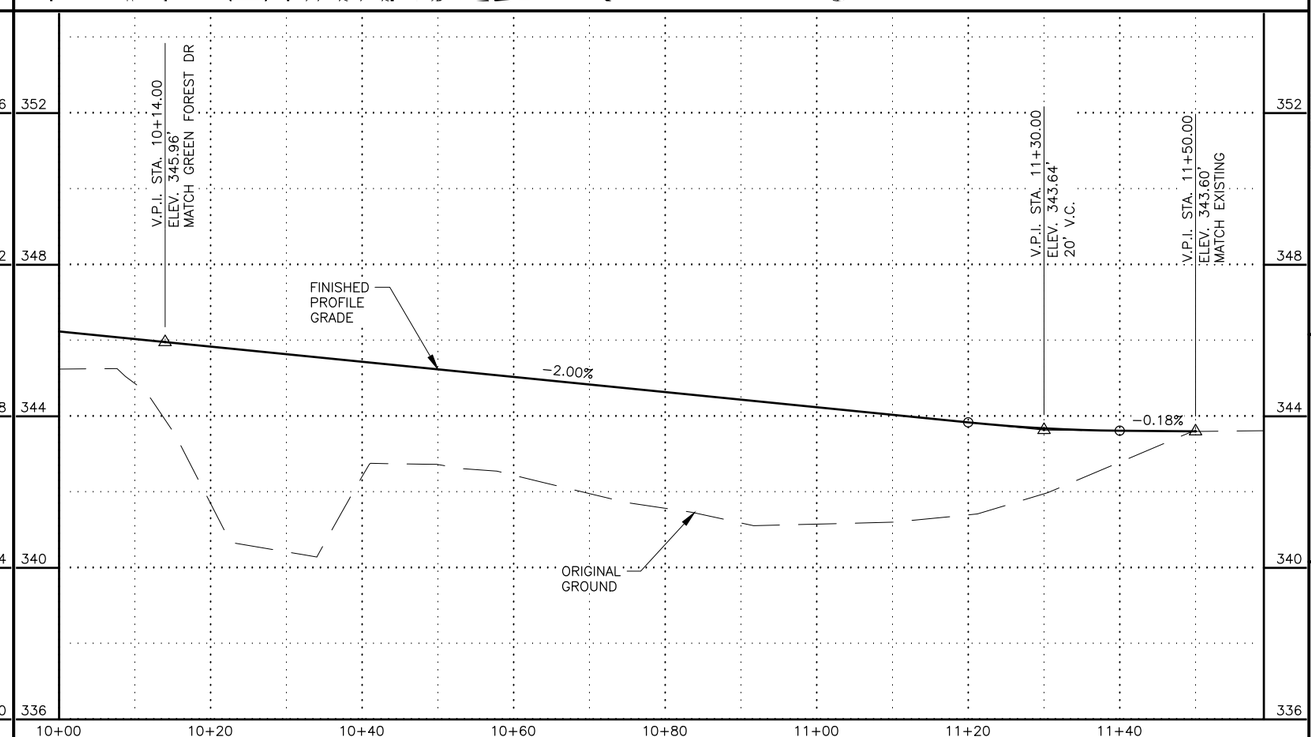




DRIVEWAY STA. 101+50 RT LAYOUT TABLE

POINT	STATION	OFFSET (FT)	REMARKS
A	10+38.00	22' RT	MATCH EXISTING PARKING
B	10+72.50	22' RT	MATCH EXISTING, PROTECT STRUCTURE
C	10+72.50	6' RT	MATCH EXISTING, PROTECT STRUCTURE

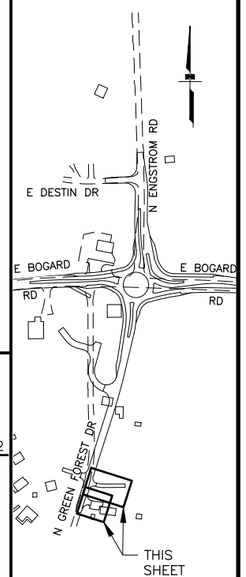




SHEET NO.	TOTAL SHEETS
F14	F18
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION
0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

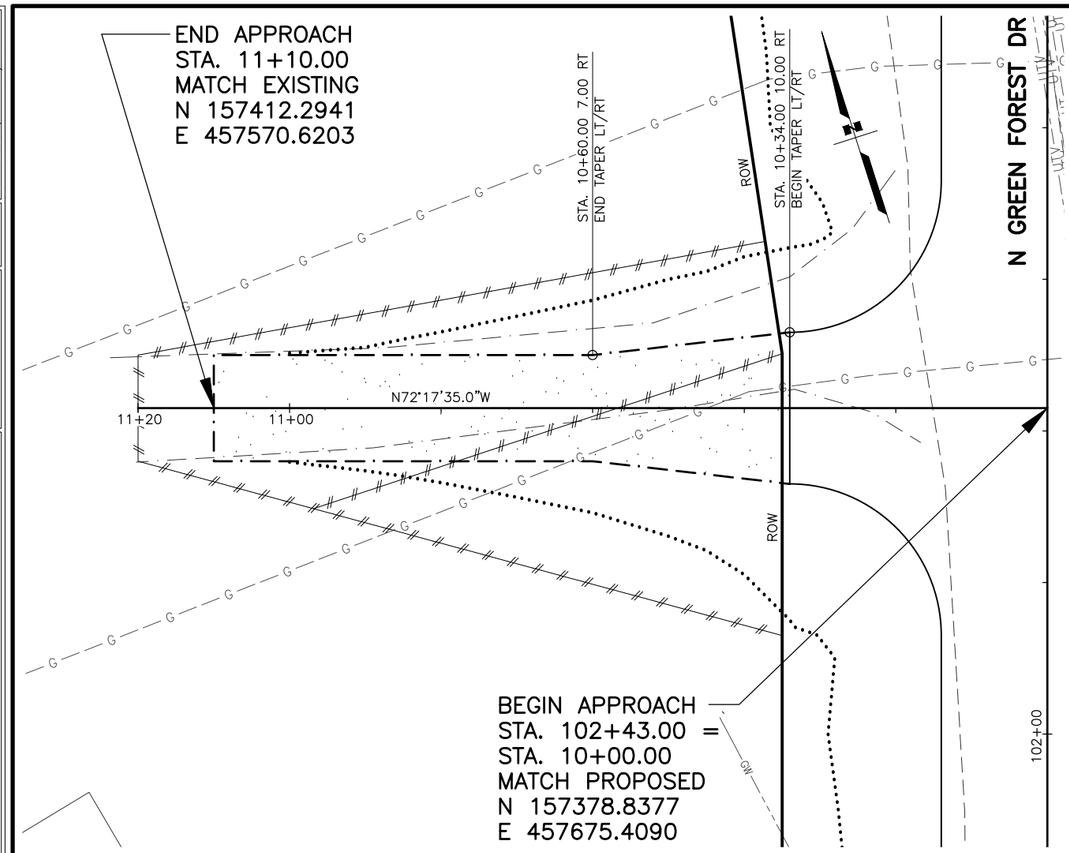
HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

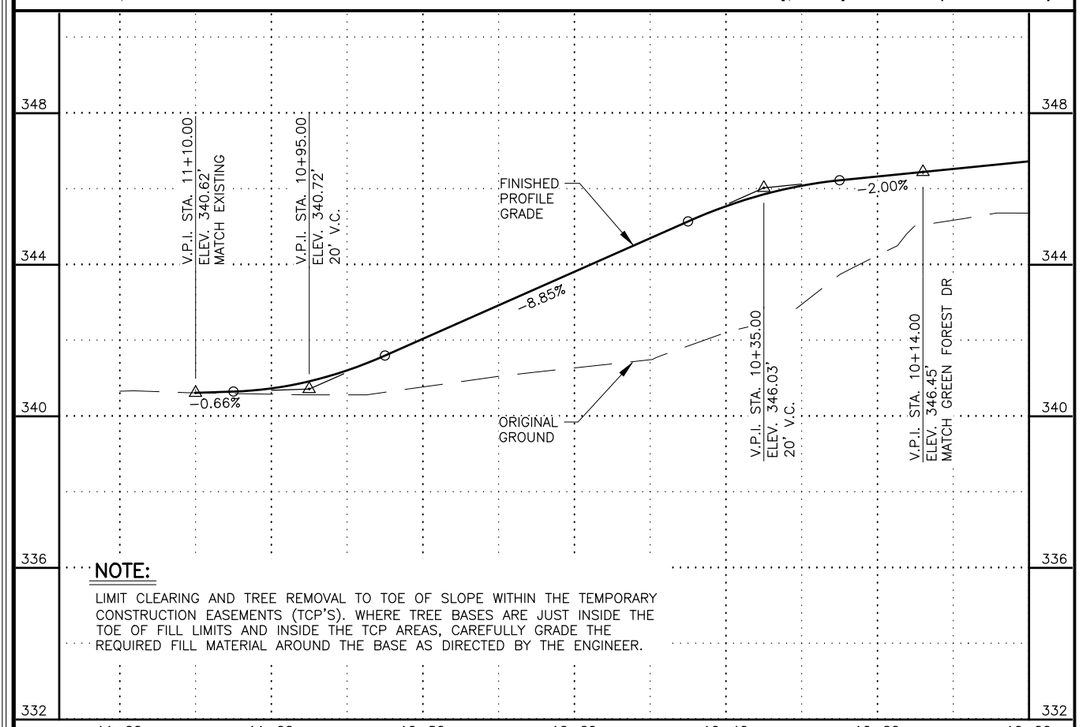
PLAN AND PROFILE
DRIVEWAY STA 101+50 RT
DRIVEWAY STA 102+25 RT

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0555

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\00453_F _PNP_APPROACH.DWG

DATE 5/22/2025 TIME 11:13 AM | SCALE 1" = 10' | DESIGNED BY ZDK | CHECKED BY KRV/CLE | DRAFTED BY PGH/ZDK





NOTE:

LIMIT CLEARING AND TREE REMOVAL TO TOE OF SLOPE WITHIN THE TEMPORARY CONSTRUCTION EASEMENTS (TCP'S). WHERE TREE BASES ARE JUST INSIDE THE TOE OF FILL LIMITS AND INSIDE THE TCP AREAS, CAREFULLY GRADE THE REQUIRED FILL MATERIAL AROUND THE BASE AS DIRECTED BY THE ENGINEER.

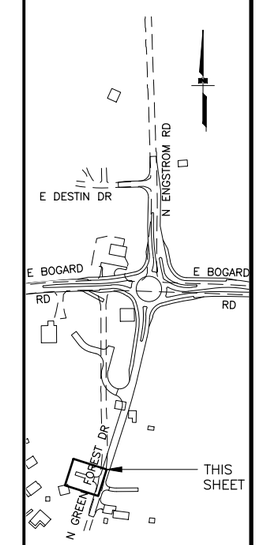
DATE	TIME	SCALE	DESIGNED BY	ZDK
5/22/2025	11:13 AM	1" = 10'	CHECKED BY	KRV/CLE
			DRAFTED BY	PGH/ZDK

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\00453_F_PNP_APPROACH.DWG

SHEET NO.	TOTAL SHEETS
F15	F18
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION
0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



STATE OF ALASKA
CLAIRE R. KNOWLES
47
PROFESSIONAL ENGINEER
PSSE REVIEW

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0555

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

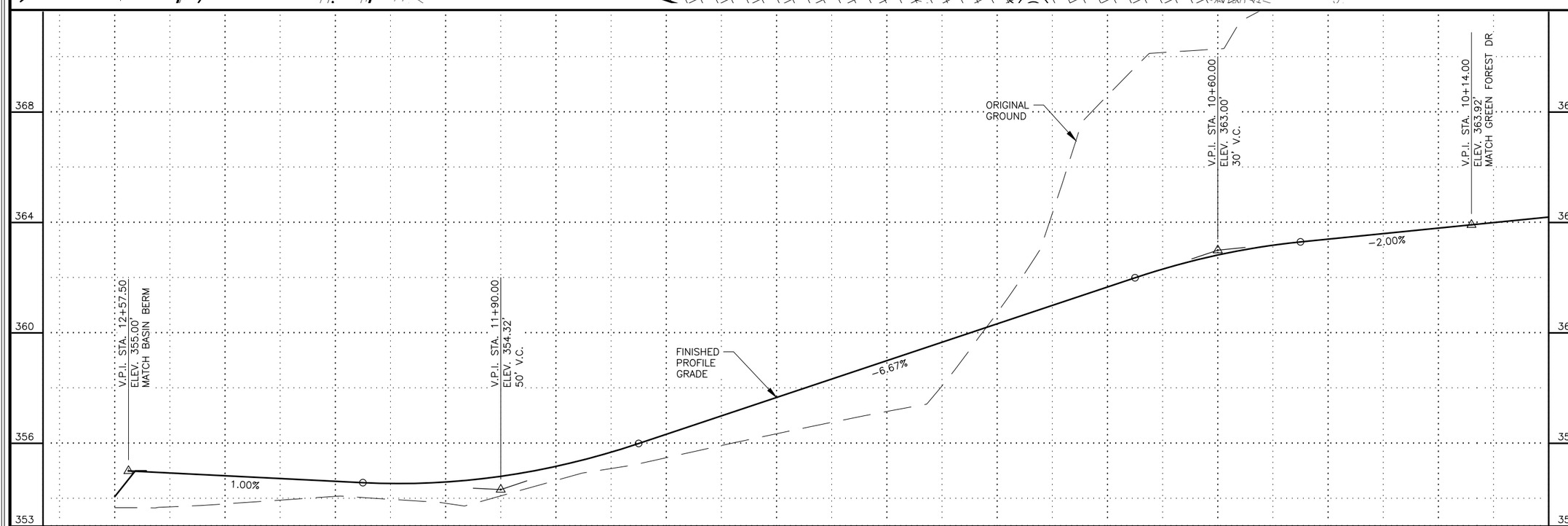
HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

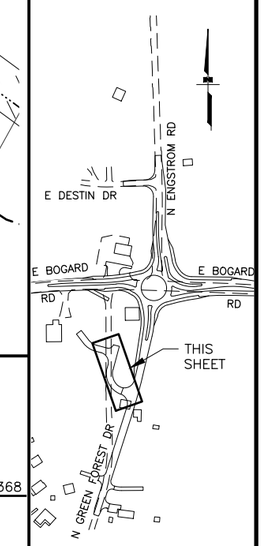
PLAN AND PROFILE
DRIVEWAY STA 102+45 LT

END APPROACH
STA. 12+57.50
MATCH BASIN BERM
N 157915.8593
E 457712.4894

BEGIN APPROACH
STA. 106+00.00 =
STA. 10+00.00
MATCH PROPOSED
N 157719.3780
E 457782.5080

S7-3
S7-2
P7-3
P7-2
12+60
12+00
11+00
106+00
N15°00'00.0"E
N74°23'47.3"W
PC STA. 10+44.28
PT STA. 11+61.30
P.I. STA. 11+18.49
N = 157751.2500
E = 457668.3824
Δ = 089°23'47.3"
T = 74.21'
L = 117.02'
R = 75.00'
R=20'
STA. 12+57.00
OFFSET 32.00 LT
ROW





SHEET NO.	TOTAL SHEETS
F16	F18
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION
0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

STATE OF ALASKA
PROFESSIONAL ENGINEER
CLAIRE
PE
PRELIMINARY

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0555

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

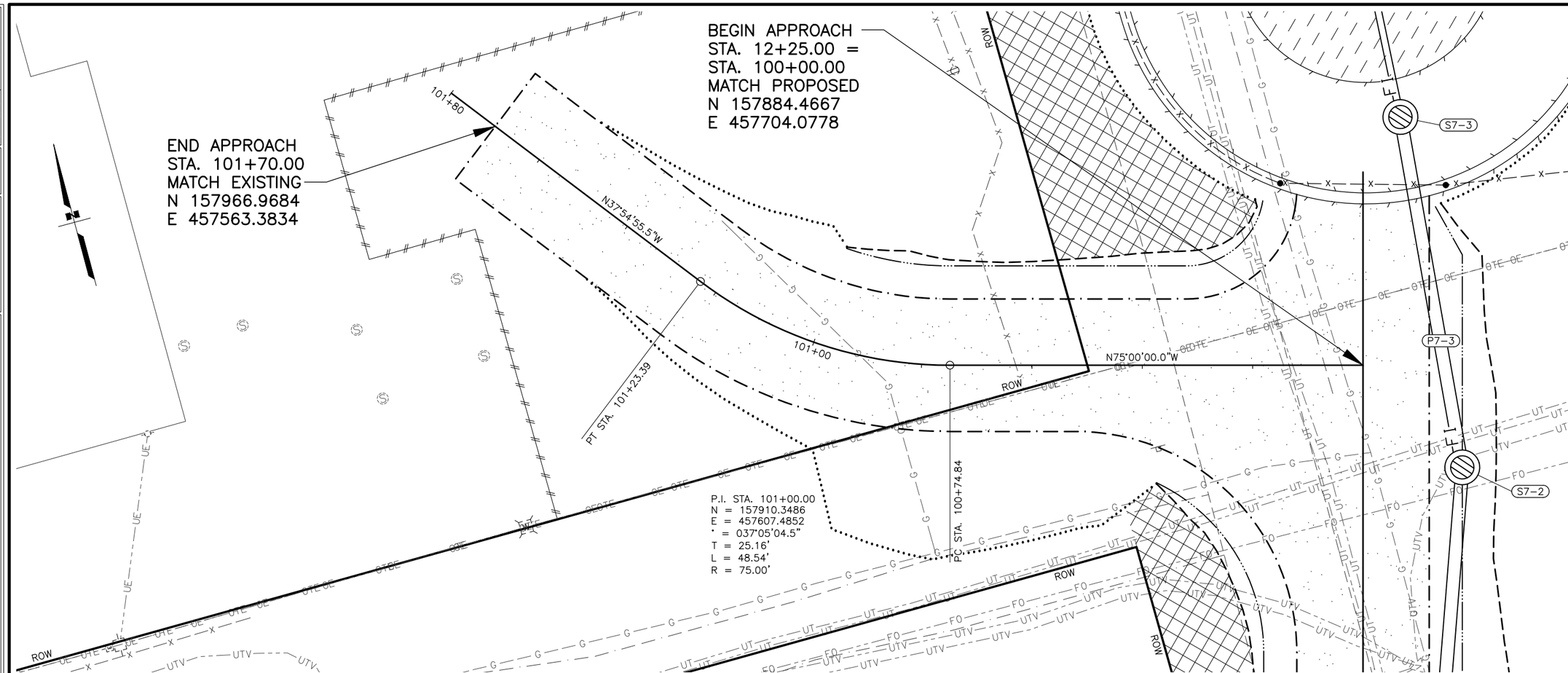
HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

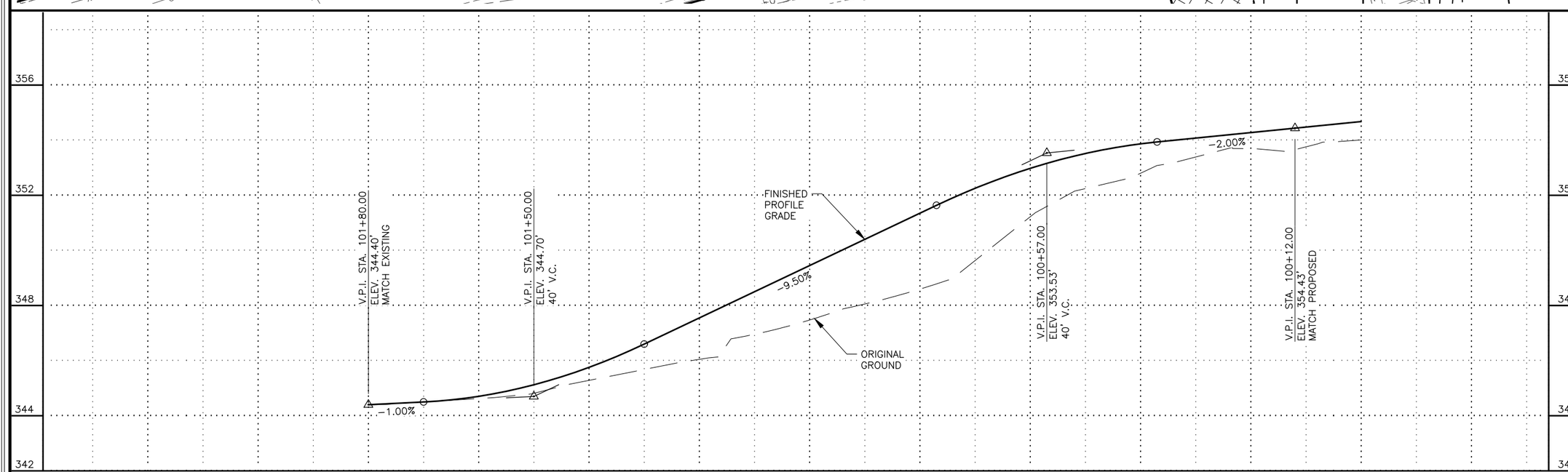
PLAN AND PROFILE
DRIVEWAY STA 106+00 LT

DESIGNED BY ZDK
CHECKED BY KRV/CLE
DRAFTED BY ZDK
SCALE 1" = 10'
DATE 5/22/2025 TIME 11:13 AM

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\00453_F _PNP_APPROACH.DWG

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
5/22/2025	11:13 AM	1" = 10'	ZDK	KRV/CLE	ZDK

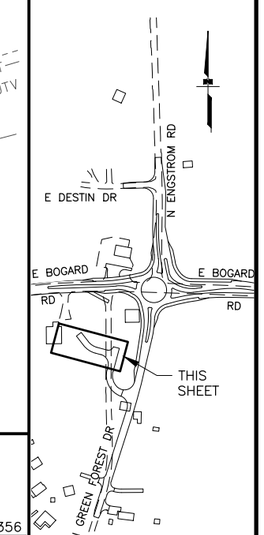


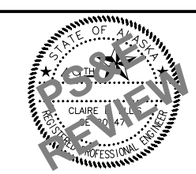


SHEET NO.	TOTAL SHEETS
F17	F18
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION
0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	





STATE OF ALASKA DOT&PF
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

PLAN AND PROFILE
DRIVEWAY
STA 106+00 LT A

DRAWING LOCATION
W:\PROJECTS\HSIP_BOGARD_ENGSTROM_RA - CFHWY00453\CIV3D\PLANSET\00453_F_PNP_APPROACH.DWG

DATE	TIME	SCALE	DESIGNED BY	ZDK
5/22/2025	11:13 AM	1" = 10'	CHECKED BY	KRV/CLE
			DRAFTED BY	PGH/ZDK

DRAWING LOCATION
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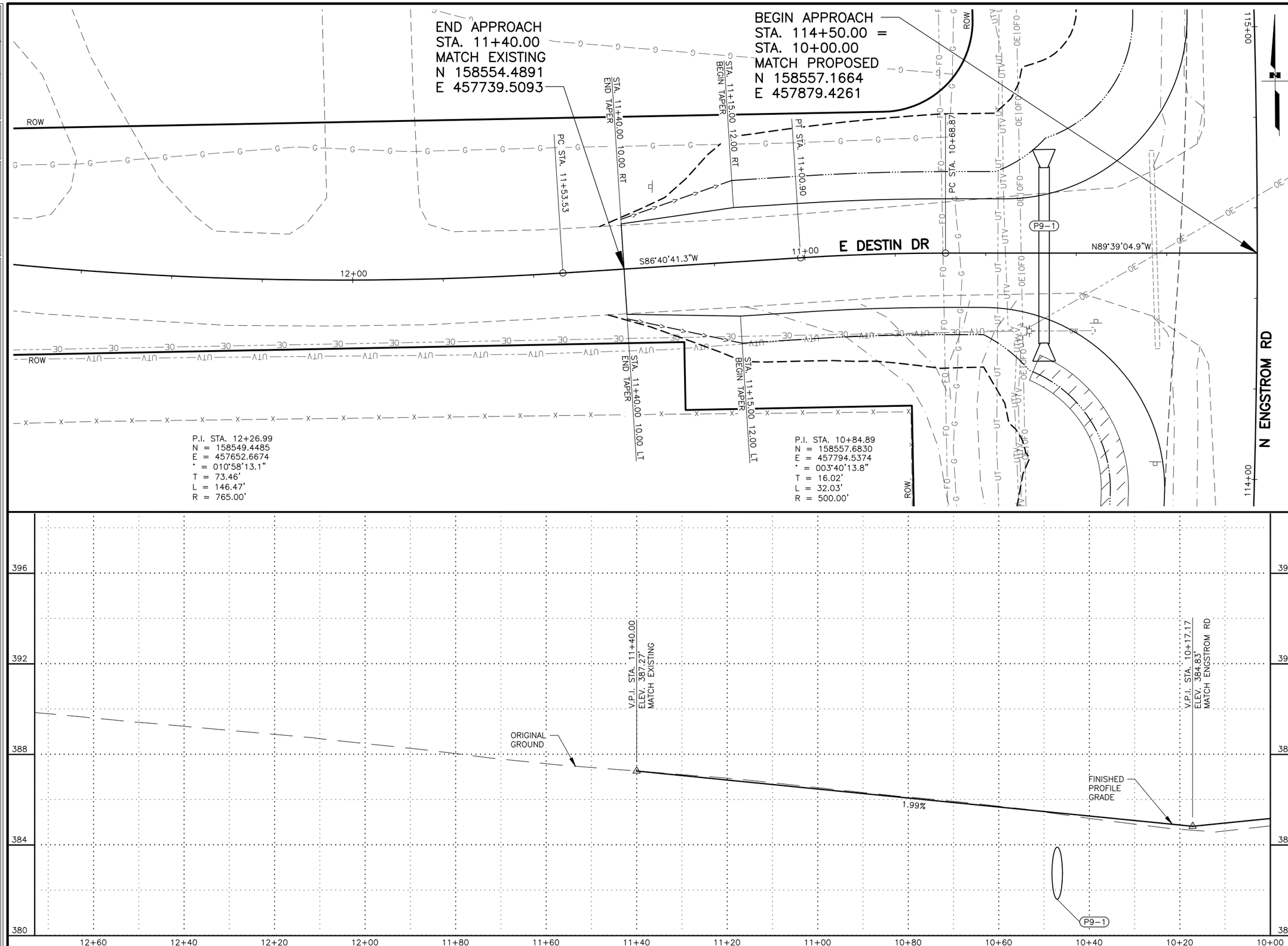
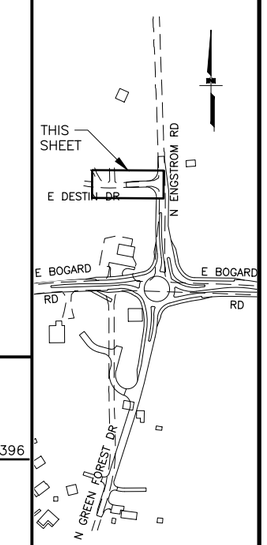


SHEET NO.	TOTAL SHEETS
F18	F18
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION
0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



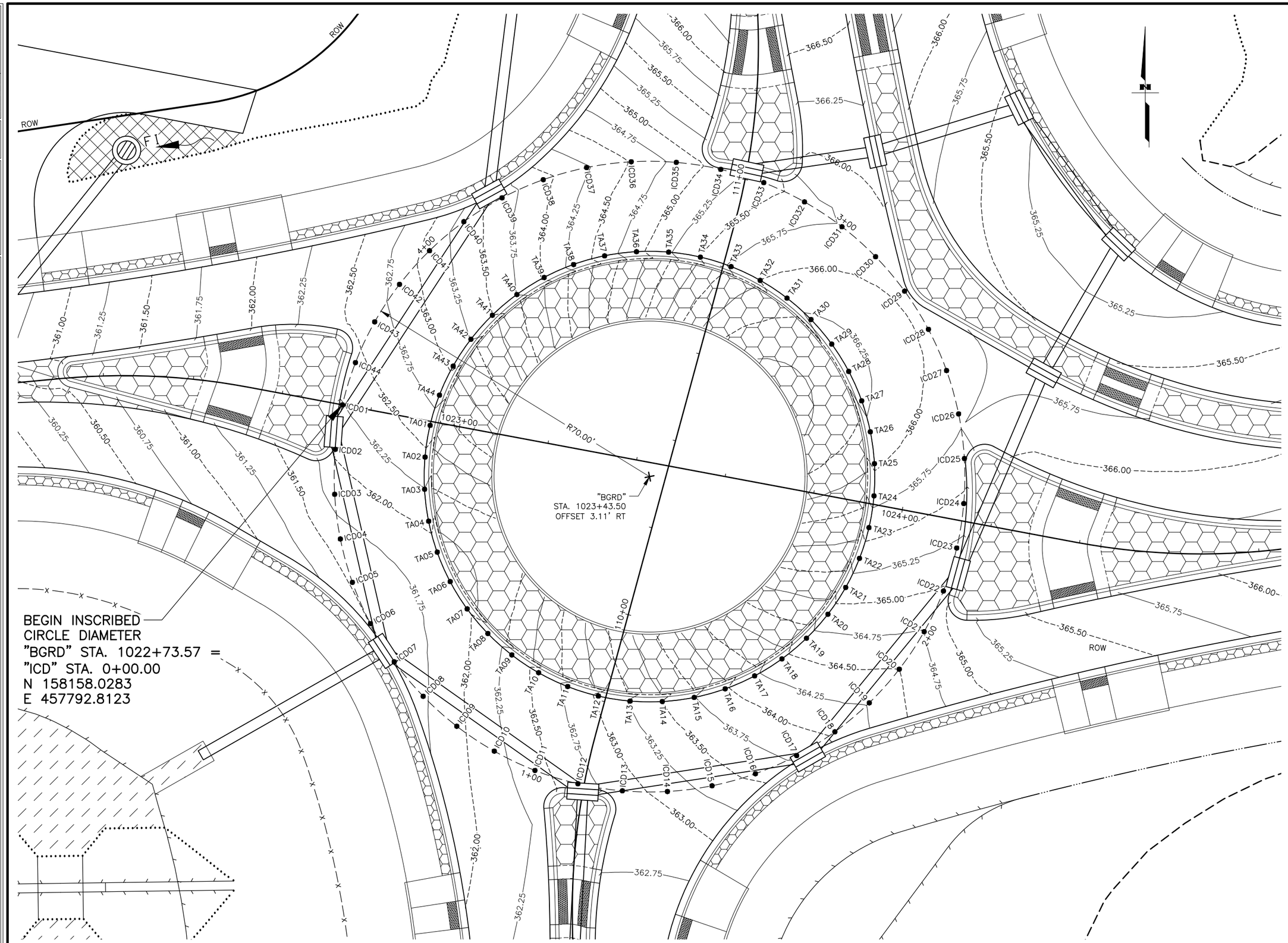
STATE OF ALASKA
PROFESSIONAL ENGINEER
CLAIRE E. VOSS
PE 9-2-47
PS98
REVIEW

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0555

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

PLAN AND PROFILE
DRIVEWAY STA 114+50 LT

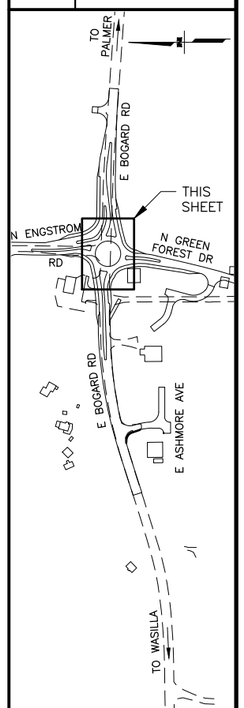


SHEET NO.	TOTAL SHEETS
G01	G13
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION

0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0555

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

ROUNDABOUT
ICD & TRUCK APRON
GRADING PLAN

DATE	TIME
5/22/2025	11:13 AM

SCALE
1" = 10'

DESIGNED BY	ZDK
CHECKED BY	KRV/CLE
DRAFTED BY	ZDK

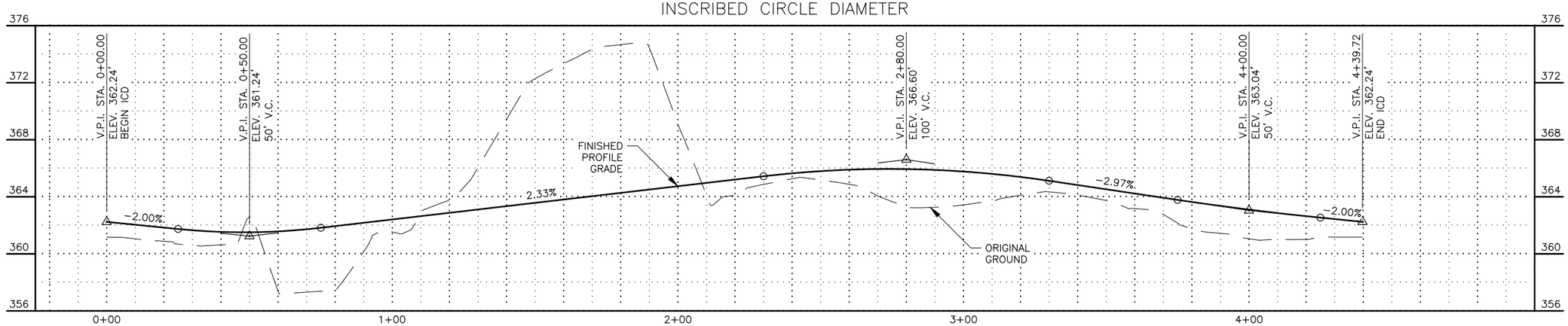
DRAWING LOCATION
W:\PROJECTS\HSIP_BOGARD_ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\00453_G01_IDC & TRUCK APRON.DWG

SHEET NO.	TOTAL SHEETS
G02	G13
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION
0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

INSCRIBED CIRCLE DIAMETER

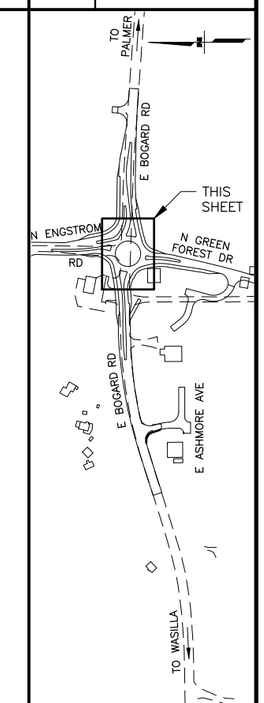


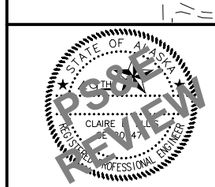
INSCRIBED CIRCLE DIAMETER GRADING POINTS

POINT	ALIGNMENT	STATION	OFFSET (FT)	ELEVATION (FT)	REMARKS
ICD01	"ICD"	0+00.00	CL	362.24	
ICD02	"ICD"	0+10.00	CL	362.04	
ICD03	"ICD"	0+20.00	CL	361.84	
ICD04	"ICD"	0+30.00	CL	361.65	
ICD05	"ICD"	0+40.00	CL	361.54	
ICD06	"ICD"	0+50.00	CL	361.51	
ICD07	"ICD"	0+60.00	CL	361.58	
ICD08	"ICD"	0+70.00	CL	361.72	
ICD09	"ICD"	0+80.00	CL	361.94	
ICD10	"ICD"	0+90.00	CL	362.17	
ICD11	"ICD"	1+00.00	CL	362.41	
ICD12	"ICD"	1+10.00	CL	362.64	
ICD13	"ICD"	1+20.00	CL	362.87	
ICD14	"ICD"	1+30.00	CL	363.11	
ICD15	"ICD"	1+40.00	CL	363.34	
ICD16	"ICD"	1+50.00	CL	363.57	
ICD17	"ICD"	1+60.00	CL	363.80	
ICD18	"ICD"	1+70.00	CL	364.04	
ICD19	"ICD"	1+80.00	CL	364.27	
ICD20	"ICD"	1+90.00	CL	364.50	
ICD21	"ICD"	2+00.00	CL	364.74	
ICD22	"ICD"	2+10.00	CL	364.97	
ICD23	"ICD"	2+20.00	CL	365.20	
ICD24	"ICD"	2+30.00	CL	365.44	
ICD25	"ICD"	2+40.00	CL	365.64	
ICD26	"ICD"	2+50.00	CL	365.80	
ICD27	"ICD"	2+60.00	CL	365.90	
ICD28	"ICD"	2+70.00	CL	365.94	
ICD29	"ICD"	2+80.00	CL	365.94	
ICD30	"ICD"	2+90.00	CL	365.88	
ICD31	"ICD"	3+00.00	CL	365.77	
ICD32	"ICD"	3+10.00	CL	365.60	
ICD33	"ICD"	3+20.00	CL	365.39	
ICD34	"ICD"	3+30.00	CL	365.12	
ICD35	"ICD"	3+40.00	CL	364.82	
ICD36	"ICD"	3+50.00	CL	364.52	
ICD37	"ICD"	3+60.00	CL	364.22	
ICD38	"ICD"	3+70.00	CL	363.93	
ICD39	"ICD"	3+80.00	CL	363.63	
ICD40	"ICD"	3+90.00	CL	363.36	
ICD41	"ICD"	4+00.00	CL	363.10	
ICD42	"ICD"	4+10.00	CL	362.86	
ICD43	"ICD"	4+20.00	CL	362.64	
ICD44	"ICD"	4+30.00	CL	362.44	

TRUCK APRON GRADING POINTS

POINT	ALIGNMENT	STATION	OFFSET (FT)	ELEVATION (FT)	REMARKS
TA01	"ICD"	0+00.00	20.0' LT	362.64	
TA02	"ICD"	0+10.00	20.0' LT	362.44	
TA03	"ICD"	0+20.00	20.0' LT	362.24	
TA04	"ICD"	0+30.00	20.0' LT	362.05	
TA05	"ICD"	0+40.00	20.0' LT	361.94	
TA06	"ICD"	0+50.00	20.0' LT	361.91	
TA07	"ICD"	0+60.00	20.0' LT	361.97	
TA08	"ICD"	0+70.00	20.0' LT	362.12	
TA09	"ICD"	0+80.00	20.0' LT	362.34	
TA10	"ICD"	0+90.00	20.0' LT	362.57	
TA11	"ICD"	1+00.00	20.0' LT	362.81	
TA12	"ICD"	1+10.00	20.0' LT	363.04	
TA13	"ICD"	1+20.00	20.0' LT	363.27	
TA14	"ICD"	1+30.00	20.0' LT	363.51	
TA15	"ICD"	1+40.00	20.0' LT	363.74	
TA16	"ICD"	1+50.00	20.0' LT	363.97	
TA17	"ICD"	1+60.00	20.0' LT	364.20	
TA18	"ICD"	1+70.00	20.0' LT	364.44	
TA19	"ICD"	1+80.00	20.0' LT	364.67	
TA20	"ICD"	1+90.00	20.0' LT	364.90	
TA21	"ICD"	2+00.00	20.0' LT	365.14	
TA22	"ICD"	2+10.00	20.0' LT	365.37	
TA23	"ICD"	2+20.00	20.0' LT	365.60	
TA24	"ICD"	2+30.00	20.0' LT	365.84	
TA25	"ICD"	2+40.00	20.0' LT	366.04	
TA26	"ICD"	2+50.00	20.0' LT	366.20	
TA27	"ICD"	2+60.00	20.0' LT	366.30	
TA28	"ICD"	2+70.00	20.0' LT	366.34	
TA29	"ICD"	2+80.00	20.0' LT	366.34	
TA30	"ICD"	2+90.00	20.0' LT	366.28	
TA31	"ICD"	3+00.00	20.0' LT	366.17	
TA32	"ICD"	3+10.00	20.0' LT	366.00	
TA33	"ICD"	3+20.00	20.0' LT	365.79	
TA34	"ICD"	3+30.00	20.0' LT	365.52	
TA35	"ICD"	3+40.00	20.0' LT	365.22	
TA36	"ICD"	3+50.00	20.0' LT	364.92	
TA37	"ICD"	3+60.00	20.0' LT	364.62	
TA38	"ICD"	3+70.00	20.0' LT	364.33	
TA39	"ICD"	3+80.00	20.0' LT	364.03	
TA40	"ICD"	3+90.00	20.0' LT	363.76	
TA41	"ICD"	4+00.00	20.0' LT	363.50	
TA42	"ICD"	4+10.00	20.0' LT	363.26	
TA43	"ICD"	4+20.00	20.0' LT	363.04	
TA44	"ICD"	4+30.00	20.0' LT	362.84	





STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0555

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT ENGSTROM RD & GREEN FOREST DR INT IMP

ROUNDABOUT
ICD & TRUCK APRON
GRADING PLAN

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
5/22/2025	11:14 AM	1" = 20'	ZDK	KRV/CLE	ZDK

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\00453_G01_IDC & TRUCK APRON.DWG

BEGIN NW QUADRANT
"BRGD" STA. 1021+00.00 =
"NWQ" STA. 1021+00.00
MATCH BOGARD
N 158176.5273
E 457619.3496

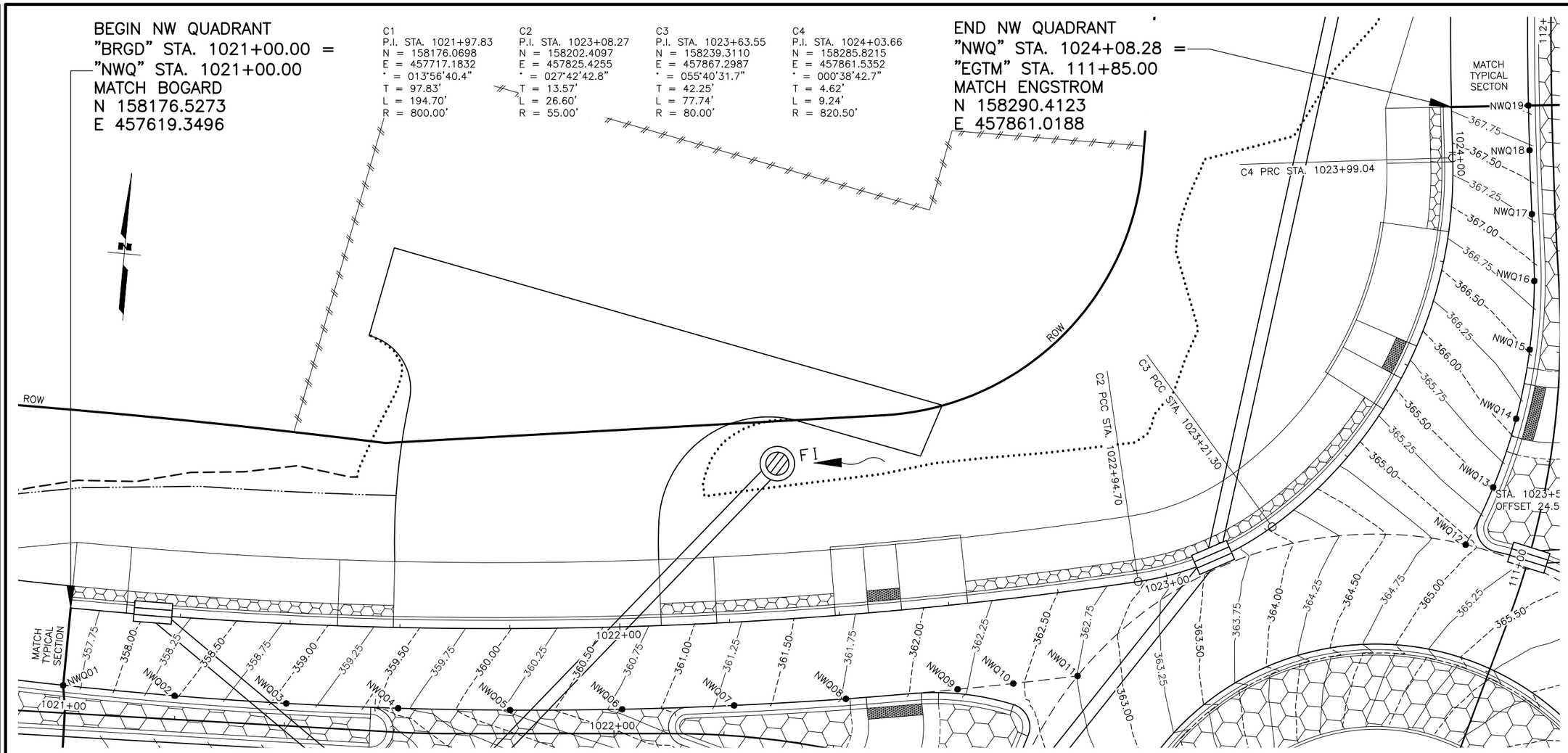
C1
P.I. STA. 1021+97.83
N = 158176.0698
E = 457717.1832
Δ = 013°56'40.4"
T = 97.83'
L = 194.70'
R = 800.00'

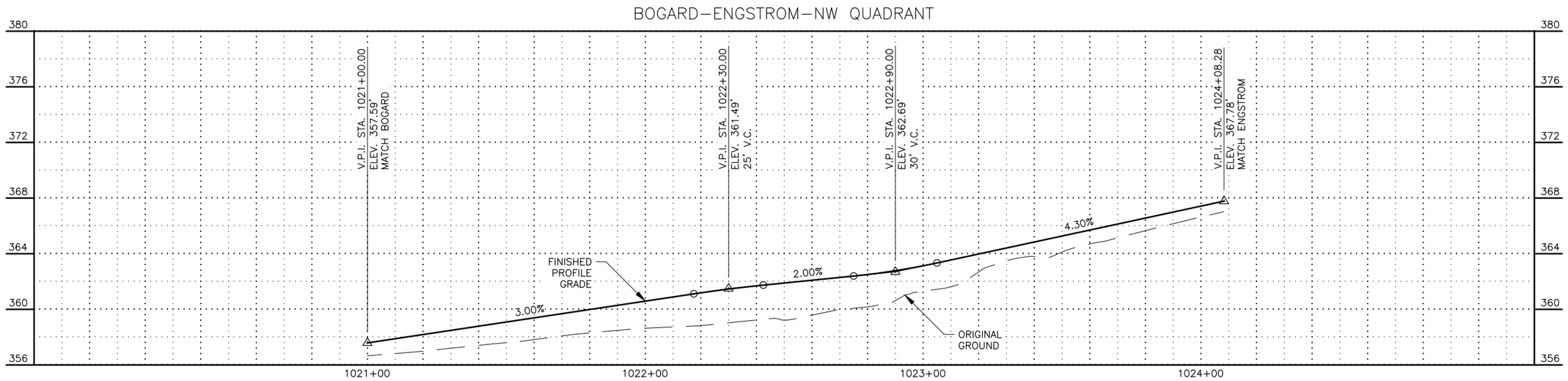
C2
P.I. STA. 1023+08.27
N = 158202.4097
E = 457825.4255
Δ = 027°42'42.8"
T = 13.57'
L = 26.60'
R = 55.00'

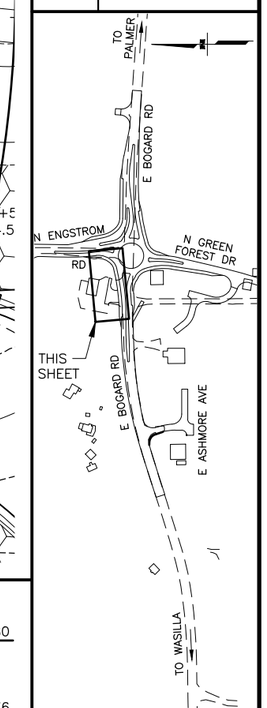
C3
P.I. STA. 1023+63.55
N = 158239.3110
E = 457867.2987
Δ = 055°40'31.7"
T = 42.25'
L = 77.74'
R = 80.00'

C4
P.I. STA. 1024+03.66
N = 158285.8215
E = 457861.5352
Δ = 000°38'42.7"
T = 4.62'
L = 9.24'
R = 820.50'

END NW QUADRANT
"NWQ" STA. 1024+08.28 =
"EGTM" STA. 111+85.00
MATCH ENGSTROM
N 158290.4123
E 457861.0188







SHEET NO.	TOTAL SHEETS
G03	G13
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION
0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

STATE OF ALASKA
CLAIRE E. HANSEN
REGISTERED PROFESSIONAL ENGINEER
PSSE REVIEW

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0555

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

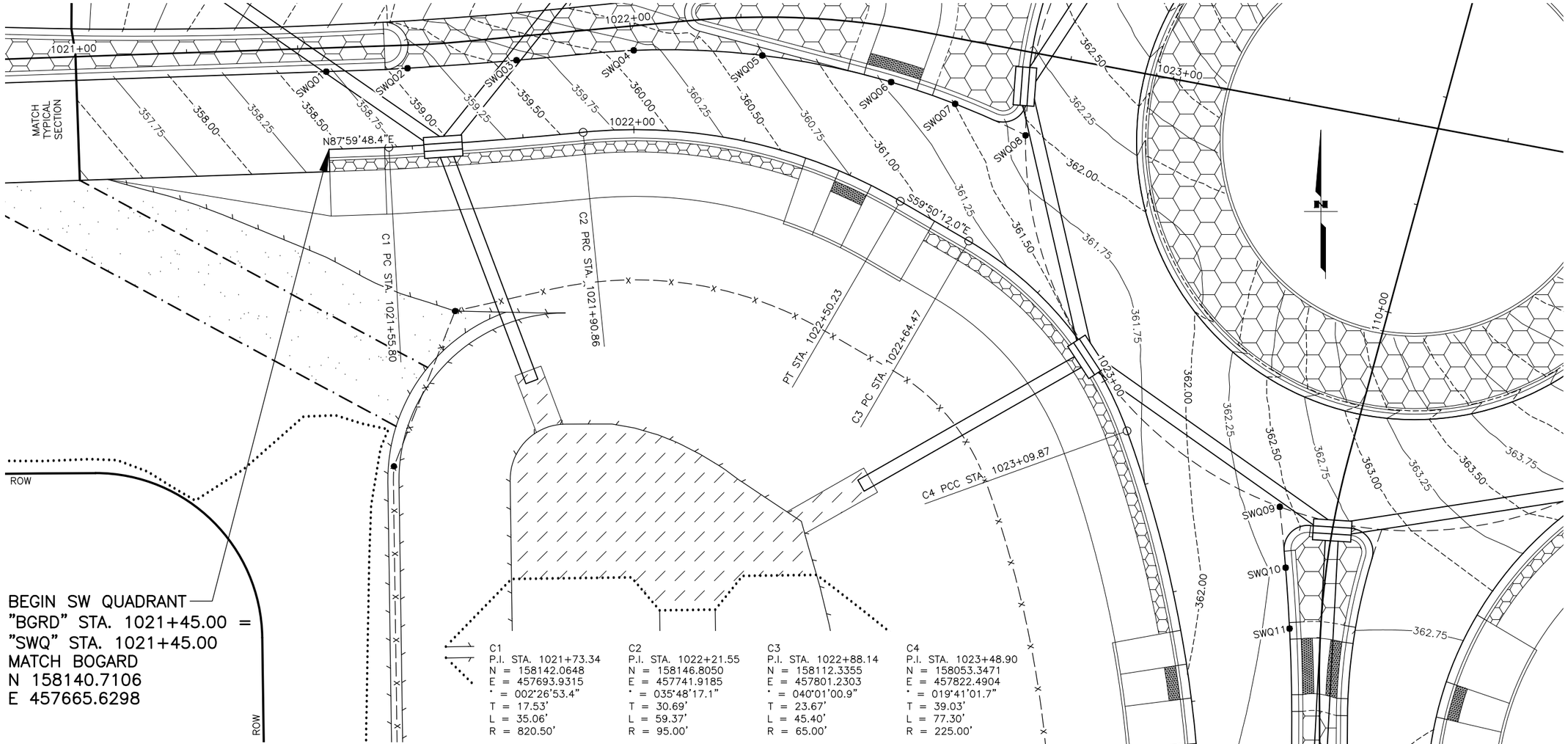
NORTHWEST QUADRANT
GRADING PLAN

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\00453_G03_QUADRANTS.DWG

DATE 5/22/2025 TIME 11:14 AM
SCALE 1"=10/20'
DESIGNED BY ZDK
CHECKED BY KRV/CLE
DRAFTED BY ZDK

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
5/22/2025	11:14 AM	1"=10/20'	ZDK	KRV/CLE	ZDK

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\00453_G03_QUADRANTS.DWG



BEGIN SW QUADRANT
"BGRD" STA. 1021+45.00 =
"SWQ" STA. 1021+45.00
MATCH BOGARD
N 158140.7106
E 457665.6298

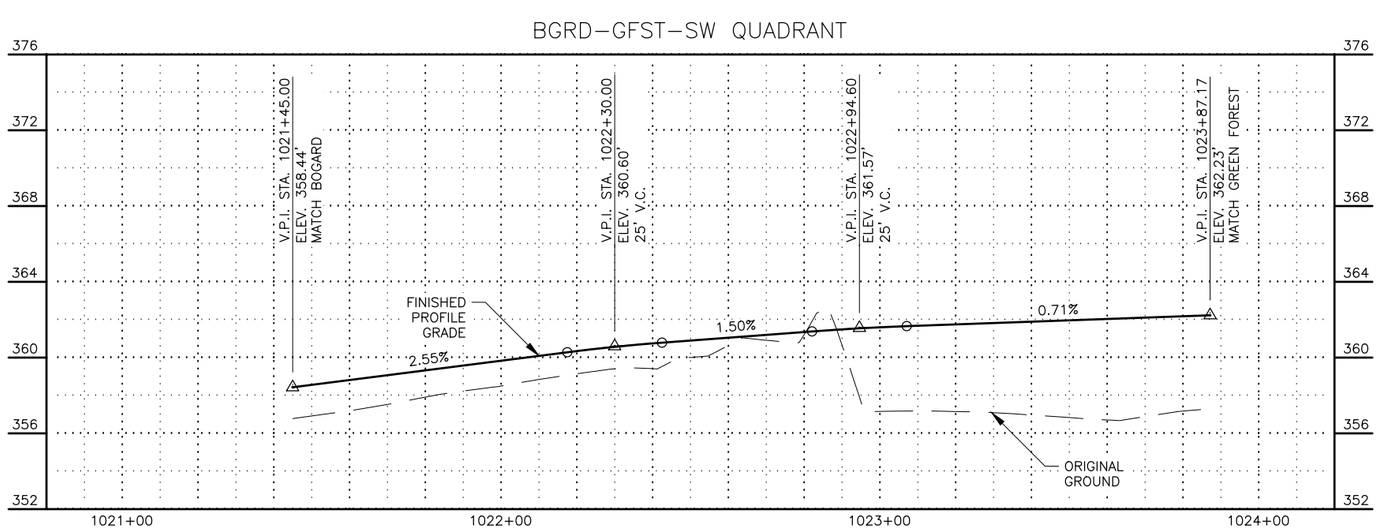
END SW QUADRANT
"SWQ" STA. 1023+87.17 =
"GFST" STA. 109+00.00
MATCH GREEN FOREST
N 158014.3135
E 457822.5830

C1
P.I. STA. 1021+73.34
N = 158142.0648
E = 457693.9315
Δ = 002°26'53.4"
T = 17.53'
L = 35.06'
R = 820.50'

C2
P.I. STA. 1022+21.55
N = 158146.8050
E = 457741.9185
Δ = 035°48'17.1"
T = 30.69'
L = 59.37'
R = 95.00'

C3
P.I. STA. 1022+88.14
N = 158112.3355
E = 457801.2303
Δ = 040°01'00.9"
T = 23.67'
L = 45.40'
R = 65.00'

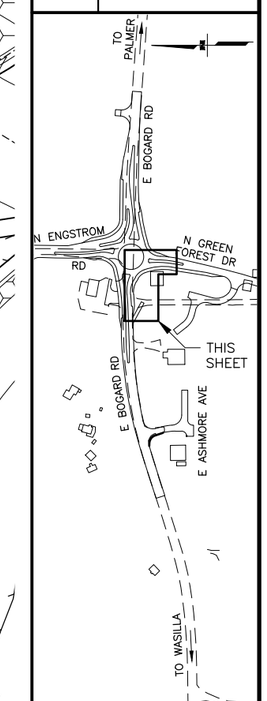
C4
P.I. STA. 1023+48.90
N = 158053.3471
E = 457822.4904
Δ = 019°41'01.7"
T = 39.03'
L = 77.30'
R = 225.00'



SHEET NO.	TOTAL SHEETS
G04	G13
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION
0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



PSSE REVIEW
STATE OF ALASKA
CLAIRE E. ... 2025
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0555

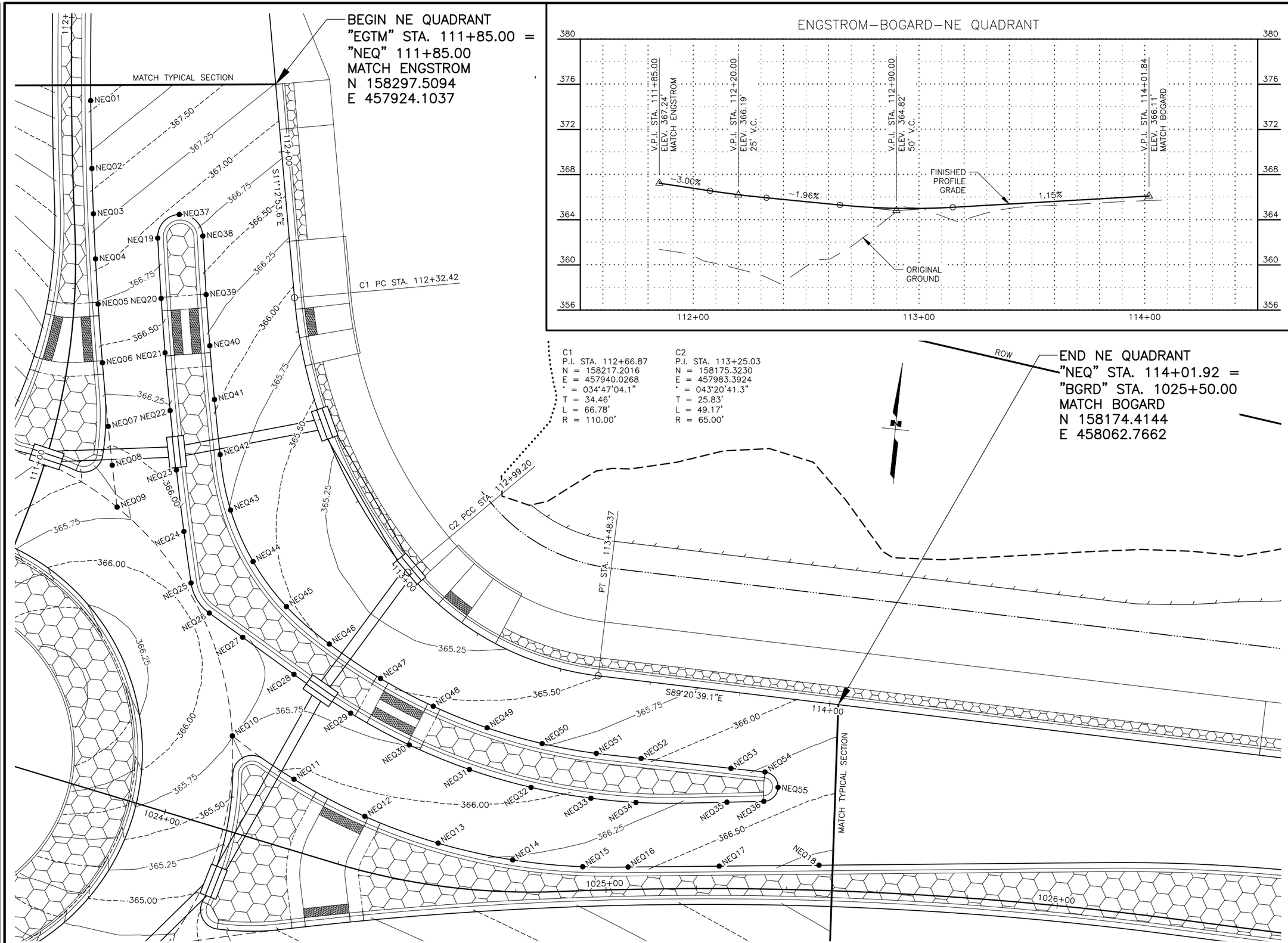
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

SOUTHWEST QUADRANT
GRADING PLAN

DATE	TIME	SCALE	DESIGNED BY	ZDK
5/22/2025	11:14 AM	1"=10/20	CHECKED BY	KRV/CLE
			DRAFTED BY	ZDK

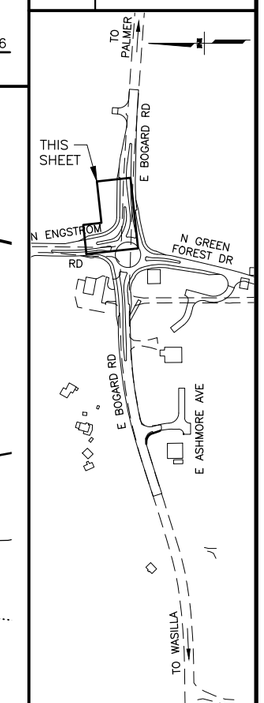
DRAWING LOCATION
W:\PROJECTS\HSIP_BOGARD_ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\00453_G03_QUADRANTS.DWG



SHEET NO.	TOTAL SHEETS
G05	G13
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION
0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



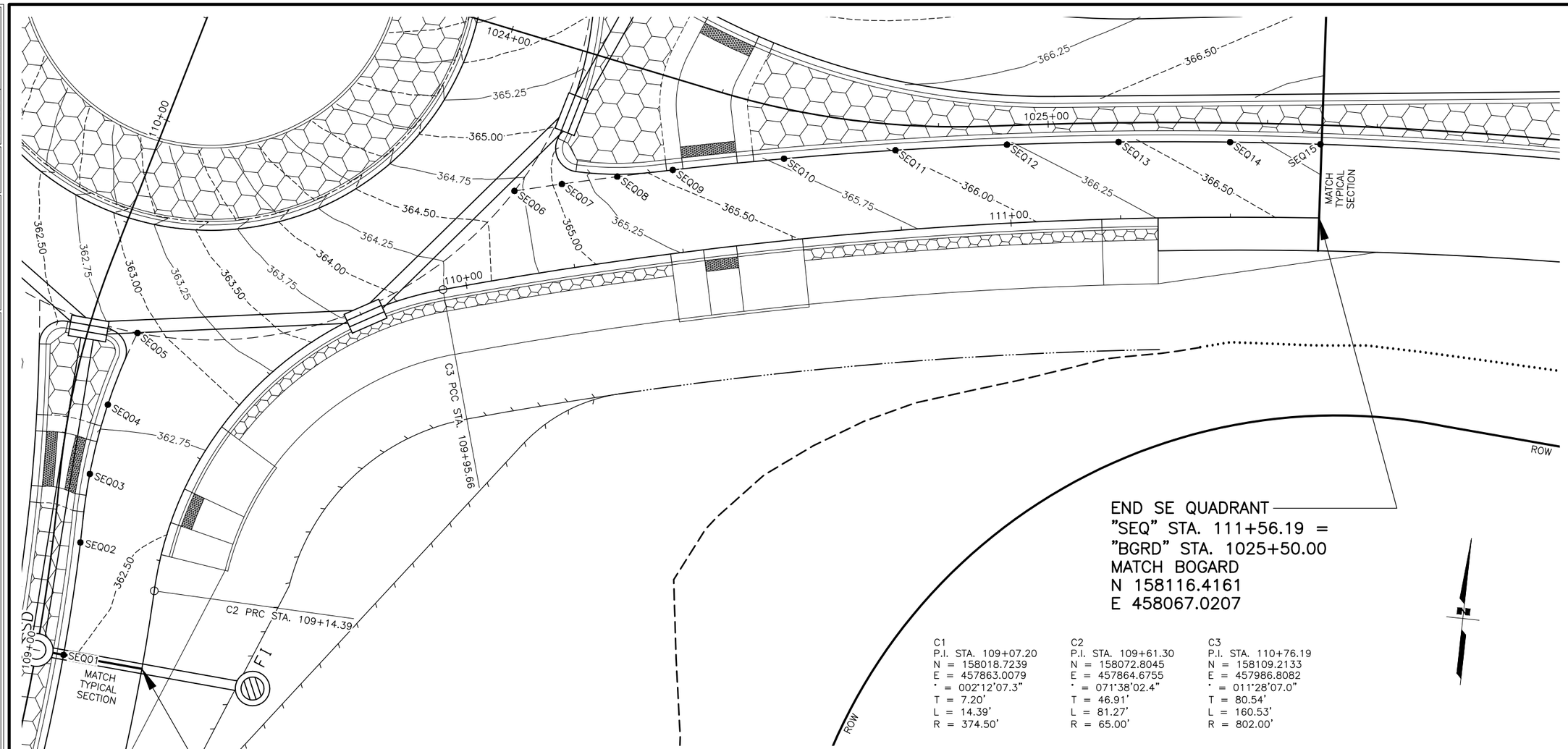
STATE OF ALASKA
CLAIRE E. KOSTKA
REGISTERED PROFESSIONAL ENGINEER
PE 12147
REVIEW

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0555

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

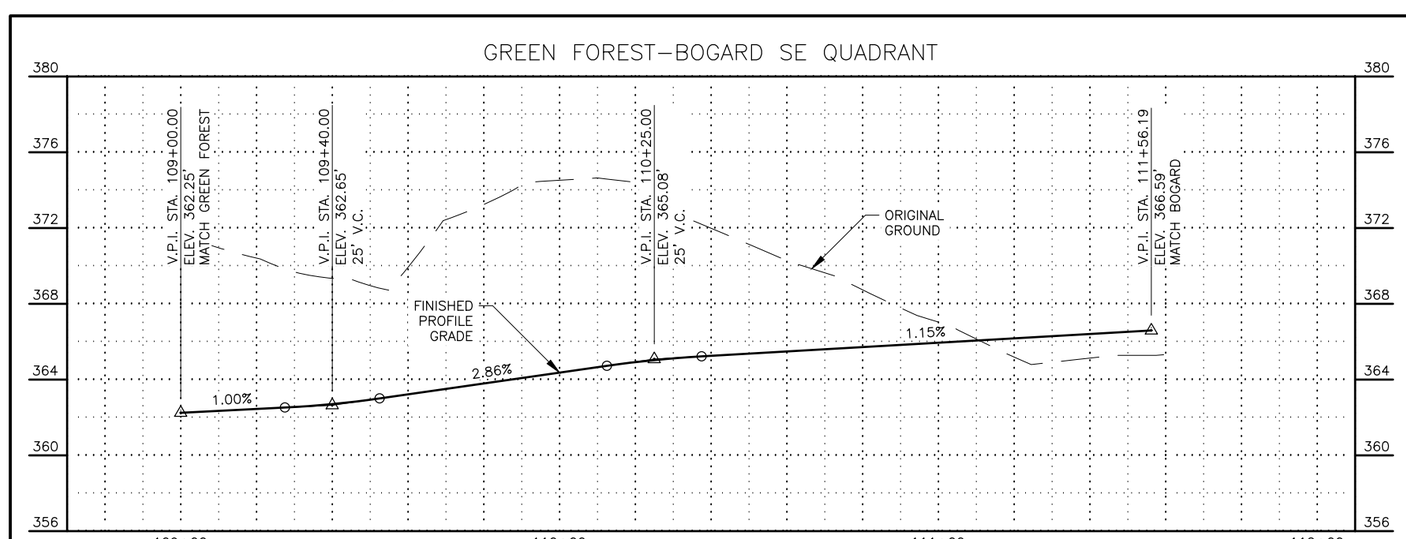
NORTHEAST QUADRANT
GRADING PLAN



C1
P.I. STA. 109+07.20
N = 158018.7239
E = 457863.0079
Δ = 002°12'07.3"
T = 7.20'
L = 14.39'
R = 374.50'

C2
P.I. STA. 109+61.30
N = 158072.8045
E = 457864.6755
Δ = 071°38'02.4"
T = 46.91'
L = 81.27'
R = 65.00'

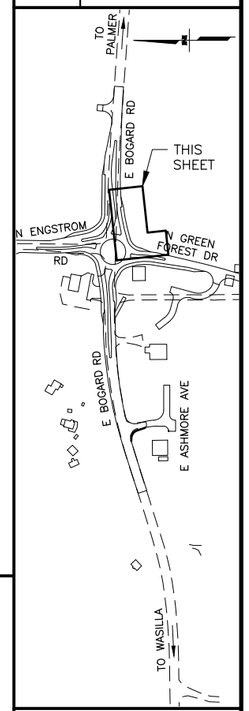
C3
P.I. STA. 110+76.19
N = 158109.2133
E = 457986.8082
Δ = 011°28'07.0"
T = 80.54'
L = 160.53'
R = 802.00'



SHEET NO.	TOTAL SHEETS
G06	G13
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION
0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



PSSE REVIEW
STATE OF ALASKA
CLAIRE
PROFESSIONAL ENGINEER

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0555

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

SOUTHEAST QUADRANT
GRADING PLAN

DRAWING LOCATION
W:\PROJECTS\HSIP_BOGARD_ENGSTROM_RA – CFHWY00453\CIV3D\PLANSET\00453_G03_QUADRANTS.DWG

DATE	TIME	SCALE	DESIGNED BY	ZDK
5/22/2025	11:14 AM	1"=10'/20'	CHECKED BY	KRV/CLE
			DRAFTED BY	ZDK

NW QUADRANT GRADING POINTS

POINT	ALIGNMENT	STATION	OFFSET (FT)	ELEVATION (FT)	REMARKS
NWQ01	"NWQ"	1021+00.00	14.13' RT	357.62	MATCH BOGARD
NWQ02	"NWQ"	1021+20.00	14.32' RT	358.48	
NWQ03	"NWQ"	1021+40.00	14.50' RT	359.08	
NWQ04	"NWQ"	1021+60.00	14.67' RT	359.68	
NWQ05	"NWQ"	1021+80.00	14.83' RT	360.29	
NWQ06	"NWQ"	1022+00.00	14.98' RT	360.82	
NWQ07	"NWQ"	1022+20.00	15.12' RT	361.34	
NWQ08	"NWQ"	1022+40.00	15.25' RT	361.77	
NWQ09	"NWQ"	1022+60.00	15.37' RT	362.21	LANE BREAK LINE
NWQ10	"NWQ"	1022+70.00	15.42' RT	362.45	LANE BREAK LINE
NWQ11	"NWQ"	1022+81.55	15.48' RT	362.76	MATCH INSCRIBED CIRCLE DIA. "ICD"
NWQ12	"NWQ"	1023+41.39	26.71' RT	364.94	MATCH INSCRIBED CIRCLE DIA. "ICD"
NWQ13	"NWQ"	1023+50.00	24.54' RT	365.52	
NWQ14	"NWQ"	1023+60.00	21.97' RT	366.14	
NWQ15	"NWQ"	1023+70.00	19.40' RT	366.52	
NWQ16	"NWQ"	1023+80.00	16.88' RT	366.90	
NWQ17	"NWQ"	1023+90.00	14.67' RT	367.29	
NWQ18	"NWQ"	1024+00.00	14.00' RT	367.70	
NWQ19	"NWQ"	1024+08.28	14.00' RT	368.06	MATCH ENGSTROM

SW QUADRANT GRADING POINTS

POINT	ALIGNMENT	STATION	OFFSET (FT)	ELEVATION (FT)	REMARKS
SWQ01	"SWQ"	1021+45.00	14.00' LT	358.72	MATCH BOGARD
SWQ02	"SWQ"	1021+60.00	14.00' LT	359.10	
SWQ03	"SWQ"	1021+80.00	14.00' LT	359.61	
SWQ04	"SWQ"	1022+00.00	14.28' LT	360.12	
SWQ05	"SWQ"	1022+20.00	15.76' LT	360.74	
SWQ06	"SWQ"	1022+40.00	18.37' LT	361.30	
SWQ07	"SWQ"	1022+50.00	20.10' LT	361.50	
SWQ08	"SWQ"	1022+63.75	21.57' LT	361.94	MATCH INSCRIBED CIRCLE DIA. "ICD"
SWQ09	"SWQ"	1023+30.06	22.22' LT	362.44	MATCH INSCRIBED CIRCLE DIA. "ICD"
SWQ10	"SWQ"	1023+40.00	20.70' LT	362.31	
SWQ11	"SWQ"	1023+50.00	19.33' LT	362.35	
SWQ12	"SWQ"	1023+70.00	17.04' LT	362.45	
SWQ13	"SWQ"	1023+87.17	15.56' LT	362.54	MATCH GREEN FOREST

SE QUADRANT GRADING POINTS

POINT	ALIGNMENT	STATION	OFFSET (FT)	ELEVATION (FT)	REMARKS
SEQ01	"SEQ"	109+00.00	14.50' LT	362.54	MATCH GREEN FOREST
SEQ02	"SEQ"	109+20.00	14.86' LT	362.60	
SEQ03	"SEQ"	109+30.00	16.95' LT	362.65	
SEQ04	"SEQ"	109+40.00	19.56' LT	362.81	
SEQ05	"SEQ"	109+50.42	22.68' LT	362.88	MATCH INSCRIBED CIRCLE DIA. "ICD"
SEQ06	"SEQ"	110+11.42	15.50' LT	364.68	MATCH INSCRIBED CIRCLE DIA. "ICD"
SEQ07	"SEQ"	110+20.00	15.90' LT	365.08	LANE BREAK LINE
SEQ08	"SEQ"	110+30.00	15.27' LT	365.43	LANE BREAK LINE
SEQ09	"SEQ"	110+40.00	15.14' LT	365.56	
SEQ10	"SEQ"	110+60.00	14.87' LT	365.78	
SEQ11	"SEQ"	110+80.00	14.60' LT	366.01	
SEQ12	"SEQ"	111+00.00	14.31' LT	366.23	
SEQ13	"SEQ"	111+20.00	14.01' LT	366.46	
SEQ14	"SEQ"	111+40.00	13.69' LT	366.68	
SEQ15	"SEQ"	111+56.19	13.43' LT	366.86	MATCH BOGARD

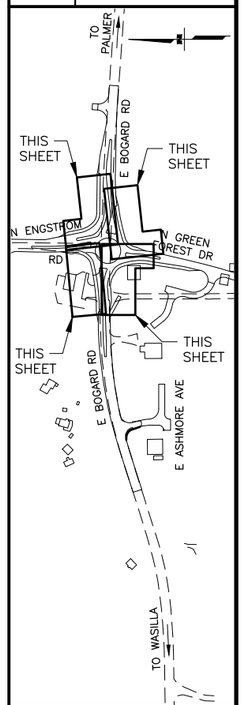
NE QUADRANT GRADING POINTS

POINT	ALIGNMENT	STATION	OFFSET (FT)	ELEVATION (FT)	REMARKS
NEQ01	"NEQ"	111+85.00	41.12' RT	368.06	MATCH ENGSTROM
NEQ02	"NEQ"	112+00.00	42.17' RT	367.64	
NEQ03	"NEQ"	112+10.00	42.71' RT	367.35	
NEQ04	"NEQ"	112+20.00	43.13' RT	367.09	
NEQ05	"NEQ"	112+30.00	43.42' RT	366.73	
NEQ06	"NEQ"	112+40.00	43.98' RT	366.40	
NEQ07	"NEQ"	112+50.00	45.57' RT	366.09	LANE BREAK LINE
NEQ08	"NEQ"	112+56.00	47.04' RT	365.89	LANE BREAK LINE
NEQ09	"NEQ"	112+62.34	49.03' RT	365.70	MATCH INSCRIBED CIRCLE DIA. "ICD"
NEQ10	"NEQ"	113+00.82	53.05' RT	365.76	MATCH INSCRIBED CIRCLE DIA. "ICD"
NEQ11	"NEQ"	113+10.00	50.26' RT	366.06	
NEQ12	"NEQ"	113+20.00	47.61' RT	366.12	
NEQ13	"NEQ"	113+30.00	45.38' RT	366.19	
NEQ14	"NEQ"	113+40.00	43.61' RT	366.27	
NEQ15	"NEQ"	113+50.00	42.37' RT	366.36	
NEQ16	"NEQ"	113+60.00	41.22' RT	366.45	
NEQ17	"NEQ"	113+80.00	38.64' RT	366.63	
NEQ18	"NEQ"	114+01.92	35.80' RT	366.80	MATCH BOGARD
NEQ19	"NEQ"	112+16.62	28.99' RT	366.89	
NEQ20	"NEQ"	112+30.00	29.42' RT	366.59	
NEQ21	"NEQ"	112+40.00	29.94' RT	366.40	
NEQ22	"NEQ"	112+50.00	31.41' RT	366.23	
NEQ23	"NEQ"	112+60.00	33.88' RT	366.09	
NEQ24	"NEQ"	112+70.00	37.44' RT	365.97	
NEQ25	"NEQ"	112+78.04	41.15' RT	365.93	
NEQ26	"NEQ"	112+83.70	41.02' RT	365.88	
NEQ27	"NEQ"	112+90.00	37.79' RT	365.77	
NEQ28	"NEQ"	113+00.00	33.82' RT	365.68	
NEQ29	"NEQ"	113+10.00	31.00' RT	365.68	
NEQ30	"NEQ"	113+20.00	29.98' RT	365.74	
NEQ31	"NEQ"	113+30.00	27.67' RT	365.83	
NEQ32	"NEQ"	113+40.00	27.05' RT	365.94	
NEQ33	"NEQ"	113+50.00	27.10' RT	366.05	
NEQ34	"NEQ"	113+60.00	26.83' RT	366.16	
NEQ35	"NEQ"	113+80.00	24.38' RT	366.34	
NEQ36	"NEQ"	113+88.08	23.22' RT	366.41	
NEQ37	"NEQ"	112+11.83	23.80' RT	366.92	MEDIAN NOSE
NEQ38	"NEQ"	112+17.02	19.00' RT	366.68	
NEQ39	"NEQ"	112+30.00	19.42' RT	366.39	
NEQ40	"NEQ"	112+40.00	19.91' RT	366.20	
NEQ41	"NEQ"	112+50.00	21.29' RT	366.03	
NEQ42	"NEQ"	112+60.00	23.62' RT	365.88	
NEQ43	"NEQ"	112+70.00	26.06' RT	365.74	
NEQ44	"NEQ"	112+80.00	26.85' RT	365.62	
NEQ45	"NEQ"	112+90.00	25.96' RT	365.53	
NEQ46	"NEQ"	113+00.00	23.51' RT	365.48	
NEQ47	"NEQ"	113+10.00	20.86' RT	365.48	
NEQ48	"NEQ"	113+20.00	18.91' RT	365.54	
NEQ49	"NEQ"	113+30.00	17.64' RT	365.63	
NEQ50	"NEQ"	113+40.00	17.05' RT	365.74	
NEQ51	"NEQ"	113+50.00	17.10' RT	365.85	
NEQ52	"NEQ"	113+60.00	17.02' RT	365.96	
NEQ53	"NEQ"	113+80.00	16.83' RT	366.19	
NEQ54	"NEQ"	113+87.59	16.76' RT	366.28	
NEQ55	"NEQ"	113+90.86	19.76' RT	366.38	MEDIAN NOSE

SHEET NO.	TOTAL SHEETS
G07	G13
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION
0001630/ CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



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4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0555

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT ENGSTROM RD & GREEN FOREST DR INT IMP

NW, SW, NE, & SE QUADRANT GRADING POINTS SUMMARY

DRAWING LOCATION
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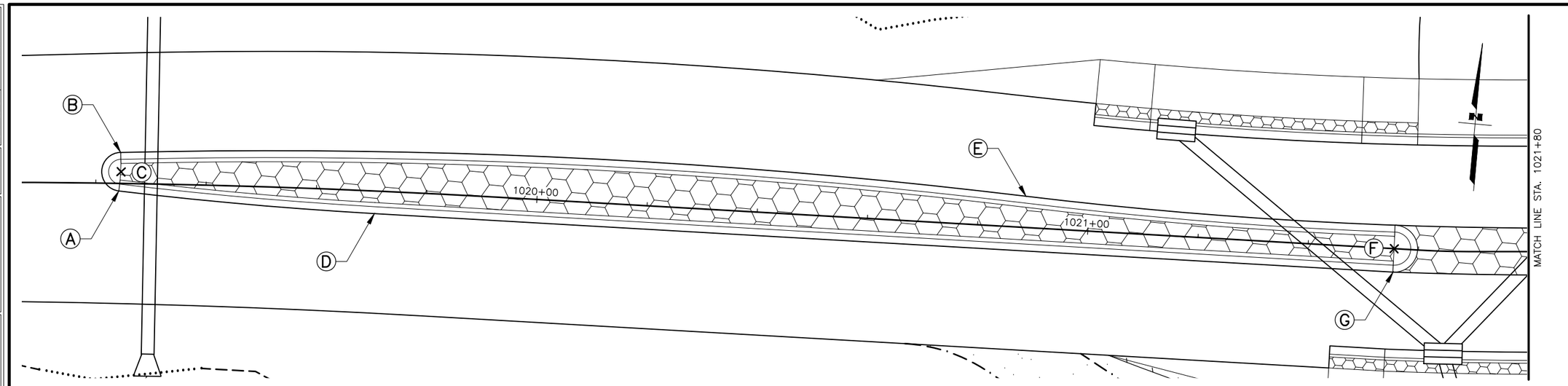
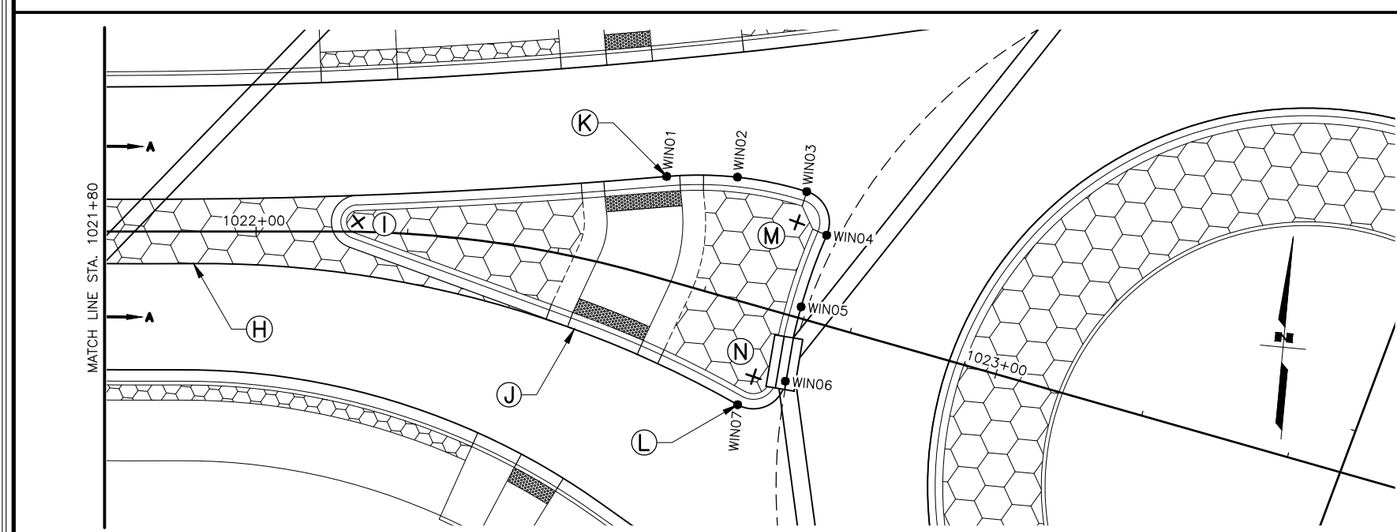
DATE 5/22/2025 TIME 11:14 AM | SCALE 1" = 10' | DESIGNED BY ZDK | CHECKED BY KRV/CLE | DRAFTED BY ZDK





WEST ISLAND LAYOUT TABLE

POINT	ALIGNMENT	STATION	OFFSET (FT)	REMARKS
A	"BGRD"	1019+24.19	1.38' RT	BEGIN 752' RADIUS
B	"BGRD"	1019+24.42	5.60' LT	BEGIN 1,139' RADIUS
C	"BGRD"	1019+24.56	2.10' LT	BULL NOSE RADIUS = 3.5'
D	"BGRD"	1019+70.69	4.10' RT	END 752' RADIUS
E	"BGRD"	1020+88.45	5.66' LT	END 1,139' RADIUS / BEGIN 798' RADIUS
F	"BGRD"	1021+55.61	CL	BULL NOSE RADIUS = 4.25'
G	"BGRD"	1021+55.66	4.25' RT	BEGIN 806.5' RADIUS
H	"BGRD"	1021+91.75	4.22' RT	END 806.5' RADIUS / BEGIN 143' RADIUS
I	"BGRD"	1022+13.43	1.29' LT	BULL NOSE RADIUS = 3.5'
J	"BGRD"	1022+44.37	9.35' RT	END FLUSH MEDIAN
K	"BGRD"	1022+51.17	13.18' LT	END 798' RADIUS
L	"BGRD"	1022+68.32	13.22' RT	END 143' RADIUS
M	"BGRD"	1022+69.28	12.07' LT	BULL NOSE RADIUS = 4.25'
N	"BGRD"	1022+69.32	9.09' RT	BULL NOSE RADIUS = 4.25'

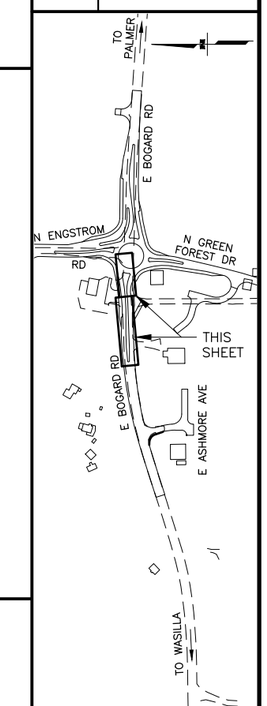
WEST ISLAND NOSE GRADING POINTS

POINT	ALIGNMENT	STATION	OFFSET (FT)	ELEVATION (FT)	REMARKS
WIN01	"BGRD"	1022+51.17	13.18' LT	362.11	BEGIN 48' RADIUS
WIN02	"BGRD"	1022+60.08	15.64' LT	362.24	
WIN03	"BGRD"	1022+69.39	16.32' LT	362.48	END 48' RADIUS
WIN04	"BGRD"	1022+73.50	11.51' LT	362.44	BEGIN 75' RADIUS
WIN05	"BGRD"	1022+72.84	1.50' LT	362.26	
WIN06	"BGRD"	1022+73.54	8.51' RT	362.08	END 75' RADIUS
WIN07	"BGRD"	1022+68.32	13.22' RT	361.68	

SHEET NO.	TOTAL SHEETS
G08	G13
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION
0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



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(907) 269-0555

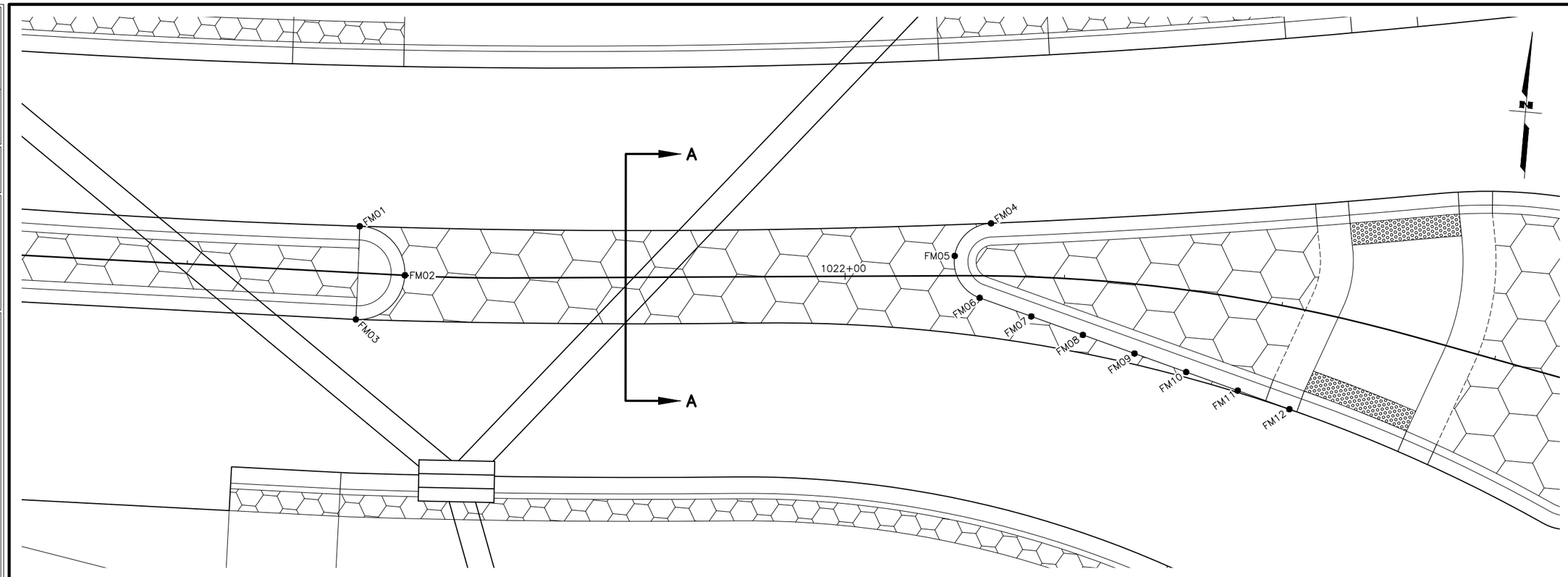
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT ENGSTROM RD & GREEN FOREST DR INT IMP

WEST SPLITTER ISLAND
LAYOUT & GRADING

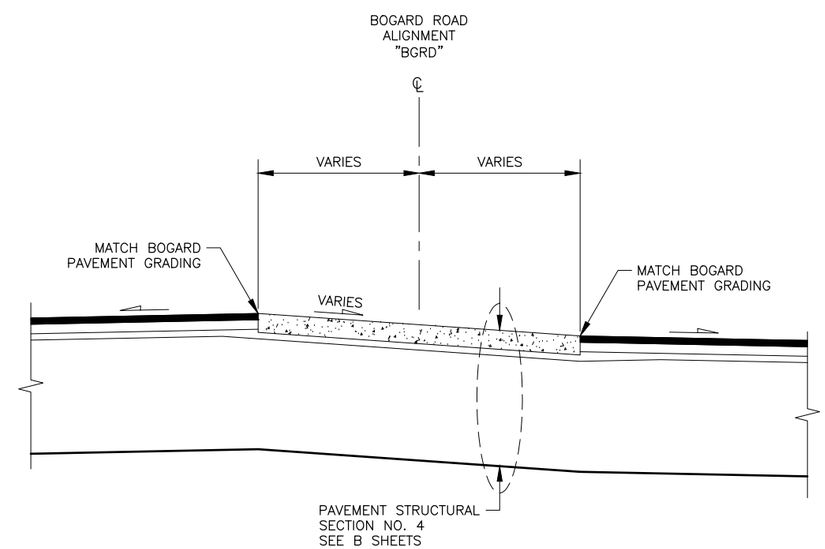
DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
5/22/2025	11:14 AM	1"=10/20'	ZDK	KRV/CLE	ZDK

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\00453_G08_SPLITTER ISLANDS.DWG



WEST ISLAND FLUSH MEDIAN GRADING POINTS

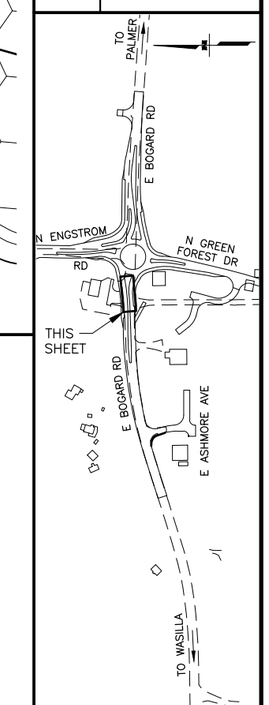
POINT	ALIGNMENT	STATION	OFFSET (FT)	ELEVATION (FT)	REMARKS
FM01	"BGRD"	1021+55.52	4.25' LT	359.54	
FM02	"BGRD"	1021+59.86	CL	359.19	
FM03	"BGRD"	1021+55.61	4.25' RT	358.99	
FM04	"BGRD"	1022+13.25	4.78' LT	361.12	
FM05	"BGRD"	1022+10.00	1.81' LT	360.89	
FM06	"BGRD"	1022+12.28	2.02' RT	360.53	
FM07	"BGRD"	1022+17.11	3.60' RT	360.63	
FM08	"BGRD"	1022+22.34	5.04' RT	360.73	
FM09	"BGRD"	1022+27.07	6.31' RT	360.84	
FM10	"BGRD"	1022+32.18	7.42' RT	360.95	
FM11	"BGRD"	1022+37.36	8.36' RT	361.07	
FM12	"BGRD"	1022+42.61	9.13' RT	361.17	



SHEET NO.	TOTAL SHEETS
G09	G13
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION
0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



STATE OF ALASKA
PROFESSIONAL ENGINEER
CLAIRE
PSSE
REVIEW

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0555

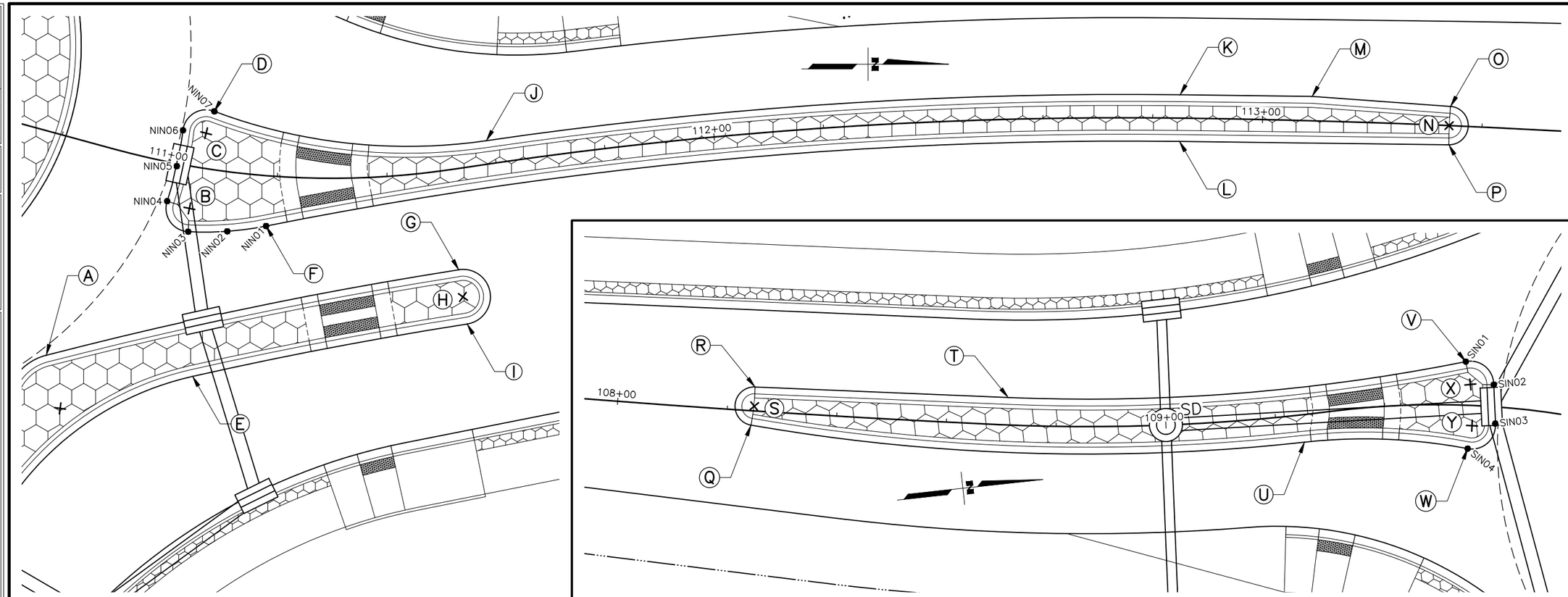
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

WEST SPLITTER ISLAND
FLUSH MEDIAN GRADING

DESIGNED BY ZDK
CHECKED BY KRV/CLE
DRAFTED BY ZDK
SCALE 1"=20/2'
DATE 5/22/2025 TIME 11:14 AM

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\00453_G08_SPLITTER ISLANDS.DWG

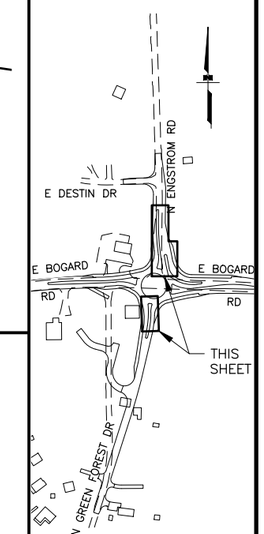


SHEET NO.	TOTAL SHEETS
G10	G13
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION

0001630/ CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



NORTH ISLAND LAYOUT TABLE

POINT	ALIGNMENT	STATION	OFFSET (FT)	REMARKS
A	"EGTM"	110+87.74	39.47' RT	BEGIN 784' RADIUS
B	"EGTM"	111+05.11	7.62' RT	BULL NOSE RADIUS = 4.25'
C	"EGTM"	111+05.91	6.38' LT	BULL NOSE RADIUS = 4.25'
D	"EGTM"	111+06.81	10.54' LT	BEGIN 100' RADIUS
E	"EGTM"	111+09.60	37.78' RT	BEGIN 774' RADIUS
F	"EGTM"	111+18.62	9.15' RT	BEGIN 798' RADIUS
G	"EGTM"	111+50.58	18.27' RT	END 784' RADIUS
H	"EGTM"	111+50.65	23.27' RT	BULL NOSE RADIUS = 5'
I	"EGTM"	111+50.73	28.27' RT	END 774' RADIUS
J	"EGTM"	111+58.85	4.25' LT	END 100' RADIUS / BEGIN 806.5' RADIUS
K	"EGTM"	112+84.93	4.25' LT	END 806.5' RADIUS
L	"EGTM"	112+84.93	4.25' RT	END 798' RADIUS
M	"EGTM"	113+08.93	4.43' LT	
N	"EGTM"	113+34.00	CL	BULL NOSE RADIUS = 3.5'
O	"EGTM"	113+34.11	3.50' LT	
P	"EGTM"	113+34.11	3.50' RT	

NORTH ISLAND NOSE GRADING POINTS

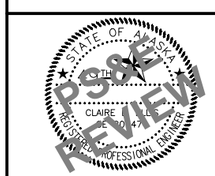
POINT	ALIGNMENT	STATION	OFFSET (FT)	ELEVATION (FT)	REMARKS
NIN01	"EGTM"	111+18.62	9.15' RT	366.26	BEGIN 57' RADIUS
NIN02	"EGTM"	111+12.11	10.78' RT	366.11	
NIN03	"EGTM"	111+05.55	11.85' RT	365.97	END 57' RADIUS
NIN04	"EGTM"	111+01.10	7.05' RT	365.42	BEGIN 70' RADIUS
NIN05	"EGTM"	111+01.59	0.45' RT	365.28	
NIN06	"EGTM"	111+01.48	6.17' LT	365.14	END 70' RADIUS
NIN07	"EGTM"	111+06.81	10.54' LT	365.21	

SOUTH ISLAND LAYOUT TABLE

POINT	ALIGNMENT	STATION	OFFSET (FT)	REMARKS
Q	"GFST"	108+24.52	2.61' RT	BEGIN 360' RADIUS
R	"GFST"	108+24.80	4.37' LT	
S	"GFST"	108+24.89	0.87' LT	BULL NOSE RADIUS = 3.5'
T	"GFST"	108+71.07	5.00' LT	BEGIN 350' RADIUS
U	"GFST"	109+24.76	5.00' RT	END 360' RADIUS / BEGIN 100' RADIUS
V	"GFST"	109+54.51	7.93' LT	END 350' RADIUS
W	"GFST"	109+55.44	7.88' RT	END 100' RADIUS
X	"GFST"	109+55.46	3.80' LT	BULL NOSE RADIUS = 4.25'
Y	"GFST"	109+56.08	3.68' RT	BULL NOSE RADIUS = 4.25'

SOUTH ISLAND NOSE GRADING POINTS

POINT	ALIGNMENT	STATION	OFFSET (FT)	ELEVATION (FT)	REMARKS
SIN01	"GFST"	109+54.51	7.93' LT	362.34	
SIN02	"GFST"	109+59.60	3.99' LT	362.55	BEGIN 70' RADIUS
SIN03	"GFST"	109+60.38	3.04' RT	362.73	END 70' RADIUS
SIN04	"GFST"	109+55.44	7.88' RT	362.85	



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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
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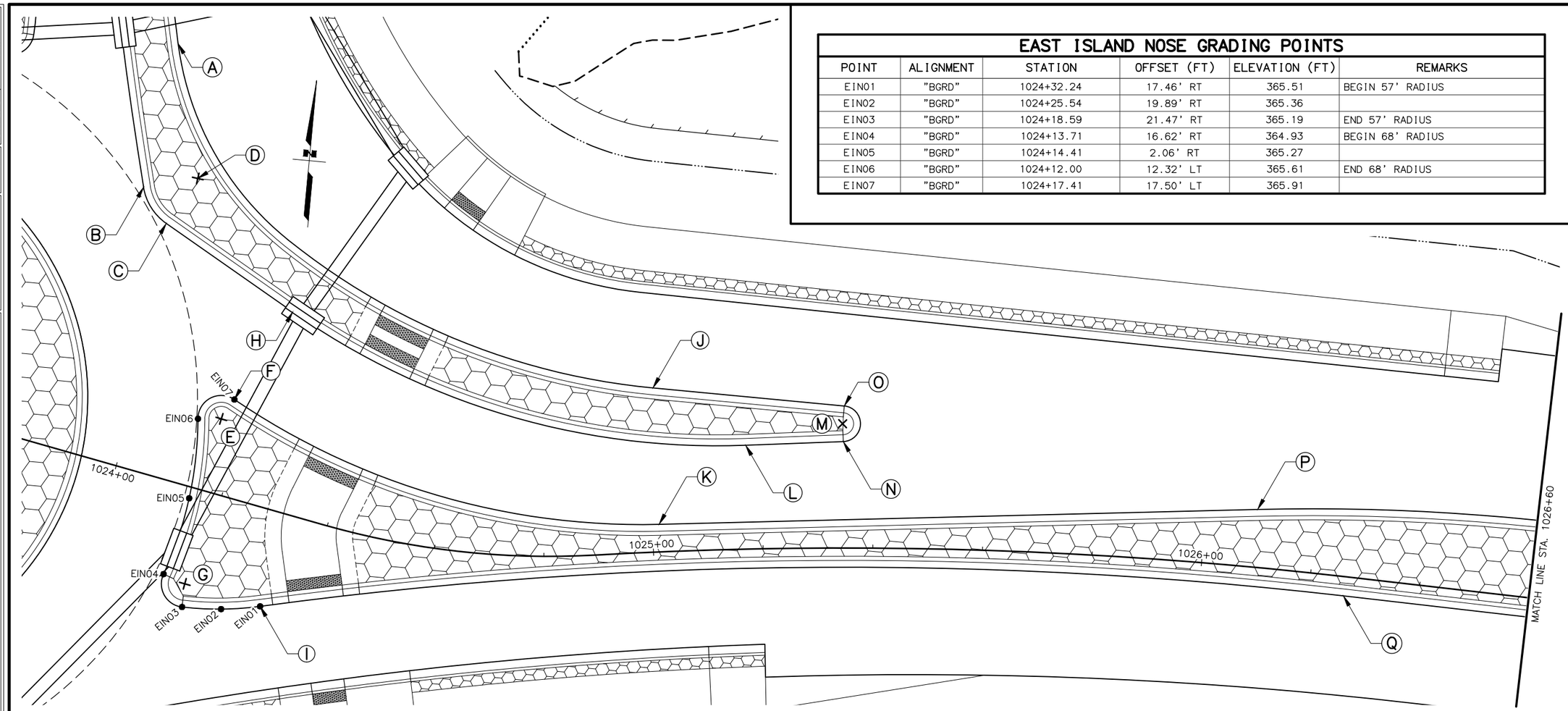
HSIP: BOGARD RD AT ENGSTROM RD & GREEN FOREST DR INT IMP

NORTH & SOUTH SPLITTER ISLAND LAYOUT & GRADING

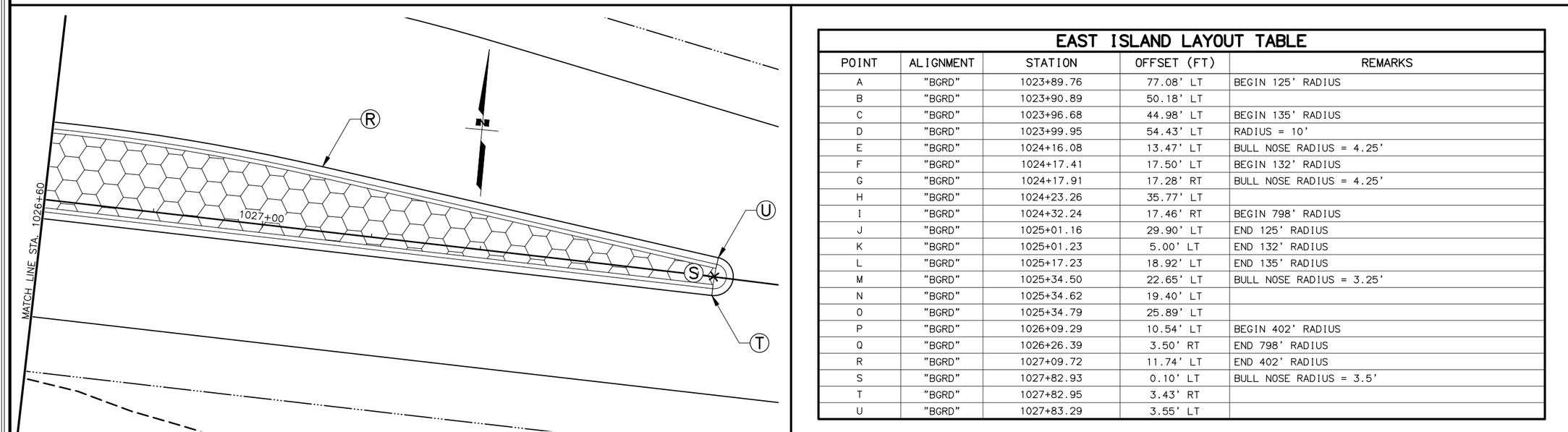
DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\00453_G08_SPLITTER ISLANDS.DWG

DATE 5/22/2025 TIME 11:14 AM
SCALE 1"=10/20
DESIGNED BY ZDK
CHECKED BY KRV/CLE
DRAFTED BY ZDK



EAST ISLAND NOSE GRADING POINTS

POINT	ALIGNMENT	STATION	OFFSET (FT)	ELEVATION (FT)	REMARKS
EIN01	"BGRD"	1024+32.24	17.46' RT	365.51	BEGIN 57' RADIUS
EIN02	"BGRD"	1024+25.54	19.89' RT	365.36	
EIN03	"BGRD"	1024+18.59	21.47' RT	365.19	END 57' RADIUS
EIN04	"BGRD"	1024+13.71	16.62' RT	364.93	BEGIN 68' RADIUS
EIN05	"BGRD"	1024+14.41	2.06' RT	365.27	
EIN06	"BGRD"	1024+12.00	12.32' LT	365.61	END 68' RADIUS
EIN07	"BGRD"	1024+17.41	17.50' LT	365.91	



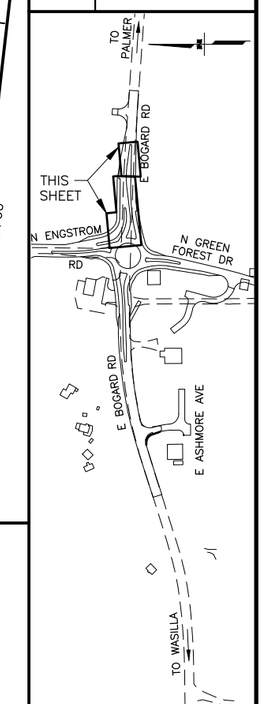
EAST ISLAND LAYOUT TABLE

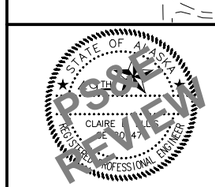
POINT	ALIGNMENT	STATION	OFFSET (FT)	REMARKS
A	"BGRD"	1023+89.76	77.08' LT	BEGIN 125' RADIUS
B	"BGRD"	1023+90.89	50.18' LT	
C	"BGRD"	1023+96.68	44.98' LT	BEGIN 135' RADIUS
D	"BGRD"	1023+99.95	54.43' LT	RADIUS = 10'
E	"BGRD"	1024+16.08	13.47' LT	BULL NOSE RADIUS = 4.25'
F	"BGRD"	1024+17.41	17.50' LT	BEGIN 132' RADIUS
G	"BGRD"	1024+17.91	17.28' RT	BULL NOSE RADIUS = 4.25'
H	"BGRD"	1024+23.26	35.77' LT	
I	"BGRD"	1024+32.24	17.46' RT	BEGIN 798' RADIUS
J	"BGRD"	1025+01.16	29.90' LT	END 125' RADIUS
K	"BGRD"	1025+01.23	5.00' LT	END 132' RADIUS
L	"BGRD"	1025+17.23	18.92' LT	END 135' RADIUS
M	"BGRD"	1025+34.50	22.65' LT	BULL NOSE RADIUS = 3.25'
N	"BGRD"	1025+34.62	19.40' LT	
O	"BGRD"	1025+34.79	25.89' LT	
P	"BGRD"	1026+09.29	10.54' LT	BEGIN 402' RADIUS
Q	"BGRD"	1026+26.39	3.50' RT	END 798' RADIUS
R	"BGRD"	1027+09.72	11.74' LT	END 402' RADIUS
S	"BGRD"	1027+82.93	0.10' LT	BULL NOSE RADIUS = 3.5'
T	"BGRD"	1027+82.95	3.43' RT	
U	"BGRD"	1027+83.29	3.55' LT	

SHEET NO.	TOTAL SHEETS
G11	G13
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION
0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	





STATE OF ALASKA DOT&PF
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ANCHORAGE, AK 99502
(907) 269-0555

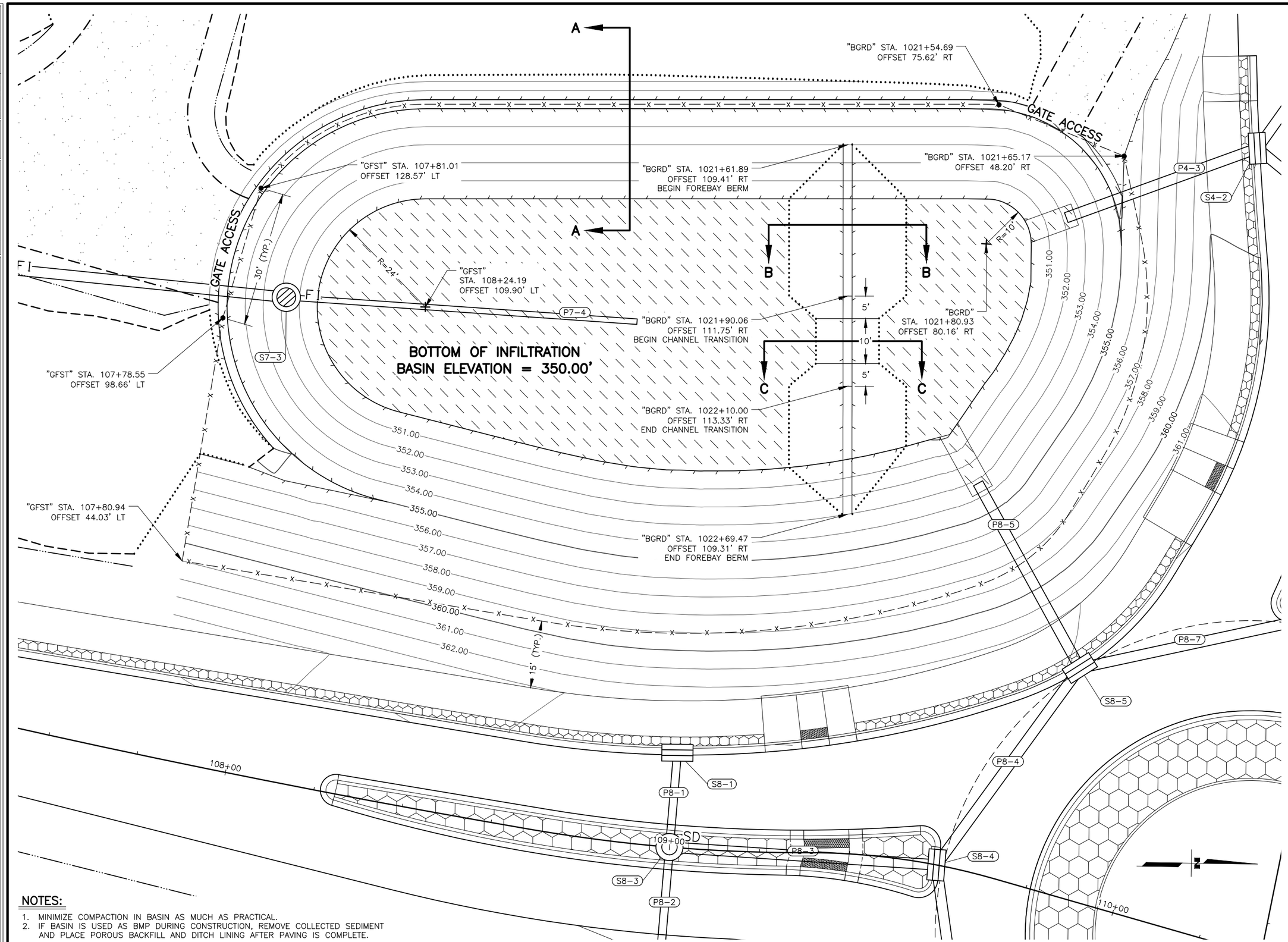
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT ENGSTROM RD & GREEN FOREST DR INT IMP

EAST SPLITTER ISLAND LAYOUT & GRADING

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\00453_G08_SPLITTER ISLANDS.DWG

DATE 5/22/2025 TIME 11:14 AM
SCALE 1"=10'/20'
DESIGNED BY ZDK
CHECKED BY KRV/CLE
DRAFTED BY ZDK



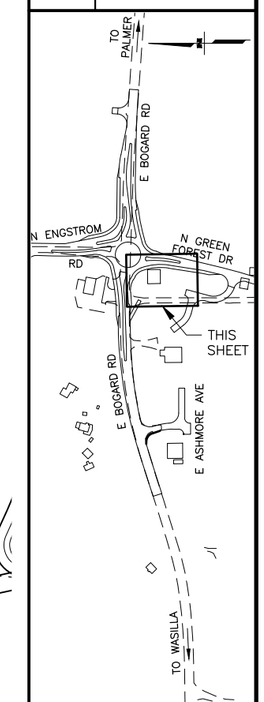
NOTES:

1. MINIMIZE COMPACTION IN BASIN AS MUCH AS PRACTICAL.
2. IF BASIN IS USED AS BMP DURING CONSTRUCTION, REMOVE COLLECTED SEDIMENT AND PLACE POROUS BACKFILL AND DITCH LINING AFTER PAVING IS COMPLETE.

SHEET NO.	TOTAL SHEETS
G12	G13
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION
0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



PSSE REVIEW
STATE OF ALASKA
CLAIRE
PROFESSIONAL ENGINEER

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

DRAINAGE
INFILTRATION BASIN
GRADING PLAN

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\00453_G11_INFILTRATION BASIN.DWG

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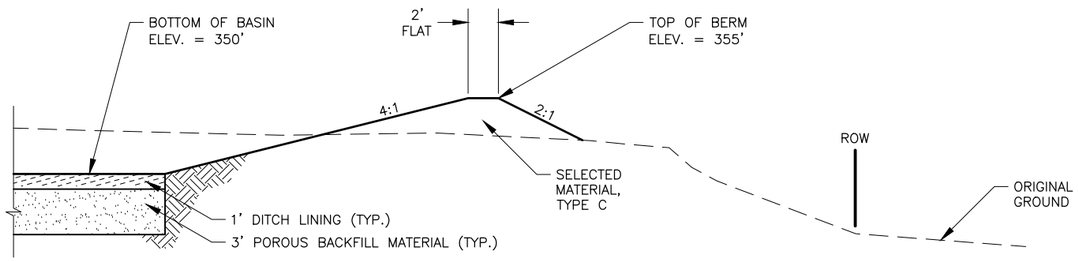
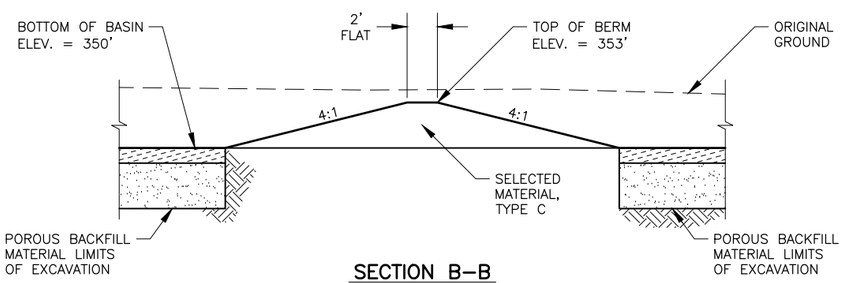


SECTION A–A



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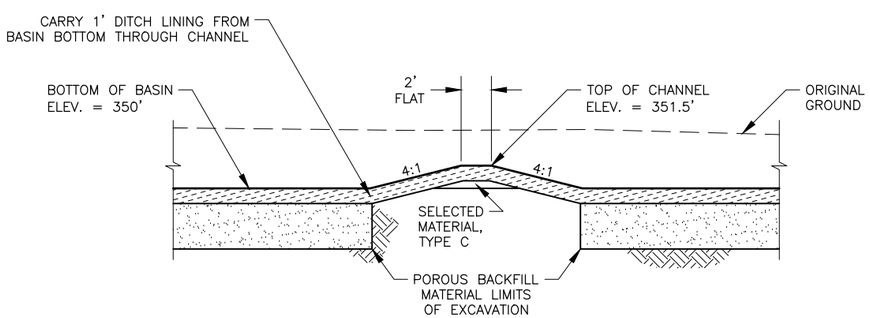
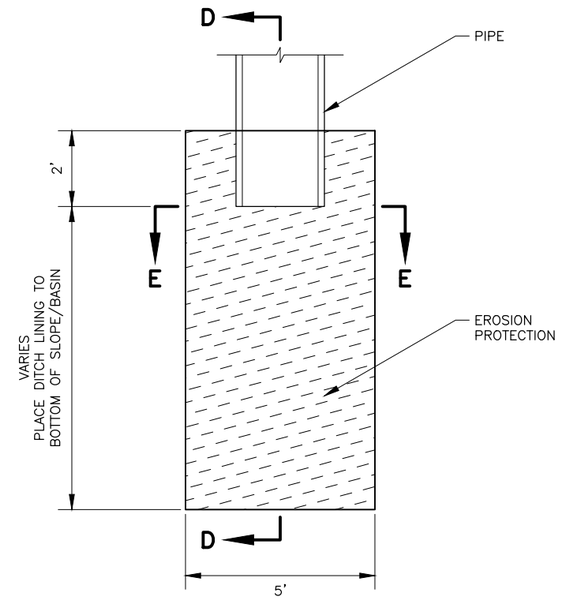
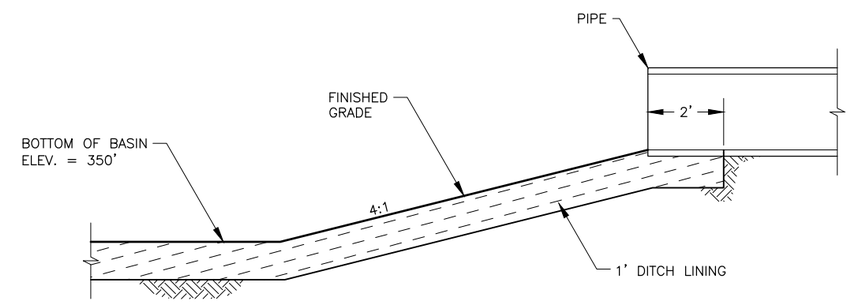


SECTION C–C

INFILTRATION BASIN
AND FOREBAY BERM DETAILS



PLAN



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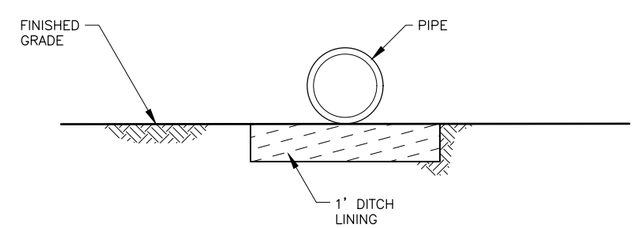


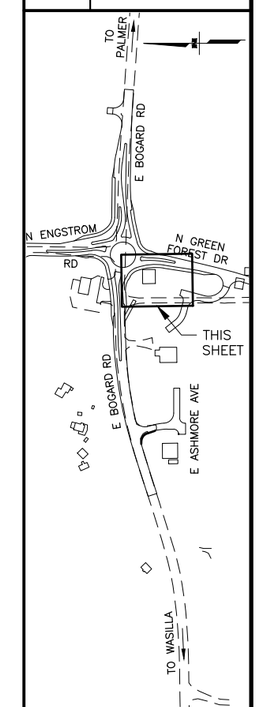
SECTION E–E

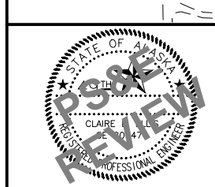
INFILTRATION BASIN
PIPE OUTFALL EROSION PROTECTION

SHEET NO.	TOTAL SHEETS
G13	G13
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION
0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	





STATE OF ALASKA DOT&PF
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

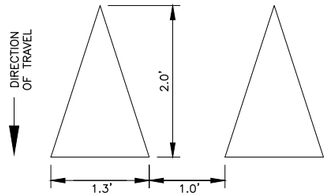
DRAINAGE
INFILTRATION BASIN
GRADING DETAILS

DATE	TIME	SCALE	DESIGNED BY	ZDK
5/22/2025	11:15 AM	1"=5'/2'	CHECKED BY	KRV/CLE
			DRAFTED BY	ZDK

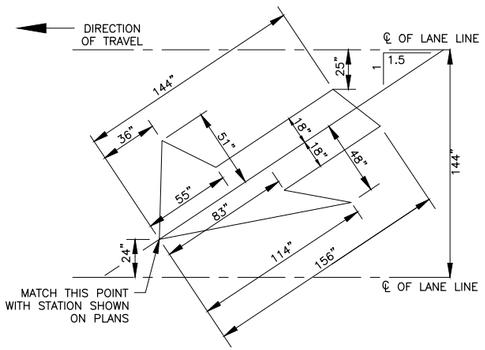
DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\00453_G11_INFILTRATION BASIN.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001630 / CFHWY00435	2026	H01	H22



YIELD PAVEMENT MARKINGS DETAIL



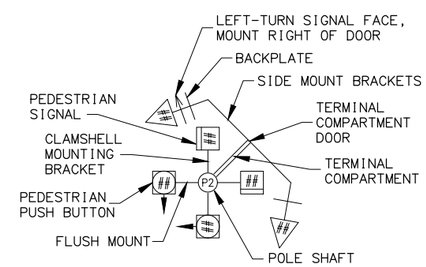
LANE DROP ARROW DETAIL

SIGNING & STRIPING NOTES:

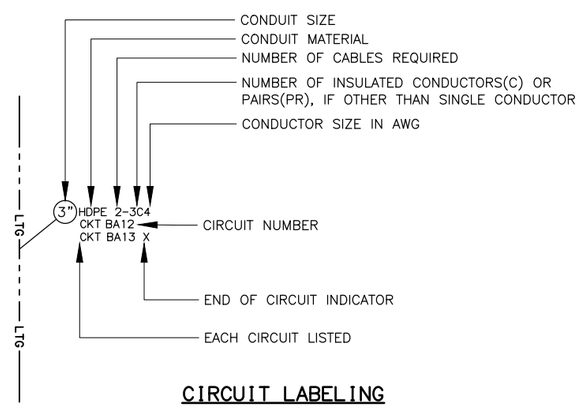
1. ALL STATION LOCATIONS FOR SIGN INSTALLATION ARE APPROXIMATE. INSTALL SIGNS AT LOCATIONS AS DIRECTED BY THE ENGINEER.
2. USE THE FOLLOWING DEFINITIONS TO DECIPHER THE ABBREVIATED SIGN POST TYPES IN THE SIGN SUMMARY SHEETS.
   A. PT MEANS A PERFORATED STEEL TUBE.
   B. T MEANS A SQUARE STEEL TUBE.
   C. P MEANS A ROUND STEEL PIPE.
   D. W MEANS A WIDE FLANGE BEAM.
   E. POPL MEANS A POLE PLATE INSTALLED PER ITS ALASKA STANDARD PLAN S-23.
3. FABRICATE ALL SIGNS FROM 0.125" THICK ALUMINUM SHEETING, UNLESS STATED ELSEWHERE.
4. FOR SIGNS SUPPORTED BY MULTIPLE POSTS, FABRICATE THE POSTS WITH THEIR TOPS LEVEL WITH ONE ANOTHER.
5. FOR PERFORATED STEEL TUBE SIGNPOSTS, INSTALL THE CONCRETE FOUNDATION OPTION SHOWN ON ALASKA STANDARD PLAN S-30. TRIM EACH PT POST TO LIMIT THE LENGTH INSERTED INTO THE FOUNDATION TO 12 INCHES.
6. FABRICATE GUIDE SIGNS ACCORDING TO THE SHOP DRAWINGS INCLUDED IN THE APPENDICES OF PART 4, CONTRACT PROVISIONS AND SPECIAL PROVISIONS. TRIM THE CORNERS OF ALL SIGNS TO THE RADIUS SHOWN ON EACH SHOP DRAWING.
7. ERECT NEW SIGNS BEFORE REMOVAL OF EXISTING SIGNS WITH SIMILAR MESSAGE. NOTIFY THE ENGINEER A MINIMUM OF 14 DAYS PRIOR TO BEGINNING SIGN REMOVAL AND SALVAGE OR DISPOSAL ACTIVITIES.
8. FOR SIGNS SUPPORTED BY MULTIPLE TUBES OR PIPES, LOCATE THE OUTER POSTS ON MAXIMUM SIX FEET CENTERS. INSTALL ADJACENT WIDE FLANGE POSTS ON MINIMUM EIGHT FEET CENTERS.
9. SELECTIVE AND HAND CLEARING SHALL BE PERFORMED AT THE DISCRETION OF THE ENGINEER, IN ACCORDANCE WITH SECTION 201, UPSTREAM OF ALL SIGN INSTALLATION LOCATIONS TO ACHIEVE MINIMUM SIGN VISIBILITY REQUIREMENTS. IF NOT INCLUDED AS A SEPARATE ITEM, THIS WORK SHALL BE SUBSIDIARY TO THE SIGN INSTALLATION ITEMS AND WORK.
10. FOR ALL FINAL PAVEMENT MARKINGS USE METHYLMETHACRYLATE MATERIALS. LONGITUDINAL, TRANSVERSE AND SYMBOL MARKINGS SHALL BE INLAID AND GORE STRIPES SHALL BE SURFACE APPLIED AS SPECIFIED IN SECTION 670 OF THE SPECIFICATIONS.
11. DIMENSIONS REFER TO THE CENTER OF STRIPE AND THE EDGE OF PAVEMENT OR FACE OF CURB WHEN PRESENT.
12. IF THE NEW AND EXISTING PAVEMENT MARKINGS ARE NOT ALIGNED AT MATCH LINE, TRANSITION BETWEEN THE TWO USING A 100:1 TAPER ON THE NEW PAVEMENT.
13. WHERE NEW STRIPING IS TO EXTEND BEYOND PAVING LIMITS, REMOVE EXISTING STRIPING IN ACCORDANCE WITH SUBSECTION 670-3.04 TO THE EXTENT OF STRIPING LIMITS.

ABBREVIATIONS

AWG	AMERICAN WIRE GAUGE	NB	NORTH BOUND
CAM	CAMERA	OMNI	OMNI DIRECTIONAL ANTENNA
EB	EAST BOUND	P#	TRAFFIC SIGNAL POLE #
GND	GROUND	PE	PHOTOELECTRIC CELL
HDPE	HIGH DENSITY POLYETHYLENE CONDUIT	PED B ##	PEDESTRIAN PUSH BUTTON #
HEAD	VEHICULAR SIGNAL HEAD	PEDI	PEDESTRIAN SIGNAL HEAD
SIG	SIGNAL	PRE #	PREEMPTION #
I/C	INTERCONNECT	PRE CON #	PREEMPTION CONFIRMATION LIGHT #
INTX	INTERSECTION	RAD	RADAR
INTX L	INTERSECTION LIGHTING	RMC	RIGID METAL CONDUIT
LC	LOAD CENTER	SB	SOUTH BOUND
LFNC	LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT	TC	TRAFFIC CONTROLLER
LTG	LIGHTING	WB	WEST BOUND
MUTCD	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES	YAGI	DIRECTIONAL ANTENNA



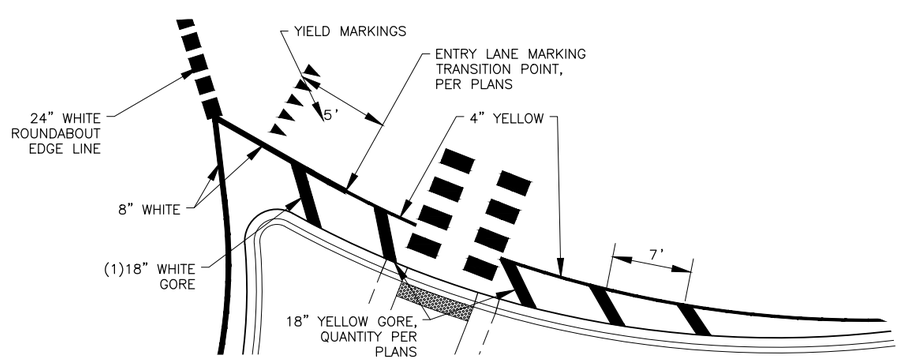
POLE SHAFT LEGEND



CIRCUIT LABELING LEGEND

FOUNDATIONS NOTES:

1. STATION & C.L. REFERENCE ARE TO THE CENTER OF THE STRUCTURE, EXCEPT ON LOOPS WHICH ARE TO THE CENTER OF THE TRAILING EDGE OF THE LOOP (EDGE NEAREST INTERSECTION).
2. LOCATE J-BOXES SO THAT THEY ARE LOCATED OUT OF THE PATHWAY, SIDEWALK, CURB RAMPS, AND DRAINAGE COLLECTION AREAS.
3. INSTALL LOAD CENTER AND TRAFFIC CONTROLLER FOUNDATIONS WITHIN 1-DEGREE OF PLUMB.
4. INSTALL ANCHOR BOLTS IN CAST FOUNDATIONS TO BE WITHIN 1:48 OF PLUMB.



ROUNDABOUT ENTRY LANE MARKING DETAIL

CALL BEFORE YOU DIG!

CONTRACTOR SHALL CALL A MINIMUM OF 3 DAYS IN ADVANCE OF CONSTRUCTION

ALASKA DIGLINE....907-278-3121 OR 800-478-3121

CALL OR GO TO WWW.AKONECALL.COM/STATEWIDE.HTM FOR MEMBER LIST OF WHO WILL BE NOTIFIED

STATE OF ALASKA REGISTERED PROFESSIONAL ENGINEER 49TH ROBERT J. NISSE CE-153238 PSBA REVIEW

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

HSIP: BOGARD ROAD AT ENGSTROM ROAD AND GREEN FOREST DRIVE INTERSECTION IMPROVEMENTS

TRAFFIC LEGEND & NOTES

DRAWING LOCATION
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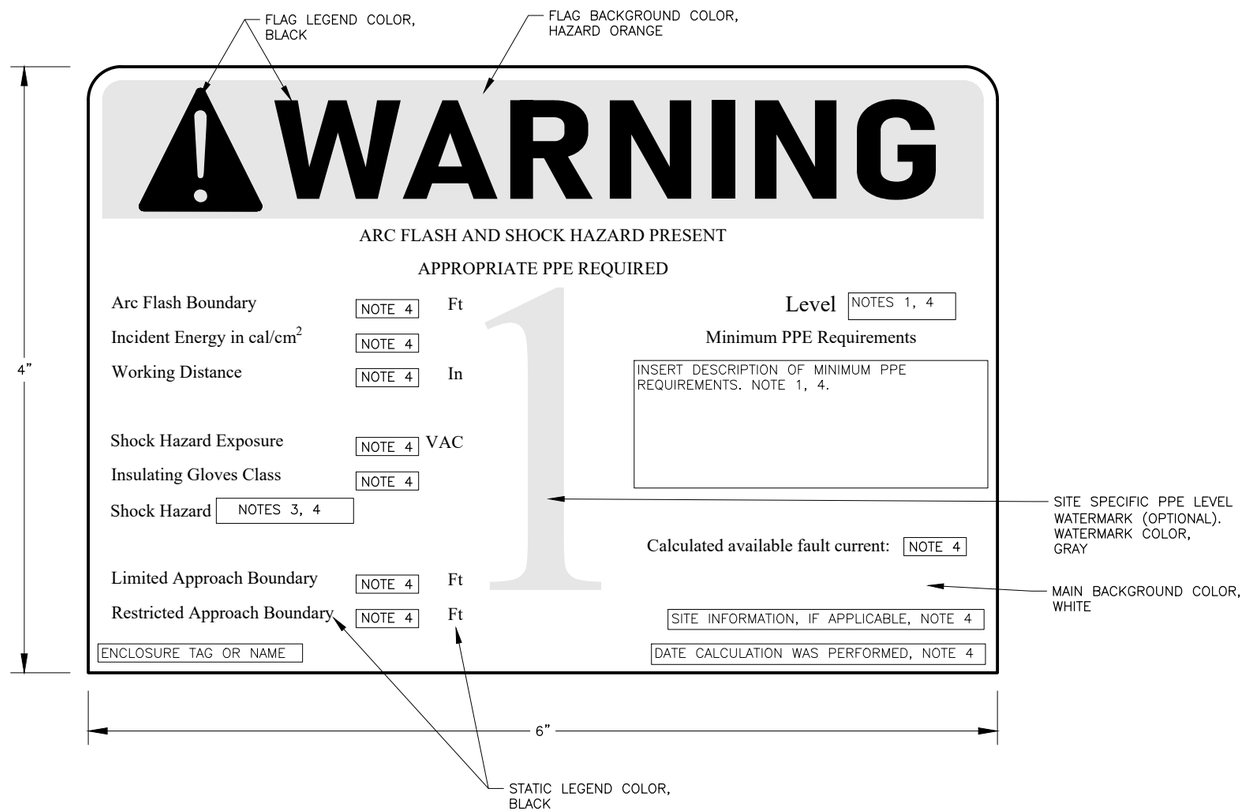
DATE 5/22/2025 TIME 11:15 AM
SCALE
DESIGNED BY ZJH
CHECKED BY RDR
DRAFTED BY MF

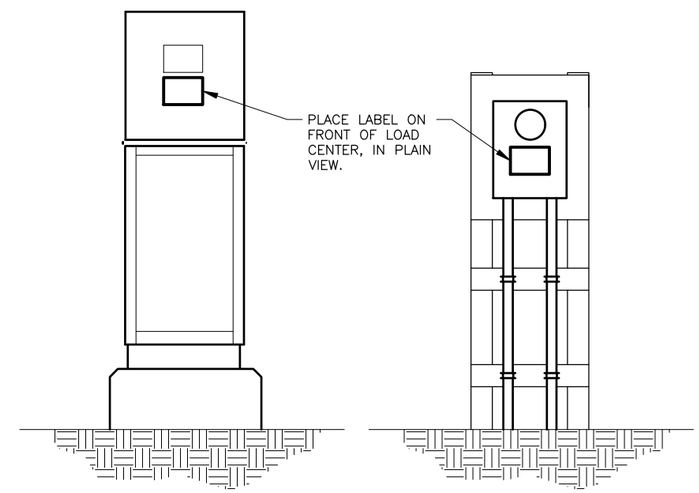
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001630 / CFHWY00435	2026	H02	H22



NOTES:

1. APPLICABLE STATE OF ALASKA DOT&PF ELECTRICAL EQUIPMENT MUST BE LABELED WITH DOT&PF–DEFINED SITE–SPECIFIC PPE LEVELS, AS DEFINED IN NFPA 70E 130.5(H)(3)(c). THE LEVELS ARE: LEVEL 1 (0 TO 4 CAL/CM^2), 2 (4.1 TO 8.0 CAL/CM^2), 3 (8.1 TO 25.0 CAL/CM^2), 4 (25.1 TO 39.9 CAL/CM^2), OR WP (WORK PROHIBITED, FOR EQUIPMENT IN WHICH THE CALCULATED ARC FLASH INCIDENT ENERGY IS ≥ 40 CAL/CM^2).
2. MINIMUM PPE REQUIREMENTS FOR EACH PPE LEVEL DESCRIBED IN NOTE 1 ARE THE SAME REQUIREMENTS AS DESCRIBED IN NFPA 70E TABLE 130.7(C)(15)(c). THESE PPE REQUIREMENTS ARE TO BE USED AS THE SITE–SPECIFIC PPE LEVELS.
3. PROVIDE DESCRIPTION OF EQUIPMENT CONFIGURATIONS IN WHICH A HAZARD EXISTS. FOR EXAMPLE "WHEN COVER REMOVED."
4. INSERT INFORMATION FROM PLAN SHEETS. REFER TO LOAD CENTER SUMMARY, ARC FLASH AND SHOCK HAZARD RESULTS, AND SHORT CIRCUIT CALCULATION TABLES PRESENTED IN THE PLANS FOR EACH LOAD CENTER.



LABEL LOCATION

STATE OF ALASKA 49TH PS&A REVIEW JEFFREY CARLETON CE-13218 REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269–0590

STATE OF ALASKA 49TH PS&A REVIEW ROBERT HISSE CE-153238 REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269–0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD ROAD AT ENGSTROM ROAD AND GREEN FOREST DRIVE INTERSECTION IMPROVEMENTS
ARC FLASH SHOCK HAZARD LABELING

DRAWING LOCATION
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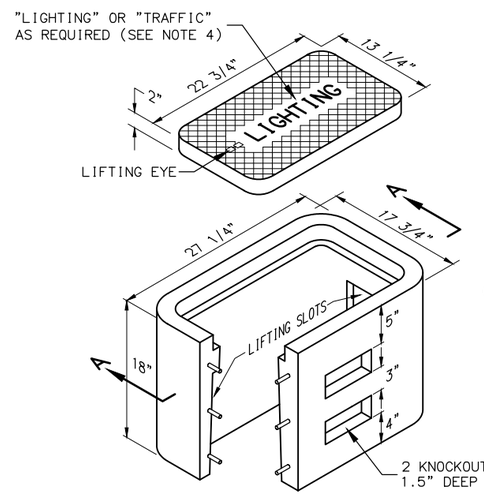
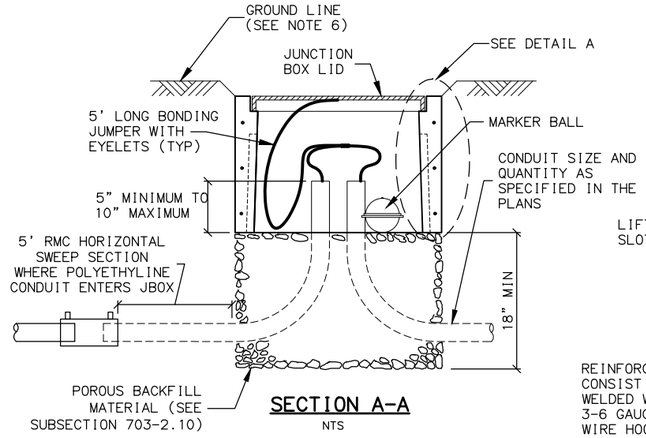
DATE 5/22/2025 TIME 11:15 AM
SCALE
DESIGNED BY ZJH
CHECKED BY RDR
DRAFTED BY MF

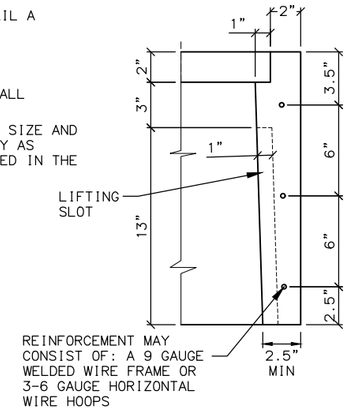
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001630 / CFHWY00435	2026	H03	H22



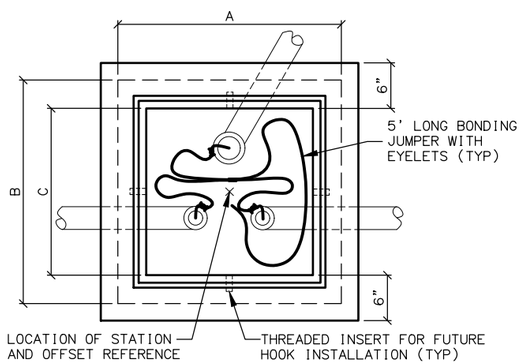


SECTION A-A
NTS



DETAIL A

TYPE IA JUNCTION BOX



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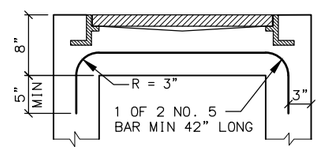
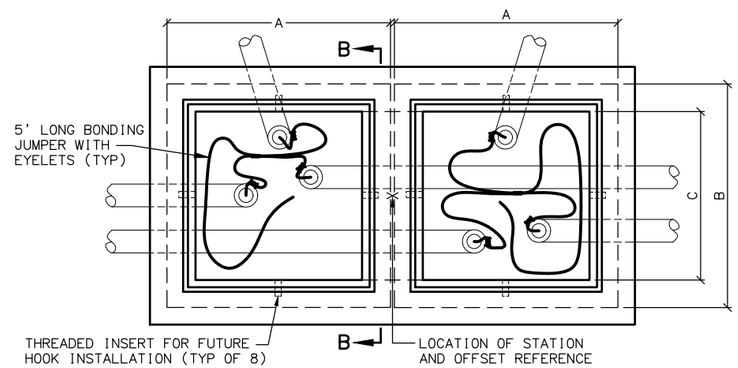


SECTION B-B



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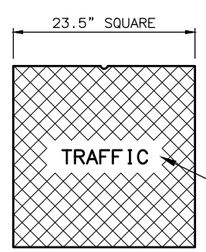
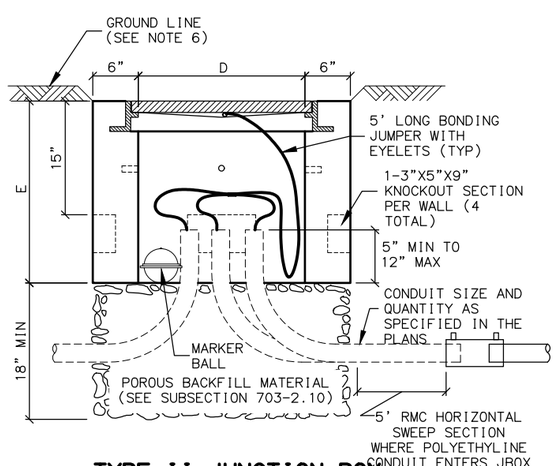
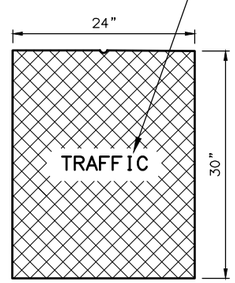


LID FOR TYPE II
& III J-BOXES

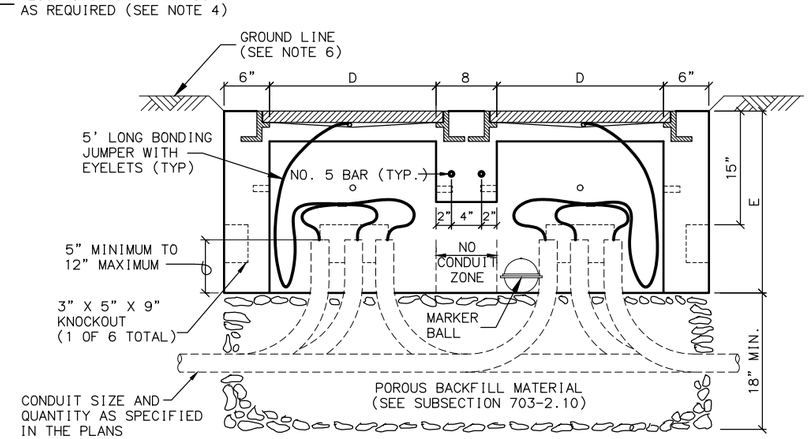
"LIGHTING" OR "TRAFFIC"
AS REQUIRED (SEE NOTE 4)



TYPE II JUNCTION BOX
ELEVATION
NTS



LID FOR TYPE IV
J-BOXES



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

NOTES:

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

J-BOX DIMENSIONS

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

STATE OF ALASKA
PS&A REVIEW
ROBERT NISSE
AK-153238
REGISTERED PROFESSIONAL ENGINEER

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

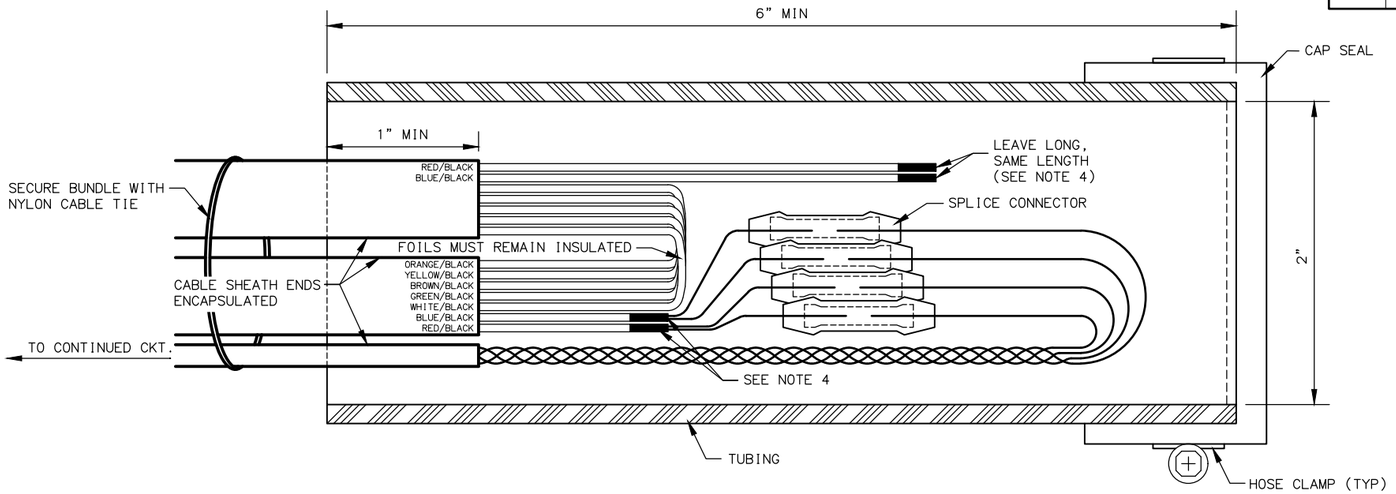
HSIP: BOGARD ROAD AT ENGSTROM ROAD AND GREEN FOREST DRIVE INTERSECTION IMPROVEMENTS

JUNCTION BOX DETAILS

DESIGNED BY ZJH
CHECKED BY RDR
DRAFTED BY MF
SCALE
DATE 5/22/2025 TIME 11:15 AM
DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\H SHEETS\03-JUNCTION_BOX.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001630 / CFHWY00435	2026	H04	H22



LOOP LEAD-IN SPLICE

NOTES:

LOOP LEAD-IN SPLICE

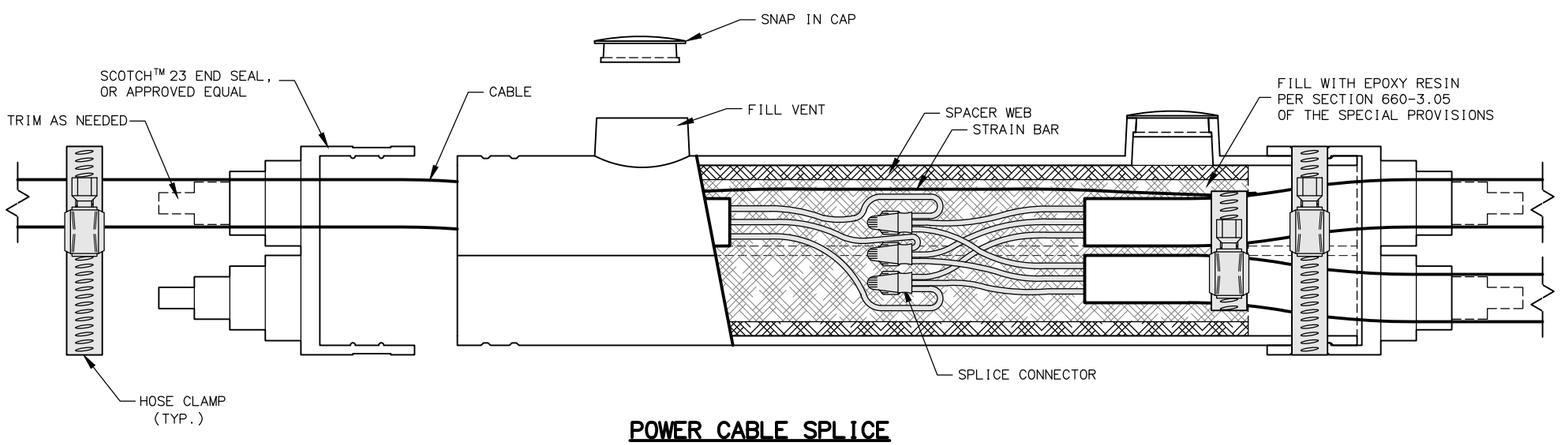
1. FABRICATE LOOP LEAD-IN SPLICE IN THE FIELD AS SHOWN.
2. CAP SEAL ONE END AND COMPLETELY FILL OPEN END WITH RE-ENTERABLE ENCAPSULATION COMPOUND TO EDGE OF TUBING.
3. LEAVE A MINIMUM OF 1/2" CLEARANCE BETWEEN THE ENCLOSURE AND THE SPLICE AT BOTH ENDS OF THE TUBING.
4. EXPOSE FOIL AND DRAIN WIRES, SEAL WITH HEAT SHRINK TUBING (TYP).
5. INSTALL SPLICE CONNECTORS ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

POWER CABLE SPLICE

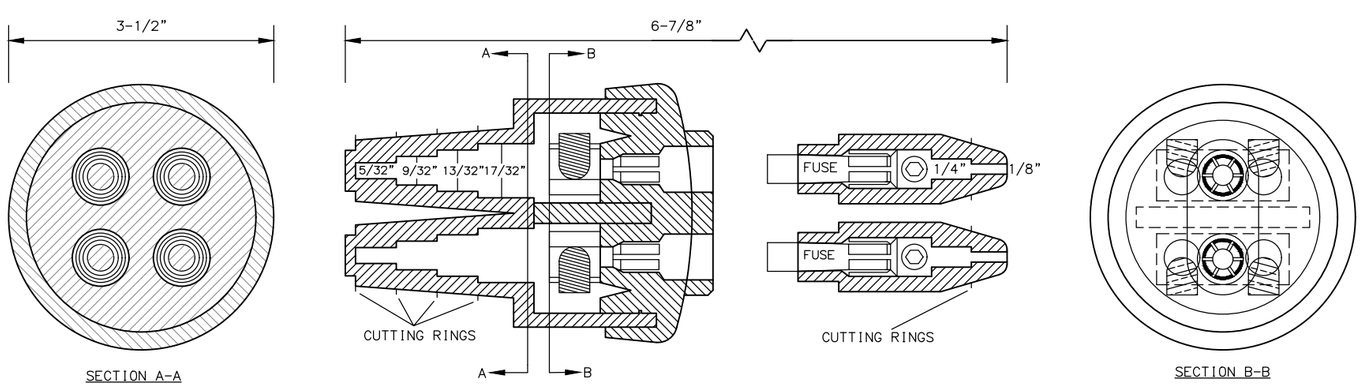
6. SECURE CABLE/CONNECTOR BUNDLE WITH HOSE CLAMPS AS SHOWN.

MATERIAL PROPERTIES

LOOP LEAD-IN SPLICE	
TUBING	PER SECTION 660-3.05
CAP SEAL	FERNCO QWIK CAP #QC-102, OR APPROVED EQUAL
HOSE CLAMP	STAINLESS STEEL
SPLICE CONNECTOR	ML56-16, OR APPROVED EQUAL
COMPOUND	RE-ENTERABLE ENCAPSULATION
POWER CABLE SPLICE	
SPLICE KIT	3M MODEL 78R, OR APPROVED EQUAL
SPLICE CONNECTOR	SCOTCHLOCK G, R, OR Y SPRING CONNECTOR, OR APPROVED EQUAL
HOSE CLAMP	(4)- STAINLESS STEEL
EPOXY RESIN	PER SECTION 660-3.05
DOUBLE FUSED CONNECTOR	
DOUBLE FUSED CONNECTOR	SEC-1791-DF-1, OR APPROVED EQUAL
FUSES	(2) - COMPATIBLE 5-AMP TIME DELAY TYPE FOR LED FIXTURE OR 10-AMP FAST ACTING FOR ALL OTHER FIXTURES



POWER CABLE SPLICE



DOUBLE FUSED CONNECTOR

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4111 AVIATION AVENUE
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HSIP: BOGARD ROAD AT ENGSTROM ROAD AND GREEN FOREST DRIVE INTERSECTION IMPROVEMENTS

SPLICE DETAILS

DESIGNED BY ZJH
CHECKED BY RDR
DRAFTED BY MF
SCALE
DATE 5/22/2025 TIME 11:15 AM
DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\H SHEETS\05-SPLICE.DWG

NO.	DATE	REVISION

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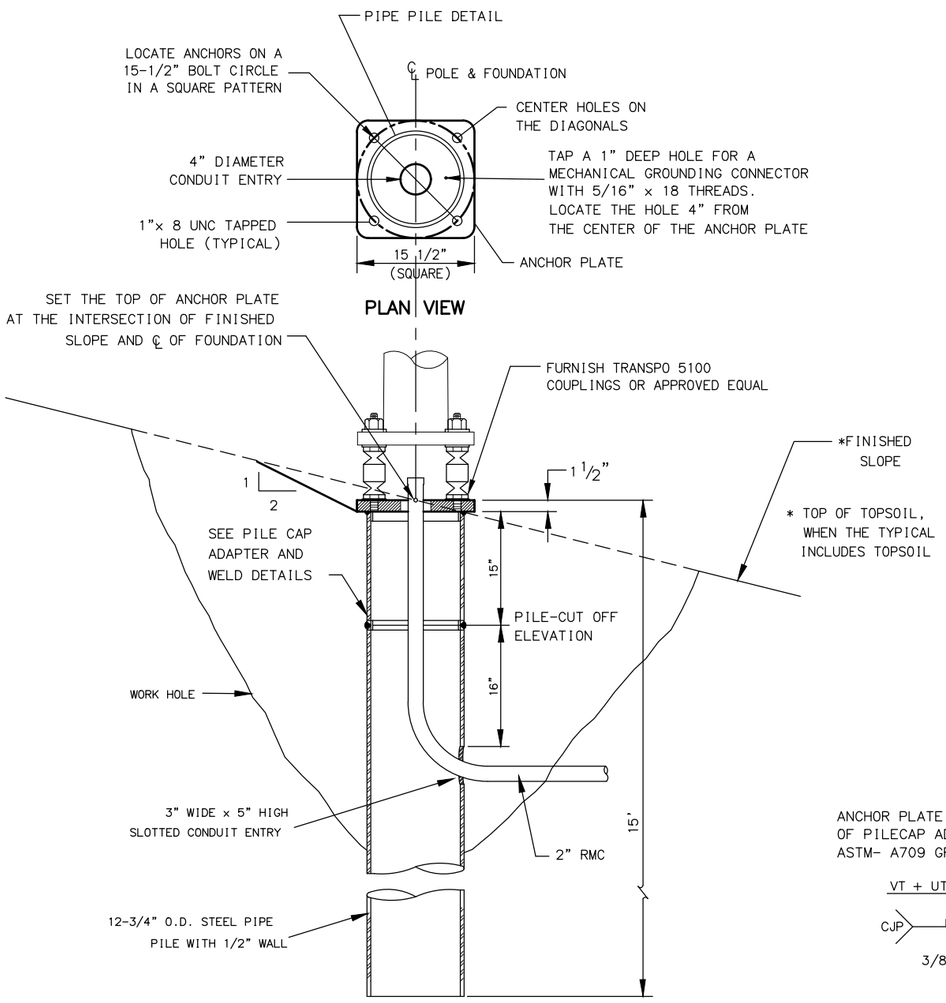
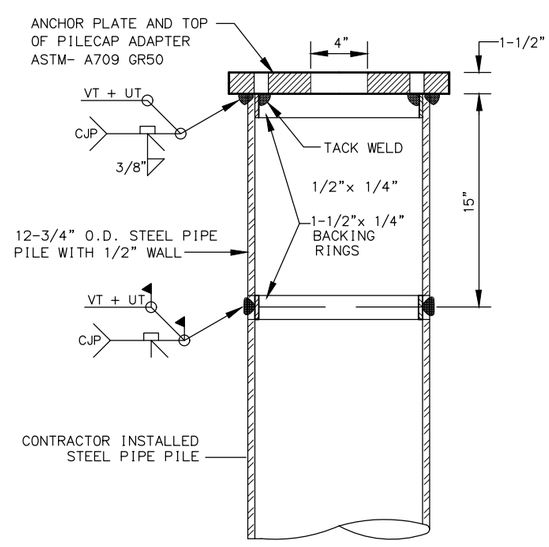
ALASKA	0001630 / CFHWY00435	2026	H05	H22



PIPE PILE FOUNDATION

(SHOWN WITH FRANGIBLE COUPLINGS)



PILECAP ADAPTER AND WELD DETAILS

NOT TO SCALE

DESIGN NOTES:

1. DESIGN STANDARD: 2001 STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRE AND TRAFFIC SIGNALS WITH 2006 INTERIM.
2. DESIGN LOADS: 5-KIPS AXIAL, 7.5-KIPS SHEAR, 40-KIP-FT MOMENT.
3. GALVANIZATION OF PILE IS NOT REQUIRED. UNLESS THE GROUND WATER TABLE IS FOUND TO BE, ABOVE 5 FEET, THEN GALVANIZE PILE ACCORDING TO SECTION 505.
4. CHARPY TEST FOR ELECTROLIER POLE PILE FOUNDATIONS ARE NOT REQUIRED.

MATERIAL REQUIREMENTS		
STRUCTURAL STEEL PLATE	ASTM A709 GRADE 50	Fy = 50 ksi
STEEL PIPE PILE	ASTM A709, GRADE 50 T3	Fy = 50 ksi
	API 5L GRADE X 42	Fy = 42 ksi

NOTES:

1. FURNISH STEEL PIPE PILES THAT CONFORM TO THE MATERIAL REQUIREMENTS AND SECTION 660, 715 AND 740 OF THE SPECIFICATIONS. NO SPLICES ARE ALLOWED BELOW THE PILECAP ADAPTER.
2. DRIVE PILES OPEN ENDED. COMPLETE PILE WORK ACCORDING TO SECTIONS 505, 660 AND 715 OF THE SPECIFICATIONS. REMOVE AND REINSTALL PILES OUT OF PLUMB MORE THAN 1:40.
3. FRESH HEAD THE TOP OF PILES IN A LEVEL PLANE AND CUT THE CONDUIT ENTRANCE HOLE AFTER DRIVING THE PILE. NOTE; ONLY MECHANICAL OR PLASMA CUTTER MEANS ARE PERMITTED. OXY-FUEL CUTTING IS PROHIBITED.
4. FURNISH ONLY SHOP FABRICATED PILECAP ADAPTERS. INCLUDE STAMPED ENGINEERING CALCULATIONS, DRAWINGS, MILL CERTIFICATIONS AND WELDING PLANS FOR PILECAP ADAPTERS AND THE PILECAP ADAPTER TO PILE WELD. WELDING SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITION OF THE AWS D1.1, STRUCTURAL WELDING CODE-STEEL AND THE SPECIFICATIONS.
5. WAIT AT LEAST 3 DAYS AFTER BACKFILLING THE WORK HOLE BEFORE ERECTING THE LUMINAIRE POLE.
6. TERMINATE CONDUIT(S) 3" ABOVE THE TOP OF THE ANCHOR PLATE. INSTALL A GROUNDING BUSHING ON THE END OF THE RIGID METAL CONDUIT AND ESTABLISH A BOND WITH THE ANCHOR PLATE.

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AND PUBLIC FACILITIES

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PIPE PILE FOUNDATION DETAILS

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
5/22/2025	11:15 AM		ZJH	RDR	MF

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\H SHEETS\10-PIPE_PILE_FOUNDATION.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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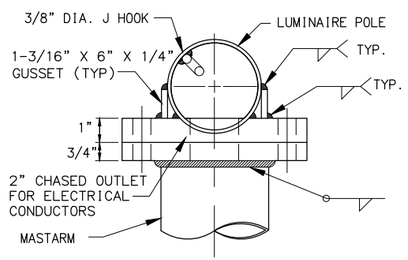
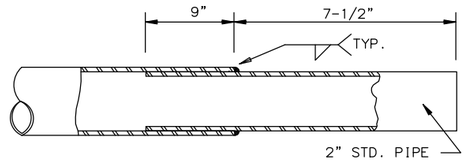


TOP VIEW



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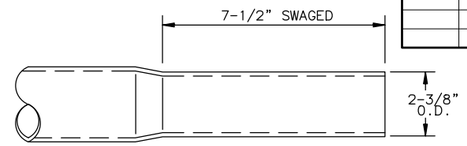
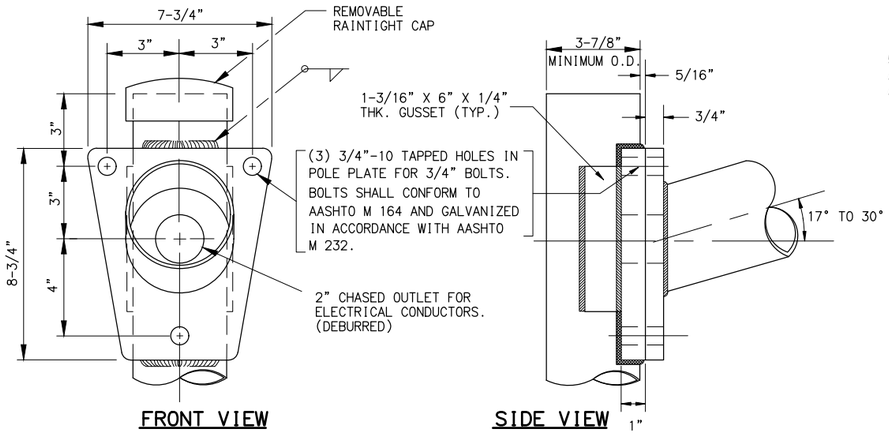


OPTIONAL SWAGED TENON

END OF MASTARM DETAIL

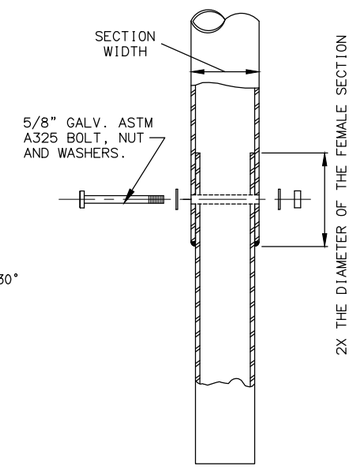
NTS



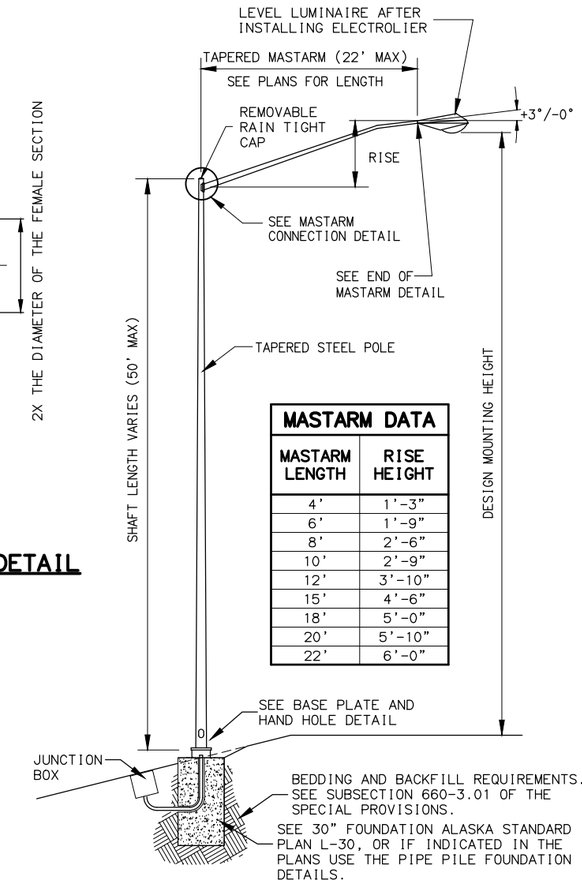
FRONT VIEW

SIDE VIEW

MASTARM CONNECTION DETAIL

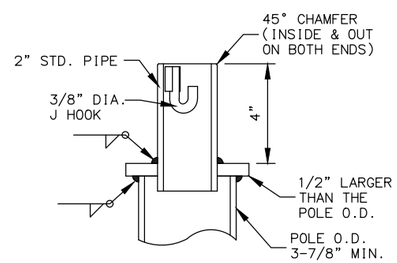


POLE CONNECTION DETAIL



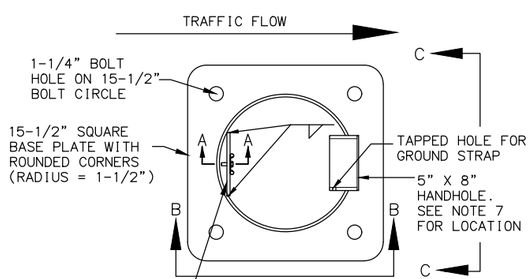
MASTARM DATA	
MASTARM LENGTH	RISE HEIGHT
4'	1'-3"
6'	1'-9"
8'	2'-6"
10'	2'-9"
12'	3'-10"
15'	4'-6"
18'	5'-0"
20'	5'-10"
22'	6'-0"

ELECTROLIER ELEVATION

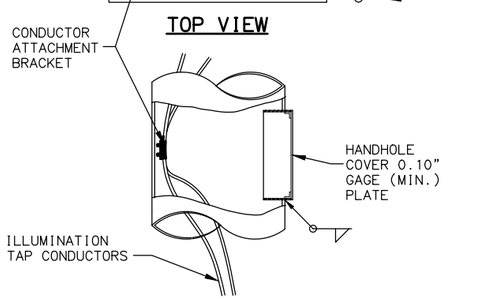


OFFSET LIGHTING STANDARD POLE TOP DETAIL

(CUTAWAY FOR CLARITY)

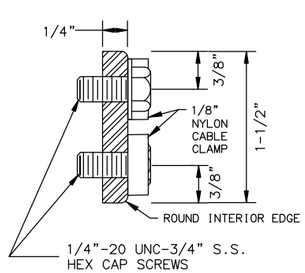


TOP VIEW

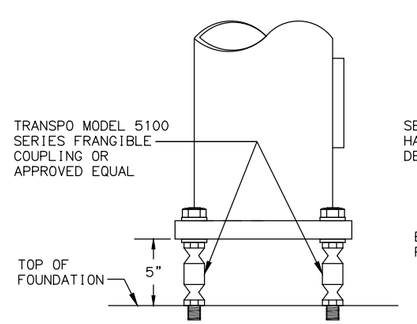


SIDE VIEW

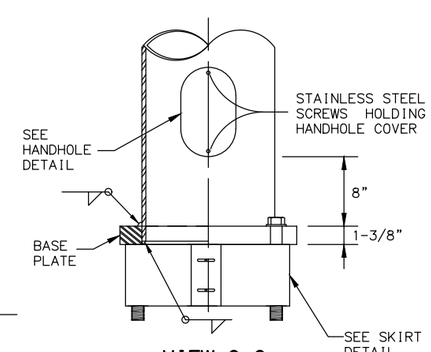
BASE PLATE AND HAND HOLE DETAIL



SECTION A-A



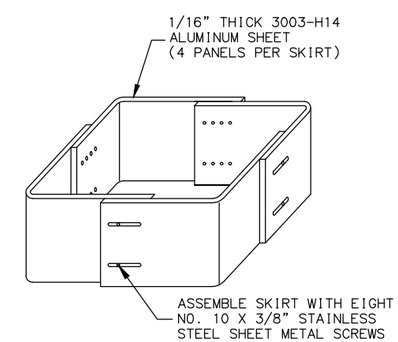
VIEW B-B



VIEW C-C

NOTES:

1. 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.
2. WELD SIZE TO BE DETERMINED BY THE MANUFACTURER.
3. 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.
4. MINIMUM OUTSIDE DIAMETER AT THE TOP OF POLE EQUALS 3-7/8". 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.
5. APPLY AN ANTI-SEIZING COMPOUND TO ALL THREADED SURFACES, INCLUDING THOSE IN THE ANCHOR PLATE AND ON THE COUPLINGS.
6. MASTARM RISE MAY VARY ±6" FROM THE VALUES LISTED IN THE TABLE.
7. LOCATE THE HANDHOLE AT 90 DEGREES TO THE MASTARM ON THE SIDE OF POLE DOWNSTREAM FROM TRAFFIC FLOW.
8. FURNISH ALL POLES WITH A J-HOOK TO SUPPORT THE ILLUMINATION TAP CONDUCTORS. FURNISH ALL MASTARM POLES WITH A REMOVABLE RAIN TIGHT CAP.
9. MOUNT LIGHTING STANDARDS UPON TRANSPO MODEL NO. 5100 FRANGIBLE COUPLINGS AND TRANSPO TYPE B FEMALE ANCHORS, OR APPROVED EQUAL.
10. INSTALL ALL COMPONENTS OF THE BREAKAWAY SUPPORT SYSTEM IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
11. FABRICATE THE SKIRT FROM FOUR PIECES OF 1/16" THICK 3003 H-14 ALUMINUM SHEET. BEND EACH PLATE TO PROVIDE CORNERS WITH A 3/4" RADIUS. ASSEMBLE THE SKIRT WITH #10 X 3/8" SELF TAPPING STAINLESS SCREWS OR POP RIVETS. THE ASSEMBLED SKIRT MEASURES ABOUT 12-3/4" SQUARE.
12. A JUNCTION BOX IS REQUIRED AT EACH NEW ELECTROLIER. INSTALL THE JUNCTION BOX IMMEDIATELY BEHIND THE FOUNDATION APPROXIMATELY 7' FROM POLE UNLESS OTHERWISE SPECIFIED IN THE PLANS.



SKIRT DETAIL

STATE OF ALASKA PSBA REVIEW ROBERT NISSE 49TH 12-153238 REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD ROAD AT ENGSTROM ROAD AND GREEN FOREST DRIVE INTERSECTION IMPROVEMENTS

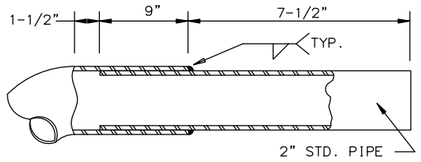
LIGHTING STANDARD 1 DETAILS

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\H SHEETS\12-LIGHTING_STANDARD-1.DWG

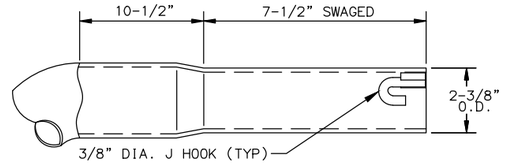
DATE 5/22/2025 TIME 11:15 AM
SCALE
DESIGNED BY ZJH
CHECKED BY RDR
DRAFTED BY MF

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001630 / CFHWY00435	2026	H07	H22



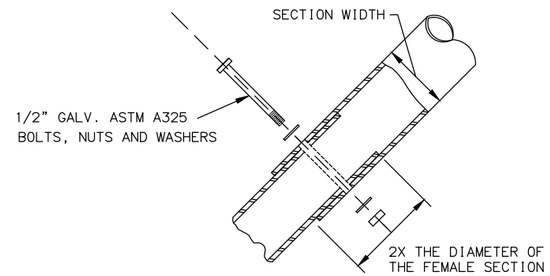
TENON



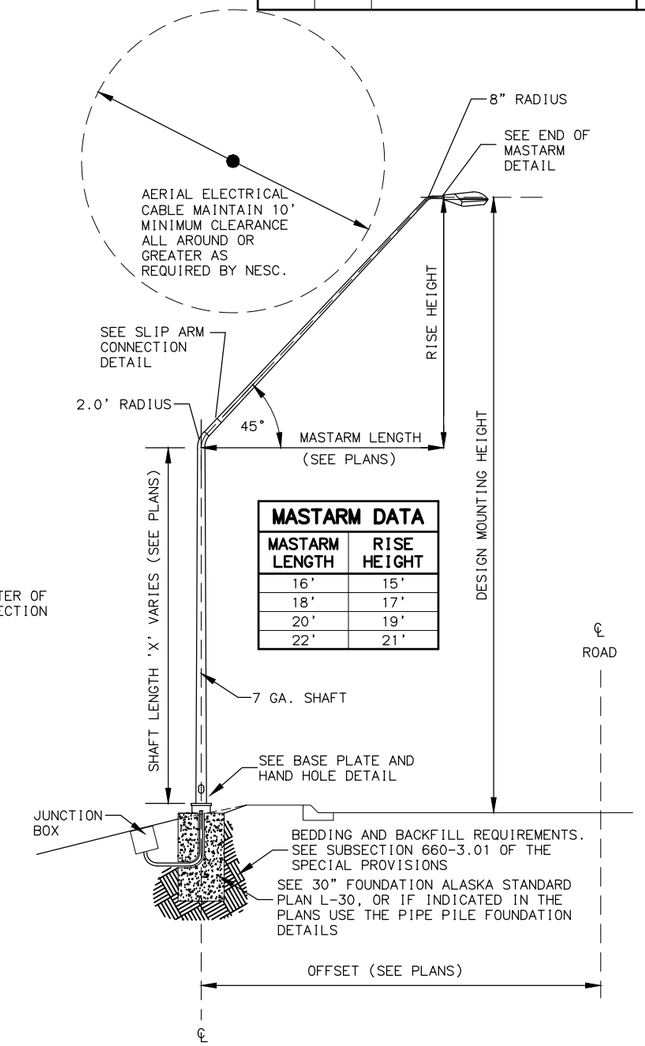
OPTIONAL SWAGED TENON

END OF MASTARM DETAIL

NTS



SLIP CONNECTION DETAIL



MASTARM DATA	
MASTARM LENGTH	RISE HEIGHT
16'	15'
18'	17'
20'	19'
22'	21'

45° ELECTROLIER ELEVATION

NOTES:

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7. LOCATE THE HANDHOLE AT 90 DEGREES TO THE MASTARM ON THE SIDE OF POLE DOWNSTREAM FROM TRAFFIC FLOW.
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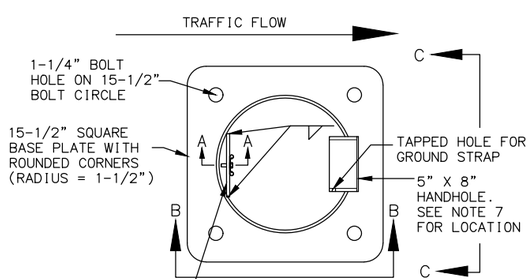
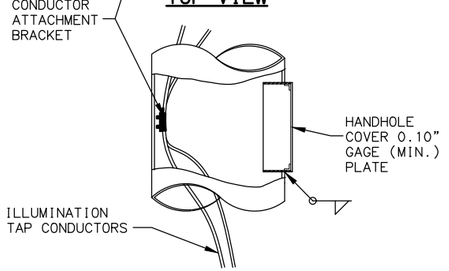
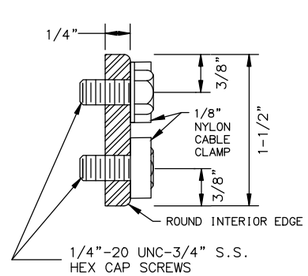


TOP VIEW

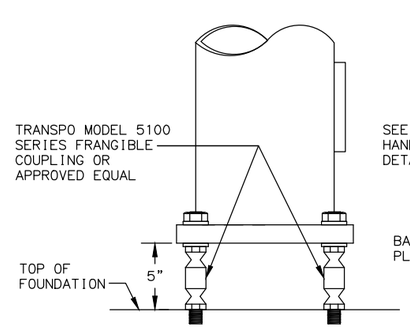


SIDE VIEW

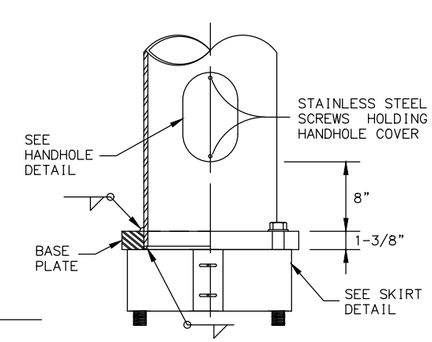
BASE PLATE AND HAND HOLE DETAIL



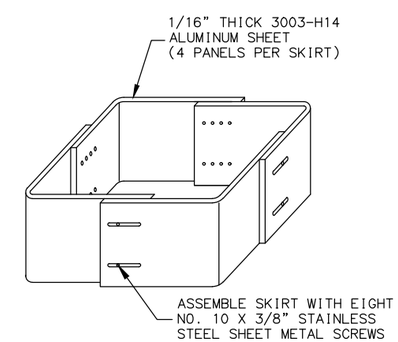
SECTION A-A



VIEW B-B



VIEW C-C



SKIRT DETAIL

STATE OF ALASKA PSAR REVIEW REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

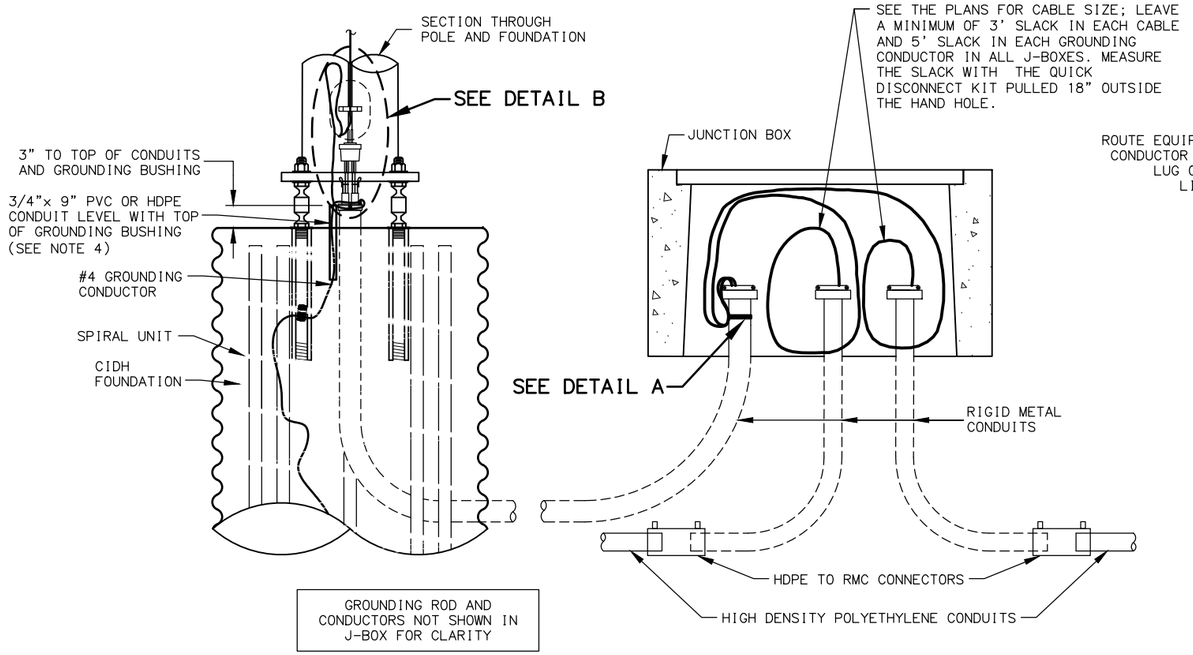
HSIP: BOGARD ROAD AT ENGSTROM ROAD AND GREEN FOREST DRIVE INTERSECTION IMPROVEMENTS

LIGHTING STANDARD 3 DETAILS

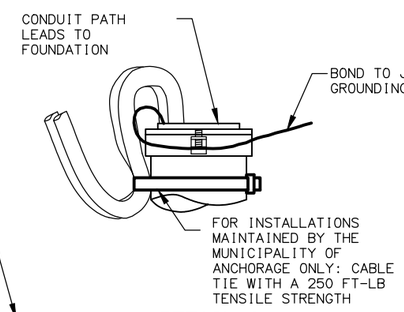
DESIGNED BY ZJH
CHECKED BY RDR
DRAFTED BY MF
SCALE
DATE 5/22/2025 TIME 11:15 AM
DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\H SHEETS\14-LIGHTING_STANDARD-3-45_DEGREE.DWG

NO.	DATE	REVISION

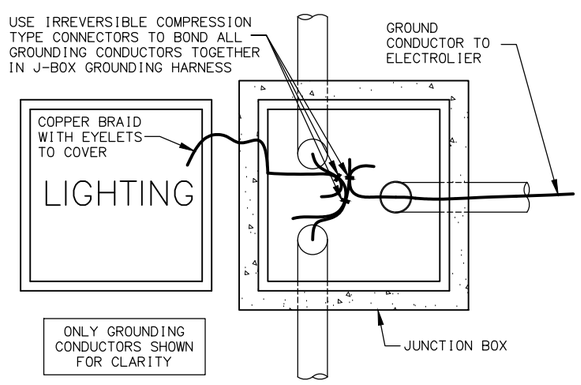
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001630 / CFHWY00435	2026	H08	H22



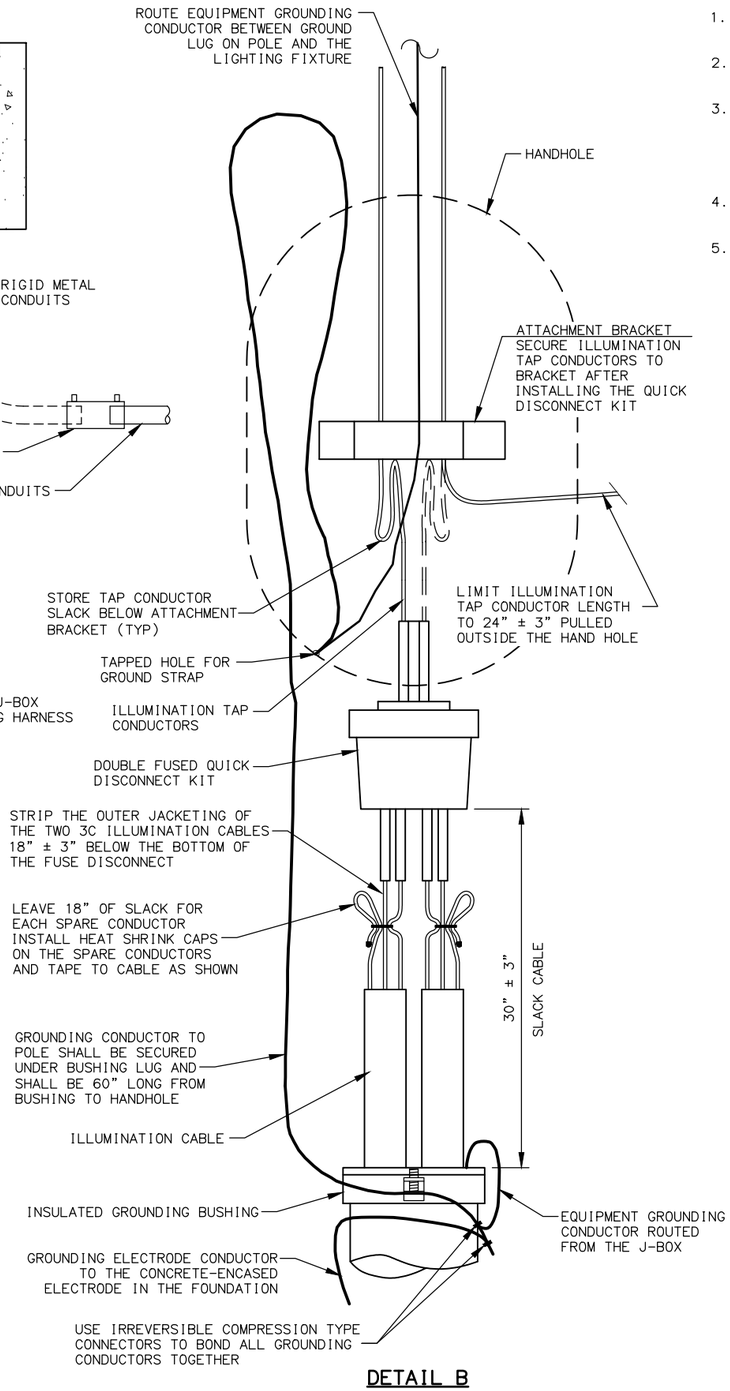
LIGHTING SYSTEM POLE AND J-BOX WIRING DETAILS



DETAIL A



GROUNDING CONDUCTOR BONDING CONNECTIONS



DETAIL B

NOTES:

1. APPLICATION FOR SLIP BASE IS THE SAME EXCEPT FOR BONDING. SEE SUBSECTION 660-3.06 FOR BONDING.
2. LABEL ALL CABLES AND CONDUCTORS IN POLE BASE AND J-BOX. SEE SUBSECTION 660-3.05.
3. MAKE ALL GROUNDING AND BONDING WIRE #8 AWG, EXCEPT IN THOSE CONDUITS THAT CONTAIN CIRCUIT CONDUCTORS LARGER THAN #8 AWG. IN THIS CASE USE WIRE EQUAL IN SIZE TO THE LARGEST CONDUCTOR. THE GROUNDING ELECTRODE CONDUCTOR TO THE CONCRETE-ENCASED ELECTRODE IN THE FOUNDATION SHALL BE #4 AWG.
4. USE LISTED IRREVERSIBLE COMPRESSION TYPE CONNECTORS SIZED FOR EACH APPLICATION AND INSTALLED PER MANUFACTURERS SPECIFICATIONS.
5. PROTECT GROUND WIRE WITH 3/4" PVC OR HDPE CONDUIT TO 6" BELOW TOP OF FOUNDATION FILLED WITH SILICONE SEALANT.

STATE OF ALASKA
PS&E REVIEW
ROBERT MISSE
REGISTERED PROFESSIONAL ENGINEER

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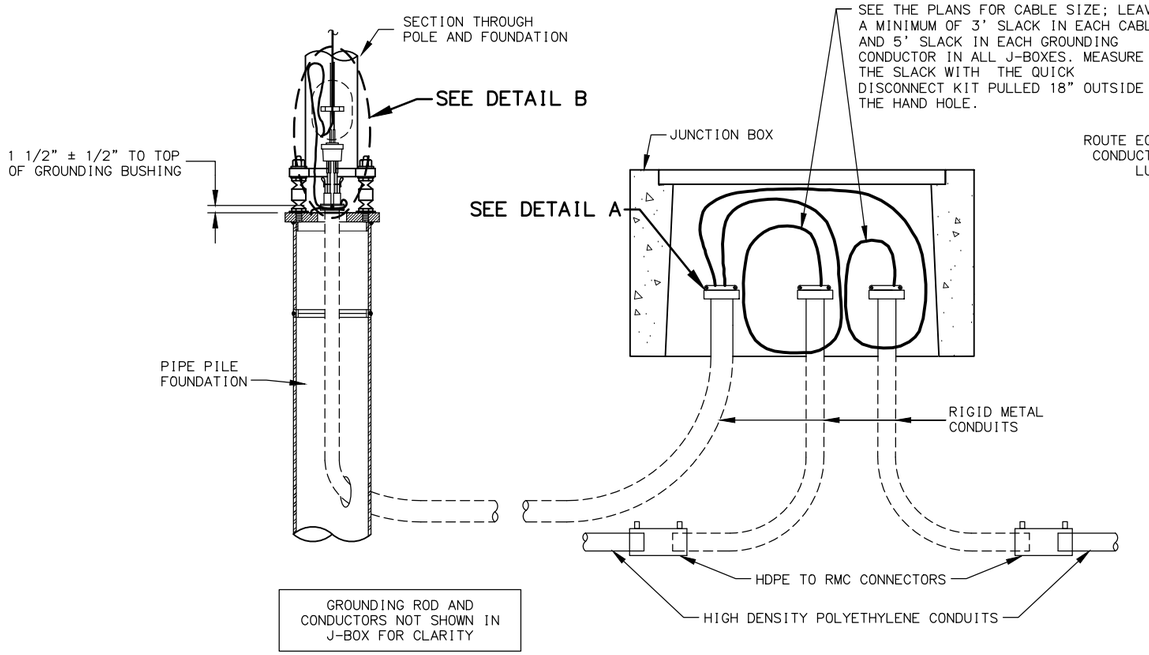
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD ROAD AT ENGSTROM ROAD AND GREEN FOREST DRIVE INTERSECTION IMPROVEMENTS
CIDH WIRING AND GROUNDING DETAILS

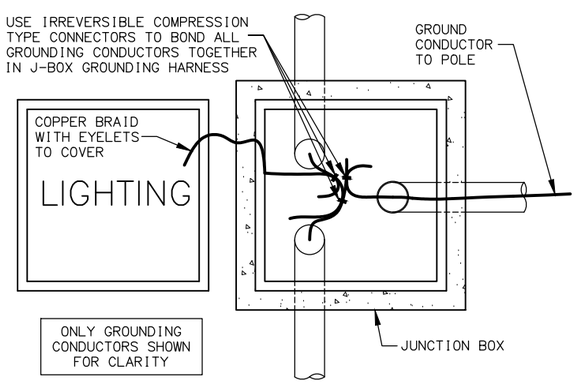
DESIGNED BY ZJH
CHECKED BY RDR
DRAFTED BY MF
SCALE
DATE 5/22/2025 TIME 11:16 AM
DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\H SHEETS\20-CIDH_WIRING_AND_GROUNDING.DWG

NO.	DATE	REVISION

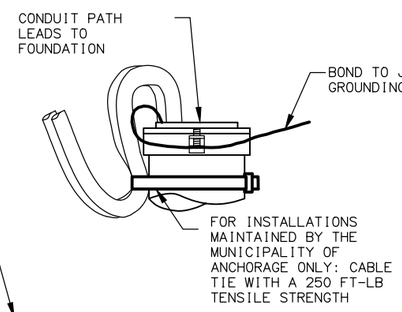
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001630 / CFHWY00435	2026	H09	H22



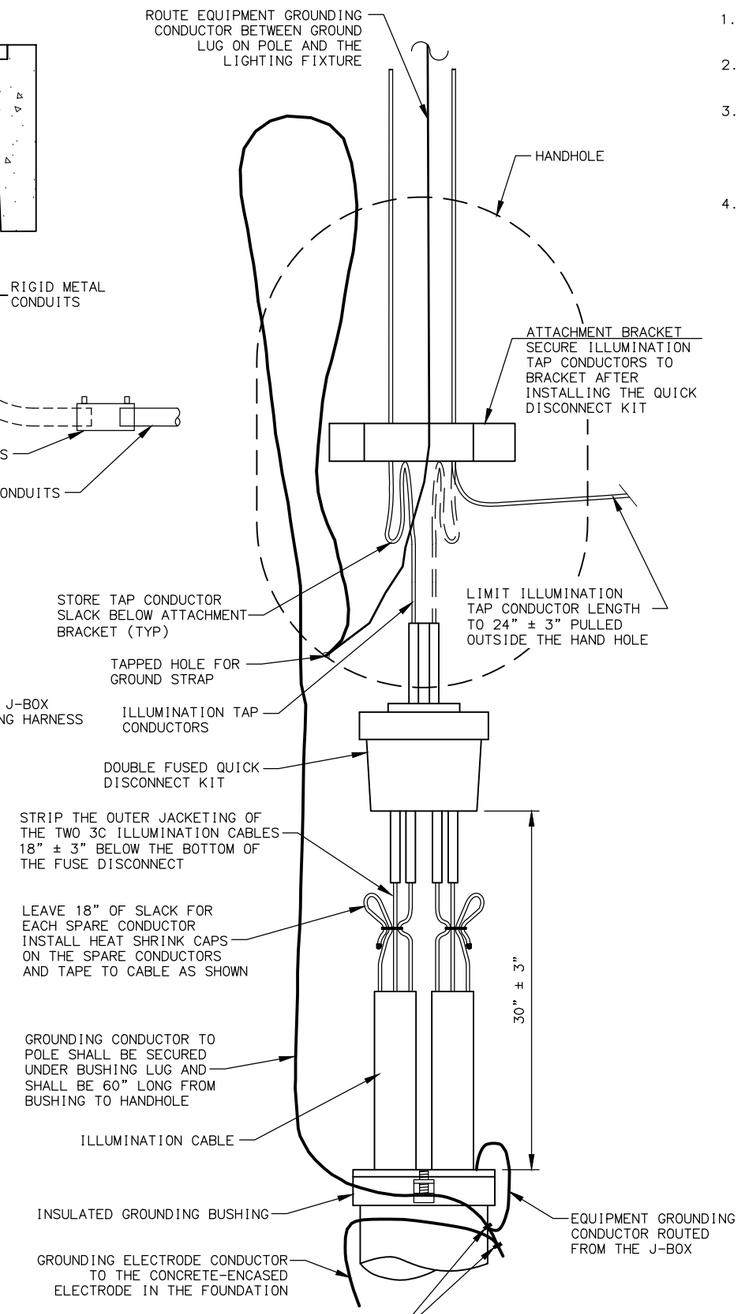
LIGHTING SYSTEM POLE AND J-BOX WIRING DETAILS



GROUNDING CONDUCTOR BONDING CONNECTIONS



DETAIL A



DETAIL B

NOTES:

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

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

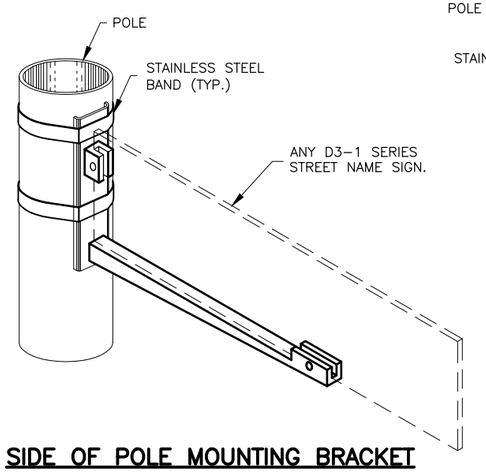
HSIP: BOGARD ROAD AT ENGSTROM ROAD AND GREEN FOREST DRIVE INTERSECTION IMPROVEMENTS

PIPE PILE WIRING AND GROUNDING DETAILS

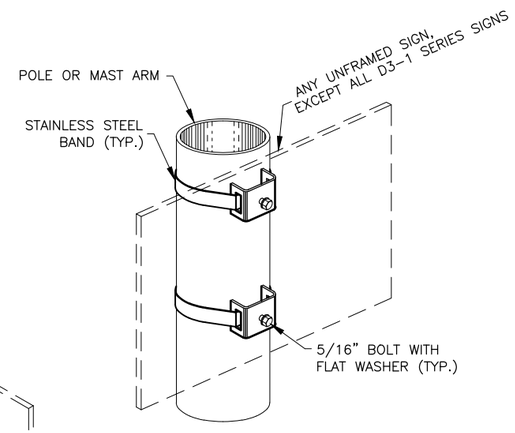
DESIGNED BY ZJH
CHECKED BY RDR
DRAFTED BY MF
SCALE
DATE 5/22/2025 TIME 11:16 AM
DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\H SHEETS\21-PILE_WIRING_AND_GROUNDING.DWG

NO.	DATE	REVISION

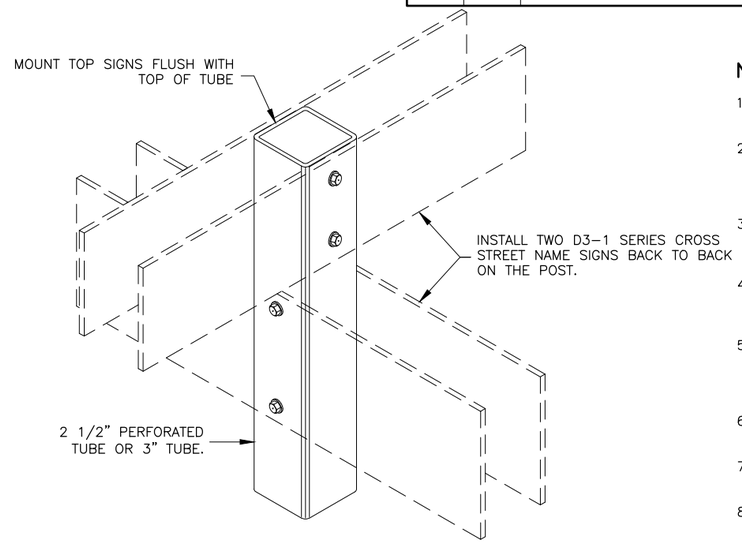
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001630 / CFHWY00435	2026	H10	H22



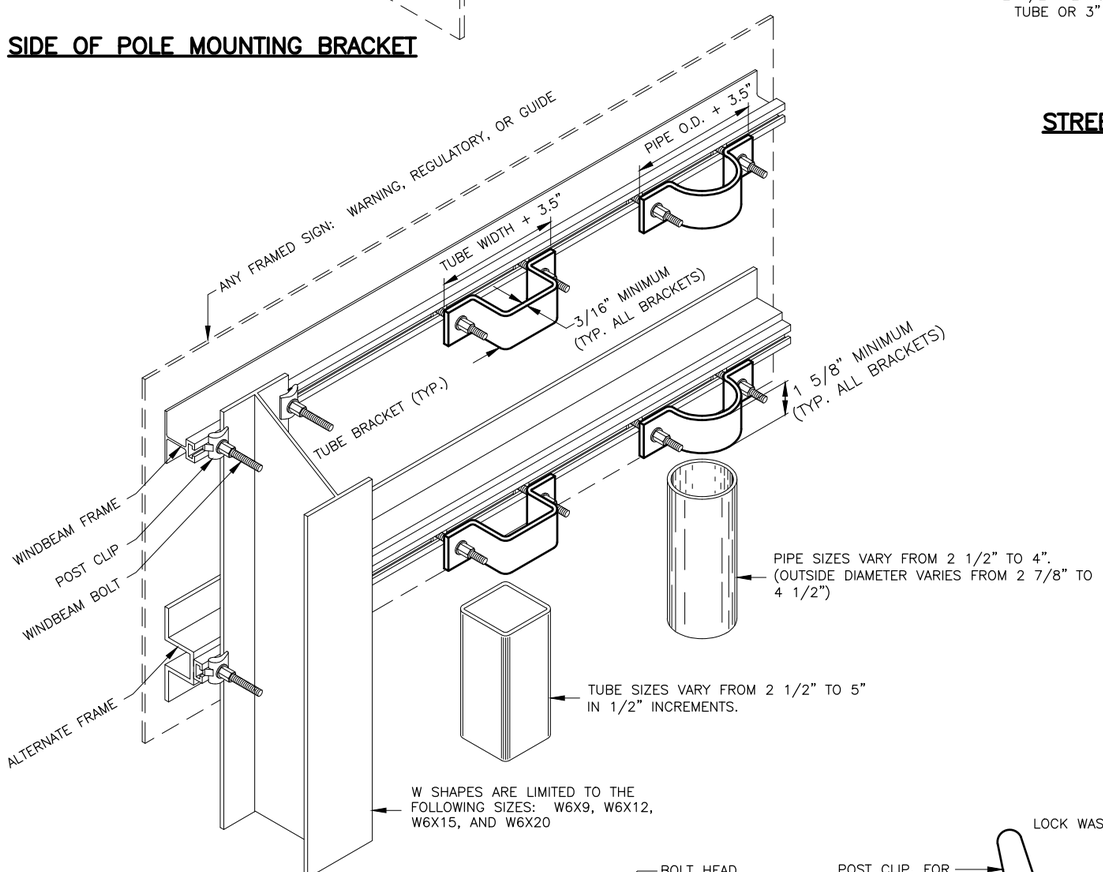
SIDE OF POLE MOUNTING BRACKET



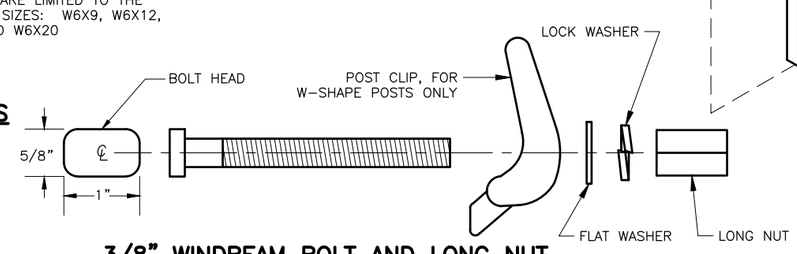
SADDLE BRACKETS



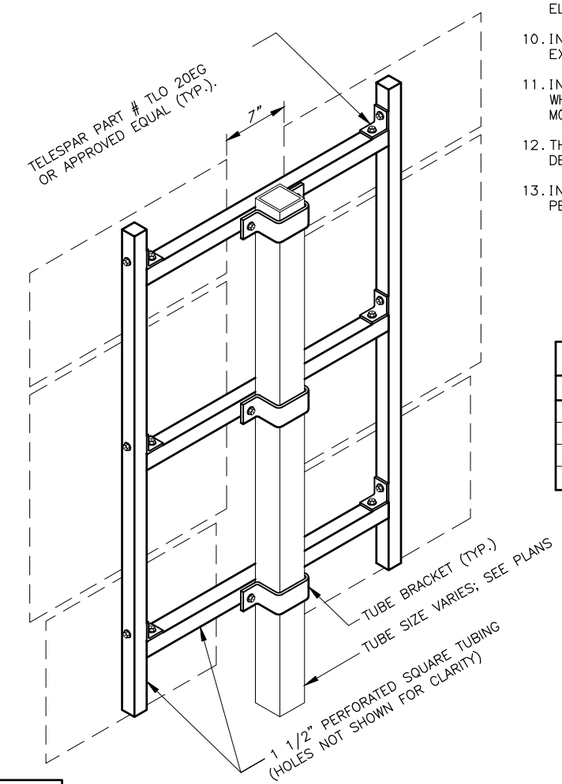
STREET NAME SIGN INSTALLATION



FRAMED SIGN ATTACHMENT BRACKETS



3/8" WINDBEAM BOLT AND LONG NUT



ROUTE MARKER TREE

NOTES:

1. EXCEPT FOR POLES AND MAST ARMS, ONLY USE TUBES TO SUPPORT SIGNS MOUNTED ON ONE POST.
2. ATTACH SIGNS, FRAMED AND UNFRAMED TO THEIR SUPPORTS WITH ZINC PLATED 3/8" BOLTS, EXCEPT ATTACH UNFRAMED SIGNS TO PERFORATED TUBES WITH ACCESSORY DRIVE RIVETS AND TO SADDLES WITH 5/16" BOLTS.
3. BOLT UNFRAMED SIGNS DIRECTLY TO TUBES IN TWO LOCATIONS, NEAR TOP AND NEAR BOTTOM OF MATING SURFACE. ATTACH THEM TO POLES AND MAST ARMS WITH TWO SADDLES.
4. ATTACH BRACKETS TO POLES AND MAST ARMS WITH DOUBLE WRAPS OF 3/4" WIDE BY 0.020" THICK STAINLESS STEEL BANDING MATERIAL. TIGHTEN EACH BAND UNTIL IT STOPS MOVING THROUGH THE BUCKLE.
5. 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, AND A BRACKET WITH SQUARE CORNERS ON TUBES.
6. THE TUBE BRACKETS USED ON EVEN INCH SIZE TUBES MAY ALSO BE USED ON TUBES 1/2" SMALLER IN SIZE.
7. ONLY USE THE SPECIAL WINDBEAM BOLTS TO ATTACH SIGNS FRAMED WITH THE WINDBEAM FRAMING MATERIAL.
8. ATTACH FRAMED SIGNS TO POLES AND MAST ARMS USING POLE PLATES INSTALLED ACCORDING TO ALASKA STANDARD PLAN S-23.
9. FOR ROUTE MARKER TREES, CUT PERFORATED TUBES TO ENSURE TIGHT FITTING JOINTS. ASSEMBLE THE PIECES WITH ACCESSORY ELL-SHAPED ANGLE BRACKETS.
10. INSTALL THE TOP EDGE OF SIGNS 1" ABOVE THE TOPS OF POSTS, EXCEPT FOR THE D3-1 STREET NAME SIGNS.
11. INSTALL THE TOP EDGE OF SIGNS 3" BELOW THE TOP OF POST, WHENEVER THEY ARE MOUNTED BELOW SIGNS SECURED BY POST TOP MOUNTING BRACKETS.
12. THE BRACKET DETAILS SHOWN INDICATE GENERAL DESIGNS ONLY. DESIGNS MAY VARY BY MANUFACTURER.
13. INSTALL WEATHER TIGHT CAPS ON ALL PIPE AND TUBE POSTS, EXCEPT PERFORATED TUBING.

FASTENER SPECIFICATION TABLE

FASTENERS	ALUMINUM	STEEL	STAINLESS STEEL
BOLTS	ASTM F468 2024-T4	ASTM A307	ASTM F593
NUTS	ASTM F467 2024-T4	ASTM A563	ASTM F594
WASHERS	ANSI B18.22.1	ASTM F844	ANSI B18.22.1
POST CLIPS	ASTM B179 356-T6	N/A	N/A

STATE OF ALASKA
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

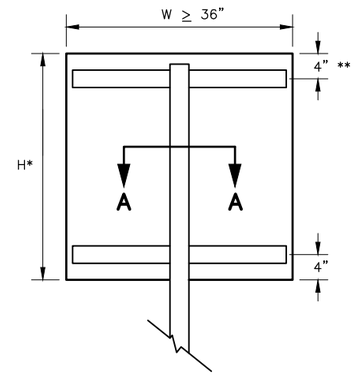
HSIP: BOGARD ROAD AT ENGSTROM ROAD AND GREEN FOREST DRIVE INTERSECTION IMPROVEMENTS

SIGN ATTACHMENT DETAILS

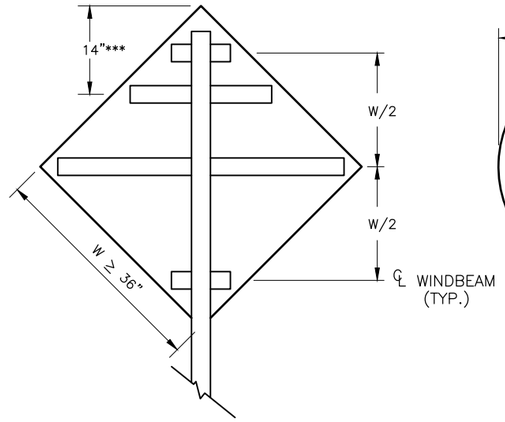
DESIGNED BY ZJH
CHECKED BY RDR
DRAFTED BY MF
SCALE
DATE 5/22/2025 TIME 11:16 AM
DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\PLANSET\H SHEETS\26-SIGN_ATTACHMENT.DWG

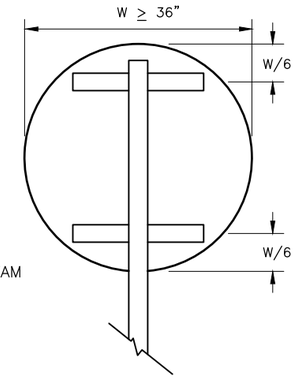
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001630 / CFHWY00435	2026	H11	H22

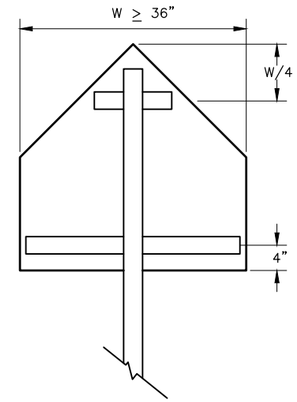


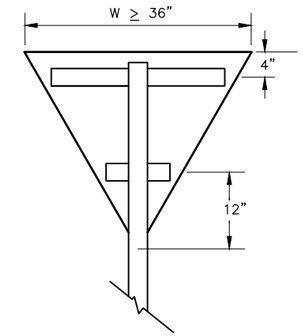
RECTANGLES AND TRAPEZOIDS





ROUNDS AND OCTAGONS





* WHEN H > 42 INCHES, INSTALL A 3RD WINDBEAM CENTERED ON THE SIGN.

** FOR S5-1 SIGNS MOUNTED ON FLASHING BEACON POSTS, USE A 10" OFFSET. OTHERWISE, USE 4".

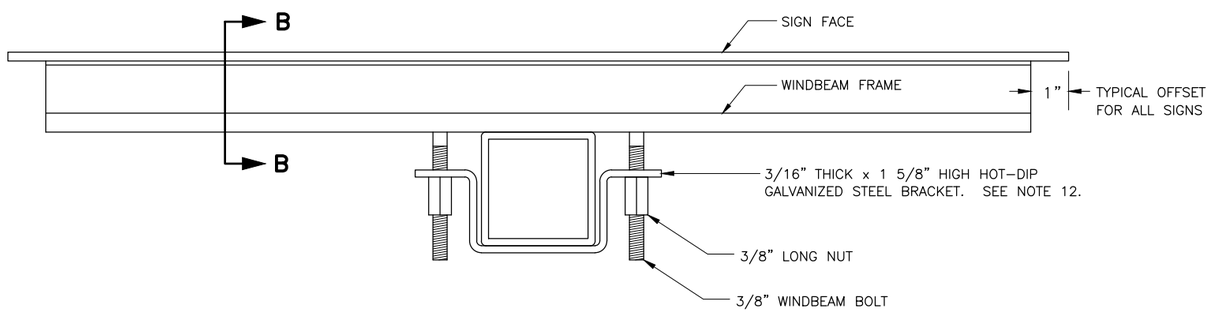
*** FOR WARNING SIGNS MOUNTED ON FLASHING BEACON POSTS, USE THE 14" OFFSET. OTHERWISE, USE W/2.

WINDBEAM LOCATIONS FOR EACH SIGN SHAPE

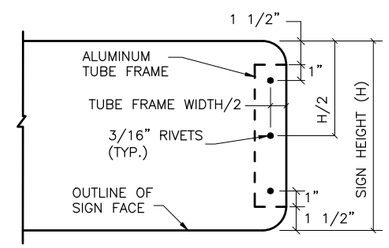
ELEVATION VIEW

NOTES:

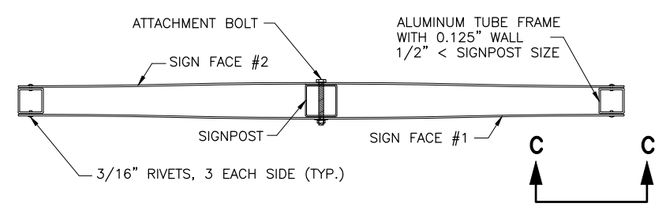
1. EXCEPT FOR POLES AND MAST ARMS, ONLY USE SQUARE STEEL TUBES TO SUPPORT SIGNS MOUNTED ON SINGLE POSTS.
2. INSTALL WINDBEAM OR ZEE SHAPED FRAMING MEMBERS ON DIAMOND SHAPED SIGNS 36 INCHES AND LONGER ON A SIDE AND ON OTHER SIGNS 36 INCHES WIDE AND WIDER.
3. IN HIGH WIND AREAS, THE PLANS MAY REQUIRE SIGNS SMALLER THAN THOSE LISTED IN NOTE 2 BE FRAMED AS SHOWN HERE IN.
4. THIS DRAWING DEPICTS THE WINDBEAM FRAMING AND ATTACHMENT SYSTEM. ATTACH SIGNS FRAMED WITH ZEE SHAPED FRAMING ACCORDING TO REGIONAL DRAWING "SIGN ATTACHMENT DETAILS", USING "U" SHAPED BRACKETS AND TWO BOLTS WITH NUTS.
5. THE ENGINEER MAY APPROVE OTHER FRAMING MEMBERS. SUBMIT DOCUMENTS THAT DETAIL THE FRAME'S CROSS SECTION AND STRENGTH, AND METHOD OF ATTACHING THE FRAME TO A POST.
6. USE FRAMING MEMBERS MADE FROM ALUMINUM ALLOY 6061-T6.
7. EACH FRAMING MEMBER SHALL BE ONE CONTINUOUS PIECE.
8. ATTACH FRAMING MEMBERS TO THE SIGN PANELS WITH RIVETS OR AN ENGINEER APPROVED, DOUBLE SIDED, HIGH STRENGTH, ADHESIVE TAPE.
9. WITH THE ADHESIVE TAPE, INSTALL TWO RIVETS IN BOTH ENDS OF EACH FRAMING MEMBER, AND ATTACH THE FRAMING MEMBERS TO THE SIGN PANELS ACCORDING TO THE TAPE MANUFACTURER'S WRITTEN INSTRUCTIONS, INCLUDING:
   A. THE CLEANING AND HANDLING OF THE SIGN PANELS AND FRAMING MEMBERS.
   B. THE APPLICATION OF THE ADHESIVE TAPE.
10. WHEN RIVETS ARE USED TO ATTACH FRAMING MEMBERS, INSTALL 2 RIVETS IN EACH END AND THE BALANCE ON 8" MAXIMUM CENTERS.
11. USE 3/16" DIAMETER RIVETS CONFORMING TO ALUMINUM ALLOY 6061-T6 FOR COLD DRIVEN RIVETS, OR ALUMINUM ALLOY 6061-T43 FOR HOT DRIVEN RIVETS.
12. THE BRACKETS USED ON EVEN INCH SIZE TUBES MAY ALSO BE USED ON TUBES 1/2" SMALLER IN SIZE.



SECTION A - A TYPICAL SIGN ATTACHMENT DETAILS AT EACH WINDBEAM

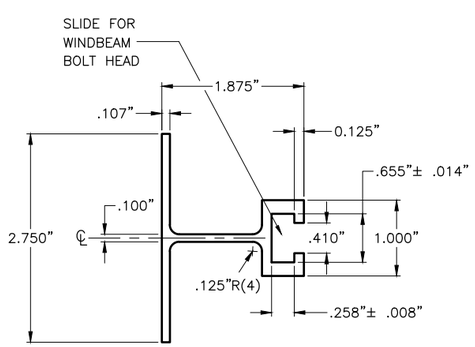


VIEW C - C

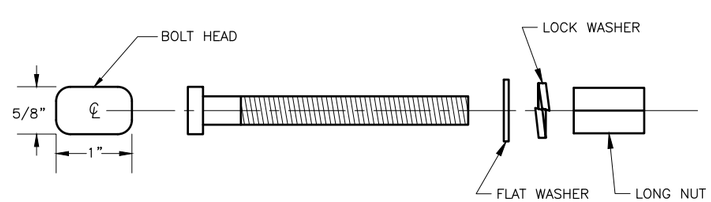


D3-1 STREET NAME SIGN FRAMING DETAIL

PLAN VIEW



SECTION B - B WINDBEAM CROSS SECTION



3/8" WINDBEAM BOLT AND LONG NUT

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

HSIP: BOGARD ROAD AT ENGSTROM ROAD AND GREEN FOREST DRIVE INTERSECTION IMPROVEMENTS

LIGHT SIGN FRAMING DETAILS

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

DESIGNED BY ZJH
CHECKED BY RDR
DRAFTED BY MF
SCALE
DATE 5/22/2025 TIME 11:16 AM
DRAWING LOCATION
W:\PROJECTS\HSIP_BOGARD_ENGSTROM_RA - CFHWY00453\CIV3D\PLANSET\H_SHEETS\27-LIGHT_SIGN_FRAMING.DWG

NO.	DATE	REVISION

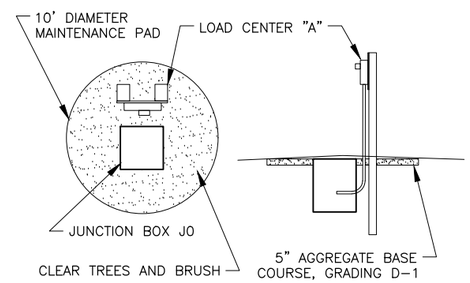
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001630 / CFHWY00435	2026	H12	H22

ELECTROLIER SCHEDULE (660.0003.0000)

POLE NO.	STATION	OFFSET	LUMINAIRE	POLE TYPE	MOUNTING HEIGHT (FT)	SHAFT LENGTH (FT)	MASTARM LENGTH (FT)	MAINTAINING AGENCY	REMARKS
E1	1020+38.5	34.2' RT	ROADWAY I	MASTARM – LIGHTING STANDARD 1	40	38	12	MSB	
E2	1022+01.3	33.7' RT	INTERSECTION	MASTARM – LIGHTING STANDARD 1	40	38	12	MSB	
E3	1022+69.5	49.6' LT	INTERSECTION	MASTARM – LIGHTING STANDARD 1	40	38	10	MSB	
E4	1022+97.1	79.9' RT	INTERSECTION	MASTARM – LIGHTING STANDARD 1	40	38	12	MSB	
E5	1023+08.7	123.1' LT	INTERSECTION	MASTARM – LIGHTING STANDARD 1	40	38	10	MSB	CAUTION: PROXIMITY TO GAS LINE
E6	1023+76.4	136.6' RT	INTERSECTION	MASTARM – LIGHTING STANDARD 1	40	38	12	MSB	
E7	1024+27.2	49.1' RT	INTERSECTION	MASTARM – LIGHTING STANDARD 1	40	38	12	MSB	
E8	1024+21.4	88.7' LT	INTERSECTION	MASTARM – LIGHTING STANDARD 1	40	36	12	MSB	
E9	1024+98.7	56.4' LT	INTERSECTION	MASTARM – LIGHTING STANDARD 1	40	38	12	MSB	
E10	1026+64.4	33.5' RT	ROADWAY I	MASTARM – LIGHTING STANDARD 1	40	38	18	MSB	
E11	113+95.8	35.7' LT	ROADWAY I	MASTARM – LIGHTING STANDARD 1	40	38	10	MSB	

JUNCTION BOX SCHEDULE (660.0003.0000)

POLE NO.	STATION	OFFSET	SALVAGE	NEW	ADJUST	TYPE	REMARKS
J0	1020+63.8	32.1' LT		X		II	
J1	1021+95.2	32.0' RT		X		1A	
J2	1022+64.9	50.0' LT		X		1A	
J3	1022+25.8	35.3' LT		X		1A	
J3A	1022+92.9	75.3' RT		X		1A	
J4	1023+17.4	144.1' RT		X		1A	
J4A	1023+07.6	119.1' LT		X		1A	
J5	1023+77.9	143.0' RT		X		1A	
J6	1024+13.0	58.4' RT		X		1A	
J7	1024+90.7	31.2' RT		X		1A	
J7A	1024+30.3	88.2' LT		X		1A	
J8	1023+97.7	146.2' LT		X		1A	
J8A	1025+07.5	60.0' LT		X		1A	
J9	1026+68.9	33.4' RT		X		1A	
J10	113+96.2	39.5' LT		X		1A	
J11	1022+81.8	25.6 LT		X		1A	



LOAD CENTER MAINTENANCE PAD

SUMMARY OF PROPOSED LOAD CENTER "A" (661.0003.0000)

LOAD CENTER TYPE:	TYPE 2 (STATE OF ALASKA OWNED)
MAINTAINED BY:	MATANUSKA SUSITANA BOROUGH (MSB)
SERVING UTILITY:	MATANUSKA ELECTRIC ASSOCIATION (MEA)
SERVICE CONDUIT TYPE:	RMC & PVC
LOCATION DATA (STA. 1025+19.5 - 78.5' LT)	
LOAD CENTER:	NE BOGARD RD & ENGSTROM RD / GREEN FOREST DR
POWER SOURCE:	NEW MEA TRANSFORMER - ASSUME @ BOGARD RD. STA 1025+08 - 120' LT
PHOTOELECTRIC CONTROL:	AT LOAD CENTER
SERVICE VOLTAGE:	120/240VAC, 1 PHASE, 3 WIRE WITH GROUND
PROVIDE METER SOCKET	YES
MAIN BREAKER, PANEL A	240 VOLT, 2 POLE, 100 AMP
AIC RATING, PANEL A:	10 kAIC @ 240V

PANEL A - 120/240 VAC

POLE	AMP TRIP	DESCRIPTION	POLE KVA	Aϕ	Bϕ	POLE KVA	DESCRIPTION	AMP TRIP	POLE
1	20/2	NW QUADRANT LIGHTING * (E1, E3, E5, E11)	0.5	0.8		0.3	NE QUADRANT LIGHTING * (E8, E9)	20/2	2
3			0.5		0.8	0.3			4
5	20/2	SW QUADRANT LIGHTING * (E2, E4)	0.3	0.7		0.4	SE QUADRANT LIGHTING * (E6, E7, E10)	20/2	6
7			0.3		0.7	0.4			8
9	20/2	SPARE *	0.0	0.1		0.1	PHOTOCELL	15/2	10
11			0.0		0.1	0.1			12
13	-	SPACE	0.0	0.0		0.0	SPACE	-	14
15	-	SPACE	0.0		0.0	0.0	SPACE	-	16
17	-	SPACE	0.0	0.0		0.0	SPACE	-	18
* CIRCUIT THROUGH CONTACTOR				1.6	1.6		PANEL A TOTAL KVA		3.2
							PANEL A AMPS @ 240 VAC		13.3

ARC FLASH AND SHOCK HAZARD RESULTS - LC "A" MAIN BREAKERS ENCLOSURE

ARC FLASH BOUNDARY	3.8
INCIDENT ENERGY IN CAL/CM^2	5.5
WORKING DISTANCE	18 INCHES
SHOCK HAZARD EXPOSURE	240 VAC
INSULATING GLOVES CLASS	00
SHOCK HAZARD	WHEN COVER REMOVED
LIMITED APPROACH BOUNDARY	3.5 FT
RESTRICTED APPROACH BOUNDARY	1.0 FT
CALCULATED DATE	6/16/2022

SHORT CIRCUIT CALCULATION - LC "A"

240V, POWER FACTOR = 0.90, SERVICE LATERAL CONSISTS OF ONE ALUMINUM CONDUCTOR PER PHASE IN RMC & PVC.

TRANSFORMER RATING	25 kVA MAXIMUM
VOLTAGE	120/240 VAC SECONDARY
TRANSFORMER IMPEDANCE	1.2% MINIMUM
TRANSFORMER LET-THRU SHORT CIRCUIT CURRENT (INFINITE BUS)	14,468 A
LENGTH TO FAULT	25FT MINIMUM
SERVICE CONDUCTOR SIZE	1/0 AWG AL MAXIMUM
SERVICE CONDUIT	RMC & PVC
CALCULATED AVAILABLE FAULT CURRENT AT LC "A"	7,156 A
DATE CALCULATED	6/16/2022

LUMINAIRE PERFORMANCE CRITERIA

LUMINAIRE LIGHT LOSS FACTOR	0.85	
LIGHTING CALCULATION METHOD	RP-8-2014	
INTERSECTION ILLUMINANCE CRITERIA		
	BOGARD RD & ENGSTROM RD / GREEN FOREST DR	
AVERAGE MAINTAINED ILLUMINATION (fc)	1.3	
AVERAGE UNIFORMITY RATIO (AVG/MIN)	1.1	
ROADWAY LUMINANCE CRITERIA		
	BOGARD RD	**ENGSTROM RD**
AVERAGE LUMINANCE (cd/m²)	0.7	0.7
MINIMUM ROADWAY LUMINANCE (cd/m²)	0.3	0.3
AVERAGE UNIFORMITY RATIO (AVG/MIN)	2.5	2.4
MAX UNIFORMITY RATIO (MAX/MIN)	4.8	4.6
MAX VEILING LUMINANCE RATIO (LV-MAX/AVG)	0.2	0.3

LUMINAIRE STANDARDS

	ROADWAY I	INTERSECTION
MANUFACTURER AND MODEL (OR APPROVED EQUAL)	CREE LEDWAY - 90 COUNT LED	
WATTAGE (MAXIMUM)	203	203
VOLTAGE	240	240
PE CONTROL	ANSI C136.41 RECEPTACLE	
PE SENSOR	SHORTING CAP ONLY	
MOUNTING	HORIZONTAL	
HOUSING ENTRY TYPE	TOOLLESS	
FIXTURE COLOR	GRAY	
IES DISTRIBUTION TYPE	TYPE III	TYPE IV
POWER FACTOR	≥0.90	
UL LISTED	YES	
CCI	4000K	
CRI	MINIMUM 70	

LIGHTING NOTES:

1. INSTALL ALL ELECTROLIERS WITH MASTARMS PERPENDICULAR TO ROADWAY

STATE OF ALASKA PSBA REVIEW 49TH JEFFREY MARLETON HAMM #3218 REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
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(907) 269-0590

STATE OF ALASKA PSBA REVIEW 49TH ROBERT HUSSE 153238 REGISTERED PROFESSIONAL ENGINEER

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STATE OF ALASKA
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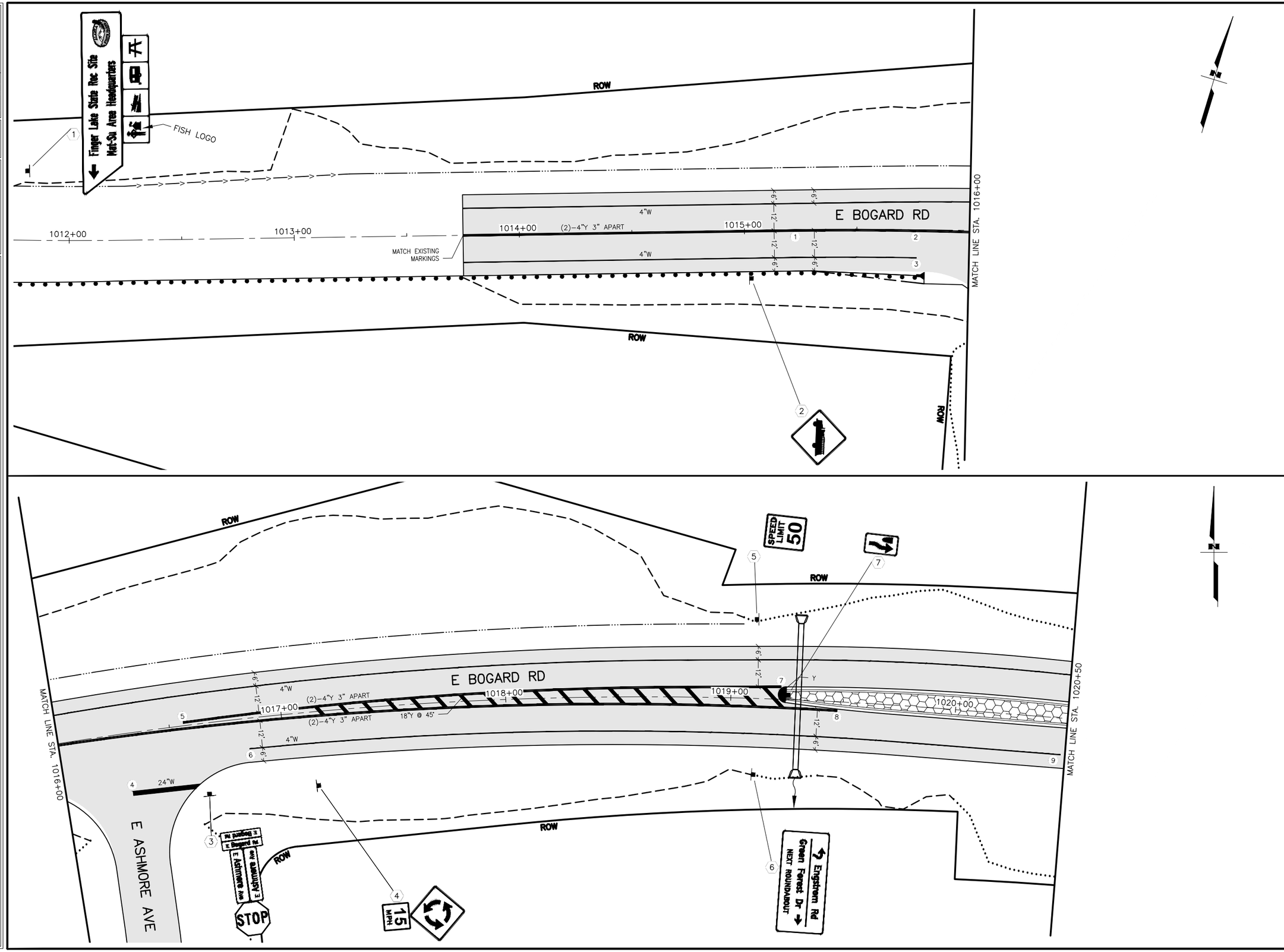
HSIP: BOGARD ROAD AT ENGSTROM ROAD AND GREEN FOREST DRIVE INTERSECTION IMPROVEMENTS

HIGHWAY LIGHTING SCHEDULE

DRAWING LOCATION
W:\PROJECTS\HSIP_BOGARD_ENGSTROM_RA - CFHWY00453\CIV3D\TRAFFIC\00453 - LIGHTING.DWG

DATE 5/22/2025 TIME 11:16 AM | SCALE | DESIGNED BY ZJH | CHECKED BY RDR | DRAFTED BY MF

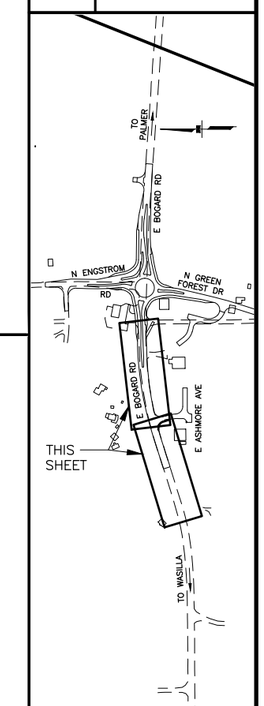


SHEET NO.	TOTAL SHEETS
H13	H22
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION

0001630/
CFHWY00435

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



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REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

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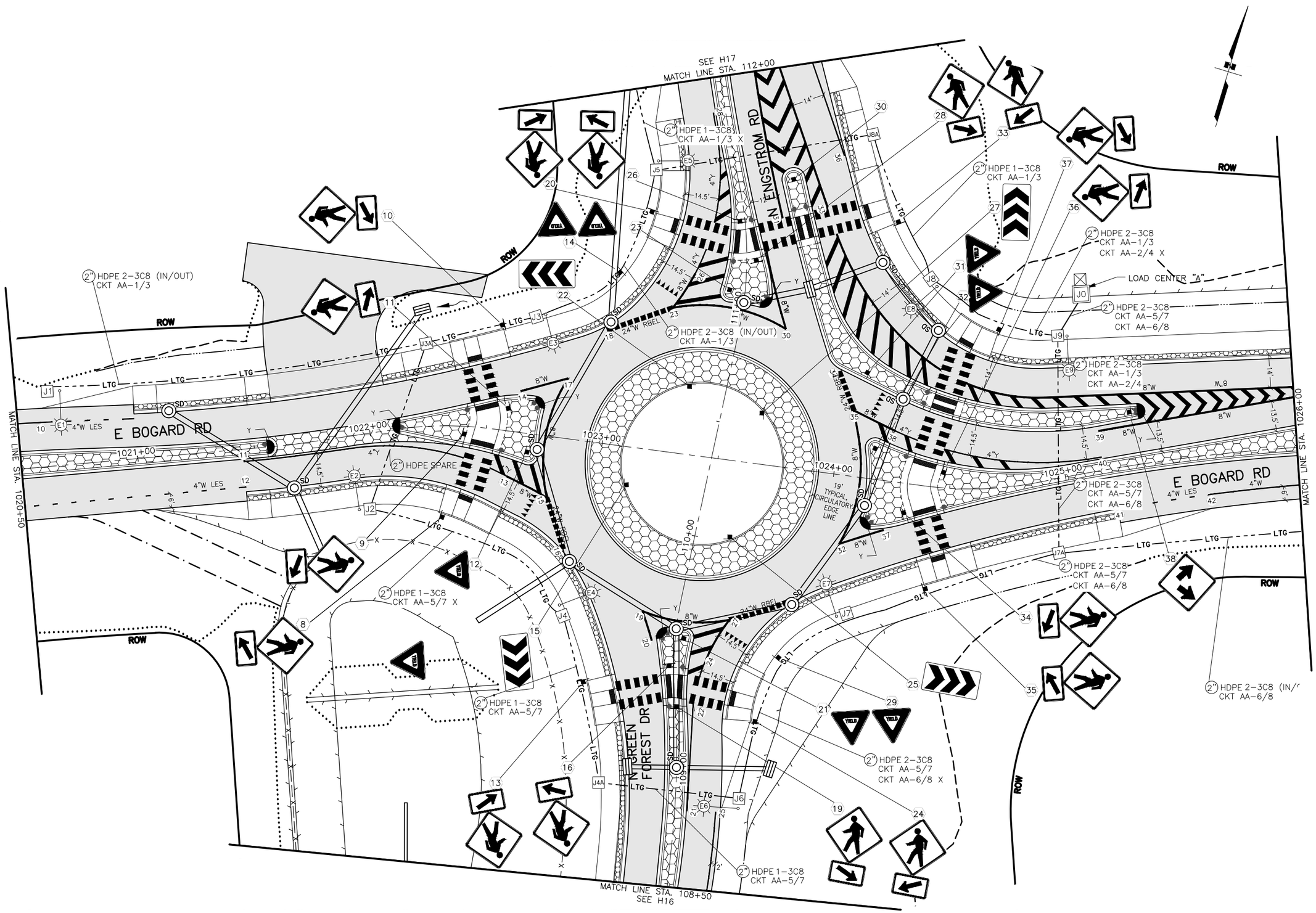

SHEET NO.	TOTAL SHEETS
H14	H22
STATE	YEAR
ALASKA	2026

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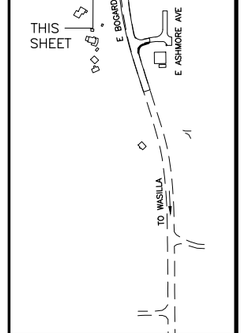

STATE OF ALASKA
PSB REVIEW
REGISTERED PROFESSIONAL ENGINEER
49246
RISSE
AK-153238

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DEPARTMENT OF TRANSPORTATION
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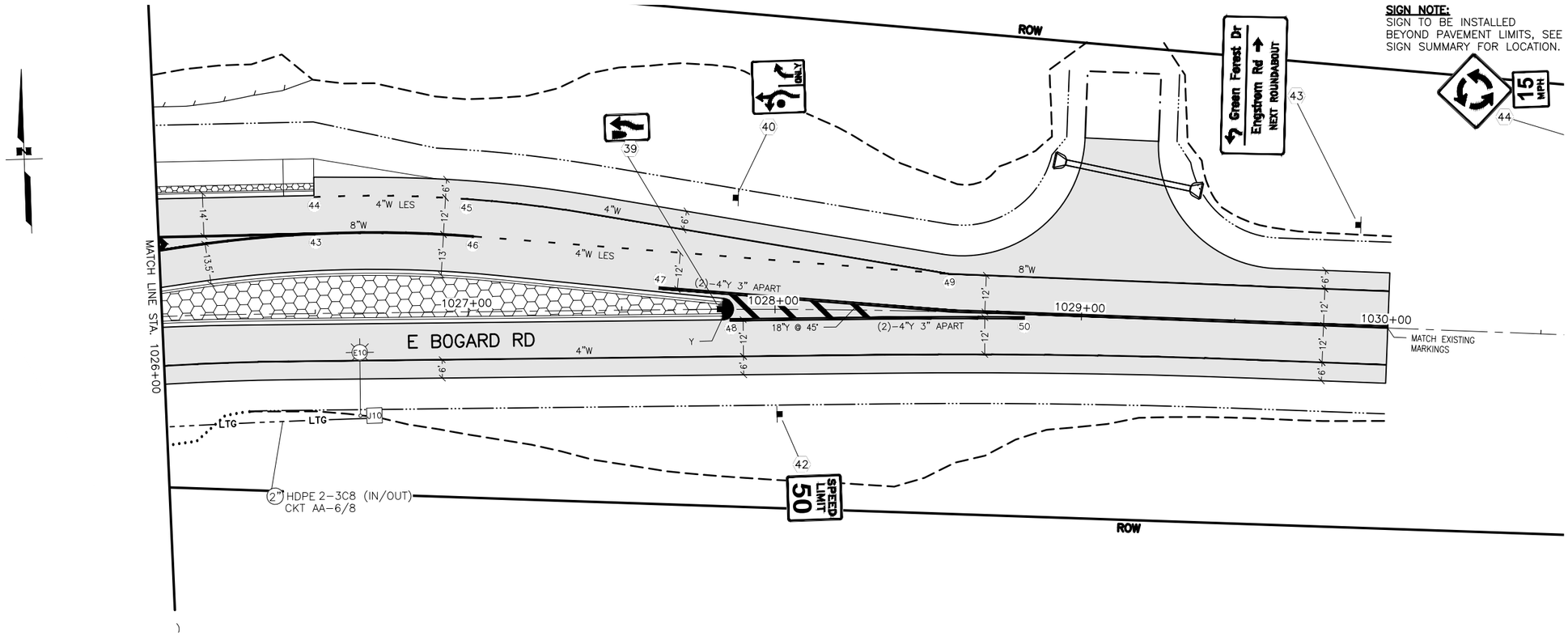

SHEET NO.	TOTAL SHEETS
H15	H22
STATE	YEAR
ALASKA	2026

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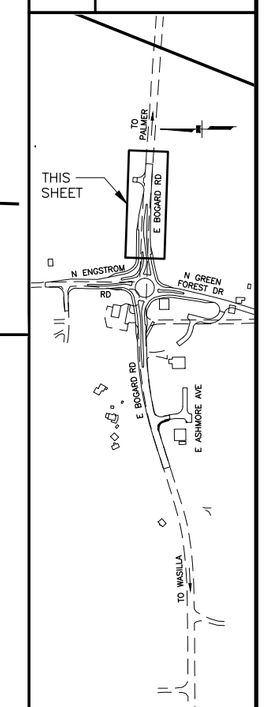

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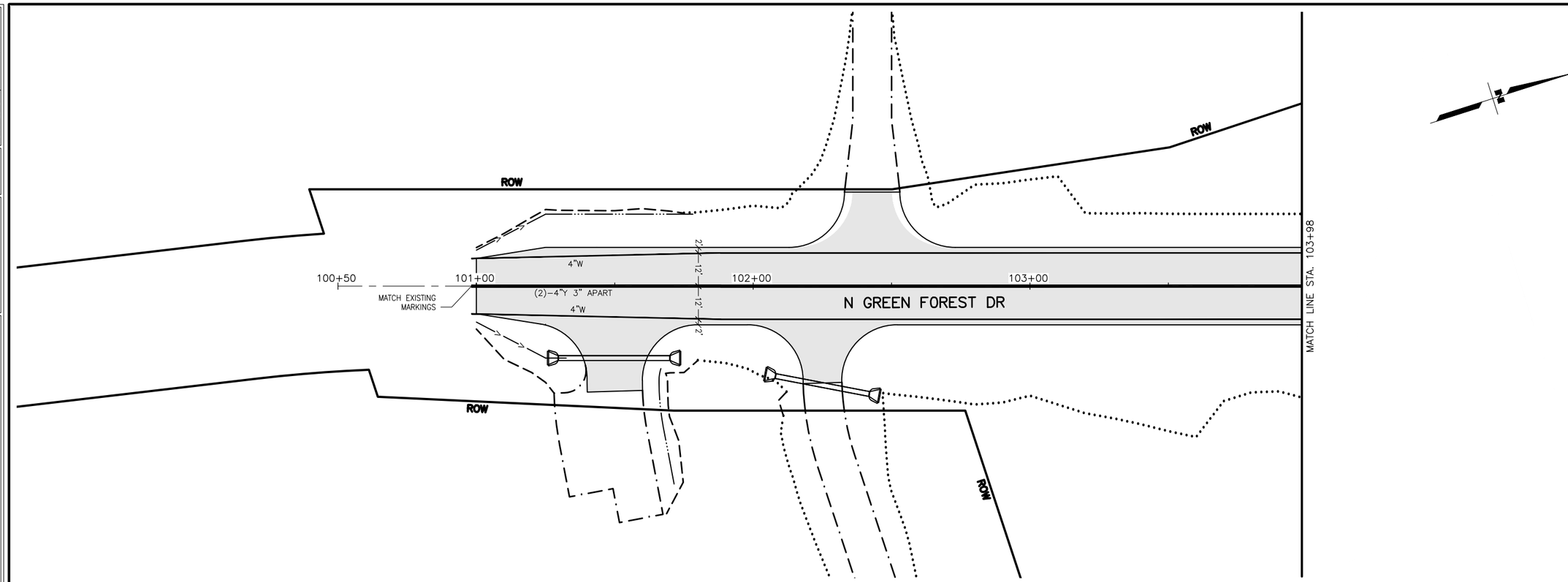

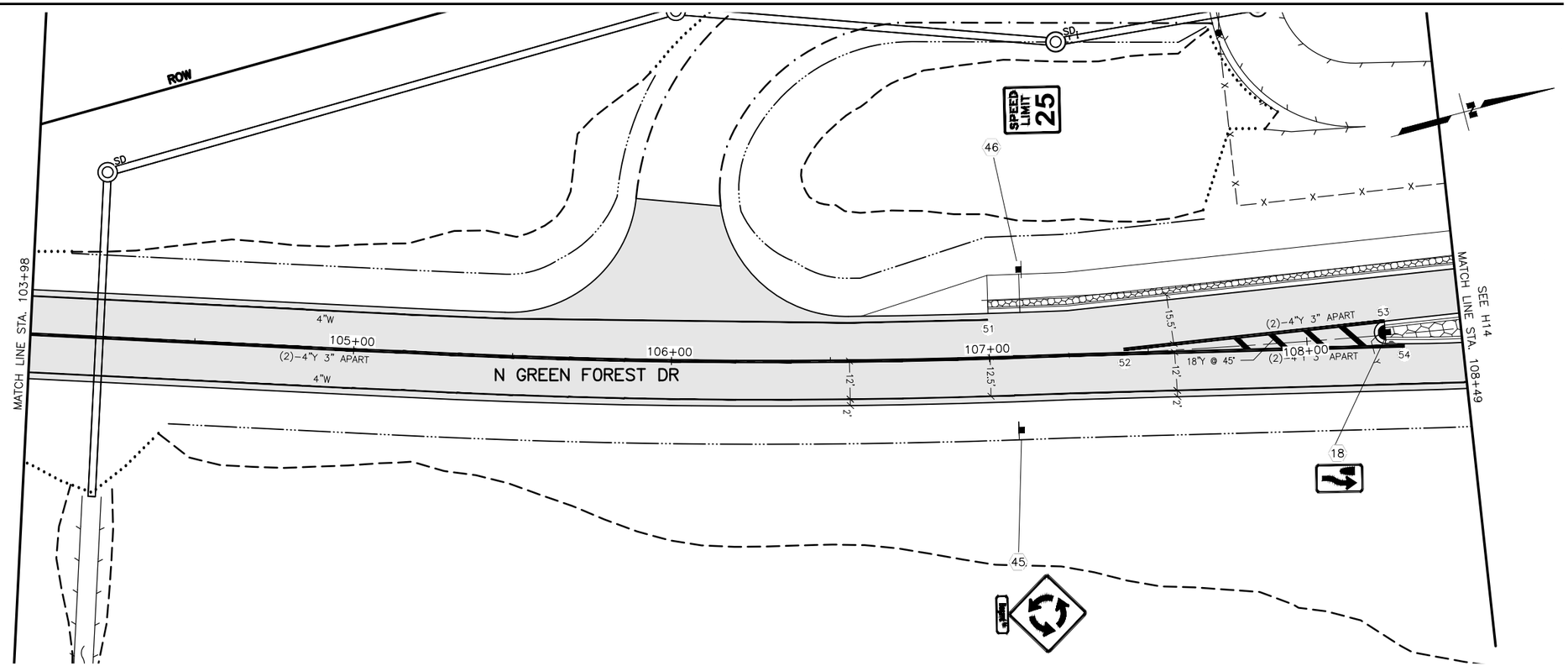

SHEET NO.	TOTAL SHEETS
H16	H22
STATE	YEAR
ALASKA	2026

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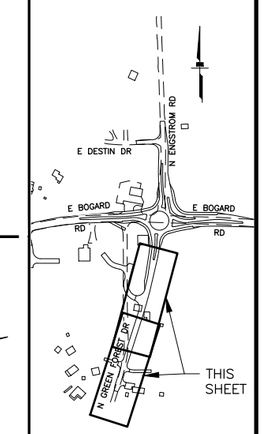

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DEPARTMENT OF TRANSPORTATION
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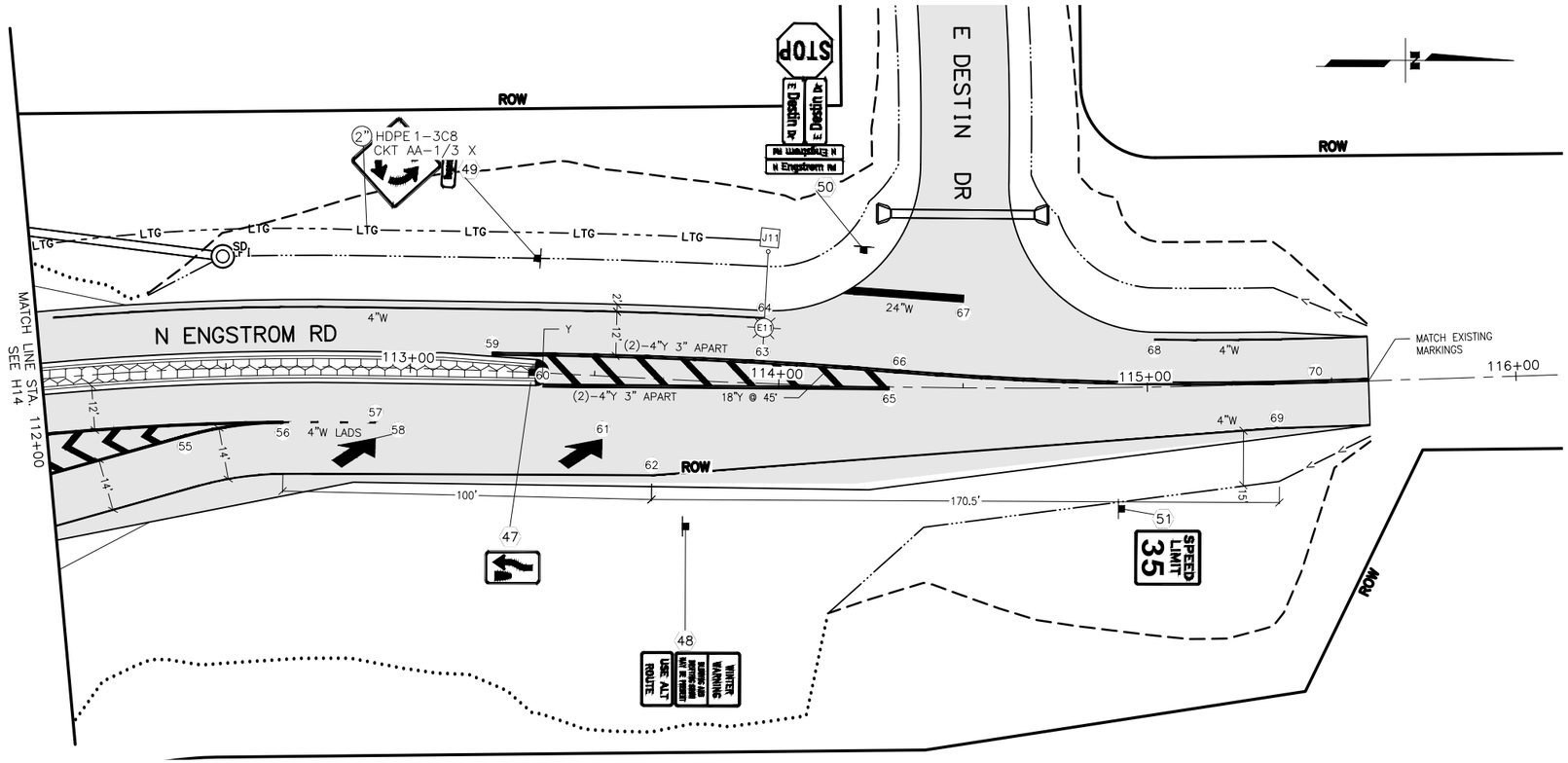

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ALASKA	2026

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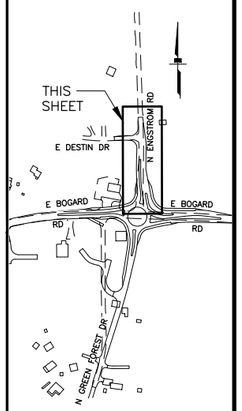

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
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NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001630 / CFHWY00435	2026	H18	H22

SIGN SUMMARY (615.0001.0000)

SIGN NO.	SHEET NO.	STATION	CL REF	TYPE	LEGEND	WIDTH (IN)	HEIGHT (IN)	AREA (SQ FT)	SIGN FACES	POST NO., SIZE, & TYPE	FRAMED	MAINTAINING AGENCY	REMARKS
1A	H13	1011+81.2	LT	D7–102L	← Finger Lake State Rec Site Mat-Su Area Headquarters	162"	36"	40.5	E	2–W6X12	N	DOT&PF	MINIMUM 4 FEET VERTICAL BACKSLOPE CLEARANCE. 7 FEET BEAM SPACING.
1B	H13	1011+81.2	LT	D7–100P FISH LOGO		96"	24"	16.0	E		N		MINIMUM 4 FEET VERTICAL BACKSLOPE CLEARANCE. 7 FEET BEAM SPACING.
2	H13	1015+02.8	RT	W11–8		30"	30"	6.25	W	1–3"T	N	DOT&PF	
3A	H13	1016+64.2	RT	D3–1	E Bogard Rd	36"	8"	2.0	N/S	1–3"T	Y	DOT&PF	INSTALL TWO SIGNS BACK TO BACK
3B	H13	1016+64.2	RT	D3–1	E Ashmore Ave	48"	12"	4.0	E/W		Y		INSTALL TWO SIGNS BACK TO BACK
3C	H13	1016+64.2	RT	R1–1	STOP	36"	36"	9.0	S		Y		
4A	H13	1017+13.7	RT	W2–6		30"	30"	6.25	W	1–3"T	N	DOT&PF	INSTALL SIGN WITH A 13' OFFSET FROM EDGE OF PAVEMENT
4B	H13	1017+13.7	RT	W13–1	15 MPH	18"	18"	2.25	W		N		INSTALL SIGN WITH A 13' OFFSET FROM EDGE OF PAVEMENT
5	H13	1019+10.6	LT	R2–1	SPEED LIMIT 50	24"	30"	5.0	E	1–3"T	N	DOT&PF	
6	H13	1019+10.9	RT	D3–2	← Engstrom Rd Green Forest Dr → NEXT ROUNDABOUT	90"	42"	26.25	W	2–3"T	Y	DOT&PF	
7	H13	1019+25.4	LT	R4–7c		18"	30"	3.75	W	1–3"T	N	MSB	
8A	H14	1022+30.3	RT	W11–2		30"	30"	6.25	W	1–3"T	N	MSB	
8B	H14	1022+30.3	RT	W16–7PL		24"	12"	2.0	W		N		
9A	H14	1022+40.6	RT	W11–2		30"	30"	6.25	W	1–3"T	N	MSB	
9B	H14	1022+40.6	RT	W16–7PR		24"	12"	2.0	W		N		
10A	H14	1022+51.3	LT	W11–2		30"	30"	6.25	E	1–3"T	N	MSB	
10B	H14	1022+51.3	LT	W16–7PL		24"	12"	2.0	E		N		
11A	H14	1022+58.2	LT	W11–2		30"	30"	6.25	E	1–3"T	N	MSB	
11B	H14	1022+58.2	LT	W16–7PR		24"	12"	2.0	E		N		
12	H14	1022+68.5	RT	R1–2	YIELD	36"	36"	9.0	W	1–3"T	Y	MSB	

FLEXIBLE DELINEATORY SUMMARY (615.0005.0000)

SIGN NO.	STATION	OFFSET	REFLECTOR COLOR
D1	1019+25.4	0.9' LT	YELLOW
D2	1021+54.5	1.2' LT	YELLOW
D3	1022+13.8	0.6' LT	YELLOW
D4	1022+41.3	7.1' LT	YELLOW
D5	1022+57.5	8.4' RT	YELLOW
D6	1022+68.8	13.3' LT	WHITE
D7	1022+70.4	11.4' LT	WHITE
D8	1023+36.4	79.3' RT	WHITE
D9	1023+38.2	76.9' RT	WHITE
D10	1023+43.2	107.8' RT	YELLOW
D11	108+26.4	2.9' RT	YELLOW
D12	1023+46.6	90.4' RT	YELLOW
D13	1023+45.4	84.6' LT	YELLOW
D14	1023+50.6	103.3' LT	YELLOW
D15	1023+59.2	69.1' LT	WHITE
D16	1023+61.5	71.3' LT	WHITE
D17	1023+68.4	110.1' LT	WHITE
D18	1023+73.0	111.9' LT	WHITE
D19	1024+16.7	16.5' RT	WHITE
D20	1024+18.6	18.4' RT	WHITE
D21	1024+29.7	11.4' LT	YELLOW
D22	1024+34.2	35.0' LT	YELLOW
D23	1024+48.1	8.0' RT	YELLOW
D24	1024+35.1	39.9' LT	YELLOW
D25	1025+34.1	23.4' LT	WHITE
D26	1025+34.0	21.8' LT	WHITE
D27	1027+82.5	1.1' LT	YELLOW
D28	113+33.5	1.0' LT	YELLOW

STATE OF ALASKA
PSBA REVIEW
ROBERT J. RISSE
AK PE-153238
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD ROAD AT ENGSTROM ROAD AND GREEN FOREST DRIVE INTERSECTION IMPROVEMENTS

SIGN & DELINEATOR SUMMARY

DESIGNED BY ZJH
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DRAFTED BY MF
SCALE
DATE 5/22/2025 TIME 11:17 AM
DRAWING LOCATION
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NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001630 / CFHWY00435	2026	H19	H22

SIGN SUMMARY (615.0001.0000)

SIGN NO.	SHEET NO.	STATION	CL REF	TYPE	LEGEND	WIDTH (IN)	HEIGHT (IN)	AREA (SQ FT)	SIGN FACES	POST NO., SIZE, & TYPE	FRAMED	MAINTAINING AGENCY	REMARKS
13A	H14	1023+05.3	RT	W11-2		30"	30"	6.25	N	1-3"T	N	MSB	
13B	H14	1023+05.3	RT	W16-7PL		24"	12"	2.0	N		N		
14	H14	1023+03.2	LT	R1-2		36"	36"	9.0	N	1-3"T	Y	MSB	
15	H14	1023+12.6	RT	R6-4A		48"	24"	8.0	W	1-3"T	Y	MSB	48" MOUNTING HEIGHT FROM BOTTOM OF PANEL TO TRUCK APRON
17A	H14	1023+40.8	RT	W11-2		30"	30"	6.25	N	1-3"T	N	MSB	
17B	H14	1023+40.8	RT	W16-7PR		24"	12"	2.0	N		N		
18	H14	108+25.6	LT	R4-7c		18"	30"	3.75	S	1-3"T	N	MSB	
19A	H14	1023+46.2	RT	W11-2		30"	30"	6.25	S	1-3"T	N	MSB	
19B	H14	1023+46.2	RT	W16-7PR		24"	12"	2.0	S		N		
20A	H14	1023+08.2	LT	W11-2		30"	30"	6.25	N	1-3"T	N	MSB	
20B	H14	1023+08.2	LT	W16-7PL		24"	12"	2.0	N		N		
21	H14	1023+45.5	RT	R1-2		36"	36"	9.0	S	1-3"T	Y	MSB	
22	H14	1023+33.8	LT	R6-4A		48"	24"	8.0	N	1-3"T	Y	MSB	48" MOUNTING HEIGHT FROM BOTTOM OF PANEL TO TRUCK APRON
23	H14	1023+39.7	LT	R1-2		36"	36"	9.0	N	1-3"T	Y	MSB	
24A	H14	1023+80.4	RT	W11-2		30"	30"	6.25	S	1-3"T	N	MSB	
24B	H14	1023+80.4	RT	W16-7PL		24"	12"	2.0	S		N		
25	H14	1023+59.4	RT	R6-4A		48"	24"	8.0	S	1-3"T	Y	MSB	48" MOUNTING HEIGHT FROM BOTTOM OF PANEL TO TRUCK APRON
26A	H14	1023+45.9	LT	W11-2		30"	30"	6.25	N	1-3"T	N	MSB	
26B	H14	1023+45.9	LT	W16-7PR		24"	12"	2.0	N		N		
27	H14	1023+66.0	LT	R6-4A		48"	24"	8.0	E	1-3"T	Y	MSB	48" MOUNTING HEIGHT FROM BOTTOM OF PANEL TO TRUCK APRON

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
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SIGN SUMMARY

STATE OF ALASKA
REGISTERED PROFESSIONAL ENGINEER
PS&E REVIEW
4-29-26
ROBERT MISSE
CE-153238

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
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STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001630 / CFHWY00435	2026	H20	H22

SIGN SUMMARY (615.0001.0000)

SIGN NO.	SHEET NO.	STATION	CL REF	TYPE	LEGEND	WIDTH (IN)	HEIGHT (IN)	AREA (SQ FT)	SIGN FACES	POST NO., SIZE, & TYPE	FRAMED	MAINTAINING AGENCY	REMARKS
28A	H14	1023+55.1	LT	W11-2		30"	30"	6.25	S	1-3"T	N	MSB	
28B	H14	1023+55.1	LT	W16-7PR		24"	12"	2.0	S		N		
29	H14	1023+86.7	RT	R1-2	YIELD	36"	36"	9.0	S	1-3"T	Y	MSB	
30	H14	1023+66.4	LT	W4-2		30"	30"	6.25	S	1-3"T	N	MSB	
31	H14	1024+08.5	LT	R1-2	YIELD	36"	36"	9.0	SE	1-3"T	Y	MSB	
32	H14	1024+16.1	LT	R1-2	YIELD	36"	36"	9.0	SE	1-3"T	Y	MSB	
33A	H14	1024+13.3	LT	W11-2		30"	30"	6.25	S	1-3"T	N	MSB	
33B	H14	1024+13.3	LT	W16-7PL		24"	12"	2.0	S		N		
34A	H14	1024+31.8	RT	W11-2		30"	30"	6.25	W	1-3"T	N	MSB	
34B	H14	1024+31.8	RT	W16-7PR		24"	12"	2.0	W		N		
35A	H14	1024+43.9	RT	W11-2		30"	30"	6.25	W	1-3"T	N	MSB	
35B	H14	1024+43.9	RT	W16-7PL		24"	12"	2.0	W		N		
36A	H14	1024+46.8	LT	W11-2		30"	30"	6.25	E	1-3"T	N	MSB	
36B	H14	1024+46.8	LT	W16-7PR		24"	12"	2.0	E		N		
37A	H14	1024+81.0	LT	W11-2		30"	30"	6.25	E	1-3"T	N	MSB	
37B	H14	1024+81.0	LT	W16-7PL		24"	12"	2.0	E		N		
38	H14	1025+31.1	LT	W12-1		30"	30"	6.25	E	1-3"T	N	MSB	
39	H15	1027+82.0	LT	R4-7c	SPEED LIMIT 50	18"	30"	3.75	E	1-3"T	N	MSB	
40	H15	1027+87.2	LT	R3-8SL/R		36"	36"	9.0	E	1-3"T	Y	MSB	INSTALL SIGN 3' O.C. INSIDE OF DITCH LINE
42	H15	1028+01.6	RT	R2-1	ONLY	24"	30"	5.0	W	1-3"T	N	DOT&PF	INSTALL SIGN WITH A 13' OFFSET FROM EDGE OF PAVEMENT

STATE OF ALASKA
PS&E REVIEW
ROBERT MISSE
CE-153238
REGISTERED PROFESSIONAL ENGINEER

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(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD ROAD AT ENGSTROM ROAD AND GREEN FOREST DRIVE INTERSECTION IMPROVEMENTS

SIGN SUMMARY

DESIGNED BY ZJH
CHECKED BY RDR
DRAFTED BY MF

SCALE

DATE 5/22/2025 TIME 11:17 AM

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\TRAFFIC\00453 - SIGNING.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001630 / CFHWY00435	2026	H21	H22

SIGN SUMMARY (615.0001.0000)

SIGN NO.	SHEET NO.	STATION	CL REF	TYPE	LEGEND	WIDTH (IN)	HEIGHT (IN)	AREA (SQ FT)	SIGN FACES	POST NO., SIZE, & TYPE	FRAMED	MAINTAINING AGENCY	REMARKS
43	H15	1029+89.1	LT	D3–2	← Green Forest Dr / Engstrom Rd → / NEXT ROUNDABOUT	90"	42"	26.25	E	2–3"T	Y	DOT&PF	INSTALL NEAR–SIDE SIGN POST FOUNDATION 3' O.C. OUTSIDE OF DITCH LINE
44A	H15	1031+89.9	LT	W2–6		30"	30"	6.25	E	1–3"T	N	DOT&PF	
44B	H15	1031+89.9	LT	W13–1	15 MPH	18"	18"	2.25	E		N		
45A	H16	107+09.3	RT	W2–6		30"	30"	6.25	S	1–3"T	N	MSB	INSTALL SIGN WITH 9' OFFSET FROM EDGE OF PAVEMENT
45B	H16	107+09.3	RT	W16–8	Bogard Rd	24"	8"	1.33	S		N		INSTALL SIGN WITH 9' OFFSET FROM EDGE OF PAVEMENT
46	H16	107+10.1	LT	R2–1	SPEED LIMIT 25	24"	30"	5.0	N	1–3"T	N	MSB	
47	H17	113+33.0	RT	R4–7c		18"	30"	3.75	N	1–3"T	N	MSB	
48A	H17	113+76.5	RT	W14–106 (CUSTOM)	WINTER WARNING / BLOWING AND DRIFTING SNOW / MAY BE PRESENT	30"	36"	7.5	S	1–3"T	Y	MSB	
48B	H17	113+76.5	RT	W14–200 (CUSTOM)	USE ALT ROUTE	30"	18"	3.75	S		Y		
49A	H17	113+33.1	LT	W2–6		30"	30"	6.25	N	1–3"T	N	MSB	USE 15' SHOULDER OFFSET FOR LATERAL LOCATION
49B	H17	113+33.1	LT	W16–8	Bogard Rd	24"	8"	1.33	N		N		USE 15' SHOULDER OFFSET FOR LATERAL LOCATION
50A	H17	114+22.2	LT	D3–1	N Engstrom Rd	42"	30"	8.75	E/W	1–3"T	Y	MSB	INSTALL TWO SIGNS BACK TO BACK
50B	H17	114+22.2	LT	D3–1	E Destin Dr	36"	12"	3.0	N/S		Y		INSTALL TWO SIGNS BACK TO BACK
50C	H17	114+22.2	LT	R1–1	STOP	30"	30"	6.25	W		N		
51	H17	114+92.5	RT	R2–1	SPEED LIMIT 35	24"	30"	5.0	S	1–3"T	N	MSB	INSTALL SIGN WITH A 15' OFFSET FROM EDGE OF PAVEMENT

SIGN SALVAGE SUMMARY (615.0001.0000)

SIGN NO.	STATION	CL REF	TYPE	MAINTAINING AGENCY	REMARKS
S1A	1013+56.2	LT	D7–1	DOT&PF	LEGEND: MAT–SU AREA HEADQUARTERS ALASKA STATE PARKS
S1B	1013+56.2	LT	D7–102	DOT&PF	LEGEND: FINGER LAKE STATE REC SITE
S1C	1013+56.2	LT	RM–020	DOT&PF	
S2A	1014+97.0	RT	W2–7R SPECIAL	DOT&PF	
S2B	1014+97.0	RT	W13–1	DOT&PF	
S3A	1016+58.6	RT	R1–1	MSB	
S3B	1016+58.6	RT	D3–1	MSB	LEGEND: E ASHMORE AVE
S4	1017+65.1	RT	W11–8	DOT&PF	
S5A	1021+79.1	RT	D3–1	MSB	LEGEND: N GREEN FOREST DR
S5B	1021+79.1	RT	R1–1	MSB	
S6A	1023+18.0	LT	D3–1	MSB	LEGEND: N ENGSTROM RD
S6B	1023+18.0	LT	R1–1	MSB	
S7	1023+63.2	RT	W1–7	DOT&PF	
S8	1026+84.2	LT	W11–8	DOT&PF	
S9A	1030+26.7	LT	W2–7R SPECIAL	DOT&PF	
S9B	1030+26.7	LT	W13–1	DOT&PF	
S10	1021+34.4	RT	R2–1	MSB	LEGEND: 25 MPH
S11A	1023+41.6	LT	R2–1	MSB	LEGEND: 35 MPH
S11B	1023+41.6	LT	OTHER	MSB	LEGEND: WHEN SNOW IS BLOWING USE ALTERNATE ROUTE DESTIN DR
S12	1022+71.1	LT	W3–1	MSB	
S13A	1022+52.9	LT	D3–1	MSB	LEGEND: E DESTIN DR
S13B	1022+52.9	LT	R1–1	MSB	

STATE OF ALASKA
49TH
ROBERT RISSE
CE–153238
REGISTERED PROFESSIONAL ENGINEER
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD ROAD AT ENGSTROM ROAD AND GREEN FOREST DRIVE INTERSECTION IMPROVEMENTS
SIGN & SIGN SALVAGE SUMMARY

DESIGNED BY ZJH
CHECKED BY RDR
DRAFTED BY MF
SCALE
DATE 5/22/2025 TIME 11:17 AM
DRAWING LOCATION
W:\PROJECTS\HSIP_BOGARD_ENGSTROM_RA – CFHWY00453\CIV3D\TRAFFIC\00453 – SIGNING.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001630 / CFHWY00435	2026	H22	H22

PAVEMENT MARKING LAYOUT TABLE

NAME	STATION	OFFSET	REMARKS
1	1015+22.4	0.0' RT	C.L. DEVIATES FROM ALIGNMENT
2	1015+76.2	0.4' RT	BEGIN R=1668FT
3	1015+76.4	12.4' RT	END 4IN W
4	1016+30.0	25.8' RT	STOP BAR CORNER
5	1016+56.3	1.4' LT	BEGIN PAINTED MEDIAN
6	1016+84.4	13.5' RT	BEGIN 4IN W
7	1019+22.2	5.5' LT	END DOUBLE YELLOW
8	1019+47.4	3.9' RT	END DOUBLE YELLOW
9	1020+45.0	16.2' RT	END 4IN W. BEGIN 4IN W LES
10	1020+59.9	19.1' LT	END 4IN W. BEGIN 4IN W LES
11	1021+45.0	5.2' RT	BEGIN 4IN Y
12	1021+45.0	16.2' RT	END 4IN W LES
13	1022+61.3	19.3' RT	END 4IN Y. BEGIN 8IN W.
14	1022+62.5	17.5' LT	BEGIN 8IN W
15	1022+79.5	26.1' RT	8IN W INTERSECTION. BEGIN 24IN W RBEL
16	1022+89.4	46.9' RT	END 24IN RBEL
17	1022+81.8	25.6' LT	8IN W INTERSECTION
18	1022+95.8	48.3' LT	BEGIN 24IN W RBEL
19	1023+26.4	68.9' RT	8IN W INTERSECTION
20	1023+32.0	80.8' RT	BEGIN 8IN W
21	1023+56.5	151.3' RT	BEGIN 4IN Y, TANGENT
22	1023+53.2	105.5' RT	END 4IN Y, TANGENT
23	1023+22.3	61.5' LT	8IN W INTERSECTION. END 24IN W RBEL
24	1023+55.3	85.6' RT	END 8IN W. BEGIN 4IN Y.
25	1023+68.7	150.0' RT	END 4IN W
26	1023+29.9	77.1' LT	END 8IN W. BEGIN 4IN Y.
27	1023+63.8	67.7' RT	8IN W INTERSECTION. BEGIN 24IN W RBEL
28	1023+28.6	146.4' LT	END 4IN Y
29	1023+87.5	56.7' RT	END 24IN RBEL
30	1023+71.5	58.8' LT	8IN W INTERSECTION
31	1023+63.9	105.7' LT	BEGIN 4IN W.
32	1024+06.2	29.3' RT	8IN W INTERSECTION
33	1023+82.4	112.8' LT	BEGIN 4IN W TANGENT
34	1023+96.6	43.8' LT	END 24IN RBEL
35	1024+05.0	28.0' LT	8IN W INTERSECTION. BEGIN 24IN W RBEL
36	1023+86.6	135.6' LT	BEGIN 4IN W.
37	1024+24.2	20.9' RT	ROUNDABOUT TABLE
38	1024+23.6	21.2' LT	END 8IN W. BEGIN 4IN Y.
39	1025+17.2	16.9' LT	BEGIN 8IN W
40	1025+16.6	5.6' LT	END 4IN Y

PAVEMENT MARKING LAYOUT TABLE

NAME	STATION	OFFSET	REMARKS
41	1025+20.0	17.3' RT	BEGIN 4IN W LES
42	1025+61.0	16.6' RT	END 4IN W LES. BEGIN 4IN W
43	1026+50.3	26.0' LT	END PAINTED GORE. 8 IN W INTERSECTION
44	1026+50.1	38.0' LT	BEGIN 4IN W LES
45	1026+99.9	36.7' LT	END 8INW. BEGIN 4INW LES
46	1027+01.8	24.5' LT	END 8INW. BEGIN 4INW LES
47	1027+62.1	7.1' LT	BEGIN DOUBLE YELLOW
48	1027+85.2	3.4' RT	BEGIN 4IN W
49	1028+56.1	12.4' LT	4IN W INTERSECTION WITH 4IN W LES
50	1028+81.5	1.1' RT	BEGIN 4IN W
51	106+99.8	12.0' LT	END 4IN W.
52	107+42.4	0.3' RT	BEGIN PAINTED MEDIAN
53	108+24.8	4.4' LT	END DOUBLE YELLOW
54	108+30.4	3.8' RT	END DOUBLE YELLOW
55	112+38.1	18.0' RT	END TANGENT. BEGIN 100' RADIUS.
56	112+65.3	15.0' RT	4IN W INTERSECTION. BEGIN 4IN W LADS
57	112+90.8	14.9' RT	END 4IN W LADS
58	112+90.9	19.2' RT	MERGE ARROW – TIP
59	113+21.9	4.5' LT	BEGIN DOUBLE YELLOW.
60	113+36.0	3.4' RT	BEGIN DOUBLE YELLOW
61	113+53.0	17.1' RT	MERGE ARROW – TIP
62	113+66.8	26.1' RT	BEGIN LANE DROP TAPER
63	113+95.2	5.7' LT	BEGIN DOUBLE YELLOW. R=1455FT
64	113+95.5	17.7' LT	END 4IN W
65	114+30.0	0.3' RT	BEGIN DOUBLE YELLOW
66	114+32.5	4.2' LT	END R=1455', BEGIN R=1000'
67	114+49.8	23.1' LT	STOP BAR CORNER
68	115+02.1	12.8' LT	END 4IN W
69	115+34.8	12.0' RT	END LANE DROP TAPER
70	115+45.7	0.2' LT	END R=1000'

STATE OF ALASKA
REGISTERED PROFESSIONAL ENGINEER
PSR REVIEW
ROBERT LABRISSE
53238

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD ROAD AT ENGSTROM ROAD AND GREEN FOREST DRIVE INTERSECTION IMPROVEMENTS
PAVEMENT MARKING LAYOUT SUMMARY

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA – CFHWY00453\CIV3D\TRAFFIC\00453 – STRIPING.DWG

DATE 5/22/2025 TIME 11:17 AM
SCALE
DESIGNED BY ZJH
CHECKED BY RDR
DRAFTED BY MF

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	001630/CFHWY00453	2025	L1	XX

PLANTING SCHEDULE

Deciduous Trees - See Detail: (1 / L3) DECIDUOUS TREE PLANTING - STAKED (5 / L3) MOOSE PROTECTION

QTY.	SYMBOL	LABEL	BOTANICAL NAME	COMMON NAME	SIZE	FURNISHED	NOTES
6		PTE	POPULUS TREMULA 'ERECTA'	COLUMNAR SWEDISH ASPEN	2" CAL	B&B	SINGLE STEM

Evergreen Trees - See Detail: (2 / L3) EVERGREEN TREE PLANTING - STAKED

QTY.	SYMBOL	LABEL	BOTANICAL NAME	COMMON NAME	SIZE	FURNISHED	NOTES
5		PG	PICEA GLAUCA	WHITE SPRUCE	6' HT		

Shrubs - See Detail: (3 / L3) SHRUB PLANTING

QTY.	SYMBOL	LABEL	BOTANICAL NAME	COMMON NAME	SIZE	FURNISHED	NOTES
42		CL	COTONEASTER ACUTIFOLIUS	PEKKING COTONEASTER	#5 (18" MIN)		CG
28		SP	SYRINGA X PRESTONIAE 'DONALD WYMAN'	'DONALD WYMANN' LILAC	#5 (18" MIN)		CG
28		SV	SYRINGA VILLOSA	LATE LILAC	#5 (18" MIN)		CG

MISCELLANEOUS

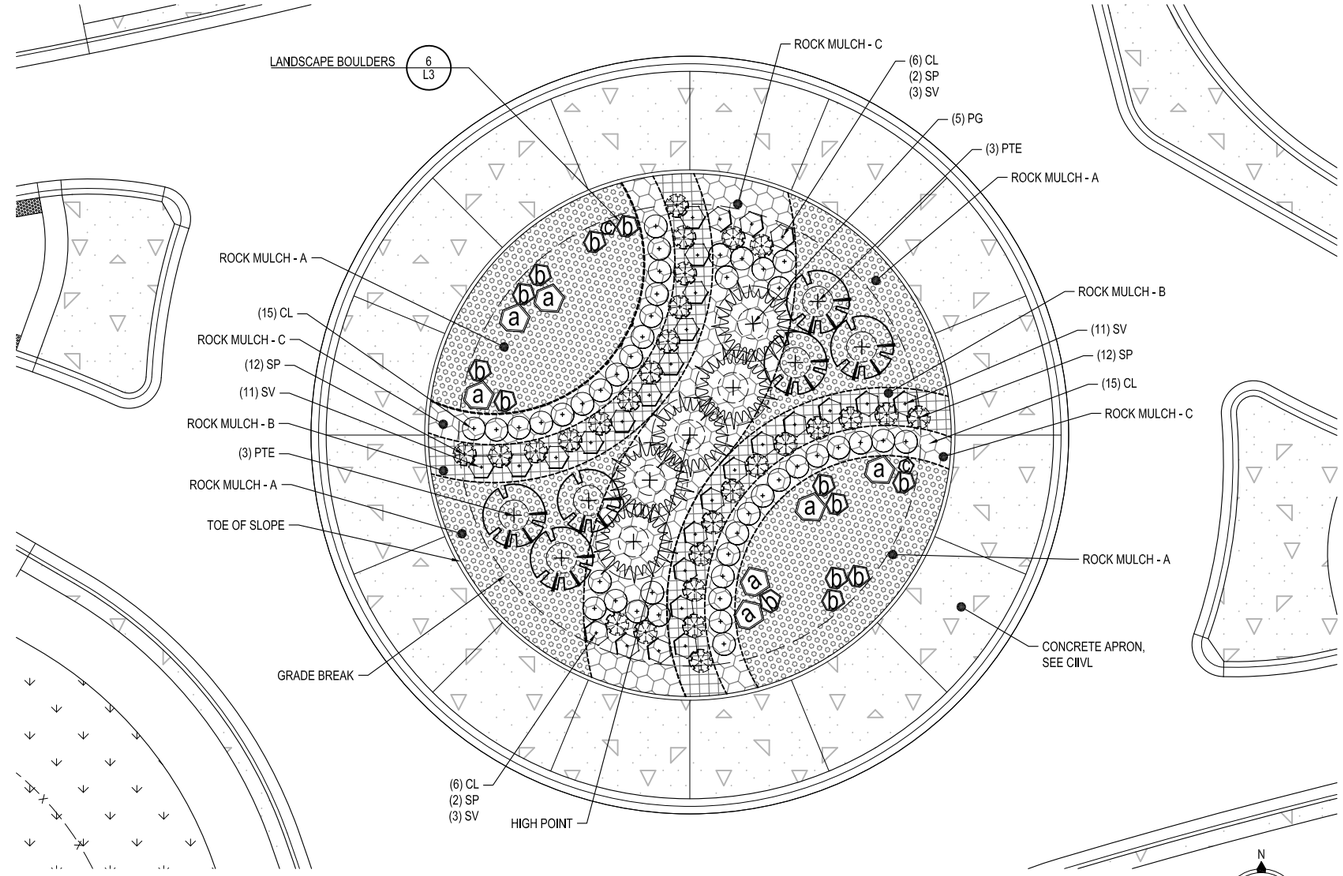
- ROCK MULCH A OVER GEOTEXTILE FABRIC
- ROCK MULCH B OVER GEOTEXTILE FABRIC
- ROCK MULCH C OVER GEOTEXTILE FABRIC
- (4 / L3) LANDSCAPE EDGING
- (6 / L3) LANDSCAPE BOULDERS

GENERAL NOTES:

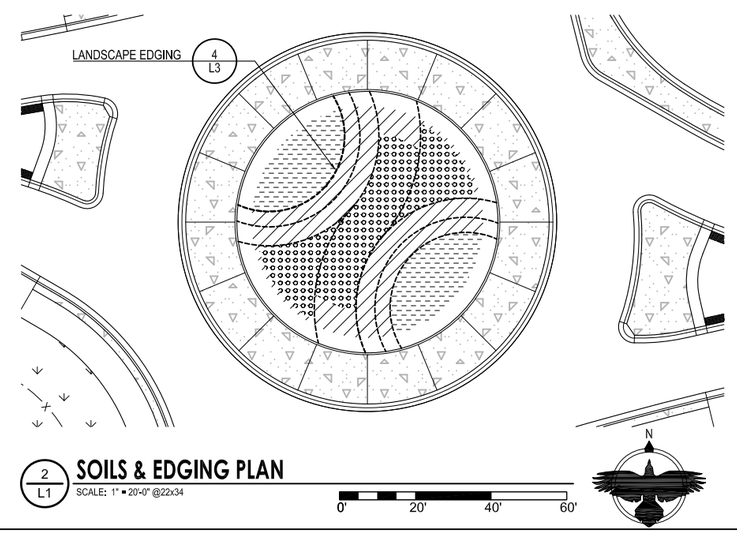
1. ALL PLANTS: NURSERY GROWN TO ANSI Z60.1 OR NATIVE TRANSPLANTS TO ANSI Z60.1.
2. WHERE PLANTING MATERIALS ARE INSTALLED WITHIN SOIL AREAS, EXCAVATE AS NECESSARY TO ACHIEVE SOIL DEPTHS AND EXTENTS PER PLANTING DETAILS PLUS ADDITIONAL EXCAVATION AS NEEDED TO INSTALL MULCH (AS RELEVANT) AND FOR SOFT SURFACES TO BE 1" BELOW ADJACENT HARD SURFACES (AS RELEVANT). COORDINATE EARTHWORK ACTIVITIES TO ENSURE THAT FINAL GRADES ARE MET, AND POSITIVE DRAINAGE IS ACHIEVED.
3. APPLY 4" DEPTH PLANTING SOIL AND SEED TO ALL DISTURBED AREAS NOT INDICATED ON PLANS.
4. INSTALL MOOSE PROTECTION FENCE TO ALL DECIDUOUS TREES. REFER TO DETAIL 5/L3.
5. LANDSCAPE CONTRACTOR: COORDINATE THE EXCAVATION OF PLANTING SOIL AREAS AND PLANTING BEDS WITH THE GENERAL OR PRIME CONTRACTOR.
6. LANDSCAPE CONTRACTOR: COORDINATE WITH THE GENERAL OR PRIME CONTRACTOR FOR STABILIZATION OF ALL DISTURBED AREAS (DISTURBED SOILS) IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS FOR STORM WATER POLLUTION PREVENTION PLANS.

SOILS LEGEND

	4" DEPTH PLANTING SOIL
	12" DEPTH PLANTING SOIL
	18" MIN. DEPTH PLANTING SOIL - ADDITIONAL SOIL DEPTH PER PLANTING DETAILS
EXCAVATE AS NECESSARY TO ALLOW PLACEMENT OF PLANTING SOIL PER ABOVE (AS MEASURED AFTER COMPACTION) PLUS ADDITIONAL EXCAVATION AS NEEDED TO INSTALL MULCH (AS RELEVANT) AND FOR SOFT SURFACES TO BE 1" BELOW ADJACENT HARD SURFACES (AS RELEVANT). WHERE PLANTING MATERIALS ARE INSTALLED WITHIN SOIL AREAS, EXCAVATE DEEPER AS NEEDED TO ACHIEVE SOIL DEPTHS AND EXTENTS PER PLANTING DETAILS. COORDINATE EARTHWORK ACTIVITIES TO ENSURE THAT FINAL GRADES ARE MET, AND POSITIVE DRAINAGE IS ACHIEVED.	



1 / L1 **LANDSCAPE PLAN**
SCALE: 1" = 10'-0" @22x34



2 / L1 **SOILS & EDGING PLAN**
SCALE: 1" = 20'-0" @22x34

STATE OF ALASKA
PROJECT ENGINEER
REGISTERED PROFESSIONAL ENGINEER
XXXX REVIEW

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT ENGSTROM RD & GREEN FOREST DR INT IMP

LANDSCAPE AND SOILS PLAN

DESIGNED BY	BL/MH
CHECKED BY	PB
DRAFTED BY	BL

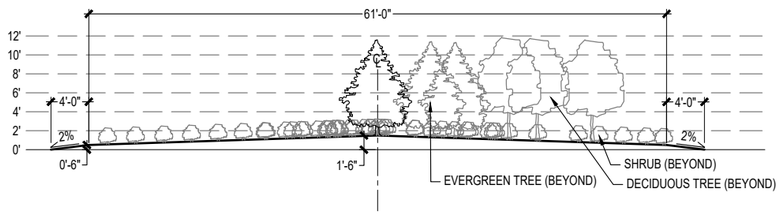
SCALE

DATE 04/28/2025 DATE 09:50 AM

DRAWING LOCATION
C:\USERS\BLITTLE\DESKTOP\WORKING AWAY\PROJECTS\KIN-20-01 BOGARD ENGSTROM ROUNDABOUT\2 - CAD\CORVUS-SHEETS.DWG

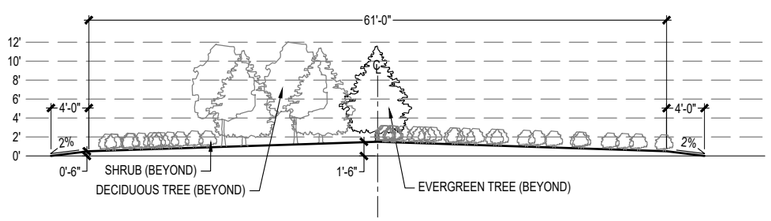
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	001630/CFHWY00453	2025	L2	XX



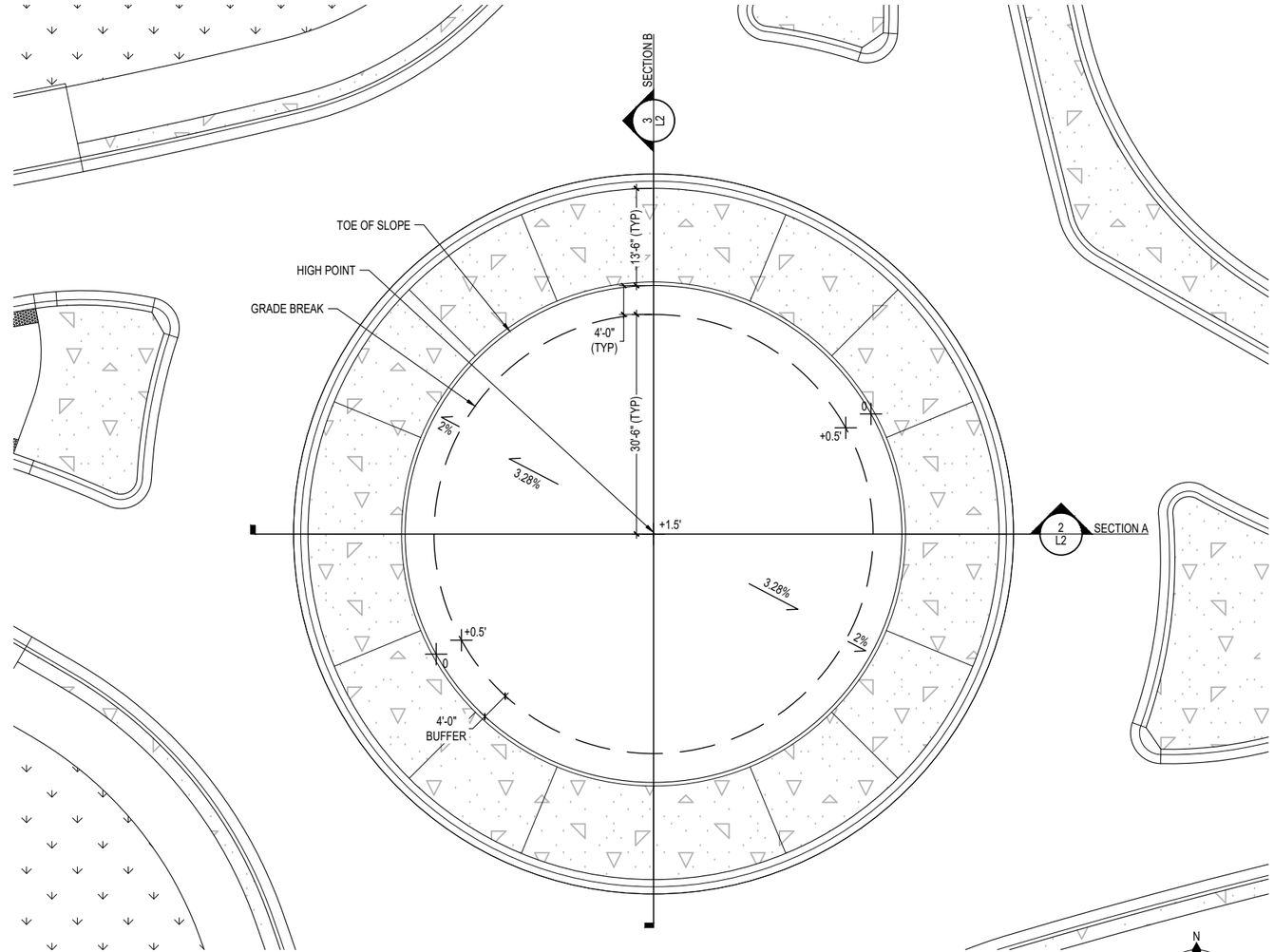
2 L2 **SECTION A**

SCALE: NTS @22x34



3 L2 **SECTION B**

SCALE: NTS @22x34



1 L2 **GRADING PLAN**

SCALE: 1" = 10'-0" @22x34

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

GRADING PLAN AND SECTIONS

STATE OF ALASKA
PROFESSIONAL ENGINEER
PROJECT NUMBER
REGISTERED
REVIEW

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

DESIGNED BY BL/MH
CHECKED BY PB
DRAFTED BY BL

SCALE

DATE 04/28/2025 DATE 09:50 AM

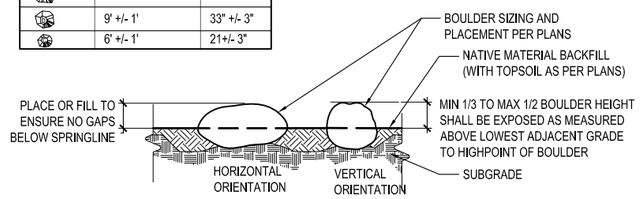
DRAWING LOCATION
C:\USERS\BLITTLE\DESKTOP\WORKING AWAY\PROJECTS\KIN-20-01 BOGARD ENGSTROM ROUNDABOUT\2 - CAD\CORVUS-SHEETS.DWG

NO.	DATE	REVISION

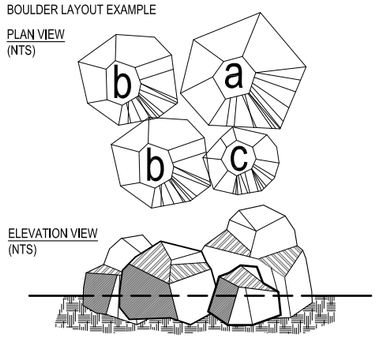
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	001630/CFHWY00453	2025	L3	XX

LANDSCAPE BOULDER SIZING SCHEDULE

BOULDER SYMBOL	CIRCUMFERENCE	HEIGHT
	12' +/- 1'	45" +/- 3"
	9' +/- 1'	33" +/- 3"
	6' +/- 1'	21+/- 3"

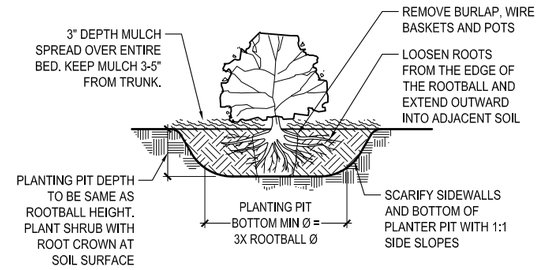


BOULDER LAYOUT EXAMPLE



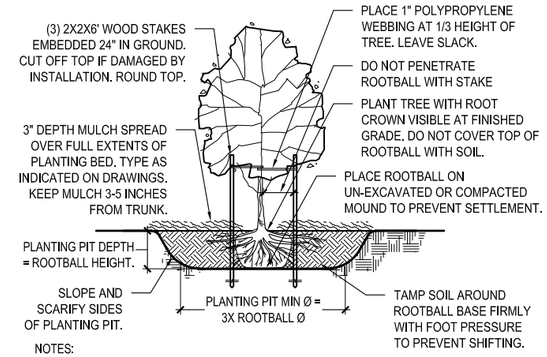
NOTES:
1. LOCATION AND ORIENTATION OF PLACED ROCKS SHALL BE FIELD APPROVED BY OWNER'S REPRESENTATIVE.
2. BOULDERS SHOULD BE NO HIGHER THAN 30" ABOVE ANY ADJACENT GRADE.
3. CIRCUMFERENCE REFERS TO THE LARGEST CIRCUMFERENCE OF THE BOULDER.
4. HEIGHT IS MEASURED PERPENDICULAR TO AXIS USED FOR DETERMINING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

6 / L3 LANDSCAPE BOULDERS
SCALE: NTS @22x34



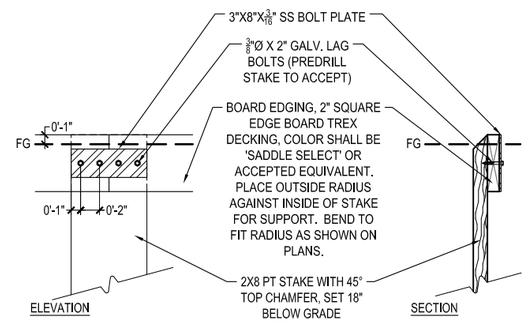
NOTES:
1. TO PREVENT SETTLEMENT, THOROUGHLY WATER PLANTING SOIL WHILE BACKFILLING
2. DO NOT FERTILIZE AT TIME OF INSTALLATION
3. IF PRESENT, REMOVE ALL POTS, TWINE, WIRE, AND BURLAP FROM ROOTBALL

3 / L3 SHRUB PLANTING
SCALE: NTS @22x34



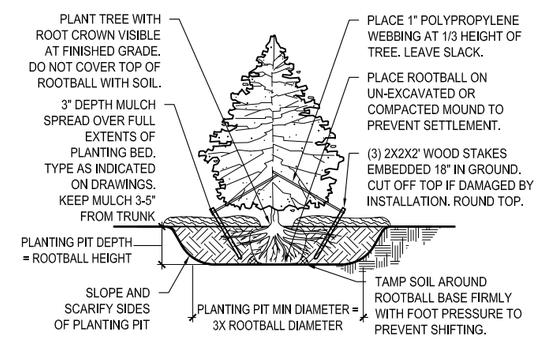
NOTES:
1. TO PREVENT SETTLEMENT, THOROUGHLY WATER PLANTING SOIL WHILE BACKFILLING
2. DO NOT FERTILIZE AT TIME OF INSTALLATION
3. IF PRESENT, REMOVE ALL POTS, TWINE, WIRE, AND BURLAP FROM ROOTBALL

1 / L3 DECIDUOUS TREE PLANTING - STAKED
SCALE: NTS @22x34



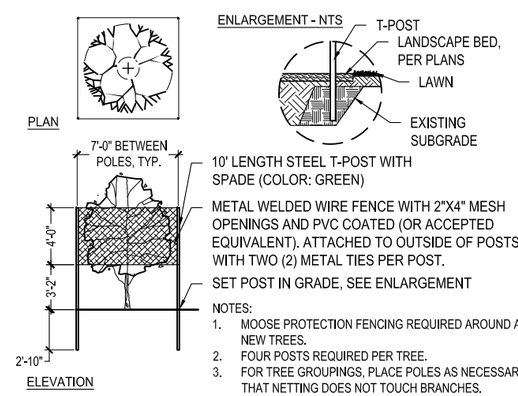
NOTES:
1. HORIZONTAL AND VERTICAL INSTALLATION SHALL PRODUCE CONSISTENT STRAIGHT SECTIONS AND CONTINUOUS CURVES WITHOUT NOTICEABLE DEVIATION.
2. SPLICE TO OCCUR AT POSTS. MINIMIZE SPLICES BY USING 18' LENGTHS.

4 / L3 LANDSCAPE EDGING
SCALE: 1 1/2" = 1'-0" @22x34



NOTES:
1. TO PREVENT SETTLEMENT, THOROUGHLY WATER PLANTING SOIL WHILE BACKFILLING
2. DO NOT FERTILIZE AT TIME OF INSTALLATION
3. IF PRESENT, REMOVE ALL POTS, TWINE, WIRE, AND BURLAP FROM ROOTBALL PRIOR TO PLANTING

2 / L3 EVERGREEN TREE PLANTING - STAKED
SCALE: NTS @22x34



NOTES:
1. MOOSE PROTECTION FENCING REQUIRED AROUND ALL NEW TREES.
2. FOUR POSTS REQUIRED PER TREE.
3. FOR TREE GROUPINGS, PLACE POLES AS NECESSARY SO THAT NETTING DOES NOT TOUCH BRANCHES.

5 / L3 MOOSE PROTECTION
SCALE: NTS @22x34

STATE OF ALASKA
PROFESSIONAL ENGINEER
XXXX REVIEW

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT ENGSTROM RD & GREEN FOREST DR INT IMP

DETAILS

DRAWING LOCATION
C:\USERS\BUTTLE\DESKTOP\WORKING AWAY\PROJECTS\KIN-20-01 BOGARD ENGSTROM ROUNDABOUT\2 - CAD\CORVUS-SHEETS.DWG

DATE 04/28/2025 DATE 09:50 AM SCALE DESIGNED BY BL/MH CHECKED BY PB DRAFTED BY BL

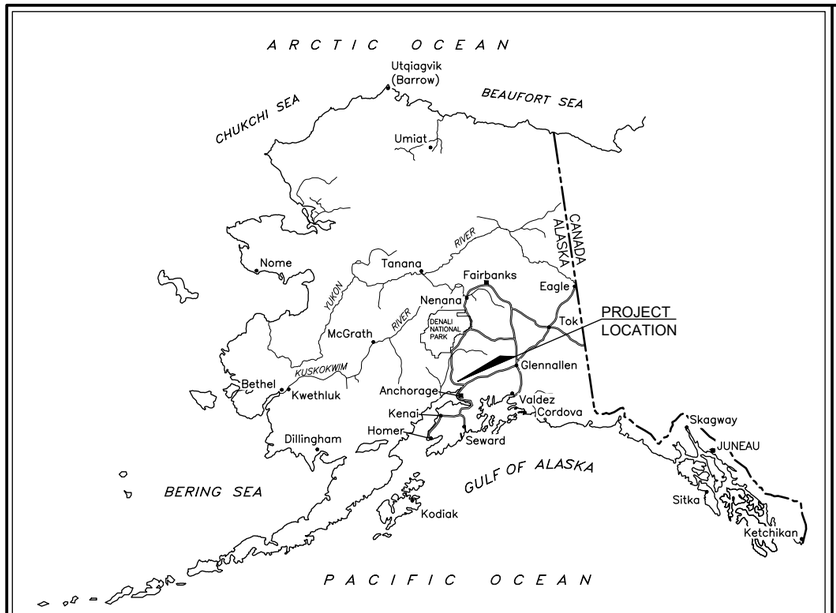
PROJECT DESIGNATION	SHEET NUMBER	TOTAL SHEETS
0001630/CFHWY00453	R1	R10

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

RIGHT - OF - WAY MAP

ALASKA PROJECT

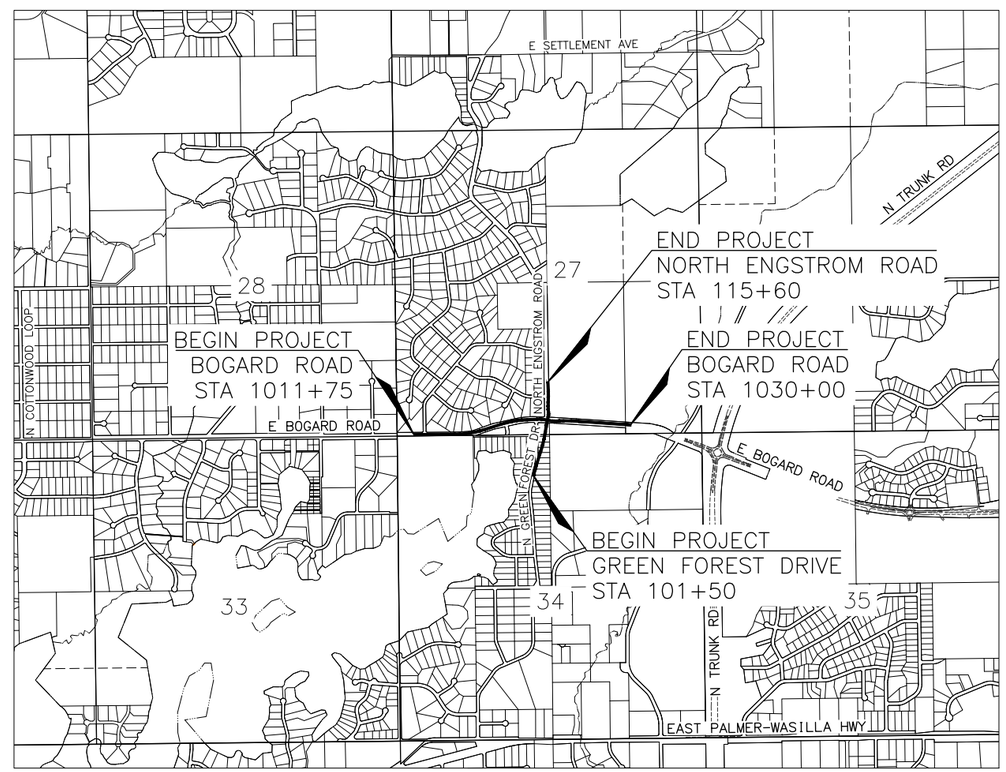
HSIP: BOGARD ROAD AT ENGSTROM ROAD AND GREEN FOREST DRIVE INTERSECTION IMPROVEMENTS PROJECT NO. 0001630/CFHWY00453



ALASKA STATE MAP

SPECIAL GENERAL NOTE:
SUBDIVISION NAMES, PLAT NUMBERS, AND DEPICTIONS OF PROPERTIES ADJACENT TO THE RIGHT OF WAY SHOWN HEREON WERE GENERATED AT THE TIME OF THE INITIAL PLAN DEVELOPMENT. THIS PLAN SET DOES NOT NECESSARILY REFLECT THE CURRENT STATUS AT THE TIME OF RECORDING OF THIS DOCUMENT.

T18N R1E
SEWARD MERIDIAN
SEC. 27,34



0 1/4 1/2 MILE
Scale in Miles

SITE MAP

U.S.G.S. QUADRANGLE ANCHORAGE (C-7) ALASKA

PRELIMINARY
5/5/2025

ACQUISITION DATES: MARCH 2023 - MARCH 2025
CONSTRUCTION DATES: NOVEMBER 2024 - NOVEMBER 2026
PROJECT LENGTH: 0.6 MILES

CERTIFICATE OF APPROVAL BY THE PLATTING AUTHORITY
I HEREBY CERTIFY THAT THE RIGHT OF WAY PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE REGULATIONS OF THE MATANUSKA-SUSITNA BOROUGH PLATTING AUTHORITY AND THAT SAID PLAT HAS BEEN APPROVED BY THE PLATTING AUTHORITY BY PLAT RESOLUTION NO. _____, DATED _____, AND THAT THE PLAT SHOWN HEREON HAS BEEN APPROVED FOR RECORDING IN THE PALMER RECORDING DISTRICT, THIRD JUDICIAL DISTRICT, STATE OF ALASKA, IN WHICH THE PLAT IS LOCATED.

ATTEST:

PLATTING CLERK — PLANNING & LAND USE DIRECTOR

MATANUSKA-SUSITNA BOROUGH
PLATTING AUTHORITY

DEPARTMENT LOCATIONS SURVEYOR'S CERTIFICATE
I HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF ALASKA AND THAT ALL RIGHT-OF-WAY CENTERLINE MONUMENT LOCATIONS HAVE BEEN ESTABLISHED AS INDICATED ON THE RIGHT-OF-WAY PLANS, ALL EXISTING FOUND SUBDIVISION MONUMENTS, PROPERTY CORNERS AND SECTION LINE MONUMENTATION AS INDICATED ON THE RIGHT-OF-WAY PLANS HAVE BEEN REFERENCED TO PROJECT SURVEY CONTROLS BY ME OR UNDER MY SUPERVISION.

DATE — REGISTRATION NUMBER

TRAVIS W. TEST

ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE AK 99502
PHONE: (907) 269-0700

STATE OF ALASKA 49TH TRAVIS W. TEST NO. L.S.-13324 PRELIMINARY REGISTERED PROFESSIONAL LAND SURVEYOR

DEPARTMENT LOCATIONS SURVEYOR'S CERTIFICATE

DEPARTMENT RIGHT-OF-WAY SURVEYOR'S CERTIFICATE
I HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF ALASKA AND THAT THIS PLAT WAS MADE BY ME OR UNDER MY SUPERVISION. THIS PLAT WAS BASED UPON THE MONUMENTS RECOVERED DURING THE DEPARTMENT'S LOCATIONS SURVEY FOR THIS PROJECT.

DATE — REGISTRATION NUMBER

ROBERT M. KEINER

ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE AK 99502
PHONE: (907) 269-0700

STATE OF ALASKA 49TH ROBERT M. KEINER NO. L.S.-11547 PRELIMINARY REGISTERED PROFESSIONAL LAND SURVEYOR

DEPARTMENT RIGHT-OF-WAY SURVEYOR'S CERTIFICATE

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

APPROVED_____, 20_____
Date

REGIONAL CHIEF RIGHT-OF-WAY AGENT

THIS SURVEY DOES NOT CONSTITUTE A SUBDIVISION AS DEFINED BY A.S. 40.15.900(5).

WITHIN A PORTION OF SECTION: 27, 34, T18N R1E, SEWARD MERIDIAN

RECORD OF SURVEY - PALMER RECORDING DISTRICT

STATE BUSINESS - NO FEE

PROJECT DESIGNATION	SHEET NUMBER	TOTAL SHEETS
0001630/CFHWY00453	R2	R10

ROADWAY

	EXISTING	PROPOSED
EDGE OF PAVEMENT		
LIMIT OF CUT SLOPE & FILL SLOPE		CUT / FILL
GRAVEL EDGE		
SIDEWALK AND PATH/TRAIL		
CONCRETE CURB & GUTTER		
CONCRETE CURB CUT		
PARALLEL CURB RAMP PERPENDICULAR CURB RAMP		
UNIDIRECTIONAL CURB RAMP & MID–BLOCK CURB RAMP		
DETECTABLE WARNING TILE		
BRIDGE		
TUNNEL		
GUARDRAIL		
END & PARALLEL END SECTIONS		
ROADWAY OBLITERATION		
FENCE		
STONE FENCE		
NOISE BARRIER		
RETAINING WALL		
HEADWALL & WINGWALL		
BOTTOM OF DITCH		
SPECIAL DITCH		
FLAT BOTTOM DITCH		
BERM		
RIPRAP		
BOULDER OR BOULDERS		
PRIVATE SIGN, MAILBOX		MB
POST, BOLLARD		
PLANTER		
BUILDING OR FOUNDATION		
BOARDWALK AND STAIRS		

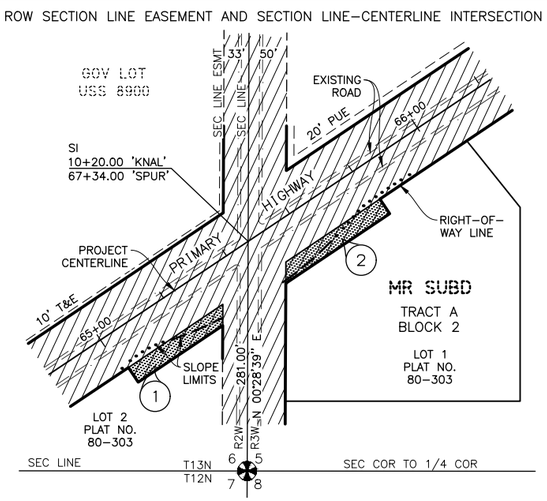
UTILITIES

	EXISTING	
STORM DRAIN	SD	
STORM DRAIN MANHOLE, CLEANOUT	SD, CO	
CURB INLET CATCH BASIN FIELD INLET CATCH BASIN	FI	
PIPE CULVERT WITH END SECTION		
SANITARY SEWER	SS	
SANITARY SEWER MANHOLE, CLEANOUT	SS, CO	
SEPTIC VENT, SEWER SERVICE CONNECTION	S	
WATER	W	
FIRE HYDRANT, VALVE OR RISER		
WELL, WATER SERVICE CONNECTION	W	
NATURAL GAS, METER	G, GAS	
OIL OR GASOLINE PIPELINE, PUMP	O, GP	
TANKS (ABOVE GROUND, UNDERGROUND)	U	
ELECTRIC	OE	(OVERHEAD)
	UE	(UNDERGROUND)
	OE&OT	(OVERHEAD)
UTILITY POLE, POLE WITH LUMINAIRE		
GUY POLE, GUY WIRE ANCHOR	GP	
TRANSMISSION TOWER (WOOD, STEEL)		
ELECTRIC PEDESTAL, TRANSFORMER	E	
ELECTRIC MANHOLE, METER	E	
ELECTRIC OUTLET, LANDSCAPE LIGHT		
TELEPHONE	OT	(OVERHEAD)
	UT	(UNDERGROUND)
	UT&TV	(UNDERGROUND)
TELEPHONE MANHOLE, PEDESTAL	T	
FIBER OPTIC	FO	
FIBER OPTIC MANHOLE	FO	
CABLE TV	OTV	(OVERHEAD)
	UTV	(UNDERGROUND)
CABLE TV PEDESTAL, SATELLITE DISH		
UNDERGROUND DUCT, UTILIDOR (ELECTRIC, TELEPHONE, FIBER OPTIC)		
VENT		

TRAFFIC

	EXISTING
LOAD CENTER	
STATE TRAFFIC, MOA TRAFFIC, & BEACON CONTROLLER ARROW INDICATES DOOR LOCATION	
TYPE 1A, II, III, IV JUNCTION BOX	
FIBER OPTIC VAULT	F/O
ELECTROLIER	
HIGHTOWER	
SIGNAL POLE WITH MASTARM	
PEDESTRIAN PUSH BUTTON & SIGNAL	
VEHICULAR SIGNAL	
VEHICULAR SIGNAL LEFT & RIGHT	
OPTICAL, CAMERA, RADAR, AND GPS DETECTOR	
LOOP DETECTOR	
COMMUNICATION ANTENNA	
MASTARM BEACON	
RURAL & SCHOOL ZONE BEACON	
LOOP DETECTOR CONDUIT	
SIGNAL CONDUIT	TR
LIGHTING CONDUIT	LTG
SIGNAL & LIGHTING CONDUIT	T/L
CONDUIT BORING	
CONDUIT SIZE IN INCHES	21-3C4
INTERCONNECT	I/C
SIGN POST	

ROW SECTION LINE EASEMENT AND SECTION LINE–CENTERLINE INTERSECTION



RIGHT–OF–WAY

	RECOVERED	SET THIS PROJECT
FEDERAL GOVERNMENT SURVEY MONUMENT		
GOVERNMENT CONTROL STATION		
PRIMARY MONUMENT (BRASS/AL CAP)		
MISC SECONDARY CORNER		
PRIMARY CENTERLINE MONUMENT		
SECONDARY CENTERLINE MONUMENT		
RANDOM CONTROL MONUMENT	RCM	RCM
PRIMARY GPS CONTROL POINT	GPS	
HORIZONTAL CONTROL POINT	CP	
SECONDARY CONTROL POINT	SCP	
VERTICAL BENCHMARK	BM	
TEMPORARY BENCHMARK	TBM	
TOWNSHIP AND RANGE / SECTION LINES		T13N, T12N, R2W, R3W
SECTION LINE		
1/4 SECTION LINE		
1/16 SECTION LINE		
CORPORATE or CITY LIMITS		
EXISTING RIGHT–OF–WAY		
RIGHT–OF–WAY OR EASEMENT REQUIRED		
PROJECT RIGHT–OF–WAY LINE		
EXISTING RIGHT–OF–WAY EASEMENT		
EXISTING PROPERTY LINE		
CONTROLLED ACCESS LINE		
EXISTING UTILITY EASEMENT		
PROPOSED UTILITY EASEMENT		
DESIGN CENTERLINE		
ROW PROPOSED CENTERLINE (DESIGN)		
EXISTING CENTERLINE		
RAILROAD CENTERLINE		
TEMPORARY CONSTRUCTION EASEMENT		
TEMPORARY CONSTRUCTION PERMIT		

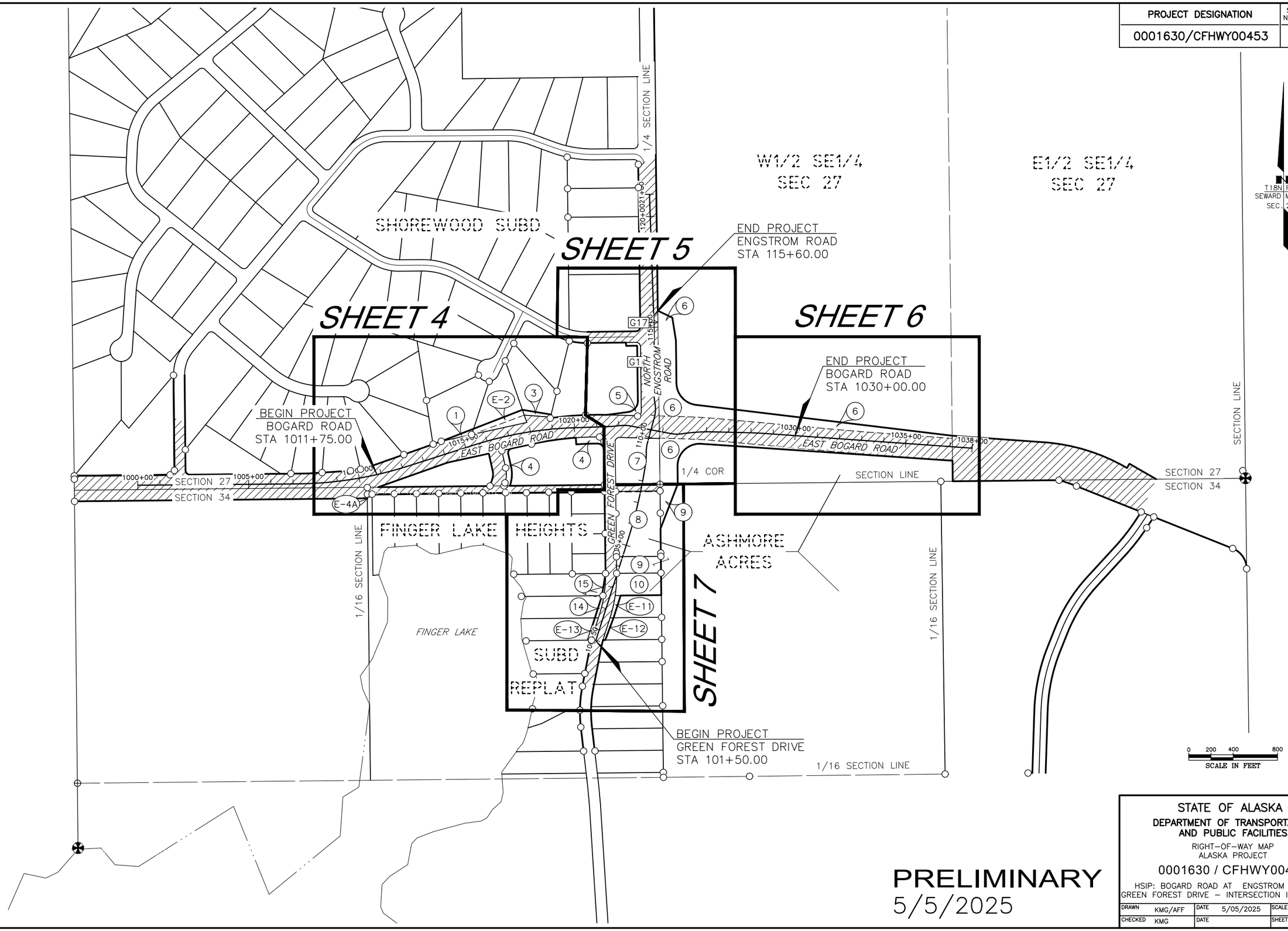
TOPOGRAPHY

	EXISTING		EXISTING	PROPOSED
LAKE OR POND, WETLANDS	LAKE/POND	CONTOUR, MAJOR OR MINOR	520	520
TREE (CONIFER/DECIDUOUS) TREELINE (EDGE OF VEGETATION)		DRAINAGE FLOW		
		CREEK (CENTERLINE)		
		RIVER (EDGE OF WATER)		

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
RIGHT–OF–WAY MAP
ALASKA PROJECT
0001630 / CFHWY00453
HSIP: BOGARD ROAD AT ENGSTROM ROAD AND GREEN FOREST DRIVE – INTERSECTION IMPROVEMENTS

DRAWN AFF	DATE 5/05/2025	SCALE NTS	
CHECKED KMG	DATE	SHEET 2	OF 10

PROJECT DESIGNATION	SHEET NUMBER	TOTAL SHEETS
0001630/CFHWY00453	R3	R10



PRELIMINARY
5/5/2025

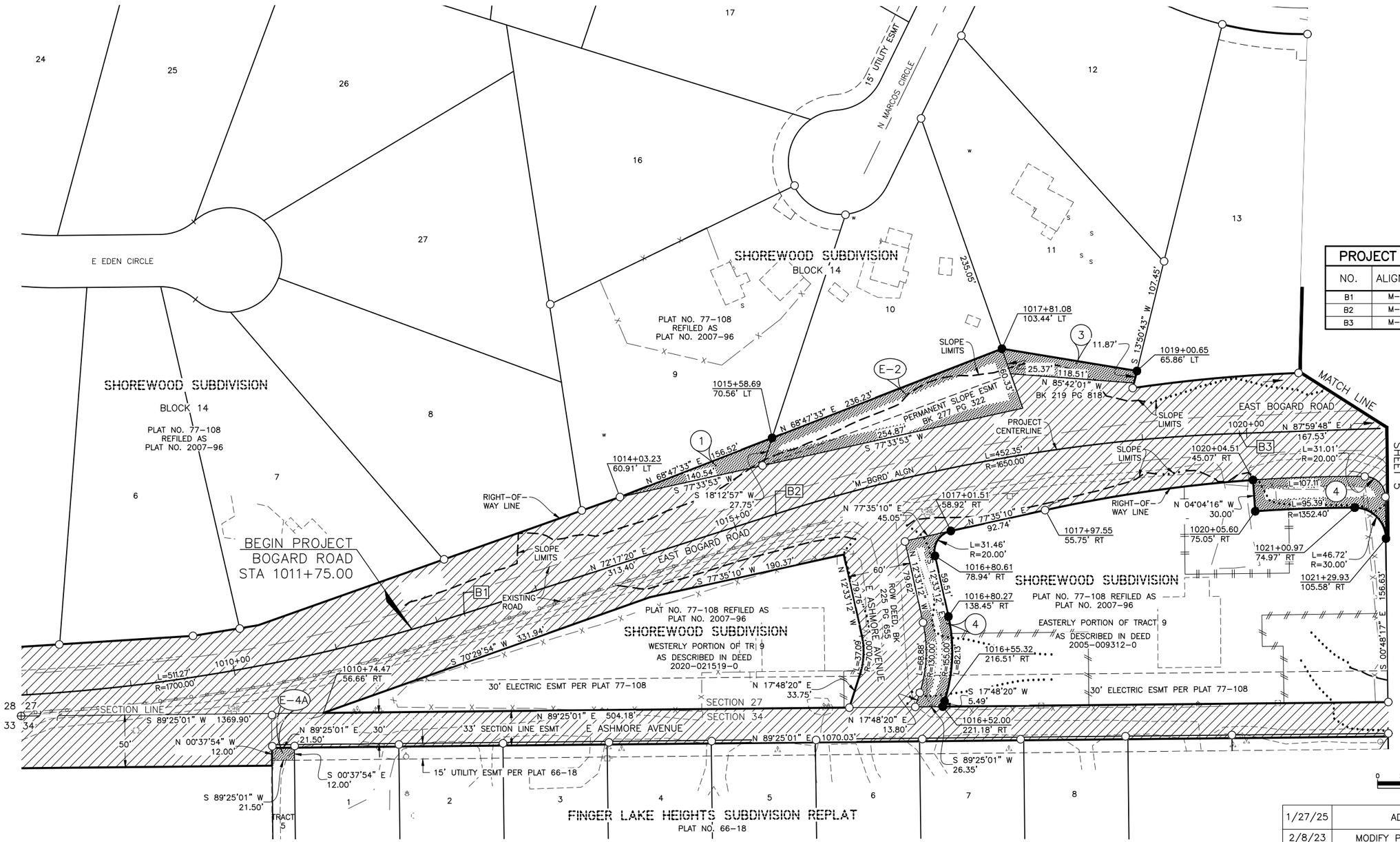
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
RIGHT–OF–WAY MAP
ALASKA PROJECT

0001630 / CFHWY00453

HSIP: BOGARD ROAD AT ENGSTROM ROAD AND GREEN FOREST DRIVE – INTERSECTION IMPROVEMENTS

DRAWN	KMG/AFF	DATE	5/05/2025	SCALE	1" = 200'
CHECKED	KMG	DATE		SHEET	3 OF 10

PROJECT DESIGNATION	SHEET NUMBER	TOTAL SHEETS
0001630/CFHWY00453	R4	R10



PROJECT ALIGNMENT DATA

NO.	ALIGNMENT	STATION
B1	M-BGRD	PT 1012+27.27
B2	M-BGRD	PC 1015+40.67
B3	M-BGRD	PT 1019+93.03

DATE	REVISIONS	BY
1/27/25	ADD PARCEL E-4A	KG
2/8/23	MODIFY PARCEL 2 TO ROW ESMT	KG

PARCEL NO.	INTEREST ACQUIRED	OWNER	LARGER PARCEL	TAKE INCLUDING EXISTING ESMT	NET TAKE	REMAINDER	RECORDED DOCUMENT NUMBER
E-4A	UTIL ESMT	RICHARDSON SPENCER		258 SF	258 SF		
4	FEE	TEW'S ENT LLC	89,193 SF	8,083 SF	8,083 SF	81,110 SF	
3	FEE	SARAH & RANDY DOWNING	41,447 SF	2,153 SF	2,153 SF	39,294 SF	
E-2	ROW ESMT	TERRANCE HOEFFERLE & VIRGINIA BAIM		10,164 SF	10,164 SF		2025-004963-0
1	FEE	TIMOTHY E KNIGHT	53,914 SF	1,677 SF	1,677 SF	52,236 SF	

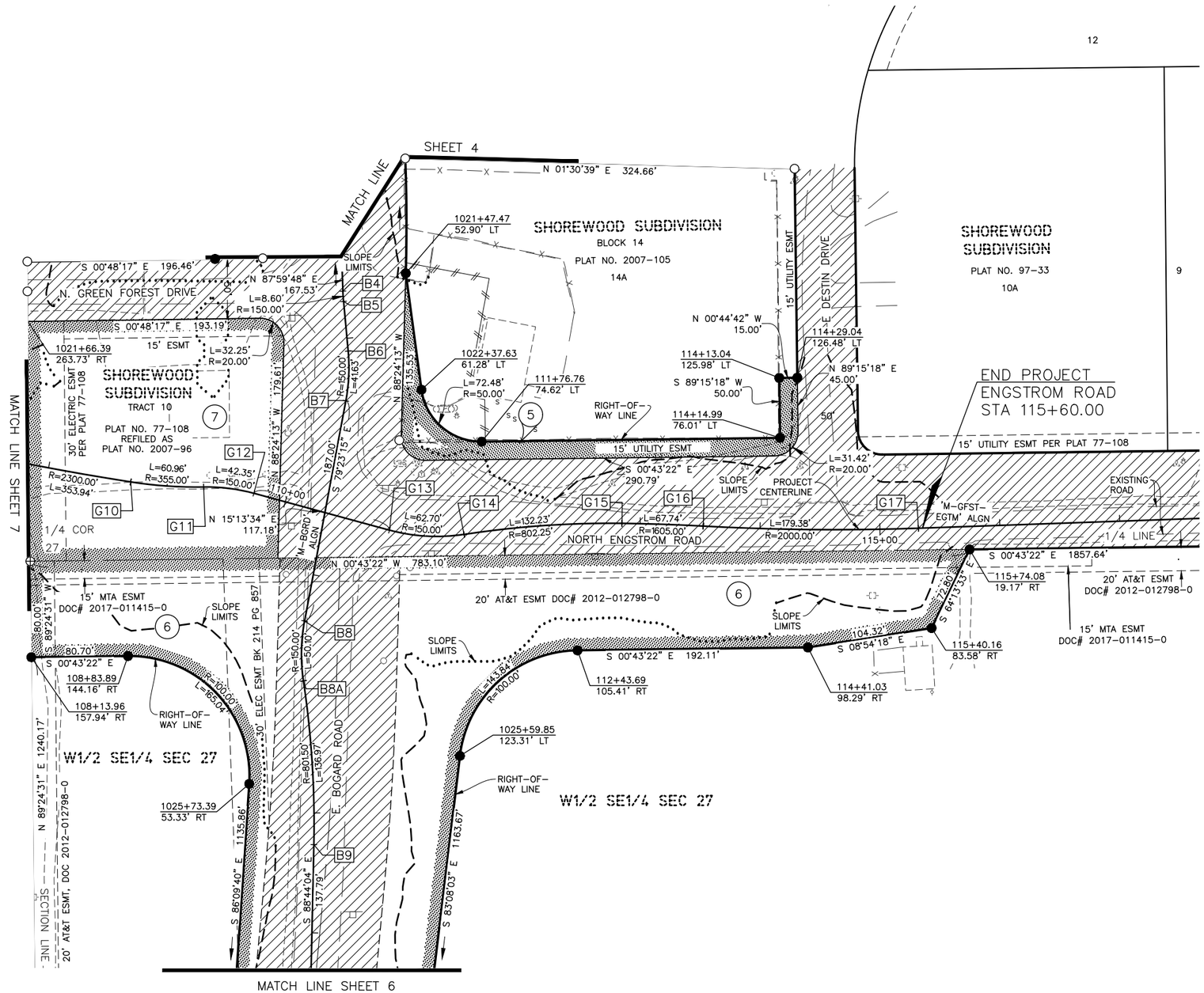
PARCEL INFORMATION

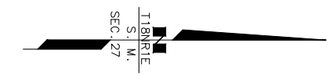
PRELIMINARY
5/7/2025

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
RIGHT-OF-WAY MAP
ALASKA PROJECT
0001630 / CFHWY00453
HSIP: BOGARD ROAD AT ENGSTROM ROAD AND GREEN FOREST DRIVE – INTERSECTION IMPROVEMENTS

DRAWN	KMG/AFF	DATE	5/07/2025	SCALE	1" = 50'
CHECKED	KMG	DATE		SHEET	4 OF 10

PROJECT DESIGNATION	SHEET NUMBER	TOTAL SHEETS
0001630/CFHWY00453	R5	R10





PROJECT ALIGNMENT DATA		
NO.	ALIGNMENT	STATION
B4	M-BGRD	PC 1021+60.55
B5	M-BGRD	PT 1021+69.16
B6	M-BGRD	PC 1022+10.69
B7	M-BGRD	PT 1022+52.32
B8	M-BGRD	PC 1024+39.32
B8A	M-BGRD	PRC 1024+89.43
B9	M-BGRD	PT 1026+26.39
G10	M-GFST-EGTM	PCC 108+69.51
G11	M-GFST-EGTM	PRC 109+30.47
G12	M-GFST-EGTM	PT 109+72.82
G13	M-GFST-EGTM	PC 110+90.00
G14	M-GFST-EGTM	PRC 111+52.71
G15	M-GFST-EGTM	PCC 112+84.94
G16	M-GFST-EGTM	PRC 113+52.68
G17	M-GFST-EGTM	PT 115+32.05

PARCEL NO.	INTEREST ACQUIRED	OWNER	LARGER PARCEL	TAKE INCLUDING EXISTING ESMT	NET TAKE	REMAINDER	RECORDED DOCUMENT NUMBER
7	FEE	NEIL & STACY NARDINI	41,984 SF	41,984 SF	41,984 SF	0 SF	
E-6	UTIL ESMT	DELETED					
6	FEE	NANNY TRUST	80.076 AC	5.630 AC	2.586 AC	74.446 AC	
5	FEE	MATANUSKA-SUSITNA BOROUGH	80,135 SF	7,560 SF	7,560 SF	72,575 SF	

PARCEL INFORMATION

PRELIMINARY
5/7/2025

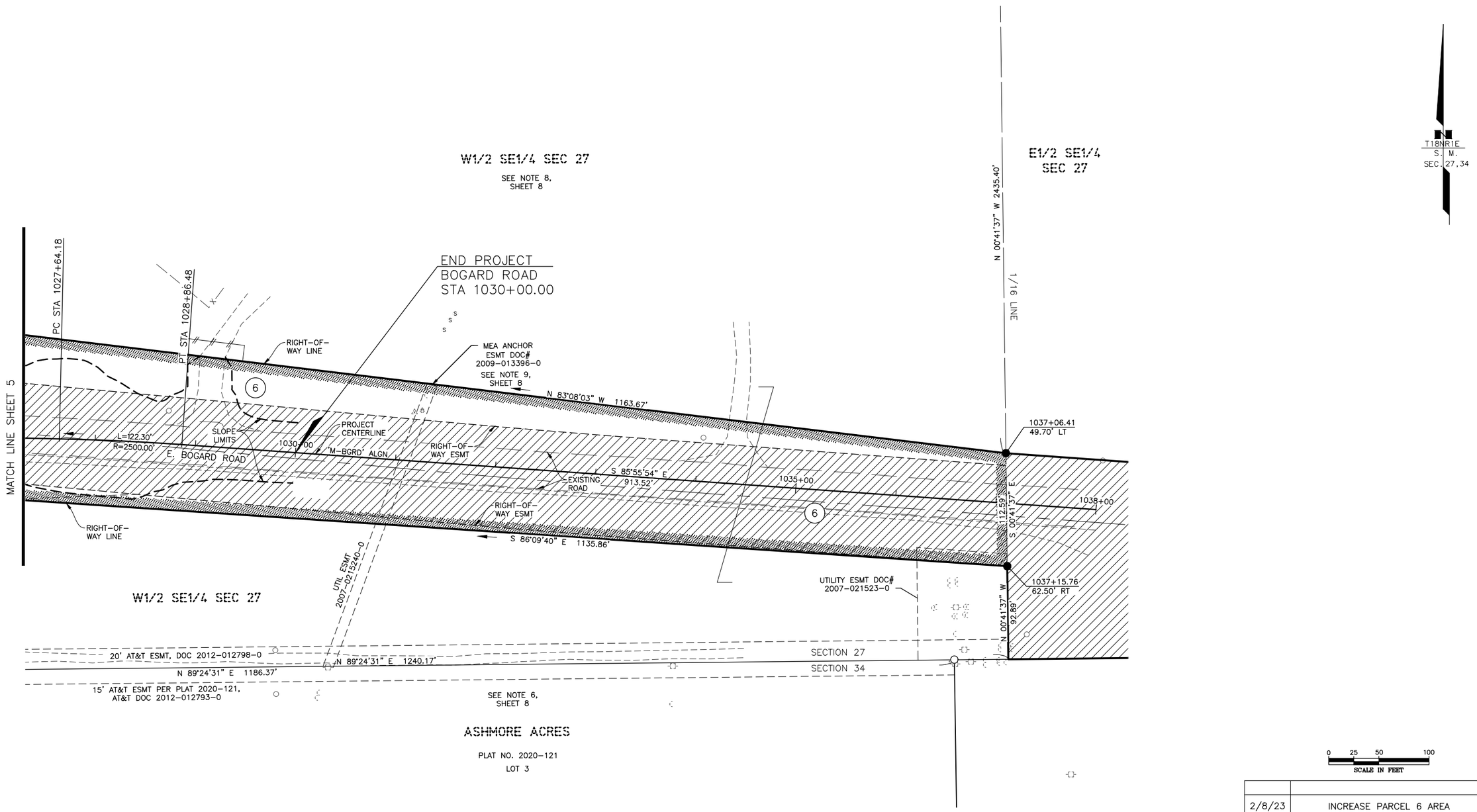
0 25 50 100
SCALE IN FEET

DATE	REVISIONS	BY
2/8/23	CHANGED OWNER NAME, PARCEL 7	KG
2/8/23	DELETED PARCEL E-6, INCREASE PARCEL 6 AREA	KG

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
RIGHT-OF-WAY MAP
ALASKA PROJECT
0001630 / CFHWY00453
HSIP: BOGARD ROAD AT ENGSTROM ROAD AND GREEN FOREST DRIVE – INTERSECTION IMPROVEMENTS

DRAWN KMG/AFF	DATE 5/07/2025	SCALE 1" = 50'	
CHECKED KMG	DATE	SHEET 5 OF 10	

PROJECT DESIGNATION	SHEET NUMBER	TOTAL SHEETS
0001630/CFHWY00453	R6	R10



6	FEE	NANNY TRUST	80.076 SF	5.630 AC	2.586 AC	74.446 AC	
PARCEL NO.	INTEREST ACQUIRED	OWNER	LARGER PARCEL	TAKE INCLUDING EXISTING ESMT	NET TAKE	REMAINDER	RECORDED DOCUMENT NUMBER

PARCEL INFORMATION

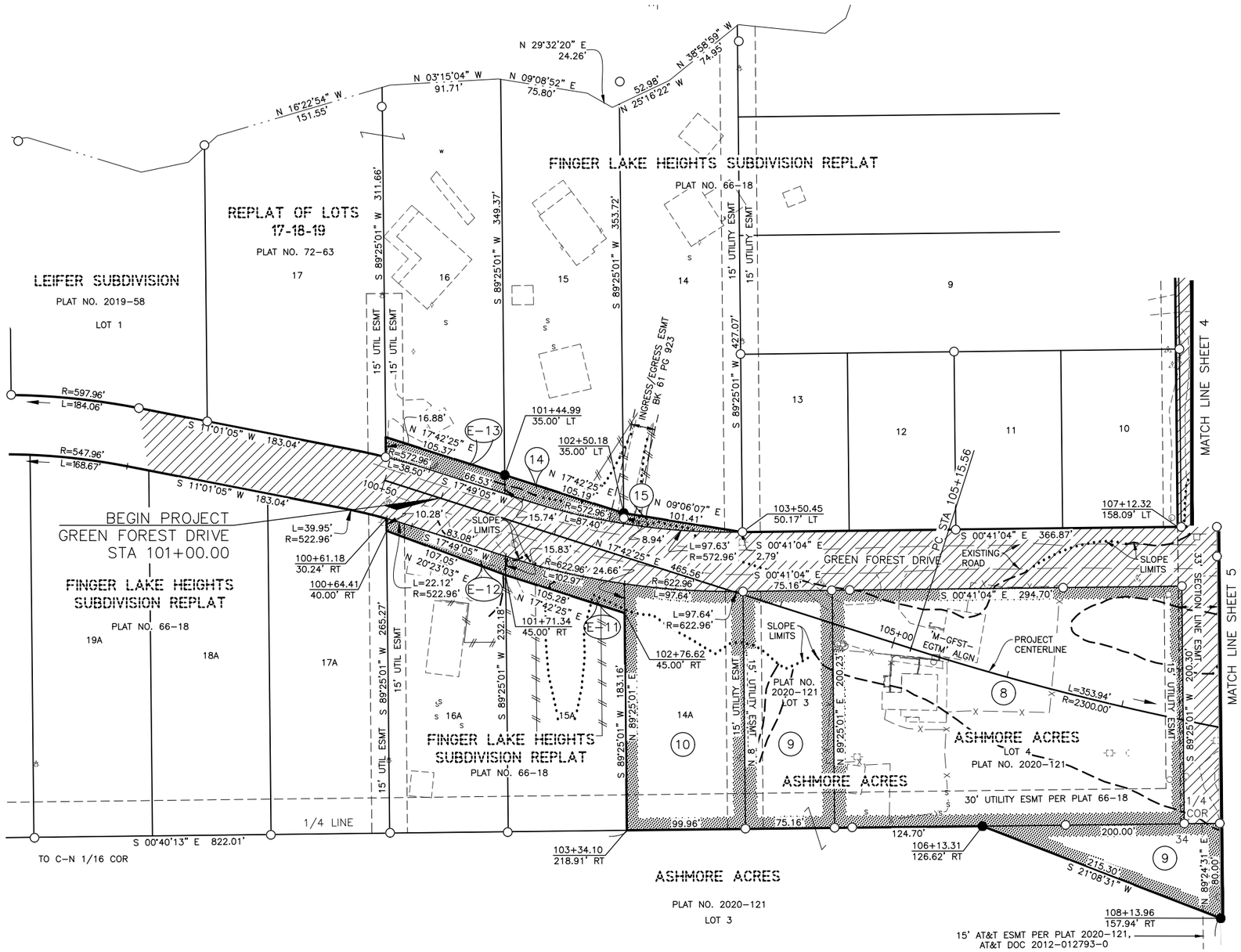
PRELIMINARY
5/7/2025

DATE	REVISIONS	BY
2/8/23	INCREASE PARCEL 6 AREA	KG

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
RIGHT-OF-WAY MAP
ALASKA PROJECT
0001630 / CFHWY00453
HSIP: BOGARD ROAD AT ENGSTROM ROAD AND GREEN FOREST DRIVE – INTERSECTION IMPROVEMENTS

DRAWN	KMG/AFF	DATE	5/07/2025	SCALE	1" = 50'
CHECKED	KMG	DATE		SHEET	6 OF 10

PROJECT DESIGNATION	SHEET NUMBER	TOTAL SHEETS
0001630/CFHWY00453	R7	R10



PARCEL NO.	INTEREST ACQUIRED	OWNER	LARGER PARCEL	TAKE INCLUDING EXISTING ESMT	NET TAKE	REMAINDER	RECORDED DOCUMENT NUMBER
15	FEE	MALEA & KEVIN MILLER	38,766 SF	594 SF	594 SF	38,172 SF	
14	FEE	JOSH & SARA FRANCES-BERGERON LEUTZINGER	35,368 SF	1,382 SF	1,382 SF	33,986 SF	
E-13	ROW ESMT	SHERRI L LINDFORS		1,580 SF	1,580 SF		
E-12	ROW ESMT	JEREMY W BLACK		1,326 SF	1,326 SF		
E-11	ROW ESMT	JACOB L BLACK		1,878 SF	1,878 SF		
10	FEE	TAMMY L MORSE	20,259 SF	20,259 AC	20,259 SF	0 SF	
9	FEE	CAROLYN TOLSON, ROBERT ASHMORE, MICHELLE BIANCHI & ELROY ASHMORE	38.805 AC	23,049 SF	23,049 SF	38.276 AC	
8	FEE	CAROLYN M TOLSON	59,018 SF	59,018 AC	59,018 SF	0 SF	

PARCEL INFORMATION

PRELIMINARY
5/7/2025

DATE	REVISIONS	BY

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
RIGHT-OF-WAY MAP
ALASKA PROJECT
0001630 / CFHWY00453
HSIP: BOGARD ROAD AT ENGSTROM ROAD AND GREEN FOREST DRIVE – INTERSECTION IMPROVEMENTS

DRAWN	KMG/AFF	DATE	5/07/2025	SCALE	1" = 50'
CHECKED	KMG	DATE		SHEET	7 OF 10

NOTES SUMMARY

PROJECT DESIGNATION	SHEET NUMBER	TOTAL SHEETS
0001630/CFHWY00453	R8	R10

HORIZONTAL CONTROL STATEMENT

Coordinate System:
This project is located entirely within the Matanuska-Susitna Valley SV-1 NAD83(2011) local coordinate system, a U.S. Foot local surface grid coordinate system developed by the A Alaska Department of Transportation.

Basis of Coordinates:
The Basis of Coordinates is "S-1". "S-1" is a brass disc set in a square concrete monument flush with the ground near the intersection of Parks Highway and Knik Goose Bay Road. The local coordinates used for "S-1" for this survey is N 145,360.7623, E 425,361.0218.

Basis of Bearings:
The Basis of Bearings is a local grid bearing between "S-1" and "IYS A". "IYS A" is a Primary Airport Control Station (PACS) located at the Wasilla Airport in Wasilla, Alaska. The local gird bearing between "S-1" and "IYS A" is S 78° 19' 09" W at a distance of 17,134.41 feet. The local coordinates for "IYS A" are N 141,891.7675, E 408,581.4480.

Translation Parameters:
To convert the local coordinates to NAD83(2011), Alaska State Plane Zone 4, U.S. Foot coordinates, translate using +2,624,946.5706 Feet N, +1,312,508.8943 Feet E, and scale using 0.9998990458.

EXISTING RIGHT OF WAY – SOURCE DOCUMENTS	
THE EXISTING PALMER-WASILLA HIGHWAY CORRIDOR DEPICTED HEREIN WAS DETERMINED FROM THE FOLLOWING PLANS AND DOCUMENTS	
ROW PLAN SHEET NO.	PLAN OR DOCUMENT
SHEET 4	1980 BOGARD ROAD PROJECT SOS-1(020), ROW PLAT 89-4.

NOTES:

1. THESE PLANS MAY BE USED FOR THE ESTABLISHMENT OF RIGHT-OF-WAY LIMITS ONLY. THESE DRAWINGS SHOULD NOT BE USED AS A BASIS FOR ESTABLISHING ADJOINING PROPERTY LINES AND CORNERS.

2. ALL DOCUMENTS NOTED IN THIS PLAN SET AND REFERENCED BY DOCUMENT NUMBER OR BOOK AND PAGE ARE RECORDED IN THE PALMER RECORDING DISTRICT, UNLESS OTHERWISE NOTED.

3. NO TITLE REPORTS WERE OBTAINED FOR THE PROPERTIES ALONG THIS PROJECT. ALTHOUGH A CONSIDERABLE EFFORT HAS BEEN MADE TO SHOW PERTINENT TITLE INTEREST IN ADJOINING PROPERTIES, EASEMENTS MAY EXIST THAT ARE NOT SHOWN ON THIS RIGHT-OF-WAY MAP.

4. THE SURVEY CONTROL DIAGRAM FOR THIS PROJECT IS RECORDED IN THE PALMER RECORDING DISTRICT AS PLAT 2023-47.

5. SURVEY DATA, INCLUDING MONUMENTATION AND TOPOGRAPHIC FEATURES, WAS ACQUIRED BY DOT, THE SURVEY WAS PERFORMED FEBRUARY THROUGH JUNE 2019, AND SEPTEMBER 2022.

6. THE 1962 MTA ESMT BK 148 PG 11, STATES "A MAXIMUM WIDTH OF 20 FEET, SHALL EXTEND ALONG THE EXISTING MEA RIGHT-OF-WAY". THE PLAT 2020-21 DID NOT SHOW THIS ESMT, AS IT IS AMBIGUOUS. NO DOCUMENT HAS BEEN FOUND WHICH ESTABLISHES THE MEA EASEMENT AS REFERENCED. THERE IS A MEA BLANKET EASEMENT RECORDED AT BK 231 PG 846 IN 1981.

7. BOGARD WAS REALIGNED IN 1971 AND 1972 FROM ROUGHLY TRUNK RD TO THE SECTION CORNER AT 28/27|33/34. AN EASEMENT WAS OBTAINED FROM THE HAVEMEISTER'S (W 1/2 SE 1/4 SEC 27) IN 1970 (MISC BK17 PG78) WHICH STATES "AS CONSTRUCTED AND BEING CONSTRUCTED." IN 1981 AND 1982, THE BOGARD PROJECT SOS-(040) REALIGNED THE ROAD IN THE SE 1/4 OF SECTION 27 WITH NO NEW EASEMENTS ACQUIRED. THE MAPPING AT THE TIME SHOWS THE EASEMENT CENTERED ON THE NEW ALIGNMENT, WHICH IS IN ERR. TODAY, THE DOT&PF IS OF THE OPINION THAT THE EASEMENT OBTAINED IN 1970 CAN NOT ATTACH TO THE 1982 ALIGNMENT. THERE IS NO EVIDENCE THAT IT WAS THE INTENT OF THE OWNERS TO GRANT A PERPETUALLY MOVING EASEMENT.

   THIS ROW MAPPING ANALYZED HISTORICAL RECORDS INCLUDING AERIAL IMAGERY, CONSTRUCTION STAKING NOTES AND THE 1972 CONSTRUCTION AS-BUILTS. THE ASBUILTS WERE USED TO VERIFY THE EXISTING EDGE OF ROAD, AND APPEARS TO BE THE BEST REPRESENTATION OF THE ROADWAY WHICH THE 1970 EASEMENT ATTACHED TO. THE MIDPOINT BETWEEN THE AS-BUILT EXISTING EDGE OF ROAD WAS USED TO REPRESENT THE CENTERLINE. THIS CENTERLINE ENDED JUST SHORT OF THE 1/4 LINE AND WAS EXTENDED TO THE 1/4 LINE.

8. THE EXISTING UTILITIES APPEAR TO BE OUTSIDE THE EXISTING ROW AS DRAWN, BUT WERE MOST LIKELY POSITIONED ACCORDING TO THE ROW AS SHOWN ON THE 1980 BOGARD PROJECT. THE PREVIOUSLY SHOWN ROW IS APPROXIMATELY 12' SHIFTED NORTH OF THE ROW AS SHOWN ON THIS MAPPING. THE TRUE INTENT OF THE DOCUMENT ACQUIRED IN 2009 WAS A 25'X15' GUY ANCHOR FROM THE SHOWN ROW WILL BE UPHELD, AND THE GUY ANCHOR AT THIS LOCATION IS INSIDE THE INTENDED EASEMENT.

PRELIMINARY
5/7/2025

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
RIGHT-OF-WAY MAP
ALASKA PROJECT
0001630 / CFHWY00453
HSIP: BOGARD ROAD AT ENGSTROM ROAD AND GREEN FOREST DRIVE – INTERSECTION IMPROVEMENTS

DRAWN KMG/AFF	DATE 5/07/2025	SCALE
CHECKED KMG	DATE	SHEET 8 OF 10

MONUMENT SUMMARY

PROJECT DESIGNATION	SHEET NUMBER	TOTAL SHEETS
0001630/CFHWY00453	R9	R10

RECOVERED CORNERS - SHEET 4

MONUMENT TYPE : LOCATION	NORTHING	EASTING	STATION	OFFSET
Fd Rbr/PC[9106]: SE L5 B14 Shorewood	157951.4672	456382.1694	1008+34.55	45.90 LT
Fd Rbr: Angle Point S Line L6 B14 Shorewood	157959.7215	456510.3069	1009+66.10	39.16 LT
Fd Rbr/PC[2234]: SE L6 B14 Shorewood	157966.7103	456555.1228	1010+12.51	38.51 LT
Fd Nail: NW Tract 5 Finger Lake Heights	157854.0278	456586.2965	1010+22.24	77.99 RT
Fd IP: W 1/16 S27/S34 *T18N R1E SM	157883.9278	456586.0005	1010+27.40	48.57 RT
Fd Rbr: NW L1 Finger Lake Heights	157854.3025	456607.7203	1010+42.36	81.86 RT
Fd Rbr: NW L2 Finger Lake Heights	157855.6466	456707.6845	1011+35.02	103.12 RT
Fd Rbr/PC[2234]: SW L8 B14 Shorewood	158033.0088	456750.9395	1012+24.55	55.33 LT
Fd Rbr: NE L2 Finger Lake Heights	157856.7963	456807.4338	1012+25.02	129.71 RT
Fd Rbr: NW L4 Finger Lake Heights	157857.7059	456908.8656	1013+21.75	159.70 RT
Fd Rbr: SW L9 B14 Shorewood	158079.8240	456882.9039	1013+64.59	59.79 LT
Fd Rbr: NW L9 B14 Shorewood	158277.2956	456852.6479	1013+95.84	257.10 LT
Fd Rbr: Angle Point S Line L9 B14 Shorewood	158092.6697	456919.4675	1014+03.33	60.90 LT
Fd Rbr: NW L5 Finger Lake Heights	157858.9381	457007.3269	1014+15.92	188.48 RT
Fd Rbr: NW L6 Finger Lake Heights	157860.0463	457107.3896	1015+11.57	217.87 RT
Fd Rbr: SE L9 B14 Shorewood	158122.8664	457056.1273	1015+42.64	48.09 LT
Fd Rbr: SE Tract 9-1 Shorewood	157890.9611	457139.3372	1015+52.88	198.10 RT
Fd Rbr/PC[5713]: NW L7 Finger Lake Heights	157860.9471	457209.2952	1016+20.93	246.35 RT
Fd Rbr/PC: SW Tract 9-2 Shorewood	157891.6497	457202.5218	1016+22.50	214.94 RT
Fd Rbr/PC[5081]: PC W Line Tract 9-2 Shorewood	157905.2302	457206.8835	1016+31.28	202.91 RT
Fd Rbr/PC: SE L16 B14 Shorewood	158390.9746	457086.8602	1016+36.35	297.41 LT
Fd Rbr/PC[5081]: PT W Line Tract 9-2 Shorewood	157972.5442	457209.9345	1016+52.98	138.40 RT
Fd Rbr/PC[5081]: NW Tract 9-2 Shorewood	158050.0905	457192.6671	1016+54.79	58.97 RT
Fd Rbr: NW L10 B14 Shorewood	158362.9840	457135.6217	1016+71.17	258.61 LT
Fd Rbr: NW L8 Finger Lake Heights	157860.7203	457303.4323	1017+29.53	267.82 RT
Fd Rbr: NW L11 B14 Shorewood	158455.2373	457208.0856	1017+47.37	334.03 LT
Fd Mag Nail: NE L11 B14 Shorewood	158534.5303	457246.6427	1017+89.44	405.60 LT
Fd Rbr: NW PC Tract 9-2 Shorewood	158080.1152	457326.8801	1017+97.28	55.76 RT
Fd Rbr: NW L9 Finger Lake Heights	157863.5364	457403.9544	1018+49.15	280.91 RT
Fd Rbr: SW L13 B14 Shorewood	158196.9899	457410.8978	1018+95.29	49.88 LT
Fd Rbr: SE L12 B14 Shorewood	158318.4688	457440.9402	1019+32.80	168.47 LT
Fd Rbr: NE L12 B14 Shorewood	158545.3907	457496.7651	1019+90.89	392.09 LT
Fd Rbr: SE L13 B14 Shorewood	158211.4823	457569.8434	1020+51.75	55.83 LT
Fd Rbr: NW L14A B14 Shorewood	158536.0338	457578.4038	1020+71.65	379.88 LT
Fd Rbr/PC[5081]: NE PT Tract 9-2 Shorewood	158112.2852	457633.2550	1021+11.65	45.53 RT
Fd Rbr: SE Tract 9-2 Finger Lake Heights	157896.3631	457655.8216	1021+26.66	262.11 RT
Fd Rbr/PC[5081]: NE PC Tract 9-2 Shorewood	158092.6582	457653.0644	1021+30.76	65.83 RT

RECOVERED CORNERS - SHEET 5

MONUMENT TYPE : LOCATION	NORTHING	EASTING	STATION	OFFSET
Fd Spike: CL Green Forest Drive	157896.4735	457680.7189	1021+51.54	262.87 RT
Fd AM[2234]: 1/4 S27/S34 *T18N R1E SM	157898.8390	457905.8092	1024+32.36	233.95 RT
Fd Rbr:	158206.4900	457804.8408	1022+76.46	49.85 LT

RECOVERED CORNERS - SHEET 6

MONUMENT TYPE : LOCATION	NORTHING	EASTING	STATION	OFFSET
Fd Rbr/PC[10609]: NE L3 Ashmore Acres	157912.1104	459172.0644	1036+69.79	159.24 RT

RECOVERED CORNERS - SHEET 7

MONUMENT TYPE : LOCATION	NORTHING	EASTING	STATION	OFFSET
Fd Rbr: SW L19 Finger Lake Heights	156886.1049	457330.6712	1014+27.98	1213.57 RT
Fd Rbr/PC[2071]: NW L19 Finger Lake Heights	157043.0211	457334.1534	1014+79.04	1065.15 RT
Fd Rbr/PC[2234]: SW L16 Finger Lake Heights	157192.4751	457301.6652	1014+93.55	912.90 RT
Fd Rbr: NW L14 Finger Lake Heights	157493.4011	457246.5463	1015+32.60	609.47 RT
Fd Rbr: SW L14 Finger Lake Heights	157393.1207	457280.6067	1015+34.53	715.36 RT
Fd Rbr/PC[12039]: NE L20B Finger Lake Heights	156880.0584	457544.6325	1019+35.94	1273.68 RT
Fd Rbr/PC[10609]: SW L13 Finger Lake Heights	157494.8837	457510.2236	1019+49.92	657.91 RT
Fd Rbr/PC[10609]: SW L11 Finger Lake Heights	157674.8142	457508.1345	1019+62.45	478.16 RT
Fd Rbr/PC[10609]: NW L10 Finger Lake Heights	157864.7764	457506.0045	1019+72.18	288.33 RT
Fd Rbr/PC[12039]: NE PC L19 Finger Lake Heights	156987.7611	457555.7913	1019+94.93	1166.66 RT
Fd Rbr/PC[12039]: NE L19 Finger Lake Heights	157045.3892	457567.0118	1020+08.15	1109.45 RT
Fd Rbr/PC: NE L17 Finger Lake Heights	157195.7673	457597.0908	1020+43.47	960.22 RT
Fd Rbr: SE L14 Finger Lake Heights	157396.5270	457648.5955	1021+01.96	761.38 RT
Fd Rbr/PC[10609]: SE L13 Finger Lake Heights	157496.5030	457660.2469	1021+17.10	661.88 RT
Fd Rbr/PC[10609]: SE L11 Finger Lake Heights	157676.2778	457658.2735	1021+21.41	482.14 RT
Fd Rbr/PC: NE L10 Finger Lake Heights	157866.3288	457655.9167	1021+25.70	292.12 RT
Fd Rbr: SW Tract 4 Finger Lake Heights	157496.9560	457710.3619	1021+61.78	663.20 RT
Fd Rbr/PC[10609]: SW L4 Ashmore Acres	157571.7679	457709.3510	1021+62.23	588.42 RT
Fd Rbr/PC[10609]: SW Tract 3 Finger Lake Heights	157586.8202	457709.1212	1021+62.33	573.37 RT
Fd Rbr/PC[10609]: NW Tract 2 Finger Lake Heights	157766.8097	457707.1887	1021+64.12	393.53 RT
Fd Rbr: NW Tract 1 Finger Lake Heights	157866.9103	457705.8283	1021+65.64	293.54 RT
Fd Rbr/PC[10609]: NE Tract 1 Finger Lake Heights	157868.8584	457905.9179	1024+37.99	263.39 RT
Fd Rbr/PC[10609]: SE Tract 1 Finger Lake Heights	157768.8575	457907.1438	1024+44.69	361.79 RT
Fd Rbr/PC[10609]: NE Tract 4 Finger Lake Heights	157588.9726	457909.1894	1024+50.95	539.96 RT
Fd Rbr/PC[10609]: SE L4 Ashmore Acres	157574.1568	457909.4492	1024+51.34	554.67 RT
Fd Rbr/PC[10609]: SE Tract 4 Finger Lake Heights	157498.9971	457910.2414	1024+53.01	629.38 RT
Fd Rbr: SE L15A Finger Lake Heights	157298.6840	457913.1802	1024+56.34	828.77 RT
Fd Rbr: SE 16A Finger Lake Heights	157199.4883	457913.7775	1024+57.41	927.70 RT
Fd Rbr/PC[2234]: SE L17A Finger Lake Heights	157098.9974	457915.4625	1024+58.46	1027.90 RT
Fd Rbr: SE L19A Finger Lake Heights	156899.8030	457917.9428	1024+59.98	1226.69 RT

ACRONYM / ABBREVIATION TABLE

FD	FOUND
BC	BRASS CAP MONUMENT
AM	ALUMINUM MONUMENT
BX	MONUMENT CASE
RBR	REBAR
RBR/AC	ALUMINUM CAP ON REBAR
RBR/PC	PLASTIC CAP ON REBAR
SI	STREET INTERSECTON
PC	POINT OF CURVATURE
PT	POINT OF TANGENCY
BOP	BEGINNING OF PROJECT
EOP	END OF PROJECT
NCIP	NO CURVE POINT OF INTERSETION
POC	POINT ON CURVE
PCC	POINT OF COMPOUND CURVE
NCPI	NO CURVE POINT OF INTERSECTION

PRELIMINARY
5/7/2025

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
RIGHT-OF-WAY MAP
ALASKA PROJECT
0001630 / CFHWY00453
HSIP: BOGARD ROAD AT ENGSTROM ROAD AND GREEN FOREST DRIVE - INTERSECTION IMPROVEMENTS

DRAWN	KMG/AFF	DATE	5/07/2025	SCALE	
CHECKED	KMG	DATE		SHEET	9 OF 10

MONUMENT SUMMARY

PROJECT DESIGNATION	SHEET NUMBER	TOTAL SHEETS
0001630/CFHWY00453	R10	R10

BOGARD ROAD ALIGNMENT

RIGHT-OF-WAY CORNERS SET THIS SURVEY - SHEET 4

MONUMENT TYPE : LOCATION	NORTHING	EASTING	STATION	OFFSET
SET SECONDARY MONUMENT PARCEL 1	158149.2969	457065.2633	1015+58.67	70.59 LT
SET SECONDARY MONUMENT PARCEL 4	157891.9491	457228.8757	1016+52.00	221.18 RT
SET SECONDARY MONUMENT PARCEL 4	157897.1757	457230.5544	1016+55.32	216.51 RT
SET SECONDARY MONUMENT PARCEL 4	157978.2621	457234.2736	1016+80.27	138.45 RT
SET SECONDARY MONUMENT PARCEL 4	158036.3467	457221.3398	1016+80.61	78.94 RT
SET SECONDARY MONUMENT PARCEL 4	158060.2260	457236.5622	1017+01.51	58.92 RT
SET SECONDARY MONUMENT PARCEL 2	158234.7230	457285.5215	1017+81.08	103.44 LT
SET SECONDARY MONUMENT PARCEL 3	158213.4180	457414.9467	1019+00.65	65.86 LT
SET SECONDARY MONUMENT PARCEL 4	158108.9948	457526.1666	1020+04.51	45.07 RT
SET SECONDARY MONUMENT PARCEL 4	158079.0705	457528.2965	1020+05.60	75.05 RT
SET SECONDARY MONUMENT PARCEL 4	158082.4830	457623.6102	1021+00.97	74.97 RT
SET SECONDARY MONUMENT PARCEL 4	158052.9043	457653.6228	1021+29.93	105.58 RT

BOGARD ROAD ALIGNMENT

RIGHT-OF-WAY CORNERS SET THIS SURVEY - SHEET 5

MONUMENT TYPE : LOCATION	NORTHING	EASTING	STATION	OFFSET
SET SECONDARY MONUMENT PARCEL 5	158211.9077	457665.6130	1021+47.47	52.90 LT
SET SECONDARY MONUMENT PARCEL 5	158224.9791	457762.7276	1022+37.63	61.28 LT
SET SECONDARY MONUMENT PARCEL 6	158257.0394	458068.0975	1025+59.85	123.31 LT
SET SECONDARY MONUMENT PARCEL 6	158081.3956	458091.4743	1025+73.39	53.33 RT

NORTH ENGSTROM ROAD ALIGNMENT

RIGHT-OF-WAY CORNERS SET THIS SURVEY - SHEET 5

MONUMENT TYPE : LOCATION	NORTHING	EASTING	STATION	OFFSET
SET SECONDARY MONUMENT PARCEL 6	157899.6647	457985.8051	108+13.45	162.15 RT
SET SECONDARY MONUMENT PARCEL 6	157980.2640	457984.7883	108+888.04	149.03 RT
SET SECONDARY MONUMENT PARCEL 6	158355.0607	457980.0598	112+43.69	105.41 RT
SET SECONDARY MONUMENT PARCEL 5	158523.3015	457752.9193	114+13.04	125.98 LT
SET SECONDARY MONUMENT PARCEL 5	158523.9515	457802.9151	114+14.99	76.01 LT
SET SECONDARY MONUMENT PARCEL 5	158538.3002	457752.7243	114+29.04	126.48 LT
SET SECONDARY MONUMENT PARCEL 6	158547.1570	457977.6363	114+41.03	98.29 RT
SET SECONDARY MONUMENT PARCEL 6	158650.2229	457961.4874	115+40.16	83.58 RT
SET SECONDARY MONUMENT PARCEL 6	158681.8779	457895.9303	115+74.08	19.17 RT
SET SECONDARY MONUMENT PARCEL 5	158275.1630	457806.0539	1022+65.01	117.57 LT

BOGARD ROAD ALIGNMENT

RIGHT-OF-WAY CORNERS SET THIS SURVEY - SHEET 6

MONUMENT TYPE : LOCATION	NORTHING	EASTING	STATION	OFFSET
SET SECONDARY MONUMENT PARCEL 6	158117.9305	459223.4242	1037+06.41	49.70 LT
SET SECONDARY MONUMENT PARCEL 6	158005.3478	459224.7871	1037+15.76	62.50 RT

GREEN FOREST DRIVE ALIGNMENT

RIGHT-OF-WAY CORNERS SET THIS SURVEY - SHEET 7

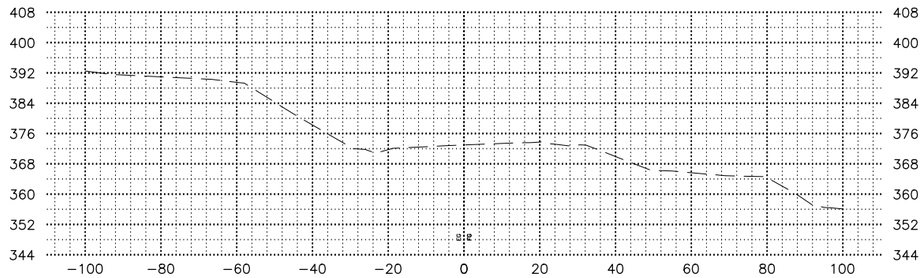
MONUMENT TYPE : LOCATION	NORTHING	EASTING	STATION	OFFSET
SET SECONDARY MONUMENT PARCEL 15	157296.1129	457612.2565	101+46.76	35.00 LT
SET SECONDARY MONUMENT PARCEL 15	157396.3233	457644.2511	102+51.96	35.00 LT
SET SECONDARY MONUMENT PARCEL 9	157698.8533	457908.1983	106+13.42	128.14 RT
SET SECONDARY MONUMENT PARCEL 6	157899.6647	457985.8051	108+13.45	162.15 RT

PRELIMINARY
5/7/2025

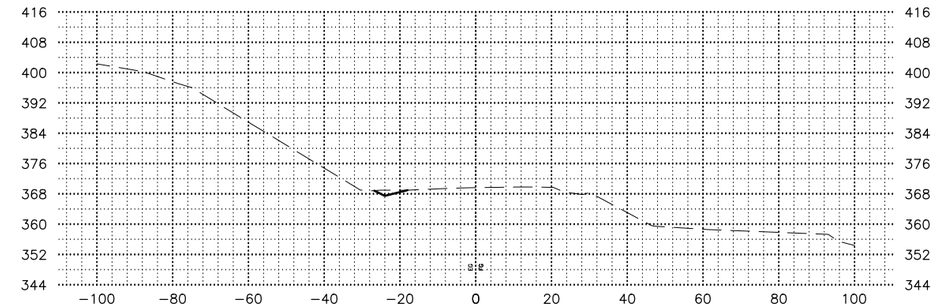
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
RIGHT-OF-WAY MAP
ALASKA PROJECT
0001630 / CFHWY00453
HSIP: BOGARD ROAD AT ENGSTROM ROAD AND GREEN FOREST DRIVE – INTERSECTION IMPROVEMENTS

DRAWN	KMG/AFF	DATE	5/07/2025	SCALE	
CHECKED	KMG	DATE		SHEET	10 OF 10

1011+60.00



1012+20.00



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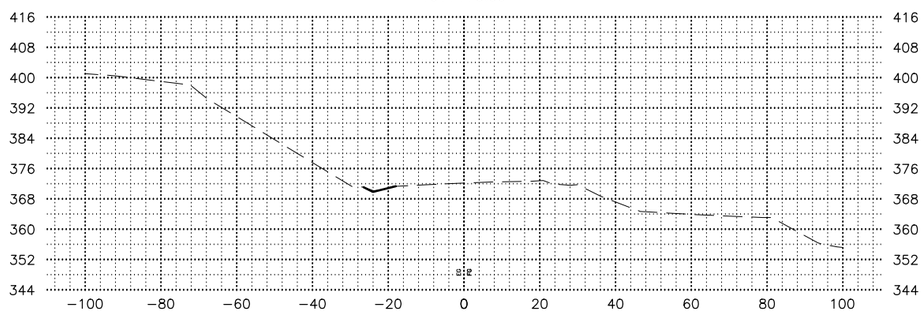

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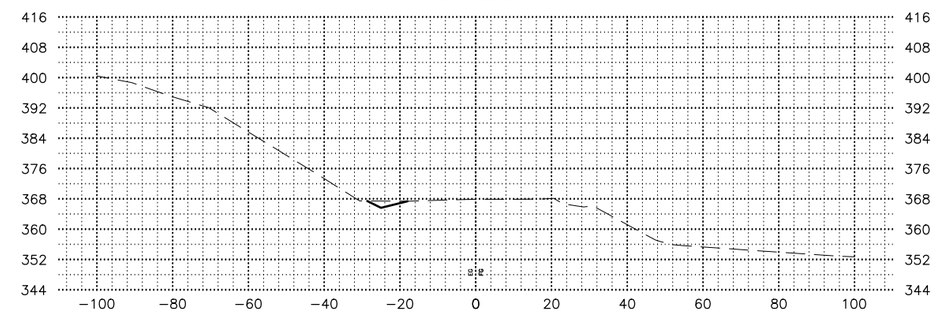

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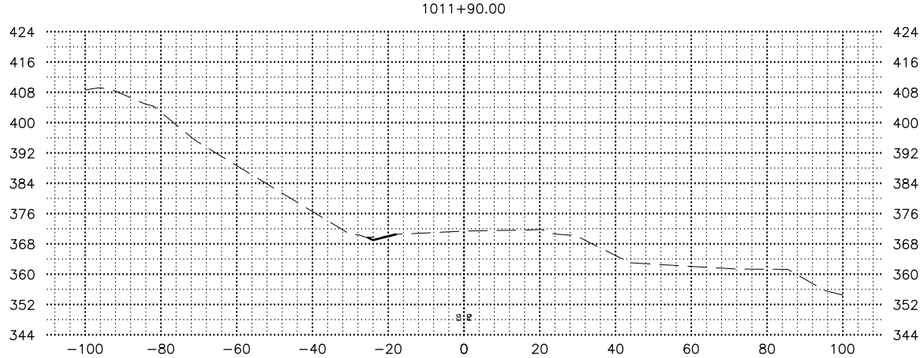

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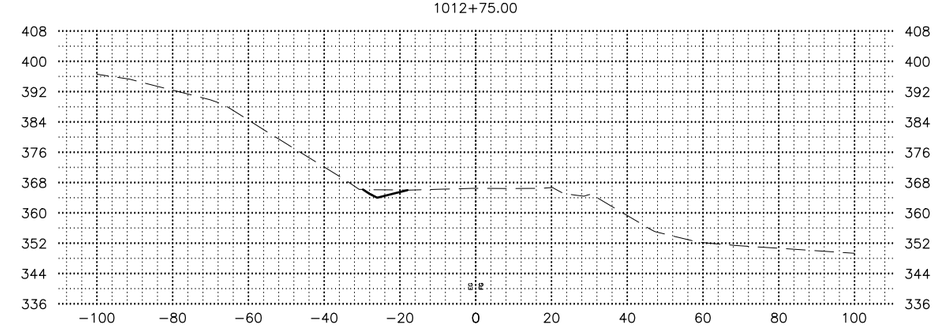

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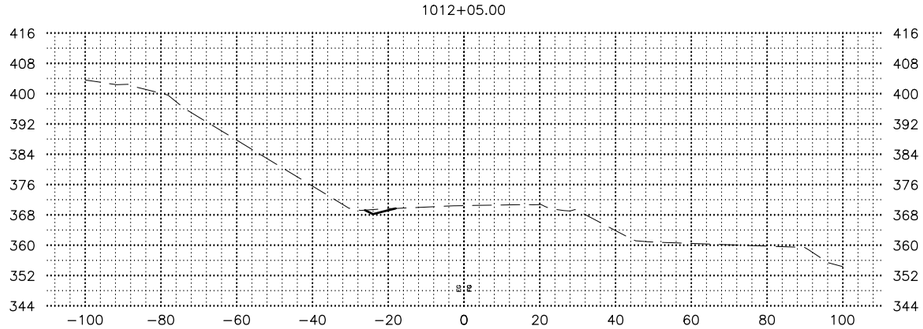
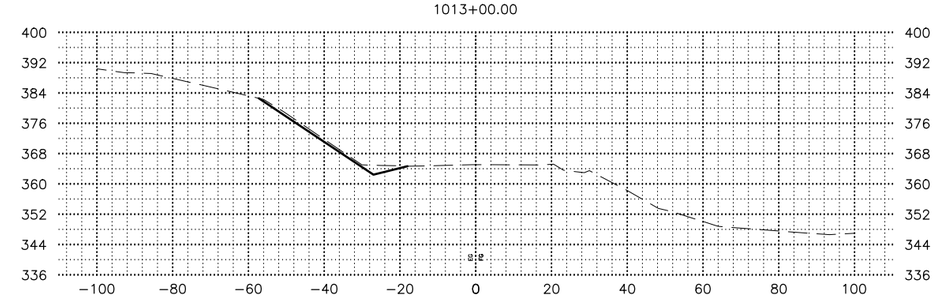


1013+00.00



SHEET NO.	TOTAL SHEETS
X01	X20
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION

0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

PS&E REVIEW

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

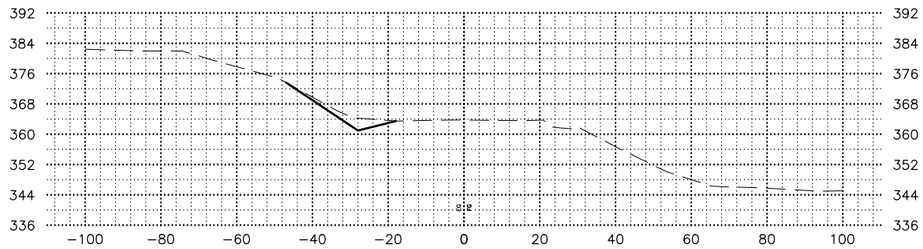
HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

BOGARD ROAD
CROSS SECTIONS

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA – CFHWY00453\CIV3D\CIV3D\X-SECTION\00453_X-SECTIONS.DWG

DATE 5/22/2025 TIME 11:18 AM
SCALE 1" = 20'
DESIGNED BY ZDK
CHECKED BY KRV/CLE
DRAFTED BY PGH/ZDK

1013+25.00



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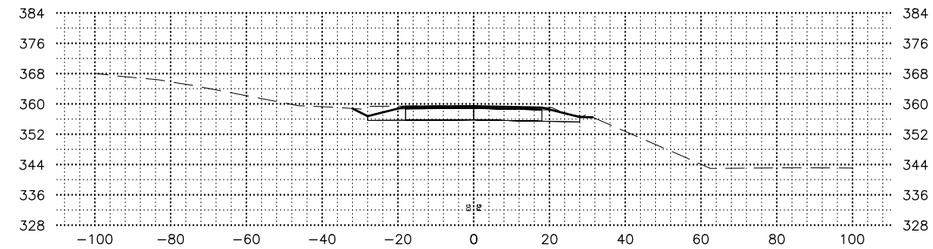

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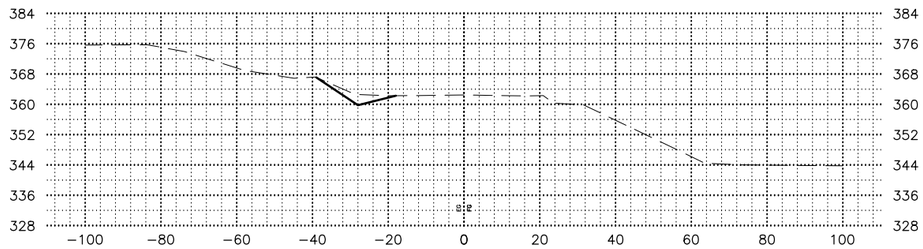
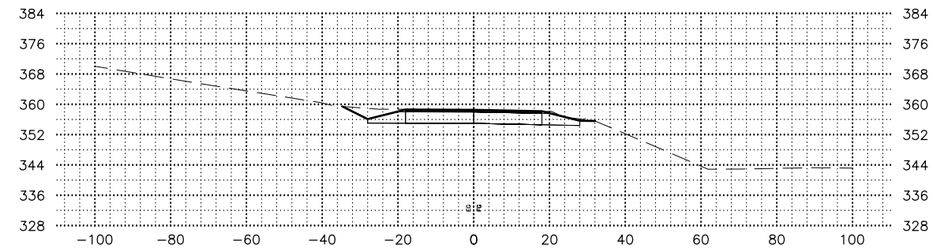


1014+50.00



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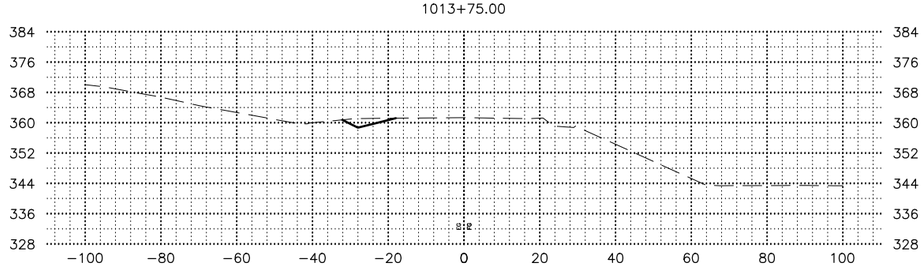

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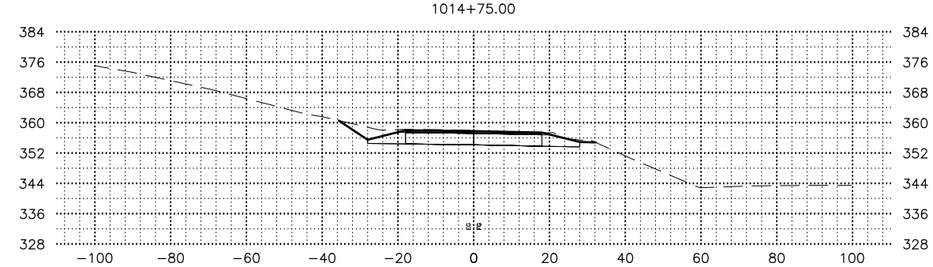

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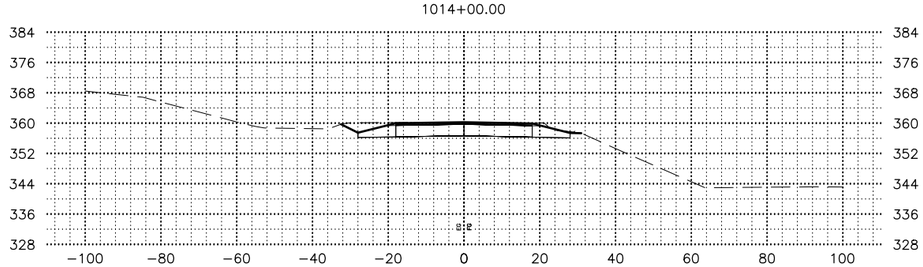
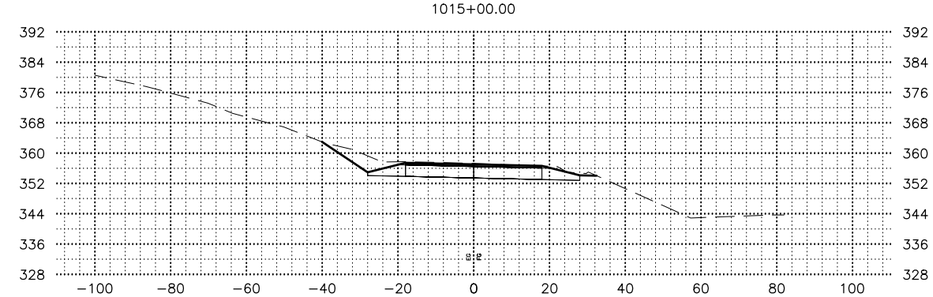


1015+00.00



SHEET NO.	TOTAL SHEETS
X02	X20
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION

0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

PS&E REVIEW

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

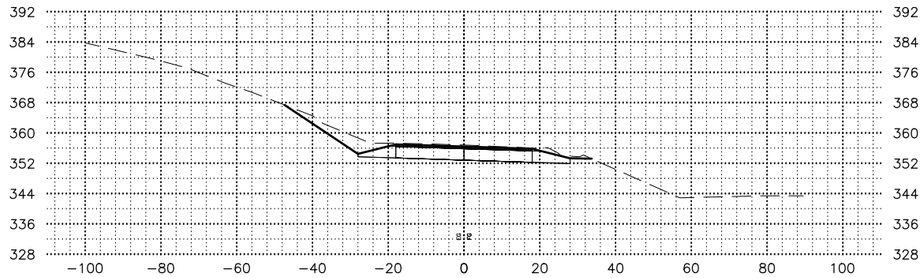
HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

BOGARD ROAD
CROSS SECTIONS

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA – CFHWY00453\CIV3D\CIV3D\X-SECTION\00453_X-SECTIONS.DWG

DATE	TIME	SCALE	DESIGNED BY	ZDK
5/22/2025	11:18 AM	1" = 20'	CHECKED BY	KRV/CLE
			DRAFTED BY	PGH/ZDK

1015+25.00



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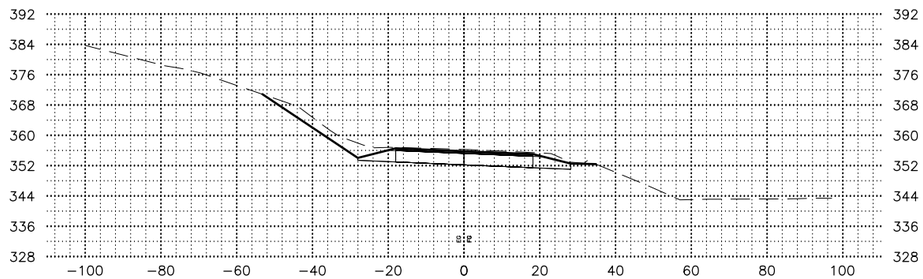

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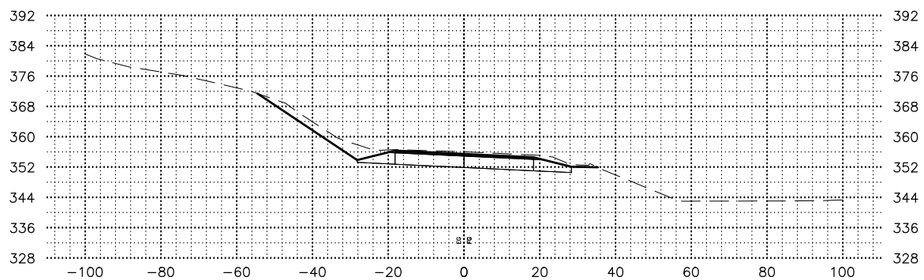

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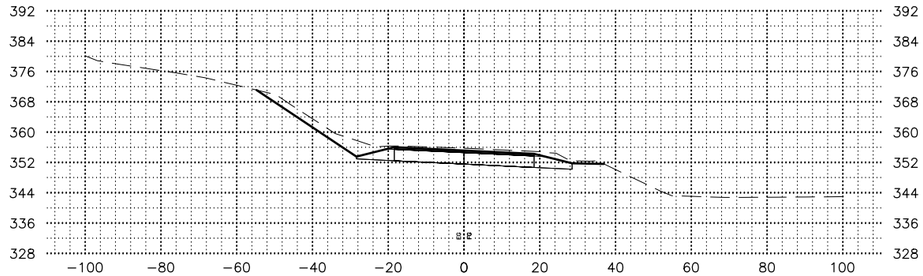

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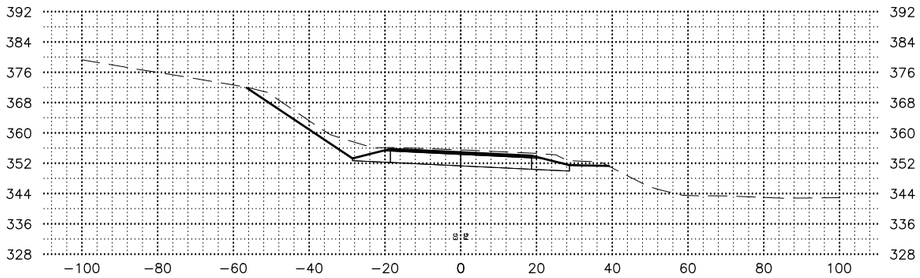

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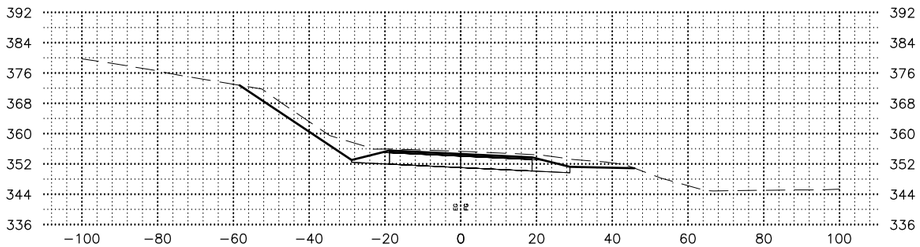

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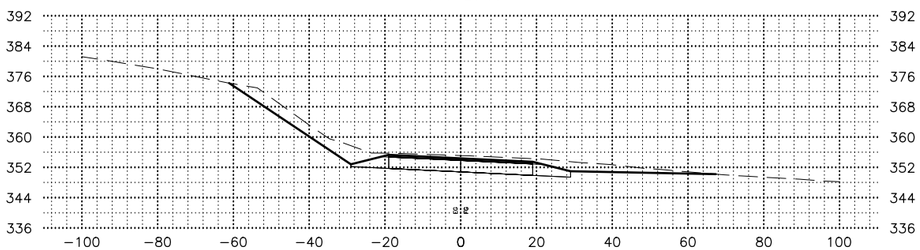

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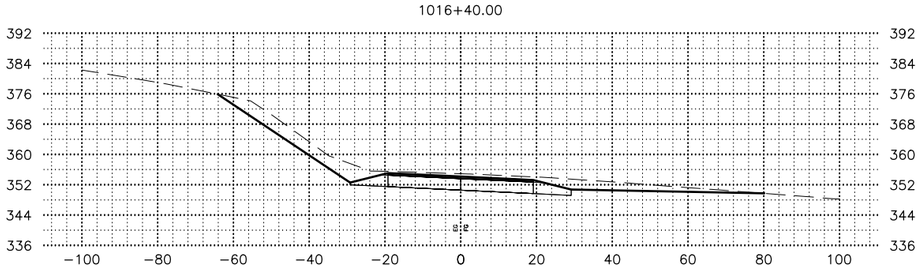


SHEET NO.	TOTAL SHEETS
X03	X20
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION

0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

PS&E REVIEW

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

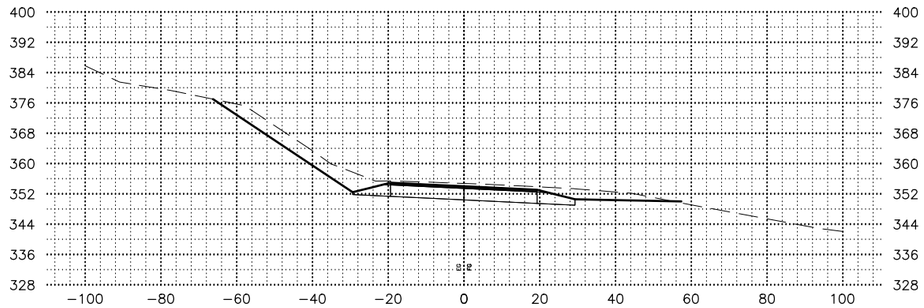
HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

BOGARD ROAD
CROSS SECTIONS

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA – CFHWY00453\CIV3D\CIV3D\X-SECTION\00453_X-SECTIONS.DWG

DATE 5/22/2025 TIME 11:18 AM
SCALE 1" = 20'
DESIGNED BY ZDK
CHECKED BY KRV/CLE
DRAFTED BY PGH/ZDK

1016+55.00



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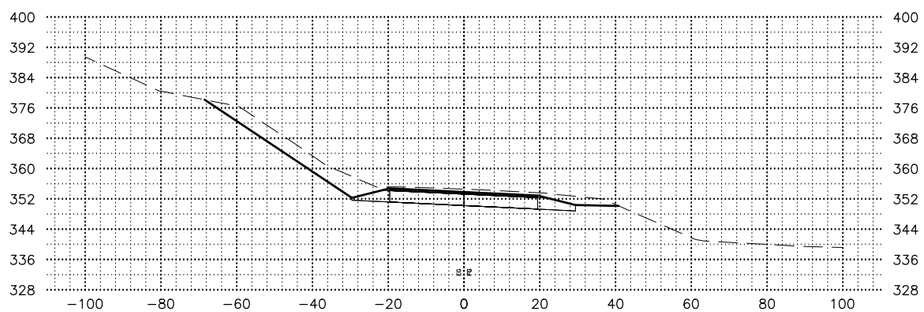
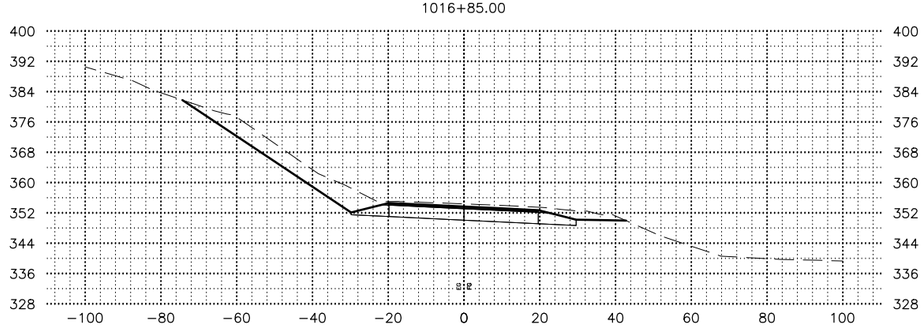


1016+85.00



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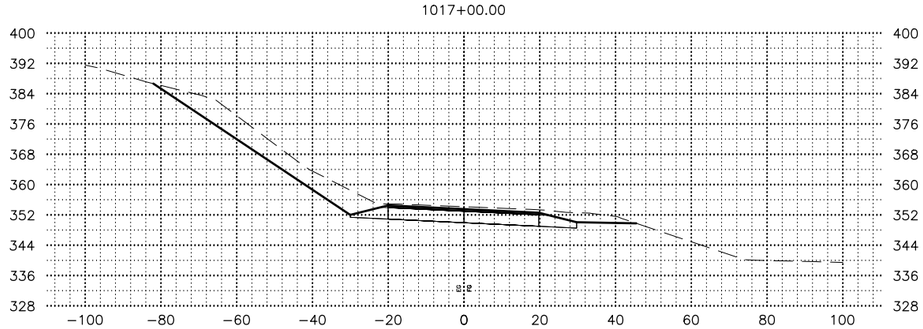

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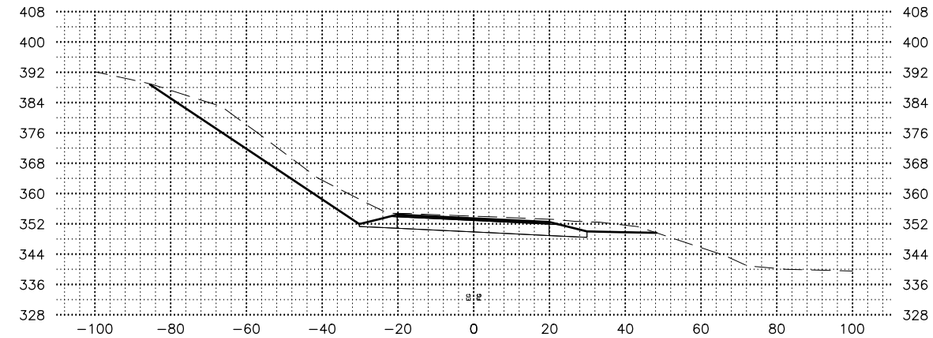
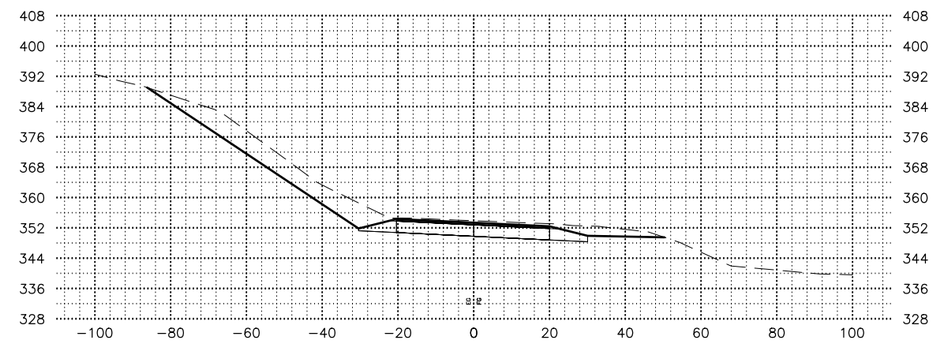
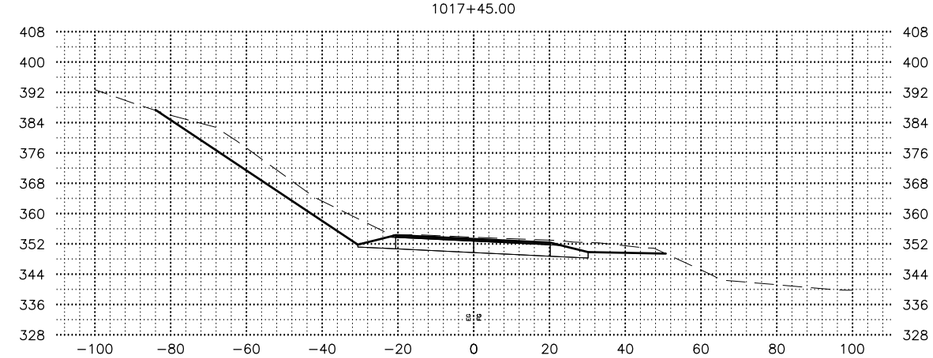


1017+30.00



1017+45.00



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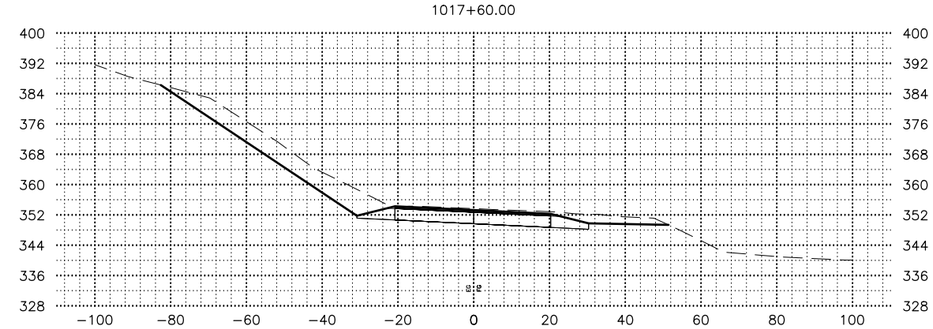


SHEET NO.	TOTAL SHEETS
X04	X20
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION

0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

PS&E REVIEW

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

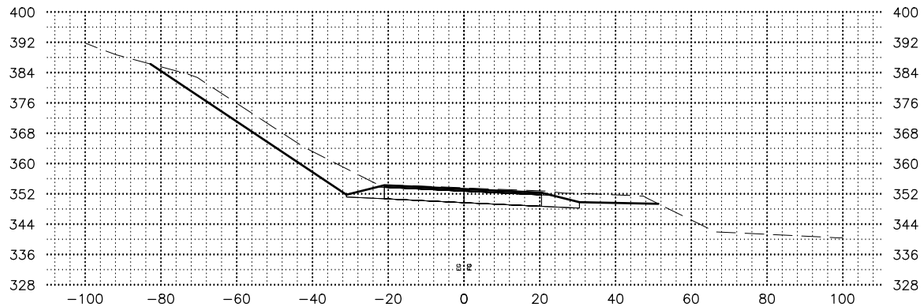
HSIP: BOGARD RD AT ENGSTROM RD & GREEN FOREST DR INT IMP

BOGARD ROAD
CROSS SECTIONS

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\CIV3D\X-SECTION\00453_X-SECTIONS.DWG

DATE	TIME	SCALE	DESIGNED BY	ZDK
5/22/2025	11:18 AM	1" = 20'	CHECKED BY	KRV/CLE
			DRAFTED BY	PGH/ZDK

1017+75.00



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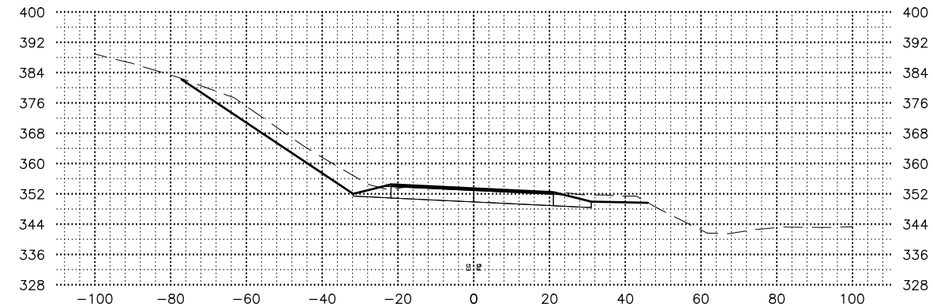

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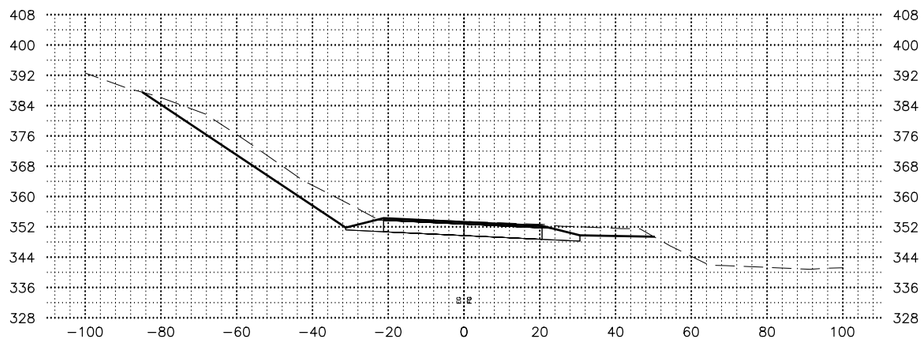

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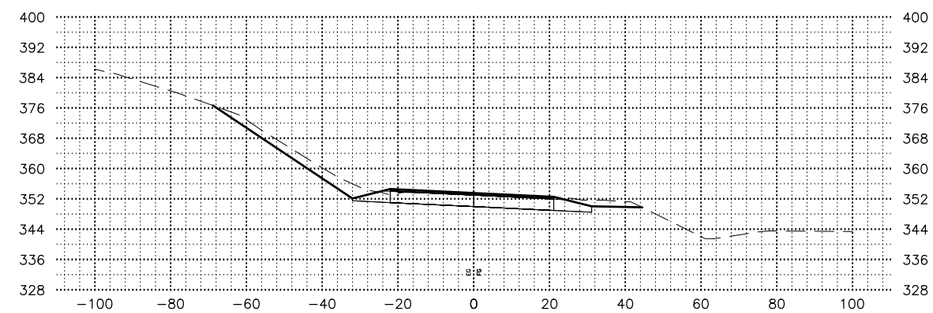

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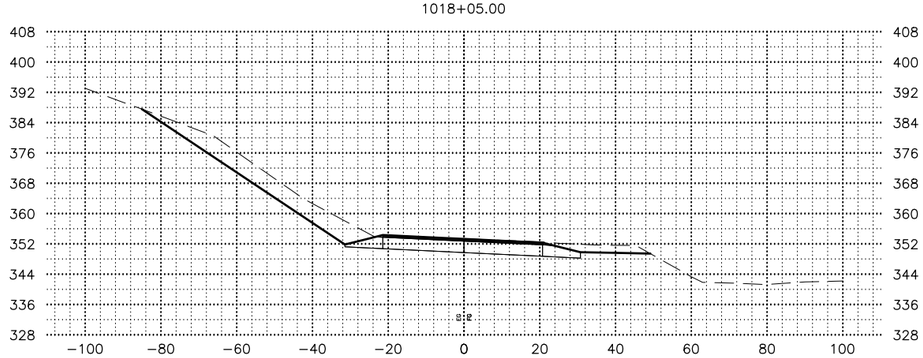

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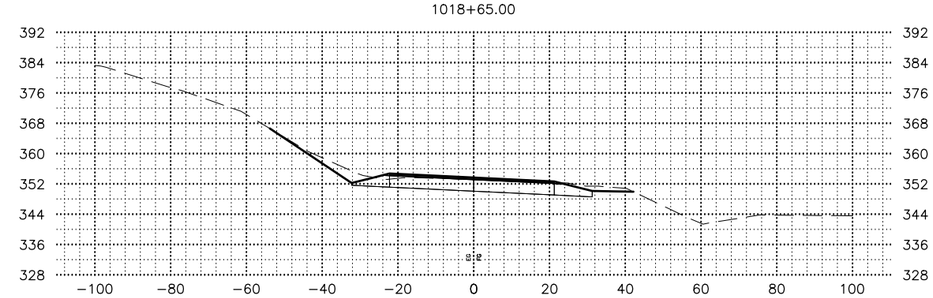

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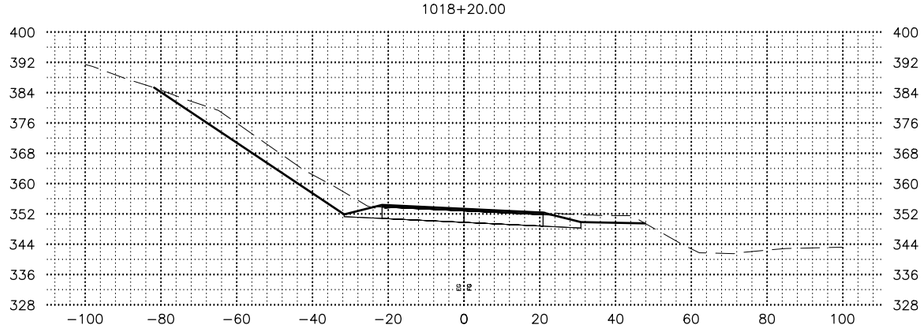

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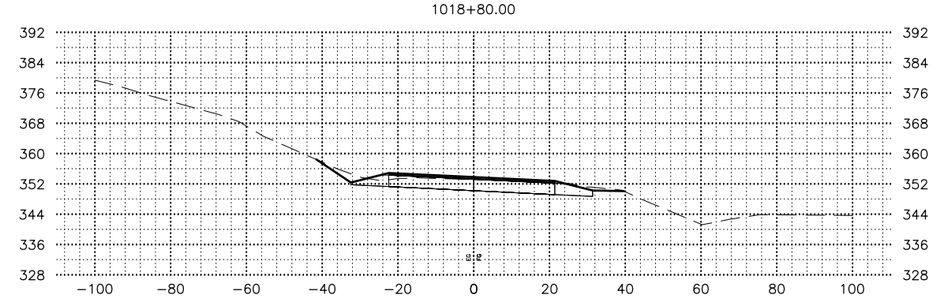


SHEET NO.	TOTAL SHEETS
X05	X20
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION

0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

PS&E REVIEW

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

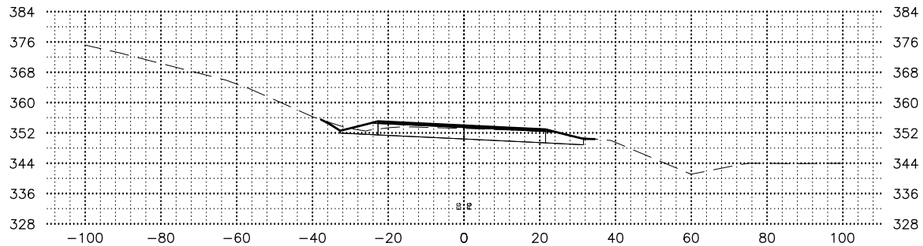
HSIP: BOGARD RD AT ENGSTROM RD & GREEN FOREST DR INT IMP

BOGARD ROAD
CROSS SECTIONS

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\CIV3D\X-SECTION\00453_X-SECTIONS.DWG

DATE 5/22/2025 TIME 11:18 AM
SCALE 1" = 20'
DESIGNED BY ZDK
CHECKED BY KRV/CLE
DRAFTED BY PGH/ZDK

1018+95.00



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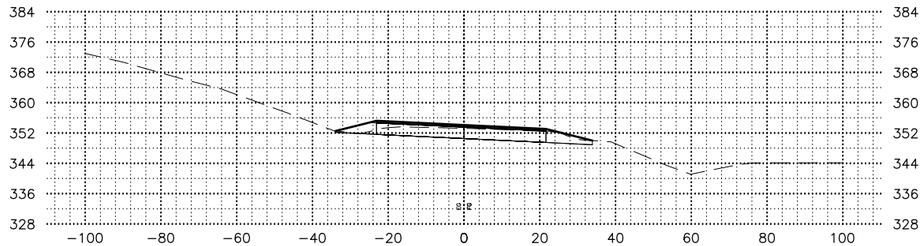

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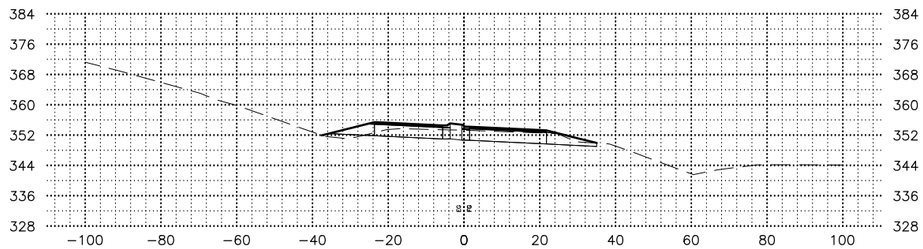
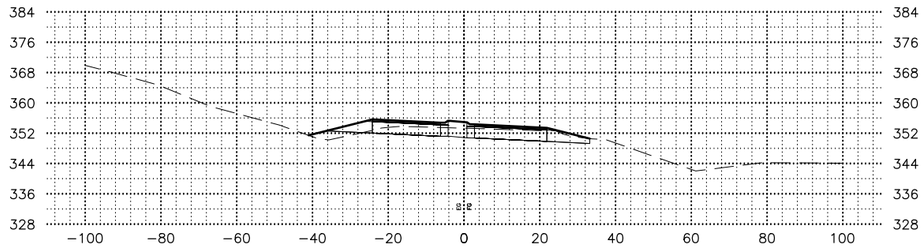
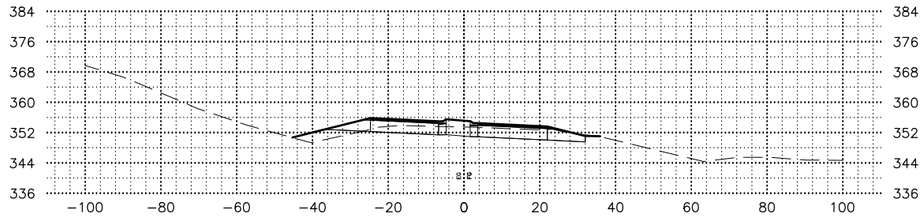


1019+40.00



1019+55.00



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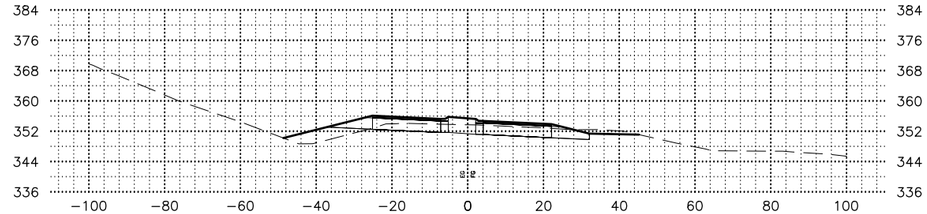
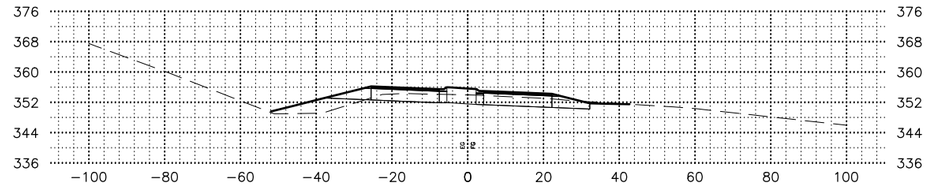


1019+85.00



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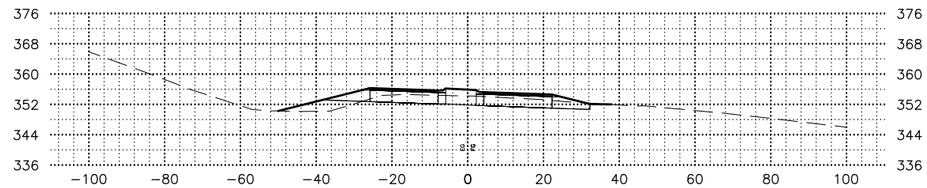

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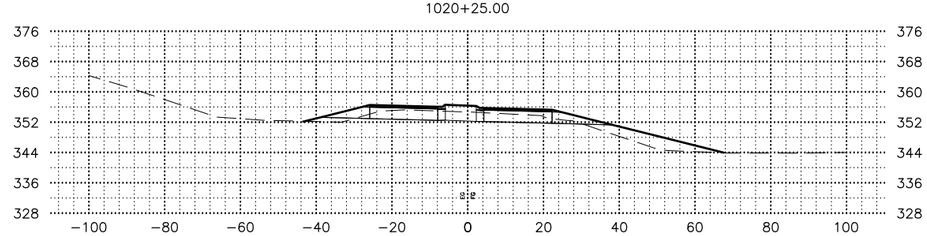

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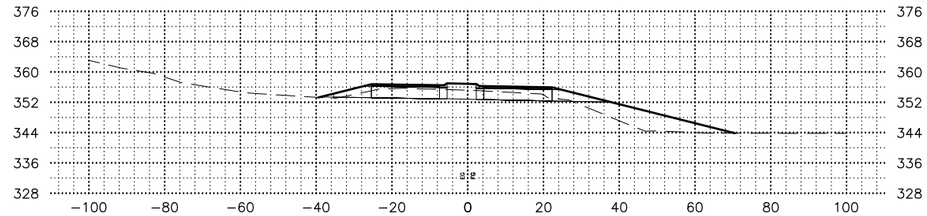


SHEET NO.	TOTAL SHEETS
X06	X20
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION

0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

PS&E REVIEW

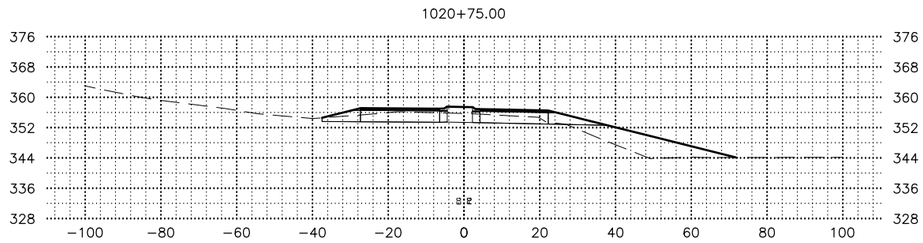
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

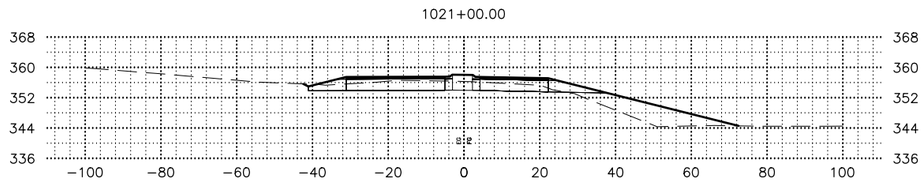
HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

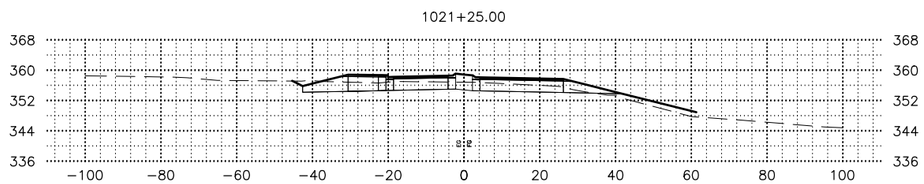
BOGARD ROAD
CROSS SECTIONS

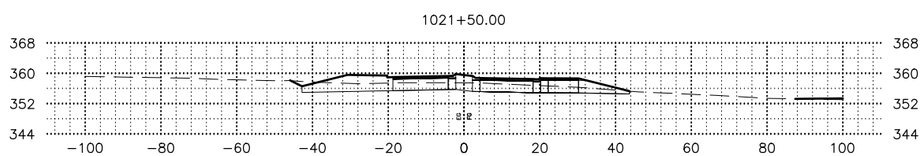
DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\CIV3D\X-SECTION\00453_X-SECTIONS.DWG

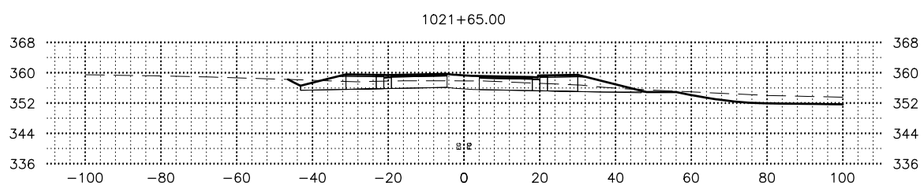
DATE 5/22/2025 TIME 11:18 AM
SCALE 1" = 20'
DESIGNED BY ZDK
CHECKED BY KRV/CLE
DRAFTED BY PGH/ZDK

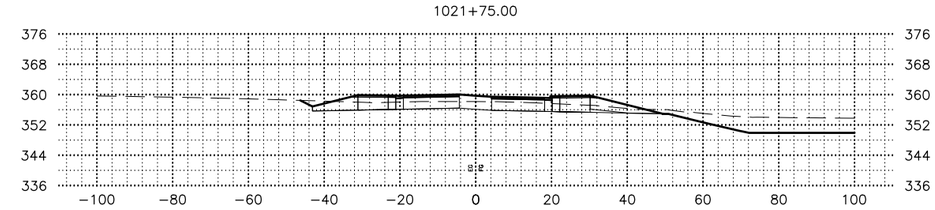


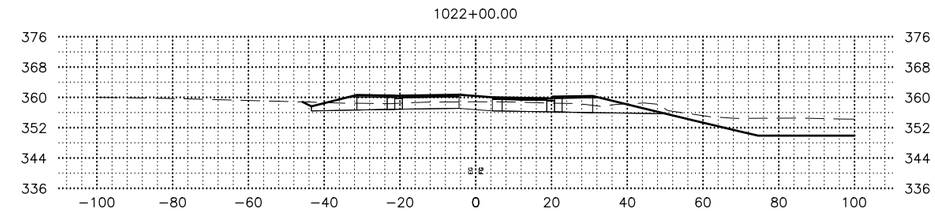


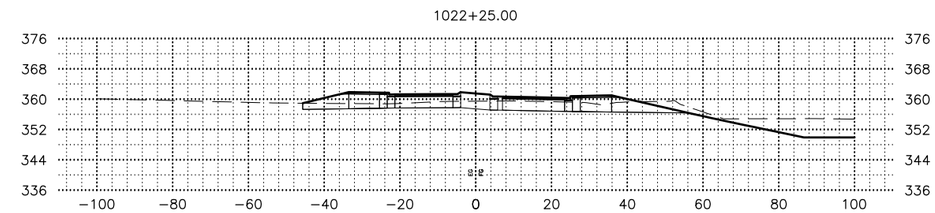


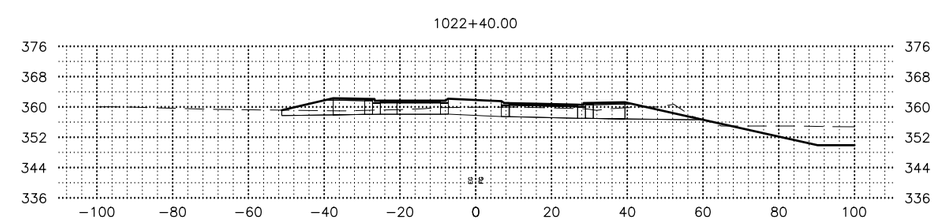


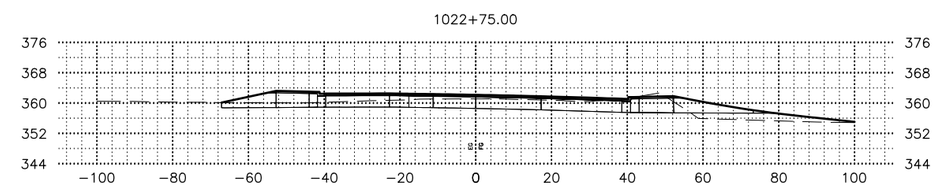












SHEET NO.	TOTAL SHEETS
X07	X20
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION

0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

PS&E REVIEW

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

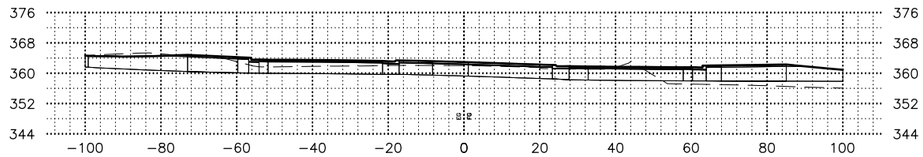
HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

BOGARD ROAD
CROSS SECTIONS

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\CIV3D\X-SECTION\00453_X-SECTIONS.DWG

DATE 5/22/2025 TIME 11:18 AM
SCALE 1" = 20'
DESIGNED BY ZDK
CHECKED BY KRV/CLE
DRAFTED BY PGH/ZDK

1023+00.00



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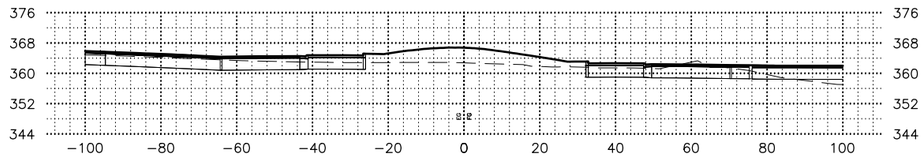

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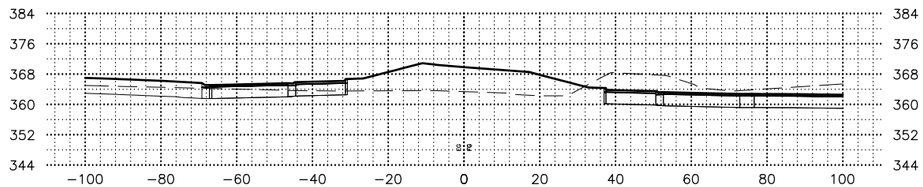

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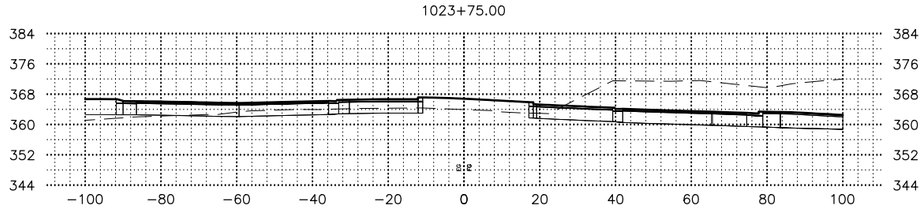

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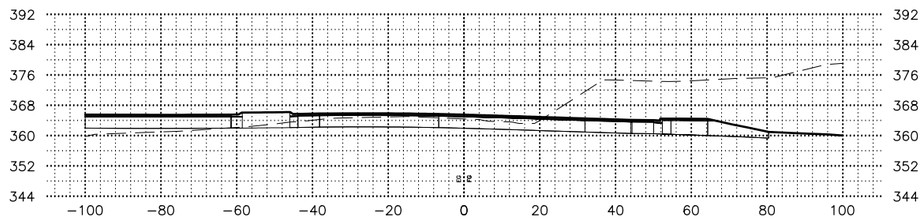

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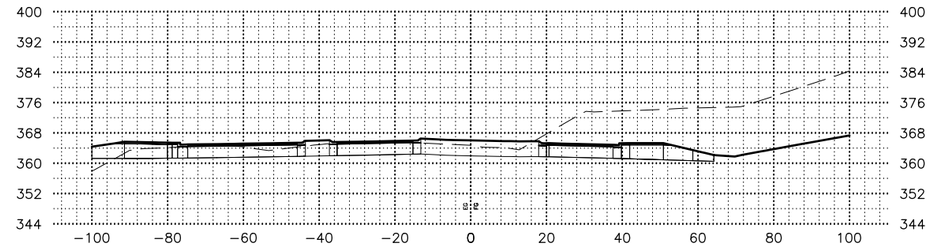

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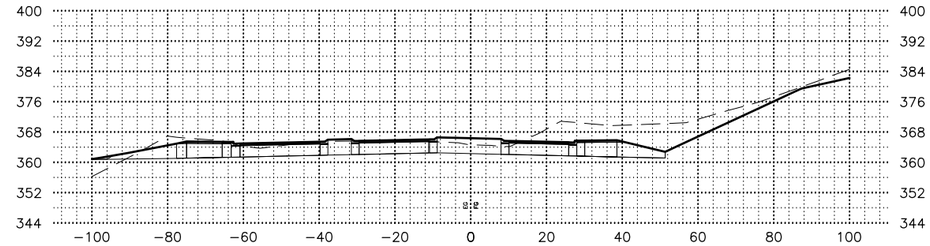

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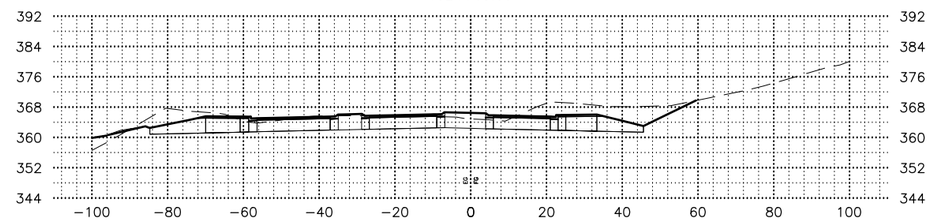

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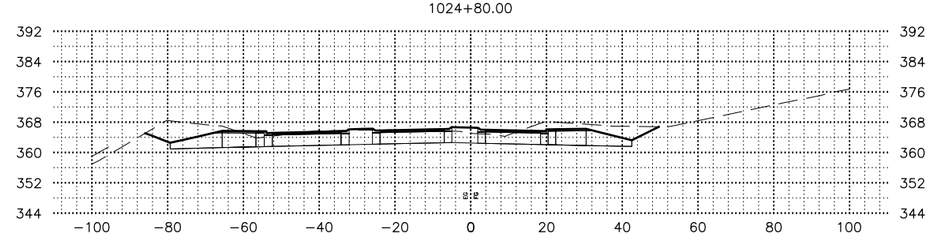

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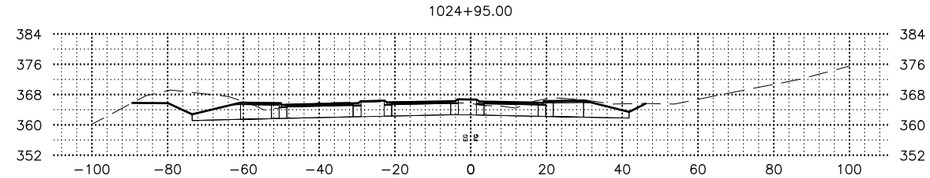


SHEET NO.	TOTAL SHEETS
X08	X20
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION

0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

PS&E REVIEW

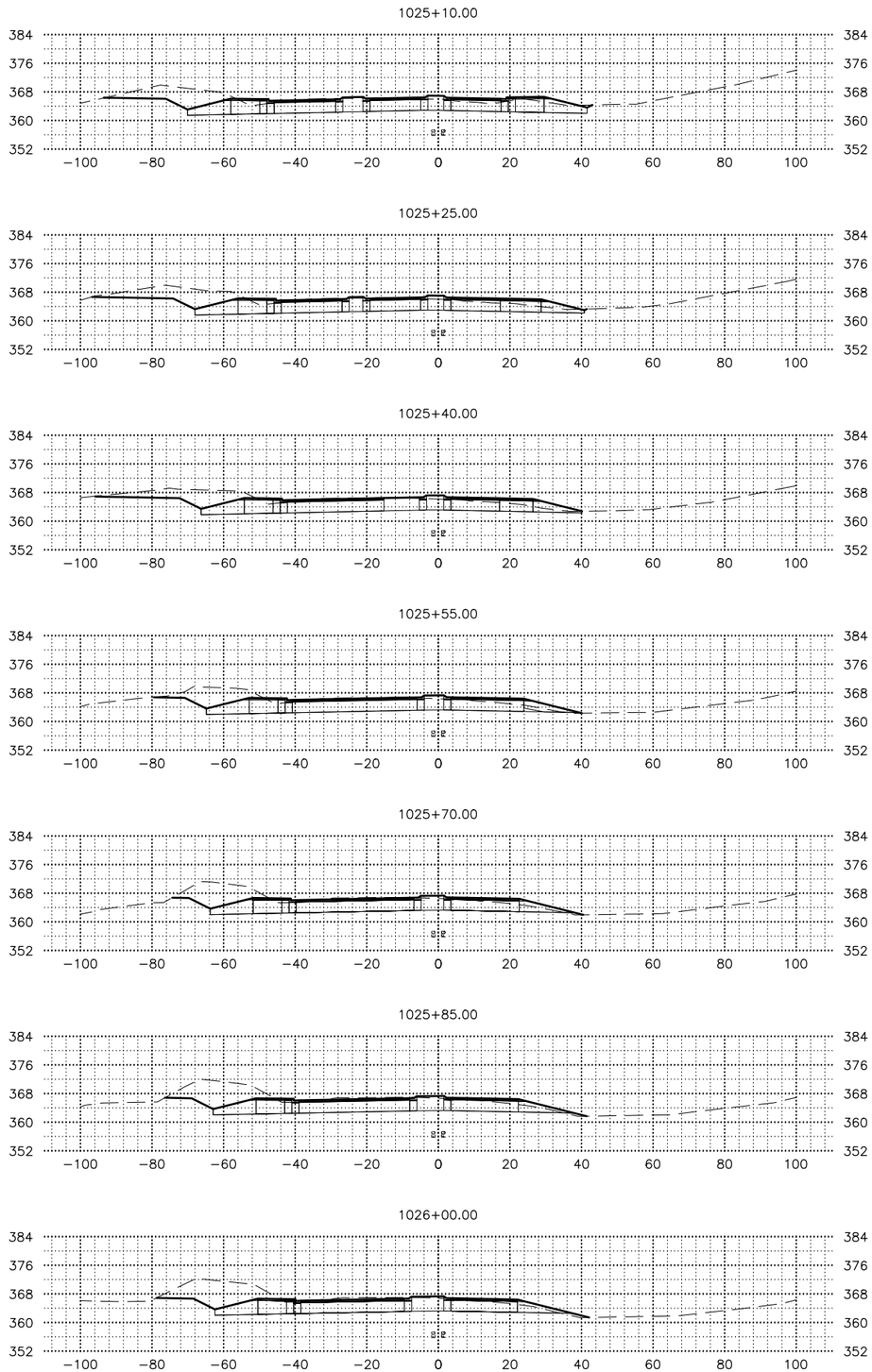
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

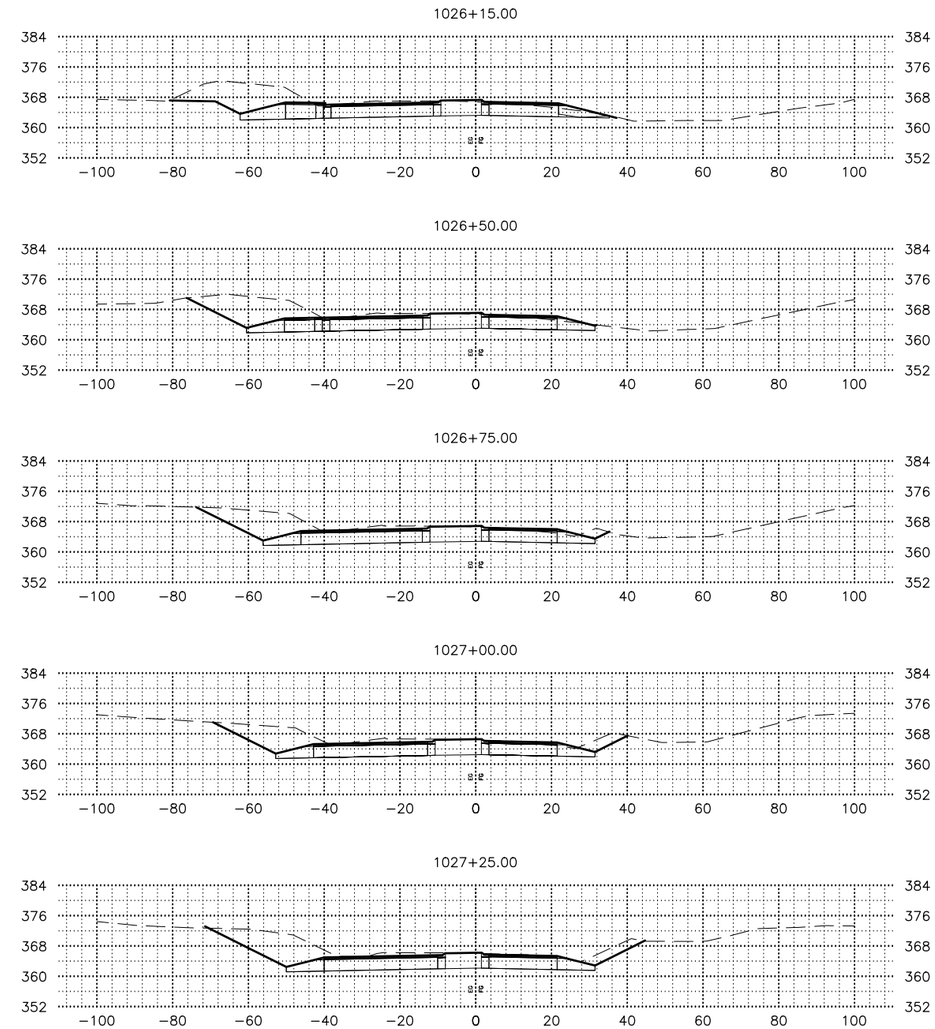
HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

BOGARD ROAD
CROSS SECTIONS

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\CIV3D\X-SECTION\00453_X-SECTIONS.DWG

DATE 5/22/2025 TIME 11:18 AM
SCALE 1" = 20'
DESIGNED BY ZDK
CHECKED BY KRV/CLE
DRAFTED BY PGH/ZDK





SHEET NO.	TOTAL SHEETS
X09	X20
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION

0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

PS&E REVIEW

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT ENGSTROM RD & GREEN FOREST DR INT IMP

BOGARD ROAD
CROSS SECTIONS

DESIGNED BY ZDK
CHECKED BY KRV/CLE
DRAFTED BY PGH/ZDK

SCALE 1" = 20'

DATE 5/22/2025 TIME 11:18 AM

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\CIV3D\X-SECTION\00453_X-SECTIONS.DWG

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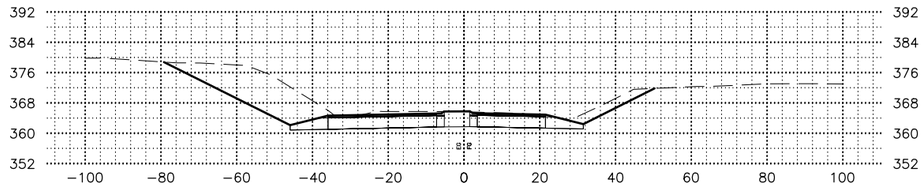

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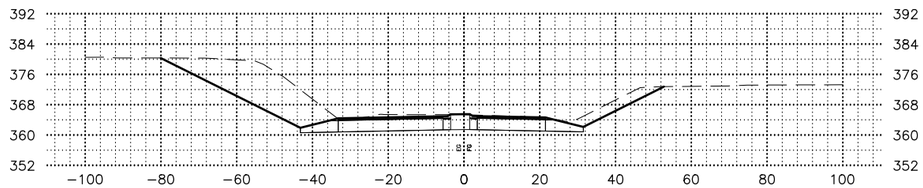

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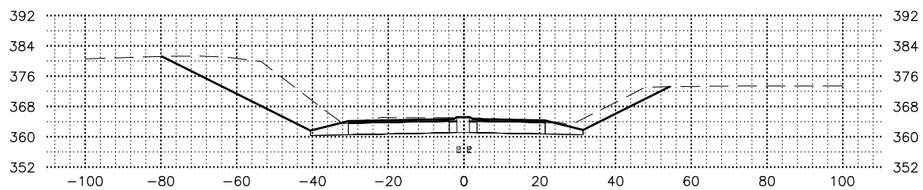

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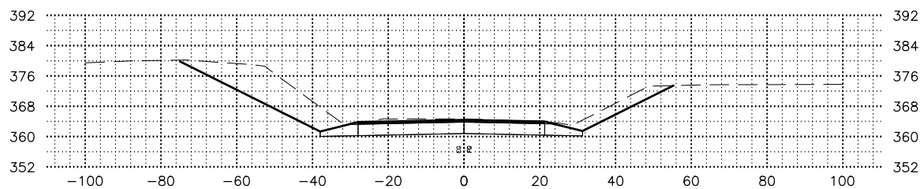

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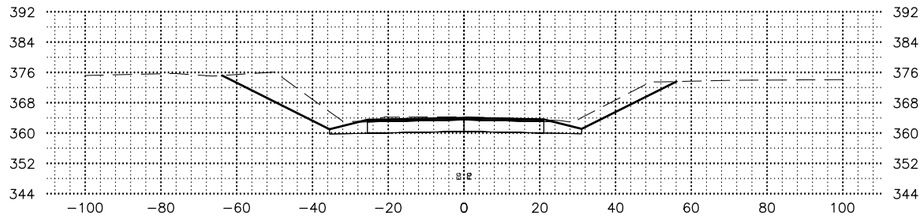

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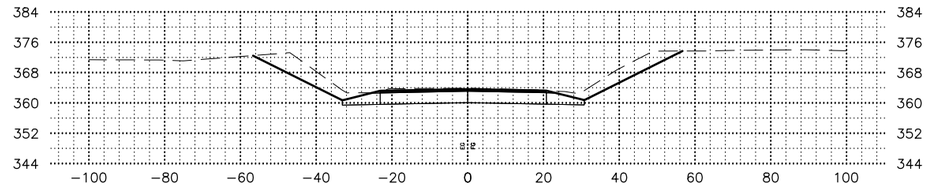

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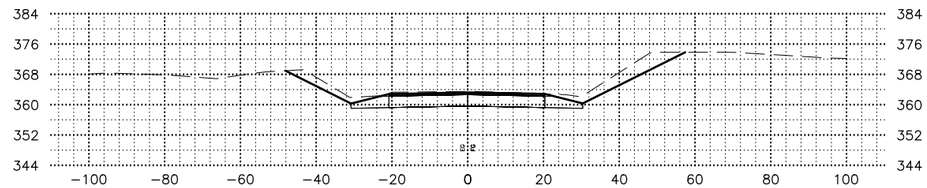

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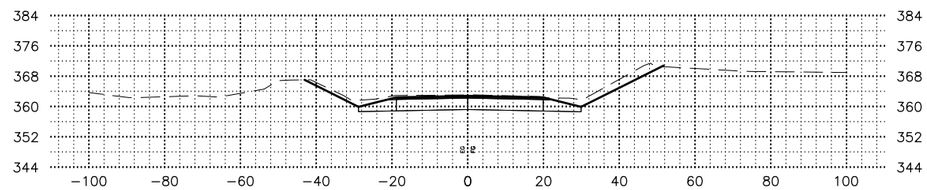

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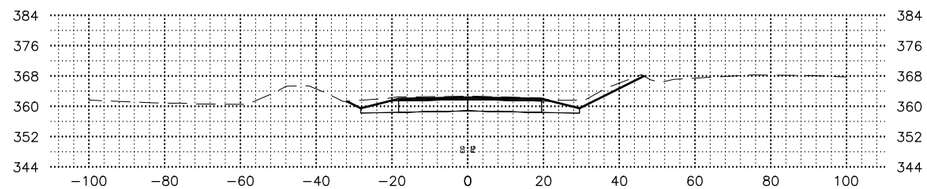

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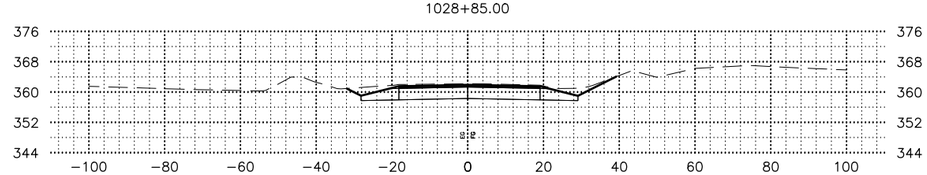


SHEET NO.	TOTAL SHEETS
X10	X20
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION

0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

PS&E REVIEW

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

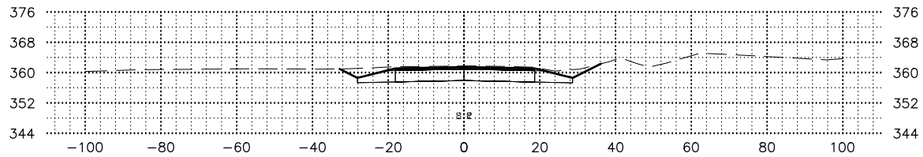
HSIP: BOGARD RD AT ENGSTROM RD & GREEN FOREST DR INT IMP

BOGARD ROAD
CROSS SECTIONS

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\CIV3D\X-SECTION\00453_X-SECTIONS.DWG

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
5/22/2025	11:18 AM	1" = 20'	ZDK	KRV/CLE	PGH/ZDK

1029+00.00



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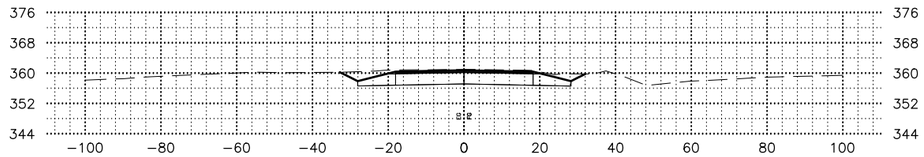

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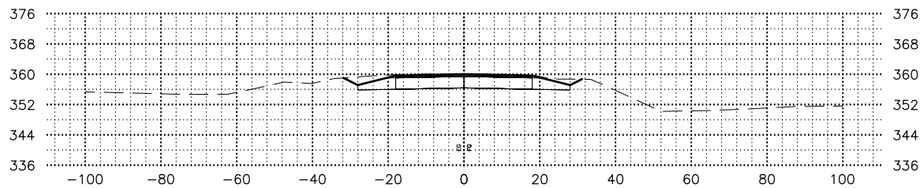

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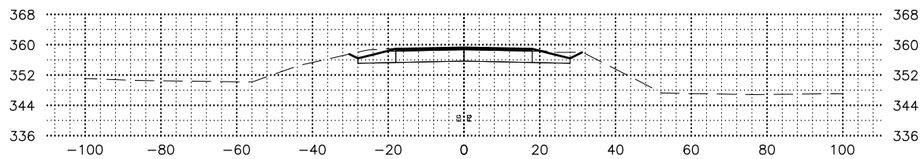

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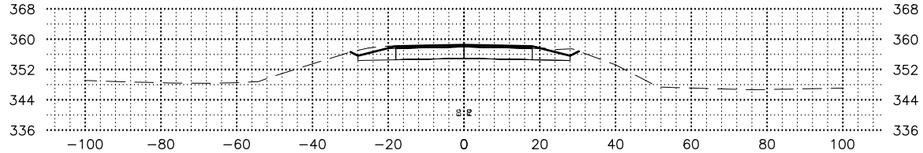


SHEET NO.	TOTAL SHEETS
X11	X20
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION

0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

PS&E REVIEW

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

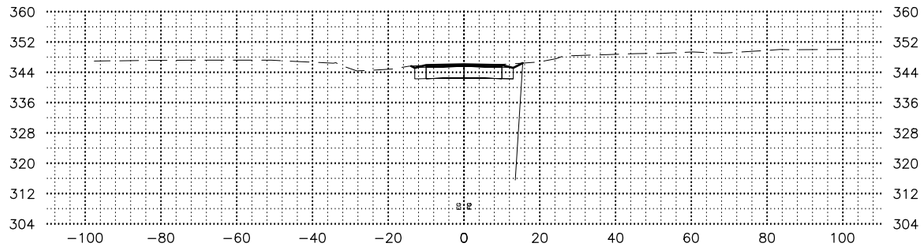
HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

BOGARD ROAD
CROSS SECTIONS

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA – CFHWY00453\CIV3D\CIV3D\X-SECTION\00453_X-SECTIONS.DWG

DATE 5/22/2025 TIME 11:18 AM
SCALE 1" = 20'
DESIGNED BY ZDK
CHECKED BY KRV/CLE
DRAFTED BY PGH/ZDK

101+00.00



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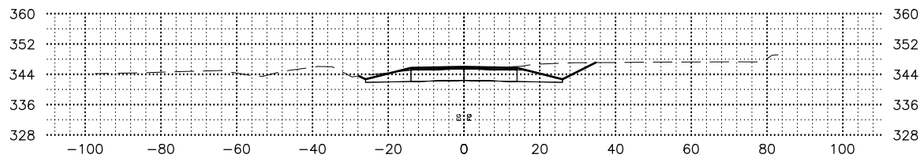

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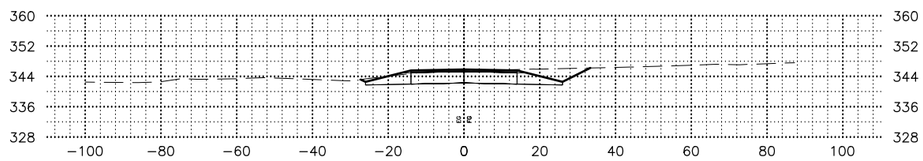

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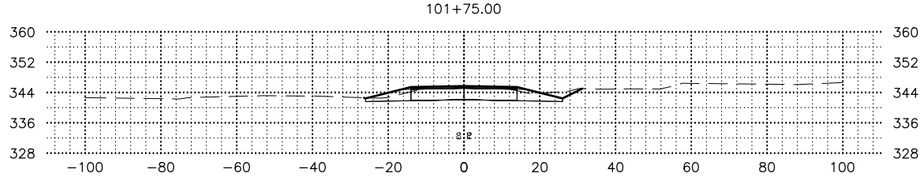

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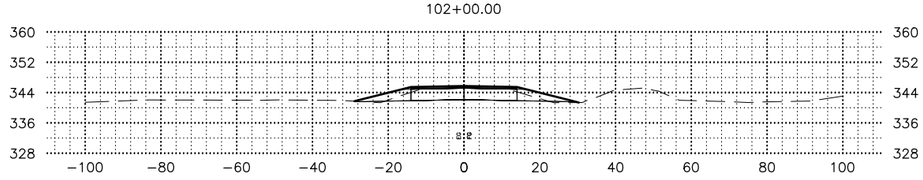

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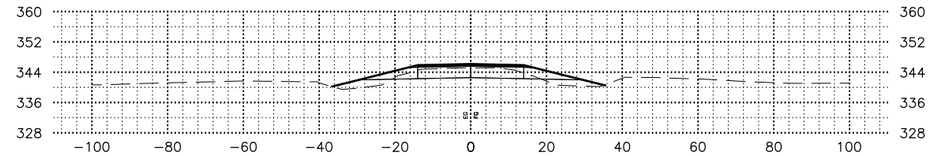

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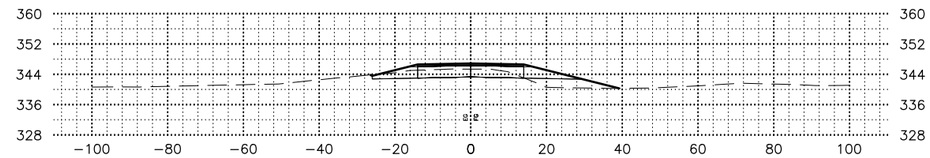

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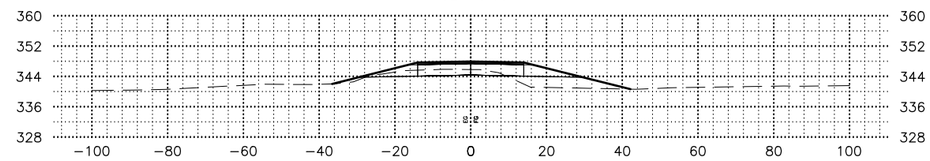

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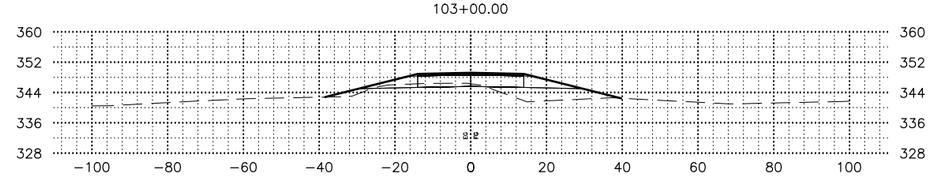

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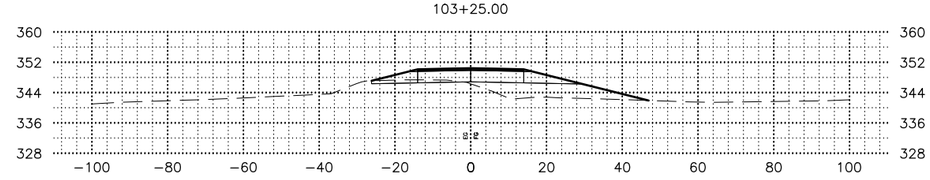


SHEET NO.	TOTAL SHEETS
X12	X20
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION

0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

PS&E REVIEW

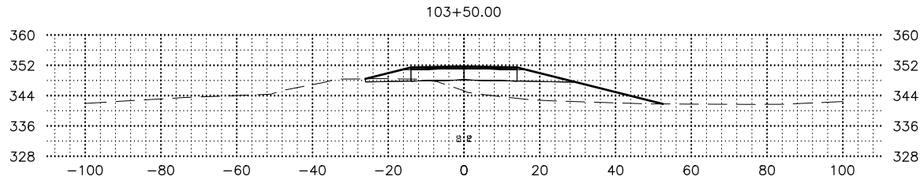
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

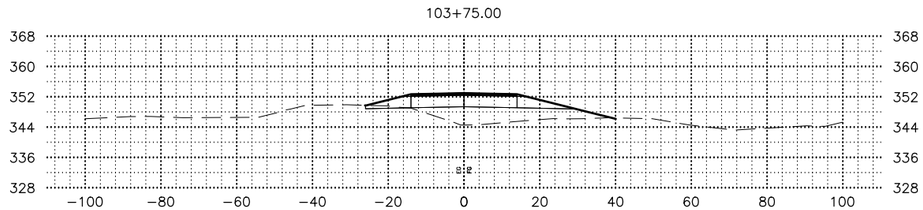
HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

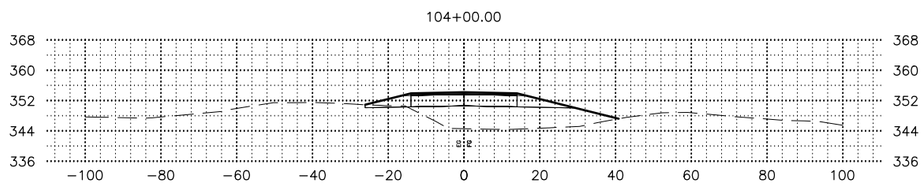
GREEN FOREST DRIVE
CROSS SECTIONS

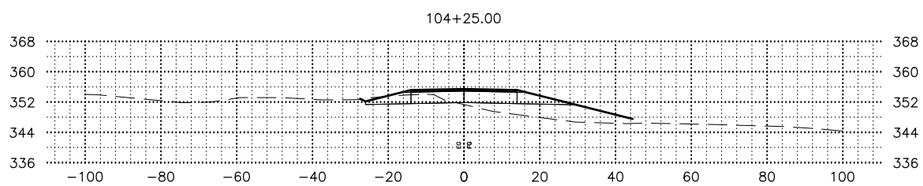
DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\CIV3D\X-SECTION\00453_X-SECTIONS.DWG

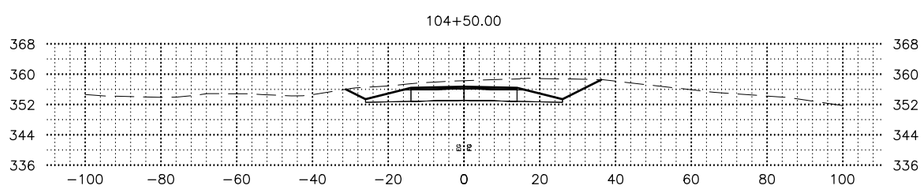
DATE 5/22/2025 TIME 11:19 AM
SCALE 1" = 20'
DESIGNED BY ZDK
CHECKED BY KRV/CLE
DRAFTED BY PGH/ZDK

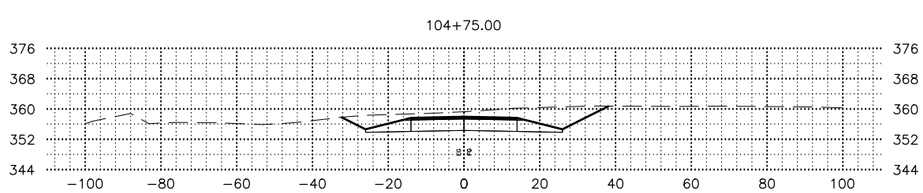


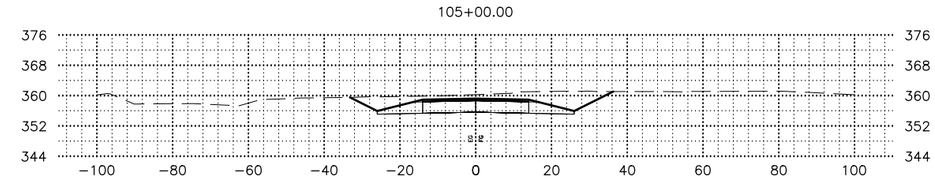


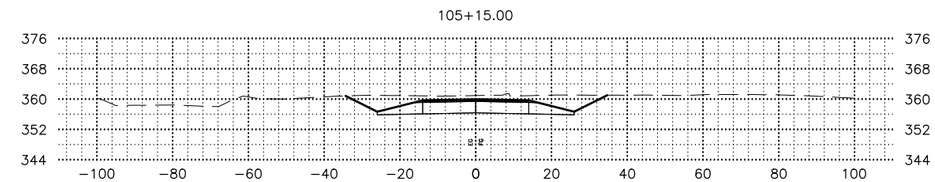


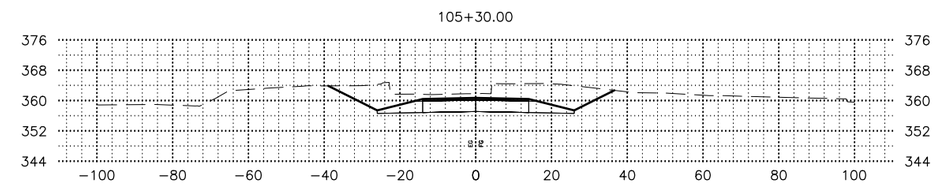


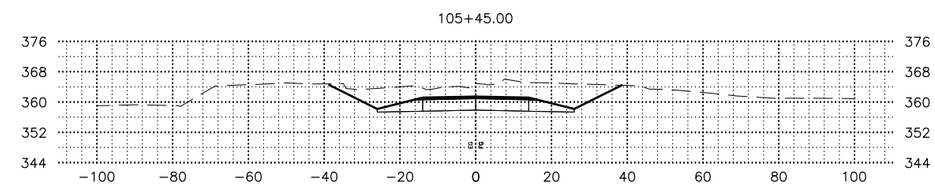


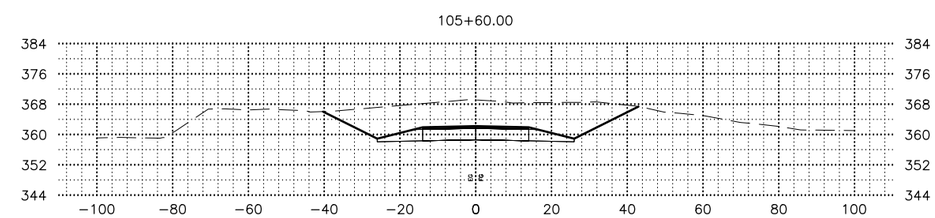


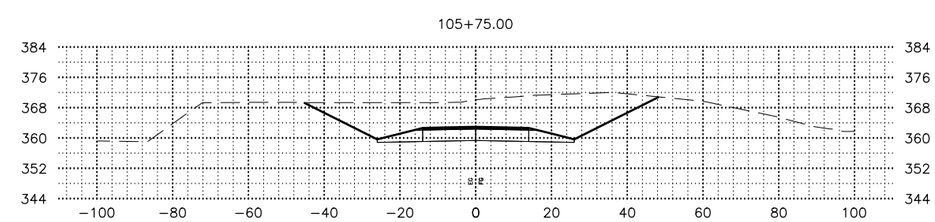












SHEET NO.	TOTAL SHEETS
X13	X20
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION

0001630/
CFHWY00453

NO.	REVISION
DATE	
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DATE	
NO.	REVISION
DATE	

PS&E REVIEW

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
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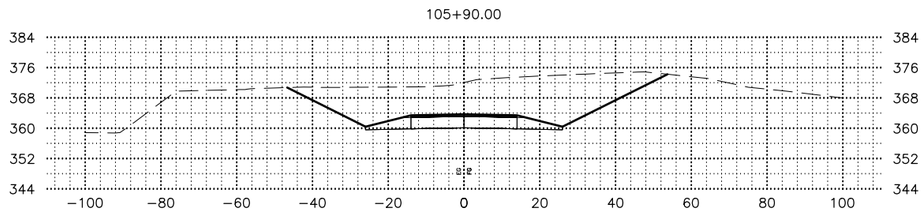
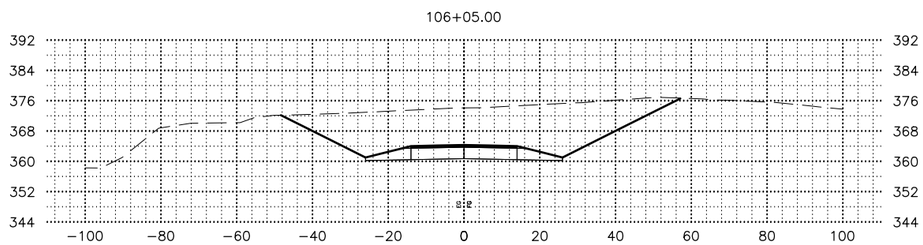
HSIP: BOGARD RD AT ENGSTROM RD & GREEN FOREST DR INT IMP

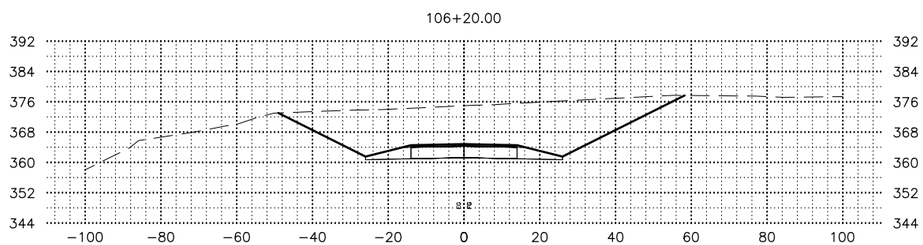
GREEN FOREST DRIVE
CROSS SECTIONS

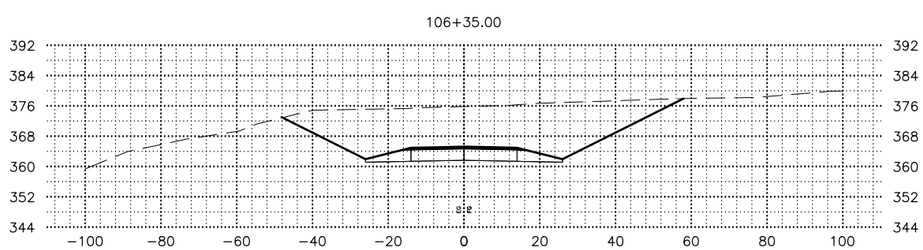
DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\CIV3D\X-SECTION\00453_X-SECTIONS.DWG

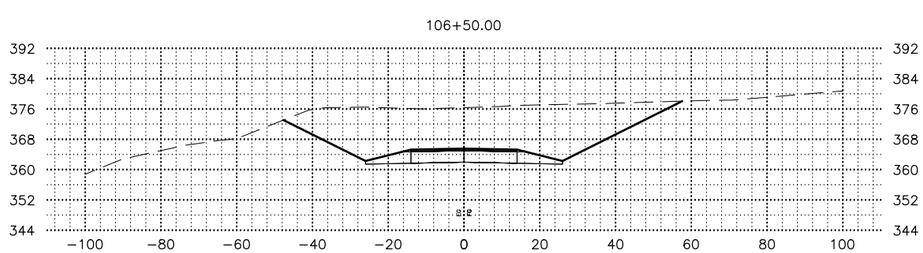
DATE 5/22/2025 TIME 11:19 AM
SCALE 1" = 20'
DESIGNED BY ZDK
CHECKED BY KRV/CLE
DRAFTED BY PGH/ZDK

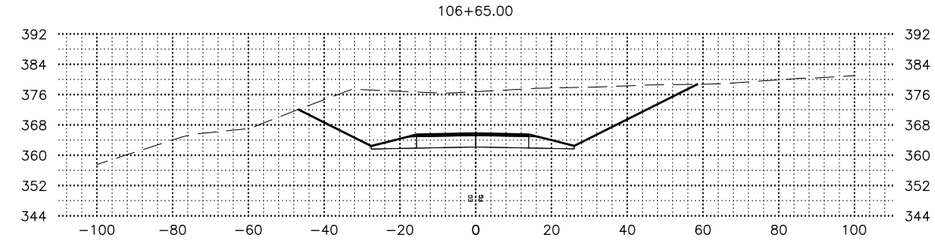


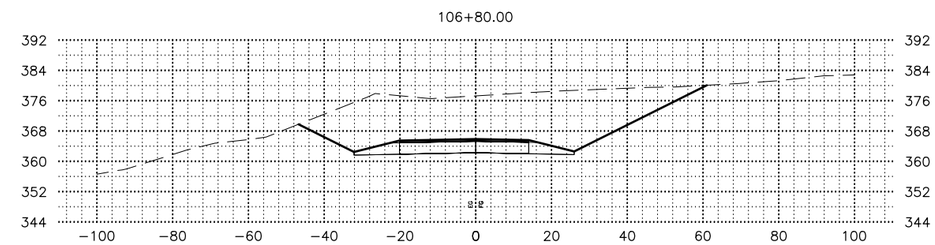


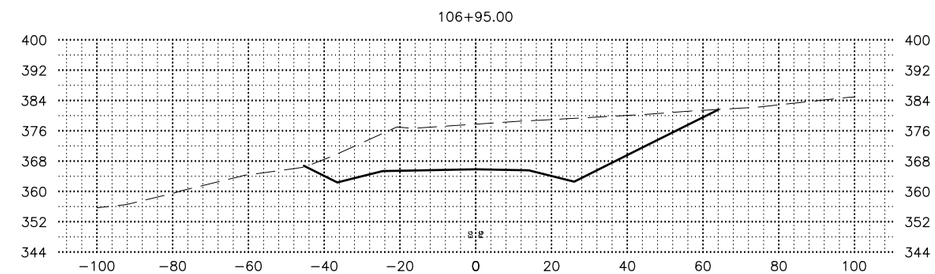


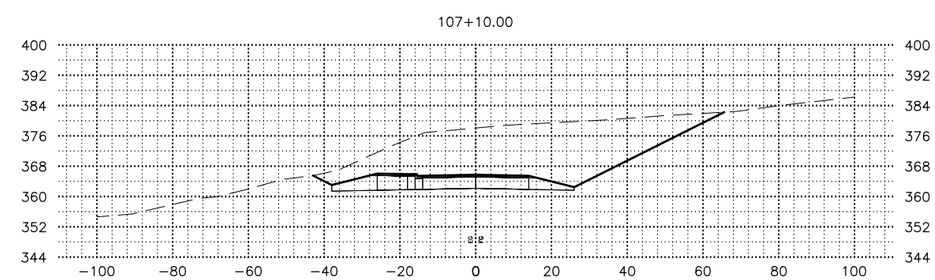


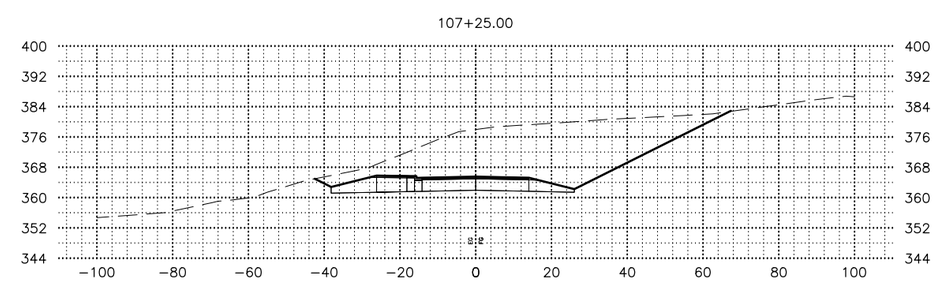












SHEET NO.	TOTAL SHEETS
X14	X20
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION

0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

PS&E REVIEW

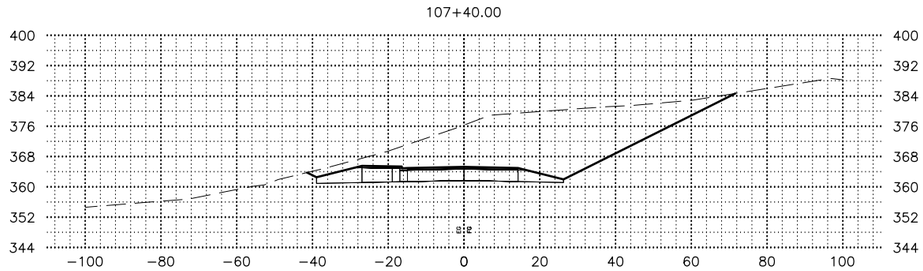
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

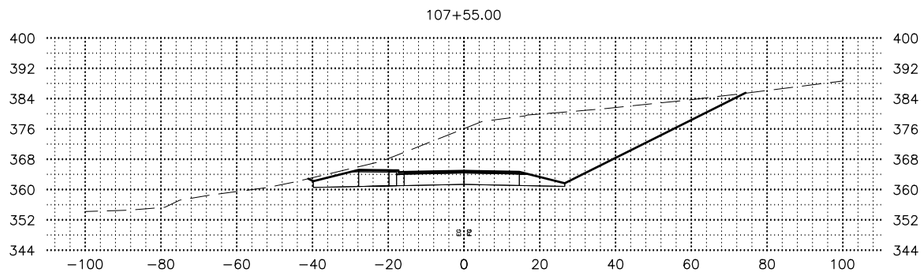
HSIP: BOGARD RD AT ENGSTROM RD & GREEN FOREST DR INT IMP

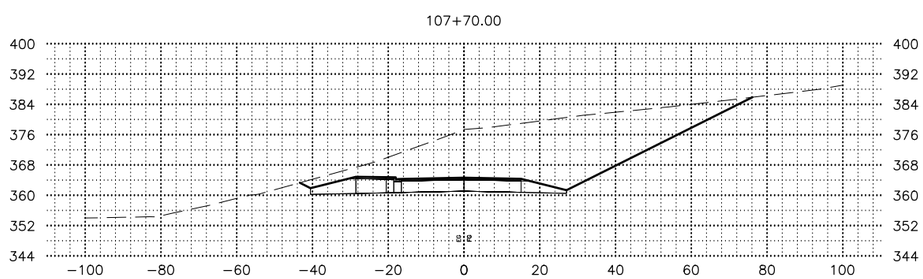
GREEN FOREST DRIVE
CROSS SECTIONS

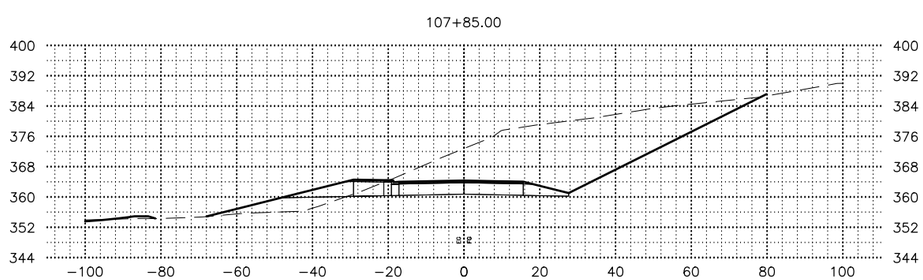
DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\CIV3D\X-SECTION\00453_X-SECTIONS.DWG

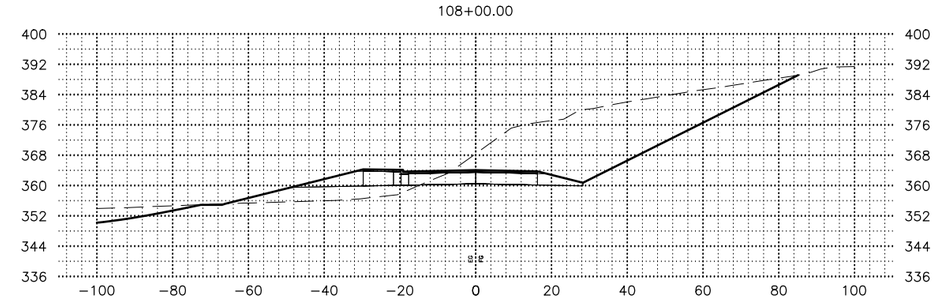
DATE 5/22/2025 TIME 11:19 AM
SCALE 1" = 20'
DESIGNED BY ZDK
CHECKED BY KRV/CLE
DRAFTED BY PGH/ZDK

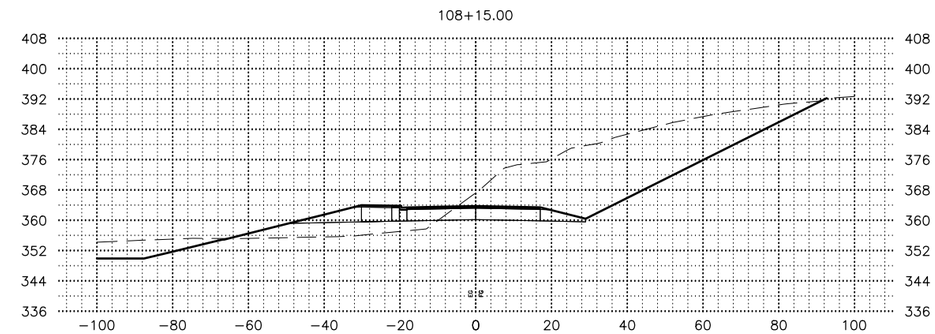


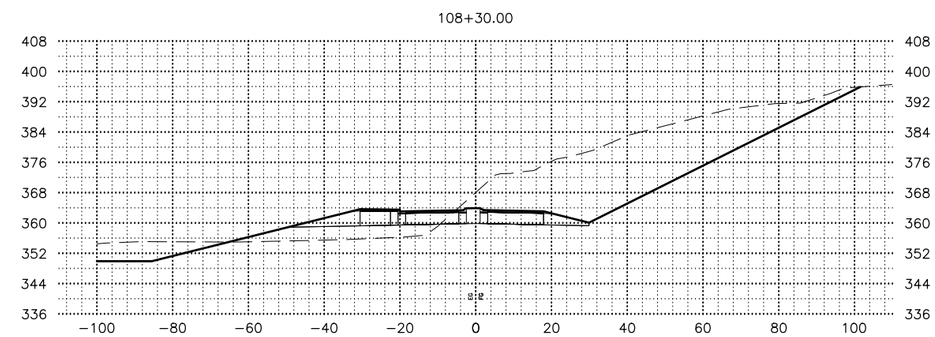


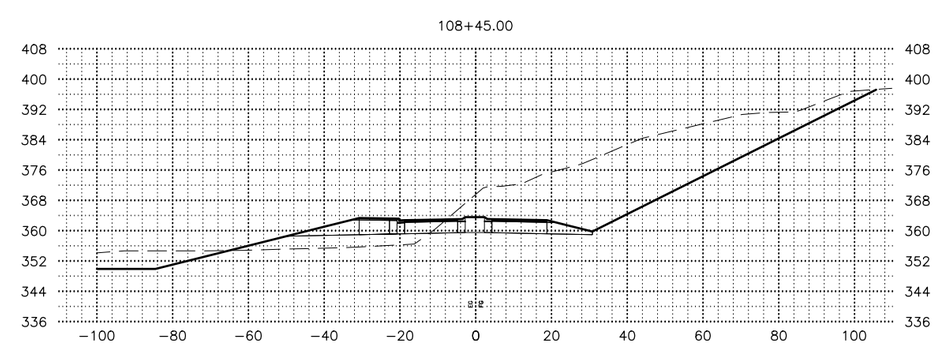












SHEET NO.	TOTAL SHEETS
X15	X20
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION

0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

PS&E REVIEW

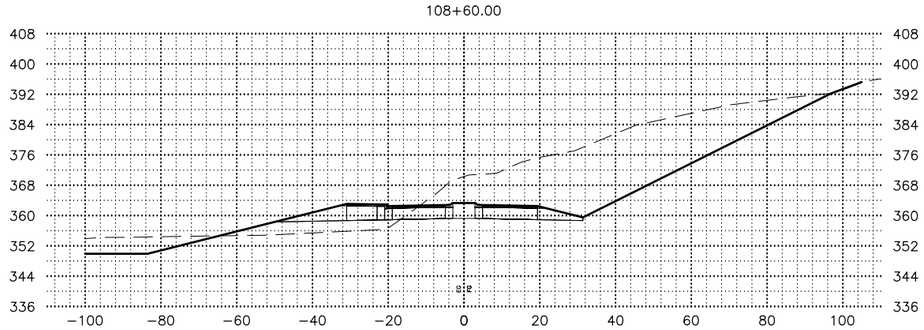
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

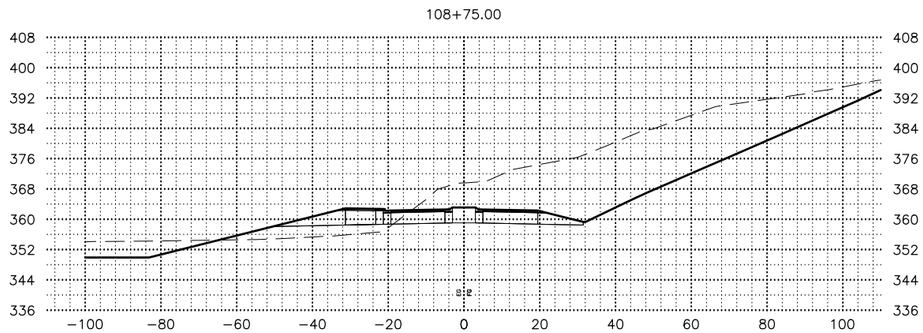
HSIP: BOGARD RD AT ENGSTROM RD & GREEN FOREST DR INT IMP

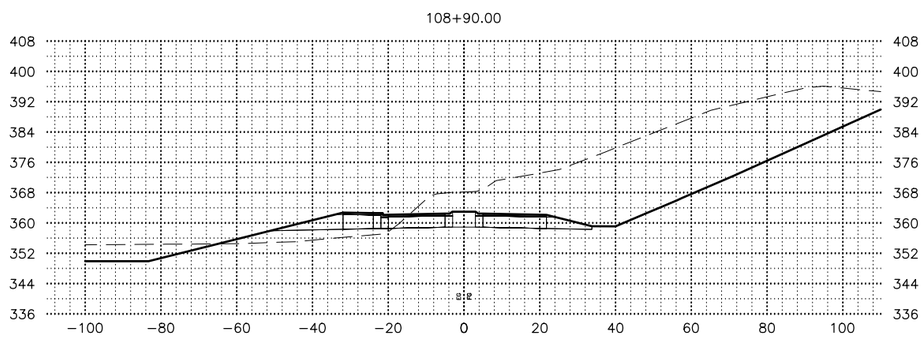
GREEN FOREST DRIVE
CROSS SECTIONS

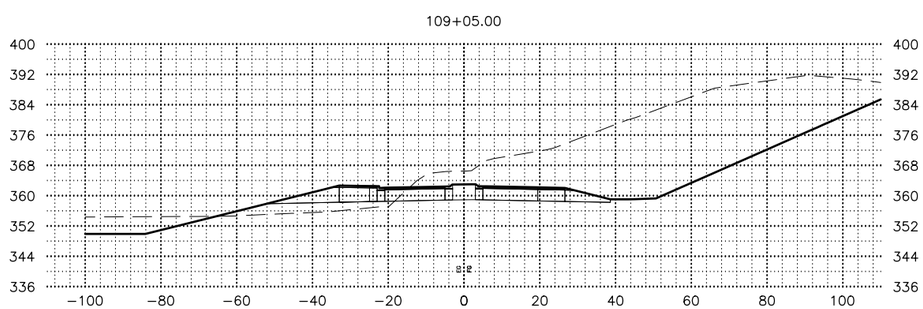
DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\CIV3D\X-SECTION\00453_X-SECTIONS.DWG

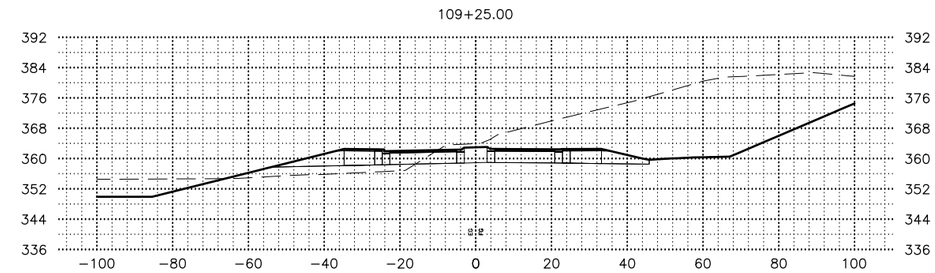
DATE 5/22/2025 TIME 11:19 AM
SCALE 1" = 20'
DESIGNED BY ZDK
CHECKED BY KRV/CLE
DRAFTED BY PGH/ZDK

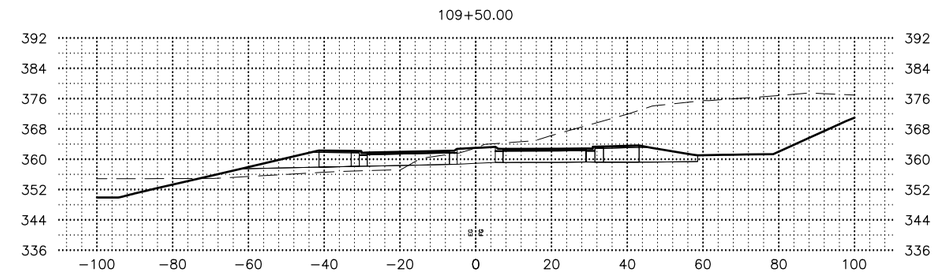


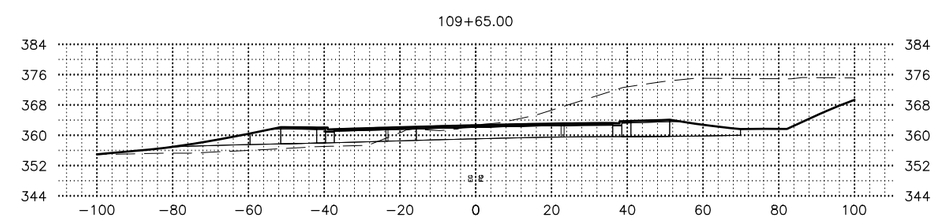


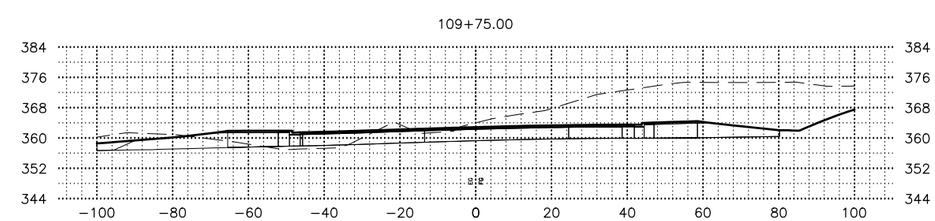












SHEET NO.	TOTAL SHEETS
X16	X20
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION

0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

PS&E REVIEW

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT ENGSTROM RD & GREEN FOREST DR INT IMP

GREEN FOREST DRIVE
CROSS SECTIONS

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\CIV3D\X-SECTION\00453_X-SECTIONS.DWG

DATE	TIME	SCALE	DESIGNED BY	ZDK
5/22/2025	11:19 AM	1" = 20'	CHECKED BY	KRV/CLE
			DRAFTED BY	PGH/ZDK

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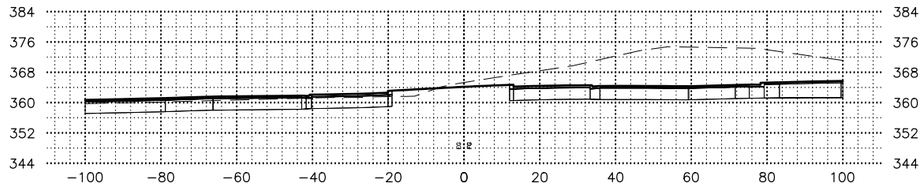

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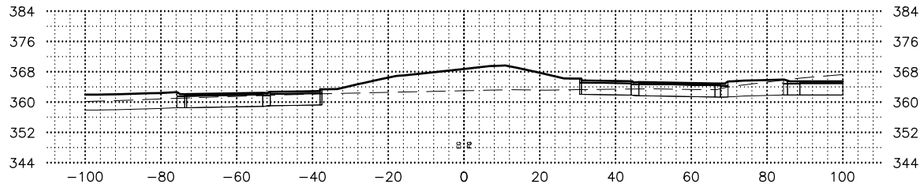

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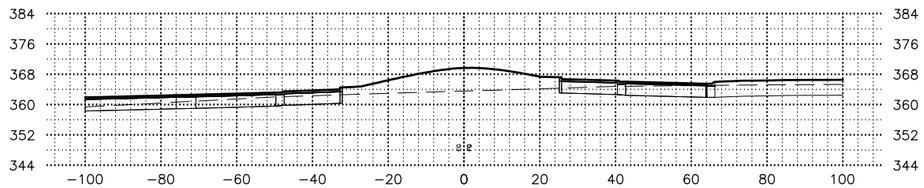

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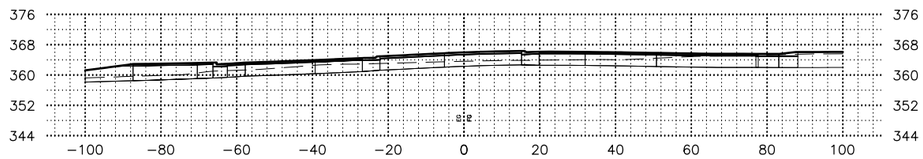

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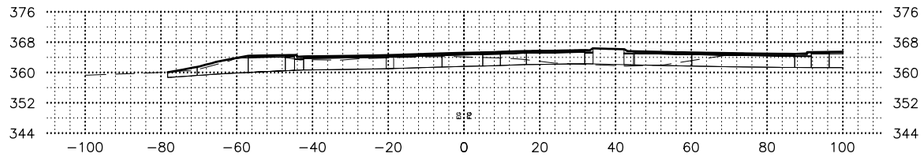

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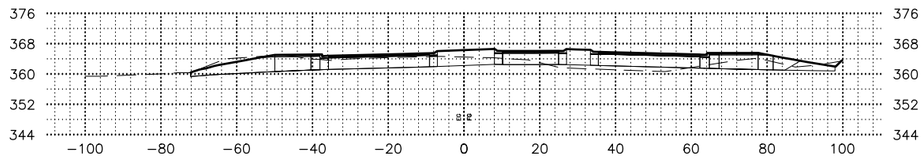

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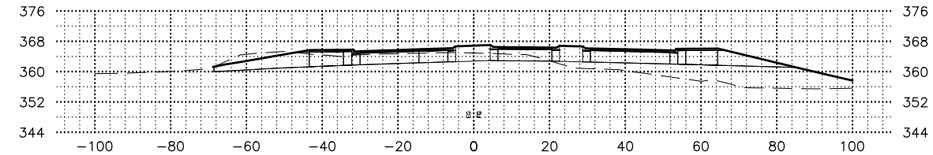

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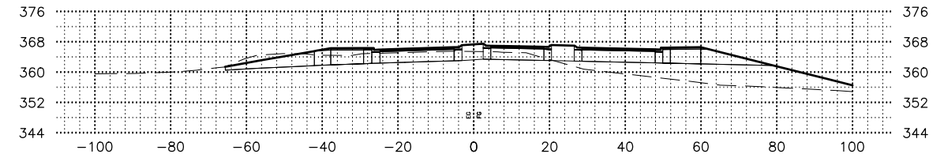

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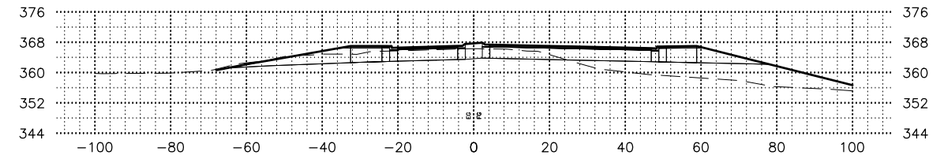

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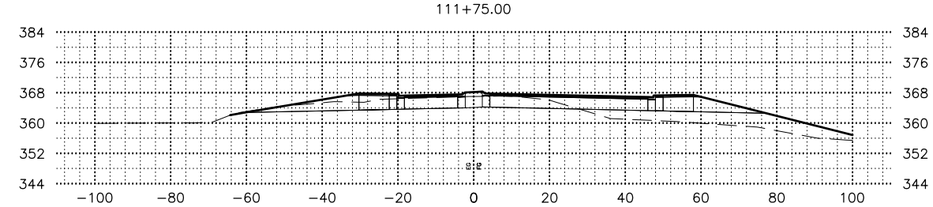

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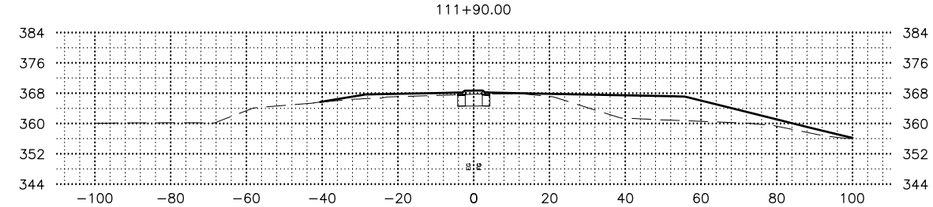

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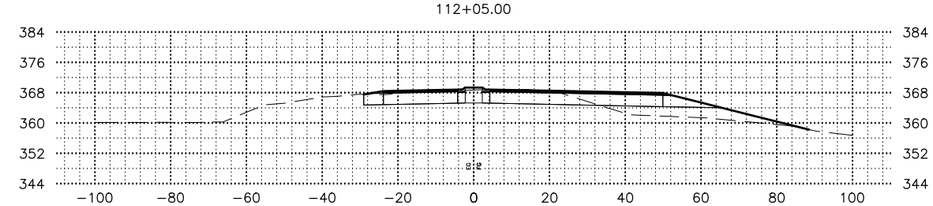


SHEET NO.	TOTAL SHEETS
X17	X20
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION

0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

PS&E REVIEW

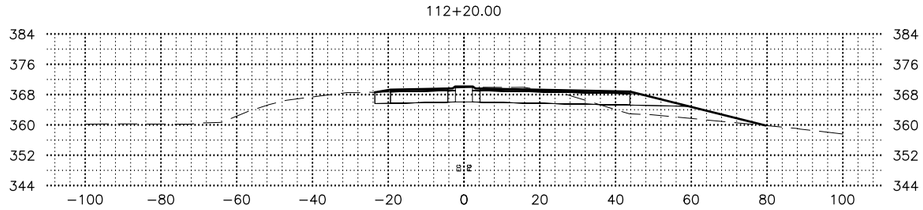
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

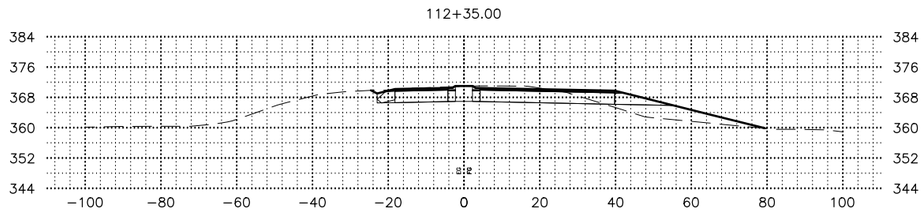
HSIP: BOGARD RD AT ENGSTROM RD & GREEN FOREST DR INT IMP

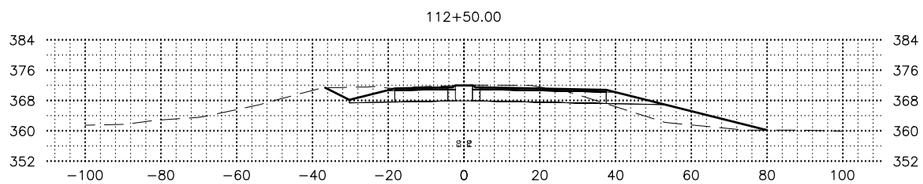
ENGSTROM ROAD
CROSS SECTIONS

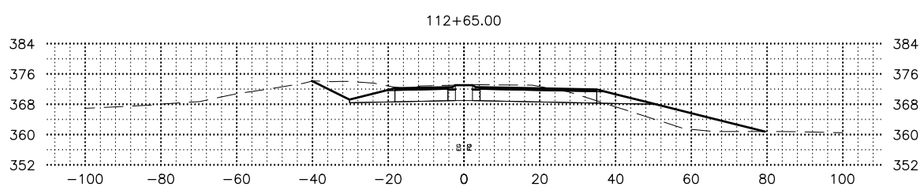
DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\CIV3D\X-SECTION\00453_X-SECTIONS.DWG

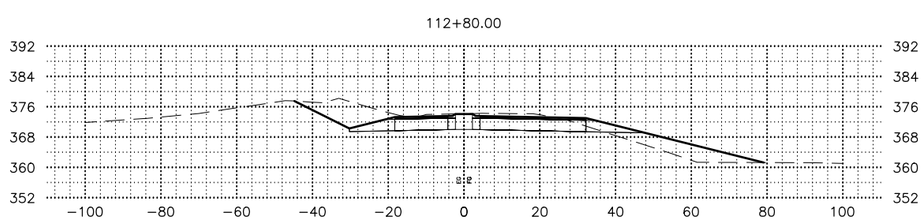
DATE 5/22/2025 TIME 11:19 AM
SCALE 1" = 20'
DESIGNED BY ZDK
CHECKED BY KRV/CLE
DRAFTED BY PGH/ZDK

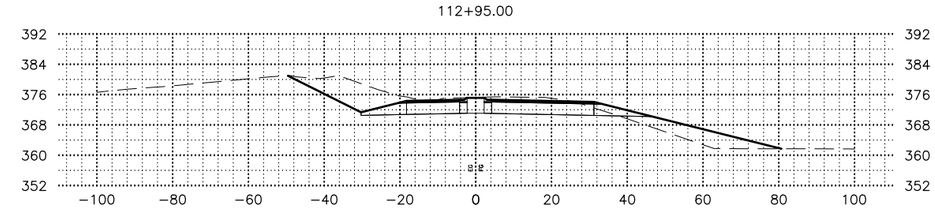


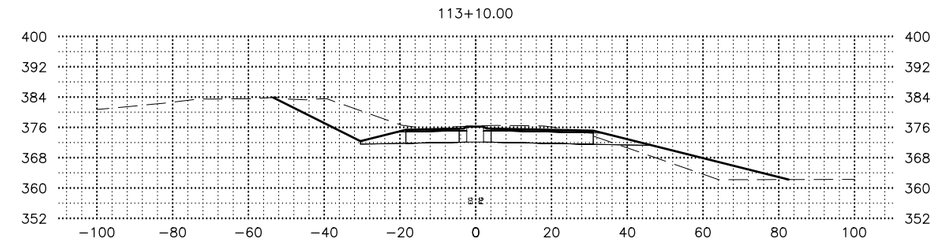


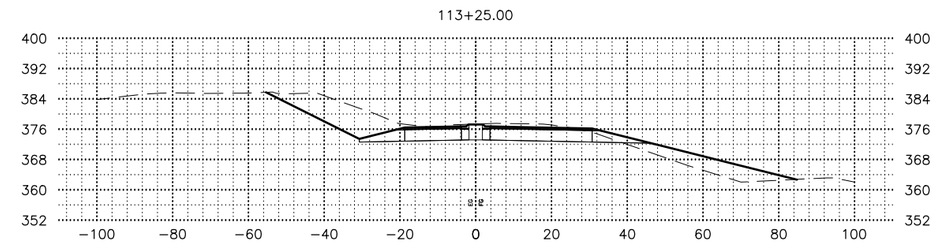


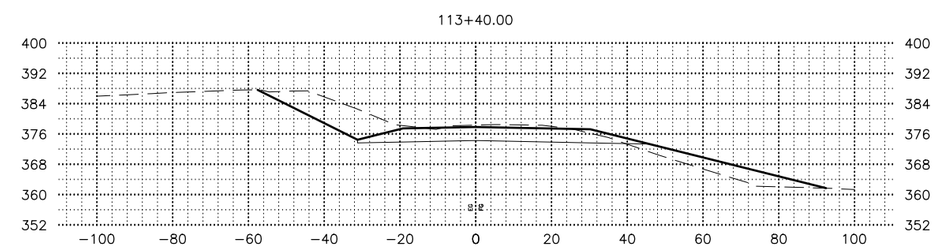


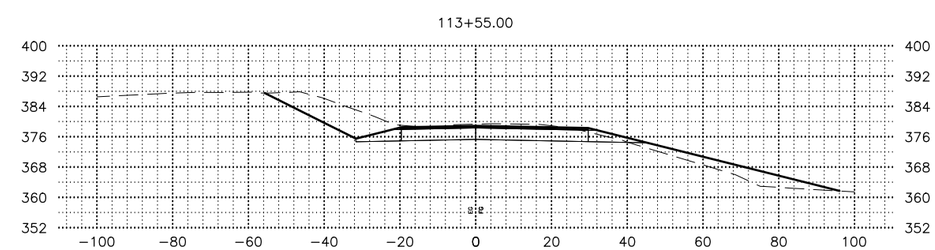












SHEET NO.	TOTAL SHEETS
X18	X20
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION

0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

PS&E REVIEW

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT ENGSTROM RD & GREEN FOREST DR INT IMP

ENGSTROM ROAD
CROSS SECTIONS

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA – CFHWY00453\CIV3D\CIV3D\X-SECTION\00453_X-SECTIONS.DWG

DATE 5/22/2025 TIME 11:19 AM
SCALE 1" = 20'
DESIGNED BY ZDK
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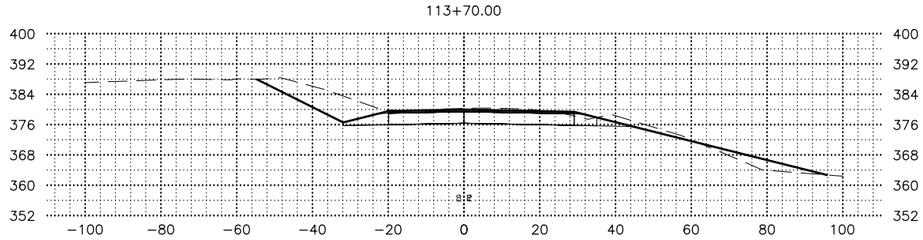

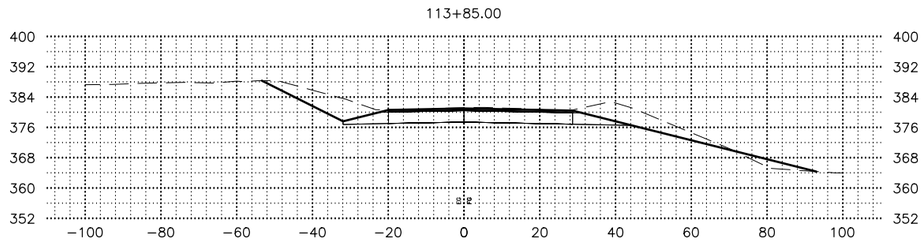

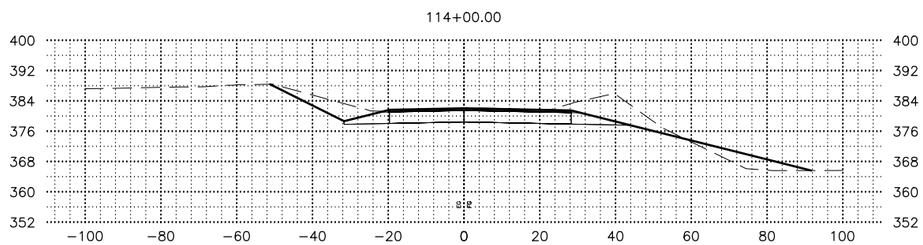

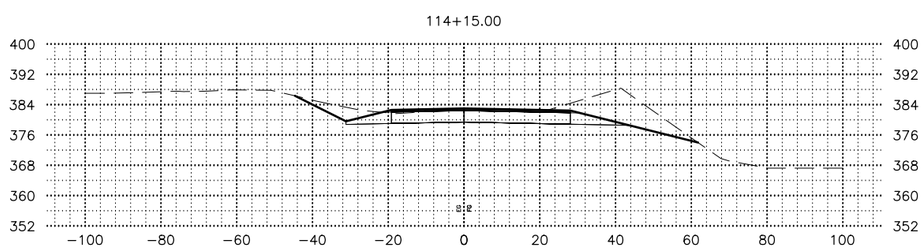

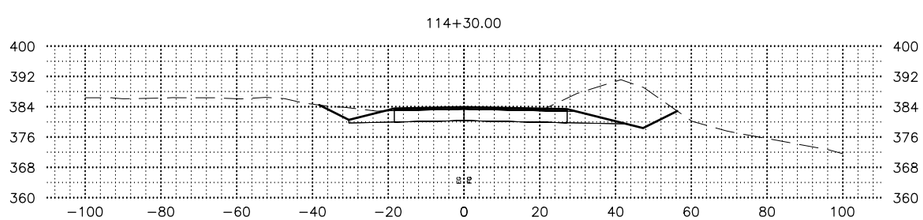

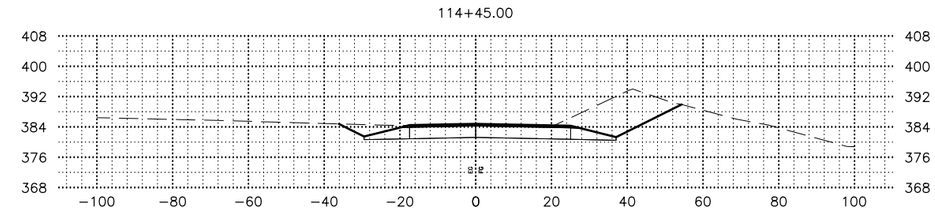

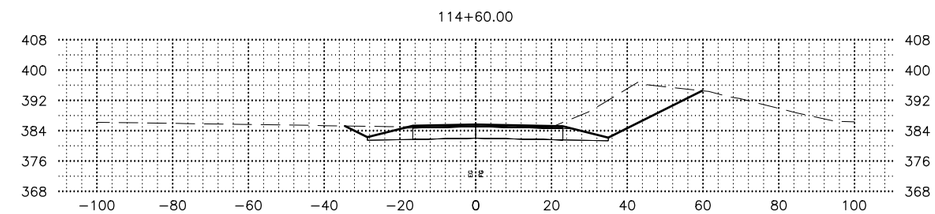

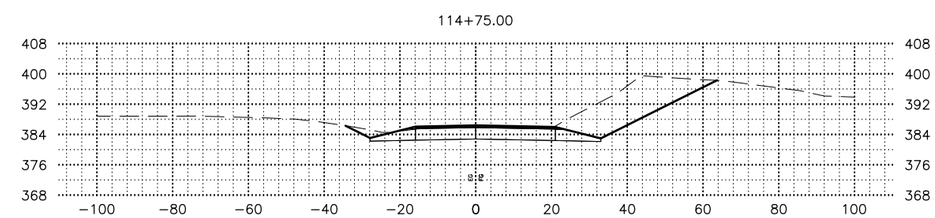

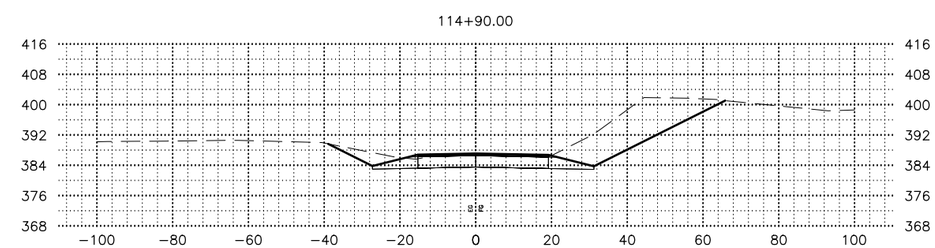

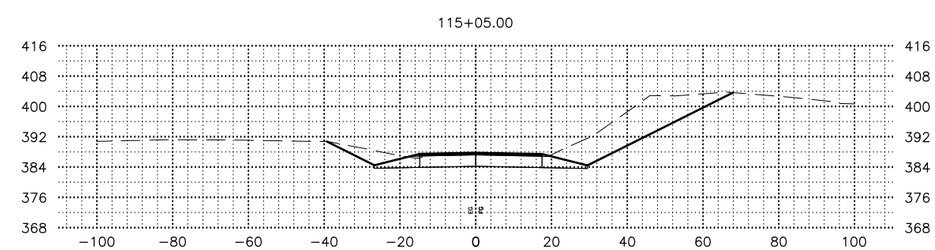

SHEET NO.	TOTAL SHEETS
X19	X20
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION

0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

PS&E REVIEW

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT ENGSTROM RD & GREEN FOREST DR INT IMP

ENGSTROM ROAD
CROSS SECTIONS

DATE	TIME	SCALE	DESIGNED BY	ZDK
5/22/2025	11:19 AM	1" = 20'	CHECKED BY	KRV/CLE
			DRAFTED BY	PGH/ZDK

DRAWING LOCATION
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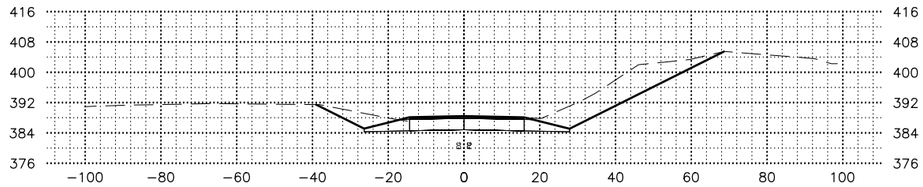
115+20.00



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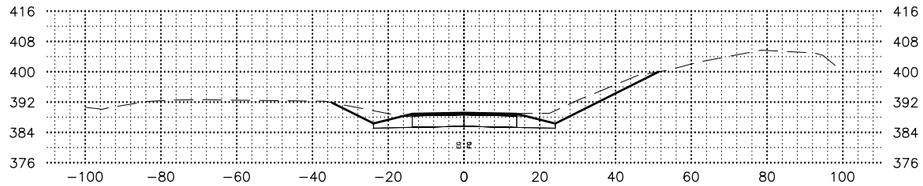

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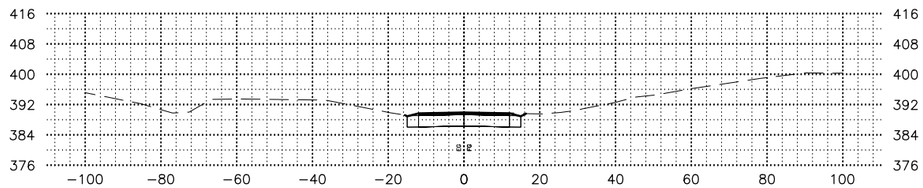

SHEET NO.	TOTAL SHEETS
X20	X20
STATE	YEAR
ALASKA	2026

PROJECT DESIGNATION

0001630/
CFHWY00453

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

PS&E REVIEW

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HSIP: BOGARD RD AT
ENGSTROM RD & GREEN
FOREST DR INT IMP

ENGSTROM ROAD
CROSS SECTIONS

DRAWING LOCATION
W:\PROJECTS\HSIP BOGARD ENGSTROM RA - CFHWY00453\CIV3D\CIV3D\X-SECTION\00453_X-SECTIONS.DWG

DATE 5/22/2025 TIME 11:19 AM
SCALE 1" = 20'
DESIGNED BY ZDK
CHECKED BY KRV/CLE
DRAFTED BY PGH/ZDK