WKE

AUGUST 2019

PROJECT ID:
WITH: 1100-41-70

1100-27-70, 1107-00-71

COUNTY: **WASHINGTON**

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
~~Section No.~~	~~4~~	~~Right of Way Plat~~
~~Section No.~~	~~5~~	~~Plan and Profile~~
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
~~Section No.~~	~~8~~	~~Structure Plans~~
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 402

05

DESIGN DESIGNATION 1100-27-70/1107-00-71

A.A.D.T.	2017	=	35,600
A.A.D.T.	2025	=	36,070
D.H.V.		=	12.2
D.D.		=	62/38
T.		=	11.2
DESIGN SPEED		=	75 MPH
ESALS		=	6 MILLION ESALS

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE (300'EB')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1100-27-70	WISC 2019578	1
1107-00-71	WISC 2019580	1

IH 41
STH 145 TO DODGE COUNTY LINE

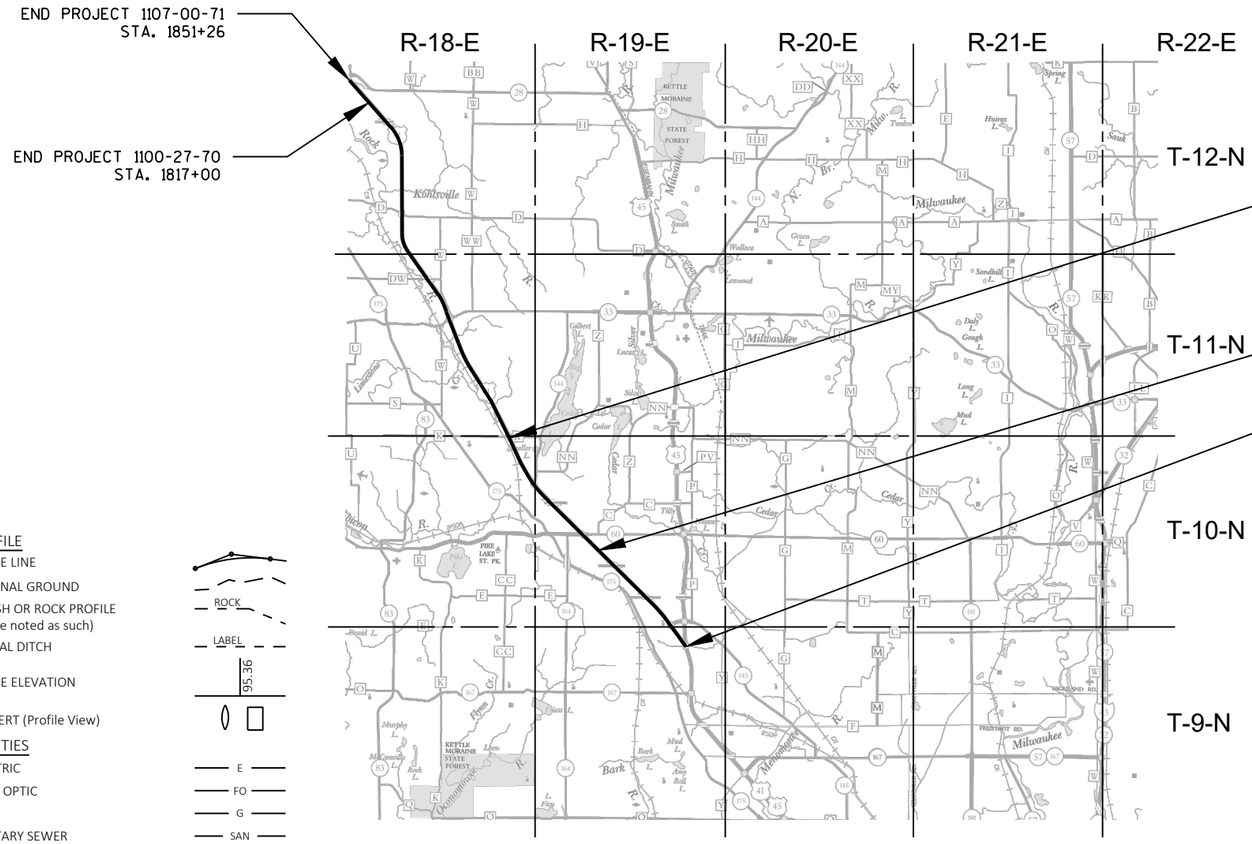
IH 41
WASHINGTON COUNTY

STATE PROJECT NUMBER
1100-27-70

IH 41
USH 41/45 SPLIT TO DODGE CO LINE

IH 41
WASHINGTON COUNTY

STATE PROJECT NUMBER
1107-00-71



LAYOUT

SCALE 0 5 MI

TOTAL NET LENGTH OF CENTERLINE = 21.860

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, WASHINGTON COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT
Designer	WISDOT
Project Manager	CHRIS HAGER, P.E.
Regional Examiner	WISDOT
Regional Supervisor	WILLIAM S. MOHR, P.E.

APPROVED FOR THE DEPARTMENT

DATE: 5/1/19 (Signature)

E

FILE NAME : N:\PDS\C3D\11002700\SHEETSPLAN\010101_TI.DWG PLOT DATE : 4/26/2019 11:12 AM PLOT BY : MCGILLICUDDY, BENJAM PLOT NAME :

GENERAL NOTES

DO NOT REMOVE ANY TREES OR SHRUBS WITHOUT APPROVAL OF THE ENGINEER.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATION AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH DIGGERS HOTLINE AND AFFECTED UTILITIES TO FIELD LOCATE UTILITIES PRIOR TO THE START OF WORK. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ANY LOCAL MUNICIPAL UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE SEPARATELY.

WHEN THE QUANTITY OF HMA PAVEMENT OR BASE AGGREGATE IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLAN IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

CROSS SECTIONS SHOWN INCLUDE THE THICKNESS OF TOPSOIL WHERE REQUIRED. TOPSOIL SHALL BE REPLACED WITH 6-INCH TYPICAL DEPTH

A SAWED JOINT IS REQUIRED WHERE NEW HMA PAVEMENT MEETS EXISTING HMA PAVEMENT.

RE-TOPSOIL OF GRADED AREAS, AS DESIGNATED BY THE ENGINEER, IMMEDIATELY AFTER GRADING IS COMPLETED WITHIN THOSE AREAS. SEED, FERTILIZE, AND MULCH/EROSION MAT TOP-SOILED AREAS, AS DESIGNATED BY THE ENGINEER, WITHIN FIVE (5) CALENDAR DAYS AFTER PLACEMENT OF TOPSOIL. IF GRADED AREAS ARE LEFT EXPOSED FOR MORE THAN FOURTEEN (14) CALENDAR DAYS, SEED THOSE AREAS WITH TEMPORARY SEED AND MULCH.

STOCKPILE EXCESS MATERIAL OR SOILS ON UPLAND AREAS AWAY FROM WETLANDS, FLOODPLAINS AND WATERWAYS. STOCKPILED SOIL SHALL BE PROTECTED AGAINST EROSION. IF STOCKPILED MATERIAL LEFT FOR MORE THAN FOURTEEN (14) CALENDAR DAYS, SEED THE STOCKPILE WITH TEMPORARY SEED AND MULCH.

TEMPORARY SEED AND MAT ANY/ALL DISTURBED AREAS WITHIN 48 HOURS OF ANY DISTURBANCE IF AREA WILL NOT BE STABILIZED/FINISHED RESTORED IN 21 DAYS OR LESS.

EROSION CONTROL DEVICES ARE AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTORS ECIP AND BY THE ENGINEER. EROSION CONTROL BMPS SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE BMP IS NO LONGER REQUIRED.

FILL ALL HOLES OR OPENINGS BELOW SUBGRADE RESULTING FROM ABANDONMENT OR REMOVAL OF EXISTING STRUCTURES WITH COMPACTED BACKFILL GRANULAR UNLESS REGULATIONS REQUIRE OTHERWISE. BACKFILL GRANULAR MATERIAL IS INCIDENTAL TO THE REMOVAL ITEM.

FERTILIZER SHALL NOT BE USED WITHIN 100' OF NAVIGABLE WATERWAYS OR WETLANDS.

THE EXACT LOCATION OF EXCAVATION BELOW SUBGRADE (EBS) WILL BE DETERMINED BY THE ENGINEER

SQUEEGEE ALL SAWCUT SLURRY TO THE AGGREGATE SHOULDER AND/OR REMOVE INCIDENTAL TO SAWCUTTING.

ALL TYPES OF HMA PAVEMENT SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYERS AND GRADATIONS:

	PAVEMENT TYPE	TOTAL LAYER PAVEMENT THICKNESS	LAYERS
A	4 HT 58-28 H	2"	2" UPPER

ORDER OF SECTION 2 SHEETS

GENERAL NOTES & INDEX
UTILITY CONTACTS
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN DETAILS
EROSION CONTROL
PAVEMENT MARKING
TRAFFIC CONTROL
ALIGNMENT LAYOUT
SURVEY CONTROL

STANDARD ABBREVIATIONS

AEW	APRON ENDWALL
AGG	AGGREGATE
ASPH	ASPHALTIC
BAD	BASE AGGREGATE DENSE
BM	BENCHMARK
C&G	CURB AND GUTTER
CL OR $^{C}_{L}$	CENTER LINE OR CONSTRUCTION LINE
CMCP	CULVERT PIPE CORRUGATED METAL
CONC	CONCRETE
CP	CULVERT PIPE
CPRC	CULVERT PIPE REINFORCED CONCRETE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE
CSD	CONCRETE SURFACE DRAIN
CY	CUBIC YARD
D	DEGREE OF CURVE
Δ	DELTA
DISCH	DISCHARGE
EB	EASTBOUND
FE	FIELD ENTRANCE
FL	FLOW LINE
HMA	HOT MIX ASPHALTIC
INV	INVERT
L	LENGTH OF CURVE
LHF	LEFT HAND FORWARD
LP	LOW POINT
LT	LEFT
MIN	MINIMUM
M/L	MATCHLINE
NB	NORTHBOUND
NC	NORMAL CROWN
PAVT	PAVEMENT
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVE
PE	PRIVATE ENTRANCE
PI	POINT OF INTERSECTION
PGL	PROFILE GRADE LINE
PLE	PERMANENT LIMITED EASEMENT
PRC	POINT OF REVERSE CURVE
PT	POINT OF TANGENT
R	RADIUS OF CURVE
R/L	REFERENCE LINE
R/W	RIGHT OF WAY
RC	REVERSE CROWN
RCAEW	APRON END WALL FOR CULVERT PIPE
REQD	REQUIRED
RHF	RIGHT HAND FORWARD
RO	RUN OFF LENGTH
RRSP	RAILROAD SPIKE
RT	RIGHT
SALV	SALVAGED
SAPBC	SALVAGED ASPHALTIC PAVEMENT BASE COURSE
SB	SOUTHBOUND
SDD	STANDARD DETAIL DRAWING
SE	SUPER ELEVATION
SF	SQUARE FOOT
SI	SLOPE INTERCEPT
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
STA	STATION
SY	SQUARE YARD
T	TANGENT LENGTH
TLE	TEMPORARY LIMITED EASEMENT
VCL	VERTICAL CURVE LENGTH
VPC	POINT VERTICAL CURVE
VPI	POINT OF VERTICAL INTERSECTION
VPT	POINT OF VERTICAL TANGENT
WB	WESTBOUND

UTILITY CONTACTS

AT&T WISCONSIN
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VILLAGE OF SLINGER – SEWER & WATER
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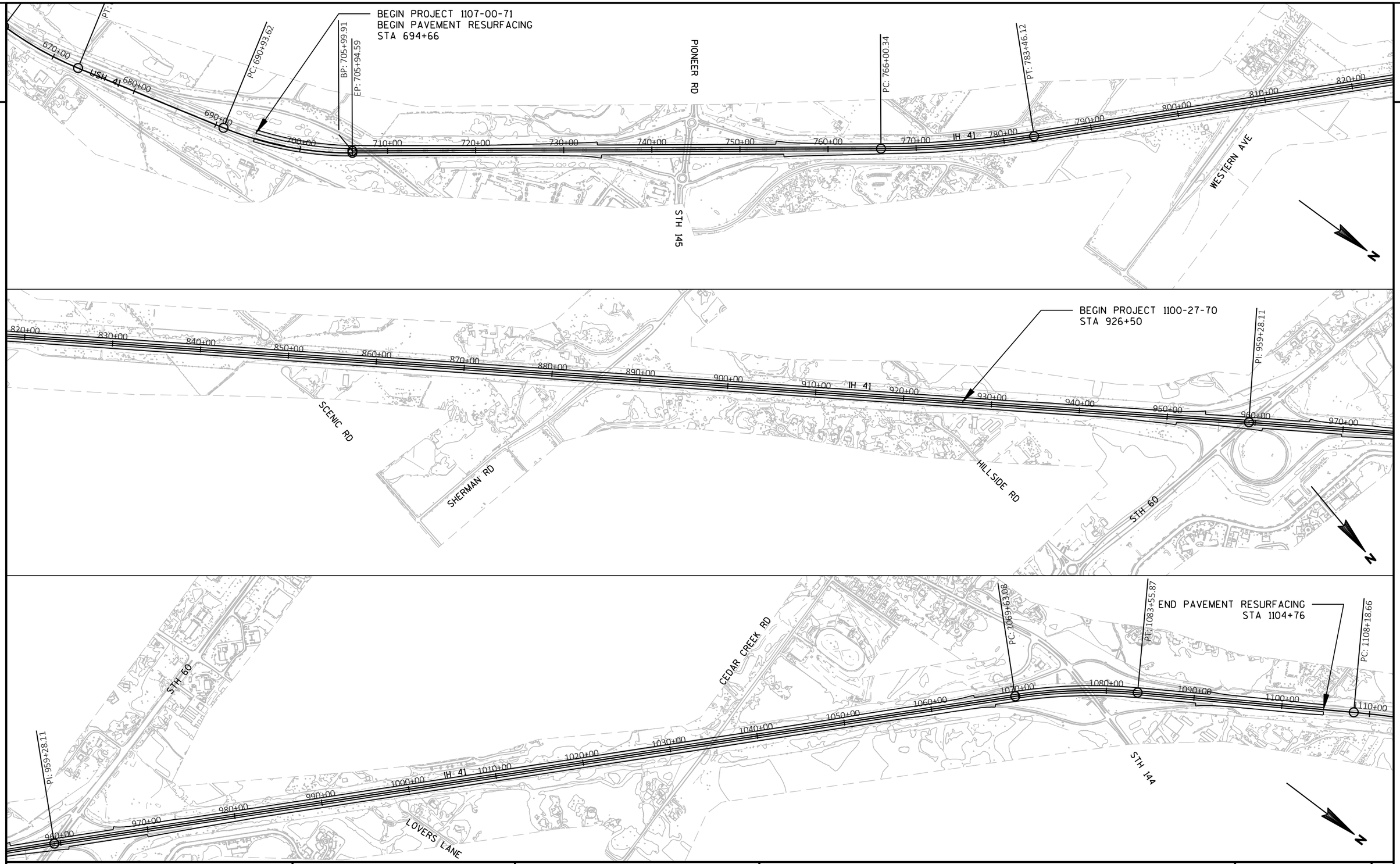
DIGGERS HOTLINE
Dial 811 or (800) 242-8511
www.DiggersHotline.com



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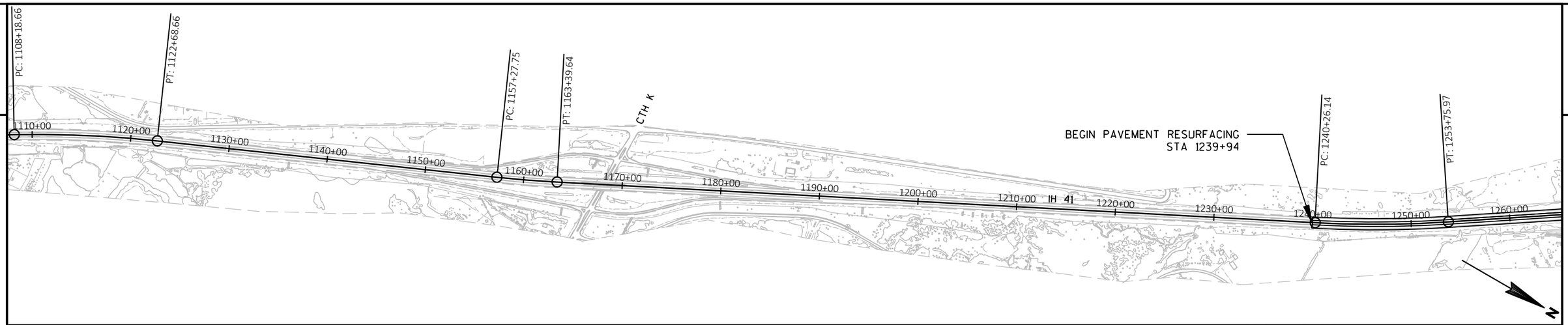

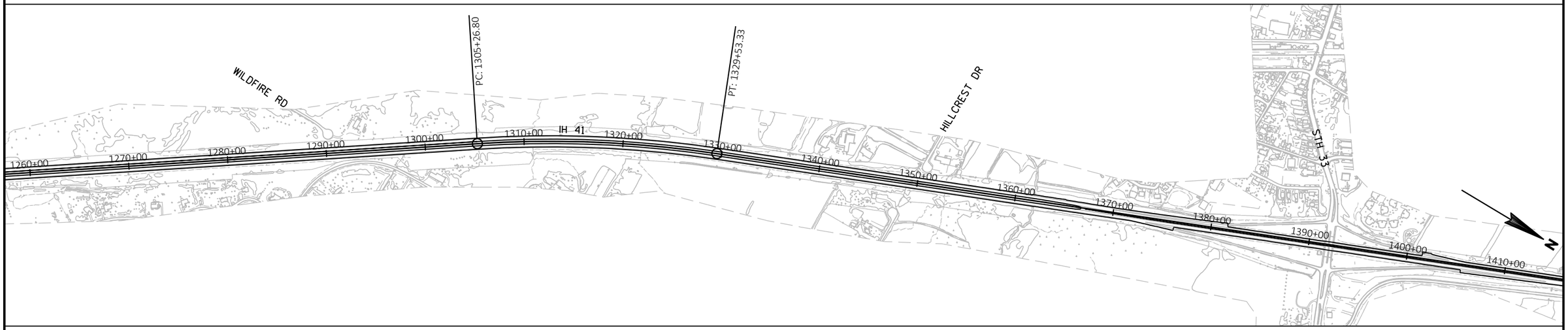

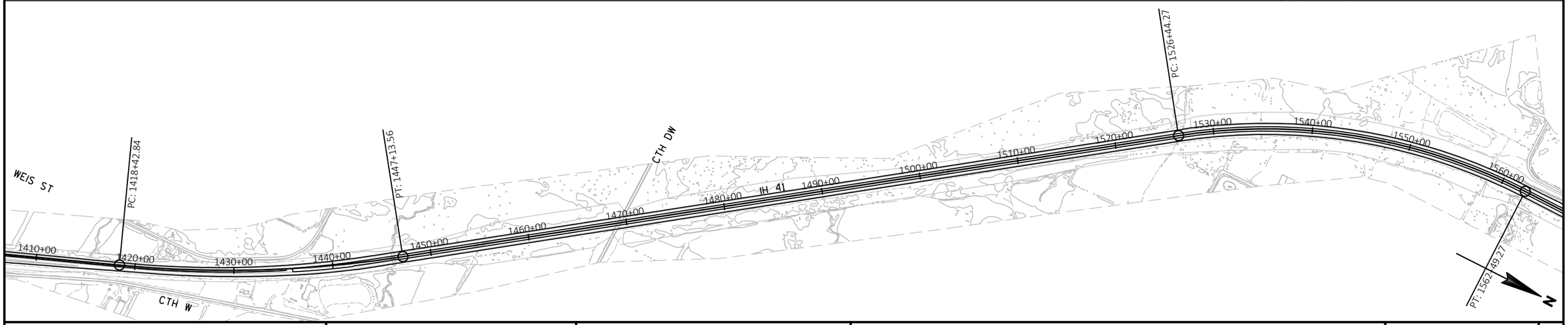

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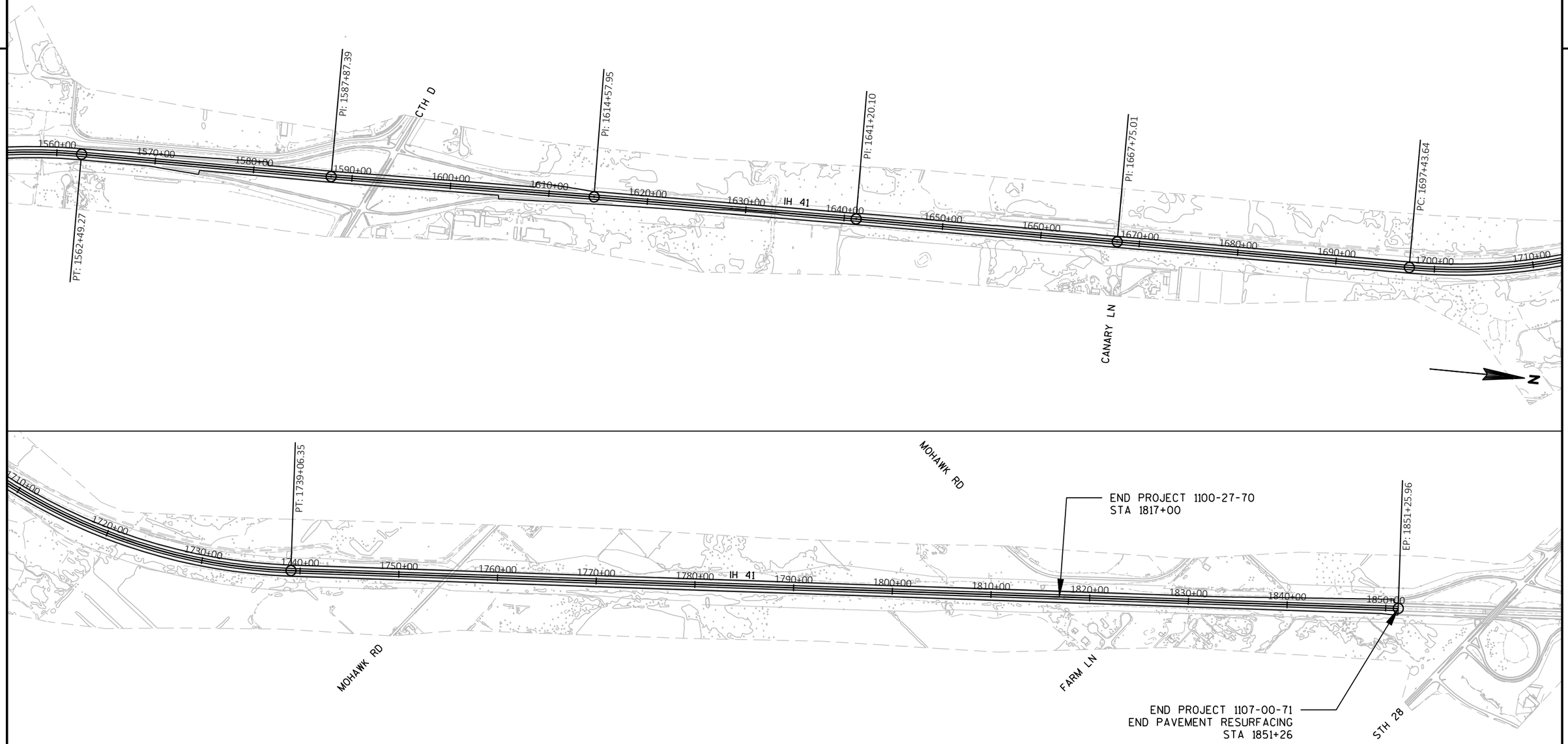

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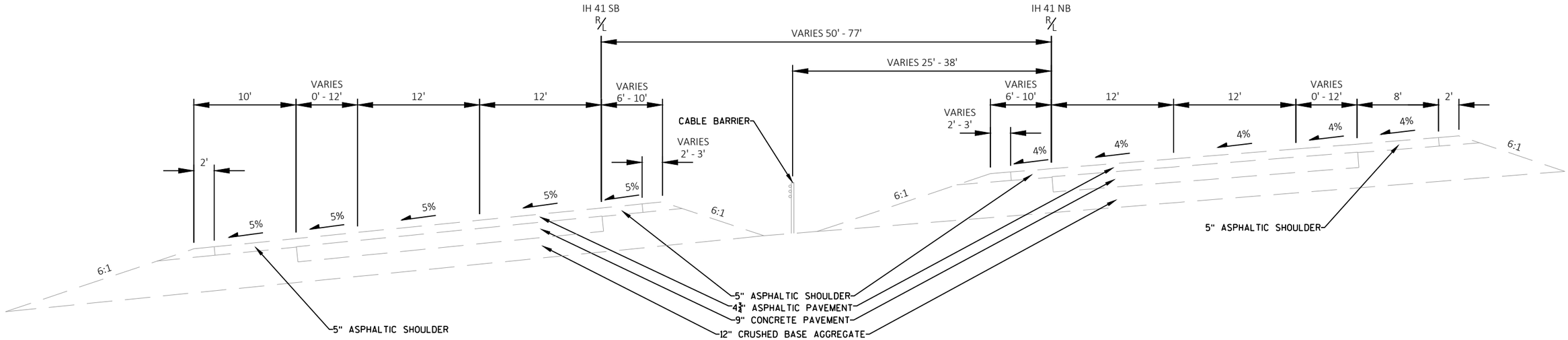
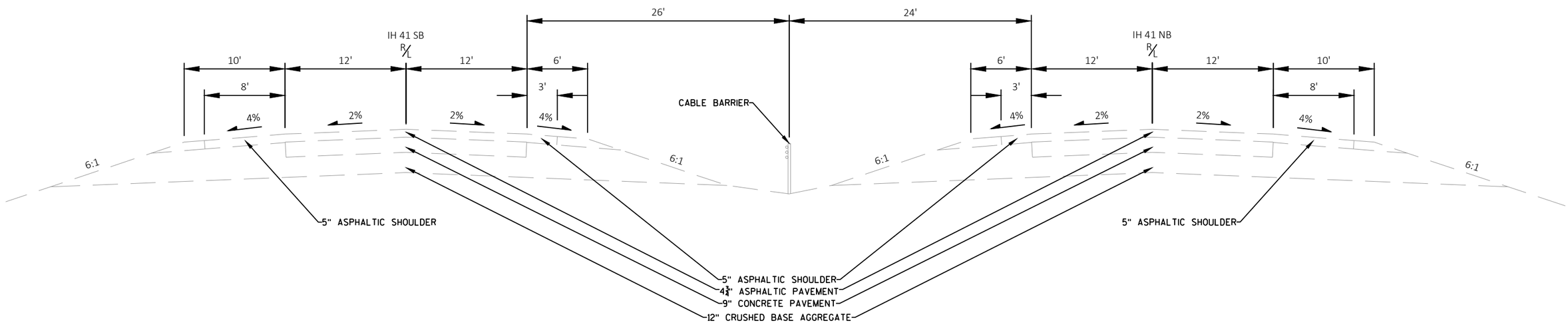
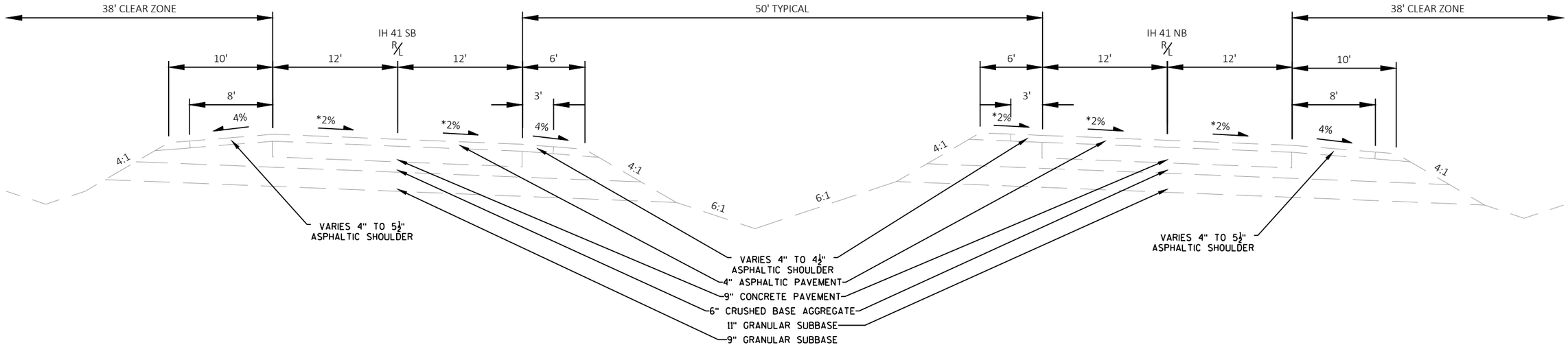


EXISTING TYPICAL SUPERELEVATED SECTION
694+66 TO STA. 706+00
STA. 766+00 TO STA. 768+00



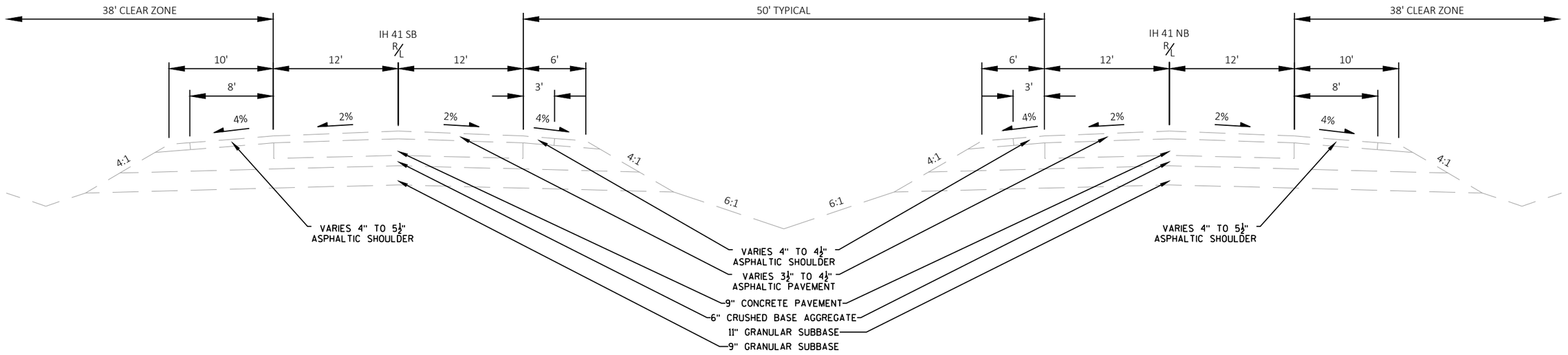
EXISTING TYPICAL SECTION
STA. 706+00 TO STA. 766+00

PROJECT NO: 1100-27-70/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	TYPICAL SECTIONS	SHEET 7	E



EXISTING TYPICAL SUPERELEVATED SECTION

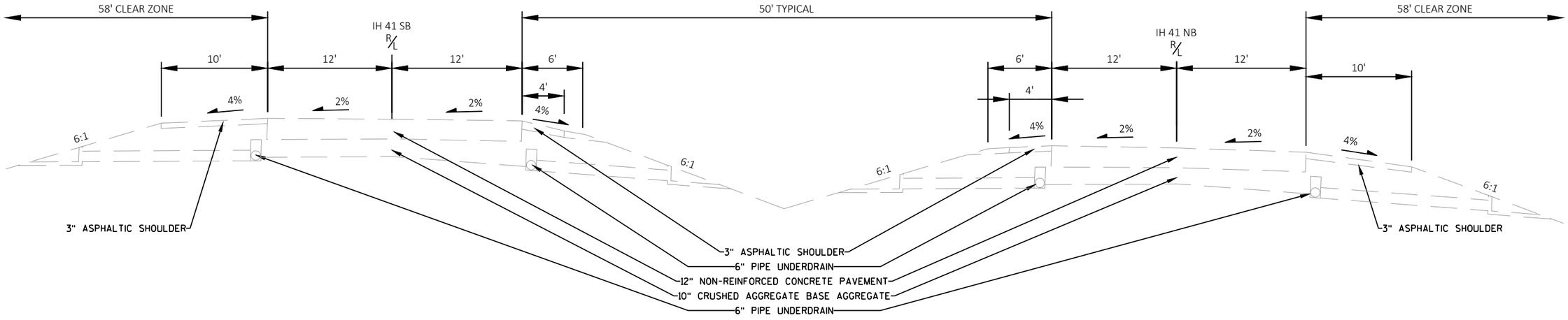
2% SUPERELEVATED SLOPE	*3.3% SUPERELEVATED SLOPE
STA. 766+00 TO STA. 783+46	STA. 1069+63 TO STA. 1083+56
STA. 1240+26 TO STA. 1253+76	STA. 1526+44 TO STA. 1562+49
STA. 1305+27 TO STA. 1329+53	STA. 1697+44 TO STA. 1739+06



EXISTING TYPICAL SECTION

STA. 783+46 TO STA. 1069+63
STA. 1083+56 TO STA. 1108+19
STA. 1253+76 TO STA. 1305+27
STA. 1329+53 TO STA. 1362+14
STA. 1447+13 TO STA. 1526+44
STA. 1562+49 TO STA. 1697+44
STA. 1739+06 TO STA. 1851+26

PROJECT NO: 1100-27-70/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	TYPICAL SECTIONS	SHEET 8	E



EXISTING TYPICAL SUPERELEVATED SECTION
STA. 1108+19 TO STA. 1122+69
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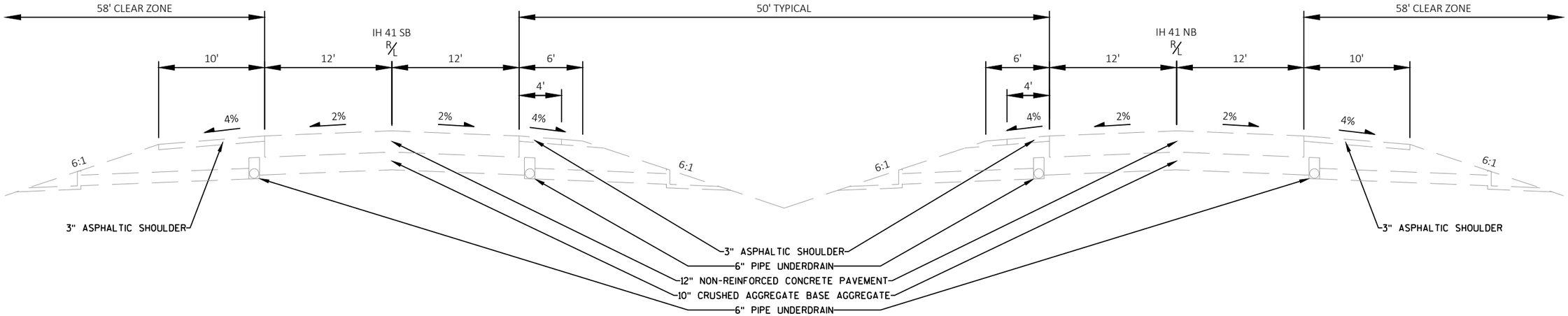

EXISTING TYPICAL SECTION
STA. 1122+69 TO STA. 1157+28
STA. 1163+40 TO STA. 1240+26

PROJECT NO: 1100-27-70/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	TYPICAL SECTIONS	SHEET 9	E

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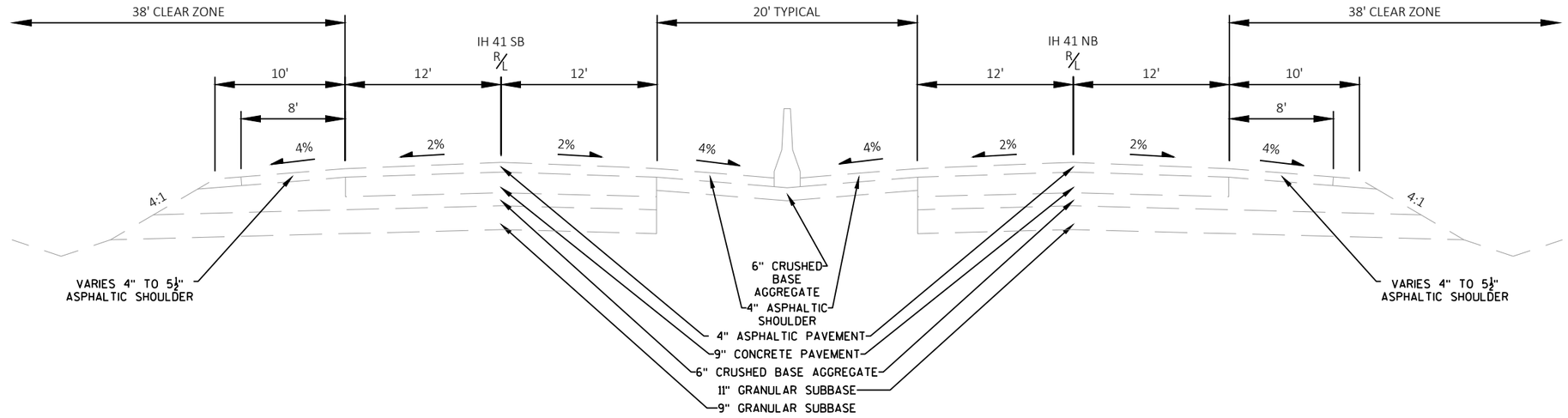
PLOT BY : MANYEN, WAYNE
PLOT NAME :
PLOT SCALE : 1 IN:10 FT



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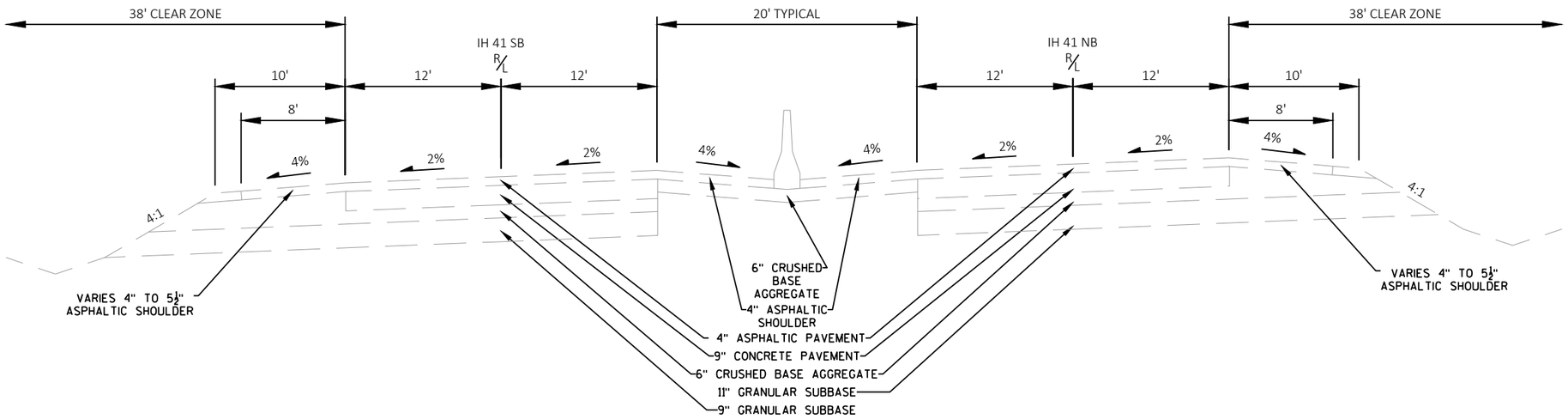

EXISTING TYPICAL SUPERELEVATED SECTION
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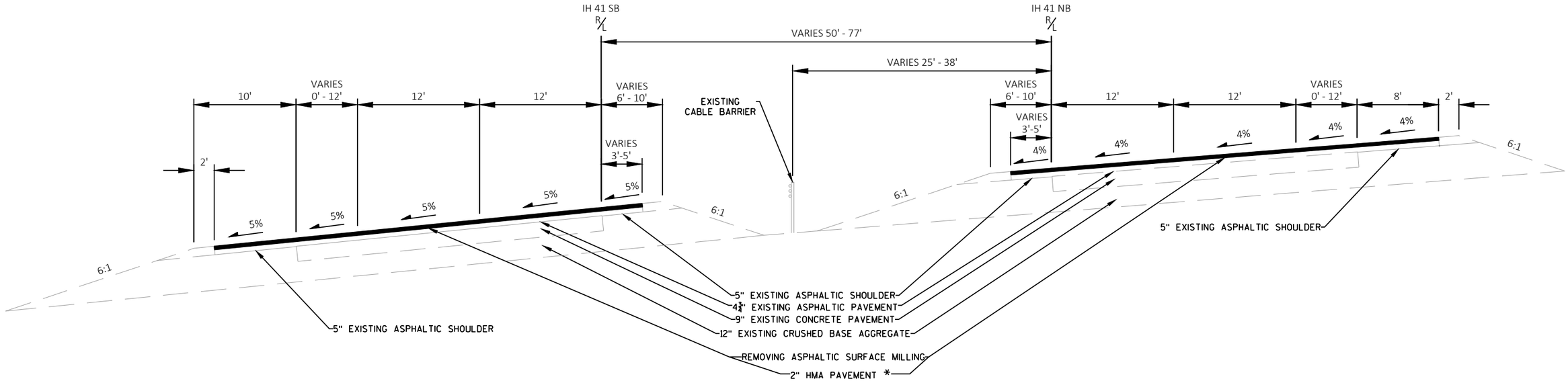
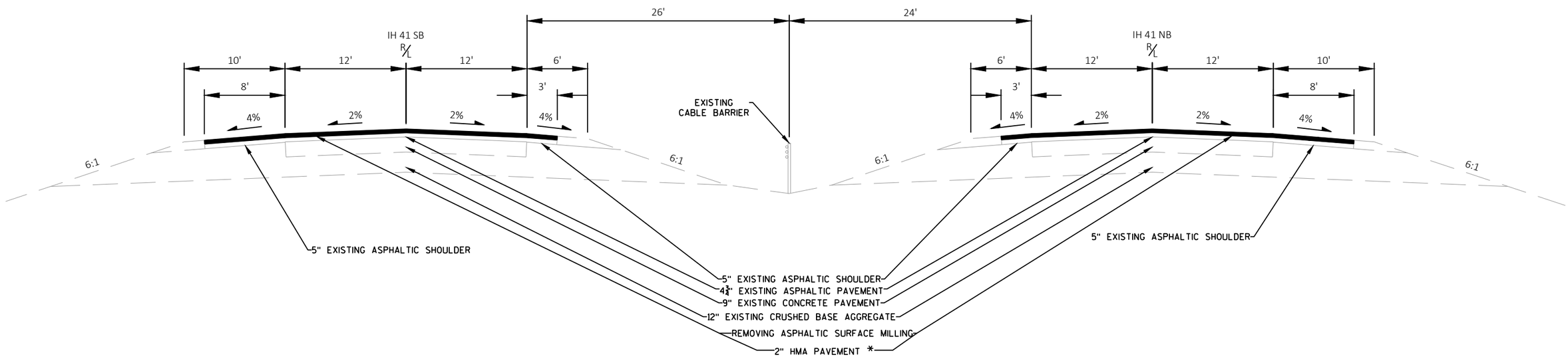


PROPOSED TYPICAL SUPERELEVATED SECTION
STA. 694+94 TO STA. 706+00



PROPOSED TYPICAL SECTION
STA. 706+00 TO STA. 766+00

NOTES:
* (A) HMA PAVEMENT 4 HT 58-28 H 2-INCH

PROJECT NO: 1100-27-70/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	TYPICAL SECTIONS	SHEET 11	E

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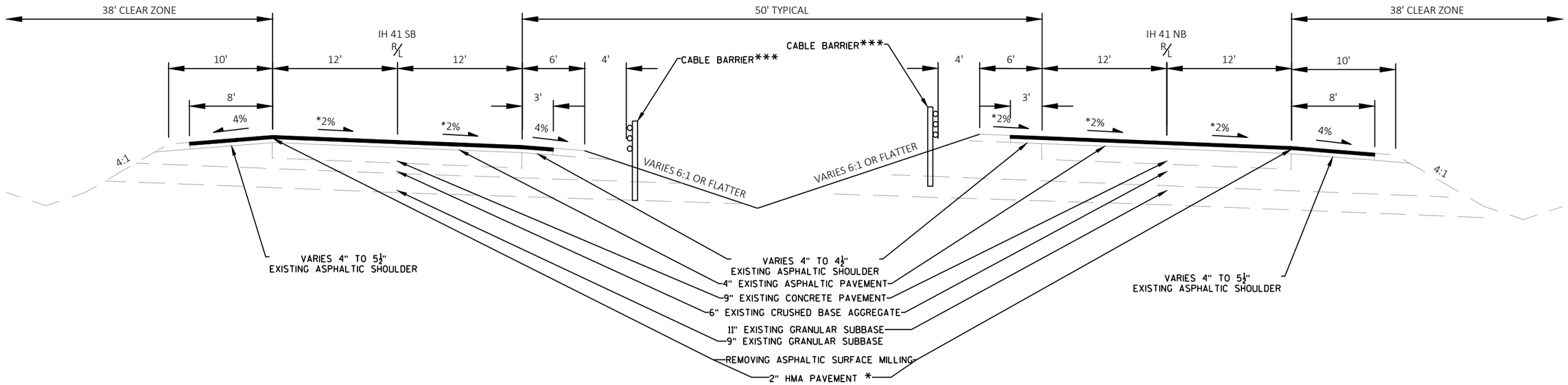
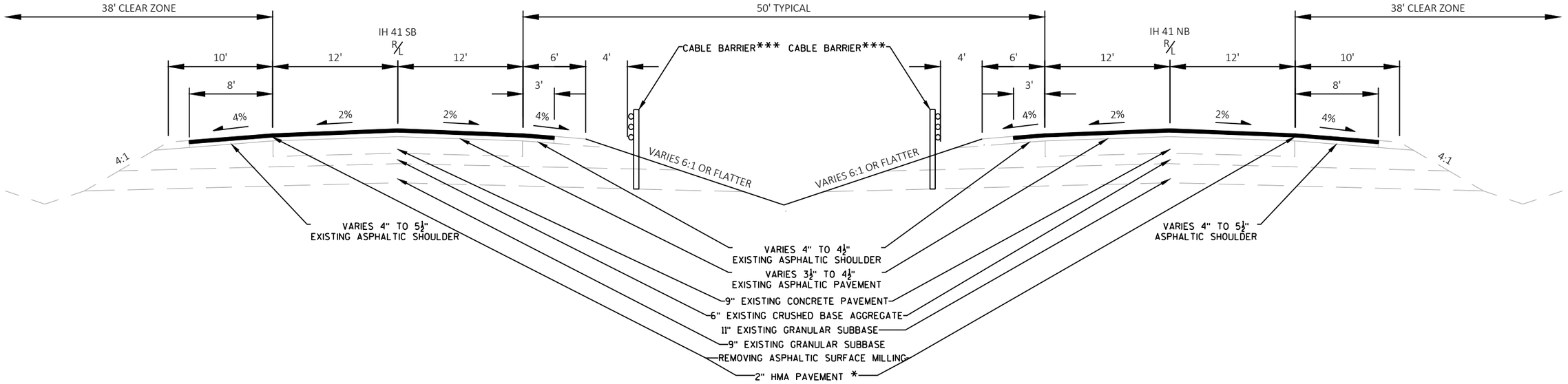


2% SUPERELEVATED SLOPE	*3.3% SUPERELEVATED SLOPE
STA. 766+00 TO STA. 783+46	STA. 1069+63 TO STA. 1083+56
STA. 1240+26 TO STA. 1253+76	STA. 1526+44 TO STA. 1562+49
STA. 1305+27 TO STA. 1329+53	STA. 1697+44 TO STA. 1739+06



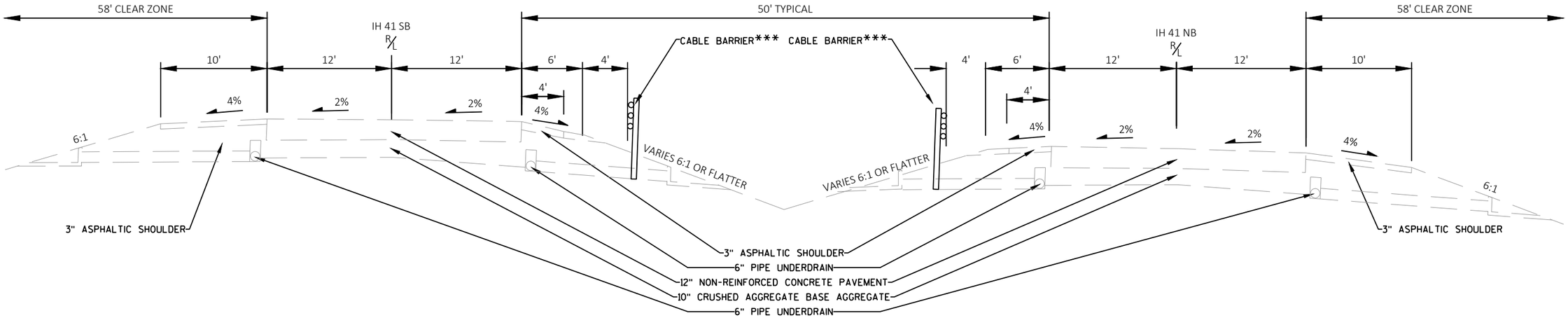
PROPOSED TYPICAL SECTION

STA. 783+46 TO STA. 1069+63
STA. 1083+56 TO STA. 1108+19**
STA. 1253+76 TO STA. 1305+27
STA. 1329+53 TO STA. 1367+17
STA. 1447+13 TO STA. 1526+44
STA. 1562+49 TO STA. 1697+44
STA. 1739+06 TO STA. 1851+26

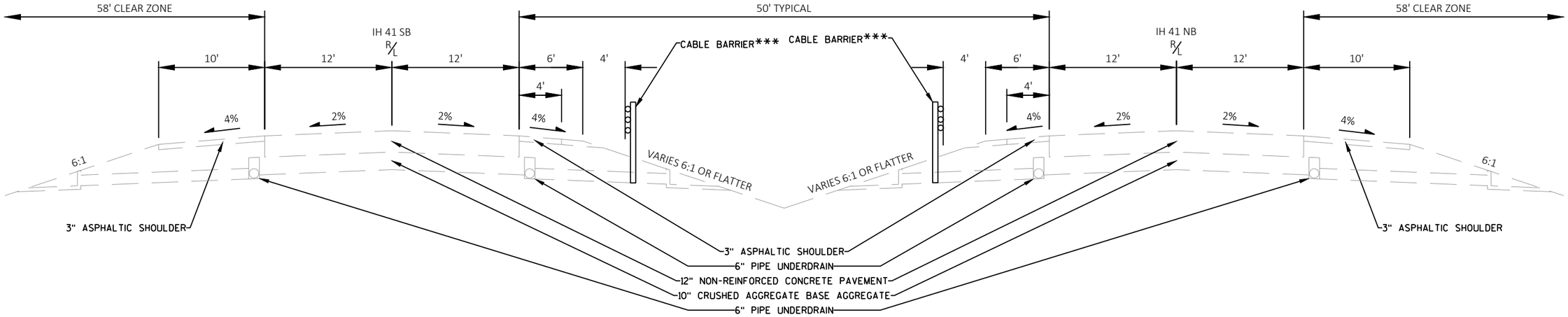
NOTES:

* (A) HMA PAVEMENT 4 HT 58-28 H 2-INCH
** END PAVEMENT RESURFACING AT STA. 1104+76
*** CABLE BARRIER BEGIN/END LOCATION (NB & SB) VARIES, SEE PLAN DETAILS

PROJECT NO: 1100-27-70/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	TYPICAL SECTIONS	SHEET 12	E



PROPOSED TYPICAL SUPERELEVATED SECTION
STA. 1108+19 TO STA. 1122+69
STA. 1157+28 TO STA. 1163+40



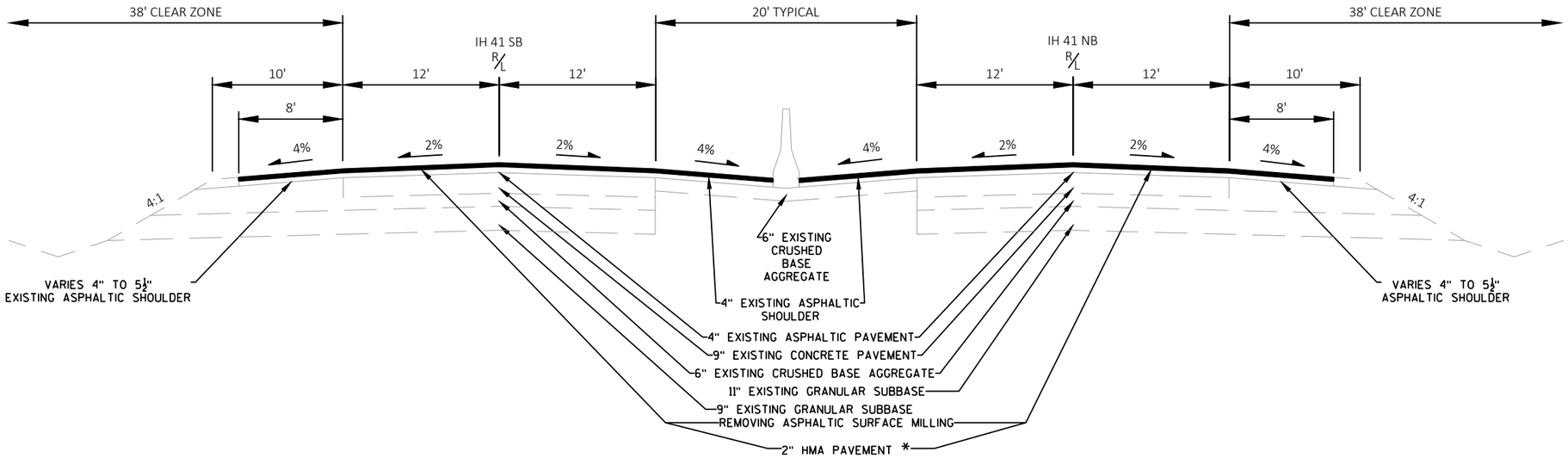
PROPOSED TYPICAL SECTION
STA. 1122+69 TO STA. 1157+28
STA. 1163+40 TO STA. 1240+26**

** START PAVEMENT RESURFACING
AT STA. 1239+94

NOTES:
* (A) HMA PAVEMENT 4 HT 58-28 H 2-INCH
** START PAVEMENT RESURFACING AT STA. 1239+94
***CABLE BARRIER BEGIN/END LOCATION (NB & SB) VARIES, SEE PLAN DETAILS

PROJECT NO: 1100-27-70/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	TYPICAL SECTIONS	SHEET 13	E

2

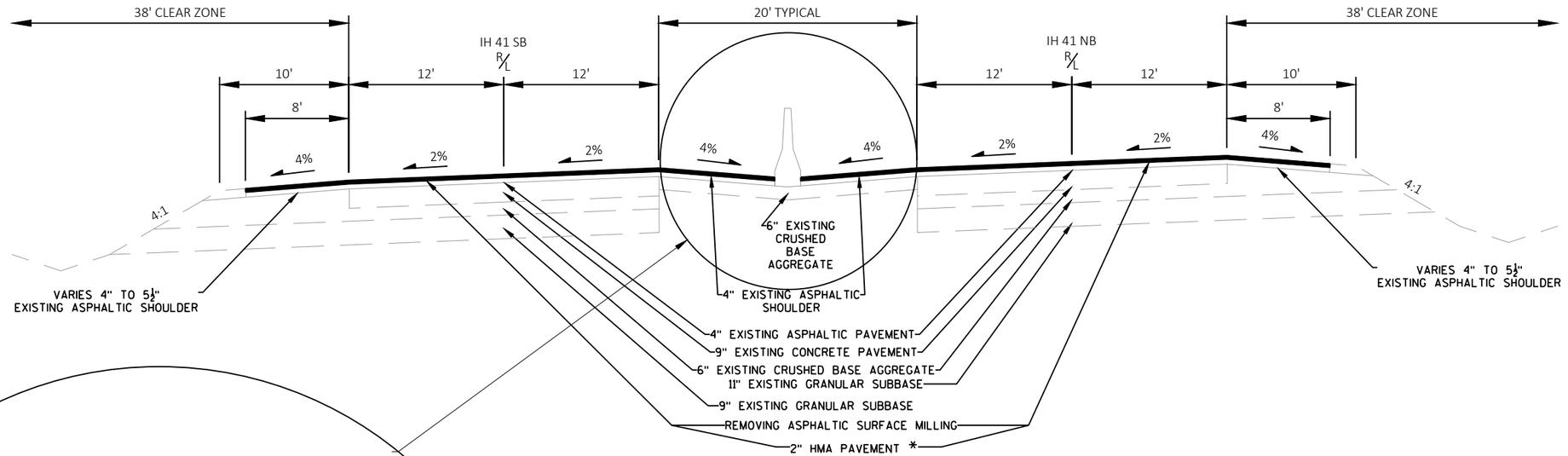


PROPOSED TYPICAL SECTION
STA. 1367+17 TO STA. 1418+42

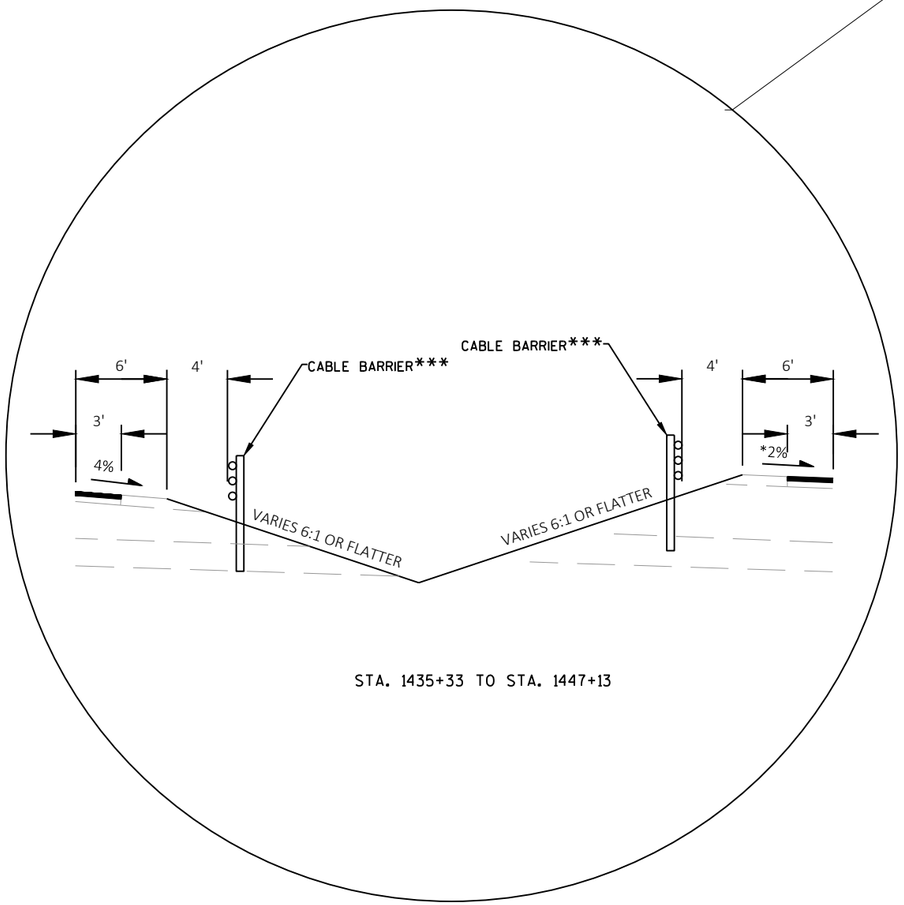
NOTES:
* (A) HMA PAVEMENT 4 HT 58-28 H 2-INCH

PROJECT NO: 1100-27-70/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	TYPICAL SECTIONS	SHEET 14	E

2



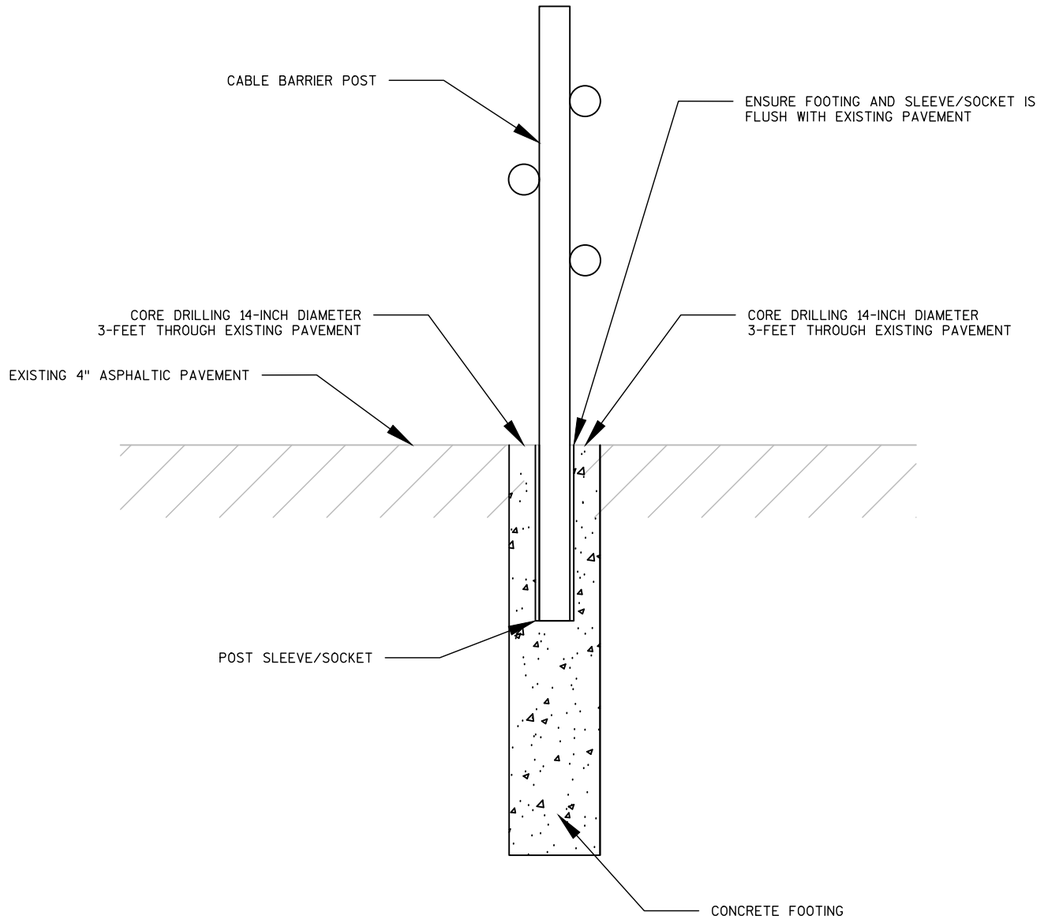
PROPOSED TYPICAL SUPERELEVATED SECTION
STA. 1418+42 TO STA. 1435+33



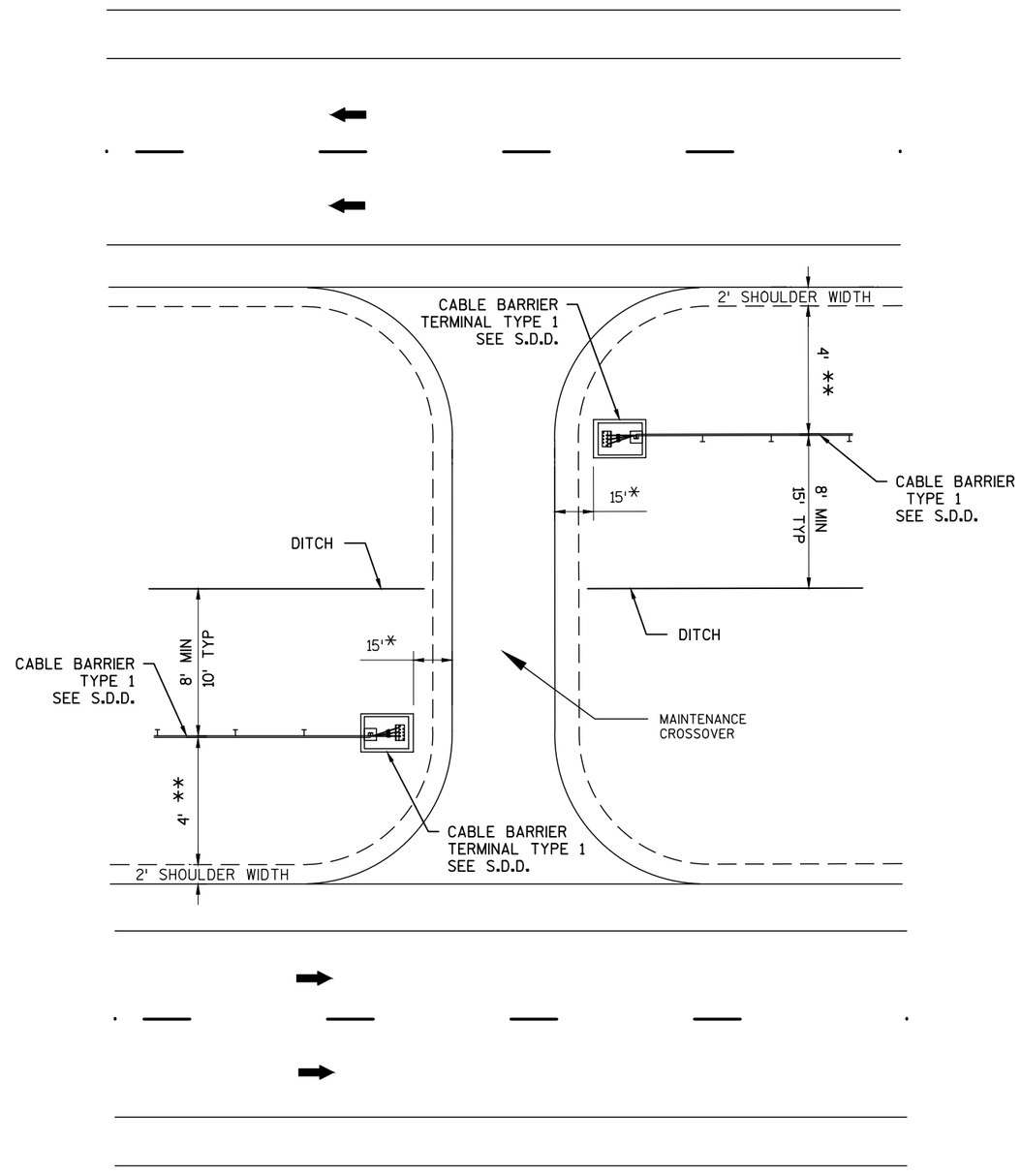
STA. 1435+33 TO STA. 1447+13

NOTES:
* (A) HMA PAVEMENT 4 HT 58-28 H 2-INCH

PROJECT NO: 1100-27-70/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	TYPICAL SECTIONS	SHEET 15	E



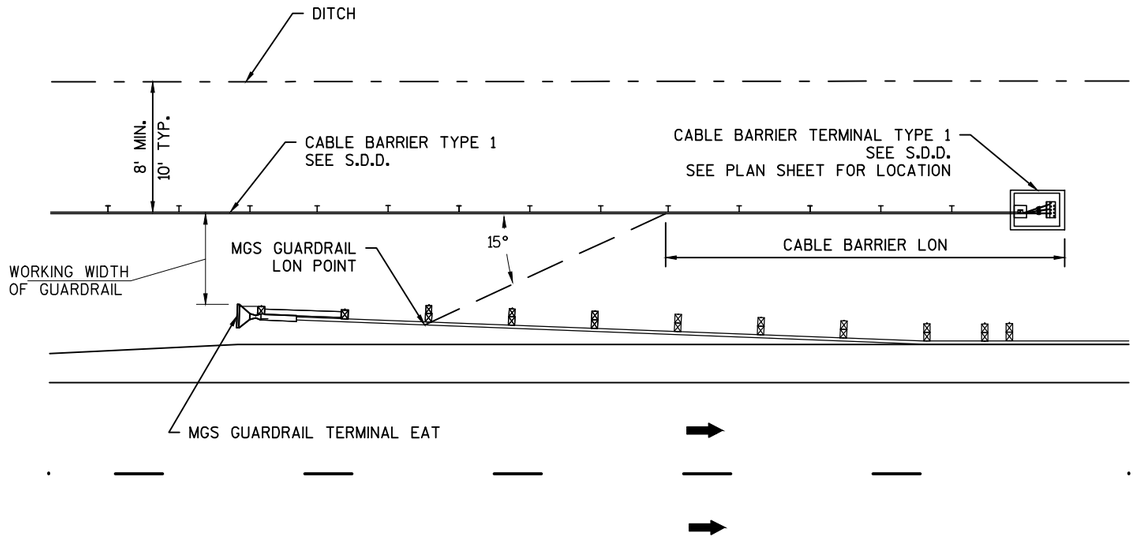
CABLE BARRIER FOOTING IN PAVEMENT
AT EMERGENCY CROSSOVER



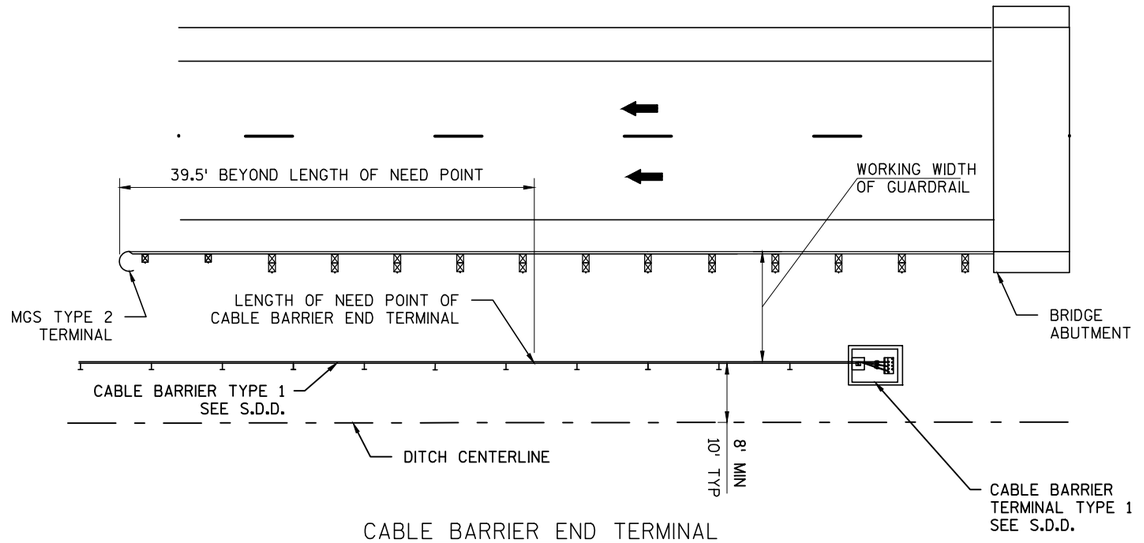
CABLE BARRIER END TERMINAL
AT MAINTENANCE CROSSOVER

* DISTANCE MEASURED FROM EDGE OF ASPHALT

** DISTANCE MEASURED FROM SHOULDER BREAK POINT

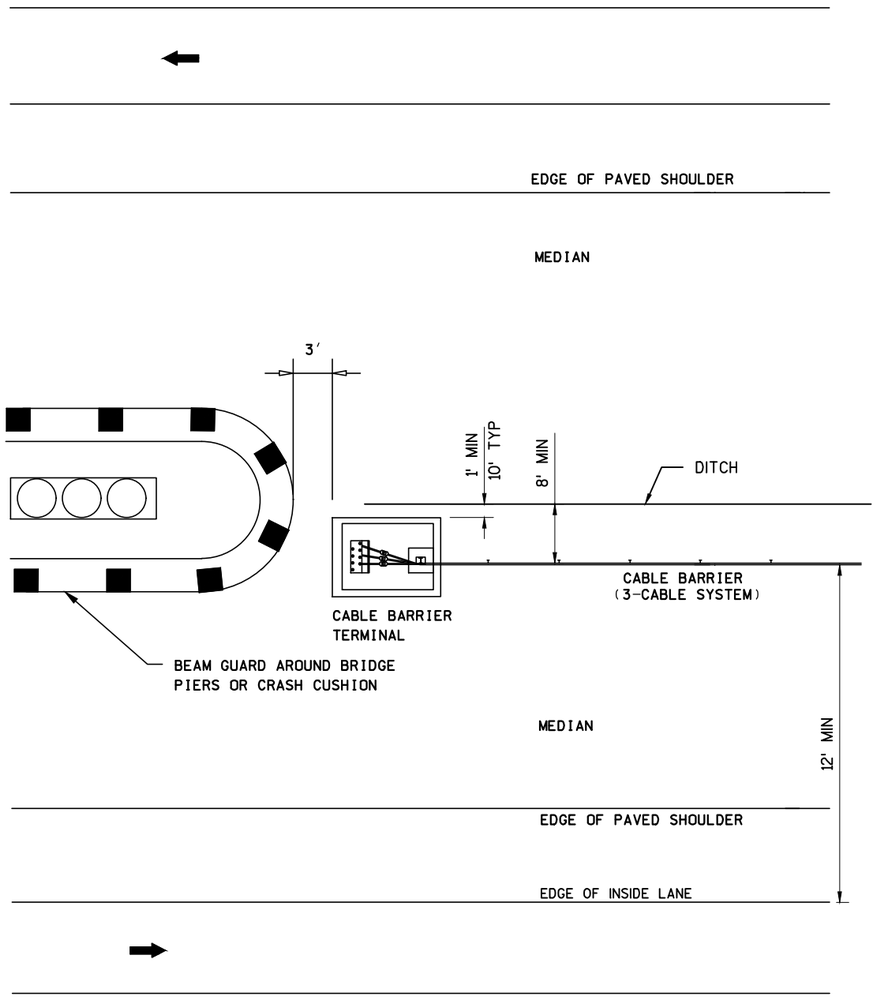


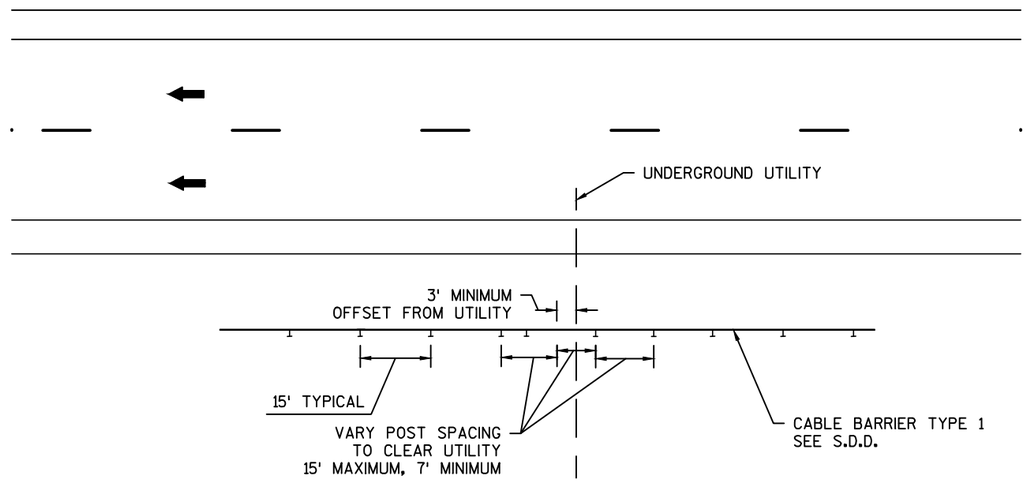
CABLE BARRIER END TERMINAL
AT MGS GUARDRAIL TERMINAL EAT



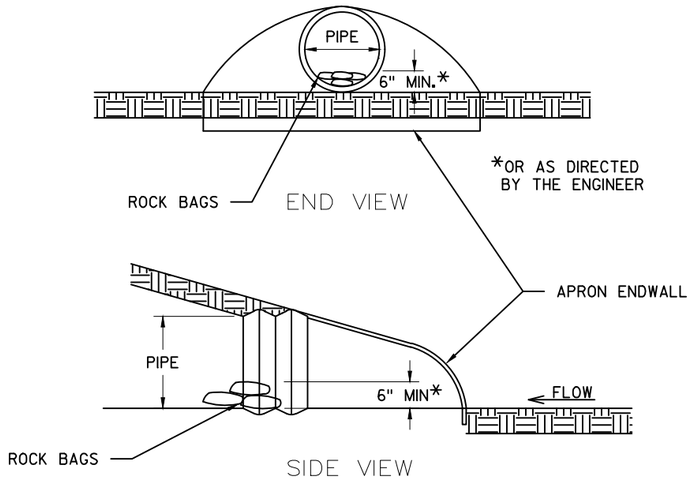
CABLE BARRIER END TERMINAL
AT MGS TYPE 2 TERMINAL

CABLE BARRIER TERMINAL END





CABLE BARRIER AT UNDERGROUND UTILITY

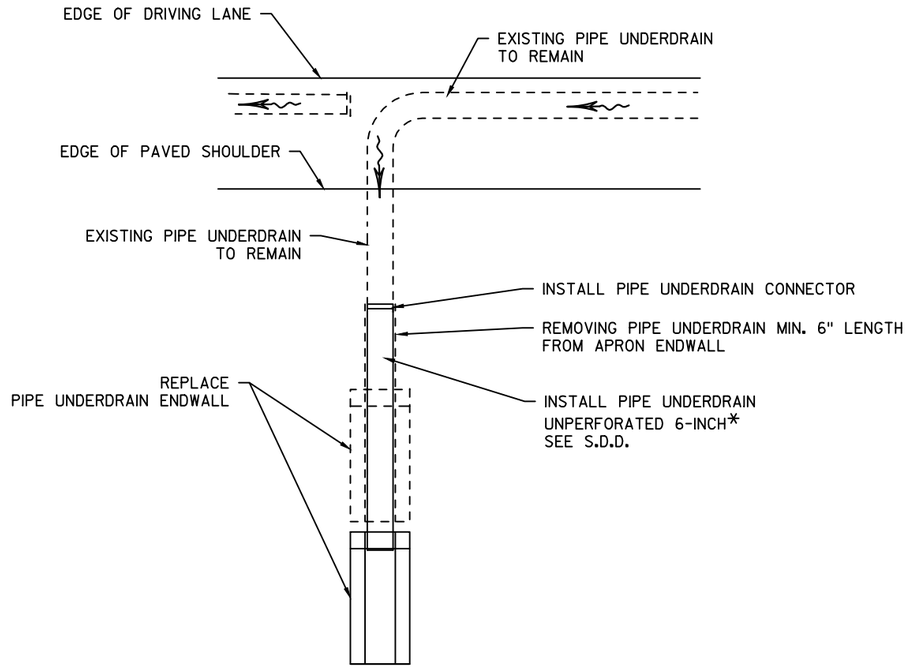


CULVERT PIPE CHECK DETAIL

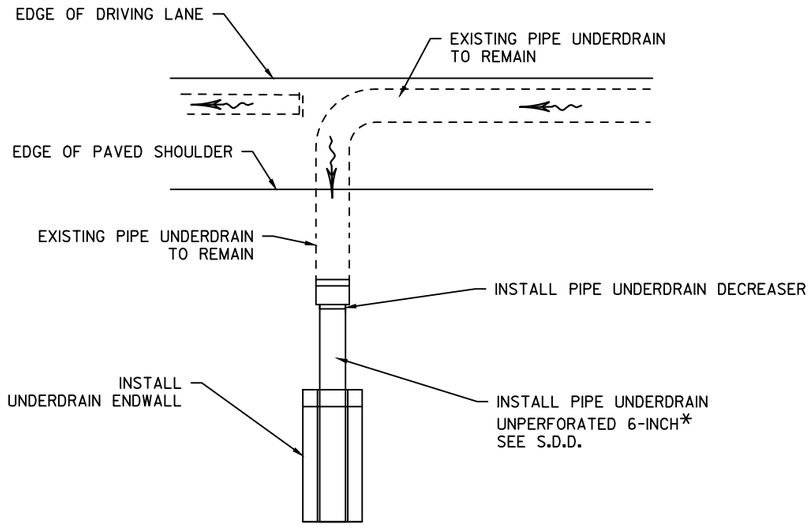
SEE EROSION CONTROL PLAN FOR LOCATIONS

EXTIMATED BAG SIZE = 24" X 12" X 6"	
PIPE SIZE	EXTIMATED NO. OF BAGS
12"	1
15"	2
18"	2
24"	3
30"	5
36"	7
42"	7
48"	10
54"	10
60"	13
72"	16
30"X19"	5
38"X24"	7
53"X34"	10
60"X38"	13
76"X48"	18

NOTE:
TO BE PLACED AT INLET
END OF CULVERT PIPE



EXTEND
PIPE UNDERDRAIN 6-INCH



EXTEND
PIPE UNDERDRAIN 8-INCH

GENERAL NOTES:

SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS OR AS DIRECTED BY FIELD ENGINEER.
FIELD VERIFY ALL PIPE UNDERDRAIN LOCATIONS.
SEE S.D.D. FOR MORE INFORMATION.

*USE PVC MATERIAL CONFORMING TO SDD

NOTES:

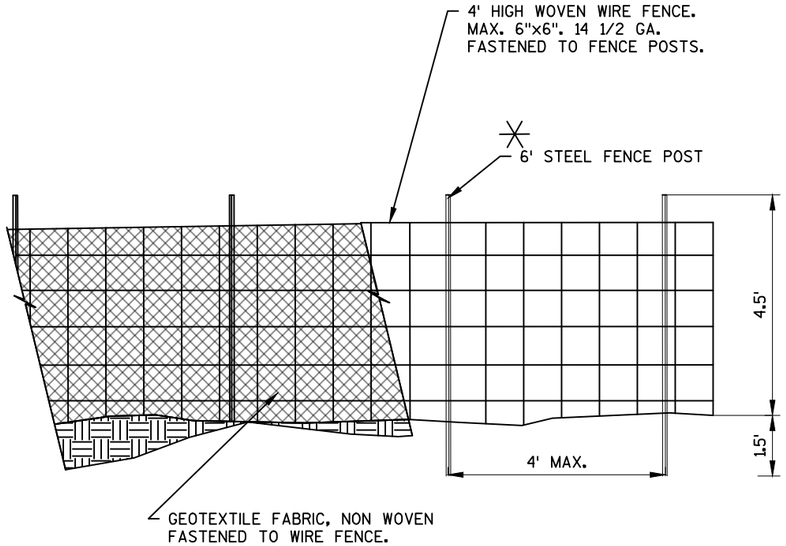
INSTALL SILT FENCE WITH MINIMUM 4" WIDE TRENCH & 6" MINIMUM TO BURY AND ANCHOR GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL. SEE STANDARD DETAIL 8 E 9-6 FOR TENCH DETAIL.

CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS: A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGRESS. B) HOOK THE END OF EACH SILT FENCE LENGTH.

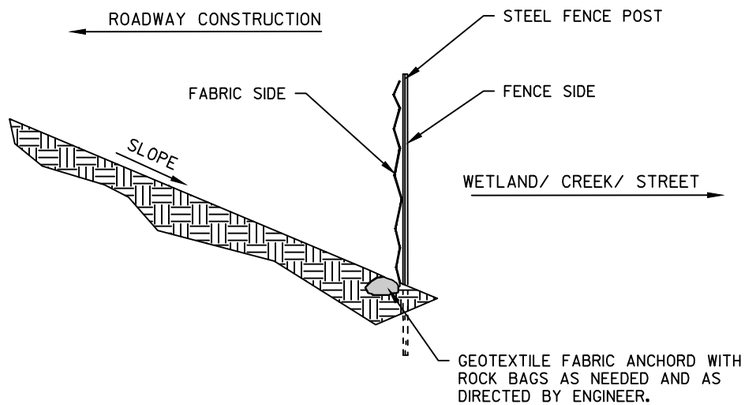
OFF SET SILT FENCE 10 FEET OUTSIDE OF SLOPE INTERCEPT (SI) WHEN POSSIBLE.

USE 14 GAUGE GALVANIZED WIRE TO FASTEN SILT FENCE TO WELDED WIRE.

REFERENCE STANDARD DETAIL FOR JOINING TWO LENGHTS OF SILT FENCE AND TYPICAL APPLICATION OF SILT FENCE.



FRONT VIEW

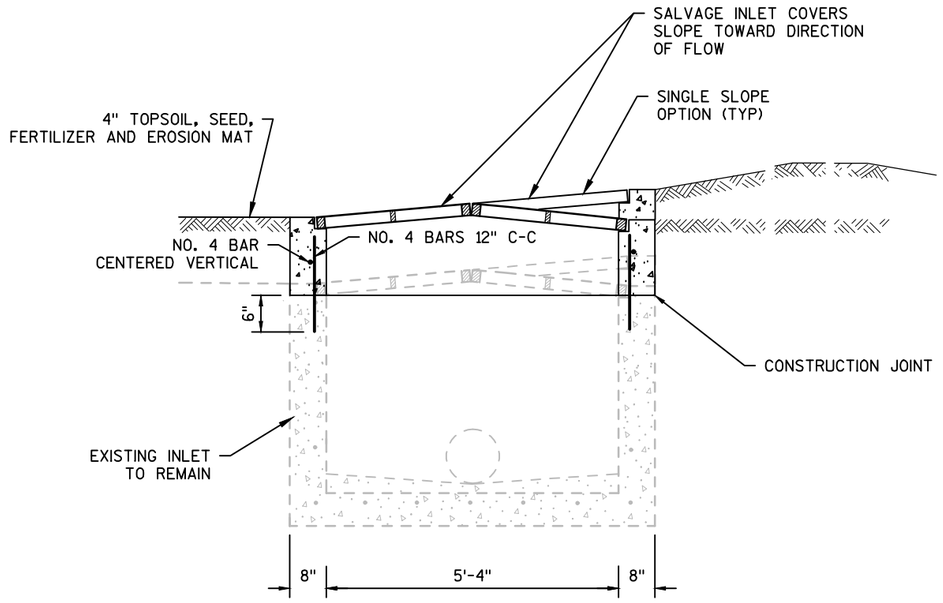


SIDE VIEW

HEAVY DUTY SILT FENCE

✳ ADD GUY SUPPORTS TO SLOPE WHERE REQUIRED.

2



ADJUSTING INLETS SPECIAL

GENERAL NOTES:

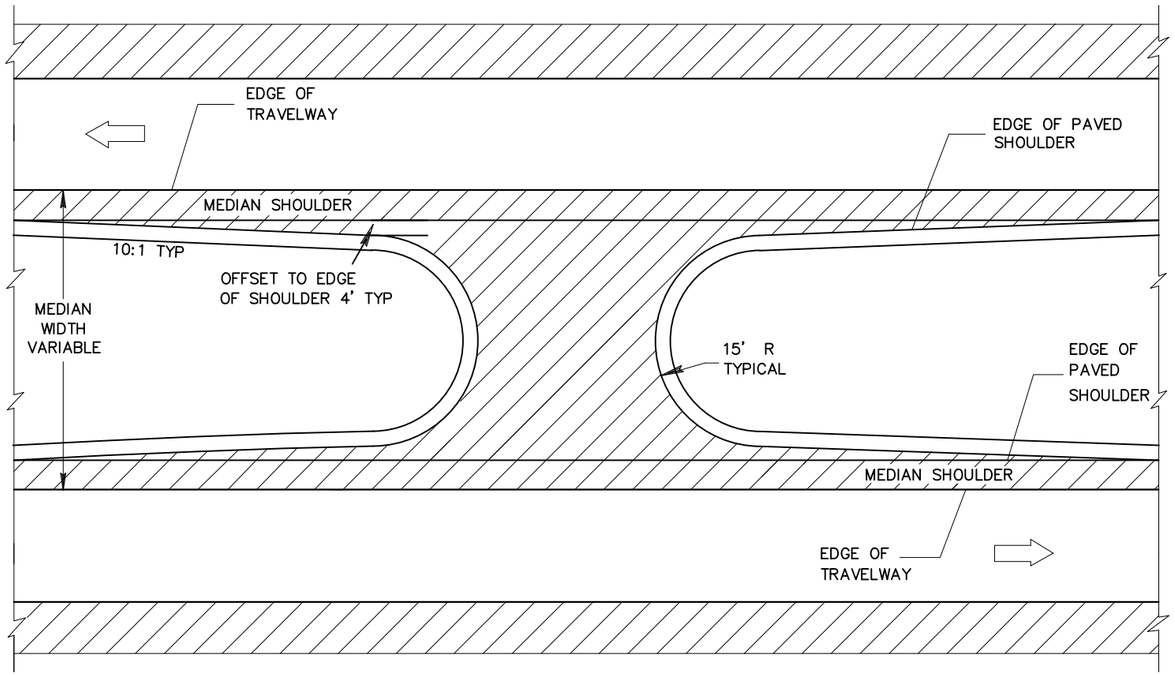
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

SEE S.D.D. "INLETS MEDIAN 1 & 2 GRATE" FOR MORE INFORMATION

2

MAINTENANCE CROSSOVER FOR FREEWAYS



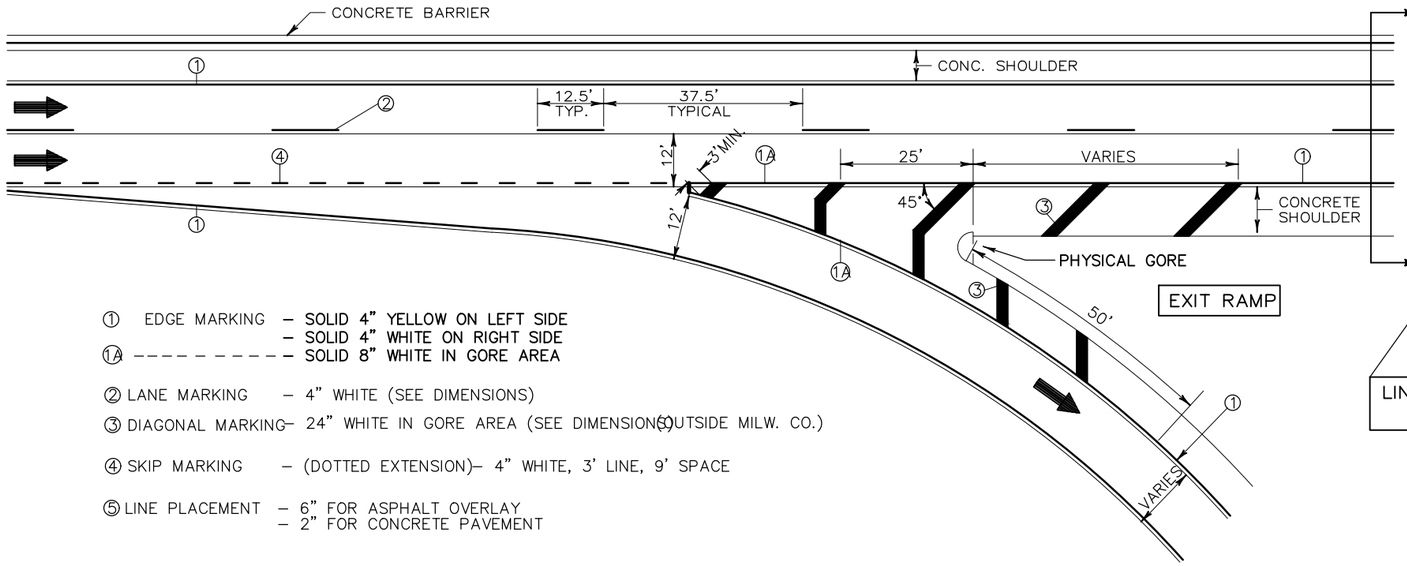
PLAN VIEW

*SEE S.D.D. FOR MORE DETAILS

2

DETAIL 5

RACINE, KENOSHA, WALWORTH, WAUKESHA, FOND DU LAC, OZAUKEE & WASHINGTON COUNTIES



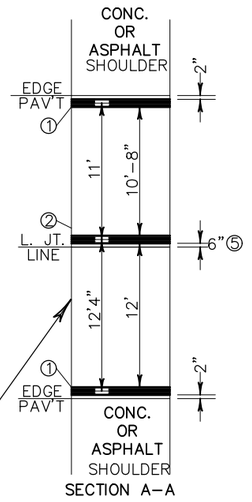
① EDGE MARKING – SOLID 4" YELLOW ON LEFT SIDE
– SOLID 4" WHITE ON RIGHT SIDE
1A – – – – – – – – – – SOLID 8" WHITE IN GORE AREA

② LANE MARKING – 4" WHITE (SEE DIMENSIONS)

③ DIAGONAL MARKING – 24" WHITE IN GORE AREA (SEE DIMENSIONS OUTSIDE MILW. CO.)

④ SKIP MARKING – (DOTTED EXTENSION)– 4" WHITE, 3' LINE, 9' SPACE

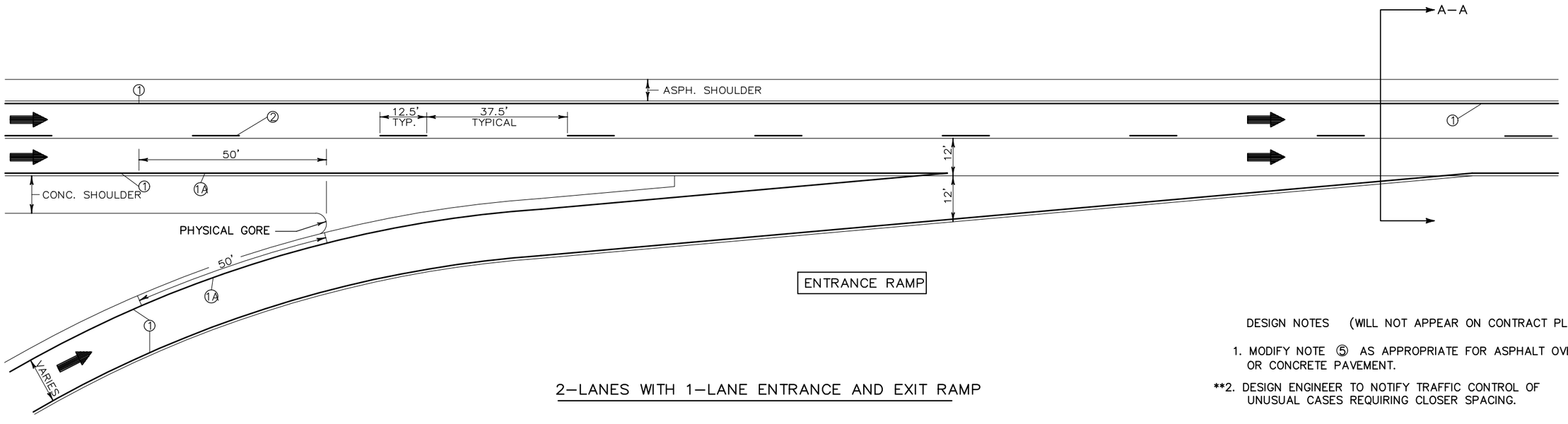
⑤ LINE PLACEMENT – 6" FOR ASPHALT OVERLAY
– 2" FOR CONCRETE PAVEMENT



LINE PLACEMENT DETAILS

NOTES:

1. WHERE THE DOTTED EXTENSION OF THE RIGHT EDGE LINE IS SHOWN ON THE PLAN, IT SHALL BE 4" WIDE, WITH A LINE SKIP PATTERN CONSISTING OF A 3' LONG LINE AND A 9' SKIP.
2. PAVEMENT LANE MARKINGS SHALL BE LOCATED 6" OFF THE LONGITUDINAL JOINT OF THE UNDERLYING CONC. PAVEMENT.
3. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.
4. SPOTTING FOR PAVEMENT LANE MARKINGS AND EDGE LINES SHALL BE 4"x4" PIECES OF REFLECTORIZED PAV'T MARKING TAPE SPACED AT 50' INTERVALS, INCIDENTAL TO PAV'T MARKING.



ENTRANCE RAMP

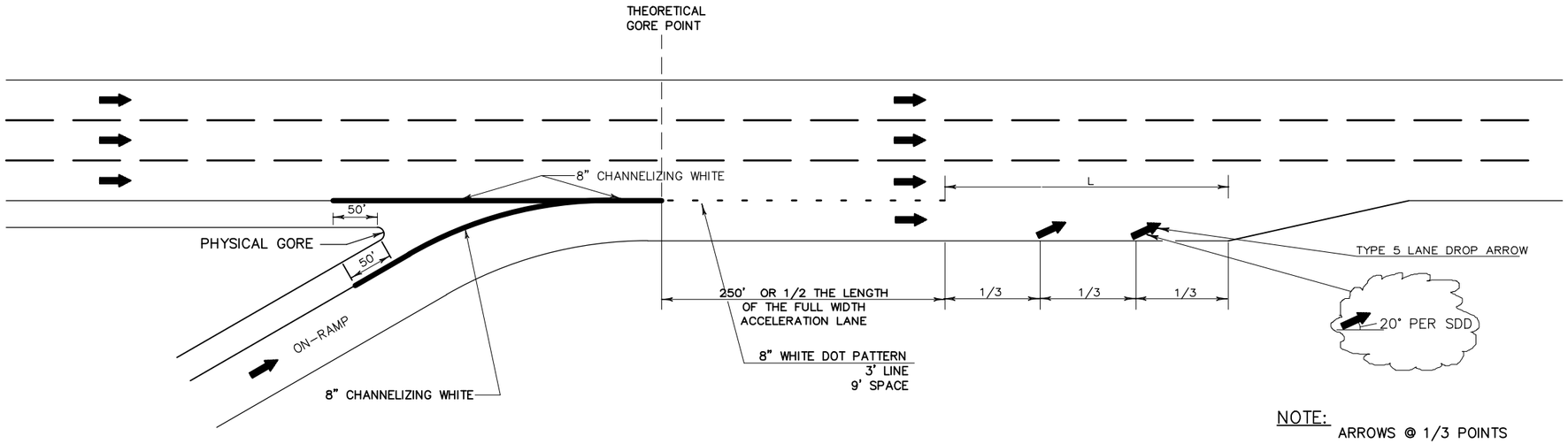
2–LANES WITH 1–LANE ENTRANCE AND EXIT RAMP

DESIGN NOTES (WILL NOT APPEAR ON CONTRACT PLANS)

1. MODIFY NOTE ⑤ AS APPROPRIATE FOR ASPHALT OVERLAY OR CONCRETE PAVEMENT.

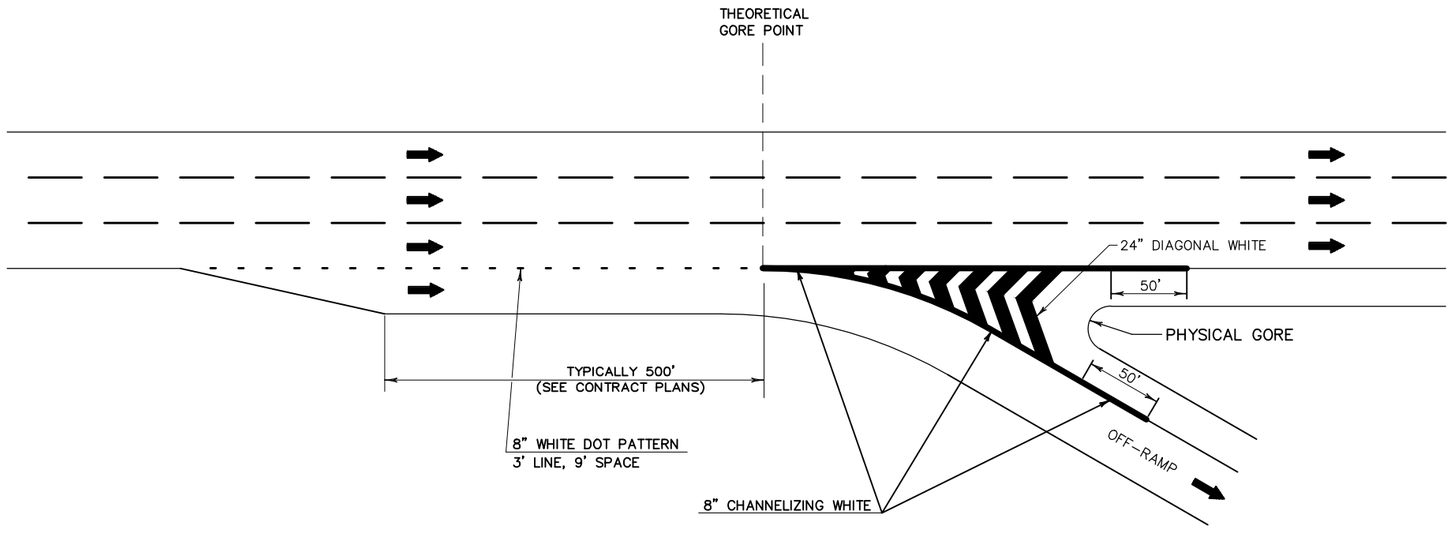
**2. DESIGN ENGINEER TO NOTIFY TRAFFIC CONTROL OF UNUSUAL CASES REQUIRING CLOSER SPACING.

2



NOTE:
ARROWS @ 1/3 POINTS

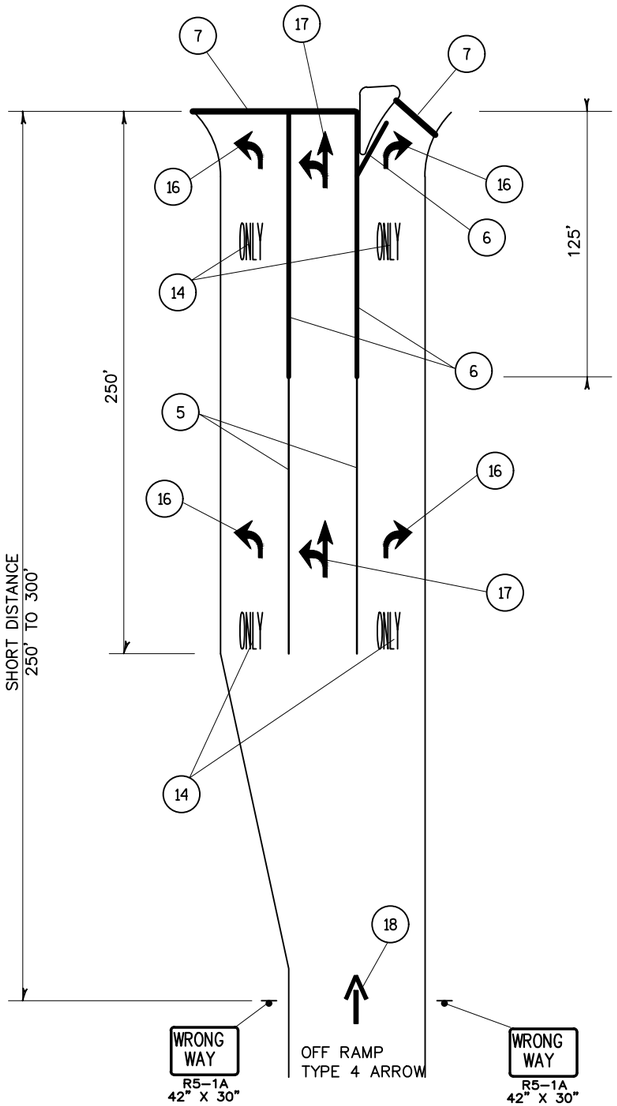
SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL ON-RAMP



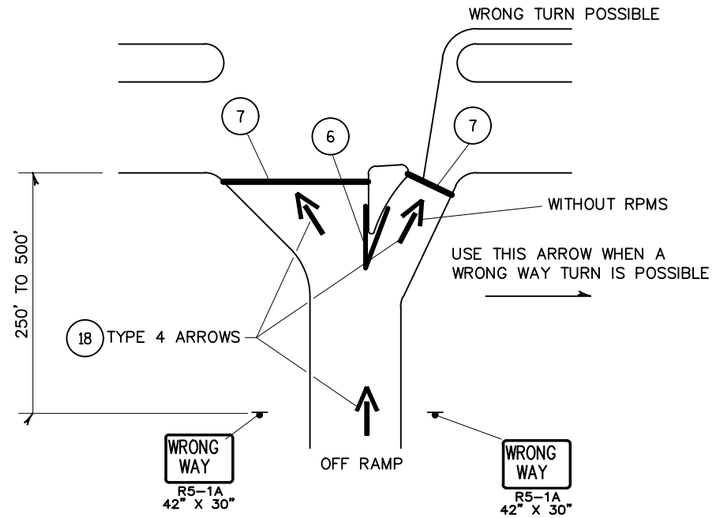
SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL OFF-RAMP

INTERSTATE RAMP PAVEMENT MARKING LEGEND

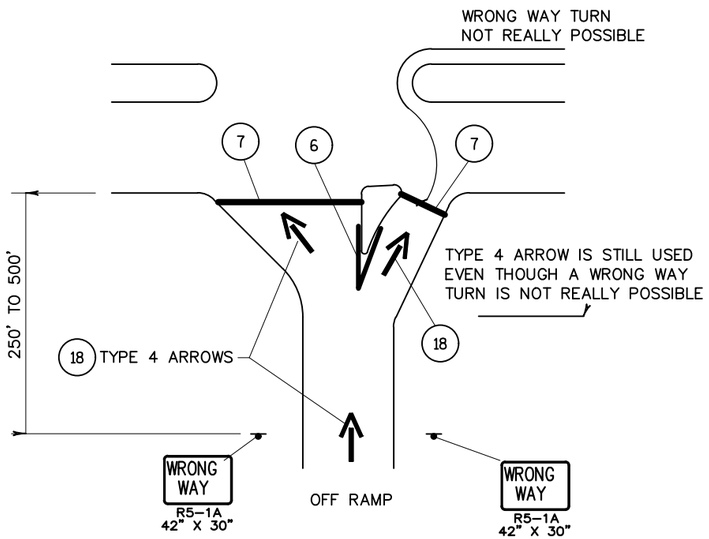
- (5) MARKING LINE EPOXY 8–INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
- (6) MARKING LINE EPOXY 8–INCH (WHITE)
- (7) MARKING STOP LINE EPOXY 18–INCH (WHITE)
- (14) MARKING WORDS EPOXY (WHITE)
- (16) MARKING ARROWS EPOXY (TYPE 2) (WHITE)
- (17) MARKING ARROWS EPOXY (TYPE 3) (WHITE)
- (18) MARKING ARROWS EPOXY (TYPE 4) (WHITE)



EXIT RAMP
250' OR SHORTER TURN LANES

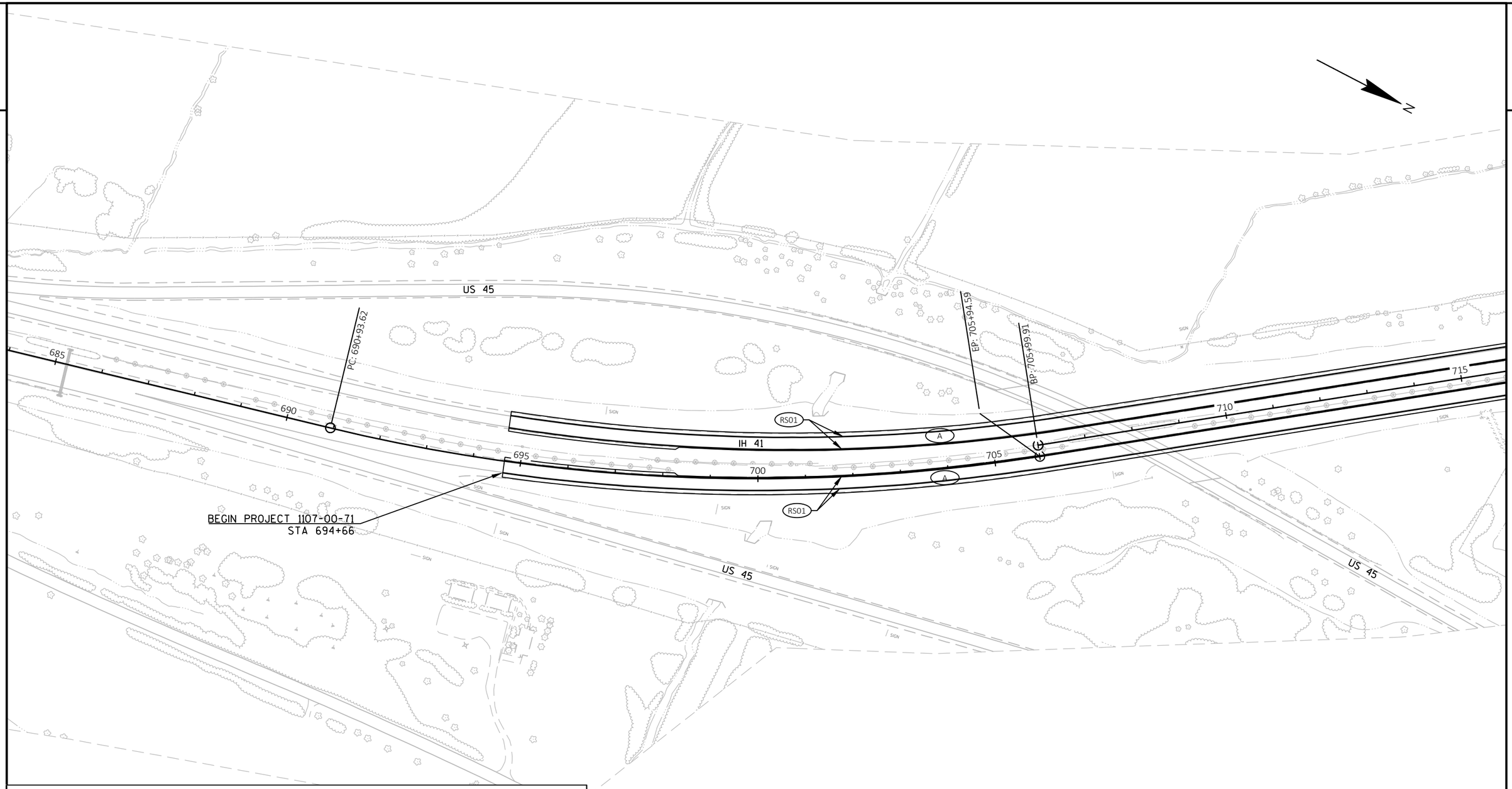


EXIT RAMP
(SIMPLE)



EXIT RAMP
(SIMPLE)

2



LEGEND

- (A) REMOVING ASPHALTIC SURFACE MILLING HMA PAVEMENT 2-INCH
- (BG10) GUARDRAIL MOW STRIP ASPHALT
- (BG15) MGS GUARDRAIL 3
- (BG16) MGS THRIE BEAM TRANSITION
- (BG17) MGS GUARDRAIL TERMINAL EAT
- (BG18) MGS GUARDRAIL TERMINAL TYPE 2
- (RS01) ASPHALTIC SHOULDER RUMBLE STRIPS, MATCH EXISTING (CONTINUOUS)*
- CABLE BARRIER TERMINAL
- CABLE BARRIER
- SLOPE INTERCEPT

*RUMBLE STRIPS NOT TO BE INSTALLED UNTIL FINAL SHOULDER CONDITIONS

PROJECT NO: 1100-27-70 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	PLAN DETAILS	SHEET 26	E

2

2

BP: 705+99.91

IH 41

710 715 720 725 730 735

RS01 +17 MATCH EXISTING

RS01 +82 MATCH EXISTING

RS01

RS01

MATCH EXISTING JOINT

RS01 +30 MATCH EXISTING

A

US 45

STH 145

740 745 750 755 760 765

IH 41

RS01 +06 MATCH EXISTING

RS01

RS01

RS01 +99 MATCH EXISTING

MATCH EXISTING JOINT

RS01 +68 MATCH EXISTING

RS01

PC: 766+00.34

N

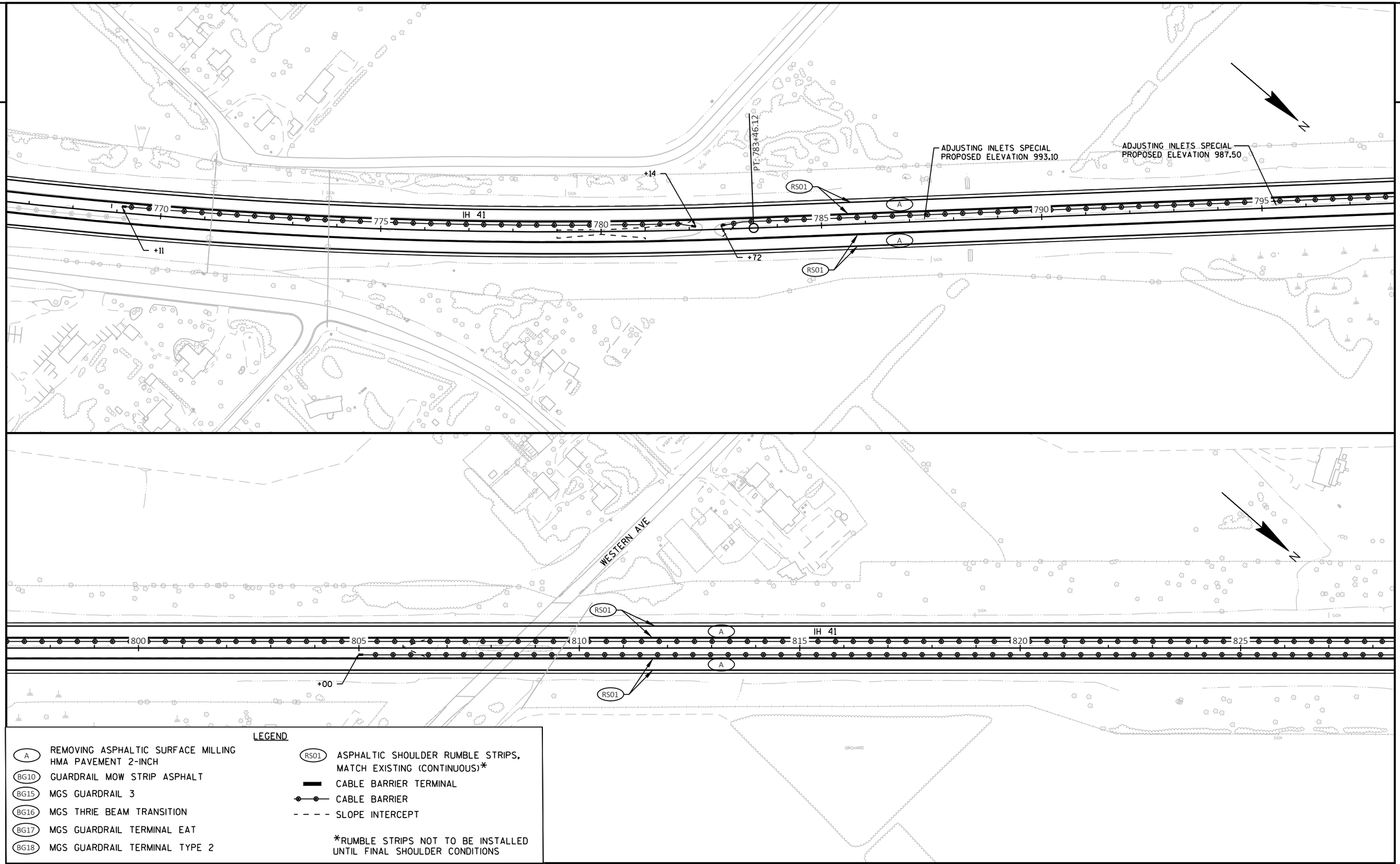
LEGEND

A — REMOVING ASPHALTIC SURFACE MILLING HMA PAVEMENT 2-INCH	RS01 — ASPHALTIC SHOULDER RUMBLE STRIPS, MATCH EXISTING (CONTINUOUS)*
BG10 — GUARDRAIL MOW STRIP ASPHALT	CABLE BARRIER TERMINAL
BG15 — MGS GUARDRAIL 3	CABLE BARRIER
BG16 — MGS THRIE BEAM TRANSITION	SLOPE INTERCEPT
BG17 — MGS GUARDRAIL TERMINAL EAT	
BG18 — MGS GUARDRAIL TERMINAL TYPE 2	

*RUMBLE STRIPS NOT TO BE INSTALLED UNTIL FINAL SHOULDER CONDITIONS

PROJECT NO: 1100-27-70 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	PLAN DETAILS	SHEET 27	E

2



LEGEND

A — REMOVING ASPHALTIC SURFACE MILLING HMA PAVEMENT 2-INCH	RS01 — ASPHALTIC SHOULDER RUMBLE STRIPS, MATCH EXISTING (CONTINUOUS)*
BG10 — GUARDRAIL MOW STRIP ASPHALT	CABLE BARRIER TERMINAL
BG15 — MGS GUARDRAIL 3	CABLE BARRIER
BG16 — MGS THRIE BEAM TRANSITION	SLOPE INTERCEPT
BG17 — MGS GUARDRAIL TERMINAL EAT	
BG18 — MGS GUARDRAIL TERMINAL TYPE 2	

*RUMBLE STRIPS NOT TO BE INSTALLED UNTIL FINAL SHOULDER CONDITIONS

PROJECT NO: 1100-27-70 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	PLAN DETAILS	SHEET 28	E

FILE NAME : N:\PDS\C3D\11002700\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 021201- (3)

PLOT DATE : 4/23/2019 3:24 PM PLOT BY : ANGUIANO, CARLOS E PLOT NAME : PLOT SCALE : 1 IN:200 FT

LEGEND

- (A) REMOVING ASPHALTIC SURFACE MILLING HMA PAVEMENT 2-INCH
- (BG10) GUARDRAIL MOW STRIP ASPHALT
- (BG15) MGS GUARDRAIL 3
- (BG16) MGS THRIE BEAM TRANSITION
- (BG17) MGS GUARDRAIL TERMINAL EAT
- (BG18) MGS GUARDRAIL TERMINAL TYPE 2
- (RS01) ASPHALTIC SHOULDER RUMBLE STRIPS, MATCH EXISTING (CONTINUOUS)*
- CABLE BARRIER TERMINAL
- CABLE BARRIER
- SLOPE INTERCEPT

*RUMBLE STRIPS NOT TO BE INSTALLED UNTIL FINAL SHOULDER CONDITIONS

2

2

IH 41

830 835 840 845 850 855

RS01 A A RS01

SCENIC RD

N

CLOSE EXISTING MAINTENANCE CROSSOVER
SEE CONSTRUCTION DETAILS

IH 41

860 865 870 875 880 885

+50

RS01 A A RS01

SHERMAN RD

N

PROJECT NO: 1100-27-70 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	PLAN DETAILS	SHEET 29	E

FILE NAME : N:\PDS\C3D\11002700\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 021201- (4)

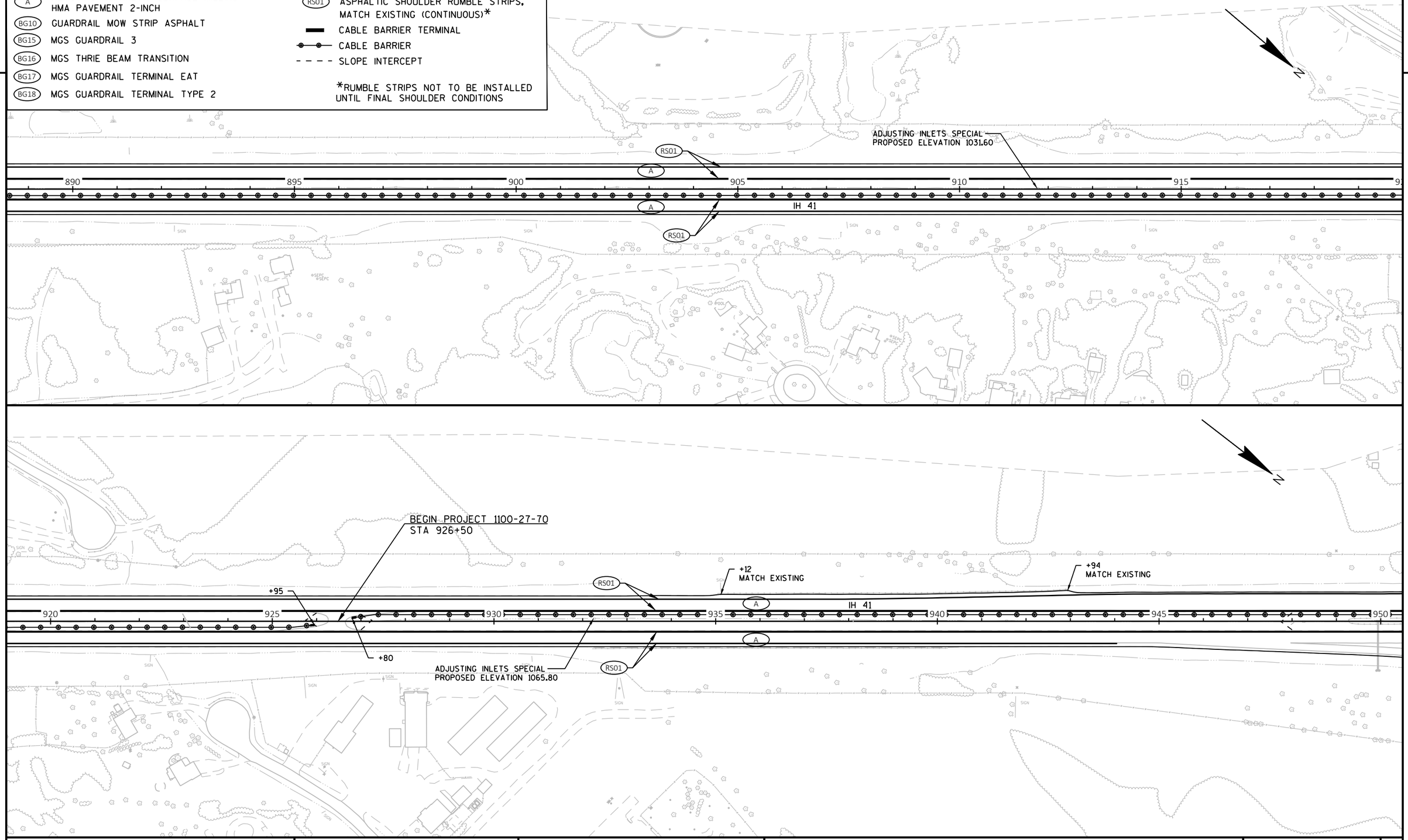
PLOT DATE : 4/23/2019 3:26 PM PLOT BY : ANGUIANO, CARLOS E PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44

LEGEND

- (A) REMOVING ASPHALTIC SURFACE MILLING HMA PAVEMENT 2-INCH
- (BG10) GUARDRAIL MOW STRIP ASPHALT
- (BG15) MGS GUARDRAIL 3
- (BG16) MGS THRIE BEAM TRANSITION
- (BG17) MGS GUARDRAIL TERMINAL EAT
- (BG18) MGS GUARDRAIL TERMINAL TYPE 2
- (RS01) ASPHALTIC SHOULDER RUMBLE STRIPS, MATCH EXISTING (CONTINUOUS)*
- CABLE BARRIER TERMINAL
- CABLE BARRIER
- SLOPE INTERCEPT

*RUMBLE STRIPS NOT TO BE INSTALLED UNTIL FINAL SHOULDER CONDITIONS



PROJECT NO: 1100-27-70 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	PLAN DETAILS	SHEET 30	E

2

+32
MATCH EXISTING

PI: 959+28.11

+15
MATCH EXISTING

RS01

A

IH 41

950 955 960 965 970 975 980

+08
MATCH EXISTING

STH 60

+87
MATCH EXISTING

+90
MATCH EXISTING

985 990 995 1000 1005 1010

+58

+19

REMOVE CONCRETE PIPE
STA. 998+50

ADJUSTING INLETS SPECIAL
PROPOSED ELEVATION 1179.15

WATER TOWER

LOVERS LANE

N

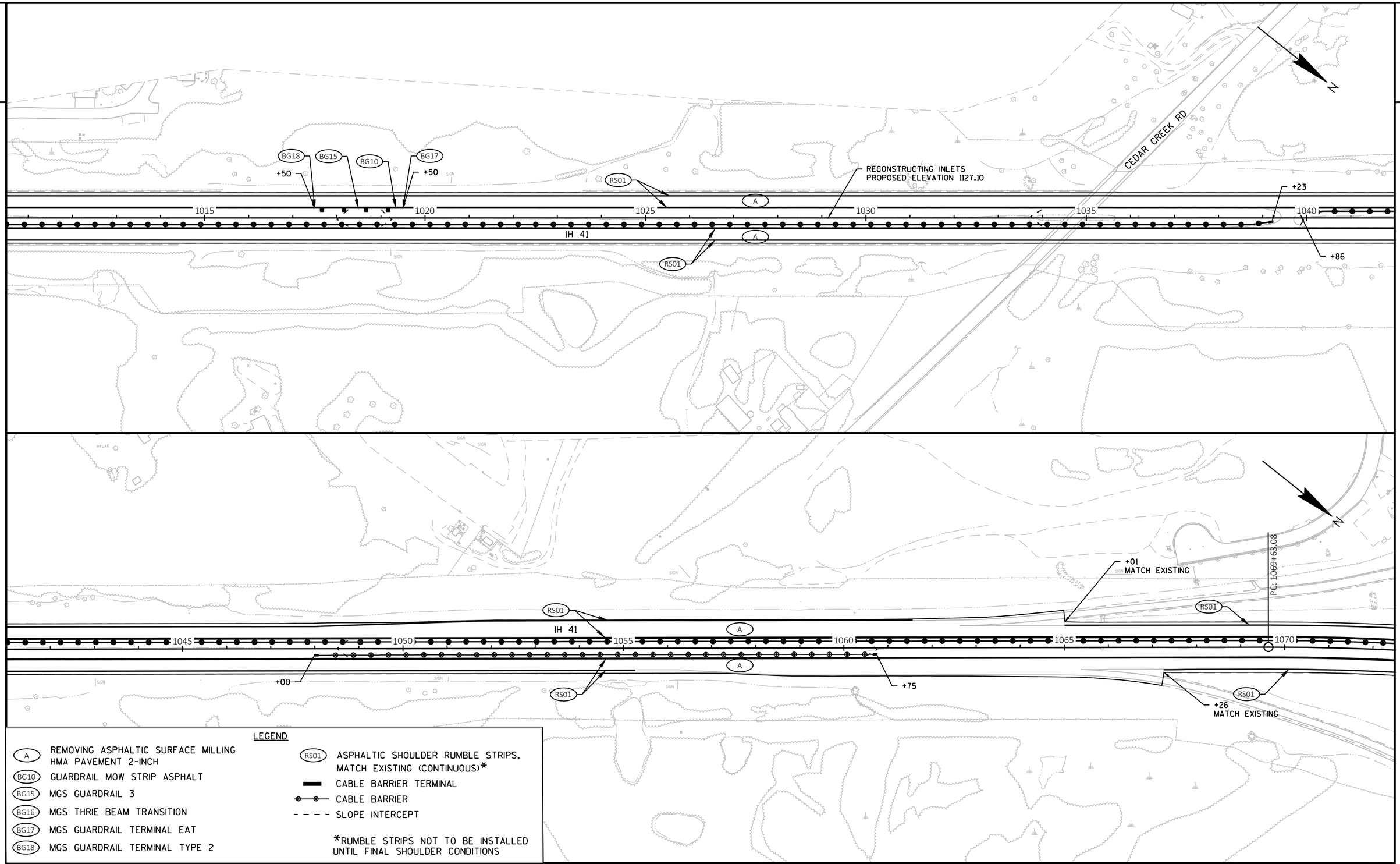
LEGEND

A	REMOVING ASPHALTIC SURFACE MILLING HMA PAVEMENT 2-INCH
BG10	GUARDRAIL MOW STRIP ASPHALT
BG15	MGS GUARDRAIL 3
BG16	MGS THRIE BEAM TRANSITION
BG17	MGS GUARDRAIL TERMINAL EAT
BG18	MGS GUARDRAIL TERMINAL TYPE 2
RS01	ASPHALTIC SHOULDER RUMBLE STRIPS, MATCH EXISTING (CONTINUOUS)*
▬	CABLE BARRIER TERMINAL
⊶⊶	CABLE BARRIER
- - - -	SLOPE INTERCEPT

*RUMBLE STRIPS NOT TO BE INSTALLED UNTIL FINAL SHOULDER CONDITIONS

PROJECT NO: 1100-27-70 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	PLAN DETAILS	SHEET 31	E

2



LEGEND

- (A) REMOVING ASPHALTIC SURFACE MILLING HMA PAVEMENT 2-INCH
- (BG10) GUARDRAIL MOW STRIP ASPHALT
- (BG15) MGS GUARDRAIL 3
- (BG16) MGS THRIE BEAM TRANSITION
- (BG17) MGS GUARDRAIL TERMINAL EAT
- (BG18) MGS GUARDRAIL TERMINAL TYPE 2
- (RS01) ASPHALTIC SHOULDER RUMBLE STRIPS, MATCH EXISTING (CONTINUOUS)*
- CABLE BARRIER TERMINAL
- CABLE BARRIER
- - - - SLOPE INTERCEPT

*RUMBLE STRIPS NOT TO BE INSTALLED UNTIL FINAL SHOULDER CONDITIONS

PROJECT NO: 1100-27-70 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	PLAN DETAILS	SHEET 32	E

2

PT: 1083+55.87

ADJUSTING INLETS SPECIAL
PROPOSED ELEVATION 1089.63

+47
MATCH EXISTING

10 STA. 1093+23, 2.38' LT
INLETS MEDIAN 1 GRATE

IH 41

STH 144

1075 1080 1085 1090 1095 1100

RS01 A

+23
MATCH EXISTING

PC: 1108+18.66

PT: 1122+68.66

+78
MATCH EXISTING

1105 1110 1115 1120 1125 1130

+55 +17

LEGEND

A — REMOVING ASPHALTIC SURFACE MILLING HMA PAVEMENT 2-INCH	RS01 — ASPHALTIC SHOULDER RUMBLE STRIPS, MATCH EXISTING (CONTINUOUS)*
BG10 — GUARDRAIL MOW STRIP ASPHALT	CABLE BARRIER TERMINAL
BG15 — MGS GUARDRAIL 3	CABLE BARRIER
BG16 — MGS THRIE BEAM TRANSITION	SLOPE INTERCEPT
BG17 — MGS GUARDRAIL TERMINAL EAT	
BG18 — MGS GUARDRAIL TERMINAL TYPE 2	

*RUMBLE STRIPS NOT TO BE INSTALLED UNTIL FINAL SHOULDER CONDITIONS

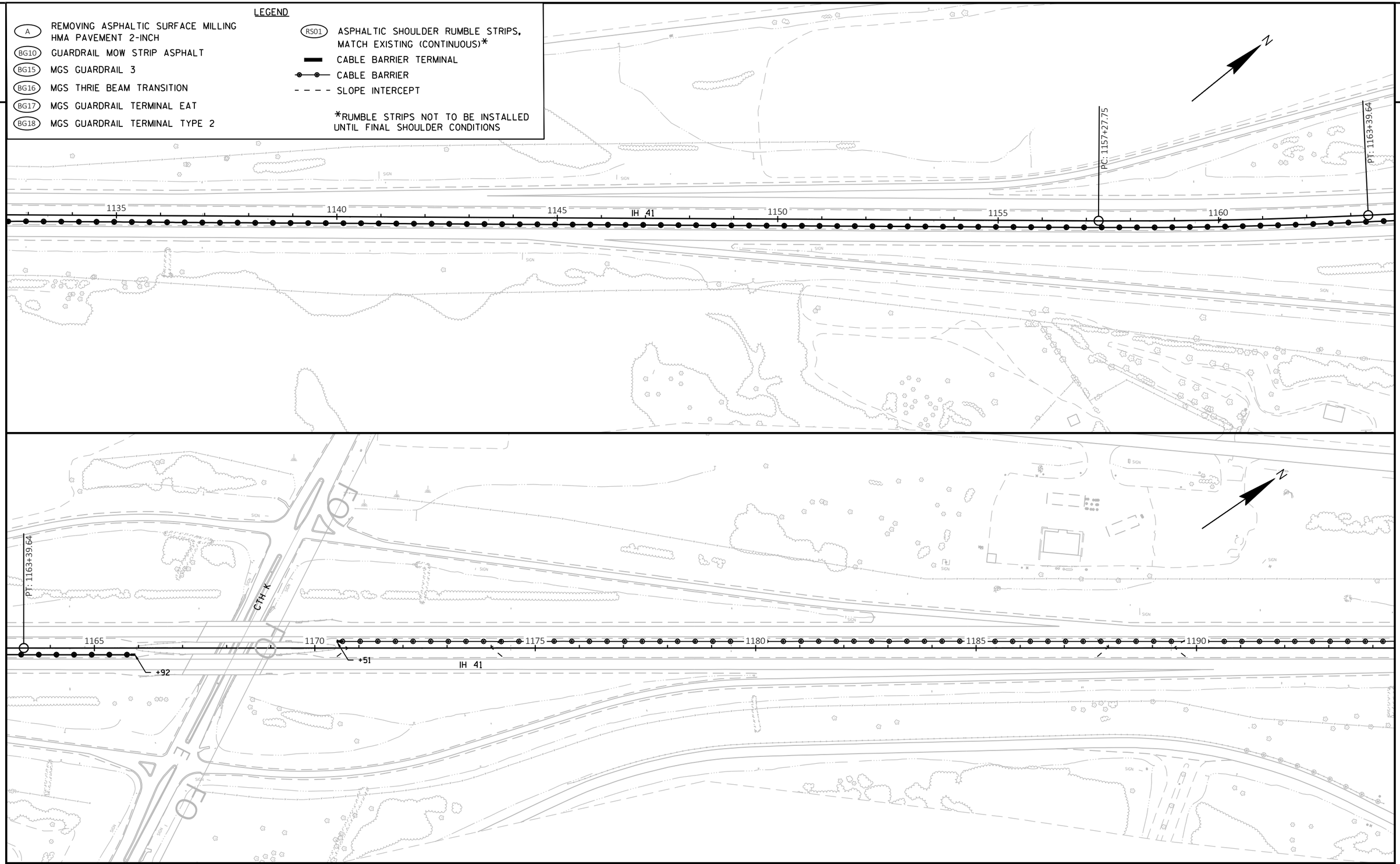
PROJECT NO: 1100-27-70 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	PLAN DETAILS	SHEET 33	E

2

LEGEND

A — REMOVING ASPHALTIC SURFACE MILLING HMA PAVEMENT 2-INCH	RS01 — ASPHALTIC SHOULDER RUMBLE STRIPS, MATCH EXISTING (CONTINUOUS)*
BG10 — GUARDRAIL MOW STRIP ASPHALT	CABLE BARRIER TERMINAL
BG15 — MGS GUARDRAIL 3	CABLE BARRIER
BG16 — MGS THRIE BEAM TRANSITION	SLOPE INTERCEPT
BG17 — MGS GUARDRAIL TERMINAL EAT	
BG18 — MGS GUARDRAIL TERMINAL TYPE 2	

*RUMBLE STRIPS NOT TO BE INSTALLED UNTIL FINAL SHOULDER CONDITIONS



PROJECT NO: 1100-27-70 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	PLAN DETAILS	SHEET 34	E

FILE NAME : N:\PDS\C3D\11002700\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 021201- (9)

PLOT DATE : 4/23/2019 3:38 PM PLOT BY : ANGUIANO, CARLOS E PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44

LEGEND

- (A) REMOVING ASPHALTIC SURFACE MILLING HMA PAVEMENT 2-INCH
- (BG10) GUARDRAIL MOW STRIP ASPHALT
- (BG15) MGS GUARDRAIL 3
- (BG16) MGS THRIE BEAM TRANSITION
- (BG17) MGS GUARDRAIL TERMINAL EAT
- (BG18) MGS GUARDRAIL TERMINAL TYPE 2
- (RS01) ASPHALTIC SHOULDER RUMBLE STRIPS, MATCH EXISTING (CONTINUOUS)*
- CABLE BARRIER TERMINAL
- CABLE BARRIER
- - - - SLOPE INTERCEPT

*RUMBLE STRIPS NOT TO BE INSTALLED UNTIL FINAL SHOULDER CONDITIONS

2

2

N

ADJUSTING INLETS SPECIAL
PROPOSED ELEVATION 1001.04

+74

1195 1200 1205 IH 41 1210 1215 1220

+26

N

ADJUSTING INLETS SPECIAL
PROPOSED ELEVATION 987.84

ADJUSTING INLETS SPECIAL
PROPOSED ELEVATION 988.10

1225 1230 1235 IH 41 1240 1245 1250 1255

+00

+94
MATCH EXISTING

PC: 1240+26.14

+25

RS01

A

PT: 1253+75.97

ADJUSTING INLETS SPECIAL
PROPOSED ELEVATION 986.94

+94
MATCH EXISTING

ADJUSTING INLETS SPECIAL
PROPOSED ELEVATION 975.28

PROJECT NO: 1100-27-70 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	PLAN DETAILS	SHEET 35	E

2

2

ADJUSTING INLETS SPECIAL
PROPOSED ELEVATION 977.66

CLOSE EXISTING MAINTENANCE CROSSOVER
SEE CONSTRUCTION DETAILS

RECONSTRUCTING INLETS
PROPOSED ELEVATION 973.76

ADJUSTING INLETS SPECIAL
PROPOSED ELEVATION 975.64

RS01

A

+63

1255 1260 1265 1270 IH 41 1275 1280 1285

A

RS01

+75

N

WILDFIRE RD

RS01

A

1290 1295 1300 IH 41 1305 1310 1315

A

RS01

PC: 1305+26.80

ADJUSTING INLETS SPECIAL
PROPOSED ELEVATION 968.90

ADJUSTING INLETS SPECIAL
PROPOSED ELEVATION 968.79

ADJUSTING INLETS SPECIAL
PROPOSED ELEVATION 970.22

RECONSTRUCTING INLETS
PROPOSED ELEVATION 973.86

N

LEGEND

- (A) REMOVING ASPHALTIC SURFACE MILLING HMA PAVEMENT 2-INCH
- (BG10) GUARDRAIL MOW STRIP ASPHALT
- (BG15) MGS GUARDRAIL 3
- (BG16) MGS THRIE BEAM TRANSITION
- (BG17) MGS GUARDRAIL TERMINAL EAT
- (BG18) MGS GUARDRAIL TERMINAL TYPE 2
- (RS01) ASPHALTIC SHOULDER RUMBLE STRIPS, MATCH EXISTING (CONTINUOUS)*
- CABLE BARRIER TERMINAL
- CABLE BARRIER
- - - - SLOPE INTERCEPT

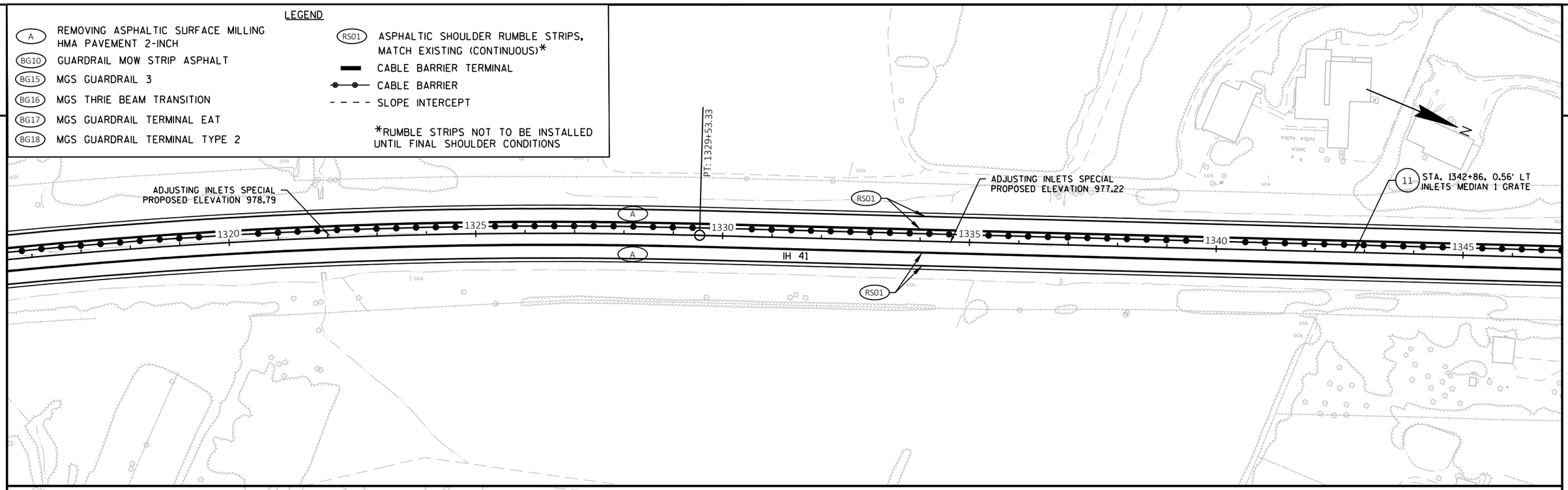
*RUMBLE STRIPS NOT TO BE INSTALLED UNTIL FINAL SHOULDER CONDITIONS

PROJECT NO: 1100-27-70 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	PLAN DETAILS	SHEET 36	E

LEGEND

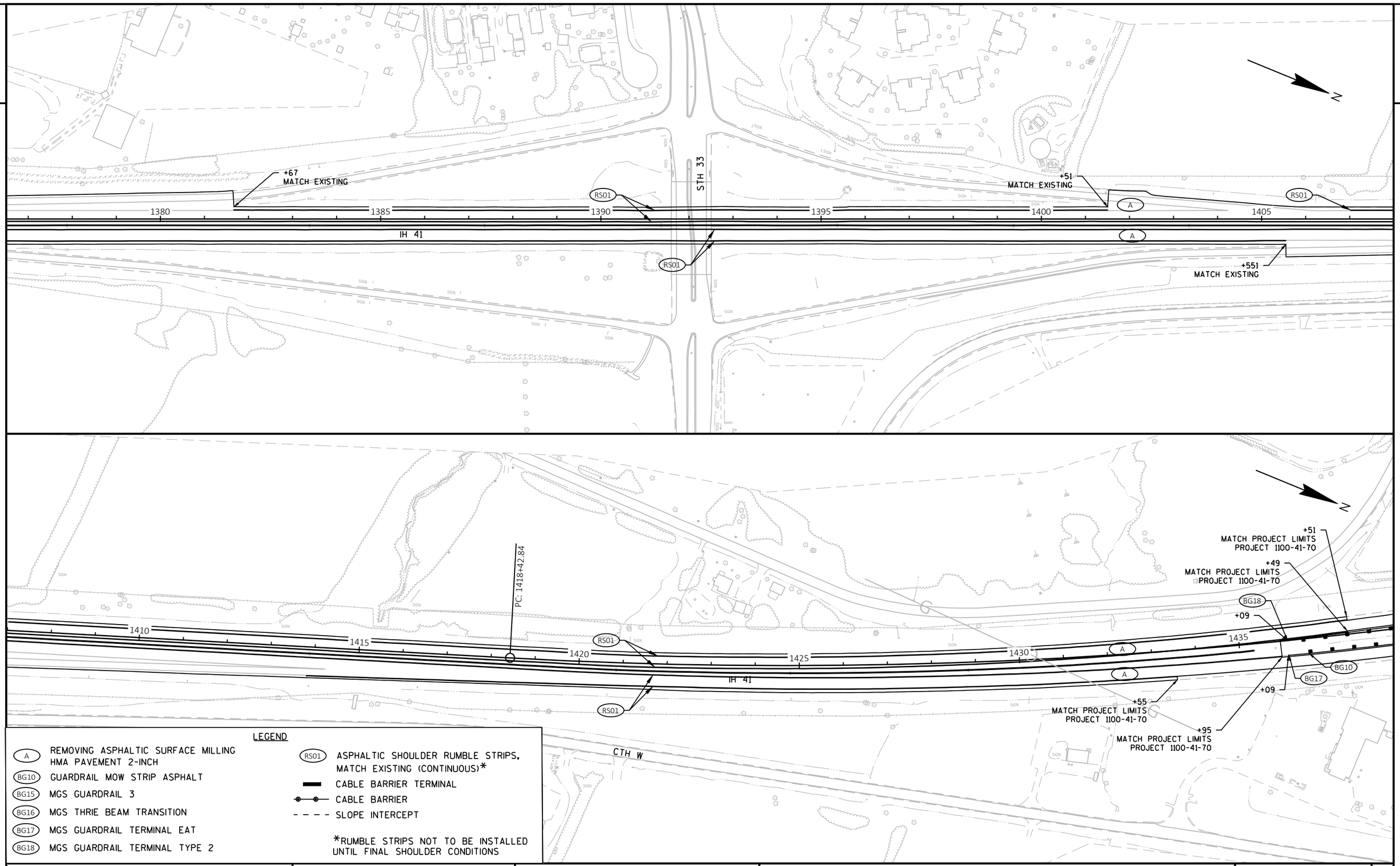
- (A) REMOVING ASPHALTIC SURFACE MILLING HMA PAVEMENT 2-INCH
- (BG10) GUARDRAIL MOW STRIP ASPHALT
- (BG15) MGS GUARDRAIL 3
- (BG16) MGS THRIE BEAM TRANSITION
- (BG17) MGS GUARDRAIL TERMINAL EAT
- (BG18) MGS GUARDRAIL TERMINAL TYPE 2
- (RS01) ASPHALTIC SHOULDER RUMBLE STRIPS, MATCH EXISTING (CONTINUOUS)*
- CABLE BARRIER TERMINAL
- CABLE BARRIER
- SLOPE INTERCEPT

*RUMBLE STRIPS NOT TO BE INSTALLED UNTIL FINAL SHOULDER CONDITIONS



PROJECT NO: 1100-27-70 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	PLAN DETAILS	SHEET 37	E

2



LEGEND

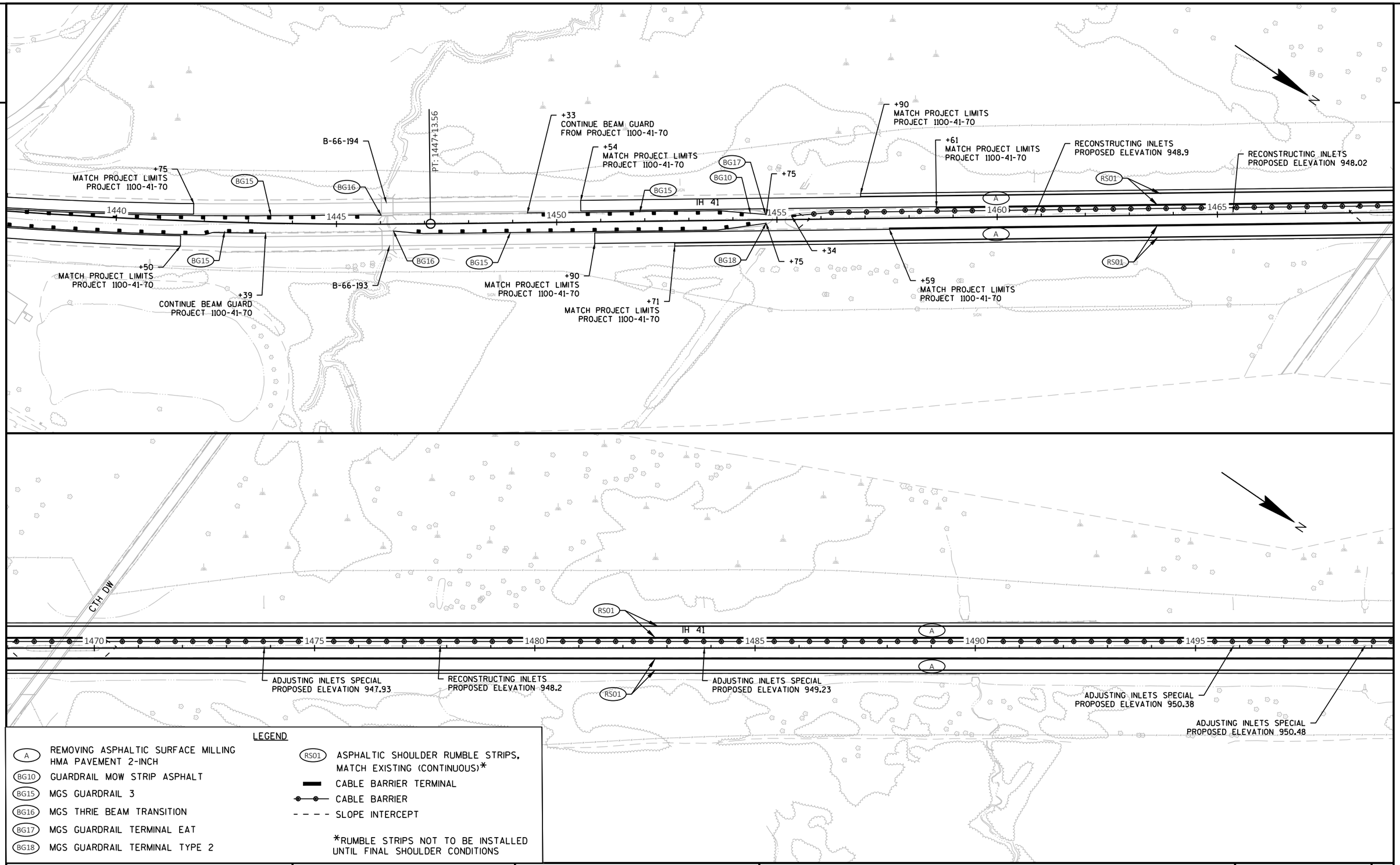
- (A) REMOVING ASPHALTIC SURFACE MILLING HMA PAVEMENT 2-INCH
- (BG10) GUARDRAIL MOW STRIP ASPHALT
- (BG15) MGS GUARDRAIL 3
- (BG16) MGS THRIE BEAM TRANSITION
- (BG17) MGS GUARDRAIL TERMINAL EAT
- (BG18) MGS GUARDRAIL TERMINAL TYPE 2
- (RS01) ASPHALTIC SHOULDER RUMBLE STRIPS, MATCH EXISTING (CONTINUOUS)*
- CABLE BARRIER TERMINAL
- CABLE BARRIER
- - - - SLOPE INTERCEPT

*RUMBLE STRIPS NOT TO BE INSTALLED UNTIL FINAL SHOULDER CONDITIONS

PROJECT NO: 1100-27-70 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	PLAN DETAILS	SHEET 38	E

FILE NAME : N:\PDS\C3D\11002700\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 021201- (13)
PLOT DATE : 4/23/2019 3:48 PM
PLOT BY : ANGUIANO, CARLOS E
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44

2



PROJECT NO: 1100-27-70 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	PLAN DETAILS	SHEET 39	E

2

CLOSE EXISTING MAINTENANCE CROSSOVER
SEE CONSTRUCTION DETAILS

RECONSTRUCTING INLETS
PROPOSED ELEVATION 952.14

ADJUSTING INLETS SPECIAL
PROPOSED ELEVATION 953.4

12 STA. 1515+13, 3.11' LT
INLETS MEDIAN 1 GRATE

RS01

ADJUSTING INLETS SPECIAL
PROPOSED ELEVATION 955.7

PC 1526+44.27

1500 1505 1510 1515 1520 1525

A

IH 41

RS01

N

ADJUSTING INLETS SPECIAL
PROPOSED ELEVATION 952.22

RS01

A

IH 41

1530 1535 1540 1545 1550 1555 1560

+27 +88

RECONSTRUCTING INLETS
PROPOSED ELEVATION 952.65

ADJUSTING INLETS SPECIAL
PROPOSED ELEVATION 957.48

RS01

RECONSTRUCTING INLETS
PROPOSED ELEVATION 954.01

N

LEGEND

A — REMOVING ASPHALTIC SURFACE MILLING HMA PAVEMENT 2-INCH	RS01 — ASPHALTIC SHOULDER RUMBLE STRIPS, MATCH EXISTING (CONTINUOUS)*
BG10 — GUARDRAIL MOW STRIP ASPHALT	CABLE BARRIER TERMINAL
BG15 — MGS GUARDRAIL 3	CABLE BARRIER
BG16 — MGS THRIE BEAM TRANSITION	SLOPE INTERCEPT
BG17 — MGS GUARDRAIL TERMINAL EAT	
BG18 — MGS GUARDRAIL TERMINAL TYPE 2	

*RUMBLE STRIPS NOT TO BE INSTALLED UNTIL FINAL SHOULDER CONDITIONS

PROJECT NO: 1100-27-70 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	PLAN DETAILS	SHEET 40	E

2

13 STA. 1561+88, 2.11' LT
INLETS MEDIAN 1 GRATE

PT: 1562+49.27

14 STA. 1568+85, 7.0' RT
INLETS MEDIAN 1 GRATE

RECONSTRUCTING INLETS
PROPOSED ELEVATION 1014.77

+40
MATCH EXISTING

PI: 1587+87.39

IH 41

1560 1565 1570 1575 1580 1585 1590

RS01 A

+00
MATCH EXISTING

+52
MATCH EXISTING

STA. 1587+89, 2.5' LT
INLETS MEDIAN 1 GRATE 15

CTH D

16 STA. 1593+83, 2.0' LT
INLETS MEDIAN 1 GRATE

+60
MATCH EXISTING

PI: 1614+57.95

+63
MATCH EXISTING

1595 1600 1605 1610 1615 1620

ADJUSTING INLETS SPECIAL
PROPOSED ELEVATION 988.34

+93
MATCH EXISTING

LEGEND

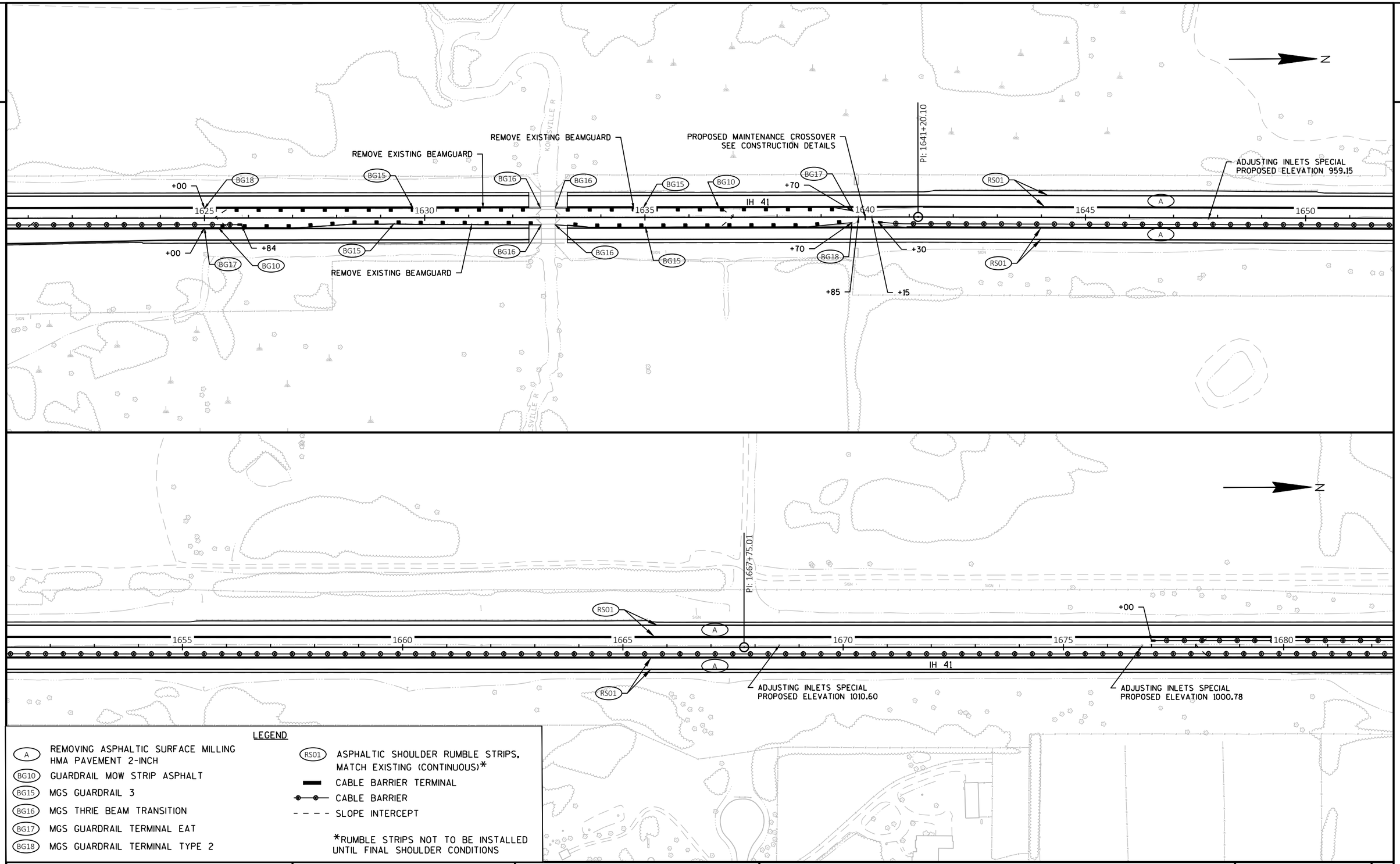
A	REMOVING ASPHALTIC SURFACE MILLING HMA PAVEMENT 2-INCH
BG10	GUARDRAIL MOW STRIP ASPHALT
BG15	MGS GUARDRAIL 3
BG16	MGS THRIE BEAM TRANSITION
BG17	MGS GUARDRAIL TERMINAL EAT
BG18	MGS GUARDRAIL TERMINAL TYPE 2
RS01	ASPHALTIC SHOULDER RUMBLE STRIPS, MATCH EXISTING (CONTINUOUS)*
▬	CABLE BARRIER TERMINAL
●—●	CABLE BARRIER
- - - -	SLOPE INTERCEPT

*RUMBLE STRIPS NOT TO BE INSTALLED UNTIL FINAL SHOULDER CONDITIONS

PROJECT NO: 1100-27-70 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	PLAN DETAILS	SHEET 41	E

FILE NAME : N:\PDS\C3D\11002700\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 021201- (16)
PLOT DATE : 4/23/2019 3:55 PM
PLOT BY : ANGUIANO, CARLOS E
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44

2



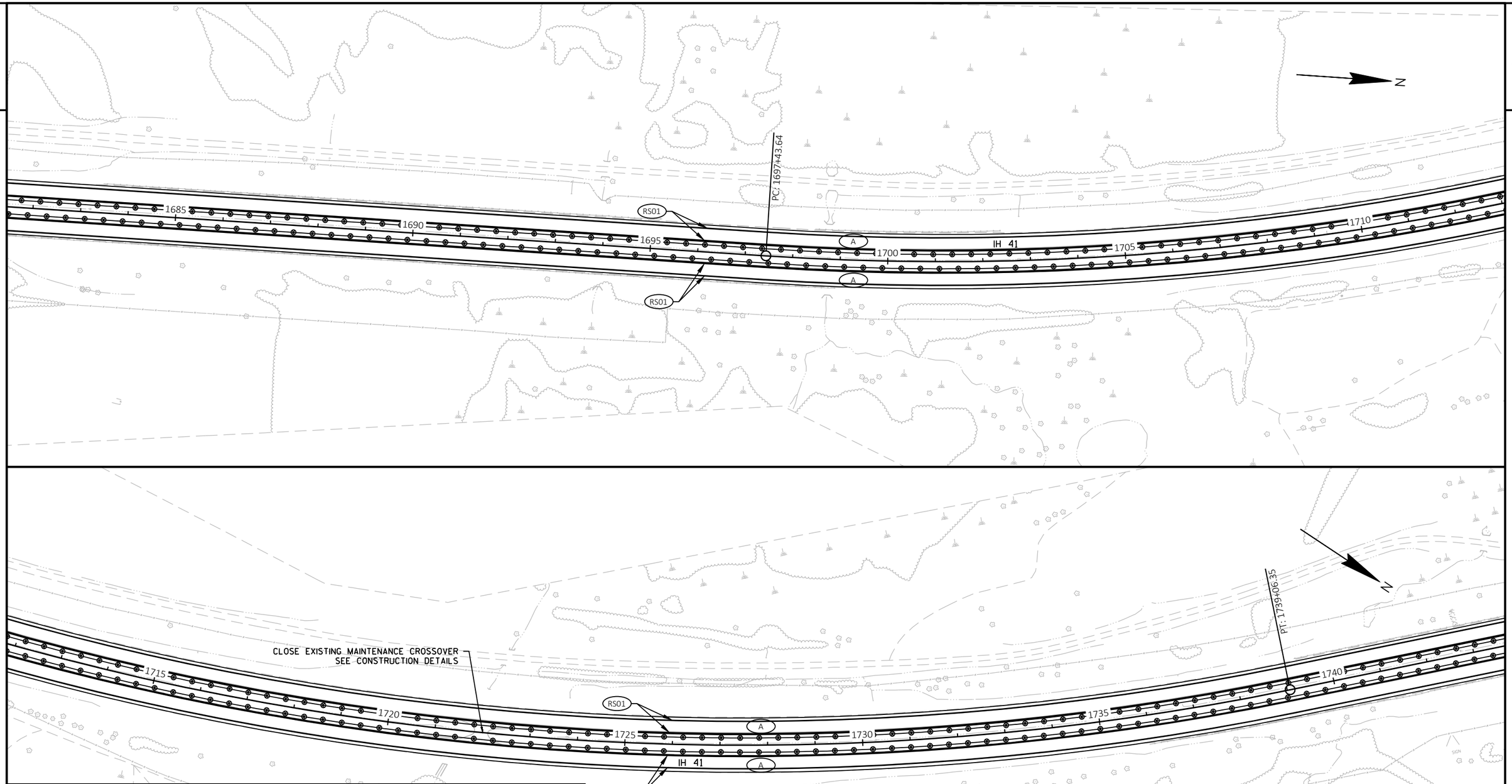
LEGEND

- (A) REMOVING ASPHALTIC SURFACE MILLING HMA PAVEMENT 2-INCH
- (BG10) GUARDRAIL MOW STRIP ASPHALT
- (BG15) MGS GUARDRAIL 3
- (BG16) MGS THRIE BEAM TRANSITION
- (BG17) MGS GUARDRAIL TERMINAL EAT
- (BG18) MGS GUARDRAIL TERMINAL TYPE 2
- (RS01) ASPHALTIC SHOULDER RUMBLE STRIPS, MATCH EXISTING (CONTINUOUS)*
- CABLE BARRIER TERMINAL
- CABLE BARRIER
- - - - SLOPE INTERCEPT

*RUMBLE STRIPS NOT TO BE INSTALLED UNTIL FINAL SHOULDER CONDITIONS

PROJECT NO: 1100-27-70 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	PLAN DETAILS	SHEET 42	E

2



LEGEND

- A — REMOVING ASPHALTIC SURFACE MILLING HMA PAVEMENT 2-INCH
- BG10 — GUARDRAIL MOW STRIP ASPHALT
- BG15 — MGS GUARDRAIL 3
- BG16 — MGS THRIE BEAM TRANSITION
- BG17 — MGS GUARDRAIL TERMINAL EAT
- BG18 — MGS GUARDRAIL TERMINAL TYPE 2
- RS01 — ASPHALTIC SHOULDER RUMBLE STRIPS, MATCH EXISTING (CONTINUOUS)*
- CABLE BARRIER TERMINAL
- CABLE BARRIER
- SLOPE INTERCEPT

*RUMBLE STRIPS NOT TO BE INSTALLED UNTIL FINAL SHOULDER CONDITIONS

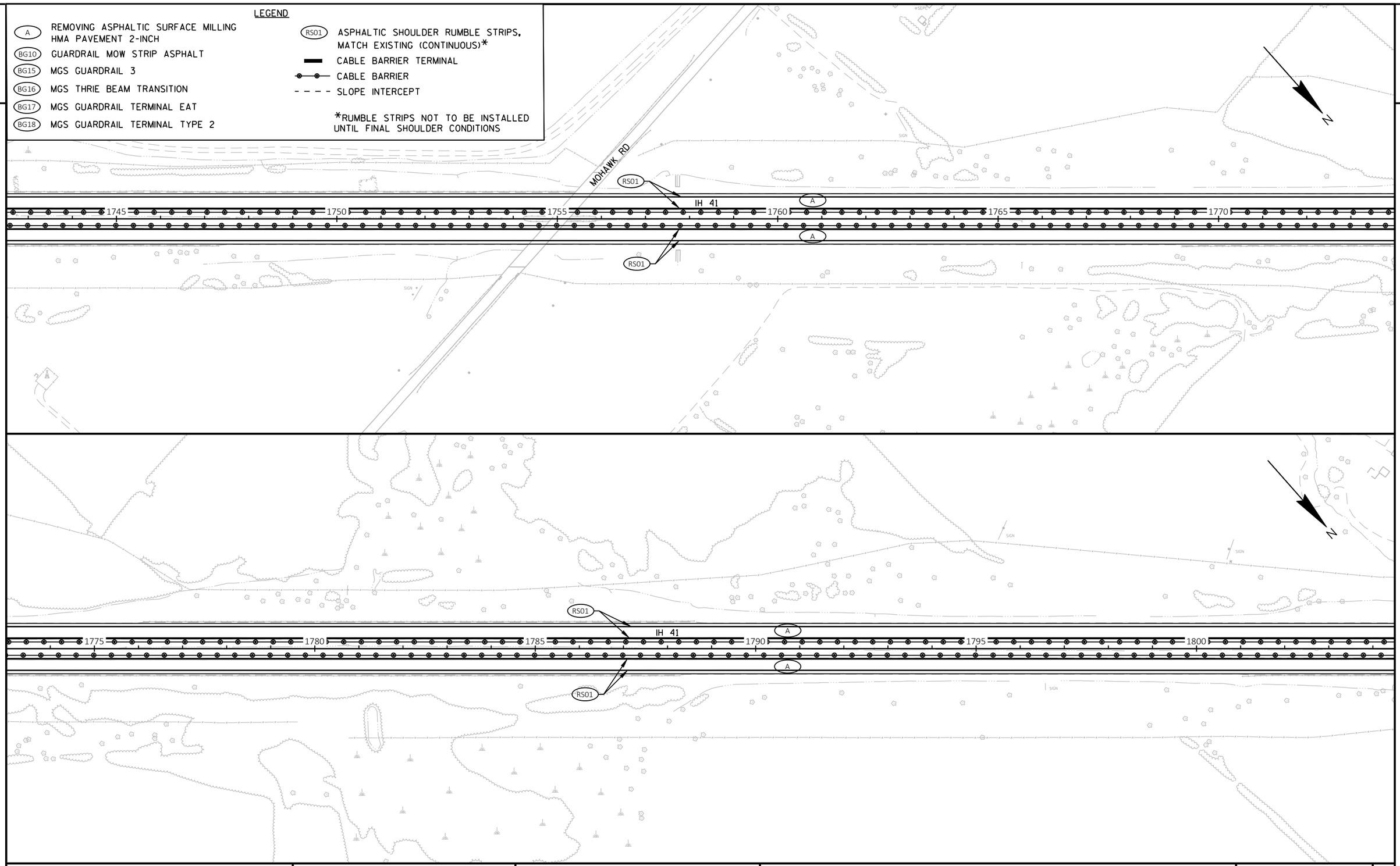
PROJECT NO: 1100-27-70 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	PLAN DETAILS	SHEET 43	E

2

LEGEND

- (A) REMOVING ASPHALTIC SURFACE MILLING HMA PAVEMENT 2-INCH
- (BG10) GUARDRAIL MOW STRIP ASPHALT
- (BG15) MGS GUARDRAIL 3
- (BG16) MGS THRIE BEAM TRANSITION
- (BG17) MGS GUARDRAIL TERMINAL EAT
- (BG18) MGS GUARDRAIL TERMINAL TYPE 2
- (RS01) ASPHALTIC SHOULDER RUMBLE STRIPS, MATCH EXISTING (CONTINUOUS)*
- CABLE BARRIER TERMINAL
- CABLE BARRIER
- - - - SLOPE INTERCEPT

*RUMBLE STRIPS NOT TO BE INSTALLED UNTIL FINAL SHOULDER CONDITIONS



PROJECT NO: 1100-27-70 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	PLAN DETAILS	SHEET 44	E

2

MOHAWK RD

RECONSTRUCTING INLETS
PROPOSED ELEVATION 1006.01

+00

END PROJECT 1100-27-70
STA 1817+00

RS01

RECONSTRUCTING INLETS
PROPOSED ELEVATION 1001.69

1805 1810 1815 1820 1825 1830

A

IH 41

+78 +49

RS01

FARM LN

1830 1835 1840 1845 1850

RS01

IH 41

A

A

+81
MATCH EXISTING

EP: 1851+25.96

ADJUSTING INLETS SPECIAL
PROPOSED ELEVATION 966.05

ADJUSTING INLETS SPECIAL
PROPOSED ELEVATION 963.01

END PROJECT 1107-00-71
STA 1851+26

STH 28

LEGEND

- (A) REMOVING ASPHALTIC SURFACE MILLING HMA PAVEMENT 2-INCH
- (BG10) GUARDRAIL MOW STRIP ASPHALT
- (BG15) MGS GUARDRAIL 3
- (BG16) MGS THRIE BEAM TRANSITION
- (BG17) MGS GUARDRAIL TERMINAL EAT
- (BG18) MGS GUARDRAIL TERMINAL TYPE 2
- (RS01) ASPHALTIC SHOULDER RUMBLE STRIPS, MATCH EXISTING (CONTINUOUS)*
- CABLE BARRIER TERMINAL
- CABLE BARRIER
- - - - SLOPE INTERCEPT

*RUMBLE STRIPS NOT TO BE INSTALLED UNTIL FINAL SHOULDER CONDITIONS

PROJECT NO: 1100-27-70 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	PLAN DETAILS	SHEET 45	E

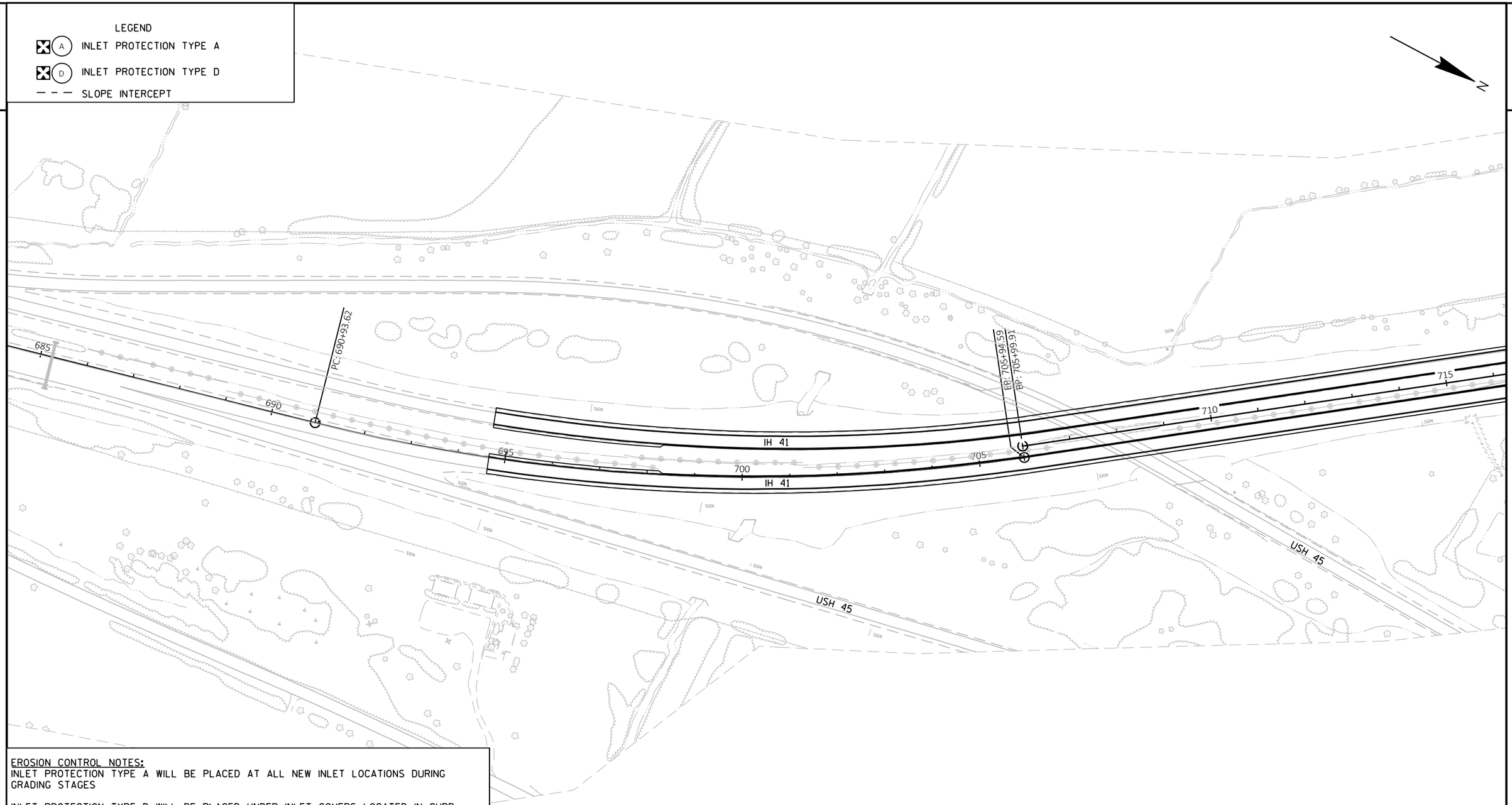
FILE NAME : N:\PDS\C3D\11002700\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 021201- (20)
PLOT DATE : 4/24/2019 3:04 PM
PLOT BY : MCGILLICUDDY, BENJAM
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44

LEGEND

A INLET PROTECTION TYPE A

D INLET PROTECTION TYPE D

SLOPE INTERCEPT



EROSION CONTROL NOTES:

INLET PROTECTION TYPE A WILL BE PLACED AT ALL NEW INLET LOCATIONS DURING GRADING STAGES

INLET PROTECTION TYPE D WILL BE PLACED UNDER INLET COVERS LOCATED IN CURB AND GUTTER UNTIL COMPLETION OF THE PROJECT

DO NOT STORE THE MATERIALS OR OPERATE EQUIPMENT WITHIN THE WETLAND LIMITS OUTSIDE THE SLOPE INTERCEPTS

TEMPORARY DITCH CHECKS SHALL BE PLACED EVERY 600 FEET ALONG DISTURBED LENGTH OF DITCH AND AT LOCATIONS DETERMINED BY THE ENGINEER

EROSION MAT CLASS I TYPE B TO BE PLACED 8' WIDE ALONG DISTURBED LENGTH OF DITCH AND AT LOCATIONS TO BE DETERMINED BY THE ENGINEER

PROJECT NO: 1100-27-00/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	EROSION CONTROL	SHEET 46	E

LEGEND

A — INLET PROTECTION TYPE A

D — INLET PROTECTION TYPE D

SLOPE INTERCEPT

IH 41

720 725 730 735 740 745

STH 145

750 755 760 765 770 775

PC: 766+00.34

BEGIN EROSION MAT CLASS I, TYPE B
STA. 767+26

EROSION CONTROL NOTES:

INLET PROTECTION TYPE A WILL BE PLACED AT ALL NEW INLET LOCATIONS DURING GRADING STAGES

INLET PROTECTION TYPE D WILL BE PLACED UNDER INLET COVERS LOCATED IN CURB AND GUTTER UNTIL COMPLETION OF THE PROJECT

DO NOT STORE THE MATERIALS OR OPERATE EQUIPMENT WITHIN THE WETLAND LIMITS OUTSIDE THE SLOPE INTERCEPTS

TEMPORARY DITCH CHECKS SHALL BE PLACED EVERY 600 FEET ALONG DISTURBED LENGTH OF DITCH AND AT LOCATIONS DETERMINED BY THE ENGINEER

EROSION MAT CLASS I TYPE B TO BE PLACED 8' WIDE ALONG DISTURBED LENGTH OF DITCH AND AT LOCATIONS TO BE DETERMINED BY THE ENGINEER

PROJECT NO: 1100-27-00/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	EROSION CONTROL	SHEET 47	E

LEGEND

- A — INLET PROTECTION TYPE A
- D — INLET PROTECTION TYPE D
- SLOPE INTERCEPT

MONICA LANE

PT: 783+46.12

END EROSION MAT CLASS I, TYPE B
STA. 779+00

BEGIN EROSION MAT CLASS I, TYPE B
STA. 783+00

END EROSION MAT CLASS I, TYPE B
STA. 806+00

IH 41

780 785 790 795 800 805

WESTERN AVENUE

810 815 820 825 830 835

EROSION CONTROL NOTES:

INLET PROTECTION TYPE A WILL BE PLACED AT ALL NEW INLET LOCATIONS DURING GRADING STAGES

INLET PROTECTION TYPE D WILL BE PLACED UNDER INLET COVERS LOCATED IN CURB AND GUTTER UNTIL COMPLETION OF THE PROJECT

DO NOT STORE THE MATERIALS OR OPERATE EQUIPMENT WITHIN THE WETLAND LIMITS OUTSIDE THE SLOPE INTERCEPTS

TEMPORARY DITCH CHECKS SHALL BE PLACED EVERY 600 FEET ALONG DISTURBED LENGTH OF DITCH AND AT LOCATIONS DETERMINED BY THE ENGINEER

EROSION MAT CLASS I TYPE B TO BE PLACED 8' WIDE ALONG DISTURBED LENGTH OF DITCH AND AT LOCATIONS TO BE DETERMINED BY THE ENGINEER

PROJECT NO: 1100-27-00/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	EROSION CONTROL	SHEET 48	E

2

LEGEND

A INLET PROTECTION TYPE A

D INLET PROTECTION TYPE D

SLOPE INTERCEPT

SCENIC ROAD

IH 41

840 845 850 855 860 865

SCENIC ROAD

SHERMAN ROAD

BEGIN EROSION MAT CLASS I, TYPE B
STA. 879+00

BEGIN EROSION MAT CLASS I, TYPE B
STA. 887+00

870 875 880 885 890 895 900

IH 41

END EROSION MAT CLASS I, TYPE B
STA. 852+50

SHERMAN ROAD

EROSION CONTROL NOTES:

INLET PROTECTION TYPE A WILL BE PLACED AT ALL NEW INLET LOCATIONS DURING GRADING STAGES

INLET PROTECTION TYPE D WILL BE PLACED UNDER INLET COVERS LOCATED IN CURB AND GUTTER UNTIL COMPLETION OF THE PROJECT

DO NOT STORE THE MATERIALS OR OPERATE EQUIPMENT WITHIN THE WETLAND LIMITS OUTSIDE THE SLOPE INTERCEPTS

TEMPORARY DITCH CHECKS SHALL BE PLACED EVERY 600 FEET ALONG DISTURBED LENGTH OF DITCH AND AT LOCATIONS DETERMINED BY THE ENGINEER

EROSION MAT CLASS I TYPE B TO BE PLACED 8' WIDE ALONG DISTURBED LENGTH OF DITCH AND AT LOCATIONS TO BE DETERMINED BY THE ENGINEER

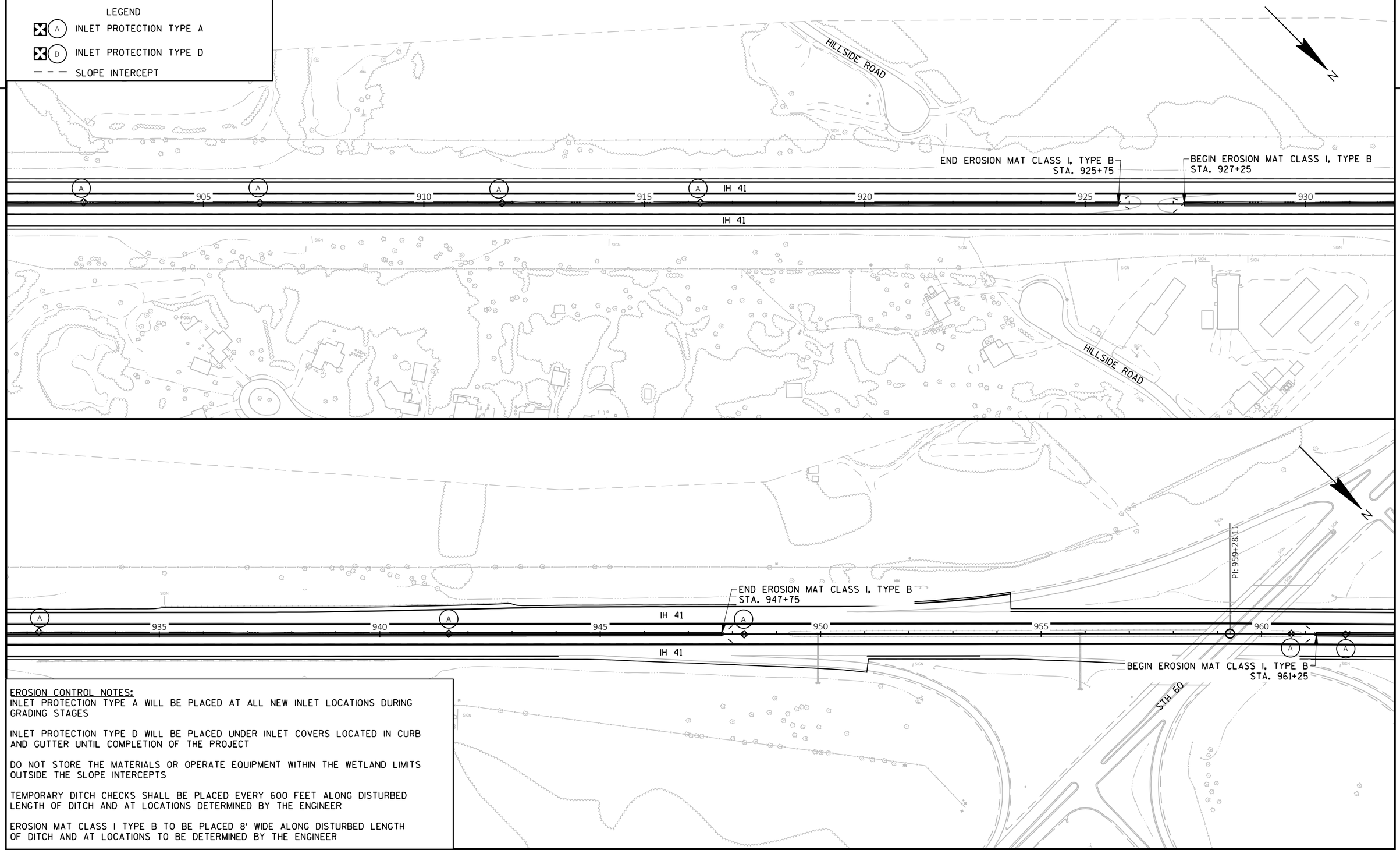
PROJECT NO: 1100-27-00/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	EROSION CONTROL	SHEET 49	E

LEGEND

A INLET PROTECTION TYPE A

D INLET PROTECTION TYPE D

SLOPE INTERCEPT



EROSION CONTROL NOTES:

INLET PROTECTION TYPE A WILL BE PLACED AT ALL NEW INLET LOCATIONS DURING GRADING STAGES

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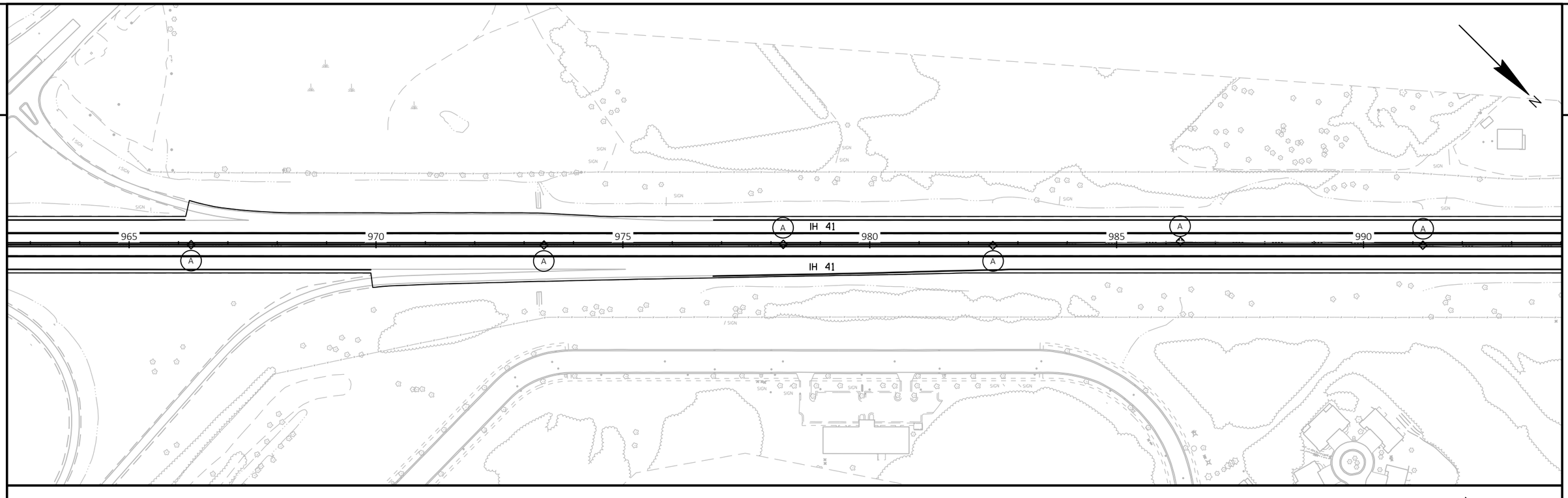
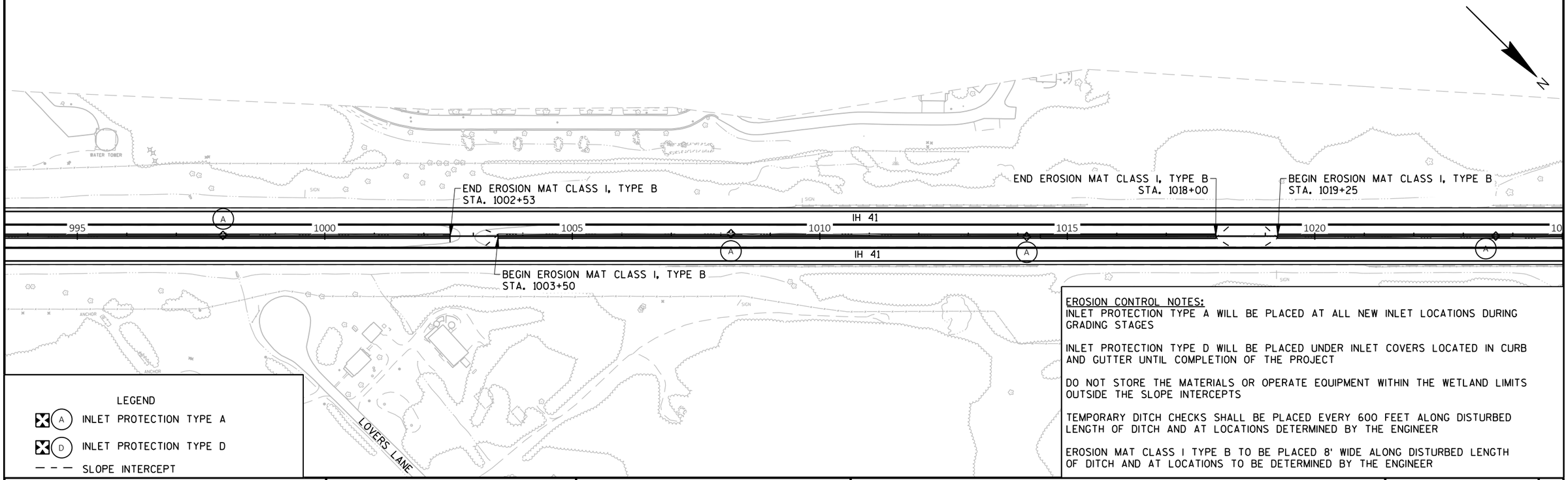
PROJECT NO: 1100-27-00/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	EROSION CONTROL	SHEET 50	E





LEGEND

- (A) INLET PROTECTION TYPE A
- (D) INLET PROTECTION TYPE D
- — — — SLOPE INTERCEPT

EROSION CONTROL NOTES:

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PROJECT NO: 1100-27-00/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	EROSION CONTROL	SHEET 51	E

FILE NAME : N:\PDS\C3D\11002700\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 022006_EC
PLOT DATE : 4/23/2019 5:16 PM
PLOT BY : MCGILLICUDDY, BENJAM
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44

2

LEGEND

A INLET PROTECTION TYPE A

D INLET PROTECTION TYPE D

SLOPE INTERCEPT

CEDAR CREEK ROAD

END EROSION MAT CLASS I, TYPE B
STA. 1033+74

END EROSION MAT CLASS I, TYPE B
STA. 1048+50

1025 1030 1035 1040 1045 1050 1055

IH 41

IH 41

BEGIN EROSION MAT CLASS I, TYPE B
STA. 1040+00

N

BEGIN EROSION MAT CLASS I, TYPE B
STA. 1060+75

PCI 1069+63.08

1060 1065 1070 1075 1080 1085

IH 41

IH 41

END EROSION MAT CLASS I, TYPE B
STA. 1075+75

PT 1083+55.87

STH 144

BEGIN EROSION MAT CLASS I, TYPE B
STA. 1081+25

N

EROSION CONTROL NOTES:

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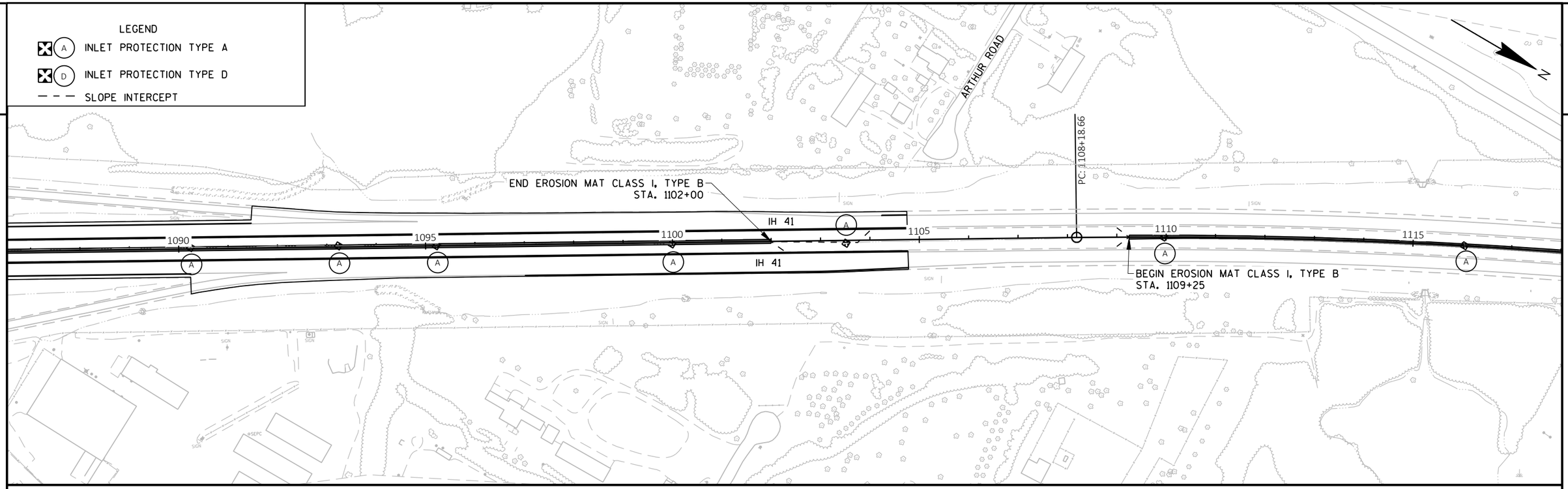
PROJECT NO: 1100-27-00/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	EROSION CONTROL	SHEET 52	E

LEGEND

- (A) INLET PROTECTION TYPE A
- (D) INLET PROTECTION TYPE D
- SLOPE INTERCEPT



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PROJECT NO: 1100-27-00/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	EROSION CONTROL	SHEET 53	E

LEGEND

- (A) INLET PROTECTION TYPE A
- (D) INLET PROTECTION TYPE D
- SLOPE INTERCEPT

PC: 1157+27.75

PT: 1163+39.64

BEGIN EROSION MAT CLASS I, TYPE B
STA. 1170+75

END EROSION MAT CLASS I, TYPE B
STA. 1160+00

END EROSION MAT CLASS I, TYPE B
STA. 1174+00

IH 41

CTH K

BEGIN EROSION MAT CLASS I, TYPE B
STA. 1198+25

END EROSION MAT CLASS I, TYPE B
STA. 1189+50

END EROSION MAT CLASS I, TYPE B
STA. 1209+60

BEGIN EROSION MAT CLASS I, TYPE B
STA. 1188+00

BEGIN EROSION MAT CLASS I, TYPE B
STA. 1210+50

EROSION CONTROL NOTES:

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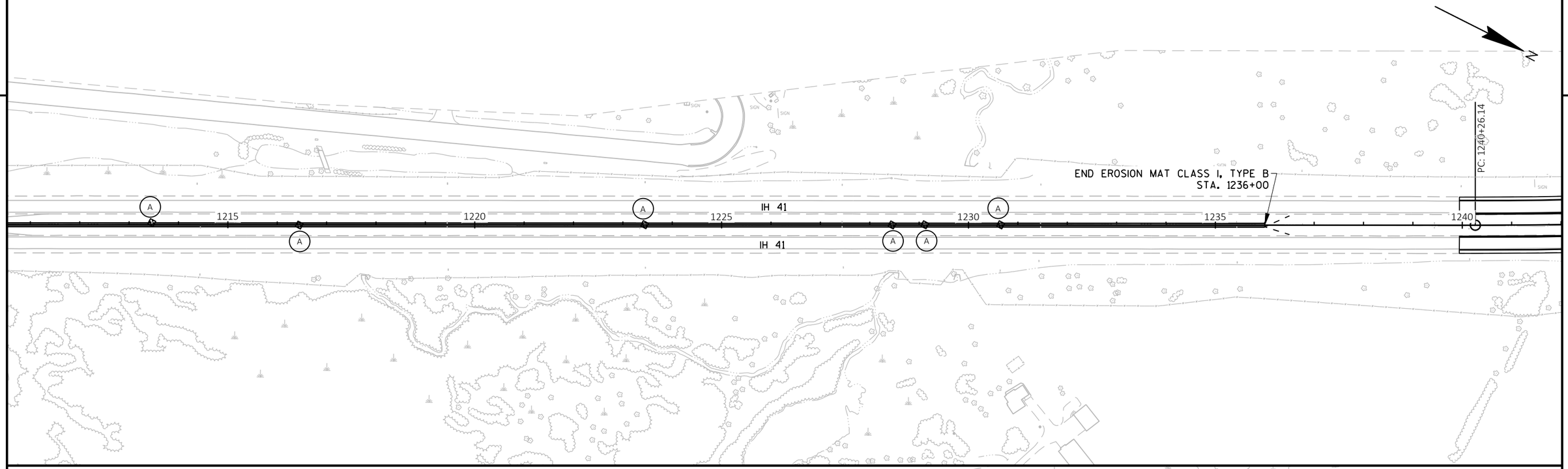
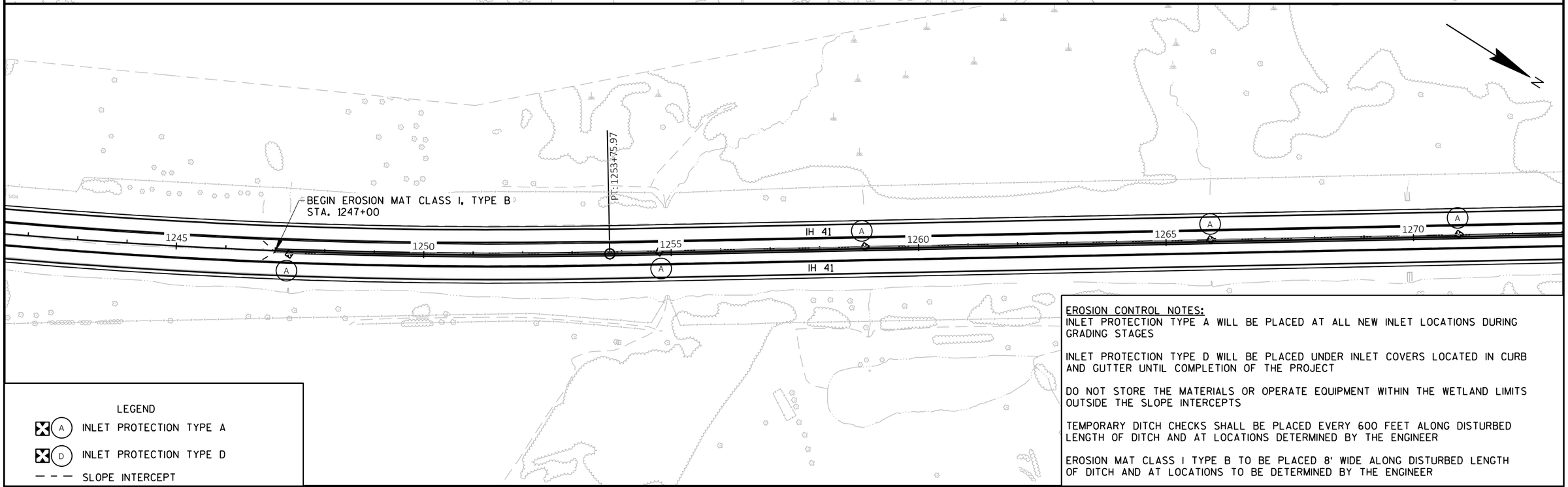
PROJECT NO: 1100-27-00/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	EROSION CONTROL	SHEET 54	E

2





LEGEND

- (A) INLET PROTECTION TYPE A
- (D) INLET PROTECTION TYPE D
- — — — SLOPE INTERCEPT

EROSION CONTROL NOTES:

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PROJECT NO: 1100-27-00/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	EROSION CONTROL	SHEET 55	E

LEGEND

A INLET PROTECTION TYPE A

D INLET PROTECTION TYPE D

SLOPE INTERCEPT

WILDLIFE ROAD

END EROSION MAT CLASS I, TYPE B
STA. 1279+75

BEGIN EROSION MAT CLASS I, TYPE B
STA. 1281+25

IH 41

1275 1280 1285 1290 1295 1300

IH 41

PC: 1305+26.80

IH 41

1305 1310 1315 1320 1325 1330

PT: 1329+53.33

IH 41

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PROJECT NO: 1100-27-00/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	EROSION CONTROL	SHEET 56	E

LEGEND

- (A) INLET PROTECTION TYPE A
- (D) INLET PROTECTION TYPE D
- SLOPE INTERCEPT

HILLCREST DRIVE

END EROSION MAT CLASS I, TYPE B
STA. 1348+50

BEGIN EROSION MAT CLASS I, TYPE B
STA. 1350+25

END EROSION MAT CLASS I, TYPE B
STA. 1361+00

BEGIN EROSION MAT CLASS I, TYPE B
STA. 1362+50

END EROSION MAT CLASS I, TYPE B
STA. 1365+00

IH 41

STH 33

EROSION CONTROL NOTES:

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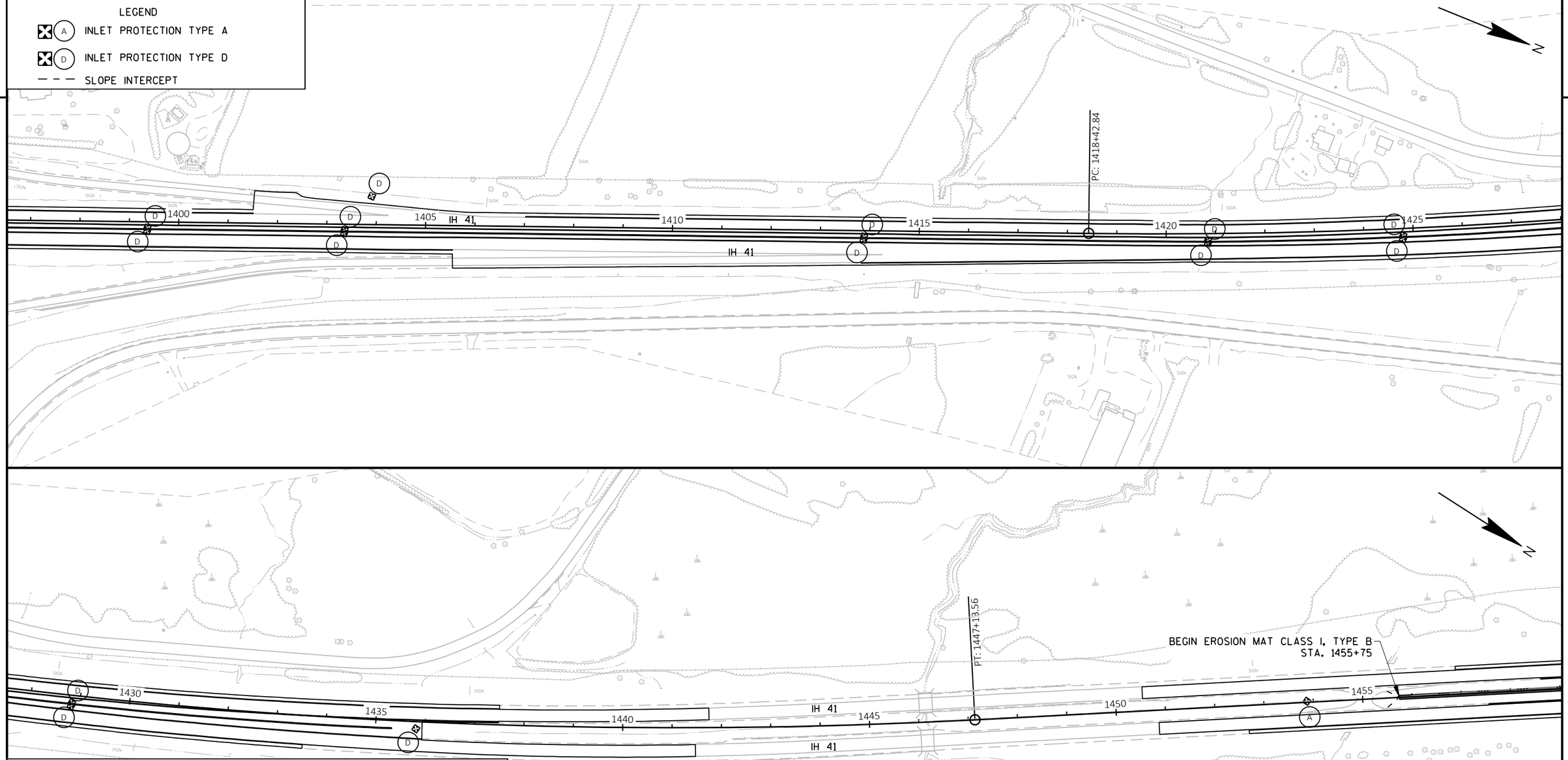
LEGEND

- A — INLET PROTECTION TYPE A
- D — INLET PROTECTION TYPE D
- SLOPE INTERCEPT



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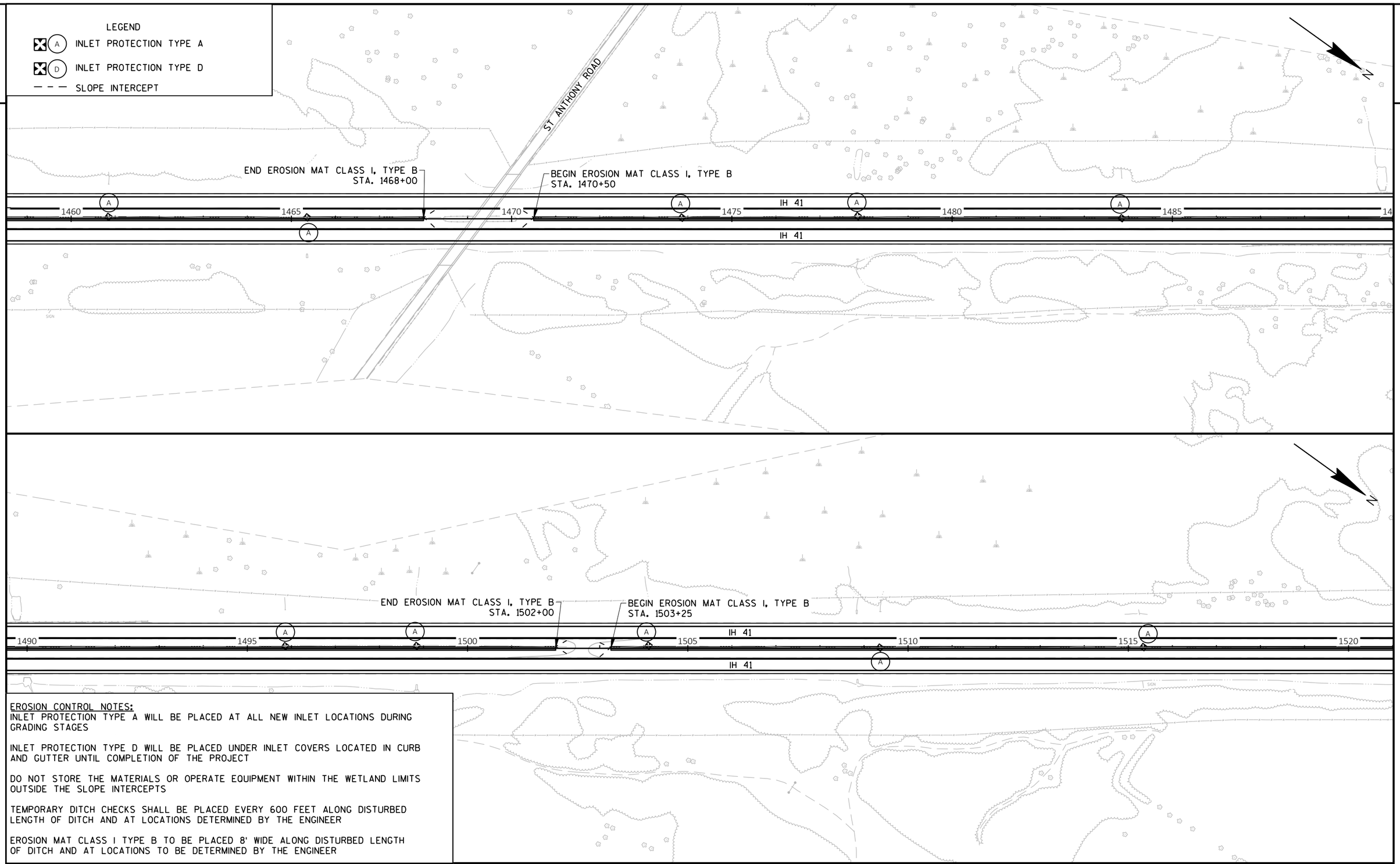
PROJECT NO: 1100-27-00/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	EROSION CONTROL	SHEET 58	E

LEGEND

A INLET PROTECTION TYPE A

D INLET PROTECTION TYPE D

SLOPE INTERCEPT



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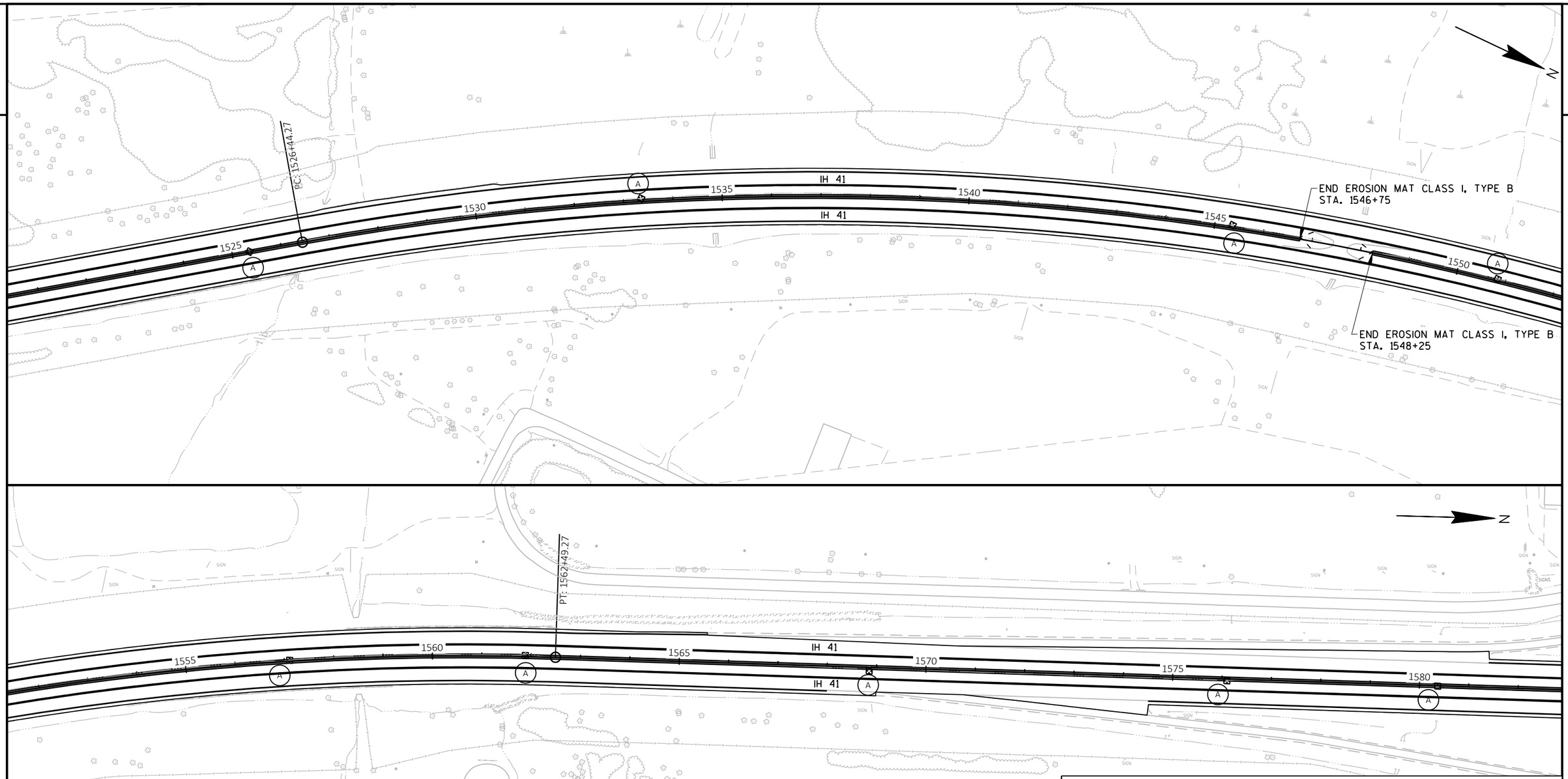
PROJECT NO: 1100-27-00/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	EROSION CONTROL	SHEET 59	E

2



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- (A) INLET PROTECTION TYPE A
- (D) INLET PROTECTION TYPE D
- — — — SLOPE INTERCEPT

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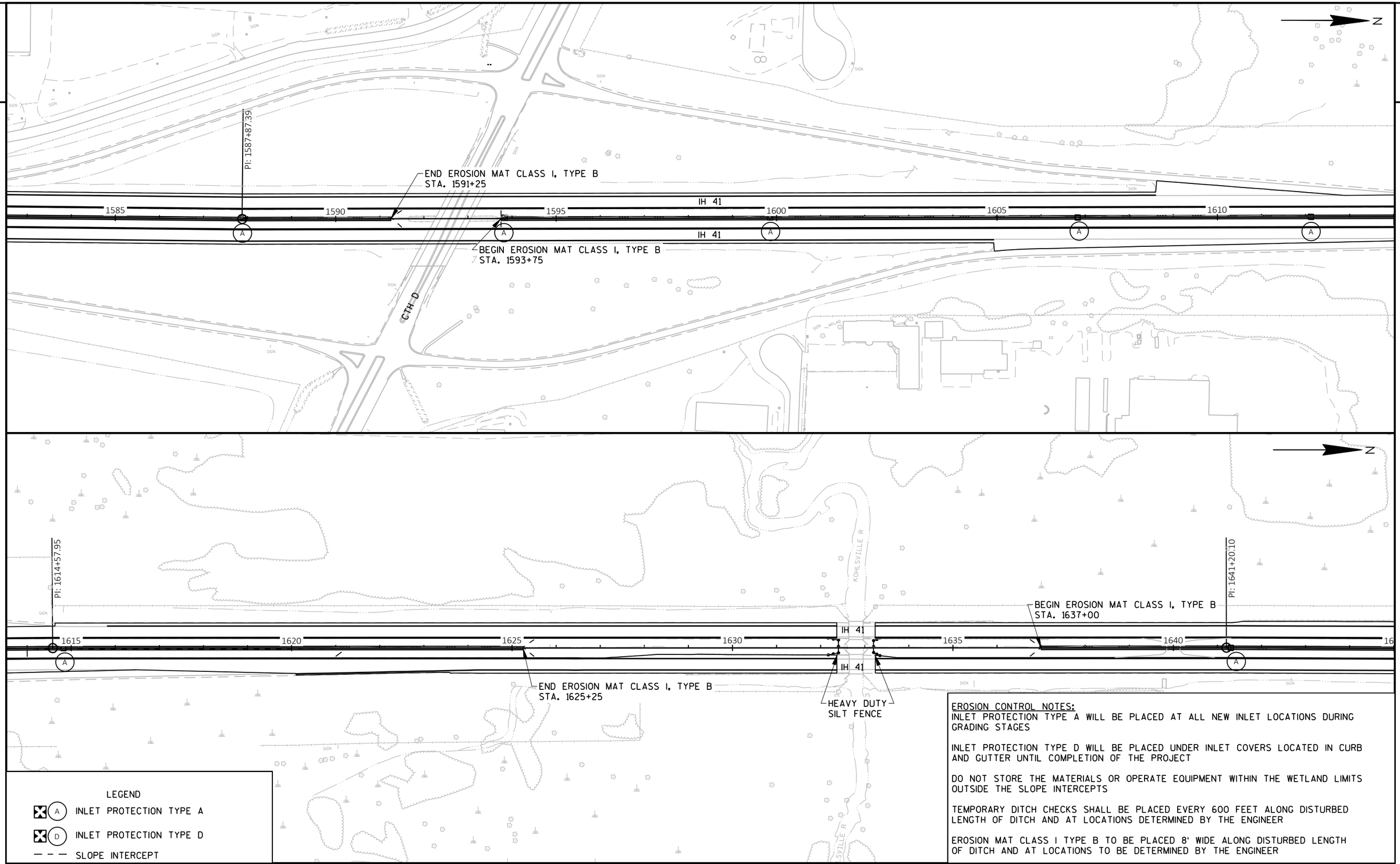
PROJECT NO: 1100-27-00/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	EROSION CONTROL	SHEET 60	E

2



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LEGEND

- A — INLET PROTECTION TYPE A
- D — INLET PROTECTION TYPE D
- SLOPE INTERCEPT

PI: 1667+75.01

PC: 1697+43.64

CANARY LANE

IH 41

1645 1650 1655 1660 1665 1670 1675

1680 1685 1690 1695 1700 1705

END EROSION MAT CLASS I, TYPE B
STA. 1678+00

N

EROSION CONTROL NOTES:

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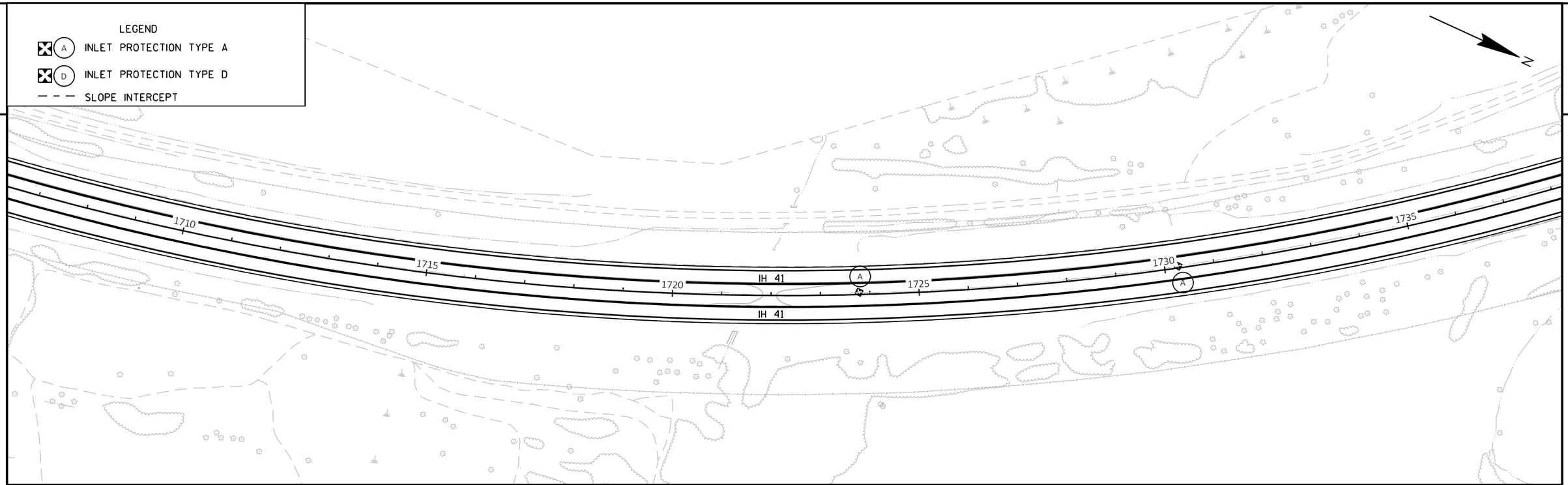
2

LEGEND

A INLET PROTECTION TYPE A

D INLET PROTECTION TYPE D

SLOPE INTERCEPT



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LEGEND

A INLET PROTECTION TYPE A

D INLET PROTECTION TYPE D

SLOPE INTERCEPT

IH 41

1770 1775 1780 1785 1790 1795

MOHAWK ROAD

END EROSION MAT CLASS I, TYPE B
STA. 1816+50

BEGIN EROSION MAT CLASS I, TYPE B
STA. 1807+75

1800 1805 1810 1815 1820 1825 1830

BEGIN EROSION MAT CLASS I, TYPE B
STA. 1817+85

SKYLINE DRIVE

FARM LANE

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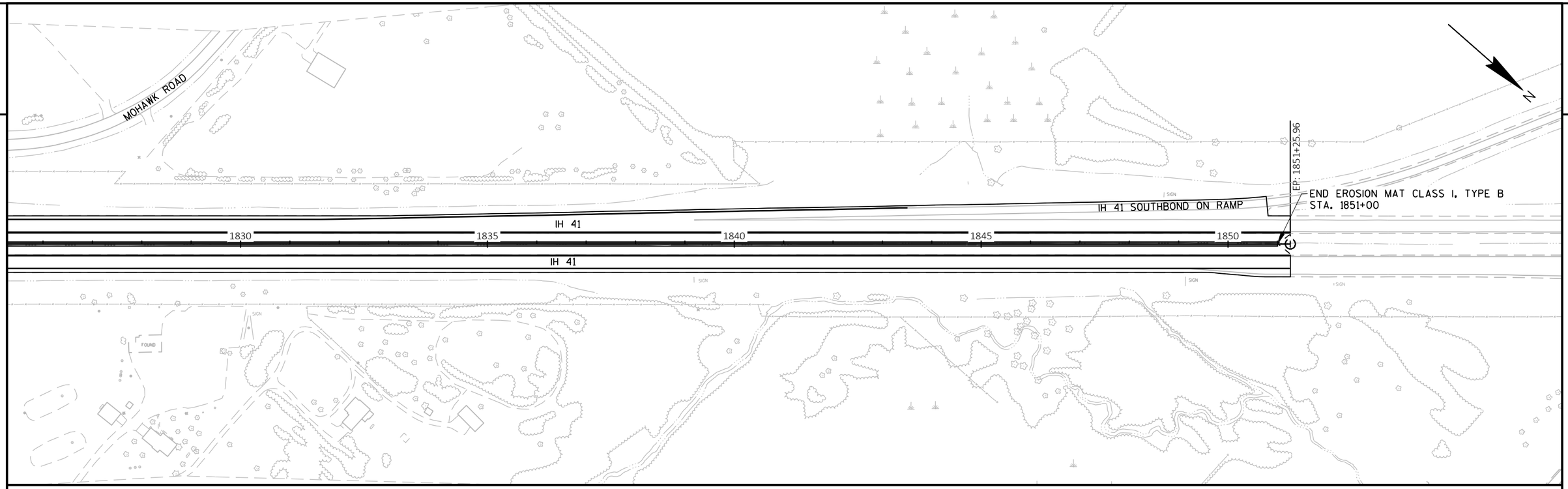

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- (D) INLET PROTECTION TYPE D
- — — — SLOPE INTERCEPT

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PROJECT NO: 1100-27-00/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	EROSION CONTROL	SHEET 65	E

2

MAINLINE IH 41 PAVEMENT MARKING LEGEND

———	29	MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH (WHITE)
— — — — —	30	MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
•••••••••••••••••••••	39	MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
———	183	MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
———	184	MARKING LINE GROOVED WET REF EPOXY 4-INCH (YELLOW)
•••••••••••••••••••••	219	MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
▬▬▬	233	MARKING LINE CHEVRON DIAGONAL EPOXY 24-INCH (WHITE)

NOTE:
SEE CONSTRUCTION DETAILS FOR ADDITIONAL PAVEMENT MARKING ON RAMPS

2

2

PC: 690+93.62

+66
BEGIN PAVEMENT MARKING

12'
12'

184
30
183

IH 41 SB

695
700
705

IH 41 NB

+66
BEGIN PAVEMENT MARKING

12'
12'

SIGN

SIGN

SIGN

SIGN

N

184
30
183
29

+26

PAVEMENT MARKING UP TO RAMP TERMINI
SEE CONSTRUCTION DETAILS

184

12'
12'
15'

STH 145 RAMP

IH 41 SB

725
730
IH 41
735

IH 41 NB

219

12'
12'

SIGN

SIGN

15'

STH 145 RAMP

233
29
184

PAVEMENT MARKING UP TO RAMP TERMINI
SEE CONSTRUCTION DETAILS

PROJECT NO: 1100-27-70 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	PAVEMENT MARKING	SHEET 67	E

FILE NAME : N:\PDS\C3D\11002700\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 02450101

PLOT DATE : 4/30/2019 8:52 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

PAVEMENT MARKING UP TO RAMP TERMINI
SEE CONSTRUCTION DETAILS

184 233 29 39 184 30 183

15' 12' 12'

STH 145 RAMP

755 760 765

PC: 766+00.34

IH 41 SB

IH 41 NB

STH 145 RAMP

12' 12' 15'

+84

184 29

PAVEMENT MARKING UP TO RAMP TERMINI
SEE CONSTRUCTION DETAILS

PAVEMENT MARKING UP TO RAMP TERMINI
SEE CONSTRUCTION DETAILS

183 184 30 39 29 184

+72

12' 12' 16'

STH 60 RAMP

PI: 959+28.11

IH 41 SB

950 955 960

IH 41 NB

219 233 29 184 183 219 233 29 184

12' 12' 16' 16' 12' 12'

STH 60 RAMP

STH 60 RAMP

PAVEMENT MARKING UP TO RAMP TERMINI
SEE CONSTRUCTION DETAILS

PAVEMENT MARKING UP TO RAMP TERMINI
SEE CONSTRUCTION DETAILS

PROJECT NO: 1100-27-70 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	PAVEMENT MARKING	SHEET 68	E

FILE NAME : N:\PDS\C3D\11002700\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 02450102

PLOT DATE : 4/30/2019 8:54 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : ##########

PAVEMENT MARKING UP TO RAMP TERMINI
SEE CONSTRUCTION DETAILS

STH 60 RAMP

IH 41 SB

IH 41 NB

PAVEMENT MARKING UP TO RAMP TERMINI
SEE CONSTRUCTION DETAILS

STH 60 RAMP

MARKING ARROW EPOXY (TYPE 5)

200'

PAVEMENT MARKING UP TO RAMP TERMINI
SEE CONSTRUCTION DETAILS

STH 144 RAMP

IH 41 SB

IH 41 NB

STH 144 RAMP

PAVEMENT MARKING UP TO RAMP TERMINI
SEE CONSTRUCTION DETAILS

PROJECT NO: 1100-27-70 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	PAVEMENT MARKING	SHEET 69	E

FILE NAME : N:\PDS\C3D\11002700\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 02450103

PLOT DATE : 4/30/2019 8:55 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

PAVEMENT MARKING UP TO RAMP TERMINI
SEE CONSTRUCTION DETAILS

184 29 233 184 183 39 30

15' 12' 12' 12'

STH 144 RAMP

IH 41 SB

1090 1095 1100 1105

IH 41 NB

STH 144 RAMP

15' 12' 12'

184 29 39

+64 +98 +64

MARKING ARROW EPOXY (TYPE 5)

200'

PAVEMENT MARKING UP TO RAMP TERMINI
SEE CONSTRUCTION DETAILS

SIGN

184 183 30 29

PAVEMENT MARKING UP TO RAMP TERMINI
SEE CONSTRUCTION DETAILS

184

12' 12' 15'

CTH K RAMP

IH 41 SB

1145 1150 1155

IH 41 NB

CTH K RAMP

12' 12' 15'

219 233 29

184

PAVEMENT MARKING UP TO RAMP TERMINI
SEE CONSTRUCTION DETAILS

PROJECT NO: 1100-27-70 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	PAVEMENT MARKING	SHEET 70	E

2

PAVEMENT MARKING UP TO RAMP TERMINI
SEE CONSTRUCTION DETAILS

184

CTH K RAMP

15'

12'

12'

233

29

219

183

30

184

IH 41 SB

1180

1185

1190

IH 41 NB

CTH K RAMP

184

15'

12'

12'

29

PAVEMENT MARKING UP TO RAMP TERMINI
SEE CONSTRUCTION DETAILS

183

184

30

29

PAVEMENT MARKING UP TO RAMP TERMINI
SEE CONSTRUCTION DETAILS

12'

12'

15'

184

STH 33 RAMP

1370

1375

IH 41 SB

1380

IH 41 NB

219

12'

12'

233

15'

29

STH 33 RAMP

184

PAVEMENT MARKING UP TO RAMP TERMINI
SEE CONSTRUCTION DETAILS

PROJECT NO: 1100-27-70 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	PAVEMENT MARKING	SHEET 71	E

FILE NAME : N:\PDS\C3D\11002700\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 02450105

PLOT DATE : 4/30/2019 8:59 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

PAVEMENT MARKING UP TO RAMP TERMINI
SEE CONSTRUCTION DETAILS

184 6 233 219 30 184 183

15' 12' 12'

STH 33 RAMP

1400 1405 1410 1415

IH 41 SB

IH 41 NB

STH 33 RAMP

184 15' 29 12' 12'

PAVEMENT MARKING UP TO RAMP TERMINI
SEE CONSTRUCTION DETAILS

SIGN SIGNS

PAVEMENT MARKING UP TO RAMP TERMINI
SEE CONSTRUCTION DETAILS

184 183 29 30 184

12' 12' 15'

CTH D RAMP

IH 41 SB

1570 1575 1580

IH 41 NB

219 12' 12' 15' CTH D RAMP

29 184

PAVEMENT MARKING UP TO RAMP TERMINI
SEE CONSTRUCTION DETAILS

PROJECT NO: 1100-27-70 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	PAVEMENT MARKING	SHEET 72	E

2

PAVEMENT MARKING UP TO RAMP TERMINI
SEE CONSTRUCTION DETAILS

184

29

15'

12'

12'

233

219

PI: 1614+57.95

30

184

183

CTH D RAMP

SIGN

IH 41 SB

1605

1610

1615

IH 41 NB

CTH D RAMP

15'

12'

12'

184

29

PAVEMENT MARKING UP TO RAMP TERMINI
SEE CONSTRUCTION DETAILS

N

PAVEMENT MARKING UP TO RAMP TERMINI
SEE CONSTRUCTION DETAILS

184

29

184

183

30

SIGN

12'

12'

15'

EP: 1851+25.96

STH 28 RAMP

IH 41 SB

1840

1845

1850

IH 41 NB

SIGN

SIGN

+26

END PAVEMENT MARKING

PROJECT NO: 1100-27-70 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	PAVEMENT MARKING	SHEET 73	E

FILE NAME : N:\PDS\C3D\11002700\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 02450107

PLOT DATE : 4/30/2019 9:03 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:100 FT

GENERAL NOTES FOR TRAFFIC CONTROL

1) THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

2) A FLAGGER MAY BE REQUIRED WHERE CONSTRUCTION VEHICLES ENTER OR LEAVE WORK AREAS IF WARRANTED BY CONDITIONS OR AS DIRECTED BY THE ENGINEER. FLAGGING IS NOT PERMITTED ON FREEWAY LANES.

3) ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

4) "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

5) FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A TYPE C STEADY BURN WARNING LIGHT.

6) ALL TYPE III BARRICADES SHALL BE 8' WIDE, UNLESS OTHERWISE NOTED, AND EQUIPPED WITH TWO TYPE "A" (LOW INTENSITY FLASHING) LIGHTS.

7) WORK AREAS SHOWN MAY NOT ILLUSTRATE ALL REMOVALS. SEE REMOVAL SHEETS FOR ADDITIONAL INFORMATION.

8) ALL TRAFFIC CONTROL SIGNS LOCATED IN MEDIANS SHALL BE MOUNTED ON CONCRETE BARRIER UNLESS OTHERWISE NOTED, SEE TRAFFIC CONTROL DETAILS.

9) WHEN A SEGMENT OF THE PROJECT IS NOT SHOWN ON THE STAGING PLANS, USE THE SAME TRAFFIC CONTROL AS THE PREVIOUS STAGE FOR THAT SEGMENT.

10) TRAFFIC CONTROL DRUM SPACING SHALL BE 50' UNLESS OTHERWISE NOTED.

11) 16" X 16" ORANGE FLAGS SHALL BE INCIDENTAL TO TRAFFIC CONTROL SIGN BID ITEM.

12) INSTALL MAINLINE NORTHBOUND AND SOUTHBOUND ADVANCE WARNING SIGNS ON BOTH INSIDE AND OUTSIDE SHOULDERS

13) CONTRACTOR SHALL NOT USE EMERGENCY MAINTENANCE CROSSOVERS ON IH 41

TRAFFIC CONTROL STAGING NOTES

-STAGE LANE CLOSURE DISTANCE BASED ON DAILY WORK SCHEDULE

-NO FULL FREEWAY CLOSURES ALLOWED

-SHORT TERM SINGLE LANE CLOSURES AND RAMP CLOSURES PERMITTED ONLY DURING OFF-PEAK HOURS

-EXTENDED LANE CLOSURES PERMITTED DURING OFF PEAK HOURS MON-THURS ONLY NORTH OF STH 60

-LANE CLOSURES AND RAMP CLOSURES PERMITTED ONLY IN ACTIVE WORK ZONES DEFINED BY DAILY WORK SCHEDULE

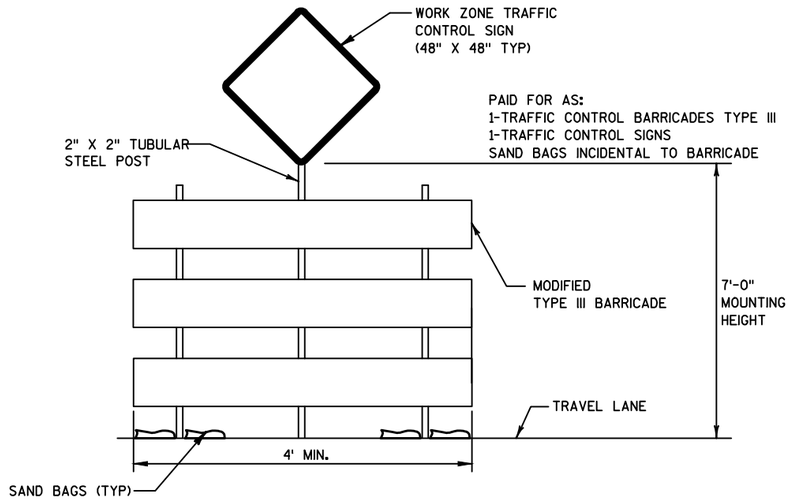
-OPEN FREEWAY RAMPS AND FREEWAY LANES AND REMOVE ALL TRAFFIC CONTROL DEVICES PRIOR TO PEAK HOUR PERIODS

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- WORK AREA
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD

PROJECT NO: 1100-27-70/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL NOTES AND LEGENDS	SHEET 74	E

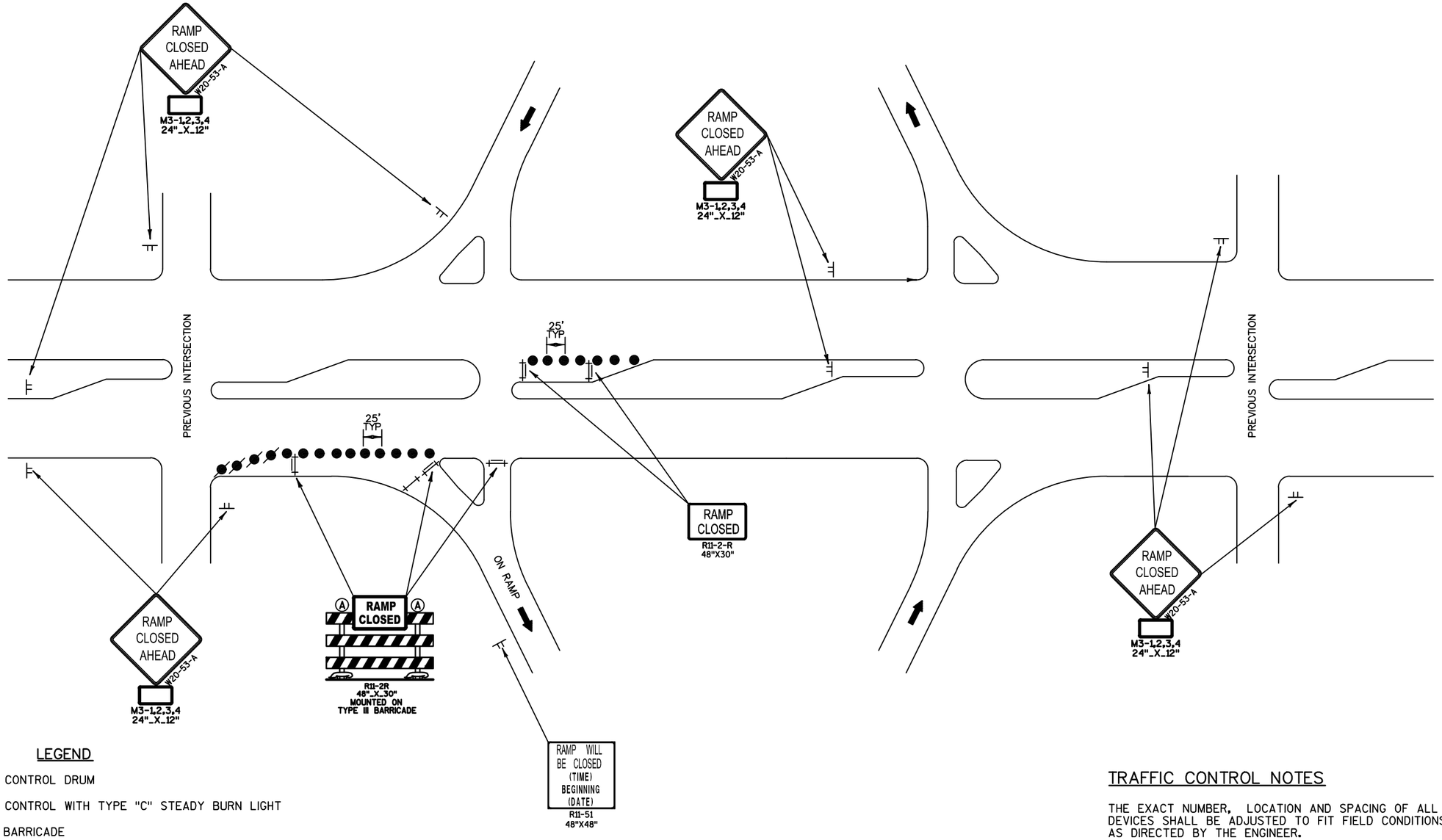
2



TYPICAL TEMPORARY TRAFFIC CONTROL DETAIL

MOUNTING ON TEMPORARY SUPPORT

2



LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH 2 TYPE "A" WARNING LIGHT (FLASHING)
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE
SHORT TERM ONLY

TRAFFIC CONTROL NOTES

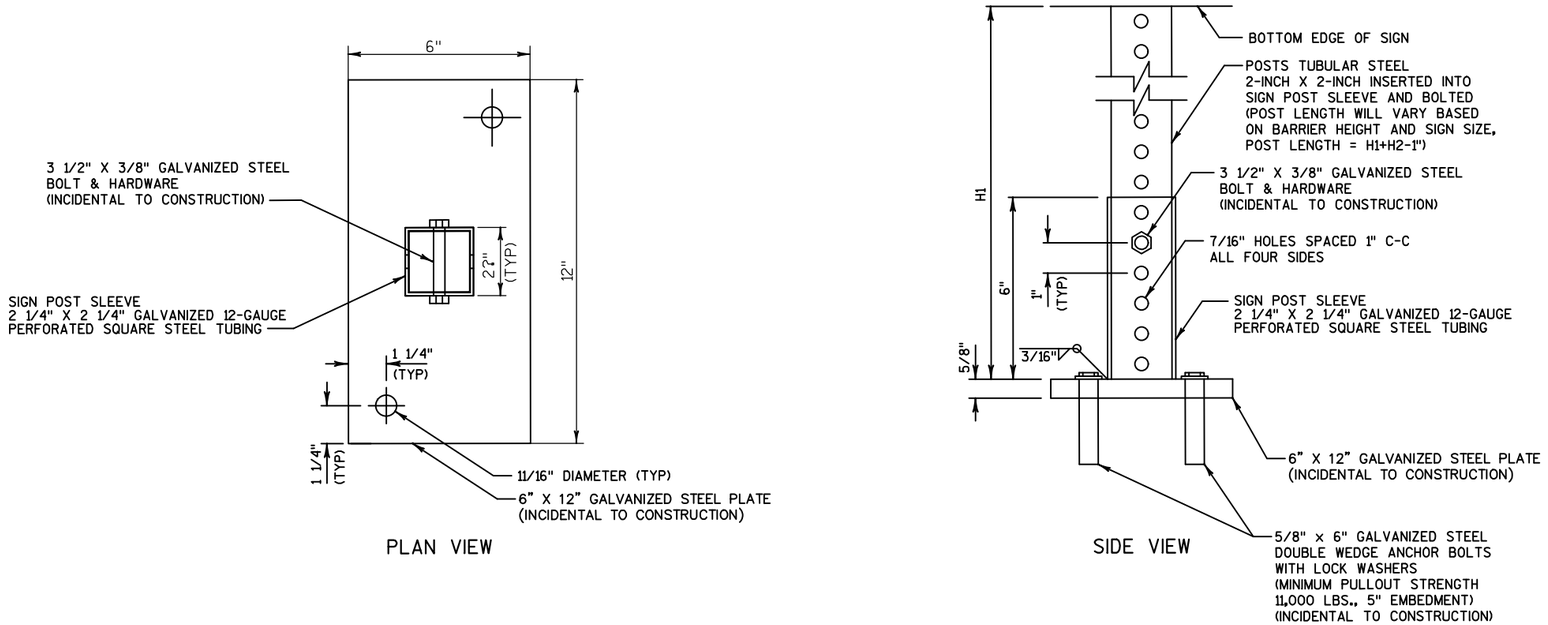
THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

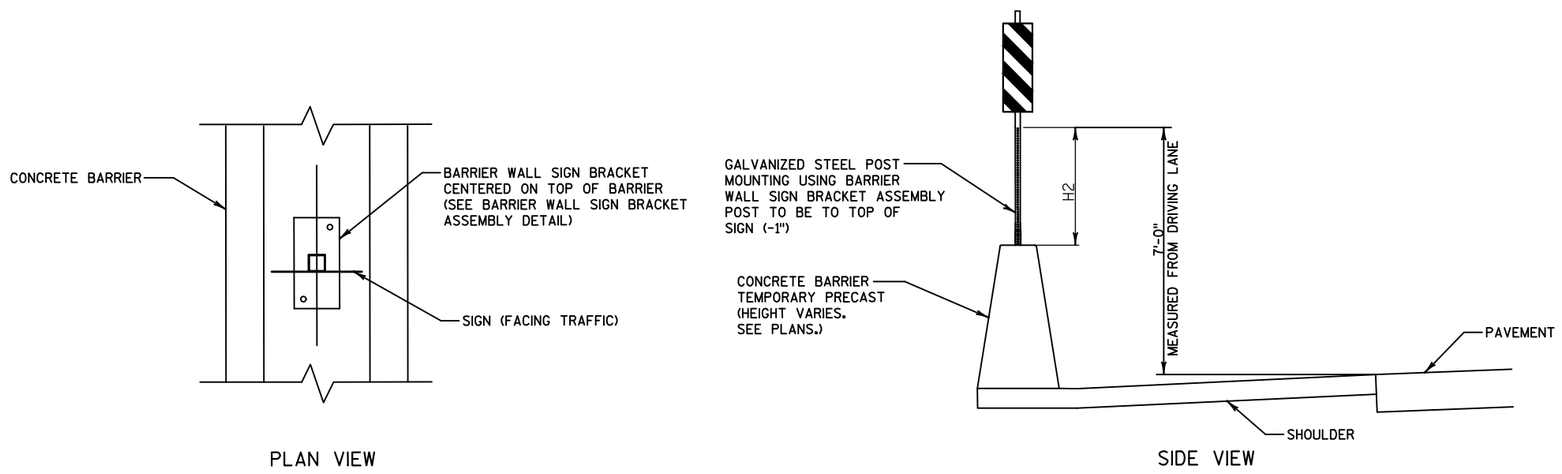
"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SHORT TERM DEFINED AS 7 DAYS/NIGHTS OR LESS. FOR NIGHT TIME OPERATIONS ALL DRUMS IN TAPERS SHALL HAVE WARNING LIGHT, TYPE C (STEADY BURN). MAY BE APPLIED TO ARTERIALS OR LOCAL ROADS.

2



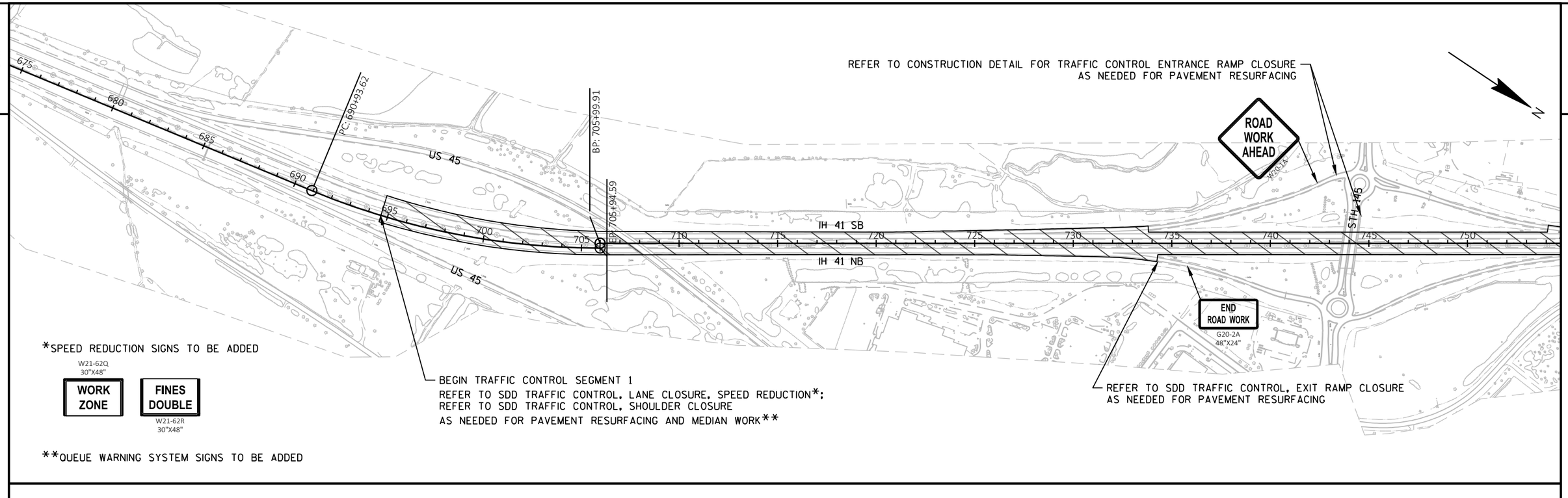
BARRIER WALL SIGN BRACKET ASSEMBLY DETAIL

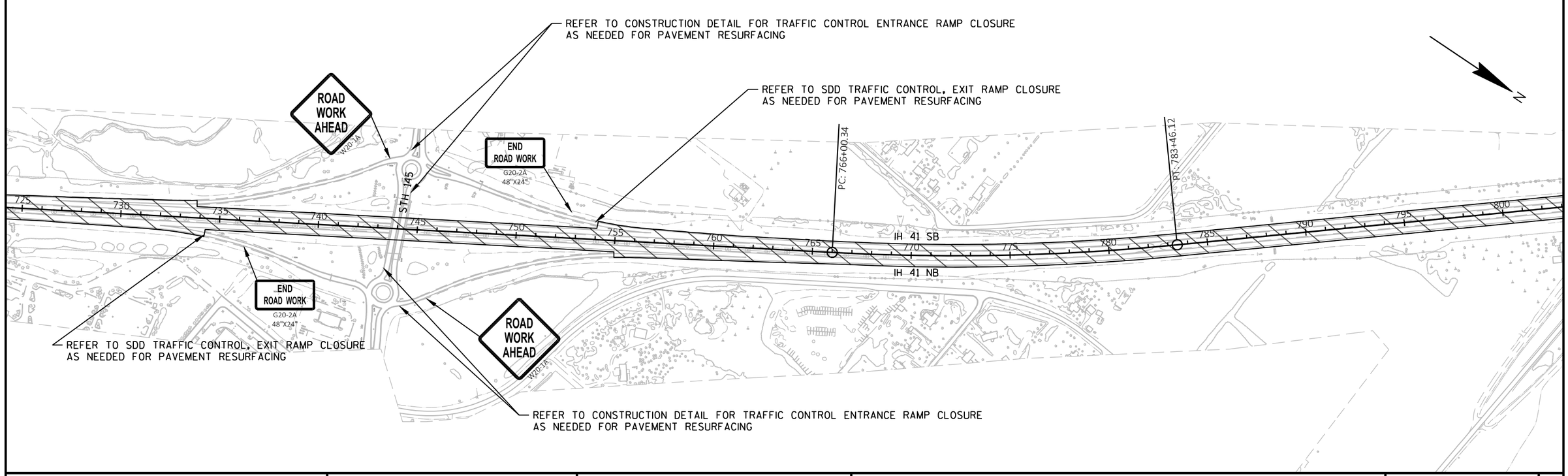


MEDIAN BARRIER MOUNTING DETAIL

MOUNTING SIGNS TO MEDIAN BARRIER

NOT TO SCALE

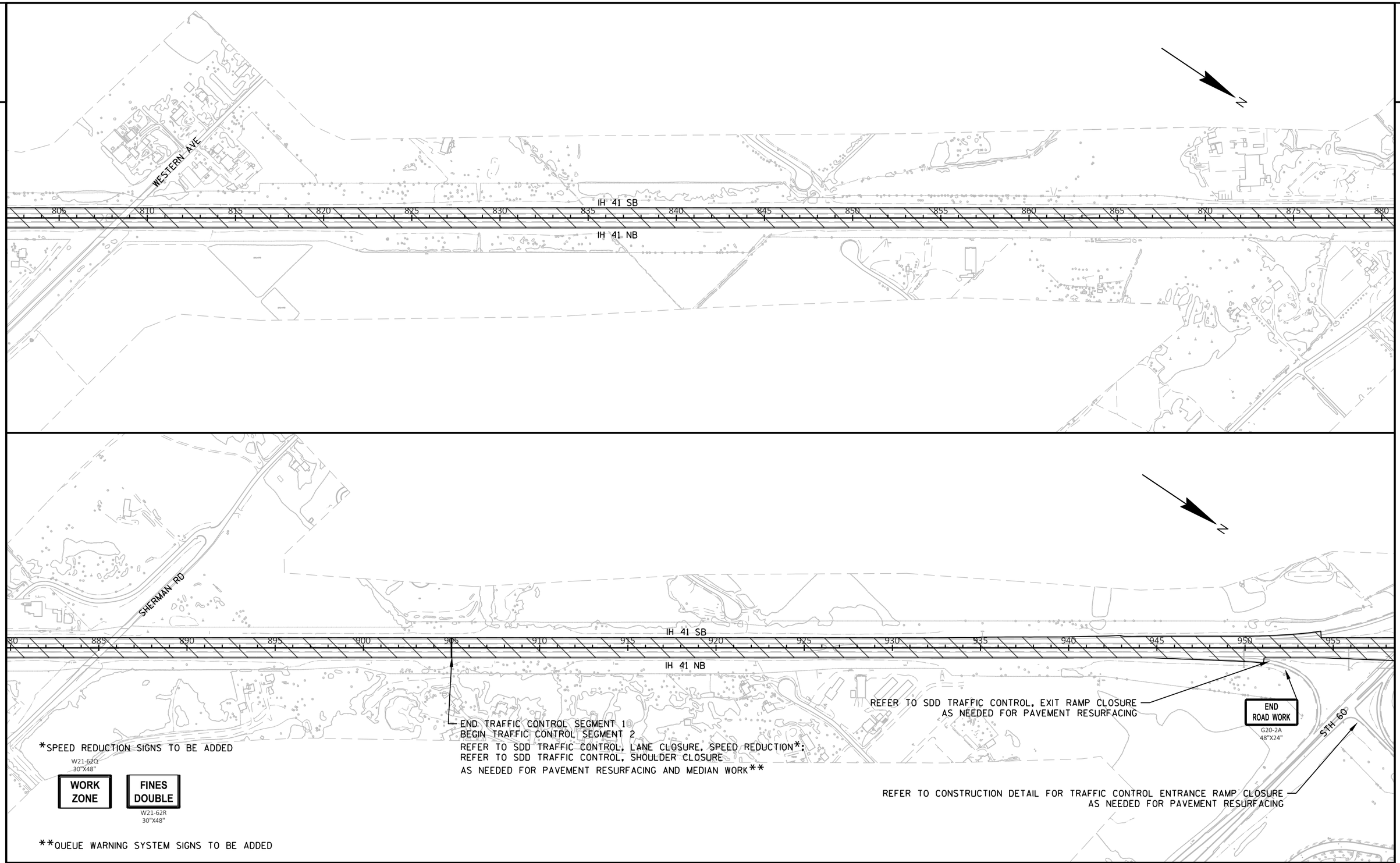




PROJECT NO: 1100-27-00/ 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL OVERVIEW	SHEET 78	E

FILE NAME : N:\PDS\C3D\11002700\SHEETSPLAN\025201_TC-EDIT.DWG
LAYOUT NAME - Sheet - (1)
PLOT DATE : 5/30/2019 10:30 AM
PLOT BY : MCGILLICUDDY, BENJAM
PLOT NAME :
PLOT SCALE : 1 IN:500 FT
WISDOT/CADDS SHEET 44

2



PROJECT NO: 1100-27-00/ 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL OVERVIEW	SHEET 79	E

FILE NAME : N:\PDS\C3D\11002700\SHEETSPLAN\025201_TC-EDIT.DWG
LAYOUT NAME - Sheet - (2)
PLOT DATE : 5/30/2019 10:32 AM
PLOT BY : MCGILLICUDDY, BENJAM
PLOT NAME :
PLOT SCALE : 1 IN:500 FT
WISDOT/CADDS SHEET 44

2

ROAD WORK AHEAD
W20-1A

PI: 959+28.11

STH 60

END ROAD WORK
G20-2A
48"X24"

REFER TO CONSTRUCTION DETAIL FOR TRAFFIC CONTROL ENTRANCE RAMP CLOSURE AS NEEDED FOR PAVEMENT RESURFACING

REFER TO SDD TRAFFIC CONTROL, EXIT RAMP CLOSURE AS NEEDED FOR PAVEMENT RESURFACING

END TRAFFIC CONTROL SEGMENT 2
BEGIN TRAFFIC CONTROL SEGMENT 3
REFER TO SDD TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION*;
REFER TO SDD TRAFFIC CONTROL, SHOULDER CLOSURE
AS NEEDED FOR PAVEMENT RESURFACING AND MEDIAN WORK**

N

IH 41 SB

960 965 970 975 980 985 990 995 1000 1005 1010 1015 1020 1025 1030 1035

IH 41 NB

CEDAR CREEK RD

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

REFER TO SDD 15D16 FOR TRAFFIC CONTROL EXIT RAMP CLOSURE AS NEEDED FOR PAVEMENT RESURFACING

*SPEED REDUCTION SIGNS TO BE ADDED

W21-62Q
30"X48"

WORK ZONE

FINES DOUBLE
W21-62R
30"X48"

**QUEUE WARNING SYSTEM SIGNS TO BE ADDED

REFER TO CONSTRUCTION DETAIL FOR TRAFFIC CONTROL ENTRANCE RAMP CLOSURE AS NEEDED FOR PAVEMENT RESURFACING

ROAD WORK AHEAD
W20-1A

STH 144

PC: 1069+63.08

REFER TO SDD TRAFFIC CONTROL, EXIT RAMP CLOSURE AS NEEDED FOR PAVEMENT RESURFACING

BEGIN PAVEMENT RESURFACING LIMITS

PT: 1083+55.87

END ROAD WORK
G20-2A
48"X24"

PC: 1108+18.66

N

CEDAR CREEK RD

IH 41 SB

1040 1045 1050 1055 1060 1065 1070 1075 1080 1085 1090 1095 1100 1105 1110

IH 41 NB

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

REFER TO CONSTRUCTION DETAIL FOR TRAFFIC CONTROL ENTRANCE RAMP CLOSURE AS NEEDED FOR PAVEMENT RESURFACING

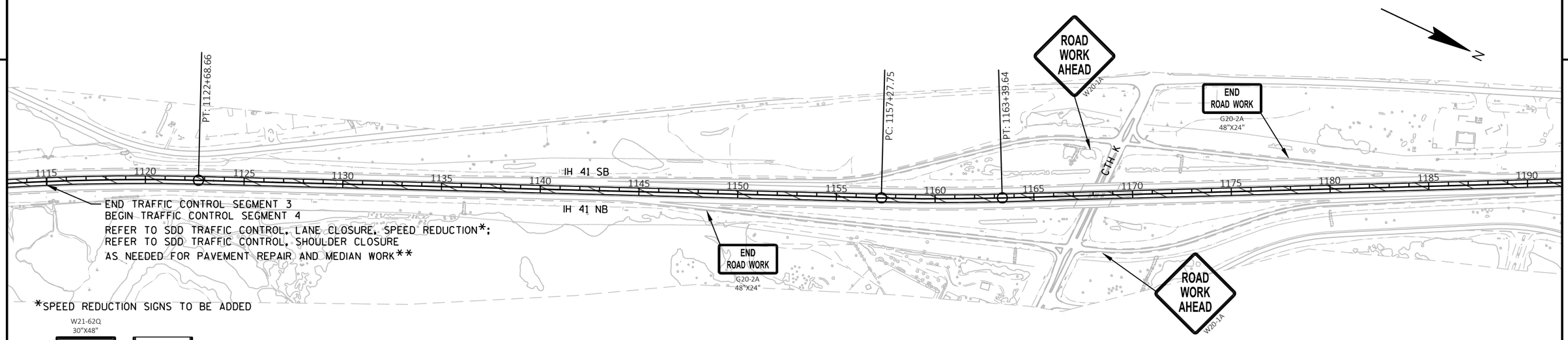
REFER TO SDD TRAFFIC CONTROL, EXIT RAMP CLOSURE AS NEEDED FOR PAVEMENT RESURFACING

END PAVEMENT RESURFACING LIMITS

PROJECT NO: 1100-27-00/ 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL OVERVIEW	SHEET 80	E

FILE NAME : N:\PDS\C3D\11002700\SHEETSPLAN\025201_TC-EDIT.DWG
LAYOUT NAME - Sheet - (3)
PLOT DATE : 5/30/2019 10:34 AM
PLOT BY : MCGILLICUDDY, BENJAM
PLOT NAME :
PLOT SCALE : 1 IN:500 FT
WISDOT/CADDS SHEET 44

2



*SPEED REDUCTION SIGNS TO BE ADDED

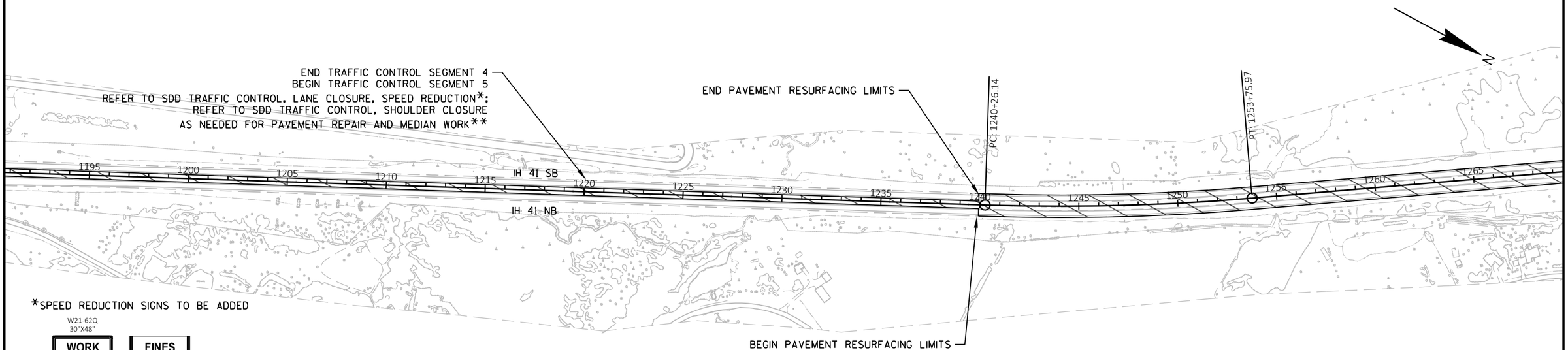
W21-62Q
30"X48"

WORK ZONE

FINES DOUBLE

W21-62R
30"X48"

**QUEUE WARNING SYSTEM SIGNS TO BE ADDED



*SPEED REDUCTION SIGNS TO BE ADDED

W21-62Q
30"X48"

WORK ZONE

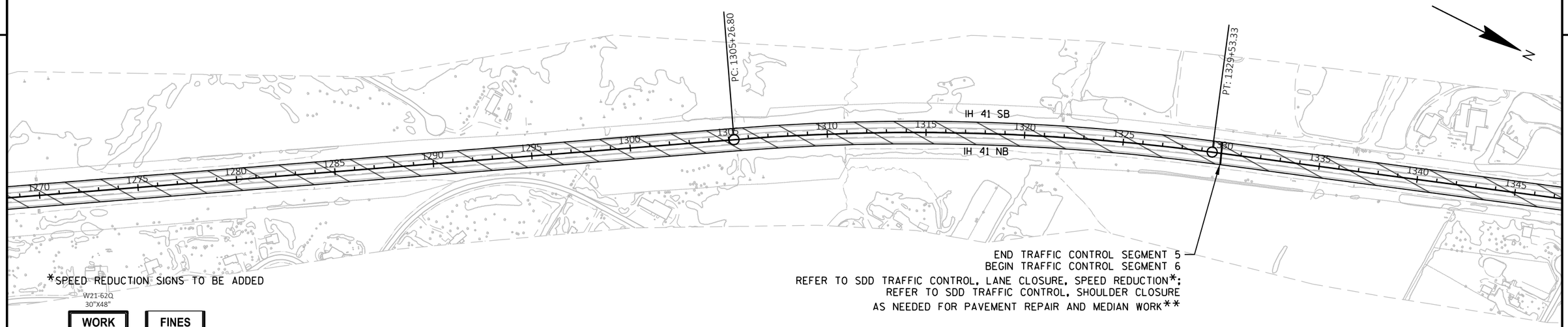
FINES DOUBLE

W21-62R
30"X48"

**QUEUE WARNING SYSTEM SIGNS TO BE ADDED

PROJECT NO: 1100-27-00/ 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL OVERVIEW	SHEET 81	E

2



END TRAFFIC CONTROL SEGMENT 5
BEGIN TRAFFIC CONTROL SEGMENT 6
REFER TO SDD TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION*;
REFER TO SDD TRAFFIC CONTROL, SHOULDER CLOSURE
AS NEEDED FOR PAVEMENT REPAIR AND MEDIAN WORK**

*SPEED REDUCTION SIGNS TO BE ADDED

W21-62Q
30"X48"

WORK ZONE

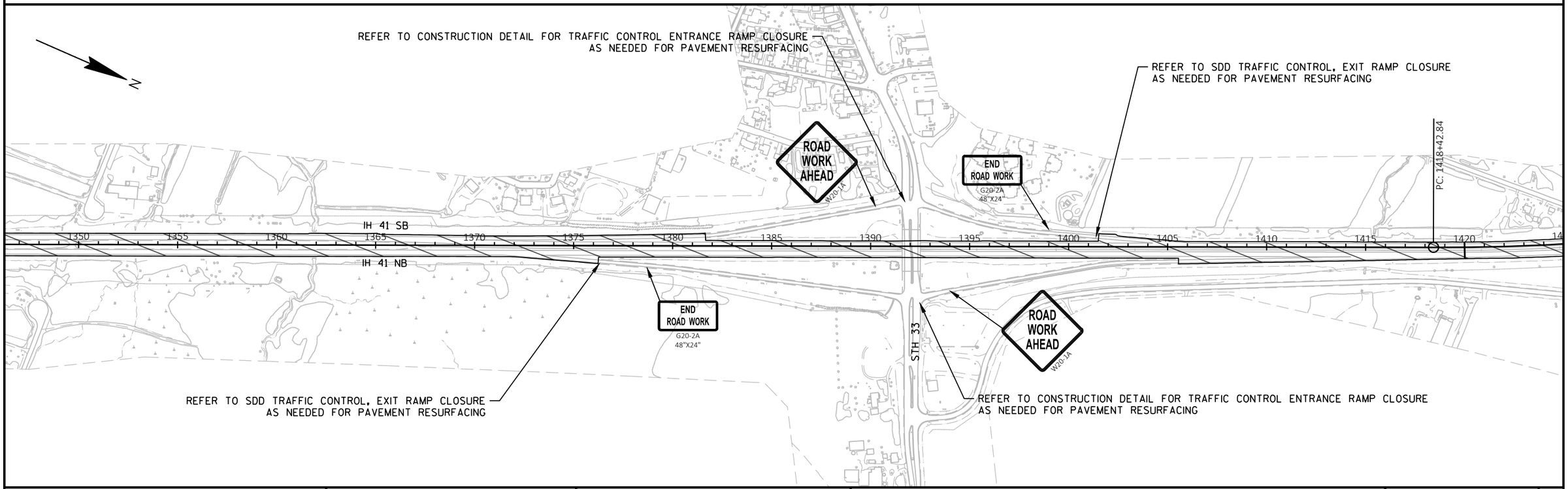
FINES DOUBLE

W21-62R
30"X48"

**QUEUE WARNING SYSTEM SIGNS TO BE ADDED

REFER TO CONSTRUCTION DETAIL FOR TRAFFIC CONTROL ENTRANCE RAMP CLOSURE
AS NEEDED FOR PAVEMENT RESURFACING

REFER TO SDD TRAFFIC CONTROL, EXIT RAMP CLOSURE
AS NEEDED FOR PAVEMENT RESURFACING

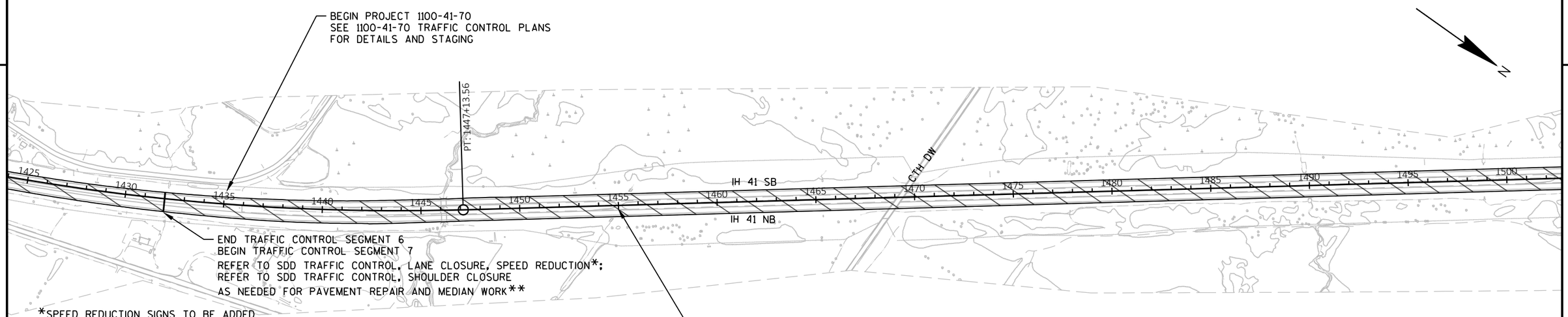


REFER TO SDD TRAFFIC CONTROL, EXIT RAMP CLOSURE
AS NEEDED FOR PAVEMENT RESURFACING

REFER TO CONSTRUCTION DETAIL FOR TRAFFIC CONTROL ENTRANCE RAMP CLOSURE
AS NEEDED FOR PAVEMENT RESURFACING

PROJECT NO: 1100-27-00/ 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL OVERVIEW	SHEET 82	E

2



*SPEED REDUCTION SIGNS TO BE ADDED

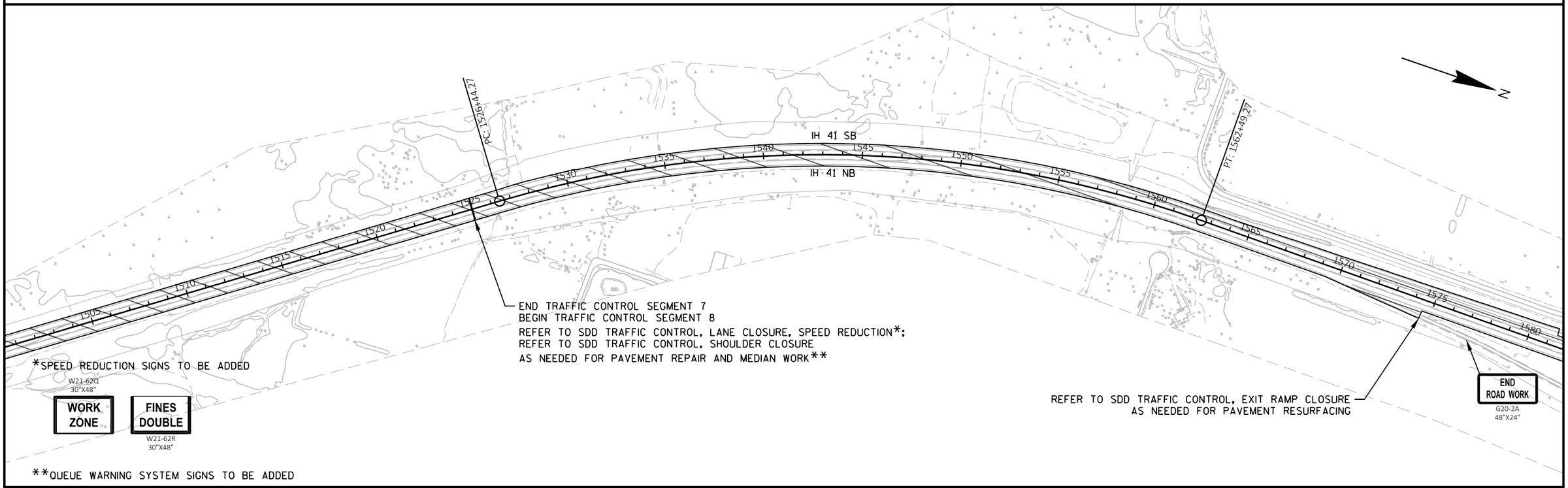
W21-62Q
30"X48"

WORK ZONE

FINES DOUBLE

W21-62R
30"X48"

**QUEUE WARNING SYSTEM SIGNS TO BE ADDED



*SPEED REDUCTION SIGNS TO BE ADDED

W21-62Q
30"X48"

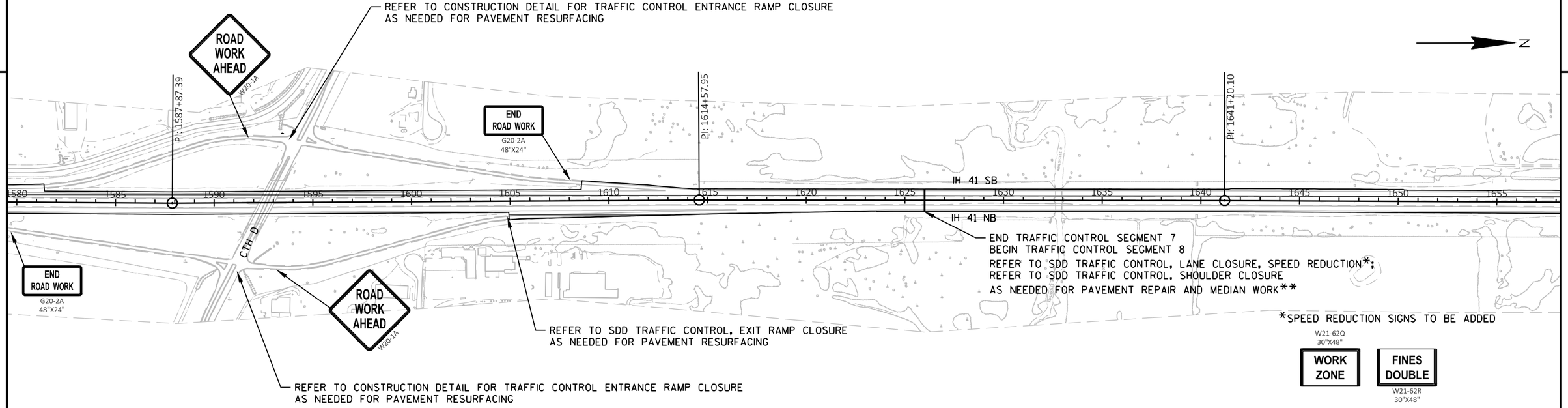
WORK ZONE

FINES DOUBLE

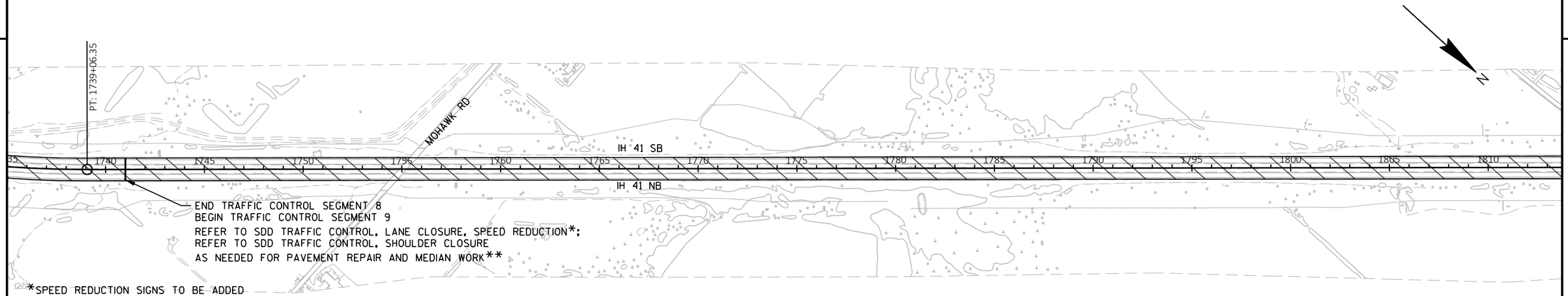
W21-62R
30"X48"

**QUEUE WARNING SYSTEM SIGNS TO BE ADDED

PROJECT NO: 1100-27-00/ 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL OVERVIEW	SHEET 83	E



PROJECT NO: 1100-27-00/ 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL OVERVIEW	SHEET 84	E

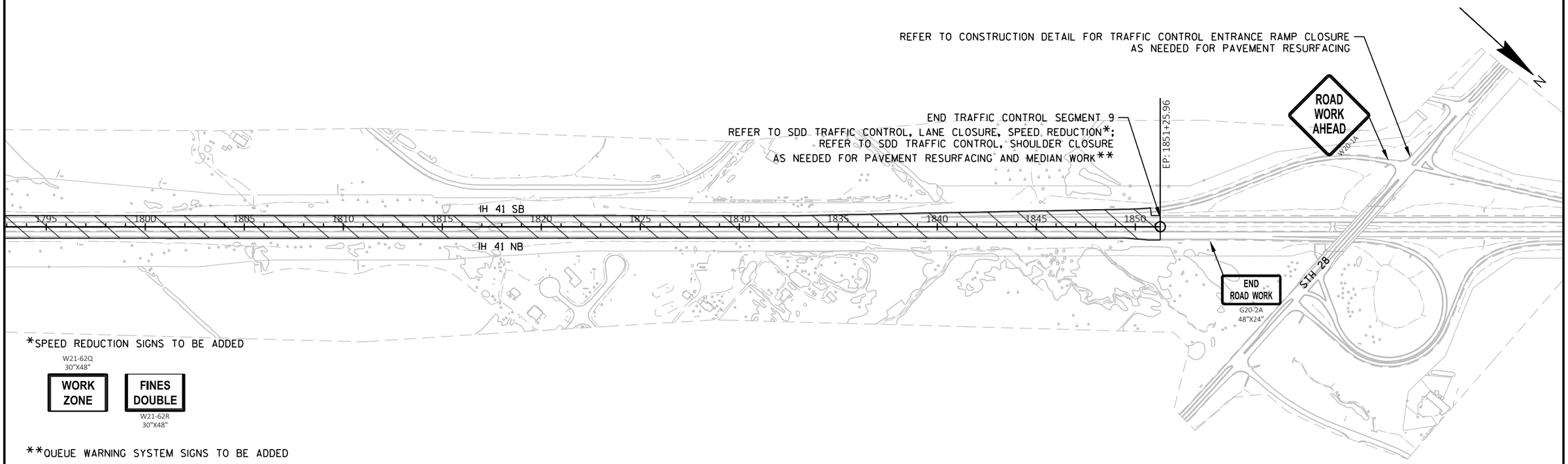


*SPEED REDUCTION SIGNS TO BE ADDED

W21-62Q
30"X48"

W21-62R
30"X48"

**QUEUE WARNING SYSTEM SIGNS TO BE ADDED



*SPEED REDUCTION SIGNS TO BE ADDED

W21-62Q
30"X48"

W21-62R
30"X48"

**QUEUE WARNING SYSTEM SIGNS TO BE ADDED

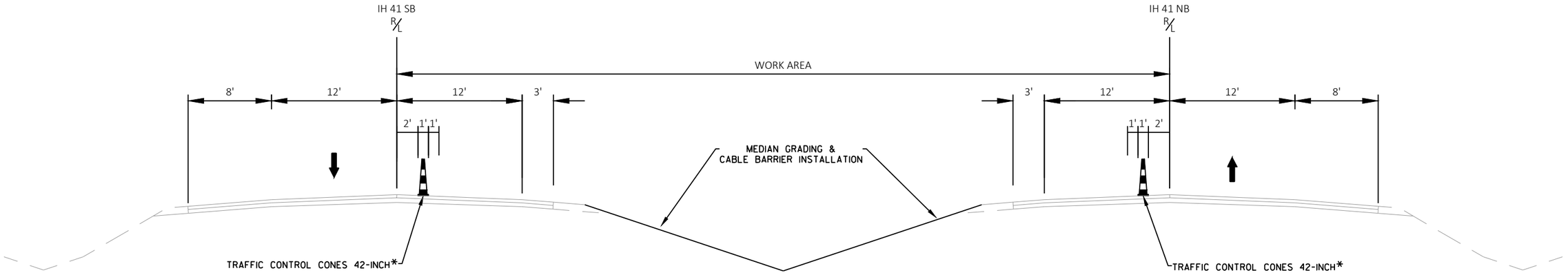
PROJECT NO: 1100-27-00/ 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL OVERVIEW	SHEET 85	E

2

STAGE 1
CONSTRUCTION:
-IH 41:
-BEGIN MEDIAN GRADING AND CABLE GUARD INSTALLATION
-COMPLETE ANY NECESSARY INSIDE SHOULDER REPAIR AS DIRECTED BY THE ENGINEER
-CLEAN UP INSIDE AGGREGATE SHOULDER BEFORE REOPENING INSIDE LANE TO TRAFFIC

TRAFFIC:
-IH 41:
-SHIFT TRAFFIC TO OUTSIDE LANES DURING INSIDE LANE CLOSURES
-ALL LANES OPEN DURING PEAK HOURS
-SHORT TERM INSIDE LANE CLOSURES PERMITTED DURING OFF PEAK HOURS
-LONG TERM INSIDE LANE CLOSURES PERMITTED DURING OFF PEAK HOURS MON-THURS ONLY NORTH OF STH 60
-ACTIVE WORK ZONES AND LANE CLOSURES ALONG IH 41 SHALL BE LIMITED TO A MAXIMUM LENGTH OF 2 MILES AT A TIME. 2 MILE SEGMENTS FOR LANE CLOSURES ARE SHOWN ON TRAFFIC CONTROL OVERVIEW SHEETS. ANY LANE CLOSURE EXCEEDING 2 MILES IN LENGTH MUST BE APPROVED BY THE ENGINEER.
-LANE CLOSURES SHALL NOT BE REOPENED TO TRAFFIC WITHOUT THE LANES BEING PAVED; NO LIVE TRAFFIC ALLOWED ON MILLED SURFACES

-IH 41 ENTRANCE/EXIT RAMPS:
-ALL RAMPS OPEN DURING PEAK HOURS
-SHORT TERM RAMP CLOSURES PERMITTED DURING OFF PEAK HOURS ONLY IN ACTIVE WORK ZONE WHERE WORK IS occurring



STAGE 1 TRAFFIC CONTROL

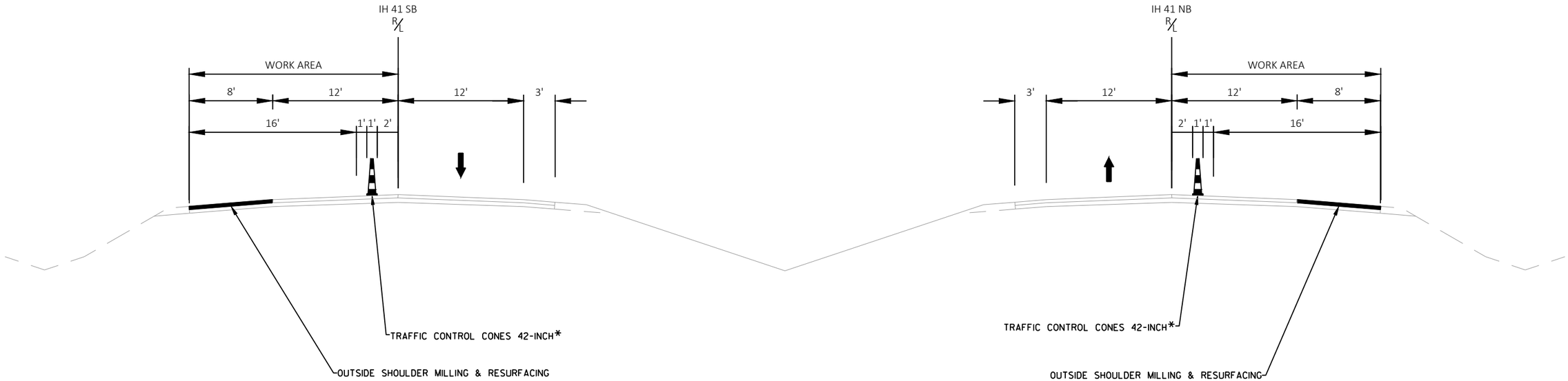
*TRAFFIC CONTROL CONES 42-INCH PLACED AT 50' SPACING

2

STAGE 2A
CONSTRUCTION:
-IH 41:
-BEGIN MILL & OVERLAY OF OUTSIDE SHOULDER

TRAFFIC:
-IH 41:
-SHIFT TRAFFIC TO INSIDE LANES DURING OUTSIDE LANE CLOSURES
-ALL LANES OPEN DURING PEAK HOURS
-SHORT TERM OUTSIDE LANE CLOSURES PERMITTED DURING OFF PEAK HOURS
-LONG TERM OUTSIDE LANE CLOSURES PERMITTED DURING OFF PEAK HOURS MON-THURS ONLY NORTH OF STH 60
-ACTIVE WORK ZONES AND LANE CLOSURES ALONG IH 41 SHALL BE LIMITED TO A MAXIMUM LENGTH OF 2 MILES AT A TIME. 2 MILE SEGMENTS FOR LANE CLOSURES ARE SHOWN ON TRAFFIC CONTROL OVERVIEW SHEETS. ANY LANE CLOSURE EXCEEDING 2 MILES IN LENGTH MUST BE APPROVED BY THE ENGINEER.
-LANE CLOSURES SHALL NOT BE REOPENED TO TRAFFIC WITHOUT THE LANES BEING PAVED; NO LIVE TRAFFIC ALLOWED ON MILLED SURFACES
-PROVIDE ADDITIONAL SIGNING FOR OSOW ROUTES DURING OUTSIDE LANE CLOSURES (SEE OSOW TRAFFIC CONTROL PLAN)
-PLACE "UNEVEN LANES" SIGN W8-11 AS NEEDED IN ADVANCE OF PAVEMENT RESURFACING AREAS

-IH 41 ENTRANCE/EXIT RAMPS:
-ALL RAMPS OPEN DURING PEAK HOURS
-SHORT TERM RAMP CLOSURES PERMITTED DURING OFF PEAK HOURS ONLY IN ACTIVE WORK ZONE WHERE WORK IS occurring



STAGE 2A TRAFFIC CONTROL

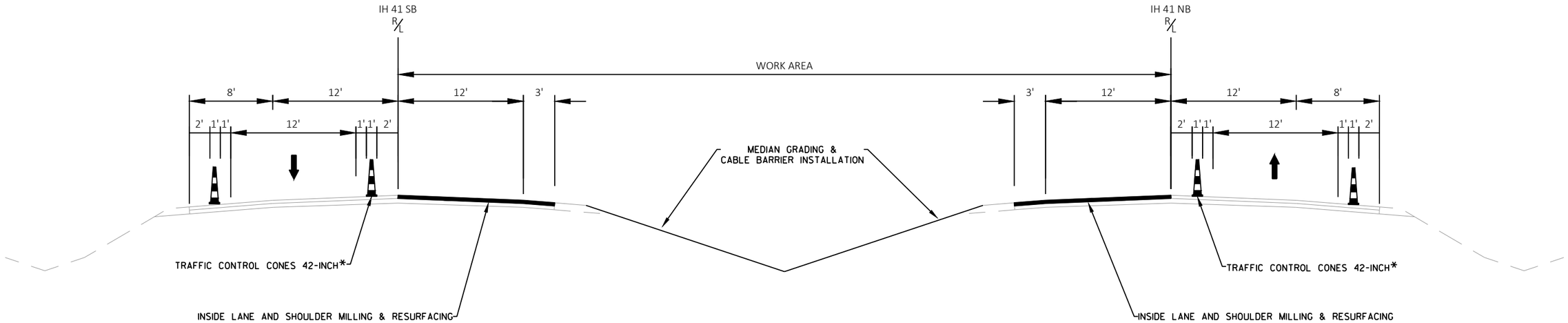
*TRAFFIC CONTROL CONES 42-INCH PLACED AT 50' SPACING

2

STAGE 2B
CONSTRUCTION:
-IH 41:
-BEGIN MILL & OVERLAY OF INSIDE LANES AND INSIDE SHOULDER
-BEGIN MEDIAN GRADING AND CABLE GUARD INSTALLATION
-BEGIN BEAMGUARD REMOVAL AND BEAMGUARD INSTALLATION
-CLEAN UP INSIDE AGGREGATE SHOULDER BEFORE REOPENING INSIDE LANE TO TRAFFIC

TRAFFIC:
-IH 41:
-SHIFT TRAFFIC TO OUTSIDE LANES DURING INSIDE LANE CLOSURES
-ALL LANES OPEN DURING PEAK HOURS
-SHORT TERM INSIDE LANE CLOSURES PERMITTED DURING OFF PEAK HOURS
-LONG TERM INSIDE LANE CLOSURES PERMITTED DURING OFF PEAK HOURS MON-THURS ONLY NORTH OF STH 60
-ACTIVE WORK ZONES AND LANE CLOSURES ALONG IH 41 SHALL BE LIMITED TO A MAXIMUM LENGTH OF 2 MILES AT A TIME. 2 MILE SEGMENTS FOR LANE CLOSURES ARE SHOWN ON TRAFFIC CONTROL OVERVIEW SHEETS. ANY LANE CLOSURE EXCEEDING 2 MILES IN LENGTH MUST BE APPROVED BY THE ENGINEER.
-LANE CLOSURES SHALL NOT BE REOPENED TO TRAFFIC WITHOUT THE LANES BEING PAVED; NO LIVE TRAFFIC ALLOWED ON MILLED SURFACES
-MAINTAIN 16' AVAILABLE WIDTH ON OUTSIDE LANE PLUS SHOULDER
-PROVIDE ADDITIONAL SIGNING FOR OSOW ROUTES DURING INSIDE LANE CLOSURES (SEE OSOW TRAFFIC CONTROL PLAN)
-PLACE "UNEVEN LANES" SIGN W8-11 AS NEEDED IN ADVANCE OF PAVEMENT RESURFACING AREAS

-IH 41 ENTRANCE/EXIT RAMPS:
-ALL RAMPS OPEN DURING PEAK HOURS
-SHORT TERM RAMP CLOSURES PERMITTED DURING OFF PEAK HOURS ONLY IN ACTIVE WORK ZONE WHERE WORK IS OCCURRING



STAGE 2B TRAFFIC CONTROL

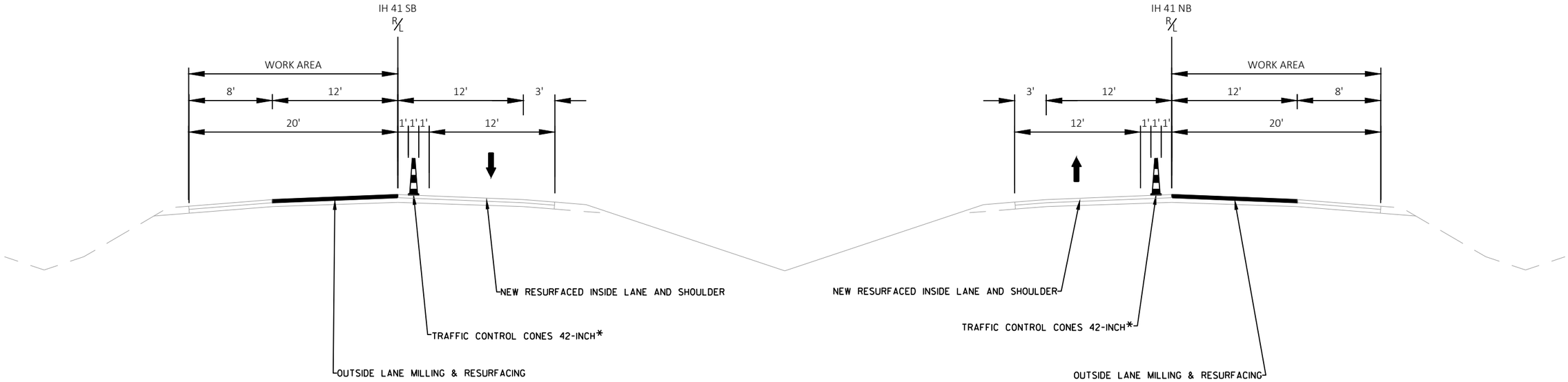
*TRAFFIC CONTROL CONES 42-INCH PLACED AT 50' SPACING

2

STAGE 2C
CONSTRUCTION:
-IH 41:
-BEGIN MILL & OVERLAY OF OUTSIDE LANE

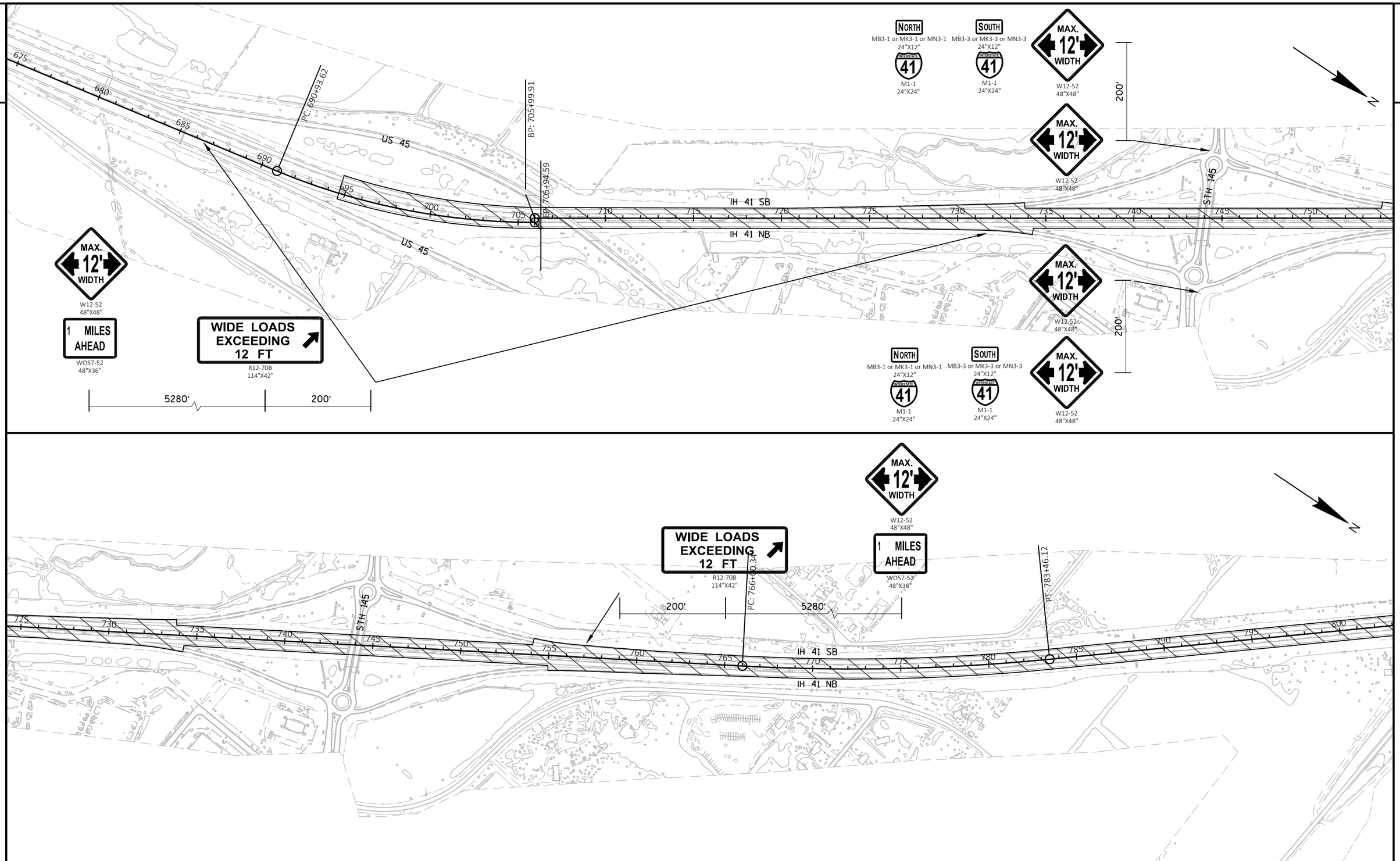
TRAFFIC:
-IH 41:
-SHIFT TRAFFIC TO INSIDE LANES DURING OUTSIDE LANE CLOSURES
-ALL LANES OPEN DURING PEAK HOURS
-SHORT TERM OUTSIDE LANE CLOSURES PERMITTED DURING OFF PEAK HOURS
-LONG TERM OUTSIDE LANE CLOSURES PERMITTED DURING OFF PEAK HOURS MON-THURS ONLY NORTH OF STH 60
-ACTIVE WORK ZONES AND LANE CLOSURES ALONG IH 41 SHALL BE LIMITED TO A MAXIMUM LENGTH OF 2 MILES AT A TIME. 2 MILE SEGMENTS FOR LANE CLOSURES ARE SHOWN ON TRAFFIC CONTROL OVERVIEW SHEETS. ANY LANE CLOSURE EXCEEDING 2 MILES IN LENGTH MUST BE APPROVED BY THE ENGINEER.
-LANE CLOSURES SHALL NOT BE REOPENED TO TRAFFIC WITHOUT THE LANES BEING PAVED; NO LIVE TRAFFIC ALLOWED ON MILLED SURFACES
-PROVIDE ADDITIONAL SIGNING FOR OSOW ROUTES DURING OUTSIDE LANE CLOSURES (SEE OSOW TRAFFIC CONTROL PLAN)
-PLACE "UNEVEN LANES" SIGN W8-11 AS NEEDED IN ADVANCE OF PAVEMENT RESURFACING AREAS

-IH 41 ENTRANCE/EXIT RAMPS:
-ALL RAMPS OPEN DURING PEAK HOURS
-SHORT TERM RAMP CLOSURES PERMITTED DURING OFF PEAK HOURS ONLY IN ACTIVE WORK ZONE WHERE WORK IS occurring



STAGE 2C TRAFFIC CONTROL

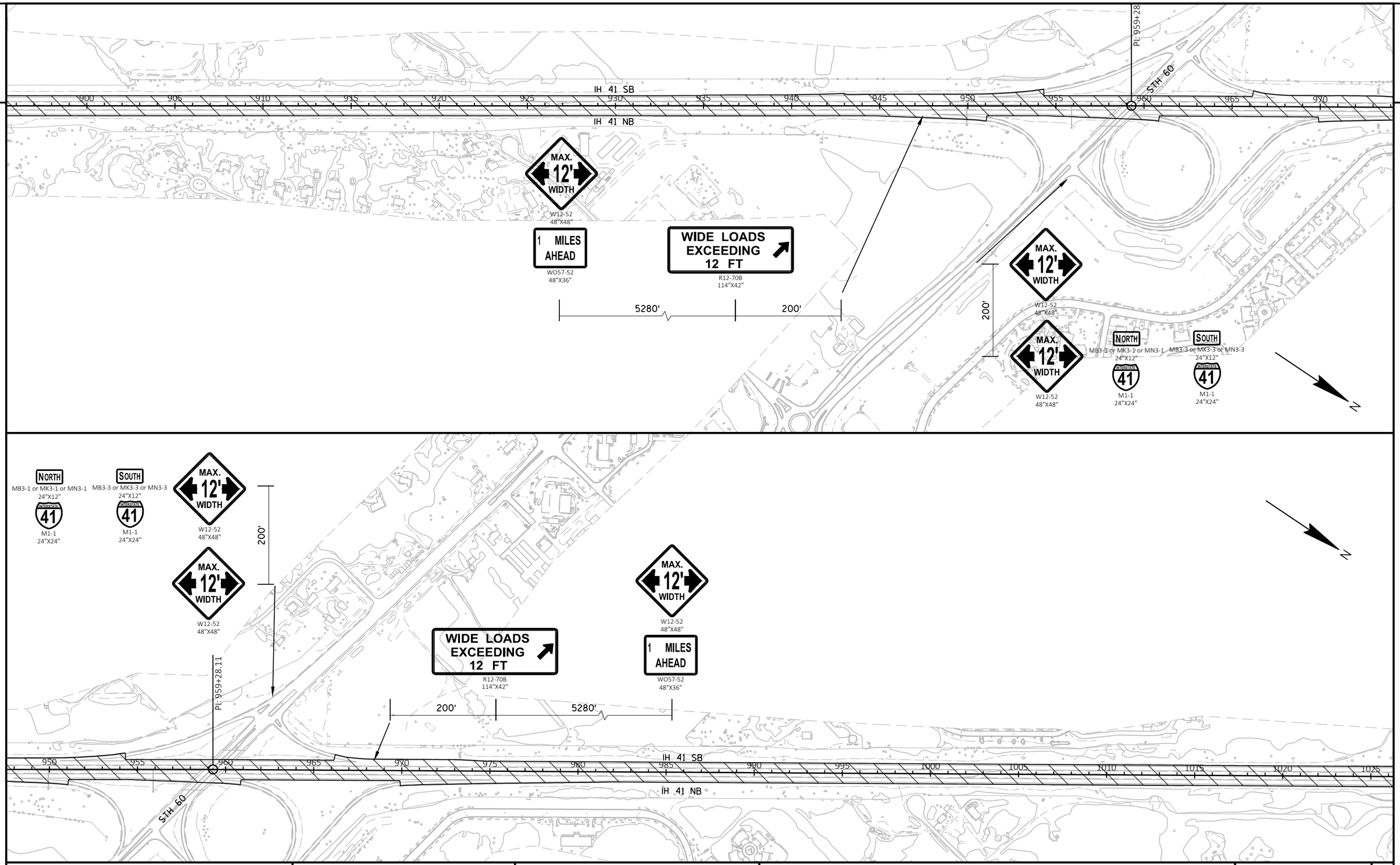
*TRAFFIC CONTROL CONES 42-INCH PLACED AT 50' SPACING



2

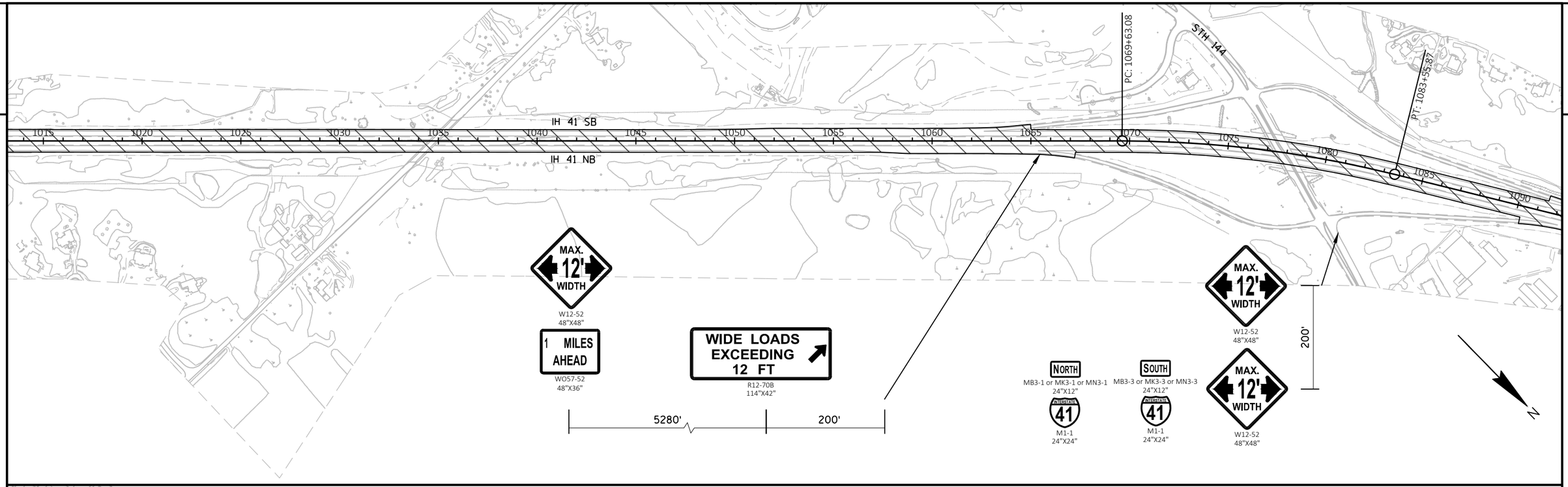
PROJECT NO: 1100-27-00/ 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL STAGE 2 - OSOW	SHEET 90	E

2



PROJECT NO: 1100-27-00/ 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL STAGE 2 - OSOW	SHEET 91 E

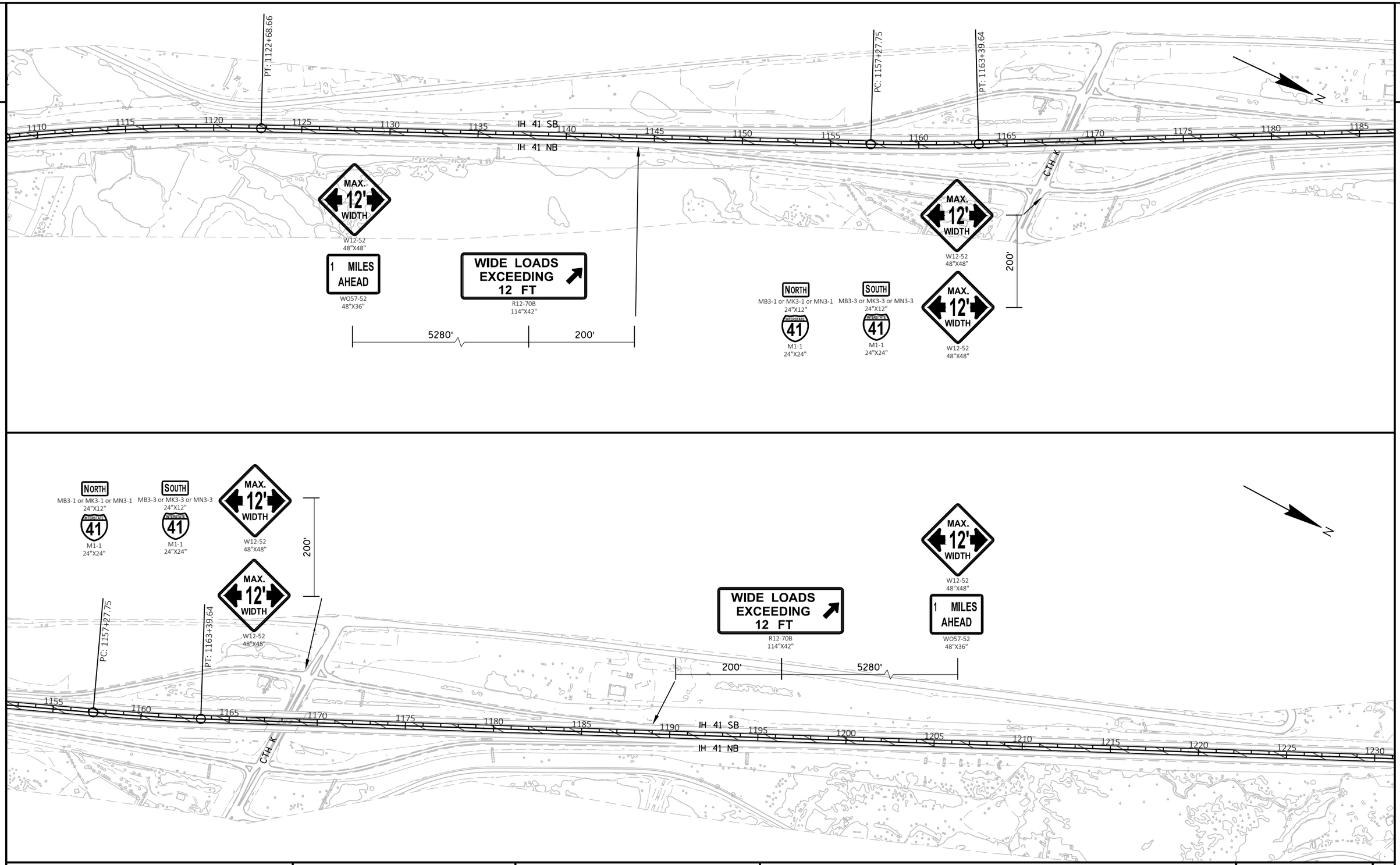
2



PROJECT NO: 1100-27-00/ 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL STAGE 2 - OSOW	SHEET 92 E

FILE NAME : N:\PDS\C3D\11002700\SHEETSPLAN\025401_TC.DWG
LAYOUT NAME - Sheet - (3)

PLOT DATE : 1/8/2019 11:32 AM PLOT BY : MCGILLICUDDY, BENJAM PLOT NAME : PLOT SCALE : 1 IN:500 FT

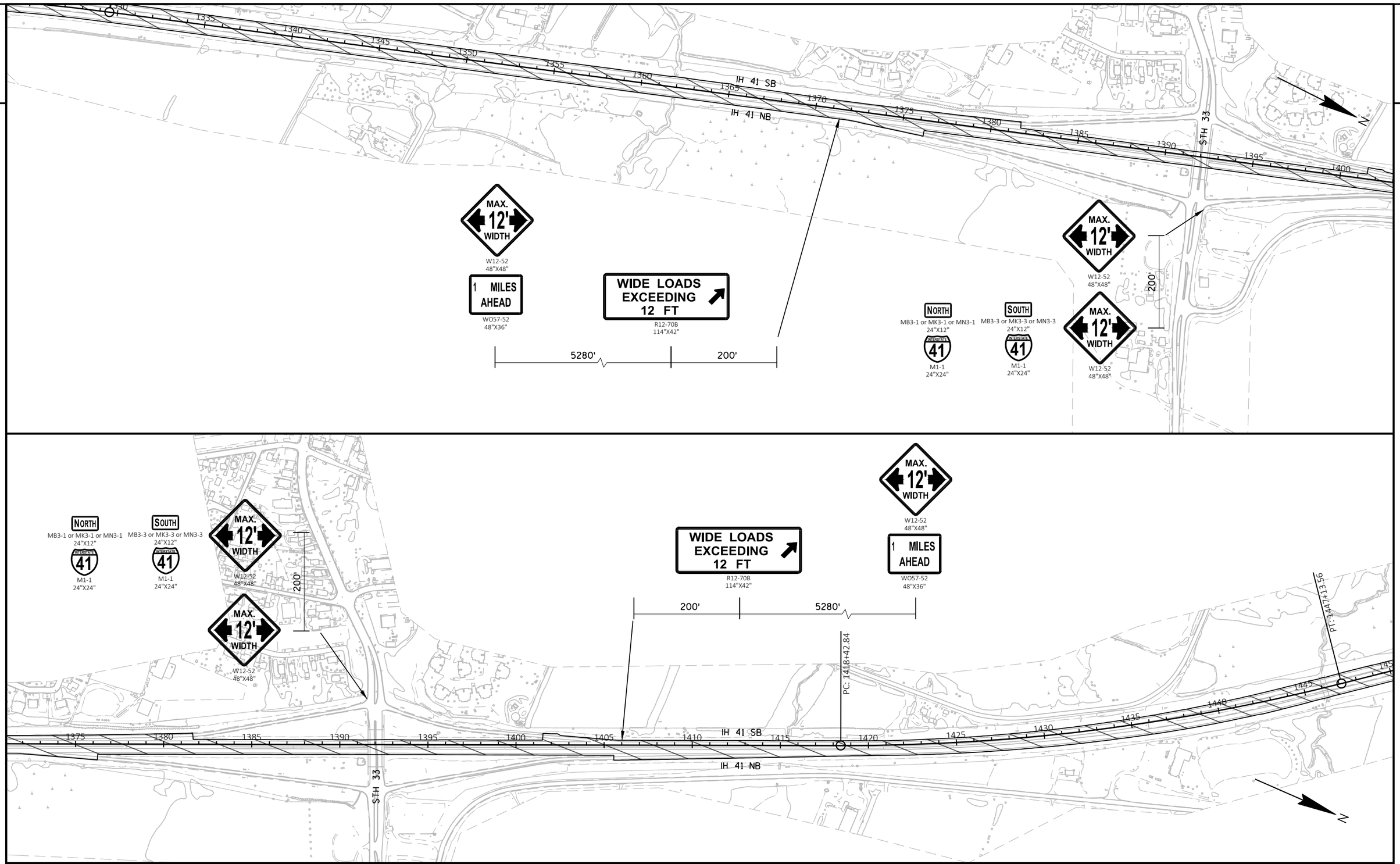


PROJECT NO: 1100-27-00/ 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL STAGE 2 - OSOW	SHEET 93	E

FILE NAME : N:\PDS\C3D\11002700\SHEETSPLAN\025401_TC.DWG
LAYOUT NAME - Sheet - (4)

PLOT DATE : 1/8/2019 11:34 AM PLOT BY : MCGILLICUDDY, BENJAM PLOT NAME : PLOT SCALE : 1 IN:500 FT

2

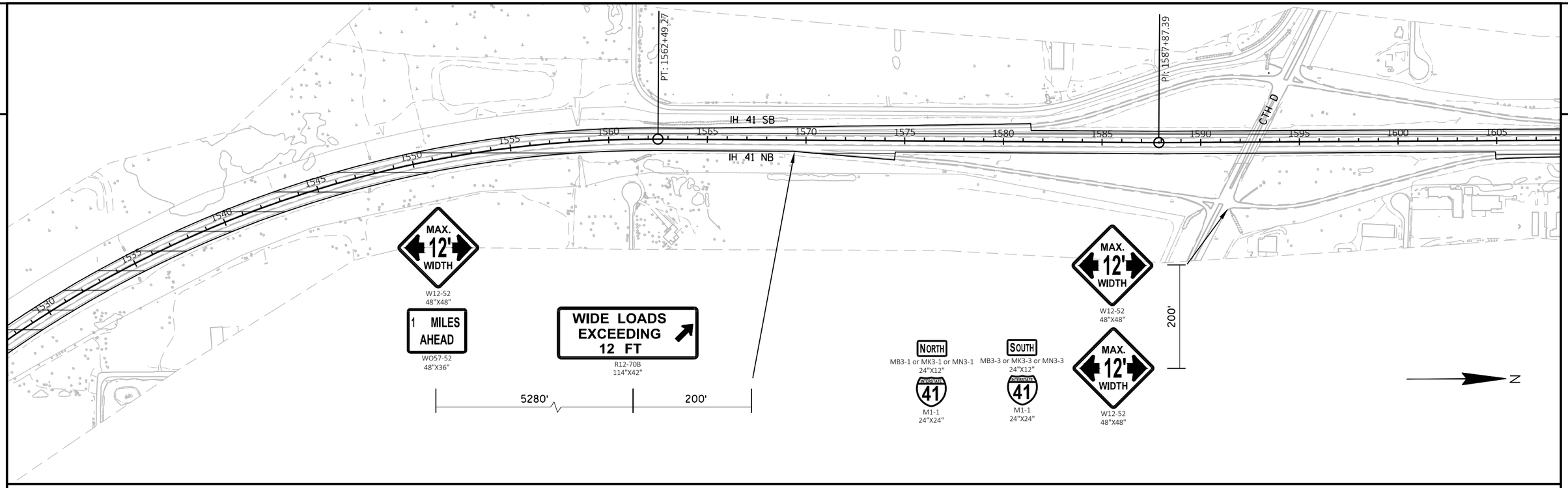


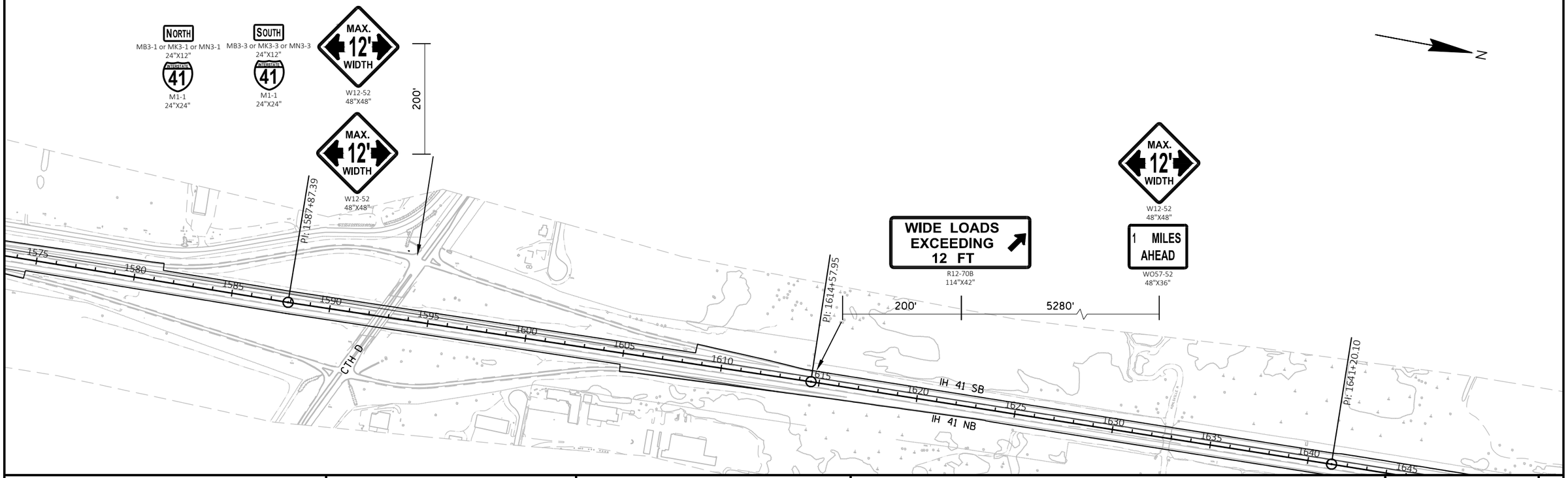
PROJECT NO: 1100-27-00/ 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL STAGE 2 - OSOW	SHEET 94	E

FILE NAME : N:\PDS\C3D\11002700\SHEETSPLAN\025401_TC.DWG
LAYOUT NAME - Sheet - (5)

PLOT DATE : 1/8/2019 11:36 AM PLOT BY : MCGILLICUDDY, BENJAM PLOT NAME : PLOT SCALE : 1 IN:500 FT

2

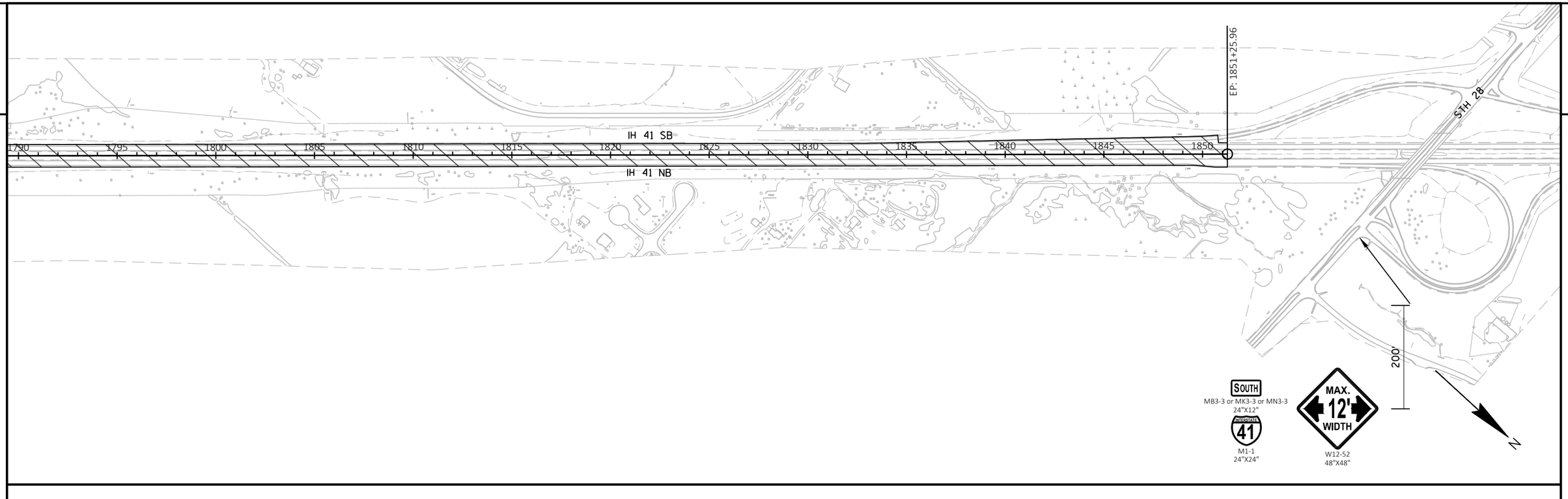


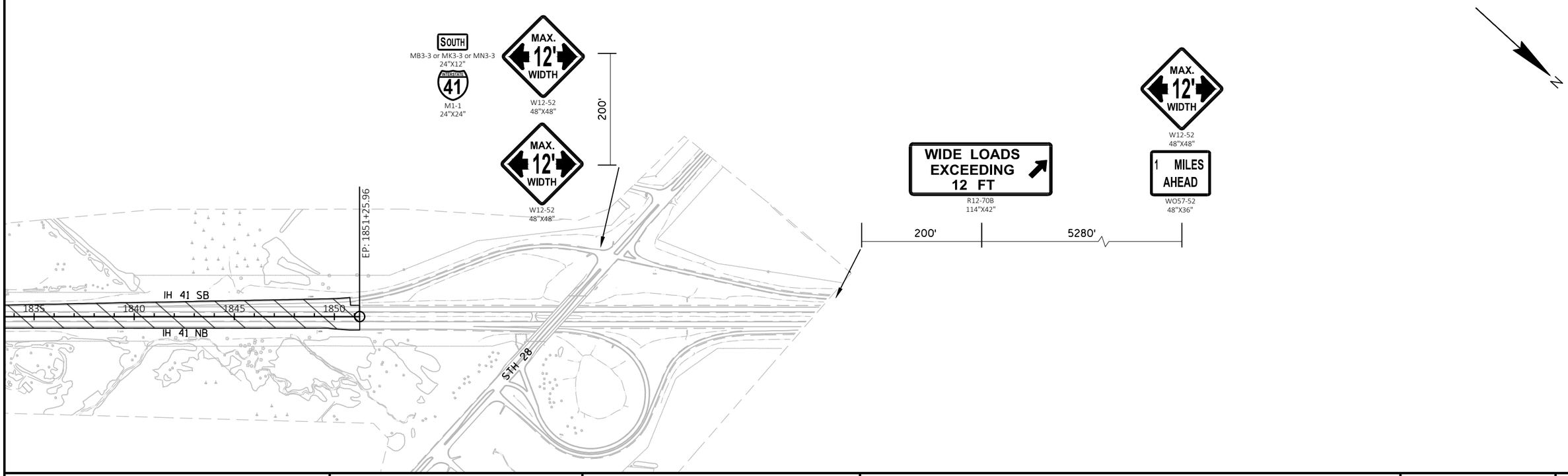


PROJECT NO: 1100-27-00/ 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL STAGE 2 - OSOW	SHEET 95	E

FILE NAME : N:\PDS\C3D\11002700\SHEETSPLAN\025401_TC.DWG
LAYOUT NAME - Sheet - (6)

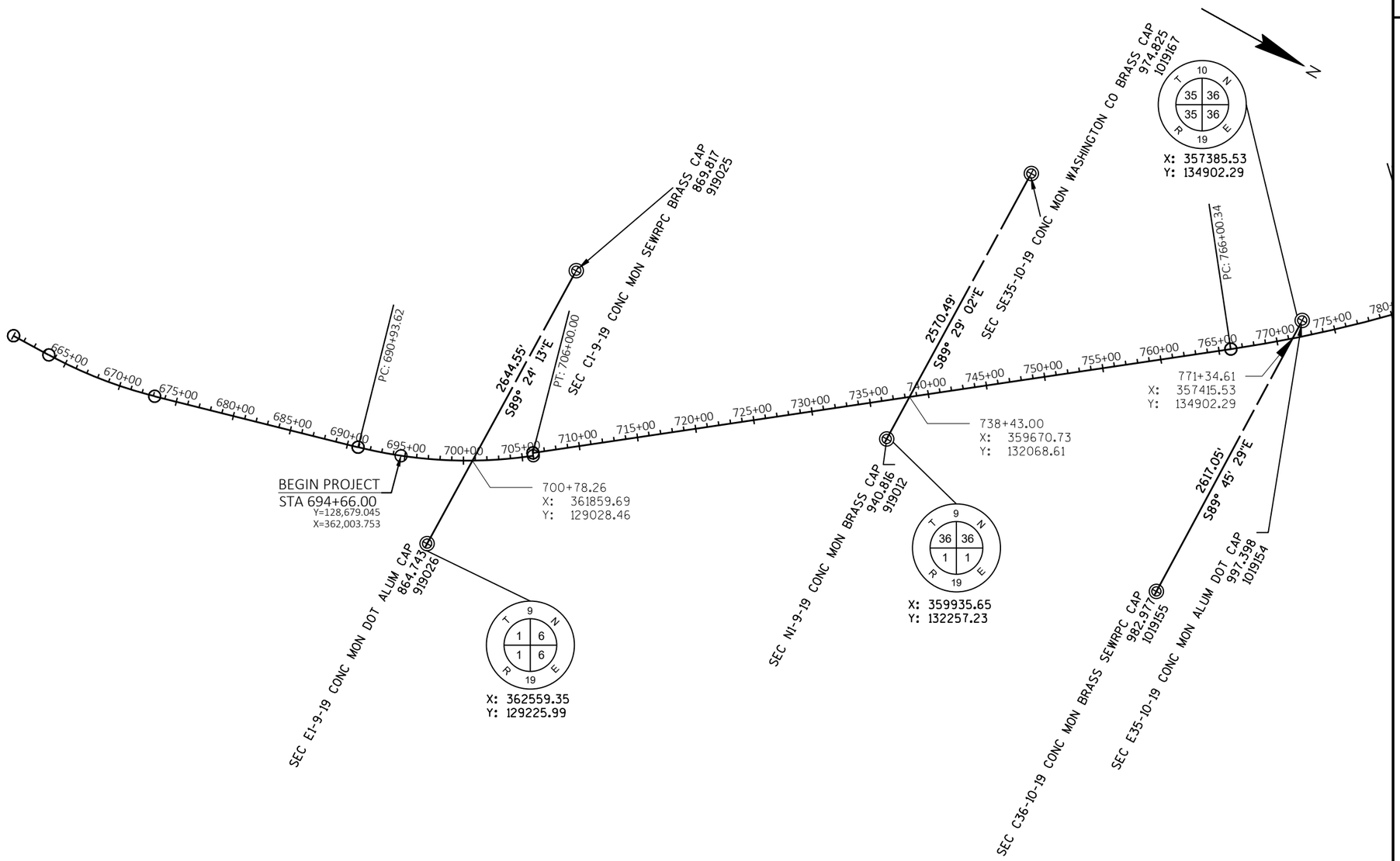
PLOT DATE : 1/8/2019 11:38 AM PLOT BY : MCGILLICUDDY, BENJAM PLOT NAME : PLOT SCALE : 1 IN:500 FT





PROJECT NO: 1100-27-00/ 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	TRAFFIC CONTROL STAGE 2 - OSOW	SHEET 96	E

2



PROJECT NO: 1100-27-70/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	ALIGNMENT LAYOUT	SHEET 97	E

2

SEC C21-10-19 CONC MON BRASS SEWRPC CAP
1053.470
1019097

T 10 N
R 19 E
21 21
21 21

X: 344237.60
Y: 145554.83

PI: 959+28.11

T 10 N
R 19 E
16 16
21 21

X: 341599.79
Y: 148218.25

SEC C17-10-19 CONC MON WASHINGTON CO BRASS CAP
1115.552
1019069

2628.63'
S89° 38' 39"E

SEC SE7-10-19 CONC MON SEWRPC BRASS CAP
1105.090
1019055

2615.36'
S89° 55' 11"E

PC: 1069+63.08

SEC C7-10-19 CONC MON SEWRPCBRASS CAP
1032.214
1019041

2683.73'
S88° 36' 45"E

PT: 1083+55.87

940+00 945+00 950+00 955+00 960+00 965+00 970+00 975+00 980+00 985+00 990+00 995+00 1000+00 1005+00 1010+00 1015+00 1020+00 1025+00 1030+00 1035+00 1040+00 1045+00 1050+00 1055+00 1060+00 1065+00 1070+00 1075+00 1080+00 1085+00 1090+00

N

959+49.46
X: 344334.72
Y: 148281.79

997+13.56
X: 341507.66
Y: 150780.49

1034+77.76
X: 338833.57
Y: 153430.53

1072+10.67
X: 336358.56
Y: 156227.75

SEC SE16-10-19 CONC MON DOT BRASS CAP
1081.172
1019085

2664.94'
S89° 10' 37"E

SEC S16-10-19 CONC MON ALUM DOT CAP
1127.077
1019084

SEC E17-10-19 CONC MON BRASS SEWRPC CAP
1185.753
1019070

T 10 N
R 19 E
17 16
17 16

X: 341596.37
Y: 150859.44

SEC S8-10-19 SEWRPC BRASS CAP IN BRDG
1144.835
1019056

T 10 N
R 19 E
8 8
17 17

X: 338976.64
Y: 153525.92

SEC E7-10-19 SET NAIL FROM 2FT CROSS TIES
1125.654
1019042

T 10 N
R 19 E
7 8
7 8

X: 336369.93
Y: 156171.45

SEC SE6-10-19 SET NAIL FROM TIES
1068.427
1019029

T 10 N
R 19 E
6 5
7 8

X: 336359.28
Y: 158803.00

PROJECT NO: 1100-27-70/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	ALIGNMENT LAYOUT	SHEET 98	E

FILE NAME : N:\PDS\C3D\11002700\SHEETSPLAN\027201_AD.DWG
LAYOUT NAME - 027203_AD

PLOT DATE : 12/7/2018 8:37 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:1000 FT

2

N

SEC S26-10-19 CONC MON SEWRPC BRASS CAP
1013.413
1019140

SEC E27-10-19 CONC MON BRASS CAP
968.465
1019126

SEC S22-10-19 CONC MON BRASS SEWRPC CAP
987.960
1019112

WIT E21-10-19 CONC MON BRASS CAP
1061.114
10190984

T 10 N
R 19 E
26 26
35 35

X: 354751.47
Y: 137566.40

T 10 N
R 19 E
27 26
27 26

X: 352107.59
Y: 140225.91

T 10 N
R 19 E
22 22
27 27

X: 349501.42
Y: 142871.89

PT: 783+46.12

780+00 785+00 790+00 795+00 800+00 805+00 810+00 815+00 820+00 825+00 830+00 835+00 840+00 845+00 850+00 855+00 860+00 865+00 870+00 875+00 880+00 885+00 890+00 895+00 900+00 905+00 910+00 915+00 920+00 925+00 930+00 935+00

808+54.61
X: 354949.67
Y: 137551.35

846+32.27
X: 352294.30
Y: 140238.45

883+90.97
X: 349705.91
Y: 142964.98

921+62.54
X: 347227.56
Y: 145823.32

2641.13'
S89° 30' 34"E

2656.57'
S89° 32' 05"E

2618.03'
S89° 31' 34"E

5265.74'
S89° 23' 32"E

SEC SE26-10-19 CONC MON DOT BRASS CAP
1014.812
1019141

SEC C26-10-19 CONC MON BRASS CAP
977.867
1019127

SEC SE22-10-19 CONC MON BRASS DOT CAP
970.973
1019113

SEC C22-10-19 CONC MON ALUM CAP
1028.169
1019099

WIT E21-10-19 CONC MON BRASS CAP
1057.156
10190982

T 10 N
R 19 E
22 22
22 22

X: 349503.05
Y: 145498.98

PROJECT NO: 1100-27-70/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	ALIGNMENT LAYOUT	SHEET 99	E

2

N

SEC S6-10-19 CONC MON CAST IRON PLUG
1045.374
1019028

PC: 1108+18.66

PT: 1122+68.66

SEC E1-10-18 CONC MON WASHINGTON CO BRASS CAP
1052.008
1019026

2164.00'
S88° 44' 02"E

PC: 1157+27.75

PT: 1163+39.64

T 10 N
R 1 6 E
19/20

X: 331592.90
Y: 164638.81

SEC C35-11-18 CONC MON BRASS CAP
1080.511
1118153

2664.94'
S84° 17' 47"E

T 11 N
R 26 26 E
35 35
18

X: 328335.85
Y: 169934.56

SEC S26-11-18 3/N IRON PIPE WASHINGTON CO BRASS CAP
981.040
1118140

PC: 1240+26.14

2637.30'
S88° 29' 27"E

1104+09.20
X: 334491.99
Y: 158811.05

1134+01.31
X: 333266.80
Y: 161543.79

1168+17.32
X: 332030.62
Y: 164744.46

1195+62.97
X: 331317.27
Y: 167455.82

2641.30'
S89° 02' 43"E

1227+37.48
X: 329412.16
Y: 170051.76

T 10 N
R 6 6 E
6 6
19

X: 333718.82
Y: 161514.98

SEC C6-10-19 CONC MON BRASS CAP
1137.856
1019015

2183.74'
S89° 11' 23"E

SEC N6-10-19 CONC MON BRASS CAP
1125.491
1019002

SEC NE1-10-19 CONC MON DOT ALUM CAP
1044.064
1019013

T 11 N
R 35 36 E
35 36
18

X: 330978.05
Y: 167044.33

SEC E35-11-18 CONC MON BRASS CAP
1059.301
1118154

SEC SE26-11-18 CONC MON BRASS CAP
1026.794
1118141

PROJECT NO: 1100-27-70/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	ALIGNMENT LAYOUT	SHEET 100	E

FILE NAME : N:\PDS\C3D\11002700\SHEETSPLAN\027201_AD.DWG
LAYOUT NAME - 027204_AD

PLOT DATE : 12/7/2018 8:38 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:1000 FT

2

N

PT: 1253+75.97

2638.32'
S88° 48' 51"E
SEC E27-11-18 CONC MON BRASS CAP
958.518
1118126

T 11 N
22 23
27 26
R 18 E
X: 325672.83
Y: 175271.37

SEC SE22-11-18 CONC MON CAST IRON PLUG
973.542
1118113

PC: 1305+26.80

T 11 N
22 22
22 22
R 18 E
X: 323014.12
Y: 177928.48

SEC C22-11-18 3IN PIPE WASHINGTON CO BRASS CAP
952.358
1118099

PT: 1329+53.33

T 11 N
15 15
22 22
R 18 E
X: 322984.37
Y: 180556.43

SEC S15-11-18 CONC MON DOT BRASS CAP
962.244
1118086

SEC E16-11-18 CONC MON BRASS CAP
949.750
1118072

1255+00 1260+00 1265+00 1270+00 1275+00 1280+00 1285+00 1290+00 1295+00 1300+00 1305+00 1310+00 1315+00 1320+00 1325+00 1330+00 1335+00 1340+00 1345+00 1350+00 1355+00 1360+00 1365+00 1370+00 1375+00 1380+00 1385+00 1390+00 1395+00 1400+00 1405+00

1258+00.40
X: 327806.87
Y: 172692.24

1290+09.52
X: 326491.66
Y: 175668.54

2643.29'
S88° 41' 04"E

2643.98'
S89° 46' 21"E

1321+27.80
X: 325826.93
Y: 178673.03

2639.29'
S89° 58' 54"E

1349+67.36
X: 324397.35
Y: 181027.87

2699.74'
S88° 44' 28"E

1378+66.09
X: 323308.99
Y: 183716.03

1407+24.77
X: 321903.82
Y: 186233.58

2646.33'
S88° 35' 53"E

T 11 N
26 26
26 26
R 18 E
X: 328325.97
Y: 172577.75

SEC C26-11-18 CONC MON WASHINGTON CO BRASS CAP
1021.187
1118127

SEC S23-11-18 CAST IRON PLUG IN CONC
1074.844
1118114

SEC E22-11-18 CONC MON BRASS CAP
1042.976
1118100

SEC SE15-11-18 CONC MON BRASS CAP
1109.119
1118087

T 11 N
15 15
15 15
R 18 E
X: 322944.88
Y: 183236.94

SEC C15-11-18 3IN PIPE WASHINGTON CO BRASS CAP
973.124
1118073

T 11 N
10 10
15 15
R 18 E
X: 322914.37
Y: 185872.49

SEC S10-11-18 CONC MON BRASS CAP
1096.030
1118060

PROJECT NO: 1100-27-70/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	ALIGNMENT LAYOUT	SHEET 101	E

2

N

SEC SE9-11-18 CONC MON BRASS CAP
981.915
1118059

T 11 N
9 10
16 15
R 18 E

X: 320268.83
Y: 185937.23

PC: 1418+42.84

SEC C9-11-18 3IN PIPE BRASS CAP
943.178
1118045

2616.53'
S89° 10' 30"E

PT: 1447+13.56

SEC S4-11-18 CONC MON BRASS CAP
969.709
1118032

T 11 N
4 4
9 9
R 18 E

X: 317565.00
Y: 191276.84

PC: 1526+44.27

PT: 1562+49.27

1410+00 1415+00 1420+00 1425+00 1430+00 1435+00 1440+00 1445+00 1450+00 1455+00 1460+00 1465+00 1470+00 1475+00 1480+00 1485+00 1490+00 1495+00 1500+00 1505+00 1510+00 1515+00 1520+00 1525+00 1530+00 1535+00 1540+00 1545+00 1550+00 1555+00 1560+00 1565+00

1469+28.40
X: 319239.74
Y: 192141.65

1436+60.93
X: 321338.27
Y: 189436.27

SEC E9-11-18 CONC MON BRASS CAP
970.351
1118046

T 11 N
9 10
9 10
R 18 E

X: 320228.44
Y: 188585.55

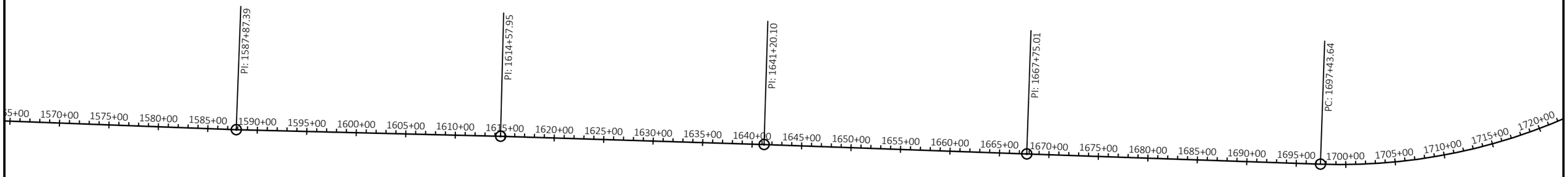
2626.44'
S88° 59' 32"E

SEC SE4-11-18 CONC MON BRASS CAP
1061.441
1118033

PROJECT NO: 1100-27-70/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	ALIGNMENT LAYOUT	SHEET 102	E

2

N



PROJECT NO: 1100-27-70/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	ALIGNMENT LAYOUT	SHEET 103	E

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LAYOUT NAME - 027207_AD

PLOT DATE : 12/7/2018 8:38 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:1000 FT

2

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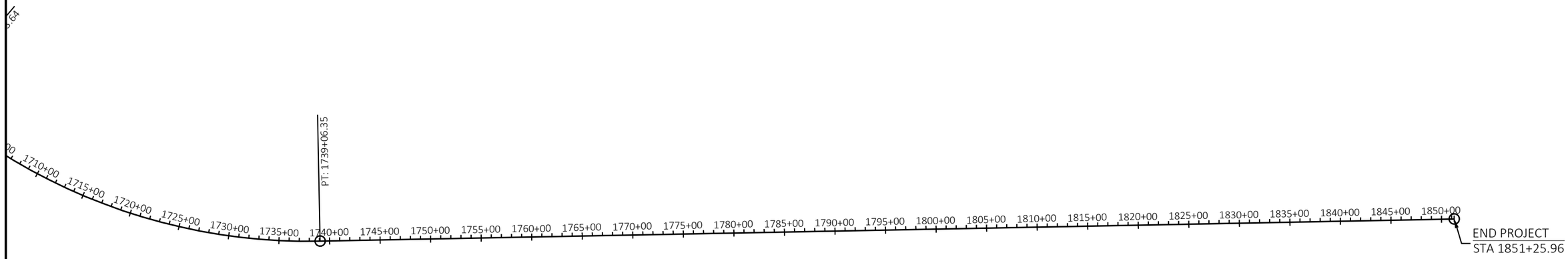

PROJECT NO: 1100-27-70/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	ALIGNMENT LAYOUT	SHEET 104	E

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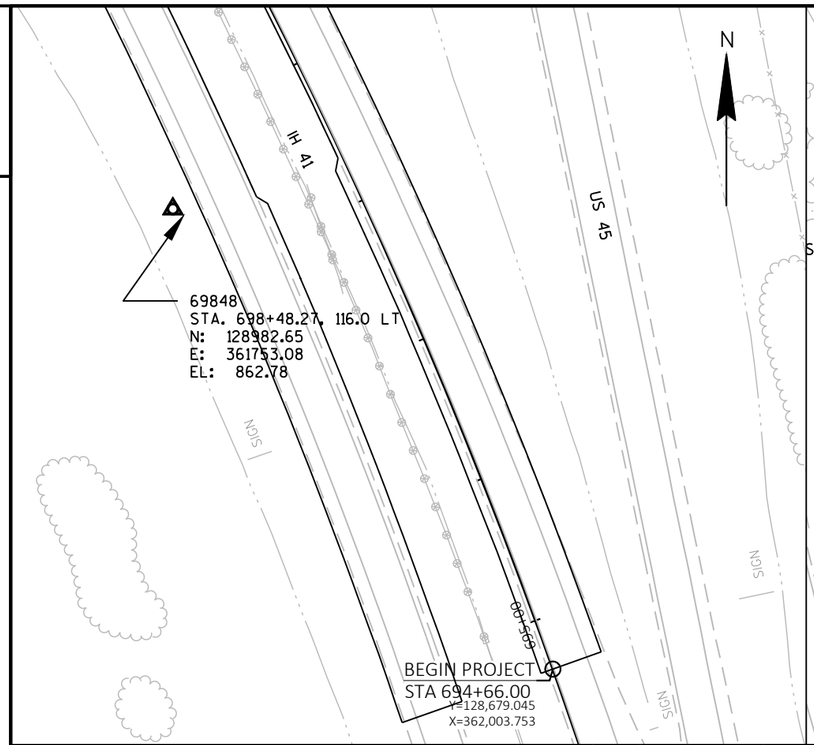
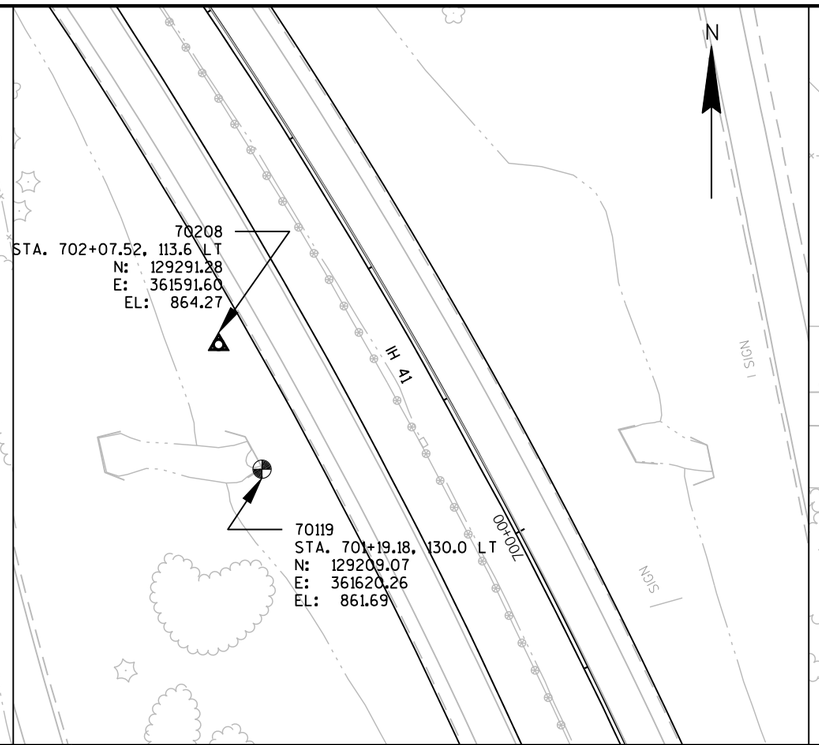
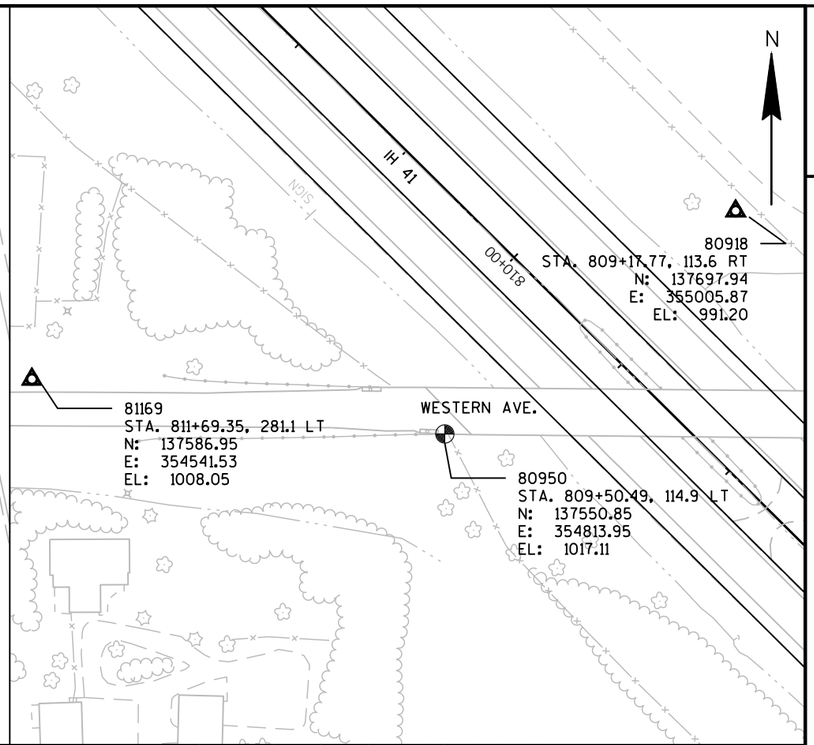
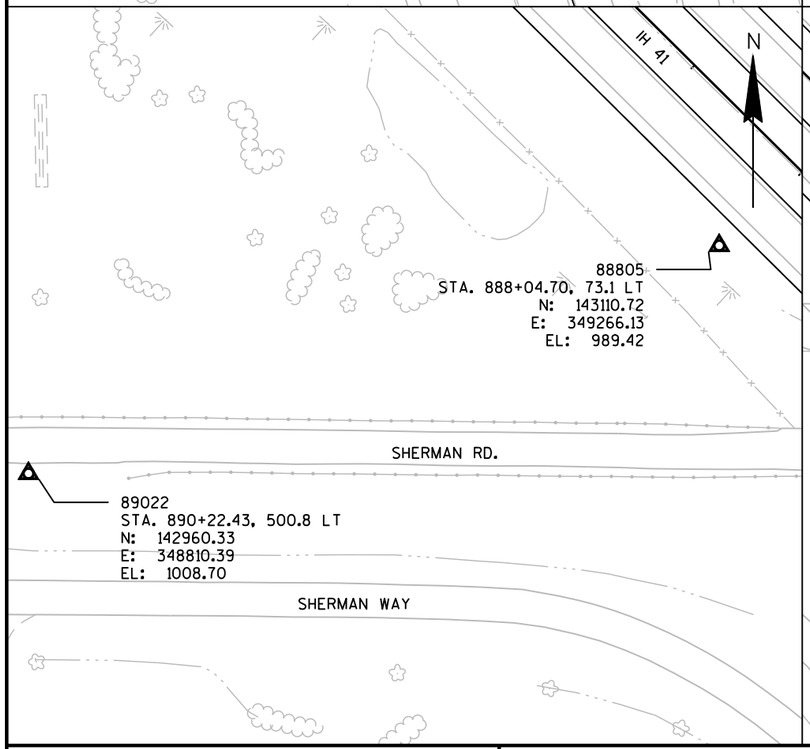
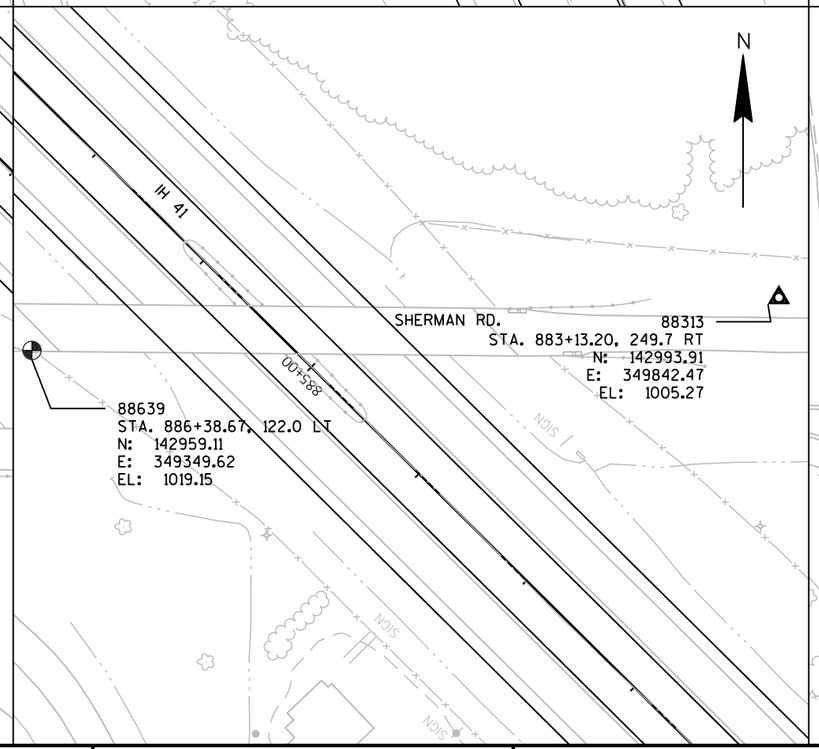
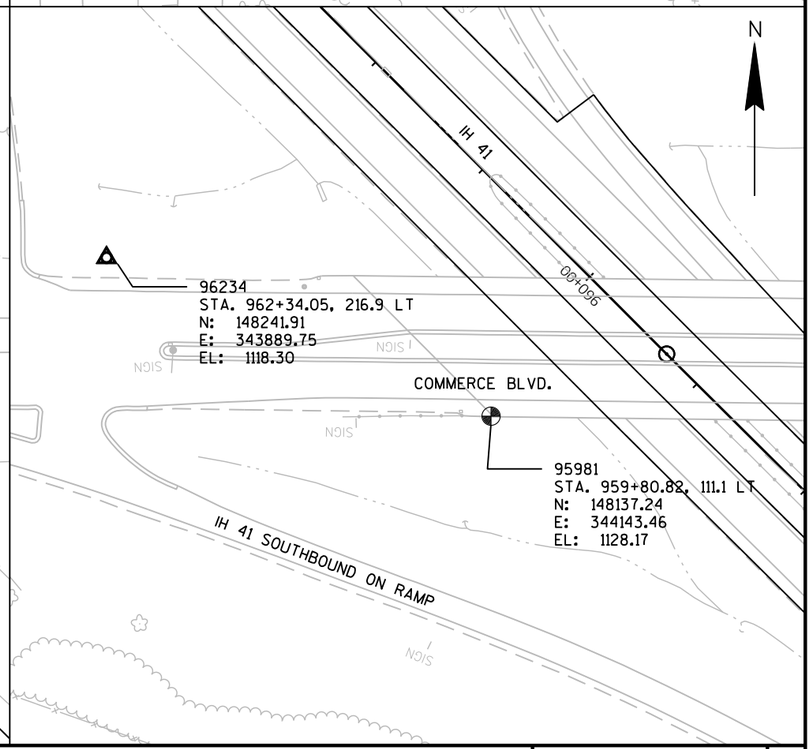




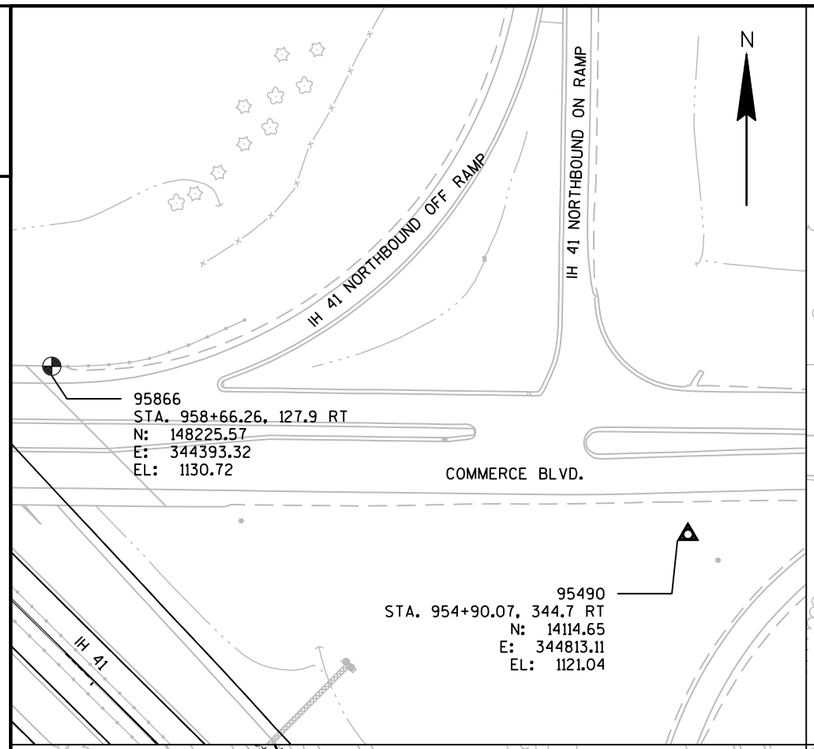


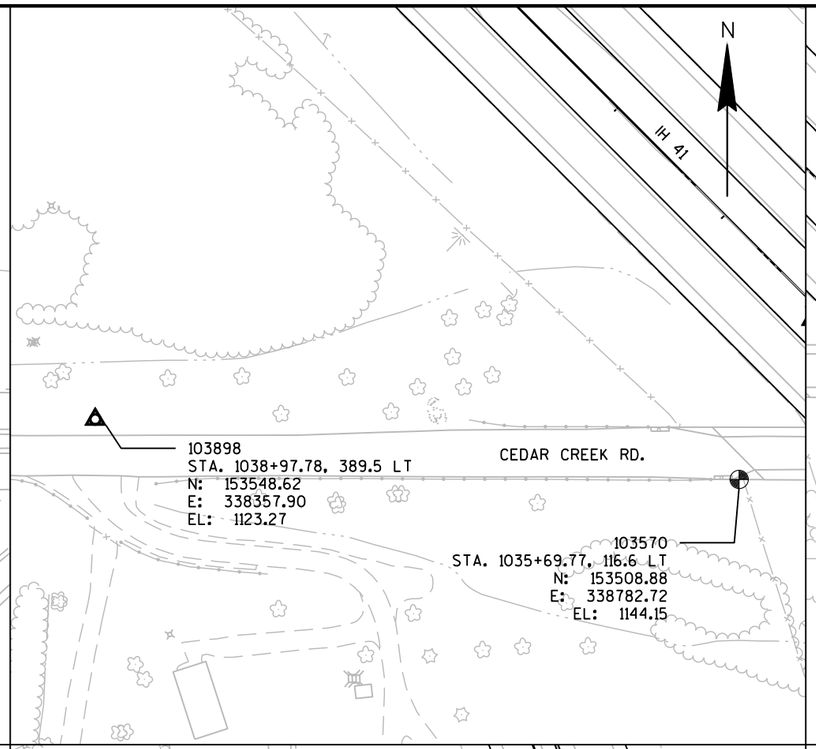


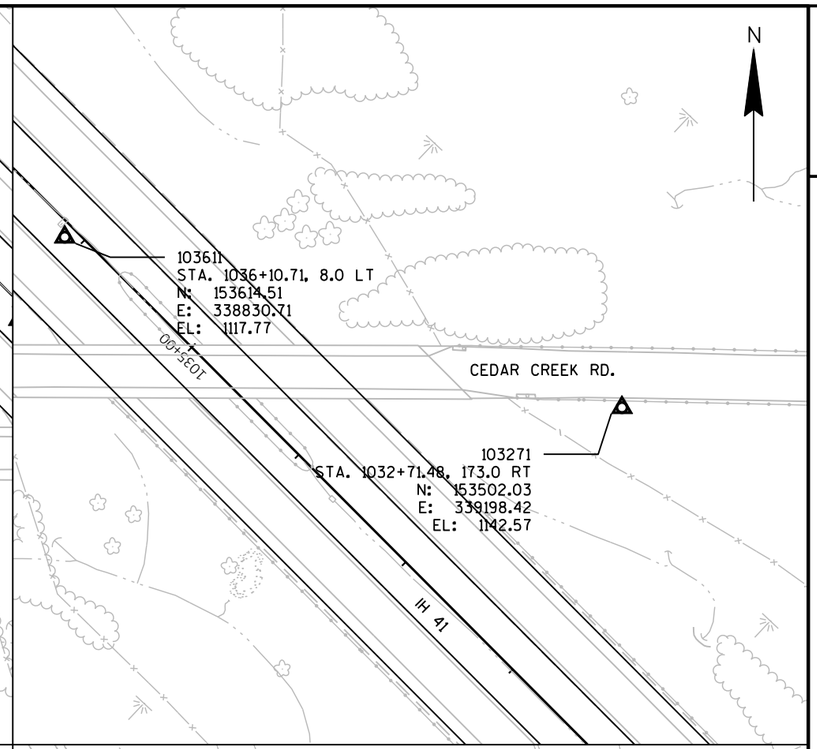


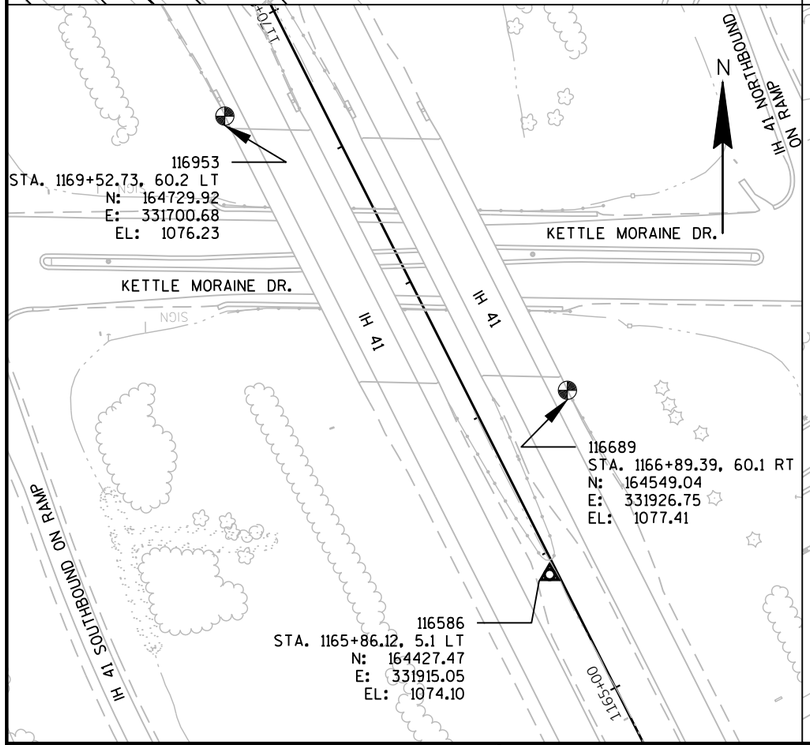


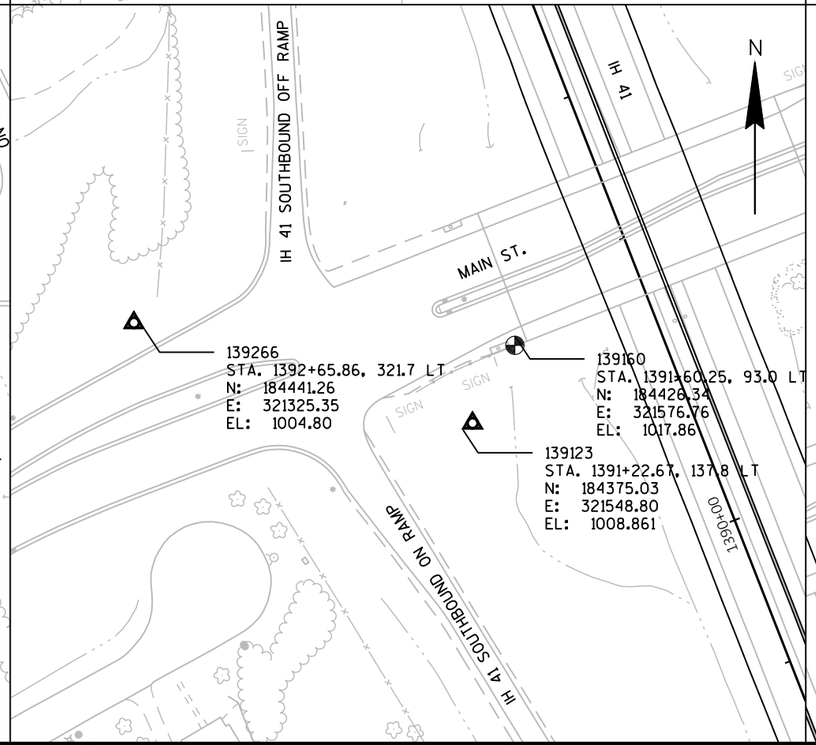
PROJECT NO: 1100-27-70/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	SURVEY CONTROL	SHEET 105	E

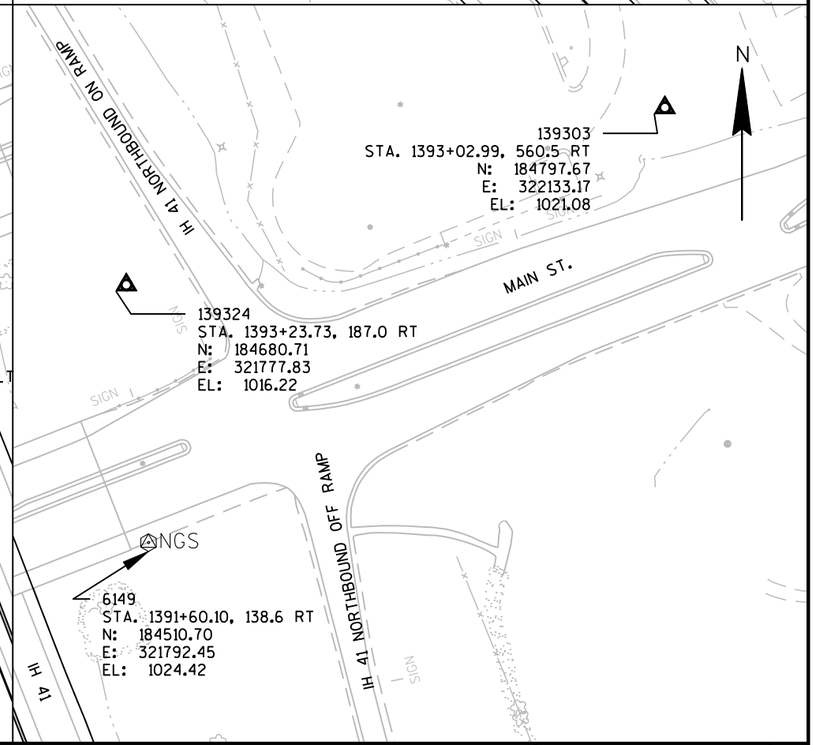












PROJECT NO: 1100-27-70/1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	SURVEY CONTROL	SHEET 106	E

					1100-27-70	1107-00-71
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
0006	203.0100	Removing Small Pipe Culverts	EACH	1.000	1.000	
0014	204.0120	Removing Asphaltic Surface Milling	SY	825,595.000		825,595.000
0016	204.0165	Removing Guardrail	LF	908.000		908.000
0018	204.0245	Removing Storm Sewer (size) 01. 12-INCH	LF	14.000		14.000
0020	204.0245	Removing Storm Sewer (size) 02. 15-INCH	LF	28.000	28.000	
0022	204.0245	Removing Storm Sewer (size) 03. 18-INCH	LF	7.000	7.000	
0024	205.0100	Excavation Common	CY	11,071.000	4,736.000	6,335.000
0038	213.0100	Finishing Roadway (project) 02. 1107-00-71	EACH	1.000		1.000
0040	305.0110	Base Aggregate Dense 3/4-Inch	TON	12,524.000	6,009.000	6,515.000
0042	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	101.000		101.000
0044	305.0500	Shaping Shoulders	STA	2,042.000		2,042.000
0048	390.0403	Base Patching Concrete Shes	SY	29,843.000		29,843.000
0052	416.0610	Drilled Tie Bars	EACH	4,263.000		4,263.000
0054	416.0620	Drilled Dowel Bars	EACH	56,846.000		56,846.000
0060	455.0605	Tack Coat	GAL	20,640.000		20,640.000
0062	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000		1.000
0064	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	1.000		1.000
0068	460.2005	Incentive Density PWL HMA Pavement	DOL	68,660.000		68,660.000
0070	460.2010	Incentive Air Voids HMA Pavement	DOL	99,071.000		99,071.000
0076	460.7424	HMA Pavement 4 HT 58-28 H	TON	99,071.000		99,071.000
0078	465.0105	Asphaltic Surface	TON	40.000		40.000
0082	465.0400	Asphaltic Shoulder Rumble Strips	LF	382,901.000		382,901.000
0124	520.8000	Concrete Collars for Pipe	EACH	7.000	5.000	2.000
0126	522.0112	Culvert Pipe Reinforced Concrete Class III 12-Inch	LF	9.000		9.000
0128	522.0115	Culvert Pipe Reinforced Concrete Class III 15-Inch	LF	29.000	29.000	
0130	522.0118	Culvert Pipe Reinforced Concrete Class III 18-Inch	LF	4.000	4.000	
0142	611.0430	Reconstructing Inlets	EACH	12.000	5.000	7.000
0144	611.0642	Inlet Covers Type MS	EACH	7.000	5.000	2.000
0146	611.3901	Inlets Median 1 Grate	EACH	7.000	5.000	2.000
0148	611.9710	Salvaged Inlet Covers	EACH	54.000	18.000	36.000
0150	612.0206	Pipe Underdrain Unperforated 6-Inch	LF	56.000	36.000	20.000
0154	612.0806	Apron Endwalls for Underdrain Reinforced Concrete 6-Inch	EACH	14.000	9.000	5.000
0156	613.1100.S	Cable Barrier Type 1	LF	119,627.000	61,398.000	58,229.000
0158	613.1200.S	Cable Barrier End Terminal Type 1	EACH	20.000	16.000	4.000
0160	614.0010	Barrier System Grading Shaping Finishing	EACH	10.000		10.000
0164	614.0396	Guardrail Mow Strip Asphalt	SY	124.000		124.000
0168	614.2300	MGS Guardrail 3	LF	5,831.000		5,831.000
0170	614.2500	MGS Thrie Beam Transition	LF	236.000		236.000
0172	614.2610	MGS Guardrail Terminal EAT	EACH	6.000		6.000

					1100-27-70	1107-00-71
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
0174	614.2620	MGS Guardrail Terminal Type 2	EACH	6.000		6.000
0176	618.0100	Maintenance And Repair of Haul Roads (project) 02. 1107-00-71	EACH	1.000		1.000
0178	619.1000	Mobilization	EACH	0.880	0.080	0.800
0180	624.0100	Water	MGAL	189.000	90.000	99.000
0182	625.0105	Topsoil	CY	12,579.000	3,707.000	8,872.000
0194	628.1905	Mobilizations Erosion Control	EACH	18.000	5.000	13.000
0196	628.1910	Mobilizations Emergency Erosion Control	EACH	18.000	5.000	13.000
0198	628.2004	Erosion Mat Class I Type B	SY	73,518.000	28,893.000	44,625.000
0208	628.7005	Inlet Protection Type A	EACH	169.000	83.000	86.000
0210	628.7020	Inlet Protection Type D	EACH	36.000		36.000
0212	628.7504	Temporary Ditch Checks	LF	1,646.000	647.000	999.000
0214	628.7555	Culvert Pipe Checks	EACH	105.000	52.000	53.000
0216	628.7570	Rock Bags	EACH	26.000	13.000	13.000
0218	629.0210	Fertilizer Type B	CWT	212.000	83.000	129.000
0220	630.0130	Seeding Mixture No. 30	LB	6,030.000	2,369.000	3,661.000
0222	630.0200	Seeding Temporary	LB	9,045.000	3,554.000	5,491.000
0226	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	123.000		123.000
0228	634.0622	Posts Wood 4x6-Inch X 22-FT	EACH	35.000		35.000
0230	634.0885	Posts Tubular Steel 2x2-Inch X 8.5-FT	EACH	5.000		5.000
0232	637.2210	Signs Type II Reflective H	SF	100.000		100.000
0234	637.2230	Signs Type II Reflective F	SF	20.000		20.000
0236	638.2102	Moving Signs Type II	EACH	175.000		175.000
0238	638.2602	Removing Signs Type II	EACH	5.000		5.000
0240	638.3000	Removing Small Sign Supports	EACH	148.000		148.000
0242	643.0300	Traffic Control Drums	DAY	12,246.000	2,783.000	9,463.000
0244	643.0420	Traffic Control Barricades Type III	DAY	914.000	133.000	781.000
0246	643.0705	Traffic Control Warning Lights Type A	DAY	1,630.000	262.000	1,368.000
0248	643.0715	Traffic Control Warning Lights Type C	DAY	4,258.000	1,037.000	3,221.000
0250	643.0800	Traffic Control Arrow Boards	DAY	548.000	133.000	415.000
0252	643.0900	Traffic Control Signs	DAY	7,893.000	1,247.000	6,646.000
0254	643.0910	Traffic Control Covering Signs Type I	EACH	91.000	8.000	83.000
0256	643.1050	Traffic Control Signs PCMS	DAY	156.000	40.000	116.000
0258	643.1070	Traffic Control Cones 42-Inch	DAY	52,209.000	13,698.000	38,511.000
0260	643.1200.S	Portable Automated Real-Time Traffic Queue Warning System	DAY	988.000	250.000	738.000
0262	643.5000	Traffic Control	EACH	0.880	0.080	0.800
0270	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	529,736.000		529,736.000
0274	646.1555	Marking Line Grooved Contrast Permanent Tape 4-Inch	LF	58,416.000		58,416.000
0276	646.3020	Marking Line Epoxy 8-Inch	LF	988.000		988.000

					1100-27-70	1107-00-71
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
0278	646.3555	Marking Line Grooved Contrast Permanent Tape 8-Inch	LF	32,298.000		32,298.000
0280	646.5020	Marking Arrow Epoxy	EACH	36.000		36.000
0282	646.5120	Marking Word Epoxy	EACH	7.000		7.000
0284	646.6120	Marking Stop Line Epoxy 18-Inch	LF	310.000		310.000
0286	646.7220	Marking Chevron Epoxy 24-Inch	LF	2,045.000		2,045.000
0290	649.0105	Temporary Marking Line Paint 4-Inch	LF	560,989.000		560,989.000
0292	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	52,974.000	10,595.000	42,379.000
0320	690.0150	Sawing Asphalt	LF	6,484.000		6,484.000
0322	690.0250	Sawing Concrete	LF	85,266.000		85,266.000
0328	740.0440	Incentive IRI Ride	DOL	153,200.000		153,200.000
0330	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	4,800.000		4,800.000
0332	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	9,000.000		9,000.000
0334	SPV.0045	Special 01. Portable Speed Trailer	DAY	494.000	130.000	364.000
0336	SPV.0060	Special 01. Field Facilities Office Space	EACH	0.880	0.080	0.800
0338	SPV.0060	Special 02. Traffic Control Close-Open Freeway Entrance Ramp	EACH	110.000		110.000
0340	SPV.0060	Special 03. Traffic Control Interim Freeway Lane Closure	EACH	500.000	66.000	434.000
0342	SPV.0060	Special 04. Core Drilling For 14-inch Diameter Cable Barrier Post	EACH	54.000	24.000	30.000
0344	SPV.0060	Special 05. Utility Line Opening	EACH	11.000	4.000	7.000
0346	SPV.0060	Special 06. Mobilization Emergency Pavement Repair	EACH	10.000		10.000
0348	SPV.0060	Special 07. Adjusting Inlets Special	EACH	34.000	10.000	24.000
0350	SPV.0060	Special 08. Installing County Furnished Cable Barrier End Terminal Type 1	EACH	14.000		14.000
0352	SPV.0060	Special 09. Baseline CPM Progress Schedule	EACH	0.880	0.080	0.800
0354	SPV.0060	Special 10. Monthly CPM Progress Schedule Update	EACH	21.000	9.000	12.000
0360	SPV.0090	Special 03. Heavy Duty Silt Fence	LF	170.000	170.000	
0366	SPV.0105	Special 02. Survey Project 1100-27-70	LS	1.000	1.000	
0368	SPV.0105	Special 03. Survey Project 1107-00-71	LS	1.000		1.000
0370	SPV.0180	Special 01. Hydro Mulch	SY	274,355.000	107,791.000	166,564.000

3

REMOVING CULVERT PIPE

CATEGORY	ROADWAY	STATION	203.0100 REMOVING SMALL PIPE CULVERTS (12-INCH) EACH
1000	**PROJECT ID 1100-27-70**		
	IH 41	998+50	1
	CONTRACT TOTAL:		1

REMOVING PAVEMENT

CATEGORY	ROADWAY	STATION	TO	STATION	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY
1000	**PROJECT ID 1107-00-71**				
	IH 41 NB	694+66		1104+76	165,627
	IH 41 SB	694+66		1104+76	168,347
	IH 41 NB	1239+94		1851+26	243,989
	IH 41 SB	1239+94		1851+26	247,632
	CONTRACT TOTAL:				825,595

3

REMOVING GUARDRAIL

CATEGORY	ROADWAY	STATION	TO	STATION	LOCATION	204.0165 REMOVING GUARDRAIL LF
1000	**PROJECT ID 1107-00-71**					
	IH 41	1629+19		1632+64	NB	345
		1631+21		1632+64	SB	143
		1632+96		1637+16	SB	420
	CONTRACT TOTAL:					908

BASE AGGREGATE ITEMS

CATEGORY	ROADWAY	STATION	TO	STATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	305.0500 SHAPING SHOULDERS STA
1000	**PROJECT ID 1100-27-70**						
	IH 41 NB SHOULDER	926+80	-	1808+00	3,545	--	--
	IH 41 SB SHOULDER	926+80	-	1808+00	2,464	--	--
1000	**PROJECT ID 1107-00-71**					--	
	IH 41 NB SHOULDER	694+66	-	1851+26	1,653	--	1,021
	IH 41 SB SHOULDER	694+66	-	1851+26	4,046	--	1,021
	MAINTENANCE CROSSOVER	1639+85	-	1640+15	816	101	--
	CONTRACT TOTAL:				12,524	101	2,042

3

FINISHING ROADWAY

CATEGORY	LOCATION	213.0100 FINISHING ROADWAY (1107-00-71) EACH
1000	**PROJECT ID 1107-00-71**	
	PROJECT	1
	CONTRACT TOTAL:	1

MAINTENANCE AND REPAIR

CATEGORY	LOCATION	618.0100 MAINTENANCE AND REPAIR OF HAUL ROADS EACH
1000	**PROJECT ID 1107-00-71**	
	PROJECT	1
	CONTRACT TOTAL:	1

SAWCUTTING ITEMS

CATEGORY	ROADWAY	STATION	TO	STATION	OFFSET	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
1000	**PROJECT ID 1107-00-71**								
	IH 41	694+66		1104+76	RT	856	11,412	1,758	17,117
		694+66		1104+76	LT	856	11,412	196	17,117
		1239+94		1851+26	RT	1,276	17,011	2,174	25,516
		1239+94		1851+26	LT	1,276	17,011	2,356	25,516
	CONTRACT TOTAL:					4,263	56,846	6,484	85,266

PAVEMENT REPAIR ITEMS

CATEGORY	ROADWAY	STATION	TO	STATION	OFFSET	390.0403 BASE PATCHING CONCRETE SHES SY	SPV.0060.06 MOBILIZATION EMERGENCY PAVEMENT REPAIR EACH
1000	**PROJECT ID 1107-00-71**						
	IH 41	694+66		1104+76	RT	5,706	--
		694+66		1104+76	LT	5,706	--
		1239+94		1851+26	RT	8,505	--
		1239+94		1851+26	LT	8,505	--
	UNDISTRIBUTED					1,421	10
	CONTRACT TOTAL:					29,843	10

ASPHALTIC PAVEMENT ITEMS

CATEGORY	ROADWAY	STATION	TO	STATION	455.0605 TACK COAT GAL	460.7424 HMA PAVEMENT 4 HT 58-28 H TON	465.0105 ASPHALTIC SURFACE TON	465.0400 ASPHALTIC SHOULDER RUMBLE STRIPS LF
1000	**PROJECT ID 1107-00-71**							
	IH 41 NB	694+66	-	1104+76	4,141	19,875	--	76,444
	IH 41 SB	694+66	-	1104+76	4,209	20,202	--	78,385
	IH 41 NB	1239+94	-	1851+26	6,100	29,279	20	114,442
	IH 41 SB	1239+94	-	1851+26	6,191	29,716	20	113,630
	CONTRACT TOTAL:				20,640	99,071	40	382,901

MOBILIZATION

CATEGORY	LOCATION	619.1000 MOBILIZATION EACH
1000	**PROJECT ID 1100-27-70**	
	PROJECT	0.08
1000	**PROJECT ID 1107-00-71**	
	PROJECT	0.8
	CONTRACT TOTAL:	0.88

WATER

CATEGORY	LOCATION	624.0100 WATER MGAL
1000	**PROJECT ID 1100-27-70**	
	UNDISTRIBUTED	90
1000	**PROJECT ID 1107-00-71**	
	UNDISTRIBUTED	99
	CONTRACT TOTAL:	189

FIELD OFFICE

CATEGORY	LOCATION	SPV.0060.01 FIELD FACILITIES OFFICE SPACE EACH
1000	**PROJECT ID 1100-27-70**	
	PROJECT	0.08
1000	**PROJECT ID 1107-00-71**	
	PROJECT	0.8
	CONTRACT TOTAL:	0.88

UTILITY LINE OPENING

CATEGORY	STAGE	LOCATION	SPV.0060.05 UTILITY LINE OPENING EACH
1000	ALL	**PROJECT ID 1100-27-70**	4
1000	ALL	**PROJECT ID 1107-00-71**	7
		CONTRACT TOTAL:	11

CPM SCHEDULE

CATEGORY	LOCATION	SPV.0060.09 BASELINE CPM PROGRESS SCHEDULE EACH	SPV.0060.10 MONTHLY CPM PROGRESS SCHEDULE UPDATE EACH
1000	**PROJECT ID 1100-27-70**		
	PROJECT	0.08	9
1000	**PROJECT ID 1107-00-71**		
	PROJECT	0.8	12
	CONTRACT TOTAL:	0.88	21

SURVEY PROJECT

CATEGORY	STAGE	LOCATION	SPV.0105.02 SURVEY PROJECT (1100-27-70) LS	SPV.0105.03 SURVEY PROJECT (1107-00-71) LS
1000	ALL	PROJECT	1	1
		CONTRACT TOTAL:	1	1

3

CABLE BARRIER ITEMS

CATEGORY	ROADWAY	STATION		TO STATION	LOCATION	* 613.1100.S CABLE BARRIER TYPE 1 LF	613.1200.S CABLE BARRIER END TERMINAL TYPE 1 EACH	SPV.0060.04 CORE DRILLING FOR 14-INCH DIAMETER CABLE BARRIER POST EACH	SPV.0060.08 INSTALLING COUNTY FURNISHED CABLE BARRIER END TERMINAL TYPE 1 EACH
1000	**PROJECT ID 1100-27-70**								
	IH 41	926+80	-	1002+58	SB	7,516	2	--	--
		1130+17	-	1165+92	NB	3,513	2	--	--
		1170+51	-	1209+74	SB	3,861	2	--	--
		1210+26	-	1281+75	NB	7,087	2	8	--
		1236+00	-	1247+25	SB	1,063	2	--	--
		1547+88	-	1625+84	NB	7,734	2	--	--
		1640+30	-	1816+78	NB	17,586	2	8	--
		1677+00	-	1808+00	SB	13,038	2	8	--
	SUBTOTAL					61,398	16	24	0
1000	**PROJECT ID 1107-00-71**								
	IH 41	769+11	-	782+14	SB	1,241	2	--	--
		782+72	-	879+50	SB	9,616	2	3	--
		805+00	-	925+95	NB	12,033	--	3	2
		1003+19	-	1039+23	NB	3,542	--	--	2
		1039+86	-	1129+55	SB	8,907	--	--	2
		1048+00	-	1060+75	NB	1,213	--	--	2
		1273+63	-	1366+56	SB	9,231	--	16	2
		1455+34	-	1547+27	SB	9,131	--	8	2
		1817+49	-	1851+26	SB	3,315	--	--	2
	SUBTOTAL					58,229	4	30	14
	PROJECT ID 1100-27-70 TOTAL					61,398	16	24	0
	PROJECT ID 1107-00-71 TOTAL					58,229	4	30	14
	CONTRACT TOTAL:					119,627	20	54	14

*MEASUREMENT FOR CABLE BARRIER SHALL NOT INCLUDE THE LENGTH OF THE END TERMINAL.
ASSUMED CABLE BARRIER END TERMINAL LENGTH IS 31 FT.

GUARDRAIL ITEMS

CATEGORY	ROADWAY	STATION	TO	STATION	LOCATION	614.0010 BARRIER SYSTEM GRADING SHAPING FINISHING EACH	614.0396 GUARDRAIL MOW STRIP ASPHALT SY	614.2300 MGS GUARDRAIL 3 LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	614.2620 MGS GUARDRAIL TERMINAL TYPE 2 EACH
1000	**PROJECT ID 1107-00-71**										
		1017+50		1019+50	SB	1	21	147	--	1	1
		1360+75		1362+75	NB	1	21	147	--	1	1
		1436+09		1446+02	SB	1	--	954	39	--	1
		1436+09		1443+39	NB	1	21	677	--	1	--
		1449+33		1454+75	SB	1	21	489	--	1	--
		1446+30		1454+75	NB	1	--	806	39	--	1
		1625+00		1632+64	SB	1	--	725	39	--	1
		1625+00		1632+64	NB	1	21	671	39	1	--
		1632+96		1639+70	SB	1	21	581	39	1	--
		1632+96		1639+70	NB	1	--	635	39	--	1
	CONTRACT TOTAL:					10	124	5,831	236	6	6

BARRIER SYSTEM GRADING SHAPING FINISHING (FOR INFORMATION ONLY)

ROADWAY	STATION	TO	STATION	LOCATION	*BORROW CY	*FERTILIZER TYPE B CWT	*SEEDING MIX NO. 30 LB	*SEEDING TEMPORARY LB	*HYDRO MULCH SY
IH 41									
	1017+50		1019+50	SB	24	0.09	3	4	144
	1360+75		1362+75	NB	15	0.06	2	2	89
	1436+09		1446+02	SB	111	0.42	12	18	667
	1436+09		1443+39	NB	52	0.20	6	8	311
	1449+33		1454+75	SB	115	0.43	12	19	689
	1446+30		1454+75	NB	100	0.38	11	16	600
	1625+00		1632+64	SB	75	0.28	8	12	451
	1625+00		1632+64	NB	94	0.35	10	15	562
	1632+96		1639+70	SB	76	0.29	8	12	456
	1632+96		1639+70	NB	76	0.29	8	12	456
TOTAL:					737	3	80	119	4,424

*ITEMS & QUANTITIES LISTED FOR BID INFORMATION ONLY

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STORM SEWER SUMMARY

CATEGORY	ROADWAY	STRUCTURE NO.	STATION	LOCATION	GRATE ELEV	** DEPTH FT	204.0245.01 REMOVING STORM SEWER 12-INCH LF	204.0245.02 REMOVING STORM SEWER 15-INCH LF	204.0245.03 REMOVING STORM SEWER 18-INCH LF	520.8000 CONCRETE COLLARS FOR PIPE EACH	522.0112 CULVERT PIPE REINFORCED CONCRETE CLASS III 12-INCH LF	522.0115 CULVERT PIPE REINFORCED CONCRETE CLASS III 15-INCH LF	522.0118 CULVERT PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	611.0642 INLET COVERS TYPE MS EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	FROM	TO	SLOPE	** INLET ELEV	** DISCH. ELEV
1000	**PROJECT ID 1100-27-70**																			
	IH 41	EXIST	1515+34	6.89' LT	--	--	--	--	7	1	--	--	--	--	--					
		12	1515+34	3.11' LT	957.32	2.0	--	--	--	--	--	--	4	1	1	12	EXIST	955.32	955.29
		EXIST	1561+88	8.46' LT	--	--	--	7	--	1	--	--	--	--	--					
		13	1561+88	2.11' LT	972.12	1.9	--	--	--	--	--	7	--	1	1	13	EXIST	970.26	970.20
		EXIST	1568+85	1.77' LT	--	--	--	7	--	1	--	--	--	--	--					
		14	1568+85	7.00' RT	993.99	1.9	--	--	--	--	--	9	--	1	1	14	EXIST	992.05	991.96
		EXIST	1587+89	7.60' LT	--	--	--	7	--	1	--	--	--	--	--					
		15	1587+89	2.5' LT	1023.26	1.9	--	--	--	--	--	6	--	1	1	15	EXIST	1021.40	1021.35
		EXIST	1593+83	8.80' LT	--	--	--	7	--	1	--	--	--	--	--					
		16	1593+83	2.00' LT	1007.88	1.9	--	--	--	--	--	7	--	1	1	16	EXIST	1006.03	1005.96
	SUBTOTAL						0	28	7	5	0	29	4	5	5					
1000	**PROJECT ID 1107-00-71**																			
	IH 41	EXIST	1093+23	2.72' RT	--	--	7	--	--	1	--	--	--	--	--					
		10	1093+23	2.38' LT	1083.33	2.2	--	--	--	--	6	--	--	1	1	10	EXIST	1081.16	1081.11
		EXIST	1342+86	3.03' LT	--	--	7	--	--	1	--	--	--	--	--					
		11	1342+86	0.56' LT	969.03	1.7	--	--	--	--	3	--	--	1	1	11	EXIST	967.37	967.34
	SUBTOTAL						14	0	0	2	9	0	0	2	2					
	PROJECT ID 1100-27-70 TOTAL						0	28	7	5	0	29	4	5	5					
	PROJECT ID 1107-00-71 TOTAL						14	0	0	2	9	0	0	2	2					
	CONTRACT TOTAL:						14	28	7	7	9	29	4	7	7					

NOTE:

INLET OFFSETS ARE TO CENTER OF STRUCTURE

GRATE ELEVATIONS ARE TO CENTER OF INLET COVER

INLET DEPTHS ARE MEASURED FROM TOP OF INLET COVER TO INVERT

** TO BE VERIFIED BY ENGINEER

STORM SEWER ADJUSTMENTS

CATEGORY	ROADWAY	STATION	TO STATION	LOCATION	611.0430 RECONSTRUCTING INLETS EACH	611.9710 SALVAGED INLET COVERS EACH	SPV.0060.07 ADJUSTING INLETS SPECIAL EACH
1000	**PROJECT ID 1100-27-70**						
	IH 41	926+93	1002+53	LT/RT	--	1	1
		1130+17	1250+00	LT/RT	--	4	4
		1502+94	1628+46	LT/RT	4	11	5
		1696+00	1816+78	LT/RT	1	2	--
	SUBTOTAL				5	18	10
1000	**PROJECT ID 1107-00-71**						
	IH 41	694+66	926+93	LT/RT	--	4	3
		1002+53	1130+17	LT/RT	1	3	2
		1250+00	1502+94	LT/RT	5	23	14
		1628+46	1696+00	LT/RT	--	3	3
		1816+78	1851+26	LT/RT	1	3	2
	SUBTOTAL				7	36	24
	PROJECT ID 1100-27-70 TOTAL				5	18	10
	PROJECT ID 1107-00-71 TOTAL				7	36	24
	CONTRACT TOTAL:				12	54	34

PIPE UNDERDRAIN

CATEGORY	ROADWAY	STATION	OFFSET	612.0206 PIPE UNDERDRAIN UNPERFORATED 6-INCH LF	612.0806 APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH EACH
1000	**PROJECT ID 1100-27-70**				
	IH 41	1132+96	5.6' LT	4	1
		1133+44	2.6' RT	4	1
		1219+44	6.0' LT	4	1
		1219+44	4.9' RT	4	1
		1223+34	7.4' RT	4	1
		1231+46	6.0' LT	4	1
		1231+46	4.6' RT	4	1
		1235+43	7.5' LT	4	1
		1235+43	5.0' RT	4	1
	SUBTOTAL			36	9
1000	**PROJECT ID 1107-00-71**				
	IH 41	1123+46	6.1' LT	4	1
		1123+46	5.8' RT	4	1
		1126+45	6.2' LT	4	1
		1128+44	5.0' RT	4	1
		1128+95	5.4' LT	4	1
	SUBTOTAL			20	5
	PROJECT ID 1100-27-70 TOTAL			36	9
	PROJECT ID 1107-00-71 TOTAL			20	5
	CONTRACT TOTAL:			56	14

EROSION CONTROL ITEMS

CATEGORY	ROADWAY	STATION	TO STATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.2004 EROSION MAT CLASS I TYPE B SY	628.7504 TEMPORARY DITCH CHECKS LF	628.7570 ROCK BAGS EACH	SPV.0090.03 HEAVY DUTY SILT FENCE LF	SPV.0180.01 HYDRO MULCH SY
1000	**PROJECT ID 1100-27-70**									
	IH 41	927+25	947+75	--	--	1,845	41	--	--	6,812
		961+25	1002+53	--	--	3,670	83	--	--	13,760
		1130+35	1160+00	--	--	2,633	59	--	--	9,887
		1170+75	1174+00	--	--	289	7	--	--	1,084
		1188+00	1189+50	--	--	134	3	--	--	500
		1198+25	1209+60	--	--	1,010	23	--	--	3,783
		1210+50	1236+00	--	--	2,267	51	--	--	8,500
		1503+25	1546+75	--	--	3,867	87	--	--	14,500
		1548+25	1591+25	--	--	3,823	86	--	--	14,333
		1593+75	1625+25	--	--	2,798	63	--	136	10,503
		1807+75	1816+50	--	--	778	18	--	--	2,917
	UNDISTRIBUTED			5	5	5,779	127	13	34	21,212
	SUBTOTAL			5	5	28,893	647	13	170	107,791
1000	**PROJECT ID 1107-00-71**									
	IH 41	767+26	779+00	--	--	1,044	23	--	--	3,914
		783+00	806+00	--	--	2,045	46	--	--	7,667
		879+00	882+50	--	--	312	7	--	--	1,167
		887+00	925+75	--	--	3,445	78	--	--	12,917
		1003+50	1018+00	--	--	1,293	29	--	--	4,830
		1019+25	1033+74	--	--	1,292	29	--	--	4,826
		1040+00	1048+50	--	--	756	17	--	--	2,834
		1060+75	1075+75	--	--	1,334	30	--	--	5,000
		1081+25	1102+00	--	--	1,845	42	--	--	6,917
		1109+25	1129+25	--	--	1,778	40	--	--	6,667
		1247+00	1279+75	--	--	2,920	66	--	--	10,909
		1281+25	1348+50	--	--	5,976	135	--	--	22,419
		1350+25	1361+00	--	--	956	22	--	--	3,584
		1362+50	1365+00	--	--	223	5	--	--	834
		1455+75	1468+00	--	--	1,089	25	--	--	4,084
		1470+50	1502+00	--	--	2,800	63	--	--	10,500
		1637+00	1678+00	--	--	3,645	82	--	--	13,667
		1817+85	1851+00	--	--	2,947	66	--	--	11,050
	UNDISTRIBUTED			13	13	8,925	197	13	0	32,778
	SUBTOTAL			13	13	44,625	999	13	0	166,564
	PROJECT ID 1100-27-70 TOTAL			5	5	28,893	647	13	170	107,791
	PROJECT ID 1107-00-71 TOTAL			13	13	44,625	999	13	0	166,564
	CONTRACT TOTAL:			18	18	73,518	1,646	26	170	274,354

INLET PROTECTION

CATEGORY	ROADWAY	STATION	TO	STATION	LOCATION	628.7005 INLET PROTECTION TYPE A EACH	628.7020 INLET PROTECTION TYPE D EACH
1000	**PROJECT ID 1100-27-70**						
	IH-41	926+93		1002+53	LT/RT	12	--
		1130+17		1250+00	LT/RT	19	--
		1502+94		1628+46	LT/RT	18	--
		1696+00		1816+78	LT/RT	17	--
	UNDISTRIBUTED					17	--
	SUBTOTAL					83	0
1000	**PROJECT ID 1107-00-71**						
	IH 41	694+66		926+93	LT/RT	14	--
		1002+53		1130+17	LT/RT	20	--
		1250+00		1502+94	LT/RT	26	29
		1628+46		1696+00	LT/RT	9	--
		1816+78		1851+26	LT/RT	--	--
	UNDISTRIBUTED					17	7
	SUBTOTAL					86	36
	PROJECT ID 1100-27-70 TOTAL					83	0
	PROJECT ID 1107-00-71 TOTAL					86	36
	CONTRACT TOTAL:					169	36

CULVERT PIPE CHECKS

CATEGORY	ROADWAY	STATION	TO	STATION	628.7555 CULVERT PIPE CHECKS EACH
1000	**PROJECT ID 1100-27-70**				
	IH 41	926+93		1002+53	1
		1130+17		1250+00	15
		1502+94		1628+46	13
		1696+00		1816+78	13
	UNDISTRIBUTED				10
	SUBTOTAL				52
1000	**PROJECT ID 1107-00-71**				
	IH 41	694+66		926+93	28
		1002+53		1130+17	9
		1250+00		1502+94	5
		1628+46		1696+00	--
		1816+78		1851+26	--
	UNDISTRIBUTED				11
	SUBTOTAL				53
	PROJECT ID 1100-27-70 TOTAL				52
	PROJECT ID 1107-00-71 TOTAL				53
	CONTRACT TOTAL:				105

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RESTORATION ITEMS

CATEGORY	ROADWAY	STATION	TO	STATION	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0200 SEEDING TEMPORARY LB
1000	**PROJECT ID 1100-27-70**						
	IH 41	927+25		947+75	5.5	156	234
		961+25		1002+53	11.0	314	471
		1130+35		1160+00	7.9	225	338
		1170+75		1174+00	0.9	25	37
		1188+00		1189+50	0.4	11	17
		1198+25		1209+60	3.1	86	129
		1210+50		1236+00	6.8	194	291
		1503+25		1546+75	11.6	331	496
		1548+25		1591+25	11.5	327	490
		1593+75		1625+25	8.4	239	359
		1807+75		1816+50	2.4	67	100
	UNDISTRIBUTED				14	395	592
	SUBTOTAL				83	2,369	3,554
1000	**PROJECT ID 1107-00-71**						
	IH 41	767+26		779+00	3.2	89	134
		783+00		806+00	6.2	175	262
		879+00		882+50	1.0	27	40
		887+00		925+75	10.4	295	442
		1003+50		1018+00	3.9	110	165
		1019+25		1033+74	3.9	110	165
		1040+00		1048+50	2.3	65	97
		1060+75		1075+75	4.0	114	171
		1081+25		1102+00	5.6	158	237
		1109+25		1129+25	5.4	152	228
		1247+00		1279+75	8.8	249	373
		1281+25		1348+50	17.9	511	767
		1350+25		1361+00	2.9	82	123
		1362+50		1365+00	0.7	19	29
		1455+75		1468+00	3.3	93	140
		1470+50		1502+00	8.4	239	359
		1637+00		1678+00	11.0	312	467
		1817+85		1851+00	8.9	252	378
	UNDISTRIBUTED				22	610	915
	SUBTOTAL				129	3,661	5,491
	PROJECT ID 1100-27-70 TOTAL				83	2,369	3,554
	PROJECT ID 1107-00-71 TOTAL				129	3,661	5,491
	CONTRACT TOTAL:				213	6,030	9,045

Division PROJECT 1100-27-70	From/To Station	205.0100 Common Excavation (CY) (1)	Unexpanded Fill (CY)	Expanded Fill (CY) Factor = 1.20 (2)	Mass Ordinate +/- (CY) (3)	Borrow (CY) (4)
IH 41	926+00/1003+00	1,023	1,214	1,457	-434	434
	1131+00/1282+00	1,794	1,795	2,154	-360	360
	1548+00/1817+00	1,918	4,026	4,832	-2,914	2,914
PROJECT SUBTOTAL PROJECT 1107-00-71		4,736	7,036	8,443	-3,707	3,707
IH 41	768+00/926+00	1,892	2,045	2,454	-562	562
	1003+00/1131+00	1,549	2,292	2,750	-1,202	1,202
	1282+00/1367+00	1,177	3,210	3,852	-2,675	2,675
	1455+00/1548+00	948	4,323	5,187	-4,240	4,240
	1817+00-1852+00	769	803	963	-194	194
PROJECT SUBTOTAL		6,335	12,673	15,207	-8,872	8,872
GRAND TOTAL		11,071	19,708	23,650	-12,579	12,579

Notes:

(1) Salvaged/Unsuable Pavement Material is included in Common Excavation

(2) Expanded Fill Factor = 1.2

Depending on selections: **Expanded Fill = (Unexpanded Fill - Expanded Rock - Reduced Marsh - Reduced EBS) * Fill Factor**

Expanded Fill = (Unexpanded Fill - Expanded Rock - Reduced EBS) * Fill Factor

Expanded Fill = (Unexpanded Fill - Expanded Rock - Reduced Marsh) * Fill Factor

Expanded Fill = (Unexpanded Fill - Expanded Rock) * Fill Factor

(3) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

(4) Borrow paid under 625.0105 Topsoil with additional quantities found elsewhere

TRAFFIC CONTROL

CATEGORY	STAGE	LOCATION	643.5000 TRAFFIC CONTROL EACH
1000	ALL	**PROJECT 1100-27-70**	0.08
1000	ALL	**PROJECT 1107-00-71**	0.8
		CONTRACT TOTAL:	0.88

TRAFFIC CONTROL CLOSURES

CATEGORY	STAGE	LOCATION	SPV.0060.02 TRAFFIC CONTROL CLOSE-OPEN FREEWAY ENTRANCE RAMP EACH	SPV.0060.03 TRAFFIC CONTROL INTERIM FREEWAY LANE CLOSURE EACH
1000	ALL	**PROJECT ID 1100-27-70**	--	66
1000	ALL	**PROJECT ID 1107-00-71**	110	434
		CONTRACT TOTAL:	110	500

PORTABLE SPEED TRAILER

CATEGORY	STAGE	LOCATION	SPV.0045.01 PORTABLE SPEED TRAILER DAY
1000	ALL	**PROJECT ID 1100-27-70**	130
1000	ALL	**PROJECT ID 1107-00-71**	364
		CONTRACT TOTAL:	494

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TRAFFIC CONTROL ITEMS

CATEGORY	STAGE	LOCATION	STATION	TO	STATION	STAGE DURATION	643.0300 TRAFFIC CONTROL DRUMS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C	643.0800 TRAFFIC CONTROL ARROW BOARDS	643.0900 TRAFFIC CONTROL SIGNS	643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE I			643.1050 TRAFFIC CONTROL SIGNS PCMS	643.1070 TRAFFIC CONTROL CONES 42-INCH	643.1200.S PORTABLE AUTOMATED REAL-TIME TRAFFIC QWS
						DAYS	DAY	DAY	DAY	DAY	DAY	DAY	# SIGNS	# CYCLES	EACH	DAY	DAY	DAY
1000	1	**PROJECT ID 1100-27-70**																
		IH 41 NB	926+80	-	1816+78	10	439	20	41	163	20	286	1	1	1	5	2,166	40
		IH 41 SB	926+80	-	1816+78	4	171	8	16	64	8	111	1	1	1	2	842	16
		SUBTOTAL					610	28	57	227	28	397			2	7	3,008	56
1000	1	**PROJECT ID 1107-00-71**																
		IH 41 NB	694+66	-	1851+26	19	809	38	75	301	38	527	1	1	1	10	3,988	76
		IH 41 SB	694+66	-	1851+26	0	--	--	--	--	--	--	--	--	--	--	--	--
		SUBTOTAL					809	38	75	301	38	527			1	10	3,988	76
		STAGE 1 TOTAL:					1,419	66	132	528	66	924			3	17	6,996	132
1000	2A	**PROJECT ID 1107-00-71**																
		IH 41 NB	694+66	-	1851+26	10	630	70	112	198	26	579	18	1	18	5	2,120	40
		IH 41 SB	694+66	-	1851+26	10	630	70	112	198	26	579	18	1	18	5	2,120	40
		STAGE 2A TOTAL:					1,260	140	224	396	52	1,158			24	10	4,240	80
1000	2B	**PROJECT ID 1100-27-70**																
		IH 41 NB	926+80	-	1816+78	26	1,161	54	108	432	54	432	2	1	2	13	5,724	104
		IH 41 SB	926+80	-	1816+78	10	452	21	42	168	21	168	2	1	2	5	2,226	40
		SUBTOTAL					1,613	75	150	600	75	600			4	18	7,950	144
1000	2B	**PROJECT ID 1107-00-71**																
		IH 41 NB	694+66	-	1851+26	25	1,052	49	98	391	49	391	7	1	7	13	5,184	100
		IH 41 SB	694+66	-	1851+26	37	1,550	72	144	577	72	577	7	1	7	19	7,642	148
		SUBTOTAL					2,602	121	242	968	121	968			14	32	12,826	248
		STAGE 2B TOTAL:					4,214	196	392	1,568	196	1,568			18	50	20,776	392
1000	2C	**PROJECT ID 1107-00-71**																
		IH 41 NB	694+66	-	1851+26	23	1,449	161	276	455	60	1,332	12	1	12	12	4,876	92
		IH 41 SB	694+66	-	1851+26	23	1,449	161	276	455	60	1,332	12	1	12	12	4,876	92
		STAGE 2C TOTAL:					2,898	322	552	911	120	2,663			24	24	9,752	184
		PROJECT ID 1100-27-70					2,223	103	207	827	103	997	--	--	6	25	10,958	200
		UNDISTRIBUTED					560	30	55	210	30	250	--	--	2	15	2,740	50
		GRAND TOTAL:					2,783	133	262	1,037	133	1,247			8	40	13,698	250
		PROJECT ID 1107-00-71					7,568	621	1,093	2,576	330	5,316	--	--	63	76	30,806	588
		UNDISTRIBUTED					1,895	160	275	645	85	1,330	--	--	20	40	7,705	150
		GRAND TOTAL:					9,463	781	1,368	3,221	415	6,646			83	116	38,511	738
		CONTRACT TOTAL:					12,246	914	1,630	4,258	549	7,893			91	156	52,209	988

PAVEMENT MARKING ITEMS

CATEGORY	LOCATION	STATION	TO	STATION	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH WHITE LF	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH YELLOW LF	646.1555 MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH (DASHED WHITE) 12.5 FT LINE 37.5 FT SKIP WHITE LF	646.1555 MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH (DASHED WHITE) 3 FT LINE 9 FT SKIP WHITE LF	646.3020 MARKING LINE EPOXY 8-INCH 3 FT LINE 9 FT SKIP WHITE LF	646.3020 MARKING LINE EPOXY 8-INCH WHITE LF	646.3555 MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH 3 FT LINE 9 FT SKIP WHITE LF	646.3555 MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH WHITE LF	646.5020 MARKING ARROW EPOXY WHITE EACH	646.5120 MARKING WORD EPOXY WHITE EACH	646.6120 MARKING STOP LINE EPOXY 18-INCH WHITE LF	646.7220 MARKING CHEVRON EPOXY 24-INCH WHITE LF
1000	**PROJECT ID 1107-00-71**															
	IH 41	694+66		1104+76	104,002	94,106	20,498	319	19	494	649	10,616	20	7	90	683
		1104+76		1239+94	32,450	32,559	6,759	88	--	234	--	6,201	6	--	60	570
		1239+94		1851+26	133,246	133,373	30,567	185	--	241	--	14,832	10	--	160	792
	SUBTOTALS				269,698	260,038	57,824	592	19	969	649	31,649	36	7	310	2,045
	CONTRACT TOTAL:				529,736		58,416		988		32,298		36	7	310	2,045

TEMPORARY PAVEMENT MARKING ITEMS

CATEGORY	ROADWAY	STATION	TO	STATION	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH LF	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH LF
1000	**PROJECT ID 1100-27-70**					
	IH 41	926+80	-	1816+78	--	10,595
1000	**PROJECT ID 1107-00-71**					
	IH 41	694+66	-	1851+26	560,989	42,379
	CONTRACT TOTAL:				560,989	52,974

3

PWL MIXTURE USE TABLE

Roadway	Location	Station	Mixture Use	Underlying Surface	Bid Item	Tons	Thickness	Quality Management Program to be used for:	
								Mixture Acceptance	Density Acceptance
IH 41 NB	24 foot Driving Lane	694+66 to 1104+76	Upper Layer	Milled Existing HMA Surface	4 HT 58-28 H	14,176	2"	PWL Incentive Air Voids HMA Pavement 460.2010	Incentive Density PWL HMA Pavement 460.2005
IH 41 SB	24 foot Driving Lane	694+66 to 1104+76	Upper Layer	Milled Existing HMA Surface	4 HT 58-28 H	14,449	2"	PWL Incentive Air Voids HMA Pavement 460.2010	Incentive Density PWL HMA Pavement 460.2005
IH 41 NB	24 foot Driving Lane	1239+94 to 1851+26	Upper Layer	Milled Existing HMA Surface	4 HT 58-28 H	19,961	2"	PWL Incentive Air Voids HMA Pavement 460.2010	Incentive Density PWL HMA Pavement 460.2005
IH 41 SB	24 foot Driving Lane	1239+94 to 1851+26	Upper Layer	Milled Existing HMA Surface	4 HT 58-28 H	20,074	2"	PWL Incentive Air Voids HMA Pavement 460.2010	Incentive Density PWL HMA Pavement 460.2005
IH 41 NB	11 foot shoulder	694+66 to 1104+76	Upper Layer	Milled Existing HMA Surface	4 HT 58-28 H	5,699	2"	PWL Incentive Air Voids HMA Pavement 460.2010	Acceptance testing by the department; not eligible for incentive
IH 41 SB	11 foot shoulder	694+66 to 1104+76	Upper Layer	Milled Existing HMA Surface	4 HT 58-28 H	5,753	2"	PWL Incentive Air Voids HMA Pavement 460.2010	Acceptance testing by the department; not eligible for incentive
IH 41 NB	11 foot shoulder	1239+94 to 1851+26	Upper Layer	Milled Existing HMA Surface	4 HT 58-28 H	9,318	2"	PWL Incentive Air Voids HMA Pavement 460.2010	Acceptance testing by the department; not eligible for incentive
IH 41 SB	11 foot shoulder	1239+94 to 1851+26	Upper Layer	Milled Existing HMA Surface	4 HT 58-28 H	9,642	2"	PWL Incentive Air Voids HMA Pavement 460.2010	Acceptance testing by the department; not eligible for incentive

TYPE II PERMANENT SIGNING

1107-00-71

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	**637.2210** SIGNS TYPE II REFLECTIVE H (SF)	**637.2230** SIGNS TYPE II RELFECTIVE F [SF]	**638.3000** REMOVING SMALL SIGN SUPPORTS [EA]	**638.2102** MOVING SIGNS TYPE II [EA]	**638.2602** REMOVING SIGNS TYPE II (EA)	**634.0618** POSTS WOOD 4" X 6" X 18' [EA]	**634.0622** POSTS WOOD 4" X 6" X 22' (EA)	**634.0885** POSTS TUBULAR STEEL 2" X 2" X 8.5 [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
NA	D10-5	ENHANCED REFERENCE SIGNS			113.000	113		113				MOVING EXISTING SIGNS FOR CABLEGUARD WORK
NA	R3-4	NO U TURN			27.000	27			27			MOVING EXISTING SIGNS FOR CABLEGUARD WORK
	R3-4A	EXCEPT EMERGENCY AND MAINTENANCE VEHICLES				27						MOVING EXISTING SIGNS FOR CABLEGUARD WORK/ SIGN PLAQUE UNDER R3-4
NA	R4-3	SLOWER TRAFFIC KEEP RIGHT			3.000	3			3			MOVING EXISTING SIGNS FOR CABLGUARD WORK
UNDISTRIBUTED			100.000	20.000	5.000	5	5	10	5	5		FOR AREA WHERE THE D10-5'S ARE MOUNTED ON TOP OF MEDIAN BARRIER WALL
TOTALS			100.000	20.000	148.000	175	5	123	35	5	--	--

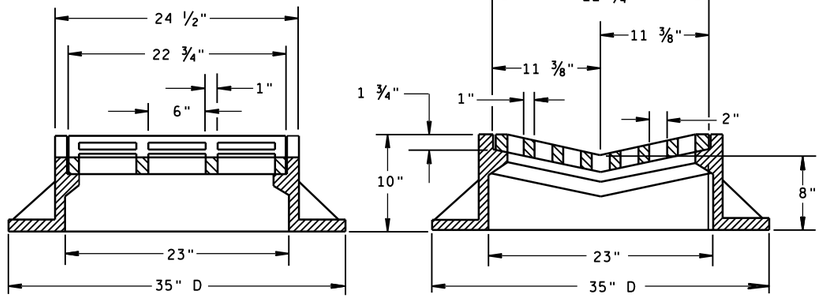
NOTE: CONTRACTOR SHALL TAKE INVENTORY OF ALL SIGNS IMPACTED BY THE WORK AND NOTE THE LOCATION OF THE SIGNS WITH PAINT ON THE SHOULDER AND NOTE SIGN MESSAGE AND CODE IN THE PRESENCE OF THE PROJECT ENGINEER FOR REINSTALLATION AT COMPLETION OF PROJECT.

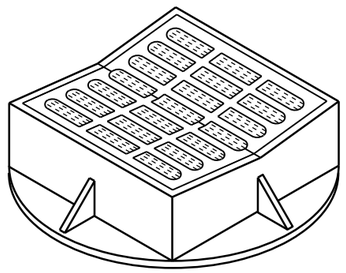
NOTE: IMPACTED SIGNS ARE IN THE MEDIAN. IF ANY SIGNS IMPACTED ON OUTSIDE SHOULDER, NOTE THOSE AS WELL

Standard Detail Drawing List

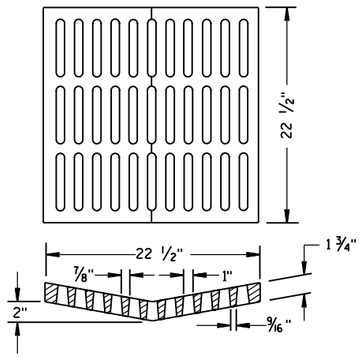
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08C08-02	INLETS MEDIAN 1 AND 2 GRATE
08D02-06	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D14-01	SLOTTED VANE DRAIN
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F06-04	REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN
11A01-05	MAINTENANCE CROSSOVER FOR FREEWAYS
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
13C11-12A	RURAL DOWELED CONCRETE PAVEMENT
13C11-12B	RURAL DOWELED CONCRETE PAVEMENT
13C14-07A	BASE PATCHING CONCRETE
13C14-07B	BASE PATCHING CONCRETE
13C14-07C	BASE PATCHING CONCRETE
14B28-03	GUARDRAIL MOW STRIP
14B29-01	SAFETY EDGE
14B42-06A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B47-02A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-02B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B52-01A	CABLE BARRIER TYPE 1 LAYOUT
14B52-01B	CABLE BARRIER TYPE 1 LAYOUT
15C02-07D	ON RAMP LANE CLOSURE
15C02-07E	OFF RAMP LANE CLOSURE
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C07-14A	PAVEMENT MARKING SYMBOLS
15C07-14B	PAVEMENT MARKING WORDS
15C07-14C	PAVEMENT MARKING ARROWS
15C07-14D	ROUNDABOUT ARROWS
15C08-19A	LONGITUDINAL MARKING (MAINLINE)
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C19-05C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C31-03A	PAVEMENT MARKING (RAMPS AND GORES)
15C31-03B	PAVEMENT MARKING MAJOR SPLIT FREEWAY TO FREEWAY
15C31-03C	PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP
15C33-03	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D03-05	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER
15D12-07A	TRAFFIC CONTROL, LANE CLOSURE
15D12-07B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D12-07C	DYNAMIC LATE MERGE SYSTEM
15D16-04	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS

6



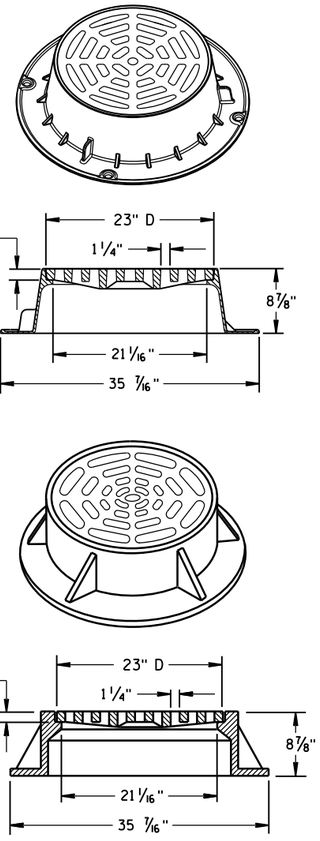


TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

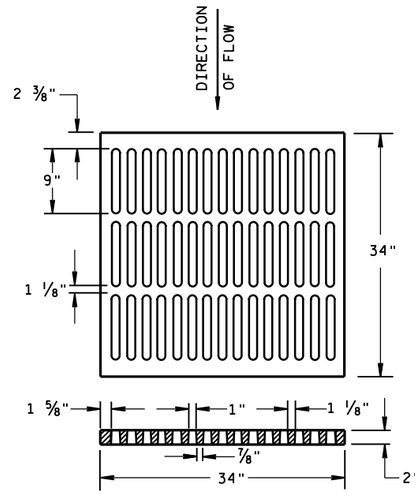
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

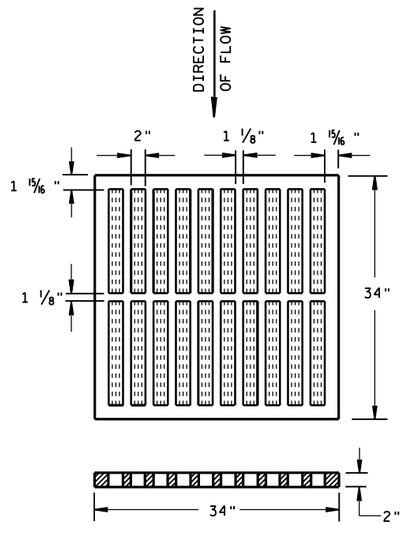
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



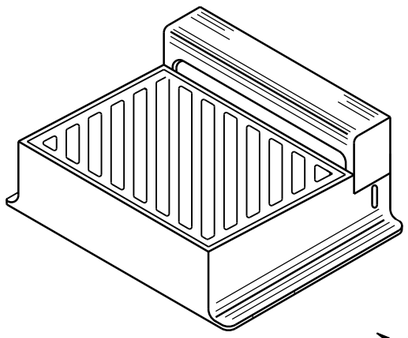
ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

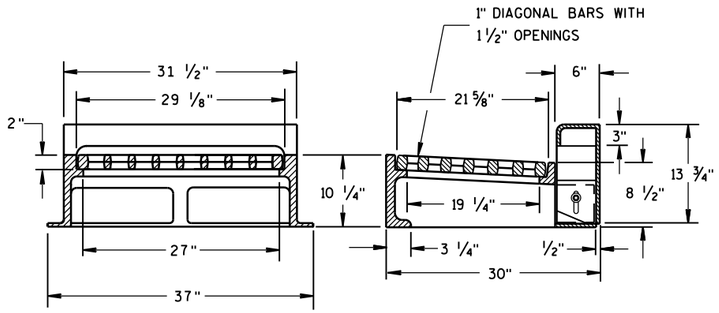


TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS
NOTED AS TYPE MS ON DRAINAGE TABLE



DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

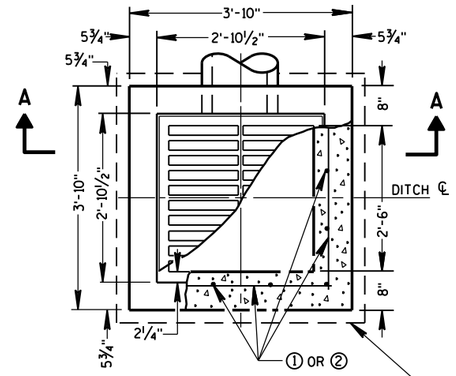
INLET COVERS
TYPE B, B-A, C,
MS, MS-A, & WM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

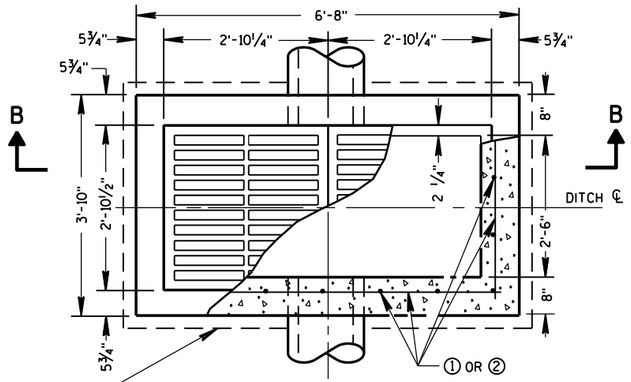
APPROVED
11/27/2013 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 A 5-19b

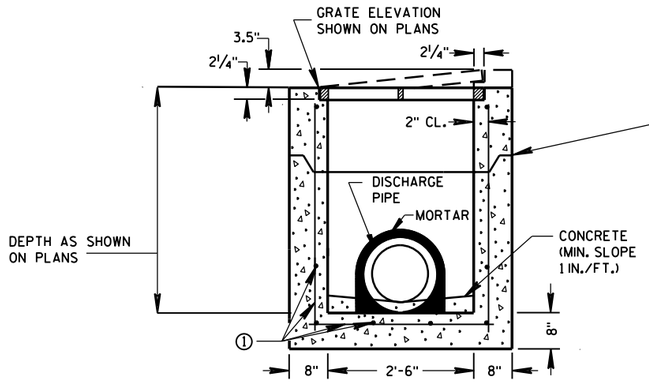


PLAN VIEW

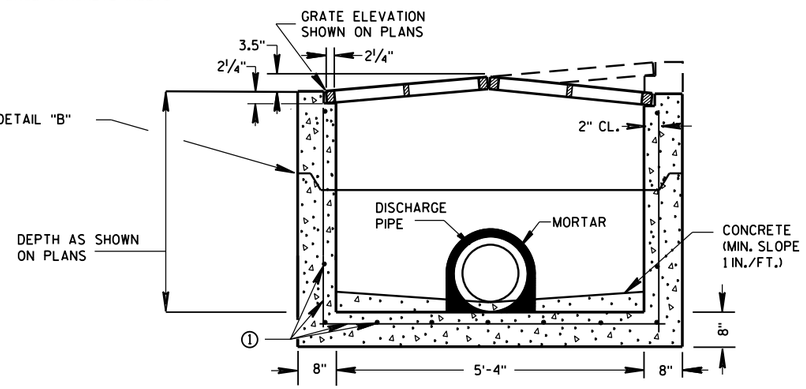


PLAN VIEW

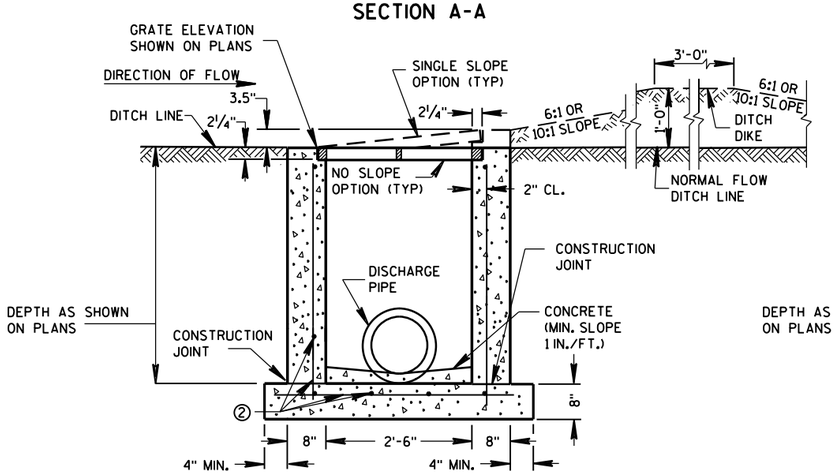
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



PRECAST REINFORCED CONCRETE SECTION A-A

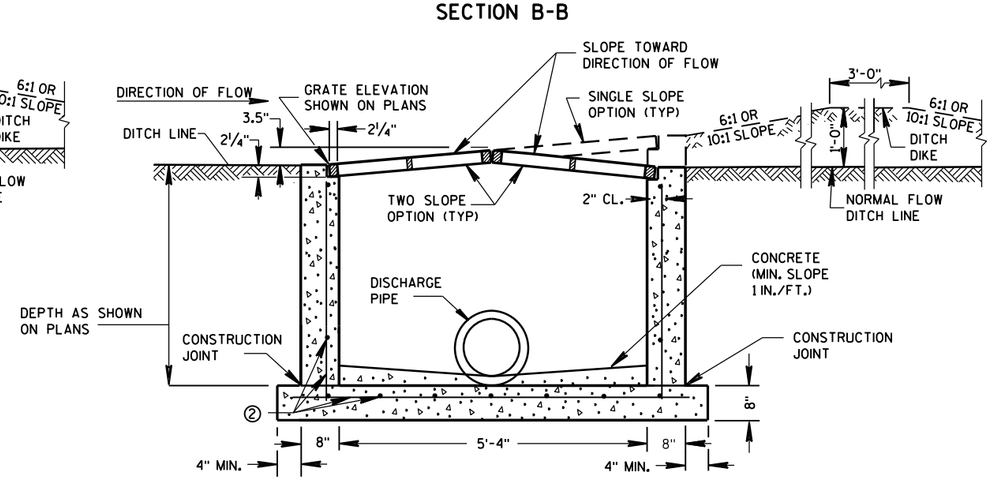


PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A

INLETS MEDIAN 1 GRATE



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

INLETS MEDIAN 2 GRATE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

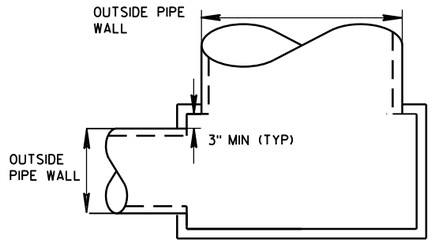
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

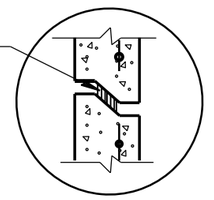
PIPE MATRIX

	MAXIMUM INSIDE PIPE DIAMETER	
INLET SIZE	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42



DETAIL "A"

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

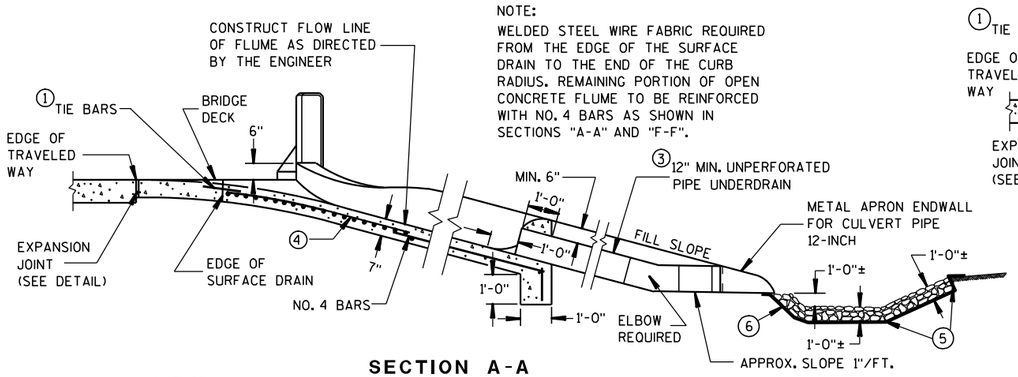
APPROVED
Sept., 2016 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVI ENT
FHWA

6

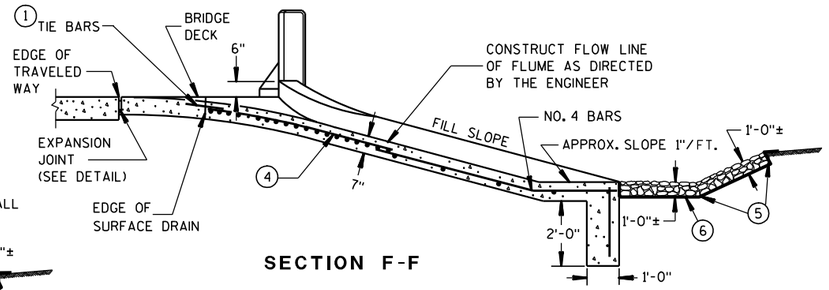
S.D.D. 8 C 8-2

6

S.D.D. 8 C 8-2



SECTION A-A



SECTION F-F

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

(1) NO. 4 X 2'-0" TIE BARS SPACED AT 3'-0" CENTERS TO BE USED ONLY WHEN ADJACENT TO P.C. CONCRETE.

(2) NO. 4 X 2'-0" TIE BARS SPACED AT 12" CENTERS TO BE PLACED BY BRIDGE CONTRACTOR, OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

(3) PIPE UNDERDRAIN MAY BE ANY OF THE MATERIALS LISTED IN SECTION 612.2 OF THE STANDARD SPECIFICATIONS EXCEPT DRAIN TILE.

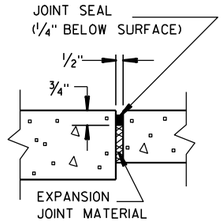
(4) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C-C.

(5) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.

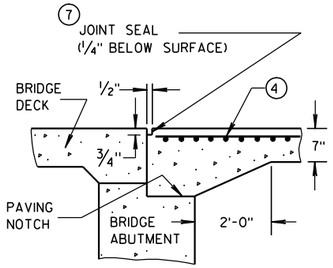
(6) GEOTEXTILE FABRIC, TYPE 'R"

(7) HOT POURED SEALANT UNLESS OTHERWISE SPECIFIED.

(8) THIS DIMENSION MAY VARY DEPENDING ON THE SPACING OF POSTS FOR THE STEEL PLATE BEAM GUARD. THE TYPICAL LOCATION FOR THE SURFACE DRAIN IS WHERE THE POST SPACING WIDENS TO 3'-1½".



EXPANSION JOINT DETAIL



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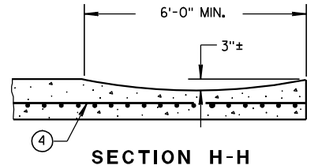
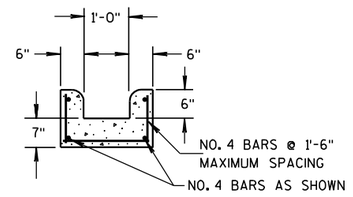
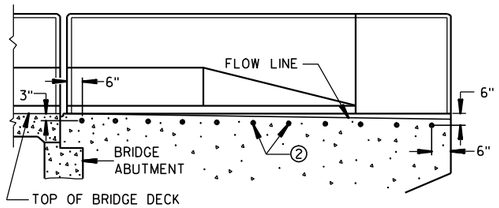


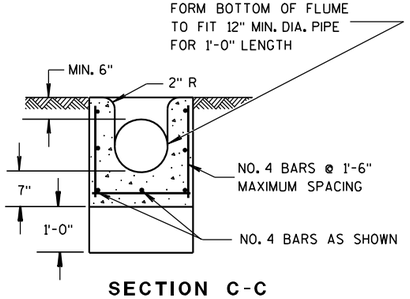
SECTION H-H



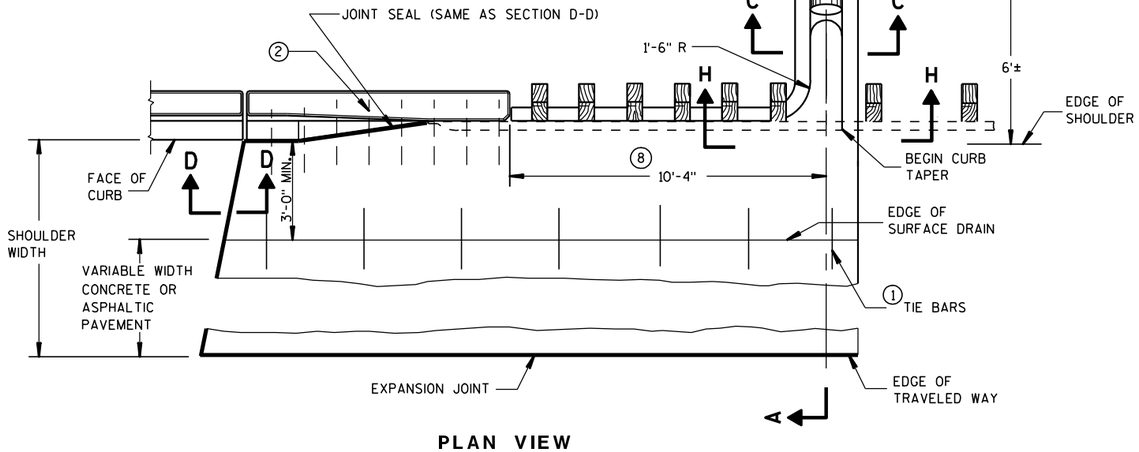
SECTION E-E



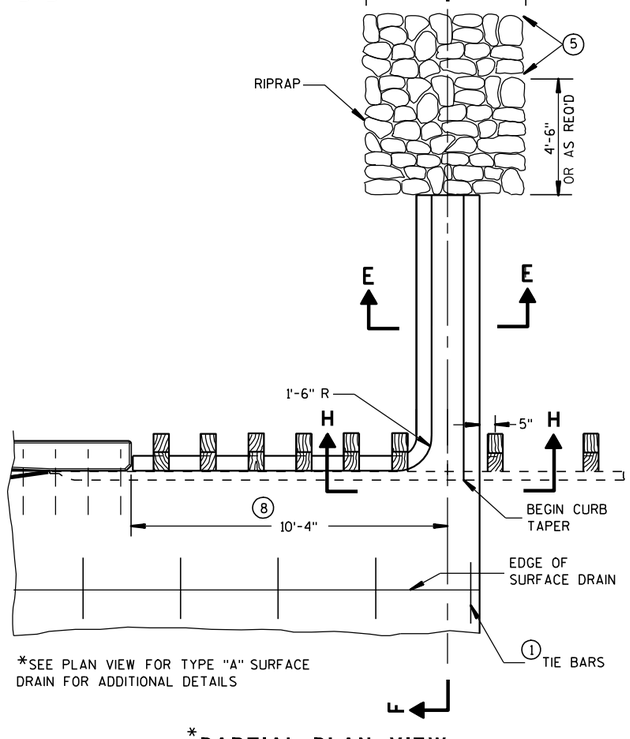
LOCATION OF TIE BARS IN WINGWALL



SECTION C-C



PLAN VIEW
SURFACE DRAIN WITH PIPE
TYPE "A"



*SEE PLAN VIEW FOR TYPE "A" SURFACE DRAIN FOR ADDITIONAL DETAILS

*PARTIAL PLAN VIEW
SURFACE DRAIN WITHOUT PIPE
TYPE "B"

CONCRETE SURFACE DRAINS
FLUME TYPE
AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/4/08
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

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S.D.D. 8 D 2-6

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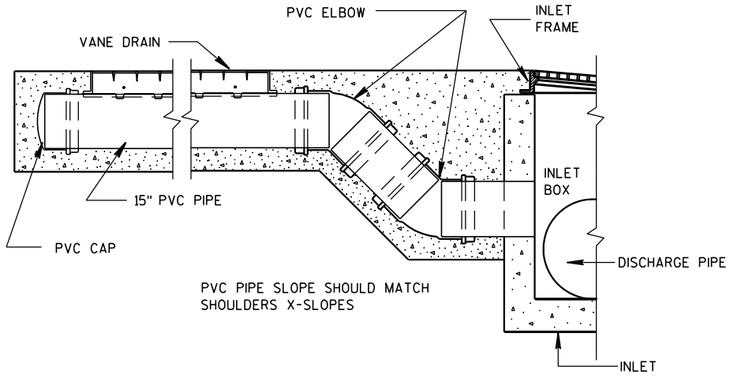
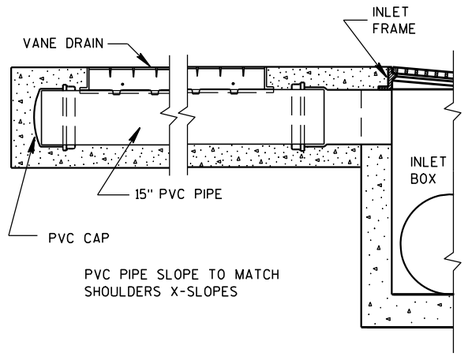
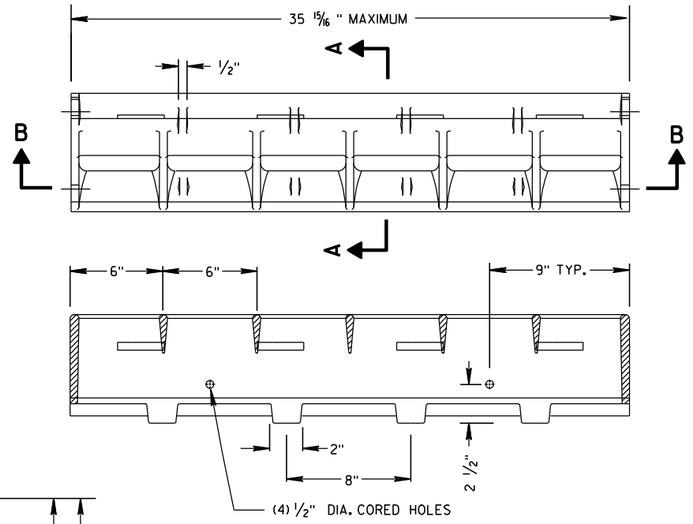
S.D.D. 8 D 2-6



TYPICAL SLOTTED VANE DRAIN CONFIGURATION



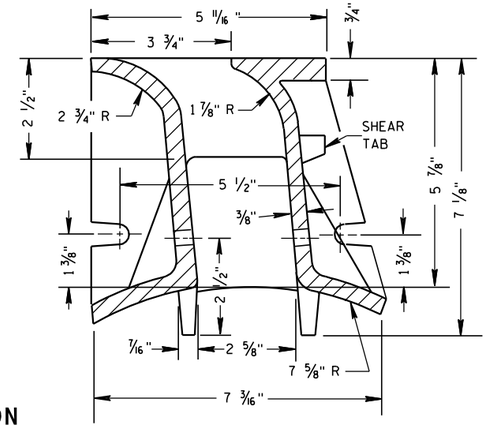
TYPICAL SLOTTED VANE DRAIN CONFIGURATION



SECTION B-B

SLOTTED VANE DRAIN DETAIL

(APPROXIMATE WEIGHT 87 LBS.)



SECTION A-A

GENERAL NOTES

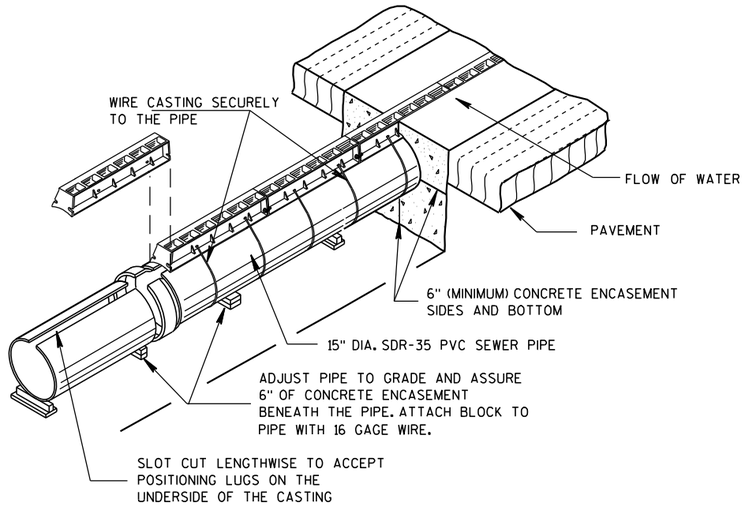
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ENCASEMENT: THE ENCASING MATERIAL AROUND THE PIPE SHALL BE IN ACCORDANCE WITH SPECIFICATIONS OF 501.4.3.3 FOR CONCRETE PAVEMENT.

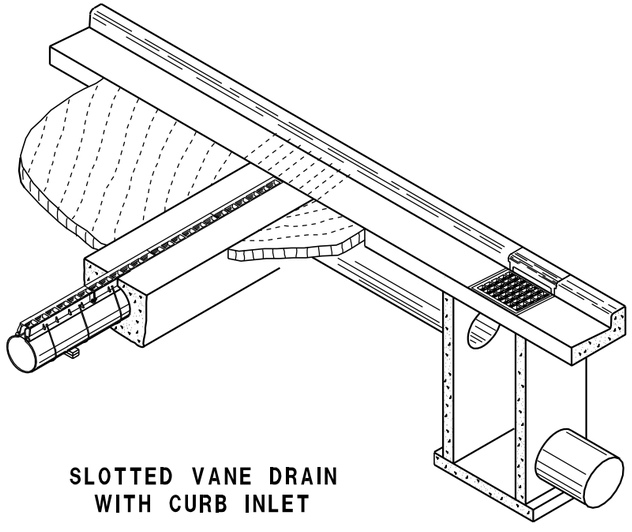
THE PIPE USED SHALL BE A 15" DIAMETER SDR-35 POLYVINYL CHLORIDE SEWER PIPE. THE PIPE SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN STANDARD SPECIFICATION 612.2.6

SURFACE DRAIN: BEFORE PAVING OVER THE DRAIN, COVER THE TOP OF THE DRAIN TO KEEP MATERIAL OUT OF THE PIPE. THE FINISHED GRADE SHOULD BE FLUSH WITH THE TOP OF THE DRAIN.

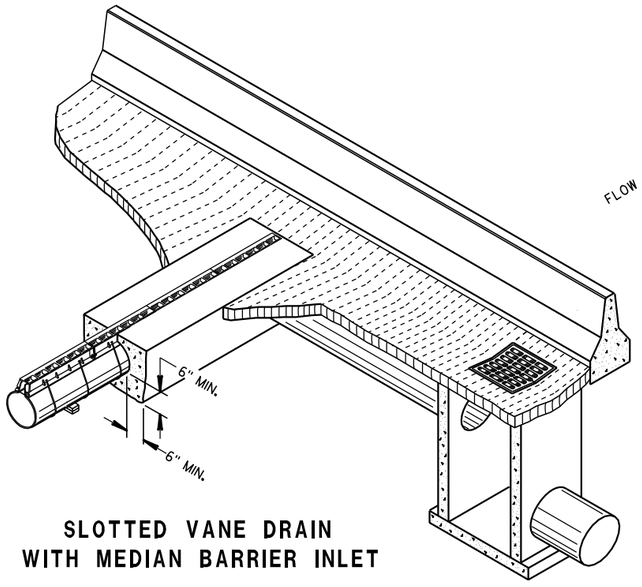
THE ANGLE OF THE DRAIN TO THE FLOW OF WATER SHOULD BE AS CLOSE TO 90° AS POSSIBLE.



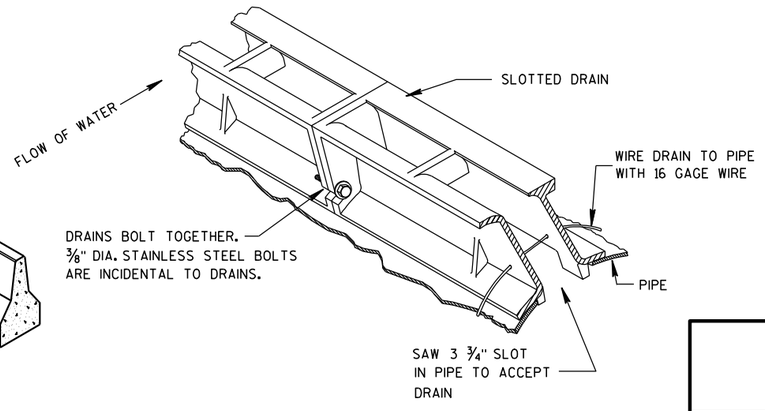
INSTALLATION OF SLOTTED VANE DRAIN



SLOTTED VANE DRAIN WITH CURB INLET



SLOTTED VANE DRAIN WITH MEDIAN BARRIER INLET



ISOMETRIC VIEW

SLOTTED VANE DRAIN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/13/00 DATE

/S/ Rory L. Rhinehart
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

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S.D.D. 8 D 14-1

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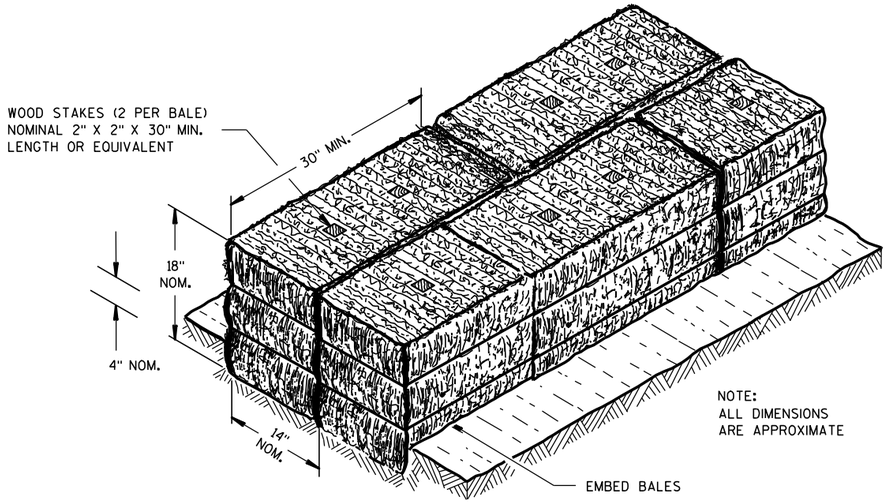
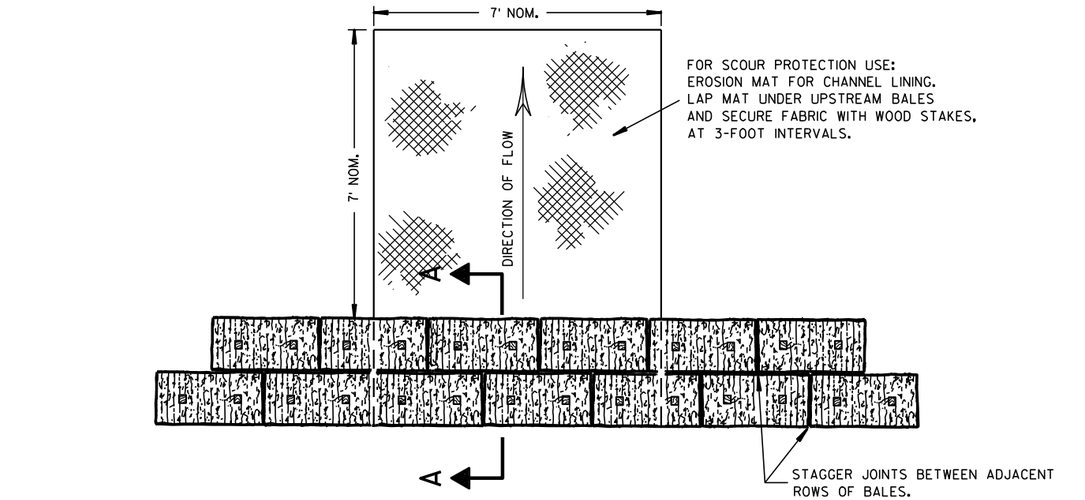
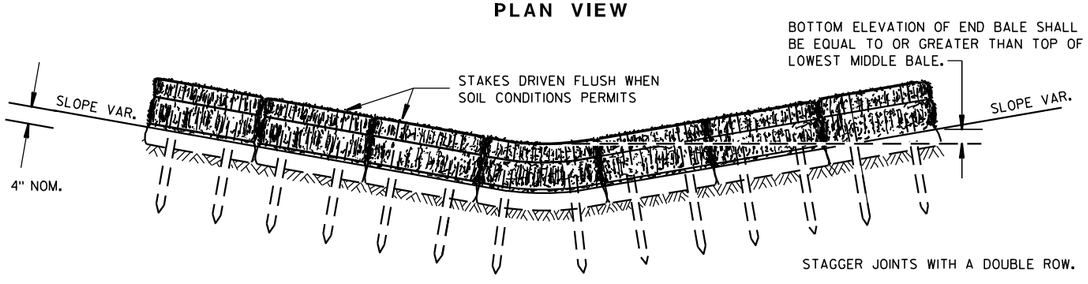
S.D.D. 8 D 14-1



SECTION A-A



PLAN VIEW



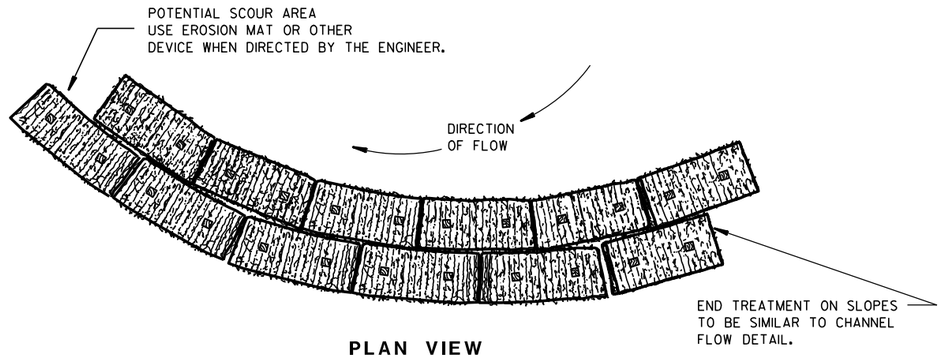
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

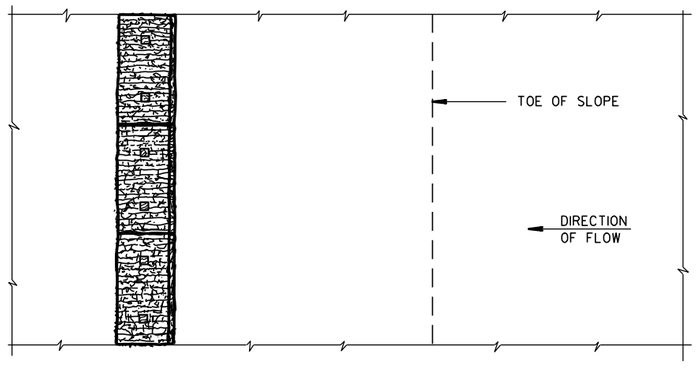
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

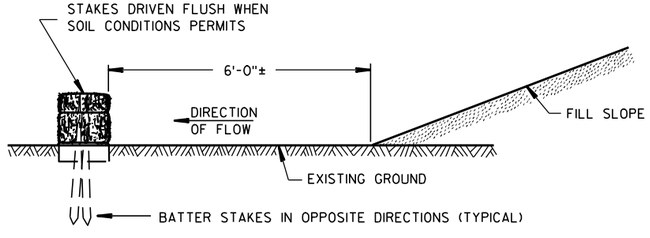


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

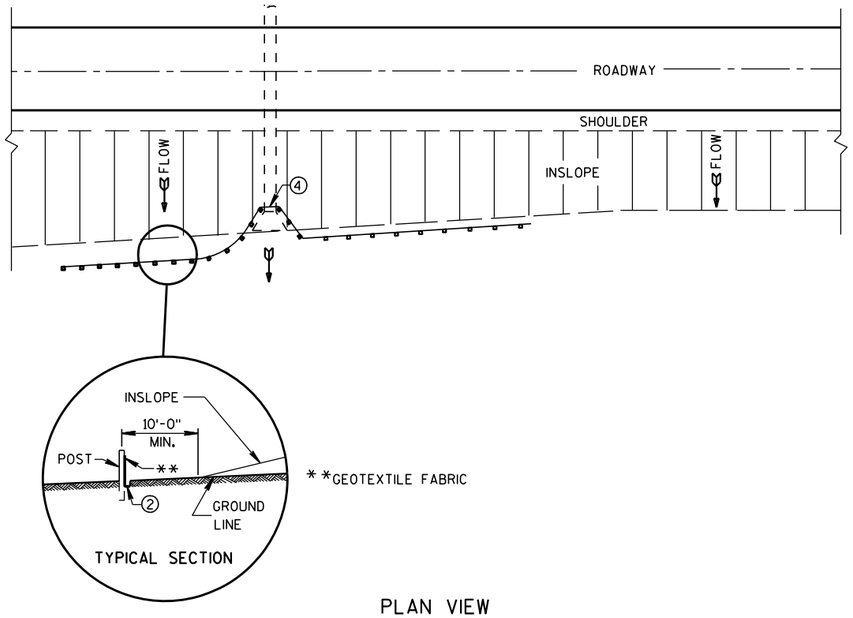
APPROVED
6/04/02 DATE
/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

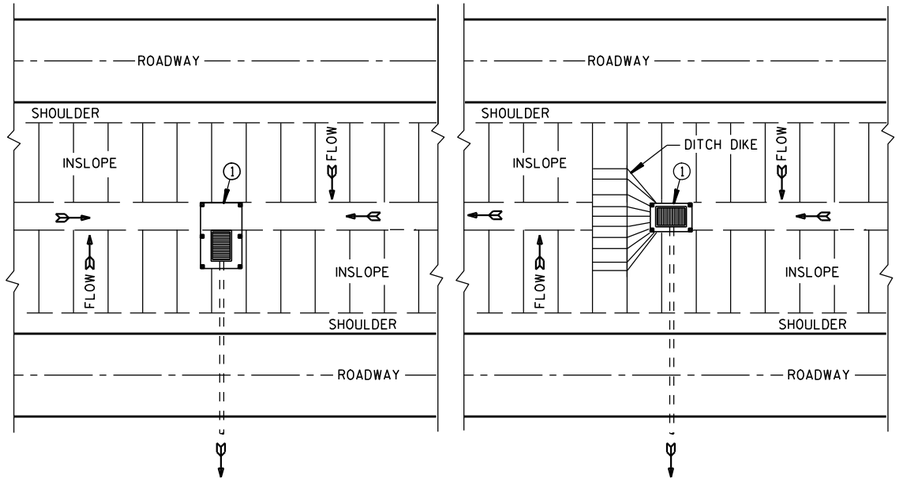
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



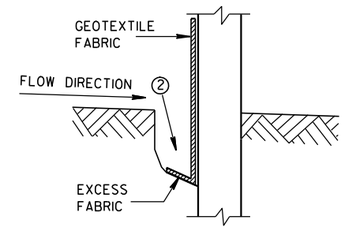
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

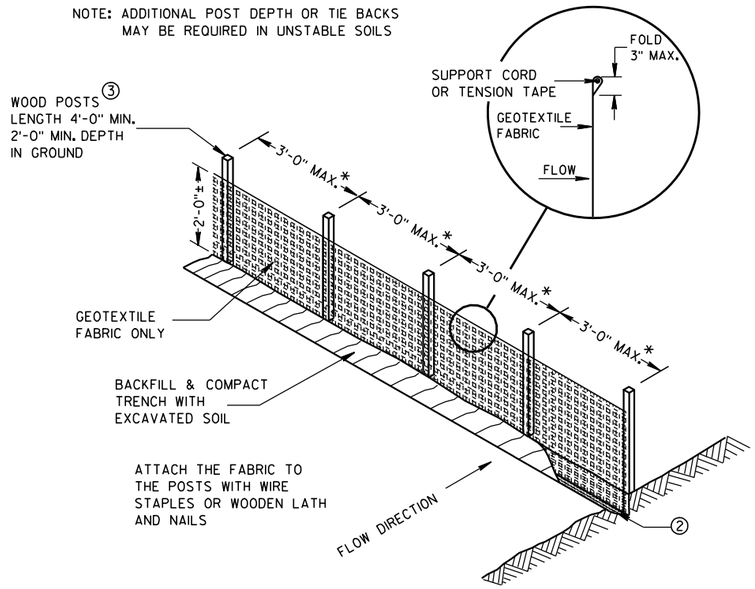
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

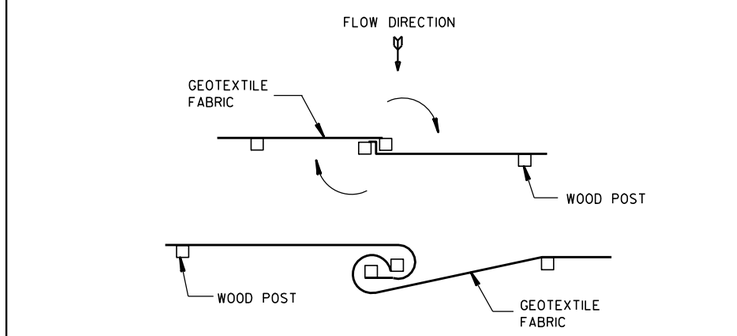
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



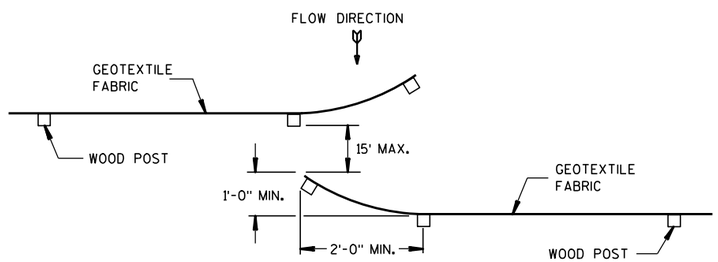
TRENCH DETAIL



SILT FENCE

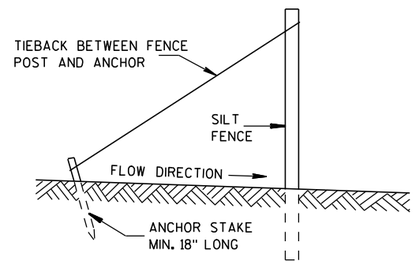


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 9-6

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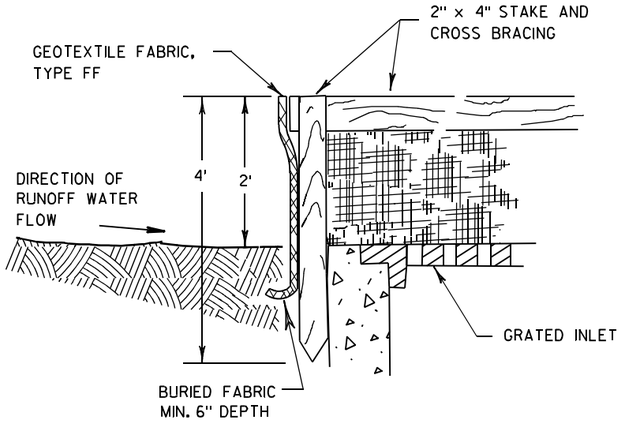
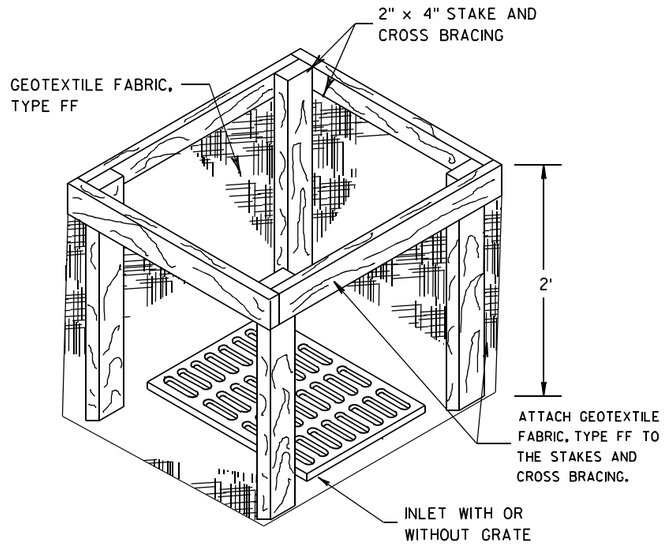
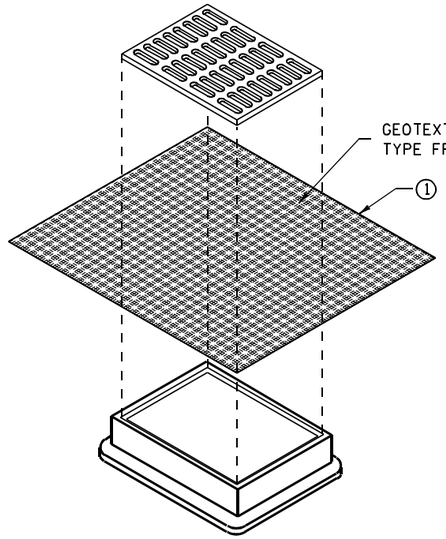
S.D.D. 8 E 9-6



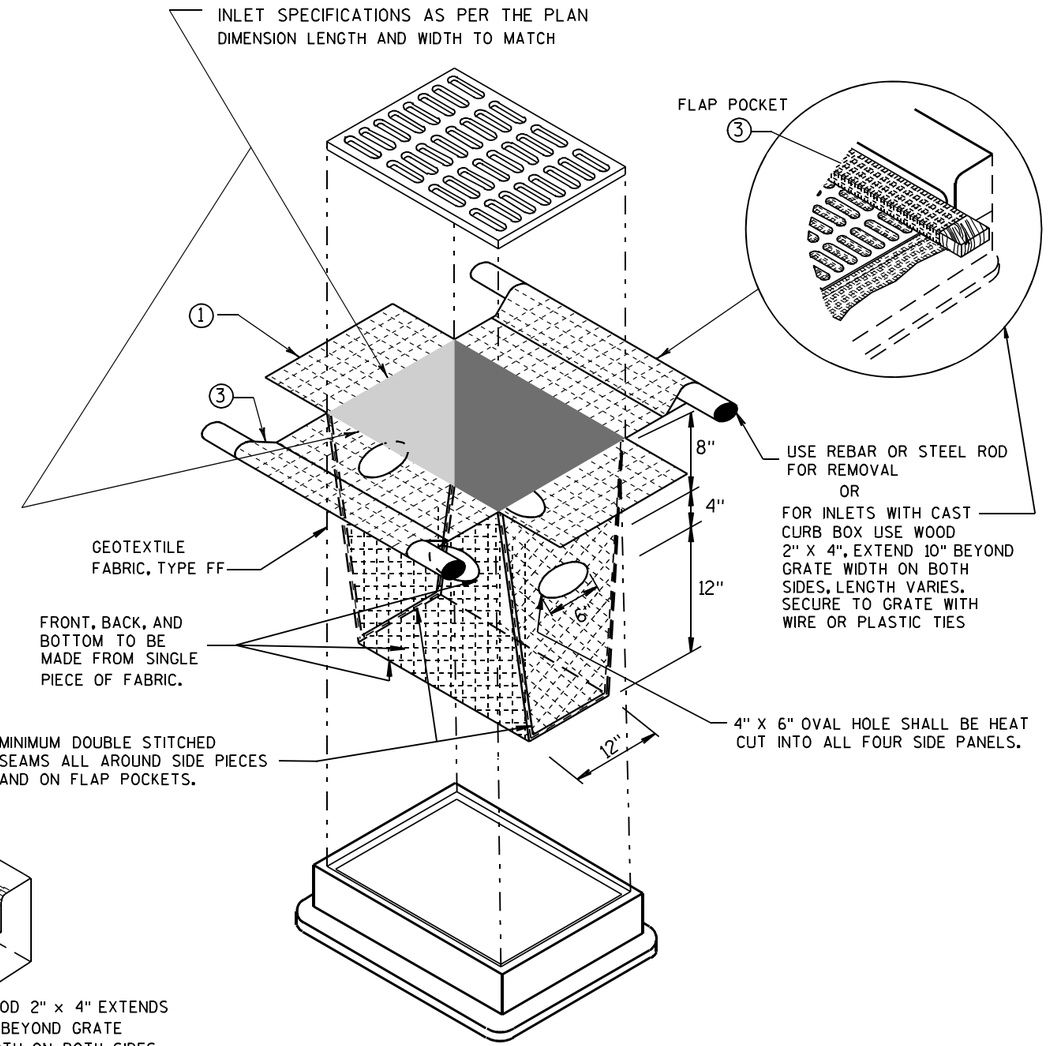


INLET PROTECTION, TYPE A



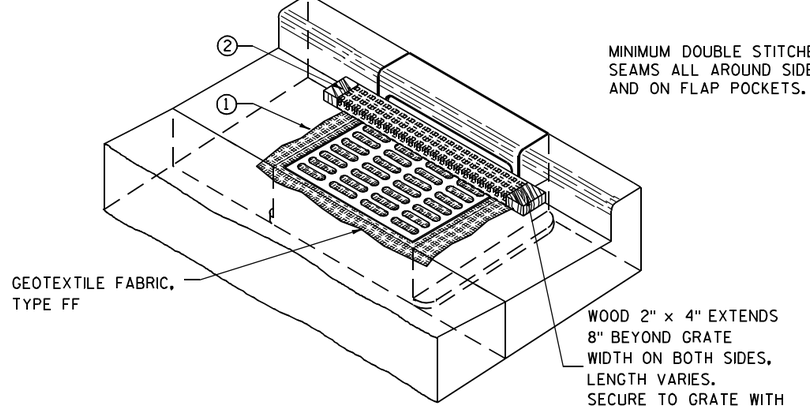
INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)



INLET PROTECTION, TYPE C (WITH CURB BOX)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

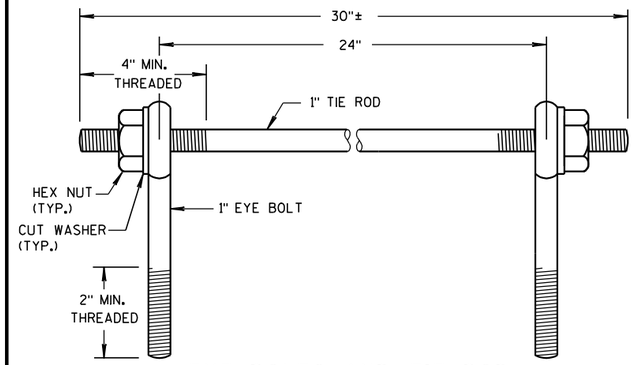
APPROVED

10/16/02
DATE

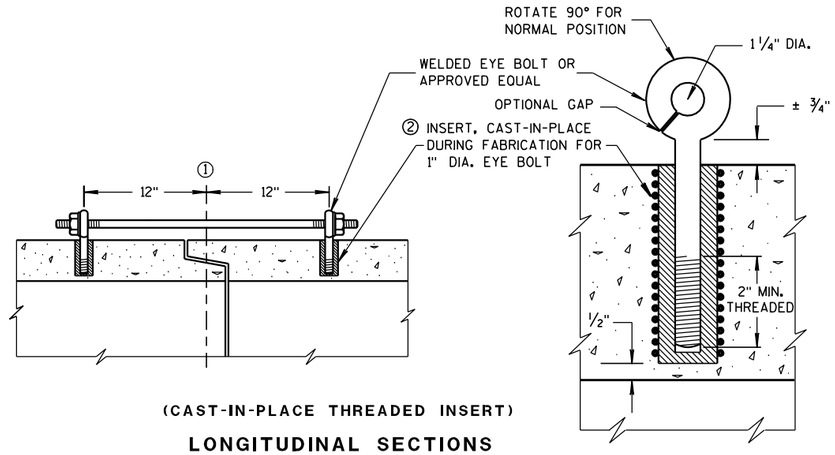
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

6
S.D.D. 8 E 10-2



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

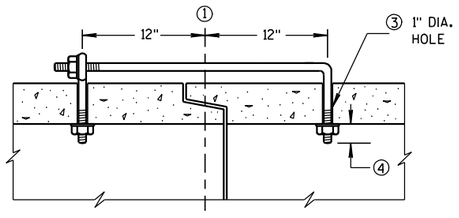
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

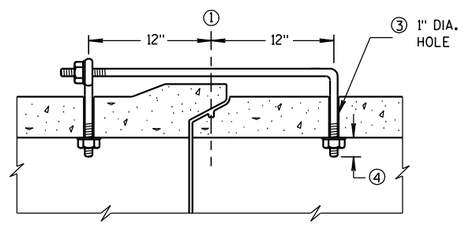
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

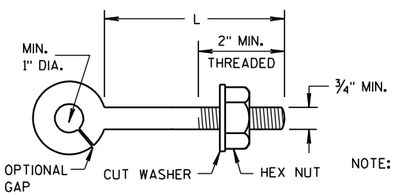


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

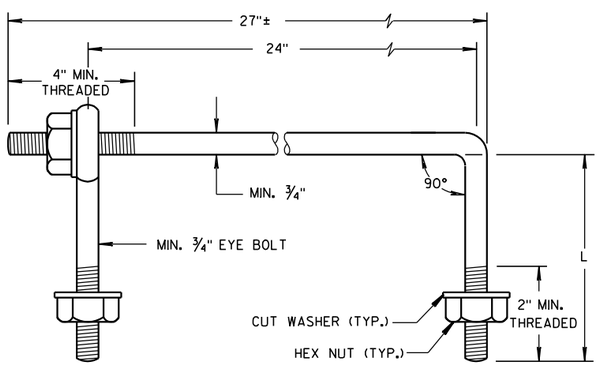
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

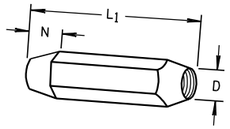
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

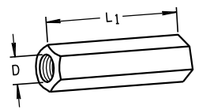
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

DIMENSIONS SHOWN ARE IN INCHES



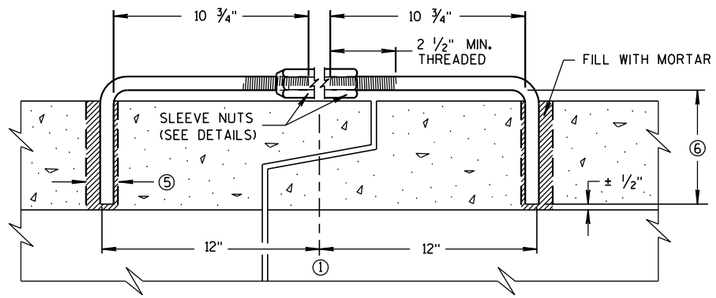
TAPERED



PLAIN

RIGHT AND LEFT THREADS

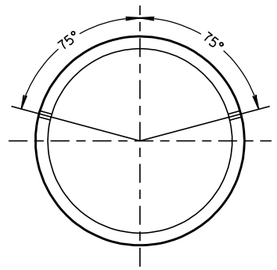
SLEEVE NUTS



LONGITUDINAL SECTION

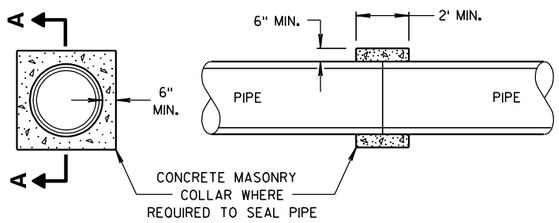
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

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S.D.D. 8 F 4-7

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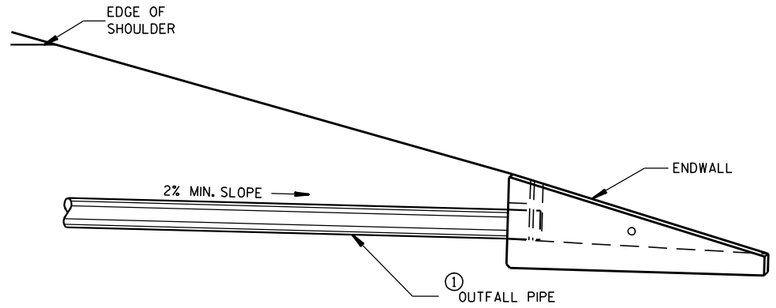
S.D.D. 8 F 4-7

DIMENSIONS IN INCHES											
PIPE DIA.	A	B	C	D	E	F	G	H	J	L	Z
**4	6	12	5 1/4	9	8	32	36	11	2 3/8	6 1/2	4
6	8	14	7 1/4	11	10	42	44	13	3 5/8	8 1/2	6

**APRON ENDWALL FOR 6 INCH DIAMETER PIPE MAY BE SUBSTITUTED FOR THIS SIZE PROVIDED THE HOLE IN THE HEADWALL IS SIZED AND LOCATED TO CONFORM TO THE 4 INCH DIAMETER PIPE DIMENSIONS (C & J)



INSTALLATION DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ALTERNATIVE DESIGNS WHICH PROVIDE EQUIVALENT CAPACITY AND STRENGTH MAY BE USED WHEN APPROVED BY THE ENGINEER. ENDWALL MAY BE EITHER PRECAST OR CAST-IN-PLACE CONCRETE.

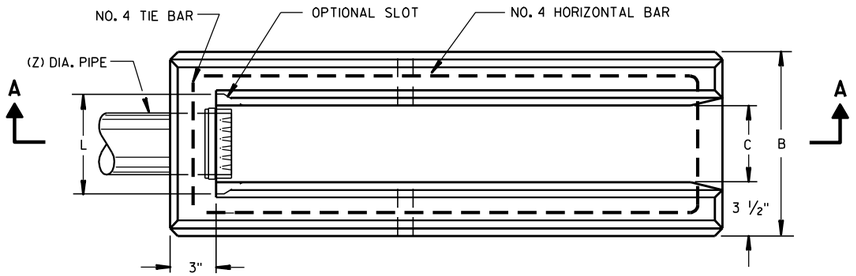
THE UNDERDRAIN PIPE SHALL BE FULLY INSERTED AND SEALED INTO THE ENDWALL WITH CEMENT MORTAR PRIOR TO BACKFILLING AROUND THE STRUCTURE.

THE UPPERMOST POINT OF THE ENDWALL SHALL BE PLACED FLUSH WITH THE ROADWAY SLOPE. ADJACENT EMBANKMENT SLOPES SHALL BE SHAPED TO FIT THE SIDES AND TOE OF THE ENDWALL. EXACT PLACEMENT OF THE OUTFALL PIPE AND ENDWALL SHALL BE DETERMINED BY THE ENGINEER TO MATCH THE ELEVATIONS AND FLOW DIRECTION OF THE ROADSIDE DITCH.

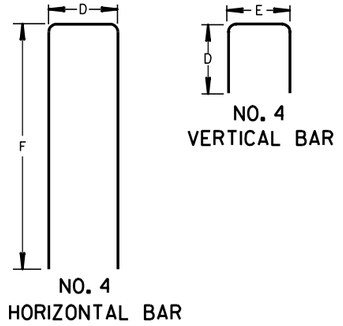
① THE OUTFALL PIPE UNDERDRAIN AND FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATION FOR POLY (VINYL CHORIDE) (PVC) PLASTIC DRAIN, WASTE AND VENT PIPE AND FITTINGS, ASTM DESIGNATION: D 2665, SCHEDULE 40 PVC OR THE STANDARD SPECIFICATION FOR TYPE PSM POLY (VINYL CHORIDE) (PVC) SEWER PIPE AND FITTINGS, ASTM DESIGNATION: D 3034, TYPE PSM SDR 23.5 PVC SEWER PIPE, ALL JOINTS SHALL BE SOLVENT WELDED.

THE OUTFALL PIPE INCLUDING ALL FITTINGS AND THE RODENT SHIELD SHALL BE MEASURED AND PAID FOR AS PIPE UNDERDRAIN UNPERFORATED.

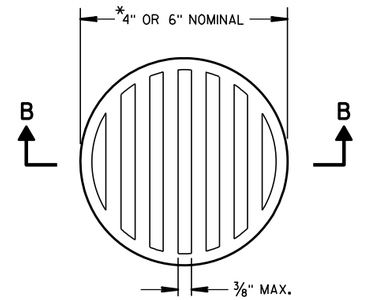
② THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

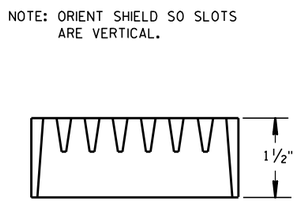


PLAN VIEW



BAR STEEL REINFORCEMENT DETAILS

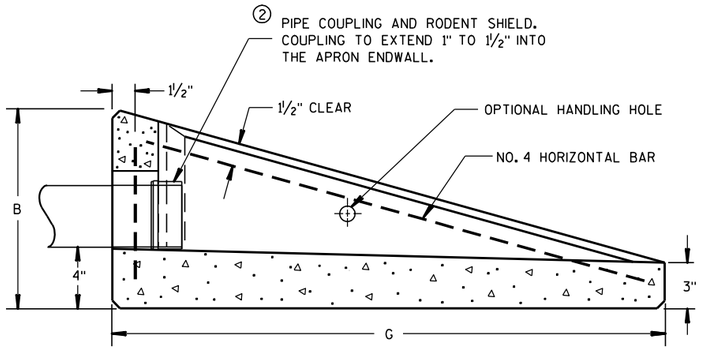




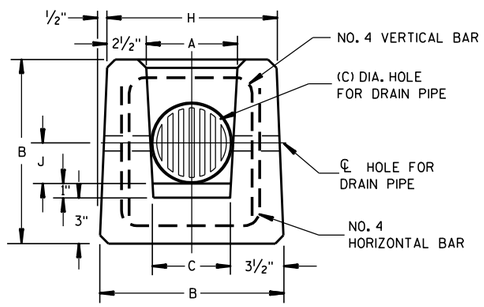
SECTION B-B

② RODENT SHIELD

*NOTE: DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.



SECTION A-A



END VIEW

CONCRETE APRON ENDWALL FOR UNDERDRAIN

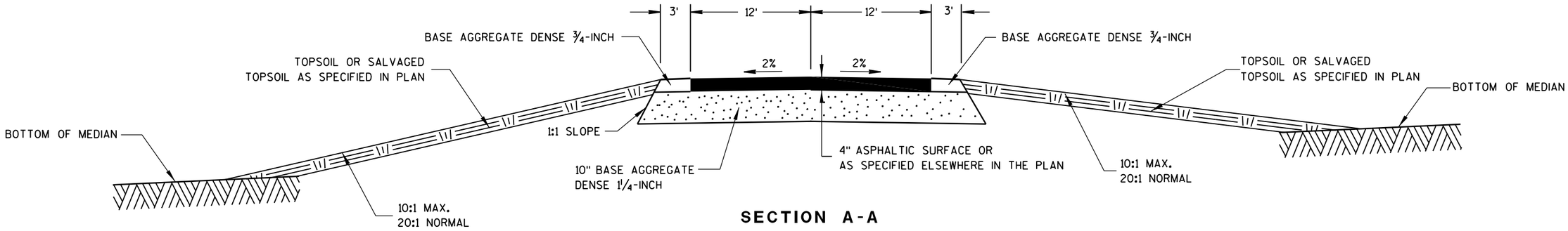
REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

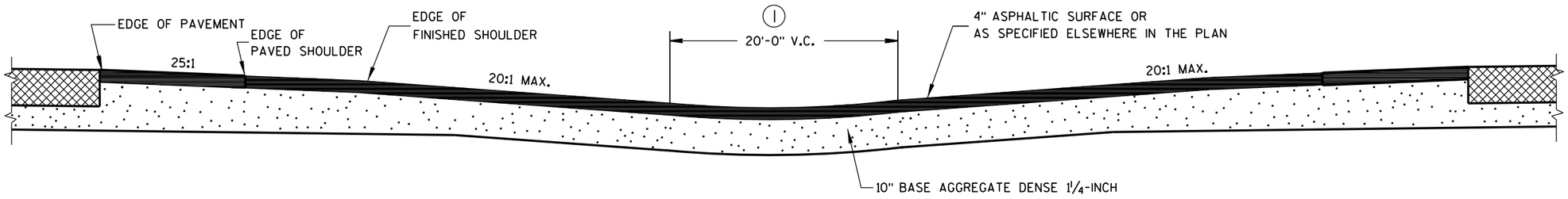
APPROVED
3/10/98 DATE
/S/ Rory L. Rhinehart
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

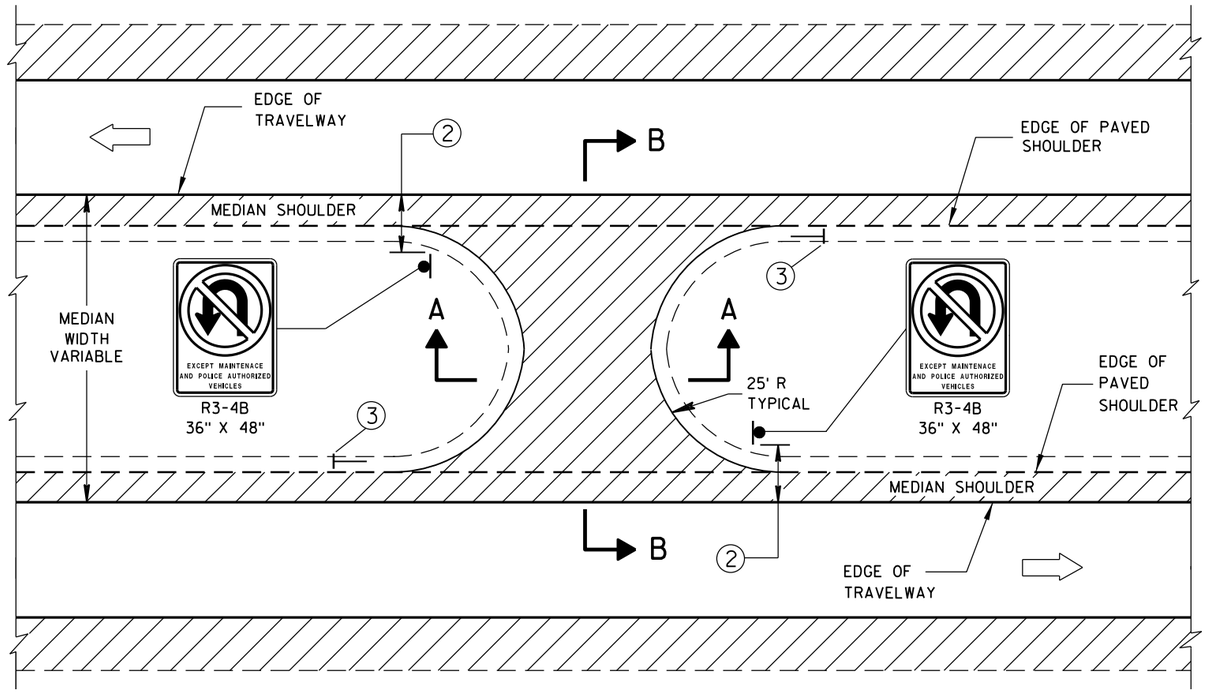
S.D.D. 8 F 6-4



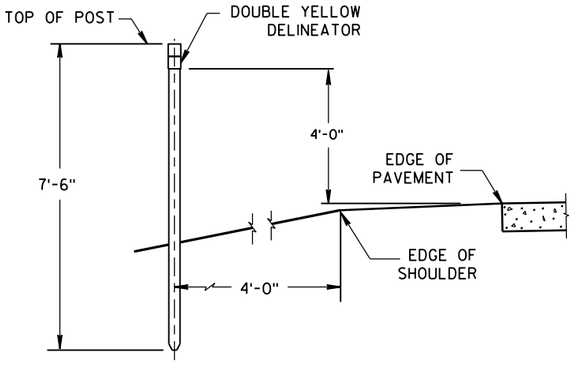
SECTION A-A



SECTION B-B



PLAN VIEW



DOUBLE YELLOW DELINEATOR INSTALLATION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) ADJUST VERTICAL CURVE LOCATION LATERALLY TO MAINTAIN 20:1 MAX.

(2) SIGNING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

(3) INSTALL DOUBLE YELLOW DELINEATOR. SEE STANDARD DETAIL DRAWING 15A2.

MAINTENANCE CROSSOVER FOR FREEWAYS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER

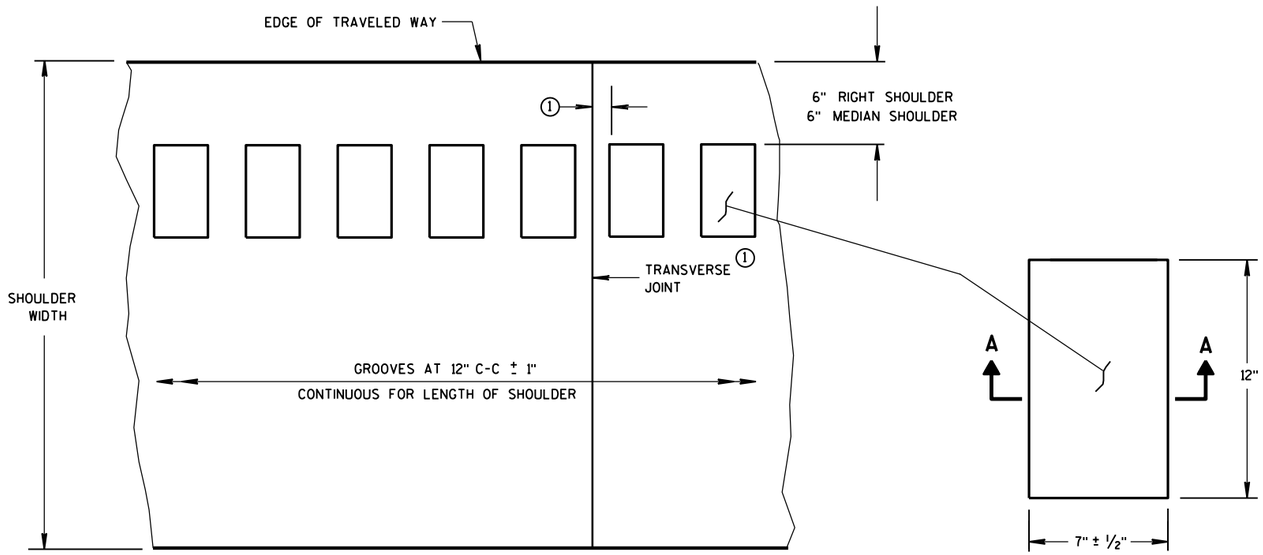
FHWA

6

S.D.D. 11 A 1-5

6

S.D.D. 11 A 1-5



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

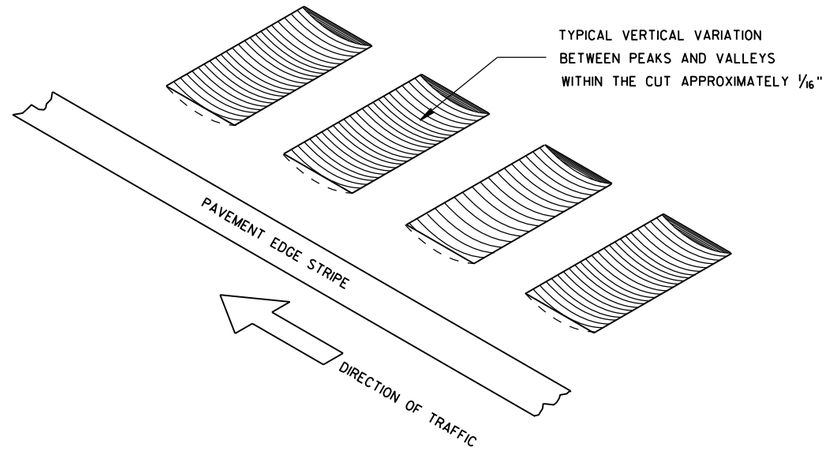
GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

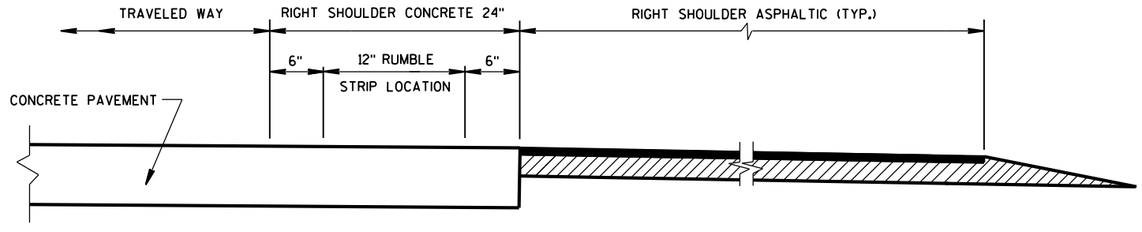
RUMBLE STRIPS ON EXPRESSWAYS

DO NOT INSTALL RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL DRIVEWAYS, PRIVATE DRIVEWAYS OR ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, BRIDGE DECKS, BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSING. THE ATTACHED STANDARD DETAIL DRAWING SHOWS THE LOCATION OF THE RUMBLE STRIPS AT INTERCHANGE AREAS.

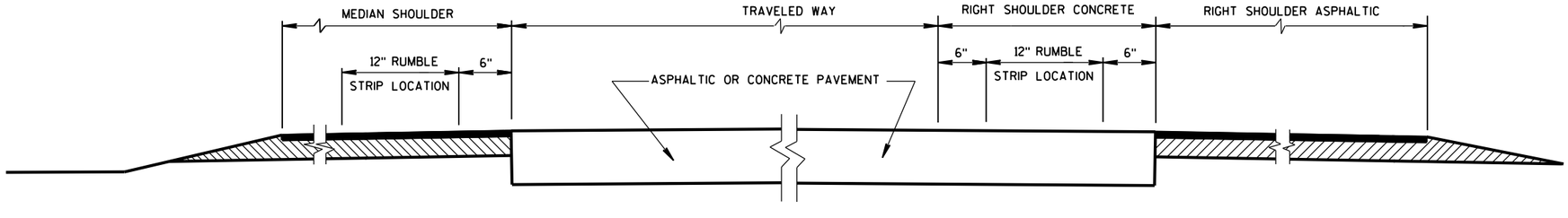
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



ISOMETRIC



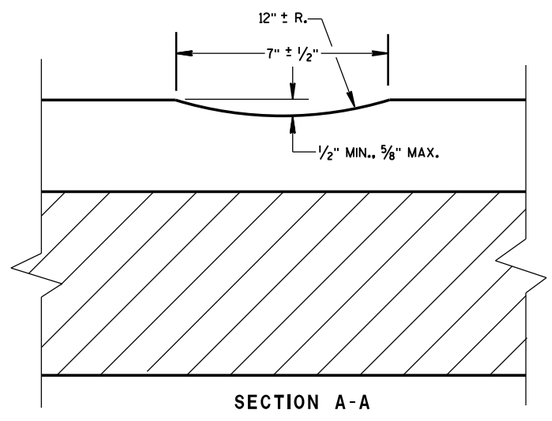
SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION VIEW

TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS IN RURAL DIVIDED HIGHWAYS

(ONE ROADWAY IS SHOWN)



SECTION A-A

SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 13 A 5-5a

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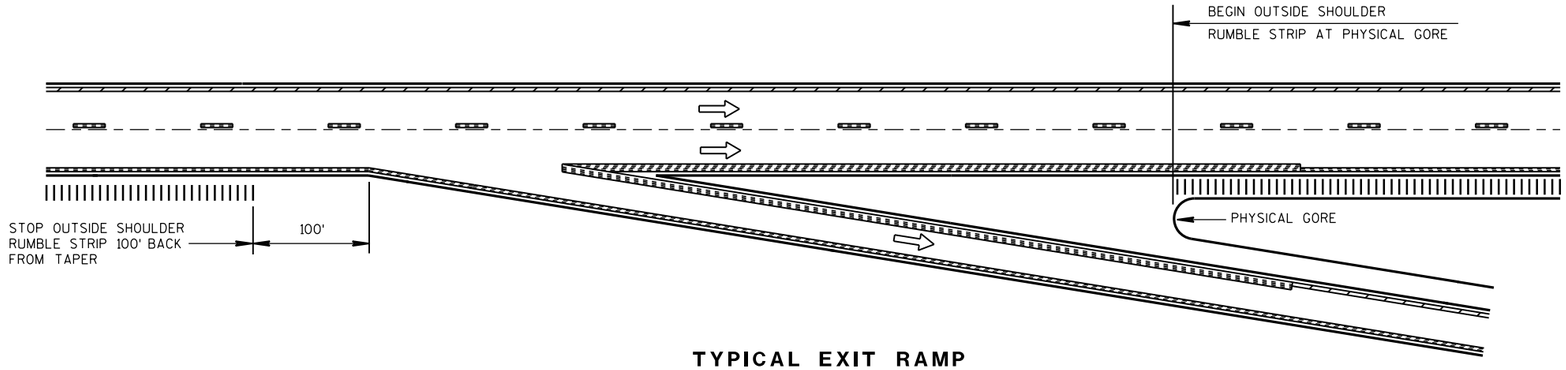
S.D.D. 13 A 5-5a



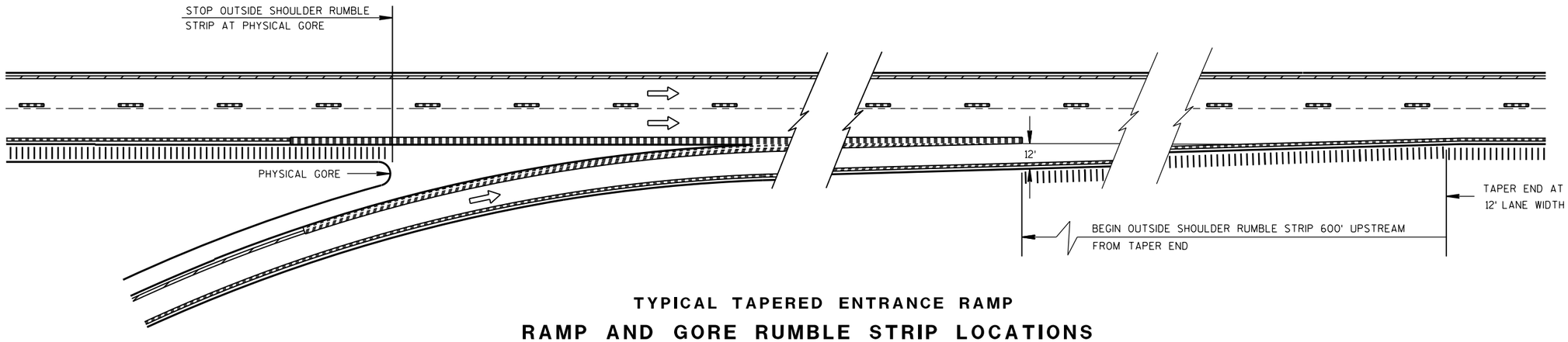
TYPICAL EXIT RAMP

NOTES:

NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

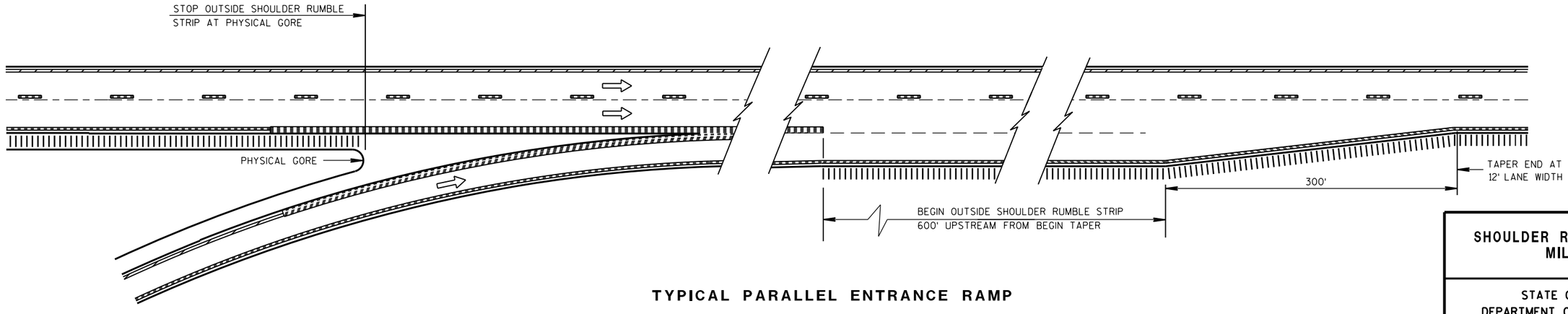
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TYPICAL TAPERED ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS

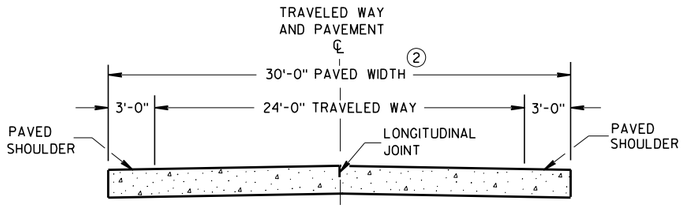
SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

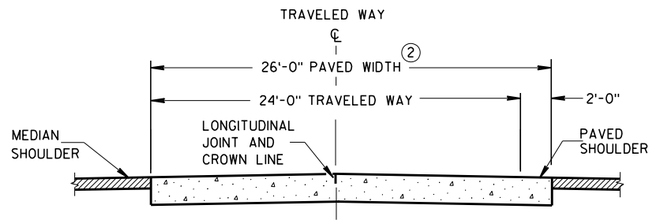
APPROVED
12/17/2012 — DATE
/S/ Jerry H. Zoga — ROADWAY STANDARDS ENGINEER
FHWA

6

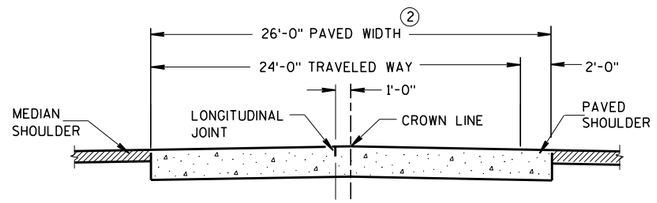
S.D.D. 13 A 5-5b



SECTION A-A
TWO-LANE TWO-WAY HIGHWAY (1)



SECTION B-B



ALTERNATIVE SECTION B-B
(1)
DIVIDED HIGHWAY

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

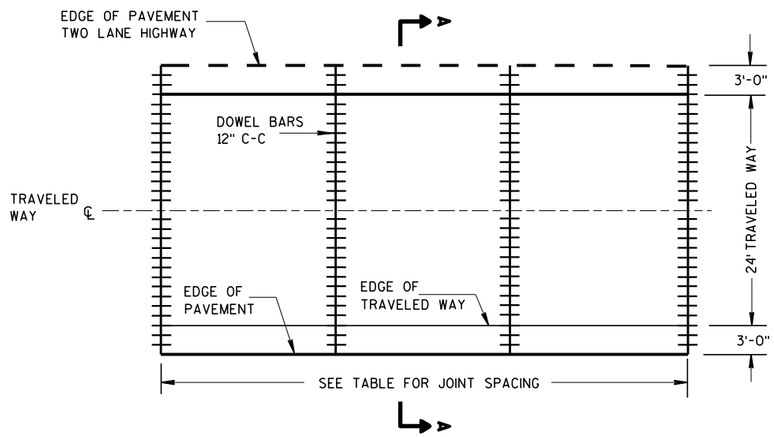
LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

(1) REFER TO TYPICAL CROSS SECTIONS FOR ADDITIONAL DETAILS.

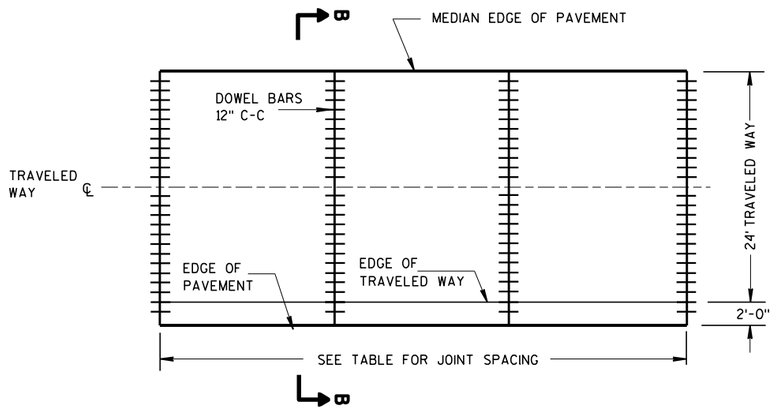
(2) MEASURE THE ENTIRE PAVED WIDTH INCLUDING THE PORTION(S) LABELED PAVED SHOULDER AS CONCRETE PAVEMENT.

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'



CONTRACTION JOINT LAYOUT
FOR TWO-LANE TWO-WAY HIGHWAY



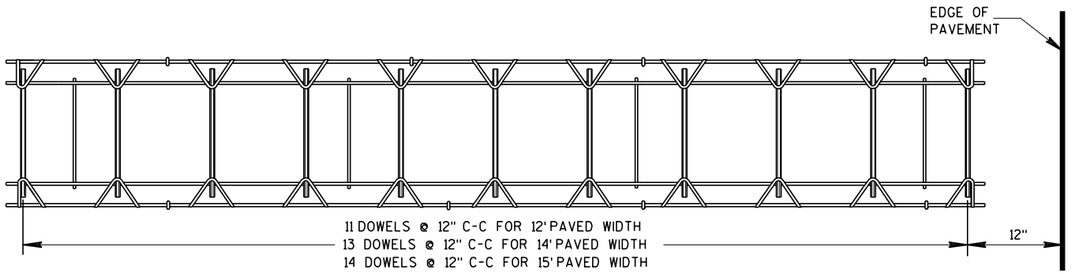
CONTRACTION JOINT LAYOUT
FOR DIVIDED HIGHWAY

RURAL DOWELED CONCRETE PAVEMENT

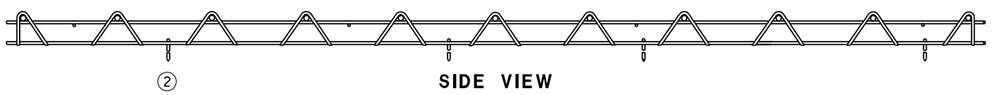
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 13 C 11-12a



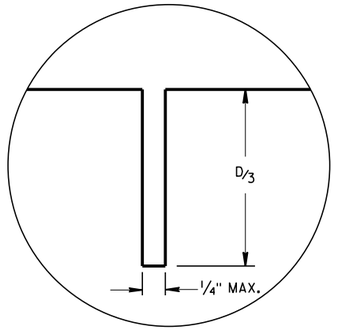
PLAN VIEW



SIDE VIEW

(NORMAL TO CENTERLINE)

CONTRACTION JOINT DOWEL ASSEMBLY ①



JOINT DETAIL

GENERAL NOTES

① OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.

② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

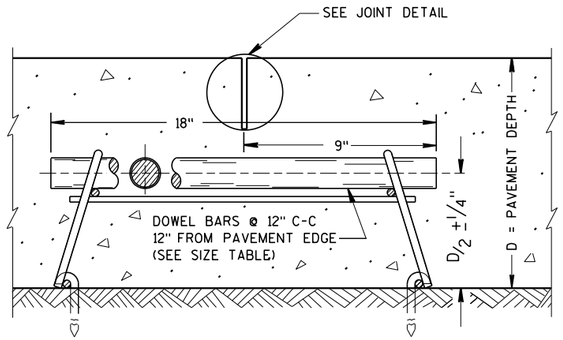
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.

④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

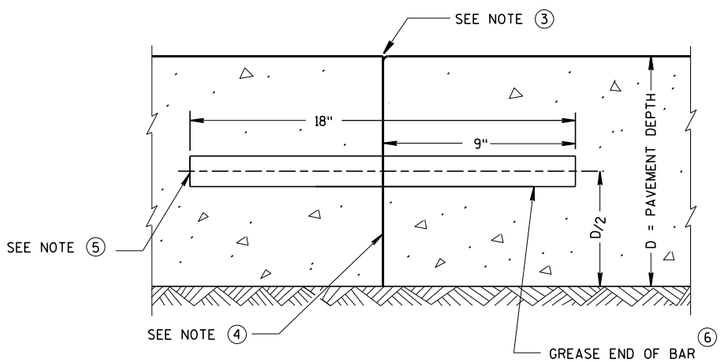
⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.

⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

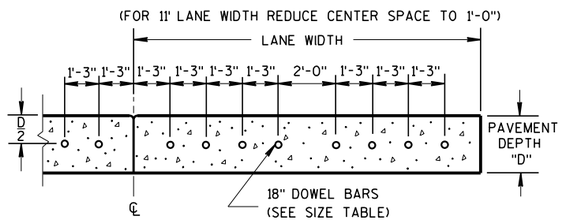
⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS 1/8-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



DOWELED CONTRACTION JOINT



TRANSVERSE CONSTRUCTION JOINT



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦

RURAL DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Peter Kemp P.E. — PAVEMENT SUP
FHWA

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S.D.D. 13 C 11-12b

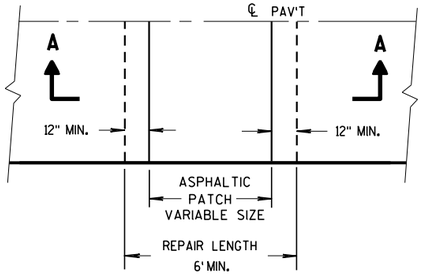
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES.

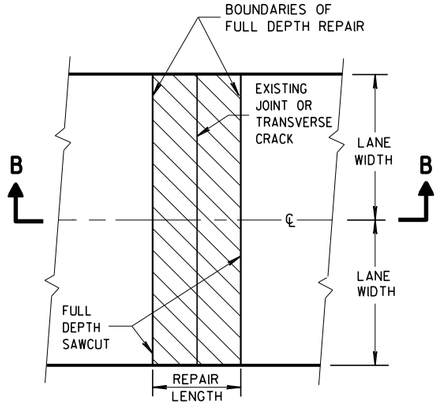
PROVIDE 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

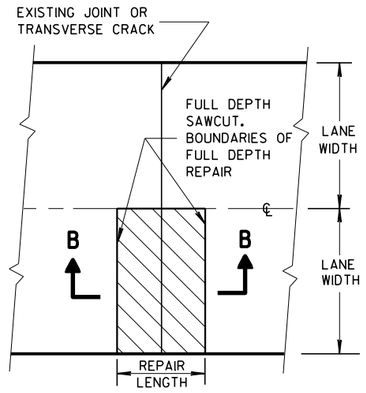
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW

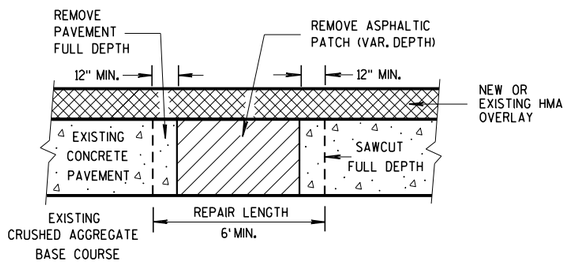


PLAN VIEW
(DOUBLE LANE REPAIR)



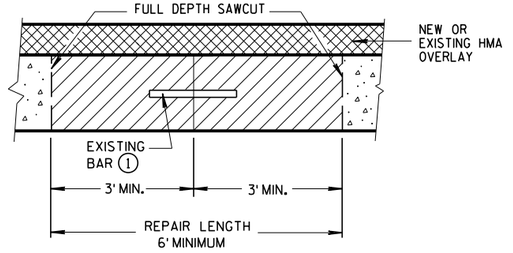
PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

CONCRETE REMOVAL

6

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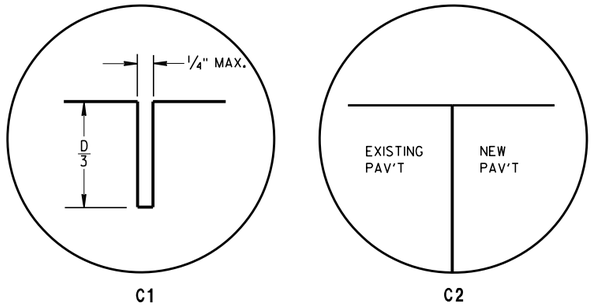
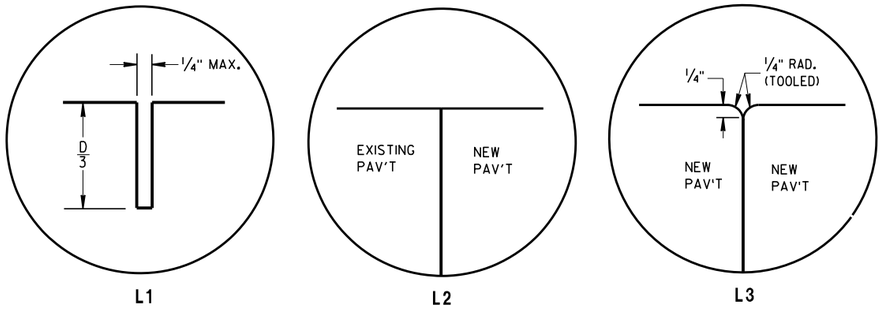
S.D.D. 13 C 14-7a

S.D.D. 13 C 14-7a

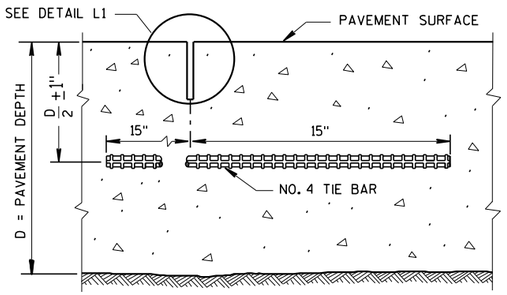
BASE PATCHING CONCRETE



TRANSVERSE JOINTS

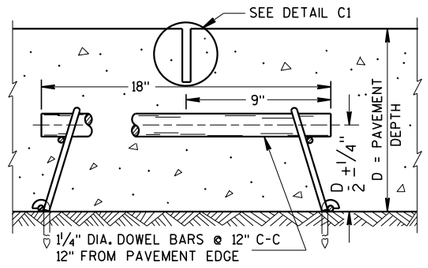


LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT



SECTION F-F

CONTRACTION JOINT

GENERAL NOTES

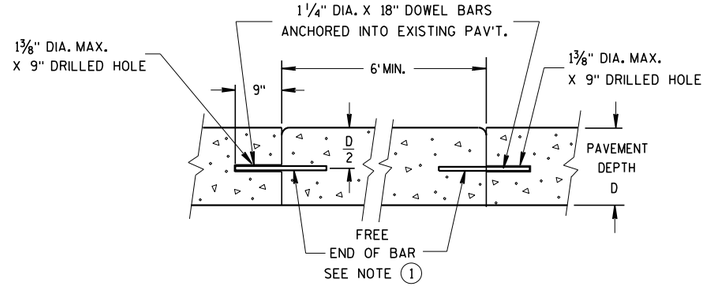
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

CONCRETE BASE PATCHES OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

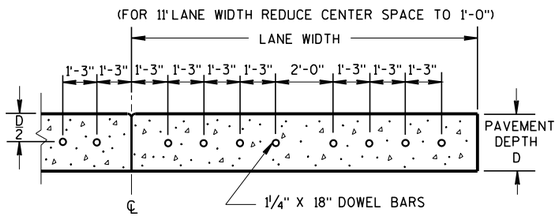
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM AN EXISTING TRANSVERSE JOINT OR THE EDGE OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

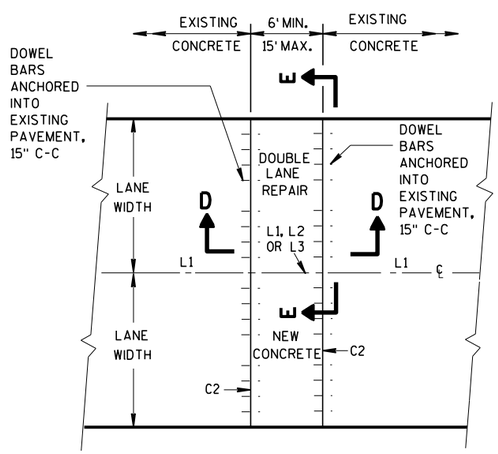


SECTION D-D



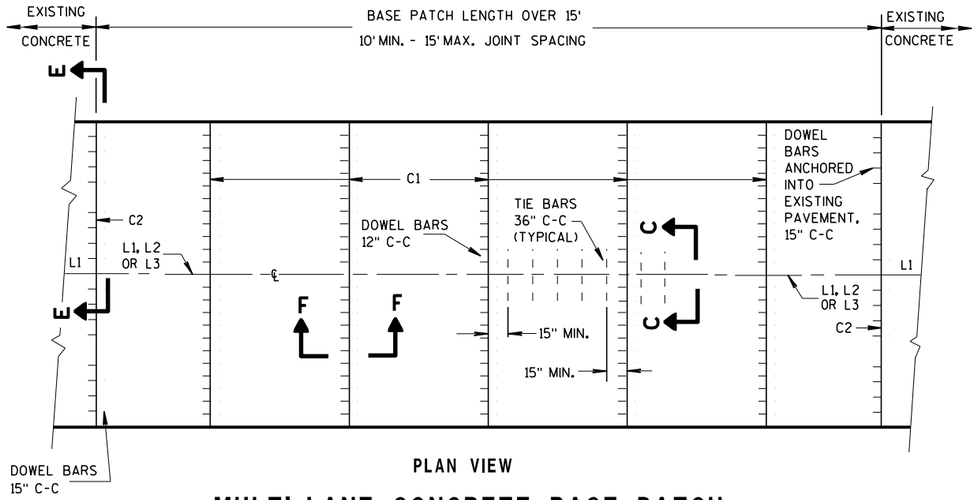
SECTION E-E

SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT



PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH

BASE PATCHING CONCRETE

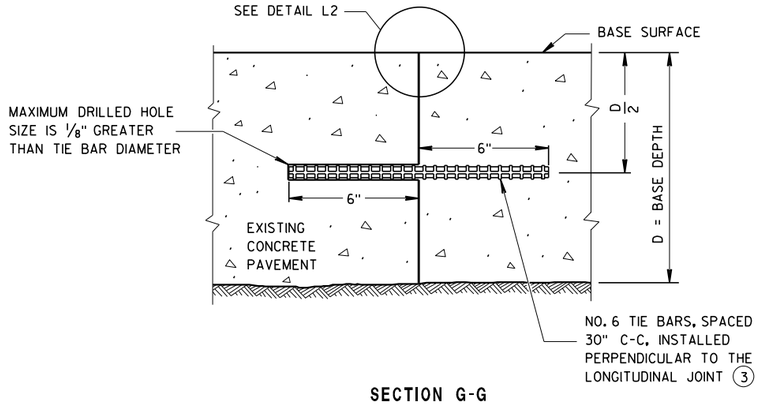
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 13 C 14-7b

6

S.D.D. 13 C 14-7b



SECTION G-G

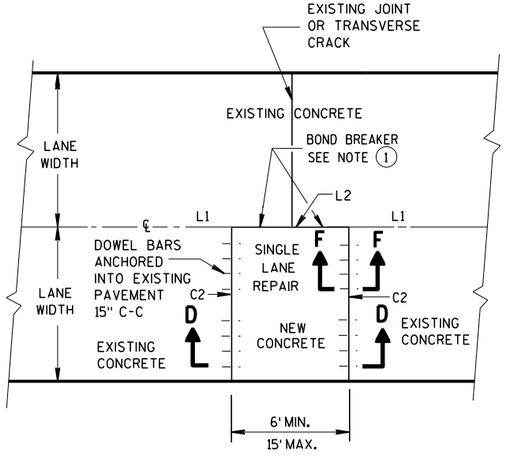
TIE BARS ANCHORED INTO EXISTING PAVEMENT

GENERAL NOTES

(1) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE BASE PATCHES UP TO 15 FEET IN LENGTH.

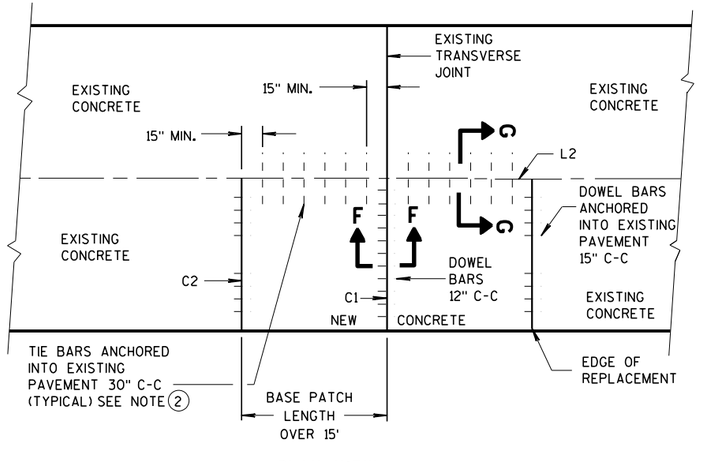
(2) WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, DRILLED TIE BARS MAY BE INSTALLED ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES IN A HOLE OF SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.

(3) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH

BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Peter Kemp P.E. — PAVEMENT SUPER
FHWA

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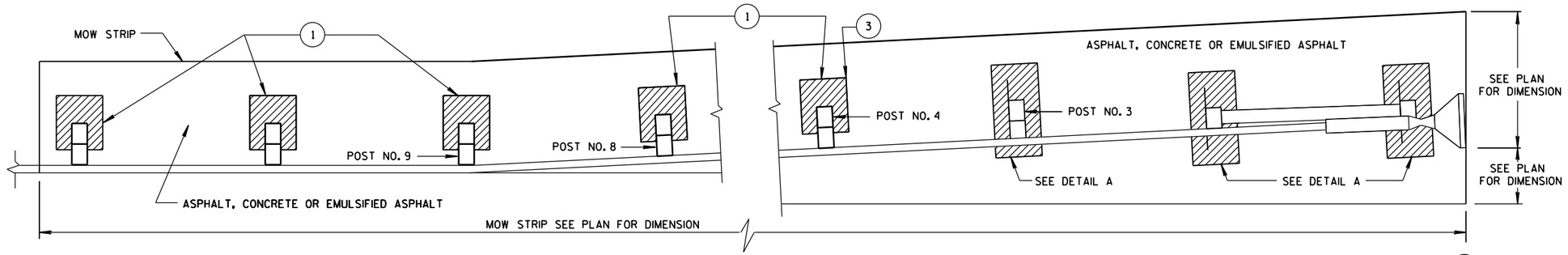
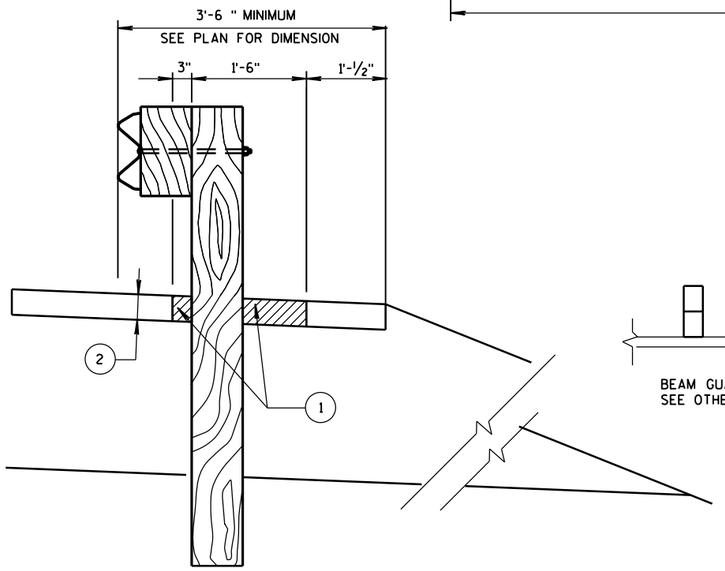
S.D.D. 13 C 14-7c

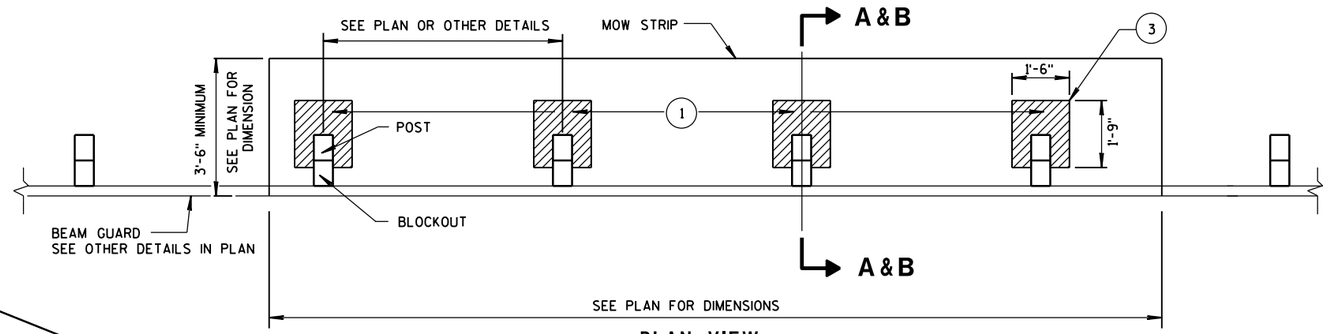


PLAN VIEW

MOW STRIP LAYOUT FOR ENERGY ABORBING TERMINAL

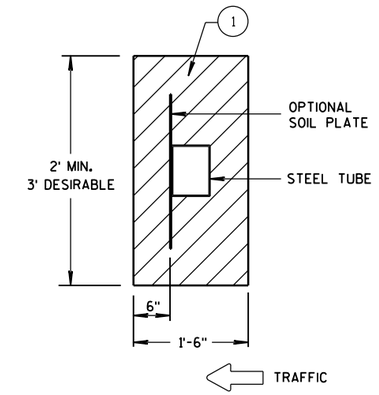


SECTION A-A

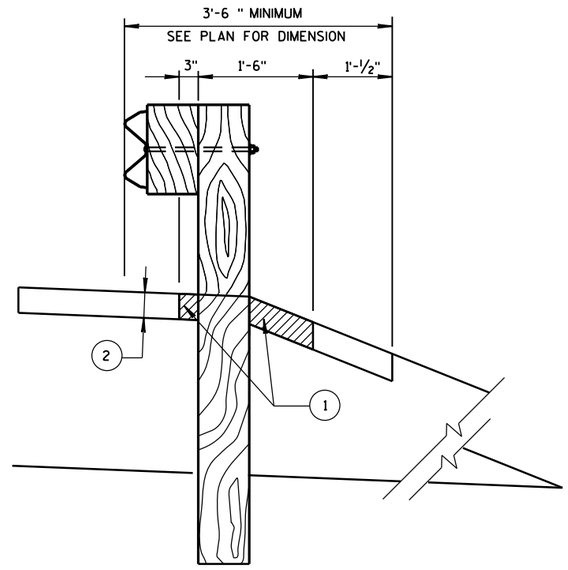


PLAN VIEW

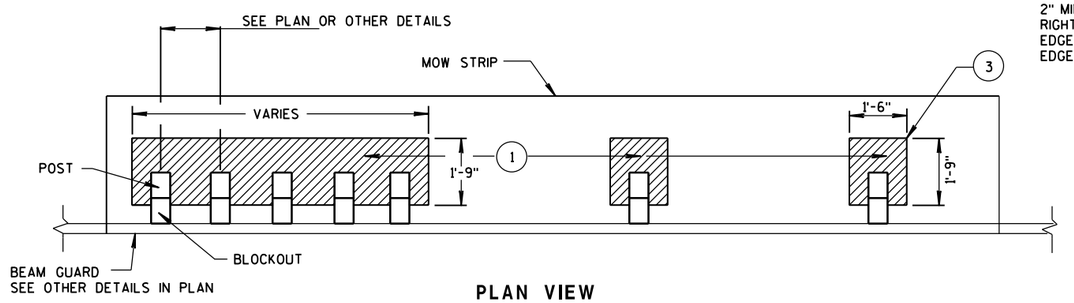
MOW STRIP FOR TYPICAL BLOCKOUT LAYOUT



DETAIL A

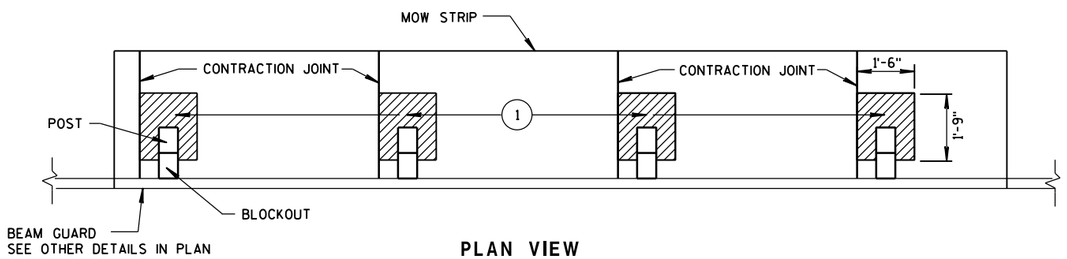


SECTION B-B



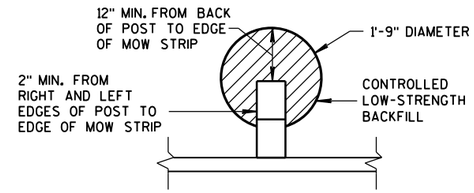
PLAN VIEW

MOW STRIP FOR TIGHT SPACING LAYOUT



PLAN VIEW

JOINT PLACEMENT FOR CONCRETE MOW STRIP



ALTERNATIVE HMA
MOW STRIP DESIGN

(1) CONTROLLED LOW-STRENGTH BACKFILL OR EMULSIFIED ASPHALT.

(2) DEPTH OF MOW STRIP:
ASPHALT - 4"
CONCRETE - 4"
EMULSIFIED ASPHALT - 1" OR LESS

(3) FOR EMULSIFIED ASPHALT MOW STRIP LEAVE OUTS NOT REQUIRED. (TYPICAL FOR ALL POSTS.)

GUARDRAIL MOW STRIP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

NT

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S.D.D. 14 B 28-3

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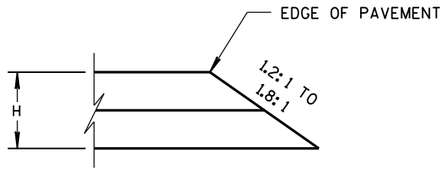
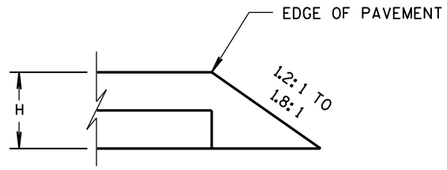
S.D.D. 14 B 28-3



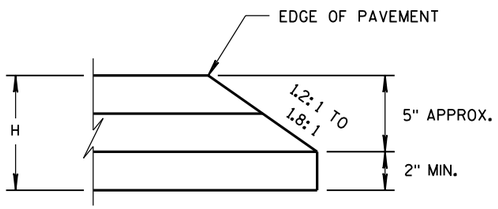
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



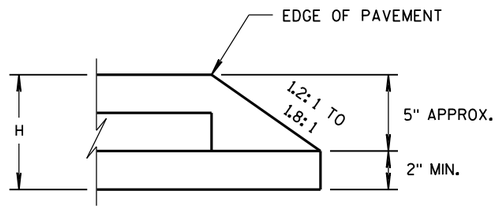
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

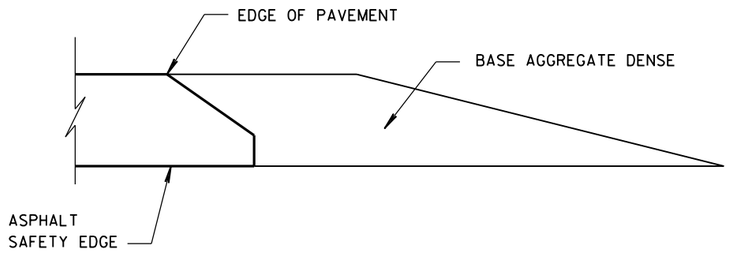
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

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S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

2. USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

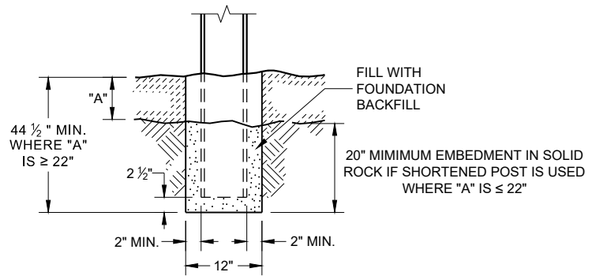
3. IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

4. WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

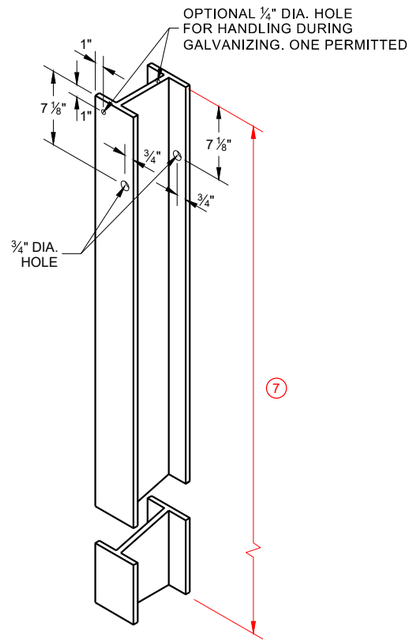
5. FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

6. WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

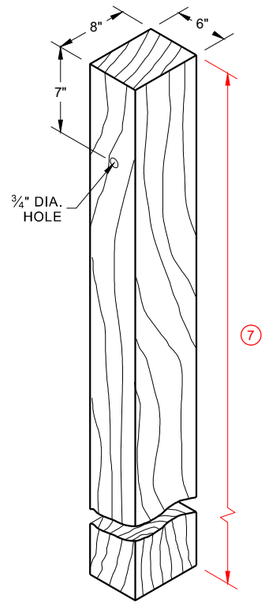
7. TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



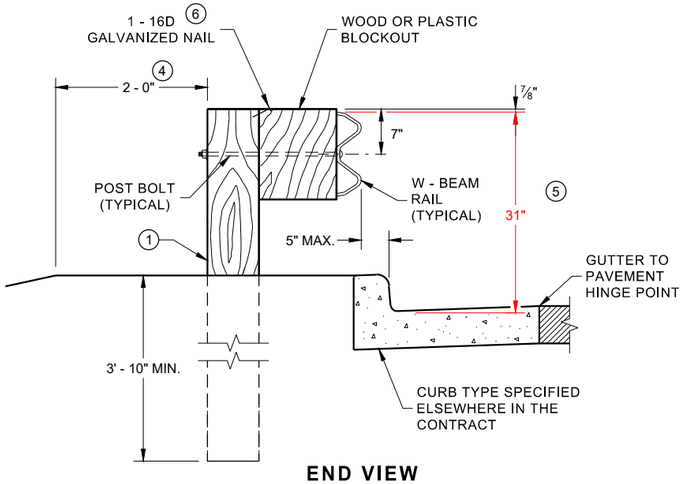
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



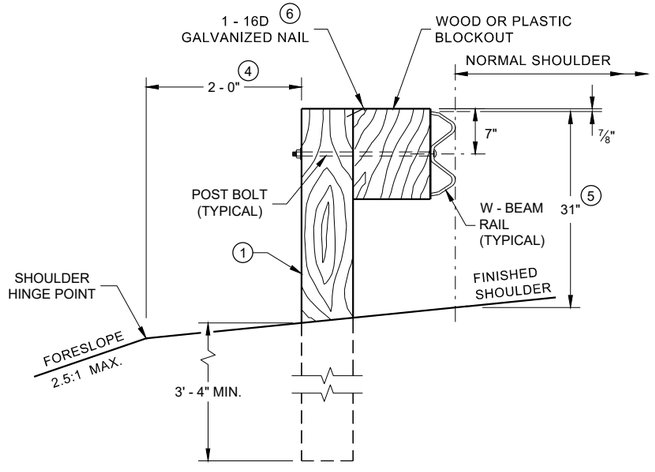
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



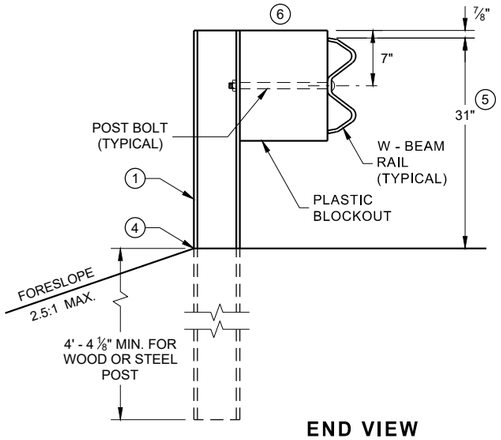
WOOD POST (6" X 8") NOMINAL (1)



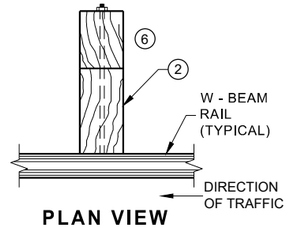
END VIEW
LOCATED ALONG A CURBED ROADWAY



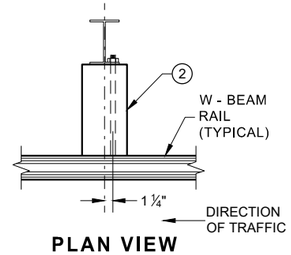
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



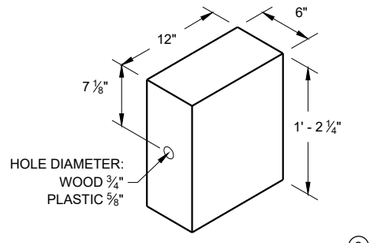
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA 146

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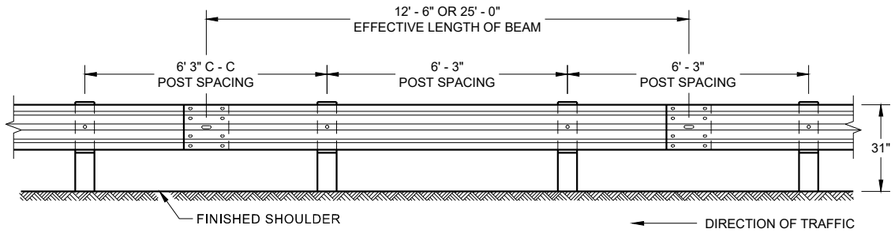
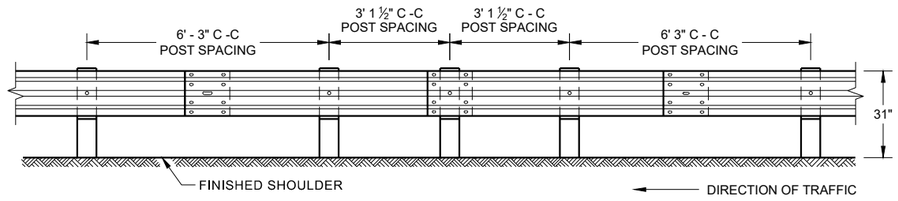
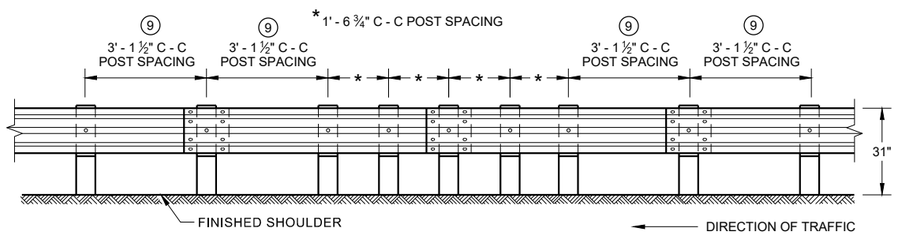


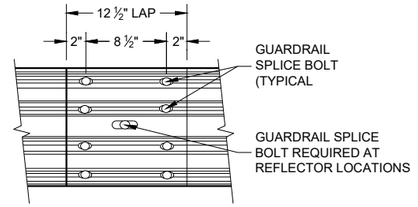
FRONT VIEW
POST SPACING STANDARD INSTALLATION



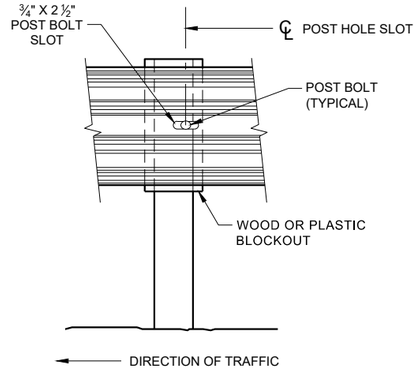
FRONT VIEW
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



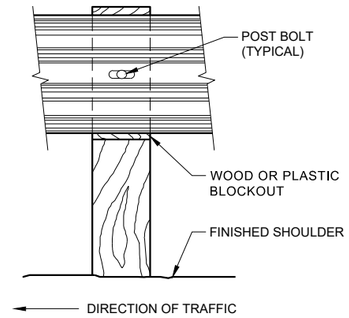
FRONT VIEW
QUARTER POST SPACING (QS)



FRONT VIEW
MID-SPAN BEAM SPLICE

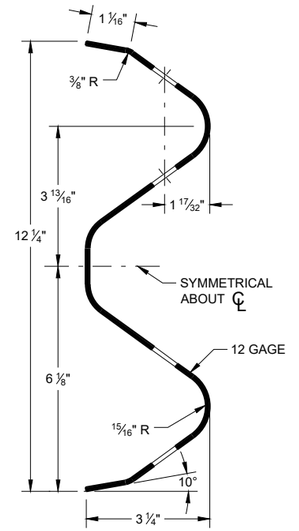


FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST

ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION



SECTION THRU W-BEAM RAIL

GENERAL NOTES

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ¾" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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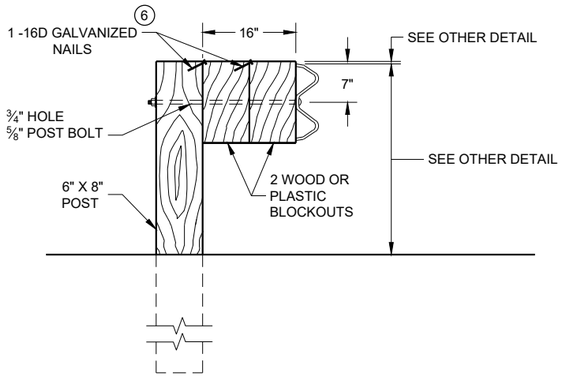
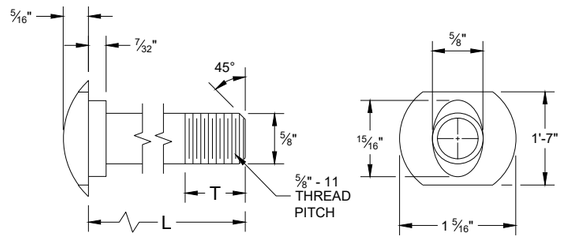


DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

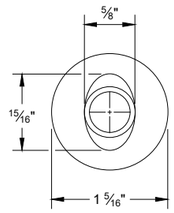
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3/16".
2. IF THE BOLT EXTENDS MORE THAN ¼" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

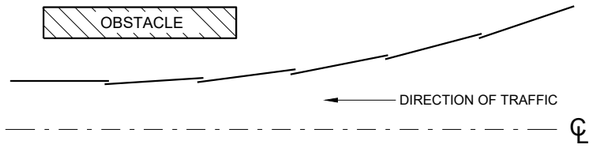


POST BOLT TABLE

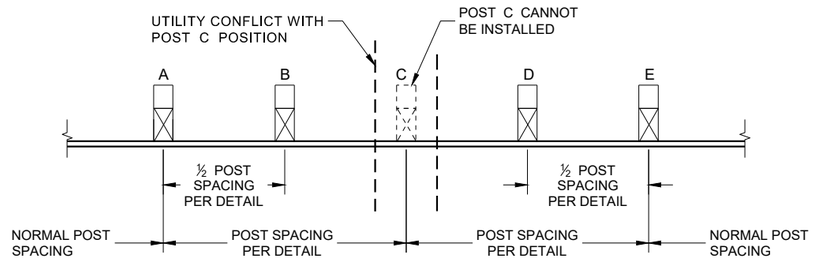
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



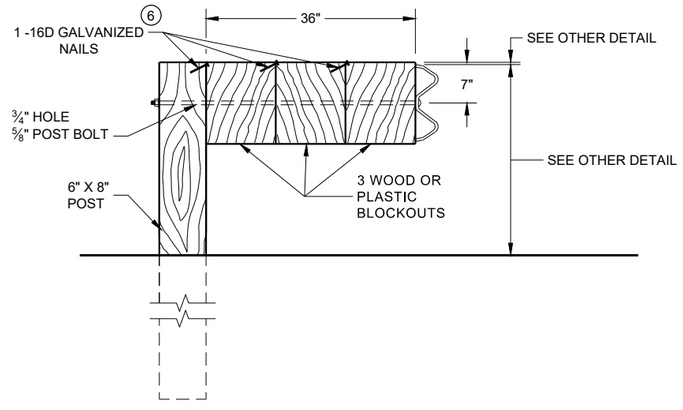
ALTERNATE BOLT HEAD



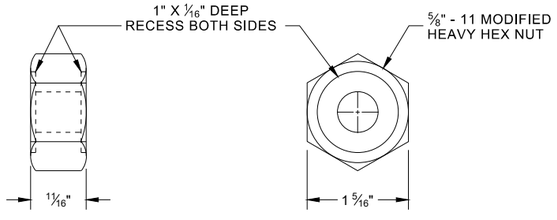
PLAN VIEW
BEAM LAPPING DETAIL



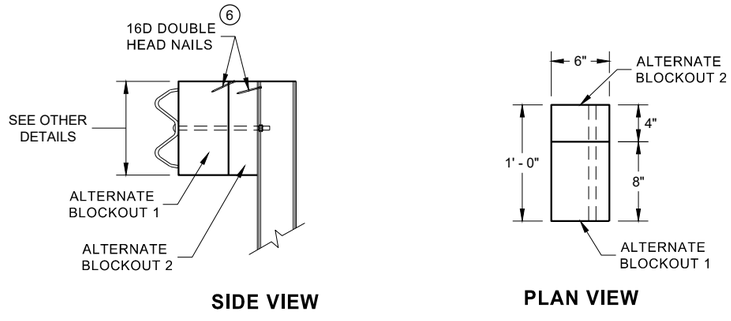
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



ALTERNATE WOOD BLOCKOUT DETAIL

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

(6) WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

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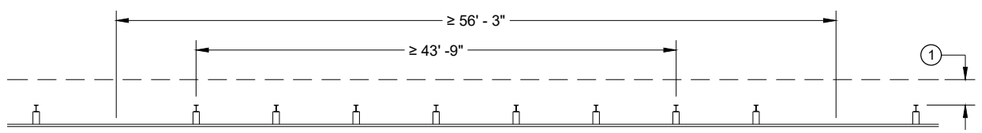
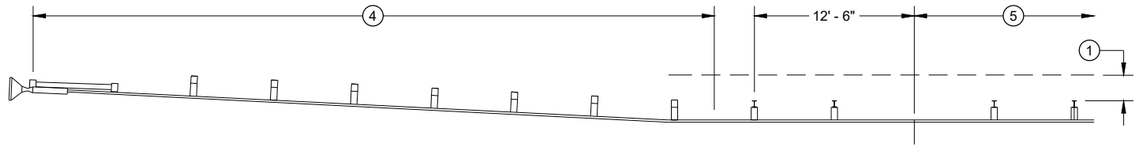
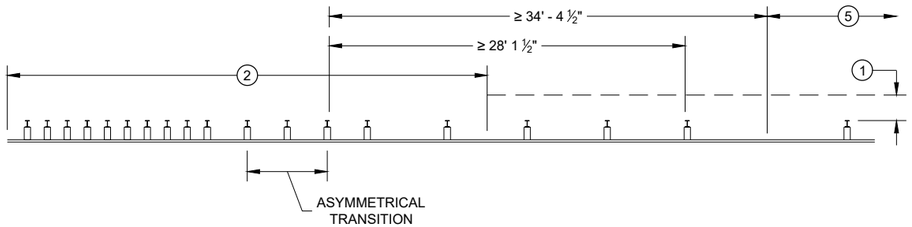
SDD 14B42 - 06c



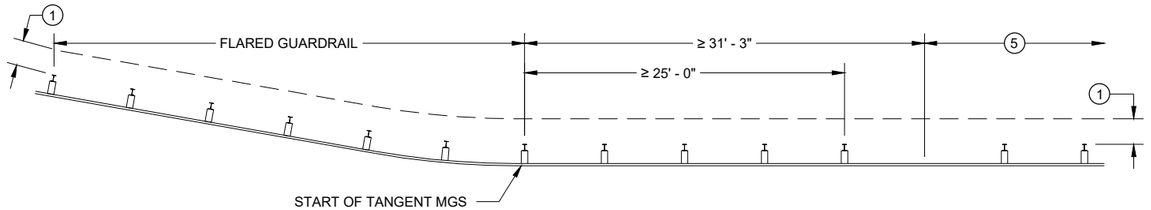
MISSING POST IN NORMAL BEAM GUARD RUN



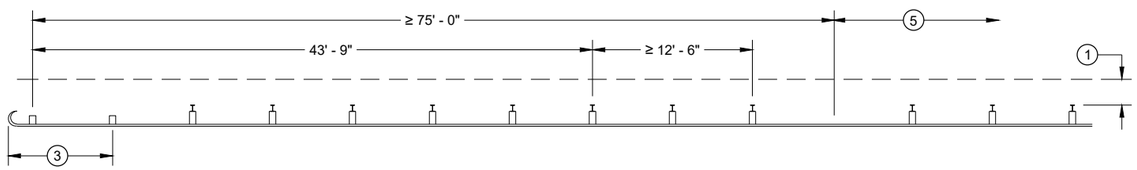
MISSING POST IN NORMAL BEAM GUARD RUN NEAR EAT



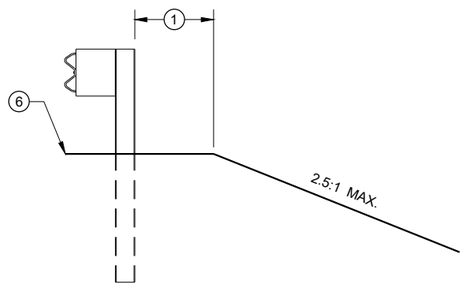
MISSING POST NEAR APPROACH THRIE BEAM TRANSITION



MISSING POST IN NORMAL BEAM GUARD RUN NEAR FLARED BEAM GUARD



MISSING POST IN NORMAL BEAM GUARD RUN NEAR TYPE 2 TERMINAL



CROSS SECTION VIEW

1. MINIMUM OF 2 FEET OF GRADING BEHIND POST.
2. SEE SDD 14B45 FOR MORE DETAILS.
3. SEE SDD 14B47 FOR MORE DETAILS.
4. SEE SDD 14B44 FOR MORE DETAILS.
5. SEE MISSING POST IN NORMAL BEAM GUARD RUN FOR DISTANCE TO NEXT MISSING POST AND AREA FOR WELL DRAINED, COMPACTED SOILS.
6. SEE PLAN FOR SHOULDER DESIGN.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR
FHWA

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SDD 14B42 - 06d

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED

(C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.

(D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.

(E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

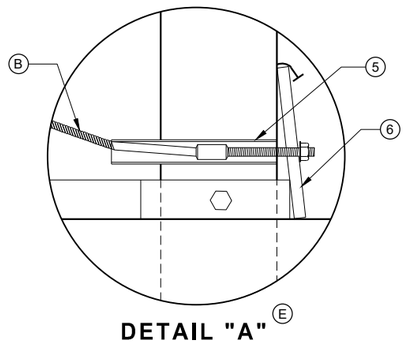
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

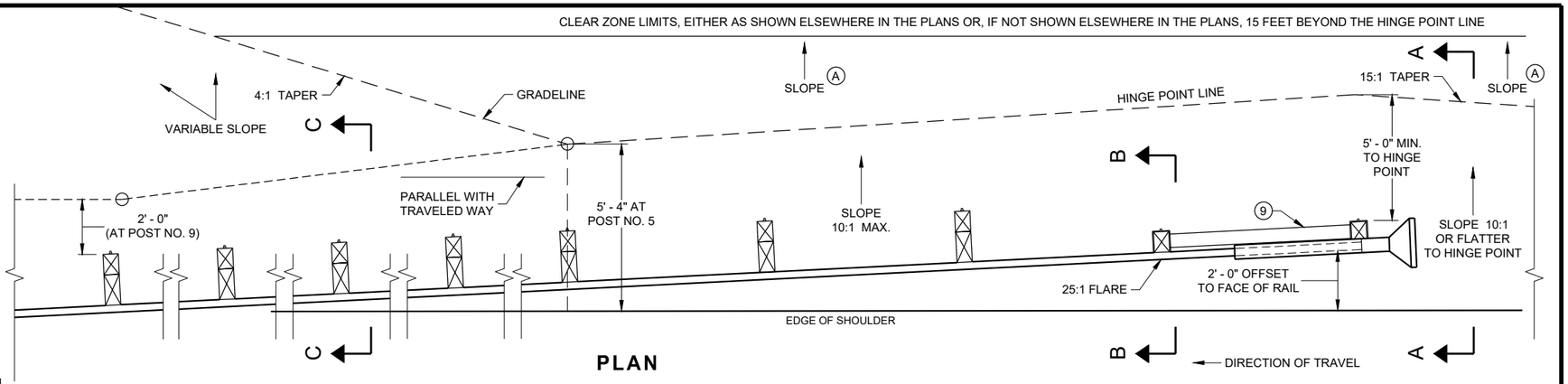
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

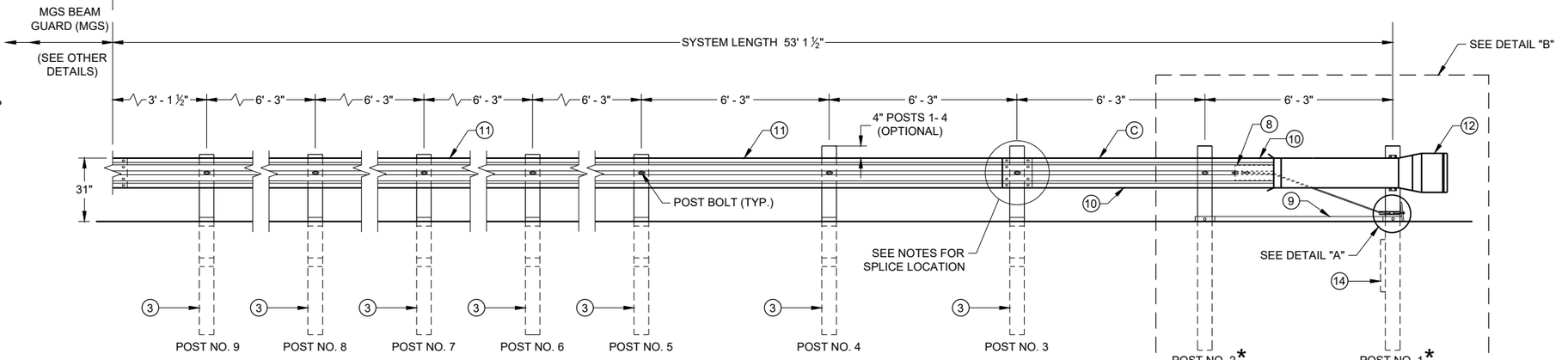
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



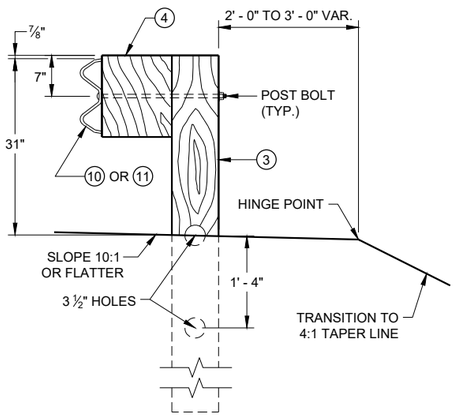
DETAIL "A" (E)



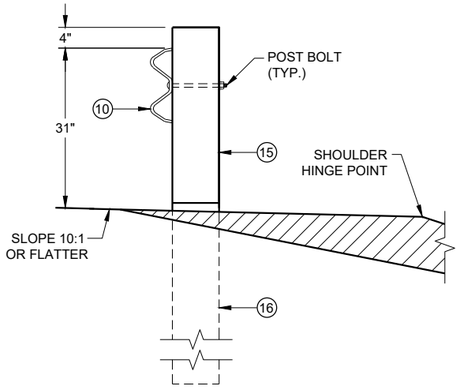
PLAN



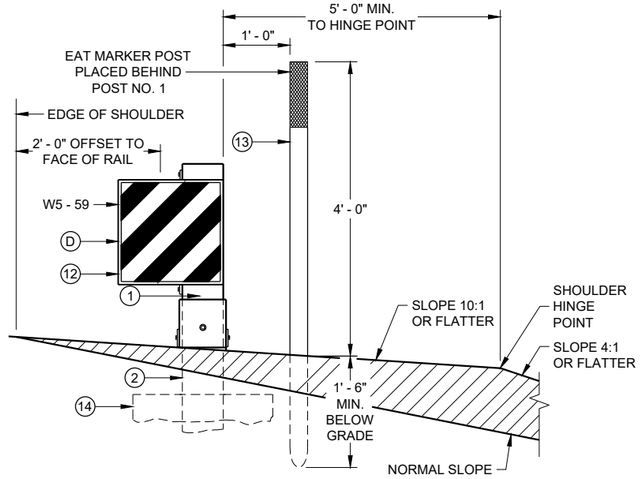
ELEVATION



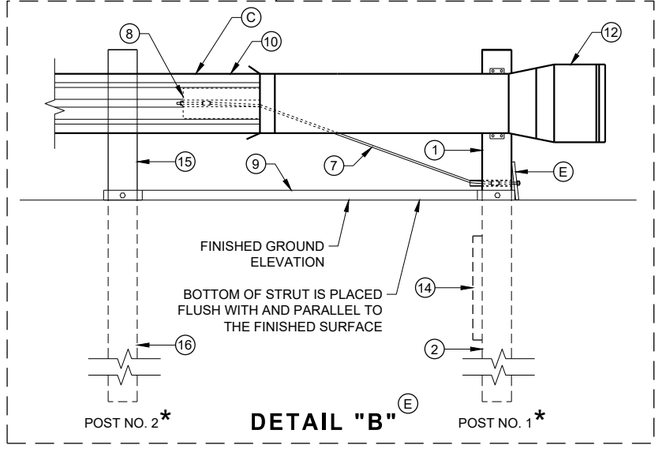
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

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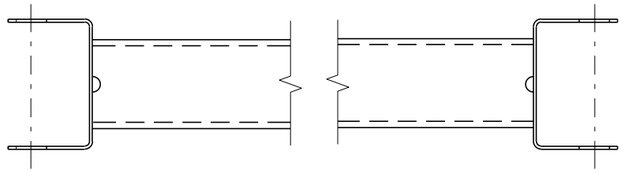
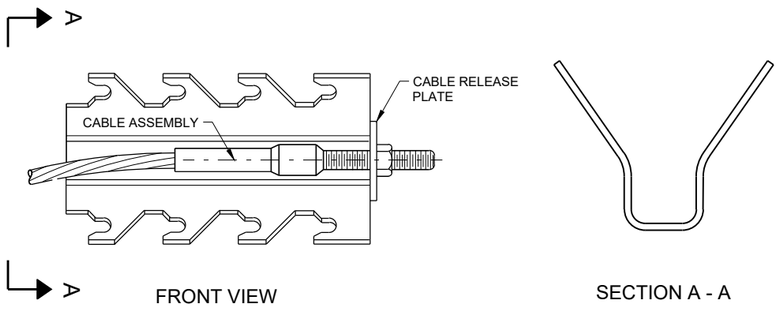


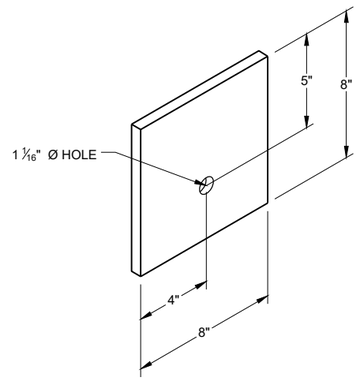
GENERIC GROUND STRUT ⑨ Ⓔ

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUGACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	IMPACT HEAD
⑬	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
⑭	SOIL PLATE
⑮	UPPER POST NO. 2
⑯	LOWER POST NO. 2



GENERIC ANCHOR CABLE BOX ⑨ Ⓔ



BEARING PLATE ⑥ Ⓔ

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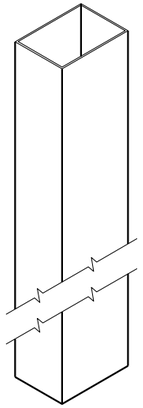
6

SDD 14B44 - 04b

SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA



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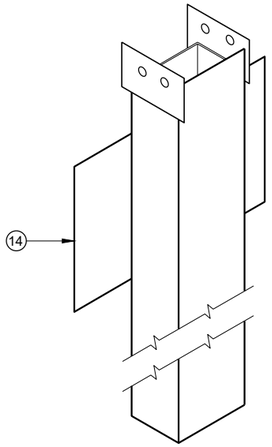

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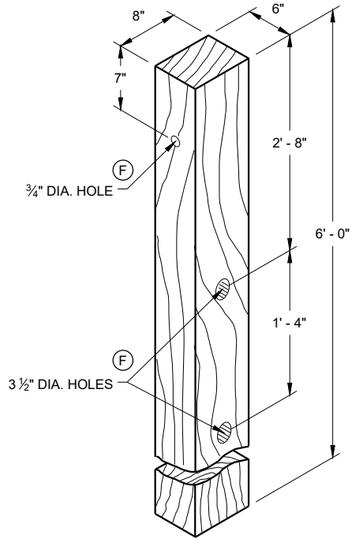
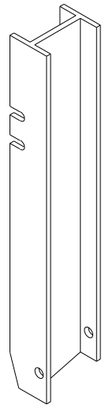


WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



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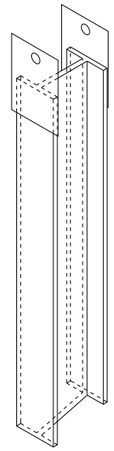

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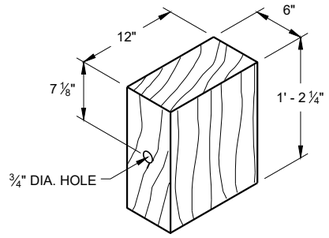
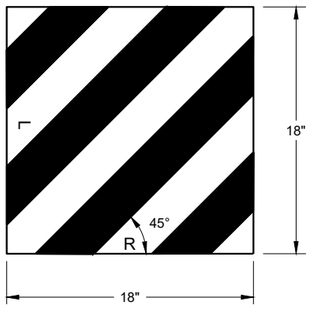
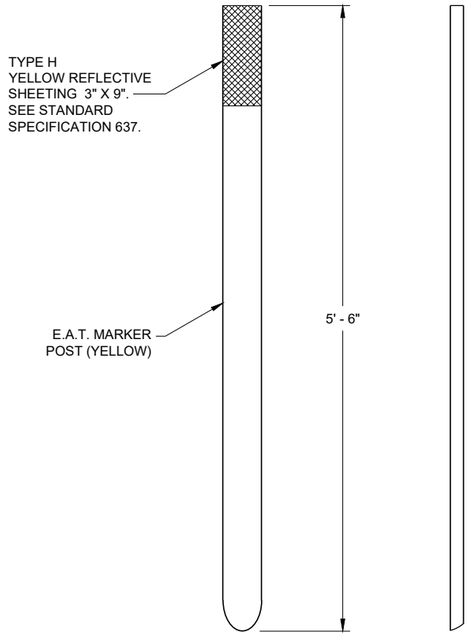


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



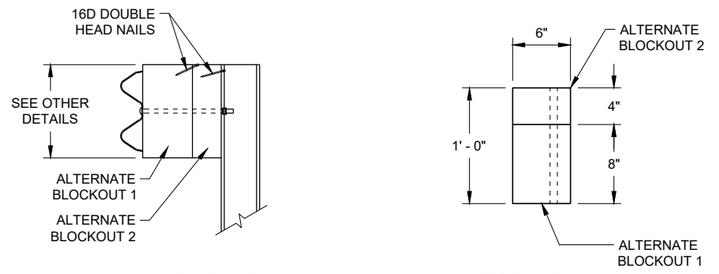
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

FHWA

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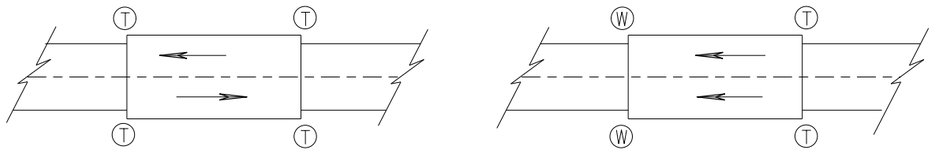
SDD 14B44 - 04c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

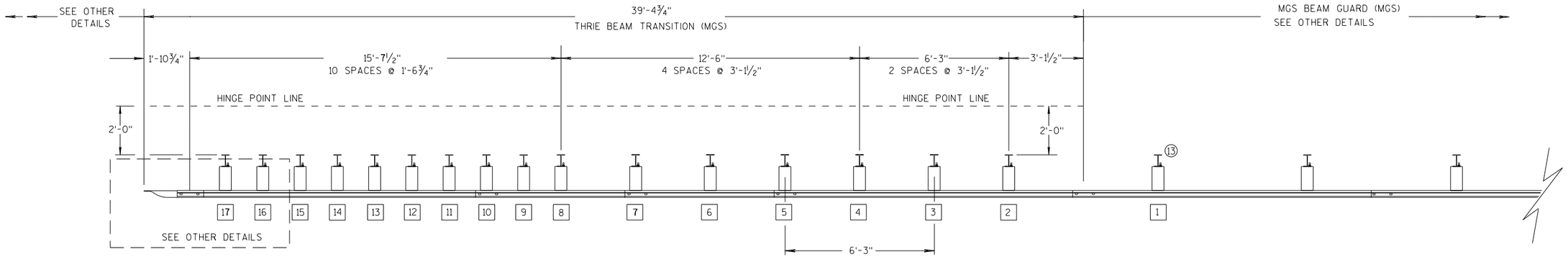
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

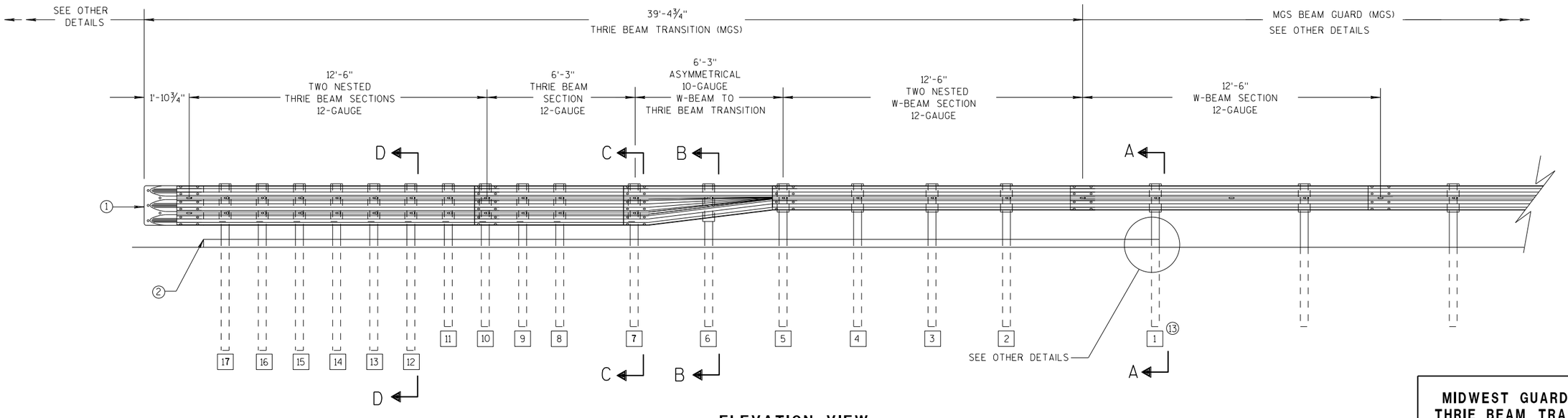
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD14B42



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 45-5a

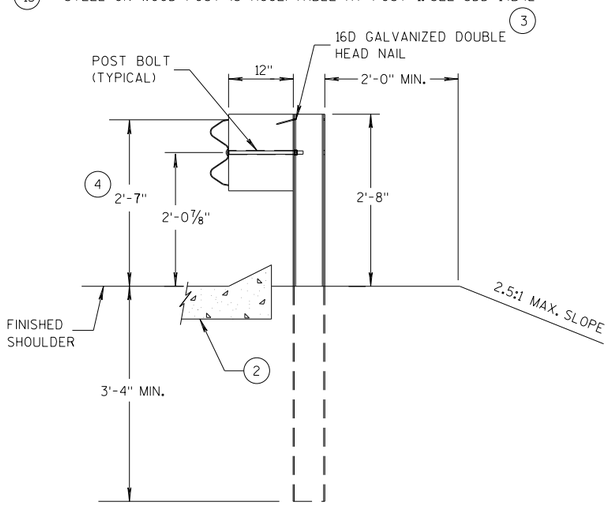
GENERAL NOTES

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

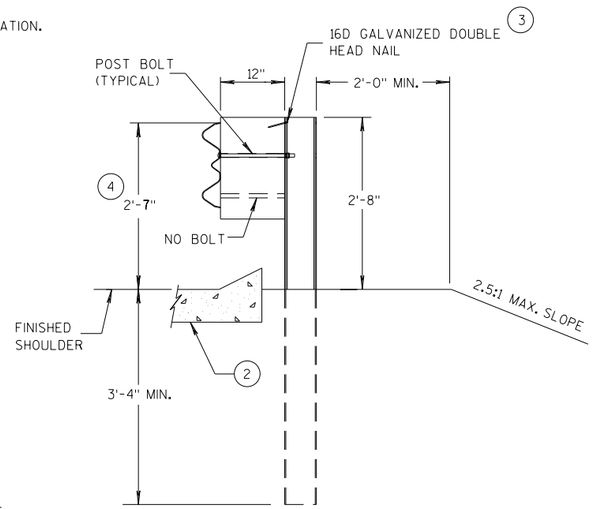
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



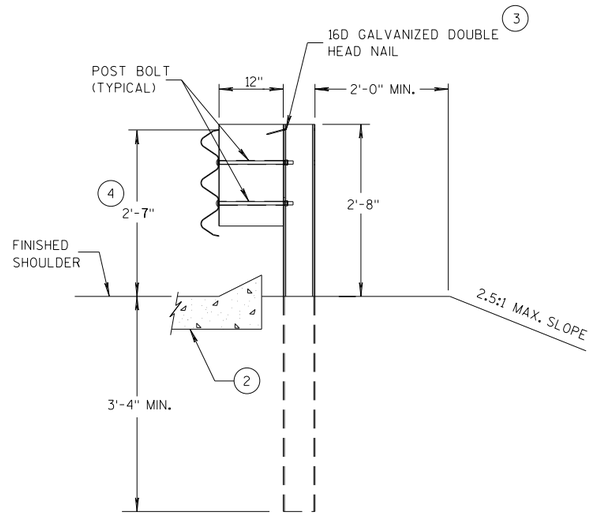
SECTION A-A (13)

POSTS 1-5



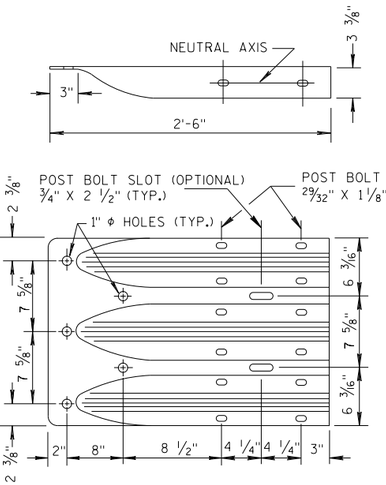
SECTION B-B

POST 6

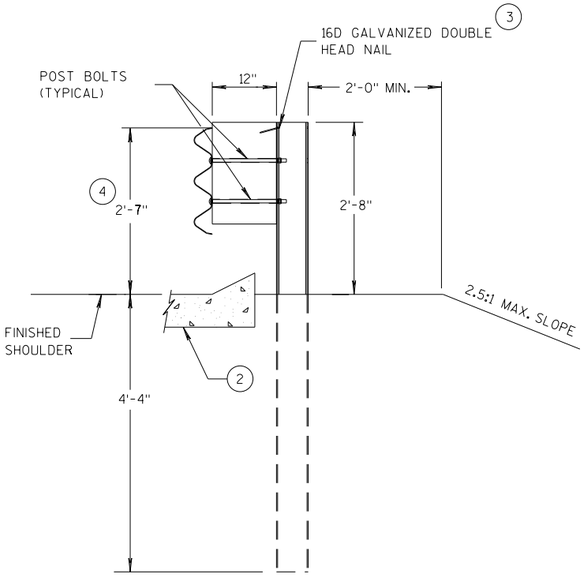


SECTION C-C

POSTS 7-11

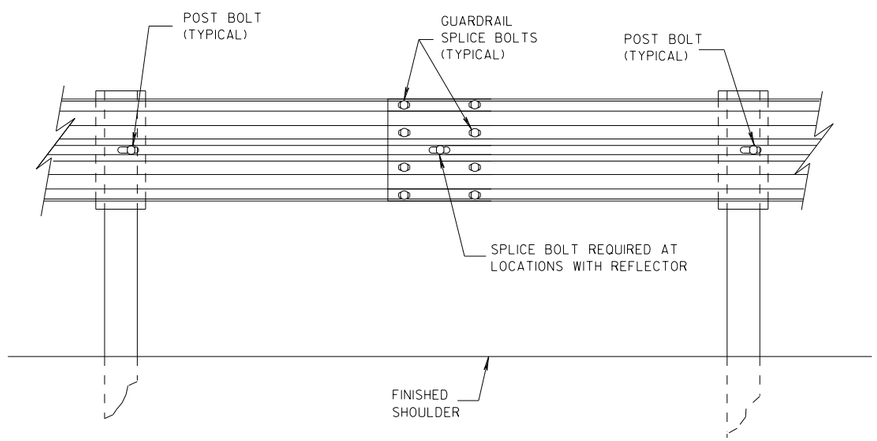


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

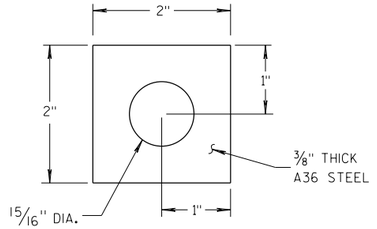
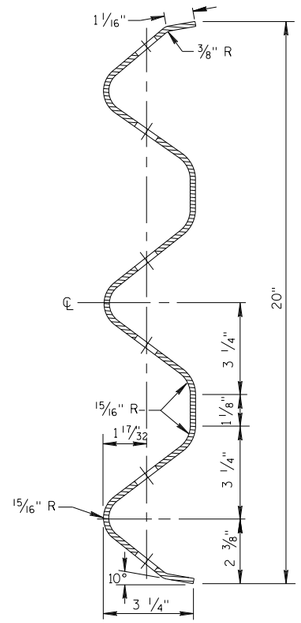


PLATE WASHER DETAIL



SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

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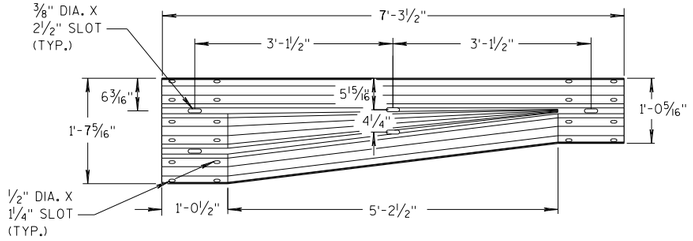
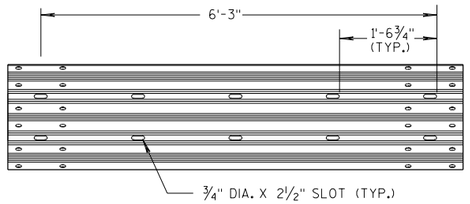
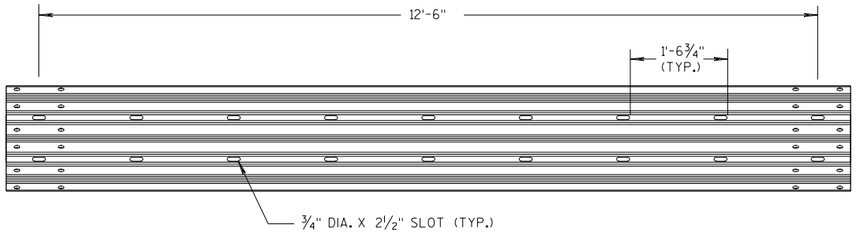
S.D.D. 14 B 45-5b



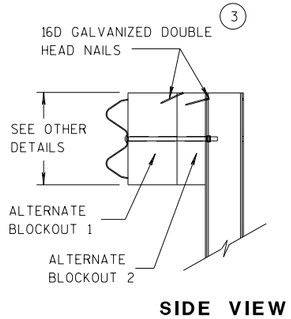
W-BEAM TO THRIE BEAM TRANSITION SECTION



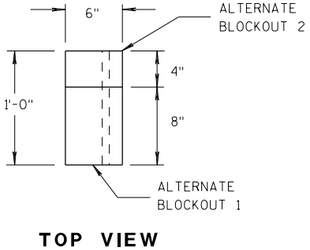
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

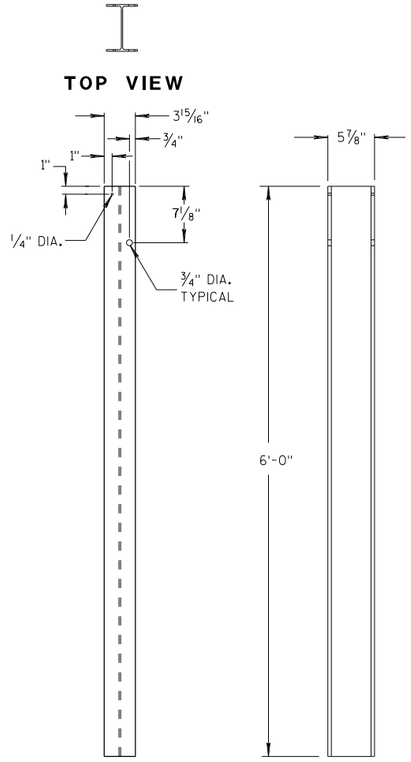


SIDE VIEW



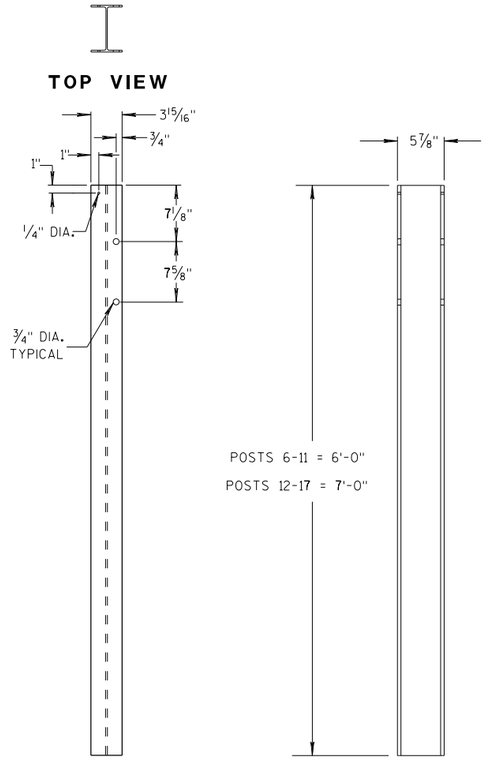
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



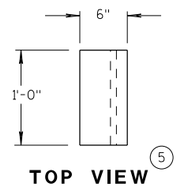
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

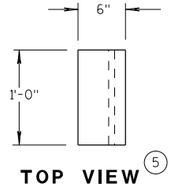


FRONT VIEW SIDE VIEW

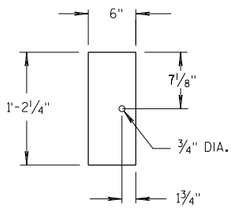
STEEL POSTS 6-17



TOP VIEW (5)

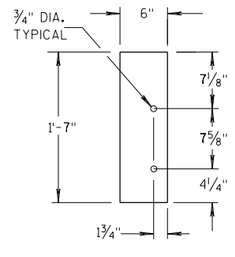


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

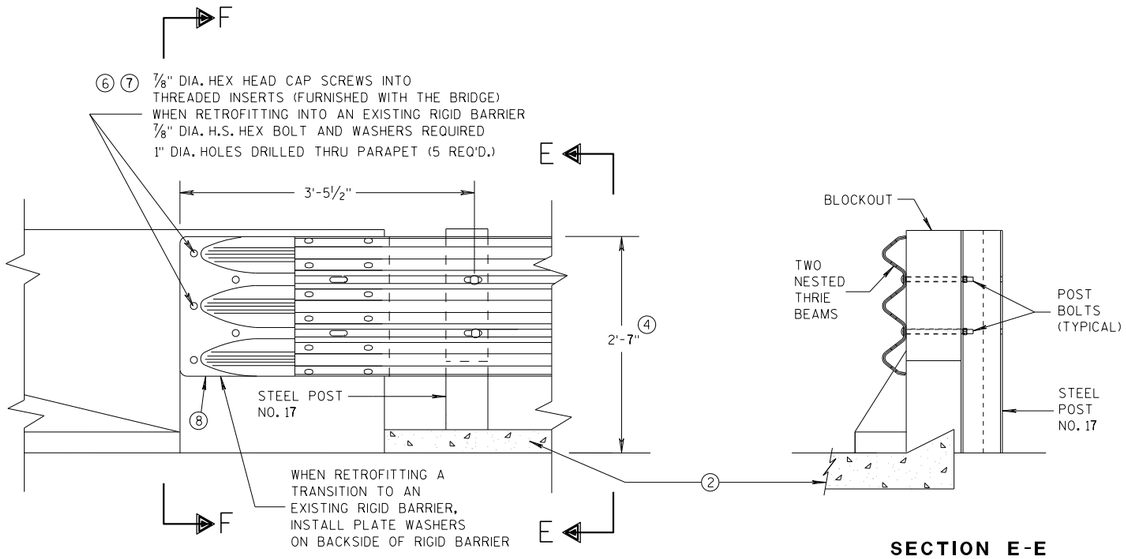
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

6
S.D.D. 14 B 45-5c



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

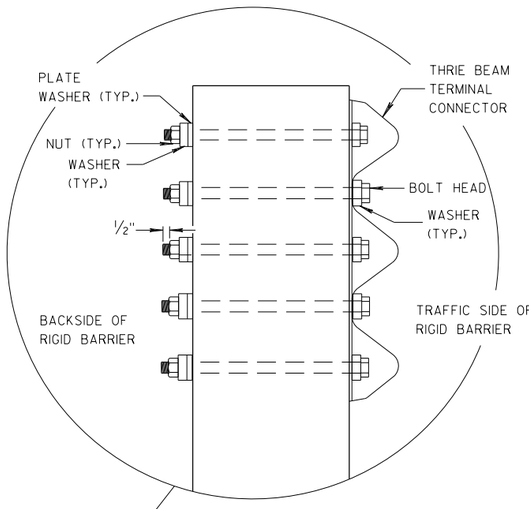
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

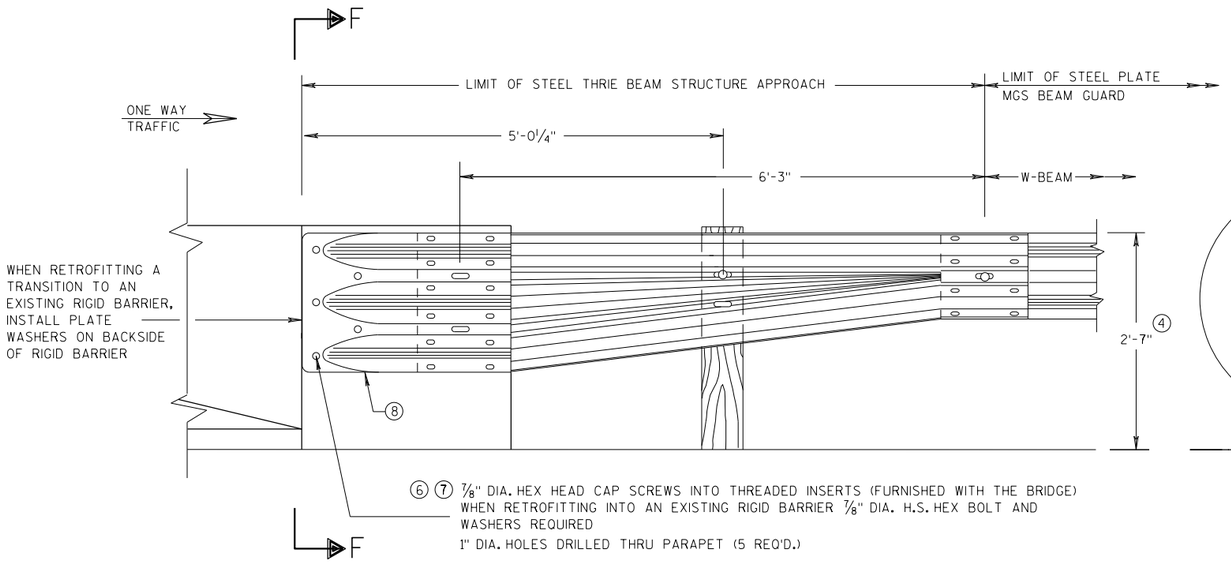
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

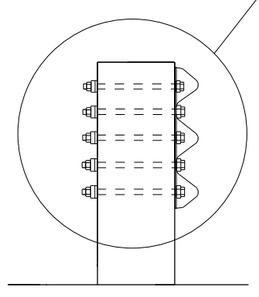
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

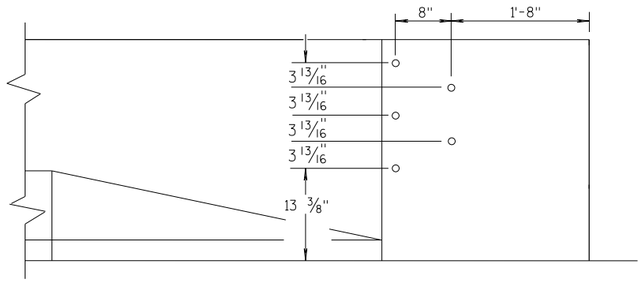




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS D[illegible] UNIT SUPERVIS[illegible]NT
FHWA

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S.D.D. 14 B 45-5d

6

S.D.D. 14 B 45-5d

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

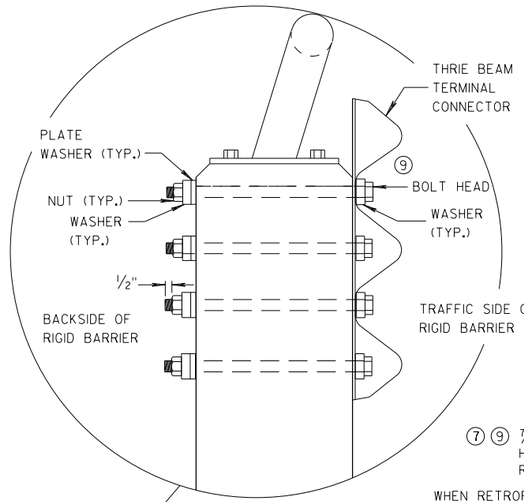
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

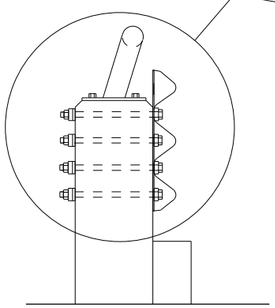
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

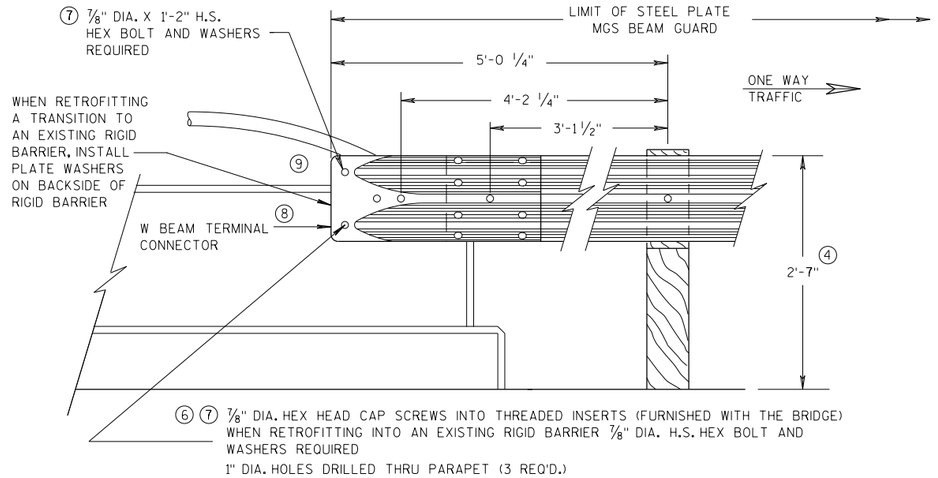
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

(9) BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.





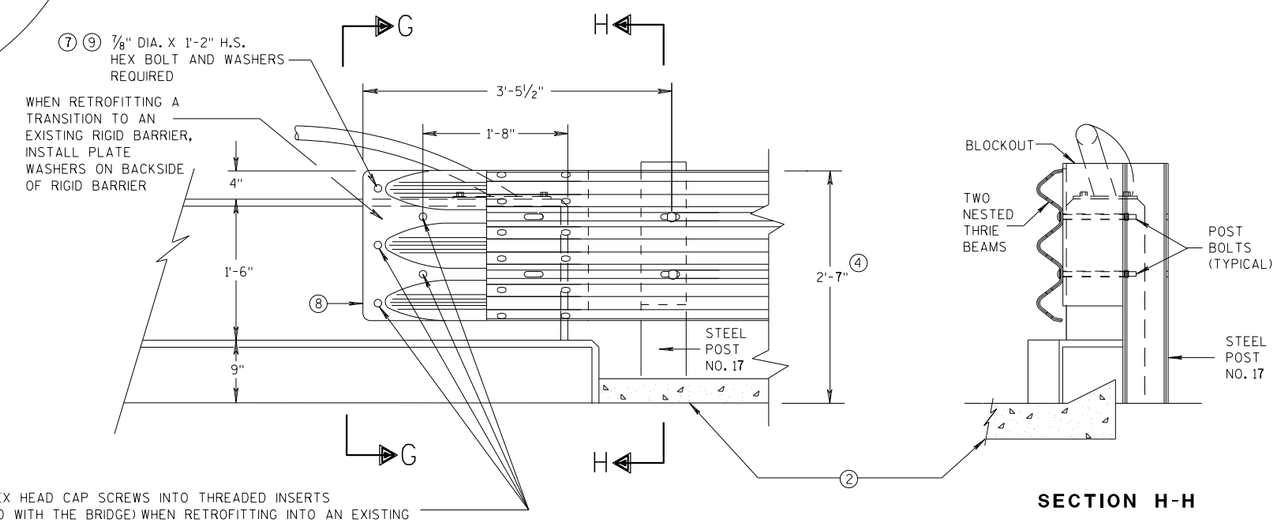
SECTION G-G



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS D UNIT SUPERVIS ...NT
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S.D.D. 14 B 45-5e

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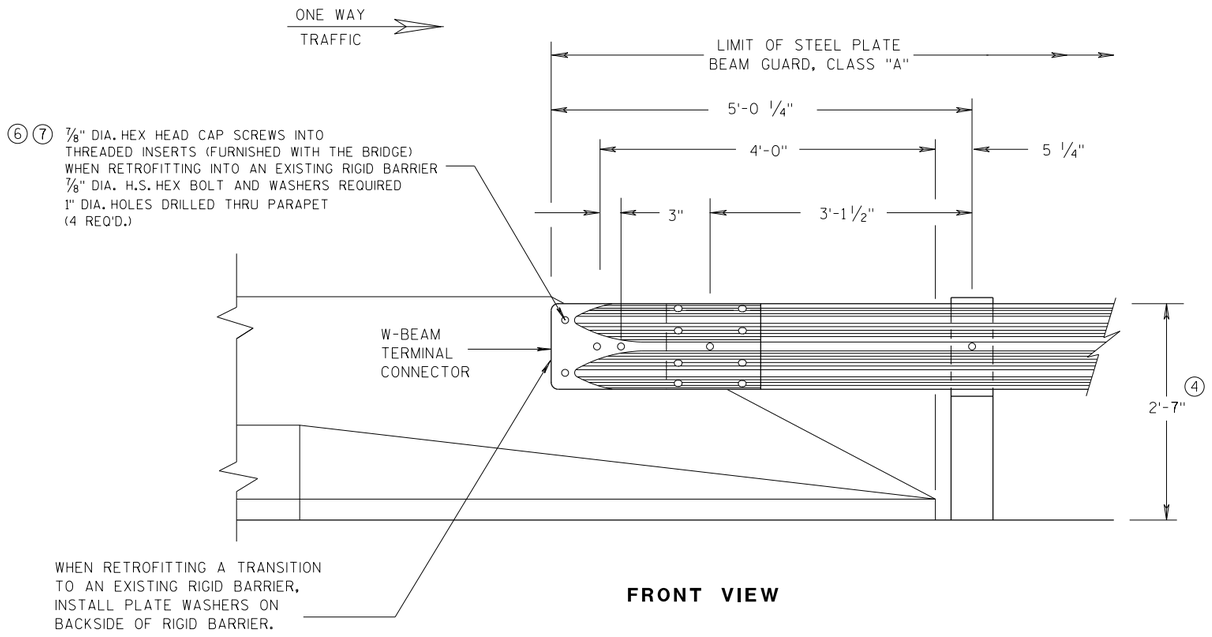


FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

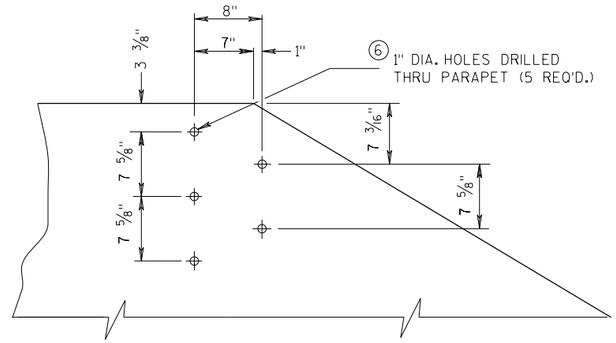
GENERAL NOTES

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

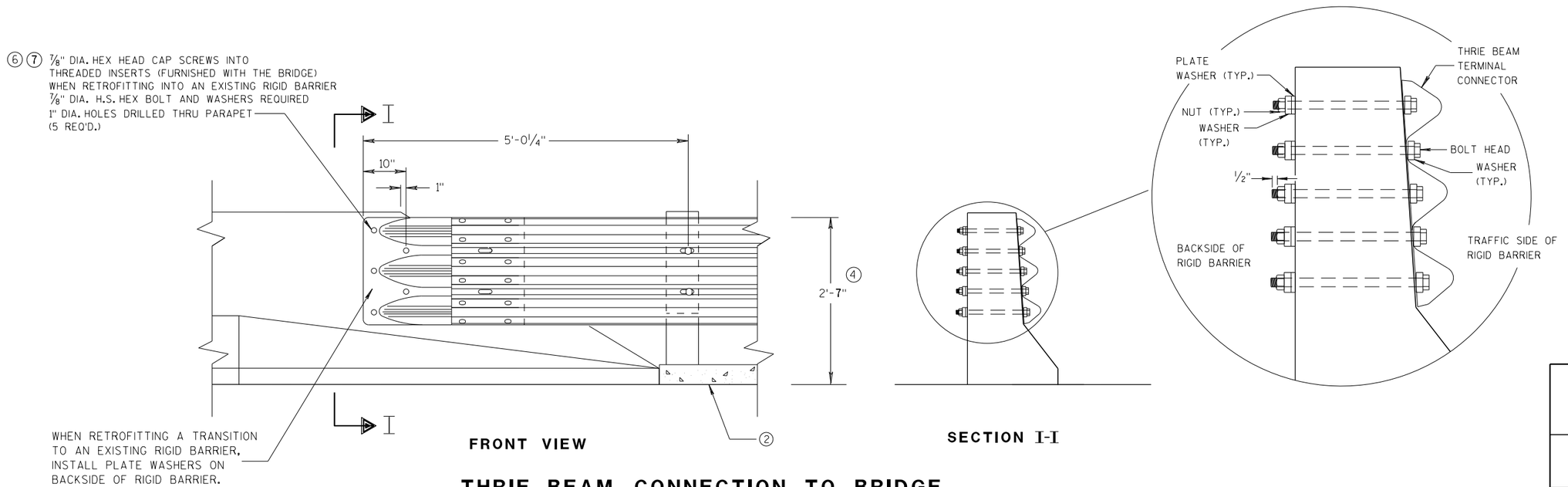
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



FRONT VIEW

SECTION I-I

THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS [illegible] UNIT SUPERVI[illegible]ENT
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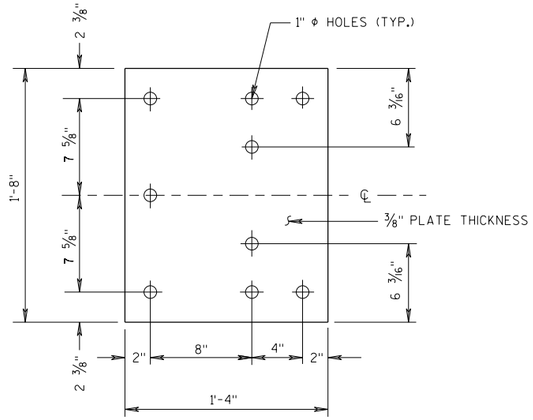
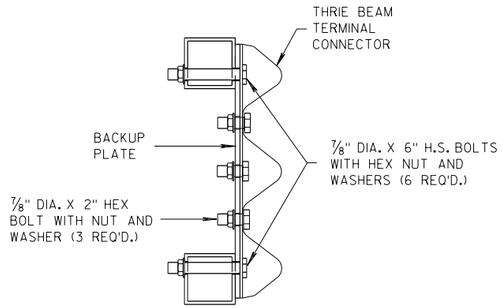
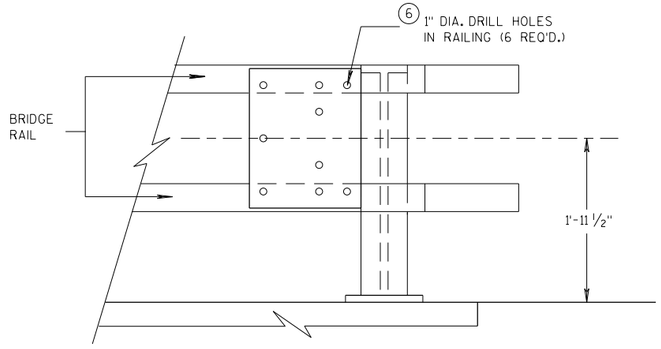


BACK-UP PLATE DETAIL



SECTION J-J

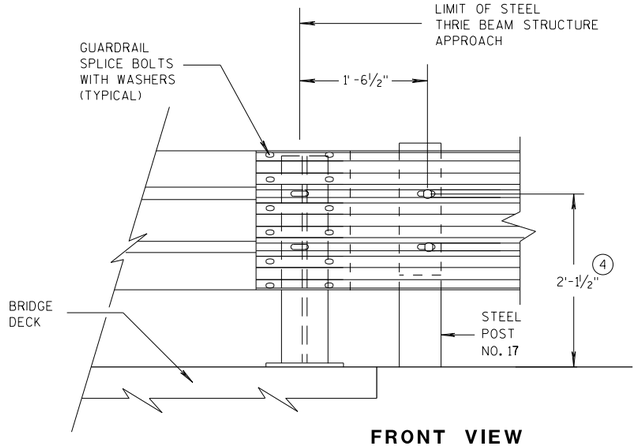


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

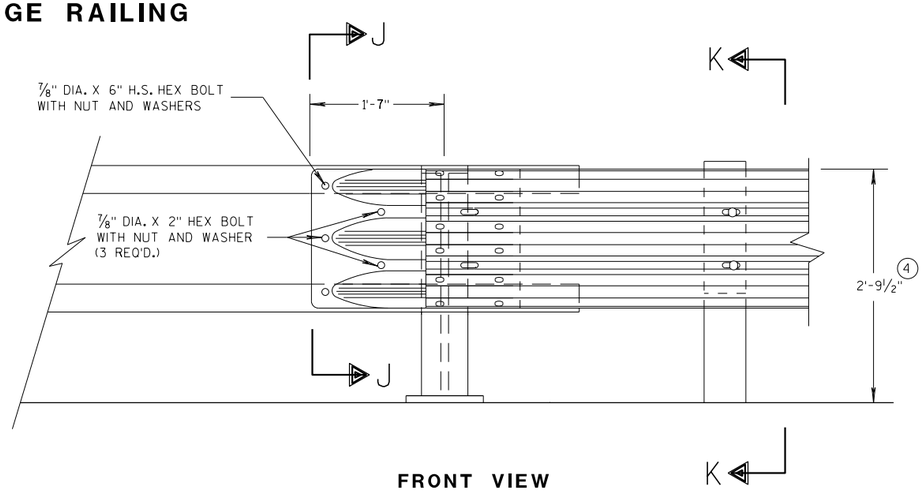
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

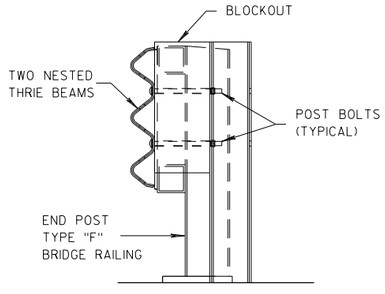


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED 07/2018 — DATE
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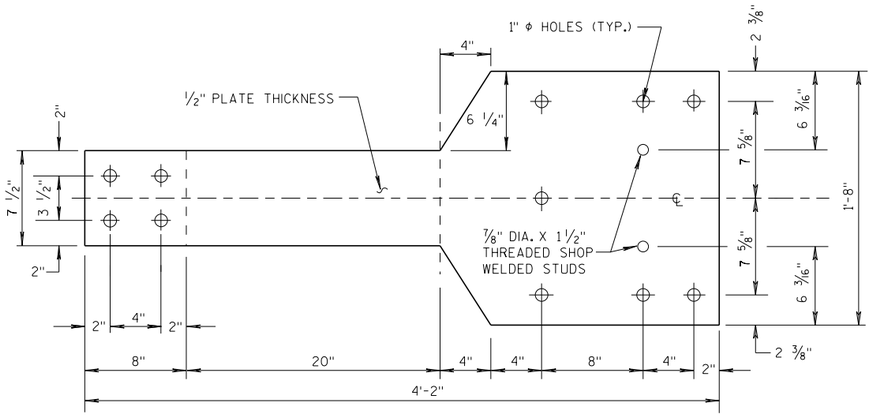
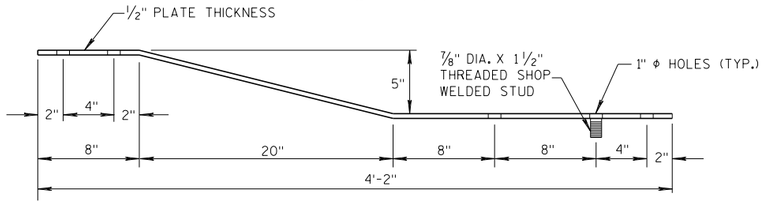
GENERAL NOTES

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

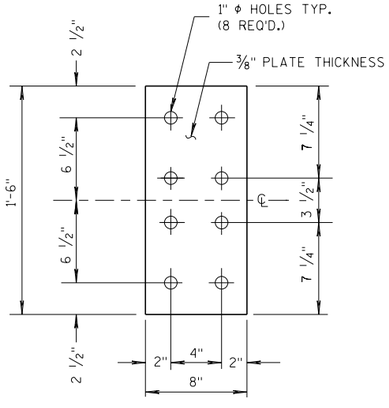


FRONT VIEW

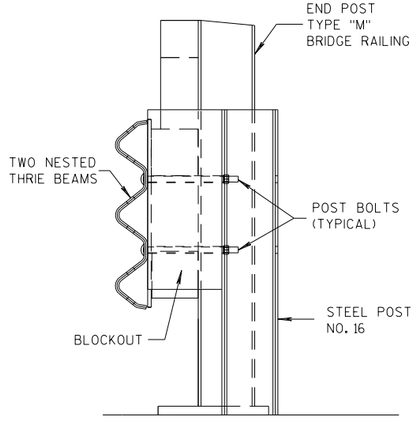


PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

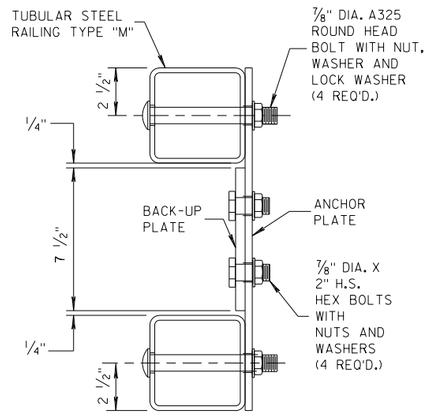


FRONT VIEW

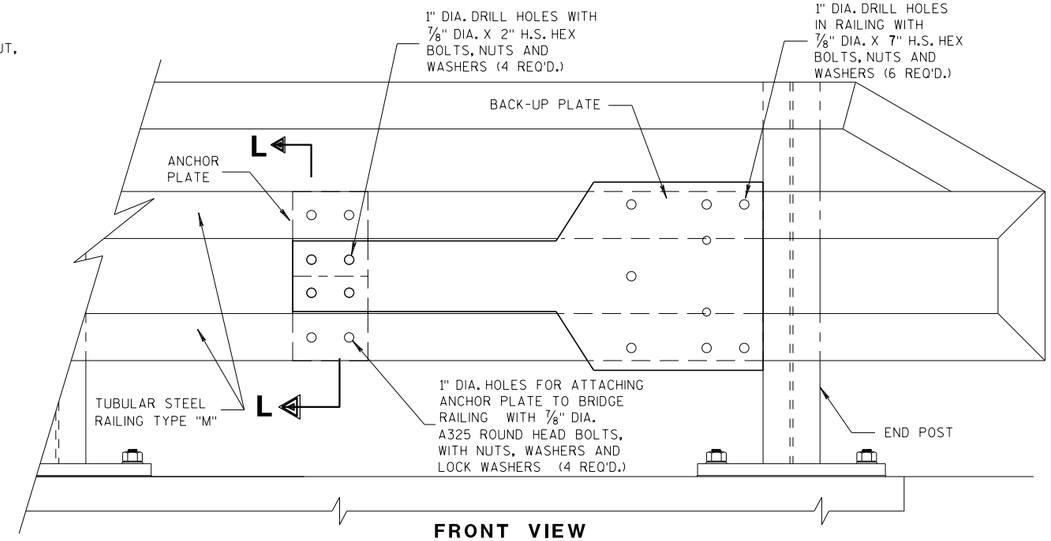


SECTION M-M

ANCHOR PLATE DETAIL, TYPE "M"

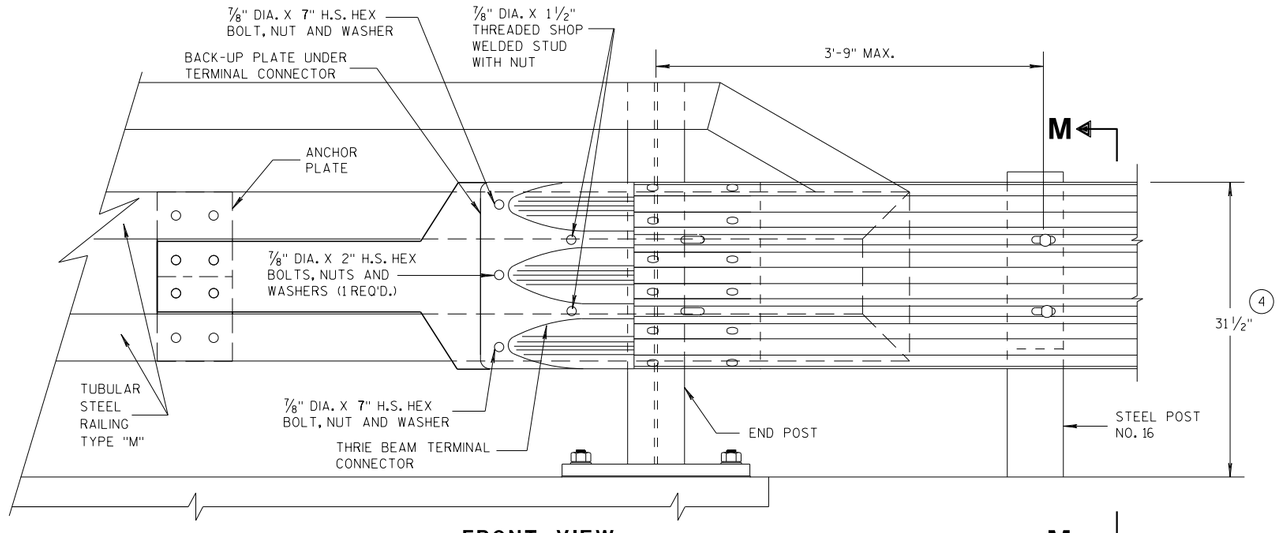


SECTION L-L

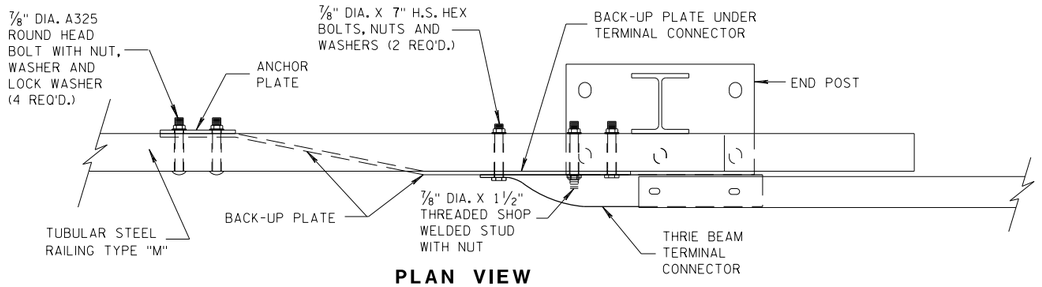


FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
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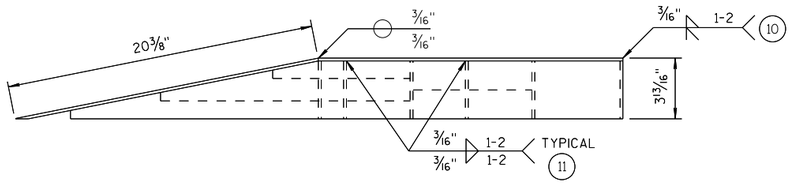

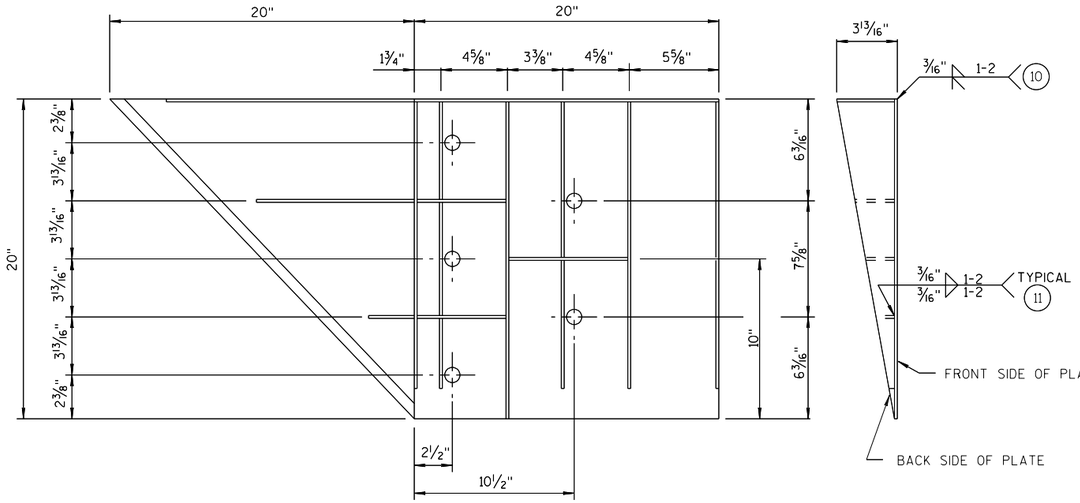

WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

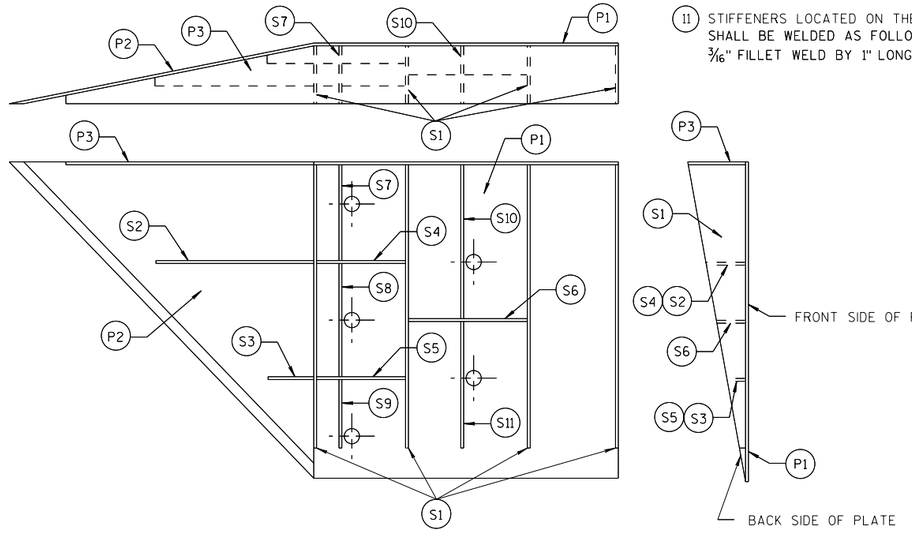

PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(10) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(11) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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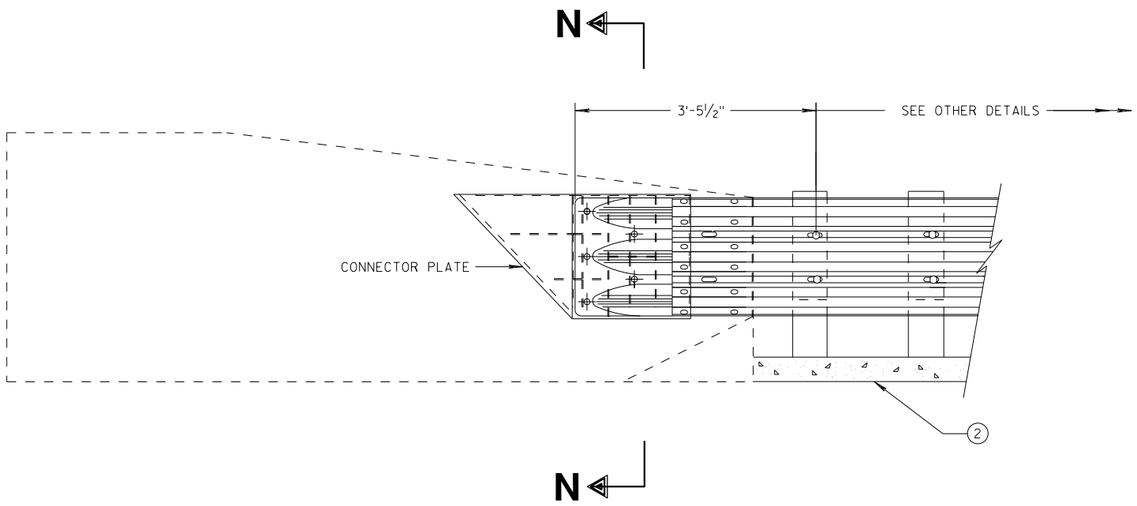
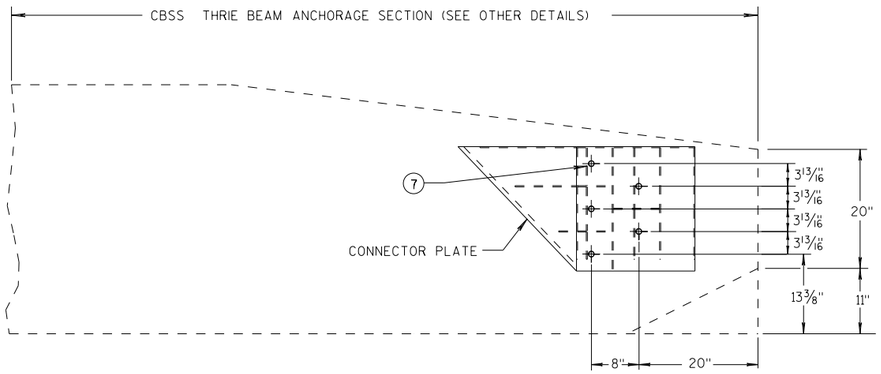


THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



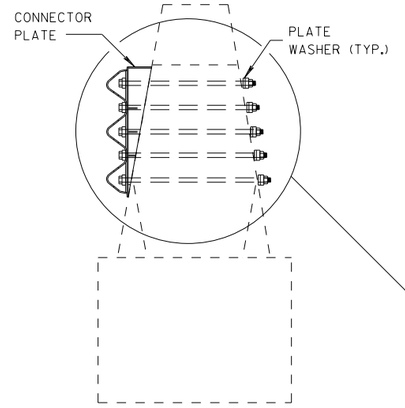
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

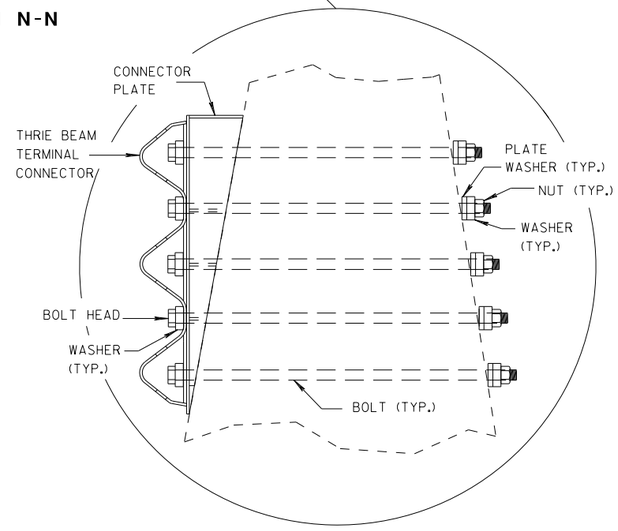
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X ⅝" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
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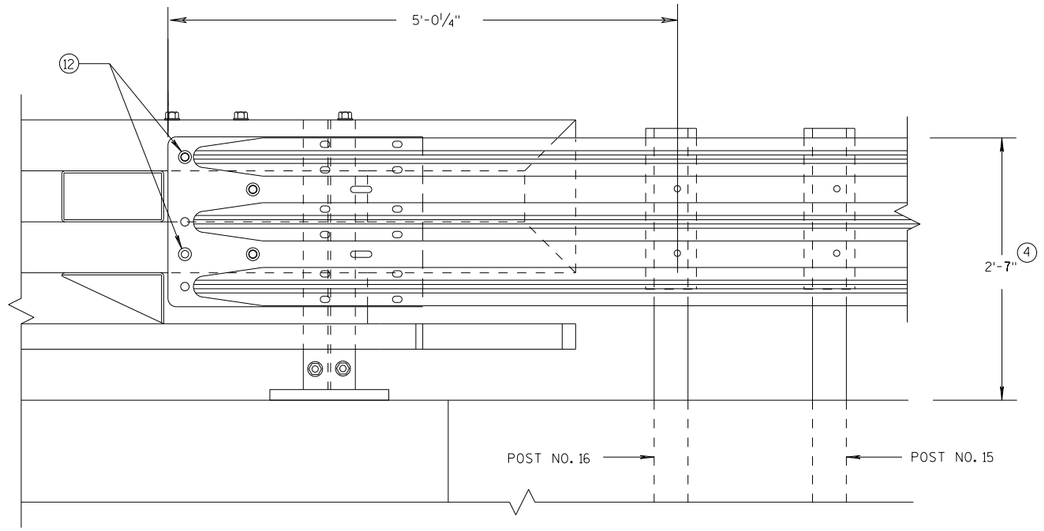
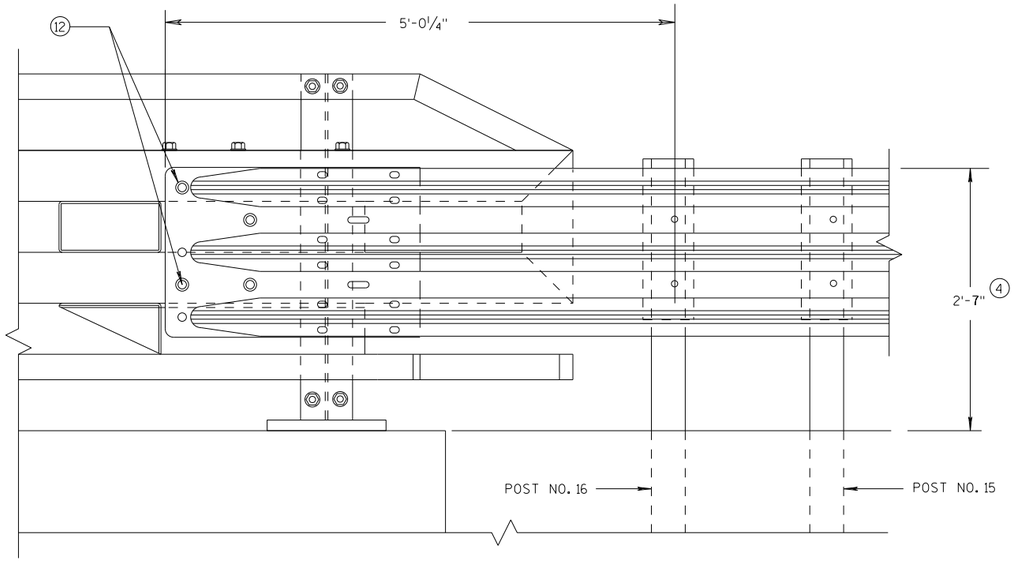


ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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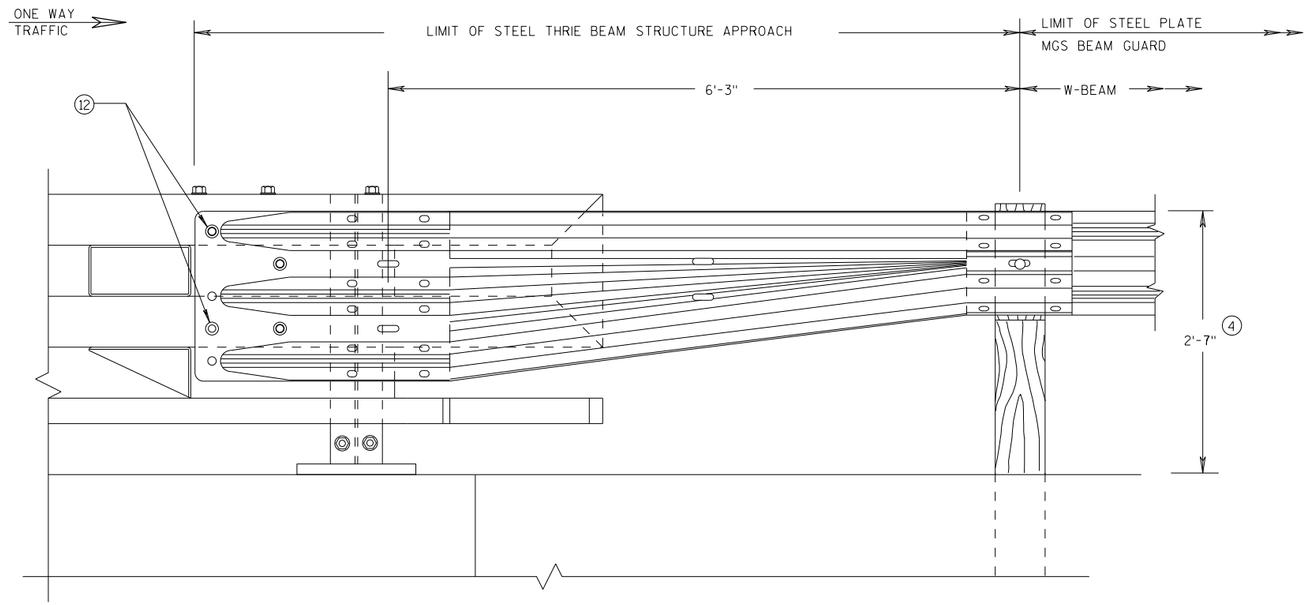


FRONT VIEW

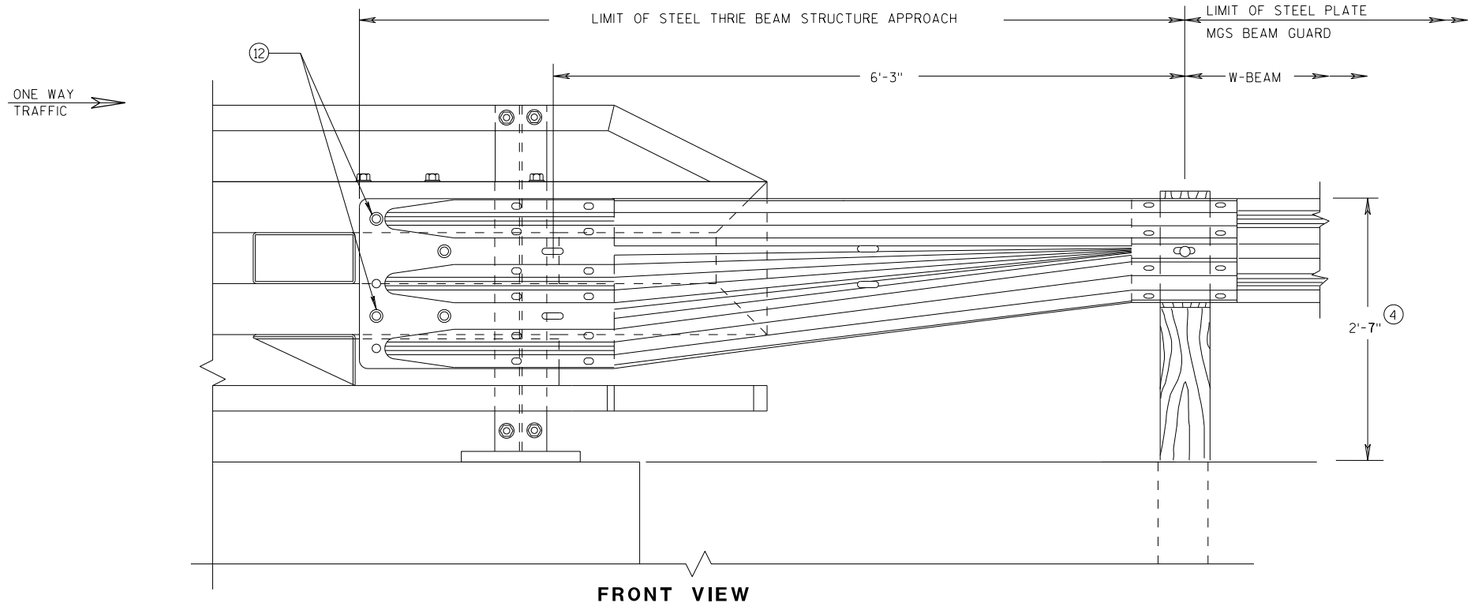
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY4"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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7/2018 DATE
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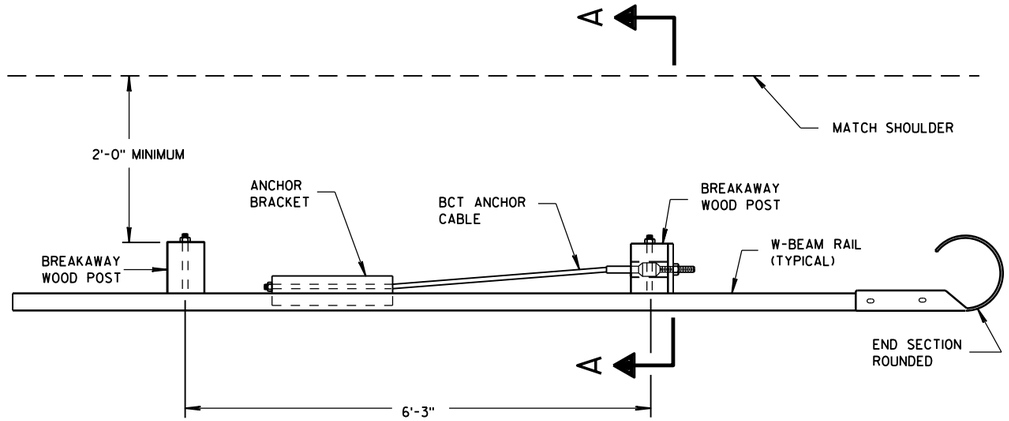
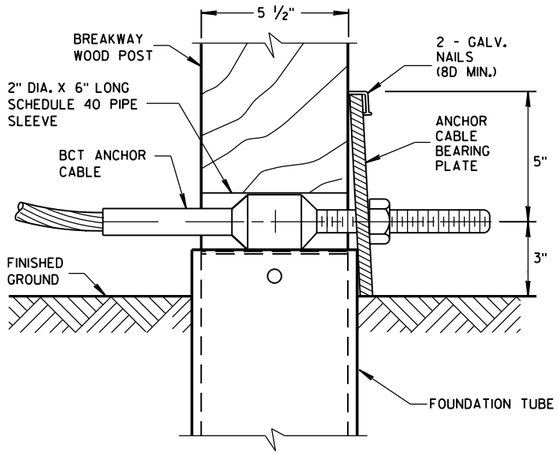


PLAN VIEW



DETAIL A

POST NO. 1
GROUNG STRUT NOT SHOWN FOR CLARITY.

GENERAL NOTES

SEE SDD 14 B 42 FOR MORE INFORMATION.

END SECTION BOLTS AND NUTS HAVE THE SAME MATERIAL REQUIREMENTS AS SPLICE BOLTS.

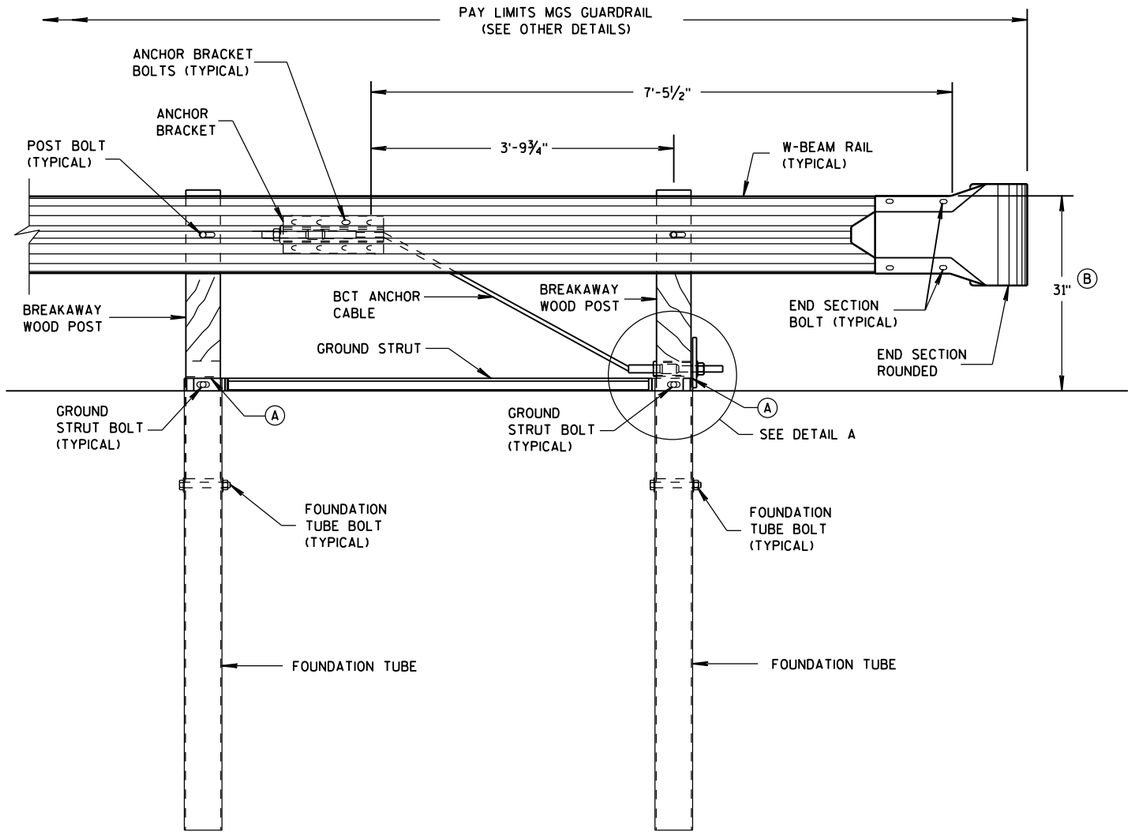
FOUNDATION TUBE BOLTS ARE ⅞" DIAMETER ASTM A307 HEX HEAD BOLT. FOUNDATION TUBE BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅞" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

ANCHOR BRACKET AND GROUND STRUT BOLTS ARE A ⅝" DIAMETER ASTM A307 HEX HEAD BOLT. ANCHOR BRACKET BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅝" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

W-BEAM END SECTION ROUNDED HAS THE SAME MATERIAL PROPERTIES AS STANDARD STEEL RAIL.

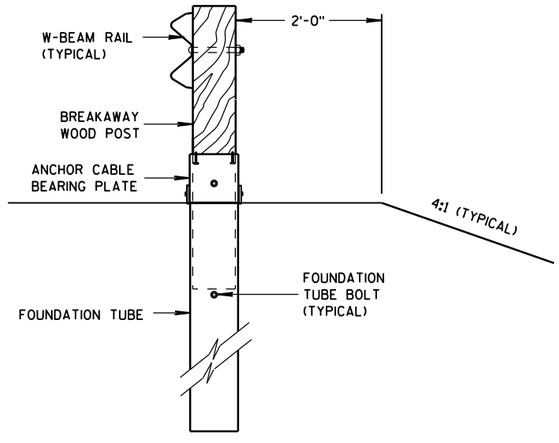
(A) TOP OF FOUNDATION TUBE SHALL BE NO MORE THAN 3" ABOVE FINISHED GROUND.

(B) FOR NEW CONSTRUCTION TOP OF RAIL IS 31" ± 1".
FOR EXISTING INSTALLATIONS TOP OF RAIL IS BETWEEN 27¾" TO 32" ± 1".

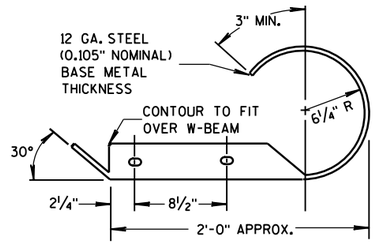


FRONT VIEW

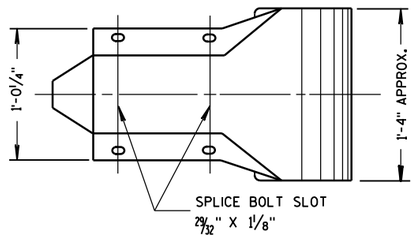
END RAIL DETAIL



SECTION A-A



PLAN VIEW



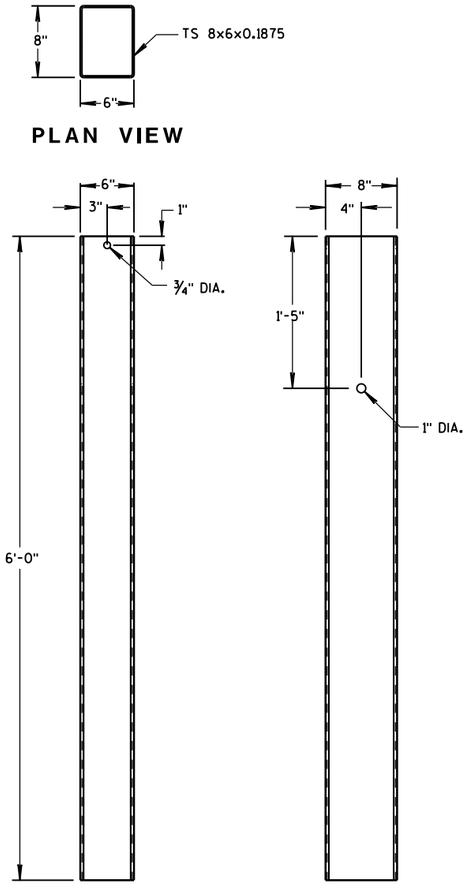
FRONT VIEW

W BEAM END SECTION ROUNDED

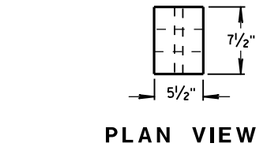
MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

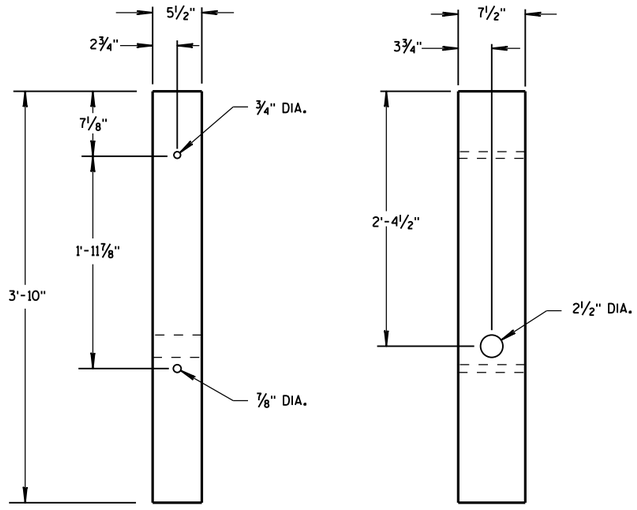
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6
S.D.D. 14 B 47-2a



FOUNDATION TUBE



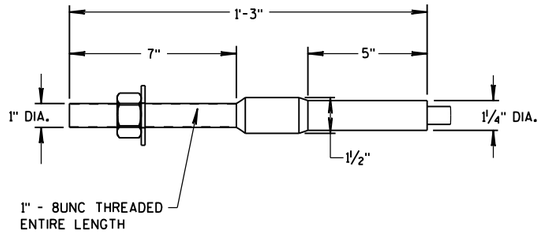


BREAKAWAY WOOD POST

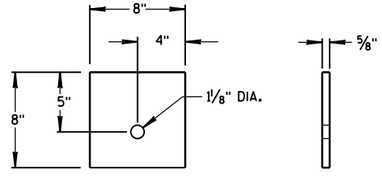
GENERAL NOTES

BCT ANCHOR CABLE IS A ¾" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED. END FITTING SHALL BE MACHINED FROM HOT-ROLLED CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORDING TO ASTM A123. TREADED STUD SHALL CONFORM TO ASTM A325 OR SAE GRADE 5. MINIMUM BREAKING STRENGTH OF WIRE ROPE IS 43,000 LB. WIRE ROPE IS TO BE TAUT.

BCT ANCHOR CABLE



DETAIL B



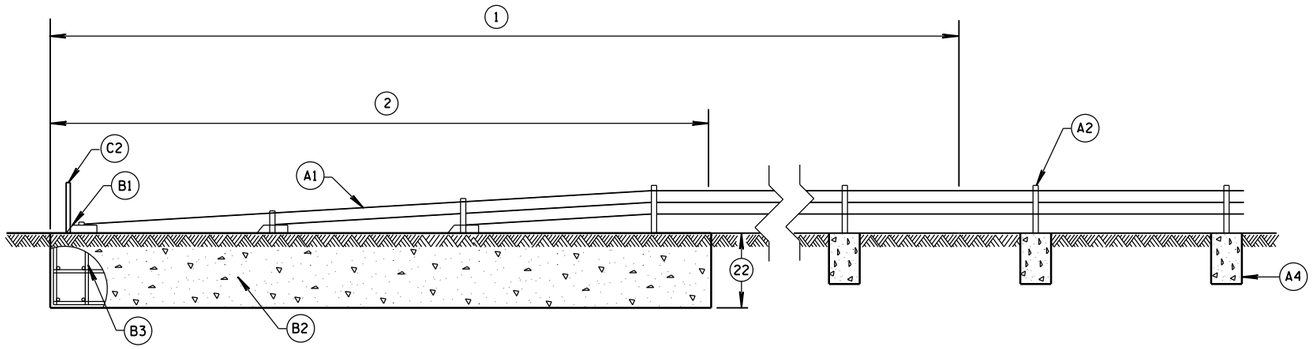
ANCHOR CABLE
BEARING PLATE

MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

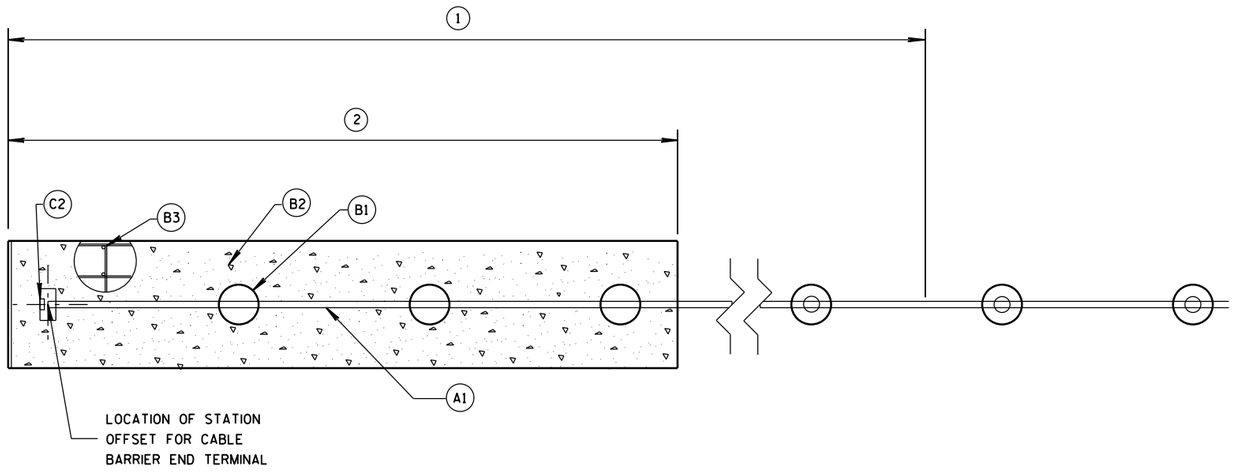
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 47-2b

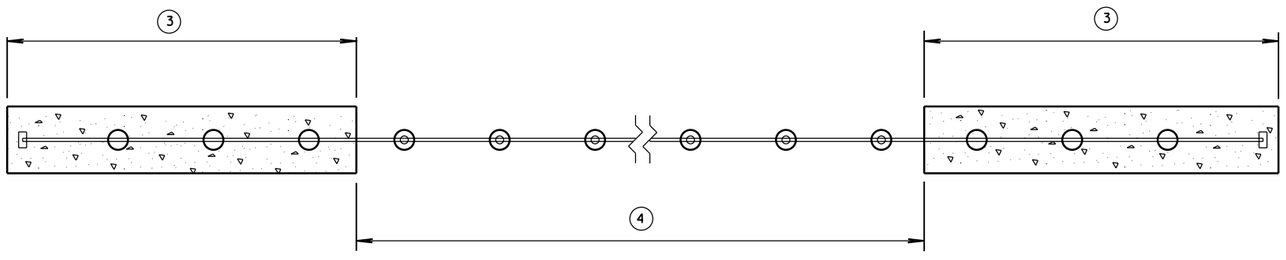


PROFILE VIEW



PLAN VIEW

TRANSITION FROM CABLE BARRIER TERMINAL TO CABLE BARRIER LINE POSTS



TYPICAL PLAN VIEW

GENERAL NOTES

DRAWINGS ARE GENERAL IN NATURE. SEE MANUFACTURER'S INFORMATION FOR MORE DETAIL.

PROVIDE 2 INCH CLEAR COVER FROM OUTER EDGE OF CONCRETE FOOTINGS TO REINFORCEMENT.

INSTALL LINE POST PLUMB. LINE POSTS ARE TO BE EASILY REMOVED BY HAND AND HOLD CABLES AT THE PROPER ELEVATION.

PROVIDE CABLE BARRIER SYSTEM FROM APPROVED PRODUCT LIST.

PROVIDE A SYSTEM TO HAVE THE WORKING WIDTH INDICTED IN PLAN.

PROVIDE DOCUMENTATION HOW POST SPACING, RADIUS OF CURVE AND ANCHOR SPACING INFLUENCES WORKING WIDTH TO CONSTRUCTION STAFF.

PROVIDE A WISCONSIN PROFESSIONAL ENGINEERS STAMPED ANALYSIS THAT THE LINE POST AND CABLE BARRIER END TERMINAL FOOTINGS ARE DESIGNED FOR THE SOIL CONDITIONS PRESENT. THE WISCONSIN P.E. STAMP ANALYSIS IS TO INCLUDE, BUT IS NOT LIMITED TO: DESIGN IMPACT LOADS, FOUNDATION DEISGN METHODOLOGY USED, FACTORS OF SAFETY, SOIL TYPE, SOIL CONDITIONS, AND TEMPERATURE RANGES.

DESIGN LINE POST FOOTINGS SO THAT LINE POST FOOTING MOVE LESS THAN 1 INCH WHEN LINE POST IS IMPACTED BY A TL-3 SMALL CAR.

BILL OF MATERIALS

PART NUMBER	QTY.	DESCRIPTION	MATERIALS SPECIFICATIONS
(A1)	3 OR 4	3/4" 3x7 PRESTRECHED GALVANIZED STEEL WIRE ROPE	ASTM A741 MIN. BREAKING STRENGTH 39,000 LBS.
			AASHTO M30 TYPE 1 CLASS A (GALVANIATION).
			MINIMUM WIRE ROPE MODULUS OF ELASTICITY OF 19,000 PSI ACCORDING TO ISO 12067-202 WIRE ROPE MODULUS OF ELASTICITY "INITIAL" (AS MANUFACTURED), WITH NO BEDDING OR PRESTRECHING OF THE ROPE PERMITTED DURING TESTING.
(A2)	1 PER LINE POST	GALVANIZED REMOVABLE STEEL LINE POST	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS AND MATERIAL REQUIREMENTS.
			ASTM A123 (GALVANIZATION).
(A3)	1 PER LINE POST	GALVANIZED METAL SLEEVE	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS AND MATERIAL REQUIREMENTS.
			ASTM A123 (GALVANIZATION).
(A4)	VARIES	CONCRETE FOR LINE POST FOOTING	A, A-FA.A-T, OR A-IP OF STANDARD SPECIFICATION 501.2 OR AS MANUFACTURER SPECIFIES.
			STANDARD SPECIFICATION 716 OMP FOR CLASS II ANCILLARY CONCRETE.
			SEE MANUFACTURER'S INFORMATION ON DIMENSIONS.
(A5)	VARIES	EPOXY COATED STEEL REINFORCEMENT	STANDARD SPECIFICATION 505.
(A6)	VARIES	TURNBUCKLES AND OTHER CABLE CONNECTING HARDWARE	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS.
			MINIMUM BREAKING STRENGTH OF TURNBUCKLES AND CONNECTION HARDWARE IS EQUAL TO CABLE.
			TURNBUCKLES AND OTHER CABLE CONNECTION HARDWARE IS FIELD SWAGED PER MANUFACTURER'S RECOMMENDATIONS AND DETAILS.
(B1)	VARIES	CABLE CONNECTION TO CABLE BARRIER END TERMINAL	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS AND MATERIAL REQUIREMENTS.
(B2)	VARIES	CONCRETE FOR CABLE BARRIER END TERMINAL	A, A-FA.A-T, OR A-IP OF STANDARD SPECIFICATION 501.2.
			STANDARD SPECIFICATION 716 OMP FOR CLASS II ANCILLARY CONCRETE.
(B3)	VARIES	EPOXY COATED STEEL REINFORCEMENT	STANDARD SPECIFICATION 505.
(C1)	VARIES	LINE POST DELINEATOR	REFLECTIVE SHEETING TYPE SH. SEE APPROVE PRODUCT LIST YELLOW.
(C2)	VARIES	CABLE BARRIER END TERMINAL DELINEATOR	REFLECTIVE SHEETING TYPE SH. SEE APPROVE PRODUCT LIST OBJECT MARKER TYPE 3 PATTERN.

(1) LOCATION OF LENGTH OF NEED POINT FOR CABLE BARRIER END TERMINAL VARIES. (SEE MANUFACTURER'S INFORMATION)

(2) PAY LIMIT FOR CABLE BARRIER END TERMINAL. LENGTH OF CABLE BARRIER END TERMINAL VARIES. (SEE MANUFACTURER'S INFORMATION)

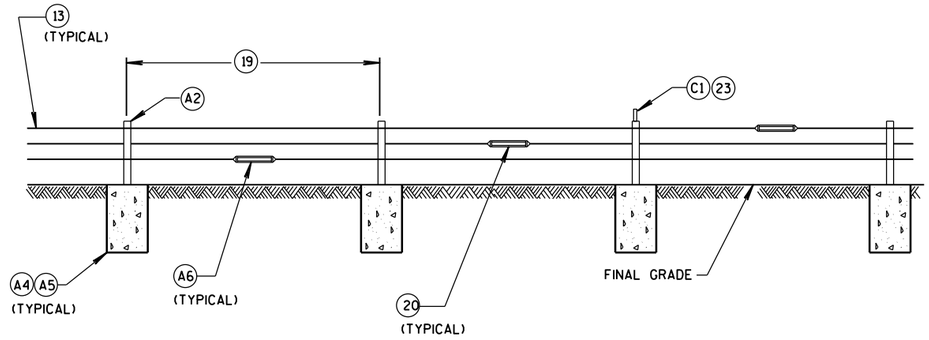
(3) CABLE BARRIER END TERMINAL

(4) CABLE BARRIER AND LINE POSTS

CABLE BARRIER TYPE 1 LAYOUT

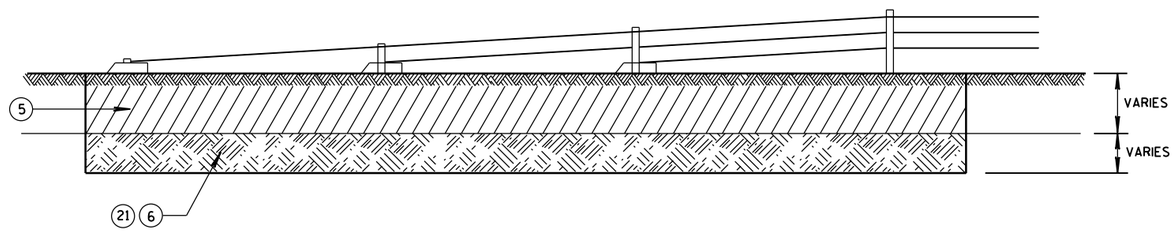
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6
S.D.D. 14 B 52-1a



PROFILE VIEW

LINE POST INSTALLATION



CABLE BARRIER END TERMINAL ROCK EXCAVATION DETAIL

(5) SOIL TO BE EXCAVATED FOR CABLE BARRIER END TERMINAL (VARIES).

(6) ROCK TO BE EXCAVATED FOR CABLE BARRIER END TERMINAL (VARIES).

(7) SOIL TO BE EXCAVATED FOR LINE POST (VARIES).

(8) ROCK TO BE EXCAVATED FOR LINE POST (VARIES).

(9) EXCAVATE AND GRADE LINE FOR LINE POST FOOTINGS. INSTALL LINE POST FOOTING TO MINIMIZE 4 INCH TALL OBJECT ON 5 FOOT CHORD.

(10) 2 INCHES OF CLEAR COVER FROM EDGE OF CONCRETE TO REINFORCEMENT.

(11) DIAMETER OF LINE POST FOOTING VARIES. SEE MANUFACTURER'S INFORMATION.

(12) MINIMUM DEPTH OF LINE POST FOOTING IS 48 INCHES IN SOIL. DEEPER FOOTINGS PER MANUFACTURER'S RECOMMENDATION ARE ACCEPTABLE.

(13) NUMBER AND LOCATION OF CABLES VARY. SEE MANUFACTURER'S INFORMATION.

(14) LINE POST DIMENSIONS AND CONNECTION HARDWARE VARY. SEE MANUFACTURER'S INFORMATION.

(15) LANE OF ROADWAY (VARIES). SEE PLAN FOR MORE INFORMATION.

(16) PAVED SHOULDER (VARIES). SEE PLAN FOR MORE INFORMATION.

(17) GRAVEL SHOULDER (VARIES). SEE PLAN FOR MORE INFORMATION.

(18) CABLE BARRIER OFFSET FROM CENTERLINE OF MEDIAN DITCH (8 FOOT MINIMUM). SEE PLAN FOR MORE INFORMATION.

(19) MAXIMUM POST SPACING IS 15 FEET.

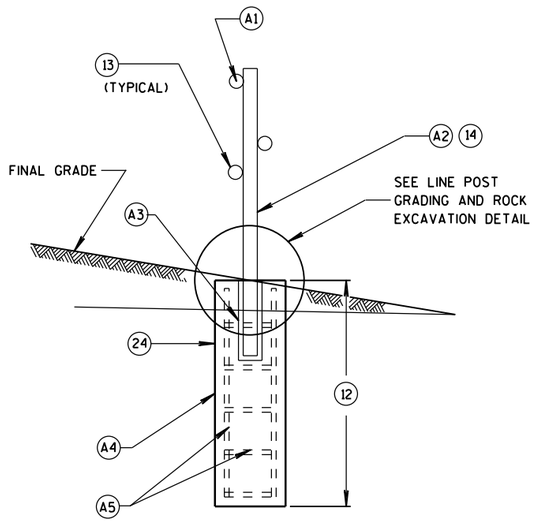
(20) STAGGER TURNBUCKLES (TYPICAL).

(21) SEE MANUFACTURER'S DESIGN WHEN ROCK IS ENCOUNTERED.

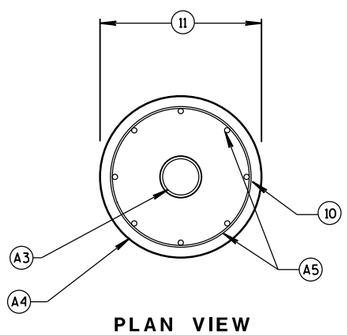
(22) IN SOIL MINIMUM DEPTH OF CABLE BARRIER END TERMINAL FOOTING IS 60 INCHES. DEEPER FOOTINGS PER MANUFACTURER'S RECOMMENATION ARE ACCEPTABLE.

(23) LINE POST DELINEATOR SPACING IS 100 FEET.

(24) LINE POST FOOTINGS ARE REQUIRED TO HAVE LESS THAN 1 INCH OF MOVEMENT WHEN LINE POST IS IMPACTED BY A NCHRP 350 SMALL CAR UNDER TL-3 TEST CONDITIONS.

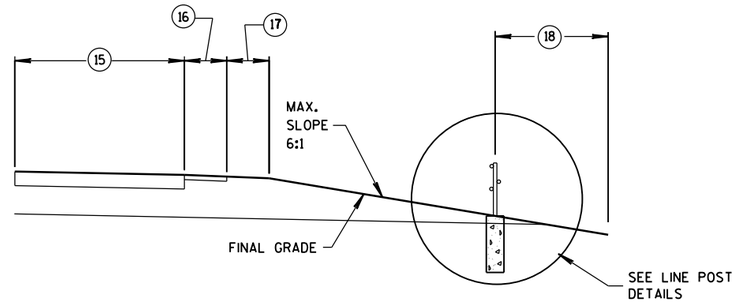


CROSS SECTION

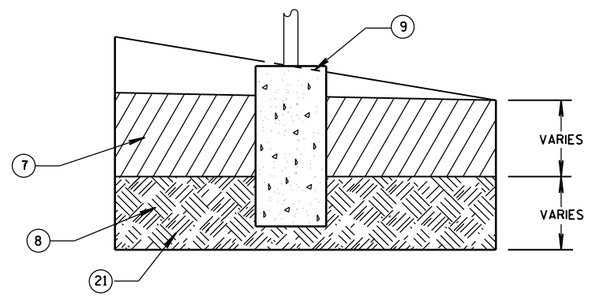


PLAN VIEW
(LINE POST AND CABLES NOT SHOWN)

LINE POST DETAILS



CABLE BARRIER OFFSET FROM DITCH LINE



LINE POST GRADING AND ROCK EXCAVATION DETAIL

CABLE BARRIER TYPE 1
LAYOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June. 2015
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

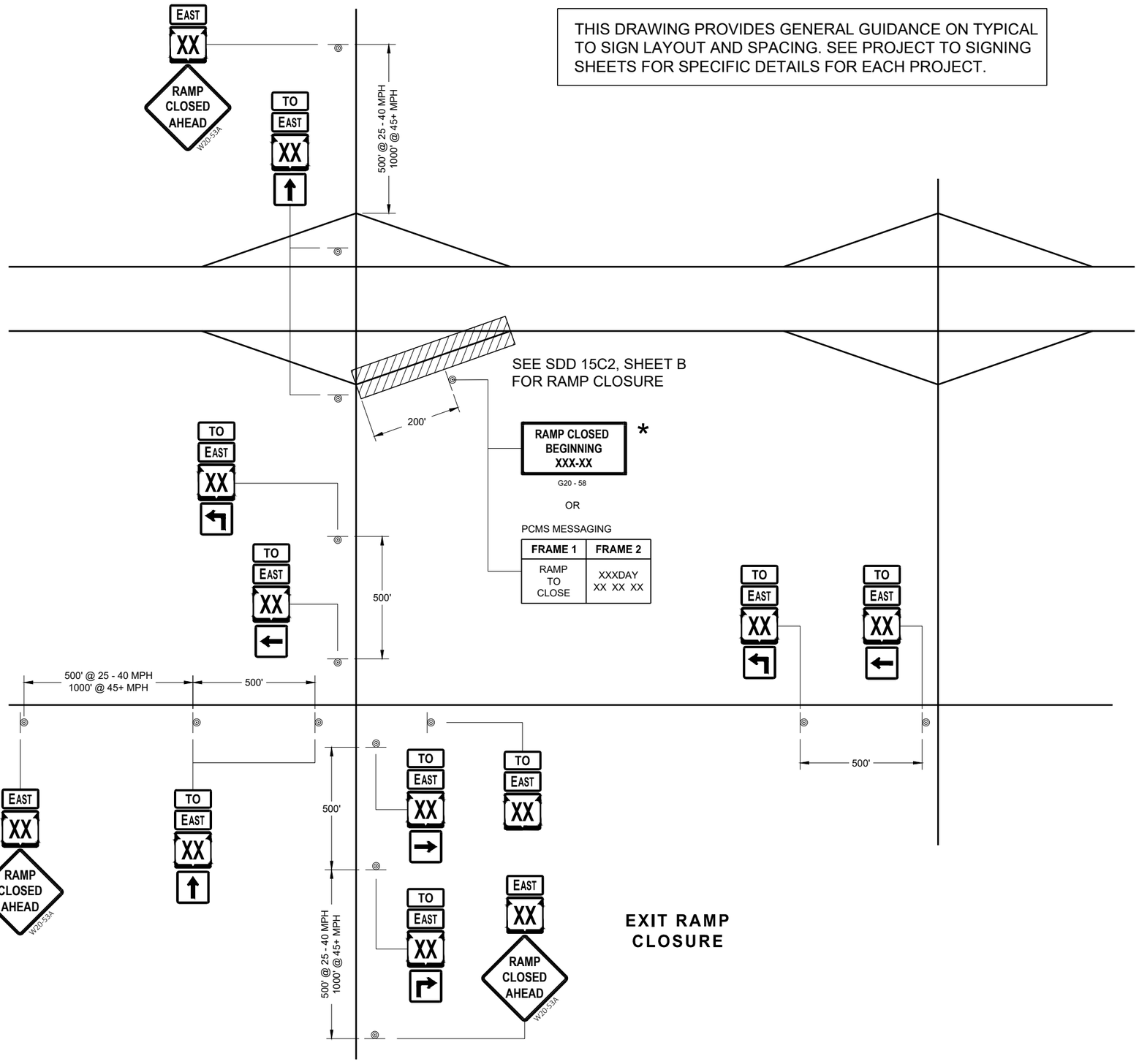
FHWA

6

S.D.D. 14 B 52-1b

6

S.D.D. 14 B 52-1b



THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL TO SIGN LAYOUT AND SPACING. SEE PROJECT TO SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

LEGEND

SIGN ON PERMANENT SUPPORT

TO / EAST — M4 - 5, M3 - X

XX — M1 - 6 OR XX — M1 - 4 OR INTERSTATE XX — M1 - 1

M05 - 1 OR M06 - 1 OR M06 - 1

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

IF THERE ARE ANY ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE TO ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT TO SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND TO SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL " IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

SIGNS THAT SHALL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOW:
- M3 - X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- M4 - 5 SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- M1 - 1, M1 - 4, AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS).
- MO5 - 1, MO5 - 2, AND MO6 - 1, SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS).

* PLACE "RAMP CLOSED BEGINNING" SIGN 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR LAYOUT.

ON RAMP LANE CLOSURE

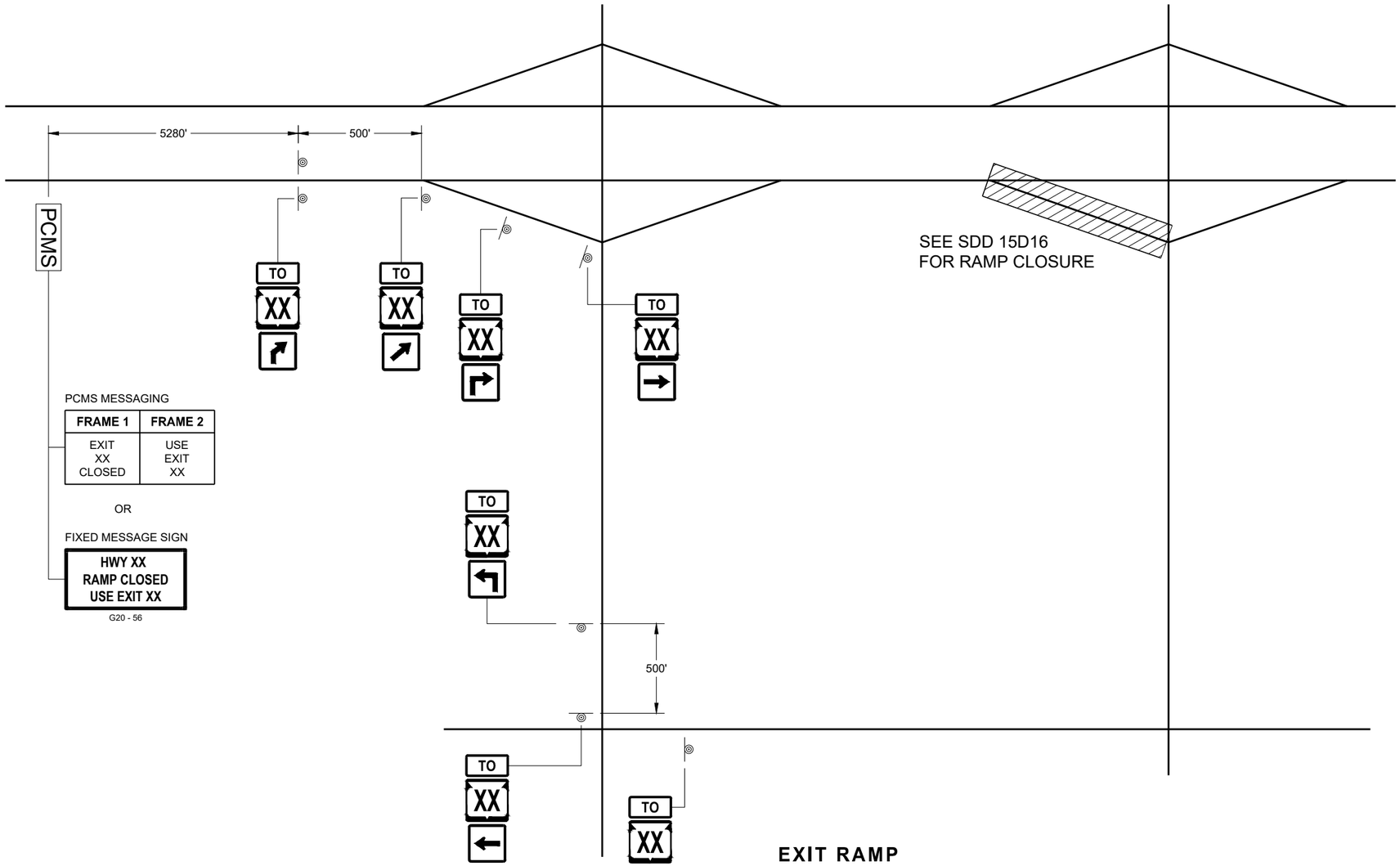
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

SDD 15C02 - 07d

SDD 15C02 - 07d

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL TO SIGN LAYOUT AND SPACING. SEE PROJECT TO SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.



PCMS MESSAGING

FRAME 1	FRAME 2
EXIT XX CLOSED	USE EXIT XX

OR

FIXED MESSAGE SIGN

HWY XX
RAMP CLOSED
USE EXIT XX
G20 - 56

EXIT RAMP CLOSURE

LEGEND

SIGN ON PERMANENT SUPPORT

PCMS PORTABLE CHANGEABLE MESSAGE SIGN

TO M4 - 5

XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A

M05 - 1 OR M05 - 2 OR M06 - 1 OR M06 - 2

GENERAL NOTES

SEE SDD 15D16 "TRAFFIC CONTROL, EXIT RAMP CLOSURE" DETAIL FOR TRAFFIC CONTROL AT EXIT RAMP CLOSURE.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

IF THERE ARE ANY ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE TO ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT TO SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND TO SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL " IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

SIGNS THAT SHALL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOW:

M4 - 5 SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
M1 - 4, M1 - 5A, AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS).
MO5 - 1, MO5 - 2, AND MO6 - 1, SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS).

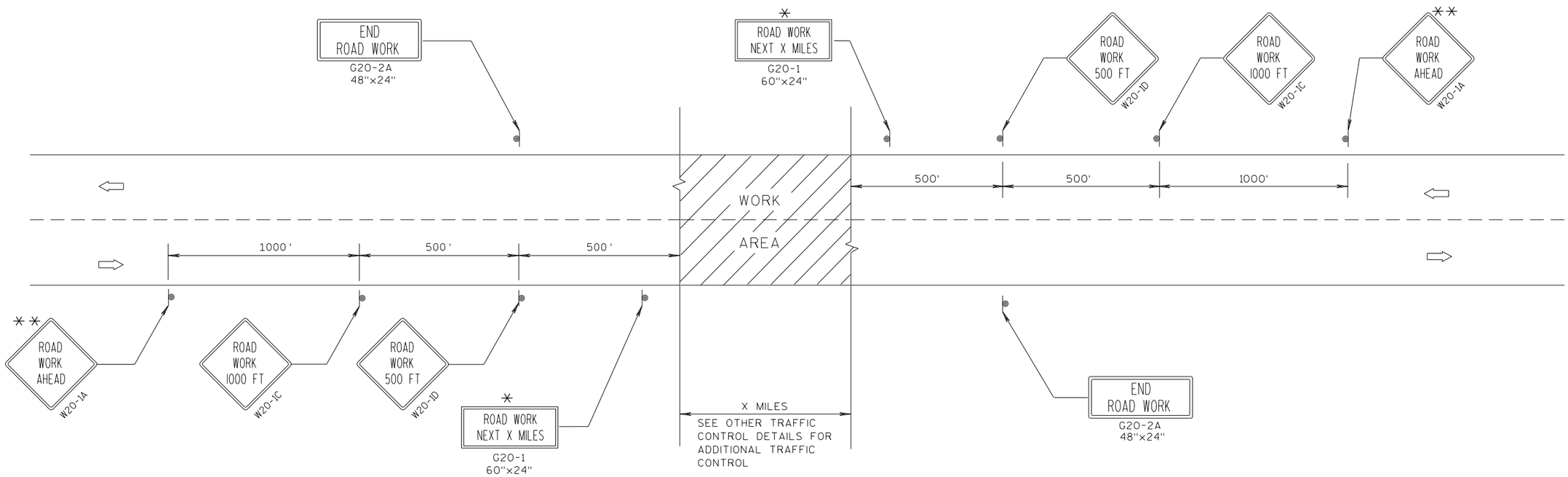
OFF RAMP LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 DATE
/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA

6 SDD 15C02 - 07e

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

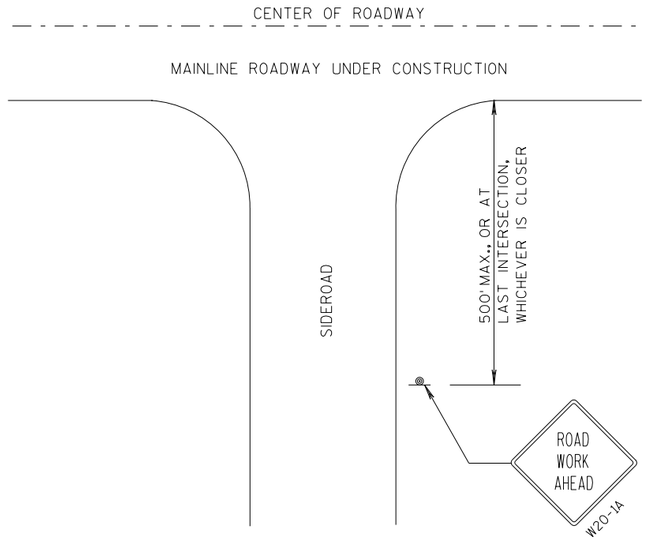
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

** PLACE ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Andrew Heldtke
WORK ZONE ENGI

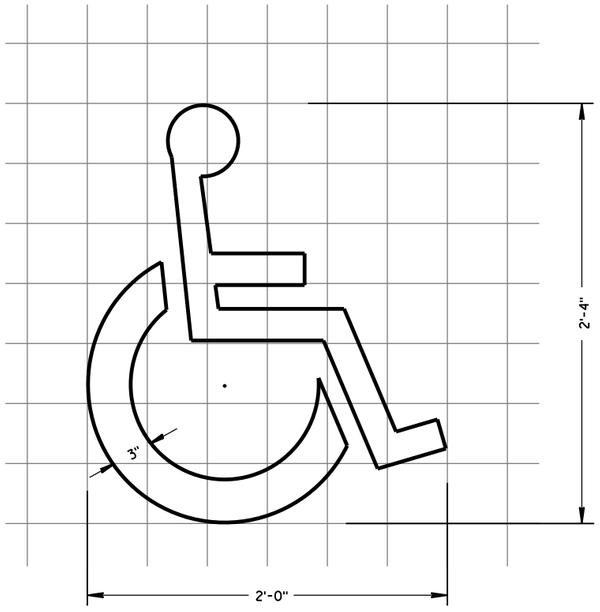
FHWA

6

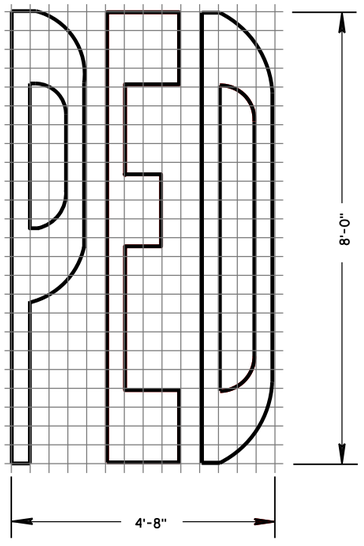
S.D.D. 15 C 4-5

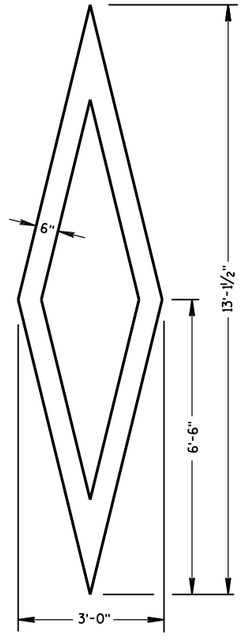
GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



HANDICAP SYMBOL





PREFERENTIAL LANE SYMBOL

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6

S.D.D. 15 C 7-14a

S.D.D. 15 C 7-14a

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

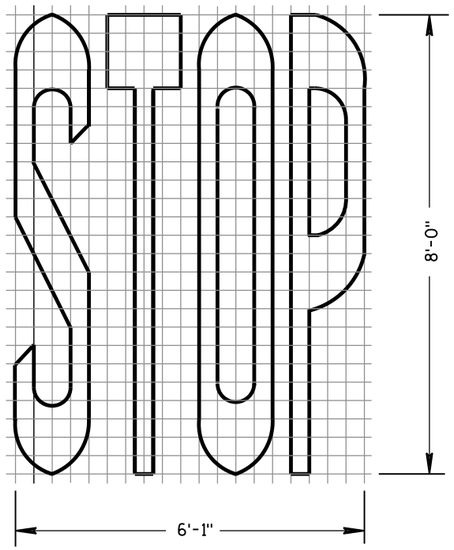
June 2017 — DATE

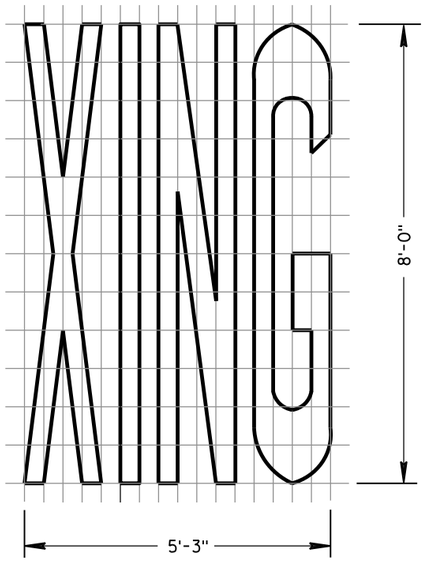
/S/ Matthew R. Rauch — STATE SIGNING AND MARK EER

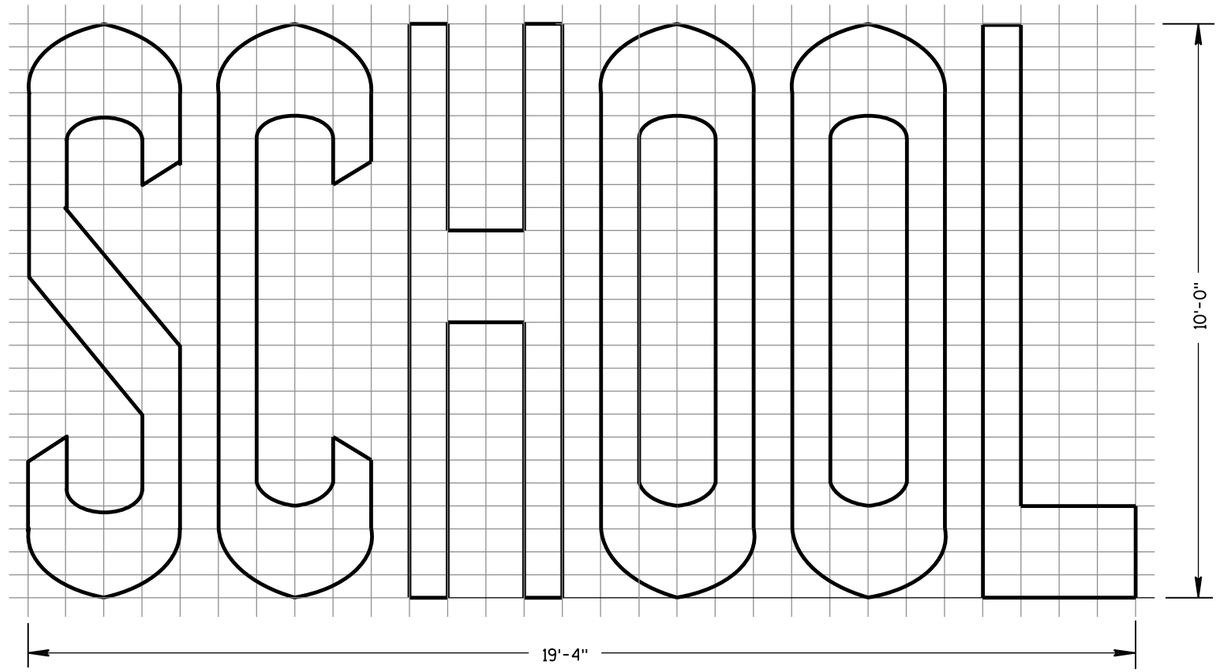
FHWA

GENERAL NOTES

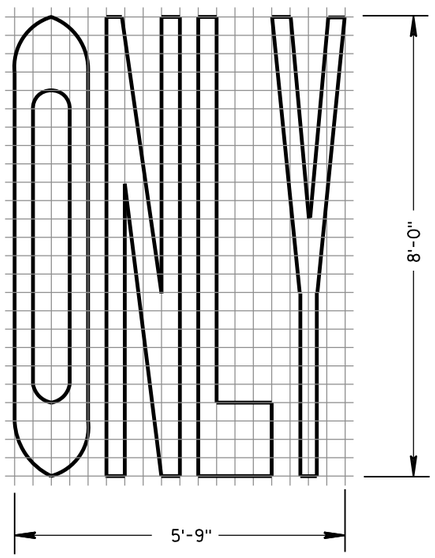
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

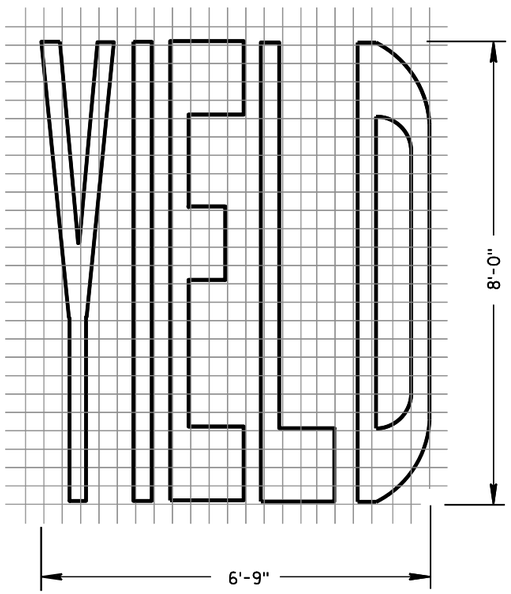


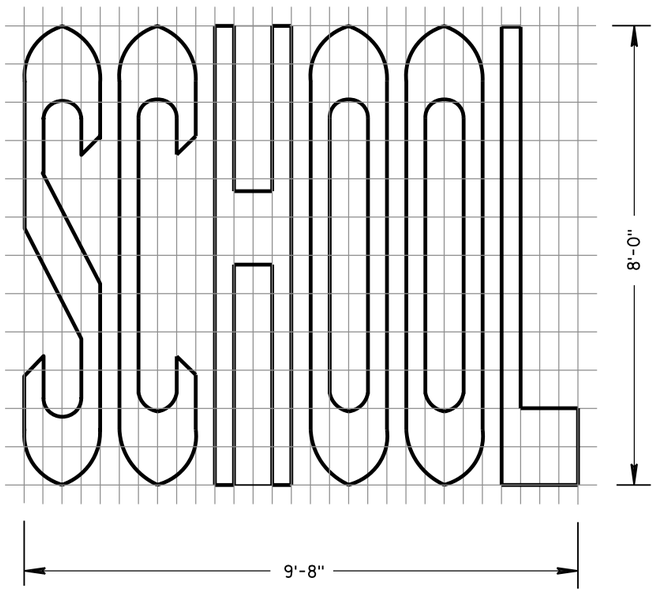




TWO-LANE







SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARK
EER
FHWA

6

S.D.D. 15 C 7-14b

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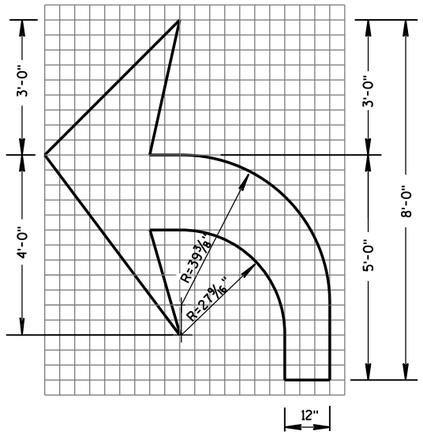
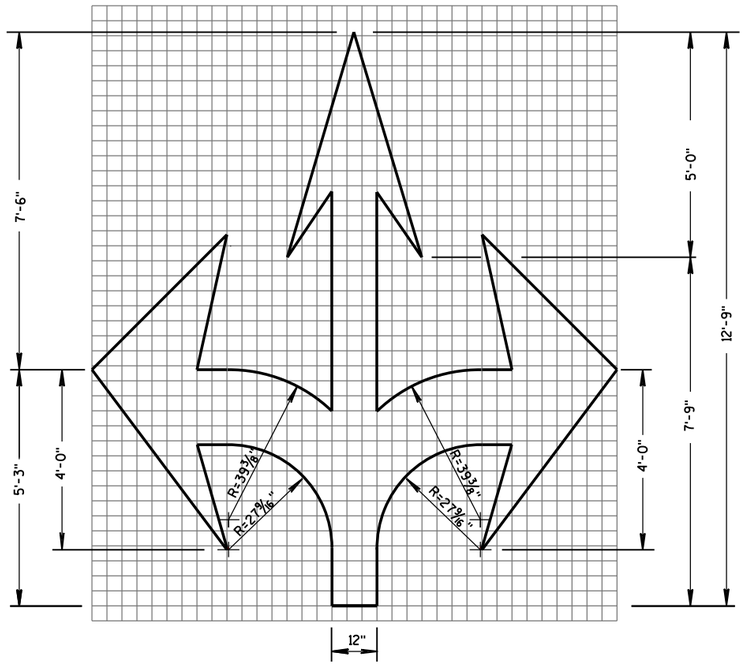
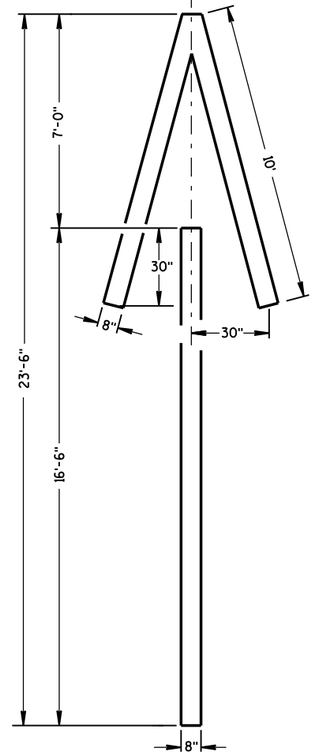
S.D.D. 15 C 7-14b



TYPE 2



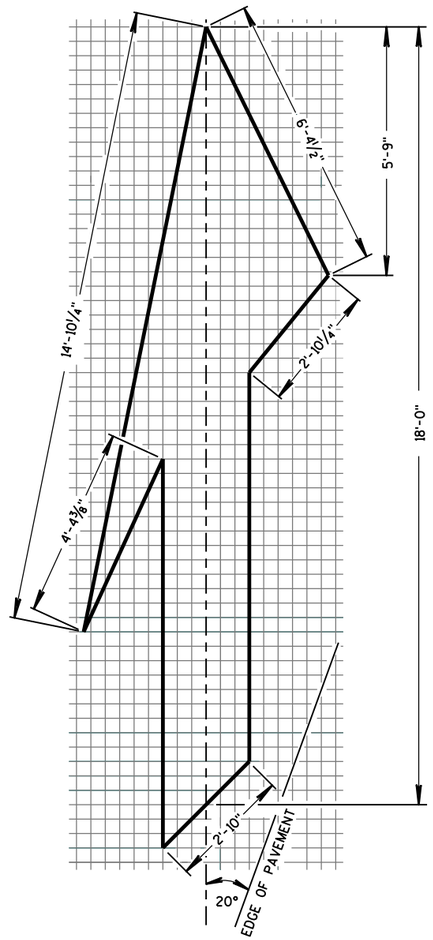
TYPE 6



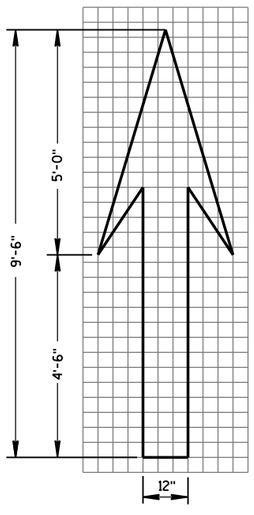
TYPE 4

GENERAL NOTES

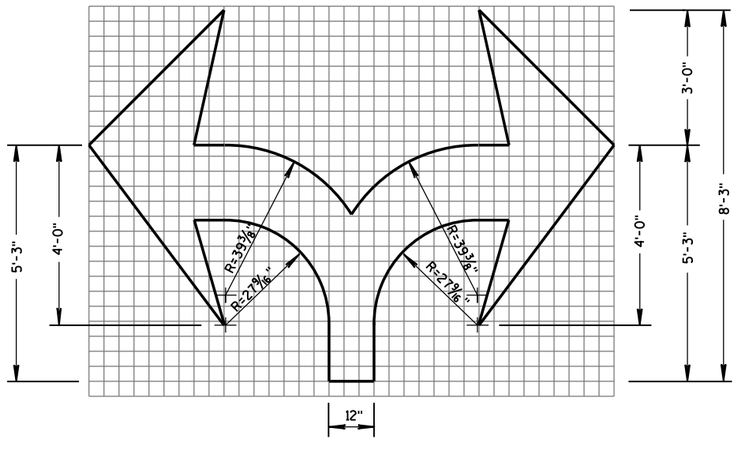
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



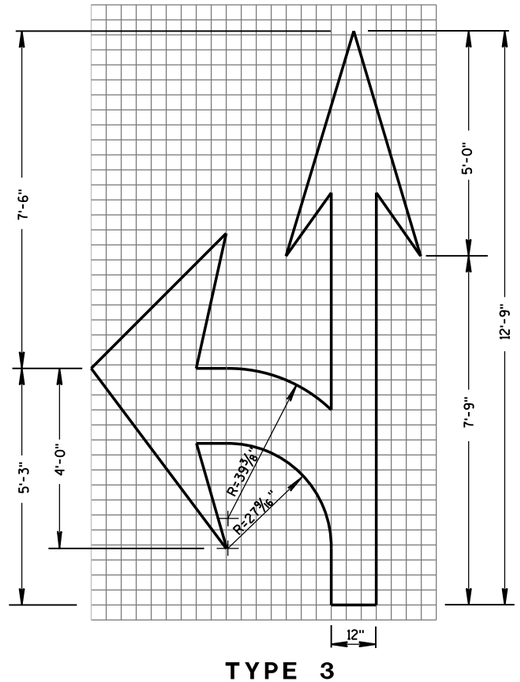
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
/S/ Matthew R. Rauch
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NEER
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S.D.D. 15 C 7-14c

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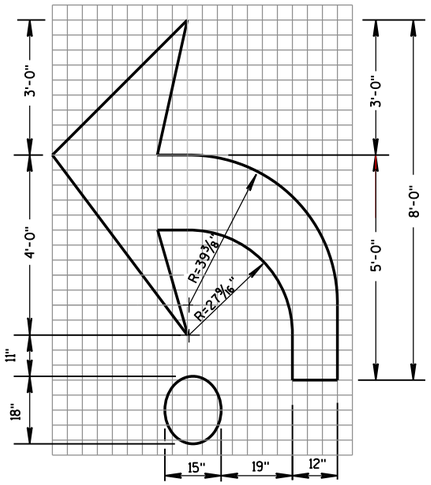
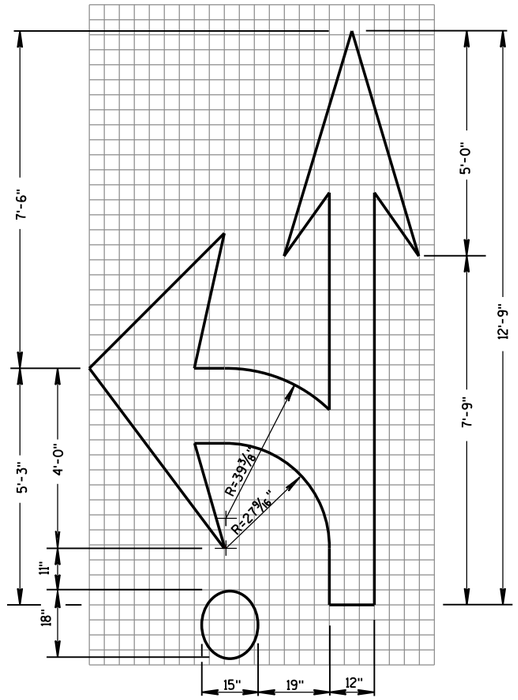
S.D.D. 15 C 7-14c

GENERAL NOTES

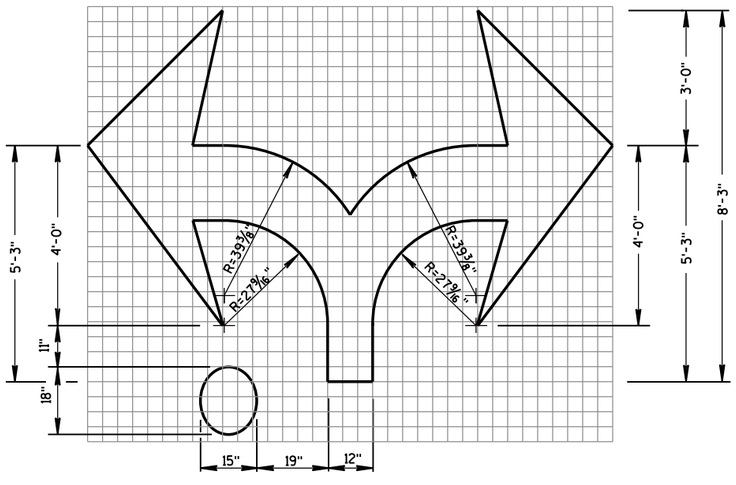
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



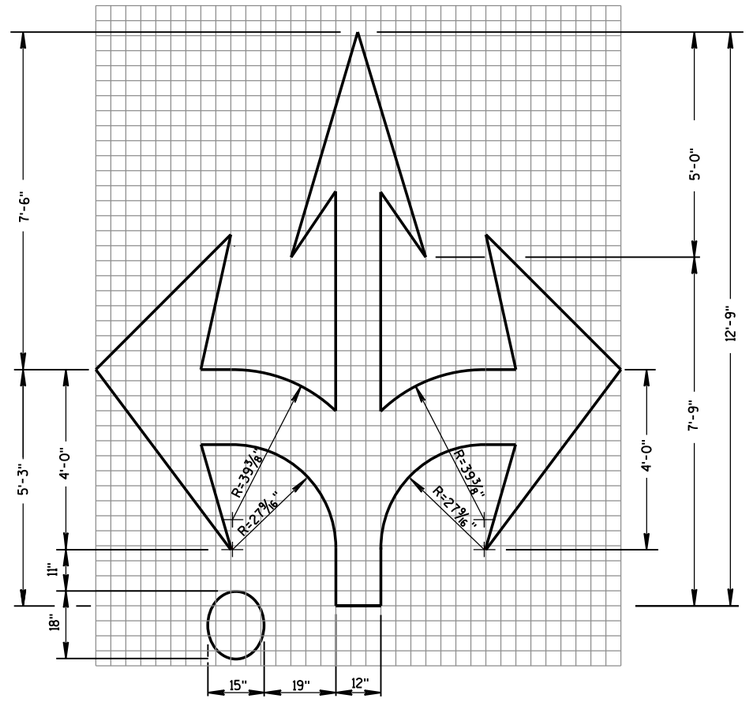
TYPE 2R



TYPE 3R



TYPE 7R



TYPE 6R

ROUNDABOUT ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAR NEER

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S.D.D. 15 C 7-14d

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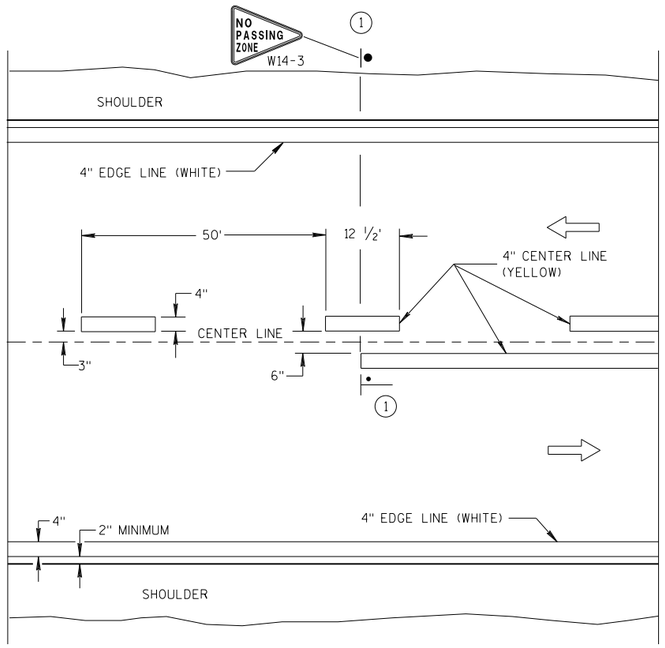
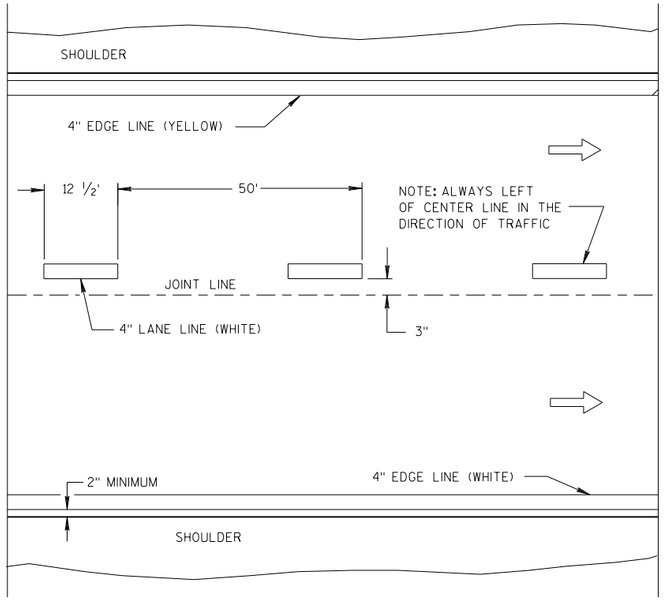
S.D.D. 15 C 7-14d



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING.

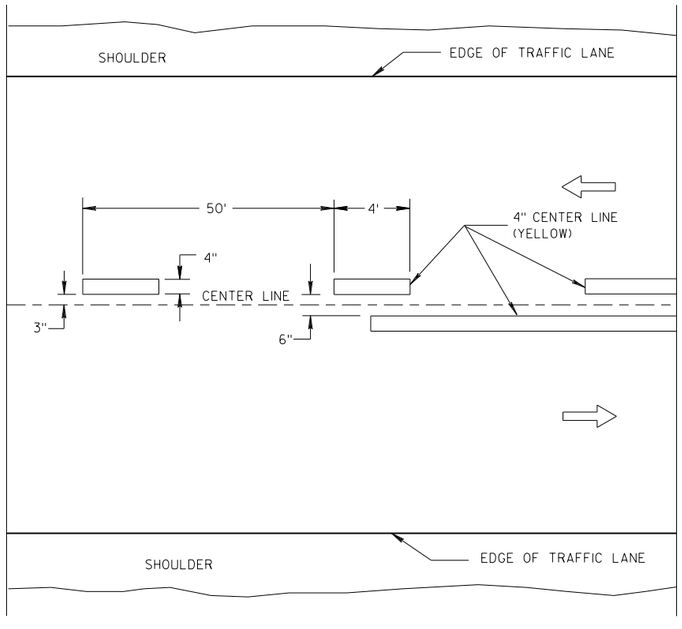
NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

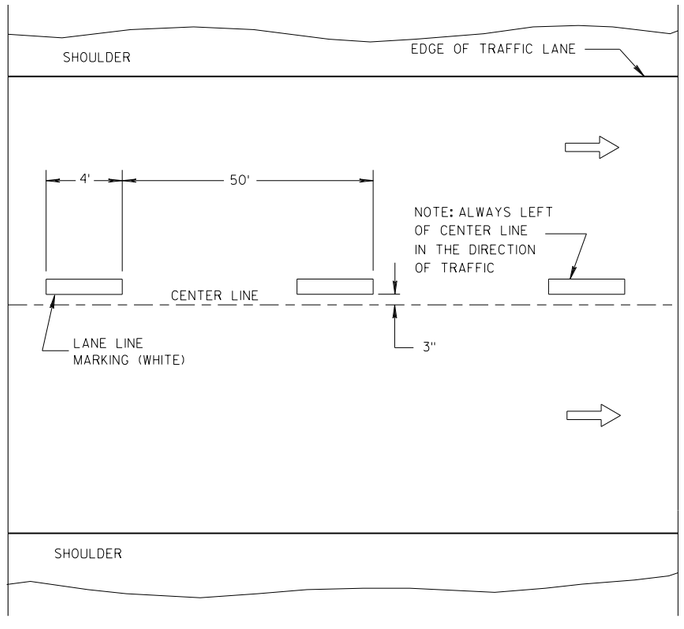
LEGEND

"T" MARKING

POST MOUNTED SIGN



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018 — DATE

/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA

6

S.D.D. 15 C 8-19a

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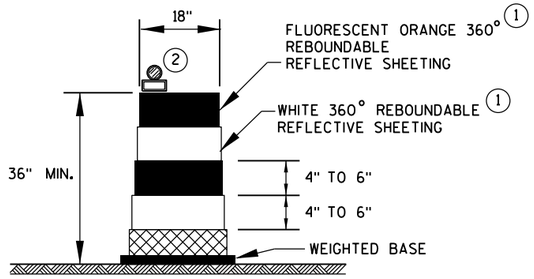
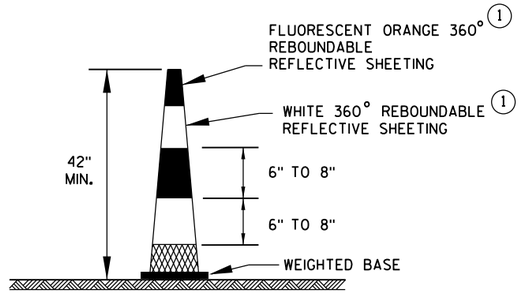
S.D.D. 15 C 8-19a



DRUM

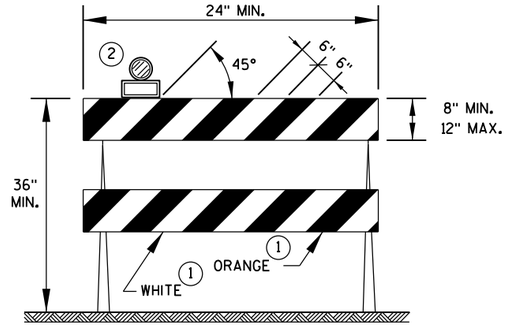


42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS

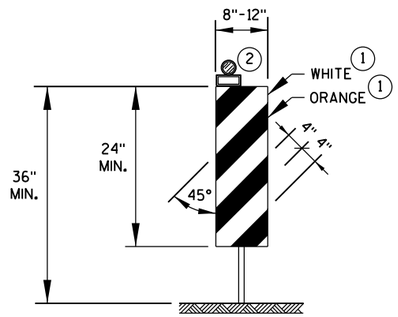
GENERAL NOTES

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



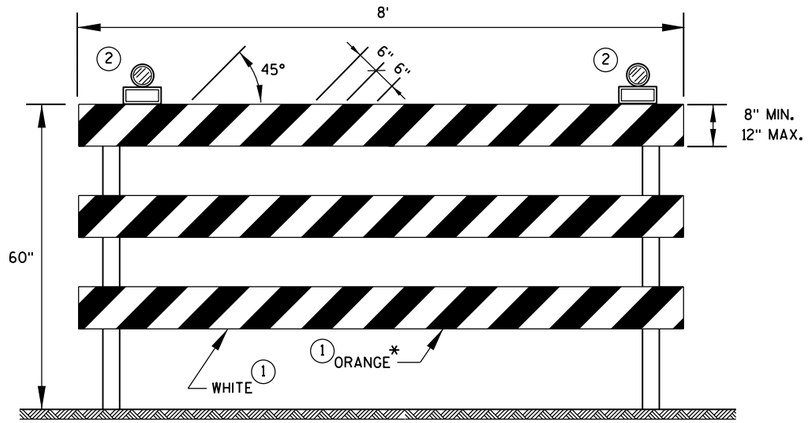
TYPE 2 BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE 3 BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION, USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Andrew Heidtke — WORK ZONE ENG
FHWA

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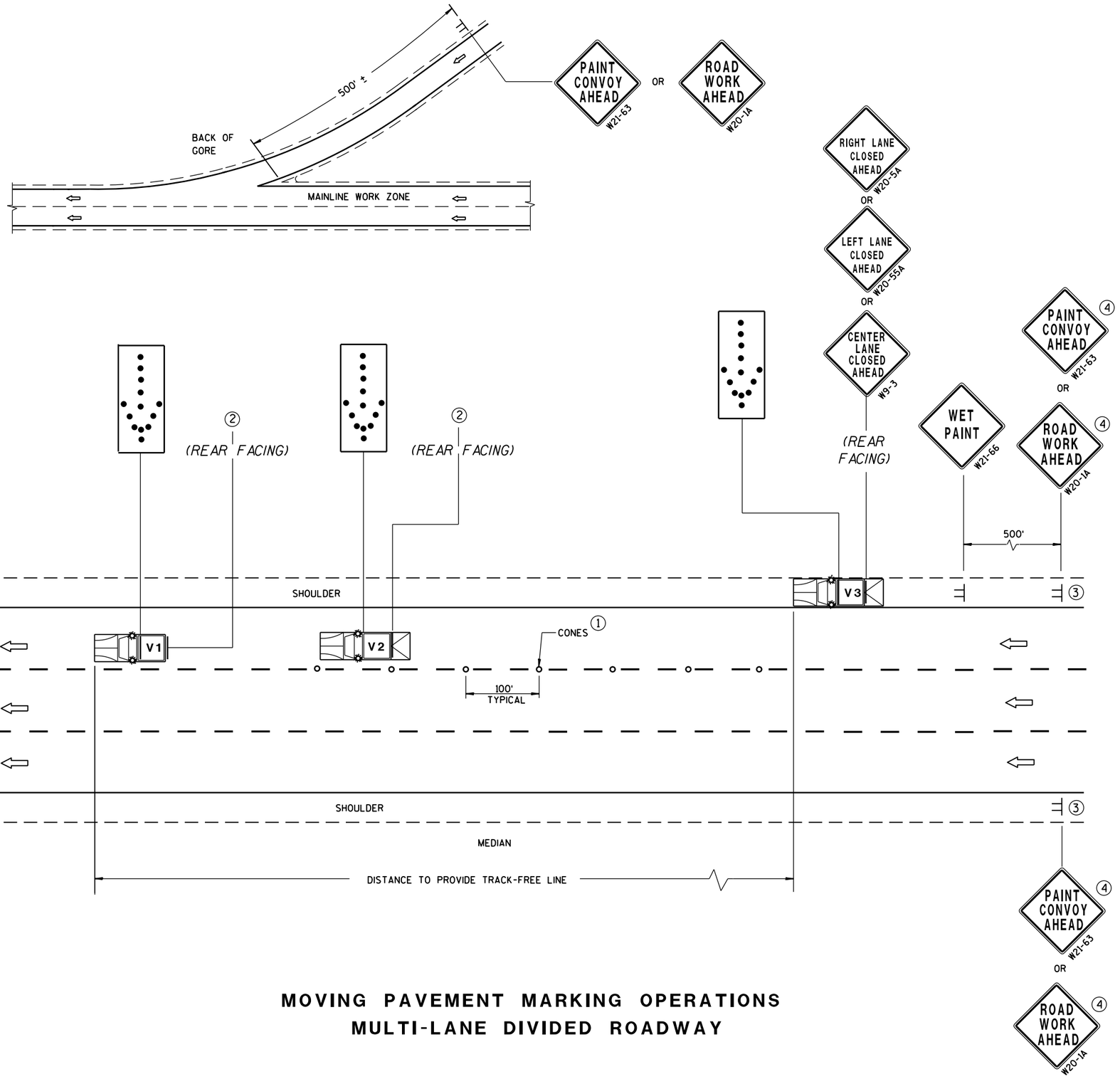
S.D.D. 15 C 11-7b



MOVING PAVEMENT MARKING OPERATIONS
MULTI-LANE DIVIDED ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

FOR EDGELINE MARKING OR IF CONES ARE NOT USED, POSITION THE REARMOST SHADOW VEHICLE ON THE SHOULDER AS SHOWN IN THE MUTCD IF THE SHOULDER HAS ADEQUATE WIDTH. USE DOUBLE ARROWS WHEN CONVOY IS IN CENTER LANE ONLY.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

THIS DRAWING SHALL BE USED FOR EDGELINE OR LANELINE MARKING FOR MULTILANE DIVIDED ROADWAYS.

① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

③ SIGNS SHALL BE REPEATED AFTER EVERY ON RAMP OR EVERY THREE MILES.

④ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

V1	LEAD VEHICLE
V2	SHADOW VEHICLE
V3	TRAIL VEHICLE WITH TMA
TMA	TRUCK-MOUNTED ATTENUATOR
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	CONES
	FLASHING ARROW PANEL (MERGE)

MOVING PAVEMENT MARKING OPERATION
MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2017 — DATE
/S/ Andrew Heldtke — WORK ZONE ENGR
FHWA

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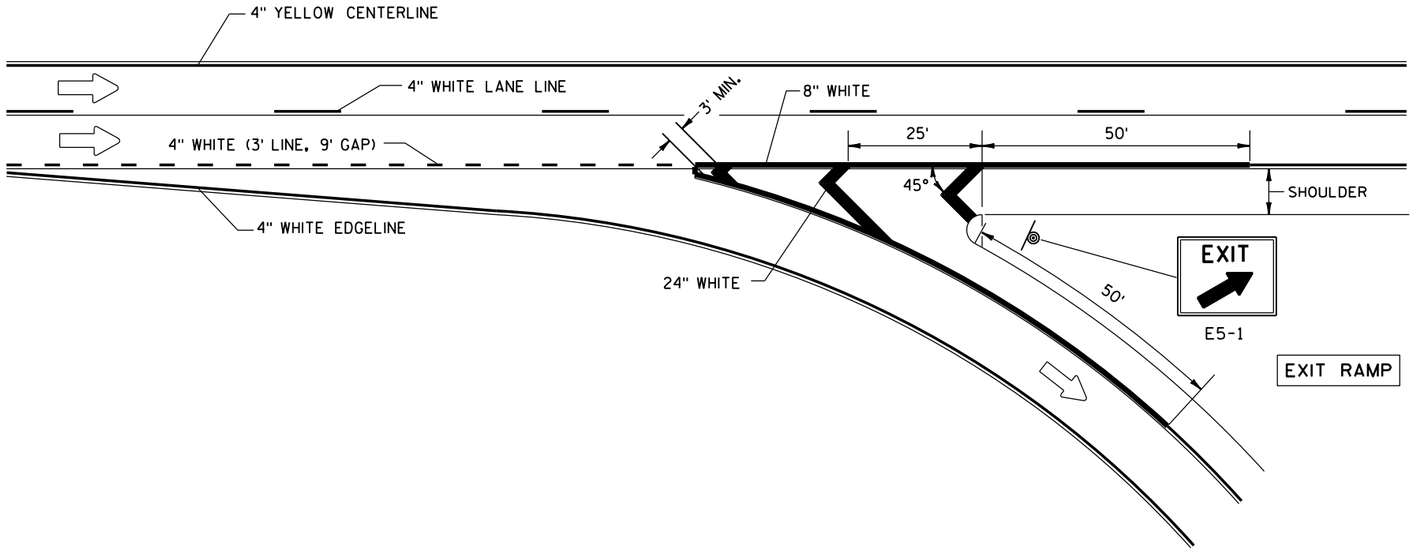
S.D.D. 15 C 19-5c



PAVEMENT MARKING FOR EXIT RAMP

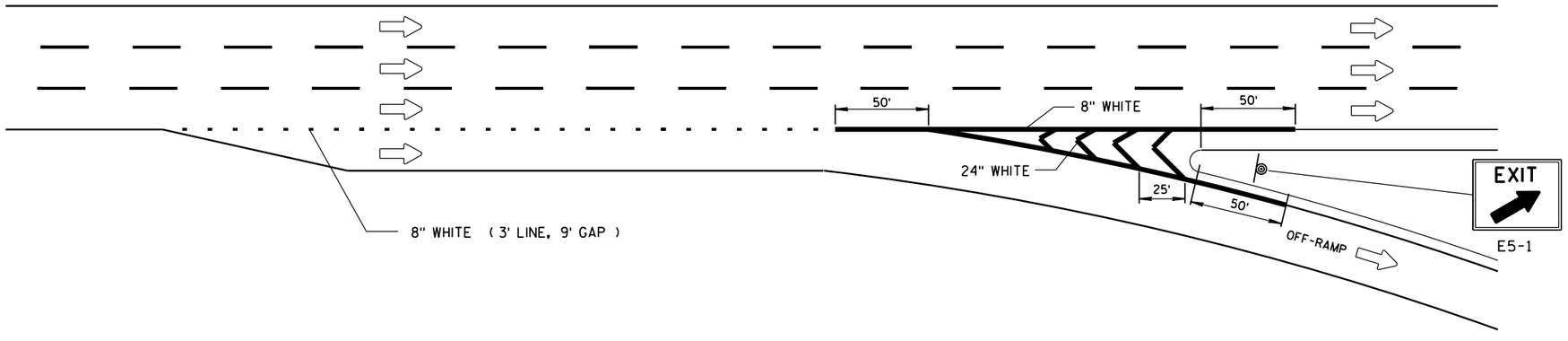
GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

LEGEND

DIRECTION OF TRAVEL

SIGN ON PERMANENT SUPPORT



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL EXIT-RAMP

6

6

S.D.D. 15 C 31-3a

S.D.D. 15 C 31-3a

PAVEMENT MARKING (RAMPS AND GORES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

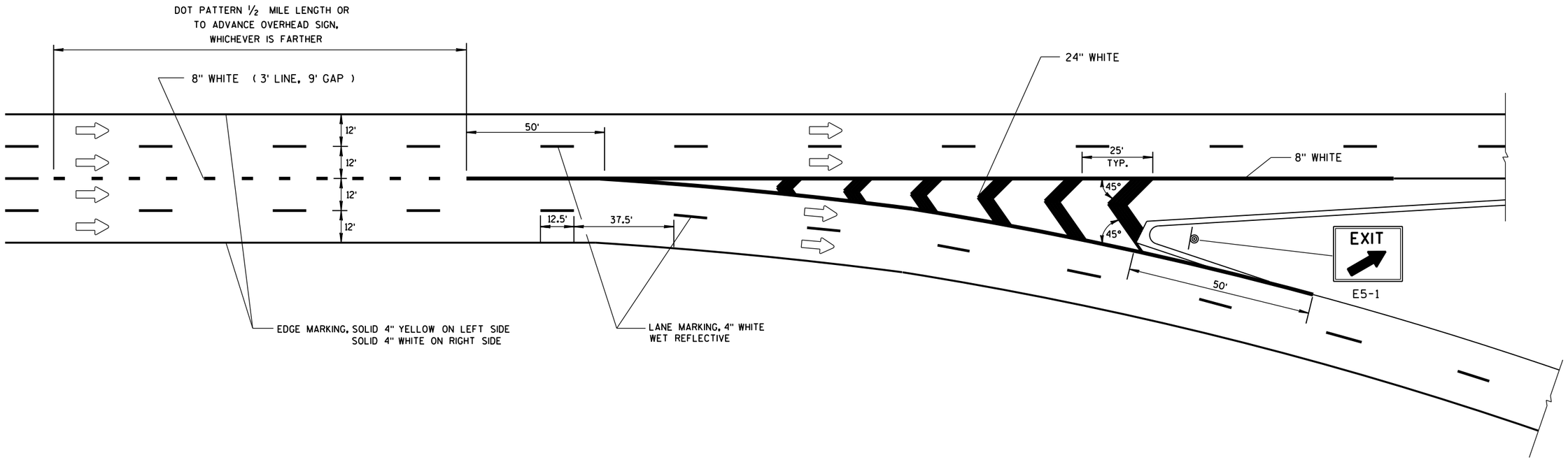
GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

LEGEND

DIRECTION OF TRAVEL

SIGN ON PERMANENT SUPPORT



PAVEMENT MARKING
MAJOR SPLIT
FREEWAY TO FREEWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 15 C 31-3b

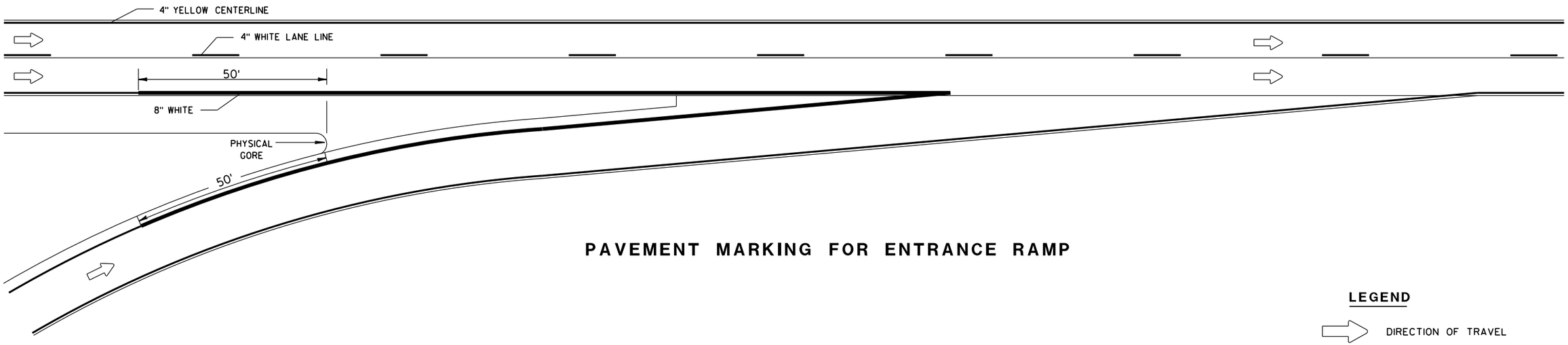
6

S.D.D. 15 C 31-3b

GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

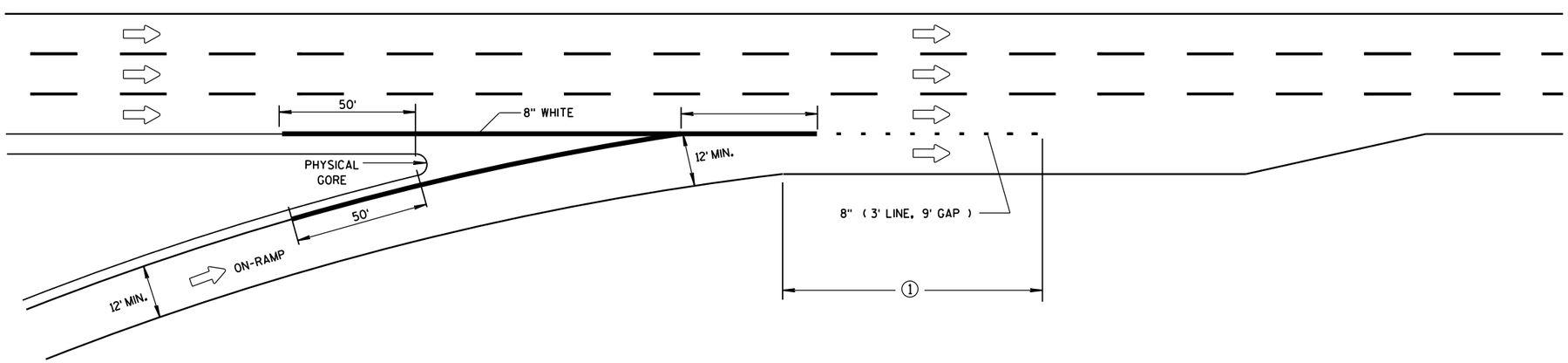
① ½ LENGTH OF FULL WIDTH ACCELERATION LANE.



PAVEMENT MARKING FOR ENTRANCE RAMP

LEGEND

DIRECTION OF TRAVEL



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL ENTRANCE-RAMP

PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept., 2017
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MARKING ENGINEER

FHWA

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S.D.D. 15 C 31-3c

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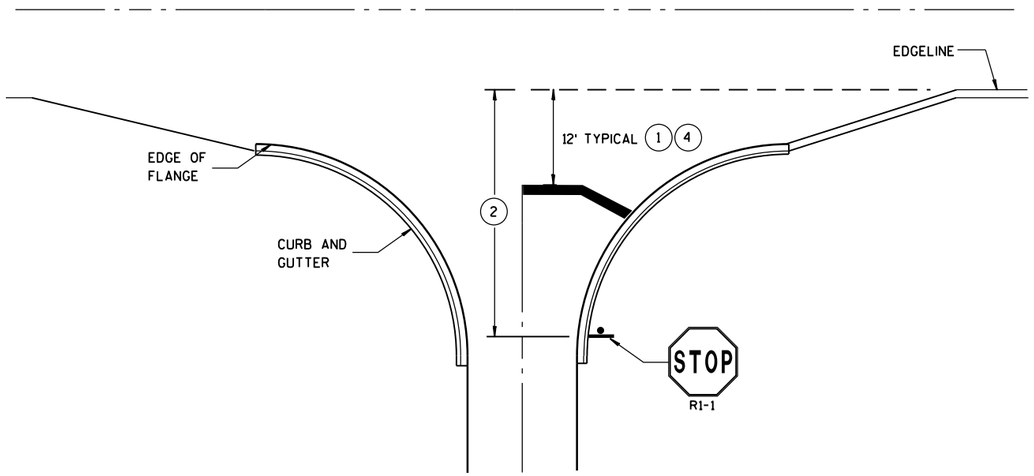
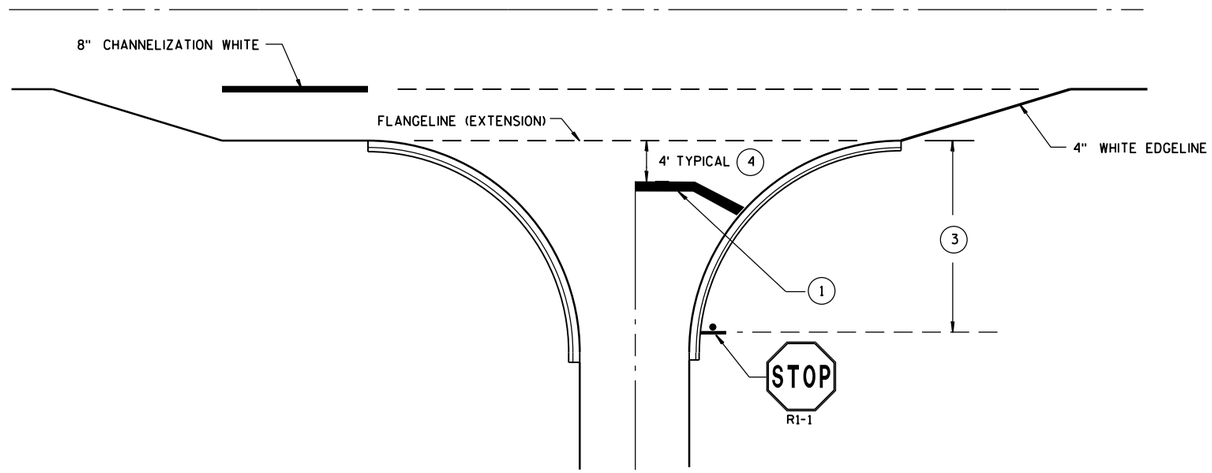
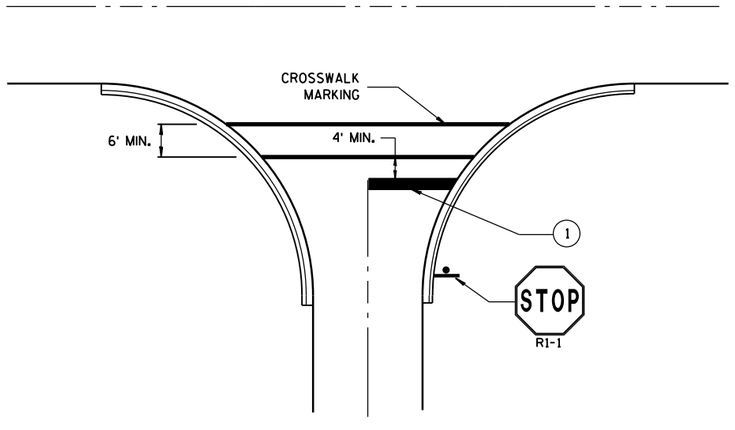
S.D.D. 15 C 31-3c



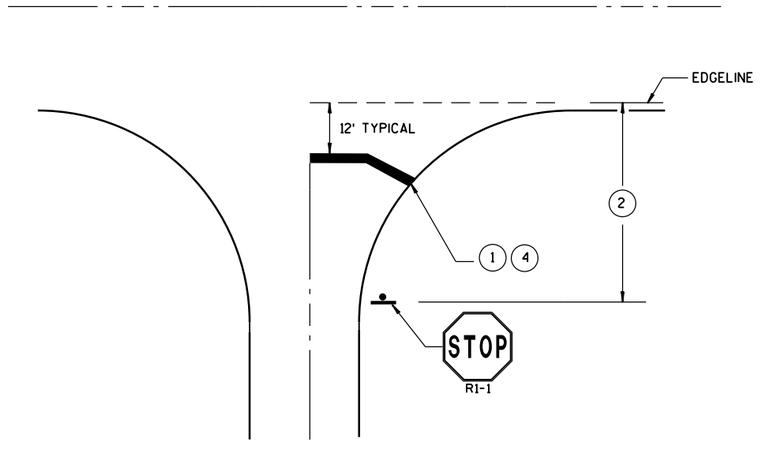
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

(1) 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.

(2) IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.

(3) IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.

(4) MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES. (NO CLOSER THAN 4 FEET).

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept., 2017 — DATE

/S/ Matthew R. Rauch — STATE SIGNING AND MAR[illegible]NEER

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6

S.D.D. 15 C 33-3

GENERAL NOTES

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED OR AS APPROVED BY THE ENGINEER.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

(1) CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

(2) IF NEEDED. USE ONLY IF DESIGN SPEED IS 10 MPH LESS THAN POSTED SPEED.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- REMOVING PAVEMENT MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA

OR

LOCATED 400 FEET BEYOND THE W20- 5G SIGN.

SEE SDD 15D12b FOR SIGN PLACEMENT.

R2-1
48"X60"

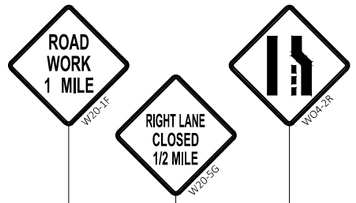
OR

R2-1
48"X60"

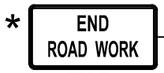
(BLACK AND WHITE)

LOCATED 700 FEET BEYOND W03-5 SIGN

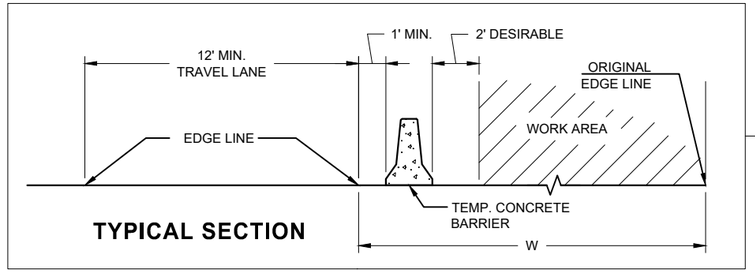
IF THE REGULATORY SPEED HAS BEEN REDUCED, A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN A MINIMUM OF EVERY 3 MILES.



* INCLUDE RESUME SPEED LIMIT SIGN A MINIMUM OF 200 FEET (500 FEET DESIRABLE) AFTER END ROAD WORK SIGNS.



L, TAPER LENGTH (MPH)												
SPEED (MPH)	W, LATERAL OFFSET (FT)											
	1	2	3	4	5	6	7	8	9	10	11	12
45	45	90	135	180	225	270	315	360	405	450	495	540
50	50	100	150	200	250	300	350	400	450	500	550	600
55	55	110	165	220	275	330	385	440	495	550	605	660
60	60	120	180	240	300	360	420	480	540	600	660	720
65	65	130	195	260	325	390	455	520	585	650	715	780
70	70	140	210	280	350	420	490	560	630	700	770	840



TYPICAL SECTION

TRAFFIC CONTROL LANE CLOSURE, SPEEDS GREATER THAN 40 MPH WITH BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINE

FHWA

SDD 15D03-05

SDD 15D03-05

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED OR AS APPROVED BY THE ENGINEER.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

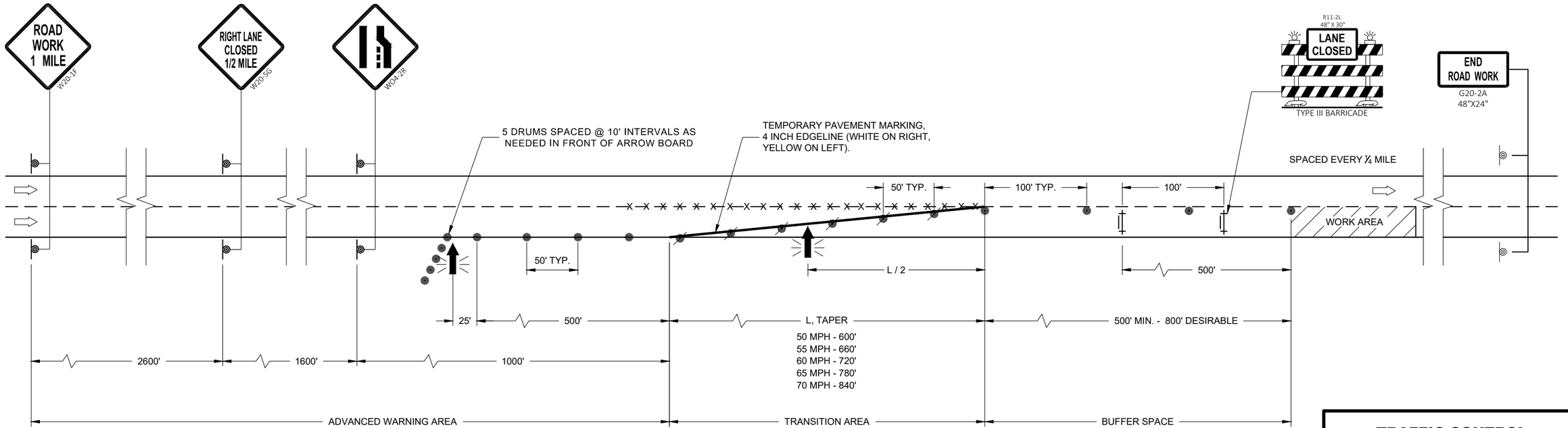
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD



TRAFFIC CONTROL LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D12 - 07a

6

SDD 15D12 - 07a

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED OR AS APPROVED BY THE ENGINEER.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

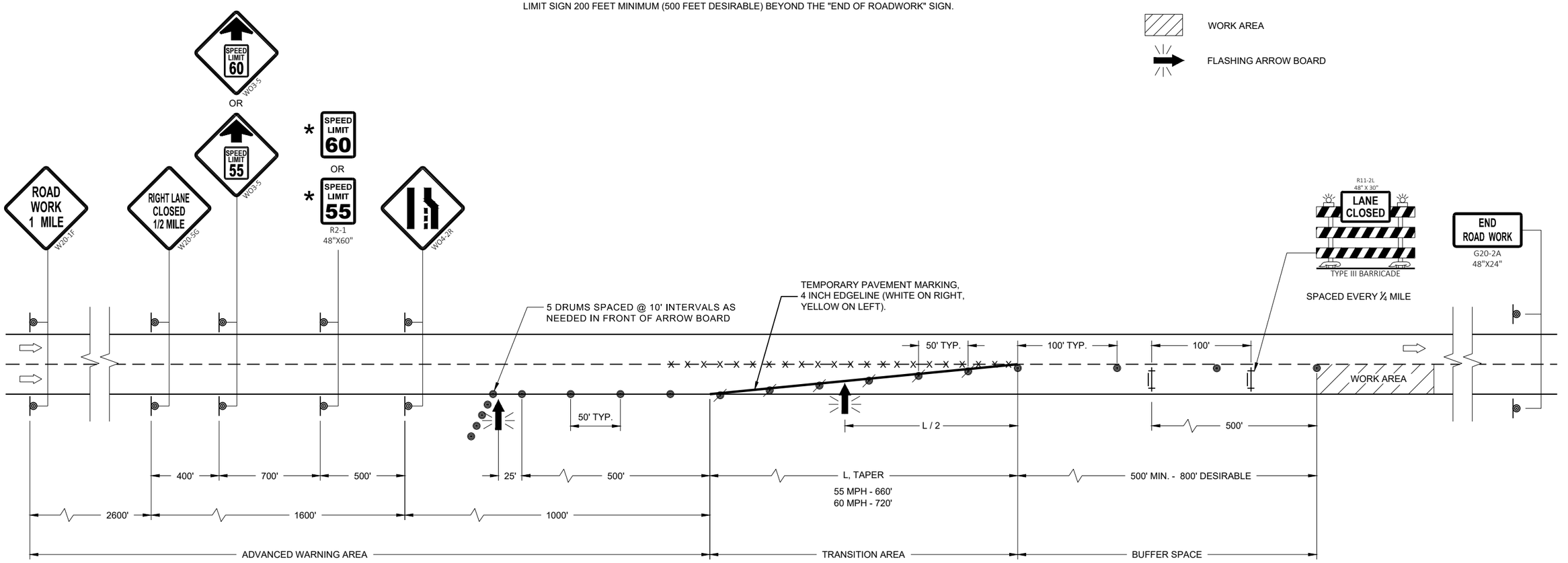
IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

* A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN A MINIMUM OF EVERY 3 MILES. INCLUDE A RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIRABLE) BEYOND THE "END OF ROADWORK" SIGN.

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD



TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

SDD 15D12 - 07b

6
SDD 15D12 - 07b

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN
- FBS — FLASHING BEACON SIGNS

STOPPED OR SLOW TRAFFIC WHEN FLASHING
W8-76
60x36

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED OR AS APPROVED BY THE ENGINEER.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

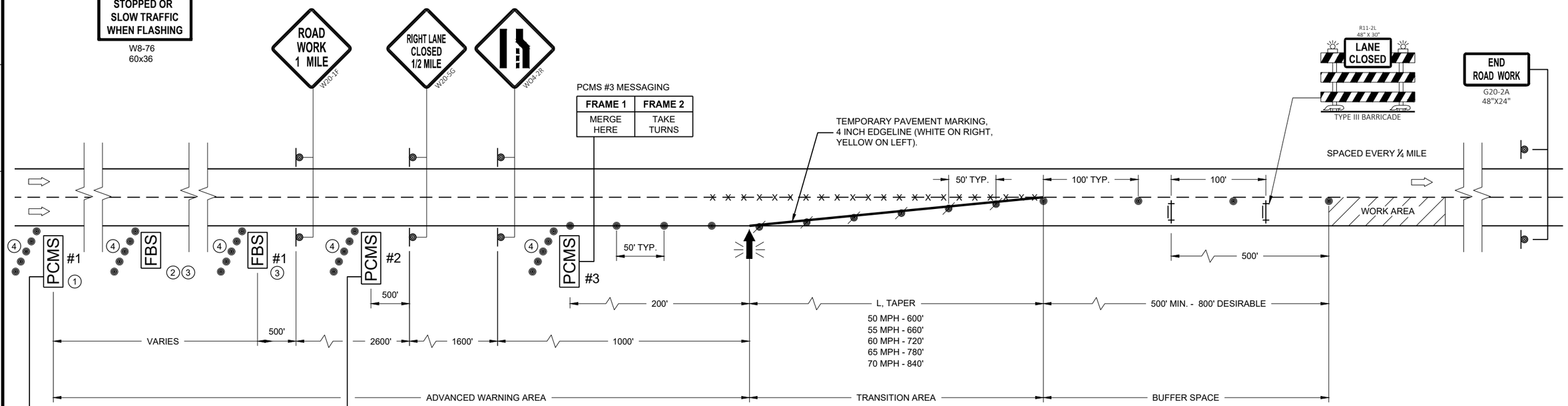
IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

1. PLACE PCMS #1 ONE MILE BEYOND ESTIMATED MAXIMUM QUEUE LENGTH. PLACE FLASHING BEACON SIGNS EVERY ONE MILE BETWEEN THE W20 - 1F AND PCMS #1 BEYOND ESTIMATED QUEUE.
2. PLACE FLASHING BEACON SIGNS EVERY ONE MILE BETWEEN PCMS #1 AND FBS #1.
3. FOR THREE LANE CONFIGURATION, PLACE FBS ON BOTH SIDES OF ROADWAY. CHANGE PCMS #1 FRAME 2 MESSAGE TO "USE ALL LANES".
4. 5 DRUMS SPACED @ 10' INTERVALS AS NEEDED.



DYNAMIC LATE MERGE SYSTEM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

SDD 15D12 - 07c

SDD 15D12 - 07c

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC

GENERAL NOTES

THIS RAMP CLOSURE DETAIL IS TYPICAL FOR CLOSING A RIGHT SIDE EXIT RAMP. FOR A LEFT SIDE EXIT RAMP, REVERSE THE TRAFFIC CONTROL.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF RAMP CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

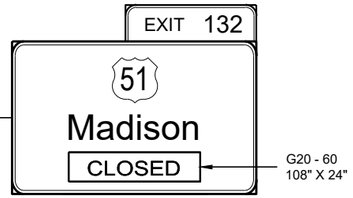
WORK AREAS WITH A DROP OFF ALONG THE EDGE OF AN OPEN TRAVEL LANE SHALL BE LEVELED WITH TEMPORARY FILL WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE TRAVEL LANE. DRUMS SHALL BE PLACED ENTIRELY OUTSIDE THE TRAVEL LANE, ALLOWING THE FULL UNOBSTRUCTED LANE WIDTH, WHEN WORK IS NOT IN PROGRESS.

WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12 - HOUR DURATION.

* W20 - 1A AND G20 - 2A SIGNS ARE NOT REQUIRED IF THE RAMP CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

** PLACE "RAMP CLOSED BEGINNING" SIGN OR PCMS 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.

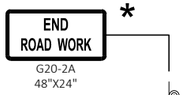
OR



PLACE SIGN G20 - 60 OVER MILEAGE ON EXISTING E1 - 1A SIGN

G20 - 61
120 ' X 30"

COVER ARROW ON EXISTING E4 - 1 SIGN (COVERING SIGNS TYPE I)



*

TEMPORARY PAVEMENT MARKING
4" REMOVABLE TAPE, WHITE
(ACROSS THE RAMP OPENING)

25' TYP.

100' MIN.

COVER EXISTING EXIT SIGN

EDGE OF SHOULDER

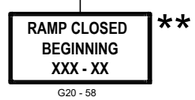
200'

1500'

1500'

1000'

*



G20 - 58

**

OR

PCMS MESSAGING

FRAME 1	FRAME 2
RAMP TO CLOSE	XXXDAY XX XX XX

TRAFFIC CONTROL EXIT RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15D16 - 04

6

SDD 15D16 - 04

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

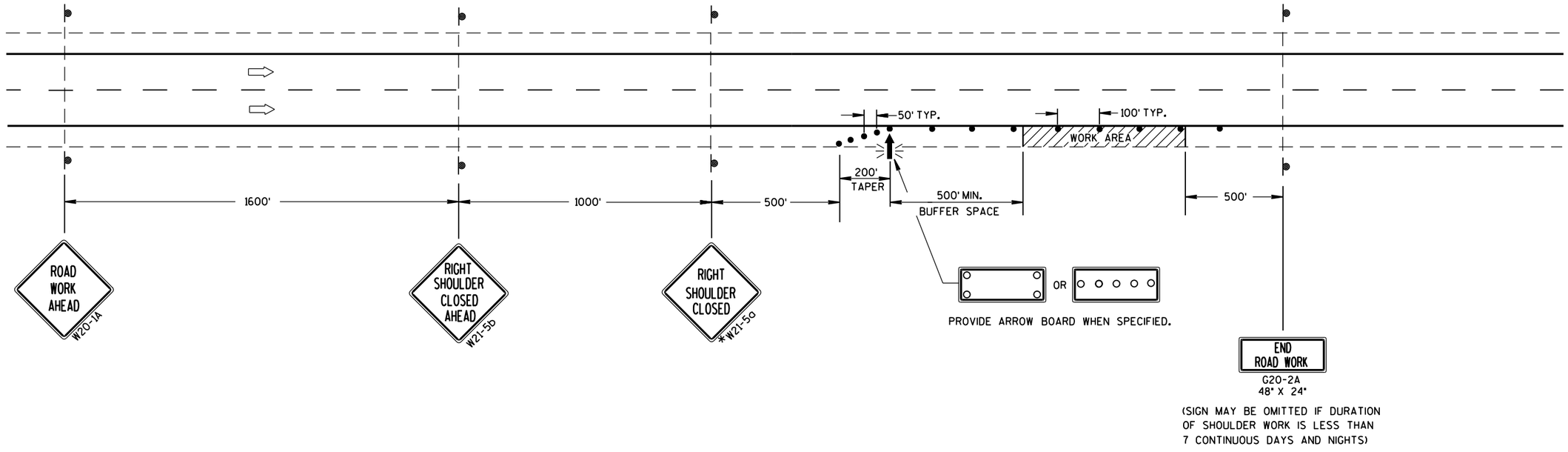
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

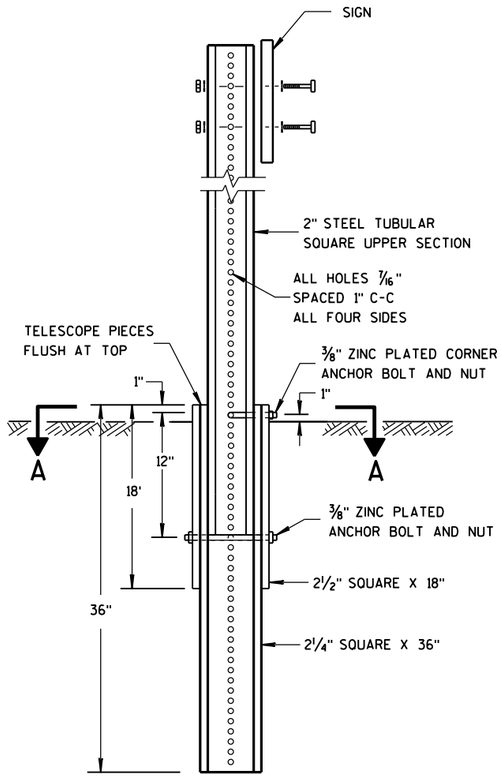
June 2016 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]

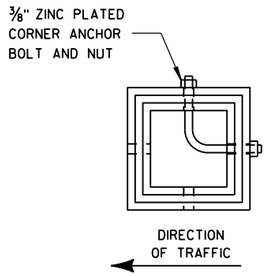
FHWA

6

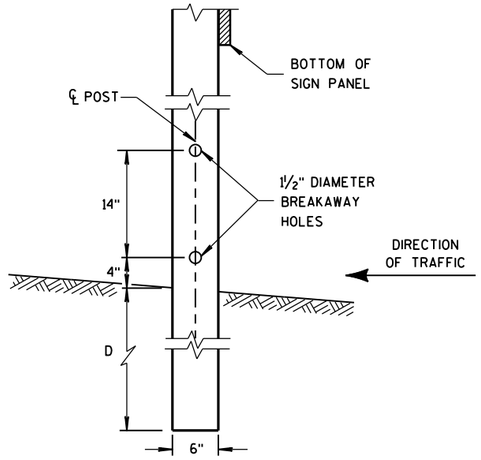
S.D.D. 15 D 27-3



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



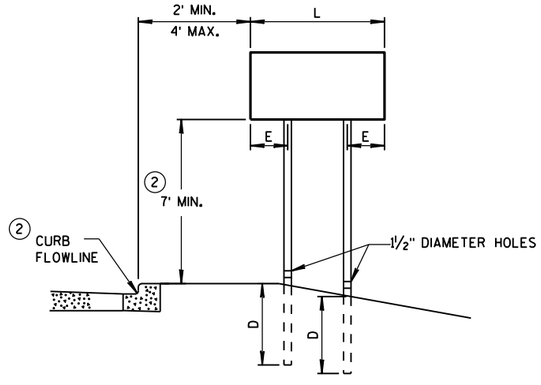
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

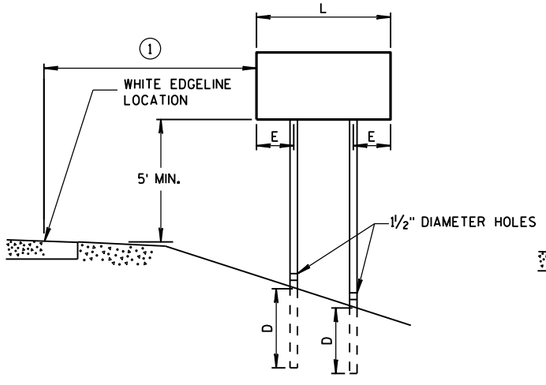
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

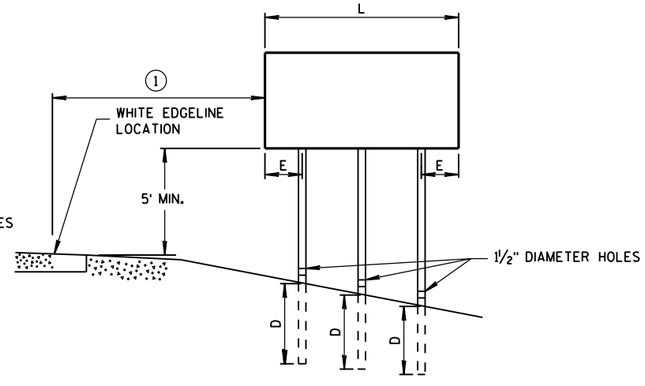
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

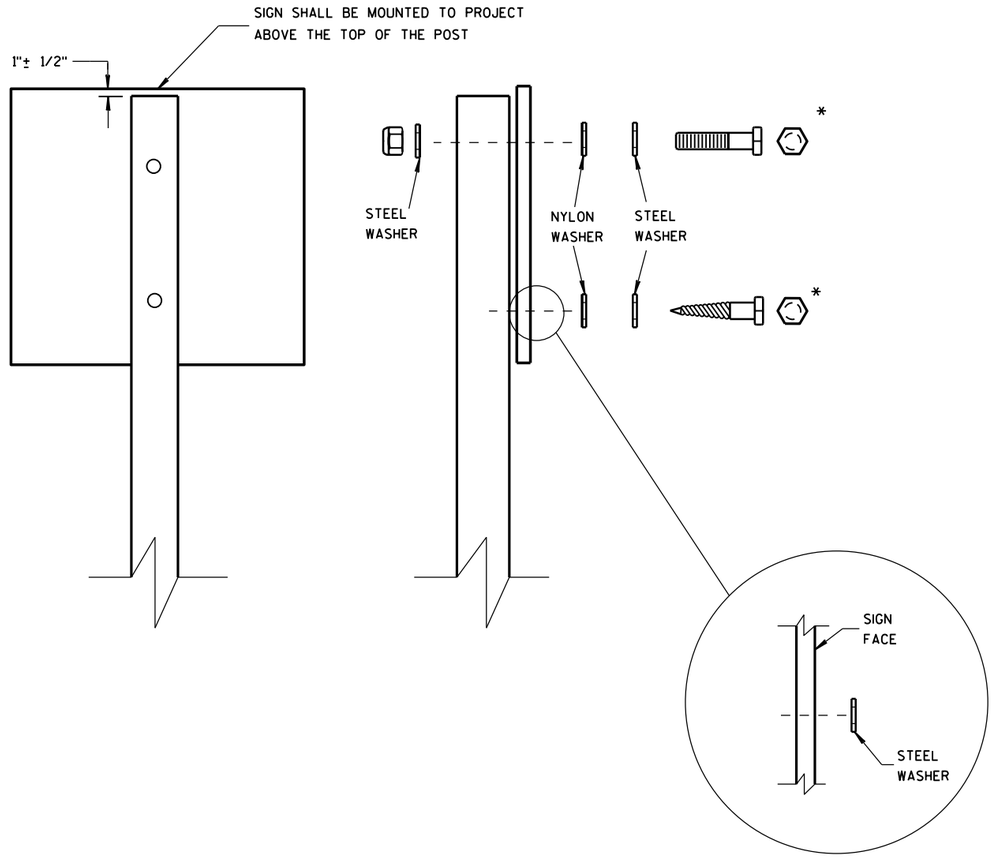
POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 15 D 38-2a



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3

B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 5/16" X 6-1/2" OR 7" LENGTH W/ NUTS

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

6

S.D.D. 15 D 38-2b

S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

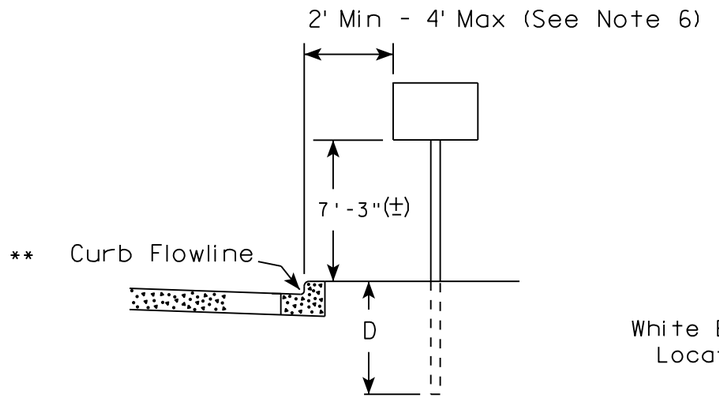
APPROVED

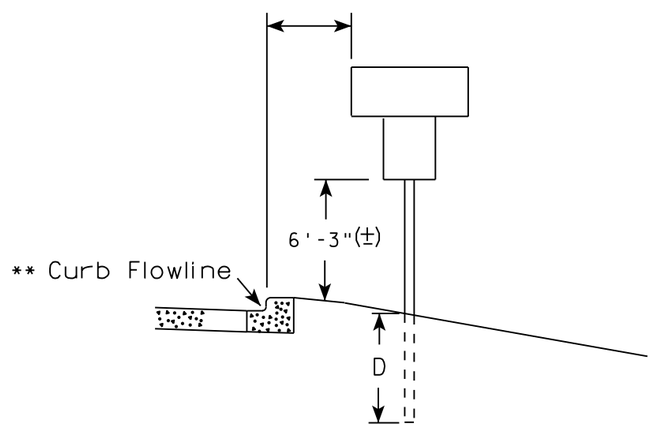
June 2017
DATE

/S/ Andrew Heldtke
WORK ZONE ENG

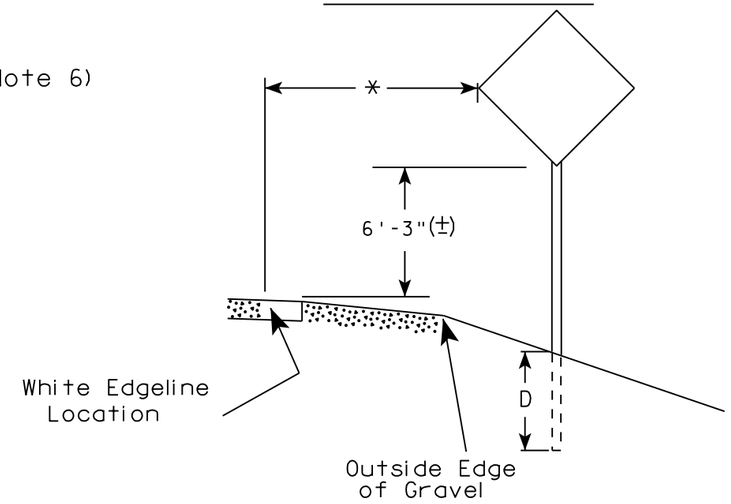
FHWA

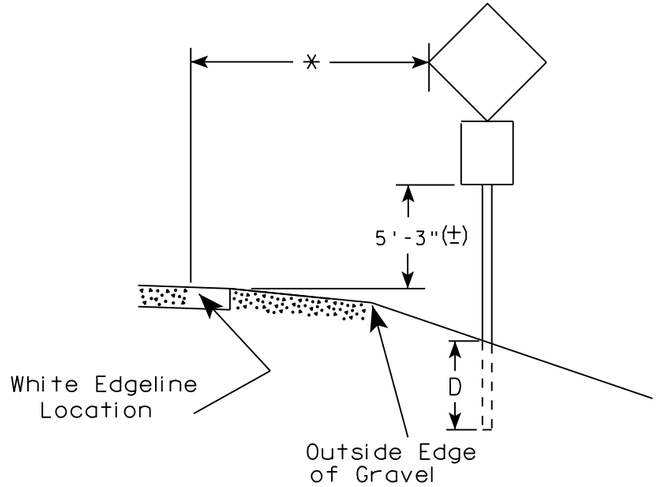
URBAN AREA





RURAL AREA (See Note 2)





GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. J-Assemblies are considered to be one sign for mounting height.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

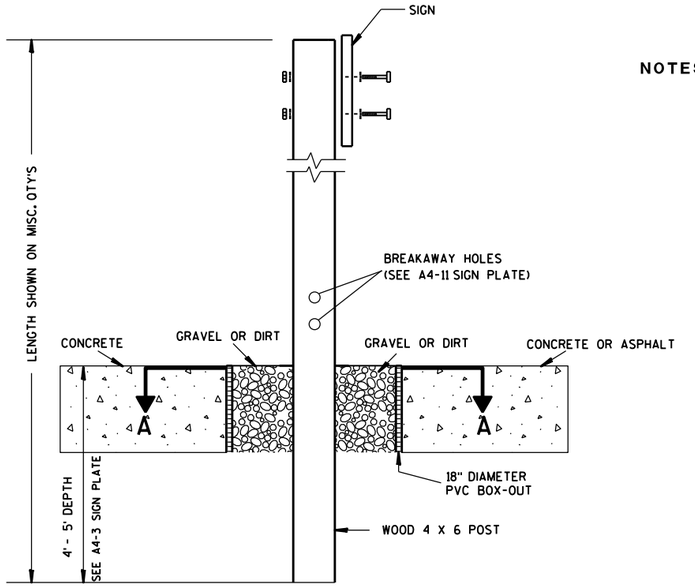
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-3.21

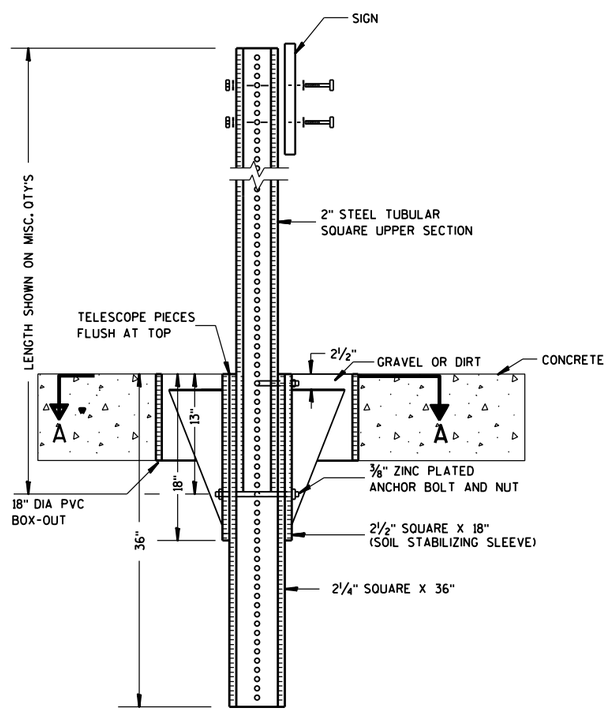
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 191	E



ELEVATION VIEW

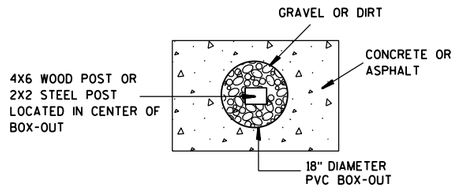
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

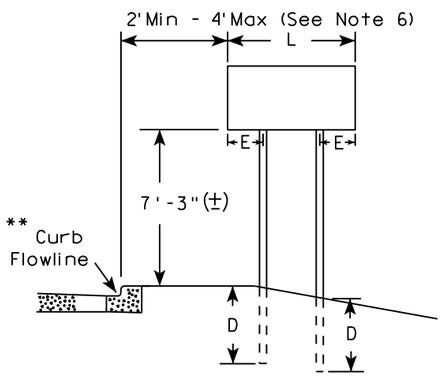
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

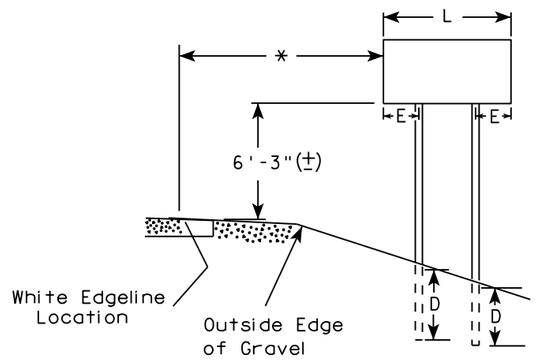
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

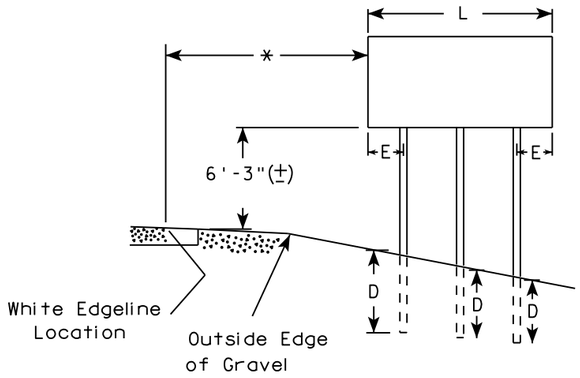
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

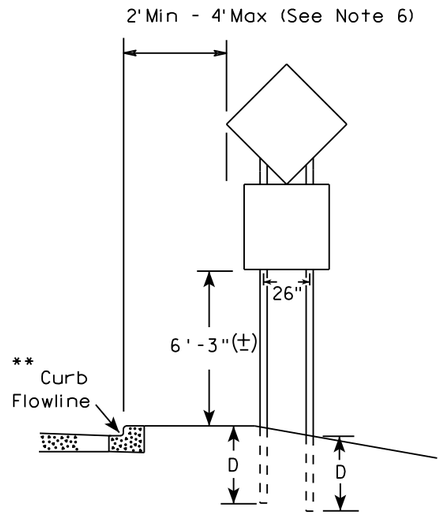
URBAN AREA



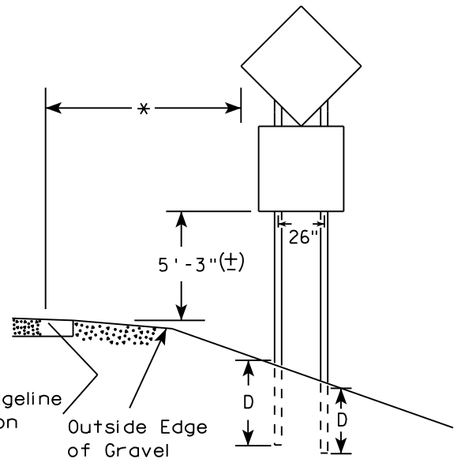
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

***	SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
	L	E
	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

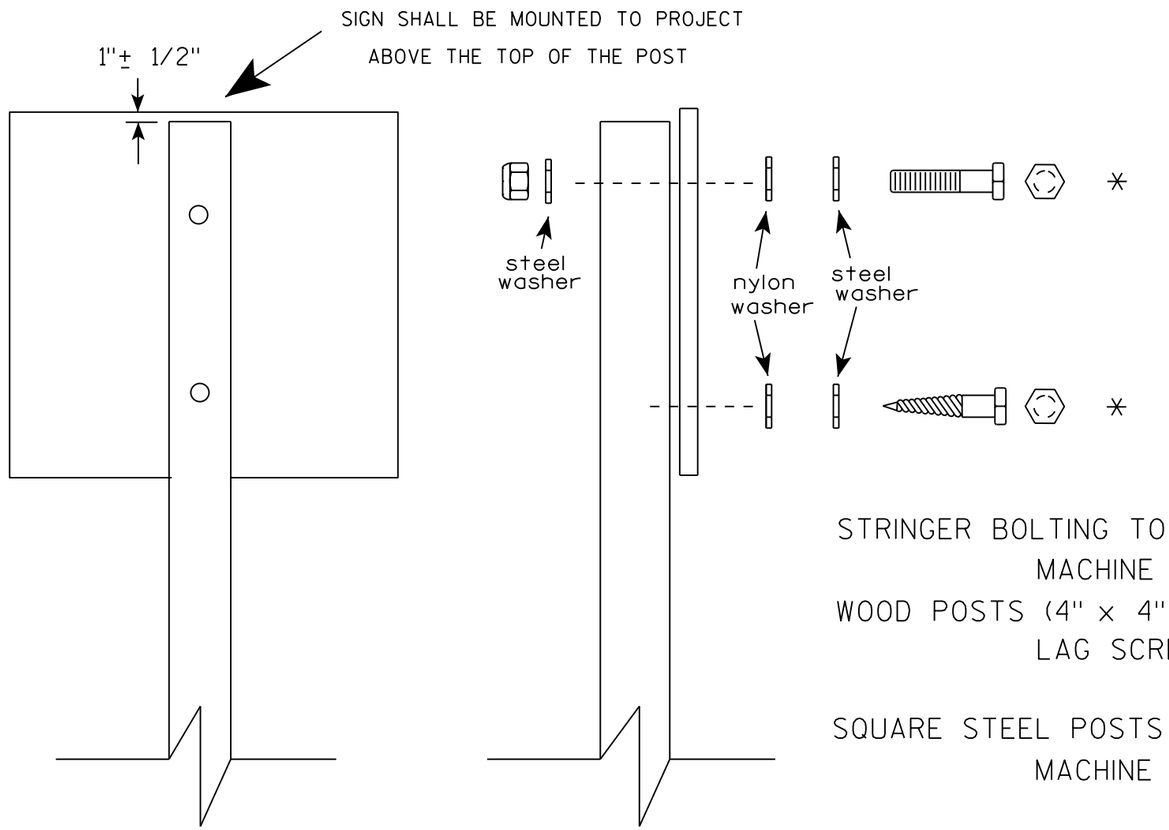
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

7

7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 193 | E



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts
WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)
SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

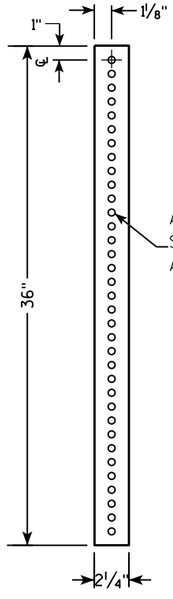
DATE 8/11/16 PLATE NO. A4-8.8

PROJECT NO: SHEET NO: E

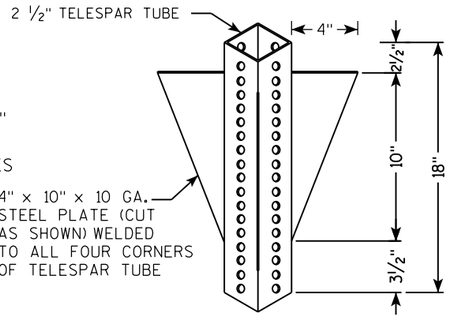
FILE NAME : C:\CADfiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 11-AUG-2016 11:35 PLOT BY : $$ plotuser $$

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

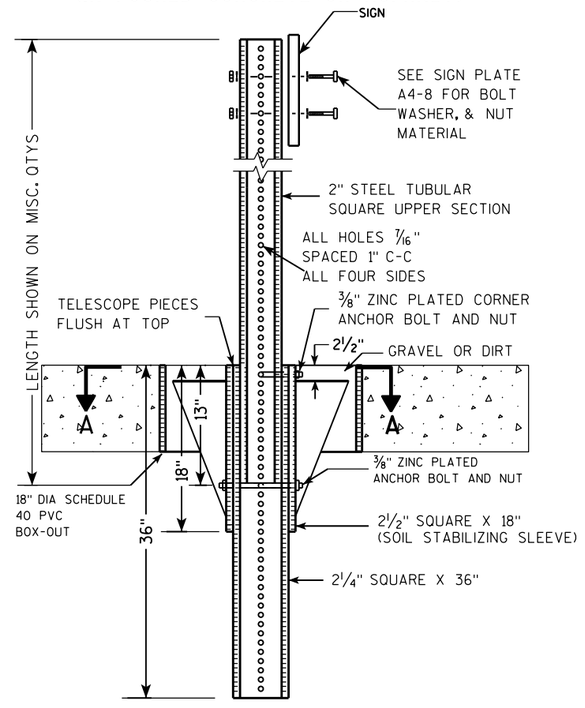
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



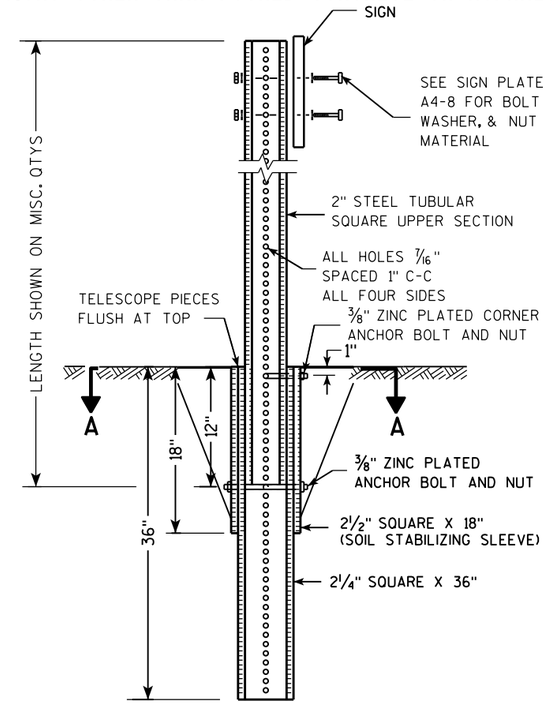
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

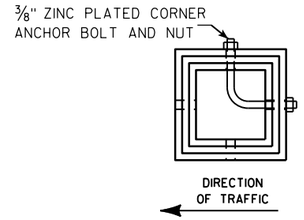


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 195 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

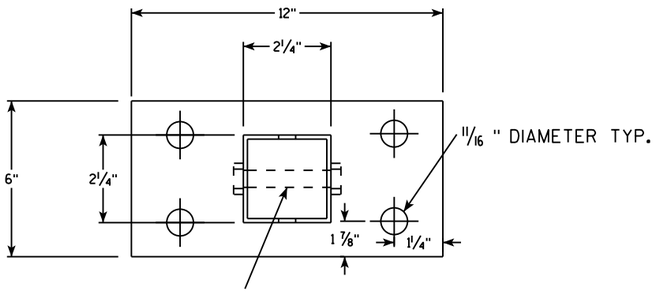
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000

WISDOT/CADDS SHEET 42

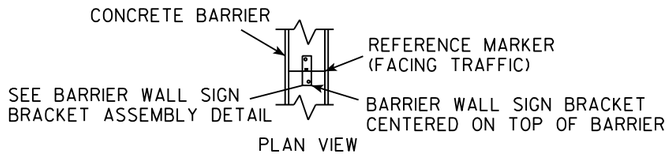
TYPICAL BARRIER WALL SIGN PLACEMENT DETAILS

TYPICAL REFERENCE MARKER MOUNTING DETAILS

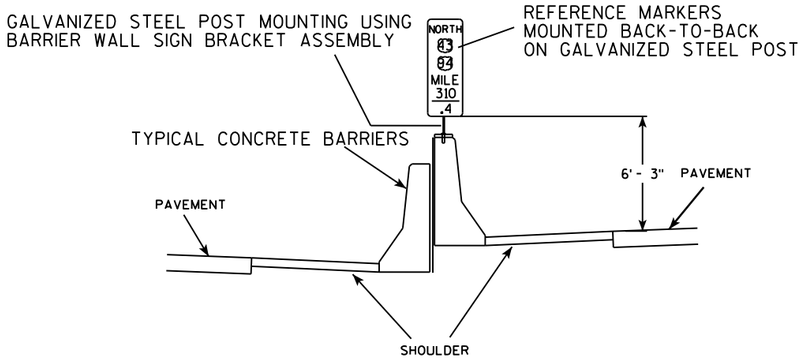
BARRIER WALL SIGN BRACKET ASSEMBLY
NOT TO SCALE



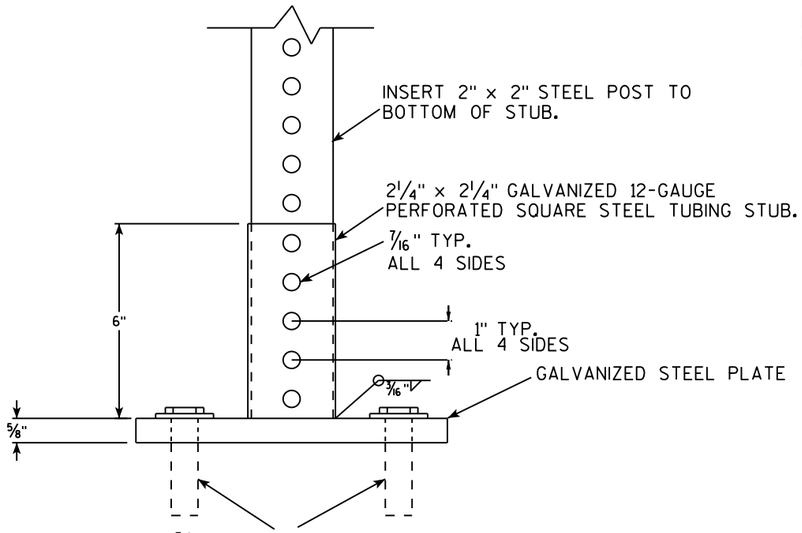
3½" X ⅜" GALVANIZED STEEL BOLT & HARDWARE
PLAN VIEW



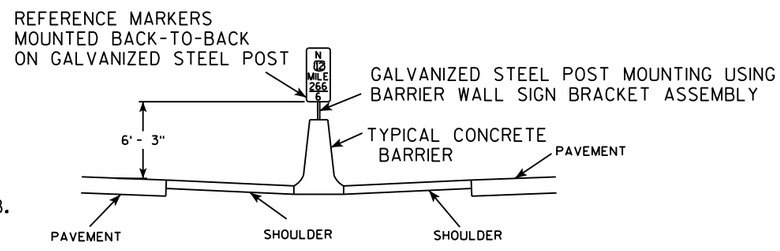
MEDIAN BARRIER MOUNTING DETAIL



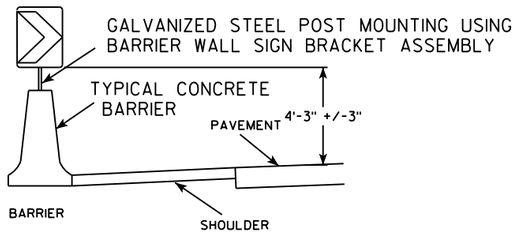
TYPICAL ENHANCED REFERENCE
MARKER PLACEMENT ON DOUBLE MEDIAN BARRIER



SIDE VIEW



TYPICAL ENHANCED REFERENCE
MARKER PLACEMENT ON SINGLE MEDIAN BARRIER



TYPICAL CHEVRON MARKER PLACEMENT

NOTES

1) ALL MATERIAL TO BE APPROVED BY ENGINEER BEFORE INSTALLATION
2) SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS.

SIGN MOUNTING ON BARRIER WALL

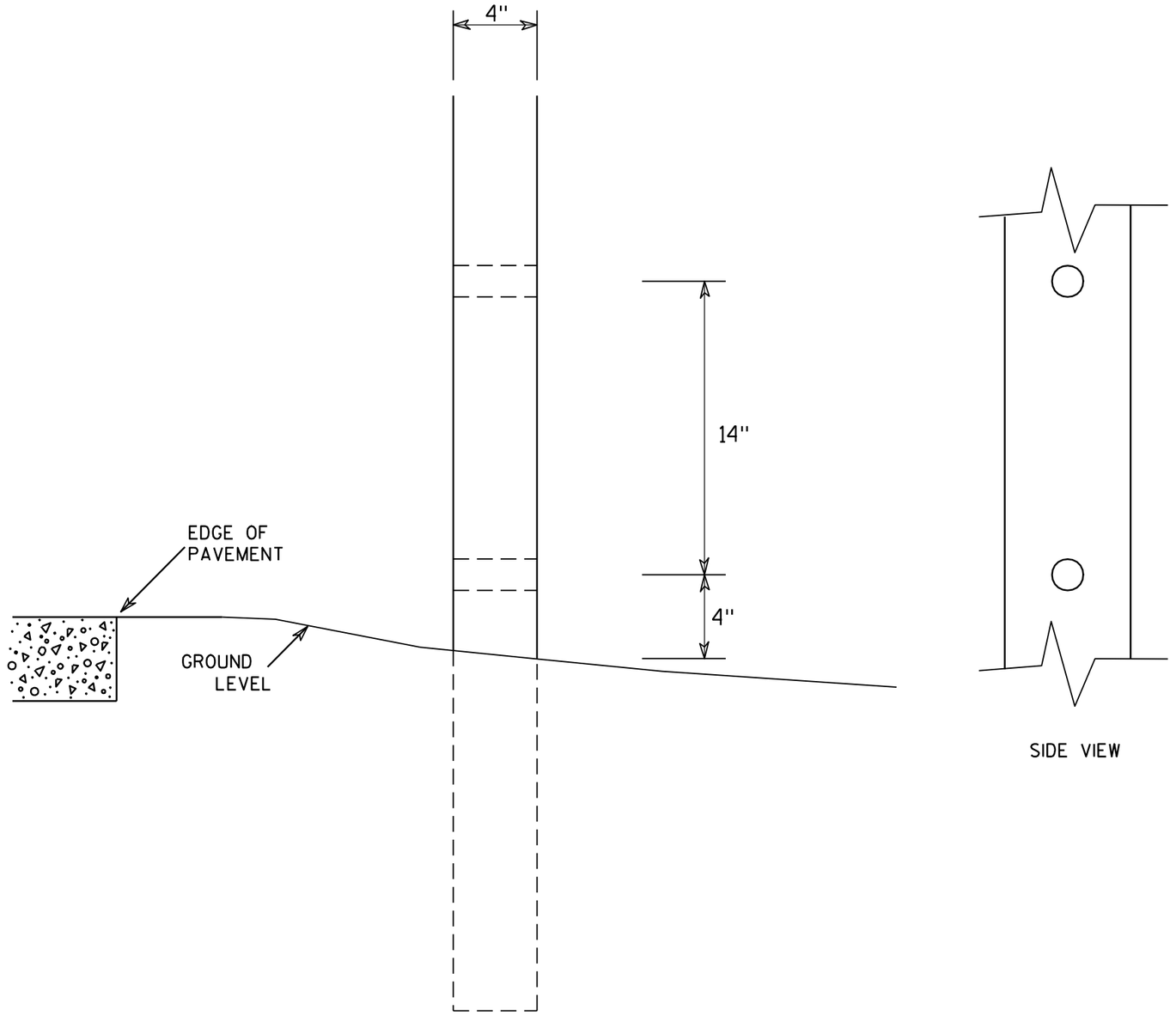
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/15 PLATE A4-10.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A410.DGN PLOT DATE : 16-MAR-2015 14:27 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 14.593816:1.000000
WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

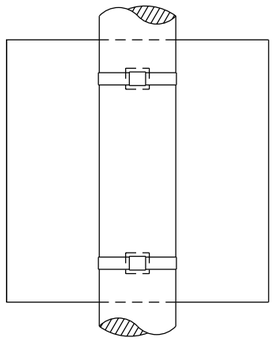
APPROVED Chester J Spang for State Traffic Engineer

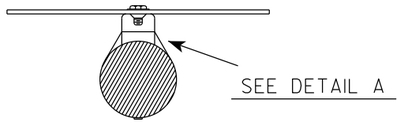
DATE 3/27/97 PLATE NO. A4-11.2

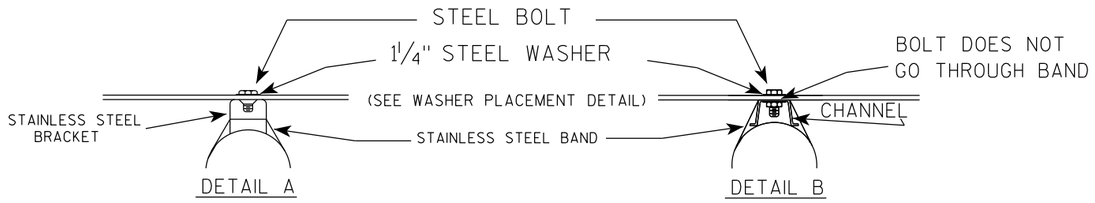
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 197	E

BANDING

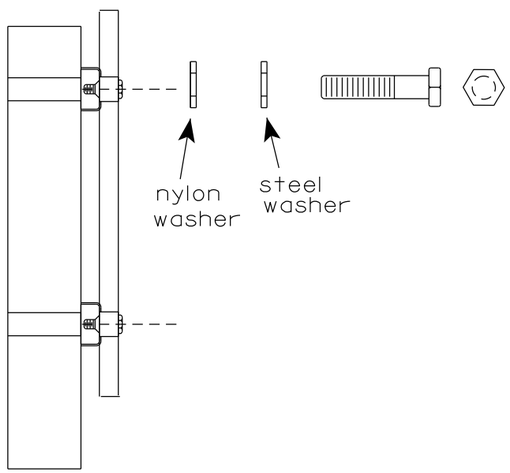
SINGLE SIGN







WASHER PLACEMENT

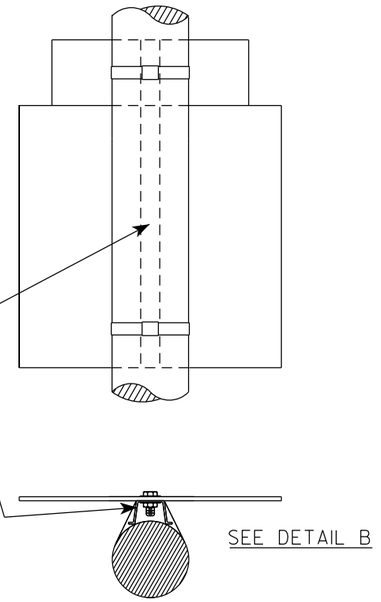


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

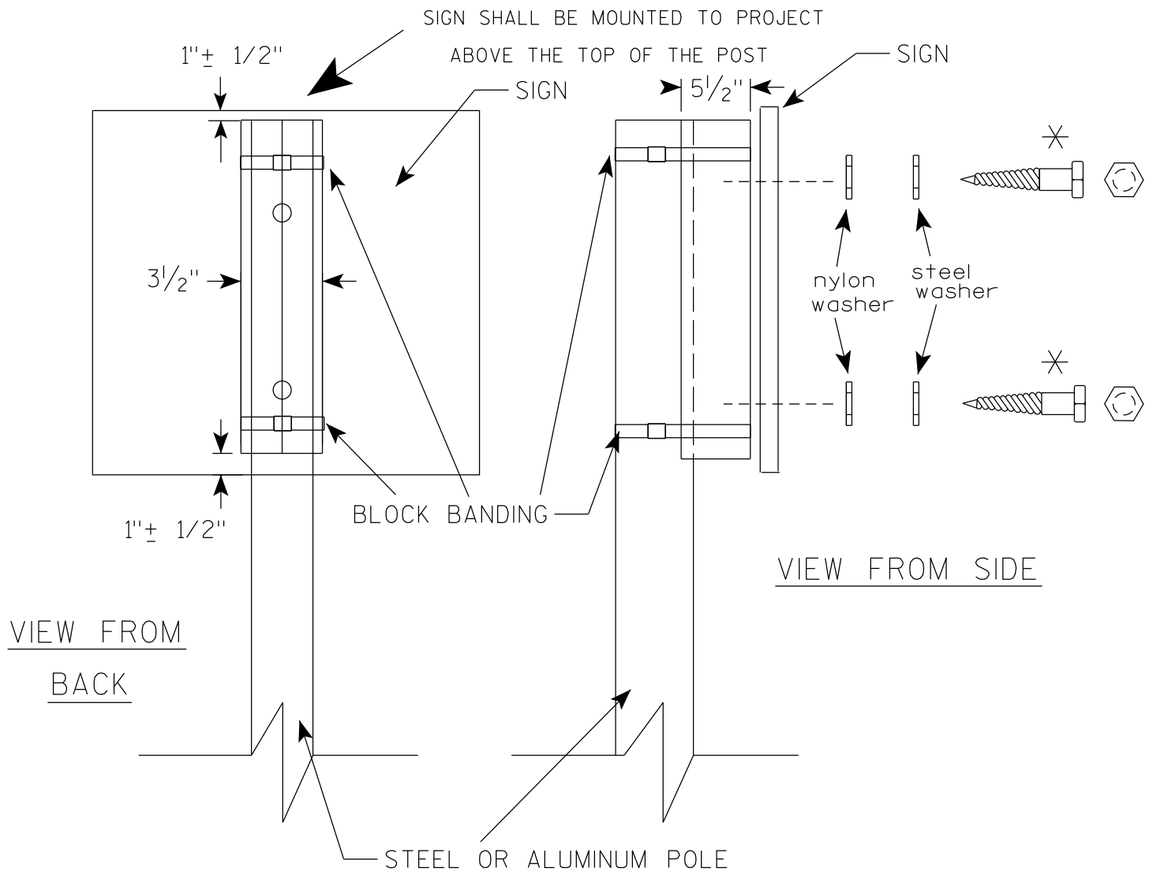
DATE 6/10/19 PLATE NO. A5-9.4

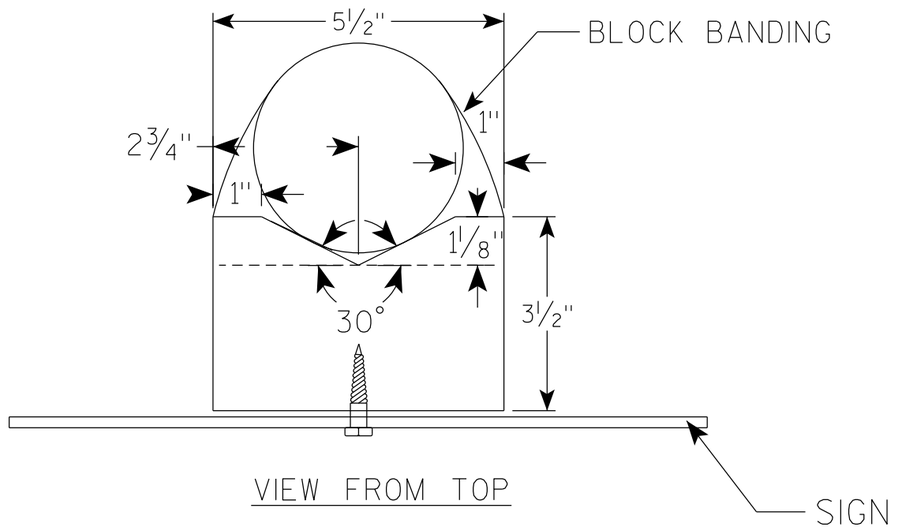
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 198	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

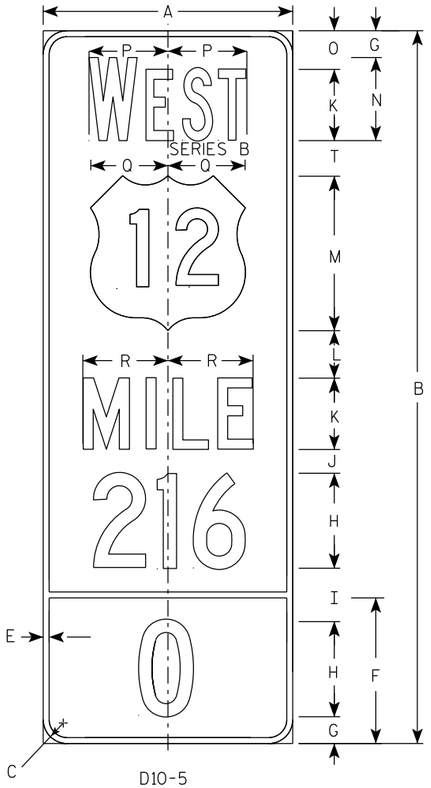
BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

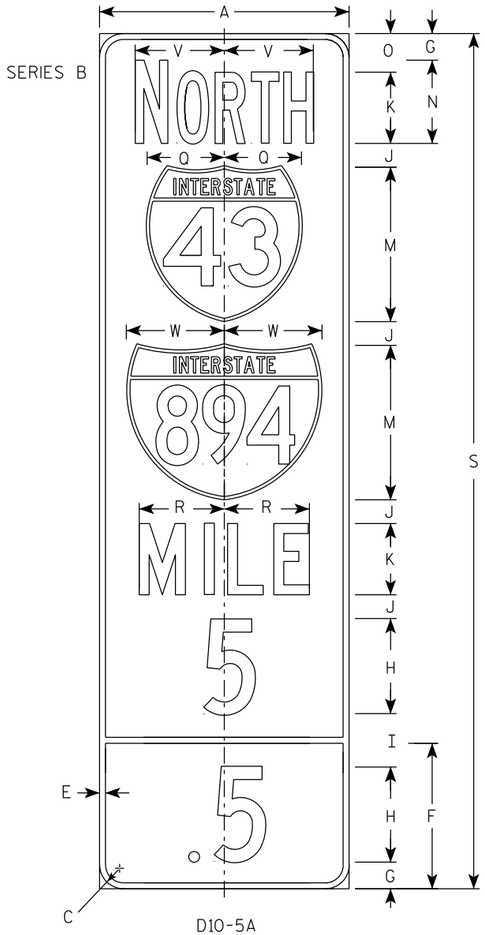
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-10.2

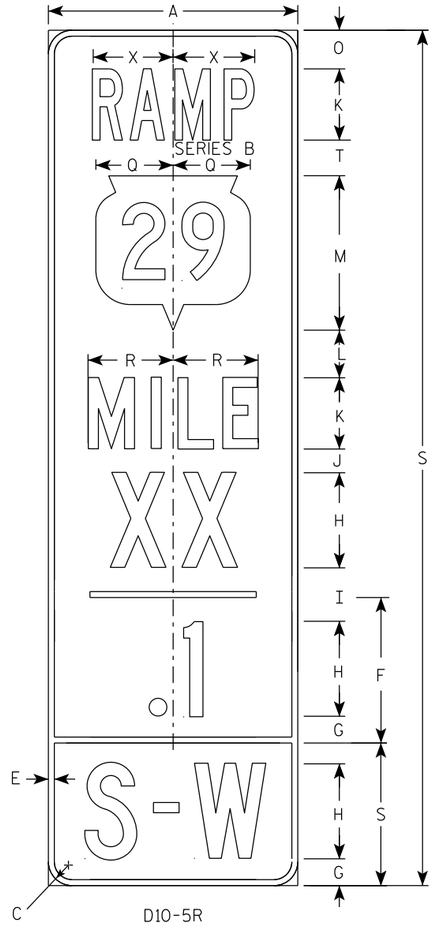
PROJECT NO: | SHEET NO: 199 | E



D10-5



D10-5A

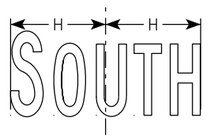


D10-5R

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - BLUE
   Message - WHITE
3. Interstate Shield Color
   Background - Top Red
   - Bottom Blue
   Message - White
4. Message Series - C or as noted on the Sign.
5. The decimal point is required for all digits except "0".
6. Optically adjust mileage numbers about the centerline of the sign to achieve proper balance.
7. Optically adjust Ramp direction letters about the centerline of the sign to achieve proper balance.

SERIES B



SERIES B

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	D10-5 Area sq. ft.	D10-5A Area sq. ft.	D10-5R Area sq. ft.
1																													
2																													
3																													
4	21	60	1 ½		½	12 ¼	2 ¼	8	4 ½	2	6	4	13	6 ⅝	3 ¼	7	6 ½	7 ⅛	72	3		7 ½	8 ¼	6 ¾			8.75	10.5	10.5
5	21	60	1 ½		½	12 ¼	2 ¼	8	4 ½	2	6	4	13	6 ⅝	3 ¼	7	6 ½	7 ⅛	72	3		7 ½	8 ¼	6 ¾			8.75	10.5	10.5

STANDARD SIGN
D10-5

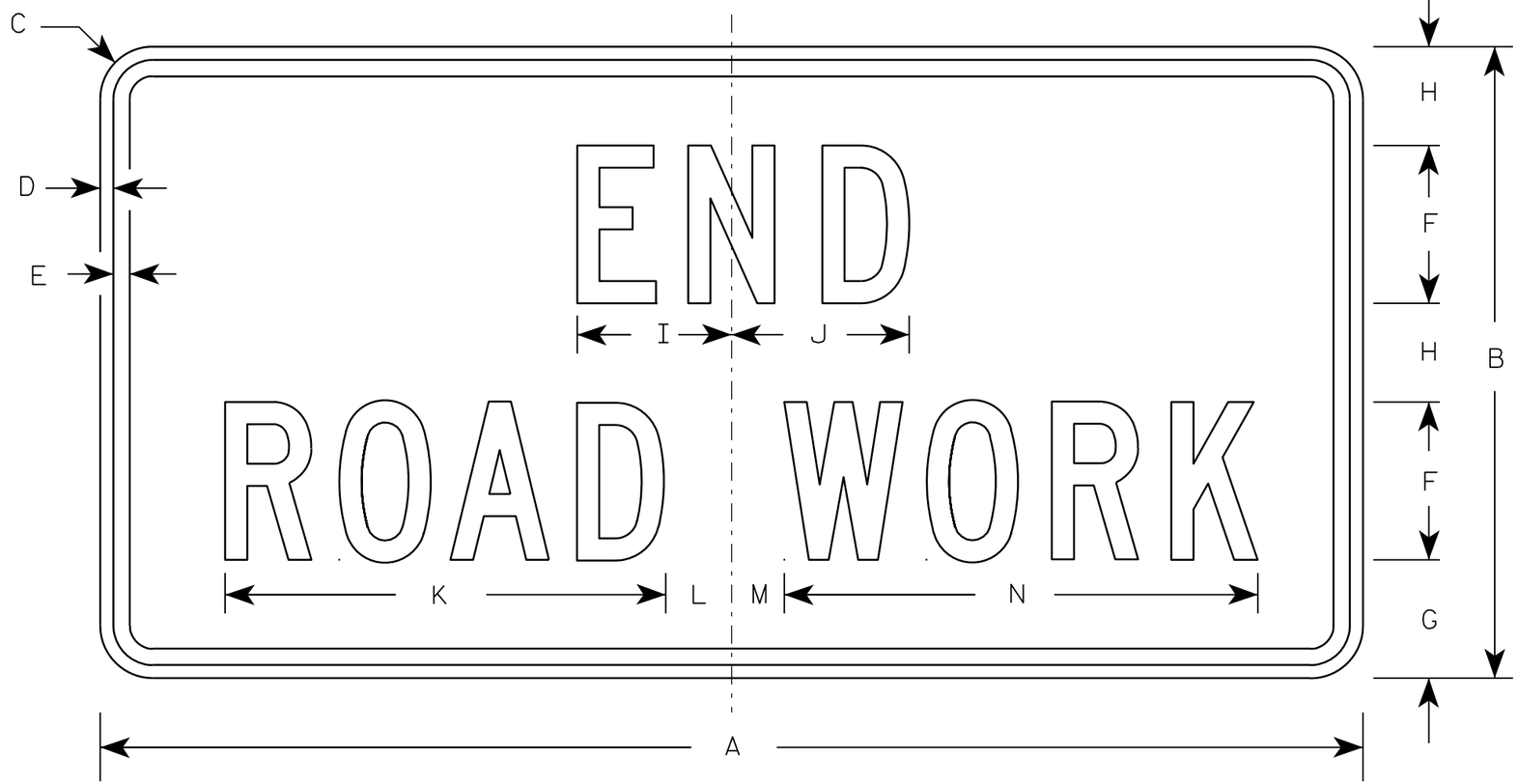
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/11/18 PLATE NO. D10-5.3

PROJECT NO:

SHEET NO: 200 **E**



G20-2A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

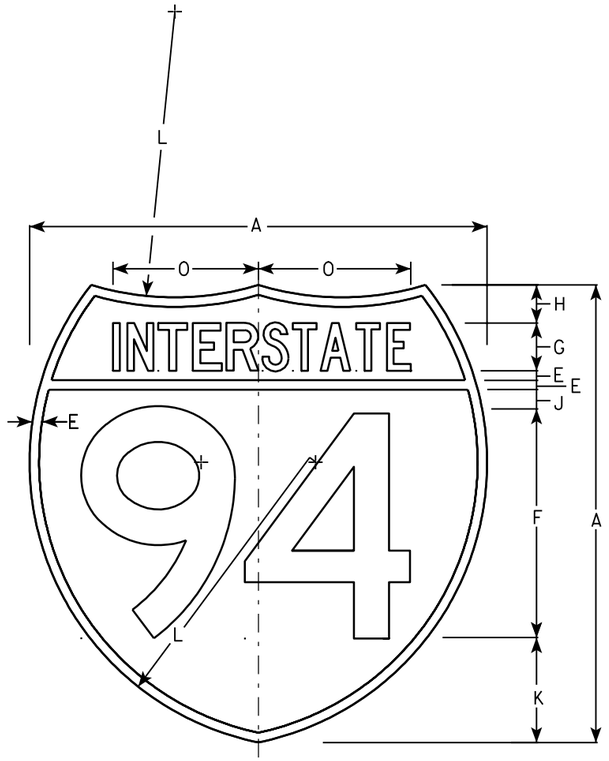
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

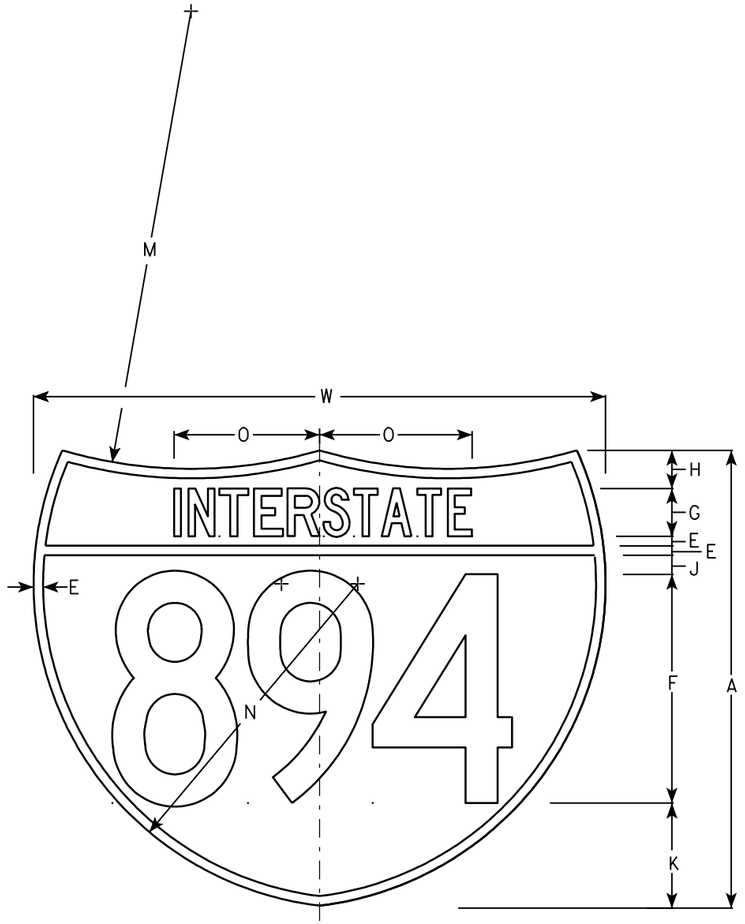
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 201	E



M1-1



M1-1A

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Red - Bottom Blue (See Note 6)
   Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C
6. Permanent Signs
   Message - Type H Reflective
   Detour or other temporary signs
   Background - Reflective
   Message - Reflective

Metric equivalent for these signs are:

SIZE	M1-1	SIZE	M1-1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

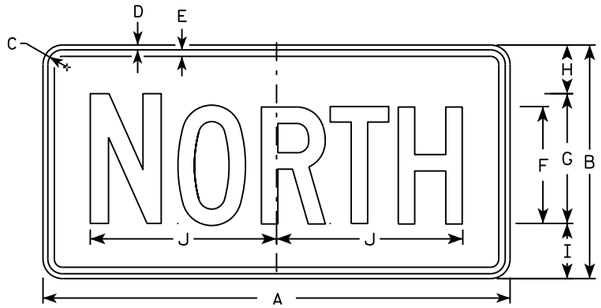
INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

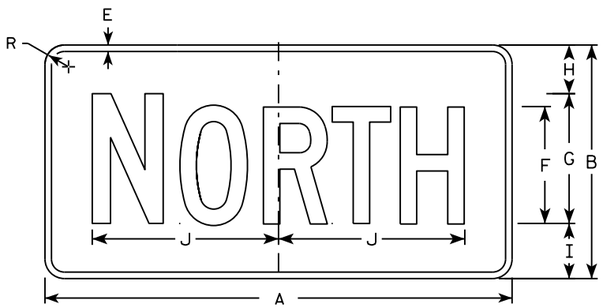
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 202	E



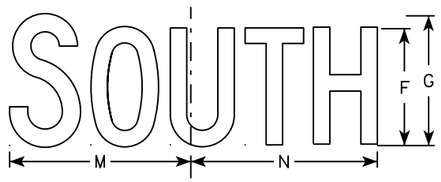
M3-1
MM3-1
MP3-1



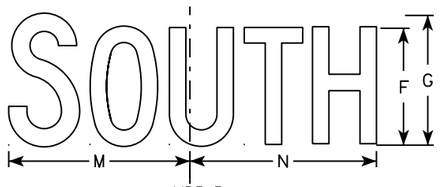
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

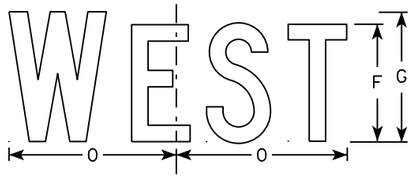
MB3-2
MK3-2
MN3-2



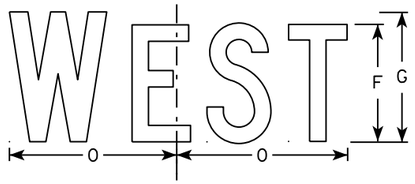
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thur M3-4
SERIES

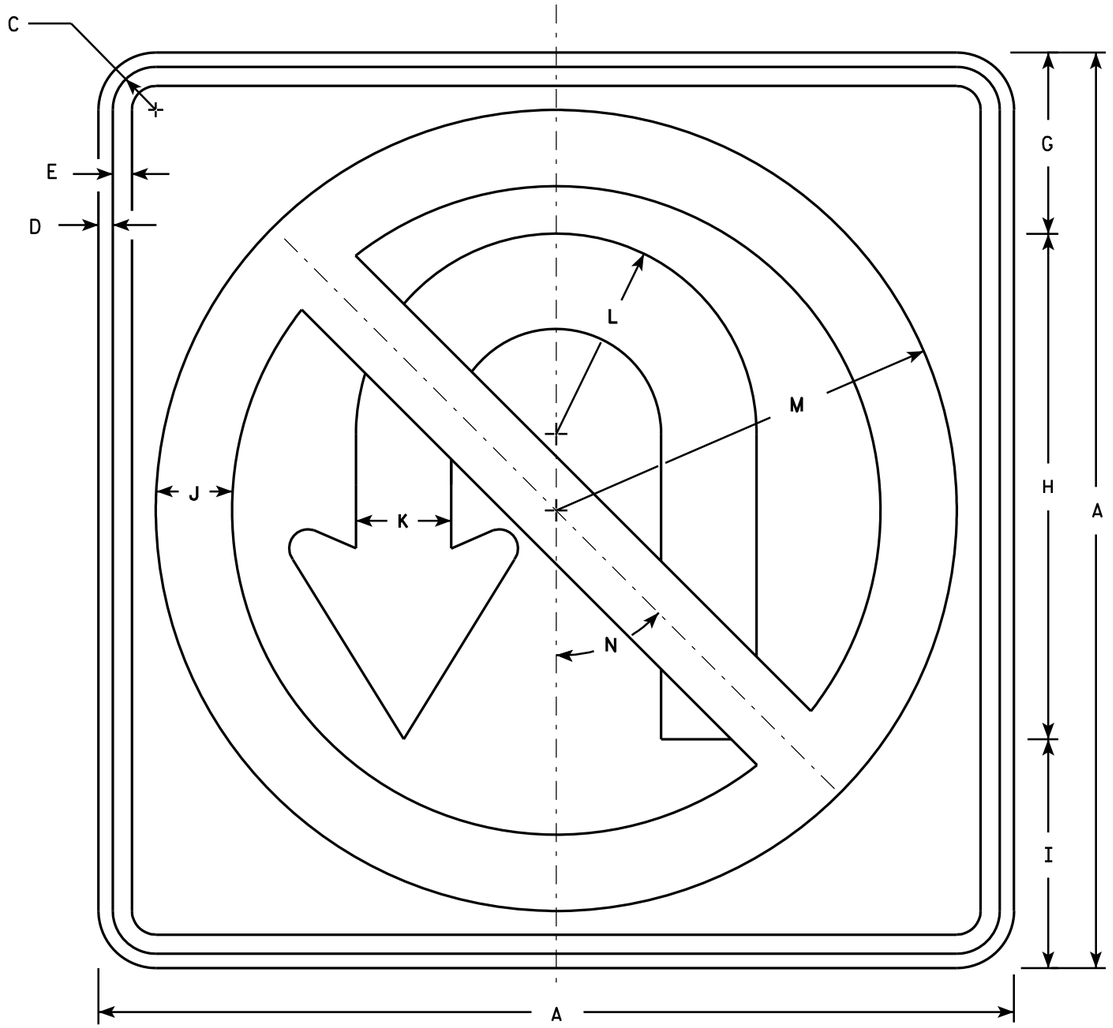
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

DATE 10/15/15 PLATE NO M3-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

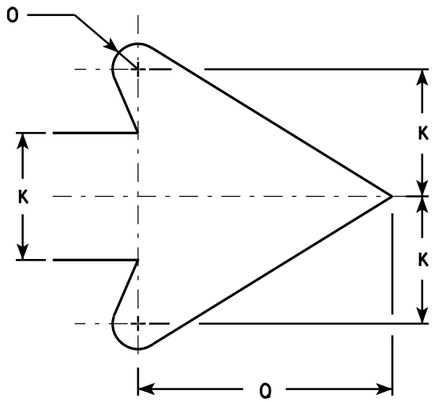
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



R3-4

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	3/8	1/2		4 3/4	13 1/4	6	2	2 1/2	5 1/4	10 1/2	45°	1/2		5										4.0
2M	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
3	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
4	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
5	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0

STANDARD SIGN
R3-4

WISCONSIN DEPT OF TRANSPORTATION

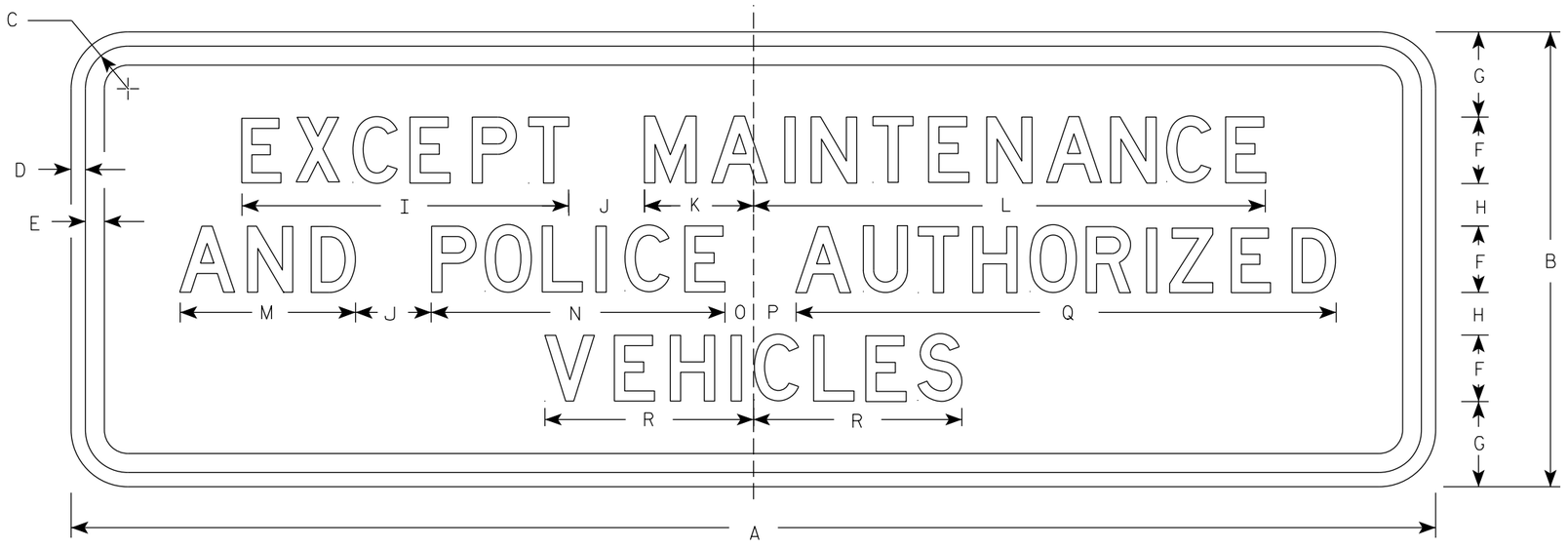
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-4.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 204	E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



R3-4A

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S																											
2M	36	12	1 3/8	1/2	3/8	1 3/4	2 1/4	1 1/8	8 5/8	2	2 7/8	13 1/2	4 5/8	7 3/4	3/4	1 1/8	14 1/4	5 1/2									3.0
3	36	12	1 3/8	1/2	3/8	1 3/4	2 1/4	1 1/8	8 5/8	2	2 7/8	13 1/2	4 5/8	7 3/4	3/4	1 1/8	14 1/4	5 1/2									3.0
4	36	12	1 3/8	1/2	3/8	1 3/4	2 1/4	1 1/8	8 5/8	2	2 7/8	13 1/2	4 5/8	7 3/4	3/4	1 1/8	14 1/4	5 1/2									3.0
5	36	12	1 3/8	1/2	3/8	1 3/4	2 1/4	1 1/8	8 5/8	2	2 7/8	13 1/2	4 5/8	7 3/4	3/4	1 1/8	14 1/4	5 1/2									3.0

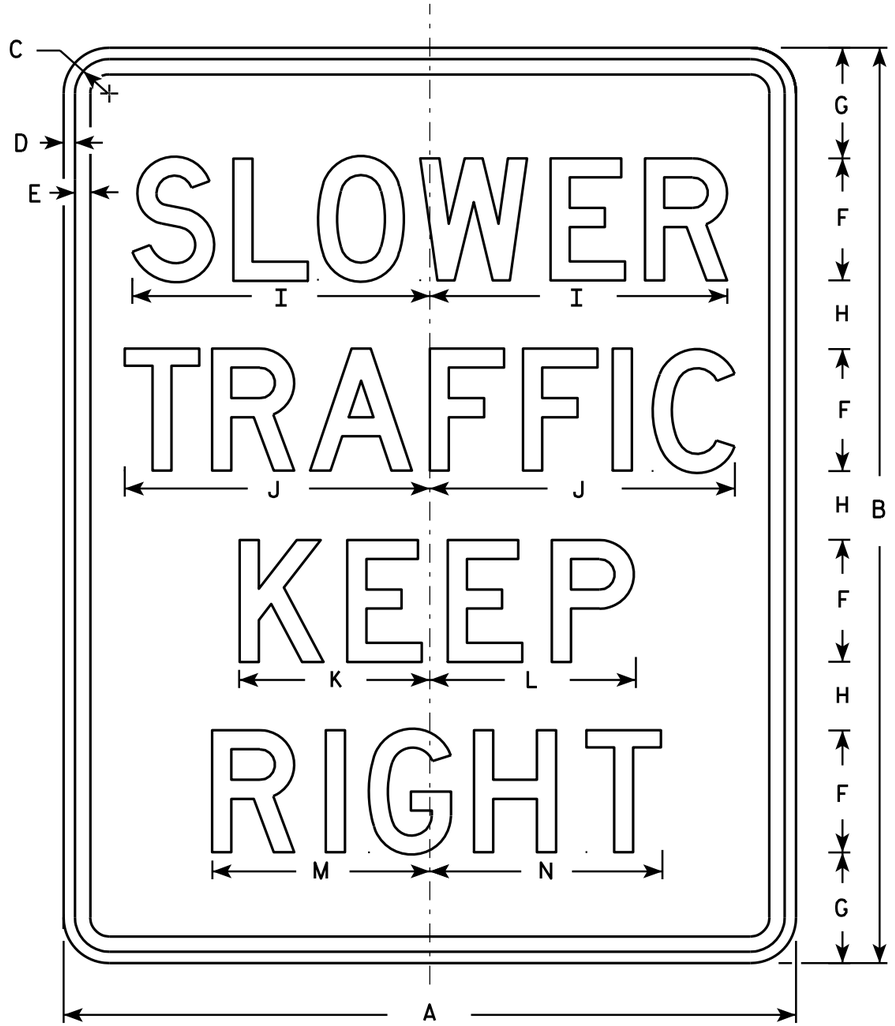
STANDARD SIGN
R3-4A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/18/19 PLATE NO. R3-4A.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 205	E



R4-3

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 3/4	10	6 1/4	6 3/4	7 1/8	7 5/8													5.0
2M	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 3/4	10	6 1/4	6 3/4	7 1/8	7 5/8													5.0
3	36	48	1 5/8	5/8	3/4	6	6	4	14 5/8	15	9 3/8	10	10 3/4	11 3/8													12.0
4	36	48	1 5/8	5/8	3/4	6	6	4	14 5/8	15	9 3/8	10	10 3/4	11 3/8													12.0
5	48	60	2 1/4	3/4	1	8	7 1/4	4 1/2	19 1/2	20	12 1/2	13 1/2	14 1/4	15 1/4													20.0

STANDARD SIGN
R4-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-3.8

PROJECT NO:

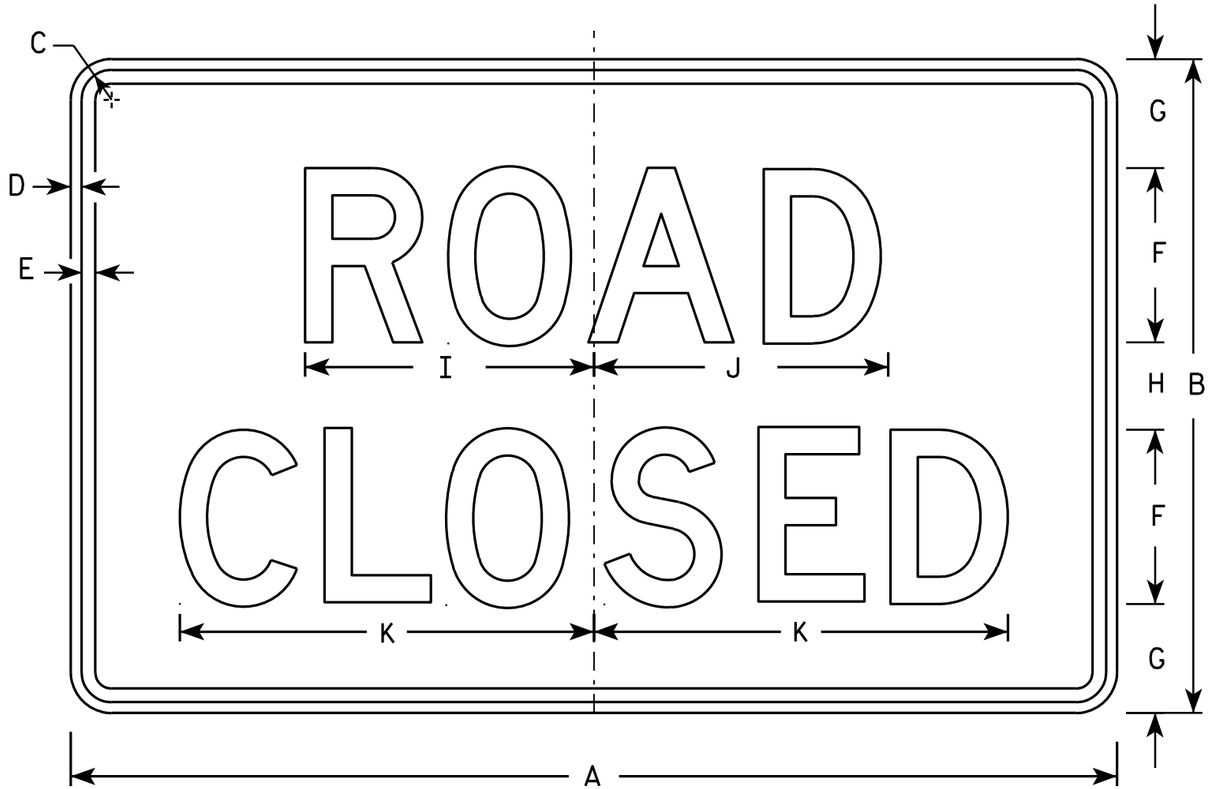
SHEET NO: 206 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R43.DGN PLOT DATE : 25-MAR-2011 13:40 PLOT BY : mscsja

WISDOT/CADDS SHEET 42

7

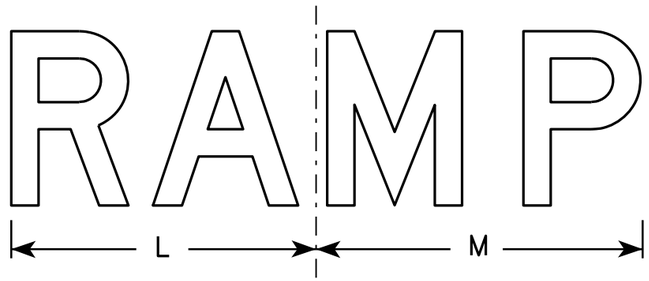
7



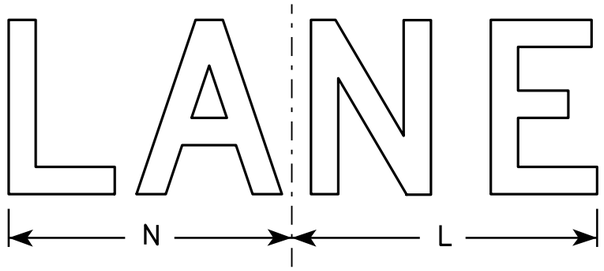
R11-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.



R11-2R



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0

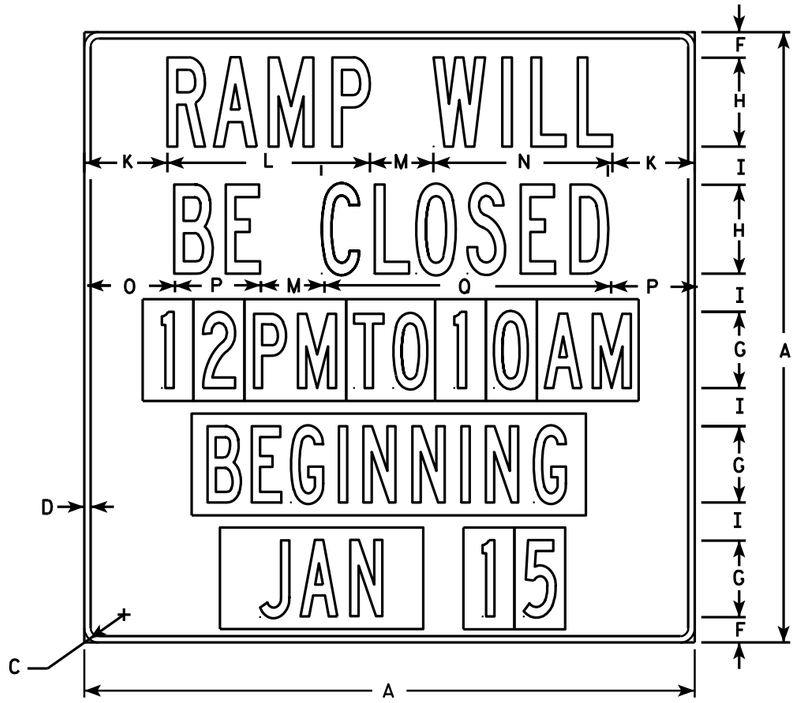
STANDARD SIGN
R11-2

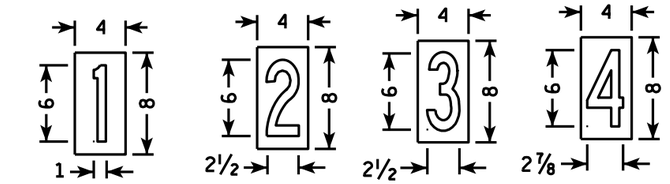
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

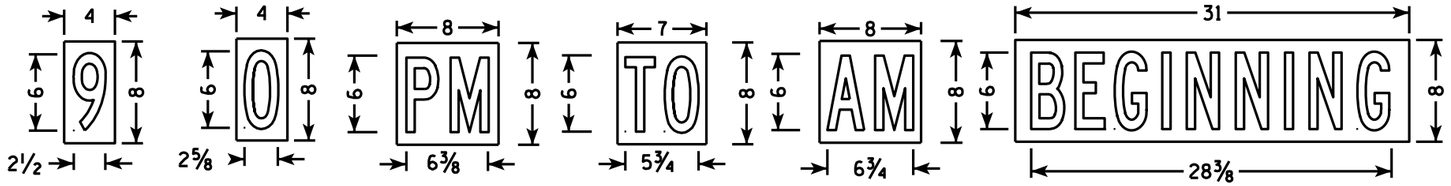
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 207	E

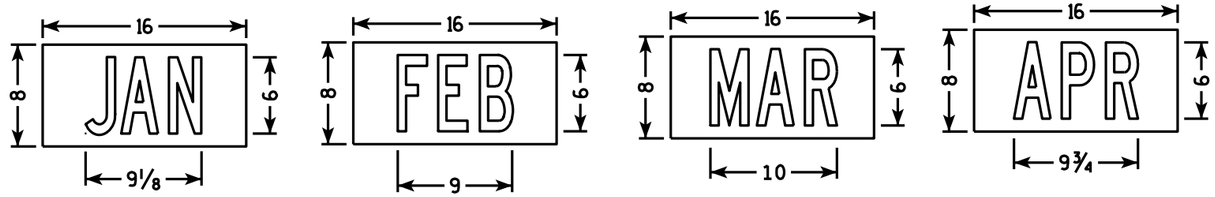


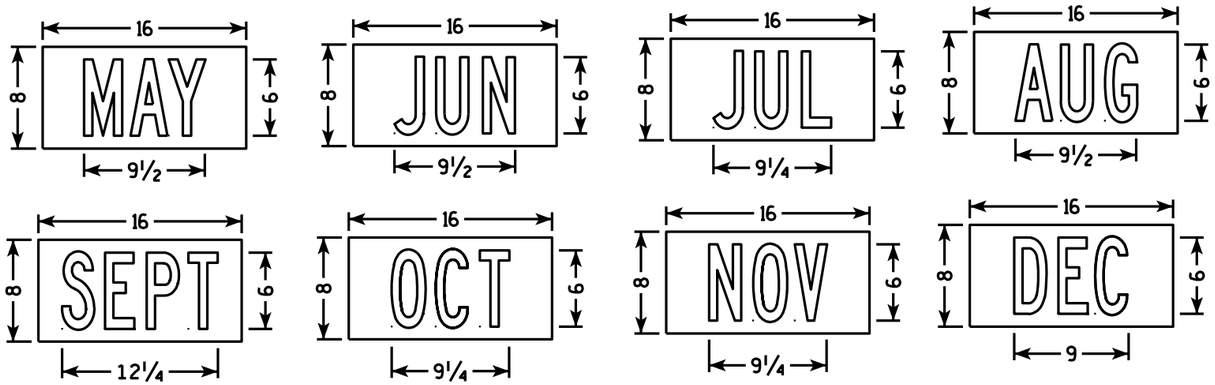


NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - B
4. Message plaques consist of Type H Reflective sheeting with the appropriate non-reflective black message applied to .040 aluminum and screwed to the base sign.







SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48		2 1/4	1/2		2	6	7	3		6 1/2	15 7/8	5	14 1/8	6 7/8	6 3/4	22 1/2										16.0
2M	48		2 1/4	1/2		2	6	7	3		6 1/2	15 7/8	5	14 1/8	6 7/8	6 3/4	22 1/2										16.0
3																											
4																											
5																											

STANDARD SIGN
R11-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-51.4

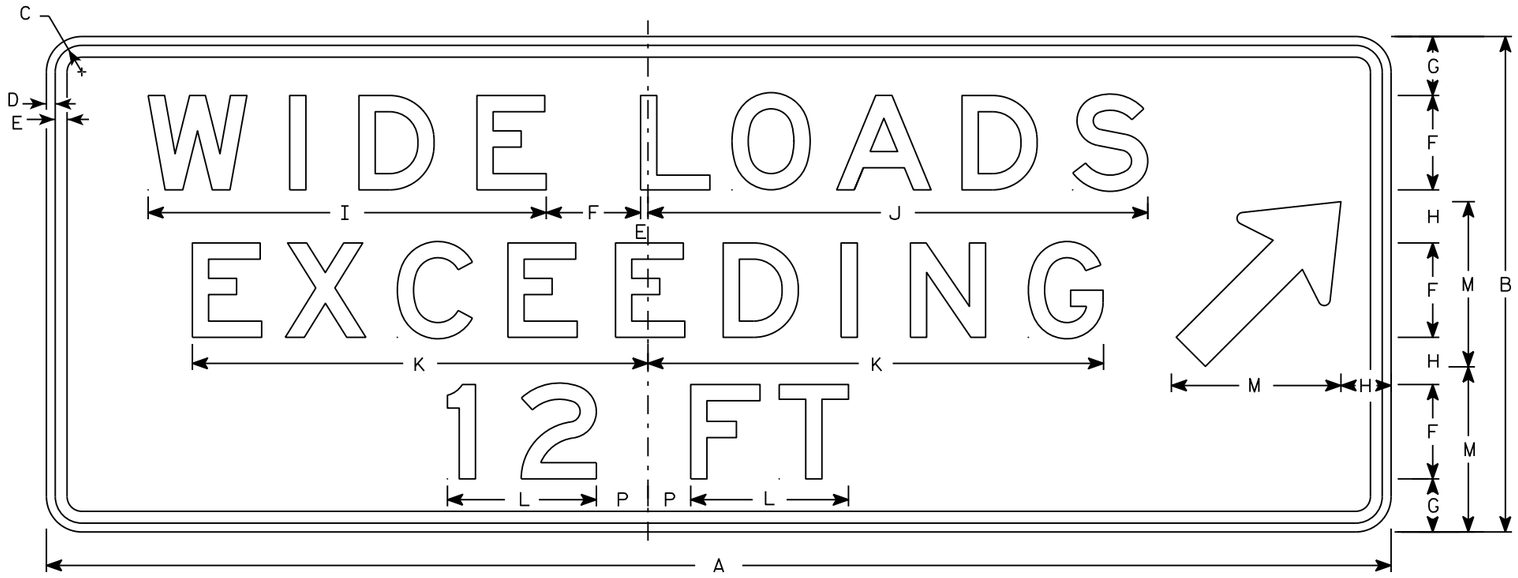
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 208	E

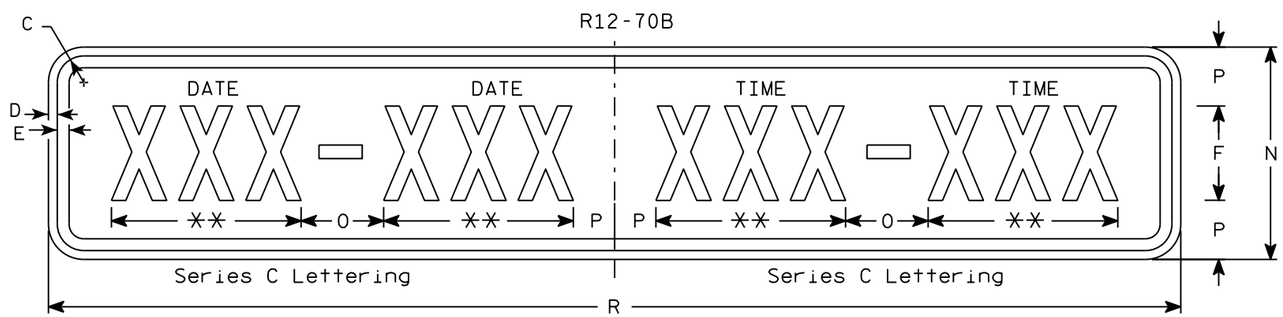
FILE NAME : C:\Users\PROJECTS\tr_stdplate\R1151.DGN PLOT DATE : 01-APR-2011 14:07 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000

WISDOT/CADDS SHEET 42

7

7





R12-70C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	R12-70 Area sq. ft.	R12-70C Area sq. ft.
1																												
2S	90	36	2 1/4	1/2	5/8	6	4	5	20 7/8	28 3/8	24 5/8	8 1/8	12	12	6	3		66									22.5	5.5
2M	90	36	2 1/4	1/2	5/8	6	4	5	20 7/8	28 3/8	24 5/8	8 1/8	12	12	6	3		66									22.5	5.5
3																												
4	114	42	2 1/4	3/4	1	8	5	4	34	42	39	13	14	18	7	3 1/2		96									36.75	12.0
5	114	42	2 1/4	3/4	1	8	5	4	34	42	39	13	14	18	7	3 1/2		96									36.75	12.0

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E except as noted
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

** Substitute appropriate message, optically center message

TYPICAL SIGN
R12-70B

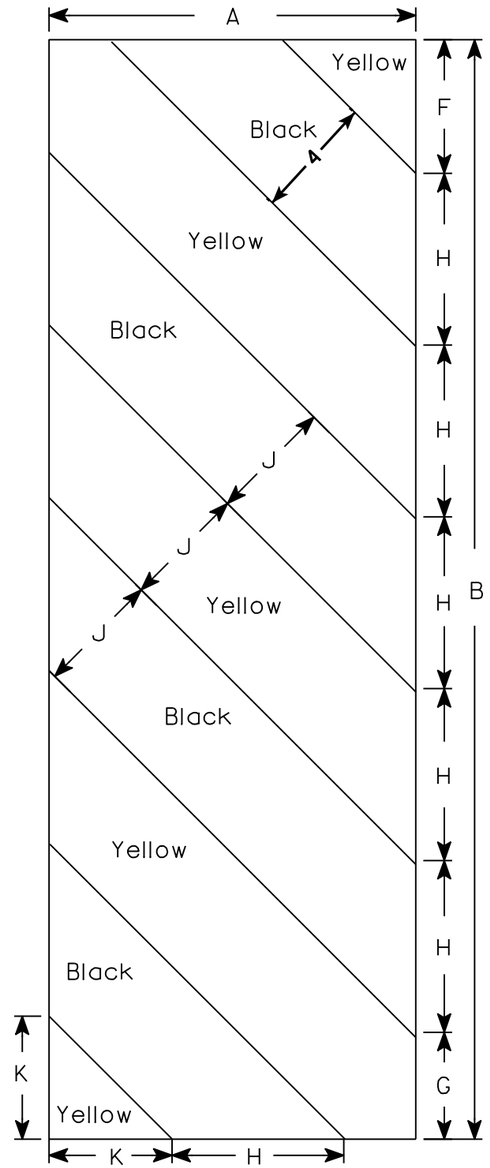
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

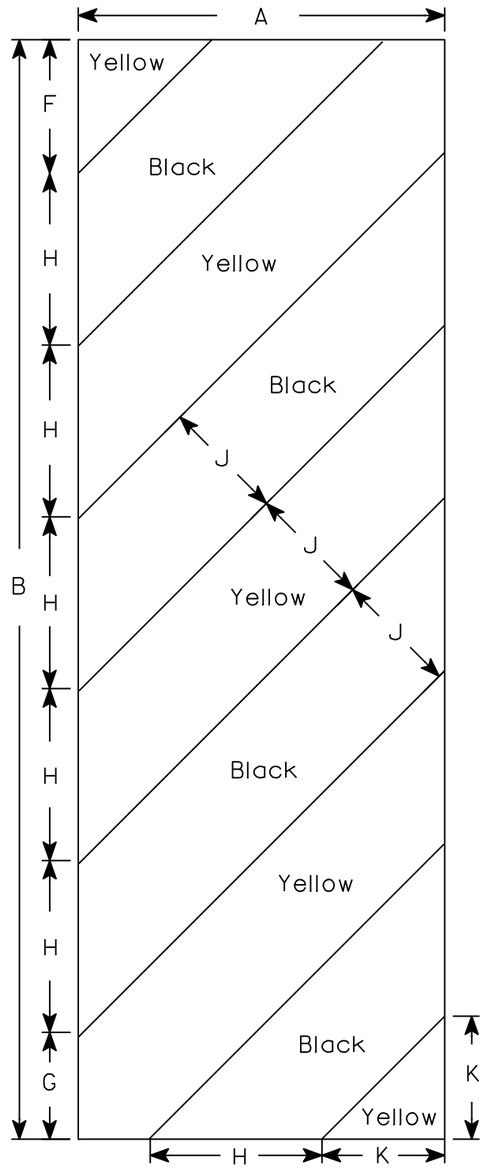
DATE 11/10/15 PLATE NO R12-70B.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R1270B.DGN PLOT DATE : 01-DEC-2015 18:10 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 12.842555:1.000000



W5-52L



W5-52R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Alternate colors of stripes as shown.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

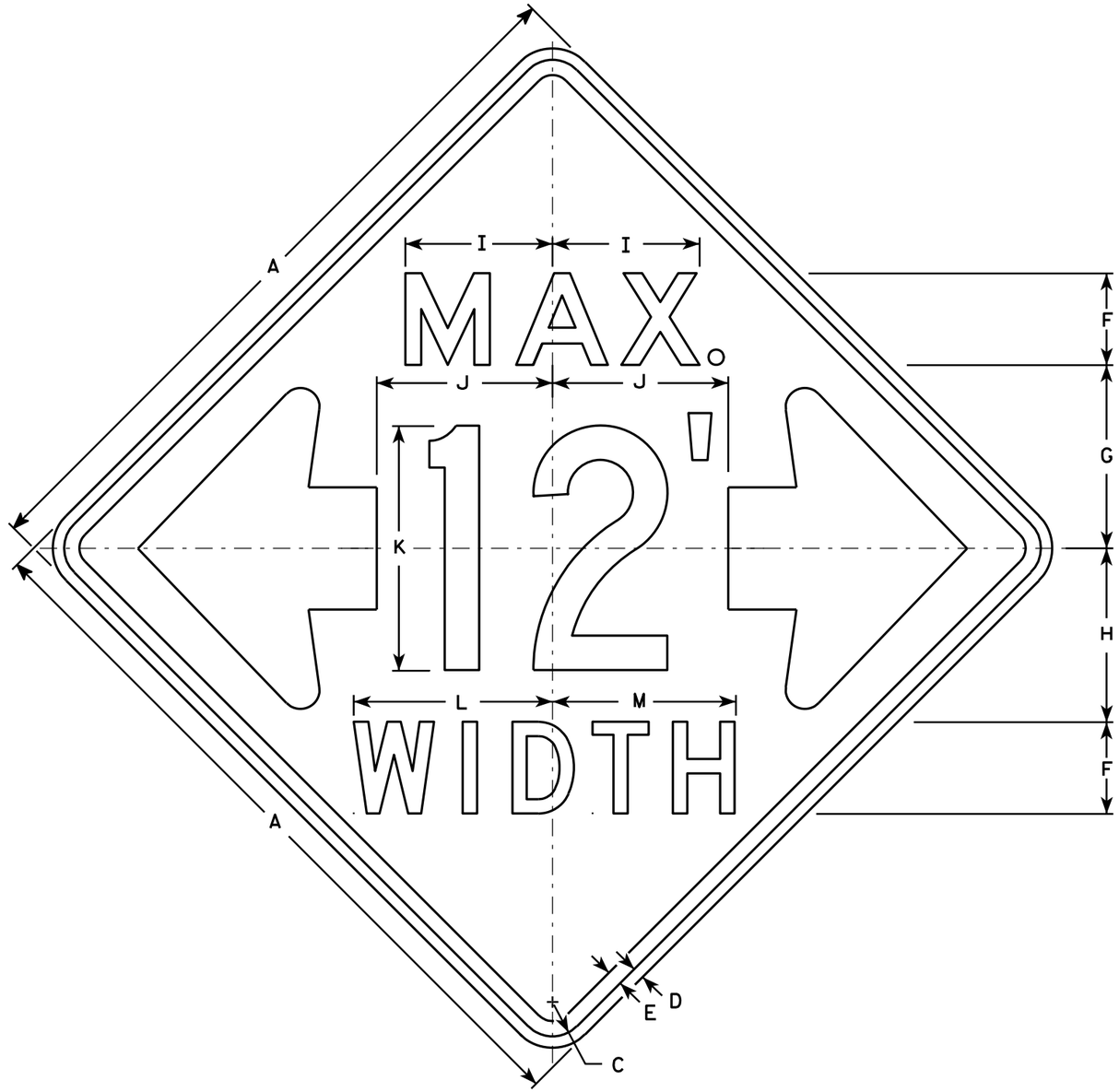
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9

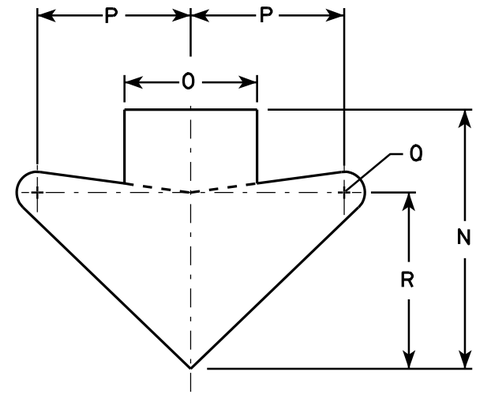
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 210 | E



W12-52

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The top line is series E, the numerals are series C, and the bottom line is series D.
6. Substitute appropriate numerals and adjust spacing as required.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
2M	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
3																											
4																											
5																											

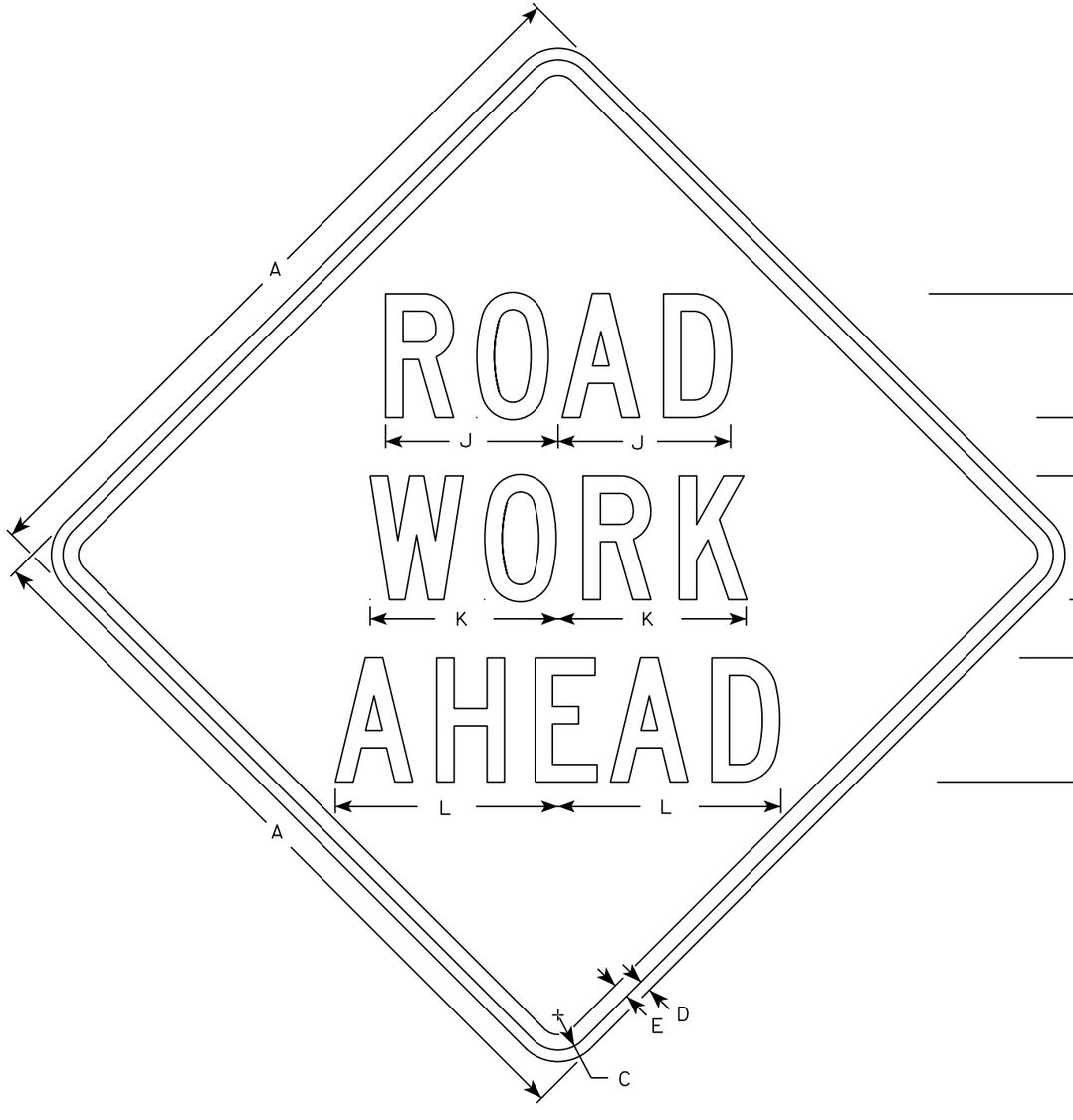
STANDARD SIGN
W12-52

WISCONSIN DEPT OF TRANSPORTATION

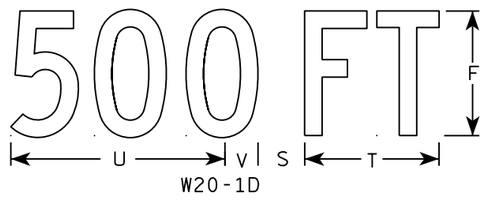
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/11 PLATE NO. W12-52.7

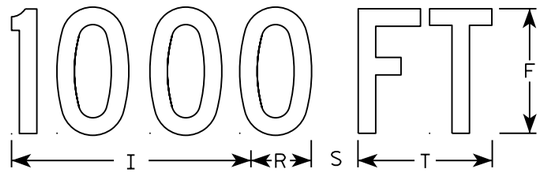
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 211	E



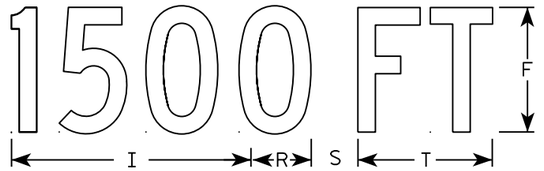
W20-1A



W20-1D

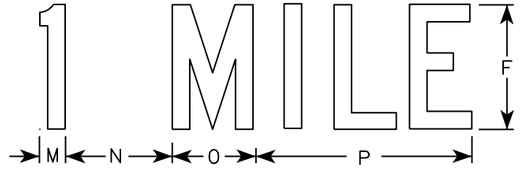


W20-1C

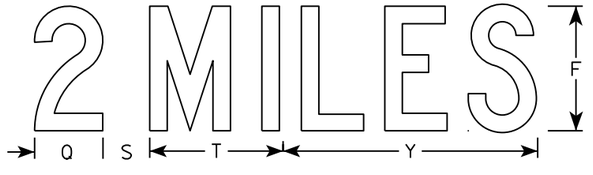


W20-1B

W20-1G



W20-1F



W20-1E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

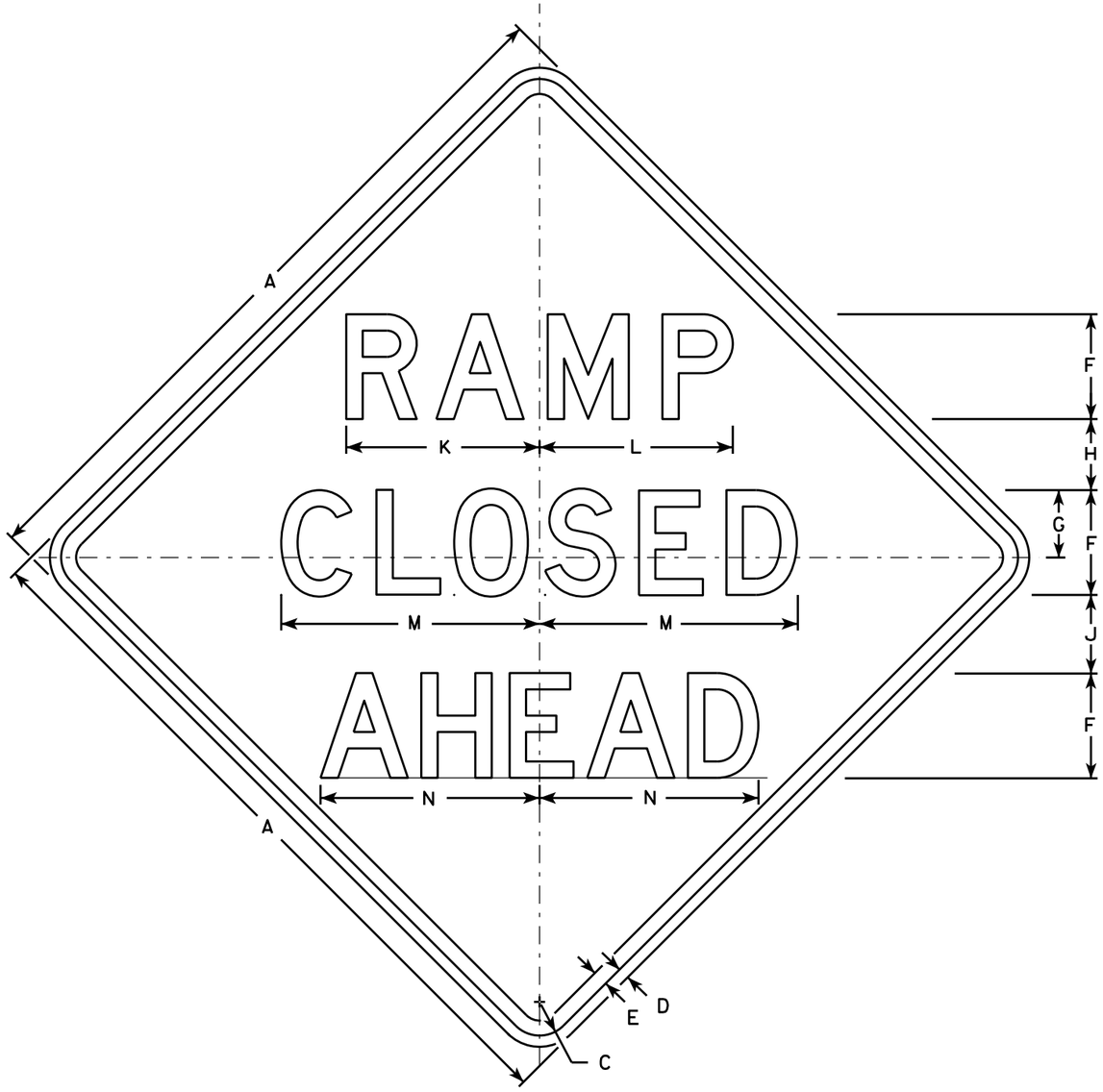
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10

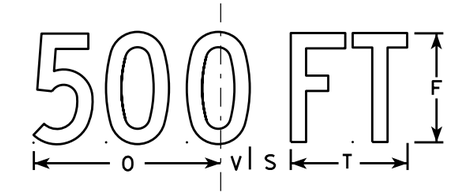
PROJECT NO:

SHEET NO: E

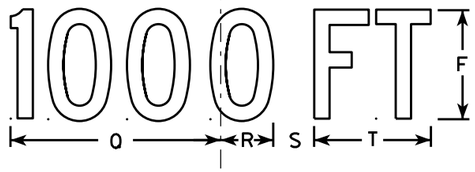
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 01-DEC-2015 18:24 PLOT BY : $$ plotuser $$



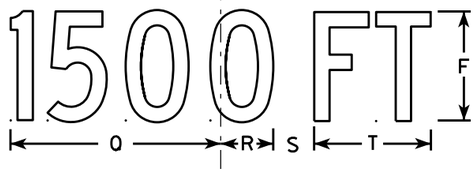
W20-53A



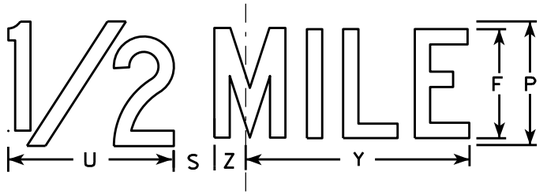
W20-53D



W20-53C



W20-53B



W20-53G

W20-53F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
   Line 3 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	9 1/4	9 1/4	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-53A,B,C,D,F,G

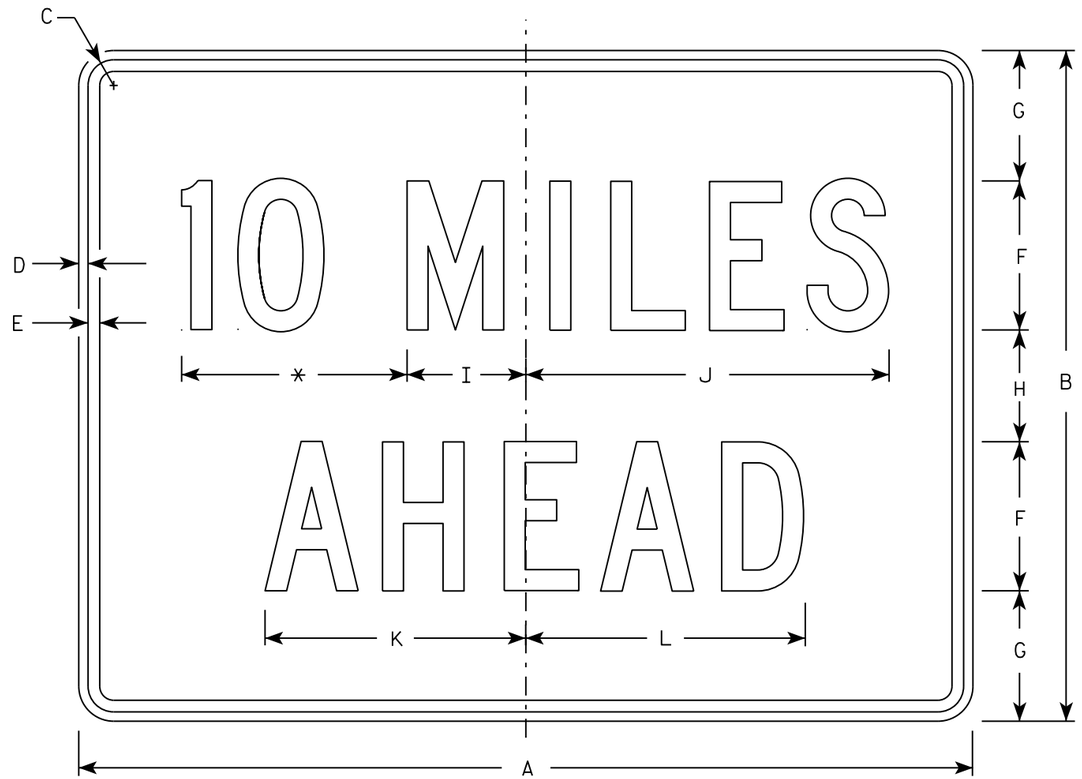
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

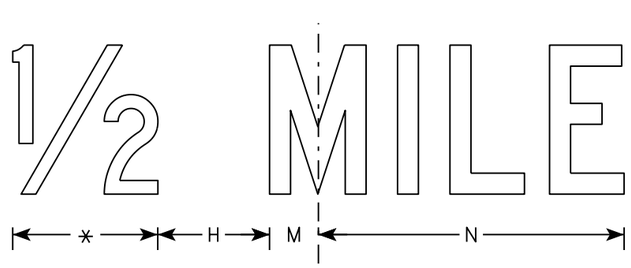
DATE 5/27/15 PLATE NO. W20-53.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W2053.DGN PLOT DATE : 27-MAY-2015 19:40 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.729210:1.000000
WISDOT/CADDS SHEET 42



W57-52



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - C
4. Corners and borders shall be rounded.
5. Substitute appropriate numerals to the nearest quarter mile and optically adjust spacing to achieve proper balance.

* See note 5

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	18	1 1/8	3/8	1/2	4	3 1/2	3	3 1/8	9 3/4	7	7 1/2	1 3/8	8 1/4													3.0
2S	36	24	1 1/8	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	12													6.0
2M	36	24	1 1/8	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	12													6.0
3	36	24	1 1/8	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	12													6.0
4	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
5	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0

STANDARD SIGN
W57-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/21/17 PLATE NO. W57-52.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 214 | E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W5752.DGN PLOT DATE : 21-MAR-2017 08:50 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 8.131582:1.000000 WISDOT/CADDS SHEET 42

1100-27-70/1107-00-71 IH-41									
			AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Real Station	Distance	Cut	Fill	Cut Note 1	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.20	Mass Ordinate Note 8
768+00	76800.00	100.00	0.00	0.00	0	0	0	0	0
769+00	76900.00	100.00	0.74	0.14	1	0	1	0	1
770+00	77000.00	100.00	0.57	1.05	2	2	4	3	1
771+00	77100.00	100.00	0.32	2.36	2	6	5	11	-5
772+00	77200.00	100.00	0.23	8.15	1	19	6	34	-27
773+00	77300.00	100.00	0.25	7.30	1	29	7	68	-61
774+00	77400.00	100.00	0.20	8.57	1	29	8	103	-95
775+00	77500.00	100.00	0.11	10.17	1	35	9	145	-136
776+00	77600.00	100.00	0.17	12.54	1	42	9	196	-186
777+00	77700.00	100.00	0.09	11.47	0	44	10	249	-239
778+00	77800.00	100.00	0.11	6.47	0	33	10	289	-279
779+00	77900.00	100.00	0.08	7.89	0	27	10	321	-310
780+00	78000.00	100.00	1.89	4.57	4	23	14	348	-334
781+00	78100.00	100.00	0.12	1.26	4	11	18	361	-344
782+00	78200.00	100.00	0.05	0.00	0	2	18	364	-346
783+00	78300.00	100.00	2.38	5.20	5	10	23	376	-353
784+00	78400.00	100.00	4.28	12.62	12	33	35	415	-380
785+00	78500.00	100.00	4.43	12.94	16	47	51	472	-421
786+00	78600.00	100.00	3.05	12.17	14	47	65	528	-463
787+00	78700.00	100.00	2.01	12.29	9	45	74	582	-508
788+00	78800.00	100.00	1.78	5.58	7	33	81	622	-541
789+00	78900.00	100.00	4.69	2.99	12	16	93	641	-548
790+00	79000.00	100.00	3.67	5.31	15	15	109	659	-551
791+00	79100.00	100.00	2.44	9.52	11	27	120	692	-572
792+00	79200.00	100.00	6.38	4.45	16	26	136	723	-587
793+00	79300.00	100.00	1.04	22.90	14	51	150	784	-634
794+00	79400.00	100.00	2.31	16.68	6	73	156	872	-716
795+00	79500.00	100.00	4.50	15.82	13	60	169	944	-775
796+00	79600.00	100.00	1.70	14.72	11	57	180	1,012	-832
797+00	79700.00	100.00	3.68	14.23	10	54	190	1,077	-886
798+00	79800.00	100.00	3.15	6.87	13	39	203	1,124	-920
799+00	79900.00	100.00	4.11	5.61	13	23	217	1,151	-935
800+00	80000.00	100.00	3.52	3.61	14	17	231	1,172	-941
801+00	80100.00	100.00	3.94	5.69	14	17	244	1,192	-948
802+00	80200.00	100.00	3.56	4.00	14	18	258	1,214	-956

Notes:

1) Salvaged/Unusable Pavement Material is included in Cut.
3) Unexpanded Fill Volume
8) The Mass Ordinate + or - Qty calculated for the Division. Plus Quantity indicated an excess of material between stations. Minus quantity indicates a shortage of material between stations

(CONTINUED)

1100-27-70/1107-00-71 IH-41									
			AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Real Station	Distance	Cut	Fill	Cut Note 1	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.20	Mass Ordinate Note 8
803+00	80300.00	100.00	5.25	3.55	16	14	275	1,231	-956
804+00	80400.00	100.00	2.05	8.34	14	22	288	1,257	-969
805+00	80500.00	100.00	3.04	6.59	9	28	298	1,290	-993
806+00	80600.00	100.00	2.27	7.66	10	26	307	1,322	-1,015
807+00	80700.00	100.00	0.00	0.00	4	14	312	1,339	-1,027
878+00	87800.00	100.00	0.00	0.00	0	0	312	1,339	-1,027
879+00	87900.00	100.00	2.92	6.53	5	12	317	1,354	-1,037
880+00	88000.00	100.00	5.65	2.09	16	16	333	1,373	-1,040
881+00	88100.00	100.00	8.54	0.41	26	5	359	1,378	-1,019
882+00	88200.00	100.00	12.42	0.00	39	1	398	1,379	-981
883+00	88300.00	100.00	0.09	32.68	23	61	421	1,452	-1,031
884+00	88400.00	100.00	1.19	11.45	2	82	423	1,550	-1,126
885+00	88500.00	100.00	1.31	11.31	5	42	428	1,601	-1,172
886+00	88600.00	100.00	0.20	24.99	3	67	431	1,681	-1,250
887+00	88700.00	100.00	1.70	5.15	4	56	434	1,748	-1,314
888+00	88800.00	100.00	5.52	1.28	13	12	448	1,762	-1,315
889+00	88900.00	100.00	4.33	3.05	18	8	466	1,772	-1,306
890+00	89000.00	100.00	1.92	2.22	12	10	478	1,784	-1,306
891+00	89100.00	100.00	2.49	5.68	8	15	486	1,801	-1,316
892+00	89200.00	100.00	18.63	0.00	39	11	525	1,814	-1,289
893+00	89300.00	100.00	24.18	0.00	79	0	604	1,814	-1,210
894+00	89400.00	100.00	2.98	5.58	50	10	654	1,826	-1,172
895+00	89500.00	100.00	2.71	8.56	11	26	665	1,858	-1,193
896+00	89600.00	100.00	2.66	7.14	10	29	675	1,893	-1,218
897+00	89700.00	100.00	2.08	8.49	9	29	684	1,927	-1,244
898+00	89800.00	100.00	171.88	0.00	322	16	1,006	1,946	-940
899+00	89900.00	100.00	7.84	0.03	333	0	1,339	1,946	-608
900+00	90000.00	100.00	5.77	0.40	25	1	1,364	1,947	-583
901+00	90100.00	100.00	4.23	1.19	19	3	1,382	1,951	-568
902+00	90200.00	100.00	3.27	3.41	14	9	1,396	1,961	-565
903+00	90300.00	100.00	3.61	4.53	13	15	1,409	1,979	-570
904+00	90400.00	100.00	4.72	3.45	15	15	1,424	1,996	-572
905+00	90500.00	100.00	5.71	3.26	19	12	1,444	2,011	-568
906+00	90600.00	100.00	4.45	5.60	19	16	1,463	2,031	-568
907+00	90700.00	100.00	4.19	6.59	16	23	1,479	2,058	-580
908+00	90800.00	100.00	4.42	6.30	16	24	1,495	2,087	-592
909+00	90900.00	100.00	3.51	9.52	15	29	1,509	2,122	-613

Notes:

1) Salvaged/Unusable Pavement Material is included in Cut.
3) Unexpanded Fill Volume
8) The Mass Ordinate + or - Qty calculated for the Division. Plus Quantity indicated an excess of material between stations. Minus quantity indicates a shortage of material between stations

9

9

(CONTINUED)

1100-27-70/1107-00-71 IH-41									
			AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Real Station	Distance	Cut	Fill	Cut Note 1	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.20	Mass Ordinate Note 8
910+00	91000.00	100.00	4.38	6.93	15	30	1,524	2,158	-635
911+00	91100.00	100.00	3.53	10.33	15	32	1,538	2,197	-658
912+00	91200.00	100.00	48.55	0.00	96	19	1,635	2,220	-585
913+00	91300.00	100.00	5.68	0.81	100	2	1,735	2,222	-486
914+00	91400.00	100.00	3.23	1.69	16	5	1,752	2,227	-475
915+00	91500.00	100.00	4.02	3.05	13	9	1,765	2,238	-472
916+00	91600.00	100.00	2.22	7.69	12	20	1,777	2,262	-485
917+00	91700.00	100.00	2.96	4.29	10	22	1,786	2,288	-502
918+00	91800.00	100.00	3.57	5.83	12	19	1,799	2,311	-512
919+00	91900.00	100.00	3.24	5.79	13	22	1,811	2,337	-525
920+00	92000.00	100.00	2.36	6.48	10	23	1,822	2,364	-542
921+00	92100.00	100.00	3.53	5.84	11	23	1,832	2,391	-559
922+00	92200.00	100.00	6.04	1.00	18	13	1,850	2,406	-556
923+00	92300.00	100.00	5.14	2.13	21	6	1,871	2,413	-543
924+00	92400.00	100.00	1.87	6.12	13	15	1,884	2,432	-548
925+00	92500.00	100.00	2.71	3.96	8	19	1,892	2,454	-562
926+00	92600.00	100.00	0.01	0.00	5	7	1,897	2,463	-566
927+00	92700.00	100.00	0.16	0.00	0	0	1,898	2,463	-565
928+00	92800.00	100.00	4.86	0.00	9	0	1,907	2,463	-556
929+00	92900.00	100.00	3.83	2.21	16	4	1,923	2,468	-545
930+00	93000.00	100.00	3.49	4.92	14	13	1,937	2,484	-547
931+00	93100.00	100.00	1.91	10.64	10	29	1,947	2,518	-572
932+00	93200.00	100.00	2.01	14.40	7	46	1,954	2,574	-620
933+00	93300.00	100.00	2.51	12.14	8	49	1,962	2,633	-671
934+00	93400.00	100.00	1.88	18.93	8	58	1,970	2,702	-732
935+00	93500.00	100.00	2.43	10.77	8	55	1,978	2,768	-790
936+00	93600.00	100.00	3.83	8.14	12	35	1,990	2,810	-820
937+00	93700.00	100.00	2.49	6.57	12	27	2,002	2,843	-841
938+00	93800.00	100.00	2.26	4.83	9	21	2,010	2,868	-858
939+00	93900.00	100.00	2.96	2.47	10	14	2,020	2,884	-864
940+00	94000.00	100.00	3.52	1.09	12	7	2,032	2,892	-860
941+00	94100.00	100.00	2.83	4.64	12	11	2,044	2,905	-861
942+00	94200.00	100.00	2.18	7.03	9	22	2,053	2,931	-878
943+00	94300.00	100.00	2.55	4.66	9	22	2,062	2,957	-895
944+00	94400.00	100.00	2.64	7.31	10	22	2,071	2,983	-912
945+00	94500.00	100.00	3.09	5.39	11	24	2,082	3,012	-930
946+00	94600.00	100.00	2.58	5.21	10	20	2,093	3,035	-943

Notes:

1) Salvaged/Unusable Pavement Material is included in Cut.
3) Unexpanded Fill Volume
8) The Mass Ordinate + or - Qty calculated for the Division. Plus Quantity indicated an excess of material between stations. Minus quantity indicates a shortage of material between stations

(CONTINUED)

1100-27-70/1107-00-71 IH-41									
			AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Real Station	Distance	Cut	Fill	Cut	Fill	Cut 1.00	Expanded Fill 1.20	Mass Ordinate
					Note 1	Note 3	Note 1		Note 8
947+00	94700.00	100.00	3.50	5.60	11	20	2,104	3,059	-955
948+00	94800.00	100.00	0.00	0.00	6	10	2,110	3,072	-961
961+00	96100.00	100.00	0.00	0.00	0	0	2,110	3,072	-961
962+00	96200.00	100.00	6.02	0.49	11	1	2,121	3,073	-951
963+00	96300.00	100.00	4.91	4.16	20	9	2,142	3,083	-941
964+00	96400.00	100.00	4.82	3.15	18	14	2,160	3,099	-940
965+00	96500.00	100.00	5.05	4.92	18	15	2,178	3,117	-939
966+00	96600.00	100.00	3.60	5.20	16	19	2,194	3,140	-946
967+00	96700.00	100.00	4.30	3.93	15	17	2,209	3,160	-951
968+00	96800.00	100.00	5.16	3.15	18	13	2,226	3,176	-950
969+00	96900.00	100.00	5.62	4.67	20	14	2,246	3,193	-947
970+00	97000.00	100.00	5.15	4.22	20	16	2,266	3,213	-947
971+00	97100.00	100.00	4.78	3.76	18	15	2,284	3,231	-946
972+00	97200.00	100.00	4.51	4.59	17	15	2,302	3,249	-948
973+00	97300.00	100.00	3.34	5.75	15	19	2,316	3,272	-956
974+00	97400.00	100.00	5.26	6.59	16	23	2,332	3,300	-967
975+00	97500.00	100.00	4.12	5.56	17	22	2,349	3,327	-977
976+00	97600.00	100.00	4.55	6.70	16	23	2,366	3,354	-988
977+00	97700.00	100.00	3.80	6.60	15	25	2,381	3,383	-1,002
978+00	97800.00	100.00	3.37	6.72	13	25	2,394	3,413	-1,019
979+00	97900.00	100.00	3.15	8.90	12	29	2,406	3,448	-1,041
980+00	98000.00	100.00	4.36	3.54	14	23	2,420	3,475	-1,055
981+00	98100.00	100.00	3.90	4.37	15	15	2,436	3,493	-1,057
982+00	98200.00	100.00	1.88	5.31	11	18	2,446	3,514	-1,068
983+00	98300.00	100.00	6.89	0.61	16	11	2,462	3,528	-1,065
984+00	98400.00	100.00	7.71	1.09	27	3	2,489	3,531	-1,042
985+00	98500.00	100.00	3.64	13.72	21	27	2,511	3,564	-1,054
986+00	98600.00	100.00	7.68	2.11	21	29	2,531	3,599	-1,068
987+00	98700.00	100.00	8.00	5.66	29	14	2,561	3,617	-1,056
988+00	98800.00	100.00	6.65	1.94	27	14	2,588	3,634	-1,046
989+00	98900.00	100.00	7.79	1.03	27	5	2,614	3,640	-1,026
990+00	99000.00	100.00	5.98	1.98	26	6	2,640	3,647	-1,007
991+00	99100.00	100.00	4.57	4.39	20	12	2,659	3,661	-1,002
992+00	99200.00	100.00	7.92	2.50	23	13	2,683	3,676	-994
993+00	99300.00	100.00	6.34	3.11	26	10	2,709	3,689	-980
994+00	99400.00	100.00	8.80	1.87	28	9	2,737	3,700	-963
995+00	99500.00	100.00	10.40	3.47	36	10	2,773	3,712	-939

Notes:

1) Salvaged/Unusable Pavement Material is included in Cut.

3) Unexpanded Fill Volume

8) The Mass Ordinate + or - Qty calculated for the Division. Plus Quantity indicated an excess of material between stations. Minus quantity indicates a shortage of material between stations

(CONTINUED)

1100-27-70/1107-00-71 IH-41									
			AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Real Station	Distance	Cut	Fill	Cut Note 1	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.20	Mass Ordinate Note 8
996+00	99600.00	100.00	6.47	3.25	31	12	2,804	3,727	-923
997+00	99700.00	100.00	3.65	0.48	19	7	2,823	3,735	-912
998+00	99800.00	100.00	4.05	2.92	14	6	2,837	3,743	-906
999+00	99900.00	100.00	4.67	14.64	16	33	2,853	3,782	-929
1000+00	100000.00	100.00	5.74	8.65	19	43	2,872	3,833	-961
1001+00	100100.00	100.00	5.64	9.46	21	34	2,893	3,874	-980
1002+00	100200.00	100.00	6.46	7.42	22	31	2,916	3,911	-995
1003+00	100300.00	100.00	0.00	0.00	12	14	2,928	3,928	-1,000
1004+00	100400.00	100.00	4.56	10.86	8	20	2,936	3,952	-1,016
1005+00	100500.00	100.00	6.02	9.59	20	38	2,956	3,997	-1,042
1006+00	100600.00	100.00	4.22	10.69	19	38	2,975	4,042	-1,068
1007+00	100700.00	100.00	3.76	7.66	15	34	2,989	4,083	-1,094
1008+00	100800.00	100.00	4.62	10.60	16	34	3,005	4,124	-1,119
1009+00	100900.00	100.00	4.80	3.61	17	26	3,022	4,155	-1,133
1010+00	101000.00	100.00	8.62	6.14	25	18	3,047	4,177	-1,130
1011+00	101100.00	100.00	5.27	4.22	26	19	3,073	4,200	-1,127
1012+00	101200.00	100.00	3.57	6.88	16	21	3,089	4,225	-1,135
1013+00	101300.00	100.00	2.85	7.98	12	28	3,101	4,258	-1,156
1014+00	101400.00	100.00	3.34	7.15	11	28	3,113	4,291	-1,179
1015+00	101500.00	100.00	4.62	5.23	15	23	3,127	4,319	-1,191
1016+00	101600.00	100.00	5.05	5.58	18	20	3,145	4,343	-1,197
1017+00	101700.00	100.00	4.97	11.21	19	31	3,164	4,380	-1,216
1018+00	101800.00	100.00	5.32	11.46	19	42	3,183	4,430	-1,247
1019+00	101900.00	100.00	0.00	0.00	10	21	3,193	4,456	-1,263
1020+00	102000.00	100.00	5.69	11.29	11	21	3,203	4,481	-1,278
1021+00	102100.00	100.00	4.83	16.00	19	51	3,223	4,542	-1,319
1022+00	102200.00	100.00	5.28	14.66	19	57	3,242	4,610	-1,368
1023+00	102300.00	100.00	4.58	11.33	18	48	3,260	4,667	-1,408
1024+00	102400.00	100.00	1.80	5.92	12	32	3,272	4,706	-1,434
1025+00	102500.00	100.00	3.89	6.61	11	23	3,282	4,734	-1,452
1026+00	102600.00	100.00	2.40	16.67	12	43	3,294	4,785	-1,492
1027+00	102700.00	100.00	3.23	12.30	10	54	3,304	4,850	-1,546
1028+00	102800.00	100.00	2.56	14.42	11	49	3,315	4,909	-1,594
1029+00	102900.00	100.00	2.82	18.51	10	61	3,325	4,982	-1,657
1030+00	103000.00	100.00	2.95	15.02	11	62	3,336	5,057	-1,721
1031+00	103100.00	100.00	3.45	8.38	12	43	3,347	5,109	-1,761
1032+00	103200.00	100.00	3.50	7.08	13	29	3,360	5,143	-1,783

Notes:

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(CONTINUED)

1100-27-70/1107-00-71 IH-41									
			AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Real Station	Distance	Cut	Fill	Cut Note 1	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.20	Mass Ordinate Note 8
1033+00	103300.00	100.00	3.81	2.59	14	18	3,374	5,165	-1,791
1034+00	103400.00	100.00	0.00	0.00	7	5	3,381	5,170	-1,789
1039+00	103900.00	100.00	0.00	0.00	0	0	3,381	5,170	-1,789
1040+00	104000.00	100.00	6.74	4.30	12	8	3,393	5,180	-1,787
1041+00	104100.00	100.00	4.55	7.89	21	23	3,414	5,207	-1,793
1042+00	104200.00	100.00	7.00	3.41	21	21	3,436	5,232	-1,796
1043+00	104300.00	100.00	5.62	6.20	23	18	3,459	5,254	-1,794
1044+00	104400.00	100.00	6.00	1.44	22	14	3,481	5,271	-1,790
1045+00	104500.00	100.00	3.14	3.43	17	9	3,497	5,281	-1,784
1046+00	104600.00	100.00	6.15	3.69	17	13	3,515	5,297	-1,782
1047+00	104700.00	100.00	7.25	4.93	25	16	3,539	5,316	-1,777
1048+00	104800.00	100.00	6.99	7.37	26	23	3,566	5,344	-1,778
1049+00	104900.00	100.00	0.00	0.00	13	14	3,579	5,360	-1,781
1060+00	106000.00	100.00	0.00	0.00	0	0	3,579	5,360	-1,781
1061+00	106100.00	100.00	1.80	8.26	3	15	3,582	5,378	-1,796
1062+00	106200.00	100.00	1.60	8.13	6	30	3,588	5,415	-1,826
1063+00	106300.00	100.00	1.01	7.79	5	29	3,593	5,450	-1,857
1064+00	106400.00	100.00	2.13	6.04	6	26	3,599	5,481	-1,882
1065+00	106500.00	100.00	0.86	10.46	6	31	3,605	5,518	-1,913
1066+00	106600.00	100.00	7.50	3.77	15	26	3,620	5,549	-1,929
1067+00	106700.00	100.00	1.37	7.68	16	21	3,637	5,575	-1,938
1068+00	106800.00	100.00	2.29	9.79	7	32	3,643	5,613	-1,970
1069+00	106900.00	0.00	0.78	10.95	0	0	3,643	5,613	-1,970
1070+00	107000.00	100.00	1.20	4.60	4	29	3,647	5,648	-2,001
1071+00	107100.00	100.00	2.83	4.14	7	16	3,654	5,667	-2,013
1072+00	107200.00	100.00	0.67	7.51	6	22	3,661	5,693	-2,032
1073+00	107300.00	100.00	1.90	5.09	5	23	3,666	5,721	-2,056
1074+00	107400.00	100.00	2.37	0.61	8	11	3,674	5,734	-2,060
1075+00	107500.00	100.00	0.37	6.14	5	13	3,679	5,749	-2,070
1076+00	107600.00	100.00	0.00	0.00	1	11	3,679	5,763	-2,083
1077+00	107700.00	100.00	0.00	0.00	0	0	3,679	5,763	-2,083
1079+00	107900.00	200.00	0.00	0.00	0	0	3,679	5,763	-2,083
1080+00	108000.00	100.00	0.00	0.00	0	0	3,679	5,763	-2,083
1081+00	108100.00	100.00	0.50	1.43	1	3	3,680	5,766	-2,086
1082+00	108200.00	100.00	4.20	3.29	9	9	3,689	5,776	-2,087
1083+00	108300.00	100.00	1.13	8.25	10	21	3,699	5,802	-2,103
1084+00	108400.00	100.00	0.74	7.00	3	28	3,702	5,836	-2,134

Notes:

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(CONTINUED)

1100-27-70/1107-00-71 IH-41									
			AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Real Station	Distance	Cut	Fill	Cut Note 1	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.20	Mass Ordinate Note 8
1085+00	108500.00	100.00	2.04	14.27	5	39	3,708	5,883	-2,176
1086+00	108600.00	100.00	2.46	0.70	8	28	3,716	5,916	-2,201
1087+00	108700.00	100.00	6.43	3.31	16	7	3,732	5,925	-2,193
1088+00	108800.00	100.00	6.11	4.77	23	15	3,756	5,943	-2,188
1089+00	108900.00	100.00	3.81	8.16	18	24	3,774	5,972	-2,198
1090+00	109000.00	100.00	4.33	6.39	15	27	3,789	6,004	-2,215
1091+00	109100.00	100.00	3.43	10.37	14	31	3,803	6,042	-2,238
1092+00	109200.00	100.00	3.78	9.76	13	37	3,817	6,086	-2,270
1093+00	109300.00	100.00	0.01	28.82	7	71	3,824	6,172	-2,348
1094+00	109400.00	100.00	4.66	8.79	9	70	3,832	6,256	-2,423
1095+00	109500.00	100.00	4.47	7.81	17	31	3,849	6,293	-2,443
1096+00	109600.00	100.00	3.01	6.44	14	26	3,863	6,324	-2,461
1097+00	109700.00	100.00	7.32	7.79	19	26	3,882	6,356	-2,474
1098+00	109800.00	100.00	6.48	9.14	26	31	3,908	6,393	-2,486
1099+00	109900.00	100.00	6.98	10.02	25	35	3,933	6,436	-2,503
1100+00	110000.00	100.00	2.33	11.62	17	40	3,950	6,484	-2,534
1101+00	110100.00	100.00	0.90	8.08	6	36	3,956	6,528	-2,572
1102+00	110200.00	100.00	1.50	4.72	4	24	3,960	6,556	-2,596
1103+00	110300.00	100.00	0.04	4.48	3	17	3,963	6,577	-2,614
1104+00	110400.00	100.00	0.00	0.00	0	8	3,963	6,587	-2,623
1105+00	110500.00	100.00	0.00	0.00	0	0	3,963	6,587	-2,623
1106+00	110600.00	100.00	0.00	0.00	0	0	3,963	6,587	-2,623
1107+00	110700.00	100.00	0.00	0.00	0	0	3,963	6,587	-2,623
1108+00	110800.00	100.00	0.00	0.00	0	0	3,963	6,587	-2,623
1109+00	110900.00	100.00	0.00	0.00	0	0	3,963	6,587	-2,623
1110+00	111000.00	100.00	7.71	1.54	14	3	3,978	6,590	-2,613
1111+00	111100.00	100.00	7.42	0.02	28	3	4,006	6,594	-2,588
1112+00	111200.00	100.00	8.33	0.22	29	0	4,035	6,594	-2,559
1113+00	111300.00	100.00	8.28	0.52	31	1	4,066	6,596	-2,530
1114+00	111400.00	100.00	5.79	1.17	26	3	4,092	6,600	-2,508
1115+00	111500.00	100.00	4.30	2.20	19	6	4,110	6,607	-2,497
1116+00	111600.00	100.00	3.93	5.77	15	15	4,126	6,625	-2,499
1117+00	111700.00	100.00	7.33	0.00	21	11	4,146	6,638	-2,491
1118+00	111800.00	100.00	6.61	0.14	26	0	4,172	6,638	-2,466
1119+00	111900.00	100.00	5.95	1.14	23	2	4,195	6,641	-2,445
1120+00	112000.00	100.00	7.78	0.33	25	3	4,221	6,644	-2,423
1121+00	112100.00	100.00	9.48	0.01	32	1	4,253	6,645	-2,392

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(CONTINUED)

1100-27-70/1107-00-71 IH-41

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.20	Mass Ordinate Note 8
1122+00	112200.00	100.00	10.65	0.00	37	0	4,290	6,645	-2,355
1123+00	112300.00	100.00	7.96	0.00	34	0	4,325	6,645	-2,320
1124+00	112400.00	100.00	6.98	0.52	28	1	4,352	6,646	-2,294
1125+00	112500.00	100.00	7.21	0.07	26	1	4,379	6,647	-2,269
1126+00	112600.00	100.00	3.50	0.74	20	2	4,398	6,649	-2,251
1127+00	112700.00	100.00	6.25	0.65	18	3	4,416	6,652	-2,236
1128+00	112800.00	100.00	4.34	0.65	20	2	4,436	6,655	-2,219
1129+00	112900.00	100.00	5.50	1.13	18	3	4,454	6,659	-2,205
1130+00	113000.00	100.00	0.00	0.00	10	2	4,464	6,661	-2,197
1131+00	113100.00	100.00	7.73	0.05	14	0	4,479	6,662	-2,183
1132+00	113200.00	100.00	3.66	0.41	21	1	4,500	6,663	-2,163
1133+00	113300.00	100.00	3.79	0.78	14	2	4,514	6,665	-2,152
1134+00	113400.00	100.00	4.07	0.16	15	2	4,528	6,667	-2,139
1135+00	113500.00	100.00	5.24	0.24	17	1	4,545	6,668	-2,123
1136+00	113600.00	100.00	5.63	0.11	20	1	4,566	6,669	-2,103
1137+00	113700.00	100.00	5.55	0.54	21	1	4,586	6,670	-2,084
1138+00	113800.00	100.00	6.89	0.31	23	2	4,609	6,672	-2,063
1139+00	113900.00	100.00	7.12	0.42	26	1	4,635	6,674	-2,039
1140+00	114000.00	100.00	6.95	0.28	26	1	4,661	6,675	-2,014
1141+00	114100.00	100.00	3.54	0.68	19	2	4,681	6,678	-1,997
1142+00	114200.00	100.00	8.79	0.00	23	1	4,704	6,679	-1,976
1143+00	114300.00	100.00	7.09	0.06	29	0	4,733	6,679	-1,946
1144+00	114400.00	100.00	6.39	0.73	25	1	4,758	6,681	-1,923
1145+00	114500.00	100.00	9.60	0.03	30	1	4,788	6,683	-1,895
1146+00	114600.00	100.00	5.58	1.18	28	2	4,816	6,685	-1,870
1147+00	114700.00	100.00	4.24	1.15	18	4	4,834	6,691	-1,857
1148+00	114800.00	100.00	9.56	0.00	26	2	4,859	6,693	-1,834
1149+00	114900.00	100.00	6.47	0.04	30	0	4,889	6,693	-1,804
1150+00	115000.00	100.00	3.37	0.32	18	1	4,907	6,694	-1,787
1151+00	115100.00	100.00	3.45	0.04	13	1	4,920	6,695	-1,775
1152+00	115200.00	100.00	1.85	1.15	10	2	4,930	6,697	-1,768
1153+00	115300.00	100.00	2.44	0.69	8	3	4,938	6,702	-1,764
1154+00	115400.00	100.00	7.85	0.01	19	1	4,957	6,703	-1,746
1155+00	115500.00	100.00	5.58	0.68	25	1	4,982	6,705	-1,723
1156+00	115600.00	100.00	8.16	0.35	25	2	5,007	6,707	-1,700
1157+00	115700.00	100.00	9.52	0.00	33	1	5,040	6,708	-1,668
1158+00	115800.00	100.00	6.76	0.35	30	1	5,070	6,708	-1,639

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(CONTINUED)

1100-27-70/1107-00-71 IH-41

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.20	Mass Ordinate Note 8
1159+00	115900.00	100.00	4.27	0.99	20	2	5,090	6,711	-1,621
1160+00	116000.00	100.00	5.08	0.37	17	3	5,108	6,715	-1,607
1161+00	116100.00	100.00	0.00	0.00	9	1	5,117	6,715	-1,598
1170+00	117000.00	300.00	0.00	0.00	0	0	5,117	6,715	-1,598
1171+00	117100.00	100.00	1.41	5.60	3	10	5,120	6,728	-1,608
1172+00	117200.00	100.00	2.05	1.26	6	13	5,126	6,743	-1,617
1173+00	117300.00	100.00	2.97	1.00	9	4	5,135	6,748	-1,613
1174+00	117400.00	100.00	7.10	0.09	19	2	5,154	6,750	-1,596
1175+00	117500.00	100.00	0.00	0.00	13	0	5,167	6,751	-1,584
1187+00	118700.00	100.00	0.00	0.00	0	0	5,167	6,751	-1,584
1188+00	118800.00	100.00	4.16	0.70	8	1	5,175	6,752	-1,577
1189+00	118900.00	100.00	2.06	2.51	12	6	5,186	6,759	-1,573
1190+00	119000.00	100.00	0.00	0.00	4	5	5,190	6,765	-1,575
1198+00	119800.00	100.00	0.00	0.00	0	0	5,190	6,765	-1,575
1199+00	119900.00	100.00	3.97	0.86	7	2	5,198	6,767	-1,569
1200+00	120000.00	100.00	3.28	0.95	13	3	5,211	6,771	-1,560
1201+00	120100.00	100.00	3.36	1.37	12	4	5,223	6,776	-1,553
1202+00	120200.00	100.00	5.47	0.35	16	3	5,240	6,780	-1,540
1203+00	120300.00	100.00	3.21	1.13	16	3	5,256	6,783	-1,527
1204+00	120400.00	100.00	6.77	0.15	18	2	5,274	6,786	-1,512
1205+00	120500.00	100.00	5.33	0.95	22	2	5,297	6,788	-1,492
1206+00	120600.00	100.00	5.19	0.40	19	2	5,316	6,791	-1,475
1207+00	120700.00	100.00	4.59	0.60	18	2	5,334	6,794	-1,459
1208+00	120800.00	100.00	6.16	0.54	20	2	5,354	6,796	-1,442
1209+00	120900.00	100.00	7.59	0.13	25	1	5,380	6,798	-1,418
1210+00	121000.00	100.00	0.00	0.00	14	0	5,394	6,798	-1,404
1211+00	121100.00	100.00	1.94	3.42	4	6	5,397	6,805	-1,408
1212+00	121200.00	100.00	2.48	2.10	8	10	5,405	6,818	-1,412
1213+00	121300.00	100.00	2.22	2.47	9	8	5,414	6,828	-1,414
1214+00	121400.00	100.00	2.96	1.52	10	7	5,424	6,837	-1,413
1215+00	121500.00	100.00	2.62	0.41	10	4	5,434	6,841	-1,407
1216+00	121600.00	100.00	2.13	3.26	9	7	5,443	6,849	-1,406
1217+00	121700.00	100.00	1.90	0.79	7	7	5,450	6,858	-1,408
1218+00	121800.00	100.00	5.81	0.02	14	2	5,465	6,860	-1,395
1219+00	121900.00	100.00	6.37	0.44	23	1	5,487	6,861	-1,374
1220+00	122000.00	100.00	3.20	1.28	18	3	5,505	6,865	-1,360
1221+00	122100.00	100.00	4.79	1.00	15	4	5,520	6,870	-1,350

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(CONTINUED)

1100-27-70/1107-00-71 IH-41									
			AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Real Station	Distance	Cut	Fill	Cut Note 1	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.20	Mass Ordinate Note 8
1222+00	122200.00	100.00	5.25	0.80	19	3	5,538	6,874	-1,336
1223+00	122300.00	100.00	5.99	0.28	21	2	5,559	6,876	-1,317
1224+00	122400.00	100.00	3.18	2.21	17	5	5,576	6,882	-1,306
1225+00	122500.00	100.00	3.08	4.17	12	12	5,588	6,896	-1,308
1226+00	122600.00	100.00	1.90	8.59	9	24	5,597	6,924	-1,328
1227+00	122700.00	100.00	1.96	5.63	7	26	5,604	6,956	-1,352
1228+00	122800.00	100.00	0.66	9.54	5	28	5,609	6,990	-1,381
1229+00	122900.00	100.00	0.28	7.05	2	31	5,611	7,027	-1,416
1230+00	123000.00	100.00	1.58	2.17	3	17	5,614	7,047	-1,433
1231+00	123100.00	100.00	1.61	10.81	6	24	5,620	7,076	-1,456
1232+00	123200.00	100.00	5.18	4.73	13	29	5,633	7,110	-1,478
1233+00	123300.00	100.00	4.15	6.08	17	20	5,650	7,135	-1,485
1234+00	123400.00	100.00	2.91	9.82	13	29	5,663	7,170	-1,507
1235+00	123500.00	100.00	3.92	12.40	13	41	5,676	7,219	-1,544
1236+00	123600.00	100.00	4.07	14.67	15	50	5,690	7,279	-1,589
1237+00	123700.00	100.00	0.00	0.00	8	27	5,698	7,312	-1,614
1246+00	124600.00	100.00	0.00	0.00	0	0	5,698	7,312	-1,614
1247+00	124700.00	100.00	4.82	0.31	9	1	5,707	7,313	-1,606
1248+00	124800.00	100.00	0.76	6.97	10	13	5,717	7,329	-1,612
1249+00	124900.00	100.00	0.10	13.25	2	37	5,719	7,374	-1,655
1250+00	125000.00	100.00	2.00	11.90	4	47	5,723	7,430	-1,707
1251+00	125100.00	100.00	1.54	20.30	7	60	5,729	7,501	-1,772
1252+00	125200.00	100.00	4.32	20.88	11	76	5,740	7,593	-1,853
1253+00	125300.00	100.00	7.68	19.39	22	75	5,762	7,682	-1,920
1254+00	125400.00	100.00	6.30	12.40	26	59	5,788	7,753	-1,965
1255+00	125500.00	100.00	4.30	8.34	20	38	5,808	7,799	-1,991
1256+00	125600.00	100.00	3.58	12.37	15	38	5,822	7,845	-2,023
1257+00	125700.00	100.00	3.23	17.20	13	55	5,835	7,911	-2,076
1258+00	125800.00	100.00	4.43	17.49	14	64	5,849	7,988	-2,139
1259+00	125900.00	100.00	4.00	17.32	16	64	5,865	8,065	-2,200
1260+00	126000.00	100.00	2.72	10.90	12	52	5,877	8,128	-2,251
1261+00	126100.00	100.00	3.14	12.23	11	43	5,888	8,179	-2,291
1262+00	126200.00	100.00	3.07	11.72	11	44	5,900	8,232	-2,333
1263+00	126300.00	100.00	4.81	5.53	15	32	5,914	8,271	-2,357
1264+00	126400.00	100.00	2.69	10.93	14	30	5,928	8,307	-2,379
1265+00	126500.00	100.00	4.42	6.71	13	33	5,941	8,347	-2,405
1266+00	126600.00	100.00	5.30	8.37	18	28	5,959	8,380	-2,421

Notes:

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(CONTINUED)

1100-27-70/1107-00-71 IH-41									
			AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Real Station	Distance	Cut	Fill	Cut Note 1	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.20	Mass Ordinate Note 8
1267+00	126700.00	100.00	5.14	7.83	19	30	5,979	8,416	-2,438
1268+00	126800.00	100.00	5.61	5.57	20	25	5,998	8,446	-2,447
1269+00	126900.00	100.00	3.50	5.67	17	21	6,015	8,471	-2,455
1270+00	127000.00	100.00	4.24	3.37	14	17	6,030	8,491	-2,461
1271+00	127100.00	100.00	4.05	16.39	15	37	6,045	8,535	-2,490
1272+00	127200.00	100.00	4.36	9.09	16	47	6,061	8,591	-2,531
1273+00	127300.00	100.00	5.41	8.67	18	33	6,079	8,631	-2,552
1274+00	127400.00	100.00	6.06	9.59	21	34	6,100	8,671	-2,572
1275+00	127500.00	100.00	5.87	7.08	22	31	6,122	8,708	-2,587
1276+00	127600.00	100.00	8.32	4.97	26	22	6,148	8,735	-2,587
1277+00	127700.00	100.00	6.95	7.37	28	23	6,177	8,763	-2,586
1278+00	127800.00	100.00	7.56	5.04	27	23	6,203	8,790	-2,587
1279+00	127900.00	100.00	11.17	3.10	35	15	6,238	8,808	-2,570
1280+00	128000.00	100.00	0.01	0.00	21	6	6,259	8,815	-2,556
1281+00	128100.00	100.00	0.00	0.06	0	0	6,259	8,815	-2,557
1282+00	128200.00	100.00	4.65	4.01	9	8	6,267	8,824	-2,557
1283+00	128300.00	100.00	3.32	10.64	15	27	6,282	8,857	-2,575
1284+00	128400.00	100.00	2.95	11.57	12	41	6,294	8,906	-2,613
1285+00	128500.00	100.00	3.64	13.95	12	47	6,306	8,963	-2,657
1286+00	128600.00	100.00	5.19	7.52	16	40	6,322	9,011	-2,688
1287+00	128700.00	100.00	2.95	6.63	15	26	6,337	9,042	-2,705
1288+00	128800.00	100.00	5.18	3.59	15	19	6,352	9,065	-2,712
1289+00	128900.00	100.00	5.14	4.81	19	16	6,372	9,084	-2,712
1290+00	129000.00	100.00	8.35	3.81	25	16	6,397	9,103	-2,706
1291+00	129100.00	100.00	4.48	3.82	24	14	6,420	9,120	-2,699
1292+00	129200.00	100.00	4.28	5.54	16	17	6,437	9,141	-2,704
1293+00	129300.00	100.00	3.25	8.67	14	26	6,451	9,172	-2,722
1294+00	129400.00	100.00	3.36	6.56	12	28	6,463	9,206	-2,743
1295+00	129500.00	100.00	4.41	5.83	14	23	6,477	9,233	-2,756
1296+00	129600.00	100.00	4.01	6.89	16	24	6,493	9,262	-2,769
1297+00	129700.00	100.00	3.98	5.86	15	24	6,508	9,290	-2,783
1298+00	129800.00	100.00	3.06	7.12	13	24	6,521	9,319	-2,798
1299+00	129900.00	100.00	2.99	6.66	11	26	6,532	9,350	-2,818
1300+00	130000.00	100.00	3.73	6.93	12	25	6,544	9,380	-2,835
1301+00	130100.00	100.00	3.86	6.08	14	24	6,558	9,409	-2,850
1302+00	130200.00	100.00	3.59	4.65	14	20	6,572	9,432	-2,860
1303+00	130300.00	100.00	3.42	7.14	13	22	6,585	9,459	-2,874

Notes:

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3) Unexpanded Fill Volume

8) The Mass Ordinate + or - Qty calculated for the Division. Plus Quantity indicated an excess of material between stations. Minus quantity indicates a shortage of material between stations

(CONTINUED)

1100-27-70/1107-00-71 IH-41									
			AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Real Station	Distance	Cut	Fill	Cut	Fill	Cut 1.00	Expanded Fill 1.20	Mass Ordinate
					Note 1	Note 3	Note 1		Note 8
1304+00	130400.00	100.00	2.70	8.51	11	29	6,596	9,493	-2,897
1305+00	130500.00	100.00	3.37	10.39	11	35	6,608	9,535	-2,928
1306+00	130600.00	100.00	1.68	18.68	9	54	6,617	9,600	-2,983
1307+00	130700.00	100.00	0.88	18.85	5	69	6,622	9,683	-3,062
1308+00	130800.00	100.00	1.21	17.54	4	67	6,626	9,764	-3,139
1309+00	130900.00	100.00	1.55	15.83	5	62	6,631	9,838	-3,208
1310+00	131000.00	100.00	2.58	13.18	8	54	6,638	9,903	-3,264
1311+00	131100.00	100.00	4.34	2.83	13	30	6,651	9,938	-3,287
1312+00	131200.00	100.00	5.98	9.28	19	22	6,670	9,965	-3,295
1313+00	131300.00	100.00	5.66	10.56	22	37	6,692	10,009	-3,318
1314+00	131400.00	100.00	4.10	14.00	18	45	6,710	10,064	-3,354
1315+00	131500.00	100.00	3.56	20.05	14	63	6,724	10,140	-3,416
1316+00	131600.00	100.00	4.88	17.57	16	70	6,740	10,223	-3,483
1317+00	131700.00	100.00	5.41	11.75	19	54	6,759	10,288	-3,530
1318+00	131800.00	100.00	5.02	14.65	19	49	6,778	10,347	-3,569
1319+00	131900.00	100.00	5.51	12.53	19	50	6,798	10,407	-3,610
1320+00	132000.00	100.00	5.33	14.94	20	51	6,818	10,469	-3,651
1321+00	132100.00	100.00	9.39	3.62	27	34	6,845	10,510	-3,665
1322+00	132200.00	100.00	4.51	15.34	26	35	6,871	10,552	-3,681
1323+00	132300.00	100.00	7.01	7.43	21	42	6,892	10,602	-3,711
1324+00	132400.00	100.00	8.45	6.26	29	25	6,921	10,633	-3,712
1325+00	132500.00	100.00	6.31	6.05	27	23	6,948	10,660	-3,712
1326+00	132600.00	100.00	3.93	5.38	19	21	6,967	10,686	-3,719
1327+00	132700.00	100.00	2.63	7.31	12	23	6,979	10,714	-3,735
1328+00	132800.00	100.00	3.75	4.96	12	23	6,991	10,741	-3,750
1329+00	132900.00	100.00	2.24	6.73	11	22	7,002	10,767	-3,765
1330+00	133000.00	100.00	2.78	16.52	9	43	7,011	10,819	-3,807
1331+00	133100.00	100.00	2.31	17.24	9	63	7,021	10,894	-3,873
1332+00	133200.00	100.00	4.28	15.30	12	60	7,033	10,966	-3,933
1333+00	133300.00	100.00	5.61	13.77	18	54	7,051	11,031	-3,979
1334+00	133400.00	100.00	4.48	15.26	19	54	7,070	11,095	-4,025
1335+00	133500.00	100.00	10.95	7.14	29	41	7,099	11,145	-4,046
1336+00	133600.00	100.00	6.83	10.43	33	33	7,131	11,184	-4,053
1337+00	133700.00	100.00	4.63	7.86	21	34	7,153	11,225	-4,072
1338+00	133800.00	100.00	3.65	10.38	15	34	7,168	11,265	-4,097
1339+00	133900.00	100.00	5.01	10.54	16	39	7,184	11,312	-4,128
1340+00	134000.00	100.00	0.97	14.60	11	47	7,195	11,368	-4,172

Notes:

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3) Unexpanded Fill Volume

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(CONTINUED)

1100-27-70/1107-00-71 IH-41									
			AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Real Station	Distance	Cut	Fill	Cut	Fill	Cut 1.00	Expanded Fill 1.20	Mass Ordinate
					Note 1	Note 3	Note 1		Note 8
1341+00	134100.00	100.00	0.48	9.97	3	45	7,198	11,422	-4,224
1342+00	134200.00	100.00	0.71	13.64	2	44	7,200	11,475	-4,275
1343+00	134300.00	100.00	1.12	17.77	3	58	7,203	11,544	-4,341
1344+00	134400.00	100.00	1.26	8.80	4	49	7,208	11,603	-4,396
1345+00	134500.00	100.00	1.06	11.28	4	37	7,212	11,648	-4,436
1346+00	134600.00	100.00	3.43	6.83	8	34	7,220	11,688	-4,468
1347+00	134700.00	100.00	2.76	6.26	11	24	7,232	11,717	-4,486
1348+00	134800.00	100.00	5.51	3.03	15	17	7,247	11,738	-4,491
1349+00	134900.00	100.00	2.74	0.14	15	6	7,262	11,745	-4,483
1350+00	135000.00	100.00	0.09	0.00	5	0	7,268	11,745	-4,478
1351+00	135100.00	100.00	2.51	20.34	5	38	7,272	11,791	-4,518
1352+00	135200.00	100.00	3.08	13.94	10	63	7,283	11,867	-4,584
1353+00	135300.00	100.00	9.60	0.82	23	27	7,306	11,900	-4,593
1354+00	135400.00	100.00	3.32	12.10	24	24	7,330	11,928	-4,598
1355+00	135500.00	100.00	4.22	14.37	14	49	7,344	11,987	-4,643
1356+00	135600.00	100.00	2.26	17.39	12	59	7,356	12,058	-4,701
1357+00	135700.00	100.00	2.12	23.27	8	75	7,364	12,148	-4,784
1358+00	135800.00	100.00	0.95	30.21	6	99	7,370	12,267	-4,897
1359+00	135900.00	100.00	1.08	35.81	4	122	7,374	12,414	-5,040
1360+00	136000.00	100.00	1.20	22.60	4	108	7,378	12,543	-5,165
1361+00	136100.00	100.00	4.04	6.85	10	55	7,388	12,609	-5,221
1362+00	136200.00	100.00	0.00	0.00	7	13	7,395	12,624	-5,229
1363+00	136300.00	100.00	4.50	2.15	8	4	7,404	12,629	-5,225
1364+00	136400.00	100.00	3.47	3.39	15	10	7,418	12,641	-5,223
1365+00	136500.00	100.00	3.10	4.24	12	14	7,430	12,658	-5,228
1366+00	136600.00	100.00	0.00	0.00	6	8	7,436	12,667	-5,231
1455+00	145500.00	8900.00	0.00	0.00	0	0	7,436	12,667	-5,231
1456+00	145600.00	100.00	3.43	4.63	6	9	7,443	12,678	-5,235
1457+00	145700.00	100.00	3.48	7.13	13	22	7,455	12,704	-5,249
1458+00	145800.00	100.00	4.58	3.79	15	20	7,470	12,728	-5,258
1459+00	145900.00	100.00	3.73	6.79	15	20	7,486	12,752	-5,266
1460+00	146000.00	100.00	4.46	5.82	15	23	7,501	12,780	-5,279
1461+00	146100.00	100.00	3.05	12.27	14	33	7,515	12,820	-5,305
1462+00	146200.00	100.00	2.53	12.67	10	46	7,525	12,875	-5,350
1463+00	146300.00	100.00	1.51	13.24	7	48	7,533	12,933	-5,400
1464+00	146400.00	100.00	2.81	12.67	8	48	7,541	12,990	-5,450
1465+00	146500.00	100.00	2.52	17.74	10	56	7,550	13,058	-5,508

Notes:

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(CONTINUED)

1100-27-70/1107-00-71 IH-41									
			AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Real Station	Distance	Cut	Fill	Cut Note 1	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.20	Mass Ordinate Note 8
1466+00	146600.00	100.00	1.69	20.92	8	72	7,558	13,144	-5,586
1467+00	146700.00	100.00	1.89	18.84	7	74	7,565	13,232	-5,667
1468+00	146800.00	100.00	2.25	1.29	8	37	7,572	13,277	-5,705
1470+00	147000.00	200.00	0.00	0.00	8	5	7,581	13,283	-5,702
1471+00	147100.00	100.00	1.30	12.01	2	22	7,583	13,309	-5,726
1472+00	147200.00	100.00	1.27	14.75	5	50	7,588	13,369	-5,781
1473+00	147300.00	100.00	4.47	6.25	11	39	7,599	13,416	-5,817
1474+00	147400.00	100.00	4.73	10.50	17	31	7,616	13,453	-5,837
1475+00	147500.00	100.00	1.23	19.18	11	55	7,627	13,519	-5,892
1476+00	147600.00	100.00	1.58	16.58	5	66	7,632	13,598	-5,966
1477+00	147700.00	100.00	1.30	19.50	5	67	7,637	13,678	-6,041
1478+00	147800.00	100.00	2.17	22.60	6	78	7,644	13,772	-6,128
1479+00	147900.00	100.00	2.39	16.51	8	72	7,652	13,859	-6,207
1480+00	148000.00	100.00	2.24	13.76	9	56	7,661	13,926	-6,265
1481+00	148100.00	100.00	2.73	13.12	9	50	7,670	13,986	-6,316
1482+00	148200.00	100.00	1.80	13.20	8	49	7,678	14,044	-6,366
1483+00	148300.00	100.00	2.68	10.60	8	44	7,687	14,097	-6,411
1484+00	148400.00	100.00	4.83	10.55	14	39	7,700	14,144	-6,444
1485+00	148500.00	100.00	6.18	7.53	20	33	7,721	14,184	-6,464
1486+00	148600.00	100.00	5.27	8.83	21	30	7,742	14,221	-6,479
1487+00	148700.00	100.00	3.66	9.84	17	35	7,759	14,262	-6,504
1488+00	148800.00	100.00	2.39	16.39	11	49	7,770	14,321	-6,551
1489+00	148900.00	100.00	1.33	19.96	7	67	7,777	14,401	-6,625
1490+00	149000.00	100.00	0.43	7.32	3	51	7,780	14,462	-6,682
1491+00	149100.00	100.00	0.42	24.95	2	60	7,781	14,534	-6,752
1492+00	149200.00	100.00	1.22	19.08	3	82	7,785	14,632	-6,847
1493+00	149300.00	100.00	2.83	11.30	7	56	7,792	14,699	-6,907
1494+00	149400.00	100.00	4.99	7.55	14	35	7,806	14,741	-6,935
1495+00	149500.00	100.00	6.09	6.20	21	25	7,827	14,772	-6,945
1496+00	149600.00	100.00	6.38	10.47	23	31	7,850	14,809	-6,959
1497+00	149700.00	100.00	3.06	11.00	17	40	7,868	14,856	-6,989
1498+00	149800.00	100.00	3.16	12.38	12	43	7,879	14,908	-7,029
1499+00	149900.00	100.00	4.18	12.65	14	46	7,893	14,964	-7,071
1500+00	150000.00	100.00	3.36	7.31	14	37	7,907	15,008	-7,102
1501+00	150100.00	100.00	3.15	4.75	12	22	7,919	15,035	-7,116
1502+00	150200.00	100.00	6.22	0.59	17	10	7,936	15,047	-7,111
1503+00	150300.00	100.00	0.07	0.00	12	1	7,948	15,048	-7,101

Notes:

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3) Unexpanded Fill Volume

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(CONTINUED)

1100-27-70/1107-00-71 IH-41									
			AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Real Station	Distance	Cut	Fill	Cut Note 1	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.20	Mass Ordinate Note 8
1504+00	150400.00	100.00	6.16	3.85	12	7	7,959	15,057	-7,098
1505+00	150500.00	100.00	9.12	0.31	28	8	7,988	15,066	-7,079
1506+00	150600.00	100.00	9.06	0.40	34	1	8,021	15,068	-7,046
1507+00	150700.00	100.00	8.57	0.05	33	1	8,054	15,069	-7,015
1508+00	150800.00	100.00	6.54	2.39	28	5	8,082	15,074	-6,992
1509+00	150900.00	100.00	3.39	8.95	18	21	8,100	15,099	-6,999
1510+00	151000.00	100.00	4.66	8.45	15	32	8,115	15,138	-7,023
1511+00	151100.00	100.00	5.59	5.11	19	25	8,134	15,168	-7,034
1512+00	151200.00	100.00	3.69	6.62	17	22	8,151	15,194	-7,043
1513+00	151300.00	100.00	5.72	5.65	17	23	8,169	15,221	-7,053
1514+00	151400.00	100.00	0.87	11.29	12	31	8,181	15,259	-7,078
1515+00	151500.00	100.00	0.33	17.00	2	52	8,183	15,322	-7,139
1516+00	151600.00	100.00	0.12	30.78	1	88	8,184	15,428	-7,244
1517+00	151700.00	100.00	0.00	34.05	0	120	8,184	15,572	-7,388
1518+00	151800.00	100.00	0.01	36.54	0	131	8,184	15,729	-7,545
1519+00	151900.00	100.00	0.30	25.49	1	115	8,185	15,867	-7,682
1520+00	152000.00	100.00	0.48	20.74	1	86	8,186	15,970	-7,783
1521+00	152100.00	100.00	1.38	13.79	3	64	8,190	16,046	-7,857
1522+00	152200.00	100.00	2.37	14.76	7	53	8,197	16,110	-7,913
1523+00	152300.00	100.00	2.30	12.99	9	51	8,205	16,171	-7,966
1524+00	152400.00	100.00	2.21	11.02	8	44	8,214	16,225	-8,011
1525+00	152500.00	100.00	1.33	12.23	7	43	8,220	16,276	-8,056
1526+00	152600.00	100.00	0.70	5.90	4	34	8,224	16,317	-8,093
1527+00	152700.00	100.00	0.20	6.86	2	24	8,226	16,345	-8,119
1528+00	152800.00	100.00	0.46	4.62	1	21	8,227	16,371	-8,144
1529+00	152900.00	100.00	0.86	14.18	2	35	8,229	16,412	-8,183
1530+00	153000.00	100.00	1.63	12.34	5	49	8,234	16,471	-8,237
1531+00	153100.00	100.00	2.19	13.46	7	48	8,241	16,529	-8,288
1532+00	153200.00	100.00	2.35	12.32	8	48	8,249	16,586	-8,336
1533+00	153300.00	100.00	2.32	14.42	9	50	8,258	16,645	-8,387
1534+00	153400.00	100.00	3.70	4.97	11	36	8,269	16,688	-8,419
1535+00	153500.00	100.00	0.72	22.79	8	51	8,277	16,750	-8,473
1536+00	153600.00	100.00	1.04	27.06	3	92	8,281	16,861	-8,580
1537+00	153700.00	100.00	1.93	26.00	6	98	8,286	16,979	-8,693
1538+00	153800.00	100.00	1.37	25.79	6	96	8,292	17,094	-8,802
1539+00	153900.00	100.00	1.12	28.43	5	100	8,297	17,214	-8,917
1540+00	154000.00	100.00	2.10	29.33	6	107	8,303	17,343	-9,040

Notes:

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3) Unexpanded Fill Volume

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(CONTINUED)

1100-27-70/1107-00-71 IH-41									
			AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Real Station	Distance	Cut	Fill	Cut Note 1	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.20	Mass Ordinate Note 8
1541+00	154100.00	100.00	1.57	25.20	7	101	8,310	17,464	-9,154
1542+00	154200.00	100.00	3.98	13.98	10	73	8,320	17,551	-9,231
1543+00	154300.00	100.00	2.86	12.94	13	50	8,333	17,611	-9,278
1544+00	154400.00	100.00	3.27	16.90	11	55	8,344	17,677	-9,333
1545+00	154500.00	100.00	6.10	12.96	17	55	8,361	17,743	-9,382
1546+00	154600.00	100.00	3.03	18.55	17	58	8,378	17,813	-9,435
1547+00	154700.00	100.00	0.00	0.03	6	34	8,384	17,855	-9,471
1548+00	154800.00	100.00	0.00	0.00	0	0	8,384	17,855	-9,471
1549+00	154900.00	100.00	0.96	21.33	2	39	8,386	17,902	-9,517
1550+00	155000.00	100.00	1.78	16.03	5	69	8,391	17,985	-9,594
1551+00	155100.00	100.00	3.01	15.84	9	59	8,400	18,056	-9,656
1552+00	155200.00	100.00	3.07	12.00	11	52	8,411	18,118	-9,707
1553+00	155300.00	100.00	1.53	17.32	9	54	8,419	18,183	-9,764
1554+00	155400.00	100.00	2.23	14.21	7	58	8,426	18,253	-9,827
1555+00	155500.00	100.00	1.53	19.53	7	62	8,433	18,328	-9,895
1556+00	155600.00	100.00	1.19	15.42	5	65	8,438	18,406	-9,967
1557+00	155700.00	100.00	5.21	5.75	12	39	8,450	18,453	-10,003
1558+00	155800.00	100.00	7.30	2.80	23	16	8,473	18,472	-9,998
1559+00	155900.00	100.00	4.99	5.04	23	15	8,496	18,489	-9,993
1560+00	156000.00	100.00	6.80	1.46	22	12	8,518	18,504	-9,986
1561+00	156100.00	100.00	5.61	5.54	23	13	8,541	18,519	-9,978
1562+00	156200.00	100.00	1.39	28.33	13	63	8,554	18,595	-10,041
1563+00	156300.00	100.00	5.31	2.64	12	57	8,566	18,663	-10,097
1564+00	156400.00	100.00	10.25	1.43	29	8	8,595	18,672	-10,077
1565+00	156500.00	100.00	8.92	4.30	35	11	8,631	18,685	-10,055
1566+00	156600.00	100.00	10.41	6.03	36	19	8,666	18,708	-10,042
1567+00	156700.00	100.00	9.26	5.67	36	22	8,703	18,734	-10,031
1568+00	156800.00	100.00	4.92	7.28	26	24	8,729	18,763	-10,034
1569+00	156900.00	100.00	1.10	28.07	11	65	8,740	18,841	-10,101
1570+00	157000.00	100.00	3.04	15.28	8	80	8,748	18,938	-10,190
1571+00	157100.00	100.00	4.31	14.29	14	55	8,762	19,004	-10,242
1572+00	157200.00	100.00	5.01	13.98	17	52	8,779	19,066	-10,288
1573+00	157300.00	100.00	5.95	10.94	20	46	8,799	19,122	-10,323
1574+00	157400.00	100.00	4.12	17.82	19	53	8,818	19,186	-10,368
1575+00	157500.00	100.00	4.01	18.23	15	67	8,833	19,266	-10,433
1576+00	157600.00	100.00	1.71	6.45	11	46	8,843	19,321	-10,477
1577+00	157700.00	100.00	3.37	19.41	9	48	8,853	19,378	-10,525

Notes:

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(CONTINUED)

1100-27-70/1107-00-71 IH-41									
			AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Real Station	Distance	Cut	Fill	Cut Note 1	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.20	Mass Ordinate Note 8
1578+00	157800.00	100.00	5.17	12.90	16	60	8,869	19,450	-10,581
1579+00	157900.00	100.00	4.52	9.88	18	42	8,887	19,500	-10,614
1580+00	158000.00	100.00	3.06	7.49	14	32	8,901	19,539	-10,639
1581+00	158100.00	100.00	2.92	15.48	11	43	8,912	19,590	-10,678
1582+00	158200.00	100.00	3.48	8.99	12	45	8,924	19,645	-10,721
1583+00	158300.00	100.00	4.00	3.29	14	23	8,937	19,672	-10,734
1584+00	158400.00	100.00	0.80	4.04	9	14	8,946	19,688	-10,742
1585+00	158500.00	100.00	1.09	5.56	3	18	8,950	19,709	-10,760
1586+00	158600.00	100.00	2.08	2.78	6	15	8,956	19,728	-10,772
1587+00	158700.00	100.00	1.29	9.69	6	23	8,962	19,756	-10,794
1588+00	158800.00	100.00	0.20	7.14	3	31	8,965	19,793	-10,828
1589+00	158900.00	100.00	1.64	6.21	3	25	8,968	19,823	-10,855
1590+00	159000.00	100.00	2.50	4.81	8	20	8,976	19,847	-10,871
1591+00	159100.00	100.00	3.24	6.56	11	21	8,986	19,872	-10,886
1592+00	159200.00	100.00	0.00	0.00	6	12	8,992	19,887	-10,895
1594+00	159400.00	200.00	0.69	10.59	3	39	8,995	19,934	-10,939
1595+00	159500.00	100.00	4.52	7.55	10	34	9,005	19,974	-10,970
1596+00	159600.00	100.00	5.15	7.08	18	27	9,022	20,007	-10,985
1597+00	159700.00	100.00	6.63	8.57	22	29	9,044	20,042	-10,997
1598+00	159800.00	100.00	7.17	5.16	26	25	9,070	20,072	-11,002
1599+00	159900.00	100.00	6.36	4.82	25	18	9,095	20,094	-11,000
1600+00	160000.00	100.00	6.20	2.51	23	14	9,118	20,111	-10,993
1601+00	160100.00	100.00	3.47	2.01	18	8	9,136	20,121	-10,985
1602+00	160200.00	100.00	0.92	7.47	8	18	9,144	20,142	-10,998
1603+00	160300.00	100.00	1.90	7.69	5	28	9,149	20,176	-11,026
1604+00	160400.00	100.00	4.01	9.62	11	32	9,160	20,214	-11,054
1605+00	160500.00	100.00	3.46	7.38	14	31	9,174	20,252	-11,078
1606+00	160600.00	100.00	6.27	6.19	18	25	9,192	20,282	-11,090
1607+00	160700.00	100.00	0.68	4.98	13	21	9,205	20,307	-11,102
1608+00	160800.00	100.00	3.08	7.79	7	24	9,212	20,335	-11,123
1609+00	160900.00	100.00	2.97	5.88	11	25	9,223	20,365	-11,142
1610+00	161000.00	100.00	3.30	6.92	12	24	9,235	20,394	-11,159
1611+00	161100.00	100.00	3.36	6.26	12	24	9,247	20,423	-11,176
1612+00	161200.00	100.00	0.17	15.51	7	40	9,254	20,472	-11,218
1613+00	161300.00	100.00	1.66	16.21	3	59	9,257	20,542	-11,285
1614+00	161400.00	100.00	2.28	15.09	7	58	9,264	20,612	-11,347
1615+00	161500.00	100.00	1.71	1.28	7	30	9,272	20,648	-11,376

Notes:

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(CONTINUED)

1100-27-70/1107-00-71 IH-41

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.20	Mass Ordinate Note 8
1616+00	161600.00	100.00	0.25	8.92	4	19	9,275	20,671	-11,395
1617+00	161700.00	100.00	0.03	11.88	1	39	9,276	20,717	-11,441
1618+00	161800.00	100.00	0.19	10.14	0	41	9,276	20,766	-11,489
1619+00	161900.00	100.00	0.18	6.36	1	31	9,277	20,803	-11,525
1620+00	162000.00	100.00	0.12	4.05	1	19	9,278	20,826	-11,548
1621+00	162100.00	100.00	0.03	8.70	0	24	9,278	20,854	-11,576
1622+00	162200.00	100.00	1.96	7.68	4	30	9,282	20,890	-11,609
1623+00	162300.00	100.00	3.78	7.47	11	28	9,292	20,924	-11,632
1624+00	162400.00	100.00	4.27	8.07	15	29	9,307	20,959	-11,651
1625+00	162500.00	100.00	6.14	3.15	19	21	9,326	20,984	-11,657
1626+00	162600.00	100.00	0.00	0.00	11	6	9,338	20,991	-11,653
1627+00	162700.00	100.00	0.00	0.00	0	0	9,338	20,991	-11,653
1636+00	163600.00	100.00	0.00	0.00	0	0	9,338	20,991	-11,653
1637+00	163700.00	100.00	6.45	2.75	12	5	9,350	20,997	-11,647
1638+00	163800.00	100.00	2.07	4.88	16	14	9,366	21,014	-11,648
1639+00	163900.00	100.00	2.98	3.31	9	15	9,375	21,032	-11,657
1640+00	164000.00	100.00	14.17	9.95	32	25	9,407	21,061	-11,655
1641+00	164100.00	100.00	0.85	8.30	28	34	9,434	21,102	-11,667
1642+00	164200.00	100.00	5.63	5.42	12	25	9,446	21,132	-11,686
1643+00	164300.00	100.00	6.48	12.55	22	33	9,469	21,172	-11,703
1644+00	164400.00	100.00	5.05	16.53	21	54	9,490	21,237	-11,747
1645+00	164500.00	100.00	7.48	15.97	23	60	9,513	21,309	-11,796
1646+00	164600.00	100.00	5.60	10.64	24	49	9,538	21,368	-11,831
1647+00	164700.00	100.00	3.17	13.93	16	45	9,554	21,423	-11,869
1648+00	164800.00	100.00	4.28	14.33	14	52	9,568	21,486	-11,918
1649+00	164900.00	100.00	9.31	4.08	25	34	9,593	21,526	-11,934
1650+00	165000.00	100.00	5.99	3.18	28	13	9,621	21,543	-11,921
1651+00	165100.00	100.00	7.19	1.36	24	8	9,646	21,553	-11,907
1652+00	165200.00	100.00	8.70	0.82	29	4	9,675	21,558	-11,882
1653+00	165300.00	100.00	6.09	1.80	27	5	9,703	21,563	-11,861
1654+00	165400.00	100.00	5.37	1.42	21	6	9,724	21,571	-11,847
1655+00	165500.00	100.00	5.62	6.68	20	15	9,744	21,589	-11,844
1656+00	165600.00	100.00	8.77	0.55	27	13	9,771	21,605	-11,834
1657+00	165700.00	100.00	6.28	2.43	28	6	9,799	21,611	-11,813
1658+00	165800.00	100.00	6.55	2.99	24	10	9,822	21,623	-11,801
1659+00	165900.00	100.00	5.32	3.64	22	12	9,844	21,638	-11,794
1660+00	166000.00	100.00	5.71	1.32	20	9	9,865	21,649	-11,784

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(CONTINUED)

1100-27-70/1107-00-71 IH-41									
			AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Real Station	Distance	Cut	Fill	Cut Note 1	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.20	Mass Ordinate Note 8
1661+00	166100.00	100.00	6.07	3.71	22	9	9,887	21,660	-11,774
1662+00	166200.00	100.00	5.17	3.24	21	13	9,907	21,676	-11,768
1663+00	166300.00	100.00	5.03	1.41	19	9	9,926	21,686	-11,760
1664+00	166400.00	100.00	4.79	6.77	18	15	9,944	21,704	-11,760
1665+00	166500.00	100.00	5.69	4.23	19	20	9,964	21,729	-11,765
1666+00	166600.00	100.00	8.64	1.73	27	11	9,990	21,742	-11,751
1667+00	166700.00	100.00	5.70	1.11	27	5	10,017	21,748	-11,731
1668+00	166800.00	100.00	3.12	0.98	16	4	10,033	21,753	-11,720
1669+00	166900.00	100.00	4.30	8.14	14	17	10,047	21,773	-11,726
1670+00	167000.00	100.00	6.62	2.41	20	20	10,067	21,797	-11,729
1671+00	167100.00	100.00	6.13	2.04	24	8	10,091	21,806	-11,716
1672+00	167200.00	100.00	4.55	5.67	20	14	10,111	21,824	-11,713
1673+00	167300.00	100.00	5.03	7.93	18	25	10,128	21,854	-11,725
1674+00	167400.00	100.00	5.20	10.52	19	34	10,147	21,895	-11,747
1675+00	167500.00	100.00	4.54	13.07	18	44	10,165	21,947	-11,782
1676+00	167600.00	100.00	4.47	10.98	17	45	10,182	22,001	-11,819
1677+00	167700.00	100.00	9.53	1.79	26	24	10,208	22,029	-11,821
1678+00	167800.00	100.00	7.04	3.52	31	10	10,239	22,041	-11,802
1679+00	167900.00	100.00	0.00	0.00	13	7	10,252	22,049	-11,797
1680+00	168000.00	100.00	0.00	0.00	0	0	10,252	22,049	-11,797
1807+00	180700.00	100.00	0.00	0.00	0	0	10,252	22,049	-11,797
1808+00	180800.00	100.00	1.69	15.10	3	28	10,255	22,082	-11,828
1809+00	180900.00	100.00	2.11	15.53	7	57	10,262	22,150	-11,889
1810+00	181000.00	100.00	1.27	21.60	6	69	10,268	22,233	-11,965
1811+00	181100.00	100.00	1.26	20.40	5	78	10,273	22,326	-12,053
1812+00	181200.00	100.00	1.29	21.21	5	77	10,278	22,419	-12,141
1813+00	181300.00	100.00	0.38	23.87	3	83	10,281	22,519	-12,238
1814+00	181400.00	100.00	0.67	15.19	2	72	10,283	22,606	-12,323
1815+00	181500.00	100.00	2.37	7.39	6	42	10,288	22,656	-12,368
1816+00	181600.00	100.00	4.98	6.41	14	26	10,302	22,686	-12,385
1817+00	181700.00	100.00	0.00	0.00	9	12	10,311	22,701	-12,390
1818+00	181800.00	100.00	15.37	3.96	28	7	10,339	22,710	-12,370
1819+00	181900.00	100.00	5.66	4.27	39	15	10,378	22,728	-12,349
1820+00	182000.00	100.00	4.89	4.78	20	17	10,398	22,748	-12,350
1821+00	182100.00	100.00	5.93	5.44	20	19	10,418	22,771	-12,353
1822+00	182200.00	100.00	5.85	8.71	22	26	10,440	22,802	-12,362
1823+00	182300.00	100.00	5.86	6.86	22	29	10,461	22,837	-12,375

Notes:

1) Salvaged/Unusable Pavement Material is included in Cut.

3) Unexpanded Fill Volume

8) The Mass Ordinate + or - Qty calculated for the Division. Plus Quantity indicated an excess of material between stations. Minus quantity indicates a shortage of material between stations

(CONTINUED)

1100-27-70/1107-00-71 IH-41

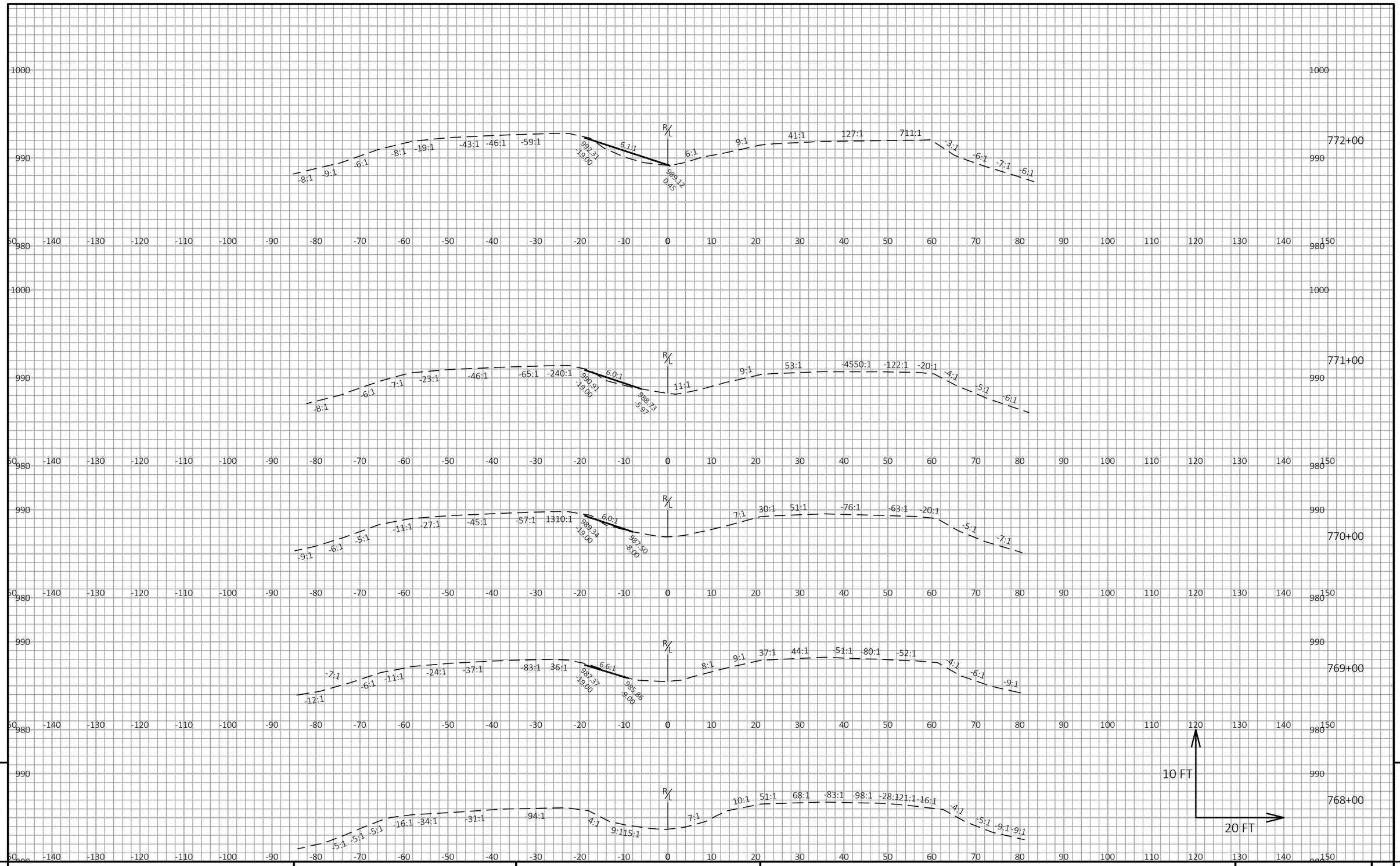
STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut	Cumulative Vol (CY) Expanded Fill	Mass Ordinate
							1.00	1.20	
					Note 1	Note 3	Note 1		Note 8
1824+00	182400.00	100.00	7.50	6.36	25	24	10,486	22,866	-12,380
1825+00	182500.00	100.00	3.62	3.21	21	18	10,507	22,887	-12,381
1826+00	182600.00	100.00	3.99	1.36	14	8	10,521	22,898	-12,377
1827+00	182700.00	100.00	2.66	1.35	12	5	10,533	22,904	-12,370
1828+00	182800.00	100.00	2.38	4.01	9	10	10,543	22,916	-12,373
1829+00	182900.00	100.00	38.81	0.07	76	8	10,619	22,925	-12,306
1830+00	183000.00	100.00	8.59	8.32	88	16	10,707	22,943	-12,237
1831+00	183100.00	100.00	7.06	10.04	29	34	10,736	22,984	-12,248
1832+00	183200.00	100.00	5.61	10.59	23	38	10,759	23,030	-12,271
1833+00	183300.00	100.00	5.57	10.69	21	39	10,780	23,077	-12,297
1834+00	183400.00	100.00	4.23	10.27	18	39	10,798	23,124	-12,326
1835+00	183500.00	100.00	3.55	11.15	14	40	10,812	23,171	-12,359
1836+00	183600.00	100.00	5.33	8.14	16	36	10,829	23,214	-12,385
1837+00	183700.00	100.00	6.93	6.37	23	27	10,852	23,246	-12,395
1838+00	183800.00	100.00	6.81	6.09	25	23	10,877	23,274	-12,397
1839+00	183900.00	100.00	3.78	5.48	20	21	10,897	23,300	-12,403
1840+00	184000.00	100.00	6.90	7.24	20	24	10,916	23,328	-12,412
1841+00	184100.00	100.00	4.56	4.55	21	22	10,938	23,354	-12,417
1842+00	184200.00	100.00	5.73	2.68	19	13	10,957	23,370	-12,414
1843+00	184300.00	100.00	6.41	2.57	22	10	10,979	23,382	-12,403
1844+00	184400.00	100.00	1.21	9.30	14	22	10,993	23,408	-12,415
1845+00	184500.00	100.00	1.69	10.39	5	36	10,999	23,452	-12,454
1846+00	184600.00	100.00	1.99	7.69	7	33	11,005	23,492	-12,487
1847+00	184700.00	100.00	4.86	6.02	13	25	11,018	23,523	-12,505
1848+00	184800.00	100.00	3.10	7.98	15	26	11,033	23,554	-12,521
1849+00	184900.00	100.00	1.84	9.01	9	31	11,042	23,592	-12,550
1850+00	185000.00	100.00	4.74	5.71	12	27	11,054	23,624	-12,570
1851+00	185100.00	100.00	4.39	5.68	17	21	11,071	23,650	-12,579
		Column Totals:			11,071	19,708			

Notes:

1) Salvaged/Unusable Pavement Material is included in Cut.

3) Unexpanded Fill Volume

8) The Mass Ordinate + or - Qty calculated for the Division. Plus Quantity indicated an excess of material between stations. Minus quantity indicates a shortage of material between stations



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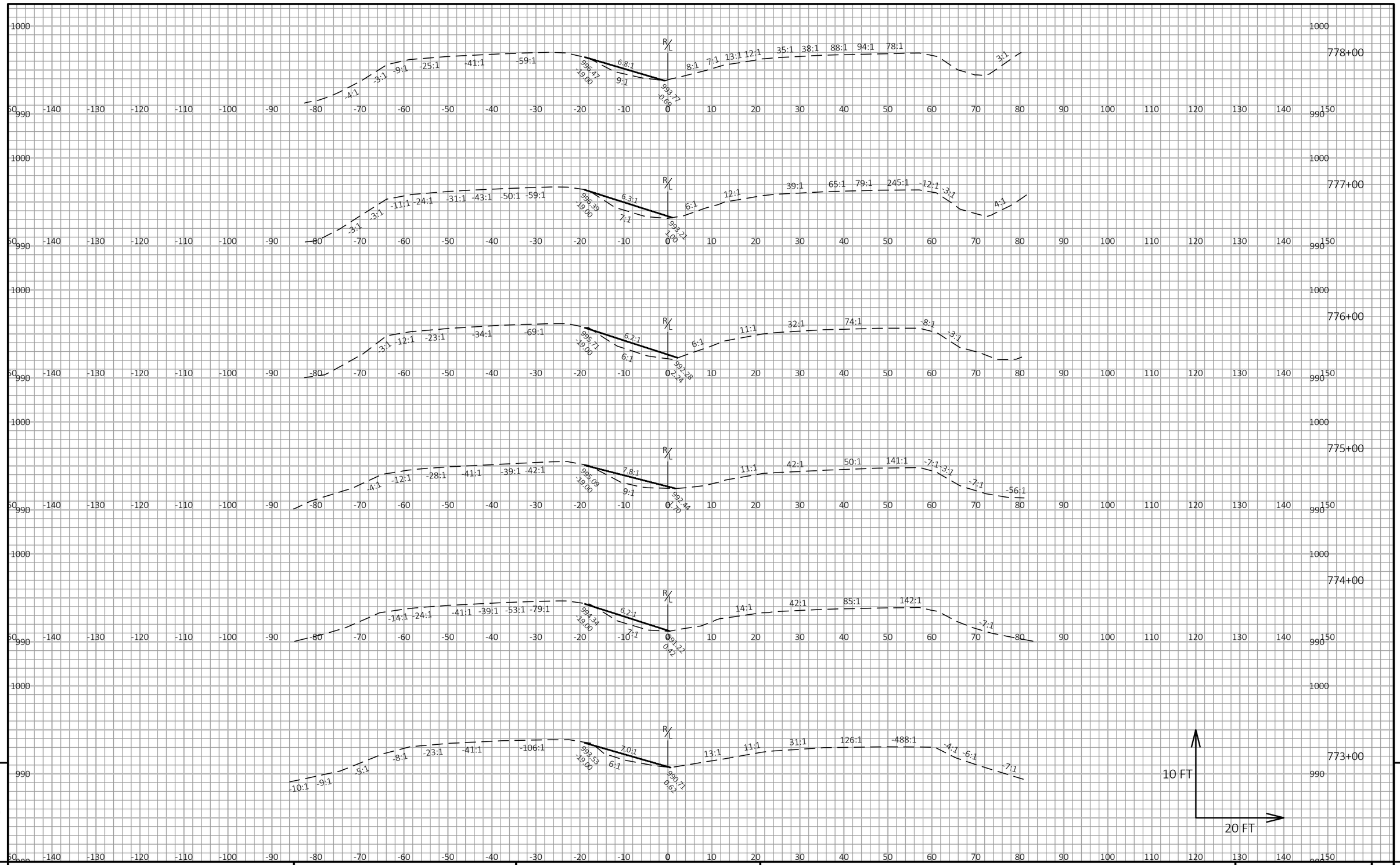
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 235	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 16

PLOT DATE : 4/30/2019 10:06 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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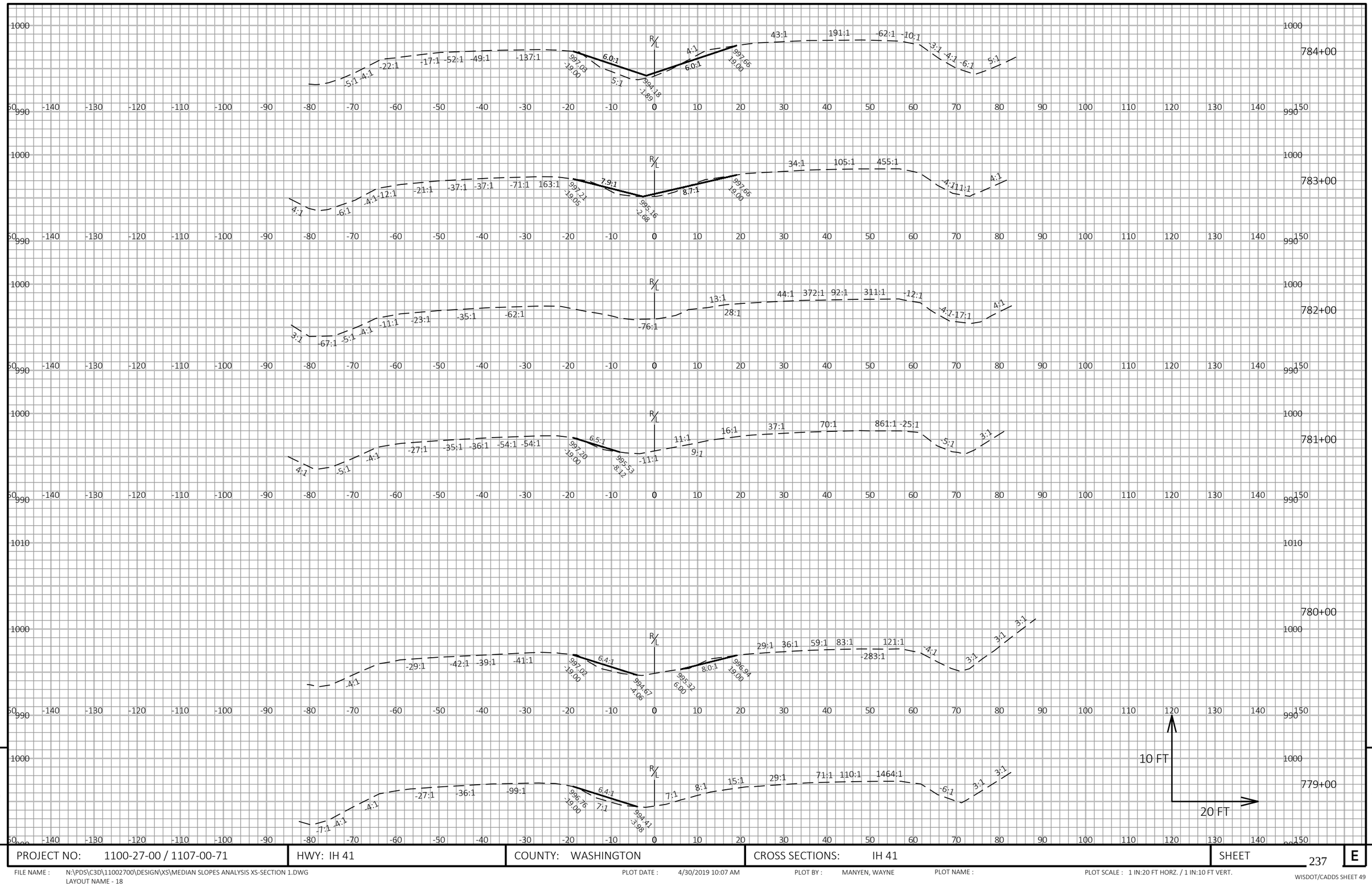
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 236	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 17

PLOT DATE : 4/30/2019 10:06 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

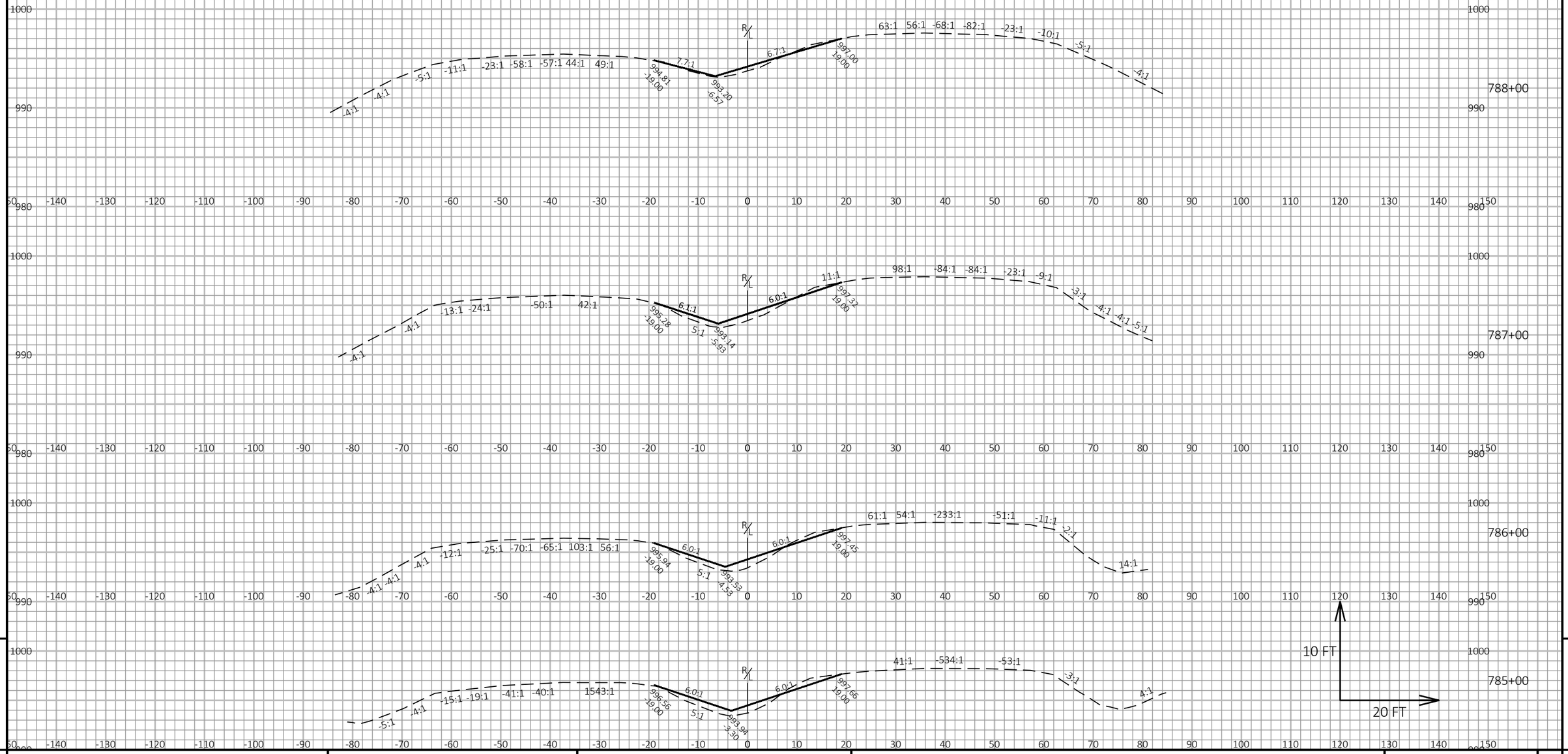


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 237	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 18

PLOT DATE : 4/30/2019 10:07 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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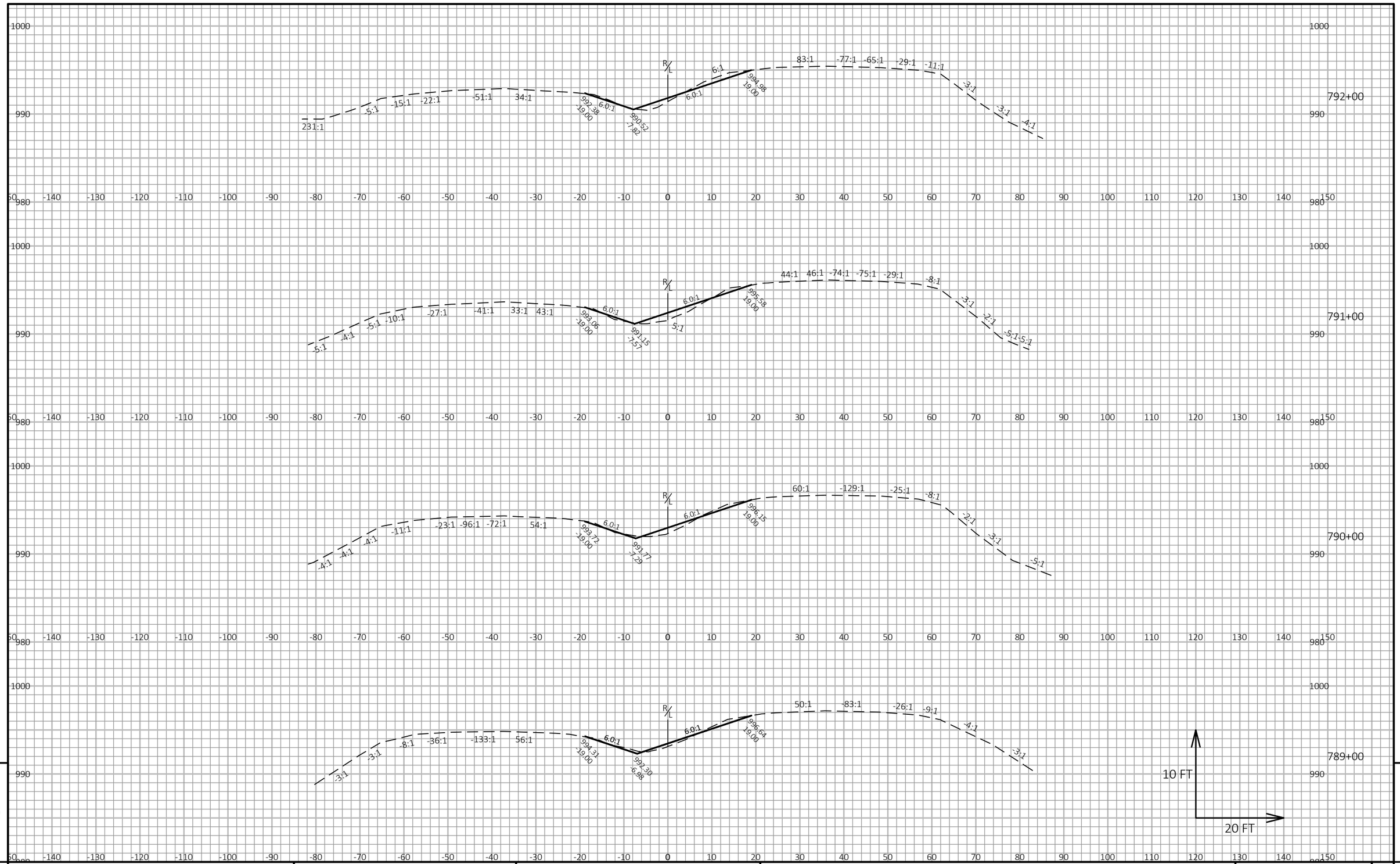
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 238	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 19

PLOT DATE : 4/30/2019 10:07 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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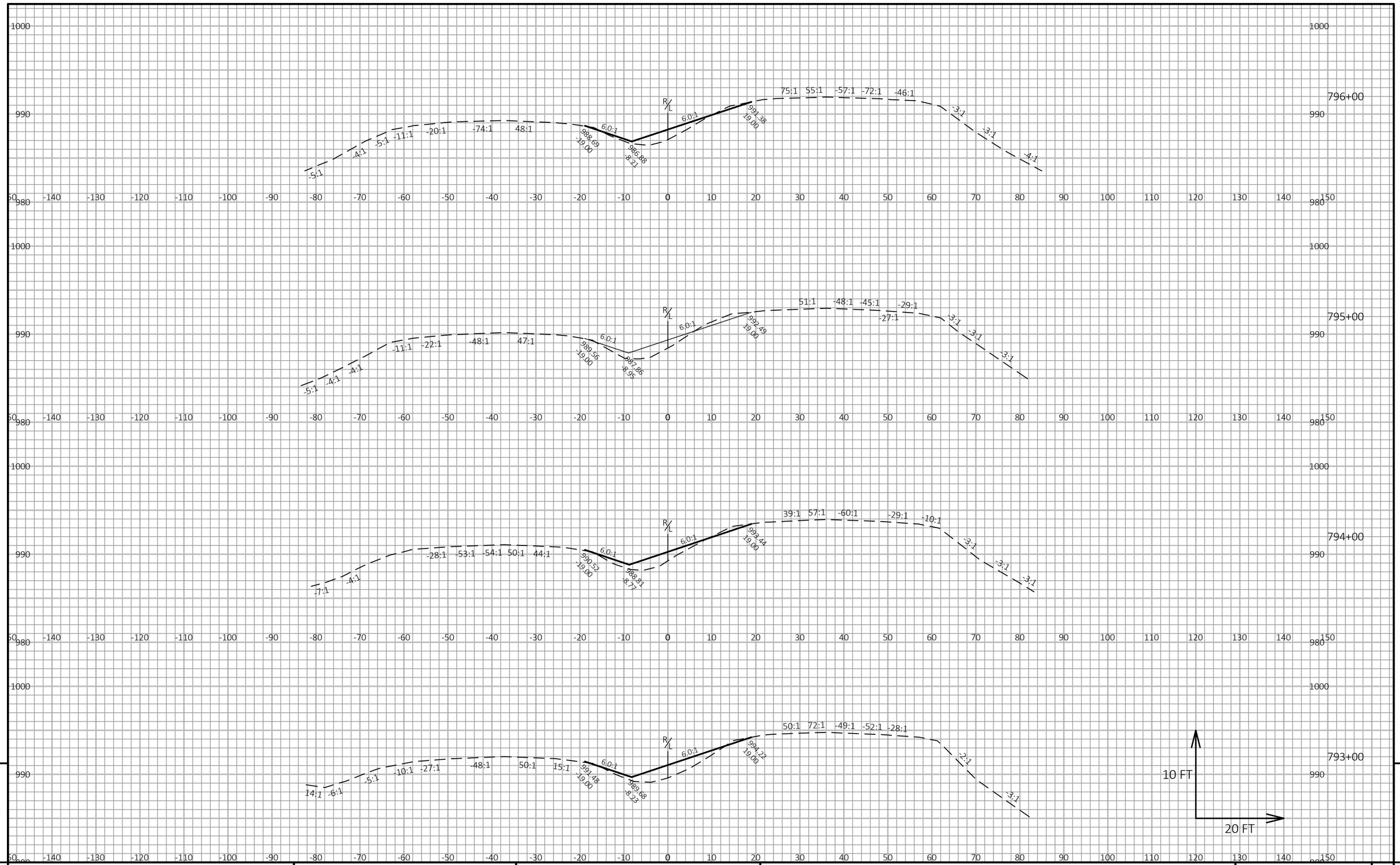
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 239	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 20

PLOT DATE : 4/30/2019 10:07 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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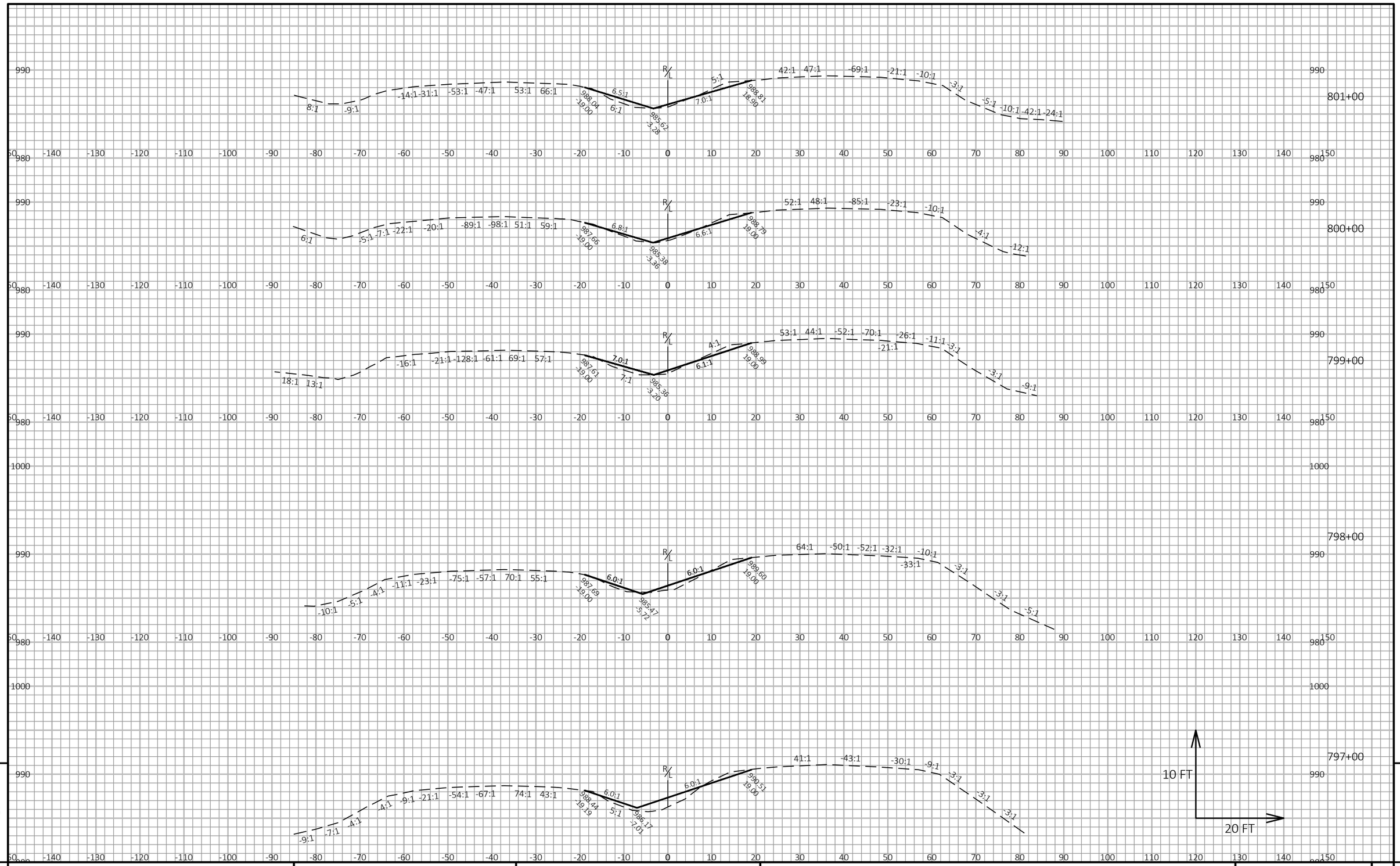
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 240 E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 21

PLOT DATE : 4/30/2019 10:08 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

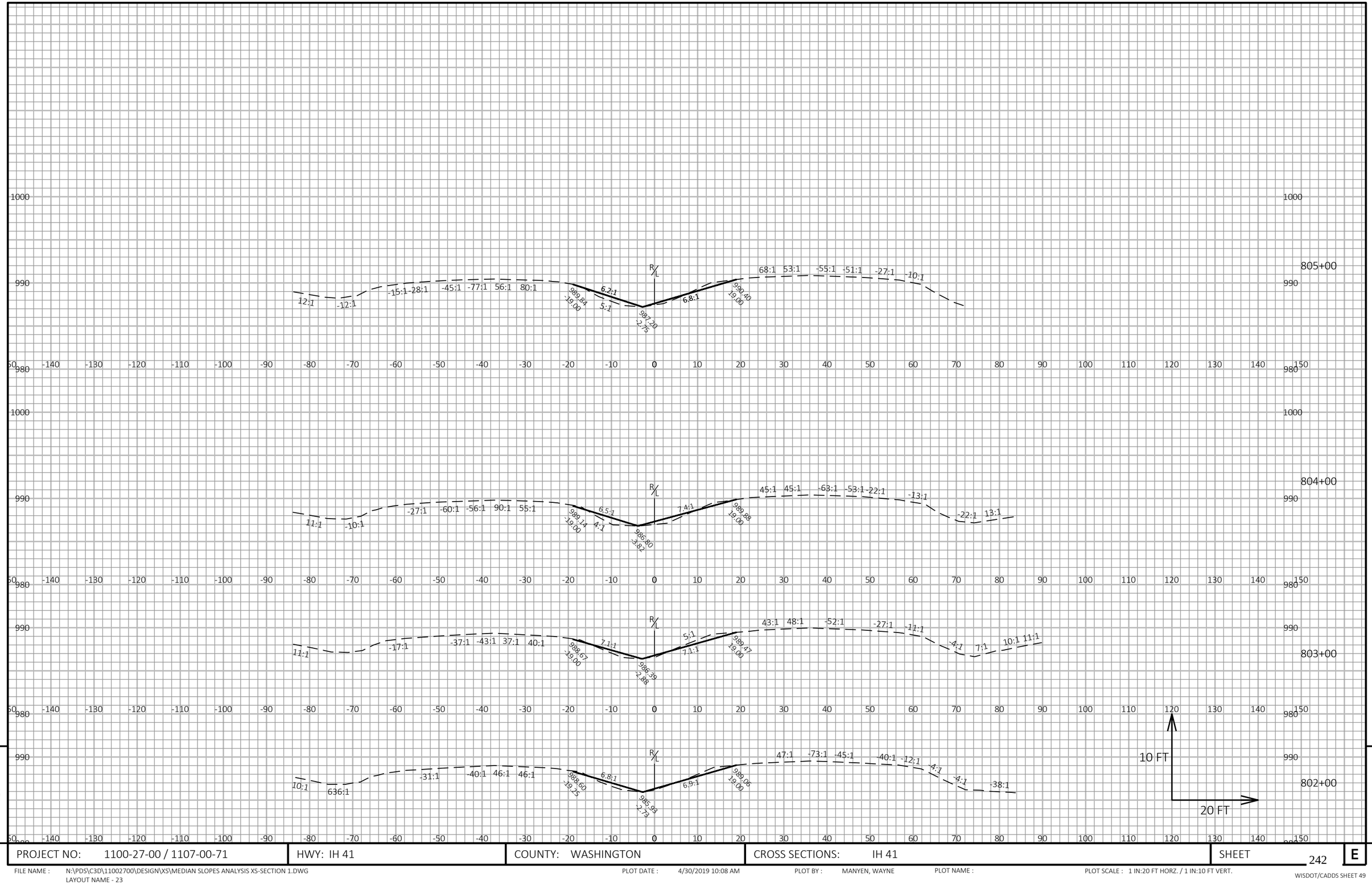


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 241 E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 22

PLOT DATE : 4/30/2019 10:08 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 242	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 23

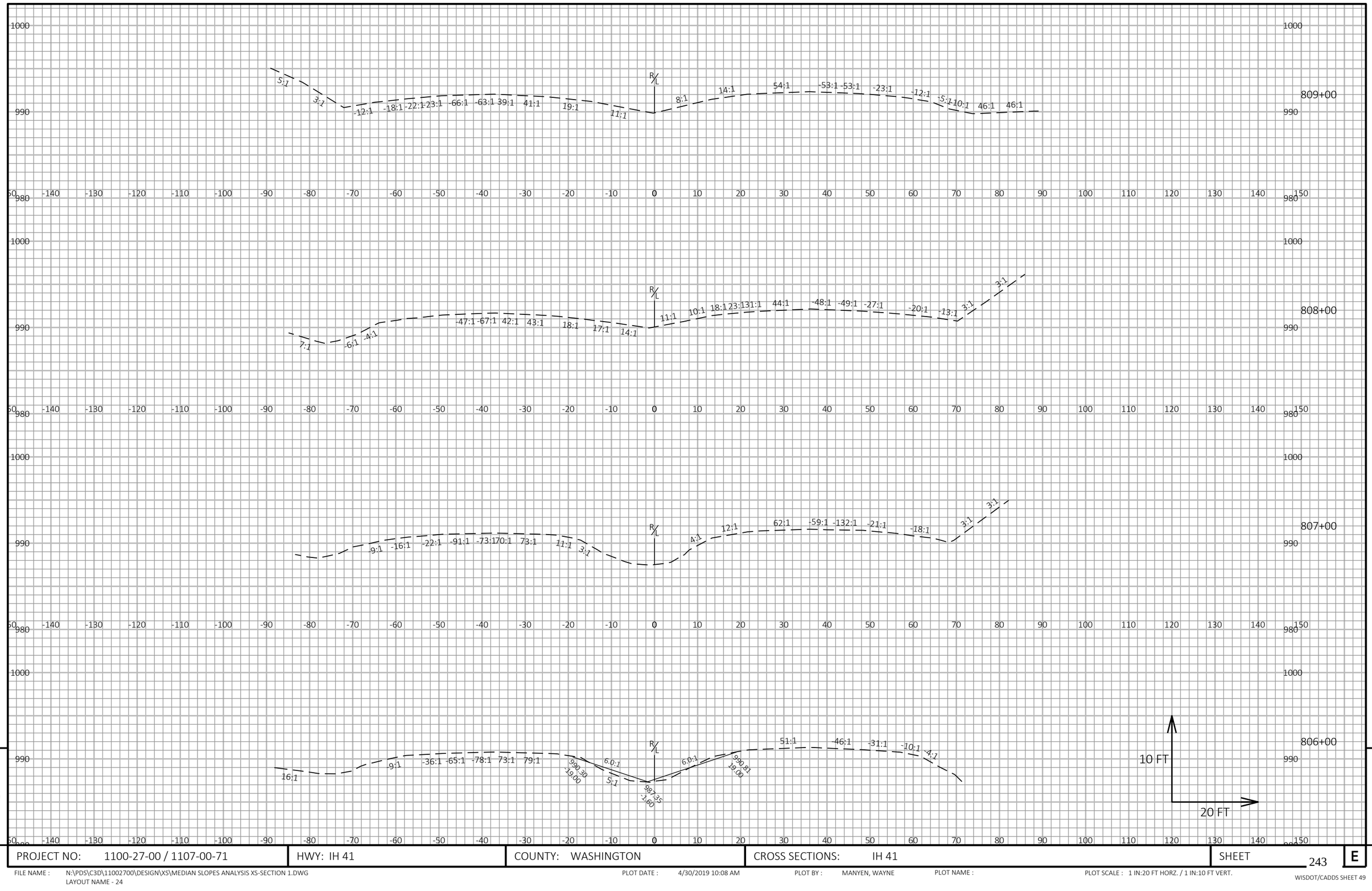
PLOT DATE : 4/30/2019 10:08 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

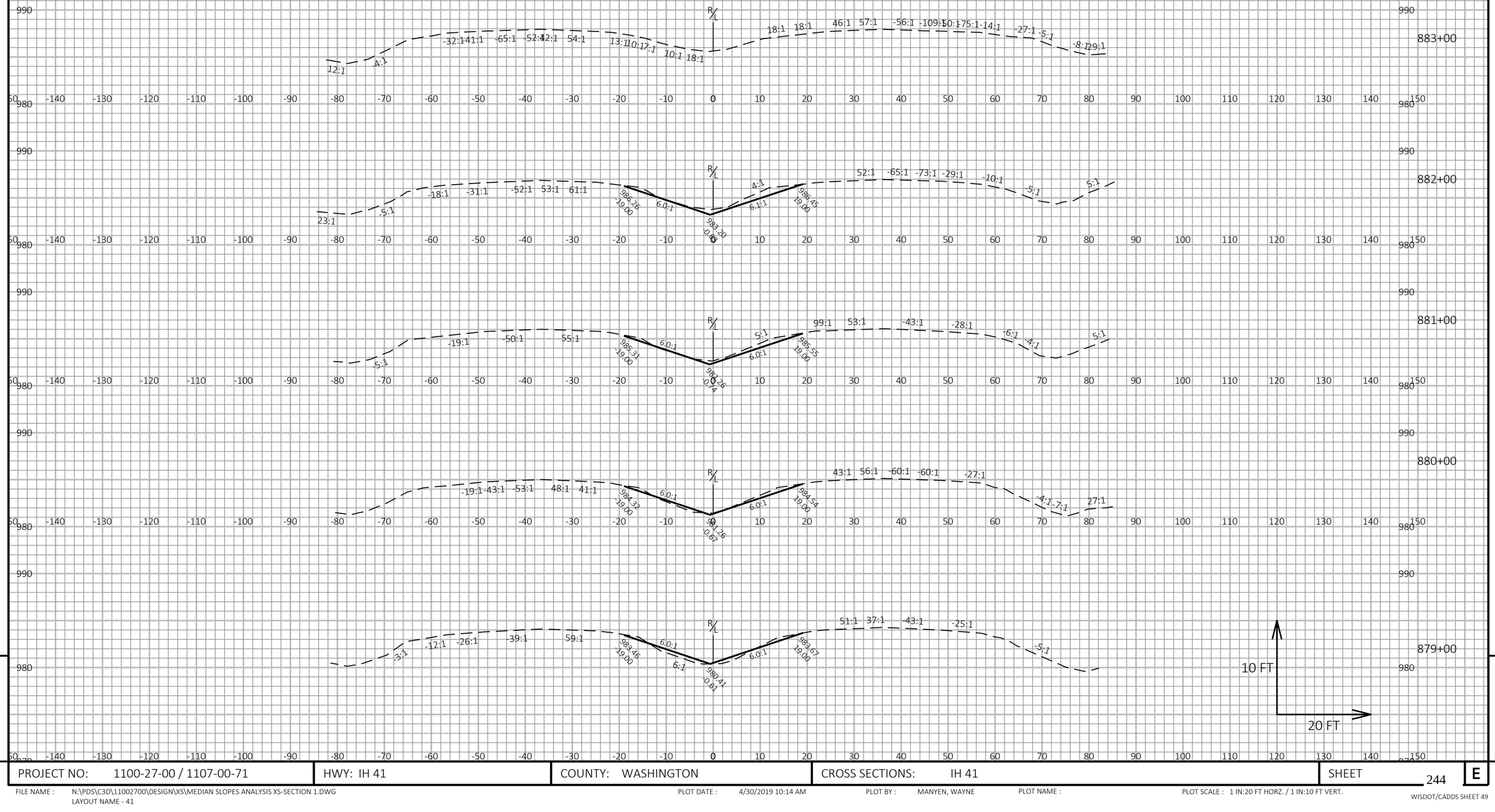


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 243	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 24

PLOT DATE : 4/30/2019 10:08 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

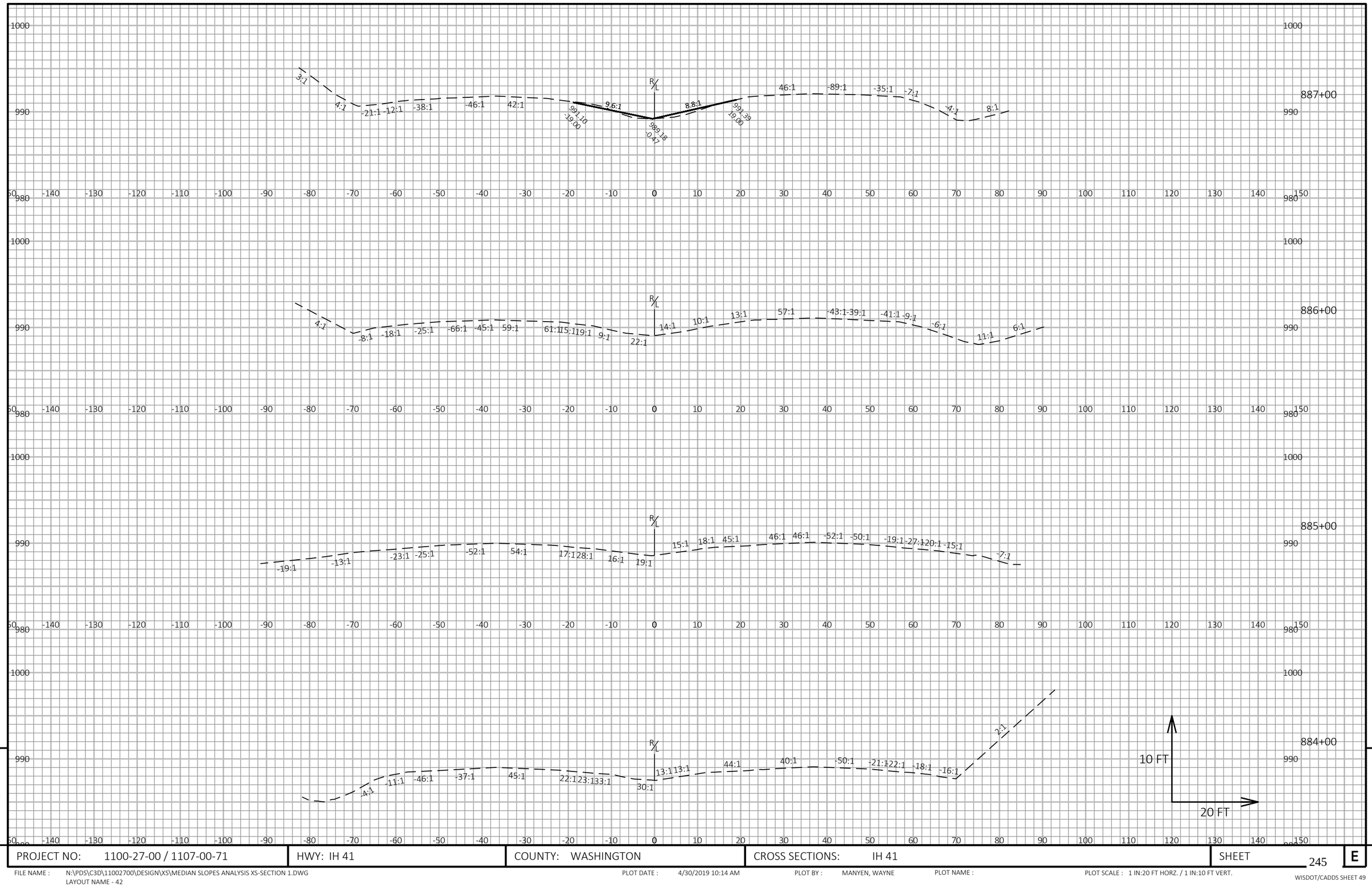


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 244 E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 41

PLOT DATE : 4/30/2019 10:14 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

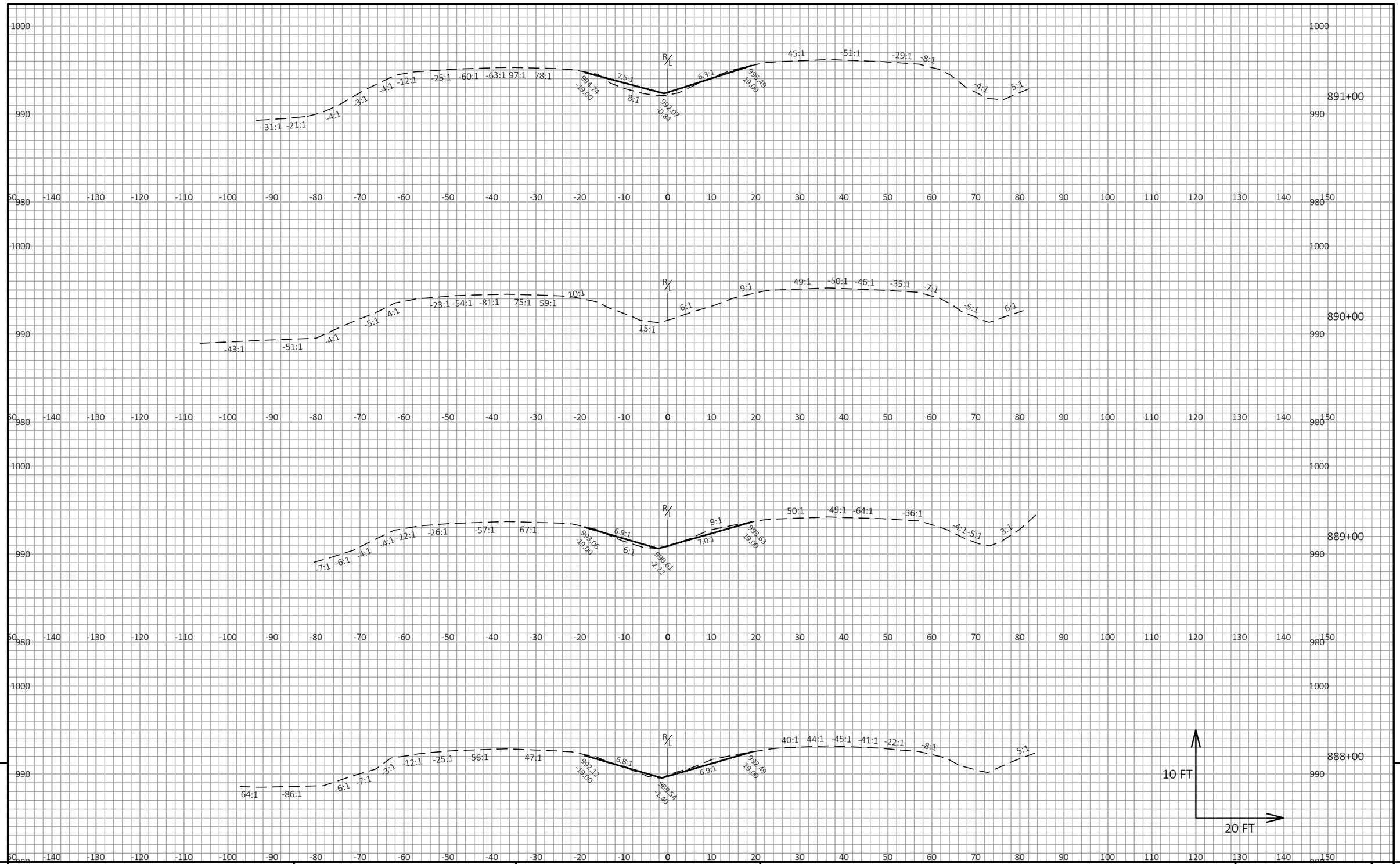


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 245 E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 42

PLOT DATE : 4/30/2019 10:14 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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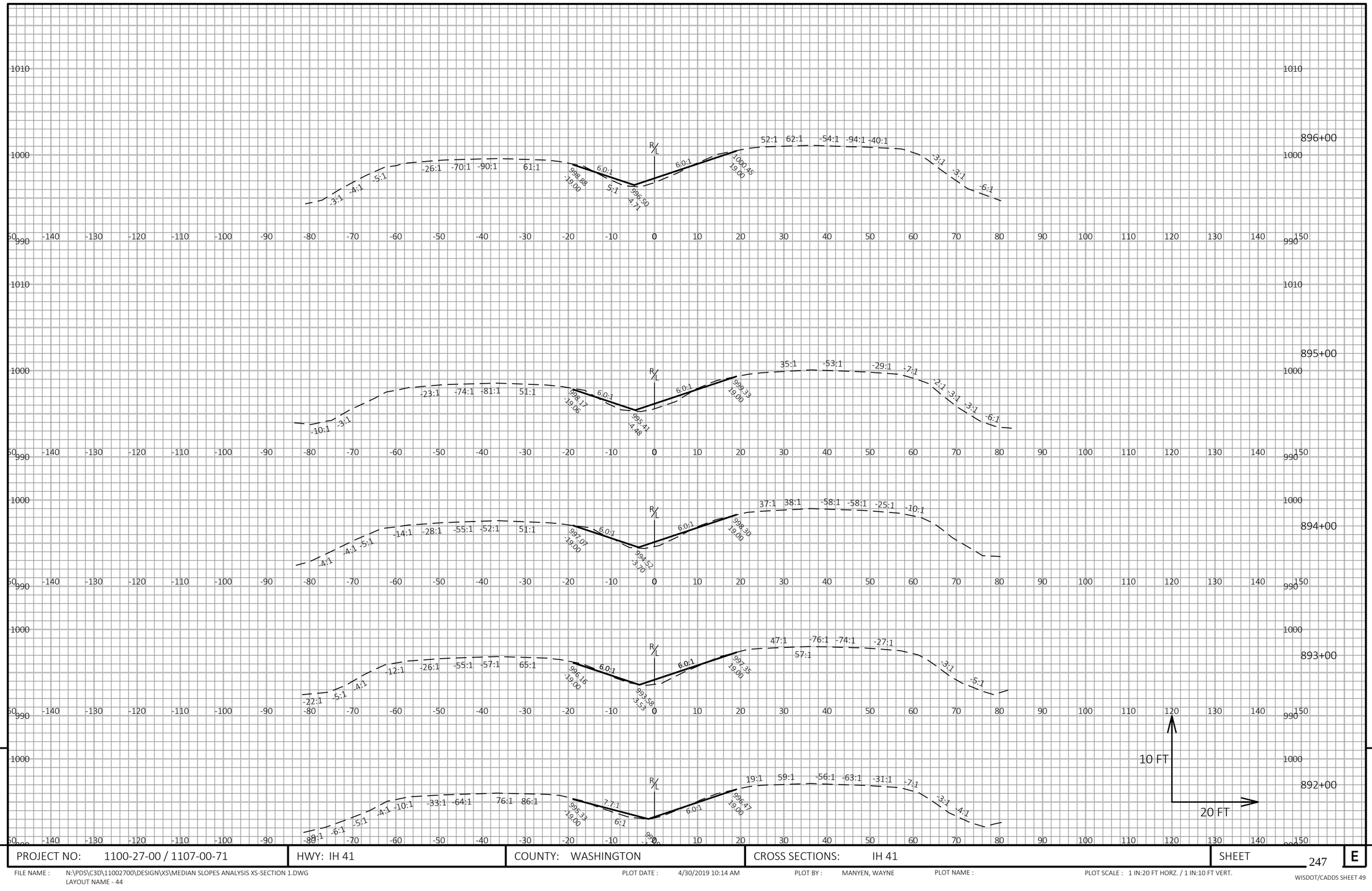
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 246	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 43

PLOT DATE : 4/30/2019 10:14 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

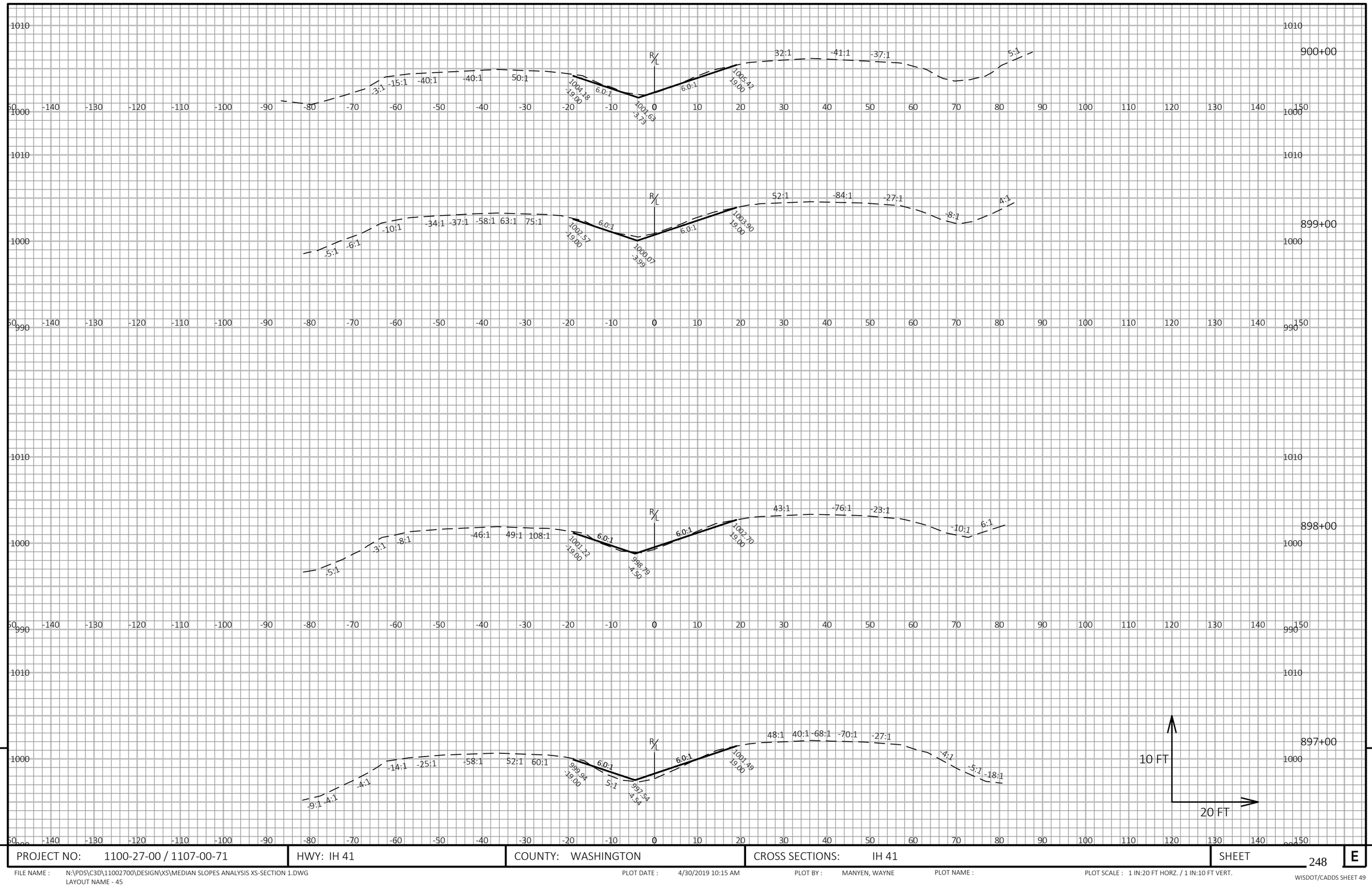


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 247	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 44

PLOT DATE : 4/30/2019 10:14 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

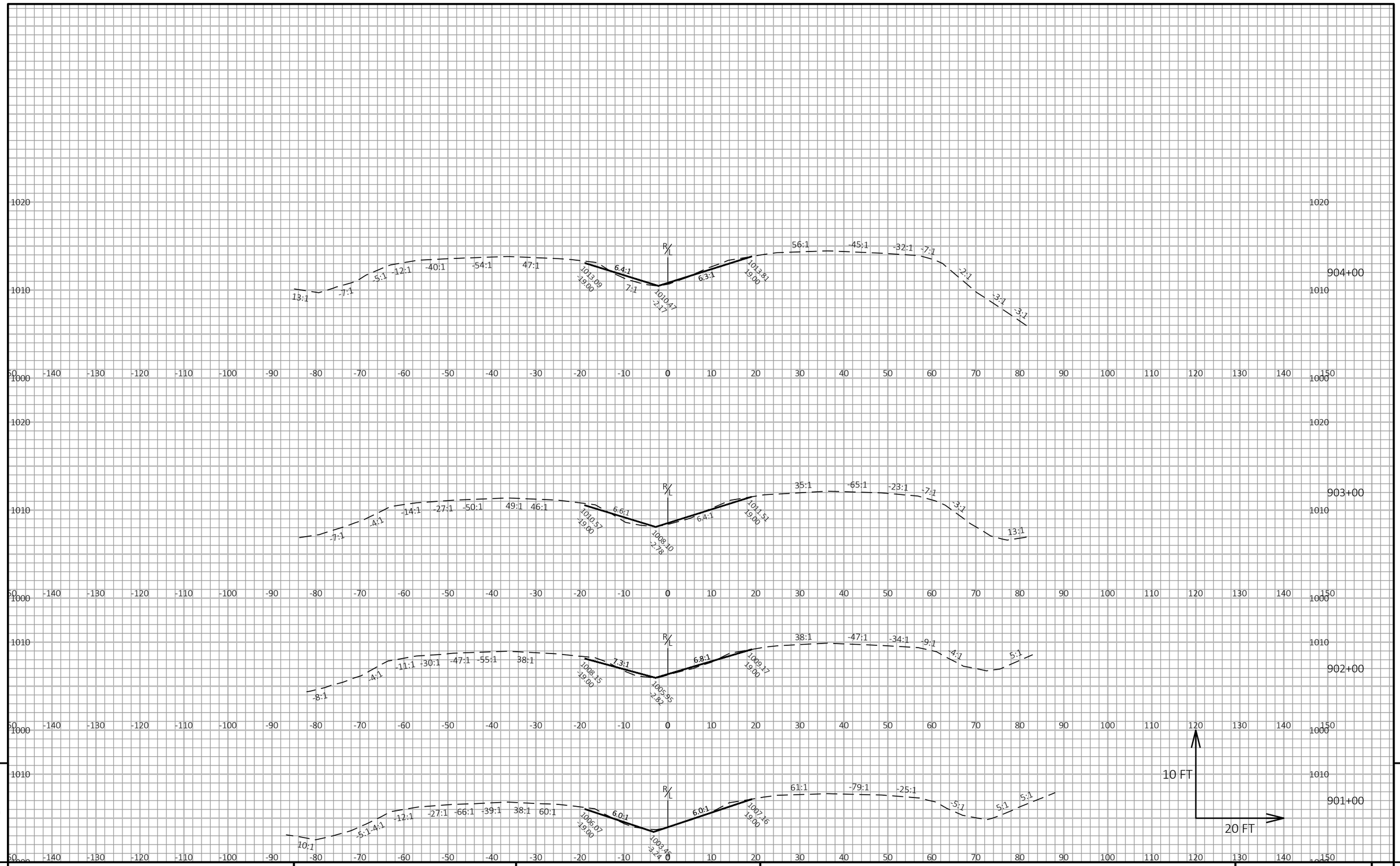


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 248 E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 45

PLOT DATE : 4/30/2019 10:15 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 249	E

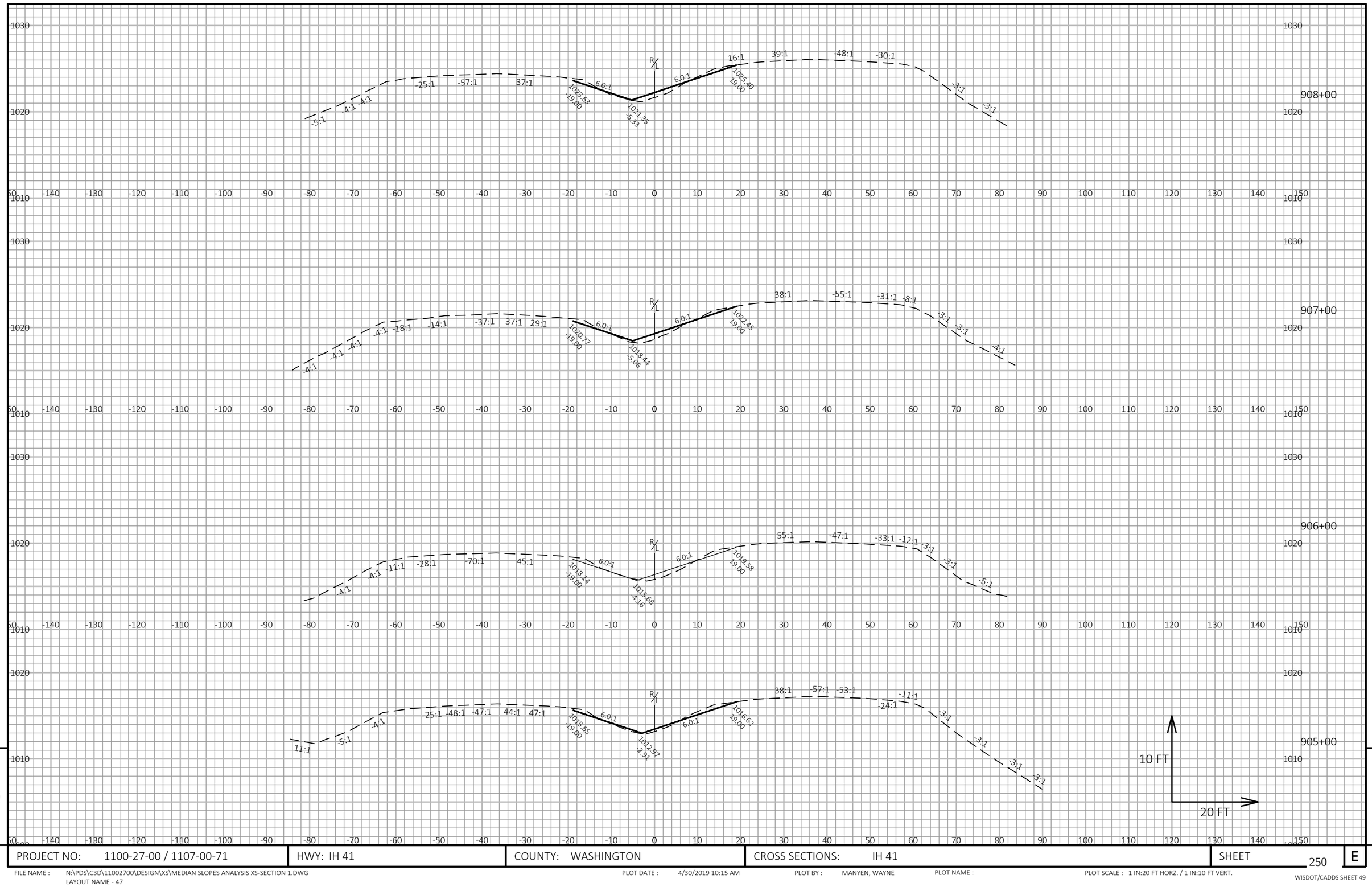
FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 46

PLOT DATE : 4/30/2019 10:15 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 250	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 47

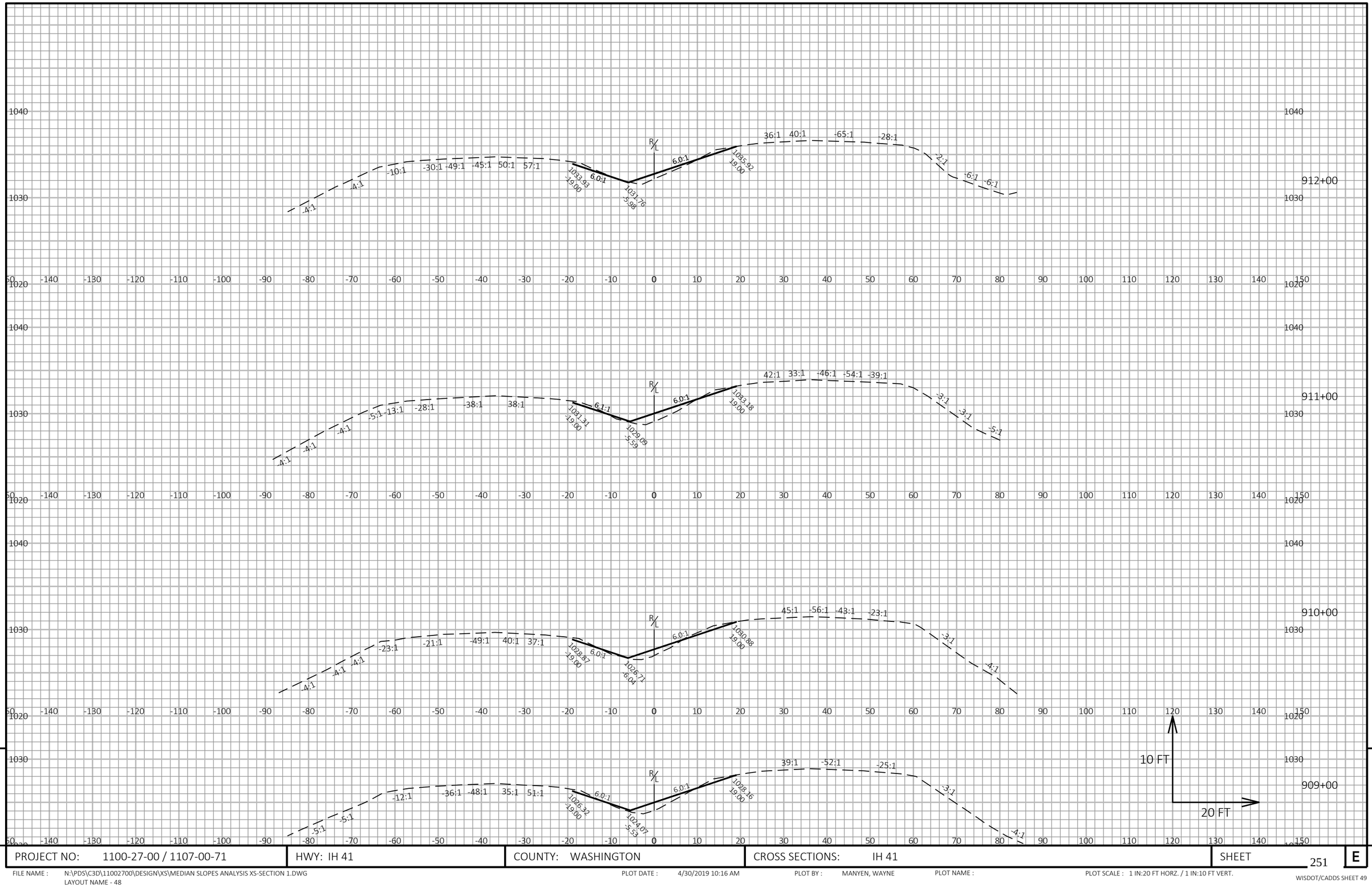
PLOT DATE : 4/30/2019 10:15 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 251	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 48

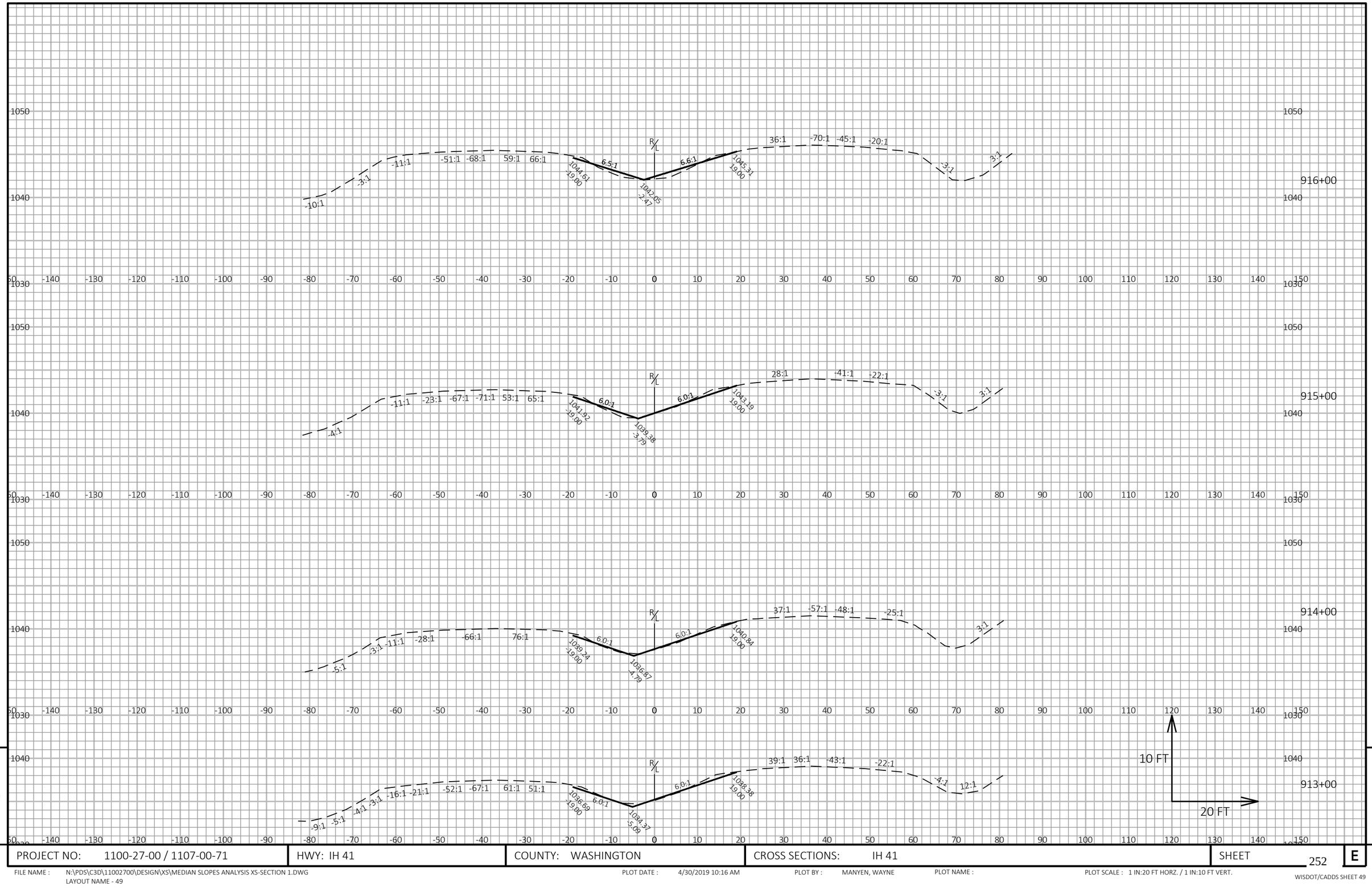
PLOT DATE : 4/30/2019 10:16 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

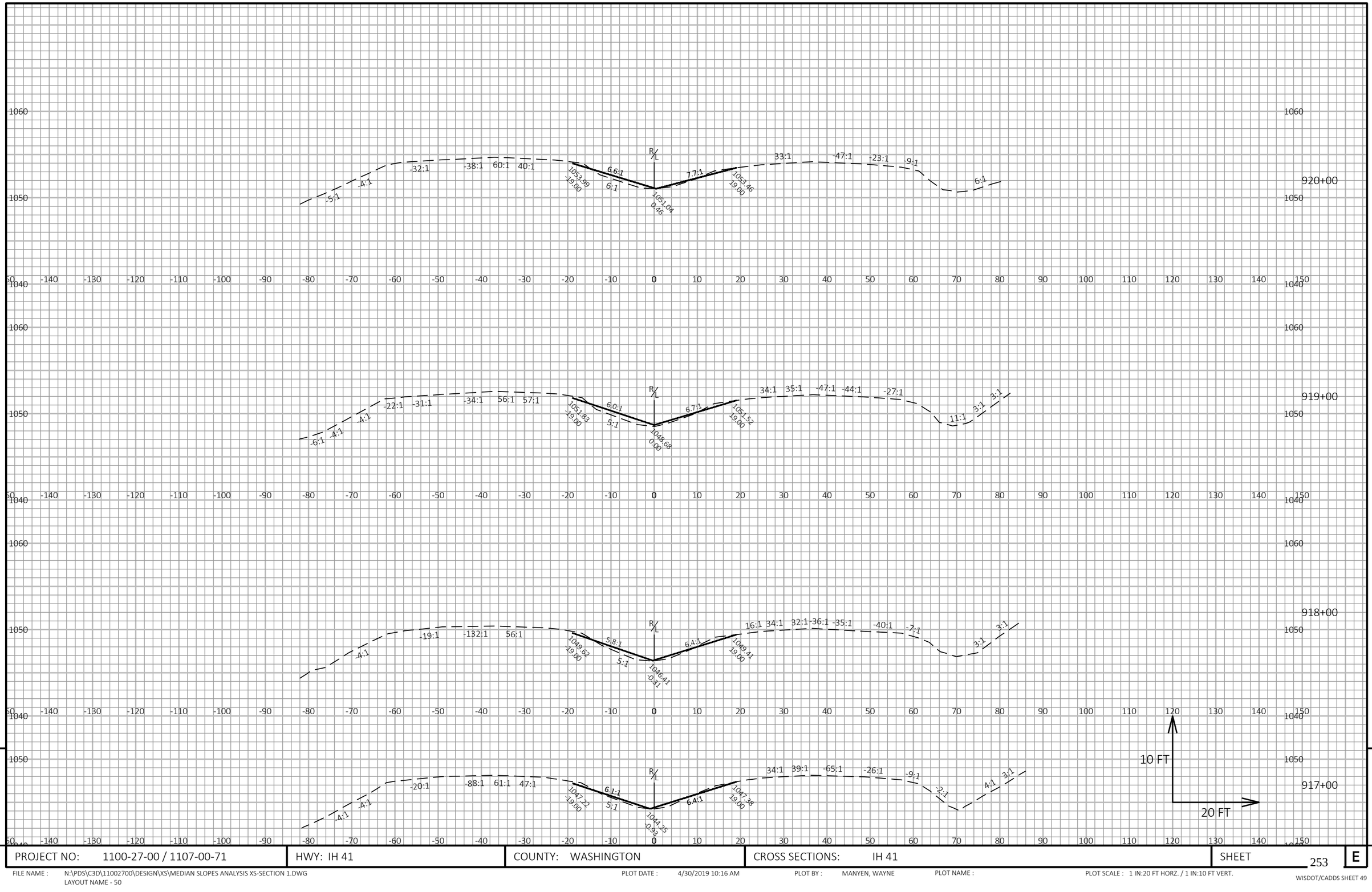


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 252 E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 49

PLOT DATE : 4/30/2019 10:16 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

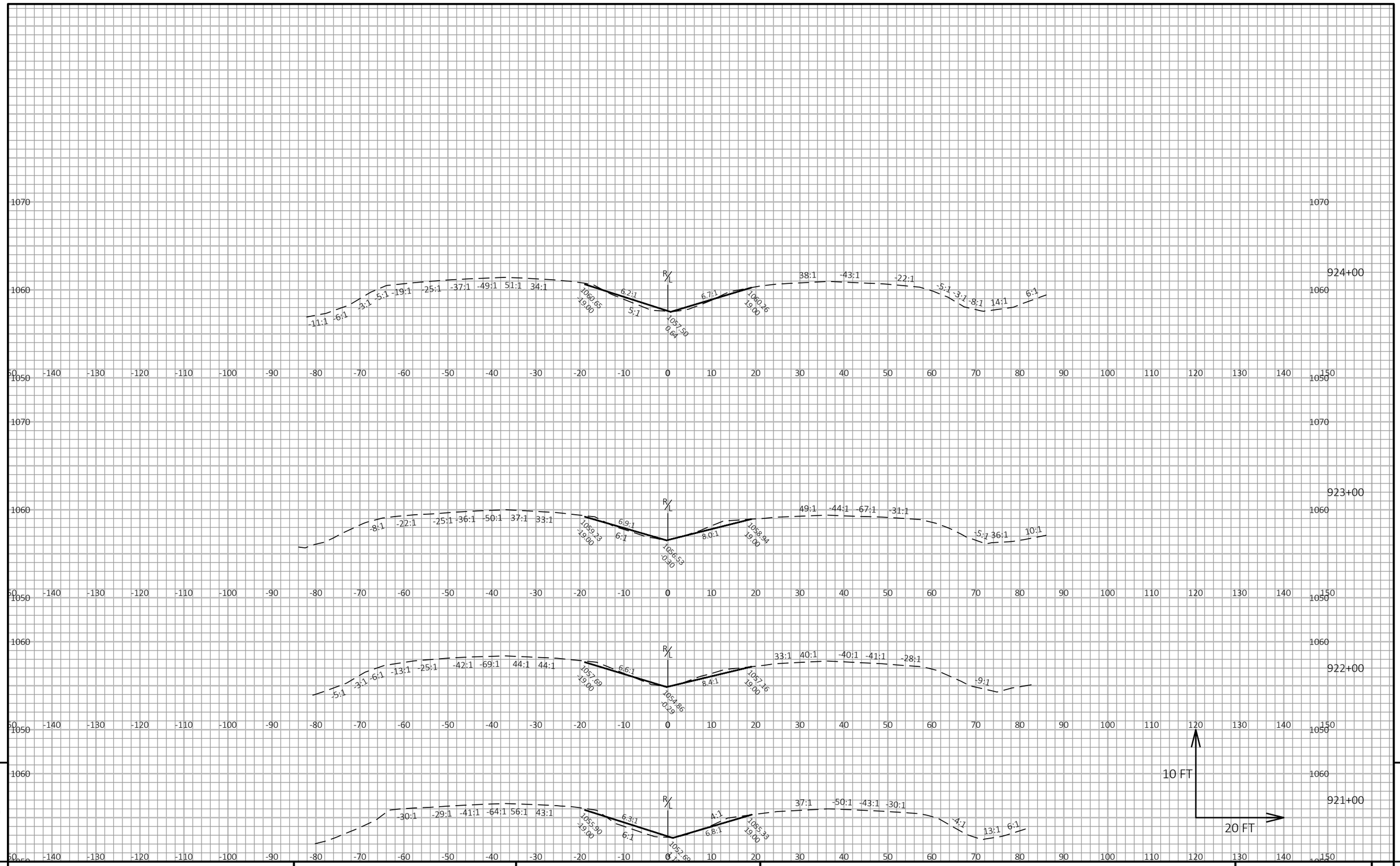


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 253	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 50

PLOT DATE : 4/30/2019 10:16 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

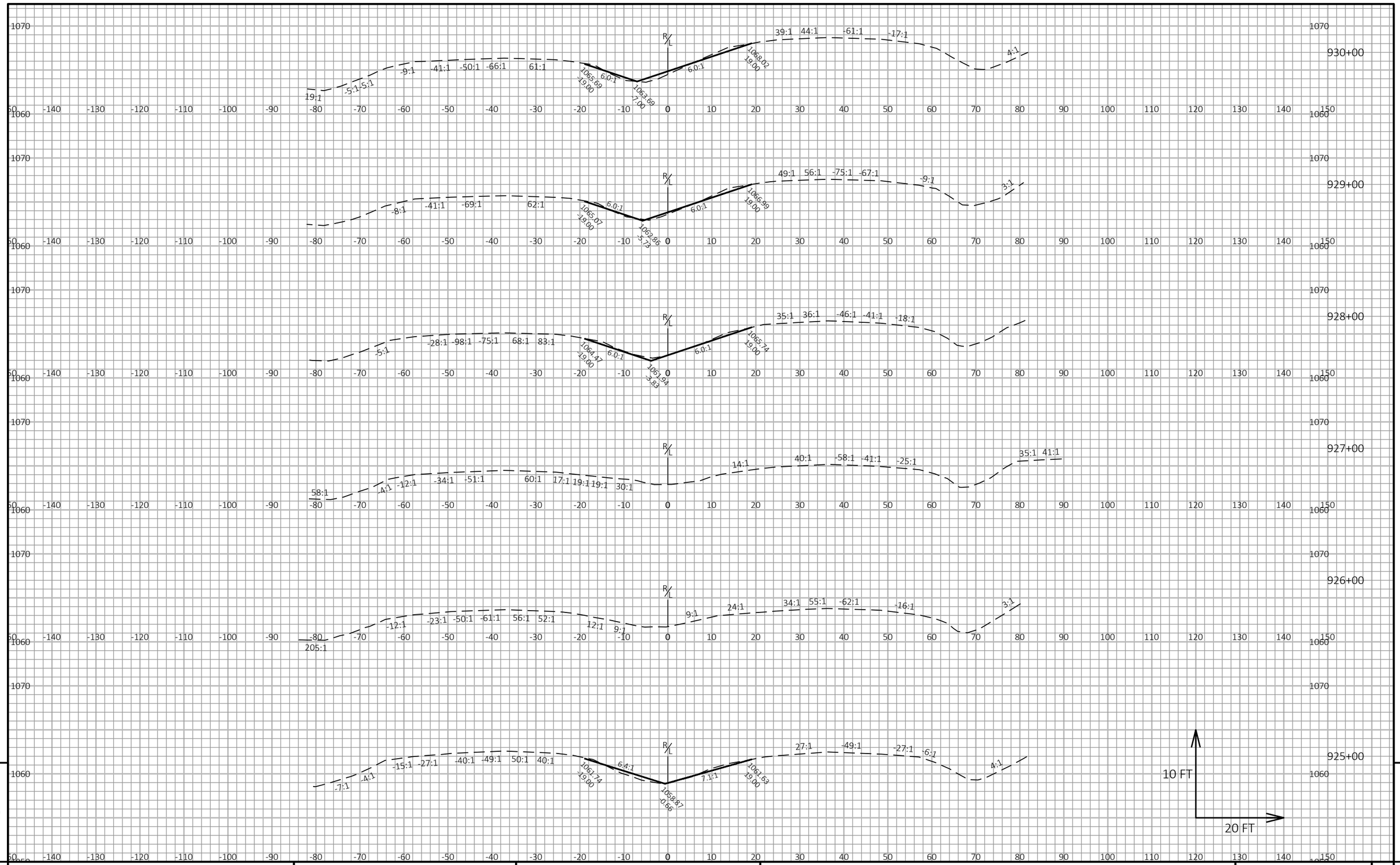


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 254	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 51

PLOT DATE : 4/30/2019 10:17 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

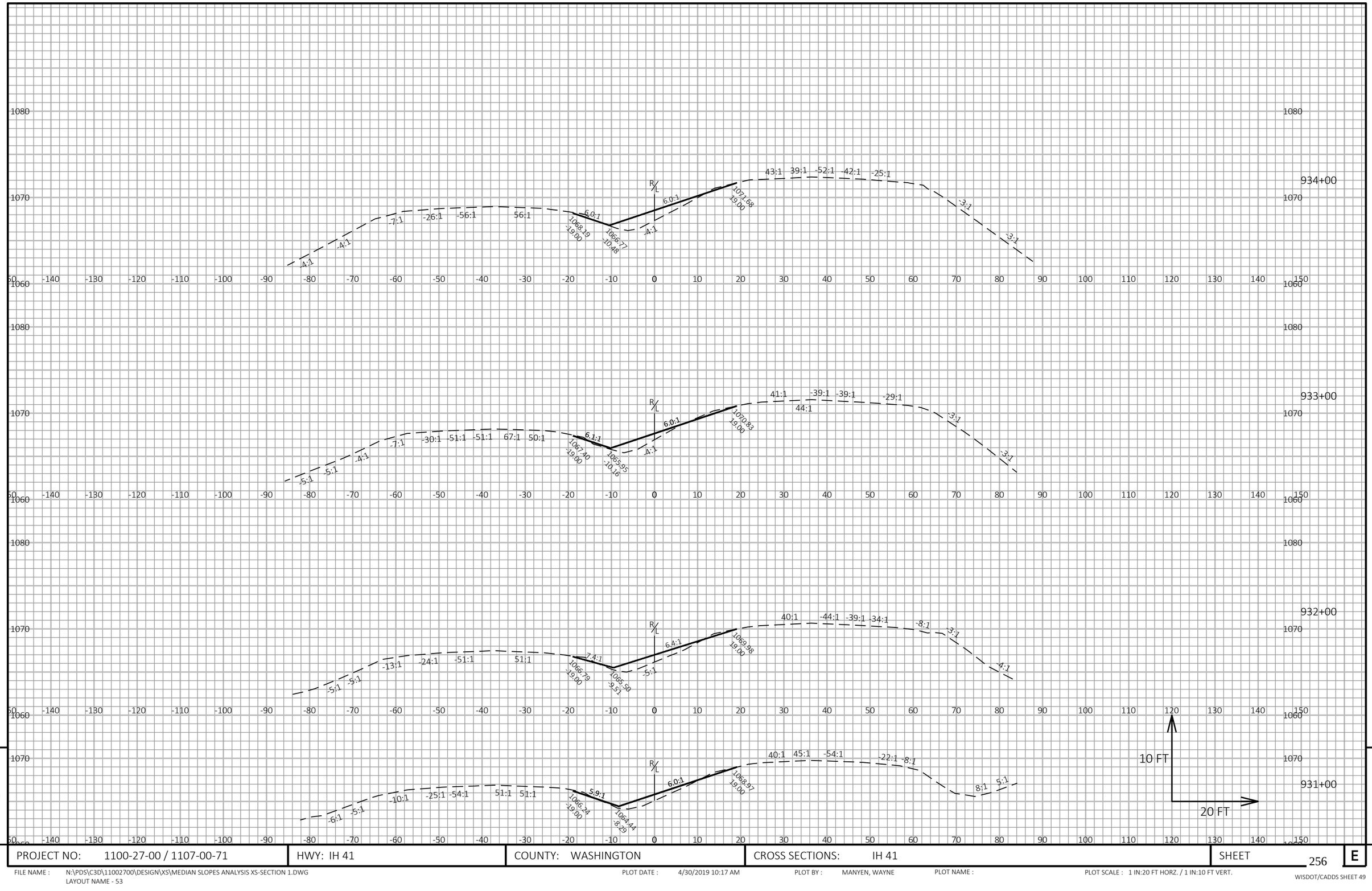


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 255 E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 52

PLOT DATE : 4/30/2019 10:17 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 256 E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 53

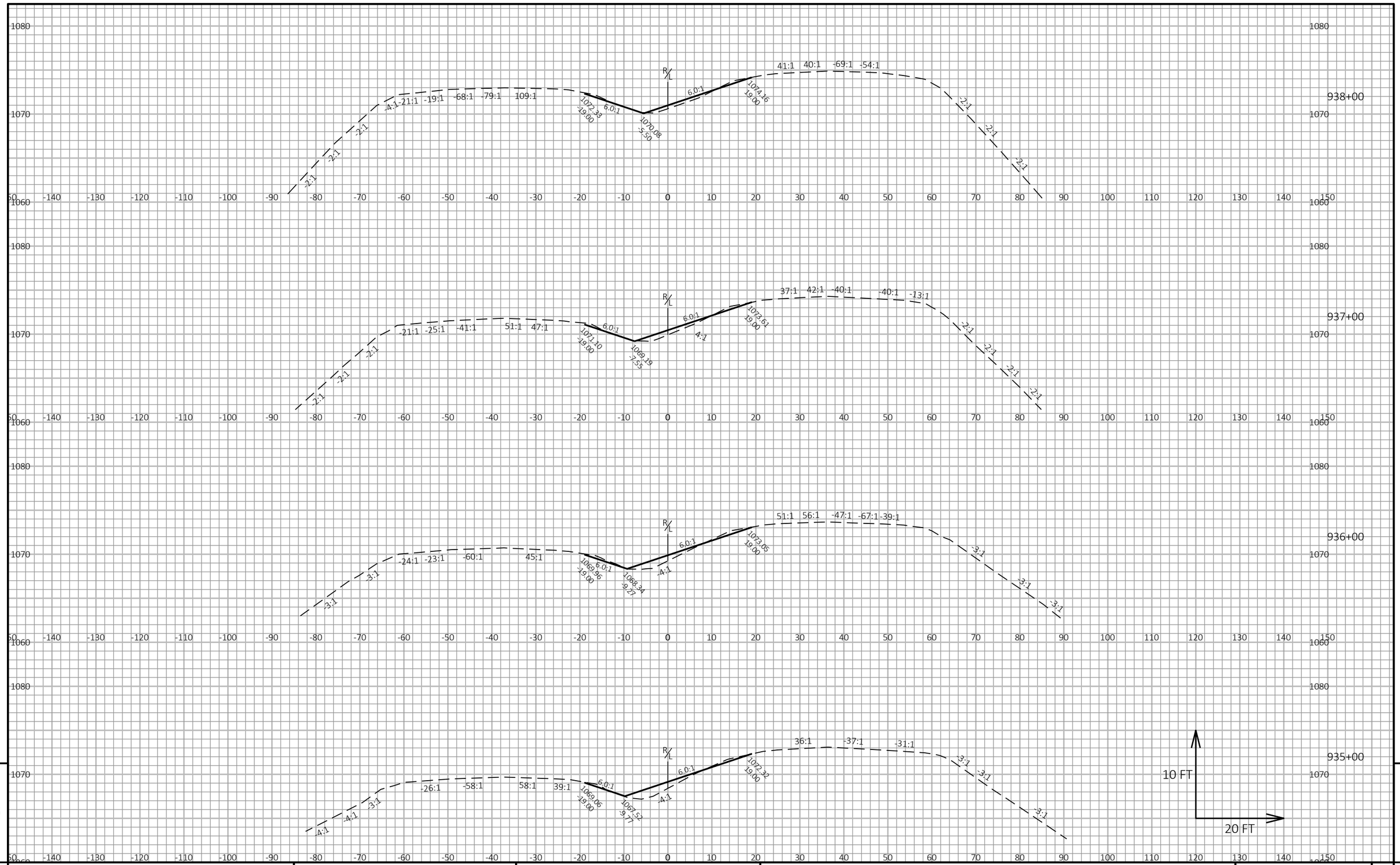
PLOT DATE : 4/30/2019 10:17 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

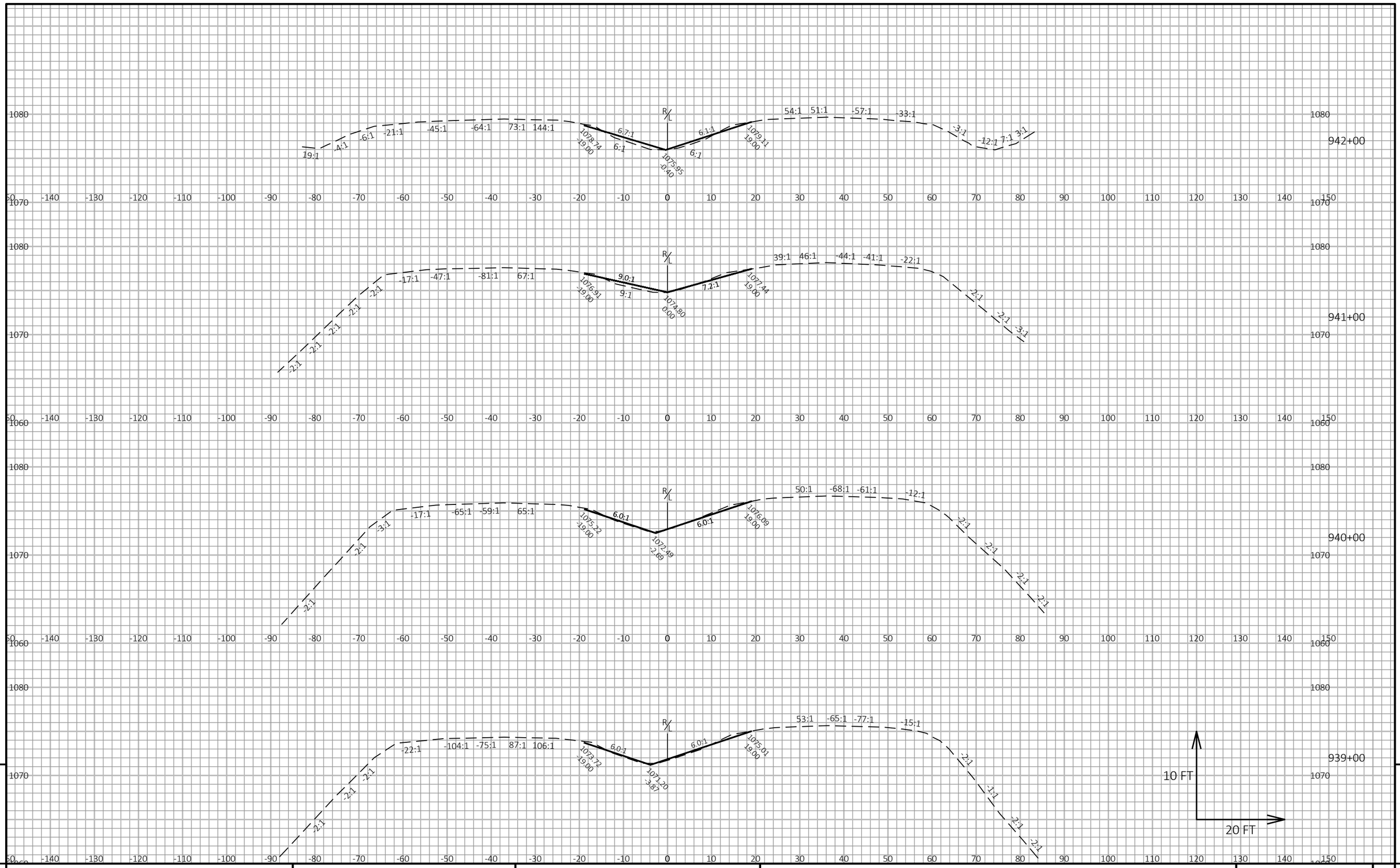


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 257 E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 54

PLOT DATE : 4/30/2019 10:17 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

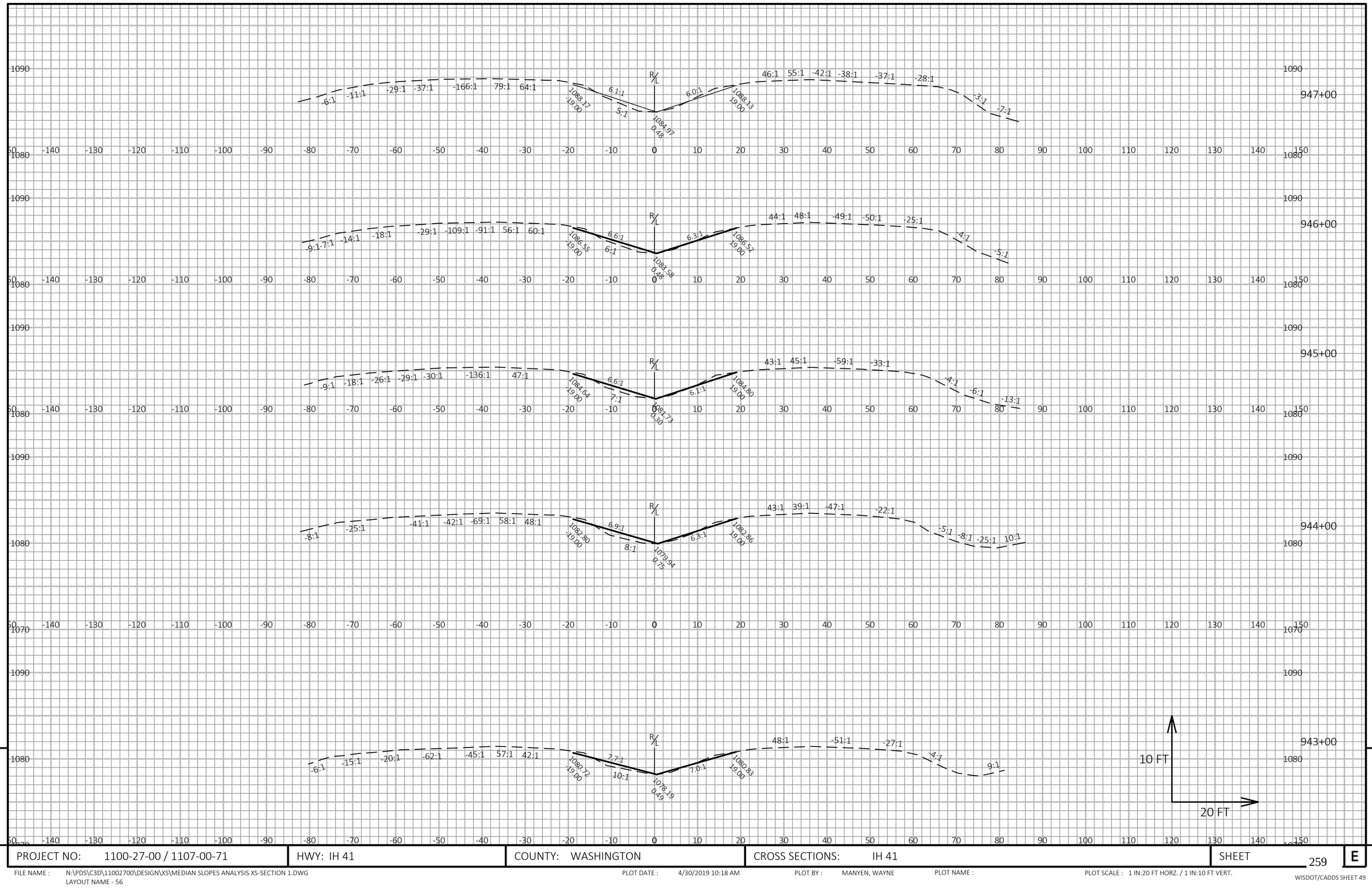


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 258 E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 55

PLOT DATE : 4/30/2019 10:18 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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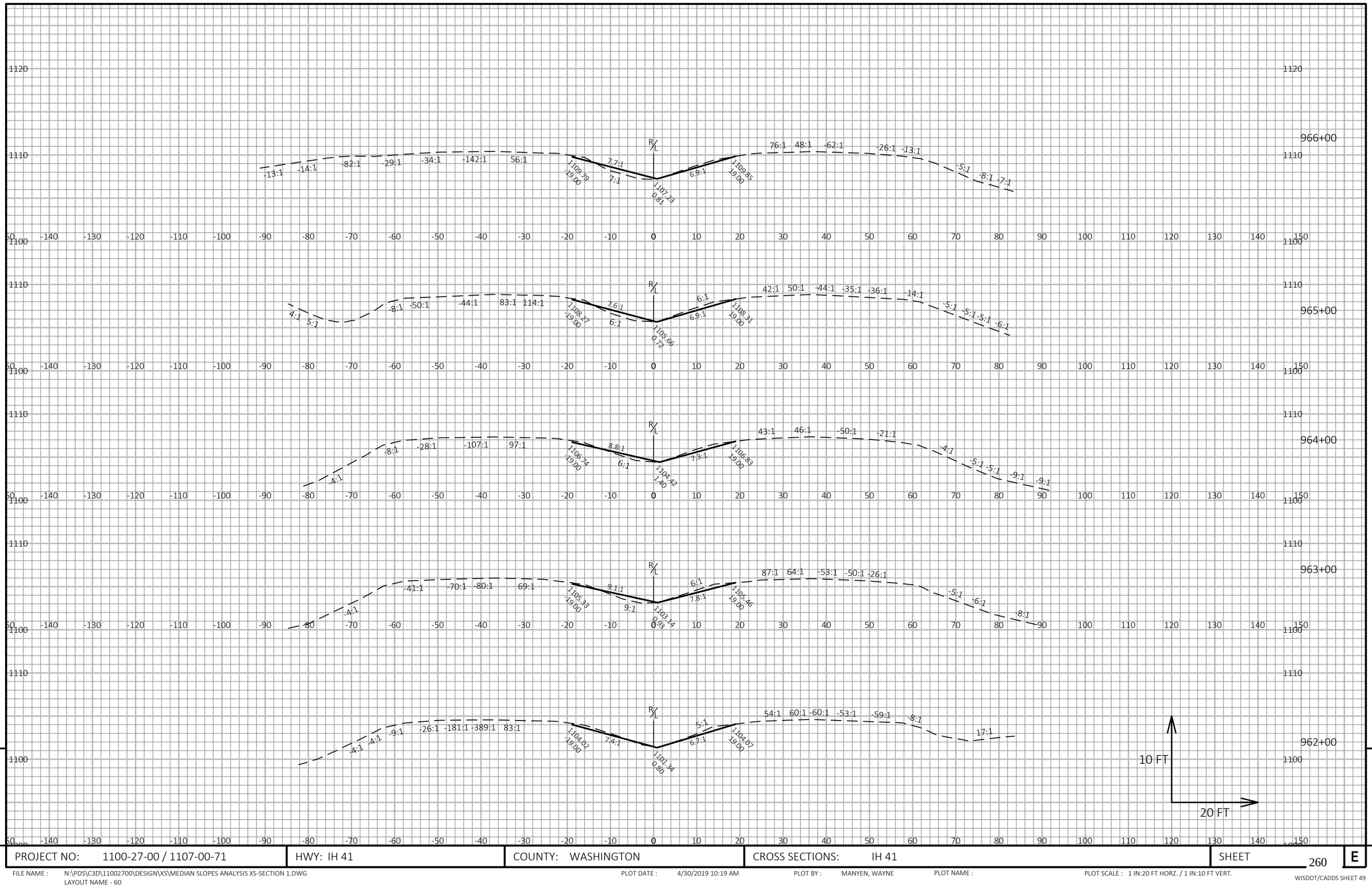
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 259	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 56

PLOT DATE : 4/30/2019 10:18 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 260	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 60

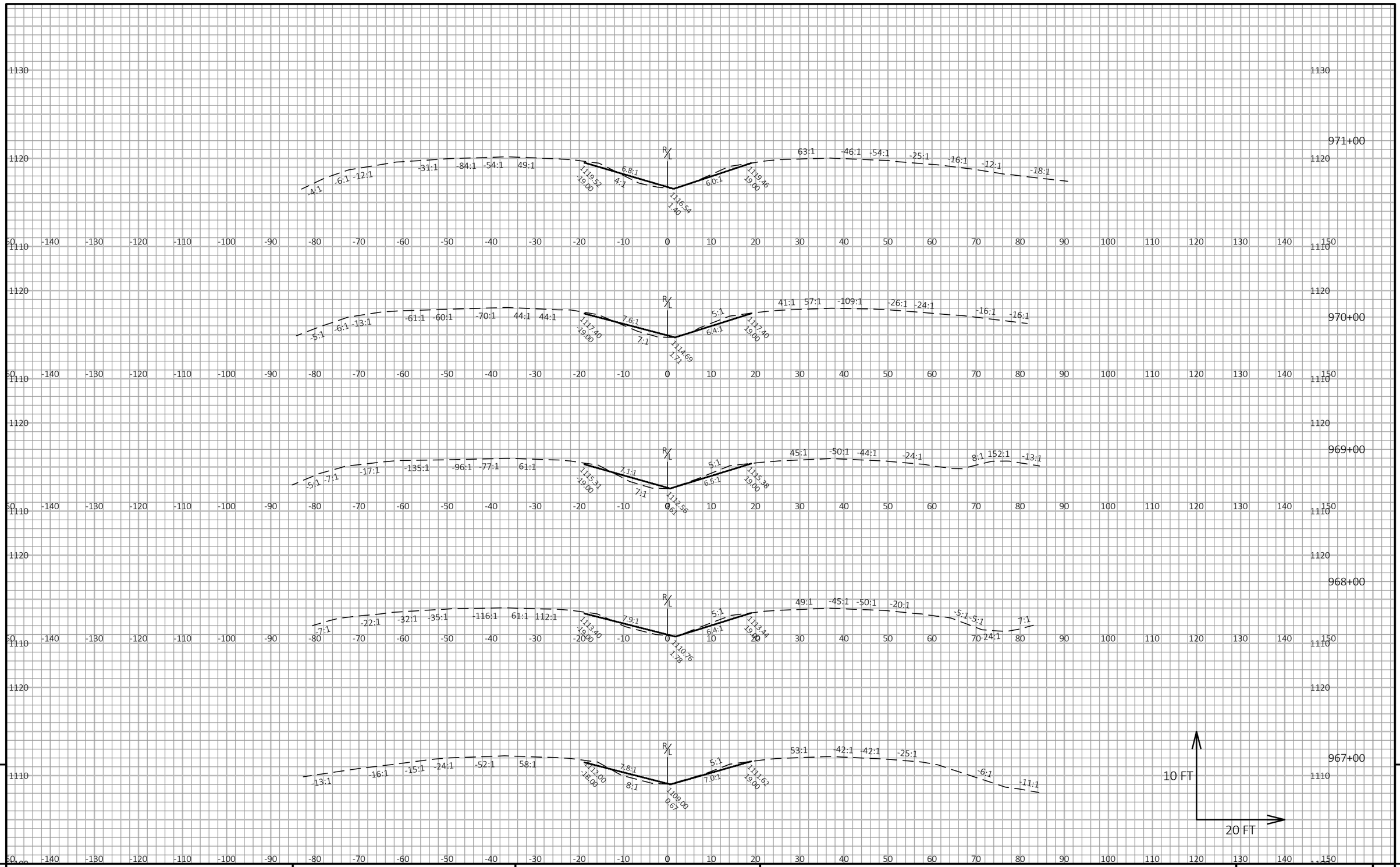
PLOT DATE : 4/30/2019 10:19 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 261	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 61

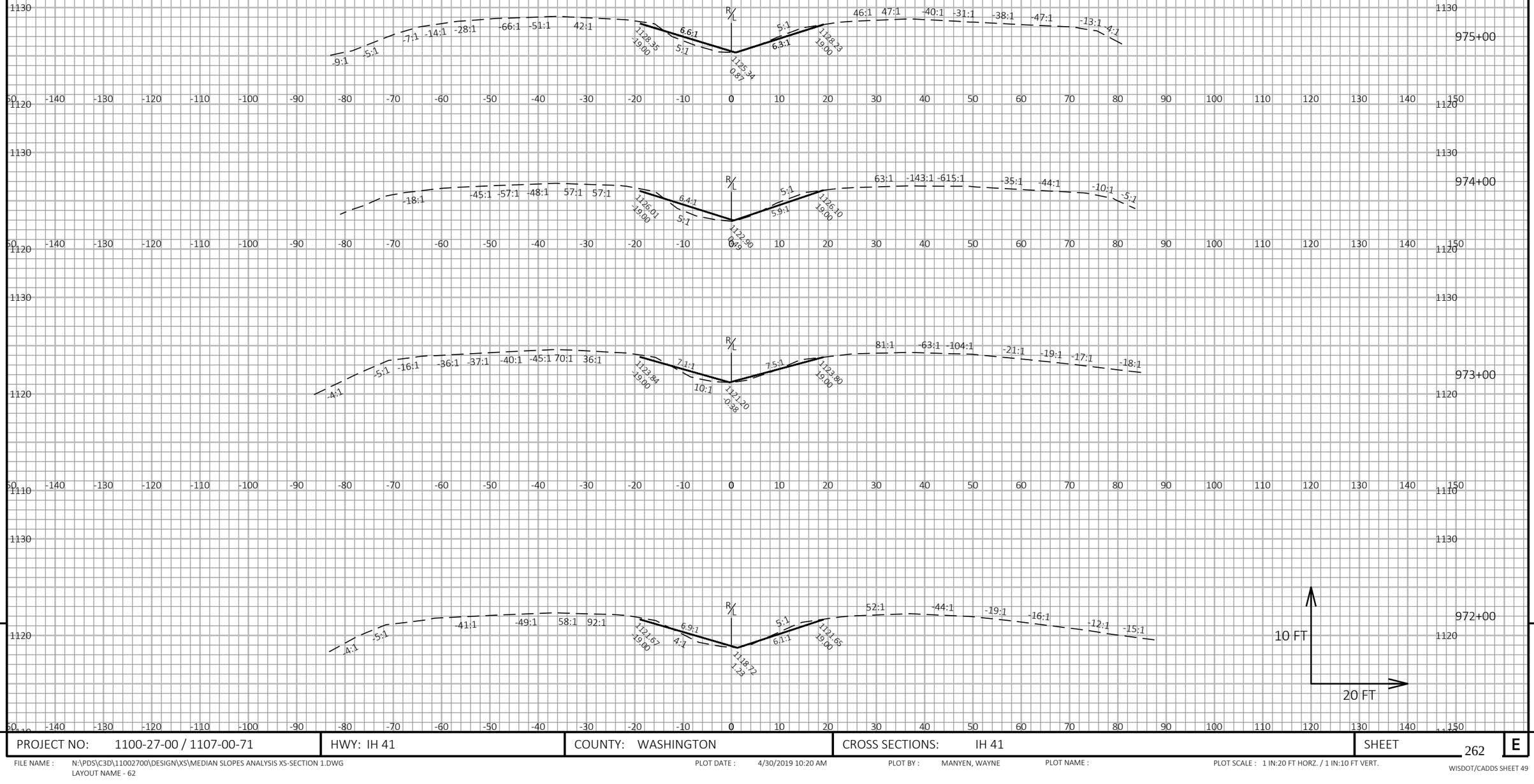
PLOT DATE : 4/30/2019 10:20 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 262	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 62

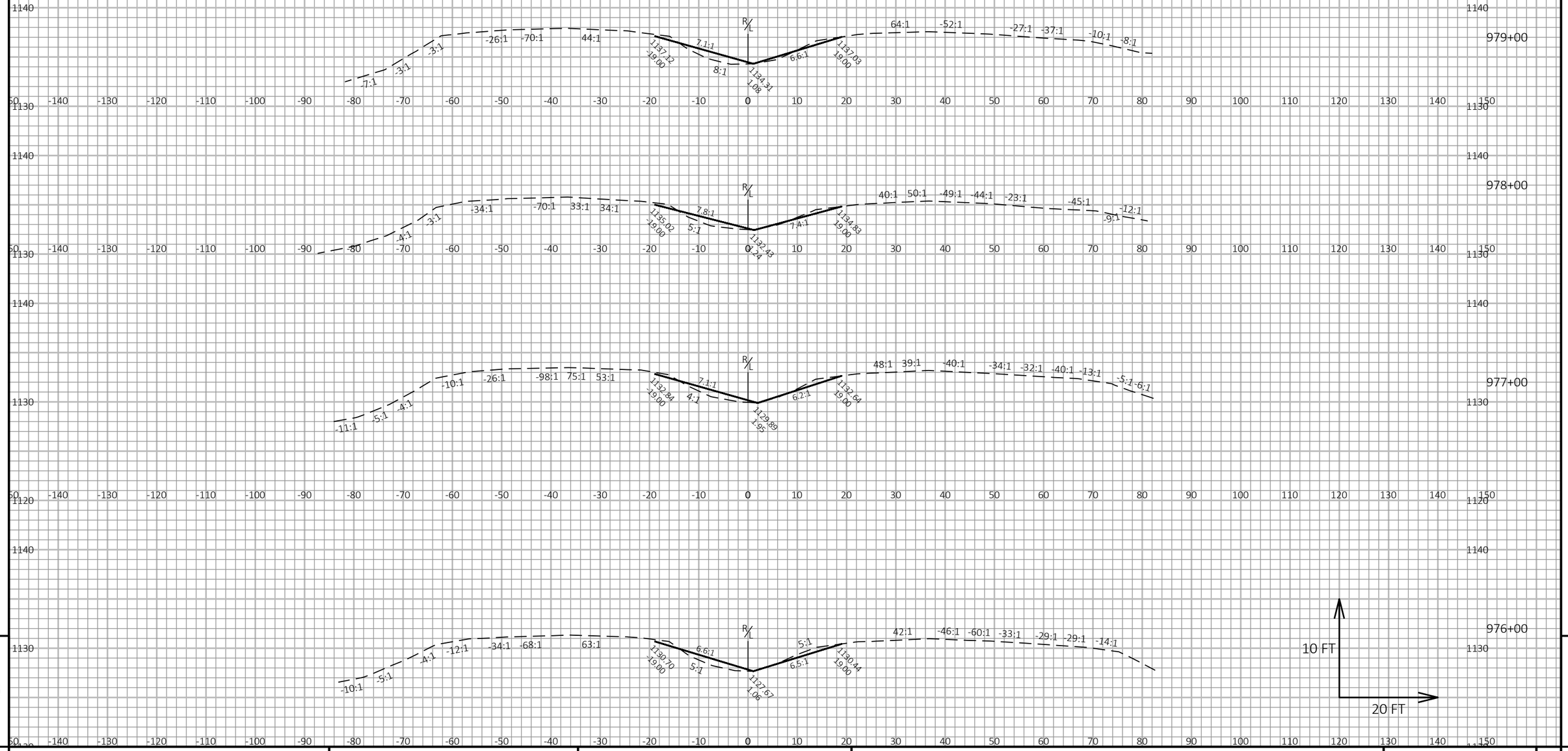
PLOT DATE : 4/30/2019 10:20 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

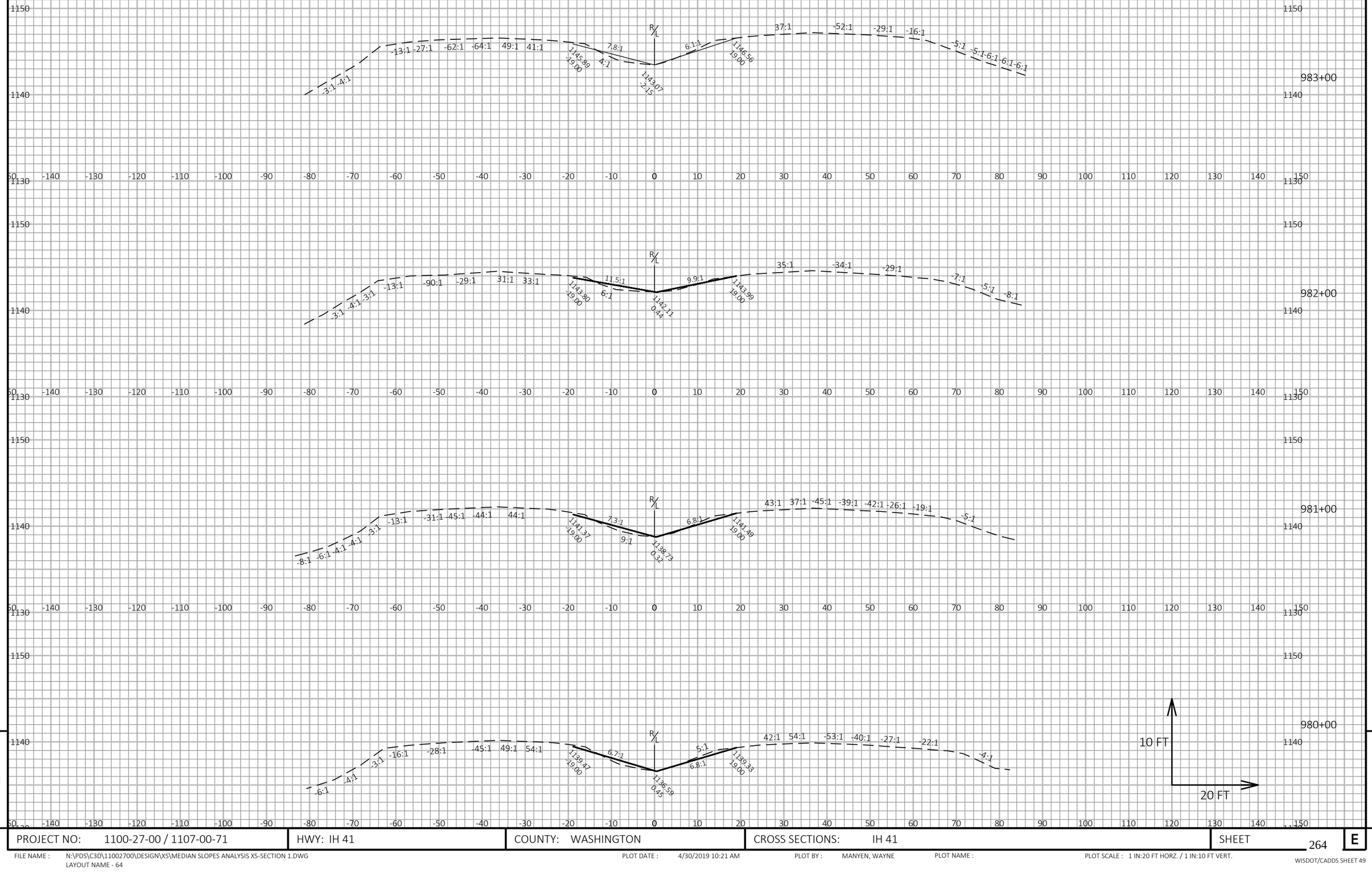


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 263 E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 63

PLOT DATE : 4/30/2019 10:20 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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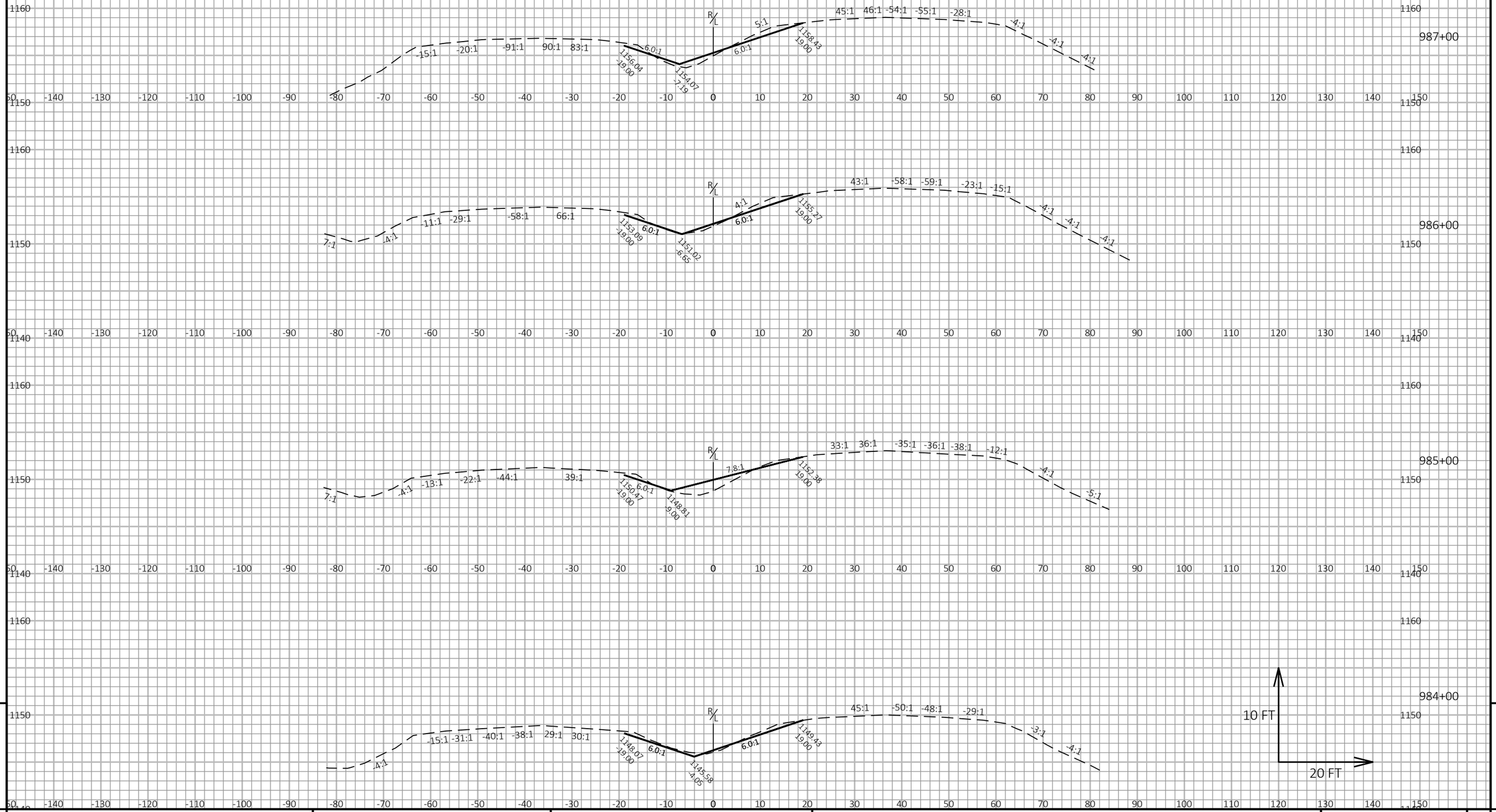
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 264	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 64

PLOT DATE : 4/30/2019 10:21 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

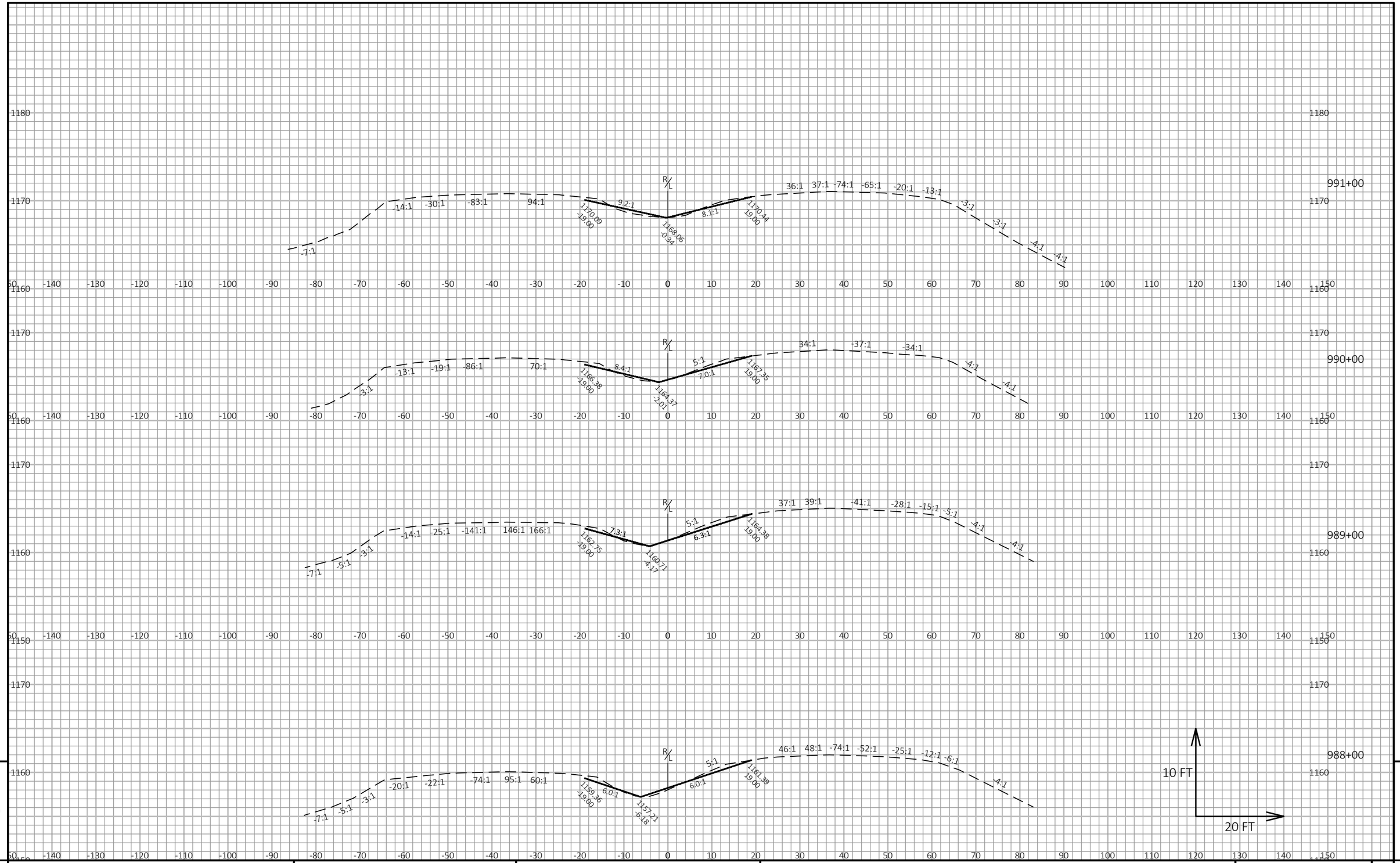


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 265	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 65

PLOT DATE : 4/30/2019 10:21 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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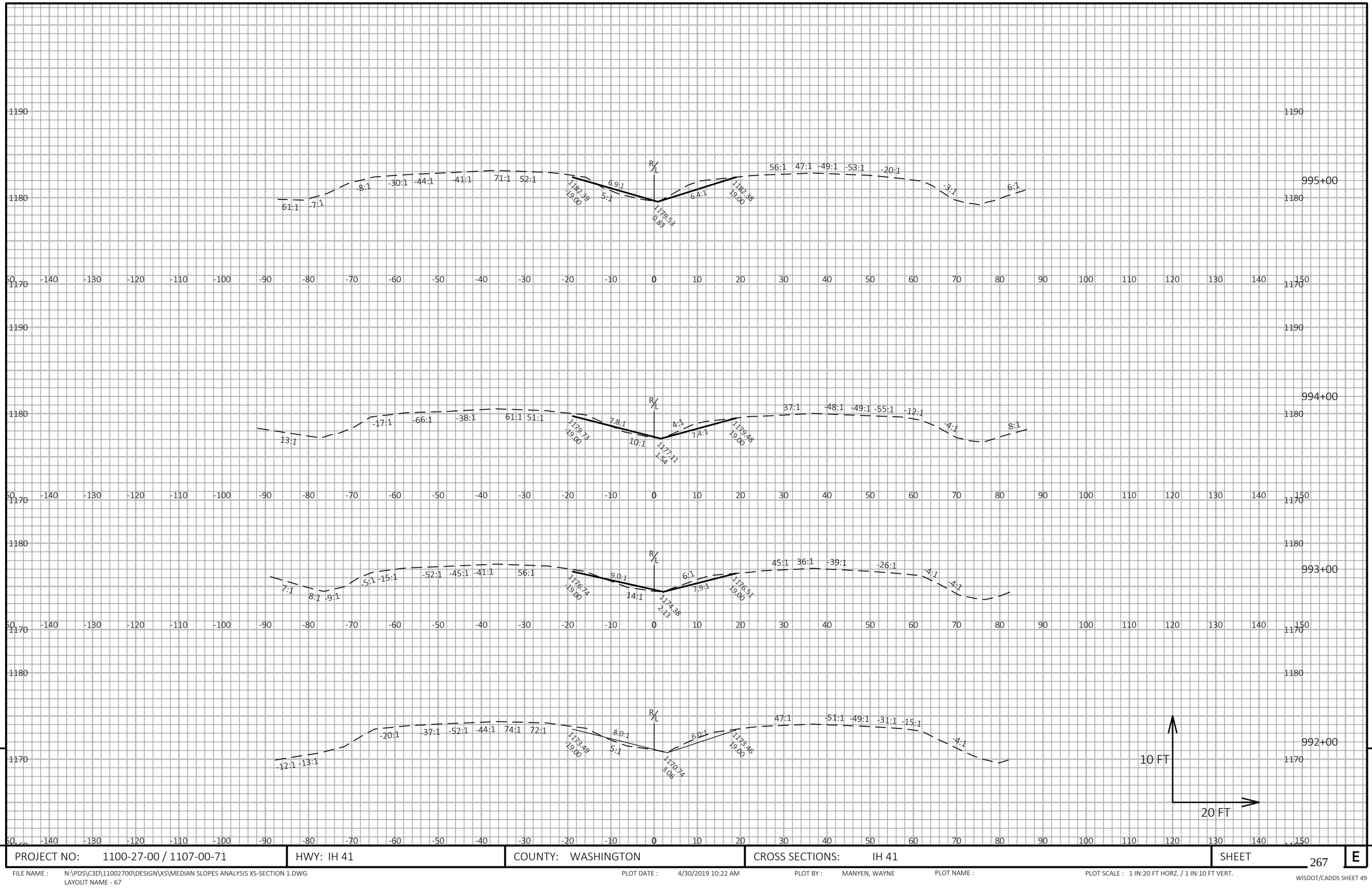
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 266	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 66

PLOT DATE : 4/30/2019 10:21 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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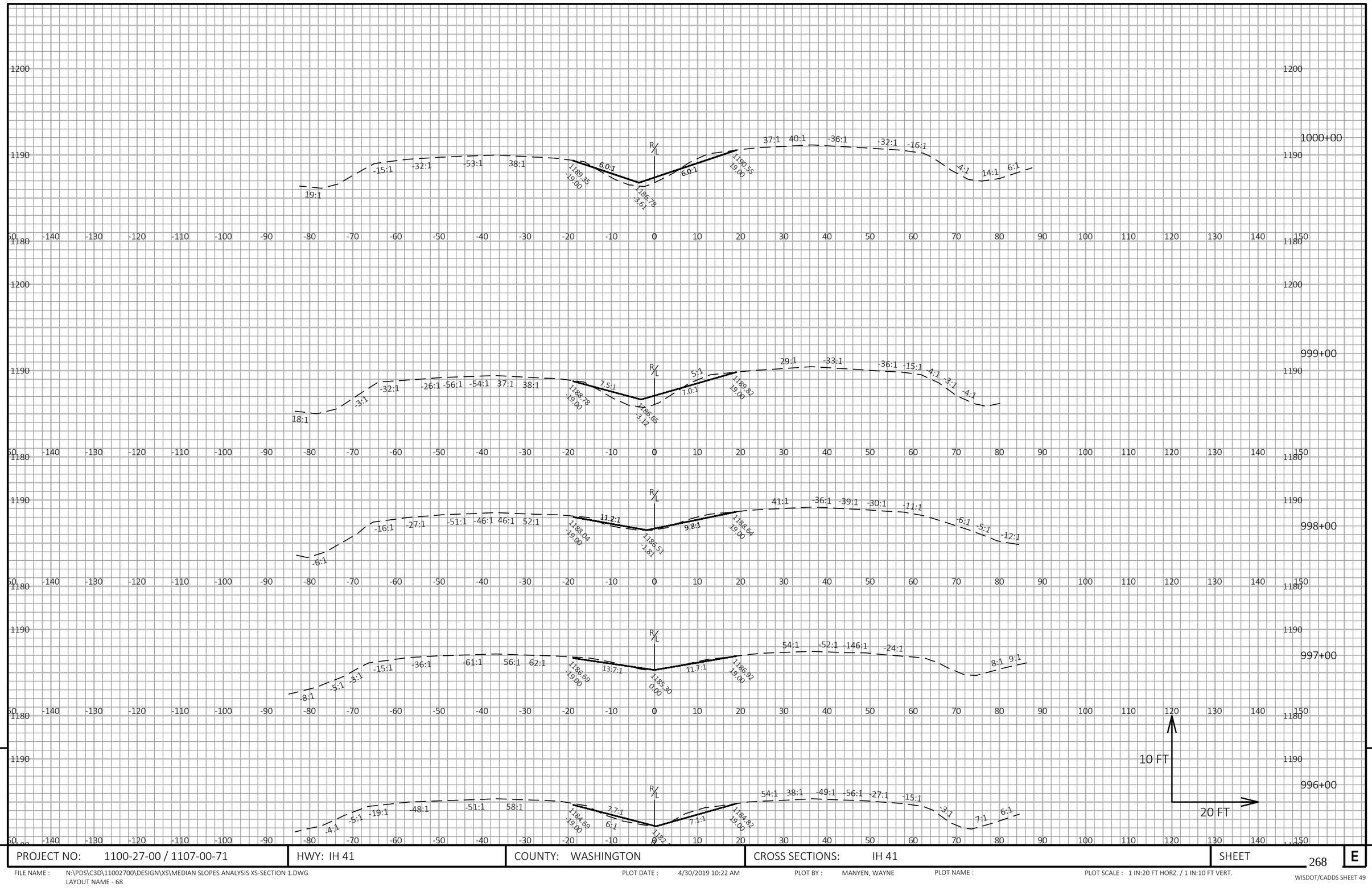
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 267	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 67

PLOT DATE : 4/30/2019 10:22 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

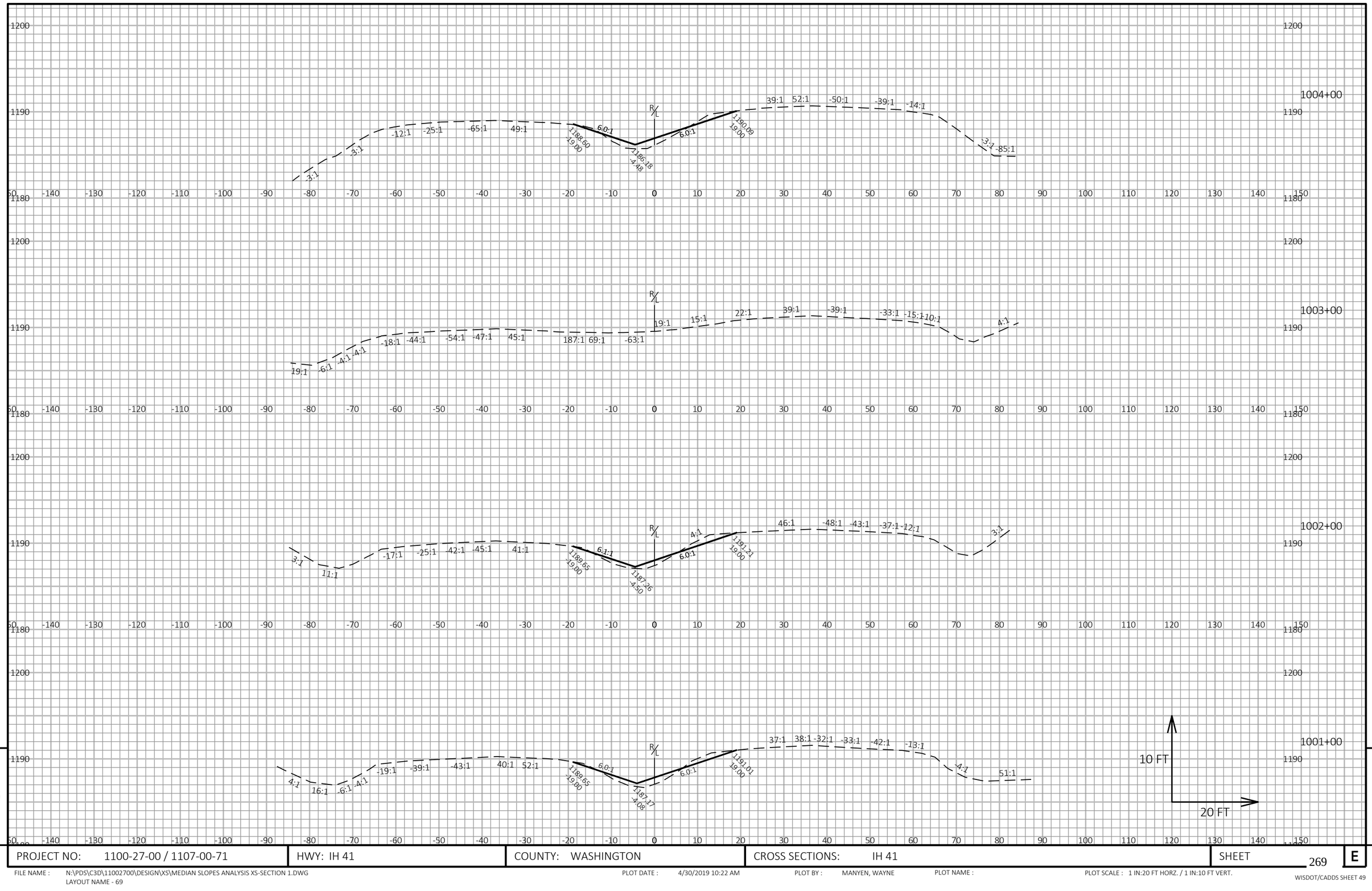


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 268 E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 68

PLOT DATE : 4/30/2019 10:22 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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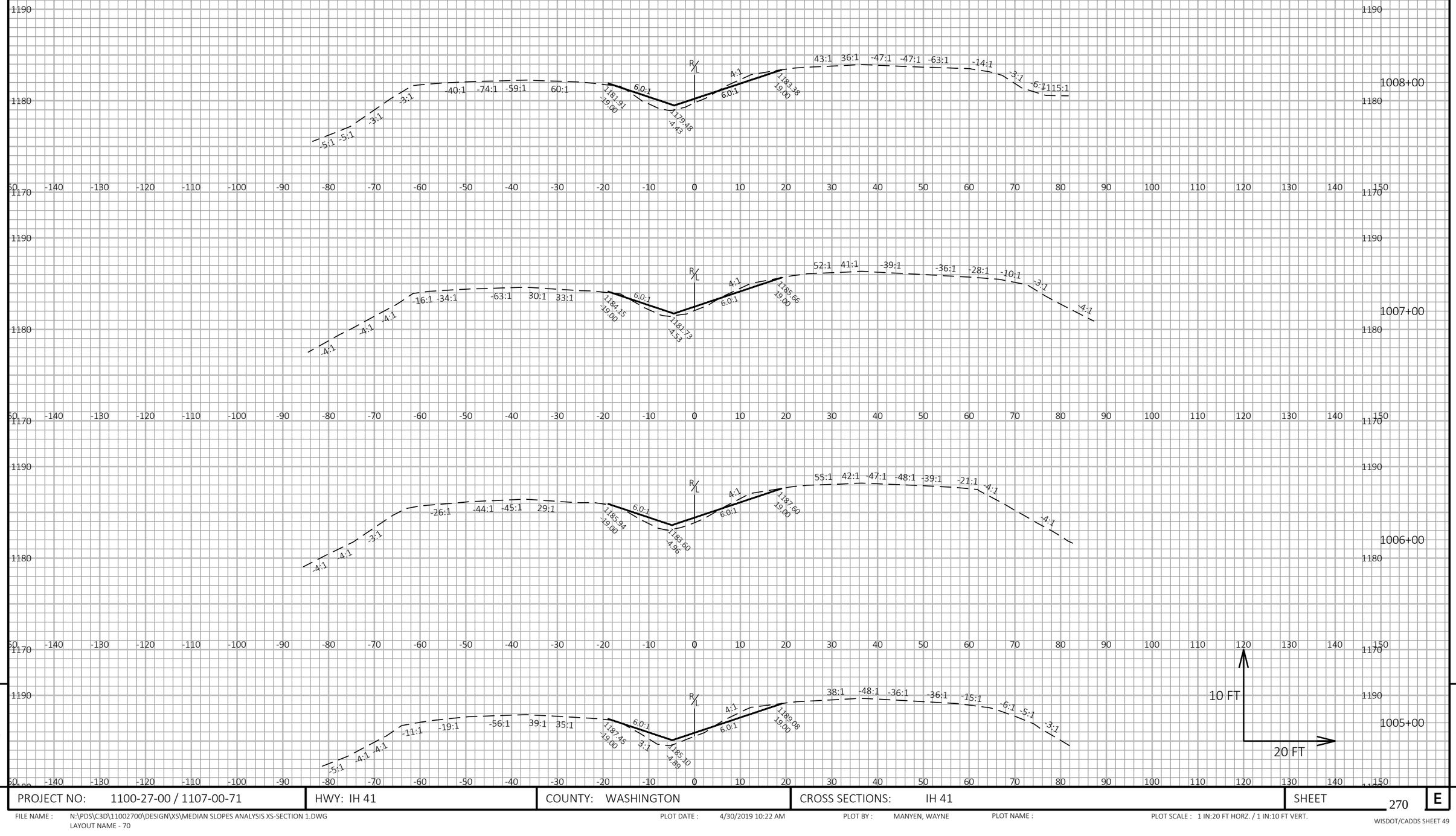
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 269	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 69

PLOT DATE : 4/30/2019 10:22 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 270	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 70

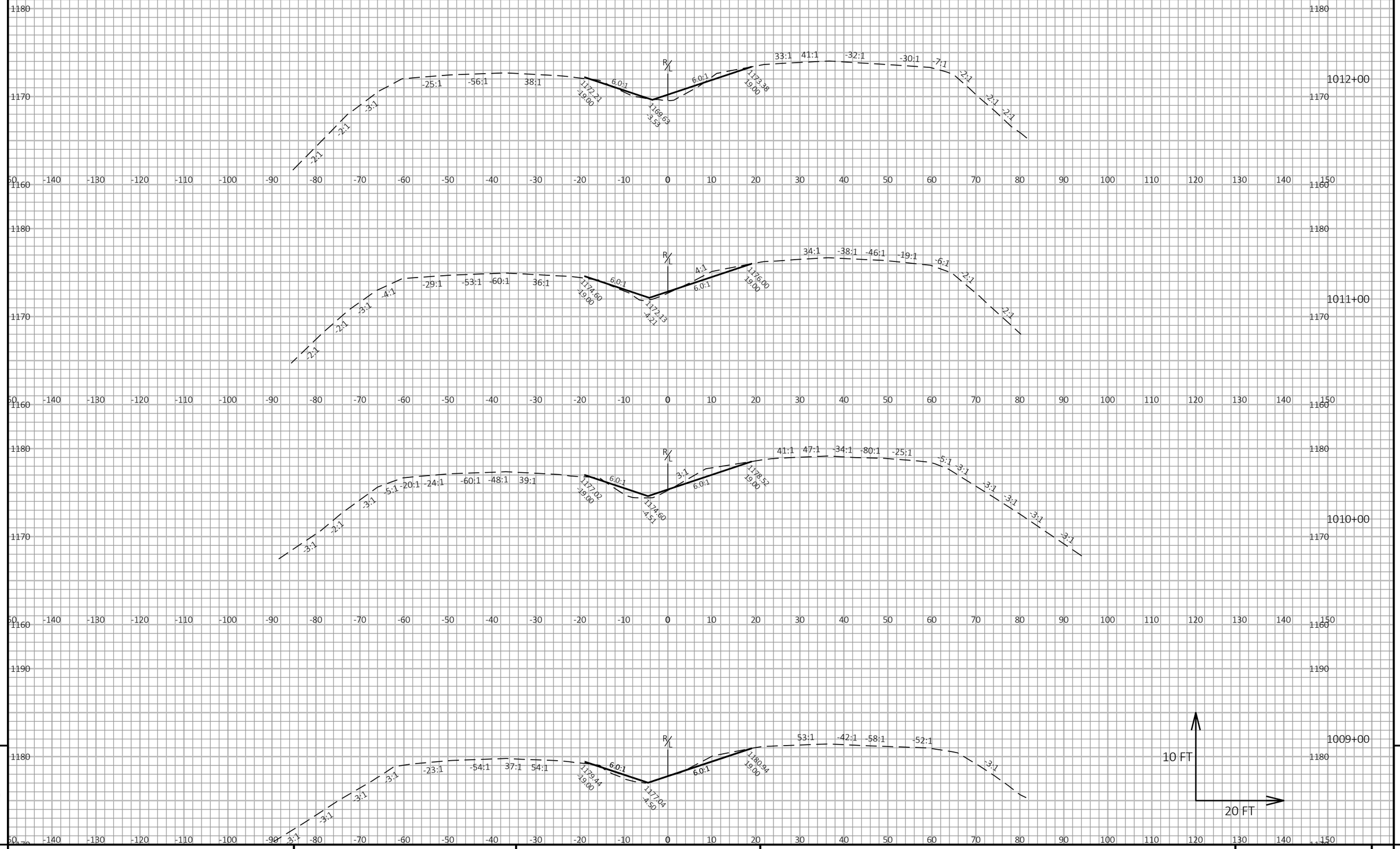
PLOT DATE : 4/30/2019 10:22 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

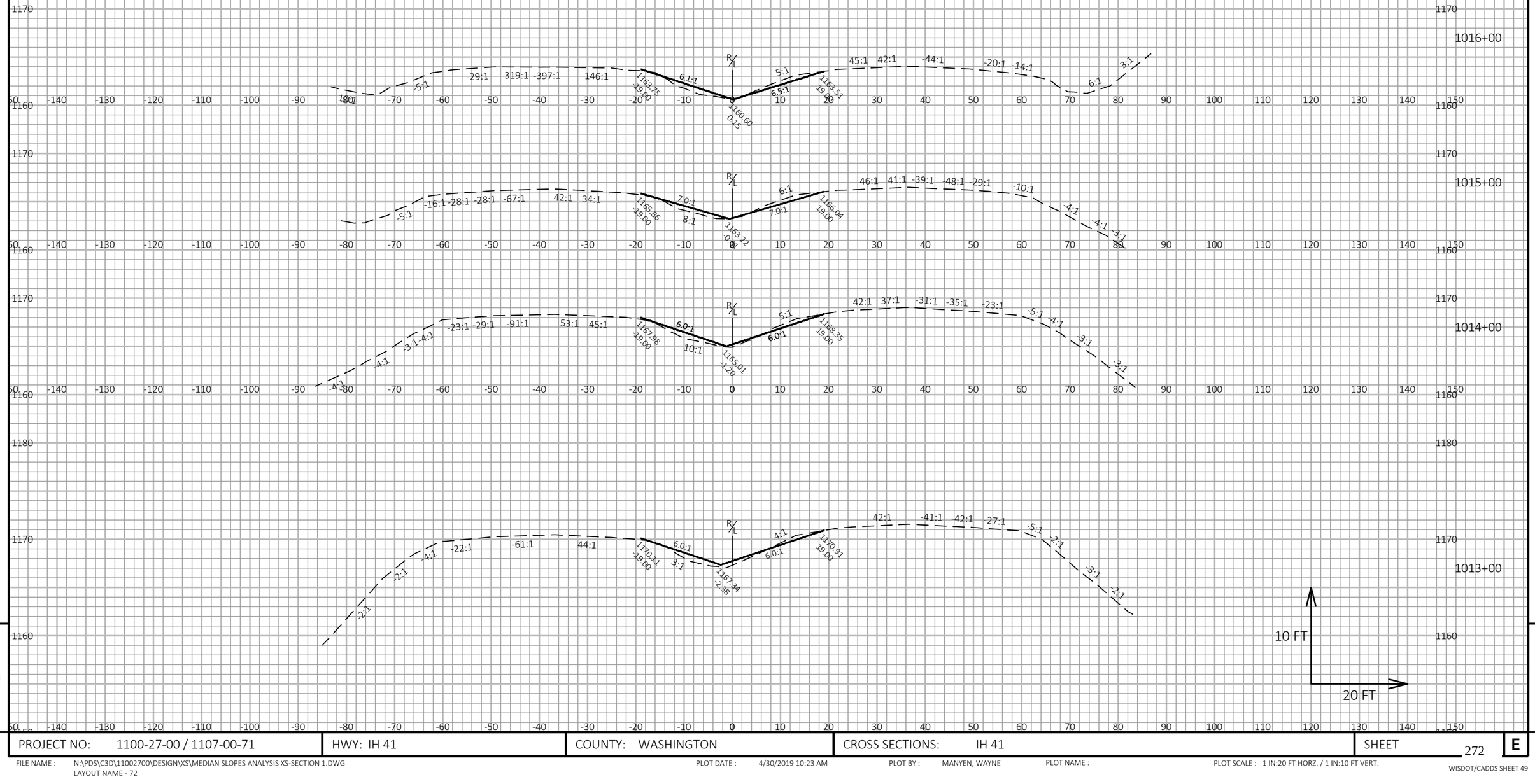


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 271 E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 71

PLOT DATE : 4/30/2019 10:23 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 272	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 72

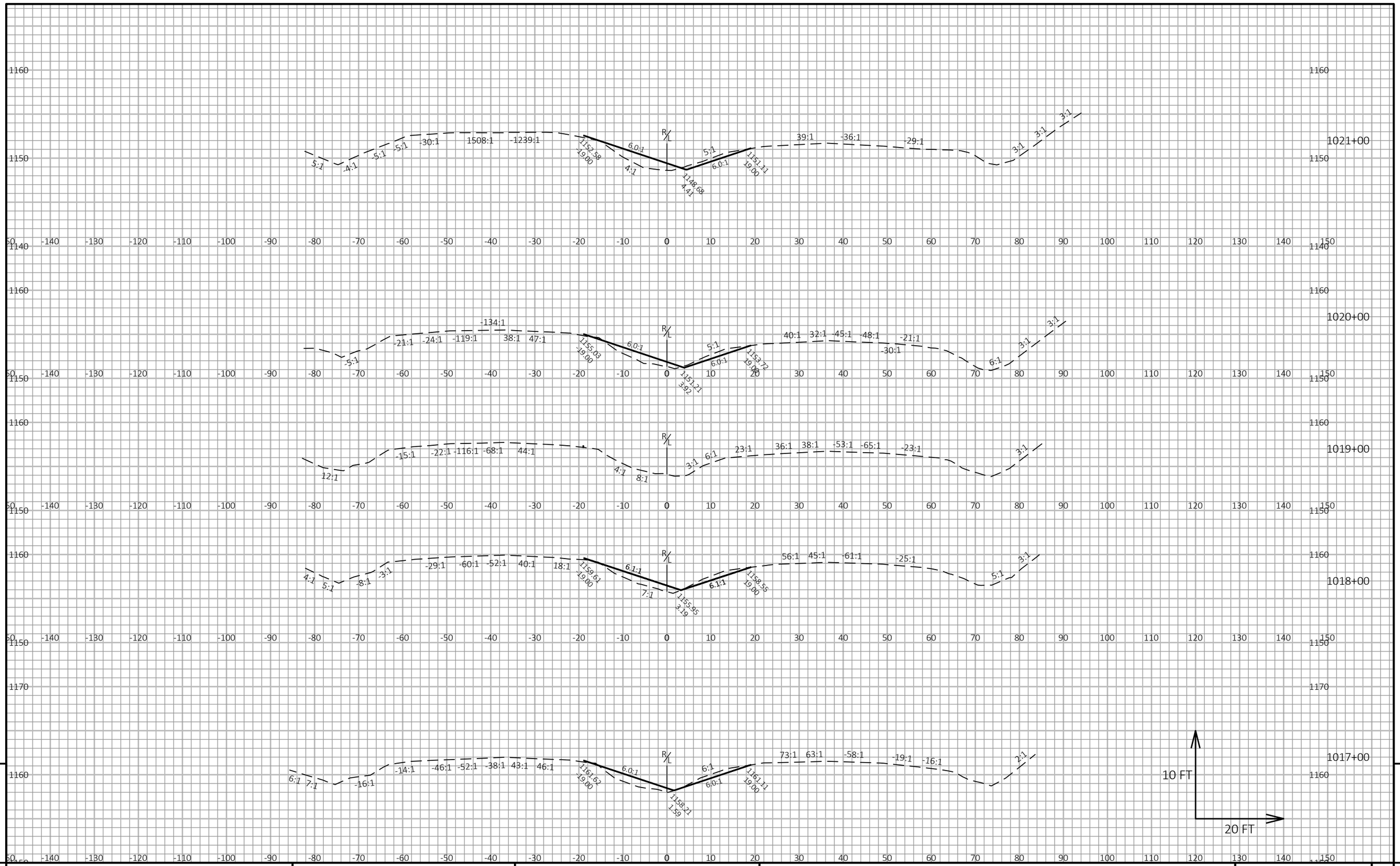
PLOT DATE : 4/30/2019 10:23 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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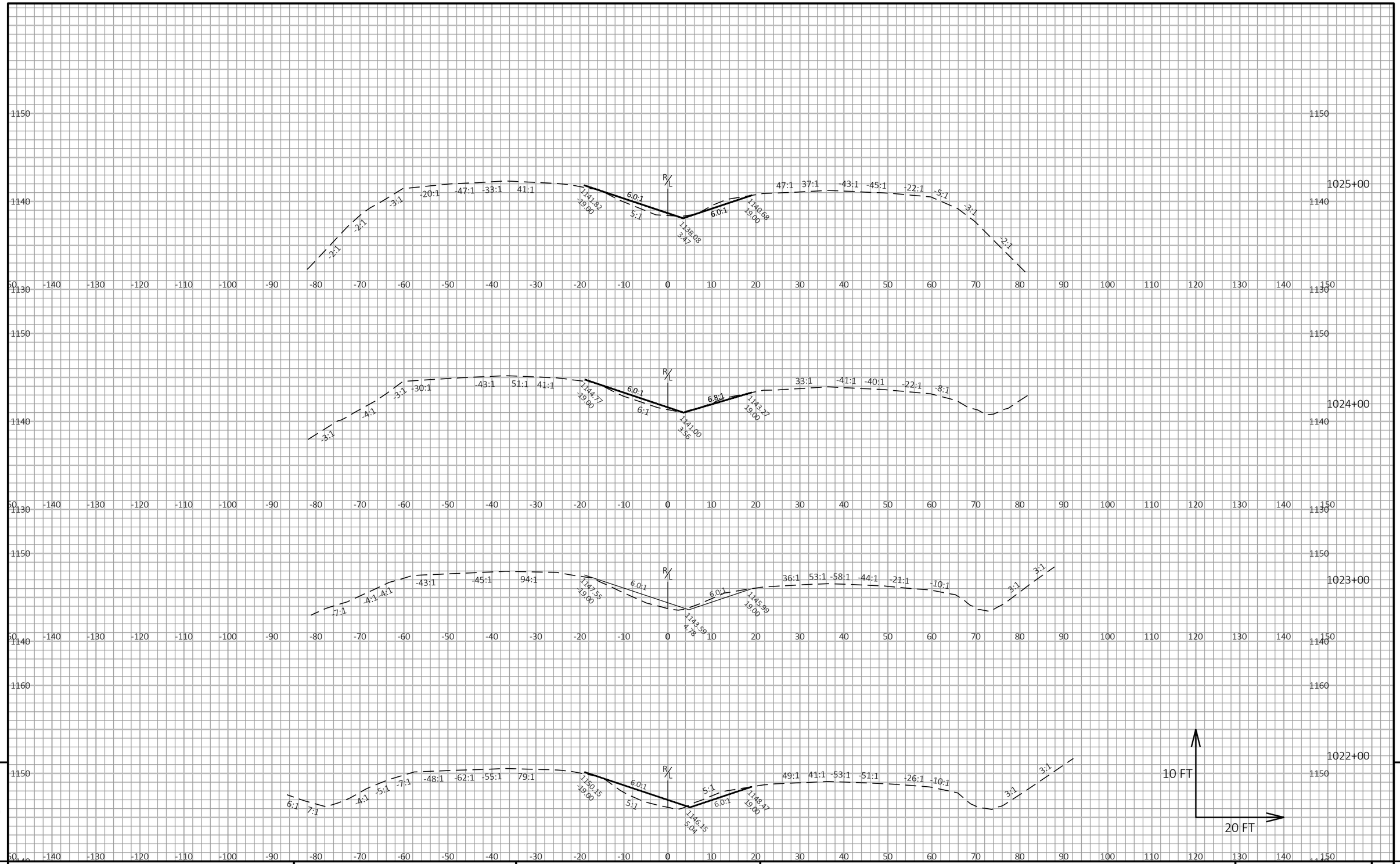
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 273	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 73

PLOT DATE : 4/30/2019 10:23 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 274	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 74

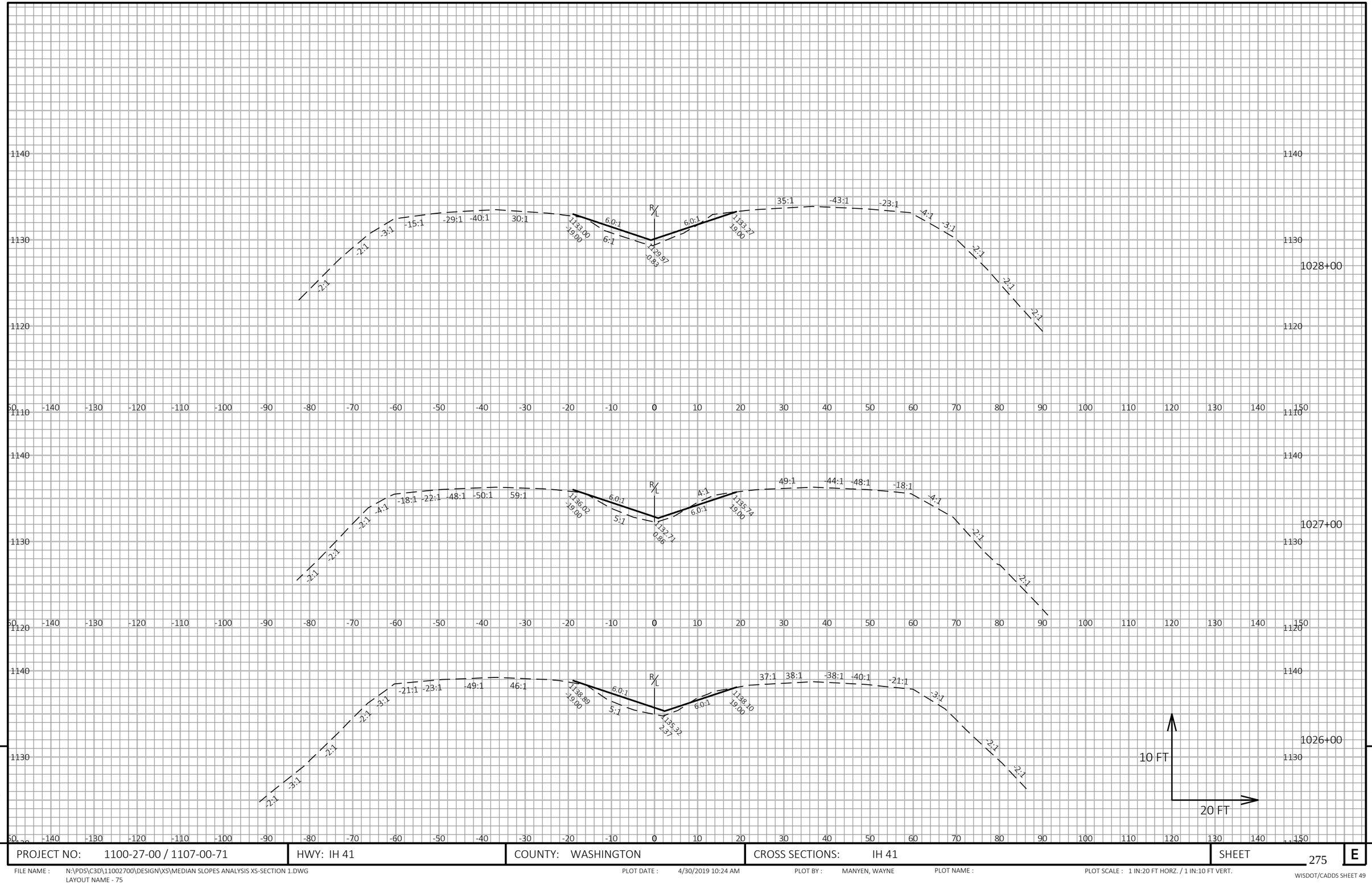
PLOT DATE : 4/30/2019 10:24 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 275	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 75

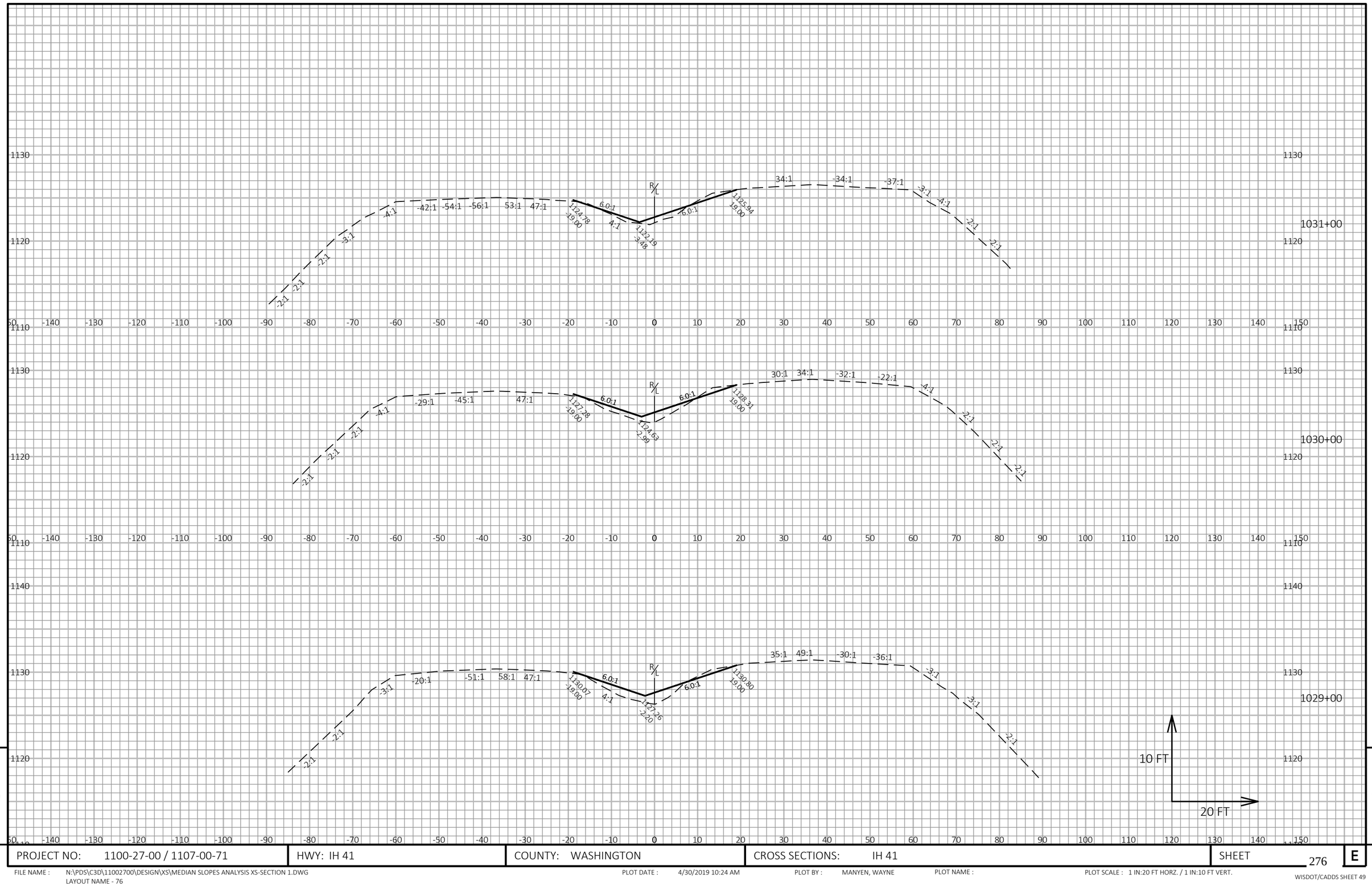
PLOT DATE : 4/30/2019 10:24 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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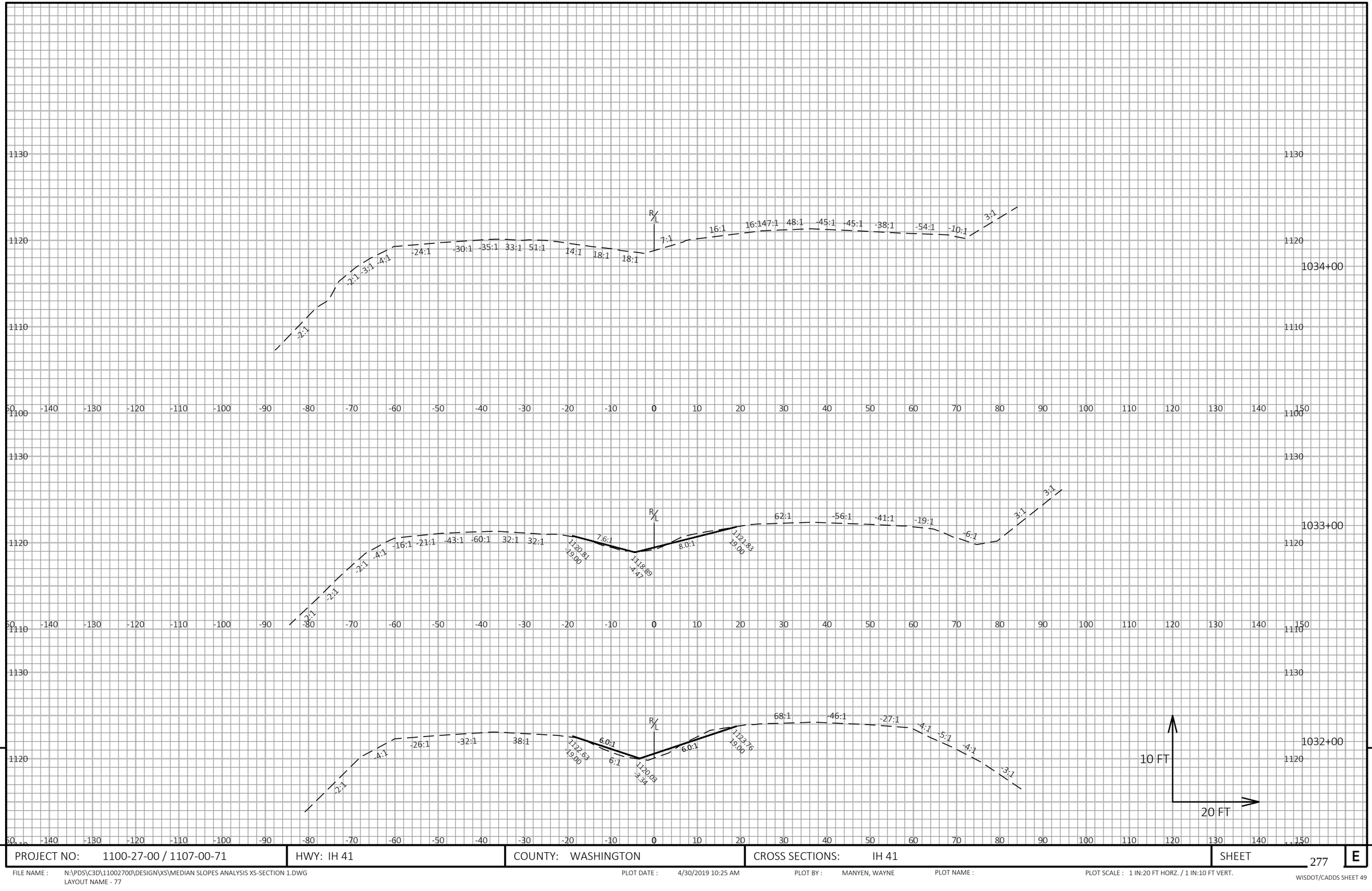
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 276	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 76

PLOT DATE : 4/30/2019 10:24 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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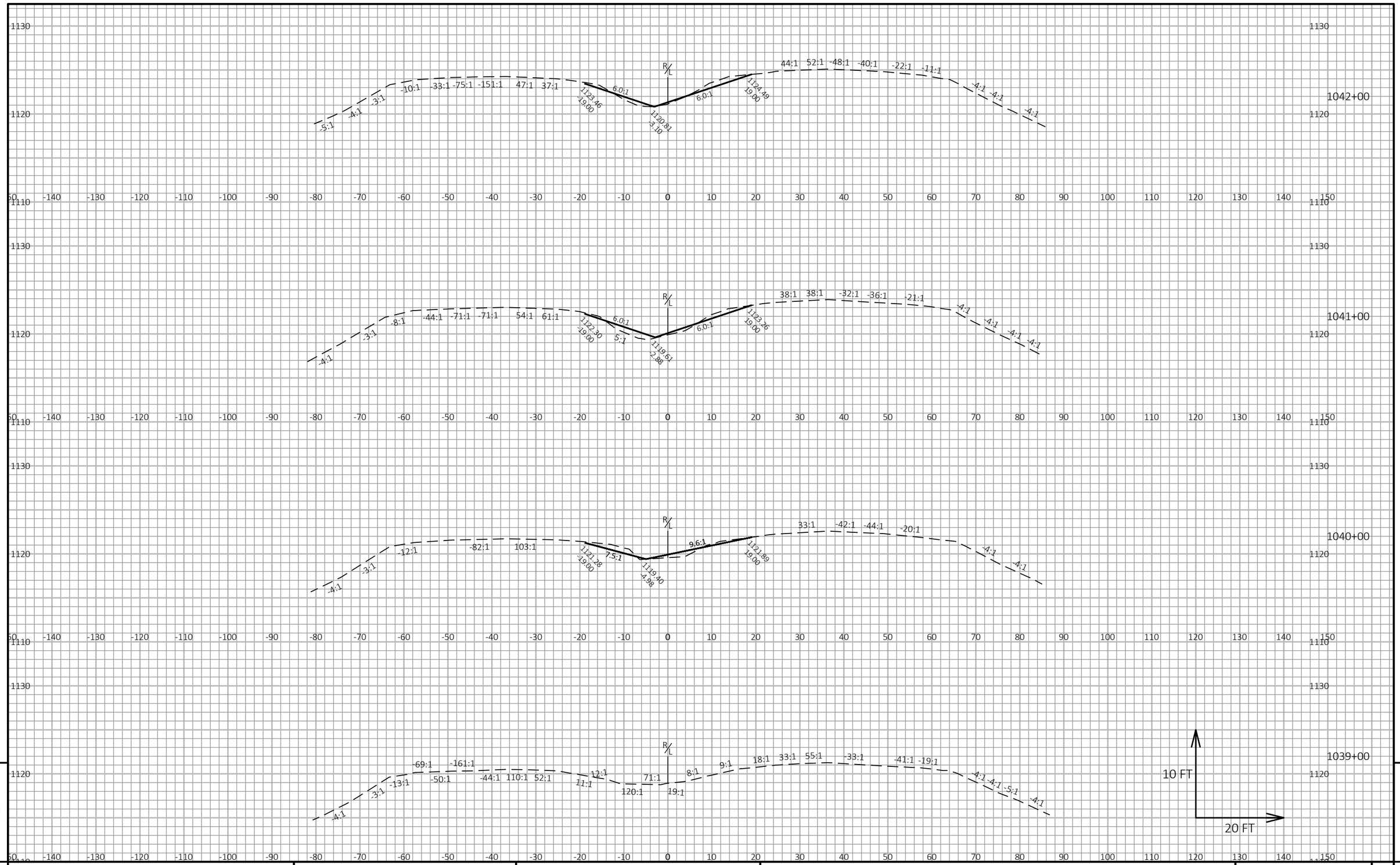
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 277	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 77

PLOT DATE : 4/30/2019 10:25 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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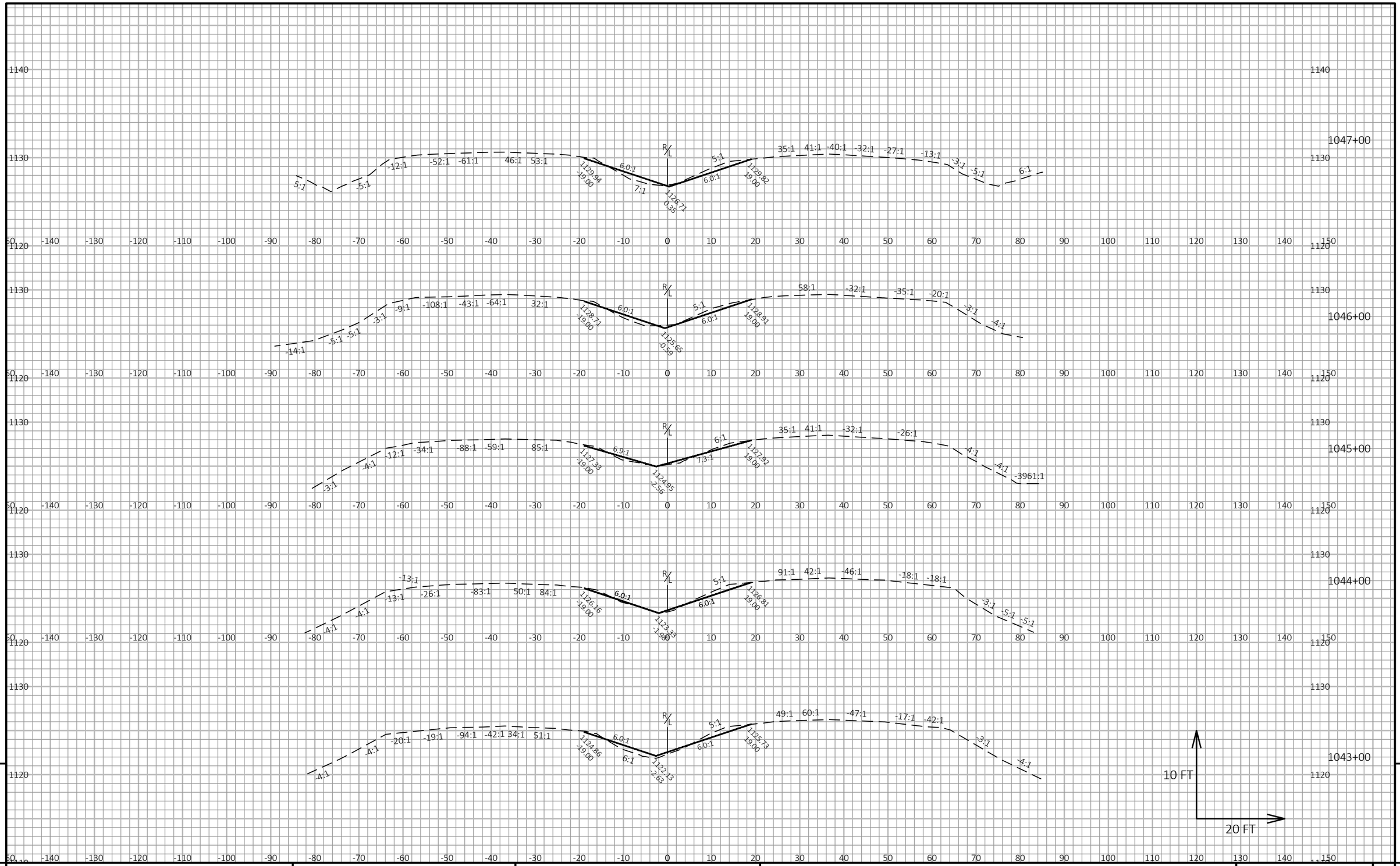
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 278	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 79

PLOT DATE : 4/30/2019 10:25 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

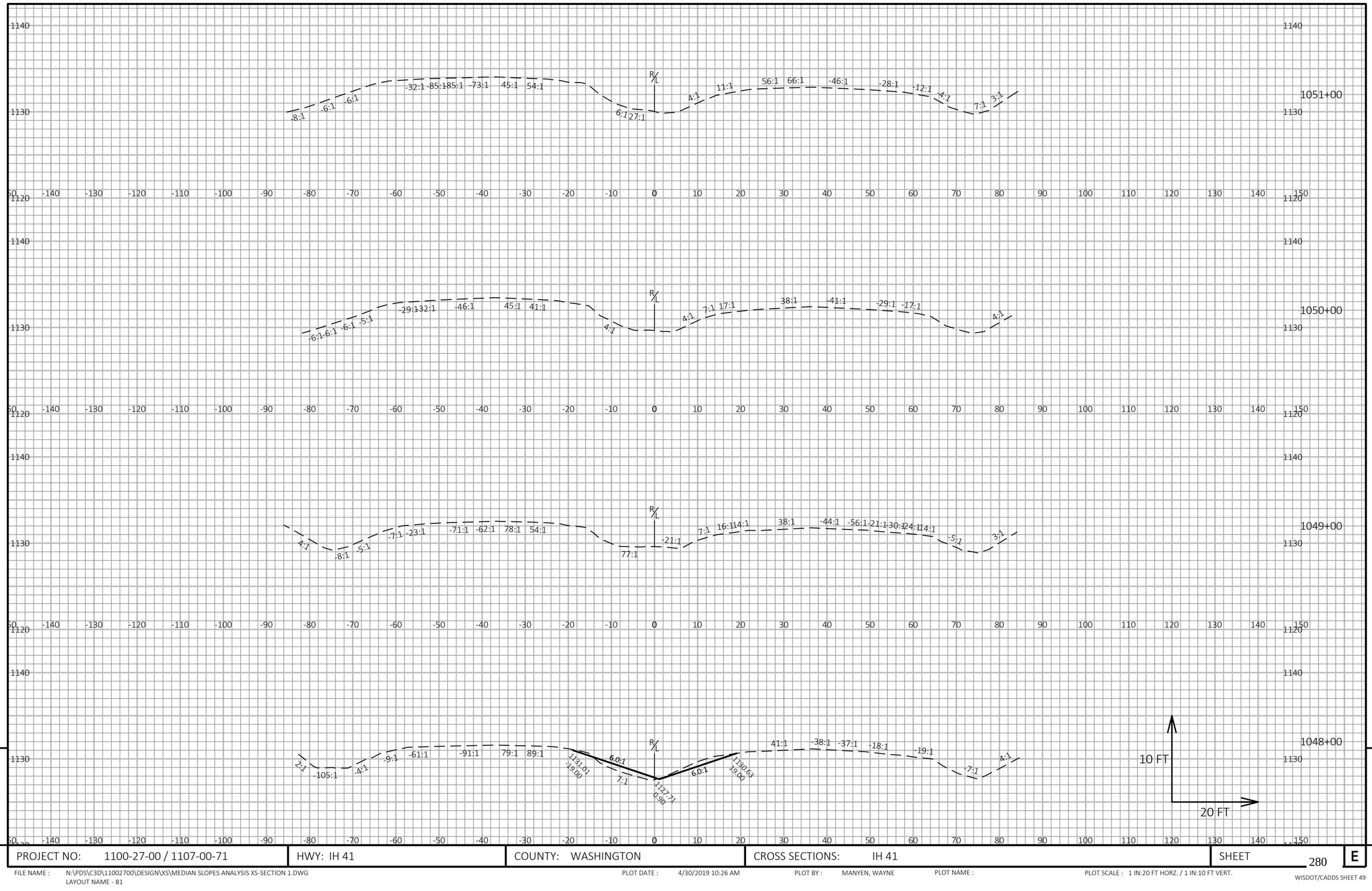


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 279	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 80

PLOT DATE : 4/30/2019 10:26 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 280	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 81

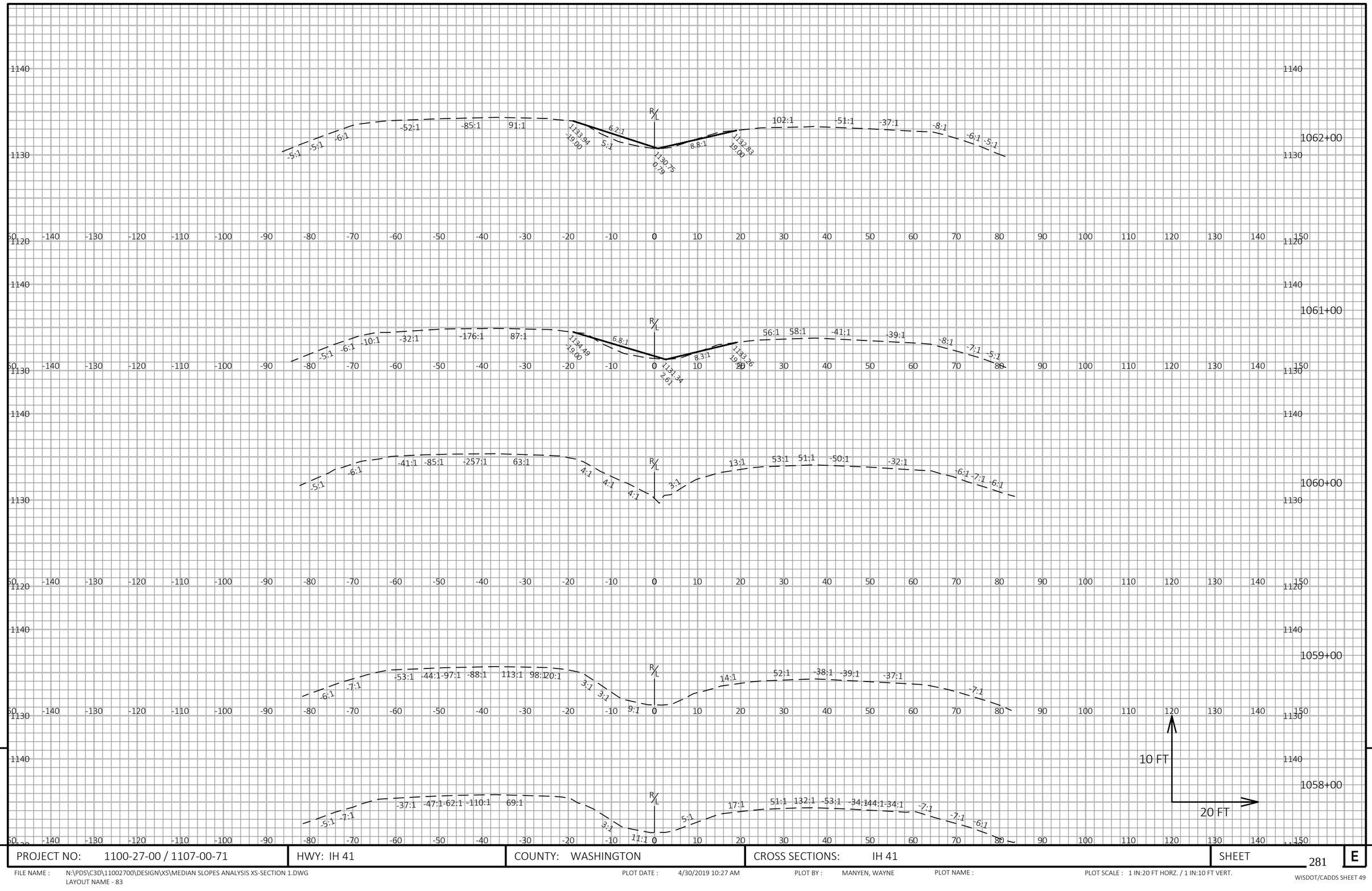
PLOT DATE : 4/30/2019 10:26 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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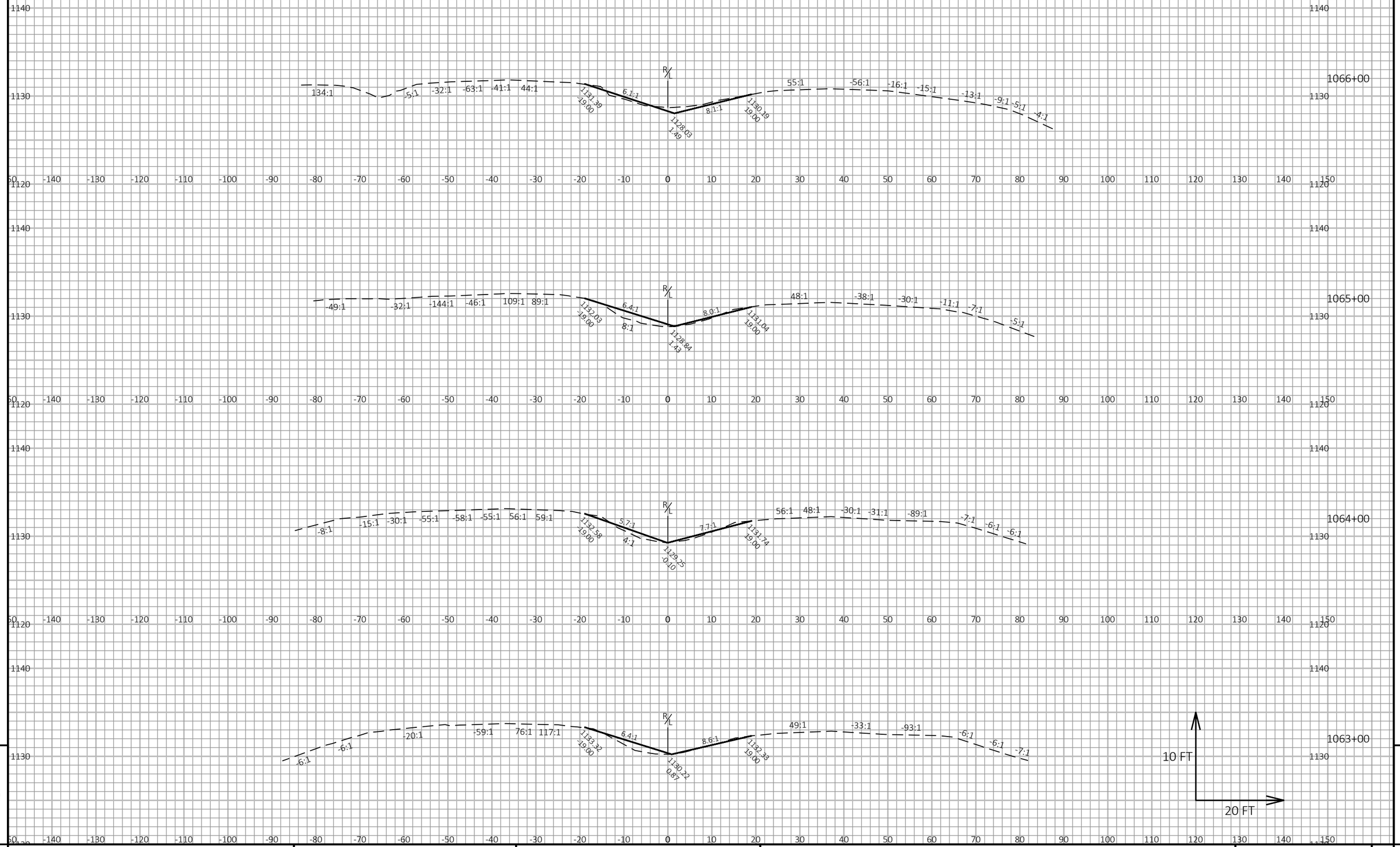
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 281	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 83

PLOT DATE : 4/30/2019 10:27 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 282	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 84

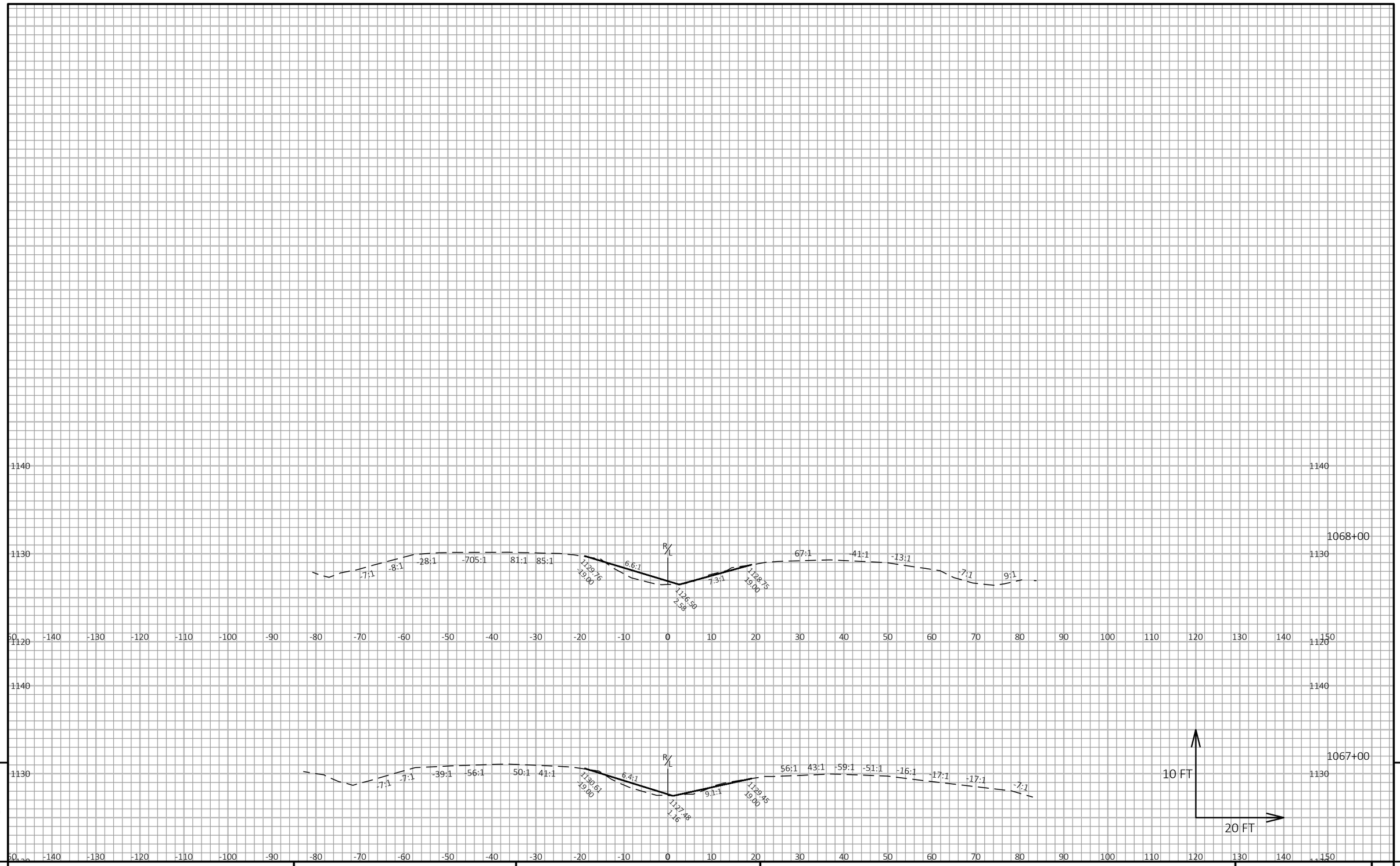
PLOT DATE : 4/30/2019 10:27 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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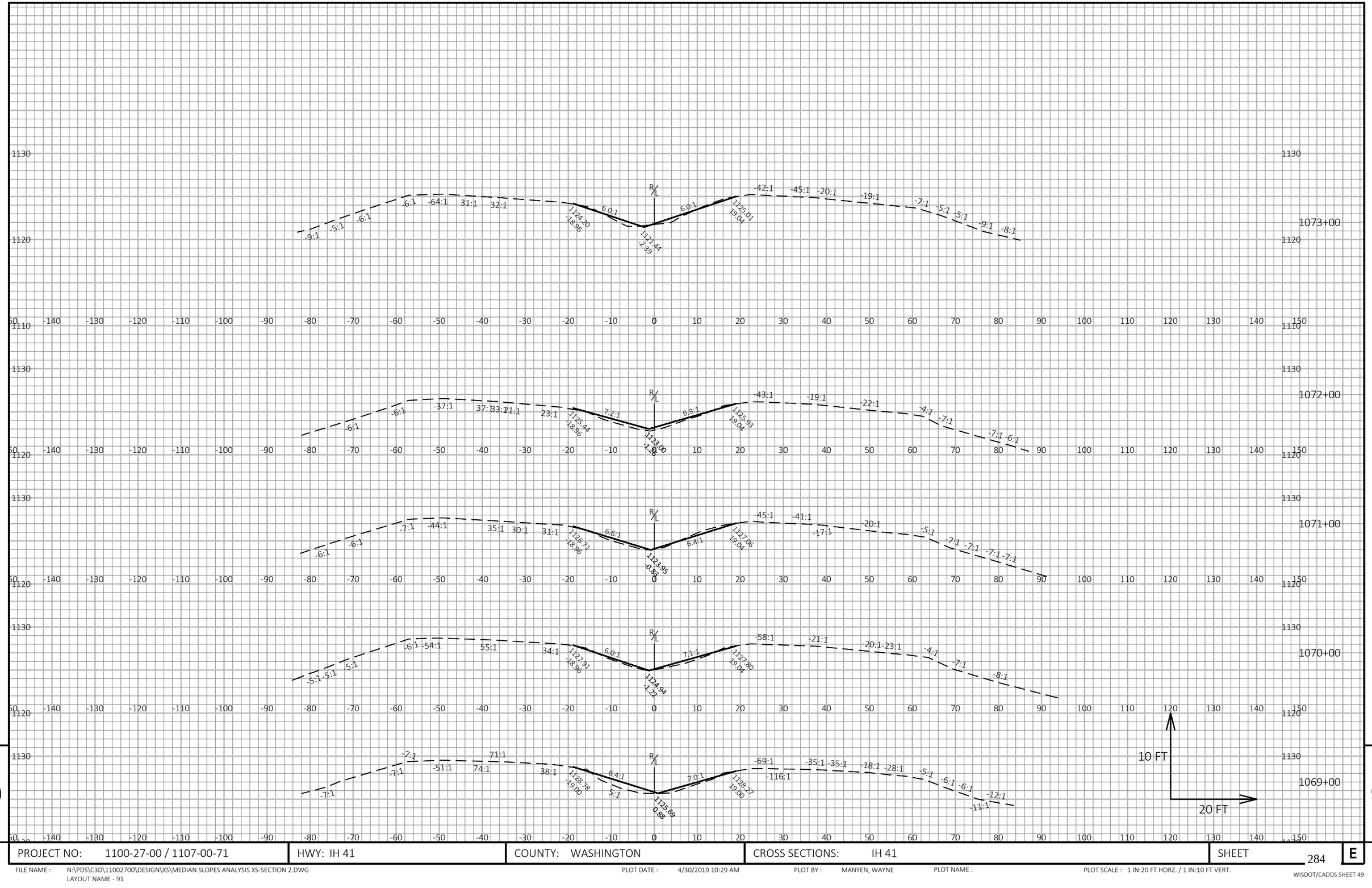
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 283	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 1.DWG
LAYOUT NAME - 85

PLOT DATE : 4/30/2019 10:27 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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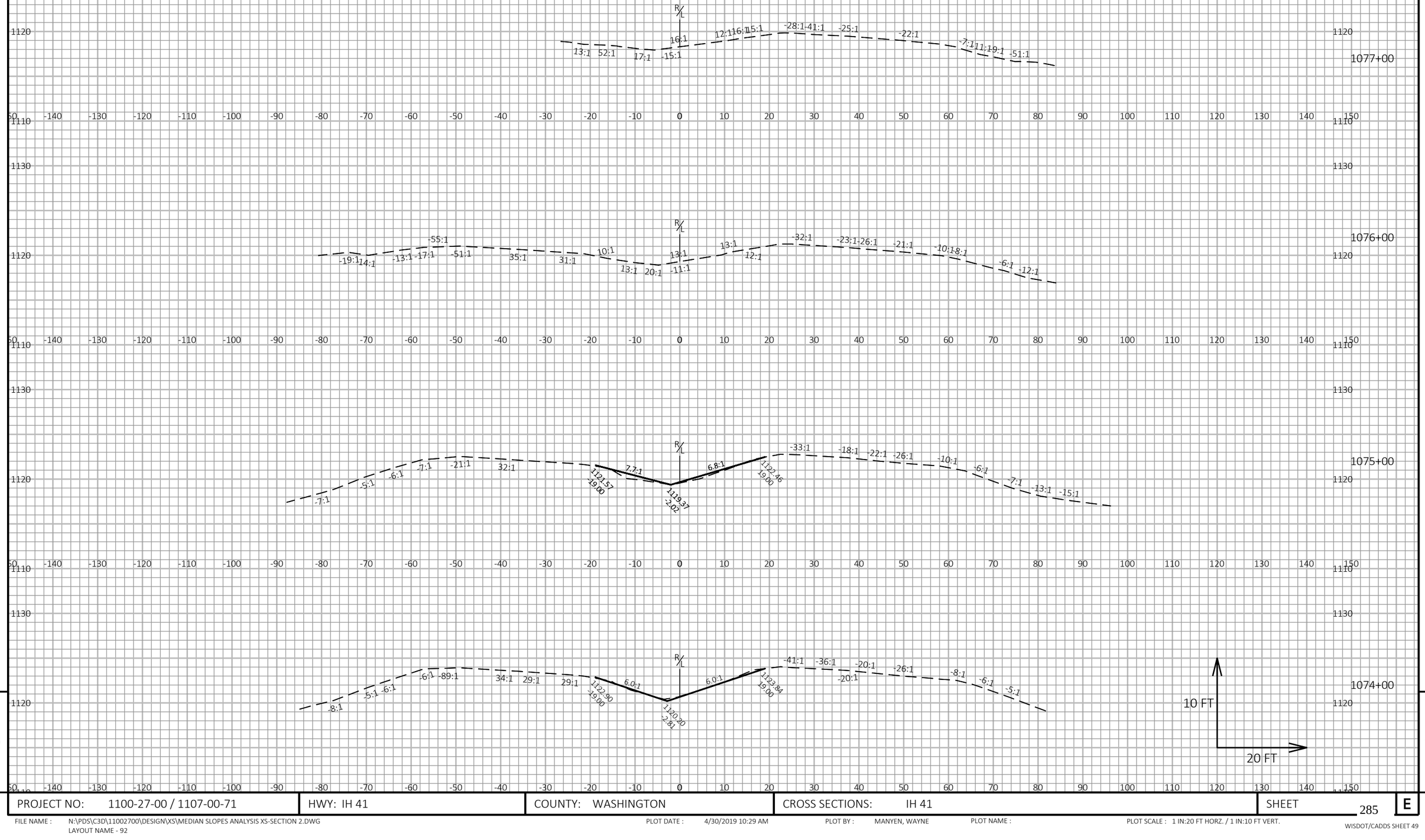
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 284	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 91

PLOT DATE : 4/30/2019 10:29 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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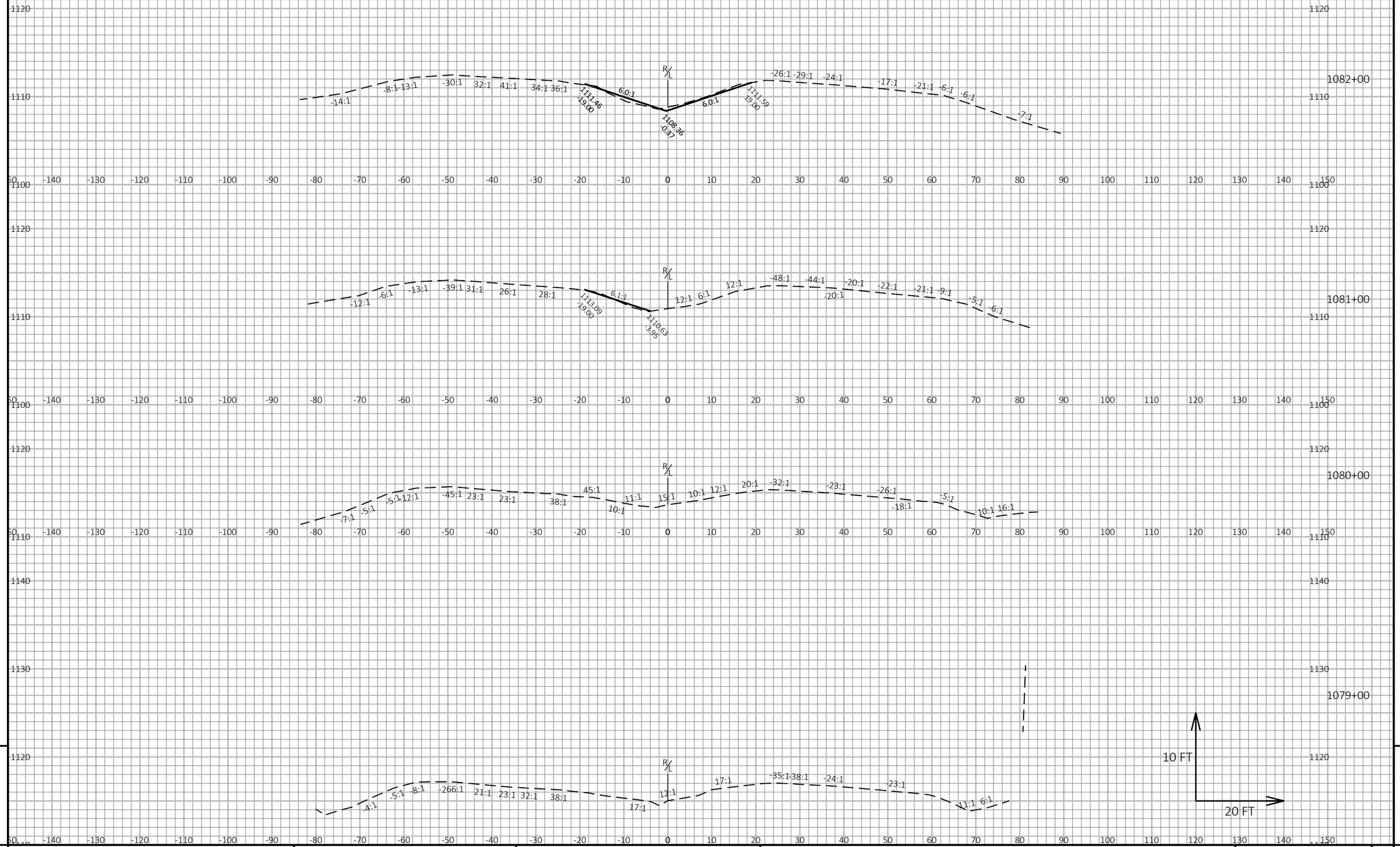
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 285	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 92

PLOT DATE : 4/30/2019 10:29 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

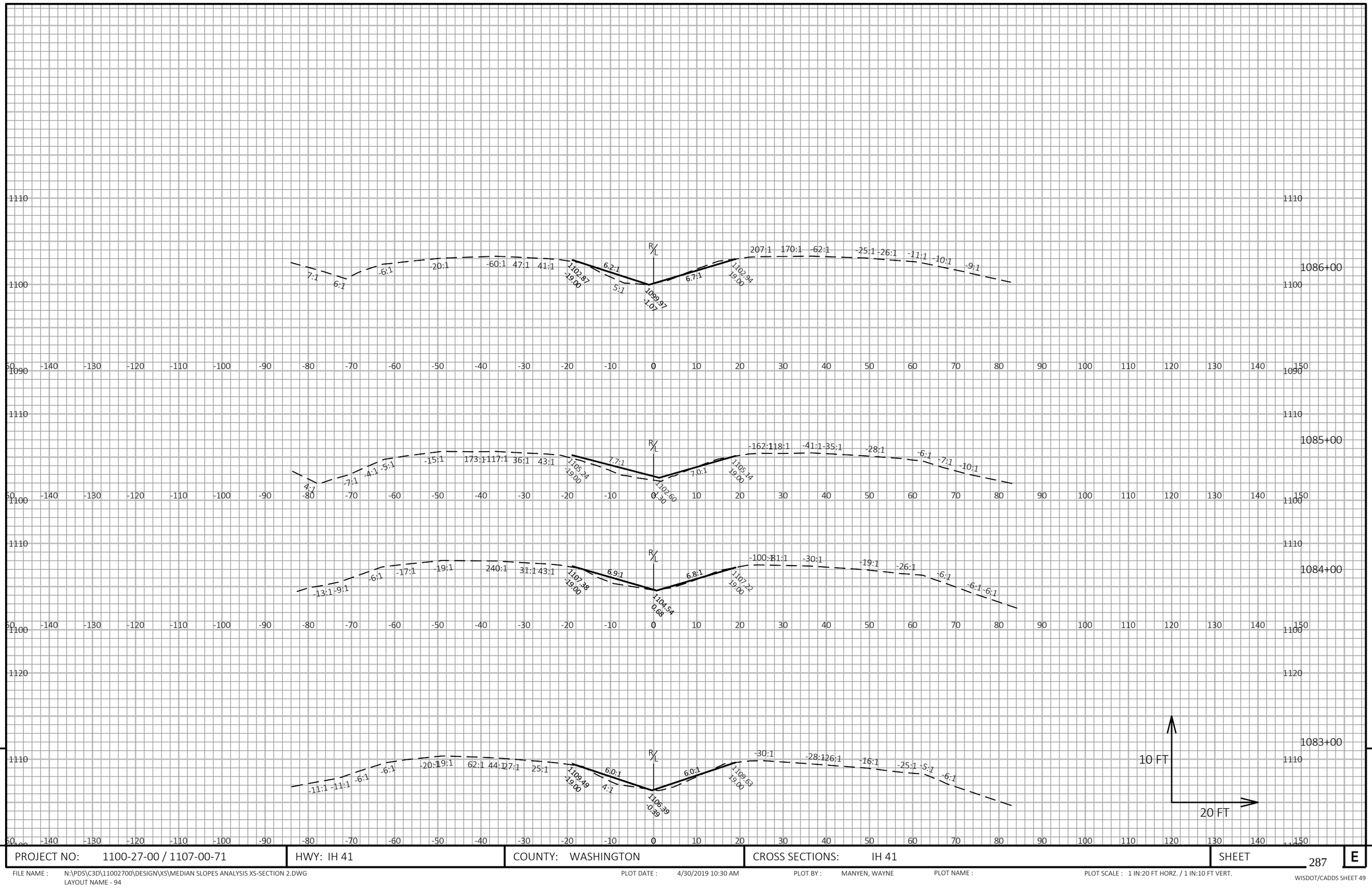


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 286 E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 93

PLOT DATE : 4/30/2019 10:30 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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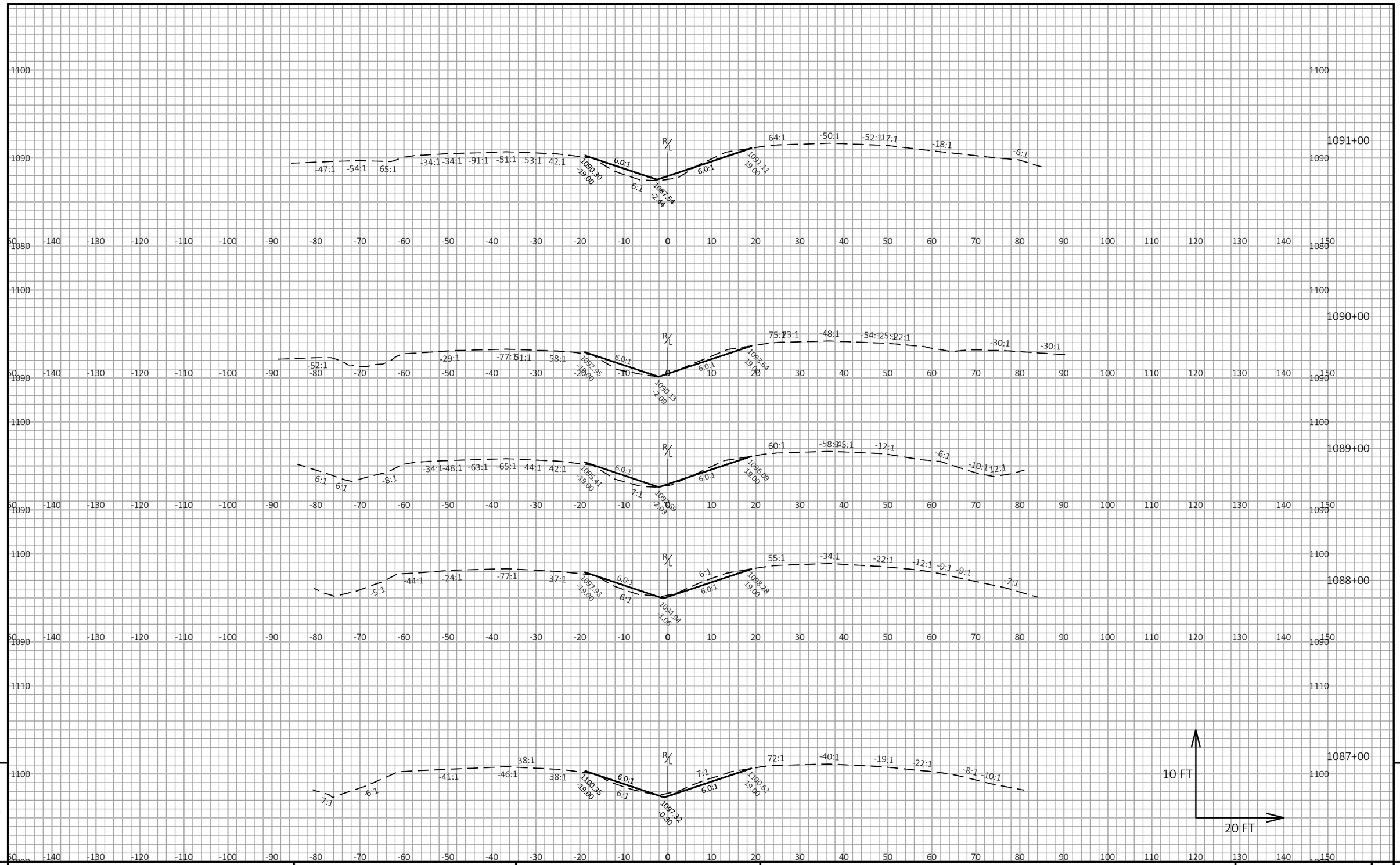
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 287	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 94

PLOT DATE : 4/30/2019 10:30 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

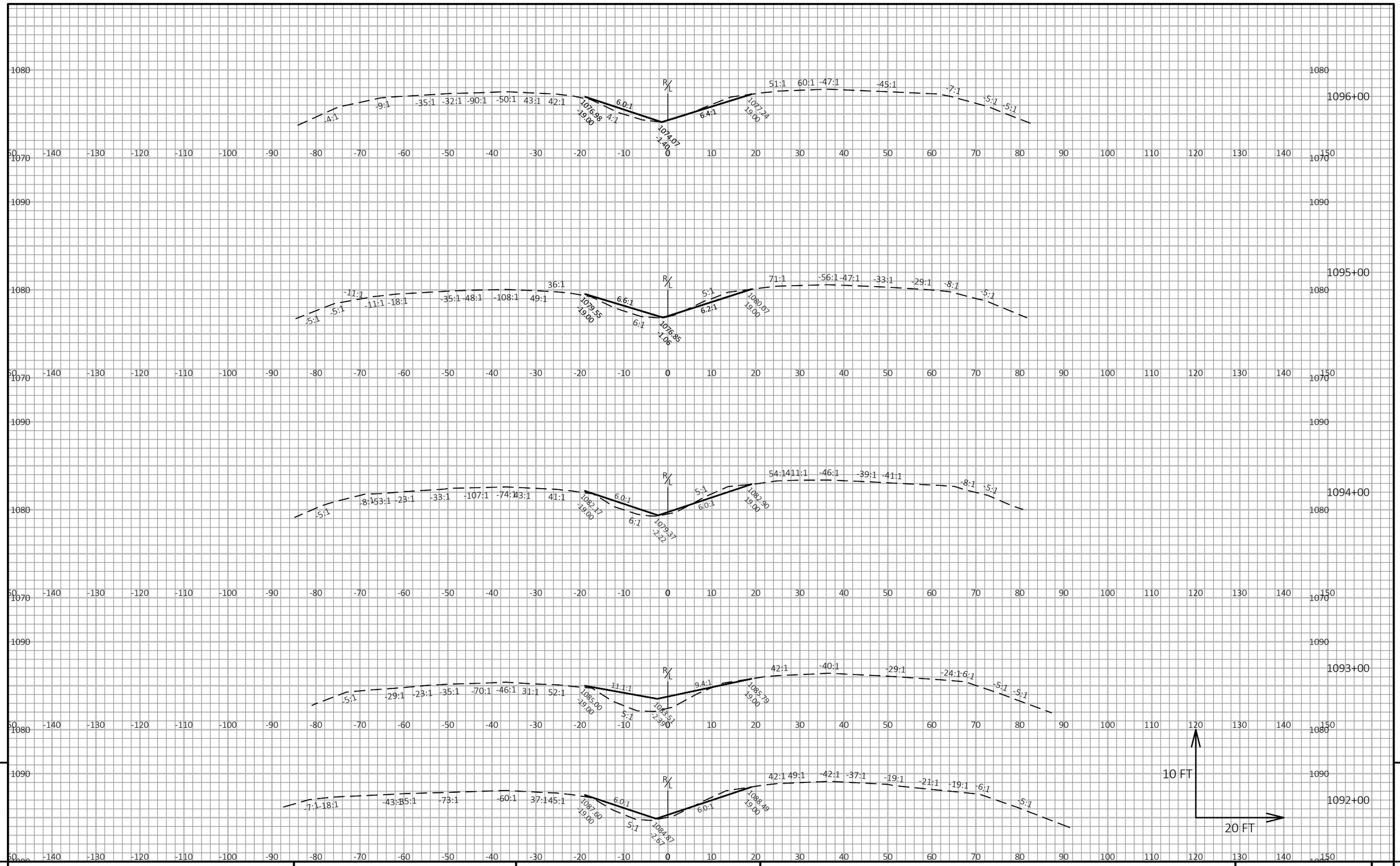


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 288	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 95

PLOT DATE : 4/30/2019 10:30 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

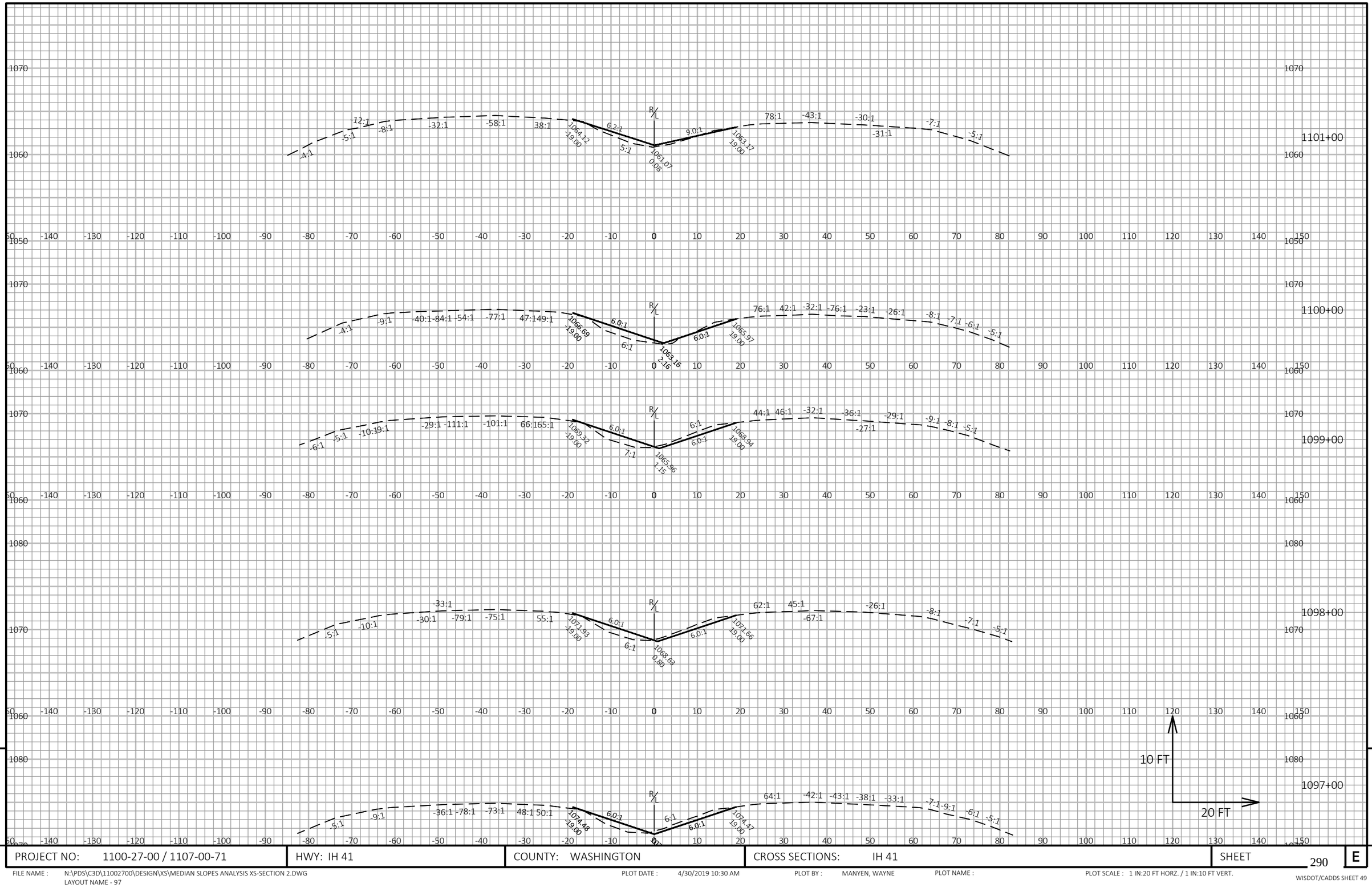


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 289 E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 96

PLOT DATE : 4/30/2019 10:30 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 290	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 97

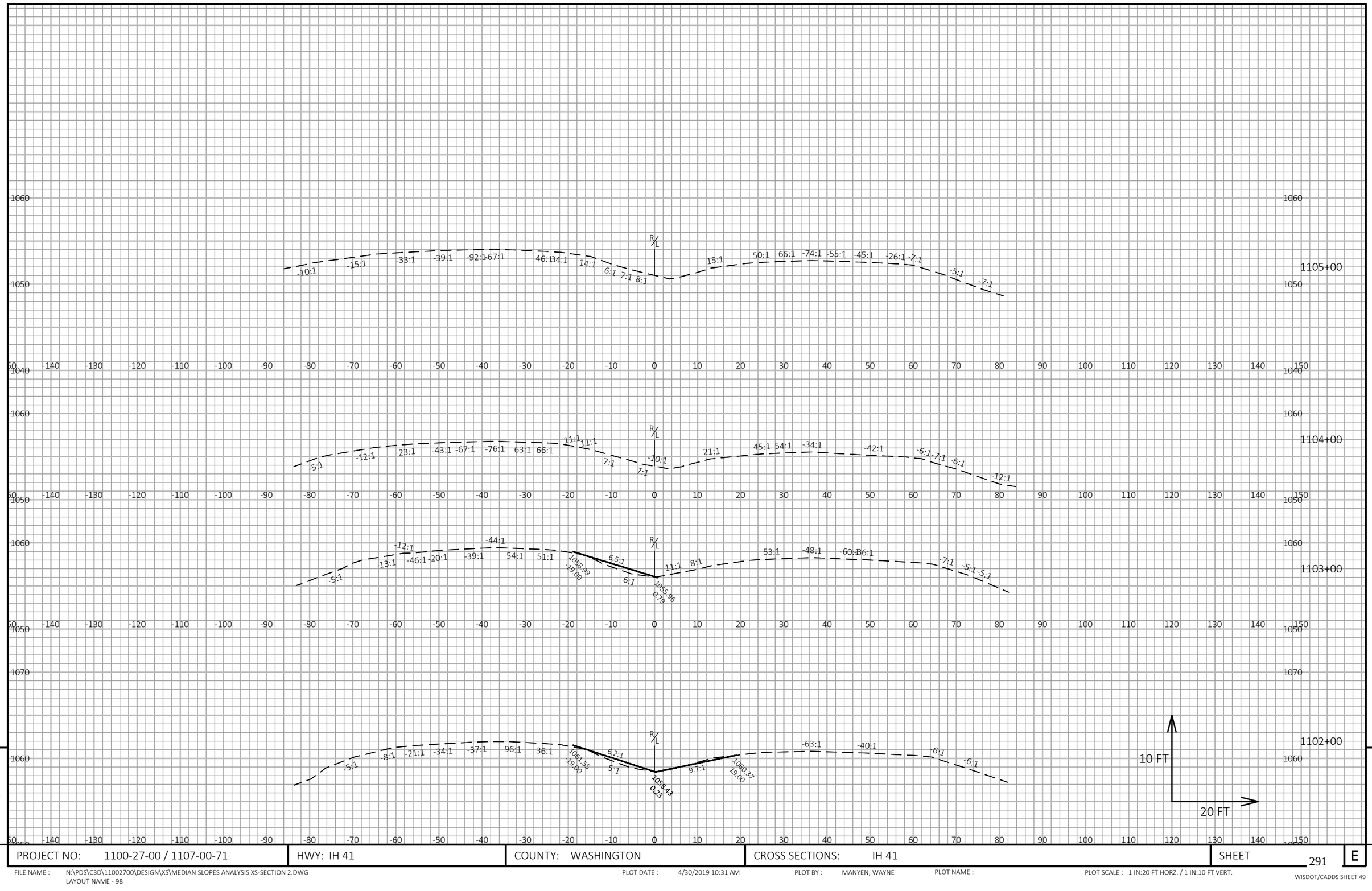
PLOT DATE : 4/30/2019 10:30 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

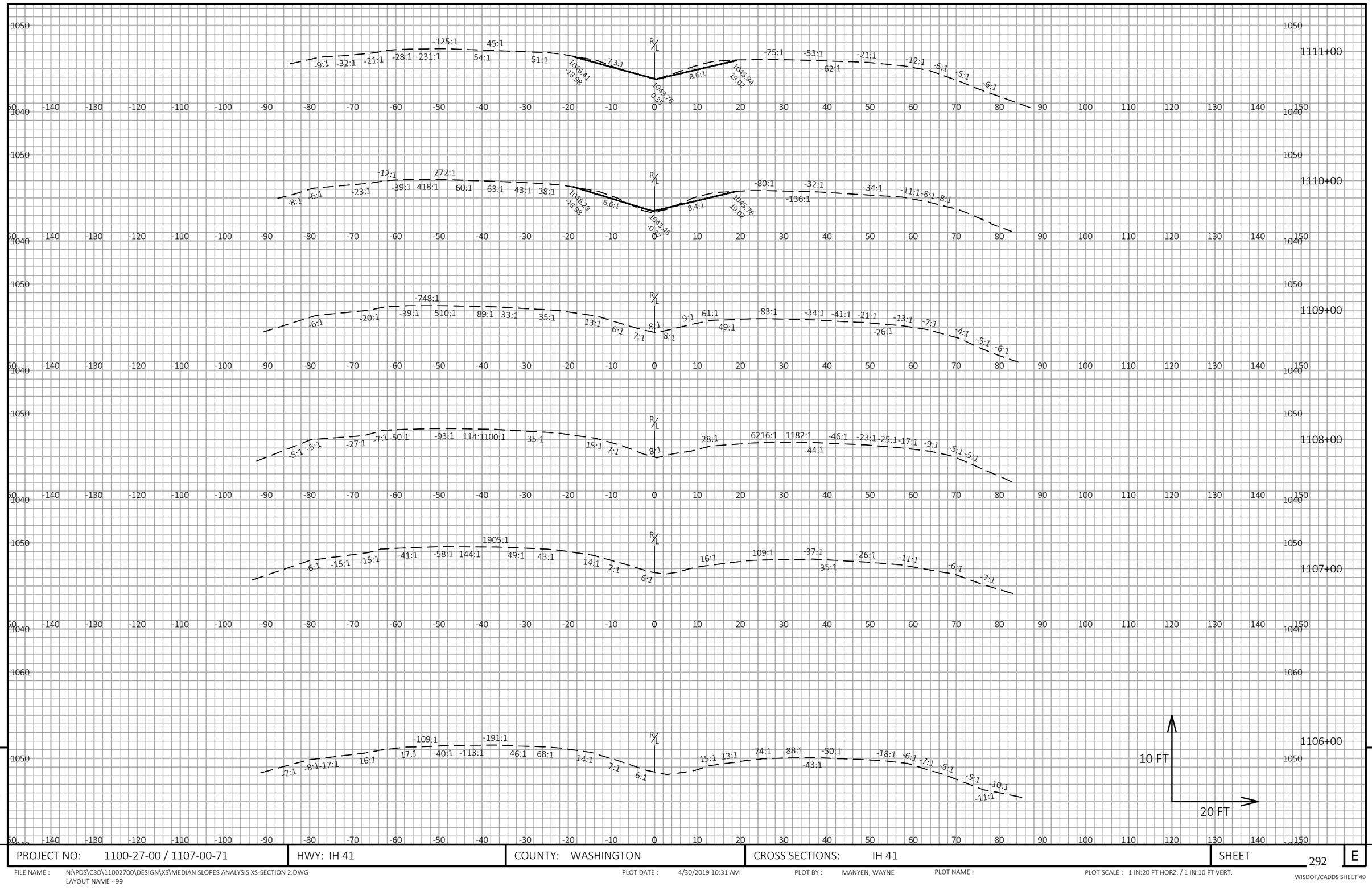


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 291	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 98

PLOT DATE : 4/30/2019 10:31 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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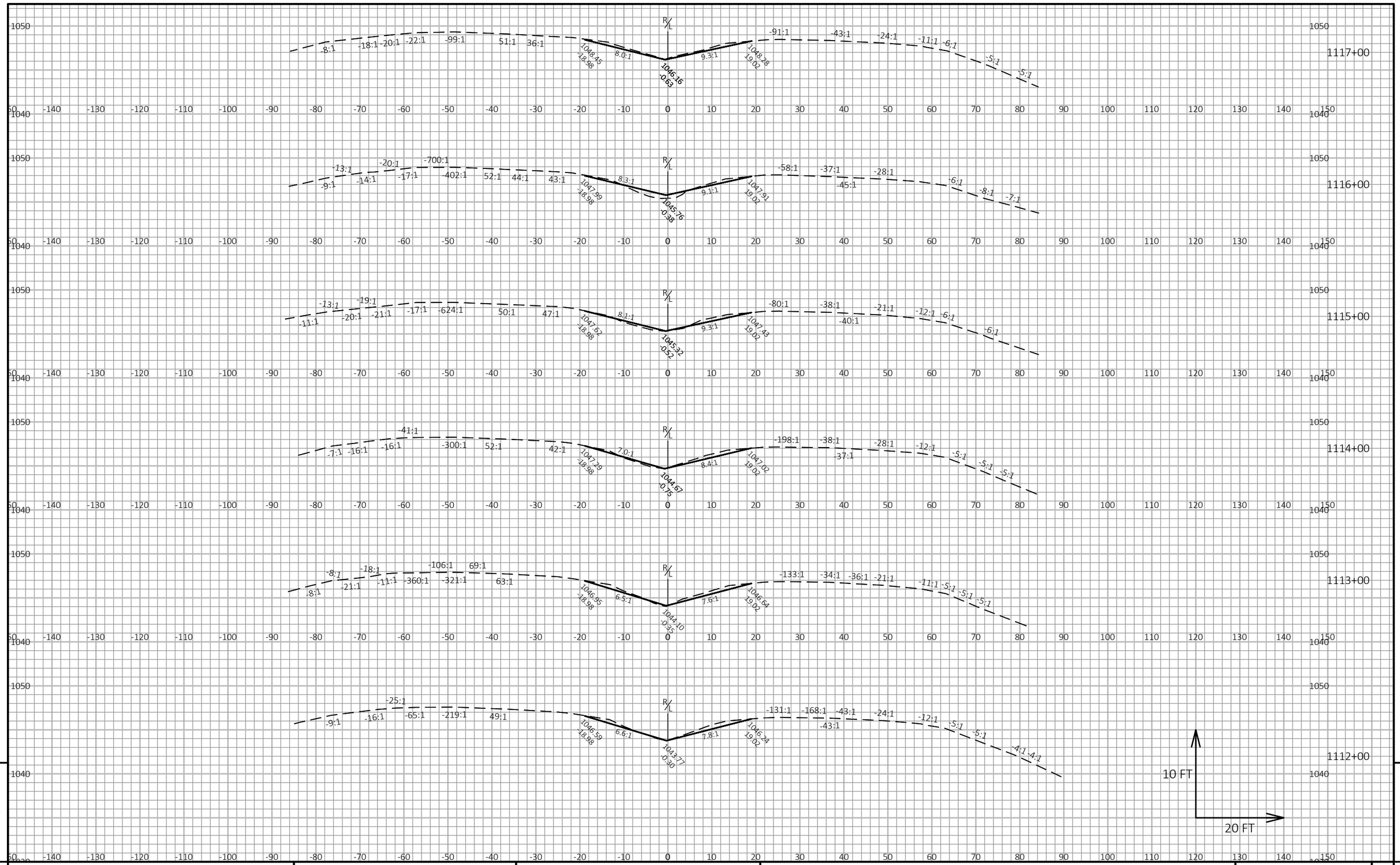
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 292	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 99

PLOT DATE : 4/30/2019 10:31 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

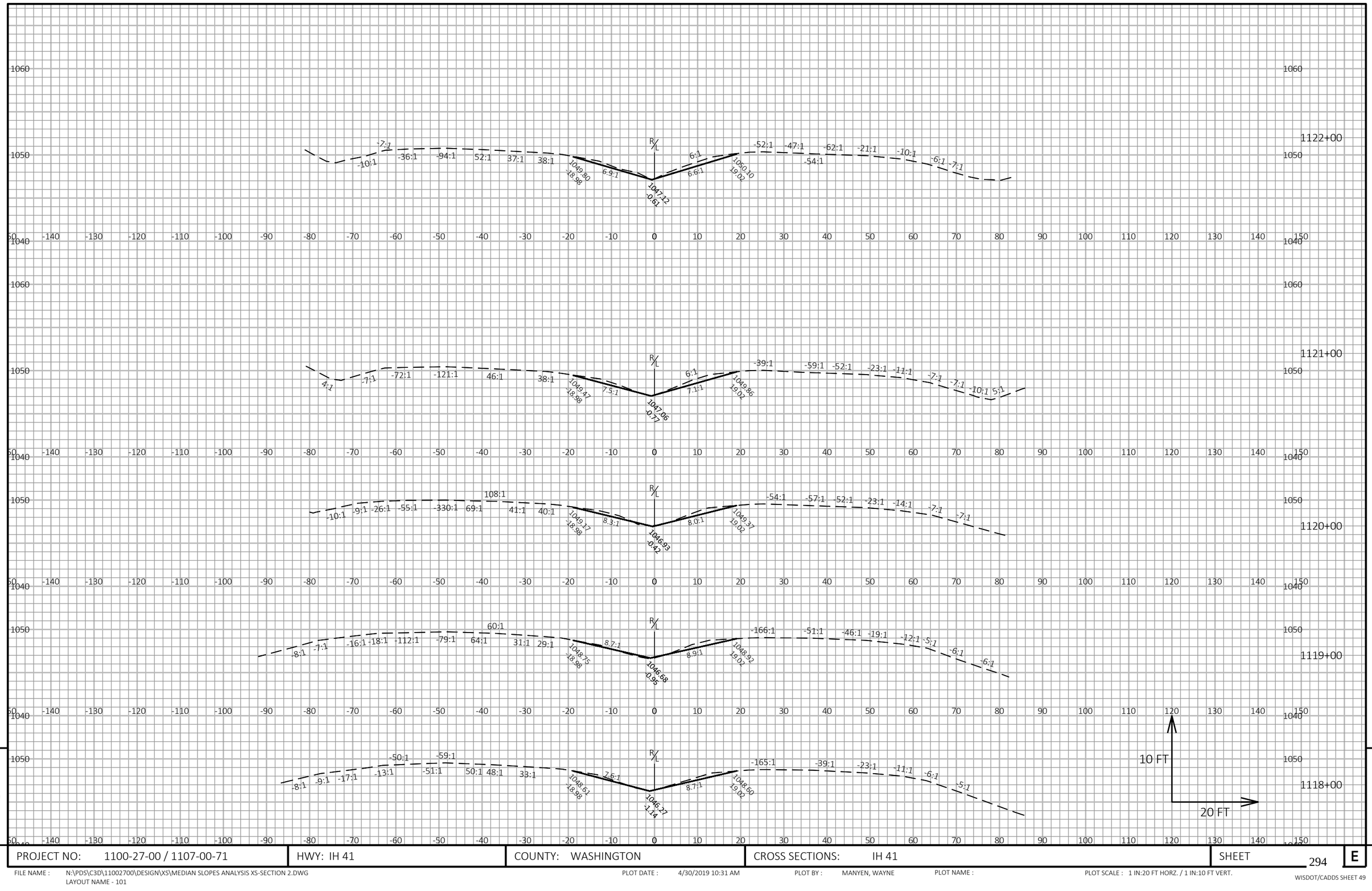


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 293	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 100

PLOT DATE : 4/30/2019 10:31 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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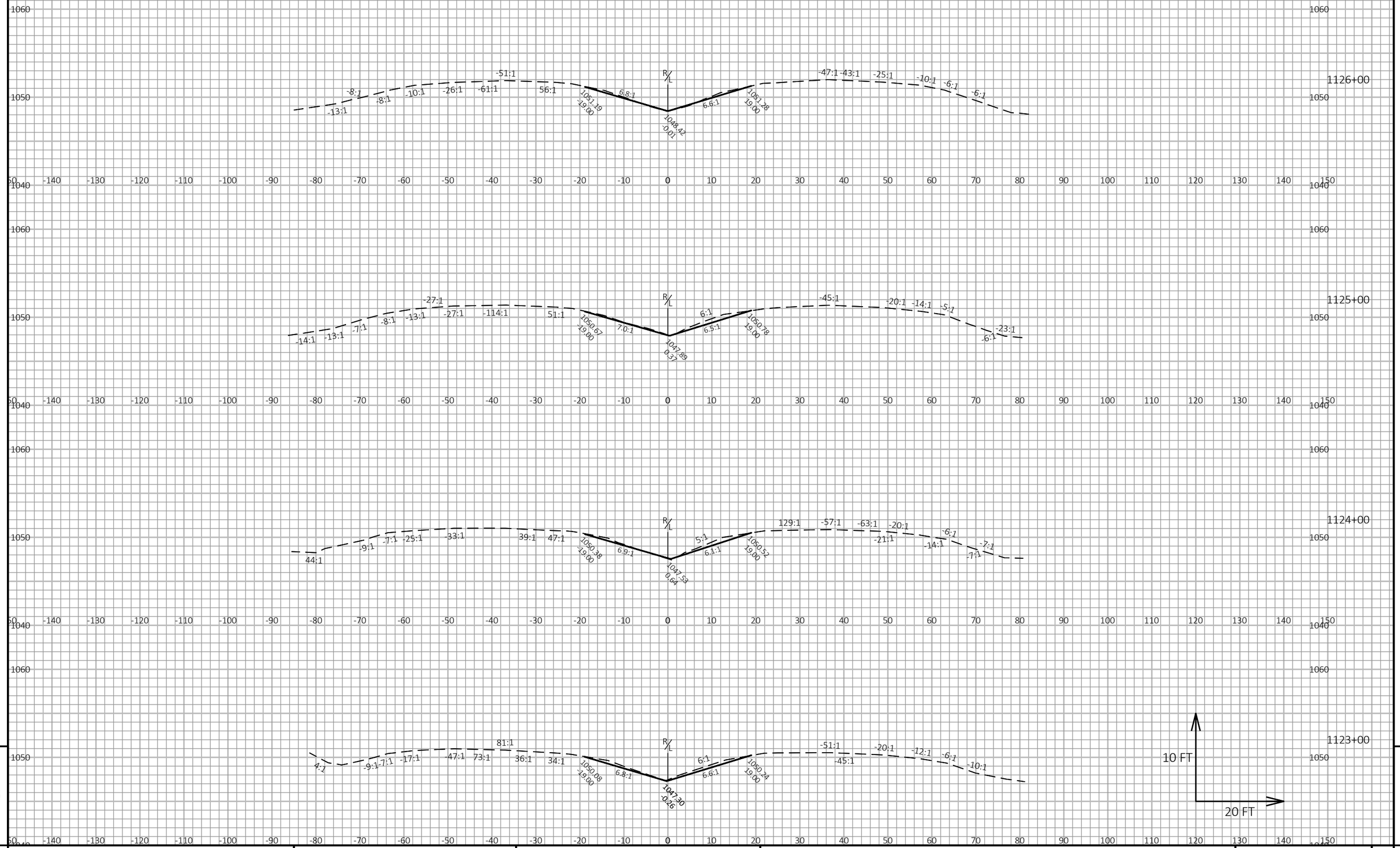
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 294	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 101

PLOT DATE : 4/30/2019 10:31 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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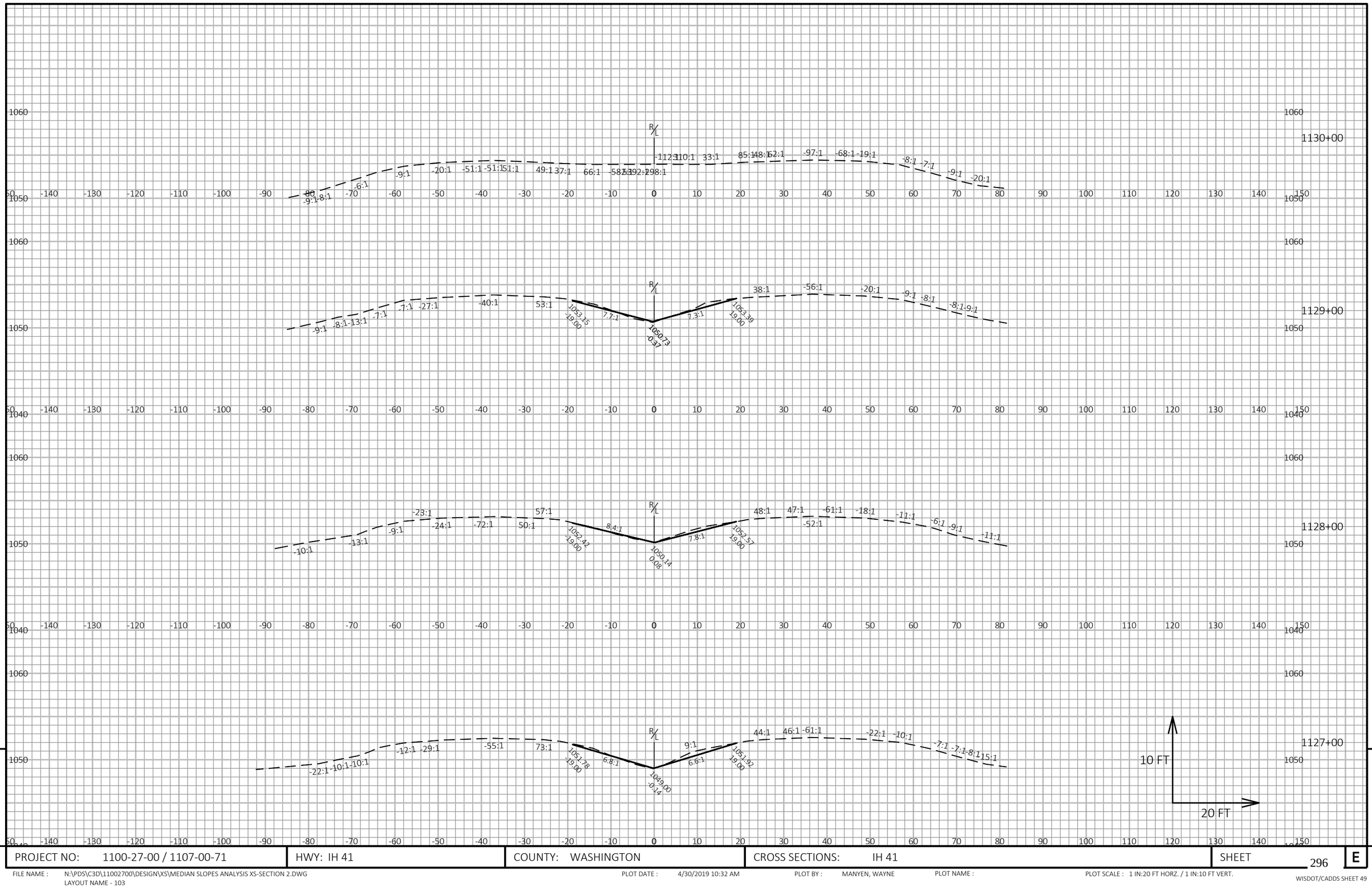
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 295	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 102

PLOT DATE : 4/30/2019 10:32 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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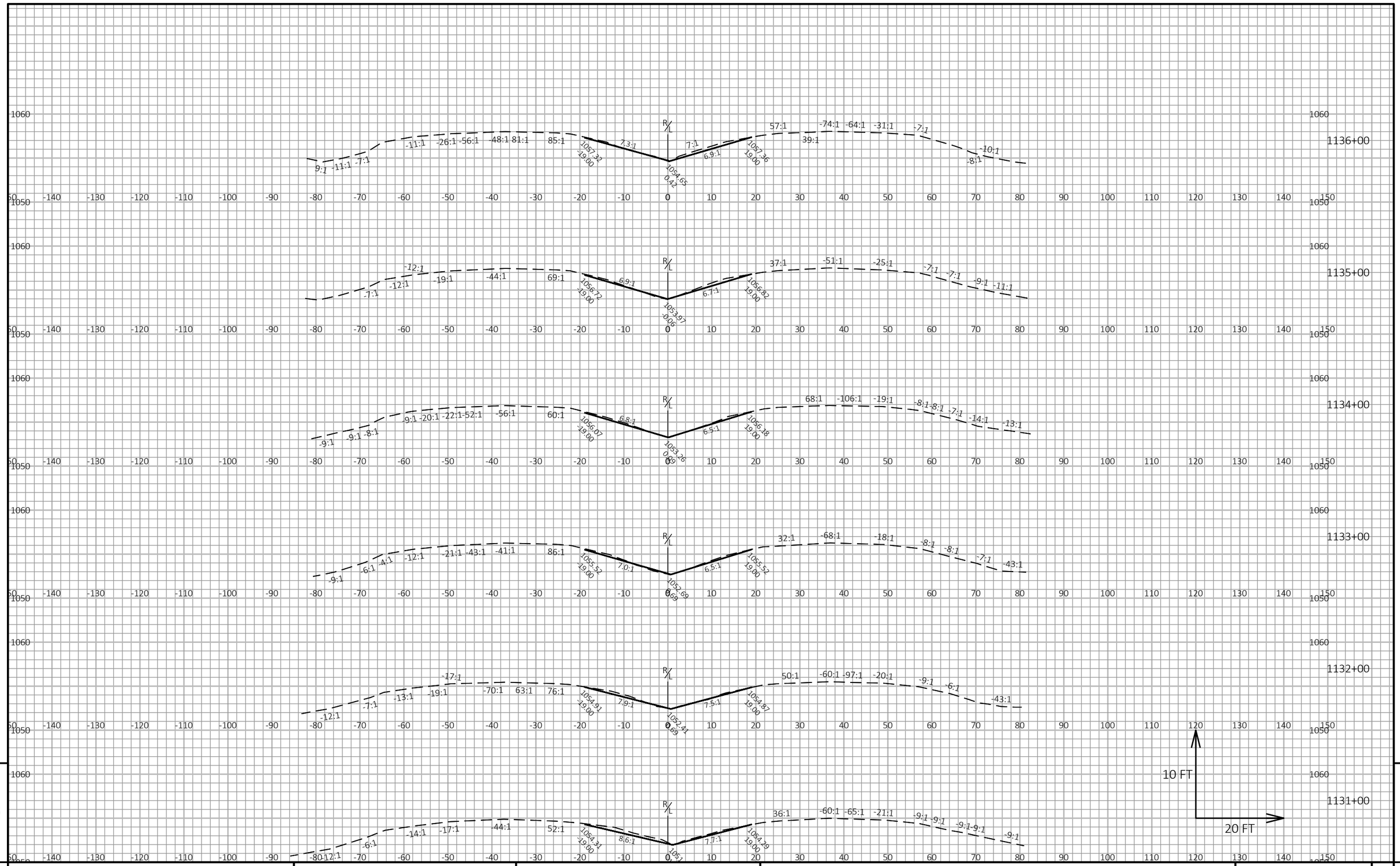
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 296	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 103

PLOT DATE : 4/30/2019 10:32 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

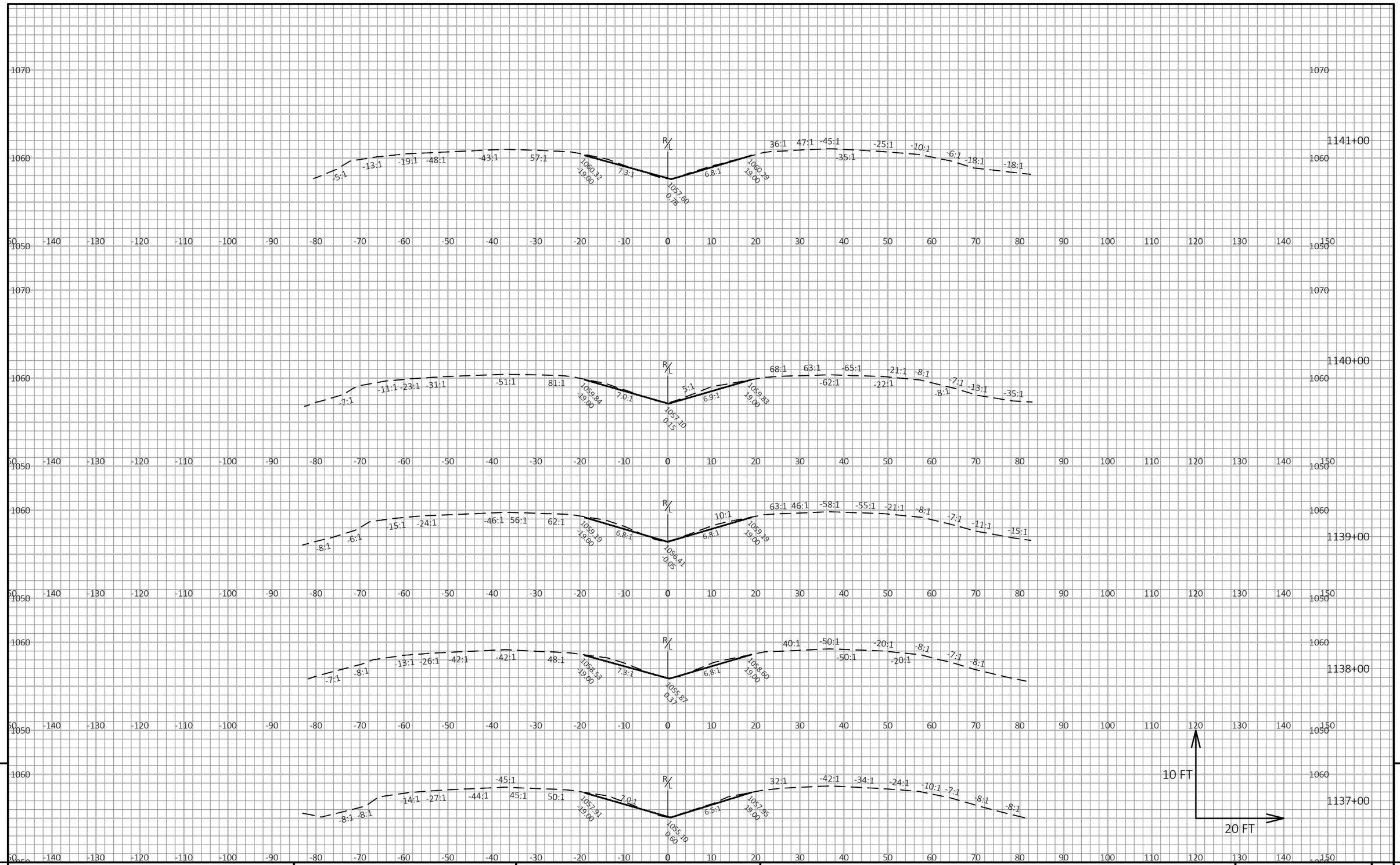


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 297 E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 104

PLOT DATE : 4/30/2019 10:32 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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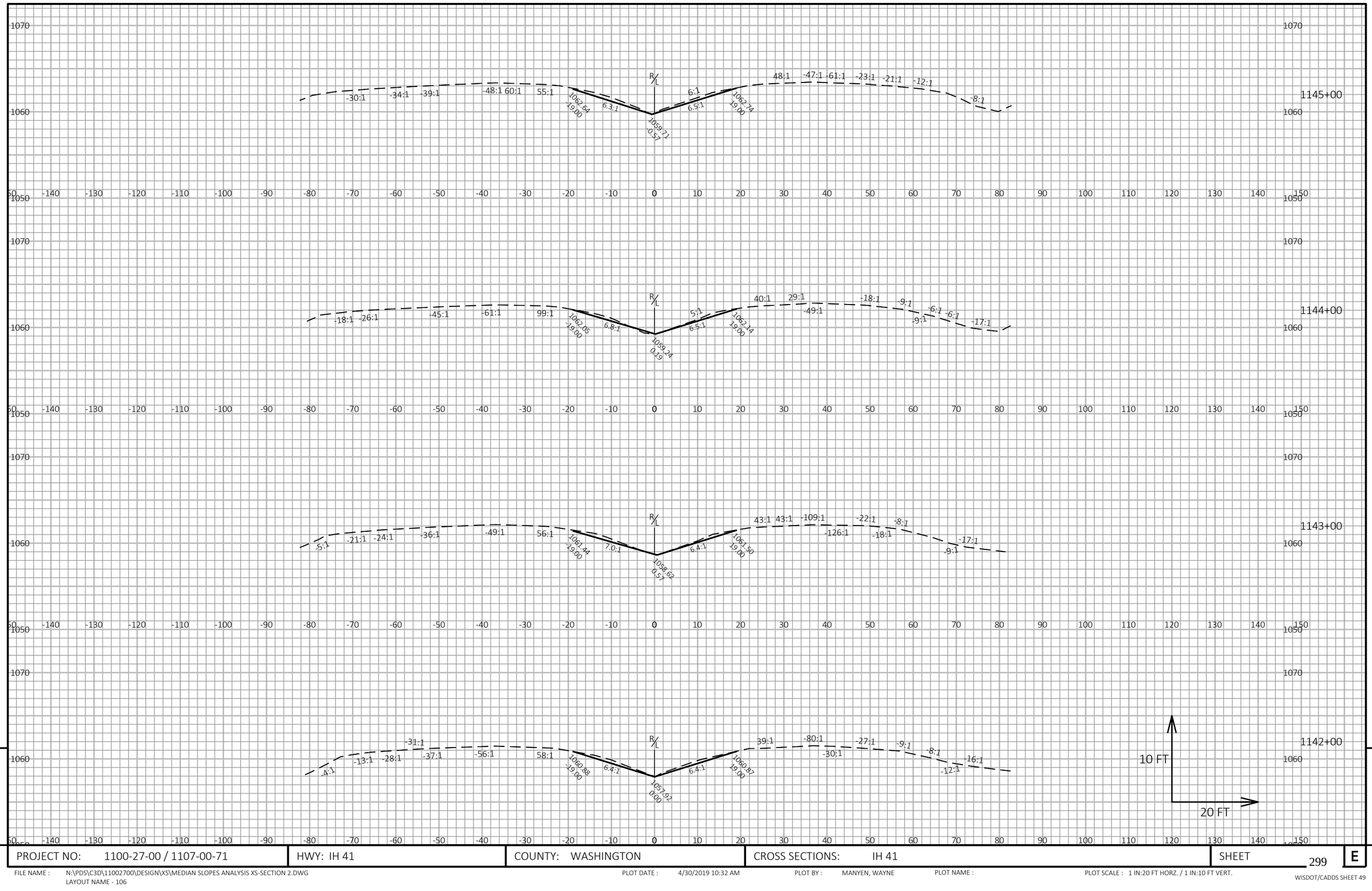
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 298	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 105

PLOT DATE : 4/30/2019 10:32 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

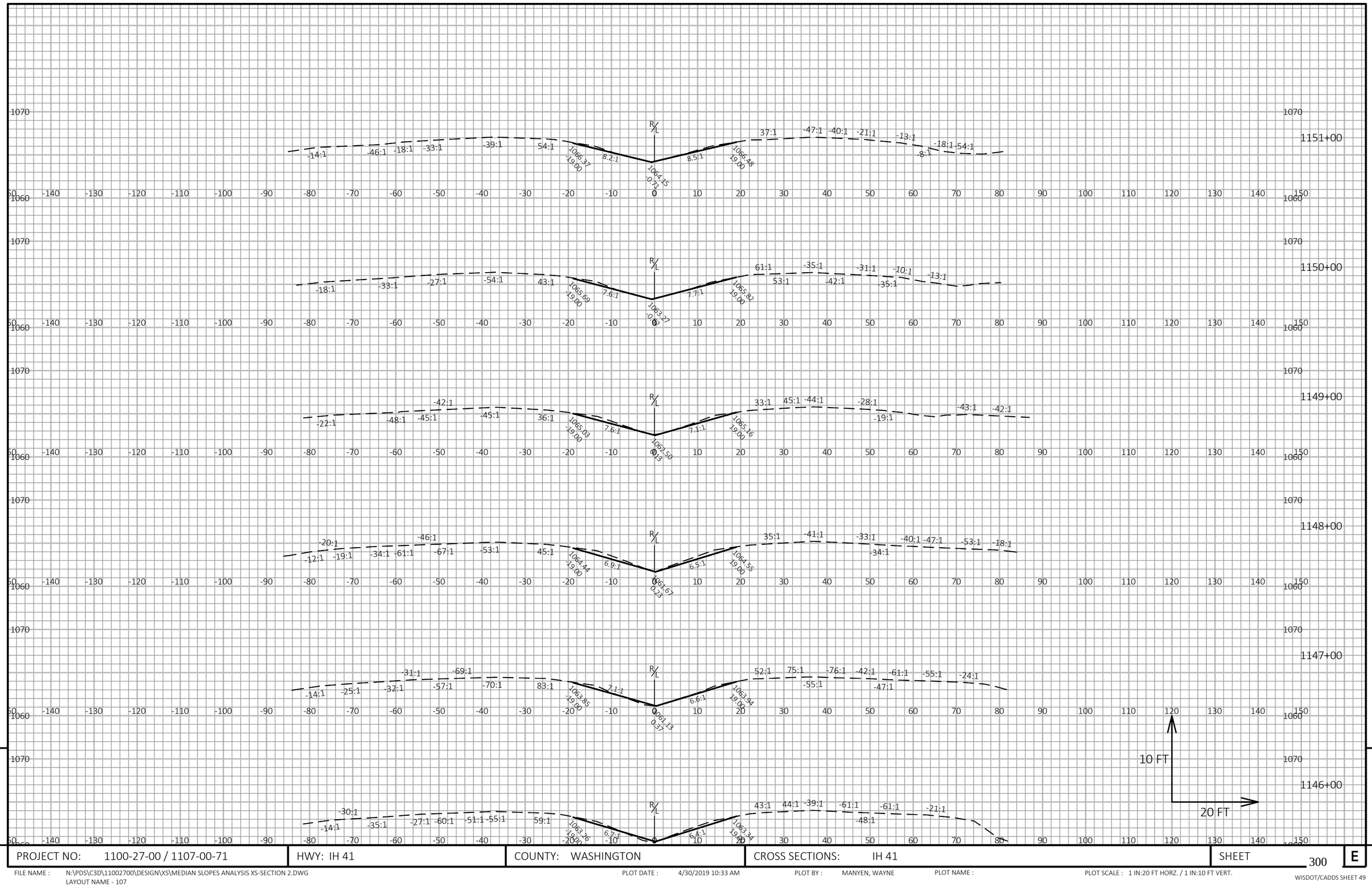
WISDOT/CADDS SHEET 49



PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 299	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 106

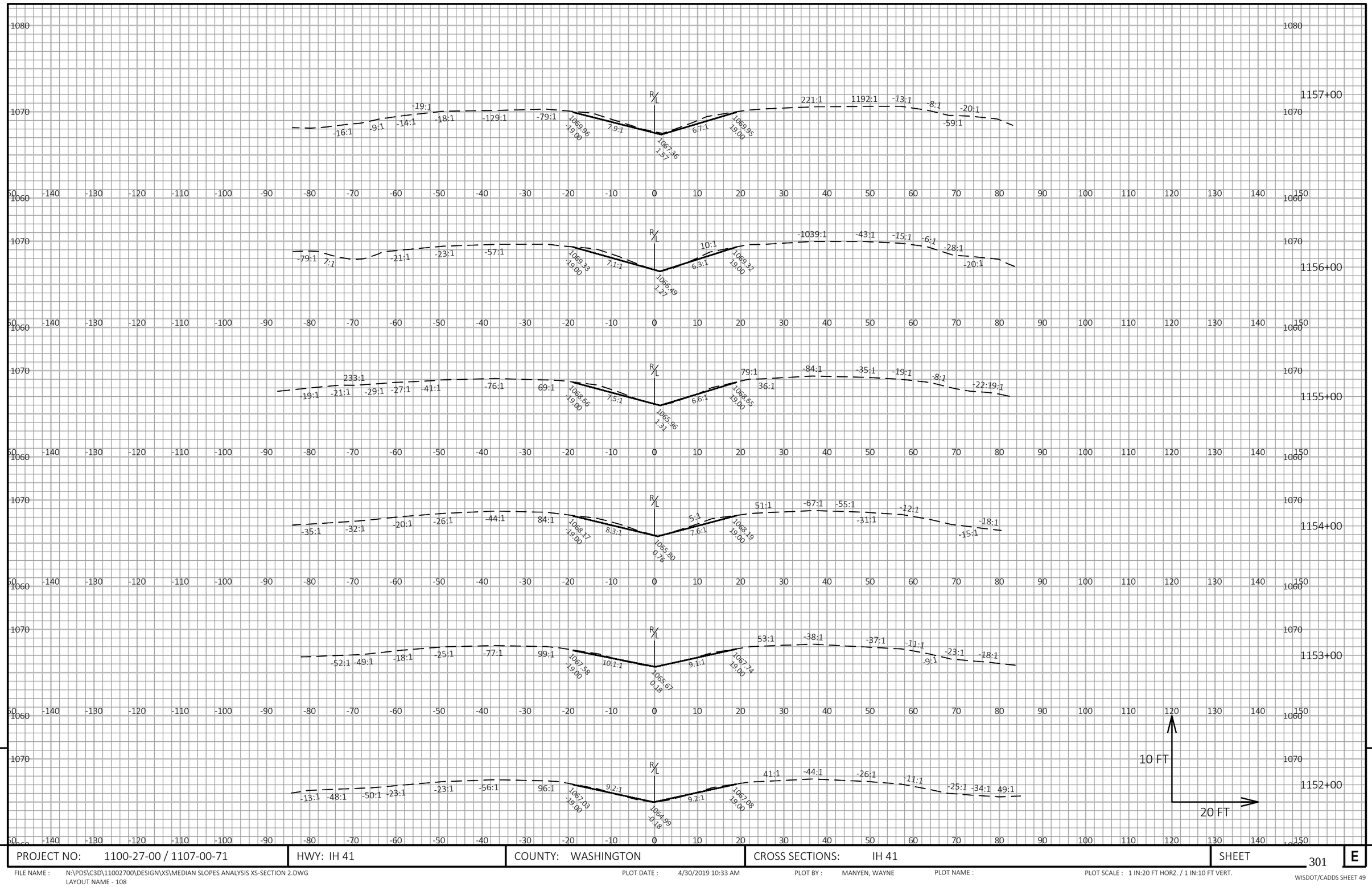
PLOT DATE : 4/30/2019 10:32 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 300	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 107

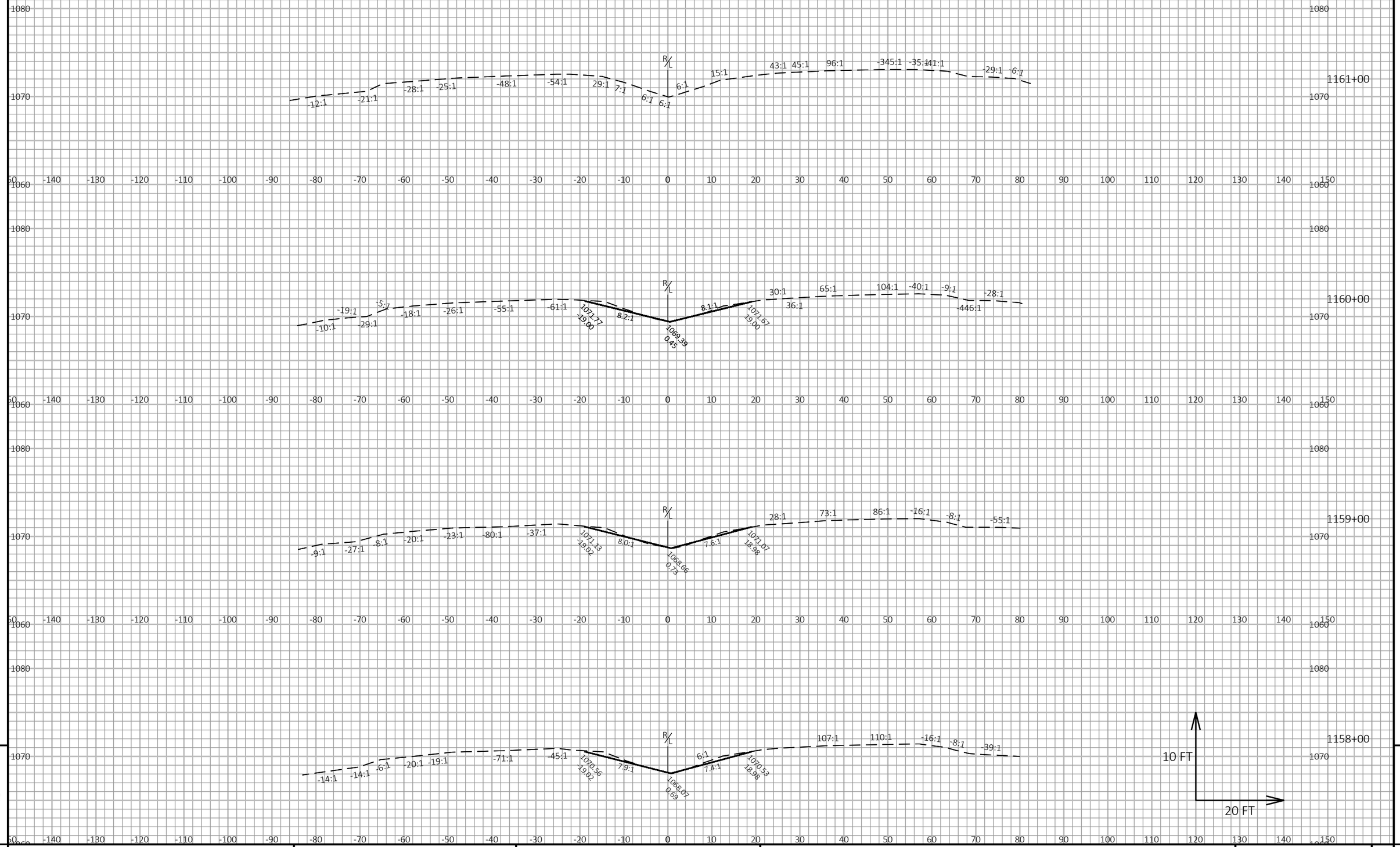
PLOT DATE : 4/30/2019 10:33 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 301	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 108

PLOT DATE : 4/30/2019 10:33 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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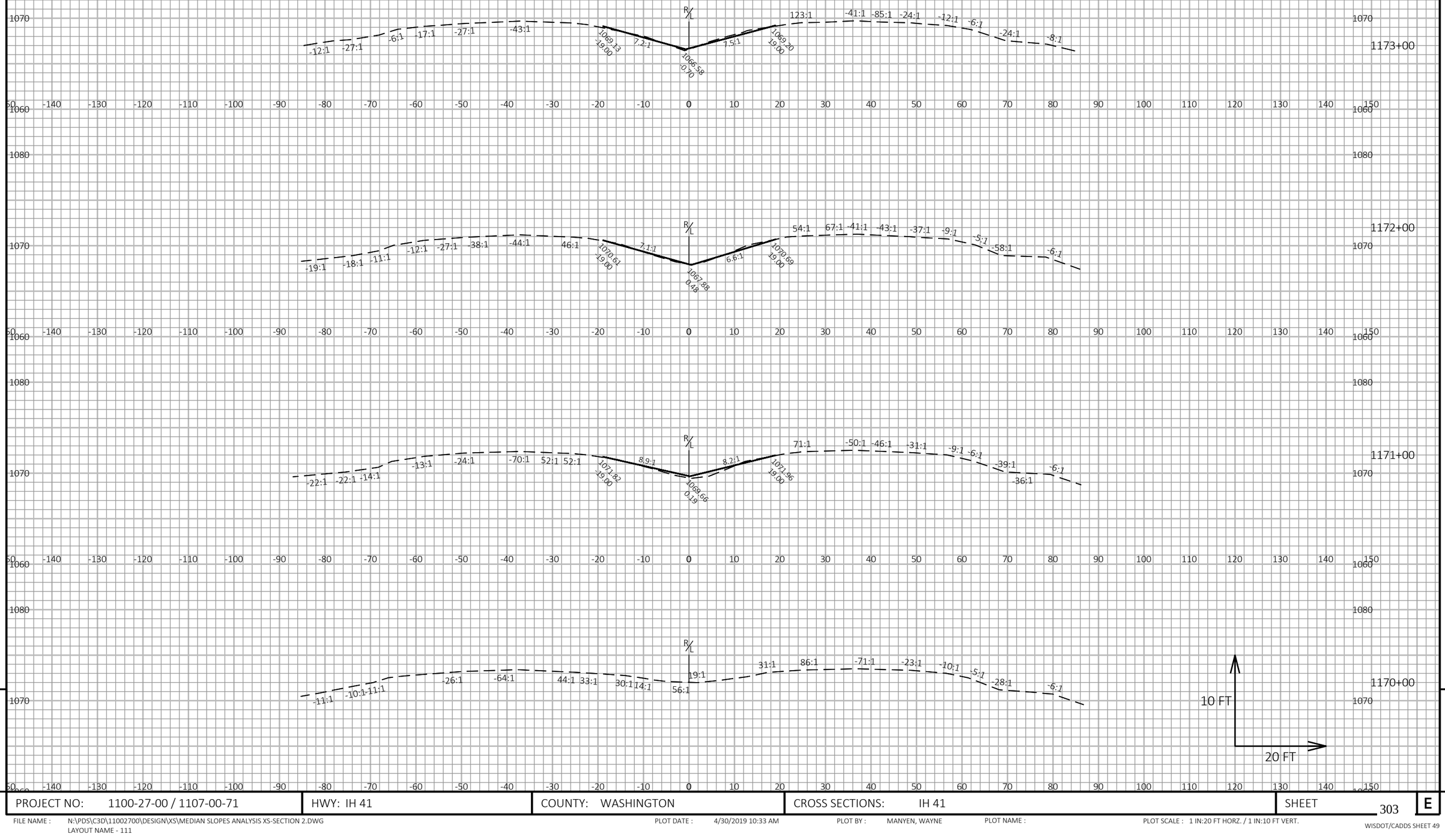
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 302	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 109

PLOT DATE : 4/30/2019 10:33 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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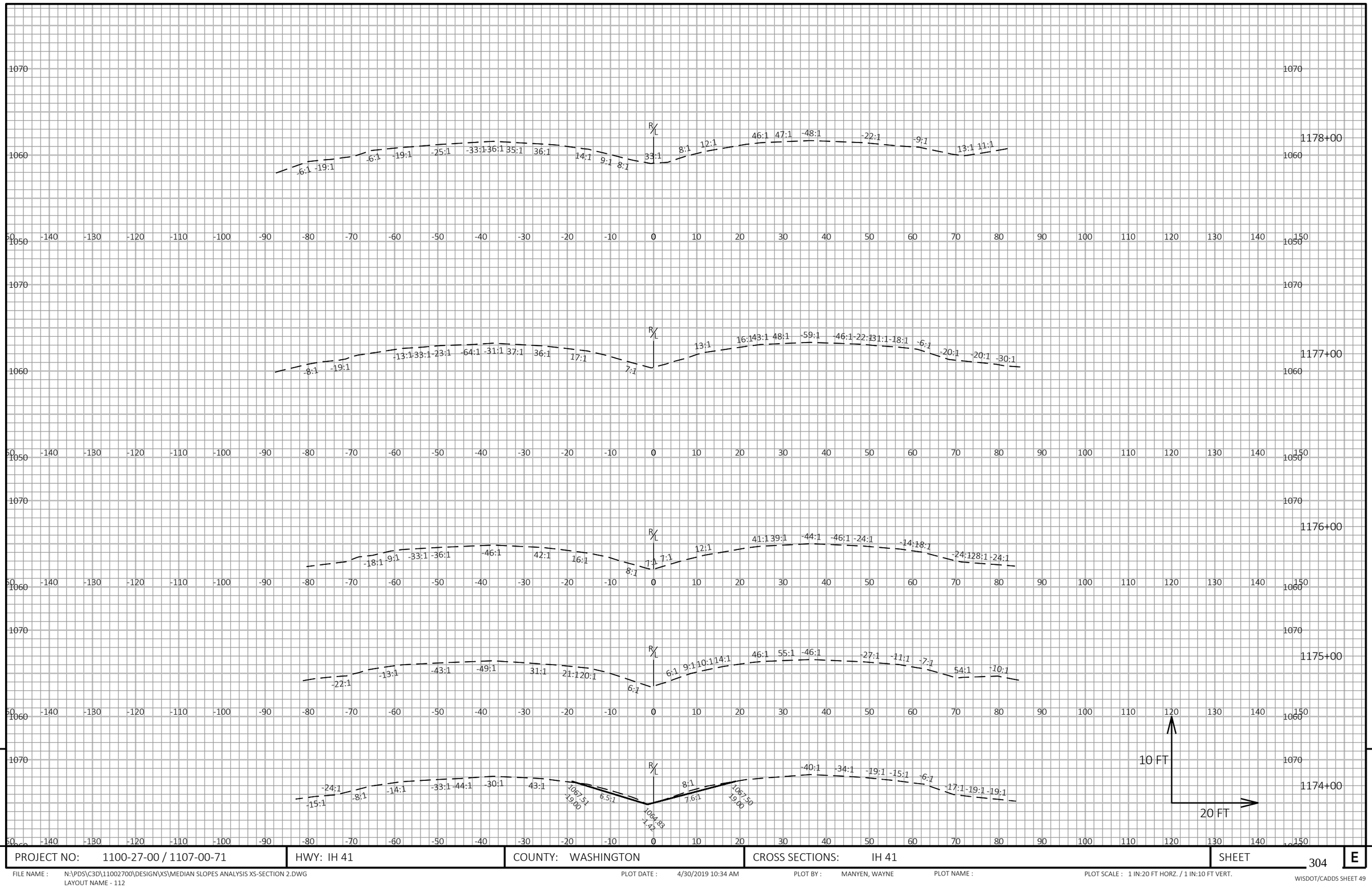
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 303	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 111

PLOT DATE : 4/30/2019 10:33 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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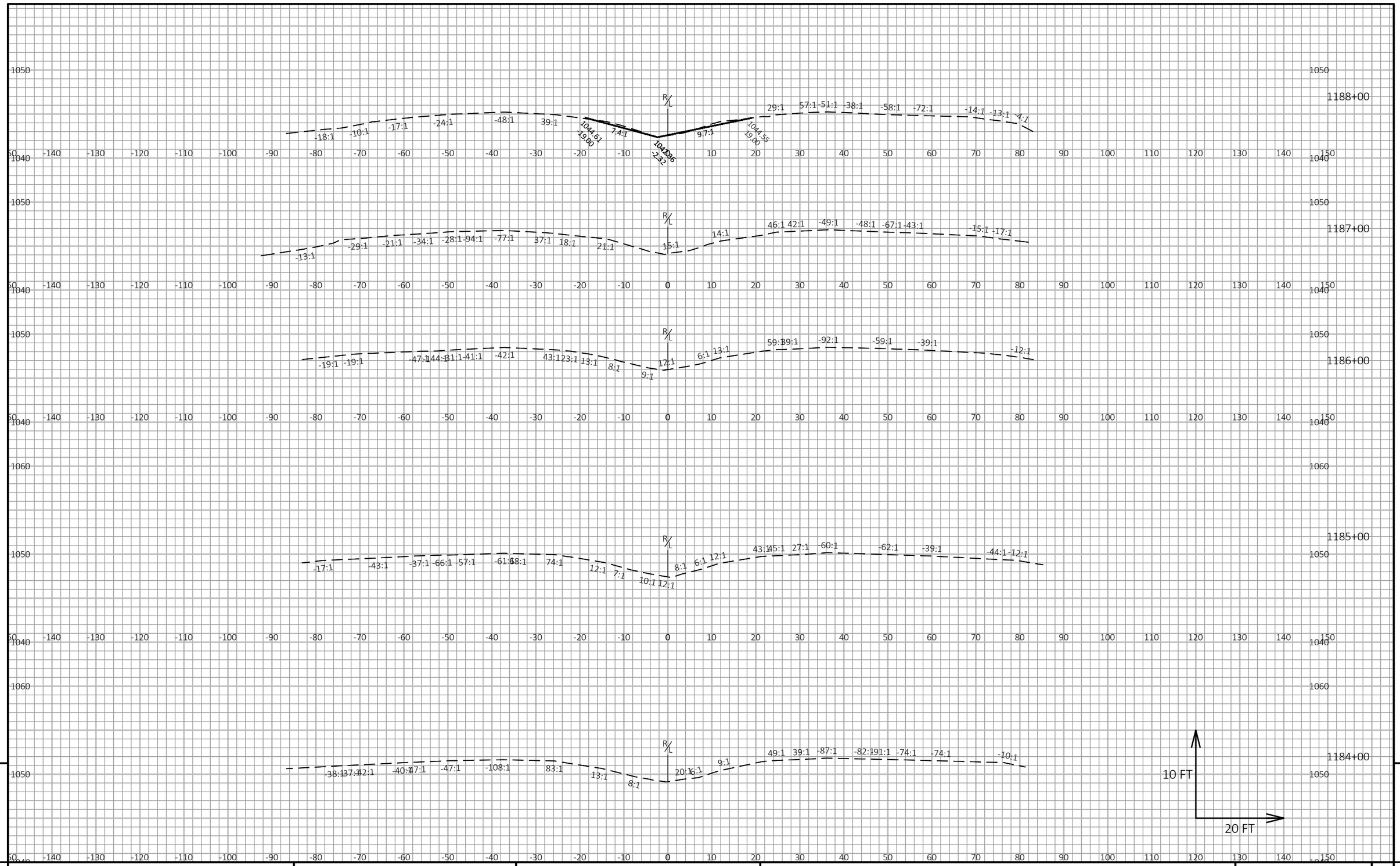
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 304	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 112

PLOT DATE : 4/30/2019 10:34 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

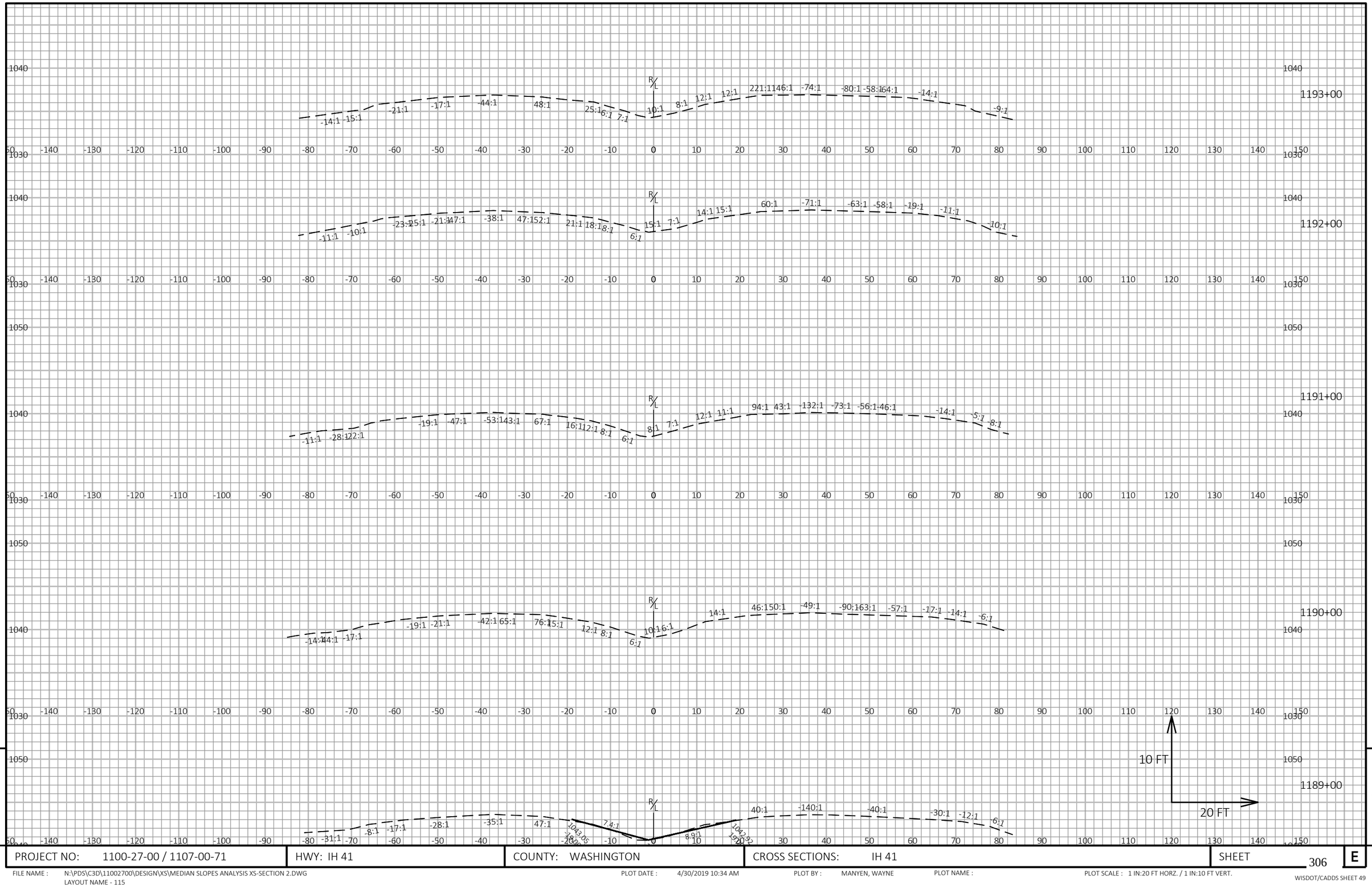


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 305	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 114

PLOT DATE : 4/30/2019 10:34 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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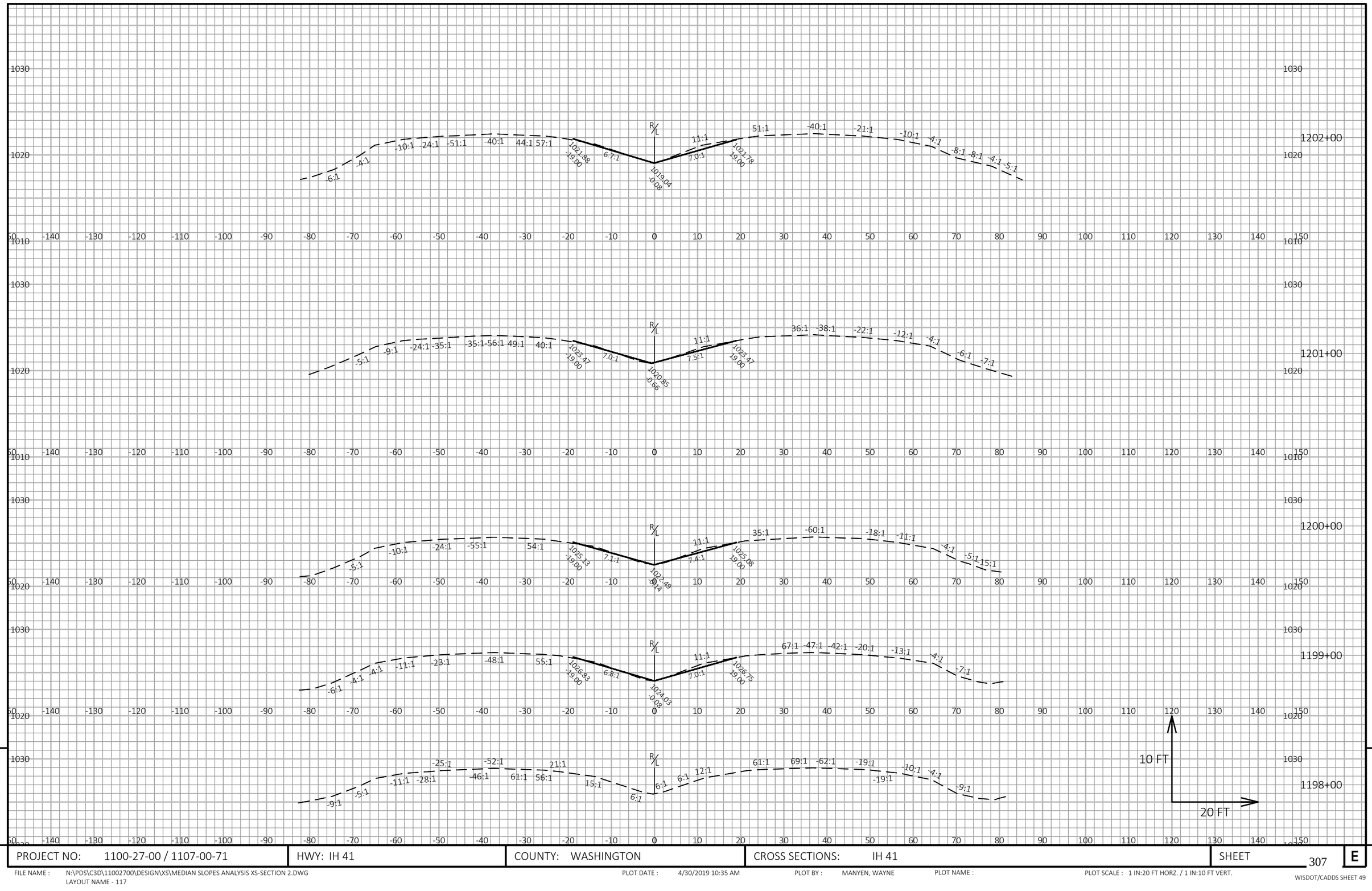
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 306	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 115

PLOT DATE : 4/30/2019 10:34 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

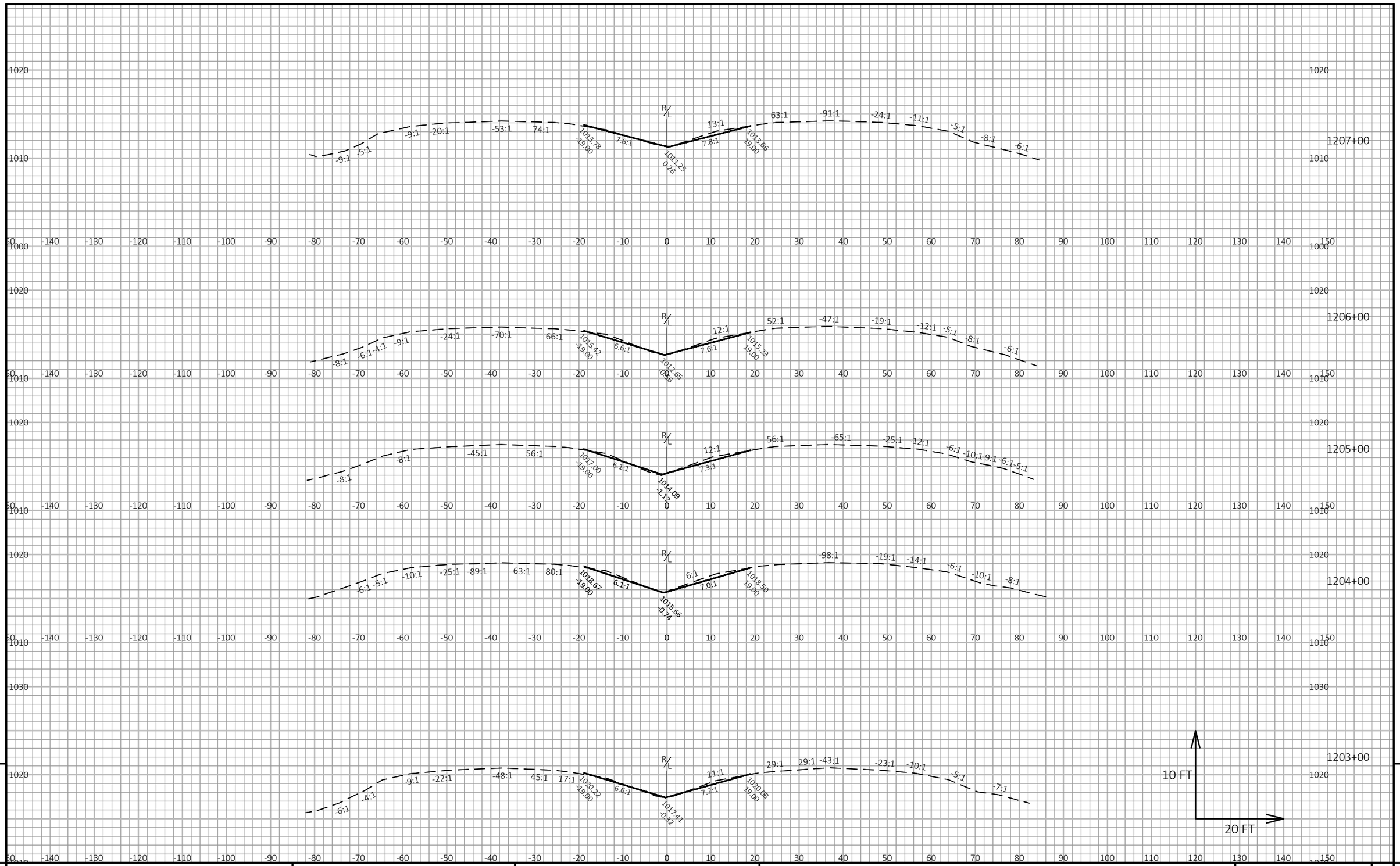


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 307 E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 117

PLOT DATE : 4/30/2019 10:35 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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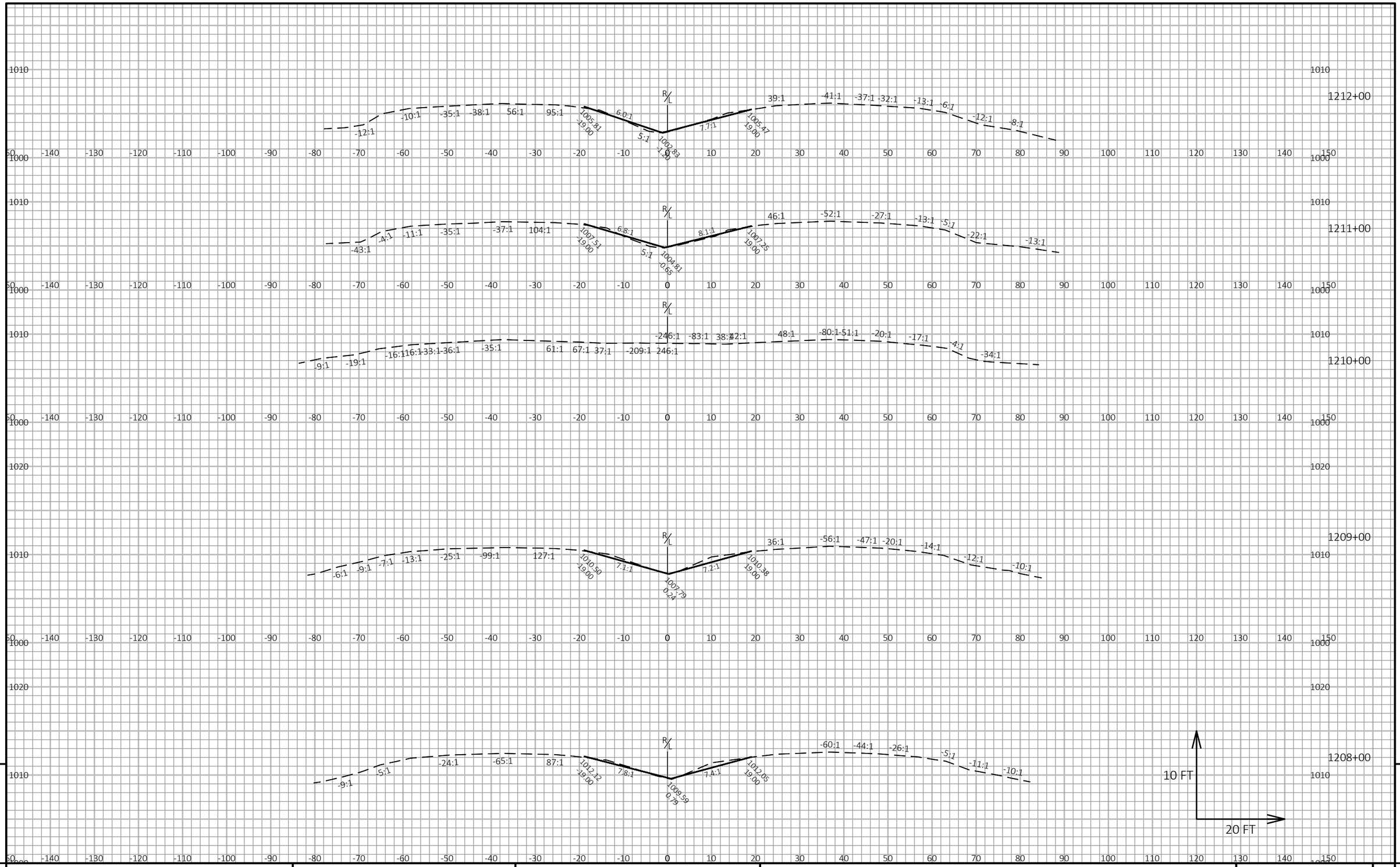
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 308	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 118

PLOT DATE : 4/30/2019 10:35 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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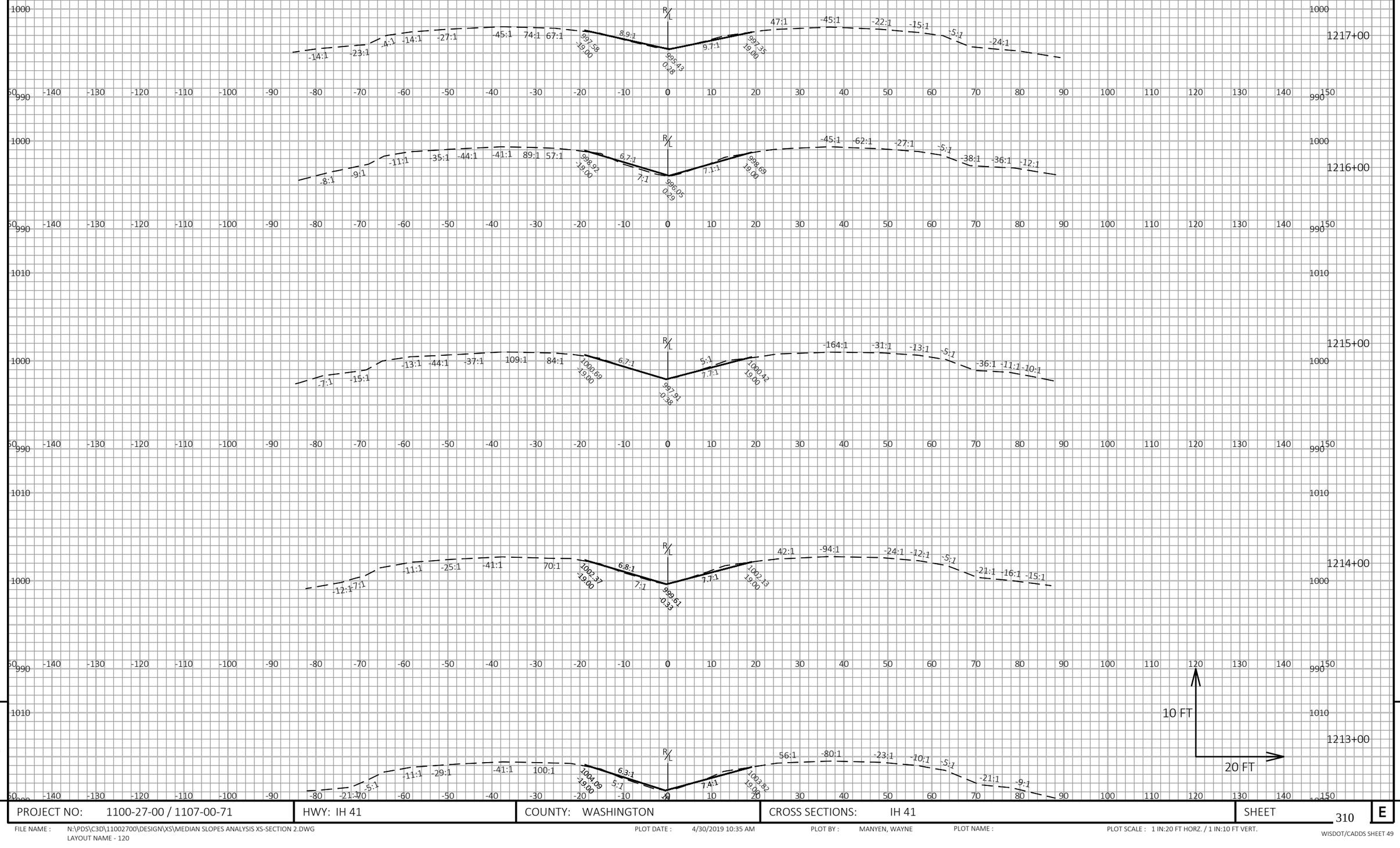
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 309	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 119

PLOT DATE : 4/30/2019 10:35 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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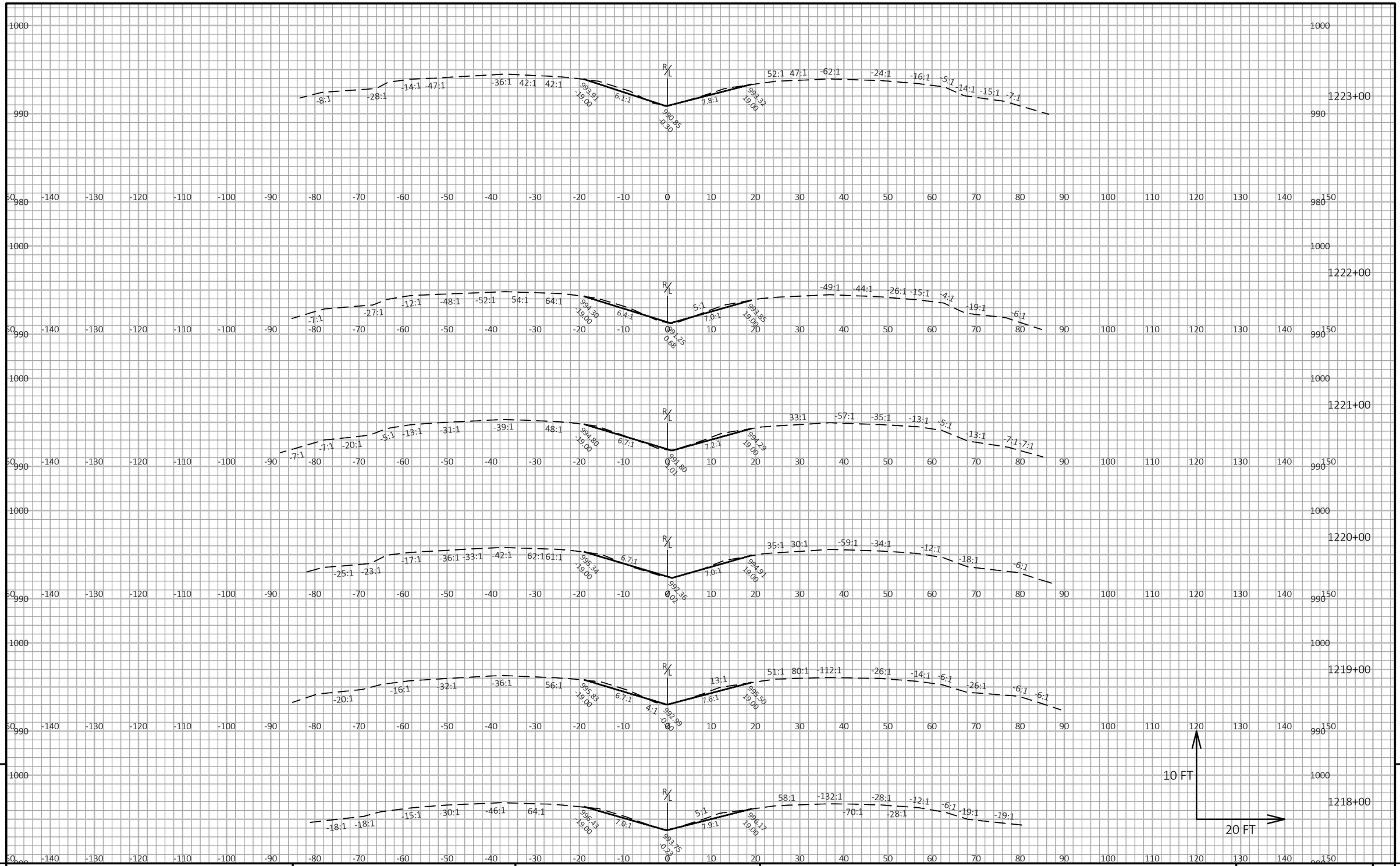
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 310	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 120

PLOT DATE : 4/30/2019 10:35 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 311	E

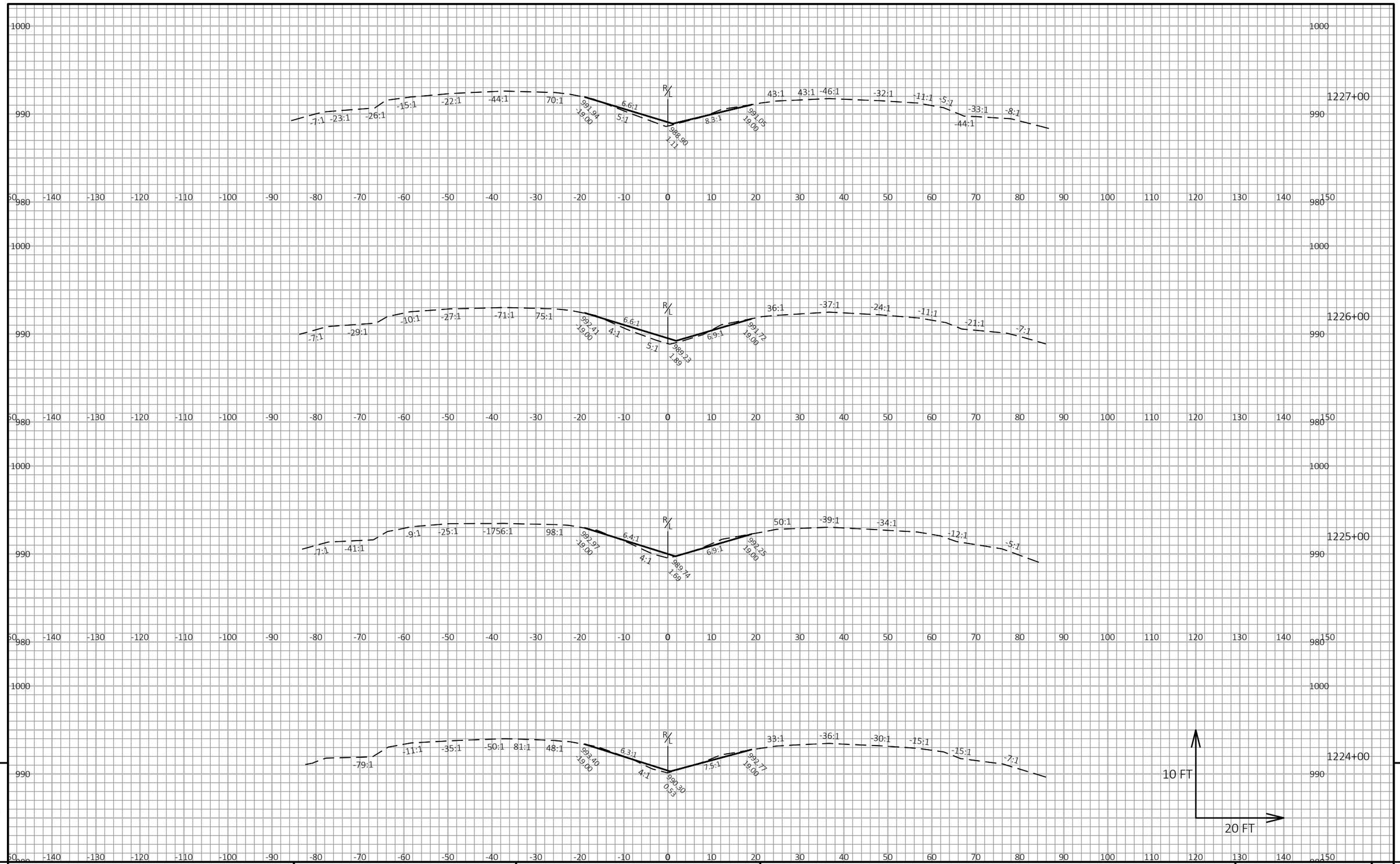
FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 121

PLOT DATE : 4/30/2019 10:36 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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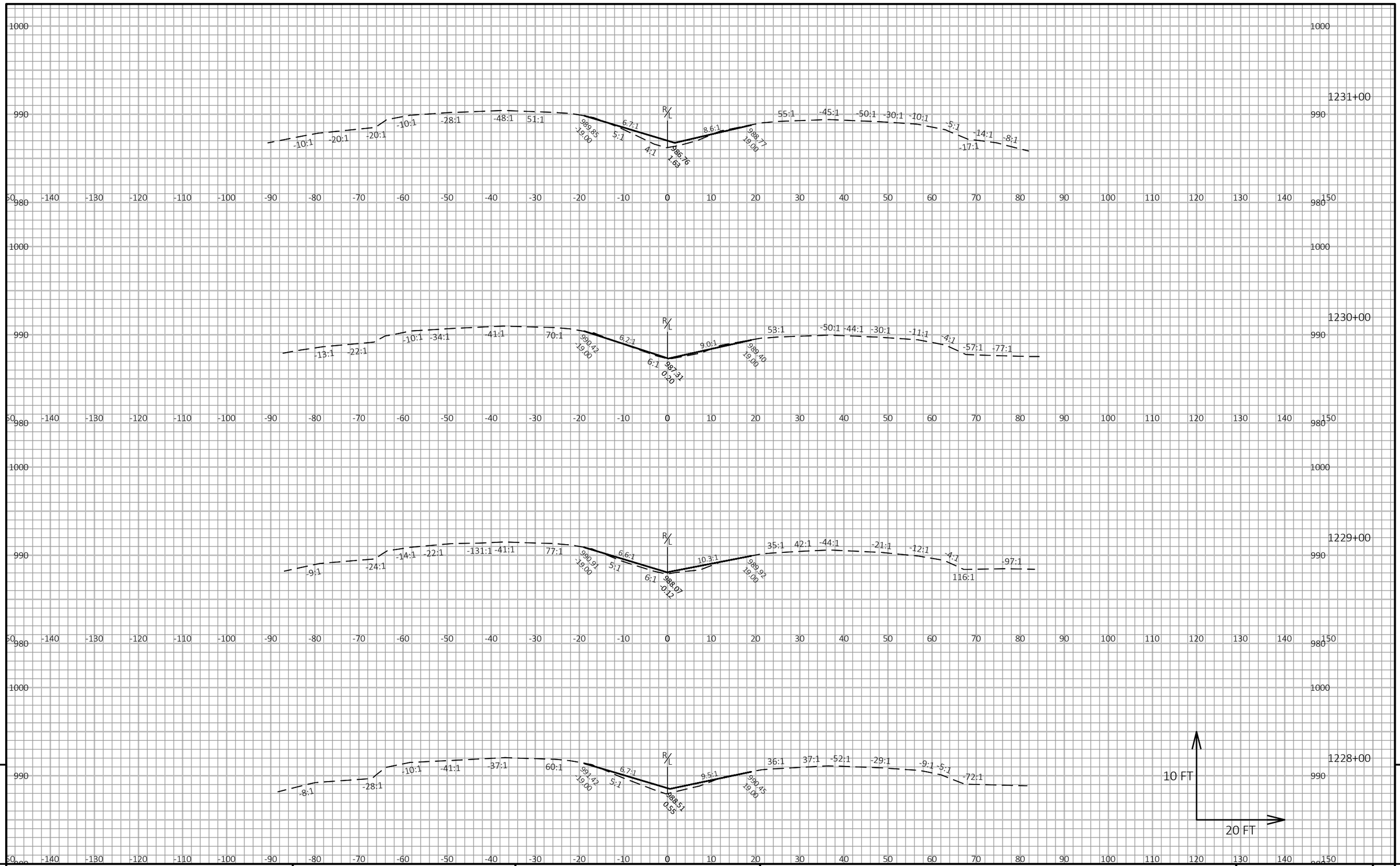
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 312	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 122

PLOT DATE : 4/30/2019 10:36 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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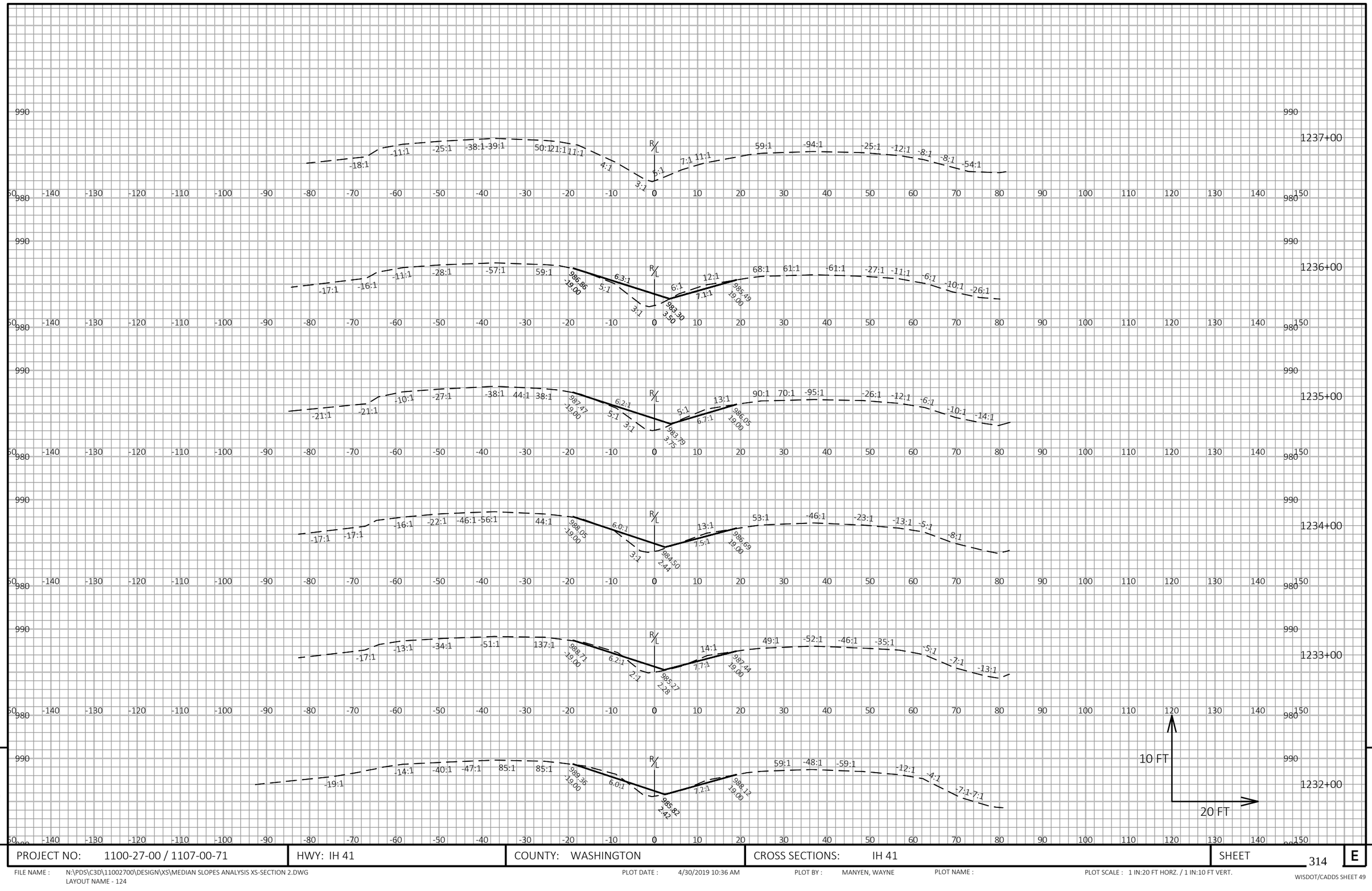
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 313	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 123

PLOT DATE : 4/30/2019 10:36 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

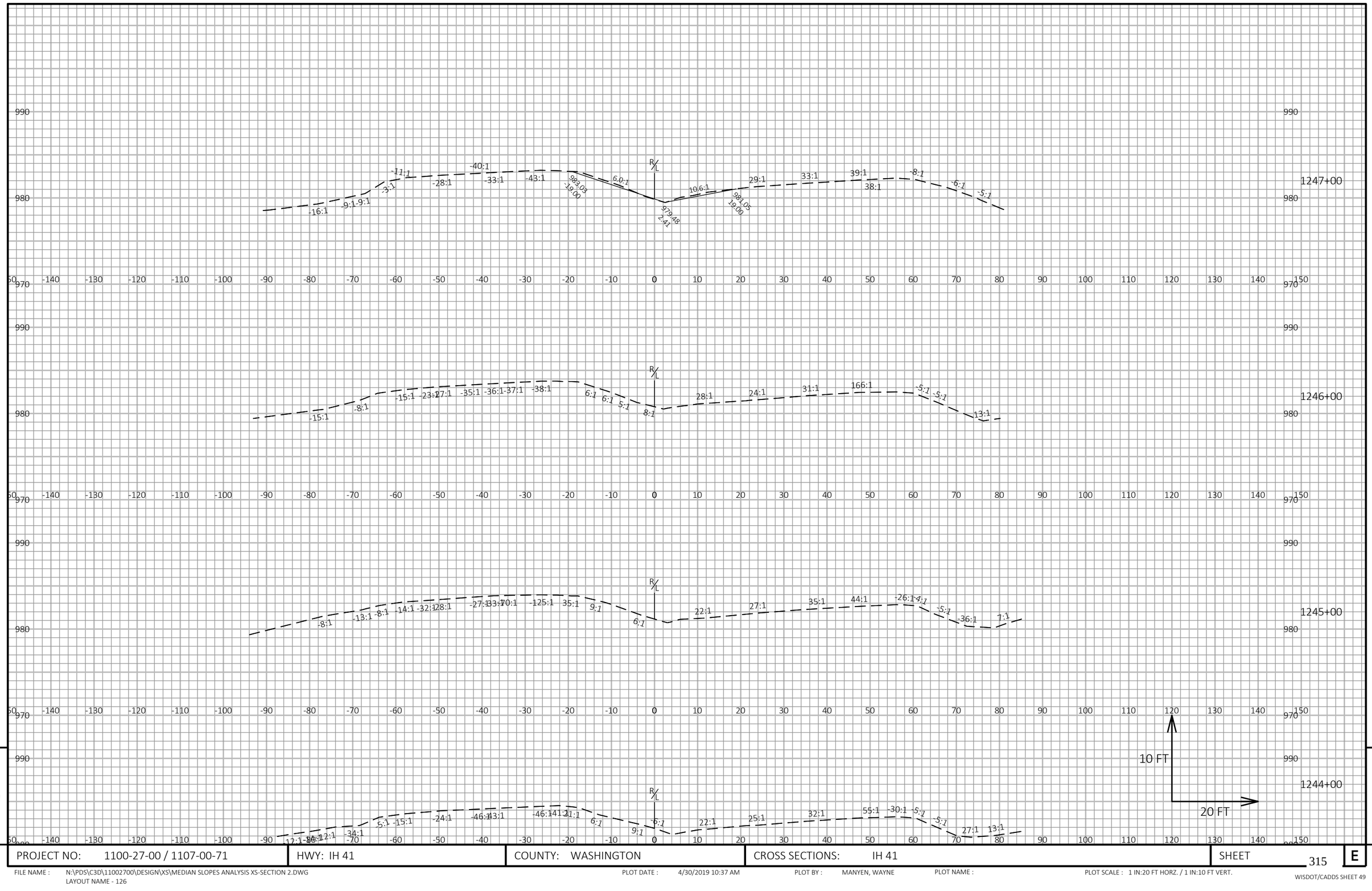


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 314	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 124

PLOT DATE : 4/30/2019 10:36 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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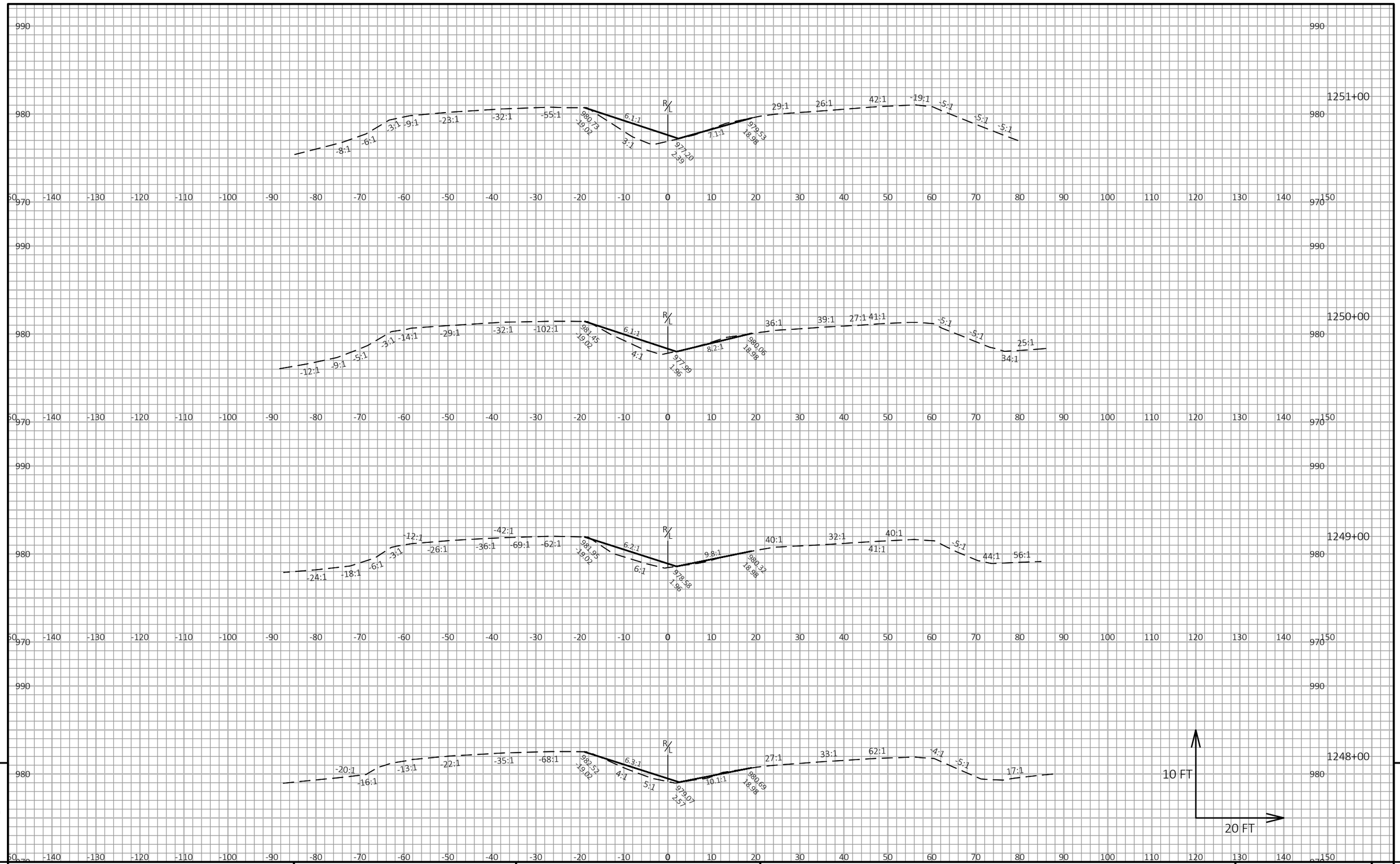
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 315	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 126

PLOT DATE : 4/30/2019 10:37 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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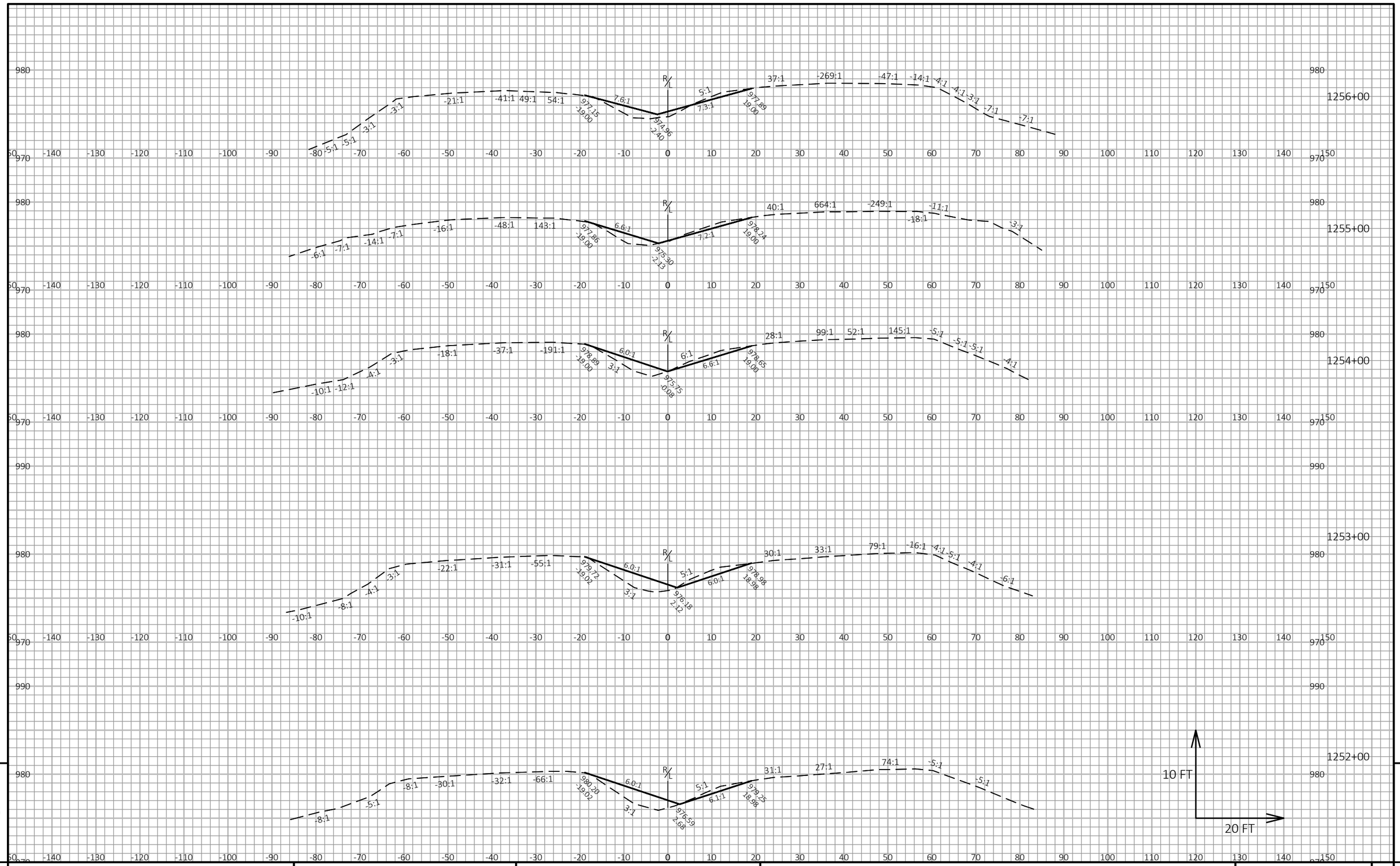
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 316	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 127

PLOT DATE : 4/30/2019 10:37 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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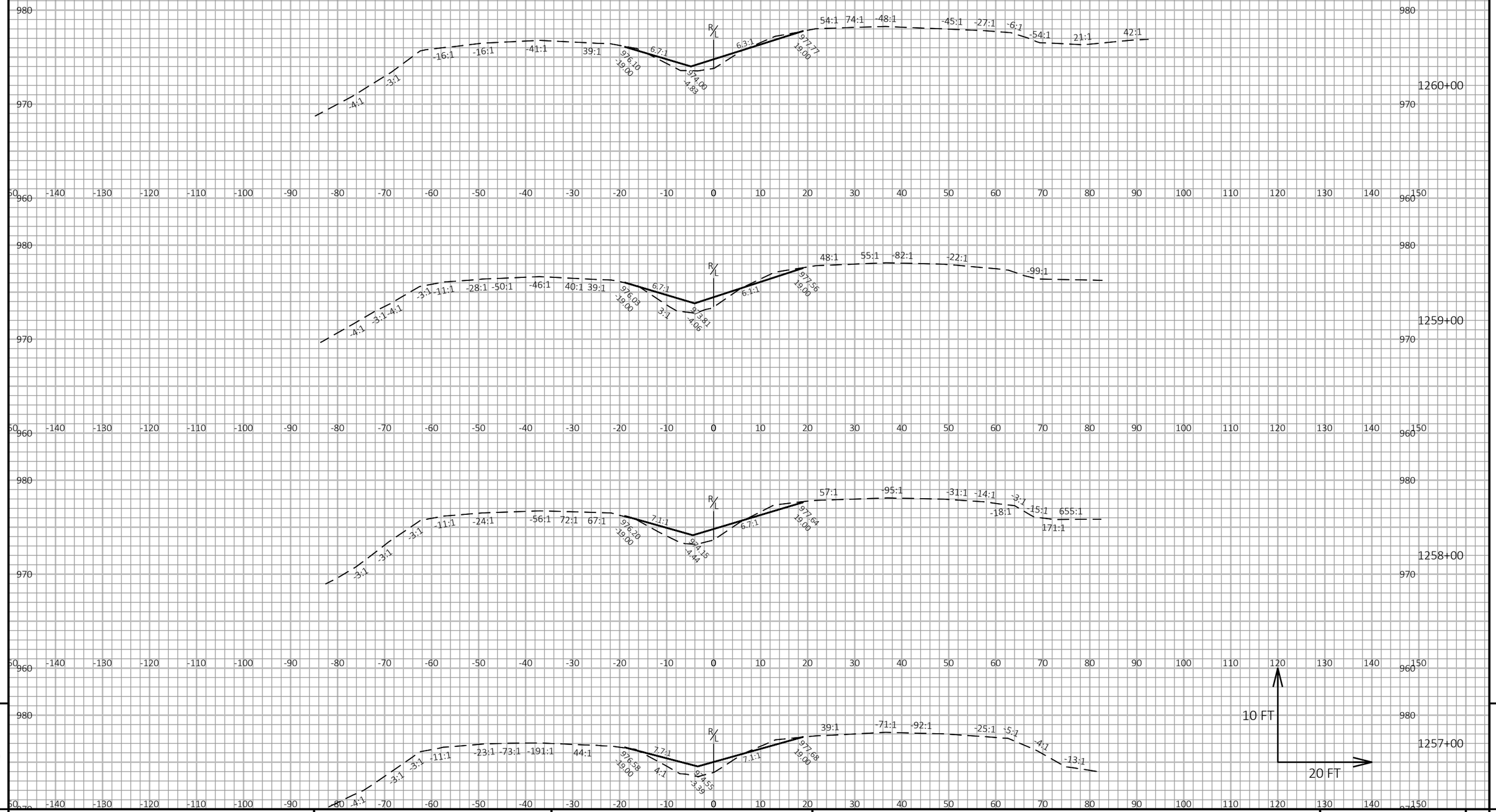
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 317	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 128

PLOT DATE : 4/30/2019 10:37 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

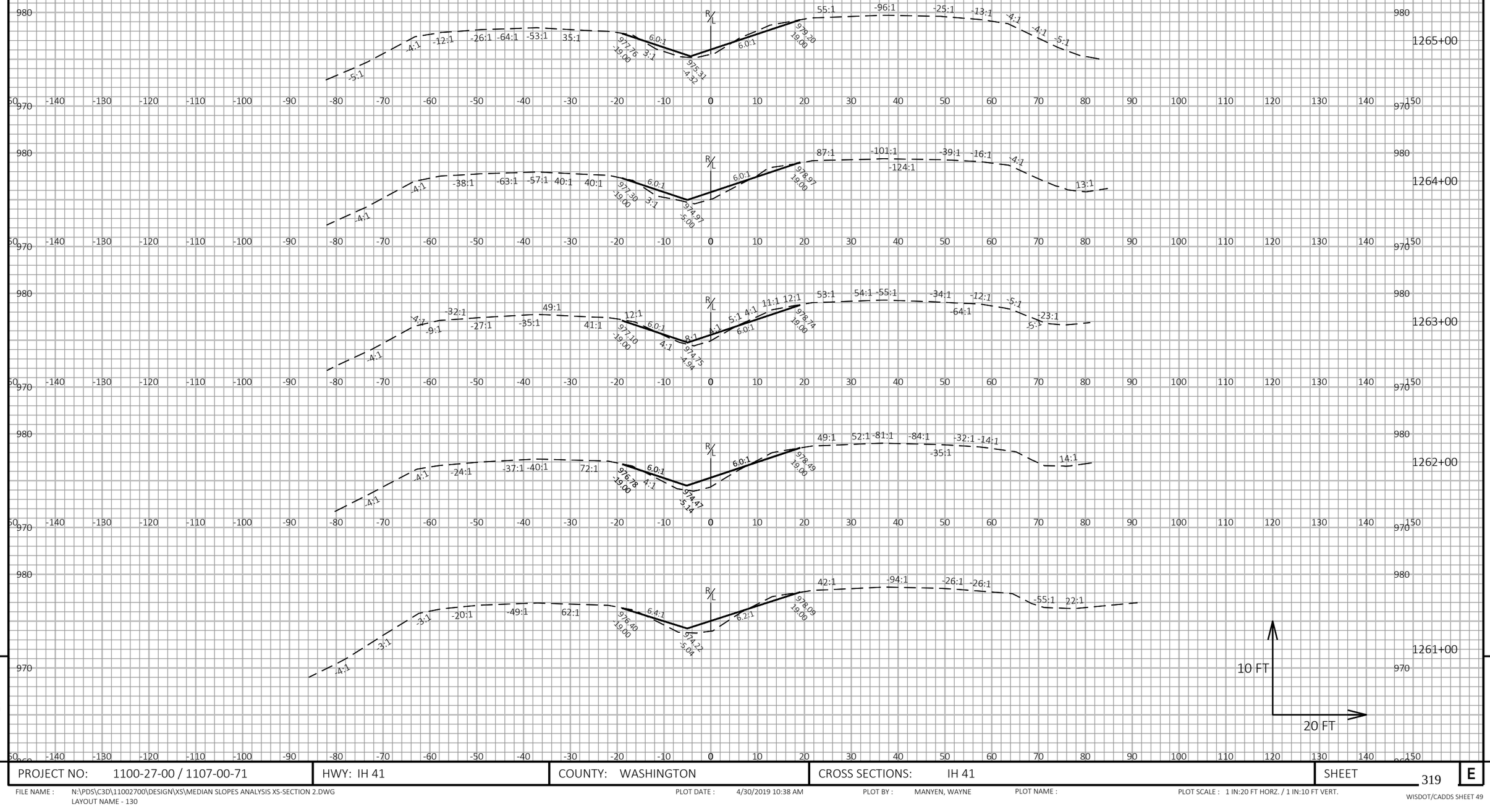


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 318 E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 129

PLOT DATE : 4/30/2019 10:37 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

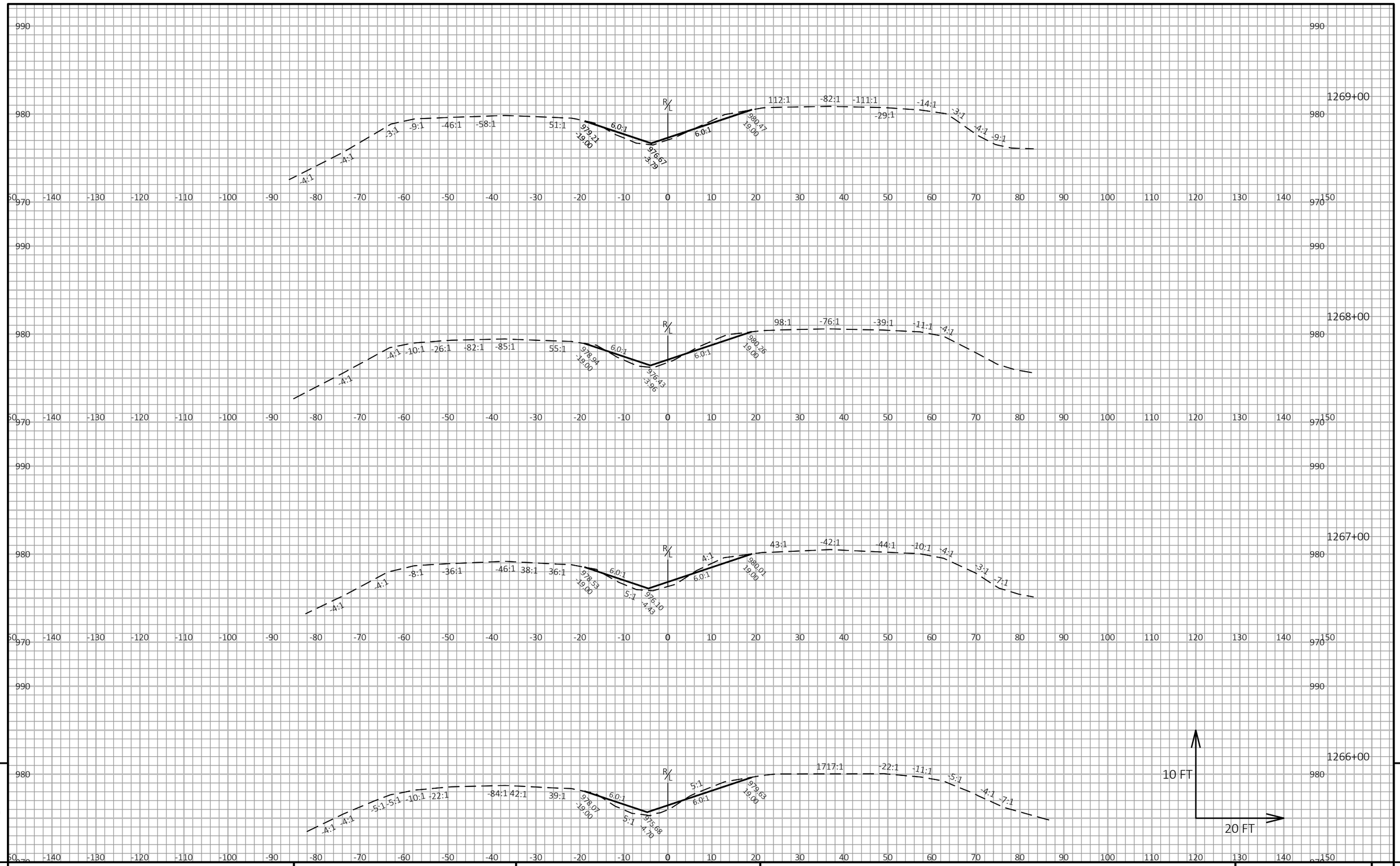


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 319 E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 130

PLOT DATE : 4/30/2019 10:38 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

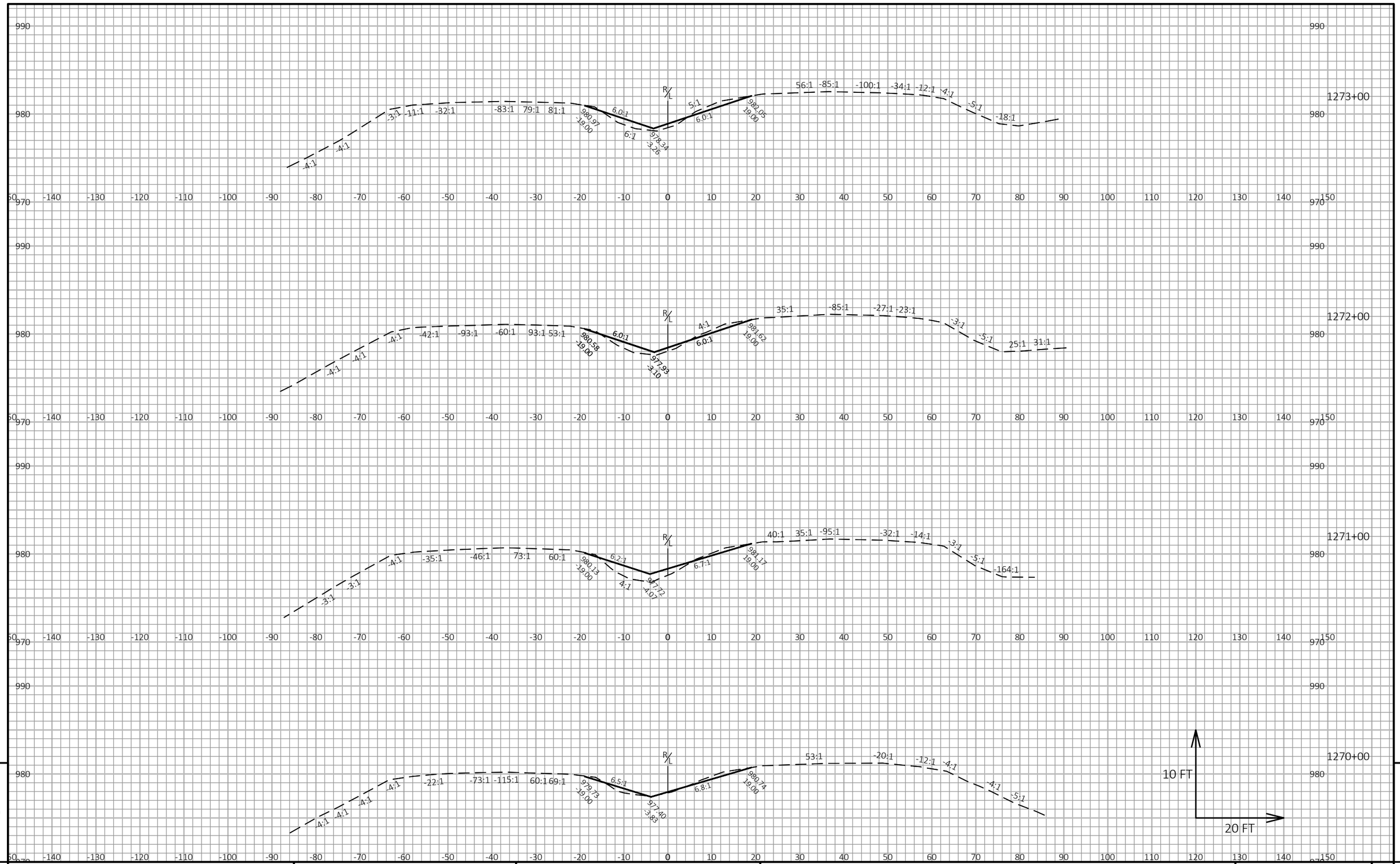


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 320 E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 131

PLOT DATE : 4/30/2019 10:38 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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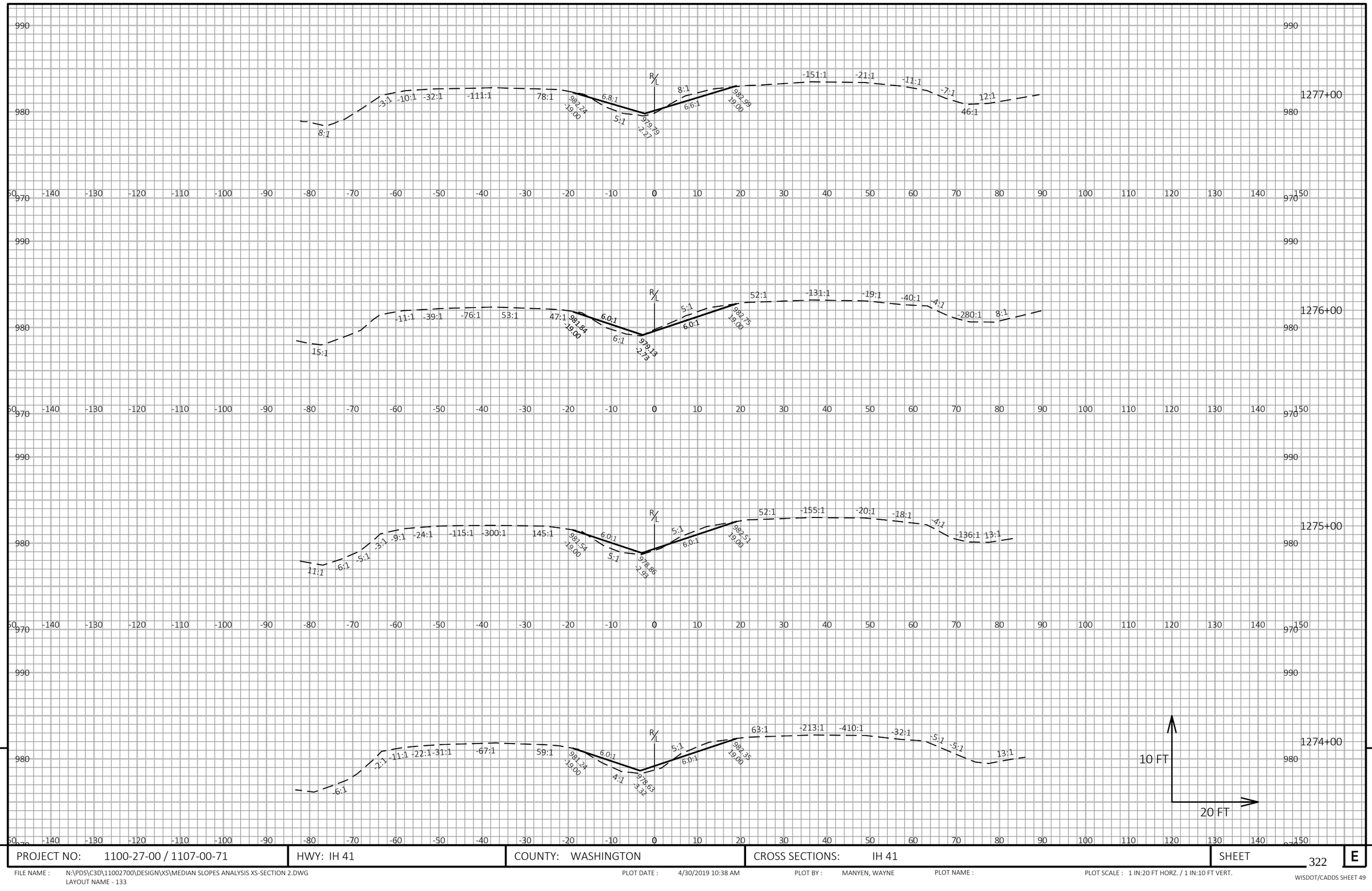
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 321	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 132

PLOT DATE : 4/30/2019 10:38 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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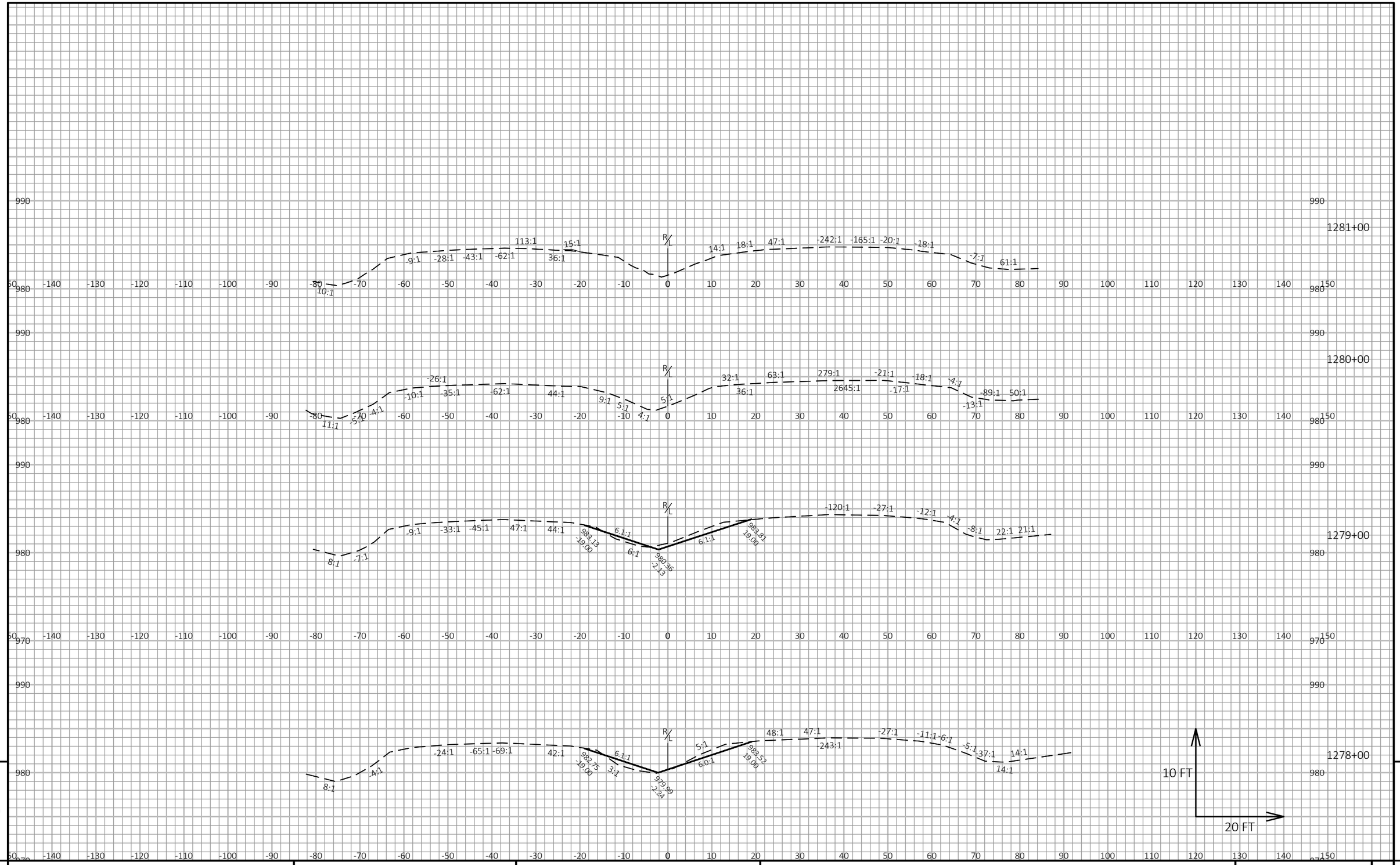
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 322	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 133

PLOT DATE : 4/30/2019 10:38 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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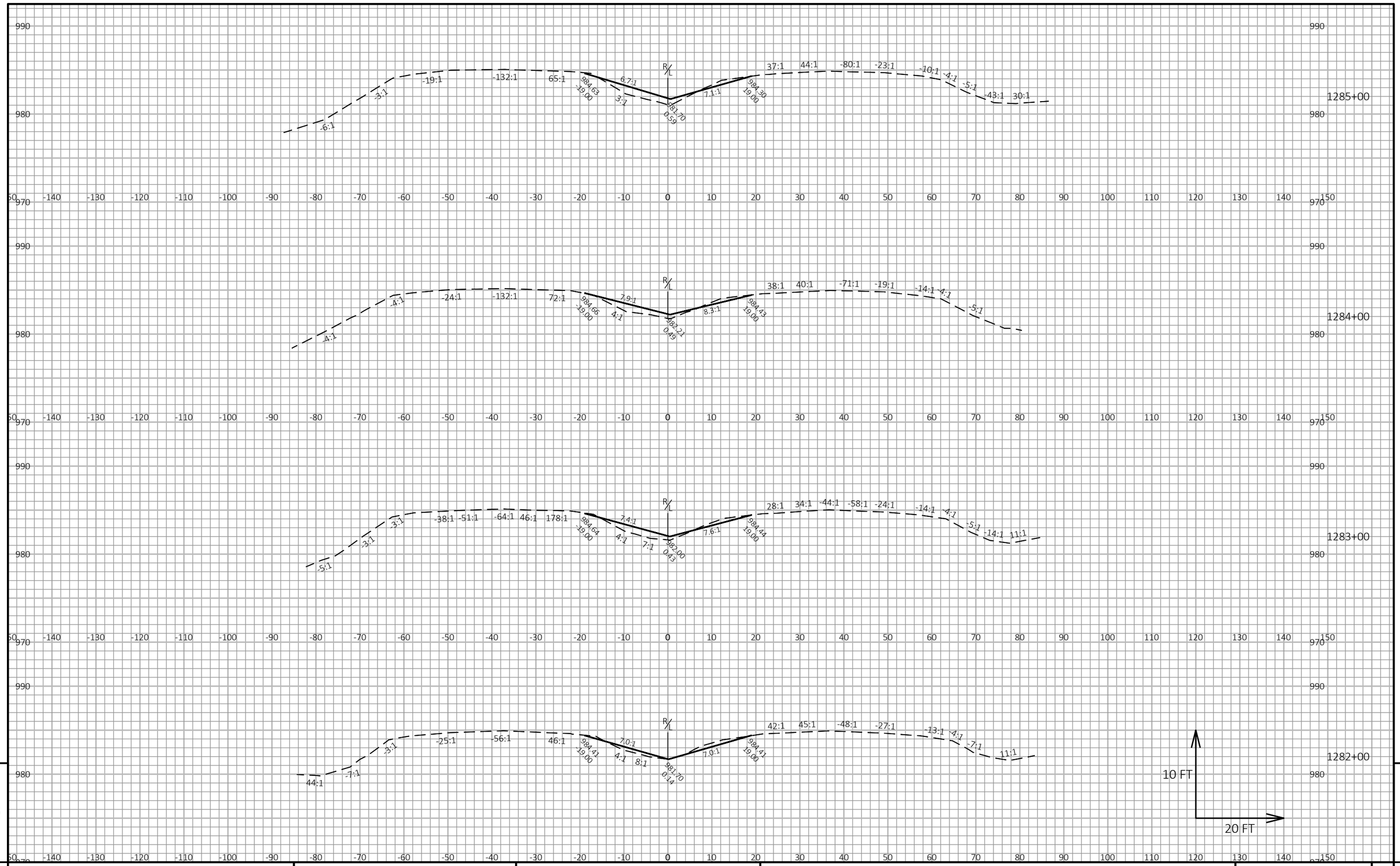
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 323	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 134

PLOT DATE : 4/30/2019 10:38 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

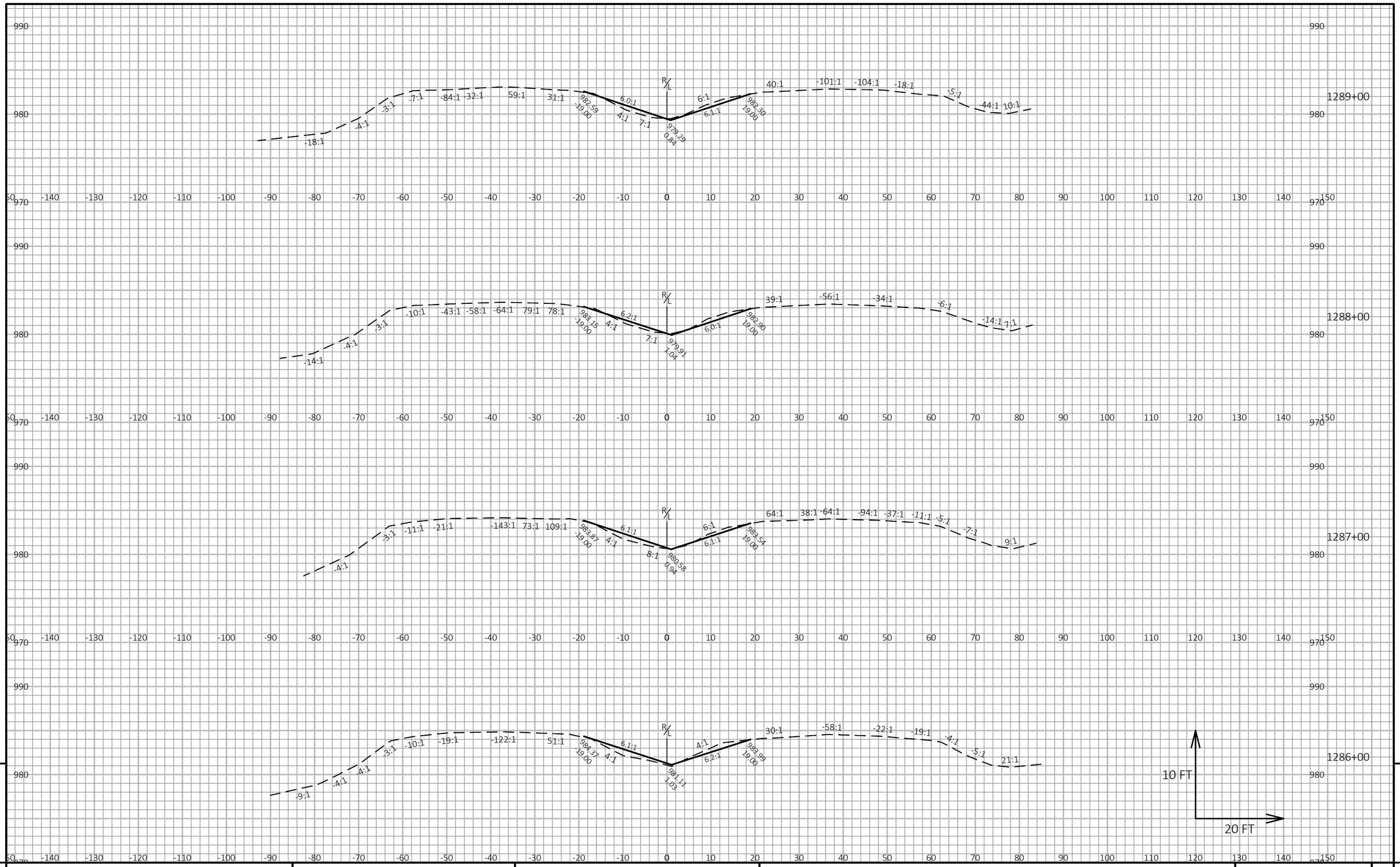


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 324	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 135

PLOT DATE : 4/30/2019 10:39 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 325	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 136

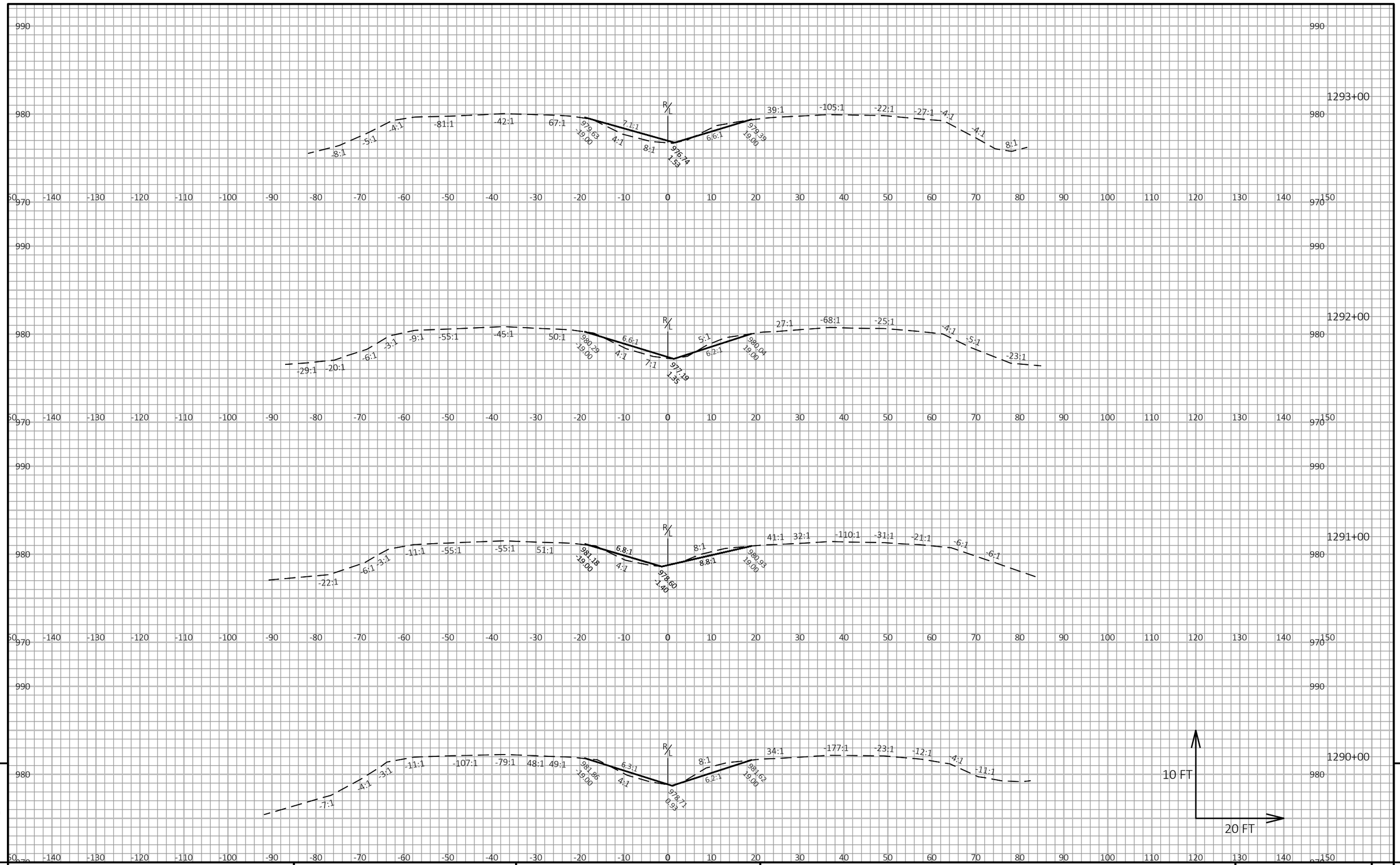
PLOT DATE : 4/30/2019 10:39 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 326	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 137

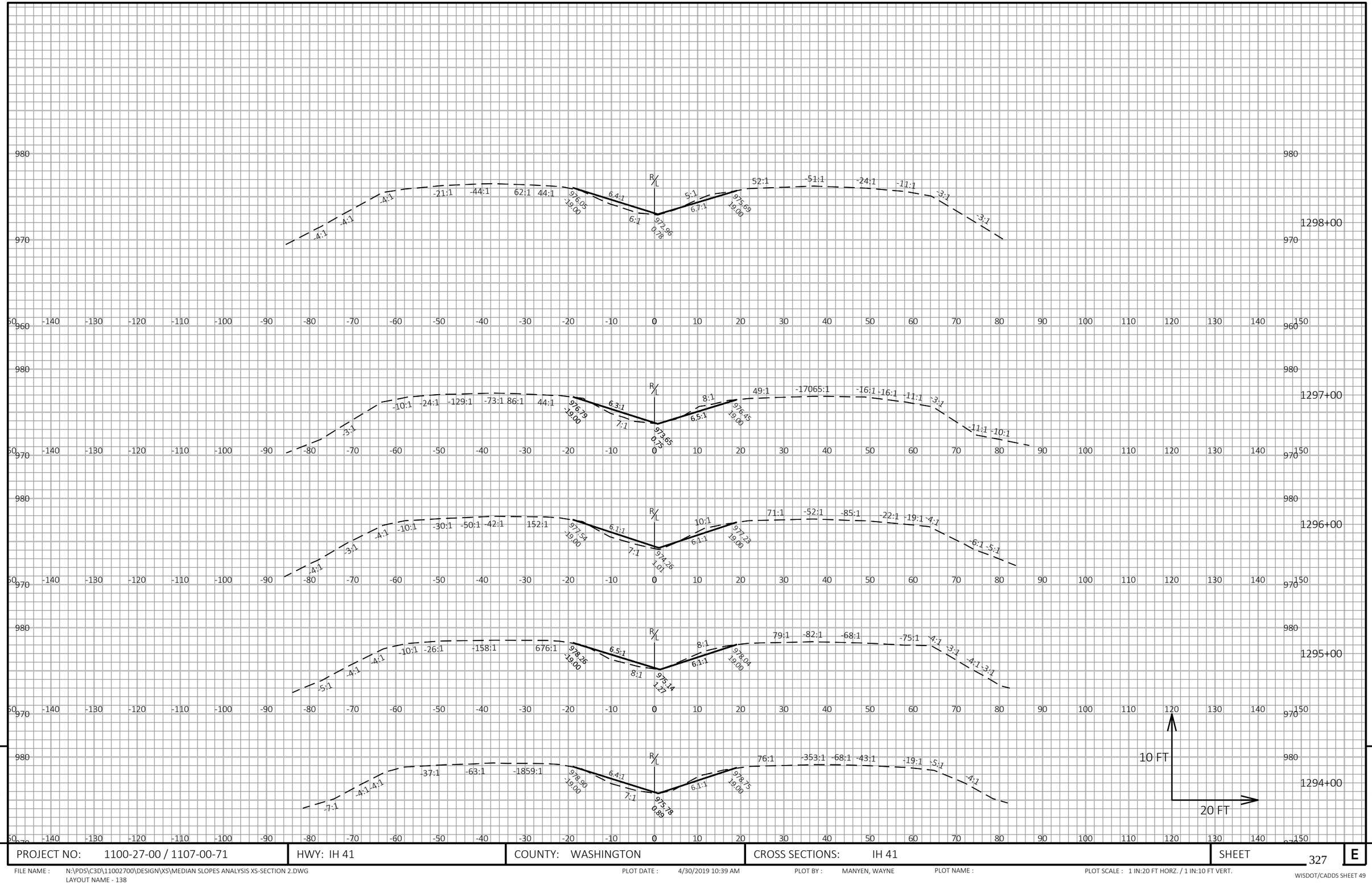
PLOT DATE : 4/30/2019 10:39 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

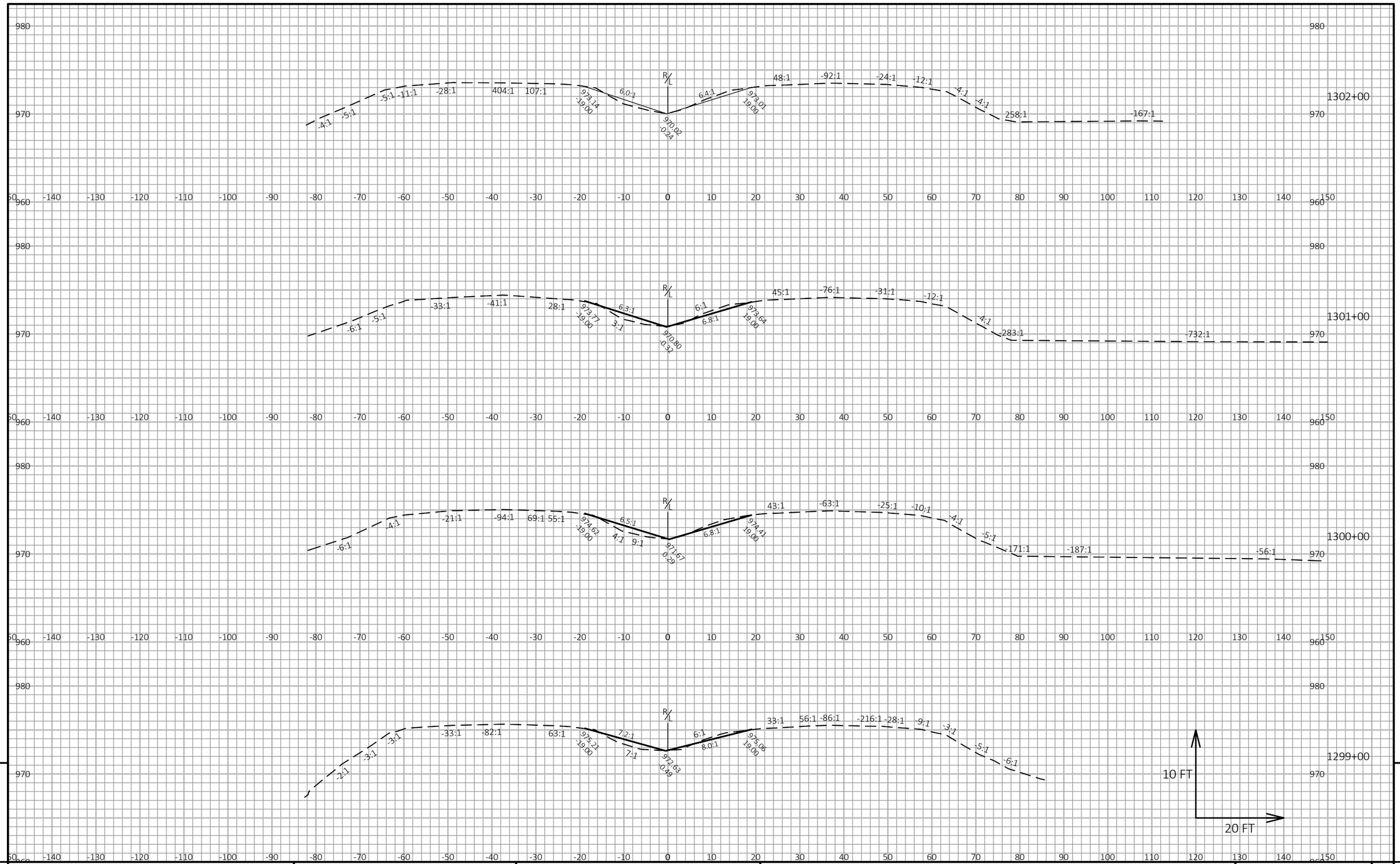


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 327	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 138

PLOT DATE : 4/30/2019 10:39 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 328	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 139

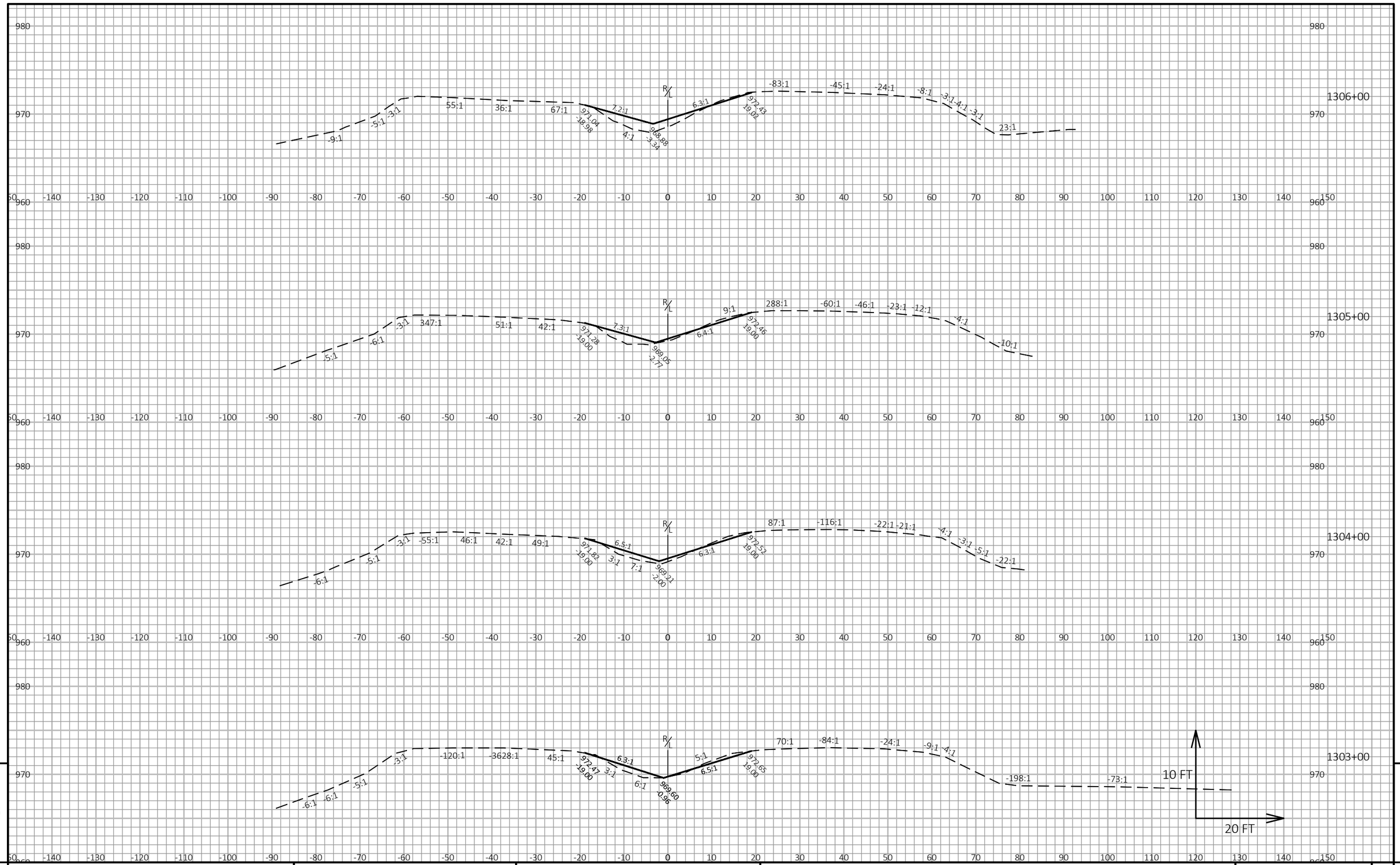
PLOT DATE : 4/30/2019 10:39 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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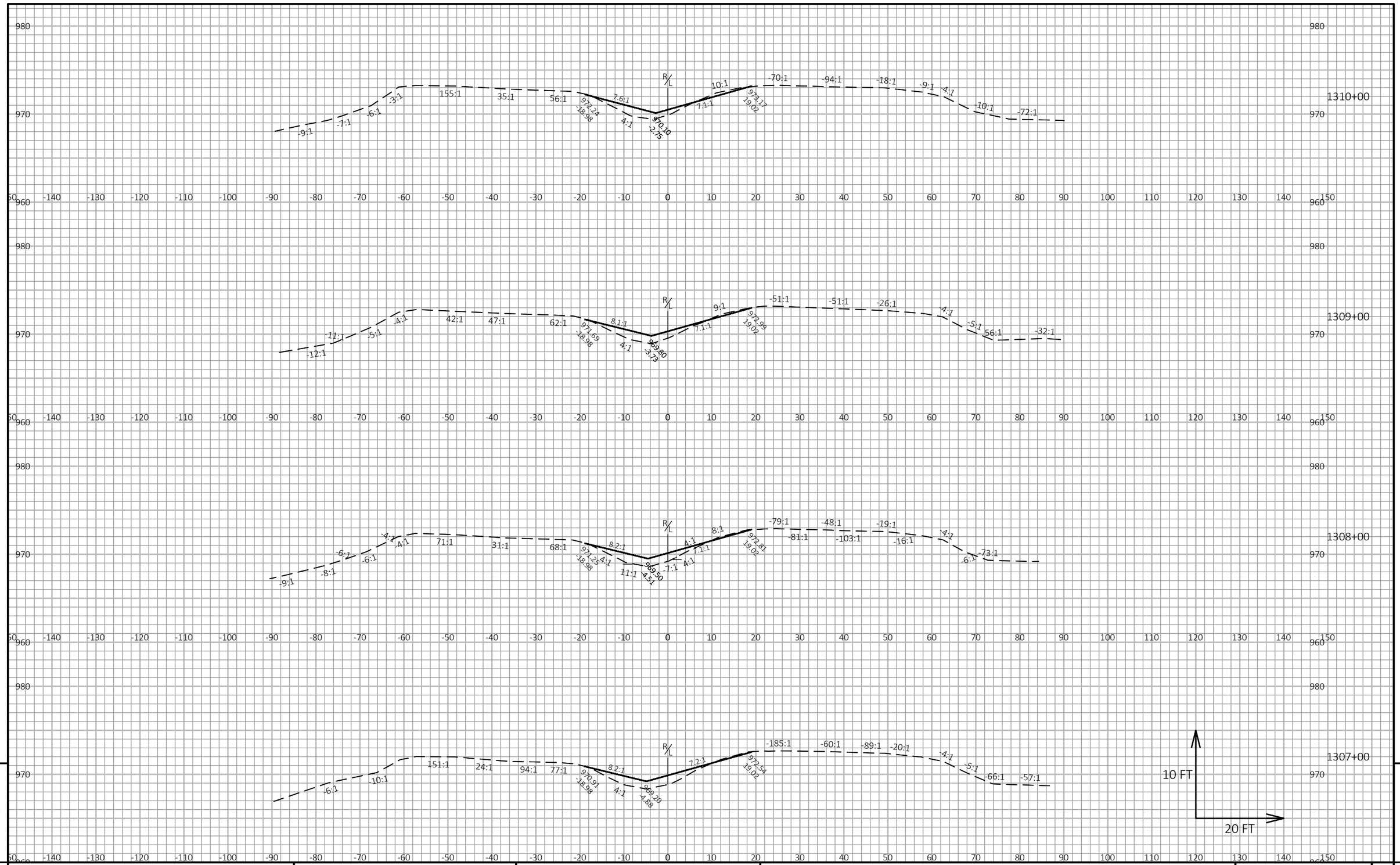
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 329	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 140

PLOT DATE : 4/30/2019 10:40 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 330	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 141

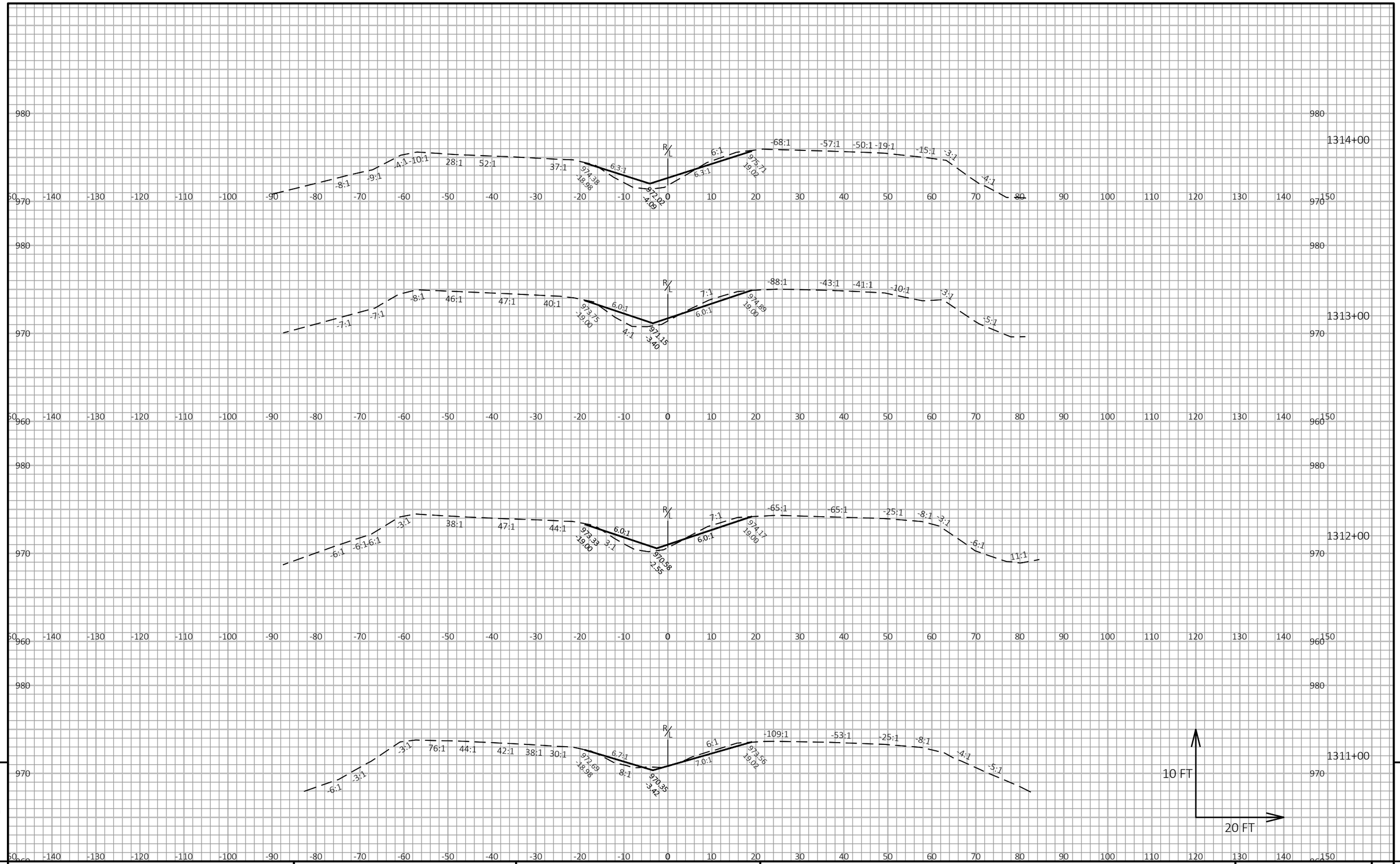
PLOT DATE : 4/30/2019 10:40 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 331	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 142

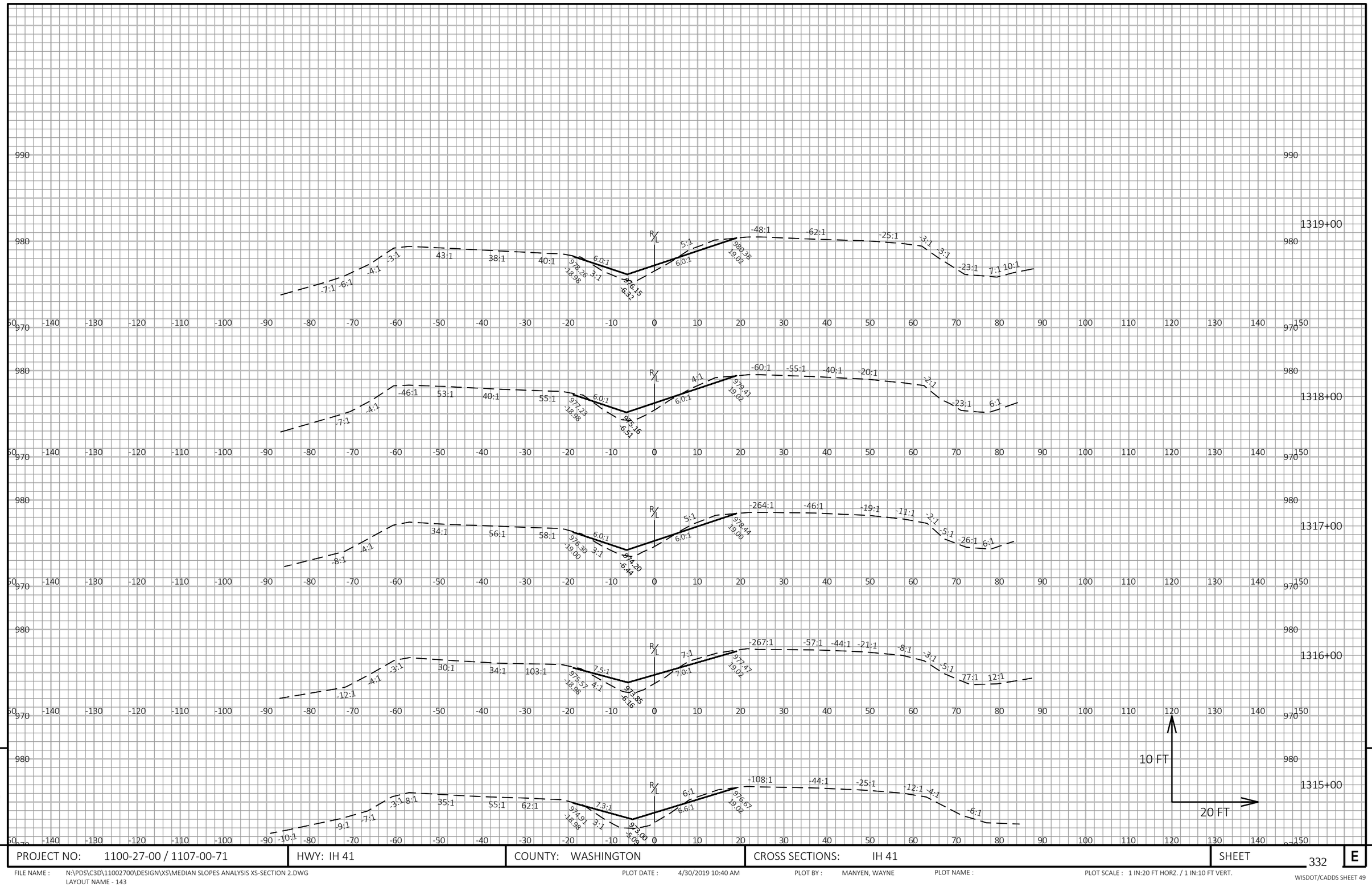
PLOT DATE : 4/30/2019 10:40 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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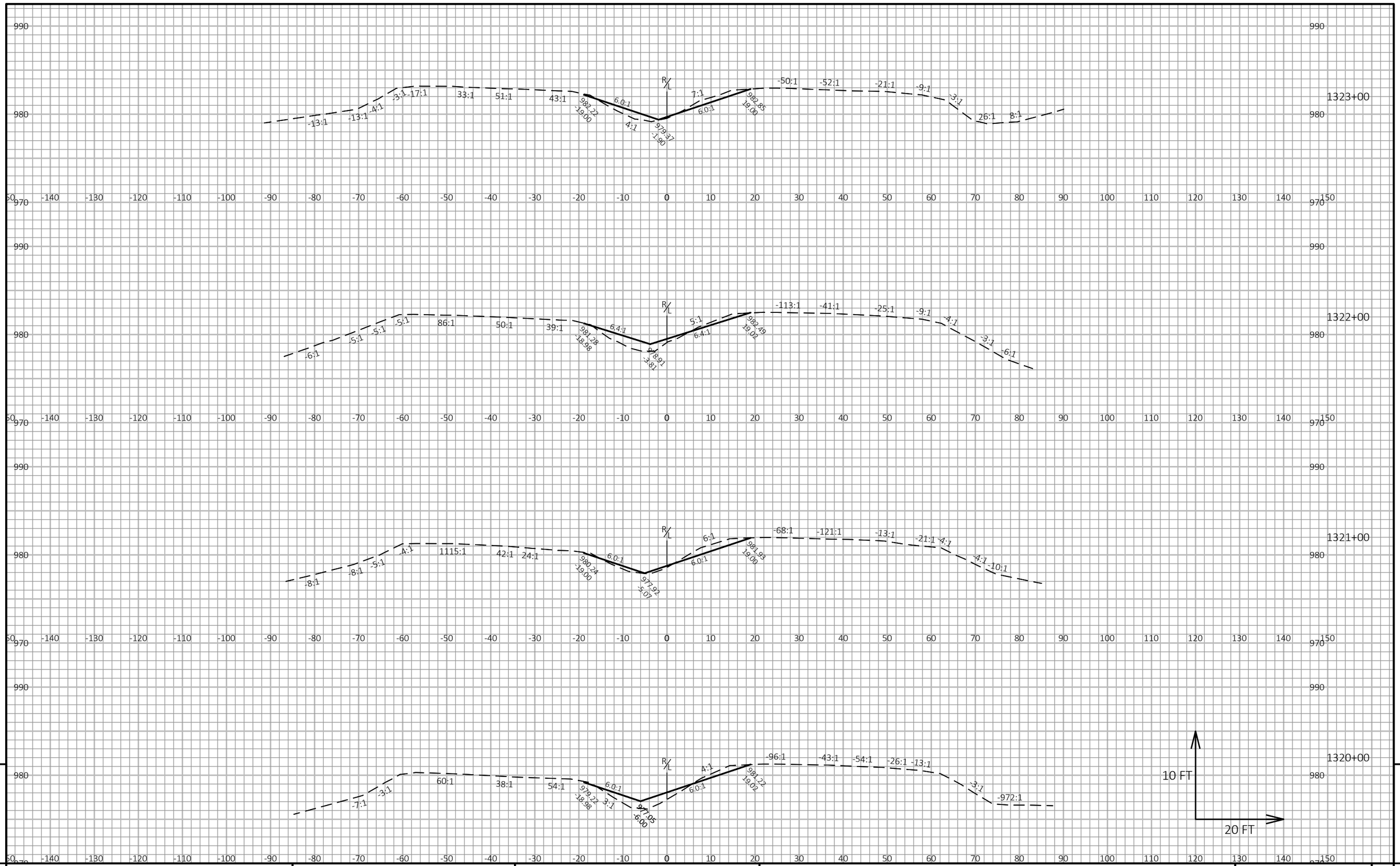
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 332	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 143

PLOT DATE : 4/30/2019 10:40 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 333	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 144

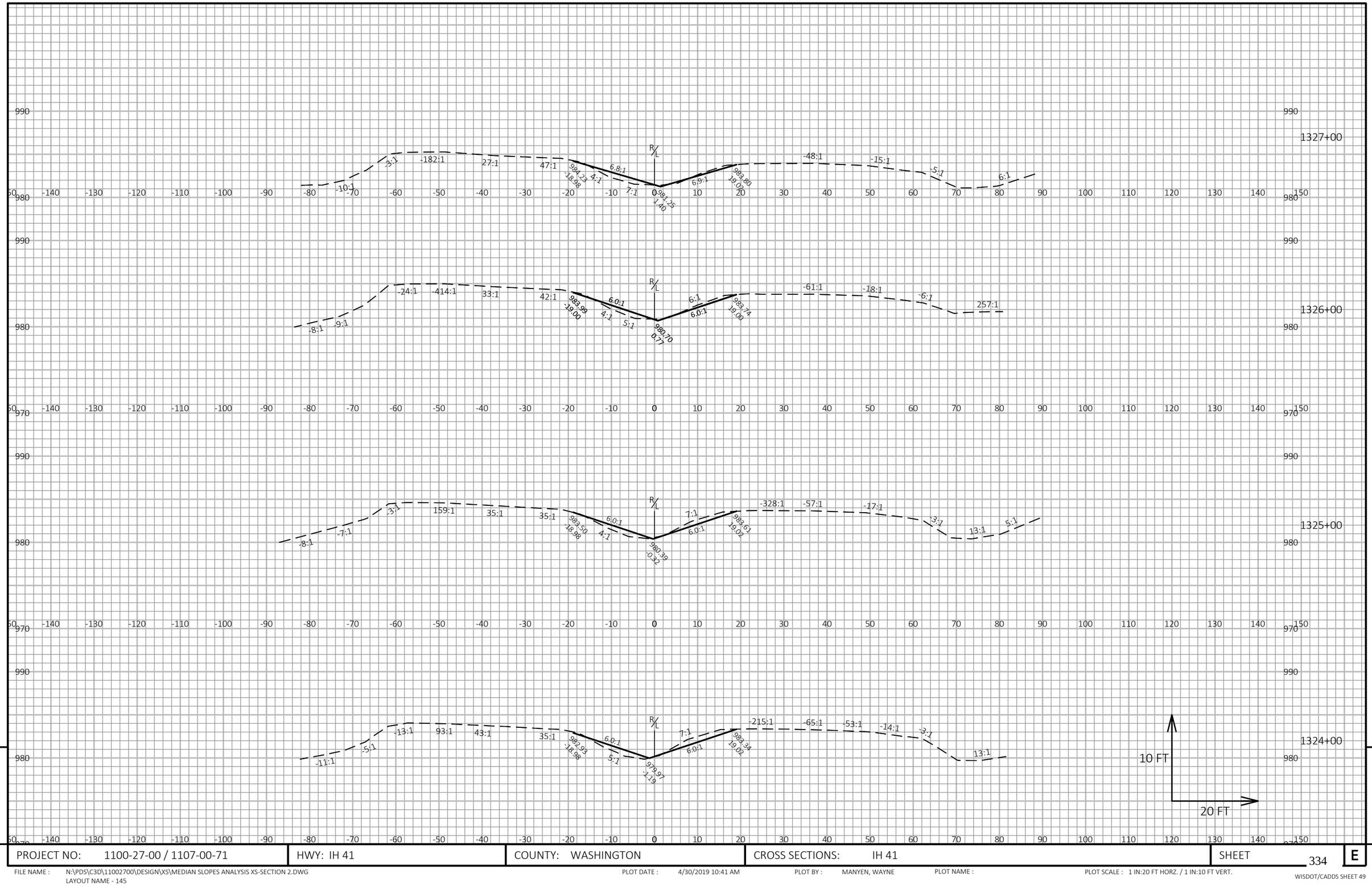
PLOT DATE : 4/30/2019 10:40 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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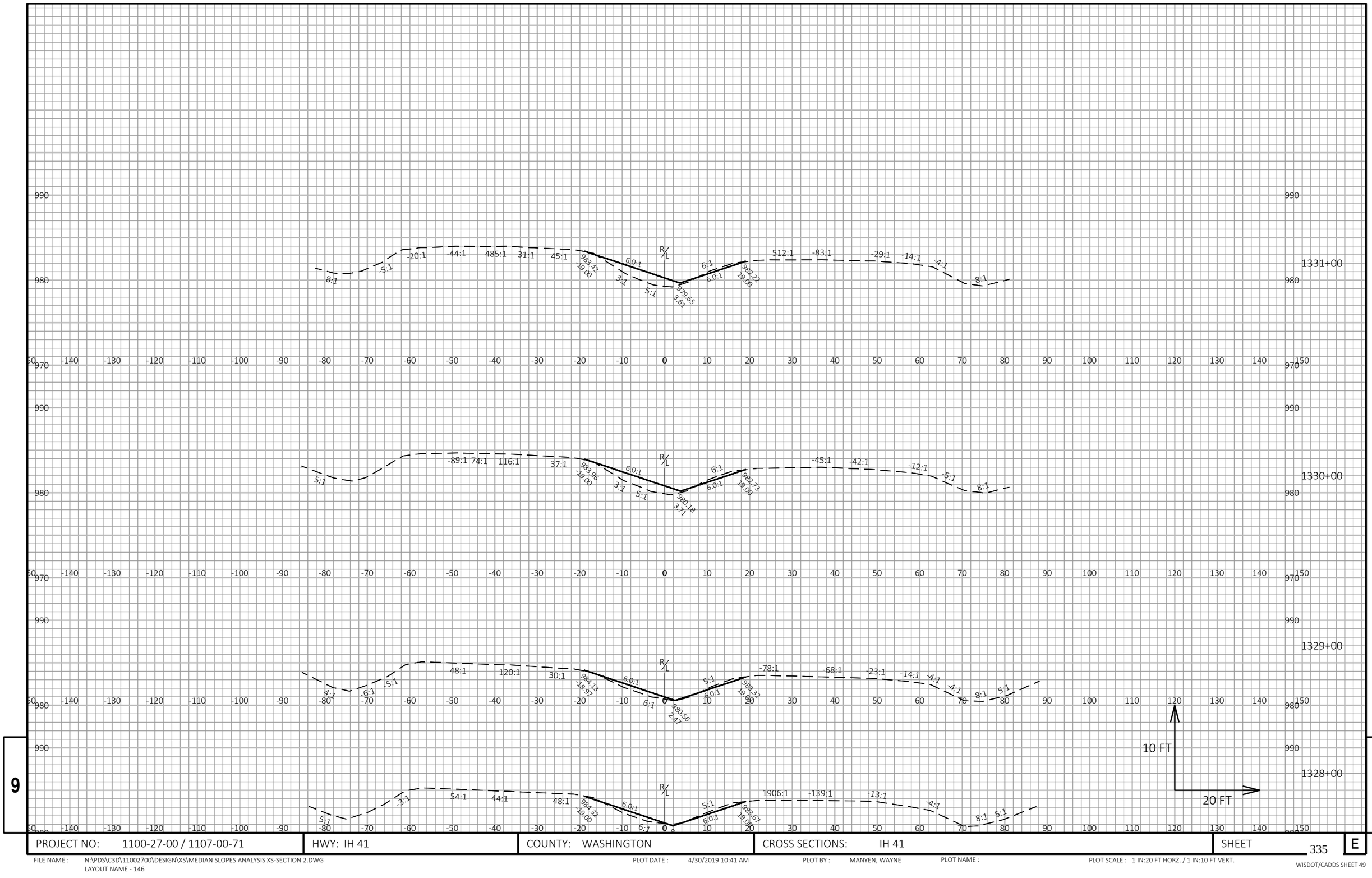
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 334	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 145

PLOT DATE : 4/30/2019 10:41 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 335 E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 146

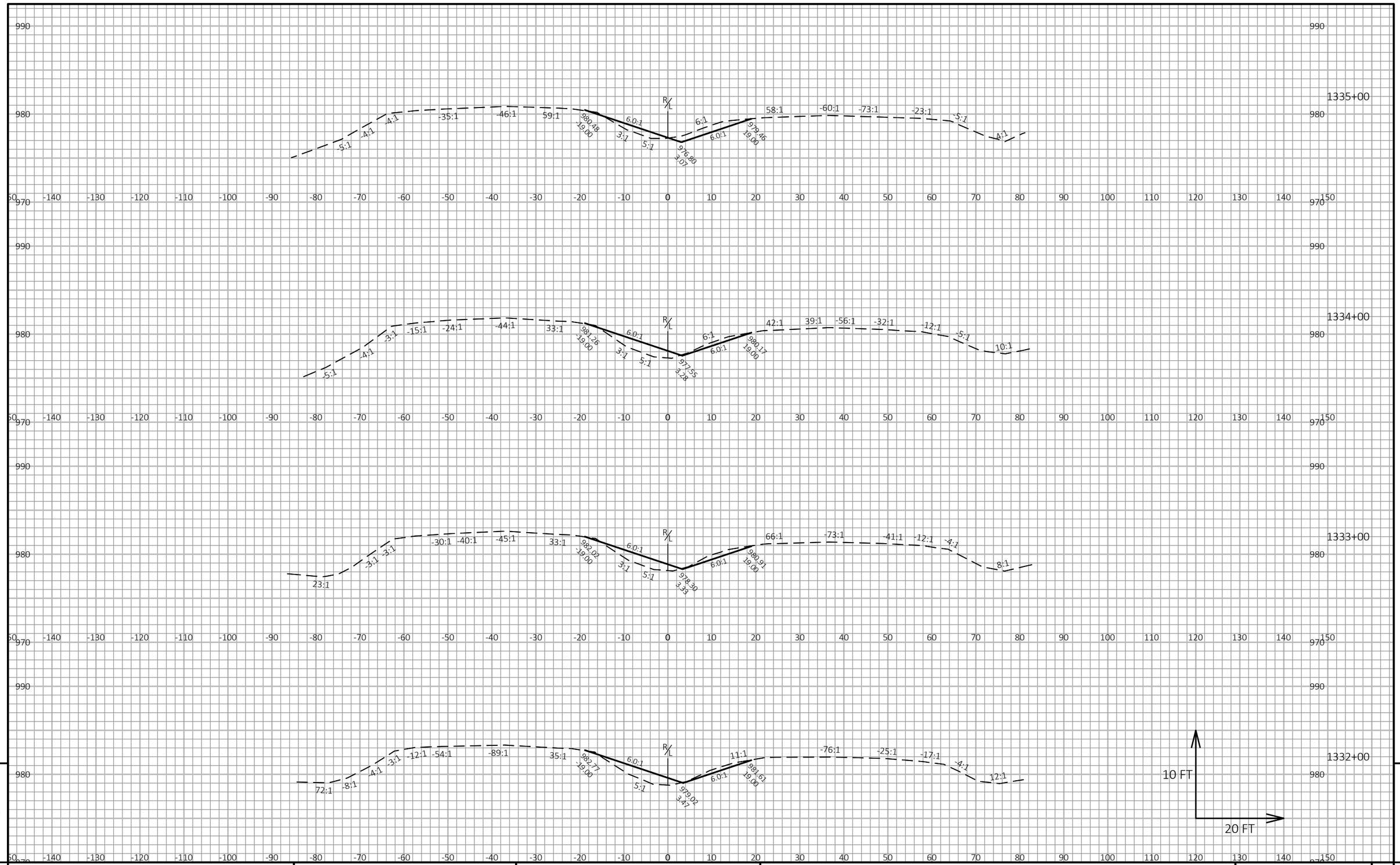
PLOT DATE : 4/30/2019 10:41 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

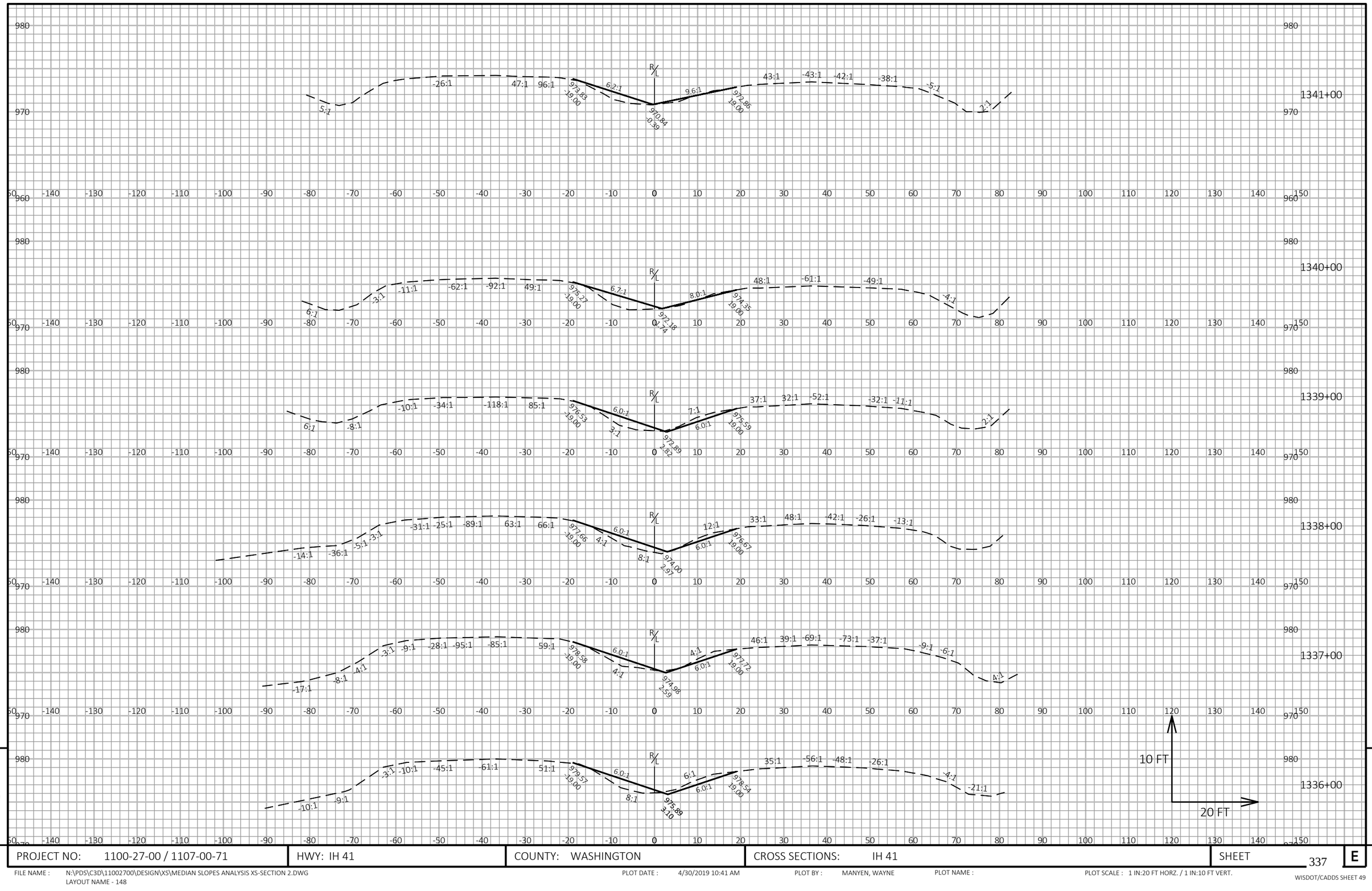


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 336	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 147

PLOT DATE : 4/30/2019 10:41 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

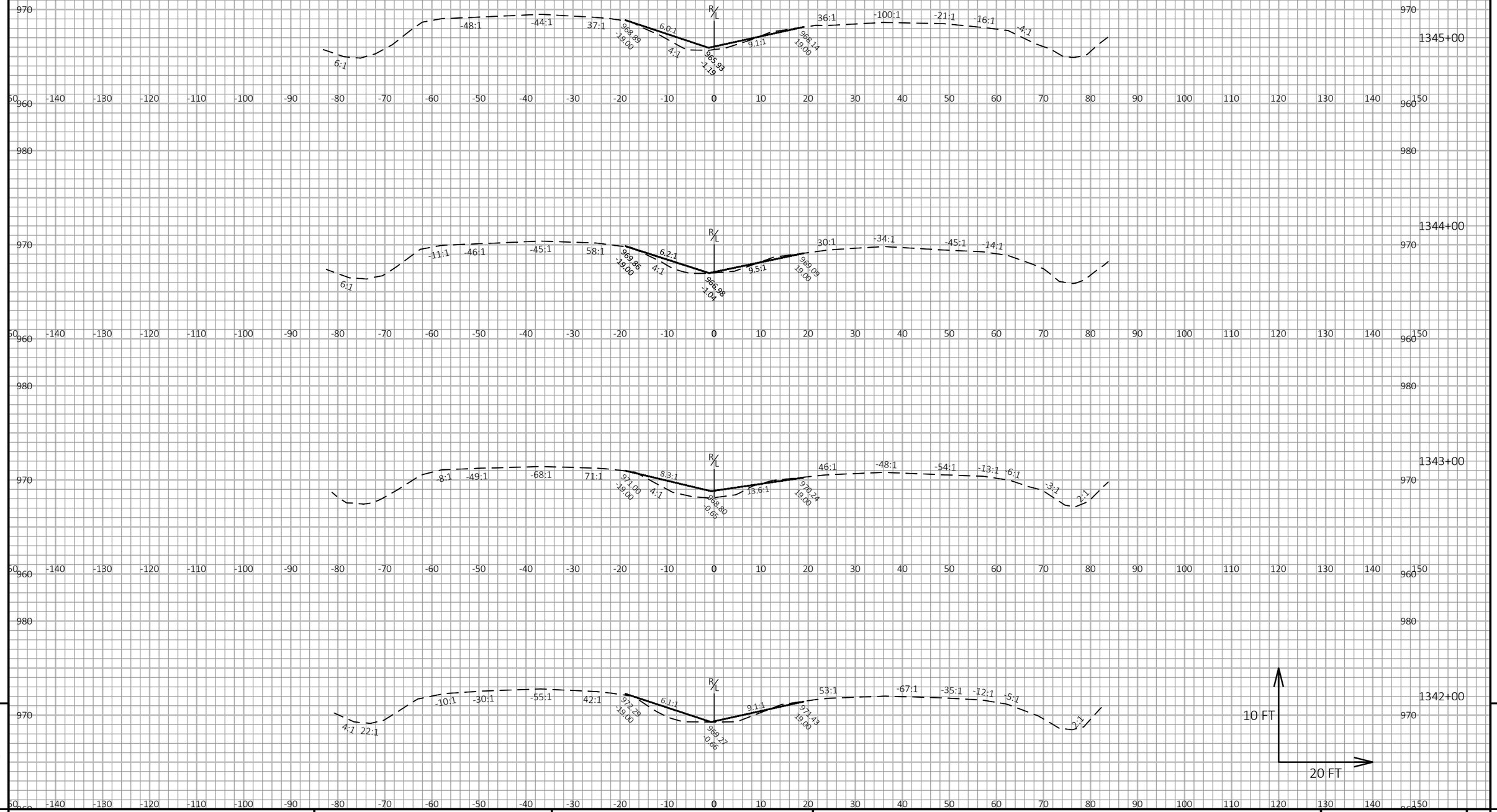


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 337	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 148

PLOT DATE : 4/30/2019 10:41 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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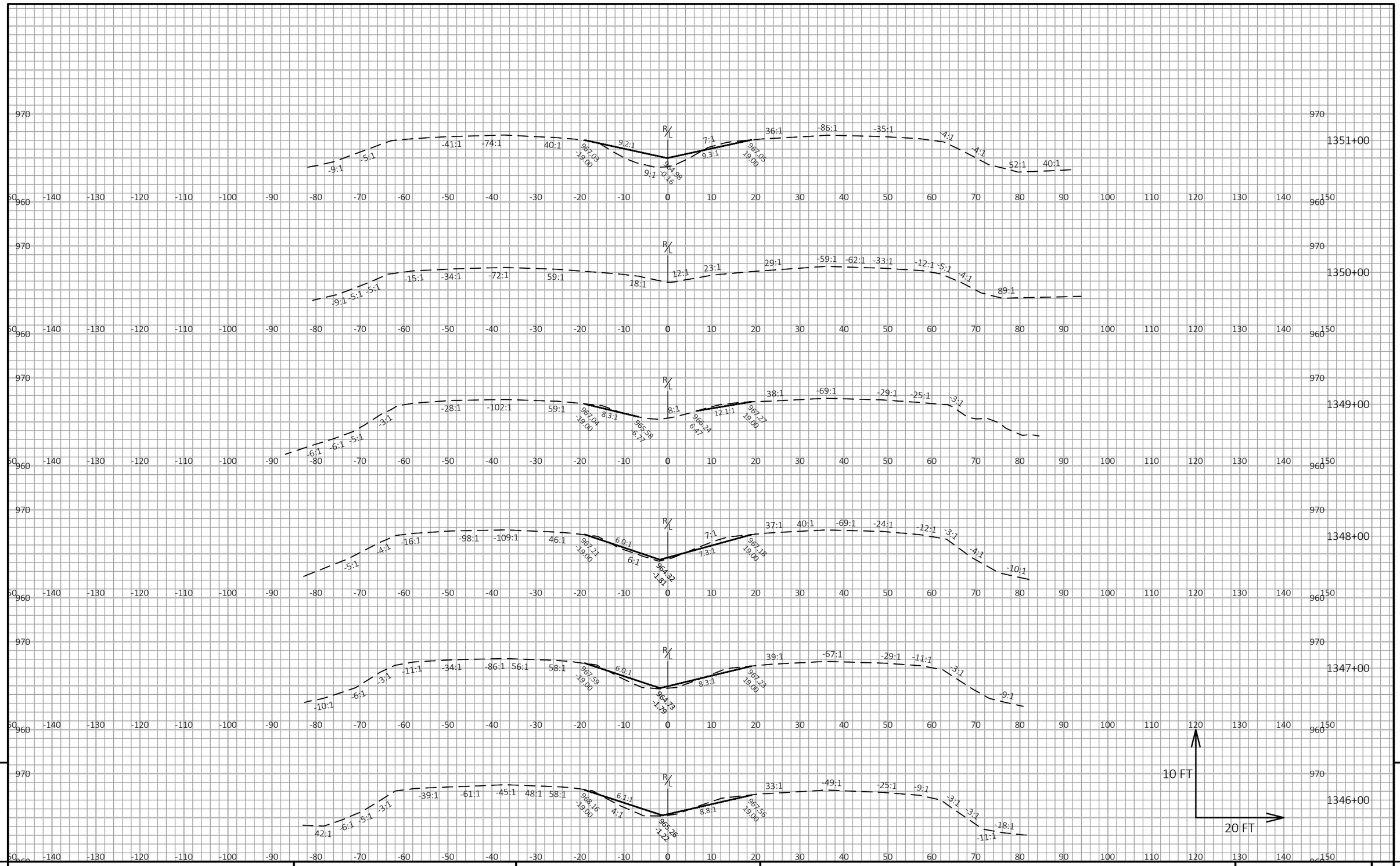
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 338	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 149

PLOT DATE : 4/30/2019 10:41 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 339	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 150

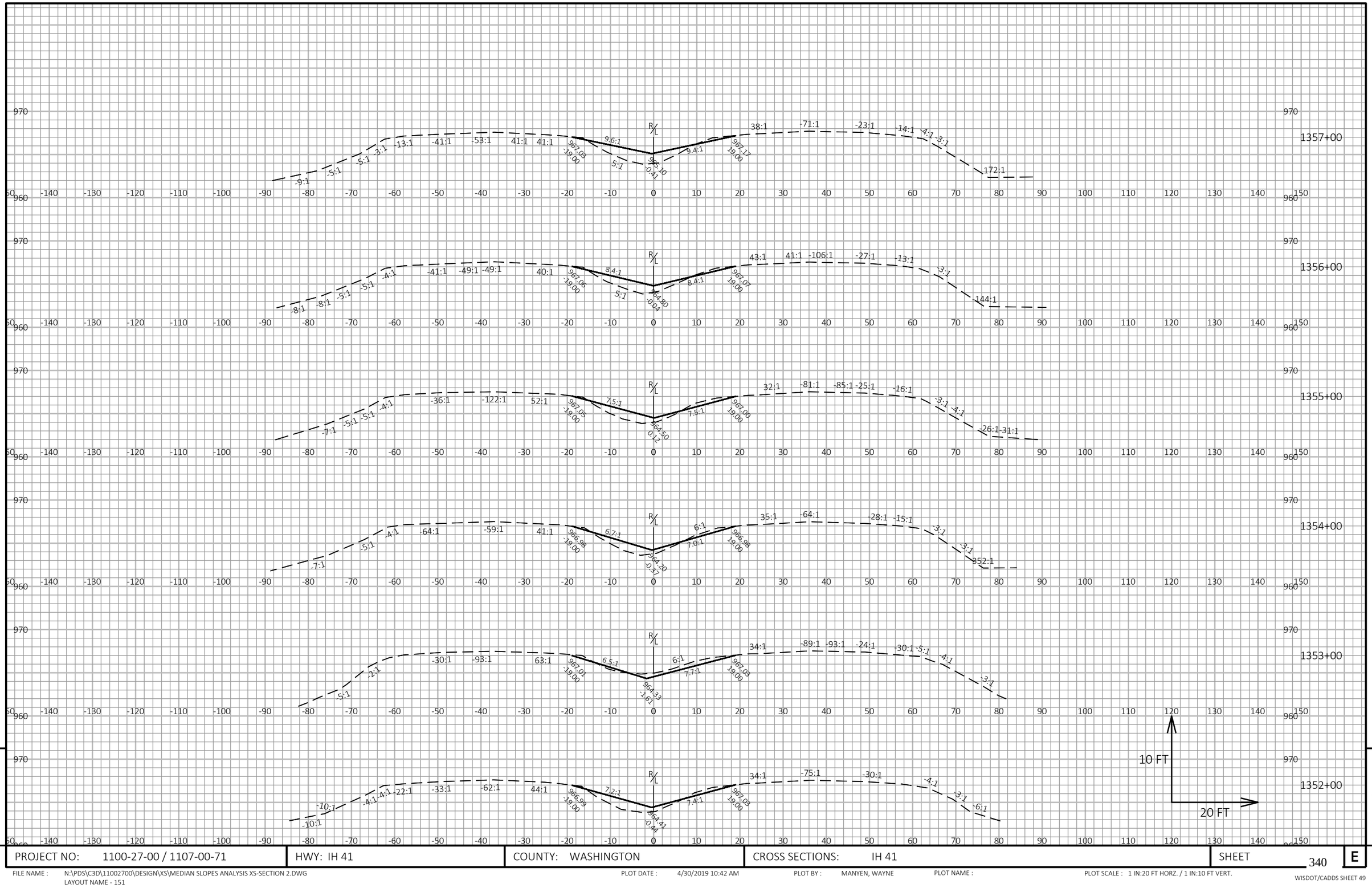
PLOT DATE : 4/30/2019 10:42 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

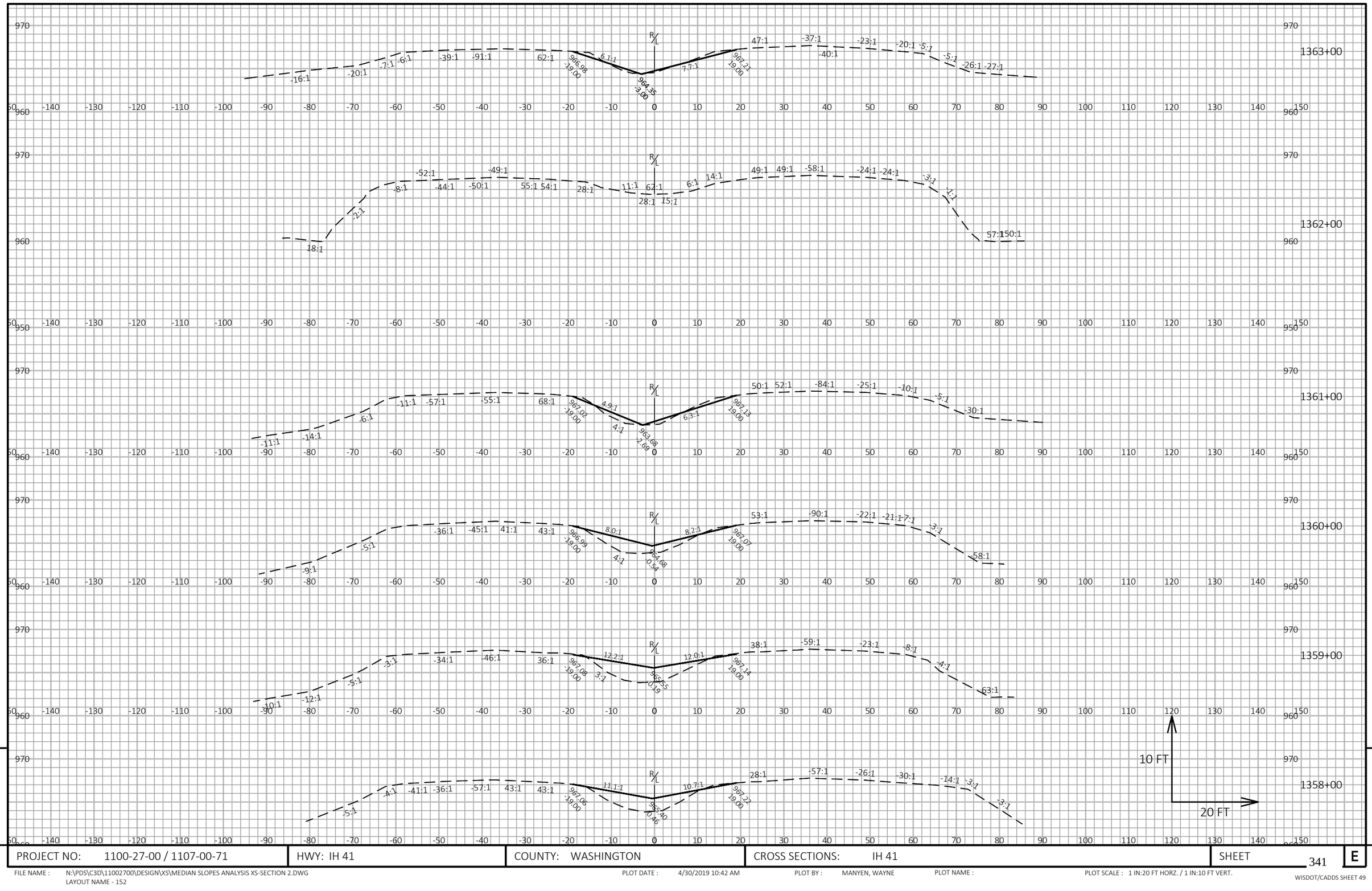


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 340	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 151

PLOT DATE : 4/30/2019 10:42 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

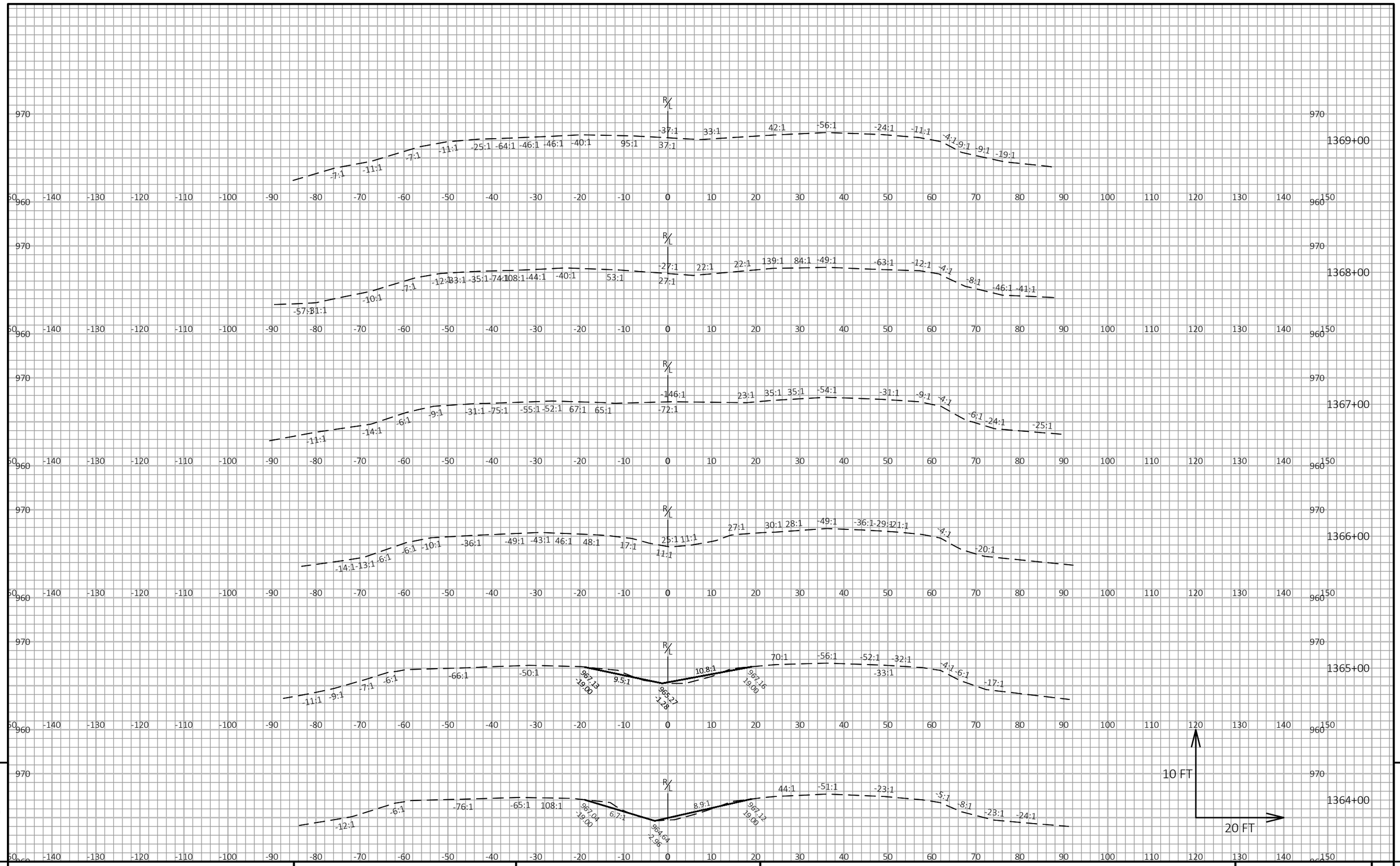


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 341	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 152

PLOT DATE : 4/30/2019 10:42 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

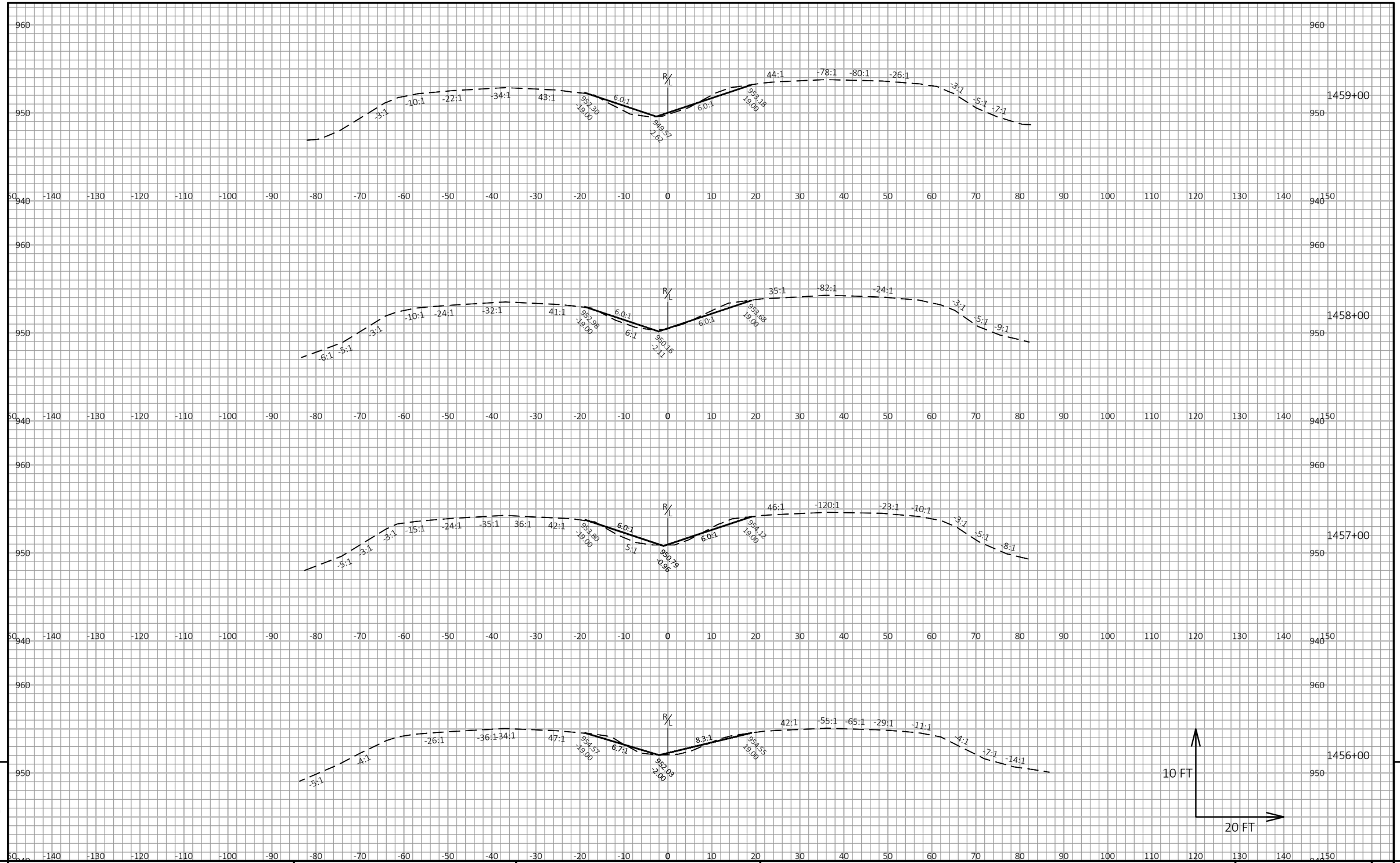


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 342	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 2.DWG
LAYOUT NAME - 153

PLOT DATE : 4/30/2019 10:42 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 343	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 179

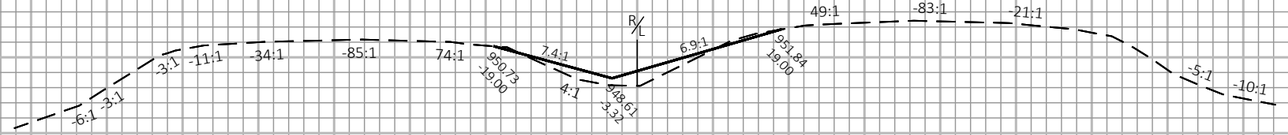
PLOT DATE : 4/30/2019 10:50 AM

PLOT BY : MANYEN, WAYNE

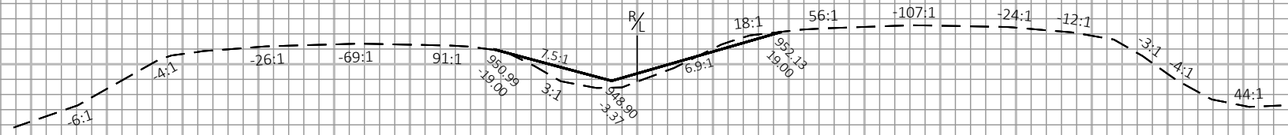
PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

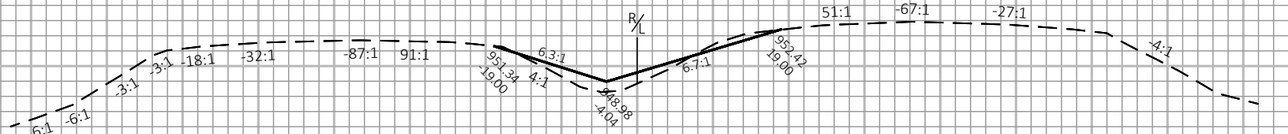
WISDOT/CADDS SHEET 49



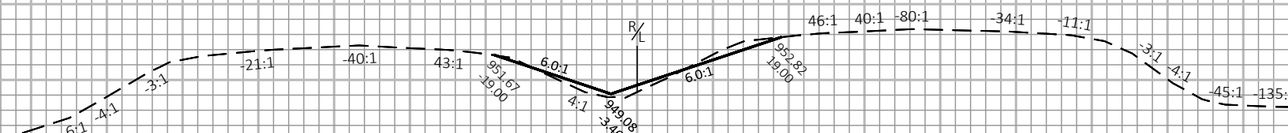
1463+00



1462+00



1461+00



1460+00

10 FT

20 FT

9

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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 344	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 180

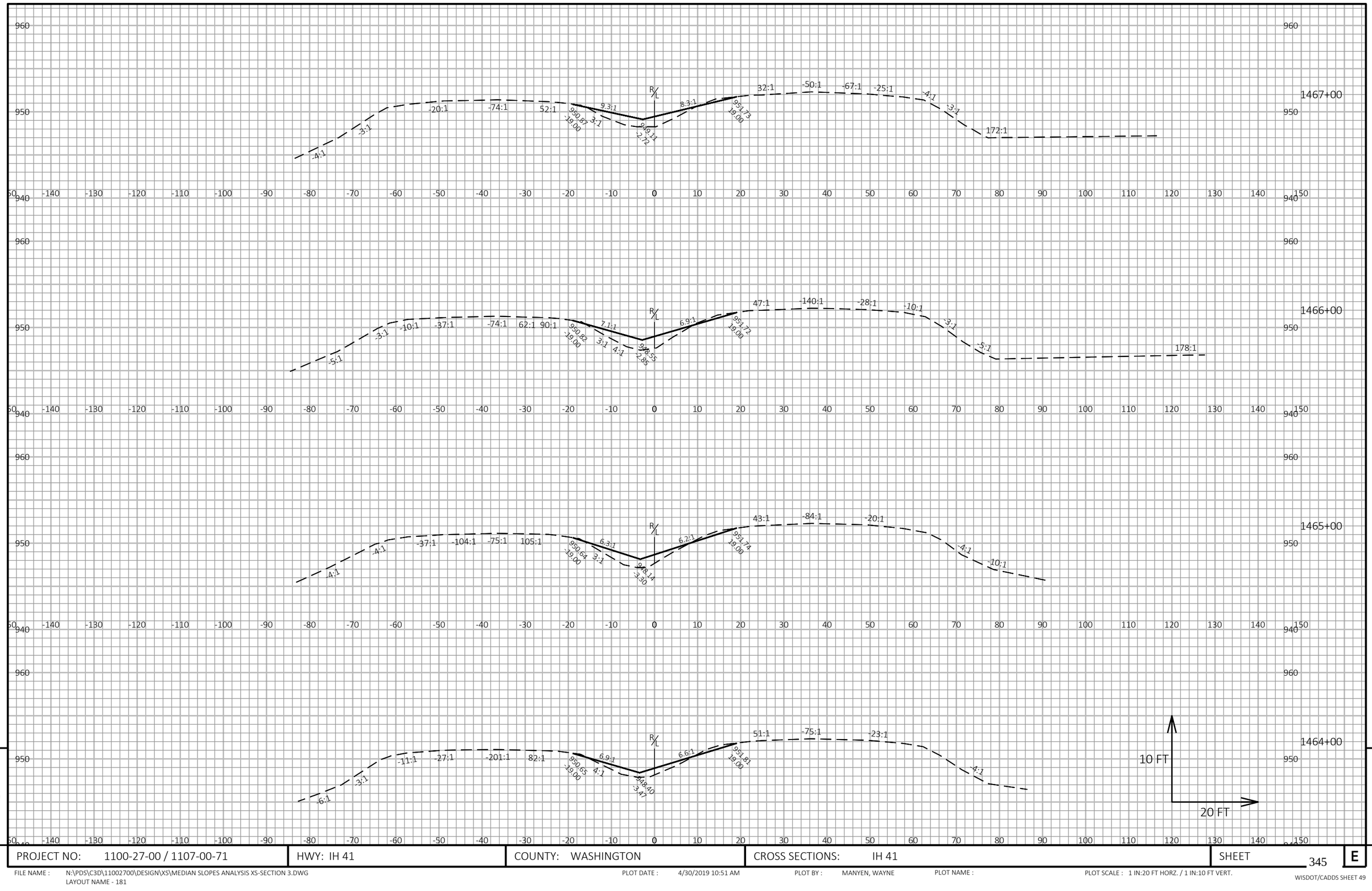
PLOT DATE : 4/30/2019 10:50 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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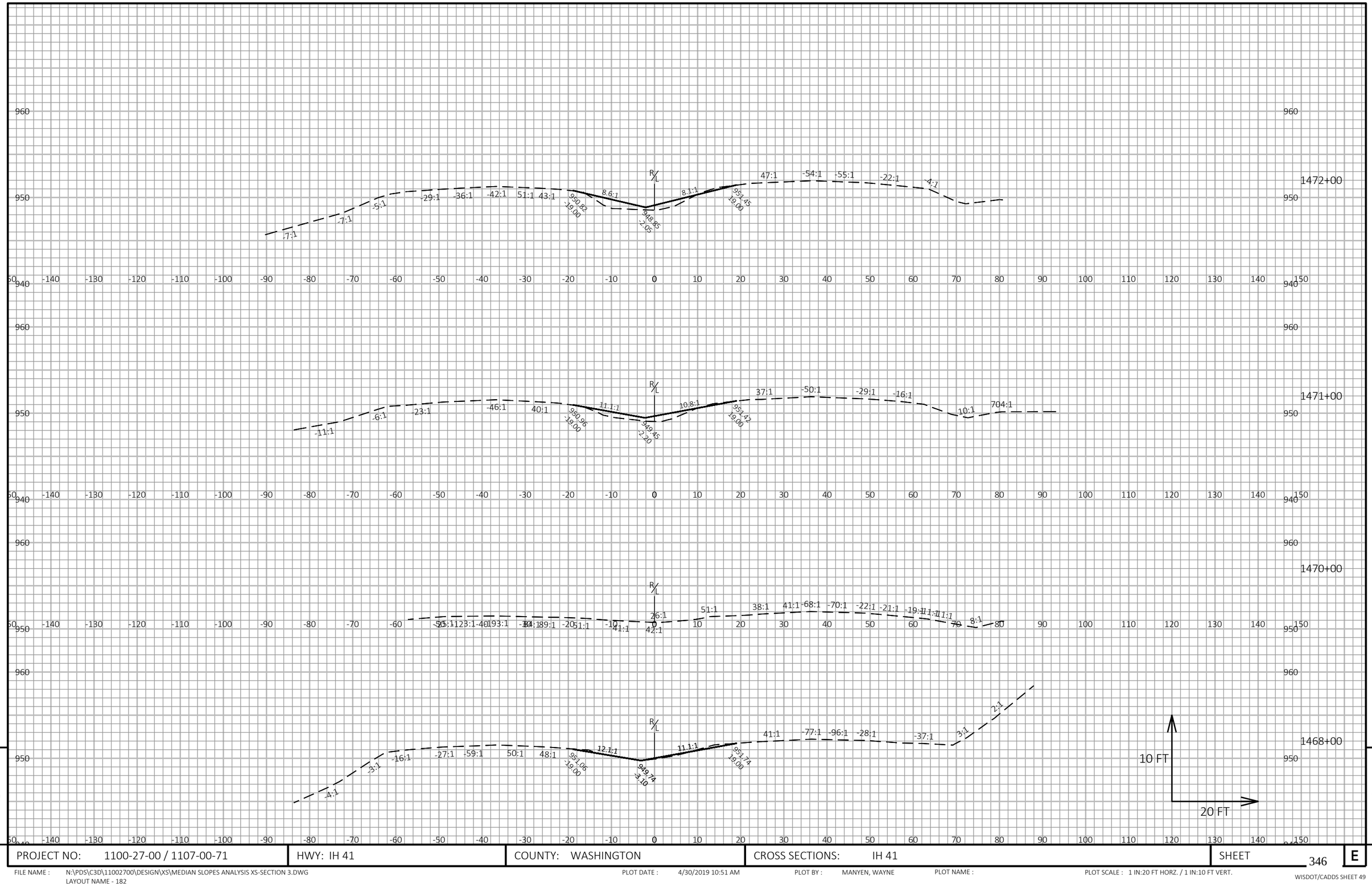
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 345	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 181

PLOT DATE : 4/30/2019 10:51 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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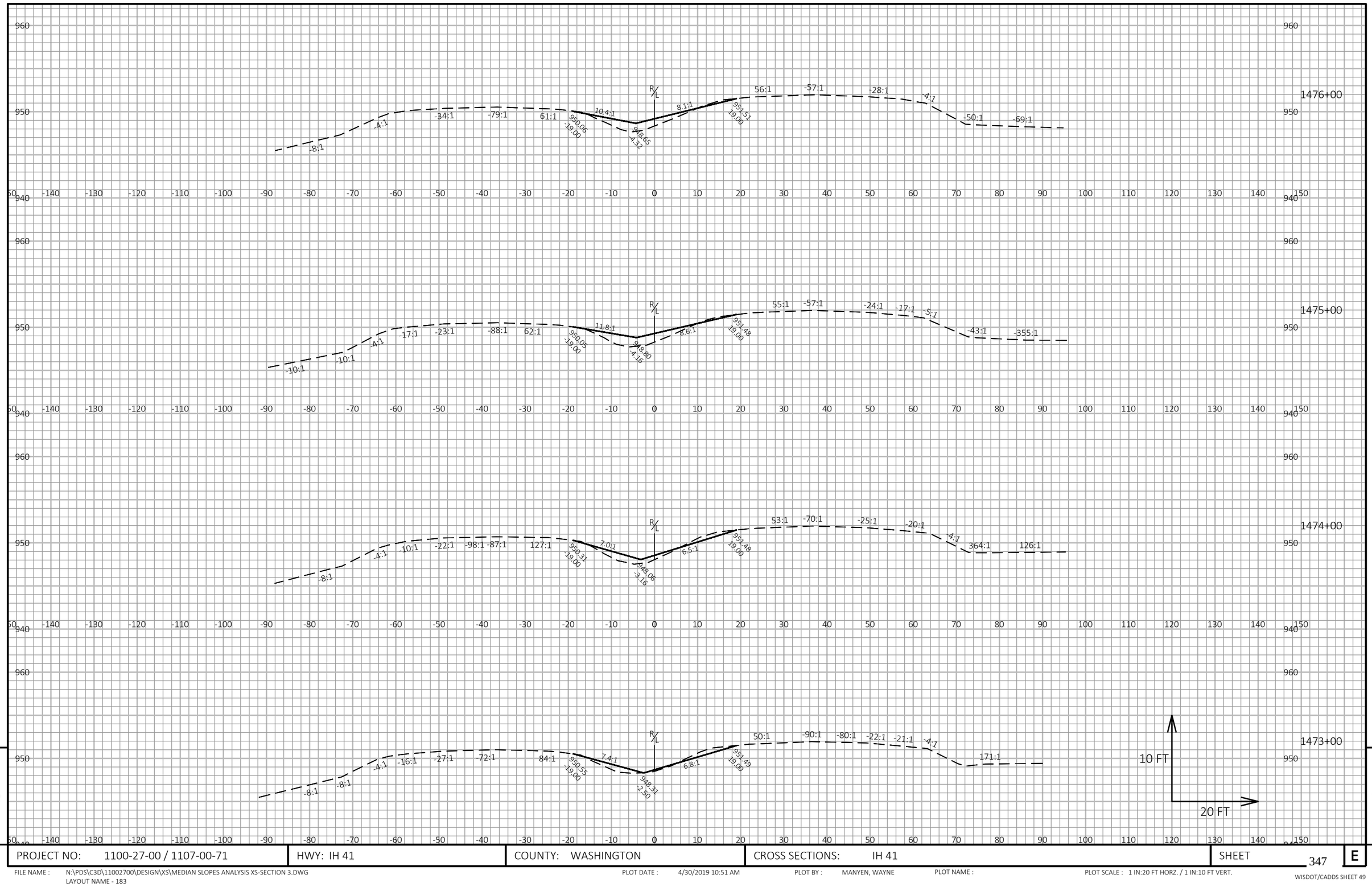
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 346	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 182

PLOT DATE : 4/30/2019 10:51 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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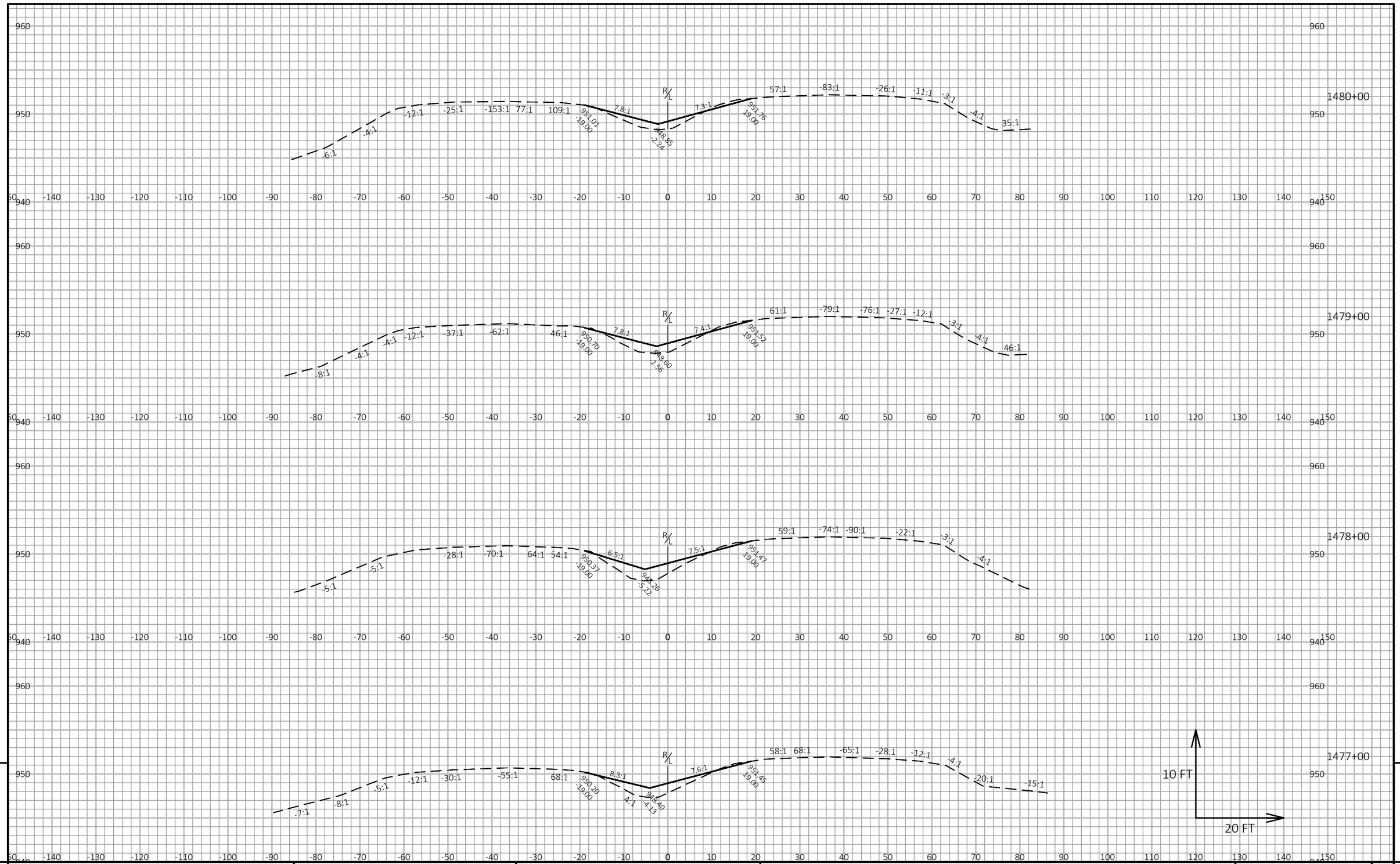
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 347	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 183

PLOT DATE : 4/30/2019 10:51 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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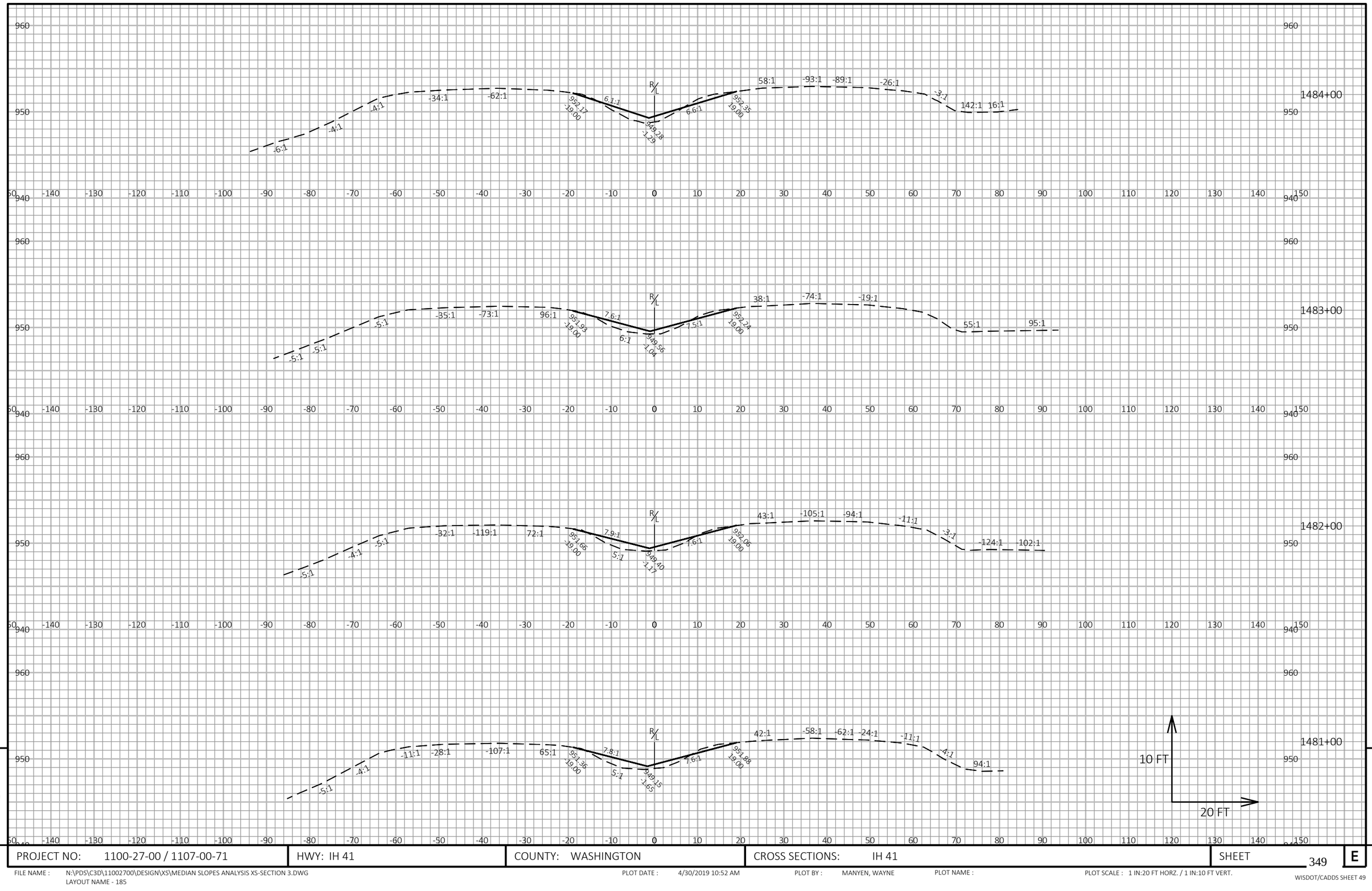
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 348	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 184

PLOT DATE : 4/30/2019 10:51 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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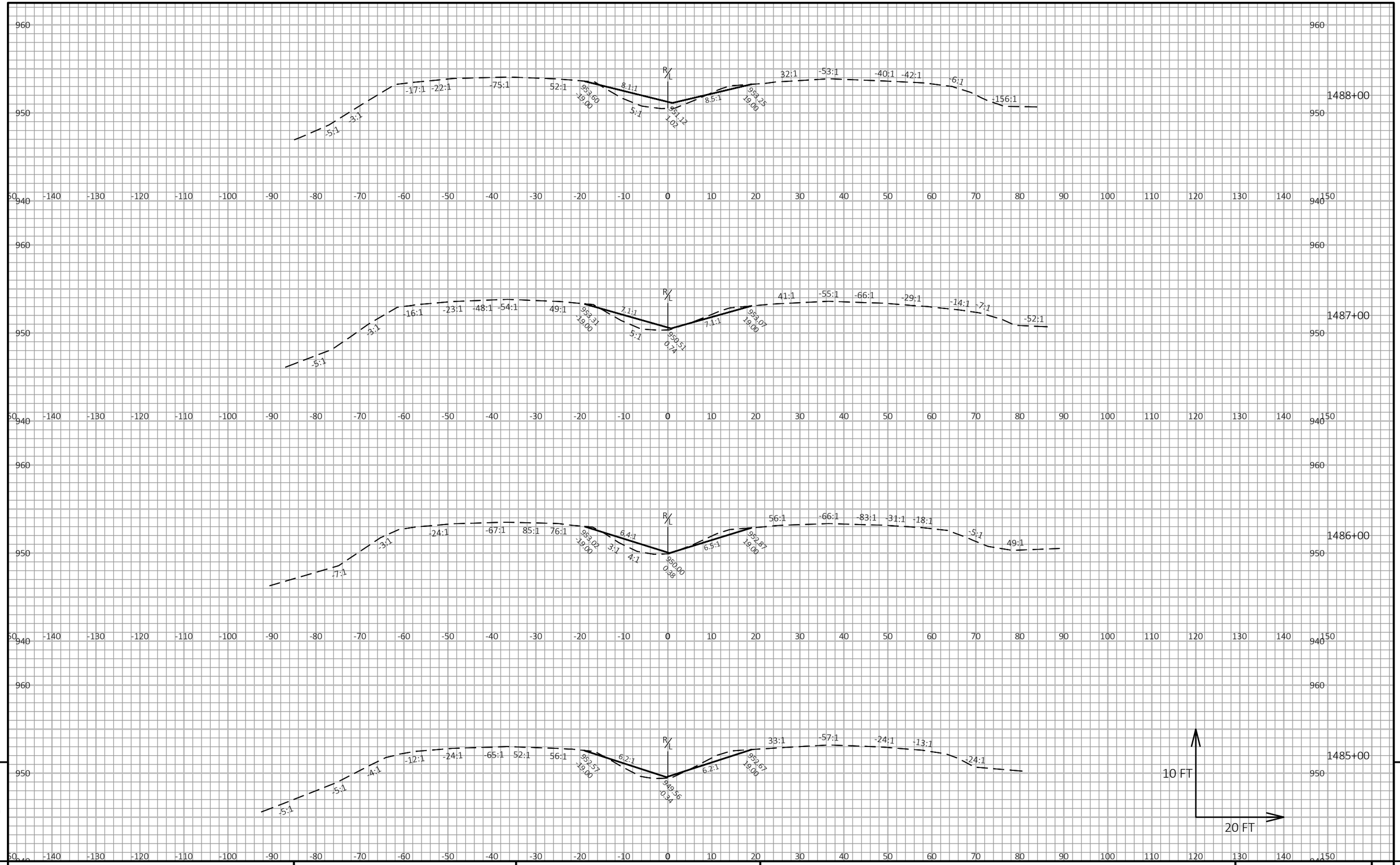
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 349	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 185

PLOT DATE : 4/30/2019 10:52 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 350	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 186

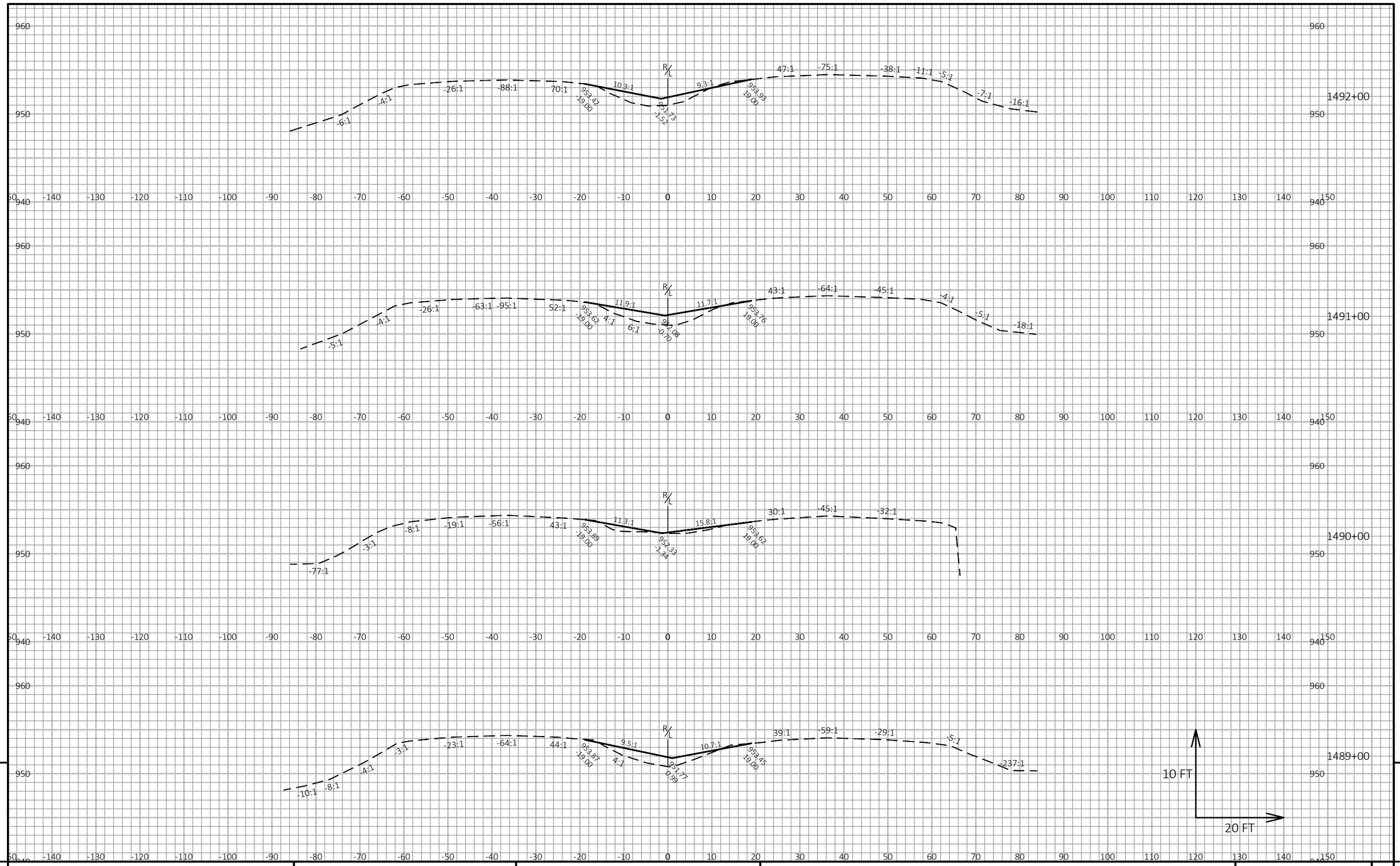
PLOT DATE : 4/30/2019 10:52 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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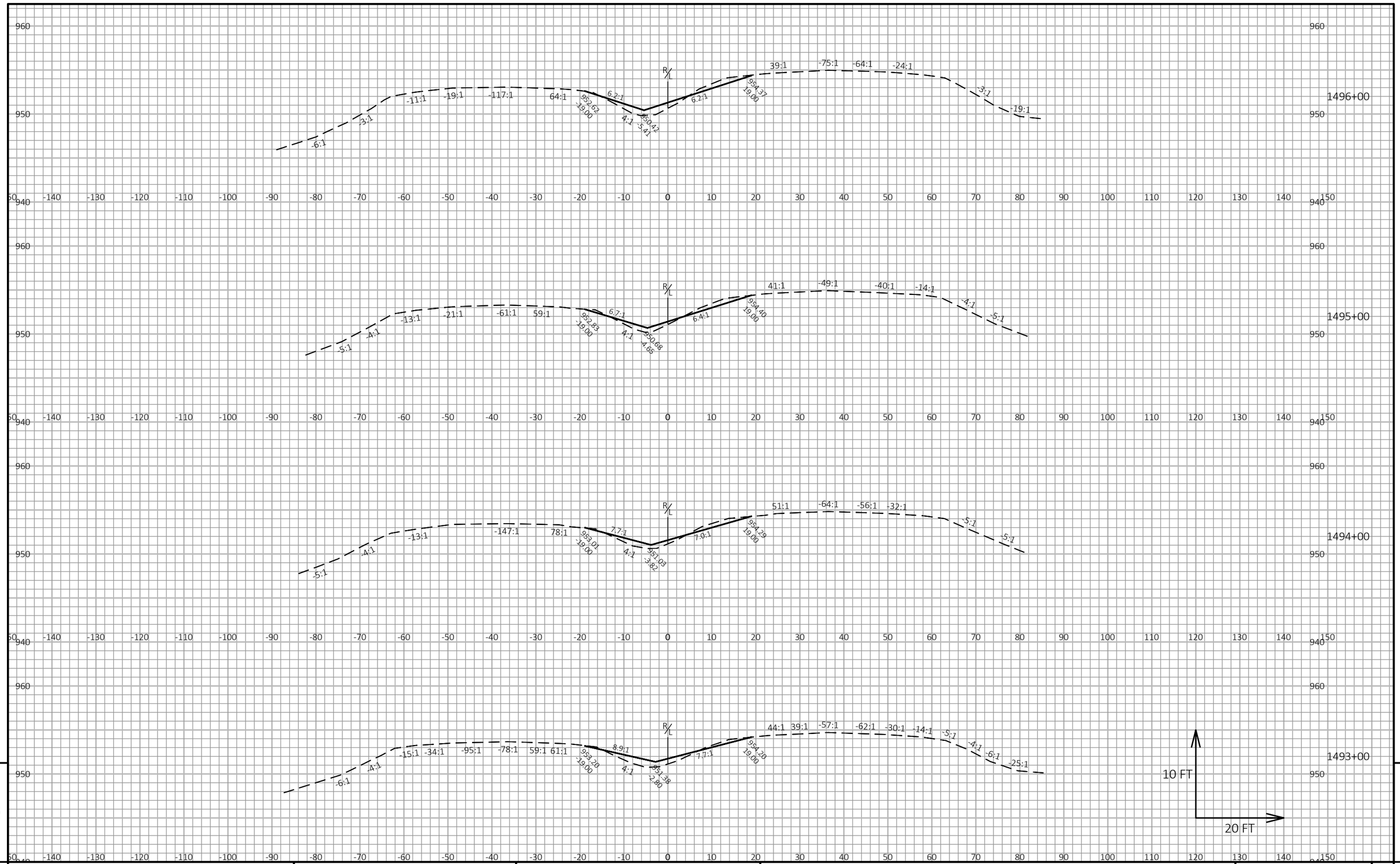
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 351	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 187

PLOT DATE : 4/30/2019 10:52 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 352	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 188

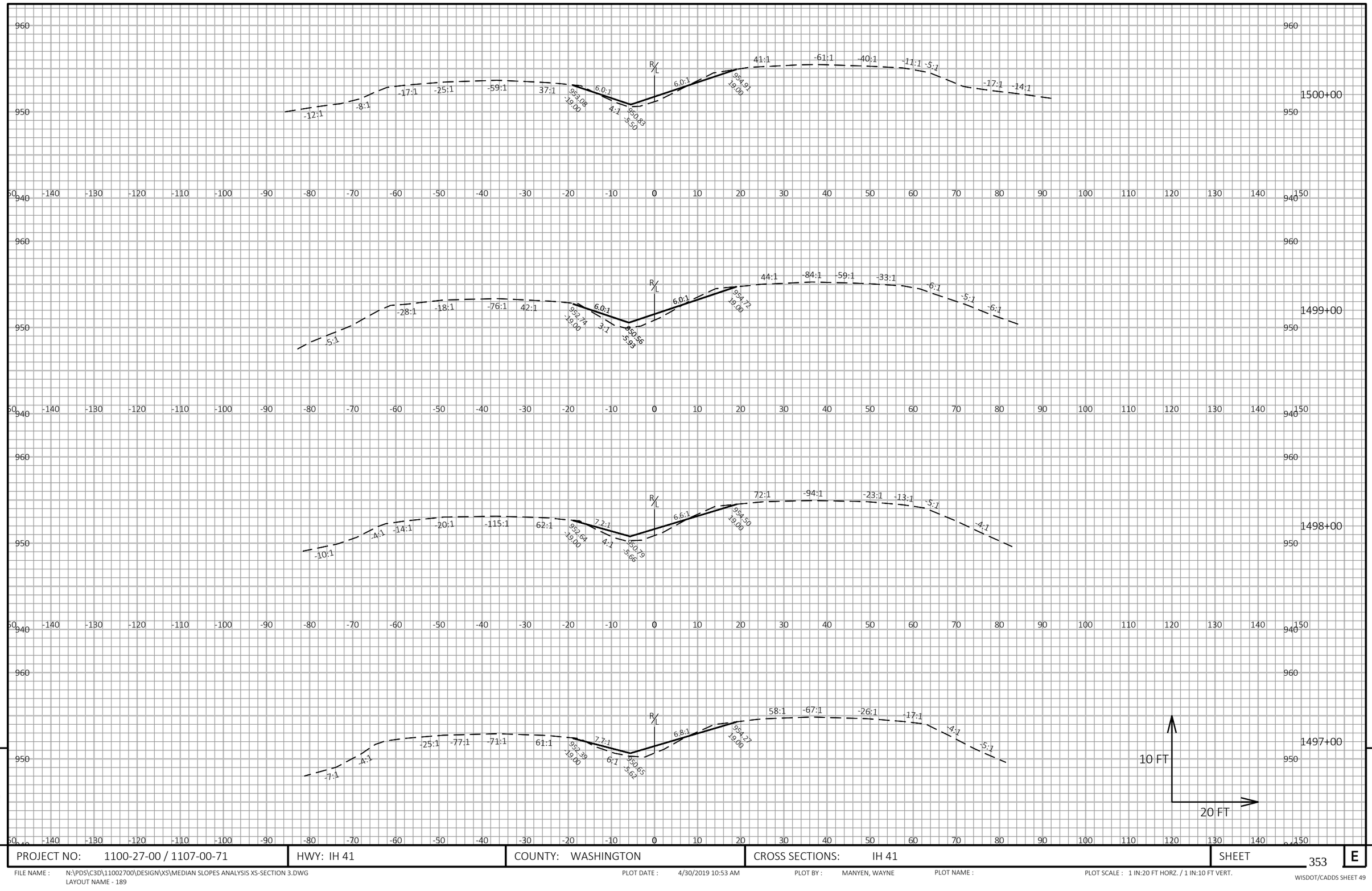
PLOT DATE : 4/30/2019 10:52 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

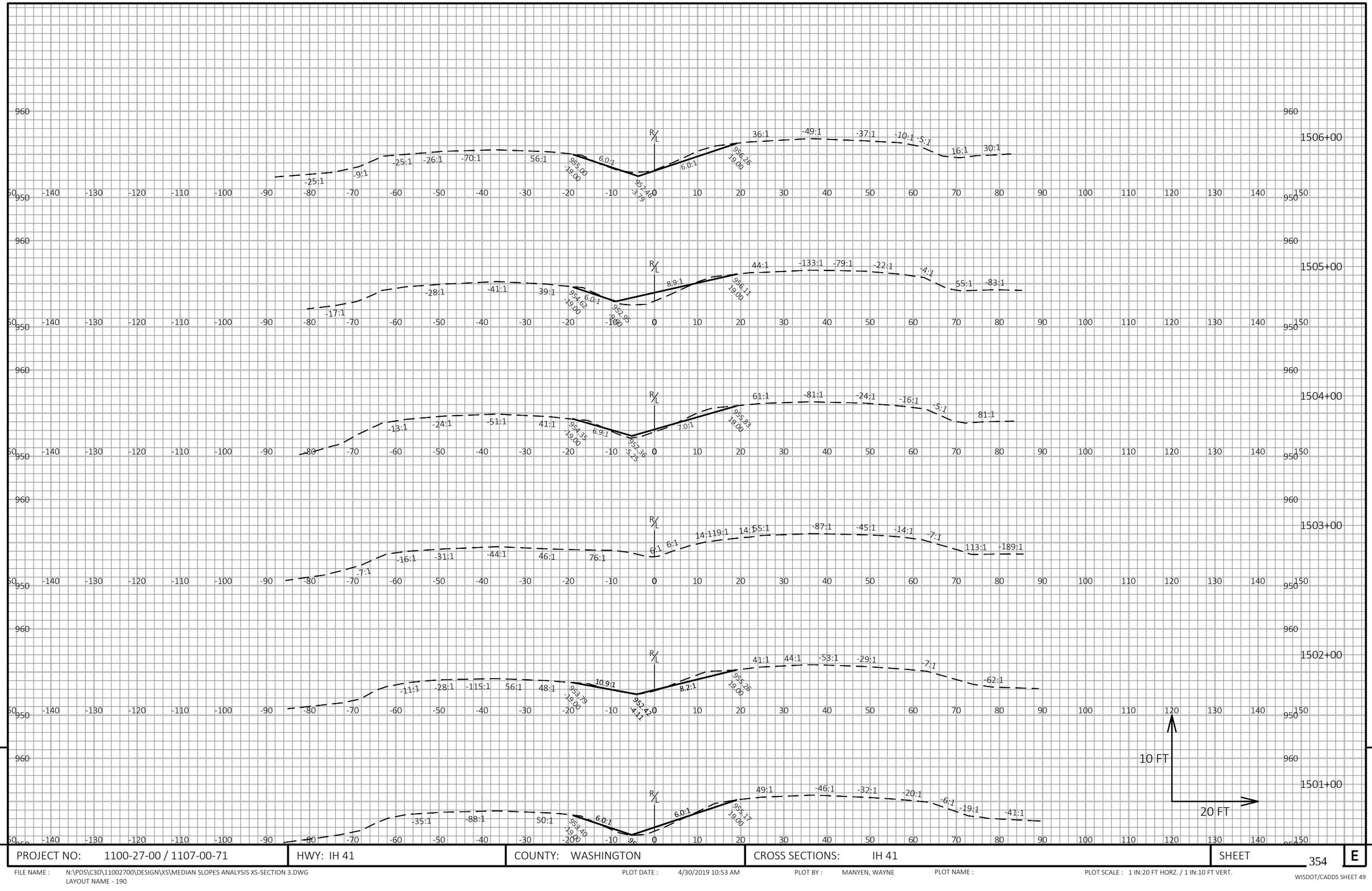


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 353 E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 189

PLOT DATE : 4/30/2019 10:53 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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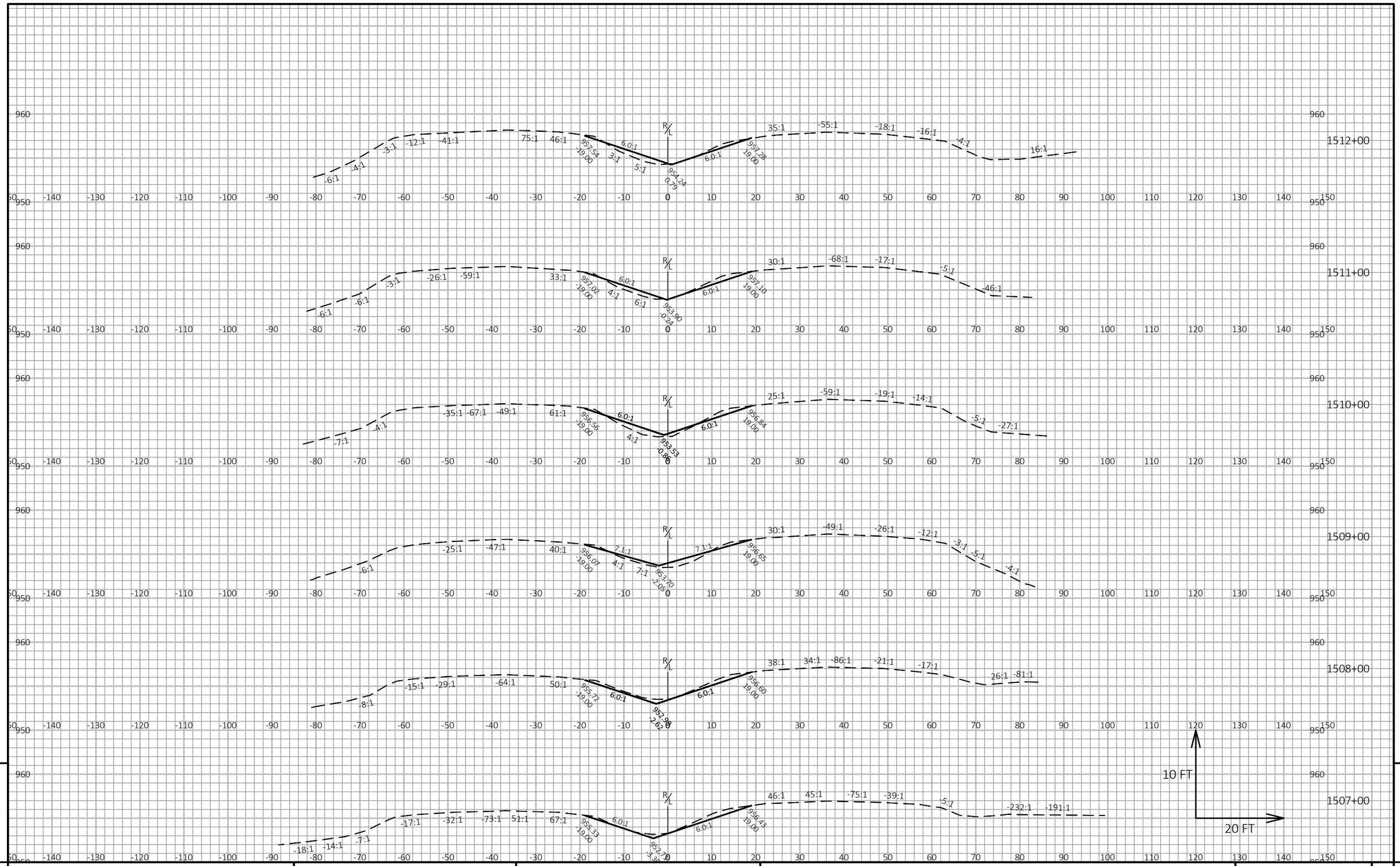
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 354	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 190

PLOT DATE : 4/30/2019 10:53 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 355	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 191

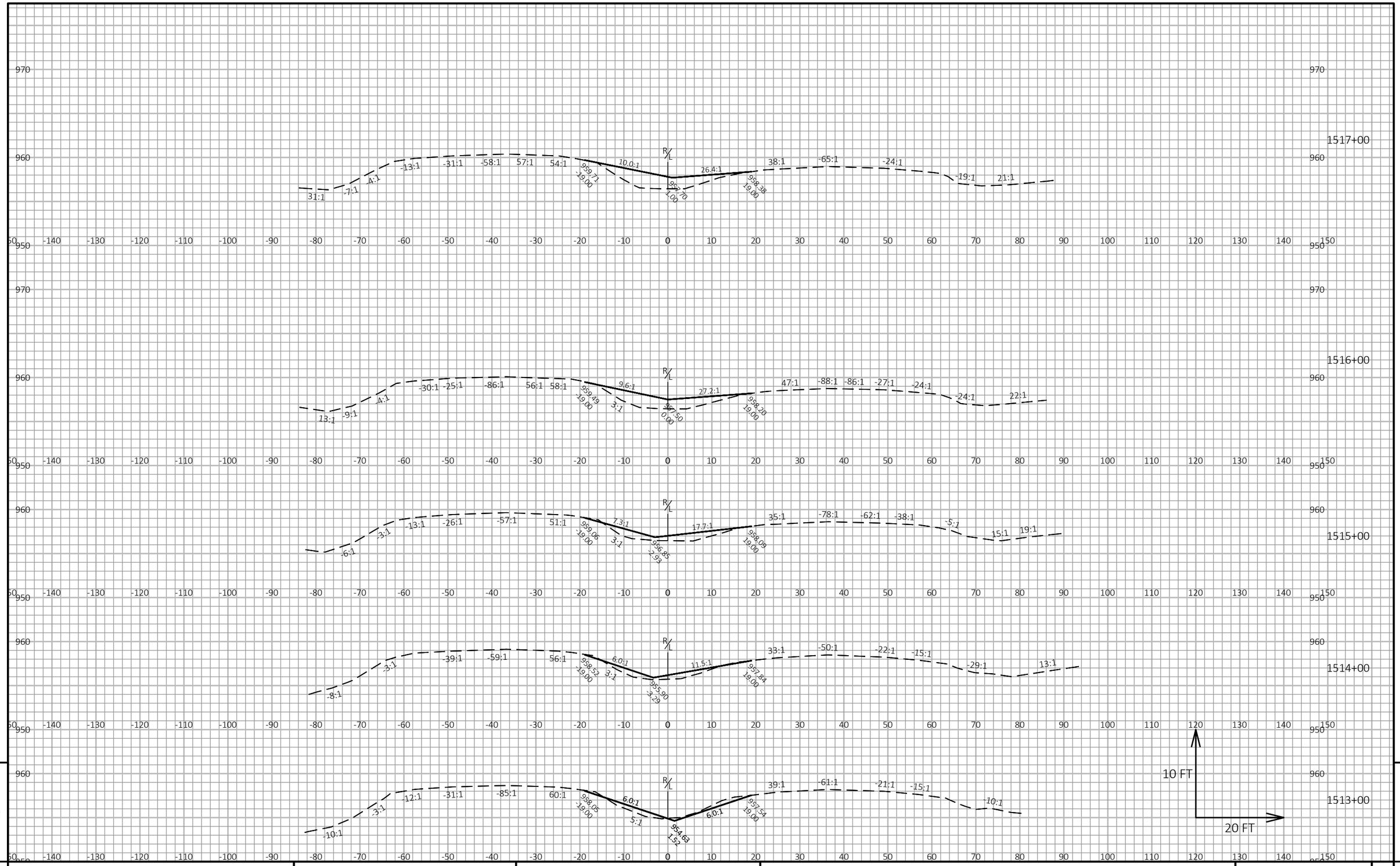
PLOT DATE : 4/30/2019 10:53 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 356	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 192

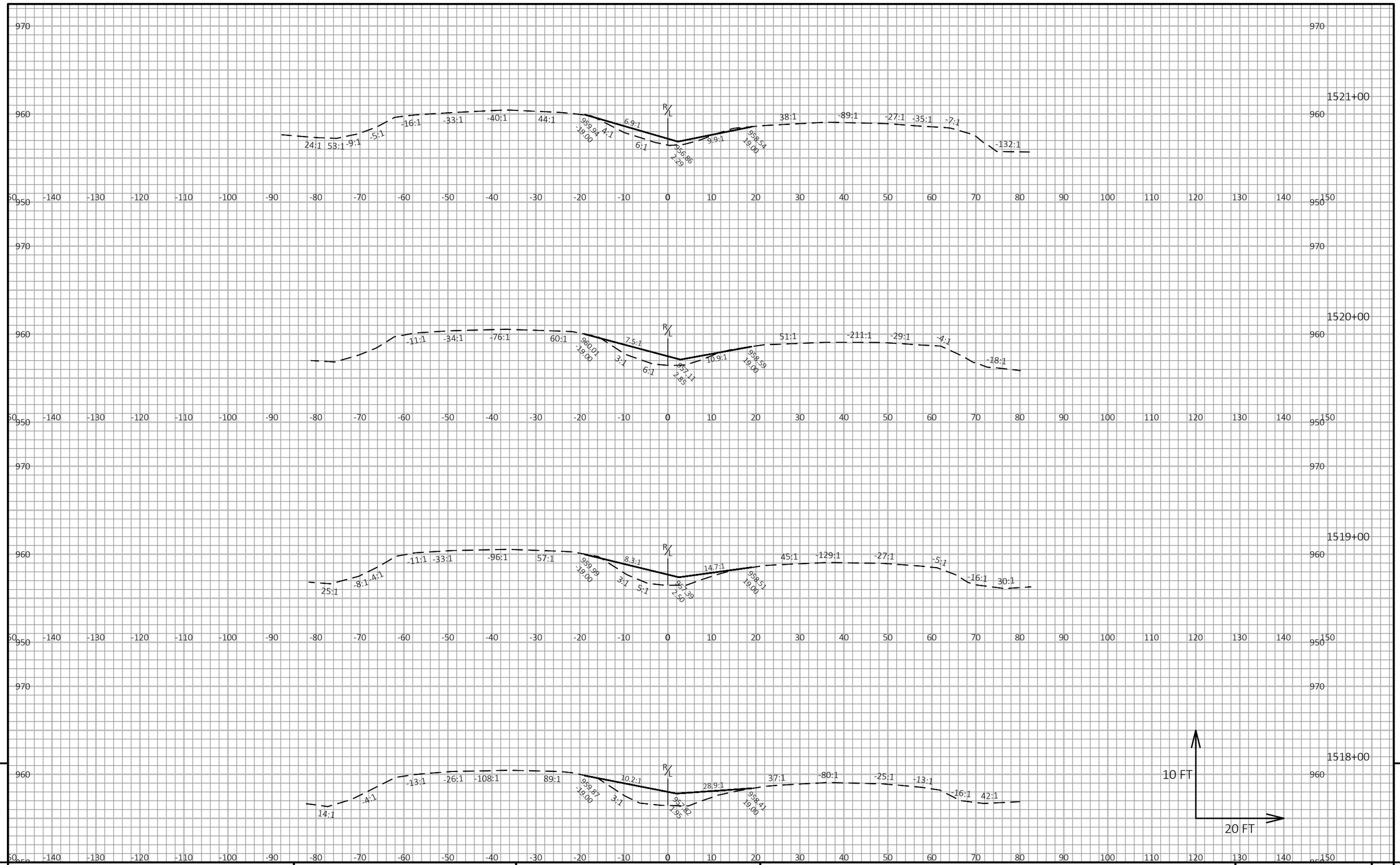
PLOT DATE : 4/30/2019 10:53 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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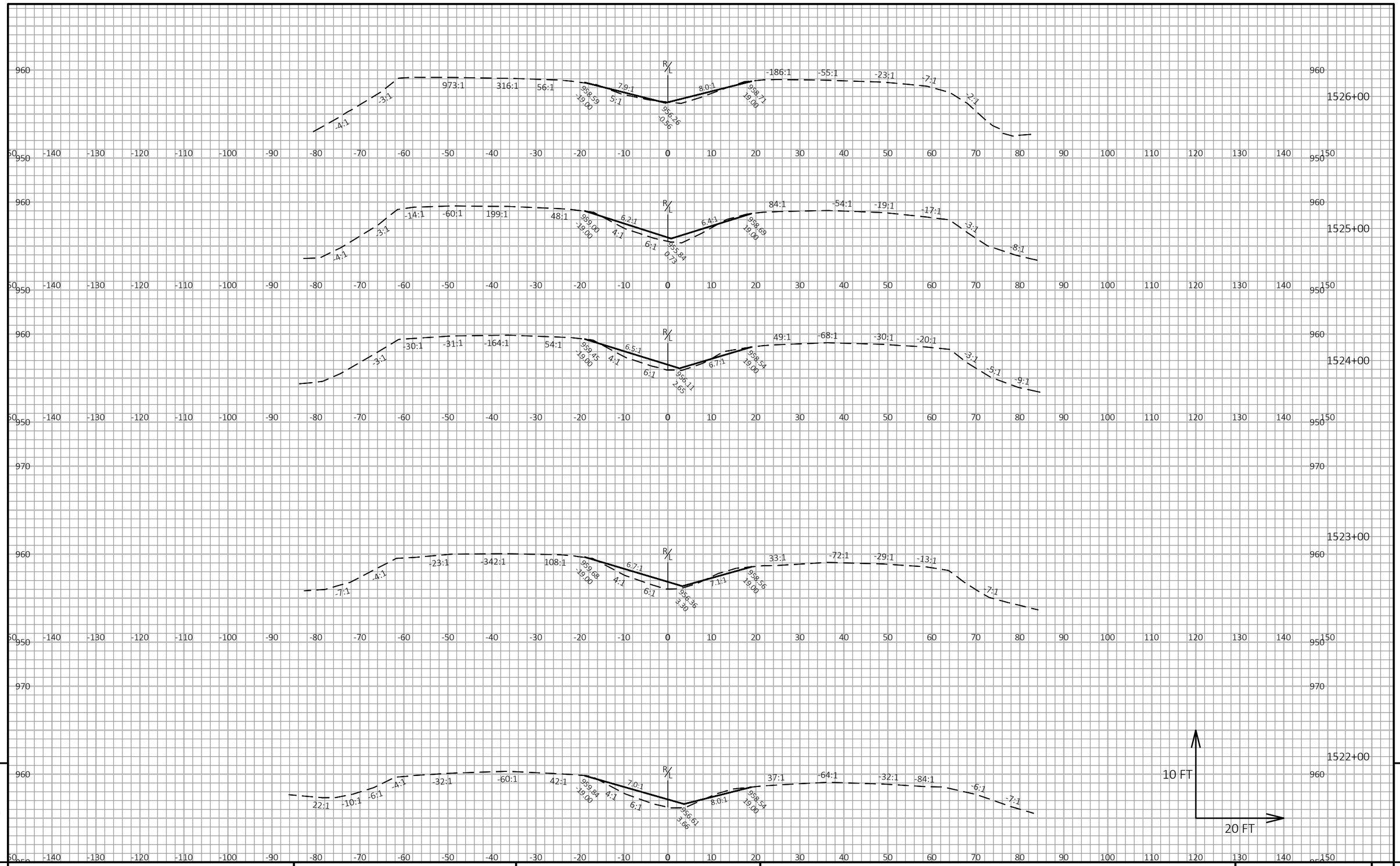
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 357	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 193

PLOT DATE : 4/30/2019 10:53 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

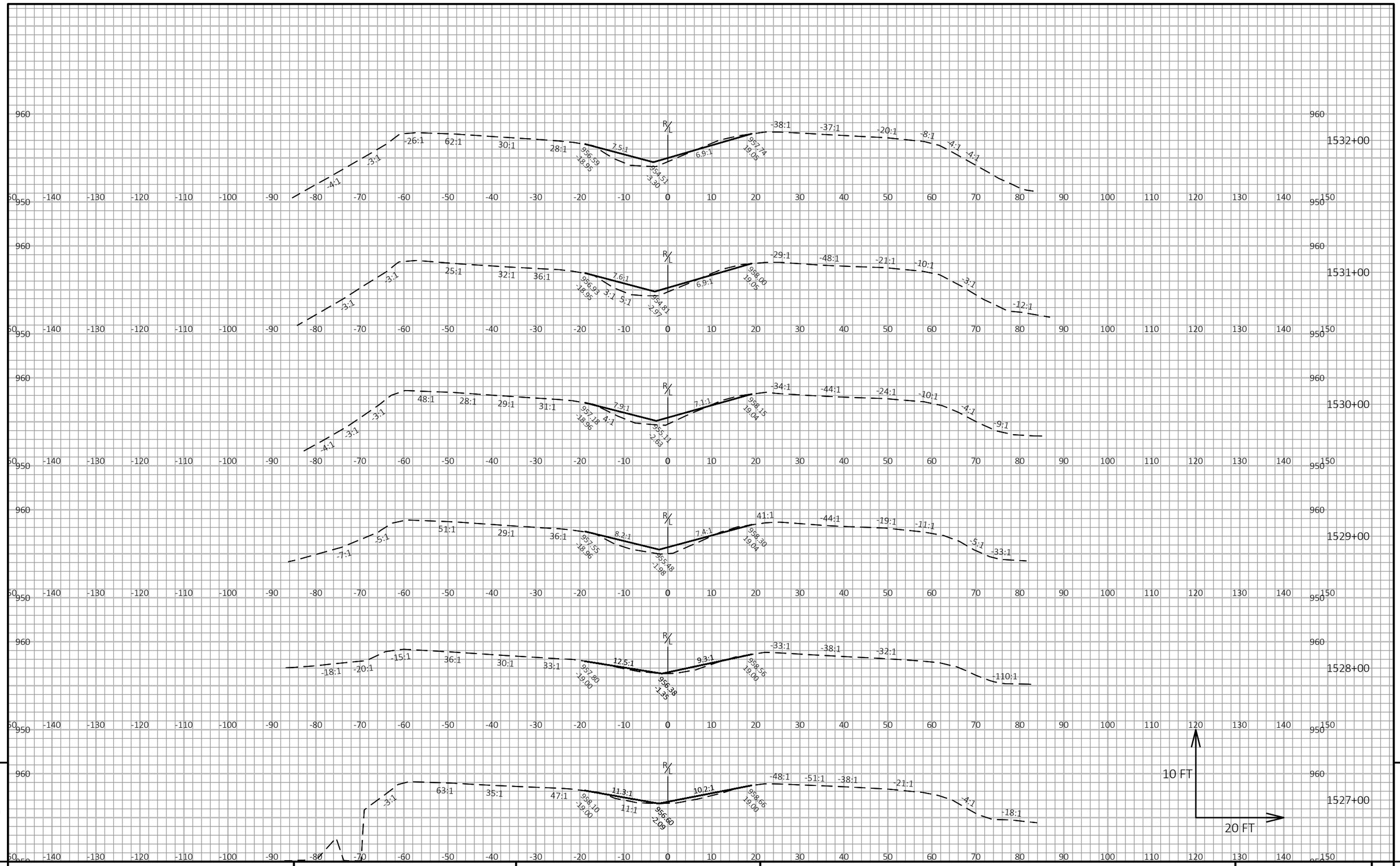


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 358 E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 194

PLOT DATE : 4/30/2019 10:54 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

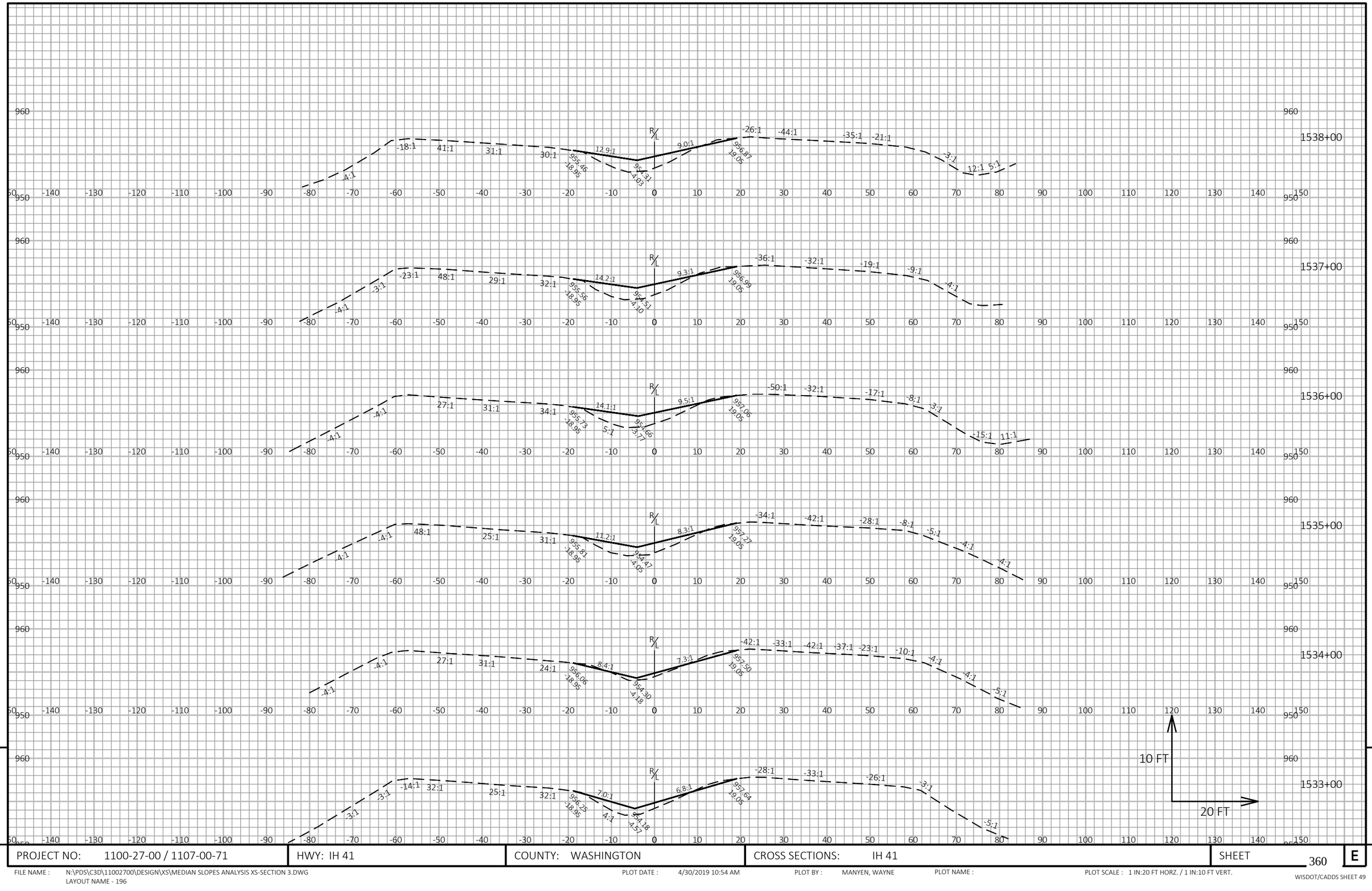
WISDOT/CADDS SHEET 49



PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 359	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 195

PLOT DATE : 4/30/2019 10:54 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

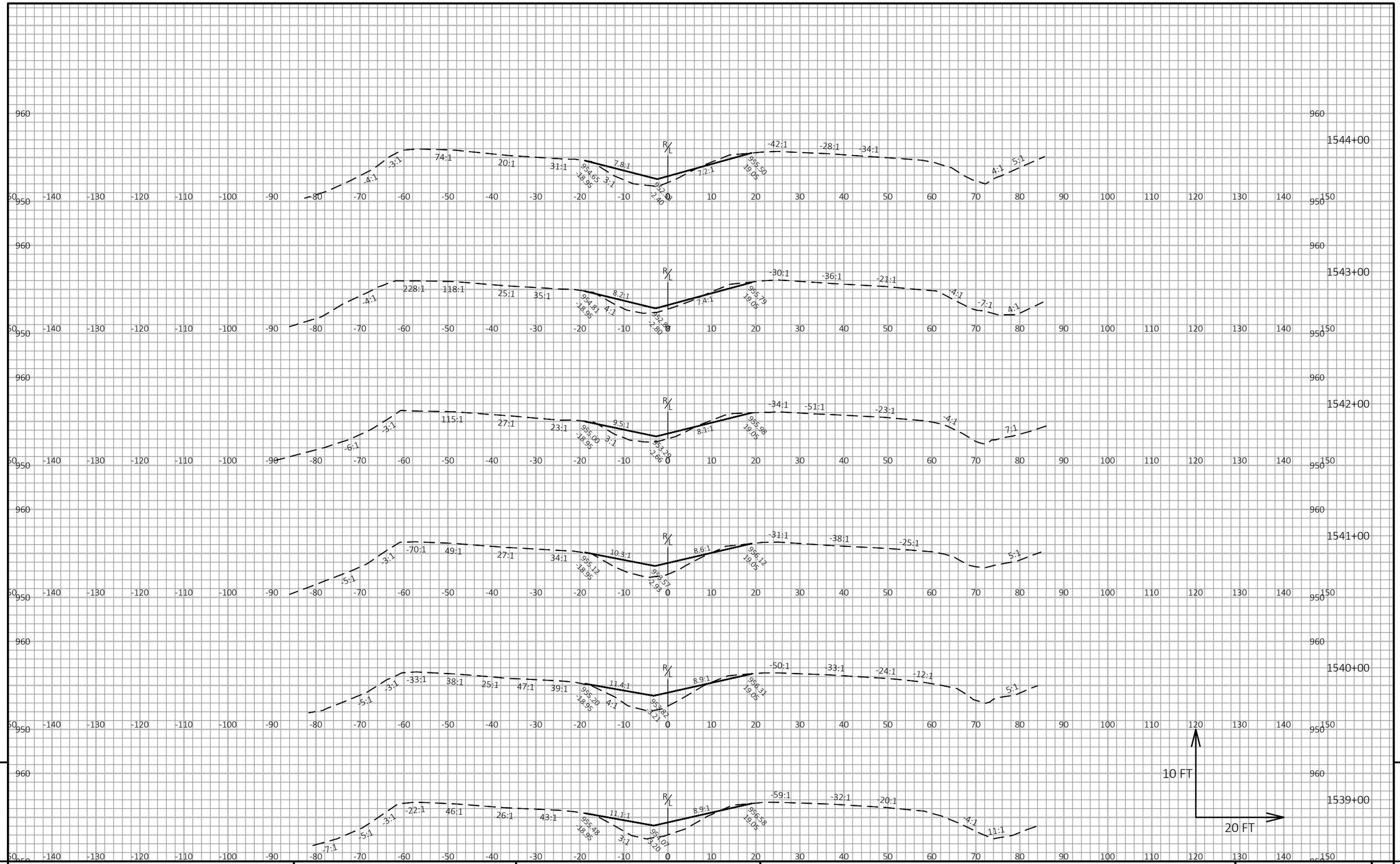


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 360 E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 196

PLOT DATE : 4/30/2019 10:54 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

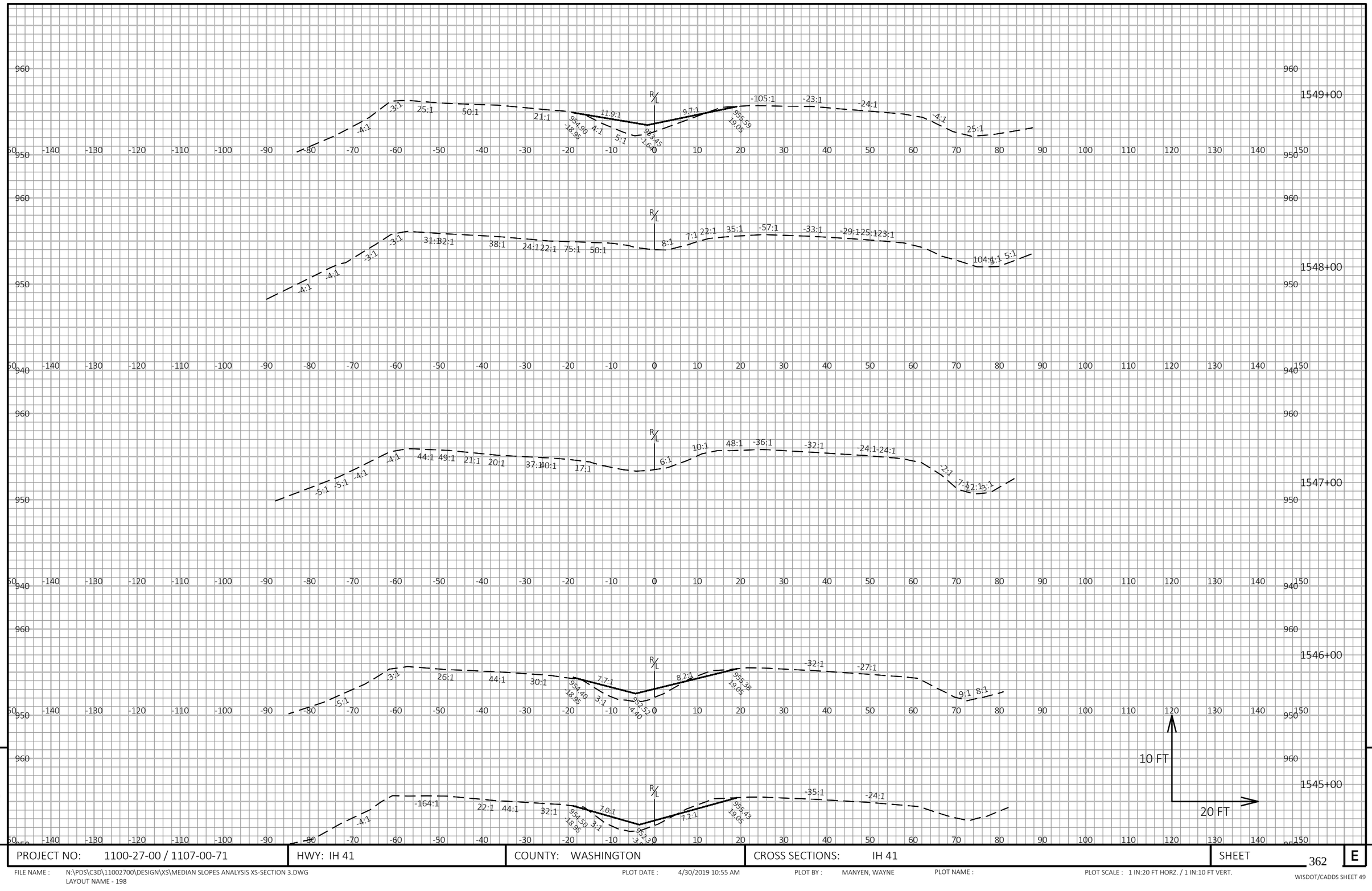


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 361 E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 197

PLOT DATE : 4/30/2019 10:54 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 362	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 198

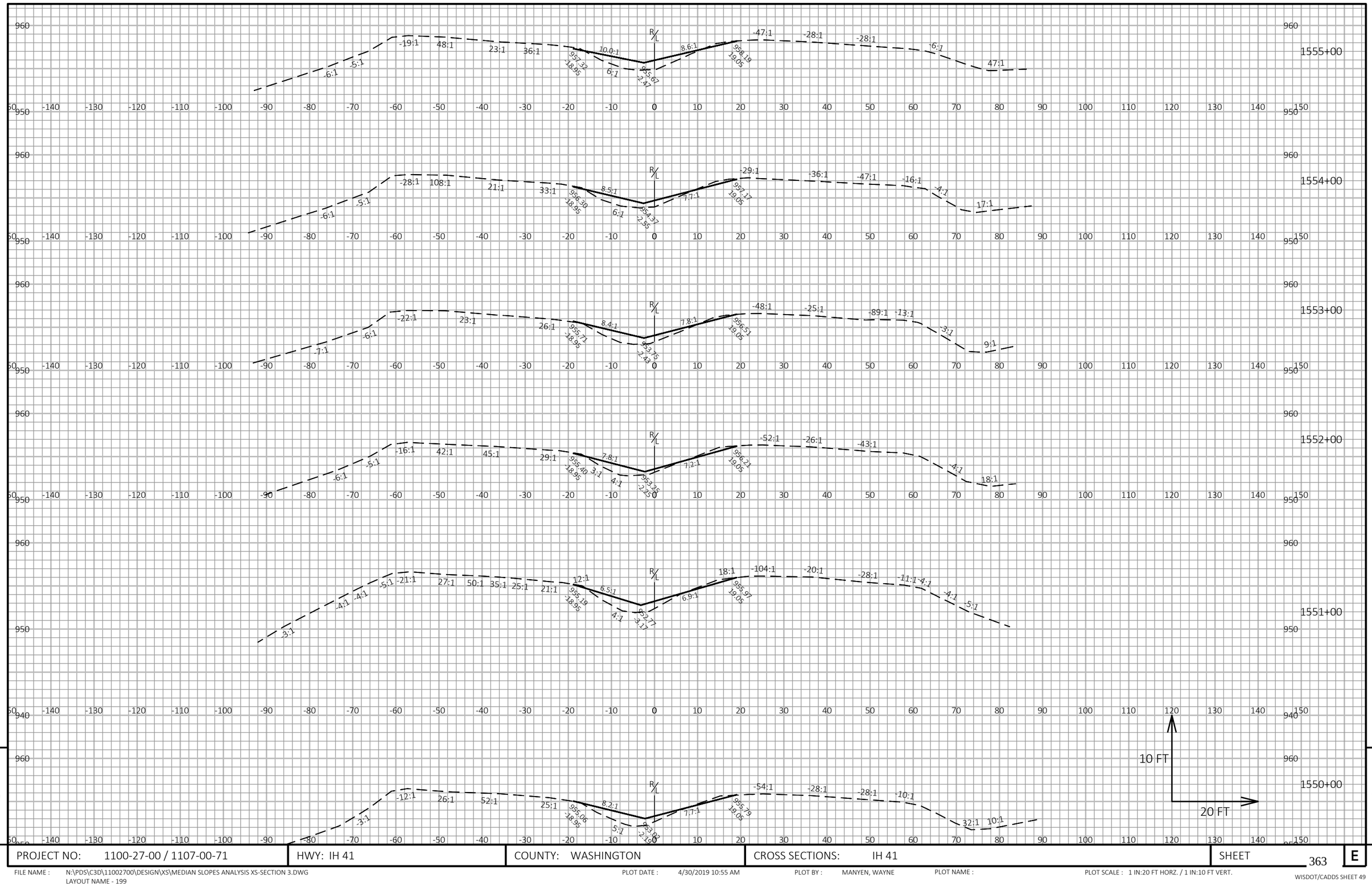
PLOT DATE : 4/30/2019 10:55 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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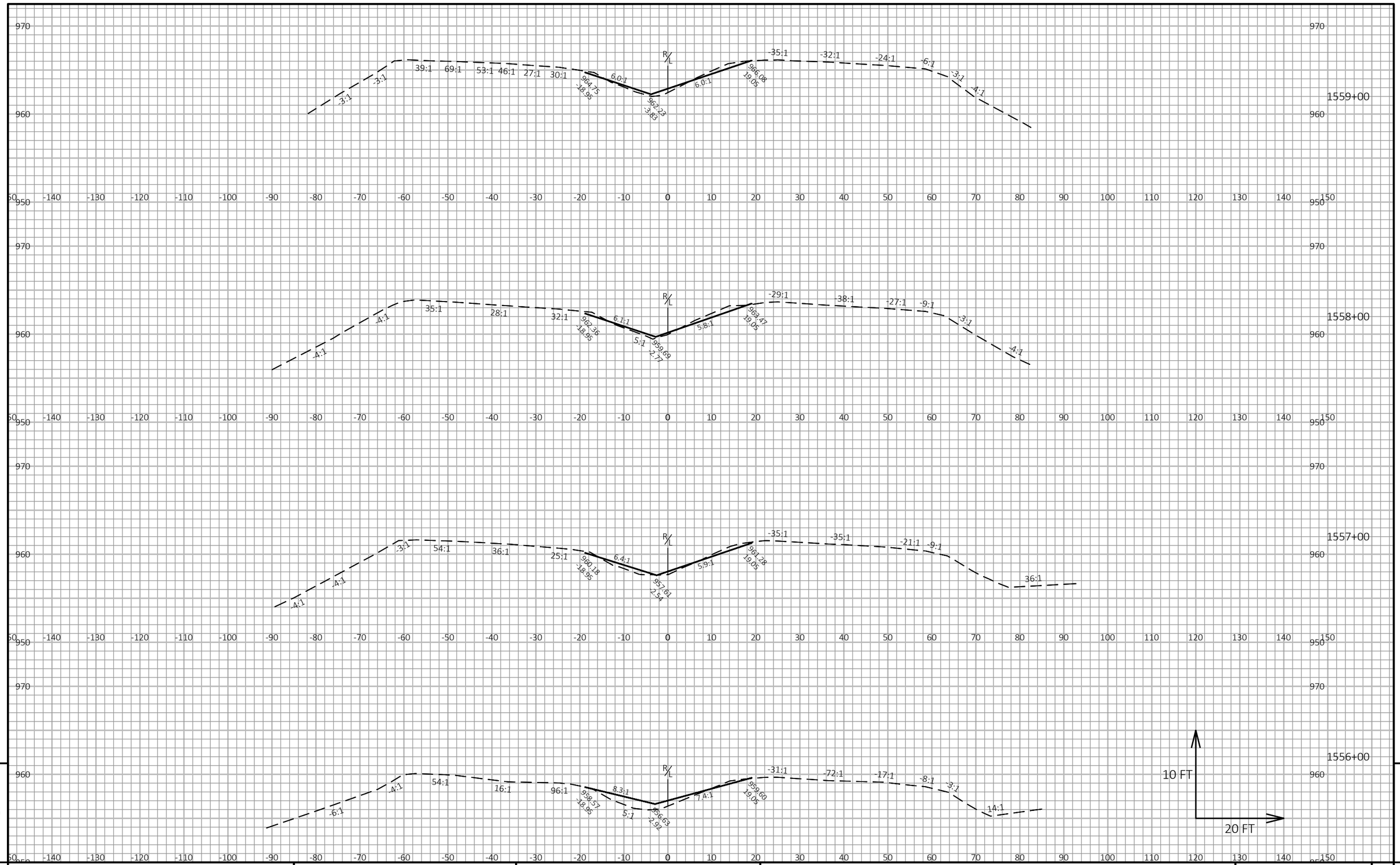
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 363	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 199

PLOT DATE : 4/30/2019 10:55 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 364	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 200

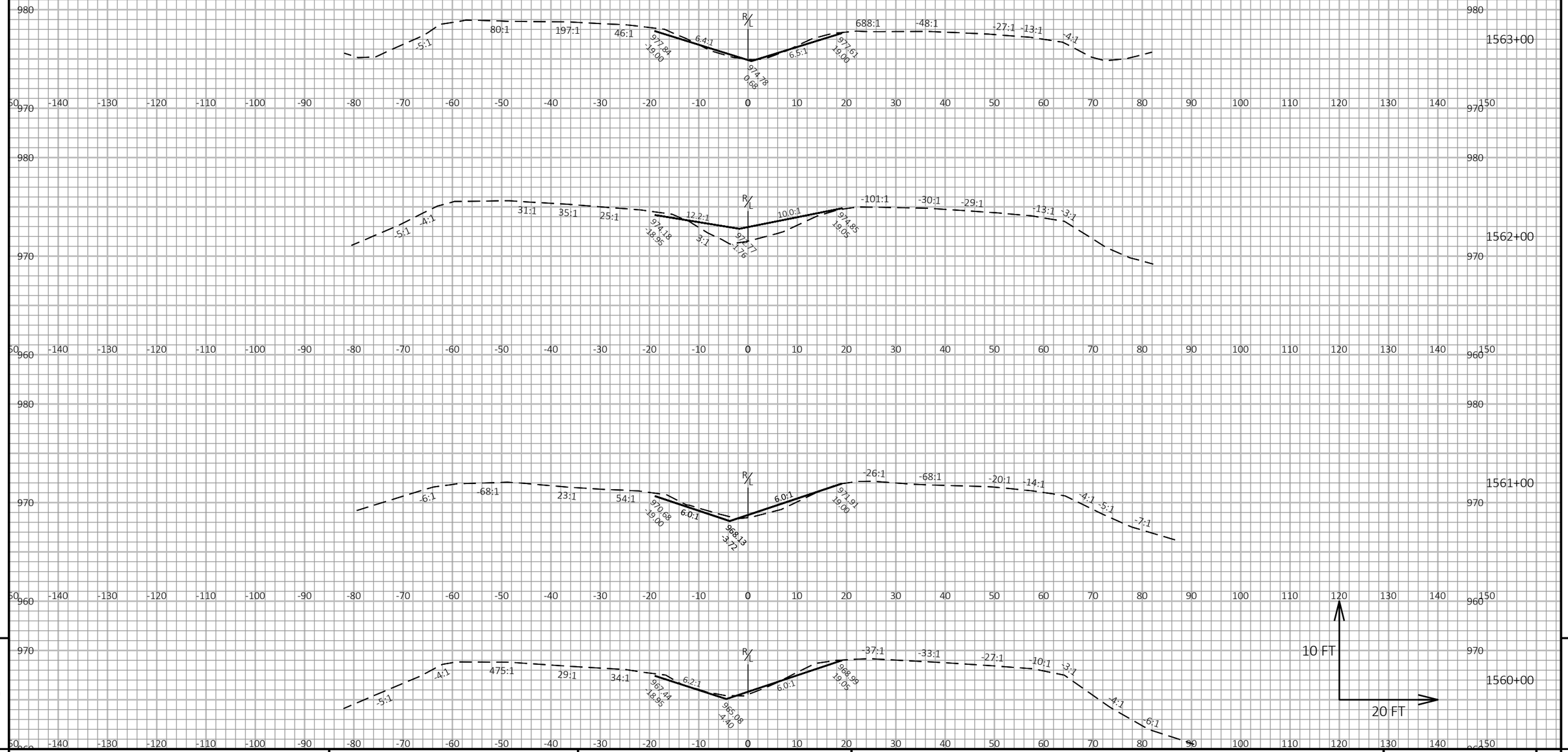
PLOT DATE : 4/30/2019 10:55 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

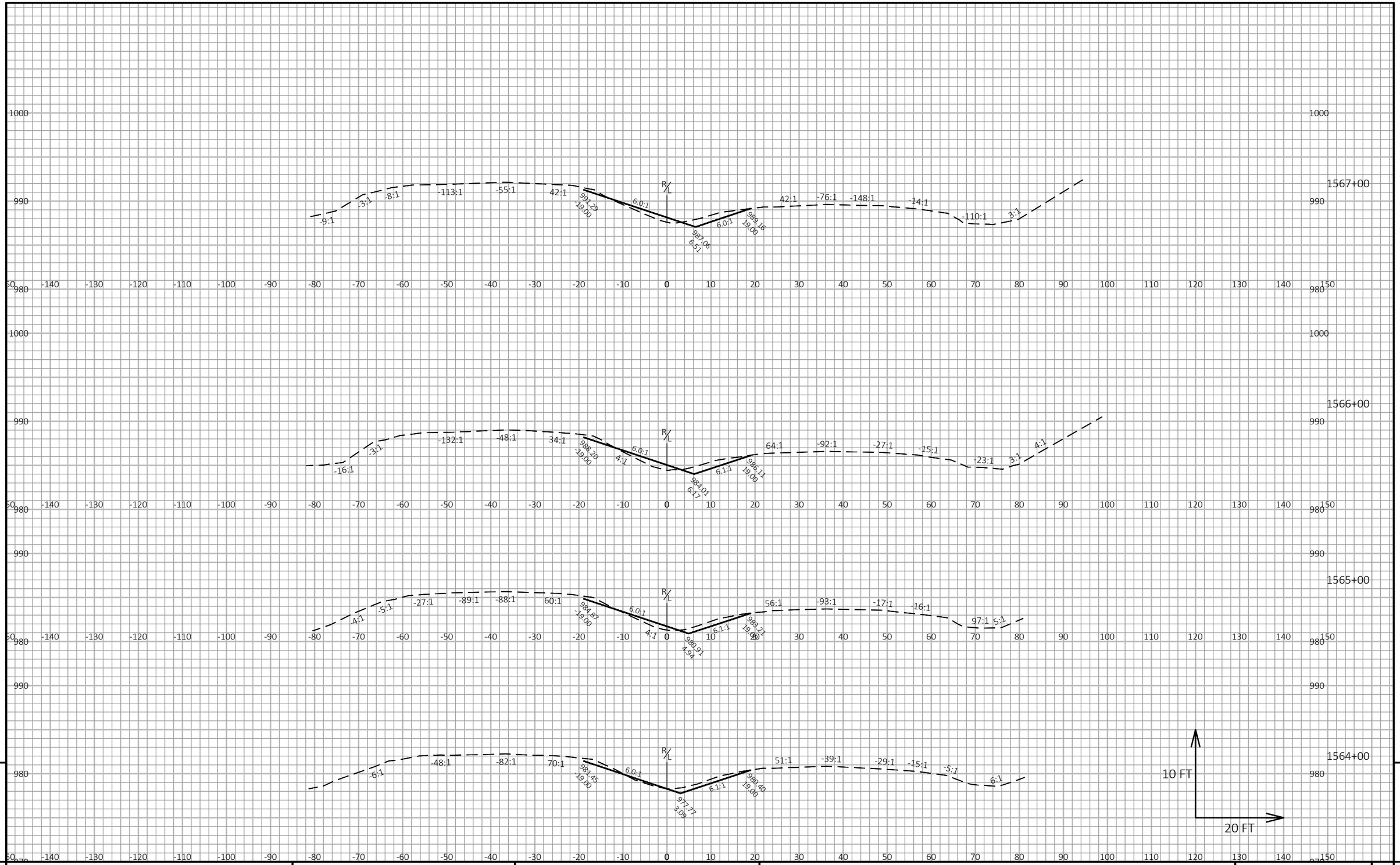


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 365 E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 201

PLOT DATE : 4/30/2019 10:55 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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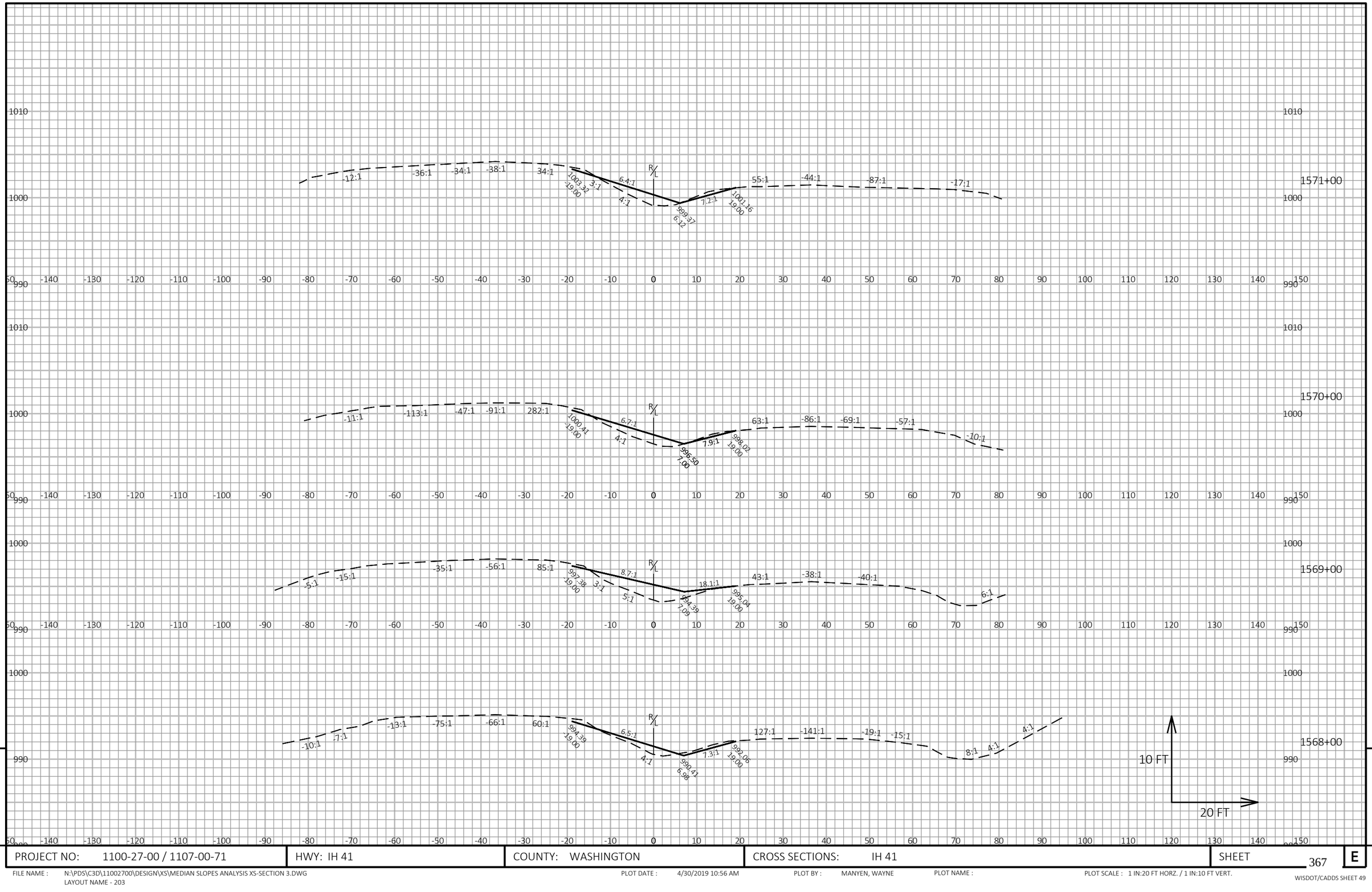
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 366	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 202

PLOT DATE : 4/30/2019 10:56 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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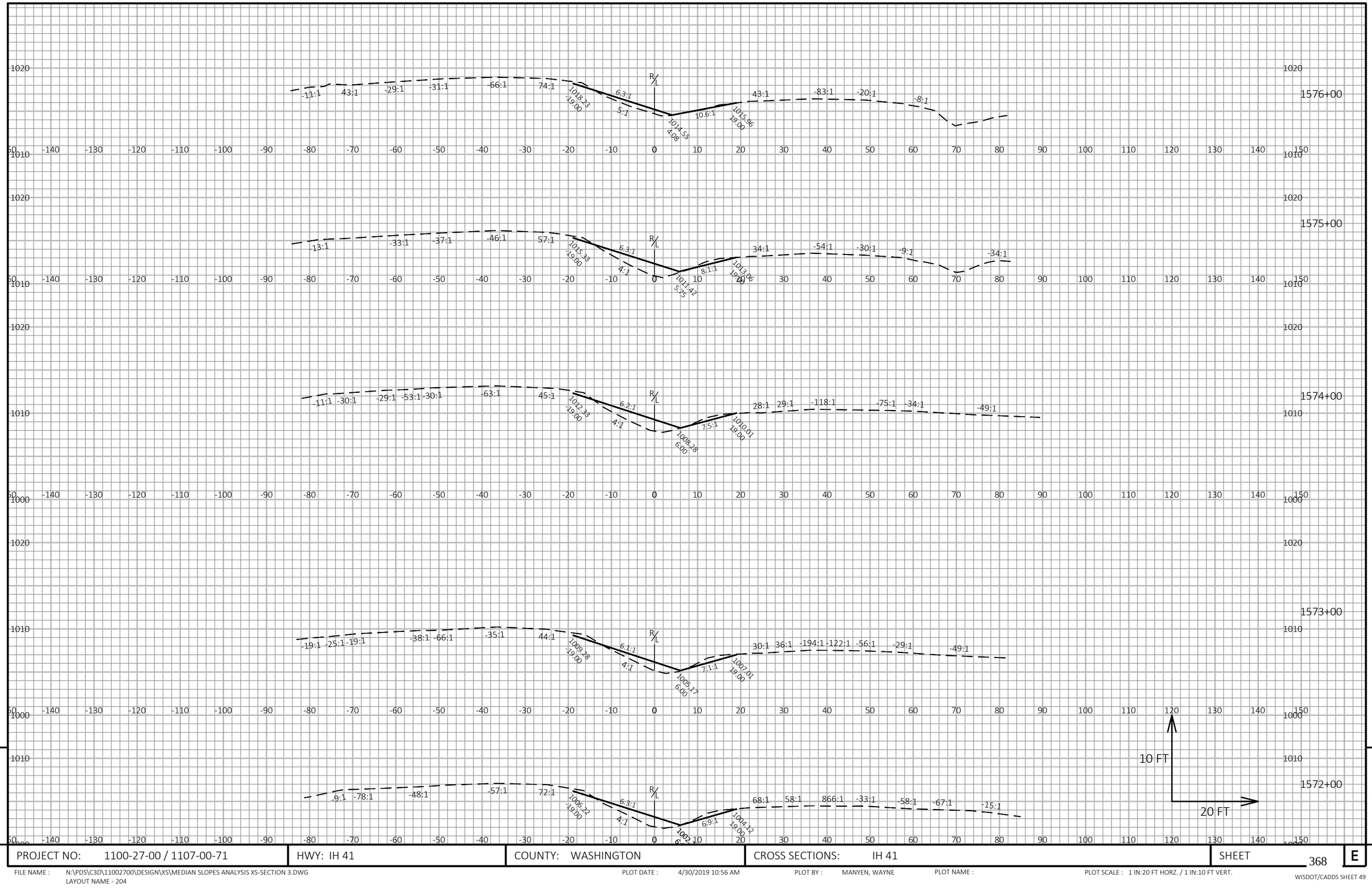
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 367	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 203

PLOT DATE : 4/30/2019 10:56 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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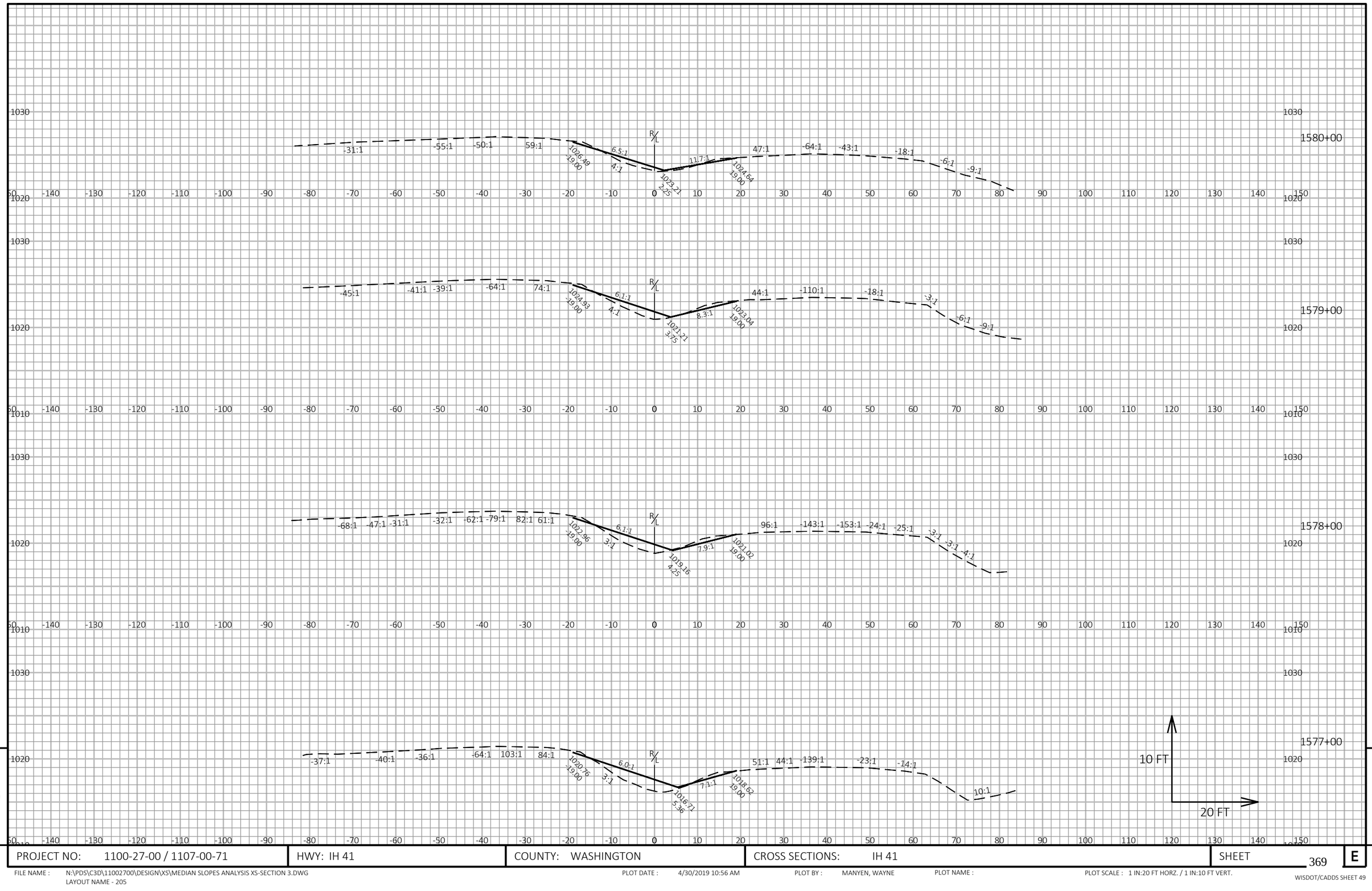
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 368	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 204
PLOT DATE : 4/30/2019 10:56 AM
PLOT BY : MANYEN, WAYNE
PLOT NAME :
PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 369	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 205

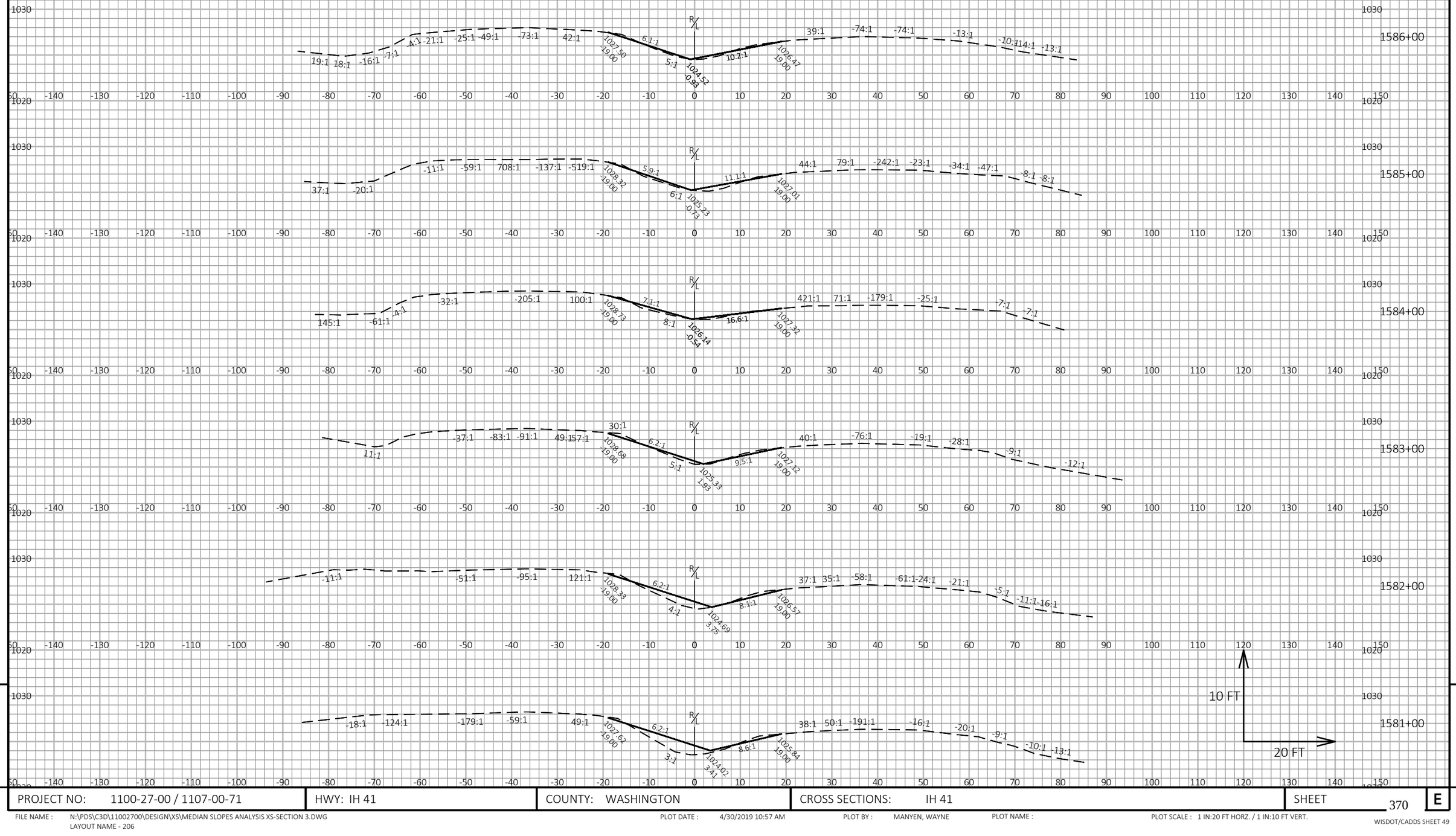
PLOT DATE : 4/30/2019 10:56 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

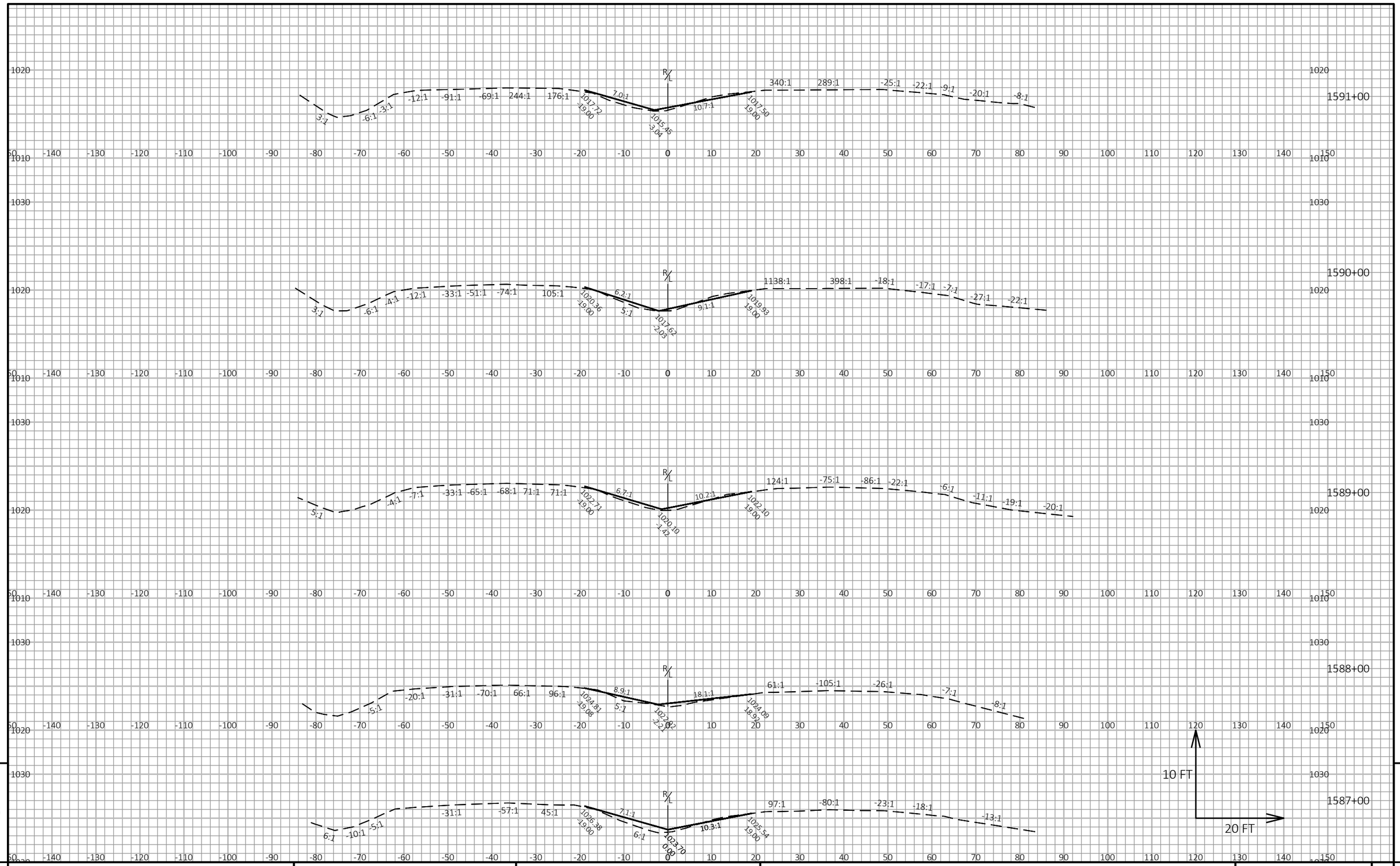


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 370	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 206

PLOT DATE : 4/30/2019 10:57 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

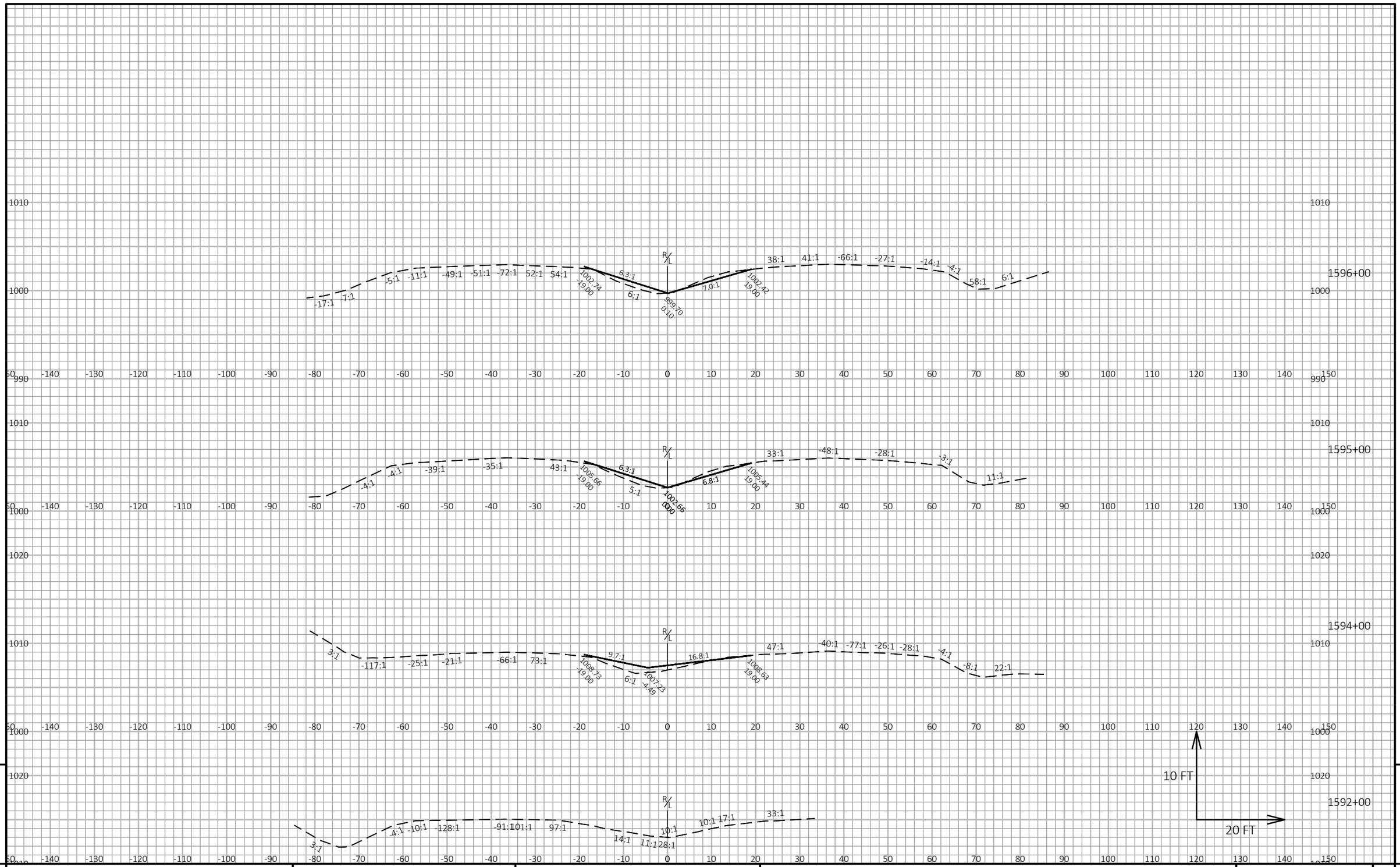


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 371 E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 207

PLOT DATE : 4/30/2019 10:57 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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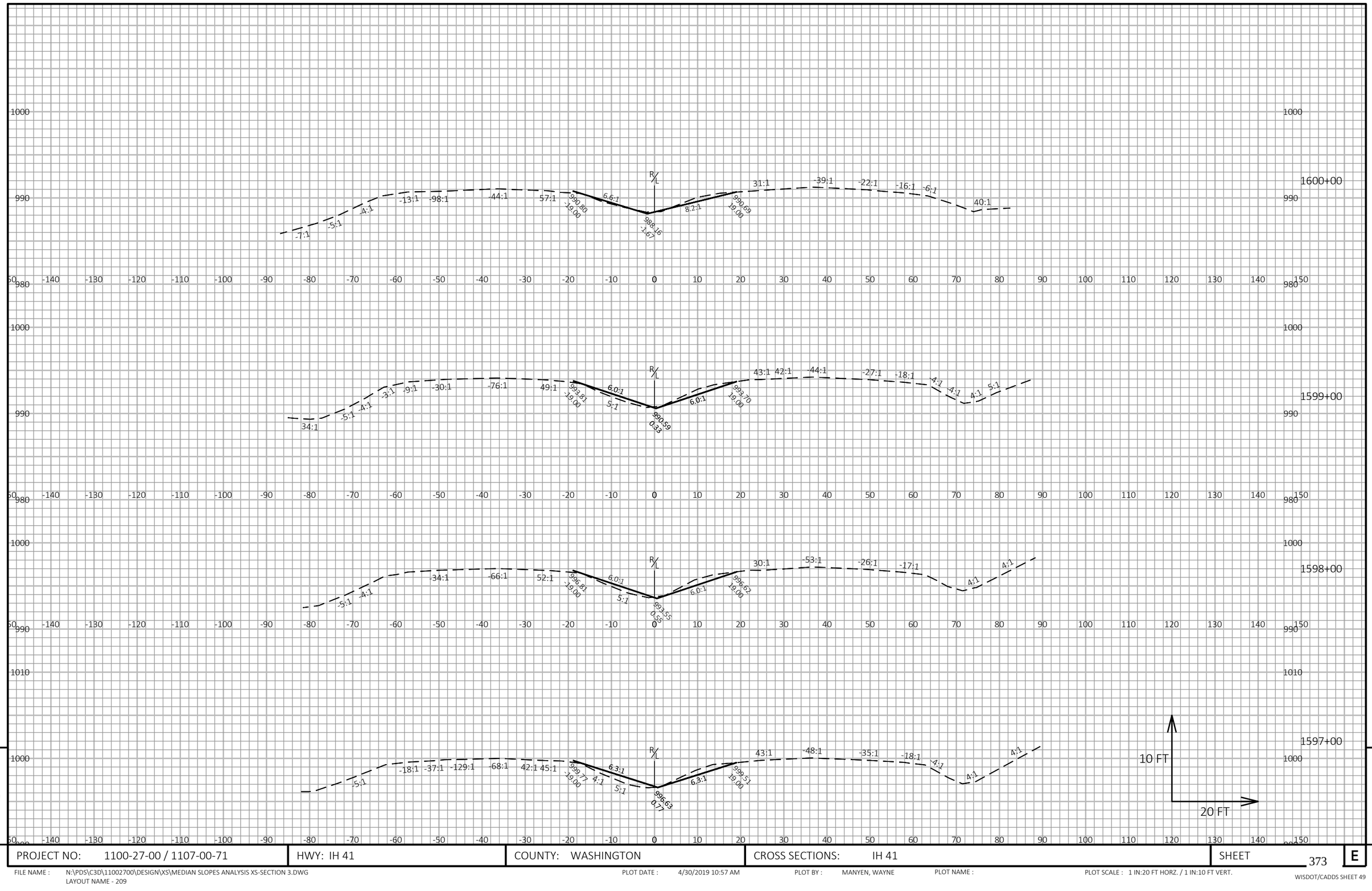
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 372	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 208

PLOT DATE : 4/30/2019 10:57 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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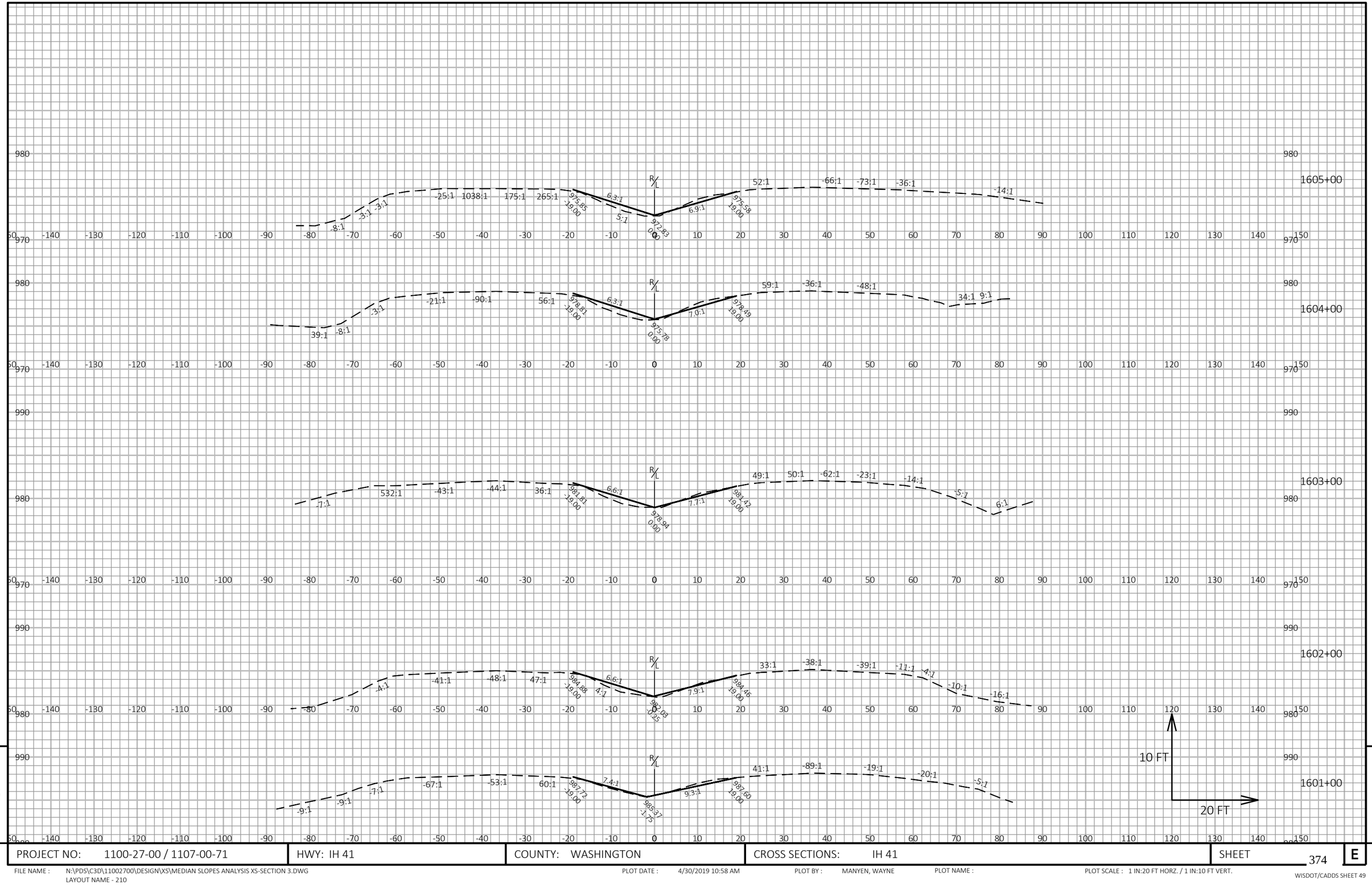
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 373	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 209

PLOT DATE : 4/30/2019 10:57 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

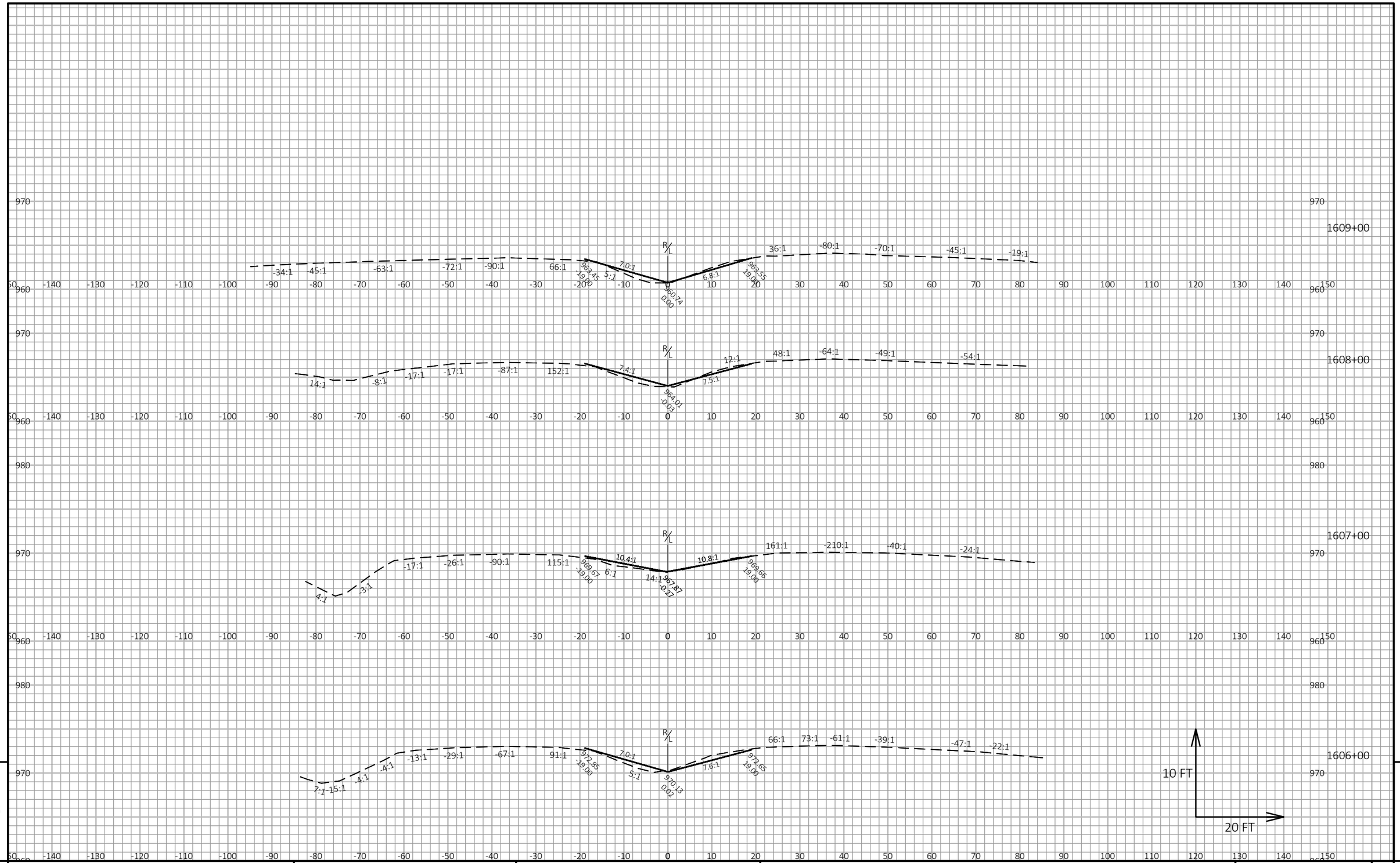


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 374	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 210

PLOT DATE : 4/30/2019 10:58 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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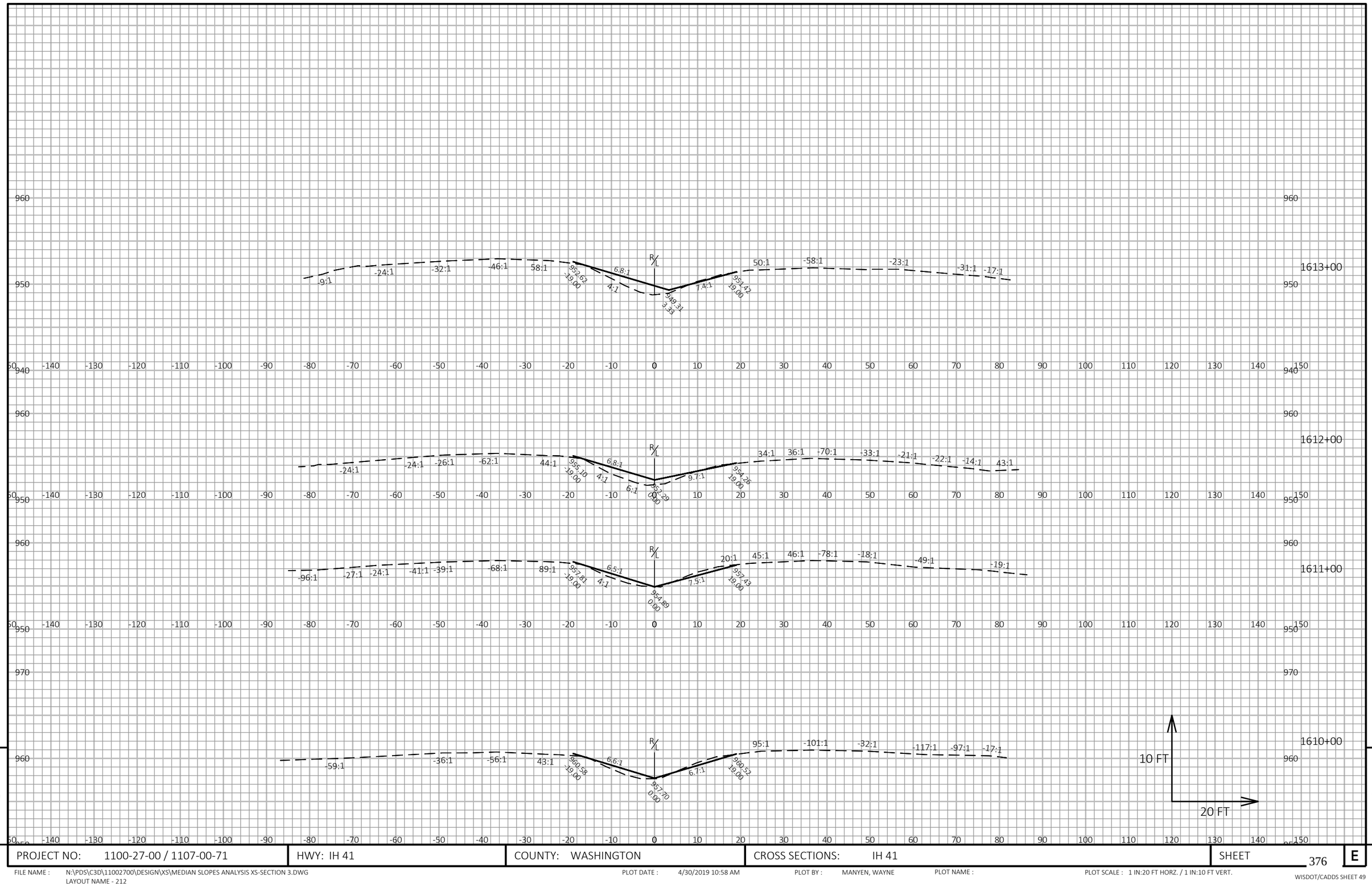
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 375	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 211

PLOT DATE : 4/30/2019 10:58 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

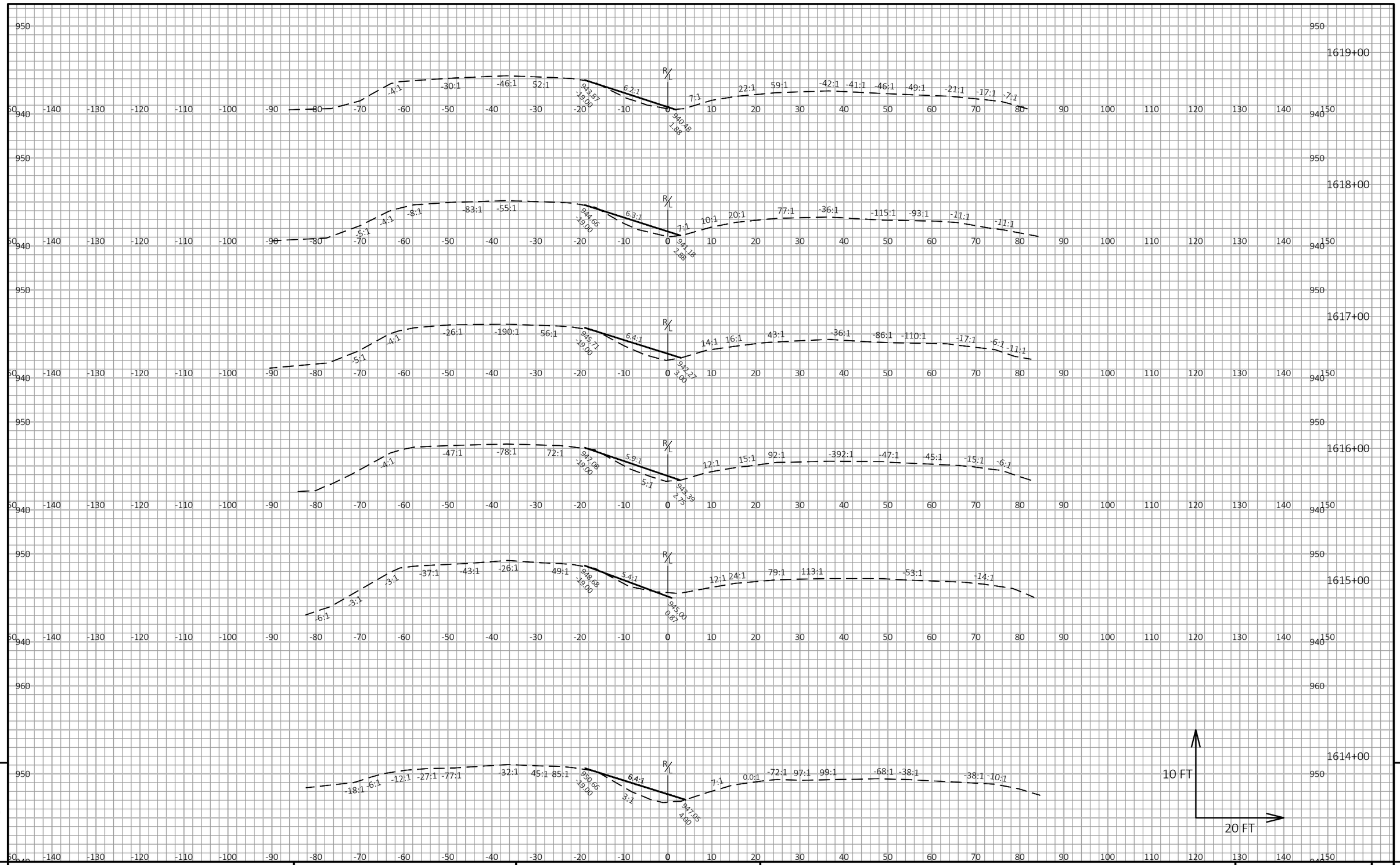


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 376	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 212

PLOT DATE : 4/30/2019 10:58 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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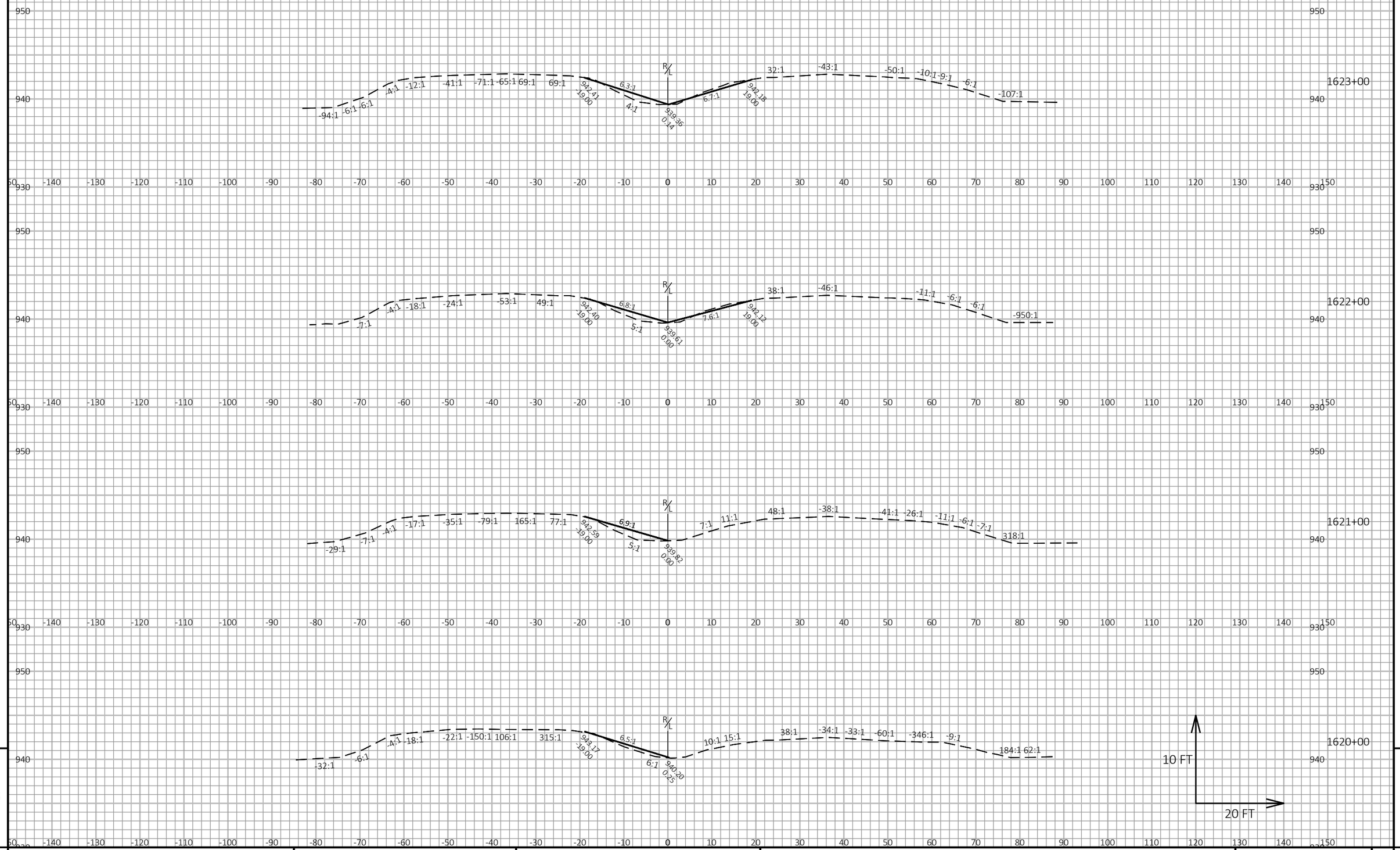
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 377	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 213

PLOT DATE : 4/30/2019 10:58 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

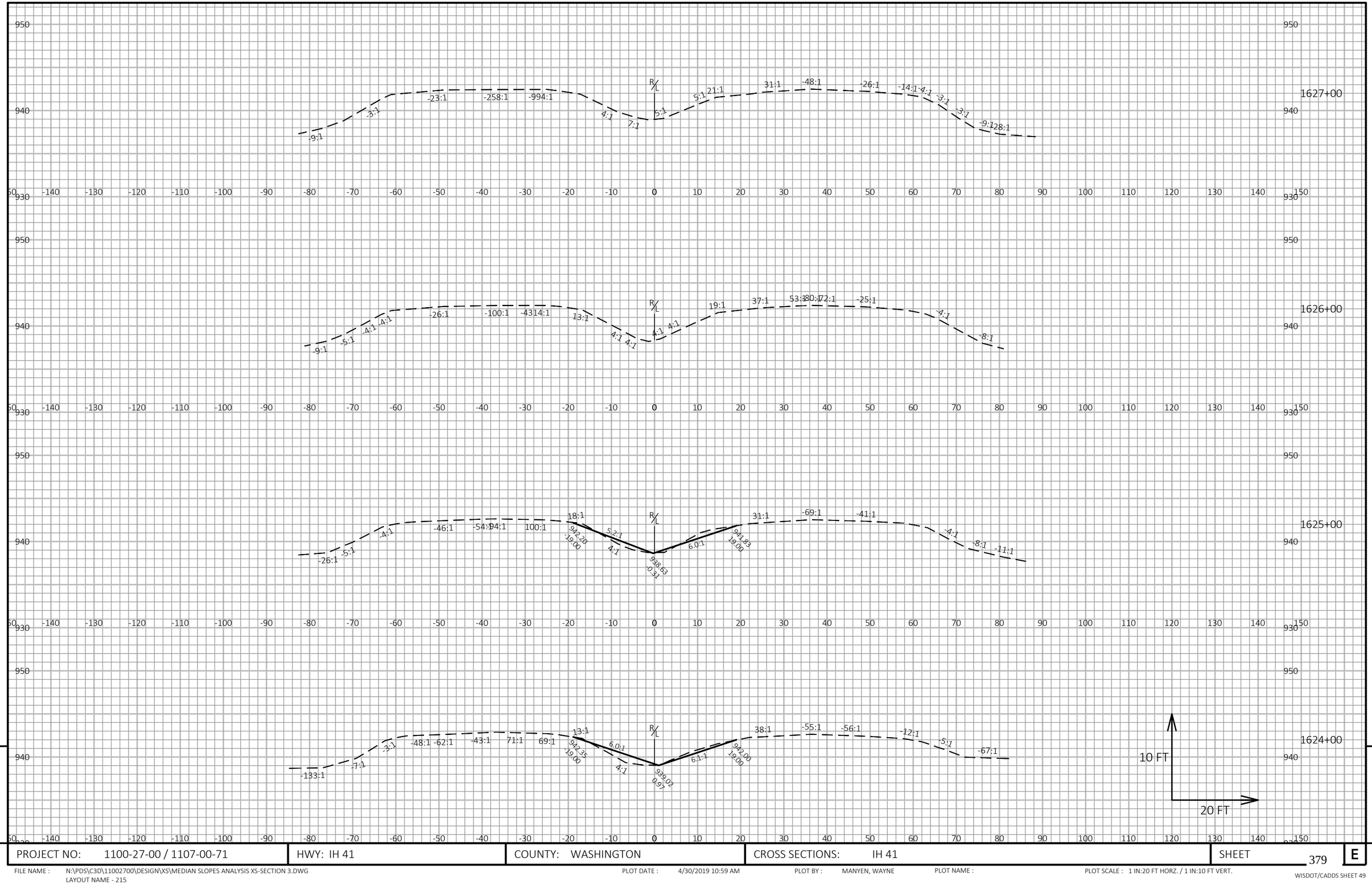


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 378	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 214

PLOT DATE : 4/30/2019 10:59 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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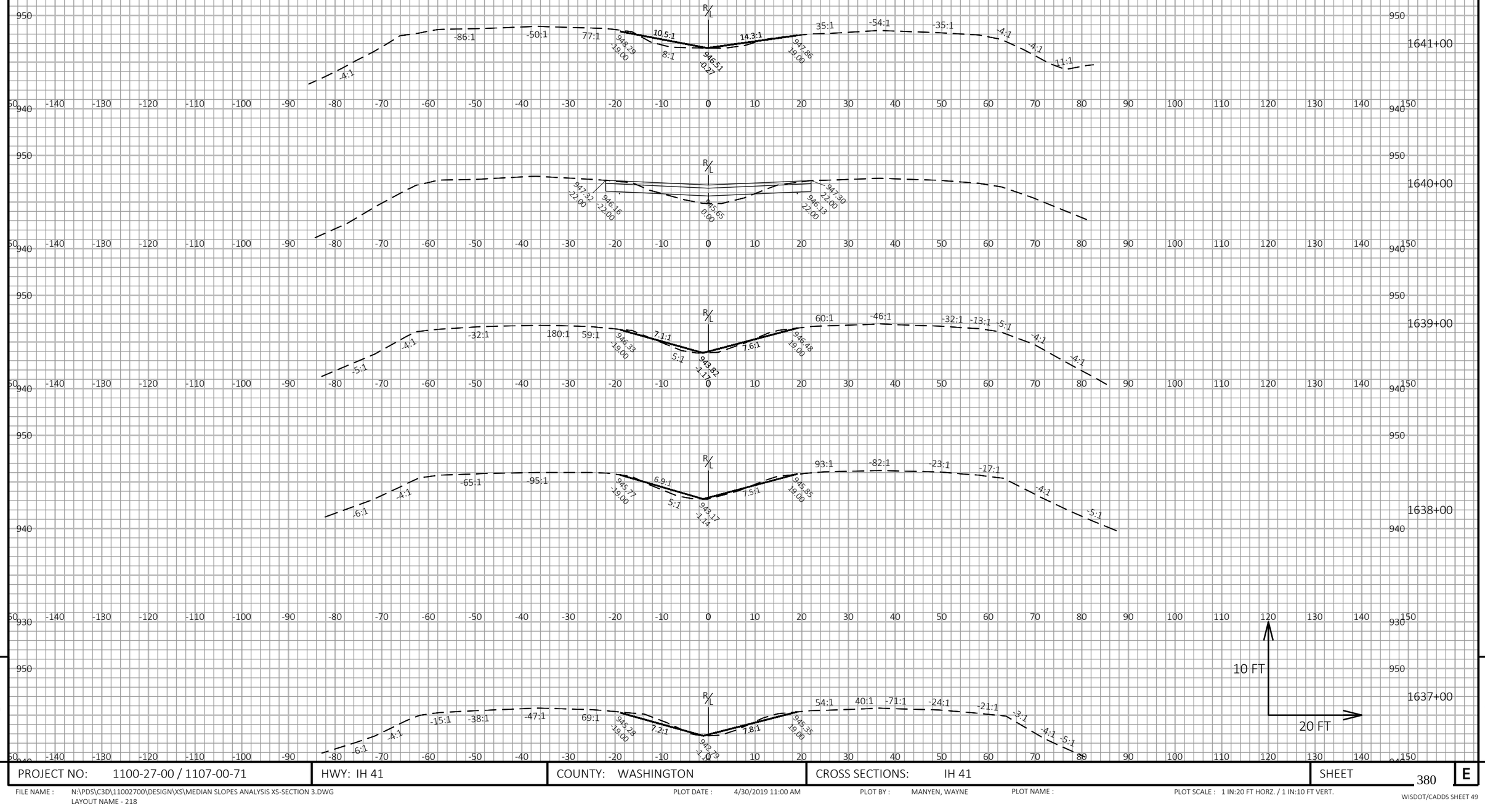
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 379	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 215

PLOT DATE : 4/30/2019 10:59 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

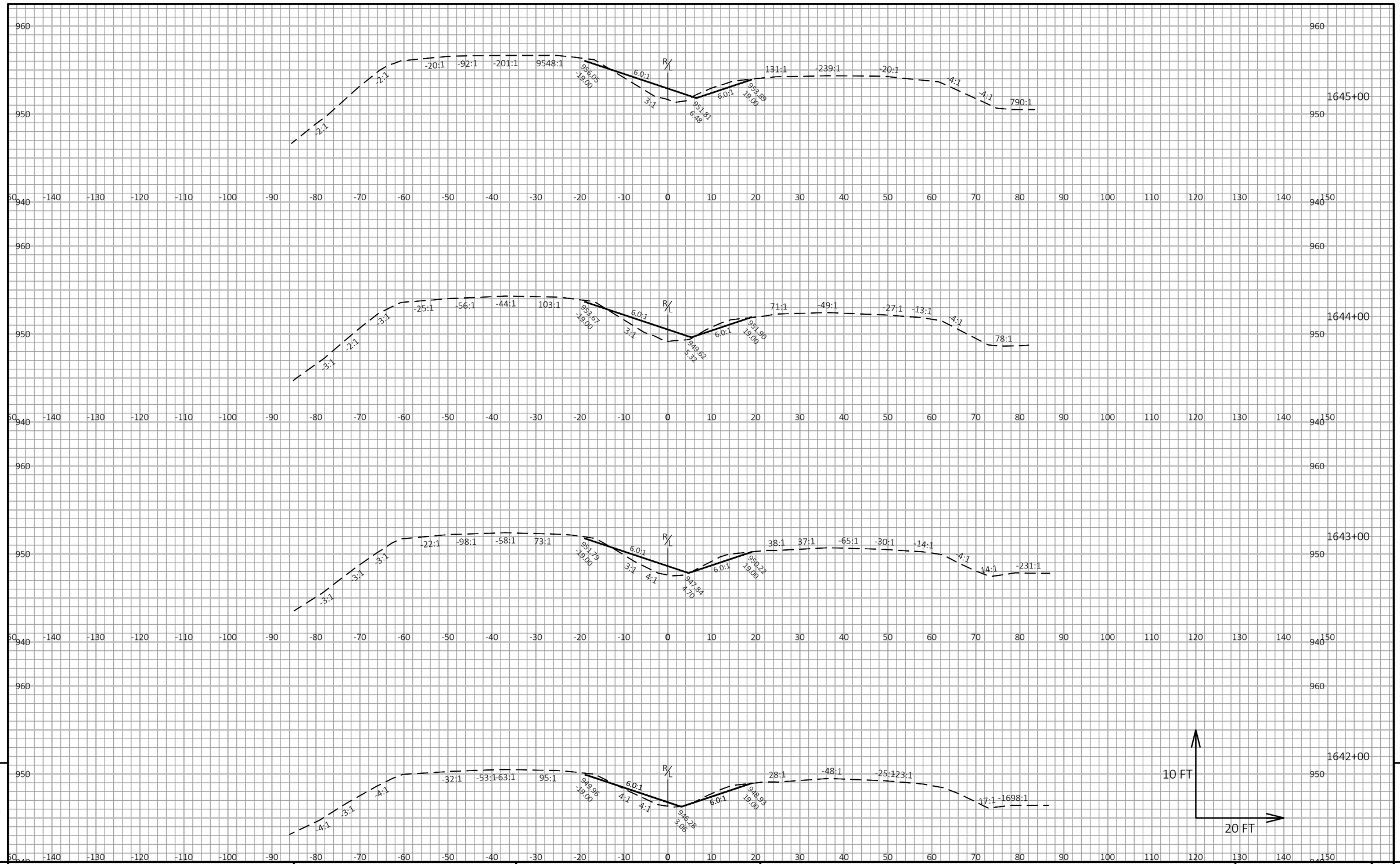


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 380	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 218

PLOT DATE : 4/30/2019 11:00 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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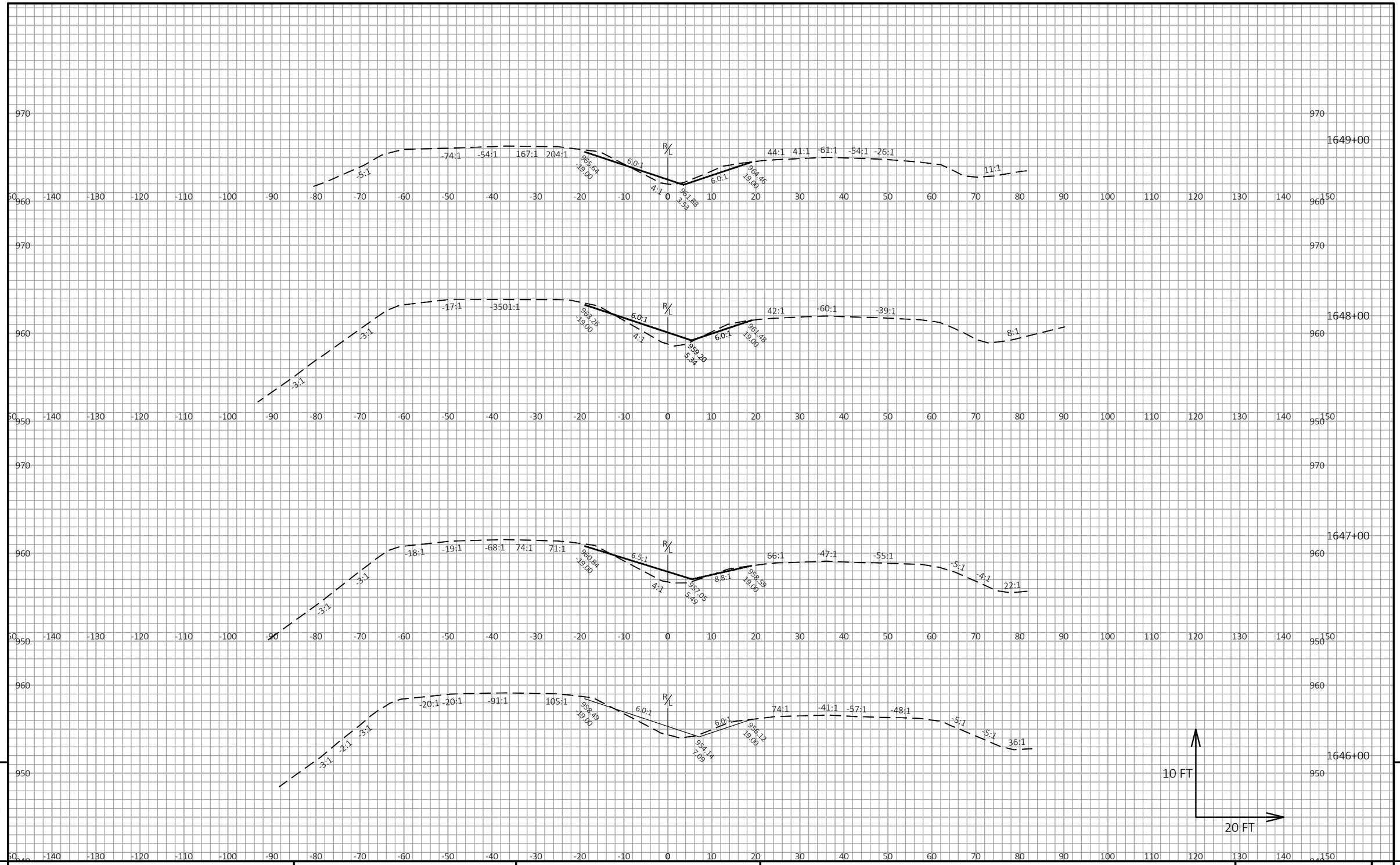
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 381	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 219

PLOT DATE : 4/30/2019 11:00 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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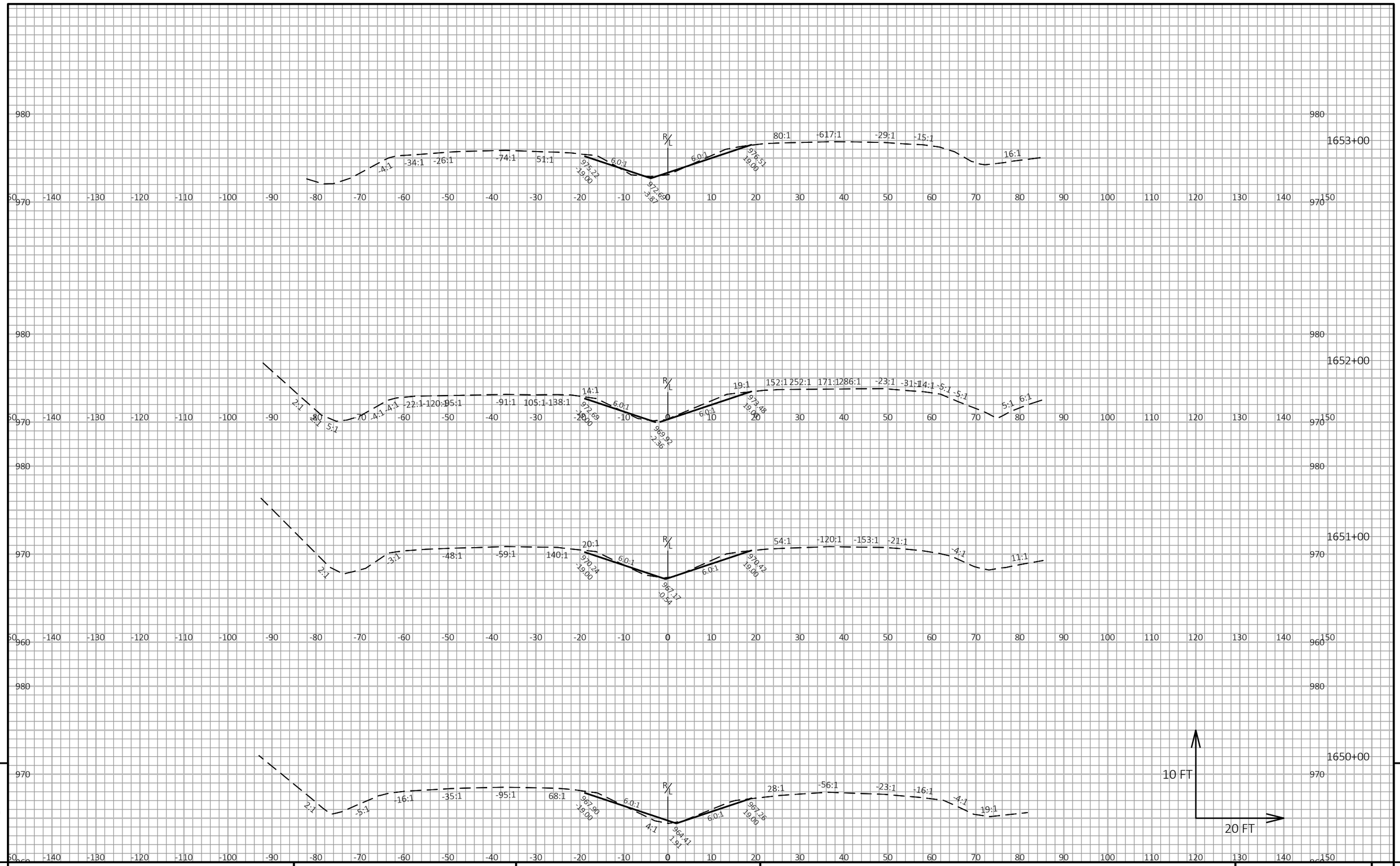
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 382	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 220

PLOT DATE : 4/30/2019 11:00 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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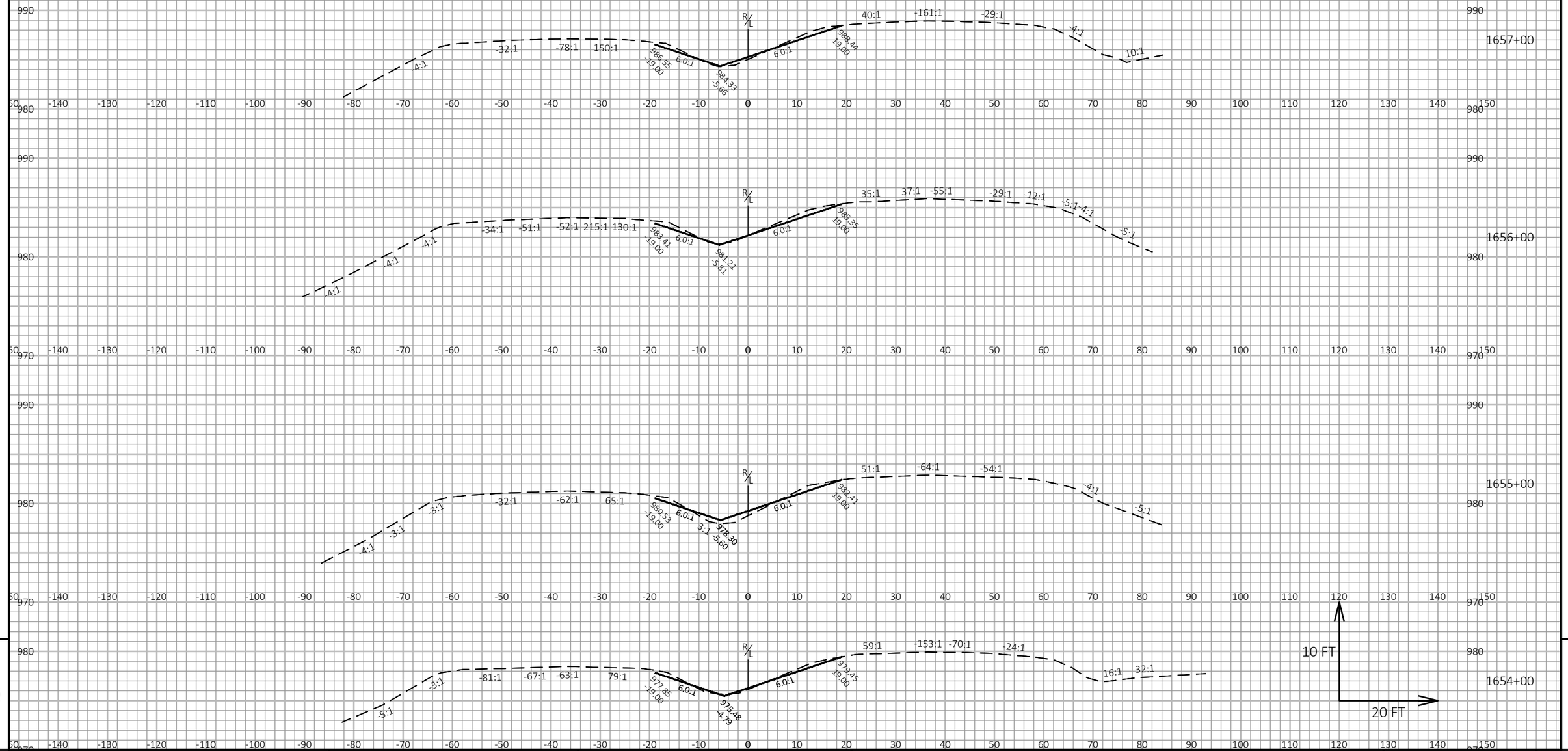
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 383	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 221

PLOT DATE : 4/30/2019 11:00 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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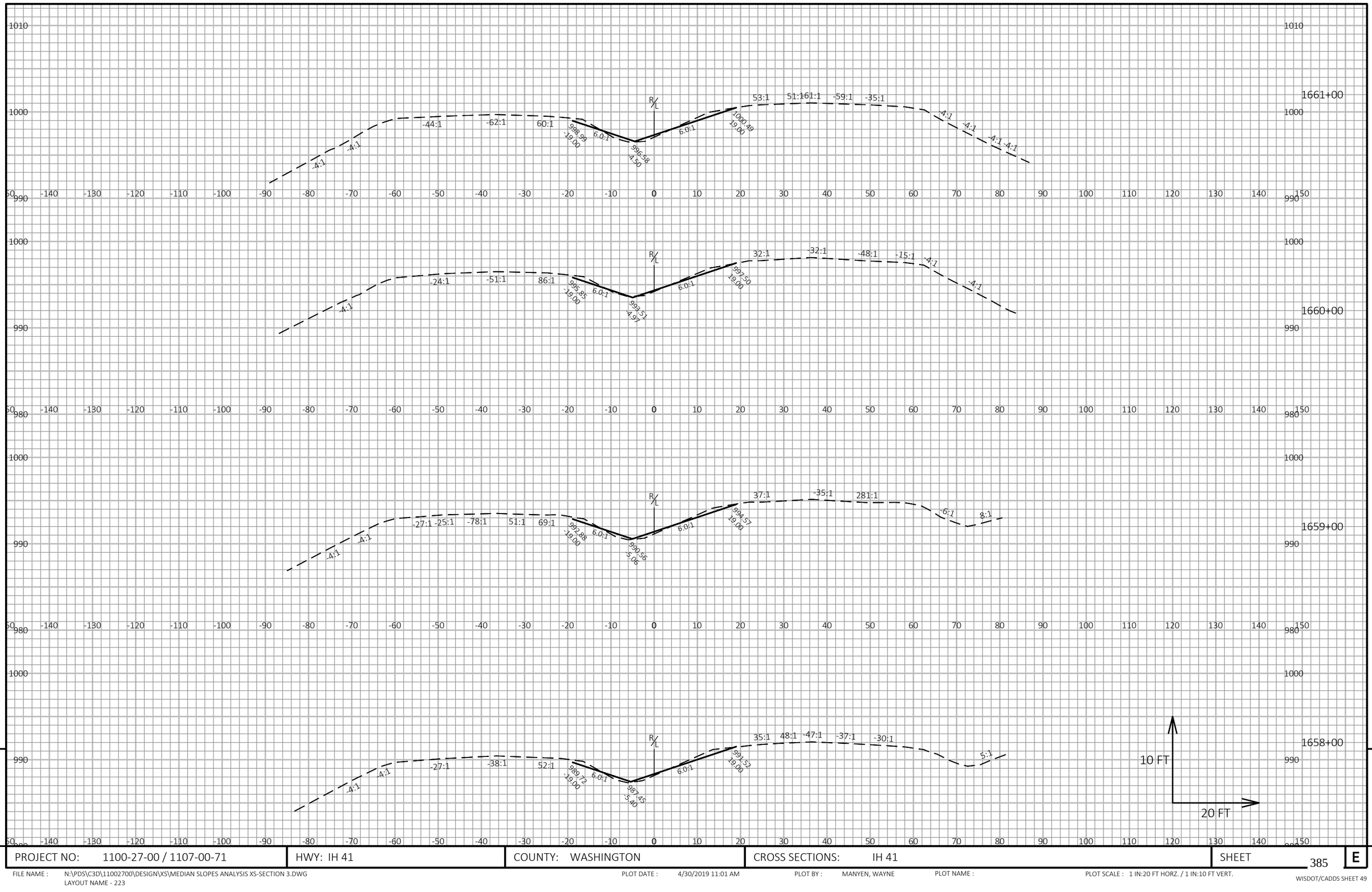
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 384	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 222

PLOT DATE : 4/30/2019 11:01 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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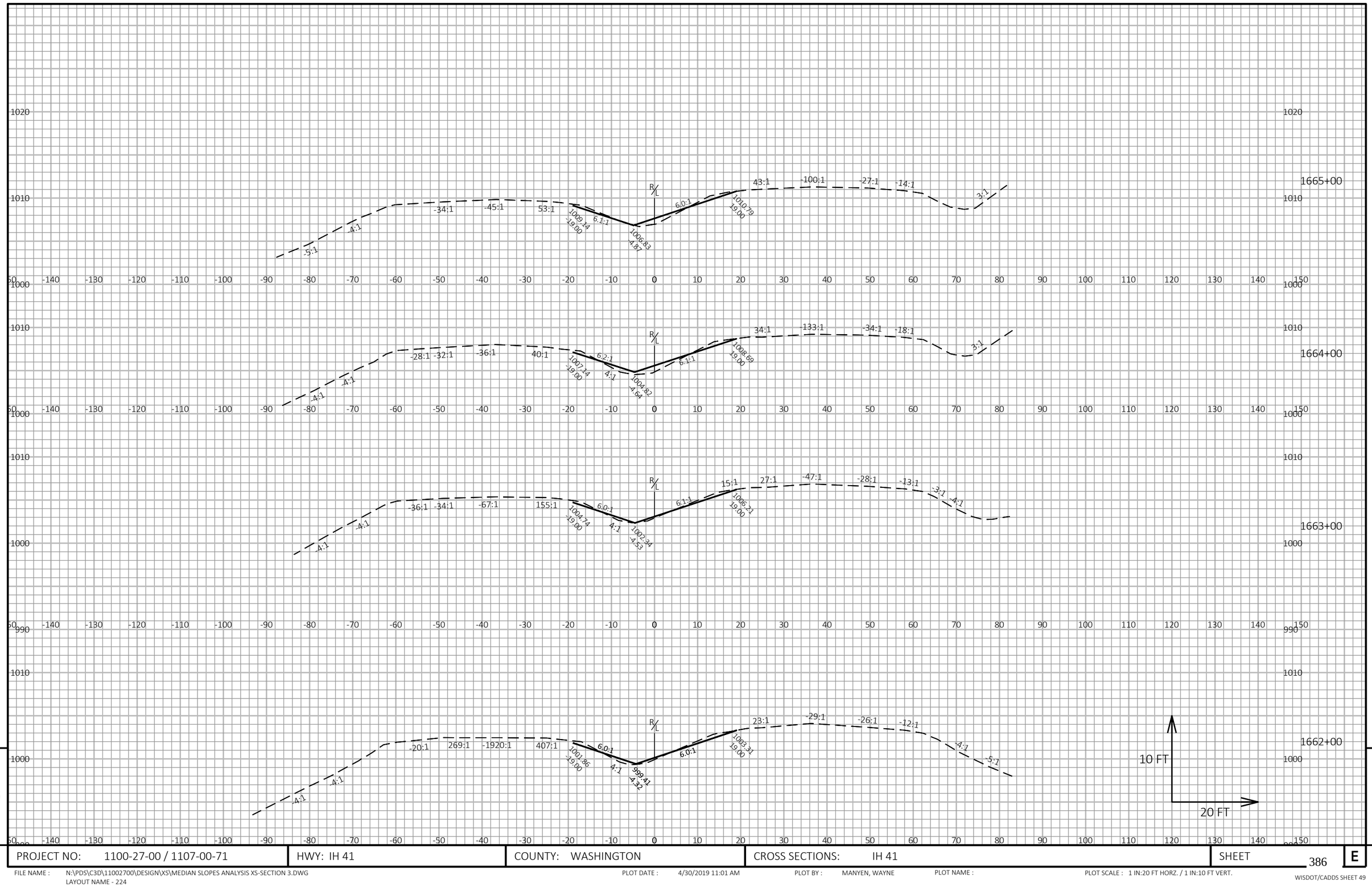
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 385	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 223

PLOT DATE : 4/30/2019 11:01 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 386 E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 224

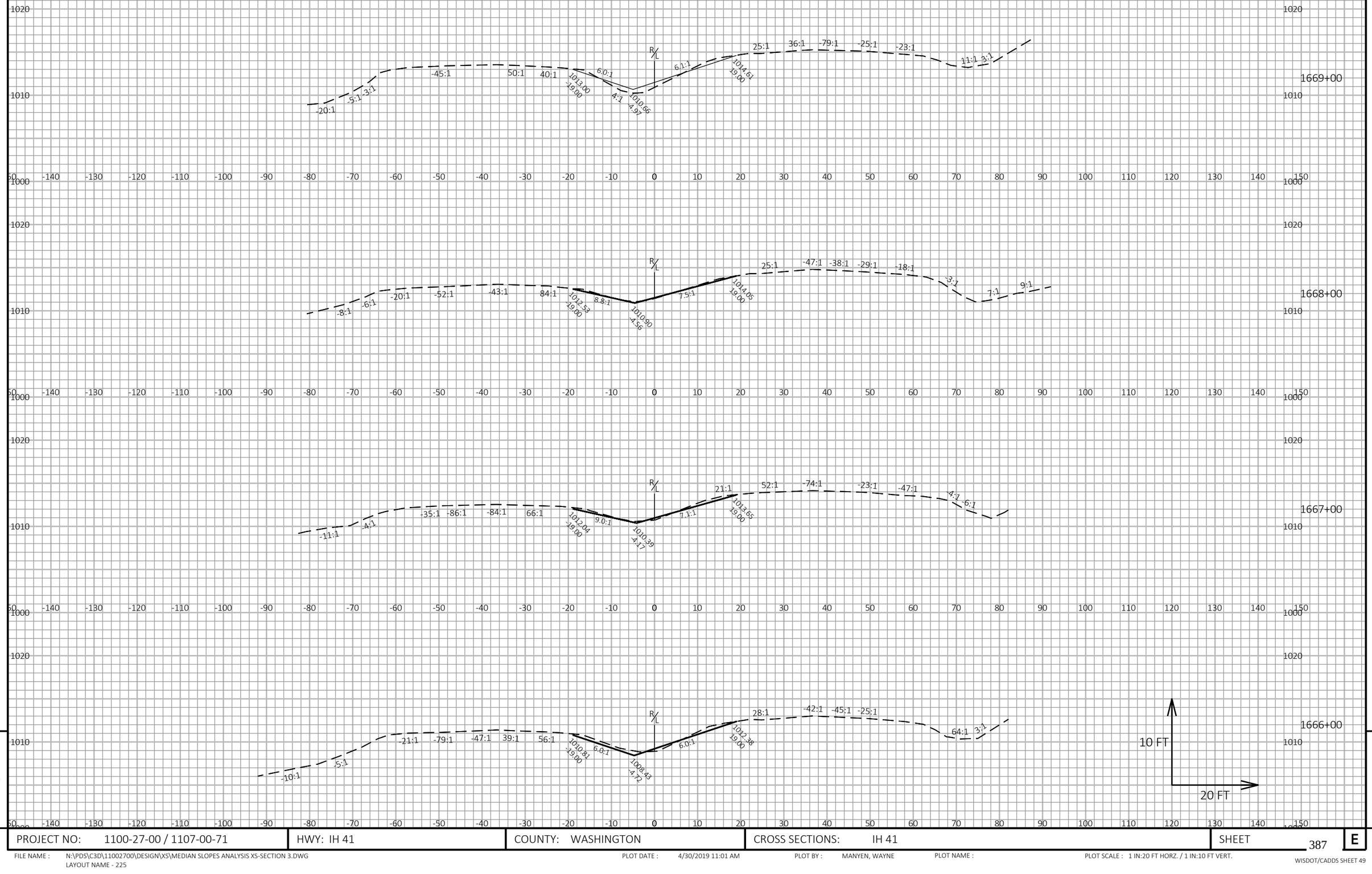
PLOT DATE : 4/30/2019 11:01 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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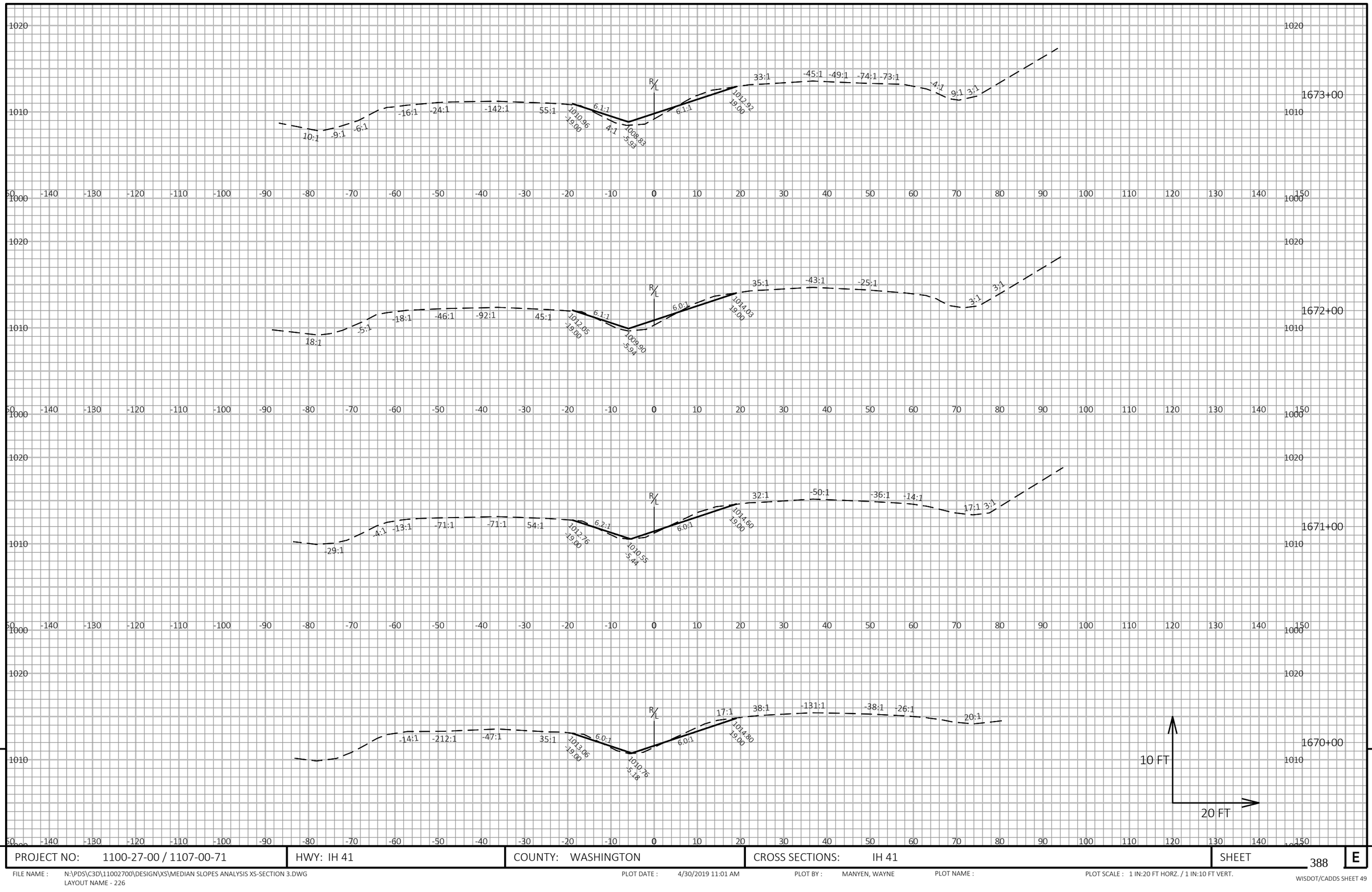
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 387	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 225

PLOT DATE : 4/30/2019 11:01 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 388 E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 226

PLOT DATE : 4/30/2019 11:01 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

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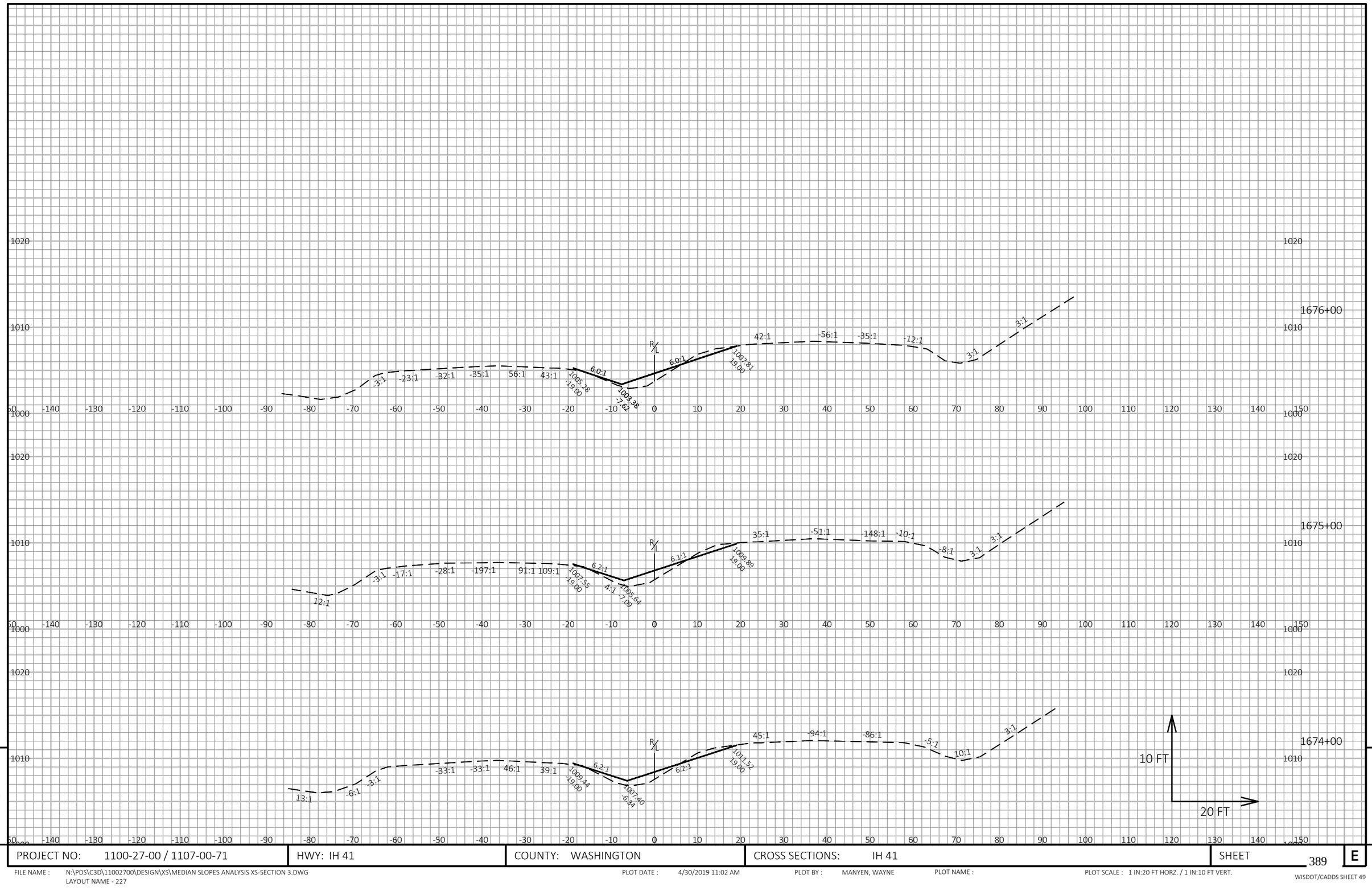

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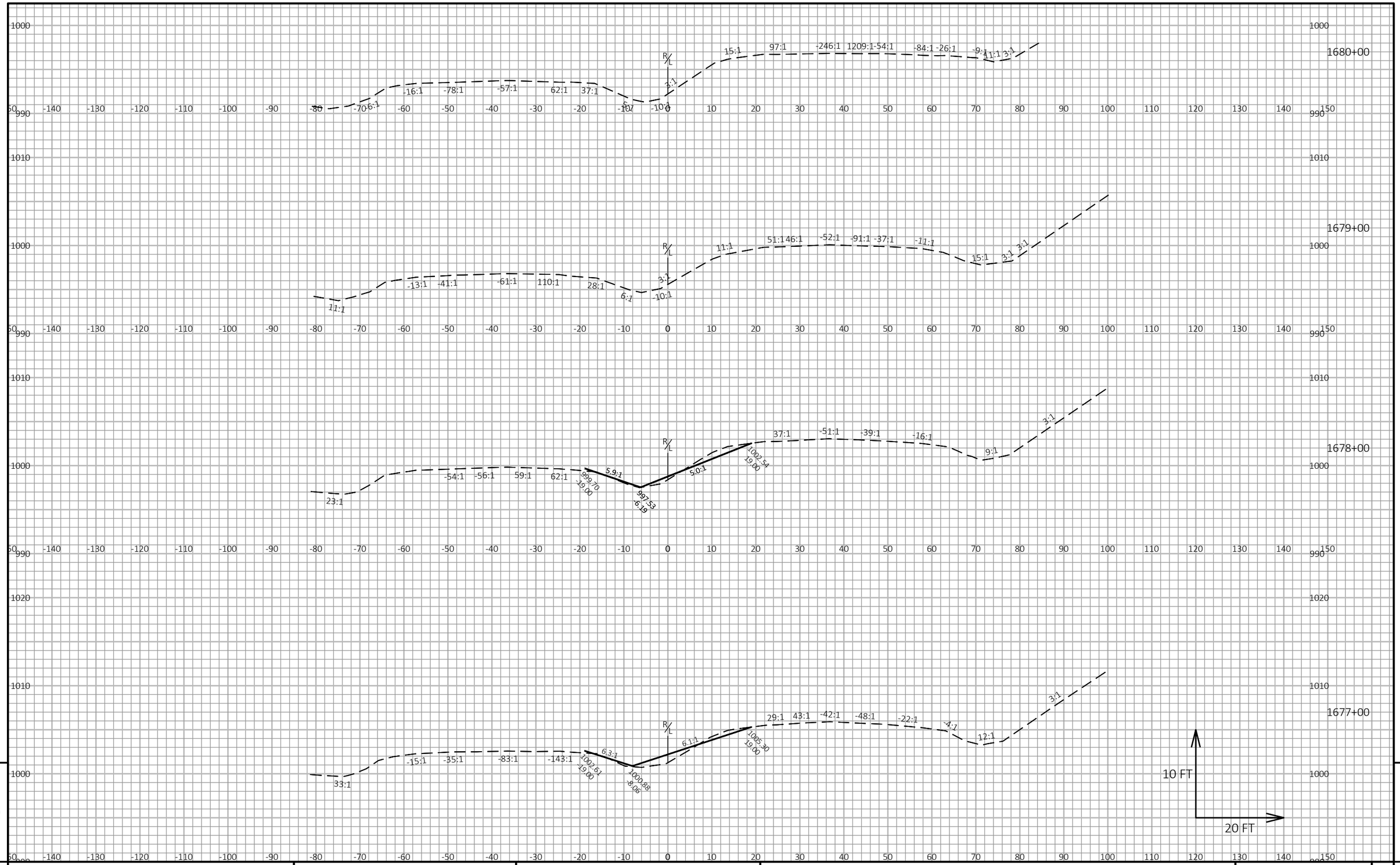
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 389	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 227

PLOT DATE : 4/30/2019 11:02 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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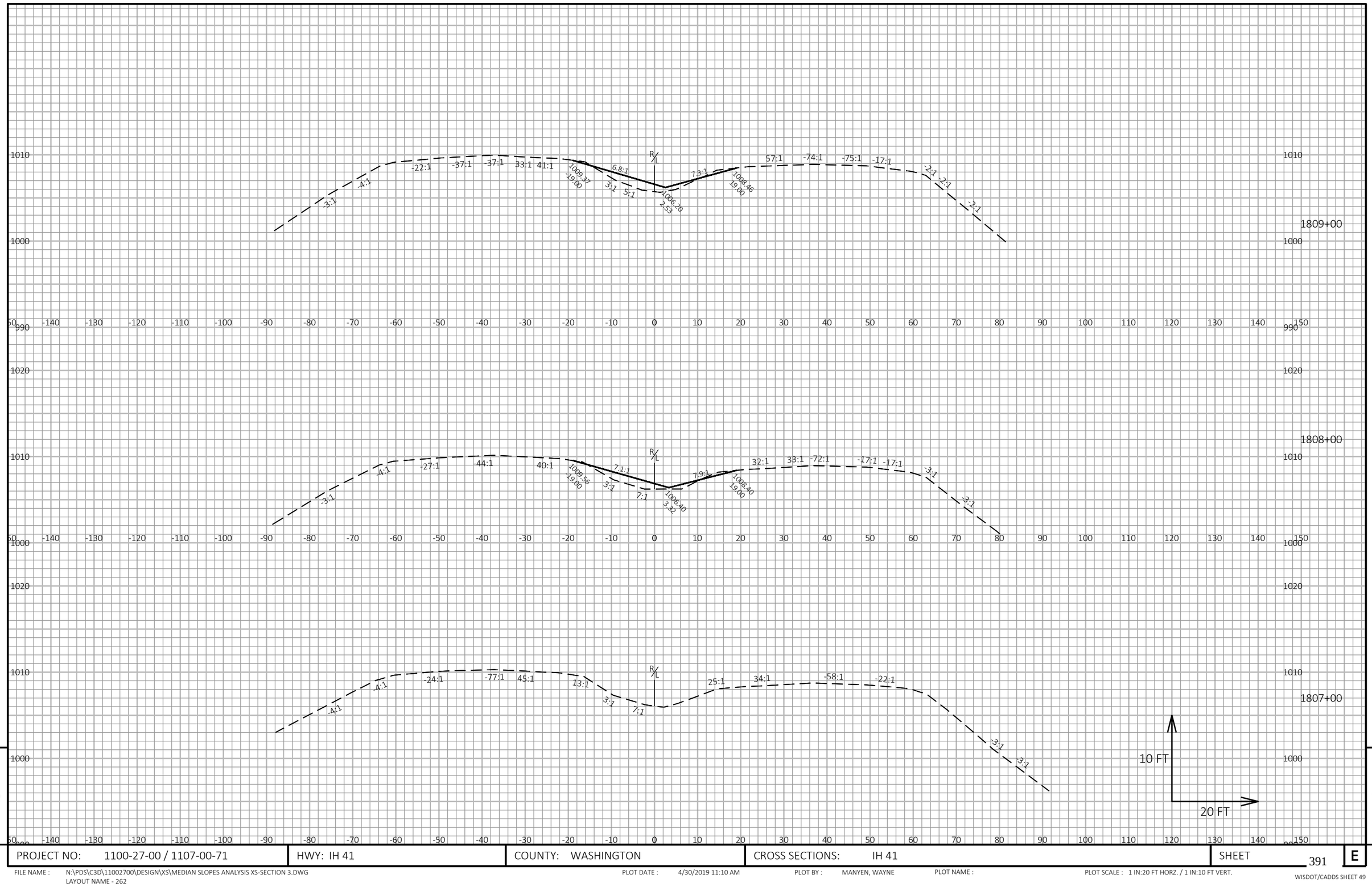
PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 390	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 228

PLOT DATE : 4/30/2019 11:02 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 391	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 262

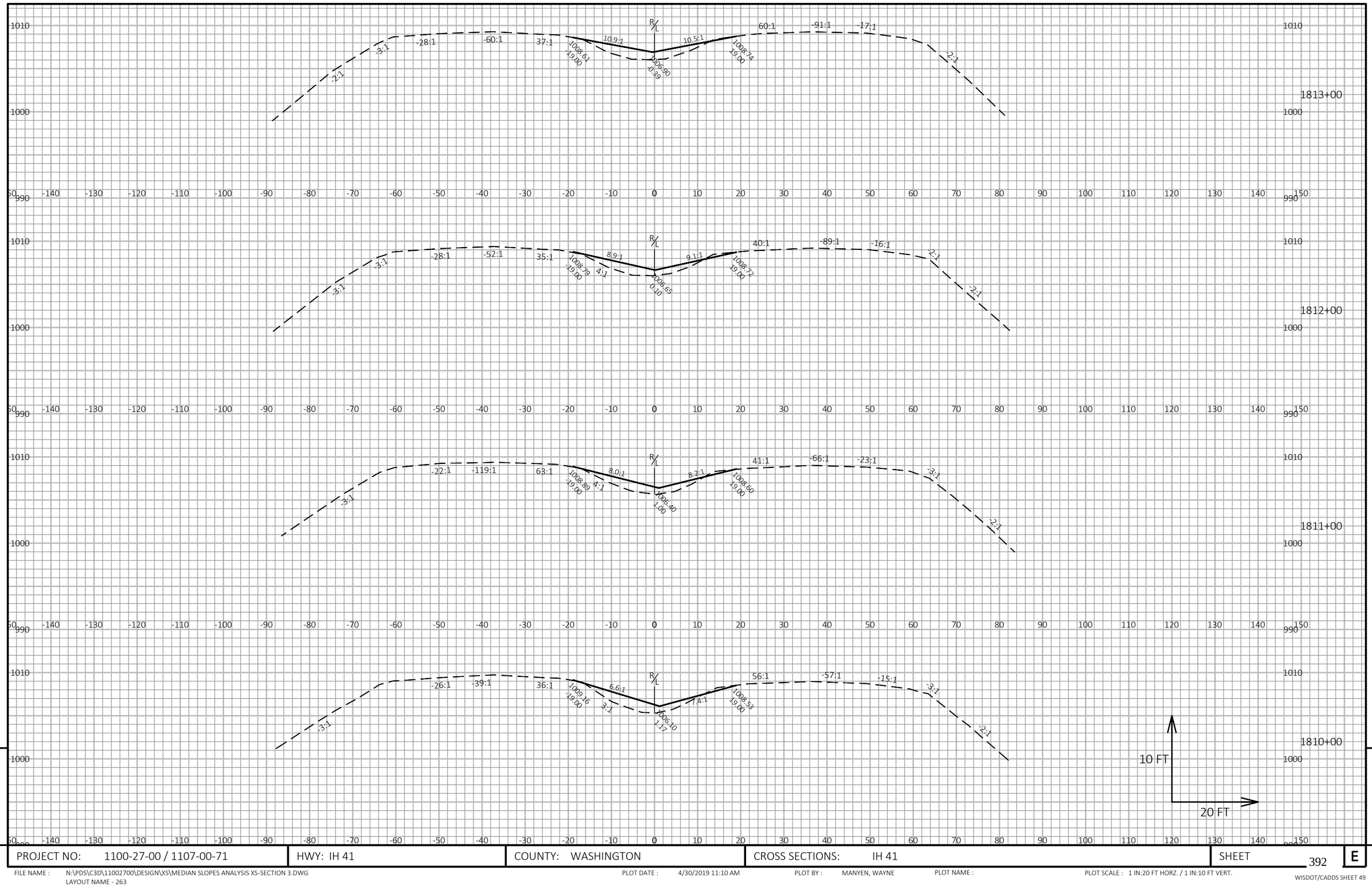
PLOT DATE : 4/30/2019 11:10 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 392	E

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LAYOUT NAME - 263

PLOT DATE : 4/30/2019 11:10 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

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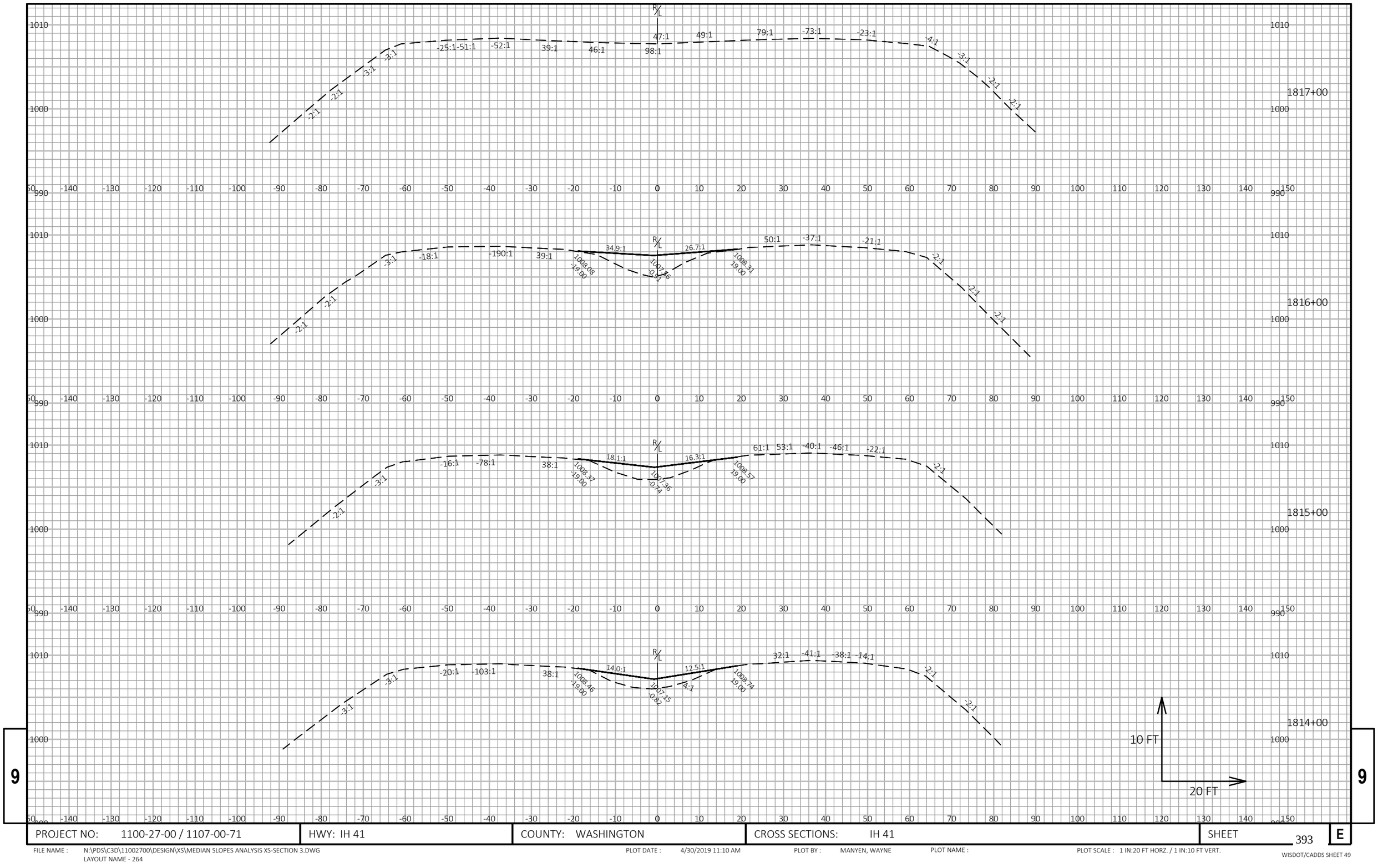

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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 393	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 264

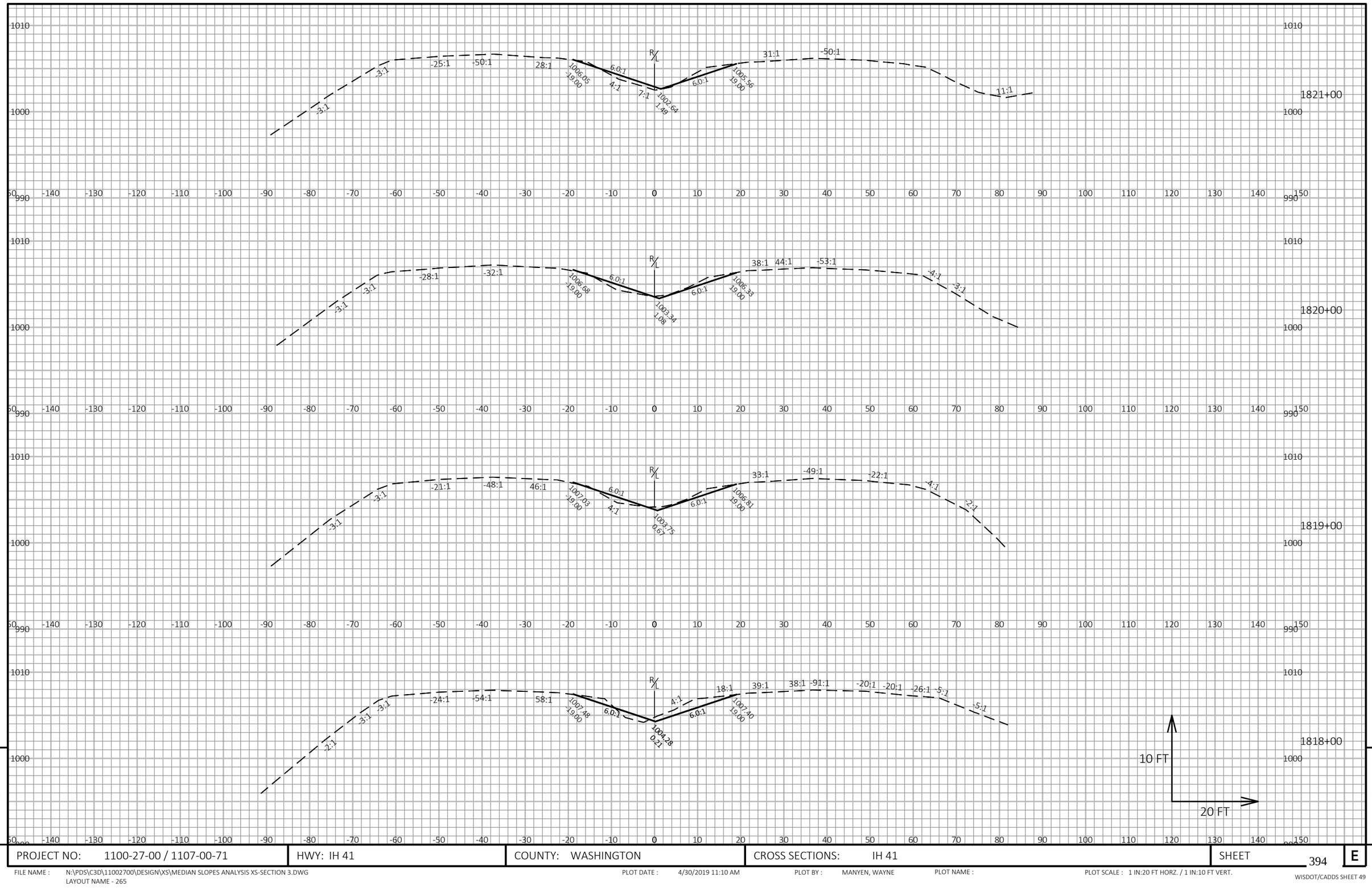
PLOT DATE : 4/30/2019 11:10 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 394	E

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LAYOUT NAME - 265

PLOT DATE : 4/30/2019 11:10 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

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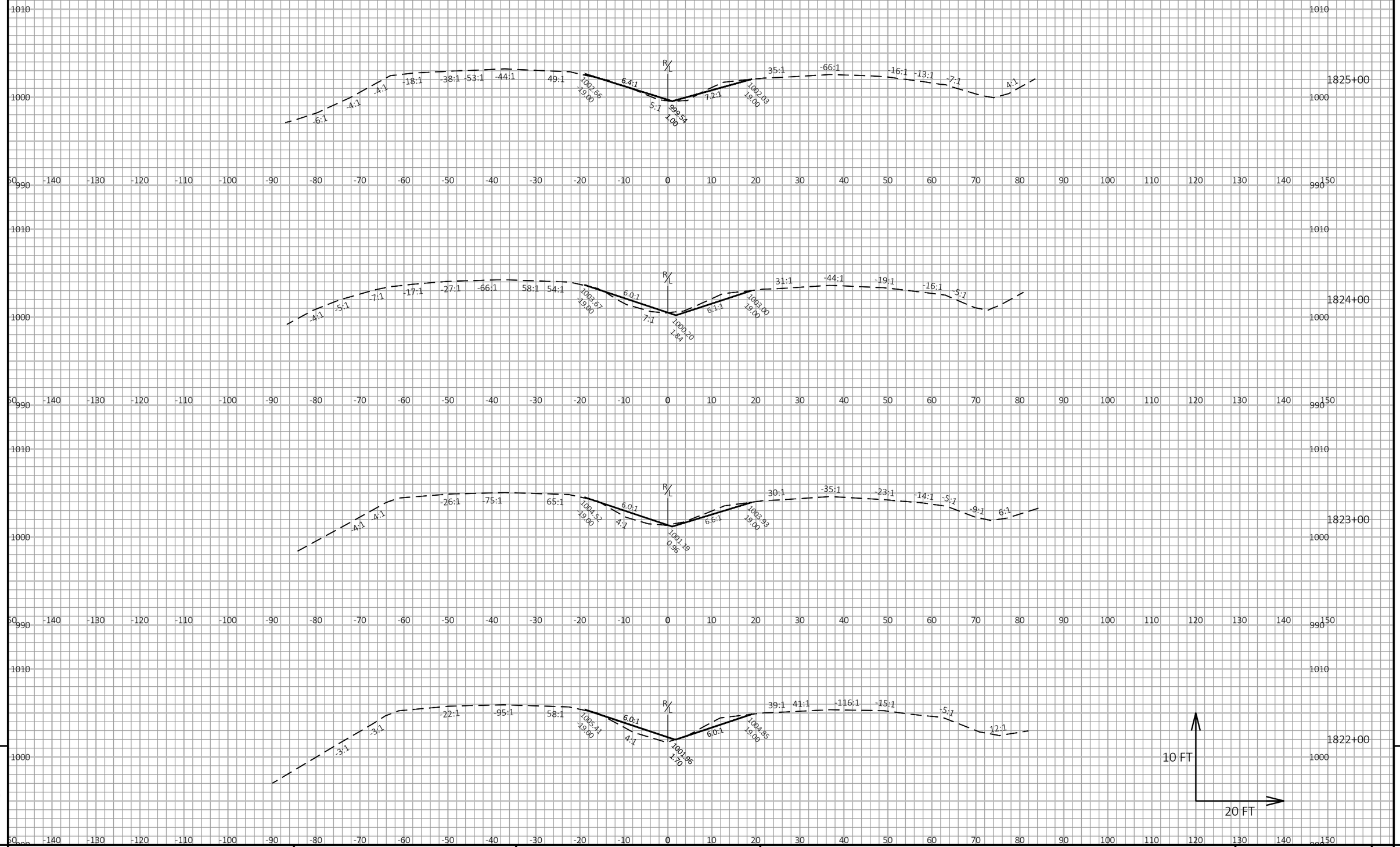

PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 395 E

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LAYOUT NAME - 266

PLOT DATE : 4/30/2019 11:11 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

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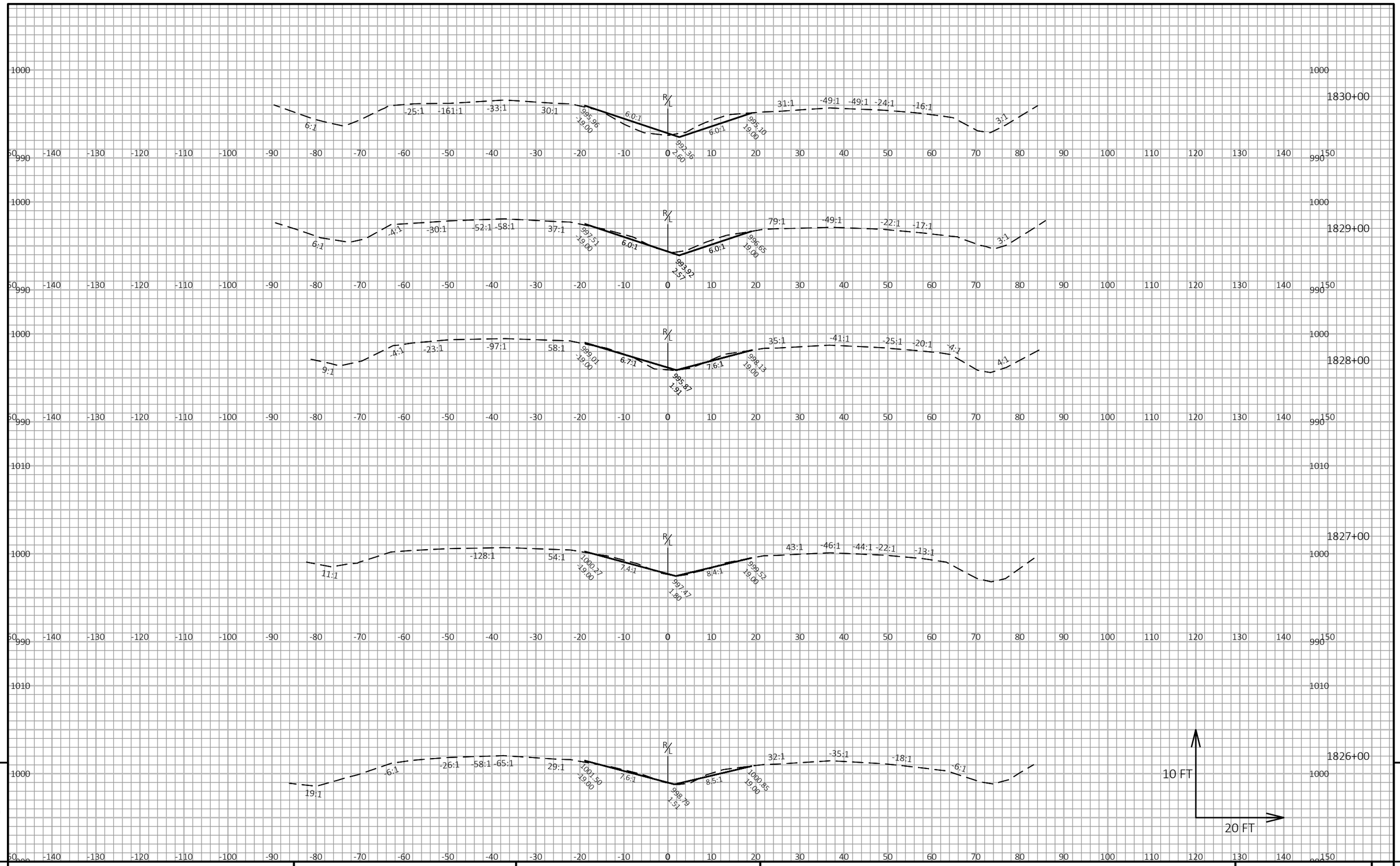

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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 396	E

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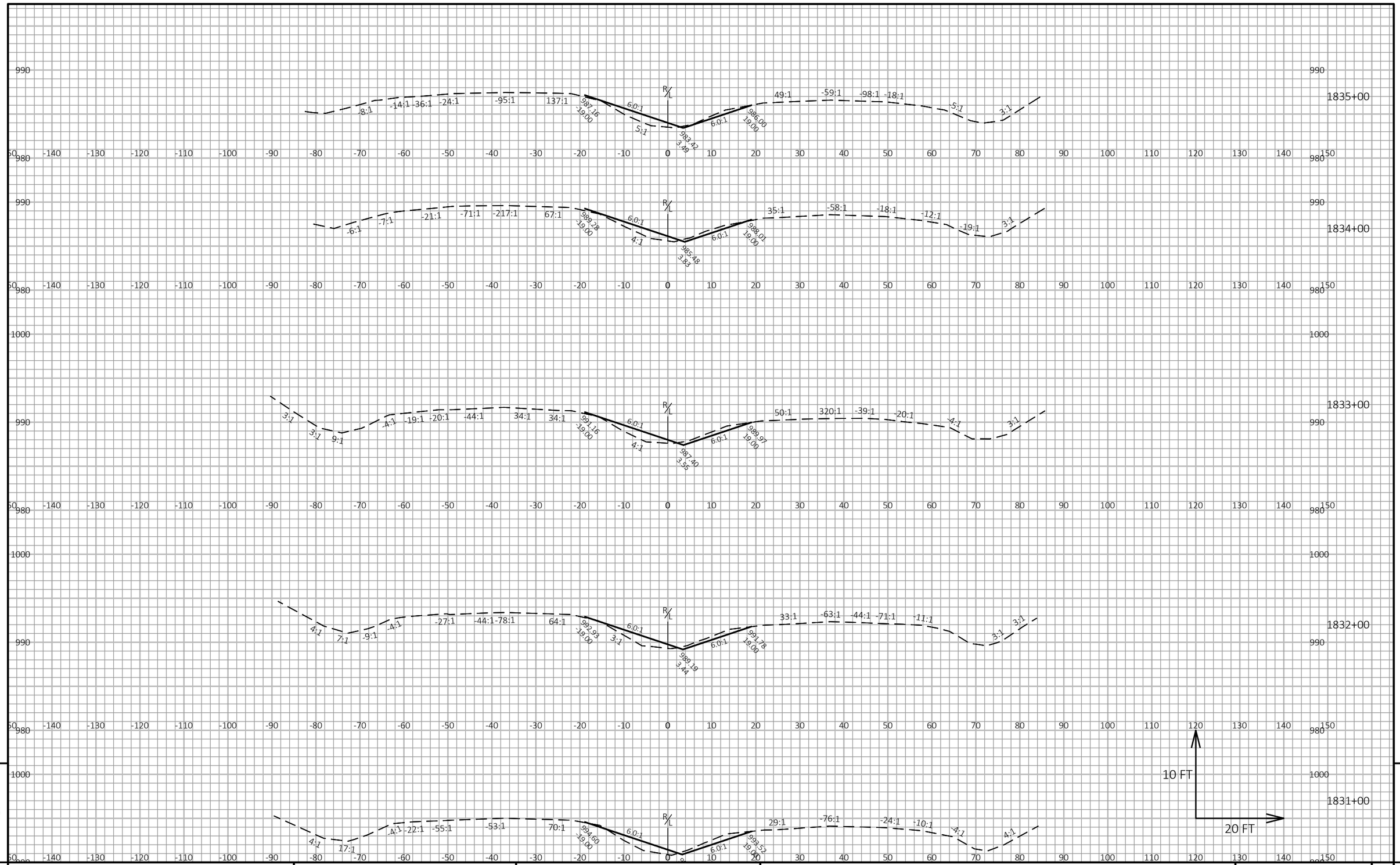


PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 397	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 268

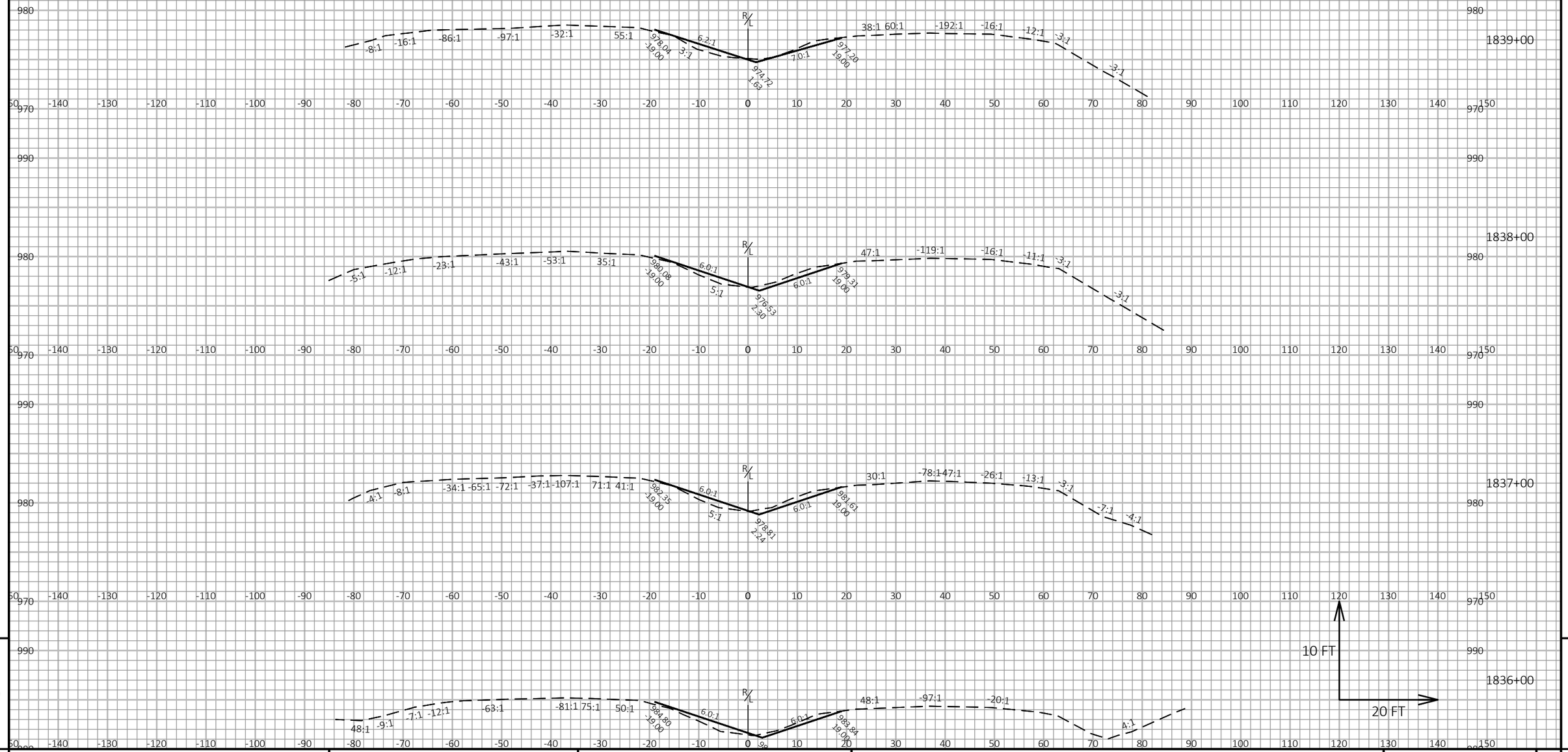
PLOT DATE : 4/30/2019 11:11 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 398	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 269

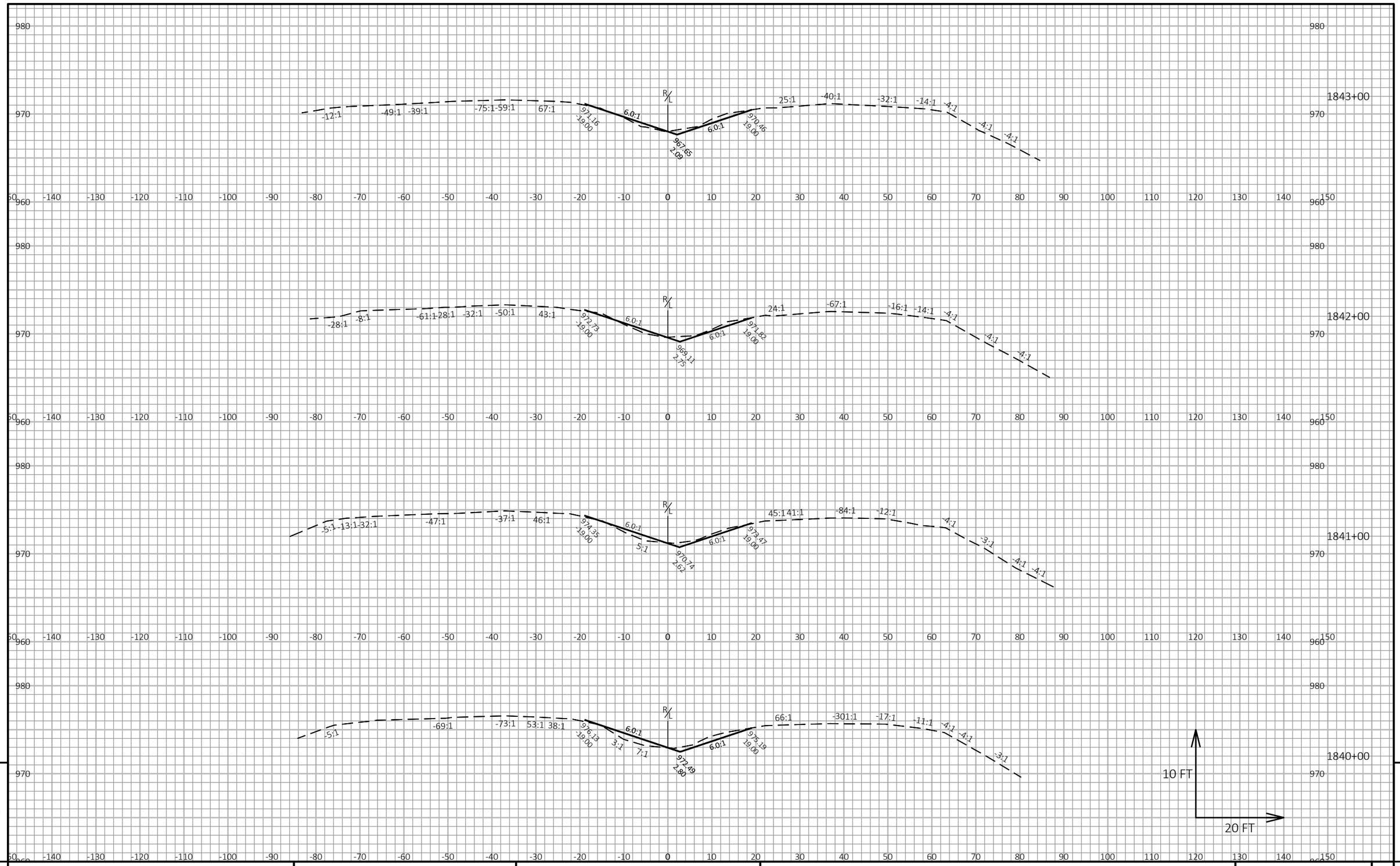
PLOT DATE : 4/30/2019 11:11 AM

PLOT BY : MANYEN, WAYNE

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 399	E

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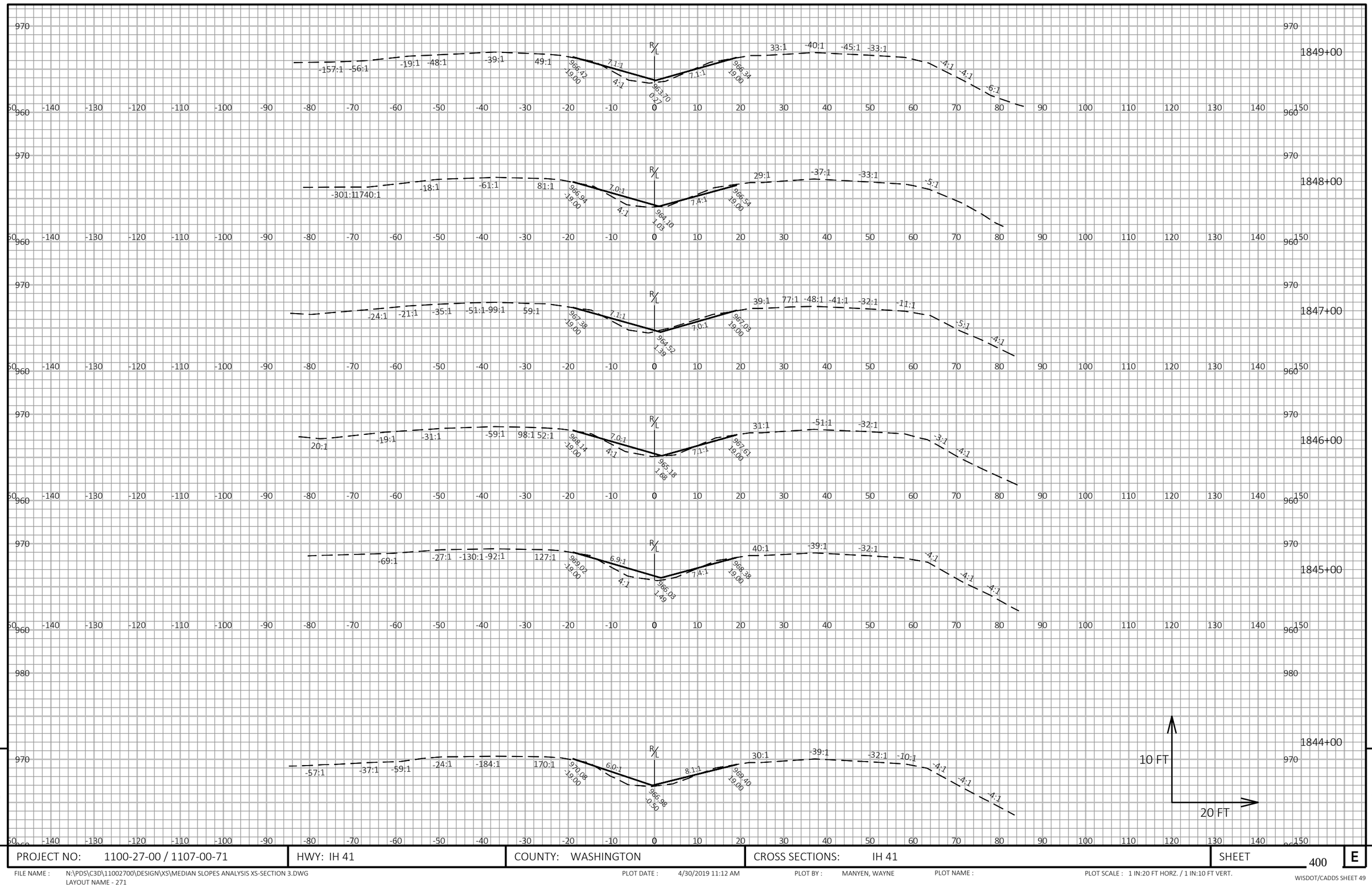
LAYOUT NAME - 270

PLOT DATE : 4/30/2019 11:11 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 400	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 271

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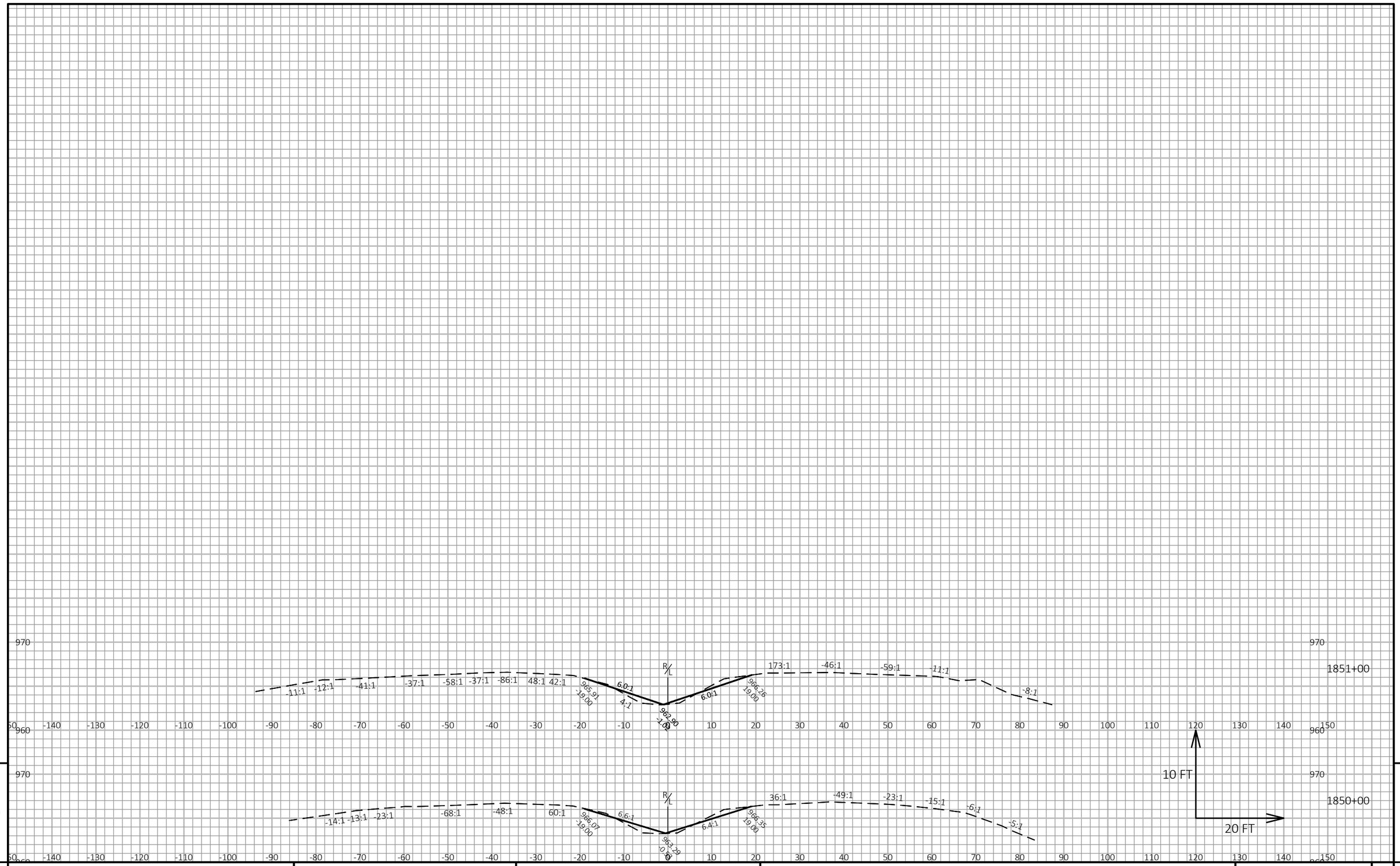

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PROJECT NO: 1100-27-00 / 1107-00-71	HWY: IH 41	COUNTY: WASHINGTON	CROSS SECTIONS: IH 41	SHEET 401	E

FILE NAME : N:\PDS\C3D\11002700\DESIGN\XS\MEDIAN SLOPES ANALYSIS XS-SECTION 3.DWG
LAYOUT NAME - 272

PLOT DATE : 4/30/2019 11:12 AM PLOT BY : MANYEN, WAYNE PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

WKE

AUGUST 2019

PROJECT ID: 1100-41-70

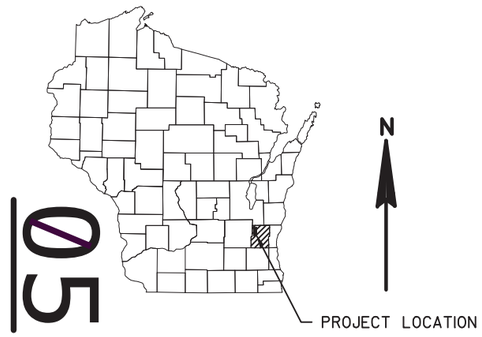
WITH: 1100-27-70 & 1107-00-71

COUNTY: WASHINGTON

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details (Includes Erosion Control Plans)
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
~~Section No.~~	~~4~~	~~Right of Way Plat~~
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 240



DESIGN DESIGNATION

A.A.D.T. (2017)	=	32,600
A.A.D.T. (2037)	=	39,800
D.H.V.	=	4,260
D.D.	=	60/40
T.	=	19.9%
DESIGN SPEED	=	70 MPH
ESALS	=	22,349,789

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

MILWAUKEE - FOND DU LAC

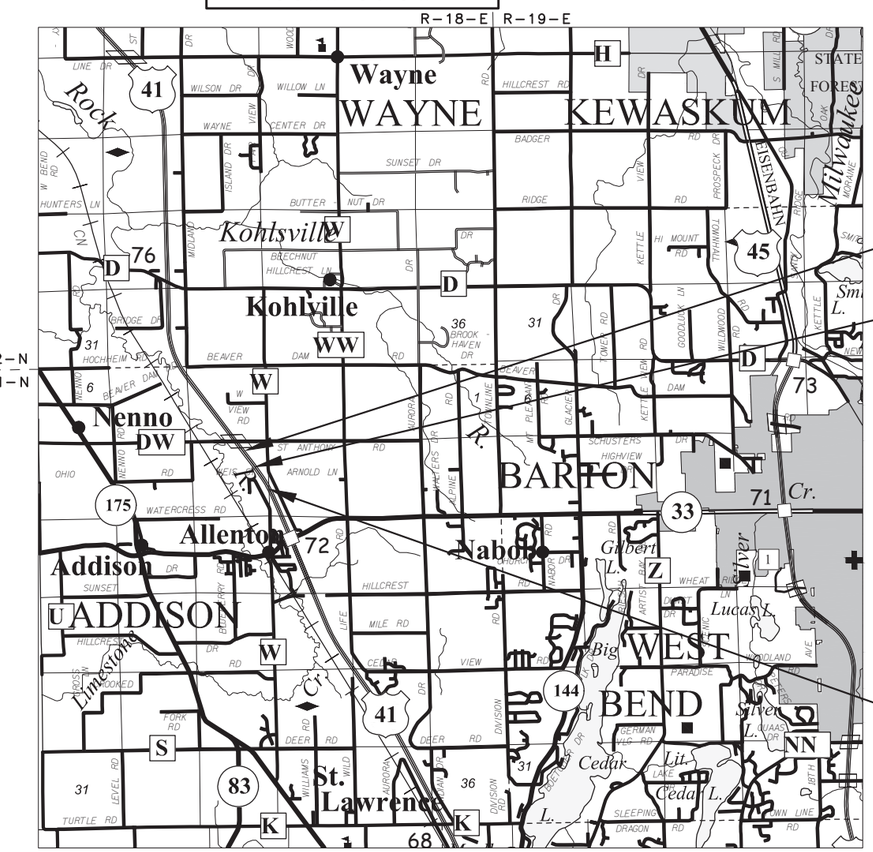
CTH K TO N. WASHINGTON COUNTY LINE

I-41

WASHINGTON COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1100-41-70	WISC 2019579	1

STATE PROJECT NUMBER
1100-41-70



END PROJECT 1100-41-70
STA 1458+62.42'TL'

STRUCTURE B-66-193
STRUCTURE B-66-194

BEGIN PROJECT 1100-41-70
STA 1433+54.17'TL'
Y= 188,324.930
X= 320,042.180

LAYOUT
SCALE 0 2 MILES

TOTAL NET LENGTH OF CENTERLINE = 0.475 MI.

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, WASHINGTON COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES. ELEVATIONS SHOWN ON THE PLANS ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (2007).

ORIGINAL PLANS PREPARED BY

CORRE ENGINEERING

175 E. WISCONSIN AVENUE
SUITE 27
OCONOMOWOC, WI 53066
(608)826-6293
www.correninc.com

WISCONSIN PROFESSIONAL ENGINEER
JESSICA D. LEWIS
E-37589
Lake Geneva, WI

Jessica Lewis

6/14/2019

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	CORRE INC.
Designer	CORRE INC.
Project Manager	CHRIS HAGER, PE
Regional Examiner	STEVE CHOJNACKI
Regional Supervisor	WILLIAM S. MOHR, PE

APPROVED FOR THE DEPARTMENT

DATE: 6/14/2019 (Signature)

E

GENERAL NOTES

WHEN THE QUANTITY OF BASE AGGREGATE OR ASPHALTIC SURFACE IS MEASURED FOR PAYMENT BY THE TON OR CUBIC YARD, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

CURVE DATA IS BASED ON THE ARC DEFINITION.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, ARE TO BE 4-INCH SALVAGED TOPSOILED/TOPSOILED, FERTILIZED, AND EROSION MATTED. FINISHED SEEDED SURFACE SHALL BE 1-INCH BELOW THE TOP OF ADJACENT CONCRETE.

BEARINGS SHOWN ON THE PLANS ARE GROUND BEARINGS TO THE NEAREST SECOND.

ALL CURB AND GUTTER RADII, PAVEMENT DIMENSIONS AND STATIONS ARE SHOWN TO THE EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.

A VERTICAL SAWCUT SHALL BE MADE THROUGH EXISTING DRIVEWAYS AND PAVEMENTS AT REMOVAL LIMITS.

TOP OF CASTING ELEVATIONS SHOWN FOR INLETS REFER TO THE CASTING ELEVATION AT THE FLOWLINE OF GRATE.

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE AND IS NOT SHOWN ON THE CROSS SECTIONS BUT IS MEASURED AND PAID FOR AS COMMON OR ROCK EXCAVATION.

ASPHALTIC SURFACE/HMA PAVEMENT SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYER THICKNESSES:

PAVEMENT THICKNESS (INCH)	LOWER (INCH)	TYPE	UPPER - LOWER (INCH)	TYPE	UPPER (INCH)	TYPE
5	-	---------	-	----------	5	3HT58-28S
9	4	3HT58-28H	3	3HT58-28S	2	4HT58-28H

BASE AGGREGATE DENSE 1 1/4-INCH SHALL BE VIRGIN MATERIAL IN SHOULDER WIDENING AREAS. RAP IS NOT ALLOWED AS A SUBSTITUTE.

WISDOT MONUMENTS WILL BE SUPPLIED BY THE STATE AND INSTALLED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.

BEARINGS SHOWN ON THE PLAN ARE REFERENCED TO THE EXISTING ROADWAY CENTERLINE AND ARE ASSUMED.

EXISTING PIPE CULVERT AND/OR CONCRETE BOX CULVERT SIZES SHOWN ARE APPROXIMATE AND THE CONTRACTOR SHALL BASE ITS BID ON ACTUAL FIELD CONDITIONS.

EROSION CONTROL FEATURES AS SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS, EXACT LOCATIONS WILL BE APPROVED BY THE ENGINEER IN THE FIELD.

SILT FENCE TO BE PLACED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER, AND IN PLACE PRIOR TO REMOVALS.

STOCKPILE EXCESS MATERIAL OR SPOILS ON UPLAND AREAS AWAY FROM WETLANDS, FLOODPLAINS AND WATERWAYS. STOCKPILED SOIL SHALL BE PROTECTED AGAINST EROSION. IF STOCKPILED MATERIAL IS LEFT FOR MORE THAN FOURTEEN (14) CALENDAR DAYS, SEED THE STOCKPILE WITH TEMPORARY SEED AND MULCH.

EROSION CONTROL BMPS ARE AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL BMPS SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE BMP IS NO LONGER REQUIRE.

RE-TOPSOIL OF GRADED AREAS, AS DESIGNATED BY THE ENGINEER, IMMEDIATELY AFTER GRADING IS COMPLETED WITHIN THOSE AREAS. SEED, FERTILIZE, AND MULCH / EROSION MAT TOP-SOILED AREAS, AS DESIGNATED BY THE ENGINEER, WITHIN (5) CALENDAR DAYS AFTER PLACEMENT OF TOPSOIL. IF GRADED AREAS OUTSIDE THE ROADBED ARE LEFT EXPOSED FOR MORE THAN (14) CALENDAR DAYS, SEED THOSE AREAS WITH TEMPORARY SEED AND MULCH.

CONTRACTOR MUST CONTACT THE PROJECT ENGINEER AND THE WASHINGTON COUNTY SURVEYOR, SCOTT SCHMIDT AND SEWRPC AT LEAST TWO WEEKS PRIOR TO WORK NEAR ANY SECTION CORNER MONUMENT.

UTILITY CONTACTS

MCLEOD USA TELCOMMUNICATION SERVICES INC

COMMUNICATION LINE
ATTN: JIM KOSTUCH
13935 BISHOPS DRIVE
BROOKFIELD, WI 53005

TELEPHONE: (262) 792-7938
E-MAIL: james.kostuch@windstream.com

WE ENERGIES

ELECTRIC
ATTN: LATROY BRUMFIELD
333 WEST EVERETT ST
ROOM A299
MILWAUKEE, WI 53203

TELEPHONE: (414) 221-5617
E-MAIL: latroy.brumfield@we-energies.com

WE ENERGIES

GAS
ATTN: LATROY BRUMFIELD
333 WEST EVERETT ST
ROOM A299
MILWAUKEE, WI 53203

TELEPHONE: (414) 221-5617
E-MAIL: latroy.brumfield@we-energies.com

DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

SEWRPC
W239 N1812 ROCKWOOD DRIVE
PO BOX 1607
WAUKESHA, WI 53187-1607

ATTN: MR. JOHN WASHBURN
TELEPHONE: 262-953-4295
E-MAIL: jwashburn@sewrpc.org

DNR LIAISON

DEPARTMENT OF NATURAL RESOURCES
SOUTHEAST REGION HQ
2300 N MARTIN LUTHER KING JR DR
MILWAUKEE, WI 53212

ATTN: MS. KRISTINA BETZOLD
TELEPHONE: 414-263-8517
E-MAIL: kristina.betzold@WISCONSIN.GOV

COUNTY CONTACT

WASHINGTON COUNTY
333 EAST WASHINGTON STREET
SUITE 2300
PO BOX 2003
WEST BEND, WI 53095-2003

ATTN: MR. SCOTT SCHMIDT
TELEPHONE: 262-335-6881
E-MAIL: scott.schmidt@co.washington.wi.us

CONSULTANT CONTACT

CORRE ENGINEERING
175 E. WISCONSIN AVENUE
SUITE 27
OCONOMOWOC, WI 53066
(608)826-6293
www.correninc.com

ATTN: JESSICA LEWIS, P.E.
TELEPHONE: 608-826-6293
E-MAIL: jlewis@correinc.com

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PAVING DETAILS
EROSION CONTROL
PAVEMENT MARKING
PERMANENT SIGNING
TRAFFIC CONTROL
DETOURS
ALIGNMENT PLANS

RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP- TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE- TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

TOTAL PROJECT AREA = 181.73 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 3.66 ACRES

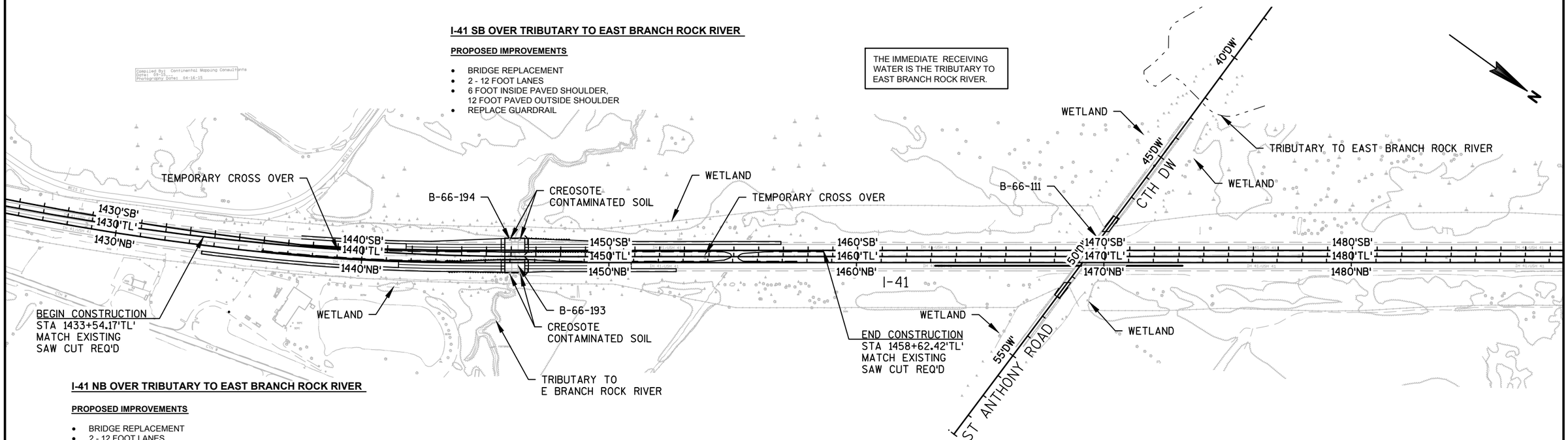
2

I-41 SB OVER TRIBUTARY TO EAST BRANCH ROCK RIVER

PROPOSED IMPROVEMENTS

- BRIDGE REPLACEMENT
- 2 - 12 FOOT LANES
- 6 FOOT INSIDE PAVED SHOULDER,
  12 FOOT PAVED OUTSIDE SHOULDER
- REPLACE GUARDRAIL

THE IMMEDIATE RECEIVING WATER IS THE TRIBUTARY TO EAST BRANCH ROCK RIVER.



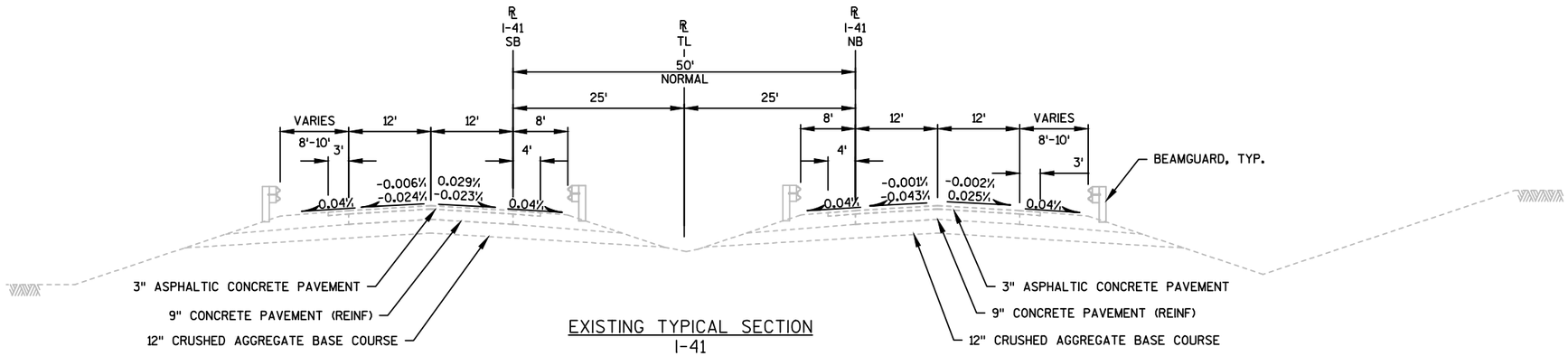
I-41 NB OVER TRIBUTARY TO EAST BRANCH ROCK RIVER

PROPOSED IMPROVEMENTS

- BRIDGE REPLACEMENT
- 2 - 12 FOOT LANES
- 6 FOOT INSIDE PAVED SHOULDER
  12 FOOT PAVED OUTSIDE SHOULDER
- REPLACE GUARDRAIL

PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	PROJECT OVERVIEW	SHEET 3	E

2

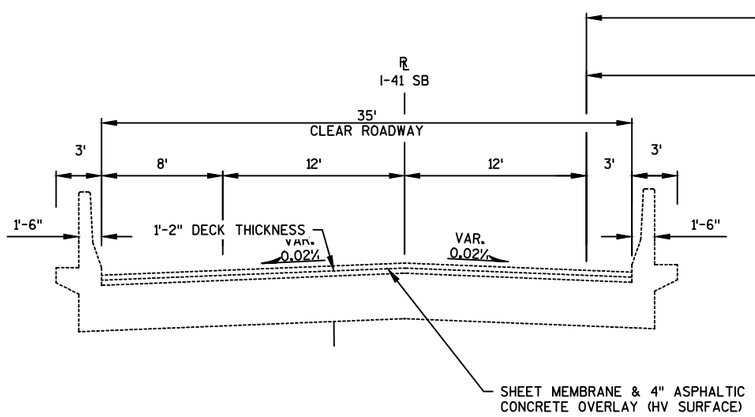


EXISTING TYPICAL SECTION
I-41
STA 1433+54'TL' TO STA 1481+63'TL'

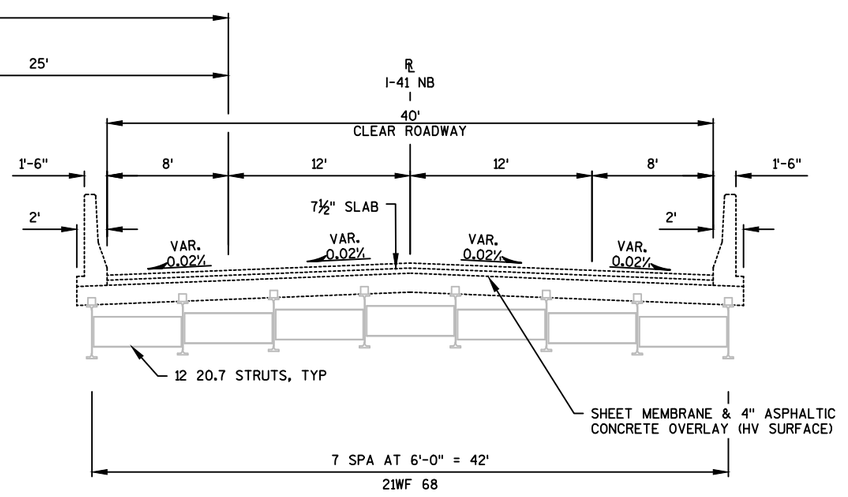
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	TYPICAL SECTIONS: I-41	SHEET 4	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN-UPDATE\020301-TS19.DWG PLOT DATE : 1/16/2019 1:34 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 020301-TS

2



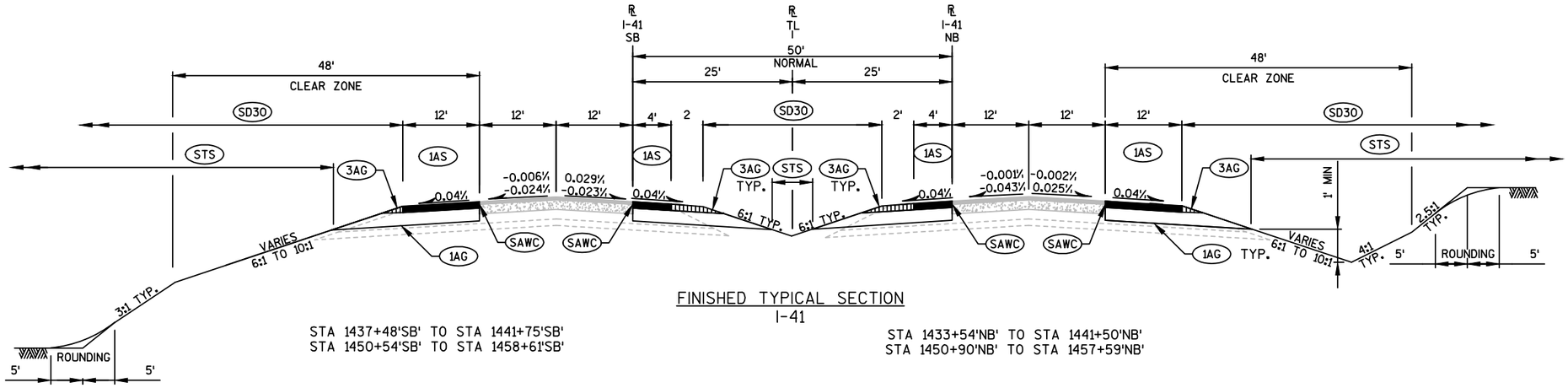
EXISTING TYPICAL SECTION
B-66-22
I-41 OVER TRIBUTARY TO
EAST BRANCH ROCK RIVER



EXISTING TYPICAL SECTION
B-66-17
I-41 OVER TRIBUTARY TO
EAST BRANCH ROCK RIVER

PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	TYPICAL SECTIONS: I-41	SHEET 5	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN-UPDATE\020301-TS19.DWG PLOT DATE : 1/16/2019 1:41 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : **********
LAYOUT NAME - 021004-TS



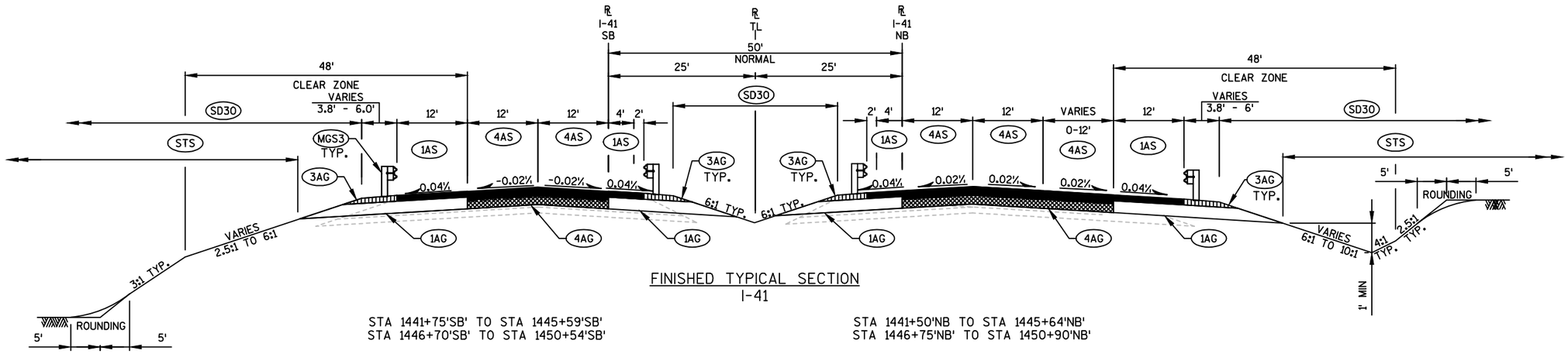
FINISHED TYPICAL SECTION
I-41

STA 1437+48'SB' TO STA 1441+75'SB'
STA 1450+54'SB' TO STA 1458+61'SB'

STA 1433+54'NB' TO STA 1441+50'NB'
STA 1450+90'NB' TO STA 1457+59'NB'

LEGEND

1AS	5-INCH HMA PAVEMENT
4AS	9-INCH HMA PAVEMENT
1AG	10-INCH BASE AGGREGATE DENSE 1-1/4"
2AG	9-INCH BASE AGGREGATE DENSE 1-1/4"
3AG	5-INCH BASE AGGREGATE DENSE 3/4"
4AG	6-INCH BASE AGGREGATE DENSE 1-1/4"
CPA	CONCRETE PAVEMENT APPROACH SLAB
CP6	CONCRETE PAVEMENT 6-INCH
CP9	CONCRETE PAVEMENT 9-INCH, DOWELED & TINED
CGJ	CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE J
1MA	REMOVING ASPHALTIC SURFACE MILLING, 2-INCH OVERLAY 2-INCH HMA PAVEMENT
2MA	REMOVING ASPHALTIC SURFACE MILLING, 4-INCH OVERLAY 4-INCH HMA PAVEMENT
MGS3	MGS GUARDRAIL 3
EAT	MGS GUARDRAIL TERMINAL (ENERGY ABSORBING TERMINAL)
SAWA	SAWING ASPHALT
SAWC	SAWING CONCRETE
STS	SALVAGED TOPSOIL
SD30	SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT
⅊	0.04⅊ SLOPE, TYP.

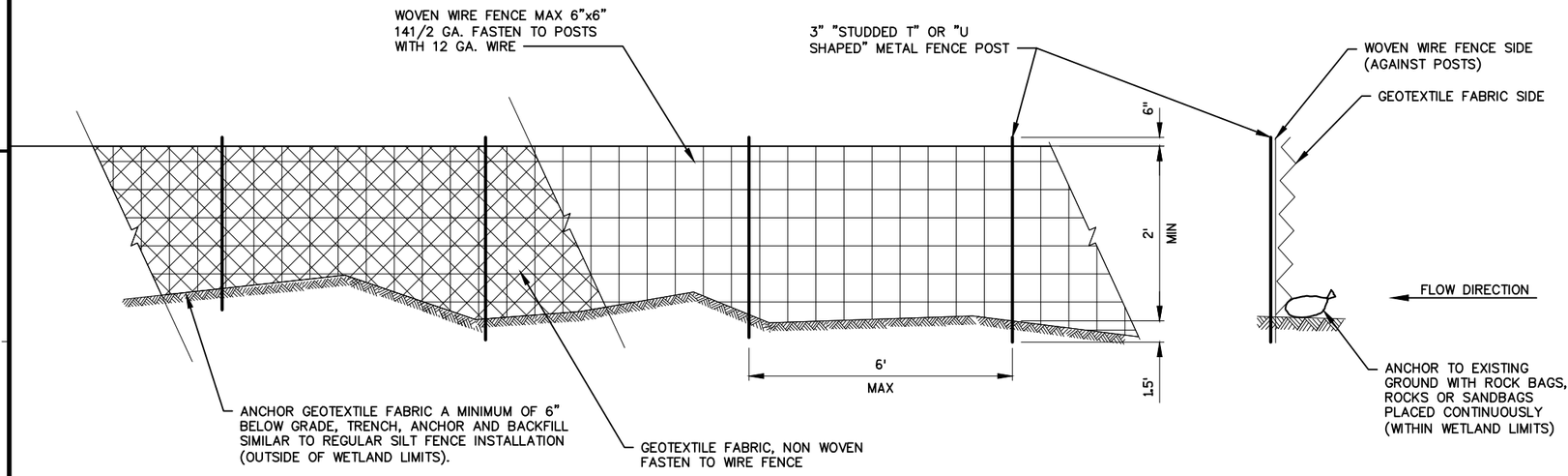


FINISHED TYPICAL SECTION
I-41

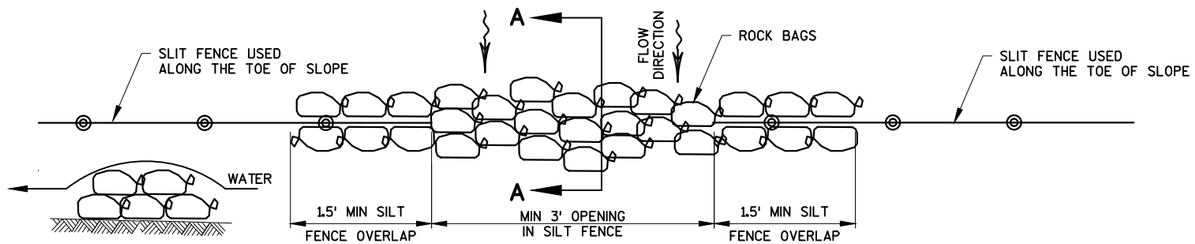
STA 1441+75'SB' TO STA 1445+59'SB'
STA 1446+70'SB' TO STA 1450+54'SB'

STA 1441+50'NB TO STA 1445+64'NB'
STA 1446+75'NB' TO STA 1450+90'NB'

PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	TYPICAL SECTIONS: I-41	SHEET 6	E



HEAVY DUTY SILT FENCE DETAIL



SECTION A–A

SILT FENCE RELIEF DETAIL

PAID AS ROCK BAGS

NOTES

CONTRACTOR TO PUMP WATER FROM EXCAVATION TO SEDIMENT BAG INSIDE BASIN PRIOR TO DISCHARGING TO THE WATERWAY. SEDIMENT BAG TO BE PLACED IN AN UPLAND VEGETATED AREA OR EQUIVALENT LOCATION APPROVED BY THE ENGINEER.

BASIN TO BE KEPT LESS THAN 10% FULL OF SEDIMENT. GEOTEXTILE FABRIC AND SEDIMENTS TO BE DISPOSED BY THE CONTRACTOR OFF THE PROJECT SITE.

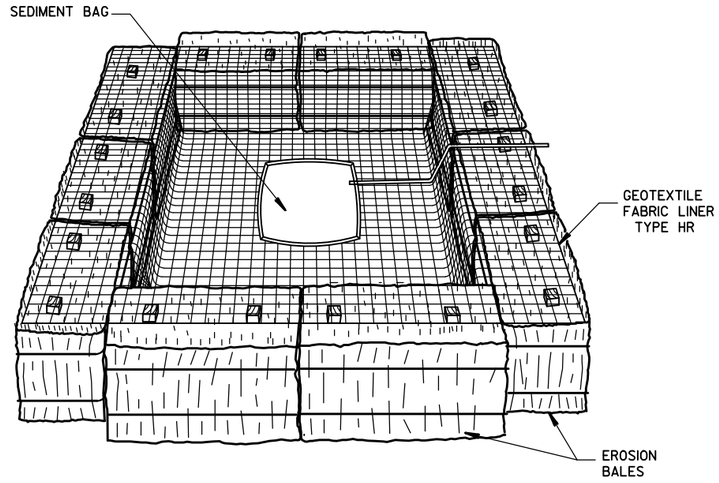
TEMPORARY SETTLING BASIN AND SEDIMENT BAG TO BE PAID FOR AS EROSION BALES AND GEOTEXTILE TYPE HR

STORAGE VOLUME (C.F.) = 16 X GPM (PUMP RATE)

EXAMPLE:
CONTRACTOR INDICATES PUMP CAPABLE OF 50 GPM
HEIGHT OF BALES = 1.5 FT.

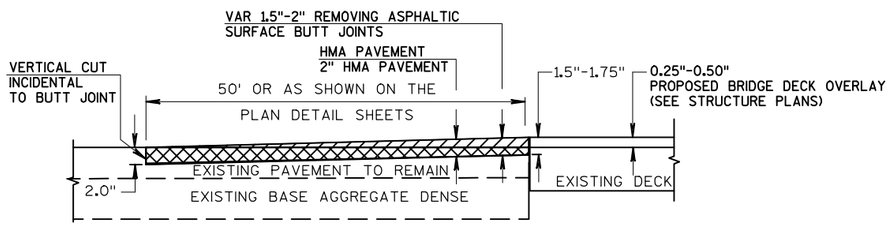
SOLUTION:
SV (C.F.) = 16 X 50
SV = 800 C.F.

$\frac{800\ C.F.}{1.5\ FT.}$ = 533 S.F.

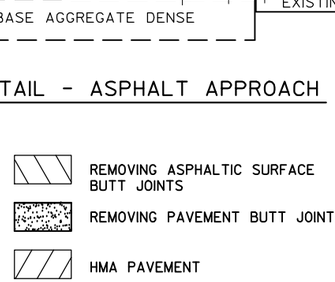


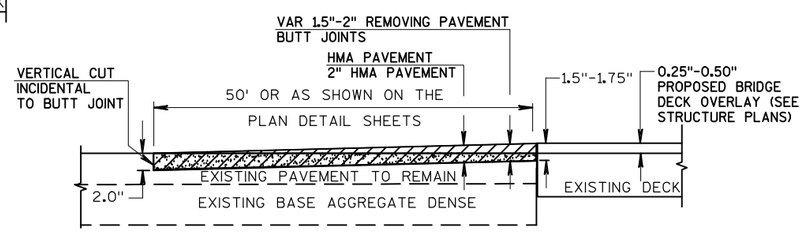
TEMPORARY SETTLING BASIN

(SIZE TO BE DETERMINED IN FIELD AS INDICATED BELOW:)



BUTT JOINT DETAIL - ASPHALT APPROACH





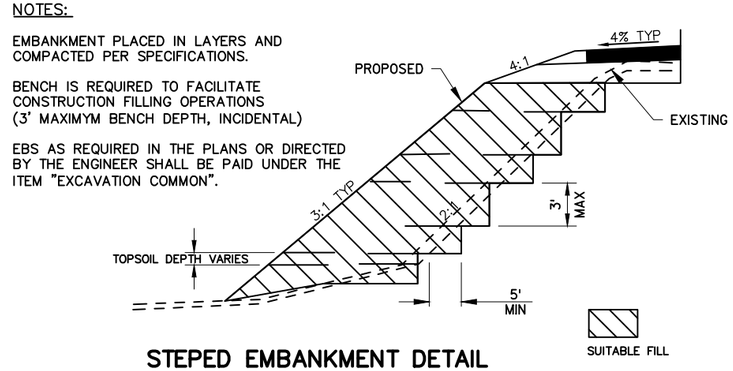
BUTT JOINT DETAIL - CONCRETE APPROACH

NOTES:

EMBANKMENT PLACED IN LAYERS AND COMPACTED PER SPECIFICATIONS.

BENCH IS REQUIRED TO FACILITATE CONSTRUCTION FILLING OPERATIONS (3' MAXIMYM BENCH DEPTH, INCIDENTAL)

EBS AS REQUIRED IN THE PLANS OR DIRECTED BY THE ENGINEER SHALL BE PAID UNDER THE ITEM "EXCAVATION COMMON".



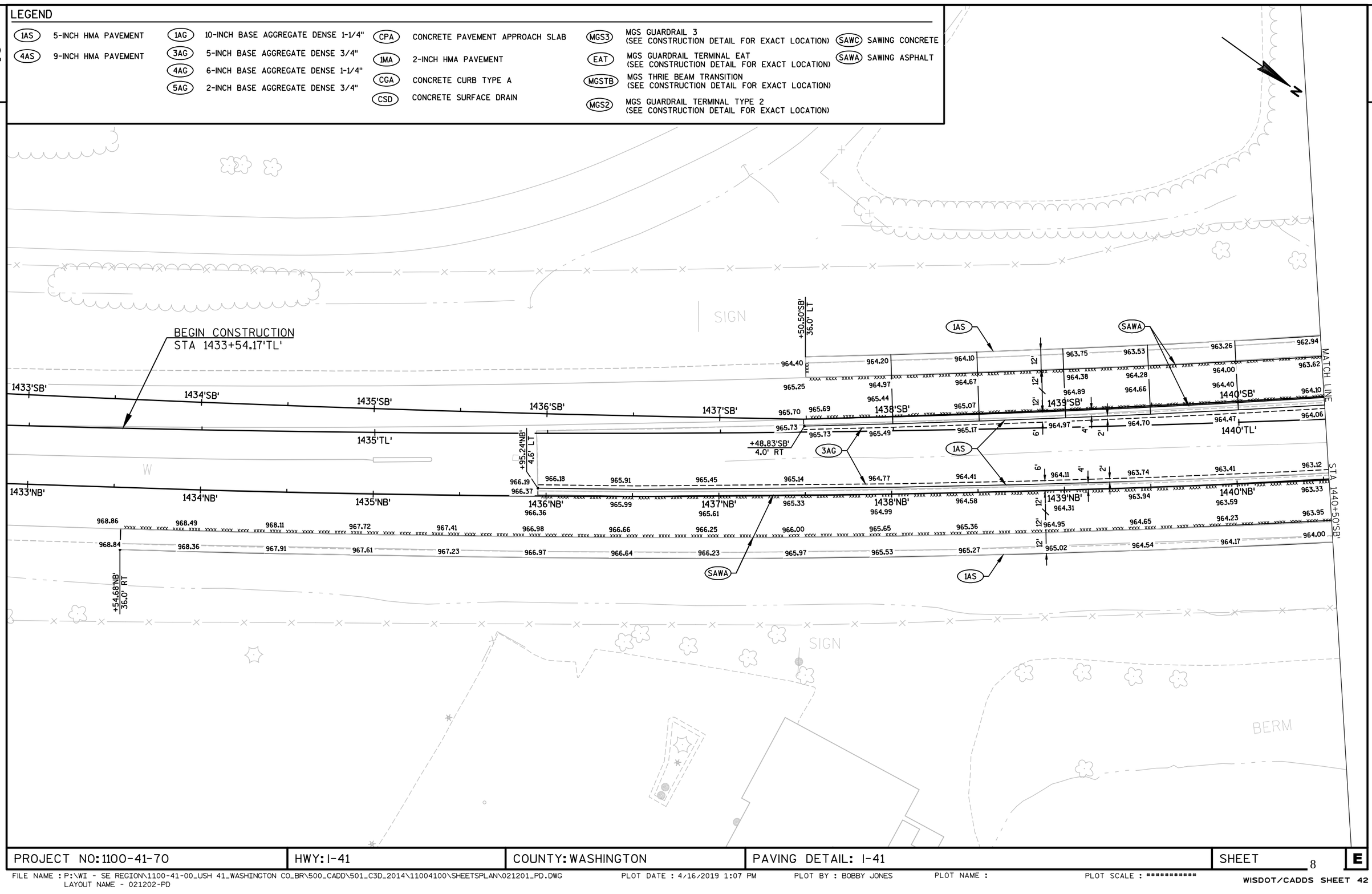
STEPED EMBANKMENT DETAIL

BRIDGE APPROACHES
TRIBUTARY TO EAST BRANCH ROCK RIVER
(B-66-193 & B-66-194)

LEGEND

1AS	5-INCH HMA PAVEMENT	1AG	10-INCH BASE AGGREGATE DENSE 1-1/4"	CPA	CONCRETE PAVEMENT APPROACH SLAB	MGS3	MGS GUARDRAIL 3 (SEE CONSTRUCTION DETAIL FOR EXACT LOCATION)
4AS	9-INCH HMA PAVEMENT	3AG	5-INCH BASE AGGREGATE DENSE 3/4"	1MA	2-INCH HMA PAVEMENT	EAT	MGS GUARDRAIL TERMINAL EAT (SEE CONSTRUCTION DETAIL FOR EXACT LOCATION)
		4AG	6-INCH BASE AGGREGATE DENSE 1-1/4"	CGA	CONCRETE CURB TYPE A	MGSTB	MGS THRIE BEAM TRANSITION (SEE CONSTRUCTION DETAIL FOR EXACT LOCATION)
		5AG	2-INCH BASE AGGREGATE DENSE 3/4"	CSD	CONCRETE SURFACE DRAIN	MGS2	MGS GUARDRAIL TERMINAL TYPE 2 (SEE CONSTRUCTION DETAIL FOR EXACT LOCATION)

SAWC	SAWING CONCRETE				
SAWA	SAWING ASPHALT				

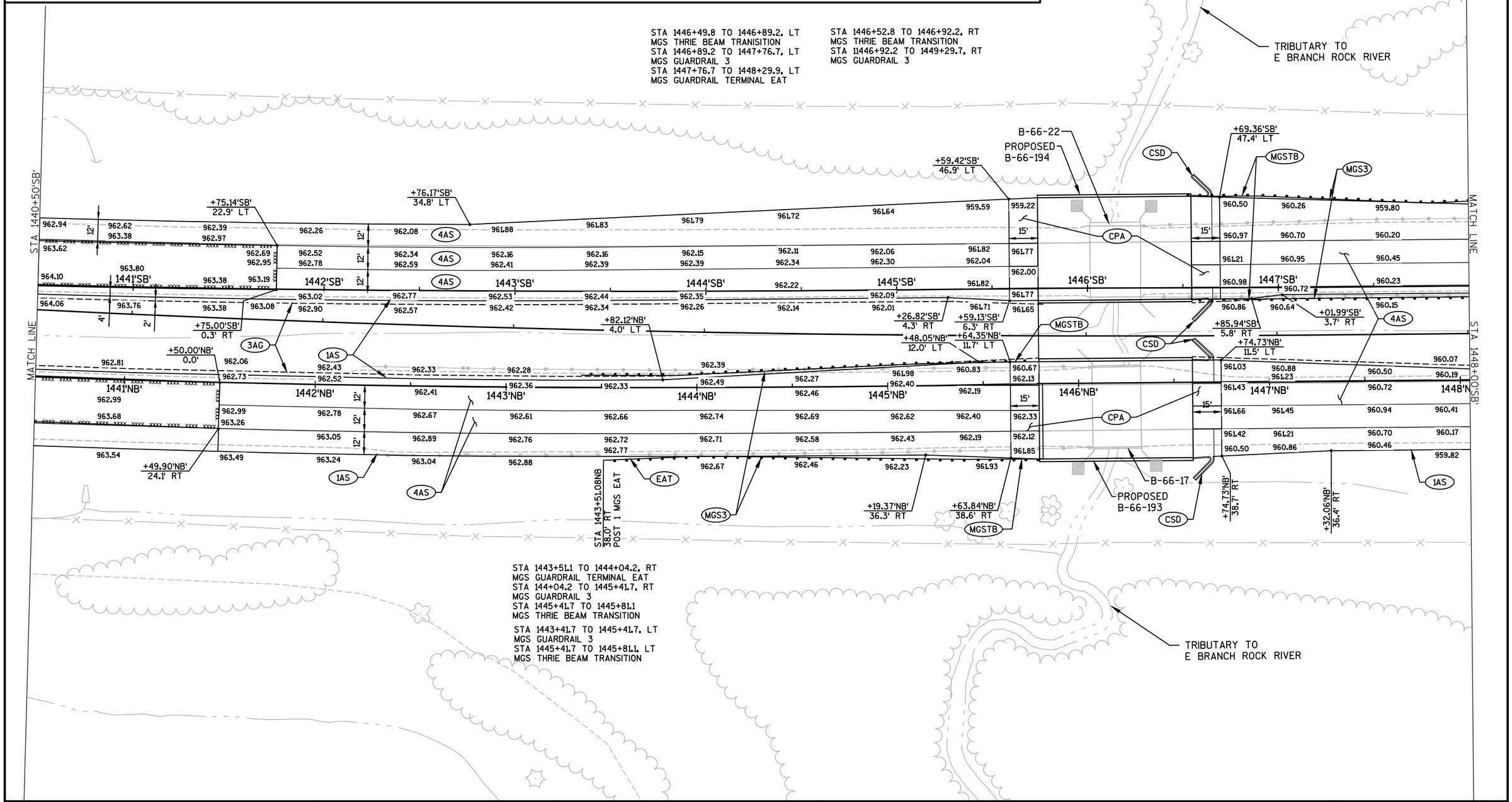


PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	PAVING DETAIL: I-41	SHEET 8	E

2

LEGEND

1AS	5-INCH HMA PAVEMENT	1AG	10-INCH BASE AGGREGATE DENSE 1-1/4"	CPA	CONCRETE PAVEMENT APPROACH SLAB	MGS3	MGS GUARDRAIL 3 (SEE CONSTRUCTION DETAIL FOR EXACT LOCATION)
4AS	9-INCH HMA PAVEMENT	3AG	5-INCH BASE AGGREGATE DENSE 3/4"	1MA	2-INCH HMA PAVEMENT	EAT	MGS GUARDRAIL TERMINAL EAT (SEE CONSTRUCTION DETAIL FOR EXACT LOCATION)
		4AG	6-INCH BASE AGGREGATE DENSE 1-1/4"	CGA	CONCRETE CURB TYPE A	MGSTB	MGS THRIE BEAM TRANSITION (SEE CONSTRUCTION DETAIL FOR EXACT LOCATION)
		5AG	2-INCH BASE AGGREGATE DENSE 3/4"	CSD	CONCRETE SURFACE DRAIN	MGS2	MGS GUARDRAIL TERMINAL TYPE 2 (SEE CONSTRUCTION DETAIL FOR EXACT LOCATION)
						SAWC	SAWING CONCRETE
						SAWA	SAWING ASPHALT



PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	PAVING DETAIL: I-41	SHEET 9 E

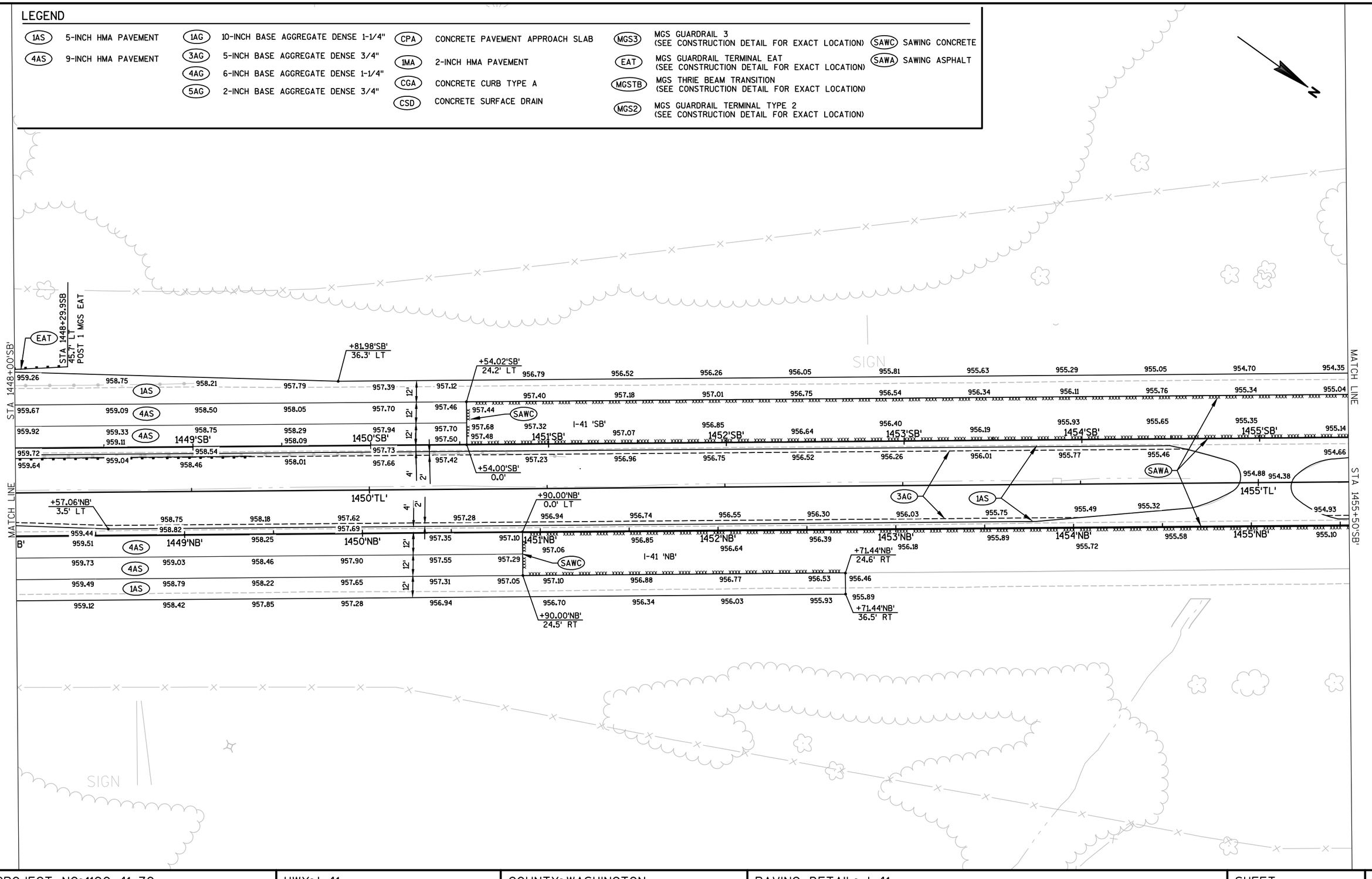
2

LEGEND

1AS	5-INCH HMA PAVEMENT	1AG	10-INCH BASE AGGREGATE DENSE 1-1/4"	CPA	CONCRETE PAVEMENT APPROACH SLAB	MGS3	MGS GUARDRAIL 3 (SEE CONSTRUCTION DETAIL FOR EXACT LOCATION)
4AS	9-INCH HMA PAVEMENT	3AG	5-INCH BASE AGGREGATE DENSE 3/4"	1MA	2-INCH HMA PAVEMENT	EAT	MGS GUARDRAIL TERMINAL EAT (SEE CONSTRUCTION DETAIL FOR EXACT LOCATION)
		4AG	6-INCH BASE AGGREGATE DENSE 1-1/4"	CGA	CONCRETE CURB TYPE A	MGSTB	MGS THRIE BEAM TRANSITION (SEE CONSTRUCTION DETAIL FOR EXACT LOCATION)
		5AG	2-INCH BASE AGGREGATE DENSE 3/4"	CSD	CONCRETE SURFACE DRAIN	MGS2	MGS GUARDRAIL TERMINAL TYPE 2 (SEE CONSTRUCTION DETAIL FOR EXACT LOCATION)

SAWC SAWING CONCRETE

SAWA SAWING ASPHALT



PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	PAVING DETAIL: I-41	SHEET 10	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 021202-PD (3)

PLOT DATE : 4/30/2019 1:56 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : **********

WISDOT/CADDS SHEET 42

2

LEGEND

1AS 5-INCH HMA PAVEMENT	1AG 10-INCH BASE AGGREGATE DENSE 1-1/4"	CPA CONCRETE PAVEMENT APPROACH SLAB	MGS3 MGS GUARDRAIL 3 (SEE CONSTRUCTION DETAIL FOR EXACT LOCATION)	SAWC SAWING CONCRETE
4AS 9-INCH HMA PAVEMENT	3AG 5-INCH BASE AGGREGATE DENSE 3/4"	1MA 2-INCH HMA PAVEMENT	EAT MGS GUARDRAIL TERMINAL EAT (SEE CONSTRUCTION DETAIL FOR EXACT LOCATION)	SAWA SAWING ASPHALT
	4AG 6-INCH BASE AGGREGATE DENSE 1-1/4"	CGA CONCRETE CURB TYPE A	MGSTB MGS THRIE BEAM TRANSITION (SEE CONSTRUCTION DETAIL FOR EXACT LOCATION)	
	5AG 2-INCH BASE AGGREGATE DENSE 3/4"	CSD CONCRETE SURFACE DRAIN	MGS2 MGS GUARDRAIL TERMINAL TYPE 2 (SEE CONSTRUCTION DETAIL FOR EXACT LOCATION)	

N

2

STA 1455+50'SB'

MATCH LINE

954.35 954.10 953.75 953.35 +89.70'SB' 36.2' LT

955.04 954.70 954.38 953.99 +89.70'SB' 24.2' LT

955.14 1456'SB' 954.41 953.95 1457'SB' 953.61 953.23 1458'SB' 952.90 952.82 1459'SB' +61.45'SB' 0.0'

954.66 954.78 954.44 954.20 953.83 953.37 953.04 952.70 952.61 +61.45'SB' 3.8' RT

12' 12' 12' 4' 2'

I-41 'SB'

1460'SB' 1461'SB' 1462'SB' 1463'SB'

ASPH

1460'TL'

954.93 954.69 954.45 954.22 954.00 953.97 +59.21'NB' 3.5' LT

955.10 1456'NB' 954.83 954.62 1457'NB' 954.36 954.12 954.09 1458'NB' +59.21'NB' 0.5' RT

4' 2' 12' 12'

1459'NB' 1460'NB' 1461'NB' 1462'NB' 1463'NB'

ASPH

I-41 'NB'

END CONSTRUCTION
STA 1458+62.42'TL'

SIGN

PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	PAVING DETAIL: I-41	SHEET 11	E

2

LEGEND

EROSION MAT URBAN CLASS I, TYPE A
EROSION MAT URBAN CLASS I, TYPE B
EROSION MAT CLASS I, TYPE B
SILT FENCE
WETLANDS
SLOPE INTERCEPT
INLET PROTECTION, TYPE ⊗
TEMPORARY DITCH CHECK
CULVERT PIPE CHECK
SURFACE WATER FLOW
TURBIDITY BARRIER

N

WETLANDS

BEGIN CONSTRUCTION
STA 1433+54.17'TL'

1430'SB' 1431'SB' 1432'SB' 1433'SB' 1434'SB' 1435'SB' 1436

℄ I-41'SB'

I-41 SB

1430'TL' 1435'TL'

℄ I-41'TL'

ASPH

STA 1436'TL'

MATCH LINE

A

INL

1430'NB' 1431'NB' 1432'NB' 1433'NB' 1434'NB' 1435'NB' 1436

℄ I-41'NB'

I-41 NB

ASPH

WETLANDS

2

PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	EROSION CONTROL: I-41 OVER CREEK	SHEET 12	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 022006-EC

PLOT DATE : 4/16/2019 1:32 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

LEGEND

EROSION MAT URBAN CLASS I, TYPE A
EROSION MAT CLASS I, TYPE B
SILT FENCE
WETLANDS
SLOPE INTERCEPT
INLET PROTECTION, TYPE ⊗
TEMPORARY DITCH CHECK
CULVERT PIPE CHECK
SURFACE WATER FLOW
TURBIDITY BARRIER

N

STA 1436'TL'

MATCH LINE

'SB'

℄ I-41'TL'

1437'SB'

℄ I-41'SB'

1438'SB'

1439'SB'

I-41 SB

1440'SB'

1441'SB'

1440'TL'

STA 1442'TL'

MATCH LINE

'NB'

1437'NB'

1438'NB'

℄ I-41'NB'

1439'NB'

1440'NB'

1441'NB'

1442'N

I-41 NB

ASPH

SIGN

WETLANDS

HEAVY DUTY

HEAVY DUTY

HEAVY DUTY

BERM

PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	EROSION CONTROL: I-41 OVER CREEK	SHEET 13	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 022007-EC

PLOT DATE : 4/14/2018 1:46 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

EROSION MAT URBAN CLASS I, TYPE A
EROSION MAT URBAN CLASS I, TYPE B
EROSION MAT CLASS I, TYPE B
SILT FENCE
WETLANDS
SLOPE INTERCEPT
INLET PROTECTION, TYPE ⊗
TEMPORARY DITCH CHECK
CULVERT PIPE CHECK
SURFACE WATER FLOW
TURBIDITY BARRIER

WETLANDS
TRIBUTARY TO E BRANCH ROCK RIVER
PROPOSED B-66-194
HEAVY DUTY
HEAVY DUTY
ASPH
ASPH
ASPH

2

2

LEGEND

EROSION MAT URBAN CLASS I, TYPE A
EROSION MAT URBAN CLASS I, TYPE B
EROSION MAT CLASS I, TYPE B
SILT FENCE
WETLANDS
SLOPE INTERCEPT
INLET PROTECTION, TYPE ⊗
TEMPORARY DITCH CHECK
CULVERT PIPE CHECK
SURFACE WATER FLOW
TURBIDITY BARRIER

WETLANDS
HEAVY DUTY
ASPH
I-41 SB
I-41 SB
℄ I-41'SB'
A
STA 1448'TL'
STA 1454'TL'
MATCH LINE
MATCH LINE
1450'TL'
1449'SB'
1450'SB'
1451'SB'
1452'SB'
1453'SB'
1449'NB'
1450'NB'
1451'NB'
1452'NB'
1453'NB'
℄ I-41'TL'
℄ I-41'NB'
I-41 NB
I-41 NB
WETLANDS
SIGN

PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	EROSION CONTROL: I-41 OVER CREEK	SHEET 15	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 022009-EC
PLOT DATE : 4/17/2019 2:36 PM
PLOT BY : BOBBY JONES
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

LEGEND

- EROSION MAT URBAN CLASS I, TYPE A
- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- WETLANDS
- SLOPE INTERCEPT
- INLET PROTECTION, TYPE ⊗
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- TURBIDITY BARRIER

WETLANDS

ASPH

ASPH

I-41 SB

STA 1454'TL'

1'SB' 1455'SB' ℄ I-41'SB' 1456'SB' 1457'SB' 1458'SB' 1459'SB'

MATCH LINE

1455'TL'

ASPH

ASPH

ASPH

ASPH

1455'NB' ℄ I-41'NB' 1456'NB' 1457'NB' 1458'NB' 1459'NB' 1460'N

I-41 NB

BEGIN CONSTRUCTION
STA 1458+62.42'TL'

STA 1460'TL'

MATCH LINE

WETLANDS

PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	EROSION CONTROL: I-41 OVER CREEK	SHEET 16	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 022010-EC

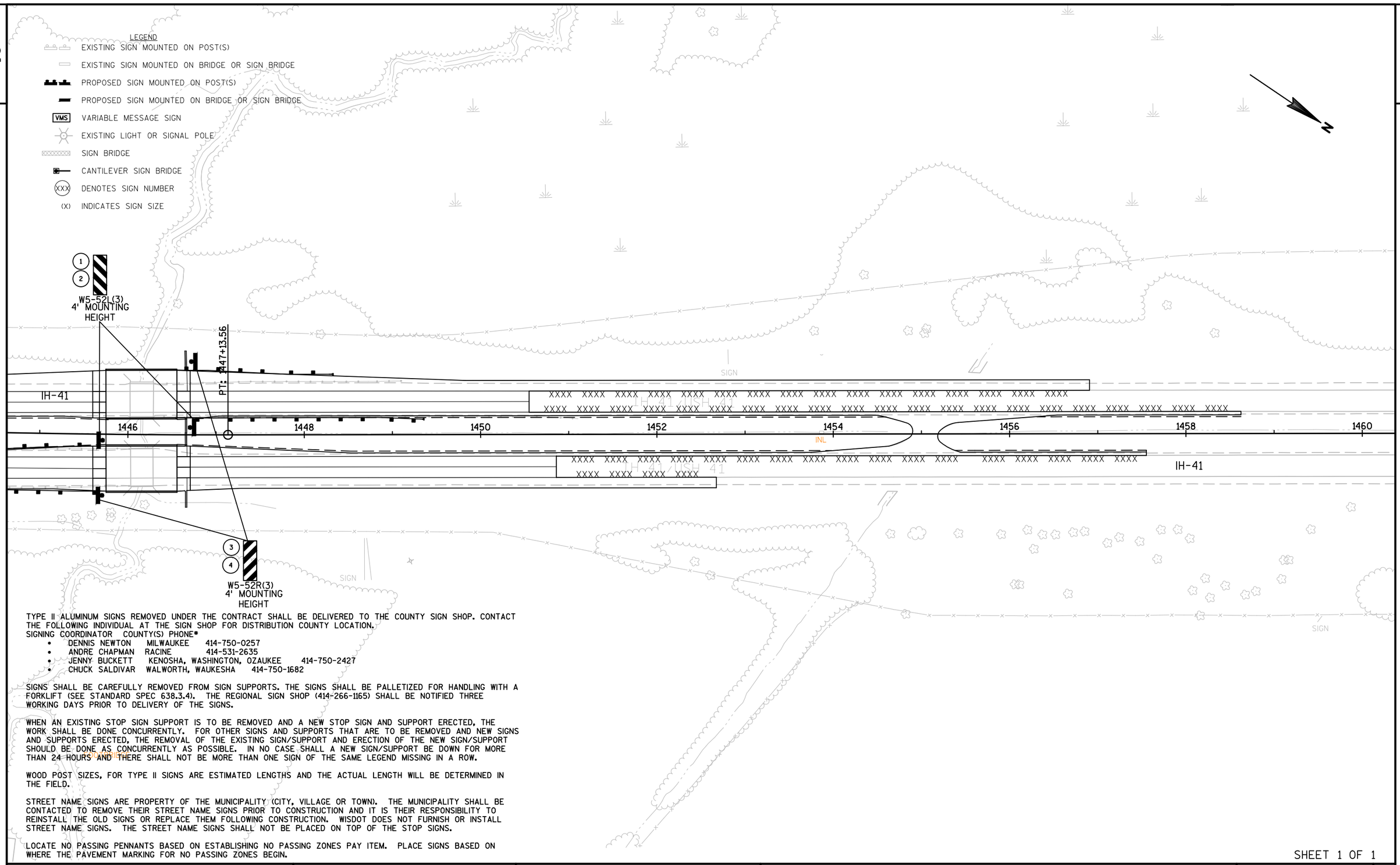
PLOT DATE : 4/14/2018 1:51 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE



TYPE II ALUMINUM SIGNS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE COUNTY SIGN SHOP. CONTACT THE FOLLOWING INDIVIDUAL AT THE SIGN SHOP FOR DISTRIBUTION COUNTY LOCATION.

SIGNING COORDINATOR — COUNTY(S) — PHONE*

- DENNIS NEWTON — MILWAUKEE — 414-750-0257
- ANDRE CHAPMAN — RACINE — 414-531-2635
- JENNY BUCKETT — KENOSHA, WASHINGTON, OZAUKEE — 414-750-2427
- CHUCK SALDIVAR — WALWORTH, WAUKESHA — 414-750-1682

SIGNS SHALL BE CAREFULLY REMOVED FROM SIGN SUPPORTS. THE SIGNS SHALL BE PALLETIZED FOR HANDLING WITH A FORKLIFT (SEE STANDARD SPEC 638.3.4). THE REGIONAL SIGN SHOP (414-266-1165) SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF THE SIGNS.

WHEN AN EXISTING STOP SIGN SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED, THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POST SIZES, FOR TYPE II SIGNS ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

STREET NAME SIGNS ARE PROPERTY OF THE MUNICIPALITY (CITY, VILLAGE OR TOWN). THE MUNICIPALITY SHALL BE CONTACTED TO REMOVE THEIR STREET NAME SIGNS PRIOR TO CONSTRUCTION AND IT IS THEIR RESPONSIBILITY TO REINSTALL THE OLD SIGNS OR REPLACE THEM FOLLOWING CONSTRUCTION. WISDOT DOES NOT FURNISH OR INSTALL STREET NAME SIGNS. THE STREET NAME SIGNS SHALL NOT BE PLACED ON TOP OF THE STOP SIGNS.

LOCATE NO PASSING PENNANTS BASED ON ESTABLISHING NO PASSING ZONES PAY ITEM. PLACE SIGNS BASED ON WHERE THE PAVEMENT MARKING FOR NO PASSING ZONES BEGIN.

SHEET 1 OF 1

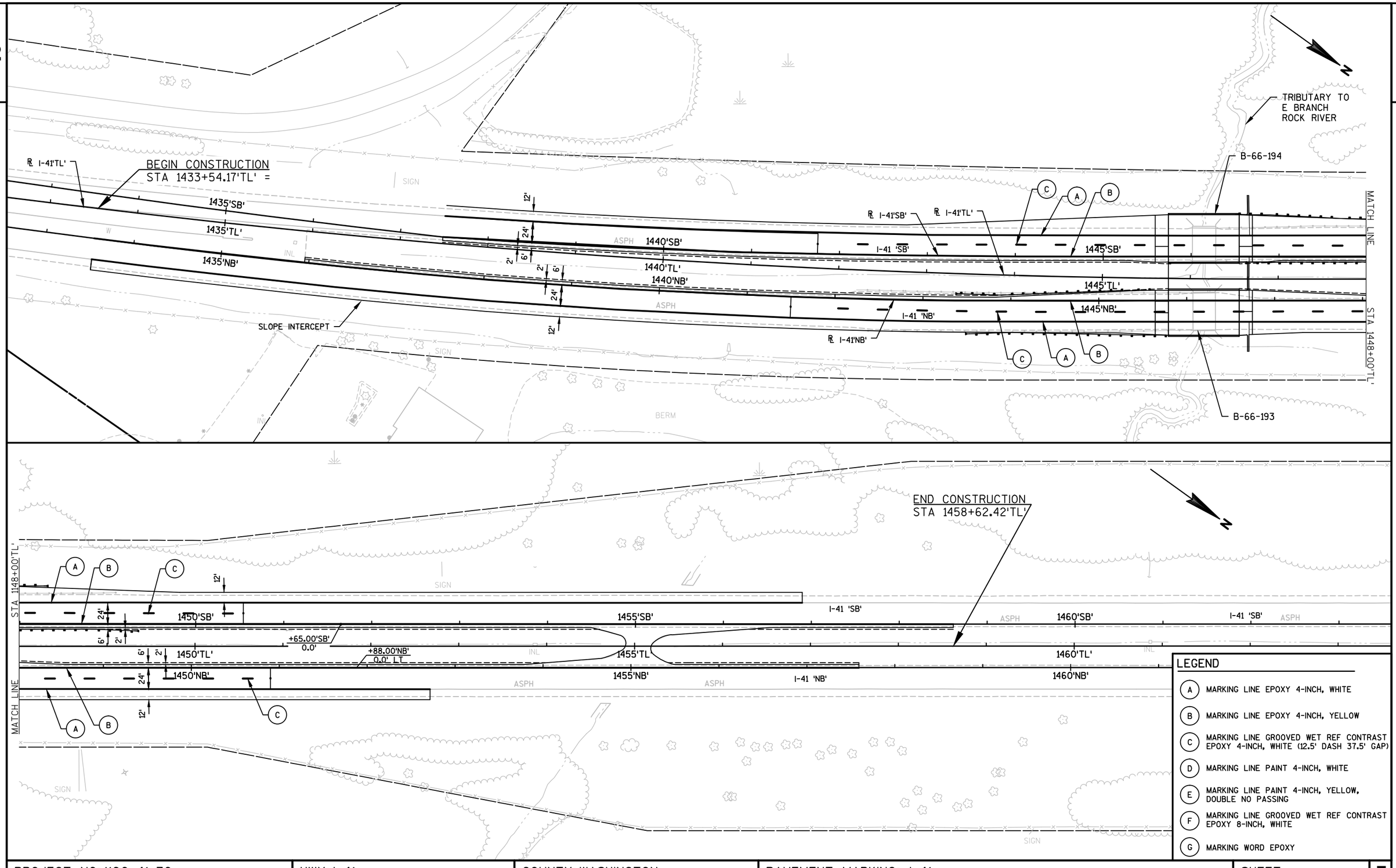
PROJECT NO: 1100-41-70	HWY: IH-41	COUNTY: WASHINGTON	PERMANENT SIGNING PLAN	SHEET 17	E

FILE NAME : N:\PDS\C3D\CAD\11004100\SIGN\70\023201_PS_14-16.DWG
LAYOUT NAME - 023201_PS

PLOT DATE : 2/19/2019 2:48 PM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2



LEGEND

- (A) MARKING LINE EPOXY 4-INCH, WHITE
- (B) MARKING LINE EPOXY 4-INCH, YELLOW
- (C) MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH, WHITE (12.5' DASH 37.5' GAP)
- (D) MARKING LINE PAINT 4-INCH, WHITE
- (E) MARKING LINE PAINT 4-INCH, YELLOW, DOUBLE NO PASSING
- (F) MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH, WHITE
- (G) MARKING WORD EPOXY

PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	PAVEMENT MARKING: I-41	SHEET 18	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 024502_PM
PLOT DATE : 3/1/2018 3:10 PM
PLOT BY : BOBBY JONES
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

2

GENERAL NOTES FOR TRAFFIC CONTROL

1. SIGN LOCATIONS ARE APPROXIMATE. THE EXACT LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

2. THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFILICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

3. ALL SIGNS INAPPRORIATE TO THE STATUS OF THE TRAFFIC CONTROL PLAN, INCLUDING PRE-EXISTING SIGNING IN THE VICINITY, SHALL BE COVERED OR REMOVED AS SPECIFIED IN THE PLANS AND/OR AS DIRECTED BY THE ENGINEER.

4. "WO" IS THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

5. ALL SIGNS ARE 48-INCH × 48-INCH UNLESS OTHERWISE NOTED.

6. FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A TYPE C WARNING LIGHT.

7. ALL TYPE III BARRICADES SHALL BE EQUIPED WITH TWO TYPE "A" (LOW INTENSITY FLASHING) LIGHTS PER S.D.D.

8. SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.

9. ALL SHORT TERM LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL ARROWBOARDS AND DEVICES REMOVED BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

10. SHOULDER EXCAVATION WITHIN 2 FT OF TRAVEL LANE, DURING NIGHT WORK OPERATIONS, SHALL BE PAVED AT A MINIMUM OF 2 FT OR THE FINAL PAVED SHOULDER WIDTH, WHICH EVER IS GREATER, BEFORE OPENING THE LANE TO TRAFFIC.

11. IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARICADE WITH LANE CLOSED SIGN (R11-2 MOD.) APPROXIMATLY EVERY 1/4 MILE ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

12. CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROWBOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS.

13. DIMENSIONS TO CONCRETE BARRIER TEMPORARY PRECAST ARE TO THE FACE OF BARRIER ADJACENT TO TRAFFIC. STATION CALL-OUTS TO CONCRETE BARRIER TEMPORARY PRECAST ARE TO THE CENTER OF THE BARRIER.

14. PINNING TEMPORARY CONCRETE BARRIER IS INCIDENTAL TO THE COST OF CONCRETE BARRIER TEMPORARY PRECAST INSTALLED.

15. ALWAYS PROVIDE A MINIMUM OF 1' CLEAR FROM EDGE OF TRAVEL LANE TO THE TOE OF THE TEMPORARY PRECAST CONCRETE BARRIER.

16. DO NOT STORE EQUIPMENT OR MATERIAL WITHIN THE WORK ZONE OTHER THAN BEHIND THE TEMPORARY PRECAST CONCRETE BARRIER.

17. REMOVAL OF PAVEMENT MARKINGS AND PLACEMENT OF TEMPORARY PAVEMENT MARKINGS IS NOT REQUIRED FOR OVERNIGHT LANE CLOSURES.

18. SEE THE FOLLOWING S.D.D. TO SUPPLEMENT THE TRAFFIC CONTROL PLANS
    - "TRAFFIC CONTROL, LANE CLOSURE"
    - "TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE"
    - "CONCRETE BARRIER TEMPORARY PRECAST"
    - "CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS"
      SHEET A: "END TREATMENTS AND GENERAL NOTE"
      SHEET E: "MEDIAN INSTALLATION"

STAGE 1 - I-41 OVER TRIBUTARY TO EAST BRANCH ROCK RIVER, STRUCTURES B-66-17 (NB) B-66-22 (SB)

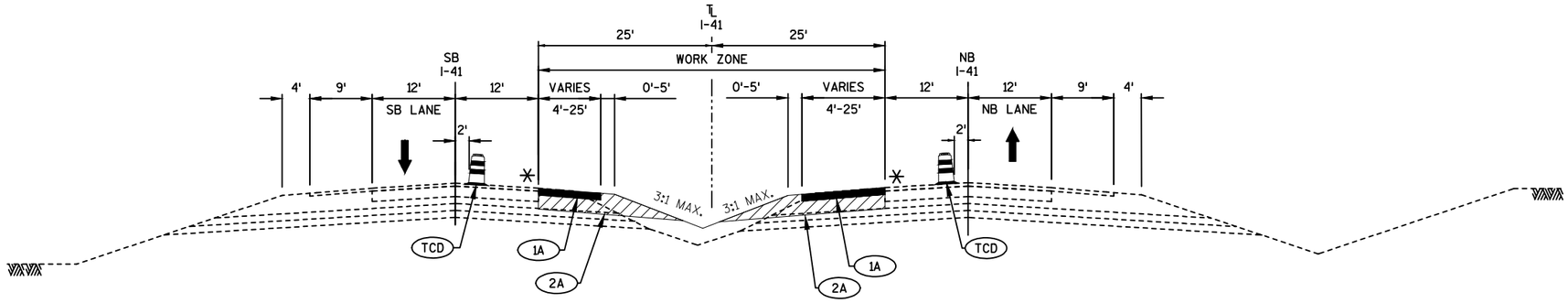
TRAFFIC CONTROL

SINGLE LANE CLOSURE

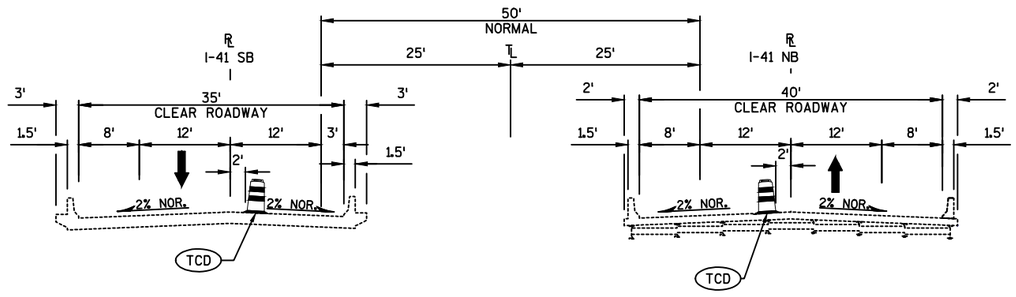
1. I-41, 1 - NB AND 1 - SB LANE IN EXISTING OUTSIDE LANE.

CONSTRUCTION

I-41 CONSTRUCT MEDIAN CROSSOVERS.



I-41
(SHOULDERS/CROSSOVER)



B-66-22

B-66-17

STAGE 1

I-41 OVER
TRIBUTARY TO EAST BRANCH ROCK RIVER

LEGEND

TCB	TEMPORARY CONCRETE BARRIER
TCD	TRAFFIC CONTROL DRUM
1A	5" HMA PAVEMENT
2A	10" BASE AGGREGATE DENSE 1 ¼-INCH
3A	9" HMA PAVEMENT
4A	6" BASE AGGREGATE DENSE 1 ¼-INCH
✳	SAWING ASPHALT

STAGE 2 - I-41 OVER TRIBUTARY TO EAST BRANCH ROCK RIVER, STRUCTURES B-66-17 (NB) B-66-22 (SB)

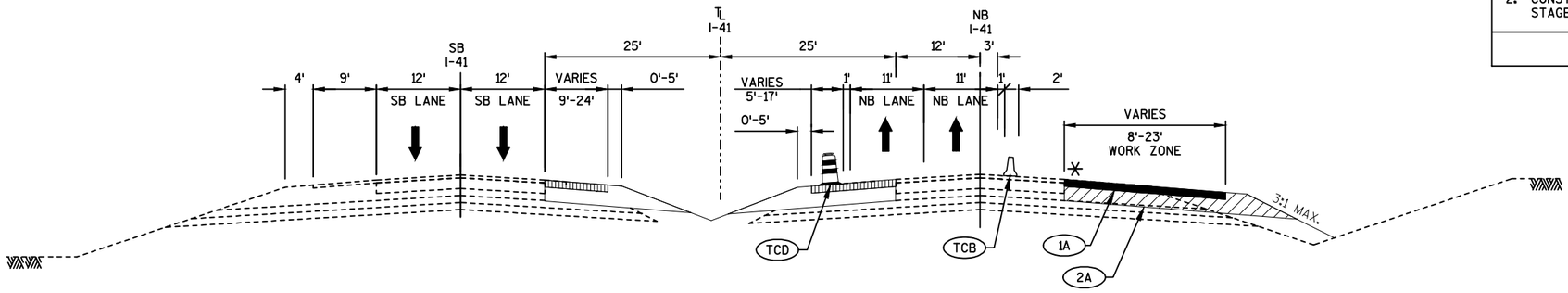
TRAFFIC CONTROL

NB LANE SHIFT

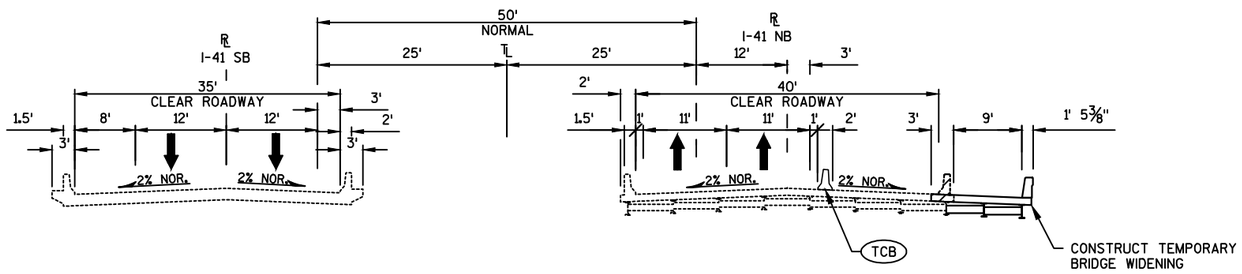
1. I-41 NB 2 - LANES SHIFTED TO MEDIAN.
2. I-41 SB 2 - LANES IN EXISTING LANES.

CONSTRUCTION

1. I-41 REBUILD NB OUTSIDE SHOULDER FOR TEMPORARY LANE SHIFTS DURING STAGE 3.
2. CONSTRUCT NB TEMPORARY STRUCTURE WIDENING FOR STAGE 3 TRAFFIC.



I-41
(NB OUTSIDE SHOULDER)



B-66-22

B-66-17

STAGE 2

I-41 OVER
TRIBUTARY TO EAST BRANCH ROCK RIVER

LEGEND

TCB	TEMPORARY CONCRETE BARRIER
TCD	TRAFFIC CONTROL DRUM
1A	5" HMA PAVEMENT
2A	10" BASE AGGREGATE DENSE 1 ¼-INCH
3A	9" HMA PAVEMENT
4A	6" BASE AGGREGATE DENSE 1 ¼-INCH
✳	SAWING ASPHALT

PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	TYPICAL SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 2	SHEET 21	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\025001-TS1-5.DWG
LAYOUT NAME - 025002_TS2-LMSTN
PLOT DATE : 4/30/2019 8:03 AM
PLOT BY : BOBBY JONES
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

STAGE 3 - I-41 OVER TRIBUTARY TO EAST BRANCH ROCK RIVER, STRUCTURES B-66-17 (NB) B-66-22 (SB)

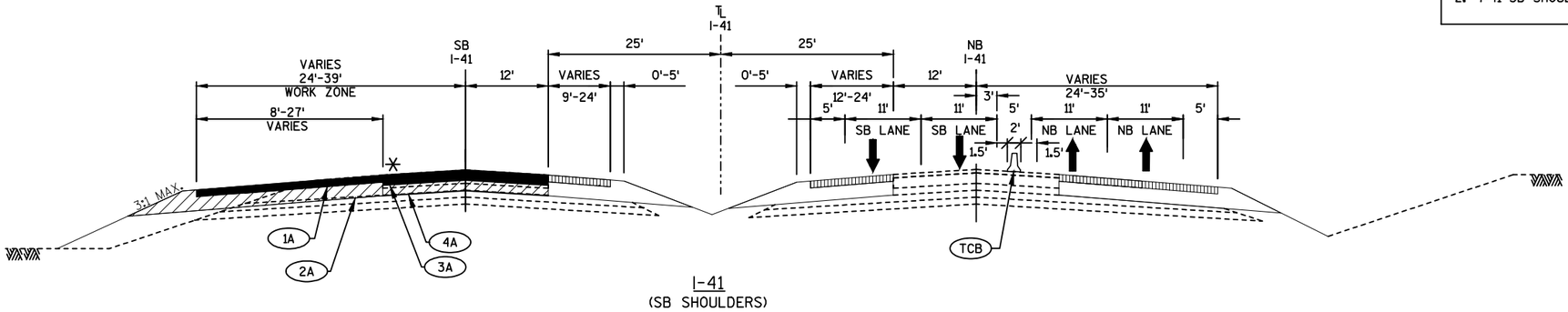
TRAFFIC CONTROL

NB AND SB TRAFFIC LANE SHIFT

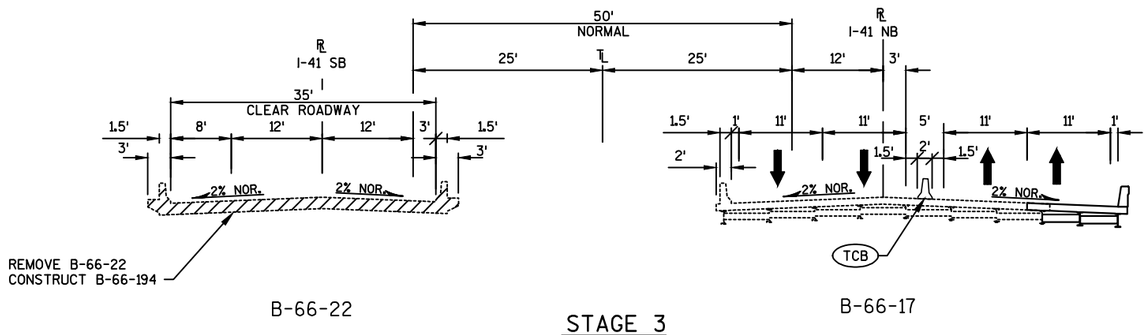
1. 2 - LANES OF I-41 NB SHIFTED TO OUTSIDE SHOULDER.
2. 2 - LANES OF I-41 SB USE THE MEDIAN CROSSOVERS AND THE EXISTING INSIDE HALF OF THE NB BRIDGE.

CONSTRUCTION

1. I-41 SB BRIDGE REPLACEMENT AND APPROACHES.
2. I-41 SB SHOULDERS, GUARDRAIL, LANDSCAPING AND FINISHING.



I-41
(SB SHOULDERS)



B-66-22 B-66-17

STAGE 3

I-41 OVER
TRIBUTARY TO EAST BRANCH ROCK RIVER

LEGEND

TCB	TEMPORARY CONCRETE BARRIER
TCD	TRAFFIC CONTROL DRUM
1A	5" HMA PAVEMENT
2A	10" BASE AGGREGATE DENSE 1 ¼-INCH
3A	9" HMA PAVEMENT
4A	6" BASE AGGREGATE DENSE 1 ¼-INCH
✳	SAWING ASPHALT

STAGE 4 - I-41 OVER TRIBUTARY TO EAST BRANCH ROCK RIVER, STRUCTURES B-66-17 (NB) B-66-22 (SB)

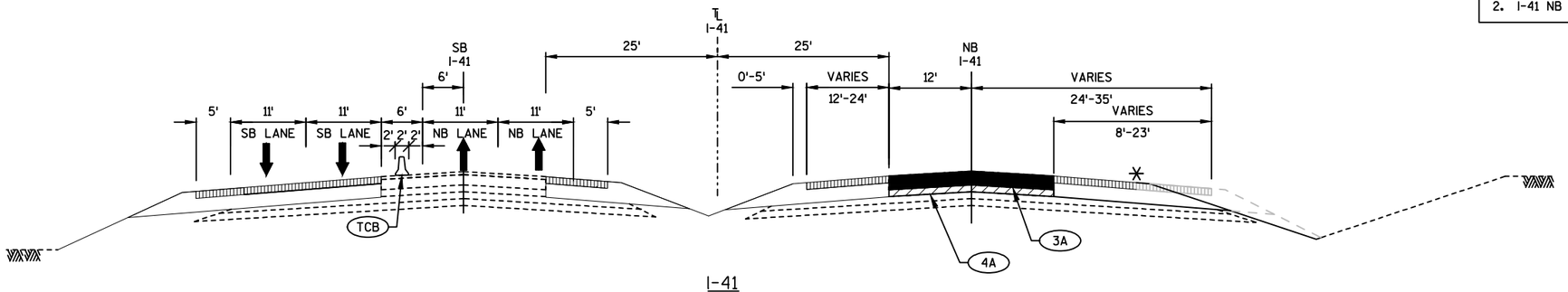
TRAFFIC CONTROL

NB AND SB TRAFFIC LANE SHIFT

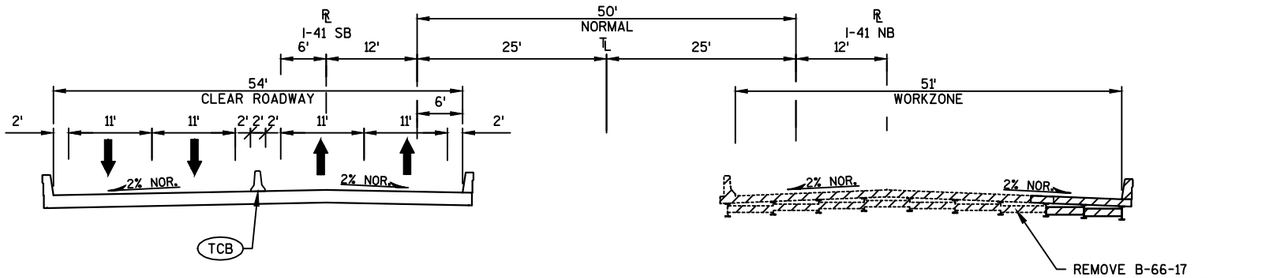
1. 2 - LANES OF I-41 SB SHIFTED TO OUTSIDE SHOULDER OF NEW SB BRIDGE.
2. 2 - LANES OF I-41 NB USE THE MEDIAN CROSSOVERS AND THE INSIDE HALF OF THE NEW SB BRIDGE.

CONSTRUCTION

1. I-41 NB BRIDGE REPLACEMENT AND APPROACHES.
2. I-41 NB GUARDRAIL, LANDSCAPING AND FINISHING.



I-41
(NB BRIDGE REPLACEMENT)



B-66-194 B-66-17

STAGE 4
I-41 OVER
TRIBUTARY TO EAST BRANCH ROCK RIVER

LEGEND

TCB	TEMPORARY CONCRETE BARRIER
TCD	TRAFFIC CONTROL DRUM
1A	5" HMA PAVEMENT
2A	10" BASE AGGREGATE DENSE 1 ¼-INCH
3A	9" HMA PAVEMENT
4A	6" BASE AGGREGATE DENSE 1 ¼-INCH
✳	SAWING ASPHALT

STAGE 5 - I-41 OVER TRIBUTARY TO EAST BRANCH ROCK RIVER, STRUCTURES B-66-17 (NB) B-66-22 (SB)

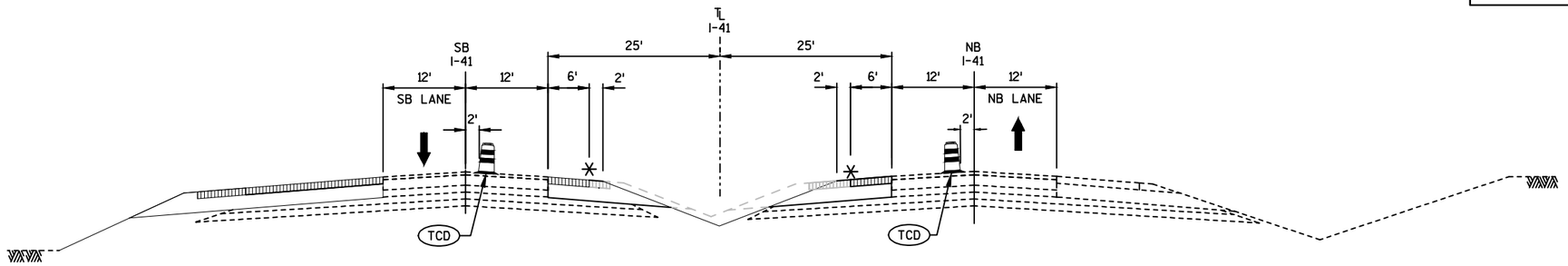
TRAFFIC CONTROL

SINGLE LANE CLOSURE, OFF PEAK OPERATION

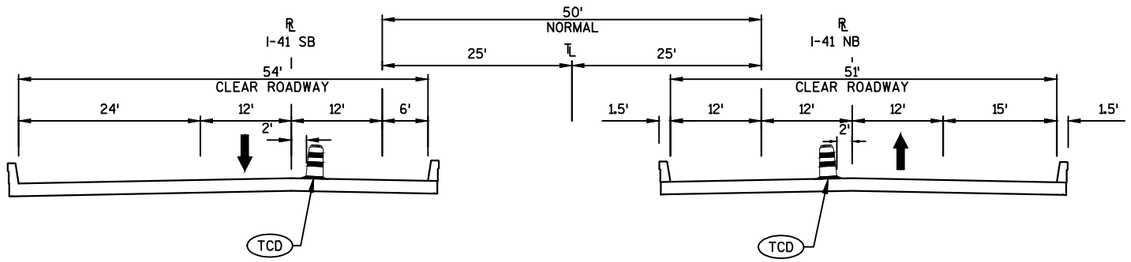
1. I-41 NB AND SB BOTH REDUCED TO 1 - LANE USING THE OUTSIDE LANE.

CONSTRUCTION

1. REMOVE THE MEDIAN CROSSOVER LOCATED AT STA 1437+50'TL' - STA 1454+86'TL'.



I-41
(MEDIAN CROSSOVER REMOVAL)



B-66-194

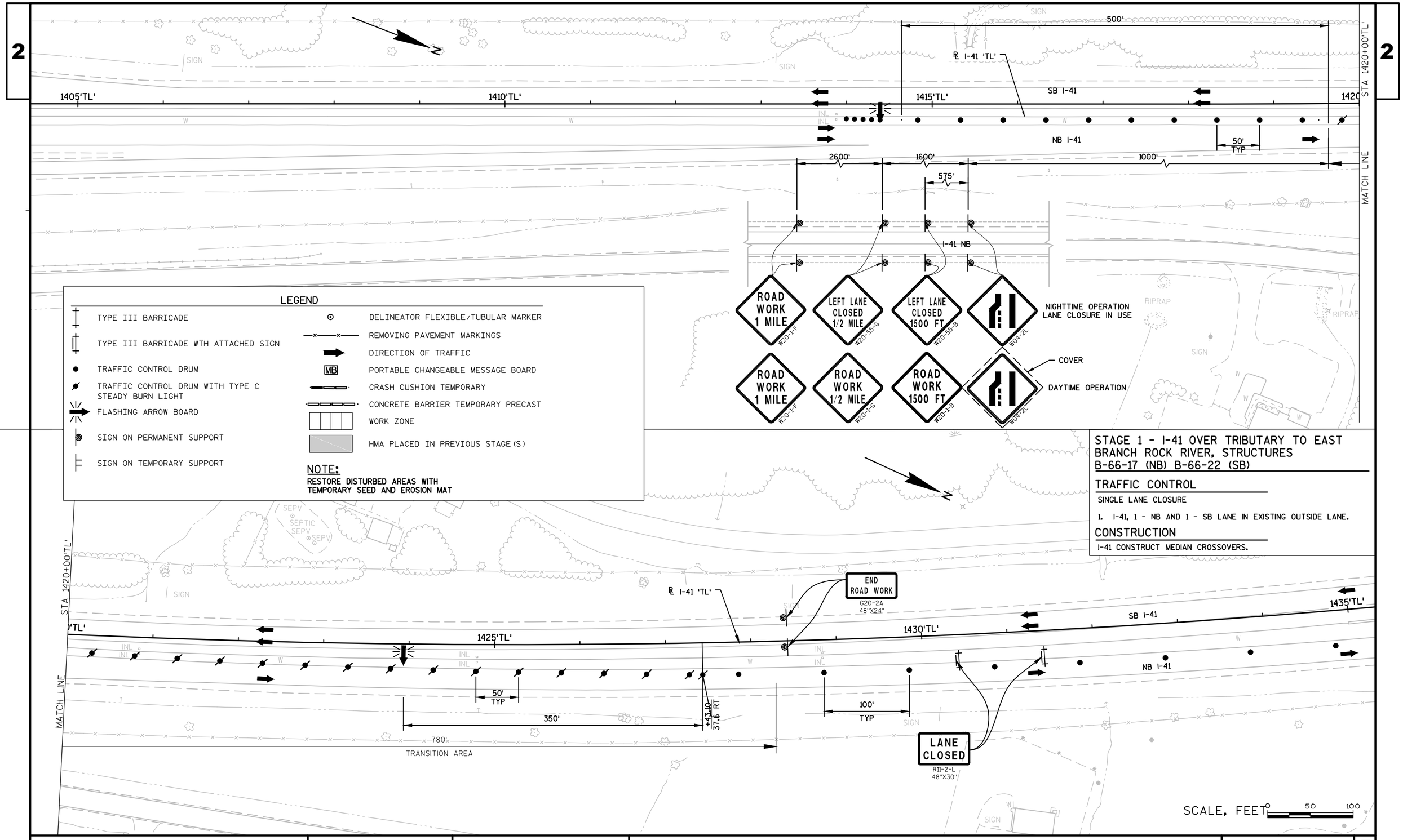
B-66-193

STAGE 5

I-41 OVER
TRIBUTARY TO EAST BRANCH ROCK RIVER

LEGEND

TCB	TEMPORARY CONCRETE BARRIER
TCD	TRAFFIC CONTROL DRUM
1A	5" HMA PAVEMENT
2A	10" BASE AGGREGATE DENSE 1 ¼-INCH
3A	9" HMA PAVEMENT
4A	6" BASE AGGREGATE DENSE 1 ¼-INCH
✳	SAWING ASPHALT



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- HMA PLACED IN PREVIOUS STAGE(S)

NOTE:
RESTORE DISTURBED AREAS WITH TEMPORARY SEED AND EROSION MAT

STAGE 1 - I-41 OVER TRIBUTARY TO EAST BRANCH ROCK RIVER, STRUCTURES B-66-17 (NB) B-66-22 (SB)

TRAFFIC CONTROL

SINGLE LANE CLOSURE

1. I-41, 1 - NB AND 1 - SB LANE IN EXISTING OUTSIDE LANE.

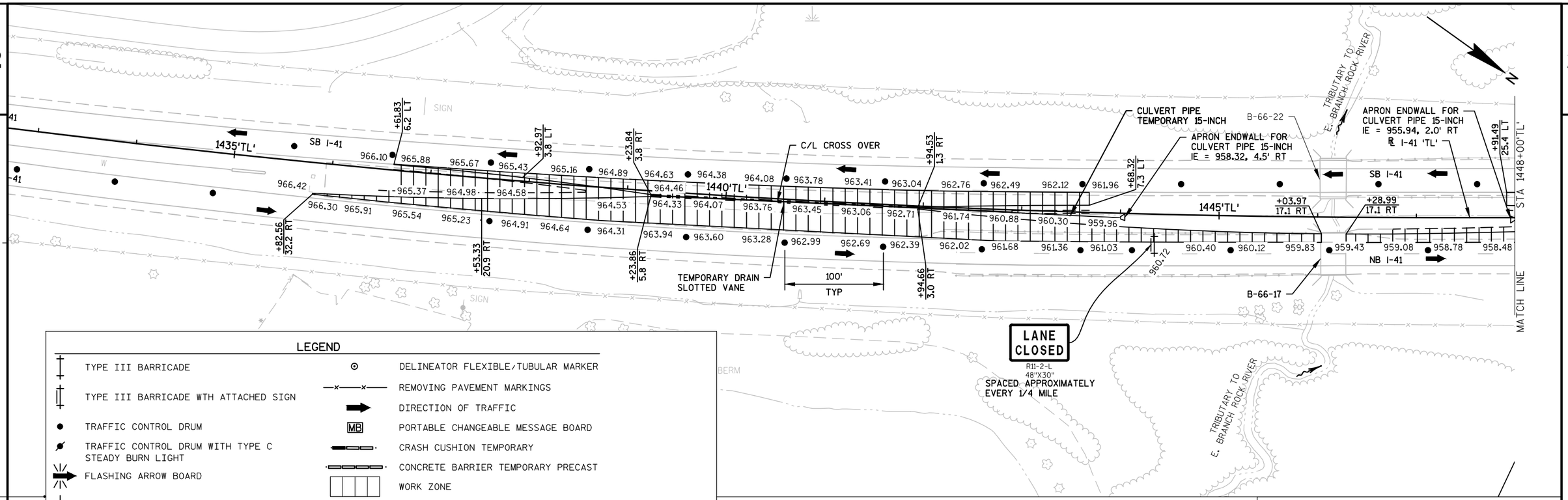
CONSTRUCTION

I-41 CONSTRUCT MEDIAN CROSSOVERS.

PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	TRAFFIC CONTROL: I-41 AT TRIBUTARY OF E. BRANCH ROCK RIVER - STAGE 1 (1/3)	SHEET 25	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\025001-TC1_LMSTNCRK.DWG PLOT DATE : 4/14/2018 9:11 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 025001-TC1-LMSTNCRK

2



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- HMA PLACED IN PREVIOUS STAGE(S)

NOTE:
RESTORE DISTURBED AREAS WITH TEMPORARY SEED AND EROSION MAT

STAGE 1 - I-41 OVER TRIBUTARY TO EAST BRANCH ROCK RIVER, STRUCTURES B-66-17 (NB) B-66-22 (SB)

TRAFFIC CONTROL

SINGLE LANE CLOSURE

1. I-41, 1 - NB AND 1 - SB LANE IN EXISTING OUTSIDE LANE.

CONSTRUCTION

I-41 CONSTRUCT MEDIAN CROSSOVERS.

PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	TRAFFIC CONTROL: I-41 AT TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 1 (2/3)	SHEET 26	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\025001-TC1_LMSTNCRK.DWG PLOT DATE : 4/14/2018 9:16 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 025002-TC1-LMSTNCRK

2

LANE CLOSED
R11-2-L
48"X30"

100'
TYP

780'
TRANSITION AREA
350'

48'DW'
49'DW'
50'DW'
51'DW'
52'DW'

℄ I-41 'TL'

50'
TYP

SB I-41

STA 1474+00'TL'

1465'TL'

1470'TL'

NB I-41

MATCH LINE

END
ROAD WORK
G20-2A
48"X24"

℄ CTH DW

STRUCTURE B-66-111

STAGE 1 - I-41 OVER TRIBUTARY TO EAST BRANCH ROCK RIVER, STRUCTURES B-66-17 (NB) B-66-22 (SB)

TRAFFIC CONTROL

SINGLE LANE CLOSURE

1. I-41, 1 - NB AND 1 - SB LANE IN EXISTING OUTSIDE LANE.

CONSTRUCTION

I-41 CONSTRUCT MEDIAN CROSSOVERS.

DAYTIME OPERATION

COVER

W04F-2L

ROAD WORK 1500 FT
W20-1-B

ROAD WORK 1/2 MILE
W20-1-G

ROAD WORK 1 MILE
W20-1-F

NIGHTTIME OPERATION
LANE CLOSURE IN USE

W04-2L

LEFT LANE CLOSED 1500 FT
W20-55-B

LEFT LANE CLOSED 1/2 MILE
W20-55-G

ROAD WORK 1 MILE
W20-1-F

I-41 SB

575'

1000'

1600'

2600'

500'

SB I-41

1475'TL'

1480'TL'

1485'TL'

50'
TYP

NB I-41

STA 1474+00'TL'

MATCH LINE

℄ I-41 'TL'

9'
12'
3'
5'
12'
9'

SB I-41

NB I-41

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- HMA PLACED IN PREVIOUS STAGE(S)

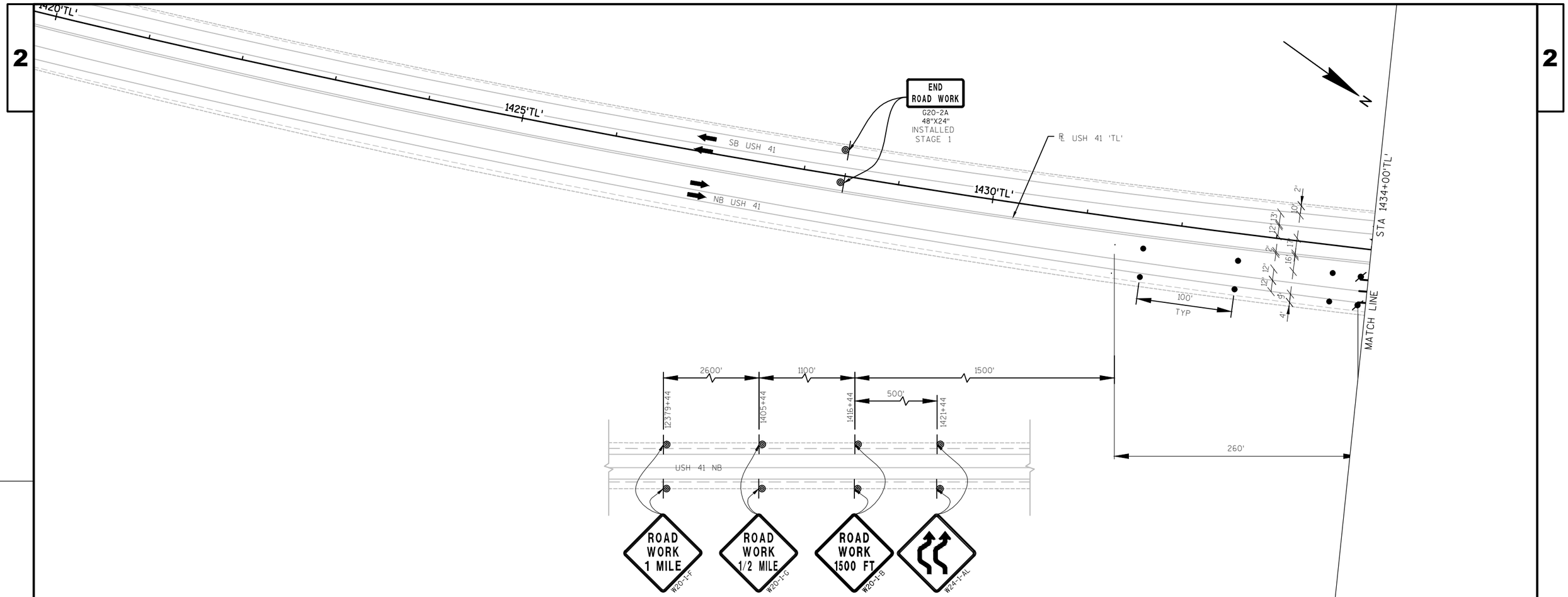
NOTE:
RESTORE DISTURBED AREAS WITH TEMPORARY SEED AND EROSION MAT

SCALE, FEET 0 50 100

PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	TRAFFIC CONTROL: I-41 AT TRIBUTARY OF E. BRANCH OF ROCK RIVER - STAGE 1 (3/3)	SHEET 27	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\025001-TC1_LMSTNCRK.DWG
LAYOUT NAME - 025003-TC1-LMSTNCRK
PLOT DATE : 4/14/2018 9:21 AM
PLOT BY : BOBBY JONES
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- HMA PLACED IN PREVIOUS STAGE(S)

TRAFFIC CONTROL

NB LANE SHIFT

1. I-41 NB 2 - LANES SHIFTED TO MEDIAN.
2. I-41 SB 2 - LANES IN EXISTING LANES.

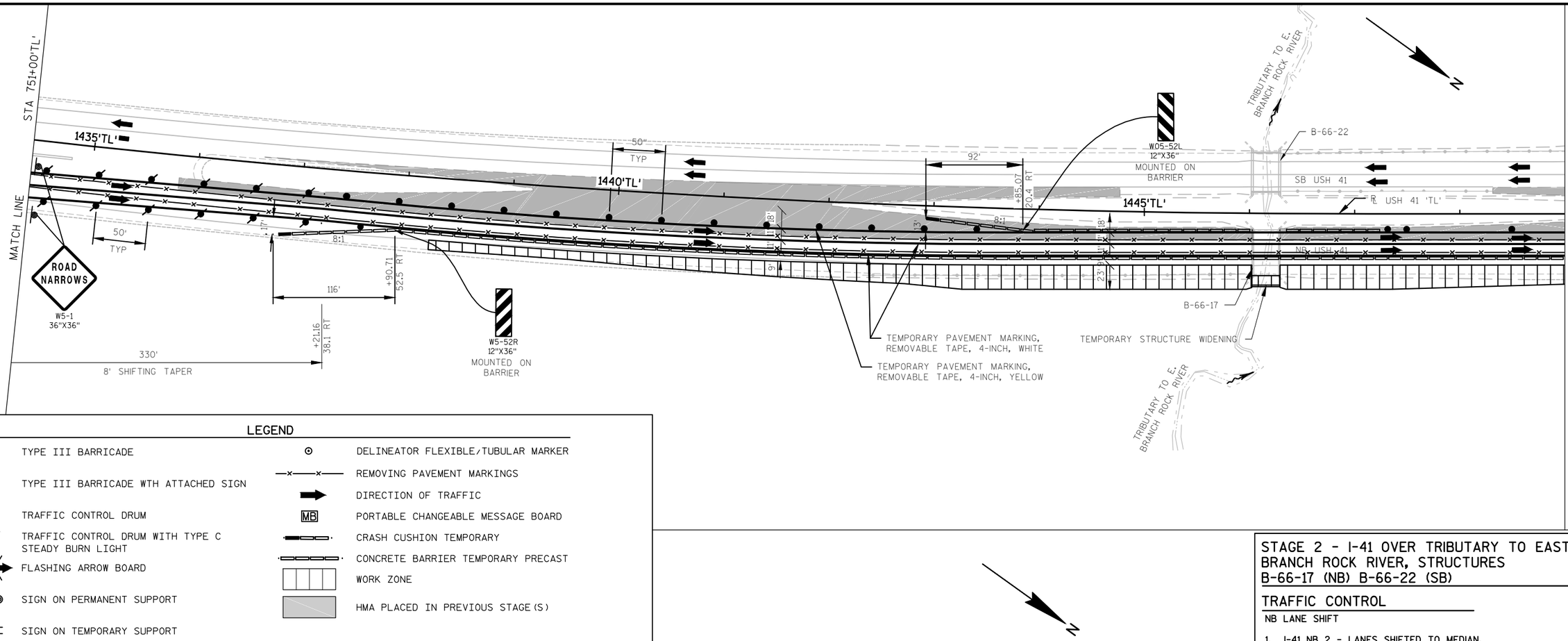
CONSTRUCTION

1. I-41 REBUILD NB OUTSIDE SHOULDER FOR TEMPORARY LANE SHIFTS DURING STAGE 3.
2. CONSTRUCT NB TEMPORARY STRUCTURE WIDENING FOR STAGE 3 TRAFFIC.

SCALE, FEET 0 50 100

PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	TRAFFIC CONTROL: I-41 AT TRIBUTARY E. BRANCH OF ROCK RIVER -STAGE 2 (1/2)	SHEET 28	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\025001-TC2_LMSTNCRK.DWG PLOT DATE : 4/16/2019 1:51 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 025001-TC2-LMSTNCRK



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- HMA PLACED IN PREVIOUS STAGE(S)

STAGE 2 - I-41 OVER TRIBUTARY TO EAST BRANCH ROCK RIVER, STRUCTURES B-66-17 (NB) B-66-22 (SB)

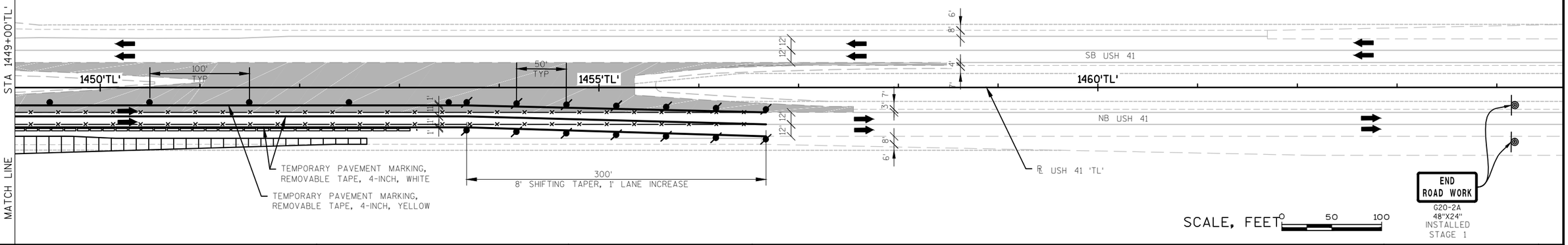
TRAFFIC CONTROL

NB LANE SHIFT

1. I-41 NB 2 - LANES SHIFTED TO MEDIAN.
2. I-41 SB 2 - LANES IN EXISTING LANES.

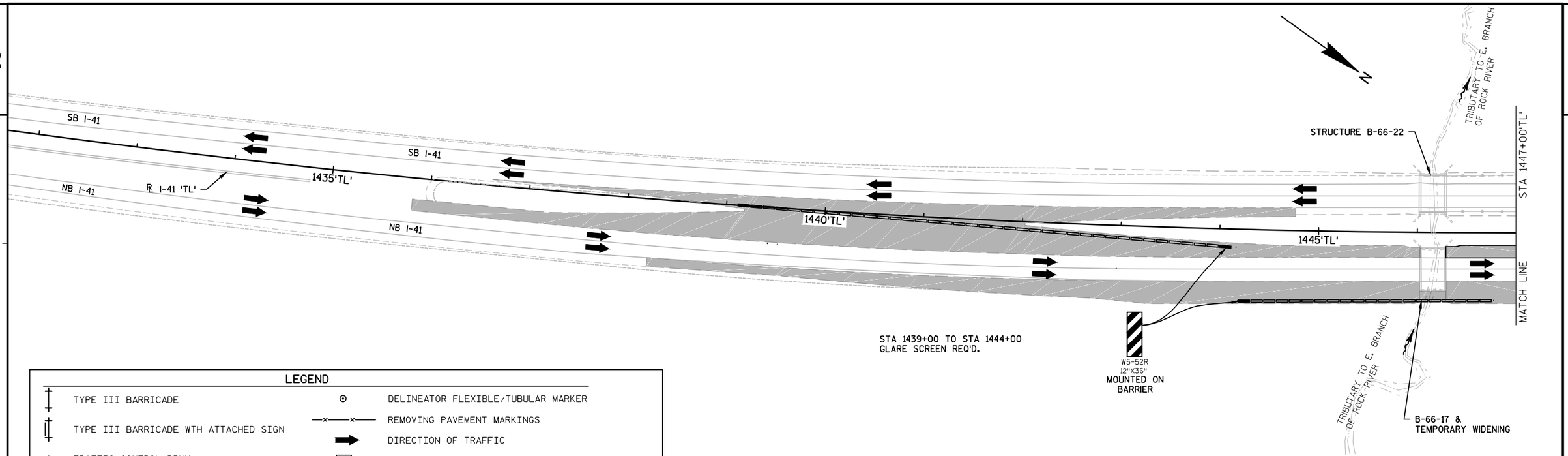
CONSTRUCTION

1. I-41 REBUILD NB OUTSIDE SHOULDER FOR TEMPORARY LANE SHIFTS DURING STAGE 3.
2. CONSTRUCT NB TEMPORARY STRUCTURE WIDENING FOR STAGE 3 TRAFFIC.



PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	TRAFFIC CONTROL: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 2 (2/2)	SHEET 29	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\025001-TC2_LMSTNCRK.DWG PLOT DATE : 4/30/2019 10:40 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 025002-TC2-LMSTNCRK



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- HMA PLACED IN PREVIOUS STAGE(S)

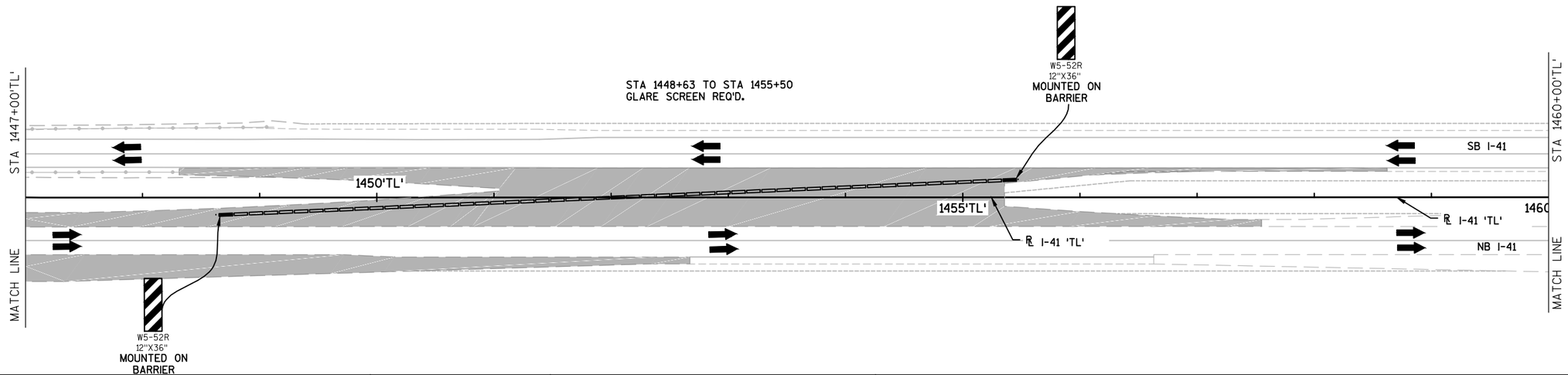
WINTER SHUTDOWN - I-41 OVER TRIBUTARY TO EAST BRANCH ROCK RIVER, STRUCTURES B-66-17 (NB) B-66-22 (SB)

TRAFFIC CONTROL

NB AND SB TRAFFIC ALL EXISTING LANES OPEN

CONSTRUCTION

1. PLACE TEMPORARY BARRIER IN CROSS OVERS



SCALE, FEET 0 50 100

PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	TRAFFIC CONTROL: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - WINTER SHUTDOWN	SHEET 30	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\025001-TC3_LMSTNCRK-WINSHTDWN.DWG
LAYOUT NAME - 025002-TC3-LMSTNCRK (WINTERSHUTDOWN)
PLOT DATE : 7/10/2018 8:29 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- HMA PLACED IN PREVIOUS STAGE(S)

SCALE, FEET 0 50 100

STAGE 3 - I-41 OVER TRIBUTARY TO EAST BRANCH ROCK RIVER, STRUCTURES B-66-17 (NB) B-66-22 (SB)

TRAFFIC CONTROL

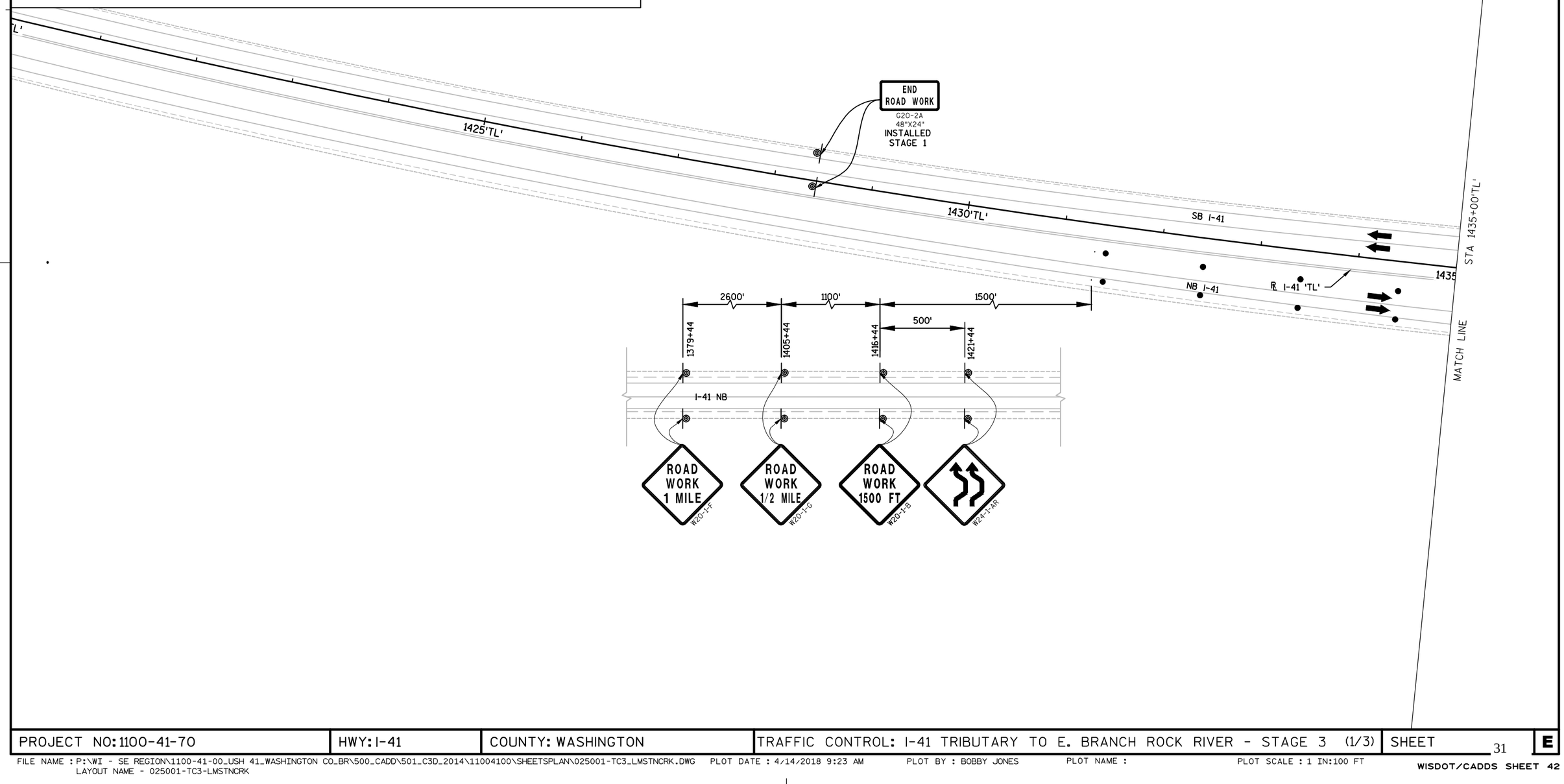
NB AND SB TRAFFIC LANE SHIFT

1. 2 - LANES OF I-41 NB SHIFTED TO OUTSIDE SHOULDER.
2. 2 - LANES OF I-41 SB USE THE MEDIAN CROSSOVERS AND THE EXISTING INSIDE HALF OF THE NB BRIDGE.

CONSTRUCTION

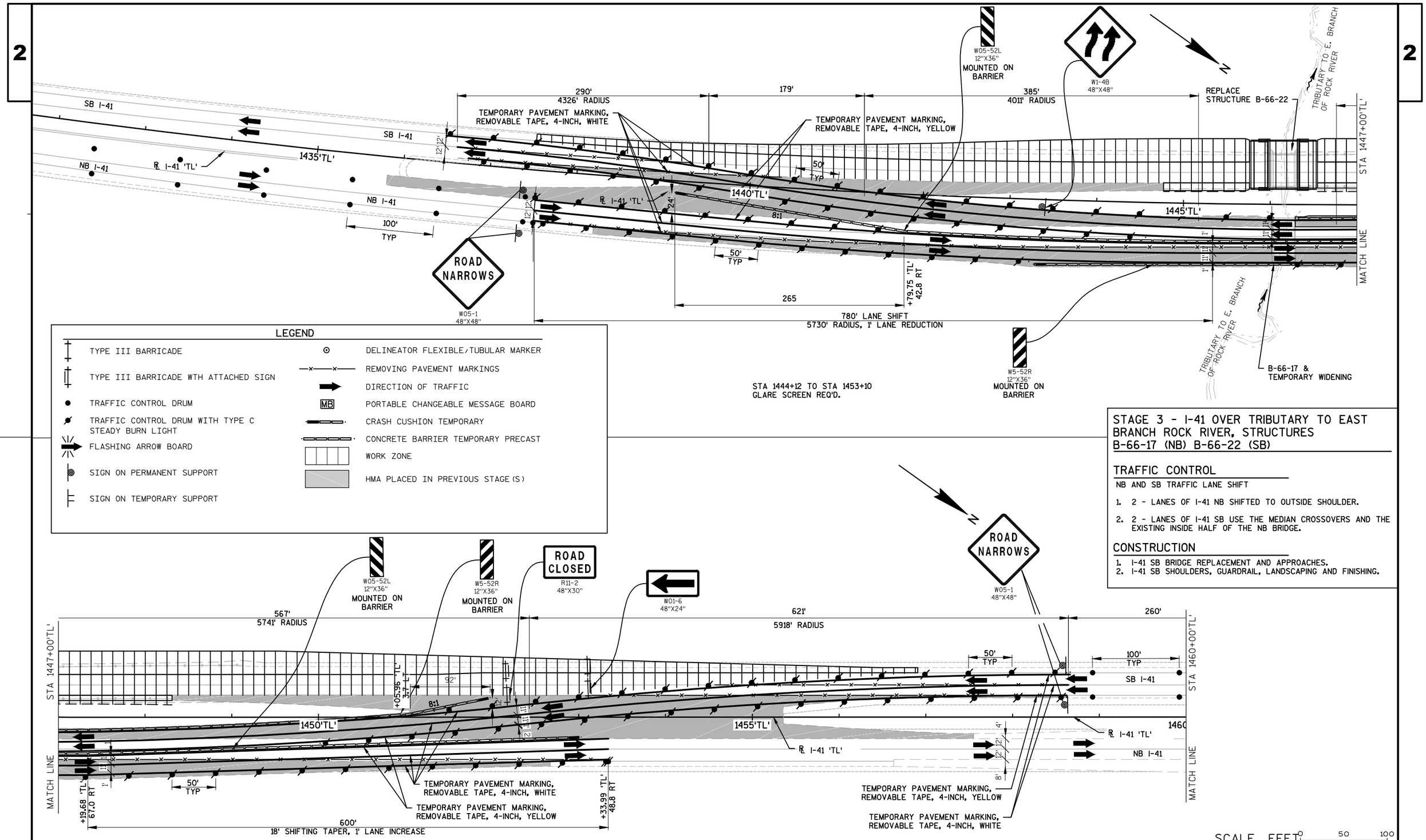
1. I-41 SB BRIDGE REPLACEMENT AND APPROACHES.
2. I-41 SB SHOULDERS, GUARDRAIL, LANDSCAPING AND FINISHING.

2



PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	TRAFFIC CONTROL: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 3 (1/3)	SHEET 31	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\025001-TC3_LMSTNCRK.DWG PLOT DATE : 4/14/2018 9:23 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 025001-TC3-LMSTNCRK



STAGE 3 - I-41 OVER TRIBUTARY TO EAST BRANCH ROCK RIVER, STRUCTURES B-66-17 (NB) B-66-22 (SB)

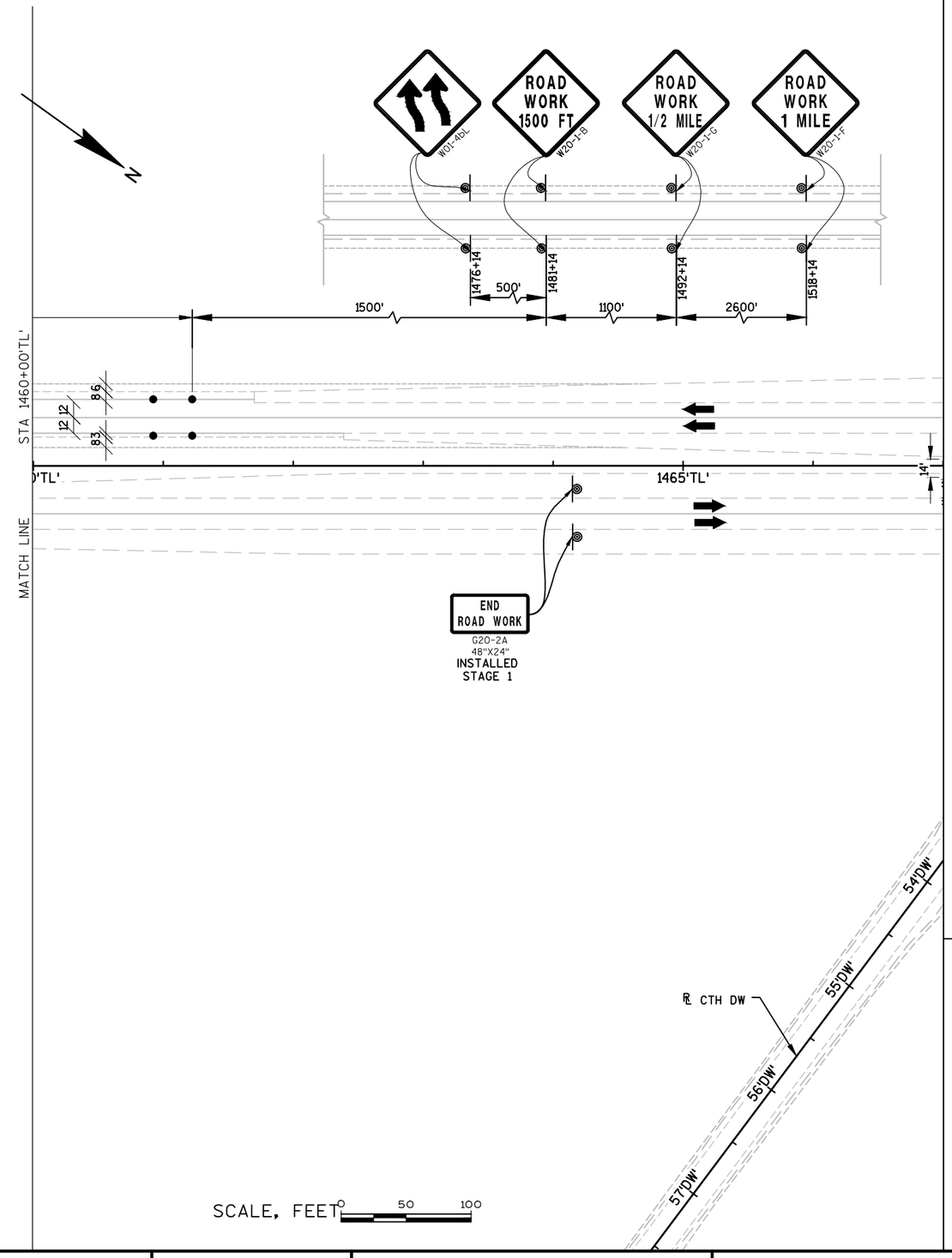
TRAFFIC CONTROL

NB AND SB TRAFFIC LANE SHIFT

1. 2 - LANES OF I-41 NB SHIFTED TO OUTSIDE SHOULDER.
2. 2 - LANES OF I-41 SB USE THE MEDIAN CROSSOVERS AND THE EXISTING INSIDE HALF OF THE NB BRIDGE.

CONSTRUCTION

1. I-41 SB BRIDGE REPLACEMENT AND APPROACHES.
2. I-41 SB SHOULDERS, GUARDRAIL, LANDSCAPING AND FINISHING.



STAGE 3 - I-41 OVER TRIBUTARY TO EAST BRANCH ROCK RIVER, STRUCTURES B-66-17 (NB) B-66-22 (SB)

TRAFFIC CONTROL

NB AND SB TRAFFIC LANE SHIFT

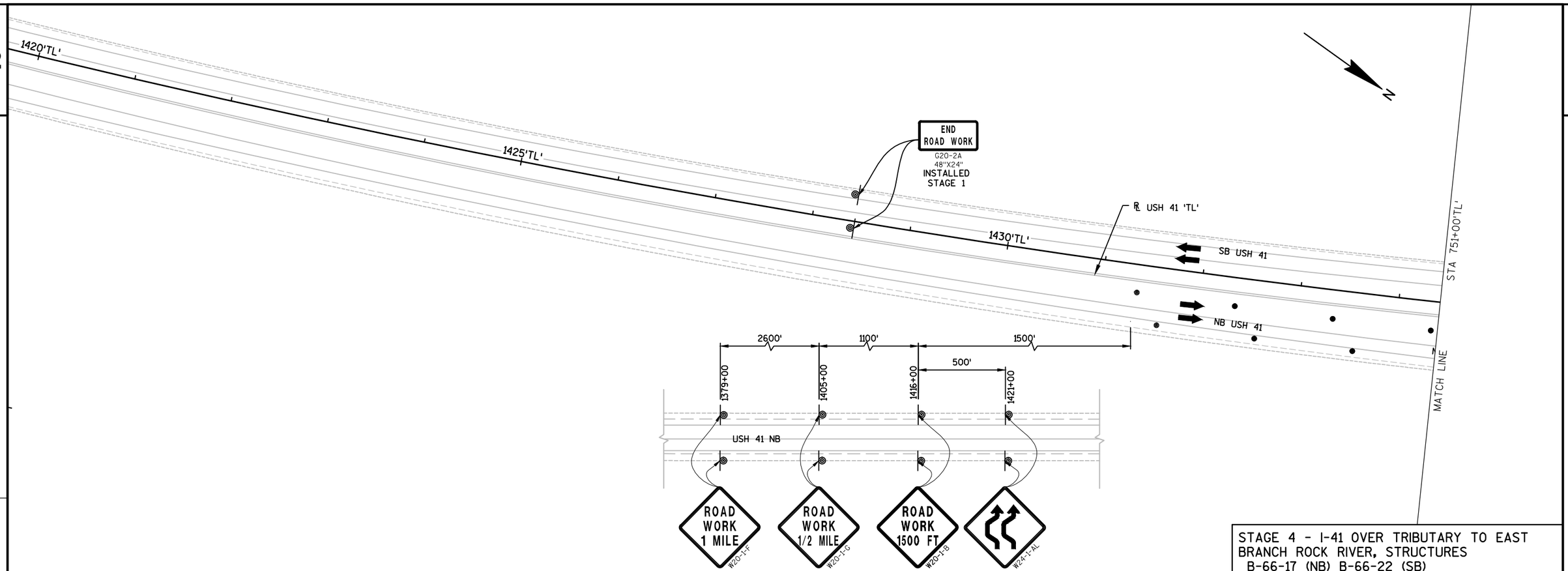
1. 2 - LANES OF I-41 NB SHIFTED TO OUTSIDE SHOULDER.
2. 2 - LANES OF I-41 SB USE THE MEDIAN CROSSOVERS AND THE EXISTING INSIDE HALF OF THE NB BRIDGE.

CONSTRUCTION

1. I-41 SB BRIDGE REPLACEMENT AND APPROACHES.
2. I-41 SB SHOULDERS, GUARDRAIL, LANDSCAPING AND FINISHING.

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- HMA PLACED IN PREVIOUS STAGE(S)



SCALE, FEET 0 50 100

STAGE 4 - I-41 OVER TRIBUTARY TO EAST BRANCH ROCK RIVER, STRUCTURES B-66-17 (NB) B-66-22 (SB)

TRAFFIC CONTROL

NB AND SB TRAFFIC LANE SHIFT

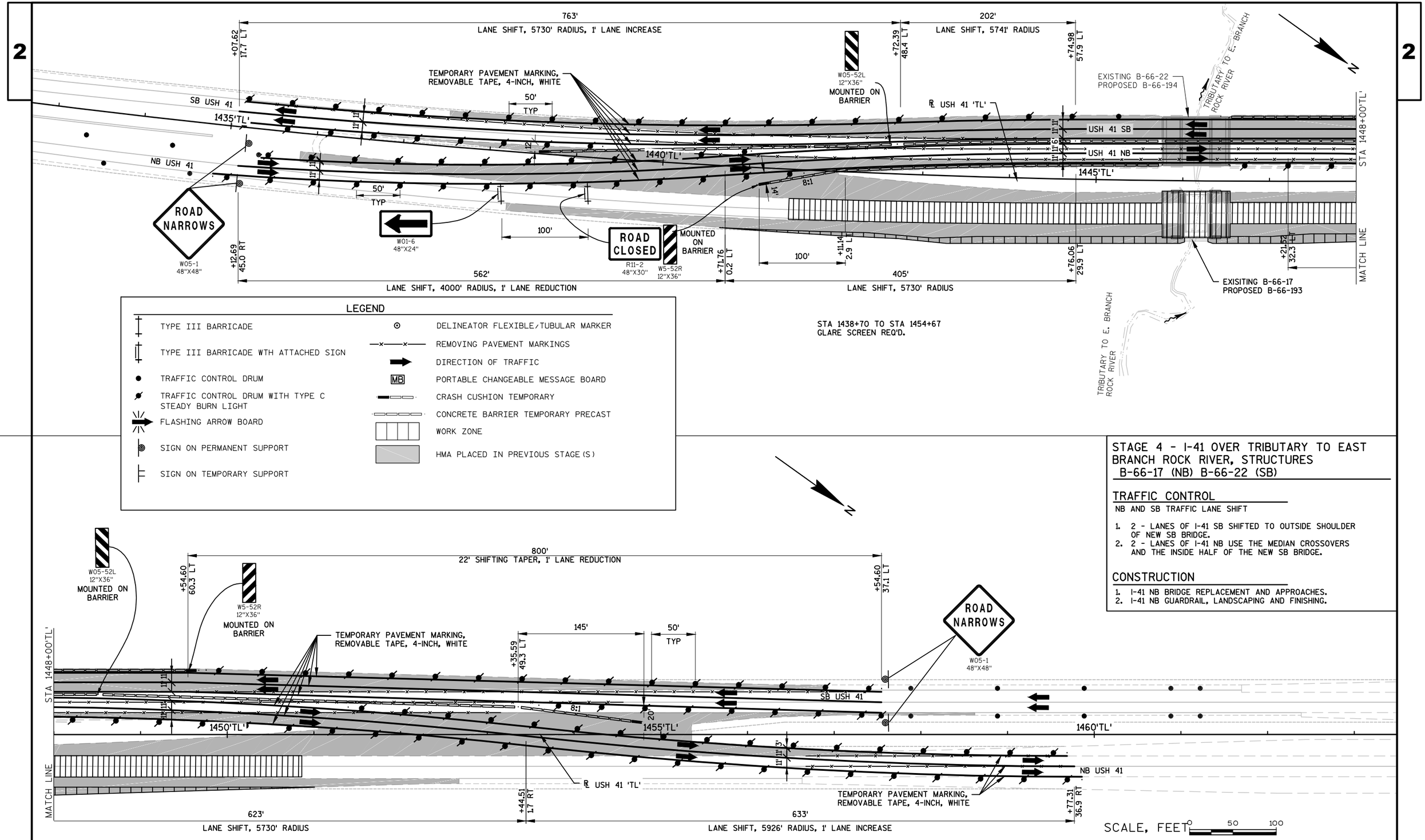
1. 2 - LANES OF I-41 SB SHIFTED TO OUTSIDE SHOULDER OF NEW SB BRIDGE.
2. 2 - LANES OF I-41 NB USE THE MEDIAN CROSSOVERS AND THE INSIDE HALF OF THE NEW SB BRIDGE.

CONSTRUCTION

1. I-41 NB BRIDGE REPLACEMENT AND APPROACHES.
2. I-41 NB GUARDRAIL, LANDSCAPING AND FINISHING.

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- HMA PLACED IN PREVIOUS STAGE(S)



STAGE 4 - I-41 OVER TRIBUTARY TO EAST BRANCH ROCK RIVER, STRUCTURES B-66-17 (NB) B-66-22 (SB)

TRAFFIC CONTROL

NB AND SB TRAFFIC LANE SHIFT

1. 2 - LANES OF I-41 SB SHIFTED TO OUTSIDE SHOULDER OF NEW SB BRIDGE.
2. 2 - LANES OF I-41 NB USE THE MEDIAN CROSSOVERS AND THE INSIDE HALF OF THE NEW SB BRIDGE.

CONSTRUCTION

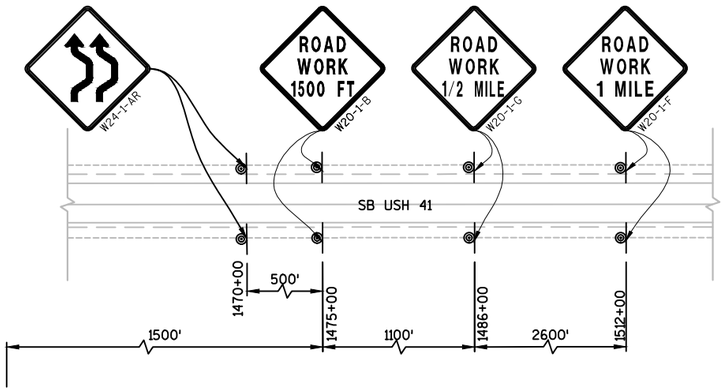
1. I-41 NB BRIDGE REPLACEMENT AND APPROACHES.
2. I-41 NB GUARDRAIL, LANDSCAPING AND FINISHING.

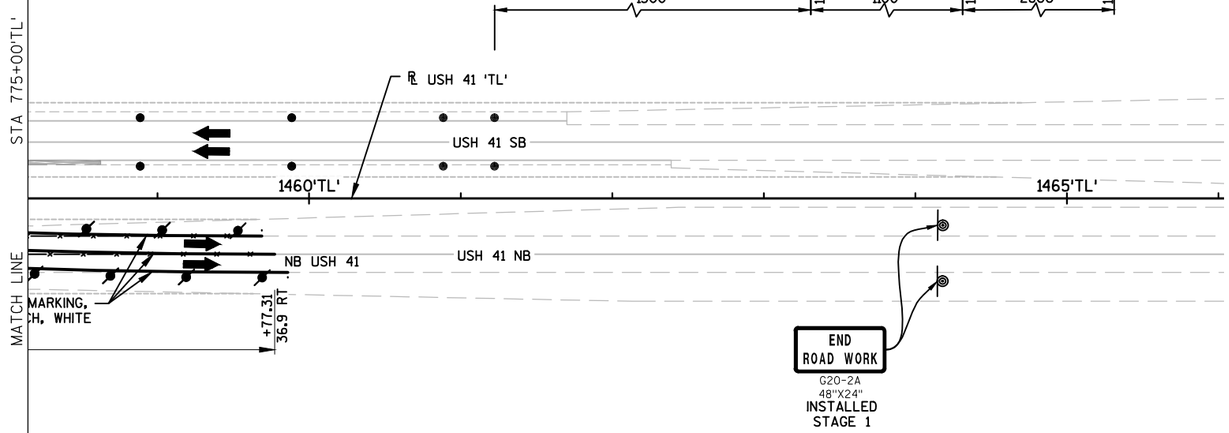
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	TRAFFIC CONTROL: USH 41 AT TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 4 (2/3)	SHEET 35	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\025001-TC4_LMSTNCRK.DWG PLOT DATE : 4/30/2019 10:54 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 025002-TC4-LMSTNCRK

2

N





SCALE, FEET 0 50 100

STAGE 4 - I-41 OVER TRIBUTARY TO EAST BRANCH ROCK RIVER, STRUCTURES B-66-17 (NB) B-66-22 (SB)

TRAFFIC CONTROL

NB AND SB TRAFFIC LANE SHIFT

1. 2 - LANES OF I-41 SB SHIFTED TO OUTSIDE SHOULDER OF NEW SB BRIDGE.
2. 2 - LANES OF I-41 NB USE THE MEDIAN CROSSOVERS AND THE INSIDE HALF OF THE NEW SB BRIDGE.

CONSTRUCTION

1. I-41 NB BRIDGE REPLACEMENT AND APPROACHES.
2. I-41 NB GUARDRAIL, LANDSCAPING AND FINISHING.

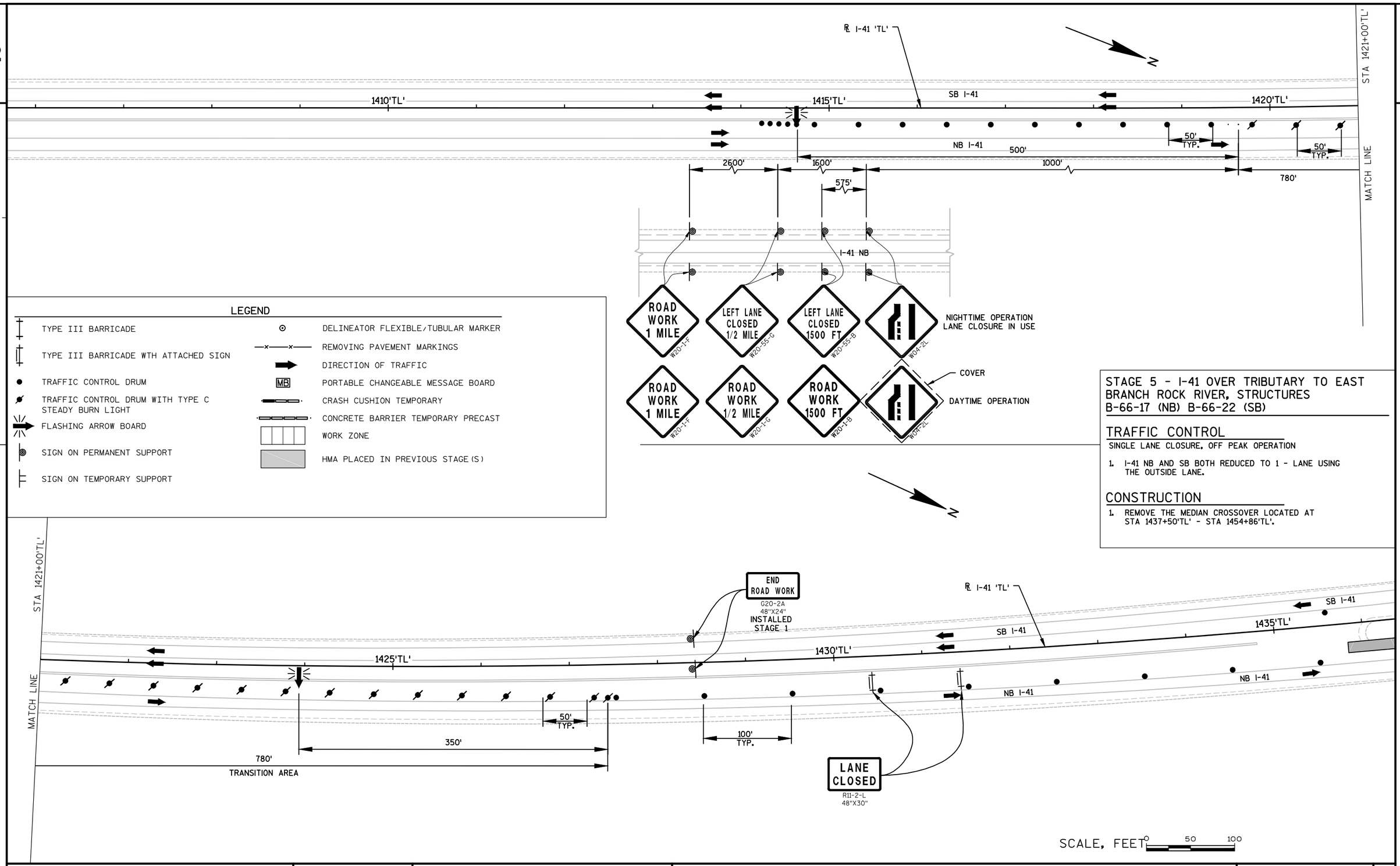
SCALE, FEET 0 500 1000

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- HMA PLACED IN PREVIOUS STAGE(S)

PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	TRAFFIC CONTROL: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 4 (3/3)	SHEET 36	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\025001-TC4_LMSTNCRK.DWG PLOT DATE : 4/14/2018 9:24 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 025003-TC4-LMSTNCRK



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- HMA PLACED IN PREVIOUS STAGE(S)

STAGE 5 - I-41 OVER TRIBUTARY TO EAST BRANCH ROCK RIVER, STRUCTURES B-66-17 (NB) B-66-22 (SB)

TRAFFIC CONTROL

SINGLE LANE CLOSURE, OFF PEAK OPERATION

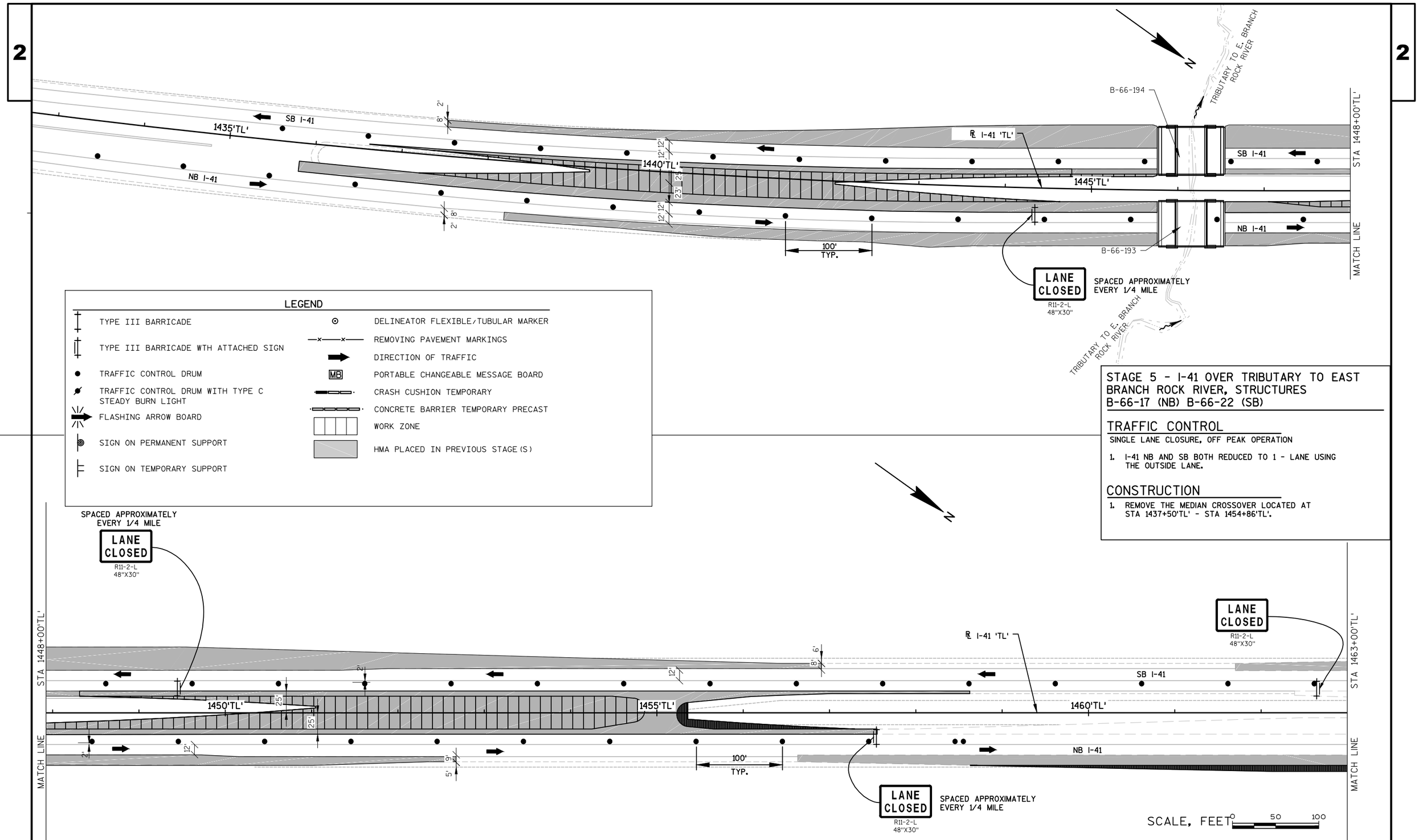
1. I-41 NB AND SB BOTH REDUCED TO 1 - LANE USING THE OUTSIDE LANE.

CONSTRUCTION

1. REMOVE THE MEDIAN CROSSOVER LOCATED AT STA 1437+50'TL' - STA 1454+86'TL'.

PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	TRAFFIC CONTROL: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 5 (1/3)	SHEET 37	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\025001-TC5_LMSTNCRK.DWG PLOT DATE : 4/16/2019 2:05 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 025001-TC5-LMSTNCRK



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- HMA PLACED IN PREVIOUS STAGE(S)

STAGE 5 - I-41 OVER TRIBUTARY TO EAST BRANCH ROCK RIVER, STRUCTURES B-66-17 (NB) B-66-22 (SB)

TRAFFIC CONTROL

SINGLE LANE CLOSURE, OFF PEAK OPERATION

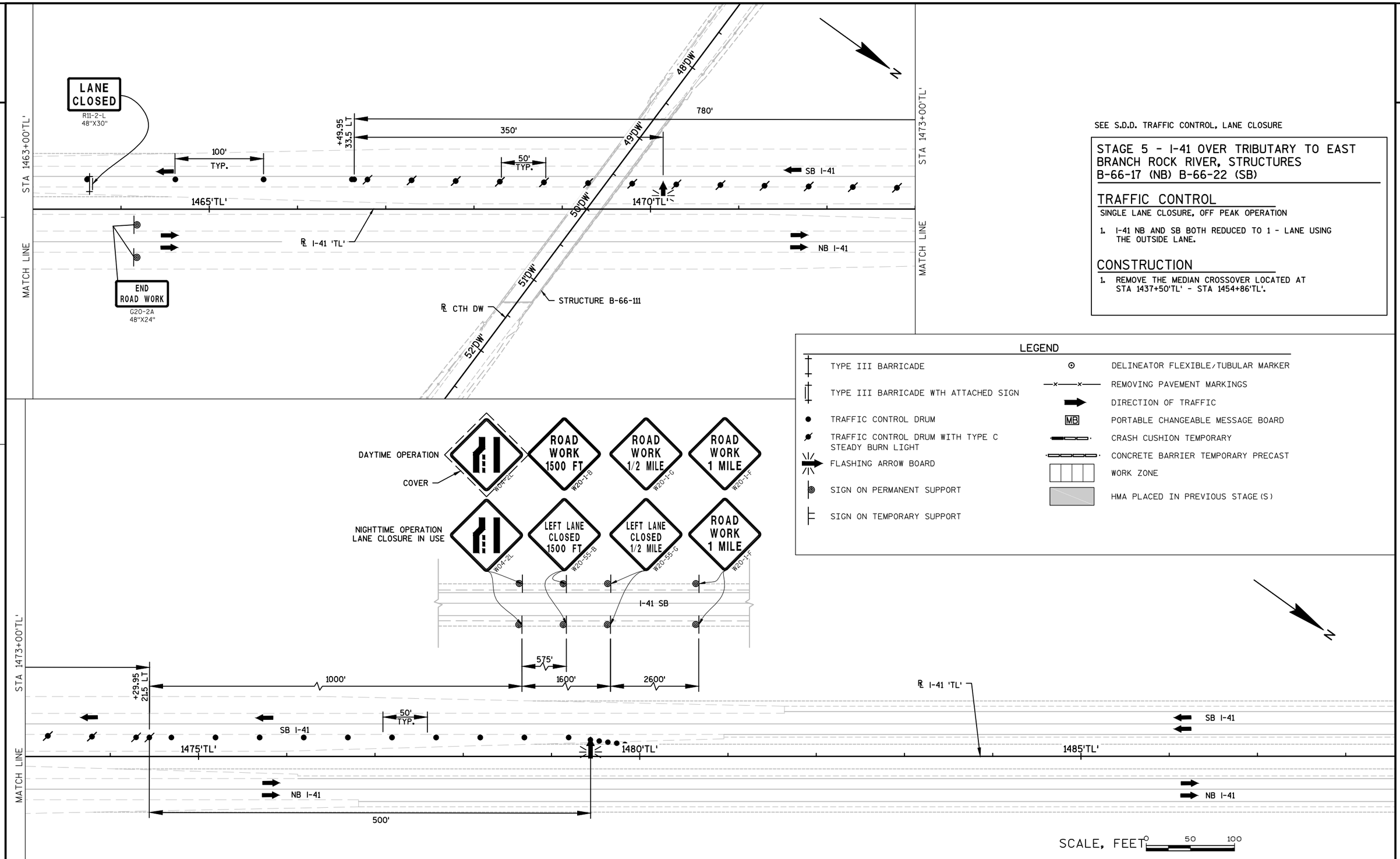
1. I-41 NB AND SB BOTH REDUCED TO 1 - LANE USING THE OUTSIDE LANE.

CONSTRUCTION

1. REMOVE THE MEDIAN CROSSOVER LOCATED AT STA 1437+50'TL' - STA 1454+86'TL'.

PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	TRAFFIC CONTROL: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 5 (2/3)	SHEET 38	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\025001-TC5_LMSTNCRK.DWG PLOT DATE : 4/16/2019 2:17 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 025002-TC5-LMSTNCRK



SEE S.D.D. TRAFFIC CONTROL, LANE CLOSURE

STAGE 5 - I-41 OVER TRIBUTARY TO EAST BRANCH ROCK RIVER, STRUCTURES B-66-17 (NB) B-66-22 (SB)

TRAFFIC CONTROL

SINGLE LANE CLOSURE, OFF PEAK OPERATION

1. I-41 NB AND SB BOTH REDUCED TO 1 - LANE USING THE OUTSIDE LANE.

CONSTRUCTION

1. REMOVE THE MEDIAN CROSSOVER LOCATED AT STA 1437+50'TL' - STA 1454+86'TL'.

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION TEMPORARY
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- HMA PLACED IN PREVIOUS STAGE(S)

SCALE, FEET 0 50 100

PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	TRAFFIC CONTROL: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 5 (3/3)	SHEET 39	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\025001-TC5_LMSTNCRK.DWG PLOT DATE : 4/16/2019 2:19 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 025003-TC5-LMSTNCRK

WISDOT/CADDS SHEET 42

2

CURVE 1-SB

PI STA = 1160+35.87'SB'
Y = 163925.848
X = 332145.910
DELTA = 3°03'23"
D = 0°30'02"
T = 305.35'
L = 610.55'
R = 11446.02'
PC STA = 1157+30.52'SB'
Y = 163646.295
X = 332268.746
PT STA = 1163+41.07'SB'
Y = 164198.453
X = 332008.345
BK = N23°43'14.6"W
AH = N26°46'37.2"W

CURVE 1-TL

PI STA = 1160+33.77'TL'
Y = 163936.515
X = 332168.530
DELTA = 3°03'23"
D = 0°29'58"
T = 306.02'
L = 611.89'
R = 11471.02'
PC STA = 1157+27.75'TL'
Y = 163656.352
X = 332291.634
PT STA = 1163+39.64'TL'
Y = 164209.716
X = 332030.664
BK = N23°43'14.6"W
AH = N26°46'37.2"W

CURVE 1-NB

PI STA = 1160+31.67'NB'
Y = 163947.183
X = 332191.150
DELTA = 3°03'23"
D = 0°29'54"
T = 306.68'
L = 613.22'
R = 11496.02'
PC STA = 1157+24.98'NB'
Y = 163666.409
X = 332314.522
PT STA = 1163+38.21'NB'
Y = 164220.979
X = 332052.983
BK = N23°43'14.6"W
AH = N26°46'37.2"W

CURVE 2-SB

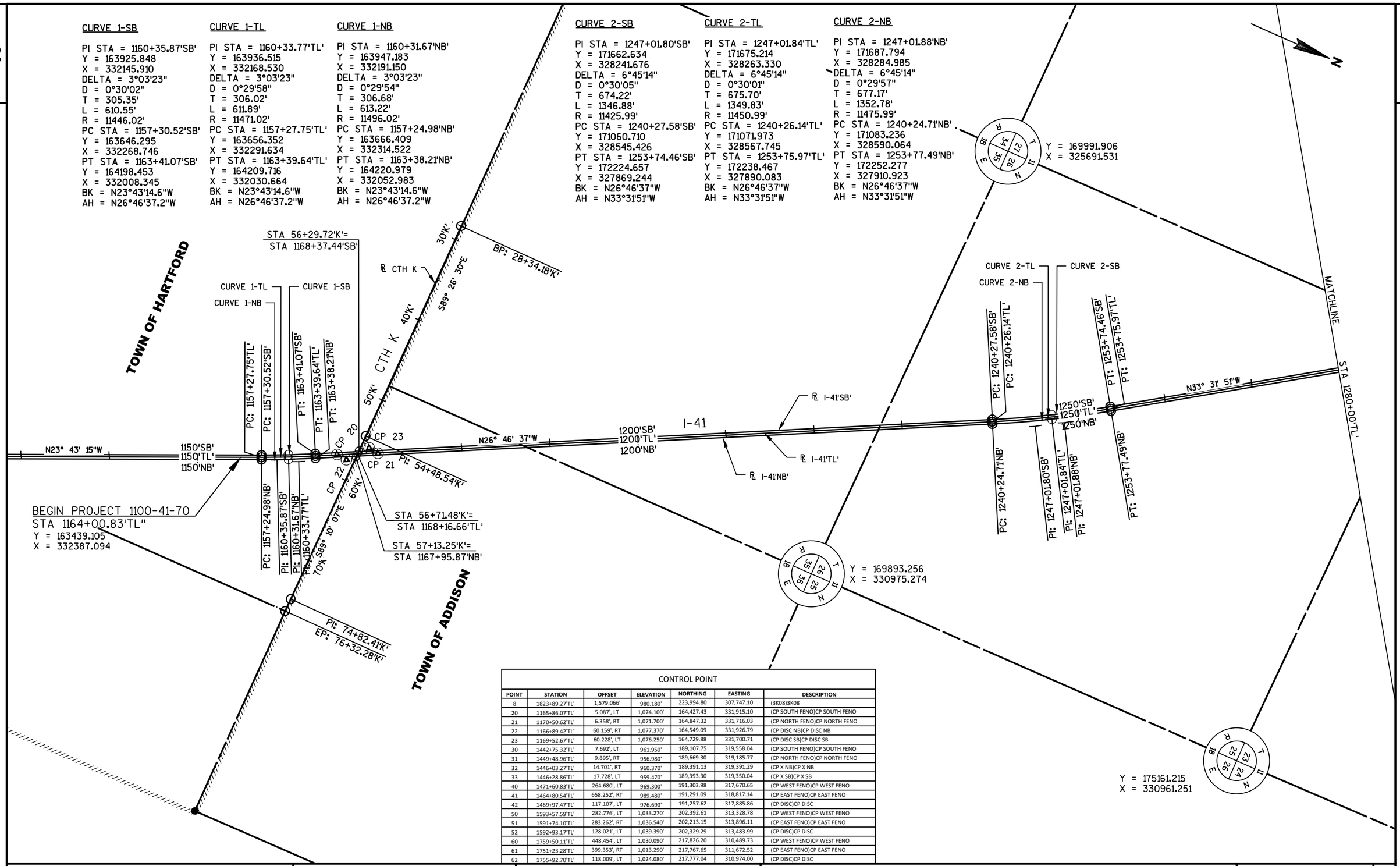
PI STA = 1247+01.80'SB'
Y = 171662.634
X = 328241.676
DELTA = 6°45'14"
D = 0°30'05"
T = 674.22'
L = 1346.88'
R = 11425.99'
PC STA = 1240+27.58'SB'
Y = 171060.710
X = 328545.426
PT STA = 1253+74.46'SB'
Y = 172224.657
X = 327869.244
BK = N26°46'37"W
AH = N33°31'51"W

CURVE 2-TL

PI STA = 1247+01.84'TL'
Y = 171675.214
X = 328263.330
DELTA = 6°45'14"
D = 0°30'01"
T = 675.70'
L = 1349.83'
R = 11450.99'
PC STA = 1240+26.14'TL'
Y = 171071.973
X = 328567.745
PT STA = 1253+75.97'TL'
Y = 172238.467
X = 327890.083
BK = N26°46'37"W
AH = N33°31'51"W

CURVE 2-NB

PI STA = 1247+01.88'NB'
Y = 171687.794
X = 328284.985
DELTA = 6°45'14"
D = 0°29'57"
T = 677.17'
L = 1352.78'
R = 11475.99'
PC STA = 1240+24.71'NB'
Y = 171083.236
X = 328590.064
PT STA = 1253+77.49'NB'
Y = 172252.277
X = 327910.923
BK = N26°46'37"W
AH = N33°31'51"W



CONTROL POINT

POINT	STATION	OFFSET	ELEVATION	NORTHING	EASTING	DESCRIPTION
8	1823+89.27'TL'	1,579.066'	980.180'	223,994.80	307,747.10	(3K08)3K08
20	1165+86.07'TL'	5.087', LT	1,074.100'	164,427.43	331,915.10	(CP SOUTH FENO)CP SOUTH FENO
21	1170+50.62'TL'	6.358', RT	1,071.700'	164,847.32	331,716.03	(CP NORTH FENO)CP NORTH FENO
22	1166+89.42'TL'	60.159', RT	1,077.370'	164,549.09	331,926.79	(CP DISC NB)CP DISC NB
23	1169+52.67'TL'	60.228', LT	1,076.250'	164,729.88	331,700.71	(CP DISC SB)CP DISC SB
30	1442+75.32'TL'	7.692', LT	961.950'	189,107.75	319,558.04	(CP SOUTH FENO)CP SOUTH FENO
31	1449+48.96'TL'	9.895', RT	956.980'	189,669.30	319,185.77	(CP NORTH FENO)CP NORTH FENO
32	1446+03.27'TL'	14.701', RT	960.370'	189,391.13	319,391.29	(CP X NB)CP X NB
33	1446+28.86'TL'	17.728', LT	959.470'	189,393.30	319,350.04	(CP X SB)CP X SB
40	1471+60.83'TL'	264.680', LT	969.300'	191,303.98	317,670.65	(CP WEST FENO)CP WEST FENO
41	1464+80.54'TL'	658.252', RT	989.480'	191,291.09	318,817.14	(CP EAST FENO)CP EAST FENO
42	1469+97.47'TL'	117.107', LT	976.690'	191,257.62	317,885.86	(CP DISC)CP DISC
50	1593+57.59'TL'	282.776', LT	1,033.270'	202,392.61	313,328.78	(CP WEST FENO)CP WEST FENO
51	1591+74.10'TL'	283.262', RT	1,036.540'	202,213.15	313,896.11	(CP EAST FENO)CP EAST FENO
52	1592+93.17'TL'	128.021', LT	1,039.390'	202,329.29	313,483.99	(CP DISC)CP DISC
60	1759+50.11'TL'	448.454', LT	1,030.090'	217,826.20	310,489.73	(CP WEST FENO)CP WEST FENO
61	1751+23.28'TL'	399.353', RT	1,013.290'	217,767.65	311,672.52	(CP EAST FENO)CP EAST FENO
62	1755+92.70'TL'	118.009', LT	1,024.080'	217,777.04	310,974.00	(CP DISC)CP DISC

PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	ALIGNMENT DETAIL	SHEET 40	E

2

Y = 174939.729
X = 320530.592

Y = 180589.353
X = 320337.146

Y = 175273.459
X = 325671.862

Y = 185938.446
X = 320268.361

Y = 180557.328
X = 325622.571

Y = 185831.533
X = 325560.405

TOWN OF ADDISON

I-41

N21° 23' 49"W

N33° 31' 51"W

MATCHLINE

MATCHLINE

STA 1280+00'TL'

STA 1430+00'TL'

CURVE 3-TL
CURVE 3-SB
CURVE 3-NB

PC: 1305+26.80'TL'
PC: 1305+25.28'SB'
PI: 1317+43.47'NB'
PI: 1317+45.76'SB'
PI: 1317+44.62'TL'
PT: 1329+53.33'TL'
PT: 1329+57.11'SB'
℄ I-41'SB'
1350'SB'
1350'TL'
1350'NB'
℄ I-41'NB'
℄ I-41'TL'
1300'SB'
1300'TL'
1300'NB'
PC: 1305+28.31'NB'
PT: 1329+49.55'NB'

CURVE 4-SB
CURVE 4-TL
CURVE 4-NB

PC: 1418+42.84'TL'
PC: 1418+46.86'SB'
PC: 1418+39.06'NB'
PI: 1425+97.82'NB'
PI: 1427+98.99'SB'
1400'SB'
1400'TL'
1400'NB'

CURVE 4-SB

PI STA = 1427+98.99'SB'
Y = 187832.315
X = 320305.731
DELTA = 7°24'22"
D = 0°23'22"
T = 952.14'
L = 1901.62'
R = 14711.35'
PC STA = 1418+46.86'SB'
Y = 186949.079
X = 320661.343
PT STA = 1437+48.48'SB'
Y = 188662.342
X = 319839.234
BK = N21°55'51"W
AH = N29°20'14"W

CURVE 4-TL

PI STA = 1432+85.75'TL'
Y = 188301.437
X = 320158.295
DELTA = 14°21'11"
D = 0°30'00"
T = 1442.91'
L = 2870.72'
R = 11459.62'
PC STA = 1418+42.84'TL'
Y = 186957.976
X = 320684.707
PT STA = 1447+13.56'TL'
Y = 189472.470
X = 319315.275
BK = N21°23'49"W
AH = N35°45'00"W

CURVE 4-NB

PI STA = 1425+97.82'NB'
Y = 187674.882
X = 320434.567
DELTA = 7°24'48"
D = 0°29'21"
T = 758.76'
L = 1515.40'
R = 11712.09'
PC STA = 1418+39.06'NB'
Y = 186967.096
X = 320707.984
PT STA = 1433+54.46'NB'
Y = 188341.472
X = 320072.112
BK = N21°07'17"W
AH = N28°32'06"W

CURVE 3-SB

PI STA = 1317+45.76'SB'
Y = 177535.693
X = 324349.817
DELTA = 12°08'03"
D = 0°29'56"
T = 1220.48'
L = 2431.82'
R = 11482.80'
PC STA = 1305+25.28'SB'
Y = 176518.318
X = 325023.993
PT STA = 1329+57.11'SB'
Y = 178672.049
X = 323904.555
BK = N33°31'51"W
AH = N21°23'49"W

CURVE 3-TL

PI STA = 1317+44.62'TL'
Y = 177547.287
X = 324372.124
DELTA = 12°08'03"
D = 0°30'00"
T = 1217.82'
L = 2426.53'
R = 11457.80'
PC STA = 1305+26.80'TL'
Y = 176532.128
X = 325044.833
PT STA = 1329+53.33'TL'
Y = 178681.170
X = 323927.832
BK = N33°31'51"W
AH = N21°23'49"W

CURVE 3-NB

PI STA = 1317+43.47'NB'
Y = 177558.882
X = 324394.432
DELTA = 12°08'03"
D = 0°30'04"
T = 1215.16'
L = 2421.24'
R = 11432.80'
PC STA = 1305+28.31'NB'
Y = 176545.938
X = 325065.673
PT STA = 1329+49.55'NB'
Y = 178690.291
X = 323951.109
BK = N33°31'51"W
AH = N21°23'49"W

PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	ALIGNMENT DETAIL	SHEET 41	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\027201_AD.DWG
LAYOUT NAME - 027201B_AD
PLOT DATE : 4/30/2018 2:59 PM
PLOT BY : BOBBY JONES
PLOT NAME :
PLOT SCALE : 1 IN:1000 FT

CURVE 5-SB

PI STA = 1439+20.78'SB'
Y = 188808.744
X = 319748.379
DELTA = 2°08'33"
D = 0°37'18"
T = 172.30'
L = 344.56'
R = 9214.93'
PC STA = 1437+48.48'SB'
Y = 188662.342
X = 319839.234
PT STA = 1440+93.04'SB'
Y = 188951.647
X = 319652.115
BK = N31°49'23"W
AH = N33°57'56"W

CURVE 4-TL

PI STA = 1432+85.75'TL'
Y = 188301.437
X = 320158.295
DELTA = 14°21'11"
D = 0°30'00"
T = 1442.91'
L = 2870.72'
R = 11459.62'
PC STA = 1418+42.84'TL'
Y = 186957.976
X = 320684.707
PT STA = 1447+13.56'TL'
Y = 189472.470
X = 319315.275
BK = N21°23'49"W
AH = N35°45'00"W

CURVE 5-NB

PI STA = 1437+23.38'NB'
Y = 188666.466
X = 319897.519
DELTA = 5°00'41"
D = 0°40'47"
T = 368.92'
L = 737.37'
R = 8430.29'
PC STA = 1433+54.46'NB'
Y = 188341.472
X = 320072.112
PT STA = 1440+91.83'NB'
Y = 188974.966
X = 319695.204
BK = N28°14'44"W
AH = N33°15'25"W

CURVE 6-SB

PI STA = 1443+33.63'SB'
Y = 189150.701
X = 319516.996
DELTA = 1°57'06"
D = 0°24'20"
T = 240.58'
L = 481.12'
R = 14123.95'
PC STA = 1440+93.04'SB'
Y = 188951.647
X = 319652.115
PT STA = 1445+74.16'SB'
Y = 189345.037
X = 319375.176
BK = N34°10'08"W
AH = N36°07'14"W

CURVE 6-NB

PI STA = 1443+35.58'NB'
Y = 189178.114
X = 319560.497
DELTA = 2°51'56"
D = 0°35'17"
T = 243.75'
L = 487.40'
R = 9745.48'
PC STA = 1440+91.83'NB'
Y = 188974.966
X = 319695.204
PT STA = 1445+79.24'NB'
Y = 189374.274
X = 319415.802
BK = N33°32'54"W
AH = N36°24'50"W

Y = 191307.946
X = 314973.850

CURVE 4-NB
CURVE 4-TL
CURVE 4-SB
CURVE 5-SB
CURVE 5-NB
CURVE 6-SB
CURVE 6-NB
MATCHLINE
STA 1430+00'TL'
PI: 1432+85.75'TL'
PCC: 1433+54.46'NB'
PCC: 1437+48.48'SB'
PCC: 1440+93.04'SB'
CP 30
PI: 1439+20.78'SB'
PCC: 1440+91.83'NB'
CP 33
PT: 1445+74.16'SB'
N35° 24' 10"W
PI: 1443+35.58'NB'
CP 32
PT: 1447+12.58'SB'
PT: 1445+79.24'NB'
PT: 1447+13.56'TL'
N35° 44' 40"W
1450'SB'
1450'TL'
1450'NB'
CP 31
S89° 19' 40"E
S88° 58' 00"E
STA 49+53.81'DW'=
STA 1469+54.30'SB'
STA 50+00.00'DW'=
STA 1469+27.61'TL'
CTH DW
BP: 37+03.31'DW'
40'DW'
45'DW'
50'DW'
55'DW'
CP 40
CP 42
PI: 45+43.20'DW'
PI: 52+00.00'DW'
STA 50+46.19'DW'=
STA 1469+04.06'NB'
CP 41
S88° 53' 10"E
EP: 58+95.99'DW'
R CTH DW
N35° 45' 00"W
N35° 44' 40"W
1500'SB'
1500'TL'
1500'NB'
I-41
R I-41'SB'
R I-41'TL'
R I-41'NB'
Y = 191231.379
X = 320190.570

PC: 1526+44.27'TL'
PC: 1526+43.30'SB'
PC: 1526+48.38'NB'
TOWN OF WAYNE
TOWN OF ADDISON
PI: 1545+15.85'SB'
PI: 1545+08.69'TL'
PI: 1545+04.66'NB'
1550'SB'
1550'TL'
1550'NB'
PT: 1562+49.27'TL'
PT: 1562+64.02'SB'
PT: 1562+37.64'NB'
CURVE 7-NB
CURVE 7-TL
CURVE 7-SB
N0° 18' 03"E
STA 1580+00'TL'
MATCHLINE

PI STA = 1545+15.85'SB'
Y = 197413.951
X = 313567.443
DELTA = 36°03'03"
D = 0°59'44"
T = 1872.55'
L = 3620.72'
R = 5754.43'
PC STA = 1526+43.30'SB'
Y = 195894.235
X = 314661.478
PT STA = 1562+64.02'SB'
Y = 199286.478
X = 313577.278
BK = N35°45'00"W
AH = N00°18'03"E

PI STA = 1545+08.69'TL'
Y = 197421.955
X = 313592.485
DELTA = 36°03'03"
D = 1°00'00"
T = 1864.42'
L = 3604.99'
R = 5729.43'
PC STA = 1526+44.27'TL'
Y = 195908.841
X = 314681.767
PT STA = 1562+49.27'TL'
Y = 199286.346
X = 313602.278
BK = N35°45'00"W
AH = N00°18'03"E

PI STA = 1545+04.66'NB'
Y = 197429.959
X = 313617.527
DELTA = 36°03'03"
D = 1°00'16"
T = 1856.28'
L = 3589.26'
R = 5704.43'
PC STA = 1526+48.38'NB'
Y = 195923.448
X = 314702.057
PT STA = 1562+37.64'NB'
Y = 199286.215
X = 313627.278
BK = N35°45'00"W
AH = N00°18'03"E

CONTROL POINT

POINT	STATION	OFFSET	ELEVATION	NORTHING	EASTING	DESCRIPTION
8	1823+89.27'TL'	1,579.066'	980.180'	223,994.80	307,747.10	(3K08)3K08
20	1165+86.07'TL'	5.087', LT	1,074.100'	164,427.43	331,915.10	(CP SOUTH FENO)CP SOUTH FENO
21	1170+50.62'TL'	6.358', RT	1,071.700'	164,847.32	331,716.03	(CP NORTH FENO)CP NORTH FENO
22	1166+89.42'TL'	60.159', RT	1,077.370'	164,549.09	331,926.79	(CP DISC NB)CP DISC NB
23	1169+52.67'TL'	60.228', LT	1,076.250'	164,729.88	331,700.71	(CP DISC SB)CP DISC SB
30	1442+75.32'TL'	7.692', LT	961.950'	189,107.75	319,558.04	(CP SOUTH FENO)CP SOUTH FENO
31	1449+48.96'TL'	9.895', RT	956.980'	189,669.30	319,185.77	(CP NORTH FENO)CP NORTH FENO
32	1446+03.27'TL'	14.701', RT	960.370'	189,391.13	319,391.29	(CP X NB)CP X NB
33	1446+28.86'TL'	17.728', LT	959.470'	189,393.30	319,350.04	(CP X SB)CP X SB
40	1471+60.83'TL'	264.680', LT	969.300'	191,303.98	317,670.65	(CP WEST FENO)CP WEST FENO
41	1464+80.54'TL'	658.252', RT	989.480'	191,291.09	318,817.14	(CP EAST FENO)CP EAST FENO
42	1469+97.47'TL'	117.107', LT	976.690'	191,257.62	317,885.86	(CP DISC)CP DISC
50	1593+57.59'TL'	282.776', LT	1,033.270'	202,392.61	313,328.78	(CP WEST FENO)CP WEST FENO
51	1591+74.10'TL'	283.262', RT	1,036.540'	202,213.15	313,896.11	(CP EAST FENO)CP EAST FENO
52	1592+93.17'TL'	128.021', LT	1,039.390'	202,329.29	313,483.99	(CP DISC)CP DISC
60	1759+50.11'TL'	448.454', LT	1,030.090'	217,826.20	310,489.73	(CP WEST FENO)CP WEST FENO
61	1751+23.28'TL'	399.353', RT	1,013.290'	217,767.65	311,672.52	(CP EAST FENO)CP EAST FENO
62	1755+92.70'TL'	118.009', LT	1,024.080'	217,777.04	310,974.00	(CP DISC)CP DISC

2

2

N

Y = 201899.780
X = 309538.735

Y = 207199.110
X = 309497.122

Y = 212499.269
X = 309508.614

TOWN OF WAYNE

CURVE 1-D

PI STA = 23+50.00'D'
Y = 203154.696
X = 311957.434
DELTA = 25°10'27"
D = 5°00'00"
T = 255.87'
L = 503.49'
R = 1145.92'
PC STA = 20+94.13'D'
Y = 203163.922
X = 311701.728
PT STA = 25+97.61'D'
Y = 203037.577
X = 312184.928
BK = S87°56'01"E
AH = S62°45'34"E

CURVE 2-D

PI STA = 52+24.67'D'
Y = 201835.100
X = 314520.626
DELTA = 26°03'36"
D = 2°45'00"
T = 482.16'
L = 947.64'
R = 2083.48'
PC STA = 47+42.51'D'
Y = 202055.798
X = 314091.942
PT STA = 56+90.15'D'
Y = 201825.167
X = 315002.682
BK = S62°45'34"E
AH = S88°49'10"E

BP: 19+00.00'D'
PC: 20+94.13'D'
S87° 56' 00"E
PI: 23+50.00'D'
PT: 25+97.61'D'
20'D'
30'D'
40'D'
50'D'
CTH D
℄ CTH DW
CP 50
CP 52
CP 51
S62° 45' 30"E
PC: 47+42.51'D'
PT: 56+90.15'D'
EP: 58+75.06'D'
S88° 49' 10"E

Y = 201806.470
X = 314841.840

STA 1580+00'TL'

PI: 1587+75.92'NB'

PI: 1614+57.95'TL'
PI: 1614+72.48'SB'
PI: 1614+46.56'NB'

PI: 1641+20.10'TL'
PI: 1641+34.76'SB'
PI: 1641+08.57'NB'

Y = 207129.554
X = 314820.072

PI: 1667+75.01'TL'
PI: 1667+89.72'SB'
PI: 1667+63.43'NB'

Y = 212436.401
X = 314838.169

PC: 1697+43.64'TL'
PC: 1697+58.34'SB'
PC: 1697+32.07'NB'

MATCHLINE

CURVE 8-SB
CURVE 8-TL
CURVE 8-NB

STA 1730+00'TL'

PI: 1719+26.86'SB'
PI: 1719+21.66'TL'
PI: 1719+19.60'NB'

NO° 18' 03"E
NO° 24' 29"W
NO° 02' 16"W
NO° 12' 04"E
NO° 10' 54"E

1600'SB'
1600'TL'
1600'NB'
1650'SB'
1650'TL'
1650'NB'
1700'SB'
1700'TL'
1700'NB'

I-41

℄ I-41'SB'
℄ I-41'TL'
℄ I-41'NB'

MATCHLINE

CONTROL POINT

POINT	STATION	OFFSET	ELEVATION	NORTHING	EASTING	DESCRIPTION
8	1823+89.27'TL'	1,579.066'	980.180'	223,994.80	307,747.10	(3K08)3K08
20	1165+86.07'TL'	5.087', LT	1,074.100'	164,427.43	331,915.10	(CP SOUTH FENO)CP SOUTH FENO
21	1170+50.62'TL'	6.358', RT	1,071.700'	164,847.32	331,716.03	(CP NORTH FENO)CP NORTH FENO
22	1166+89.42'TL'	60.159', RT	1,077.370'	164,549.09	331,926.79	(CP DISC NB)CP DISC NB
23	1169+52.67'TL'	60.228', LT	1,076.250'	164,729.88	331,700.71	(CP DISC SB)CP DISC SB
30	1442+75.32'TL'	7.692', LT	961.950'	189,107.75	319,558.04	(CP SOUTH FENO)CP SOUTH FENO
31	1449+48.96'TL'	9.895', RT	956.980'	189,669.30	319,185.77	(CP NORTH FENO)CP NORTH FENO
32	1446+03.27'TL'	14.701', RT	960.370'	189,391.13	319,391.29	(CP X NB)CP X NB
33	1446+28.86'TL'	17.728', LT	959.470'	189,393.30	319,350.04	(CP X SB)CP X SB
40	1471+60.83'TL'	264.680', LT	969.300'	191,303.98	317,670.65	(CP WEST FENO)CP WEST FENO
41	1464+80.54'TL'	658.252', RT	989.480'	191,291.09	318,817.14	(CP EAST FENO)CP EAST FENO
42	1469+97.47'TL'	117.107', LT	976.690'	191,257.62	317,885.86	(CP DISC)CP DISC
50	1593+57.59'TL'	282.776', LT	1,033.270'	202,392.61	313,328.78	(CP WEST FENO)CP WEST FENO
51	1591+74.10'TL'	283.262', RT	1,036.540'	202,213.15	313,896.11	(CP EAST FENO)CP EAST FENO
52	1592+93.17'TL'	128.021', LT	1,039.390'	202,329.29	313,483.99	(CP DISC)CP DISC
60	1759+50.11'TL'	448.454', LT	1,030.090'	217,826.20	310,489.73	(CP WEST FENO)CP WEST FENO
61	1751+23.28'TL'	399.353', RT	1,013.290'	217,767.65	311,672.52	(CP EAST FENO)CP EAST FENO
62	1755+92.70'TL'	118.009', LT	1,024.080'	217,777.04	310,974.00	(CP DISC)CP DISC

CURVE 8-SB

PI STA = 1719+26.86'SB'
Y = 214949.174
X = 313595.425
DELTA = 41°37'48"
D = 1°00'16"
T = 2168.52'
L = 4144.55'
R = 5704.20'
PC STA = 1697+58.34'SB'
Y = 212780.662
X = 313588.553
PT STA = 1739+02.89'SB'
Y = 216574.597
X = 312159.985
BK = N00°10'54"E
AH = N41°26'54"W

CURVE 8-TL

PI STA = 1719+21.66'TL'
Y = 214958.599
X = 313620.455
DELTA = 41°37'48"
D = 1°00'00"
T = 2178.03'
L = 4162.71'
R = 5729.20'
PC STA = 1697+43.64'TL'
Y = 212780.583
X = 313613.553
PT STA = 1739+06.35'TL'
Y = 216591.146
X = 312178.724
BK = N00°10'54"E
AH = N41°26'54"W

CURVE 8-NB

PI STA = 1719+19.60'NB'
Y = 214968.024
X = 313645.485
DELTA = 41°37'48"
D = 0°59'45"
T = 2187.53'
L = 4180.87'
R = 5754.20'
PC STA = 1697+32.07'NB'
Y = 212780.504
X = 313638.553
PT STA = 1739+12.94'NB'
Y = 216607.695
X = 312197.462
BK = N00°10'54"E
AH = N41°26'54"W

PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	ALIGNMENT DETAIL	SHEET 43	E

2

N

Y = 217789.708
X = 304722.516

STA 50+49.61'H'=
STA 1754+79.76'NB'

STA 50+00.00'H'=
STA 1755+06.23'TL'

STA 49+50.39'H'=
STA 1755+35.83'SB'

Y = 217797.382
X = 309575.949

Y = 223096.945
X = 304750.026

TOWN OF WAYNE

STA 1730+00'TL'

PT: 1739+06.35'TL'

PT: 1739+02.89'SB'

I-41 1750'SB'
1750'TL'
1750'NB'

CP 60

45°H'

BP: 41+36.39'H'

℄ 'H'

CP 62

CP 61

55°H'

589° 39' 18"E

N41° 26' 54"W

EP: 1790+06.59'NB'

1800'TL'

1850'TL'

EP: 1851+25.96'TL'

℄ I-41'SB'

℄ I-41'TL'

℄ I-41'NB'

MATCHLINE

PT: 1739+12.94'NB'

CURVE 8-SB
CURVE 8-TL
CURVE 8-NB

MOHAWK ROAD

EP: 57+95.39'H'

END PROJECT 1100-41-70
STA 1757+66.84'TL'

CP 8

Y = 223103.072
X = 309681.883

Y = 217750.930
X = 314893.464

CONTROL POINT

POINT	STATION	OFFSET	ELEVATION	NORTHING	EASTING	DESCRIPTION
8	1823+89.27'TL'	1,579.066',	980.180'	223,994.80	307,747.10	(3K08)3K08
20	1165+86.07'TL'	5.087', LT	1,074.100'	164,427.43	331,915.10	(CP SOUTH FENO)CP SOUTH FENO
21	1170+50.62'TL'	6.358', RT	1,071.700'	164,847.32	331,716.03	(CP NORTH FENO)CP NORTH FENO
22	1166+89.42'TL'	60.159', RT	1,077.370'	164,549.09	331,926.79	(CP DISC NB)CP DISC NB
23	1169+52.67'TL'	60.228', LT	1,076.250'	164,729.88	331,700.71	(CP DISC SB)CP DISC SB
30	1442+75.32'TL'	7.692', LT	961.950'	189,107.75	319,558.04	(CP SOUTH FENO)CP SOUTH FENO
31	1449+48.96'TL'	9.895', RT	956.980'	189,669.30	319,185.77	(CP NORTH FENO)CP NORTH FENO
32	1446+03.27'TL'	14.701', RT	960.370'	189,391.13	319,391.29	(CP X NB)CP X NB
33	1446+28.86'TL'	17.728', LT	959.470'	189,393.30	319,350.04	(CP X SB)CP X SB
40	1471+60.83'TL'	264.680', LT	969.300'	191,303.98	317,670.65	(CP WEST FENO)CP WEST FENO
41	1464+80.54'TL'	658.252', RT	989.480'	191,291.09	318,817.14	(CP EAST FENO)CP EAST FENO
42	1469+97.47'TL'	117.107', LT	976.690'	191,257.62	317,885.86	(CP DISC)CP DISC
50	1593+57.59'TL'	282.776', LT	1,033.270'	202,392.61	313,328.78	(CP WEST FENO)CP WEST FENO
51	1591+74.10'TL'	283.262', RT	1,036.540'	202,213.15	313,896.11	(CP EAST FENO)CP EAST FENO
52	1592+93.17'TL'	128.021', LT	1,039.390'	202,329.29	313,483.99	(CP DISC)CP DISC
60	1759+50.11'TL'	448.454', LT	1,030.090'	217,826.20	310,489.73	(CP WEST FENO)CP WEST FENO
61	1751+23.28'TL'	399.353', RT	1,013.290'	217,767.65	311,672.52	(CP EAST FENO)CP EAST FENO
62	1755+92.70'TL'	118.009', LT	1,024.080'	217,777.04	310,974.00	(CP DISC)CP DISC

1100-41-70

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	2.000	2.000
0004	201.0205	Grubbing	STA	2.000	2.000
0008	203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) 01. 1446'NB'+19	LS	1.000	1.000
0010	203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) 02. 1446'SB'+14	LS	1.000	1.000
0012	204.0100	Removing Pavement	SY	4,280.000	4,280.000
0016	204.0165	Removing Guardrail	LF	1,514.000	1,514.000
0024	205.0100	Excavation Common	CY	11,316.000	11,316.000
0026	206.1000	Excavation for Structures Bridges (structure) 01. B-66-17	LS	1.000	1.000
0028	206.1000	Excavation for Structures Bridges (structure) 02. B-66-193	LS	1.000	1.000
0030	206.1000	Excavation for Structures Bridges (structure) 03. B-66-194	LS	1.000	1.000
0032	208.0100	Borrow	CY	8,026.000	8,026.000
0034	210.1500	Backfill Structure Type A	TON	780.000	780.000
0036	213.0100	Finishing Roadway (project) 01. 1100-41-70	EACH	1.000	1.000
0040	305.0110	Base Aggregate Dense 3/4-Inch	TON	557.000	557.000
0042	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	10,070.000	10,070.000
0046	311.0110	Breaker Run	TON	11,920.000	11,920.000
0050	415.0410	Concrete Pavement Approach Slab	SY	254.000	254.000
0052	416.0610	Drilled Tie Bars	EACH	15.000	15.000
0056	416.1010	Concrete Surface Drains	CY	17.000	17.000
0058	450.4000	HMA Cold Weather Paving	TON	2,421.000	2,421.000
0060	455.0605	Tack Coat	GAL	996.000	996.000
0066	460.2000	Incentive Density HMA Pavement	DOL	3,586.000	3,586.000
0072	460.7223	HMA Pavement 3 HT 58-28 S	TON	2,792.000	2,792.000
0074	460.7423	HMA Pavement 3 HT 58-28 H	TON	945.000	945.000
0076	460.7424	HMA Pavement 4 HT 58-28 H	TON	1,857.000	1,857.000
0080	465.0125	Asphaltic Surface Temporary	TON	1,730.000	1,730.000
0082	465.0400	Asphaltic Shoulder Rumble Strips	LF	10,040.000	10,040.000
0084	502.0100	Concrete Masonry Bridges	CY	799.000	799.000
0086	502.3200	Protective Surface Treatment	SY	980.000	980.000
0088	502.3210	Pigmented Surface Sealer	SY	160.000	160.000
0090	502.4105	Adhesive Anchors 5/8-inch	EACH	24.000	24.000
0092	502.4205	Adhesive Anchors No. 5 Bar	EACH	10.000	10.000
0094	503.0128	Prestressed Girder Type I 28-Inch	LF	468.000	468.000
0096	505.0400	Bar Steel Reinforcement HS Structures	LB	19,380.000	19,380.000
0098	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	92,030.000	92,030.000
0100	505.0800.S	Bar Steel Reinforcement HS Stainless Structures	LB	3,850.000	3,850.000

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Line	Item	Item Description	Unit	Total	Qty
0102	506.0105	Structural Steel Carbon	LB	1,870.000	1,870.000
0104	506.0605	Structural Steel HS	LB	4,060.000	4,060.000
0106	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	28.000	28.000
0108	506.3015	Welded Stud Shear Connectors 7/8x6-Inch	EACH	28.000	28.000
0110	506.4000	Steel Diaphragms (structure) 01. B-66-193	EACH	5.000	5.000
0112	506.4000	Steel Diaphragms (structure) 02. B-66-194	EACH	5.000	5.000
0114	511.1200	Temporary Shoring (structure) 01. B-66-17	SF	190.000	190.000
0116	512.1000	Piling Steel Sheet Temporary	SF	250.000	250.000
0118	516.0500	Rubberized Membrane Waterproofing	SY	70.000	70.000
0120	520.1015	Apron Endwalls for Culvert Pipe 15-Inch	EACH	2.000	2.000
0122	520.2015	Culvert Pipe Temporary 15-Inch	LF	490.000	490.000
0132	550.0020	Pre-Boring Rock or Consolidated Materials	LF	5.000	5.000
0134	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	1,820.000	1,820.000
0136	603.8000	Concrete Barrier Temporary Precast Delivered	LF	2,980.000	2,980.000
0138	603.8125	Concrete Barrier Temporary Precast Installed	LF	7,970.000	7,970.000
0140	606.0300	Riprap Heavy	CY	360.000	360.000
0152	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	450.000	450.000
0162	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	8.000	8.000
0166	614.0905	Crash Cushions Temporary	EACH	10.000	10.000
0168	614.2300	MGS Guardrail 3	LF	662.500	662.500
0170	614.2500	MGS Thrie Beam Transition	LF	157.600	157.600
0172	614.2610	MGS Guardrail Terminal EAT	EACH	2.000	2.000
0178	619.1000	Mobilization	EACH	0.120	0.120
0180	624.0100	Water	MGAL	99.000	99.000
0184	625.0500	Salvaged Topsoil	SY	25,835.000	25,835.000
0186	627.0200	Mulching	SY	23,473.000	23,473.000
0188	628.1104	Erosion Bales	EACH	349.000	349.000
0190	628.1504	Silt Fence	LF	2,250.000	2,250.000
0192	628.1520	Silt Fence Maintenance	LF	5,125.000	5,125.000
0194	628.1905	Mobilizations Erosion Control	EACH	10.000	10.000
0196	628.1910	Mobilizations Emergency Erosion Control	EACH	10.000	10.000
0198	628.2004	Erosion Mat Class I Type B	SY	25,823.000	25,823.000
0200	628.2006	Erosion Mat Urban Class I Type A	SY	810.000	810.000
0202	628.2008	Erosion Mat Urban Class I Type B	SY	839.000	839.000
0204	628.6005	Turbidity Barriers	SY	300.000	300.000
0206	628.6510	Soil Stabilizer Type B	ACRE	5.000	5.000
0208	628.7005	Inlet Protection Type A	EACH	3.000	3.000
0212	628.7504	Temporary Ditch Checks	LF	438.000	438.000
0216	628.7570	Rock Bags	EACH	7.000	7.000
0218	629.0210	Fertilizer Type B	CWT	16.300	16.300

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Line	Item	Item Description	Unit	Total	Qty
0220	630.0130	Seeding Mixture No. 30	LB	323.000	323.000
0222	630.0200	Seeding Temporary	LB	106.000	106.000
0224	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0226	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	2.000	2.000
0232	637.2210	Signs Type II Reflective H	SF	20.000	20.000
0234	637.2230	Signs Type II Reflective F	SF	19.500	19.500
0236	638.2102	Moving Signs Type II	EACH	2.000	2.000
0238	638.2602	Removing Signs Type II	EACH	4.000	4.000
0240	638.3000	Removing Small Sign Supports	EACH	4.000	4.000
0242	643.0300	Traffic Control Drums	DAY	34,621.000	34,621.000
0244	643.0420	Traffic Control Barricades Type III	DAY	747.000	747.000
0246	643.0705	Traffic Control Warning Lights Type A	DAY	1,522.000	1,522.000
0248	643.0715	Traffic Control Warning Lights Type C	DAY	25,627.000	25,627.000
0250	643.0800	Traffic Control Arrow Boards	DAY	84.000	84.000
0252	643.0900	Traffic Control Signs	DAY	9,857.000	9,857.000
0262	643.5000	Traffic Control	EACH	0.120	0.120
0264	645.0111	Geotextile Type DF Schedule A	SY	320.000	320.000
0266	645.0120	Geotextile Type HR	SY	790.000	790.000
0268	646.1020	Marking Line Epoxy 4-Inch	LF	8,390.000	8,390.000
0272	646.1545	Marking Line Grooved Wet Ref Contrast Epoxy 4-Inch	LF	1,086.000	1,086.000
0288	646.9010	Marking Removal Line Water Blasting 4-Inch	LF	11,363.000	11,363.000
0292	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	32,440.000	32,440.000
0294	649.0770	Temporary Marking Raised Pavement Marker Type II	EACH	328.000	328.000
0296	650.4500	Construction Staking Subgrade	LF	8,030.000	8,030.000
0298	650.5000	Construction Staking Base	LF	8,030.000	8,030.000
0300	650.6000	Construction Staking Pipe Culverts	EACH	2.000	2.000
0302	650.6500	Construction Staking Structure Layout (structure) 01. B-66-17	LS	1.000	1.000
0304	650.6500	Construction Staking Structure Layout (structure) 02. B-66-193	LS	1.000	1.000
0306	650.6500	Construction Staking Structure Layout (structure) 03. B-66-194	LS	1.000	1.000
0308	650.7000	Construction Staking Concrete Pavement	LF	60.000	60.000
0310	650.9910	Construction Staking Supplemental Control (project) 01. 1100-41-70	LS	1.000	1.000
0312	650.9920	Construction Staking Slope Stakes	LF	10,310.000	10,310.000
0314	652.0125	Conduit Rigid Metallic 2-Inch	LF	24.000	24.000
0316	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	134.000	134.000
0318	653.0220	Junction Boxes 18x6x6-Inch	EACH	4.000	4.000
0320	690.0150	Sawing Asphalt	LF	12,240.000	12,240.000
0322	690.0250	Sawing Concrete	LF	96.000	96.000

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Line	Item	Item Description	Unit	Total	Qty
0324	715.0415	Incentive Strength Concrete Pavement	DOL	500.000	500.000
0326	715.0502	Incentive Strength Concrete Structures	DOL	5,096.000	5,096.000
0336	SPV.0060	Special 01. Field Facilities Office Space	EACH	0.120	0.120
0352	SPV.0060	Special 09. Baseline CPM Progress Schedule	EACH	0.120	0.120
0354	SPV.0060	Special 10. Monthly CPM Progress Schedule Update	EACH	10.000	10.000
0356	SPV.0090	Special 01. Temporary Drain Slotted Vane	LF	582.000	582.000
0358	SPV.0090	Special 02. Removing Existing Timber Piling	LF	90.000	90.000
0360	SPV.0090	Special 03. Heavy Duty Silt Fence	LF	2,875.000	2,875.000
0362	SPV.0090	Special 04. Glare Screen	LF	2,498.000	2,498.000
0364	SPV.0105	Special 01. Partially Rem. Old Structure over Waterway with Min. Debris Sta. 1446'NB'+19	LS	1.000	1.000
0372	SPV.0195	Special 01. Excavation, Hauling, and Disposal of Creosote Contaminated Soil	TON	5.000	5.000

CLEARING AND GRUBBING ITEMS

CATEGORY	STAGE	ROADWAY	STATION	-	STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
0010	3	I-41						
			1444+00	-	1446+00	SB - LT	2	2
						SUBTOTAL	2	2
			TOTALS				2	2

REMOVAL ITEMS

204.0100 204.0165

CATEGORY	STAGE	ROADWAY	STATION	-	STATION	LOCATION	REMOVING PAVEMENT SY	REMOVING GUARDRAIL LF
0010	1	I-41						
			1433+54	-	1458+62	TRIBUTARY	--	863
						SUBTOTAL	--	863
	2	I-41						
			1433+54	-	1458+62	TRIBUTARY	--	370
						SUBTOTAL	--	370
	3	I-4						
			1433+54	-	1458+62	TRIBUTARY	2,050	281
						SUBTOTAL	2,050	281
	4	I-41						
			1433+54	-	1458+62	TRIBUTARY	2,230	--
						SUBTOTAL	2,230	--
	5	I-41						
			1433+54	-	1458+62	TRIBUTARY	--	--
						SUBTOTAL	--	--
			TOTALS				4,280	1,514

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EARTHWORK SUMMARY

Category	Stage	From/To Station	Location	205.0100 Common Excavation (CY) (1) Cut	205.0100 Common Excavation (CY) (1) EBS (3)	Salvaged/ Unusable Pavement Material (2)	Available Material (5)	Reduced EBS in Fill (9) Factor 0.80	208.0100 Borrow Expanded EBS Backfill (11) Factor 1.30	Unexpanded Fill	Expanded Fill Factor 1.25	Mass Ordinate +/- (14)	Waste	Borrow (Item #208.0100)
0010	1	1435+82 to 1458+62	TRIBUTARY	2,530	3,540	--	2,530	2,832	4,602	1,110	-2,153	4,683	4,683	--
0010	2	1433+55 to 1452+67	TRIBUTARY	1,060	261	--	1,060	209	339	625	520	540	540	--
0010	3	1437+50 to 1456+91	TRIBUTARY	1,690	366	618	1,072	293	476	2,550	2,821	-1,749	--	1,749
0010	4	1441+48 to 1450+86	TRIBUTARY	776	--	626	150	--	--	1,460	1,825	-1,675	--	1,675
0010	5	1435+95 to 1457+55	TRIBUTARY	1,720	--	--	1,720	--	--	216	270	1,450	1,450	--
		Subtotals		**7,776**	**3,540**				**4,602**					**3,424**
		Grand Totals		**11,316**							**8,026**			

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
2) Salvaged/Unsuable Pavement Material is included in Cut.
3) EBS Excavation is undistributed and estimated to be 1 foot deep under proposed pavement widening areas.
5) Available Material = Cut - Salvaged/Unusuable Pavement Material
9) Reduced EBS in Fill - Excavated EBS material is usuable in Fills outside the 1:1 slope.
11) Expanded EBS Backfill - This is to be filled with Borrow material.
14) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

BASE AGGREGATE DENSE

CATEGORY	STAGE	ROADWAY	STATION	-	STATION	LOCATION	305.0110 3/4-INCH TON	305.0120 1 1/4-INCH TON	311.0110 BREAKER RUN TON	624.0100 WATER MGAL
0010	1	I-41								
			1433+54	-	1458+62	TRIBUTARY	211	4,240	6,790	45
						SUBTOTAL	211	4,240	6,790	45
	2	I-41								
			1433+54	-	1458+62	TRIBUTARY	--	1,390	1,390	14
						SUBTOTAL	--	1,390	1,390	14
	3	I-41								
			1433+54	-	1458+62	TRIBUTARY	30	2,190	2,190	22
						SUBTOTAL	30	2,190	2,190	22
	4	I-41								
			1433+54	-	1458+62	TRIBUTARY	39	1,550	1,550	16
						SUBTOTAL	39	1,550	1,550	16
	5	I-41								
			1433+54	-	1458+62	TRIBUTARY	276	--	--	3
						SUBTOTAL	276	--	--	3
TOTALS							557	9,370	11,920	99

CONCRETE ITEMS

CATEGORY	STAGE	ROADWAY	STATION	-	STATION	LOCATION	415.0410 PAVEMENT APPROACH SLAB SY	416.0610 DRILLED TIES BARS EACH	416.1010 CONCRETE SURFACE DRAINS CY
0010	3	I-4							
			1433+54	-	1458+62	TRIBUTARY	129	8	9
						SUBTOTAL	129	8	9
	4	I-41							
			1433+54	-	1458+62	TRIBUTARY	124	7	8
						SUBTOTAL	124	7	8
TOTALS							254	15	17

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ASPHALTIC ITEMS

CATEGORY	STAGE	ROADWAY	STATION	-	STATION	LOCATION	455.0605 TACK COAT GAL	450.4000 HMA COLD WEATHER PAVING TON	460.7223 HMA PAVEMENT 3 HT 58-28 S TON	460.7423 HMA PAVEMENT 3 HT 58-28 H TON	460.7424 HMA PAVEMENT 4 HT 58-28 H TON	460.2000 INCENTIVE DENSITY HMA PAVEMENT DOL	465.0125 ASPHALTIC SURFACE TEMPORARY TON	465.0400 ASPHALTIC SHOULDER RUMBLE STRIPS LF
0010	1	I-41												
			1433+54	-	1458+62	TRIBUTARY	369	1,720	1,040	--	688	1,110	1,730	--
						SUBTOTAL	369	1,720	1,040	--	688	1,110	1,730	--
	2	I-41												
			1433+54	-	1458+62	TRIBUTARY	151	701	421	--	281	450	--	--
						SUBTOTAL	151	701	421	--	281	450	--	--
	3	I-4												
			1433+54	-	1458+62	TRIBUTARY - SHOULDERS	163	--	457	--	305	488	--	5,020
			1433+54	-	1458+62	TRIBUTARY - MAINLINE	120	--	335	447	224	644	--	--
						SUBTOTAL	283	--	792	447	529	1,132	--	5,020
	4	I-41												
			1433+54	-	1458+62	TRIBUTARY - SHOULDERS	59	--	165	--	110	176	--	5,020
			1433+54	-	1458+62	TRIBUTARY - MAINLINE	134	--	374	498	249	718	--	--
						SUBTOTAL	193	--	539	498	359	894	--	5,020
TOTALS							996	2,421	2,792	945	1,857	3,586	1,730	10,040

3

DRAINAGE ITEMS

CATEGORY	STAGE	ROADWAY	STATION	- STATION	LOCATION	520.1015 APRON ENDWALLS FOR CULVERT PIPE 15-INCH EACH	520.2015 CULVERT PIPE TEMPORARY 15-INCH LF	SPV.0090.01 TEMPORARY DRAIN SLOTTED VANE LF
0010	1	I-41						
			1433+54	- 1458+62	TRIBUTARY	2	490	582
			TOTALS			2	490	582

BEAM GUARD

CATEGORY	STAGE	ROADWAY	STATION	- STATION	LOCATION	614.2300 MGS GUARDRAIL 3 LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH
0010	3	I-41						
			1433+54	- 1458+62	TRIBUTARY	325	78.8	1
					SUBTOTAL	325	78.8	1
	4	I-41						
			1433+54	- 1458+62	TRIBUTARY	337.5	78.8	1
					SUBTOTAL	337.5	78.8	1
			TOTALS			662.5	157.6	2

TEMPORARY CONCRETE BARRIER & CRASH CUSHIONS

CATEGORY	STAGE	ROADWAY	STATION	- STATION	LOCATION	CONCRETE BARRIER 603.8000 DELIVERED LF	CONCRETE BARRIER 603.8125* INSTALLED LF	614.0905 CRASH CUSHIONS TEMPORARY EACH	BACK WIDTH FT	OBJECT MARKING PATTERN	CRASH TEST LEVEL	TRAFFIC DIRECTION	TRAFFIC LOCATION	CRASH CUSHION SHIELDS
0010	2	I-41												
			1433+54	- 1458+62	TRIBUTARY	2030	2030	--	--	--	--	--	--	--
			1436+75		RT	--	--	1	4	OM-3R (W05-58R)	TL-3	UNIDIRECTIONAL	L	TEMPORARY CONCRETE BARRIER IN SHOULDER
			1442+93		RT	--	--	1	4	OM-3C (W05-58M)	TL-3	BIDIRECTIONAL	L AND R	TEMPORARY CONCRETE BARRIER IN MEDIAN
					SUBTOTAL	2030	2030	2						
	WINTER SHUTDOWN	I-41												
			1439+00	- 1447+00	TRIBUTARY	--	800	--	--	--	--	--	--	--
			1449+00	- 1455+00	TRIBUTARY	--	600	--	--	--	--	--	--	--
			1449+00		LT	--	--	1	4	OM-3C (W05-58M)	TL-3	BIDIRECTIONAL	L AND R	TEMPORARY CONCRETE BARRIER IN MEDIAN
			1444+00		RT	--	--	1	4	OM-3C (W05-58M)	TL-3	BIDIRECTIONAL	L AND R	TEMPORARY CONCRETE BARRIER IN MEDIAN
			1444+00		RT	--	--	1	4	OM-3R (W05-58R)	TL-3	UNIDIRECTIONAL	L	TEMPORARY CONCRETE BARRIER IN SHOULDER
			1449+00		RT	--	--	1	4	OM-3C (W05-58M)	TL-3	BIDIRECTIONAL	L AND R	TEMPORARY CONCRETE BARRIER IN MEDIAN
			1455+00		LT	--	--	1	4	OM-3C (W05-58M)	TL-3	BIDIRECTIONAL	L AND R	TEMPORARY CONCRETE BARRIER IN MEDIAN
					SUBTOTAL	--	1400	4						
	3	I-41												
			1433+54	- 1458+62	TRIBUTARY	790	2190	--						
			1439+00		RT	--	--	1	4	OM-3C (W05-58M)	TL-3	BIDIRECTIONAL	L AND R	TEMPORARY CONCRETE BARRIER IN MEDIAN
			1443+00		RT	--	--	1	4	OM-3R (W05-58R)	TL-3	UNIDIRECTIONAL	L	TEMPORARY CONCRETE BARRIER IN SHOULDER
			1452+00		LT	--	--	1	4	OM-3R (W05-58R)	TL-3	UNIDIRECTIONAL	L	TEMPORARY CONCRETE BARRIER IN SHOULDER
			1453+00		RT	--	--	1	4	OM-3C (W05-58M)	TL-3	BIDIRECTIONAL	L AND R	TEMPORARY CONCRETE BARRIER IN MEDIAN
					SUBTOTAL	790	2190	4						
	4	I-41												
			1433+54	- 1458+62	TRIBUTARY	160	2350	--						
			1438+50		LT	--	--	1	4	OM-3C (W05-58M)	TL-3	BIDIRECTIONAL	L AND R	TEMPORARY CONCRETE BARRIER IN MEDIAN
			1441+00		RT	--	--	1	4	OM-3R (W05-58R)	TL-3	UNIDIRECTIONAL	L	TEMPORARY CONCRETE BARRIER IN SHOULDER
			1449+50		LT	--	--	1	4	OM-3R (W05-58R)	TL-3	UNIDIRECTIONAL	L	TEMPORARY CONCRETE BARRIER IN SHOULDER
			1455+00		LT	--	--	1	4	OM-3C (W05-58M)	TL-3	BIDIRECTIONAL	L AND R	TEMPORARY CONCRETE BARRIER IN MEDIAN
					SUBTOTAL	160	2350	4						
			TOTALS			2,980	7,970	14						

*PINNING CONCRETE BARRIER CONSIDERED INCIDENTAL

3

LANDSCAPING ITEMS

CATEGORY	STAGE	ROADWAY	STATION	-	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0130 SEED MIX NO. 30 LBS	630.0200 SEEDING TEMPORARY LBS
0010	1										
		I-41	1433+54	-	1458+62	TRIBUTARY	1890	--	1.2	--	25
						UNDISTRIBUTED (25%)	473	--	0.3	--	6
						SUBTOTAL	2363	--	1.5	--	32
	2										
		I-41	1433+54	-	1458+62	TRIBUTARY	1750	1750	1.1	--	24
						UNDISTRIBUTED (25%)	438	438	0.3	--	6
						SUBTOTAL	2188	2188	1.4	--	29
	3										
		I-41	1433+54	-	1458+62	TRIBUTARY	6140	6140	3.9	85	19
						UNDISTRIBUTED (25%)	1540	1540	1.0	21	5
						SUBTOTAL	7680	7680	4.8	106	24
	4										
		I-41	1433+54	-	1458+62	TRIBUTARY	3340	3340	2.1	38	17
						UNDISTRIBUTED (25%)	835	835	0.5	10	4
						SUBTOTAL	4175	4175	2.6	48	21
	5										
		I-41	1433+54	-	1458+62	TRIBUTARY	7540	7540	4.7	136	--
						UNDISTRIBUTED (25%)	1890	1890	1.2	34	--
						SUBTOTAL	9430	9430	5.9	170	--
						TOTALS	25835	23473	16.3	323	106

3

EROSION CONTROL

								SILT FENCE			MOBILIZATIONS			EROSION MAT					INLET PROTECTION		
CATEGORY	STAGE	ROADWAY	STATION	-	STATION	LOCATION	628.1104 EROSION BALES EACH	628.1504 LF	628.1520 MAINTENANCE LF	SPV.0090.03 HEAVY DUTY LF	628.1905 EROSION CONTROL EACH	628.1910 EMERGENCY EROSION CONTROL EACH	628.2004 CLASS I TYPE B SY	628.2006 URBAN CLASS I TYPE A SY	628.2008 URBAN CLASS I TYPE B SY	628.6005 TURBIDITY BARRIERS SY	628.6510 SOIL STABILIZER TYPE B ACRE	628.7005 TYPE A EACH	628.7504 TEMPORARY DITCH CHECKS LF	628.7570 ROCK BAGS EACH
0010	1	I-41																		
			1433+54	-	1458+62	TRIBUTARY	279	--	--	--	1	1	1,880	--	363	240	--	2	350	--
						UNDISTRIBUTED (25%)	70	--	--	--	1	1	470	--	91	60	--	1	88	--
						SUBTOTAL	349	--	--	--	2	2	2,350	--	454	300	--	3	438	--
	2	I-41																		
			1433+54	-	1458+62	TRIBUTARY	--	700	2,100	1,400	1	1	1,750	184	--	--	0.4	--	--	3
						UNDISTRIBUTED (25%)	--	175	525	350	1	1	438	46	--	--	0.1	--	--	1
						SUBTOTAL	--	875	2,625	1,750	2	2	2,188	230	--	--	0.5	--	--	4
	3	I-41																		
			1433+54	-	1458+62	TRIBUTARY	--	1,100	2,000	900	1	1	6,140	280	--	--	1.3	--	--	2
						UNDISTRIBUTED (25%)	--	275	500	225	1	1	1,540	70	--	--	0.3	--	--	1
						SUBTOTAL	--	1,375	2,500	1,125	2	2	7,680	350	--	--	1.6	--	--	3
	4	I-41																		
			1433+54	-	1458+62	TRIBUTARY	--	--	--	--	1	1	3,340	184	--	--	0.7	--	--	--
						UNDISTRIBUTED (25%)	--	--	--	--	1	1	835	46	--	--	0.2	--	--	--
						SUBTOTAL	--	--	--	--	2	2	4,175	230	--	--	0.9	--	--	--
	5	I-41																		
			1433+54	-	1458+62	TRIBUTARY	--	--	--	--	1	1	7,540	--	309	--	1.6	--	--	--
						UNDISTRIBUTED (25%)	--	--	--	--	1	1	1,890	--	77	--	0.4	--	--	--
						SUBTOTAL	--	--	--	--	2	2	9,430	--	386	--	2.0	--	--	--
						TOTALS	349	2,250	5,125	2,875	10	10	25,823	810	839	300	5.0	3	438	7

3

TRAFFIC CONTROL, DRUMS, BARRICADES, WARNING LIGHTS, AND SIGNS

CATEGORY	STAGE	ROADWAY	STATION	-	STATION	LOCATION	643.0300 DRUMS DAY	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.0715 WARNING LIGHTS TYPE C DAYS	643.0800 ARROW BOARDS DAYS	643.0900 SIGNS DAYS	649.0770 TEMPORARY RAISED PAVEMENT MARKERS TYPE II EACH	SPV.0090.04 GLARE SCREEN LF
0010	1	I-41												
			1433+54	-	1458+62	TRIBUTARY	1,820	98	112	476	56	490		--
						SUBTOTAL	1,820	98	112	476	56	490	--	--
	2	I-41												
			1433+54	-	1458+62	TRIBUTARY	812	--	112	420	--	322	--	--
						SUBTOTAL	812	--	112	420	--	322	--	--
	3	I-41												
			1433+54	-	1458+62	TRIBUTARY	15,300	400	800	10,500	--	4,700	164	898
						SUBTOTAL	15,300	400	800	10,500	--	4,700	164	898
	4	I-41												
			1433+54	-	1458+62	TRIBUTARY	15,800	200	400	14,000	--	4,100	164	1,600
						SUBTOTAL	15,800	200	400	14,000	--	4,100	164	1,600
	5	I-41												
			1433+54	-	1458+62	TRIBUTARY	889	49	98	231	28	245	--	--
						SUBTOTAL	889	49	98	231	28	245	--	--
TOTALS							34,621	747	1,522	25,627	84	9,857	328	2,498

PAVEMENT MARKING ITEMS

CATEGORY	STAGE	ROADWAY	STATION		STATION	LOCATION	646.1020 MARKING LINE EPOXY 4-INCH WHITE LF	646.1020 MARKING LINE EPOXY 4-INCH YELLOW LF	646.1545 MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH WHITE LF
0010	3	I-41							
			1433+54	-	1458+62	TRIBUTARY	1,940	2,120	485
						SUBTOTAL	4,060		485
	4	I-41							
			1433+54	-	1458+62	TRIBUTARY	1,920	2,410	602
						SUBTOTAL	4,330		602
			TOTALS				8,390		1,086

REMOVING & TEMPORARY PAVEMENT MARKING

CATEGORY	STAGE	ROADWAY	STATION		STATION	LOCATION	646.9010 MARKING REMOVAL LINE WATER BLASTING 4-INCH LF	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH WHITE LF	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH YELLOW LF
0010	2	I-41							
			1433+54	-	1458+62	TRIBUTARY	4,570	4,570	2,280
						SUBTOTAL	4,570	6,850	
	3	I-41							
			1433+54	-	1458+62	TRIBUTARY	2,224	7,620	3,790
						SUBTOTAL	2,224	11,410	
	4	I-41							
			1433+54	-	1458+62	TRIBUTARY	4,569	9,480	4,700
						SUBTOTAL	4,569	14,180	
			TOTALS				11,363	32,440	

3

CONSTRUCTION STAKING

CATEGORY	STAGE	ROADWAY	STATION	-	STATION	LOCATION	650.4500 SUBGRADE LF	650.5000 BASE LF	650.6000 PIPE CULVERTS EACH	650.6500 STRUCTURE LAYOUT (STRUCTURE) LS	650.7000 CONCRETE PAVEMENT LF	650.9910 SUPPLEMENTAL CONTROL (PROJECT) LS	650.9920 SLOPE STAKES LF	COMMENTS
0010	1	I-41												
			1433+54	-	1458+62	TRIBUTARY	2,280	2,280	2	--	--	1	2,280	--
						SUBTOTAL	2,280	2,280	2	--	--	1	2,280	
	2	I-41												
			1433+54	-	1458+62	TRIBUTARY	1,450	1,450	--	1	--	--	1,450	B-66-17
						SUBTOTAL	1,450	1,450	--	1	--	--	1,450	
	3	I-41												
			1433+54	-	1458+62	TRIBUTARY	2,000	2,000	--	1	30	--	2,000	B-66-194
						SUBTOTAL	2,000	2,000	--	1	30	--	2,000	
	4	I-41												
			1433+54	-	1458+62	TRIBUTARY	2,300	2,300	--	1	30	--	2,300	B-66-193
						SUBTOTAL	2,300	2,300	--	1	30	--	2,300	
	5	I-41												
			1433+54	-	1458+62	TRIBUTARY	--	--	--	--	--	--	2,280	--
						SUBTOTAL	--	--	--	--	--	--	2,280	
TOTALS							8,030	8,030	2	3	60	1	10,310	

3

3

SAWING PAVEMENT ITEMS

CATEGORY	STAGE	ROADWAY	STATION	-	STATION	LOCATION	690.0150 ASPHALT LF	690.0250 CONCRETE LF
0010	1	I-41						
			1433+54	-	1458+62	TRIBUTARY	4,300	--
						SUBTOTAL	4,300	--
	2	I-41						
			1433+54	-	1458+62	TRIBUTARY	1,810	--
						SUBTOTAL	1,810	--
	3	I-41						
			1433+54	-	1458+62	TRIBUTARY	1,830	48
						SUBTOTAL	1,830	48
	4	I-41						
			1433+54	-	1458+62	TRIBUTARY	--	48
						SUBTOTAL	--	48
	5	I-41						
			1433+54	-	1458+62	TRIBUTARY	4,300	--
						SUBTOTAL	4,300	--
TOTALS							12,240	96

SPV ITEMS

CATEGORY	STAGE	ROADWAY	STATION	-	STATION	LOCATION	SPV.0195.01 EXCAVATION, HAULING, AND DISPOSAL OF CREOSOTE CONTAMINATED SOIL TON
0010	2	I-41					
			1433+54	-	1458+62	TRIBUTARY	2.5
						SUBTOTAL	2.5
	3	I-41					
			1433+54	-	1458+62	TRIBUTARY	2.5
						SUBTOTAL	2.5
TOTALS							5

TYPE II PERMANENT SIGNING

1100-41-70

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.] x x H [IN.]	**637.2210** SIGNS TYPE II REFLECTIVE H [SF]	**637.2230** SIGNS TYPE II RELFECTIVE F [SF]	**638.2602** REMOVING SIGNS TYPE II EACH	**638.3000** REMOVING SMALL SIGN SUPPORTS EACH	**638.2102** MOVING SIGNS TYPE II [EA]	**634.0618** POSTS WOOD 4" X 6" X 18' [EA]	**634.0612** POSTS WOOD 4" X 6" X 12' EA	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
1	W5-52L(3)		18 X 54		6.750	1.000	1.000			1		4 FOOT MOUNTING HEIGHT
2	W5-52R(3)		18 X 54		6.750	1.000	1.000			1		4 FOOT MOUNTING HEIGHT
3	W5-52R(2S)		12 X 36		3.000	1.000	1.000			1		4 FOOT MOUNTING HEIGHT
4	W5-52R(2S)		12 X 36		3.000	1.000	1.000			1		4 FOOT MOUNTING HEIGHT
UNDISTRIBUTED				20.000				2	2		--	--
TOTALS				20.000	19.500	4.000	4.000	2	2	4	--	--

SHEET: 1 OF 1

LEGEND

- RS — RUMBLE STRIP
- AIC — ADJUSTING INLET COVERS
- RE-PVT — REMOVING PAVEMENT
- RE-GRL — REMOVING GUARDRAIL
- RE-ABJ — REMOVE ASPHALTIC SURFACE, BUTT JOINT
- RE-PBJ — REMOVE PAVEMENT, BUTT JOINT
- CLEARING AND GRUBBING

BEGIN CONSTRUCTION
STA 1433+54.17'TL' =
STA 1433+55.31'SB', 16.9' LT.
STA 1433+54.41'NB', 30.2 RT.

℄ I-41'SB'
℄ I-41'TL'
℄ I-41'NB'
1430'TL'
1430'NB'
I-41 'SB'
I-41 'NB'
1435'SB'
1435'TL'
1435'NB'
PCC: 1433+54.46'NB'
SLOPE INTERCEPT
+50.50'SB' 36.0' LT
PCC: 1437+48.48'SB'
+48.49'SB' 4.0' RT
12'
24'
6'
2'
PCC: 1440+93.04'SB'
1440'SB'
1440'TL'
1440'NB'
PCC: 1440+91.83'NB'
SLOPE INTERCEPT
RE-PVT
RS
I-41 'SB'
I-41 'NB'
RE-GRL
MATCH LINE
STA 1444+00'TL'
BEGIN RECONSTRUCTION
STA 1441+75.00'SB'

PI STA = 1427+98.99'SB'	PI STA = 1439+20.78'SB'	PI STA = 1443+33.63'SB'
Y = 187832.315	Y = 188808.744	Y = 189150.701
X = 320305.731	X = 319748.379	X = 319516.996
DELTA = 7°24'22"	DELTA = 2°08'33"	DELTA = 1°57'06"
D = 0°23'22"	D = 0°37'18"	D = 0°24'20"
T = 952.14'	T = 172.30'	T = 240.58'
L = 1901.62'	L = 344.56'	L = 481.12'
R = 14711.35'	R = 9214.93'	R = 14123.95'
PC STA = 1418+46.86'SB'	PC STA = 1437+48.48'SB'	PC STA = 1440+93.04'SB'
Y = 186949.079	Y = 188662.342	Y = 188951.647
X = 320661.343	X = 319839.234	X = 319652.115
PT STA = 1437+48.48'SB'	PT STA = 1440+93.04'SB'	PT STA = 1445+74.16'SB'
Y = 188662.342	Y = 188951.647	Y = 189345.037
X = 319839.234	X = 319652.115	X = 319375.176
BK = N21°55'51.3"W	BK = N31°49'23.5"W	BK = N34°10'07.9"W
AH = N29°20'13.5"W	AH = N33°57'56.1"W	AH = N36°07'14.1"W

'SB' PROFILE
VCL = 210.00
K = 306.19
PROPOSED PROFILE ON ℄
-0.14%
-0.05%
EXISTING GROUND
VPC STA 1441+75.00
VPC EL 963.20
VPI STA 1442+80.00
VPI EL 962.42
VPT STA 1443+85.00
VPT EL 962.37
VPC STA 1443+85.44
VPC EL 962.36
EXISTING ELEVATION
PROPOSED ELEVATION

971.10	970.58	970.16	969.57	969.25
968.86	968.54	968.34	968.21	968.03
967.65	967.49	967.27	967.00	966.62
966.23	965.94	965.69	965.44	965.08
964.89	964.63	964.38	964.10	963.79
963.38	963.38	963.05	963.02	962.78
962.73	962.50	962.53	962.12	962.40
961.72	962.35			

PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	PLAN: I-41 SOUTHBOUND	SHEET 61 E

PI STA = 1432+85.75'TL'
Y = 188301.437
X = 320158.295
DELTA = 14°21'11"
D = 0°30'00"
T = 1442.91'
L = 2870.72'
R = 11459.62'
PC STA = 1418+42.84'TL'
Y = 186957.976
X = 320684.707
PT STA = 1447+13.56'TL'
Y = 189472.470
X = 319315.275
BK = N21°23'48.8"W
AH = N35°44'59.6"W

TRIBUTARY TO E BRANCH ROCK RIVER

LEGEND

- RS — RUMBLE STRIP
- AIC — ADJUSTING INLET COVERS
- RE-PVT — REMOVING PAVEMENT
- RE-GRL — REMOVING GUARDRAIL
- RE-ABJ — REMOVE ASPHALTIC SURFACE, BUTT JOINT
- RE-PBJ — REMOVE PAVEMENT, BUTT JOINT
- CLEARING AND GRUBBING

EXCAVATION, HAULING, AND DISPOSAL OF CREOSOTE CONTAMINATED SOIL

STATION 1445'SB'+92 TO 1445'SB'+98 FROM 40' TO 46' LEFT
STATION 1445'NB'+96 TO 1446'NB'+02 FROM 42' TO 48' RIGHT
STATION 1446'SB'+30 TO 1445'SB'+36 FROM 40' TO 46' LEFT
STATION 1446'NB'+37 TO 1446'NB'+43 FROM 40' TO 46' RIGHT

PROPOSED B-66-194 CREOSOTE CONTAMINATED SOIL
B-66-22
PROPOSED B-66-193 B-66-17 CREOSOTE CONTAMINATED SOIL

PT: 1445+74.16'SB'
PI: 1447+12.58'SB'
PT: 1445+79.24'NB'
PT: 1447+13.56'TL'

MATCH LINE
STA 1444+00'TL'

RE-PVT
RE-GRL
RS
SLOPE INTERCEPT

1445'SB'
1450'SB'
1455'SB'
1445'TL'
1450'TL'
1455'TL'
1445'NB'
1450'NB'
1455'NB'

24'
6'
2'
12'

℄ I-41'SB'
+89.70'SB' 36.2' LT
+61.45'SB' 3.8' RT
I-41 'SB'
+65.00'SB' 0.0'
℄ I-41'TL'
I-41 'NB'
℄ I-41'NB'
ASPH
SIGN

END RECONSTRUCTION
STA 1450+54.00'SB'

END CONSTRUCTION
STA 1458+62.42'TL'
STA 1458+61.45'SB', 21.15' LT.

'SB' PROFILE

VPI STA 1444+90.44
VPI EL 962.310
VPI STA 1447+38.44
VPI EL 960.500
VPC STA 1448+44.00
VPC EL 959.17
VCL = 210.00
K = 232.21
VPT STA 1450+54.00
VPT EL 957.48

PROPOSED PROFILE ON ℄
0.73%
-1.26%
-0.65%

VPT STA 1445+95.44
VPT EL 961.54
VPC STA 1446+33.44
VPC EL 961.27
VCL = 210.00
K = 309.93
VCL = 210.00
K = 397.19
VPT STA 1448+43.44
VPT EL 959.18
VPI STA 1449+49.00
VPI EL 957.85

EXISTING GROUND
EXISTING ELEVATION
PROPOSED ELEVATION

990 980 970 960 950 940 930 920

961.72 962.35 961.26 962.26 960.81 962.09 960.40 961.84 960.04 961.51 959.67 961.14 959.28 960.72 958.97 960.24 958.69 959.70 958.47 959.10 958.23 958.53 957.89 958.08 957.67 957.73 957.46 957.49 957.32 957.32 957.07 956.85 956.64 956.40 956.19 955.93 955.65 955.35 955.13 954.78 954.40 953.95 953.61 953.22 952.90 952.58

1444 1445 1446 1447 1448 1449 1450 1451 1452 1453 1454 1455 1456 1457 1458 1459

PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	PLAN: I-41 SOUTHBOUND	SHEET 62	E

PI STA = 1432+85.75'TL'
Y = 188301.437
X = 320158.295
DELTA = 14°21'11"
D = 0°30'00"
T = 1442.91'
L = 2870.72'
R = 11459.62'
PC STA = 1418+42.84'TL'
Y = 186957.976
X = 320684.707
PT STA = 1447+13.56'TL'
Y = 189472.470
X = 319315.275
BK = N21°23'48.8"W
AH = N35°44'59.6"W

PI STA = 1425+97.82'NB'
Y = 187674.882
X = 320434.567
DELTA = 7°24'48"
D = 0°29'21"
T = 758.76'
L = 1515.40'
R = 11712.09'
PC STA = 1418+39.06'NB'
Y = 186967.096
X = 320707.984
PT STA = 1433+54.46'NB'
Y = 188341.472
X = 320072.112
BK = N21°07'17.4"W
AH = N28°32'05.6"W

PI STA = 1432+85.75'TL'
Y = 188301.437
X = 320158.295
DELTA = 14°21'11"
D = 0°30'00"
T = 1442.91'
L = 2870.72'
R = 11459.62'
PC STA = 1418+42.84'TL'
Y = 186957.976
X = 320684.707
PT STA = 1447+13.56'TL'
Y = 189472.470
X = 319315.275
BK = N21°23'48.8"W
AH = N35°44'59.6"W

PI STA = 1443+35.58'NB'
Y = 189178.114
X = 319560.497
DELTA = 2°51'56"
D = 0°35'17"
T = 243.75'
L = 487.40'
R = 9745.48'
PC STA = 1440+91.83'NB'
Y = 188974.966
X = 319695.204
PT STA = 1445+79.24'NB'
Y = 189374.274
X = 319415.802
BK = N33°32'54.0"W
AH = N36°24'50.0"W

LEGEND

- RS — RUMBLE STRIP
- AIC — ADJUSTING INLET COVERS
- RE-PVT — REMOVING PAVEMENT
- RE-GRL — REMOVING GUARDRAIL
- RE-ABJ — REMOVE ASPHALTIC SURFACE, BUTT JOINT
- RE-PBJ — REMOVE PAVEMENT, BUTT JOINT
- CLEARING AND GRUBBING

BEGIN CONSTRUCTION
STA 1433+54.17'TL' =
STA 1433+55.31'SB', 16.9' LT.
STA 1433+54.41'NB', 30.2 RT.

BEGIN RECONSTRUCTION
STA 1441+50.00'NB'

TRIBUTARY TO
E BRANCH
ROCK RIVER

N

PROPOSED
B-66-194
CREOSOTE
CONTAMINATED SOIL

B-66-22

PROPOSED
B-66-193
B-66-17
CREOSOTE

MATCH LINE
STA 1448+00'TL'

5

5

'NB' PROFILE

VCL = 210.00
K = 276.00

VCL = 240.00
K = 274.16

VCL = 240.00
K = 280.42

-0.53%
0.24%
-0.64%

PROPOSED PROFILE
ON ℄

EXISTING GROUND

℄ EXISTING GRADE
℄ PROP GRADE

PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	PLAN: I-41 NORTHBOUND	SHEET 63 E

LEGEND

- RS — RUMBLE STRIP
- AIC — ADJUSTING INLET COVERS
- RE-PVT — REMOVING PAVEMENT
- RE-GRL — REMOVING GUARDRAIL
- RE-ABJ — REMOVE ASPHALTIC SURFACE, BUTT JOINT
- RE-PBJ — REMOVE PAVEMENT, BUTT JOINT
- CLEARING AND GRUBBING

MATCH LINE

STA 1448+00'TL'

SLOPE INTERCEPT

SLOPE INTERCEPT

RE-PVT

RS

SIGN

SIGN

1450'SB'

1455'SB'

1460'SB'

I-41 'SB'

I-41 'SB'

ASPH

ASPH

℄ I-41'SB'

℄ I-41'TL'

℄ I-41'NB'

1450'TL'

1450'NB'

1455'TL'

1455'NB'

1460'TL'

1460'NB'

I-41 'NB'

I-41 'NB'

ASPH

ASPH

6"

2"

24"

12"

+90.00'NB'
0.0' LT

+90.00'NB'
24.6' RT

+71.44'NB'
36.5' RT

+59.21'NB'
3.5' LT

END CONSTRUCTION
STA 1458+62.42'TL'
STA 1458+66.52.'NB', 24.3' RT.

END RECONSTRUCTION
STA 1450+90.00'NB'

5

5

'NB' PROFILE

VCL = 210.00

K = 195.39

VPC STA 1448+80.00
VPC EL 959.11

VPT STA 1450+90.00
VPT EL 957.10

PROPOSED PROFILE
ON ℄

-1.50%

-0.42%

VPT STA 1448+78.42
VPT EL 959.13

VPI STA 1449+85.00
VPI EL 957.54

EXISTING GROUND

℄ EXISTING GRADE

℄ PROP GRADE

990 980 970 960 950 940 930 920

958.51 960.20 958.26 959.55 958.03 958.82 957.80 958.19 957.55 957.68 957.33 957.31 957.06 957.06 956.85 956.64 956.39 956.16 955.89 955.72 955.58 955.42 955.10 954.83 954.63 954.36 954.12 953.95 953.74 953.53 953.32 953.08 952.91 952.69 952.52 952.37 952.23 952.18

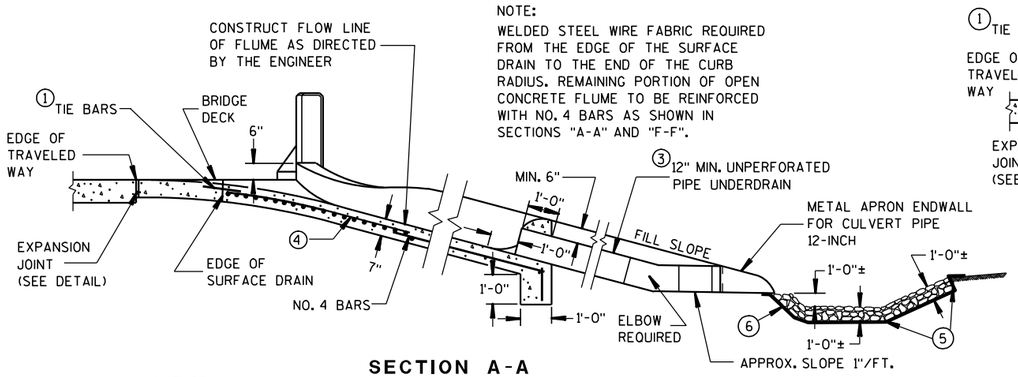
1448 1449 1450 1451 1452 1453 1454 1455 1456 1457 1458 1459 1460 1461 1462 1463

PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	PLAN: I-41 NORTHBOUND	SHEET 64	E

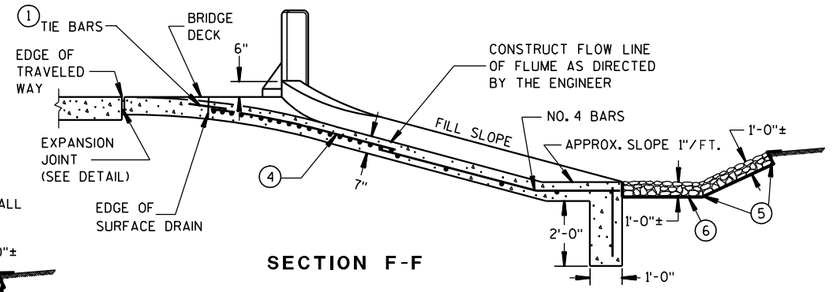
Standard Detail Drawing List

08D02-06	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D14-01	SLOTTED VANE DRAIN
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E11-02	TURBIDITY BARRIER
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
11A01-05	MAINTENANCE CROSSOVER FOR FREEWAYS
12A03-10	NAME PLATE (STRUCTURES)
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13B02-09B	STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB
14B07-15A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15I	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B42-06A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15C08-19A	LONGITUDINAL MARKING (MAINLINE)
15C34-03	STANDARD APPLICATION FOR TEMPORARY RAISED PAVEMENT MARKER, TYPE 2
15D12-07A	TRAFFIC CONTROL, LANE CLOSURE
15D12-07B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D12-07C	DYNAMIC LATE MERGE SYSTEM
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D41-01	TRAFFIC CONTROL, MULTIPLE LANE SHIFT, MULTILANE DIVIDED ROAD

6



SECTION A-A



SECTION F-F

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

(1) NO. 4 X 2'-0" TIE BARS SPACED AT 3'-0" CENTERS TO BE USED ONLY WHEN ADJACENT TO P.C. CONCRETE.

(2) NO. 4 X 2'-0" TIE BARS SPACED AT 12" CENTERS TO BE PLACED BY BRIDGE CONTRACTOR, OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

(3) PIPE UNDERDRAIN MAY BE ANY OF THE MATERIALS LISTED IN SECTION 612.2 OF THE STANDARD SPECIFICATIONS EXCEPT DRAIN TILE.

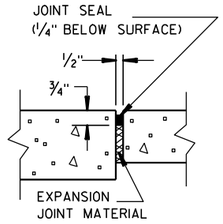
(4) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C-C.

(5) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.

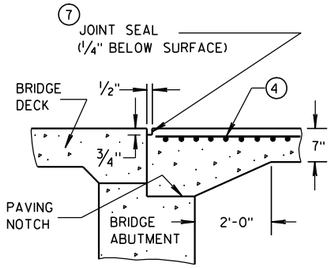
(6) GEOTEXTILE FABRIC, TYPE 'R"

(7) HOT POURED SEALANT UNLESS OTHERWISE SPECIFIED.

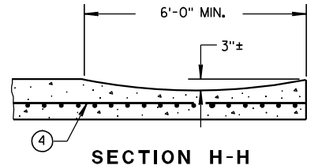
(8) THIS DIMENSION MAY VARY DEPENDING ON THE SPACING OF POSTS FOR THE STEEL PLATE BEAM GUARD. THE TYPICAL LOCATION FOR THE SURFACE DRAIN IS WHERE THE POST SPACING WIDENS TO 3'-1½".



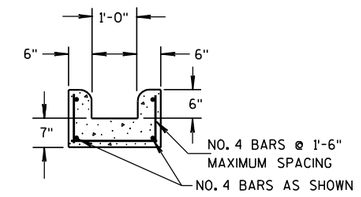
EXPANSION JOINT DETAIL



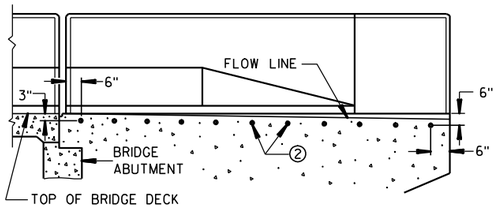
SECTION D-D



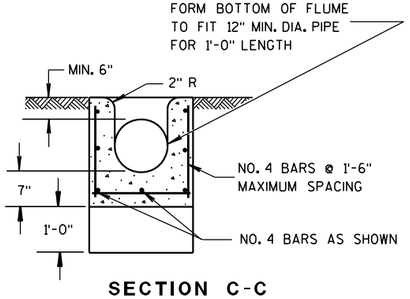
SECTION H-H



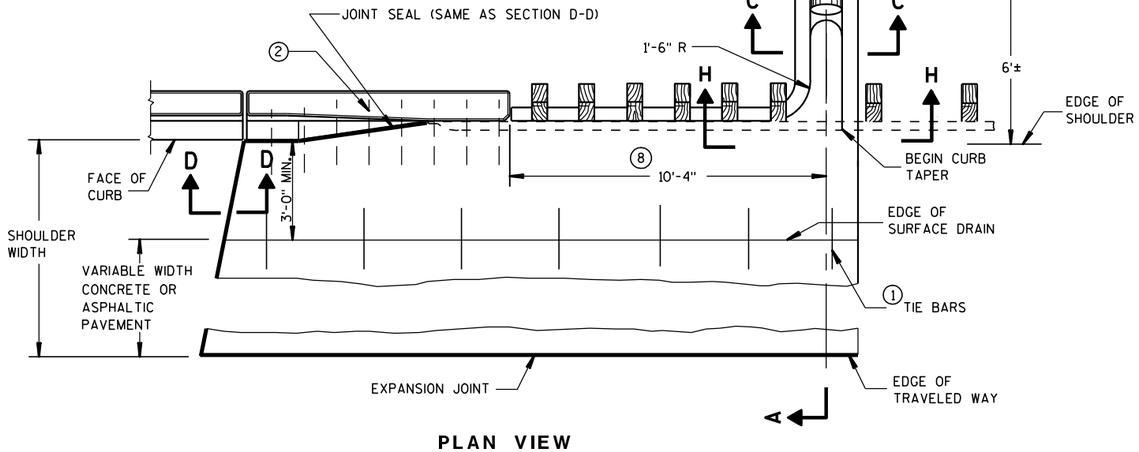
SECTION E-E



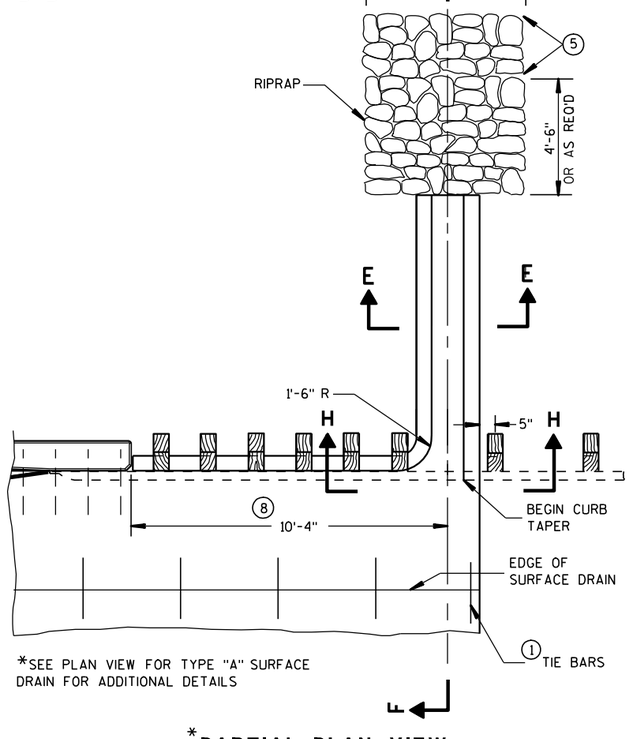
LOCATION OF TIE BARS IN WINGWALL



SECTION C-C



PLAN VIEW
SURFACE DRAIN WITH PIPE
TYPE "A"



*SEE PLAN VIEW FOR TYPE "A" SURFACE DRAIN FOR ADDITIONAL DETAILS

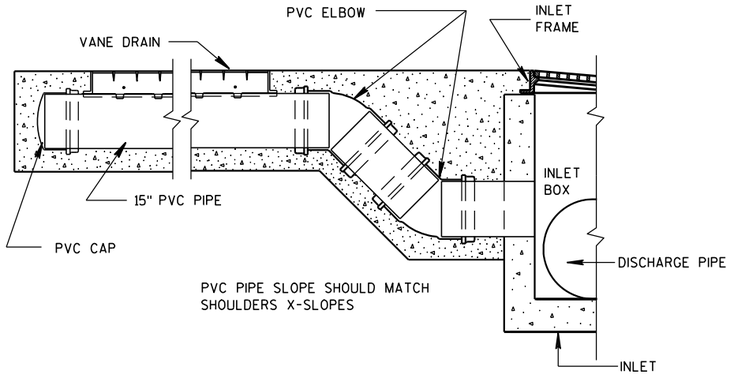
*PARTIAL PLAN VIEW
SURFACE DRAIN WITHOUT PIPE
TYPE "B"

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

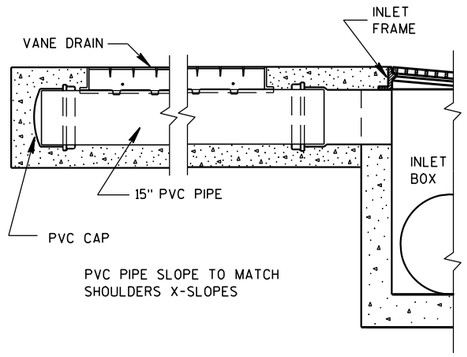
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/4/08 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

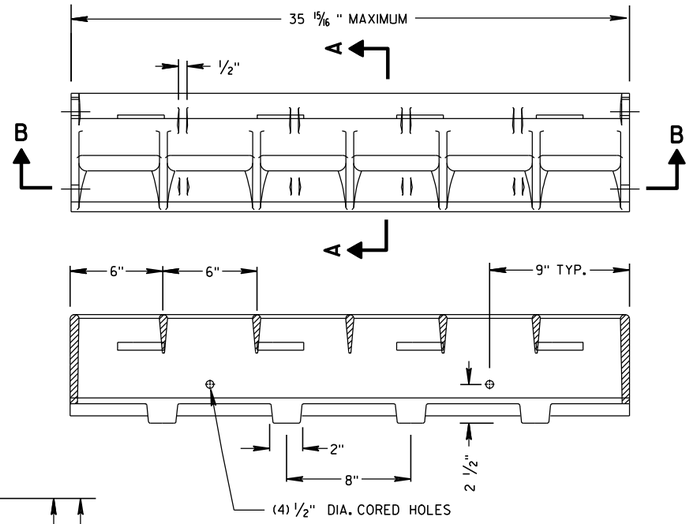
6
S.D.D. 8 D 2-6



TYPICAL SLOTTED VANE DRAIN CONFIGURATION



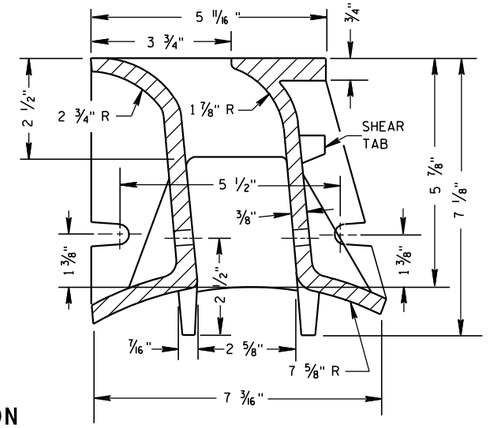
TYPICAL SLOTTED VANE DRAIN CONFIGURATION



SECTION B-B

SLOTTED VANE DRAIN DETAIL

(APPROXIMATE WEIGHT 87 LBS.)



SECTION A-A

GENERAL NOTES

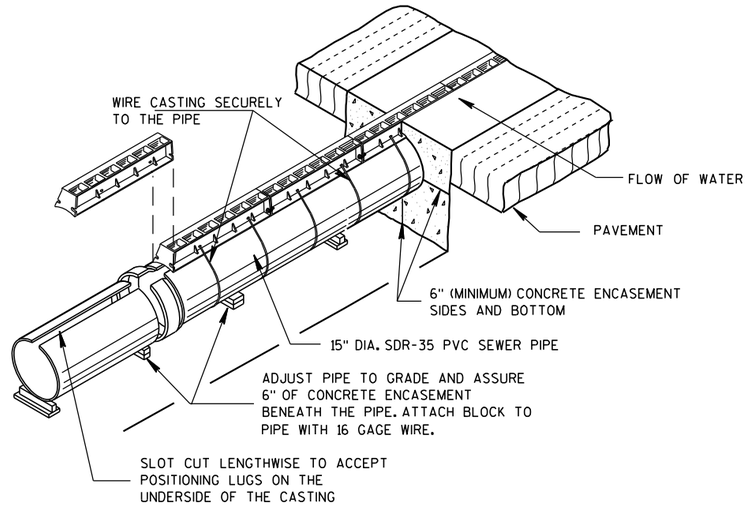
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ENCASEMENT: THE ENCASING MATERIAL AROUND THE PIPE SHALL BE IN ACCORDANCE WITH SPECIFICATIONS OF 501.4.3.3 FOR CONCRETE PAVEMENT.

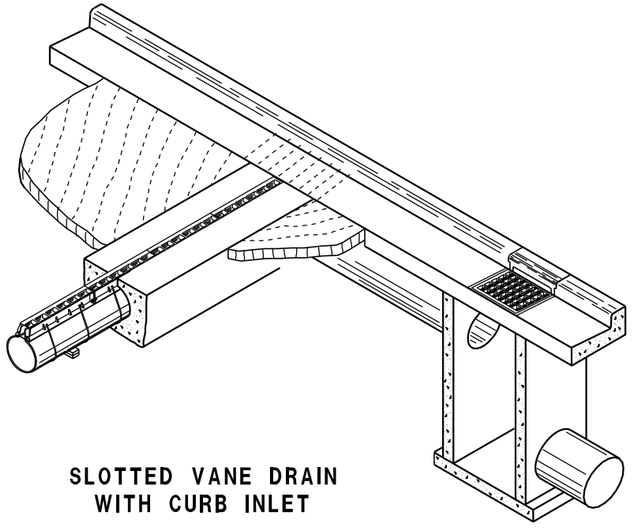
THE PIPE USED SHALL BE A 15" DIAMETER SDR-35 POLYVINYL CHLORIDE SEWER PIPE. THE PIPE SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN STANDARD SPECIFICATION 612.2.6

SURFACE DRAIN: BEFORE PAVING OVER THE DRAIN, COVER THE TOP OF THE DRAIN TO KEEP MATERIAL OUT OF THE PIPE. THE FINISHED GRADE SHOULD BE FLUSH WITH THE TOP OF THE DRAIN.

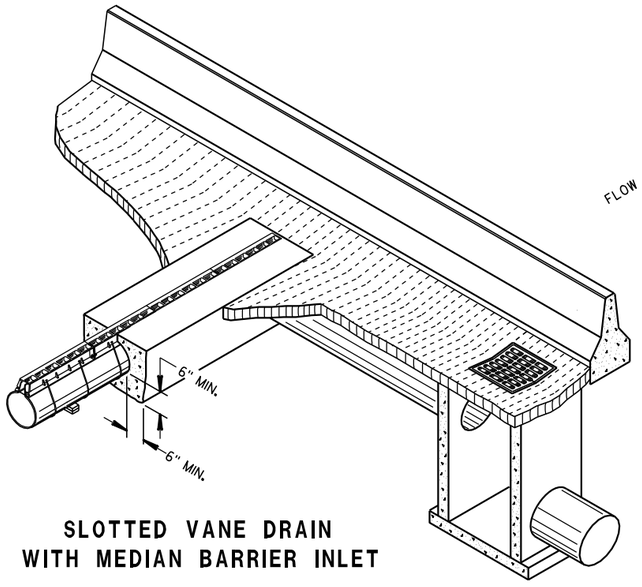
THE ANGLE OF THE DRAIN TO THE FLOW OF WATER SHOULD BE AS CLOSE TO 90° AS POSSIBLE.



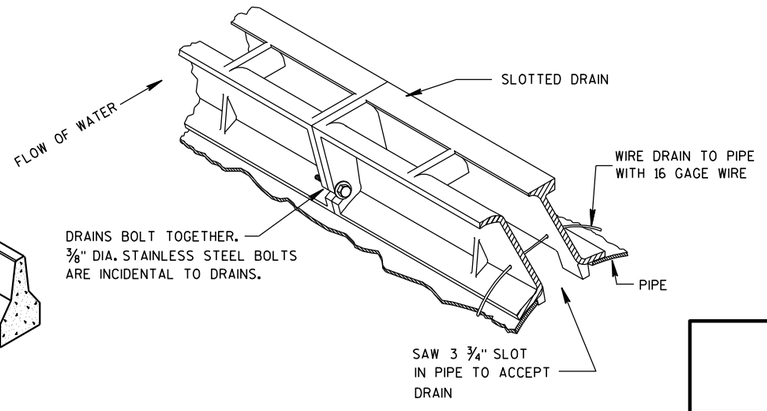
INSTALLATION OF SLOTTED VANE DRAIN



SLOTTED VANE DRAIN WITH CURB INLET



SLOTTED VANE DRAIN WITH MEDIAN BARRIER INLET



ISOMETRIC VIEW

SLOTTED VANE DRAIN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/13/00 DATE

/S/ Rory L. Rhinehart
CHIEF ROADWAY DEVELOPMENT ENGINEER

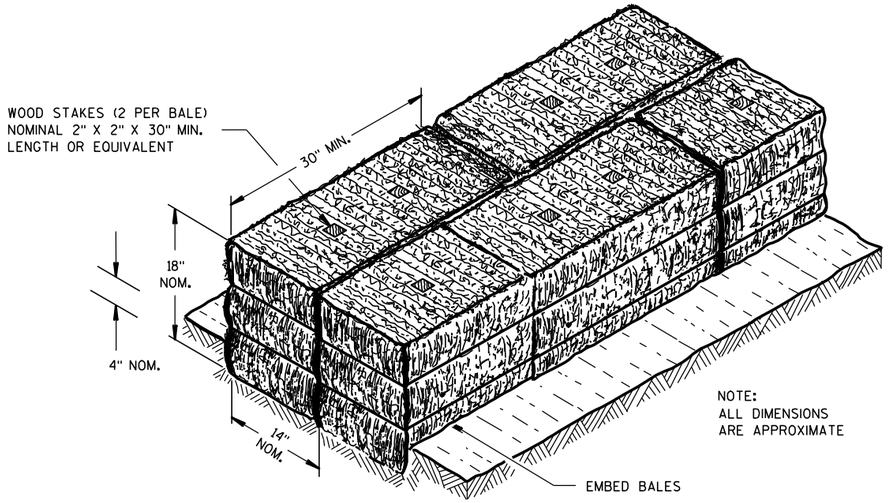
FHWA

6

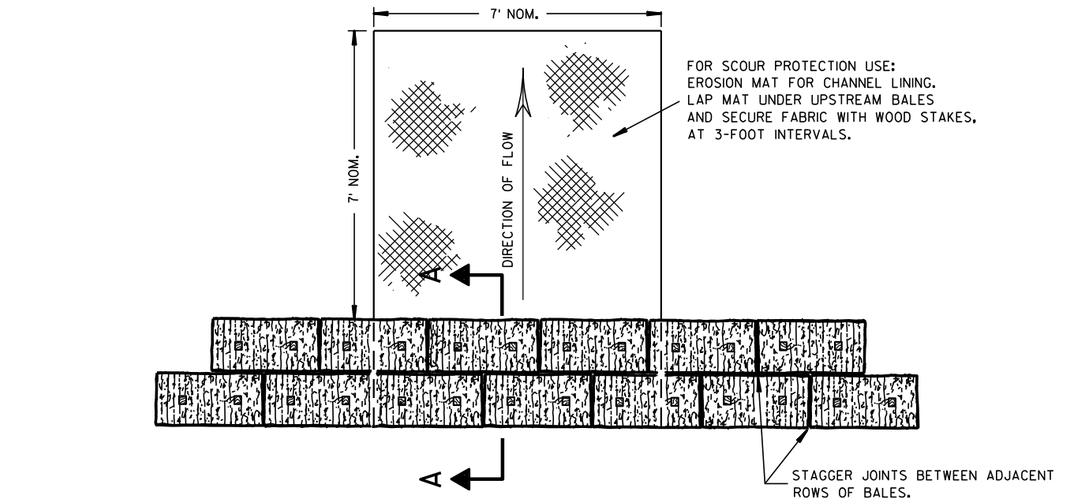
S.D.D. 8 D 14-1

6

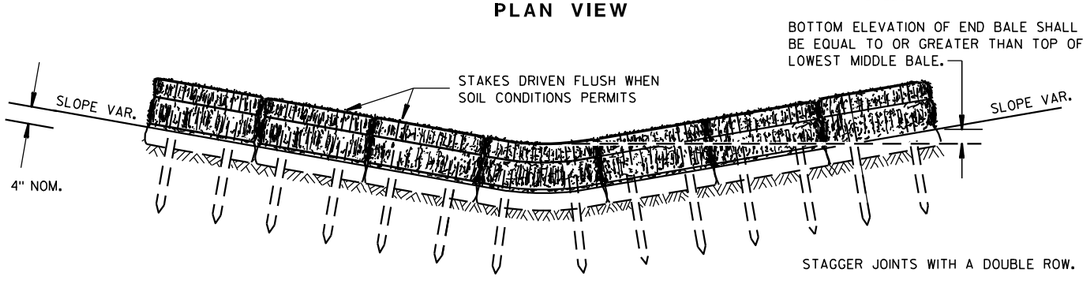
S.D.D. 8 D 14-1



SECTION A-A



PLAN VIEW



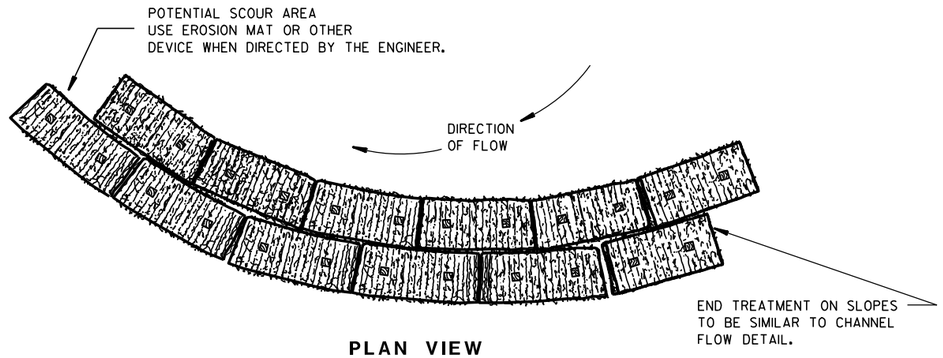
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

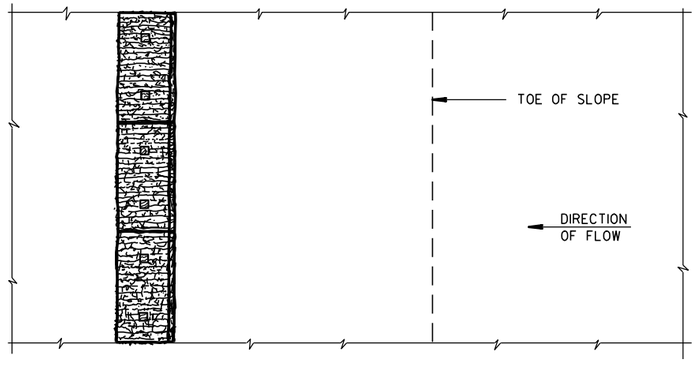
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

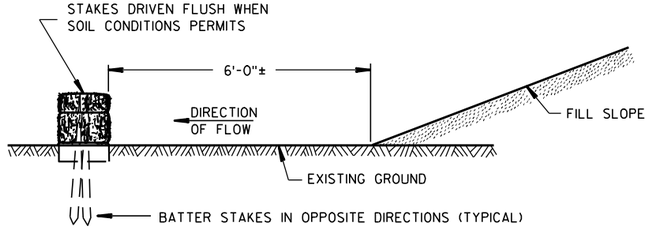


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

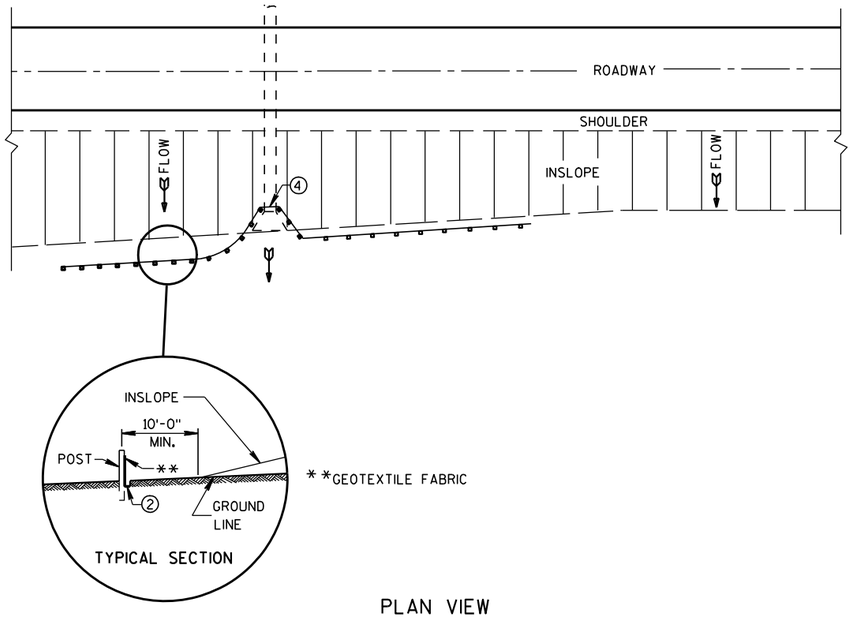
TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

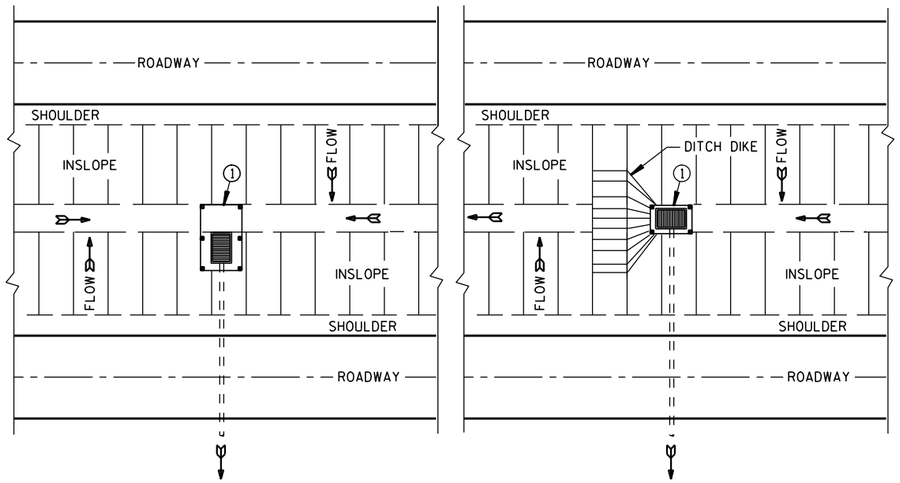
6/04/02 DATE — /S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



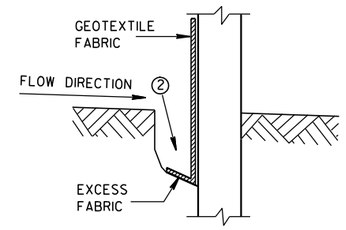
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

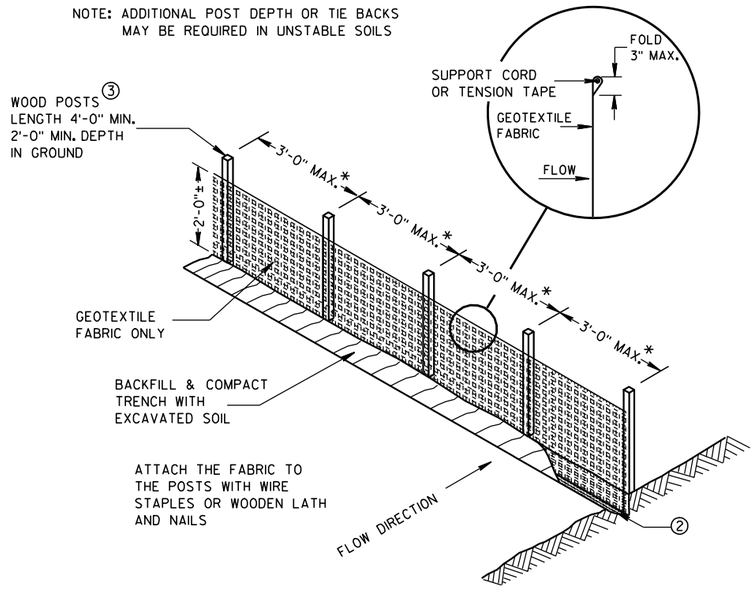
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.

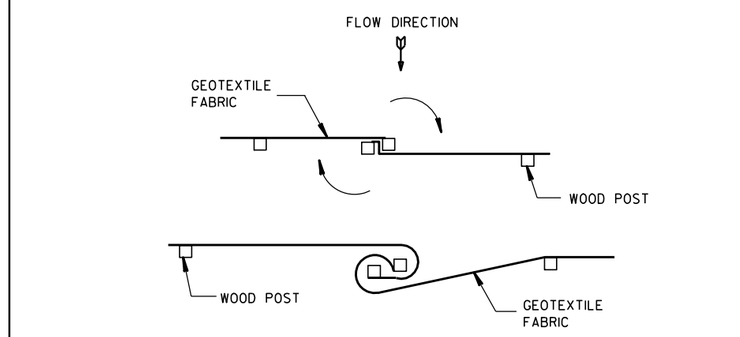


TRENCH DETAIL

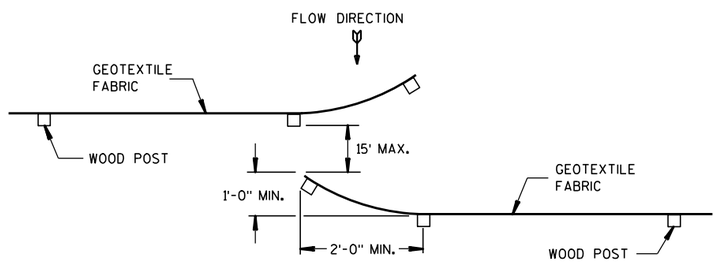


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

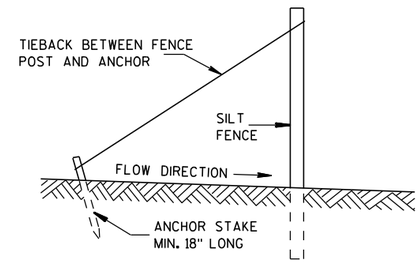


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

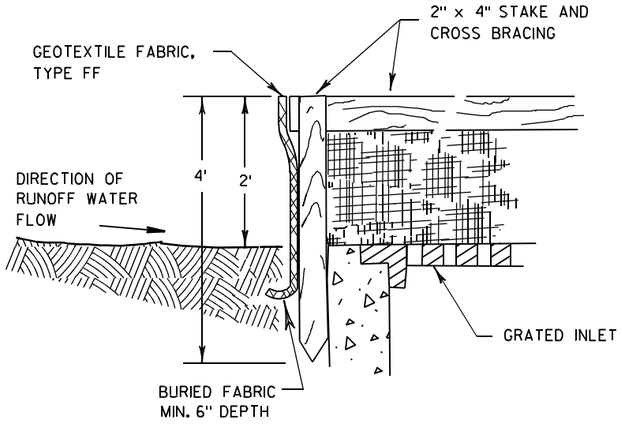
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

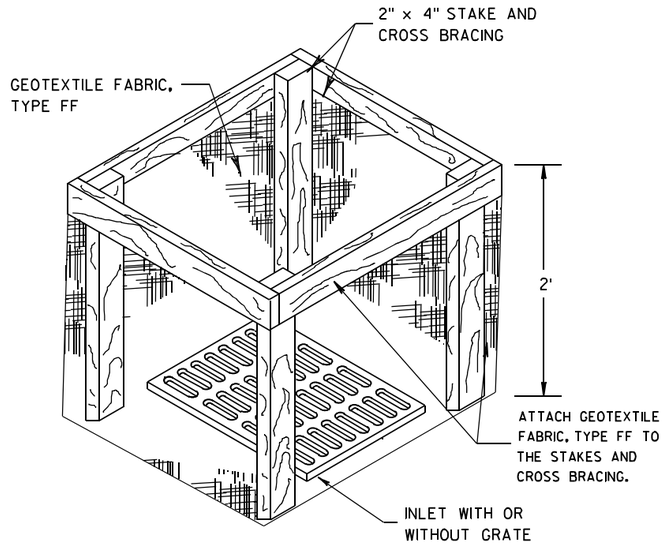
6

S.D.D. 8 E 9-6

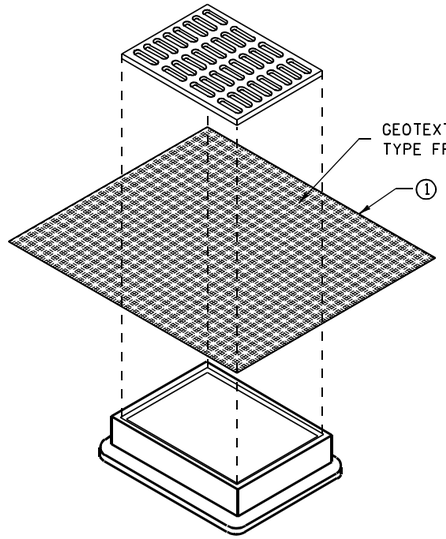
6

S.D.D. 8 E 9-6



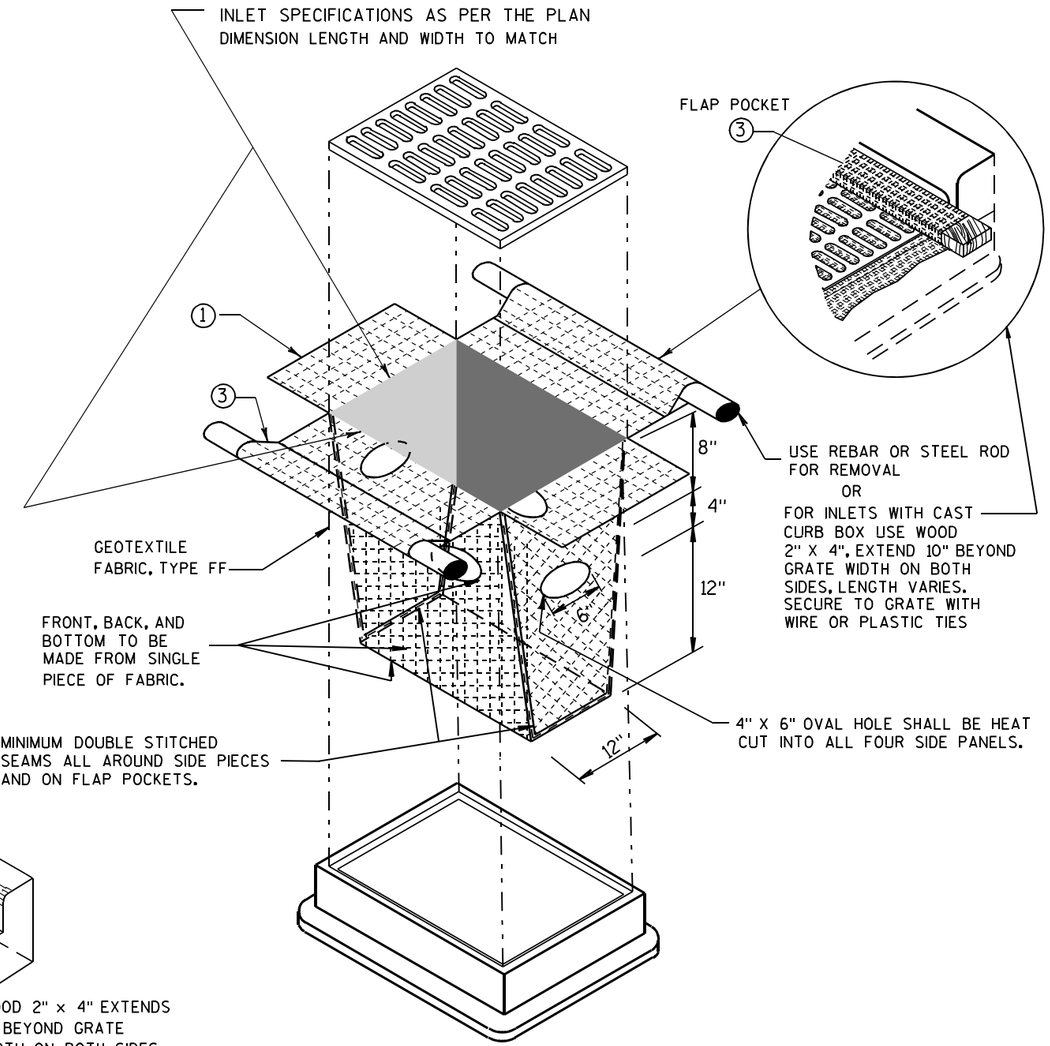


INLET PROTECTION, TYPE A



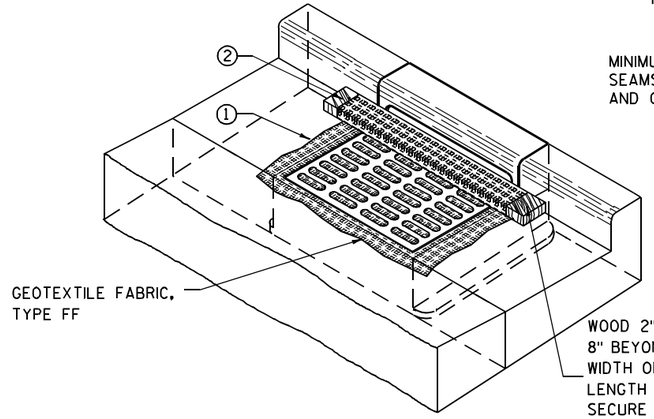
INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)



INLET PROTECTION, TYPE C (WITH CURB BOX)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

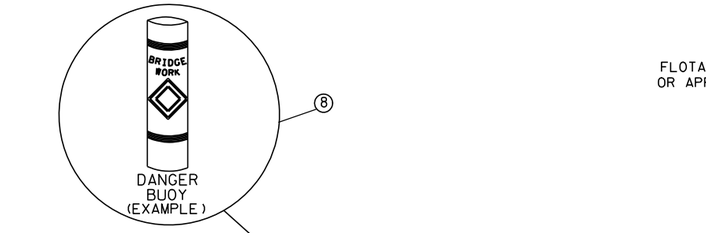
APPROVED

10/16/02
DATE

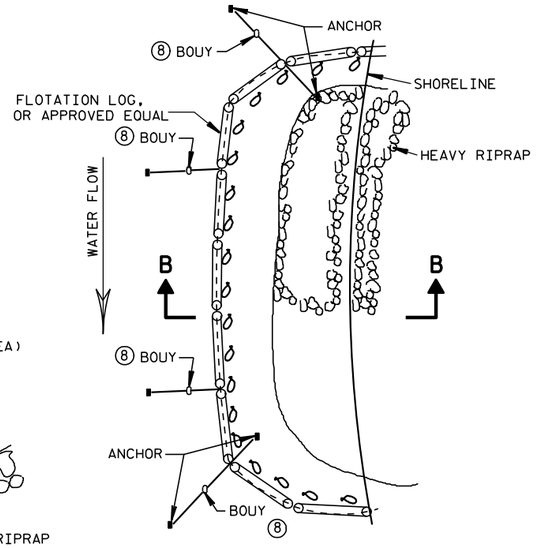
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

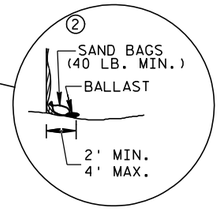
FHWA

6
S.D.D. 8 E 10-2

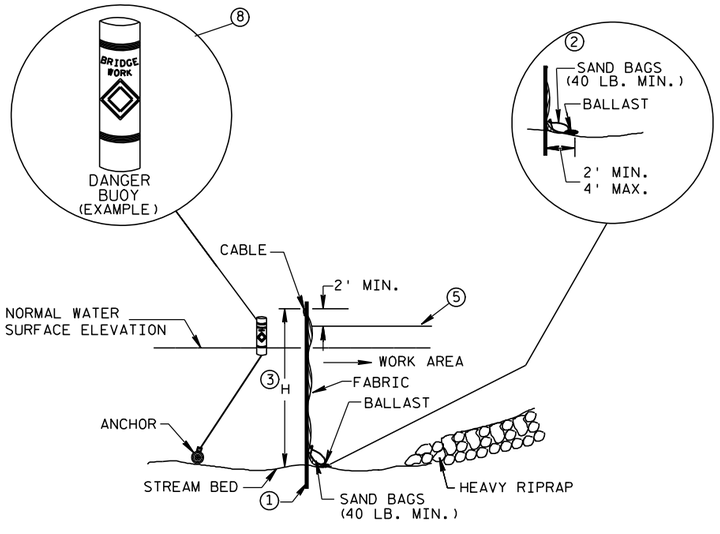


SECTION B-B

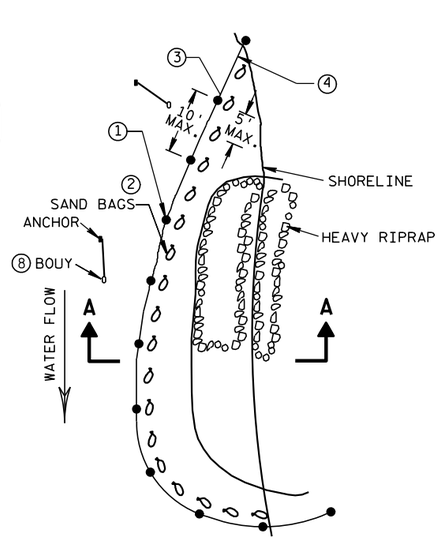




TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A-A



PLAN VIEW

TURBIDITY BARRIER STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.

② SANDBAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.

③ WHEN BARRIER HEIGHT, H, EXCEEDS 8 FT., POST SPACING MAY NEED TO BE DECREASED.

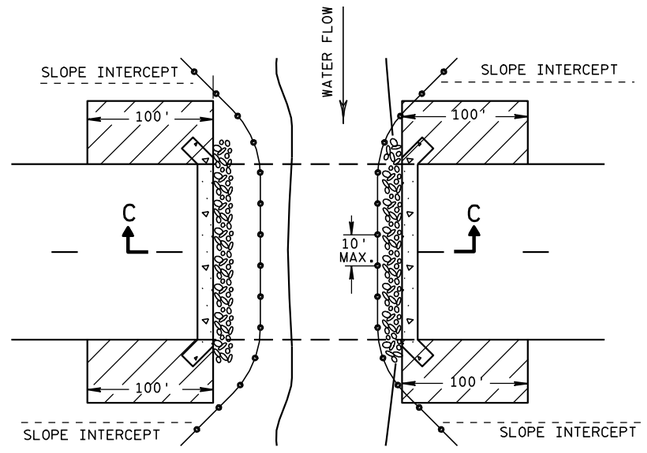
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MIMIMUM BARRIER HEIGHT SHALL BE 2'GREATER THAN EITHER THE O2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WICHEVER IS GREATER.

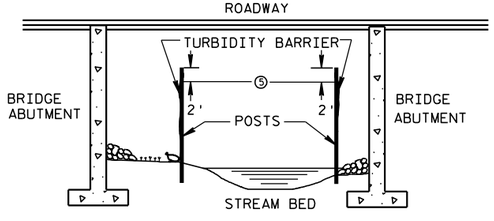
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.

⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



PLAN VIEW



SECTION C-C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/04/02 DATE
/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

METAL APRON ENDWALLS

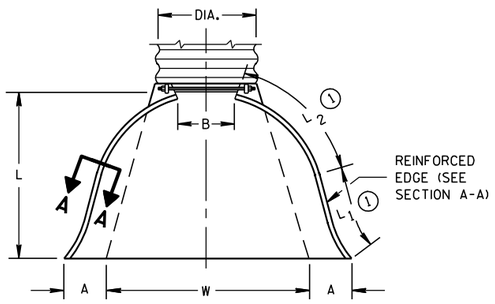
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")		
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

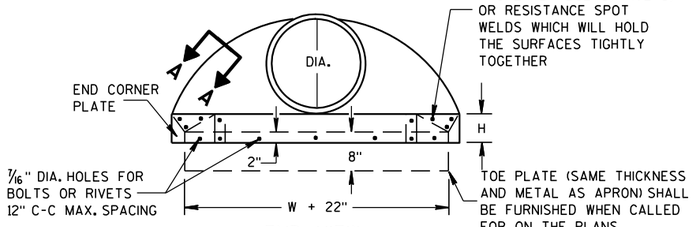
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE
	T	A	B	C	D	E	G	
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

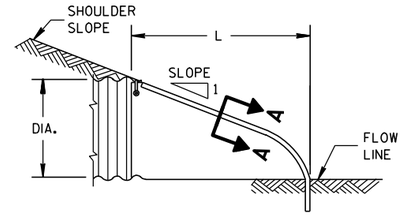
*MINIMUM
**MAXIMUM



PLAN VIEW

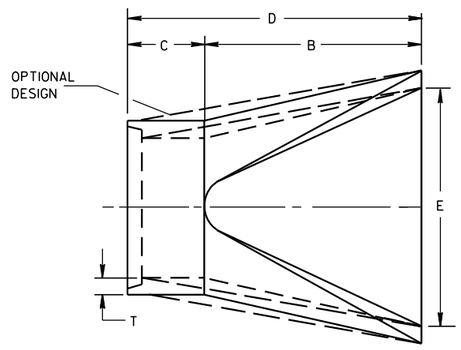


END VIEW

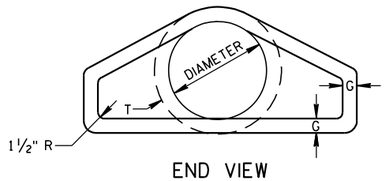


SIDE ELEVATION

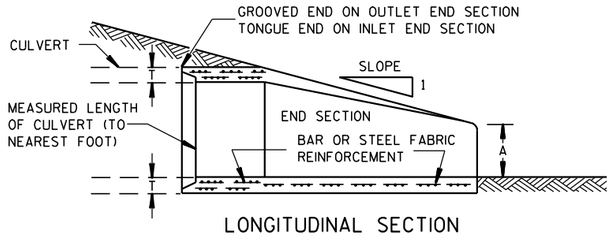
METAL ENDWALLS



PLAN

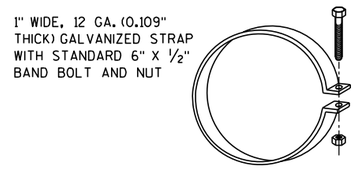


END VIEW



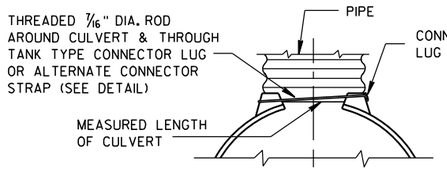
LONGITUDINAL SECTION

CONCRETE ENDWALLS

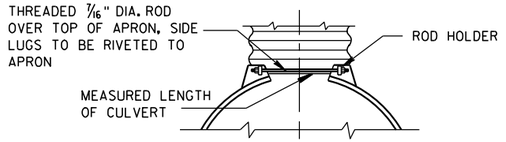


ALTERNATE FOR TYPE 1 CONNECTION

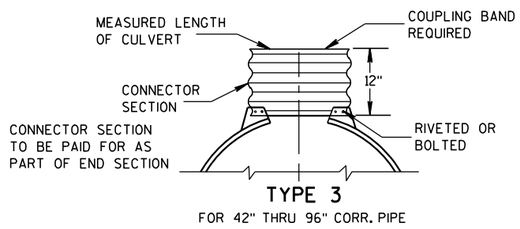
END SECTION CONNECTOR STRAP



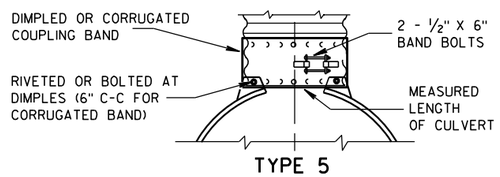
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

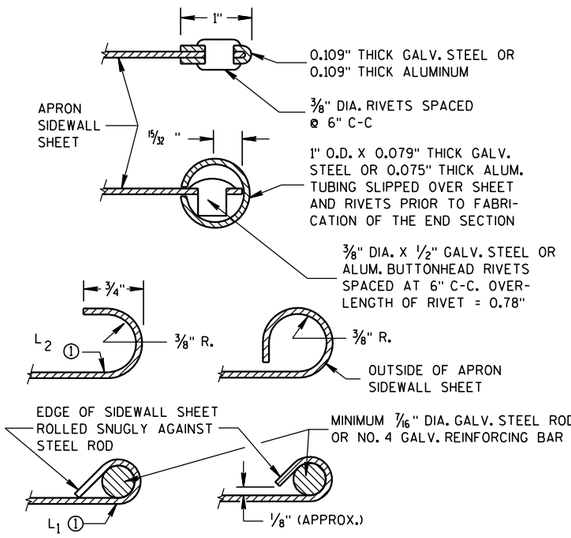
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

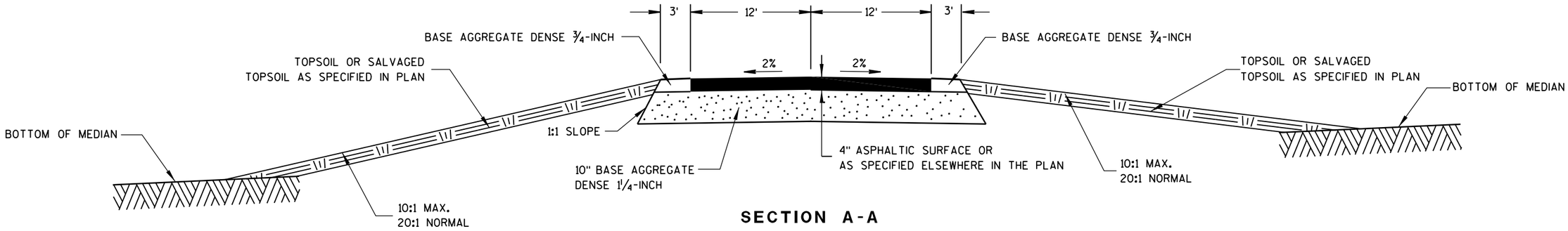
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

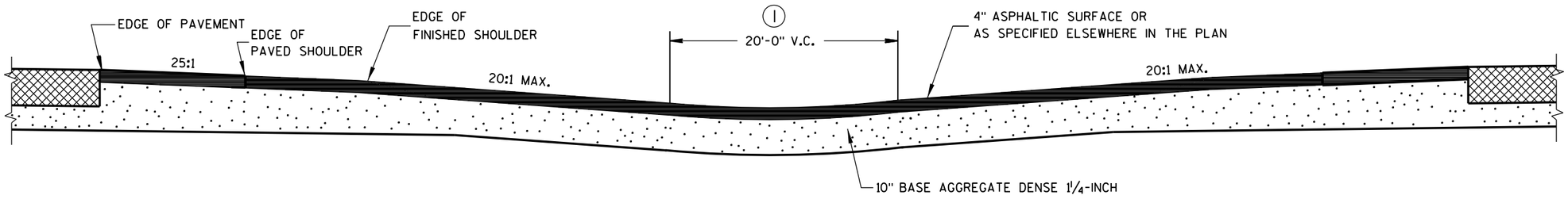
APPROVED
11/30/94 — DATE
/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

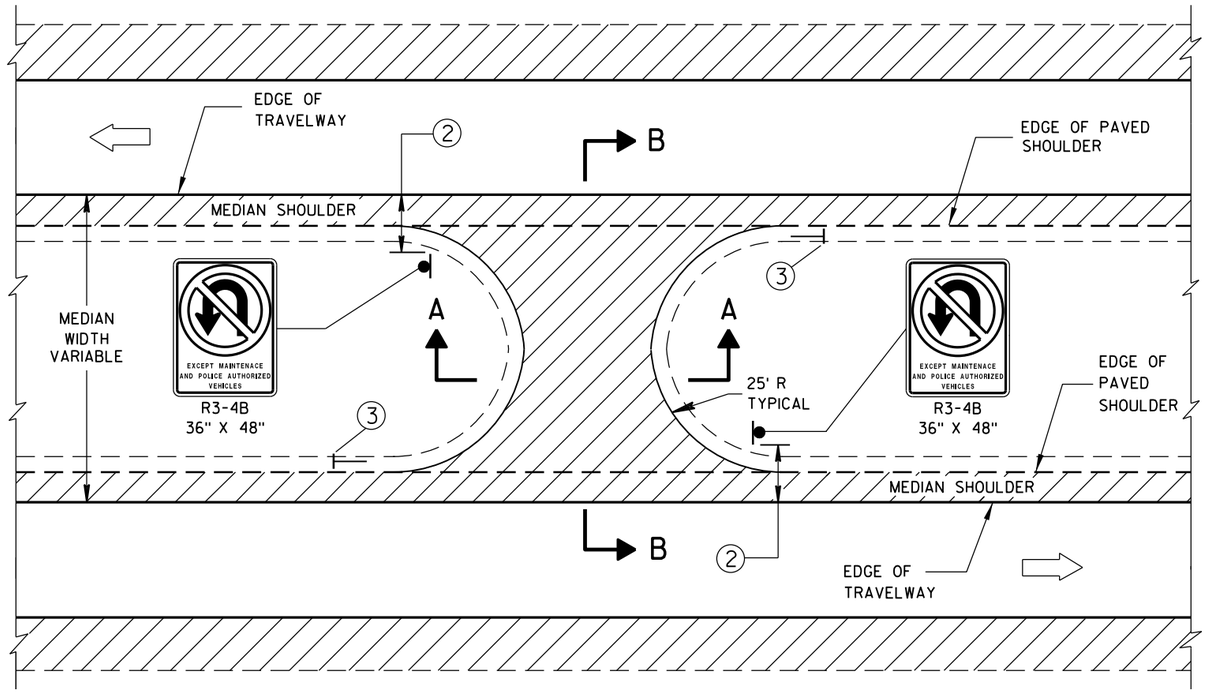
S.D.D. 8 F 1-11



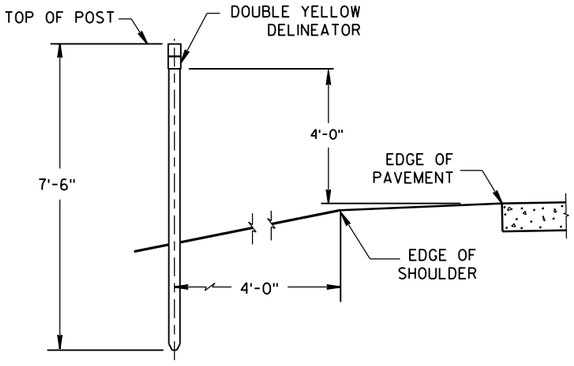
SECTION A-A



SECTION B-B



PLAN VIEW



DOUBLE YELLOW DELINEATOR INSTALLATION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) ADJUST VERTICAL CURVE LOCATION LATERALLY TO MAINTAIN 20:1 MAX.

(2) SIGNING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

(3) INSTALL DOUBLE YELLOW DELINEATOR. SEE STANDARD DETAIL DRAWING 15A2.

MAINTENANCE CROSSOVER FOR FREEWAYS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

6

S.D.D. 11 A 1-5

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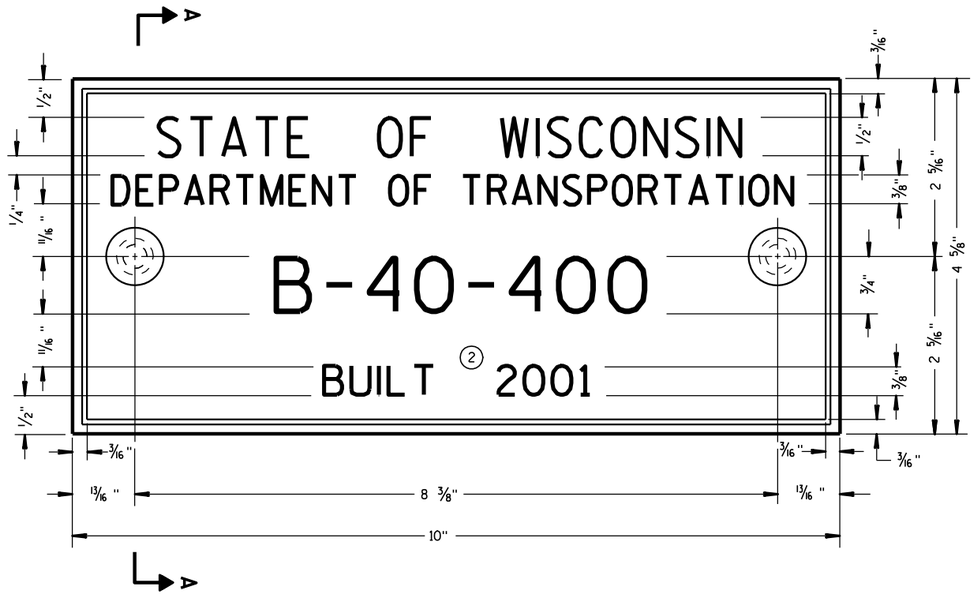
S.D.D. 11 A 1-5



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

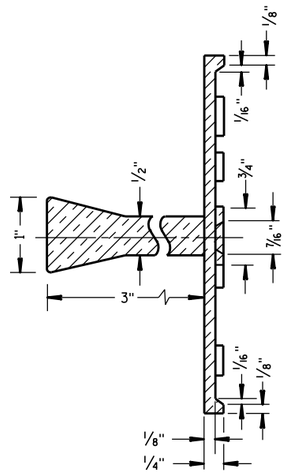
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

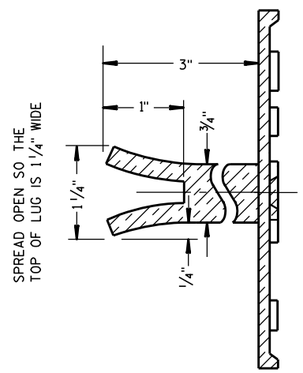
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

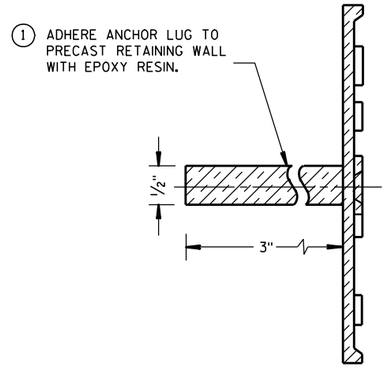
COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

/S/ Scot Beck CHIEF STRUCTURAL DEVELOPMENT ENGINEER

FHWA

6

S.D.D. 12 A 3-10

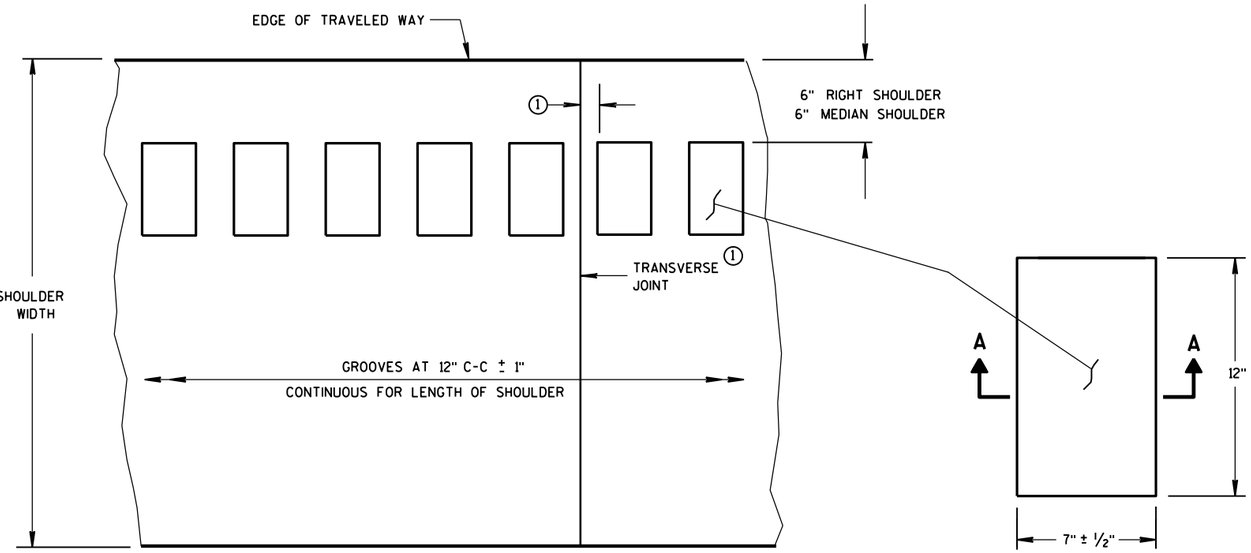
GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

RUMBLE STRIPS ON EXPRESSWAYS

DO NOT INSTALL RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL DRIVEWAYS, PRIVATE DRIVEWAYS OR ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, BRIDGE DECKS, BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSING. THE ATTACHED STANDARD DETAIL DRAWING SHOWS THE LOCATION OF THE RUMBLE STRIPS AT INTERCHANGE AREAS.

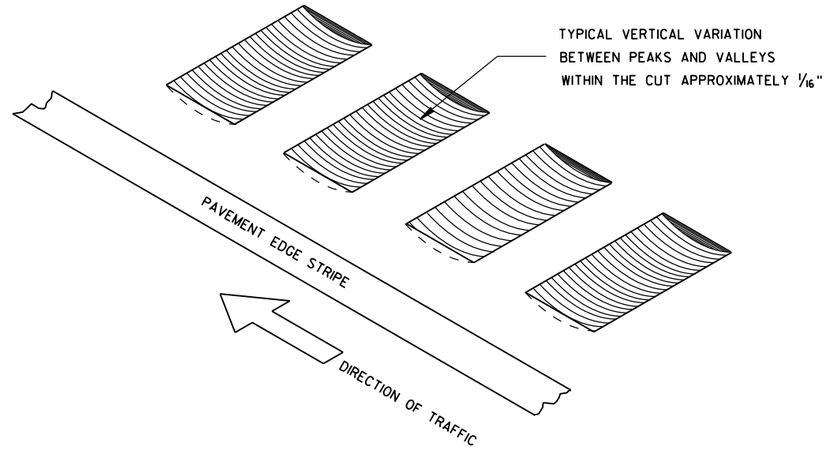
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



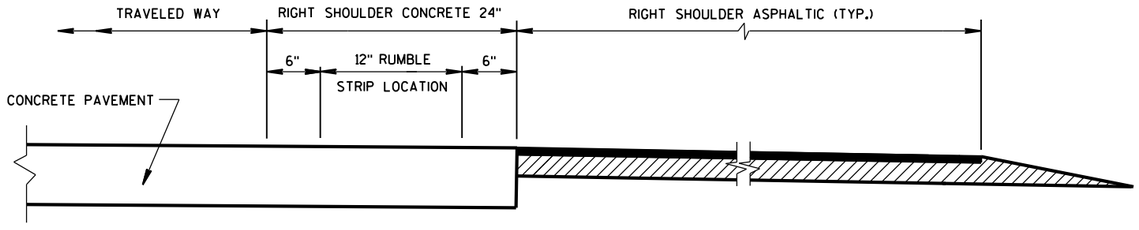
PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

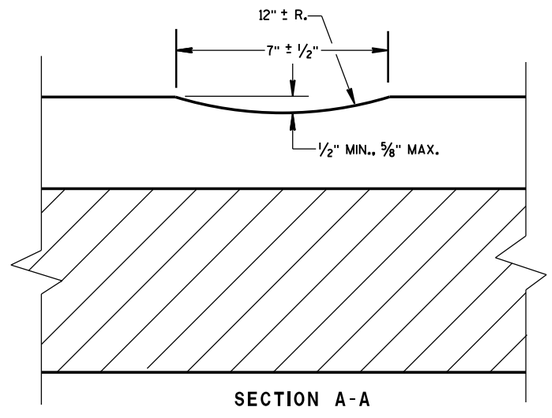
PLACEMENT DETAIL FOR MILLED RUMBLE STRIP



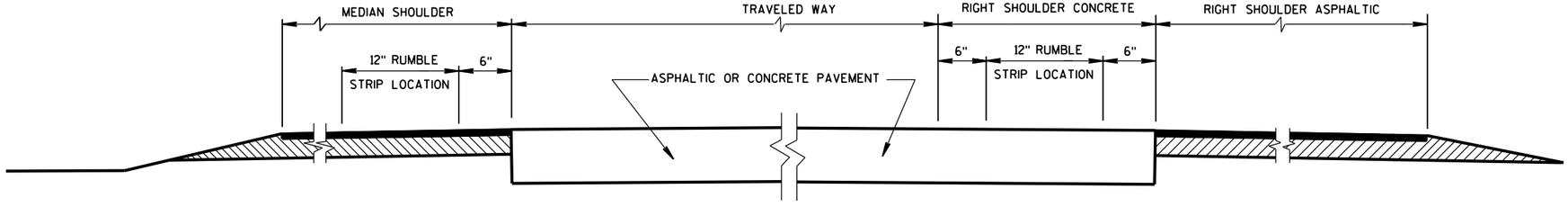
ISOMETRIC



SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION A-A



SECTION VIEW

TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS IN RURAL DIVIDED HIGHWAYS

(ONE ROADWAY IS SHOWN)

SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 13 A 5-5a

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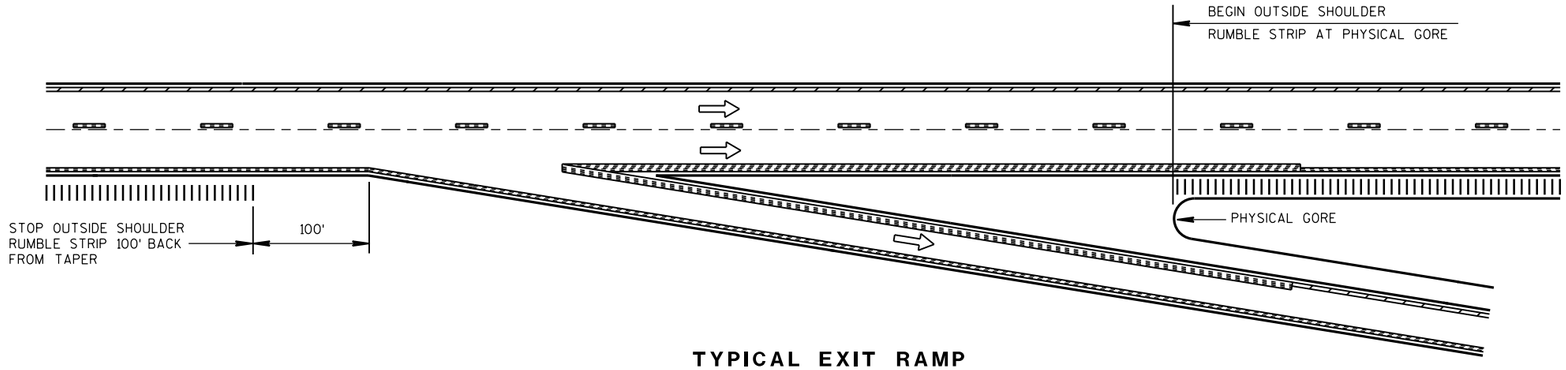
S.D.D. 13 A 5-5a



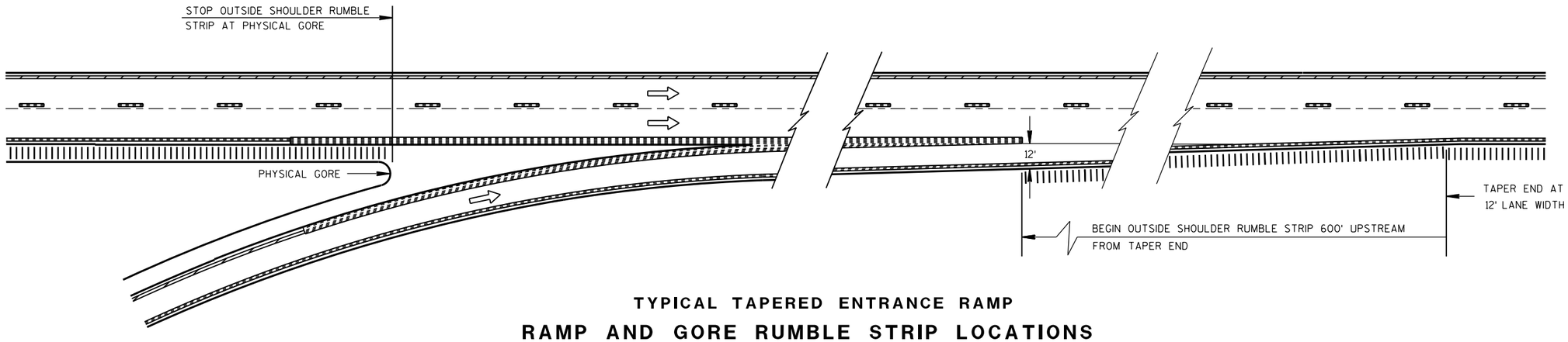
TYPICAL EXIT RAMP

NOTES:

NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

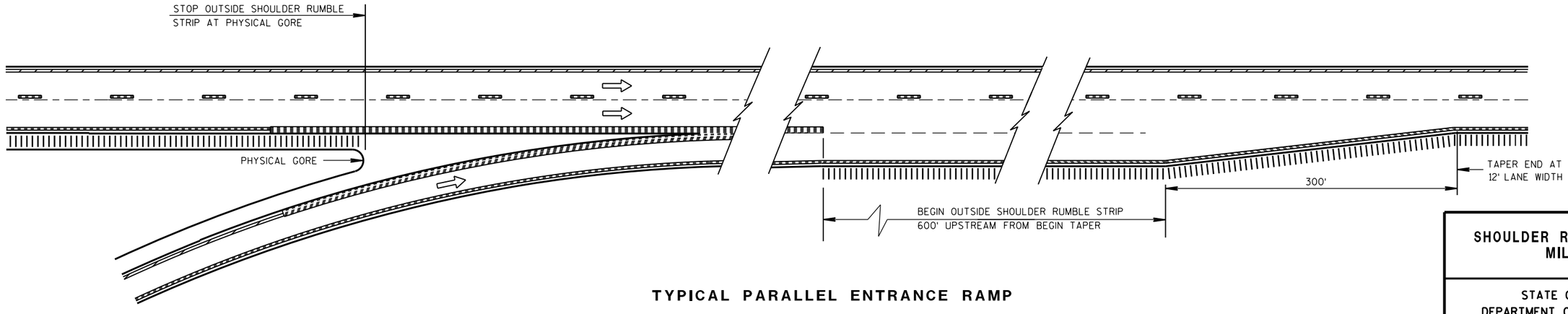
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TYPICAL TAPERED ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS

SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/17/2012
DATE

/S/ Jerry H. Zoga
ROADWAY STANDARDS ENGINEER

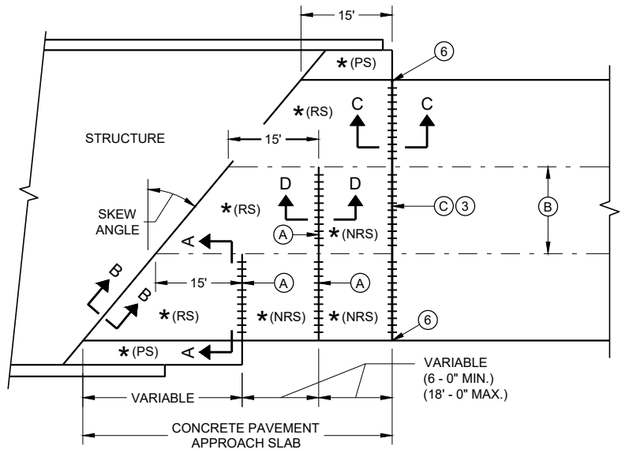
FHWA

6

S.D.D. 13 A 5-5b

6

S.D.D. 13 A 5-5b



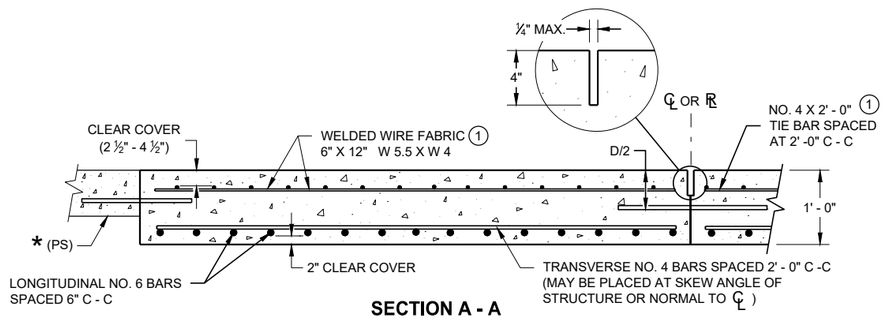
SKEWED APPROACH
(PAVEMENT MORE THAN TWO LANES)

* (RS) = REINFORCED CONCRETE SLAB

* (PS) = PAVECD CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB

* (NRS) - NON - REINFORCED CONCRETE SLAB

*** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11 AND SDD 13C13)



SECTION A - A
REINFORCEMENT POSITIONING DETAIL

GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

(1) THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2' - 0 " C - C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

(2) THE CONTRACTOR MAY OMIT THE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

(3) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

(4) USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.

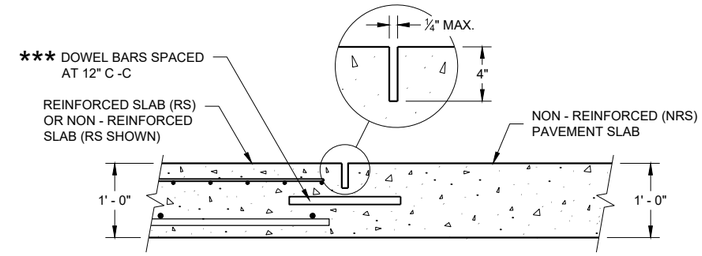
(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

(6) EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.

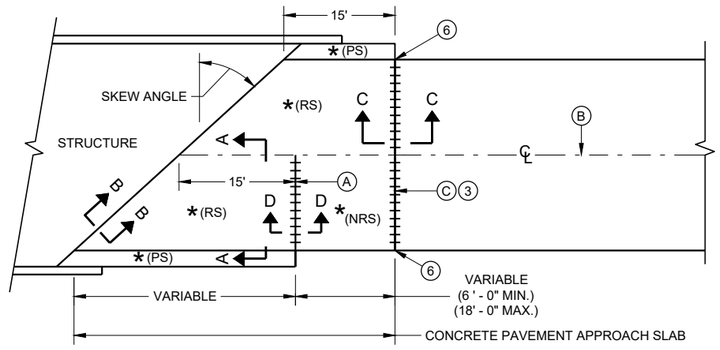
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℞.

(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.

(C) 1 ½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℞

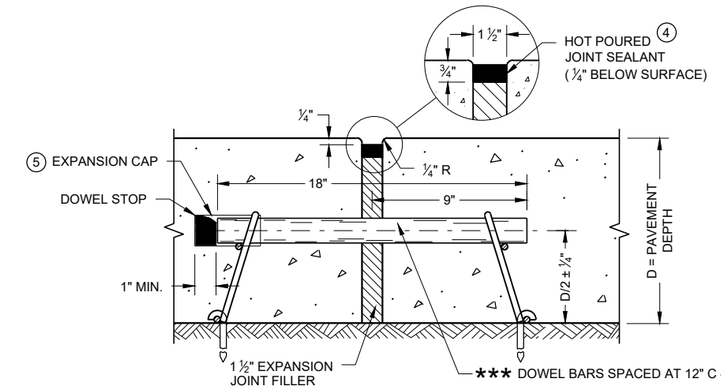


SECTION D - D
CONTRACTION JOINT

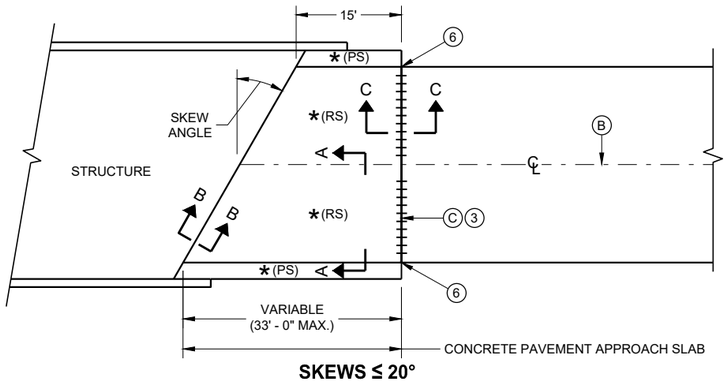


SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')

SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT

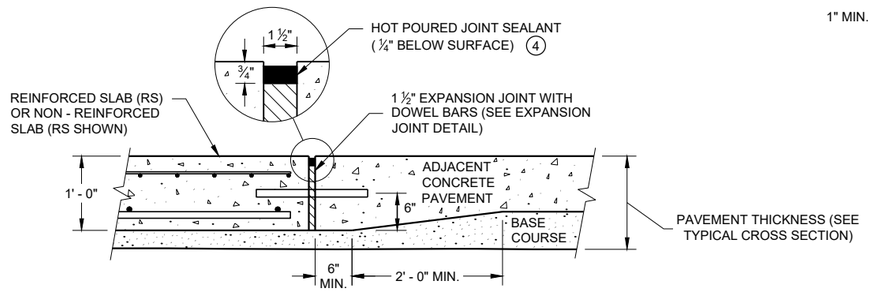


EXPANSION JOINT DETAIL



SKEWS ≤ 20°
(PAVEMENT WIDTH ≤ 30')

APPROACH SLAB AND ADJACENT PAVEMENT



SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

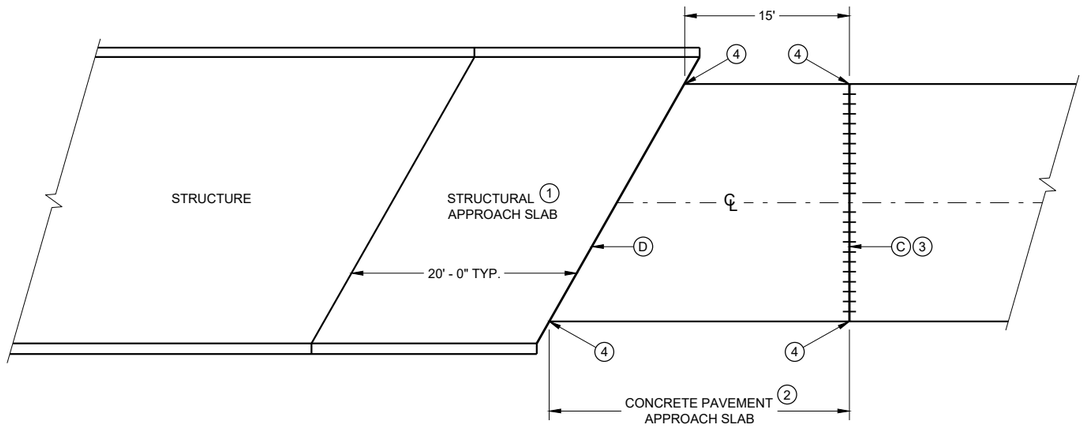
APPROVED
November 2018
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVISOR

FHWA

6

SDD 13B02 - 09a



BRIDGE APPROACHES

GENERAL NOTES

ALL PROJECTS THAT INVOLVE A STRUCTURAL APPROACH SLAB WILL ALSO HAVE A CONCRETE PAVEMENT APPROACH SLAB.

(1) SEE BRIDGE PLAN.

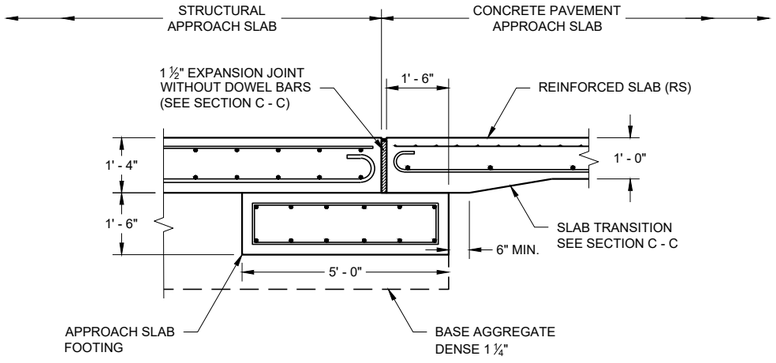
(2) CONFORM TO SDD 13B02 SHEET A FOR CONCRETE PAVEMENT APPROACH SLAB DETAILS

(3) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

(4) EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.

(C) 1 ½" EXPANSIONT JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℞.

(D) 1 ½" EXPANSION JOINT (NO DOWELS)



SECTION E - E
FOOTING DETAIL
STRUCTURAL APPROACH SLAB TO CONCRETE BRIDGE APPROACH

STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

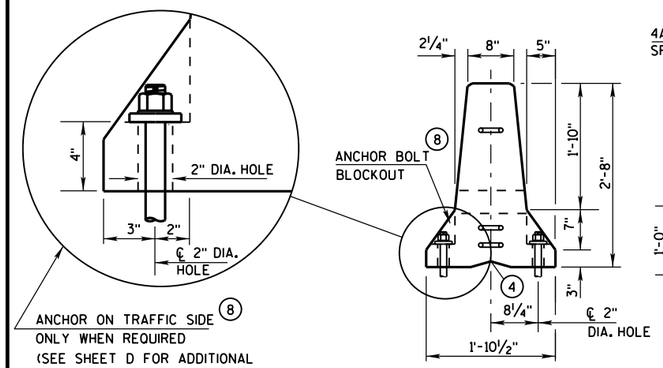
APPROVED
November 2018
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

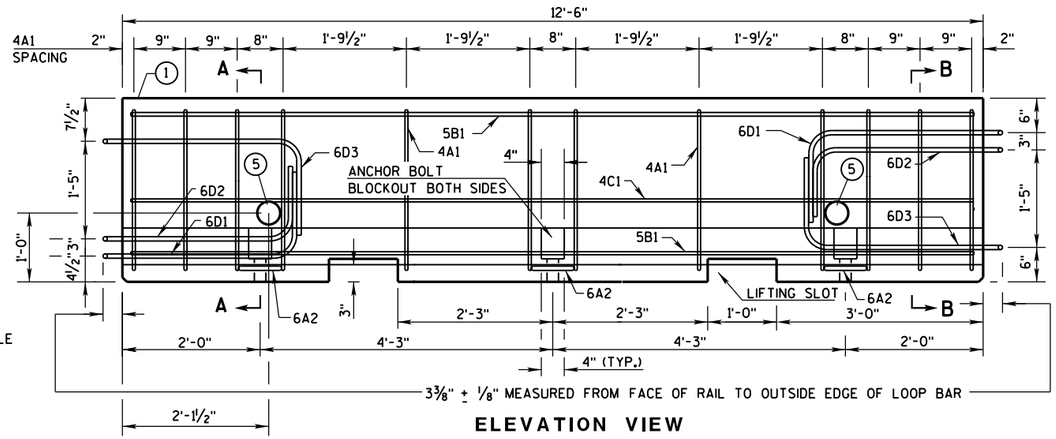
FHWA

6

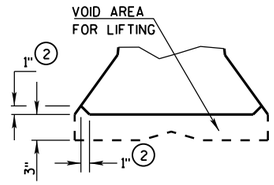
SDD 13B02 - 09b



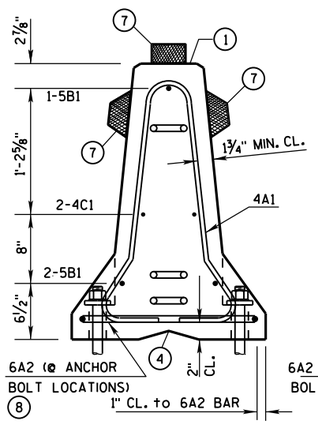
END VIEW



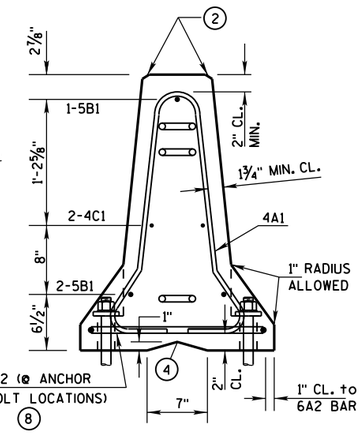
ELEVATION VIEW



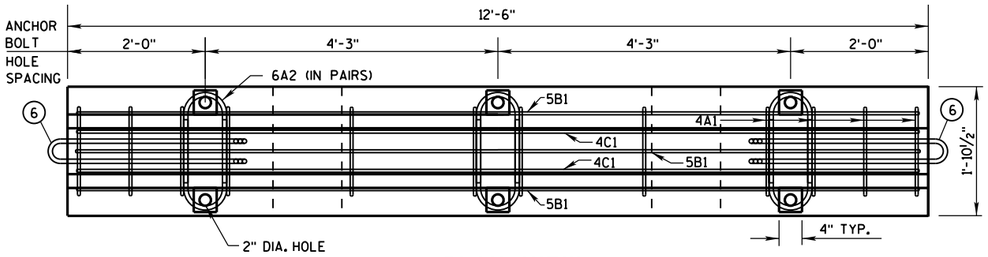
DETAIL "B"
LIFTING SLOT DETAIL



SECTION A-A
(STIRRUP PLACEMENT)

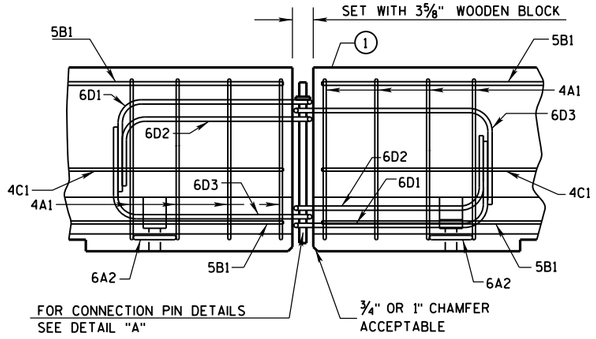


SECTION B-B
(STIRRUP PLACEMENT)

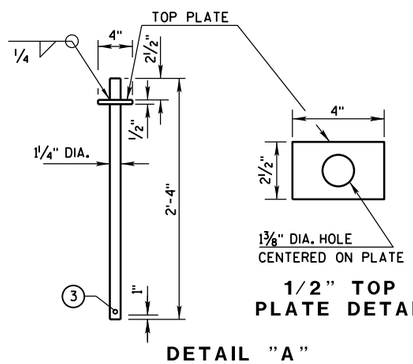


PLAN VIEW

DETAILS OF BARRIER SECTION

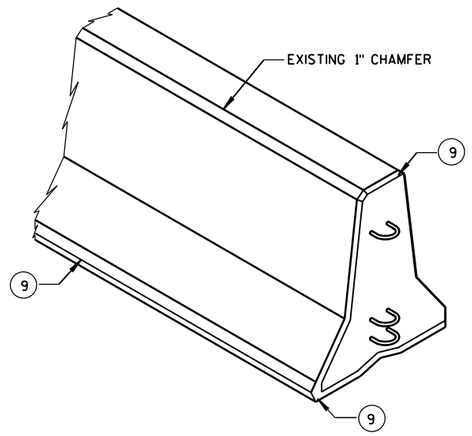


DETAILS OF BARRIER CONNECTION



1/2" TOP
PLATE DETAIL

DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-15(a) THRU 14B7-15(i).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR ADHESIVE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WI CBTP
- b. MANUFACTURER
- c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

(6) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

(8) SEE SHEET D FOR HOW TO ANCHOR BARRIER. SEE SHEET E FOR WHEN TO ANCHOR BARRIER.

(9) 1" CHAMFER OPTIONAL.

f'c = 4,000 psi

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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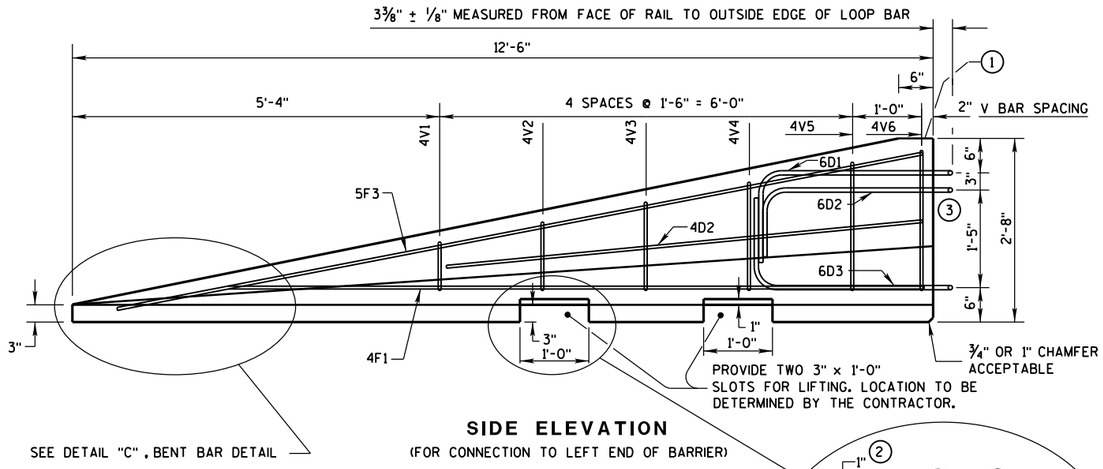
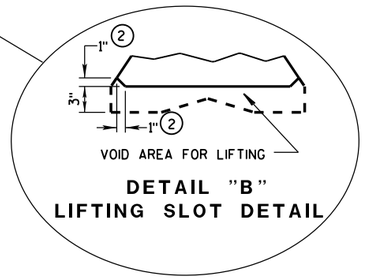
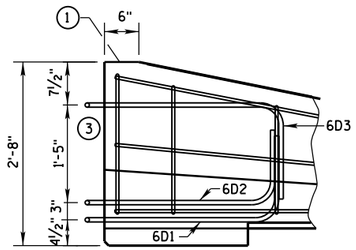
S.D.D. 14 B 7-15a



SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)



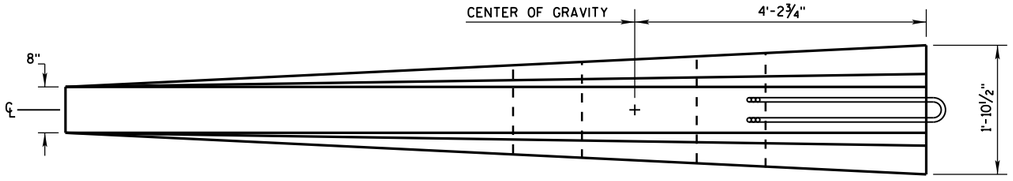
DETAIL "B"
LIFTING SLOT DETAIL



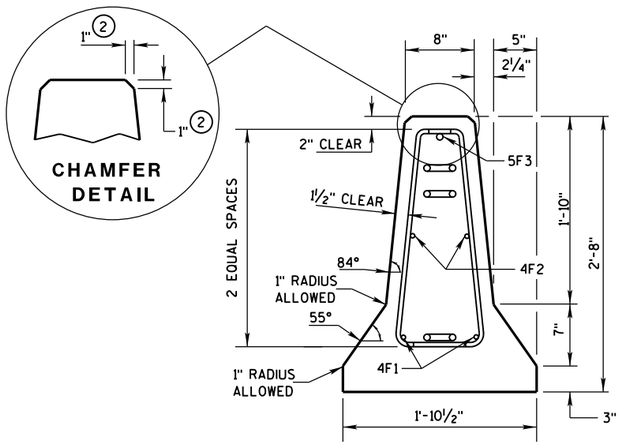
SIDE ELEVATION
LOOP BAR ASSEMBLY INVERTED
FOR OPPOSITE END.
(FOR CONNECTION TO RIGHT END OF BARRIER)

GENERAL NOTES

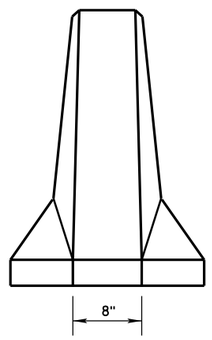
1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.



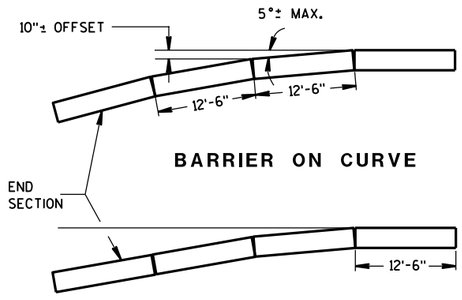
PLAN VIEW



END SECTION



FRONT ELEVATION



BARRIER ON CURVE

FLARE AT BARRIER END

POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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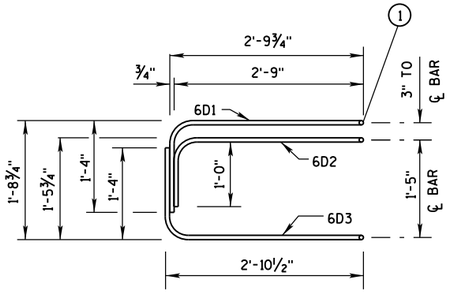
S.D.D. 14 B 7-15b

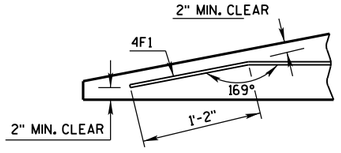
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

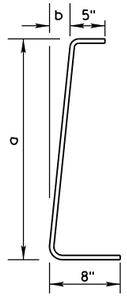
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

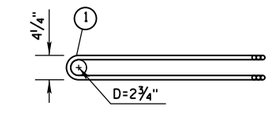
GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

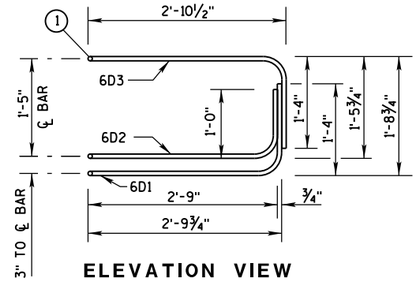
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

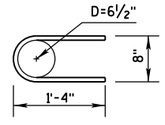
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



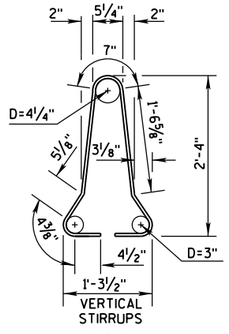
PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



ELEVATION VIEW



6A2



4A1

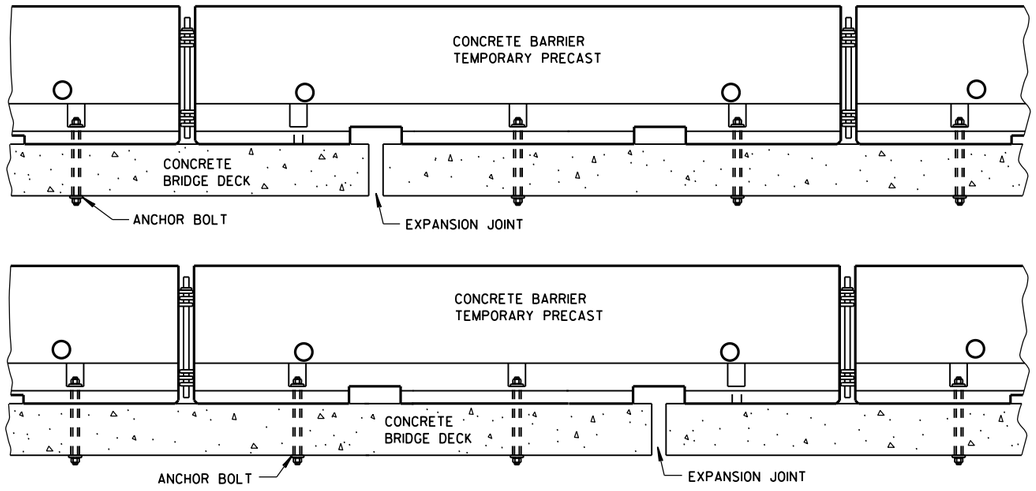
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 7-15c



TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)

GENERAL NOTES

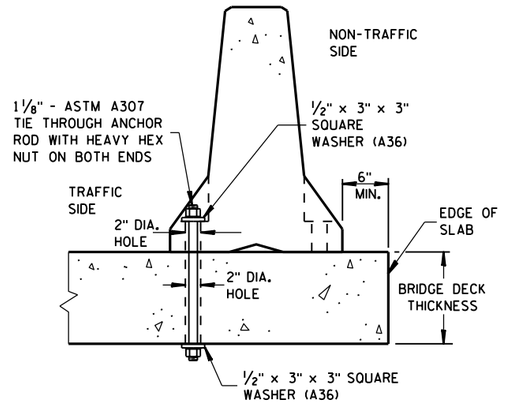
SEE SHEET E FOR WHEN TO ANCHOR. OTHER PARTS OF THE PLAN MAY SHOW ADDITIONAL LOCATIONS REQUIRING ANCHORING.

REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH SLABS WITH NON-SHRINK COMMERICAL GROUT FROM THE APPROVED PRODUCT LIST. FILL ASPHALT PAVEMENTS WITH ASTM D6690 TYPE II RUBBERIZED CRACK FILLER.

(1) 1⅛" DIAMENTER A307 THREADED ROD. ½" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL. ASTM A563A HEAVY HEX NUT.

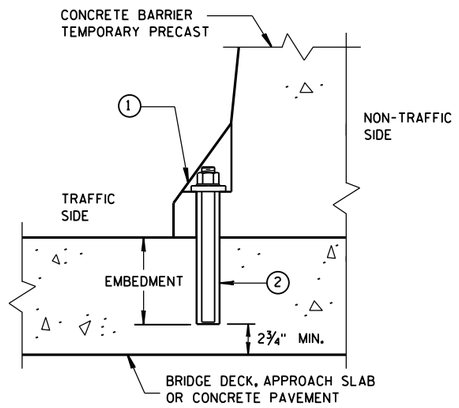
(2) ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5¼" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.

(3) ASPHALT SURFACE SHOWN. CONTRACTOR MAY DRILL THROUGH CONCRETE PAVEMENT AND THAN DRIVE ASPHALT ANCHOR PIN.



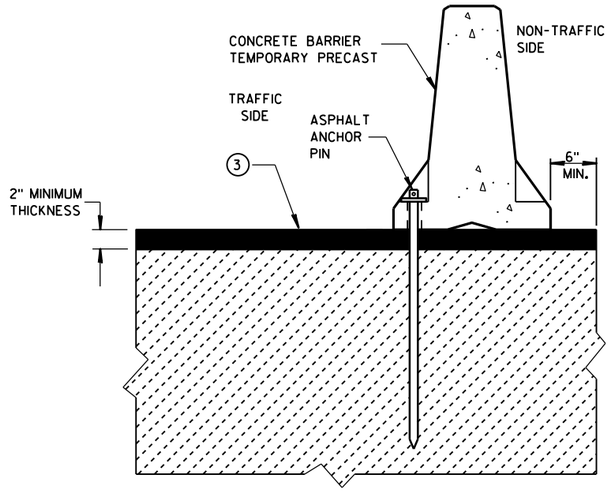
THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)

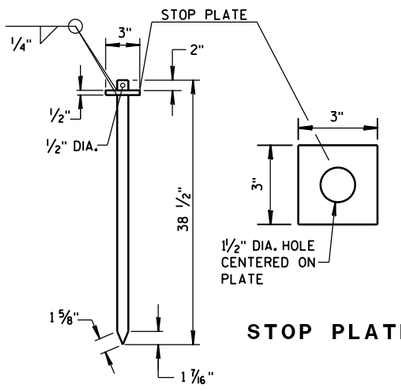


REMOVABLE ADHESIVE ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)



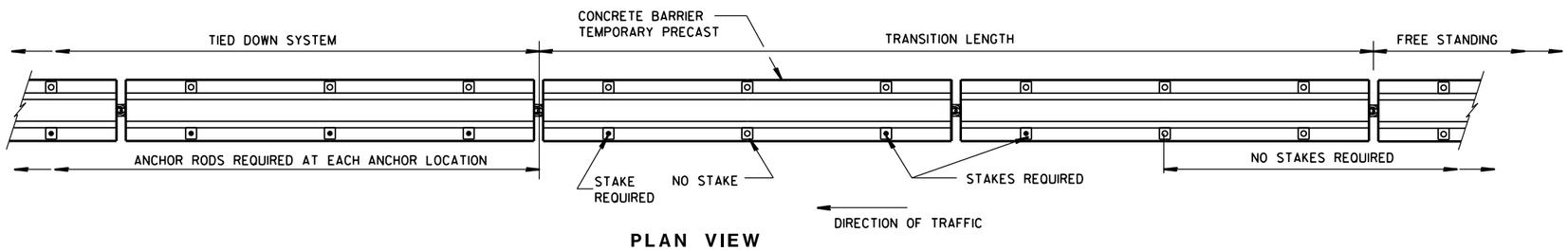
STAKE DOWN INSTALLATION FOR ASPHALTIC SURFACE



STOP PLATE

ASPHALT ANCHOR PIN

(ASTM A36 STEEL)



PLAN VIEW

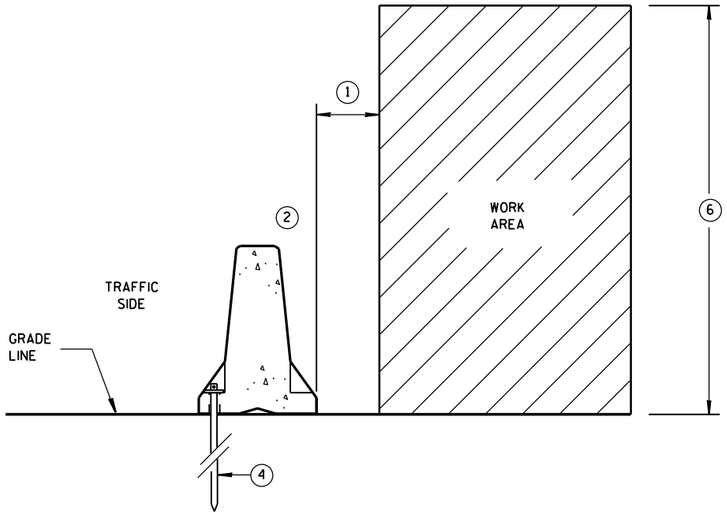
FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

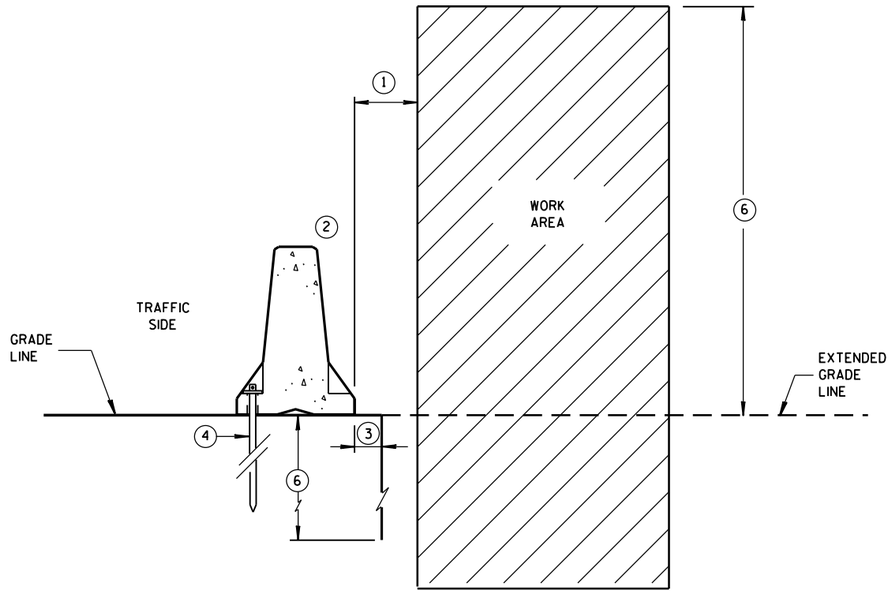
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 7-15d



ANCHORED BARRIER SPACE REQUIREMENTS FOR HAZARDS EXTENDED ABOVE THE GRADE LINE

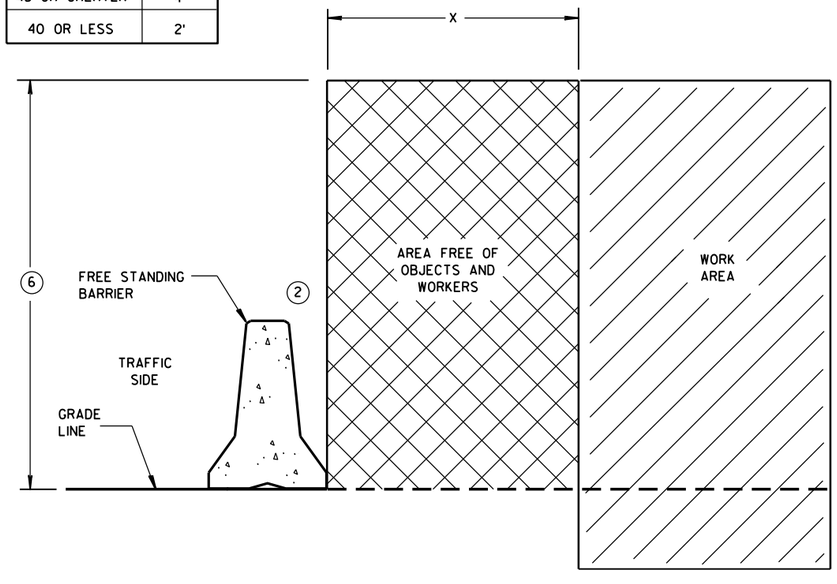


ANCHORED BARRIER SPACE REQUIREMENTS ON VERTICAL DROP OFFS

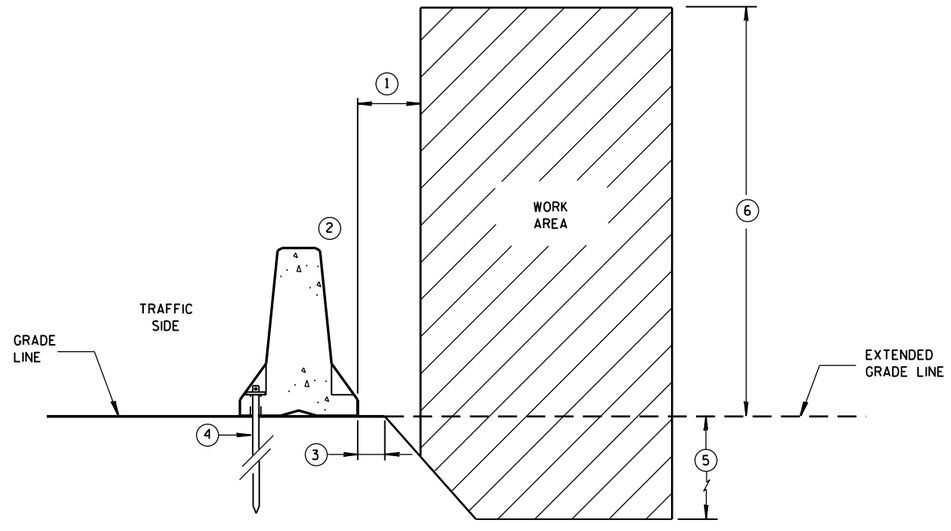
GENERAL NOTES

1. WHEN OBJECTS EXTEND ABOVE THE GRADE, A MINIMUM OF 1 FOOT IS REQUIRED FROM BACK OF BARRIER TO OBJECT. SEE OTHER DETAILS FOR FOR THE MINIMUM OFFSET FROM BACK OF BARRIER TO SLOPES OR VERTICAL DROPS.
2. OBJECTS ARE NOT TO BE PLACED ON, MOUNTED TO, OR LEANED AGAINST THE BARRIER WITHOUT PERMISSION OF THE PROJECT ENGINEER.
3. SEE OTHER DETAIL ON SHEET "D" FOR SPACE REQUIREMENTS.
4. SEE BOLT THROUGH DECK, REMOVABLE ADHESIVE ANCHOR, OR A STAKE DOWN FOR ASPHALTIC SURFACE TREATMENT DETAILS. ASPHALTIC ANCHOR SHOWN.
5. DEPTH OF 3 FEET OR MORE.
6. Y = 6'-6".

POSTED SPEED MPH	X
45 OR GREATER	4'
40 OR LESS	2'



FREE STANDING BARRIER SPACE REQUIREMENTS



ANCHORED BARRIER SPACE REQUIREMENTS ON SLOPES

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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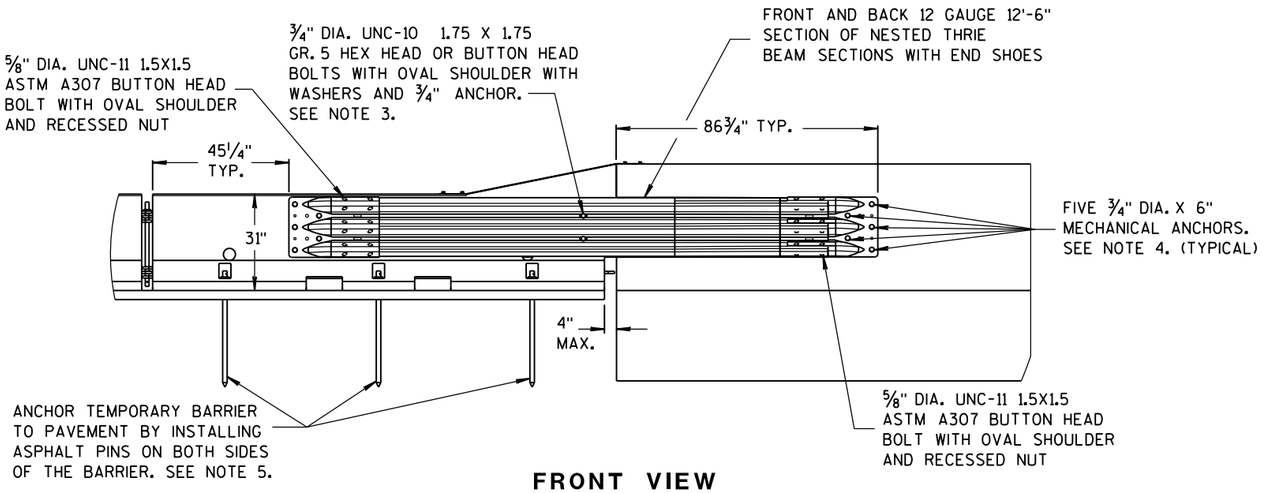
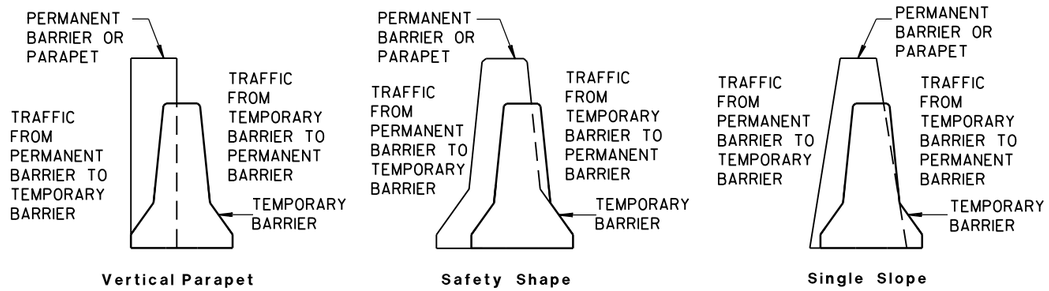
S.D.D. 14 B 7-15e



FRONT VIEW

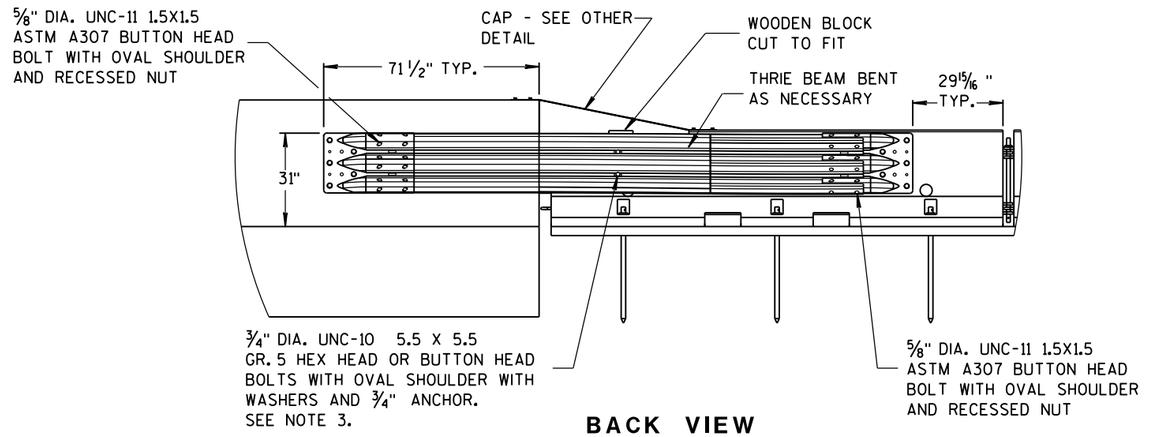


TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

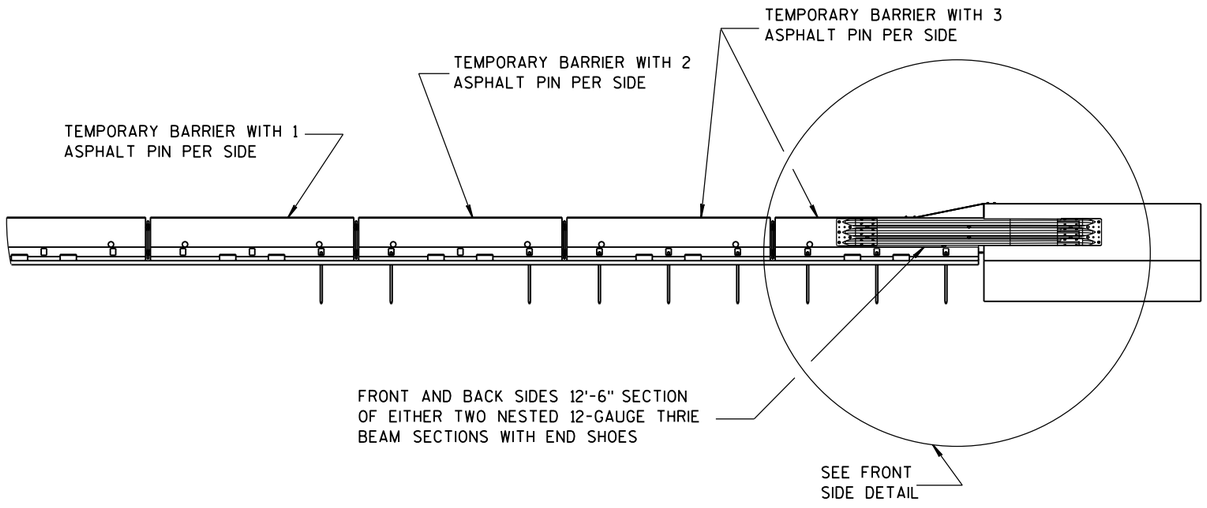
NOTES

NESTED THRIE BEAM IS REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS REGARDLESS OF TRAFFIC.

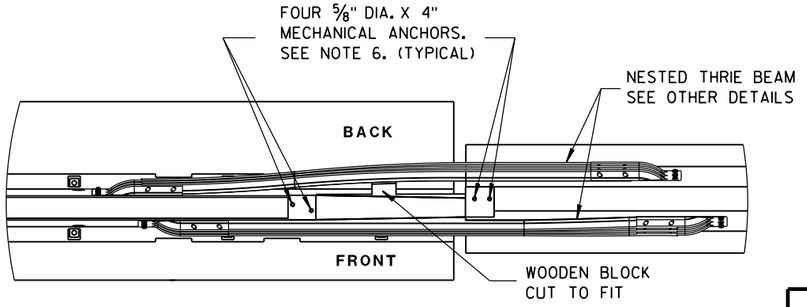
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.



BACK VIEW



FRONT VIEW



PLAN VIEW

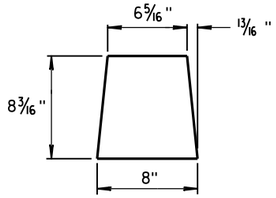
BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

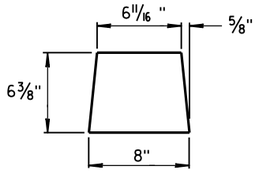
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

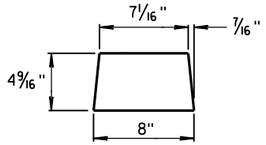
S.D.D. 14 B 7-15f



GUSSET 1



GUSSET 2



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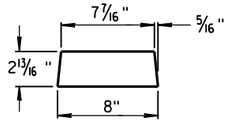
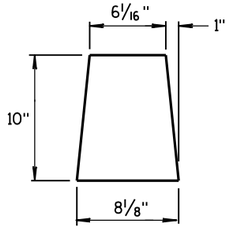
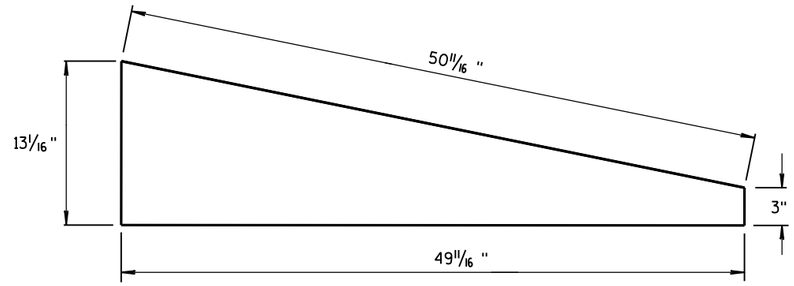


GUSSET 4

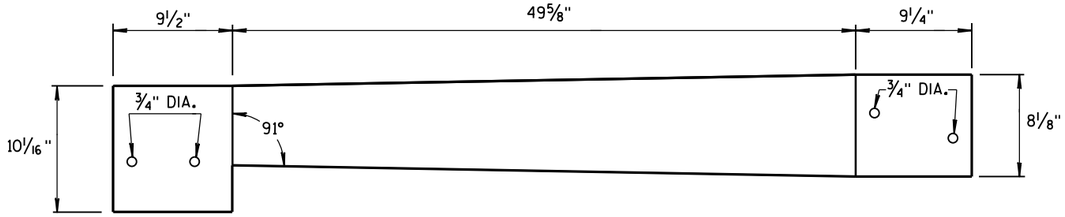
GUSSETS

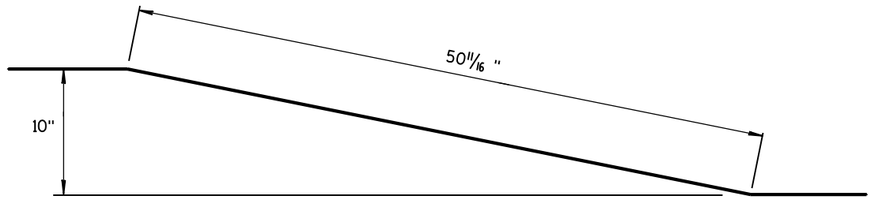


END PLATE



SIDE PLATE

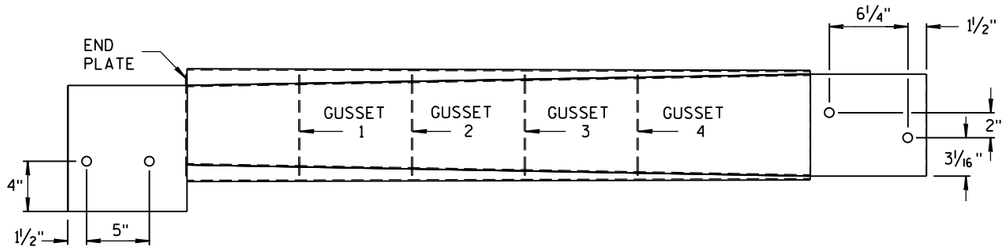


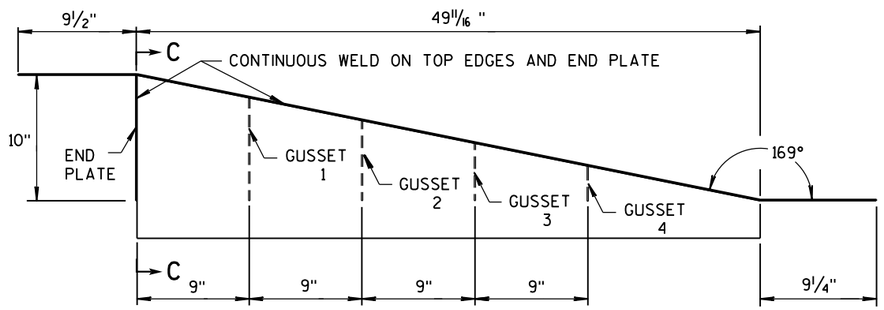


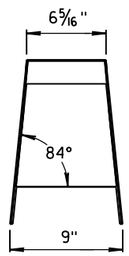
TOP PLATE

SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.







SECTION C-C

NOTES

1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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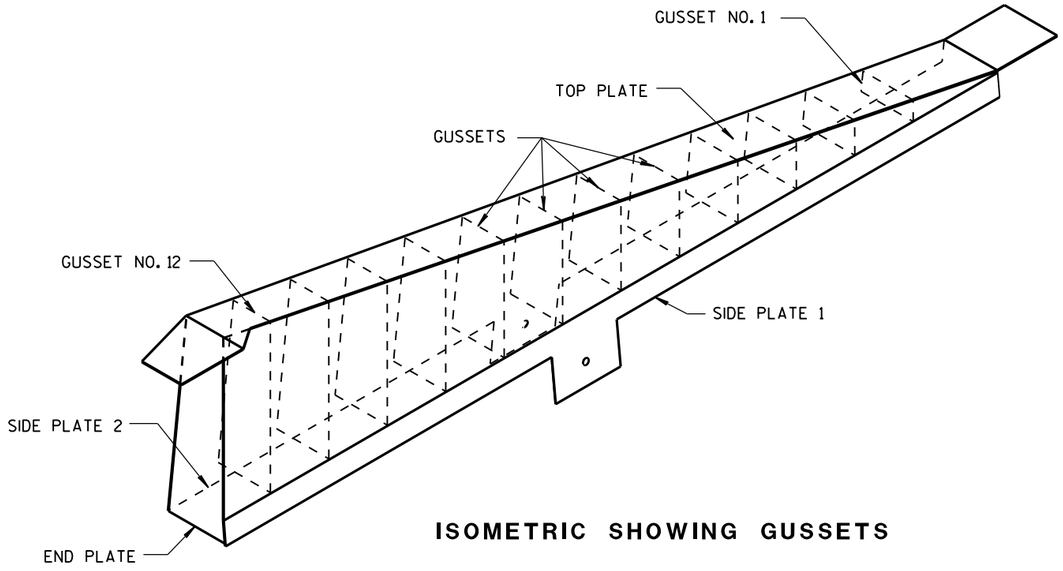
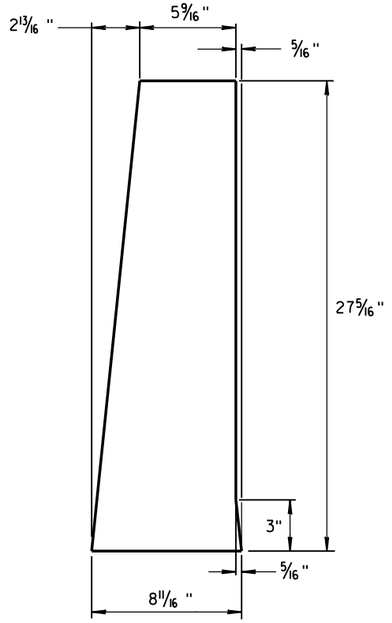
S.D.D. 14 B 7-15g

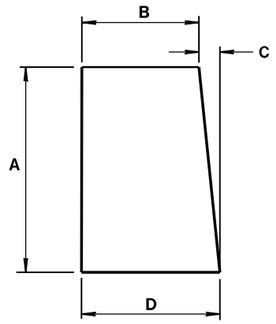


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



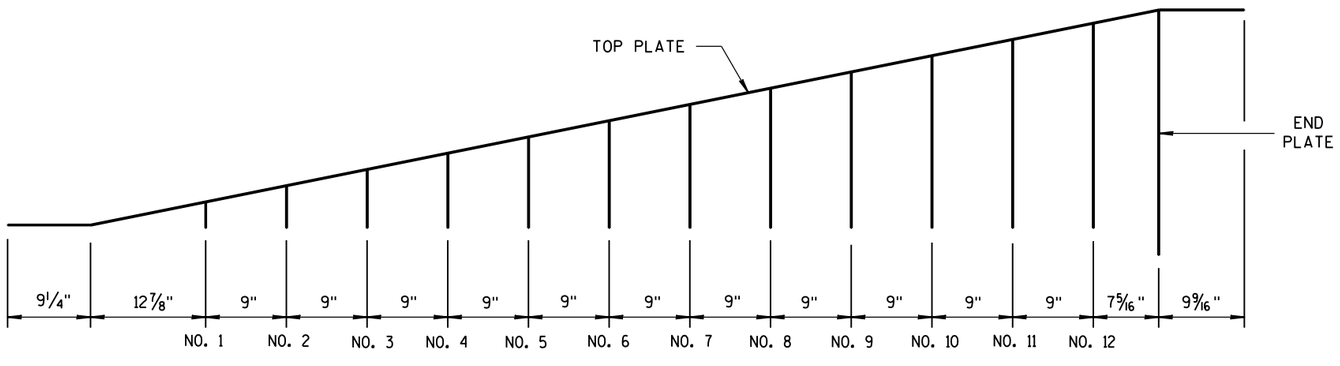
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 15/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



GUSSET LOCATION

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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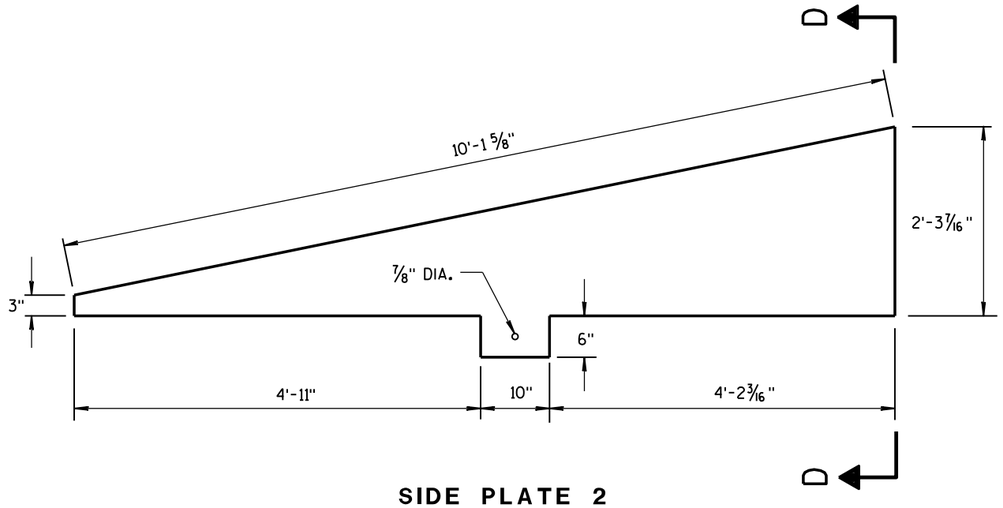
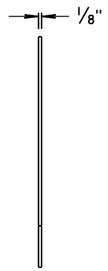
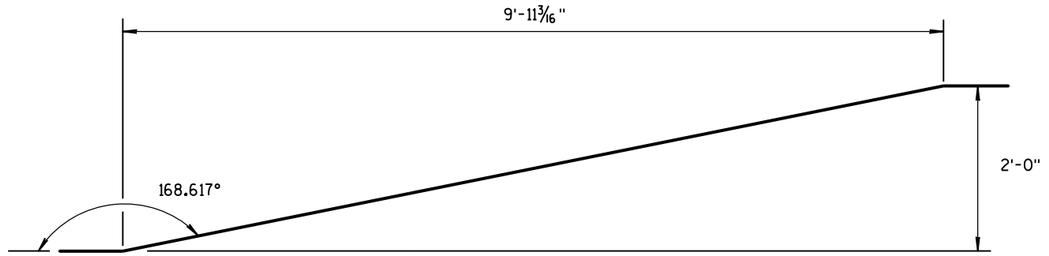


SIDE PLATE 2

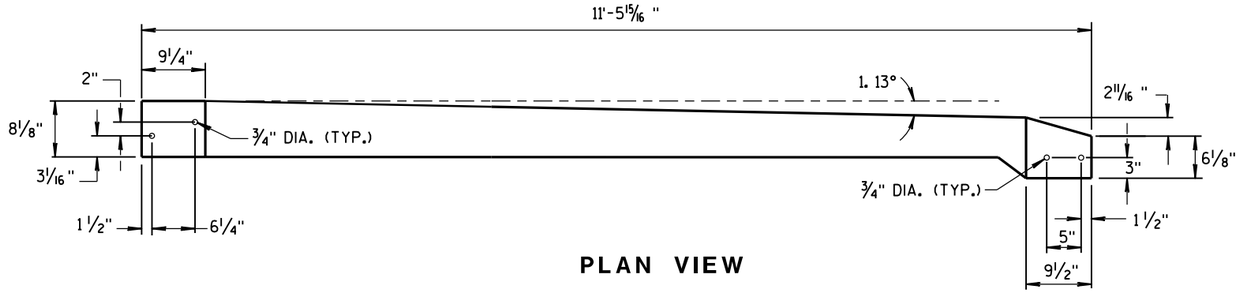


END VIEW



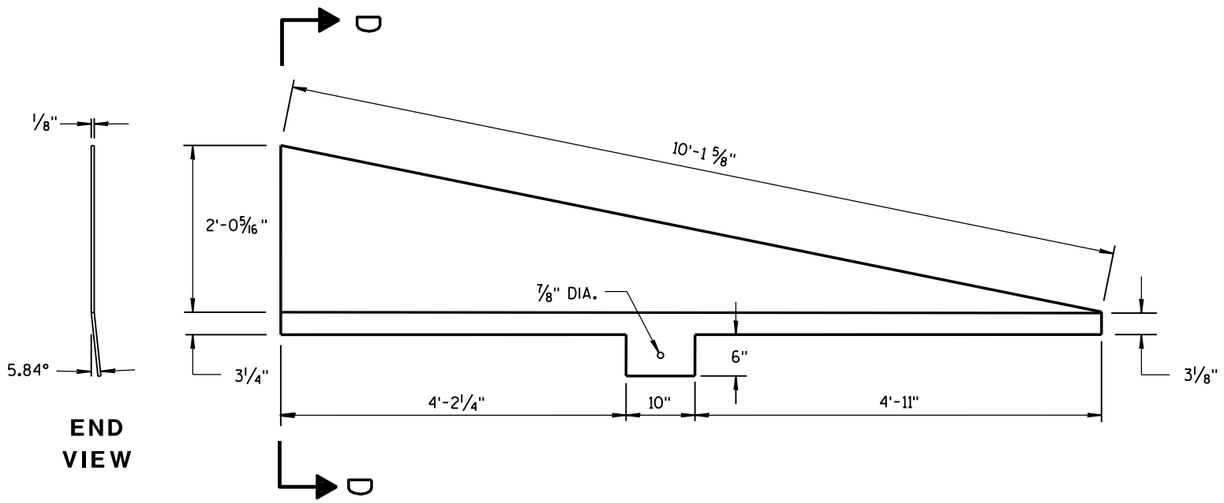
SIDE VIEW

TOP PLATE



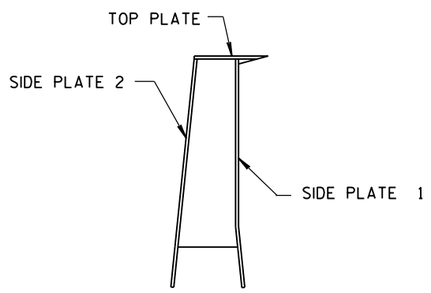
PLAN VIEW

TOP PLATE



END VIEW

SIDE PLATE 1



SECTION D-D

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERV
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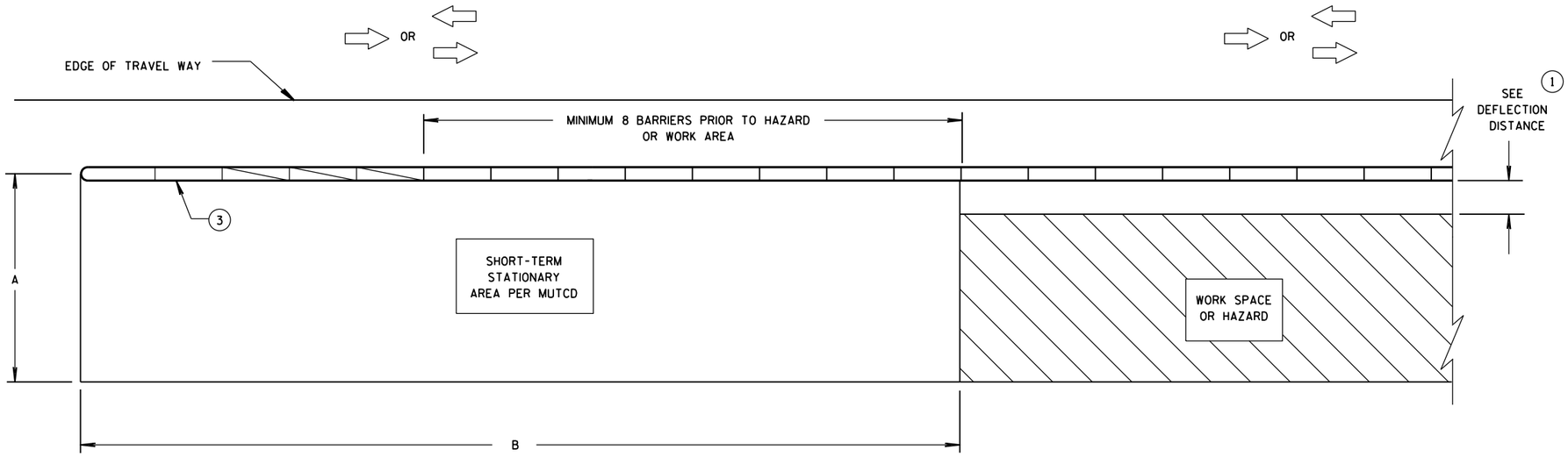


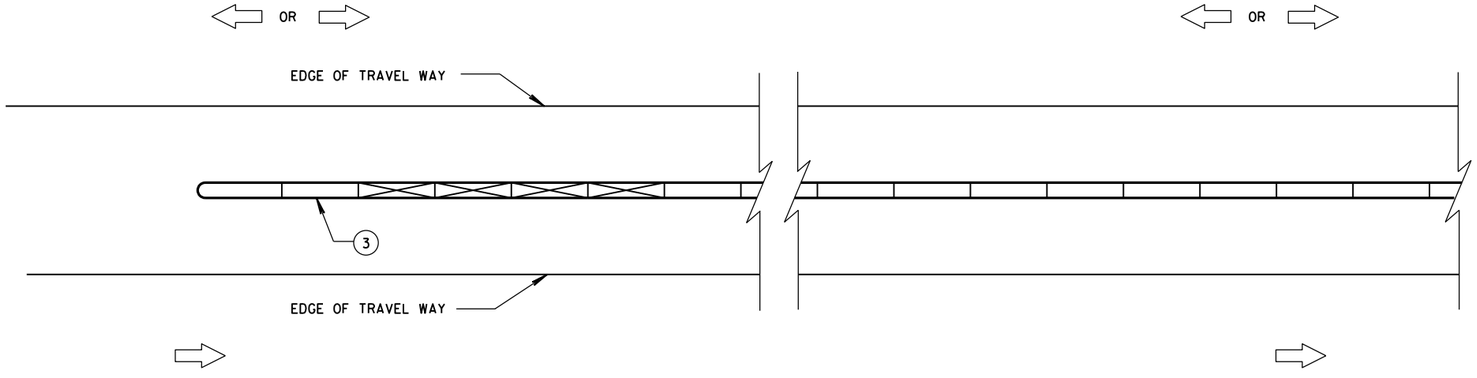
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

DIMENSION A TABLE (2)

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE (2)

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

(1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.

(2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

(3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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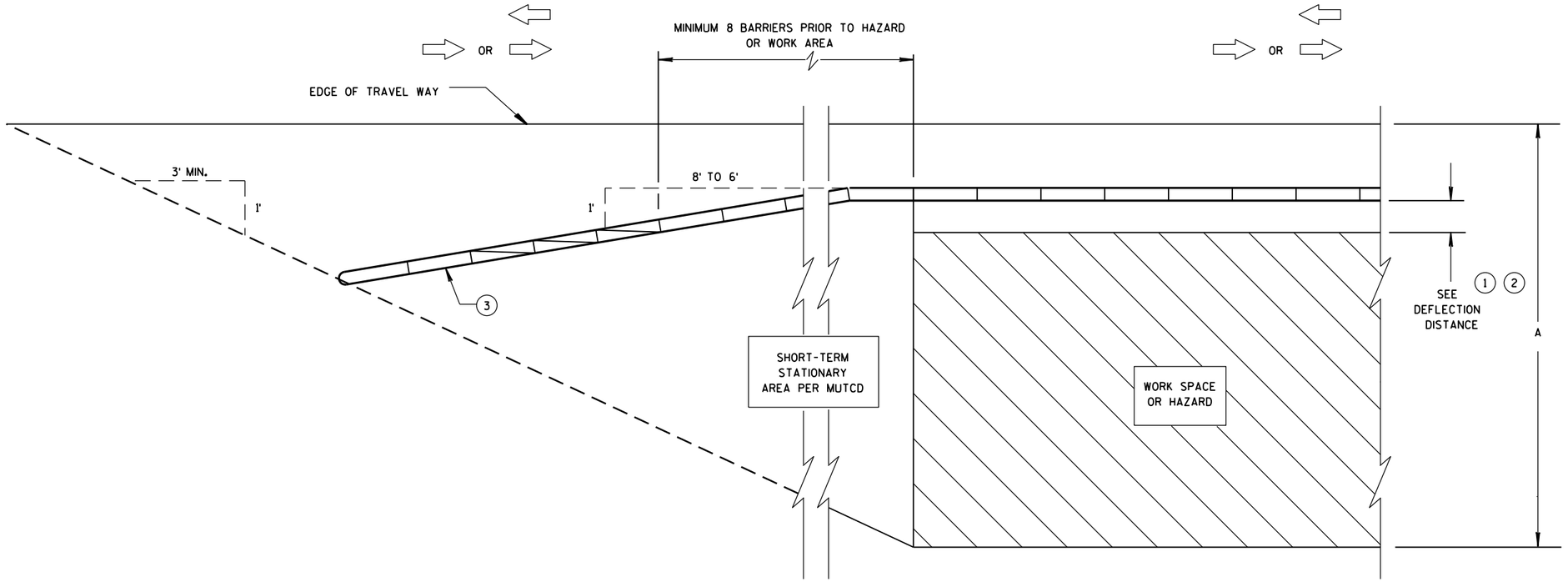
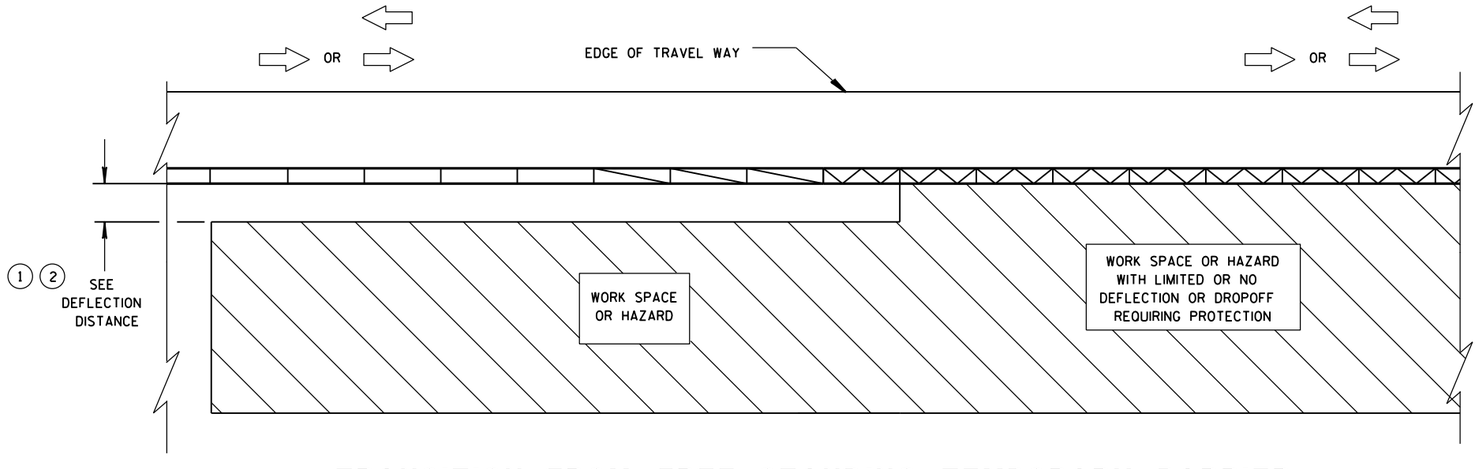


CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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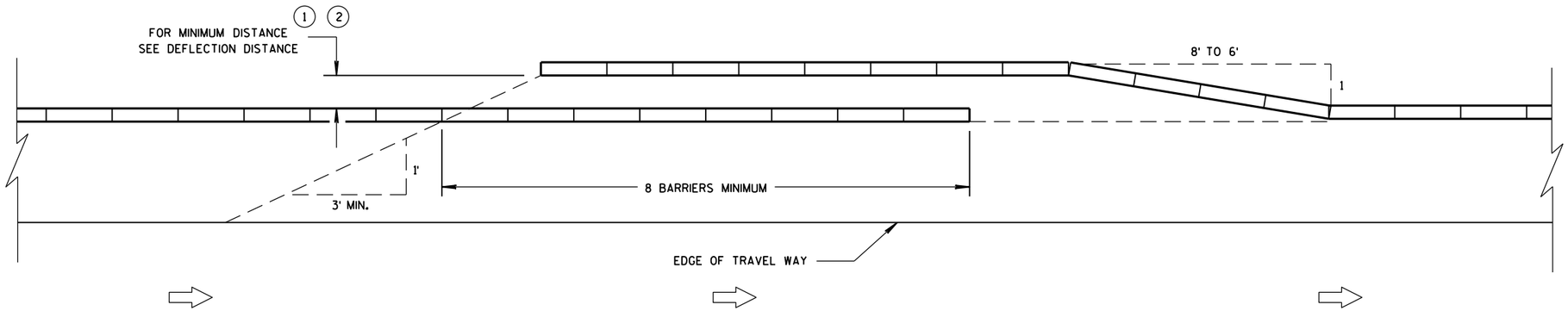
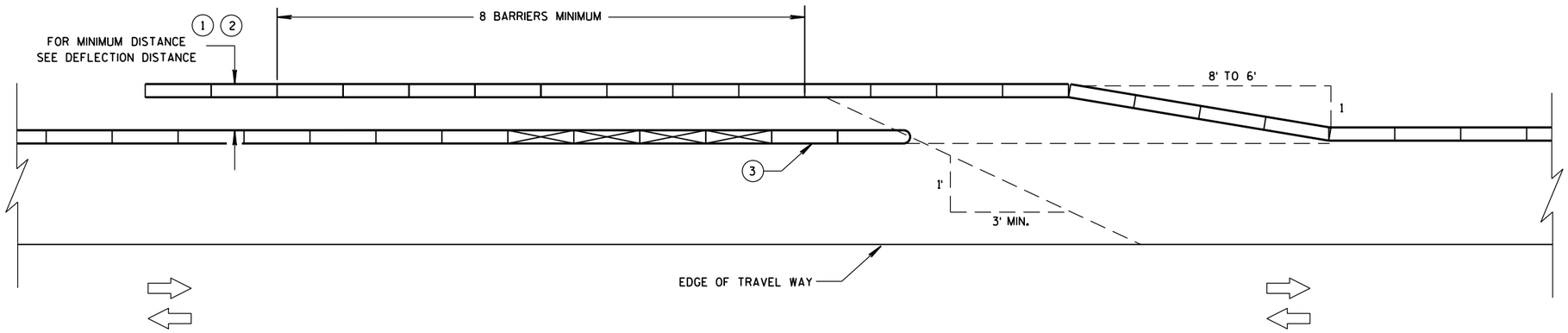
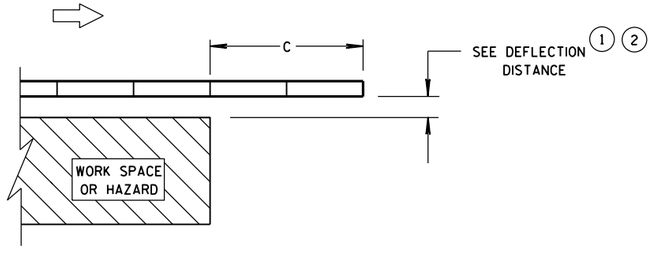
S.D.D. 14 B 8-2b



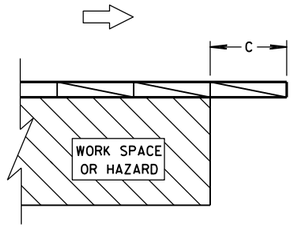
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

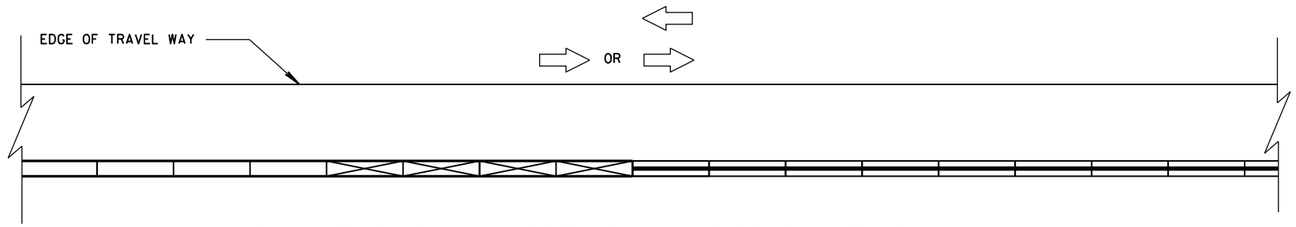
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

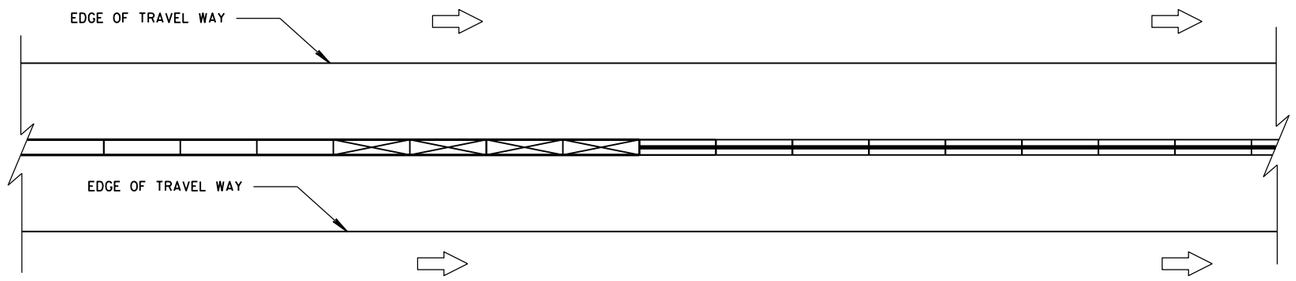
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 8-2c



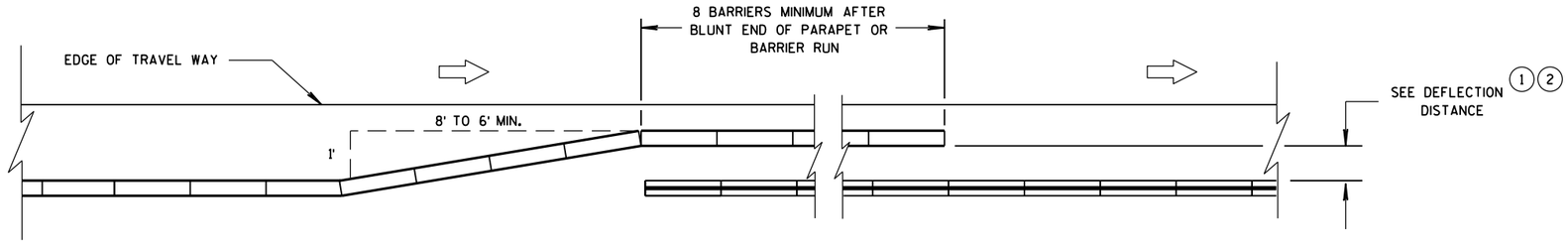
CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



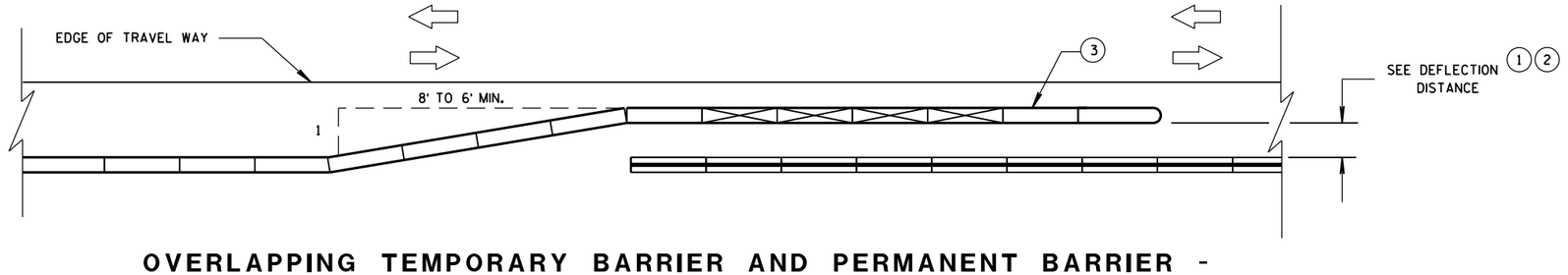
CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

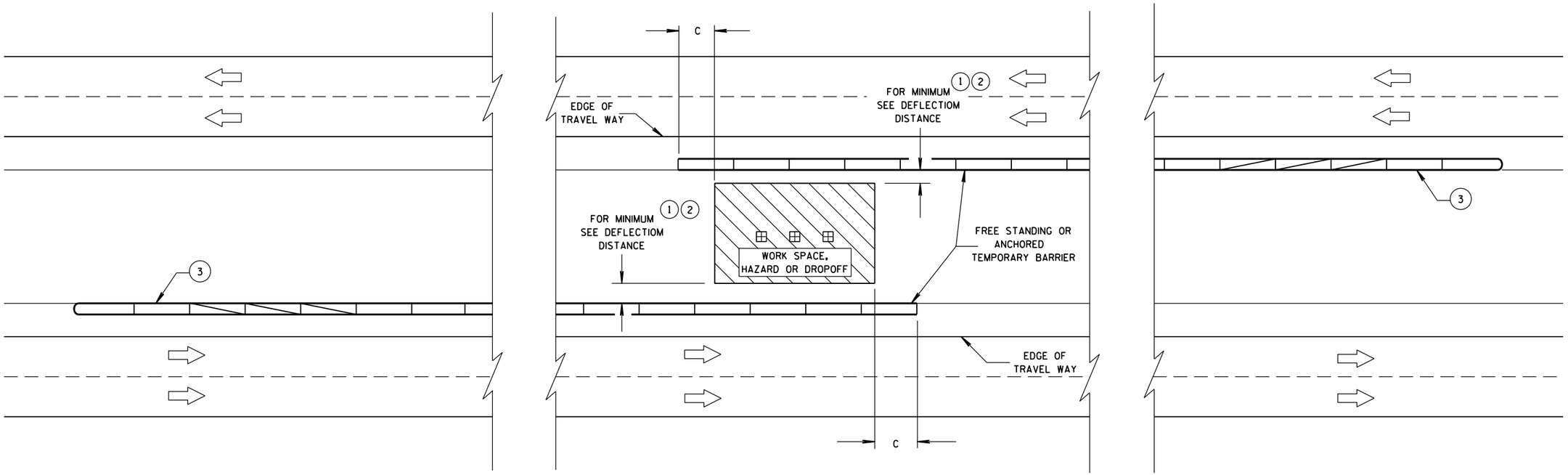
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100



CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINNER
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FHWA

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S.D.D. 14 B 8-2e

(1) WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

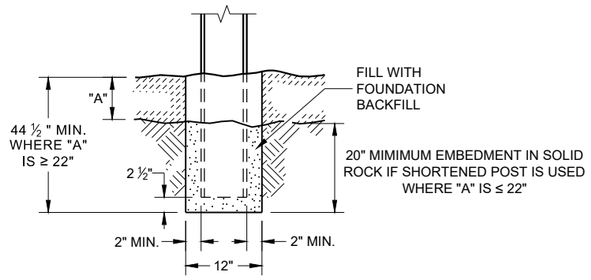
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

(4) WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

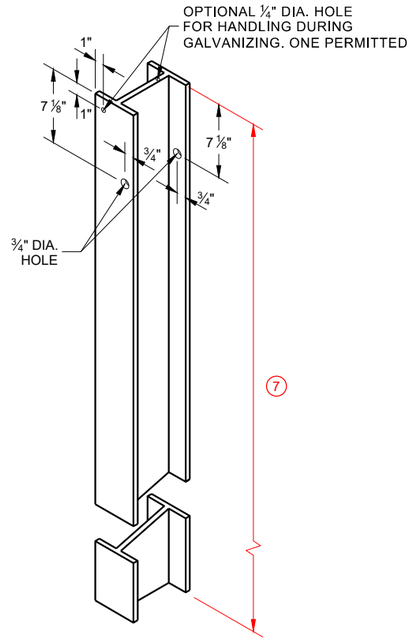
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(6) WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

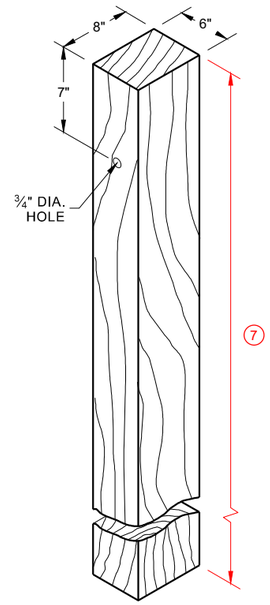
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



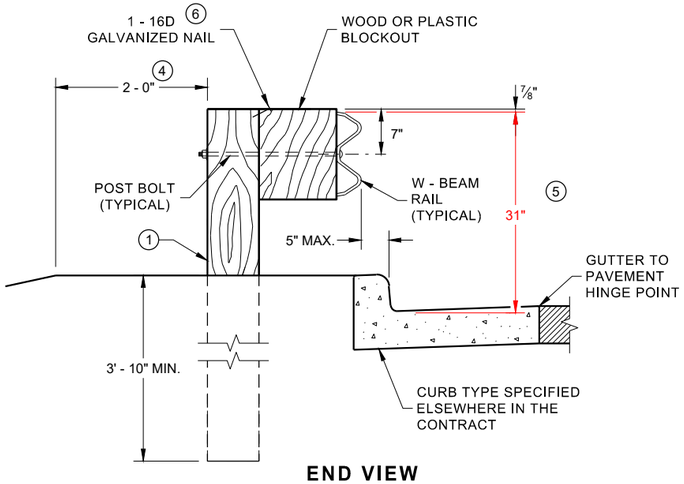
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



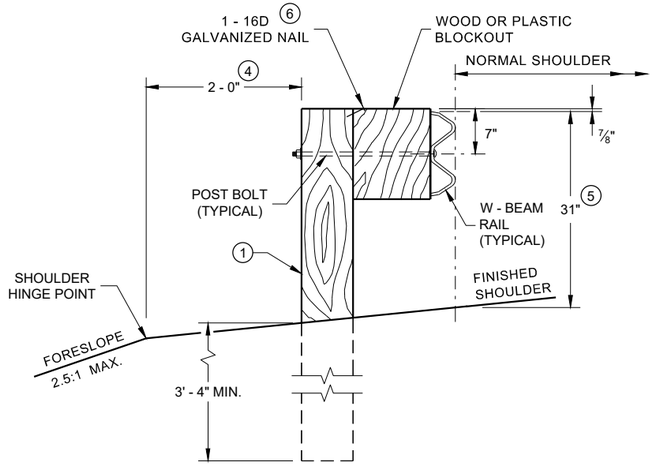
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



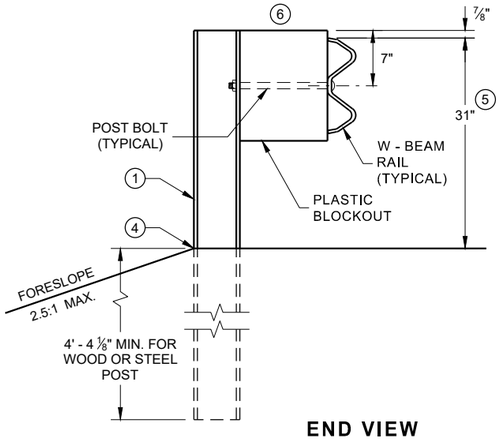
WOOD POST (6" X 8") NOMINAL (1)



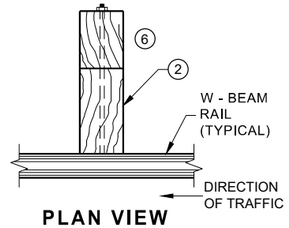
END VIEW
LOCATED ALONG A CURBED ROADWAY



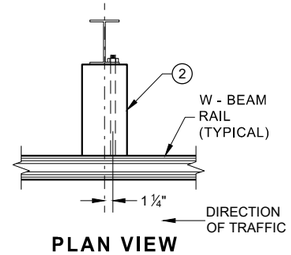
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



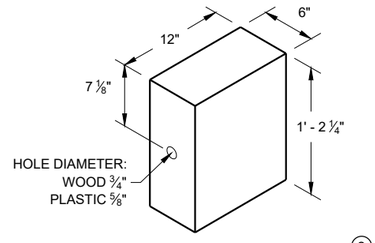
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B42 - 06a

6
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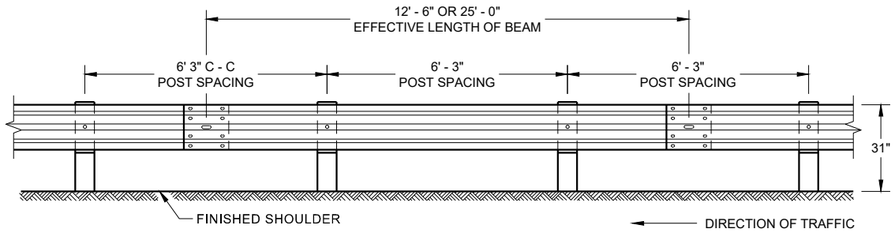
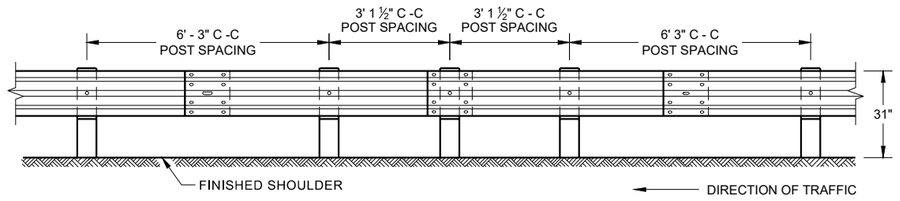
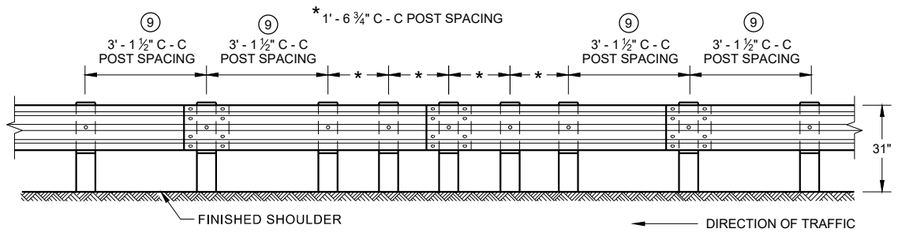


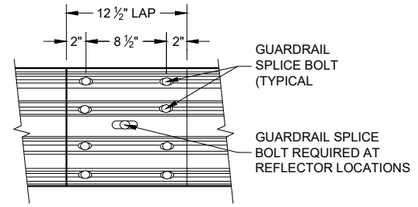
FRONT VIEW
POST SPACING STANDARD INSTALLATION



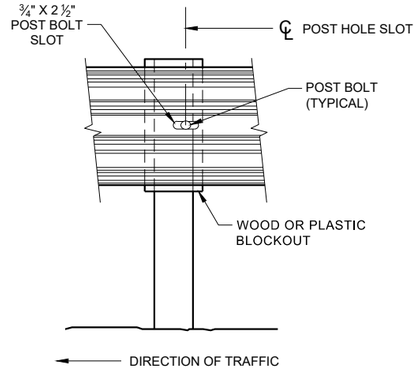
FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)



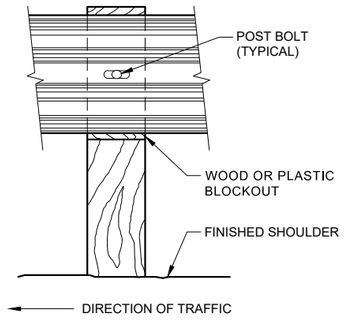
FRONT VIEW
QUARTER POST SPACING (QS)



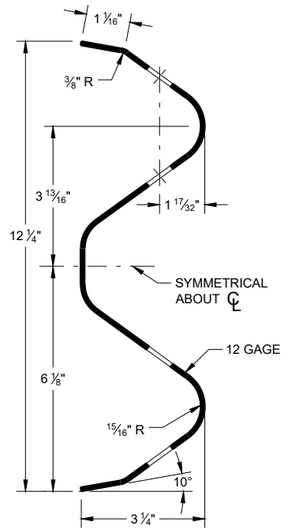
FRONT VIEW
MID-SPAN BEAM SPLICE



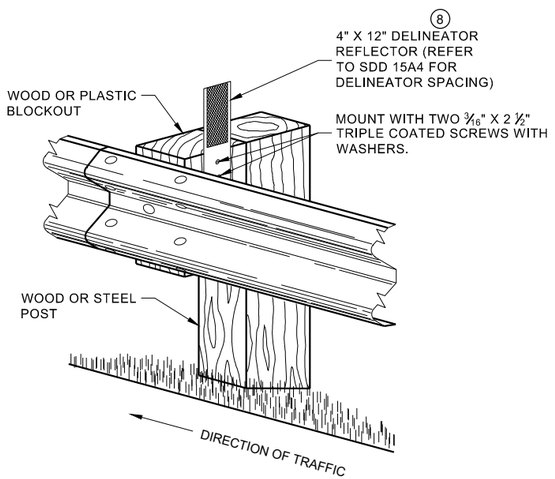
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

GENERAL NOTES

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ¾" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

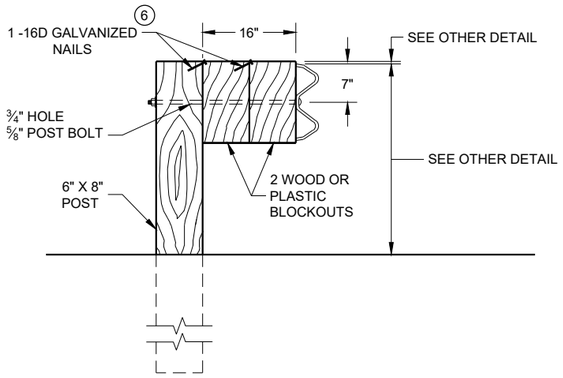
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B42 - 06b

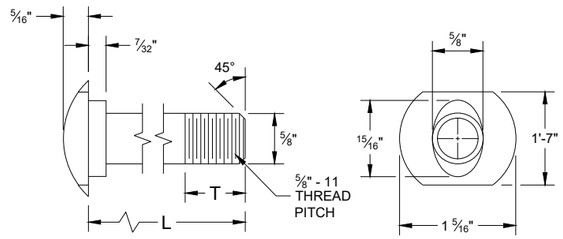


DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

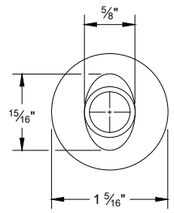
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3/16".
2. IF THE BOLT EXTENDS MORE THAN ¼" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

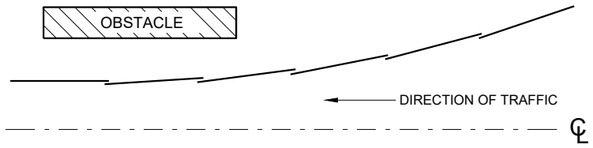


POST BOLT TABLE

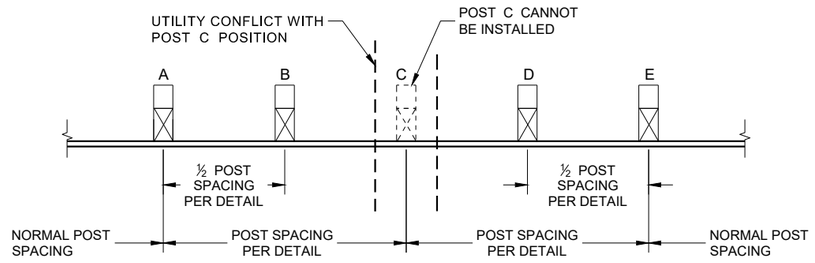
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



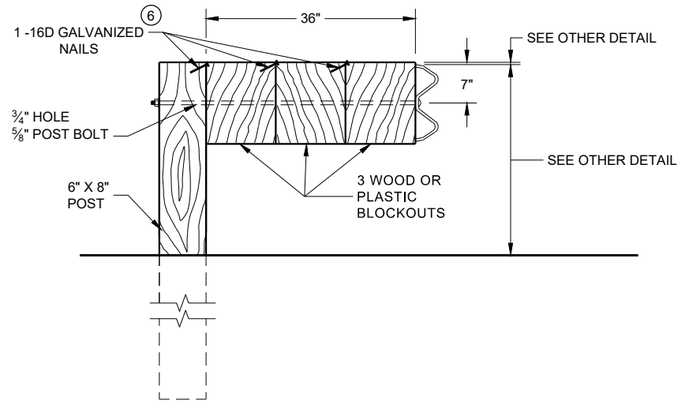
ALTERNATE BOLT HEAD



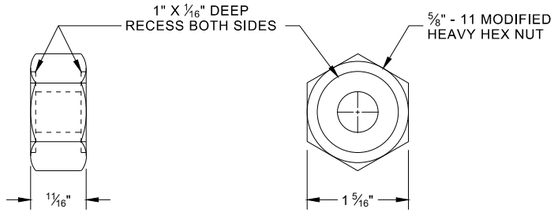
PLAN VIEW
BEAM LAPPING DETAIL



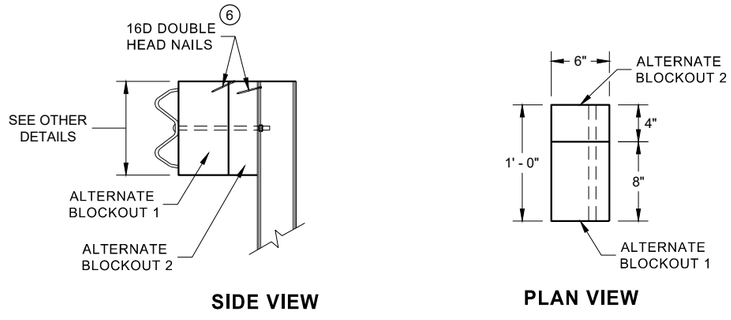
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



ALTERNATE WOOD BLOCKOUT DETAIL

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

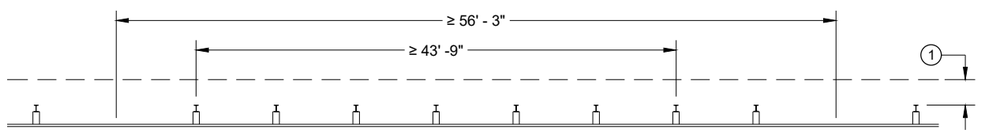
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

(6) WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

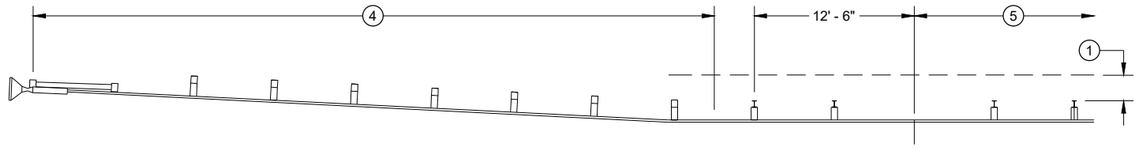
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

6

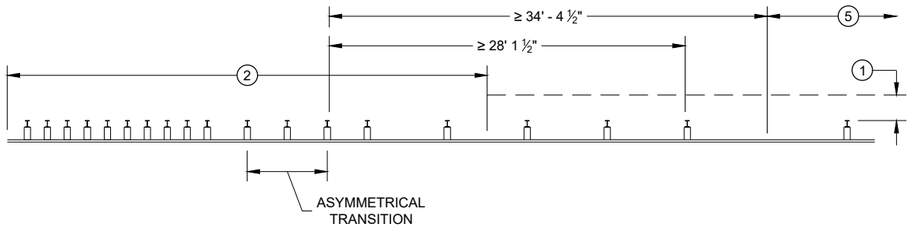
SDD 14B42 - 06c



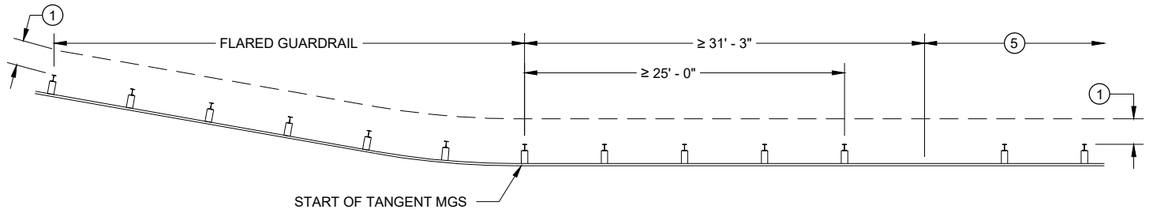
MISSING POST IN NORMAL BEAM GUARD RUN



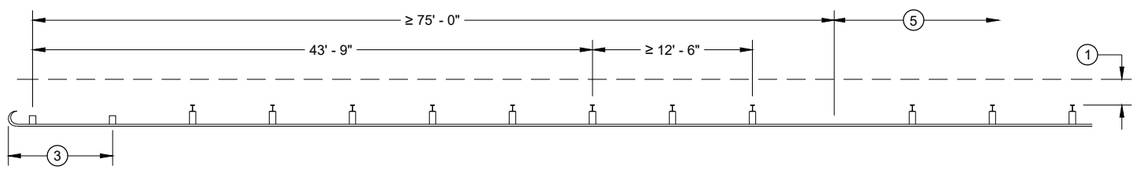
MISSING POST IN NORMAL BEAM GUARD RUN NEAR EAT



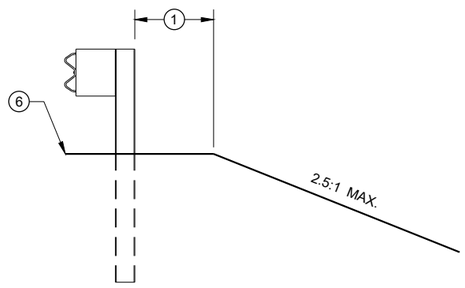
MISSING POST NEAR APPROACH THRIE BEAM TRANSITION



MISSING POST IN NORMAL BEAM GUARD RUN NEAR FLARED BEAM GUARD



MISSING POST IN NORMAL BEAM GUARD RUN NEAR TYPE 2 TERMINAL



CROSS SECTION VIEW

1. MINIMUM OF 2 FEET OF GRADING BEHIND POST.
2. SEE SDD 14B45 FOR MORE DETAILS.
3. SEE SDD 14B47 FOR MORE DETAILS.
4. SEE SDD 14B44 FOR MORE DETAILS.
5. SEE MISSING POST IN NORMAL BEAM GUARD RUN FOR DISTANCE TO NEXT MISSING POST AND AREA FOR WELL DRAINED, COMPACTED SOILS.
6. SEE PLAN FOR SHOULDER DESIGN.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR
FHWA

6

SDD 14B42 - 06d

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED

(C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.

(D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.

(E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

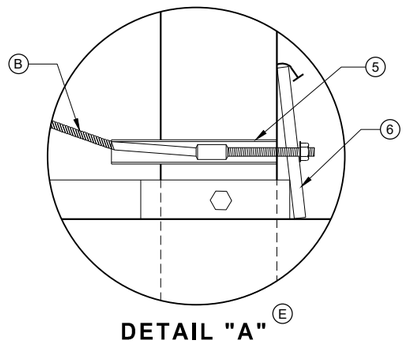
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

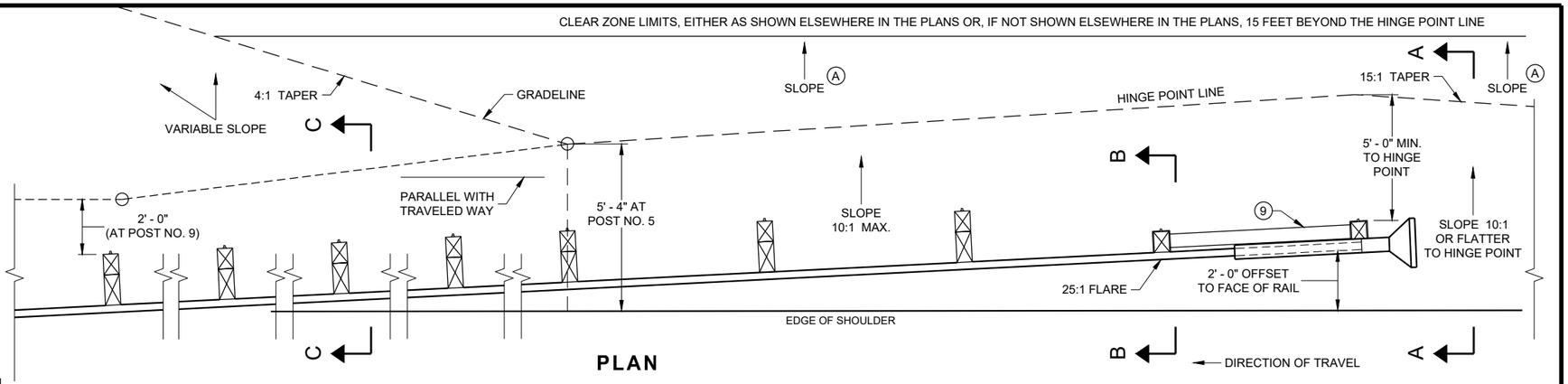
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

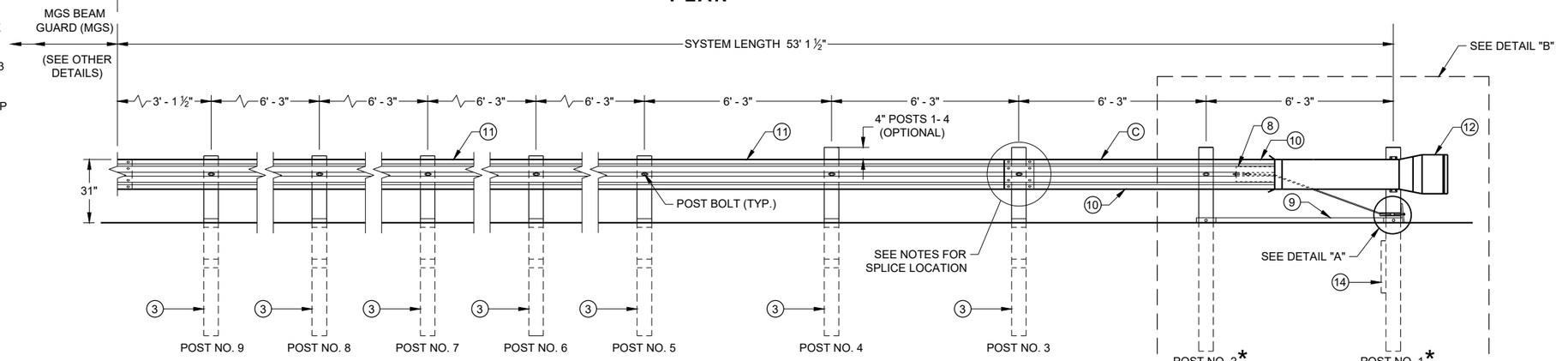
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



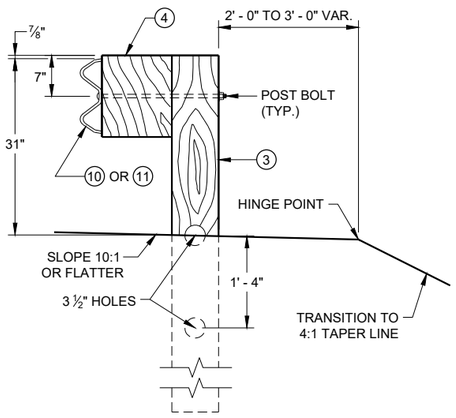
DETAIL "A" (E)



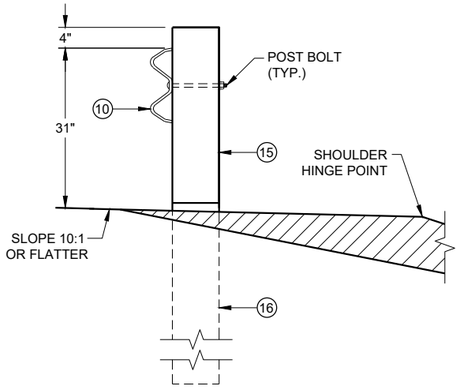
PLAN



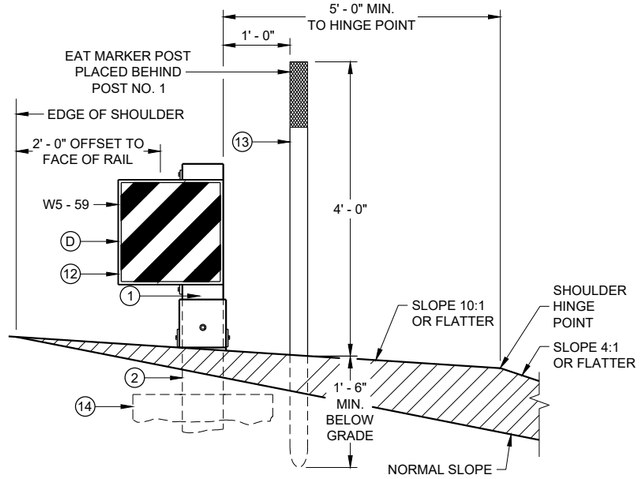
ELEVATION



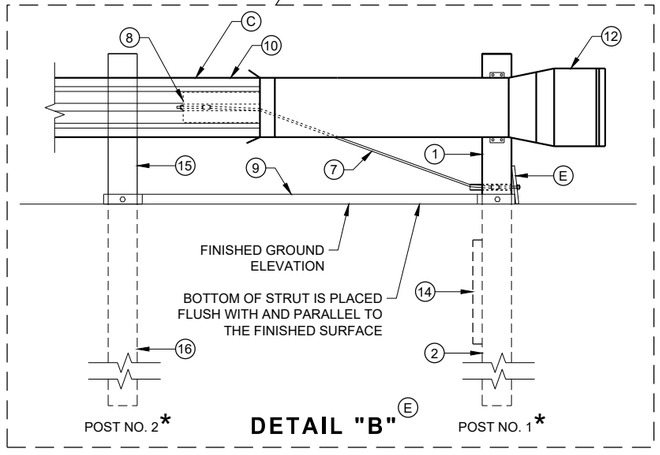
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

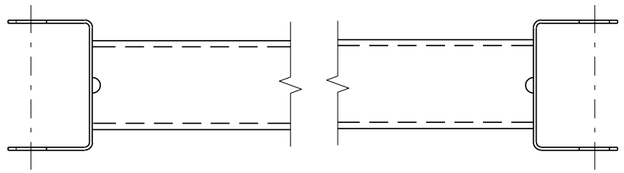
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

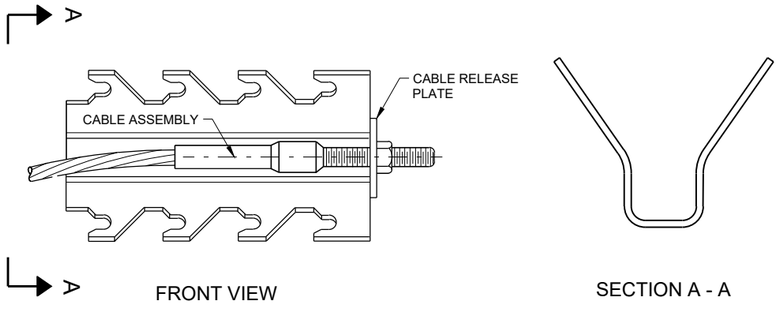
SDD 14B44 - 04a

BILL OF MATERIALS

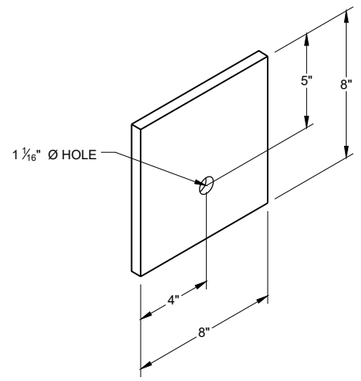
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUGACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	IMPACT HEAD
⑬	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
⑭	SOIL PLATE
⑮	UPPER POST NO. 2
⑯	LOWER POST NO. 2



GENERIC GROUND STRUT ⑨ Ⓔ



GENERIC ANCHOR CABLE BOX ⑨ Ⓔ



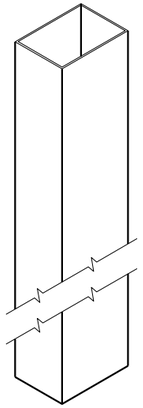
BEARING PLATE ⑥ Ⓔ

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

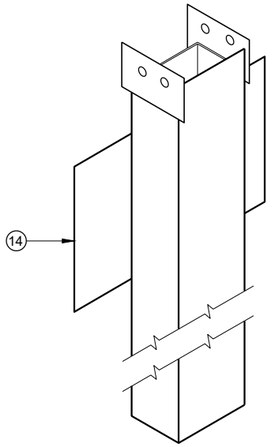
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B44 - 04b



UPPER POST NO. 1 (1) (E)



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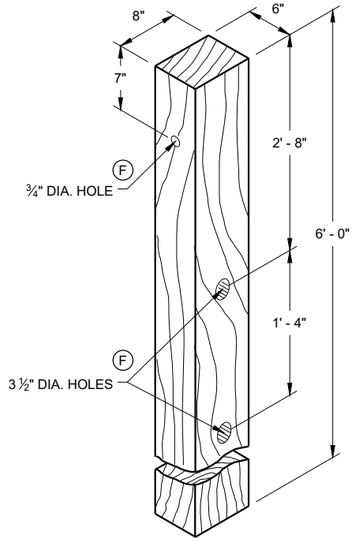
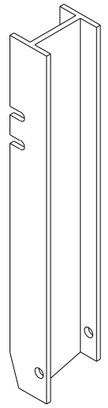


WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



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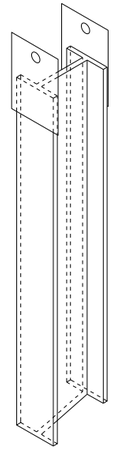

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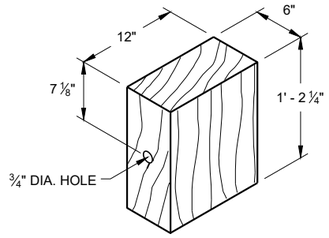
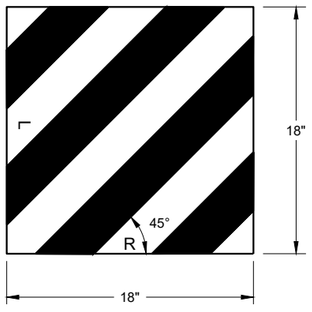
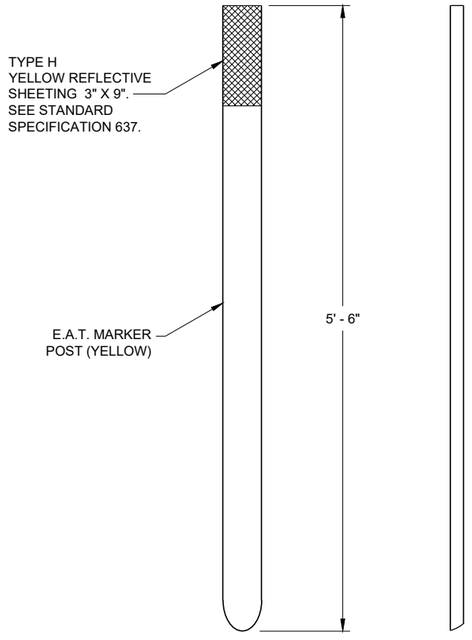


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



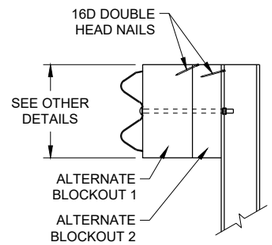
W5 - 59

REFLECTIVE SHEETING DETAIL (E)

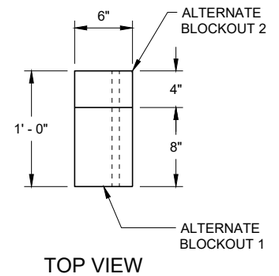


FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

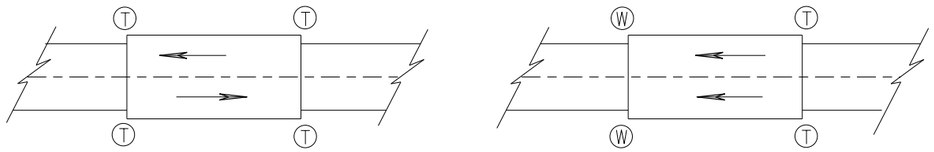
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

FHWA

6

SDD 14B44 - 04c
SDD 14B44 - 04c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

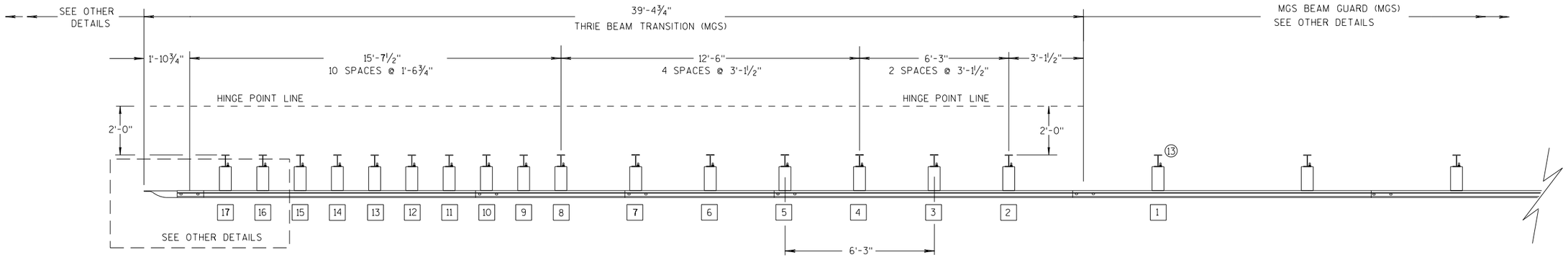
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

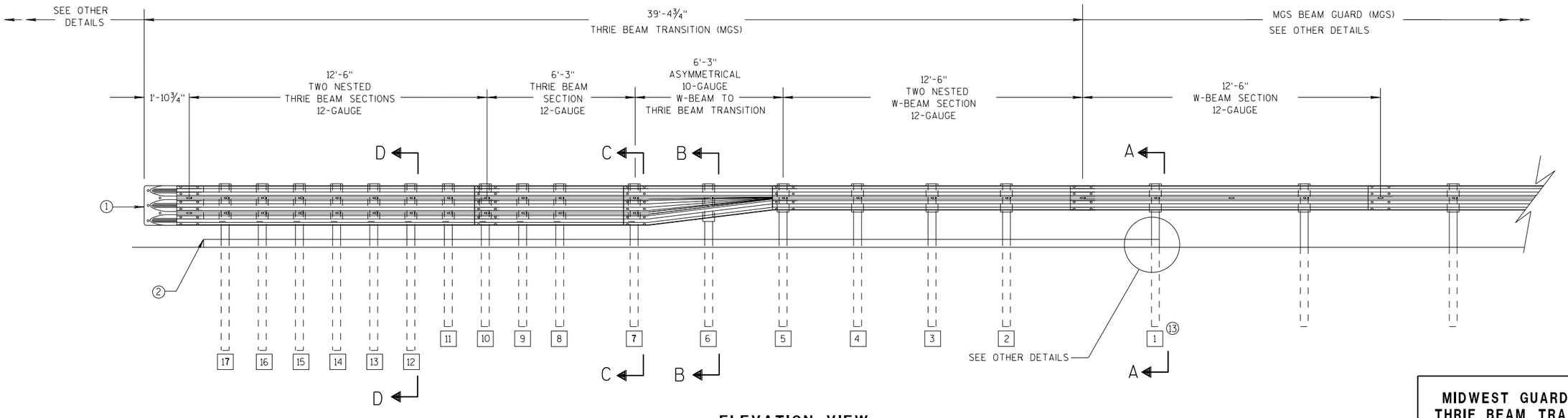
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD14B42



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 100

6

S.D.D. 14 B 45-5a

6

S.D.D. 14 B 45-5a

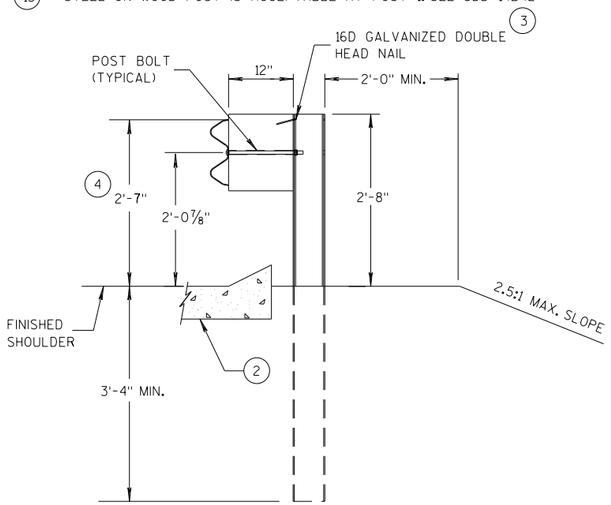
GENERAL NOTES

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

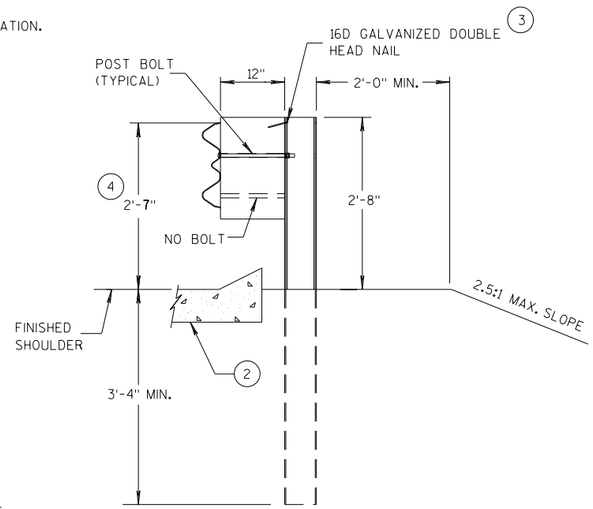
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



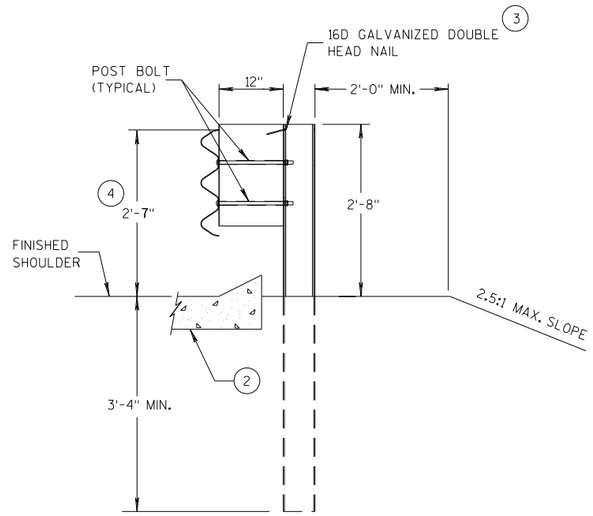
SECTION A-A (13)

POSTS 1-5



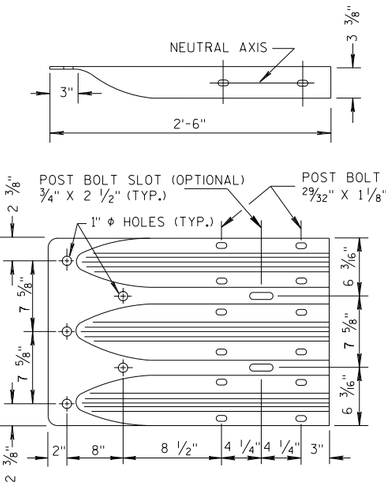
SECTION B-B

POST 6

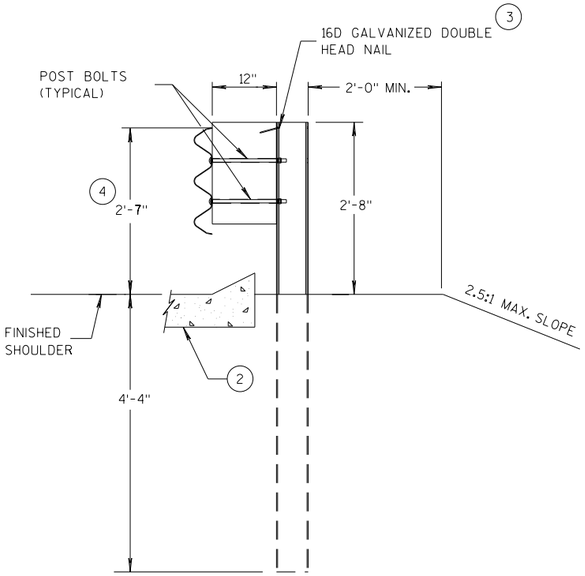


SECTION C-C

POSTS 7-11

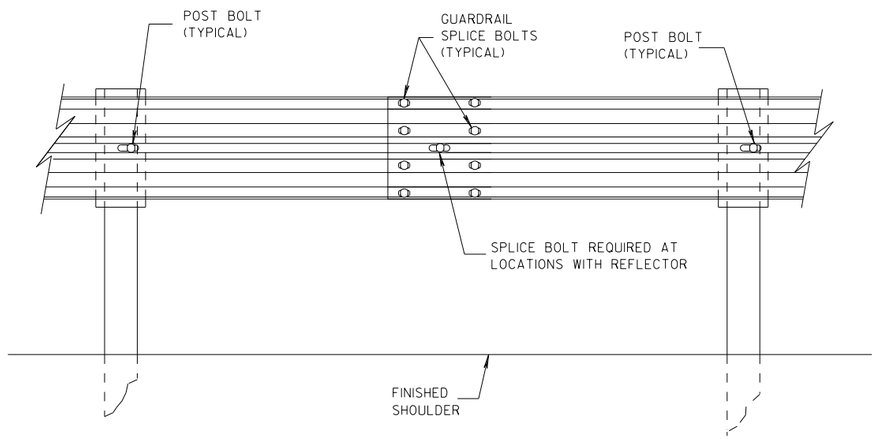


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

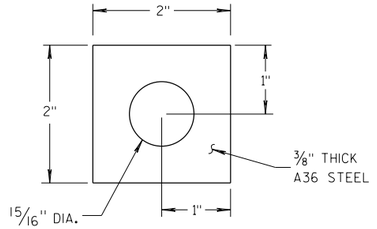
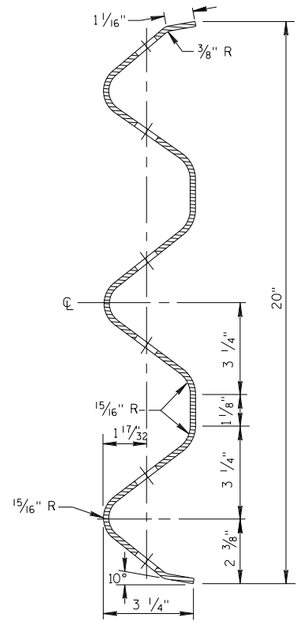


PLATE WASHER DETAIL



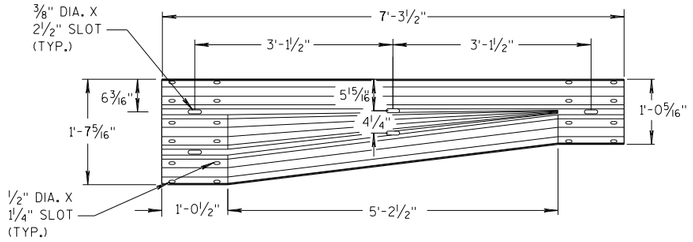
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

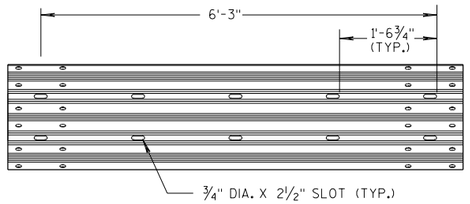
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

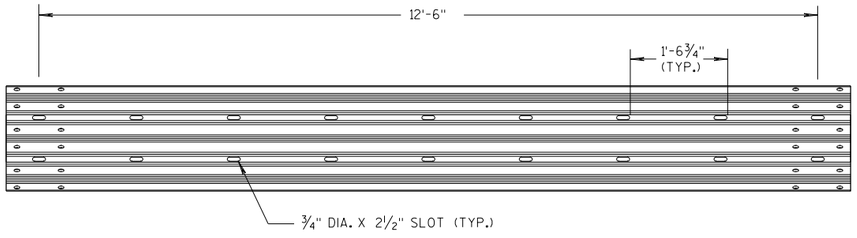
S.D.D. 14 B 45-5b



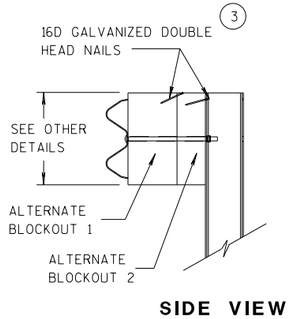
W-BEAM TO THRIE BEAM TRANSITION SECTION



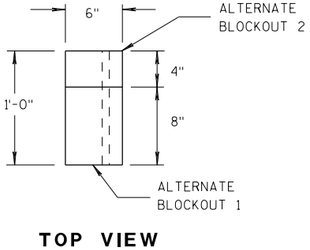
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

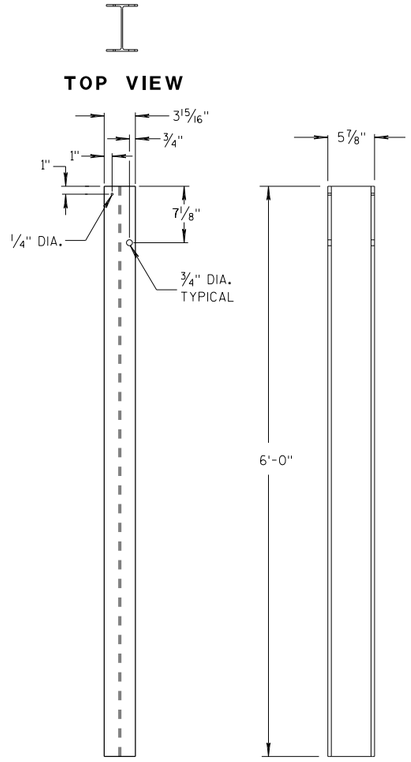


SIDE VIEW



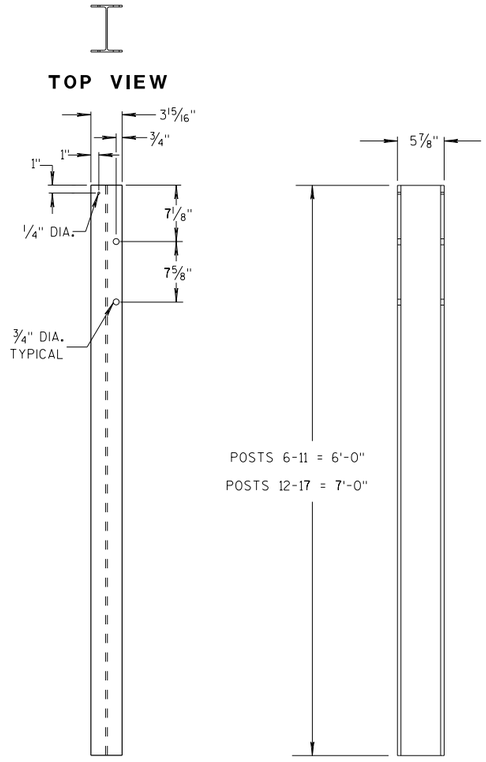
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



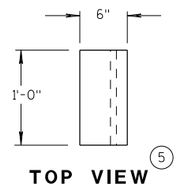
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

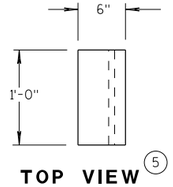


FRONT VIEW SIDE VIEW

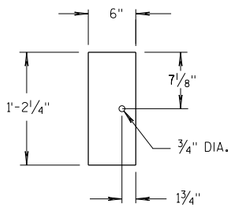
STEEL POSTS 6-17



TOP VIEW (5)

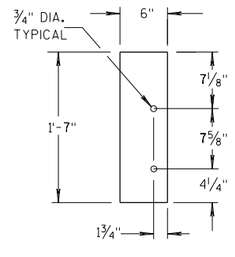


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

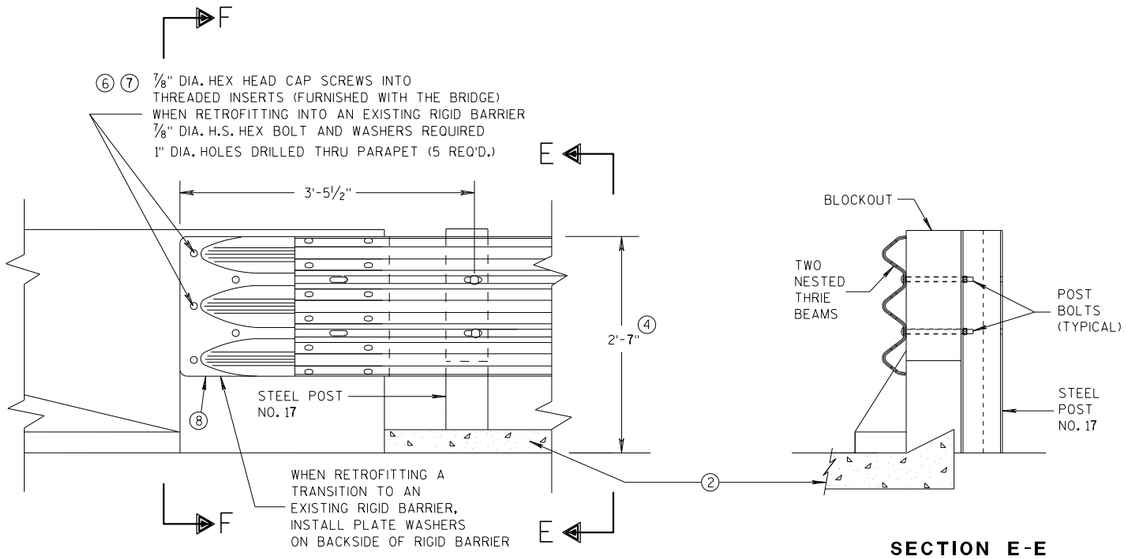
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

6
S.D.D. 14 B 45-5c



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

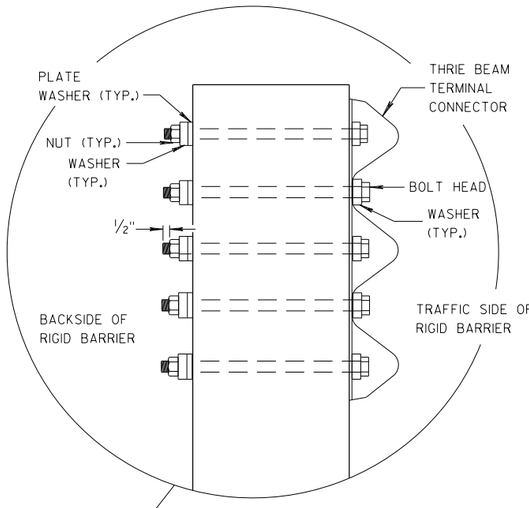
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

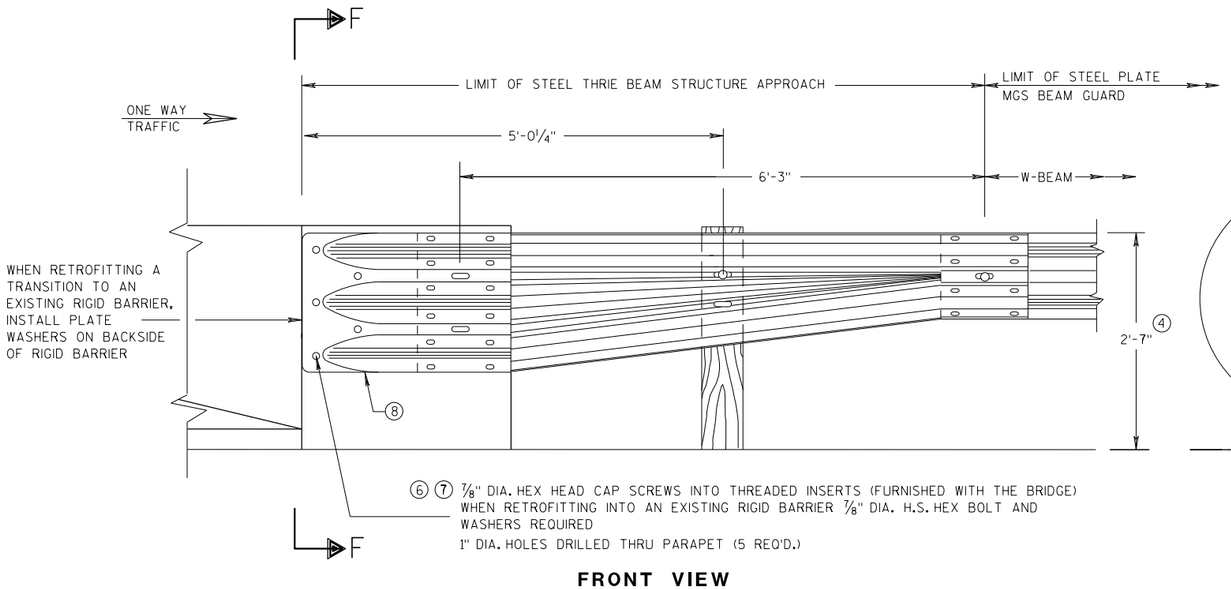
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

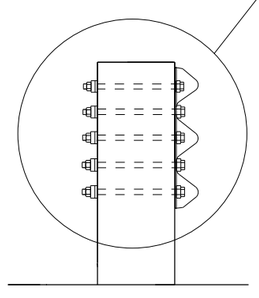
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

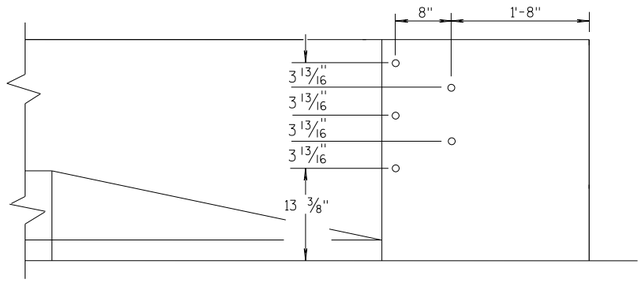




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS D UNIT SUPERVIS NT
FHWA

6

S.D.D. 14 B 45-5d

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

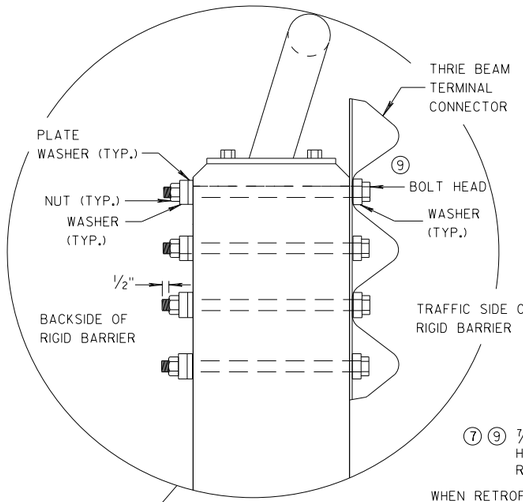
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

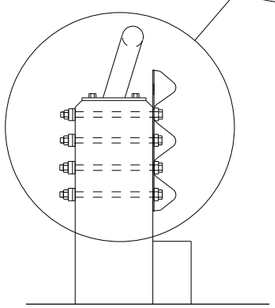
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

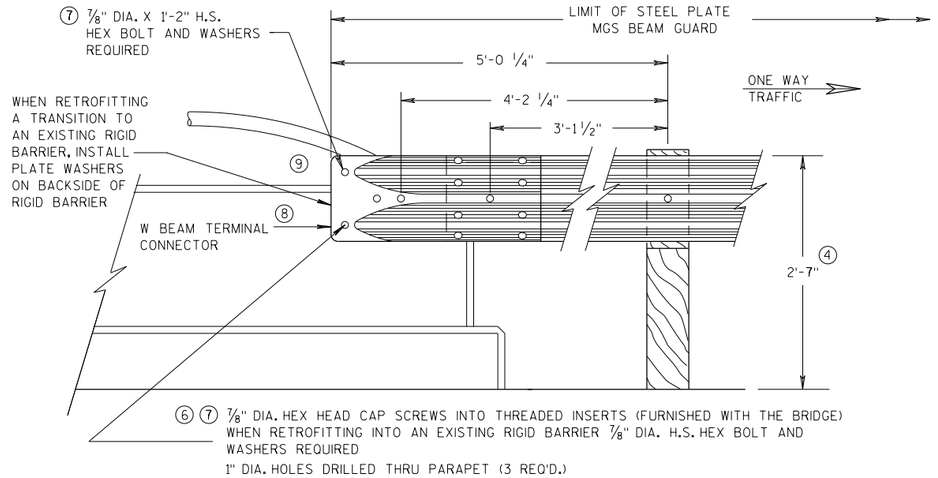
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

(9) BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.





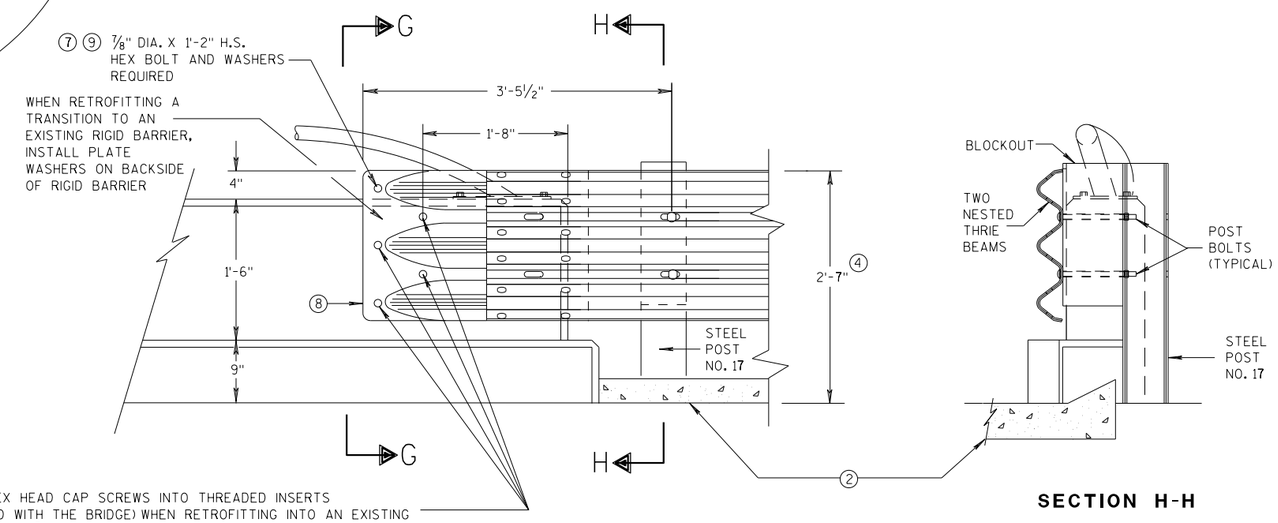
SECTION G-G



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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07/2018 — DATE
/S/ Rodney Taylor
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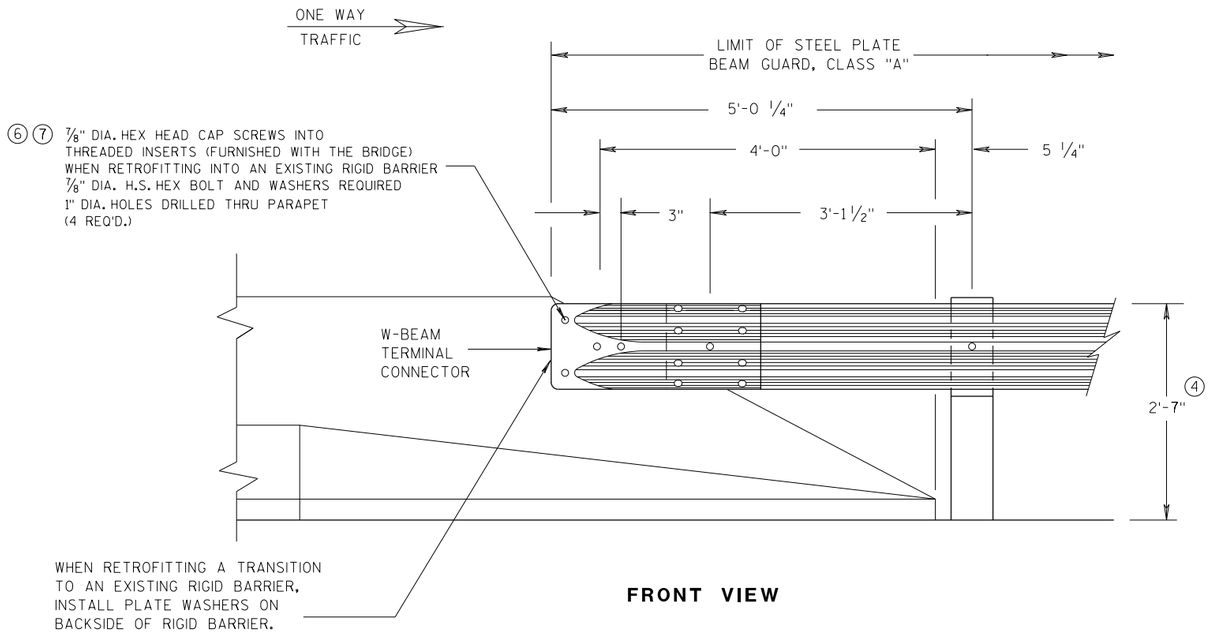


FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

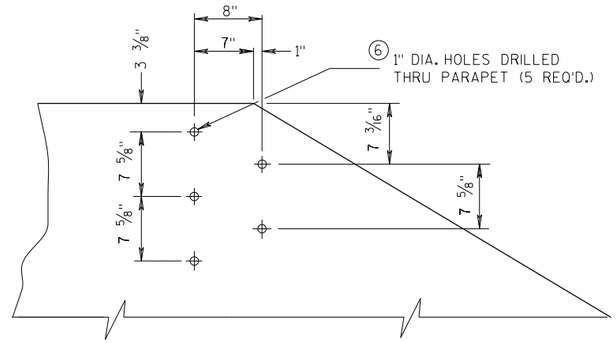
GENERAL NOTES

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

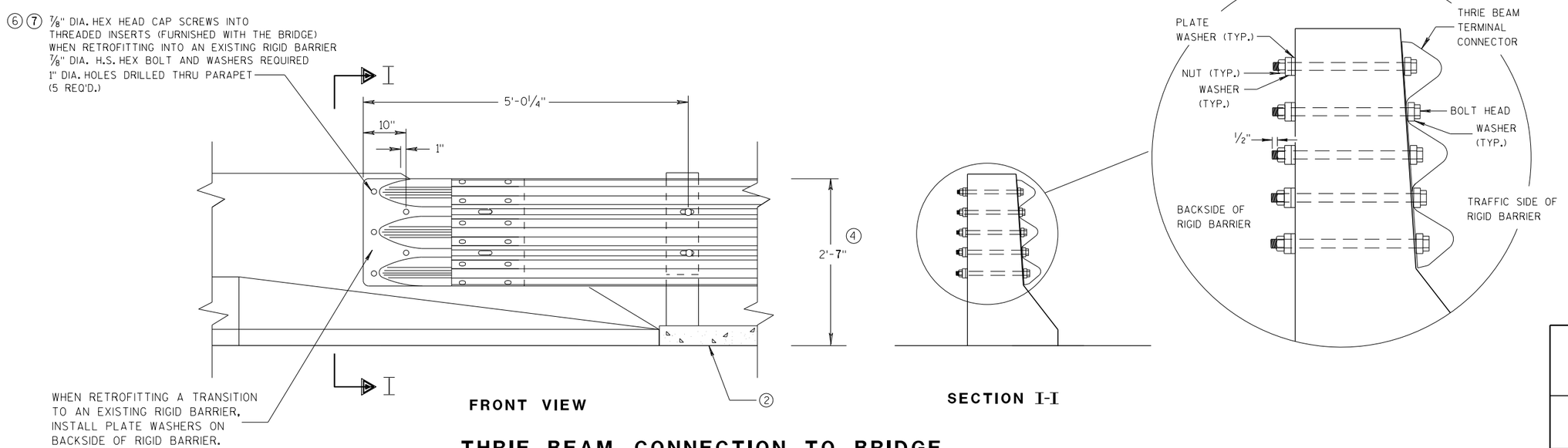
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



FRONT VIEW

SECTION I-I

THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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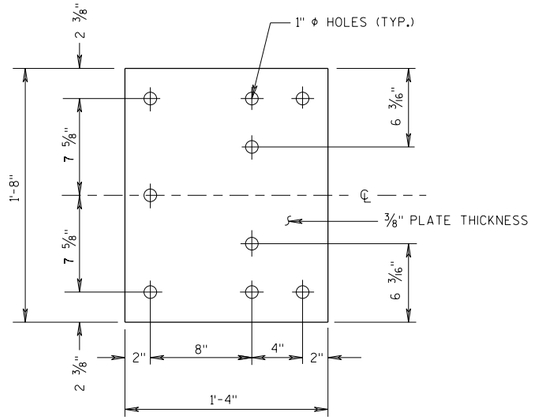
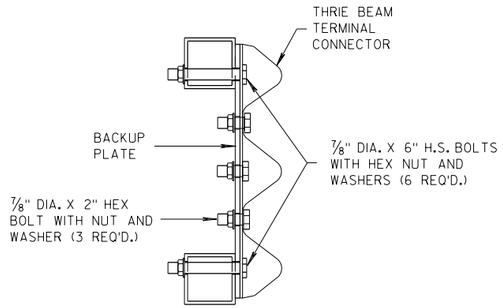
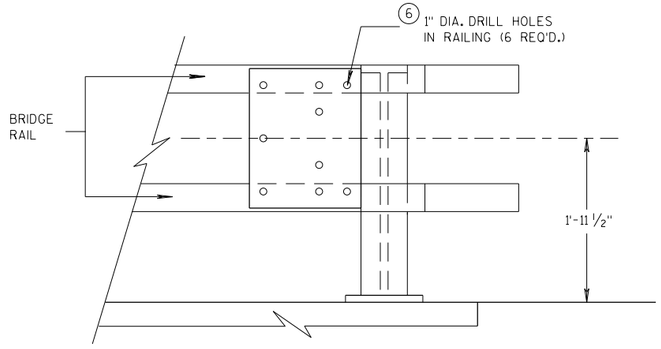


BACK-UP PLATE DETAIL



SECTION J-J

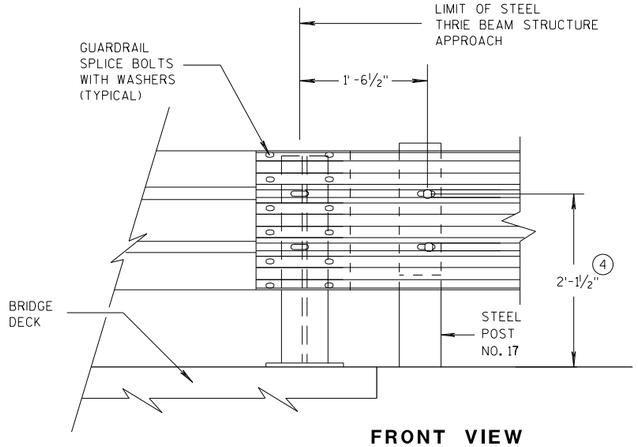


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

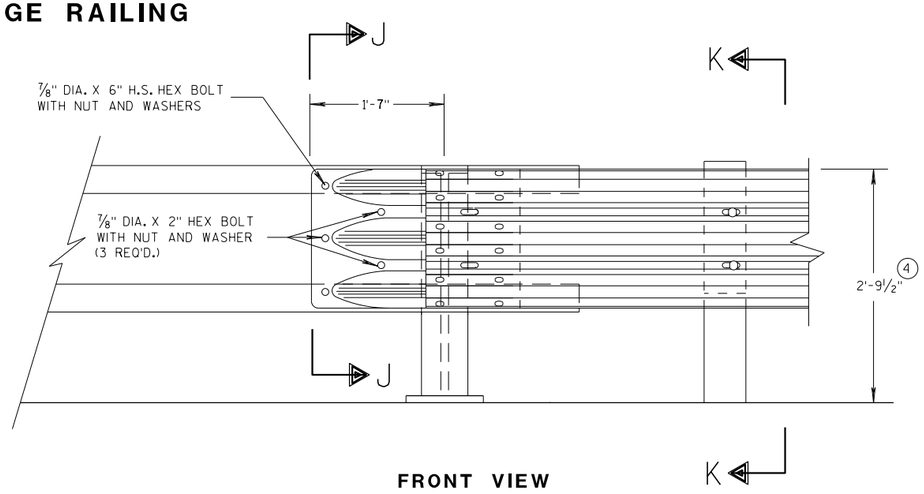
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

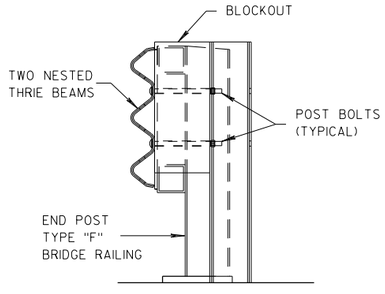


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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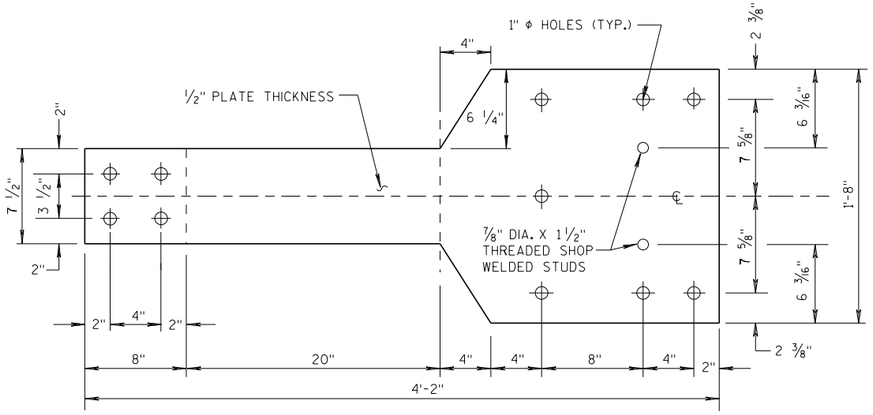
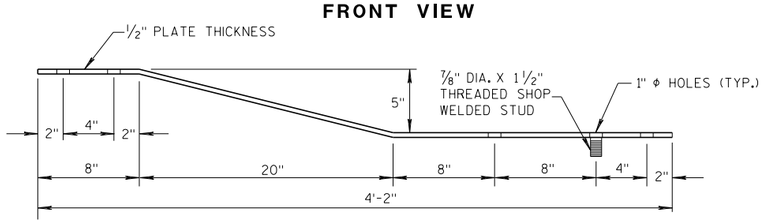
GENERAL NOTES

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

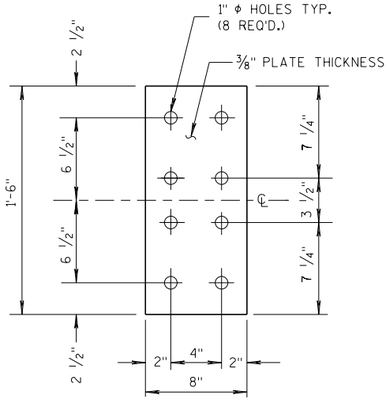


FRONT VIEW



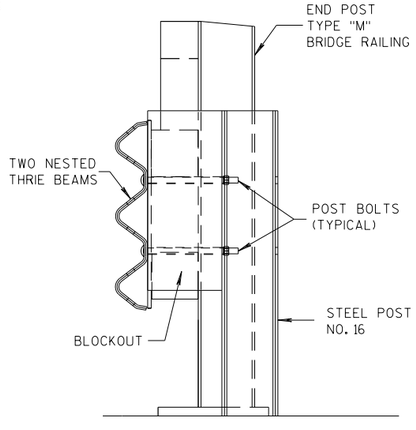
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

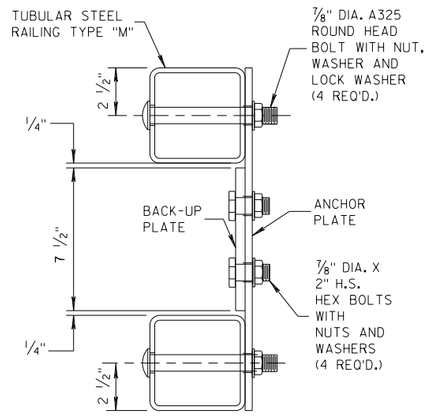


FRONT VIEW

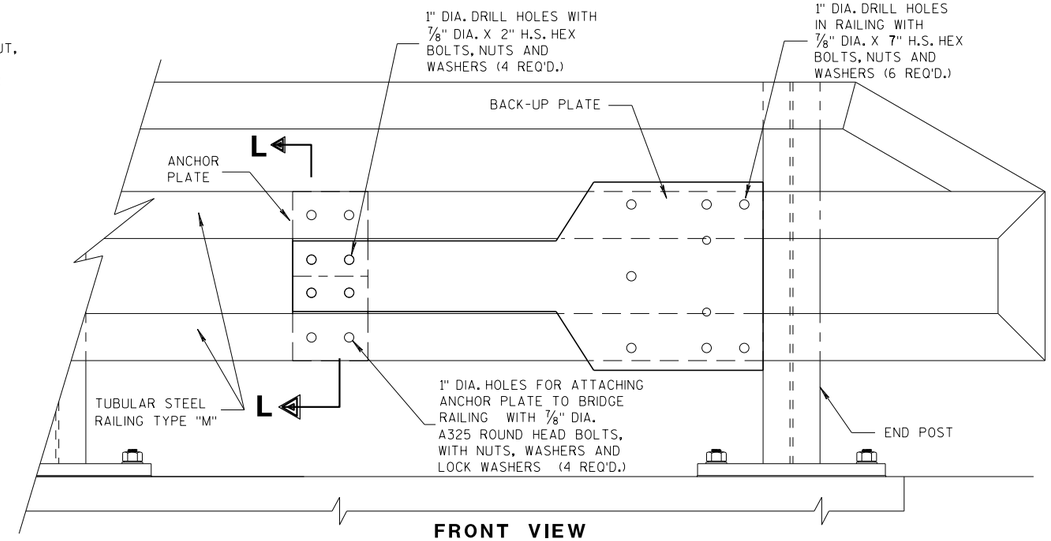
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

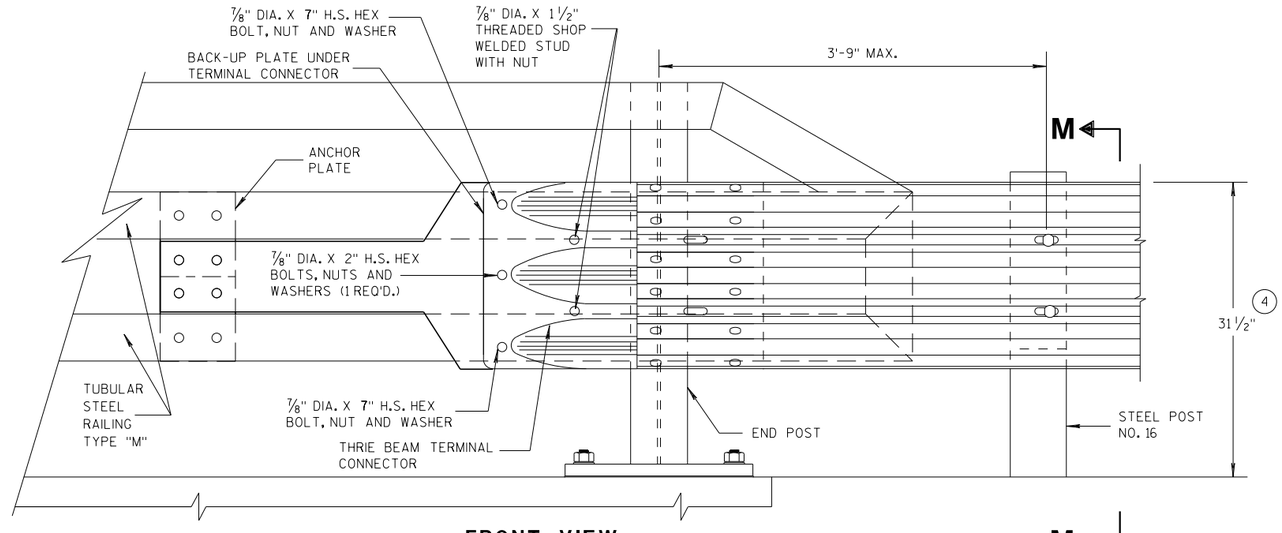


SECTION L-L

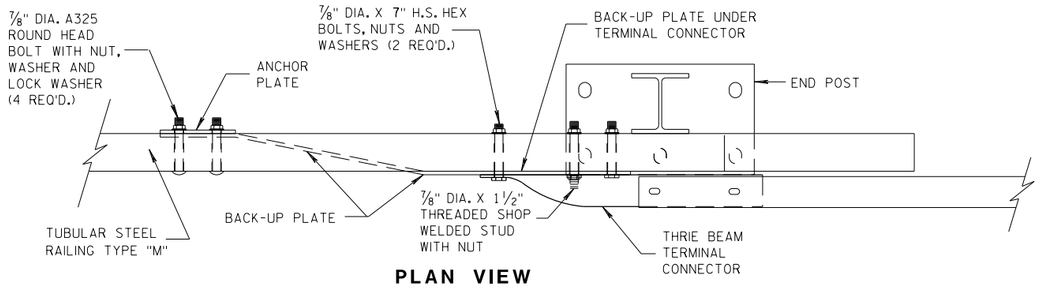


FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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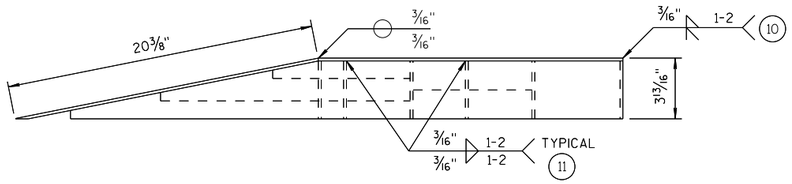

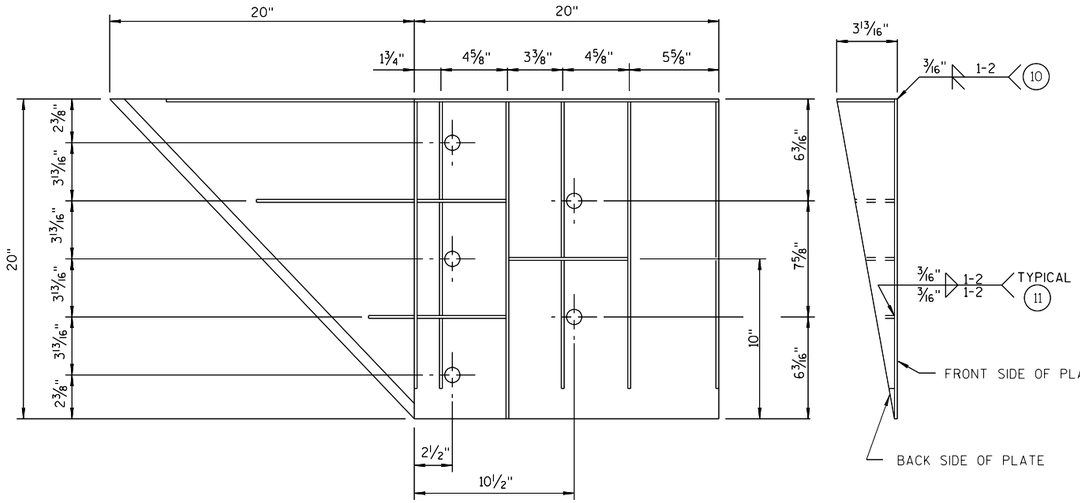

WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

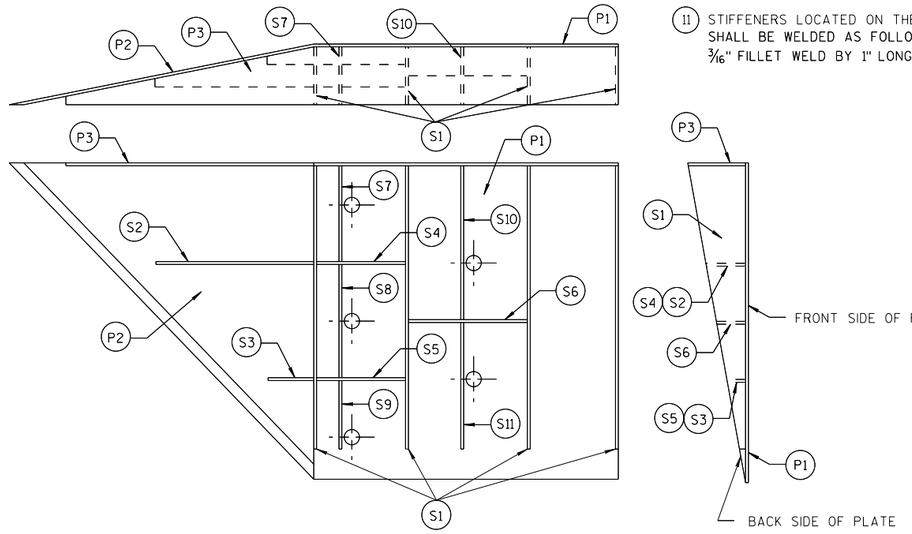

PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(10) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(11) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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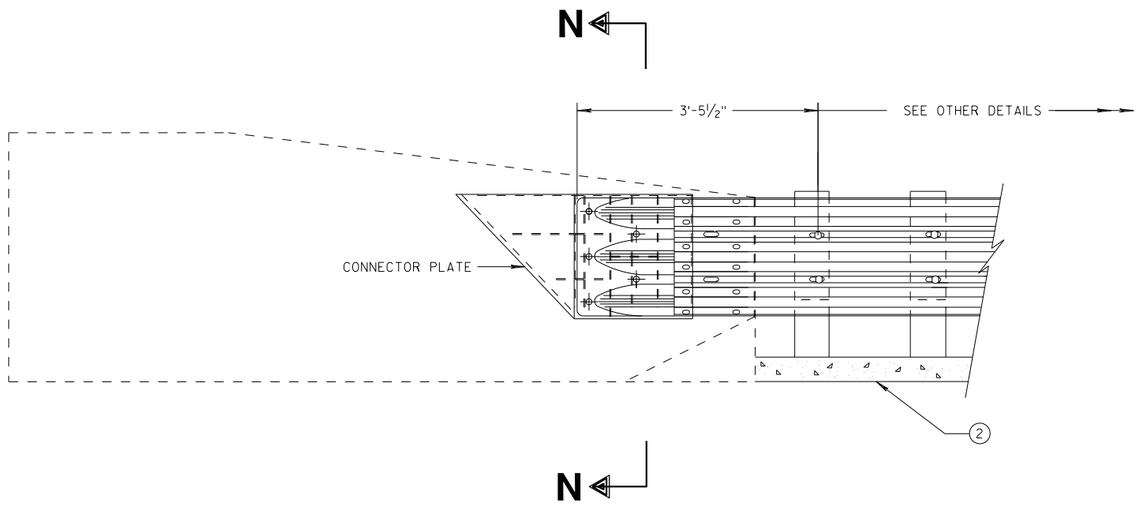
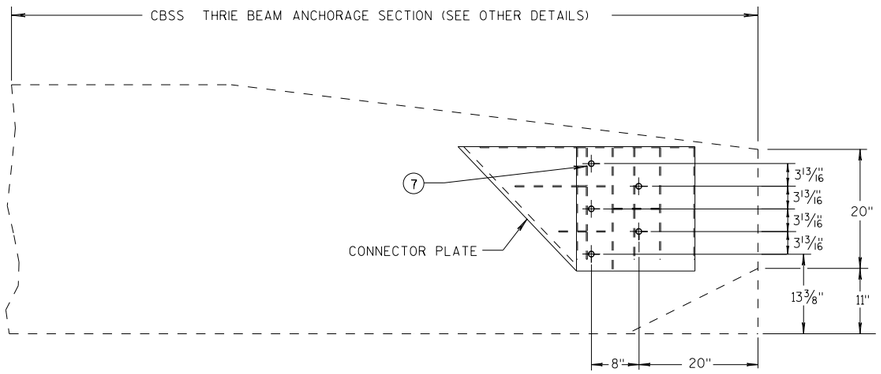


THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



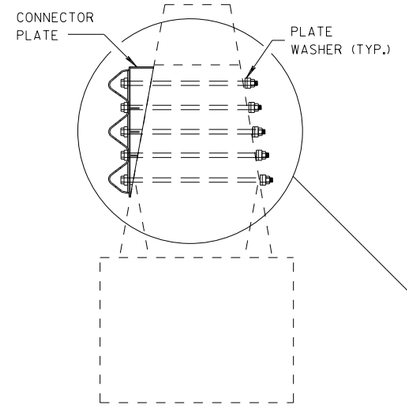
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

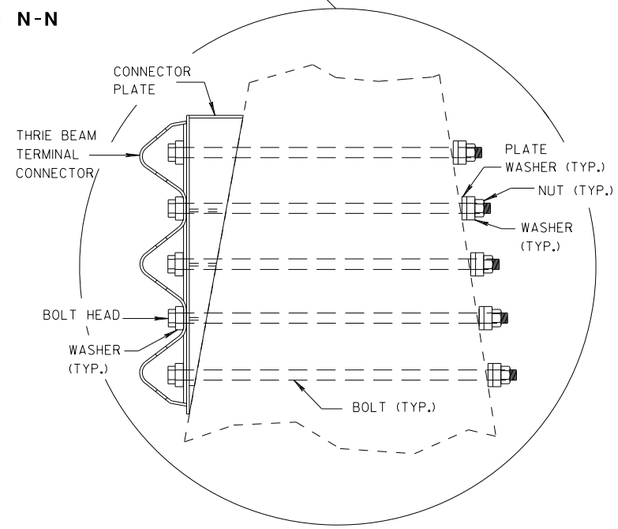
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X ⅝" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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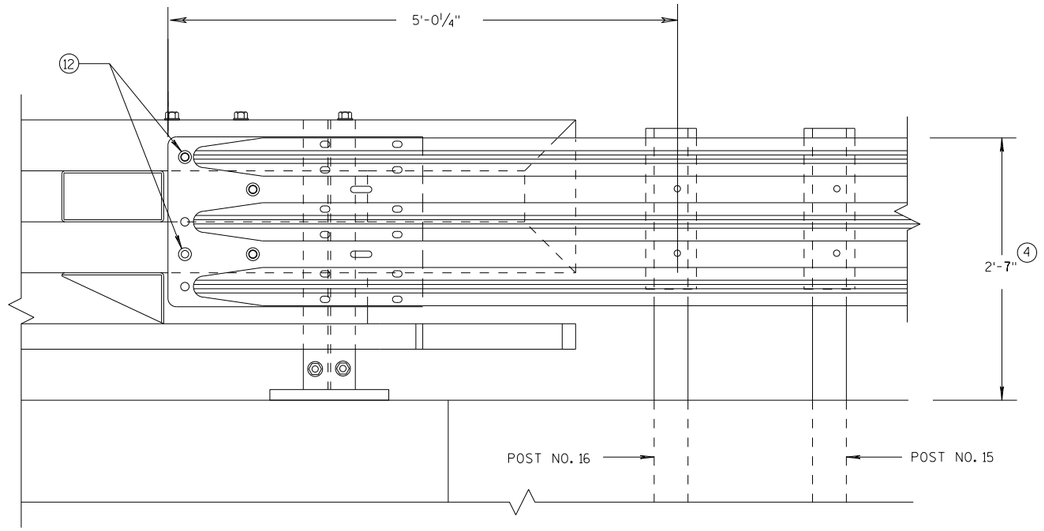
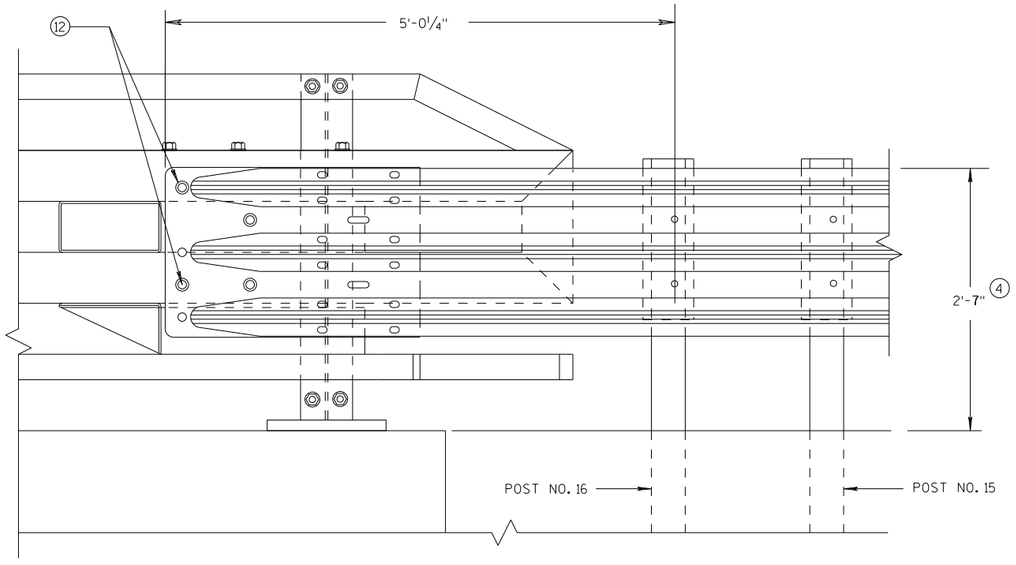


ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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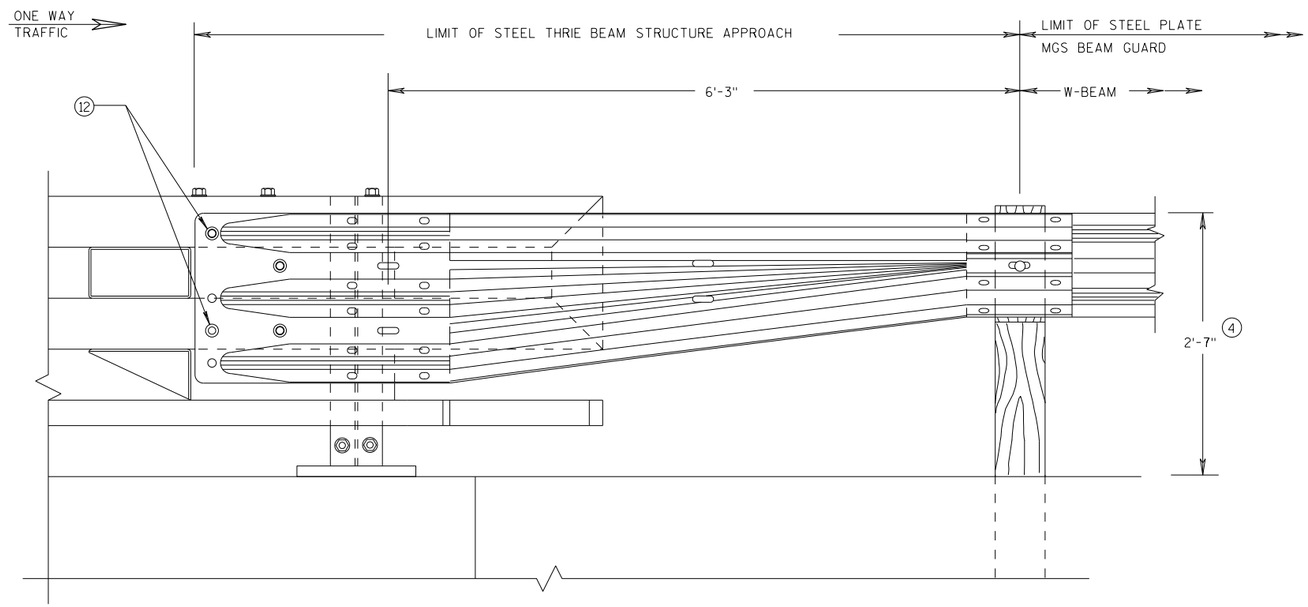


FRONT VIEW

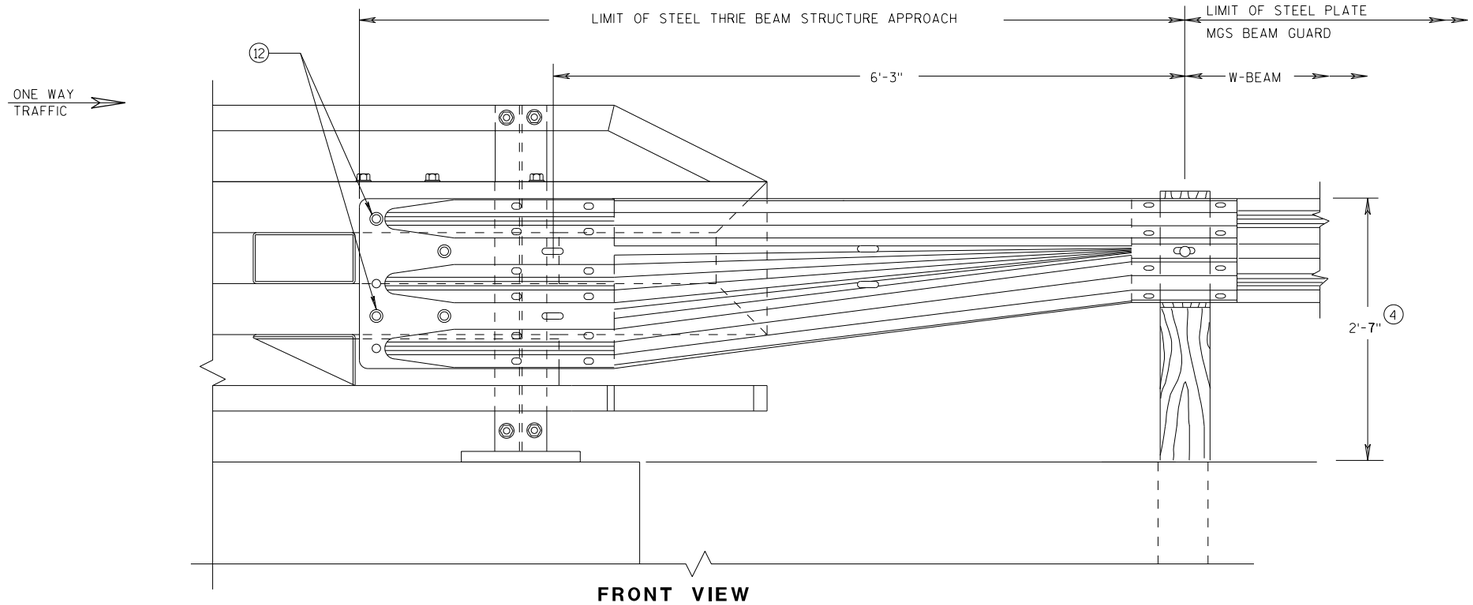
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY4"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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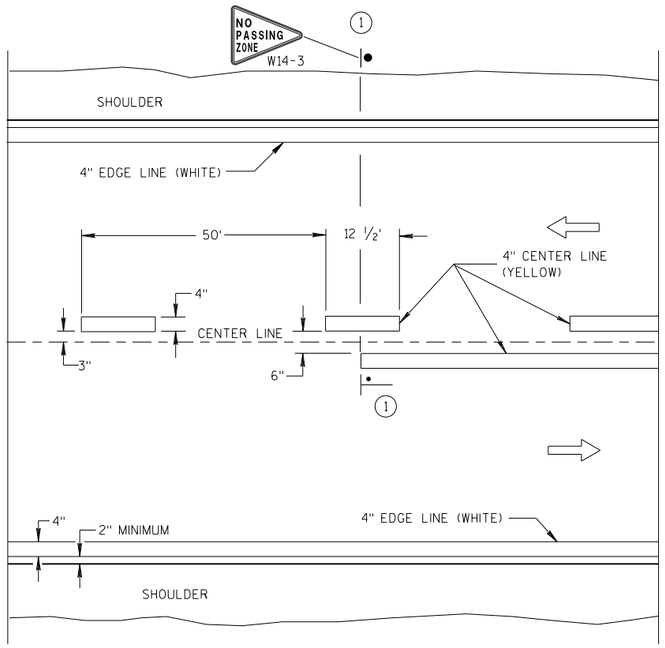
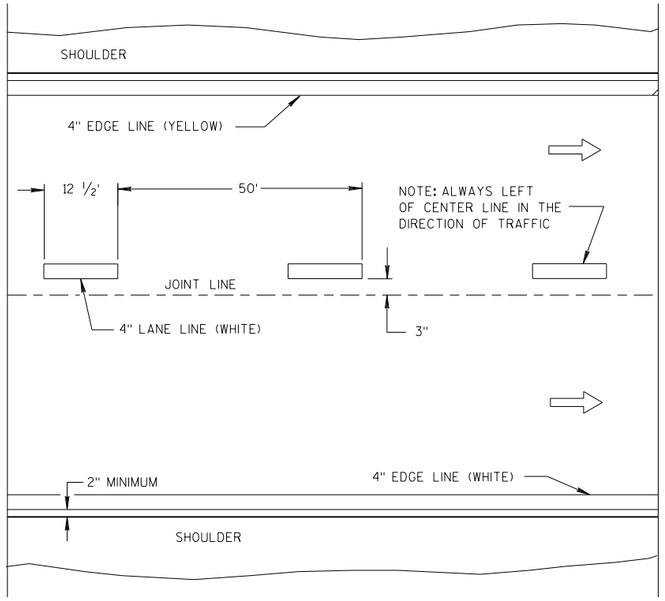


TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

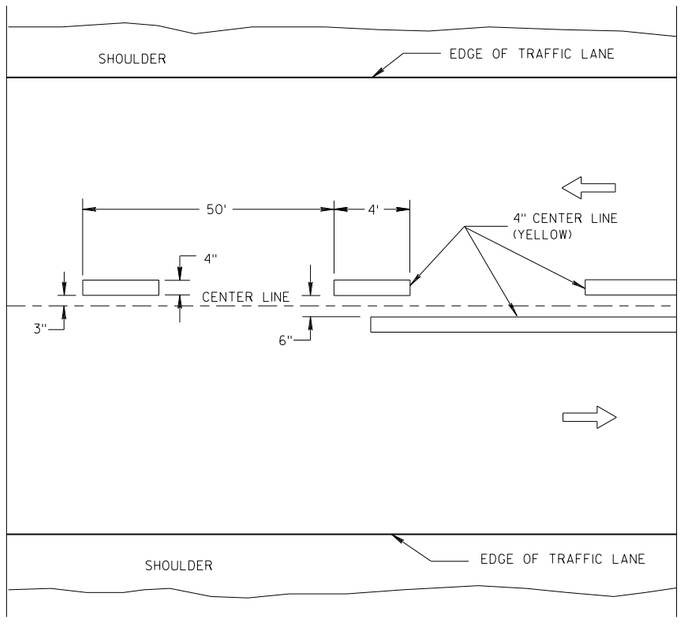
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

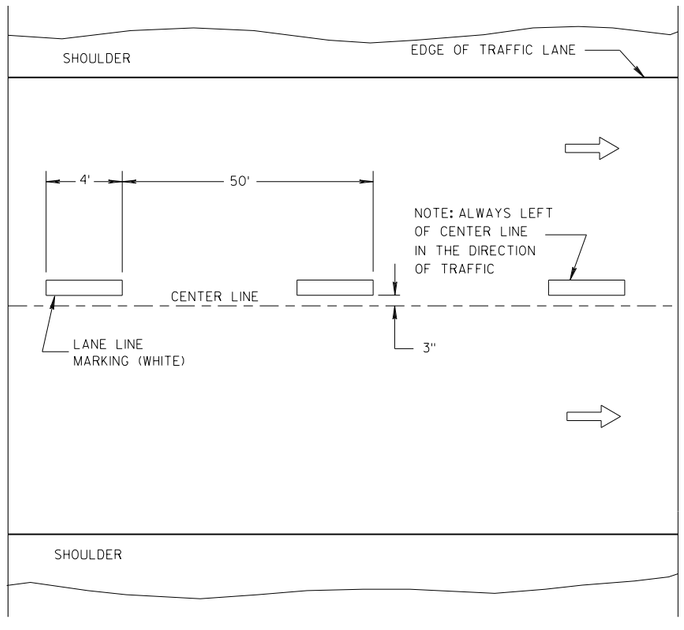
(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

LEGEND

"T" MARKING

POST MOUNTED SIGN

LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018 — DATE

/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA

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S.D.D. 15 C 8-19a

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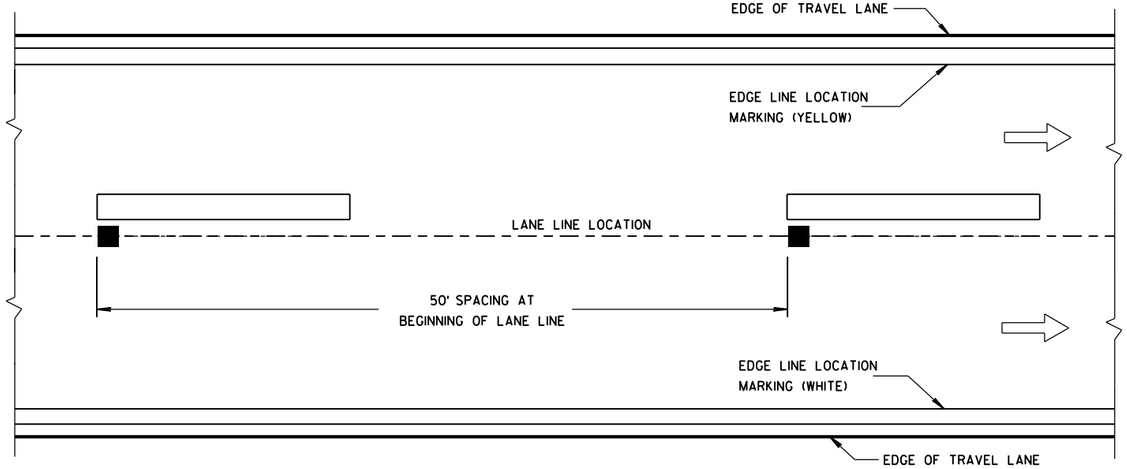
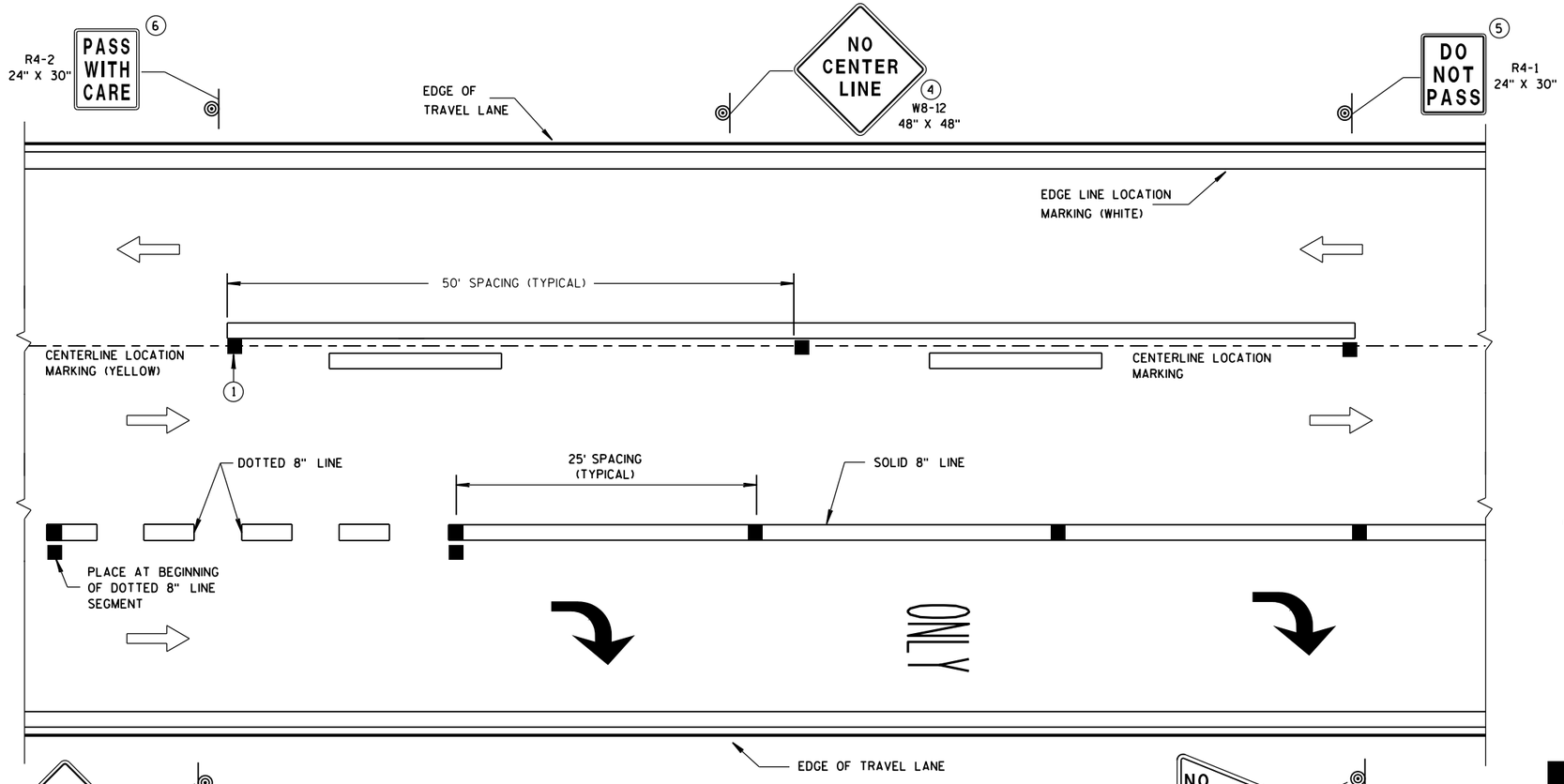
S.D.D. 15 C 8-19a



LONGITUDINAL PLACEMENT 4-INCH LANE LINE



LONGITUDINAL PLACEMENT
4-INCH CENTERLINE AND 8-INCH CHANNEL LINE

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

COLOR OF TEMPORARY RAISED PAVEMENT MARKERS, TYPE II SHALL MATCH THE COLOR OF THE MARKING THEY SUPPLEMENT.

PLACEMENT OF TEMPORARY RAISED PAVEMENT MARKERS ON EDGE LINES ARE OPTIONAL. IF PLACED ON EDGE LINES, MAXIMUM SPACING SHALL BE 50 FEET.

PROVIDE SINGLE OR MULTI-COVER TEMPORARY RAISED PAVEMENT MARKERS AS SHOWN ON PLAN.

MARK T's ON PAVEMENT FOR RE-ESTABLISHING NO PASSING ZONES.

SAME DAY TEMPORARY PAVEMENT MARKING MAY BE USED IN LIEU OF TEMPORARY RAISED PAVEMENT MARKERS, TYPE II.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF TEMPORARY SAME DAY PAVEMENT MARKING IS USED, ENSURE PROPOSED PAVEMENT MARKINGS ARE PLACED IN THE EXACT LOCATIONS AS THE EXISTING MARKINGS, USING A MINIMAL AMOUNT OF TEMPORARY RAISED PAVEMENT MARKERS, TYPE II OR OTHER METHODS AS APPROVED BY THE ENGINEER.

IF ROADWAY IS DETOURED DURING CONSTRUCTION, THE DO NOT PASS, PASS WITH CARE AND NO CENTERLINE SIGNS MAY BE OMITTED, PROVIDED A LIQUID MARKING IS INSTALLED BEFORE THE ROADWAY IS REOPENED TO TRAFFIC.

(1) FOR DOUBLE SOLID YELLOW, PLACE THE MARKERS BETWEEN THE LINES.

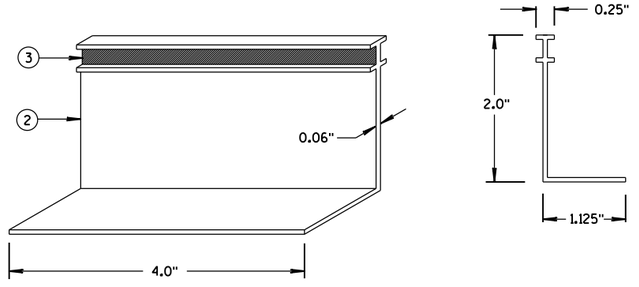
(2) MARKERS SHALL BE OF POLYURETHANE MATERIAL.

(3) MARKERS SHALL HAVE A MINIMUM SIZE REFLECTIVE SURFACE OF 4 INCH WIDTH X 0.25 INCH HEIGHT.

(4) NO CENTER LINE SIGNS SHALL BE PLACED AT THE BEGINNING OF PROJECT, AT TWO-MILE INTERVALS AND AFTER STATE AND COUNTY HIGHWAY INTERSECTIONS.

(5) DO NOT PASS SIGNS SHALL BE INSTALLED AT THE BEGINNING OF NO PASSING ZONES. ADDITIONAL DO NOT PASS SIGNS SHALL BE INSTALLED AT ONE MILE INTERVALS AND AFTER STATE AND COUNTY HIGHWAY INTERSECTIONS WITHIN THE NO PASSING ZONE.

(6) PASS WITH CARE SIGNS SHALL BE PLACED AT THE DOWNSTREAM END OF NO PASSING ZONES.



ISOMETRIC VIEW

SIDE VIEW

TEMPORARY RAISED PAVEMENT MARKER, TYPE II

LEGEND

- TEMPORARY RAISED PAVEMENT MARKER, TYPE II
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- DIRECTION OF TRAVEL

STANDARD APPLICATION FOR TEMPORARY RAISED PAVEMENT MARKERS, TYPE II

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6-2017 — DATE
/S/ Matthew R. Rauch
STATE SIGNING AND MAR[illegible] INEER
FHWA

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S.D.D. 15 C 34-3

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S.D.D. 15 C 34-3

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED OR AS APPROVED BY THE ENGINEER.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

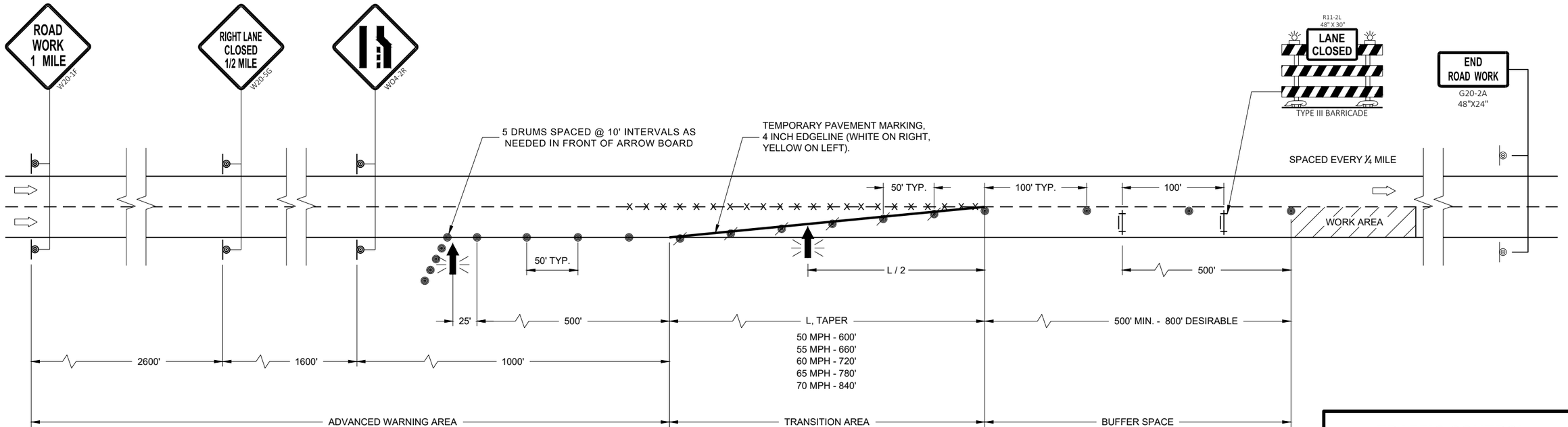
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD



TRAFFIC CONTROL LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D12 - 07a

6

SDD 15D12 - 07a

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED OR AS APPROVED BY THE ENGINEER.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

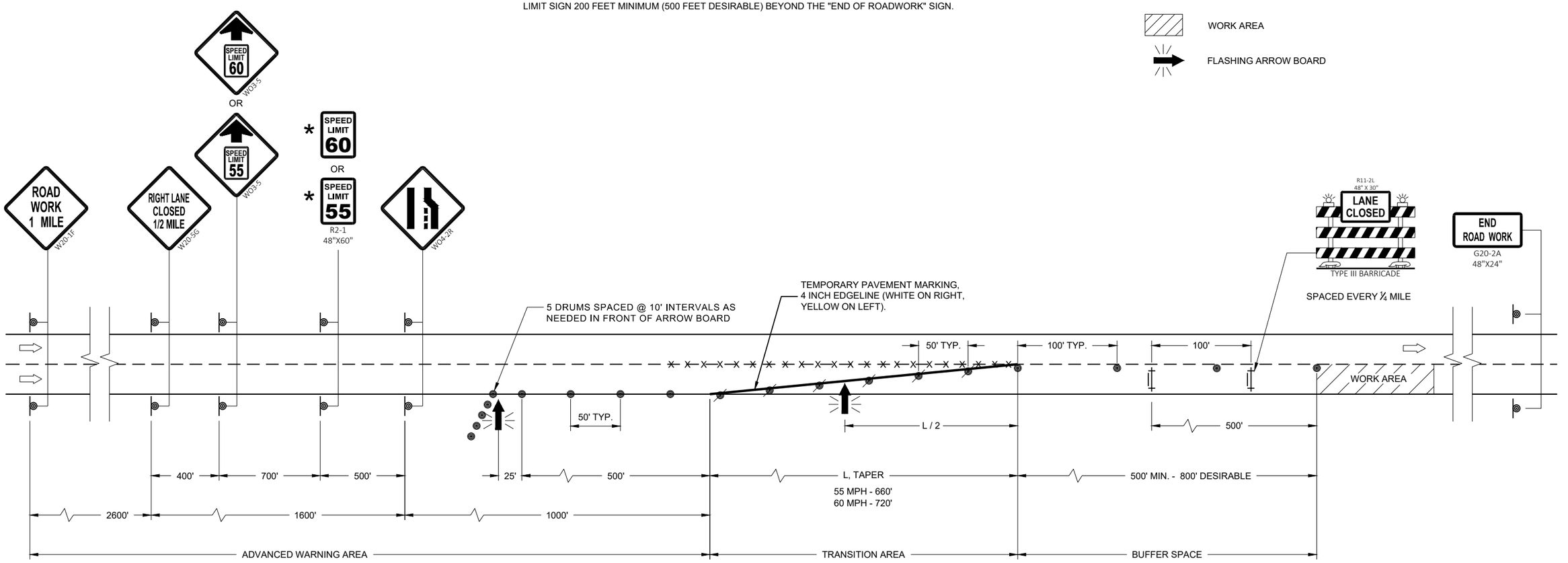
IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

* A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN A MINIMUM OF EVERY 3 MILES. INCLUDE A RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIRABLE) BEYOND THE "END OF ROADWORK" SIGN.

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD



TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15D12 - 07b

SDD 15D12 - 07b

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN
- FBS — FLASHING BEACON SIGNS

STOPPED OR SLOW TRAFFIC WHEN FLASHING
W8-76
60x36

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

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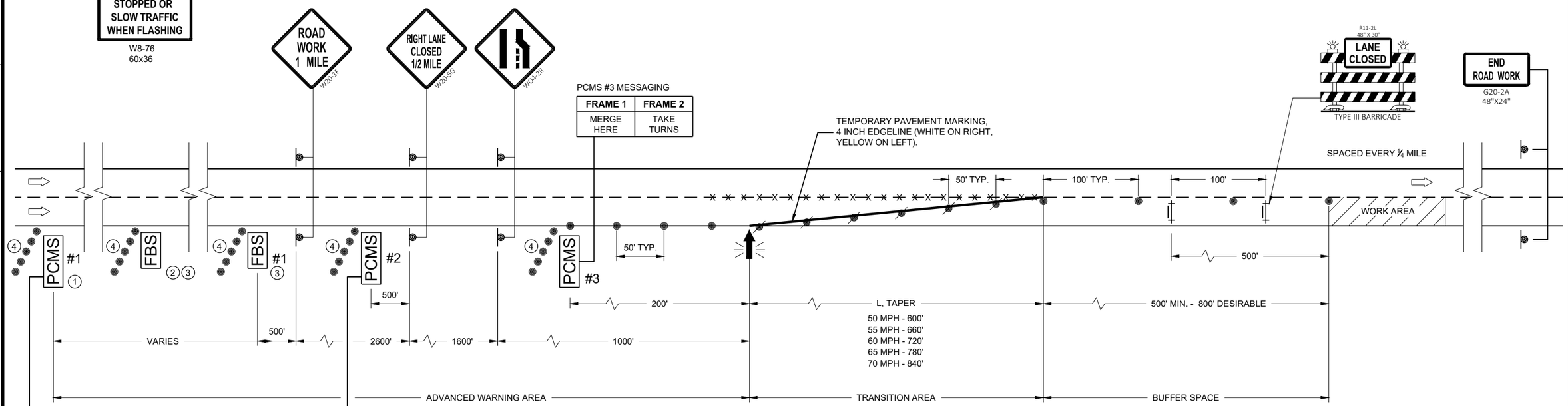
CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

1. PLACE PCMS #1 ONE MILE BEYOND ESTIMATED MAXIMUM QUEUE LENGTH. PLACE FLASHING BEACON SIGNS EVERY ONE MILE BETWEEN THE W20 - 1F AND PCMS #1 BEYOND ESTIMATED QUEUE.
2. PLACE FLASHING BEACON SIGNS EVERY ONE MILE BETWEEN PCMS #1 AND FBS #1.
3. FOR THREE LANE CONFIGURATION, PLACE FBS ON BOTH SIDES OF ROADWAY. CHANGE PCMS #1 FRAME 2 MESSAGE TO "USE ALL LANES".
4. 5 DRUMS SPACED @ 10' INTERVALS AS NEEDED.



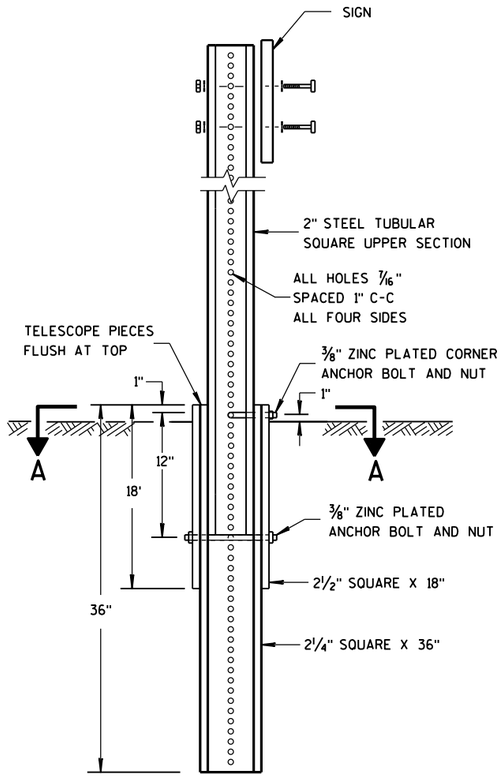
DYNAMIC LATE MERGE SYSTEM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

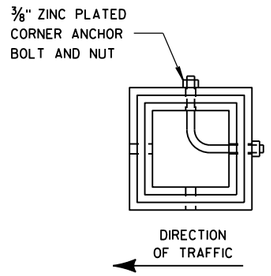
APPROVED
November 2018 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

SDD 15D12 - 07c

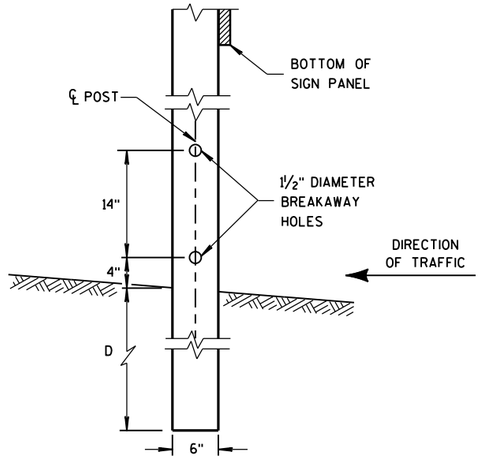
SDD 15D12 - 07c



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



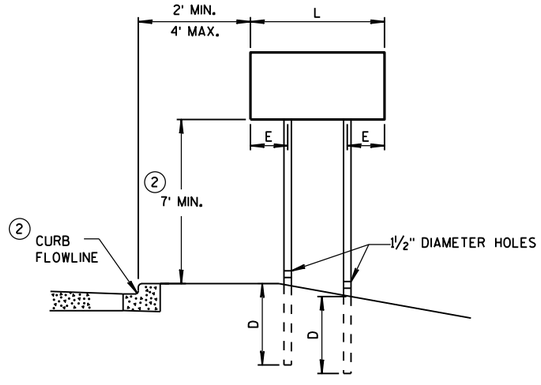
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

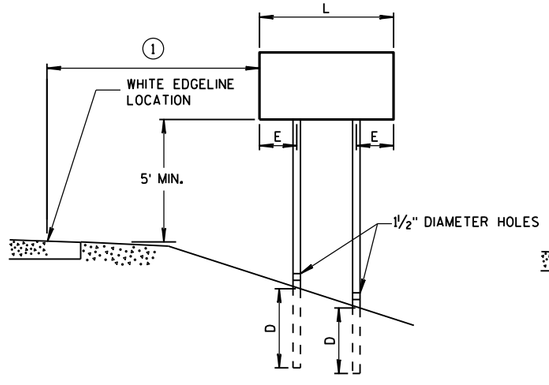
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

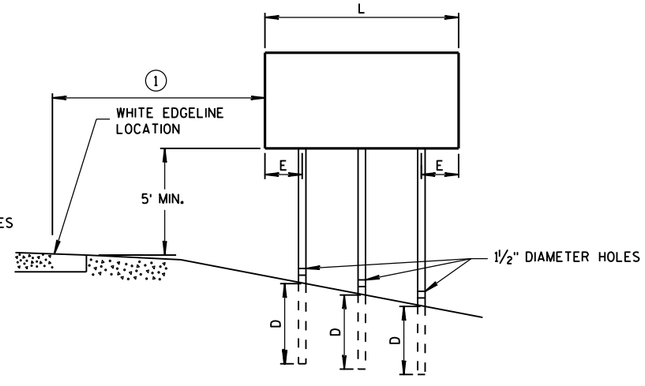
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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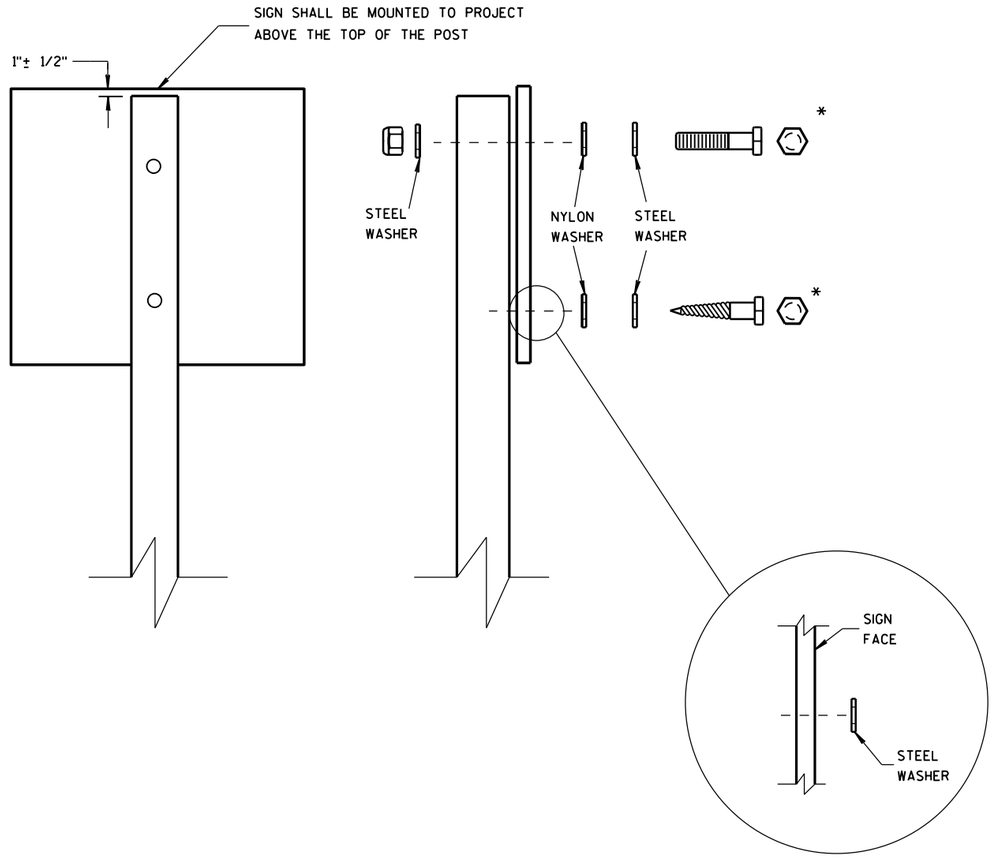
S.D.D. 15 D 38-2a



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3

B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 5/16" X 6-1/2" OR 7" LENGTH W/ NUTS

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

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S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017
DATE

/S/ Andrew Heldtke
WORK ZONE ENG

FHWA

LEGEND

TYPE III BARRICADE WITH ATTACHED SIGN

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM

DIRECTION OF TRAFFIC

CONCRETE BARRIER TEMPORARY PRECAST

TYPE "A" WARNING LIGHT (FLASHING)

WORK AREA

L, TAPER LENGTH (MPH)							
SPEED (MPH)	W, LATERAL OFFSET (FT)						
	10	11	12	13	14	15	16
45	450	495	540	585	630	675	720
50	500	550	600	650	700	750	800
55	550	605	660	715	770	825	880
60	600	660	720	780	840	900	960
65	650	715	780	845	910	975	1040
70	700	770	840	910	980	1050	1120

OR

LOCATED 3000 FEET BEYOND THE "ROAD WORK 1 MILE" (W20-1F) SIGN

R2-1
48"X60"

OR

R2-1
48"X60"

(BLACK AND WHITE) LOCATED 700 FEET BEYOND THE W03-5 SIGN

IF THE REGULATORY SPEED HAS BEEN REDUCED, A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 3 MILES.

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT RIGHT - REVERSE FOR SHIFTING LEFT.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

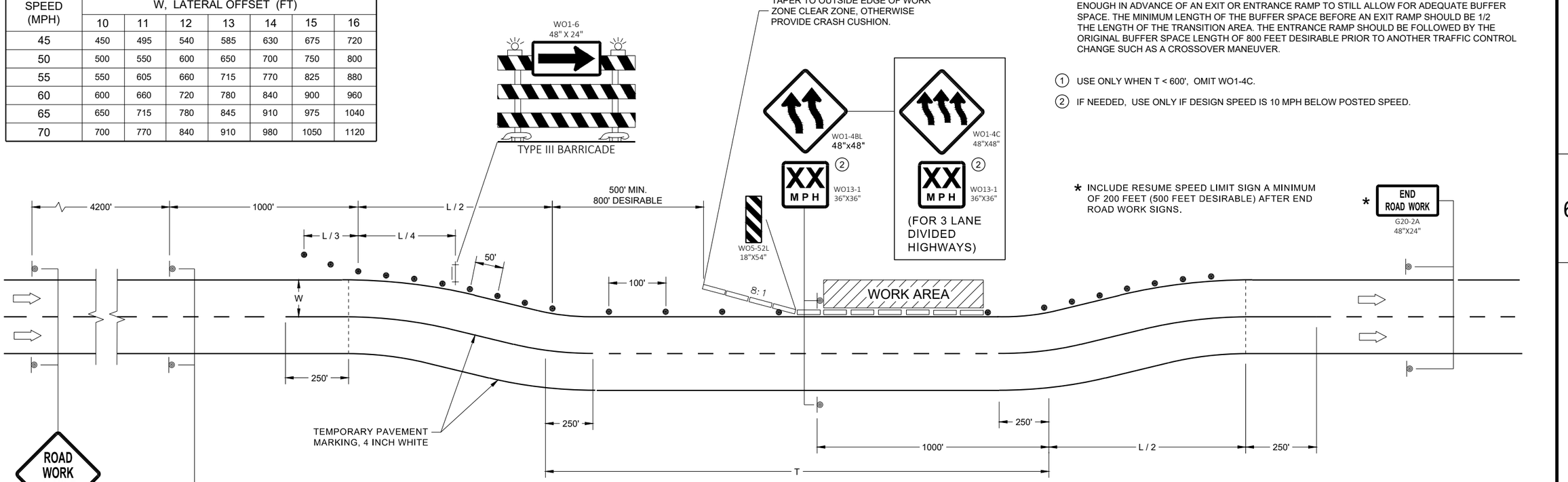
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

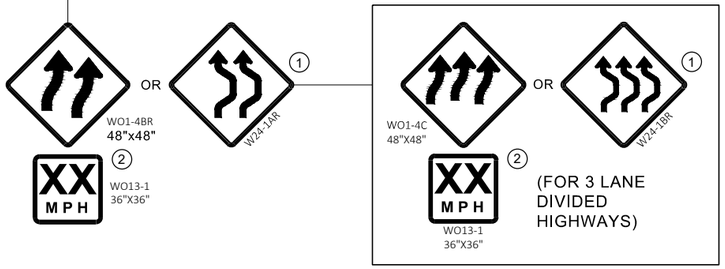
IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

(1) USE ONLY WHEN T < 600', OMIT WO1-4C.

(2) IF NEEDED, USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.





MULTIPLE LANE SHIFT MULTILANE DIVIDED ROAD

TRAFFIC CONTROL
MULTIPLE LANE SHIFT
MULTILANE DIVIDED ROAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

FHWA

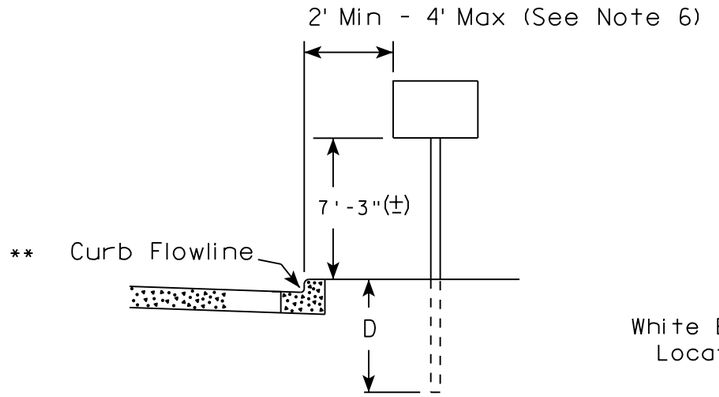
6

SDD 15D41 - 01

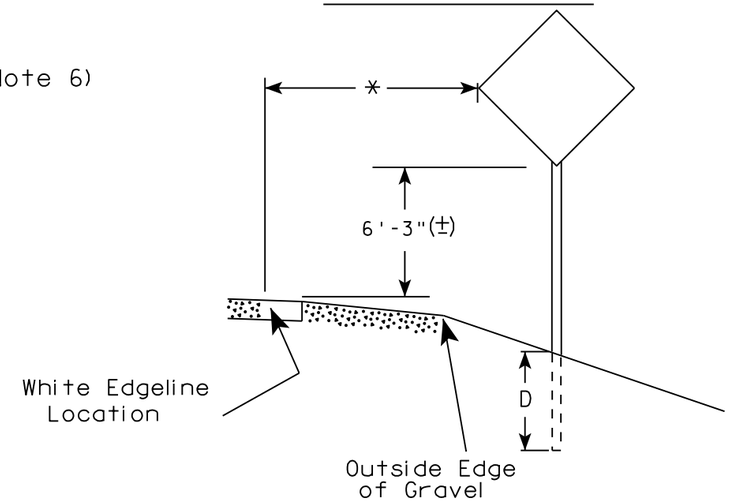
6

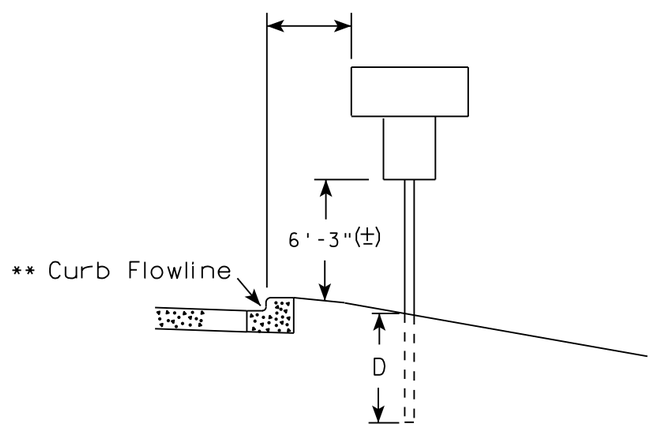
SDD 15D41 - 01

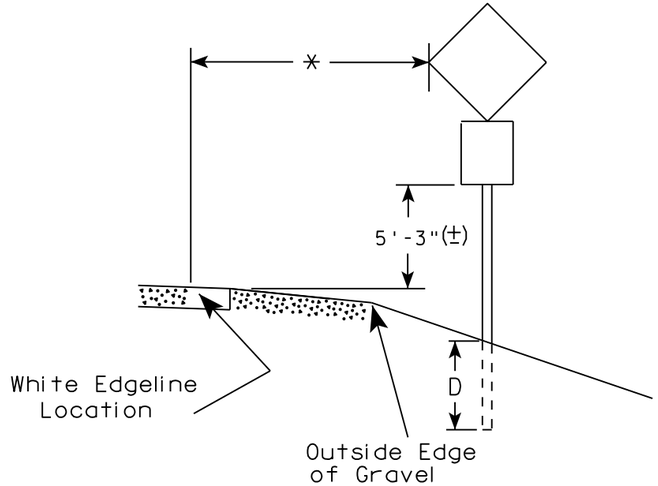
URBAN AREA



RURAL AREA (See Note 2)







** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. J-Assemblies are considered to be one sign for mounting height.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

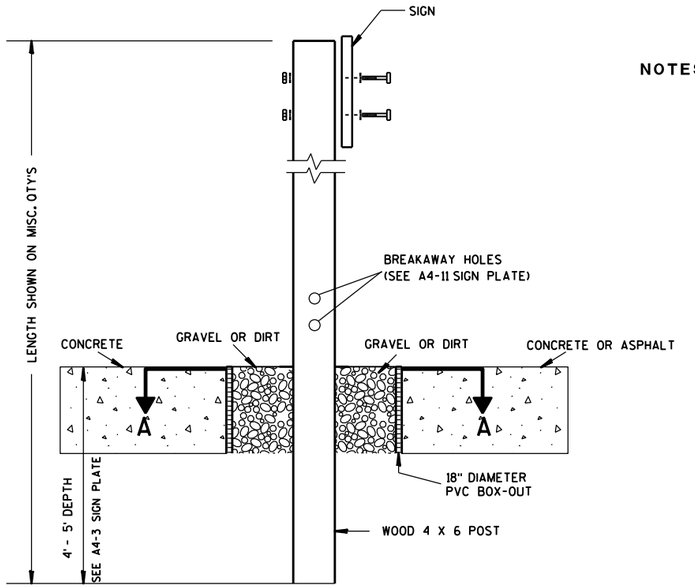
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-3.21

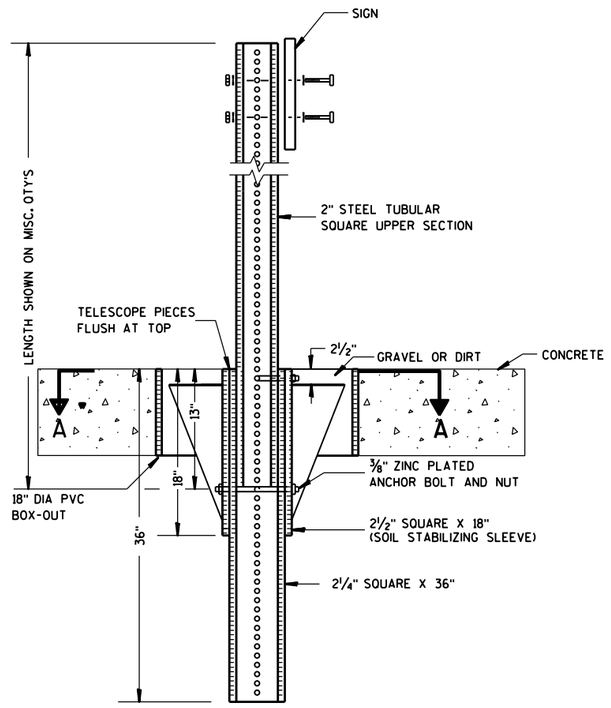
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 120	E



ELEVATION VIEW

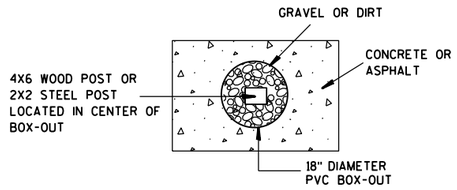
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

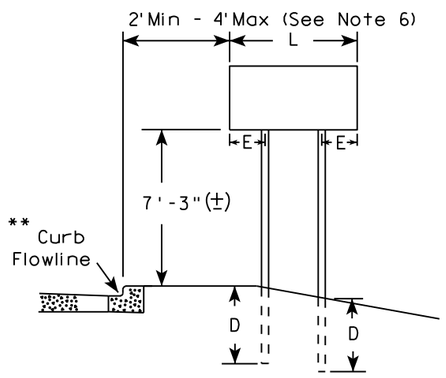
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

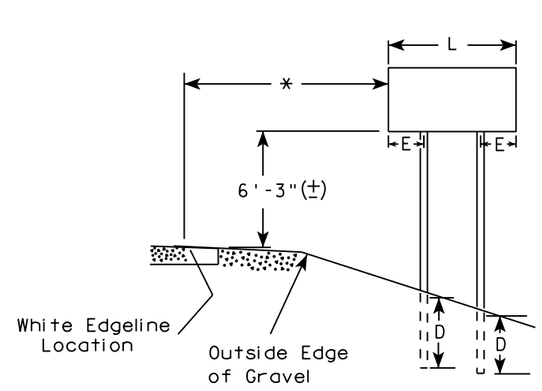
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

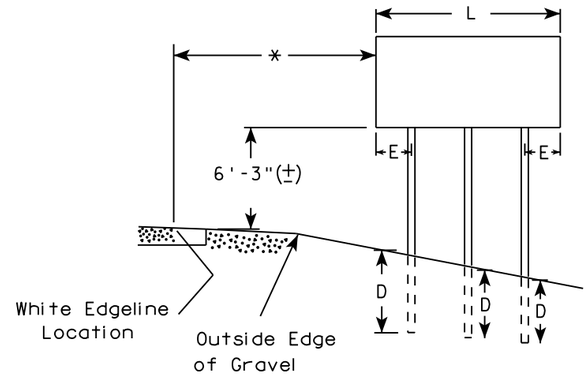
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

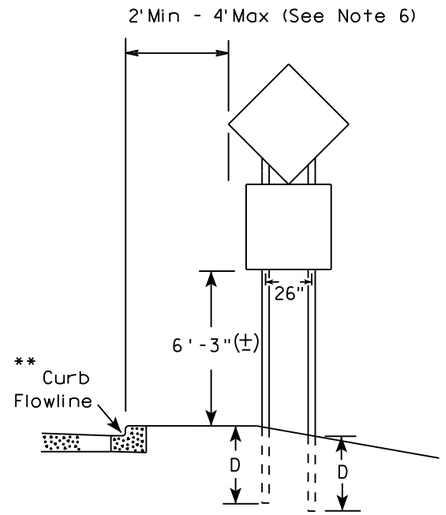
URBAN AREA



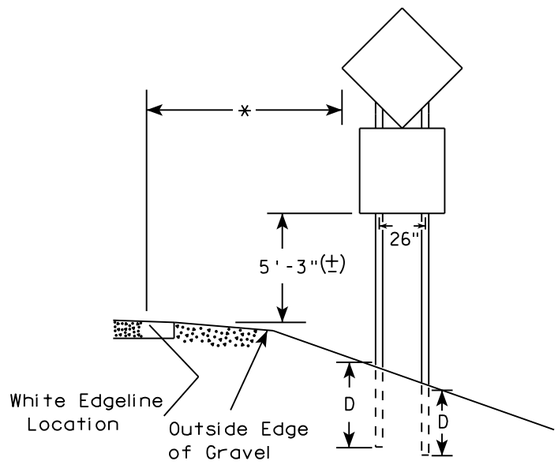
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

***	SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
	L	E
	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

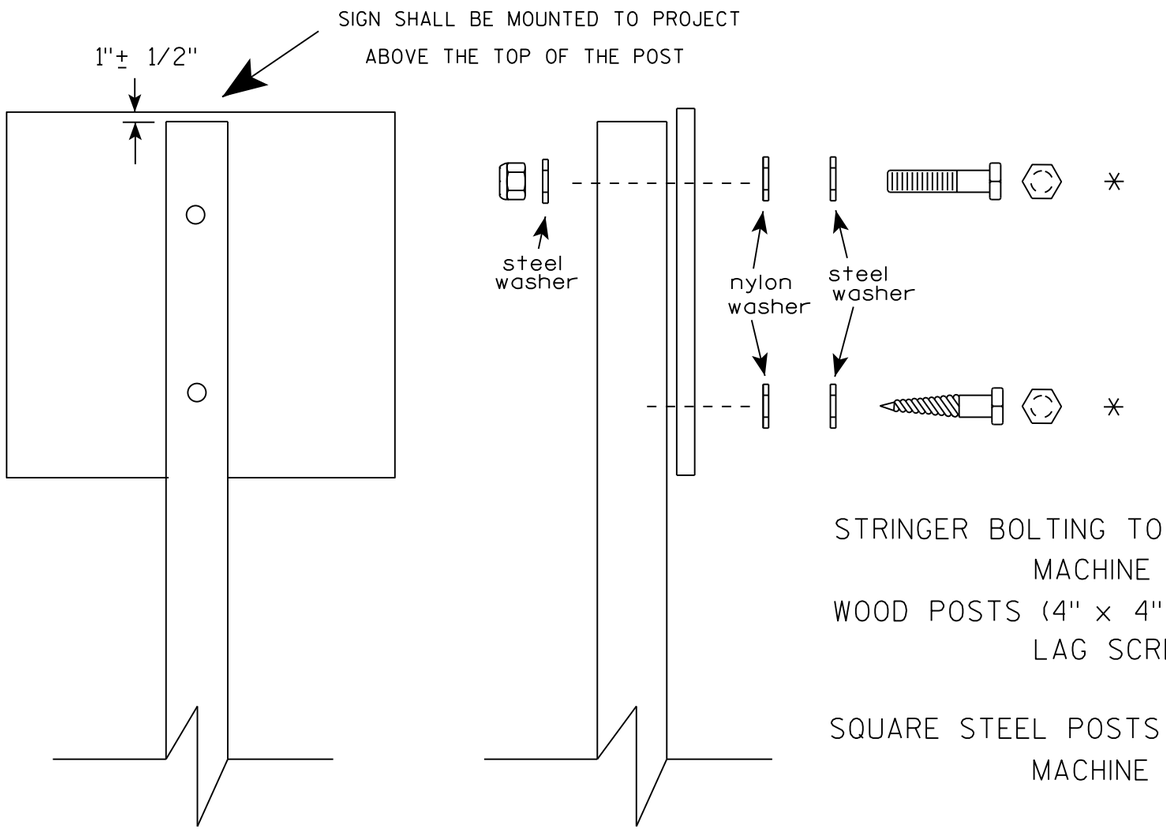
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 122	E



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts
WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)
SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

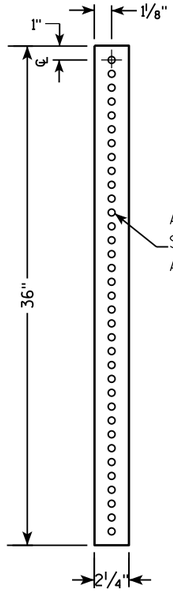
DATE 8/11/16 PLATE NO. A4-8.8

PROJECT NO: SHEET NO: E

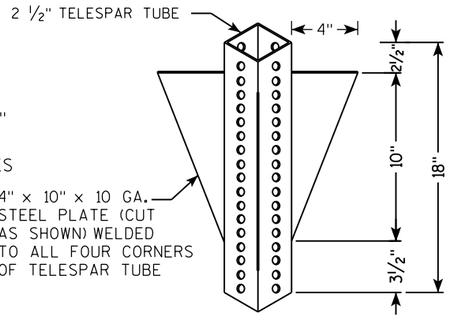
FILE NAME : C:\CADfiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 11-AUG-2016 11:35 PLOT BY : $$ plotuser $$

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

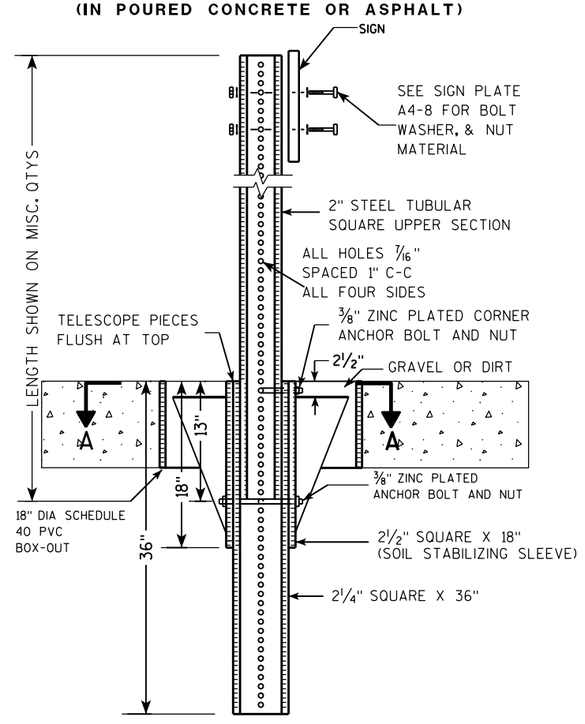
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



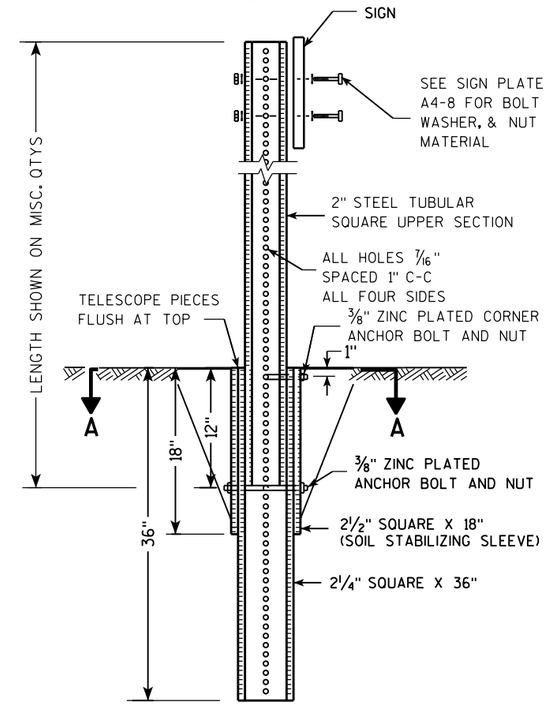
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

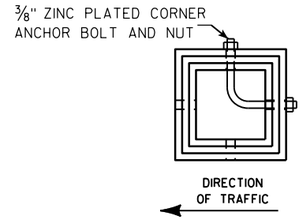


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

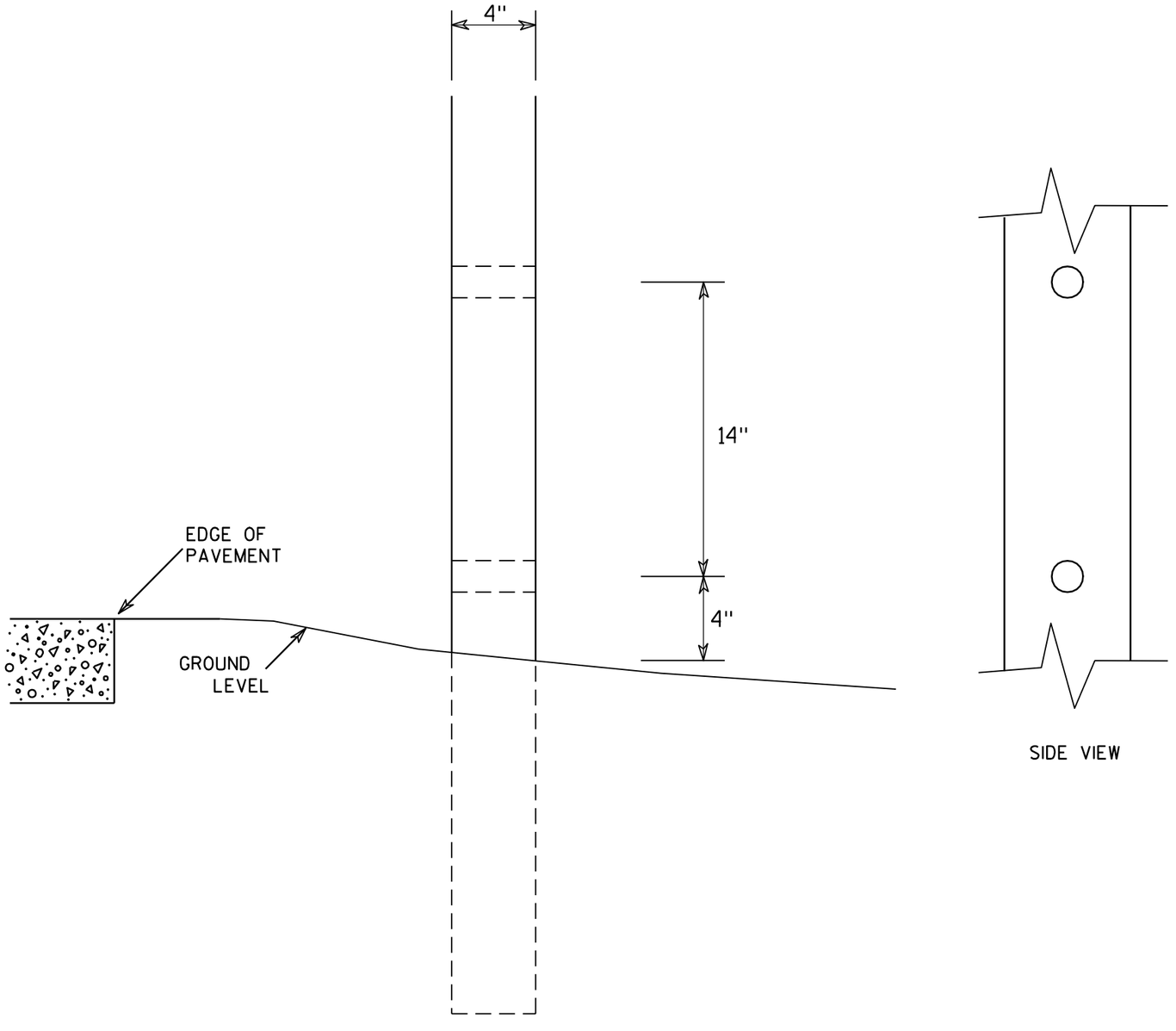
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000
WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

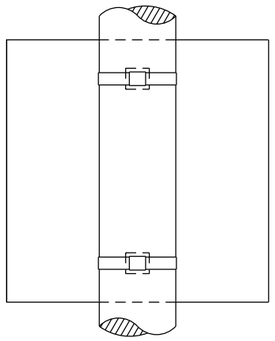
APPROVED Chester J Spang for State Traffic Engineer

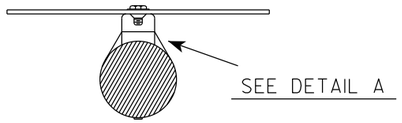
DATE 3/27/97 PLATE NO. A4-11.2

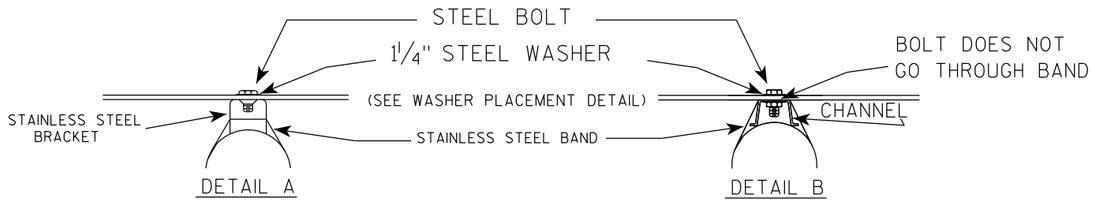
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 125	E

BANDING

SINGLE SIGN



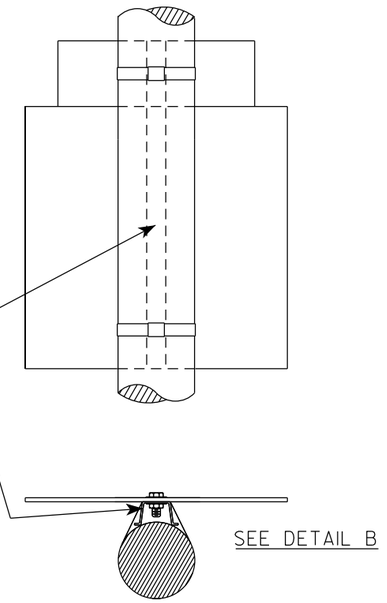




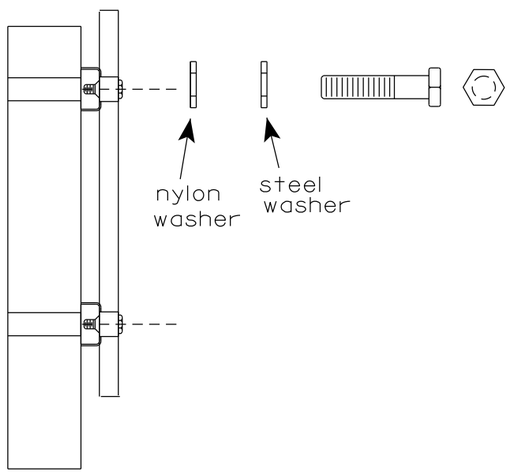
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X ⅜" I.D. X 1/16" STEEL
1-1/4" O.D. X ⅜" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

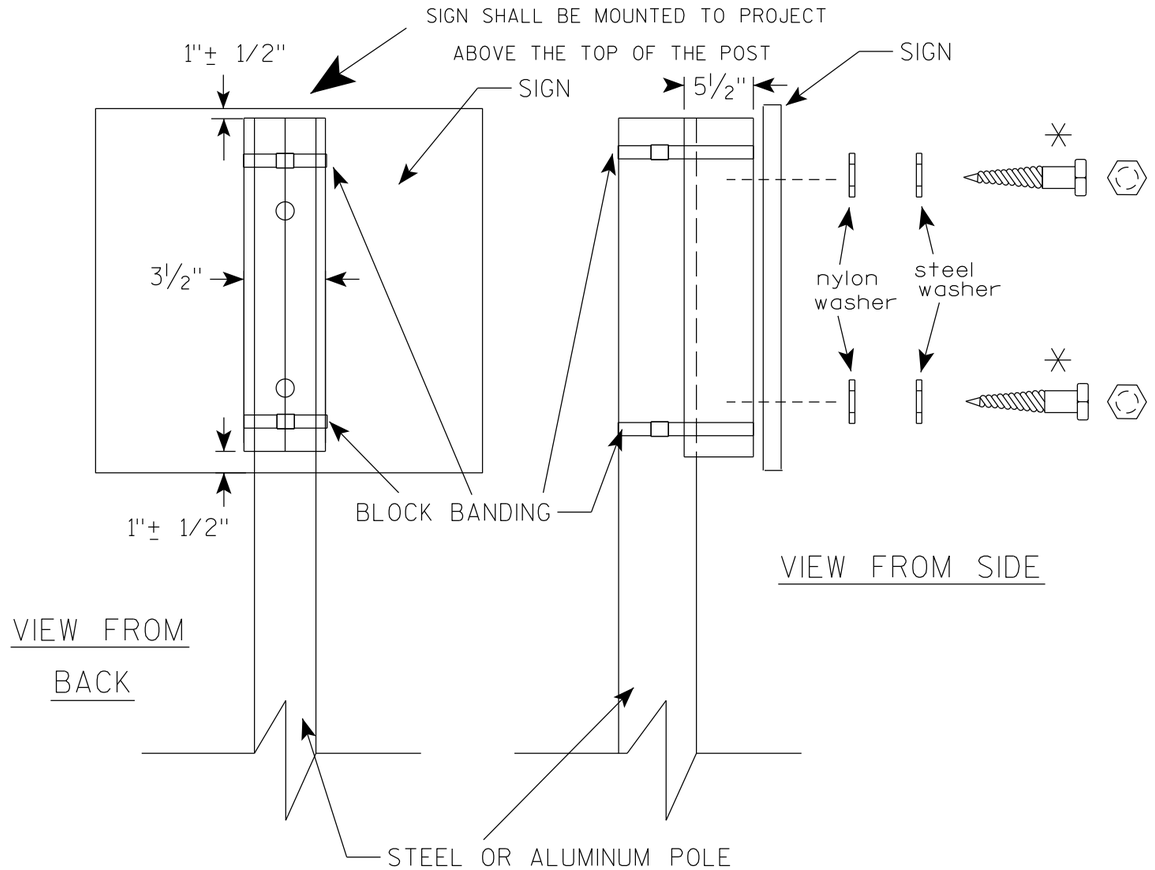
WISCONSIN DEPT OF TRANSPORTATION

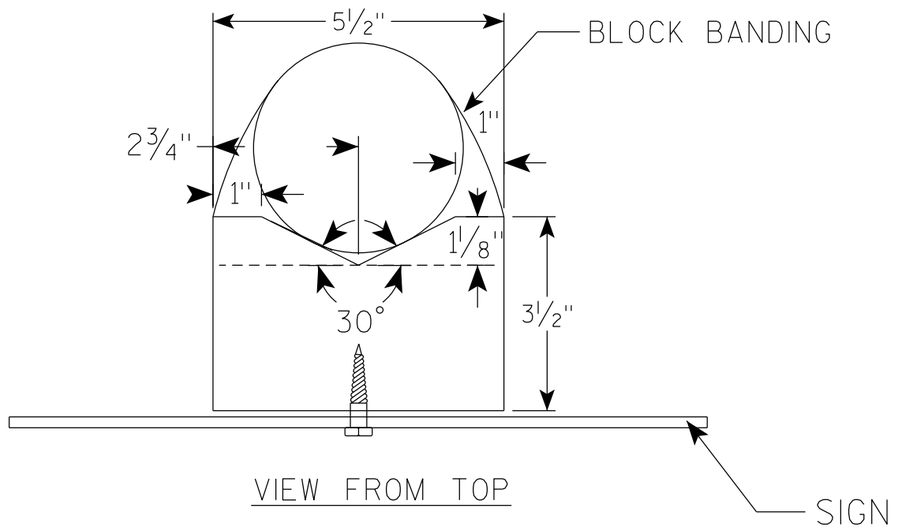
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-9.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 126	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

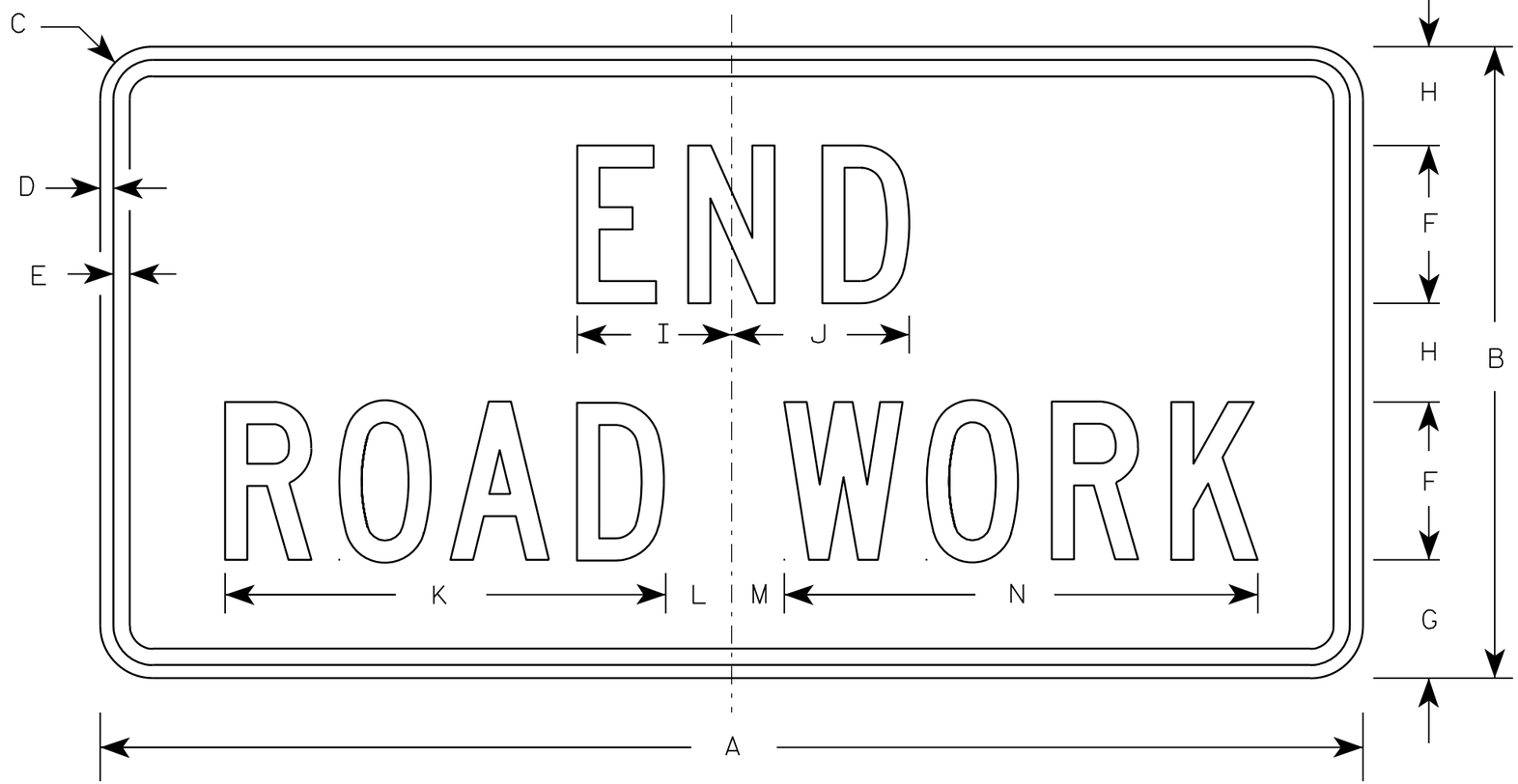
BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-10.2

PROJECT NO: | SHEET NO: 127 | E



G20-2A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

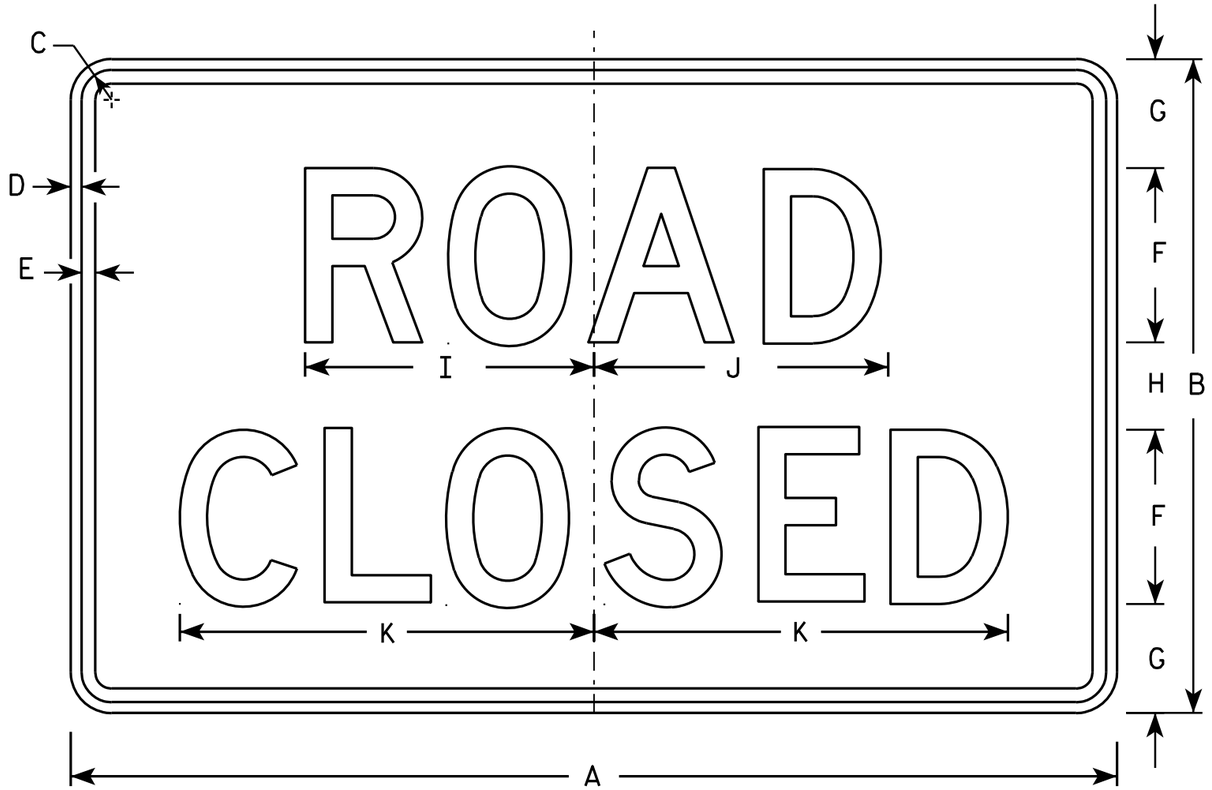
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

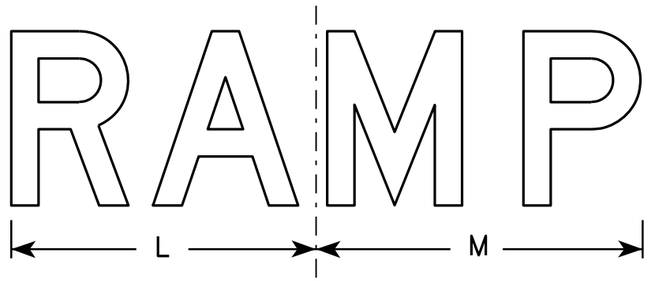
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 128	E



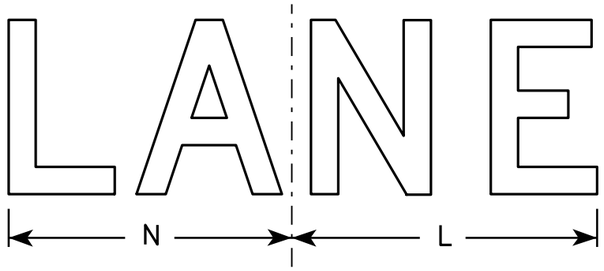
R11-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.



R11-2R



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0

STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

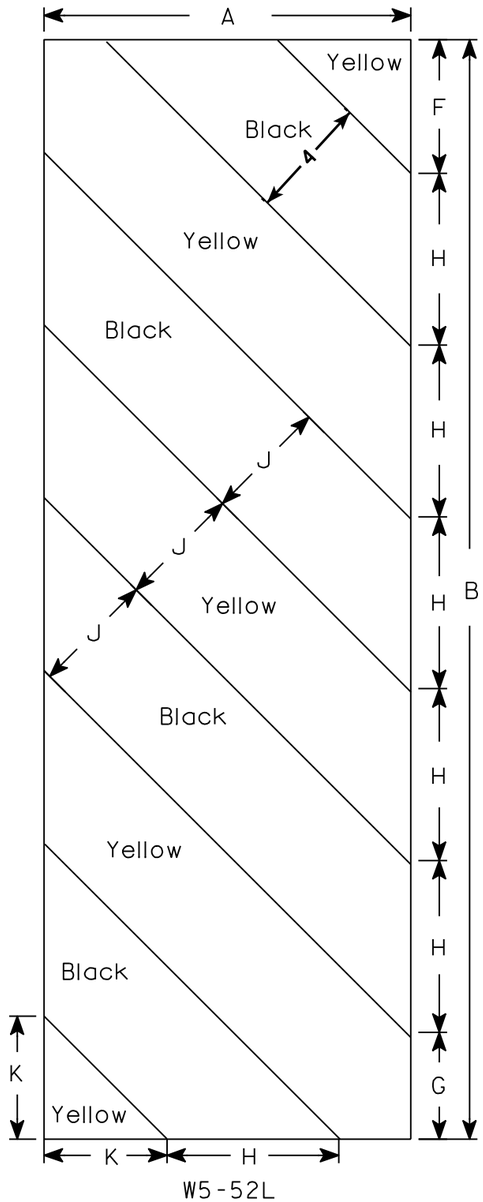
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

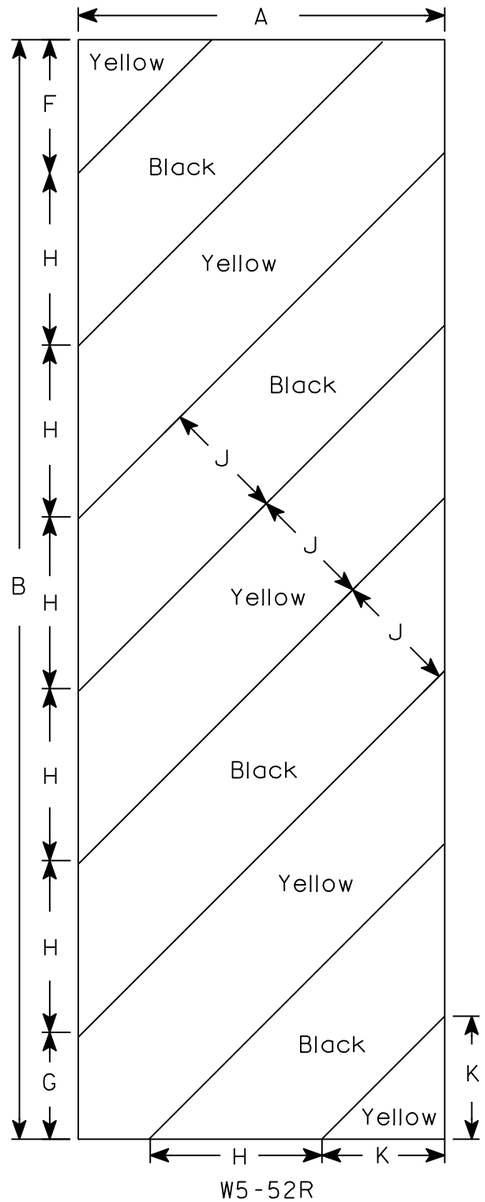
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 129 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R112.DGN PLOT DATE : 01-APR-2011 14:25 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.952219:1.000000

WISDOT/CADDS SHEET 42



W5-52L



W5-52R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Alternate colors of stripes as shown.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

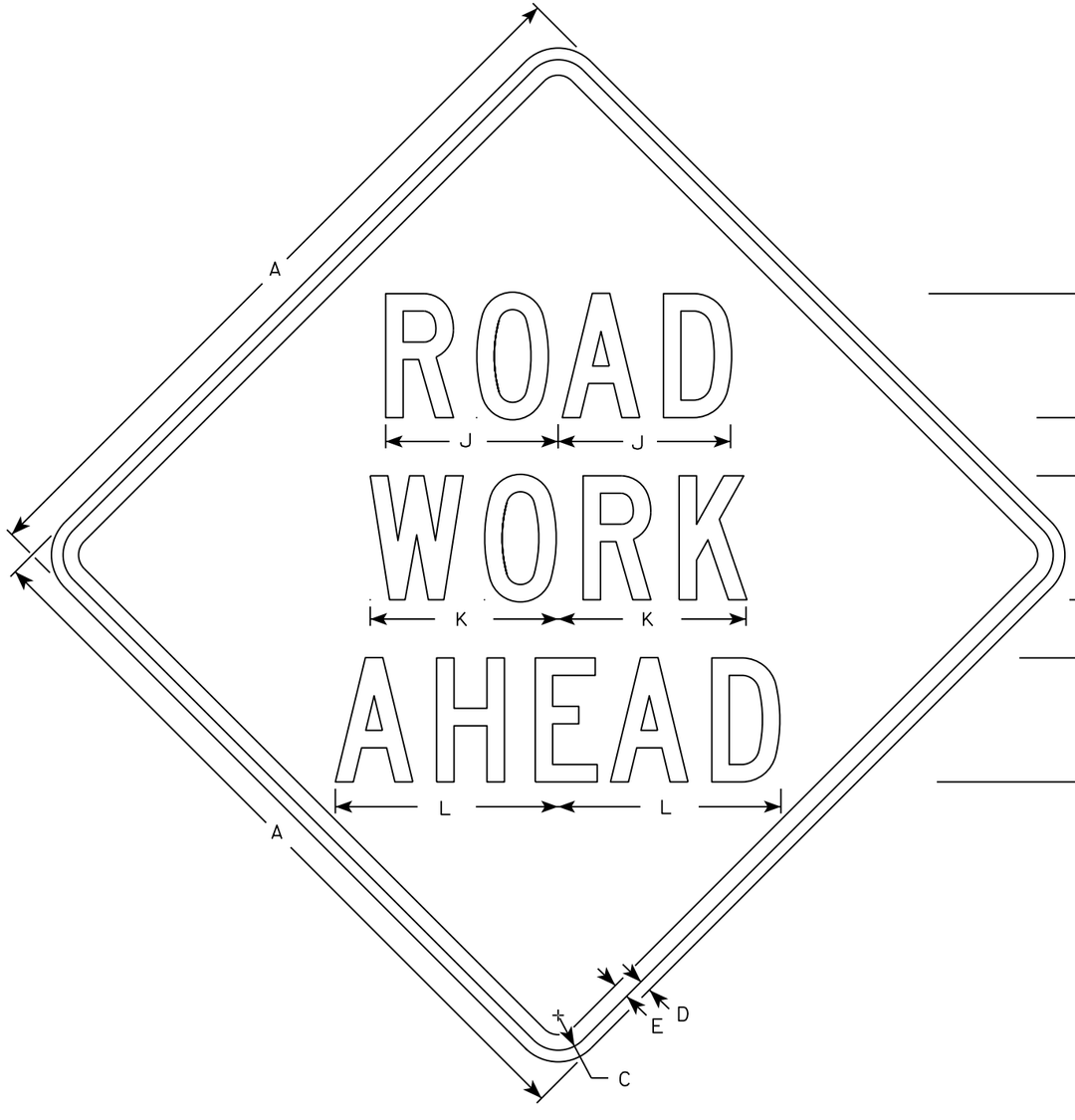
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

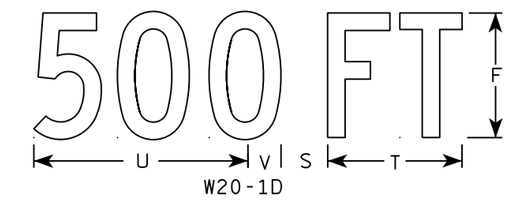
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9

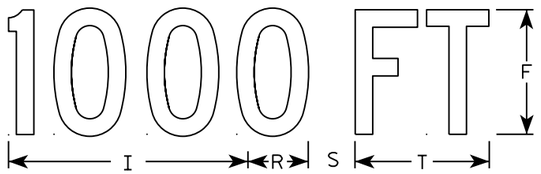
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 130 | E



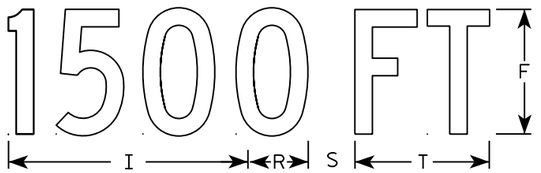
W20-1A



W20-1D

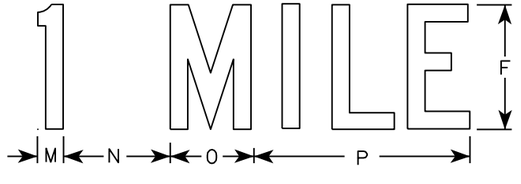


W20-1C

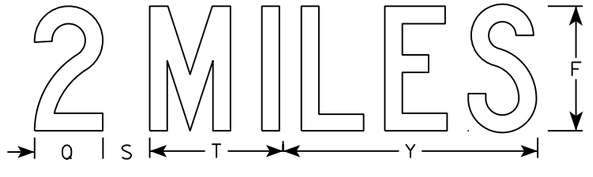


W20-1B

W20-1G



W20-1F



W20-1E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

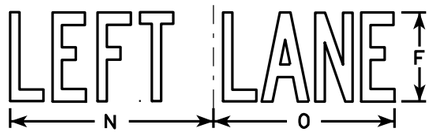
DATE 5/07/15 PLATE NO. W20-1.10

PROJECT NO:

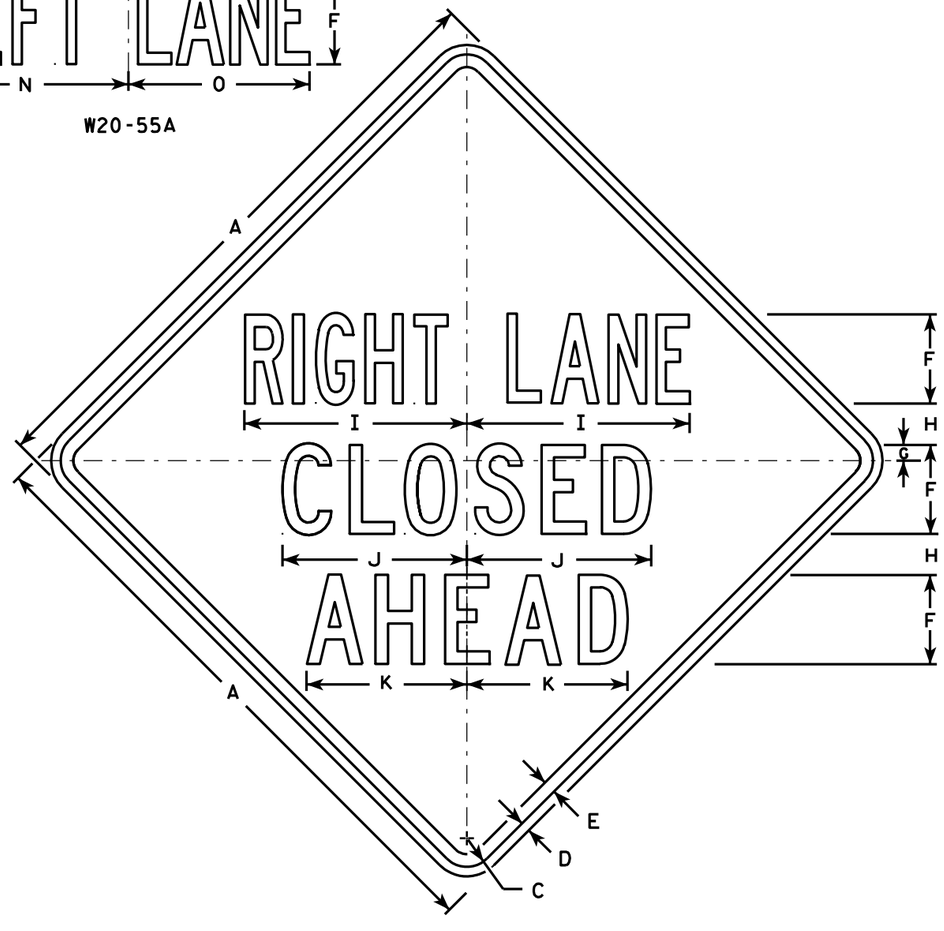
SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 01-DEC-2015 18:24 PLOT BY : $$ plotuser $$

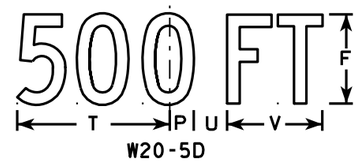
W20-56A



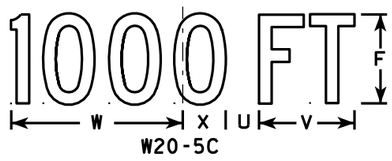
W20-55A



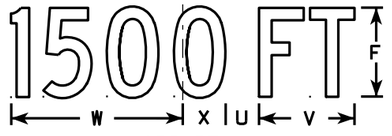
W20-5A



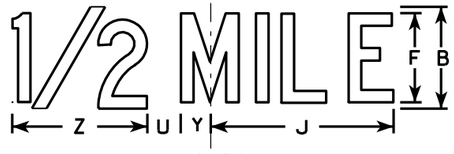
W20-5D



W20-5C



W20-5B



W20-5G

W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. " _____ LANE" is Series B.
   All other copy is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	1 5/8	5/8	3/4	5	1/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

STANDARD SIGN
W20-5A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

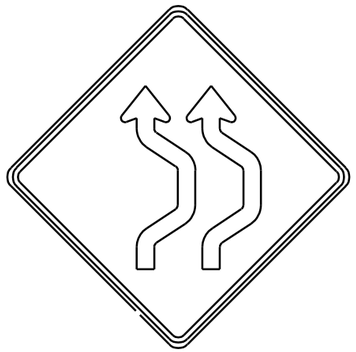
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

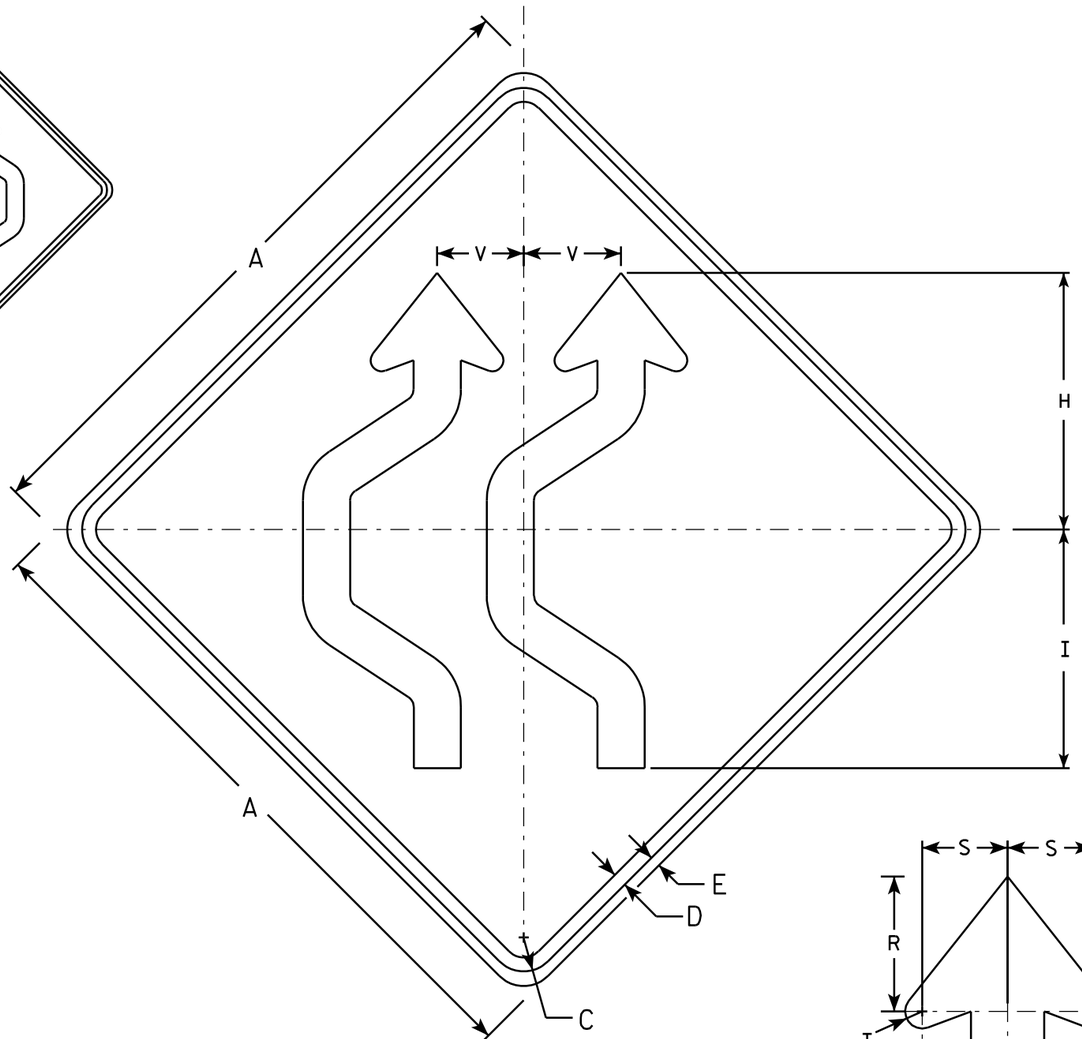
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 132 | E

7

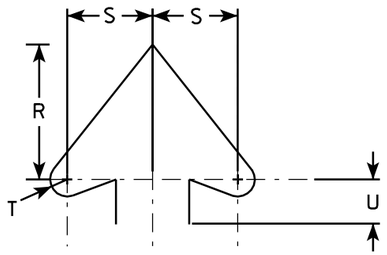
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000
WISDOT/CADDS SHEET 42



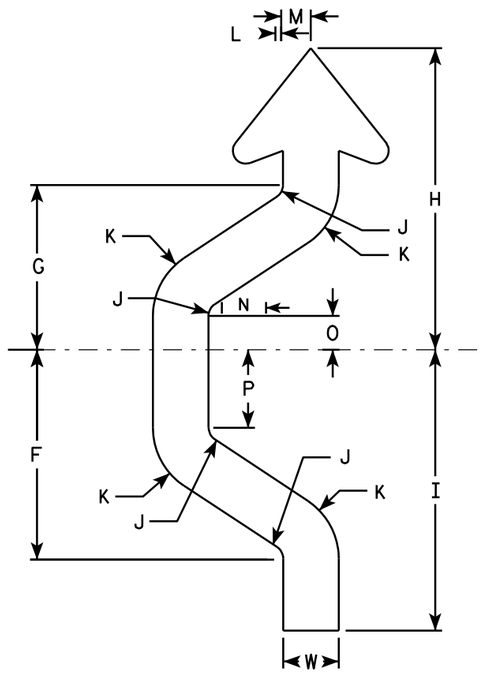
W24-1AR



W24-1AL



Arrowhead Detail



Arrow Detail

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W24-1R is the same as W24-1L except reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	5/8	1/2	9 1/2	7 1/2	13 3/4	12 3/4	5/8	3 1/8	3/8	1 5/8	2 3/8	1 1/2	3 1/2		4 5/8	3	5/8	1 1/2	4 3/4	2 1/2				9
2S	48		2 1/4	1	3/4	12 7/8	10 1/8	18 1/2	17 1/4	7/8	4 1/4	3/8	2 1/8	3 1/4	2	4 3/4		6 1/4	4	3/4	2 1/8	6 1/4	3 3/8				16
2M	48		2 1/4	1	3/4	12 7/8	10 1/8	18 1/2	17 1/4	7/8	4 1/4	3/8	2 1/8	3 1/4	2	4 3/4		6 1/4	4	3/4	2 1/8	6 1/4	3 3/8				16
3	48		2 1/4	1	3/4	12 7/8	10 1/8	18 1/2	17 1/4	7/8	4 1/4	3/8	2 1/8	3 1/4	2	4 3/4		6 1/4	4	3/4	2 1/8	6 1/4	3 3/8				16
4	48		2 1/4	1	3/4	12 7/8	10 1/8	18 1/2	17 1/4	7/8	4 1/4	3/8	2 1/8	3 1/4	2	4 3/4		6 1/4	4	3/4	2 1/8	6 1/4	3 3/8				16
5	48		2 1/4	1	3/4	12 7/8	10 1/8	18 1/2	17 1/4	7/8	4 1/4	3/8	2 1/8	3 1/4	2	4 3/4		6 1/4	4	3/4	2 1/8	6 1/4	3 3/8				16

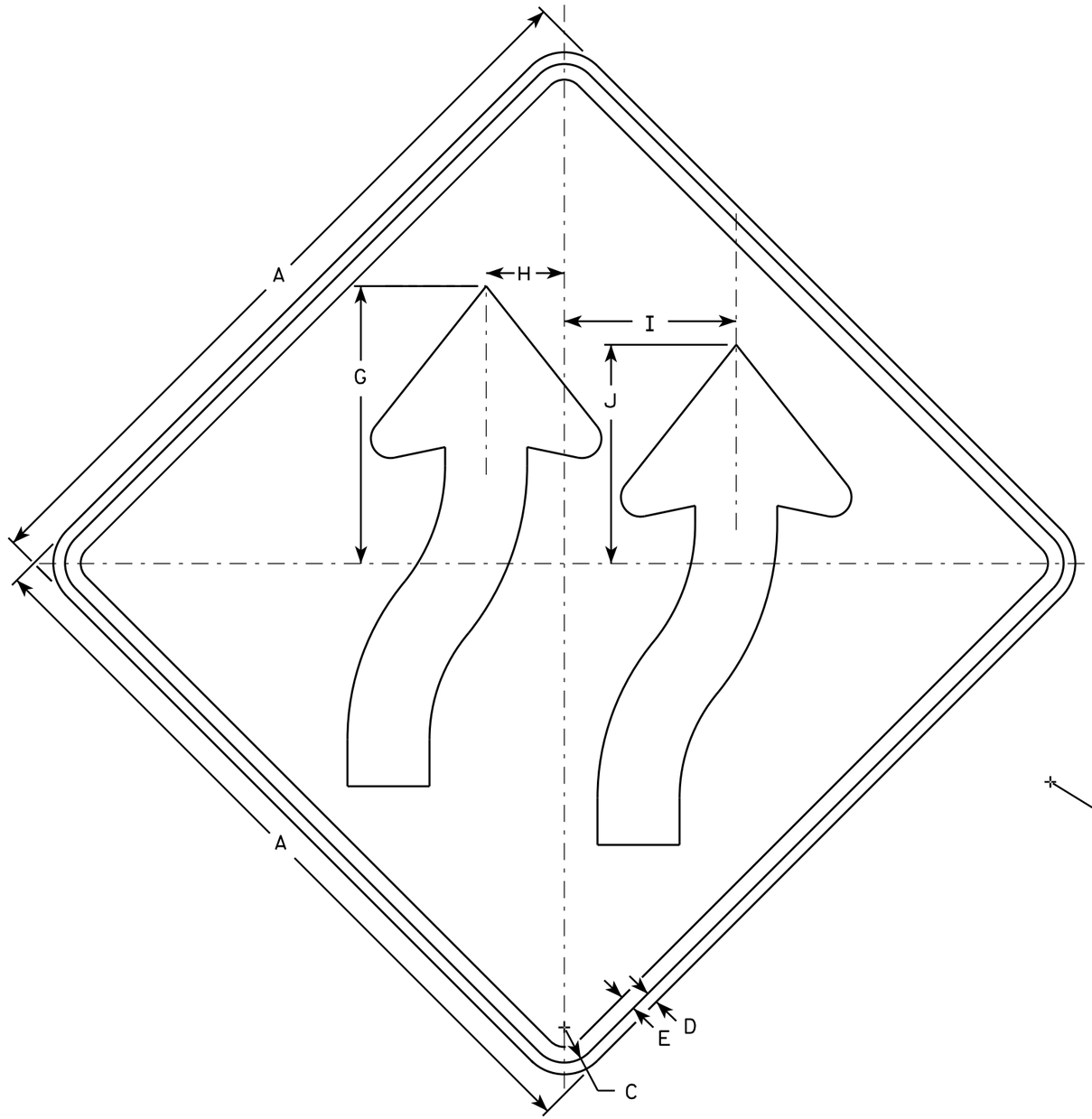
STANDARD SIGN
W24-1AL

WISCONSIN DEPT OF TRANSPORTATION

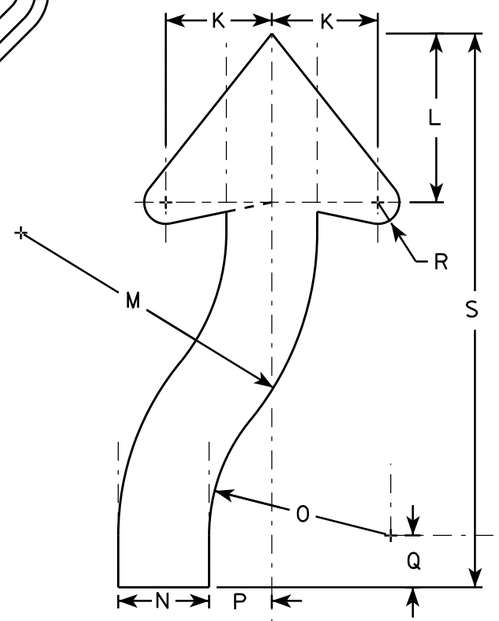
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W24-1AL.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 133 | E



W01-4bR



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4bL is the same as W014-bR exept arrows are reversed along the vertical centerline

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4		13 3/8	3 3/4	8 1/4	10 1/2	4 5/8	7 3/8	12 7/8	3 7/8	7 7/8	2 3/4	2 1/4	7/8	24								9.0
2S	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
2M	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
3	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
4	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
5	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0

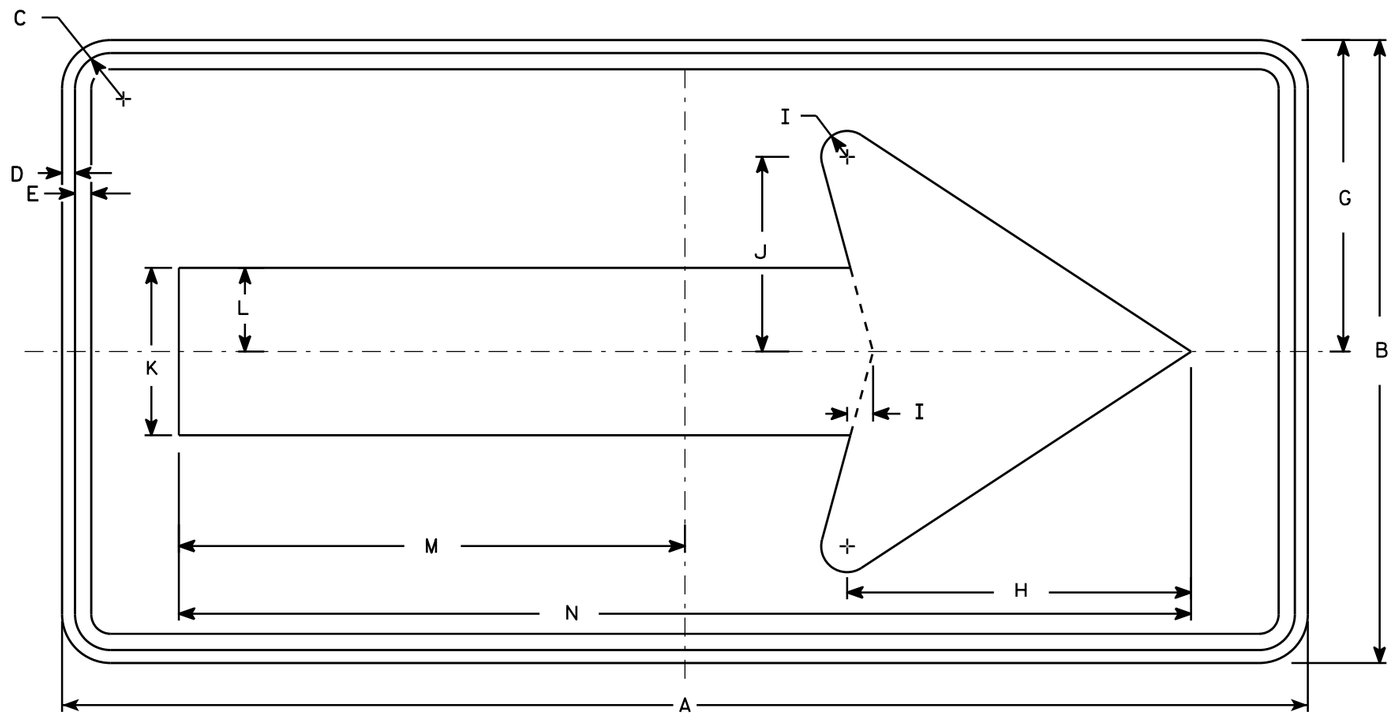
STANDARD SIGN
W01-4b

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-4b.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W01-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN
W01-6

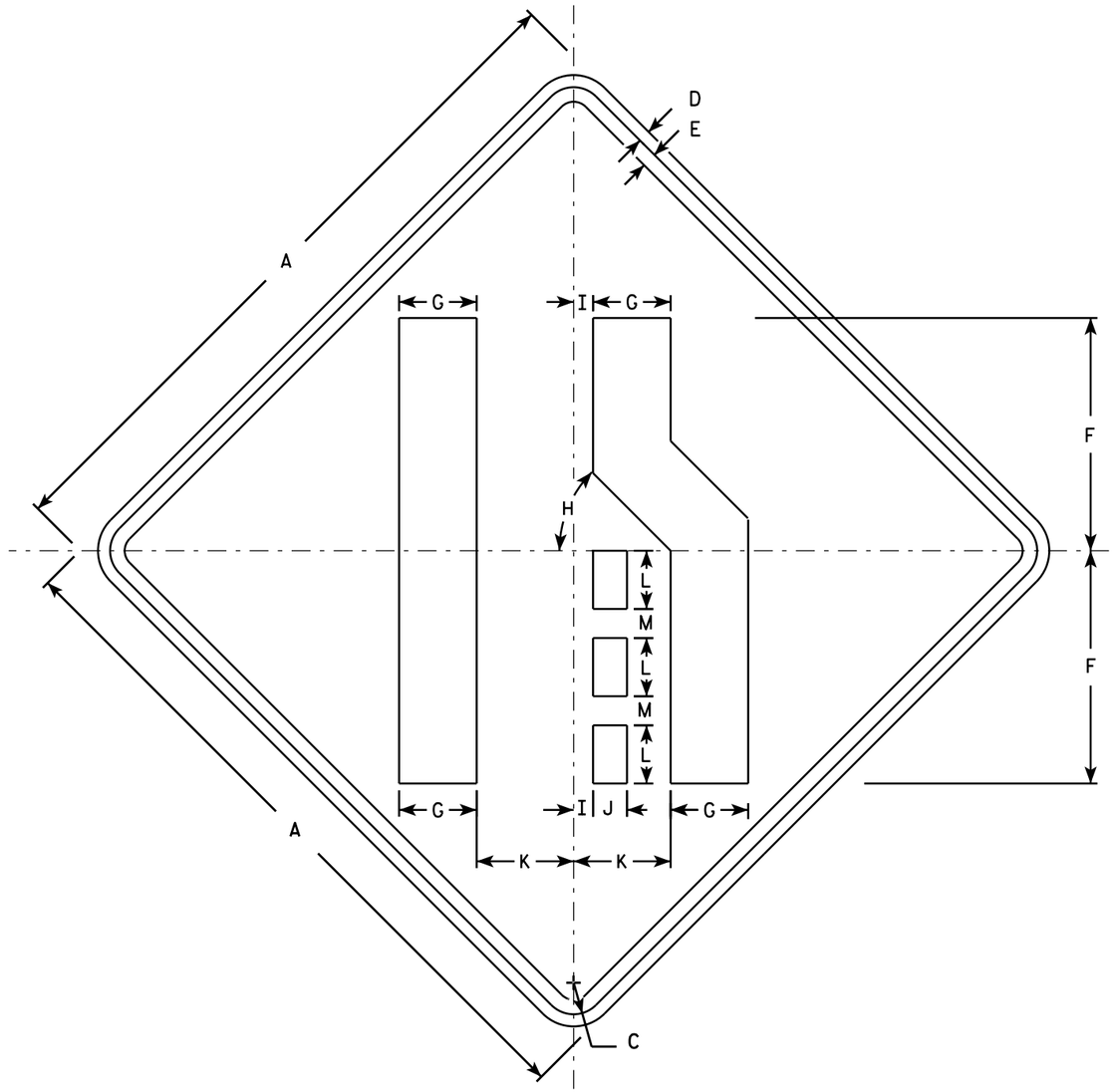
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-6.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W04-2

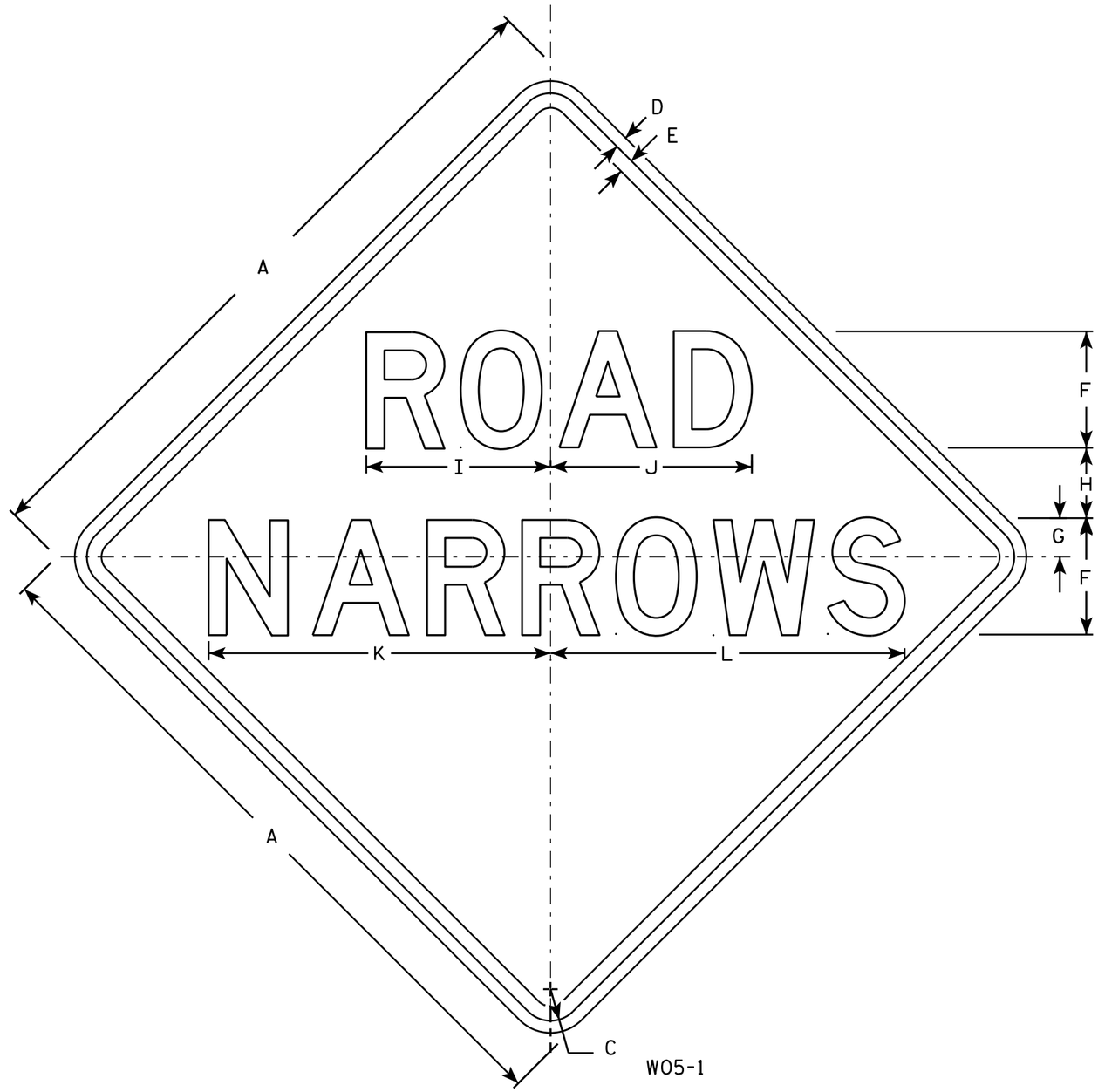
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 136 W04-2.1

PROJECT NO:

SHEET NO: E



W05-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	2	3 1/2	9 1/2	10 3/8	17 5/8	18 1/4															9.0
2S	48		2 1/4	3/4	1	8	3	4	12 3/4	13 3/4	23 1/2	24 3/8															16.0
2M	48		2 1/4	3/4	1	8	3	4	12 3/4	13 3/4	23 1/2	24 3/8															16.0
3	48		2 1/4	3/4	1	8	3	4	12 3/4	13 3/4	23 1/2	24 3/8															16.0
4	48		2 1/4	3/4	1	8	3	4	12 3/4	13 3/4	23 1/2	24 3/8															16.0
5	48		2 1/4	3/4	1	8	3	4	12 3/4	13 3/4	23 1/2	24 3/8															16.0

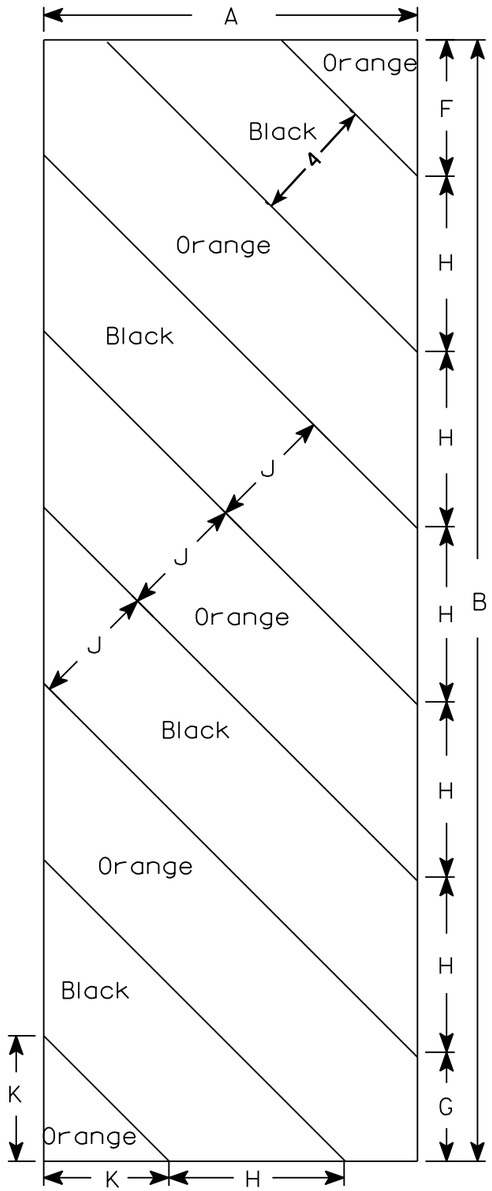
STANDARD SIGN
W05-1

WISCONSIN DEPT OF TRANSPORTATION

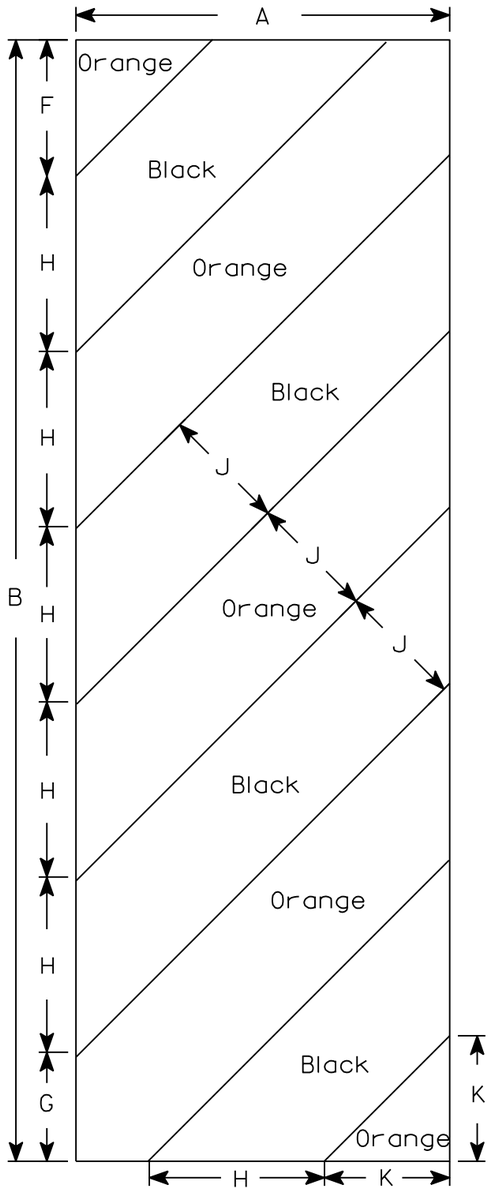
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE NO. W05-1.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W05-52L



W05-52R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Alternate colors of stripes as shown.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

W05-52L & W05-52R

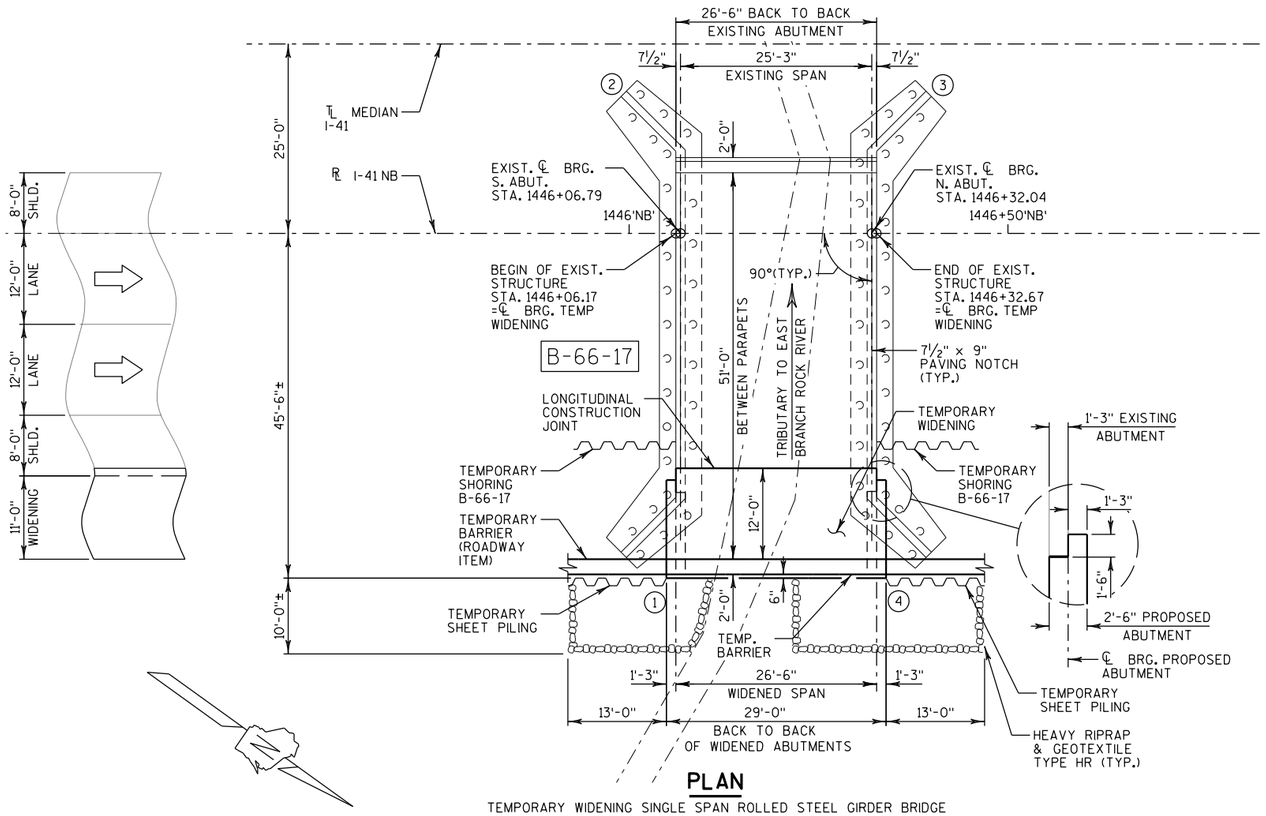
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE No. W05-52.1

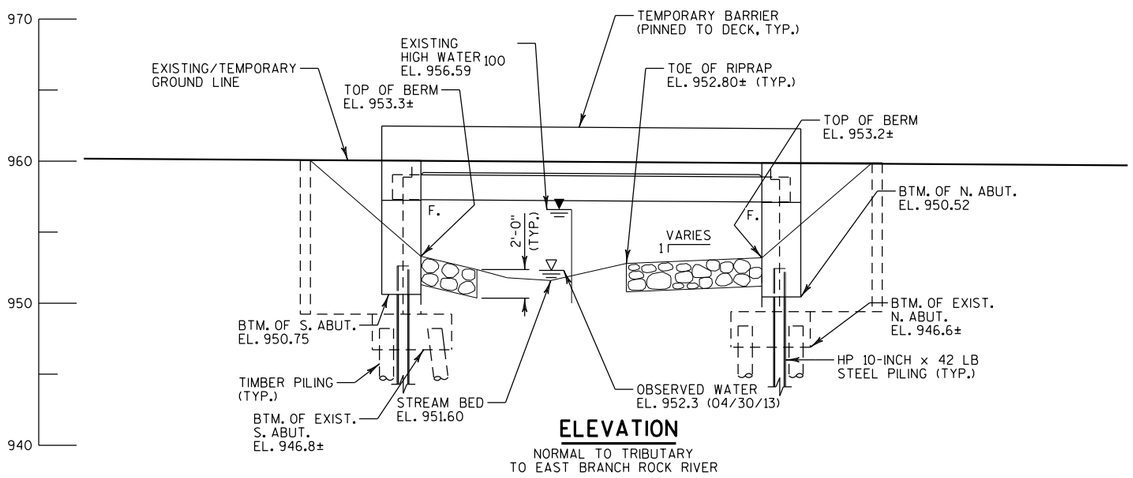
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W0552.DGN PLOT DATE : 28-FEB-2014 11:39 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 4.864607:1.000000 WISDOT/CADDS SHEET 42



PLAN

TEMPORARY WIDENING SINGLE SPAN ROLLED STEEL GIRDER BRIDGE



ELEVATION

NORMAL TO TRIBUTARY
TO EAST BRANCH ROCK RIVER

DESIGN DATA

WIDENING:
- DESIGN LOADING — HL-93
- INVENTORY RATING FACTOR — 1.13
- OPERATING RATING FACTOR — 1.47
- WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) — 250 KIPS

EXISTING:
- DESIGN LOADING — HS20
- INVENTORY RATING — HS18
- OPERATING RATING — HS31
- WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) — 190 KIPS

MATERIAL PROPERTIES

- CONCRETE MASONRY, SUPERSTRUCTURE — f'c = 4,000 psi
- ALL OTHER — f'c = 3,500 psi
- HIGH STRENGTH BAR STEEL REINFORCEMENT — fy = 60,000 psi
- HIGH-STRENGTH STRUCTURAL STEEL ASTM A709, GRADE 50 — fy = 50,000 psi
- STRUCTURAL STEEL CARBON
  - ASTM A709 GRADE 36 — fy = 36,000 psi
  - ASTM A53, GRADE B — fy = 35,000 psi

FOUNDATION DATA:

ABUTMENTS SUPPORTED ON HP 10-INCH X 42 LB STEEL PILING WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE AT THE SOUTH ABUTMENT AND 180 TONS PER PILE AT THE NORTH ABUTMENT AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 55'LONG AT THE SOUTH ABUTMENT AND 55'LONG AT THE NORTH ABUTMENT.

*THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

REMOVAL OF THE EXISTING ABUTMENT FOOTINGS IN THE WIDENING IS NOT REQUIRED. PREBORE THROUGH THE FOOTING WHERE REQUIRED PRIOR TO DRIVING PILING.

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTIONS & QUANTITIES
3. CONST. STAGING DETAILS 1
4. CONST. STAGING DETAILS 2
5. SUBSURFACE EXPLORATION
6. ABUTMENTS - 1
7. ABUTMENTS - 2
8. ABUTMENTS - 3
9. SUPERSTRUCTURE - 1
10. SUPERSTRUCTURE - 2

LEGEND

(X) INDICATES WING NUMBER.

STATE PROJECT NUMBER

1100-41-70

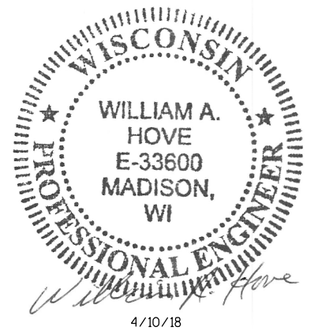
HYDRAULIC DATA:

100 YEAR FREQUENCY
- Q_{100} — 420 cfs
- VELOCITY — 6.13 fps
- HIGH WATER — EL. 956.59
- WATERWAY AREA — 72 ft²
- DRAINAGE AREA — 1.8 mi²
- SCOUR CRITICAL CODE — 5

2 YEAR FREQUENCY
- Q_2 — 150 cfs
- HW.2 — EL. 954.84

TRAFFIC DATA:

AADT (2041) = 37,300
DESIGN SPEED = 70 MPH



4/10/18

NO.	DATE	REVISION	BY

CORRE — Structural, Environmental, Municipal, Transportation
6401 GRAND TETON PLAZA, SUITE 314
MADISON, WI 53719
(608)826-0532
www.correngineering.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Duchac SDR 05/08/18
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-66-17

I-41 NB OVER TRIBUTARY TO
EAST BRANCH ROCK RIVER

COUNTY	TOWN/~~CITY/VILLAGE~~
WASHINGTON	ADDISON

DESIGN SPEC.
REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
BH	ETP	TKB	BH

GENERAL PLAN

SHEET 1 OF 10

SE REGION CONTACT:
CHRISTINE HANNA (262) 548-8809

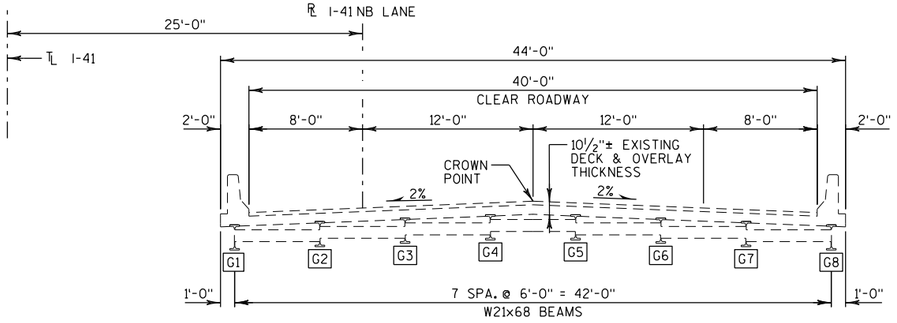
BUREAU OF STRUCTURES CONTACT:
BILL DREHER (608) 266-8489

CONSULTANT CONTACT:
BILL HOVE (262) 354-3014

8

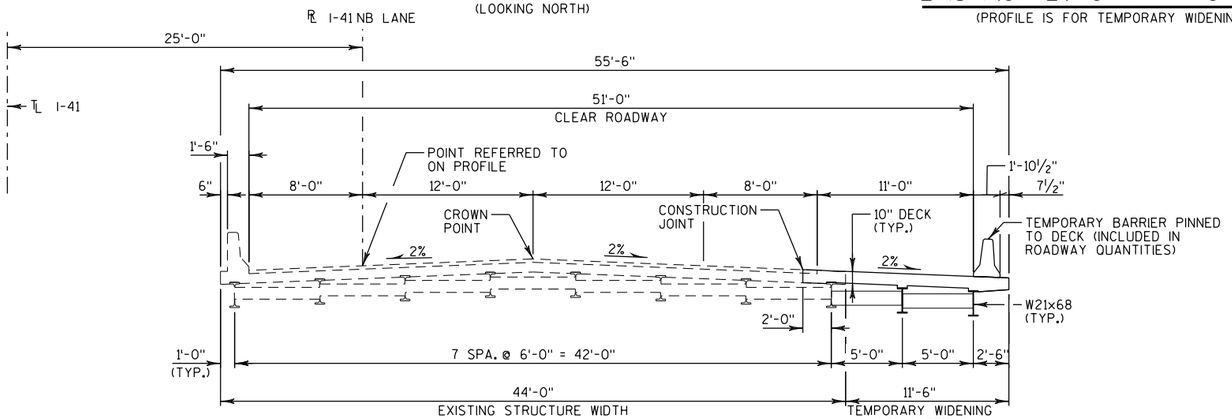
8

FILE NAME : C:\Users\tbetcher\Google Drive\TKB Projects\Bridge\B-66\B-66-193&194\Cad B-66-17\B-66-17_01 genplan.dgn PLOT DATE : 4/10/2018 PLOT SCALE : 2.00000 ' / ft.



EXISTING CROSS SECTION THRU ROADWAY

(LOOKING NORTH)

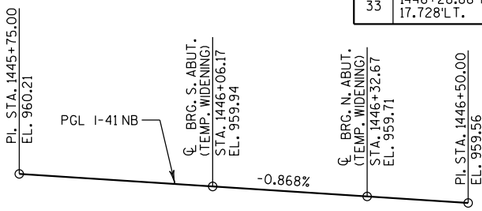


PROPOSED CROSS SECTION THRU ROADWAY

(LOOKING NORTH)

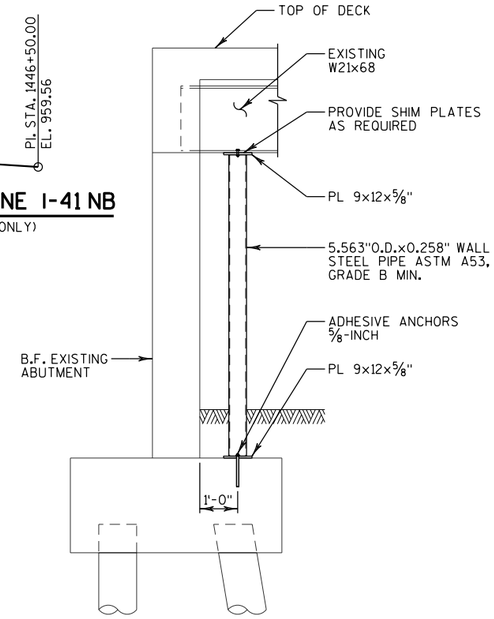
BENCH MARK TABLE

NO.	STATION	DESCRIPTION	ELEVATION
32	1446+03.27'TL' 14.701'RT.	CHISELED "X" ON SW QUAD OF B-66-17	960.370
33	1446+28.86'TL' 17.728'LT.	CHISELED "X" ON NE QUAD OF B-66-22	959.470



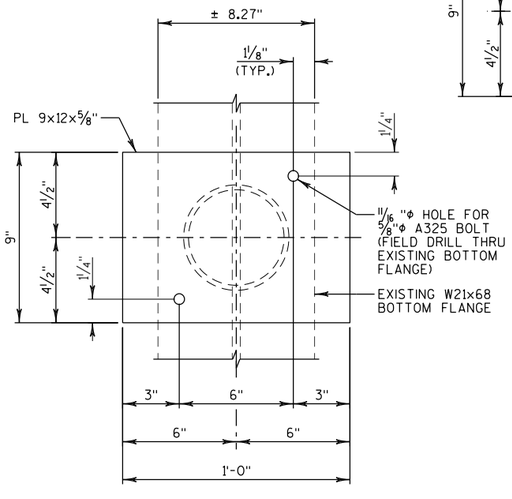
EXISTING/TEMPORARY PROFILE GRADE LINE I-41 NB

(PROFILE IS FOR TEMPORARY WIDENING STRUCTURE WORK ONLY)

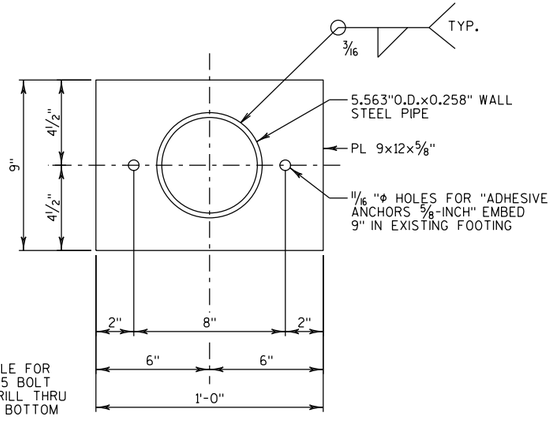


EXISTING GIRDER SUPPORT

PLACE AT LOCATIONS DETERMINED BY ENGINEER (12 LOCATIONS ESTIMATED). PAYMENT INCLUDED IN "EXCAVATION", "STRUCTURAL STEEL CARBON" AND "ADHESIVE ANCHOR" BID ITEMS. REPLACEMENT OF EXISTING SUPPORTS MAY BE REQUIRED. REMOVAL OF EXISTING SUPPORTS IS COVERED UNDER THE "REMOVING OLD STRUCTURE" ITEM.



TOP PLATE PLAN



BASE PLATE PLAN

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEM	UNIT	SOUTH ABUTMENT	NORTH ABUTMENT	SUPER.	TOTALS
206.1000.01	EXCAVATION FOR STRUCTURES BRIDGES B-66-17	LS	--	--	--	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	110	110	--	220
502.0100	CONCRETE MASONRY BRIDGES	CY	7	7	19	33
502.4105	ADHESIVE ANCHORS 5/8-INCH	EACH	12	12	--	24
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	5	5	--	10
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	840	840	3,180	4,860
506.0105	STRUCTURAL STEEL CARBON	LB	935	935	--	1,870
506.0605	STRUCTURAL STEEL HS	LB	--	--	4,060	4,060
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	--	--	4	4
506.3015	WELDED STUD SHEAR CONNECTORS 7/8 x 6-INCH	EACH	--	--	28	28
511.1200	TEMPORARY SHORING B-66-17	SF	95	95	--	190
512.1000	PILING STEEL SHEET TEMPORARY	SF	125	125	--	250
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	5	5	--	10
550.0020	PRE-BORING ROCK OR CONSOLIDATED MATERIALS	LF	2.5	2.5	--	5
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	110	110	--	220
606.0300	RIPRAP HEAVY	CY	15	25	--	40
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	25	25	--	50
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	20	20	--	40
645.0120	GEOTEXTILE TYPE HR	SY	45	65	--	110
SPV.0105.01	PARTIALLY REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STATION 1446'NB'+19	LS	--	--	--	1
	NON-BID ITEMS					
	FILLER	SIZE				1/2", 3/4" & 1 1/2"

ALL ITEMS ARE CATEGORY 0020

NOTE: TEMPORARY BARRIER INCLUDED WITH ROADWAY ITEMS.

STATE PROJECT NUMBER

1100-41-70

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED. ALL STATIONS AND ELEVATIONS ARE IN FEET.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

THE FIRST DIGIT OF A THREE DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION M153 TYPES I, II, OR III OR M213.

AT THE BACKFACE OF ABUTMENTS, ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE FILLED WITH STRUCTURE BACKFILL.

THE EXISTING GROUNDLINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS NOTED OTHERWISE.

THE EXISTING STRUCTURE IS A SINGLE-SPAN STEEL GIRDER BRIDGE ON FULL RETAINING CONCRETE ABUTMENTS WITH AN OVERALL LENGTH OF 26'-6" AND AN OVERALL WIDTH OF 44'-0" AND IS TO BE WIDENED.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP AND GEOTEXTILE, TYPE HR TO THE EXTENT SHOWN ON SHEET 1 AND IN THE ABUTMENT DETAILS, OR AS DIRECTED BY THE ENGINEER.

CONCRETE POURED UNDER WATER WILL BE ALLOWED AND SHALL BE DONE IN ACCORDANCE WITH SECTION 502.3.5.3 OF THE STANDARD SPECIFICATION.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1-INCH DEEP SAW CUT.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN. CLEAN, STRAIGHTEN AND INCORPORATE INTO NEW WORK.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-17

DRAWN BY TKB | PLANS CK'D. BH

CROSS SECTION & QUANTITIES

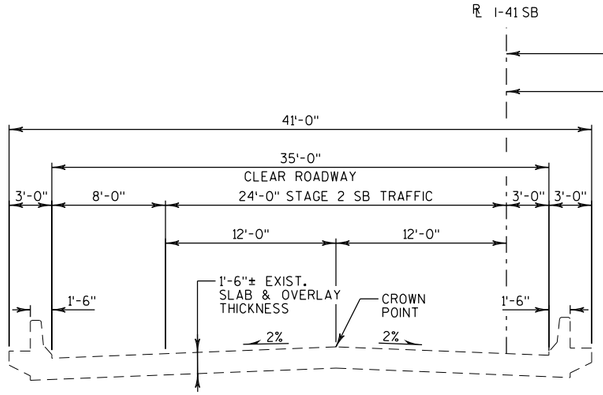
SHEET 2 OF 10

8

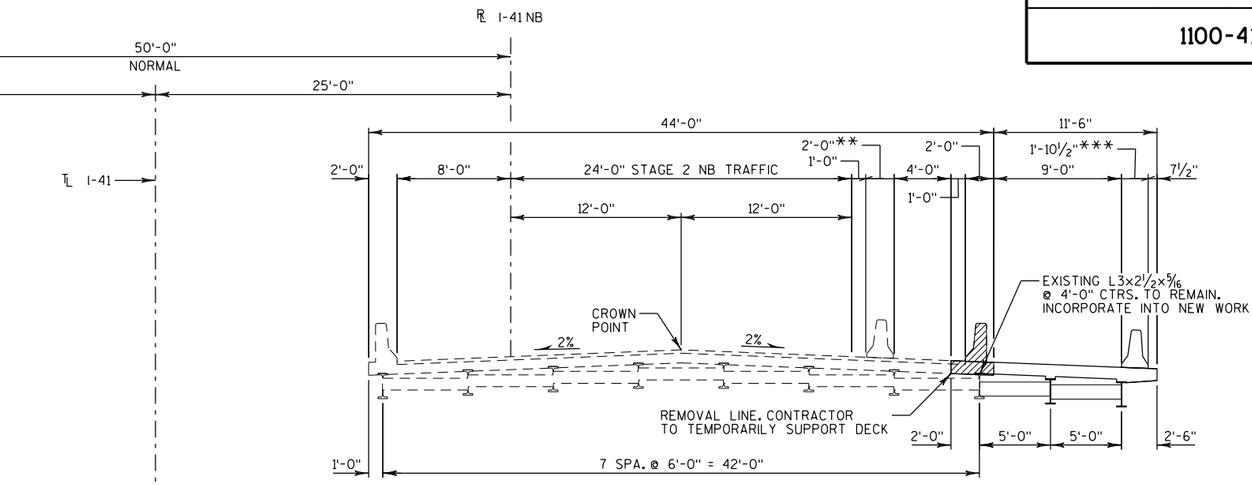
8

STATE PROJECT NUMBER

1100-41-70



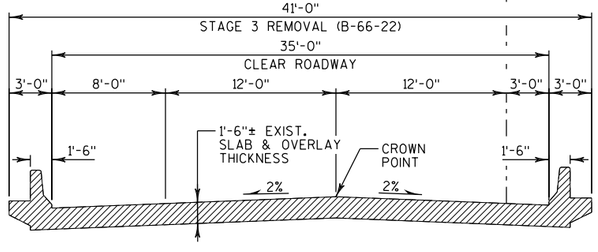
B-66-22



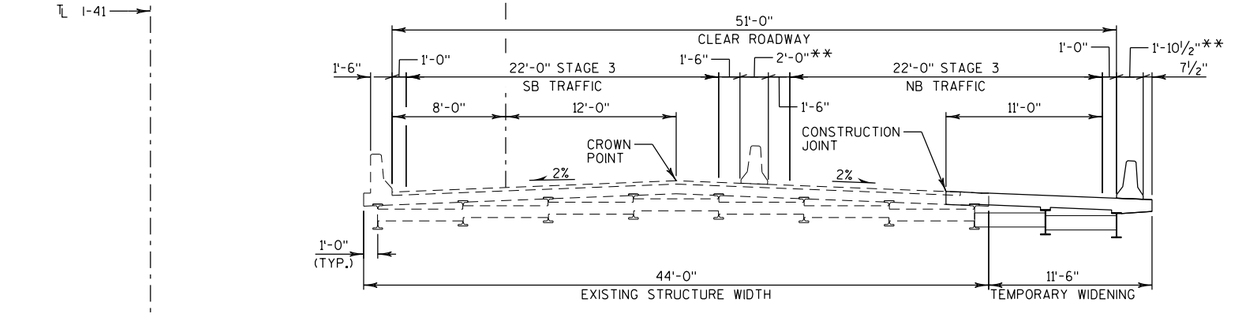
B-66-17

*STAGE 2

(CONSTRUCT TEMPORARY WIDENING)



B-66-22



B-66-17

*STAGE 3

(REMOVE B-66-22, CONSTRUCT B-66-194)

8

8

LEGEND

▨ - DENOTES REMOVAL LIMITS

*CORRESPONDS TO ROAD PLANS. SEE ROAD PLANS FOR FURTHER STAGING DETAILS.

** TEMPORARY BARRIER (INCLUDED IN ROADWAY QUANTITIES).

*** TEMPORARY BARRIER PINNED TO DECK (INCLUDED IN ROADWAY QUANTITIES).

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-17

DRAWN BY TKB | PLANS CK'D. BH

CONSTRUCTION STAGING DETAILS 1

SHEET 3 OF 10

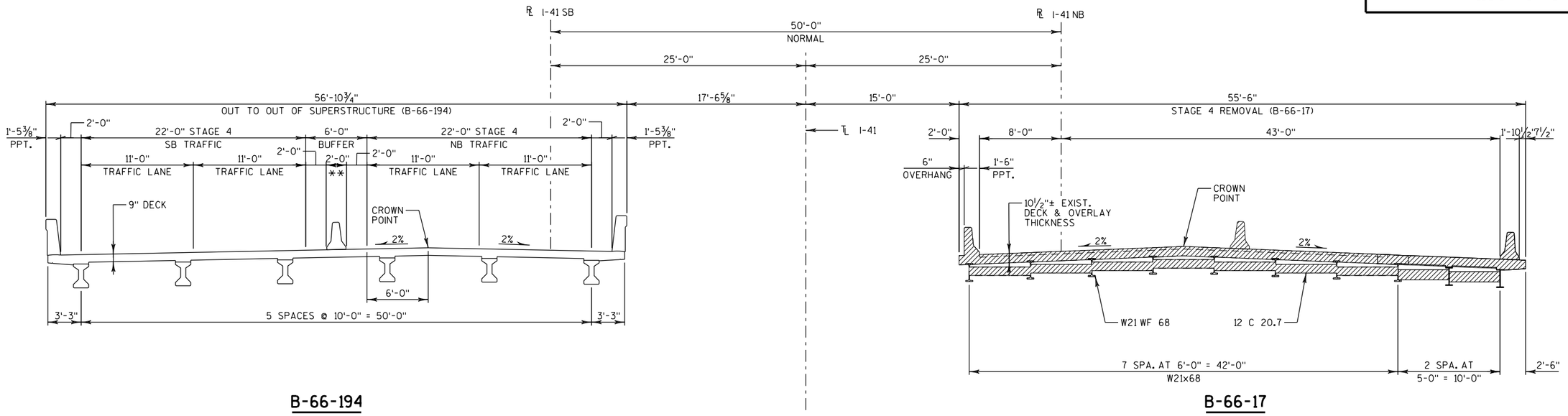
FILE NAME : C:±Users±tbetcher±Google Drive±TKB Projects±Bridge±B-66±B-66-193&194±Cad B-66-17±B-66-17_03 staging 01.dgn

PLOT DATE : 4/10/2018

PLOT SCALE : 2.00000 '/ ft.

STATE PROJECT NUMBER

1100-41-70

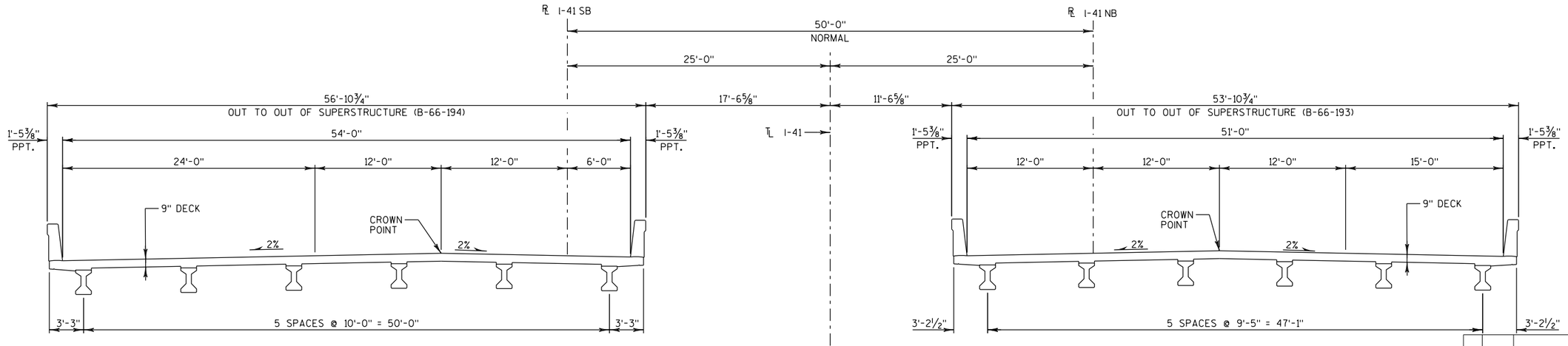


B-66-194

B-66-17

*STAGE 4

(REMOVE B-66-17, CONSTRUCT B-66-193)



B-66-194

B-66-193

LEGEND

▨ - DENOTES REMOVAL LIMITS

*CORRESPONDS TO ROAD PLANS. SEE ROAD PLANS FOR FURTHER STAGING DETAILS.

** TEMPORARY BARRIER (INCLUDED IN ROADWAY QUANTITIES).

FINAL STRUCTURE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-17

DRAWN BY TKB | PLANS CK'D. BH

CONSTRUCTION STAGING DETAILS 2

SHEET 4 OF 10

142

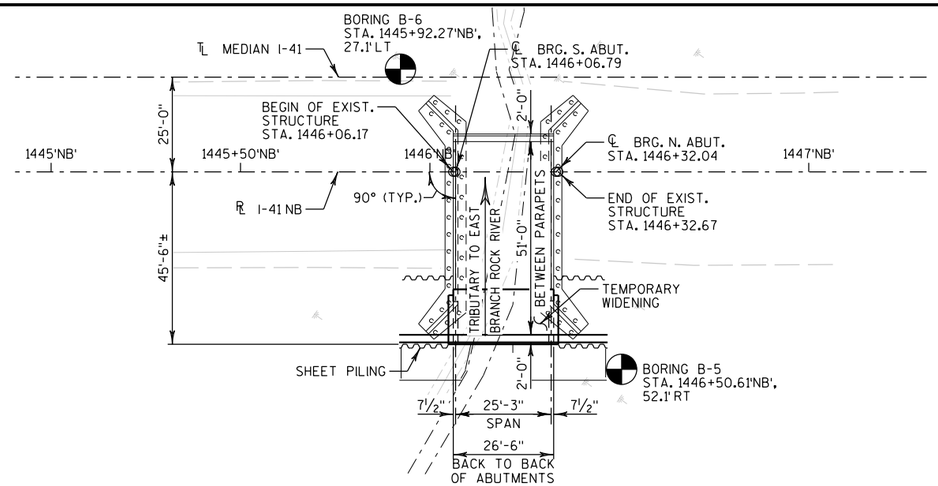
8

8

FILE NAME : C:±Users±tbetcher±Google Drive±TKB Projects±Bridge±B-66±B-66-193&194±Cad B-66-17±B-66-17_04 staging 02.dgn

PLOT DATE : 4/10/2018

PLOT SCALE : 2.00000 '/ ft.

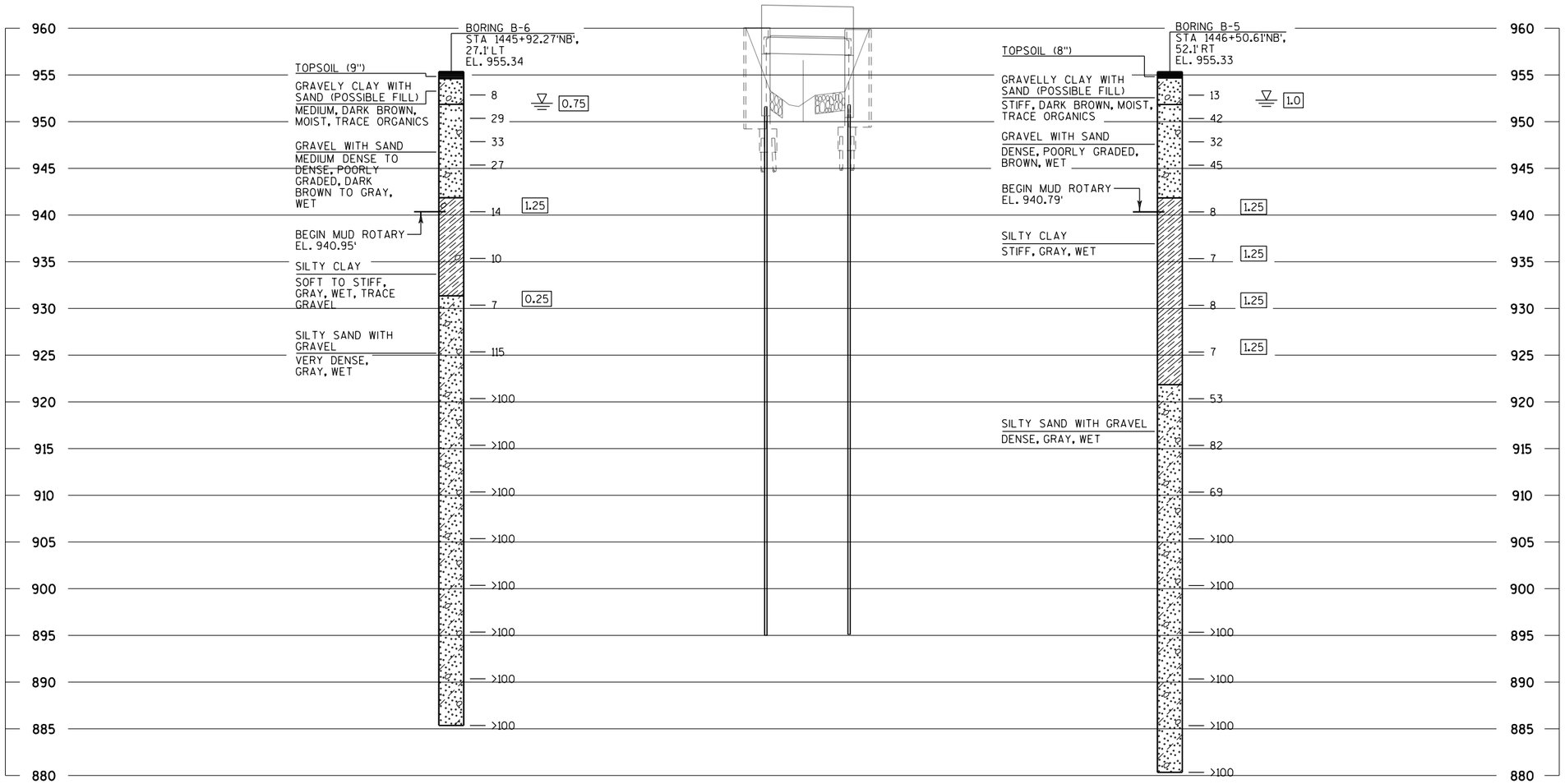


B-66-17

GEOTECHNICAL REPORT
HIMALAYAN CONSULTANTS, L.L.C.
W156 N11357 PILGRIM ROAD
GERMANTOWN, WI 53022
(262) 502-0066

SOIL BORINGS PERFORMED BY:
PROFESSIONAL SERVICE INDUSTRIES, INC.
821 CORPORATE COURT
WAUKESHA, WI 53189
(262) 521-2125

BORING B-5
PERFORMED ON 8/7/14
BORING B-6
PERFORMED ON 8/5/14



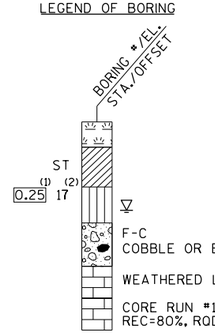
STATE PROJECT NUMBER

1100-41-70

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-17

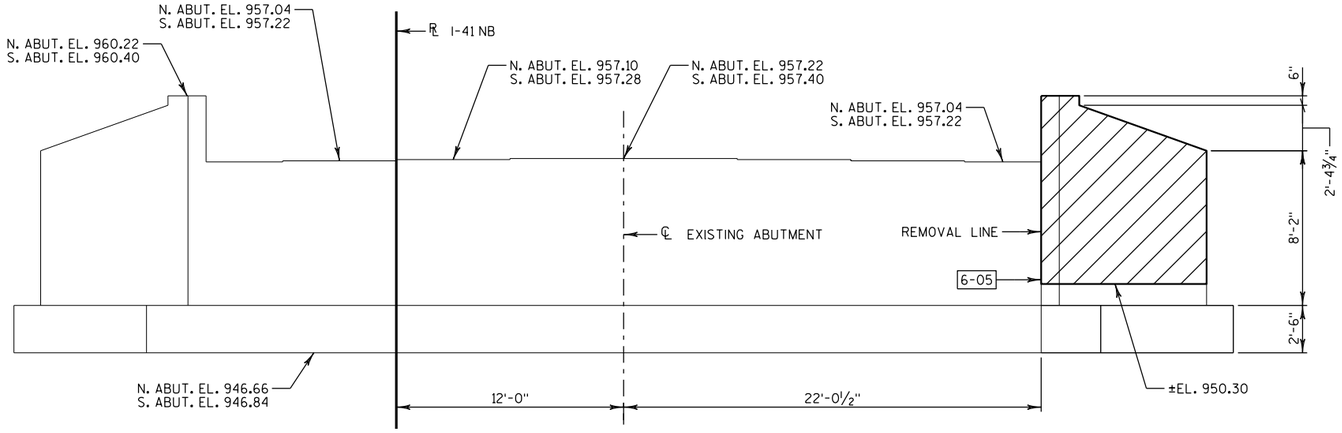
DRAWN BY TKB | PLANS CK'D. BH

SUBSURFACE EXPLORATION

SHEET 5 OF 10

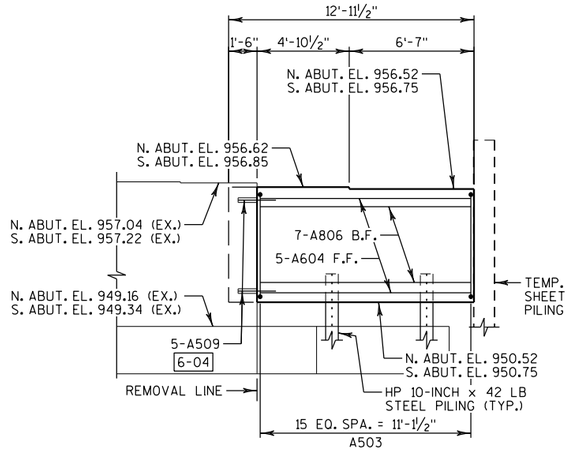
STATE PROJECT NUMBER

1100-41-70



EXISTING ELEVATION

(LOOKING NORTH, SOUTH ABUTMENT SIMILAR)

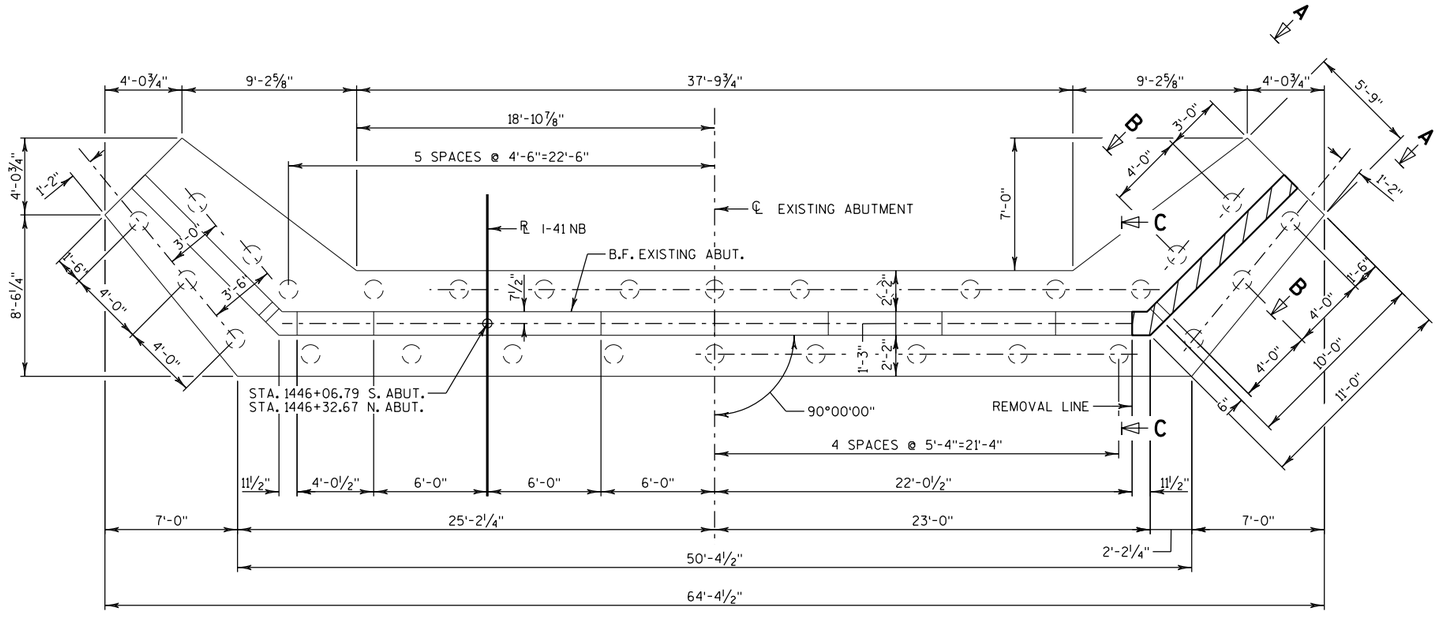


PROPOSED ELEVATION

(LOOKING NORTH, SOUTH ABUTMENT SIMILAR)

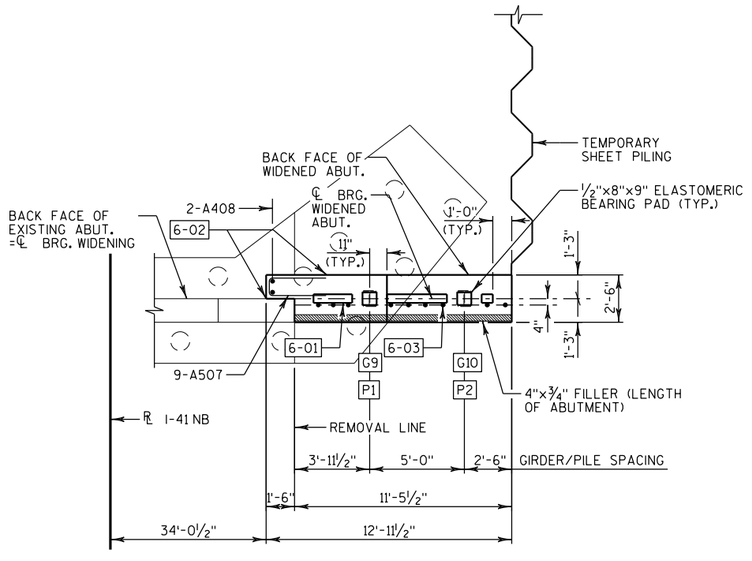
LEGEND

- 6-01 KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2x6.
- 6-02 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
- 6-03 A510 BARS AT 1'-0" CTRS. THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.
- 6-04 REINFORCEMENT INSTALLED WITH ADHESIVE ANCHORS. NO. 5 BAR EMBED. 1'-0" MIN. INTO EXISTING CONCRETE.
- 6-05 ROUGHEN SURFACE OF CONCRETE ¼" DEEP MINIMUM AT ALL AREAS WHERE NEW CONCRETE CONTACTS EXISTING.
- GX DENOTES GIRDER NUMBER.
- PX DENOTES PILE NUMBER.
- DENOTES REMOVAL LIMITS



EXISTING PLAN

(SEE SHEET 7 FOR SECTION VIEWS)



PROPOSED PLAN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-17

DRAWN BY TKB | PLANS CK'D. BH

ABUTMENTS - 1

SHEET 6 OF 10

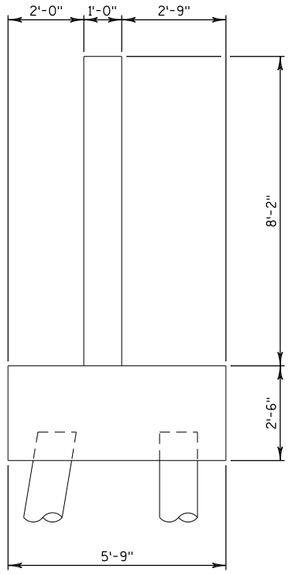
FILE NAME : C:±Users±tbetcher±Google Drive±TKB Projects±Bridge±B-66±B-66-193&194±Cad B-66-17±B-66-17_06 abutments.dgn

PLOT DATE : 4/10/2018

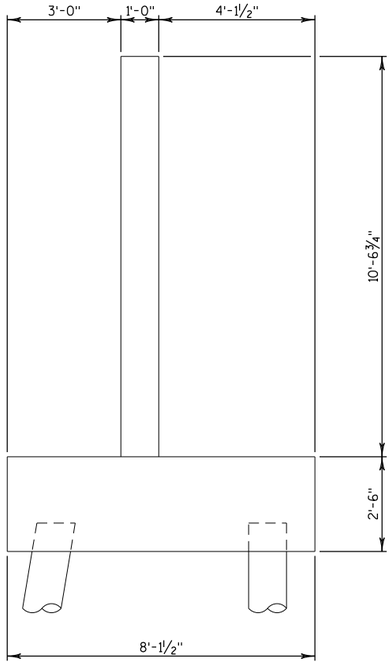
PLOT SCALE : 2.00000 '/ ft.

STATE PROJECT NUMBER

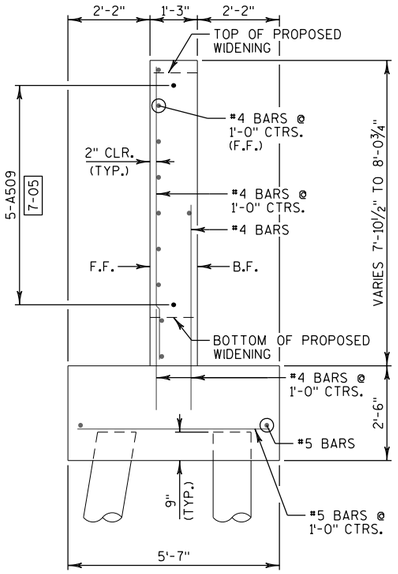
1100-41-70



SECTION A-A



SECTION B-B



SECTION C-C

BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT-TO-OUT OF BAR.

ALL REINFORCEMENT IN THIS BILL SHALL BE UNCOATED.

BAR MARK	NO.REQ'D S. ABUT.	NO.REQ'D N. ABUT.	LENGTH	BENT	BAR SERIES	LOCATION	
						TOTAL WEIGHT = 1,680 LBS	
A401	2	2	28'-0"	X		ABUTMENTS AT PILING	VERT.
A402	4	4	2'-3"			ABUTMENTS AT PILING	VERT.
A503	16	16	15'-9"	X		ABUTMENT STIRRUPS	VERT.
A604	9	9	11'-1"			ABUTMENTS F.F., TOP & BOT.	HORIZ.
A605	2	2	12'-7"			ABUTMENTS TOP AT B.F.	HORIZ.
A806	7	7	12'-7"			ABUTMENTS AT B.F.	HORIZ.
A507	9	9	6'-8"	X		ABUTMENT NOTCH	HORIZ.
A408	2	2	5'-7"			ABUTMENT NOTCH	VERT.
A509	5	5	2'-6"			EXISTING ABUTMENT DOWELS	HORIZ.
A510	9	9	2'-0"			ABUTMENT TOP-DOWELS	VERT.

THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BOTH ABUTMENTS ARE INCLUDED IN THIS BILL OF BARS.

LEGEND

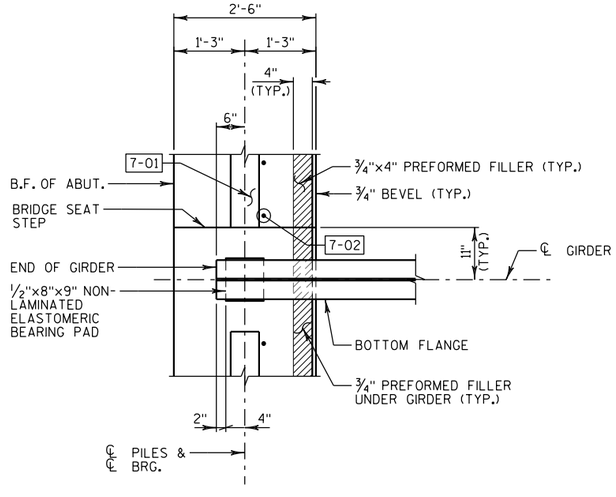
7-01 KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2x6.

7-02 A510 BARS AT 1'-0" CTRS. THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.

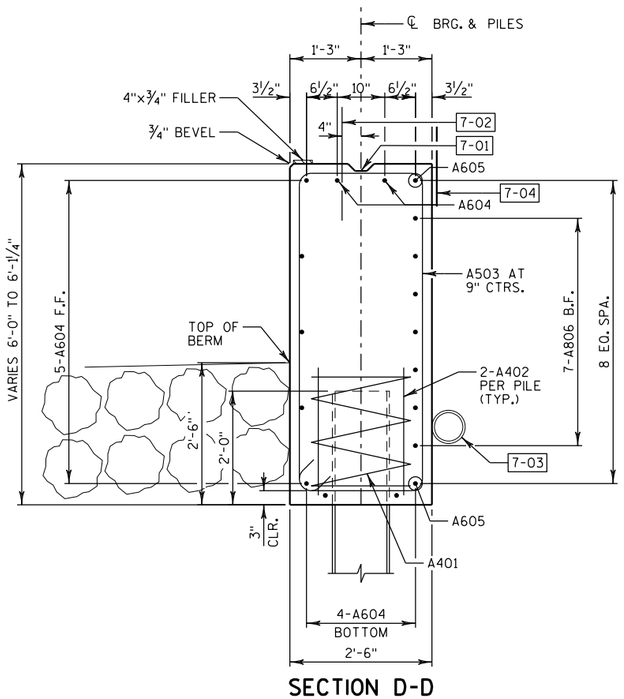
7-03 PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. LOCATE ABOVE GROUNDWATER.

7-04 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.

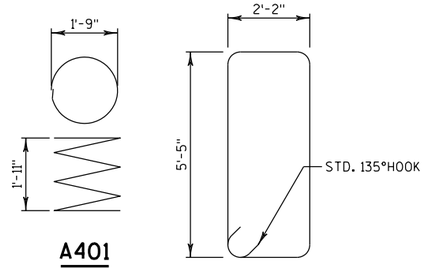
7-05 REINFORCEMENT INSTALLED WITH ADHESIVE ANCHORS NO. 5 BAR. EMBED 1'-0" MIN. INTO EXISTING CONCRETE.



BEARING DETAIL

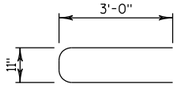


SECTION D-D



A401

A503



A507

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-17

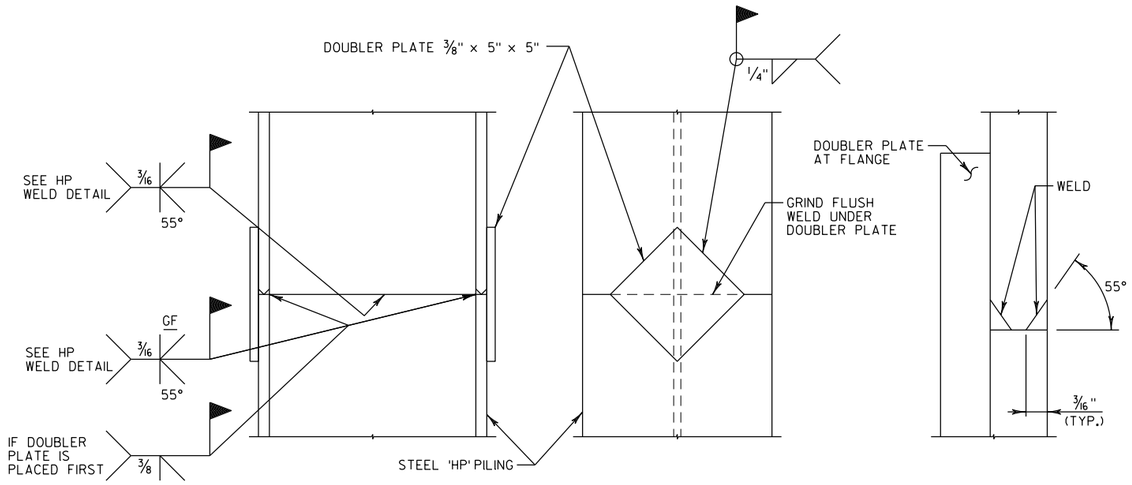
DRAWN BY TKB | PLANS CK'D. BH

ABUTMENTS - 2

SHEET 7 OF 10

STATE PROJECT NUMBER

1100-41-70

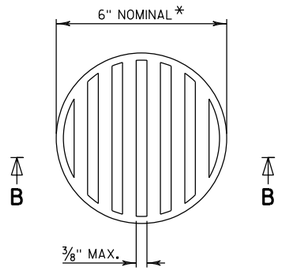


STEEL 'HP' SHAPES

STEEL 'HP' SHAPES

FLANGE SHOWN, WEB SIMILAR

PILE SPLICE DETAILS



NOTE: ORIENT SHIELD SO SLOTS ARE VERTICAL.

SECTION B-B

* DIMENSION IS APPORXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

RODENT SHIELD DETAIL

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

LEGEND

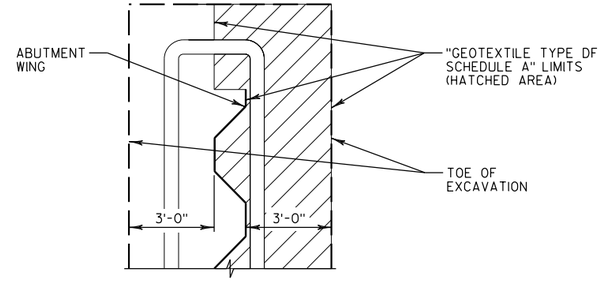
8-01 PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. LOCATE ABOVE GROUNDWATER.

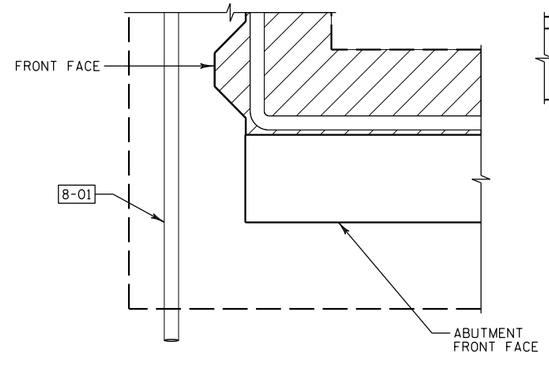
8-02 BACKFILL BEYOND PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

NOTE: EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL. GEOTEXTILE SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT.

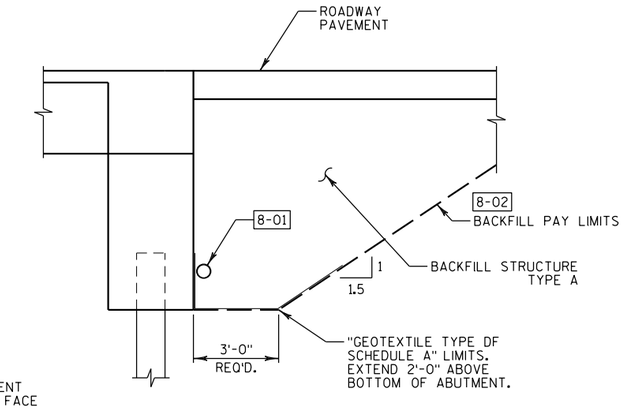
8-03 SHEET PILING SHALL BE DRIVEN AFTER ABUTMENT EXCAVATION IS COMPLETED AND PRIOR TO PLACEMENT OF BACKFILL. SHEET PILING SHALL BE A572, GRADE 50. Z=PLASTIC SECTION MODULUS.

8

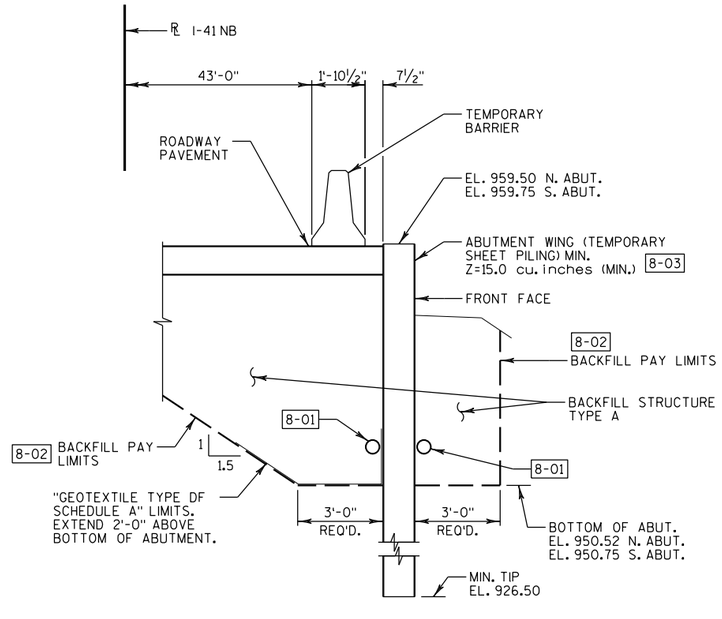




ABUTMENT PLAN WITH WING



STRUCTURE BACKFILL LIMITS



TYPICAL SECTION THRU WING

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-17

DRAWN BY TKB | PLANS CK'D. BH

ABUTMENTS - 3

SHEET 8 OF 10

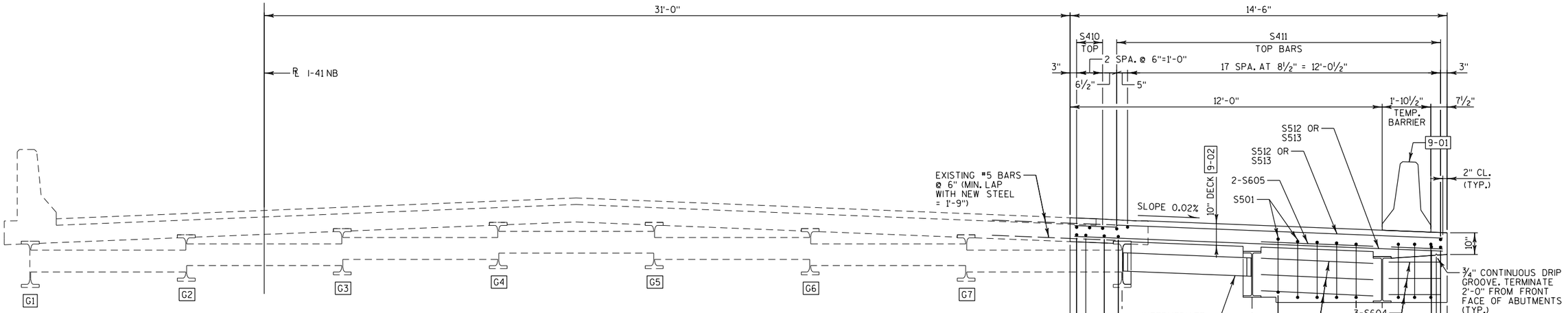
FILE NAME : C:±Users±tbetcher±Google Drive±TKB Projects±Bridge±B-66±B-66-193&194±Cad B-66-17±B-66-17_06 abutments.dgn

PLOT DATE : 4/10/2018

PLOT SCALE : 2.00000 '/ ft.

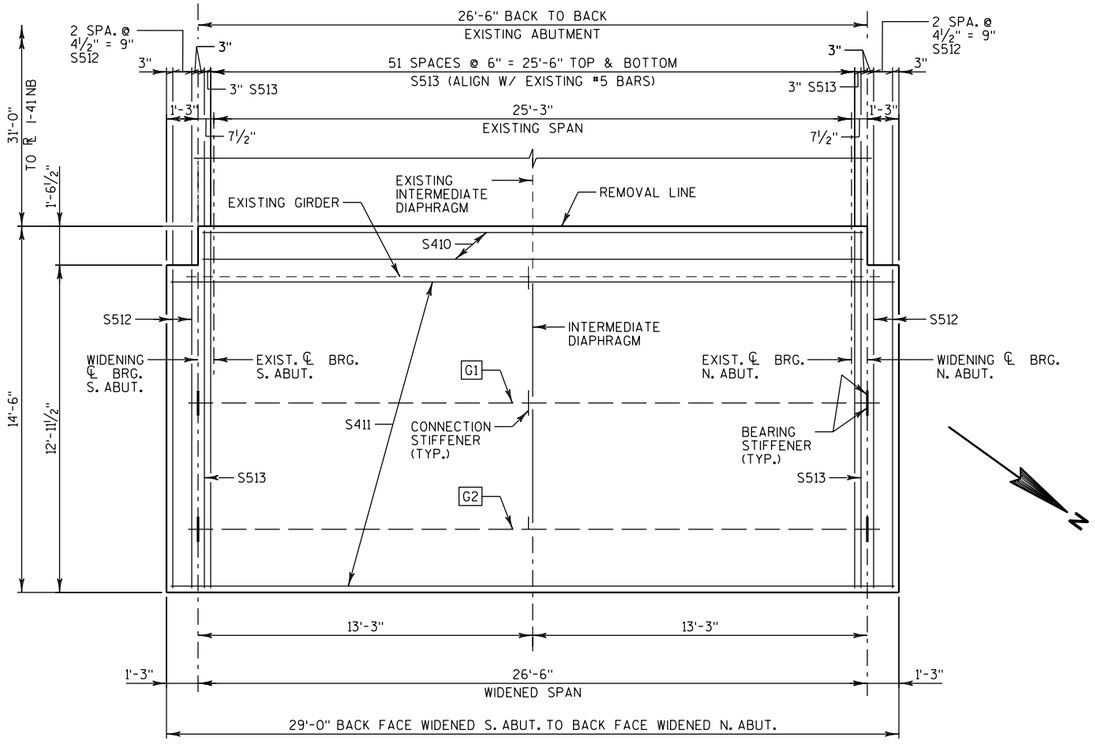
STATE PROJECT NUMBER

1100-41-70



TYPICAL CROSS SECTION THRU DECK

(LOOKING NORTH)



PLAN

LEGEND

9-01 CONCRETE BARRIER TEMPORARY PRECAST. ANCHOR TO BRIDGE DECK PER SDD 14B7-15d.

9-02 THE PROPOSED DECK THICKNESS IS BASED ON CLOSELY MATCHING THE EXISTING DECK AND OVERLAY THICKNESS. THE DECK THICKNESS DIRECTLY OVER GIRDER 8 CAN BE REDUCED TO A MINIMUM THICKNESS OF 7½" IF REQUIRED TO OBTAIN A 1¼" MINIMUM HAUNCH HEIGHT. COVER TO REINFORCEMENT SHALL BE MAINTAINED.

GX DENOTES GIRDER NUMBER.

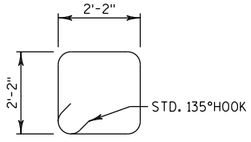
BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT-TO-OUT OF BAR.

ALL REINFORCEMENT IN THIS BILL SHALL BE UNCOATED.

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
					TOTAL WEIGHT = 3,180 LBS	
S501	26	9'-4"	X		ABUTMENT DIAPHRAGMS	VERT.
S502	8	6'-0"			ABUT. DIAPHRAGMS THRU BEAMS	HORIZ.
S603	12	4'-6"			ABUTMENT DIAPHRAGMS F.F.	HORIZ.
S604	6	2'-0"			ABUTMENT DIAPHRAGMS @ ENDS	HORIZ.
S605	10	12'-2"			AUBT. DIAPHRAGMS B.F. & TOP	HORIZ.
S410	6	26'-2"			DECK	LONG.
S411	38	28'-8"			DECK	LONG.
S512	12	12'-7"			DECK	TRANS.
S513	108	14'-2"			DECK	TRANS.

THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.



S501

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-17

DRAWN BY TKB | PLANS CK'D. BH

SUPERSTRUCTURE -1

SHEET 9 OF 10

147

8

8

FILE NAME : C:±Users±tbetcher±Google Drive±TKB Projects±Bridge±B-66±B-66-193&194±Cad B-66-17±B-66-17_10 superstructure details.dgn

PLOT DATE : 4/10/2018

PLOT SCALE : 2.00000 '/ ft.

STATE PROJECT NUMBER

1100-41-70

TABLE OF DECK ELEVATIONS

		C/L BRG. S. ABUT.	0.1 Pt.	0.2 Pt.	0.3 Pt.	0.4 Pt.	0.5 Pt.	0.6 Pt.	0.7 Pt.	0.8 Pt.	0.9 Pt.	C/L BRG. N. ABUT.
WEST EDGE OF WIDENED DECK	T.O.D	959.79	959.77	959.75	959.73	959.71	959.68	959.66	959.64	959.62	959.60	959.57
C/L GIRDER 8	T.O.D	959.75	959.73	959.71	959.69	959.67	959.64	959.62	959.60	959.58	959.56	959.53
	T.O.S.	958.99										958.81
C/L GIRDER 9	T.O.D	959.66	959.64	959.61	959.59	959.57	959.54	959.52	959.50	959.48	959.45	959.43
	T.O.S.	958.65										958.42
C/L GIRDER 10	T.O.D	959.56	959.54	959.51	959.49	959.47	959.44	959.42	959.40	959.38	959.35	959.33
	T.O.S.	958.55										958.32
EAST EDGE OF WIDENED DECK	T.O.D	959.51	959.49	959.46	959.44	959.42	959.39	959.37	959.35	959.33	959.30	959.28

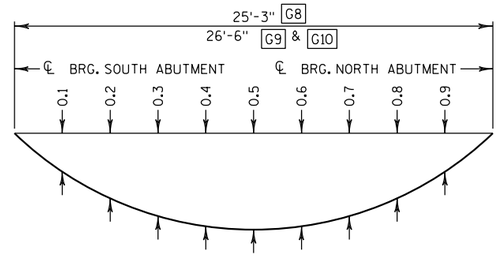
NOTE: C/L OF BEARING AT GIRDER 8 IS THE EXISTING C/L. C/L BEARING OF GIRDERS 9 & 10 IS THE WIDENED C/L.
ELEVATIONS AT WEST EDGE OF WIDENED DECK ARE FOR INFORMATION ONLY, MATCH EXISTING.
TOP OF STEEL ELEVATIONS (T.O.S.) ARE TO TOP OF STEEL AND THEY ARE FOR MATERIAL AS ERECTED.

*TABLE OF FILLET WELD SIZES

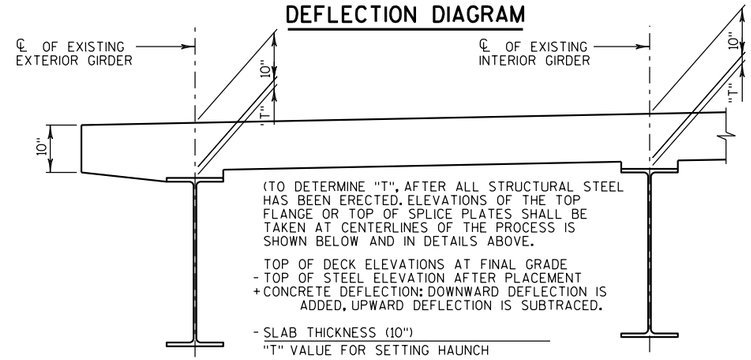
MATERIAL THICKNESS OF THICKER PART JOINED.	ŧ MIN. SIZE OF FILLET WELD
TO 1/2" INCLUSIVE	3/16"
OVER 1/2" TO 3/4"	1/4"
OVER 3/4" TO 1 1/2"	△ 5/16"
OVER 1 1/2"	△ 3/8"

ŧ EXECPT THAT THE WELD SIZE SHALL NOT EXCEED THE THICKNESS OF THE THINNER PART JOINED.

△ MIN. PASS SIZE IS 5/16"



DEFLECTION DIAGRAM



(TO DETERMINE "T", AFTER ALL STRUCTURAL STEEL HAS BEEN ERECTED. ELEVATIONS OF THE TOP FLANGE OR TOP OF SPLICE PLATES SHALL BE TAKEN AT CENTERLINES OF THE PROCESS IS SHOWN BELOW AND IN DETAILS ABOVE.

TOP OF DECK ELEVATIONS AT FINAL GRADE
- TOP OF STEEL ELEVATION AFTER PLACEMENT
+ CONCRETE DEFLECTION: DOWNWARD DEFLECTION IS ADDED, UPWARD DEFLECTION IS SUBTRACED.
- SLAB THICKNESS (10")
"T" VALUE FOR SETTING HAUNCH

SLAB HAUNCH DETAILS

(SEE SHEET 9 FOR REQUIREMENTS AT GIRDER 8)

DEAD LOAD DEFLECTION TABLE

GIRDER LOCATION	DEFLECTION	C/L BRG. S. ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	C/L BRG. N. ABUT.
GIRDER 8	CONCRETE DEFLECTION	0	0.05	0.08	0.11	0.13	0.14	0.13	0.11	0.08	0.05	0
	TOTAL DEFLECTION	0	0.06	0.09	0.13	0.15	0.16	0.15	0.13	0.09	0.06	0
GIRDER 9	CONCRETE DEFLECTION	0	0.05	0.11	0.15	0.17	0.18	0.17	0.15	0.11	0.05	0
	TOTAL DEFLECTION	0	0.06	0.12	0.17	0.19	0.20	0.19	0.17	0.12	0.06	0
GIRDER 10	CONCRETE DEFLECTION	0	0.06	0.12	0.15	0.18	0.19	0.18	0.15	0.12	0.06	0
	TOTAL DEFLECTION	0	0.07	0.14	0.17	0.20	0.22	0.20	0.17	0.14	0.07	0

NOTE: DEFLECTIONS ARE IN INCHES. CONCRETE DEFLECTION ACCOUNTS FOR THE DEFLECTION FROM THE CONCRETE DECK. THE TOTAL DEFLECTION INCLUDES THE CONCRETE DECK DEFLECTION AND THE DEFLECTION FROM THE PARAPETS AND/OR BARRIERS, IT DOES NOT INCLUDE THE DEFLECTION FROM THE BEAM SELFWEIGHT

LEGEND

10-01 1'-6" RUBBERIZED MEMBRANE WATERPROOFING.

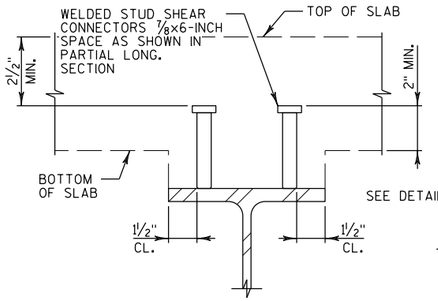
10-02 3/4"x4" FILLER x LENGTH OF ABUT. PLACE ADDITIONAL FILLER BETWEEN BRG. PAD AND 3/4"x4" FILLER.

10-03 1/8" MIN., 1/4" MAX. TYP.

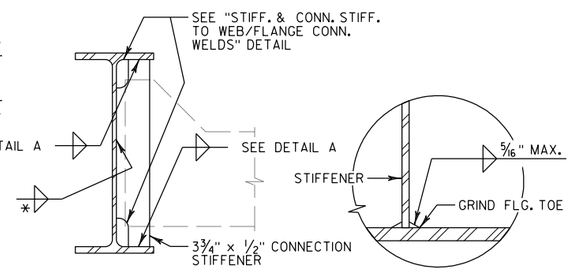
NOTES

DIAPHRAGMS SHALL BE HORIZONTAL.

ALL BOLTED CONNECTIONS SHALL BE MADE WITH 3/4"Φ HIGH STRENGTH ASTM A325 BOLTS.



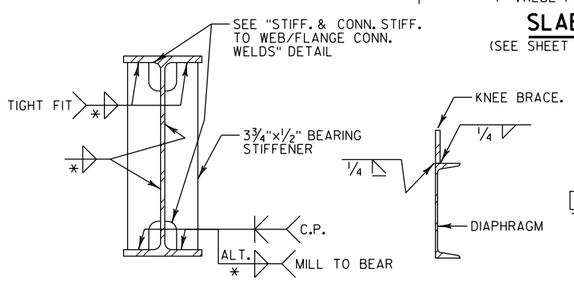
SHEAR CONN. DETAILS



CONNECTION STIFF. DETAILS

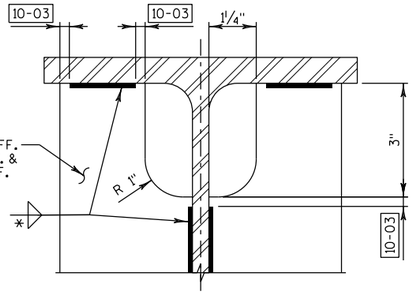
DETAIL A

CONNECTION STIFFENER DETAIL @ TENSION (BOTTOM) FLANGE

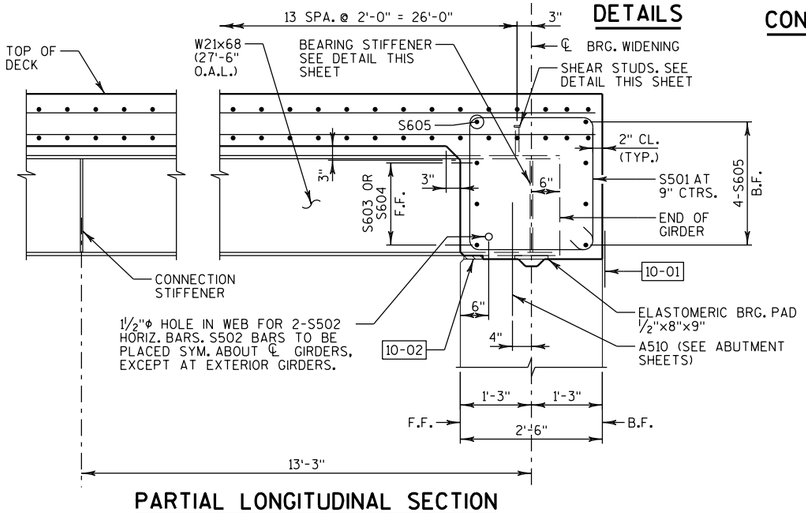


BRG. STIFF. DETAILS TYP. AT ABUT.

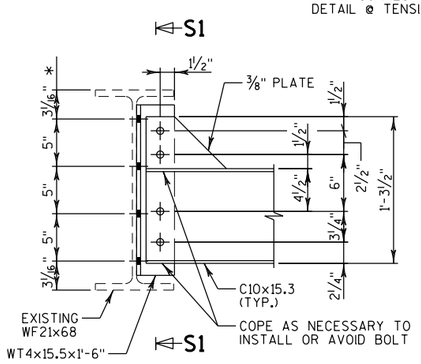
SECTION S2



STIFF. AND CONN. STIFF. TO WEB/FLANGE CONN. WELDS

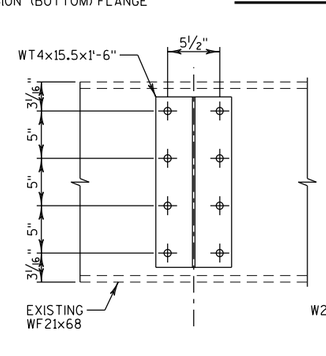


PARTIAL LONGITUDINAL SECTION

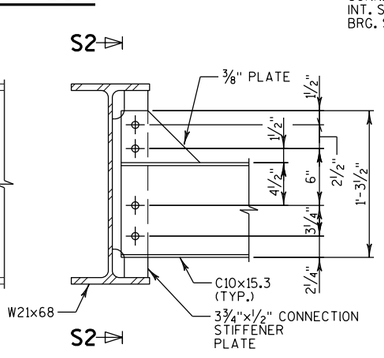


DIAPHRAGM CONNECTION TO EXISTING STEEL GIRDER

* BOLT HOLE SPACING TO MATCH EXISTING. FIELD DRILL HOLES



SECTION S1-S1



DIAPHRAGM CONNECTION TO NEW STEEL GIRDER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-17

DRAWN BY TKB | PLANS CK'D. BH

SUPERSTRUCTURE -2

SHEET 10 OF 10

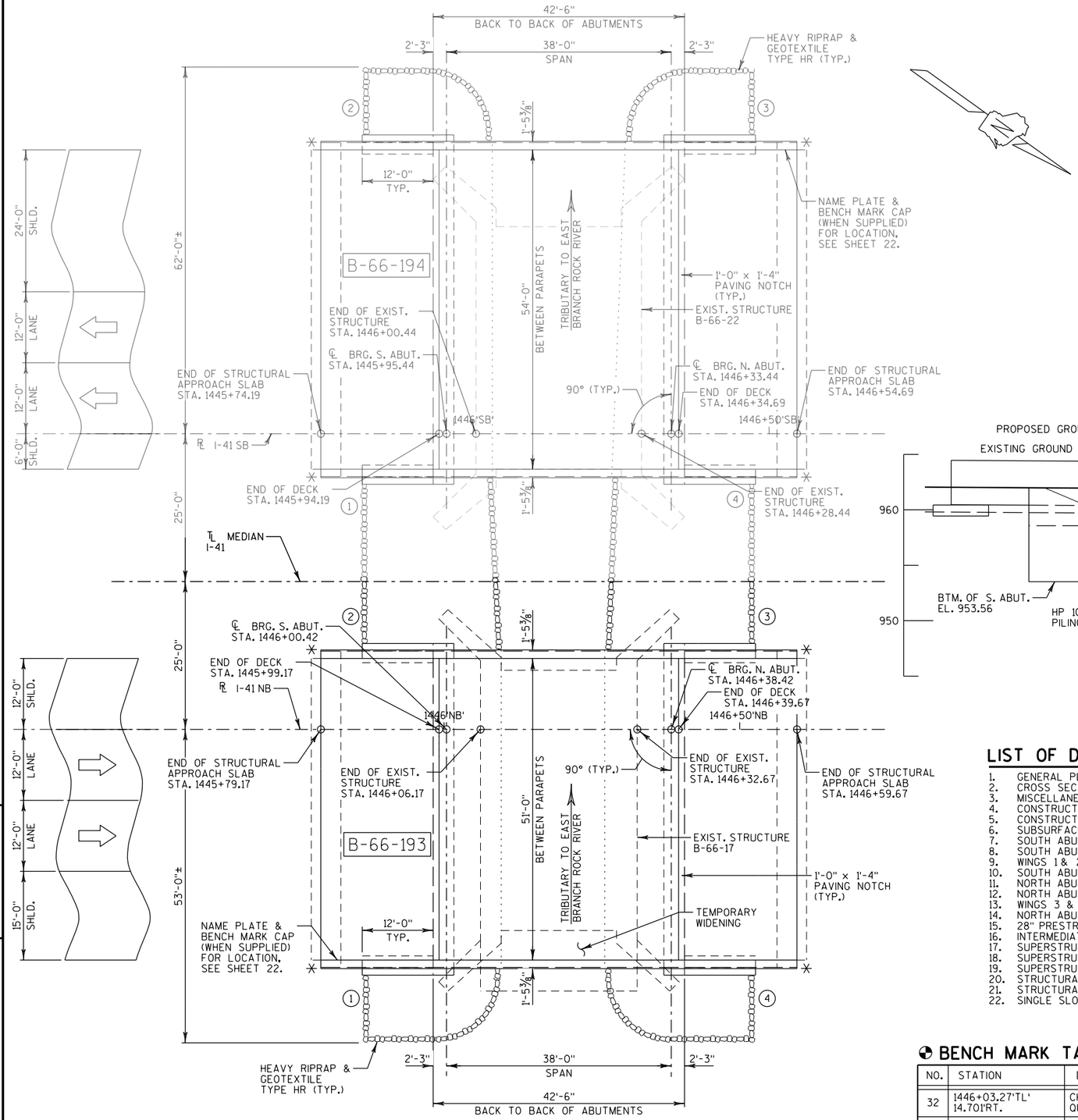
8

8

FILE NAME : C:±Users±tbetcher±Google Drive±TKB Projects±Bridge±B-66±B-66-193&194±Cad B-66-17±B-66-17_10 superstructure details.dgn

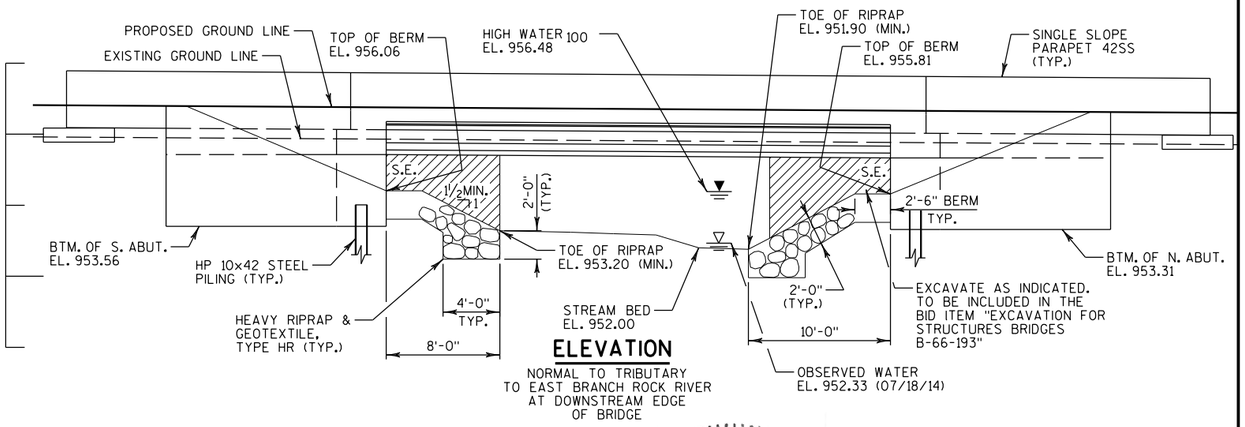
PLOT DATE : 4/10/2018

PLOT SCALE : 2.00000 '/ ft.



PLAN

SINGLE SPAN, 28" PRESTRESSED GIRDER BRIDGE



ELEVATION

NORMAL TO TRIBUTARY TO EAST BRANCH ROCK RIVER AT DOWNSTREAM EDGE OF BRIDGE

DESIGN DATA

DESIGN LOADING	HL-93
INVENTORY RATING FACTOR	1.27
OPERATING RATING FACTOR	1.65
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV)	250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 PSF.

MATERIAL PROPERTIES

CONCRETE MASONRY, SUPERSTRUCTURE	f'c = 4,000 psi
ALL OTHER	f'c = 3,500 psi
HIGH STRENGTH BAR STEEL REINFORCEMENT	fy = 60,000 psi
28" PRESTRESSED GIRDER CONCRETE MASONRY	f'c = 8,000 psi
STRANDS 0.6" DIA. ULTIMATE TENSILE STRENGTH	fu = 270,000 psi

FOUNDATION DATA:

ABUTMENTS SUPPORTED ON HP 10-INCH X 42 LB STEEL PILING WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE AT THE SOUTH ABUTMENT AND 180 TONS PER PILE AT THE NORTH ABUTMENT AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 50' LONG AT THE SOUTH ABUTMENT AND 50' LONG AT THE NORTH ABUTMENT.

*THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

HYDRAULIC DATA:

100 YEAR FREQUENCY

Q_{100}	420 cfs
VELOCITY	6.58 fps
HIGH WATER	EL. 956.48
WATERWAY AREA	64 ft²
DRAINAGE AREA	1.8 mi²
SCOUR CRITICAL CODE	5

2 YEAR FREQUENCY

Q_2	150 cfs
$HW._2$	EL. 954.44
VELOCITY	3.80 fps

TRAFFIC DATA:

AADT (2037) = 39,800
DESIGN SPEED = 75 MPH

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. MISCELLANEOUS DETAILS
4. CONSTRUCTION STAGING DETAILS 1
5. CONSTRUCTION STAGING DETAILS 2
6. SUBSURFACE EXPLORATION
7. SOUTH ABUTMENT-1
8. SOUTH ABUTMENT-2
9. WINGS 1 & 2
10. SOUTH ABUTMENT DETAILS
11. NORTH ABUTMENT-1
12. NORTH ABUTMENT-2
13. WINGS 3 & 4
14. NORTH ABUTMENT DETAILS
15. 28" PRESTRESSED GIRDER DETAILS
16. INTERMEDIATE STEEL DIAPHRAGMS
17. SUPERSTRUCTURE-1
18. SUPERSTRUCTURE-2
19. SUPERSTRUCTURE-3
20. STRUCTURAL APPROACH SLAB
21. STRUCTURAL APPROACH SLAB DETAILS
22. SINGLE SLOPE PARAPET 42SS

LEGEND

✳ THRIE BEAM ATTACHMENT.
(X) INDICATES WING NUMBER.

BENCH MARK TABLE

NO.	STATION	DESCRIPTION	ELEVATION
32	1446+03.27'TL' 14.701'RT.	CHISELED "X" IN SW QUAD OF B-66-17	960.370
33	1446+28.86'TL' 17.728'LT.	CHISELED "X" IN NE QUAD OF B-66-22	959.470

WISCONSIN
WILLIAM A. HOVE
E-33600
MADISON, WI
PROFESSIONAL ENGINEER
1/17/2019

SE REGION CONTACT:
CHRISTINE HANNA (262) 548-8809

BUREAU OF STRUCTURES CONTACT:
BILL DREHER (608) 266-8489

CONSULTANT CONTACT:
BILL HOVE (262) 354-3014

STATE PROJECT NUMBER
1100-41-70

NO.	DATE	REVISION	BY

CORRE
Structural Environmental Municipal Transportation
6510 GRAND TETON PLAZA, SUITE 104 MADISON, WI 53719 (608)826-9116 www.correengineering.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SOR 01/18/19
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-66-193

I-41 NB OVER TRIBUTARY TO EAST BRANCH ROCK RIVER

COUNTY	TOWN/~~CITY/VILLAGE~~
WASHINGTON	ADDISON

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
BH	ETP	TKB	BH

GENERAL PLAN

SHEET 1 OF 22

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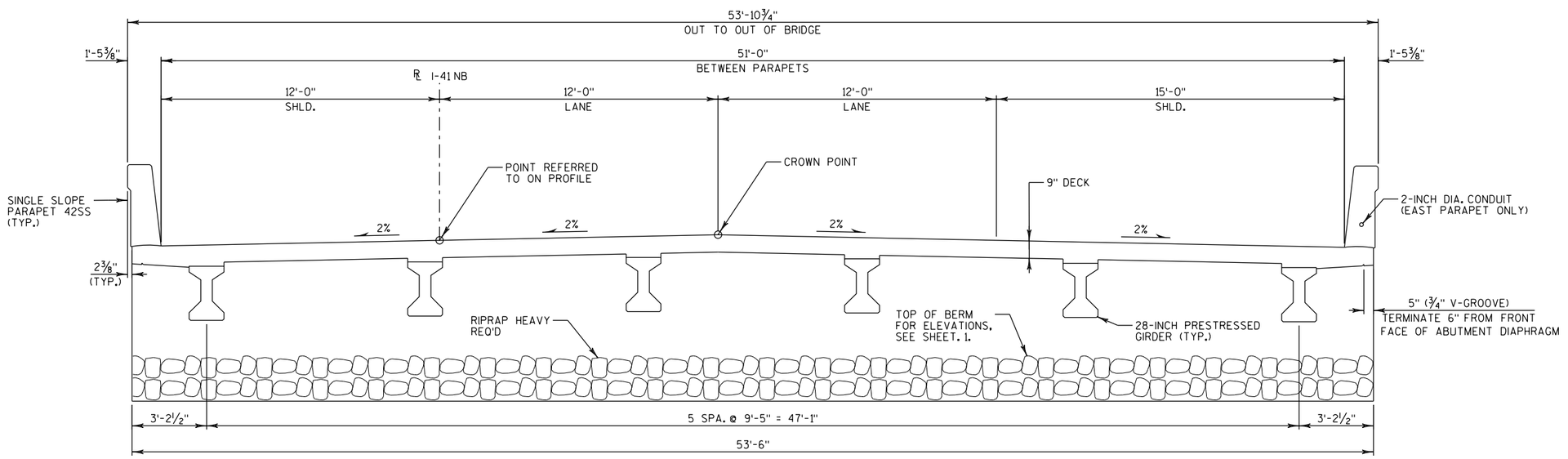


CROSS SECTION THRU ROADWAY LOOKING NORTH

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEM	UNIT	SOUTH APPROACH	SOUTH ABUTMENT	NORTH ABUTMENT	NORTH APPROACH	SUPER.	TOTALS
203.0600.S.01	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STATION 1446'NB'+19	LS	--	--	--	--	--	1
206.1000.02	EXCAVATION FOR STRUCTURES BRIDGES B-66-193	LS	--	--	--	--	--	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	--	130	130	--	--	260
305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	170	--	--	170	--	340
502.0100	CONCRETE MASONRY BRIDGES	CY	73	56	56	73	121	379
502.3200	PROTECTIVE SURFACE TREATMENT	SY	115	--	--	115	250	480
502.3210	PIGMENTED SURFACE SEALER	SY	20	--	--	20	40	80
503.0128	PRESTRESSED GIRDER TYPE I 28-INCH	LF	--	--	--	--	234	234
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	--	3,520	3,520	--	--	7,040
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	12,220	1,500	1,500	12,220	17,010	44,450
505.0800.S	BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES	LB	935	--	--	935	--	1,870
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	--	--	--	--	12	12
506.4000.01	STEEL DIAPHRAGMS B-66-193	EACH	--	--	--	--	5	5
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	--	15	15	--	--	30
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	--	400	400	--	--	800
606.0300	RIPRAP HEAVY	CY	--	75	85	--	--	160
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	--	100	100	--	--	200
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	--	--	--	--	4	4
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	--	70	70	--	--	140
645.0120	GEOTEXTILE TYPE HR	SY	--	160	180	--	--	340
652.0125	CONDUIT RIGID METALIC 2-INCH	LF	3	--	--	3	6	12
652.0225	CONDUIT RIGID NONMETALLIC SHCEDULE 40 2-INCH	LF	15	--	--	15	37	67
653.0220	JUNCTION BOXES 18 x 6 x 6-INCH	EACH	1	--	--	1	--	2
SPV.0090.02	REMOVING EXISTING TIMBER PILING	LF	--	20	20	--	--	40
	NON-BID ITEMS							
	FILLER							1/2", 3/4" & 1 1/2"

ALL ITEMS ARE CATEGORY 0030

ABBREVIATIONS:

ABUT. - ABUTMENT
B.F. - BACK FACE
BOT - BOTTOM
BRG. - BEARING
CL. - CLEAR
CONST. - CONSTRUCTION
DIA. - DIAMETER
E.F. - EACH FACE
F.F. - FRONT FACE
HORIZ. - HORIZONTAL
JT. - JOINT
LONG. - LONGITUDINAL
PPT. - PARAPET
SPA. - SPACED
STD. - STANDARD
T&B - TOP AND BOTTOM
TRANS. - TRANSVERSE
TYP. - TYPICAL
VERT. - VERTICAL

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED. ALL STATIONS AND ELEVATIONS ARE IN FEET.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

THE FIRST DIGIT OF A THREE DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

ALL SECTIONS & DETAILS IN THIS PLAN SET ARE LOCATED ON THE SAME SHEET AS CALL OUT UNLESS NOTED OTHERWISE.

SEE THIS SHEET FOR STANDARD ABBREVIATIONS.

FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION M153 TYPES I, II, OR III OR M213.

THE EXISTING GROUND LINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS NOTED OTHERWISE.

THE EXISTING STRUCTURE IS A SINGLE-SPAN STEEL GIRDER BRIDGE ON FULL RETAINING CONCRETE ABUTMENTS WITH AN OVERALL LENGTH OF 26'-6" AND AN OVERALL WIDTH OF 44'-0" AND IS TO BE REMOVED WITH CONSTRUCTION OF B-66-193.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON SHEET 1 AND IN THE ABUTMENT DETAILS, OR AS DIRECTED BY THE ENGINEER.

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE ENTIRE EXPOSED TOP OF DECK AND APPROACH SLABS. PIGMENTED SURFACE SEALER SHALL BE APPLIED TO THE FRONT AND TOP OF PARAPETS.

CONCRETE POURED UNDER WATER WILL BE ALLOWED AND SHALL BE DONE IN ACCORDANCE WITH SECTION 502.3.5.3 OF THE STANDARD SPECIFICATION.

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE PRESTRESSED GIRDER DETAIL SHEETS.

PORTIONS OF THE EXISTING ABUTMENT IN CONFLICT WITH THE PROPOSED PILING PLACEMENT SHALL BE REMOVED AS PART OF THE "REMOVING OLD STRUCTURE" BID ITEM. EXISTING PILING WITHIN 2.5 PILE DIAMETERS OF THE NEW PILING SHALL BE REMOVED UNDER THE BID ITEM "REMOVING EXISTING TIMBER PILING".

STATE PROJECT NUMBER

1100-41-70

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-193

DRAWN BY TKB | PLANS CK'D. BH

CROSS SECTION & QUANTITIES

SHEET 2 OF 22

8

8

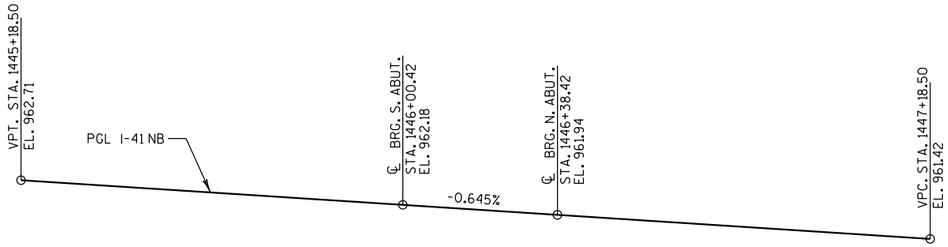
FILE NAME : C:±Users±tbetcher±Google Drive±TKB Projects±Bridge±B-66±B-66-193&194±Cad B-66-193±B-66-193_02 typsections.dgn

PLOT DATE : 1/15/2019

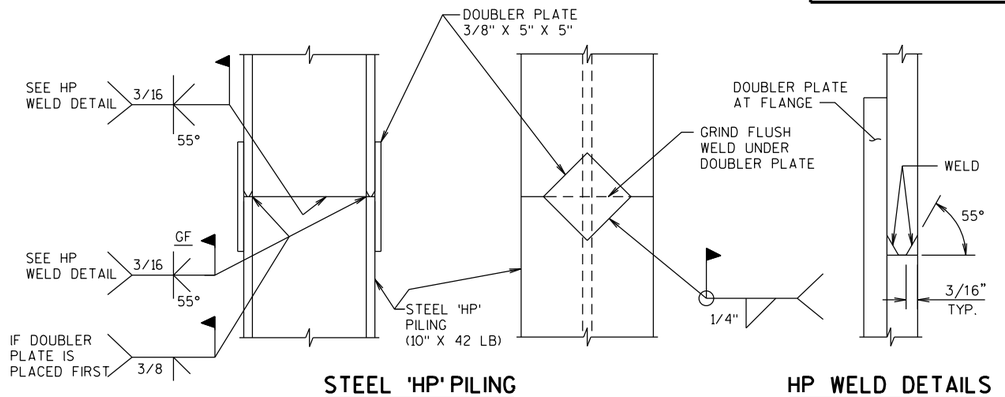
PLOT SCALE : 2.00000 '/ ft.

STATE PROJECT NUMBER

1100-41-70



PROFILE GRADE LINE I-41 NB

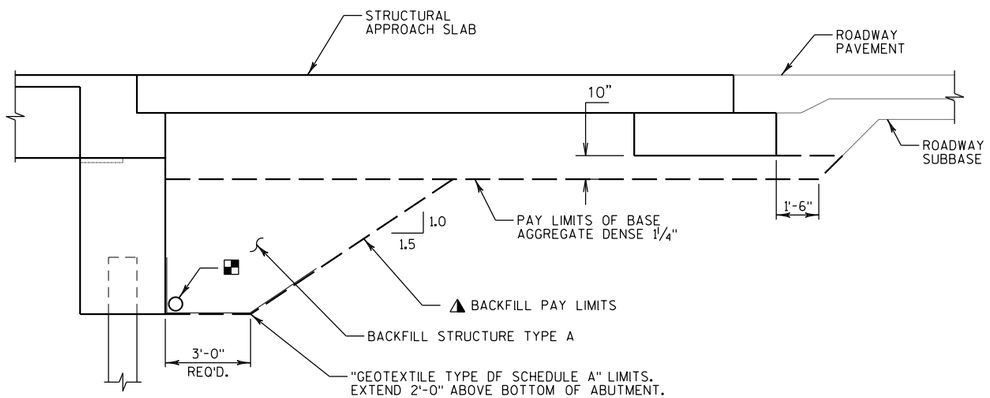


STEEL 'HP' PILING

HP WELD DETAILS

FLANGE SHOWN, WEB SIMILAR

PILE SPLICE DETAILS



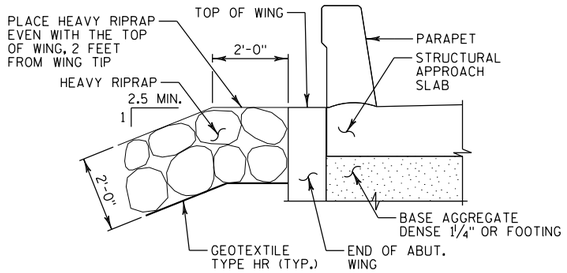
STRUCTURE BACKFILL LIMITS

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS AND ABUTMENT WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

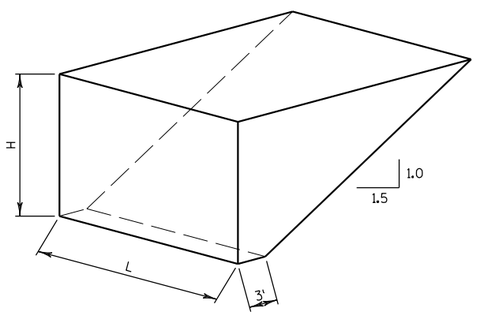
▪ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

⚠ BACKFILL BEYOND PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

NOTE: EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL. GEOTEXTILE SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT.

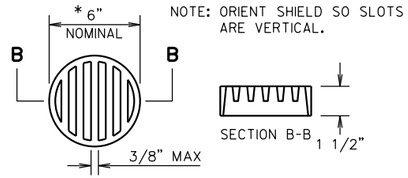


TYPICAL FILL SECTION AT WING TIPS



ABUTMENT BACKFILL PAY LIMIT DIAGRAM

L = OUT TO OUT OF ABUTMENT. INCLUDING WINGS (FT)
H = AVERAGE ABUTMENT FILL HEIGHT (FT)
EF = EXPANSION FACTOR (1.20 FOR CY BID ITEMS AND 1.00 FOR TON BID ITEMS)
V_{CF} = (L)(3.0')(H) + (L)(0.5)(1.5H)(H)
V_{CY} = V_{CF} (EF)/27
V_{TON} = V_{CY} (2.0)



* DIMENSION IS APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

RODENT SHIELD DETAIL

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-193

DRAWN BY TKB | PLANS CK'D. BH

MISCELLANEOUS DETAILS

SHEET 3 OF 22

151

8

8

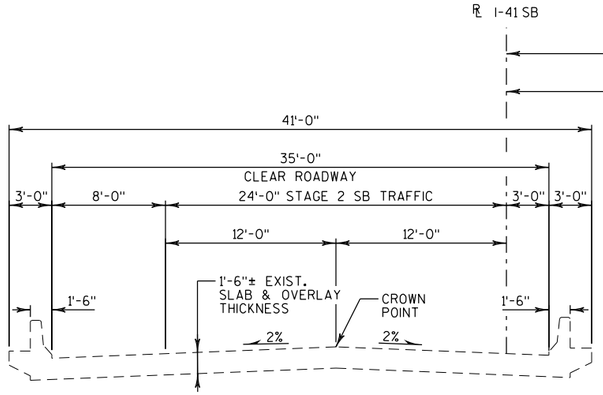
FILE NAME : C:±Users±tbetcher±Google Drive±TKB Projects±Bridge±B-66±B-66-193&194±Cad B-66-193±B-66-193_03 misc det.dgn

PLOT DATE : 1/15/2019

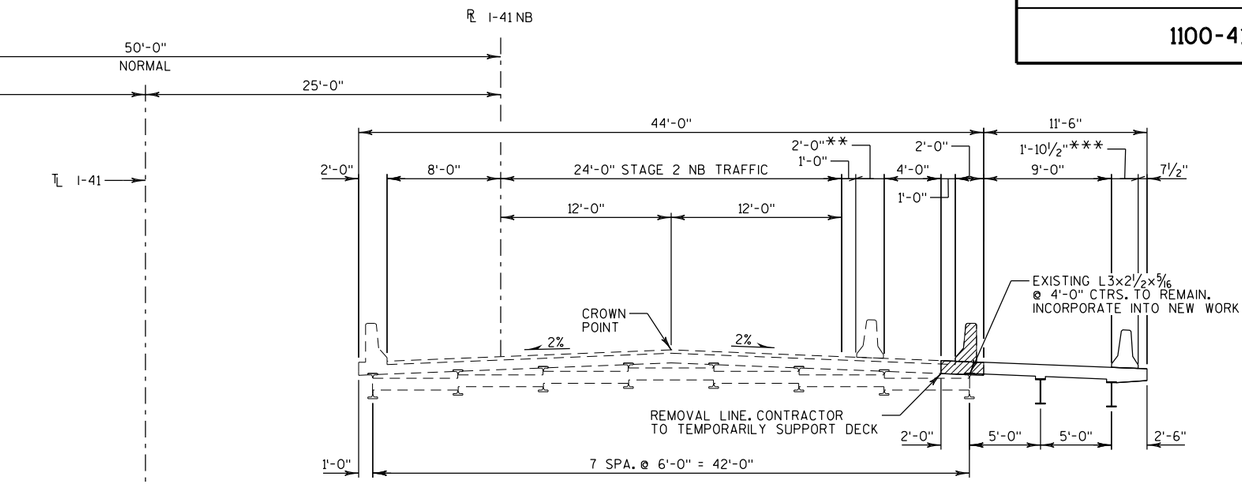
PLOT SCALE : 2.00000 '/ ft.

STATE PROJECT NUMBER

1100-41-70



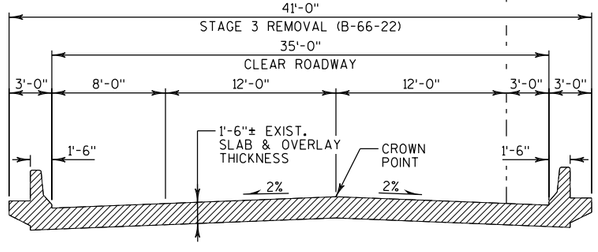
B-66-22



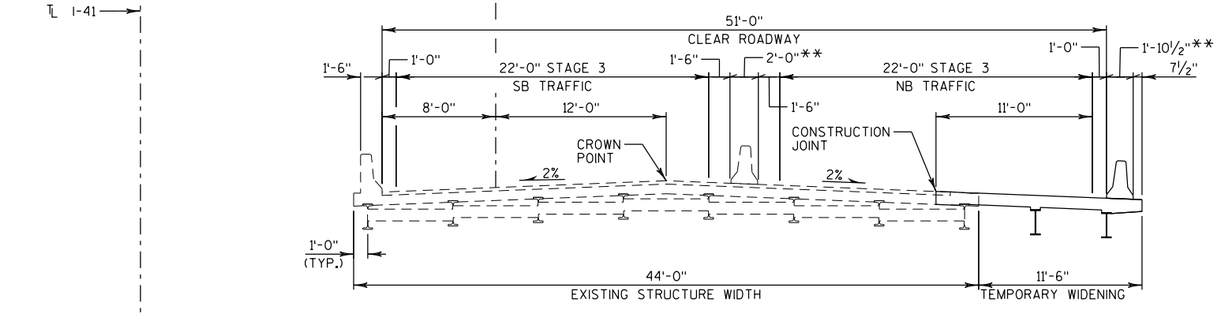
B-66-17

*STAGE 2

(CONSTRUCT TEMPORARY WIDENING)



B-66-22



B-66-17

*STAGE 3

(REMOVE B-66-22, CONSTRUCT B-66-194)

8

8

LEGEND

▨ - DENOTES REMOVAL LIMITS

*CORRESPONDS TO ROAD PLANS. SEE ROAD PLANS FOR FURTHER STAGING DETAILS.

** TEMPORARY BARRIER (INCLUDED IN ROADWAY QUANTITIES).

*** TEMPORARY BARRIER PINNED TO DECK (INCLUDED IN ROADWAY QUANTITIES).

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-193

DRAWN BY TKB | PLANS CK'D. BH

CONSTRUCTION STAGING DETAILS 1

SHEET 4 OF 22

152

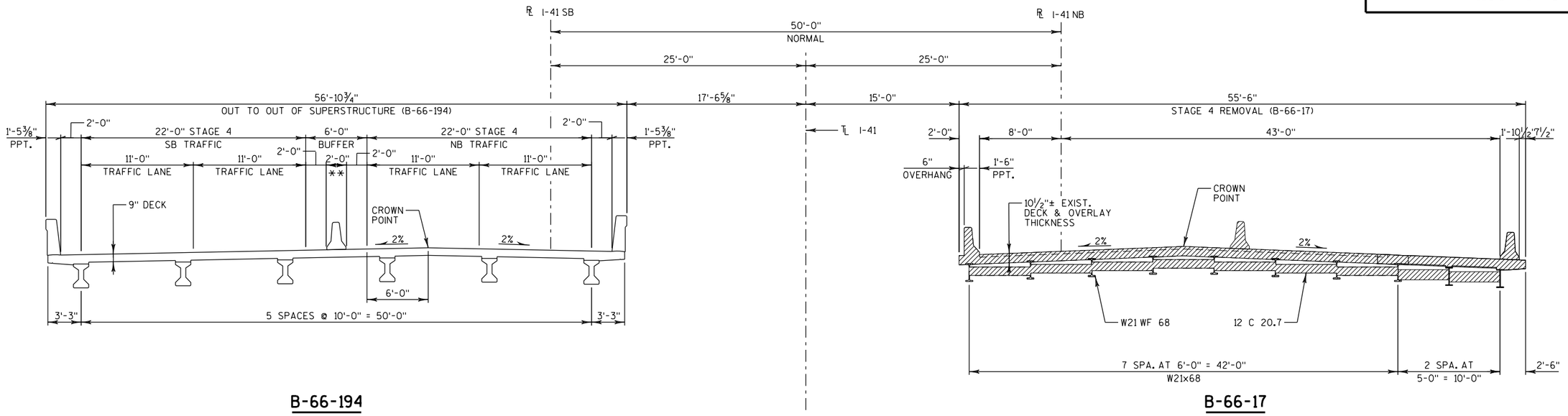
FILE NAME : C:±Users±tbetcher±Google Drive±TKB Projects±Bridge±B-66±B-66-193&194±Cad B-66-193±B-66-193_04 staging 01.dgn

PLOT DATE : 1/15/2019

PLOT SCALE : 2.00000 '/ ft.

STATE PROJECT NUMBER

1100-41-70

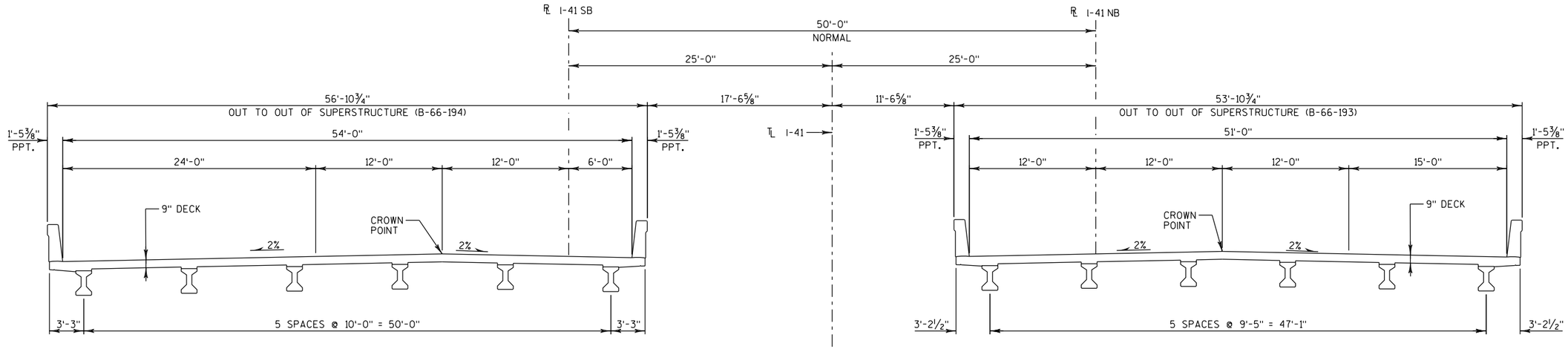


B-66-194

B-66-17

*STAGE 4

(REMOVE B-66-17, CONSTRUCT B-66-193)



B-66-194

B-66-193

FINAL STRUCTURE

LEGEND

▨ - DENOTES REMOVAL LIMITS

*CORRESPONDS TO ROAD PLANS. SEE ROAD PLANS FOR FURTHER STAGING DETAILS.

**TEMPORARY BARRIER (INCLUDED IN ROADWAY QUANTITIES).

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-193

DRAWN BY TKB | PLANS CK'D. BH

CONSTRUCTION STAGING DETAILS 2

SHEET 5 OF 22

153

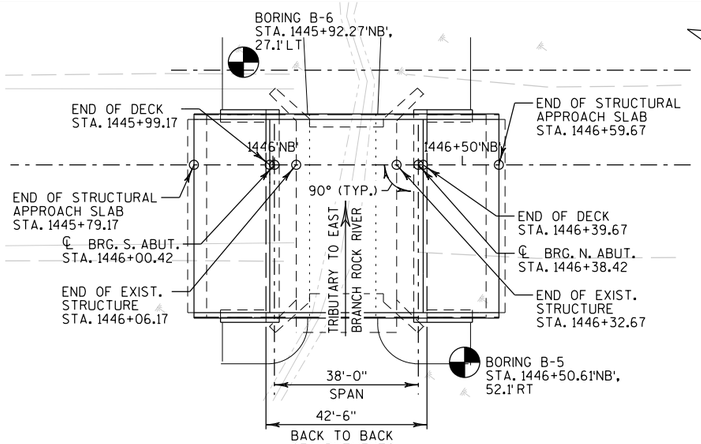
8

8

FILE NAME : C:±Users±tbetcher±Google Drive±TKB Projects±Bridge±B-66±B-66-193&194±Cad B-66-193±B-66-193_05 staging 02.dgn

PLOT DATE : 1/15/2019

PLOT SCALE : 2.00000 '/ ft.

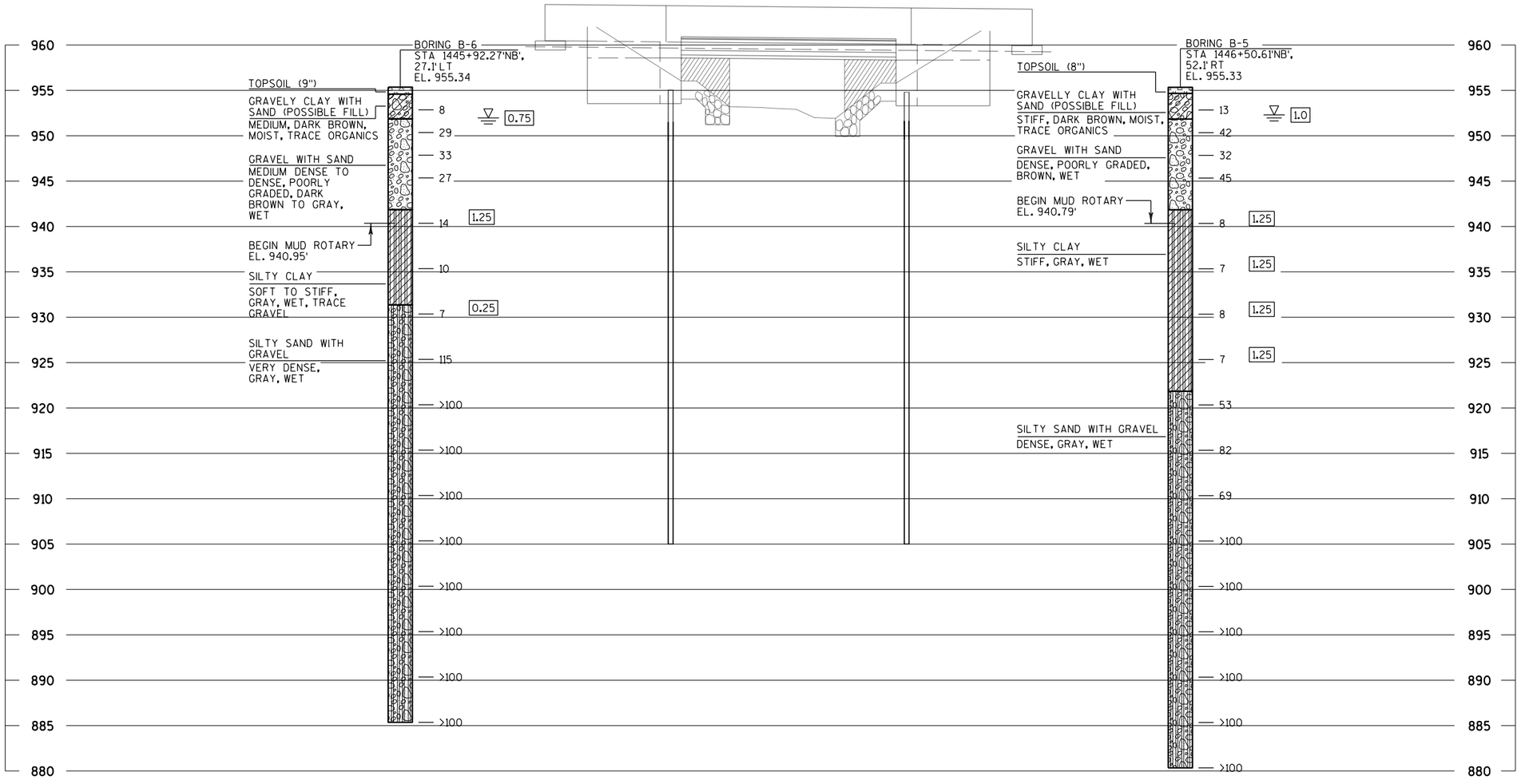


B-66-193

GEOTECHNICAL REPORT
HIMALAYAN CONSULTANTS, L.L.C.
W156 N11357 PILGRIM ROAD
GERMANTOWN, WI 53022
(262) 502-0066

SOIL BORINGS PERFORMED BY:
PROFESSIONAL SERVICE INDUSTRIES, INC.
821 CORPORATE COURT
WAUKESHA, WI 53189
(262) 521-2125

BORING B-5
PERFORMED ON 8/7/14
BORING B-6
PERFORMED ON 8/5/14

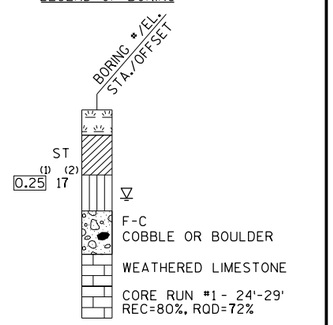


STATE PROJECT NUMBER
1100-41-70

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-193

DRAWN BY TKB | PLANS CK'D. BH

SUBSURFACE EXPLORATION

SHEET 6 OF 22

8

8

FILE NAME : C:±Users±tbetcher±Google Drive±TKB Projects±Bridge±B-66±B-66-193&194±Cad B-66-193±B-66-193_06-sub sur exp.dgn

PLOT DATE : 1/15/2019

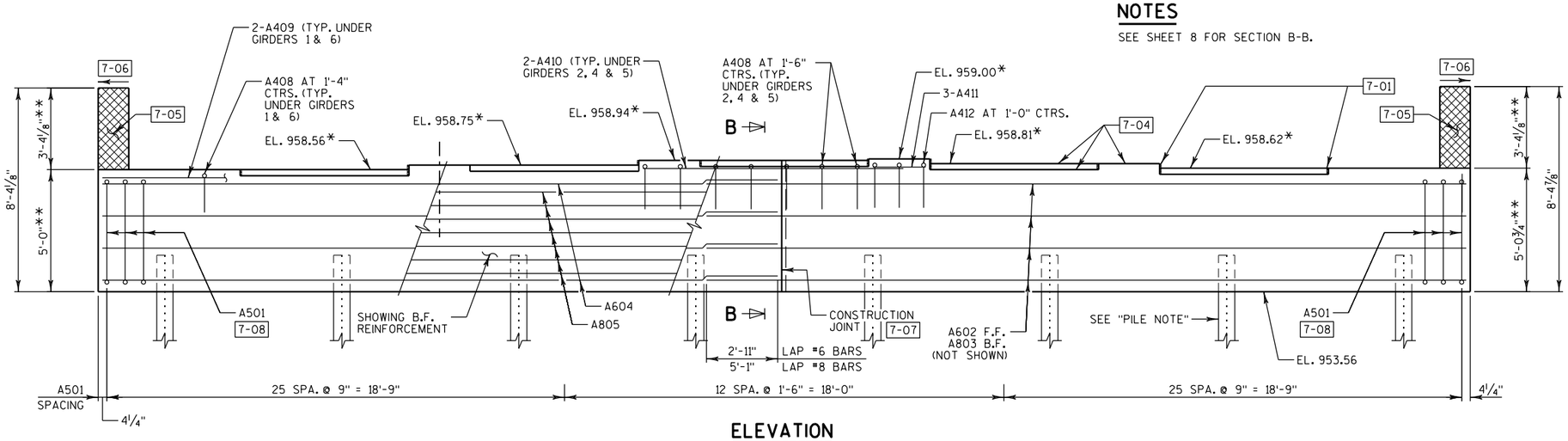
PLOT SCALE : 2.00000 '/ ft.

STATE PROJECT NUMBER

1100-41-70

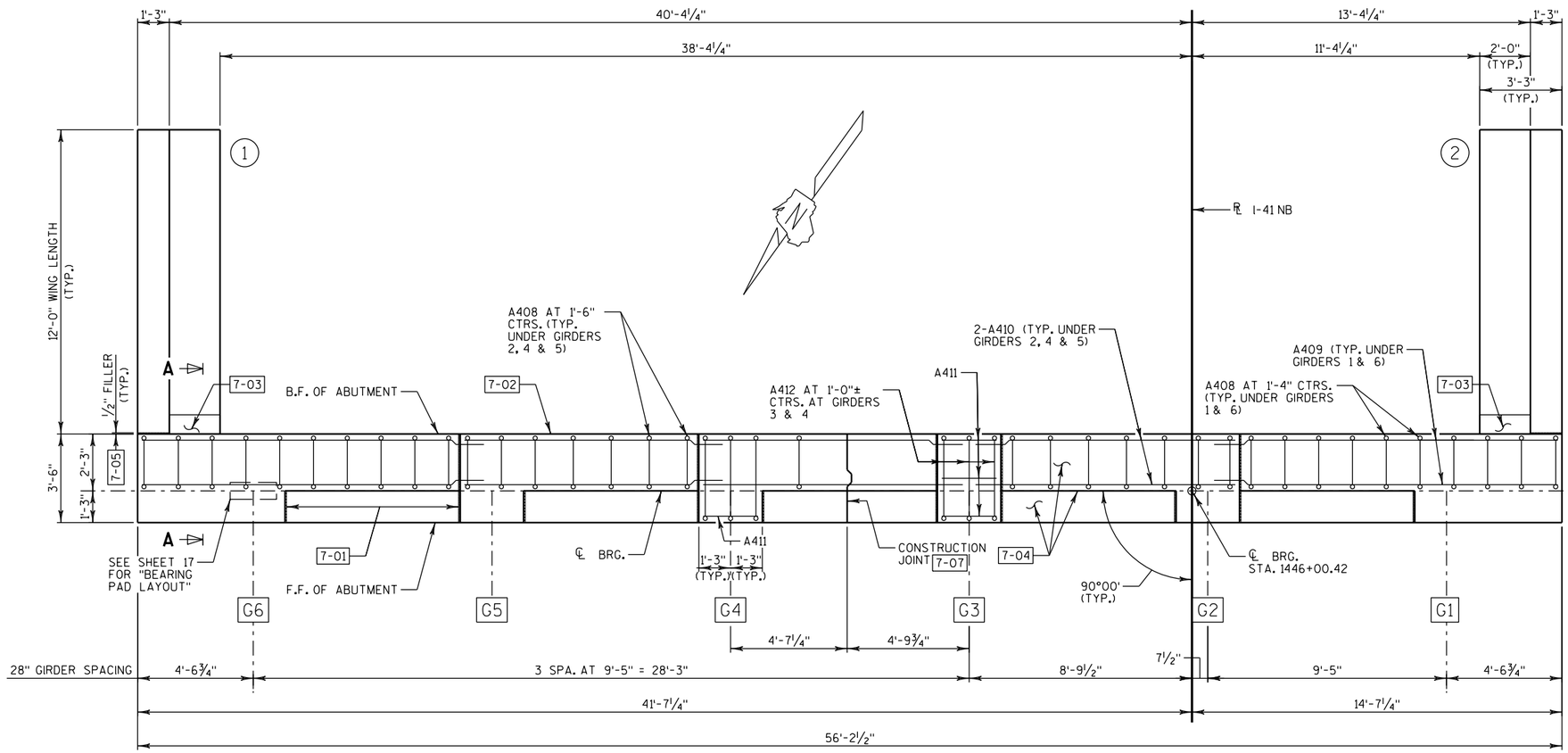
NOTES

SEE SHEET 8 FOR SECTION B-B.



ELEVATION

(LOOKING SOUTH)



PLAN

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE AT THE ℄ OF BEARING.

** DIMENSIONS ARE GIVEN AT THE B.F. OF ABUTMENT AT THE BACK OF WING. FOR WING DETAILS AND ELEVATIONS SEE SHEET 9.

7-01 ¾" CORK FILLER ON VERTICAL FACE ONLY. (TYP.)

7-02 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND HORIZONTAL BETWEEN INSIDE FACE OF WINGS AND VERTICAL FROM TOP OF BODY TO TOP OF WINGS.

7-03 PLACE BOTTOM HALF OF RUBBERIZED MEMBRANE WATERPROOFING HORIZ. IN THIS AREA. SEE SECTION A-A ON THIS SHEET.

7-04 STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

7-05 ½" FILLER TO EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).

7-06 SLOPE TO DRAIN.

7-07 VERTICAL CONSTRUCTION JOINT KEYWAY FORMED BY BEVELED 2"×8".

7-08 A501 BARS SHALL BE SPACED AT 9" CTRS. IN THE OUTSIDE THIRDS OF THE BODY LENGTH AND AT 1'-6" CTRS. IN THE MIDDLE THIRD. SPACE BARS TO MISS PILES.

GX INDICATES GIRDER NUMBER.

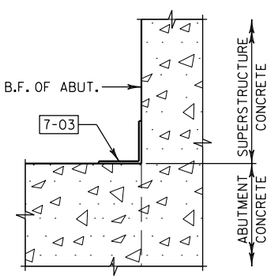
PX INDICATES PILE NUMBER.

(X) INDICATES WING NUMBER.

PILE NOTE

ABUTMENTS SUPPORTED ON HP 10-INCH X 42 LB STEEL PILING WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE AT THE SOUTH ABUTMENT AND 180 TONS PER PILE AT THE NORTH ABUTMENT AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 50' LONG AT THE SOUTH ABUTMENT AND 50' LONG AT THE NORTH ABUTMENT.

*THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.



SECTION A-A

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-193

DRAWN BY TKB | PLANS CK'D. BH

SOUTH ABUTMENT - 1

SHEET 7 OF 22

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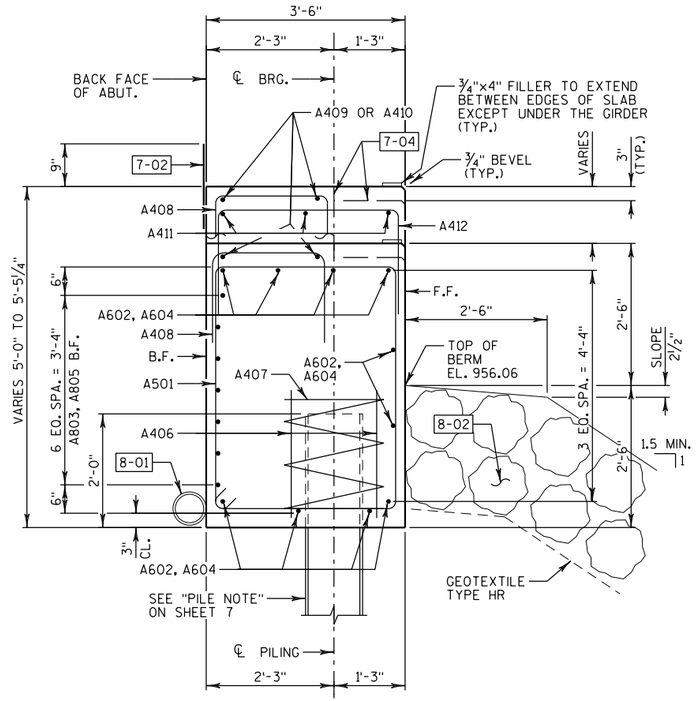
8

8

STATE PROJECT NUMBER
1100-41-70



SECTION B-B

LEGEND

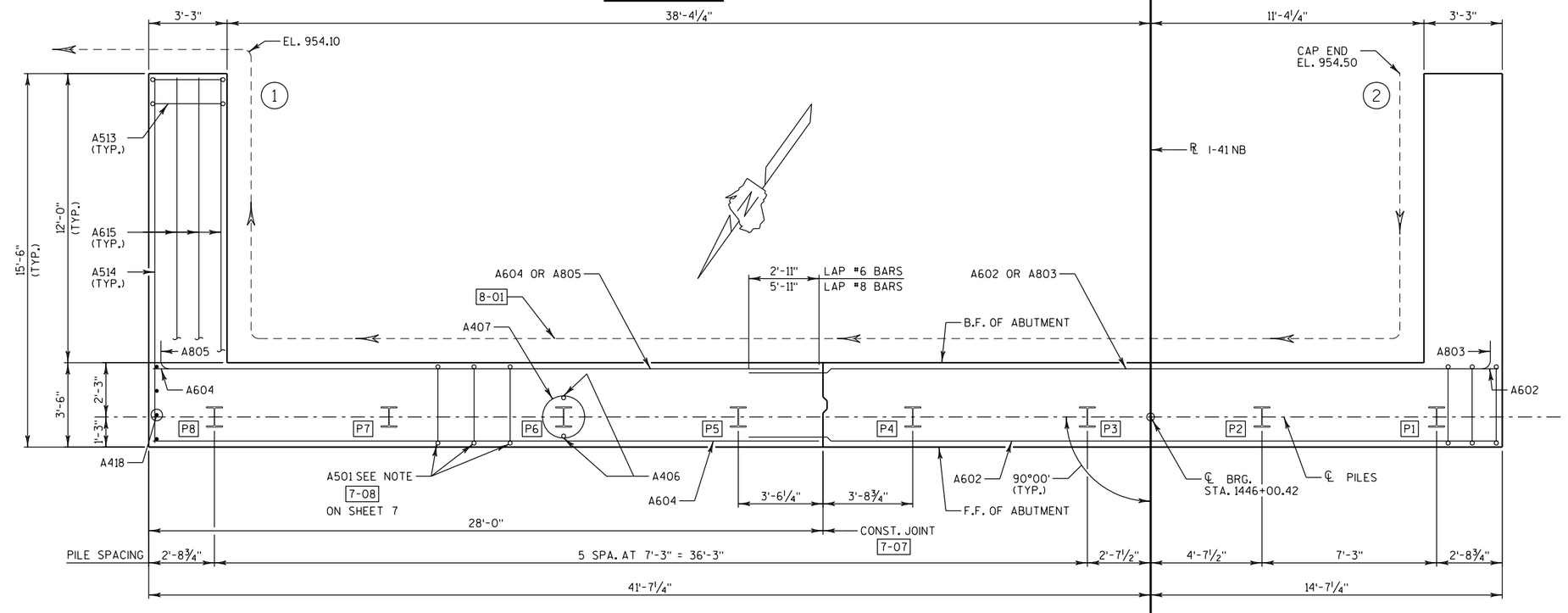
(X) XX X-XX FOR ADDITIONAL SYMBOL DESCRIPTIONS SEE SHEET 7

8-01 PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

8-02 HEAVY RIPRAP. SEE SHEET 1 FOR ADDITIONAL DETAILS.

NOTE:

SEE SHEET 7 FOR LOCATION OF SECTION B-B.



PILE PLAN

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-193

DRAWN BY TKB | PLANS CK'D. BH

SOUTH ABUTMENT - 2

SHEET 8 OF 22

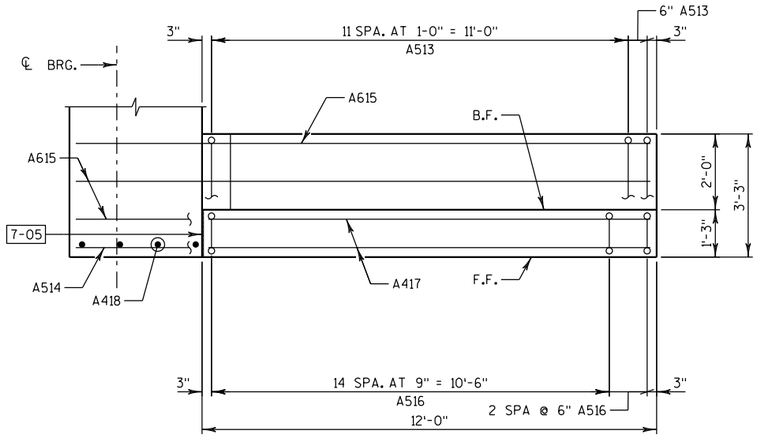
FILE NAME : C:±Users±tbetcher±Google Drive±TKB Projects±Bridge±B-66±B-66-193&194±Cad B-66-193±B-66-193_07 S abut.dgn

PLOT DATE : 1/15/2019

PLOT SCALE : 2.00000 '/ ft.

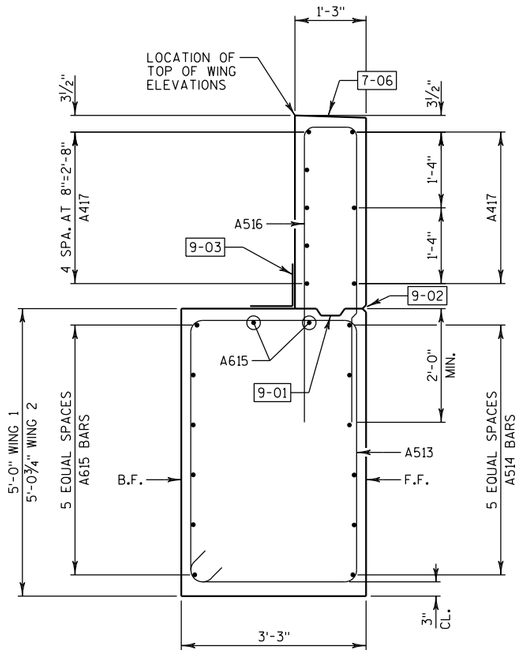
STATE PROJECT NUMBER

1100-41-70

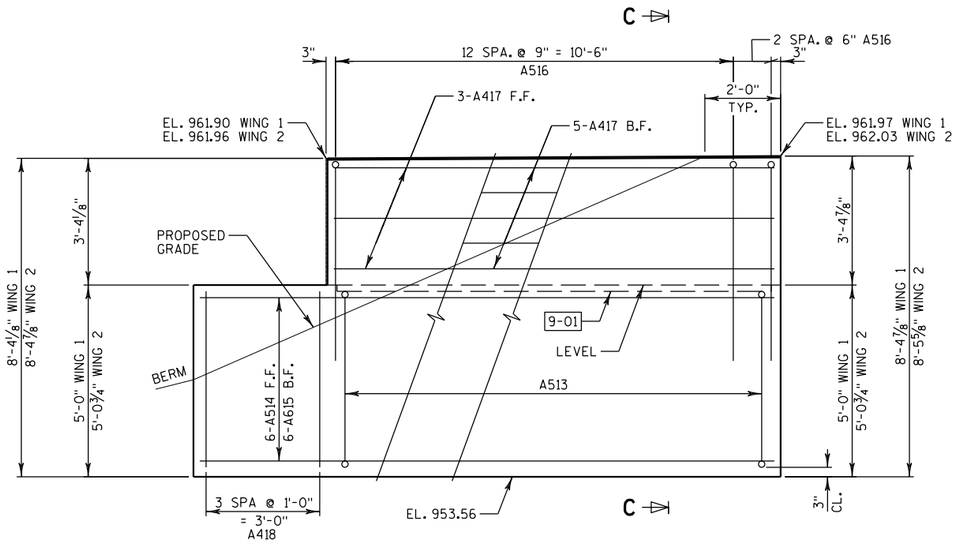


PLAN

(WING 2 SHOWN, WING 1 SIMILAR)



SECTION C-C



ELEVATION

(WING 2 SHOWN, WING 1 SIMILAR)

LEGEND

X-XX FOR ADDITIONAL SYMBOL DESCRIPTIONS SEE SHEET 7

9-01 OPTIONAL CONST. JOINT FORMED BY BEVELED 2"x6" KEYWAY WITH MEMBRANE ON BACKFACE.

9-02 ¾" "V" GROOVE ON FRONT FACE OF WINGWALL.

9-03 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-193

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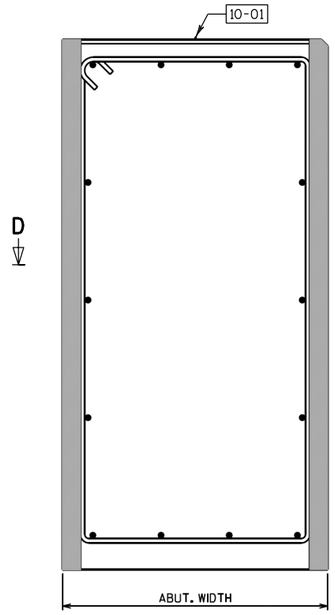
WINGS 1 & 2

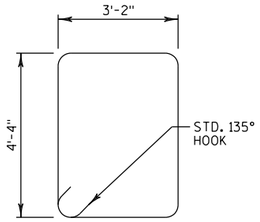
SHEET 9 OF 22

STATE PROJECT NUMBER

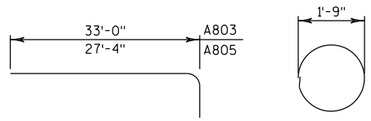
1100-41-70



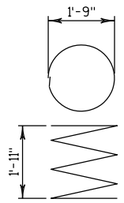
SECTION THRU
ABUTMENT BODY



A501



A803, A805

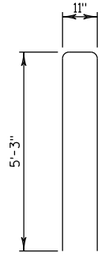


A407

A408

A412

A513

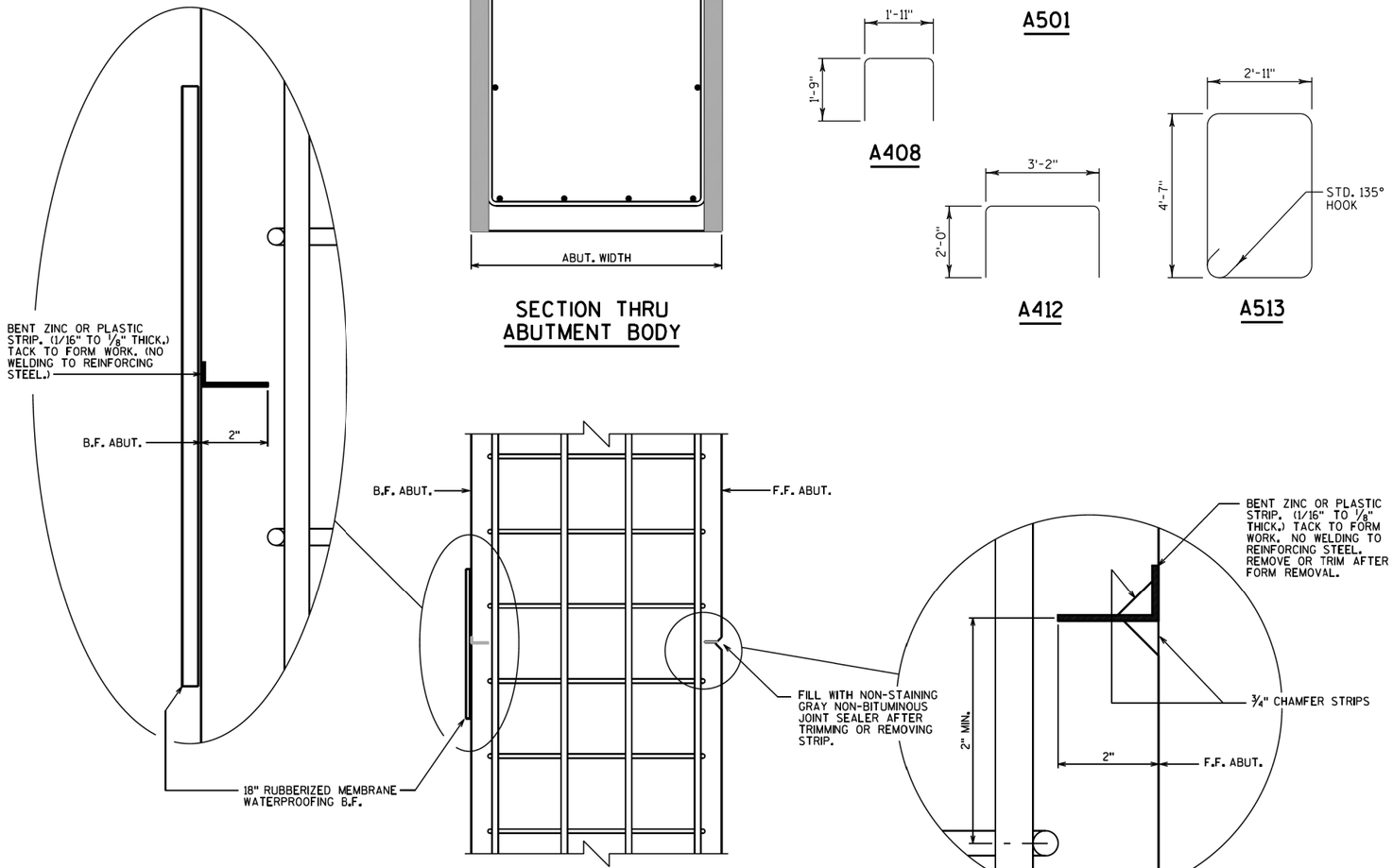


A516

BILL OF BARS

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
NON-COATED BARS						TOTAL WEIGHT = 3,520 LBS	
A501		63	15'-8"	X		BODY-STIRRUPS	VERT.
A602		10	31'-2"			BODY-BTM, F.F. & TOP	HORIZ.
A803		7	34'-2"	X		BODY-B.F.	HORIZ.
A604		10	27'-8"			BODY-BTM, F.F. & TOP	HORIZ.
A805		7	28'-6"	X		BODY-B.F.	HORIZ.
A406		16	2'-3"			BODY @ PILES	VERT.
A407		8	28'-0"	X		BODY @ PILES	VERT.
A408		41	5'-3"	X		BODY-TOP @ GIRDERS 1,2,4,5,6	VERT.
A409		4	13'-10"			BODY-TOP @ GIRDERS 1 & 6	HORIZ.
A410		6	10'-8"			BODY-TOP @ GIRDERS 2,4,5	HORIZ.
A411		4	2'-2"			BODY-TOP @ GIRDERS 3 & 4	HORIZ.
A412		6	7'-0"	X		BODY-TOP @ GIRDERS 3 & 4	VERT.
COATED BARS						TOTAL WEIGHT = 1,500 LBS	
A513	X	26	15'-8"	X		WINGS, BTM. STIRRUPS	VERT.
A514	X	12	15'-1"			WINGS, BTM. -F.F.	HORIZ.
A615	X	16	14'-0"			WINGS, BTM.-B.F. & TOP	HORIZ.
A516	X	34	11'-2"	X		WINGS, TOP-STIRRUPS	VERT.
A417	X	16	11'-8"			WINGS, TOP	HORIZ.
A418	X	8	4'-7"			ABUTMENT ENDS	VERT.

THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.



SECTION D-D

LEGEND

10-01 USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY 1/2" DEEP.

ALTERNATE CONSTRUCTION JOINT AT ABUTMENT

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

SAW CUTTING JOINT IS NOT ALLOWED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-193

DRAWN BY TKB | PLANS CK'D. BH

SOUTH ABUTMENT DETAILS

SHEET 10 OF 22

8

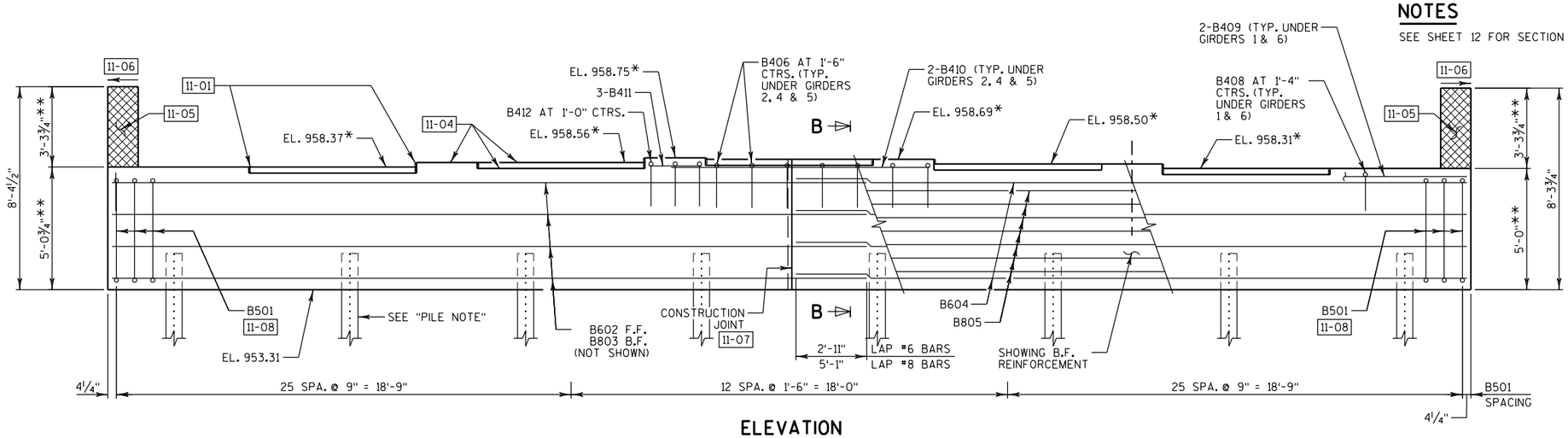
8

STATE PROJECT NUMBER

1100-41-70

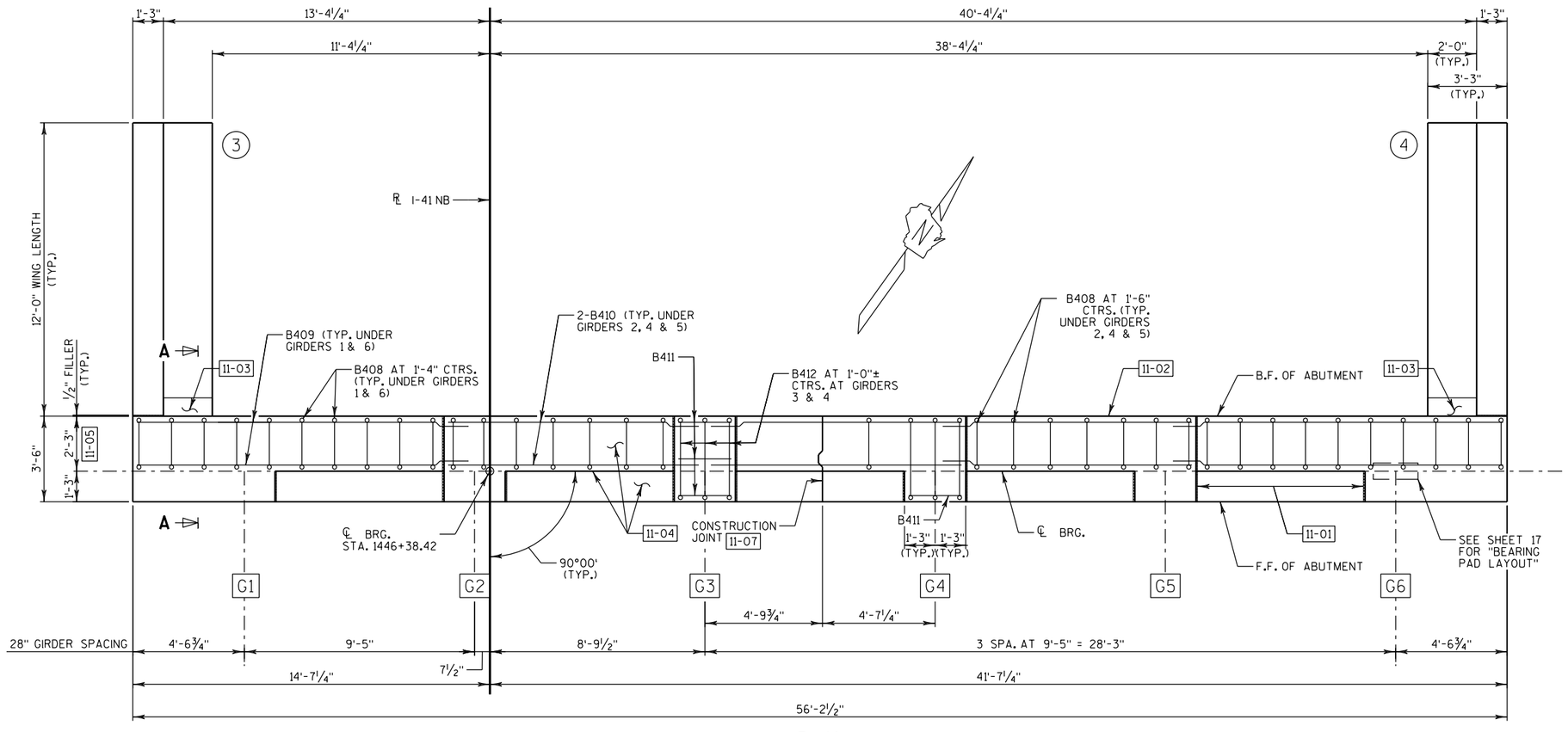
NOTES

SEE SHEET 12 FOR SECTION B-B.



ELEVATION

(LOOKING NORTH)



PLAN

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE AT THE ℄ OF BEARING.

** DIMENSIONS ARE GIVEN AT THE B.F. OF ABUTMENT AT THE BACK OF WING. FOR WING DETAILS AND ELEVATIONS SEE SHEET 13.

11-01 ¾" CORK FILLER ON VERTICAL FACE ONLY. (TYP.)

11-02 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND HORIZONTAL BETWEEN INSIDE FACE OF WINGS AND VERTICAL FROM TOP OF BODY TO TOP OF WINGS.

11-03 PLACE BOTTOM HALF OF RUBBERIZED MEMBRANE WATERPROOFING HORIZ. IN THIS AREA. SEE SECTION A-A ON THIS SHEET.

11-04 STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

11-05 ½" FILLER TO EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).

11-06 SLOPE TO DRAIN.

11-07 VERTICAL CONSTRUCTION JOINT KEYWAY FORMED BY BEVELED 2"×8".

11-08 B501 BARS SHALL BE SPACED AT 9" CTRS. IN THE OUTSIDE THIRDS OF THE BODY LENGTH AND AT 1'-6" CTRS. IN THE MIDDLE THIRD. SPACE BARS TO MISS PILES.

GX INDICATES GIRDER NUMBER.

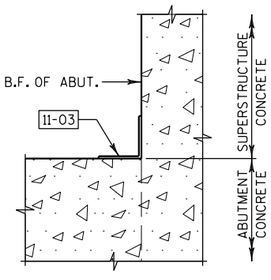
PX INDICATES PILE NUMBER.

(X) INDICATES WING NUMBER.

PILE NOTE

ABUTMENTS SUPPORTED ON HP 10-INCH X 42 LB STEEL PILING WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE AT THE SOUTH ABUTMENT AND 180 TONS PER PILE AT THE NORTH ABUTMENT AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 50'LONG AT THE SOUTH ABUTMENT AND 50'LONG AT THE NORTH ABUTMENT.

*THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.



SECTION A-A

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-193

DRAWN BY TKB | PLANS CK'D. BH

NORTH ABUTMENT - 1

SHEET 11 OF 22

8

8

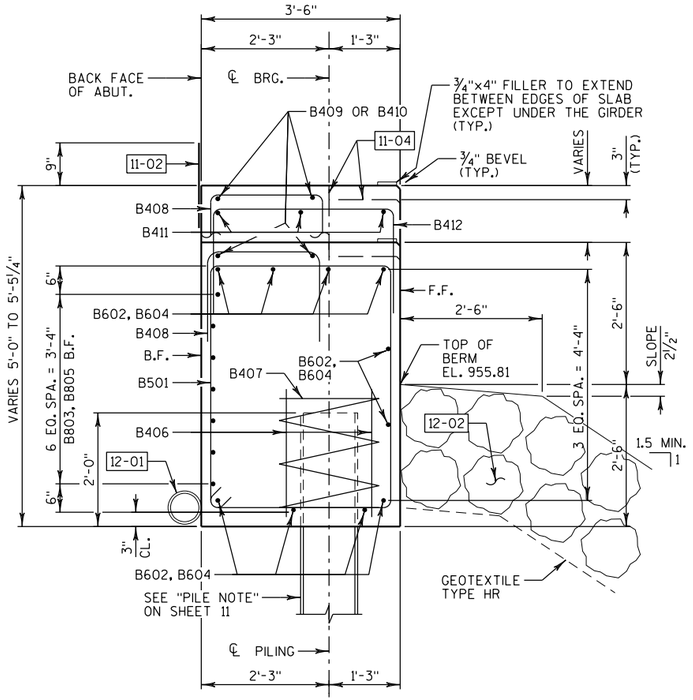
FILE NAME : C:±Users±tbetcher±Google Drive±TKB Projects±Bridge±B-66±B-66-193&194±Cad B-66-193±B-66-193_08 N abut.dgn

PLOT DATE : 1/15/2019

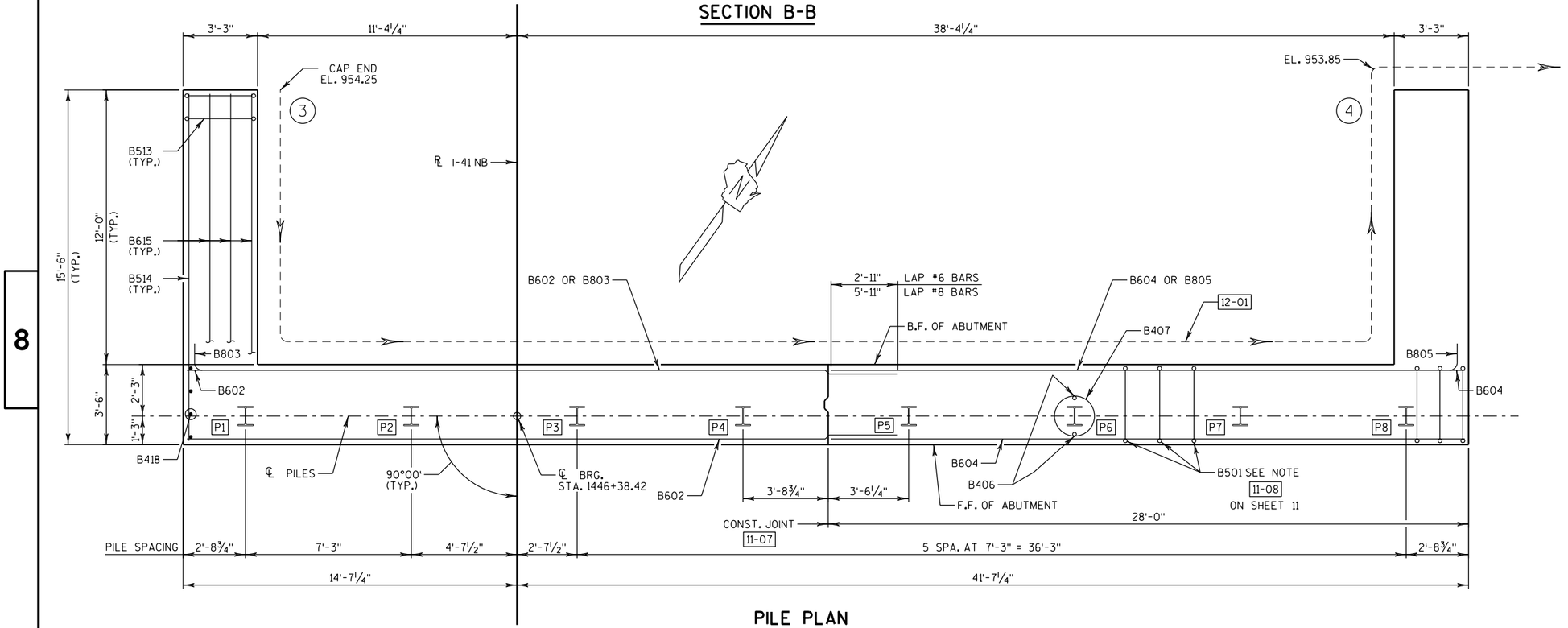
PLOT SCALE : 2.00000 '/ ft.

STATE PROJECT NUMBER

1100-41-70



SECTION B-B



PILE PLAN

LEGEND

(X) XX X-XX FOR ADDITIONAL SYMBOL DESCRIPTIONS SEE SHEET 11

12-01 PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

12-02 HEAVY RIPRAP. SEE SHEET 1 FOR ADDITIONAL DETAILS.

NOTE:

SEE SHEET 11 FOR LOCATIONS OF SECTION B-B.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-193

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NORTH ABUTMENT - 2

SHEET 12 OF 22

8

8

FILE NAME : C:±Users±tbetcher±Google Drive±TKB Projects±Bridge±B-66±B-66-193&194±Cad B-66-193±B-66-193_08 N abut.dgn

PLOT DATE : 1/15/2019

PLOT SCALE : 2.00000 '/ ft.

STATE PROJECT NUMBER

1100-41-70

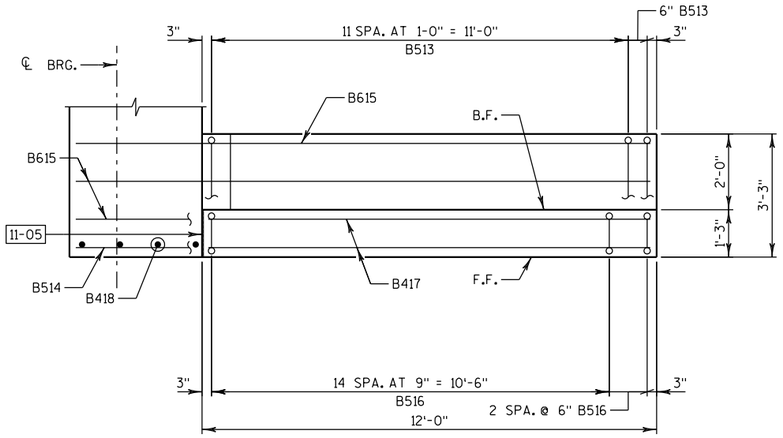
LEGEND

X-XX FOR ADDITIONAL SYMBOL DESCRIPTIONS SEE SHEET 11

13-01 OPTIONAL CONST. JOINT FORMED BY BEVELED 2"x6" KEYWAY WITH MEMBRANE ON BACKFACE.

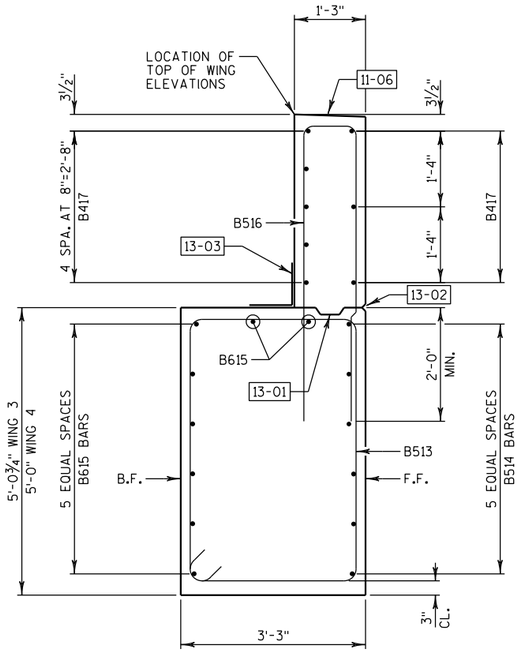
13-02 ¾" "V" GROOVE ON FRONT FACE OF WINGWALL.

13-03 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

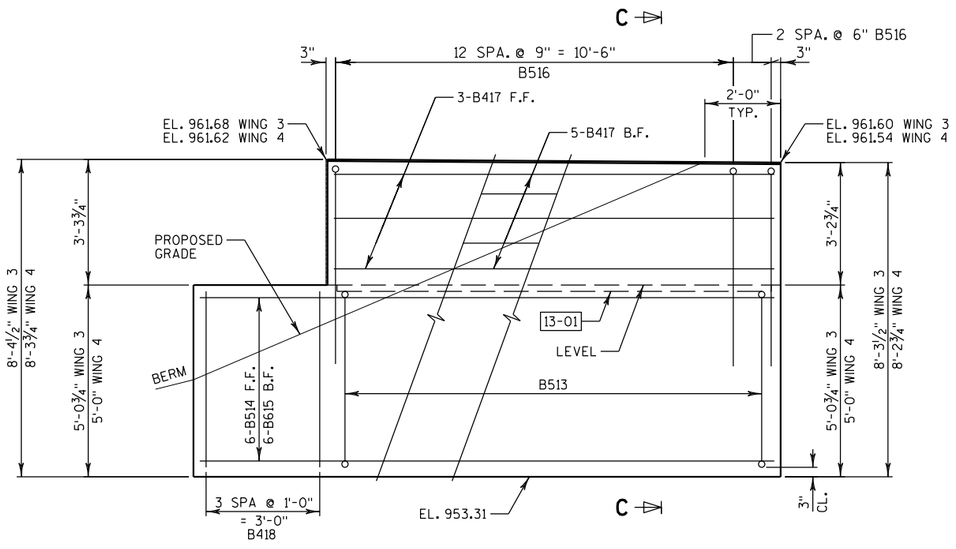


PLAN

(WING 4 SHOWN, WING 3 SIMILAR)



SECTION C-C



ELEVATION

(WING 4 SHOWN, WING 3 SIMILAR)

8

8

NO.	DATE	REVISION	BY

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STRUCTURE B-66-193

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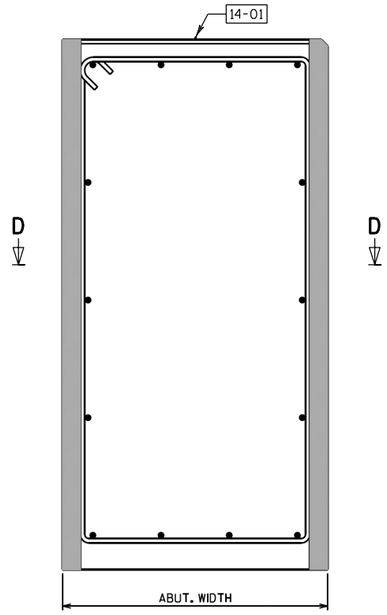
WINGS 3 & 4

SHEET 13 OF 22

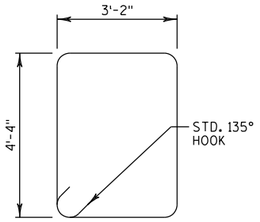
FILE NAME : C:±Users±tbetcher±Google Drive±TKB Projects±Bridge±B-66±B-66-193&194±Cad B-66-193±B-66-193_08 N abut.dgn

PLOT DATE : 1/15/2019

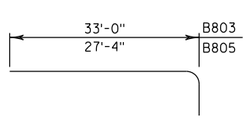
PLOT SCALE : 2.00000 '/ ft.



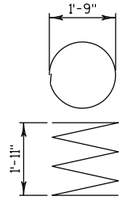
SECTION THRU
ABUTMENT BODY



B501



B803, B805



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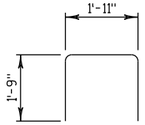

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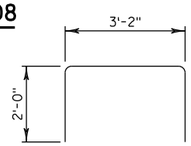

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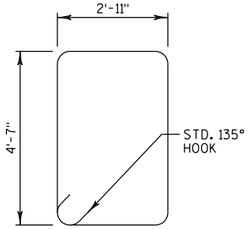
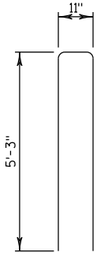


B513

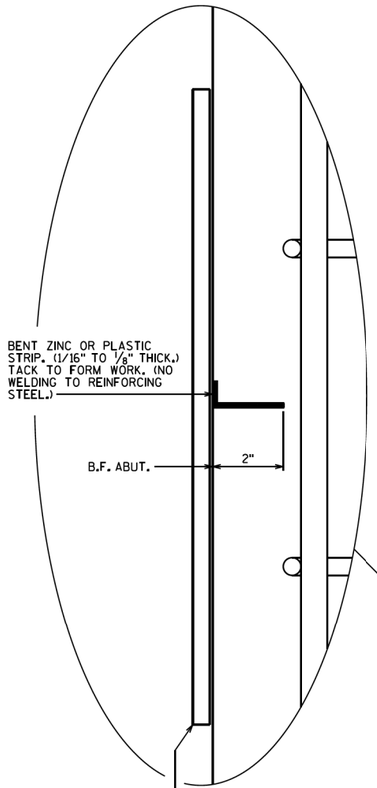


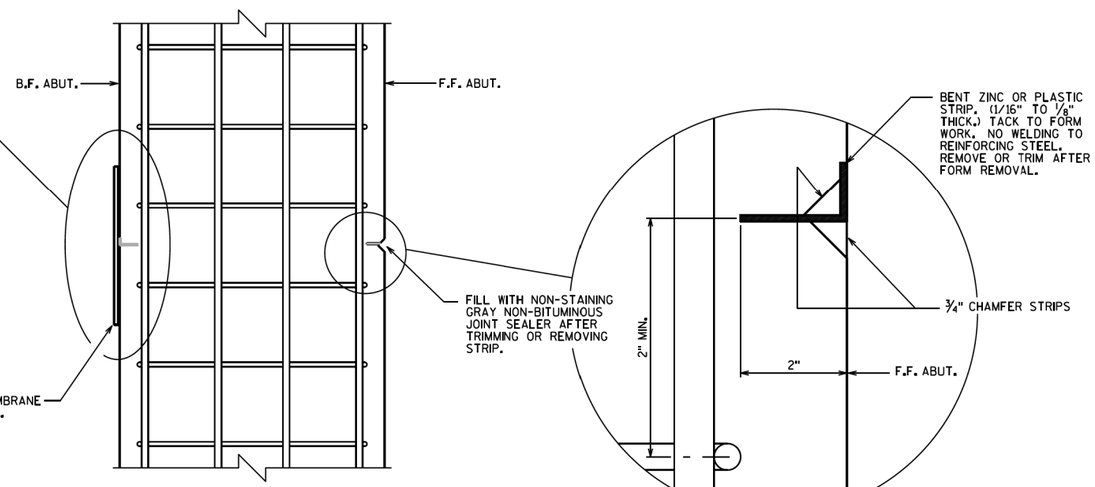
B516

BILL OF BARS

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
NON-COATED BARS						TOTAL WEIGHT = 3,520 LBS	
B501		63	15'-8"	X		BODY-STIRRUPS	VERT.
B602		10	31'-2"			BODY-BTM, F.F. & TOP	HORIZ.
B803		7	34'-2"	X		BODY-B.F.	HORIZ.
B604		10	27'-8"			BODY-BTM, F.F. & TOP	HORIZ.
B805		7	28'-6"	X		BODY-B.F.	HORIZ.
B406		16	2'-3"			BODY @ PILES	VERT.
B407		8	28'-0"	X		BODY @ PILES	VERT.
B408		41	5'-3"	X		BODY-TOP @ GIRDERS 1,2,4,5,6	VERT.
B409		4	13'-10"			BODY-TOP @ GIRDERS 1 & 6	HORIZ.
B410		6	10'-8"			BODY-TOP @ GIRDERS 2,4,5	HORIZ.
B411		4	2'-2"			BODY-TOP @ GIRDERS 3 & 4	HORIZ.
B412		6	7'-0"	X		BODY-TOP @ GIRDERS 3 & 4	VERT.
COATED BARS						TOTAL WEIGHT = 1,500 LBS	
B513	X	26	15'-8"	X		WINGS, BTM. STIRRUPS	VERT.
B514	X	12	15'-1"			WINGS, BTM. -F.F.	HORIZ.
B615	X	16	14'-0"			WINGS, BTM.-B.F. & TOP	HORIZ.
B516	X	34	11'-2"	X		WINGS, TOP-STIRRUPS	VERT.
B417	X	16	11'-8"			WINGS, TOP	HORIZ.
B418	X	8	4'-7"			ABUTMENT ENDS	VERT.

THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.





SECTION D-D

ALTERNATE CONSTRUCTION JOINT AT ABUTMENT

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

SAW CUTTING JOINT IS NOT ALLOWED.

LEGEND

14-01 USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY 1/2" DEEP.

STATE PROJECT NUMBER

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-193

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NORTH ABUTMENT DETAILS

SHEET 14 OF 22

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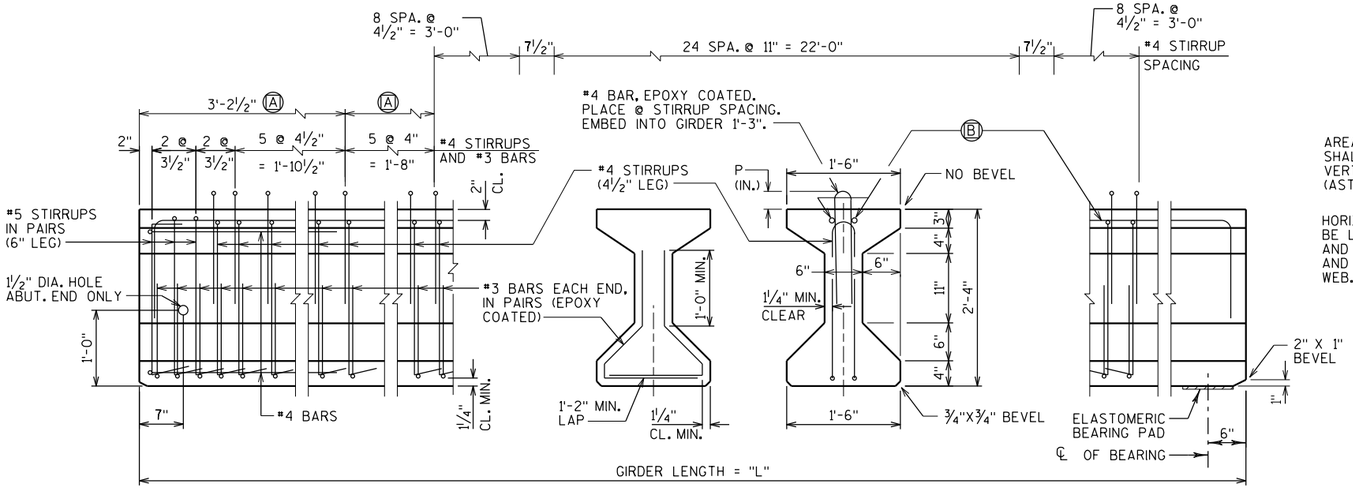
STATE PROJECT NUMBER

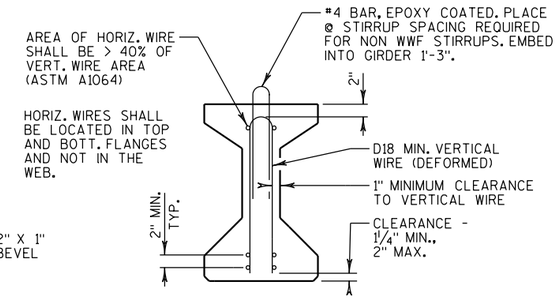
1100-41-70



SIDE VIEW & TYPICAL SECTION IN SPAN

Ⓐ DETAIL TYP. AT EACH END

Ⓑ 2-#6 BARS BEND DOWN 16 BAR DIA. AT ENDS



SECTION THRU GIRDER

SHOWING WELDED WIRE FABRIC (WWF) STIRRUPS ASTM A1064 (FY = 70 KSI)

NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 2" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 2" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER OR EPOXY TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS. SEE SECT. 503.3.3 OF STANDARD SPECIFICATIONS FOR GUIDANCE.

STRANDS SHALL BE FLUSH WITH END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, END OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, GRADE 2, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO THE APPLICATION OF THE SEALER.

ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

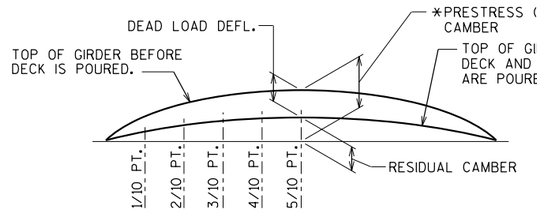
SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A1064 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION.

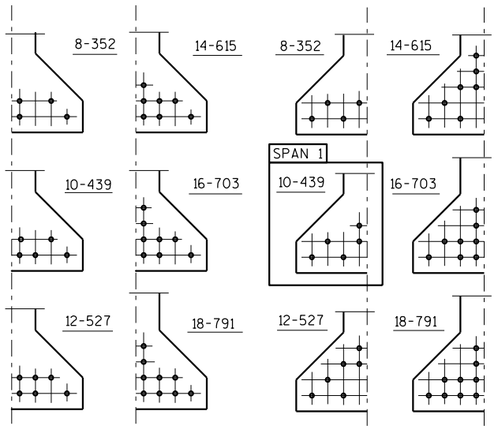
PRESTRESSING STRANDS SHALL BE (0.6" DIA.)-7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

BEND EACH END OF #4 STIRRUPS 4½" AND #5 STIRRUPS 6".

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET.



DEAD LOAD DEFLECTION DIAGRAM

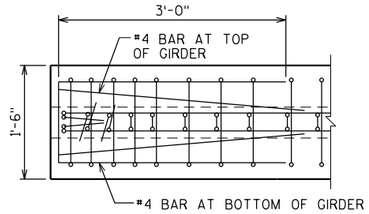


DRAPED PATTERN

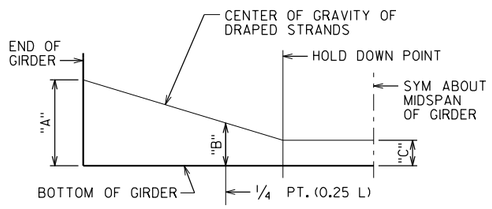
0.6"ϕ STRANDS

UNDRAPED PATTERN

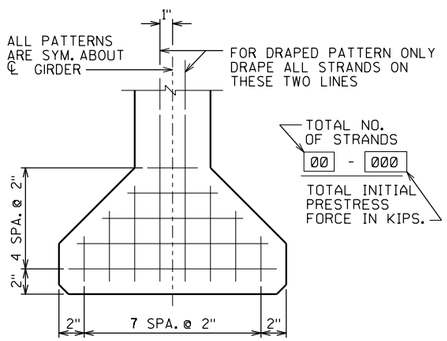
0.6"ϕ STRANDS



TOP VIEW OF GIRDER ENDS



DRAPED STRAND PROFILE



TYP. STRAND PATTERN

* THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.) *
1	⅞"

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.) 1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	CONC. STRGTH. f'c (p.s.i.)	"P" IST 1/3 OF GIRDER	"P" MID 1/3 OF GIRDER	"P" END 1/3 OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN TOTAL NO. OF STRANDS	DRAPED PATTERN f'ci (P.S.I.) *	DRAPED PATTERN (IN.) "A"	DRAPED PATTERN (IN.) "B" MIN.	DRAPED PATTERN (IN.) "B" MAX.	DRAPED PATTERN (IN.) "C"	UNDRAPED PATTERN TOTAL NO. OF STRANDS	UNDRAPED PATTERN f'ci (P.S.I.) *
1	1-6	39'-0"	⅛"	¼"	¼"	⅜"	⅜"	⅜"	¼"	¼"	⅛"	8,000	7½"	7½"	7½"	0.6							10	6,800

* MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

NO.	DATE	REVISION	BY

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STRUCTURE B-66-193

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28" PRESTRESSED GIRDER DETAILS

SHEET 15 OF 22

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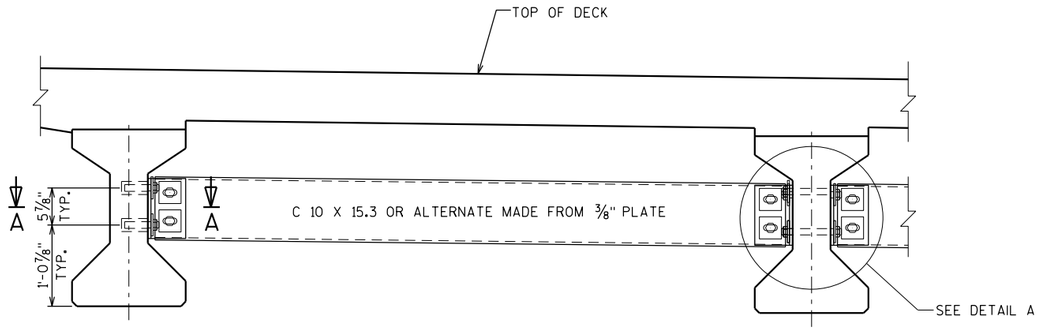
FILE NAME : C:±Users±tbetcher±Google Drive±TKB Projects±Bridge±B-66±B-66-193&194±Cad B-66-193±B-66-193_09 girders28.dgn

PLOT DATE : 1/15/2019

PLOT SCALE : 2.00000 '/ ft.

STATE PROJECT NUMBER

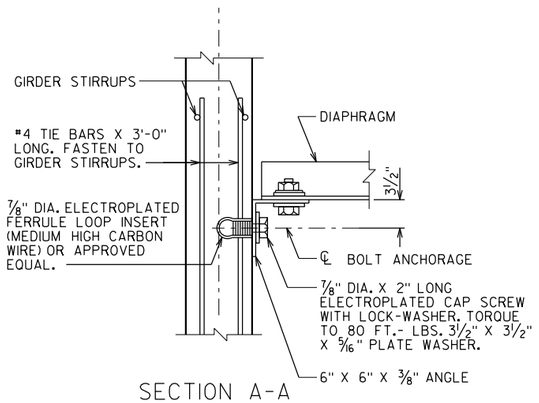
1100-41-70



EXTERIOR GIRDER

INTERIOR GIRDER

PART TRANSVERSE SECTION AT DIAPHRAGM



SECTION A-A

(FOR EXTERIOR ATTACHMENT)

NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-66-193", EACH.

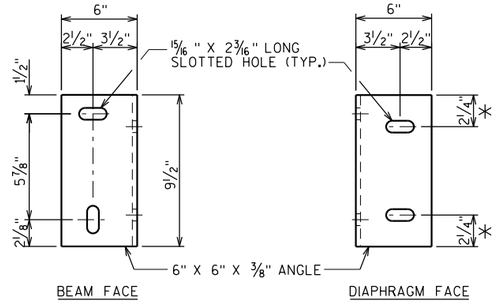
EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36.

ALL DIAPHRAGM MATERIAL INCLUDING BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AFTER FABRICATION.

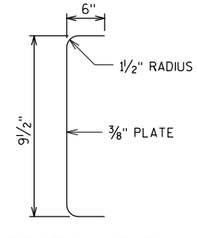
STEEL DIAPHRAGM TO CONCRETE WEB CONNECTION SHALL BE SNUG-TIGHT PLUS ¼ TURN, UNLESS NOTED OTHERWISE. HIGH STRENGTH BOLTS FOR WEB CONNECTION SHALL MEET THE REQUIREMENTS FOR ASTM A325 OR ASTM A449.

SEE SHEET 18 FOR DIAPHRAGM LOCATIONS.

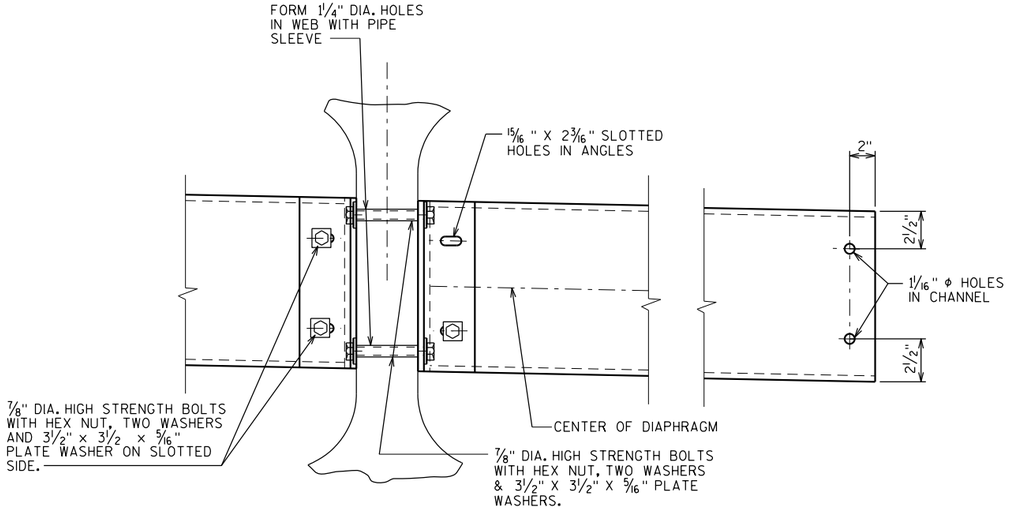


DIAPHRAGM SUPPORT

* 2½" FOR ALTERNATE PLATE DIAPHRAGM



SECTION THRU ALTERNATE DIAPHRAGM



DETAIL A

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-193

DRAWN BY TKB | PLANS CK'D. BH

INTERMEDIATE STEEL DIAPHRAGMS

SHEET 16 OF 22

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FILE NAME : C:±Users±tbetcher±Google Drive±TKB Projects±Bridge±B-66±B-66-193&194±Cad B-66-193±B-66-193_09 girders28.dgn

PLOT DATE : 1/15/2019

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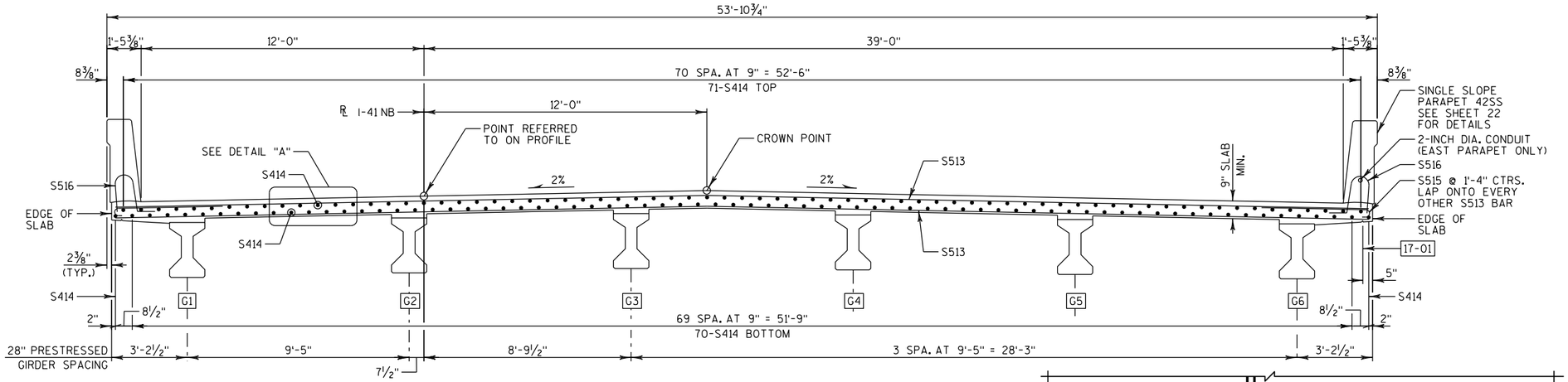
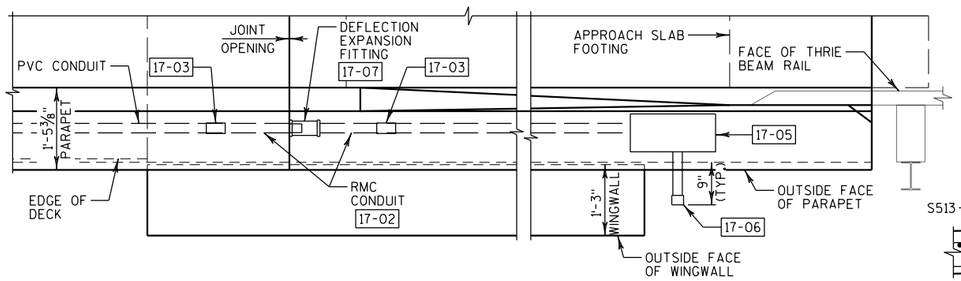
STATE PROJECT NUMBER

1100-41-70

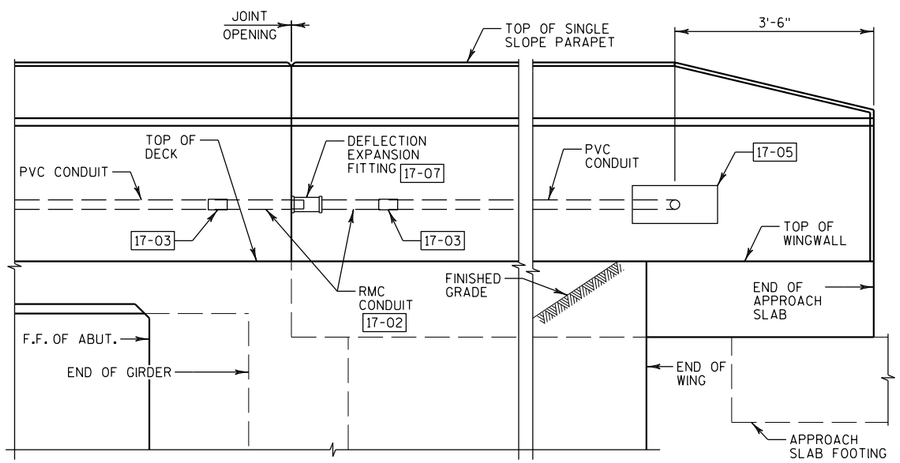


CROSS SECTION THRU BRIDGE



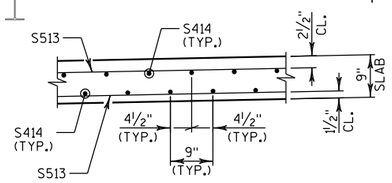
PLAN OF PARAPET AT SEMI-EXP JOINT

(CONDUIT DETAILS)

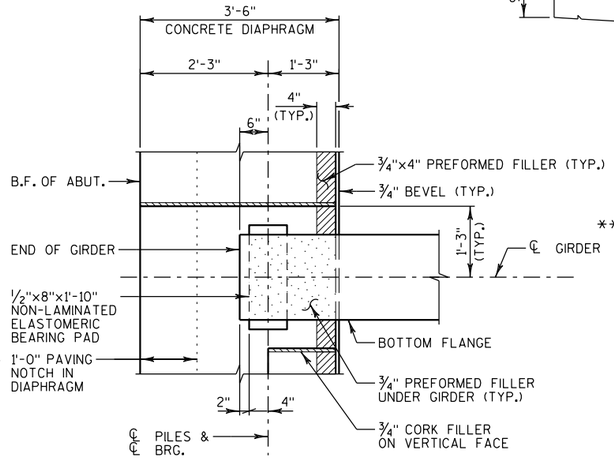


OUTSIDE ELEVATION OF PARAPET AT SEMI-EXP. JOINT

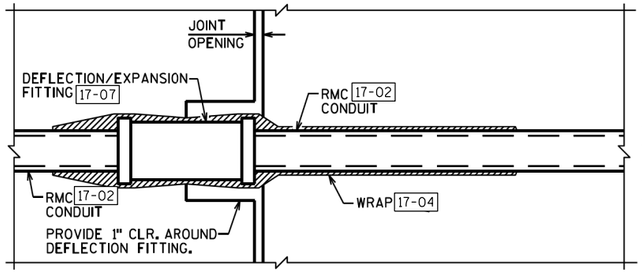
(CONDUIT DETAILS)



DETAIL "A"

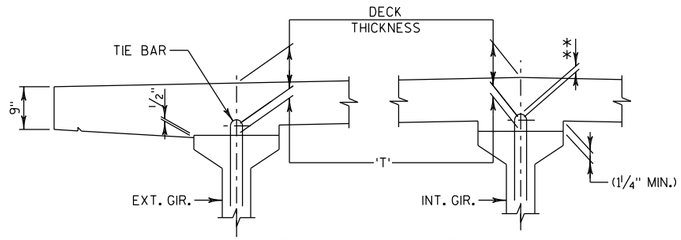


BEARING PAD LAYOUT



DEFLECTION/EXPANSION FITTING

THIS DETAIL ACCOMMODATES A MAXIMUM OF ¾" TOTAL MOVEMENT AND UP TO 30 DEGREES OF ANGULAR MISALIGNMENT IN ANY DIRECTION. BOND JUMPER NOT SHOWN FOR CLARITY (CONCRETE TO CONCRETE FITTING)



DECK HAUNCH DETAIL

IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED. THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION
* IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,
** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

TO DETERMINE 'T', ELEV. OF TOP OF FIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEVATIONS AT FINAL GRADE
\- TOP OF GIRDER ELEVATION
\+ DEAD LOAD DEFLECTION
\- DECK THICKNESS
= HAUNCH HEIGHT "T"

NOTE: AN AVERAGE HAUNCH ('T') OF 2¾" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".

SEE SHEET 15 FOR DEADLOAD DEFLECTIONS.

NOTES

CONDUIT SHALL BE EMBEDDED 2" CLEAR.

USE 2" DIA. RIGID NONMETALLIC CONDUIT (PVC) UNLESS NOTED OTHERWISE.

CONDUIT FITTINGS, CONDUIT BENDS, AND ADAPTER FITTINGS INCIDENTAL TO CONDUIT WORK.

CONDUIT BENDS SHALL CONFORM TO THE NATIONAL ELECTRIC CODE.

PROVIDE JUNCTION BOXES FROM THE APPROVED PRODUCTS LIST.

LEGEND

17-01 ¾" CONTINUOUS "V" DRIP GROOVE (TYP.) END 6" FROM FACE OF SUBSTRUCTURE UNITS.

17-02 USE 2" DIA. RIGID METALLIC (RMC) CONDUIT AT FITTINGS. PROVIDE RMC FOR 3'-0" MIN. ON EACH SIDE OF JOINT OPENINGS UNLESS NOTED OTHERWISE.

17-03 NONMETALLIC CONDUIT TO METALLIC CONDUIT ADAPTER FITTING (UL OR NRTL LISTED FOR ELECTRICAL USE SHALL BE USED)

17-04 SPONGE RUBBER WRAP TO BE AASHTO M153, TYPE 1 OR EQUIVALENT - ¼" MINIMUM THICKNESS. PROVIDE WRAP FOR THE ENTIRE LENGTH OF THE FITTING OR AS SHOWN. SPONGE RUBBER WRAP INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH".

17-05 18x6x6-INCH JUNCTION BOX TYP. EACH END. CUT OUT ± 1" OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.

17-06 STUB OUT NONMETALLIC CONDUIT SCHEDULE 40 2-INCH AT EACH END OF PARAPET. PROVIDE REMOVABLE CAP.

17-07 DEFLECTION/EXPANSION FITTING REQUIREMENTS: UP TO ¾" CONDUIT CONTRACTION OR EXPANSION AND UP TO 30 DEGREES OF ANGULAR MISALIGNMENT IN ANY DIRECTION WITH BONDING JUMPERS.

GX INDICATES GIRDER NUMBER.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-193

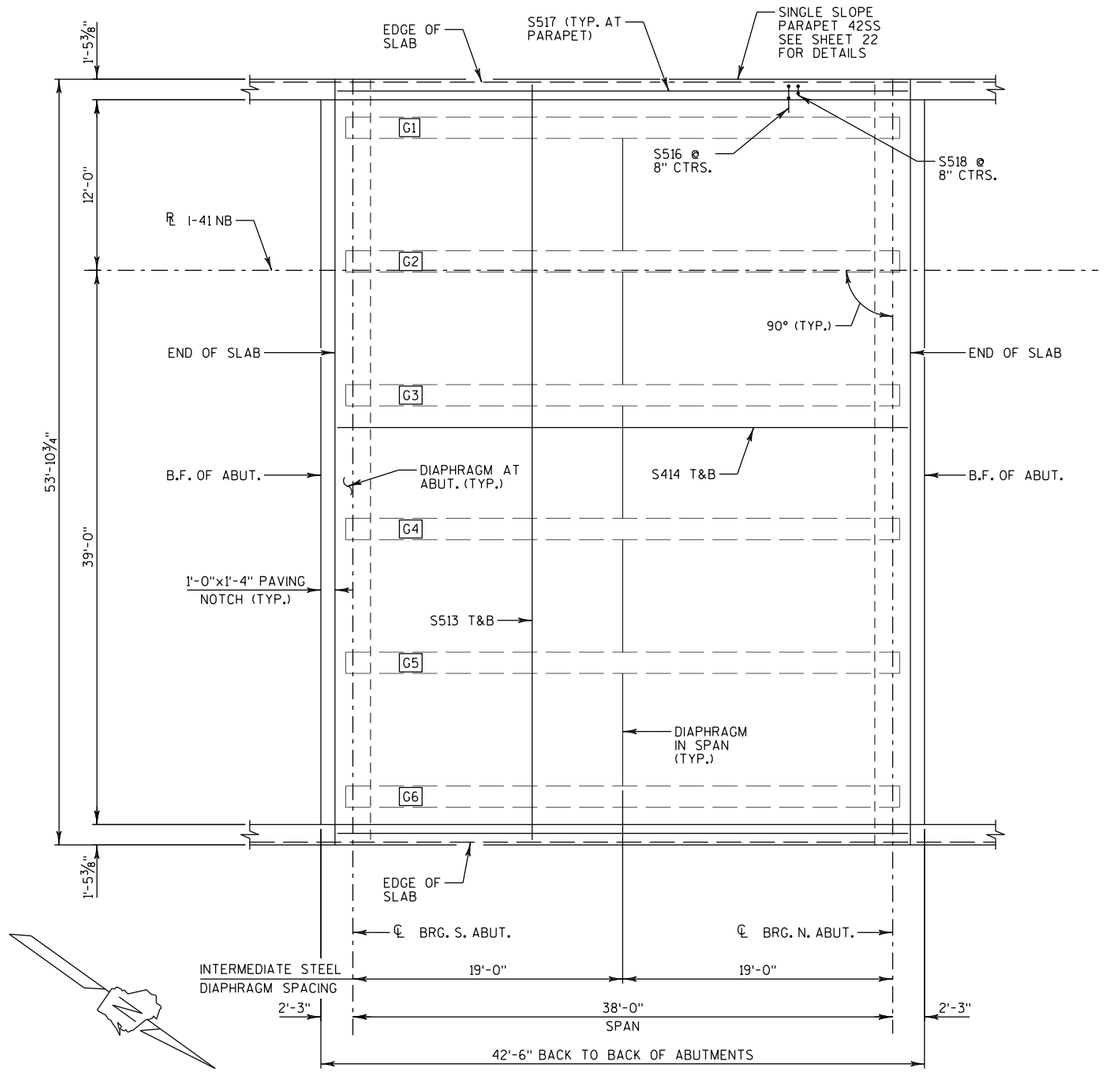
DRAWN BY TKB | PLANS CK'D. BH

SUPERSTRUCTURE -1

SHEET 17 OF 22

STATE PROJECT NUMBER

1100-41-70



PLAN

LEGEND

XX X-XX FOR ADDITIONAL SYMBOL DESCRIPTIONS SEE SHEET 17

NOTES:

THE BOTTOM TRANSVERSE BAR STEEL REINFORCEMENT SHALL BE SUPPORTED BY CONTINUOUS BAR CHARS WITH A CENTER TO CENTER SPACING NOT TO EXCEED 4'-0". ONE LINE OF CONTINUOUS BAR CHAIRS SHALL BE PLACED NEAR EACH EDGE OF SLAB TO SUPPORT THE ENDS OF THE BOTTOM TRANSVERSE BAR STEEL.

THE TOP LONGITUDINAL BAR STEEL REINFORCEMENT SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS IN TRANSVERSE DIRECTION ON 4'-0" CENTERS.

TOP OF DECK ELEVATIONS

LOCATION	S. ABUT.	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.	N. ABUT.
WEST FLOW LINE	961.94	961.92	961.89	961.87	961.84	961.82	961.79	961.77	961.75	961.72	961.70
GIRDER 1	961.98	961.96	961.93	961.91	961.88	961.86	961.83	961.81	961.78	961.76	961.74
GIRDER 2	962.17	962.14	962.12	962.10	962.07	962.05	962.02	962.00	961.97	961.95	961.92
GIRDER 3	962.36	962.33	962.31	962.28	962.26	962.23	962.21	962.19	962.16	962.14	962.11
CROWN	962.42	962.40	962.37	962.35	962.32	962.30	962.27	962.25	962.23	962.20	962.18
GIRDER 4	962.30	962.27	962.25	962.22	962.20	962.17	962.15	962.13	962.10	962.08	962.05
GIRDER 5	962.11	962.08	962.06	962.04	962.01	961.99	961.96	961.94	961.91	961.89	961.86
GIRDER 6	961.92	961.90	961.87	961.85	961.82	961.80	961.77	961.75	961.72	961.70	961.68
EAST FLOW LINE	961.88	961.86	961.83	961.81	961.78	961.76	961.73	961.71	961.69	961.66	961.64

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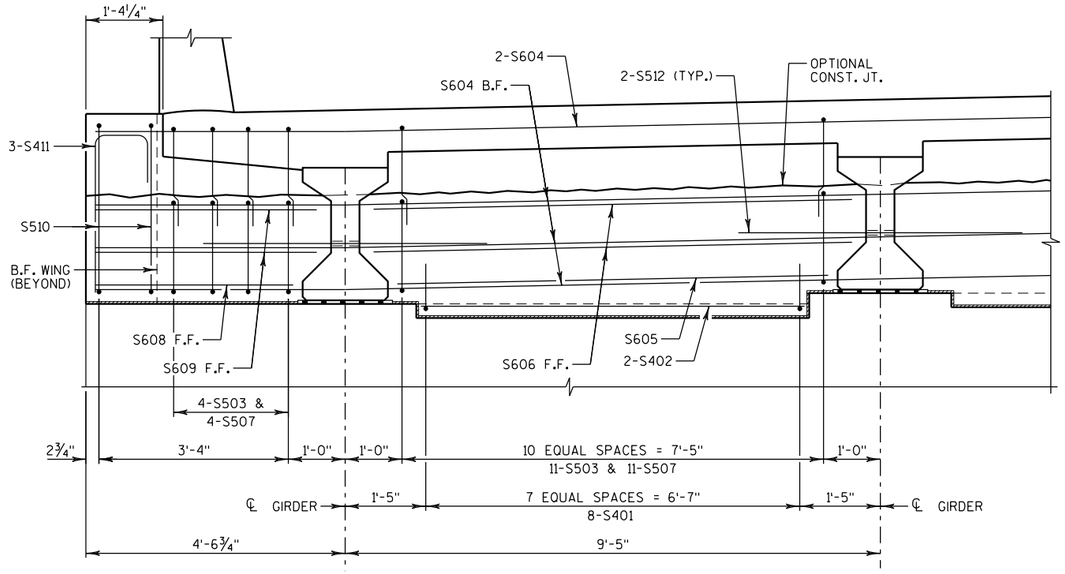
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-193

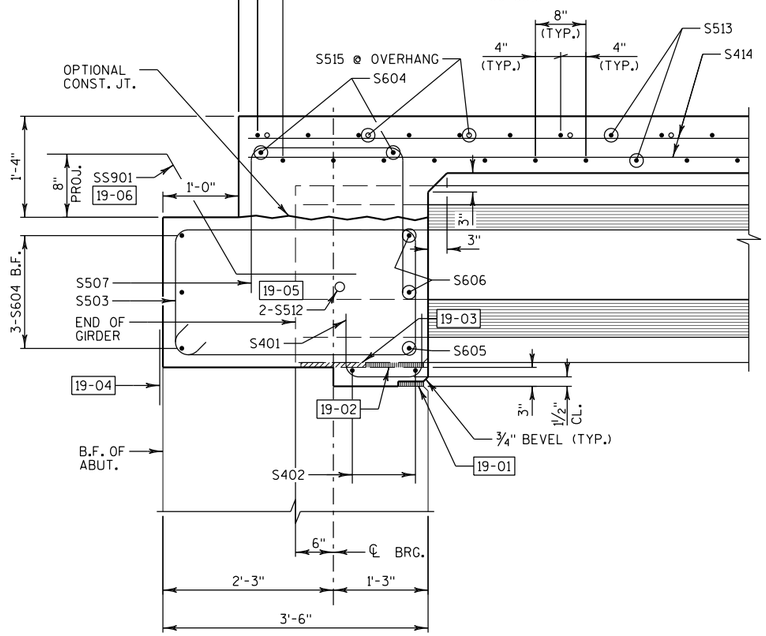
DRAWN BY TKB | PLANS CK'D. BH

SUPERSTRUCTURE -2

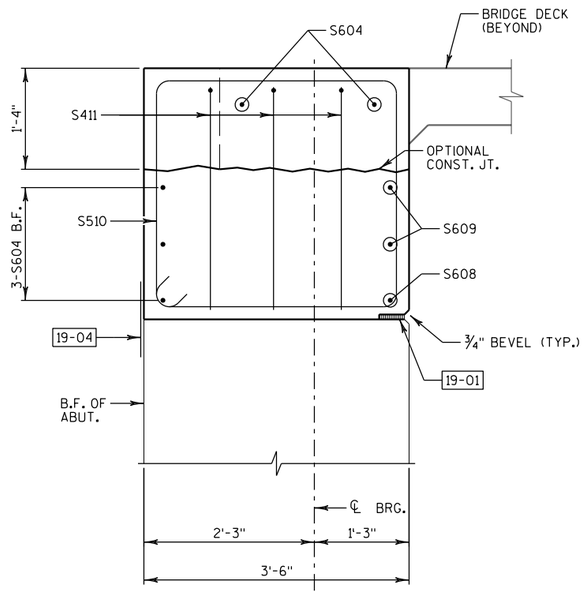
SHEET 18 OF 22



CONCRETE END DIAPHRAGM DETAIL



AT ABUTMENTS
(TYPICAL BETWEEN GIRDERS)



AT ABUTMENTS
(TYPICAL @ DIAPHRAGM ENDS)

PART LONGITUDINAL SECTION

LEGEND

XX X-XX FOR ADDITIONAL SYMBOL DESCRIPTIONS SEE SHEET 17

19-01 ¾"×4" PREFORMED FILLER

19-02 ¾" FILLER UNDER GIRDER FLANGE IN FRONT OF BEARING PAD.

19-03 ½"×8"×1'-10" NON-LAMINATED ELASTOMERIC BEARING PAD. SEE SHEET 17 FOR BEARING PAD LAYOUT.

19-04 RUBBERIZED MEMBRANE WATERPROOFING.

19-05 1½" DIA. HOLE IN WEB FOR 2-S512 BARS. BARS TO BE PLACED SYMMETRICAL ABOUT ℄ OF EACH GIRDER.

19-06 SS901 BAR INCLUDED IN STRUCTURAL APPROACH PANEL. SEE SHEETS 20 & 21 FOR MORE INFORMATION.

19-07 SEE PARAPET SHEETS FOR ADDITIONAL DETAILS.

19-08 LAP S604 BARS 3'-6" MIN.

NOTES:

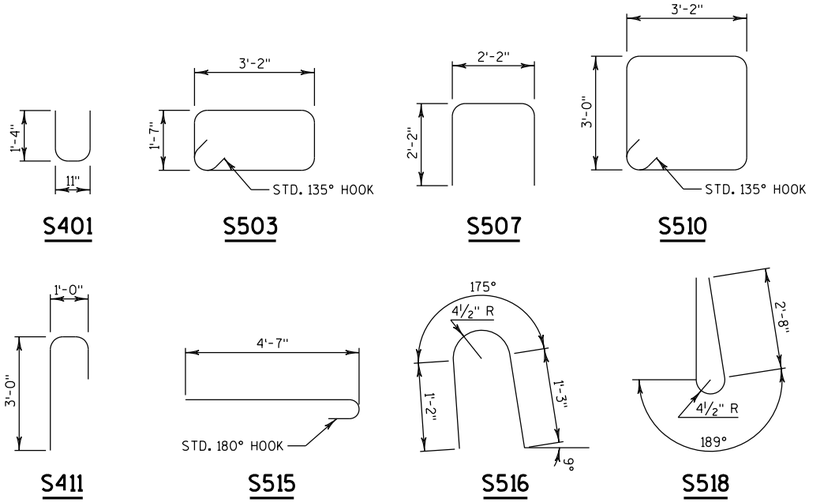
ALL VERTICAL BAR STEEL REINFORCEMENT IN CONCRETE DIAPHRAGMS TO BE PLACED PARALLEL TO GIRDER.

BILL OF BARS

	BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
	S401	X	80	3'-5"	X		DIAPHRAGM TIE	VERT.
	S402	X	20	6'-7"			DIAPHRAGM BTWN GIR.	HORIZ.
	S503	X	126	10'-2"	X		DIAPHRAGM STIRRUP	VERT.
19-08	S604	X	20	29'-9"			DIAPHRAGM @ B.F. & TOP	HORIZ.
	S605	X	10	7'-7"			DIAPHRAGM BTWN GIR.	HORIZ.
	S606	X	20	8'-6"			DIAPHRAGM BTWN GIR.	HORIZ.
	S507	X	126	6'-3"	X		DIAPHRAGM TIE	VERT.
	S608	X	4	3'-6"			DIAPHRAGM END	HORIZ.
	S609	X	8	3'-11"			DIAPHRAGM END	HORIZ.
	S510	X	8	13'-0"	X		DIAPHRAGM STIRRUP @ END	VERT.
	S411	X	12	4'-7"	X		DIAPHRAGM @ ENDS	VERT.
	S512	X	24	6'-0"			GIRDER TIE	HORIZ.
	S513	X	121	53'-1"			DECK T&B	TRANS.
	S414	X	143	40'-2"			DECK T&B	LONG.
	S515	X	62	5'-2"	X		DECK @ OVERHANGS	TRANS.
19-07	S516	X	122	4'-5"	X		SLAB @ PARAPET	VERT.
19-07	S517	X	16	40'-2"			PARAPET	HORIZ.
19-07	S518	X	122	6'-8"	X		PARAPET	VERT.

TOTAL WEIGHT =17,010 LBS

THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.
ALL BARS SHOWN EXPOXY COATED



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STRUCTURE B-66-193

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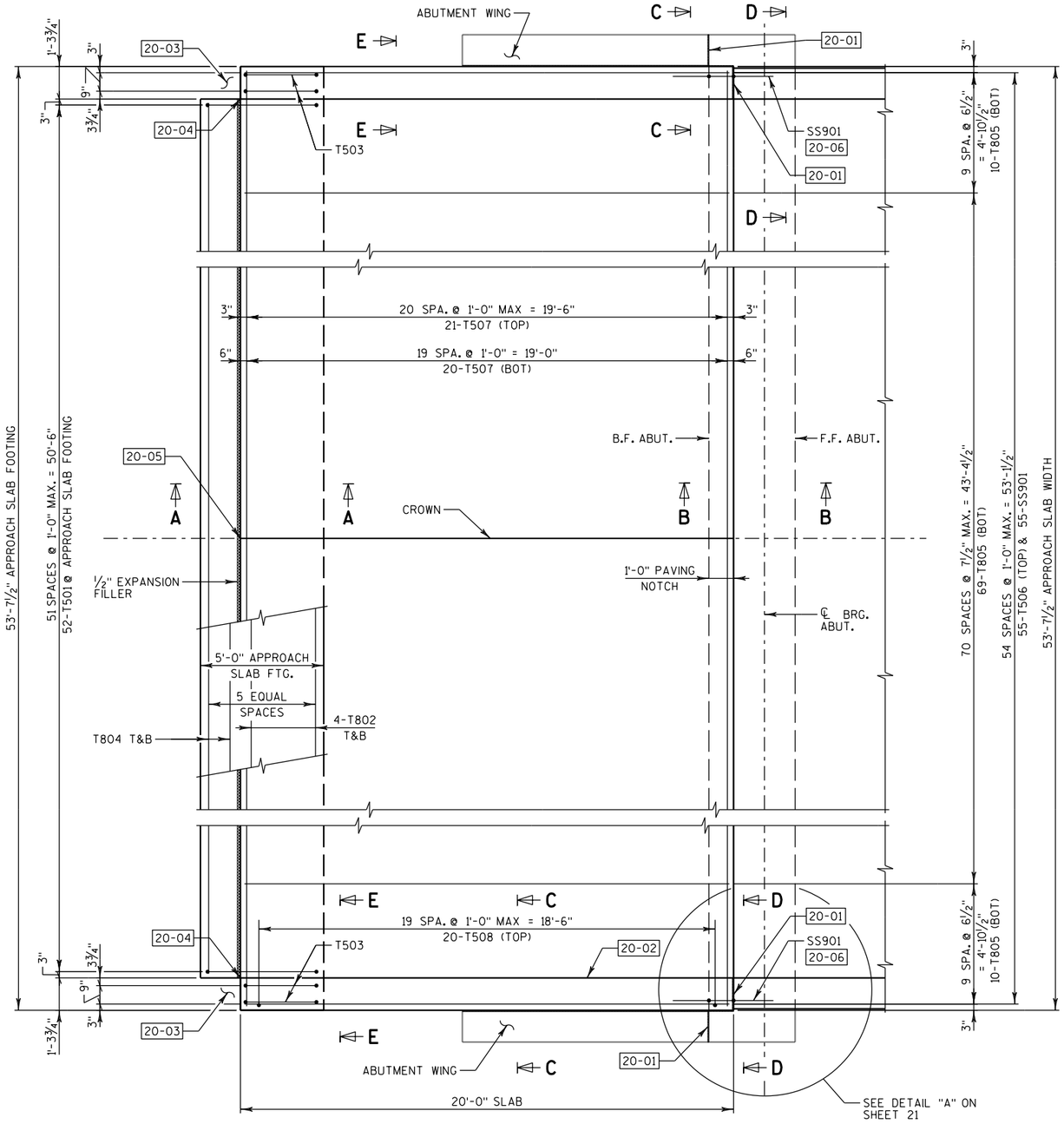
SUPERSTRUCTURE -3

SHEET 19 OF 22



BILL OF BARS

	BAR MARK	COAT	NO. REQ'D SOUTH	NO. REQ'D NORTH	LENGTH	BENT	BAR SERIES	LOCATION
20-06	SS901		55	55	5'-0"	X		CONC. ABUT. DIAPH. TO APPROACH SLAB

BAR MARK	COAT	NO. REQ'D SOUTH	NO. REQ'D NORTH	LENGTH	BENT	BAR SERIES	LOCATION	
T501	X	52	52	12'-2"	X		SLAB FTG. STIRRUP	LONG.
T802	X	8	8	53'-3"			SLAB FTG.	TRANS.
T503	X	4	4	8'-11"	X		SLAB FTG. STIRRUP	LONG.
T804	X	4	4	50'-8"			SLAB FTG.	TRANS.
T805	X	89	89	21'-6"	X		SLAB BOT.	LONG.
T506	X	55	55	19'-8"			SLAB TOP	LONG.
T507	X	41	41	53'-3"			SLAB TOP & BOTTOM	TRANS.
T508	X	40	40	4'-1"	X		SLAB TOP	TRANS.
								TOTAL WEIGHT = 22,130 LBS

THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.
ALL BARS SHOWN EXPOXY COATED
BOTH APPROACH SLABS ARE INCLUDED IN THIS BILL OF BARS

LEGEND

20-01 SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).

20-02 SEE PARAPET SHEET FOR LOCATION OF NAME PLATE AND BENCH MARK WITH RESPECT TO THE END OF PARAPET.

20-03 NOTCH APPROACH SLAB FOOTING TO ALLOW FOR THRIE BEAM POST INSTALLATION

20-04 STA. 1446+59.67, EL. 961.56 (NORTHWEST CORNER)
STA. 1446+59.67, EL. 961.50 (NORTHEAST CORNER)
STA. 1445+79.17, EL. 962.08 (SOUTHWEST CORNER)
STA. 1445+79.17, EL. 962.02 (SOUTHEAST CORNER)

20-05 STA. 1446+59.67, EL. 962.04 (NORTH END)
STA. 1445+79.17, EL. 962.56 (SOUTH END)

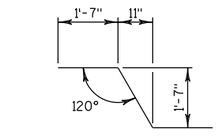
20-06 INCLUDED IN ITEM "BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES".

DESIGN DATA

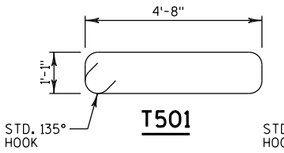
CONCRETE STRENGTH, f'c: ——— 4,000 P.S.I.
BAR STEL REINFORCEMENT, GRADE 60, fy: ——— 60,000 P.S.I.
ALLOWABLE SOIL BEARING PRESSURE: ——— 2,000 P.S.I.

NOTES:

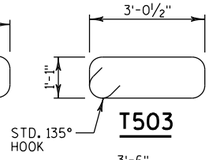
SEE SHEET 21 FOR SECTIONS A-A THRU E-E.



SS901



T501



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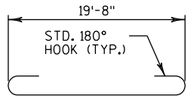
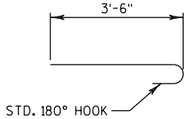


T805



T508

NO.	DATE	REVISION	BY

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-193

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STRUCTURAL APPROACH SLAB

SHEET 20 OF 22

STATE PROJECT NUMBER

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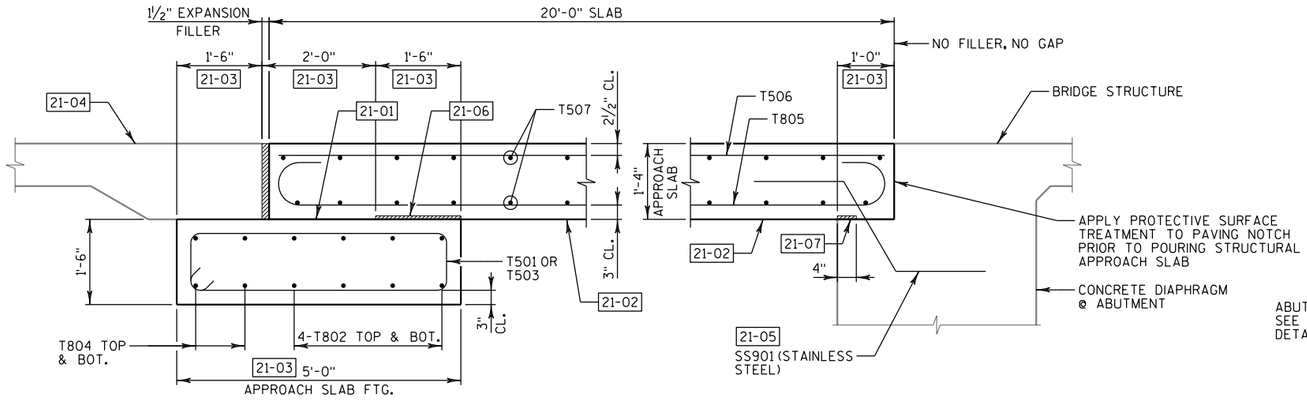
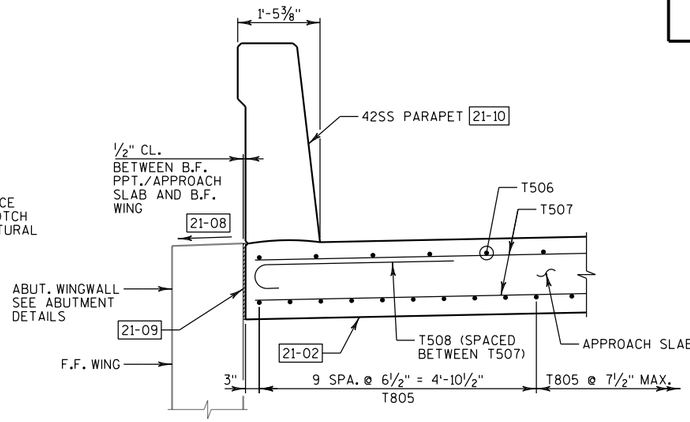


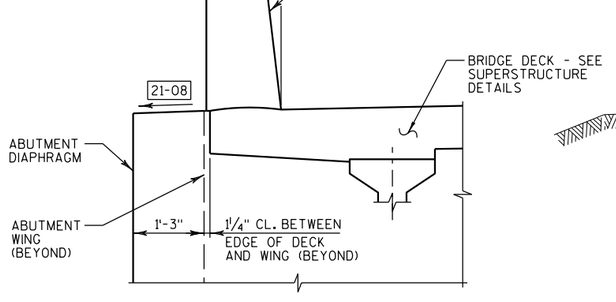
SECTION A-A

SECTION B-B

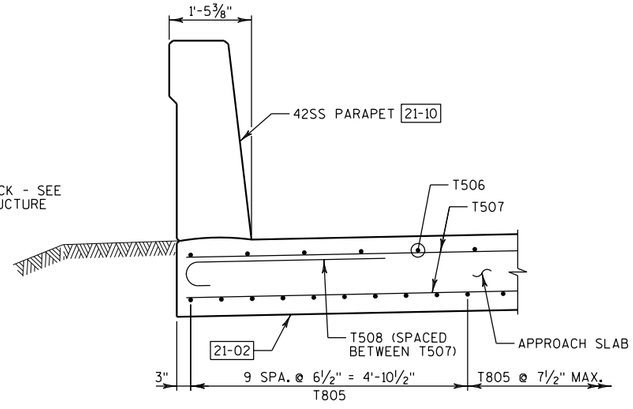
SECTION THRU APPROACH SLAB



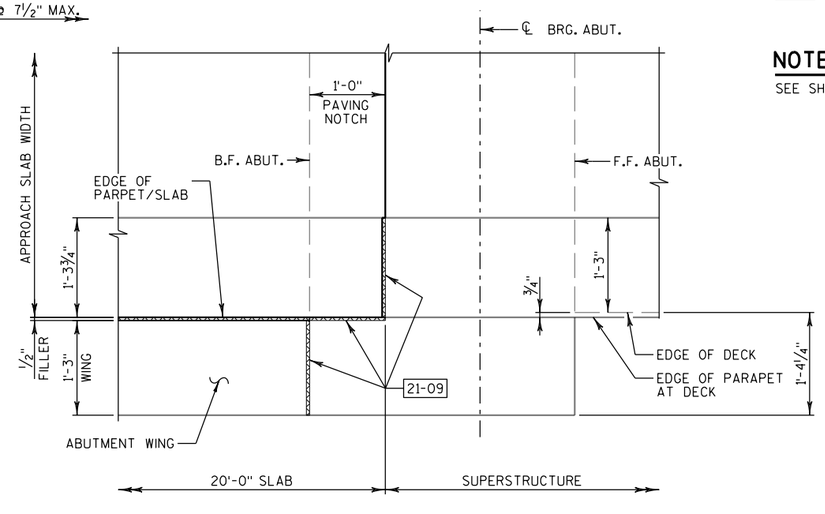
SECTION C-C



SECTION D-D



SECTION E-E



DETAIL "A"

LEGEND

- 21-01 STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF FOOTING.
- 21-02 PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF SUBGRADE BENEATH SLAB.
- 21-03 MEASURED NORMAL TO ABUTMENT.
- 21-04 ROADWAY APPROACH PAVEMENT.
- 21-05 THE BID ITEM FOR SS901 SHALL BE "BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES".
- 21-06 ¾" PREFORMED JOINT FILLER ACCORDING TO STANDARD SPEC. 502.2.7 (1'-6" WIDE x 53'-7½" LONG)
- 21-07 ¾" PREFORMED JOINT FILLER ACCORDING TO STANDARD SPEC. 502.2.7 (4" WIDE x 53'-7½" LONG)
- 21-08 SLOPE TO DRAIN.
- 21-09 SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).
- 21-10 SEE PARAPET SHEET FOR REINFORCEMENT. LOCATION OF NAME PLATE AND BENCH MARK WITH RESPRECT TO THE END OF PARAPET, ETC.

NOTE:

SEE SHEET 20 FOR LOCATIONS OF SECTIONS & DETAILS.

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-193

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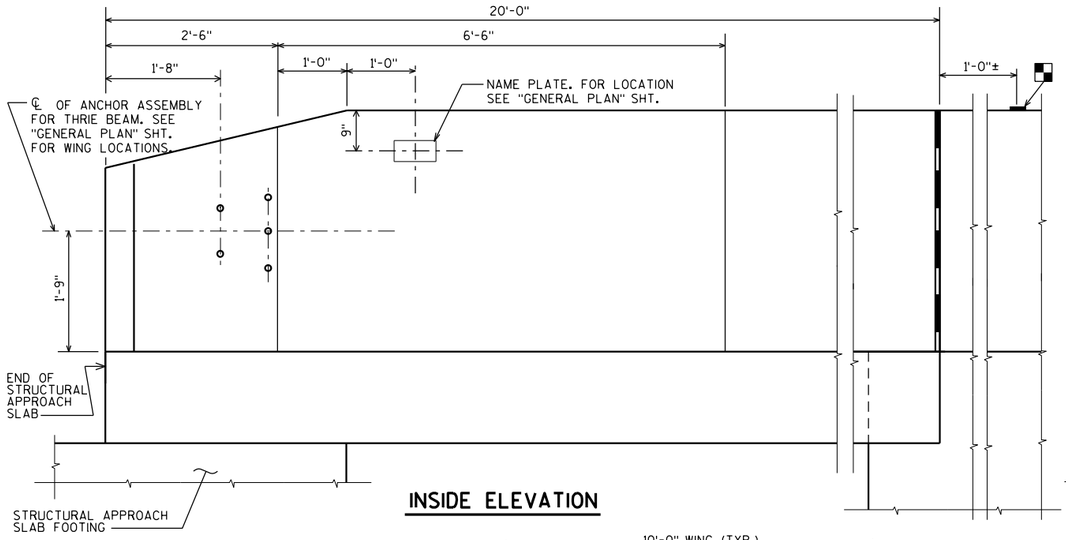
STRUCTURAL APPROACH SLAB DETAILS

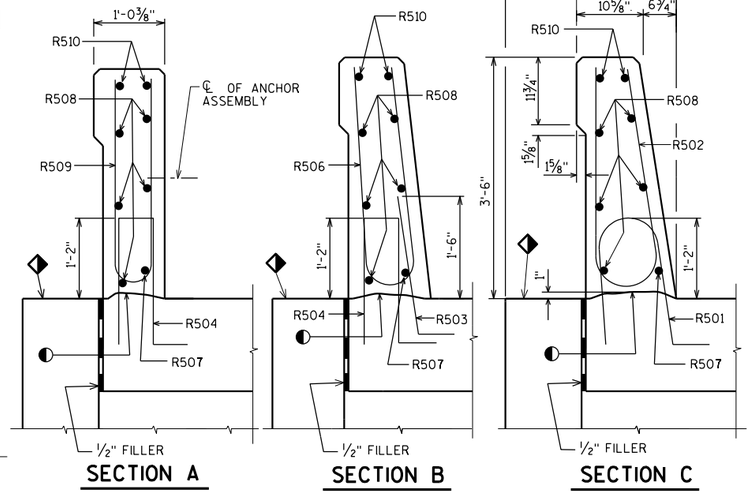
SHEET 21 OF 22

8

8



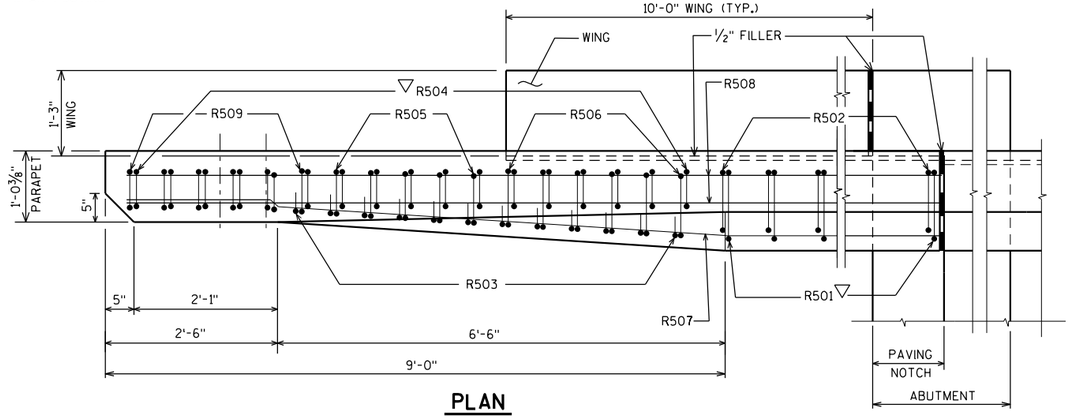
INSIDE ELEVATION



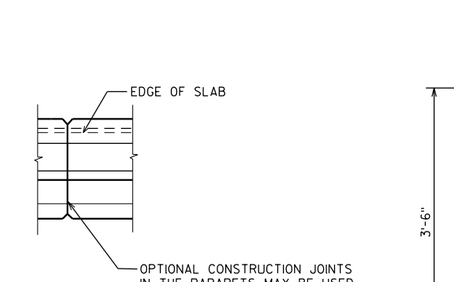
SECTION A

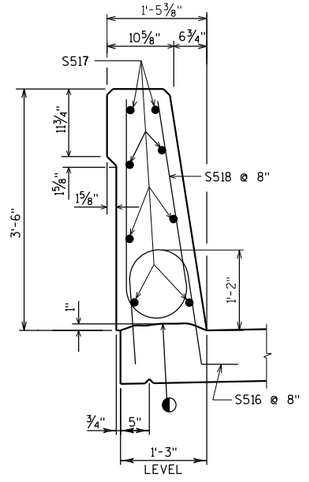
SECTION B

SECTION C

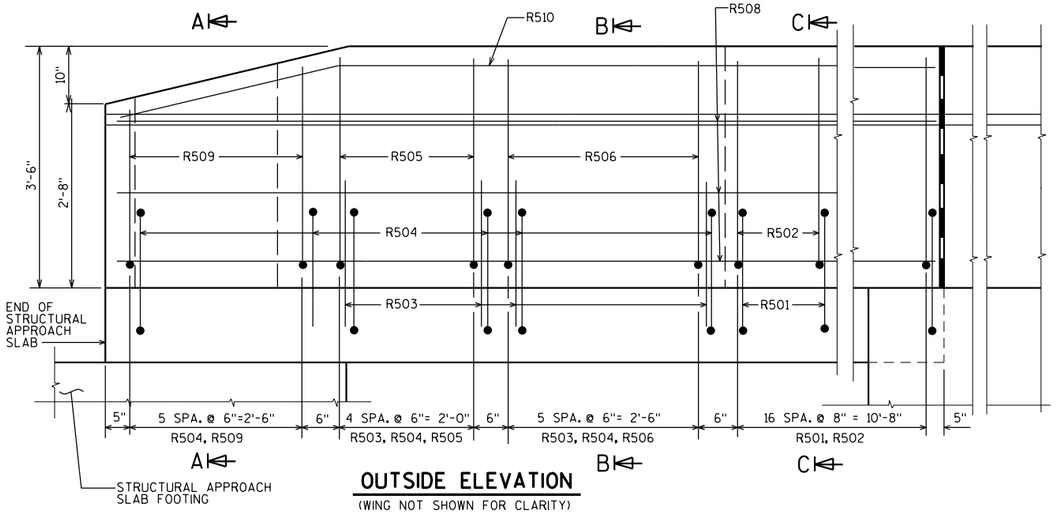


PLAN



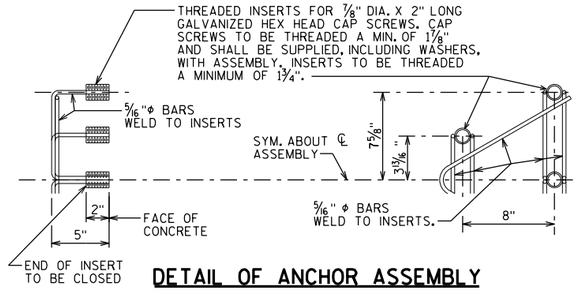


SECTION THRU PARAPET ON BRIDGE



OUTSIDE ELEVATION

(WING NOT SHOWN FOR CLARITY)



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

NOTE

SEE SHEET 17 FOR CONDUIT IN PARAPET DETAILS.

LEGEND

- ◐ CONST. JOINT - STRIKE OFF AS SHOWN.
- ◆ SLOPE FOR DRAINAGE
- ▽ R501 AND R504 BARS TO BE TIED TO STRUCTURAL APPROACH SLAB STEEL BEFORE STRUCTURAL APPROACH SLAB IS POURED.
- ◩ BENCH MARK CAP (WHEN SUPPLIED)

STATE PROJECT NUMBER

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BILL OF BARS

FOR STRUCTURAL APPROACH SLAB PARAPETS

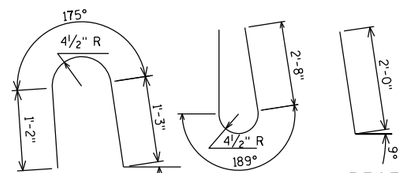
BAR MARK	COAT	S. ABUT.	N. ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	34	34	4-5	X		PARAPET VERT.
R502	X	34	34	6-8	X		PARAPET VERT.
R503	X	22	22	2-9	X		PARAPET VERT.
R504	X	34	34	4-4	X		PARAPET VERT.
R505	X	10	10	6-5	X		PARAPET VERT.
R506	X	12	12	6-6	X		PARAPET VERT.
R507	X	2	2	19'-8"	X		PARAPET HORIZ.
R508	X	10	10	19'-8"			PARAPET HORIZ.
R509	X	12	12	5-5	X	◭	PARAPET VERT.
R510	X	4	4	19'-8"	X		PARAPET HORIZ
							TOTAL WEIGHT = 2,310 LBS

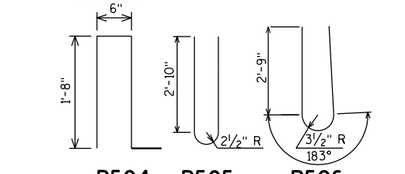
◭ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

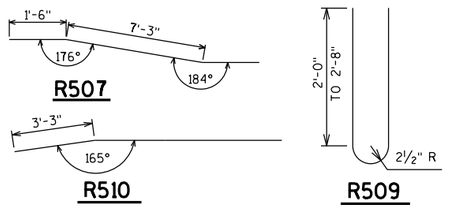
BAR SERIES TABLE

MARK	NO. REQD.	LENGTH
S509	4 SERIES OF 6	4'-9" TO 6'-1"

BUNDLE AND TAG EACH SERIES SEPARATELY.







NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-193

DRAWN BY TKB | PLANS CK'D. BH

SINGLE SLOPE PARAPET 42SS

SHEET 22 OF 22

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8

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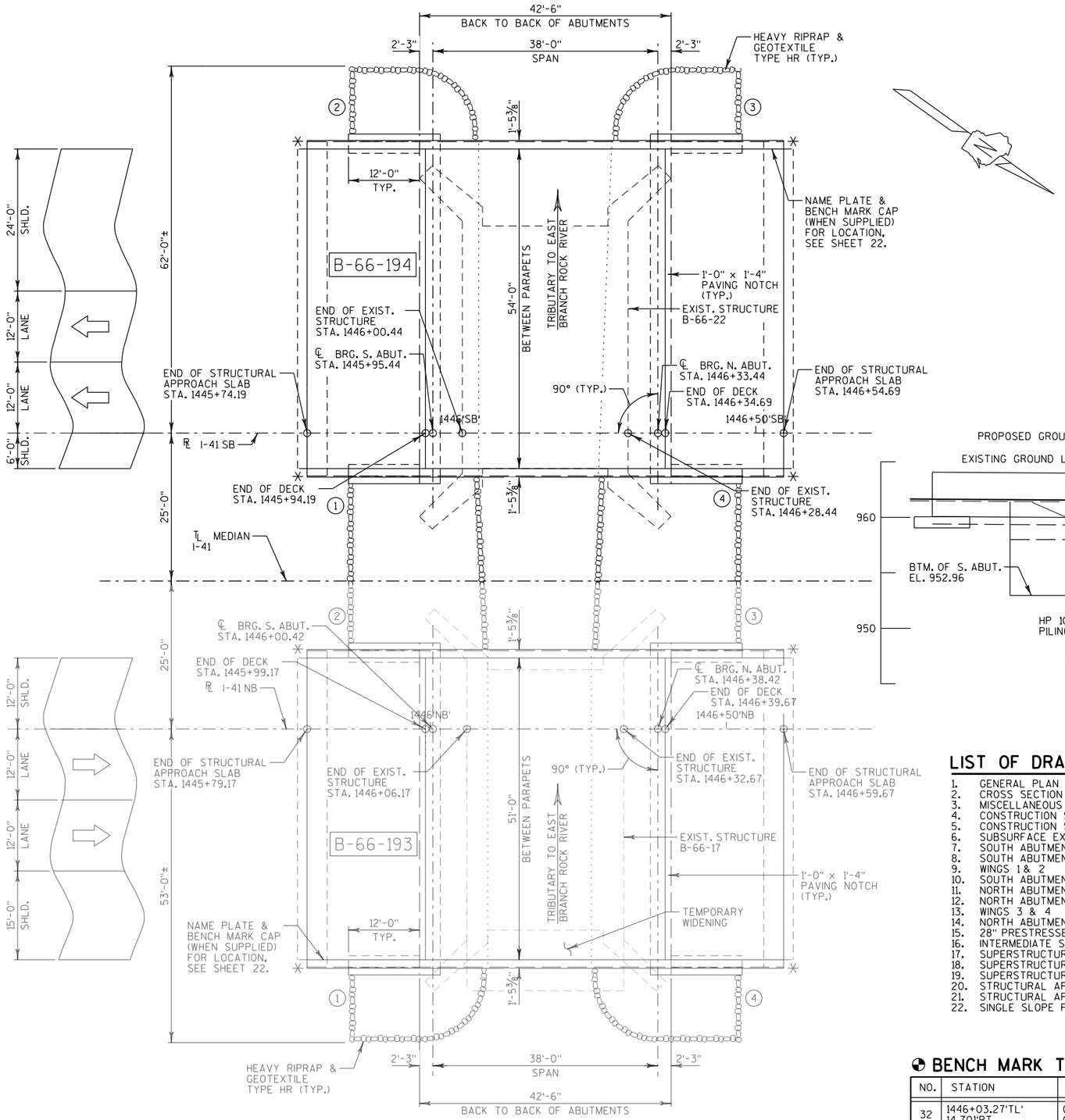
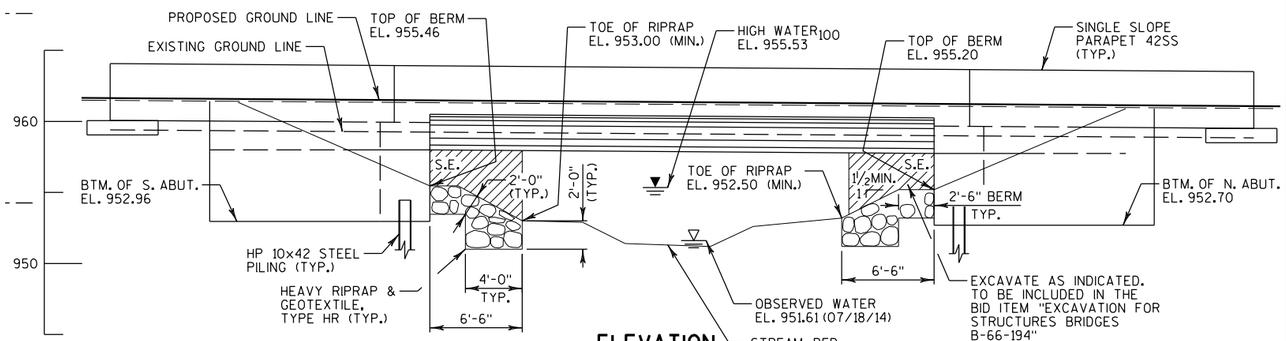


PLAN

SINGLE SPAN, 28" PRESTRESSED GIRDER BRIDGE



ELEVATION

NORMAL TO TRIBUTARY TO EAST BRANCH ROCK RIVER AT DOWNSTREAM EDGE OF BRIDGE

DESIGN DATA

DESIGN LOADING	HL-93
INVENTORY RATING FACTOR	1.20
OPERATING RATING FACTOR	1.56
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV)	250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 PSF.

MATERIAL PROPERTIES

CONCRETE MASONRY, SUPERSTRUCTURE	f'c = 4,000 psi
ALL OTHER	f'c = 3,500 psi
HIGH STRENGTH BAR STEEL REINFORCEMENT	fy = 60,000 psi
28" PRESTRESSED GIRDERS CONCRETE MASONRY	f'c = 8,000 psi
STRANDS 0.6" DIA. ULTIMATE TENSILE STRENGTH	fu = 270,000 psi

FOUNDATION DATA:

ABUTMENTS SUPPORTED ON HP 10-INCH X 42 LB STEEL PILING WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE AT THE SOUTH ABUTMENT AND 180 TONS PER PILE AT THE NORTH ABUTMENT AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 50' LONG AT THE SOUTH ABUTMENT AND 50'LONG AT THE NORTH ABUTMENT.

*THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

HYDRAULIC DATA:

100 YEAR FREQUENCY

Q_{100}	420 cfs
VELOCITY	7.22 fps
HIGH WATER	EL. 955.53
WATERWAY AREA	58 ft²
DRAINAGE AREA	1.8 mi²
SCOUR CRITICAL CODE	5

2 YEAR FREQUENCY

Q_2	150 cfs
$HW._2$	EL. 954.37
VELOCITY	5.56 fps

TRAFFIC DATA:

AADT (2037) = 39,800
DESIGN SPEED = 75 MPH

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. MISCELLANEOUS DETAILS
4. CONSTRUCTION STAGING DETAILS 1
5. CONSTRUCTION STAGING DETAILS 2
6. SUBSURFACE EXPLORATION
7. SOUTH ABUTMENT-1
8. SOUTH ABUTMENT-2
9. WINGS 1& 2
10. SOUTH ABUTMENT DETAILS
11. NORTH ABUTMENT-1
12. NORTH ABUTMENT-2
13. WINGS 3 & 4
14. NORTH ABUTMENT DETAILS
15. 28" PRESTRESSED GIRDER DETAILS
16. INTERMEDIATE STEEL DIAPHRAGMS
17. SUPERSTRUCTURE-1
18. SUPERSTRUCTURE-2
19. SUPERSTRUCTURE-3
20. STRUCTURAL APPROACH SLAB
21. STRUCTURAL APPROACH SLAB DETAILS
22. SINGLE SLOPE PARAPET 42SS

BENCH MARK TABLE

NO.	STATION	DESCRIPTION	ELEVATION
32	1446+03.27'TL' 14.701'RT.	CHISELED "X" IN SW QUAD OF B-66-17	960.370
33	1446+28.86'TL' 17.728'LT.	CHISELED "X" IN NE QUAD OF B-66-22	959.470

LEGEND

✳ THRIE BEAM ATTACHMENT.
Ⓧ INDICATES WING NUMBER.

WISCONSIN
WILLIAM A. HOVE
E-33600
MADISON, WI
PROFESSIONAL ENGINEER
1/17/2019

SE REGION CONTACT:
CHRISTINE HANNA (262) 548-8809

BUREAU OF STRUCTURES CONTACT:
BILL DREHER (608) 266-8489

CONSULTANT CONTACT:
BILL HOVE (262) 354-3014

STATE PROJECT NUMBER

1100-41-70

NO.	DATE	REVISION	BY

CORRE
Structural Environmental Municipal Transportation
6510 GRAND TETON PLAZA, SUITE 314 MADISON, WI 53719 608/826-3525 www.correengineering.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 01/18/19
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-66-194

I-41 SB OVER TRIBUTARY TO EAST BRANCH ROCK RIVER

COUNTY	TOWN/~~CITY/VILLAGE~~
WASHINGTON	ADDISON

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
BH	ETP	TKB	BH

GENERAL PLAN

SHEET 1 OF 22

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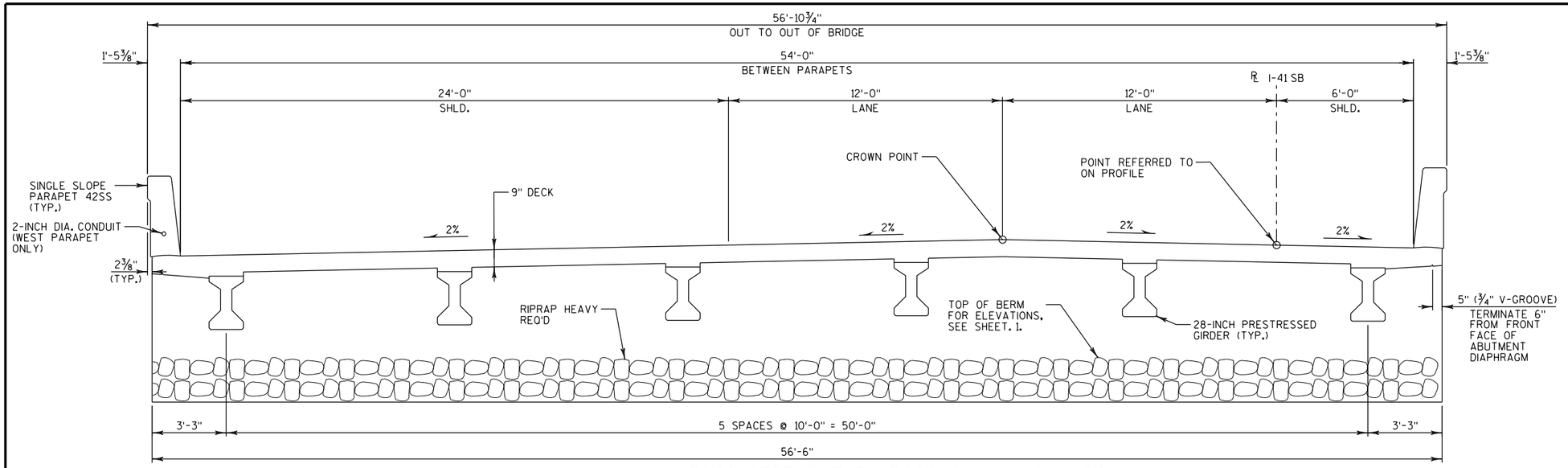

CROSS SECTION THRU ROADWAY LOOKING NORTH

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEM	UNIT	SOUTH APPROACH	SOUTH ABUTMENT	NORTH ABUTMENT	NORTH APPROACH	SUPER.	TOTALS
203.0600.S.02	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STATION 1446'SB'+14	LS	--	--	--	--	--	1
206.1000.03	EXCAVATION FOR STRUCTURES BRIDGES B-66-194	LS	--	--	--	--	--	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	--	150	150	--	--	300
305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	180	--	--	180	--	360
502.0100	CONCRETE MASONRY BRIDGES	CY	71	60	59	71	126	387
502.3200	PROTECTIVE SURFACE TREATMENT	SY	120	--	--	120	260	500
502.3210	PIGMENTED SURFACE SEALER	SY	20	--	--	20	40	80
503.0128	PRESTRESSED GIRDER TYPE I 28-INCH	LF	--	--	--	--	234	234
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	--	3,740	3,740	--	--	7,480
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	12,945	1,520	1,520	12,945	18,650	47,580
505.0800.S	BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES	LB	990	--	--	990	--	1,980
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	--	--	--	--	12	12
506.4000.02	STEEL DIAPHRAGMS B-66-194	EACH	--	--	--	--	5	5
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	--	15	15	--	--	30
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	--	400	400	--	--	800
606.0300	RIPRAP HEAVY	CY	--	80	80	--	--	160
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	--	100	100	--	--	200
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	--	--	--	--	4	4
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	--	70	70	--	--	140
645.0120	GEOTEXTILE TYPE HR	SY	--	170	170	--	--	340
652.0125	CONDUIT RIGID METALIC 2-INCH	LF	3	--	--	3	6	12
652.0225	CONDUIT RIGID NONMETALLIC SHCEDULE 40 2-INCH	LF	15	--	--	15	37	67
653.0220	JUNCTION BOXES 18x6x6-INCH	EACH	1	--	--	1	--	2
SPV.0090.02	REMOVING EXISTING TIMBER PILING	LF	--	25	25	--	--	50
	NON-BID ITEMS							
	FILLER							1/2", 3/4" & 1 1/2"

ALL ITEMS ARE CATEGORY 0040

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED. ALL STATIONS AND ELEVATIONS ARE IN FEET.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

THE FIRST DIGIT OF A THREE DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

ALL SECTIONS & DETAILS IN THIS PLAN SET ARE LOCATED ON THE SAME SHEET AS CALL OUT UNLESS NOTED OTHERWISE.

SEE THIS SHEET FOR STANDARD ABBREVIATIONS.

FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION M153 TYPES I, II, OR III OR M213.

THE EXISTING GROUNDLINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS NOTED OTHERWISE.

THE EXISTING STRUCTURE IS A SINGLE-SPAN CONCRETE SLAB BRIDGE ON FULL RETAINING CONCRETE ABUTMENTS WITH AN OVERALL LENGTH OF 28'-0" AND AN OVERALL WIDTH OF 41'-0" AND IS TO BE REMOVED. WITH CONSTRUCTION OF B-66-194.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON SHEET 1 AND IN THE ABUTMENT DETAILS, OR AS DIRECTED BY THE ENGINEER.

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE ENTIRE EXPOSED TOP OF DECK AND APPROACH SLABS. PIGMENTED SURFACE SEALER SHALL BE APPLIED TO THE FRONT AND TOP OF PARAPETS.

CONCRETE POURED UNDER WATER WILL BE ALLOWED AND SHALL BE DONE IN ACCORDANCE WITH SECTION 502.3.5.3 OF THE STANDARD SPECIFICATION.

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE PRESTRESSED GIRDER DETAIL SHEETS.

PORTIONS OF THE EXISTING ABUTMENT IN CONFLICT WITH THE PROPOSED PILING PLACEMENT SHALL BE REMOVED AS PART OF THE "REMOVING OLD STRUCTURE" BID ITEM. EXISTING PILING WITHIN 2.5 PILE DIAMETERS OF THE NEW PILING SHALL BE REMOVED UNDER THE BID ITEM "REMOVING EXISTING TIMBER PILING".

ABBREVIATIONS:

ABUT.	-	ABUTMENT
B.F.	-	BACK FACE
BOT	-	BOTTOM
BRG.	-	BEARING
CL.	-	CLEAR
CONST.	-	CONSTRUCTION
DIA.	-	DIAMETER
E.F.	-	EACH FACE
F.F.	-	FRONT FACE
HORIZ.	-	HORIZONTAL
JT.	-	JOINT
LONG.	-	LONGITUDINAL
PPT.	-	PARAPET
SPA.	-	SPACED
STD.	-	STANDARD
T&B	-	TOP AND BOTTOM
TRANS.	-	TRANSVERSE
TYP.	-	TYPICAL
VERT.	-	VERTICAL

STATE PROJECT NUMBER

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-194

DRAWN BY TKB | PLANS CK'D. BH

CROSS SECTION & QUANTITIES

SHEET 2 OF 22

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FILE NAME : C:±Users±tbetcher±Google Drive±TKB Projects±Bridge±B-66±B-66-193&194±Cad B-66-194±B-66-194_02 typsections.dgn

PLOT DATE : 1/15/2019

PLOT SCALE : 2.00000 '/ ft.

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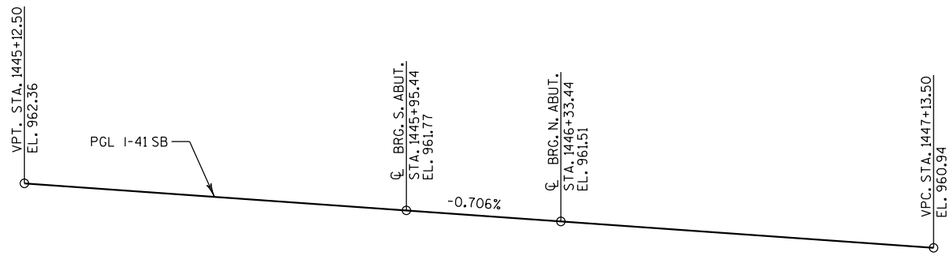
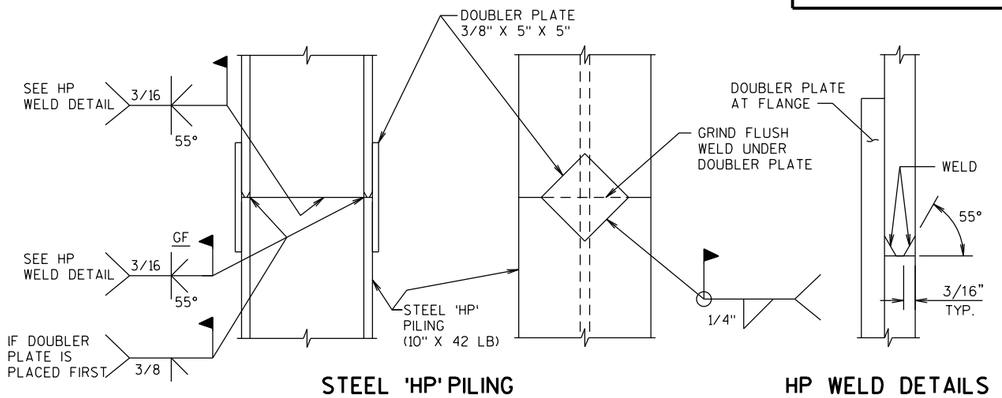


PROFILE GRADE LINE I-41 SB

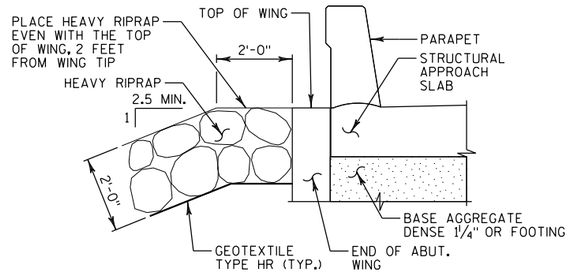


STEEL 'HP' PILING

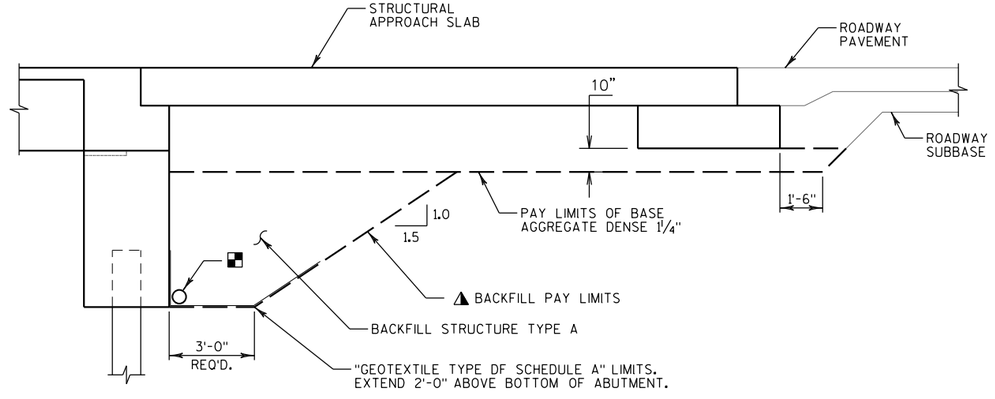
HP WELD DETAILS

FLANGE SHOWN, WEB SIMILAR

PILE SPLICE DETAILS



TYPICAL FILL SECTION AT WING TIPS



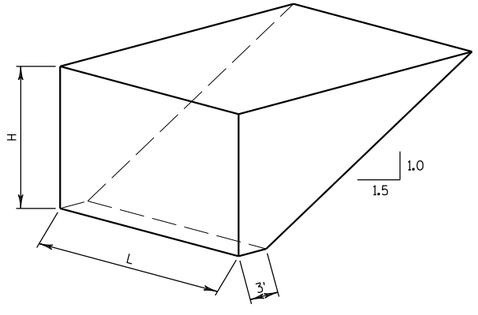
STRUCTURE BACKFILL LIMITS

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS AND ABUTMENT WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

■ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

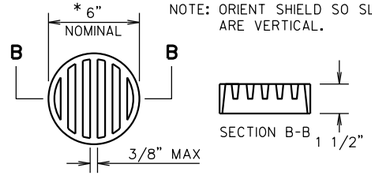
◭ BACKFILL BEYOND PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

NOTE: EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL. GEOTEXTILE SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT.



ABUTMENT BACKFILL PAY LIMIT DIAGRAM

L = OUT TO OUT OF ABUTMENT. INCLUDING WINGS (FT)
H = AVERAGE ABUTMENT FILL HEIGHT (FT)
EF = EXPANSION FACTOR (1.20 FOR CY BID ITEMS AND 1.00 FOR TON BID ITEMS)
V_{CF} = (L)(3.0')(H) + (L)(0.5)(1.5H)(H)
V_{CY} = V_{CF} (EF)/27
V_{TON} = V_{CY} (2.0)



* DIMENSION IS APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

RODENT SHIELD DETAIL

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-194

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MISCELLANEOUS DETAILS

SHEET 3 OF 22

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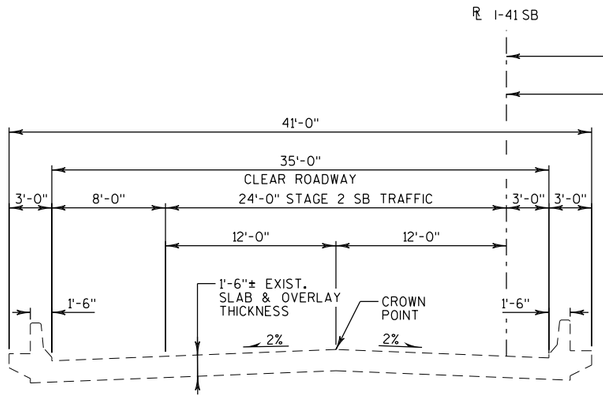
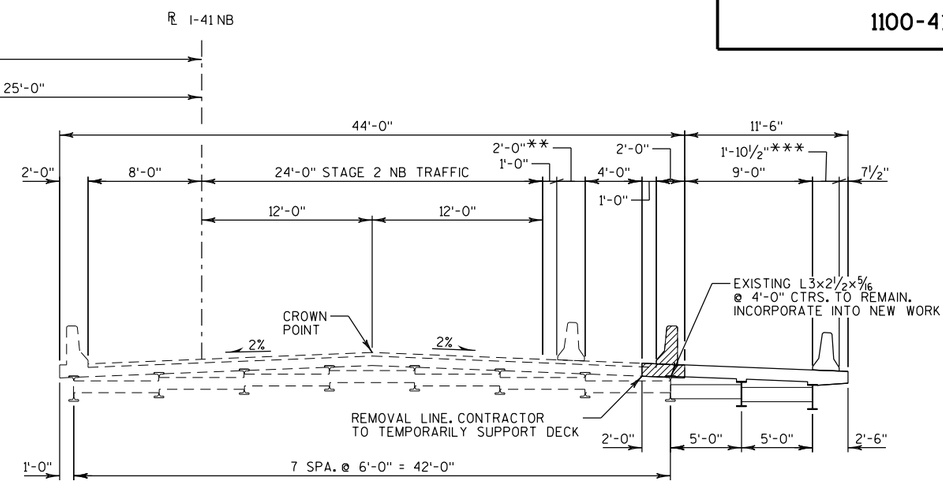


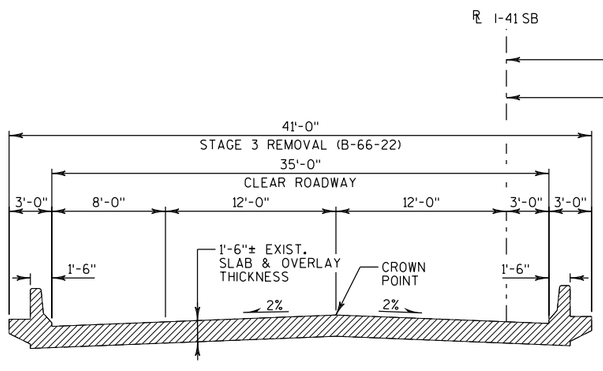
B-66-22



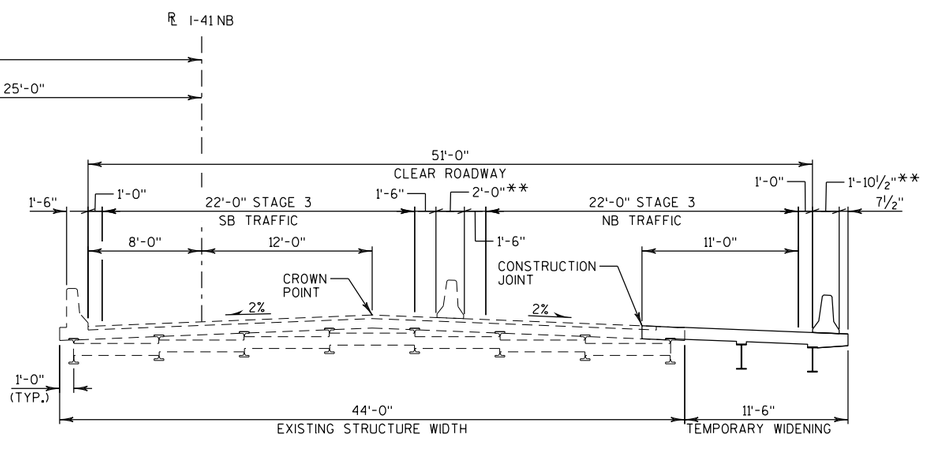
B-66-17

*STAGE 2

(CONSTRUCT TEMPORARY WIDENING)



B-66-22



B-66-17

*STAGE 3

(REMOVE B-66-22, CONSTRUCT B-66-194)

LEGEND

▨ - DENOTES REMOVAL LIMITS

*CORRESPONDS TO ROAD PLANS. SEE ROAD PLANS FOR FURTHER STAGING DETAILS.

**TEMPORARY BARRIER (INCLUDED IN ROADWAY QUANTITIES).

***TEMPORARY BARRIER PINNED TO DECK (INCLUDED IN ROADWAY QUANTITIES).

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-194

DRAWN BY TKB | PLANS CK'D. BH

CONSTRUCTION STAGING DETAILS 1

SHEET 4 OF 22

174

8

8

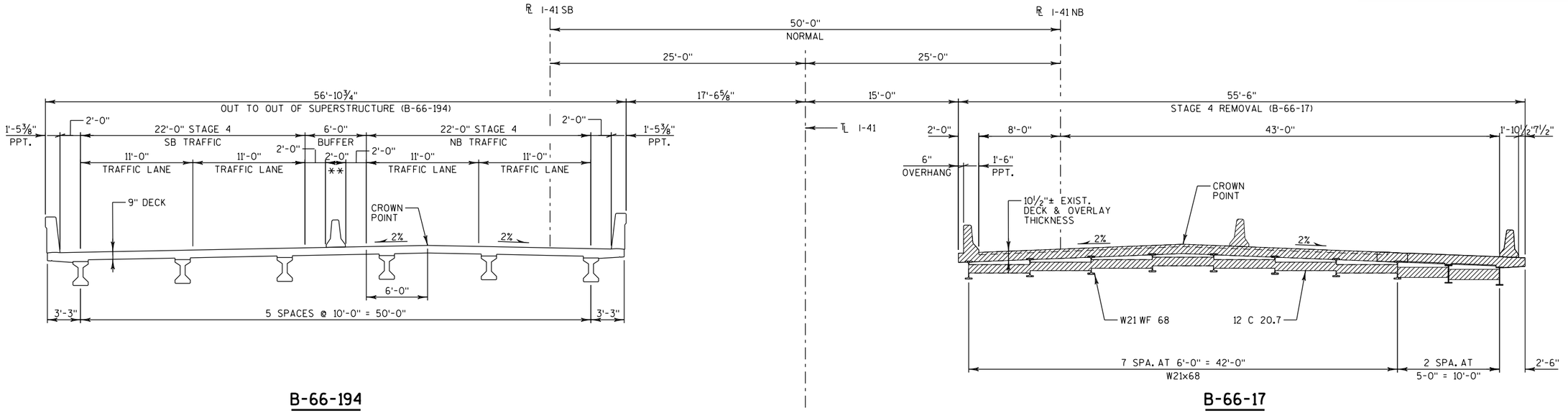
FILE NAME : C:±Users±tbetcher±Google Drive±TKB Projects±Bridge±B-66±B-66-193&194±Cad B-66-194±B-66-194_04 staging 01.dgn

PLOT DATE : 1/15/2019

PLOT SCALE : 2.00000 '/ ft.

STATE PROJECT NUMBER

1100-41-70

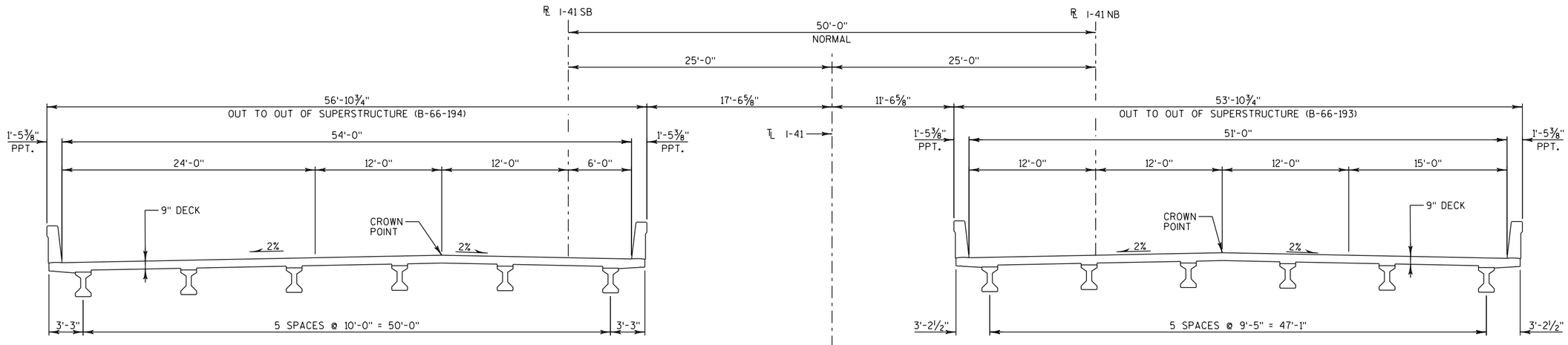


B-66-194

B-66-17

*STAGE 4

(REMOVE B-66-17, CONSTRUCT B-66-193)



B-66-194

B-66-193

FINAL STRUCTURE

LEGEND

▨ - DENOTES REMOVAL LIMITS

*CORRESPONDS TO ROAD PLANS. SEE ROAD PLANS FOR FURTHER STAGING DETAILS.

** TEMPORARY BARRIER (INCLUDED IN ROADWAY QUANTITIES).

NO.	DATE	REVISION	BY

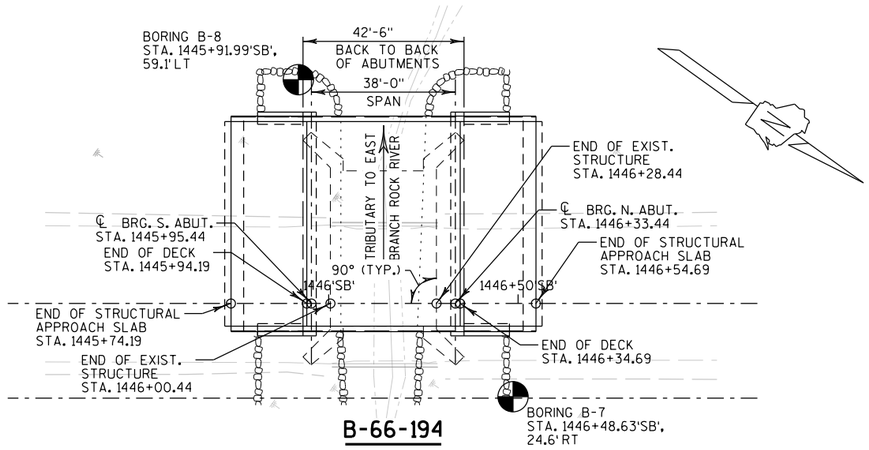
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-194

DRAWN BY TKB | PLANS CK'D. BH

CONSTRUCTION STAGING DETAILS 2

SHEET 5 OF 22

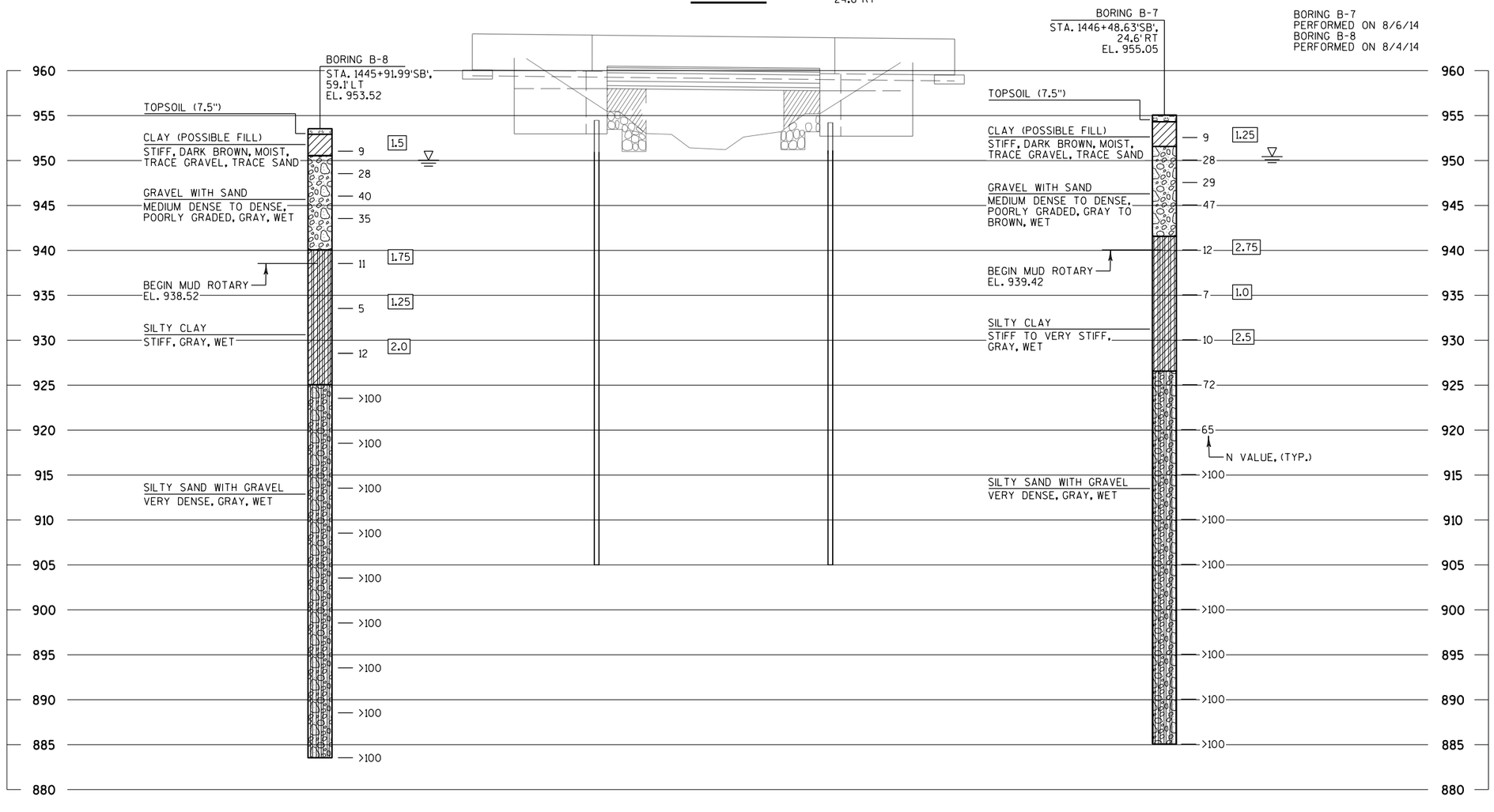


B-66-194

GEOTECHNICAL REPORT
HIMALAYAN CONSULTANTS, L.L.C.
W156 N11357 PILGRIM ROAD
GERMANTOWN, WI 53022
(262) 502-0066

SOIL BORINGS PERFORMED BY:
PROFESSIONAL SERVICE INDUSTRIES, INC.
821 CORPORATE COURT
WAUKESHA, WI 53189
(262) 521-2125

BORING B-7
PERFORMED ON 8/6/14
BORING B-8
PERFORMED ON 8/4/14



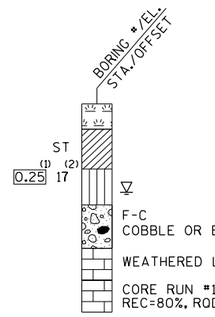
STATE PROJECT NUMBER

1100-41-70

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-194

DRAWN BY TKB | PLANS CK'D. BH

SUBSURFACE EXPLORATION

SHEET 6 OF 22

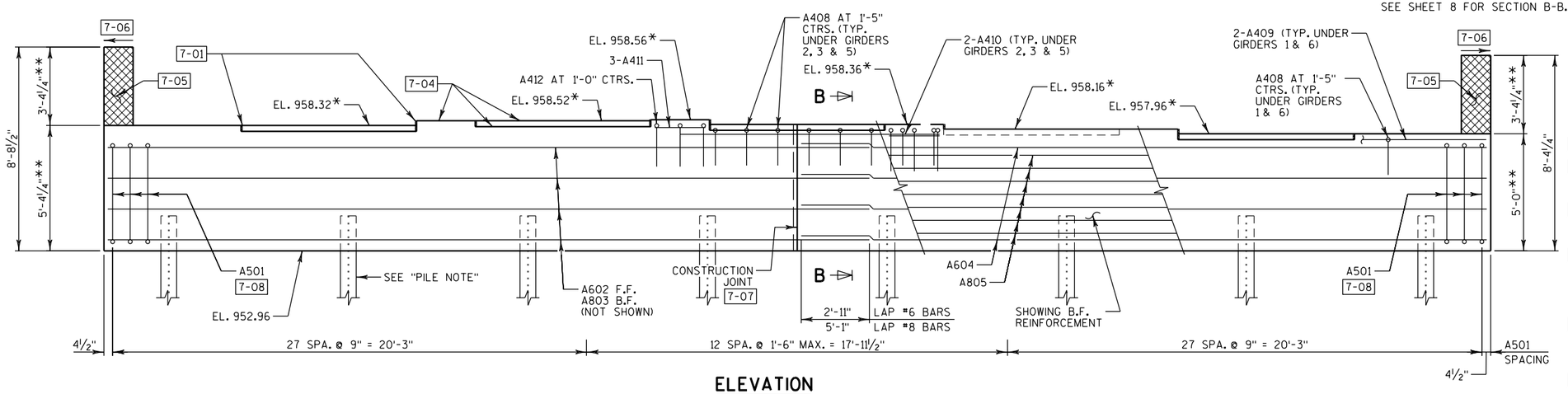
FILE NAME : C:±Users±tbetcher±Google Drive±TKB Projects±Bridge±B-66±B-66-193&194±Cad B-66-194±B-66-194_06-sub sur exp.dgn
PLOT DATE : 1/15/2019
PLOT SCALE : 2.00000 '/ ft.

STATE PROJECT NUMBER

1100-41-70

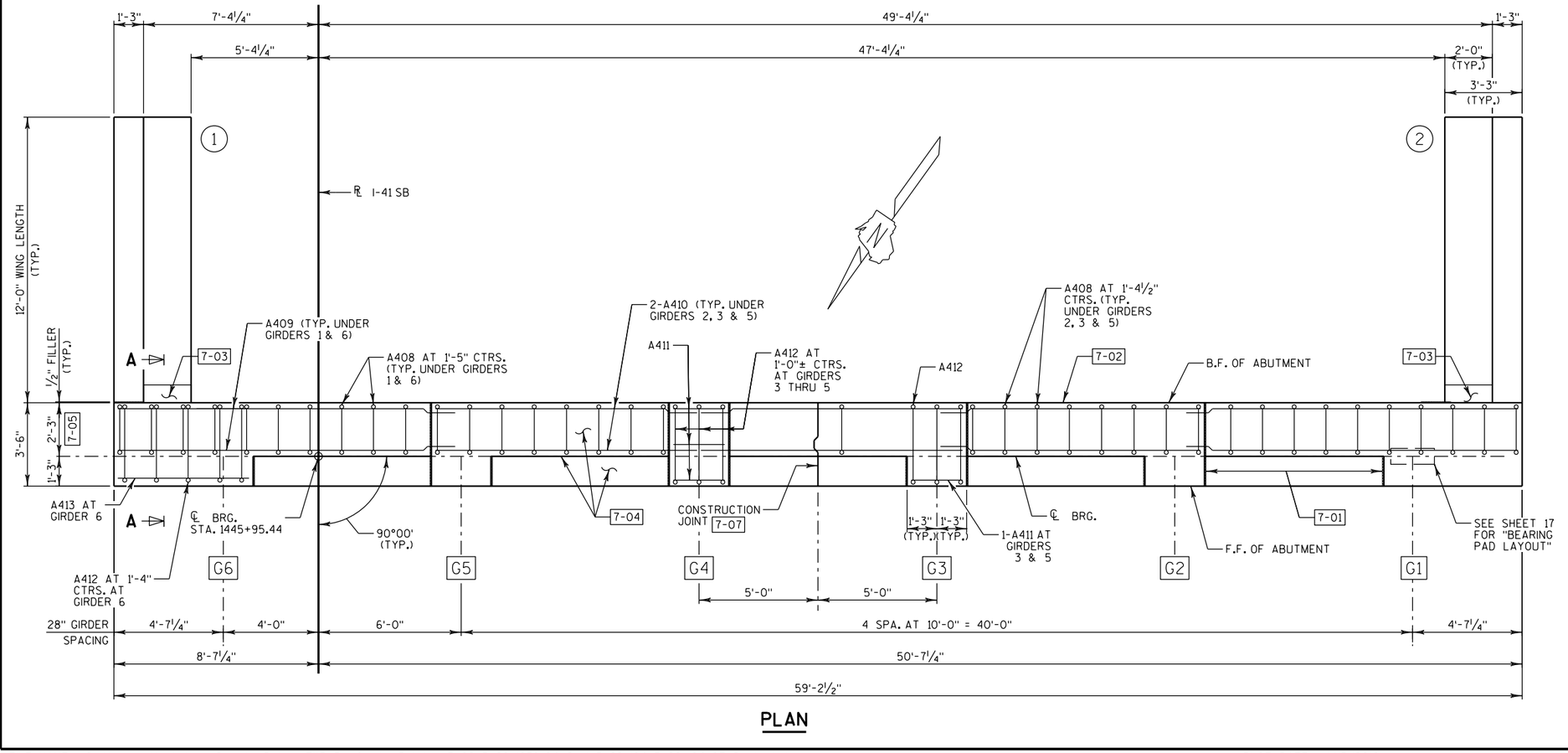
NOTES

SEE SHEET 8 FOR SECTION B-B.



ELEVATION

(LOOKING SOUTH)



PLAN

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE AT THE ℄ OF BEARING.

** DIMENSIONS ARE GIVEN AT THE B.F. OF ABUTMENT AT THE BACK OF WING. FOR WING DETAILS AND ELEVATIONS SEE SHEET 9.

7-01 ¾" CORK FILLER ON VERTICAL FACE ONLY. (TYP.)

7-02 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND HORIZONTAL BETWEEN INSIDE FACE OF WINGS AND VERTICAL FROM TOP OF BODY TO TOP OF WINGS.

7-03 PLACE BOTTOM HALF OF RUBBERIZED MEMBRANE WATERPROOFING HORIZ. IN THIS AREA. SEE SECTION A-A ON THIS SHEET.

7-04 STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

7-05 ½" FILLER TO EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).

7-06 SLOPE TO DRAIN.

7-07 VERTICAL CONSTRUCTION JOINT KEYWAY FORMED BY BEVELED 2"×8".

7-08 A501 BARS SHALL BE SPACED AT 9" CTRS. IN THE OUTSIDE THIRDS OF THE BODY LENGTH AND AT 1'-6" CTRS. IN THE MIDDLE THIRD. SPACE BARS TO MISS PILES.

GX INDICATES GIRDER NUMBER.

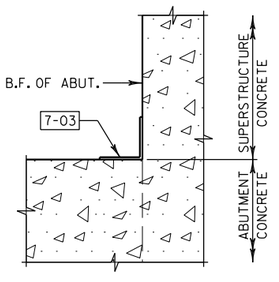
PX INDICATES PILE NUMBER.

(X) INDICATES WING NUMBER.

PILE NOTE

ABUTMENTS SUPPORTED ON HP 10-INCH X 42 LB STEEL PILING WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE AT THE SOUTH ABUTMENT AND 180 TONS PER PILE AT THE NORTH ABUTMENT AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 50'LONG AT THE SOUTH ABUTMENT AND 50'LONG AT THE NORTH ABUTMENT.

*THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.



SECTION A-A

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-194

DRAWN BY TKB | PLANS CK'D. BH

SOUTH ABUTMENT - 1

SHEET 7 OF 22

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8

8

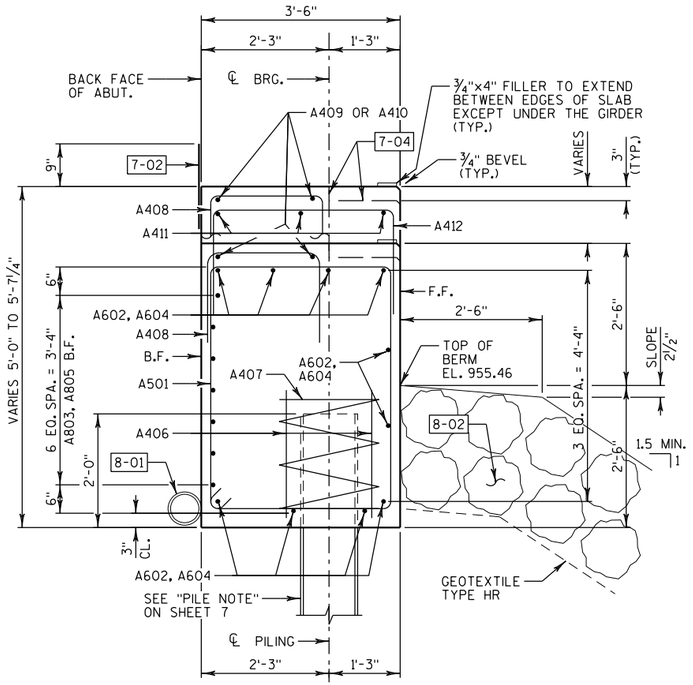
FILE NAME : C:±Users±tbetcher±Google Drive±TKB Projects±Bridge±B-66±B-66-193&194±Cad B-66-194±B-66-194_07 S abut.dgn

PLOT DATE : 1/15/2019

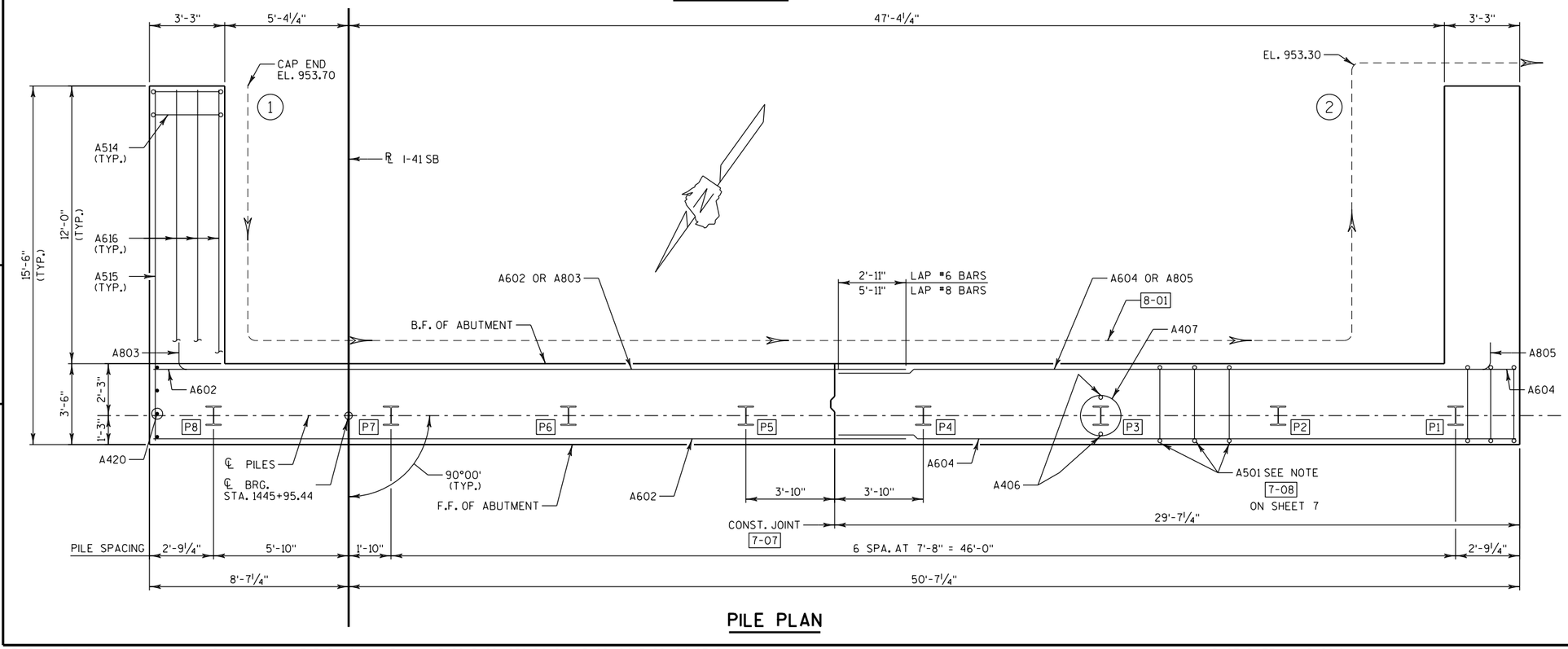
PLOT SCALE : 2.00000 '/ ft.

STATE PROJECT NUMBER

1100-41-70



SECTION B-B



PILE PLAN

LEGEND

(X) [XX] [X-XX] FOR ADDITIONAL SYMBOL DESCRIPTIONS SEE SHEET 7

[8-01] PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

[8-02] HEAVY RIPRAP. SEE SHEET 1 FOR ADDITIONAL DETAILS.

NOTE:

SEE SHEET 7 FOR LOCATION OF SECTION B-B.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-194

DRAWN BY TKB | PLANS CK'D. BH

SOUTH ABUTMENT - 2

SHEET 8 OF 22

STATE PROJECT NUMBER

1100-41-70

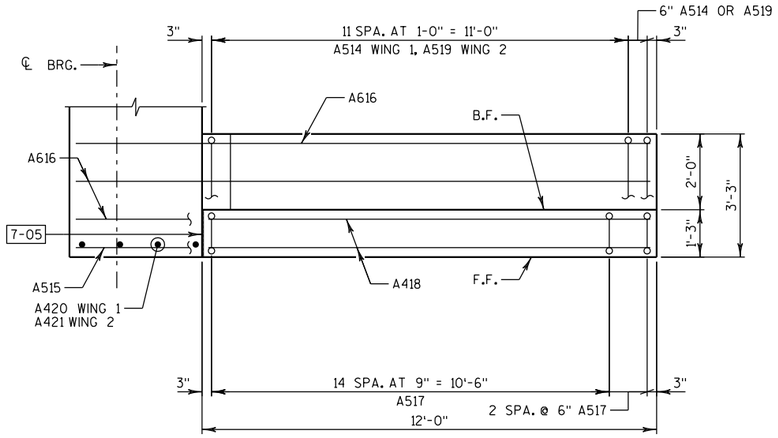
LEGEND

X-XX FOR ADDITIONAL SYMBOL DESCRIPTIONS SEE SHEET 7

9-01 OPTIONAL CONST. JOINT FORMED BY BEVELED 2"x6" KEYWAY WITH MEMBRANE ON BACKFACE.

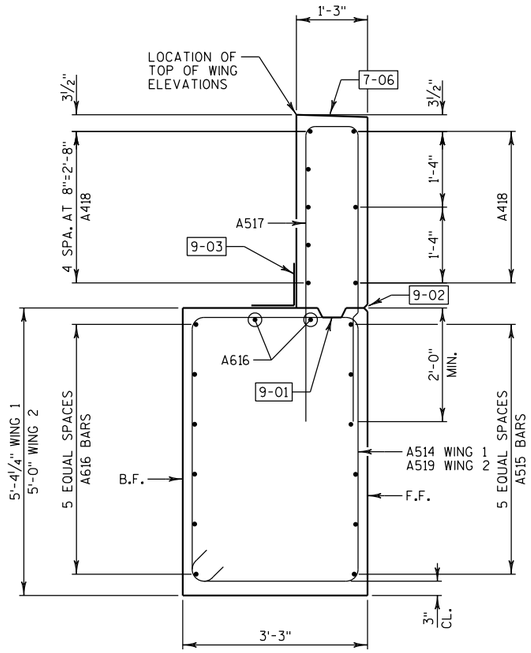
9-02 ¾" "V" GROOVE ON FRONT FACE OF WINGWALL.

9-03 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

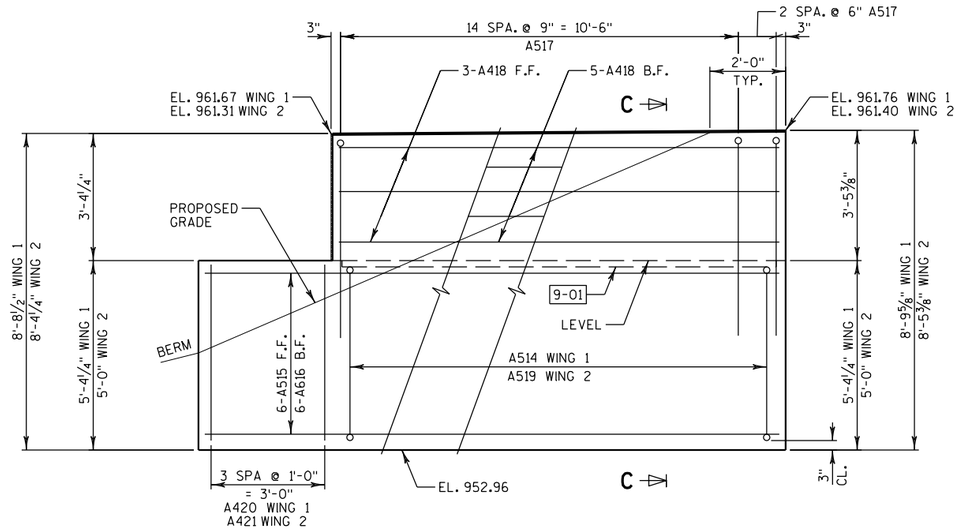


PLAN

(WING 2 SHOWN, WING 1 SIMILAR)



SECTION C-C



ELEVATION

(WING 2 SHOWN, WING 1 SIMILAR)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-194

DRAWN BY TKB | PLANS CK'D. BH

WINGS 1 & 2

SHEET 9 OF 22

8

8

FILE NAME : C:±Users±tbetcher±Google Drive±TKB Projects±Bridge±B-66±B-66-193&194±Cad B-66-194±B-66-194_07 S abut.dgn

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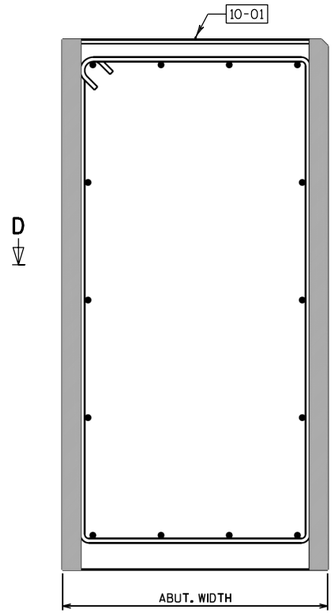
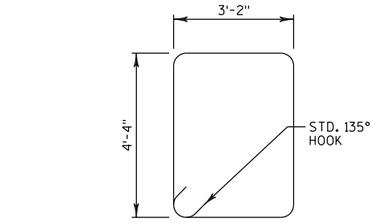
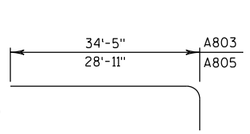


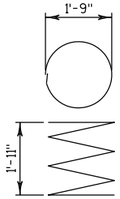
SECTION THRU
ABUTMENT BODY



A501



A803, A805



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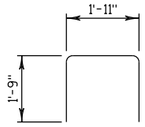

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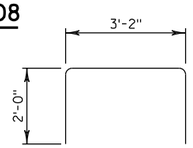

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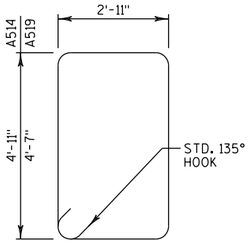
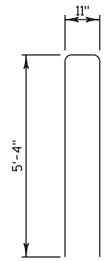


A514, A519

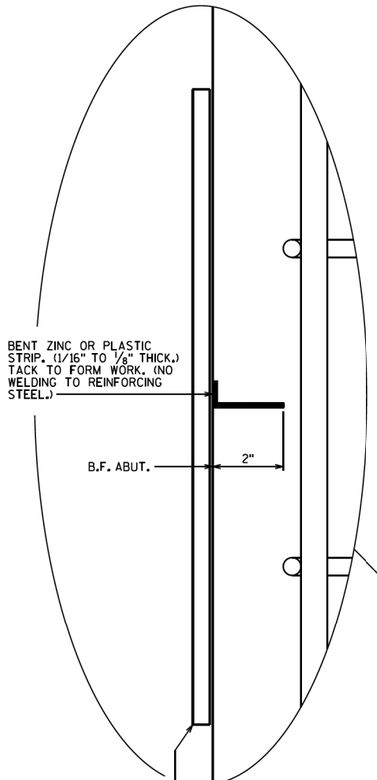


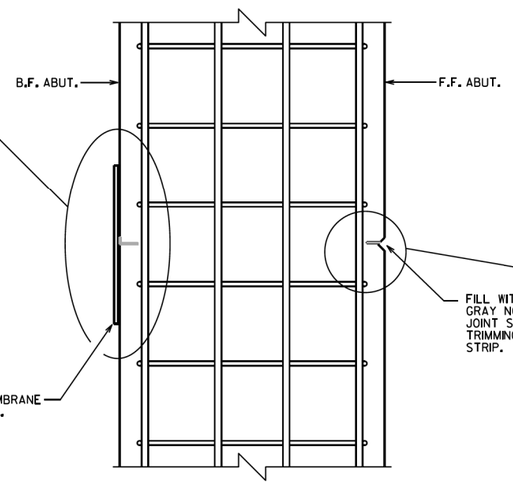
A517

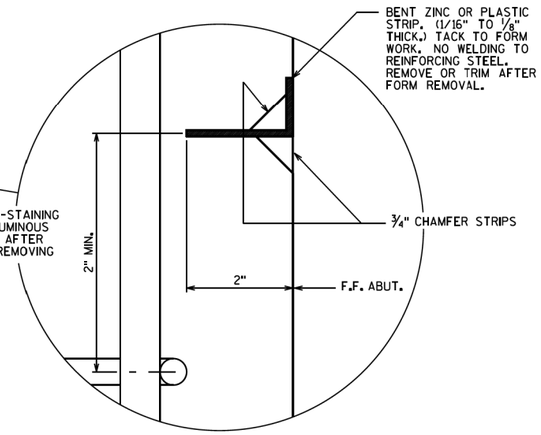
BILL OF BARS

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
NON-COATED BARS						TOTAL WEIGHT = 3,740 LBS	
A501		67	15'-8"	X		BODY-STIRRUPS	VERT.
A602		10	32'-7"			BODY-BTM, F.F. & TOP	HORIZ.
A803		7	35'-7"	X		BODY-B.F.	HORIZ.
A604		10	29'-3"			BODY-BTM, F.F. & TOP	HORIZ.
A805		7	30'-1"	X		BODY-B.F.	HORIZ.
A406		16	2'-3"			BODY @ PILES	VERT.
A407		8	28'-0"	X		BODY @ PILES	VERT.
A408		44	5'-3"	X		BODY-TOP @ GIRDERS 1,2,3,5,6	VERT.
A409		4	14'-5"			BODY-TOP @ GIRDERS 1 & 6	HORIZ.
A410		6	11'-1"			BODY-TOP @ GIRDERS 2,3,5	HORIZ.
A411		5	2'-2"			BODY-TOP @ GIRDER 3 THRU 5	HORIZ.
A412		14	7'-0"	X		BODY-TOP @ GIRDER 3 THRU 6	VERT.
A413		1	5'-6"			BODY-TOP @ GIRDER 6	HORIZ.
COATED BARS						TOTAL WEIGHT = 1,520 LBS	
A514	X	13	16'-4"	X		WING 1, BTM. STIRRUPS	VERT.
A515	X	12	15'-1"			WINGS, BTM. -F.F.	HORIZ.
A616	X	16	14'-0"			WINGS, BTM.-B.F. & TOP	HORIZ.
A517	X	34	11'-4"	X		WINGS, TOP-STIRRUPS	VERT.
A418	X	16	11'-8"			WINGS, TOP	HORIZ.
A519	X	13	15'-8"	X		WING 2 BTM. STIRRUPS	VERT.
A420	X	4	4'-11"			ABUTMENT END AT WING 1	VERT.
A421	X	4	4'-7"			ABUTMENT END AT WING 2	VERT.

THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.







SECTION D-D

LEGEND

10-01 USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY 1/2" DEEP.

ALTERNATE CONSTRUCTION JOINT AT ABUTMENT

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

SAW CUTTING JOINT IS NOT ALLOWED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-194

DRAWN BY TKB | PLANS CK'D. BH

SOUTH ABUTMENT DETAILS

SHEET 10 OF 22

8

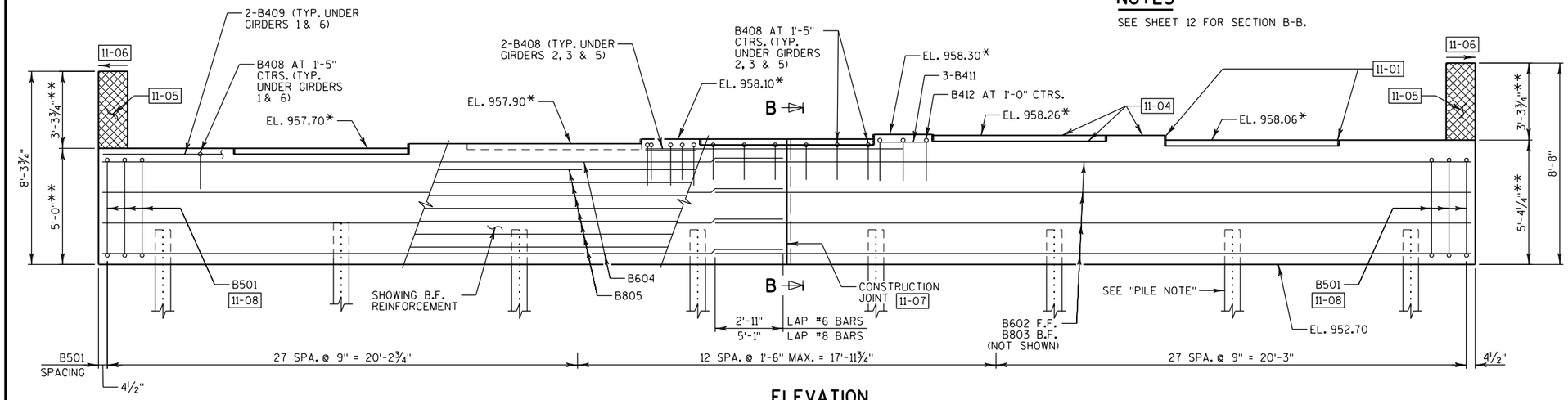
8

STATE PROJECT NUMBER

1100-41-70

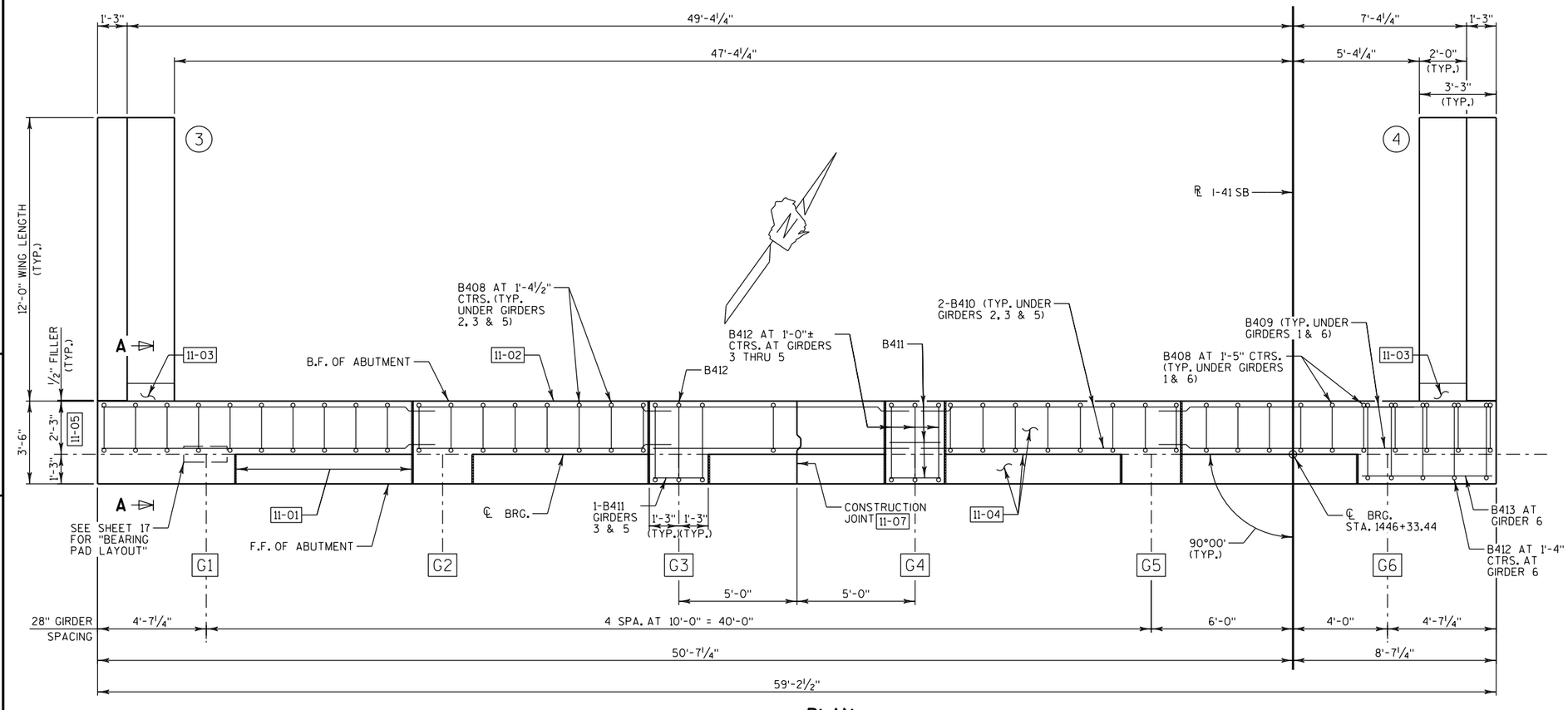
NOTES

SEE SHEET 12 FOR SECTION B-B.



ELEVATION

(LOOKING NORTH)



PLAN

LEGEND

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11-01 ¾" CORK FILLER ON VERTICAL FACE ONLY. (TYP.)

11-02 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND HORIZONTAL BETWEEN INSIDE FACE OF WINGS AND VERTICAL FROM TOP OF BODY TO TOP OF WINGS.

11-03 PLACE BOTTOM HALF OF RUBBERIZED MEMBRANE WATERPROOFING HORIZ. IN THIS AREA. SEE SECTION A-A ON THIS SHEET.

11-04 STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

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11-06 SLOPE TO DRAIN.

11-07 VERTICAL CONSTRUCTION JOINT KEYWAY FORMED BY BEVELED 2"×8".

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GX INDICATES GIRDER NUMBER.

PX INDICATES PILE NUMBER.

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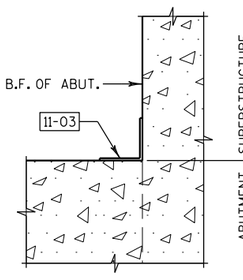
PILE NOTE

ABUTMENTS SUPPORTED ON HP 10-INCH X 42 LB STEEL PILING WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE AT THE SOUTH ABUTMENT AND 180 TONS PER PILE AT THE NORTH ABUTMENT AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 50'LONG AT THE SOUTH ABUTMENT AND 50'LONG AT THE NORTH ABUTMENT.

*THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.



SECTION A-A

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-194

DRAWN BY TKB | PLANS CK'D. BH

NORTH ABUTMENT - 1

SHEET 11 OF 22

8

8

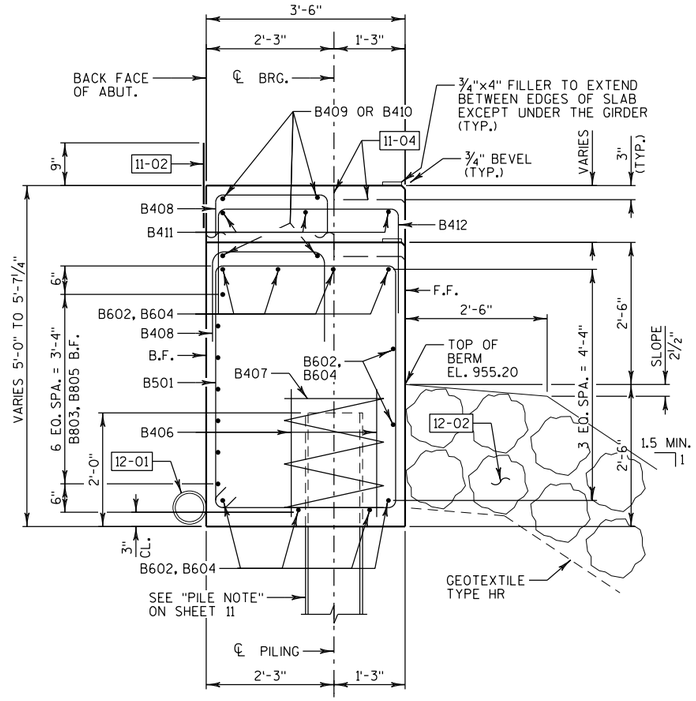
FILE NAME : C:±Users±tbetcher±Google Drive±TKB Projects±Bridge±B-66±B-66-193&194±Cad B-66-194±B-66-194_08 N abut.dgn

PLOT DATE : 1/15/2019

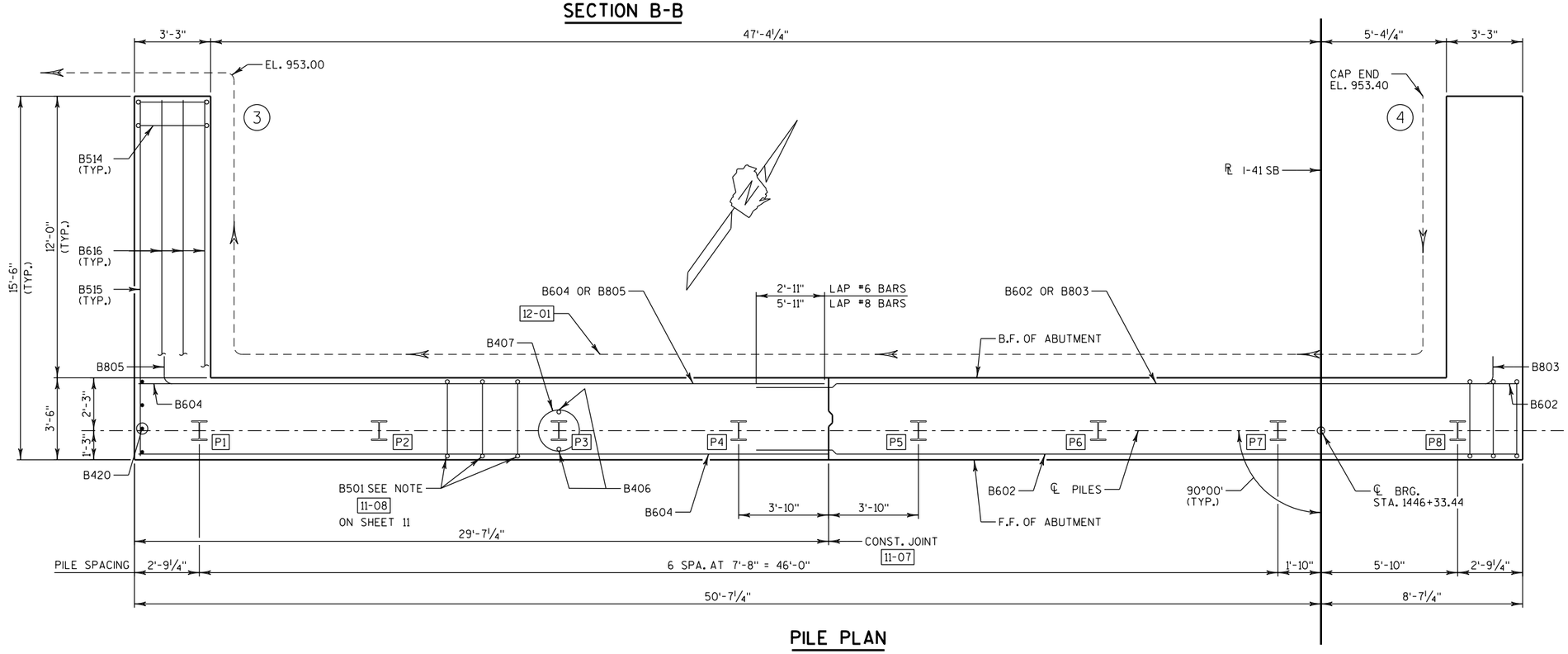
PLOT SCALE : 2.00000 '/ ft.

STATE PROJECT NUMBER

1100-41-70



SECTION B-B



PILE PLAN

LEGEND

(X) [XX] [X-XX] FOR ADDITIONAL SYMBOL DESCRIPTIONS SEE SHEET 11

[12-01] PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

[12-02] HEAVY RIPRAP. SEE SHEET 1 FOR ADDITIONAL DETAILS.

NOTE:

SEE SHEET 11 FOR LOCATION OF SECTION B-B.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-194

DRAWN BY TKB | PLANS CK'D. BH

NORTH ABUTMENT - 2

SHEET 12 OF 22

8

8

FILE NAME : C:±Users±tbetcher±Google Drive±TKB Projects±Bridge±B-66±B-66-193&194±Cad B-66-194±B-66-194_08 N abut.dgn

PLOT DATE : 1/15/2019

PLOT SCALE : 2.00000 '/ ft.

STATE PROJECT NUMBER

1100-41-70

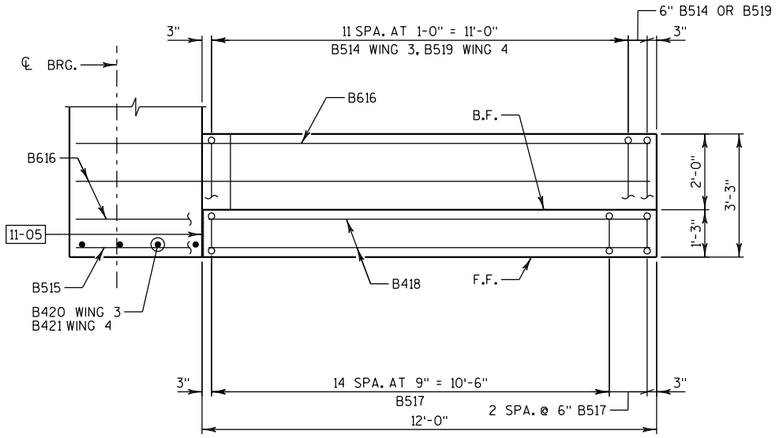
LEGEND

[X-XX] FOR ADDITIONAL SYMBOL DESCRIPTIONS SEE SHEET 11

[13-01] OPTIONAL CONST. JOINT FORMED BY BEVELED 2"x6" KEYWAY WITH MEMBRANE ON BACKFACE.

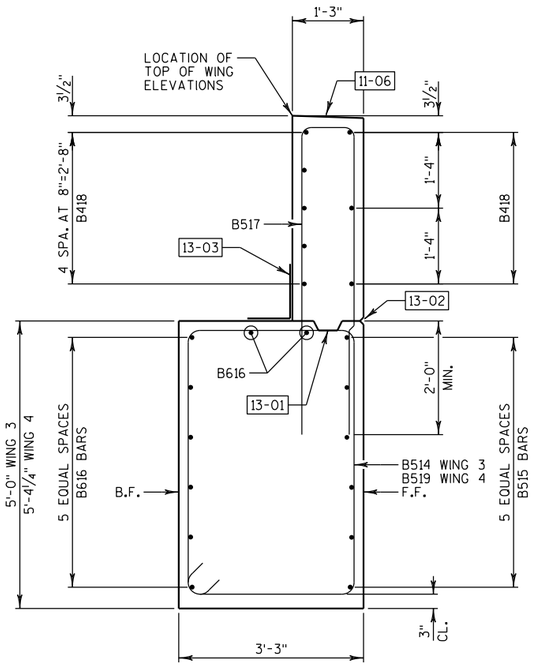
[13-02] ¾" "V" GROOVE ON FRONT FACE OF WINGWALL.

[13-03] 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

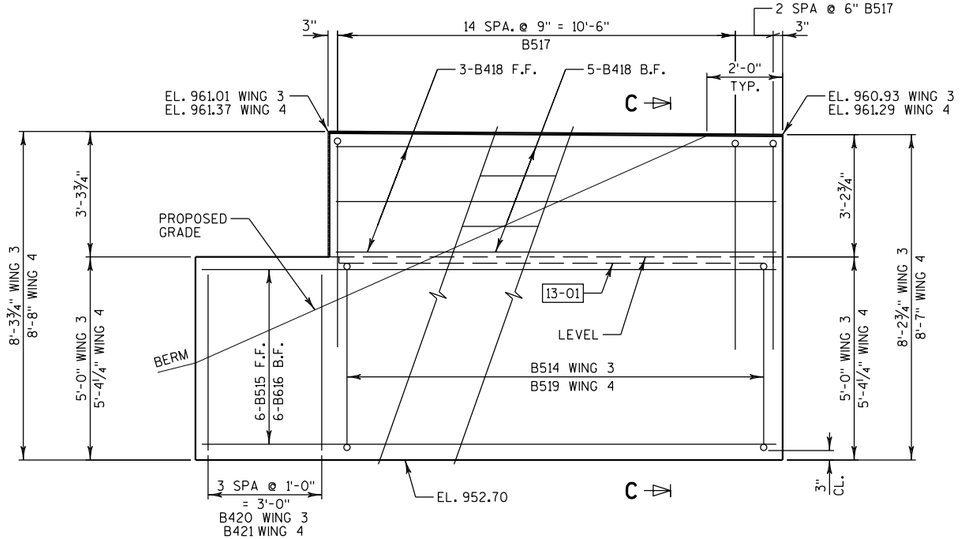


PLAN

(WING 4 SHOWN, WING 3 SIMILAR)



SECTION C-C



ELEVATION

(WING 4 SHOWN, WING 3 SIMILAR)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-194

DRAWN BY TKB | PLANS CK'D. BH

WINGS 3 & 4

SHEET 13 OF 22

8

8

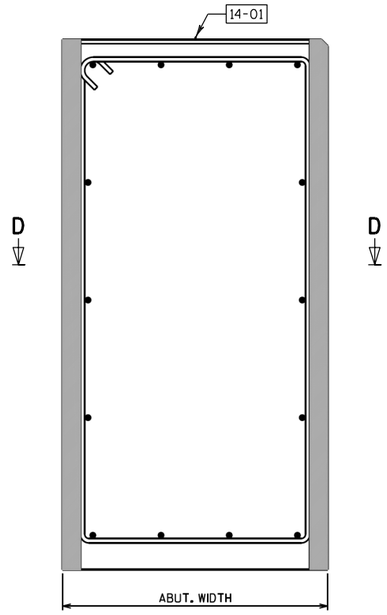
FILE NAME : C:±Users±tbetcher±Google Drive±TKB Projects±Bridge±B-66±B-66-193&194±Cad B-66-194±B-66-194_08 N abut.dgn

PLOT DATE : 1/15/2019

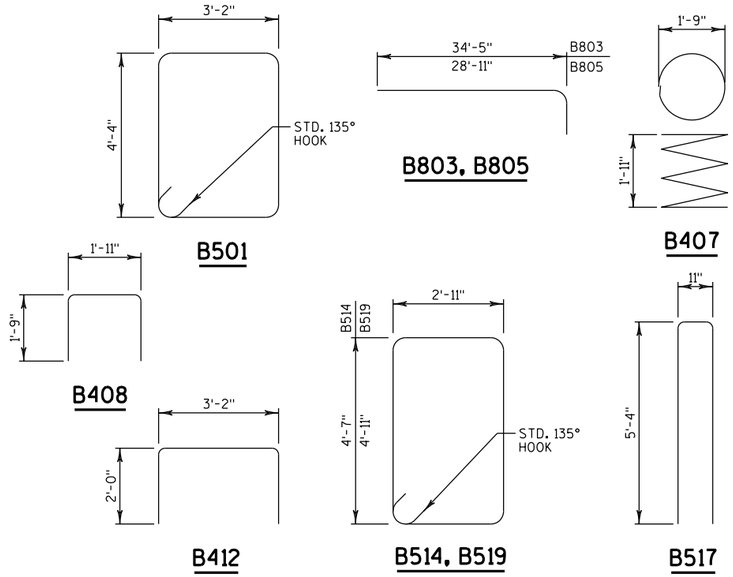
PLOT SCALE : 2.00000 '/ ft.

STATE PROJECT NUMBER

1100-41-70



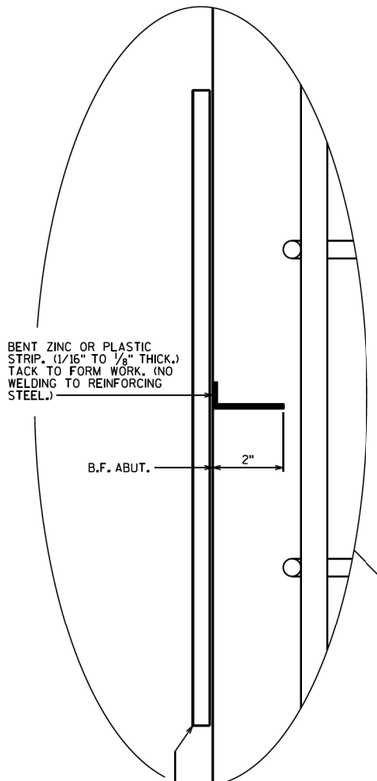
SECTION THRU
ABUTMENT BODY

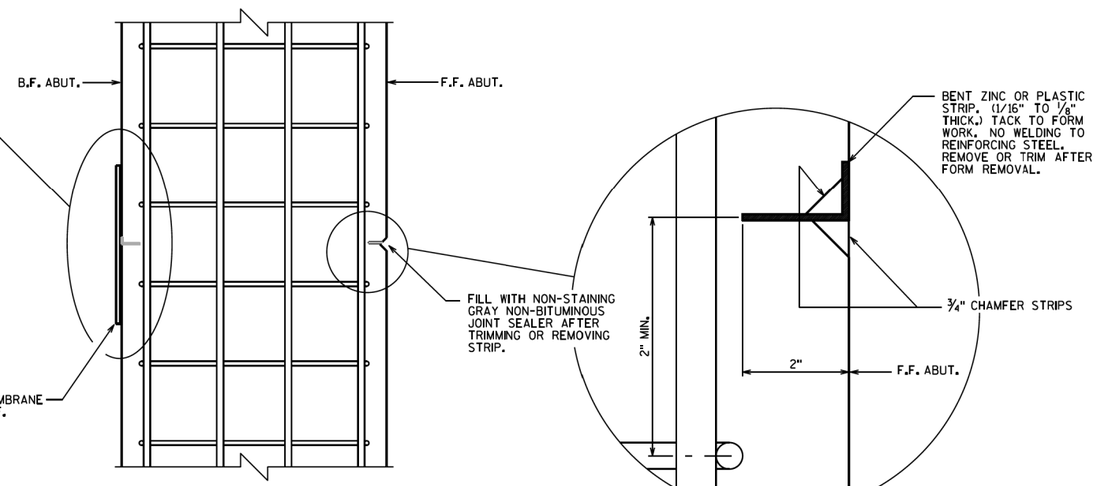


BILL OF BARS

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
NON-COATED BARS							TOTAL WEIGHT = 3,740 LBS
B501		67	15'-8"	X		BODY-STIRRUPS	VERT.
B602		10	32'-7"			BODY-BTM, F.F. & TOP	HORIZ.
B803		7	35'-7"	X		BODY-B.F.	HORIZ.
B604		10	29'-3"			BODY-BTM, F.F. & TOP	HORIZ.
B805		7	30'-1"	X		BODY-B.F.	HORIZ.
B406		16	2'-3"			BODY @ PILES	VERT.
B407		8	28'-0"	X		BODY @ PILES	VERT.
B408		44	5'-3"	X		BODY-TOP @ GIRDERS 1,2,3,5,6	VERT.
B409		4	14'-5"			BODY-TOP @ GIRDERS 1 & 6	HORIZ.
B410		6	11'-1"			BODY-TOP @ GIRDERS 2,3,5	HORIZ.
B411		5	2'-2"			BODY-TOP @ GIRDERS 3 THRU 5	HORIZ.
B412		14	7'-0"	X		BODY-TOP @ GIRDERS 3 THRU 6	VERT.
B413		1	5'-6"			BODY-TOP @ GIRDER 6	HORIZ.
COATED BARS							TOTAL WEIGHT = 1,520 LBS
B514	X	13	15'-8"	X		WING 3, BTM. STIRRUPS	VERT.
B515	X	12	15'-1"			WINGS, BTM. -F.F.	HORIZ.
B616	X	16	14'-0"			WINGS, BTM.-B.F. & TOP	HORIZ.
B517	X	34	11'-4"	X		WINGS, TOP-STIRRUPS	VERT.
B418	X	16	11'-8"			WINGS, TOP	HORIZ.
B519	X	13	16'-4"	X		WING 4 BTM. STIRRUPS	VERT.
B420	X	4	4'-7"			ABUTMENT END AT WING 3	VERT.
B421	X	4	4'-11"			ABUTMENT END AT WING 4	VERT.

THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.





SECTION D-D

LEGEND

14-01 USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY 1/2" DEEP.

ALTERNATE CONSTRUCTION JOINT AT ABUTMENT

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

SAW CUTTING JOINT IS NOT ALLOWED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-194

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NORTH ABUTMENT DETAILS

SHEET 14 OF 22

8

8

STATE PROJECT NUMBER

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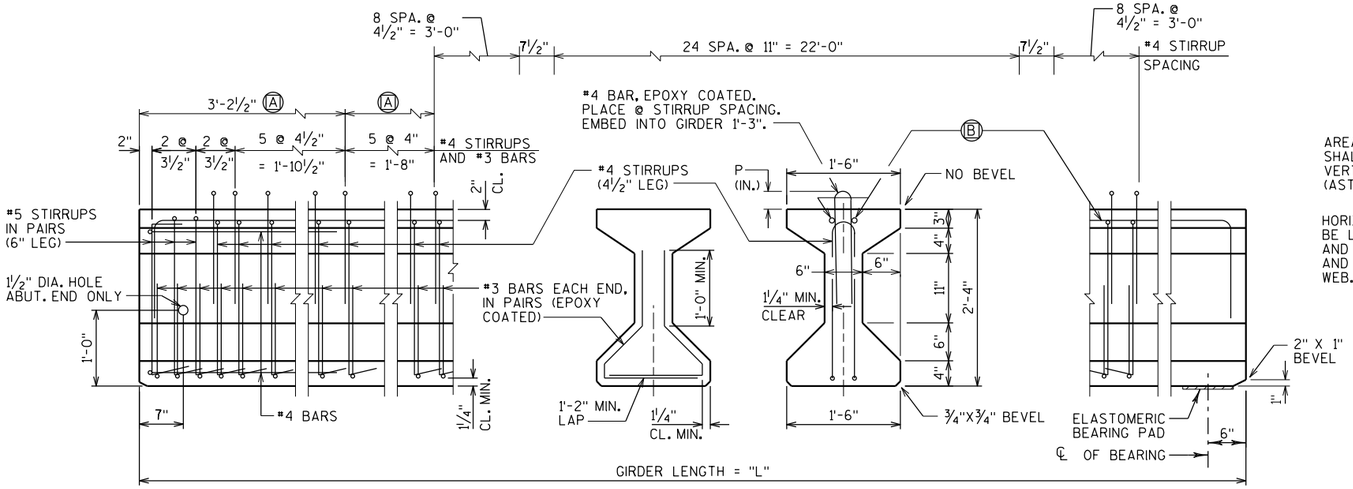
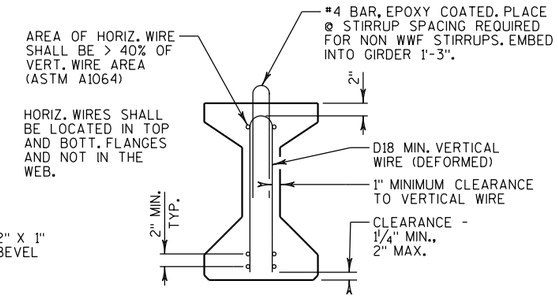


SIDE VIEW & TYPICAL SECTION IN SPAN

Ⓐ DETAIL TYP. AT EACH END

Ⓑ 2-#6 BARS BEND DOWN 16 BAR DIA. AT ENDS



SECTION THRU GIRDER

SHOWING WELDED WIRE FABRIC (WWF) STIRRUPS ASTM A1064 (FY = 70 KSI)

NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 2" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 2" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER OR EPOXY TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS. SEE SECT. 503.3.3 OF STANDARD SPECIFICATIONS FOR GUIDANCE.

STRANDS SHALL BE FLUSH WITH END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, END OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, GRADE 2, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO THE APPLICATION OF THE SEALER.

ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

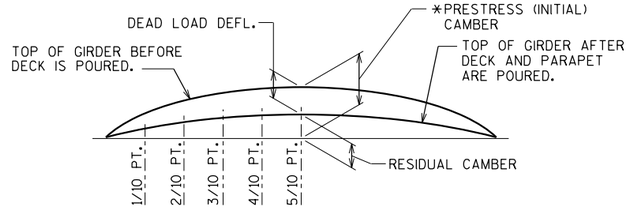
SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A1064 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION.

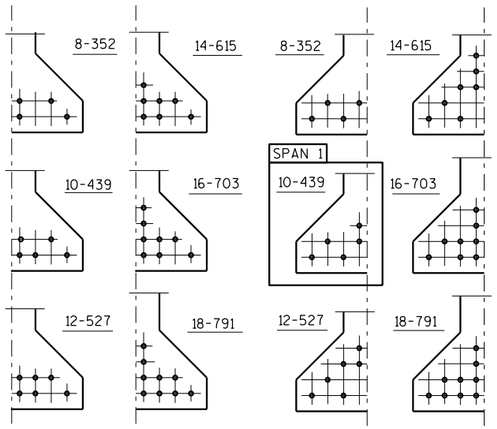
PRESTRESSING STRANDS SHALL BE (0.6" DIA.)-7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

BEND EACH END OF #4 STIRRUPS 4½" AND #5 STIRRUPS 6".

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET.



DEAD LOAD DEFLECTION DIAGRAM

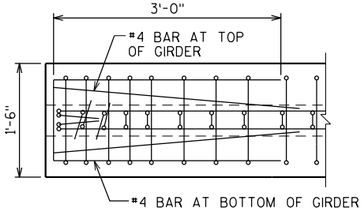


DRAPED PATTERN

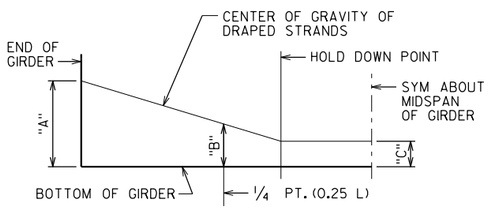
0.6"ϕ STRANDS

UNDRAPED PATTERN

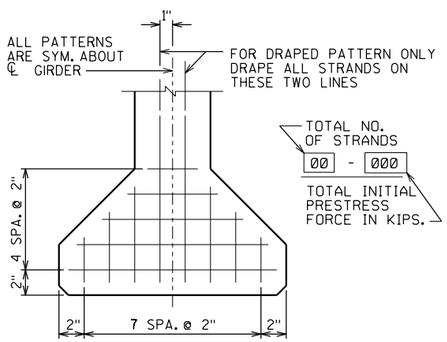
0.6"ϕ STRANDS



TOP VIEW OF GIRDER ENDS



DRAPED STRAND PROFILE



TYP. STRAND PATTERN

*THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.) *
1	⅞"

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T'. USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.) 1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	CONC. STRGTH. f'c (p.s.i.)	"P" 1ST ⅓ OF GIRDER	"P" MID ⅓ OF GIRDER	"P" END ⅓ OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN TOTAL NO. OF STRANDS	DRAPED PATTERN f'ci (P.S.I.) *	DRAPED PATTERN (IN.) "A"	DRAPED PATTERN (IN.) "B" MIN.	DRAPED PATTERN (IN.) "B" MAX.	DRAPED PATTERN (IN.) "C"	UNDRAPED PATTERN TOTAL NO. OF STRANDS	UNDRAPED PATTERN f'ci (P.S.I.) *
1	1-6	39'-0"	⅛"	¼"	¼"	⅜"	⅜"	⅜"	¼"	¼"	⅛"	8,000	7½"	7½"	7½"	0.6							10	6,800

* MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-194

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28" PRESTRESSED GIRDER DETAILS

SHEET 15 OF 22

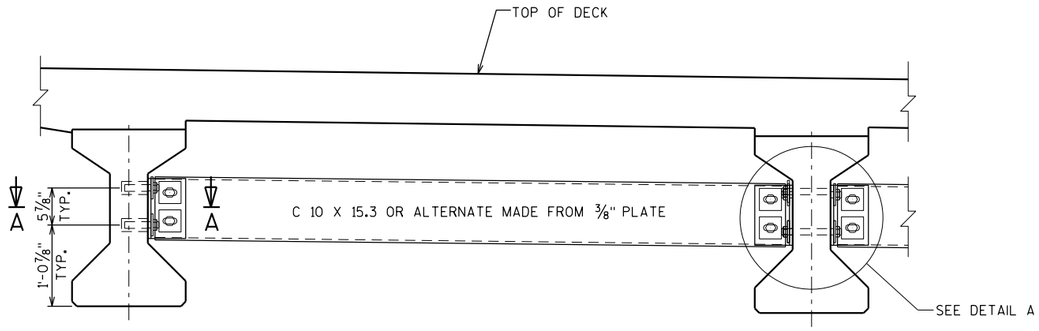
185

8

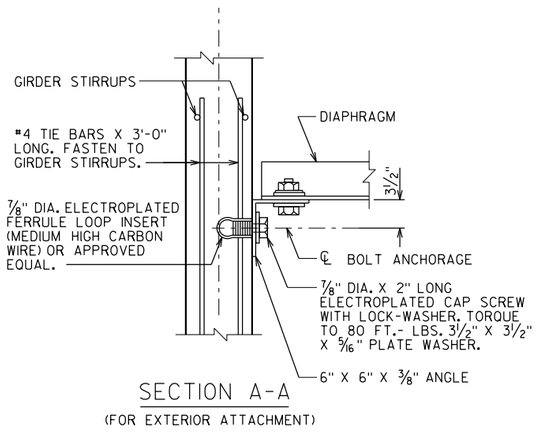
8

STATE PROJECT NUMBER

1100-41-70



PART TRANSVERSE SECTION AT DIAPHRAGM



SECTION A-A

(FOR EXTERIOR ATTACHMENT)

NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-66-194", EACH.

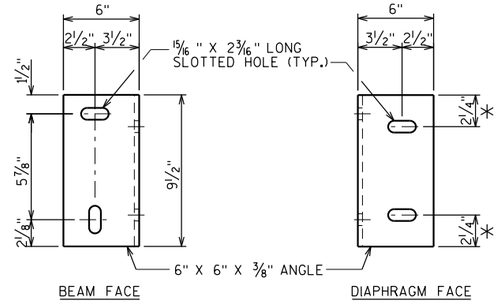
EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36.

ALL DIAPHRAGM MATERIAL INCLUDING BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AFTER FABRICATION.

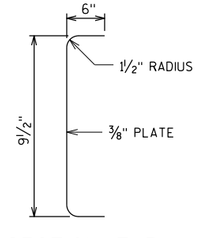
STEEL DIAPHRAGM TO CONCRETE WEB CONNECTION SHALL BE SNUG-TIGHT PLUS ¼ TURN, UNLESS NOTED OTHERWISE. HIGH STRENGTH BOLTS FOR WEB CONNECTION SHALL MEET THE REQUIREMENTS FOR ASTM A325 OR ASTM A449.

SEE SHEET 18 FOR DIAPHRAGM LOCATIONS.

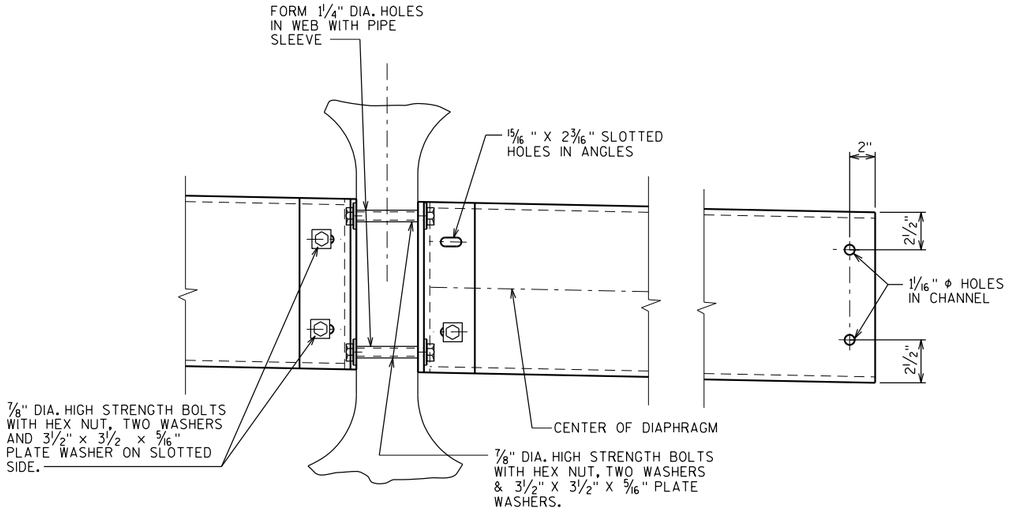


DIAPHRAGM SUPPORT

* 2½" FOR ALTERNATE PLATE DIAPHRAGM



SECTION THRU ALTERNATE DIAPHRAGM



DETAIL A

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-194

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INTERMEDIATE STEEL DIAPHRAGMS

SHEET 16 OF 22

8

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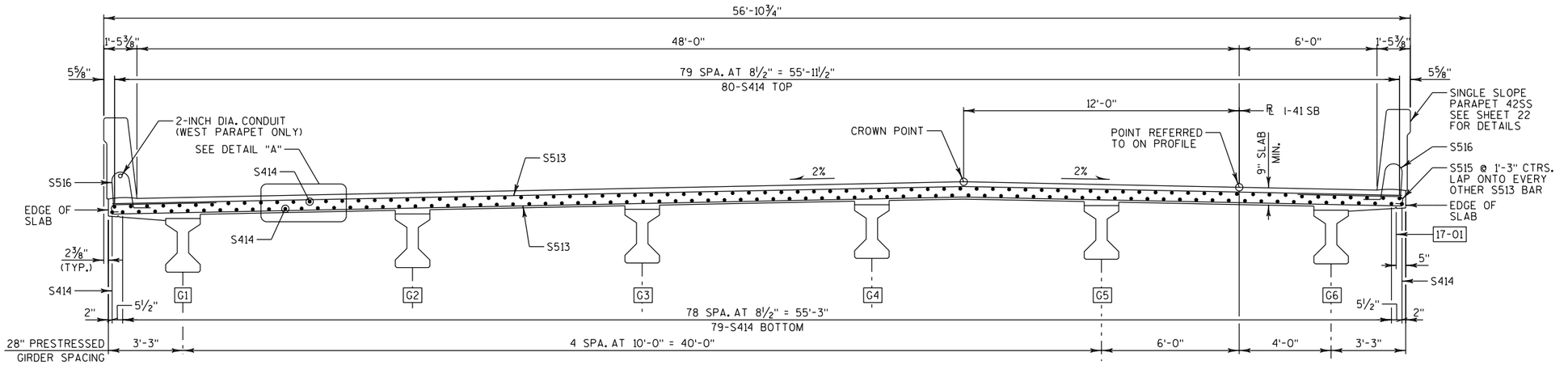
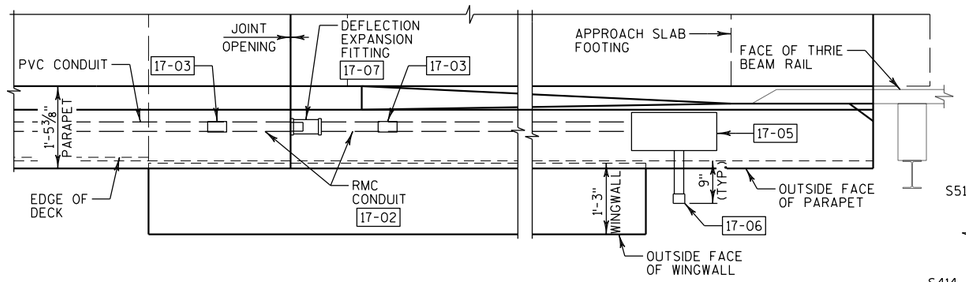
STATE PROJECT NUMBER

1100-41-70

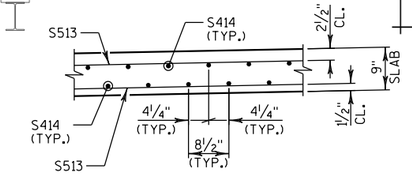


CROSS SECTION THRU BRIDGE

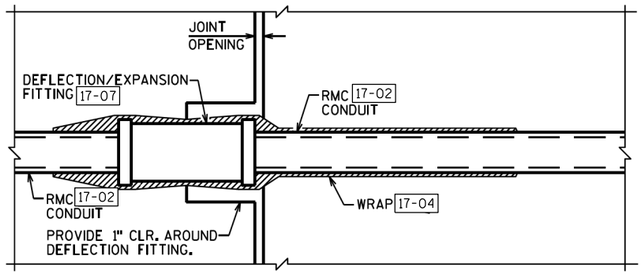


PLAN OF PARAPET AT SEMI-EXP JOINT

(CONDUIT DETAILS)

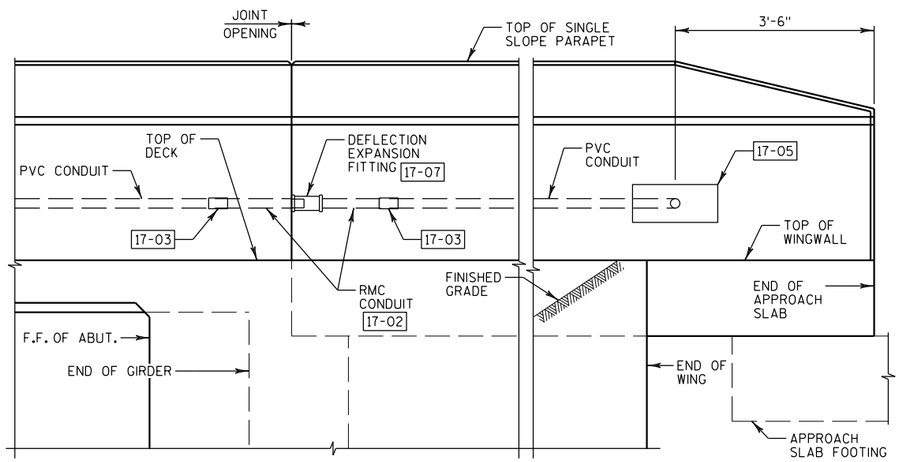


DETAIL "A"



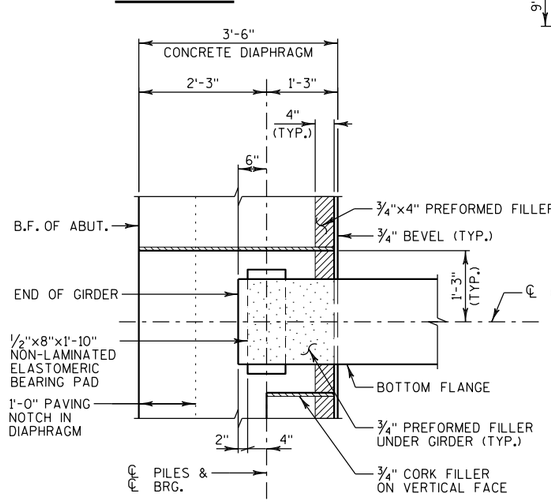
DEFLECTION/EXPANSION FITTING

THIS DETAIL ACCOMMODATES A MAXIMUM OF ¾" TOTAL MOVEMENT AND UP TO 30 DEGREES OF ANGULAR MISALIGNMENT IN ANY DIRECTION. BOND JUMPER NOT SHOWN FOR CLARITY (CONCRETE TO CONCRETE FITTING)

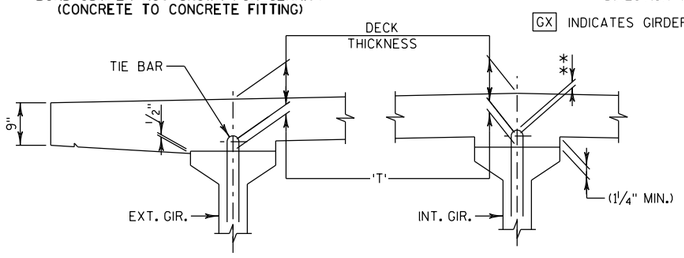


OUTSIDE ELEVATION OF PARAPET AT SEMI-EXP. JOINT

(CONDUIT DETAILS)



BEARING PAD LAYOUT



DECK HAUNCH DETAIL

IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR, **IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

TO DETERMINE 'T', ELEV. OF TOP OF FIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEVATIONS AT FINAL GRADE
- TOP OF GIRDER ELEVATION
+ DEAD LOAD DEFLECTION
- DECK THICKNESS
= HAUNCH HEIGHT "T"

NOTE: AN AVERAGE HAUNCH ('T') OF 2¾" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".

SEE SHEET 15 FOR DEADLOAD DEFLECTIONS.

NOTES

CONDUIT SHALL BE EMBEDDED 2" CLEAR.

USE 2" DIA. RIGID NONMETALLIC CONDUIT (PVC) UNLESS NOTED OTHERWISE.

CONDUIT FITTINGS, CONDUIT BENDS, AND ADAPTER FITTINGS INCIDENTAL TO CONDUIT WORK.

CONDUIT BENDS SHALL CONFORM TO THE NATIONAL ELECTRIC CODE.

PROVIDE JUNCTION BOXES FROM THE APPROVED PRODUCTS LIST.

LEGEND

17-01 ¾" CONTINUOUS "V" DRIP GROOVE (TYP.) END 6" FROM FACE OF SUBSTRUCTURE UNITS.

17-02 USE 2" DIA. RIGID METALLIC (RMC) CONDUIT AT FITTINGS. PROVIDE RMC FOR 3'-0" MIN. ON EACH SIDE OF JOINT OPENINGS UNLESS NOTED OTHERWISE.

17-03 NONMETALLIC CONDUIT TO METALLIC CONDUIT ADAPTER FITTING (UL OR NRTL LISTED FOR ELECTRICAL USE SHALL BE USED)

17-04 SPONGE RUBBER WRAP TO BE AASHTO M153, TYPE 1 OR EQUIVALENT - ¼" MINIMUM THICKNESS. PROVIDE WRAP FOR THE ENTIRE LENGTH OF THE FITTING OR AS SHOWN. SPONGE RUBBER WRAP INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH".

17-05 18x6x6-INCH JUNCTION BOX TYP. EACH END. CUT OUT ± 1" OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.

17-06 STUB OUT NONMETALLIC CONDUIT SCHEDULE 40 2-INCH AT EACH END OF PARAPET. PROVIDE REMOVABLE CAP.

17-07 DEFLECTION/EXPANSION FITTING REQUIREMENTS: UP TO ¾" CONDUIT CONTRACTION OR EXPANSION AND UP TO 30 DEGREES OF ANGULAR MISALIGNMENT IN ANY DIRECTION WITH BONDING JUMPERS.

GX INDICATES GIRDER NUMBER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-194

DRAWN BY TKB | PLANS CK'D. BH

SUPERSTRUCTURE -1

SHEET 17 OF 22

8

8

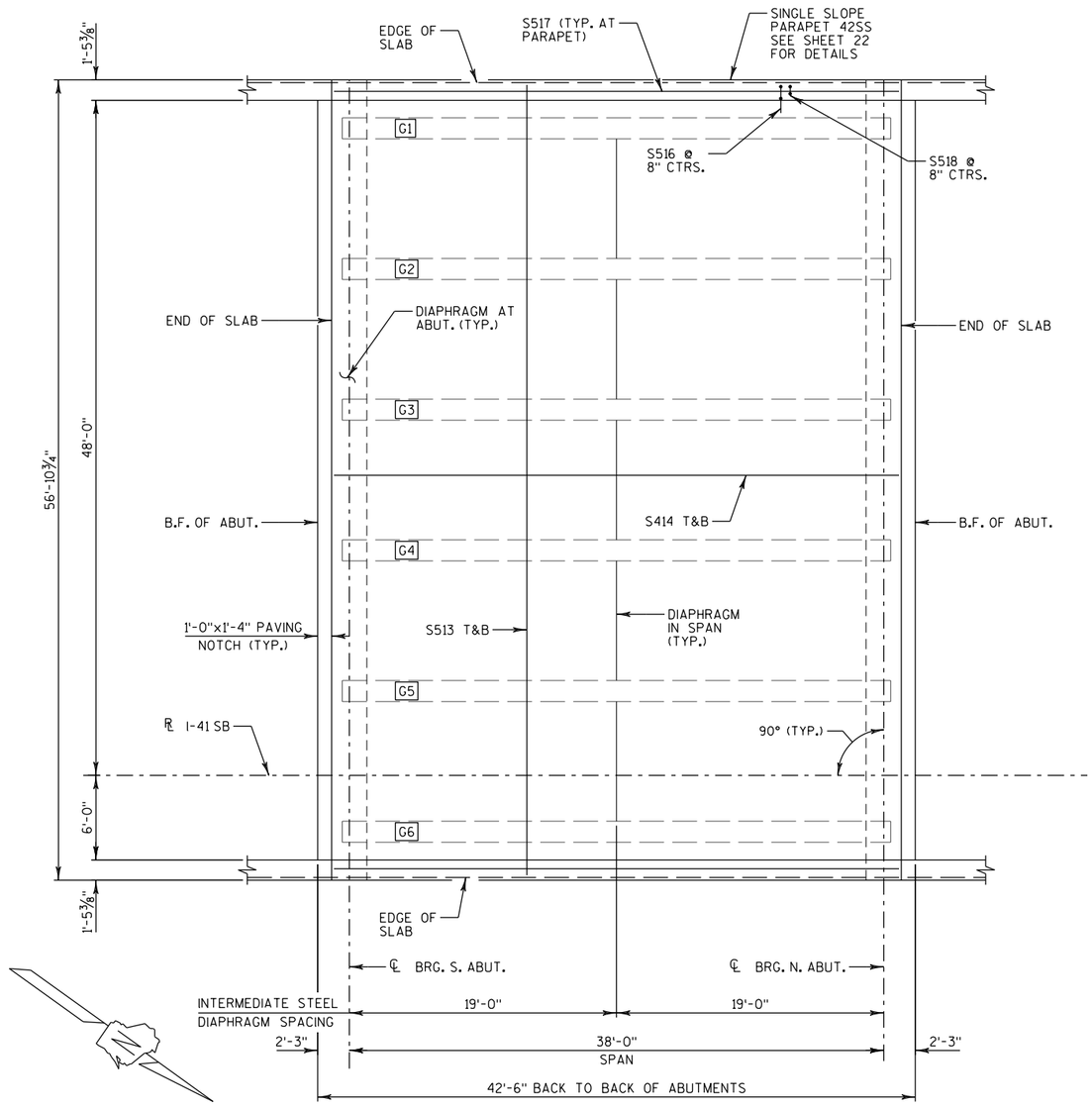
FILE NAME : C:±Users±tbetcher±Google Drive±TKB Projects±Bridge±B-66±B-66-193&194±Cad B-66-194±B-66-194_010 Superstructure.dgn

PLOT DATE : 1/15/2019

PLOT SCALE : 2.00000 '/ ft.

STATE PROJECT NUMBER

1100-41-70



PLAN

LEGEND

XX X-XX FOR ADDITIONAL SYMBOL DESCRIPTIONS SEE SHEET 17

NOTES:

THE BOTTOM TRANSVERSE BAR STEEL REINFORCEMENT SHALL BE SUPPORTED BY CONTINUOUS BAR CHARS WITH A CENTER TO CENTER SPACING NOT TO EXCEED 4'-0". ONE LINE OF CONTINUOUS BAR CHAIRS SHALL BE PLACED NEAR EACH EDGE OF SLAB TO SUPPORT THE ENDS OF THE BOTTOM TRANSVERSE BAR STEEL.

THE TOP LONGITUDINAL BAR STEEL REINFORCEMENT SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS IN TRANSVERSE DIRECTION ON 4'-0" CENTERS.

TOP OF DECK ELEVATIONS

LOCATION	S. ABUT.	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.	N. ABUT.
WEST FLOW LINE	961.29	961.27	961.24	961.21	961.19	961.16	961.13	961.11	961.08	961.05	961.03
GIRDER 1	961.33	961.31	961.28	961.25	961.23	961.20	961.17	961.15	961.12	961.09	961.07
GIRDER 2	961.53	961.51	961.48	961.45	961.43	961.40	961.37	961.35	961.32	961.29	961.27
GIRDER 3	961.73	961.71	961.68	961.65	961.63	961.60	961.57	961.55	961.52	961.49	961.47
GIRDER 4	961.93	961.91	961.88	961.85	961.83	961.80	961.77	961.75	961.72	961.69	961.67
CROWN	962.01	961.99	961.96	961.93	961.91	961.88	961.85	961.83	961.80	961.77	961.75
GIRDER 5	961.89	961.87	961.84	961.81	961.79	961.76	961.73	961.71	961.68	961.65	961.63
GIRDER 6	961.69	961.67	961.64	961.61	961.59	961.56	961.53	961.51	961.48	961.45	961.43
EAST FLOW LINE	961.65	961.63	961.60	961.57	961.55	961.52	961.49	961.47	961.44	961.41	961.39

NO.	DATE	REVISION	BY

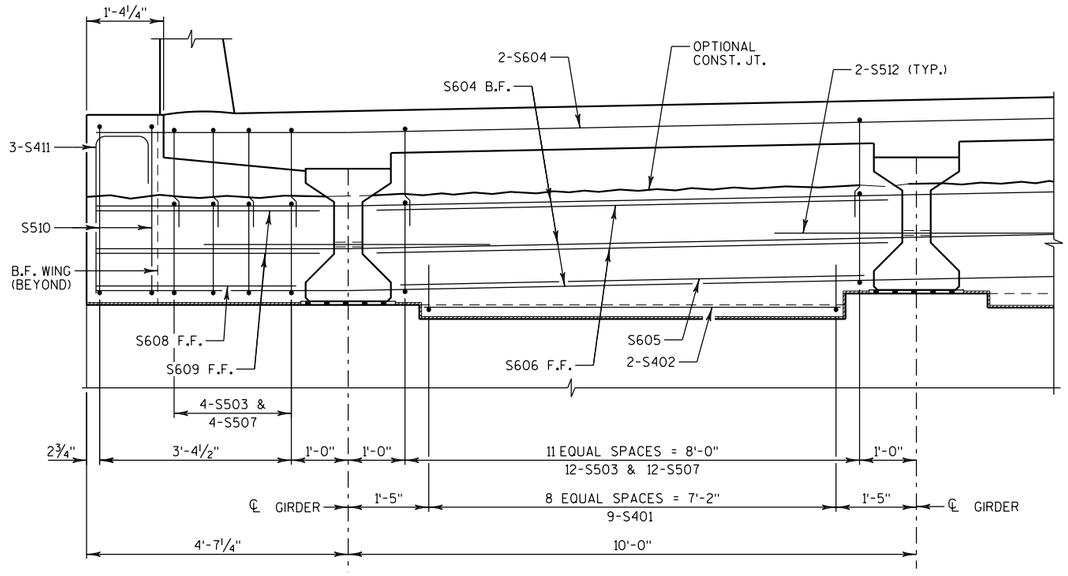
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-194

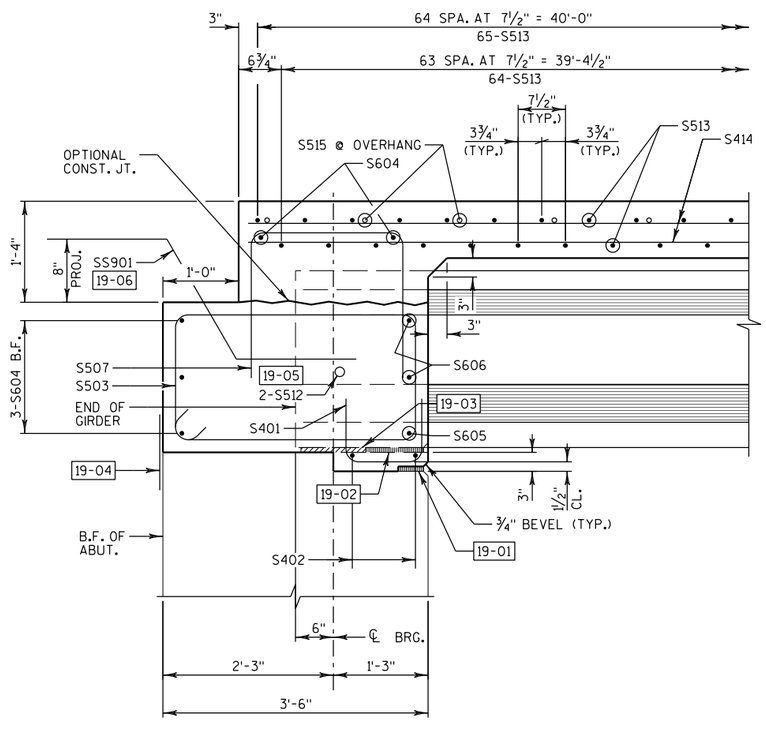
DRAWN BY TKB | PLANS CK'D. BH

SUPERSTRUCTURE -2

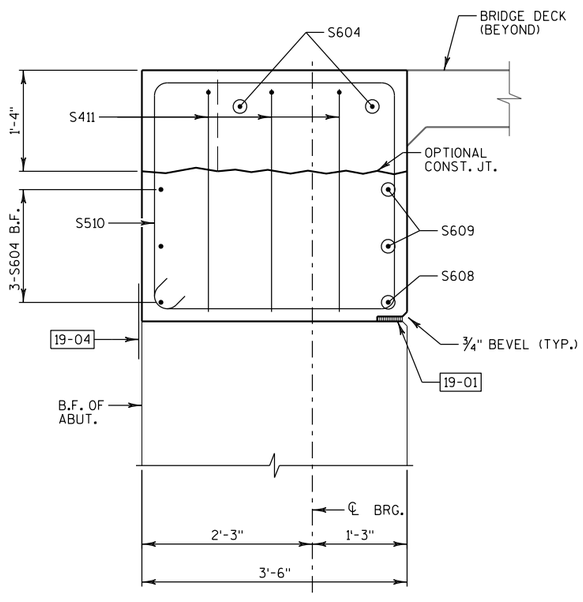
SHEET 18 OF 22



CONCRETE END DIAPHRAGM DETAIL



AT ABUTMENTS
(TYPICAL BETWEEN GIRDERS)



AT ABUTMENTS
(TYPICAL @ DIAPHRAGM ENDS)

PART LONGITUDINAL SECTION

LEGEND

XX X-XX FOR ADDITIONAL SYMBOL DESCRIPTIONS SEE SHEET 17

19-01 ¾"×4" PREFORMED FILLER

19-02 ¾" FILLER UNDER GIRDER FLANGE IN FRONT OF BEARING PAD.

19-03 ½"×8"×1'-10" NON-LAMINATED ELASTOMERIC BEARING PAD. SEE SHEET 17 FOR BEARING PAD LAYOUT.

19-04 RUBBERIZED MEMBRANE WATERPROOFING.

19-05 1½" DIA. HOLE IN WEB FOR 2-S512 BARS. BARS TO BE PLACED SYMMETRICAL ABOUT ℄ OF EACH GIRDER.

19-06 SS901 BAR INCLUDED IN STRUCTURAL APPROACH PANEL. SEE SHEETS 20 & 21 FOR MORE INFORMATION.

19-07 SEE PARAPET SHEETS FOR ADDITIONAL DETAILS.

19-08 LAP S604 BARS 3'-6" MIN.

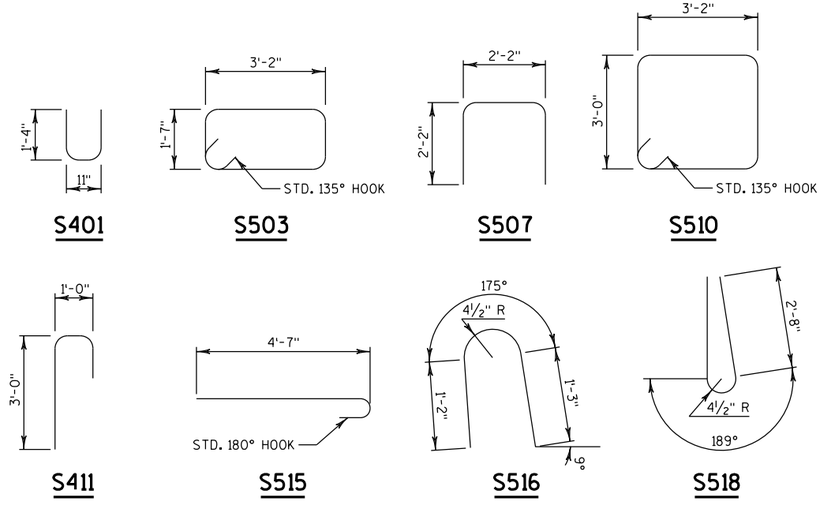
NOTES:

ALL VERTICAL BAR STEEL REINFORCEMENT IN CONCRETE DIAPHRAGMS TO BE PLACED PARALLEL TO GIRDER.

BILL OF BARS

	BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
	S401	X	90	3'-9"	X		DIAPHRAGM TIE	VERT.
	S402	X	20	7'-2"			DIAPHRAGM BTWN GIR.	HORIZ.
	S503	X	136	10'-2"	X		DIAPHRAGM STIRRUP	VERT.
19-08	S604	X	20	31'-3"			DIAPHRAGM @ B.F. & TOP	HORIZ.
	S605	X	10	8'-2"			DIAPHRAGM BTWN GIR.	HORIZ.
	S606	X	20	9'-1"			DIAPHRAGM BTWN GIR.	HORIZ.
	S507	X	136	6'-3"	X		DIAPHRAGM TIE	VERT.
	S608	X	4	3'-6"			DIAPHRAGM END	HORIZ.
	S609	X	8	3'-11"			DIAPHRAGM END	HORIZ.
	S510	X	8	13'-0"	X		DIAPHRAGM STIRRUP @ END	VERT.
	S411	X	12	4'-7"	X		DIAPHRAGM @ ENDS	VERT.
	S512	X	24	6'-0"			GIRDER TIE	HORIZ.
	S513	X	129	56'-1"			DECK T&B	TRANS.
	S414	X	161	40'-2"			DECK T&B	LONG.
	S515	X	66	5'-2"	X		DECK @ OVERHANGS	TRANS.
19-07	S516	X	122	4'-5"	X		SLAB @ PARAPET	VERT.
19-07	S517	X	16	40'-2"			PARAPET	HORIZ.
19-07	S518	X	122	6'-8"	X		PARAPET	VERT.
							TOTAL WEIGHT = 18,650 LBS	

THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.
ALL BARS SHOWN EXPOXY COATED



NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-194

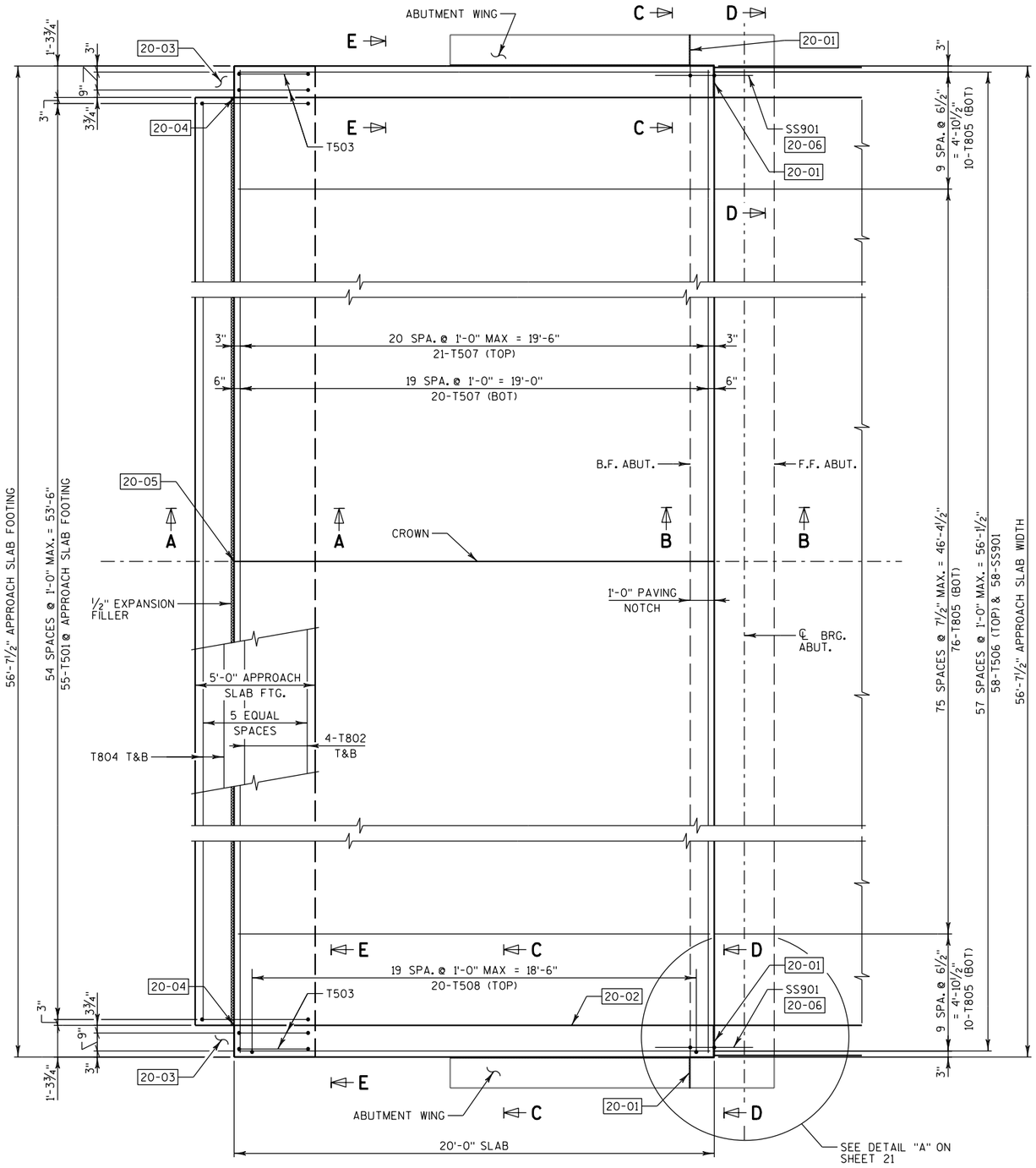
DRAWN BY TKB | PLANS CK'D. BH

SUPERSTRUCTURE -3

SHEET 19 OF 22

STATE PROJECT NUMBER

1100-41-70



BILL OF BARS

	BAR MARK	COAT	NO. REQ'D SOUTH	NO. REQ'D NORTH	LENGTH	BENT	BAR SERIES	LOCATION
20-06	SS901		58	58	5'-0"	X		CONC. ABUT. DIAPH. TO APPROACH SLAB

BAR MARK	COAT	NO. REQ'D SOUTH	NO. REQ'D NORTH	LENGTH	BENT	BAR SERIES	LOCATION	
T501	X	55	55	12'-2"	X		SLAB FTG. STIRRUP	LONG.
T802	X	8	8	56'-3"			SLAB FTG.	TRANS.
T503	X	4	4	8'-11"	X		SLAB FTG. STIRRUP	LONG.
T804	X	4	4	53'-8"			SLAB FTG.	TRANS.
T805	X	96	96	21'-6"	X		SLAB BOT.	LONG.
T506	X	58	58	19'-8"			SLAB TOP	LONG.
T507	X	41	41	56'-3"			SLAB TOP & BOTTOM	TRANS.
T508	X	40	40	4'-1"	X		SLAB TOP	TRANS.
							TOTAL WEIGHT =	23,580 LBS

THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.
ALL BARS SHOWN EXPOXY COATED
BOTH APPROACH SLABS ARE INCLUDED IN THIS BILL OF BARS

LEGEND

20-01 SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).

20-02 SEE PARAPET SHEET FOR LOCATION OF NAME PLATE AND BENCH MARK WITH RESPECT TO THE END OF PARAPET.

20-03 NOTCH APPROACH SLAB FOOTING TO ALLOW FOR THRIE BEAM POST INSTALLATION

20-04 STA. 1446+54.69, EL. 960.88 (NORTHWEST CORNER)
STA. 1446+54.69, EL. 961.24 (NORTHEAST CORNER)
STA. 1445+74.19, EL. 961.44 (SOUTHWEST CORNER)
STA. 1445+74.19, EL. 961.80 (SOUTHEAST CORNER)

20-05 STA. 1446+54.69, EL. 961.60 (NORTH END)
STA. 1445+74.19, EL. 962.16 (SOUTH END)

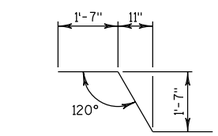
20-06 INCLUDED IN ITEM "BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES".

DESIGN DATA

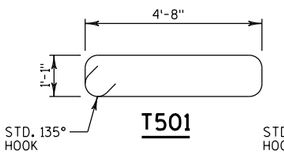
CONCRETE STRENGTH, f'c: ——— 4,000 P.S.I.
BAR STEL REINFORCEMENT, GRADE 60, fy: ——— 60,000 P.S.I.
ALLOWABLE SOIL BEARING PRESSURE: ——— 2,000 P.S.I.

NOTES:

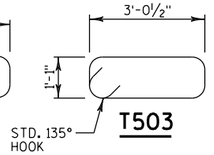
SEE SHEET 21 FOR SECTIONS A-A THRU E-E.



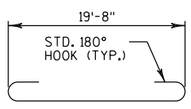
SS901



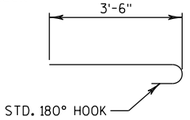
T501



T503



T805



T508

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-194

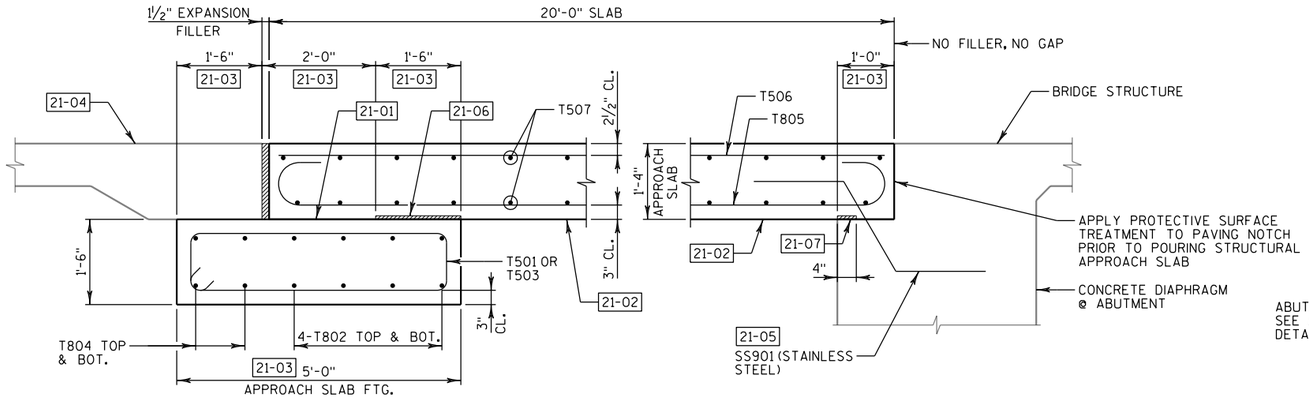
DRAWN BY TKB | PLANS CK'D. BH

STRUCTURAL APPROACH SLAB

SHEET 20 OF 22

STATE PROJECT NUMBER

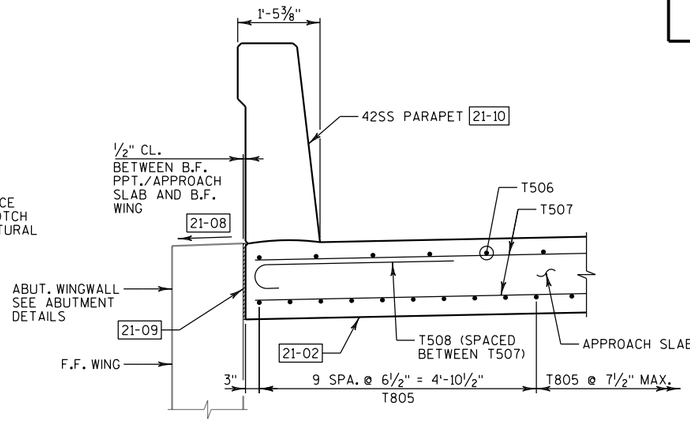
1100-41-70



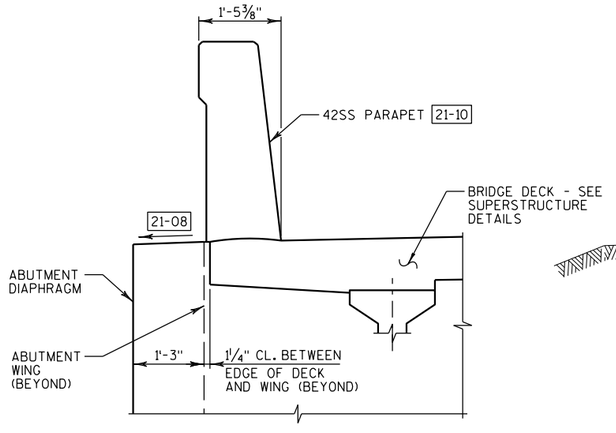
SECTION A-A

SECTION B-B

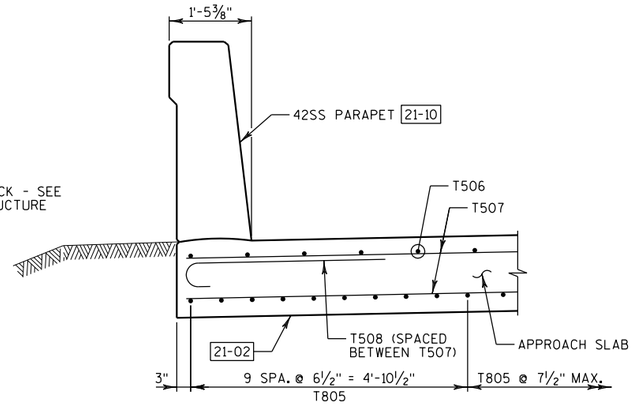
SECTION THRU APPROACH SLAB



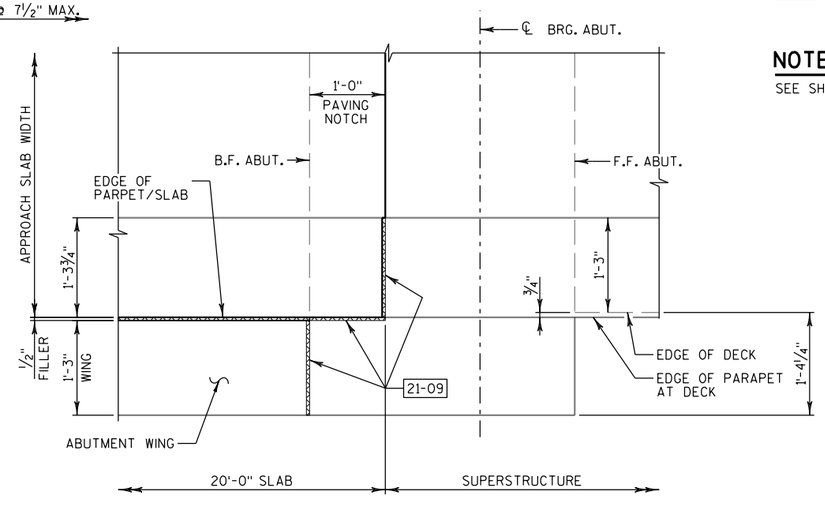
SECTION C-C



SECTION D-D



SECTION E-E



DETAIL "A"

LEGEND

- 21-01 STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF FOOTING.
- 21-02 PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF SUBGRADE BENEATH SLAB.
- 21-03 MEASURED NORMAL TO ABUTMENT.
- 21-04 ROADWAY APPROACH PAVEMENT.
- 21-05 THE BID ITEM FOR SS901 SHALL BE "BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES".
- 21-06 ¾" PREFORMED JOINT FILLER ACCORDING TO STANDARD SPEC. 502.2.7 (1'-6" WIDE x 56'-7½" LONG)
- 21-07 ¾" PREFORMED JOINT FILLER ACCORDING TO STANDARD SPEC. 502.2.7 (4" WIDE x 56'-7½" LONG)
- 21-08 SLOPE TO DRAIN.
- 21-09 SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).
- 21-10 SEE PARAPET SHEET FOR REINFORCEMENT. LOCATION OF NAME PLATE AND BENCH MARK WITH RESPRECT TO THE END OF PARAPET, ETC.

NOTE:

SEE SHEET 20 FOR LOCATIONS OF SECTIONS & DETAILS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-194

DRAWN BY TKB | PLANS CK'D. BH

STRUCTURAL APPROACH SLAB DETAILS

SHEET 21 OF 22

191

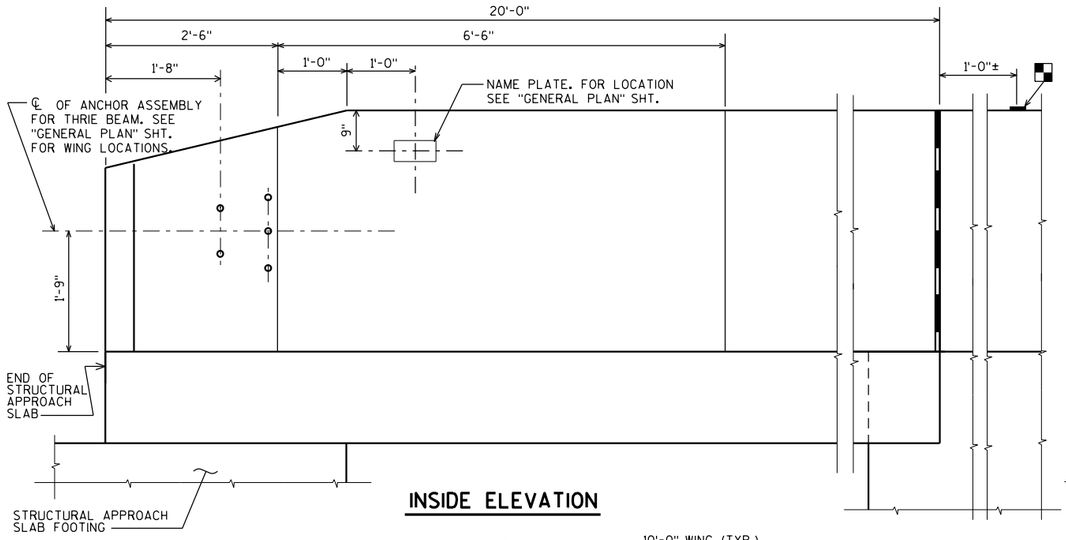
8

8

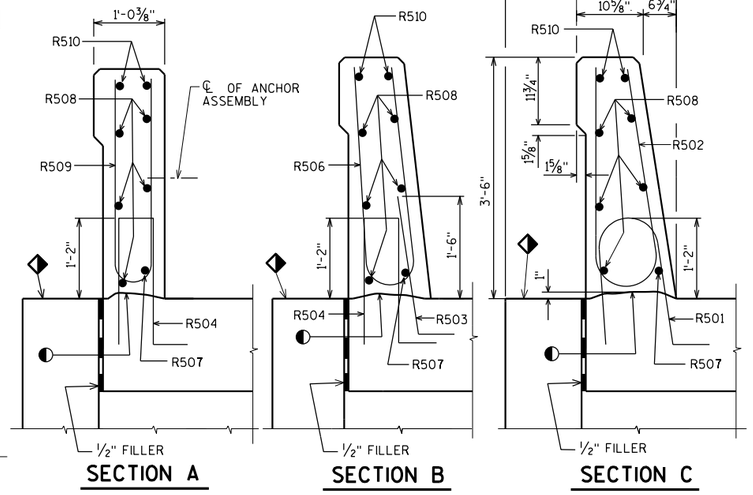
FILE NAME : C:±Users±tbetcher±Google Drive±TKB Projects±Bridge±B-66±B-66-193&194±Cad B-66-194±B-66-194_011 Approach Slab.dgn

PLOT DATE : 1/15/2019

PLOT SCALE : 2.00000 '/ ft.



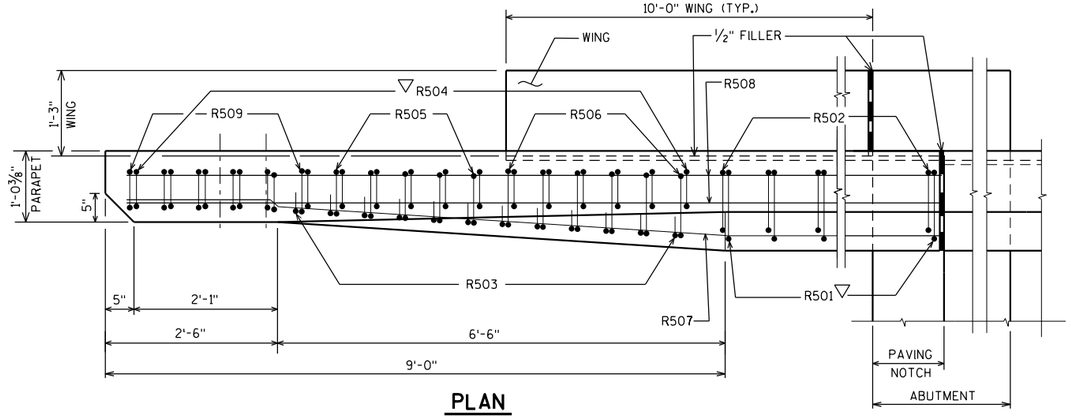
INSIDE ELEVATION



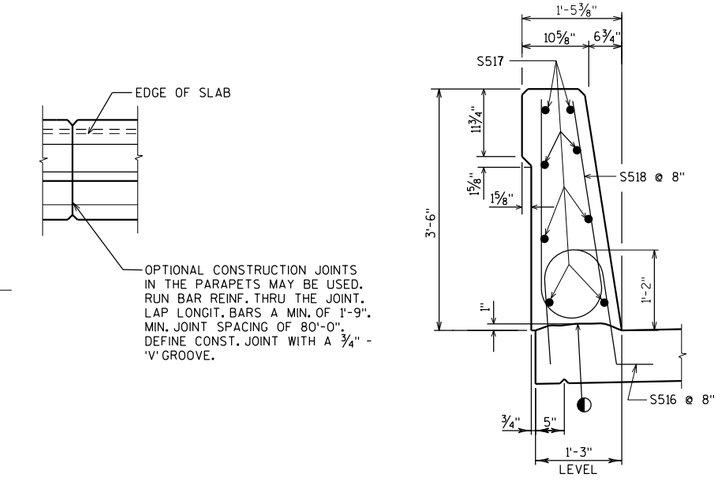
SECTION A

SECTION B

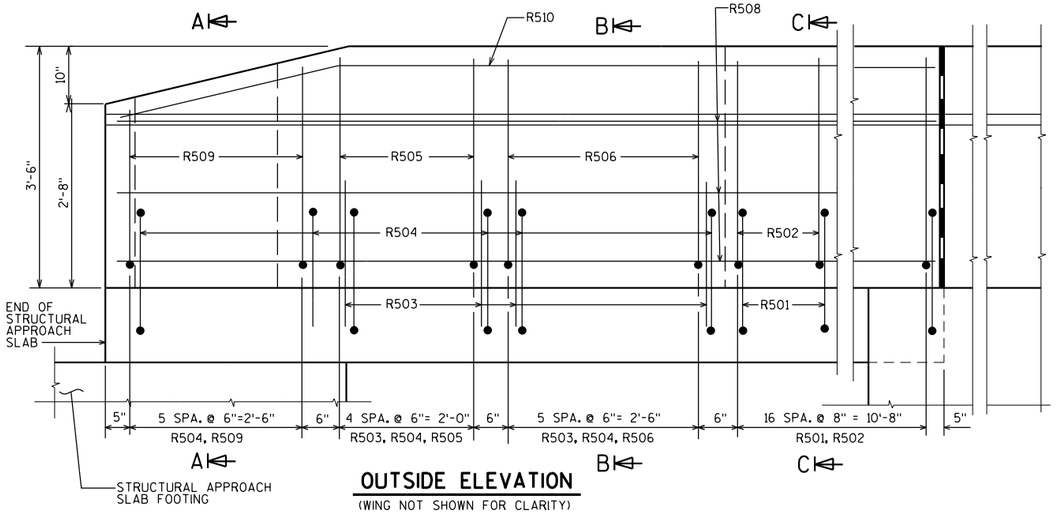
SECTION C



PLAN

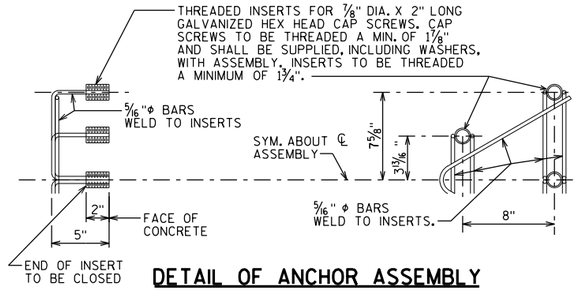


SECTION THRU PARAPET ON BRIDGE



OUTSIDE ELEVATION

(WING NOT SHOWN FOR CLARITY)



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

NOTE

SEE SHEET 17 FOR CONDUIT IN PARAPET DETAILS.

LEGEND

- ◐ CONST. JOINT - STRIKE OFF AS SHOWN.
- ◆ SLOPE FOR DRAINAGE
- ▽ R501 AND R504 BARS TO BE TIED TO STRUCTURAL APPROACH SLAB STEEL BEFORE STRUCTURAL APPROACH SLAB IS POURED.
- ◩ BENCH MARK CAP (WHEN SUPPLIED)

STATE PROJECT NUMBER

1100-41-70

BILL OF BARS

FOR STRUCTURAL APPROACH SLAB PARAPETS

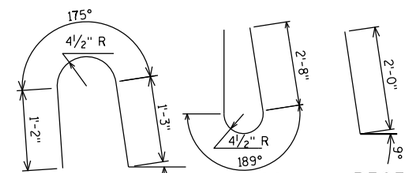
BAR MARK	COAT	S. ABUT.	N. ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	34	34	4-5	X		PARAPET VERT.
R502	X	34	34	6-8	X		PARAPET VERT.
R503	X	22	22	2-9	X		PARAPET VERT.
R504	X	34	34	4-4	X		PARAPET VERT.
R505	X	10	10	6-5	X		PARAPET VERT.
R506	X	12	12	6-6	X		PARAPET VERT.
R507	X	2	2	19'-8"	X		PARAPET HORIZ.
R508	X	10	10	19'-8"			PARAPET HORIZ.
R509	X	12	12	5-5	X	◭	PARAPET VERT.
R510	X	4	4	19'-8"	X		PARAPET HORIZ
							TOTAL WEIGHT = 2,310 LBS

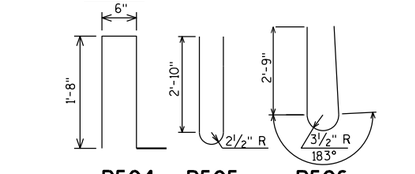
◭ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

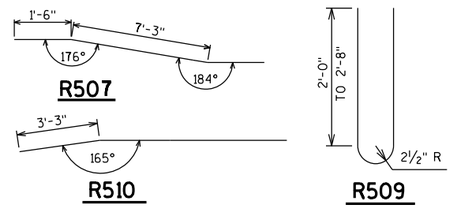
BAR SERIES TABLE

MARK	NO. REQD.	LENGTH
S509	4 SERIES OF 6	4'-9" TO 6'-1"

BUNDLE AND TAG EACH SERIES SEPARATELY.







NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-66-194

DRAWN BY TKB | PLANS CK'D. BH

SINGLE SLOPE PARAPET 42SS

SHEET 22 OF 22

192

8

8

TRIBUTARY - STAGE 1

Station	Distance	AREA (SF) Cut	Salvaged/ Unusable Pavement Material	Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Salvaged/Unusable Pavement Material Note 2	Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Expanded Fill 1.25	Mass Ordinate
1435+82.594		9.42	0	1.04	0	0	0	0	0	0
1436+00.000	18	16.08	0	0.44	9	0	0	9	1	8
1437+00.000	100	39.71	0	0.03	147	0	0	156	1	111
1438+00.000	100	54.38	0	0.00	174	0	0	330	1	285
1439+00.000	100	37.97	0	1.51	171	0	3	501	4	453
1440+00.000	100	37.40	0	2.55	140	0	8	640	14	583
1441+00.000	100	35.62	0	4.05	135	0	12	776	29	703
1442+00.000	100	22.56	0	14.04	108	0	34	883	71	769
1443+00.000	100	29.56	0	21.96	97	0	67	980	154	782
1444+00.000	100	27.55	0	25.75	106	0	88	1086	265	777
1445+00.000	100	15.09	0	12.34	79	0	71	1165	353	768
1446+00.000	100	13.25	0	0.00	52	0	23	1217	381	792
1447+00.000	100	12.98	0	17.01	49	0	32	1266	421	801
1448+00.000	100	13.98	0	12.11	50	0	54	1316	488	784
1449+00.000	100	24.91	0	19.48	72	0	59	1388	561	783
1450+00.000	100	25.89	0	29.62	94	0	91	1482	675	763
1451+00.000	100	39.10	0	7.67	120	0	69	1602	761	797
1452+00.000	100	36.43	0	15.24	140	0	42	1742	814	884
1453+00.000	100	32.59	0	20.82	128	0	67	1870	898	928
1454+00.000	100	33.57	0	18.23	123	0	72	1992	988	960
1455+00.000	100	70.23	0	0.00	192	0	34	2184	1030	1110
1456+00.000	100	26.32	0	17.41	179	0	32	2363	1071	1249
1457+00.000	100	21.86	0	26.24	89	0	81	2452	1172	1237
1458+00.000	100	6.97	0	39.93	53	0	123	2506	1325	1137
1458+62.337	62	6.85	0	0.05	16	0	46	2522	1382	1096
					2522	**0**	**1106**			

Notes:	
1 - Cut	Cut includes Salvaged/Unusable Pavement material
2 - Salvaged/Unusable Pavement Material	This does not show up in cross sections
3 - Fill	Does not include Unusable Pavement Exc volume

TRIBUTARY - STAGE 2

Station	Distance	AREA (SF) Cut	Salvaged/ Unusable Pavement Material	Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Salvaged/Unusable Pavement Material Note 2	Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Expanded Fill 1.25	Mass Ordinate
1433+55.000		13.91	0	0.26	0	0	0	0	0	0
1434+00.000	45	13.49	0	0.65	23	0	1	23	1	22
1435+00.000	100	13.70	0	1.90	51	0	7	74	10	63
1436+00.000	100	13.65	0	0.19	51	0	4	124	15	109
1437+00.000	100	14.29	0	0.21	52	0	1	176	16	160
1438+00.000	100	14.02	0	0.42	52	0	1	228	17	211
1439+00.000	100	14.87	0	0.08	54	0	1	282	18	263
1440+00.000	100	14.20	0	0.28	54	0	1	336	19	316
1441+00.000	100	14.44	0	0.60	53	0	2	389	21	367
1442+00.000	100	12.21	0	3.97	49	0	8	438	32	406
1443+00.000	100	16.47	0	22.41	53	0	49	491	93	398
1444+00.000	100	15.50	0	25.57	59	0	89	550	204	346
1445+00.000	100	15.10	0	25.84	57	0	95	607	323	284
1445+75.854	76	14.02	0	42.00	41	0	95	648	442	206
1446+55.915	80	12.38	0	42.72	39	0	126	687	599	88
1447+00.000	44	13.89	0	25.23	21	0	55	709	668	40
1448+00.000	100	17.89	0	7.07	59	0	60	767	743	24
1449+00.000	100	18.76	0	3.99	68	0	20	835	769	66
1450+00.000	100	17.75	0	0.53	68	0	8	903	779	124
1451+00.000	100	15.27	0	0.00	61	0	1	964	780	183
1452+00.000	100	13.66	0	0.25	54	0	0	1018	781	236
1452+67.000	67	13.87	0	0.01	34	0	0	1052	781	270
					1052	**0**	**625**			

Notes:	
1 - Cut	Cut includes Salvaged/Unusable Pavement material
2 - Salvaged/Unusable Pavement Material	This does not show up in cross sections
3 - Fill	Does not include Unusable Pavement Exc volume

TRIBUTARY - STAGE 3

Station	Distance	AREA (SF) Cut	Salvaged/ Unusable Pavement Material	Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Salvaged/Unusable Pavement Material Note 2	Fill Note 3	Cumulative Vol (CY Cut 1.00 Note 1	Expanded Fill 1.25	Mass Ordinate
1437+50.302		14.53	0	6.73	0	0	0	0	0	0
1438+00.000	50	14.94	0	18.64	27	0	23	27	29	-2
1439+00.000	100	15.64	0	11.90	58	0	44	85	84	-1
1440+00.000	100	14.27	0	7.66	55	0	36	141	130	10
1440+63.044	63	13.30	0	10.34	32	0	21	173	156	15
1441+00.000	37	13.09	0	15.33	18	0	18	191	178	12
1442+00.000	100	62.23	18	39.50	139	33	102	330	305	-9
1443+00.000	100	57.99	18	16.57	223	67	104	553	435	17
1444+00.000	100	25.84	18	95.92	155	67	208	708	695	-155
1445+00.000	100	0.00	18	148.54	48	67	453	756	1261	-740
1445+74.535	74	0.00	18	121.19	0	49	370	756	1723	-1251
1446+55.915	82	0.00	18	165.02	0	55	435	756	2266	-1849
1447+00.000	44	0.00	18	116.56	0	29	229	756	2553	-2165
1447+79.860	80	4.49	18	56.52	7	53	256	763	2874	-2532
1448+00.000	20	8.46	18	66.18	5	13	45	768	2930	-2598
1448+04.860	5	9.57	18	64.22	2	3	12	769	2945	-2614
1448+29.860	25	19.28	18	50.03	13	17	53	783	3012	-2684
1448+82.820	53	41.89	18	14.11	60	35	63	843	3090	-2738
1449+00.000	17	50.66	18	10.98	29	11	8	872	3100	-2730
1449+07.820	8	52.88	18	13.61	15	5	4	887	3105	-2724
1449+32.820	25	56.82	18	6.01	51	17	9	938	3116	-2702
1449+49.860	17	57.98	18	7.08	36	11	4	974	3121	-2682
1450+00.000	50	63.23	18	1.18	112	33	8	1086	3131	-2613
1450+52.820	53	67.03	18	0.32	128	35	1	1214	3133	-2522
1451+00.000	47	18.50	0	0.02	74	16	0	1288	3133	-2463
1452+00.000	100	17.06	0	3.00	66	0	6	1354	3140	-2405
1453+00.000	100	17.61	0	1.45	64	0	8	1419	3150	-2351
1454+00.000	100	16.81	0	3.07	64	0	8	1482	3161	-2297
1455+00.000	100	19.43	0	0.00	67	0	6	1549	3168	-2237
1456+00.000	100	19.11	0	0.00	71	0	0	1621	3168	-2166
1456+90.648	91	17.55	0	5.42	62	0	9	1683	3179	-2116
					1683	**618**	**2543**			

Notes:	
1 - Cut	Cut includes Salvaged/Unusable Pavement material
2 - Salvaged/Unusable Pavement Material	This does not show up in cross sections
3 - Fill	Does not include Unusable Pavement Exc volume

TRIBUTARY - STAGE 4

Station	Distance	AREA (SF) Cut	Salvaged/ Unusable Pavement Material	Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Salvaged/Unusable Pavement Material Note 2	Fill Note 3	Cumulative Vol (CY Cut 1.00 Note 1	Expanded Fill 1.25	Mass Ordinate
1441+47.538		72.74	18	0.00	0	0	0	0	0	0
1442+00.000	52	63.89	18	1.86	132	35	2	132	2	95
1442+19.450	19	57.39	18	24.48	40	13	17	172	24	103
1442+31.080	12	54.04	18	37.58	25	8	14	197	41	103
1443+00.000	69	32.79	18	39.92	111	46	99	308	165	44
1443+39.450	39	16.91	18	43.89	36	26	61	344	240	-22
1443+51.080	12	11.97	18	44.68	6	8	20	350	265	-48
1443+64.450	13	6.29	18	44.97	4	9	22	354	292	-79
1443+76.080	12	1.85	18	45.59	2	8	20	356	317	-111
1443+89.450	13	0.42	18	48.18	1	9	23	357	345	-147
1444+00.000	11	0.00	18	52.08	0	7	20	357	371	-180
1444+01.080	1	0.00	18	47.60	0	1	2	357	373	-183
1445+00.000	99	0.00	18	69.16	0	66	214	357	641	-516
1445+74.535	74	0.00	18	113.01	0	49	250	357	953	-878
1446+55.915	82	0.00	18	94.71	0	55	315	357	1347	-1327
1447+00.000	44	0.00	18	76.03	0	29	139	357	1521	-1530
1448+00.000	100	0.00	18	24.54	0	67	186	357	1754	-1829
1449+00.000	100	26.40	18	0.64	49	67	47	406	1812	-1905
1450+00.000	100	61.08	18	0.00	162	67	1	568	1814	-1812
1450+85.892	86	69.43	18	0.00	208	57	0	776	1814	-1661
					776	**626**	**1451**			

Notes:	
1 - Cut	Cut includes Salvaged/Unusable Pavement material
2 - Salvaged/Unusable Pavement Material	This does not show up in cross sections
3 - Fill	Does not include Unusable Pavement Exc volume

TRIBUTARY - STAGE 5

Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY		Mass Ordinate
		Cut	Salvaged/ Unusable Pavement Material	Fill	Cut Note 1	Salvaged/Unusable Pavement Material Note 2	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.25	
1435+95.000		1.00	0	0.00	0	0	0	0	0	0
1436+00.000	5	1.00	0	0.00	0	0	0	0	0	0
1437+00.000	100	10.81	0	0.00	40	0	0	40	0	22
1438+00.000	100	17.27	0	0.00	52	0	0	92	0	74
1439+00.000	100	35.81	0	0.00	98	0	0	191	0	172
1440+00.000	100	28.01	0	0.00	118	0	0	309	0	291
1441+00.000	100	27.68	0	0.00	103	0	0	412	0	394
1442+00.000	100	25.04	0	3.34	98	0	6	509	8	484
1443+00.000	100	10.32	0	3.04	65	0	12	575	23	534
1444+00.000	100	2.26	0	8.71	23	0	22	598	50	530
1445+00.000	100	1.58	0	15.71	7	0	45	605	106	481
1445+74.871	75	28.12	0	0.68	41	0	23	647	135	494
1446+55.827	81	22.52	0	0.04	76	0	1	723	136	568
1447+00.000	44	1.94	0	6.80	20	0	6	742	143	581
1448+00.000	100	1.94	0	12.59	7	0	36	750	188	544
1449+00.000	100	11.50	0	1.13	25	0	25	775	220	537
1450+00.000	100	28.28	0	1.52	74	0	5	848	226	604
1451+00.000	100	31.58	0	0.00	111	0	3	959	229	712
1452+00.000	100	45.98	0	0.00	144	0	0	1103	229	855
1453+00.000	100	46.53	0	0.00	171	0	0	1274	229	1027
1454+00.000	100	46.56	0	0.00	172	0	0	1446	229	1199
1455+00.000	100	16.15	0	0.00	116	0	0	1563	229	1315
1456+00.000	100	33.39	0	0.00	92	0	0	1654	229	1407
1457+00.000	100	1.04	0	11.37	64	0	21	1718	256	1444
1457+55.000	55	1.00	0	0.00	2	0	12	1720	270	1432
					1720	**0**	**216**			

Notes:	
1 - Cut	Cut includes Salvaged/Unusable Pavement material
2 - Salvaged/Unusable Pavement Material	This does not show up in cross sections
3 - Fill	Does not include Unusable Pavement Exc volume

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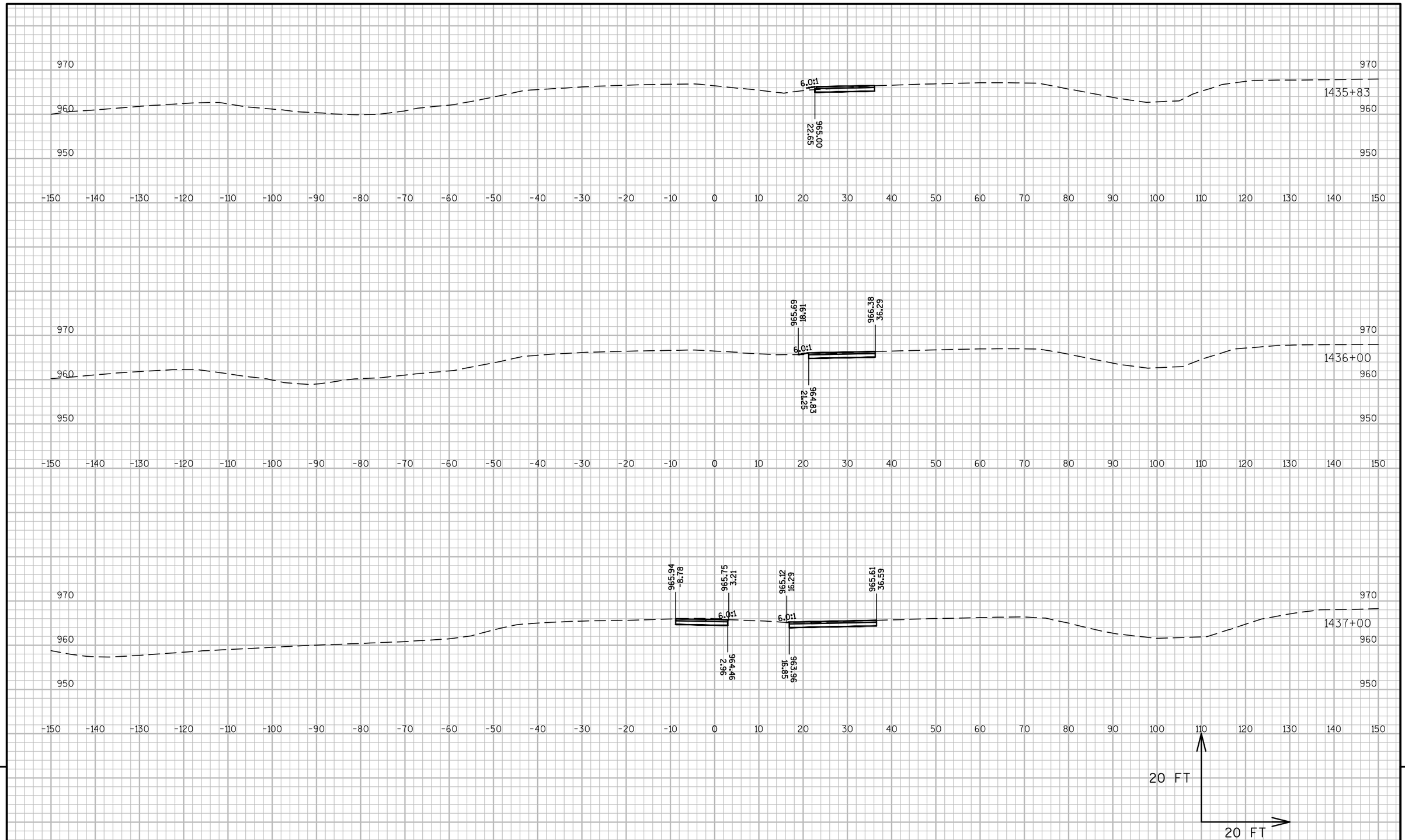

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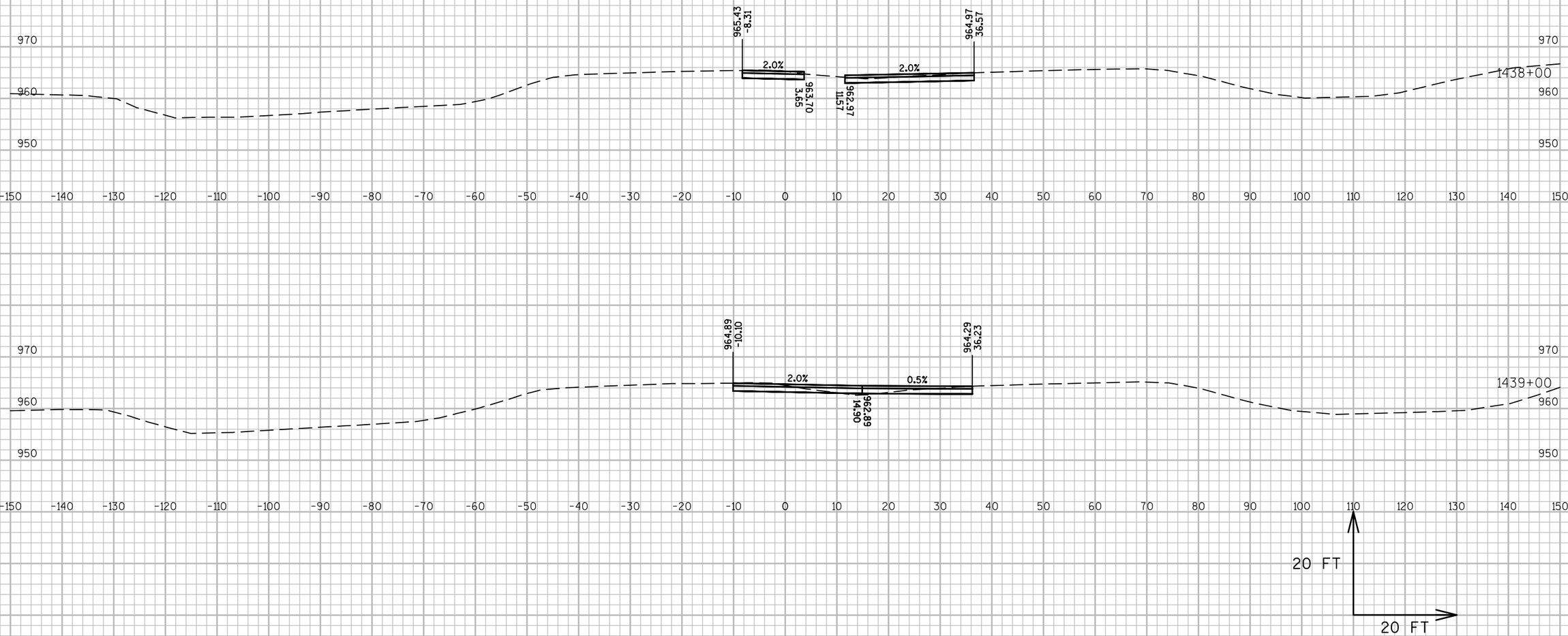
9

PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 1	SHEET 196	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090204-CREEK-TCS1-XS.DWG PLOT DATE : 4/17/2018 11:44 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090204-CREEK-TCS1-XS - 090201-XS



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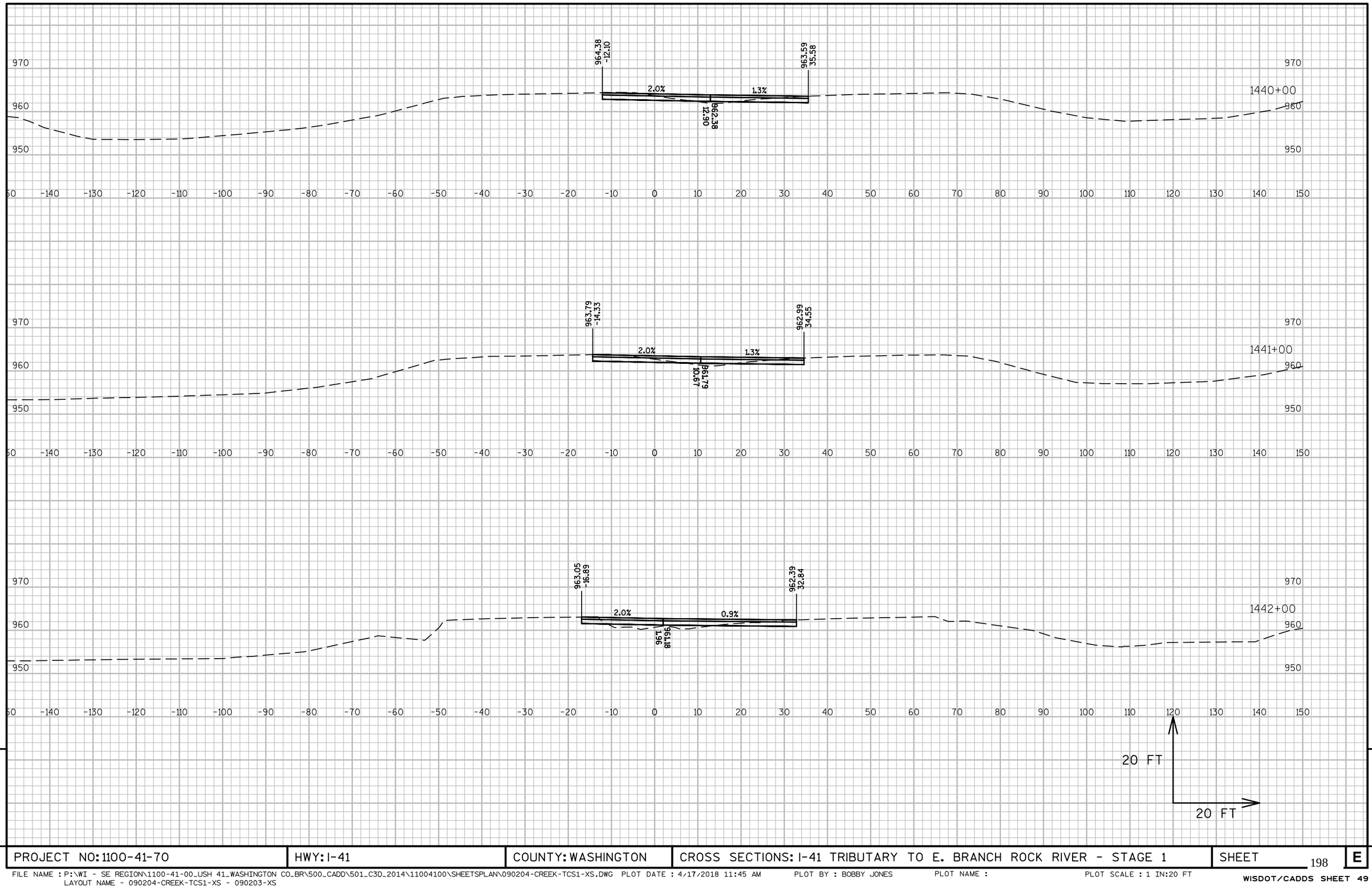
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 1	SHEET 197	E



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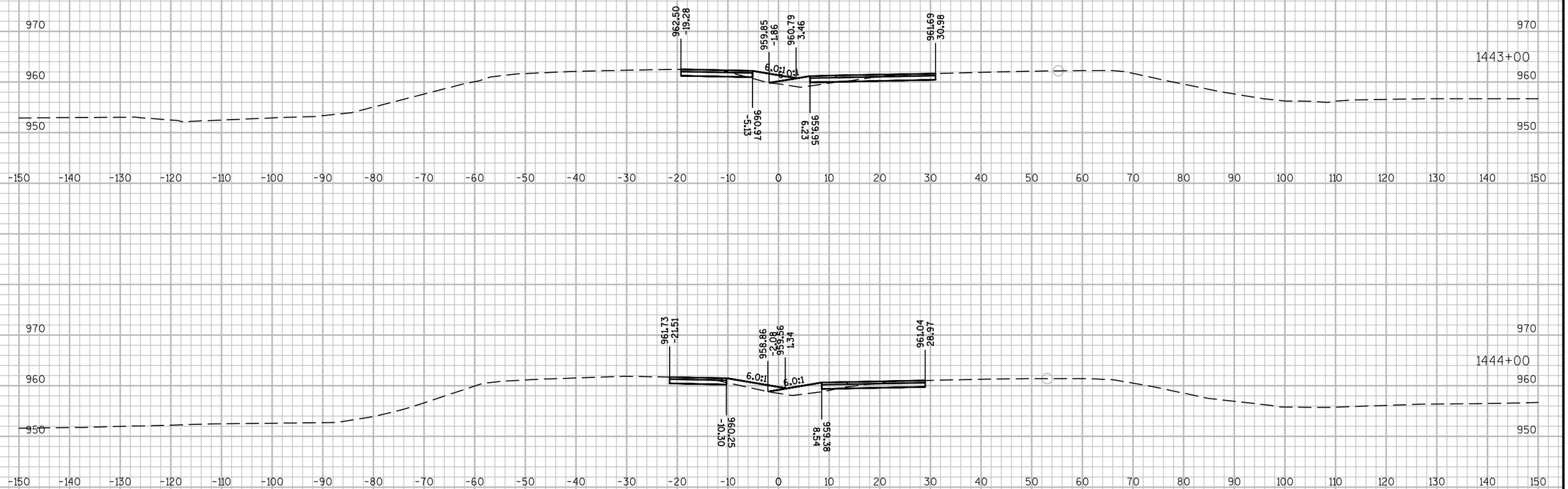
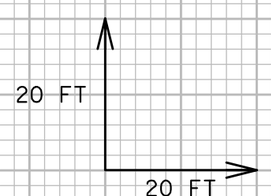
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 1	SHEET 198	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090204-CREEK-TCS1-XS.DWG PLOT DATE : 4/17/2018 11:45 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090204-CREEK-TCS1-XS - 090203-XS





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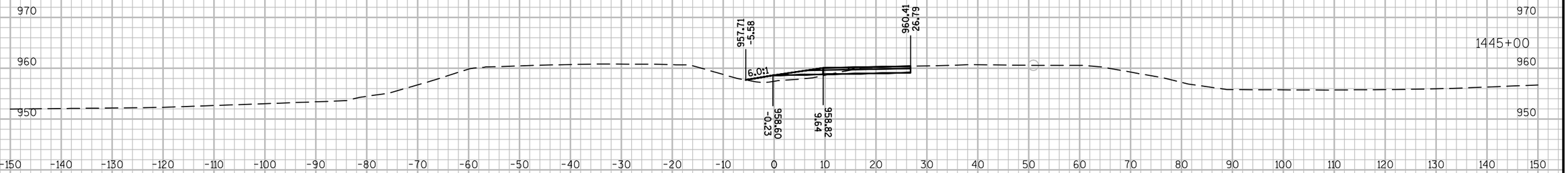
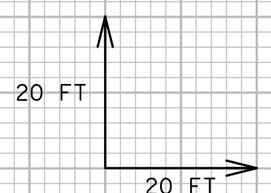
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 1	SHEET 199	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090204-CREEK-TCS1-XS.DWG PLOT DATE : 4/17/2018 11:45 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090204-CREEK-TCS1-XS - 090204-XS





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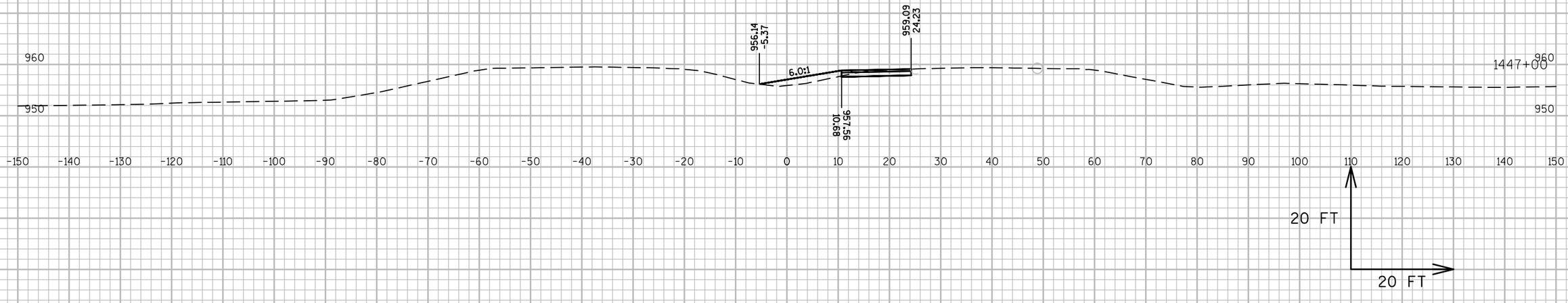
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 1	SHEET 200	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090204-CREEK-TCS1-XS.DWG PLOT DATE : 4/17/2018 11:45 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090204-CREEK-TCS1-XS - 090205-XS



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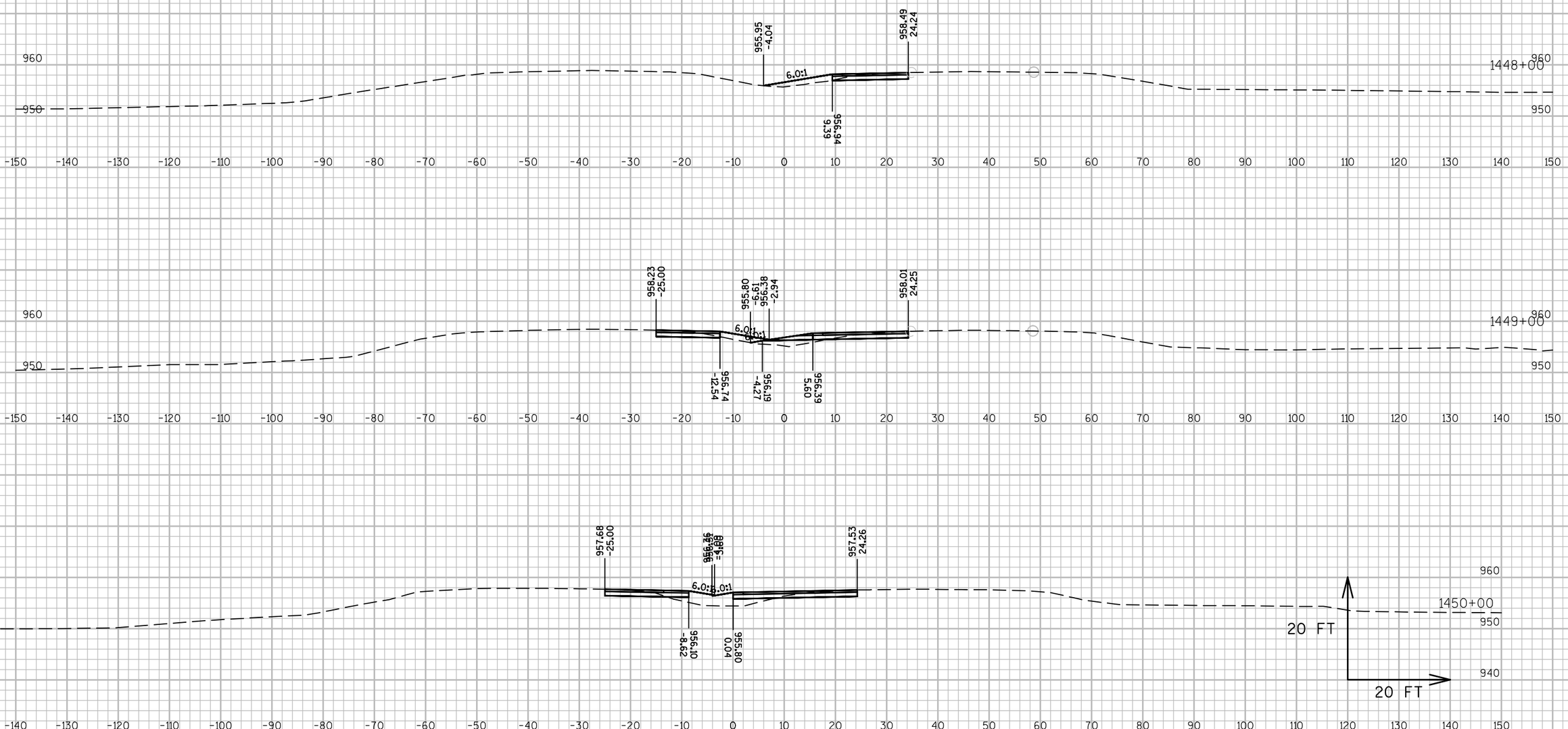
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 1	SHEET 201	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090204-CREEK-TCS1-XS.DWG PLOT DATE : 4/17/2018 11:45 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090204-CREEK-TCS1-XS - 090206-XS



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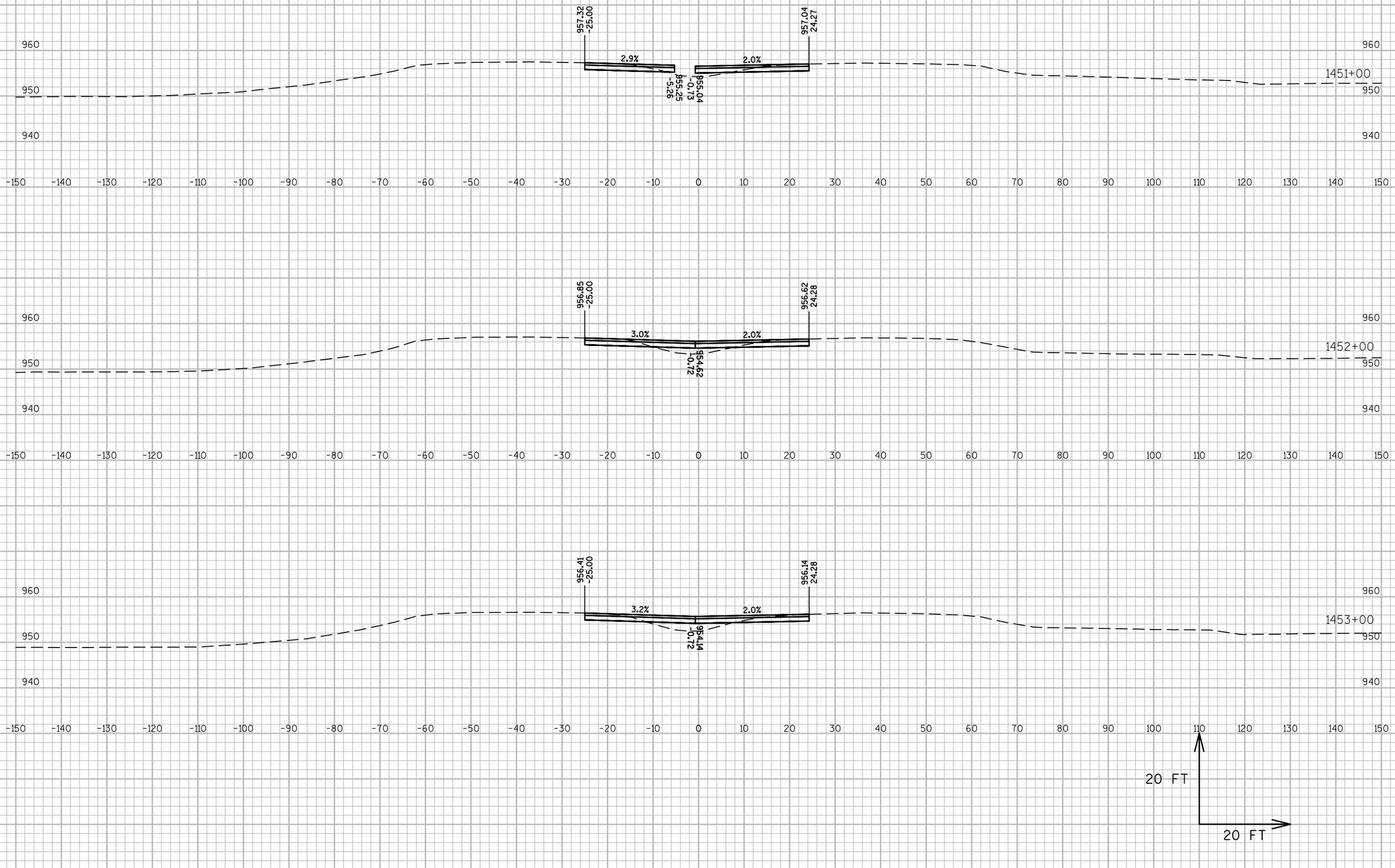
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 1	SHEET 202	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090204-CREEK-TCS1-XS.DWG PLOT DATE : 4/17/2018 11:45 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090204-CREEK-TCS1-XS - 090207-XS

WISDOT/CADDS SHEET 49



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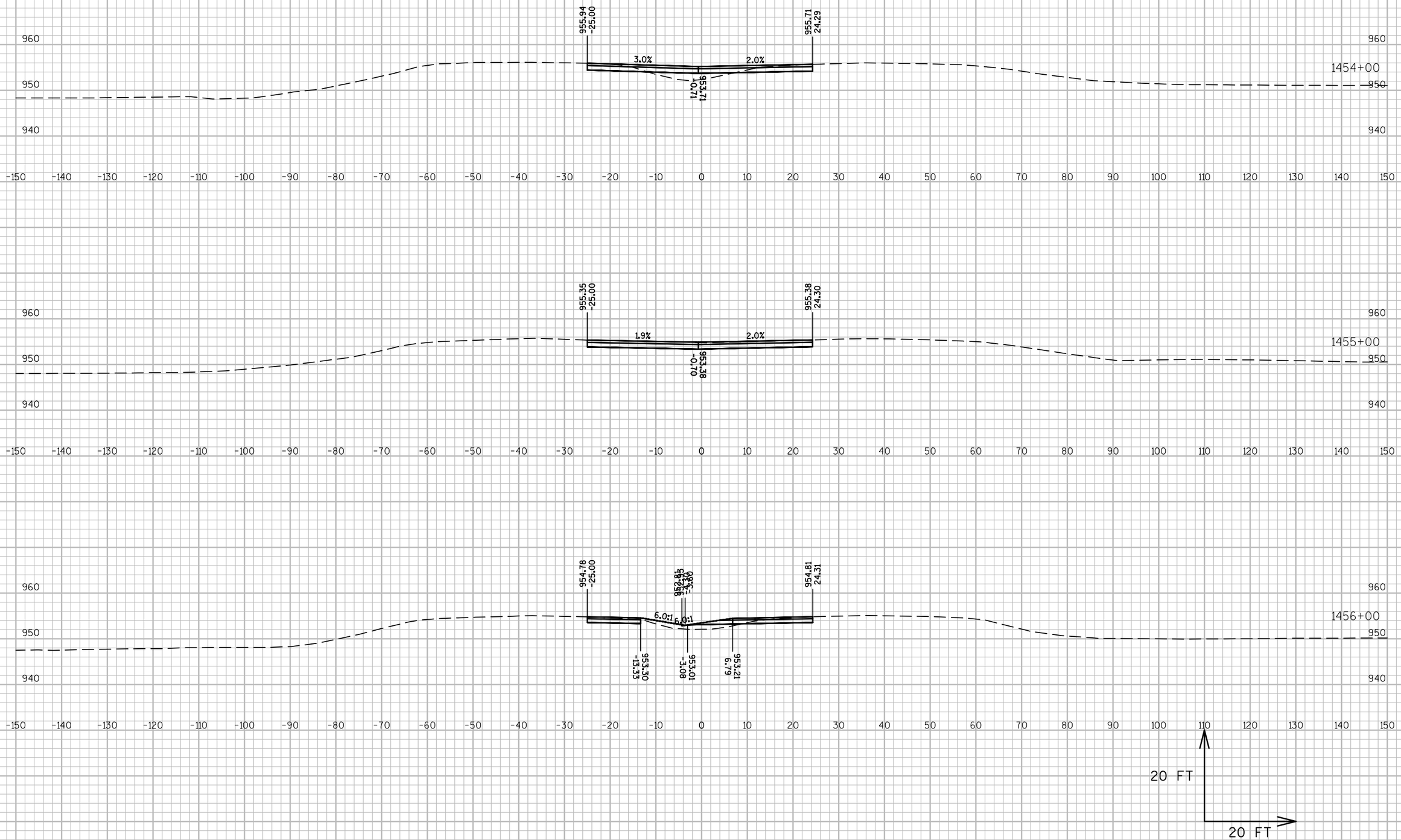
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 1	SHEET 203	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090204-CREEK-TCS1-XS.DWG PLOT DATE : 4/17/2018 11:45 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090204-CREEK-TCS1-XS - 090208-XS



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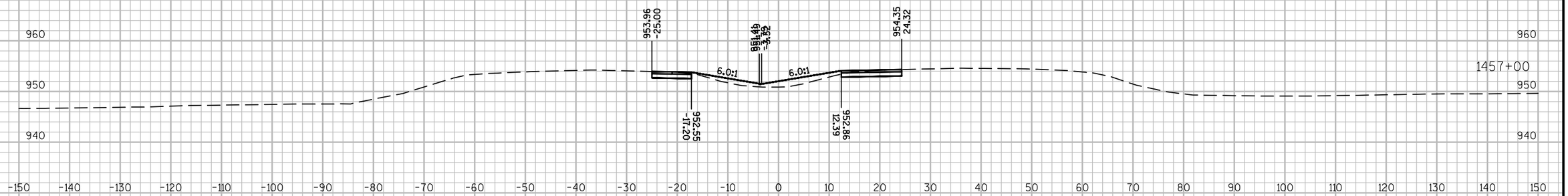
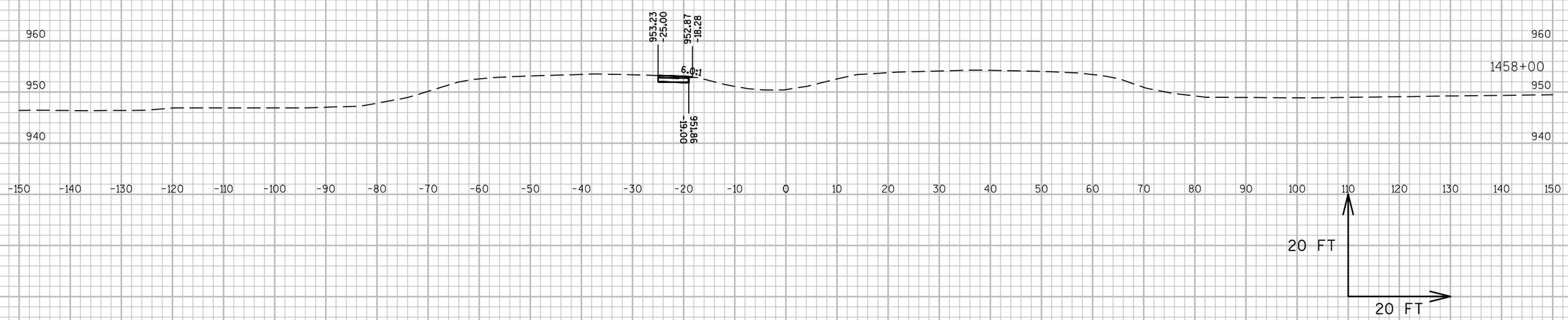
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 1	SHEET 204	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090204-CREEK-TCS1-XS.DWG PLOT DATE : 4/17/2018 11:45 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090204-CREEK-TCS1-XS - 090209-XS

WISDOT/CADDS SHEET 49





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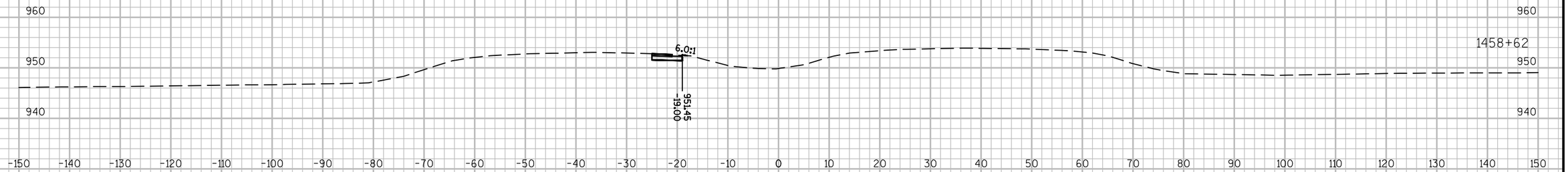
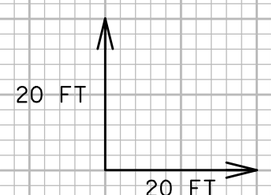
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 1	SHEET 205	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090204-CREEK-TCS1-XS.DWG PLOT DATE : 4/17/2018 11:45 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090204-CREEK-TCS1-XS - 090210-XS





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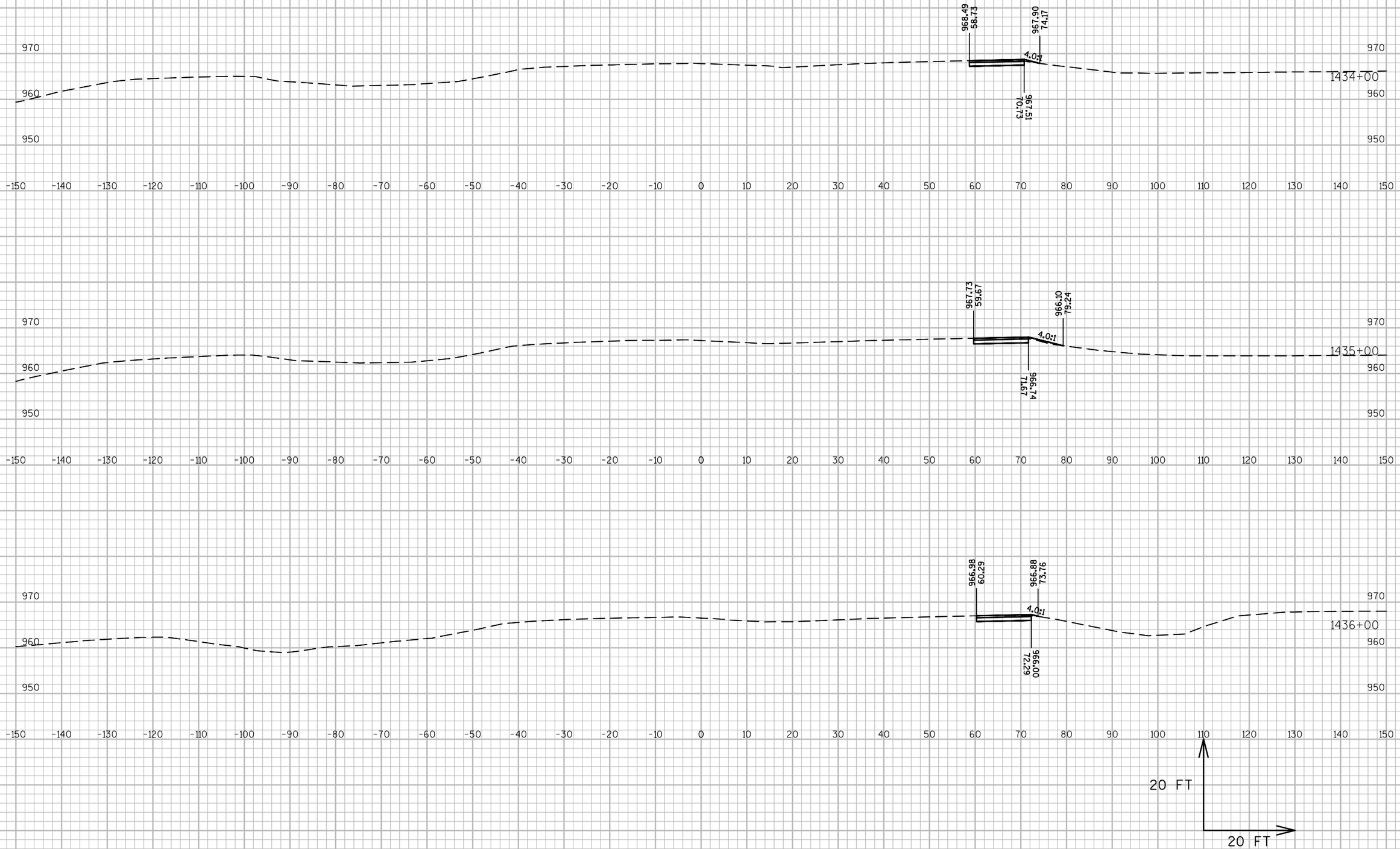
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 1	SHEET 206	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090204-CREEK-TCS1-XS.DWG PLOT DATE : 4/17/2018 11:45 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090204-CREEK-TCS1-XS - 090211-XS

WISDOT/CADDS SHEET 49



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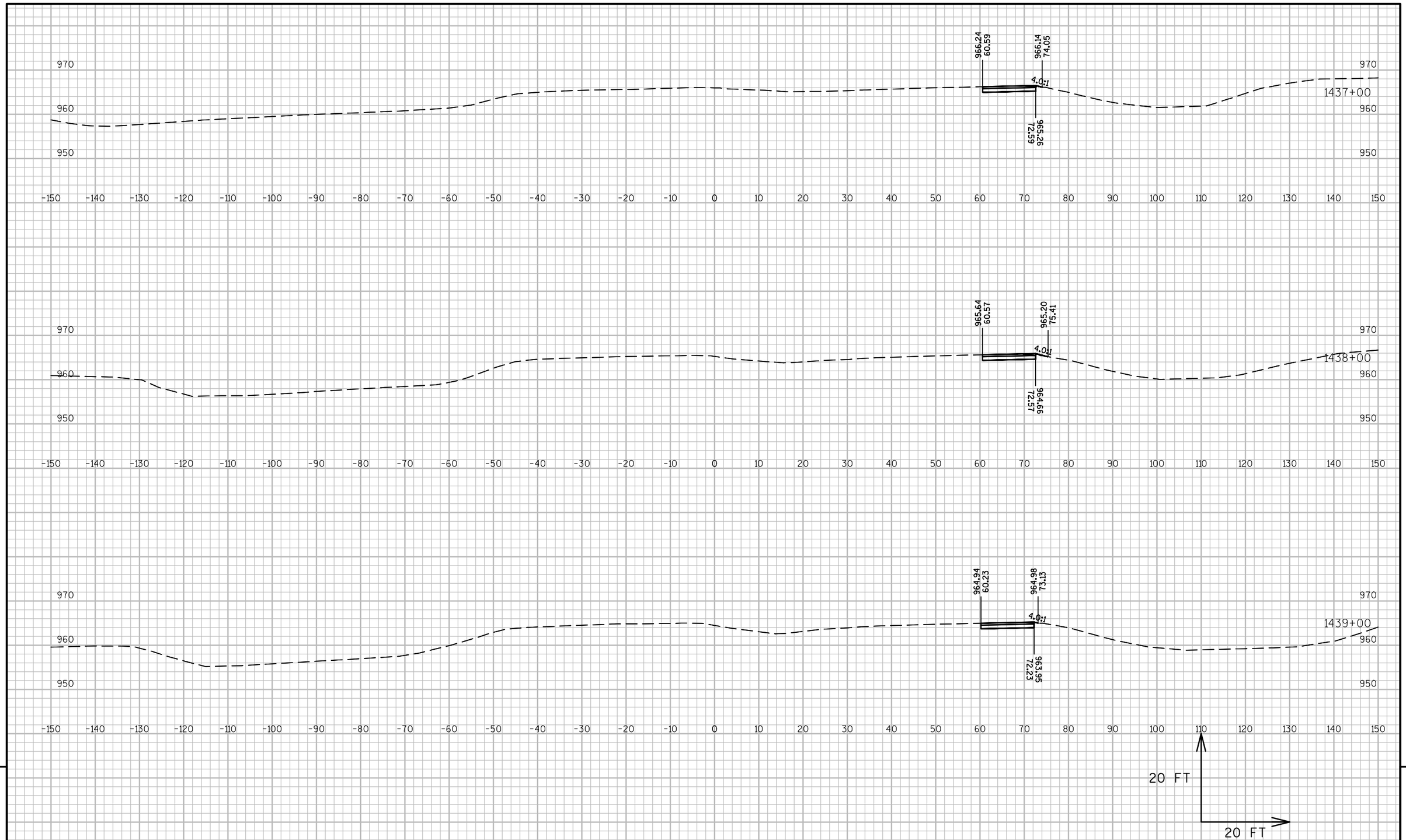
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 2	SHEET 207	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090205-CREEK-TCS2-XS.DWG PLOT DATE : 4/17/2018 11:46 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090205-CREEK-TCS2-XS - 090201-XS



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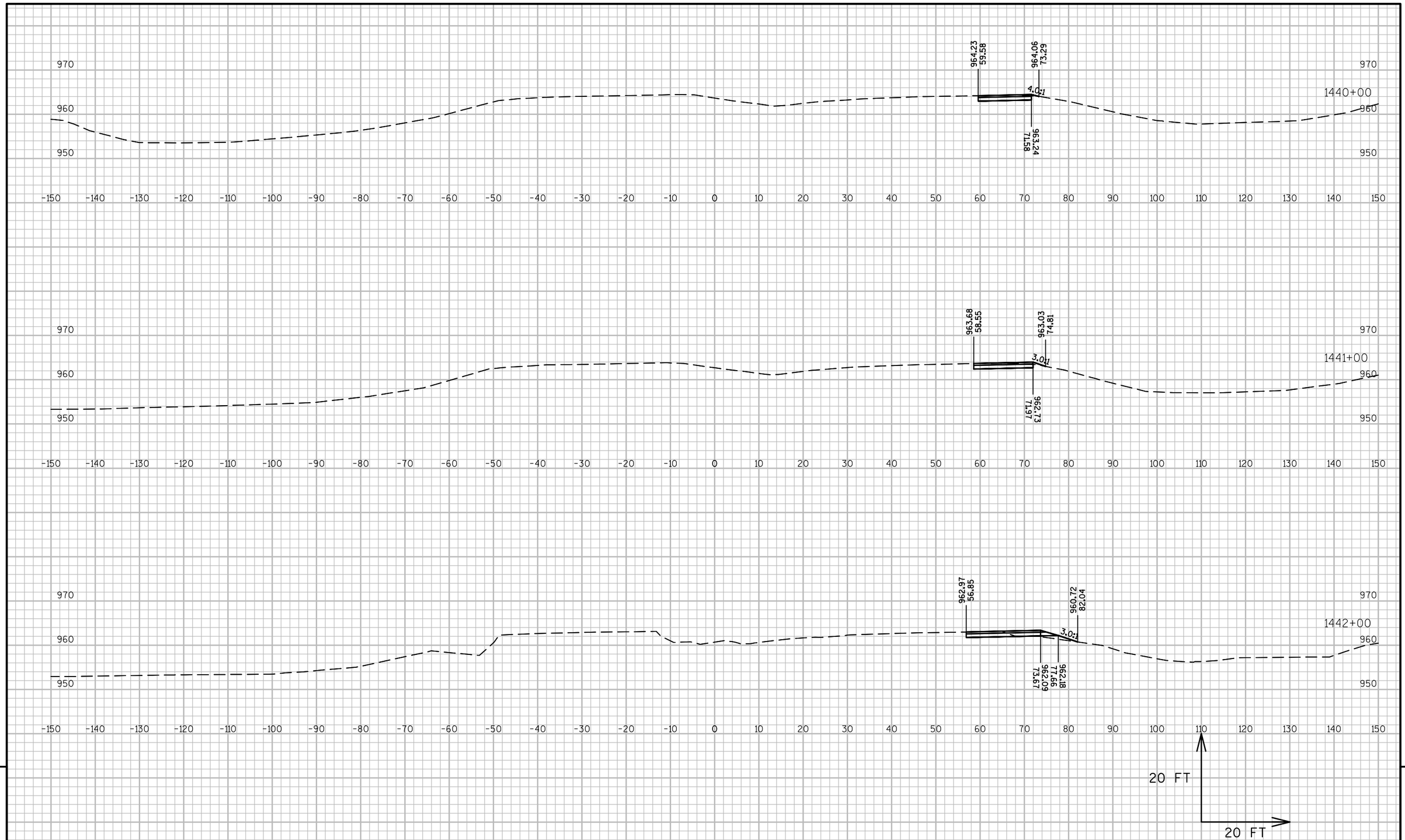
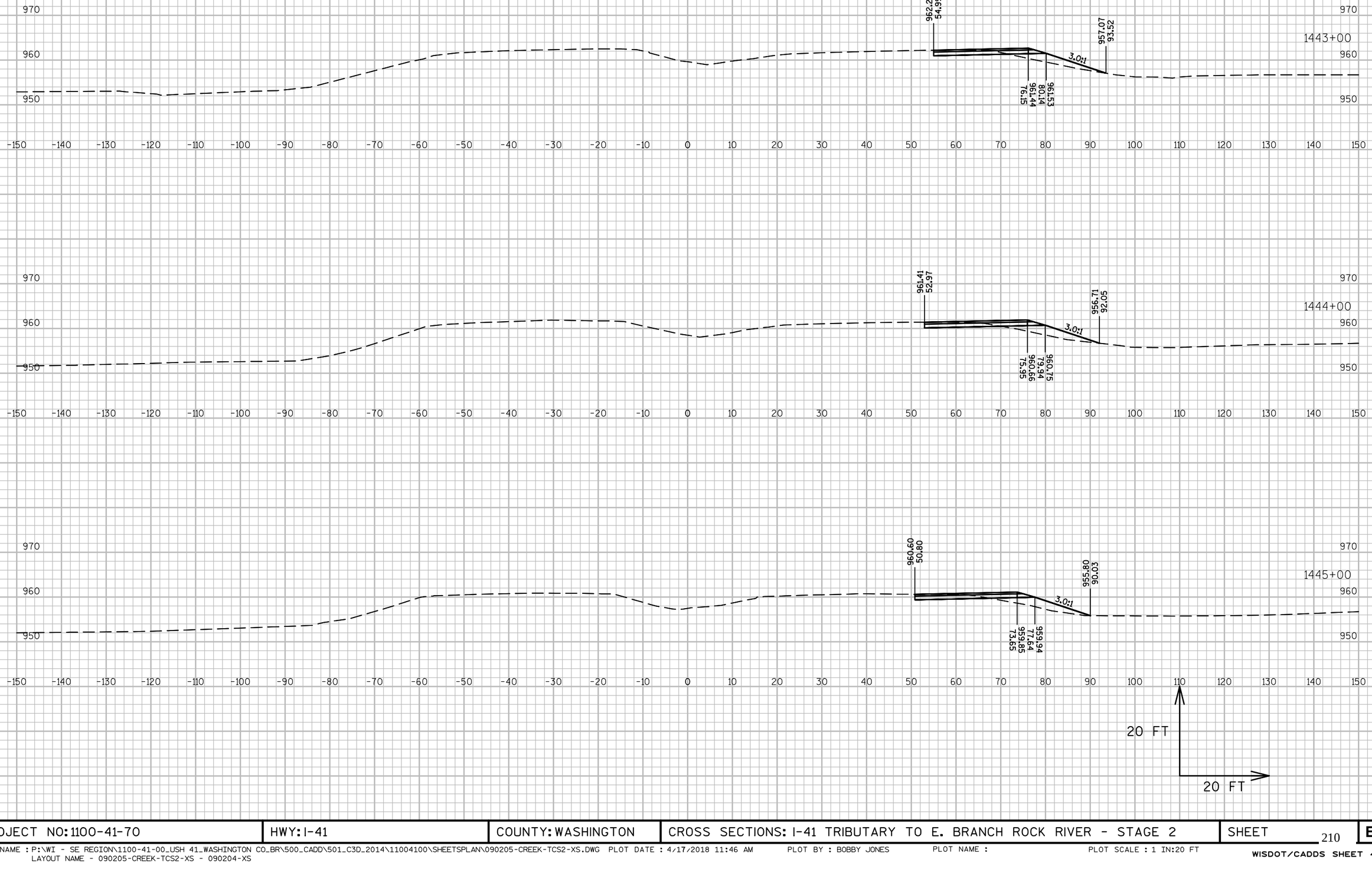
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 2	SHEET 208	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090205-CREEK-TCS2-XS.DWG PLOT DATE : 4/17/2018 11:46 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090205-CREEK-TCS2-XS - 090202-XS

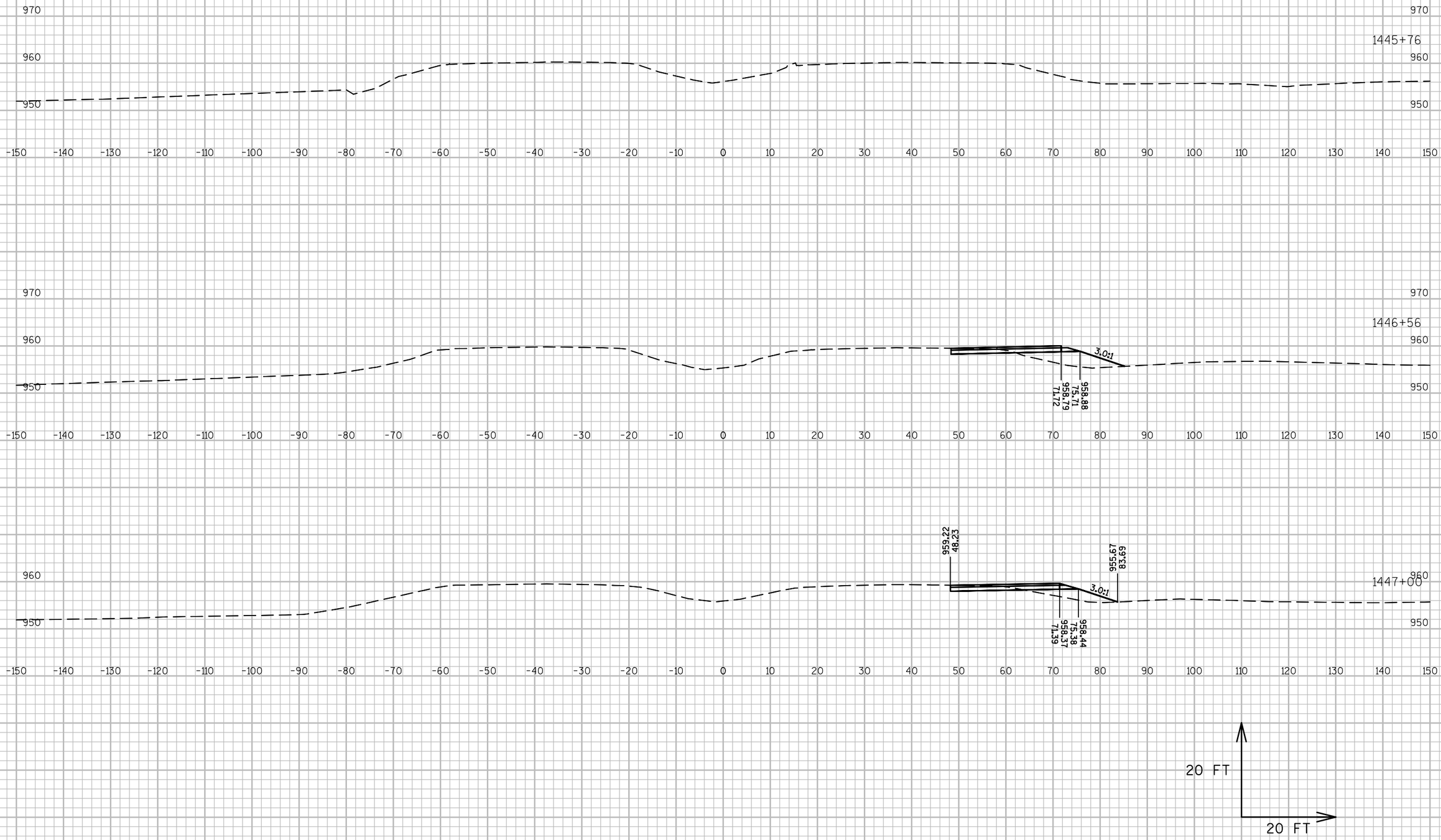


PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 2	SHEET 209	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090205-CREEK-TCS2-XS.DWG PLOT DATE : 4/17/2018 11:46 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090205-CREEK-TCS2-XS - 090203-XS



PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 2	SHEET 210	E



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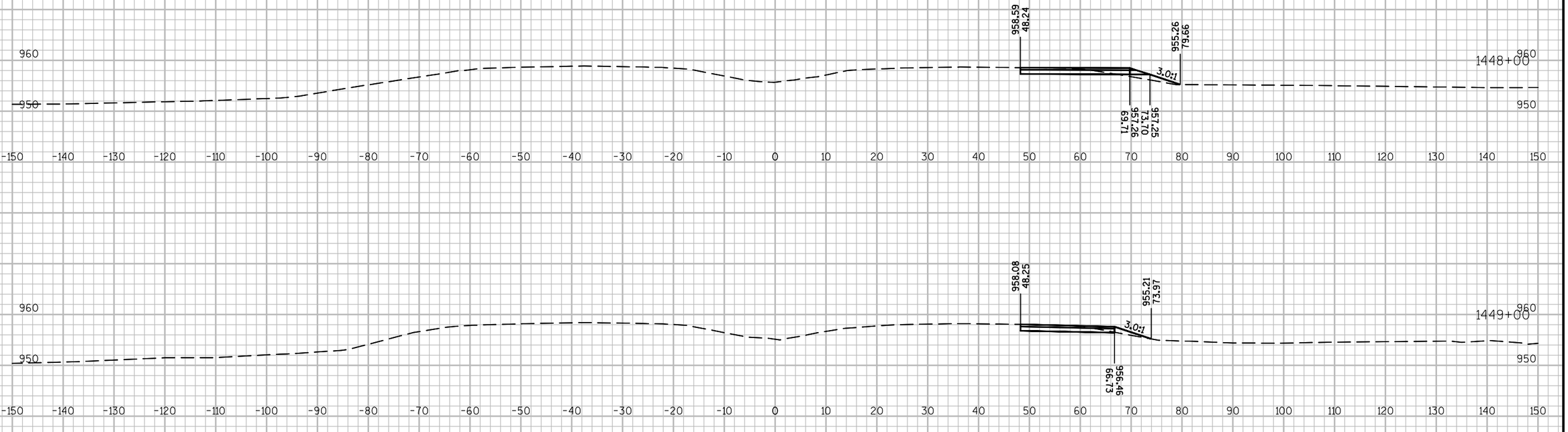
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 2	SHEET 211	E



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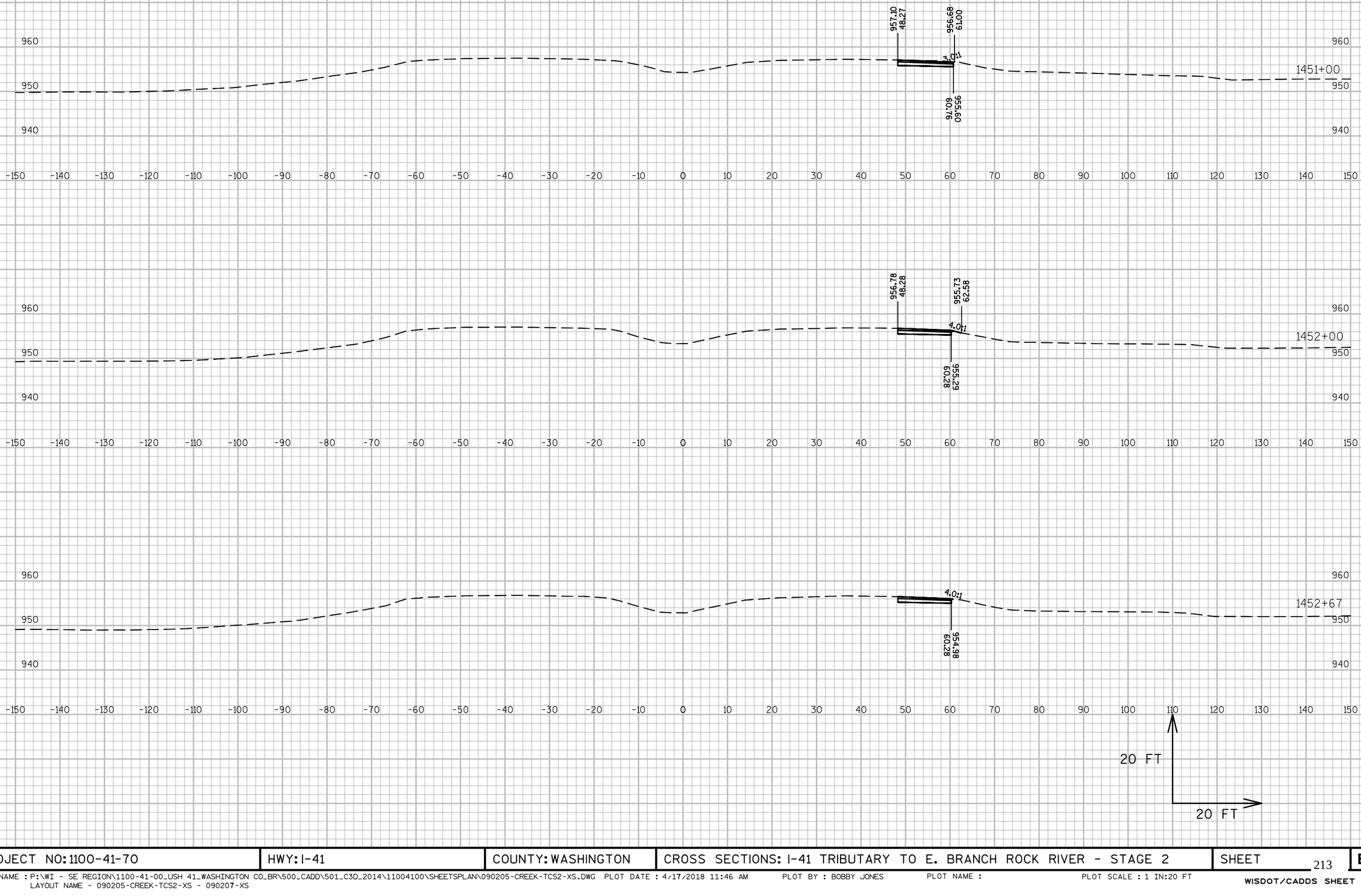
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 2	SHEET 212	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090205-CREEK-TCS2-XS.DWG PLOT DATE : 4/17/2018 11:46 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090205-CREEK-TCS2-XS - 090206-XS



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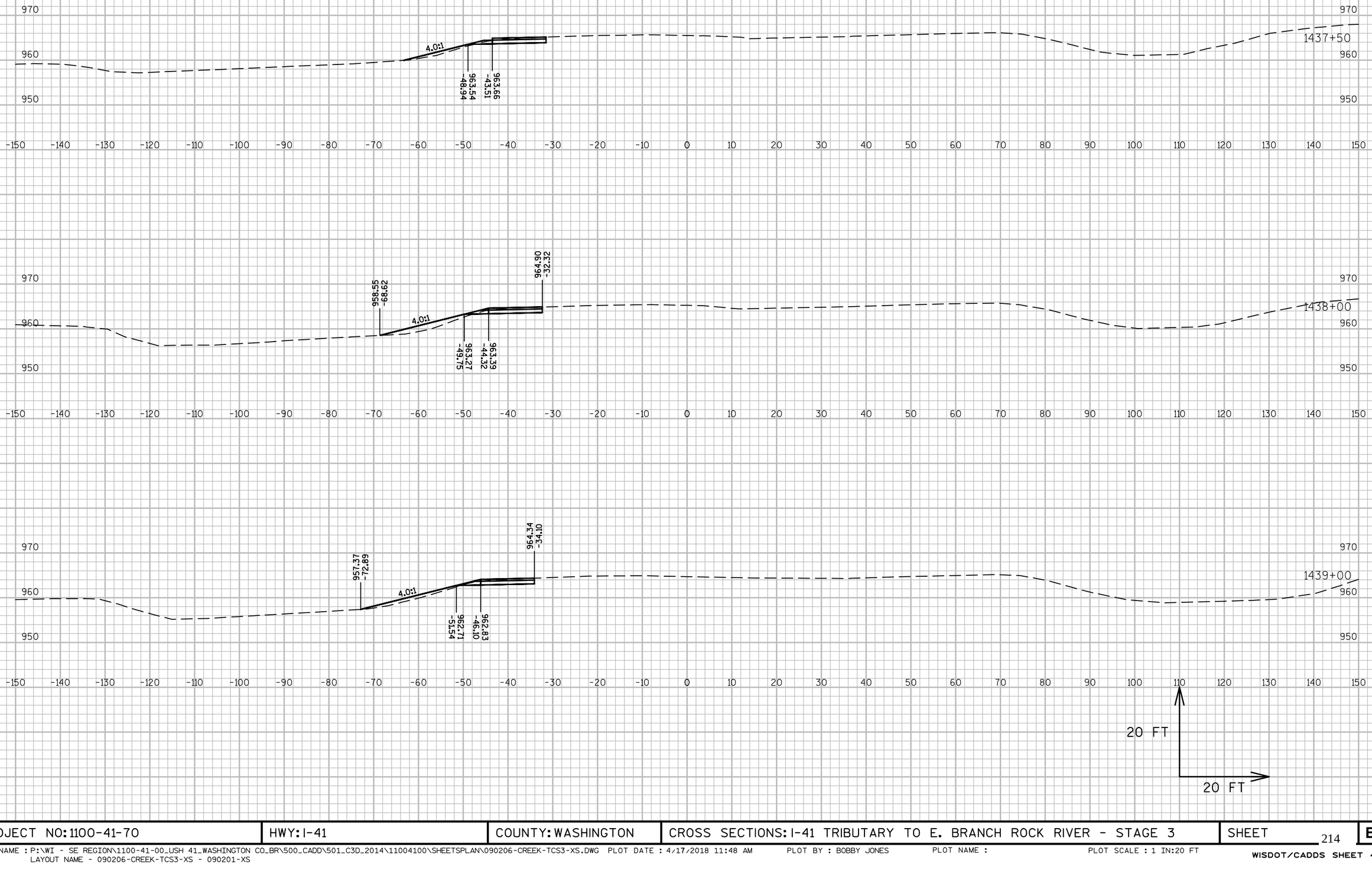
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 2	SHEET 213	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090205-CREEK-TCS2-XS.DWG PLOT DATE : 4/17/2018 11:46 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090205-CREEK-TCS2-XS - 090207-XS



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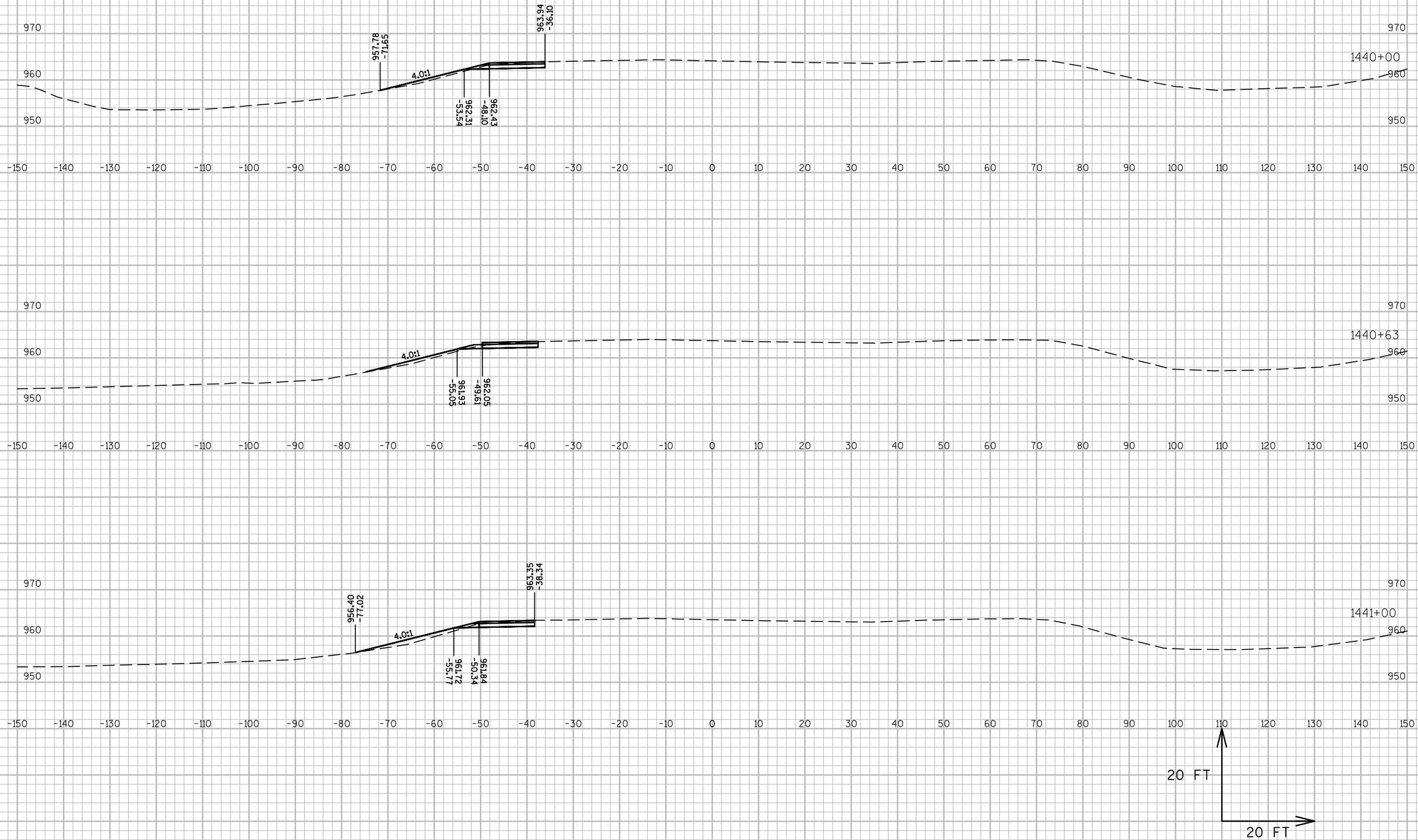
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 3	SHEET 214	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090206-CREEK-TCS3-XS.DWG PLOT DATE : 4/17/2018 11:48 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090206-CREEK-TCS3-XS - 090201-XS



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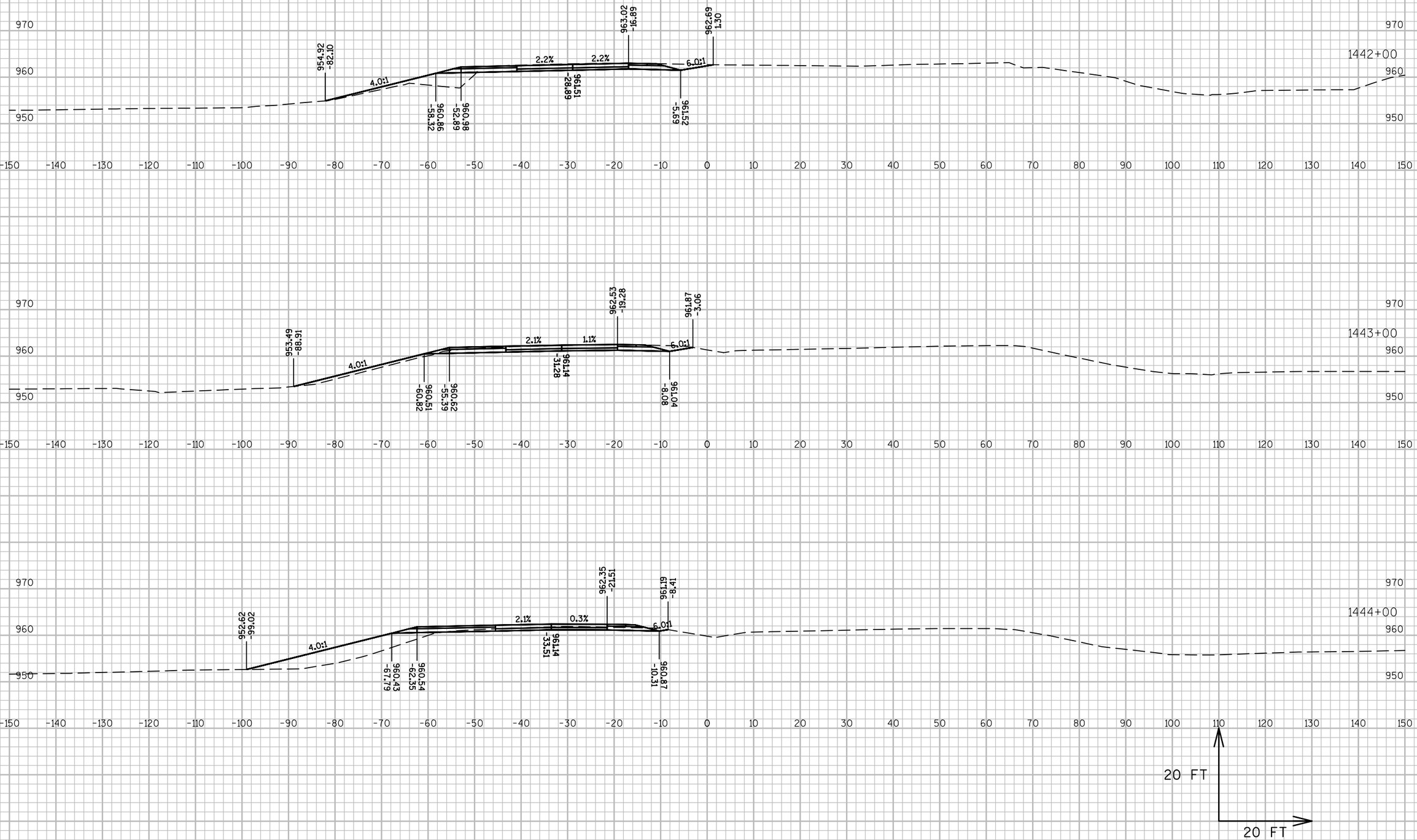
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 3	SHEET 215	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090206-CREEK-TCS3-XS.DWG PLOT DATE : 4/17/2018 11:48 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090206-CREEK-TCS3-XS - 090202-XS



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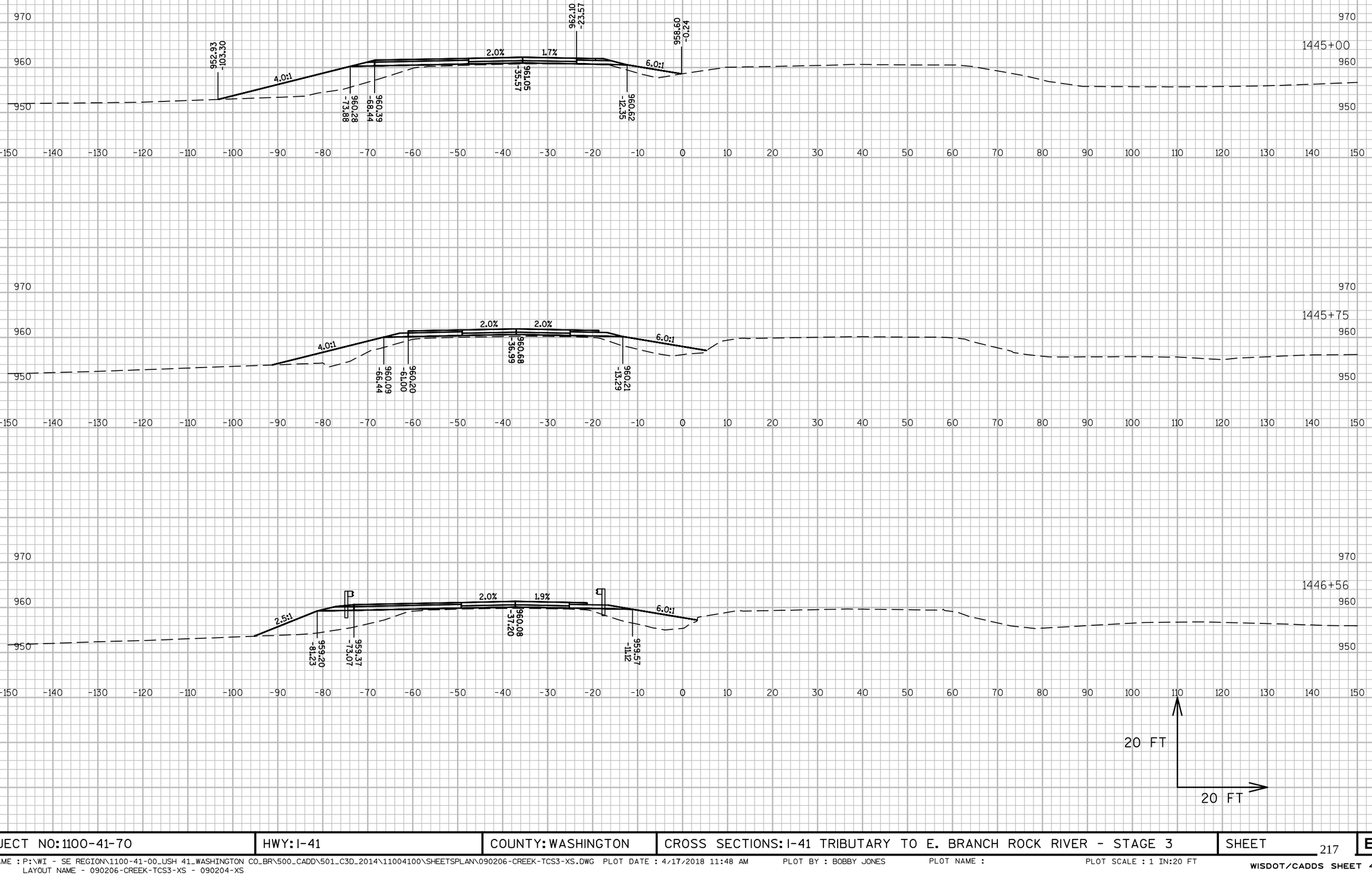
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 3	SHEET 216	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090206-CREEK-TCS3-XS.DWG PLOT DATE : 4/17/2018 11:48 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090206-CREEK-TCS3-XS - 090203-XS



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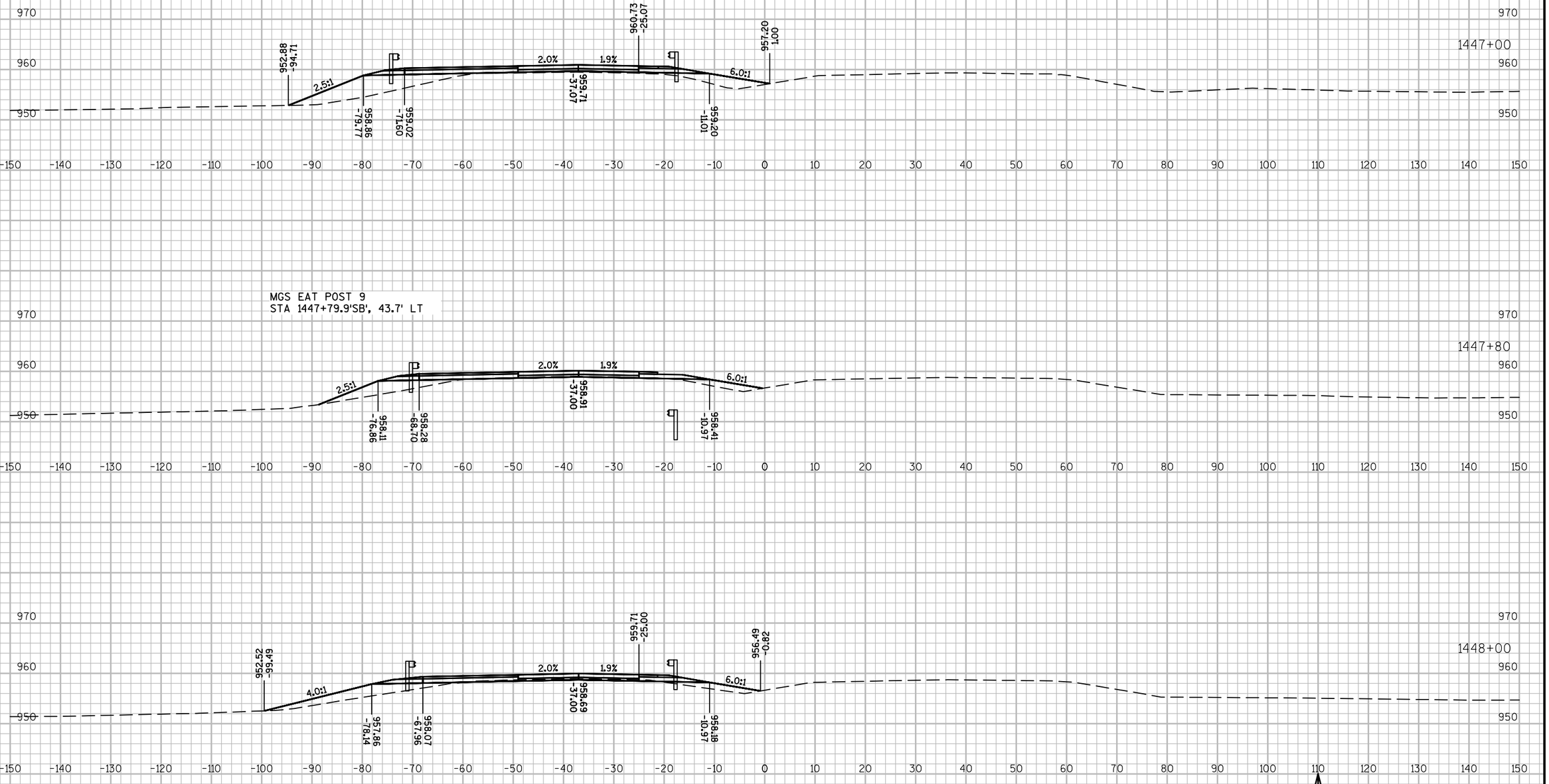
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 3	SHEET 217	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090206-CREEK-TCS3-XS.DWG PLOT DATE : 4/17/2018 11:48 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090206-CREEK-TCS3-XS - 090204-XS



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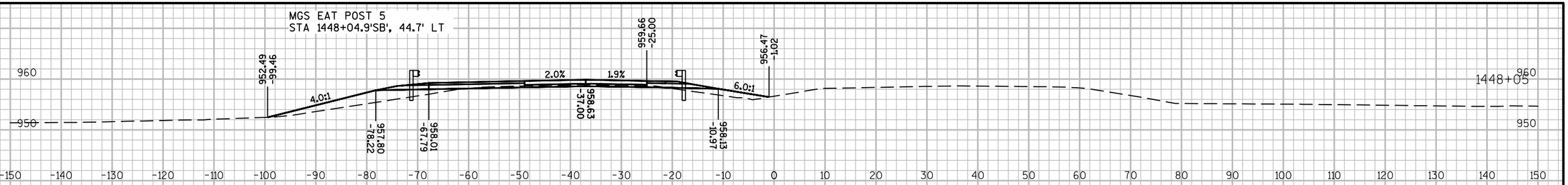
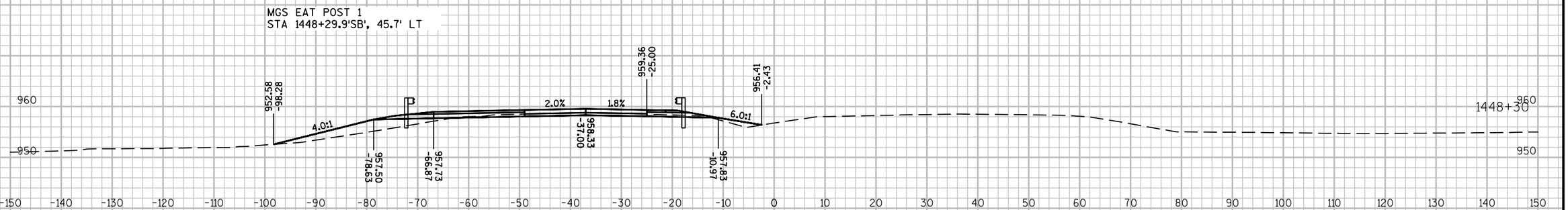
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 3	SHEET 218	E

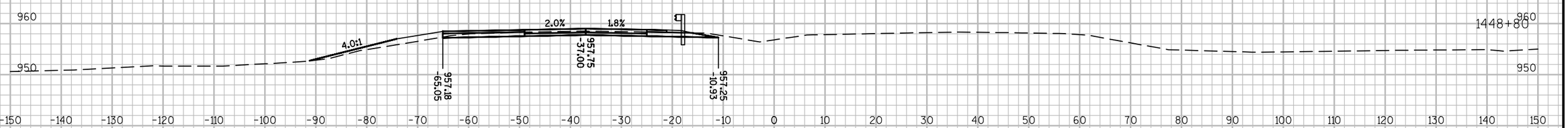
FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090206-CREEK-TCS3-XS.DWG PLOT DATE : 4/30/2019 2:19 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090206-CREEK-TCS3-XS - 090205-XS

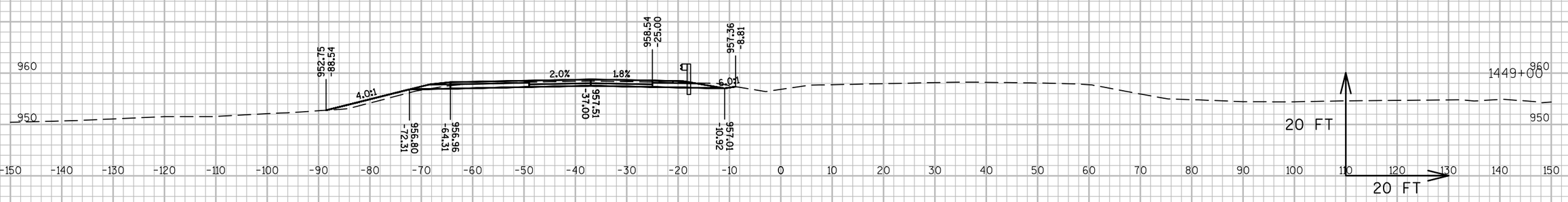
MGS EAT POST 5
STA 1448+04.9'SB', 44.7' LT



MGS EAT POST 1
STA 1448+29.9'SB', 45.7' LT







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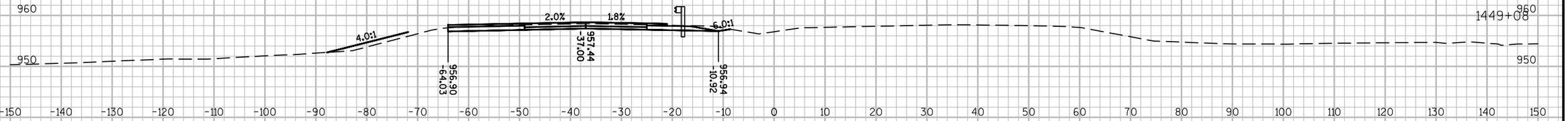
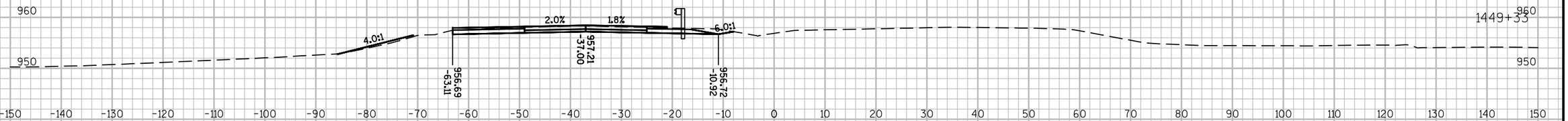
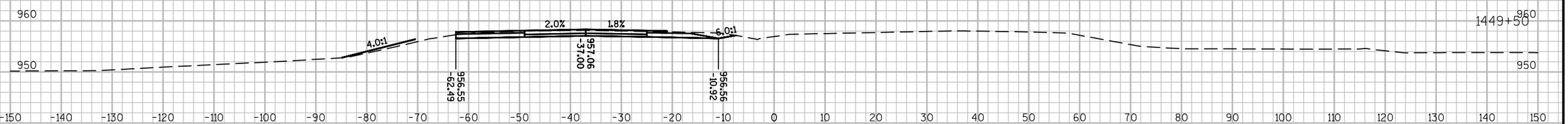
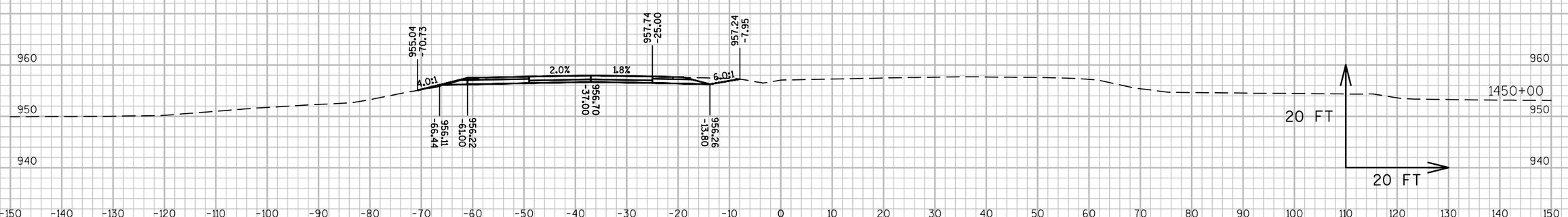
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 3	SHEET 219	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090206-CREEK-TCS3-XS.DWG PLOT DATE : 4/30/2019 3:51 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090206-CREEK-TCS3-XS - 090206-XS









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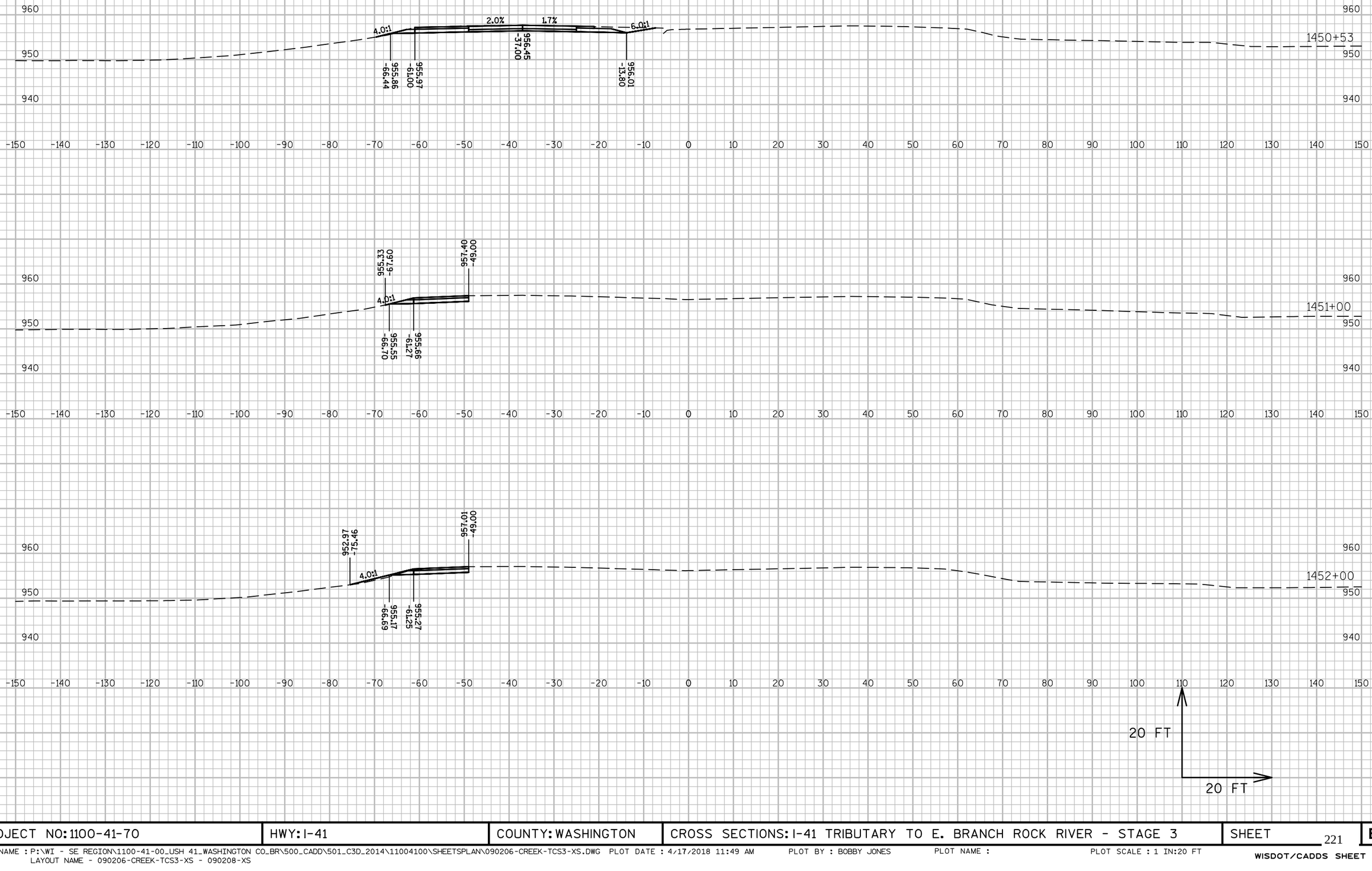
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 3	SHEET 220	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090206-CREEK-TCS3-XS.DWG PLOT DATE : 4/16/2019 2:24 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090206-CREEK-TCS3-XS - 090207-XS



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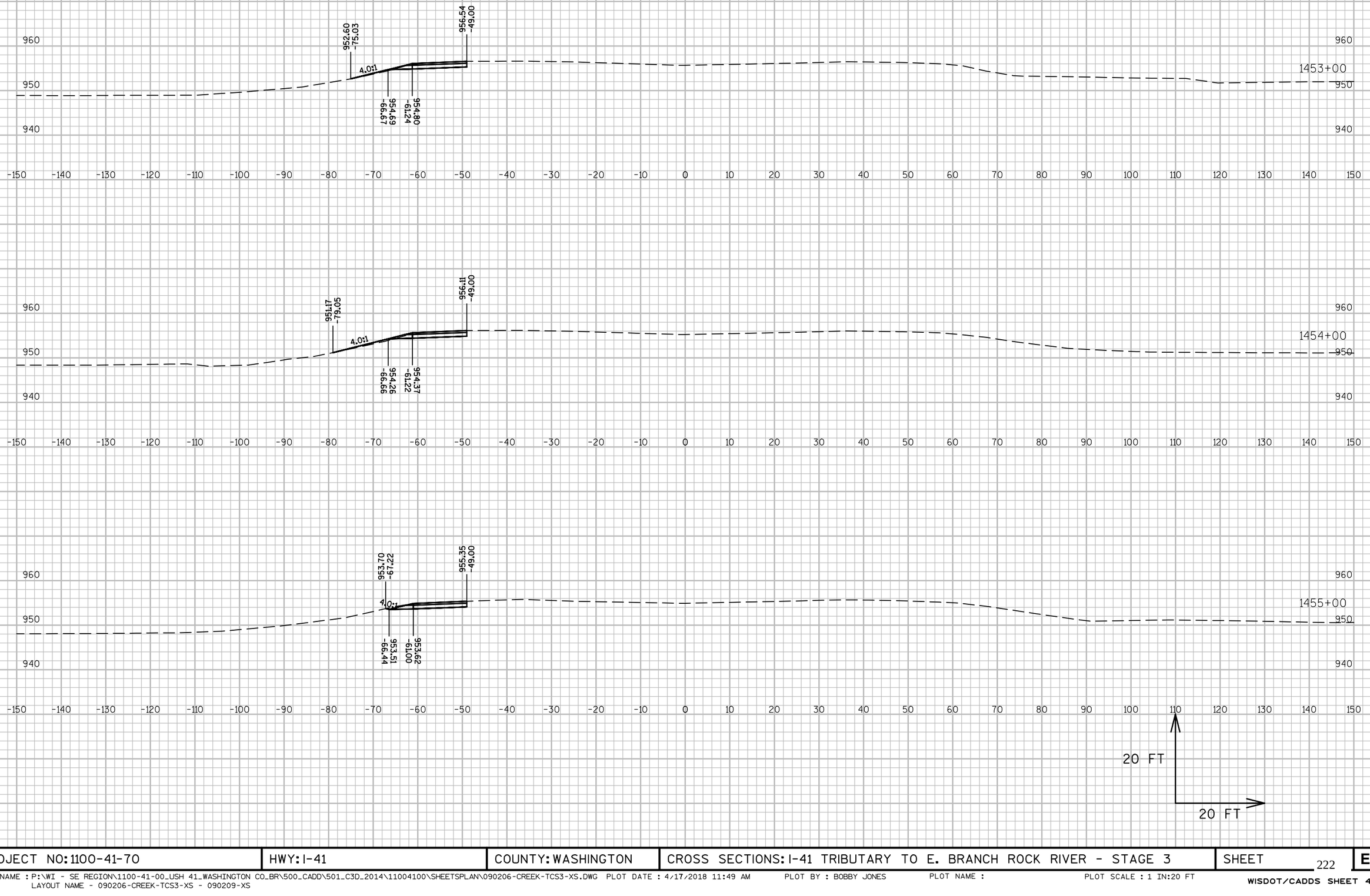
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 3	SHEET 221	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090206-CREEK-TCS3-XS.DWG PLOT DATE : 4/17/2018 11:49 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090206-CREEK-TCS3-XS - 090208-XS



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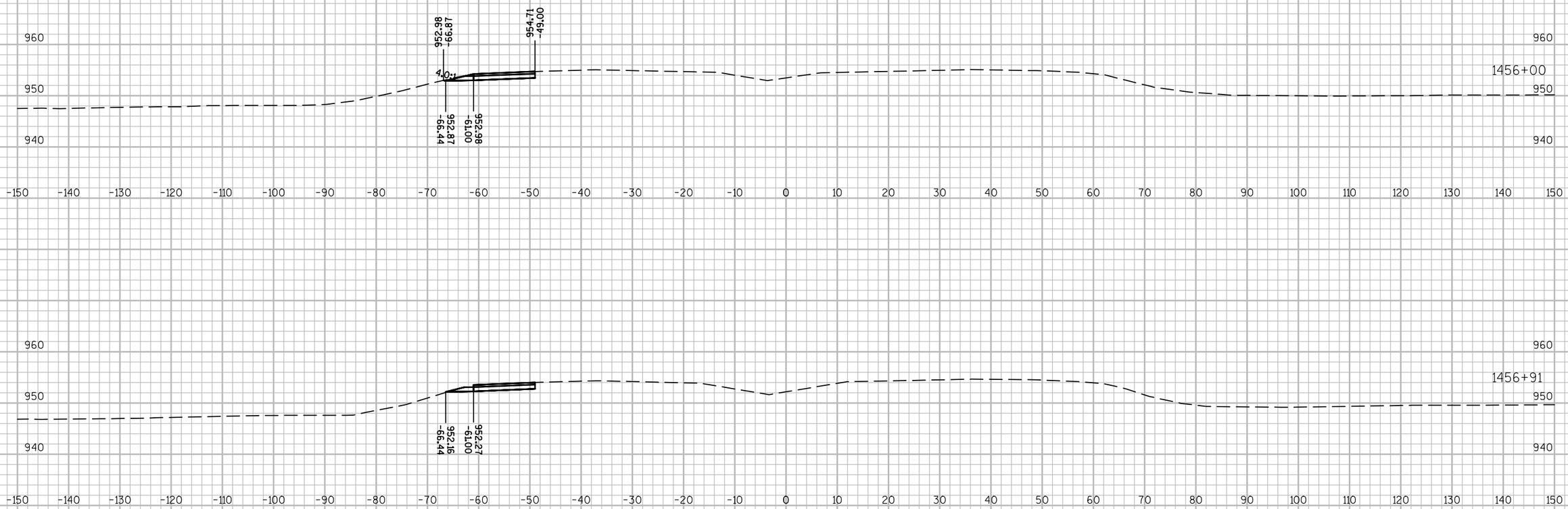
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 3	SHEET 222	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090206-CREEK-TCS3-XS.DWG PLOT DATE : 4/17/2018 11:49 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090206-CREEK-TCS3-XS - 090209-XS



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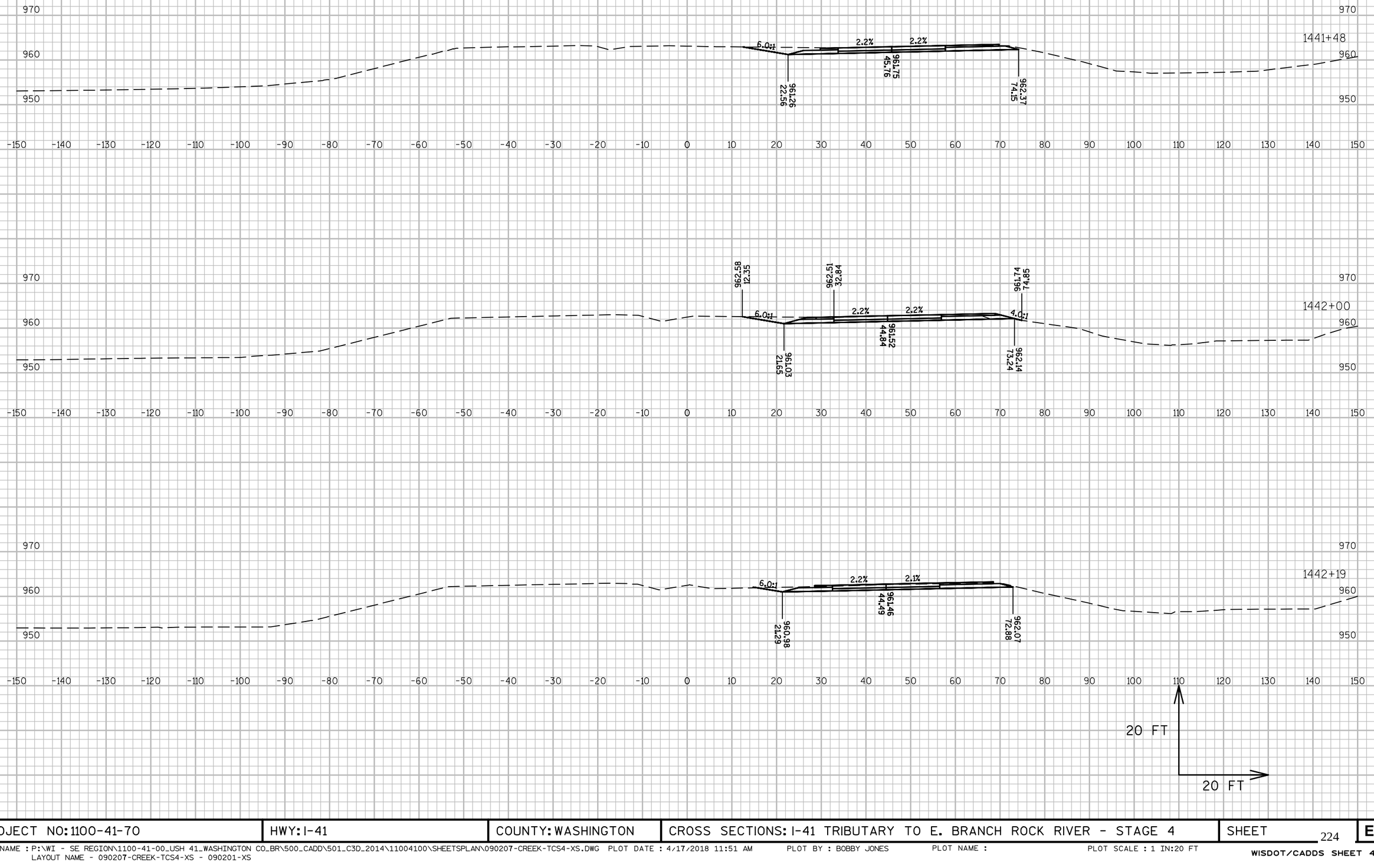
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 3	SHEET 223	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090206-CREEK-TCS3-XS.DWG PLOT DATE : 4/17/2018 11:49 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090206-CREEK-TCS3-XS - 090210-XS

WISDOT/CADDS SHEET 49



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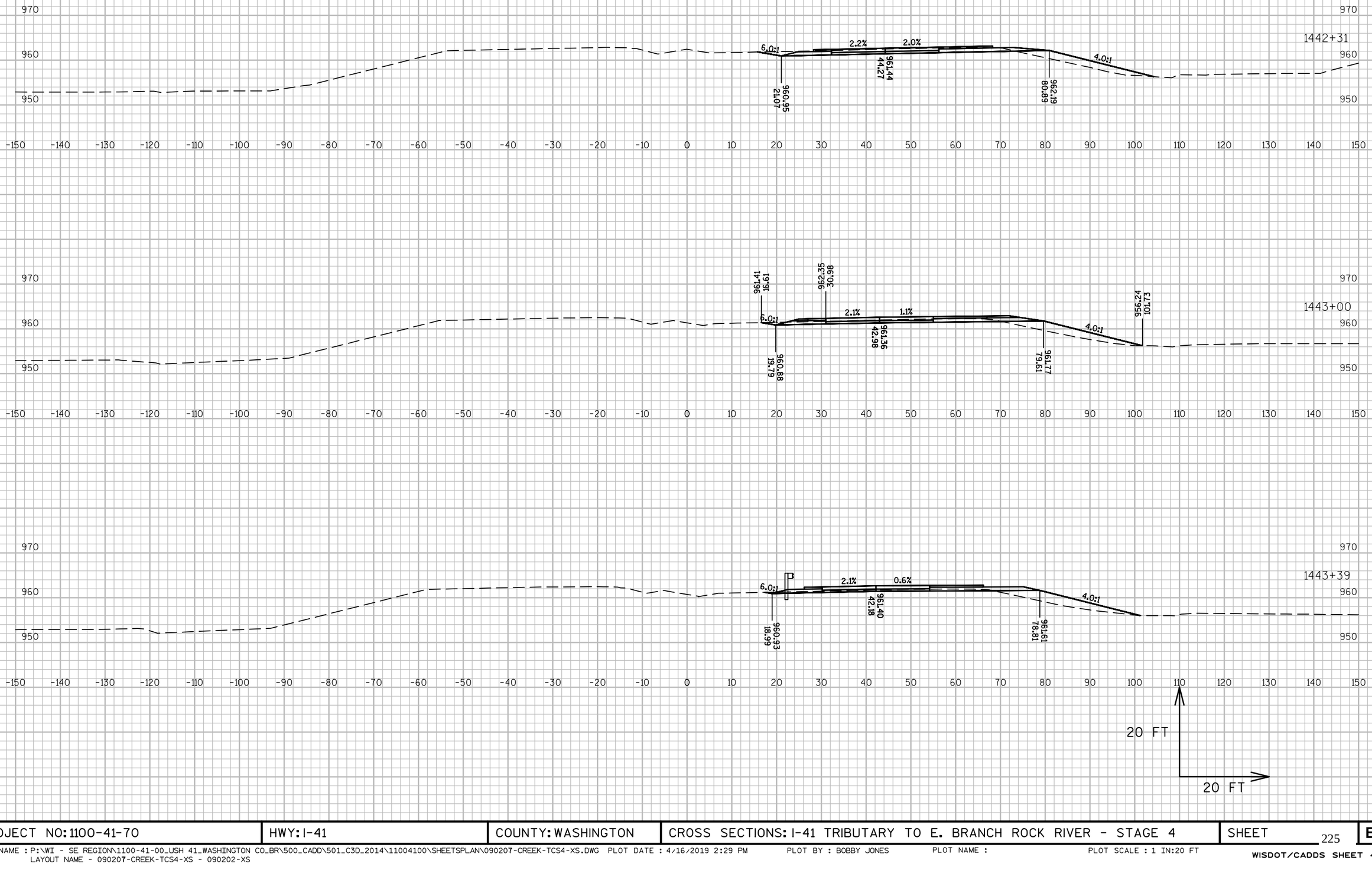
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 4	SHEET 224	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090207-CREEK-TCS4-XS.DWG PLOT DATE : 4/17/2018 11:51 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090207-CREEK-TCS4-XS - 090201-XS



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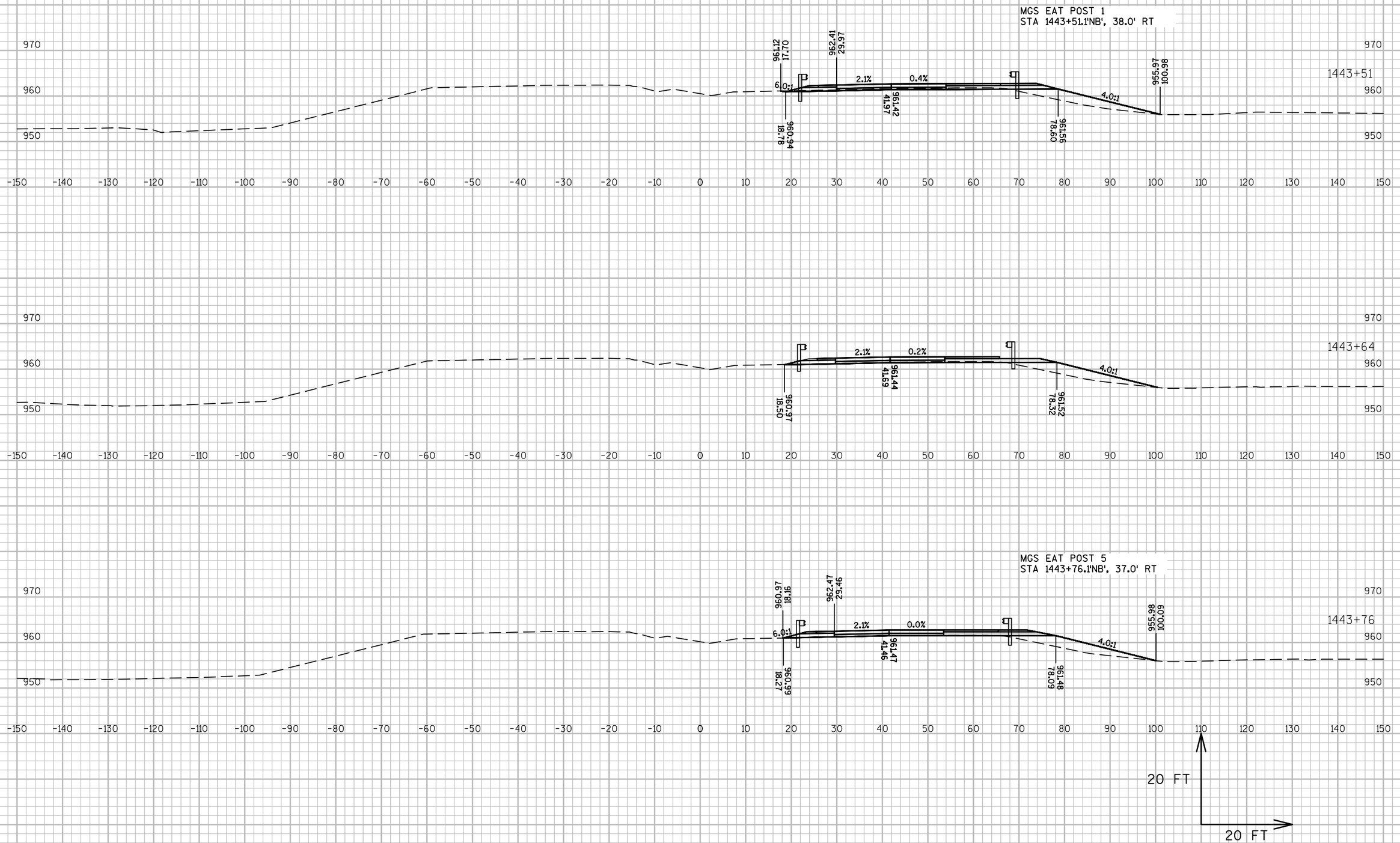
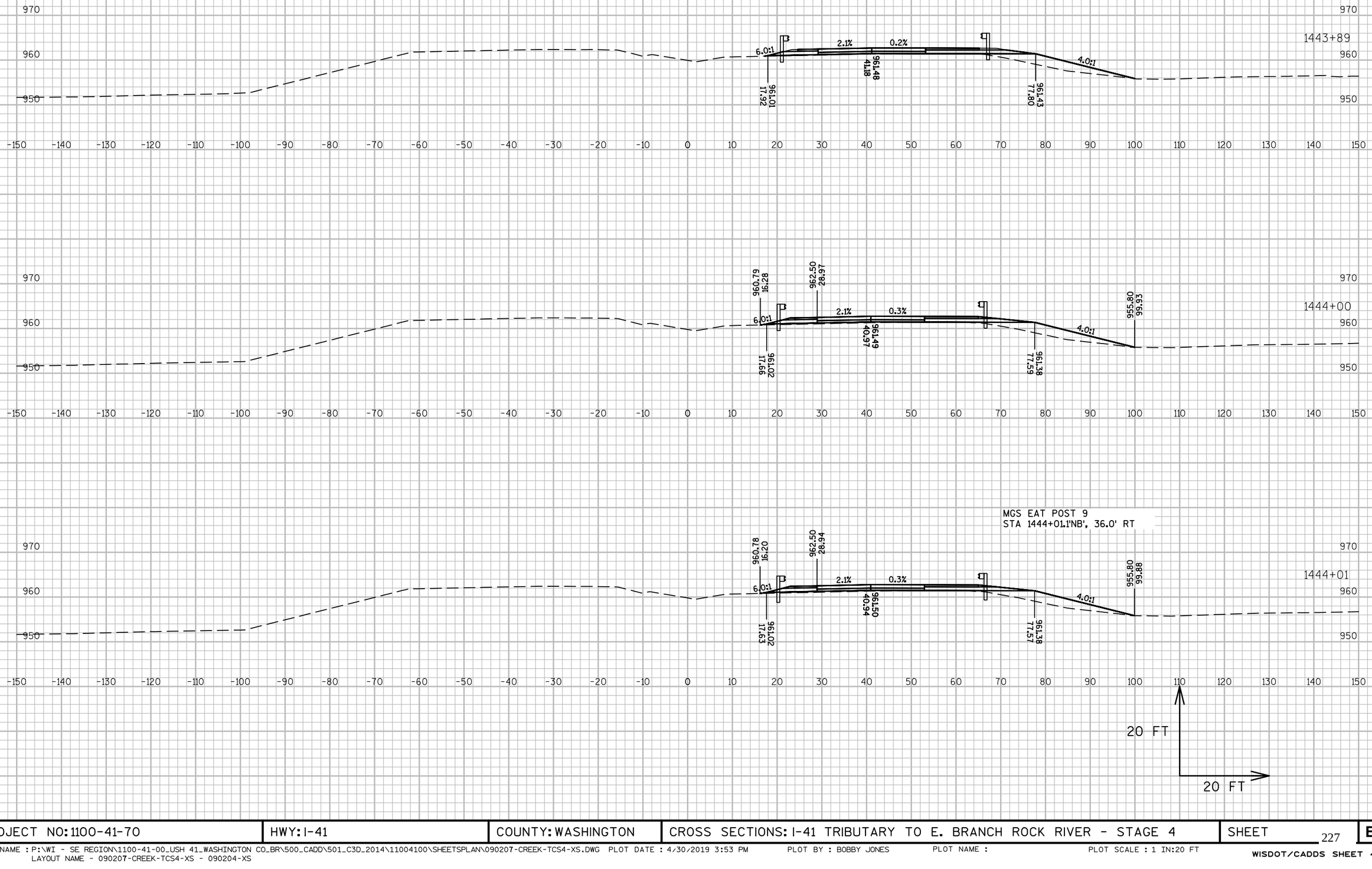
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 4	SHEET 225	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090207-CREEK-TCS4-XS.DWG PLOT DATE : 4/16/2019 2:29 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090207-CREEK-TCS4-XS - 090202-XS



PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 4	SHEET 226	E



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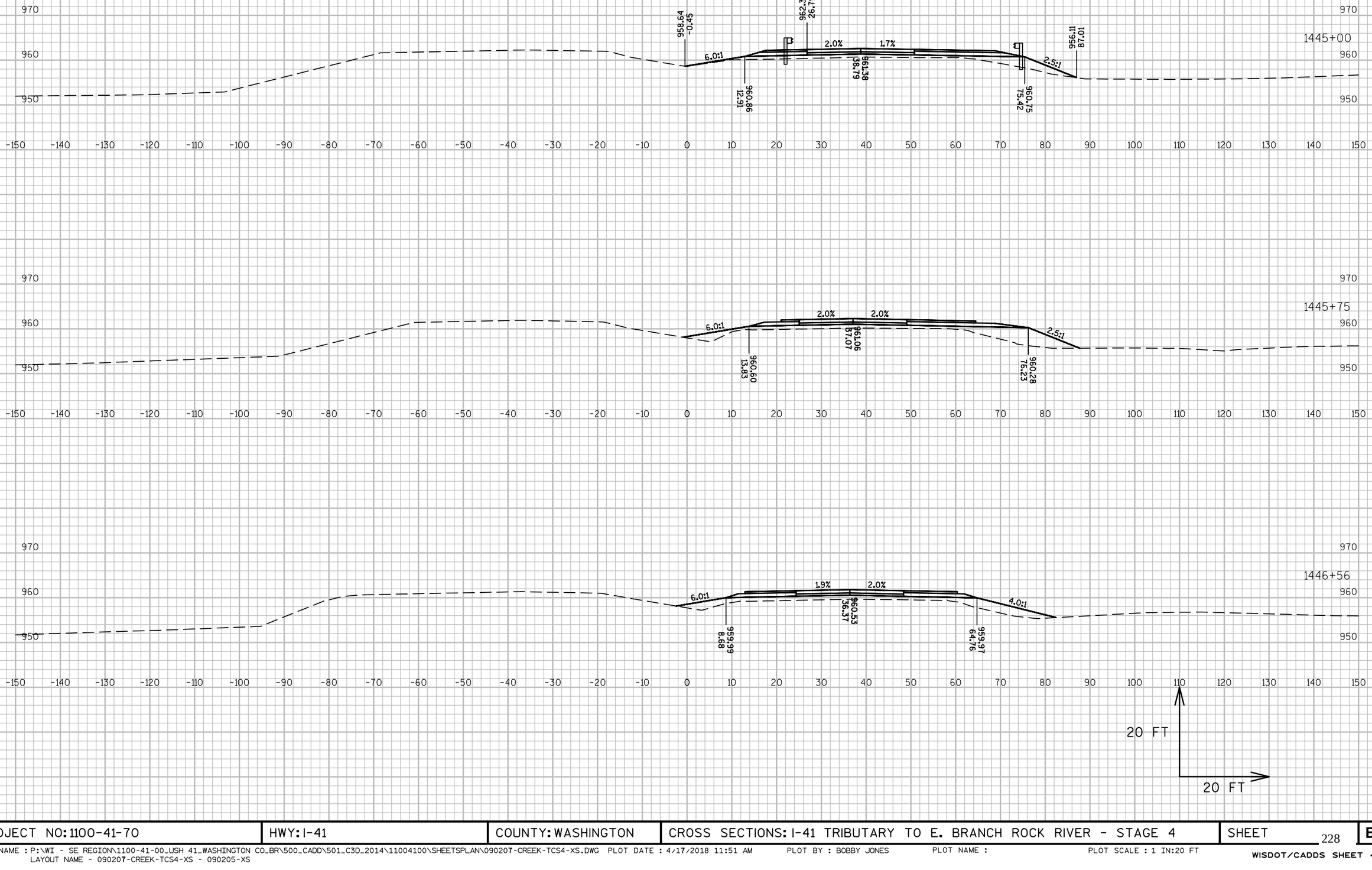
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 4	SHEET 227	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090207-CREEK-TCS4-XS.DWG PLOT DATE : 4/30/2019 3:53 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090207-CREEK-TCS4-XS - 090204-XS



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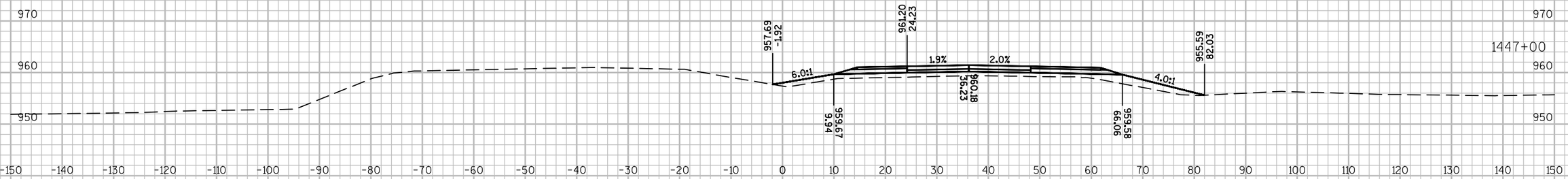
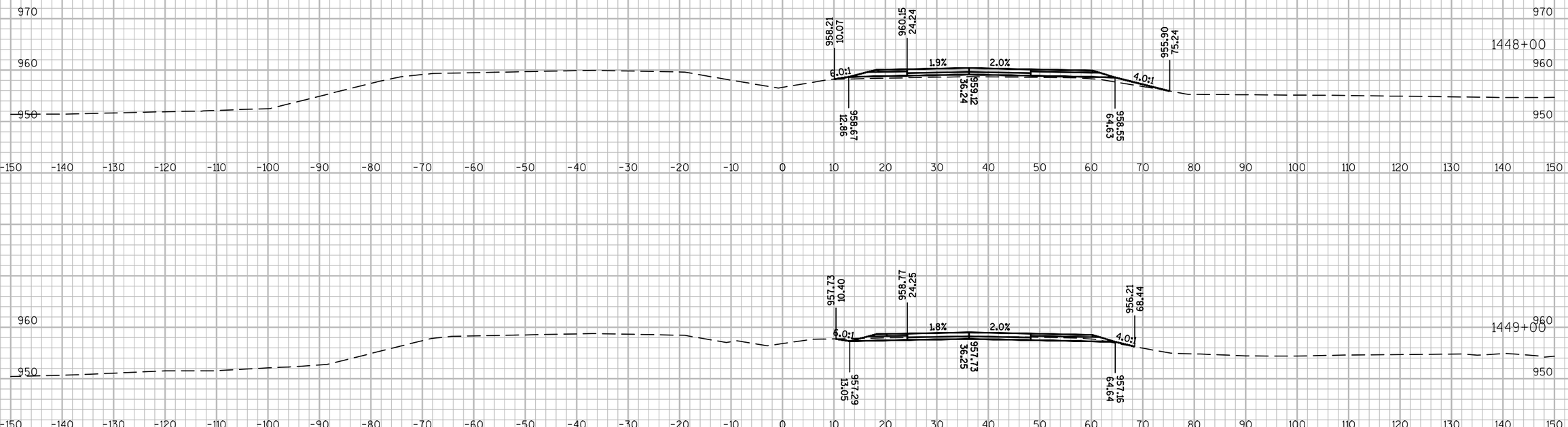
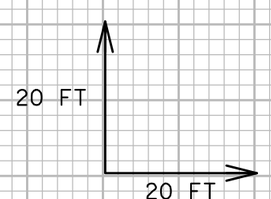
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 4	SHEET 228	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090207-CREEK-TCS4-XS.DWG PLOT DATE : 4/17/2018 11:51 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090207-CREEK-TCS4-XS - 090205-XS







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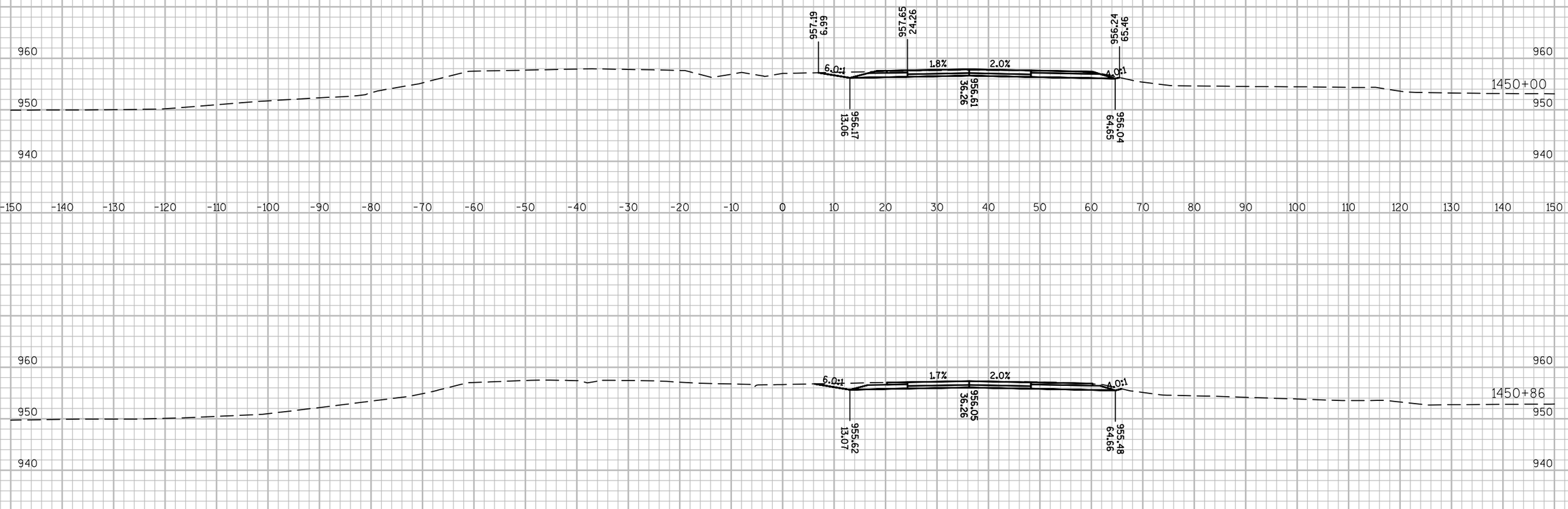
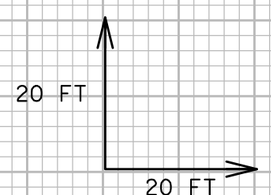
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 4	SHEET 229	E





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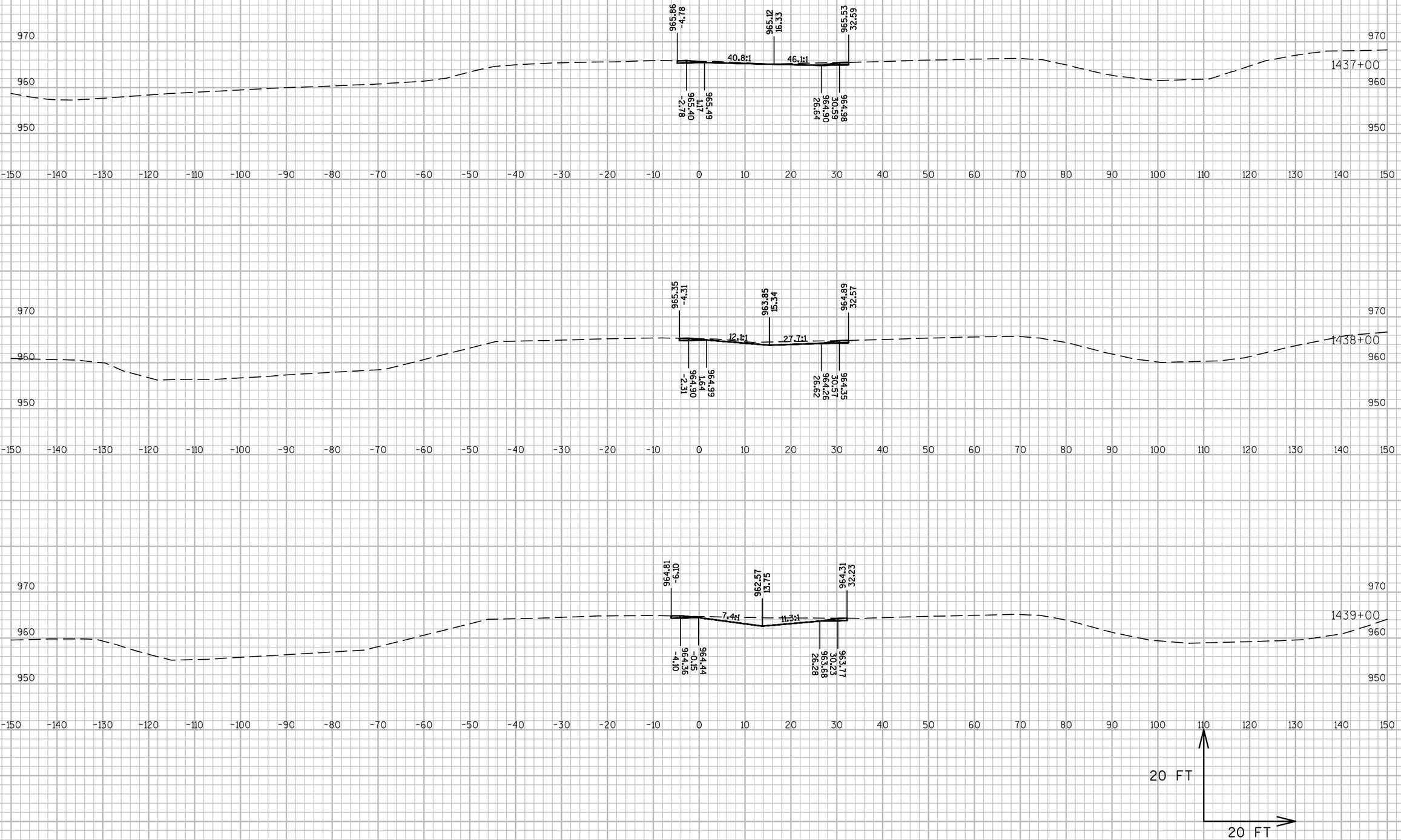
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 4	SHEET 230	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090207-CREEK-TCS4-XS.DWG PLOT DATE : 4/17/2018 11:51 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090207-CREEK-TCS4-XS - 090207XS

970
960
950
6.0:1
1435+95
970
960
950
-150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150
966.26
966.26
966.26



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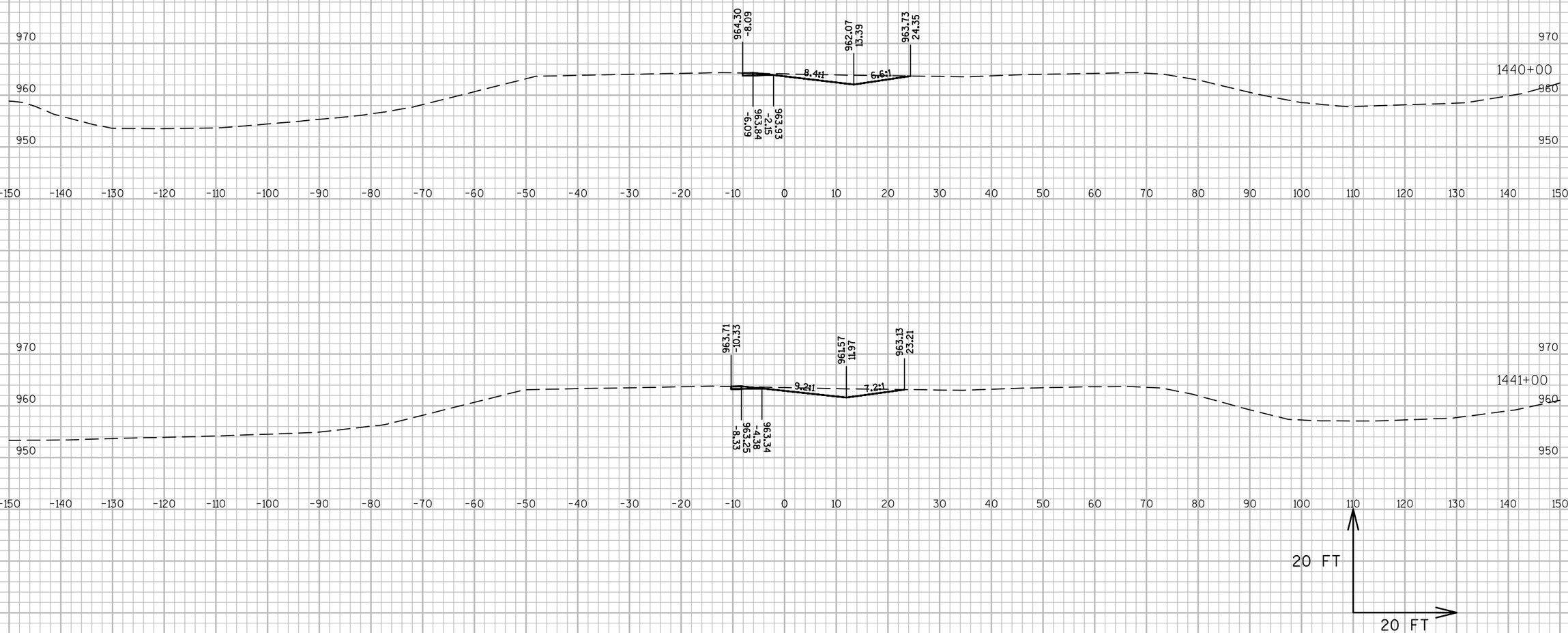
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 5	SHEET 232	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090208-CREEK-TCS5-XS.DWG PLOT DATE : 2/1/2019 8:38 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090208-CREEK-TCS5-XS - 090202-XS



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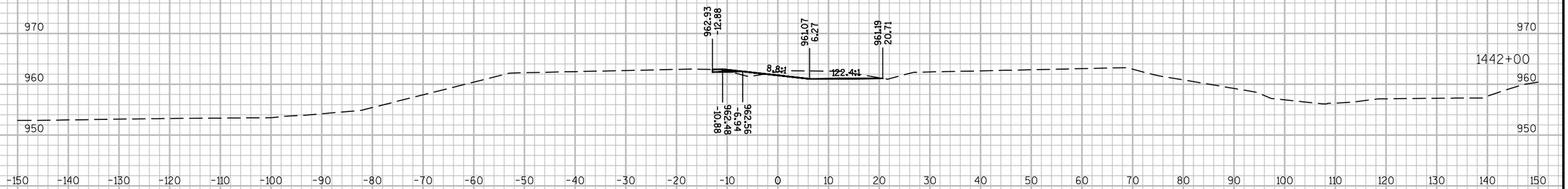
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 5	SHEET 233	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090208-CREEK-TCS5-XS.DWG PLOT DATE : 2/1/2019 8:38 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090208-CREEK-TCS5-XS - 090203-XS



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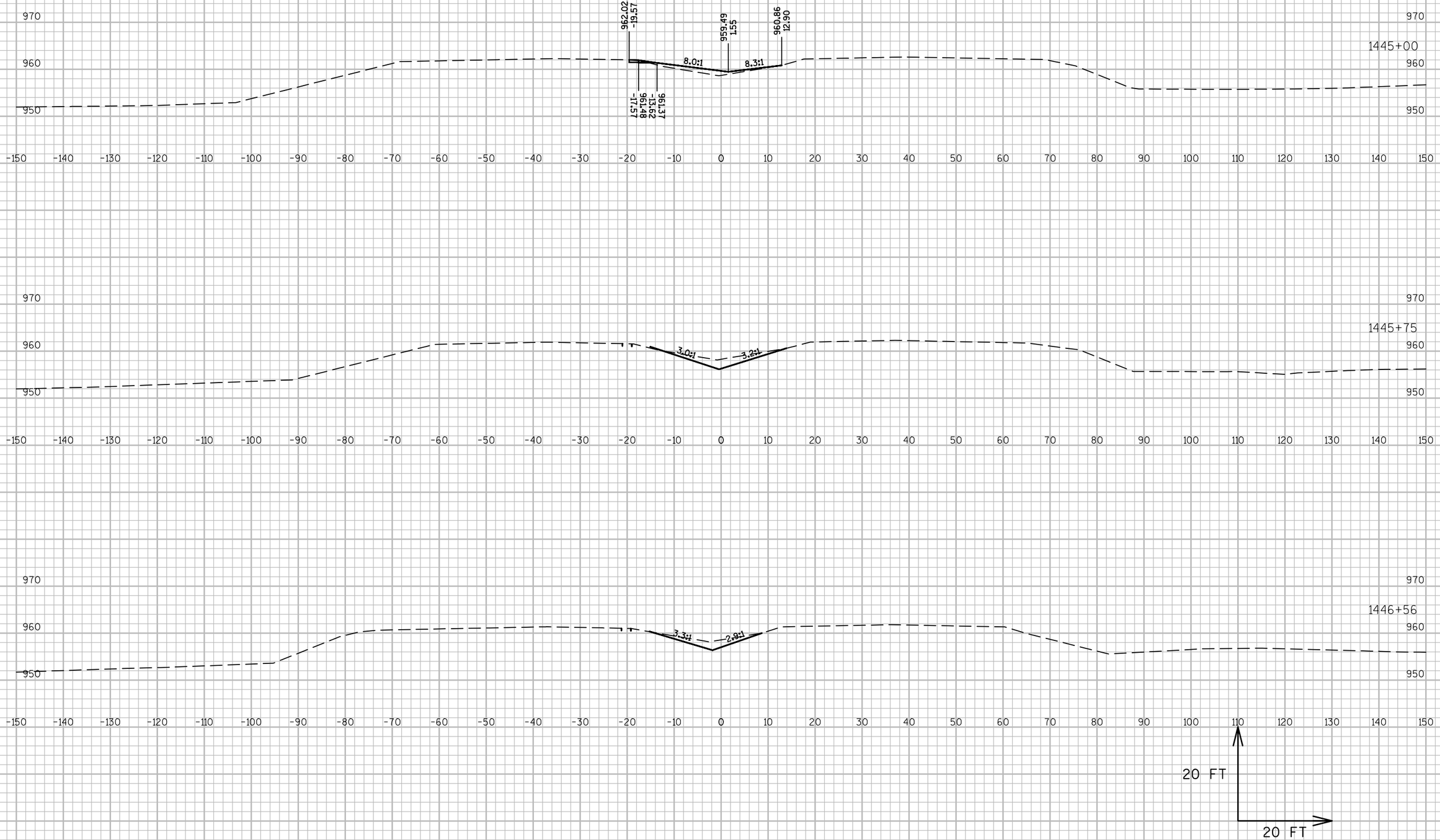
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 5	SHEET 234	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090208-CREEK-TCS5-XS.DWG PLOT DATE : 2/1/2019 8:38 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090208-CREEK-TCS5-XS - 090204-XS



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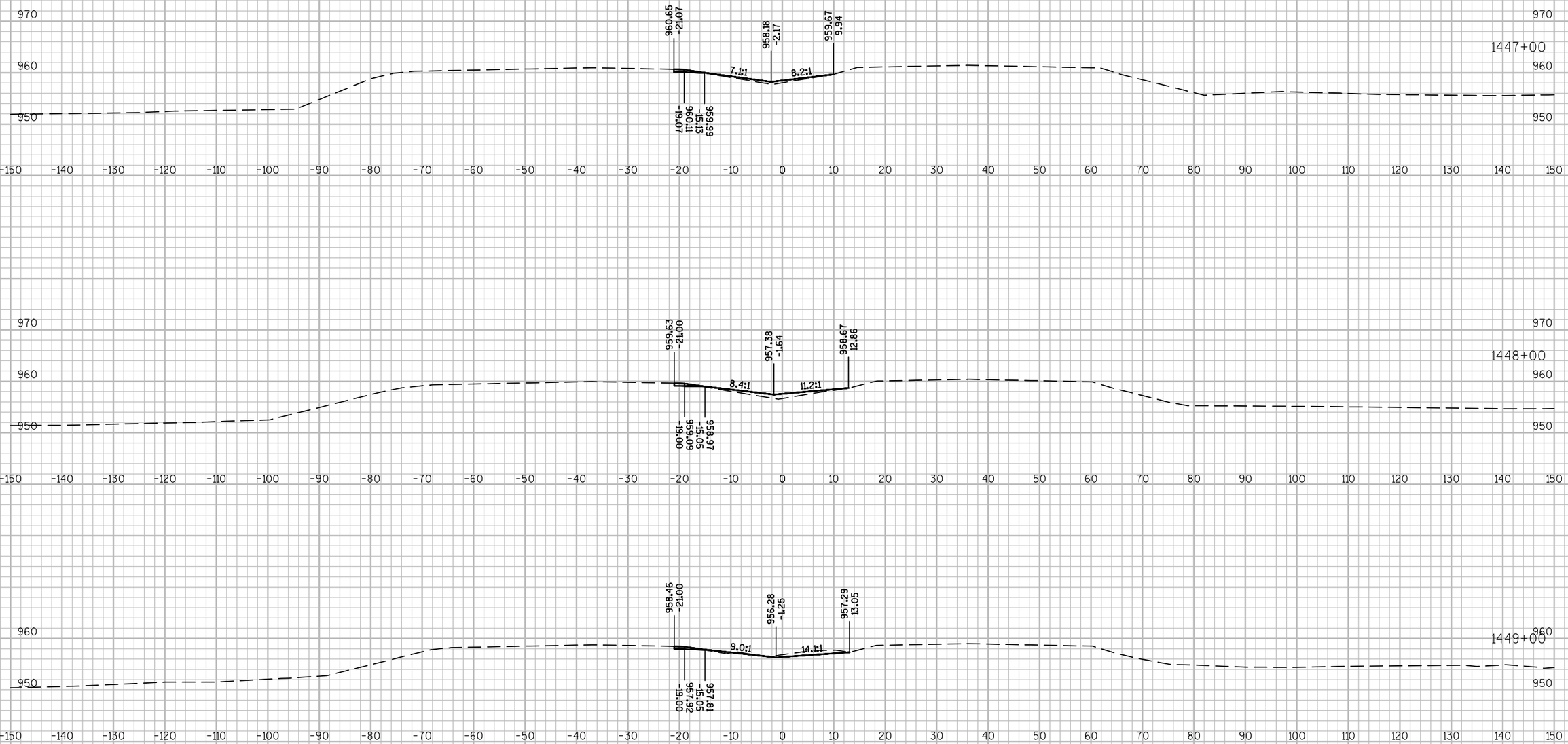
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 5	SHEET 235	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090208-CREEK-TCS5-XS.DWG PLOT DATE : 2/1/2019 8:38 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090208-CREEK-TCS5-XS - 090205-XS



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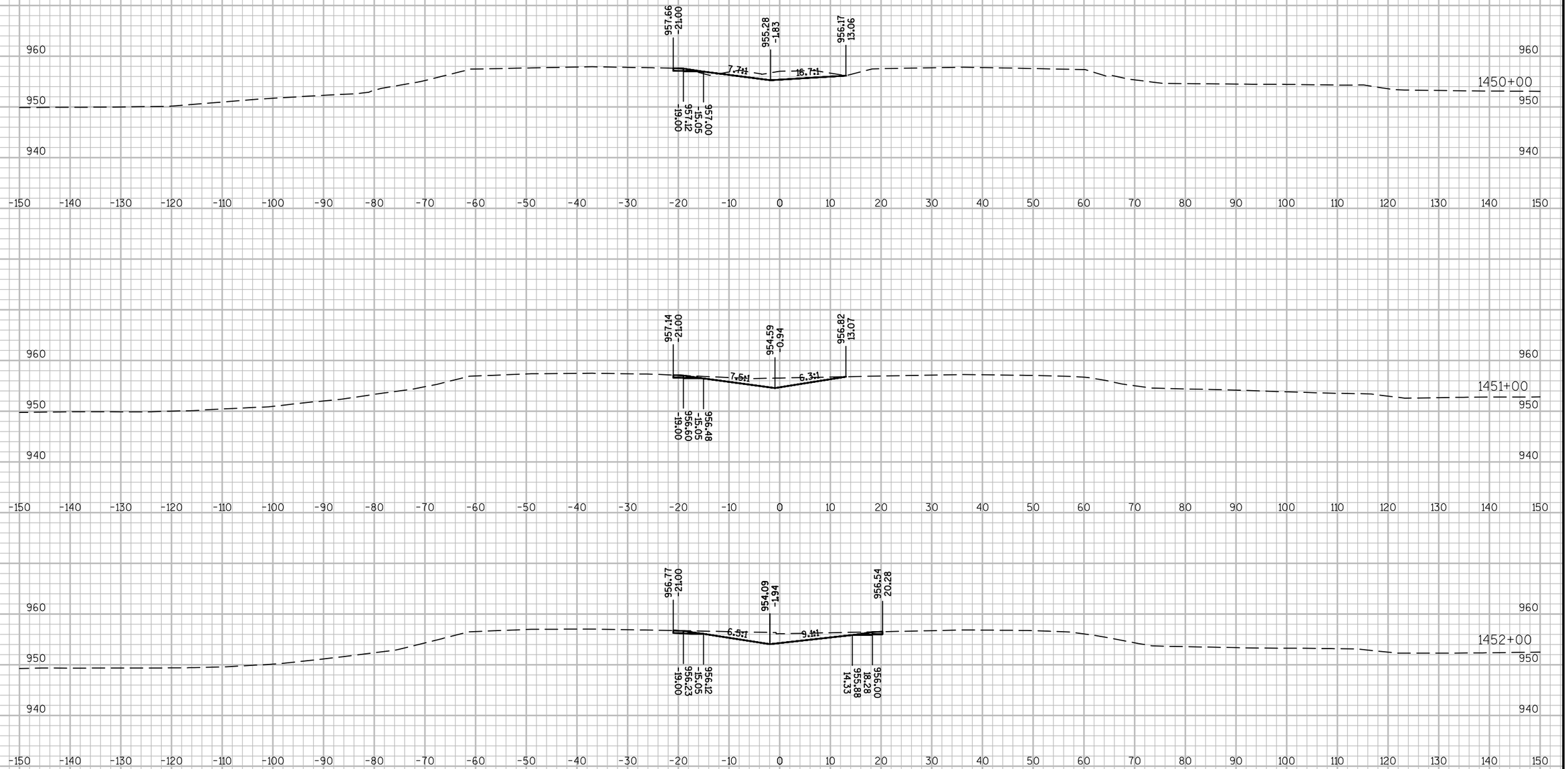
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 5	SHEET 236	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090208-CREEK-TCS5-XS.DWG PLOT DATE : 2/1/2019 8:38 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090208-CREEK-TCS5-XS - 090206-XS



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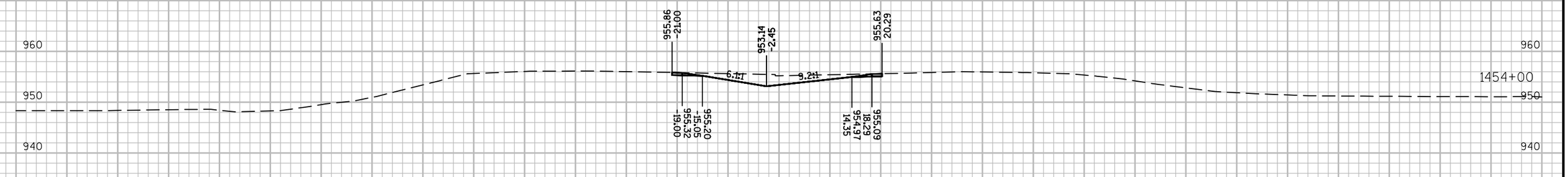
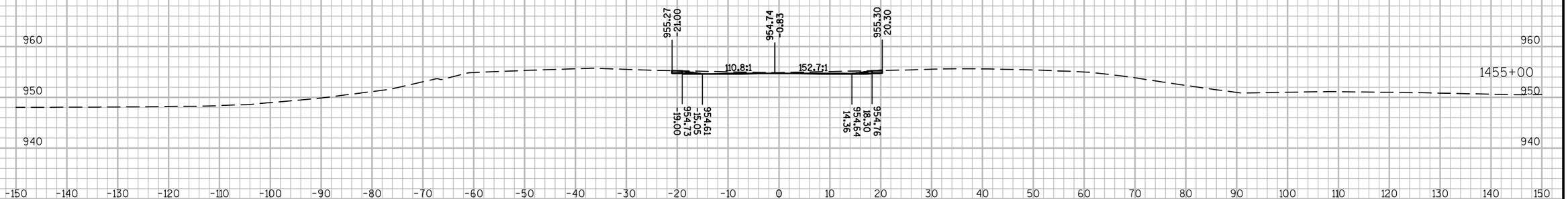
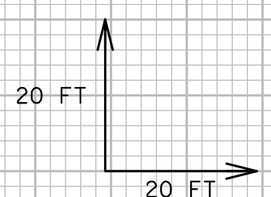
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 5	SHEET 237	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090208-CREEK-TCS5-XS.DWG PLOT DATE : 2/1/2019 8:38 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090208-CREEK-TCS5-XS - 090207-XS







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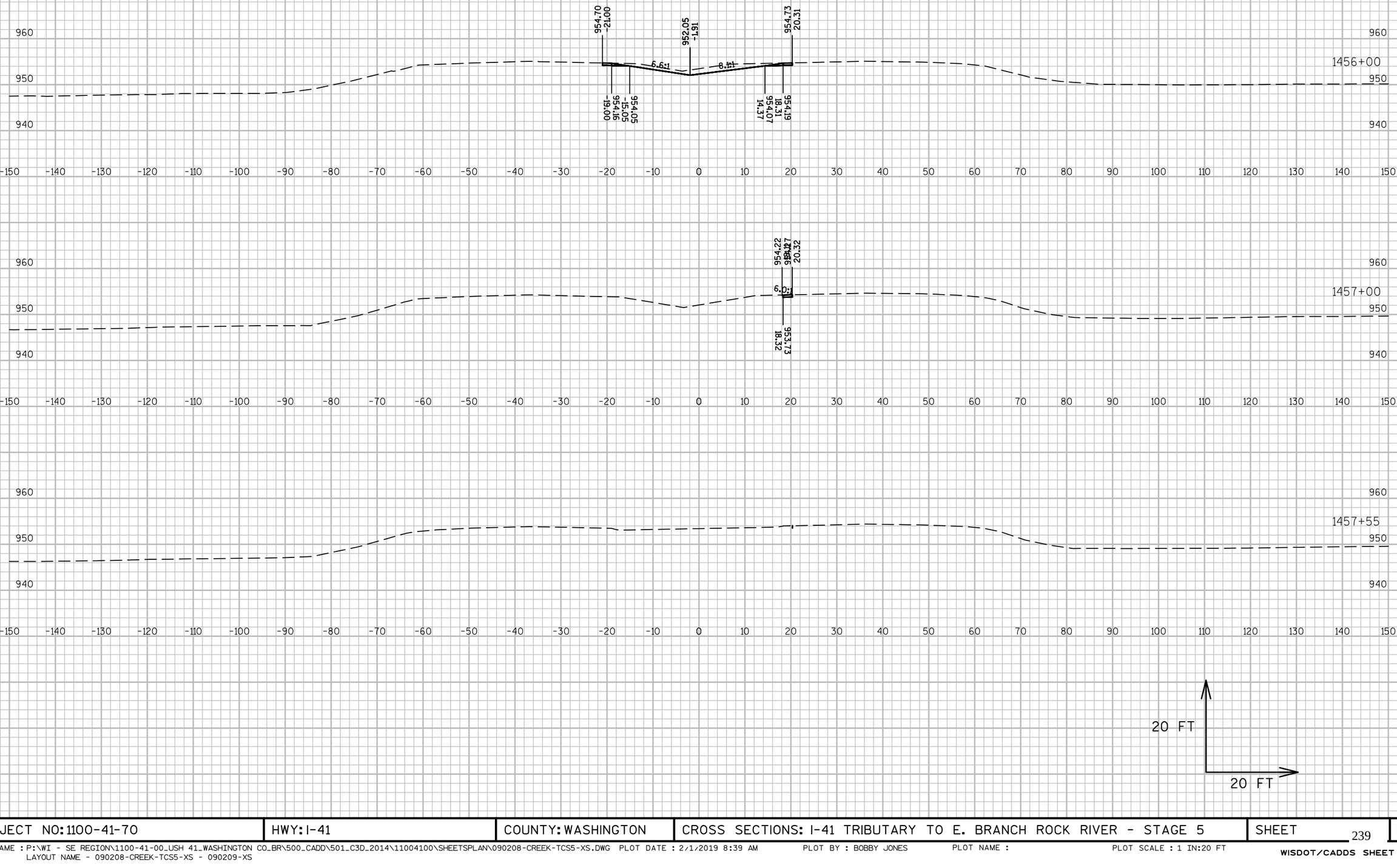
PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 5	SHEET 238	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090208-CREEK-TCS5-XS.DWG PLOT DATE : 2/1/2019 8:39 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090208-CREEK-TCS5-XS - 090208-XS



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PROJECT NO: 1100-41-70	HWY: I-41	COUNTY: WASHINGTON	CROSS SECTIONS: I-41 TRIBUTARY TO E. BRANCH ROCK RIVER - STAGE 5	SHEET 239	E

FILE NAME : P:\WI - SE REGION\1100-41-00_USH 41_WASHINGTON CO_BR\500_CADD\501_C3D_2014\11004100\SHEETSPLAN\090208-CREEK-TCS5-XS.DWG PLOT DATE : 2/1/2019 8:39 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 090208-CREEK-TCS5-XS - 090209-XS

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

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