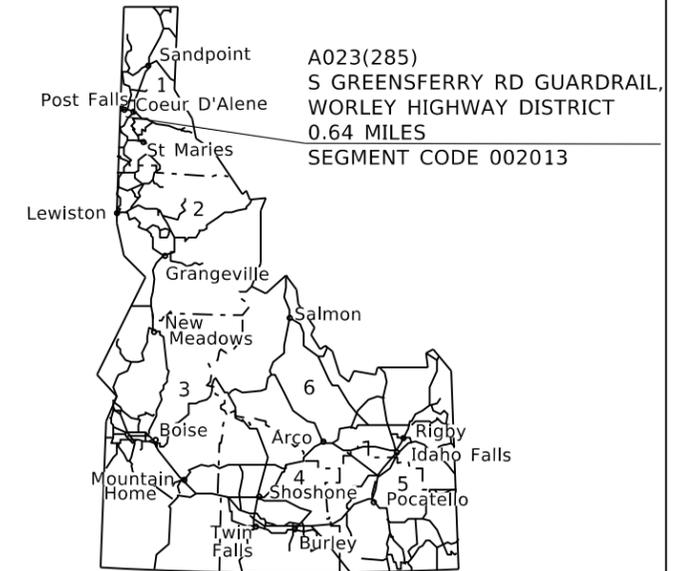


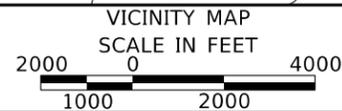
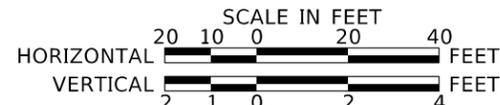
IDAHO TRANSPORTATION DEPARTMENT

PLAN AND PROFILE OF PROPOSED S GREENSFERRY RD GUARDRAIL, WORLEY HD FEDERAL AID PROJECT NO. A023(285) KEY NO.23285 KOOTENAI COUNTY

OCTOBER 2024



INDEX OF SHEETS	
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3	LEGEND
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12	PROJECT CLEARANCE SUMMARY
13 - 15	TYPICAL SECTION
16	BASE SET - ROADWAY SUMMARY
17	ADDED OPTION A - ROADWAY SUMMARY
18	ADDED OPTION B - ROADWAY SUMMARY
19	ADDED OPTION C - ROADWAY SUMMARY
20	BASE SET - REMOVAL PLAN
21	ADDED OPTION A - REMOVAL PLAN
22	ADDED OPTION B - REMOVAL PLAN
23	ADDED OPTION C - REMOVAL PLAN
24 - 25	BASE SET - PLAN AND PROFILE
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38	BASE SET - ROADWAY DETAILS
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41 - 44	BASE SET - SIGNING PLAN
45	BASE SET - TEMPORARY TRAFFIC CONTROL
1 - 3	SLOPE REINFORCEMENT SECTION
1 - 13	ITD STANDARD DRAWINGS



DESIGN DESIGNATION

ADT 2023	297
ADT 2043	336
DHV 2023	30
DHV 2043	34
D	60/40
V	25 MPH
TRUCKS:	3.4%
ADT 2023	10
ADT 2043	11
DHV 2023	1
DHV 2043	1

REVISIONS			
NO.	DATE	BY	DESCRIPTION

THE DIMENSIONS SHOWN ON THE PLANS SHALL BE ATTAINED WITHIN LIMITS OF PRECISION THAT GOOD CONSTRUCTION PRACTICES WILL PERMIT

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 23285_TITL_001.DGN
DRAWING DATE: OCTOBER 2024

IDAHO TRANSPORTATION DEPARTMENT
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J-U-B ENGINEERS, INC.

PROJECT NO.	A023(285)
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TITLE SHEET	S GREENSFERRY RD GUARDRAIL, WORLEY HD
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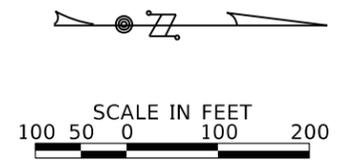
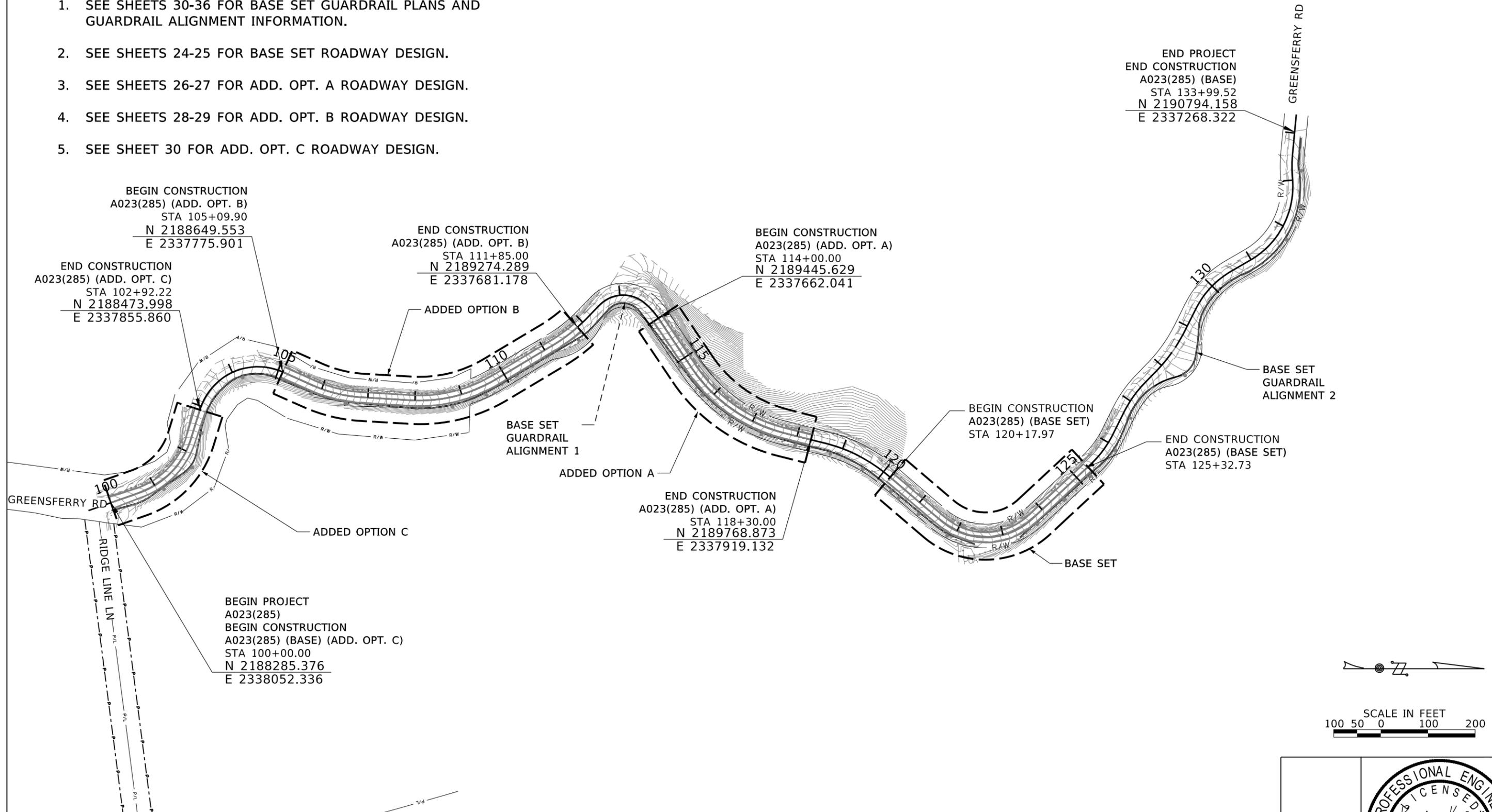
ENGLISH	Monica Crider
COUNTY	KOOTENAI
KEY NUMBER	23285
SHEET	1 OF 45

Monica Crider
Approved for Advertising
5/12/2025
Date Approved

GREENSFERRY DESIGN ALIGNMENT INFO

NOTE

1. SEE SHEETS 30-36 FOR BASE SET GUARDRAIL PLANS AND GUARDRAIL ALIGNMENT INFORMATION.
2. SEE SHEETS 24-25 FOR BASE SET ROADWAY DESIGN.
3. SEE SHEETS 26-27 FOR ADD. OPT. A ROADWAY DESIGN.
4. SEE SHEETS 28-29 FOR ADD. OPT. B ROADWAY DESIGN.
5. SEE SHEET 30 FOR ADD. OPT. C ROADWAY DESIGN.



REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED HDG
DESIGN CHECKED BKK
DETAILED BPRR
DRAWING CHECKED KPS

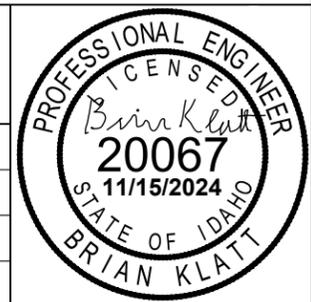
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CADD FILE NAME 23285_VCN.001.DGN
DRAWING DATE: OCTOBER 2024

IDAHO TRANSPORTATION DEPARTMENT
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J-U-B ENGINEERS, INC.

PROJECT NO.
A023(285)

VICINITY MAP
S GREENSFERRY RD GUARDRAIL, WORLEY HD

ENGLISH
COUNTY KOOTENAI
KEY NUMBER 23285
SHEET 2 OF 45



<p>EXISTING / PROPOSED</p> PAVED APPROACH BARN BUILDING FOUNDATION HOUSE DECK SILO PROPOSED GRAVEL DRIVEWAY PROPOSED ROADWAY		<p>EXISTING / PROPOSED</p> BUSH DRAINAGE FLOW EMBANKMENT PROTECTOR DRAINAGE FLOW FOUND GPS CONTROL POINT MAILBOX MARSH MATERIAL SOURCE PHOTO CENTER RIPRAP SIPHON SPOT ELEVATION STOCKPILE SITE STUMP TREE WETLAND FLAG POLE IRRIGATION BOX SPRINKLER BUSH BOUNDARY CULTIVATION BOUNDARY TREE BOUNDARY EDGE OF ROAD EXISTING TRAIL RAILROAD TRACKS TOP OF RAIL (RAILROAD) CONCRETE MONUMENT FOUND /SET BRASS OR ALLOY CAP FOUND IRON PIPE /SET IRON PIPE PK NAIL FOUND /SET NUMBER 4 REBAR FOUND /SET NUMBER 5 REBAR FOUND /SET SPIKE WILL SET AFTER AQUISITION		<p>EXISTING / PROPOSED</p> FOUND /SET QUARTER CORNER FOUND /SET SECTION CORNER STATE LINE TOWNSHIP AND RANGE LINE RESERVATION BOUNDARY FOREST BOUNDARY SECTION LINE QUARTER SECTION LINE SIXTEENTH SECTION LINE COUNTY LINE CITY LIMITS EASEMENT LINE PERMANENT EASEMENT LINE INTERSTATE RIGHT OF WAY LINE RIGHT OF WAY LINE PURCHASED ACCESS CONTROL LINE PROPERTY LINE RAILROAD RIGHT OF WAY LINE TEMPORARY EASEMENT RAILROAD RIGHT OF WAY LINE SILT FENCE FIBER WATTLE SEDIMENT BASIN DITCH BERM DIKE SWALE MULCH AND SEEDING PERMANENT DIRECTION OF FLOW ARROW PRE-CONSTRUCTION FLOW DIRECTION POST-CONSTRUCTION FLOW DIRECTION STABILIZED CONSTRUCTION ENTRANCE		<p>EXISTING / PROPOSED</p> RAILROAD PROTECTION DEVICE RAILROAD SIGNAL RAILROAD SWITCH GUY & ANCHOR JUNCTION BOX ELECTRIC MANHOLE METER ELECTRIC POLE TRANSMISSION TOWER ELECTRIC VAULT FIRE HYDRANT RISER GAS OR OIL ETC. TELEPHONE OR LIGHT POLE MANHOLE WELL CATCH BASIN OR INLET OVER HEAD ELECTRIC UNDER GROUND ELECTRIC CABLE OVER HEAD FIBER OPTIC UNDER GROUND FIBER OPTIC OVER HEAD TELEPHONE UNDER GROUND TELEPHONE OVER HEAD TELEVISION UNDER GROUND TELEVISION CABLE WATER LINE GAS LINE OIL LINE PIPE BELL INDICATES FLOW DIRECTION IRRIGATION SIPHON IRRIGATION LINE SANITARY SEWER STORM SEWER UNDER DRAIN CONDUIT OR CASING LIGHTING CONDUIT		<p>EXISTING / PROPOSED</p> HORIZONTAL ALIGNMENT CONTROL LINE CURB FACE CURB BACK COMBINATION CURB AND GUTTER CULVERT WITH FLOW INDICATOR CULVERT WITH APRONS METAL GUARDRAIL CONCRETE BARRIER FENCE FENCE ON INTERSTATE ROW LINE FENCE ON ROW LINE FENCE ON PURCHASED ACCESS LINE FENCE ON PROPERTY LINE FENCE ON RAILROAD ROW LINE GATE SNOW FENCE RETAINING WALL EXISTING GROUND TOE OF FILL (SLOPE LIMIT) TOP OF CUT (SLOPE LIMIT) ROAD CLOSURE SAWCUT LINE DITCH BOTTOM TOE OF BASE LINE DELINEATOR TYPE 1 DELINEATOR TYPE 2 DELINEATOR TYPE 3 DELINEATOR TYPE 4 SIGN SINGLE POST SIGN DOUBLE POST EMERGENCY VEHICLE PREEMPT DETECTOR ELECTRICAL SERVICE PEDESTAL VIDEO DETECTION CAMERA LUMINAIRE HEAD ILLUMINATION POLE STOP BAR YIELD LINE	
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REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED HDG	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED BKK	CADD FILE NAME 23285_LGND_001.dgn
DETAILED BPRR	DRAWING DATE: OCTOBER 2024
DRAWING CHECKED KPS	

IDAHO TRANSPORTATION DEPARTMENT
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J-U-B ENGINEERS, INC.

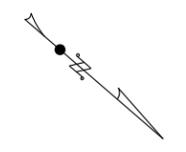
PROJECT NO.	A023(285)
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LEGEND	S GREENSFERRY RD GUARDRAIL, WORLEY HD
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ENGLISH
COUNTY KOOTENAI
KEY NUMBER 23285
SHEET 3 OF 45

PROFESSIONAL ENGINEER
 B. Klatt
 20067
 11/15/2024
 STATE OF IDAHO
 BRIAN KLATT

S. 24, T. 50 N., R. 5 W., B.M.



SLCK COMMERCIAL TRACT A GREENSFERRY MANOR

NW 1/4 SW 1/4

BEGIN PROJECT A023(285)
 BEGIN CONSTRUCTION A023(285) (ALT 3)
 STA 100+00
 N: 2188285.38'
 E: 2338052.34'

FORRESTER, TERRY L.
 LOT 1 BLOCK 1
 GREENSFERRY MANOR

END CONSTRUCTION A023(285) (ALT 3)
 STA 102+92.22
 N: 2188474.00'
 E: 2337855.86'

PI 101+51.77
 Δ 53°30'32" LT
 T 88.22'
 L 163.43'
 R 175.00'
 N. 2188428.64'
 E. 2338002.24'

PK MAG NAIL CP#2
 N: 2188275.17'
 E: 2338079.66'
 Elev.: 2812.23'

CMP 12" IE:2773.54'

HUB AND TACK CP#52
 N: 2188535.26'
 E: 2337743.65'
 Elev.: 2770.87'

RIDGE LINE LN

BEGIN CONSTRUCTION A023(285)
 STA 100+30.38
 N: 2188314.05'
 E: 2338042.31'

THEODORE, VREVICH
 LOT 17 BLOCK 2
 RIDGE LINE ESTATES 1ST ADD.

HUB AND TACK CP#51
 N: 2188445.17'
 E: 2337985.33'
 Elev.: 2797.59'

PI 104+37.22
 Δ 96°41'15" RT
 T 145.01'
 L 217.69'
 R 129.00'
 N. 2188516.98'
 E. 2337717.14'

FOUND MONUMENTS			
POINT NO.	NORTHING	EASTING	DESCRIPTION
203	2188260.68'	2338092.11'	5/8" REBAR
209	2188404.96'	2337883.32'	5/8" REBAR, PLS 4194

RETAIN AND PROTECT ALL SURVEY MONUMENTATION UNLESS OTHERWISE NOTED

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED BKK
 DESIGN CHECKED KPS
 DETAILED BPRR
 DRAWING CHECKED KPS

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
 CADD FILE NAME 23285_SURV_001.dgn
 DRAWING DATE: OCTOBER 2024

IDAHO TRANSPORTATION DEPARTMENT

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J-U-B ENGINEERS, INC.

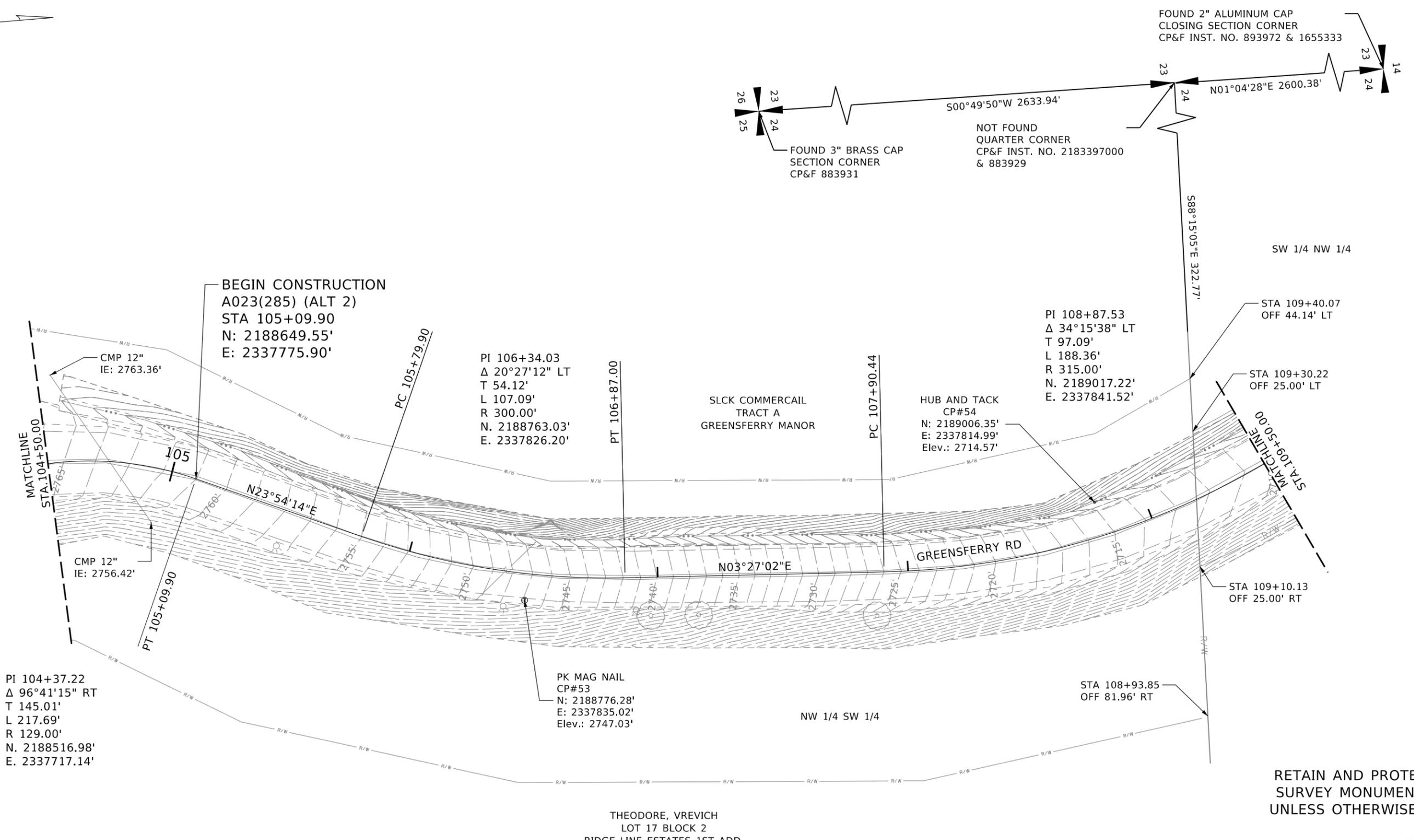
PROJECT NO. A023(285)

TOPOGRAPHIC SURVEY
 S GREENSFERRY RD GUARDRAIL, WORLEY HD
 STA. 100+00.00 TO STA. 104+50.00

ENGLISH
 COUNTY KOOTENAI
 KEY NUMBER 23285
 SHEET 4 OF 45



S. 24, T. 50 N., R. 5 W., B.M.



RETAIN AND PROTECT ALL SURVEY MONUMENTATION UNLESS OTHERWISE NOTED

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED BKK	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED KPS	
DETAILED BPRR	CADD FILE NAME 23285_SURV_002.dgn
DRAWING CHECKED KPS	DRAWING DATE: OCTOBER 2024

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DEPARTMENT

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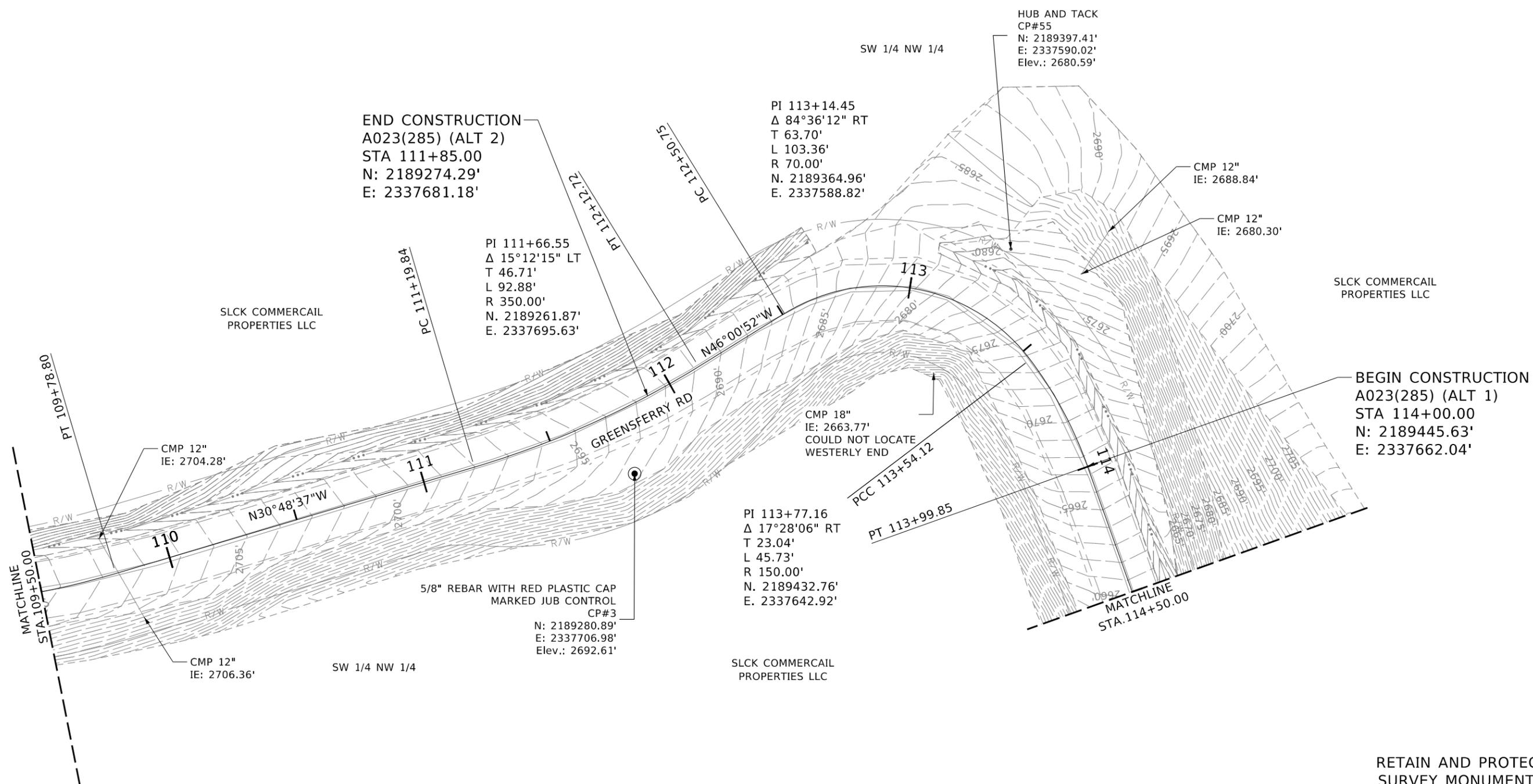
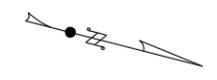
PROJECT NO.	A023(285)
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TOPOGRAPHIC SURVEY	S GREENSFERRY RD GUARDRAIL, WORLEY HD STA. 104+50.00 TO STA. 109+50.00
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ENGLISH
COUNTY KOOTENAI
KEY NUMBER 23285
SHEET 5 OF 45



S. 24, T. 50 N., R. 5 W., B.M.



SLCK COMMERCIAL PROPERTIES LLC

BEGIN CONSTRUCTION
A023(285) (ALT 1)
STA 114+00.00
N: 2189445.63'
E: 2337662.04'

RETAIN AND PROTECT ALL SURVEY MONUMENTATION UNLESS OTHERWISE NOTED

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED BKK
DESIGN CHECKED KPS
DETAILED BPRR
DRAWING CHECKED KPS

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
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DRAWING DATE: OCTOBER 2024

IDAHO TRANSPORTATION DEPARTMENT

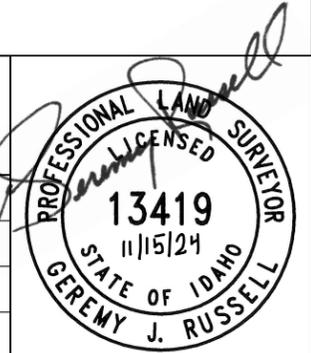
YOUR Safety → YOUR Mobility → YOUR Economic Opportunity

J-U-B ENGINEERS, INC.

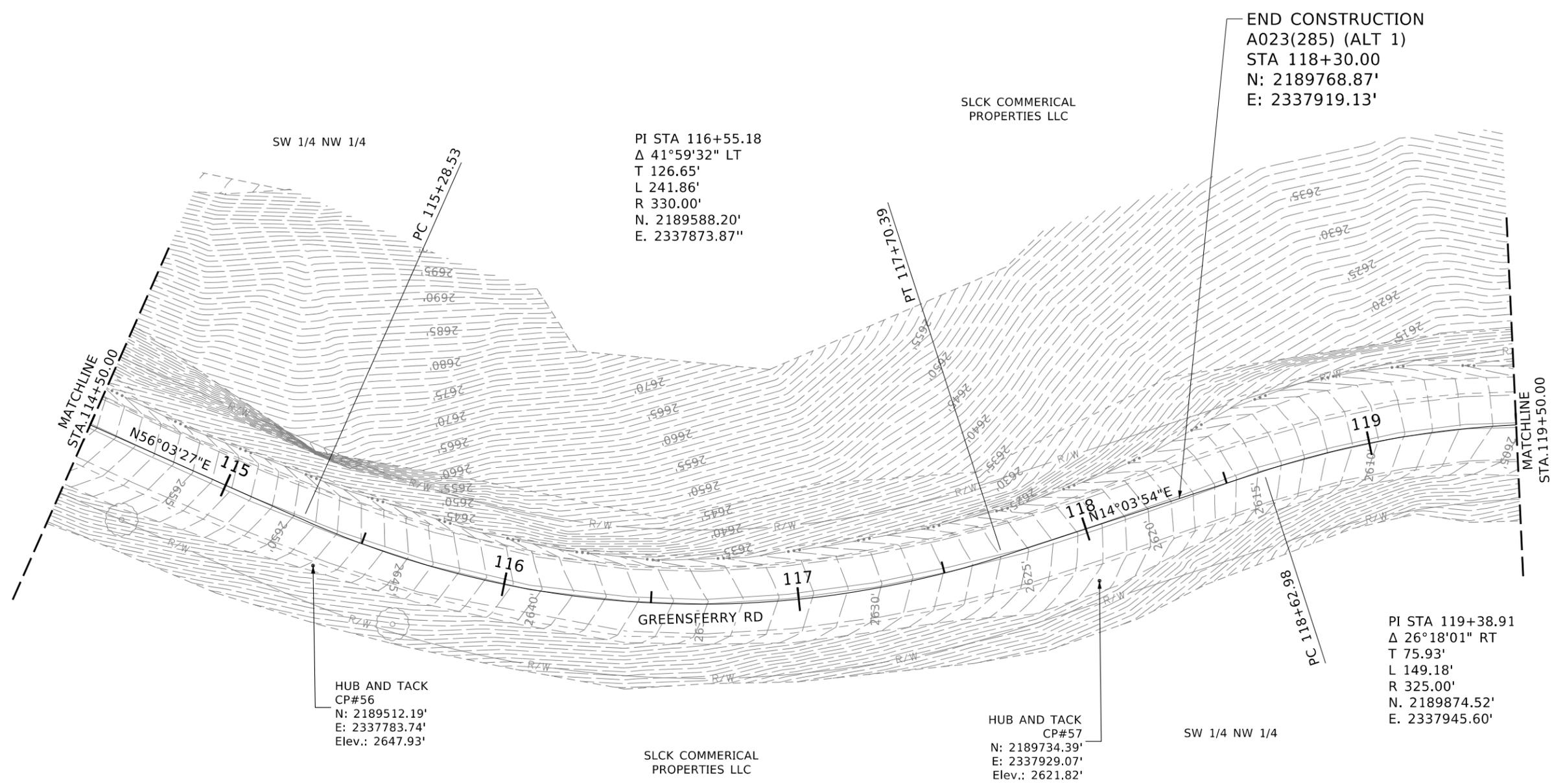
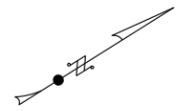
PROJECT NO. A023(285)

TOPOGRAPHIC SURVEY S GREENSFERRY RD GUARDRAIL, WORLEY HD STA. 109+50.00 TO STA. 114+50.00
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ENGLISH
COUNTY KOOTENAI
KEY NUMBER 23285
SHEET 6 OF 45



S. 24, T. 50 N., R. 5 W., B.M.



END CONSTRUCTION
A023(285) (ALT 1)
STA 118+30.00
N: 2189768.87'
E: 2337919.13'

RETAIN AND PROTECT ALL
SURVEY MONUMENTATION
UNLESS OTHERWISE NOTED

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED BKK	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED KPS	CADD FILE NAME 23285_SURV_004.dgn
DETAILED BPRR	DRAWING DATE: OCTOBER 2024
DRAWING CHECKED KPS	

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DEPARTMENT**

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J-U-B ENGINEERS, INC.

PROJECT NO.

A023(285)

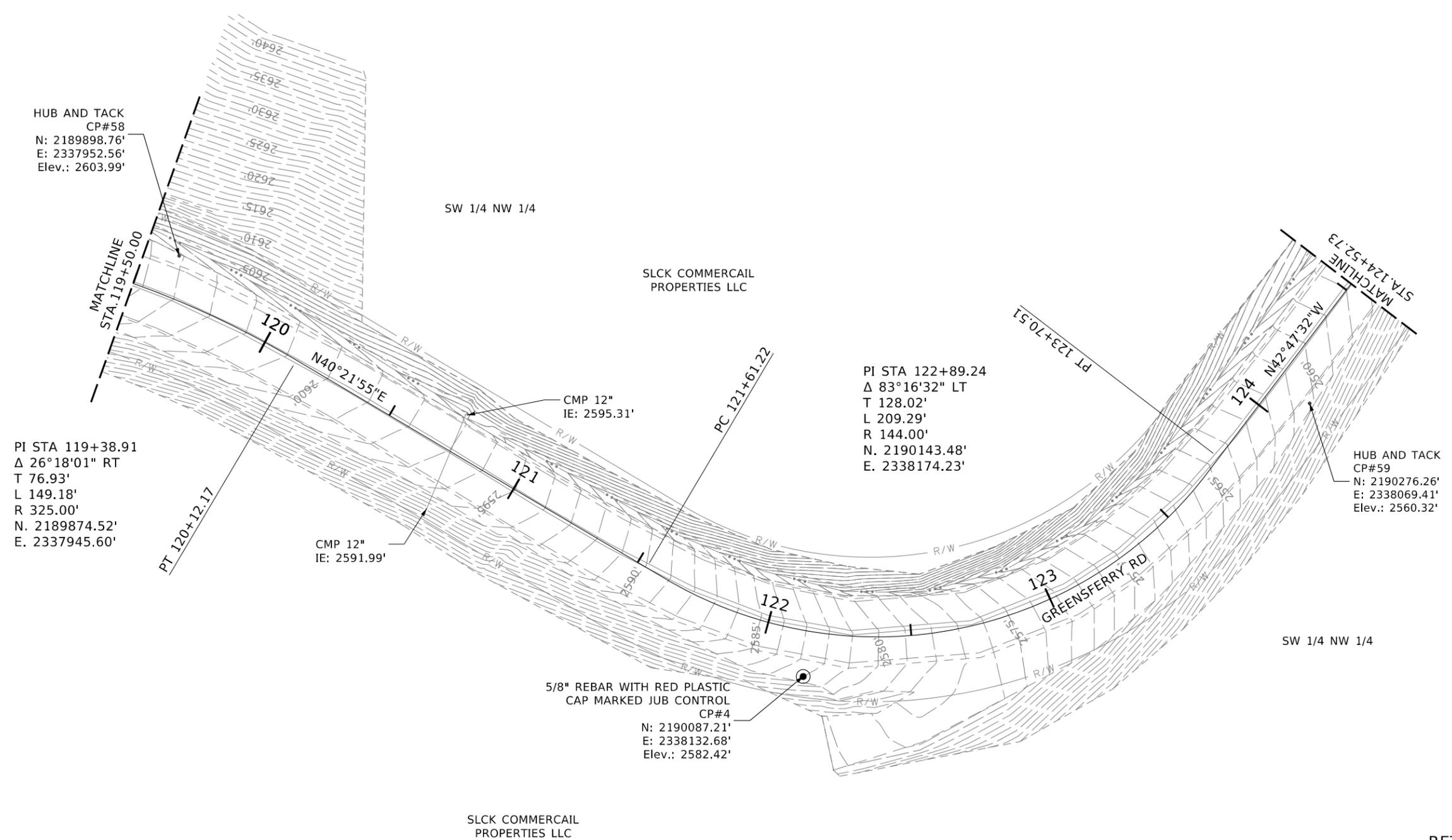
TOPOGRAPHIC SURVEY

S GREENSFERRY RD GUARDRAIL,
WORLEY HD
STA. 114+50.00 TO STA. 119+50.00

ENGLISH
COUNTY
KOOTENAI
KEY NUMBER
23285
SHEET 7 OF 45



S. 24, T. 50 N., R. 5 W., B.M.



REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED BKK	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED KPS	CADD FILE NAME 23285_SURV_005.dgn
DETAILED BPRR	DRAWING DATE: OCTOBER 2024
DRAWING CHECKED KPS	

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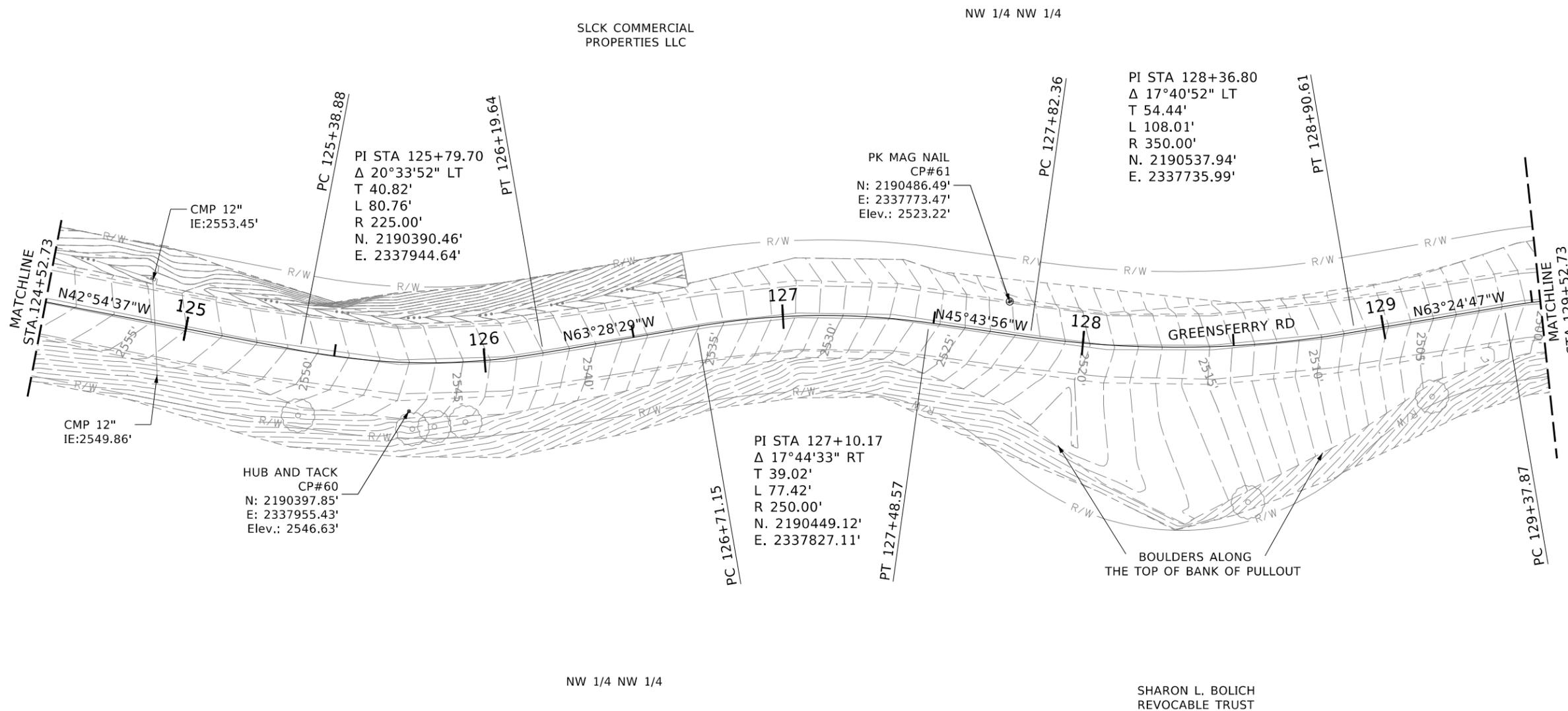
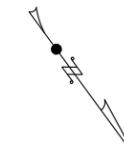
PROJECT NO.	A023(285)
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TOPOGRAPHIC SURVEY	S GREENSFERRY RD GUARDRAIL, WORLEY HD STA. 119+50.00 TO STA. 124+52.73
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ENGLISH
COUNTY KOOTENAI
KEY NUMBER 23285
SHEET 8 OF 45



GOV'T LOT 4, S. 24, T. 50 N., R. 5 W., B.M.



RETAIN AND PROTECT ALL SURVEY MONUMENTATION UNLESS OTHERWISE NOTED

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED BKK
DESIGN CHECKED KPS
DETAILED BPRR
DRAWING CHECKED KPS

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 23285_SURV_006.dgn
DRAWING DATE: OCTOBER 2024

IDAHO TRANSPORTATION DEPARTMENT

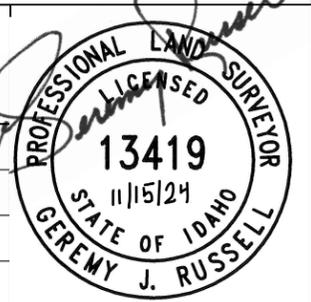
YOUR Safety → YOUR Mobility → YOUR Economic Opportunity

J-U-B ENGINEERS, INC.

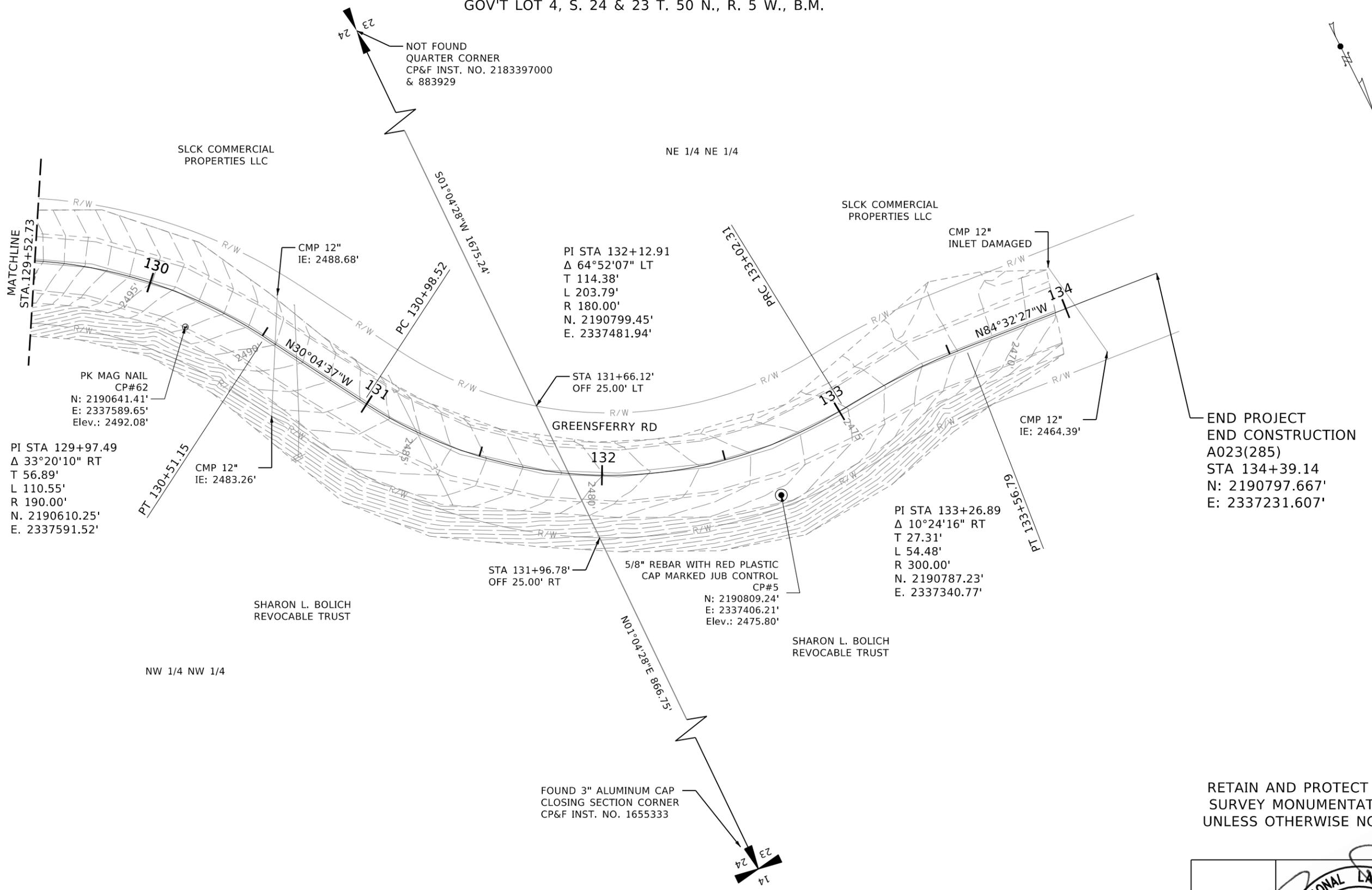
PROJECT NO.	A023(285)
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TOPOGRAPHIC SURVEY	S GREENSFERRY RD GUARDRAIL, WORLEY HD STA. 124+52.73 TO STA. 129+52.73
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ENGLISH
COUNTY KOOTENAI
KEY NUMBER 23285
SHEET 9 OF 45



GOV'T LOT 4, S. 24 & 23 T. 50 N., R. 5 W., B.M.



RETAIN AND PROTECT ALL SURVEY MONUMENTATION UNLESS OTHERWISE NOTED

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED BKK	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED KPS	
DETAILED BPRR	
DRAWING CHECKED KPS	
CADD FILE NAME 23285_SURV_007.dgn	DRAWING DATE: OCTOBER 2024
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DEPARTMENT

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J-U-B ENGINEERS, INC.

PROJECT NO.	A023(285)
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TOPOGRAPHIC SURVEY	S GREENSFERRY RD GUARDRAIL, WORLEY HD STA. 129+52.73 TO STA. 134+00
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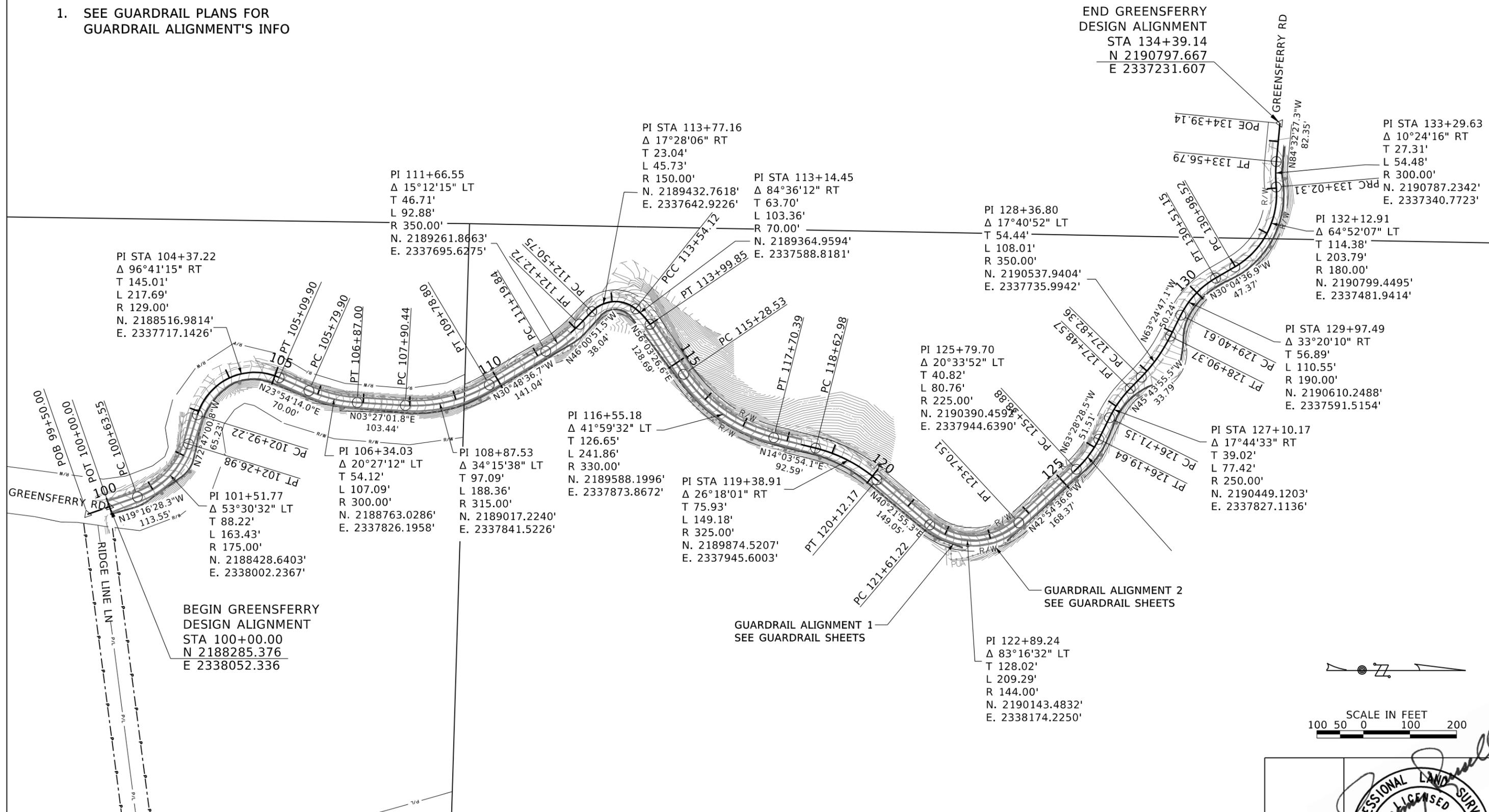
ENGLISH
COUNTY KOOTENAI
KEY NUMBER 23285
SHEET 10 OF 45



GREENSFERRY DESIGN ALIGNMENT INFO

NOTE

- SEE GUARDRAIL PLANS FOR GUARDRAIL ALIGNMENT'S INFO



REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED HDG	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED BKK	CADD FILE NAME 23285_VCN.002.DGN
DETAILED BPRR	DRAWING DATE: OCTOBER 2024
DRAWING CHECKED KPS	

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J-U-B ENGINEERS, INC.

PROJECT NO.	ROADWAY ALIGNMENT CONTROL PLAN
A023(285)	S GREENSFERRY RD GUARDRAIL, WORLEY HD

ENGLISH
COUNTY KOOTENAI
KEY NUMBER 23285
SHEET 11 OF 45

PROFESSIONAL LAND SURVEYOR

13419

11/15/24

STATE OF IDAHO

GEREMY J. RUSSELL

CLEARANCES

PROJECT STANDARDS
 CHARTER APPROVAL AASHTO 3R 1R STATE
 PP OTHER _____
 DESIGN EXCEPTIONS: _____

PUBLIC HEARING WAIVER _____
 PUBLIC HEARING DATE (Latest hearing date held or scheduled for opportunity) _____
 DESIGN APPROVAL _____
 RECLAMATION PLAN APPROVAL NO(S) _____
 AIRPORT _____
 Land Survey Monument Search and Documentation (I.C.55-1613) _____
 R/W CERTIFICATE: Issued by HQ DISTRICT _____
 TRIBAL LANDS: AGREEMENT REQUIRED SPECIAL PROVISIONS FOR CONTRACT PROPOSAL _____
 BRIDGE PS & E _____
 ENVIRONMENTAL DECISION: TYPE CAT-EX FONSI ROD _____
 ENVIRONMENTAL RE-EVALUATION _____

+ CLEARED UNDER PROJECT NO.	+ APPROVAL DATE
A023(285)	06/07/2024
A023(285)	06/26/2024
N/A	N/A
A023(285)	06/26/2024
N/A	N/A
N/A	N/A
A023(285)	03/10/2023
A023(285)	08/23/2024
N/A	N/A
N/A	N/A
A023(285)	05/15/2024
A023(285)	04/25/2025

ESTIMATING BASIS

SUPERPAVE AND AGGREGATES ESTIMATING BASIS:
 1/2-INCH AGGREGATE FOR SUPERPAVE HMA PAVEMENT CLASS SP-3 AT 145 pcf (NON BASALT GRAVEL SOURCE), INCLUDING 5.5 PERCENT ASPHALT BY WEIGHT OF MIX, WITH 1/2-PERCENT ANTI STRIP ADDITIVE, ESTIMATED.
 3/4-INCH AGGREGATE FOR UNTREATED BASE, "TYPE B" AT 146 pcf, INCLUDING 7 PERCENT MOISTURE CONTENT, ESTIMATED
 GRANULAR SUBBASE AT 145 pcf, INCLUDING 5 PERCENT MOISTURE CONTENT, ESTIMATED.
 TACK & WATER:
 CSS-1 DILUTED EMULSIFIED ASPHALT USED FOR TACK @ 0.05 GAL/SY BETWEEN ASPHALT LIFTS AND 0.08 GAL/SY BETWEEN BASE COURSE AND ASPHALT.
 0.5 CUBIC FEET OF WATER FOR EVERY SQUARE FOOT OF SUBGRADE AREA.

PERMITS

IDAHO DEPARTMENT OF WATER RESOURCES PERMIT NO(S) _____
 US ARMY CORPS OF ENGINEERS 404 PERMIT NO(S) _____
 OTHER _____
 DEQ SECTION 401 WATER QUALITY CERTIFICATION YES NO
 NPDES GENERAL PERMIT/SWPPP REQUIRED YES NO
 POLLUTION PREVENTION PLAN REQUIRED YES NO

		+ EXPIRATION DATE
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

AGREEMENTS (List Appropriate Name)

LOCAL: CITY _____
 COUNTY _____
 HIGHWAY DISTRICT _____
 ROAD CLOSURE AND MAINTENANCE _____
 STATE/LOCAL CONSTRUCTION WORLEY HIGHWAY DISTRICT

N/A	N/A
A023(285)	02/28/2025

IRRIGATION DISTRICT(S): Crossing Agreement Required YES NO
 (Signatures Required on either Structure Drawing or Bridge Sheet)

UTILITIES: List all Utilities shown on plans

UTILITIES	RETAIN & PROTECT
Co. Kootenai Electric Cooperative	<input checked="" type="checkbox"/>
Co. Ziplly Fiber	<input checked="" type="checkbox"/>
Co. _____	<input type="checkbox"/>
Co. _____	<input type="checkbox"/>
Co. _____	<input type="checkbox"/>
Co. _____	<input type="checkbox"/>
Co. _____	<input type="checkbox"/>

+ APPROVAL DATES		+ AGREEMENT NO.
UTILITY HEARING WAIVER	AGREEMENT	
03/27/2024		
03/25/2024		

RAILROAD List all Railroads encroached upon

+ AGREEMENT FOR	EFFECTIVE DATE	NO.
N/A	N/A	N/A

+ ENTER "N/A" WHEN NOT APPLICABLE
 ++ LPA PROJECTS - DATE ENTERED BY ROADWAY DESIGN WHEN PROJECT SENT TO PS&E.

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED HDG
 DETAILED BPRR
 DRAWING CHECKED BKK
 CADD FILE NAME
 23285_PCMS_001.DGN

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
 DRAWING DATE: OCTOBER 2024

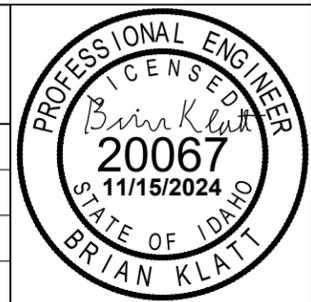
IDAHO TRANSPORTATION DEPARTMENT
 YOUR Safety→YOUR Mobility→YOUR Economic Opportunity

J-U-B ENGINEERS, INC.

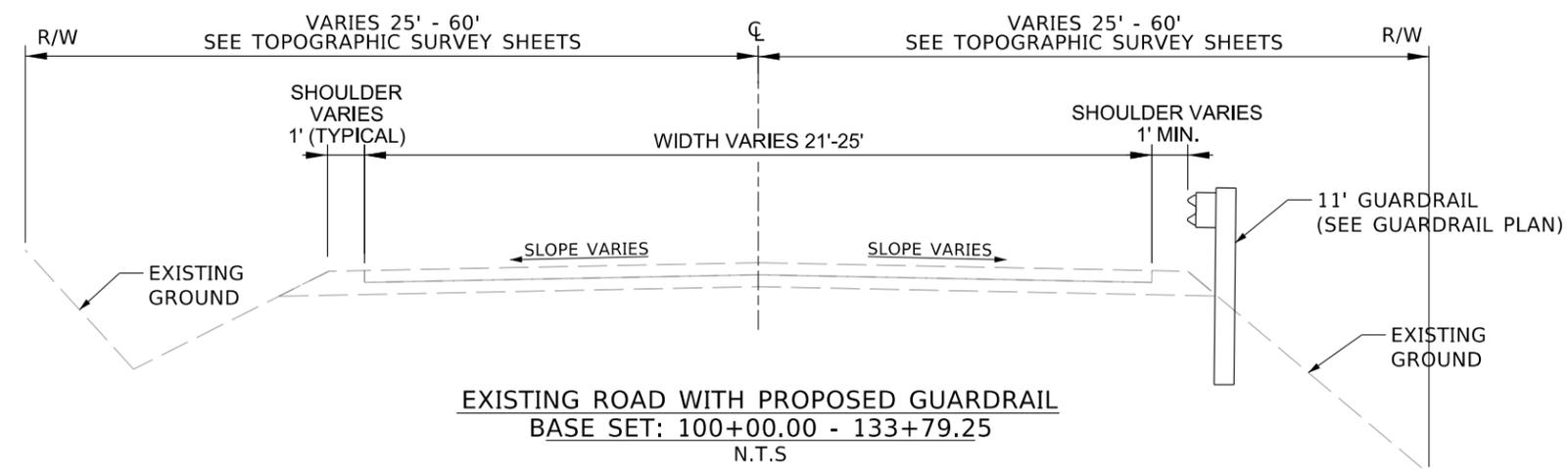
PROJECT NO.
 A023(285)

PROJECT CLEARANCE SUMMARY
 S GREENSFERRY RD GUARDRAIL,
 WORLEY HD

ENGLISH
 COUNTY KOOTENAI
 KEY NUMBER 23285
 SHEET 12 OF 45



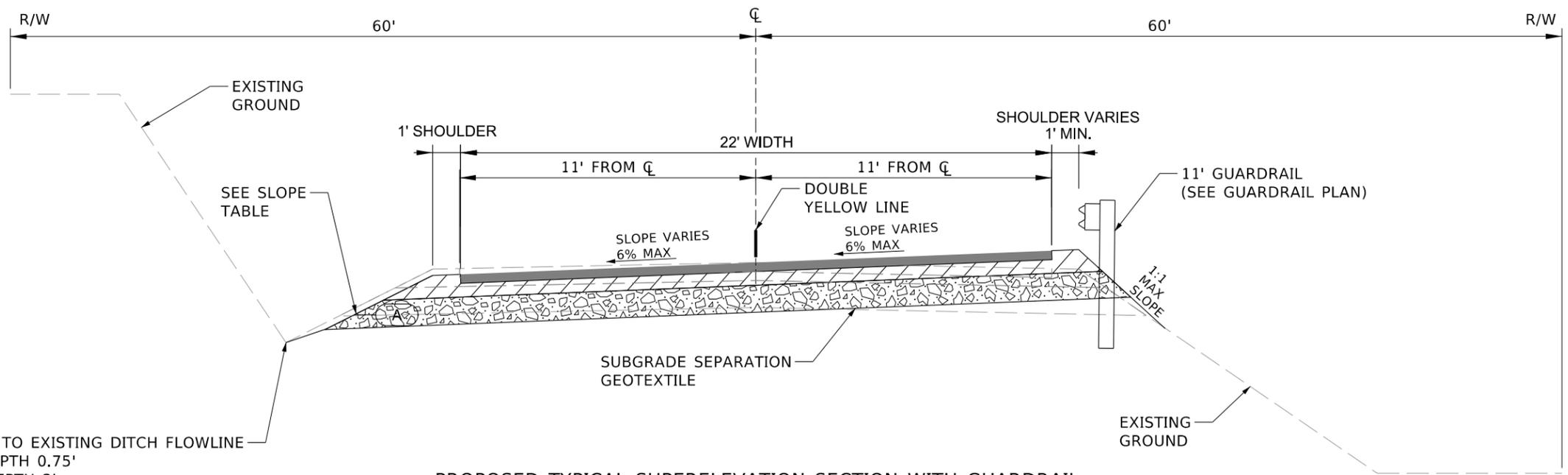
SECTION 1: EXISTING PAVEMENT



	VARIABLES 0.25' - 0.56' HOT MIX ASPHALT
	VARIABLES 0.08' - 0.16' AGGREGATE BASE COURSE

EXISTING ROAD WITH PROPOSED GUARDRAIL
 BASE SET: 100+00.00 - 133+79.25
 N.T.S

SECTION 2: PROPOSED PAVEMENT WITH SUBBASE



	0.25' OF 3/4" CLASS SP-3 HOT MIX ASPHALT PG 64-28 (SINGLE LIFT)
	0.5' OF 3/4" AGGREGATE TYPE B FOR BASE (SINGLE LIFT)
	1.0' GRANULAR SUBBASE (TWO LIFTS)

SLOPE TABLE

STATION	FORESLOPE
100+00-102+30	3:1
102+30-102+80	TRANSITION
102+80-102+92	10:1

PROPOSED TYPICAL SUPERELEVATION SECTION WITH GUARDRAIL
 ADD OPT C: 100+00.00 - 102+92.00
 N.T.S

CATCH TO EXISTING DITCH FLOWLINE
 MIN DEPTH 0.75'
 MAX DEPTH 2'
 FLOWLINE LOCATION VARIES WITH FIELD CONDITIONS.
 2.25' MINIMUM DISTANCE FROM EDGE OF SHOULDER TO FLOWLINE OF DITCH.

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED HDG	DESIGN CHECKED BKK
DETAILED BPRR	DRAWING CHECKED KPS

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY	CADD FILE NAME 23285_TYP_001.DGN
DRAWING DATE: OCTOBER 2024	

IDAHO TRANSPORTATION DEPARTMENT

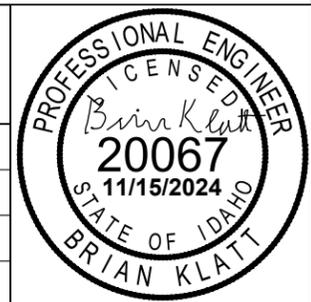
YOUR Safety → YOUR Mobility → YOUR Economic Opportunity

J-U-B ENGINEERS, INC.

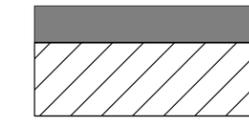
PROJECT NO.	A023(285)
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TYPICAL SECTION	S GREENSFERRY RD GUARDRAIL, WORLEY HD
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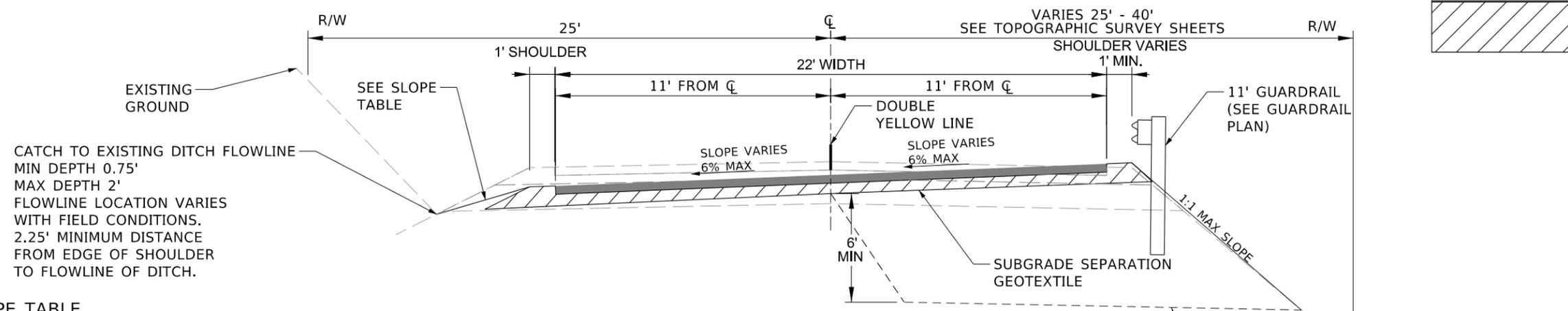
ENGLISH
COUNTY KOOTENAI
KEY NUMBER 23285
SHEET 13 OF 45



SECTION 3: PROPOSED PAVEMENT



0.25' OF 3/4" CLASS SP-3 HOT MIX ASPHALT PG 64-28 (SINGLE LIFT)
 0.50' OF 3/4" AGGREGATE TYPE B FOR BASE (SINGLE LIFT)



PROPOSED TYPICAL SUPERELEVATION SECTION WITH GUARDRAIL
 BASE SET: 124+35.00 - 124+80.00
 ADD OPT A: 115+65.00 - 116+40.00
 N.T.S

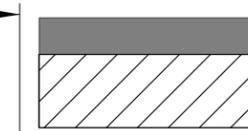
SLOPE TABLE

STATION	FORESLOPE
115+65-115+80	5:1
115+80-116+00	TRANSITION
116+00-116+40	3:1
124+35-124+70	5:1
124+70-124+80	TRANSITION
124+80	3:1

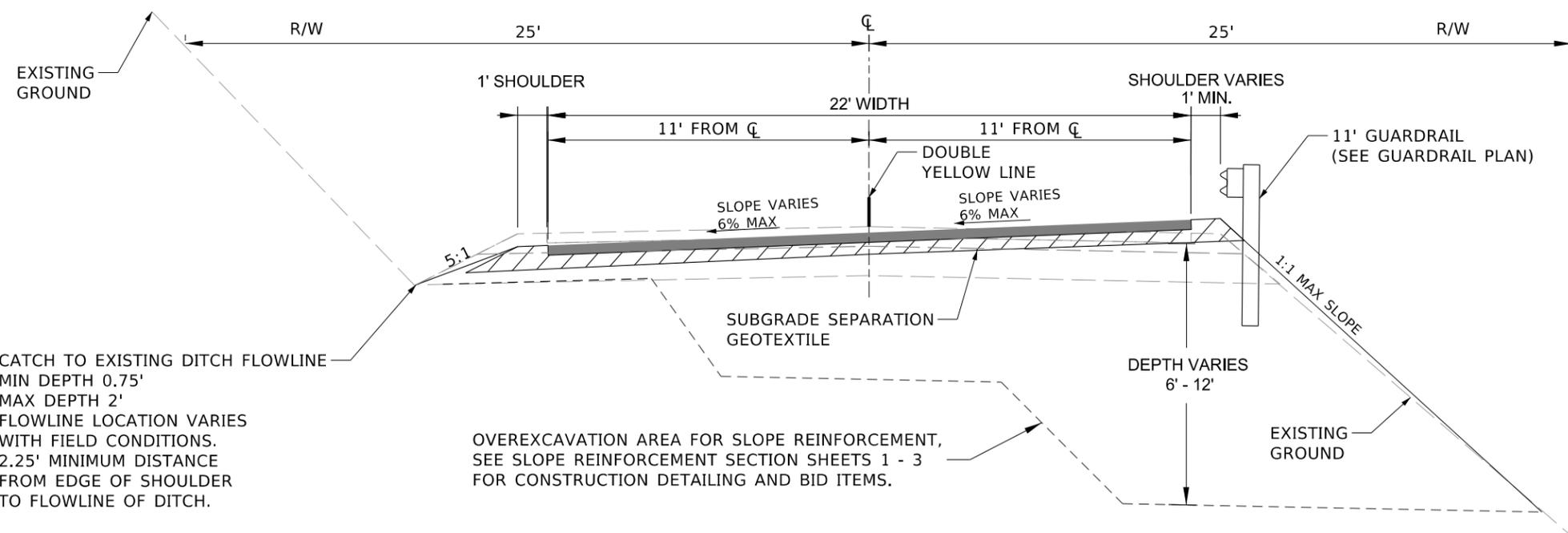
CATCH TO EXISTING DITCH FLOWLINE
 MIN DEPTH 0.75'
 MAX DEPTH 2'
 FLOWLINE LOCATION VARIES
 WITH FIELD CONDITIONS.
 2.25' MINIMUM DISTANCE
 FROM EDGE OF SHOULDER
 TO FLOWLINE OF DITCH.

OVEREXCAVATION AREA FOR SLOPE
 REINFORCEMENT, SEE GEOTECH
 SHEETS FOR CONSTRUCTION
 DETAILING AND BID ITEMS.

SECTION 3: PROPOSED PAVEMENT



0.25' OF 3/4" CLASS SP-3 HOT MIX ASPHALT PG 64-28 (SINGLE LIFT)
 0.50' OF 3/4" AGGREGATE TYPE B FOR BASE (SINGLE LIFT)



PROPOSED TYPICAL SUPERELEVATION SECTION WITH GUARDRAIL
 ADD OPT B: 109+20.00 - 109+65.00
 N.T.S

CATCH TO EXISTING DITCH FLOWLINE
 MIN DEPTH 0.75'
 MAX DEPTH 2'
 FLOWLINE LOCATION VARIES
 WITH FIELD CONDITIONS.
 2.25' MINIMUM DISTANCE
 FROM EDGE OF SHOULDER
 TO FLOWLINE OF DITCH.

OVEREXCAVATION AREA FOR SLOPE REINFORCEMENT,
 SEE SLOPE REINFORCEMENT SECTION SHEETS 1 - 3
 FOR CONSTRUCTION DETAILING AND BID ITEMS.

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED HDG
 DESIGN CHECKED BKK
 DETAILED BPRR
 DRAWING CHECKED KPS

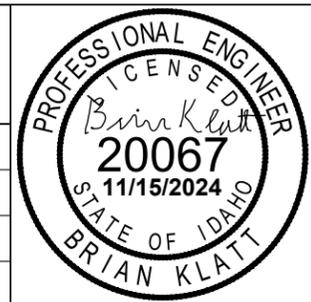
SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
 CADD FILE NAME 23285_TYP_001.DGN
 DRAWING DATE: OCTOBER 2024

IDAHO TRANSPORTATION DEPARTMENT
 YOUR Safety → YOUR Mobility → YOUR Economic Opportunity
 J-U-B ENGINEERS, INC.

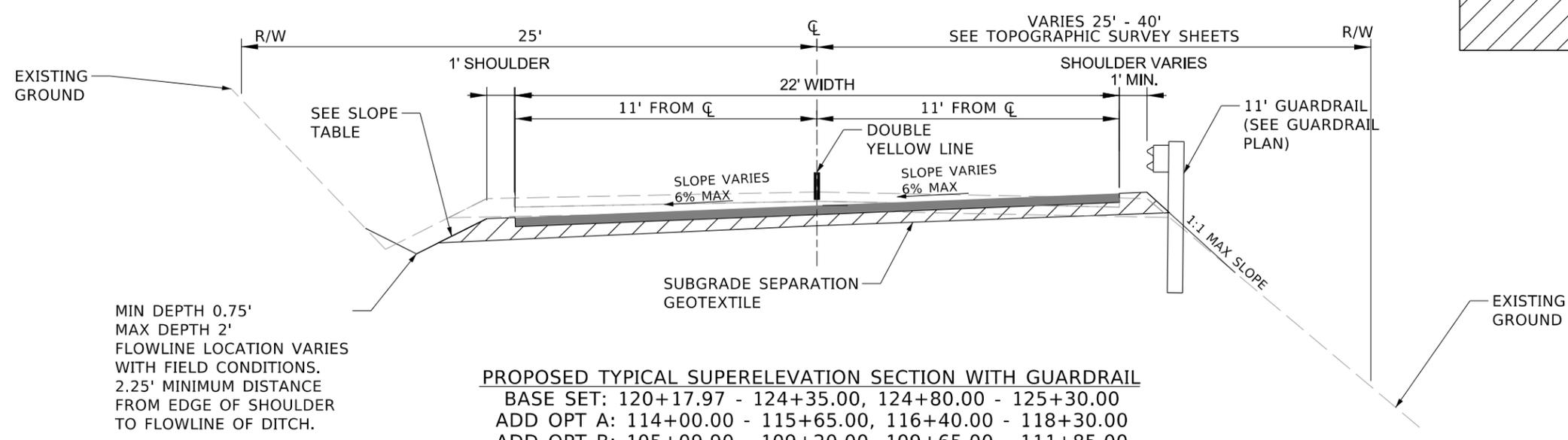
PROJECT NO. A023(285)

TYPICAL SECTION S GREENSFERRY RD GUARDRAIL, WORLEY HD

ENGLISH
 COUNTY KOOTENAI
 KEY NUMBER 23285
 SHEET 14 OF 45



SECTION 2: PROPOSED PAVEMENT



0.25' OF 3/4" CLASS SP-3 HOT MIX ASPHALT PG 64-28 (SINGLE LIFT)
 0.50' OF 3/4" AGGREGATE TYPE B FOR BASE (SINGLE LIFT)

MIN DEPTH 0.75'
 MAX DEPTH 2'
 FLOWLINE LOCATION VARIES WITH FIELD CONDITIONS. 2.25' MINIMUM DISTANCE FROM EDGE OF SHOULDER TO FLOWLINE OF DITCH.

PROPOSED TYPICAL SUPERELEVATION SECTION WITH GUARDRAIL
 BASE SET: 120+17.97 - 124+35.00, 124+80.00 - 125+30.00
 ADD OPT A: 114+00.00 - 115+65.00, 116+40.00 - 118+30.00
 ADD OPT B: 105+09.90 - 109+20.00, 109+65.00 - 111+85.00
 N.T.S

SLOPE TABLES

STATION	FORESLOPE	BACK SLOPE
105+10-105+70	5:1	
105+70-105+80	TRANSITION	
105+80-106+20	3:1	
106+20-106+25	TRANSITION	
106+25-106+60	5:1	
106+60-106+80	TRANSITION	TRANSITION
106+80	3:1	2:1
106+80-107+10	3:1	TRANSITION
107+10-109+00	3:1	
109+00-109+20	TRANSITION	
109+20	5:1	
109+65-109+80		
109+80-109+90		
10+90-111+85		

STATION	FORESLOPE
114+00-115+50	3:1
115+50-115+65	TRANSITION
115+65	5:1
116+40-116+75	3:1
116+75-116+80	TRANSITION
116+80-117+50	5:1
117+50-117+70	TRANSITION
117+70-118+30	3:1

STATION	FORESLOPE	BACK SLOPE
120+18-120+60	4:1	
120+60-120+70	TRANSITION	
120+70-121+50	3:1	1:1
121+50-121+85	3:1	TRANSITION
121+85-122+20	3:1	10:1
122+20-122+50	3:1	TRANSITION
122+50	3:1	1:1
122+50-122+60	3:1	TRANSITION
122+60-123+80	3:1	4:1
123+80-124+10	TRANSITION	
124+10-124+35	4:1	
124+80-124+90	3:1	
124+90-125+00	3:1	1:1
125+00-125+05	3:1	TRANSITION
125+05-125+30	3:1	

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED HDG	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED BKK	
DETAILED BPRR	CADD FILE NAME 23285_TYP_001.DGN
DRAWING CHECKED KPS	DRAWING DATE: OCTOBER 2024

IDAHO TRANSPORTATION DEPARTMENT

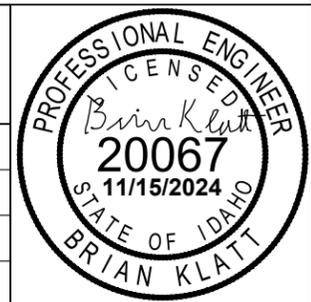
YOUR Safety → YOUR Mobility → YOUR Economic Opportunity

J-U-B ENGINEERS, INC.

PROJECT NO.	A023(285)
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TYPICAL SECTION	S GREENSFERRY RD GUARDRAIL, WORLEY HD
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ENGLISH
COUNTY KOOTENAI
KEY NUMBER 23285
SHEET 15 OF 45



SHEET NUMBER				20	24	25	31	32	33	34	35	36	37
STATION - STATION				119+50 TO 125+80	119+50 TO 122+50	122+50 TO 125+80	100+00 TO 104+50	104+50 TO 109+50	109+50 TO 114+50	114+50 TO 119+50	119+50 TO 124+50	124+50 TO 129+50	129+50 TO 134+50
ITEM NO.	ITEM	UNIT	TOTAL										
201-005A	CLEARING & GRUBBING	ACRE	0.17										
203-006A	REMOVAL OF SIGN	EACH	5				5						
205-005A	EXCAVATION	CY	487										
205-060A	WATER FOR DUST ABATEMENT	MG	7										
212-011A	FIBER WATTLE	FT	225		115	110							
212-020A	SILT FENCE	FT	553		248	305							
212-060A	STABILIZED CONSTRUCTION ENTRANCE	EACH	2										
212-095A	INLET PROTECTION	EACH	2		1	1							
303-022A	3/4" AGGREGATE TYPE B FOR BASE	TON	500										
401-020A	CSS-1 DILUTED EMULSIFIED ASPHALT FOR TACK COAT	GAL	70										
405-245A	APPROACH	EACH	1		1								
405-435A	SUPERPAVE HMA PAVEMENT INCLUDING ASPHALT & ADDITIVES CLASS SP-3 (PG 64-28)	TON	225										
602-035A	18" PIPE CULVERT - POLYMER COATED	FT	68		35	33							
605-630A	INLET TYPE 8	EACH	2		1	1							
606-005A	4" PIPE UNDERDRAIN	LF	60										
612-005A	W-BEAM GUARDRAIL - 31" WITH 11' STEEL POSTS	FT	3329				454	507	474	507	423	528	436
612-115C	GUARDRAIL TERMINAL, TANGENT	EACH	4				1				2		1
616-010A	SIGN TYPE B-1	SF	238										
616-040G	STEEL SIGN POST TYPE B-2	FT	34										
616-040J	STEEL SIGN POST TYPE E-1	FT	240										
616-040K	STEEL SIGN POST TYPE E-2	FT	43										
621-010A	SEEDING	ACRE	0.25		0.05	0.08	0.05	0.07					
621-050A	SOIL AMENDMENTS	ACRE	0.25		0.05	0.08	0.05	0.07					
621-080A	TURF REINFORCEMENT MATS	SY	433		151	239	242	339					
624-005A	LOOSE RIPRAP	CY	2.67		1	1.67							
626-010A	TEMPORARY TRAFFIC CONTROL SIGNS	SF	360										
626-115A	PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)	DAY	56										
626-040A	BARRICADE TYPE 3	EACH	10										
626-105A	TEMPORARY TRAFFIC CONTROL MAINTENANCE	HR	80										
630-025A	LONGITUDINAL PAVEMENT MARKING - WATERBORNE	FT	4099		1867	2232							
640-005A	DRAINAGE GEOTEXTILE	SY	43										
640-015A	SUBGRADE SEPARATION GEOTEXTILE	SY	1502										
675-005A	SURVEY	LS	1										
677-005A	RECORD DRAWINGS	LS	1										
S900-05A	CONTINGENCY AMOUNT - MISCELLANEOUS WORK	CA	10000										
S912-05A	SP - REINFORCED SOIL SLOPE WITH GEOGRID REINFORCEMENT	SY	300										
S912-05B	SP - ROCK MULCH	SY	264		111	153							
Z629-05A	MOBILIZATION	LS	1										

REVISIONS <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>BY</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>				NO.	DATE	BY	DESCRIPTION													DESIGNED HDG DESIGN CHECKED BKK DETAILED BPRR DRAWING CHECKED KPS	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY CADD FILE NAME 23285_RDSM_001.DGN DRAWING DATE: OCTOBER 2024	IDAHO TRANSPORTATION DEPARTMENT  YOUR Safety → YOUR Mobility → YOUR Economic Opportunity J-U-B ENGINEERS, INC.	PROJECT NO. A023(285)	BASE SET - ROADWAY SUMMARY S GREENSFERRY RD GUARDRAIL, WORLEY HD	ENGLISH COUNTY KOOTENAI KEY NUMBER 23285 SHEET 16 OF 45	
NO.	DATE	BY	DESCRIPTION																							

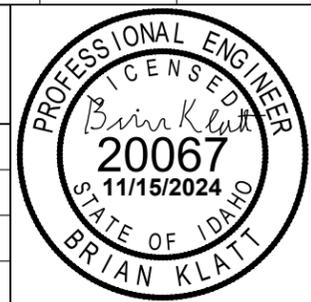
SHEET NUMBER				22	26	27												
STATION - STATION				113+50 TO 118+80	113+50 TO 116+50	116+50 TO 118+80												
ITEM NO.	ITEM	UNIT	TOTAL															
201-005A	CLEARING & GRUBBING	ACRE	0.06															
205-005A	EXCAVATION	CY	896															
205-060A	WATER FOR DUST ABATEMENT	MG	6															
212-011A	FIBER WATTLE	FT	210		125	85												
212-020A	SILT FENCE	FT	459		260	199												
303-022A	3/4" AGGREGATE TYPE B FOR BASE	TON	420															
401-020A	CSS-1 DILUTED EMULSIFIED ASPHALT FOR TACK COAT	GAL	60															
405-435A	SUPERPAVE HMA PAVEMENT INCLUDING ASPHALT & ADDITIVES CLASS SP-3 (PG 64-28)	TON	190															
606-005A	4" PIPE UNDERDRAIN	LF	90															
621-010A	SEEDING	ACRE	0.09		0.05	0.04												
621-050A	SOIL AMENDMENTS	ACRE	0.09		0.05	0.04												
621-080A	TURF REINFORCEMENT MATS	SY	325		163	91												
624-005A	LOOSE RIPRAP	CY	0.67		0.67													
626-105A	TEMPORARY TRAFFIC CONTROL MAINTENANCE	HR	40															
626-115A	PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)	DAY	14															
630-025A	LONGITUDINAL PAVEMENT MARKING - WATERBORNE	FT	3443		2002	1441												
640-005A	DRAINAGE GEOTEXTILE	SY	71															
640-015A	SUBGRADE SEPARATION GEOTEXTILE	SY	1262															
675-005A	SURVEY	LS	1															
S912-05A	SP - REINFORCED SOIL SLOPE WITH GEOGRID REINFORCEMENT	SY	500															
S912-05B	SP - ROCK MULCH	SY	195		113	82												
Z629-05A	MOBILIZATION	LS	1															

REVISIONS <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>BY</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>				NO.	DATE	BY	DESCRIPTION																	DESIGNED HDG DESIGN CHECKED BKK DETAILED BPRR DRAWING CHECKED KPS	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY CADD FILE NAME 23285_RDSM_002.DGN DRAWING DATE: OCTOBER 2024	IDAHO TRANSPORTATION DEPARTMENT  J-U-B ENGINEERS, INC.	PROJECT NO. A023(285)	ADDED OPTION A - ROADWAY SUMMARY S GREENSFERRY RD GUARDRAIL, WORLEY HD	ENGLISH COUNTY KOOTENAI KEY NUMBER 23285 SHEET 17 OF 45	
NO.	DATE	BY	DESCRIPTION																											

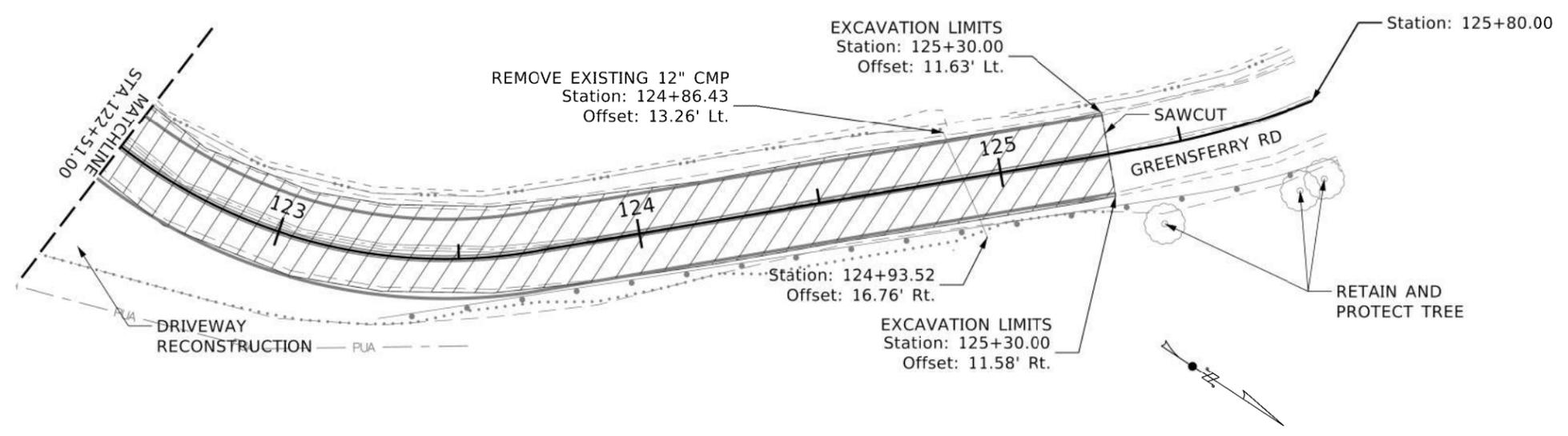
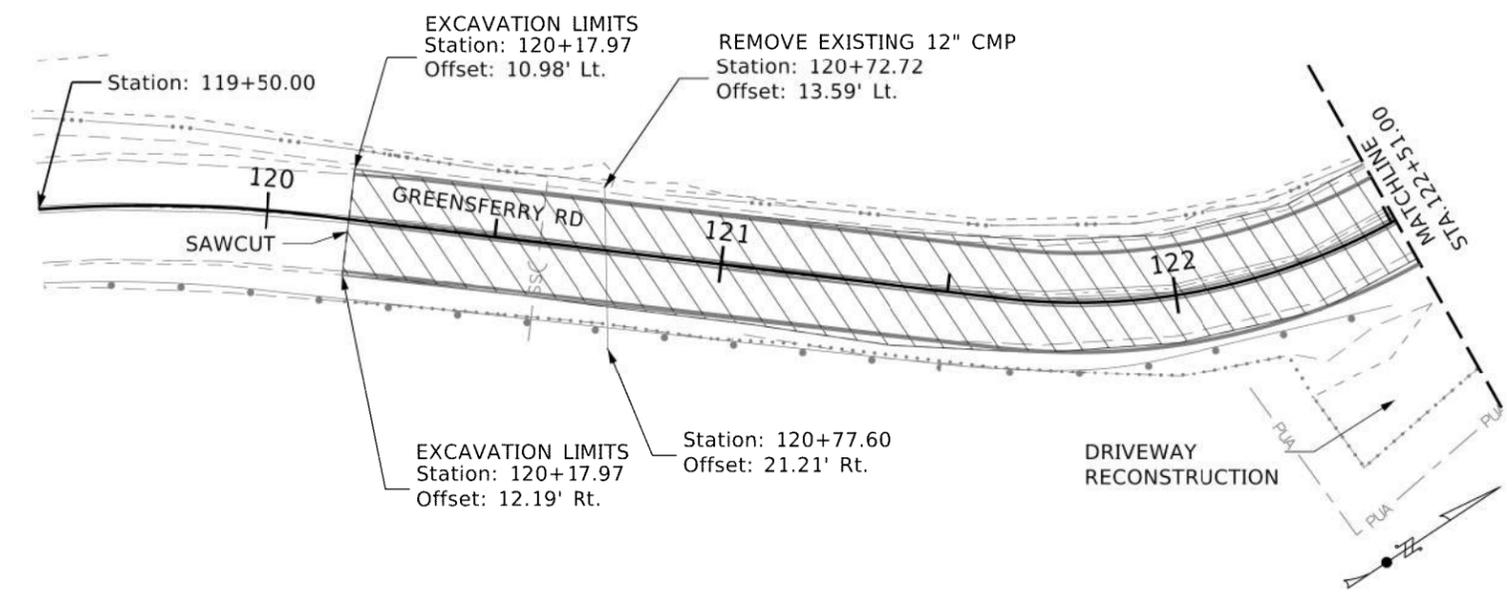
SHEET NUMBER				22	28	29												
STATION - STATION				104+50 TO 112+50	104+50 TO 108+50	108+50 TO 112+50												
ITEM NO.	ITEM	UNIT	TOTAL															
201-005A	CLEARING & GRUBBING	ACRE	0.08															
202-005A	SELECTIVE REMOVAL OF TREES INCLUDING STUMPS	EACH	3	3														
205-005A	EXCAVATION	CY	712															
205-060A	WATER FOR DUST ABATEMENT	MG	10															
212-011A	FIBER WATTLE	FT	370		200	170												
212-020A	SILT FENCE	FT	719		361	358												
251-005A	MIGRATORY BIRD TREATY ACT	CA	10000															
212-095A	INLET PROTECTION	EACH	2		1	1												
303-022A	3/4" AGGREGATE TYPE B FOR BASE	TON	660															
401-020A	CSS-1 DILUTED EMULSIFIED ASPHALT FOR TACK COAT	GAL	90															
405-435A	SUPERPAVE HMA PAVEMENT INCLUDING ASPHALT & ADDITIVES CLASS SP-3 (PG 64-28)	TON	295															
602-035A	18" PIPE CULVERT - POLYMER COATED	FT	66.0		33	33												
605-630A	INLET TYPE 8	EACH	2.0		1	1												
606-005A	4" PIPE UNDERDRAIN	LF	60															
621-010A	SEEDING	ACRE	0.13		0.05	0.08												
621-050A	SOIL AMENDMENTS	ACRE	0.13		0.05	0.08												
621-080A	TURF REINFORCEMENT MATS	SY	432		95	252												
624-005A	LOOSE RIPRAP	CY	2.67		1.00	1.67												
626-105A	TEMPORARY TRAFFIC CONTROL MAINTENANCE	HR	40															
626-115A	PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)	DAY	14															
630-025A	LONGITUDINAL PAVEMENT MARKING □ WATERBORNE	FT	5403		2723	2680												
640-005A	DRAINAGE GEOTEXTILE	SY	140															
640-015A	SUBGRADE SEPARATION GEOTEXTILE	SY	1980															
675-005A	SURVEY	LS	1															
S912-05A	SP - REINFORCED SOIL SLOPE WITH GEOGRID REINFORCEMENT	SY	850															
S912-05B	SP - ROCK MULCH	SY	295		141	154												
Z629□05A	MOBILIZATION	LS	1															

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NO.	DATE	BY	DESCRIPTION																							

SHEET NUMBER				23	30														
STATION - STATION				100+00 TO 103+50	100+00 TO 103+50														
ITEM NO.	ITEM	UNIT	TOTAL																
201-005A	CLEARING & GRUBBING	ACRE	0.08																
205-005A	EXCAVATION	CY	562																
205-060A	WATER FOR DUST ABATEMENT	MG	4																
212-011A	FIBER WATTLE	FT	140		140														
212-020A	SILT FENCE	FT	326		326														
301-005A	GRANULAR SUBBASE	TON	600																
303-022A	3/4" AGGREGATE TYPE B FOR BASE	TON	285																
401-020A	CSS-1 DILUTED EMULSIFIED ASPHALT FOR TACK COAT	GAL	40																
405-435A	SUPERPAVE HMA PAVEMENT INCLUDING ASPHALT & ADDITIVES CLASS SP-3 (PG 64-28)	TON	130																
621-010A	SEEDING	ACRE	0.09		0.09														
621-050A	SOIL AMENDMENT	ACRE	0.09		0.09														
621-080A	TURF REINFORCEMENT MATS	SY	248.00																
626-105A	TEMPORARY TRAFFIC CONTROL MAINTENANCE	HR	40																
626-115A	PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)	DAY	14		2340														
630-025A	LONGITUDINAL PAVEMENT MARKING - WATERBORNE	FT	2340																
640-015A	SUBGRADE SEPARATION GEOTEXTILE	SY	855																
675-005A	SURVEY	LS	1		174														
S912-05B	SP - ROCK MULCH	SY	174																
Z629-05A	MOBILIZATION	LS	1																

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NO.	DATE	BY	DESCRIPTION																											

BASE SET



NOTE:
CULVERT REMOVALS ARE CONSIDERED INCIDENTAL TO EXCAVATION.

LEGEND:
 REMOVAL AREA

REVISIONS			
NO	DATE	BY	DESCRIPTION

DESIGNED HDG
DESIGN CHECKED BKK
DETAILED BPRR
DRAWING CHECKED KPS

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 23285_C1_DEMO_001.dgn
DRAWING DATE: OCTOBER 2024

IDAHO TRANSPORTATION DEPARTMENT



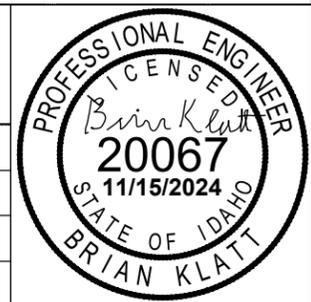
YOUR Safety-YOUR Mobility-YOUR Economic Opportunity

J-U-B ENGINEERS, INC.

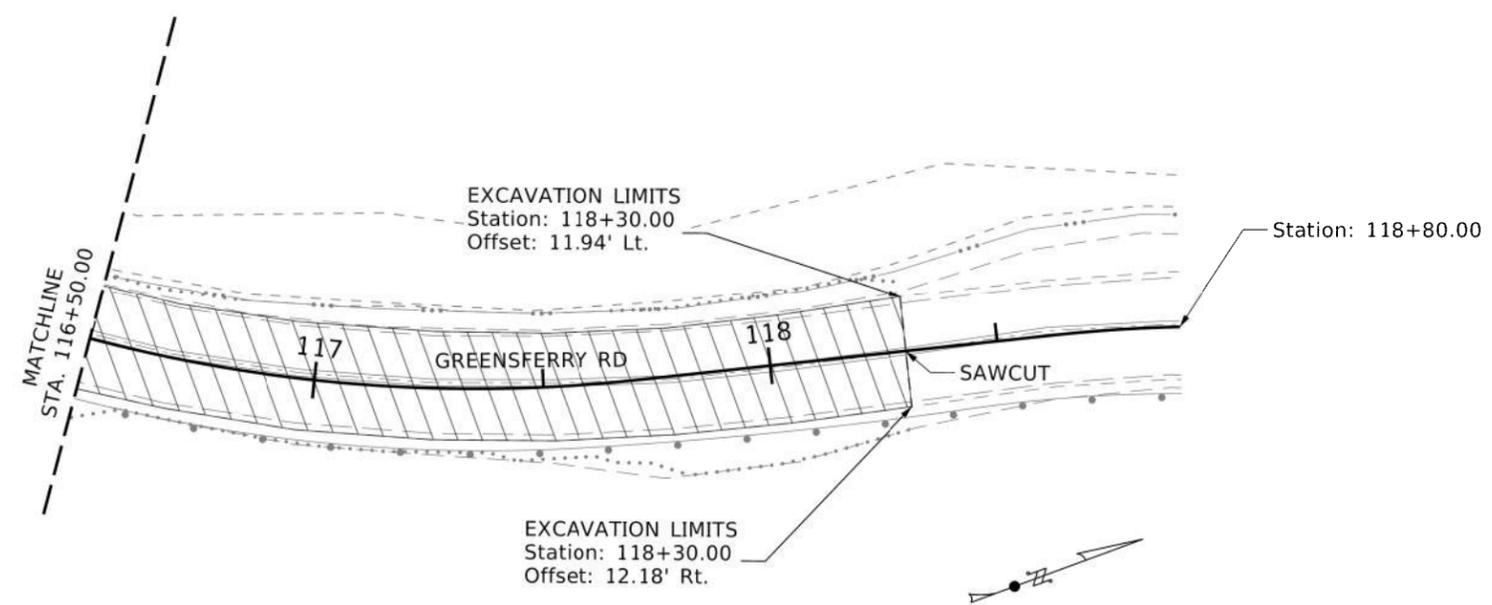
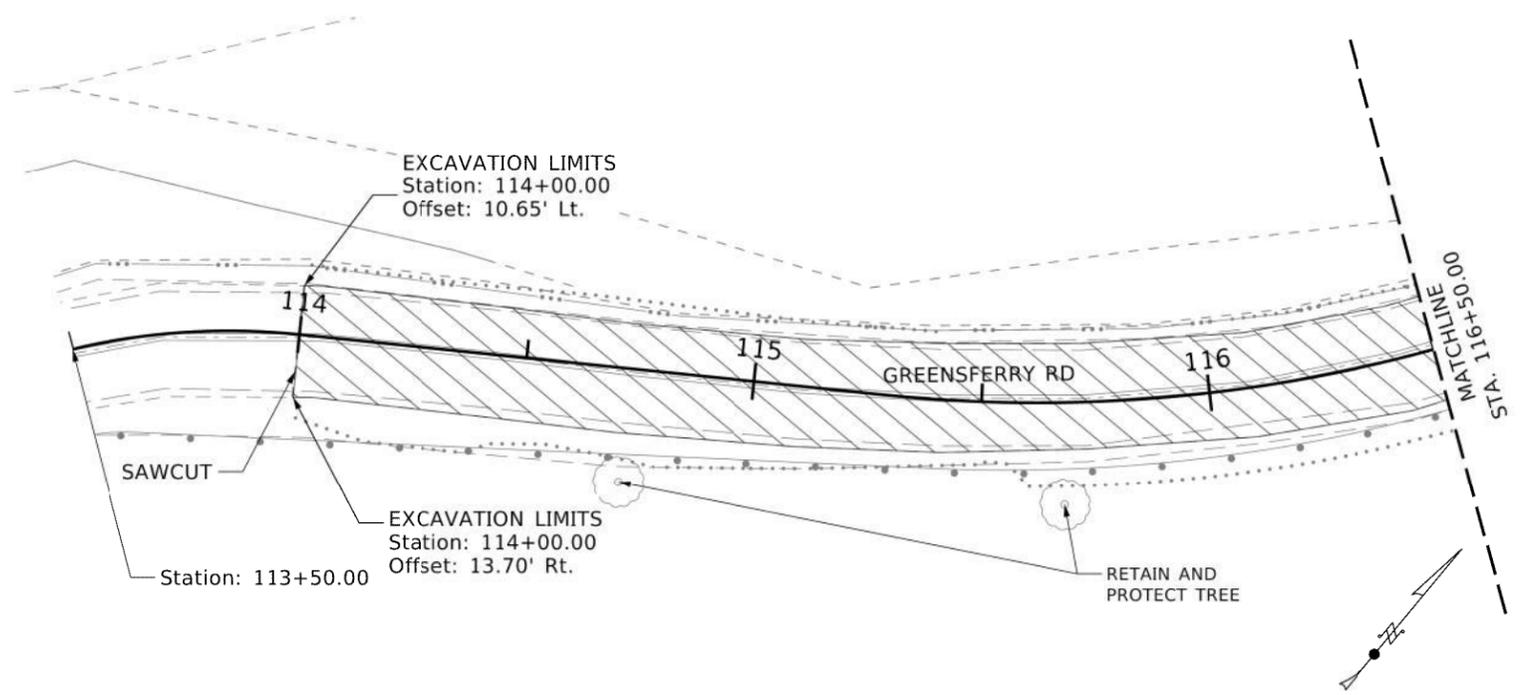
PROJECT NO.
A023(285)

BASE SET - REMOVAL PLAN
S GREENSFERRY RD GUARDRAIL, WORLEY HD
STA. 119+50.00 TO STA. 125+80.00

ENGLISH
COUNTY KOOTENAI
KEY NUMBER 23285
SHEET 20 OF 45



ADDED OPTION A



NOTE:
CULVERT REMOVALS ARE CONSIDERED INCIDENTAL TO EXCAVATION.

LEGEND:
 REMOVAL AREA

REVISIONS			
NO	DATE	BY	DESCRIPTION

DESIGNED HDG
DESIGN CHECKED BKK
DETAILED BPRR
DRAWING CHECKED KPS

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 23285_C2_DEMO_001.dgn
DRAWING DATE: OCTOBER 2024

IDAHO TRANSPORTATION DEPARTMENT

YOUR Safety-YOUR Mobility-YOUR Economic Opportunity

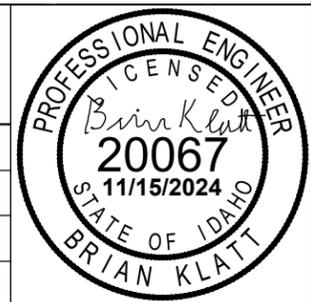
J-U-B ENGINEERS, INC.



PROJECT NO.
A023(285)

ADDED OPTION A - REMOVAL PLAN
S GREENSFERRY RD GUARDRAIL, WORLEY HD
STA. 113+50.00 TO STA. 118+80.00

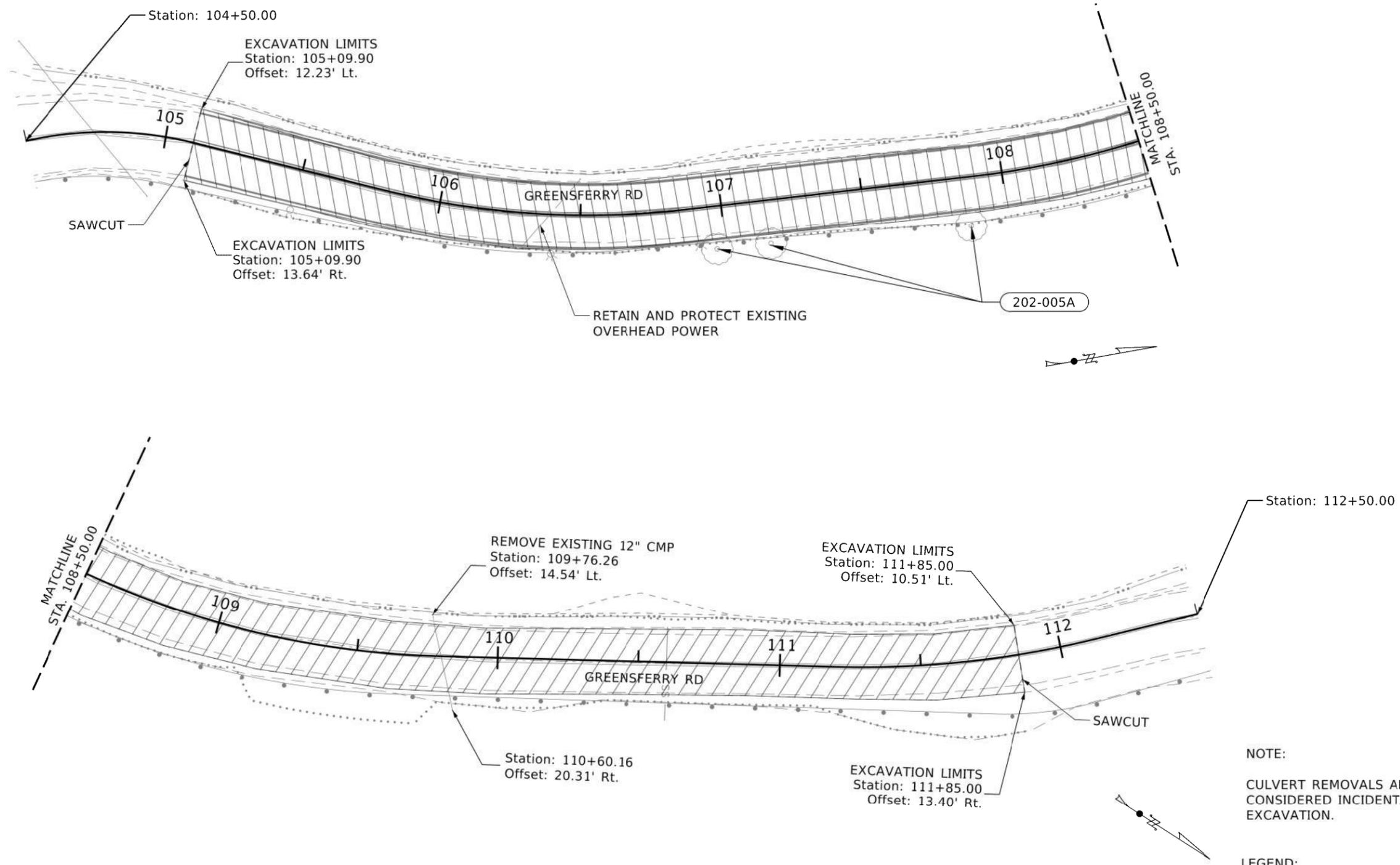
ENGLISH
COUNTY KOOTENAI
KEY NUMBER 23285
SHEET 21 OF 45



ADDED OPTION B

202-005A SELECTIVE REMOVAL OF TREES INCLUDING STUMPS

- 1.00 EACH 106+96.91, 15.24' RT
- 1.00 EACH 107+16.02, 15.44' RT
- 1.00 EACH 107+87.16, 17.39' RT



NOTE:
CULVERT REMOVALS ARE CONSIDERED INCIDENTAL TO EXCAVATION.

LEGEND:
 REMOVAL AREA

REVISIONS			
NO	DATE	BY	DESCRIPTION

DESIGNED HDG	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED BKK	CADD FILE NAME 23285_C3_DEMO_001.dgn
DETAILED BPRR	DRAWING DATE: OCTOBER 2024
DRAWING CHECKED KPS	

IDAHO TRANSPORTATION DEPARTMENT

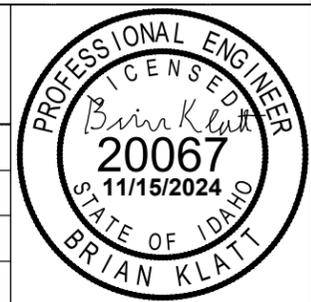
YOUR Safety-YOUR Mobility-YOUR Economic Opportunity

J-U-B ENGINEERS, INC.

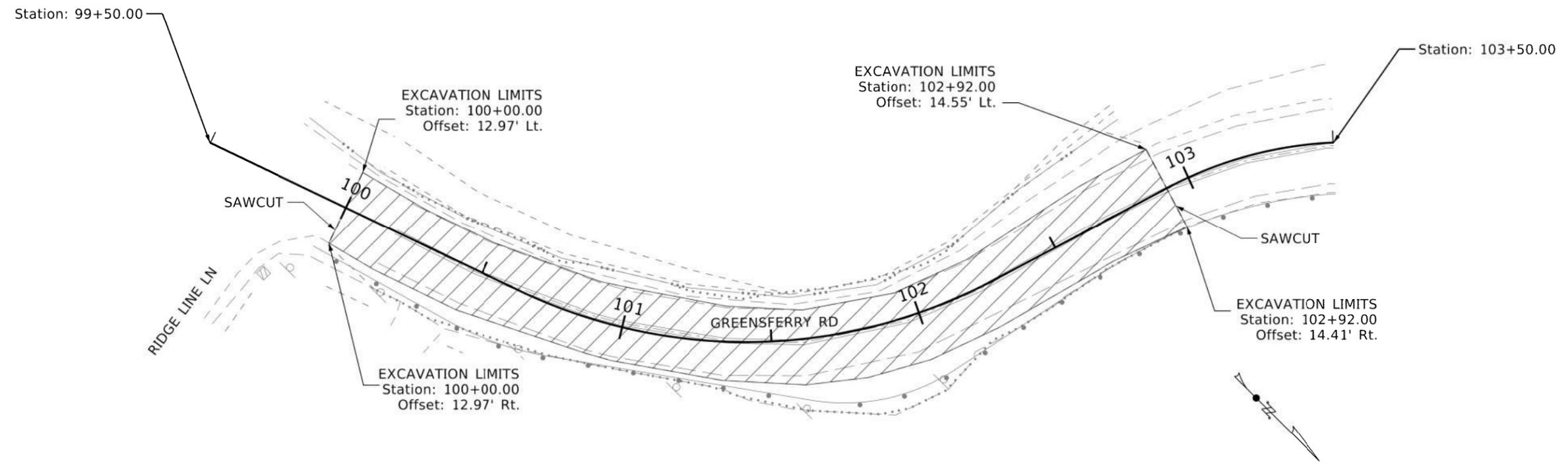
PROJECT NO.	A023(285)
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ADDED OPTION B - REMOVAL PLAN	S GREENSFERRY RD GUARDRAIL, WORLEY HD STA. 104+50.00 TO STA. 112+50.00
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ENGLISH
COUNTY KOOTENAI
KEY NUMBER 23285
SHEET 22 OF 45



ADDED OPTION C



NOTE:
CULVERT REMOVALS ARE CONSIDERED INCIDENTAL TO EXCAVATION.

LEGEND:
 REMOVAL AREA

REVISIONS			
NO	DATE	BY	DESCRIPTION

DESIGNED HDG
DESIGN CHECKED BKK
DETAILED BPRR
DRAWING CHECKED KPS

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 23285_C4_DEMO_001.dgn
DRAWING DATE: OCTOBER 2024

IDAHO TRANSPORTATION DEPARTMENT

YOUR Safety→YOUR Mobility→YOUR Economic Opportunity

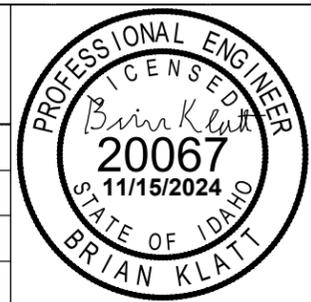
J-U-B ENGINEERS, INC.

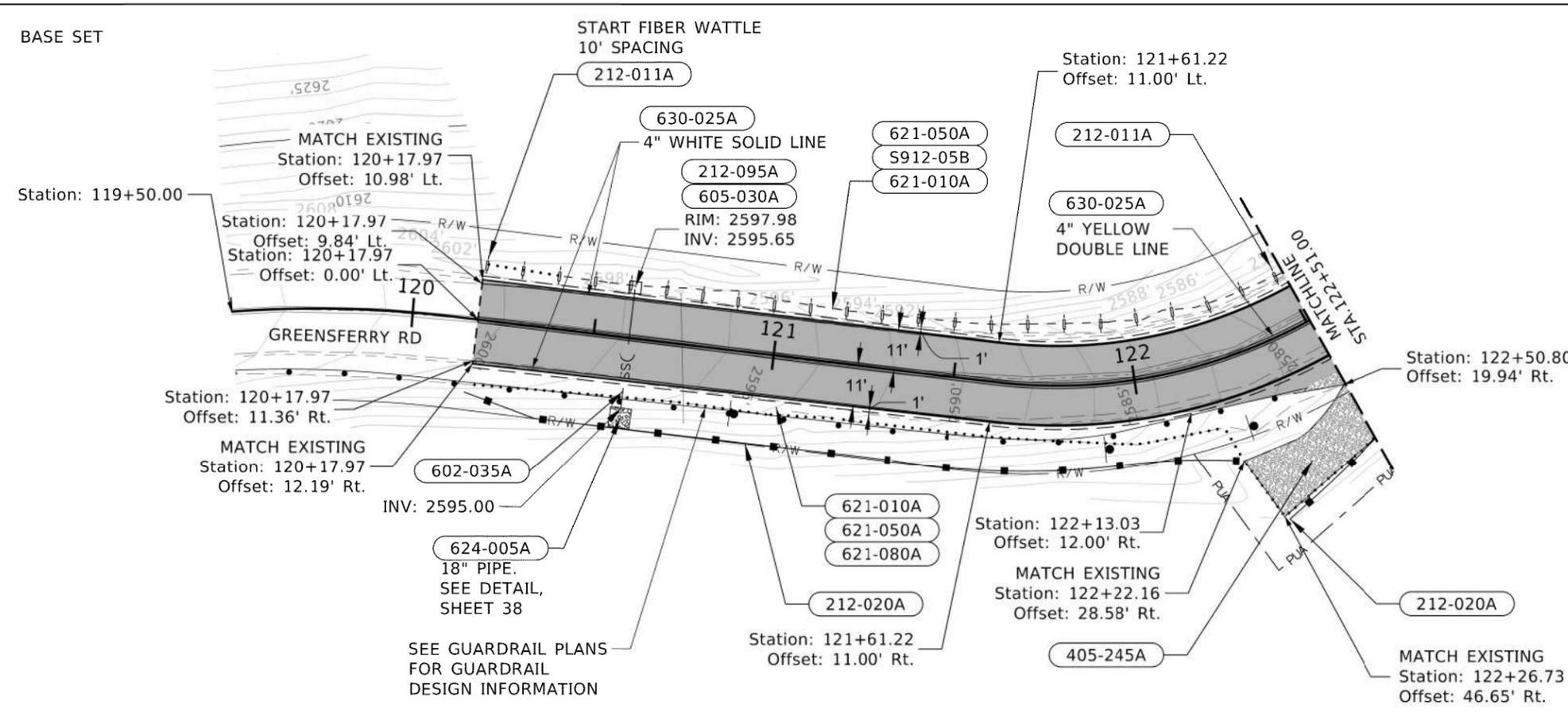


PROJECT NO.
A023(285)

ADDED OPTION C - REMOVAL PLAN
S GREENSFERRY RD GUARDRAIL, WORLEY HD
STA. 99+50.00 TO STA. 103+50.00

ENGLISH
COUNTY KOOTENAI
KEY NUMBER 23285
SHEET 23 OF 45



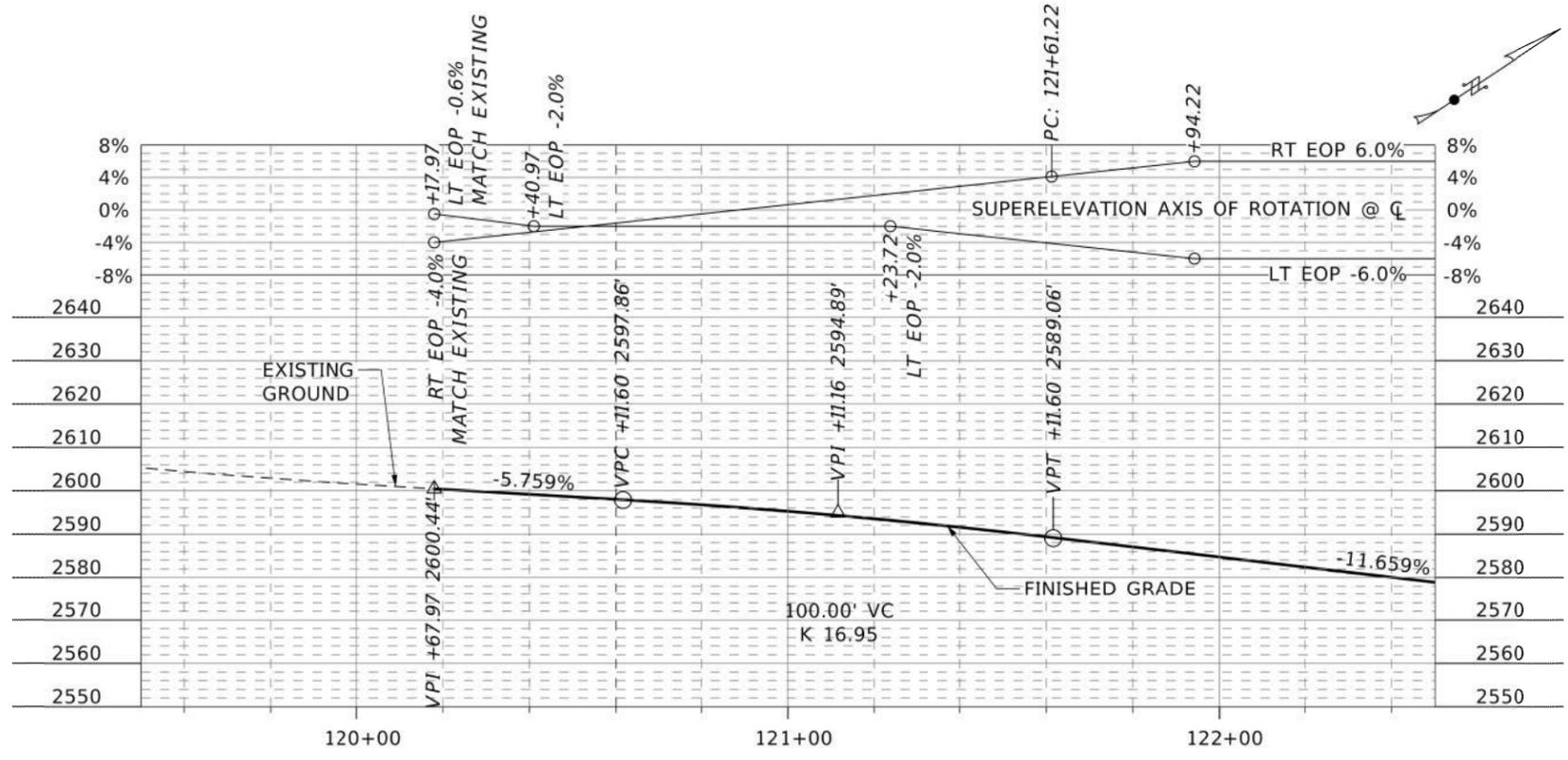


- 621-080A TURF REINFORCEMENT MATS**
151.00 SY 120+17.97, 13.19' RT TO 122+51.00 19.27' RT
- 624-005A LOOSE RIPRAP**
1.00 CY 120+59.96, 21.64' RT
- 630-025A LONGITUDINAL PAVEMENT MARKING WATERBORNE**
453.00 FT 120+17.97, 9.84' LT TO 122+50.00, 11.00' LT
933.00 FT 120+17.97, 0.00' RT TO 122+50.00, 0.00' RT
481.00 FT 120+17.97, 11.36' RT TO 122+50.00, 11.00' RT
- S912-05B SP - ROCK MULCH**
111.00 SY 120+17.97, 9.84' LT TO 122+50.00, 11.00' LT

- 212-011A FIBER WATTLE**
5.00 FT 120+19.00, 12.70' LT
5.00 FT 120+29.00, 12.40' LT
5.00 FT 120+39.00, 12.10' LT
5.00 FT 120+49.00, 11.90' LT
5.00 FT 120+59.00, 12.10' LT
5.00 FT 120+68.00, 11.90' LT
5.00 FT 120+79.00, 11.50' LT
5.00 FT 120+89.00, 11.10' LT
5.00 FT 120+99.00, 11.40' LT
5.00 FT 121+09.00, 11.70' LT
5.00 FT 121+19.00, 12.00' LT
5.00 FT 121+29.00, 12.20' LT
5.00 FT 121+39.00, 12.50' LT
5.00 FT 121+49.00, 12.70' LT
5.00 FT 121+59.00, 13.00' LT
5.00 FT 121+70.00, 14.10' LT
5.00 FT 121+81.00, 14.50' LT
5.00 FT 121+92.00, 14.10' LT
5.00 FT 122+03.00, 14.30' LT
5.00 FT 122+14.00, 13.90' LT
5.00 FT 122+26.00, 12.80' LT
5.00 FT 122+37.00, 13.10' LT
5.00 FT 122+48.00, 12.70' LT

- 212-020A SILT FENCE**
216.00 FT 120+16.52, 20.12' RT TO 122+22.16, 28.58' RT
32.00 FT 122+27.57, 47.67' RT TO 122+51.00, 37.31' RT

- 212-095A INLET PROTECTION**
1.00 EACH 120+60.00, 13.83' LT
- 405-245A APPROACH**
1.00 EACH 120+60.00, 13.83' LT TO 120+59.96, 21.60' RT
- 602-035A 18" PIPE CULVERT - POLYMER COATED**
35.00 FT 120+60.00, 13.83' LT TO 120+59.96, 21.60' RT
- 605-630A INLET TYPE 8**
1.00 EACH 120+60.00, 13.83' LT
- 621-010A SEEDING**
0.03 ACRE 120+17.98, 13.19' RT TO 122+49.01, 19.27' RT
0.02 ACRE 120+17.94, 12.09' LT TO 120+50.00, 12.00' LT
- 621-050A SOIL AMENDMENTS**
0.03 ACRE 120+17.98, 13.19' RT TO 122+49.01, 19.27' RT
0.02 ACRE 120+17.94, 12.09' LT TO 120+50.00, 12.00' LT



REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED HDG
DESIGN CHECKED BKK
DETAILED BPRR
DRAWING CHECKED KPS

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 23285_C1_PLAN_001.dgn
DRAWING DATE: OCTOBER 2024

IDAHO TRANSPORTATION DEPARTMENT

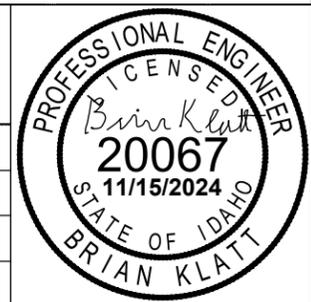
YOUR Safety - YOUR Mobility - YOUR Economic Opportunity

J-U-B ENGINEERS, INC.

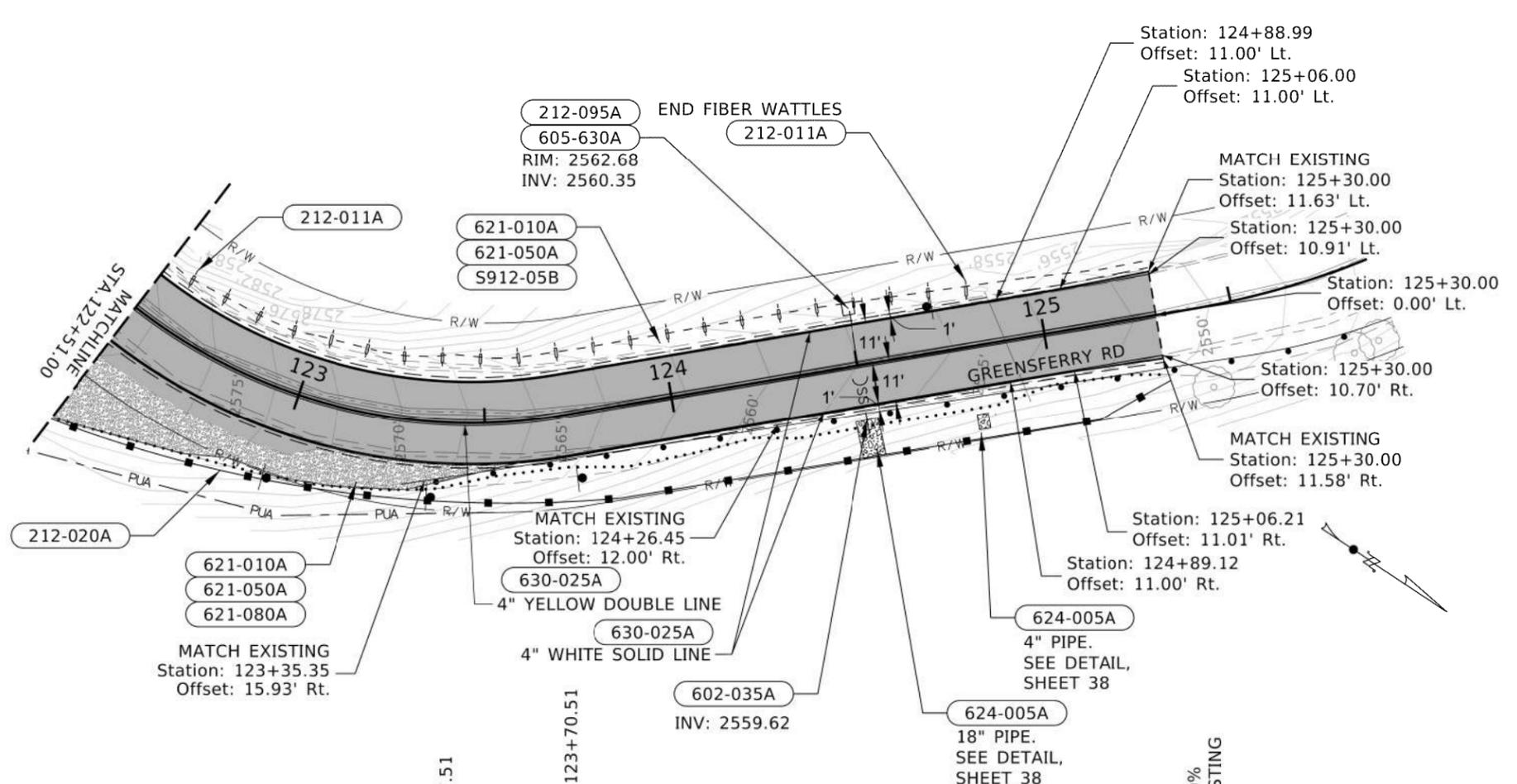
PROJECT NO. A023(285)

BASE SET - PLAN AND PROFILE
S GREENSFERRY RD GUARDRAIL, WORLEY HD
STA. 119+50.00 TO STA. 122+51.00

ENGLISH
COUNTY KOOTENAI
KEY NUMBER 23285
SHEET 24 OF 45



BASE SET



- 624-005A LOOSE RIPRAP**
 1.00 CY 124+50.17, 18.44' RT
 0.67 CY 124+78.50, 15' RT
- 630-025A LONGITUDINAL PAVEMENT MARKING WATERBORNE**
 540.00 FT 122+50.00, 11.00' LT TO 125+30.00, 10.91' LT
 1116.00 FT 122+50.00, 0.00' RT TO 125+30.00, 0.17' LT
 576.00 FT 122+50.00, 11.00' RT TO 125+30.00, 10.70' RT
- S912-05B SP - ROCK MULCH**
 153.00 SY 120+50.00, 12.00' LT TO 125+30.00 12.50' LT

- 212-011A FIBER WATTLE**
 5.00 FT 122+60.00, 12.40' RT
 5.00 FT 122+70.00, 13.10' LT
 5.00 FT 122+81.00, 13.10' LT
 5.00 FT 122+93.00, 13.30' LT
 5.00 FT 123+04.00, 16.70' LT
 5.00 FT 123+15.00, 14.20' LT
 5.00 FT 123+27.00, 14.10' LT
 5.00 FT 123+38.00, 14.80' LT
 5.00 FT 123+39.00, 14.70' LT
 5.00 FT 123+61.00, 14.20' LT
 5.00 FT 123+72.00, 14.30' LT
 5.00 FT 123+82.00, 14.10' LT
 5.00 FT 124+02.00, 14.30' LT
 5.00 FT 124+12.00, 14.40' LT
 5.00 FT 124+22.00, 14.50' LT
 5.00 FT 124+32.00, 14.50' LT
 5.00 FT 124+42.00, 14.40' LT
 5.00 FT 124+52.00, 14.20' LT
 5.00 FT 124+62.00, 14.10' LT
 5.00 FT 124+71.00, 13.40' LT
 5.00 FT 124+81.00, 12.40' LT
 5.00 FT 124+92.00, 12.4' LT

212-020A SILT FENCE
 305.00 FT 122+51.00, 37.31' RT TO 125+31.06, 17.60' RT

212-095A INLET PROTECTION
 1.00 EACH 124+50.00, 15.21' LT

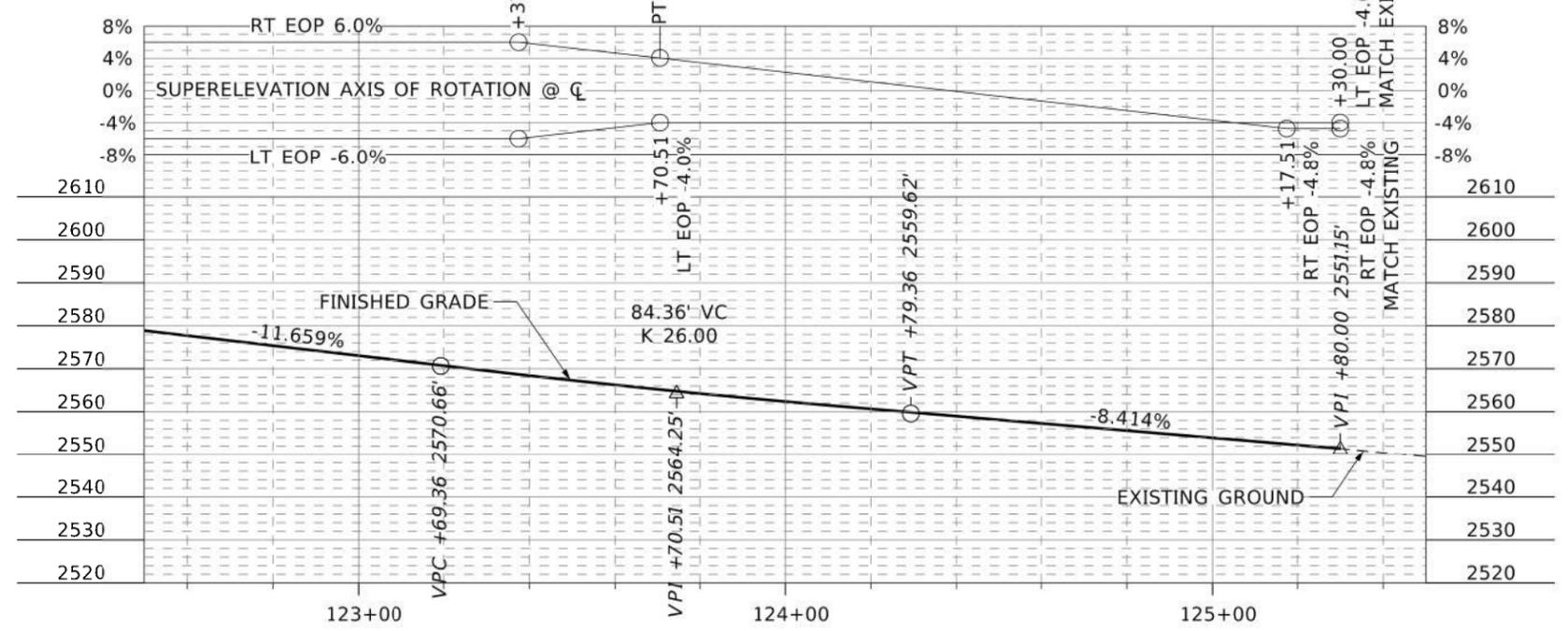
602-035A 18" PIPE CULVERT - POLYMER COATED
 33.00 FT 124+50.00, 15.21' LT TO 124+50.17, 18.44' RT

605-630A INLET TYPE 8
 1.00 EACH 124+50.00, 15.21' LT

621-010A SEEDING
 0.03 ACRE 120+50.00, 12.00' LT TO 125+30.00 12.50' LT
 0.05 ACRE 123+08.97, 18.00' RT TO 125+30.00, 12.50' RT

621-050A SOIL AMENDMENTS
 0.03 ACRE 120+50.00, 12.00' LT TO 125+30.00 12.50' LT
 0.05 ACRE 123+08.97, 18.00' RT TO 125+30.00, 12.50' RT

621-080A TURF REINFORCEMENT MATS
 239.00 SY 123+08.97, 18.00' RT TO 125+30.00, 12.50' RT



REVISIONS			
NO	DATE	BY	DESCRIPTION

DESIGNED HDG
 DESIGN CHECKED BKK
 DETAILED BPRR
 DRAWING CHECKED KPS

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
 CADD FILE NAME 23285_C1_PLAN_002.dgn
 DRAWING DATE: OCTOBER 2024

IDAHO TRANSPORTATION DEPARTMENT

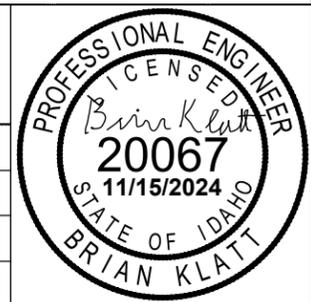
YOUR Safety - YOUR Mobility - YOUR Economic Opportunity

J-U-B ENGINEERS, INC.

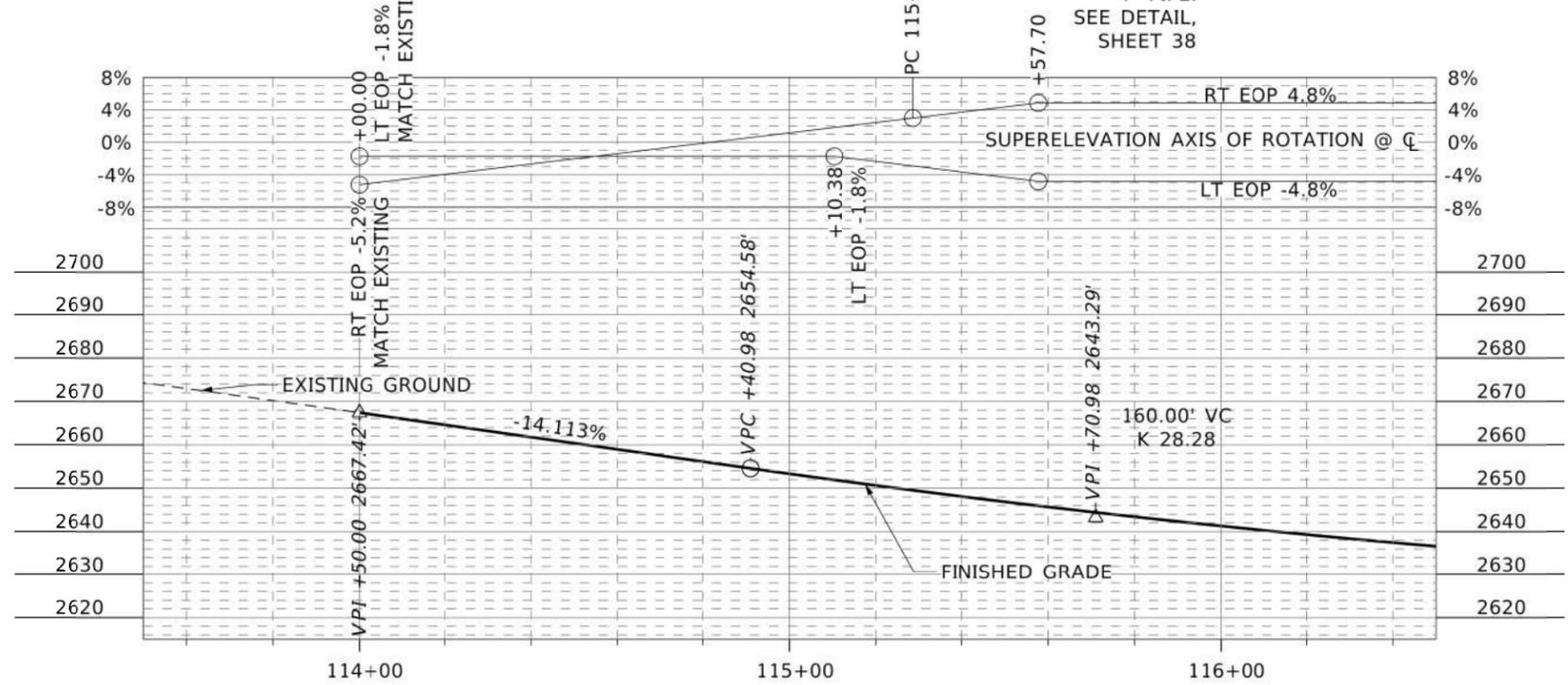
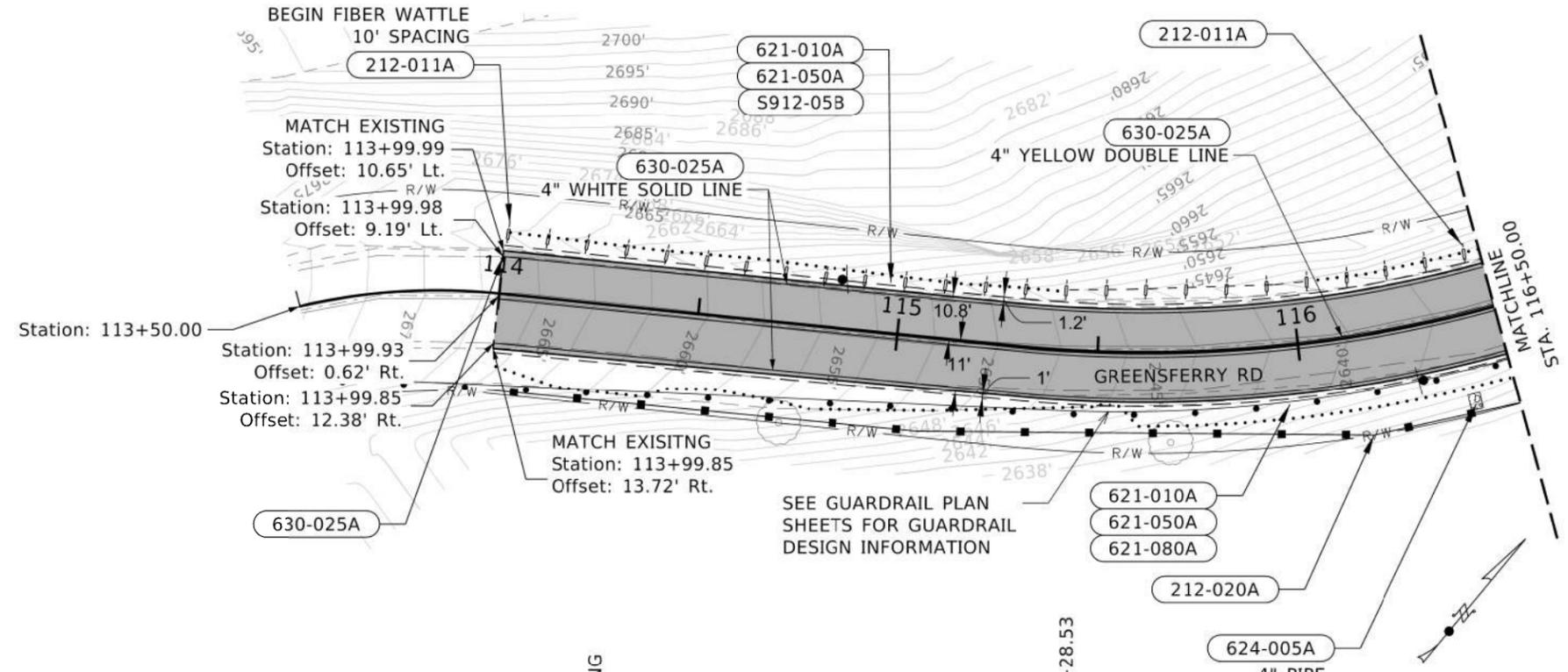
PROJECT NO. A023(285)

BASE SET - PLAN AND PROFILE
 S GREENSFERRY RD GUARDRAIL, WORLEY HD
 STA. 122+51.00 TO STA. 125+80.00

ENGLISH
 COUNTY KOOTENAI
 KEY NUMBER 23285
 SHEET 25 OF 45



ADDED OPTION A



- 212-011A FIBER WATTLE**
 - 5.00 FT 114+01.00 12.60' LT
 - 5.00 FT 114+11.00, 12.30' LT
 - 5.00 FT 114+21.00, 12.00' LT
 - 5.00 FT 114+30.00, 11.70' LT
 - 5.00 FT 114+40.00, 11.40' LT
 - 5.00 FT 114+50.00, 11.10' LT
 - 5.00 FT 114+60.00, 10.70' LT
 - 5.00 FT 114+70.00, 10.40' LT
 - 5.00 FT 114+80.00, 10.10' LT
 - 5.00 FT 114+91.00, 10.40' LT
 - 5.00 FT 115+01.00, 10.80' LT
 - 5.00 FT 115+11.00, 11.30' LT
 - 5.00 FT 115+21.00, 11.70' LT
 - 5.00 FT 115+31.00, 12.20' LT
 - 5.00 FT 115+41.00, 12.60' LT
 - 5.00 FT 115+52.00, 13.20' LT
 - 5.00 FT 115+62.00, 13.40' LT
 - 5.00 FT 115+72.00, 13.40' LT
 - 5.00 FT 115+83.00, 12.90' LT
 - 5.00 FT 115+93.00, 12.90' LT
 - 5.00 FT 116+04.00, 12.80' LT
 - 5.00 FT 116+14.00, 12.50' LT
 - 5.00 FT 116+25.00, 12.40' LT
 - 5.00 FT 116+35.00, 12.50' LT
 - 5.00 FT 116+46.00, 12.20' LT
- 212-020A SILT FENCE**
 - 260.00 FT 113+98.98, 24.13' RT TO 116+50.00, 24.86' RT
- 621-010A SEEDING**
 - 0.02 ACRE 114+00.00, 12.00' LT TO 116+50.00, 12.30' LT
 - 0.03 ACRE 114+00.00, 14.70' RT TO 116+50.00, 13.15' RT
- 621-050A SOIL AMENDMENTS**
 - 0.02 ACRE 114+00.00, 12.00' LT TO 116+50.00, 12.30' LT
 - 0.03 ACRE 114+00.00, 14.70' RT TO 116+50.00, 13.15' RT
- 624-005A LOOSE RIPRAP**
 - 0.67 CY 116+40.00, 15.00' RT
- 621-080A TURF REINFORCEMENT MATS**
 - 163.00 SY 114+00.00, 14.70' RT TO 116+50.00, 13.15' RT
- 630-025A LONGITUDINAL PAVEMENT MARKING WATERBORNE**
 - 492.00 FT 114+00.00, 10.65' LT TO 116+50.00, 11.00' LT
 - 1001.00 FT 114+00.00, 0.62' RT TO 116+50.00, 0.19' RT
 - 509.00 FT 114+00.00, 12.38' RT TO 116+50.00, 11.00' RT
- S912-05B SP - ROCK MULCH**
 - 113.00 SY 114+00.00, 12.00' LT TO 116+50.00, 12.30' LT

REVISIONS			
NO	DATE	BY	DESCRIPTION

DESIGNED HDG	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED BKK	CADD FILE NAME 23285_C2_PLAN_001.dgn
DETAILED BPRR	DRAWING DATE: OCTOBER 2024
DRAWING CHECKED KPS	

IDAHO TRANSPORTATION DEPARTMENT

YOUR Safety - YOUR Mobility - YOUR Economic Opportunity

J-U-B ENGINEERS, INC.

PROJECT NO. A023(285)

ADD OPT - A PLAN AND PROFILE

S GREENSFERRY RD GUARDRAIL, WORLEY HD

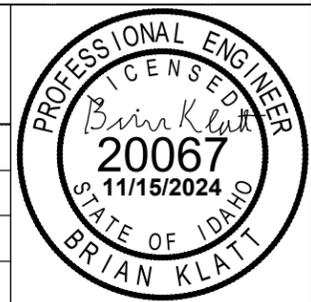
STA. 113+50.00 TO STA. 116+50.00

ENGLISH

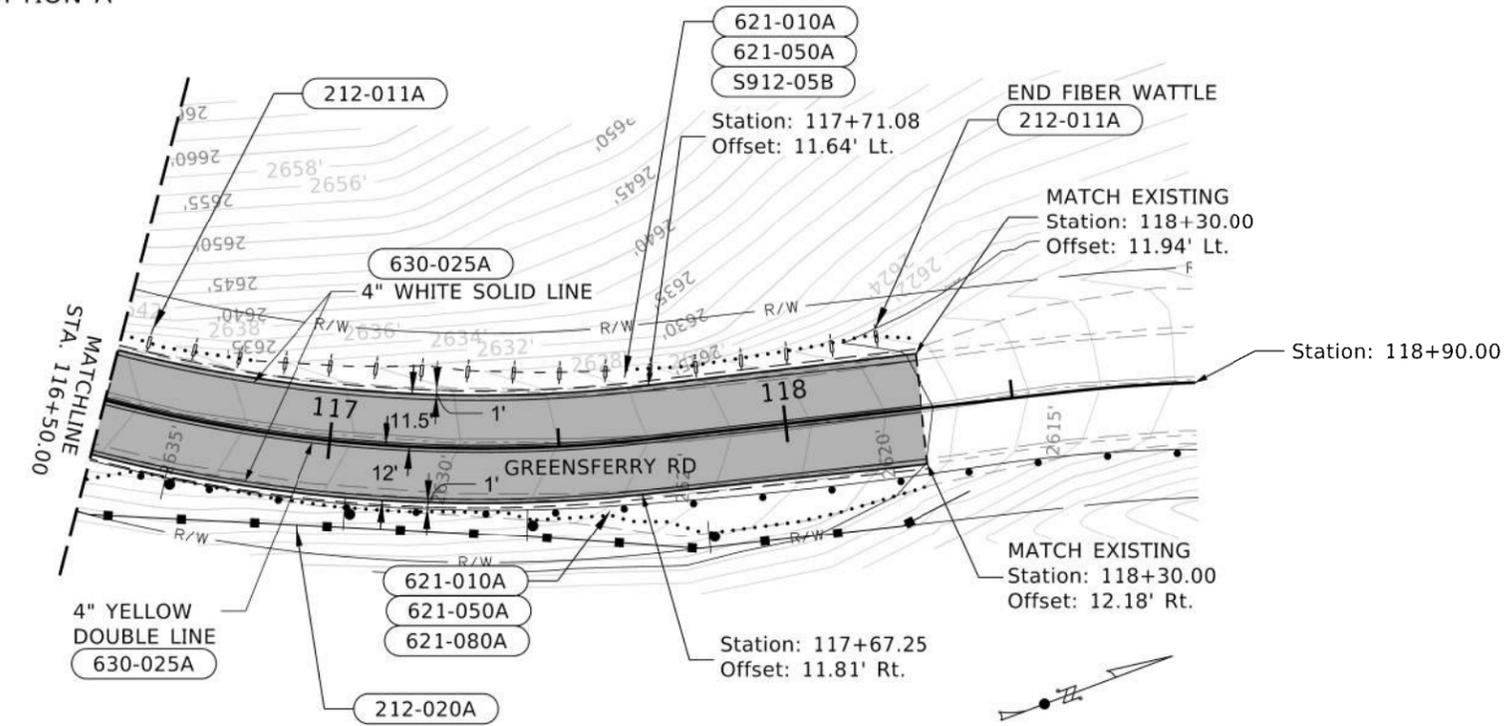
COUNTY KOOTENAI

KEY NUMBER 23285

SHEET 26 OF 45



ADDED OPTION A



212-011A FIBER WATTLE

5.00 FT	116+56.00, 12.20' LT
5.00 FT	116+67.00, 12.70' LT
5.00 FT	116+77.00, 12.90' LT
5.00 FT	116+88.00, 13.20' LT
5.00 FT	116+98.00, 13.80' LT
5.00 FT	117+09.00, 14.20' LT
5.00 FT	117+19.00, 14.40' LT
5.00 FT	117+30.00, 14.40' LT
5.00 FT	117+40.00, 14.10' LT
5.00 FT	117+51.00, 13.60' LT
5.00 FT	117+61.00, 13.30' LT
5.00 FT	117+72.00, 12.70' LT
5.00 FT	117+82.00, 12.10' LT
5.00 FT	117+92.00, 12.50' LT
5.00 FT	118+02.00, 12.80' LT
5.00 FT	118+12.00, 13.30' LT
5.00 FT	118+22.00, 14.30' LT

212-020A SILT FENCE

199.00 FT	116+50.00, 24.86' RT TO 118+38.73, 19.00' RT
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621-010A SEEDING

0.02 ACRE	116+50, 13.15' RT TO 118+30.00, 13.15' RT
0.02 ACRE	116+50.00, 12.30' LT TO 118+30.00, 13.90' LT

621-050A SOIL AMENDMENTS

0.02 ACRE	116+50, 13.15' RT TO 118+30.00, 13.15' RT
0.02 ACRE	116+50.00, 12.30' LT TO 118+30.00, 13.90' LT

621-080A TURF REINFORCEMENT MATS

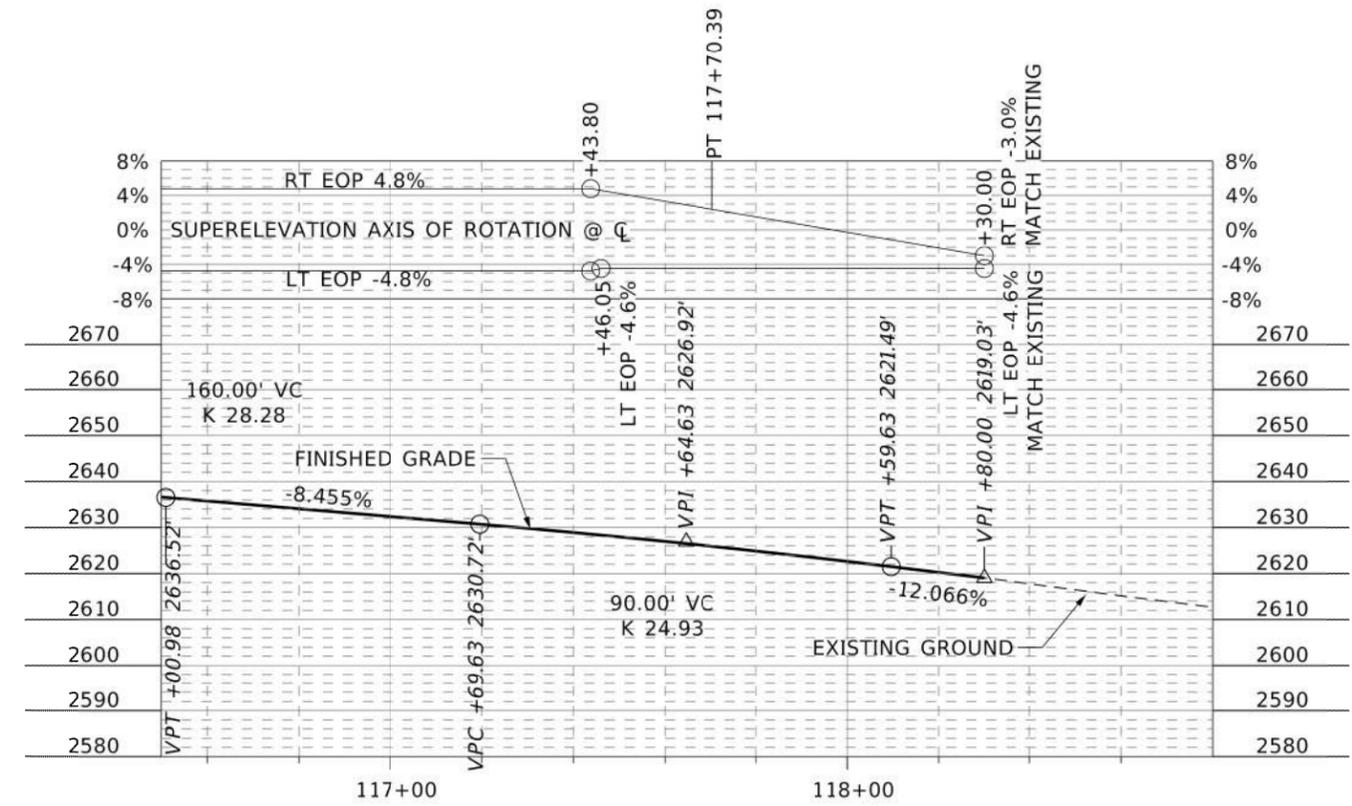
91.00 SY	116+50, 13.15' RT TO 118+30.00, 13.15' RT
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630-025A LONGITUDINAL PAVEMENT MARKING - WATERBORNE

352.00 FT	116+50.00, 11.00' LT TO 118+30.00, 10.49' LT
720.00 FT	116+50.00, 0.19' RT TO 118+30.00, 0.06' RT
369.00 FT	116+50.00, 11.00' RT TO 118+30.00, 11.09' RT

S912-05B SP - ROCK MULCH

82.00 SY	116+50.00, 12.30' LT TO 118+30.00, 13.90' LT
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REVISIONS			
NO	DATE	BY	DESCRIPTION

DESIGNED HDG
DESIGN CHECKED BKK
DETAILED BPRR
DRAWING CHECKED KPS

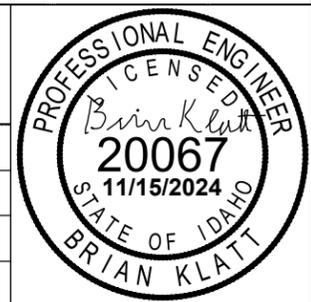
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IDAHO TRANSPORTATION DEPARTMENT
 YOUR Safety - YOUR Mobility - YOUR Economic Opportunity
J-U-B ENGINEERS, INC.

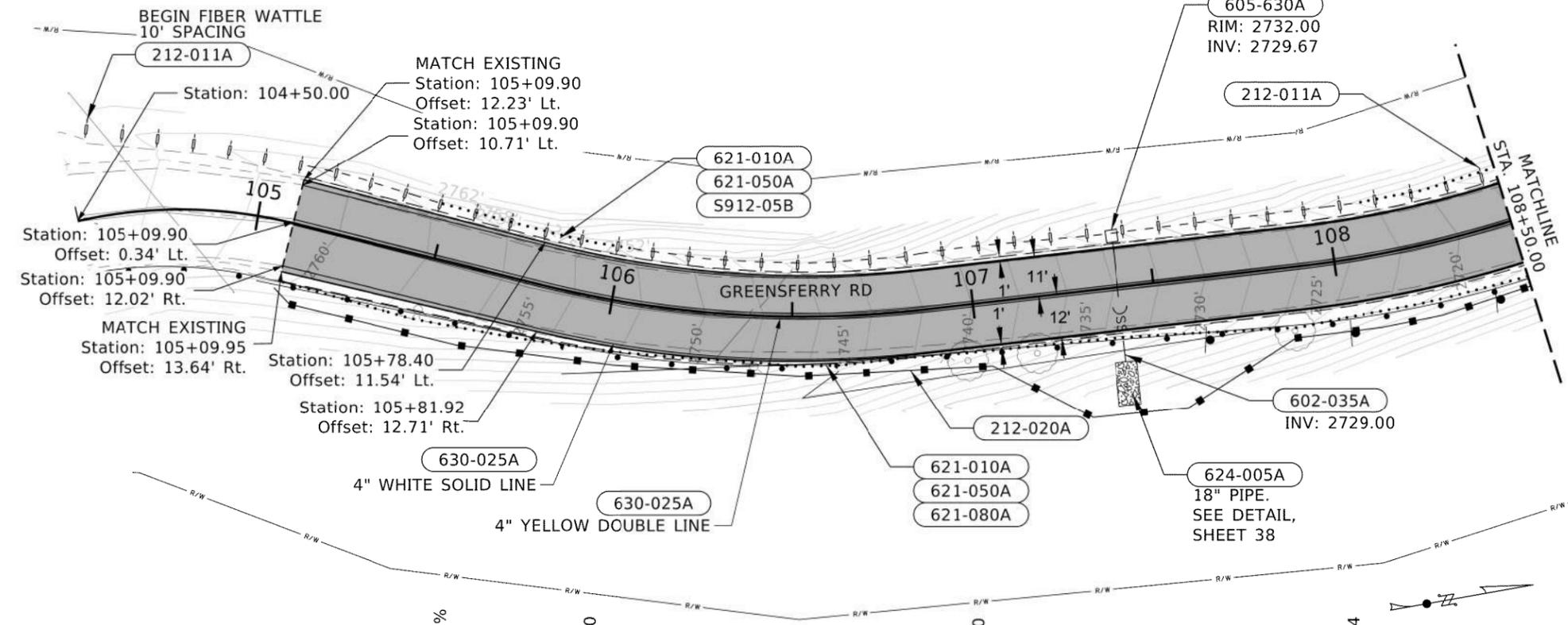
PROJECT NO. A023(285)

ADD OPT - A PLAN AND PROFILE
S GREENSFERRY RD GUARDRAIL, WORLEY HD
STA. 116+50.00 TO STA. 118+80.00

ENGLISH
COUNTY KOOTENAI
KEY NUMBER 23285
SHEET 27 OF 45

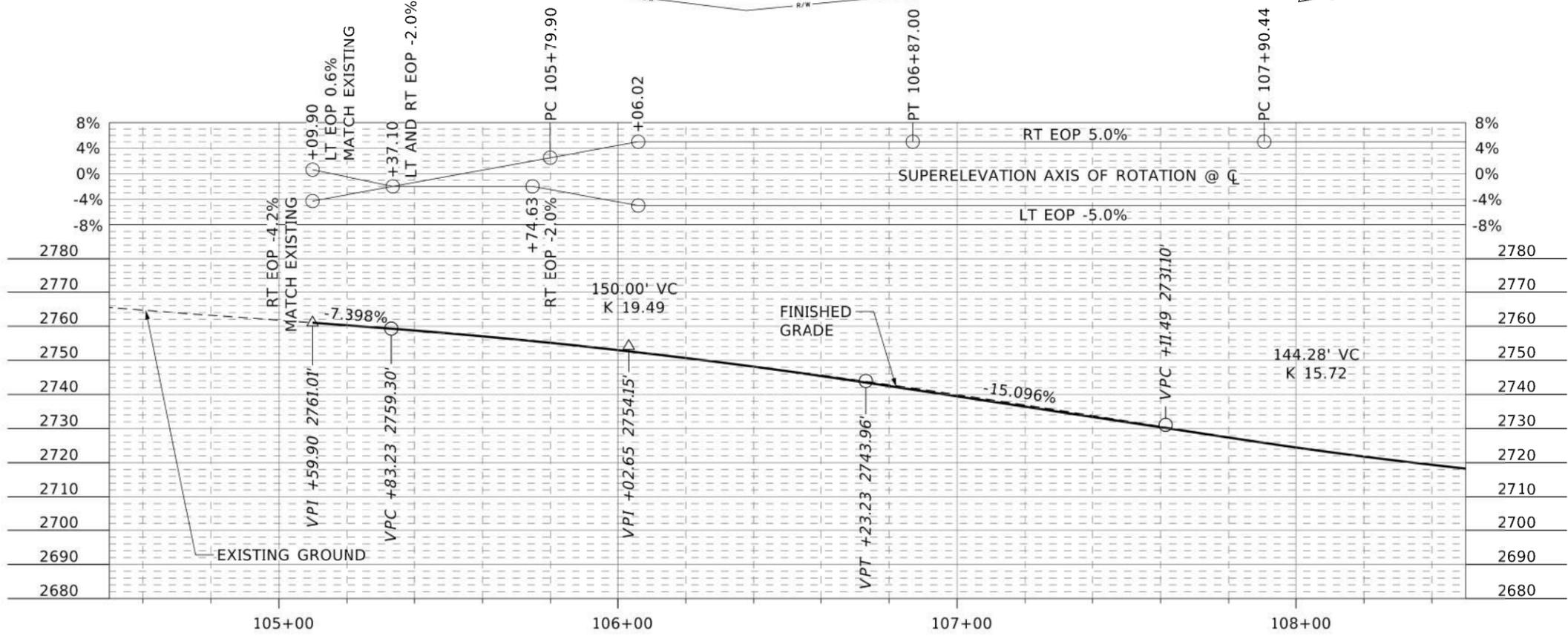


ADDED OPTION B



- 212-011A**
BEGIN FIBER WATTLE
10' SPACING
- 212-095A**
605-630A
RIM: 2732.00
INV: 2729.67
- 621-010A**
621-050A
S912-05B
- 621-010A SEEDING**
0.02 ACRE 105+09.90, 16.20' RT TO 108+50.00, 12.70' RT
0.03 ACRE 105+09.90, 13.15' LT TO 108+50.00, 12.00' LT
- 621-050A SOIL AMENDMENTS**
0.02 ACRE 105+09.90, 16.20' RT TO 108+50.00, 12.70' RT
0.03 ACRE 105+09.90, 13.15' LT TO 108+50.00, 12.00' LT
- 621-080A TURF REINFORCEMENT MATS**
95.00 SY 105+09.90, 16.20' RT TO 108+50.00, 12.70' RT
- 624-005A LOOSE RIPRAP**
1.00 CY 107+40.06, 20.54' RT
- 630-025A LONGITUDINAL PAVEMENT MARKING - WATERBORNE**
669.00 FT 105+09.90, 10.71' LT TO 108+50.00, 11.00' LT
1361.00 FT 105+09.91, 0.34' LT TO 108+50.00, 0.00' RT
693.00 FT 105+09.90, 12.02' RT 108+50.00, 11.00' RT
- S912-05B SP - ROCK MULCH**
141.00 SY 105+09.90, 13.15' LT TO 108+50.00, 12.00' LT

- 212-011A FIBER WATTLE**
5.00 FT 104+56.00, 22.20' LT
5.00 FT 104+64.00, 19.50' LT
5.00 FT 104+73.00, 17.40' LT
5.00 FT 104+82.00, 15.90' LT
5.00 FT 104+90.30, 14.80' LT
5.00 FT 104+99.00, 13.90' LT
5.00 FT 105+08.00, 13.70' LT
5.00 FT 105+18.00, 13.90' LT
5.00 FT 105+28.00, 13.70' LT
5.00 FT 105+38.00, 13.10' LT
5.00 FT 105+48.00, 12.60' LT
5.00 FT 105+58.00, 12.40' LT
5.00 FT 105+68.00, 12.20' LT
5.00 FT 105+78.00, 12.00' LT
5.00 FT 105+88.00, 12.30' LT
5.00 FT 105+99.00, 12.40' LT
5.00 FT 106+10.00, 12.30' LT
5.00 FT 106+20.00, 12.50' LT
5.00 FT 106+30.00, 11.90' LT
5.00 FT 106+41.00, 12.20' LT
5.00 FT 106+51.00, 11.90' LT
5.00 FT 106+62.10, 12.30' LT
5.00 FT 106+73.00, 12.60' LT
5.00 FT 106+83.00, 12.80' LT
5.00 FT 106+93.00, 13.00' LT
5.00 FT 107+03.00, 13.30' LT
5.00 FT 107+13.00, 13.50' LT
5.00 FT 107+23.00, 13.40' LT
5.00 FT 107+33.00, 13.30' LT
5.00 FT 107+43.00, 13.20' LT
5.00 FT 107+53.00, 13.10' LT
5.00 FT 107+63.00, 13.04' LT
5.00 FT 107+73.00, 12.70' LT
5.00 FT 107+83.00, 12.30' LT
5.00 FT 107+93.00, 12.50' LT
5.00 FT 108+04.00, 12.70' LT
5.00 FT 108+14.00, 12.60' LT
5.00 FT 108+25.00, 12.10' LT
5.00 FT 108+35.00, 11.80' LT
5.00 FT 108+46.00, 11.50' LT



- 212-020A SILT FENCE**
361.00 FT 105+08.81, 18.40' RT TO 108+50.00, 18.61' RT
- 212-095A INLET PROTECTION**
1.00 EACH 107+40.00, 14.13' LT
- 602-035A 18" PIPE CULVERT - POLYMER COATED**
33.00 FT 107+40.00, 14.13' LT TO 107+40.06, 20.54' RT
- 605-630A INLET TYPE 8**
1.00 EACH 107+40.00, 14.13' LT

REVISIONS			
NO	DATE	BY	DESCRIPTION

DESIGNED HDG	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED BKK	CADD FILE NAME 23285_C3_PLAN_001.dgn
DETAILED BPRR	DRAWING DATE: OCTOBER 2024
DRAWING CHECKED KPS	

IDAHO TRANSPORTATION DEPARTMENT

YOUR Safety - YOUR Mobility - YOUR Economic Opportunity

J-U-B ENGINEERS, INC.

PROJECT NO. A023(285)

ADD OPT B - PLAN AND PROFILE

S GREENSFERRY RD GUARDRAIL, WORLEY HD

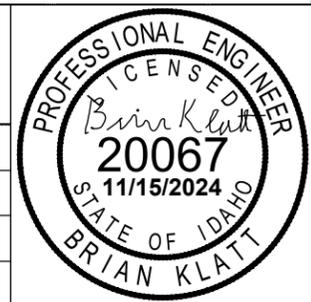
STA. 104+50.00 TO STA. 108+50.00

ENGLISH

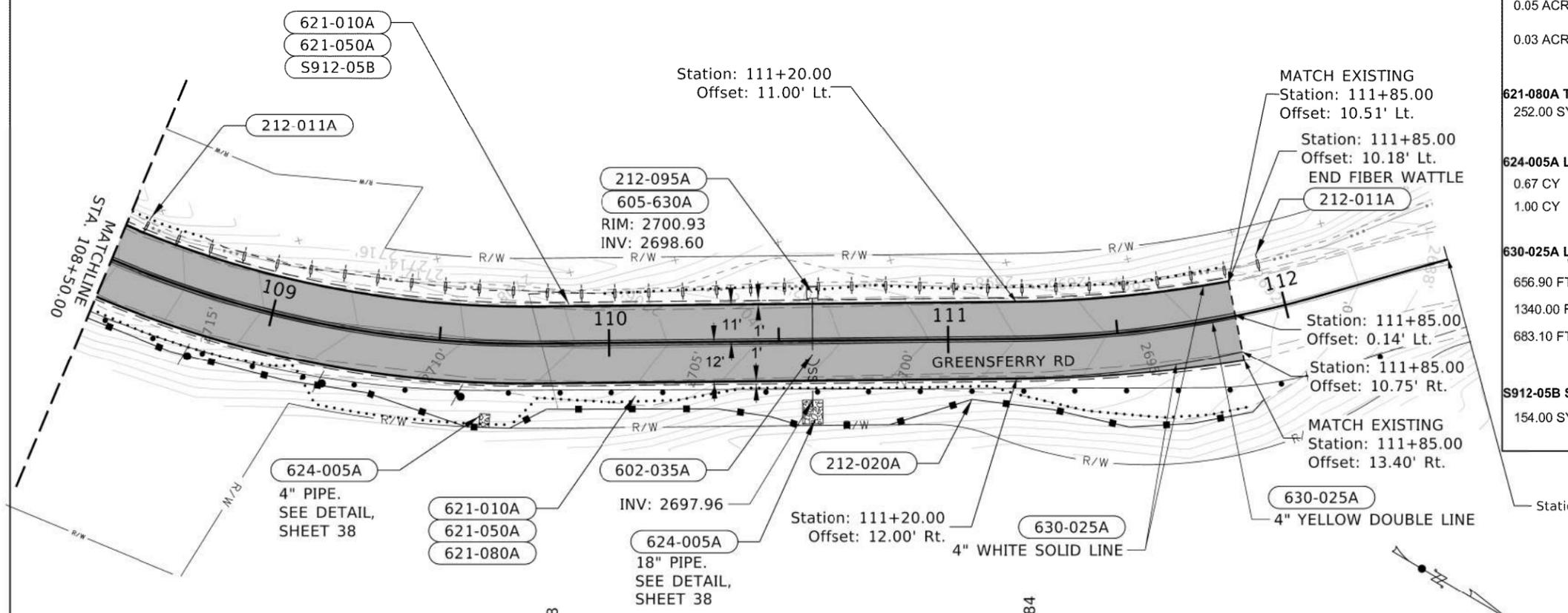
COUNTY KOOTENAI

KEY NUMBER 23285

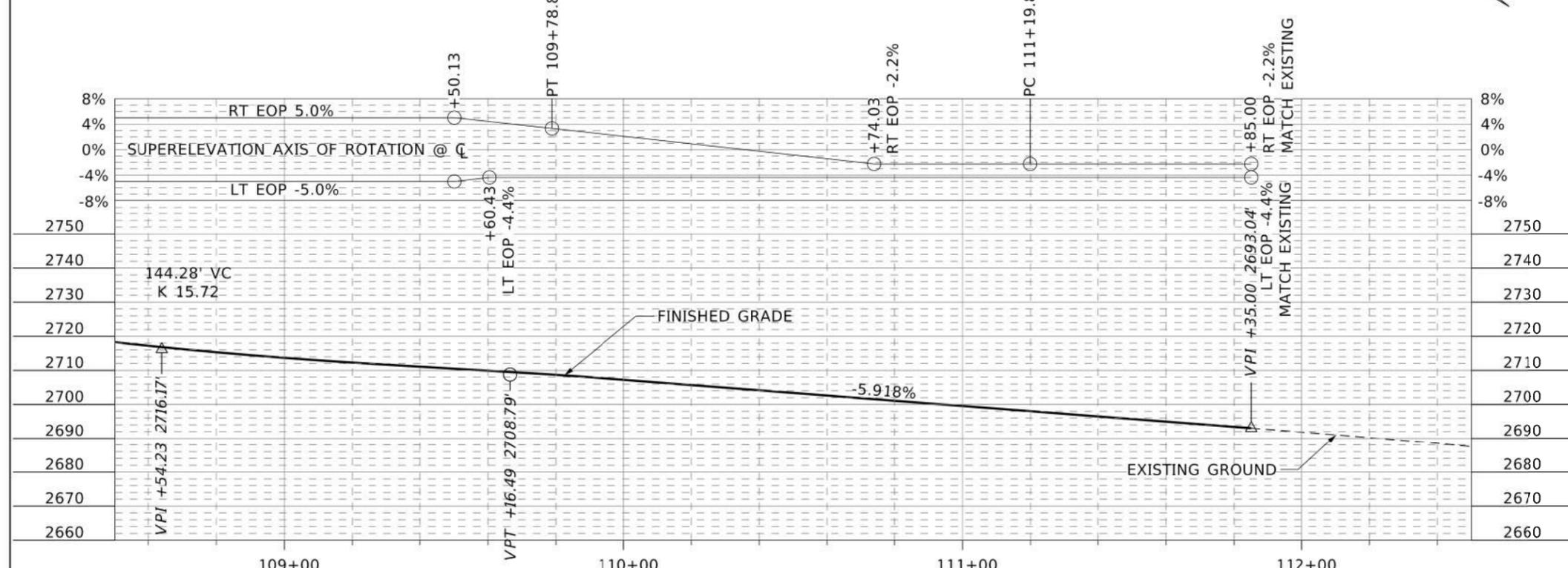
SHEET 28 OF 45



ADDED OPTION B



- 621-050A SOIL AMENDMENTS**
0.05 ACRE 108+50.00, 12.70' RT TO 111+85.00, 14.40' RT
0.03 ACRE 108+50.00, 12.00' LT TO 111+85.00, 11.50' LT
- 621-080A TURF REINFORCEMENT MATS**
252.00 SY 108+50.00, 12.70' RT TO 111+85.00, 14.40' RT
- 624-005A LOOSE RIPRAP**
0.67 CY 116+40.00, 15.00' RT
1.00 CY 110+59.81, 20.53' RT
- 630-025A LONGITUDINAL PAVEMENT MARKING - WATERBORNE**
656.90 FT 108+50.00, 11.00' LT TO 111+85.00, 10.18' LT
1340.00 FT 108+50.00, 0.00' RT TO 111+85.00, 0.14' LT
683.10 FT 108+50.00, 11.00' RT TO 111+85.00, 10.75' RT
- S912-05B SP - ROCK MULCH**
154.00 SY 108+50.00, 12.00' LT TO 111+85.00, 11.50' LT
- 212-011A FIBER WATTLE**
5.00 FT 108+56.00, 10.80' LT
5.00 FT 108+67.00, 10.40' LT
5.00 FT 108+77.00, 11.00' LT
5.00 FT 108+88.00, 11.70' LT
5.00 FT 108+98.00, 12.00' LT
5.00 FT 109+09.00, 12.70' LT
5.00 FT 109+19.00, 13.30' LT
5.00 FT 109+29.00, 13.60' LT
5.00 FT 109+40.00, 13.60' LT
5.00 FT 109+51.00, 13.50' LT
5.00 FT 109+61.00, 13.60' LT
5.00 FT 109+71.00, 13.20' LT
5.00 FT 109+82.00, 12.60' LT
5.00 FT 109+92.00, 12.10' LT
5.00 FT 110+02.00, 12.20' LT
5.00 FT 110+12.00, 12.30' LT
5.00 FT 110+22.00, 12.50' LT
5.00 FT 110+32.00, 12.80' LT
5.00 FT 110+42.00, 13.20' LT
5.00 FT 110+52.00, 13.50' LT
5.00 FT 110+62.00, 13.60' LT
5.00 FT 110+72.00, 13.60' LT
5.00 FT 110+82.00, 13.70' LT
5.00 FT 110+92.00, 13.40' LT
5.00 FT 111+02.00, 13.00' LT
5.00 FT 111+12.00, 12.60' LT
5.00 FT 111+22.00, 12.50' LT
5.00 FT 111+32.00, 12.50' LT
5.00 FT 111+43.00, 12.20' LT
5.00 FT 111+53.00, 11.60' LT
5.00 FT 111+64.00, 11.70' LT
5.00 FT 111+74.00, 11.70' LT
5.00 FT 111+84.00, 11.40' LT
5.00 FT 111+95.00, 11.30' LT
- 212-020A SILT FENCE**
358.00 FT 108+50.00, 18.61' RT TO 111+88.12, 26.00' RT
- 212-095A INLET PROTECTION**
1.00 EACH 110+60.00, 14.13' LT
- 602-035A 18" PIPE CULVERT - POLYMER COATED**
33.00 FT 110+60.00, 14.13' LT TO 110+59.81, 20.53' RT
- 605-630A INLET TYPE 8**
1.00 EACH 110+60.00, 14.13' LT
- 621-010A SEEDING**
0.05 ACRE 108+50.00, 12.70' RT TO 111+85.00, 14.40' RT
0.03 ACRE 108+50.00, 12.00' LT TO 111+85.00, 11.50' LT



REVISIONS			
NO	DATE	BY	DESCRIPTION

DESIGNED HDG	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED BKK	CADD FILE NAME 23285_C3_PLAN_002.dgn
DETAILED BPRR	DRAWING DATE: OCTOBER 2024
DRAWING CHECKED KPS	

IDAHO TRANSPORTATION DEPARTMENT

YOUR Safety - YOUR Mobility - YOUR Economic Opportunity

J-U-B ENGINEERS, INC.

PROJECT NO. A023(285)

ADD OPT B - PLAN AND PROFILE

S GREENSFERRY RD GUARDRAIL, WORLEY HD

STA. 108+50.00 TO STA. 112+50.00

ENGLISH

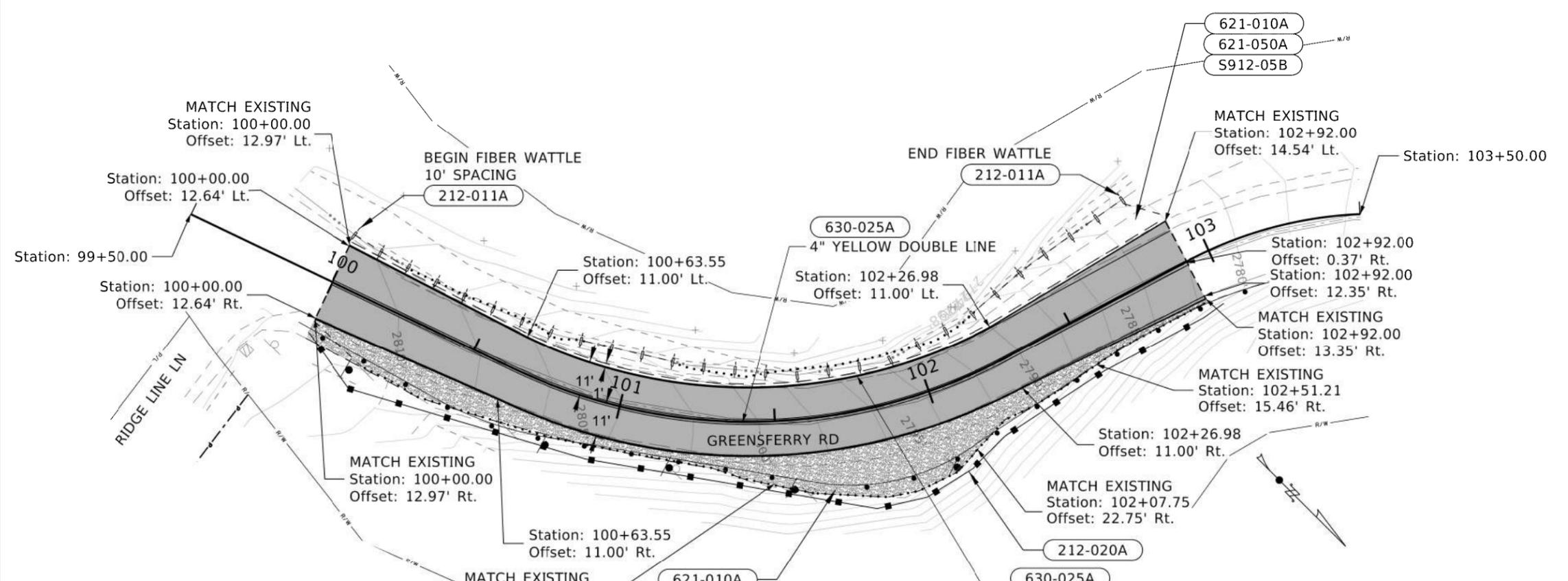
COUNTY KOOTENAI

KEY NUMBER 23285

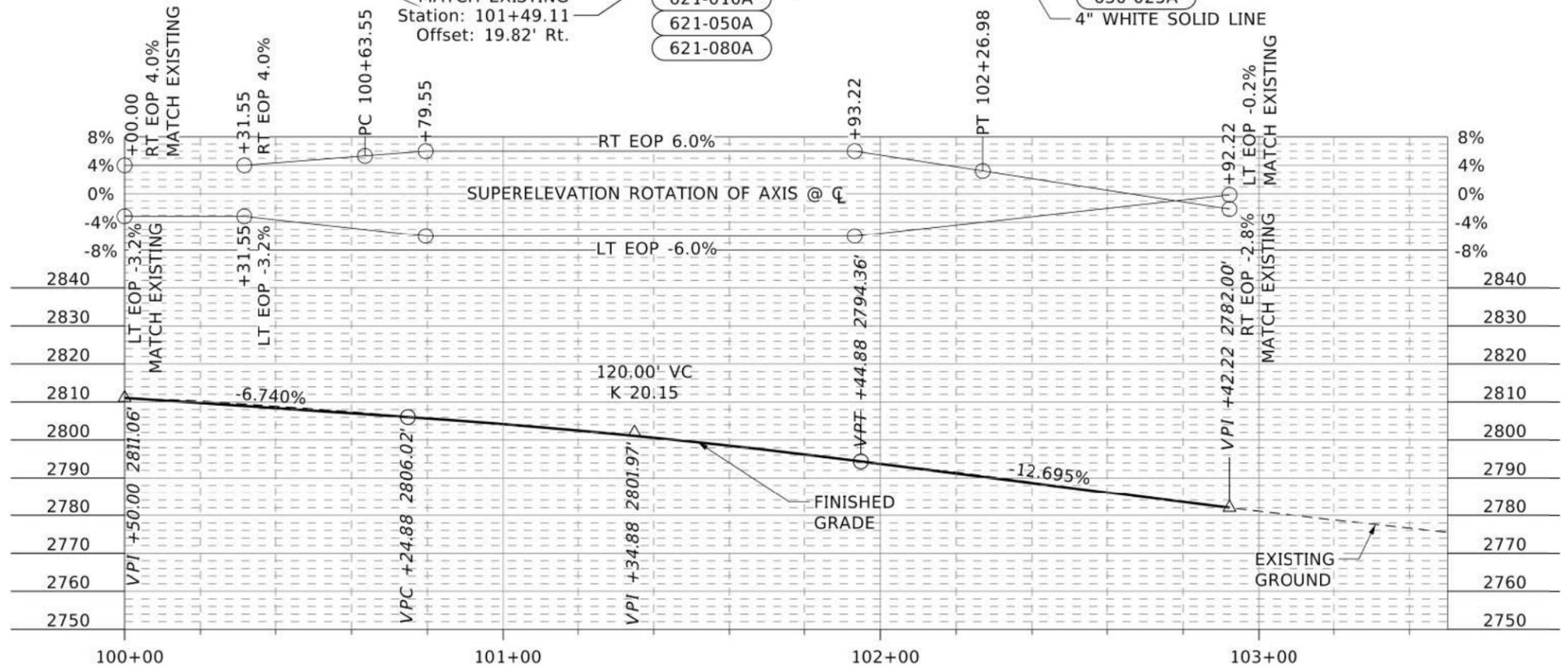
SHEET 29 OF 45



ADDED OPTION C



- 212-011A FIBER WATTLE**
 - 5.00 FT 100+00.00, 14.20' LT
 - 5.00 FT 100+10.00, 12.80' LT
 - 5.00 FT 100+20.00, 12.30' LT
 - 5.00 FT 100+30.00, 11.80' LT
 - 5.00 FT 100+40.00, 11.70' LT
 - 5.00 FT 100+50.00, 12.20' LT
 - 5.00 FT 100+60.00, 12.70' LT
 - 5.00 FT 100+70.00, 13.00' LT
 - 5.00 FT 100+82.00, 14.20' LT
 - 5.00 FT 100+93.00, 15.00' LT
 - 5.00 FT 101+03.00, 15.20' LT
 - 5.00 FT 101+14.00, 14.80' LT
 - 5.00 FT 101+26.00, 14.40' LT
 - 5.00 FT 101+37.00, 14.00' LT
 - 5.00 FT 101+47.00, 13.00' LT
 - 5.00 FT 101+59.00, 11.60' LT
 - 5.00 FT 101+69.00, 11.80' LT
 - 5.00 FT 101+80.00, 11.40' LT
 - 5.00 FT 101+91.00, 11.04' LT
 - 5.00 FT 102+02.00, 12.70' LT
 - 5.00 FT 102+13.00, 13.80' LT
 - 5.00 FT 102+24.00, 15.00' LT
 - 5.00 FT 102+34.00, 17.10' LT
 - 5.00 FT 102+44.00, 19.30' LT
 - 5.00 FT 102+54.00, 20.90' LT
 - 5.00 FT 102+63.00, 22.10' LT
 - 5.00 FT 102+73.00, 23.30' LT
 - 5.00 FT 102+83.00, 24.50' LT
- 212-020A SILT FENCE**
 - 326.00 FT 100+00.00, 17.55' RT TO 102+96.78, 17.20' RT
- 621-010A SEEDING**
 - 0.05 ACRE 100+00.00, 19.75' RT TO 102+92.00, 14.50' RT
 - 0.04 ACRE 100+00.00, 14.10' LT TO 102+92.00, 15.50' LT
- 621-050A SOIL AMENDMENT**
 - 0.05 ACRE 100+00.00, 19.75' RT TO 102+92.00, 14.50' RT
 - 0.04 ACRE 100+00.00, 14.10' LT TO 102+92.00, 15.50' LT
- 621-080A TURF REINFORCEMENT MATS**
 - 248.00 SY 100+00.00, 19.75' RT TO 102+92.00, 14.50' RT
- 630-025A LONGITUDINAL PAVEMENT MARKING - WATERBORNE**
 - 565.00 FT 100+00.00, 12.64' LT TO 102+92.06, 11.60' LT
 - 1170.00 FT 100+00.00, 0.00' RT TO 102+92.20, 0.37' RT
 - 605.00 FT 100+00.00, 12.64' RT TO 102+92.00, 12.35' RT
- S912-05B SP - ROCK MULCH**
 - 174.00 SY 100+00.00, 14.10' LT TO 102+92.00, 15.50' LT



REVISIONS			
NO	DATE	BY	DESCRIPTION

DESIGNED HDG	DESIGN CHECKED BKK	DETAILED BPRR	DRAWING CHECKED KPS
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SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY	CADD FILE NAME 23285_C4_PLAN_001.dgn	DRAWING DATE: OCTOBER 2024
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IDAHO TRANSPORTATION DEPARTMENT

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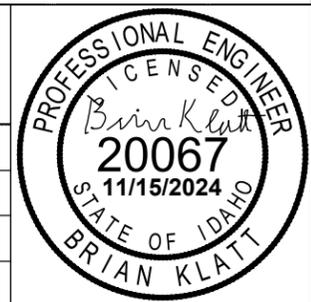
J-U-B ENGINEERS, INC.

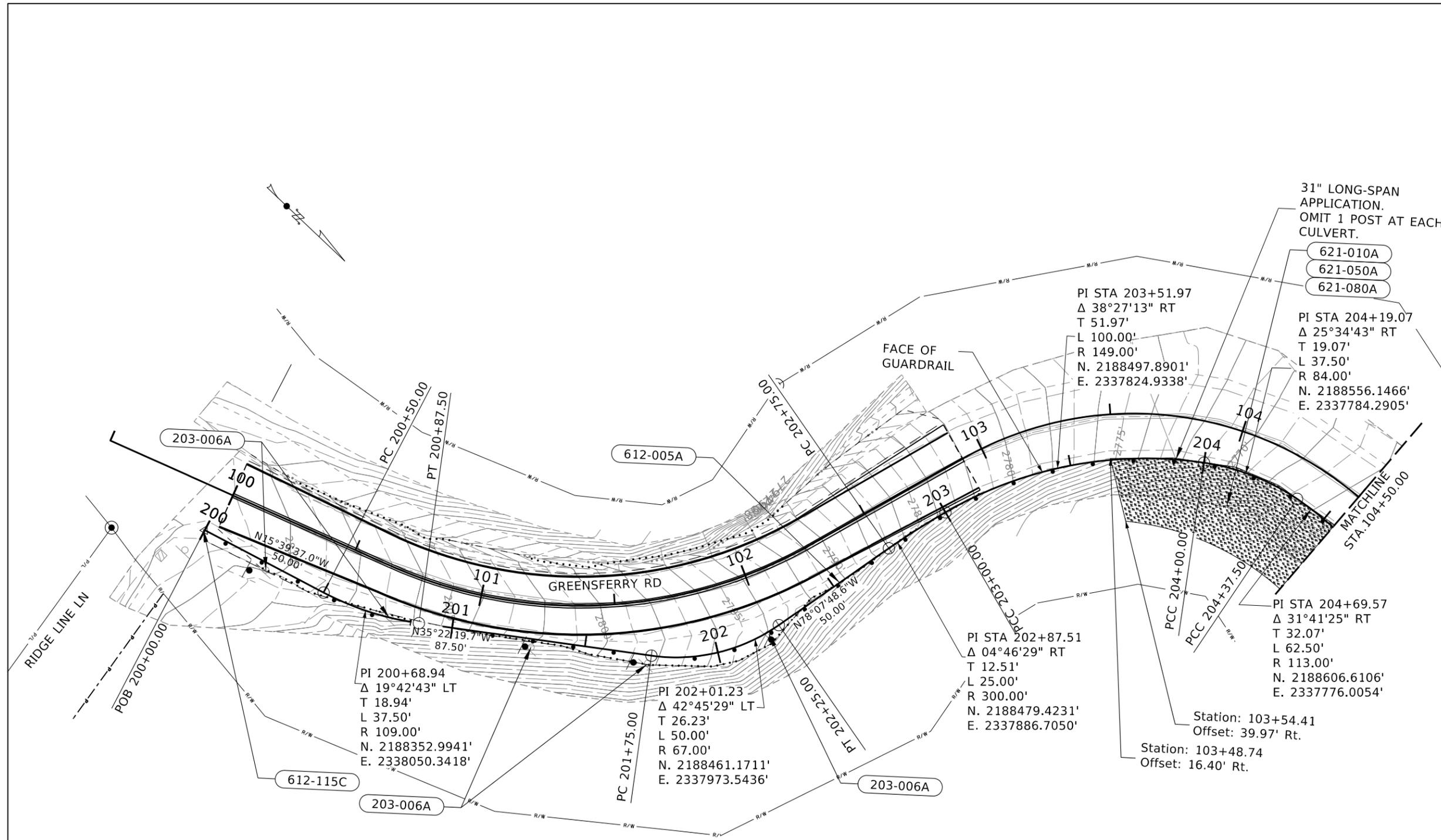
PROJECT NO. A023(285)

ADDED OPTION C - PLAN AND PROFILE

S GREENSFERRY RD GUARDRAIL,
WORLEY HD
STA. 100+00.00 TO STA. 103+50.00

ENGLISH
COUNTY KOOTENAI
KEY NUMBER 23285
SHEET 30 OF 45





- 203-006A REMOVAL OF SIGN**
- 1.00 EACH 100+22.44, 20.33' RT
 - 1.00 EACH 100+71.14, 17.68' RT
 - 1.00 EACH 101+20.29, 16.30' RT
 - 1.00 EACH 101+59.39, 23.02' RT
 - 1.00 EACH 102+00.49, 23.48' RT

612-005A W-BEAM GUARDRAIL - 31" WITH 11' STEEL POSTS

454.00 FT 99+95.65, 19.11' RT TO 104+50.00, 15.53' RT

612-115C GUARDRAIL TERMINAL, TANGENT

1.00 EACH 99+95.65, 19.11' RT

621-010A SEEDING

0.05 ACRE 103+48.75, 16.40' RT TO 104+50.00, 13.67' RT

621-050A SOIL AMENDMENTS

0.05 ACRE 103+48.75, 16.40' RT TO 104+50.00, 13.67' RT

621-080A TURF REINFORCEMENT MATS

242.00 SY 103+48.75, 16.40' RT TO 104+50.00, 13.67' RT

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED HDG
 DESIGN CHECKED BKK
 DETAILED BPRR
 DRAWING CHECKED KPS

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
 CADD FILE NAME 23285_GPLAN_001.dgn
 DRAWING DATE: OCTOBER 2024

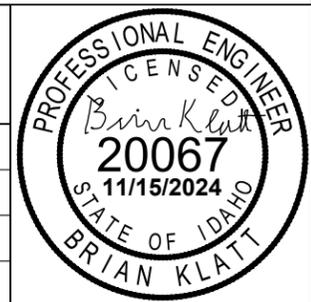
IDAHO TRANSPORTATION DEPARTMENT
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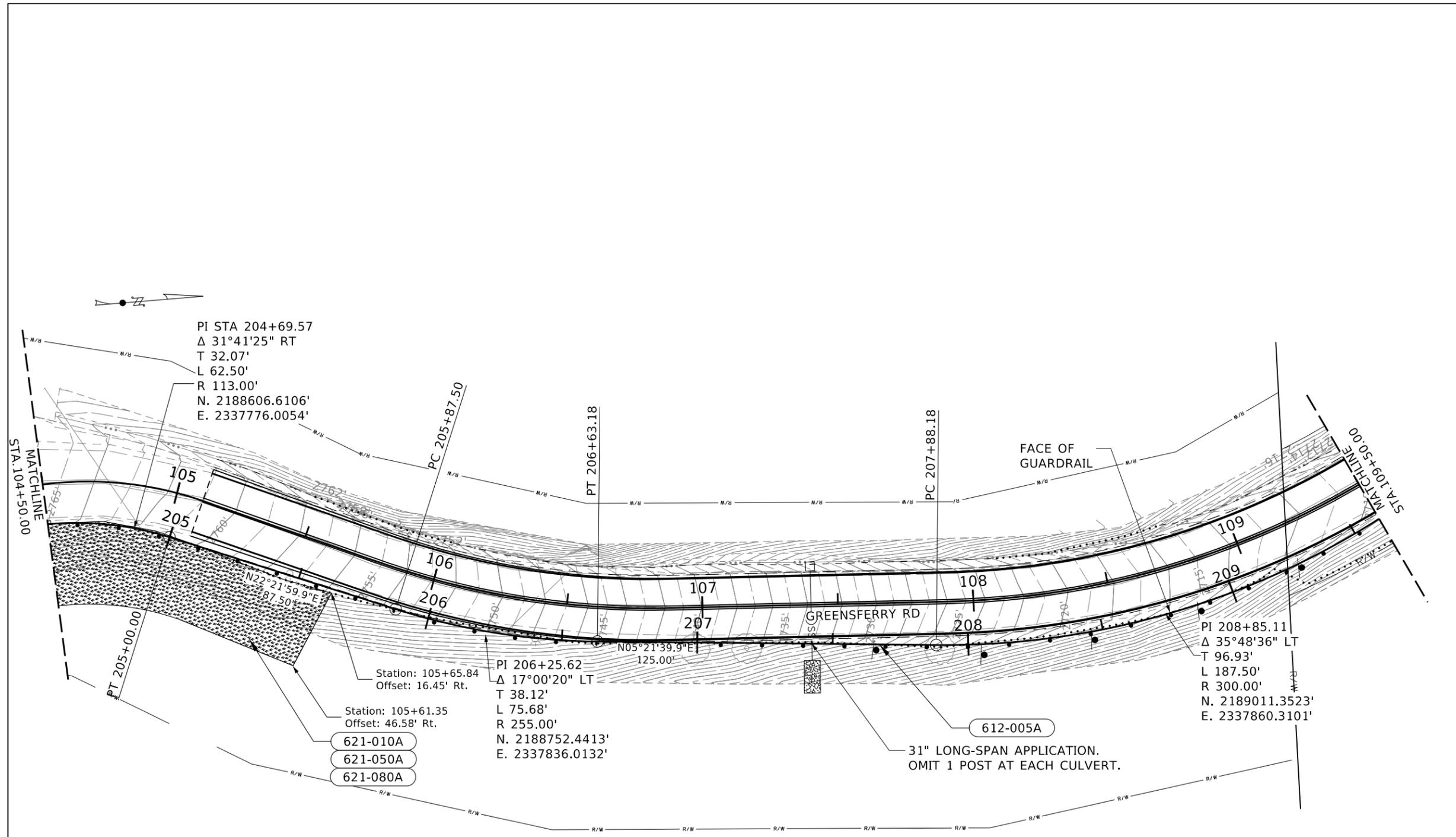
J-U-B ENGINEERS, INC.

PROJECT NO. A023(285)

BASE SET - GUARDRAIL PLAN
 S GREENSFERRY RD GUARDRAIL, WORLEY HD
 STA. 100+00.00 TO STA. 104+50.00

ENGLISH
 COUNTY KOOTENAI
 KEY NUMBER 23285
 SHEET 31 OF 45





- 612-005A W-BEAM GUARDRAIL - 31" WITH 11' STEEL POSTS**
507.00 FT 104+50.00, 15.53' RT TO 109+50.00, 14+74' RT
- 621-010A SEEDING**
0.07 ACRE 104+50.00, 13.67' RT TO 105+65.84, 16.45' RT
- 621-050A SOIL AMENDMENTS**
0.07 ACRE 104+50.00, 13.67' RT TO 105+65.84, 16.45' RT
- 621-080A TURF REINFORCEMENT MATS**
339.00 SY 104+50.00, 13.67' RT TO 105+65.84, 16.45' RT

- 621-010A
- 621-050A
- 621-080A

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED HDG	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED BKK	CADD FILE NAME 23285_GPLAN_002.dgn
DETAILED BPRR	DRAWING DATE: OCTOBER 2024
DRAWING CHECKED KPS	

IDAHO TRANSPORTATION DEPARTMENT

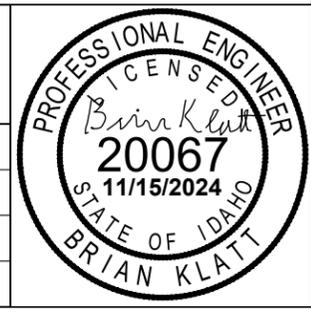
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J-U-B ENGINEERS, INC.

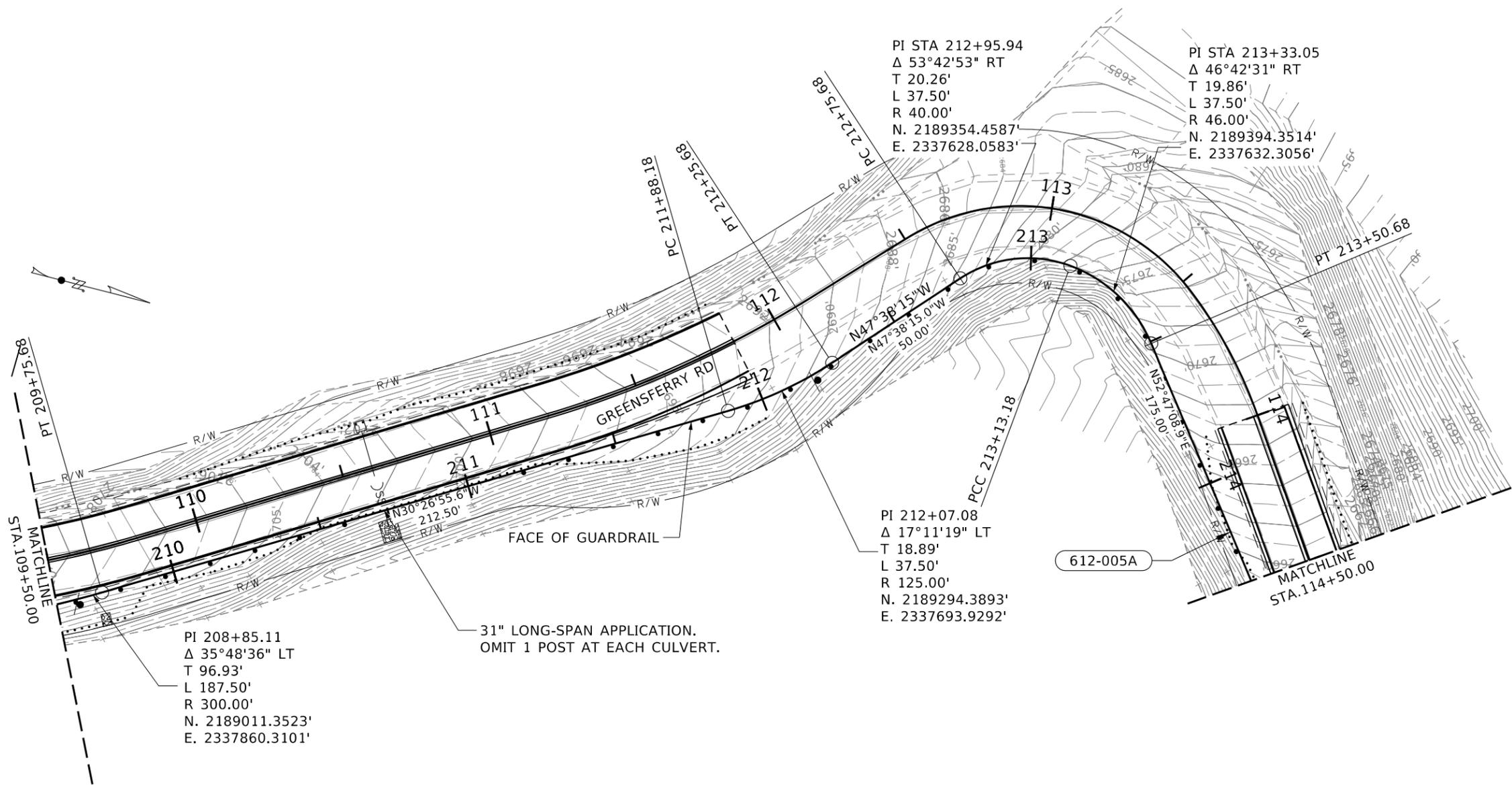
PROJECT NO.	A023(285)
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BASE SET - GUARDRAIL PLAN
S GREENSFERRY RD GUARDRAIL, WORLEY HD
STA. 104+50.00 TO STA. 109+50.00

ENGLISH
COUNTY KOOTENAI
KEY NUMBER 23285
SHEET 32 OF 45



612-005A W-BEAM GUARDRAIL
 474.00 FT 109+50.00, 14.74' RT TO 114+50.00,
 20.01' RT



REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED HDG
 DESIGN CHECKED BKK
 DETAILED BPRR
 DRAWING CHECKED KPS

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
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IDAHO TRANSPORTATION DEPARTMENT

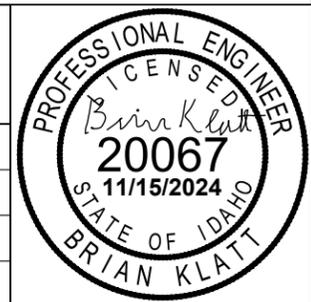
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J-U-B ENGINEERS, INC.

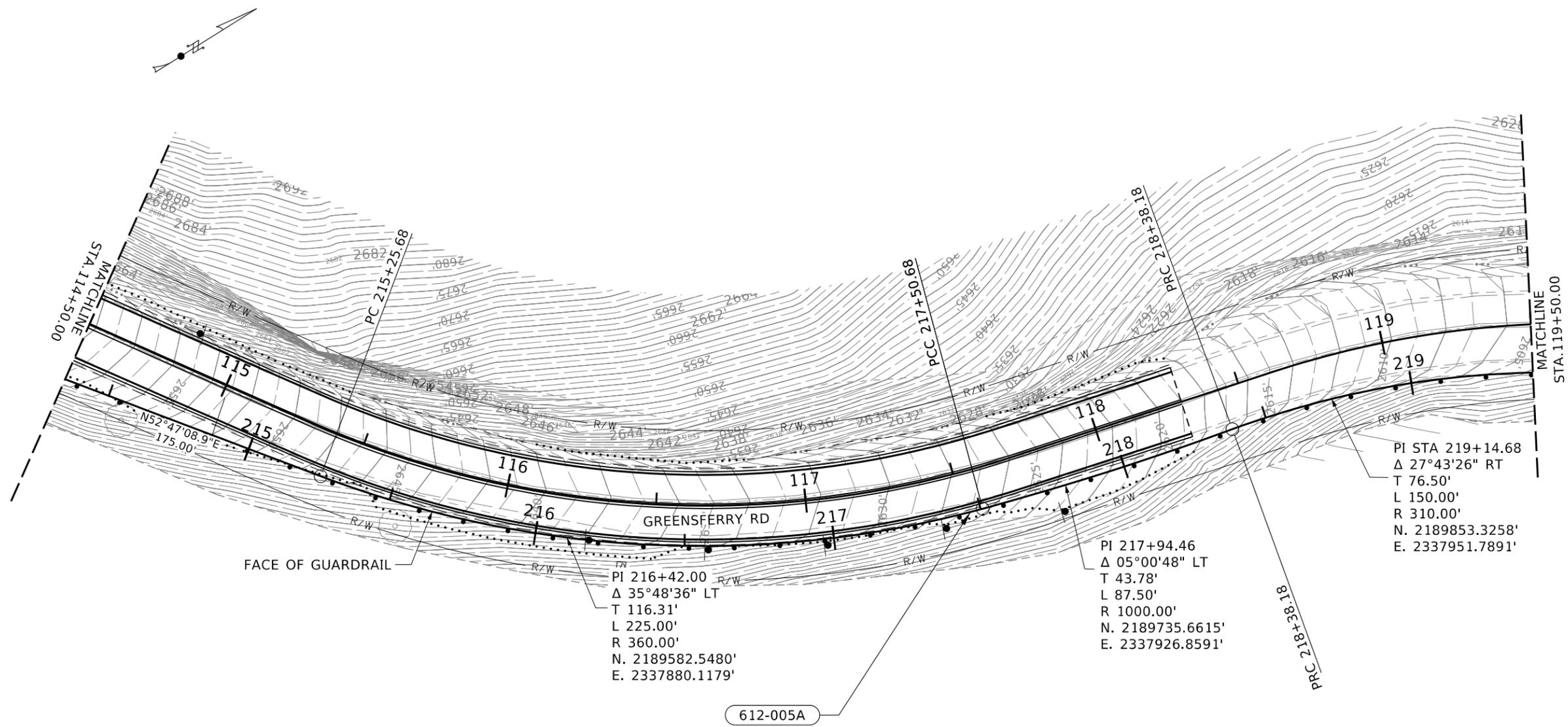
PROJECT NO.
 A023(285)

BASE SET - GUARDRAIL PLAN
 S GREENSFERRY RD GUARDRAIL,
 WORLEY HD
 STA. 109+50.00 TO STA. 114+50.00

ENGLISH
 COUNTY KOOTENAI
 KEY NUMBER 23285
 SHEET 33 OF 45



612-005A W-BEAM GUARDRAIL
 507.00 FT 114+50.00, 20.01' RT TO 119+50.00,
 16.10' RT



PI STA 219+14.68
 Δ 27°43'26" RT
 T 76.50'
 L 150.00'
 R 310.00'
 N. 2189853.3258'
 E. 2337951.7891'

PI 217+94.46
 Δ 05°00'48" LT
 T 43.78'
 L 87.50'
 R 1000.00'
 N. 2189735.6615'
 E. 2337926.8591'

PI 216+42.00
 Δ 35°48'36" LT
 T 116.31'
 L 225.00'
 R 360.00'
 N. 2189582.5480'
 E. 2337880.1179'

612-005A

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED HDG
 DESIGN CHECKED BKK
 DETAILED BPRR
 DRAWING CHECKED KPS

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
 CADD FILE NAME 23285_GPLAN_004.dgn
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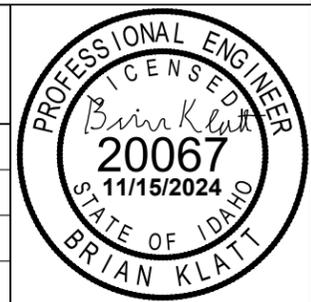
IDAHO TRANSPORTATION DEPARTMENT
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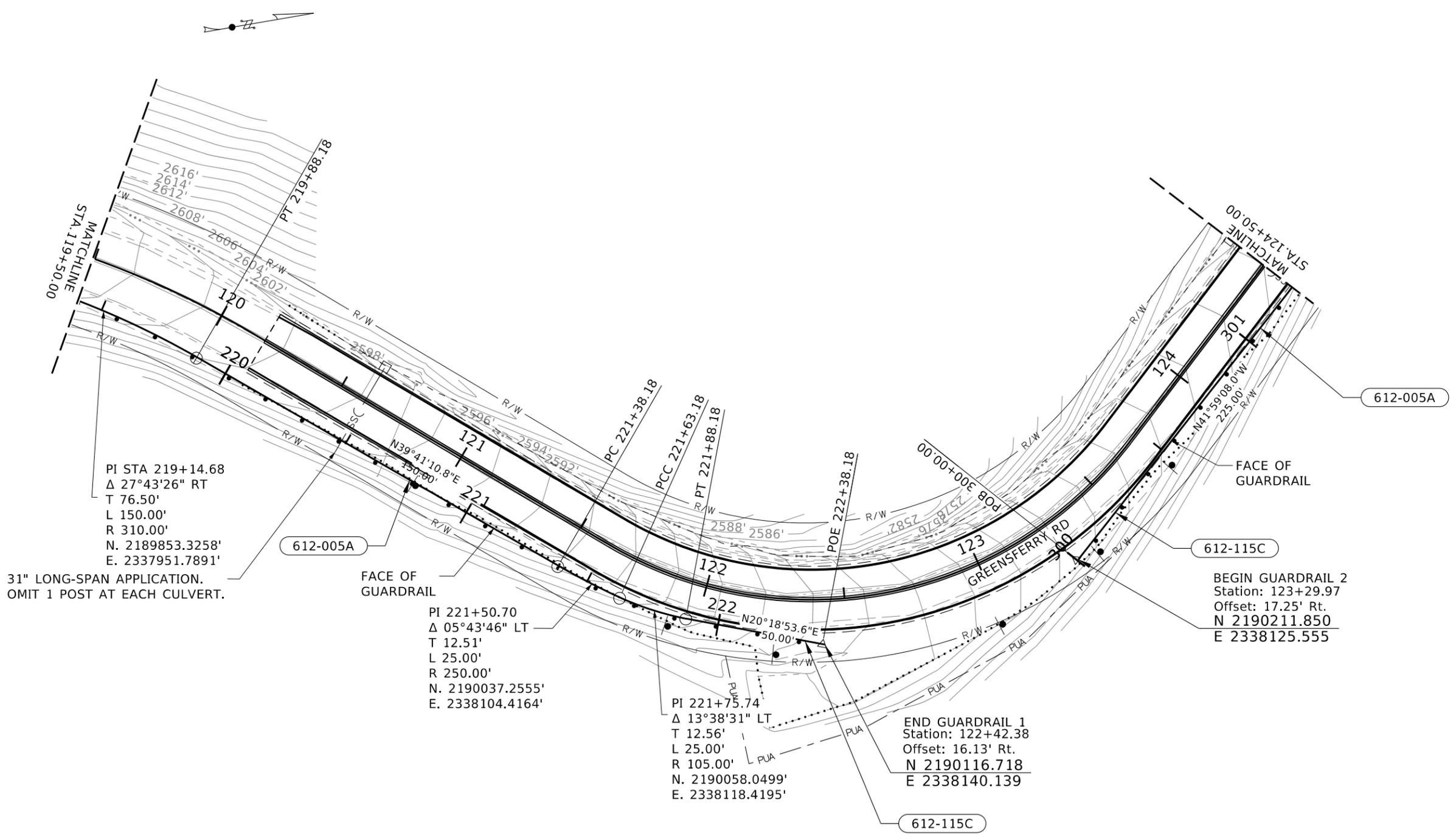
J-U-B ENGINEERS, INC.

PROJECT NO.
 A023(285)

BASE SET - GUARDRAIL PLAN
 S GREENSFERRY RD GUARDRAIL,
 WORLEY HD
 STA. 114+50.00 TO STA. 119+50.00

ENGLISH
 COUNTY KOOTENAI
 KEY NUMBER 23285
 SHEET 34 OF 45





612-005A W-BEAM GUARDRAIL	
298.00 FT	119+50.00, 16.10' RT TO 122+41.39, 18.72' RT
125.00 FT	123+30.42, 18.96' RT TO 124+50.00, 13.89' RT
612-115C GUARDRAIL TERMINAL, TANGENT	
1.00 EACH	122+41.39, 18.72' RT
1.00 EACH	123+30.42, 18.96' RT

PI STA 219+14.68
 Δ 27°43'26" RT
 T 76.50'
 L 150.00'
 R 310.00'
 N. 2189853.3258'
 E. 2337951.7891'

31" LONG-SPAN APPLICATION.
 OMIT 1 POST AT EACH CULVERT.

PI 221+50.70
 Δ 05°43'46" LT
 T 12.51'
 L 25.00'
 R 250.00'
 N. 2190037.2555'
 E. 2338104.4164'

PI 221+75.74
 Δ 13°38'31" LT
 T 12.56'
 L 25.00'
 R 105.00'
 N. 2190058.0499'
 E. 2338118.4195'

END GUARDRAIL 1
 Station: 122+42.38
 Offset: 16.13' Rt.
 N 2190116.718
 E 2338140.139

BEGIN GUARDRAIL 2
 Station: 123+29.97
 Offset: 17.25' Rt.
 N 2190211.850
 E 2338125.555

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED HDG	
DESIGN CHECKED BKK	
DETAILED BPRR	
DRAWING CHECKED KPS	

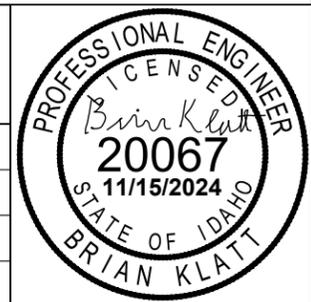
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IDAHO TRANSPORTATION DEPARTMENT
 YOUR Safety → YOUR Mobility → YOUR Economic Opportunity
J-U-B ENGINEERS, INC.

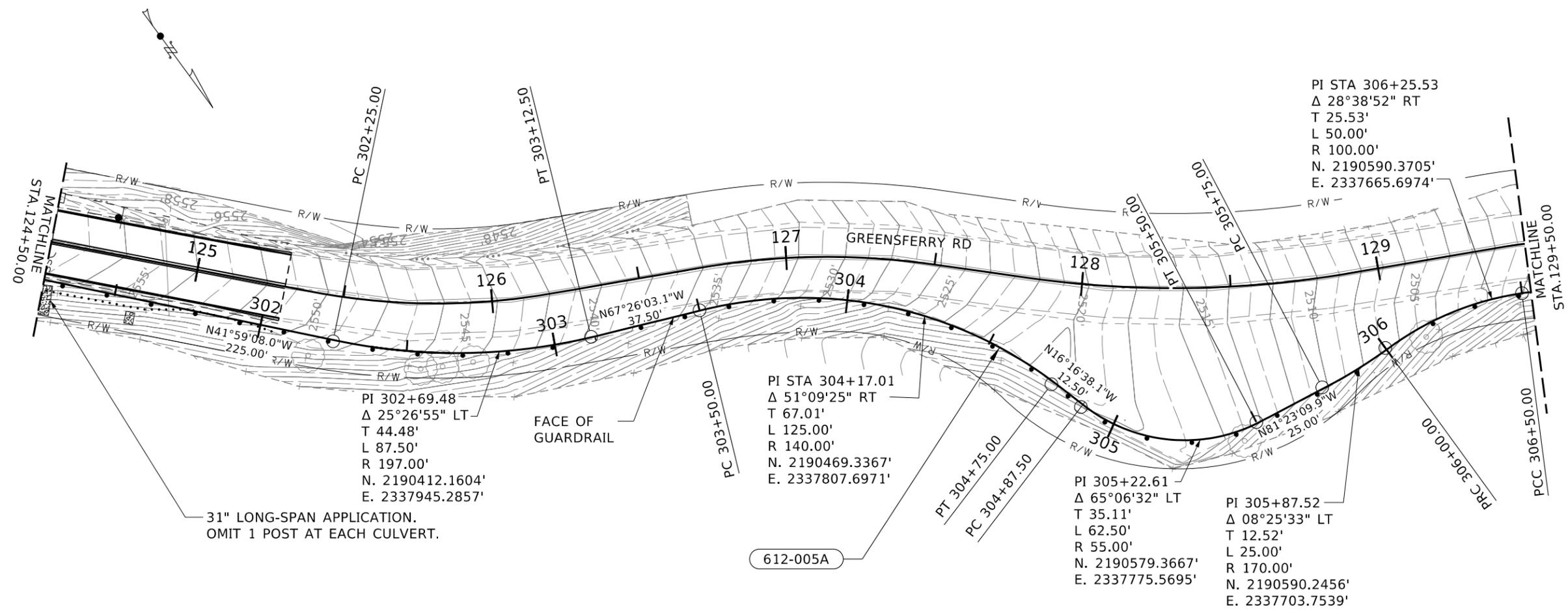
PROJECT NO.	
A023(285)	

BASE SET - GUARDRAIL PLAN	
S GREENSFERRY RD GUARDRAIL, WORLEY HD	
STA. 119+50.00 TO STA. 124+50.00	

ENGLISH
COUNTY KOOTENAI
KEY NUMBER 23285
SHEET 35 OF 45



612-005A W-BEAM GUARDRAIL
 528.00 FT 124+50.00, 13.89' RT TO 129+50.17,
 16.28' RT



31" LONG-SPAN APPLICATION.
 OMIT 1 POST AT EACH CULVERT.

612-005A

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED HDG	
DESIGN CHECKED BKK	
DETAILED BPRR	
DRAWING CHECKED KPS	

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY	
CADD FILE NAME 23285_GPLAN_006.dgn	
DRAWING DATE: OCTOBER 2024	

IDAHO TRANSPORTATION DEPARTMENT

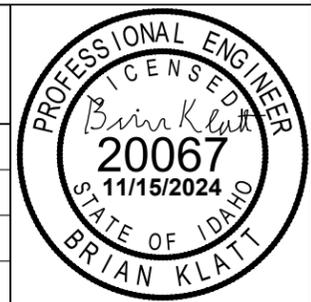
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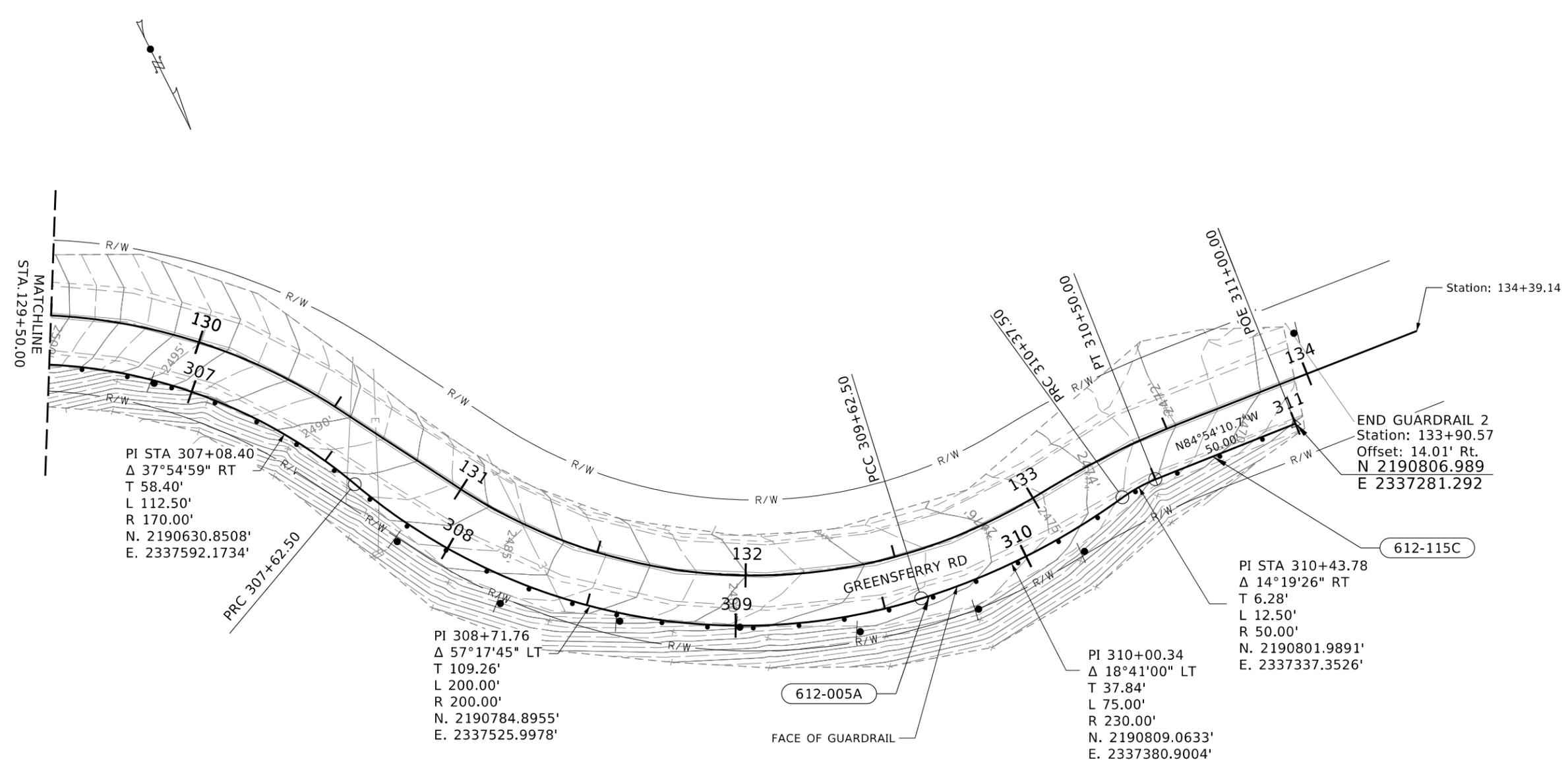
J-U-B ENGINEERS, INC.

PROJECT NO.	
A023(285)	

BASE SET - GUARDRAIL PLAN	
S GREENSFERRY RD GUARDRAIL, WORLEY HD	
STA. 124+50.00 TO STA. 129+50.00	

ENGLISH
COUNTY KOOTENAI
KEY NUMBER 23285
SHEET 36 OF 45





612-005A W-BEAM GUARDRAIL
 436.00 FT 129+50.00, 16.28' RT TO 133+79.25, 16.26' RT

612-115C GUARDRAIL TERMINAL, TANGENT
 1.00 EACH 133+79.25, 16.26' RT

END GUARDRAIL 2
 Station: 133+90.57
 Offset: 14.01' Rt.
 N 2190806.989
 E 2337281.292

PI STA 310+43.78
 Δ 14°19'26" RT
 T 6.28'
 L 12.50'
 R 50.00'
 N. 2190801.9891'
 E. 2337337.3526'

PI 310+00.34
 Δ 18°41'00" LT
 T 37.84'
 L 75.00'
 R 230.00'
 N. 2190809.0633'
 E. 2337380.9004'

PI 308+71.76
 Δ 57°17'45" LT
 T 109.26'
 L 200.00'
 R 200.00'
 N. 2190784.8955'
 E. 2337525.9978'

PI STA 307+08.40
 Δ 37°54'59" RT
 T 58.40'
 L 112.50'
 R 170.00'
 N. 2190630.8508'
 E. 2337592.1734'

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED HDG
 DESIGN CHECKED BKK
 DETAILED BPRR
 DRAWING CHECKED KPS

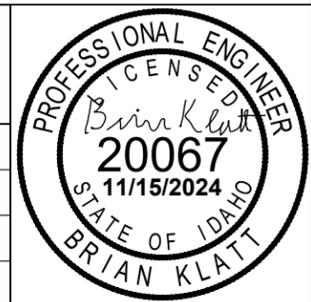
SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
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 DRAWING DATE: OCTOBER 2024

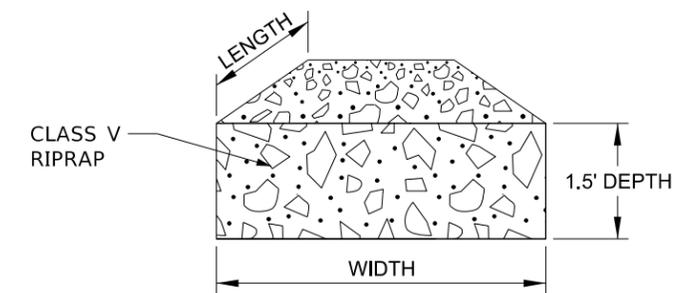
IDAHO TRANSPORTATION DEPARTMENT
 YOUR Safety → YOUR Mobility → YOUR Economic Opportunity
J-U-B ENGINEERS, INC.

PROJECT NO.
 A023(285)

BASE SET - GUARDRAIL PLAN
 S GREENSFERRY RD GUARDRAIL, WORLEY HD
 STA. 129+50.00 TO STA. 134+50.00

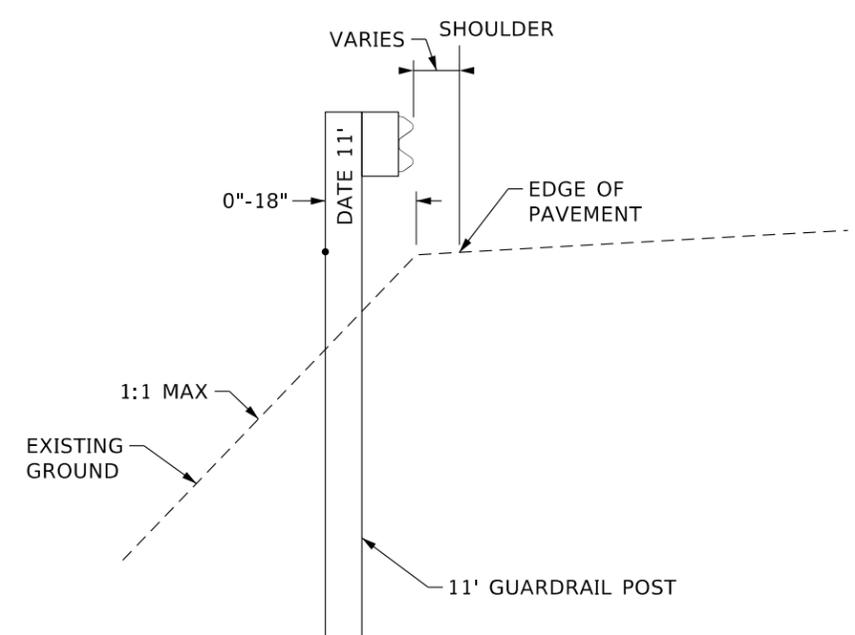
ENGLISH
 COUNTY KOOTENAI
 KEY NUMBER 23285
 SHEET 37 OF 45





PIPE DIA.	WIDTH	LENGTH
4"	3'	4'
18"	3'	6'

624-005A RIPRAP SECTION VIEW DETAIL
N.T.S.



NOTE:

1. STAMP THE STEEL GUARDRAIL POSTS WITH THE DATE (MONTH/YEAR) AND POST LENGTH IN A NOTICEABLE PLACE NEAR THE TOP AND BETWEEN THE WEBS OF THE POST. THE CHARACTERS SHALL BE 1/4" TO 3/8" IN HEIGHT.
2. THE GUARDRAIL POSTS SHALL BE PLUMBED AND SET VERTICALLY. REFER TO SECTION 612-GUARDRAIL, OF THE ITD STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
3. GUARDRAIL POST SPACING SHALL BE 6'-3" C.T.C. UNLESS OTHERWISE SHOWN.
4. RETAIN AND PROTECT ALL UNDERGROUND UTILITIES.

612-005A W-BEAM GUARDRAIL - 11 FT POST
N.T.S.

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED HDG	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED BKK	
DETAILED BPRR	CADD FILE NAME 23285_RDTL_001.DGN
DRAWING CHECKED KPS	DRAWING DATE: OCTOBER 2024

IDAHO TRANSPORTATION DEPARTMENT



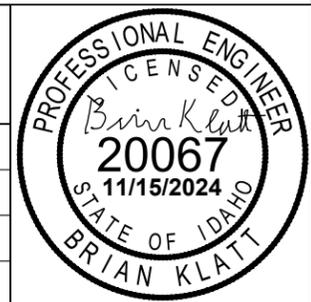
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity

J-U-B ENGINEERS, INC.

PROJECT NO.	A023(285)
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BASE SET - ROADWAY DETAILS	S GREENSFERRY RD GUARDRAIL, WORLEY HD
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ENGLISH
COUNTY KOOTENAI
KEY NUMBER 23285
SHEET 38 OF 45



SIGN ASSEMBLY NO.	STATION LT. OR RT. OR NORTHING & EASTING	RAMP NO.	FOUNDATION SIZE	POST TYPE	NO. OF POSTS	POST SPACING	APPROX. LENGTH OF 1st POST	APPROX. LENGTH OF 2nd POST	POST LENGTH ABOVE FINISH SHOULDER	C	E	SIGN TYPE	SIGN DETAIL NUMBERS	SIGN SIZE W" x H"	APPROX. SQ. FT. OF SIGN	SIGN BACKGROUND COLOR	SIGN BRACKETS & BRACE ANGLES WEIGHT (LBS)	BRACKET NO.	REMARKS
1	N: 2188185.730 E: 2338082.829		8x8x36	E-2	1	0'-0"	10'-0"	0'-0"	9'-3"	3'-1"	5'-0"	B-1	W1-5	36" x 36"	9.0	YELLOW			
2	100+16.94, 23.00' RT		8x8x36	E-2	1	0'-0"	10'-0"	0'-0"	9'-3"	3'-1"	5'-0"	B-1	W7-1a	36" x 36"	9.0	YELLOW			15% Grade
3	100+81.64, 18.53 RT		8x8x36	E-1	1	0'-0"	8'-7"	0'-0"	7'-0"	1'-9"	5'-0"	B-1	W1-8	18" x 24"	3.0	YELLOW			
4	101+18.25, 16.29 RT		8x8x36	E-1	1	0'-0"	8'-4"	0'-0"	7'-0"	1'-9"	5'-0"	B-1	W1-8	18" x 24"	3.0	YELLOW			
5	101+54.71, 22.09 RT		8x8x36	E-1	1	0'-0"	7'-8"	0'-0"	7'-0"	1'-9"	5'-0"	B-1	W1-8	18" x 24"	3.0	YELLOW			
6	102+00.58, 25.77 RT		8x8x36	E-1	1	0'-0"	7'-3"	0'-0"	7'-0"	1'-9"	5'-0"	B-1	W1-8	18" x 24"	3.0	YELLOW			
7	107+63.75, 17.25 RT		8x8x36	E-1	1	0'-0"	8'-4"	0'-0"	7'-0"	1'-9"	5'-0"	B-1	W1-8	18" x 24"	3.0	YELLOW			
8	108+02.80, 20.17 RT		8x8x36	E-1	1	0'-0"	8'-7"	0'-0"	7'-0"	1'-9"	5'-0"	B-1	W1-8	18" x 24"	3.0	YELLOW			
9	108+41.54, 19.79 RT		8x8x36	E-1	1	0'-0"	8'-1"	0'-0"	7'-0"	1'-9"	5'-0"	B-1	W1-8	18" x 24"	3.0	YELLOW			
10	108+79.91, 19.06 RT		8x8x36	E-1	1	0'-0"	7'-10"	0'-0"	7'-0"	1'-9"	5'-0"	B-1	W1-8	18" x 24"	3.0	YELLOW			
11	109+18.04, 17.38 RT		8x8x36	E-1	1	0'-0"	8'-9"	0'-0"	7'-0"	1'-9"	5'-0"	B-1	W1-8	18" x 24"	3.0	YELLOW			
12	109+57.12, 16.32 RT		8x8x36	E-1	1	0'-0"	8'-9"	0'-0"	7'-0"	1'-9"	5'-0"	B-1	W1-8	18" x 24"	3.0	YELLOW			
13	112+02.42, 24.19 RT		8x8x36	E-2	1	0'-0"	9'-9"	0'-0"	9'-3"	3'-1"	5'-0"	B-1	W1-1	36" x 36"	9.0	YELLOW			
14	114+85.06, 12.20 LT		8x8x36	E-2	1	0'-0"	9'-0"	0'-0"	9'-3"	3'-1"	5'-0"	B-1	W1-1	36" x 36"	9.0	YELLOW			
15	116+29.06, 16.69 RT		8x8x36	E-1	1	0'-0"	8'-9"	0'-0"	7'-0"	1'-9"	5'-0"	B-1	W1-8	18" x 24"	3.0	YELLOW			
16	116+67.42, 14.68 RT		8x8x36	E-1	1	0'-0"	8'-6"	0'-0"	7'-0"	1'-9"	5'-0"	B-1	W1-8	18" x 24"	3.0	YELLOW			
17	117+05.68, 15.55 RT		8x8x36	E-1	1	0'-0"	8'-6"	0'-0"	7'-0"	1'-9"	5'-0"	B-1	W1-8	18" x 24"	3.0	YELLOW			
18	117+43.80, 17.01 RT		8x8x36	E-1	1	0'-0"	8'-8"	0'-0"	7'-0"	1'-9"	5'-0"	B-1	W1-8	18" x 24"	3.0	YELLOW			
19	117+81.86, 22.74 RT		8x8x36	E-1	1	0'-0"	7'-5"	0'-0"	7'-0"	1'-9"	5'-0"	B-1	W1-8	18" x 24"	3.0	YELLOW			
20	120+91.02, 17.13 RT		24x60	B-2	1	0'-0"	11'-6"	0'-0"	10'-9"	3'-1"	5'-0"	B-1	W1-1	36" x 36"	9.0	YELLOW			
21	121.91.33, 18.04 RT		8x8x36	E-1	1	0'-0"	7'-7"	0'-0"	7'-0"	1'-9"	5'-0"	B-1	W1-8	18" x 24"	3.0	YELLOW			
22	122+26.91, 20.24 RT		8x8x36	E-1	1	0'-0"	7'-5"	0'-0"	7'-0"	1'-9"	5'-0"	B-1	W1-8	18" x 24"	3.0	YELLOW			
23	122+99.04, 23.58 RT		8x8x36	E-1	1	0'-0"	6'-10"	0'-0"	7'-0"	1'-9"	5'-0"	B-1	W1-8	18" x 24"	3.0	YELLOW			
24	123+37.04, 19.96 RT		8x8x36	E-1	1	0'-0"	7'-5"	0'-0"	7'-0"	1'-9"	5'-0"	B-1	W1-8	18" x 24"	3.0	YELLOW			
25	123+73.05, 17.20 RT		8x8x36	E-1	1	0'-0"	8'-1"	0'-0"	7'-0"	1'-9"	5'-0"	B-1	W1-8	18" x 24"	3.0	YELLOW			
26	124+70.61, 12.24 LT		24x60	B-2	1	0'-0"	11'-2"	0'-0"	10'-9"	3'-1"	5'-0"	B-1	W1-1	36" x 36"	9.0	YELLOW			
												B-1	W13-1P	18" x 18"	2.3	YELLOW			10 MPH

CONSTRUCT SIGNS IN ACCORDANCE TO THE LATEST FHWA'S PUBLICATION OF STANDARD HIGHWAY SIGNS (SHS) AND SUPPLEMENT, THE IDAHO SUPPLEMENT TO THE SHS OR AS SPECIFIED.

COLUMN C, DISTANCE FROM EDGE OF SHOULDER TO CENTER LINE OF FIRST POST

COLUMN E, THE HEIGHT ABOVE THE EDGE OF FINISHED SHOULDER TO THE BOTTOM OF LOWEST SIGN.

POST LENGTHS SHOWN ARE APPROXIMATE. DETERMINE FINAL VALUES IN THE FIELD PRIOR TO FABRICATION

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED HDG	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED BKK	CADD FILE NAME 23285_SNER_001.DGN
DETAILED BPRR	DRAWING DATE: OCTOBER 2024
DRAWING CHECKED KPS	

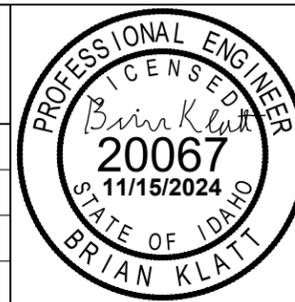
IDAHO TRANSPORTATION DEPARTMENT
 YOUR Safety - YOUR Mobility - YOUR Economic Opportunity

J-U-B ENGINEERS, INC.

PROJECT NO.
A023(285)

BASE SET - SIGN SUMMARY
S GREENSFERRY RD GUARDRAIL, WORLEY HD

ENGLISH
 COUNTY KOOTENAI
 KEY NUMBER 23285
 SHEET 39 OF 45



SIGN ASSEMBLY NO.	STATION LT. OR RT. OR NORTHING & EASTING	RAMP NO.	FOUNDATION SIZE	POST TYPE	NO. OF POSTS	POST SPACING	APPROX. LENGTH OF 1st POST	APPROX. LENGTH OF 2nd POST	POST LENGTH ABOVE FINISH SHOULDER	C	E	SIGN TYPE	SIGN DETAIL NUMBERS	SIGN SIZE W" x H"	APPROX. SQ. FT. OF SIGN	SIGN BACKGROUND COLOR	SIGN BRACKETS & BRACE ANGLES WEIGHT (LBS)	BRACKET NO.	REMARKS
27	129+88.99, 17.19 RT		24x60	B-2	1	0'-0"	11'-3"	0'-0"	10'-9"	3'-1"	5'-0"	B-1	W1-2	36" x 36"	9.0	YELLOW			
												B-1	W13-1P	18" x 18"	2.3	YELLOW			10 MPH
28	130+91.81, 26.06 RT		8x8x36	E-1	1	0'-0"	7'-3"	0'-0"	7'-0"	1'-9"	5'-0"	B-1	W1-8	18" x 24"	3.0	YELLOW			
												B-1	W1-8	18" x 24"	3.0	YELLOW			
29	131+27.45, 27.16 RT		8x8x36	E-1	1	0'-0"	7'-3"	0'-0"	7'-0"	1'-9"	5'-0"	B-1	W1-8	18" x 24"	3.0	YELLOW			
												B-1	W1-8	18" x 24"	3.0	YELLOW			
30	131+62.35, 20.17 RT		8x8x36	E-1	1	0'-0"	7'-2"	0'-0"	7'-0"	1'-9"	5'-0"	B-1	W1-8	18" x 24"	3.0	YELLOW			
												B-1	W1-8	18" x 24"	3.0	YELLOW			
31	131+98.49, 17.18 RT		8x8x36	E-1	1	0'-0"	7'-3"	0'-0"	7'-0"	1'-9"	5'-0"	B-1	W1-8	18" x 24"	3.0	YELLOW			
												B-1	W1-8	18" x 24"	3.0	YELLOW			
32	132+34.41, 21.74 RT		8x8x36	E-1	1	0'-0"	7'-4"	0'-0"	7'-0"	1'-9"	5'-0"	B-1	W1-8	18" x 24"	3.0	YELLOW			
												B-1	W1-8	18" x 24"	3.0	YELLOW			
33	132+69.70, 25.18 RT		8x8x36	E-1	1	0'-0"	7'-3"	0'-0"	7'-0"	1'-9"	5'-0"	B-1	W1-8	18" x 24"	3.0	YELLOW			
												B-1	W1-8	18" x 24"	3.0	YELLOW			
34	133+05.53, 24.00 RT		8x8x36	E-1	1	0'-0"	7'-3"	0'-0"	7'-0"	1'-9"	5'-0"	B-1	W1-8	18" x 24"	3.0	YELLOW			
												B-1	W1-8	18" x 24"	3.0	YELLOW			
35	134+00.83, 14.09 LT		8x8x36	E-2	1	0'-0"	10'-0"	0'-0"	9'-3"	3'-1"	5'-0"	B-1	W1-5	36" x 36"	9.0	YELLOW			

CONSTRUCT SIGNS IN ACCORDANCE TO THE LATEST FHWA'S PUBLICATION OF STANDARD HIGHWAY SIGNS (SHS) AND SUPPLEMENT, THE IDAHO SUPPLEMENT TO THE SHS OR AS SPECIFIED.

COLUMN C, DISTANCE FROM EDGE OF SHOULDER TO CENTER LINE OF FIRST POST

COLUMN E, THE HEIGHT ABOVE THE EDGE OF FINISHED SHOULDER TO THE BOTTOM OF LOWEST SIGN.

POST LENGTHS SHOWN ARE APPROXIMATE. DETERMINE FINAL VALUES IN THE FIELD PRIOR TO FABRICATION

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED HDG	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED BKK	CADD FILE NAME 23285_SNER_002.DGN
DETAILED BPRR	DRAWING DATE: OCTOBER 2024
DRAWING CHECKED KPS	

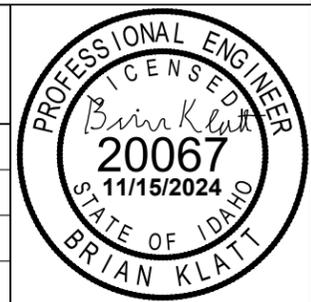
IDAHO TRANSPORTATION DEPARTMENT
 YOUR Safety → YOUR Mobility → YOUR Economic Opportunity

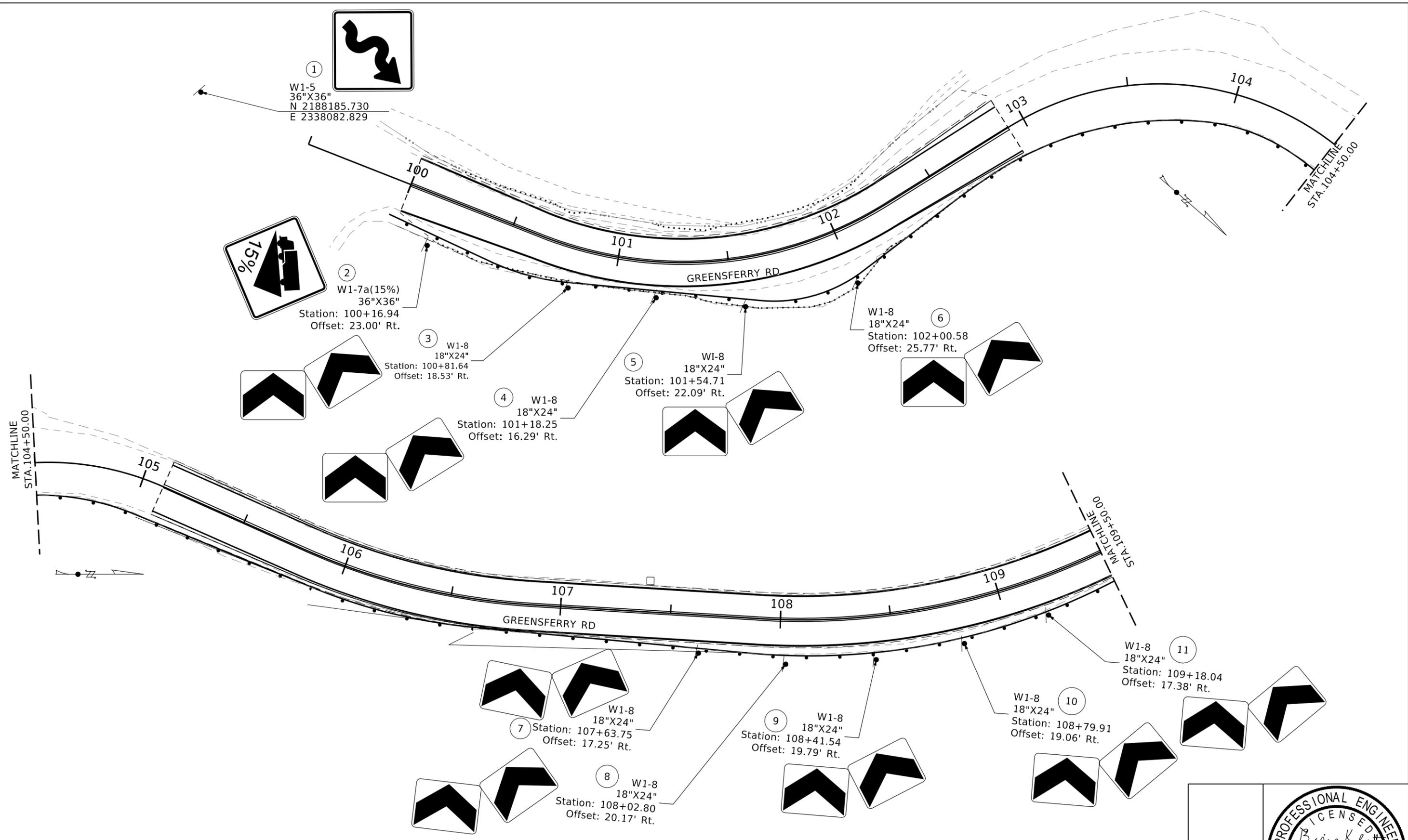
J-U-B ENGINEERS, INC.

PROJECT NO.
A023(285)

BASE SET - SIGN SUMMARY
S GREENSFERRY RD GUARDRAIL, WORLEY HD

ENGLISH
 COUNTY KOOTENAI
 KEY NUMBER 23285
 SHEET 40 OF 45





REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED HDG
DESIGN CHECKED BKK
DETAILED BPRR
DRAWING CHECKED KPS

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 23285_SIGN_001.dgn
DRAWING DATE: OCTOBER 2024

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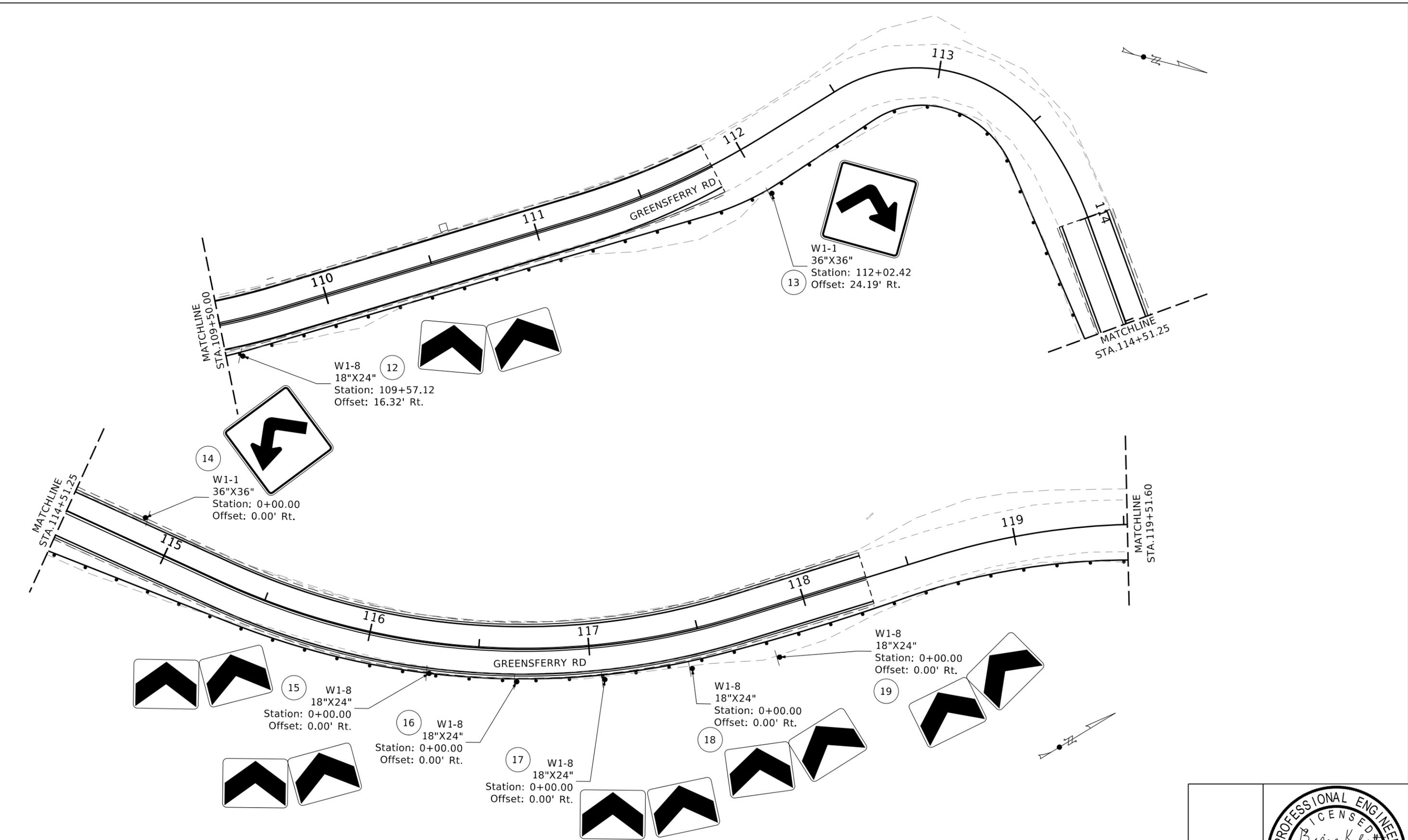
J-U-B ENGINEERS, INC.

PROJECT NO.
A023(285)

BASE SET - SIGNING PLAN
S GREENSFERRY RD GUARDRAIL,
WORLEY HD
STA. 100+00.00 TO STA. 109+50.00

ENGLISH
COUNTY KOOTENAI
KEY NUMBER 23285
SHEET 41 OF 45





REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED HDG
 DESIGN CHECKED BKK
 DETAILED BPRR
 DRAWING CHECKED KPS

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
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 DRAWING DATE: OCTOBER 2024

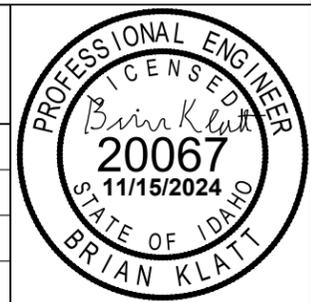
IDAHO TRANSPORTATION DEPARTMENT
 YOUR Safety→YOUR Mobility→YOUR Economic Opportunity

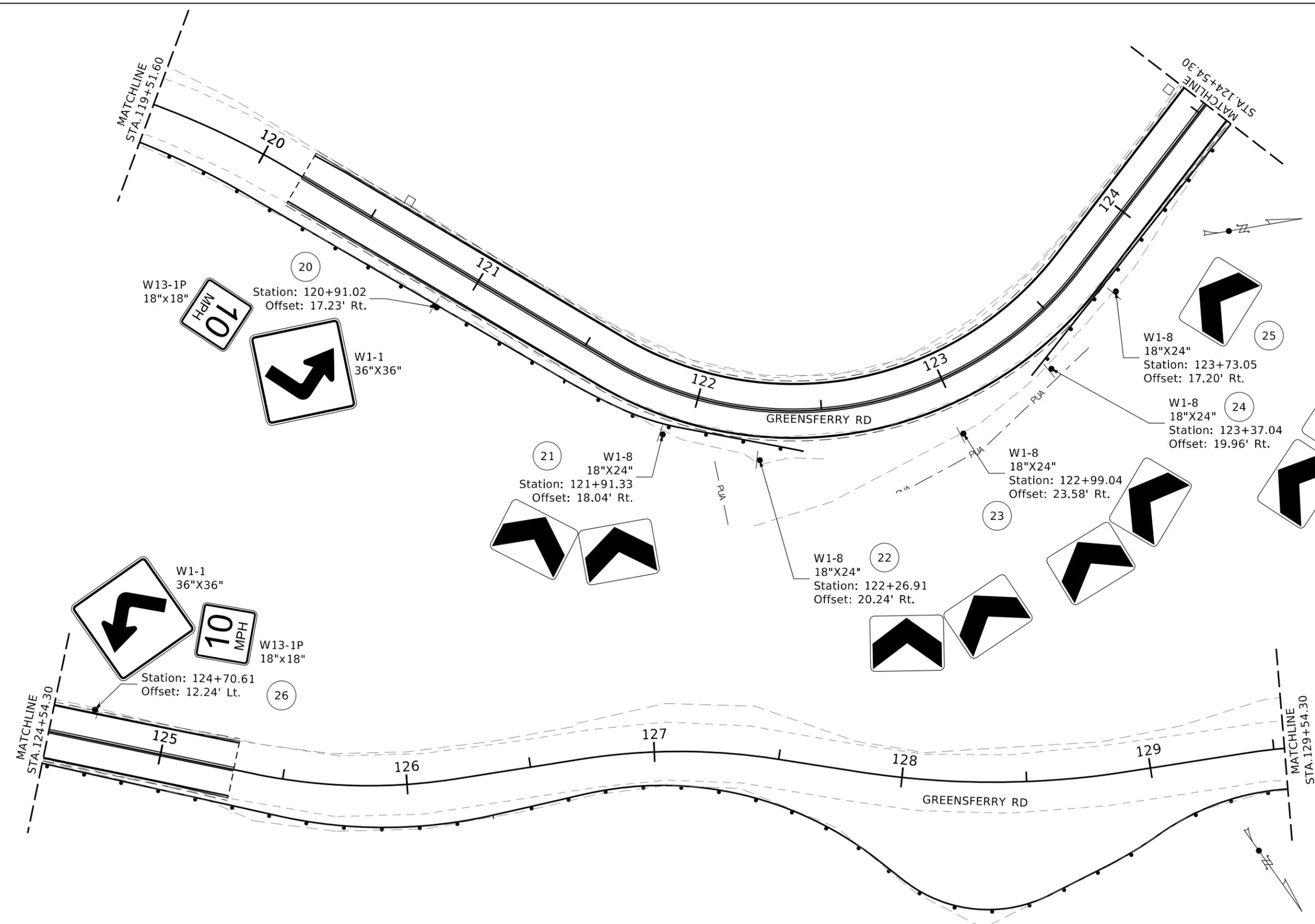
J-U-B ENGINEERS, INC.

PROJECT NO.
 A023(285)

BASE SET - SIGNING PLAN
 S GREENSFERRY RD GUARDRAIL, WORLEY HD
 STA. 109+50.00 TO STA. 119+51.60

ENGLISH
 COUNTY KOOTENAI
 KEY NUMBER 23285
 SHEET 42 OF 45





REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED HDG
 DESIGN CHECKED BKK
 DETAILED BPRR
 DRAWING CHECKED KPS

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
 CADD FILE NAME 23285_SIGN_003.dgn
 DRAWING DATE: OCTOBER 2024

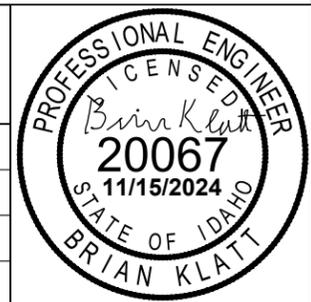
IDAHO TRANSPORTATION DEPARTMENT
 YOUR Safety → YOUR Mobility → YOUR Economic Opportunity

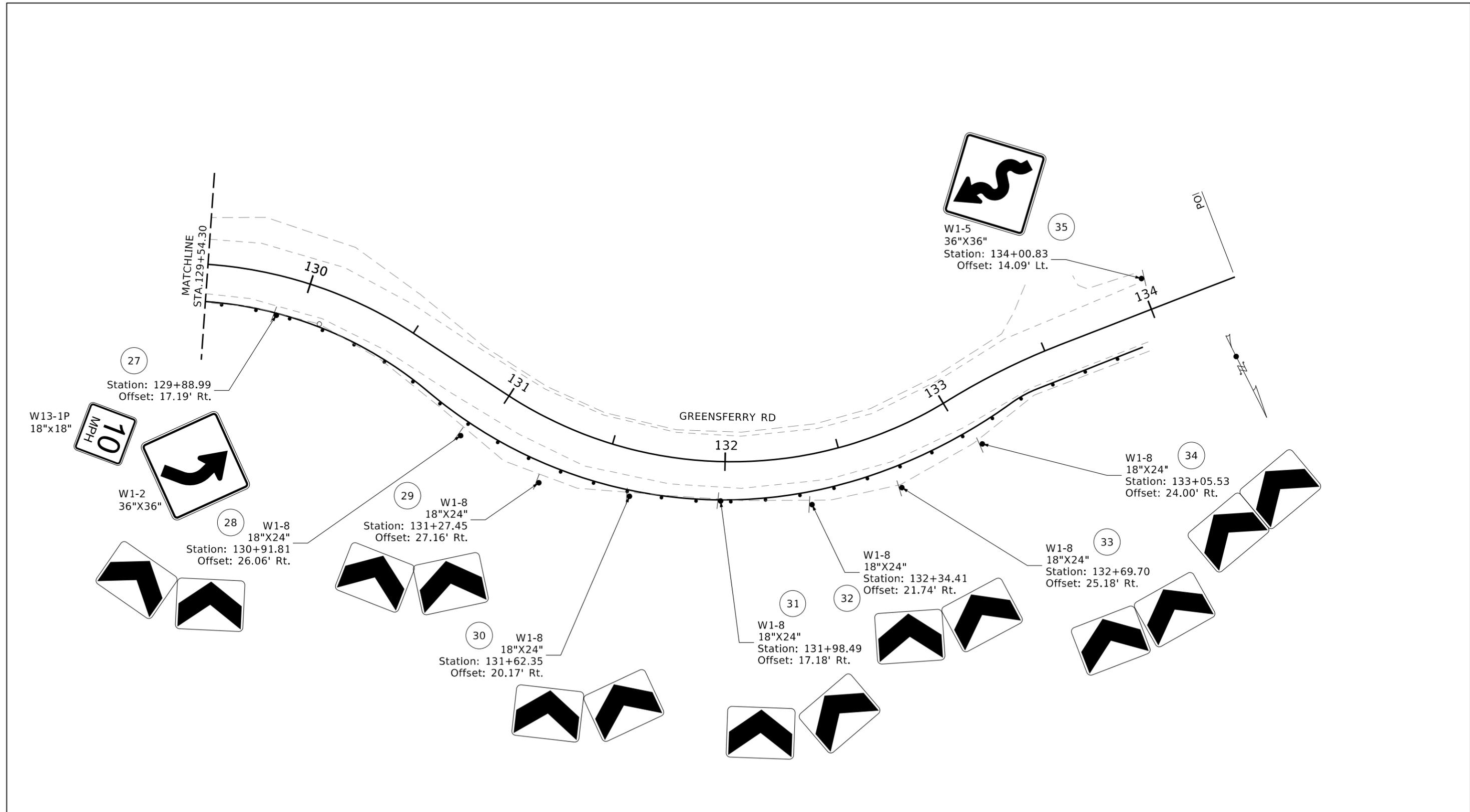
J-U-B ENGINEERS, INC.

PROJECT NO.
 A023(285)

BASE SET - SIGNING PLAN
 S GREENSFERRY RD GUARDRAIL, WORLEY HD
 STA. 119+51.60 TO STA. 129+54.30

ENGLISH
 COUNTY KOOTENAI
 KEY NUMBER 23285
 SHEET 43 OF 45





REVISIONS NO. DATE BY DESCRIPTION				DESIGNED HDG DESIGN CHECKED BKK DETAILED BPRR DRAWING CHECKED KPS	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY CADD FILE NAME 23285_SIGN_004.dgn DRAWING DATE: OCTOBER 2024	IDAHO TRANSPORTATION DEPARTMENT YOUR Safety→YOUR Mobility→YOUR Economic Opportunity J-U-B ENGINEERS, INC.	PROJECT NO. A023(285)	BASE SET - SIGNING PLAN S GREENSFERRY RD GUARDRAIL, WORLEY HD STA. 129+54.30 TO STA. 134+00.00	ENGLISH COUNTY KOOTENAI KEY NUMBER 23285 SHEET 44 OF 45	PROFESSIONAL ENGINEER LICENSED Brian Klatt 20067 11/15/2024 STATE OF IDAHO BRIAN KLATT
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SIGN SPACING = X (1)		
RURAL HIGHWAYS	60 / 65 MPH	800' ±
RURAL ROADS	45 / 55 MPH	500' ±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS, URBAN ARTERIALS, RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200' ±(2)
URBAN STREETS	25 MPH OR LESS	100' ±(2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.
 (2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

GENERAL NOTES

- ALL SIGNS TO BE BLACK TEXT ON ORANGE BACKGROUND UNLESS OTHERWISE NOTED.
- MAINTAIN LOCAL DRIVEWAY ACCESS FOR DURATION OF PROJECT.
- PLACE CHANGEABLE MESSAGE SIGNS AT LEAST 2 WEEKS IN ADVANCE OF CLOSURE.
- PEDESTRIANS SHALL BE ACCOMMODATED FOR BY CONTRACTOR.

LEGEND

- TEMP TRAFFIC CONTROL SIGN
- TYPE III BARRICADE
- DETOUR ROUTE DIRECTION
- CHANGEABLE MESSAGE SIGN

SIGN LEGEND

1 CUSTOM BLACK TEXT WHITE BACKGROUND 4" FONT 'D' SERIES 54"X60" ADD FLAGS AND FLASHERS

2 M4-9S 30"X24"

3 M4-8a 24"X18"

4 M4-9L 30"X24"

5 M4-9R 30"X24"

6 R11-2 48"X30"

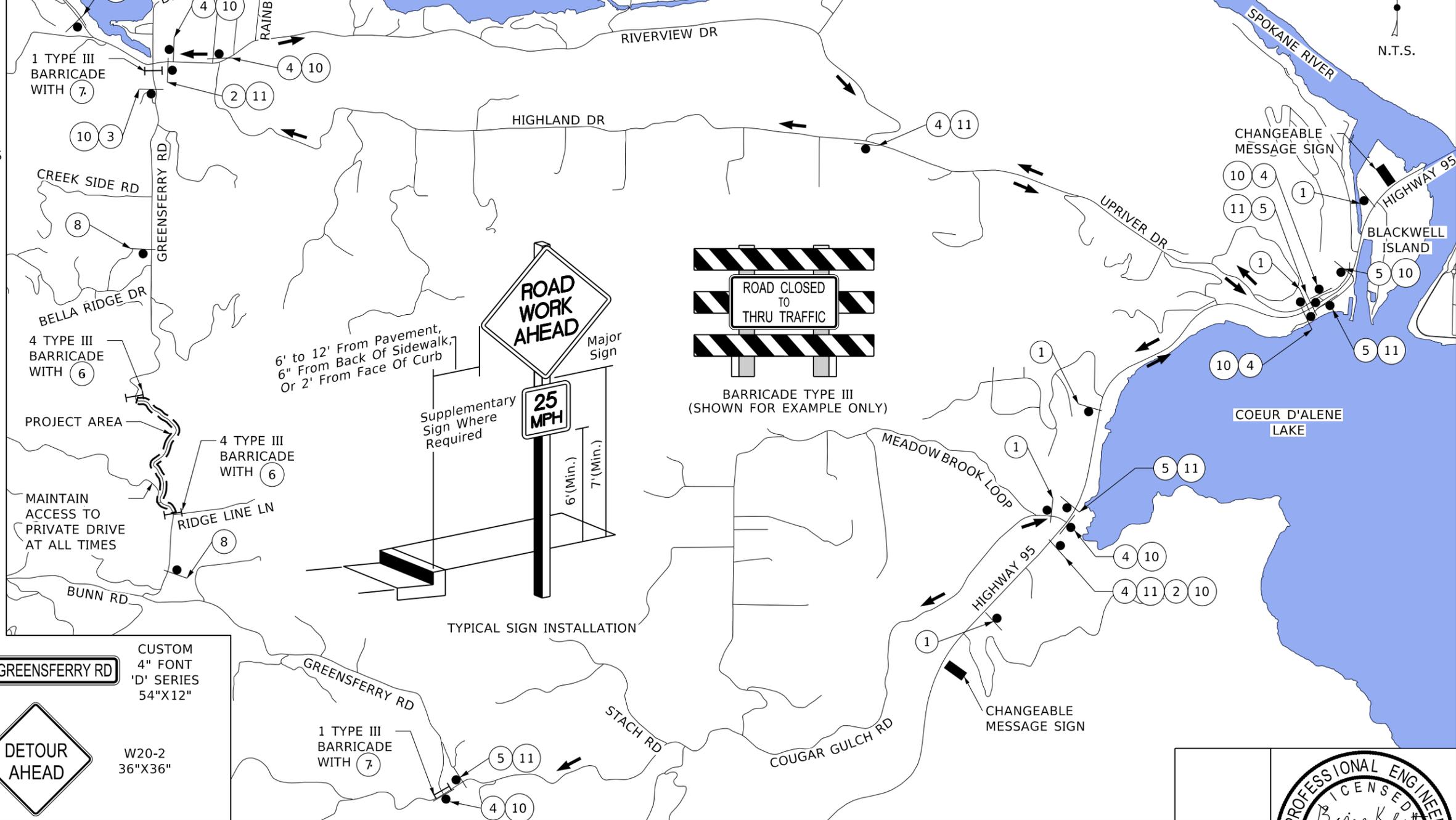
7 R11-4 60"X30"

8 W20-3 36"X36"

10 CUSTOM 4" FONT 'D' SERIES 54"X12"

11 CUSTOM 4" FONT 'D' SERIES 54"X12"

12 W20-2 36"X36"



REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED BPRR	
DESIGN CHECKED BKK	
DETAILED BPRR	
DRAWING CHECKED KPS	

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 23285_TCP_001.DGN
DRAWING DATE: OCTOBER 2024

IDAHO TRANSPORTATION DEPARTMENT

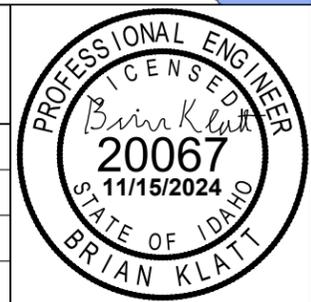
YOUR Safety - YOUR Mobility - YOUR Economic Opportunity

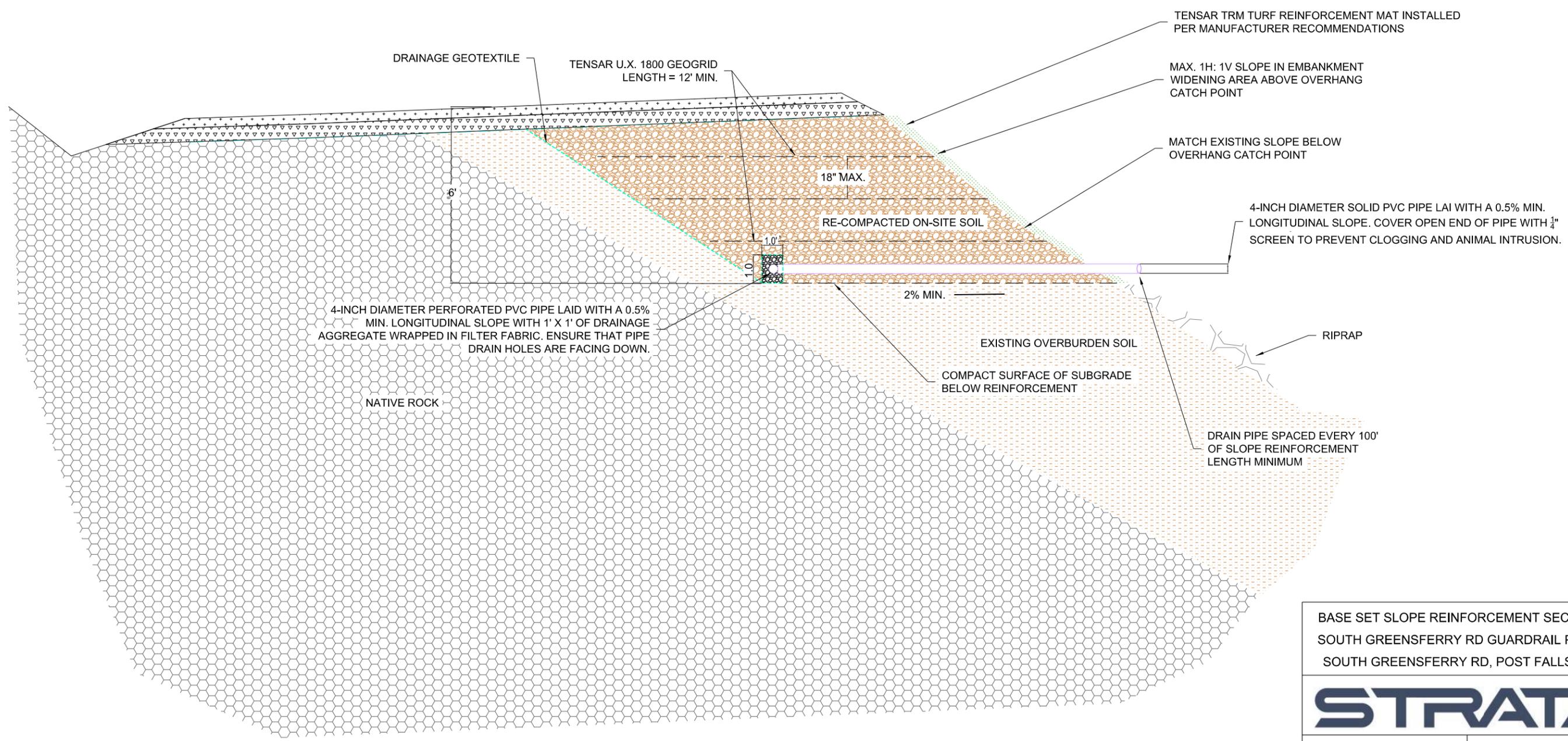
J-U-B ENGINEERS, INC.

PROJECT NO.	A023(285)
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BASE SET - TEMPORARY TRAFFIC CONTROL	S GREENSFERRY RD GUARDRAIL, WORLEY HD
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ENGLISH
COUNTY KOOTENAI
KEY NUMBER 23285
SHEET 45 OF 45





NOTE: NOT TO SCALE

BASE SET SLOPE REINFORCEMENT SECTION SOUTH GREENSFERRY RD GUARDRAIL PH 2 SOUTH GREENSFERRY RD, POST FALLS ID	
STRATA	
CD23078AI	S. LITALIEN
J-U-B ENGINEERS, INC.	L. MICHELS
1	5/3/2024

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED
DESIGN CHECKED
DETAILED
DRAWING CHECKED

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME
23285_GEO_001.DGN

DRAWING DATE:
OCTOBER 2024

IDAHO TRANSPORTATION DEPARTMENT

YOUR Safety → YOUR Mobility → YOUR Economic Opportunity

J-U-B ENGINEERS, INC.



PROJECT NO.
A023(285)

BASE SET
SLOPE REINFORCEMENT SECTION

S GREENSFERRY RD GUARDRAIL,
WORLEY HD

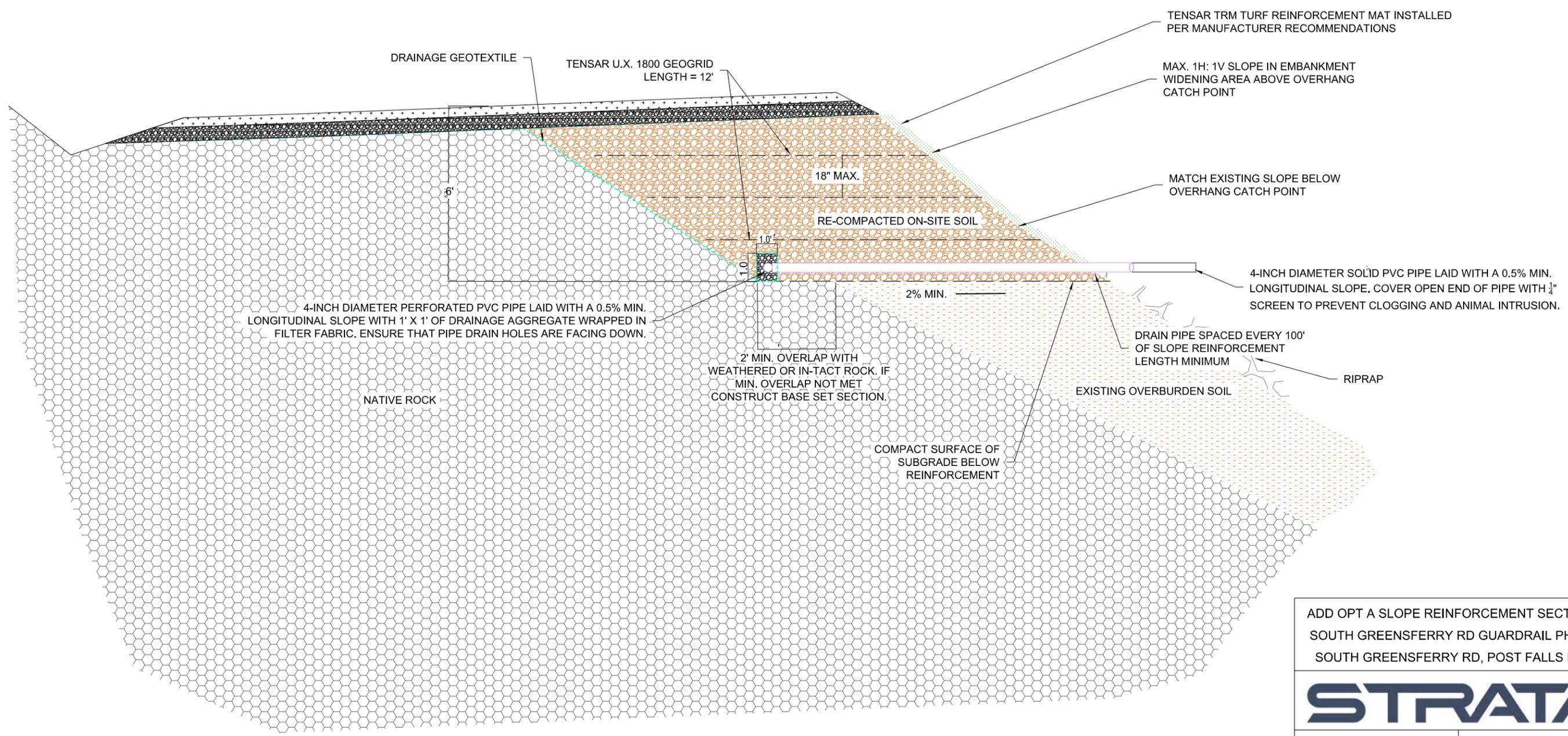
ENGLISH

COUNTY
KOOTENAI

KEY NUMBER
23285

SHEET 1 OF 3

FOR REFERENCE ONLY



NOTE: NOT TO SCALE

ADD OPT A SLOPE REINFORCEMENT SECTION SOUTH GREENSFERRY RD GUARDRAIL PH 2 SOUTH GREENSFERRY RD, POST FALLS ID	
STRATA	
CD23078AI	S. LITALIEN
J-U-B ENGINEERS, INC.	L. MICHELS
2	5/3/2024

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED
DESIGN CHECKED
DETAILED
DRAWING CHECKED

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME
23285_GEO_001.DGN

DRAWING DATE:
OCTOBER 2024

IDAHO TRANSPORTATION DEPARTMENT

YOUR Safety → YOUR Mobility → YOUR Economic Opportunity

J-U-B ENGINEERS, INC.

PROJECT NO.
A023(285)

ADD OPT A
SLOPE REINFORCEMENT SECTION

S GREENSFERRY RD GUARDRAIL,
WORLEY HD

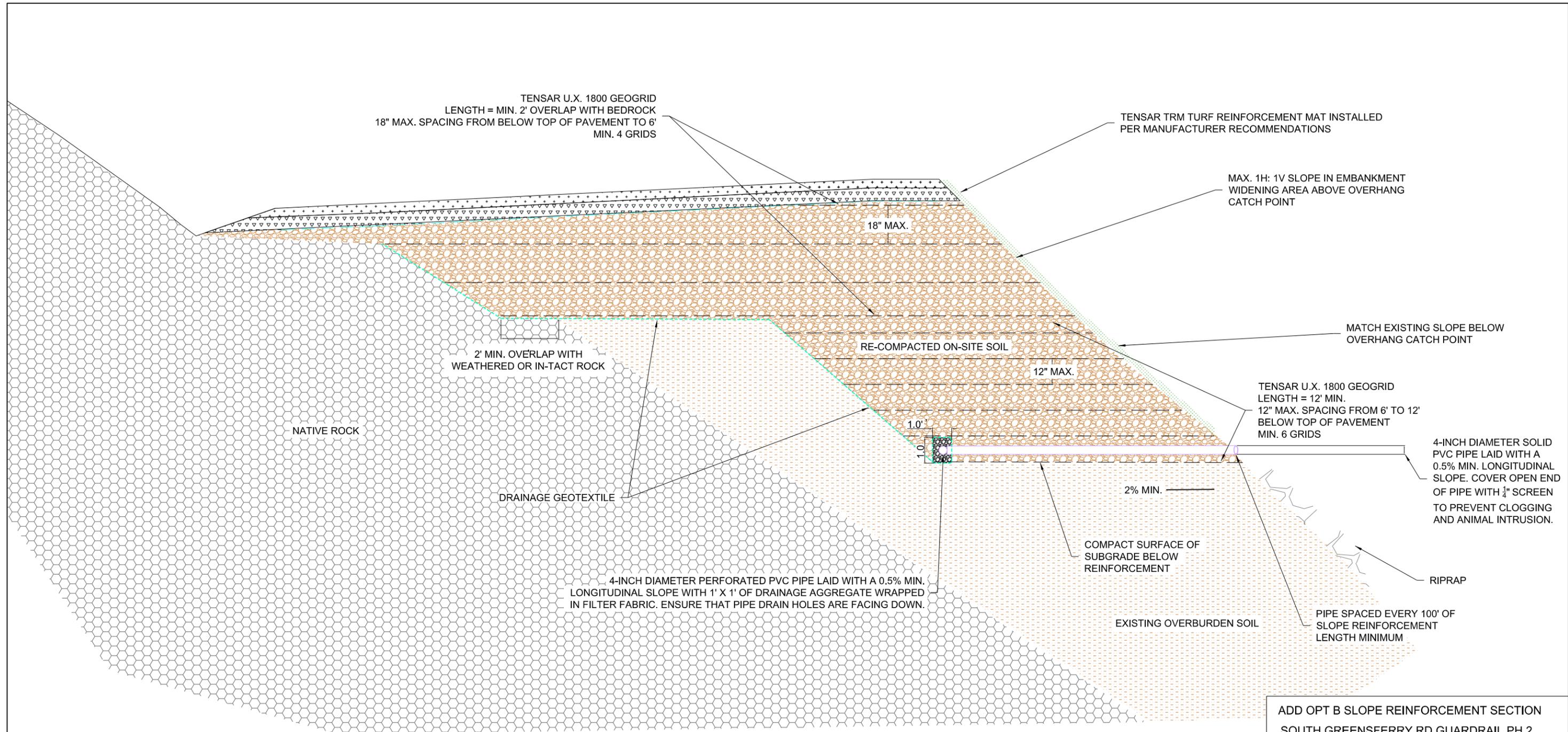
ENGLISH

COUNTY
KOOTENAI

KEY NUMBER
23285

SHEET 2 OF 3

FOR REFERENCE ONLY



NOTE: NOT TO SCALE

ADD OPT B SLOPE REINFORCEMENT SECTION SOUTH GREENSFERRY RD GUARDRAIL PH 2 SOUTH GREENSFERRY RD, POST FALLS ID	
STRATA	
CD23078AI	S. LITALIEN
J-U-B ENGINEERS, INC.	L. MICHELS
3	5/3/2024

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED
DESIGN CHECKED
DETAILED
DRAWING CHECKED

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME
23285_GEO_001.DGN

DRAWING DATE:
OCTOBER 2024

IDAHO TRANSPORTATION DEPARTMENT

YOUR Safety → YOUR Mobility → YOUR Economic Opportunity

J-U-B ENGINEERS, INC.



PROJECT NO.
A023(285)

ADD OPT B
SLOPE REINFORCEMENT SECTION

S GREENSFERRY RD GUARDRAIL,
WORLEY HD

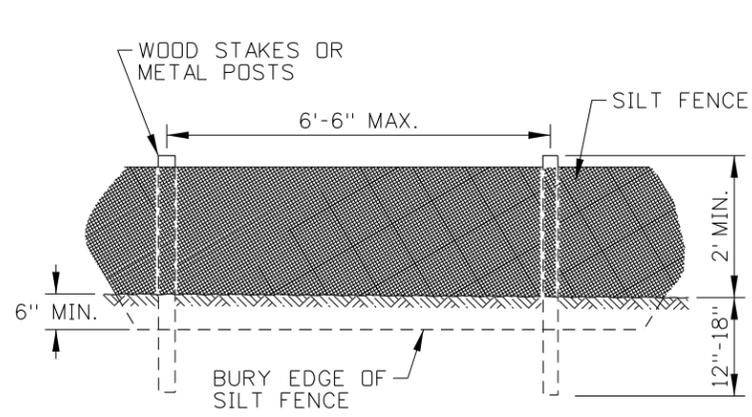
ENGLISH

COUNTY
KOOTENAI

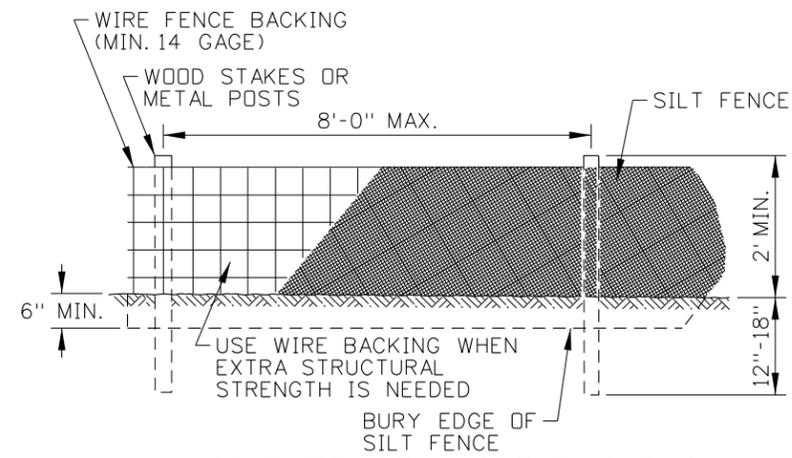
KEY NUMBER
23285

SHEET 3 OF 3

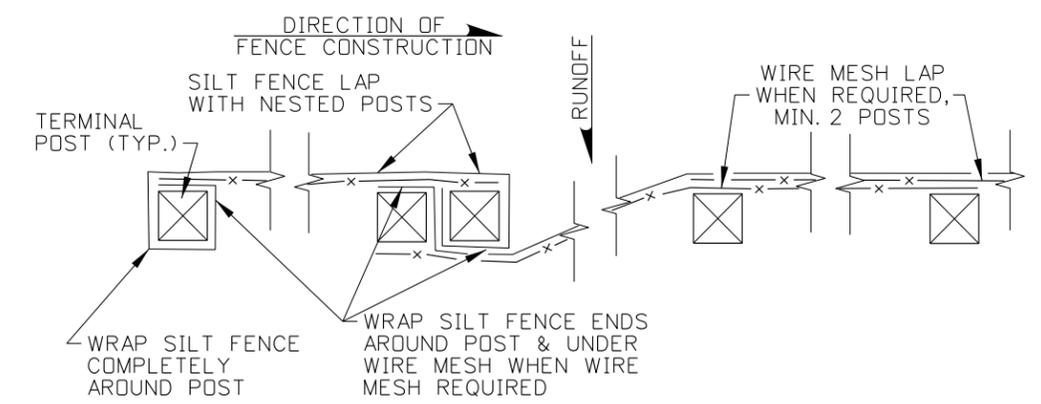
FOR REFERENCE ONLY



SILT FENCE (NO WIRE BACKING)



SILT FENCE (WIRE BACKING)



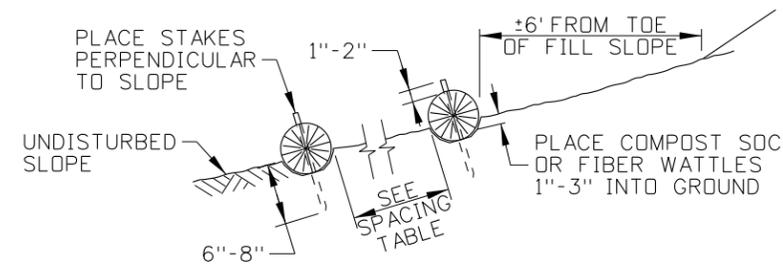
SILT FENCE LAP DETAIL

SLOPE	WATTLE SIZE			
	6"	9"	12"	20"
1:1	5 FT	10 FT	15 FT	20 FT
2:1	10 FT	20 FT	30 FT	40 FT
3:1	15 FT	30 FT	45 FT	60 FT
4:1 OR FLATTER	20 FT	40 FT	60 FT	80 FT

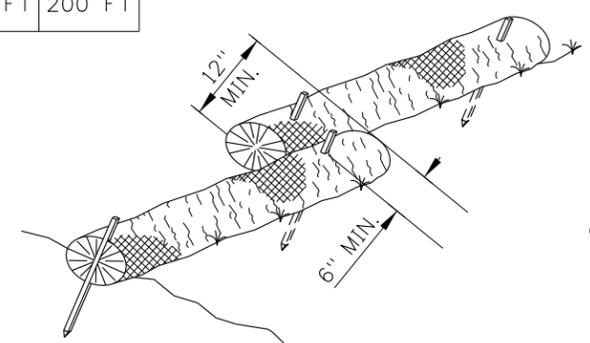
SLOPE	SOIL TYPE		
	SILTY	CLAYS	SANDY
1:1	50 FT	75 FT	100 FT
2:1	75 FT	100 FT	125 FT
4:1	100 FT	125 FT	150 FT
10:1 OR FLATTER	125 FT	150 FT	200 FT

NOTES

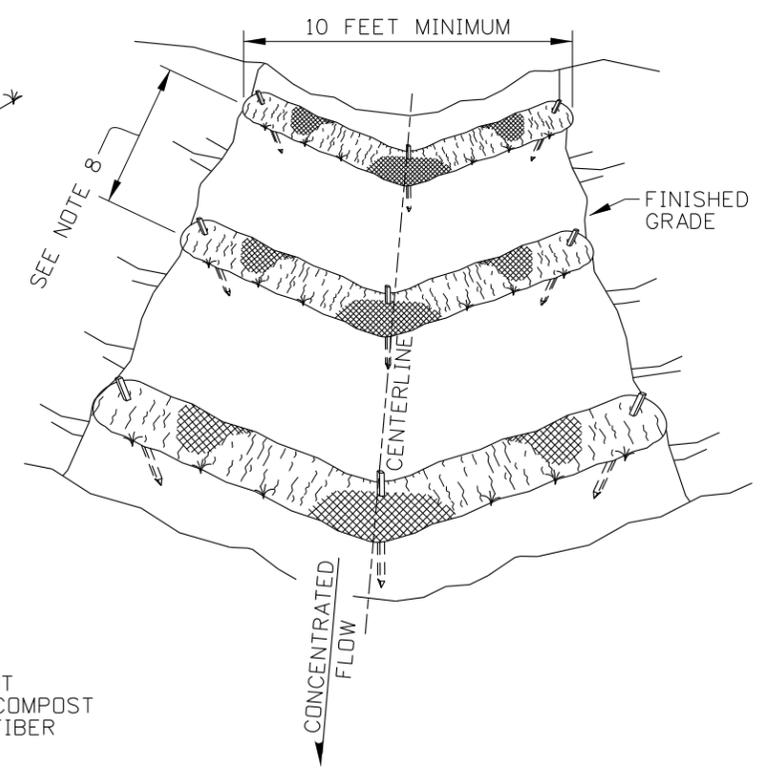
- SEE THE GENERAL NOTES FOR EROSION CONTROL STANDARD DRAWINGS ON 212-1.
- THE NEED FOR TEMPORARY SEDIMENT CONTROL DEVICES ARE DETERMINED BY SITE DESIGN. SPACE SILT FENCES, COMPOST SOCKS, AND FIBER WATTLES IN ACCORDANCE WITH THE SILT FENCE SPACING TABLE AND FIBER WATTLE & COMPOST SOCK SPACING TABLE.
- INSTALL TEMPORARY SEDIMENT CONTROL BARRIERS IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS AND SPECIFICATIONS. THE DIMENSIONS SHOWN ARE GENERAL GUIDELINES.
- PLACE SEDIMENT BARRIERS TO FOLLOW THE SLOPE CONTOURS. USE EITHER METAL POSTS OR WOOD STAKES.
- ENSURE RUNOFF PASSES THROUGH THE SILT FENCE AND NOT AROUND THE FENCE.
- GROUND SILT FENCES WITH WIRE MESH IN ACCORDANCE WITH THE GROUNDING DETAIL SHOWN ON STANDARD DRAWING 610-1.
- EXTEND OR JOIN SILT FENCE USING SILT FENCE LAP WITH NESTED POSTS.
- SPACE CHECK DAMS ACCORDING TO THE HEIGHT OF THE DAM AND THE SLOPE OF THE CHANNEL SO THE BACKWATER FROM THE DOWNSTREAM DAM REACHES THE TOE OF THE UPSTREAM DAM.
- ON SLOPES, TURN THE ENDS OF EACH ROW OF COMPOST SOCKS AND FIBER WATTLES UPSLOPE TO PREVENT RUNOFF FROM FLOWING AROUND THE SOCK OR WATTLE.
- REMOVE SEDIMENT FROM THE UPSLOPE SIDE OF SILT FENCES, COMPOST SOCKS, AND FIBER WATTLES WHEN ACCUMULATION HAS REACHED 1/2 OF THE EFFECTIVE HEIGHT OF THE BARRIER.
- DRAWING NOT TO SCALE.



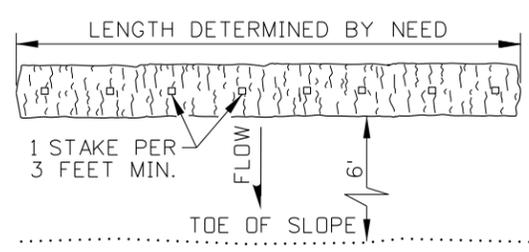
COMPOST SOCK AND FIBER WATTLE SIDE VIEW



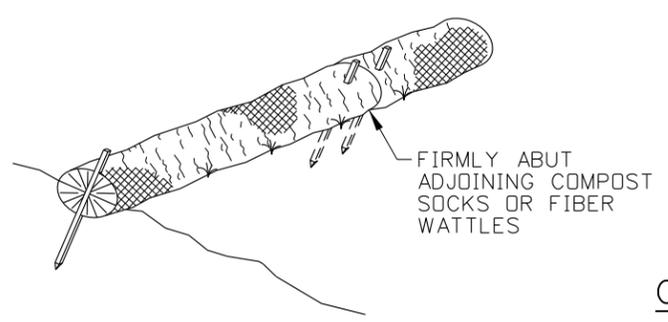
COMPOST SOCK AND FIBER WATTLE OVERLAPPING DETAIL



COMPOST SOCK AND FIBER WATTLE TEMPORARY CHECK DAM DETAIL



COMPOST SOCK AND FIBER WATTLE PLAN VIEW



COMPOST SOCK AND FIBER WATTLE ABUTTING DETAIL

NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	09-93	MSM	6	01-13	RDL			
2	12-94	MSM	7	03-21	TWF			
3	06-96	GFK						
4	10-10	KEH						
5	10-11	KEH						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
 CADD FILE NAME: 212-03_0421.dgn
 DRAWING DATE: APRIL, 1993

IDAHO TRANSPORTATION DEPARTMENT

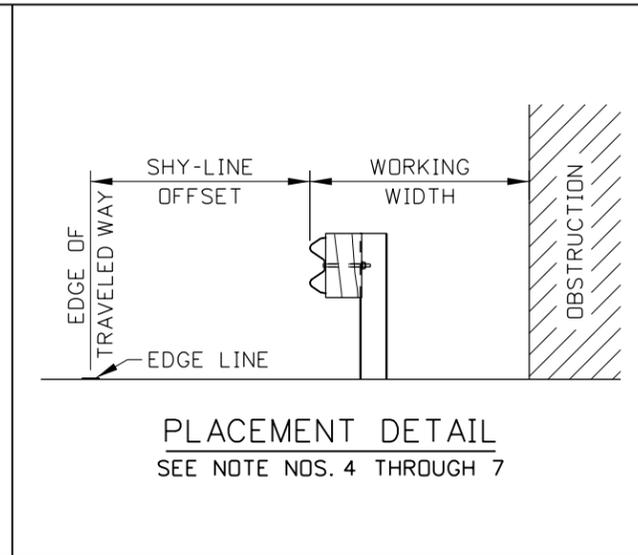
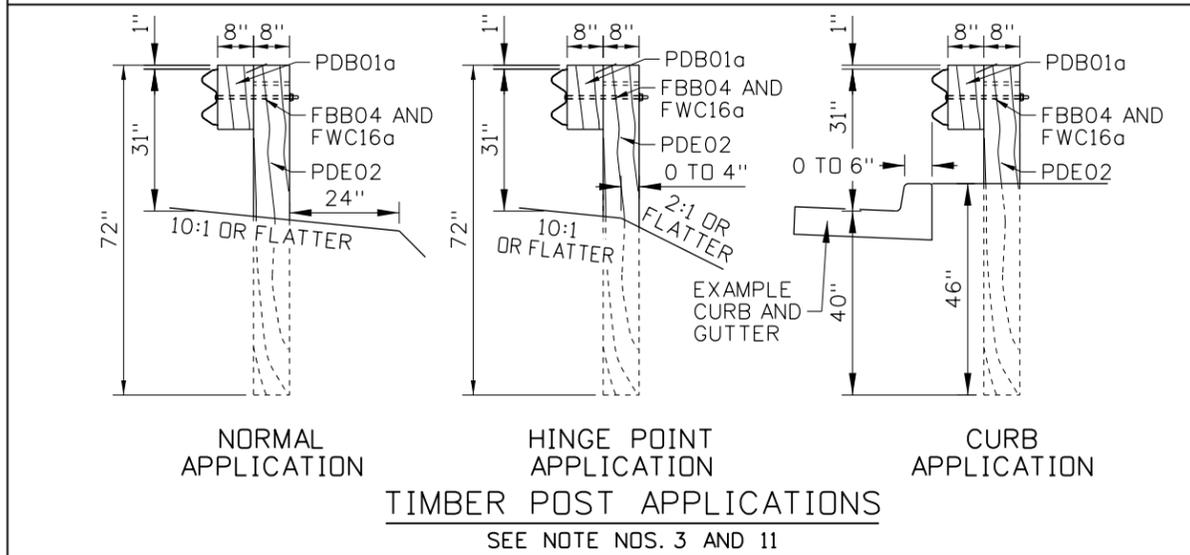
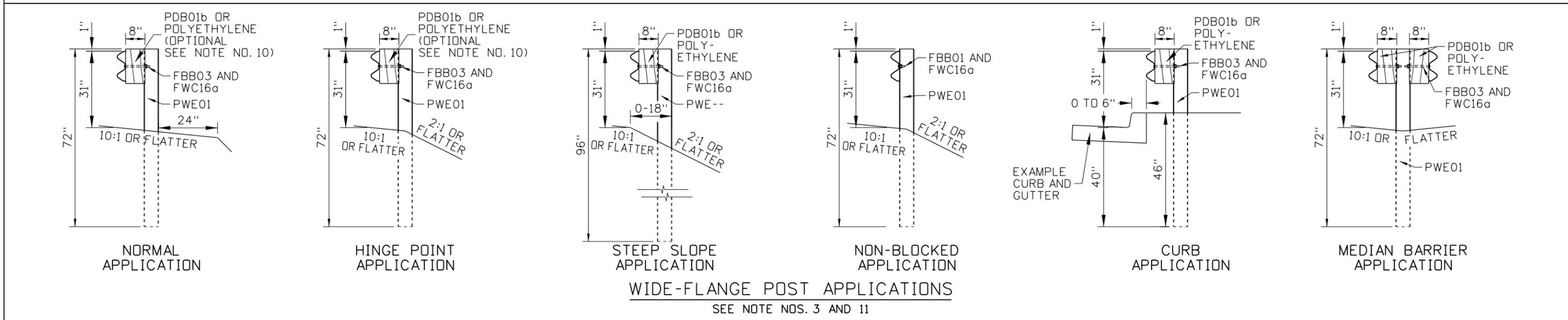
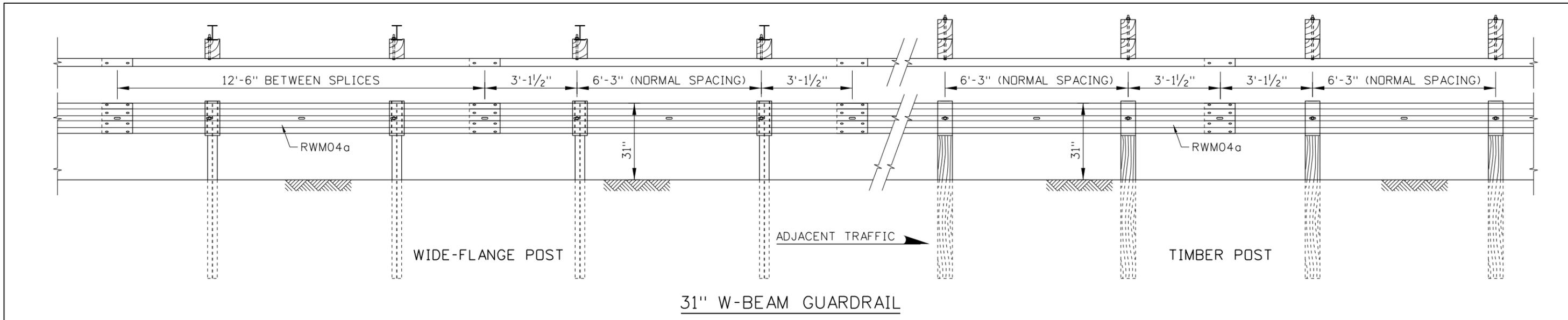
BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN
 DESIGN/TRAFFIC SERVICES ENGINEER

STANDARD DRAWING
TEMPORARY EROSION AND SEDIMENT CONTROL
 SILT FENCE, FIBER WATTLE, AND COMPOST SOCK
 REQUIRES STD. DWG. 212-1

English
 STANDARD DRAWING NO.
212-3
 SHEET 1 OF 1

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho



SHY-LINE OFFSET AND FLARE RATE TABLE

DESIGN SPEED (MPH)	SHY-LINE OFFSET (FT)	BARRIER FLARE RATE	
		INSIDE SHY LINE	AT OR BEYOND SHY LINE
80	12	30:1	15:1
70	9	30:1	15:1
60	8	26:1	14:1
55	7	24:1	12:1
50	6.5	21:1	11:1
45	6	18:1	10:1
40	5	16:1	8:1
30	4	13:1	7:1

DEFLECTION TABLE

APPLICATION	POST SPACING	WORKING WIDTH
NORMAL SPACING	6'-3"	54"
1/2 SPACING	3'-1 1/2"	46"
1/4 SPACING	1'-6 3/4"	38"
STEEP SLOPE	6'-3"	56"
HINGE POINT	6'-3"	78"
LONG SPAN	≤ 25'	96"

REVISIONS

NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	08-18	RDL						
2	03-19	RDL						
3	03-20	RDL						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 612-1_0420.dgn

DRAWING DATE: JUNE, 2017

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN
DESIGN/TRAFFIC SERVICES ENGINEER

STANDARD DRAWING

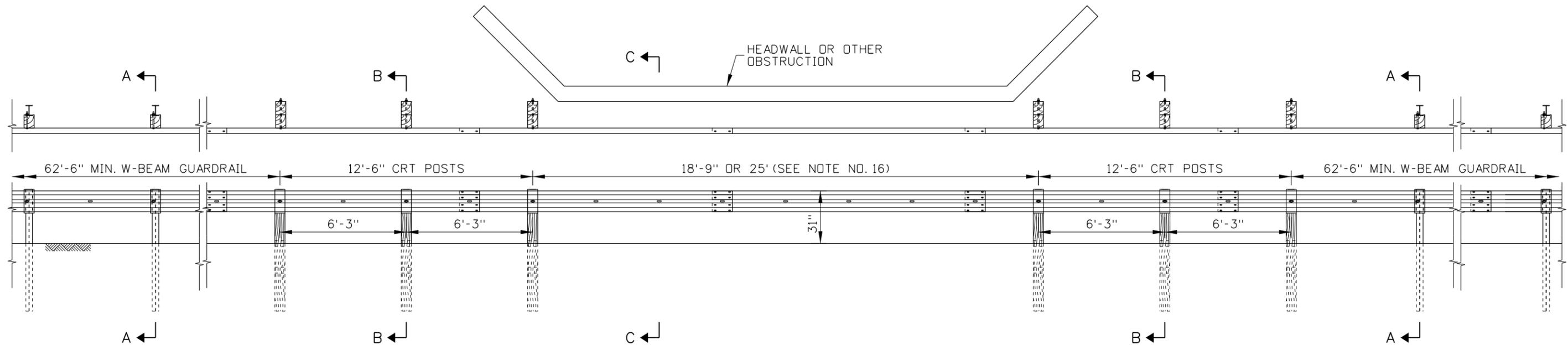
31" W-BEAM GUARDRAIL

English

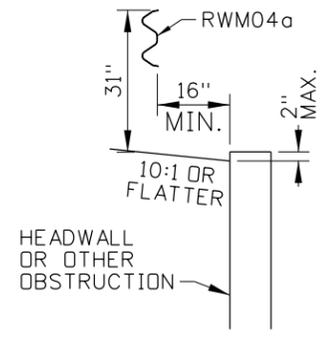
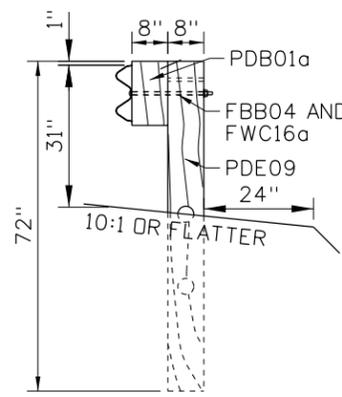
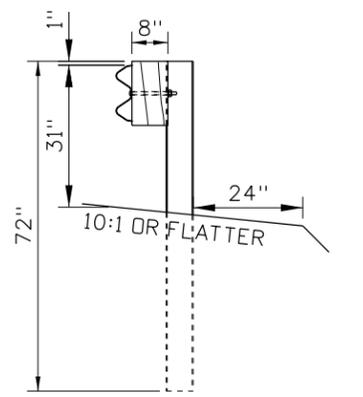
STANDARD DRAWING NO. 612-1

SHEET 1 OF 5





31" LONG-SPAN APPLICATION
SEE NOTE NOS. 17 AND 18



REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	08-18	RDL						
2	03-19	RDL						
3	03-20	RDL						

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CADD FILE NAME: 612-1_0420.dgn
DRAWING DATE: JUNE, 2017

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN
DESIGN/TRAFFIC SERVICES ENGINEER

STANDARD DRAWING
31" W-BEAM GUARDRAIL

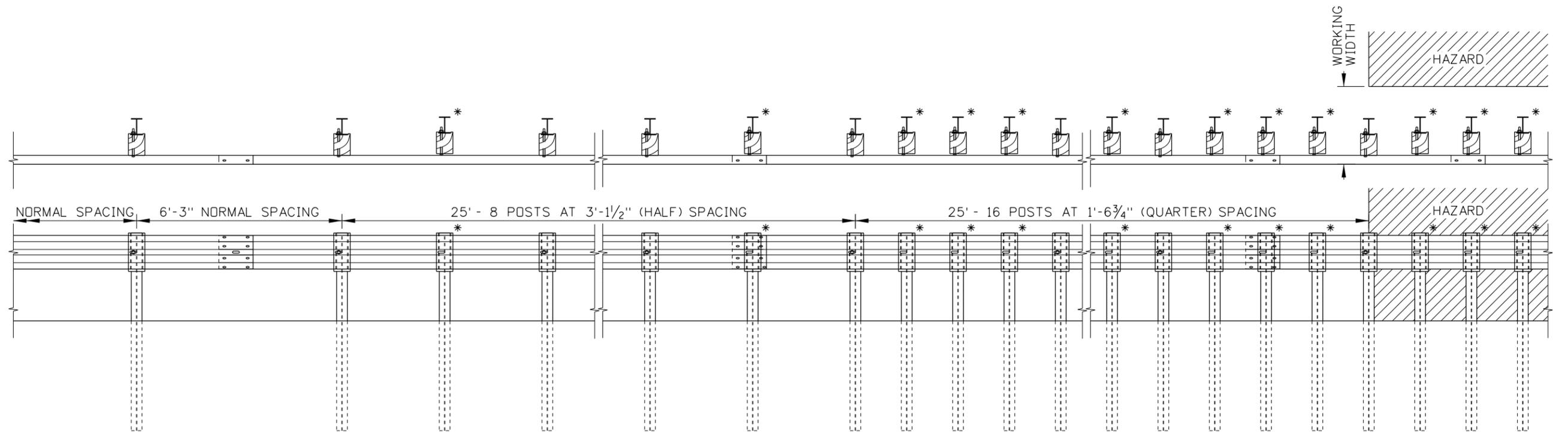
ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

English

STANDARD DRAWING NO. 612-1

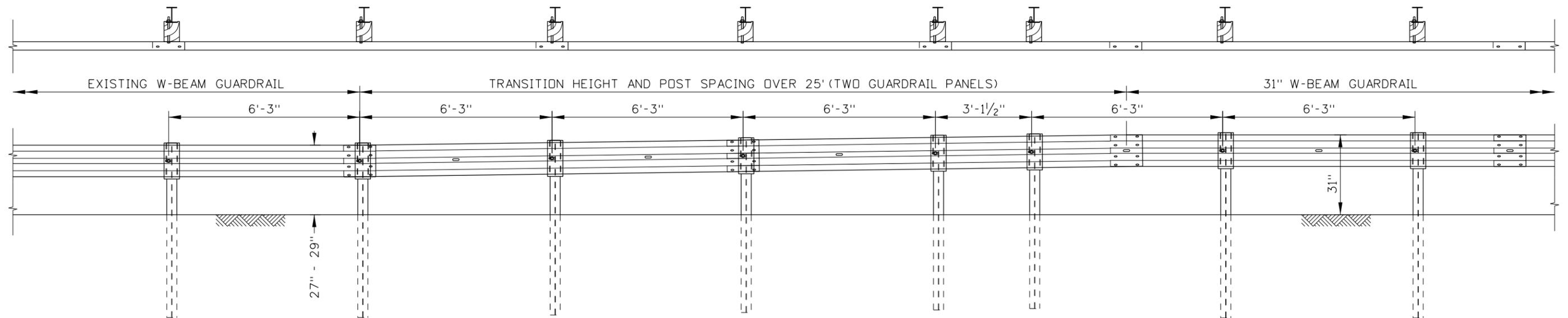
SHEET 2 OF 5

PROFESSIONAL ENGINEER
LICENSED
RYAN D. LANCASTER
13683
STATE OF IDAHO
MARCH 10, 2017



REDUCED POST SPACING
SEE NOTE NO. 7

LEGEND:
* EXTRA POSTS.
BOLT BLOCKOUT TO POST, BUT
DO NOT BOLT TO GUARDRAIL



TRANSITION TO 31" W-BEAM GUARDRAIL
SEE NOTE NO. 19

ORIGINAL STORED
AT: ITD,
Headquarters
3311 West State
Boise, Idaho



REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	08-18	RDL						
2	03-19	RDL						
3	03-20	RDL						

SCALES SHOWN
ARE FOR 11" X 17"
PRINTS ONLY
CADD FILE NAME:
612-1_0420.dgn
DRAWING DATE:
JUNE, 2017

**IDAHO
TRANSPORTATION
DEPARTMENT**

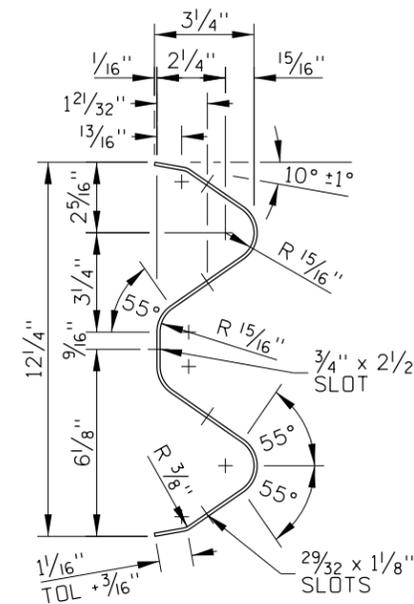
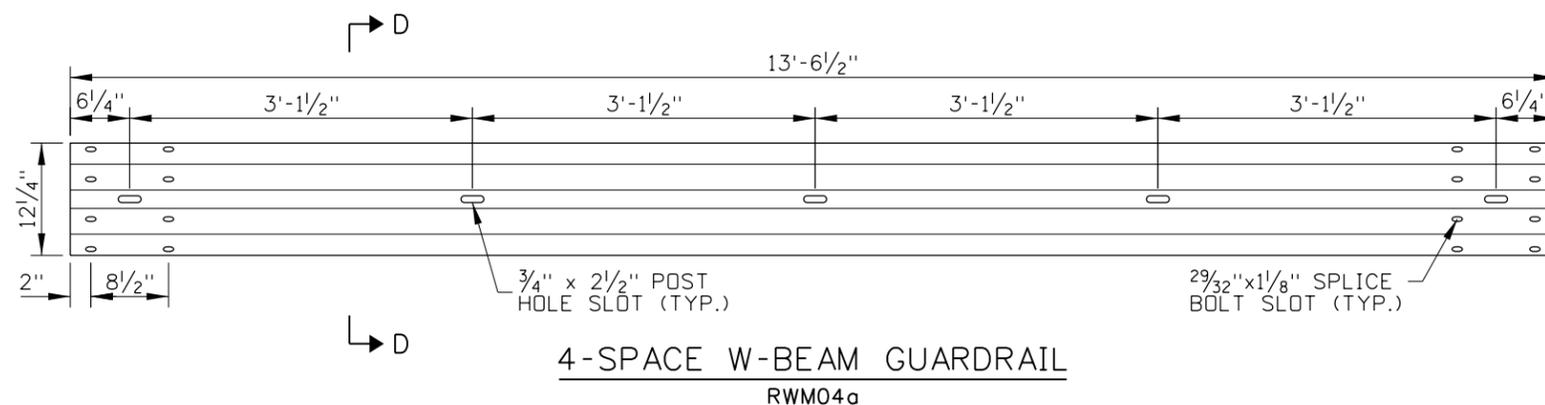


BOISE IDAHO

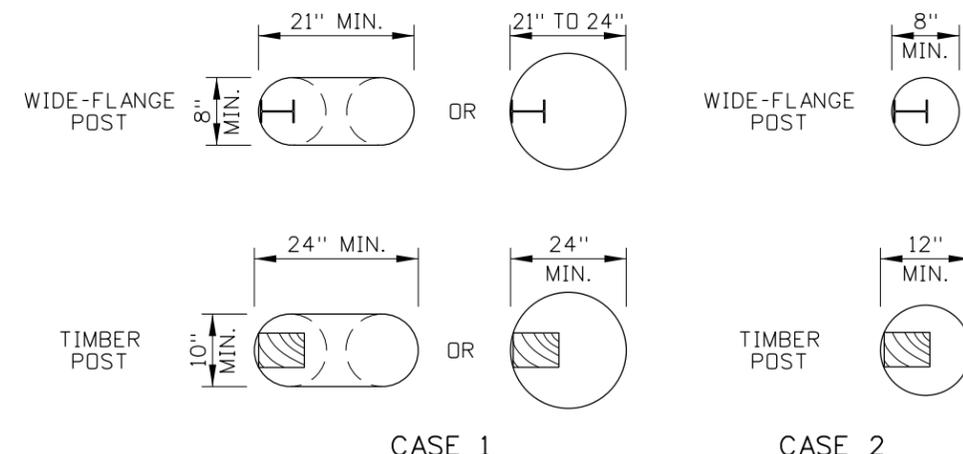
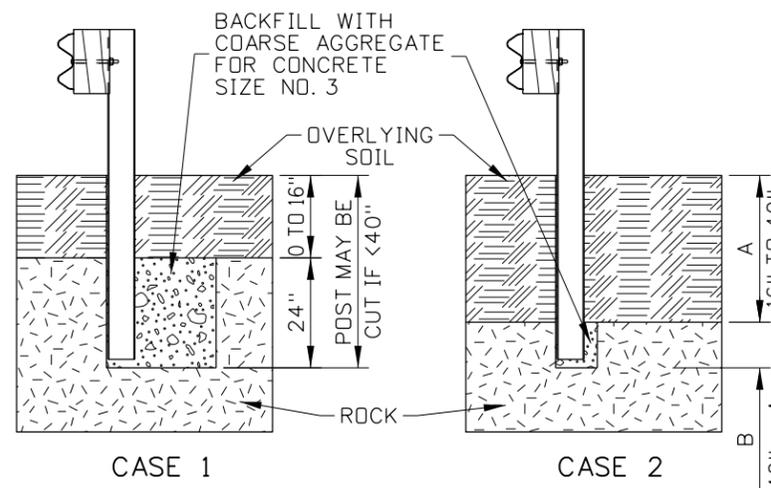
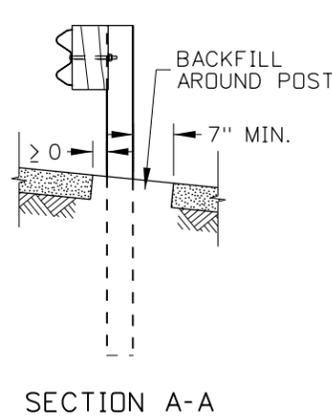
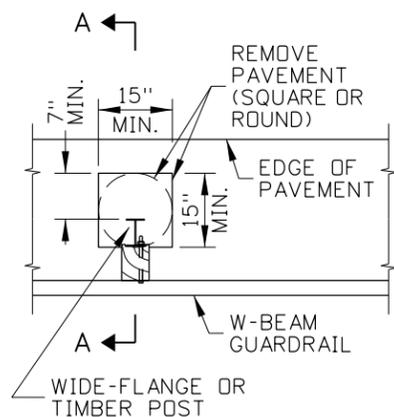
ORIGINAL SIGNED BY: KEVIN SABLAN
DESIGN/TRAFFIC SERVICES ENGINEER

STANDARD DRAWING
31" W-BEAM GUARDRAIL

English
STANDARD DRAWING NO.
612-1
SHEET 3 OF 5



31" W-BEAM GUARDRAIL HARDWARE COMPONENTS TABLE		
COMPONENT DESCRIPTION	WIDE-FLANGE POST	TIMBER POST
4-SPACE W-BEAM GUARDRAIL	RWM04a	RWM04a
WIDE-FLANGE GUARDRAIL POSTS	PWE01, PWE--	-
TIMBER GUARDRAIL POSTS	-	PDE02
CRT TIMBER GUARDRAIL POST	-	PDE09
W-BEAM BLOCKOUT	PDB01b OR POLYETHYLENE	PDB01a
5/8" GUARDRAIL SPLICE BOLT AND RECESSED NUT	FBB01	FBB01
5/8" GUARDRAIL BOLT AND RECESSED NUT	FBB03	FBB04
5/8" PLAIN ROUND WASHER	FWC16a	FWC16a
16D GALVANIZED NAIL	-	N/A



GUARDRAIL POST IN PAVEMENT
SEE NOTE NO. 9

GUARDRAIL POST IN ROCK FORMATION
SEE NOTE NO. 9

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	08-18	RDL						
2	03-19	RDL						
3	03-20	RDL						

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CADD FILE NAME: 612-1_0420.dgn
DRAWING DATE: JUNE, 2017

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

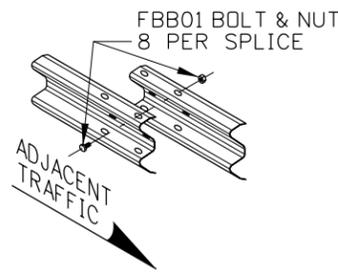
ORIGINAL SIGNED BY: KEVIN SABLAN
DESIGN/TRAFFIC SERVICES ENGINEER

STANDARD DRAWING
31" W-BEAM GUARDRAIL

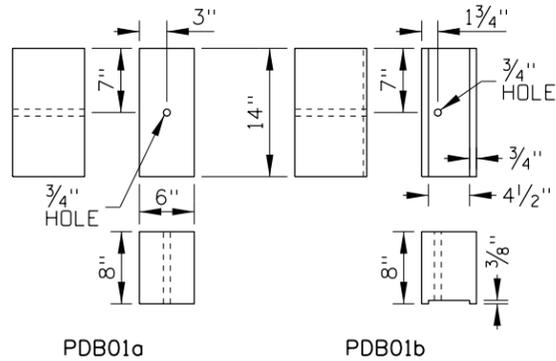
English
STANDARD DRAWING NO.
612-1
SHEET 4 OF 5

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

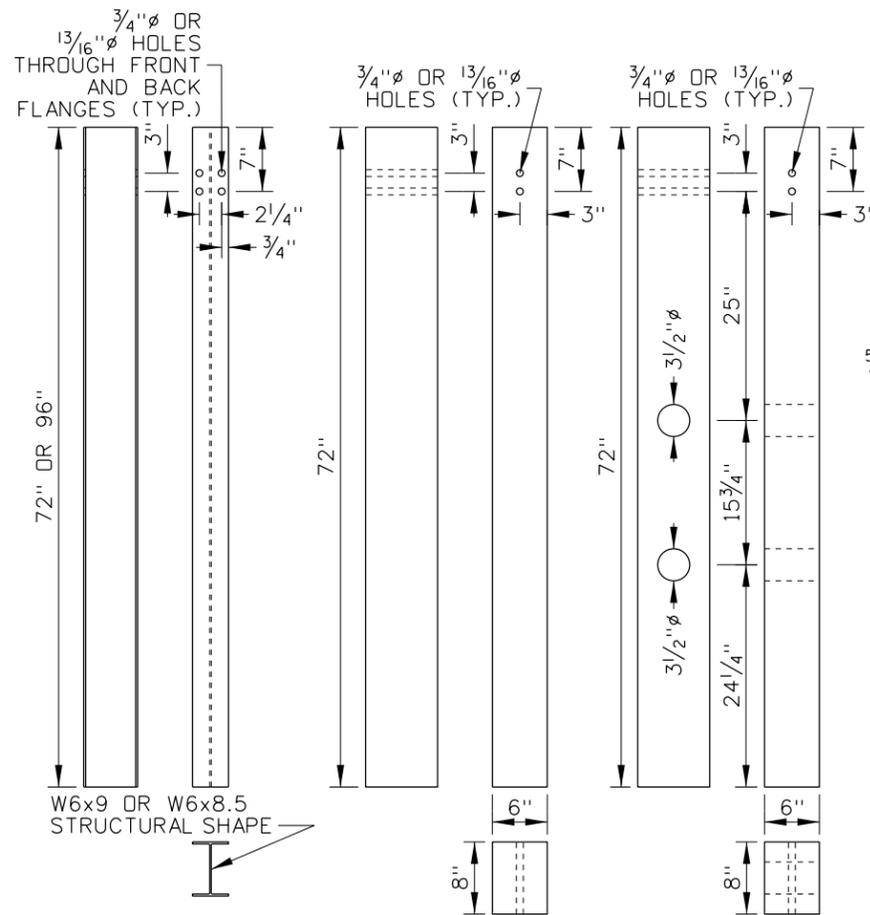
PROFESSIONAL ENGINEER
RYAN D. LANCASTER
13683
STATE OF IDAHO



W-BEAM SPLICE DETAIL
SEE NOTE NO. 14

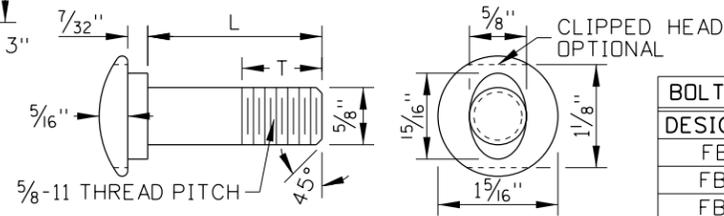


W-BEAM TIMBER BLOCKOUTS



WIDE-FLANGE PWE01, PWE--
TIMBER PDE02, PDE--
CRT TIMBER POST PDE09

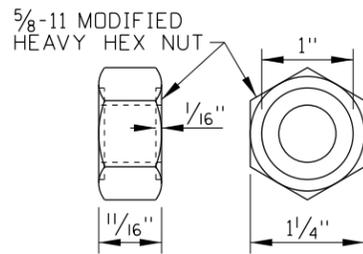
GUARDRAIL POSTS



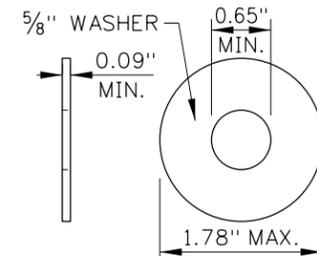
GUARDRAIL BOLT (BUTTON-HEADED)

FBB01, FBB03, FBB04

BOLT DIMENSION TABLE		
DESIGNATOR	L	T
FBB01	1 1/4"	1 1/8"
FBB03	10"	1 3/4"
FBB04	18"	4"



RECESSED NUT



PLAIN ROUND WASHER

FWC16a

NOTES

1. THE 31" W-BEAM GUARDRAIL SYSTEM SHOWN IS A MASH TEST LEVEL 3 BARRIER SYSTEM.
2. PROVIDE BARRIER HARDWARE AS SHOWN AND AS SPECIFIED IN THE PUBLICATION "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE." WHERE THE GUIDE AND PLANS CONFLICT, PROVIDE HARDWARE COMPONENTS AS SHOWN ON THE PLANS.
3. INSTALL GUARDRAIL AS SHOWN IN THE NORMAL APPLICATION UNLESS OTHERWISE INDICATED ON THE PROJECT PLANS. THE CURB APPLICATIONS CAN BE USED WITH ANY OF THE CURB AND GUTTER OR CURB TYPES SHOWN ON THE CURB AND GUTTER STANDARD DRAWING.
4. PLACE 31" W-BEAM GUARDRAIL AS FAR FROM THE TRAVELED WAY AS PRACTICAL. WHERE PRACTICAL PROVIDE THE SHY-LINE OFFSET DISTANCE SHOWN IN THE SHY-LINE OFFSET TABLE.
5. WHERE PRACTICAL, FLARE THE 31" W-BEAM GUARDRAIL AWAY FROM THE TRAVELED WAY. SEE THE SHY-LINE OFFSET AND FLARE RATE TABLE.
6. PROVIDE ADEQUATE DEFLECTION DISTANCE TO OBSTRUCTIONS BEHIND THE GUARDRAIL BY PROVIDING THE WORKING WIDTH SHOWN ON THE PLACEMENT DETAIL AND IN THE DEFLECTION TABLE.
7. DECREASE DEFLECTION BY REDUCING POST SPACING. INTRODUCE EACH REDUCTION IN POST SPACING OVER 25' OR MORE. DO NOT BOLT THE GUARDRAIL TO THE EXTRA POSTS.
8. WIDE-FLANGE OR TIMBER POSTS MAY BE USED UNLESS OTHERWISE INDICATED ON THE PROJECT PLANS. USE THE SAME POST MATERIAL FOR THE PROJECT LENGTH (EXCEPT IN THE 31" LONG-SPAN APPLICATION).
9. REMOVE PAVEMENT AND ROCK AROUND GUARDRAIL POSTS.
10. USE TIMBER OR POLYETHYLENE BLOCKOUTS WITH WIDE-FLANGE POSTS. USE TIMBER BLOCKOUTS WITH TIMBER POSTS. USE THE SAME BLOCKOUT MATERIAL FOR THE PROJECT LENGTH (EXCEPT IN THE 31" LONG-SPAN APPLICATION). THE WIDE-FLANGE POST NORMAL APPLICATION CAN BE CONSTRUCTED WITHOUT BLOCKOUTS IF INDICATED ON THE PROJECT PLANS OR IF APPROVED BY THE ENGINEER.
11. INSTALL THE BLOCKOUT AND W-BEAM GUARDRAIL USING THE HOLE 7" FROM THE TOP OF THE POST. THE HIGHER HOLE IS RESERVED FOR FUTURE GUARDRAIL HEIGHT ADJUSTMENT.
12. NAIL TIMBER BLOCKOUTS TO TIMBER POSTS TO RESTRICT BLOCK ROTATION. NAIL THROUGH THE SIDES OF THE BLOCKOUT AND POST.
13. WHEN WIDE-FLANGE POSTS ARE USED AND WHEN PRACTICAL, INSTALL THE BOLT (FBB03) ON THE UPSTREAM SIDE OF THE POST IN RELATION TO THE ADJACENT TRAFFIC.
14. SPLICE 31" W-BEAM GUARDRAIL BETWEEN POSTS. OVERLAP SPLICES SO THAT THE EXPOSED W-BEAM EDGE IS DOWNSTREAM OF THE ADJACENT TRAFFIC.
15. BEGIN AND END 31" W-BEAM GUARDRAIL WITH A TERMINAL, ANCHOR, OR TRANSITION. CONSTRUCT TERMINALS OR TRANSITIONS USING THE SAME POST MATERIAL AS THE GUARDRAIL WHEN PRACTICAL. SOME ANCHORS AND TERMINALS ARE ONLY AVAILABLE WITH TIMBER OR WIDE-FLANGE POSTS.
16. DELINEATE GUARDRAILS WITH TYPE 9 DELINEATORS. SEE THE DELINEATOR STANDARD DRAWING FOR DELINEATOR SPACING.
17. ONE POST CAN BE OMITTED WITHOUT OTHER MODIFICATION IF APPROVED BY THE ENGINEER. THE LONG-SPAN APPLICATION CAN BE USED WHERE TWO POSTS (18'-9" SPAN) OR THREE POSTS (25' SPAN) ARE OMITTED.
18. WHEN THE LONG-SPAN APPLICATION (18'-9", OR 25') IS USED, INSTALL THREE CRT TIMBER POSTS (PDE09) WITH TIMBER BLOCKOUTS ADJACENT TO THE UPSTREAM AND DOWNSTREAM ENDS OF THE UNSUPPORTED SECTION. DO NOT NEST THE 4-SPACE W-BEAM GUARDRAIL IN THE UNSUPPORTED SECTION. INSTALL AT LEAST 62'-6" OF 31" W-BEAM GUARDRAIL UPSTREAM AND DOWNSTREAM OF THE CRT POSTS.
19. WHEN CONNECTING TO EXISTING GUARDRAIL, TRANSITION THE GUARDRAIL HEIGHT TO 31". REPLACE THE EXISTING W-BEAM GUARDRAIL IF THE TOP OF GUARDRAIL HEIGHT IS LESS THAN 27".
20. DRAWING NOT TO SCALE.

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	08-18	RDL						
2	03-19	RDL						
3	03-20	RDL						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME: 612-1_0420.dgn
DRAWING DATE: JUNE, 2017

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN
DESIGN/TRAFFIC SERVICES ENGINEER

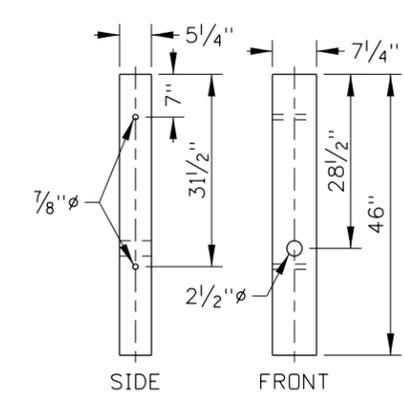
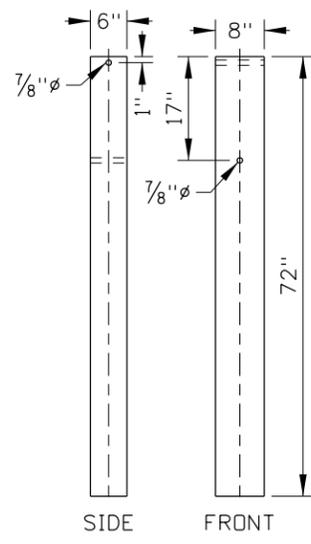
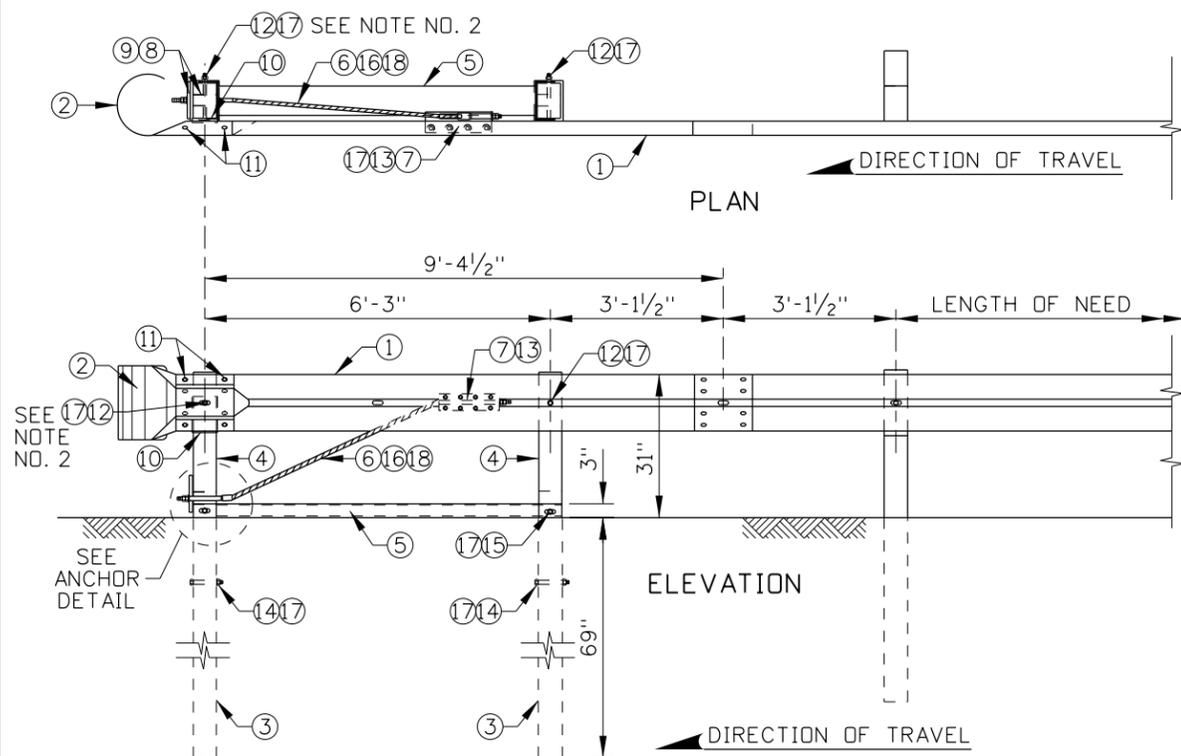
STANDARD DRAWING
31" W-BEAM GUARDRAIL

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

English

STANDARD DRAWING NO. 612-1

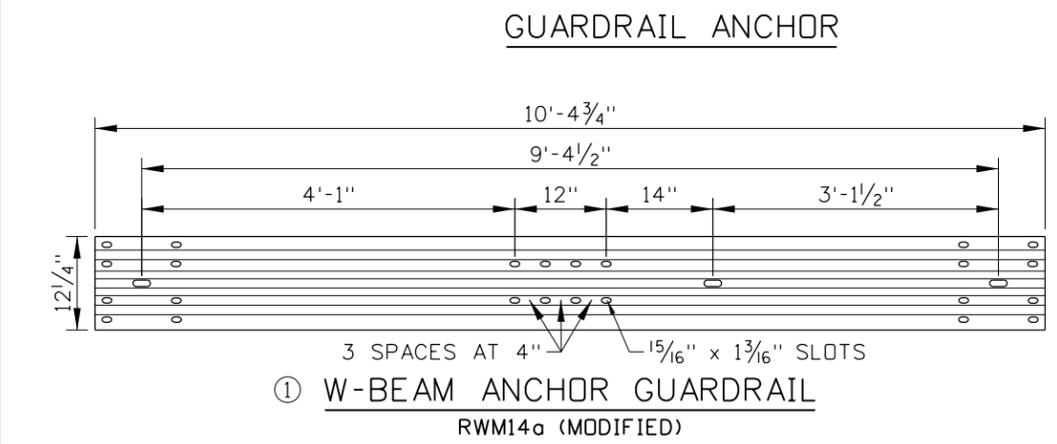
SHEET 5 OF 5



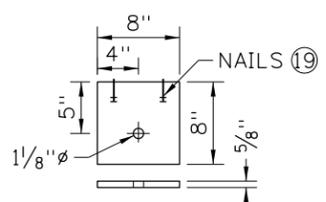
③ FOUNDATION TUBE DETAIL
PTE06

④ BCT TIMBER POST DETAIL
PDF--

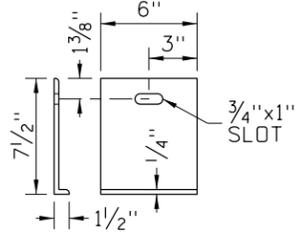
ANCHOR HARDWARE COMPONENTS TABLE			
ITEM NO.	COMPONENT DESCRIPTION	QTY.	TF-13 NAME
①	W-BEAM ANCHOR GUARDRAIL	1	RWM14a (MOD)
②	W-BEAM END SECTION (ROUNDED)	1	RWE03a
③	FOUNDATION TUBE	2	PTE06
④	BCT TIMBER POST	2	PDF--
⑤	STRUT AND YOKE ASSEMBLY	1	PFPO2
⑥	BCT CABLE ANCHOR ASSEMBLY	1	FCA01
⑦	GUARDRAIL ANCHOR BRACKET	1	FPA01
⑧	BCT POST SLEEVE	1	FMM02
⑨	BCT BEARING PLATE	1	FPB01
⑩	SHELF ANGLE BRACKET	1	FPP02
⑪	5/8" GUARDRAIL SPLICE BOLT AND RECESSED NUT	4	FBB01
⑫	10" GUARDRAIL BOLT & RECESSED NUT	2	FBB03
⑬	5/8" X 2" HEX HEAD BOLT & NUT	8	FBX16a
⑭	5/8" X 8" HEX HEAD BOLT & NUT	2	FBX16a
⑮	5/8" X 10" HEX HEAD BOLT & NUT	2	FBX16a
⑯	1" HEX NUTS	4	FNX24a
⑰	5/8" FLAT WASHER	22	FWC16a
⑱	1" FLAT WASHER	2	FWC24a
⑲	16D GALVANIZED NAIL	2	N/A



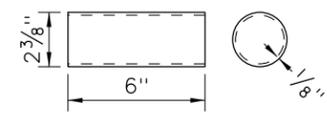
① W-BEAM ANCHOR GUARDRAIL
RWM14a (MODIFIED)



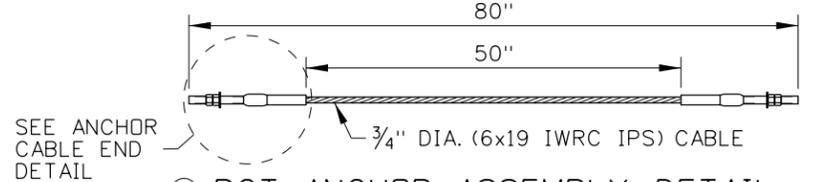
⑨ BCT BEARING PLATE DETAIL
FPB01



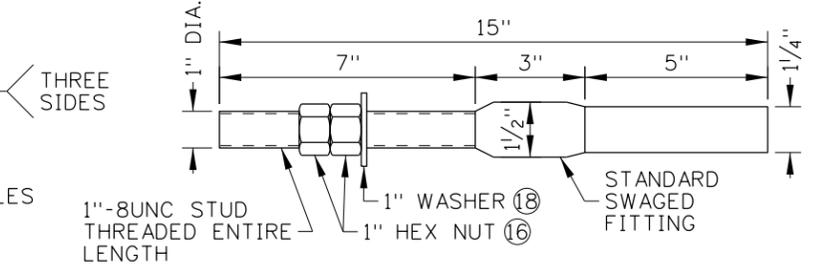
⑩ SHELF ANGLE BRACKET DETAIL
FPP02



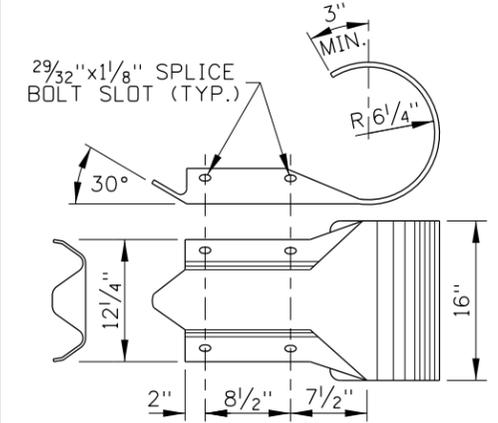
⑧ BCT POST SLEEVE DETAIL
FMM02



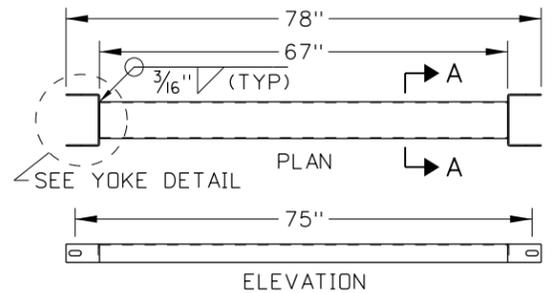
⑥ BCT ANCHOR ASSEMBLY DETAIL
FCA01



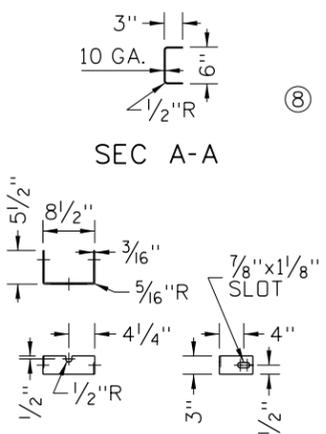
ANCHOR CABLE END DETAIL



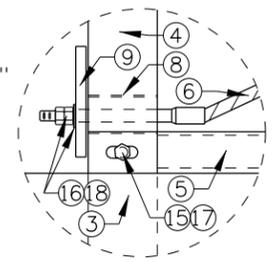
② W-BEAM END SECTION DETAIL
RWE03a



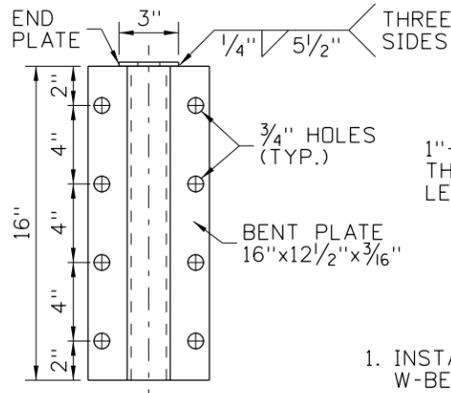
⑤ STRUT AND YOKE ASSEMBLY DETAIL
PFPO2



YOKE DETAIL



ANCHOR DETAIL



⑦ GUARDRAIL ANCHOR BRACKET DETAIL
FPA01

NOTES

1. INSTALL THE ANCHOR SYSTEM ON THE TRAILING END OF 31" W-BEAM GUARDRAIL, OUTSIDE OF THE CLEAR ZONE FOR APPROACHING TRAFFIC, OR BOTH.
2. SUPPORT THE W-BEAM ANCHOR GUARDRAIL AT THE END POST WITH THE SHELF ANGLE BRACKET. DO NOT BOLT THE W-BEAM GUARDRAIL TO THE POST.
3. ENSURE THAT THE FOUNDATION TUBES DO NOT EXTEND MORE THAN 3 3/4" ABOVE THE FINISHED GRADE.
4. INSTALL AN EXTRA HEX NUT ON EACH END OF THE BCT CABLE ANCHOR ASSEMBLY.
5. AFFIX A TYPE 3 OBJECT MARKER TO THE W-BEAM END SECTION WHEN THE ANCHOR IS USED ON AN UNDIVIDED HIGHWAY.
6. DRAWING NOT TO SCALE.

REVISIONS							
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME: 612-5_0617.dgn
DRAWING DATE: JUNE, 2017

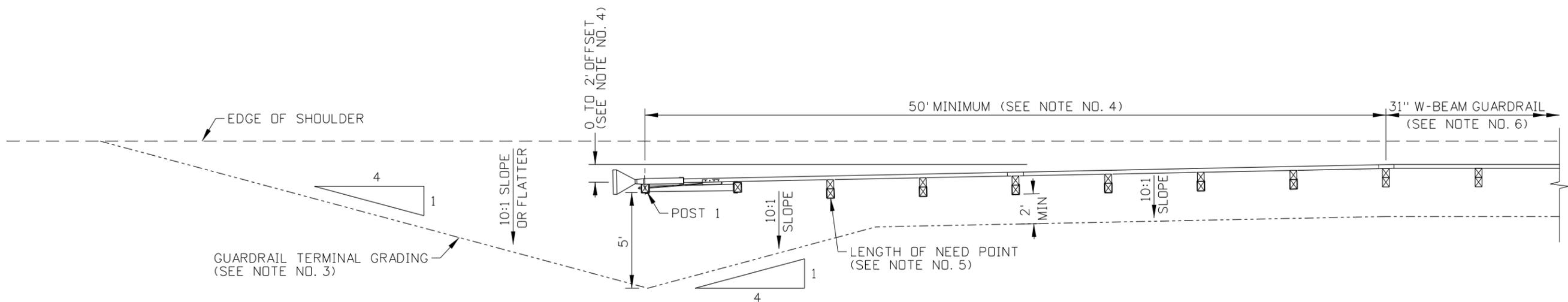
IDAHO TRANSPORTATION DEPARTMENT
BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN
DESIGN/TRAFFIC SERVICES ENGINEER

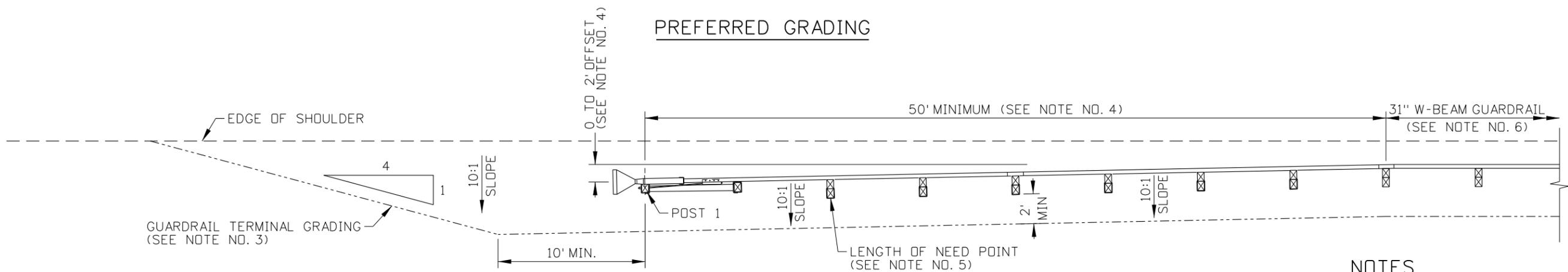
STANDARD DRAWING
GUARDRAIL ANCHOR

English
STANDARD DRAWING NO. 612-5
SHEET 1 OF 1





PREFERRED GRADING



ALTERNATIVE GRADING

NOTES

1. THE TANGENT TERMINAL SHOWN IS AN EXAMPLE ONLY. TANGENT TERMINAL DESIGNS VARY BY PRODUCT AND MANUFACTURER.
2. USE THE PREFERRED GRADING LAYOUT WHEN PRACTICAL. THE ALTERNATIVE GRADING LAYOUT MAY BE USED WHEN UPGRADING AN EXISTING TERMINAL WITH SITE LIMITATIONS. DISTANCES SHOWN FROM THE TERMINAL POSTS TO THE GRADING EXTENTS ARE MEASURED FROM THE BACK OF THE POST.
3. PROVIDE A 4:1 OR FLATTER SLOPE OUTSIDE OF THE GUARDRAIL TERMINAL GRADING EXTENTS WHERE PRACTICAL.
4. INSTALL THE TERMINAL IN ACCORDANCE WITH THE MANUFACTURERS INSTALLATION INSTRUCTIONS. REFER TO THE INSTRUCTIONS FOR SYSTEM LENGTH, OFFSET, NUMBER OF POSTS, POST SPACING, AND WHEN A TANGENT TERMINAL IS TO BE INSTALLED ON A HORIZONTAL CURVE.
5. VERIFY THE LENGTH OF NEED POINT WITH MANUFACTURER INSTRUCTIONS FOR A SPECIFIC PRODUCT. ELEMENTS OF THE GUARDRAIL TERMINAL DOWNSTREAM OF THE LENGTH OF NEED POINT CAN BE INCLUDED AS PART OF THE LENGTH OF NEED.
6. PROVIDE A MINIMUM OF 12'-6" OF 31" W-BEAM GUARDRAIL BETWEEN THE GUARDRAIL TERMINAL AND A GUARDRAIL TRANSITION.
7. IF THE TANGENT TERMINAL DESIGN USES AN ANCHOR CABLE, INSTALL AN EXTRA HEX NUT ON EACH END OF THE CABLE.
8. AFFIX A TYPE 3 OBJECT MARKER TO THE TERMINAL END SECTION.
9. DRAWING NOT TO SCALE.

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	08-18	RDL						
2	03-21	PBH						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 612-8_0421.dgn

DRAWING DATE: JUNE, 2017

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN
DESIGN/TRAFFIC SERVICES ENGINEER

STANDARD DRAWING

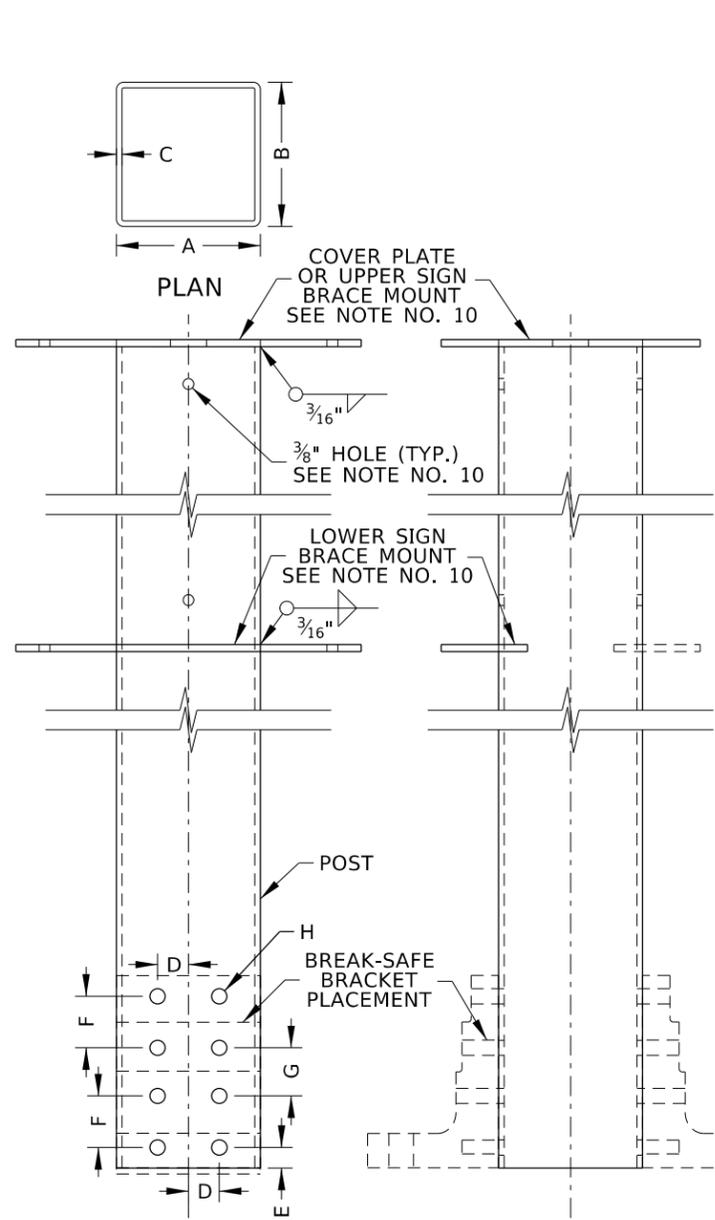
GUARDRAIL TERMINAL TANGENT

English

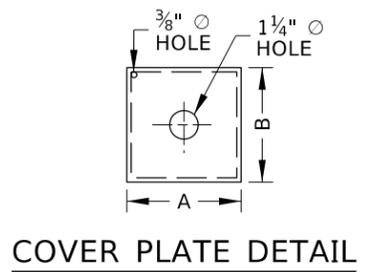
STANDARD DRAWING NO.
612-8

SHEET 1 OF 1

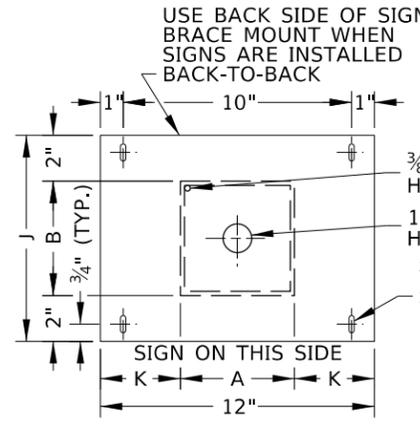
ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho



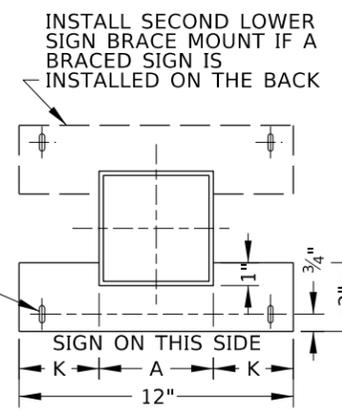
TYPE B - STEEL TUBE POST
SEE NOTE NOS. 10 & 11



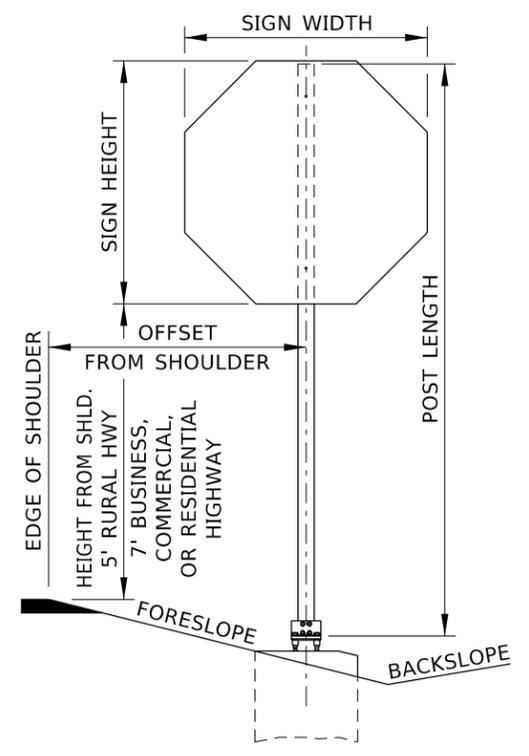
COVER PLATE DETAIL



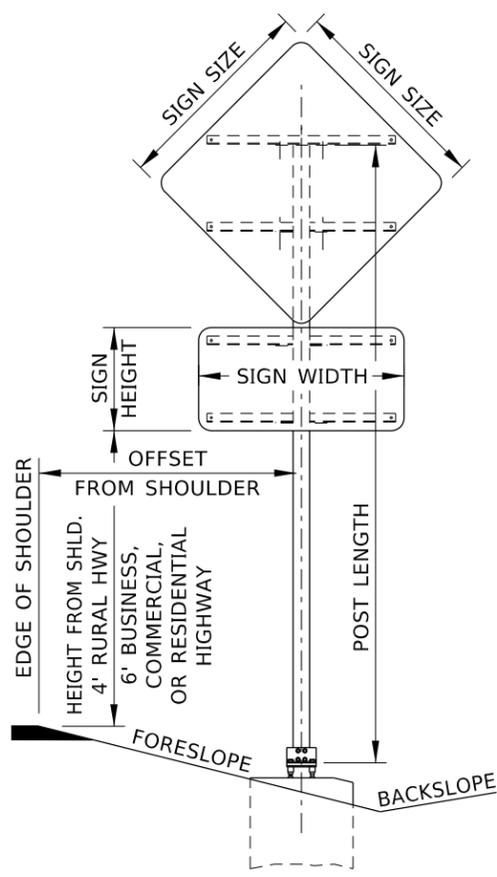
UPPER SIGN BRACE MOUNT DETAIL



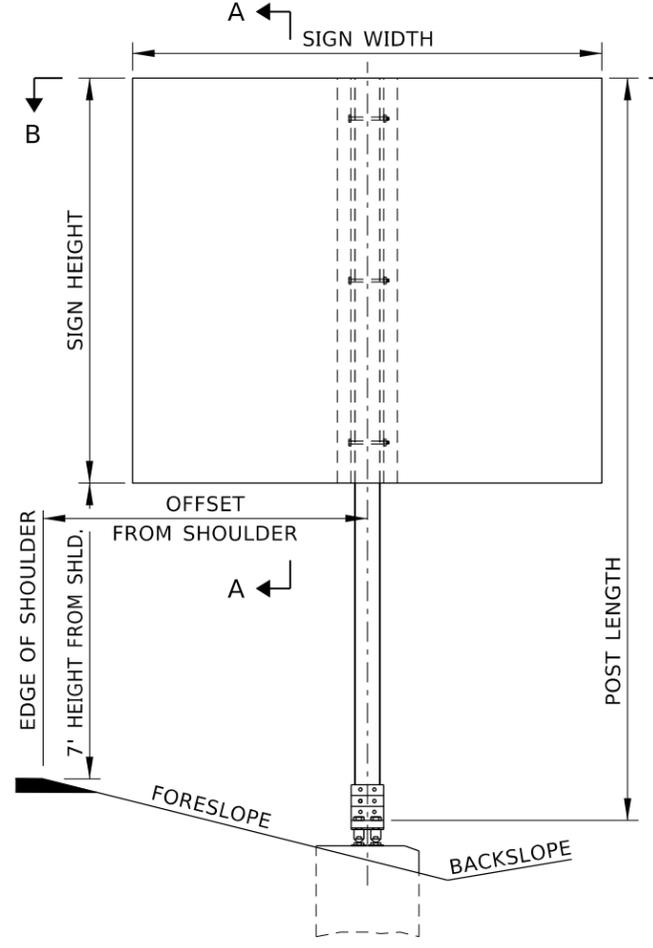
LOWER SIGN BRACE MOUNT DETAIL



INSTALLATION OF SIGN(S) WITHOUT SIGN BRACE MOUNTS AND BRACES

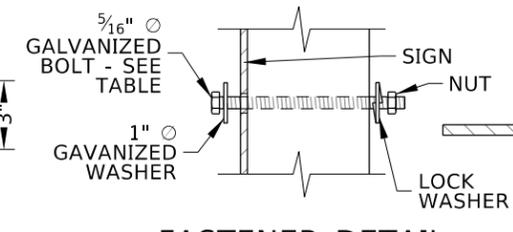


INSTALLATION OF SIGNS WITH SIGN BRACE MOUNTS AND BRACES

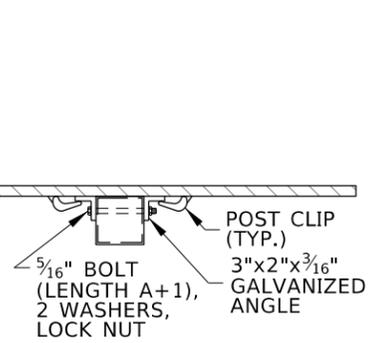


INSTALLATION OF TYPE C EXTRUDED ALUMINUM SIGN
SEE NOTE NO. 11

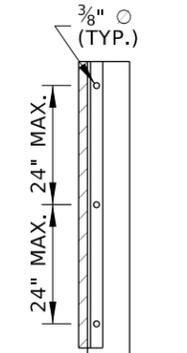
SIGN ASSEMBLY MEASUREMENTS



FASTENER DETAIL
SEE NOTE NO. 10



SECTION B-B



SECTION A-A

SIGN POST, FOUNDATION, AND TEMPLATE TABLE

POST TYPE	STEEL TUBE POST SIZE			POST WEIGHT (LB/FT)	MAXIMUM SIGN LOAD (SFxFT)	BREAK-SAFE ASSEMBLY MODEL	SIGN BRACE MOUNT*					SIZE (DIAxDEPTH) (INxIN)	CONCRETE (CY)	FOUNDATION			REINFORCING STEEL HOOPS			TEMPLATE			FASTENERS SIGN BOLT LENGTH (IN)		
	A (IN)	B (IN)	C (IN)				D (IN)	E (IN)	F (IN)	G (IN)	H (IN)			J (IN)	K (IN)	BAR SIZE	NUMBER OF BARS	LENGTH (FT)	BAR SIZE	NUMBER OF BARS	LENGTH (FT)	L (IN)		M (IN)	N (IN)
B-2	3	4	3/16	8.15	250	AS4	1 1/16	1 7/16	2 1/16	-	9/16	8	4 1/2	24x60	0.6	4	6	26	4	4	21	7 1/16	36	4 1/4	4 1/2
B-3	5	5	3/16	11.96	517	B525	1 1/8	3/4	1 7/8	1 3/4	9/16	9	3 1/2	30x60	0.9	4	6	26	4	4	28	13	40	3	5 1/2
B-4	6	6	3/16	14.51	760	B525	1 1/8	3/4	1 7/8	1 3/4	9/16	10	3	30x60	0.9	4	6	26	4	4	28	14	40	3	6 1/2

* SEE NOTE NO. 10
† SEE NOTE NO. 11

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
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DRAWING DATE: DECEMBER, 2016

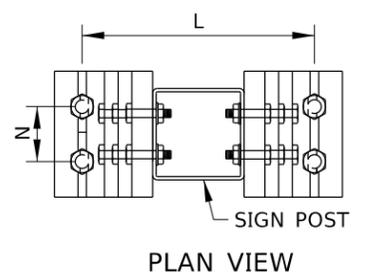
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BOISE IDAHO

ORIGINAL SIGNED BY: MONICA CRIDER
HIGHWAY DESIGN ENGINEER

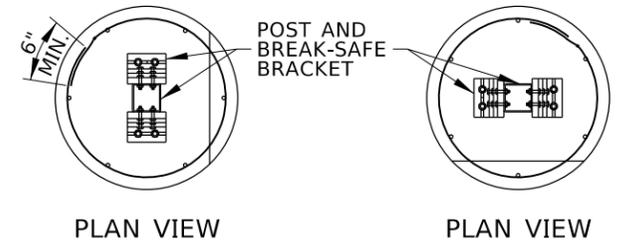
STANDARD DRAWING
STEEL SIGN POST AND FOUNDATION
TYPE B - STEEL TUBE POST

ENGLISH
STANDARD DRAWING NO. 616-6
SHEET 1 OF 2

PROFESSIONAL ENGINEER
RYAN D. LANCASTER
STATE OF IDAHO
MAINT 8, 2014

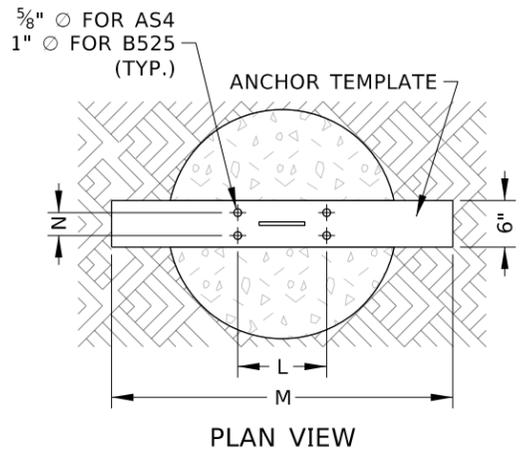


PLAN VIEW

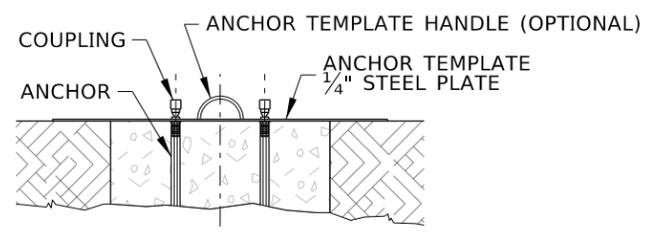


PLAN VIEW

BREAK-SAFE BRACKET DETAIL



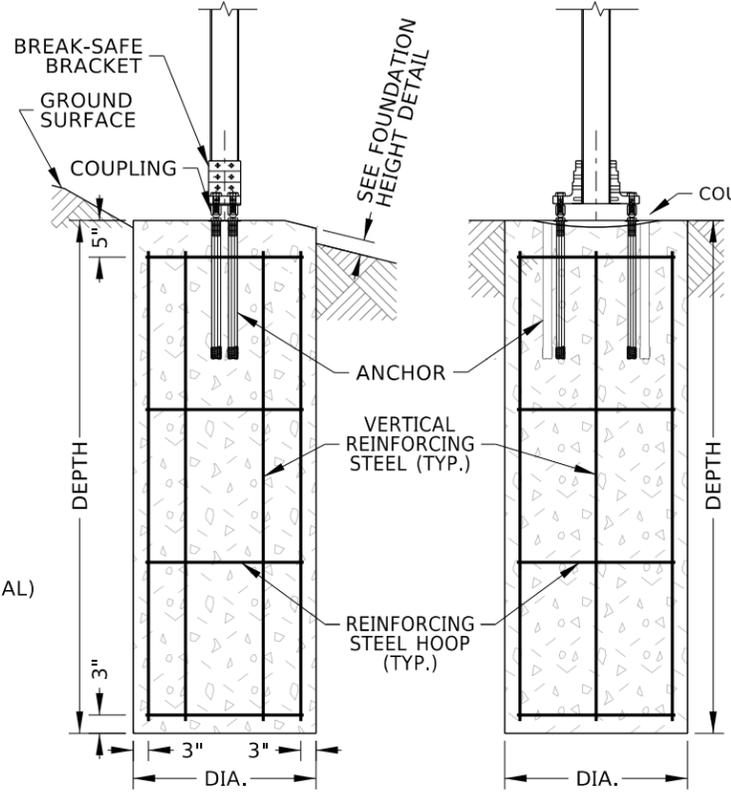
PLAN VIEW



ELEVATION

TEMPLATE DETAIL

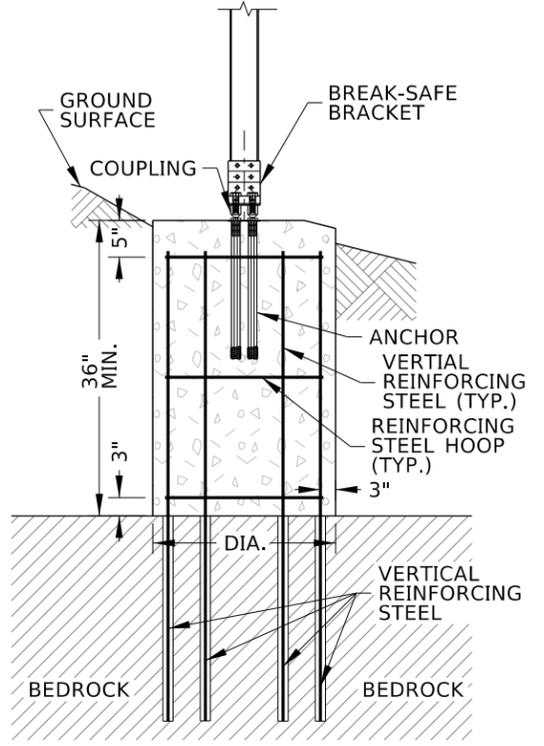
SEE NOTE NO. 3



ELEVATION FRONT VIEW
ELEVATION SIDE VIEW

FOUNDATION

SEE NOTE NOS. 8 & 9



ELEVATION FRONT VIEW

ALTERNATE FOUNDATION

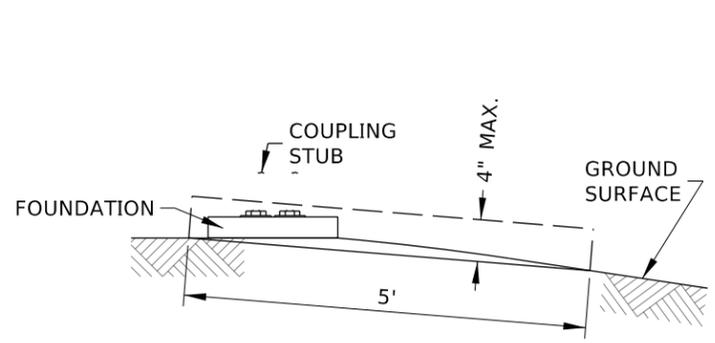
SEE NOTE NO. 9

ALTERNATE FOUNDATION TABLE				
SIZE (DIAxDEPTH) (INxIN)	CONCRETE (CY)	REINFORCING STEEL HOOPS*		
		BAR SIZE	NUMBER OF BARS	LENGTH (FT)
24x36	0.35	4	4	16
30x36	0.55	4	4	21
36x36	0.80	4	4	25

* SEE SIGN POST, FOUNDATION, AND TEMPLATE TABLE FOR VERTICAL REINFORCING STEEL.

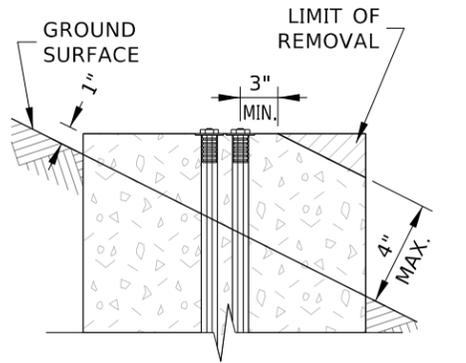
NOTES

- USE TYPE B - STEEL TUBE POSTS - WITH TYPE B - SHEET ALUMINUM, TYPE C - EXTRUDED ALUMINUM PANEL, AND TYPE E - HDO PLYWOOD SIGNS.
- SEE THE TRAFFIC MANUAL TO CALCULATE SIGN LOAD PER POST.
- USE BREAK-SAFE BREAKAWAY SUPPORT SYSTEM WITH TYPE B - STEEL TUBE POSTS. FOLLOW THE MANUFACTURERS INSTRUCTIONS. FABRICATE AND USE AN ANCHOR TEMPLATE TO ENSURE ANCHOR PLACEMENT.
- SEE PROJECT SIGN SUMMARY FOR SIGN ASSEMBLY DIMENSIONS.
- INSTALL ONLY ONE TYPE B - STEEL TUBE POST PER SIGN ASSEMBLY.
- ALIGN POST SO DIMENSION B IS PARALLEL TO THE TRAFFIC DIRECTION.
- STEEL TUBE POSTS (WITH THE BREAK-SAFE BREAKAWAY SUPPORT SYSTEM SHOWN) DO NOT NEED TO BE SHIELDED BY GUARDRAIL OR BARRIER. WHEN STEEL TUBE POSTS ARE INSTALLED BEHIND GUARDRAIL OR BARRIER, ENSURE THE POSTS ARE OUTSIDE OF THE GUARDRAIL OR BARRIER WORKING WIDTH.
- CAST FOUNDATION IN NATIVE SOILS IN AN AUGERED HOLE. IF AN AUGURED HOLE IS IMPRACTICAL, CAST THE FOUNDATION IN A CORRUGATED METAL PIPE FORM AND BACKFILLED IN ACCORDANCE WITH SECTION 210.
- IF SOLID BEDROCK IS ENCOUNTERED WITHIN THE FOUNDATION DEPTH, USE THE ALTERNATE FOUNDATION. QUANTITIES SHOWN FOR THE ALTERNATE FOUNDATION ASSUME 36" DEPTH TO BEDROCK. SOCKET VERTICAL REINFORCING STEEL FOR THE DEPTH SHOWN IN THE FOUNDATION MATERIAL QUANTITIES. DRILL 2 INCH MINIMUM DIAMETER HOLES. FILL DRILLED HOLES WITH GROUT, TYPE B, CLASS 1. NOTIFY THE ENGINEER IF THE DEPTH TO SOLID BEDROCK IS LESS THAN 36". IF LESS THAN 36", REDESIGN OF THE FOUNDATION MAY BE REQUIRED.
- TYPE B - SHEET ALUMINUM - OR TYPE E - HDO PLYWOOD - SIGNS ARE INSTALLED DIRECTLY TO THE POST OR WITH BRACES OR BRACKETS DEPENDENT ON SIGN SIZE AND APPLICATION.
 - IF SIGNS ARE INSTALLED DIRECTLY TO THE POST, WELD A COVER PLATE ON TOP OF THE POST AND DRILL 3/8" HOLES INTO POST TO INSTALL SIGN FASTENERS.
 - IF SIGNS ARE INSTALLED WITH BRACES, WELD SIGN BRACE MOUNTS AND FASTEN THE BRACES TO THE SIGN BRACE MOUNTS.
- FOR TYPE C - EXTRUDED ALUMINUM SIGNS, WELD A COVER PLATE ON TOP OF THE POST AND AFFIX GALVANIZED ANGLE TO POST AND CLIP SIGN TO ANGLE.
- SIGNS CAN BE MOUNTED BACK-TO-BACK IF THE SHAPE OF STOP, YIELD, OR WARNING SIGNS ARE NOT SHIELDED.
- INSTALL SIGNS AT THE FOLLOWING HEIGHTS:
 - IF INSTALLED IN A RURAL AREA, 5 FEET ABOVE THE PAVEMENT ELEVATION OR 4 FEET IF A SUPPLEMENTARY PLAQUE IS INSTALLED BELOW THE SIGN.
 - IF INSTALLED IN THE VICINITY OF A CURB OR IN A BUSINESS, COMMERCIAL, OR RESIDENTIAL AREA WHERE PARKING OR PEDESTRIAN MOVEMENTS ARE LIKELY, 7 FEET ABOVE THE PAVEMENT ELEVATION OR 6 FEET IF A SUPPLEMENTARY PLAQUE IS INSTALLED BELOW THE SIGN. IF INSTALLED LOWER THAN 7 FEET, ENSURE SIGNS DO NOT PROJECT MORE THAN 4 INCHES INTO THE PEDESTRIAN FACILITY.
- WHEN THE SIGN IS INSTALLED ON A BACKSLOPE, ENSURE THE SIGN POST IS AT LEAST 5' HIGHER THAN THE GROUND SURFACE.
- ENSURE NO PART OF THE FOUNDATION OR STUB OF BREAKAWAY SYSTEM PROJECT MORE THAN 4 IN. ABOVE ANY 5 FT. CHORD ALIGNED PERPENDICULARLY TO THE EDGE OF THE HIGHWAY BETWEEN A POINT ON THE GROUND SURFACE ON ONE SIDE OF THE SUPPORT TO A POINT ON THE GROUND SURFACE ON THE OTHER SIDE OF THE SUPPORT.
- DRAWING NOT TO SCALE.



BREAK-SAFE COUPLING STUB HEIGHT DETAIL

SEE NOTE NO. 15



FOUNDATION HEIGHT DETAIL

SEE NOTE NO. 15

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	02-23	RDL						

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CADD FILE NAME: 616-6_0423.dgn
DRAWING DATE: DECEMBER, 2016

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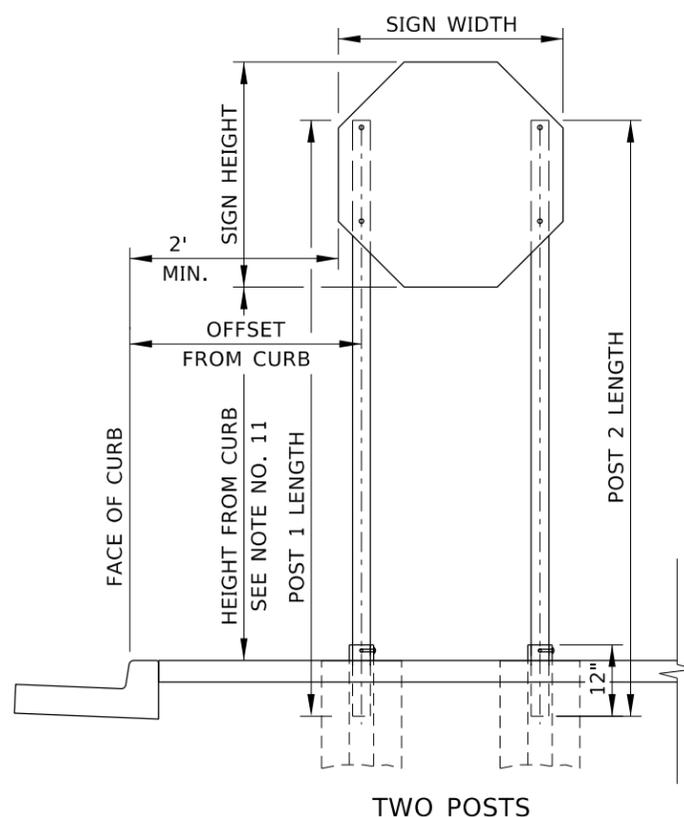
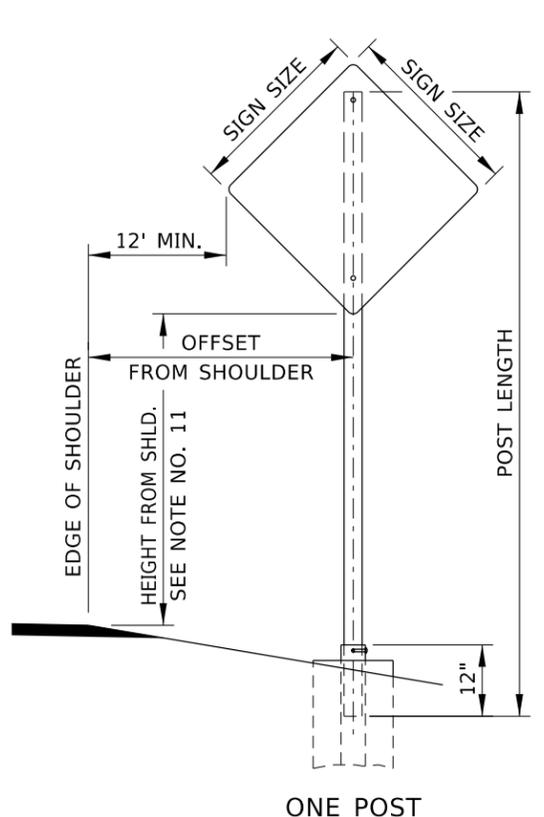
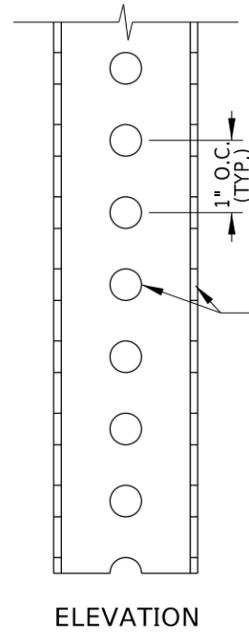
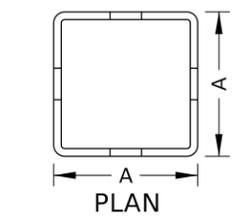
BOISE IDAHO

ORIGINAL SIGNED BY: MONICA CRIDER
HIGHWAY DESIGN ENGINEER

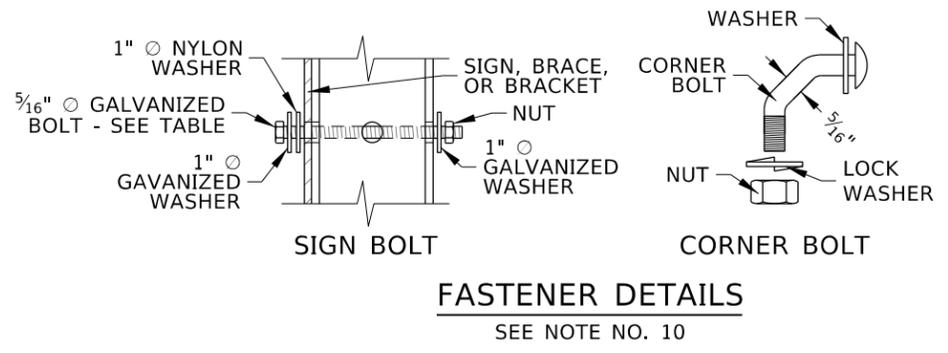
STANDARD DRAWING
STEEL SIGN POST AND FOUNDATION
TYPE B - STEEL TUBE POST

ENGLISH
STANDARD DRAWING NO.
616-6
SHEET 2 OF 2

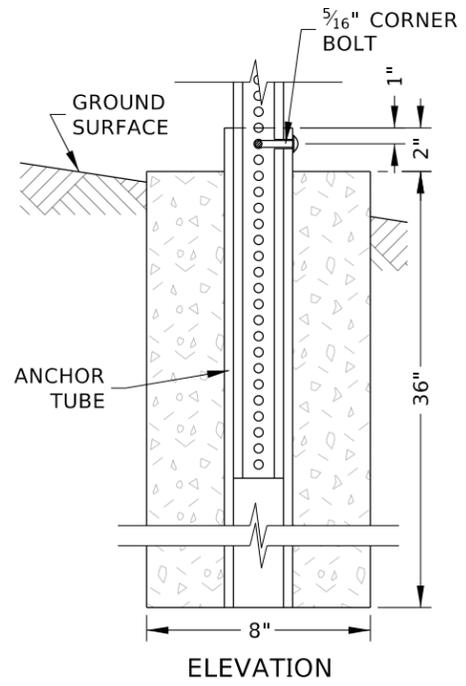
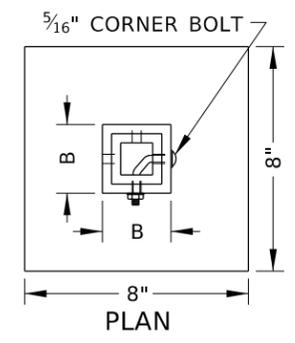
ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho



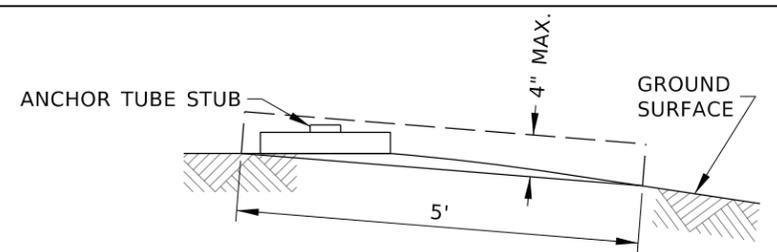
SIGN ASSEMBLY MEASUREMENTS



FASTENER DETAILS
SEE NOTE NO. 10



FOUNDATION
SEE NOTE NOS. 12 & 13



FOUNDATION AND STUB HEIGHT DETAIL
SEE NOTE NO. 15

NOTES

- USE TYPE E - PERFORATED STEEL TUBE POSTS - WITH TYPE B - SHEET ALUMINUM AND TYPE E - HDO PLYWOOD SIGNS.
- SEE THE TRAFFIC MANUAL TO CALCULATE SIGN LOAD PER POST.
- SEE PROJECT SIGN SUMMARY FOR SIGN ASSEMBLY DIMENSIONS.
- USE ONE OR MORE TYPE E - PERFORATED STEEL TUBE POST. DO NOT MIX E-1 AND E-2 POSTS ON THE SAME SIGN ASSEMBLY.
- POST 1 IS CLOSEST TO THE HIGHWAY, WHETHER INSTALLED ON THE RIGHT OR LEFT SIDE.
- A BREAKAWAY DEVICE MUST BE INSTALLED IF THREE POSTS ARE USED. REFER TO THE ITD QUALIFIED PRODUCTS LIST FOR BREAKAWAY DEVICES.
- TYPE E - PERFORATED STEEL TUBE POSTS - DO NOT NEED TO BE SHIELDED BY GUARDRAIL OR BARRIER. WHEN PERFORATED STEEL POSTS ARE INSTALLED BEHIND GUARDRAIL OR BARRIER, ENSURE THE POSTS ARE OUTSIDE OF THE GUARDRAIL OR BARRIER WORKING WIDTH.
- SIGNS CAN BE MOUNTED BACK-TO-BACK IF THE SHAPE OF STOP, YIELD, OR WARNING SIGNS ARE NOT SHIELDED.
- SIGNS ARE INSTALLED WITH OR WITHOUT BRACES DEPENDENT ON SIGN SIZE AND APPLICATION.
- TYPE B - SHEET ALUMINUM - OR TYPE E - HDO PLYWOOD - SIGNS CAN BE AFFIXED TO THE POST OR THROUGH BRACES OR BRACKETS.
- INSTALL SIGNS AT THE FOLLOWING HEIGHTS:
 - IF INSTALLED IN A RURAL AREA, 5 FEET ABOVE THE PAVEMENT ELEVATION OR 4 FEET IF A SUPPLEMENTARY PLAQUE IS INSTALLED BELOW THE SIGN.
 - IF INSTALLED IN THE VICINITY OF A CURB OR IN A BUSINESS, COMMERCIAL, OR RESIDENTIAL AREA WHERE PARKING OR PEDESTRIAN MOVEMENTS ARE LIKELY, 7 FEET ABOVE THE PAVEMENT ELEVATION OR 6 FEET IF A SUPPLEMENTARY PLAQUE IS INSTALLED BELOW THE SIGN. IF INSTALLED LOWER THAN 7 FEET, ENSURE SIGNS DO NOT PROJECT MORE THAN 4 INCHES INTO THE PEDESTRIAN FACILITY.
- PRECAST FOUNDATION OR CAST FOUNDATION IN PLACE. ENSURE THE BOTTOM OF THE FOUNDATION IS KEPT OPEN TO DRAIN. IF THE ANCHOR TUBE IS PERFORATED, ENSURE THE INSIDE OF THE ANCHOR REMAINS OPEN.
- IF SOLID BEDROCK IS ENCOUNTERED WITHIN THE FOUNDATION DEPTH, DRILL A 4.5 INCH VERTICAL HOLE AND SOCKET THE ANCHOR TUBE. FILL DRILLED HOLES WITH GROUT, TYPE B, CLASS 1. ENSURE THE INSIDE OF THE ANCHOR TUBE REMAINS OPEN. WHEN INSTALLED IN BEDROCK, ENSURE THE E-1 POST IS EMBEDDED 18 INCHES DEEP AND THE E-2 POST IS EMBEDDED 24 INCHES.
- WHEN THE SIGN IS INSTALLED ON A BACKSLOPE, ENSURE THE SIGN POST IS AT LEAST 5' HIGHER THAN THE GROUND SURFACE.
- ENSURE NO PART OF THE FOUNDATION OR SIGN POST STUB PROJECTS MORE THAN 4 IN. ABOVE ANY 5 FT. CHORD ALIGNED PERPENDICULARLY TO THE EDGE OF THE HIGHWAY BETWEEN A POINT ON THE GROUND SURFACE ON ONE SIDE OF THE SUPPORT TO A POINT ON THE GROUND SURFACE ON THE OTHER SIDE OF THE SUPPORT.
- DRAWING NOT TO SCALE.

SIGN POST AND FOUNDATION TABLE										
POST TYPE	TYPE E PERFORATED STEEL TUBE POST		POST WEIGHT (LB/FT)	MAXIMUM SIGN LOAD (SFxFT)	FOUNDATION		ANCHOR TUBE		FASTENERS	
	PERFORATED TUBE POST SIZE A (IN)	STEEL TUBE POST SIZE GAUGE			SIZE (INxINxIN)	CONCRETE (CY)	B (IN)	GAUGE	POST WEIGHT (LB/FT)	SIGN BOLT LENGTH (IN)
E-1	2	12	2.42	43	8x8x36	0.05	2 1/2 x 2 1/2	7	5.59	2 1/2
E-2	2 1/2	12	4.01	91	8x8x36	0.05	3x3	7	6.87	3

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	02-92	JEC	6	05-15	HEB			
2	12-94	HEB	7	12-16	HEB			
3	06-99	HEB	8	02-23	RDL			
4	12-01	NQB						
5	12-13	HEB						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME: 616-7_0423.dgn
DRAWING DATE: JULY, 1991

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety → YOUR Mobility → YOUR Economic Opportunity
BOISE IDAHO

ORIGINAL SIGNED BY: MONICA CRIDER
HIGHWAY DESIGN ENGINEER

STANDARD DRAWING
STEEL SIGN POST AND FOUNDATION
TYPE E - PERFORATED STEEL TUBE POST

ENGLISH
STANDARD DRAWING NO.
616-7
SHEET 1 OF 1

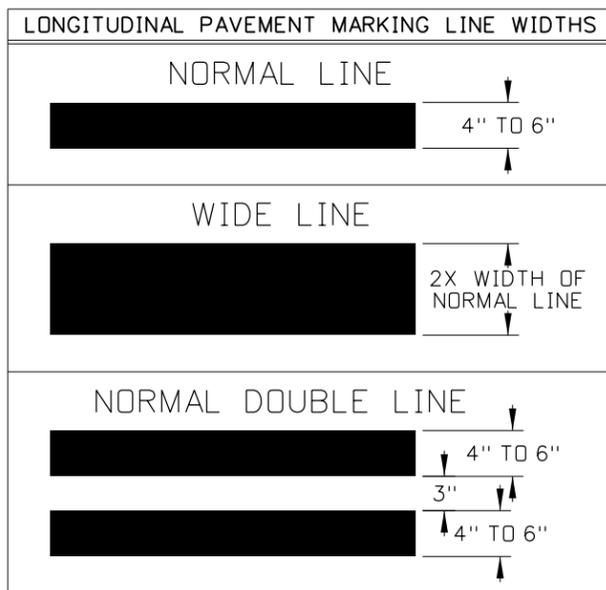
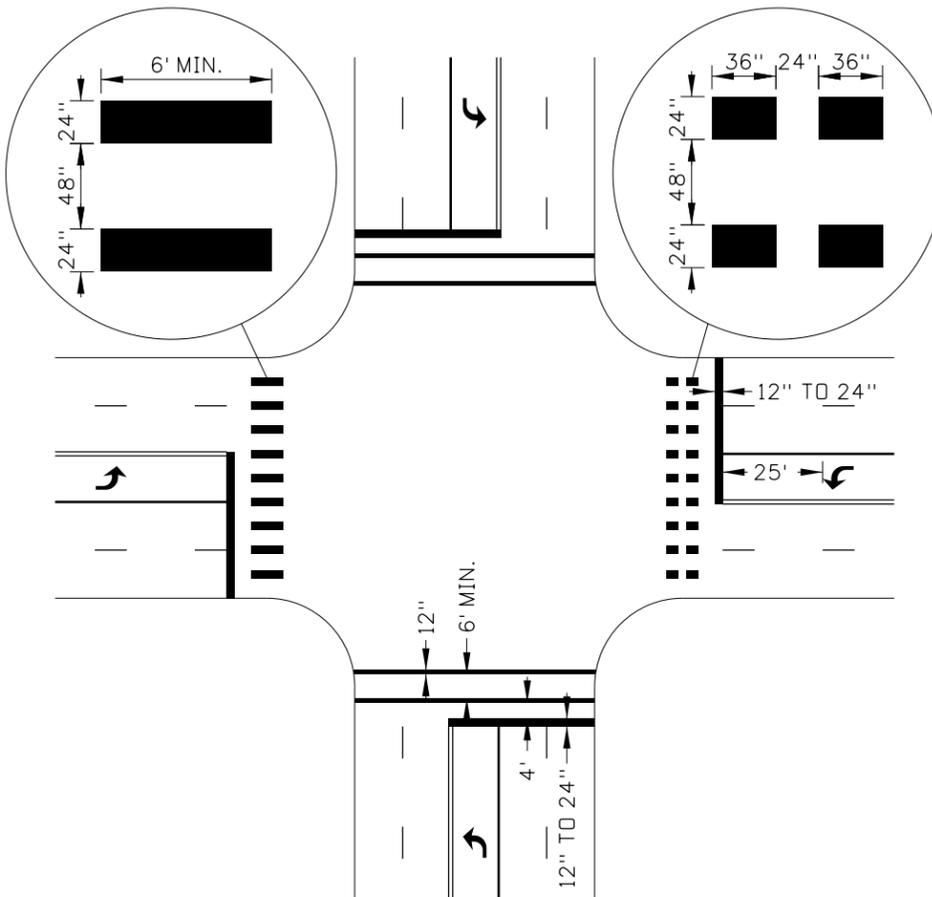
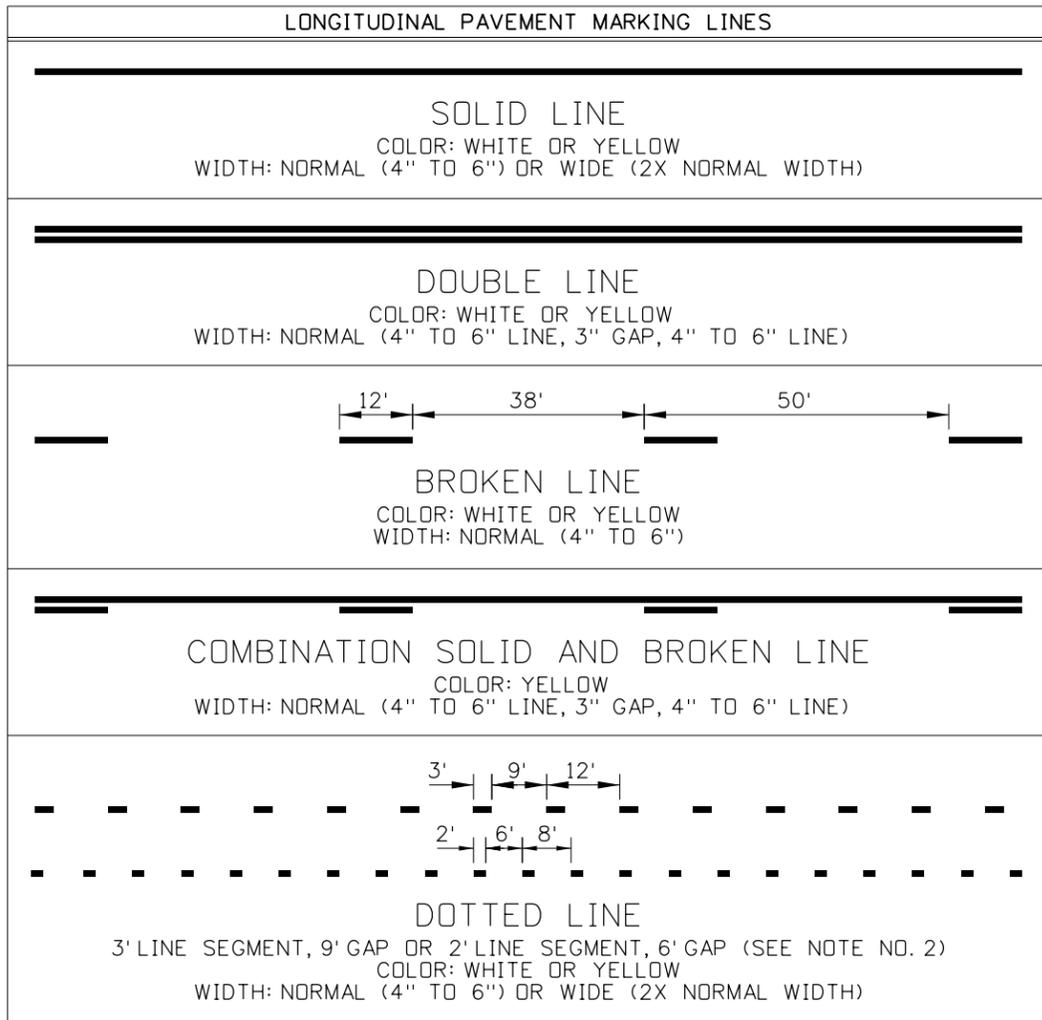
ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER
RYAN D. LANCASTER
MAINT 1, 2014
STATE OF IDAHO

NOTES

- USE WHITE AND YELLOW PAVEMENT MARKINGS AS FOLLOWS:
 WHITE:
 A. THE SEPARATION OF TRAFFIC TRAVELING IN THE SAME DIRECTION.
 B. THE RIGHT-HAND EDGE OF THE HIGHWAY.
 YELLOW:
 A. THE SEPARATION OF TRAFFIC TRAVELING IN OPPOSITE DIRECTIONS.
 B. THE LEFT-HAND EDGE DIVIDED HIGHWAYS, ONE-WAY STREETS, OR RAMP.
 C. TWO-WAY LEFT-TURN LANES.
- USE LONGITUDINAL PAVEMENT MARKINGS AS FOLLOWS:
 A. USE SOLID LINES TO INDICATE THE LEFT OR RIGHT EDGE OF TRAVEL WAY OR TO DISCOURAGE LANE CHANGING.
 B. USE DOUBLE LINES TO PROHIBIT PASSING OR LANE CHANGING.
 C. USE BROKEN LINES TO INDICATE PASSING OR LANE CHANGING ARE PERMITTED. USE THE 12' LINE SEGMENT, 38' GAP PATTERN FOR ALL SPEEDS.
 D. USE COMBINATION SOLID AND BROKEN LINES TO PROHIBIT PASSING IN ONE DIRECTION WHILE PERMITTING PASSING IN THE OPPOSITE DIRECTION OR TO INDICATE A TWO-WAY LEFT-TURN LANE.
 E. USE DOTTED LINES AS FOLLOWS:
 3' LINE SEGMENT, 9' GAP:
 I. TO SEPARATE A THROUGH LANE AND A LANE THAT BECOMES A MANDATORY EXIT OR TURN LANE (DROPPED LANE).
 II. TO SEPARATE THROUGH LANES AND TURN LANES OR RAMP.
 III. TO SEPARATE A THROUGH LANE AND AN AUXILIARY LANE 2 MILES OR LESS IN LENGTH BETWEEN FREEWAY ENTRANCE RAMP AND EXIT RAMP OR 1 MILE OR LESS IN LENGTH BETWEEN INTERSECTIONS.
 2' LINE SEGMENT, 6' GAP:
 I. AS A LANE LINE EXTENSION THROUGH AN INTERSECTION.
- USE 12' VEHICULAR TRAVEL LANES UNLESS OTHERWISE INDICATED. MEASURE LANE WIDTHS FROM THE CENTER OF LINE TO THE CENTER OF LINE.
- THE PAVEMENT MARKING APPLICATION EXAMPLES PRESENTED SHOW COMMON APPLICATION. MODIFY AS NEEDED TO ACCOMMODATE OTHER SITUATIONS.
- METHODS FOR DETERMINING TURN-LANE LENGTH ARE DESCRIBED IN THE ITD TRAFFIC MANUAL.
- USE 15W FOR POSTED SPEED LIMITS OF 45 MPH OR GREATER. USE 8W FOR POSTED SPEED LIMITS OF 40 MPH OR LESS. W IS THE OFFSET WIDTH IN FEET.
- USE DISTANCE L WHEN PRACTICAL. USE THE FOLLOWING EQUATION TO DETERMINE L:

$$L = WS$$
 WHERE:
 W = OFFSET WIDTH IN FEET
 S = POSTED SPEED LIMIT
- USE LANE-USE ARROWS AND WORD PAVEMENT MARKINGS AS SHOWN. SOME MARKINGS ARE OPTIONAL.
 A. USE TWO OR MORE LANE-USE ARROWS UNLESS THE TURN-LANE LENGTH IS LESS THAN 75 FEET. IF SHORTER THAN 75 FEET, THE DOWNSTREAM ARROW CAN BE OMITTED.
 B. USE TWO-WAY LEFT-TURN ARROW MARKINGS NEAR THE BEGINNING OF A TWO-WAY LEFT-TURN LANE AND EVERY 1/2 MILE THEREAFTER.
- BREAK EDGE AND LANE LINES AT INTERSECTIONS WITH MINOR ROADS. CONTINUE EDGE AND LANE LINES THROUGH DRIVEWAY APPROACHES.
- ON TWO-LANE HIGHWAYS, PAINT THE CENTERLINE IN ONE DIRECTION IN ASCENDING STATION/MILEPOST DIRECTION AS SHOWN.
- DRAWINGS NOT TO SCALE.



REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	03-20	RDL						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 630-1_0420.dgn

DRAWING DATE: DECEMBER, 2016

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN
 DESIGN/TRAFFIC SERVICES ENGINEER

STANDARD DRAWING

PAVEMENT MARKINGS

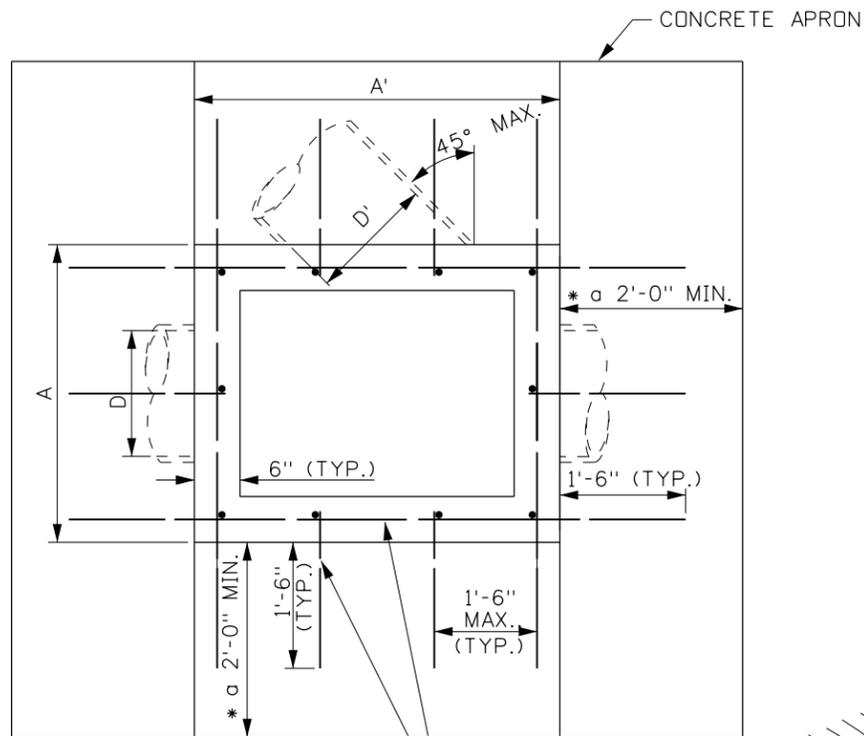
ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

English

STANDARD DRAWING NO. 630-1

SHEET 1 OF 4

PROFESSIONAL ENGINEER
 LICENSED
 13683
 RYAN D. LANCASTER
 STATE OF IDAHO



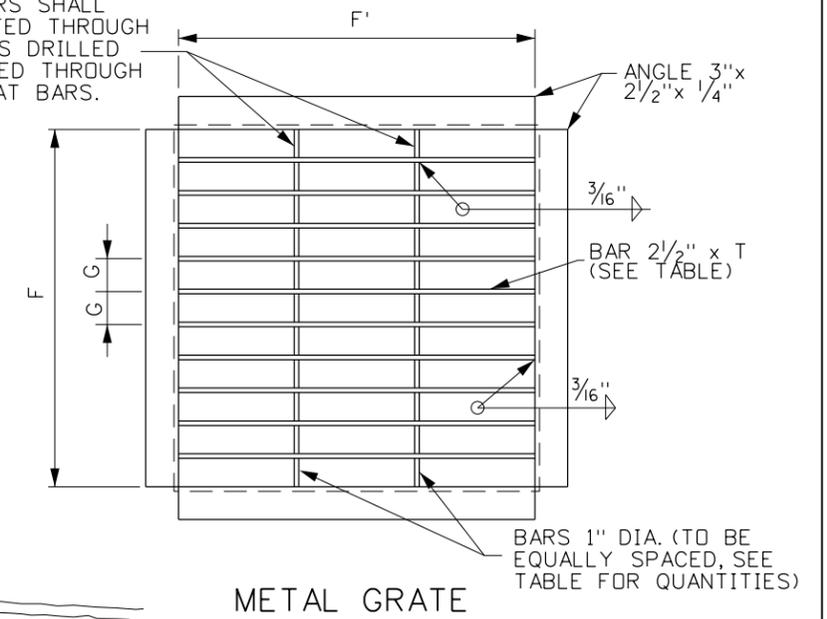
* a ADJUST TO FIT FIELD CONDITIONS
METAL REINFORCEMENT NO. 4 BARS
PLAN

* b TABLE OF DIMENSIONS

D/D'	A/A'	B MIN.	F/F'	G	BARS (E.A.)	T
18"	3'-4"	3'-0"	2'-3"	3"	1	1/4"
24"	4'-0"	3'-7"	2'-11"	3 3/8"	2	1/4"
30"	4'-6"	4'-3"	3'-5"	3 3/8"	3	5/16"
36"	5'-0"	4'-9"	3'-11"	3 3/8"	3	3/8"
48"	6'-0"	5'-2"	4'-11"	3 3/8"	4	1/2"

* b SEE NOTE NO. 5

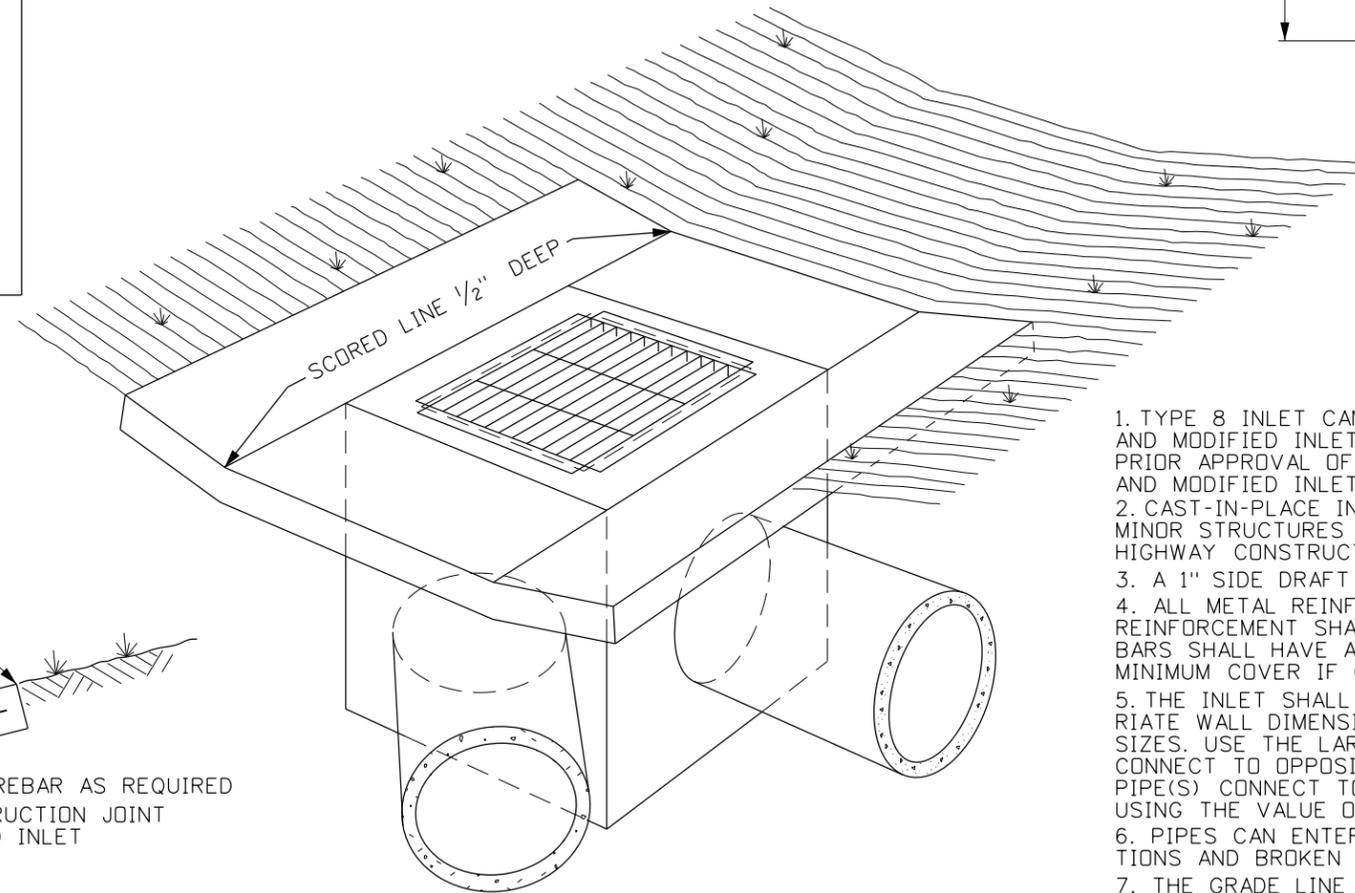
1" DIA. BARS SHALL BE INSERTED THROUGH 1/16" HOLES DRILLED OR PUNCHED THROUGH 1/8" OF FLAT BARS.



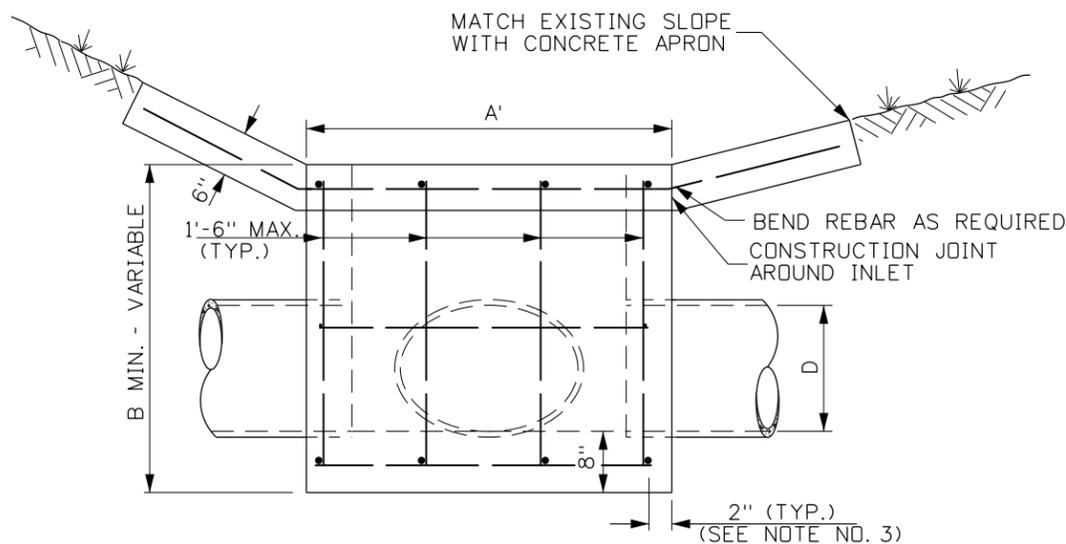
METAL GRATE

NOTES

- TYPE 8 INLET CAN BE EITHER PRECAST OR CAST-IN-PLACE. PRECAST AND MODIFIED INLETS SHALL MEET THE REQUIREMENTS OF ASTM C913. PRIOR APPROVAL OF SHOP DRAWINGS IS REQUIRED FOR USE OF PRECAST AND MODIFIED INLETS. THE APRON MUST BE CAST-IN-PLACE.
- CAST-IN-PLACE INLET TYPE 8 SHALL CONFORM TO SECTION 609 - MINOR STRUCTURES OF THE CURRENT ITD STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
- A 1" SIDE DRAFT IS ALLOWED FOR FORM REMOVAL.
- ALL METAL REINFORCEMENT USED SHALL BE NO. 4 BARS. THE METAL REINFORCEMENT SHALL BE SMOOTH CUT TO ACCOMMODATE PIPES. ALL BARS SHALL HAVE A MINIMUM CONCRETE COVER OF 2" AND/OR 3" MINIMUM COVER IF CAST AGAINST EARTH.
- THE INLET SHALL BE CONSTRUCTED RECTANGULAR USING THE APPROPRIATE WALL DIMENSIONS (A & A') DETERMINED BY THE CONNECTING PIPE SIZES. USE THE LARGER WALL DIMENSION IF TWO DIFFERENT PIPE SIZES CONNECT TO OPPOSITE WALLS. USE THE MINIMUM WALL DIMENSION IF NO PIPE(S) CONNECT TO OPPOSITE WALLS. SELECT THE DEPTH (B MIN.) BY USING THE VALUE OF THE INLET'S LARGEST CONNECTING PIPE.
- PIPES CAN ENTER OR LEAVE THE BOX IN ANY DIRECTION. ALL CONNECTIONS AND BROKEN AREAS SHALL BE GROUTED SMOOTH.
- THE GRADE LINE OF THE TOP INSIDE OF ANY INLET PIPE SHALL BE AT A POINT NO LOWER THAN THE TOP INSIDE OF THE OUTLET PIPE.
- ONLY COMBINATIONS OF THE DIMENSIONS SHOWN ON THE TABLE SHALL BE USED TO CONSTRUCT A TYPE 8 INLET.
- THE METAL FOR THE GRATE SHALL MEET THE REQUIREMENTS OF ASTM A36. THE METAL GRATE NEED NOT BE PAINTED OR GALVANIZED.
- WELDING OF THE METAL GRATE SHALL MEET THE REQUIREMENTS OF THE AMERICAN WELDING SOCIETY D1.1.
- GRAY IRON CAST TO THE DIMENSIONS GIVEN FOR THE STEEL GRATES MAY BE USED. THE CASTINGS SHALL CONFORM TO AASHTO M306 CLASS 35B GRAY IRON CASTINGS.
- NOT TO SCALE.



PERSPECTIVE VIEW



ELEVATION

INLET - DETAILS

REVISIONS

NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	10-80		6	11-08	JRV			
2	12-92	MSM						
3	1-97	MSM						
4	3-01	MSM						
5	12-04	MSM						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
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DRAWING DATE: AUGUST, 1972

IDAHO TRANSPORTATION DEPARTMENT
BOISE IDAHO

ORIGINAL SIGNED BY: LOREN THOMAS
ASSISTANT CHIEF ENGINEER (DEVELOPMENT)
ORIGINAL SIGNED BY: TOM COLE
CHIEF ENGINEER

STANDARD DRAWING
INLET TYPE 8

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho
English
STANDARD DRAWING NO. 605-25
SHEET 1 OF 1

PROFESSIONAL ENGINEER
REGISTERED
NOVEMBER 3, 2004
STATE OF IDAHO
TED E. MASON