

GRE

WITH: N/A

PROJECT ID: 4140-19-72

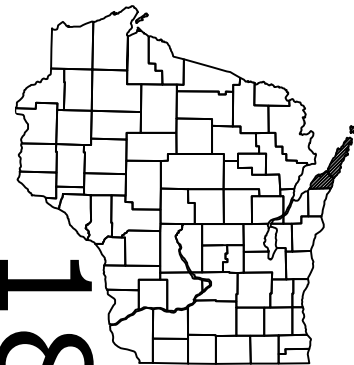
COUNTY: DOOR

APRIL 2019

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
Section No. 6	Standard Detail Drawings
Section No. 7	Sign Plates
Section No. 9	Computer Earthwork Data
Section No. 9	Cross Sections

TOTAL SHEETS = 242



DESIGN DESIGNATION

A.A.D.T.	2019	= 6,000
A.A.D.T.	2039	= 6,600
D.H.V.		= 775
D.D.		= 63/37
T.		= 13.3 %
DESIGN SPEED		= 30-60 MPH
ESALS		= 970,000

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	
MARSH AREA	
WOODED OR SHRUB AREA	

PROFILE	
GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

ROCK	
LABEL	
95.36	
E	
FO	
G	
SAN	
SS	
T	
W	
Ø	

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

GIBRALTAR - SISTER BAY

GIBRALTAR RD - COUNTRY WALK DRIVE

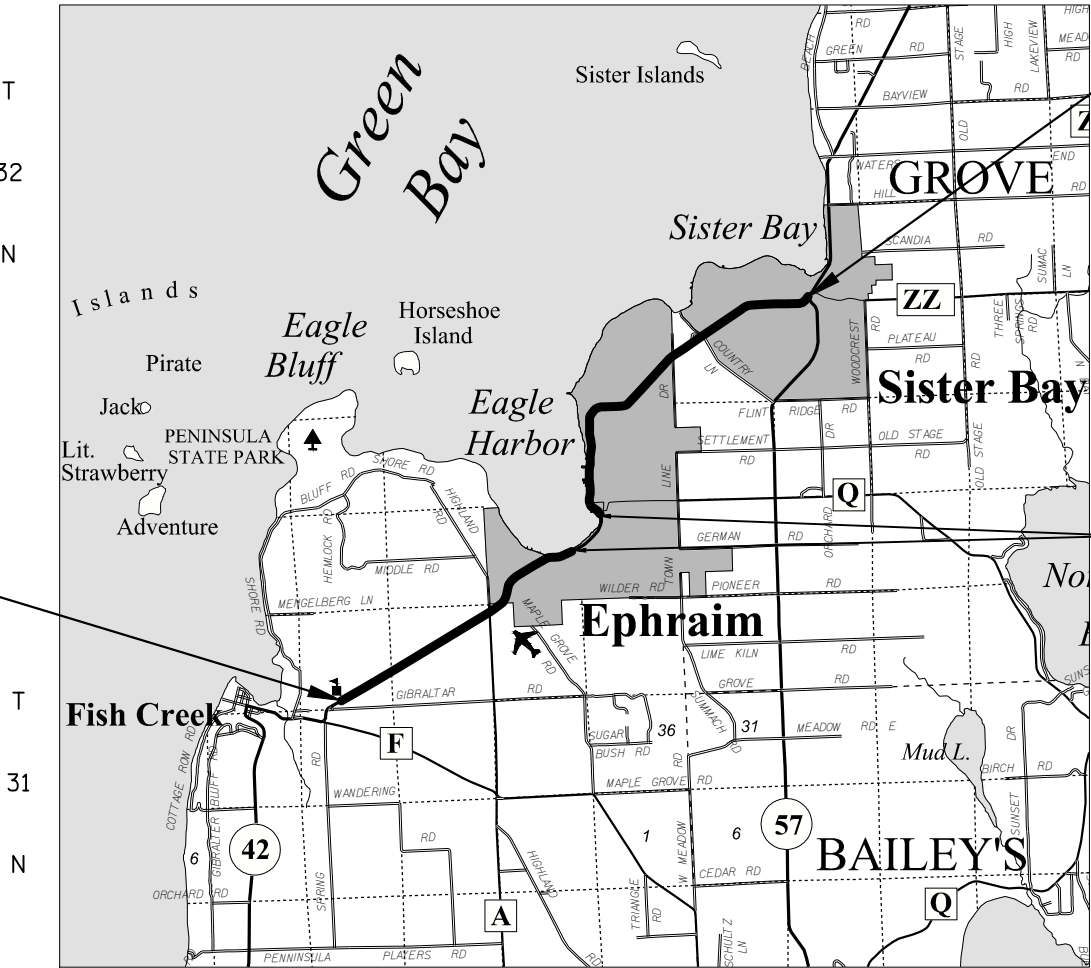
STH 42

DOOR COUNTY

STATE PROJECT NUMBER
4140-19-72

R - 27 - E

R - 28 - E



BEGIN PROJECT  
STA 159+00.00  
X = 532715.104  
Y = 265397.367

END PROJECT  
STA 531+27.00  
X = 558118.482  
Y = 286451.004

EXCEPTION TO NET C LENGTH  
STA 317+25 TO STA 343+19

LAYOUT  
SCALE 0 2.0 MI

TOTAL NET LENGTH OF CENTERLINE = 6.559 MI.

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, DOOR COUNTY, NAD83 (1991), 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 THIS PLAN ARE REFERENCED TO THE NATIONAL AMERICAN VERTICAL DATUM OF NAVD88.

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PREPARED BY	NE REGION
Surveyor	D. KIRST
Designer	J. J. ASHAUER
Project Manager	J. F. THOMPSON
Regional Examiner	
Regional Supervisor	

APPROVED FOR THE DEPARTMENT  
DATE: 1/10/19

E

UTILITY CONTACTS

COMMUNICATION LINE CHARTER COMMUNICATIONS	BRUCE HENRY 1623 BROADWAY AVENUE SHEBOYGAN, WI 53081 (920)907-7720 bruce.henry@charter.com
COMMUNICATION LINE FRONTIER COMMUNICATIONS	RUSS RYAN 107 PLEASANTVIEW DRIVE PLYMOUTH, WI 53073 TELEPHONE: (920) 583-3275 Russell.w.ryan@ftr.com
AIRPORT FACILITY	EPHRAIM-FISH CREEK AIRPORT PETE NEWKIRK 11472 LAKE VIEW RD ELLISON BAY, WI 54210 TELEPHONE: (920) 854-9711
COMMUNICATION LINE NET LEC	DENNIS LAFAVE 1700 INDUSTRIAL DRIVE GREEN BAY, WI 54302 TELEPHONE: (920) 619-9774 dlafave@ml-tech.us
ELECTRICITY WISCONSIN PUBLIC SERVICE	SCOTT GAUGER 2850 S. ASHLAND AVENUE GREEN BAY, WI 54307 TELEPHONE: (920) 660-0430 SJGauger@wisconsinpublicservice.com
SEWER EPHRAIM SANITARY	RUSSEL SALFI P.O. BOX 138 EPHRAIM, WI 54211 (920) 854-4991 rsalfi@ephraim-wisconsin.com



Dial **811** or (800)242-8511  
www.DiggersHotline.com

SEWER FISH CREEK SANITARY	JOSEPH BURRESS 3815 COUNTY ROAD F P.O. BOX 55 FISH CREEK, WI 54212 TELEPHONE: (920) 868-3372
SEWER SISTER BAY SANITARY	MICHAEL SCHELL P.O. Box 91 SISTER BAY, WI 54234 (920) 854-2246 (920) 421-0257 (MOBILE) Mike.schell@sisterbay.wi.gov
WATER SISTER BAY WATER	MICHAEL SCHELL P.O. Box 91 SISTER BAY, WI 54234 (920) 854-2246 (920) 421-0257 (MOBILE) Mike.schell@sisterbay.wi.gov

ORDER OF SECTION 2 SHEETS

PROJECT OVERVIEW  
TYPICAL SECTIONS  
CONSTRUCTION DETAILS  
EROSION CONTROL  
REMOVAL PLAN  
STORM SEWER  
PERMANENT SIGNING  
PAVEMENT MARKINGS  
ALIGNMENT DETAIL

STANDARD ABBREVIATIONS

AEW	APRON END WALL
AGG	AGGREGATE
ASPH	ASPHALTIC
BAD	BASE AGGREGATE DENSE
BM	BENCH MARK
BMP	BEST MANAGEMENT PRACTICES
C&G	CURB AND GUTTER
C/L	CENTER OR CONSTRUCTION LINE
CMCP	CULVERT PIPE CORRUGATED METAL
CONC	CONCRETE
CP	CULVERT PIPE
CPRC	CULVERT PIPE REINFORCED CONCRETE
CSD	CONCRETE SURFACE DRAIN
CY	CUBIC YARD
D	DEGREE OF CURVE
Δ	DELTA
DISCH	DISCHARGE
EB	EASTBOUND
FE	FIELD ENTERANCE
FL	FLOW LINE
HE	HIGH EASEMENT
HMA	HOT MIX ASPHALT
INV	INVERT
L	LENGTH OF CURVE
LHF	LEFT HAND FORWARD
LP	LOW POINT
LT	LEFT
M/L	MATCHLINE
MIN	MINIMUM
NB	NORTHBOUND
NC	NORMAL CROWN
NOR	NORMAL
PAVT	PAVEMENT
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVE
PE	PRIVATE ENTERANCE
PGL	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
PL	PROPERTY LINE
PLE	PERMANENT LIMITED EASEMENT
PRC	POINT OF REVERSE CURVE
PRW	PROPOSED RIGHT OF WAY
PT	POINT OF TANGENT
R	RADIUS OF CURVE
R/L	REFERENCE LINE
R/W	RIGHT OF WAY
RC	REVERSE CROWN
RCAEW	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE
REQD	REQUIRED
RHF	RIGHT HAND FORWARD
RO	RUN OFF LENGTH
RRSP	RAILROAD SPIKE
RT	RIGHT
SALV	SALVAGE
SB	SOUTHBOUND
SDD	STANDARD DETAIL DRAWING
SE	SUPER ELEVATION
SF	SQUARE FOOT
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
STA	STATION
SY	SQUARE YARD
T	TANGENT LENGTH
TLE	TEMPORARY LIMITED EASEMENT
VCL	VERTICAL CURVE LENGTH
VPC	POINT OF VERTICAL CURVE
VPI	POINT OF VERTICAL INTERSECTION
VPT	POINT OF VERTICAL TANGENT
WB	WESTBOUND

GENERAL NOTES

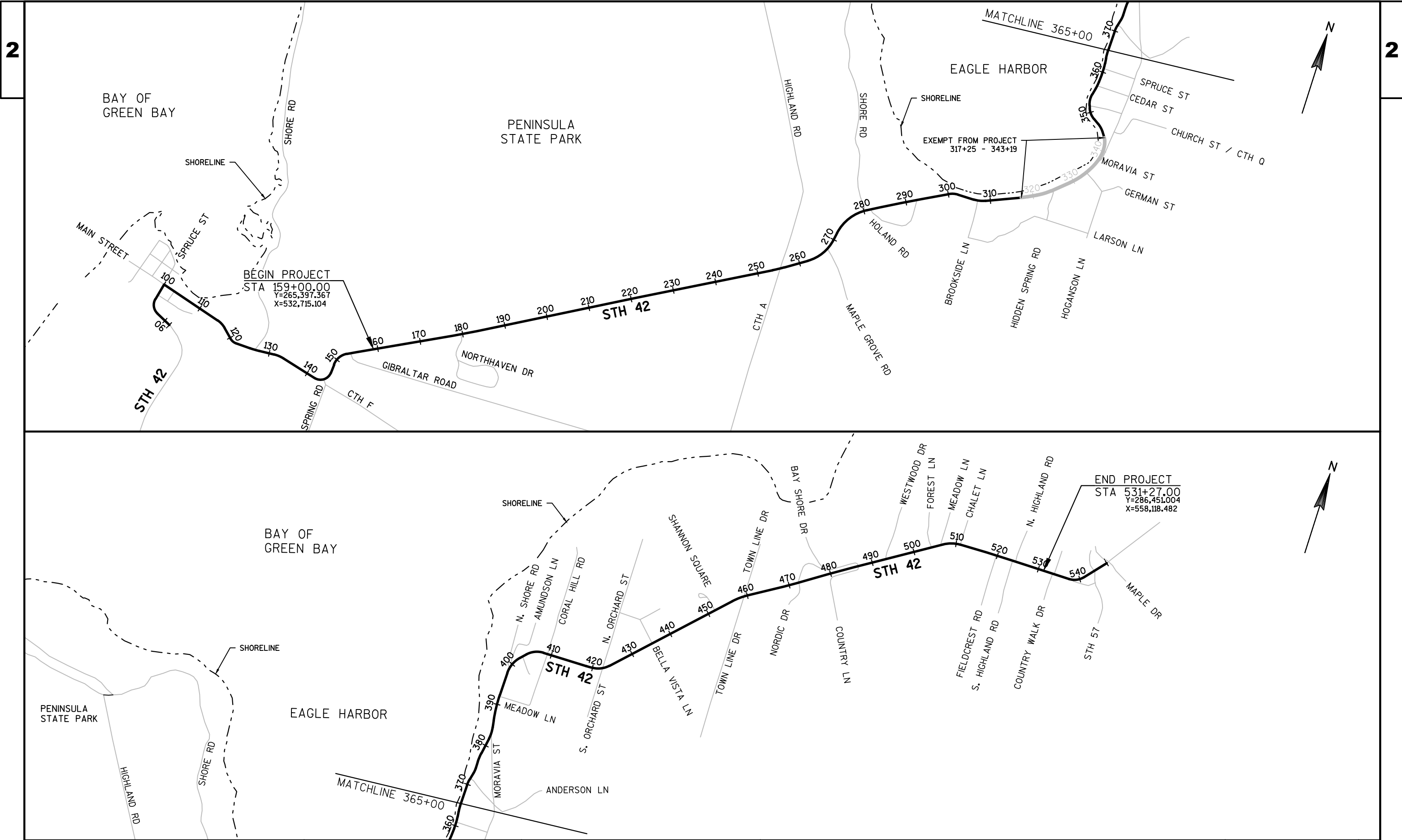
1. NO SHRUBS OR TREES ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER
2. EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS OTHERWISE DIRECTED BY THE ENGINEER
3. DISTURBED AREAS WITHIN THE RIGHT OF WAY, EXCEPT THE AREAS WITHIN THE FINISHED SUBGRADE SHOULDER POINTS, ARE TO BE RESTORED WITH FERTILIZER, SEED, AND MULCH/EMAT WITHIN 5 CALENDAR DAYS OF FINAL GRADING/TOPSOILING OR AS DIRECTED BY THE ENGINEER.
4. THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK.
5. MODIFICATIONS TO SIDEROAD MILL/OVERLAY LIMITS MUST BE APPROVED BY THE FIELD ENGINEER.
6. ALL OPENINGS OF HOLES BELOW SUBGRADE RESULTING FROM REMOVALS AND ABANDONMENTS SHALL BE BACKFILLED WITH GRANULAR BACKFILL. GRANULAR BACKFILL SHALL BE INCLUDED IN THE CONTRACT PRICE OF THE REMOVAL OR ABANDONMENT ITEM.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY ANY OPERATION OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS AT THE CONTRACTOR'S EXPENSE.

HMA PAVEMENT SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYERS:

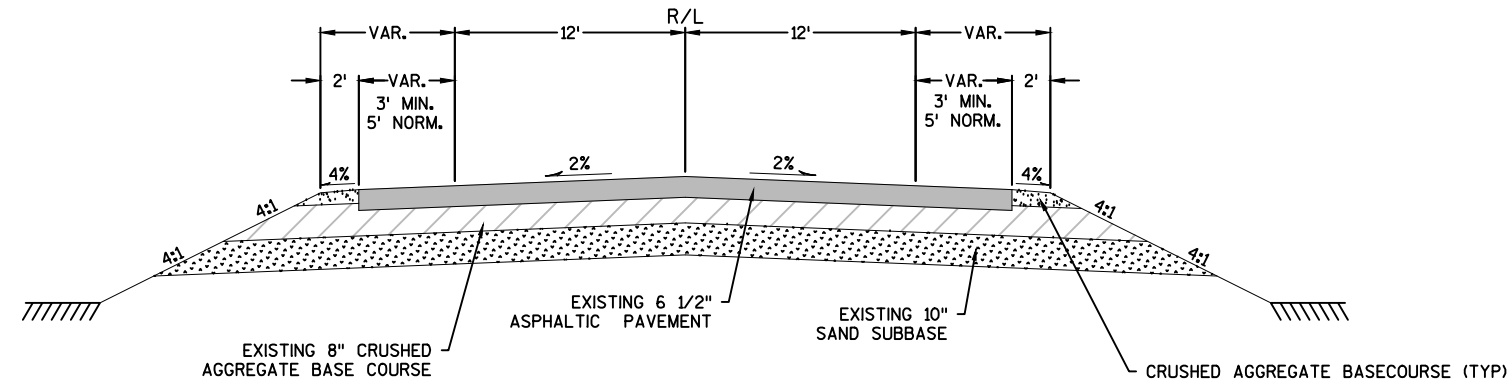
THICKNESS	LAYERS	ASPHALT MIX BID ITEM
2-INCH	ONE 2-INCH UPPER LAYER	4 LT 58-28 S
4-INCH	ONE 1¾-INCH UPPER LAYER ONE 2¼-INCH LOWER LAYER	4 LT 58-28 S 3 LT 58-28 S
6½-INCH	ONE 2-INCH UPPER LAYER TWO 2¼-INCH LOWER LAYERS	4 LT 58-28 S ASPHALTIC BASE*

\*ASPHALTIC BASE MIXTURE TO MEET 3 LT GRADATION, SEE SPECIAL PROVISIONS



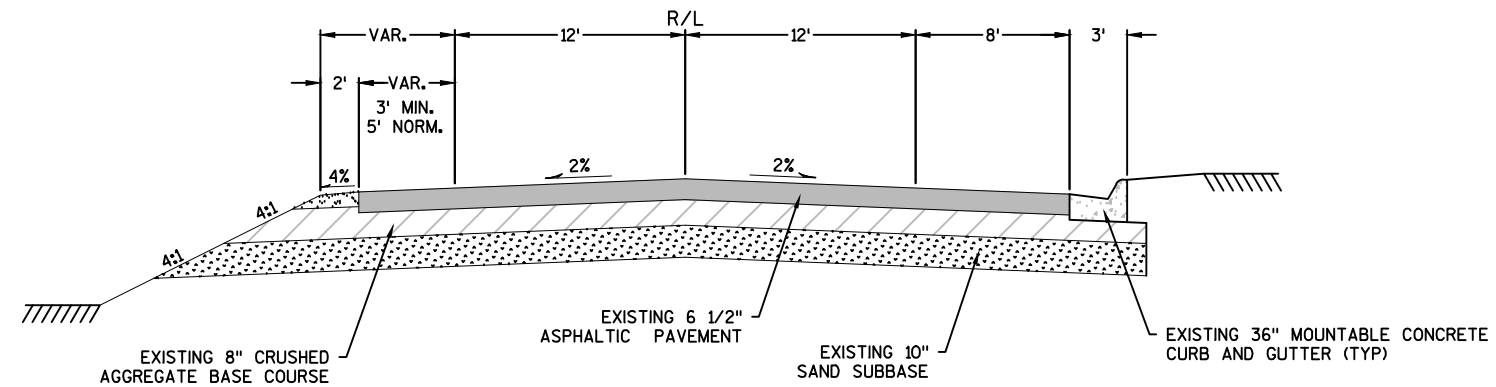


PROJECT NO: 4140-19-72	HWY: STH 42	COUNTY: DOOR	PROJECT OVERVIEW	SHEET	E
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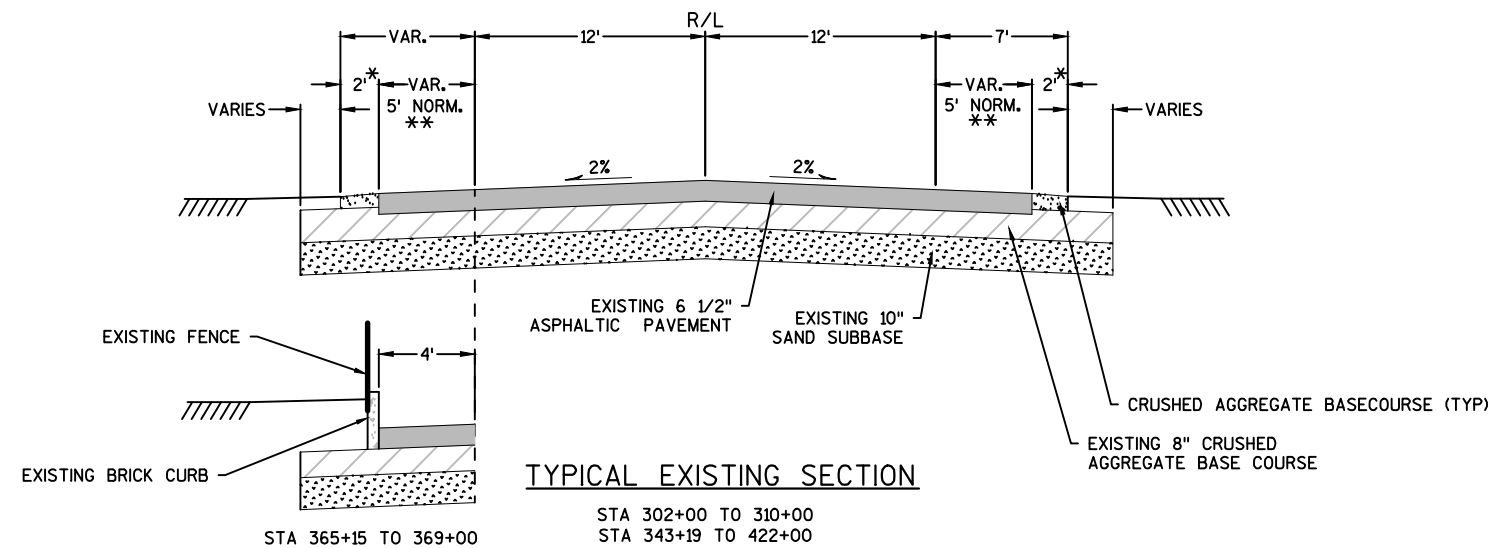
### TYPICAL EXISTING SECTION

STA 159+00 - 197+87  
STA 199+65 - 302+00  
STA 422+00 - 528+40



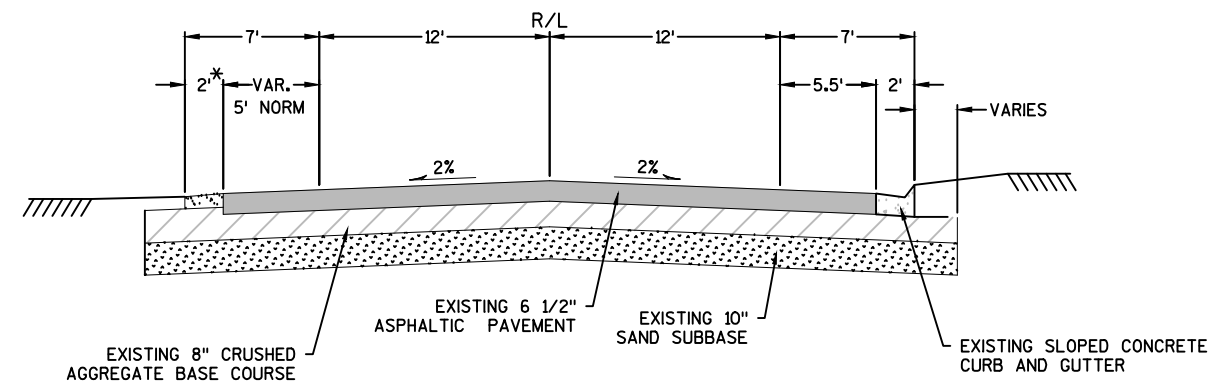
### TYPICAL EXISTING SECTION

STA 197+87 TO 199+65



### TYPICAL EXISTING SECTION

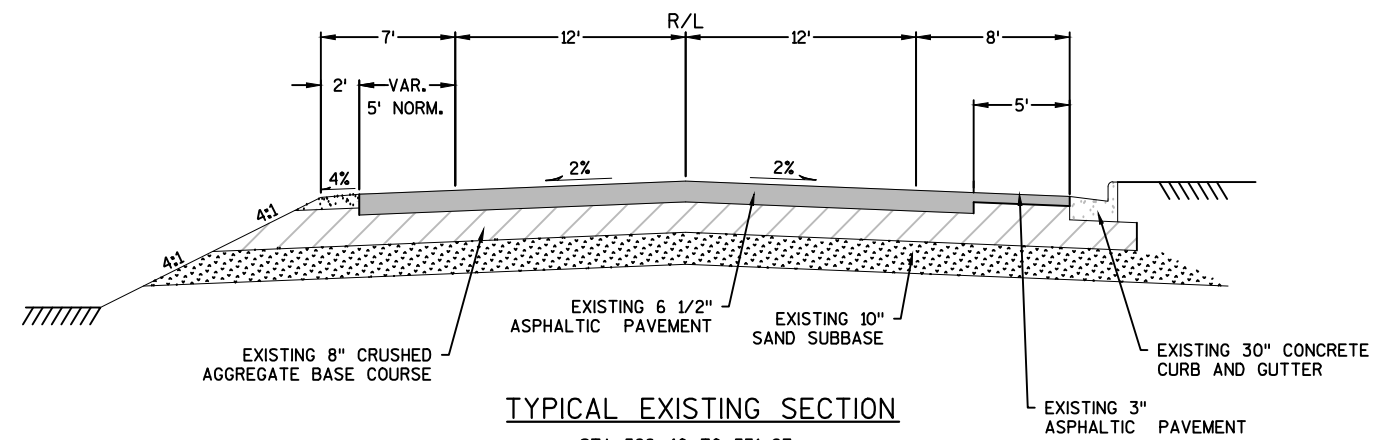
\*WIDTH VARIES BETWEEN 0' AND 2'  
\*\*WIDTH VARIES BETWEEN 5' AND 12' FROM STA 303+25 TO 307+40  
WIDTH VARIES BETWEEN 1' TO 5' FROM STA. 423+23 TO 459+20



TYPICAL EXISTING SECTION

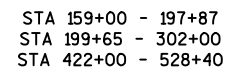
STA 310+00 TO 317+25

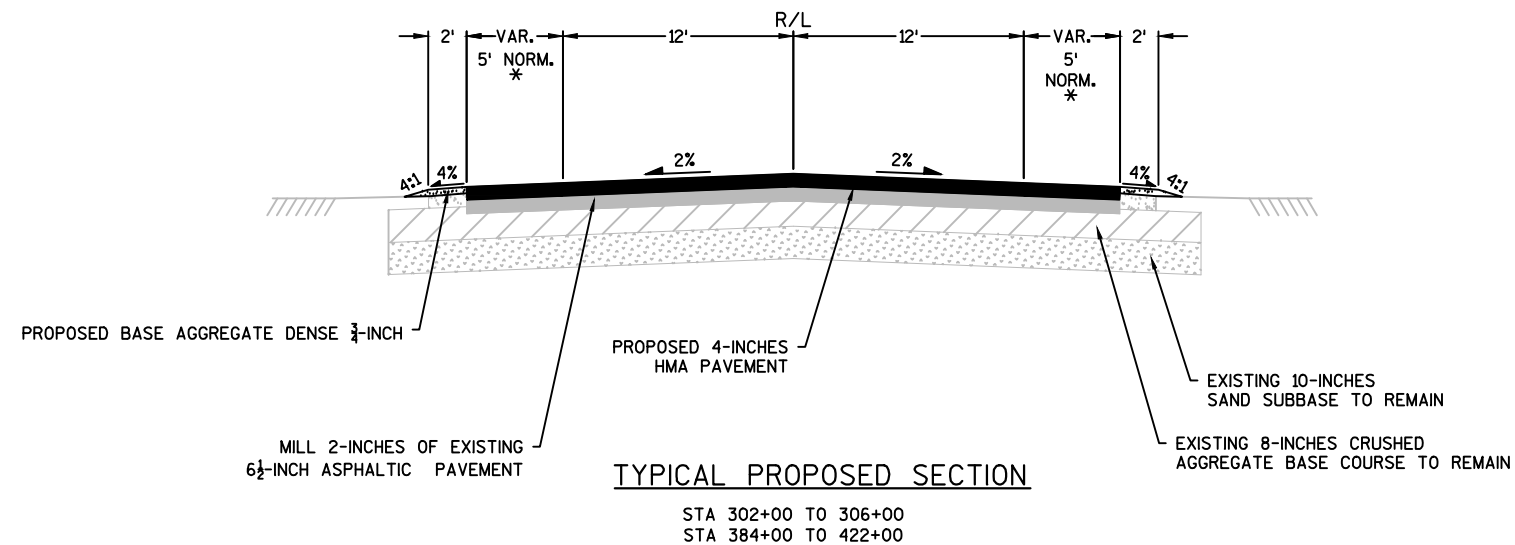
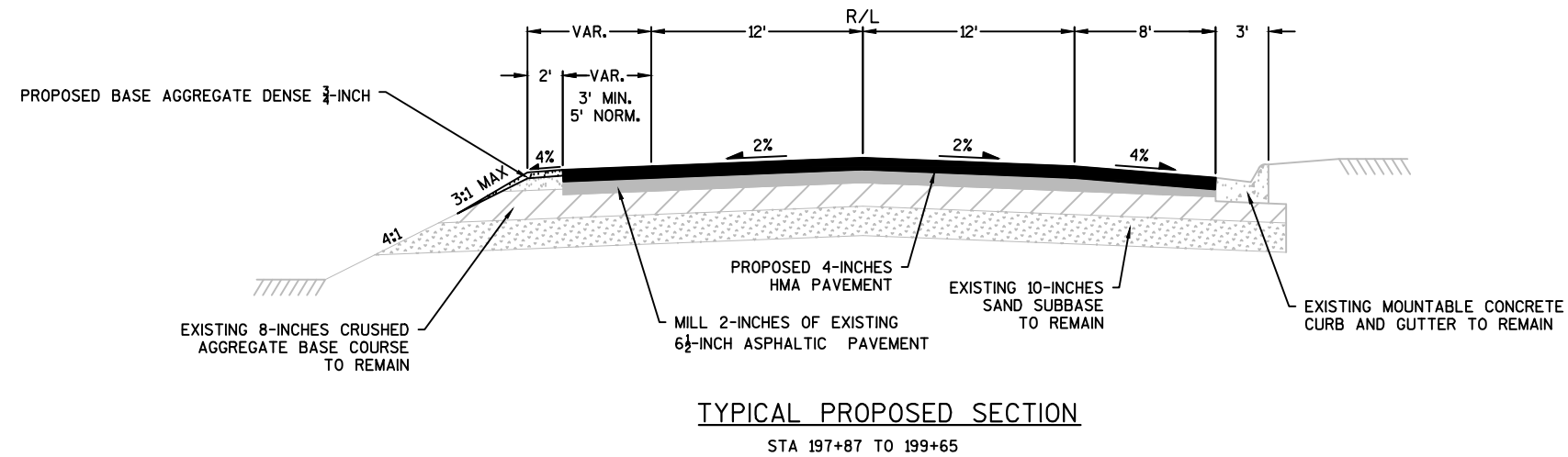
\*WIDTH VARIES BETWEEN 0' AND 2'



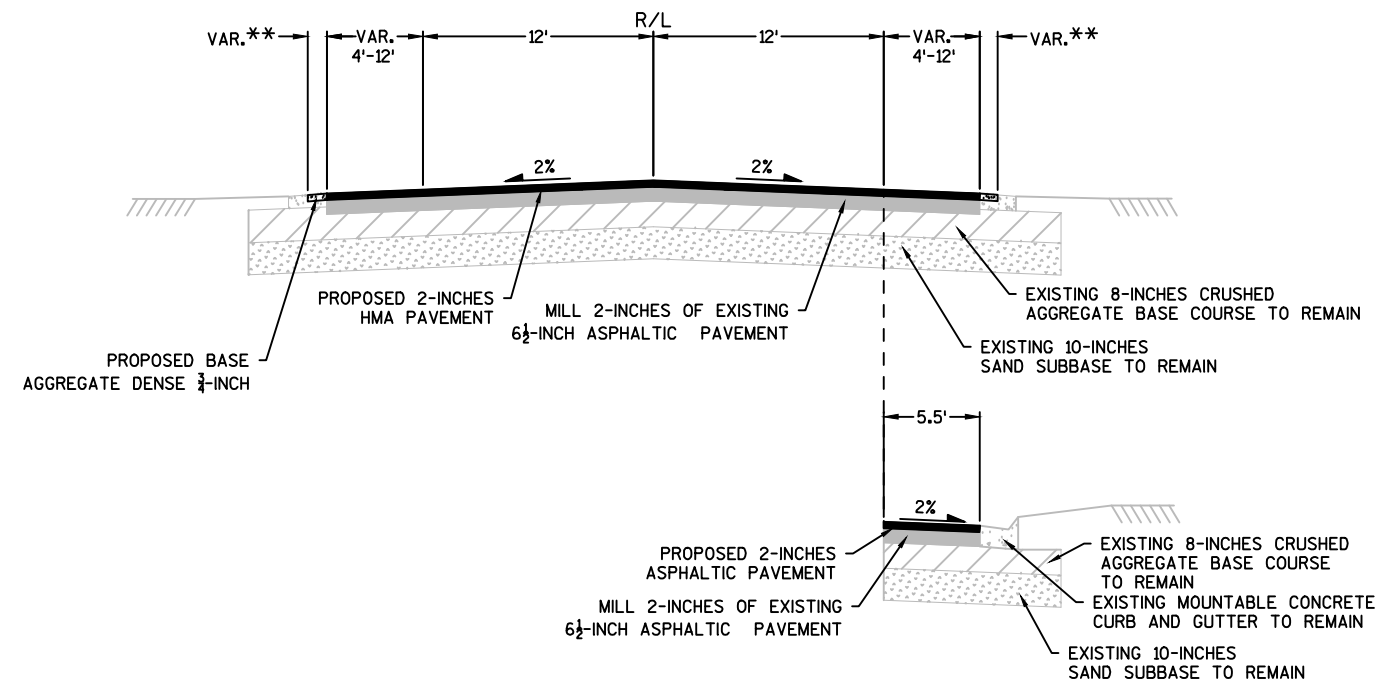
TYPICAL EXISTING SECTION

STA 528+40 TO 531+27









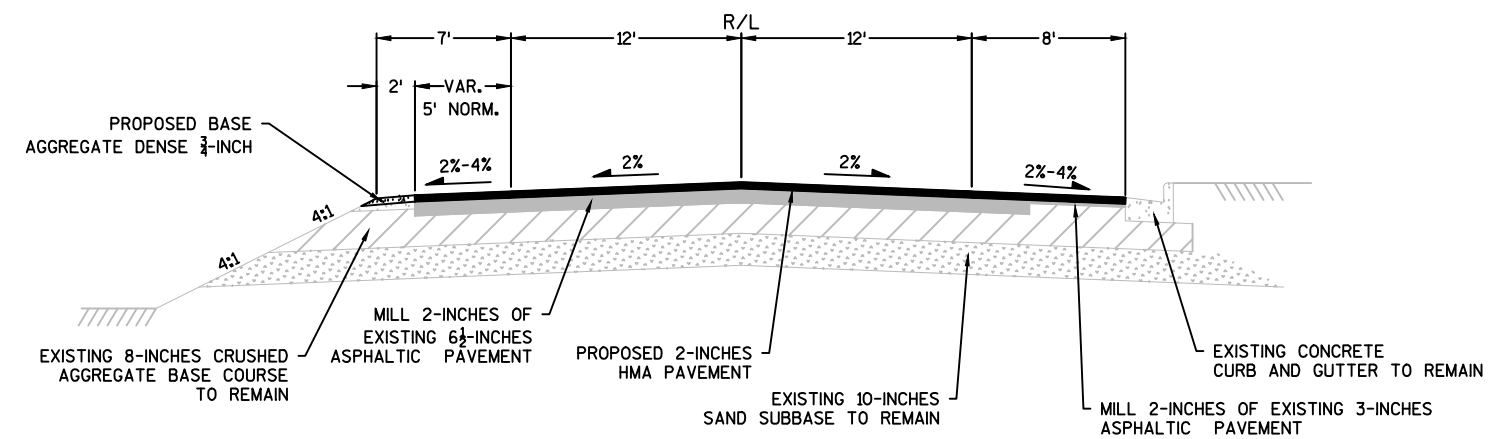
TYPICAL PROPOSED SECTION

STA 306+00 TO 317+25  
STA 343+19 TO 384+00\*\*\*

\*\*REPLACE ONLY DISTURBED SHOULDER RESULTING FROM MILLING AND PAVING OPERATIONS WITH BASE AGGREGATE DENSE 3/4-INCH

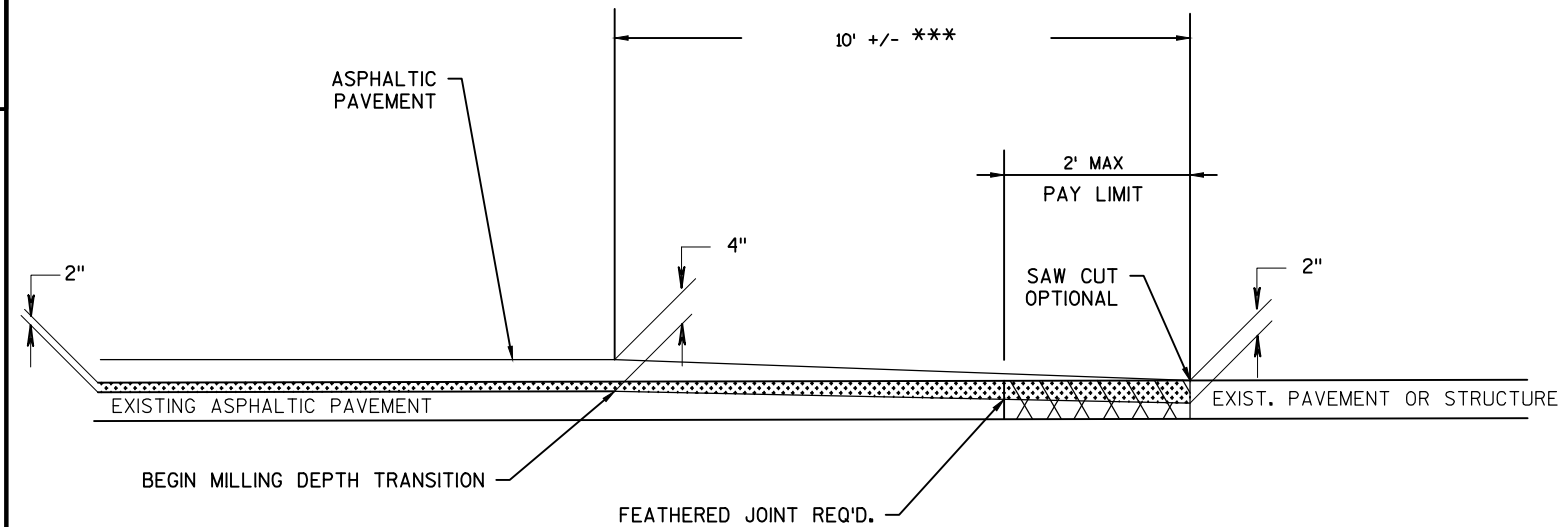
\*\*\*LOCALIZED FULL DEPTH ROADWAY REMOVAL FROM STATIONS 347+78-348+15 AND 370+00-371+20 FOR STORM SEWER INSTALLATION. REPLACE WITH 2-INCHES HMA PAVEMENT OVER 4 1/2 INCHES OF ASPHALTIC BASE OVER 12-INCHES OF BASE AGGREGATE DENSE 1 1/4-INCH.

STA 310+00 TO 317+25 RT



TYPICAL PROPOSED SECTION

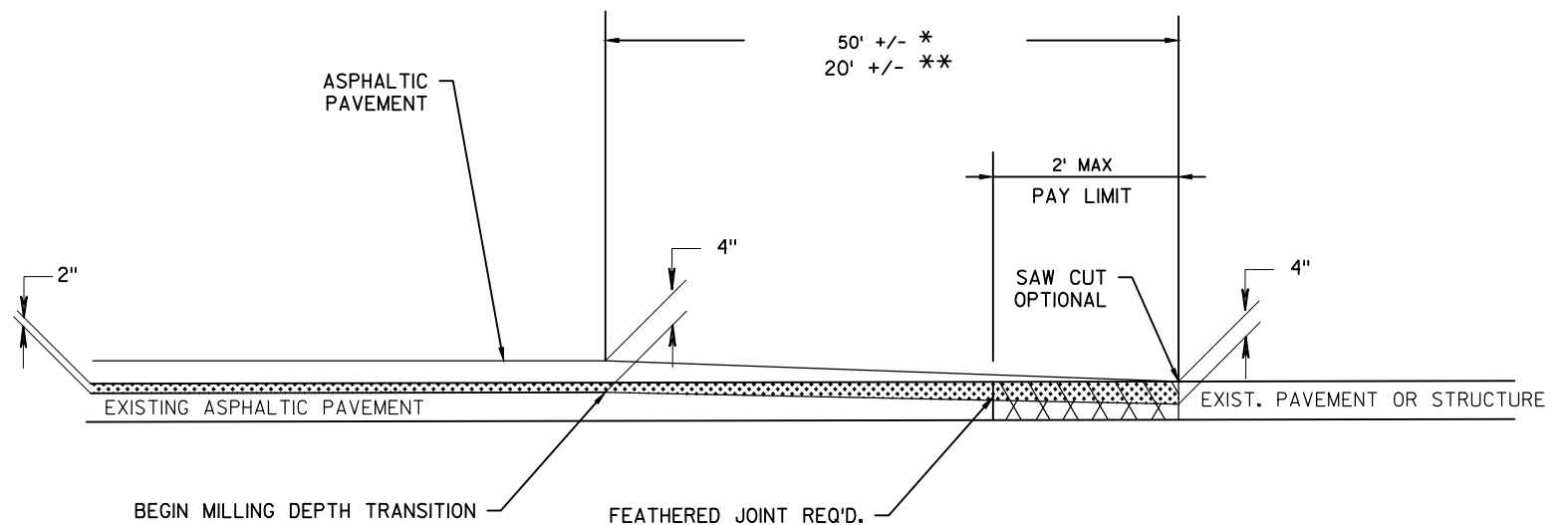
STA 528+40 TO 531+27



- REMOVING ASPHALTIC SURFACE, MILLING
- REMOVING ASPHALTIC SURFACE, BUTT JOINTS (FULL DEPTH REMOVAL OPTIONAL)
- ASPHALTIC WEDING (FULL DEPTH REMOVAL OPTION)

**BUTT JOINT DETAIL FOR RURAL DRIVEWAYS (PROFILE CHANGE)**

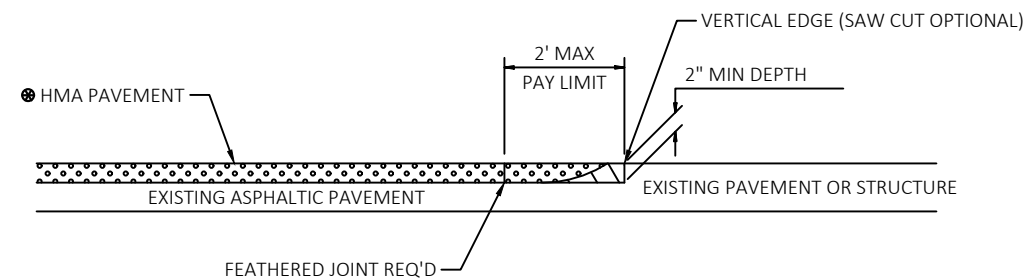
\*\*\* RURAL DRIVEWAYS



- REMOVING ASPHALTIC SURFACE, MILLING
- REMOVING ASPHALTIC SURFACE, BUTT JOINTS (FULL DEPTH REMOVAL OPTIONAL)
- ASPHALTIC WEDING (FULL DEPTH REMOVAL OPTION)

**BUTT JOINT DETAIL FOR MAINLINE AND SIDE ROADS (PROFILE CHANGE)**

\* MAINLINE  
\*\* SIDE ROADS

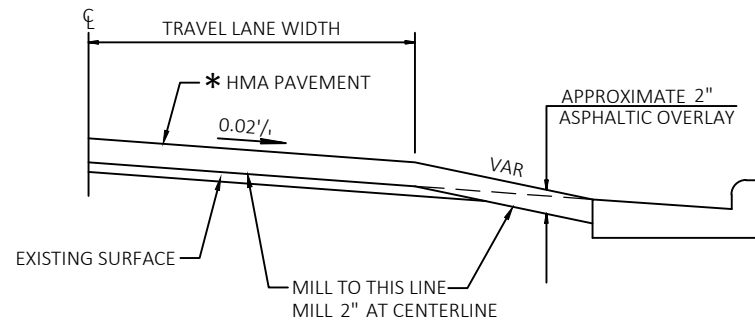


SEE TYPICAL CROSS SECTION FOR PAVEMENT TYPE AND THICKNESS OF INDIVIDUAL LAYERS

REMOVING ASPHALTIC SURFACE, MILLING

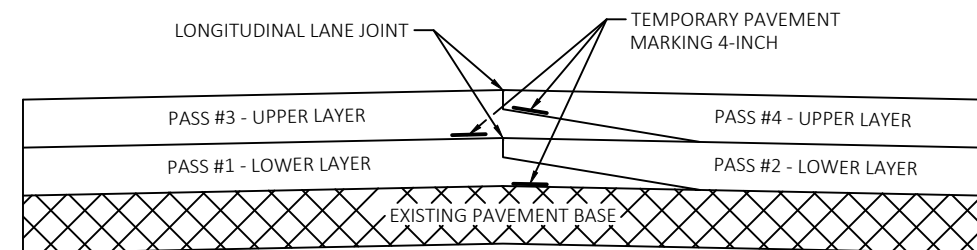
REMOVE ASPHALTIC SURFACE WEDGE AT BUTT JOINT TO CREATE VERTICAL EDGE

BUTT JOINT DETAIL FOR ASPHALTIC PAVEMENTS (NO PROFILE CHANGE)

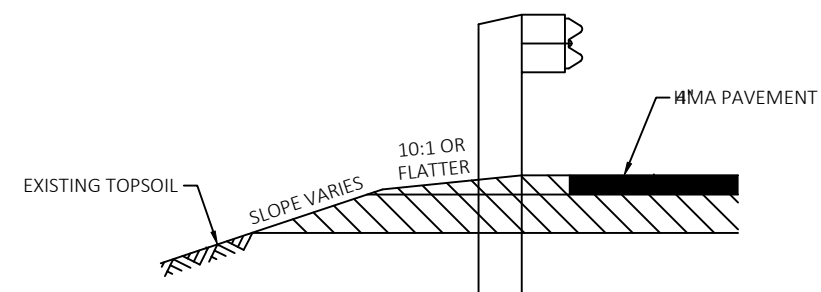


\*SEE TYPICAL CROSS SECTION FOR PAVEMENT TYPE AND THICKNESS OF INDIVIDUAL LAYERS

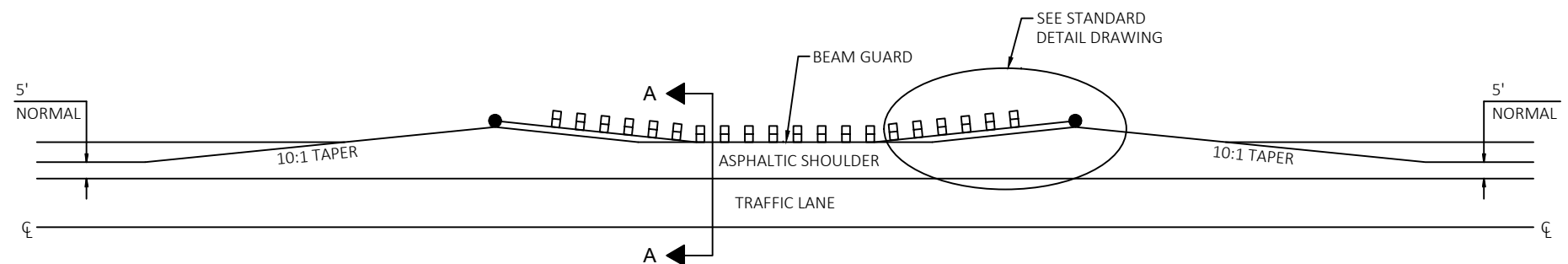
TYPICAL CROSS SECTION WITH CURB & GUTTER (MILLED)



PAVEMENT MARKING DETAIL FOR TAPERED OVERLAPPING JOINTS IN HMA PAVEMENTS



SECTION A-A

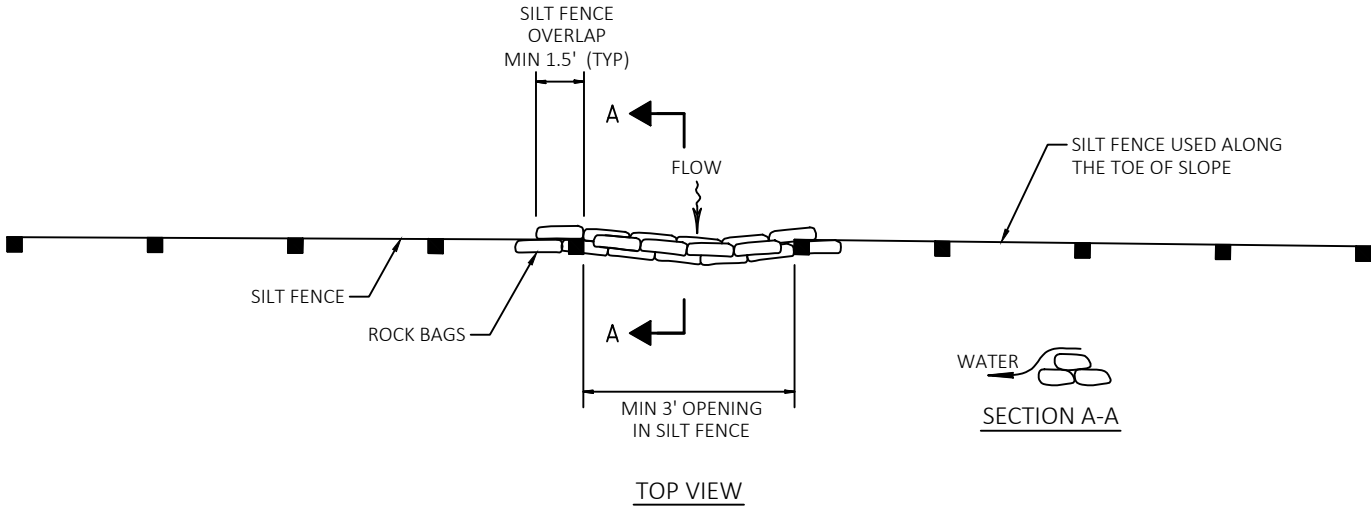


DETAIL FOR ASPHALTIC SHOULDER AT BEAM GUARD

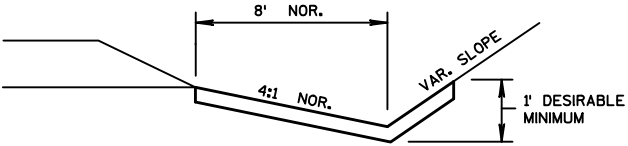
RUNOFF COEFFICIENT TABLE

	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	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38
	.22	.30	.38	.26	.34	.44	.30	.37	.50	.34	.41	.56
MEDIAN STRIP-TURF	.19	.20	.24	.19	.22	.26	.20	.23	.30	.20	.25	.30
	.24	.26	.30	.25	.28	.33	.26	.30	.37	.27	.32	.40
SIDE SLOPE-TURF			.25			.27			.28			.30
			.32			.34			.36			.38
PAVEMENT:												
ASPHALT				.70 - .95								
CONCRETE				.80 - .95								
BRICK				.70 - .80								
DRIVES, WALKS				.75 - .85								
ROOFS				.75 - .95								
GRAVEL ROADS, SHOULDERS				.40 - .60								

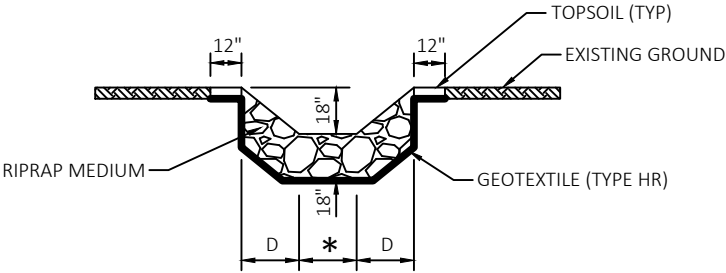
TOTAL PROJECT AREA = 71.670 ACRES  
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 33.241 ACRES



ROCK BAGS USED FOR SILT FENCE RELIEF DETAIL

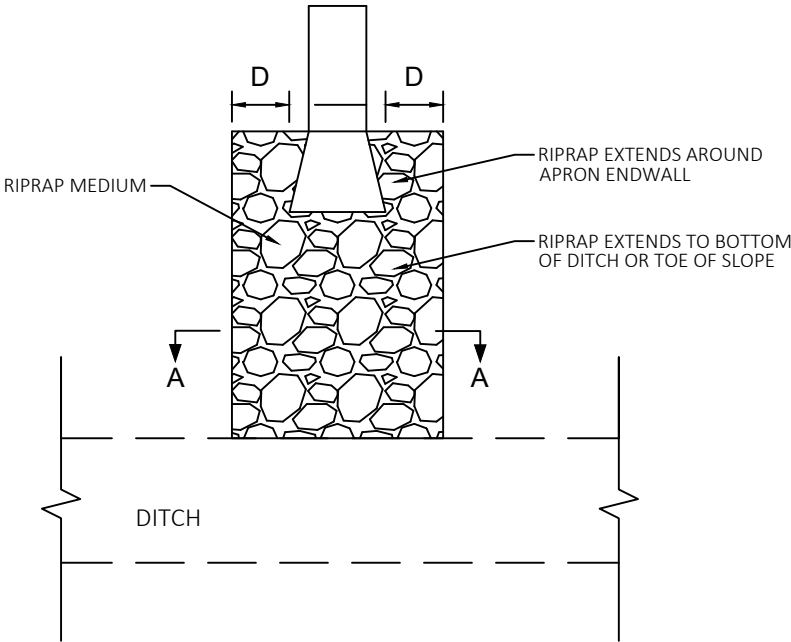


EROSION MAT DETAIL FOR DITCHES



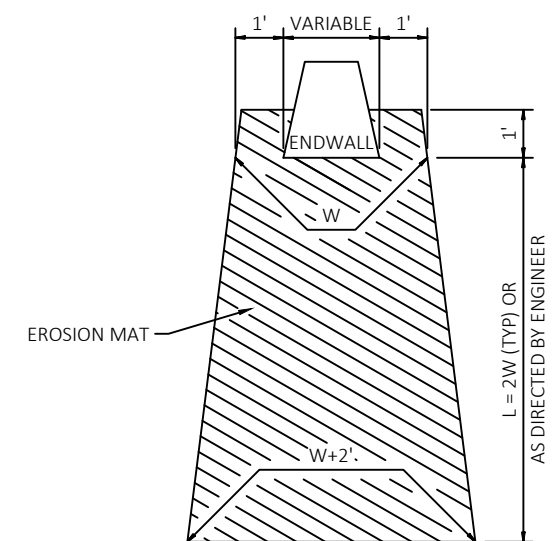
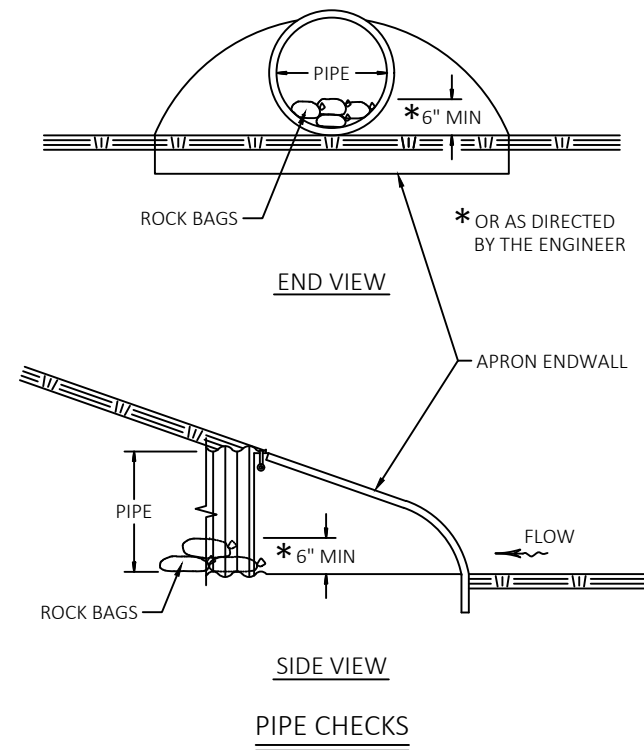
SECTION A-A

\* APRON ENDWALL WIDTH  
D = PIPE DIAMETER

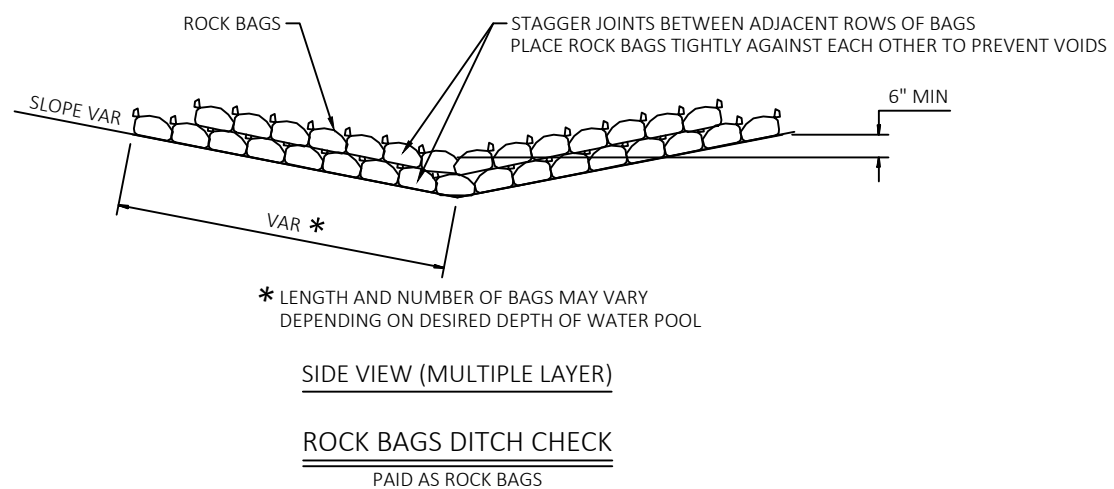
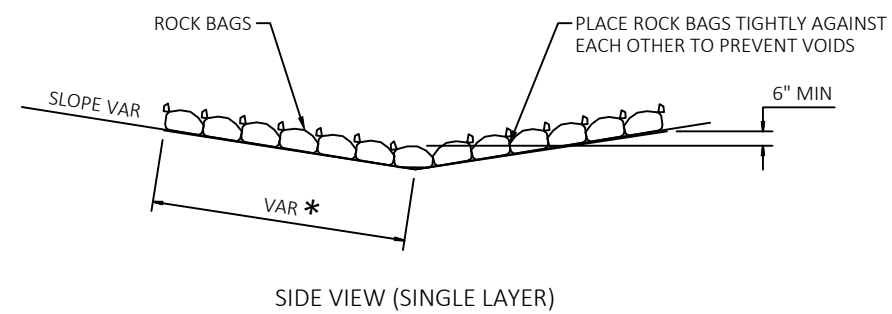


PLAN VIEW

RIPRAP TREATMENT AT STORM SEWER OUTFALLS



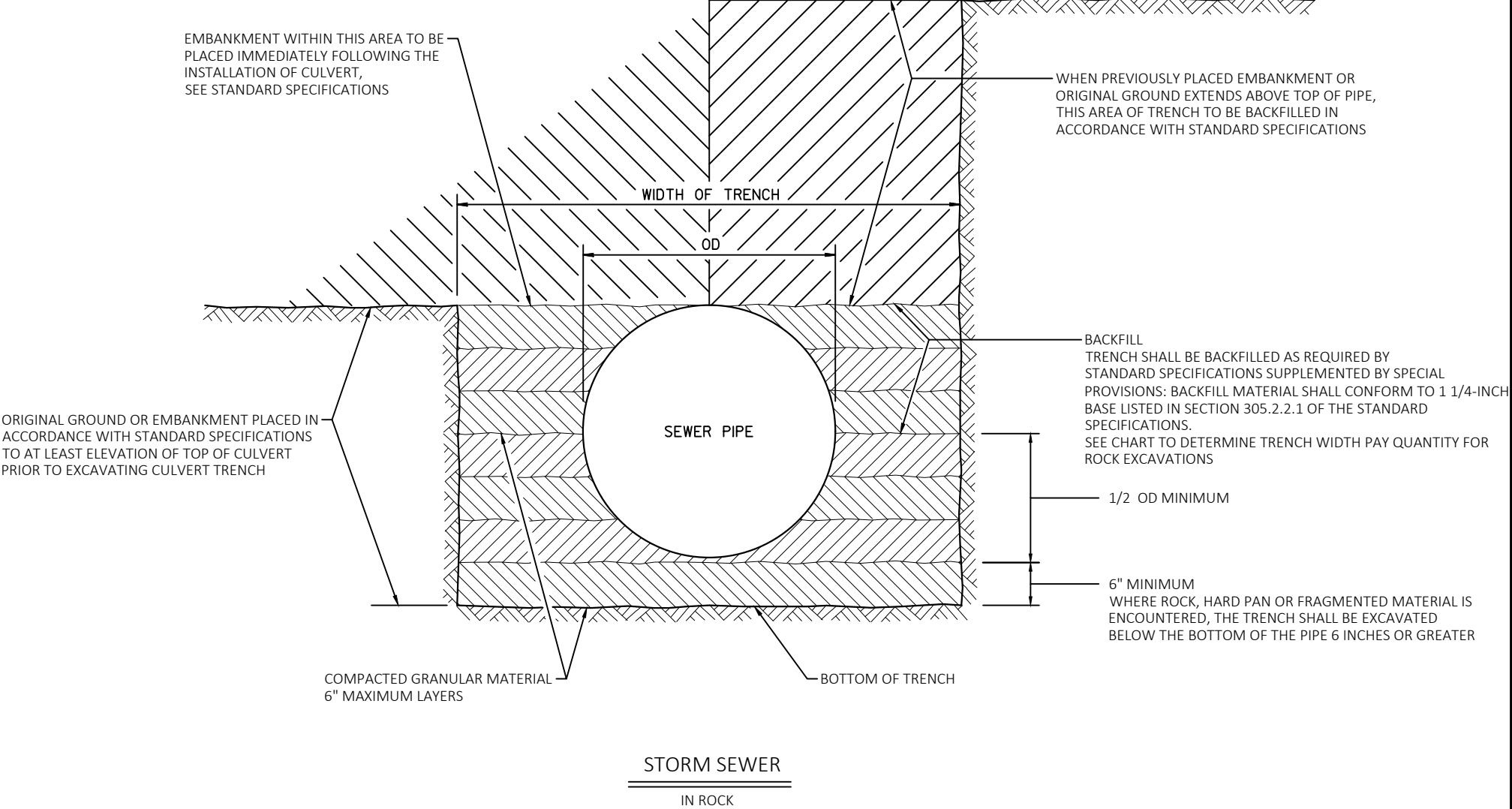
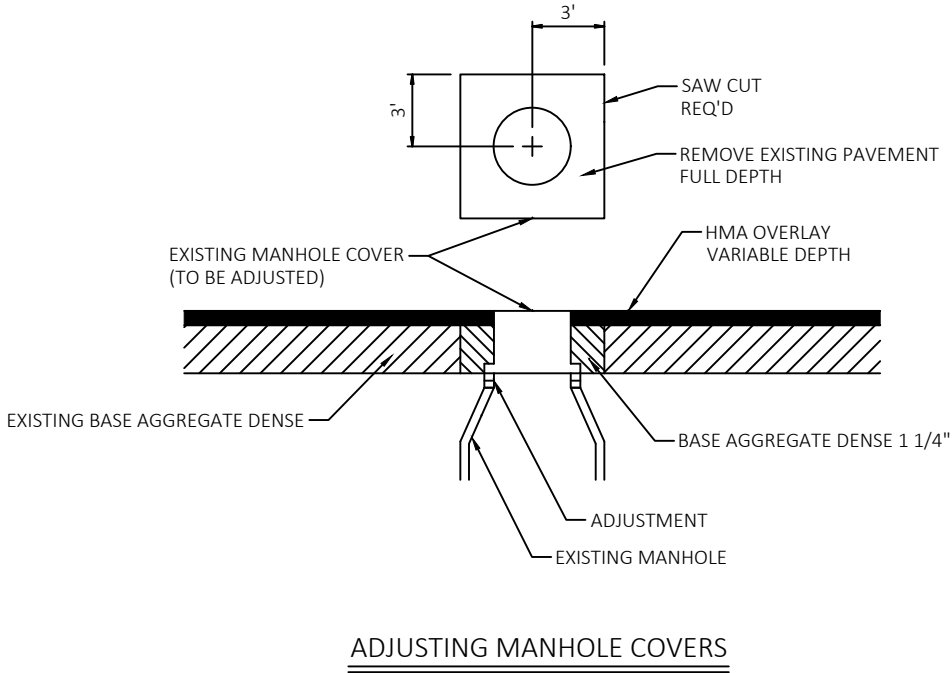
EROSION MAT TREATMENT AT CULVERTS

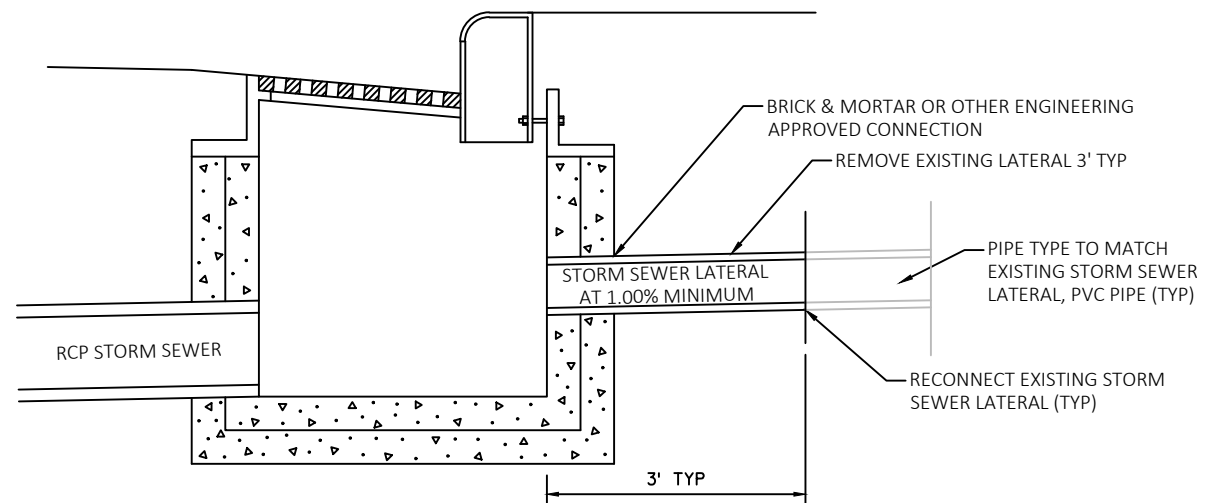




PIPE HORIZONTAL DIAMTER	TRENCH WIDTH PAY QUANTITY WHEN IN ROCK
12"	52"
15"	56"
18"	59"
24"	66"
30"	73"
36"	80"
38"	82"
45"	90"
53"	99"

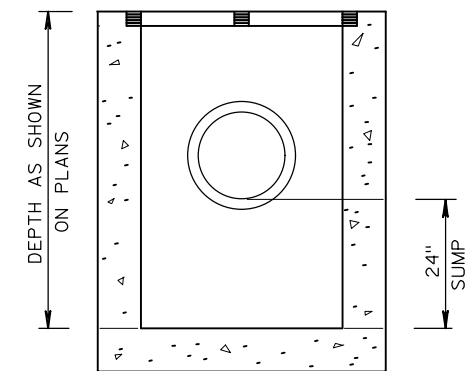
NOTE:  
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT  
SHOWN ON THIS DRAWING SHALL CONFORM TO THE STANDARD  
SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.





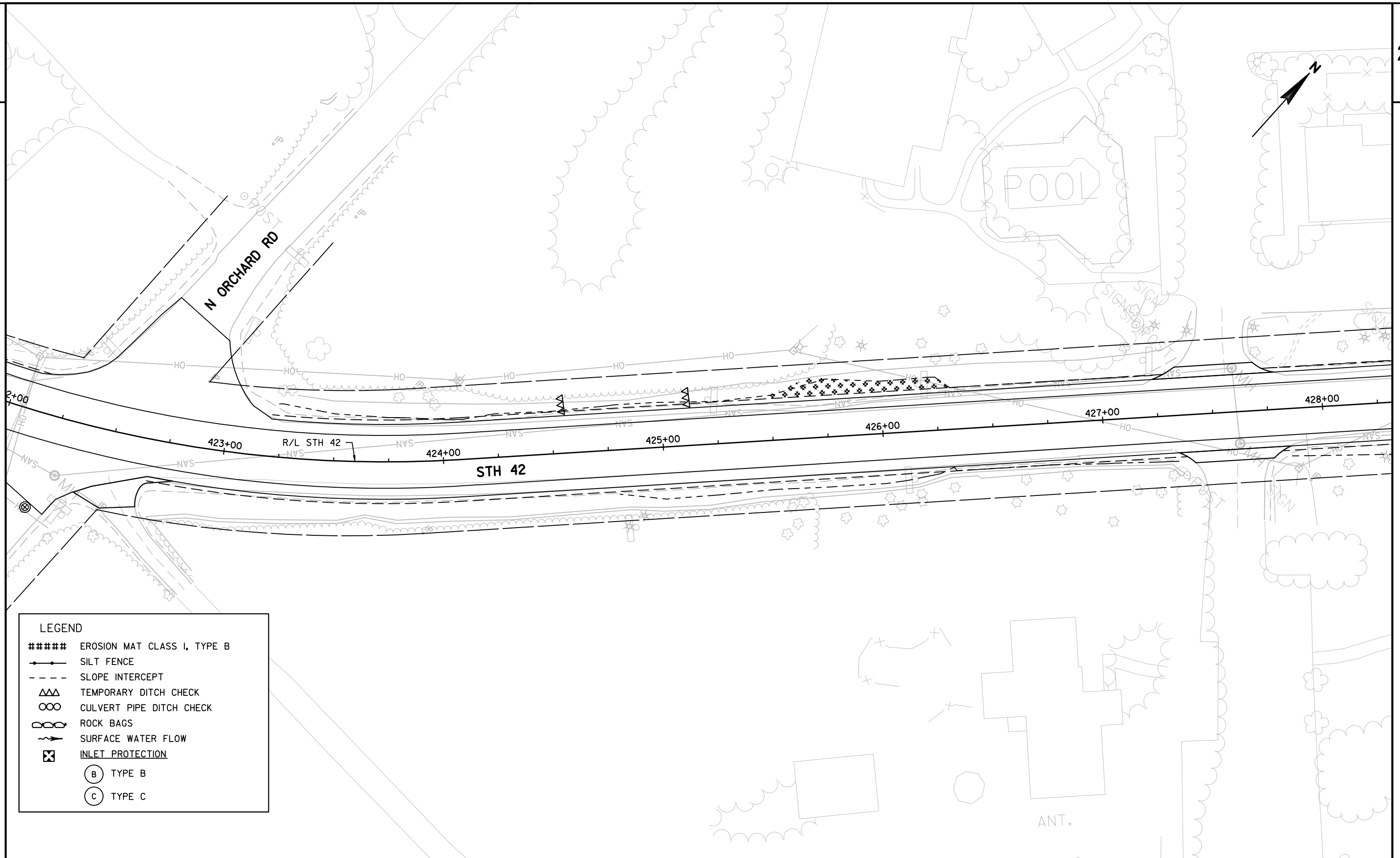
NOTE:  
ALL LABOR AND MATERIALS NECESSARY FOR RECONNECTING  
EXISTING STORM SEWER LATERALS SHALL BE INCIDENTAL TO THE  
INLET/CATCH BASIN/MANHOLE BID ITEM.

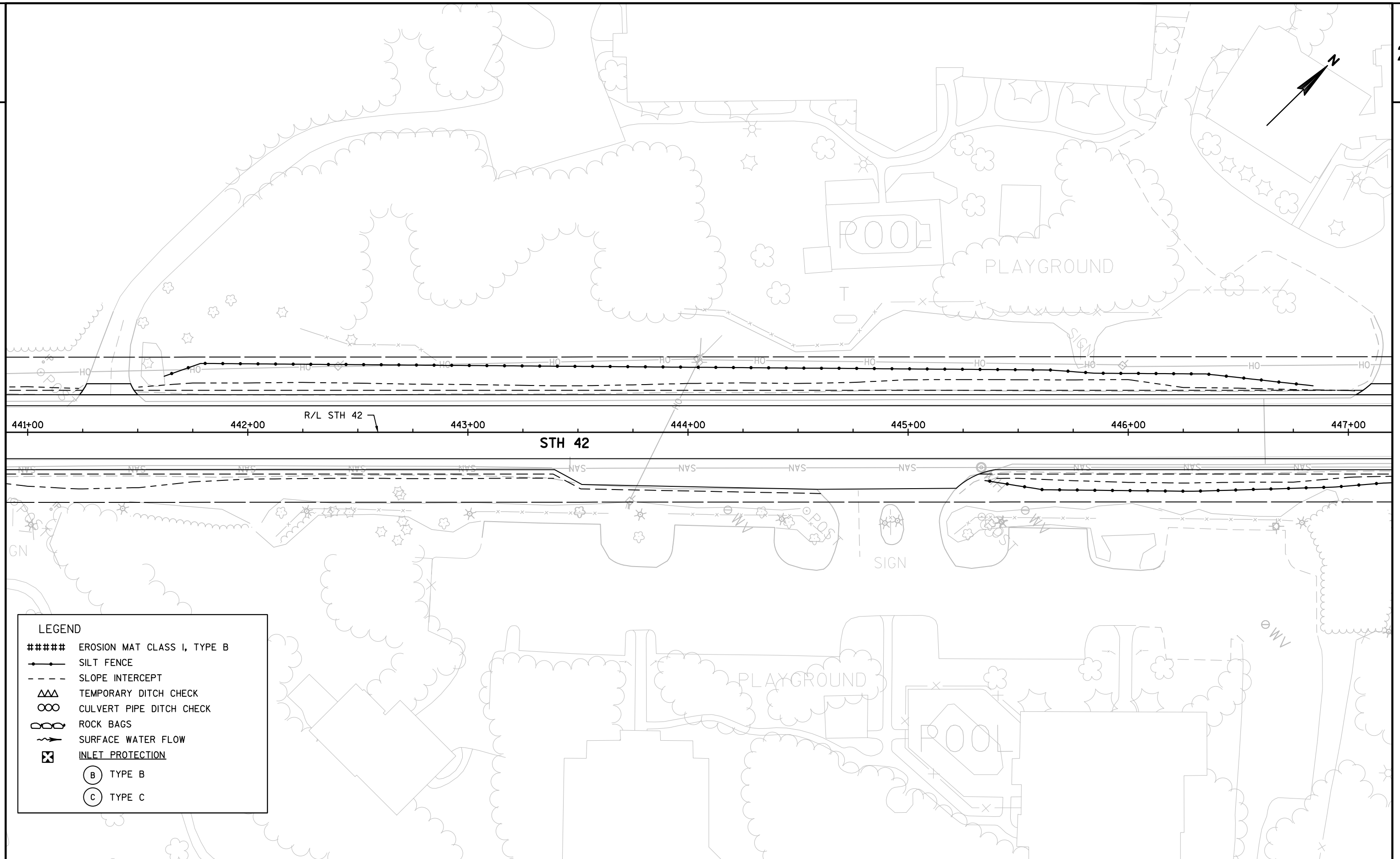
### RECONNECT EXISTING STORM SEWER LATERAL DETAIL



### MEDIAN GRATE, TYPE 1 SPECIAL FOR ADDITIONAL DETAILS SEE S.D.D.







LEGEND

#####

EROSION MAT CLASS I, TYPE B

—●—

SILT FENCE

- - -

SLOPE INTERCEPT

△△△

TEMPORARY DITCH CHECK

○○○

CULVERT PIPE DITCH CHECK

⊖⊖⊖

ROCK BAGS

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SURFACE WATER FLOW

⊗

INLET PROTECTION

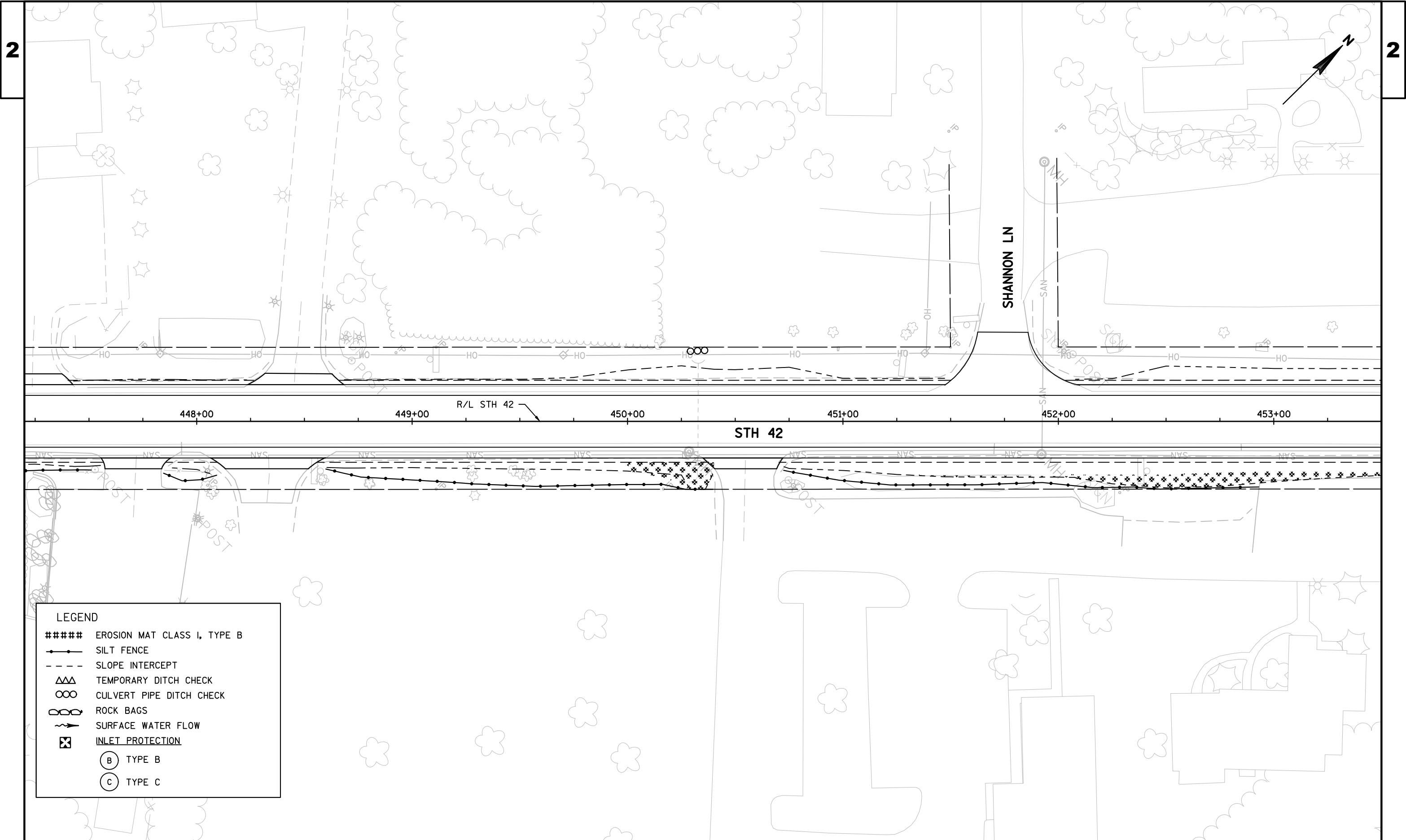
Ⓟ

TYPE B

Ⓢ

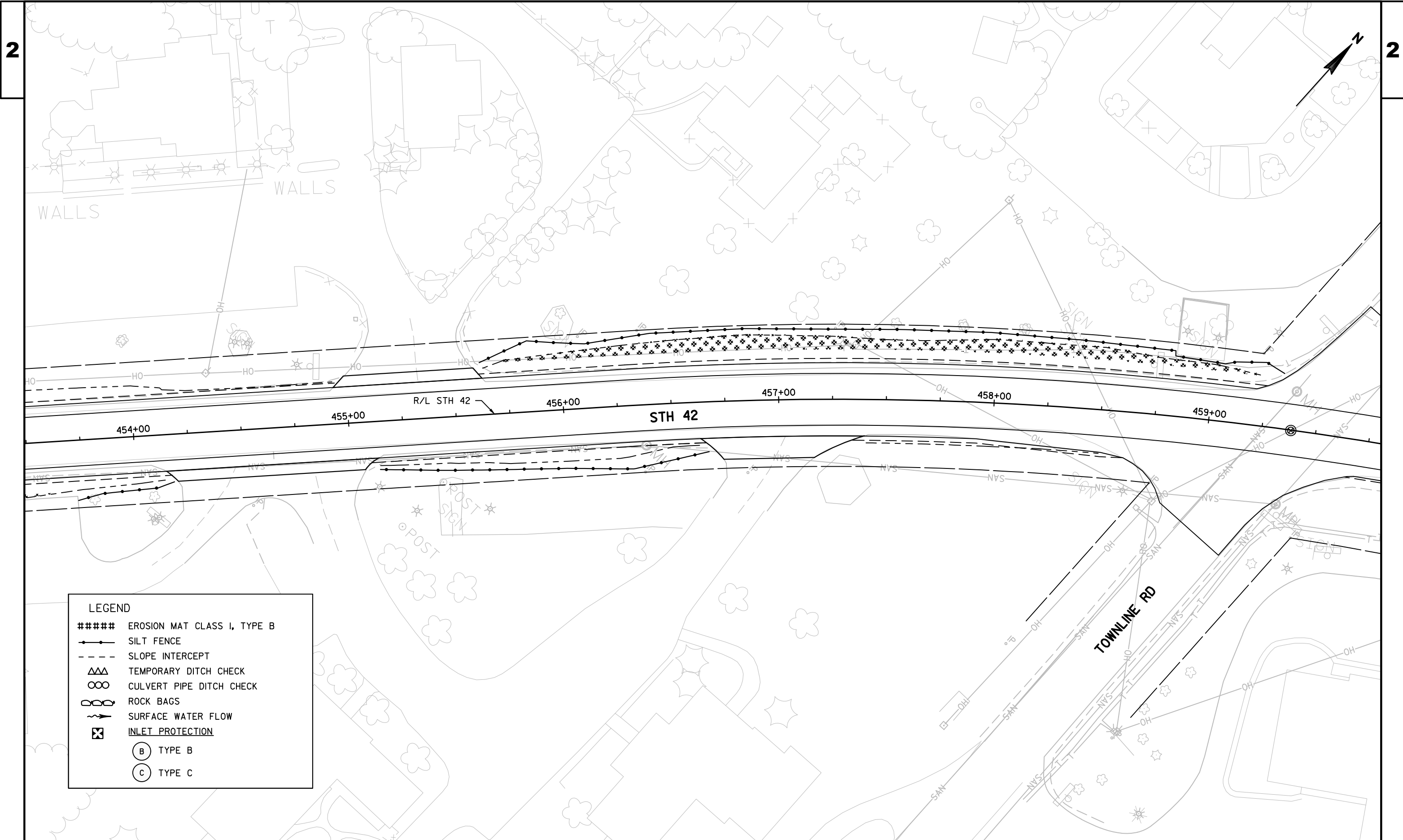
TYPE C





LEGEND

|       |                             |
|-------|-----------------------------|
| ##### | EROSION MAT CLASS I, TYPE B |
| —●—   | SILT FENCE                  |
| - - - | SLOPE INTERCEPT             |
| △△    | TEMPORARY DITCH CHECK       |
| ○○    | CULVERT PIPE DITCH CHECK    |
| ⊙     | ROCK BAGS                   |
| ~>    | SURFACE WATER FLOW          |
| ⊠     | INLET PROTECTION            |
| Ⓟ     | TYPE B                      |
| Ⓢ     | TYPE C                      |



LEGEND

#####

EROSION MAT CLASS I, TYPE B

—●—

SILT FENCE

- - -

SLOPE INTERCEPT

△△

TEMPORARY DITCH CHECK

○○

CULVERT PIPE DITCH CHECK

⊗

ROCK BAGS

~→

SURFACE WATER FLOW

⊠

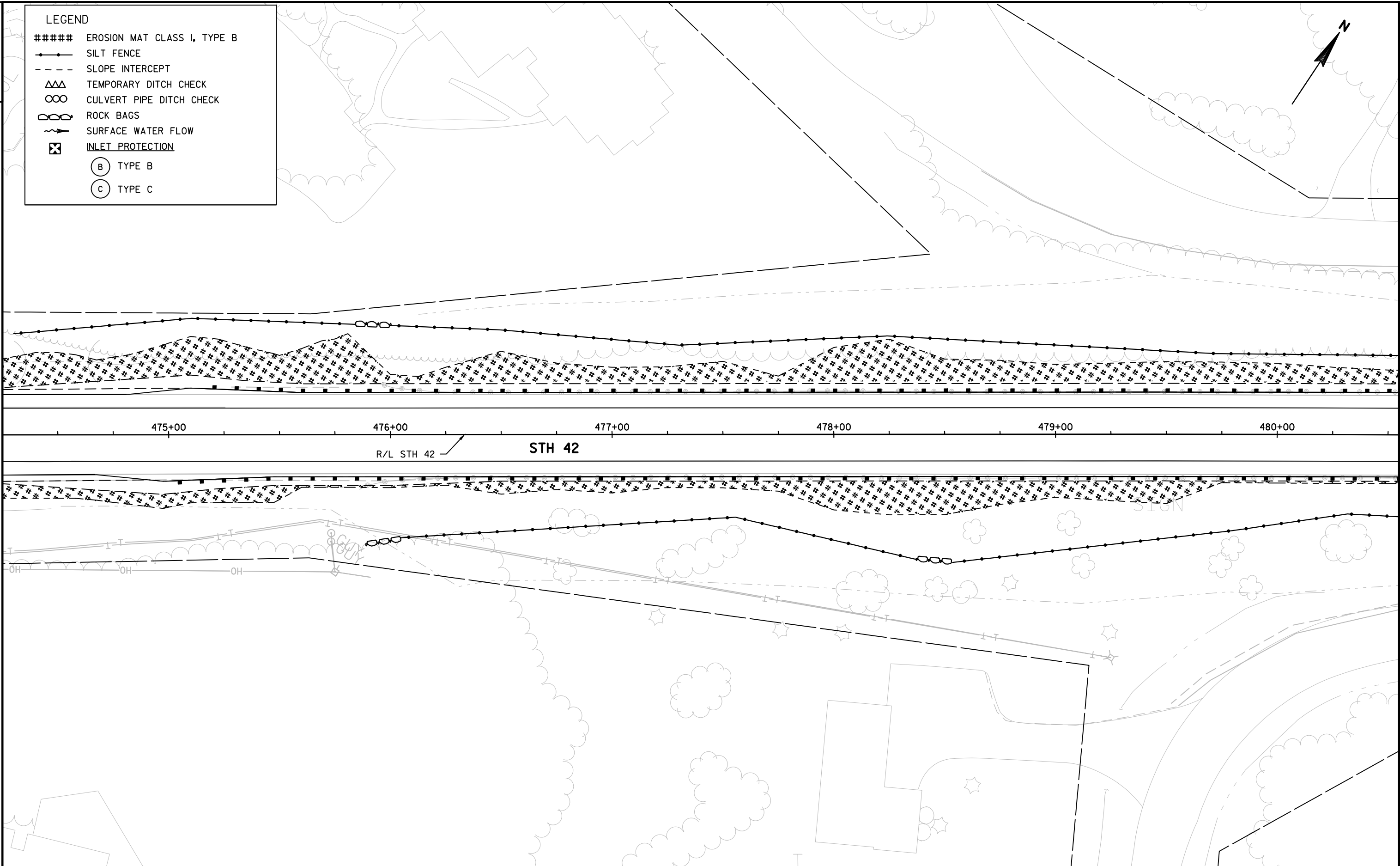
INLET PROTECTION

Ⓟ

TYPE B

Ⓢ

TYPE C



|                        |             |              |                 |       |   |
|------------------------|-------------|--------------|-----------------|-------|---|
| PROJECT NO: 4140-19-72 | HWY: STH 42 | COUNTY: DOOR | EROSION CONTROL | SHEET | E |
|------------------------|-------------|--------------|-----------------|-------|---|

## LEGEND

- ##### EROSION MAT CLASS I, TYPE B  
—●— SILT FENCE  
- - - SLOPE INTERCEPT  
△△△ TEMPORARY DITCH CHECK  
○○○ CULVERT PIPE DITCH CHECK  
⊗ ROCK BAGS  
→ SURFACE WATER FLOW  
⊗ INLET PROTECTION  
○ TYPE B  
○ TYPE C

S. BAY SHORE DR

481+00

482+00

483+00

484+00

485+00

486+00

R/L STH 42

STH 42

COUNTRY LN

PROJECT NO: 4140-19-72

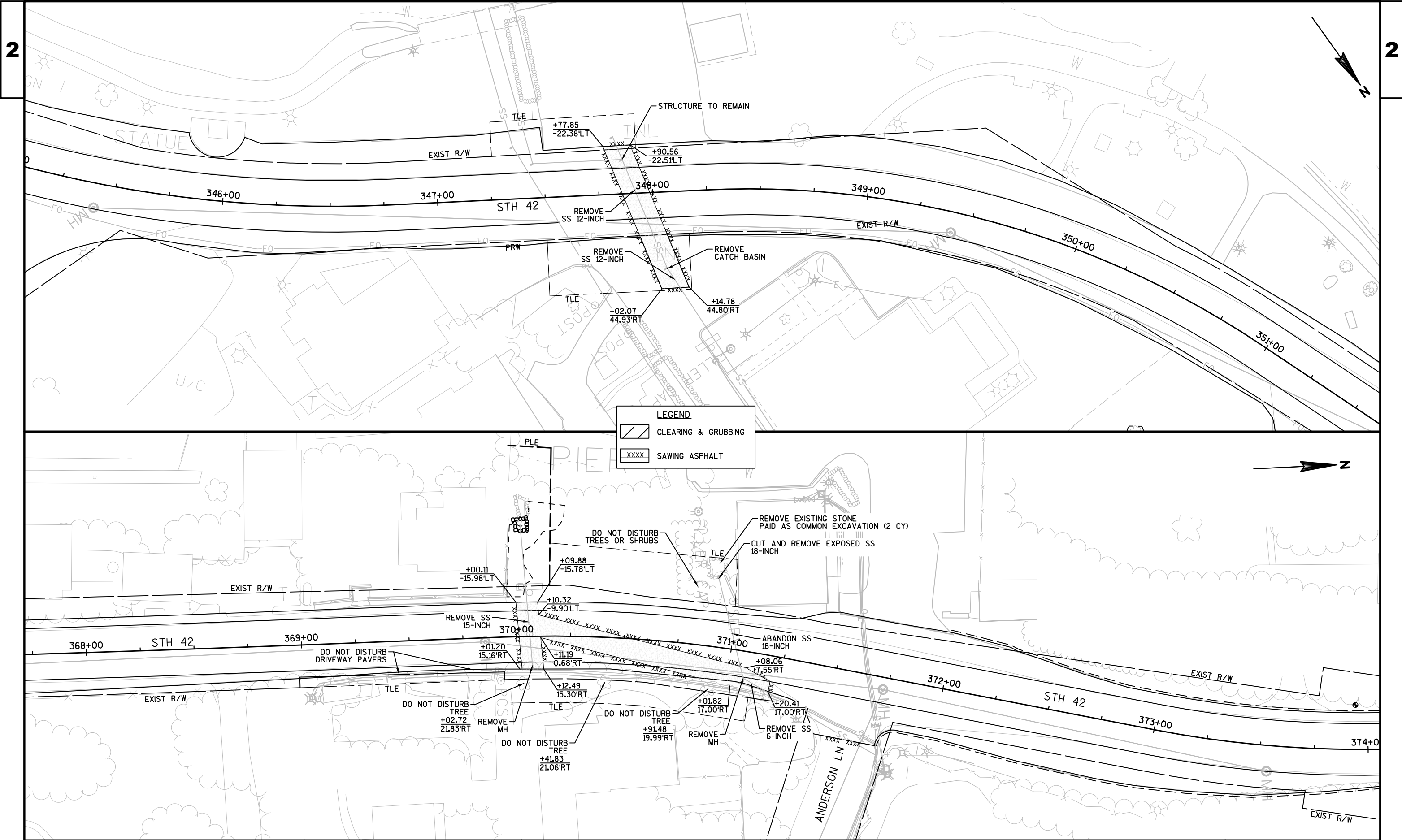
HWY: STH 42

COUNTY: DOOR

EROSION CONTROL

SHEET

E



PROJECT NO: 4140-19-72

HWY: STH 42

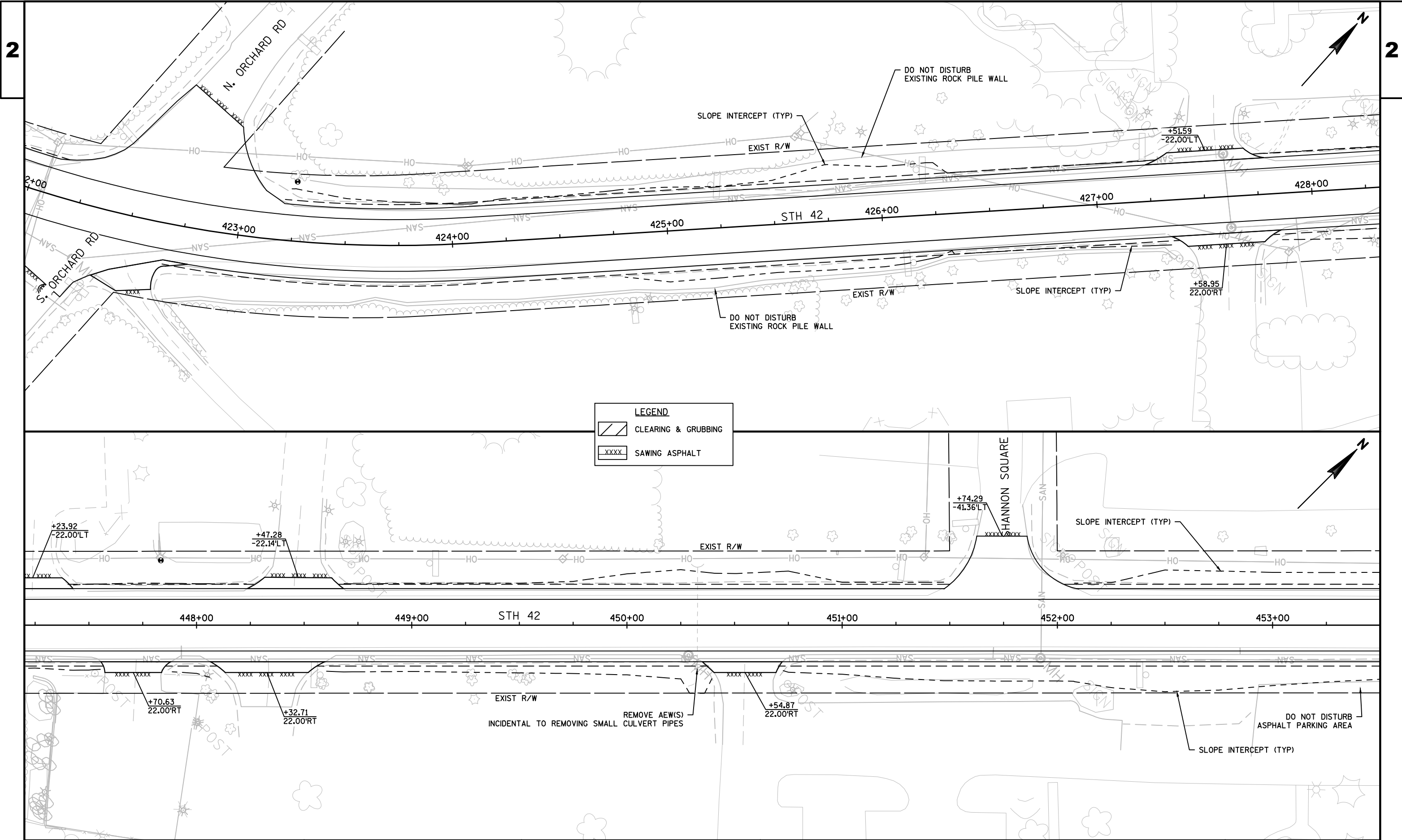
COUNTY: DOOR

REMOVAL PLAN

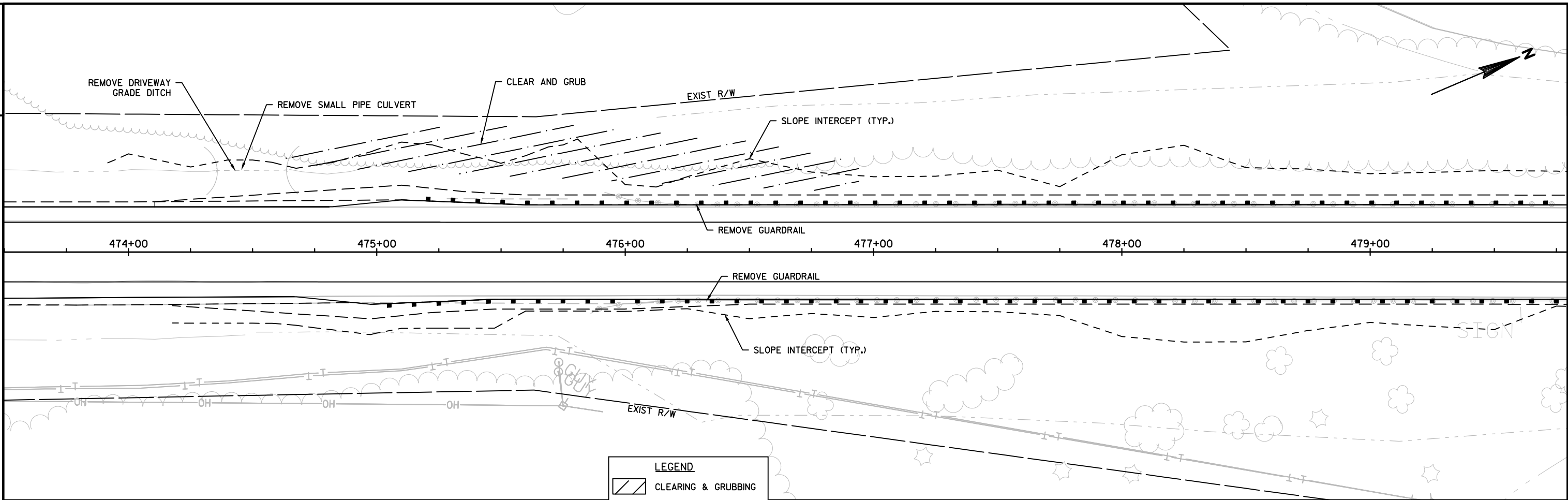
SHEET

E

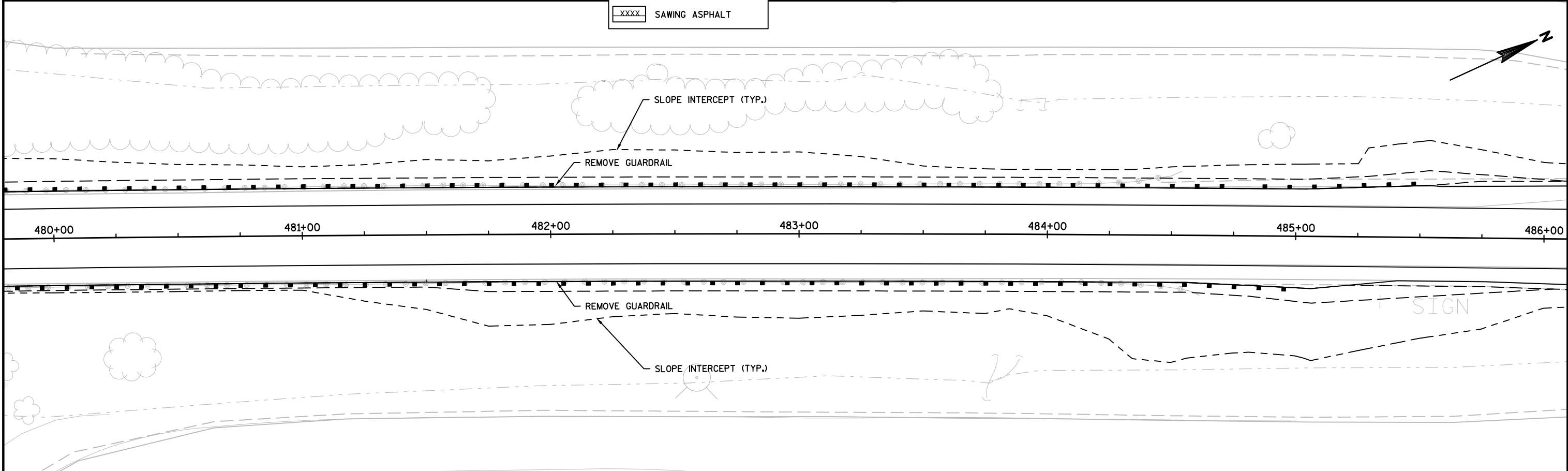


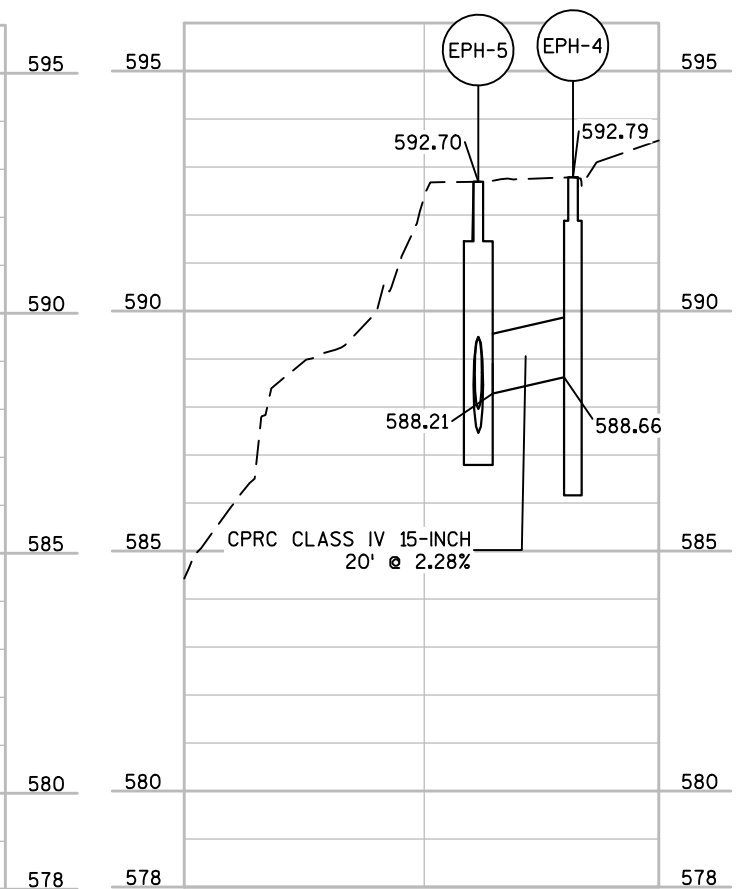
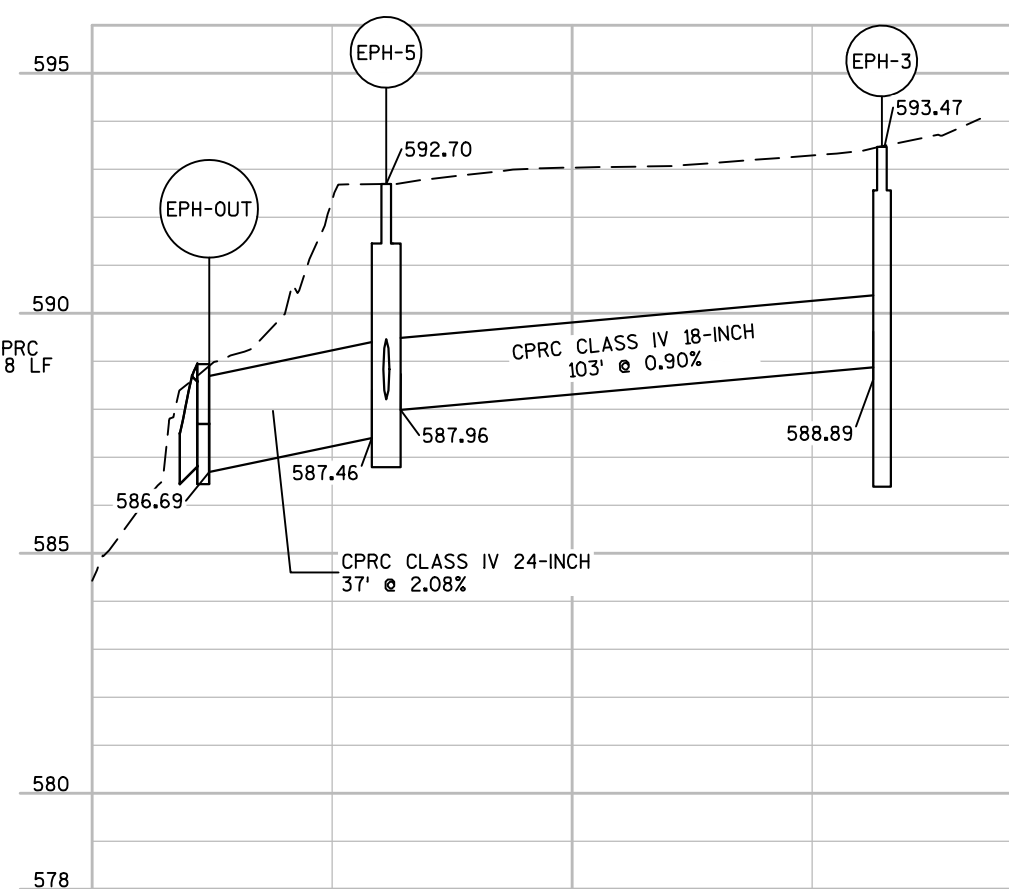
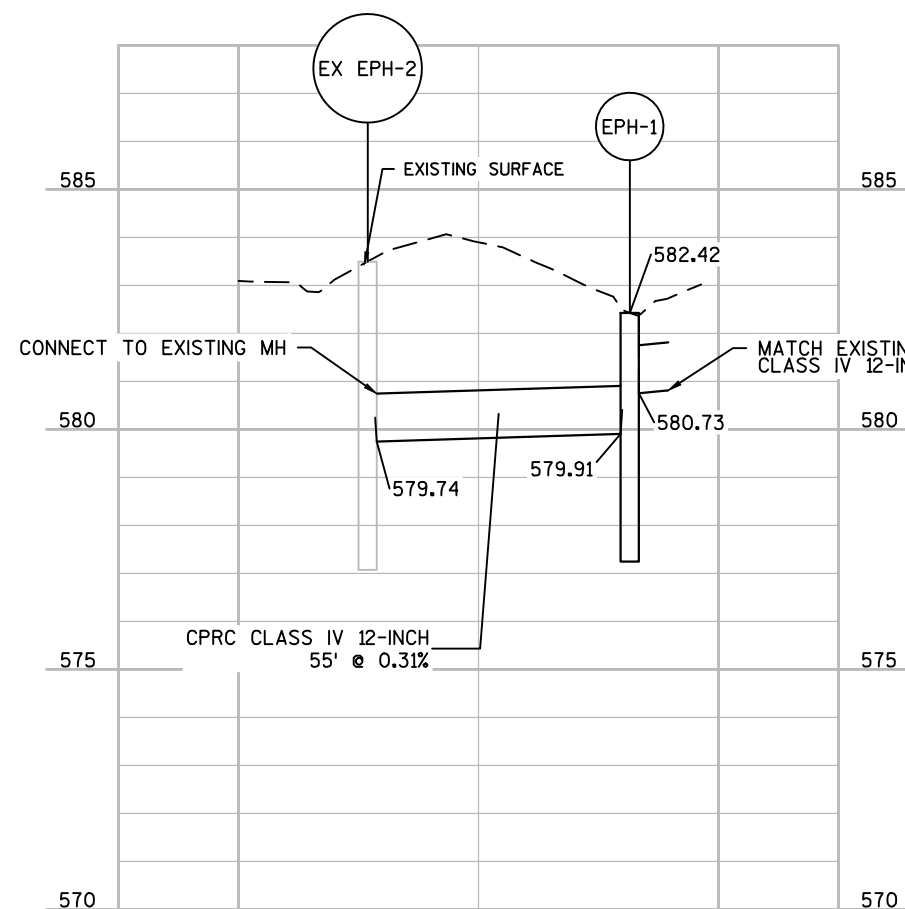
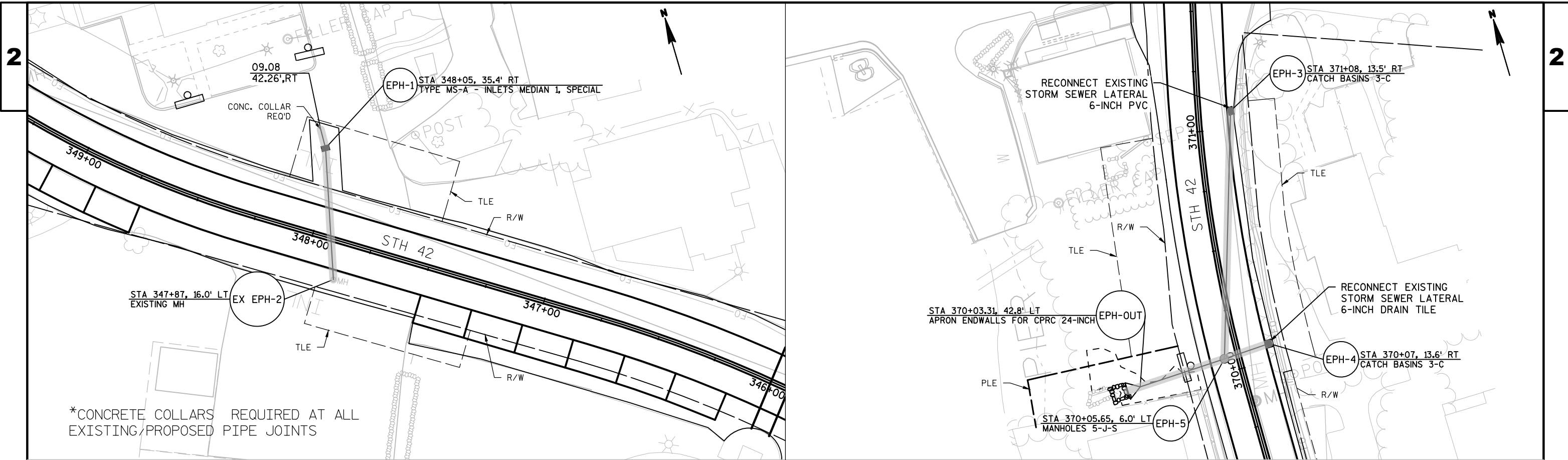


2



2







W3-5  
36" X 36"

124



W14-3  
48" X 36"

126



D7-51  
54" X 36"

127



R2-1  
24" X 30"

125




SIGNING NOTES

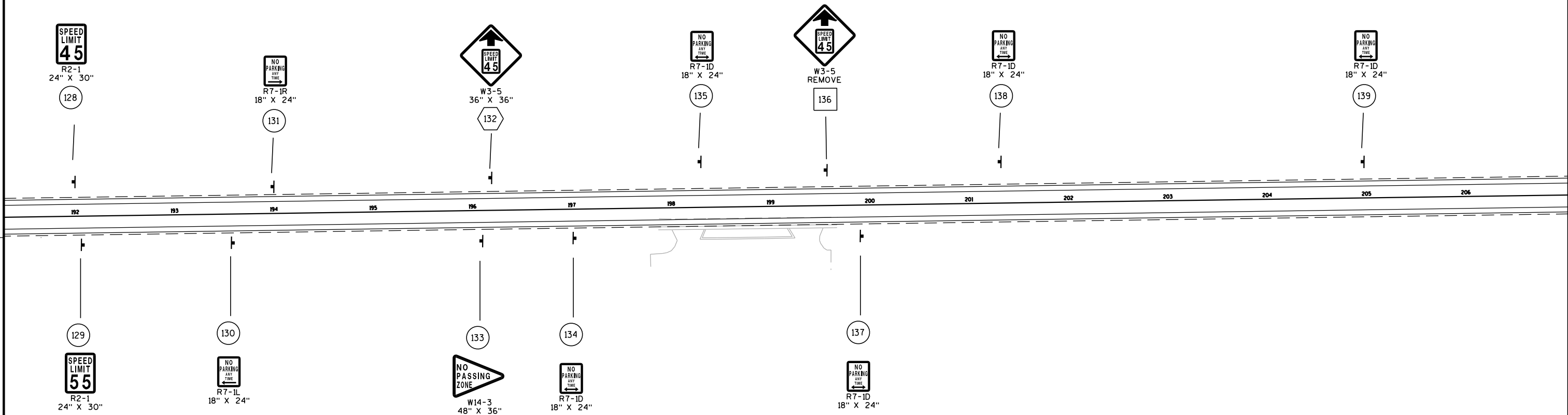
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-  SIGN-REMOVE AND REPLACE
-  SIGN-REMOVE EXISTING
-  SIGN-PLACE NEW






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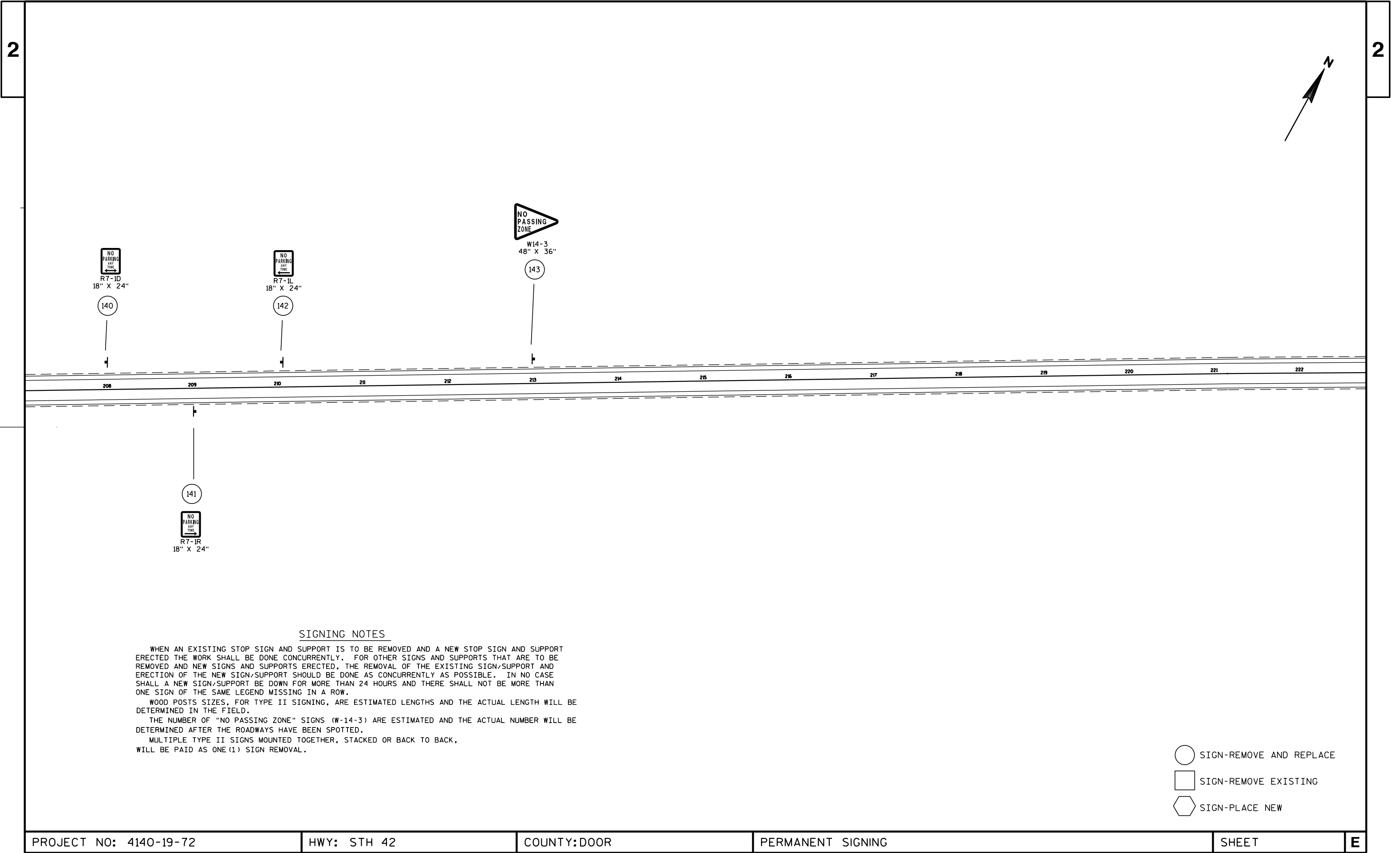
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W14-3  
48" X 36"

144



223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238



W14-3  
48" X 36"

145



W54-54  
30" X 30"

146



147

750 FT

W16-2A  
24" X 12"

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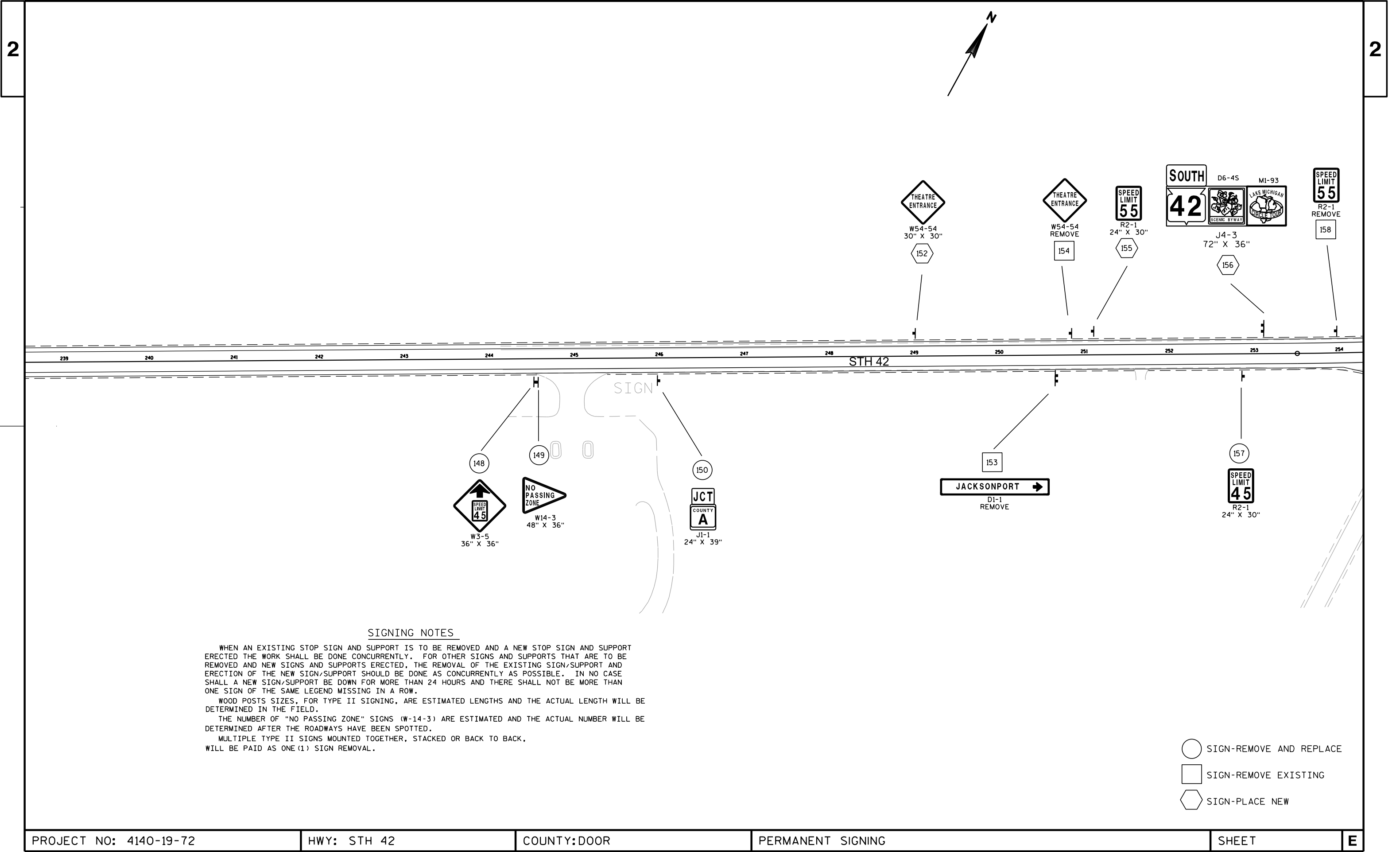
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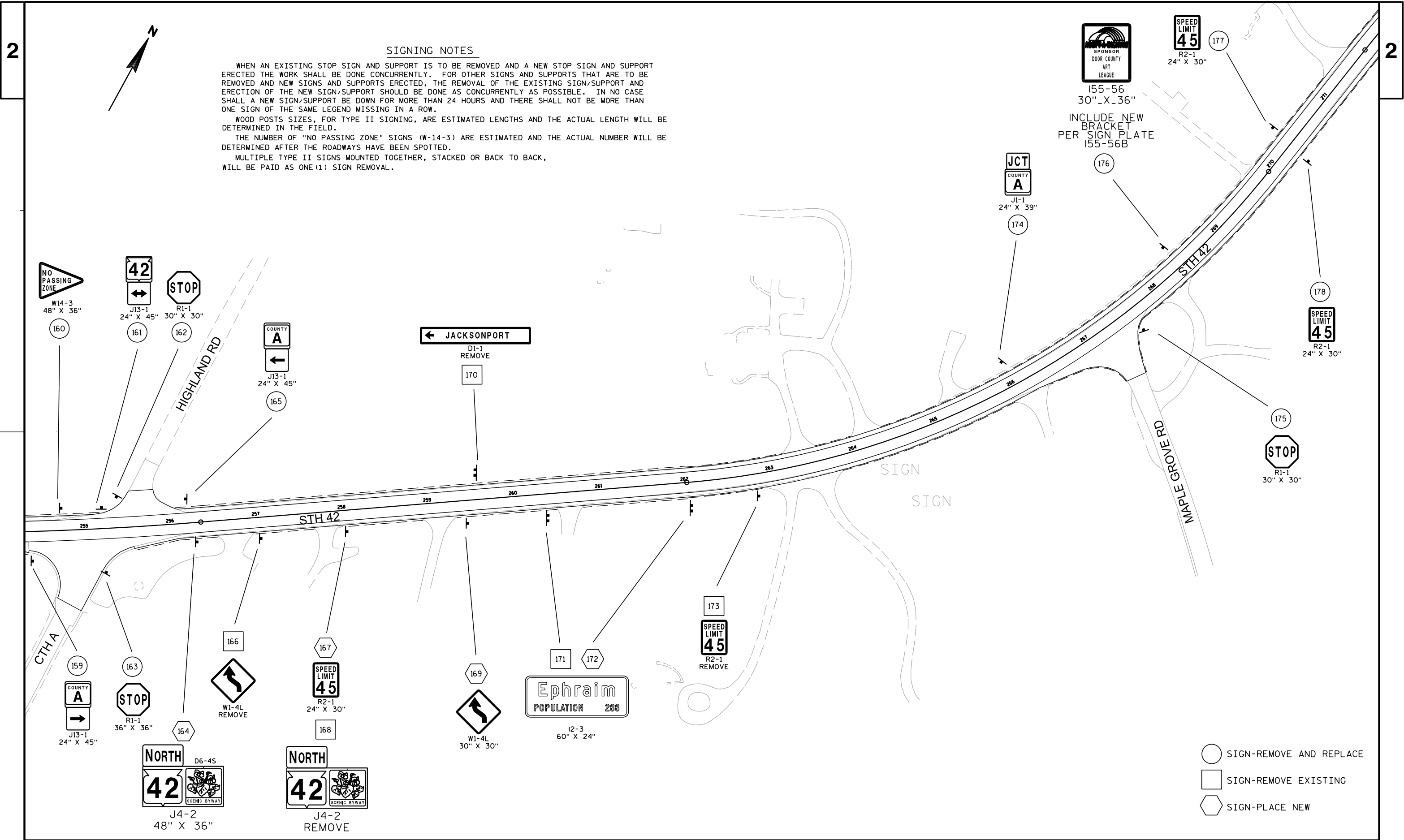
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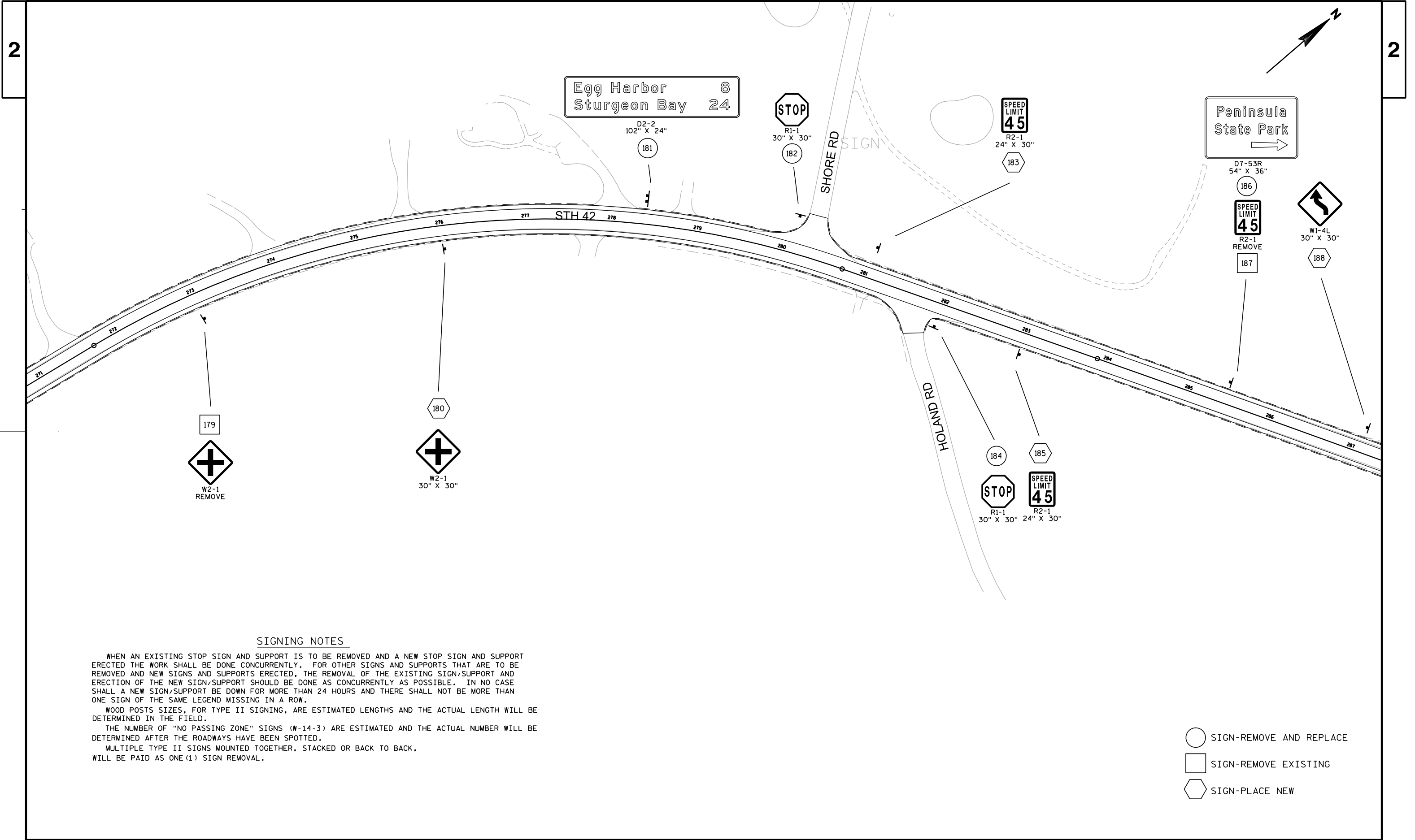
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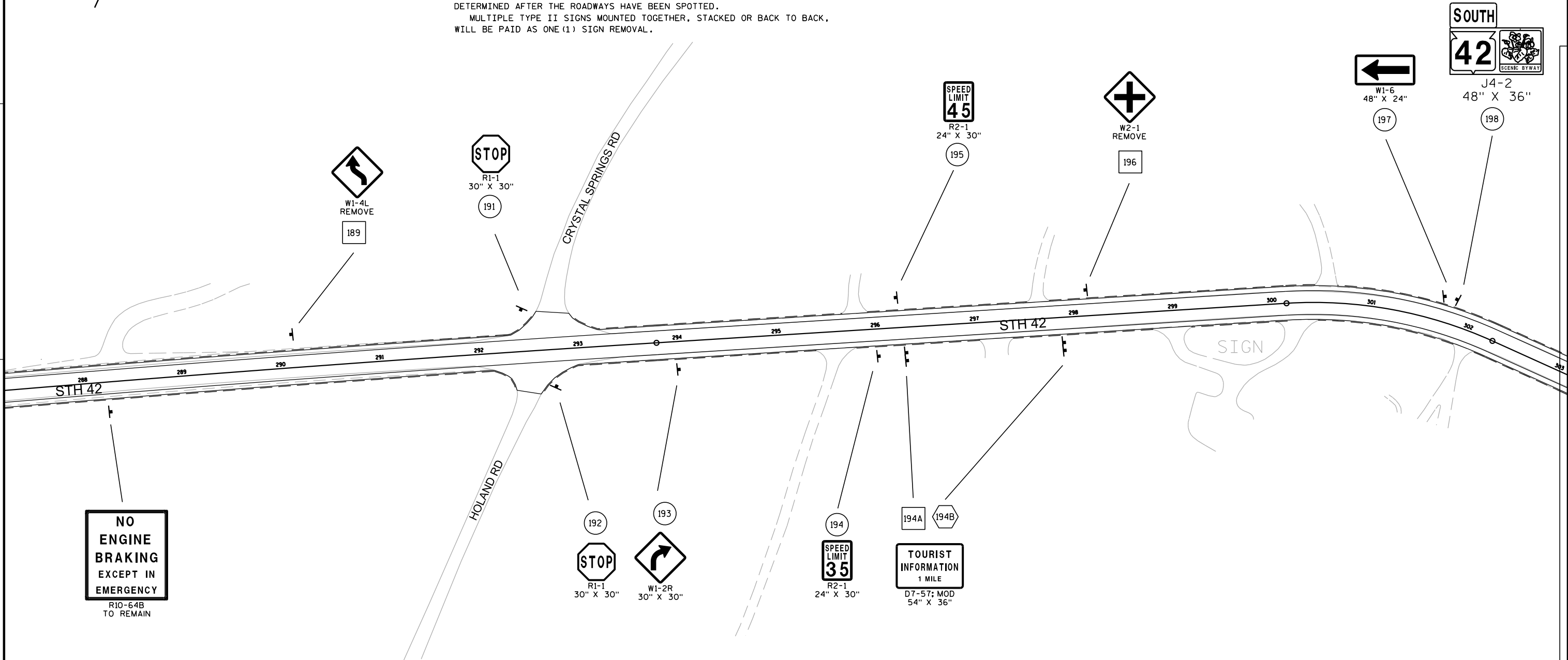
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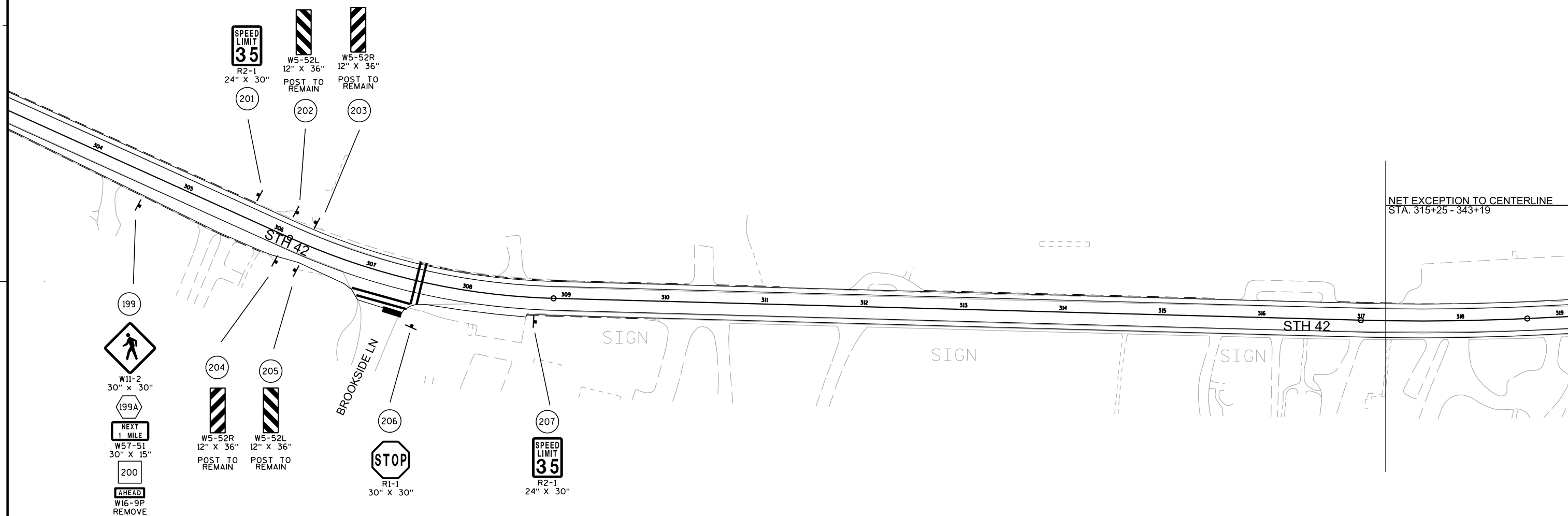
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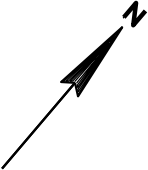
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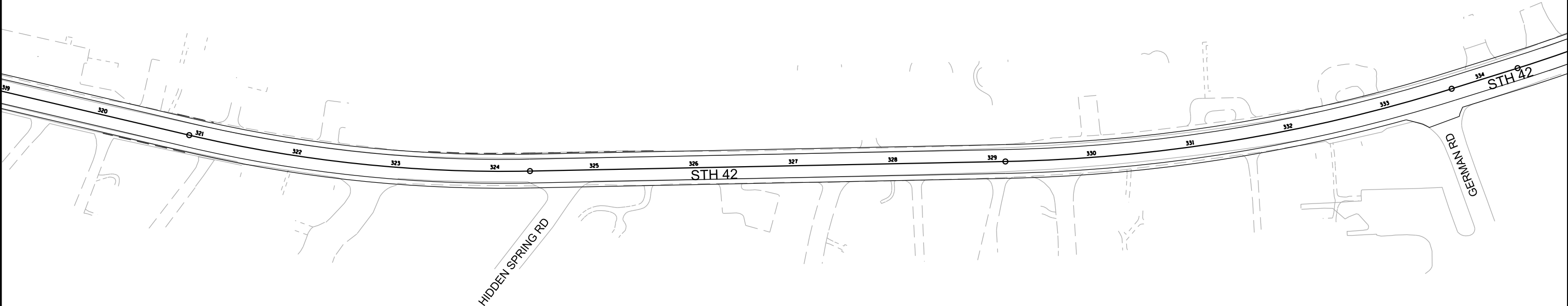
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

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NET EXCEPTION TO CENTERLINE  
STA. 315+25 - 343+19



-  SIGN-REMOVE AND REPLACE
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-  SIGN-PLACE NEW

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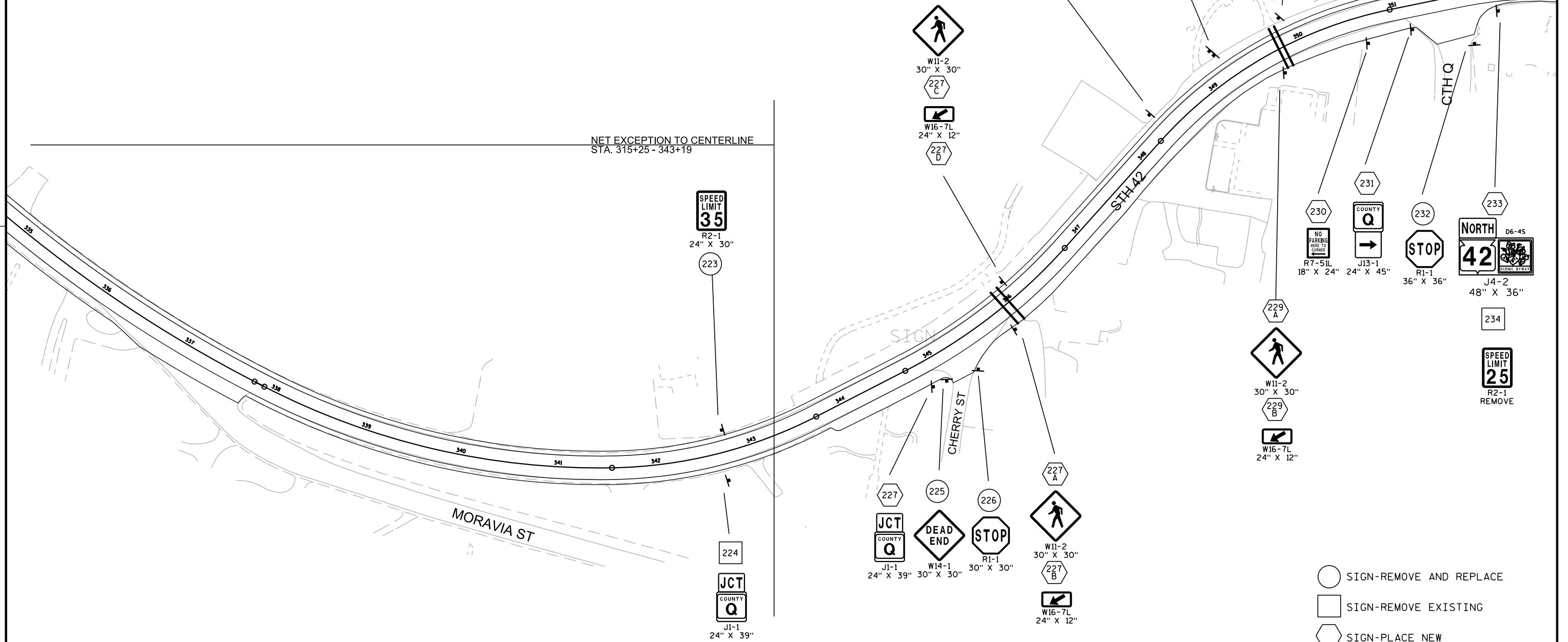
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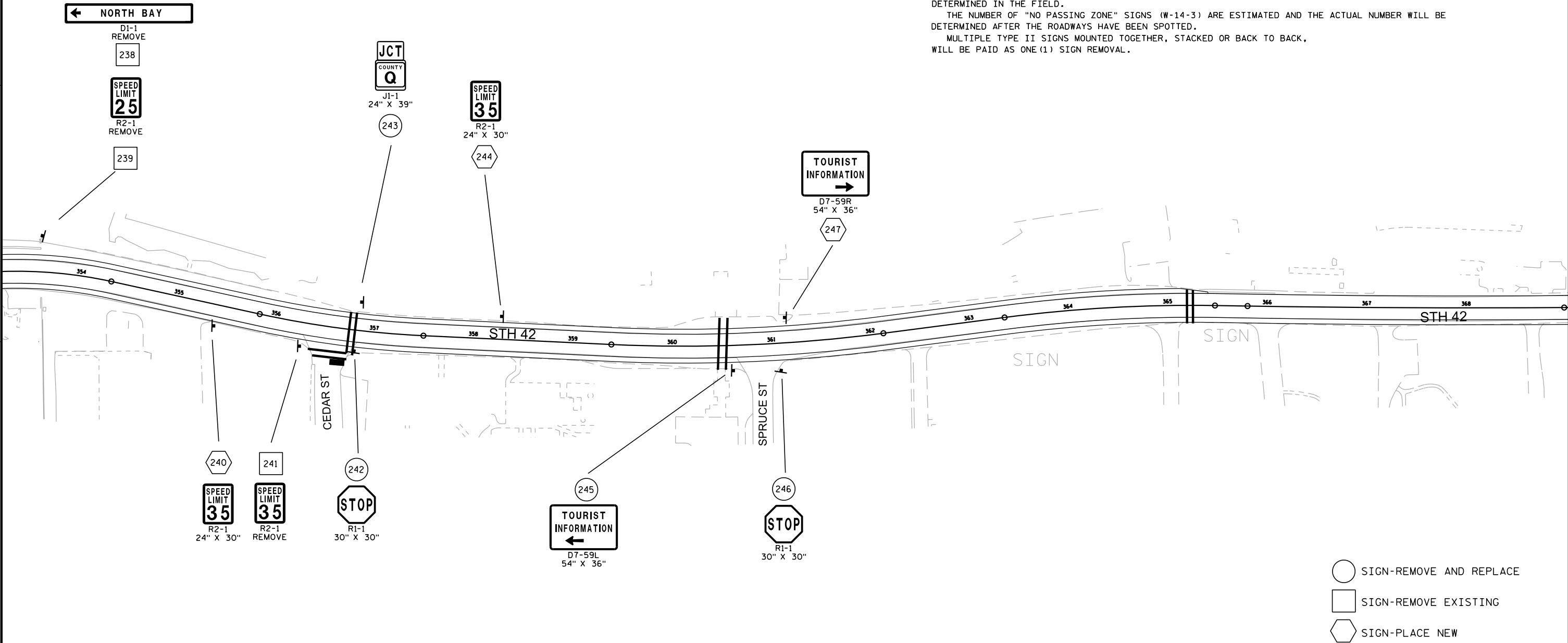
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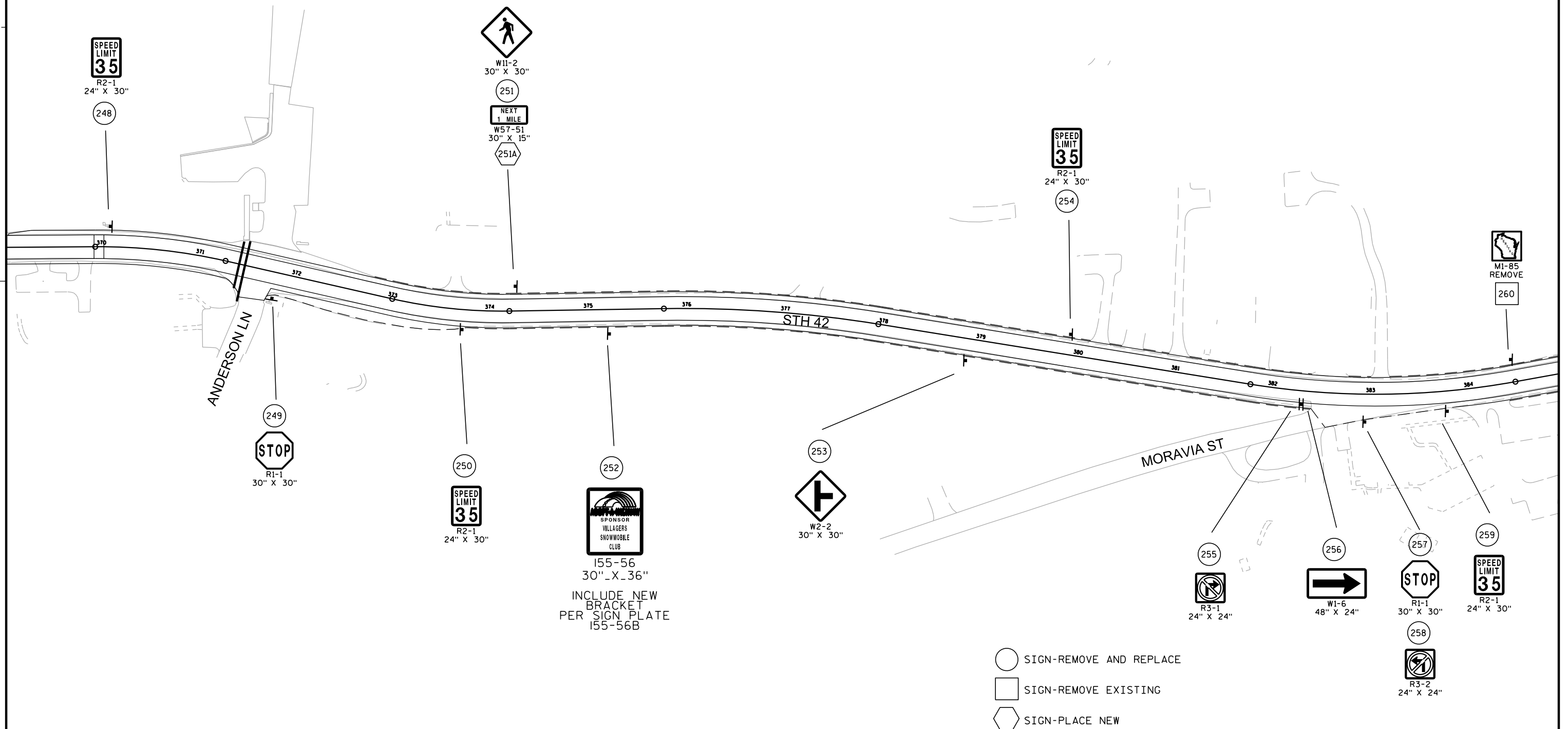
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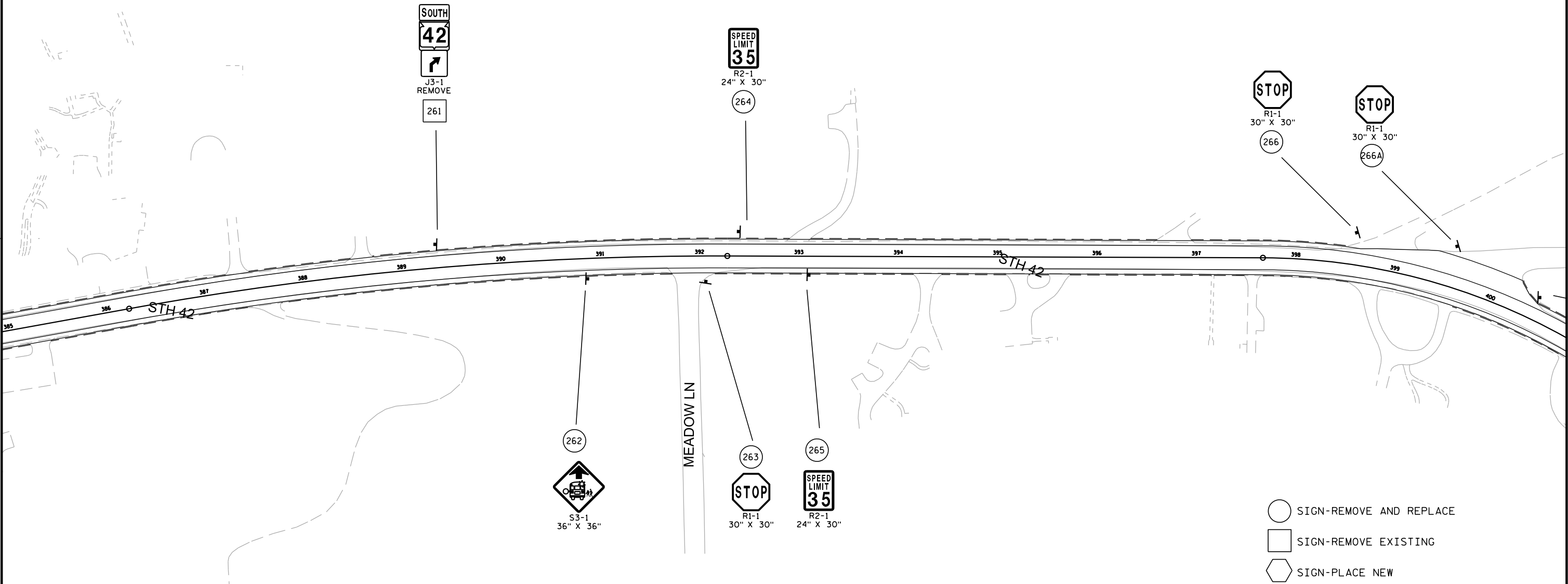
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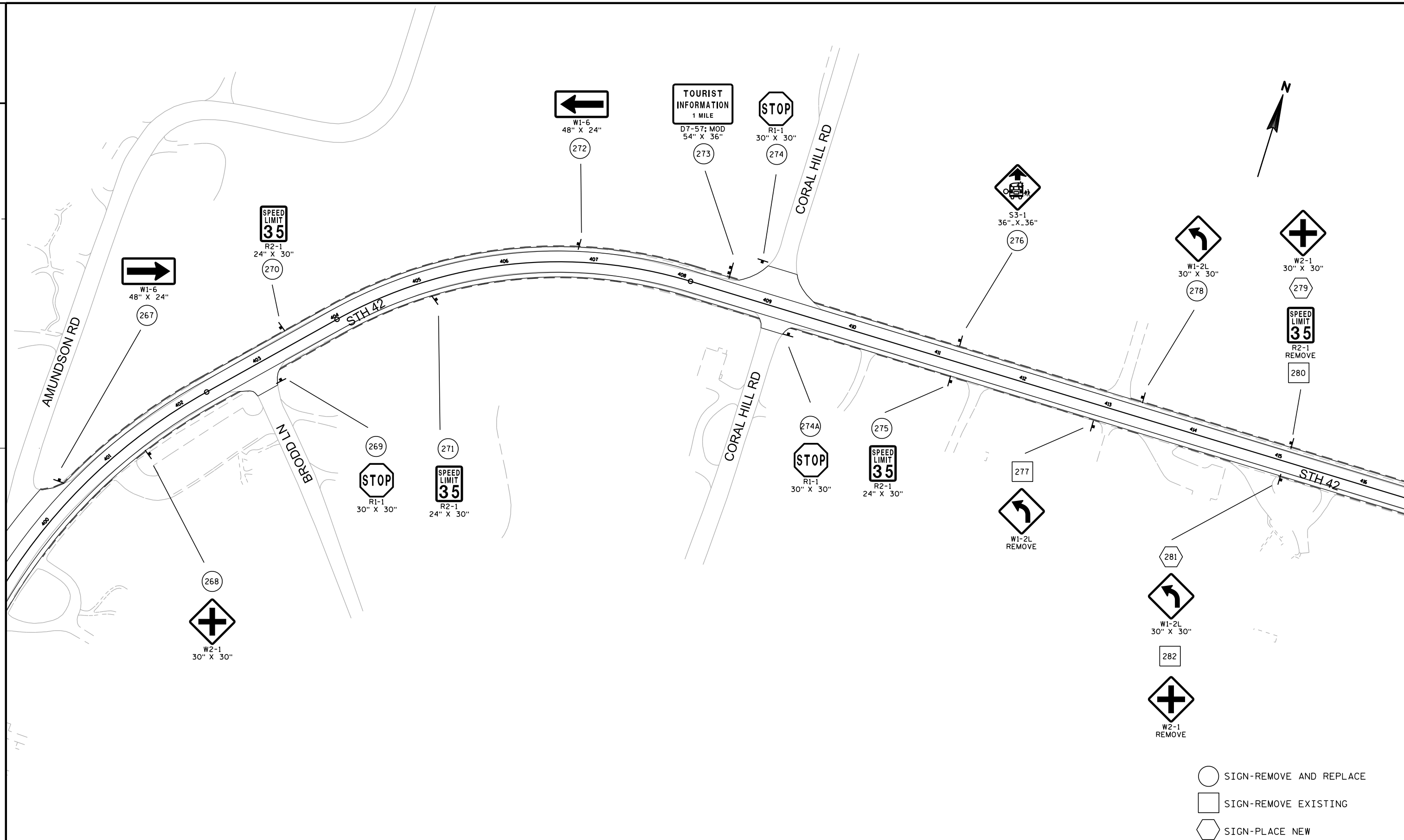
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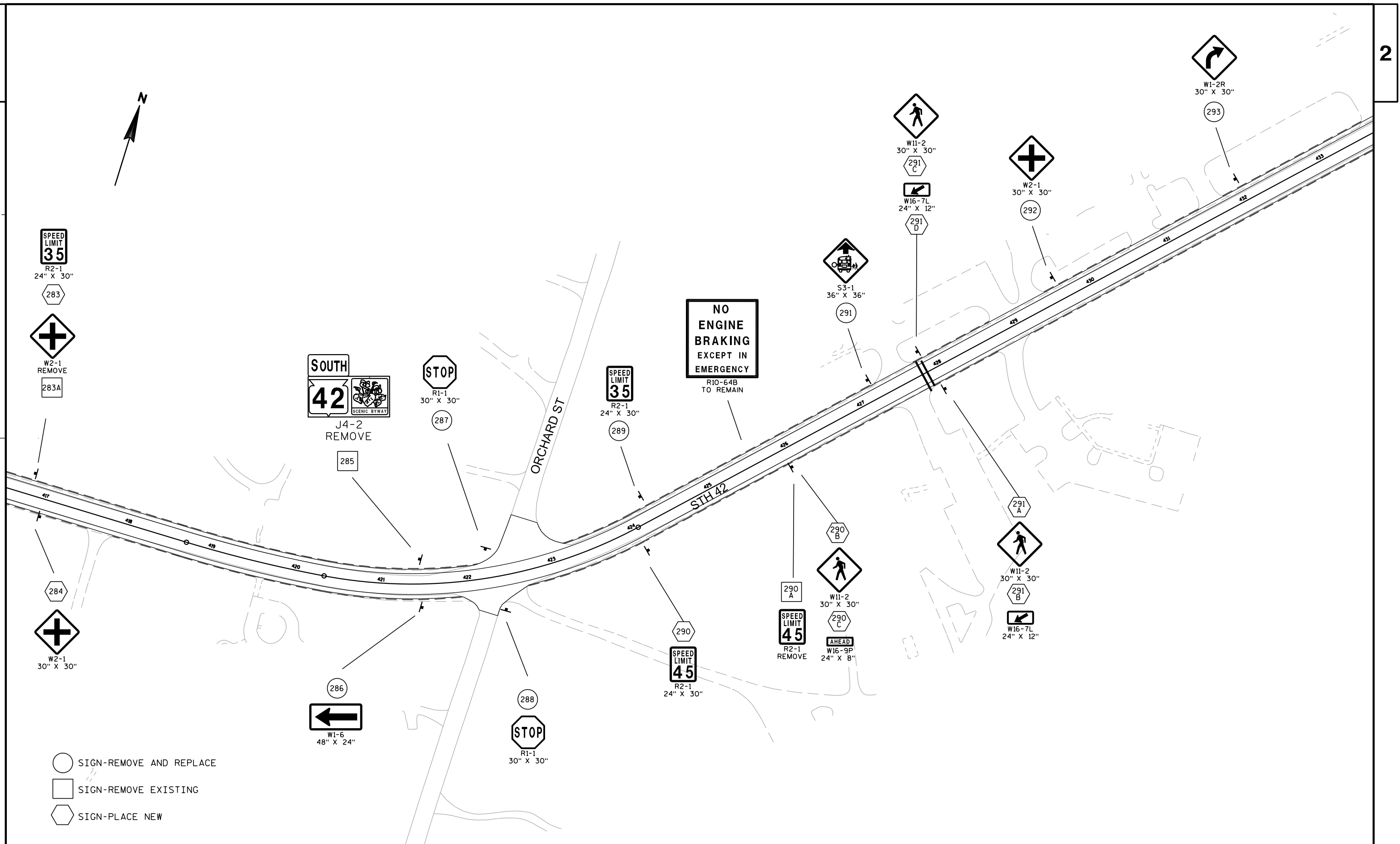
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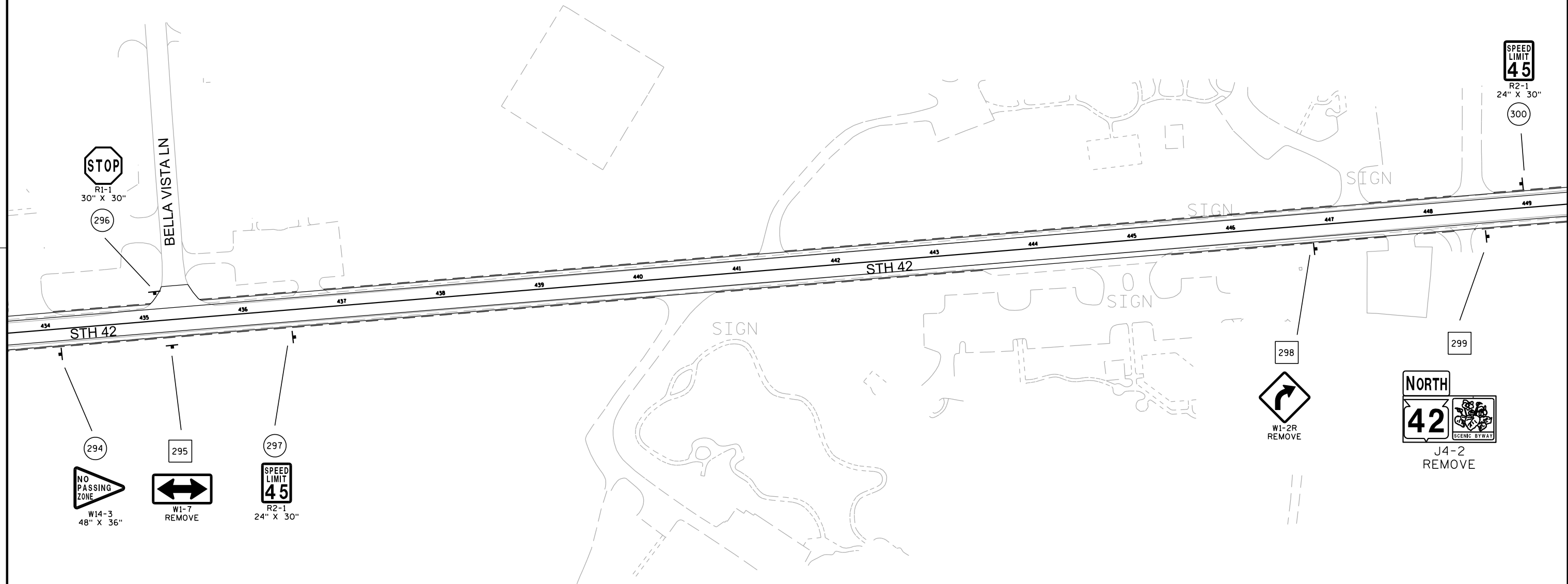
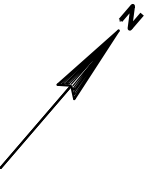
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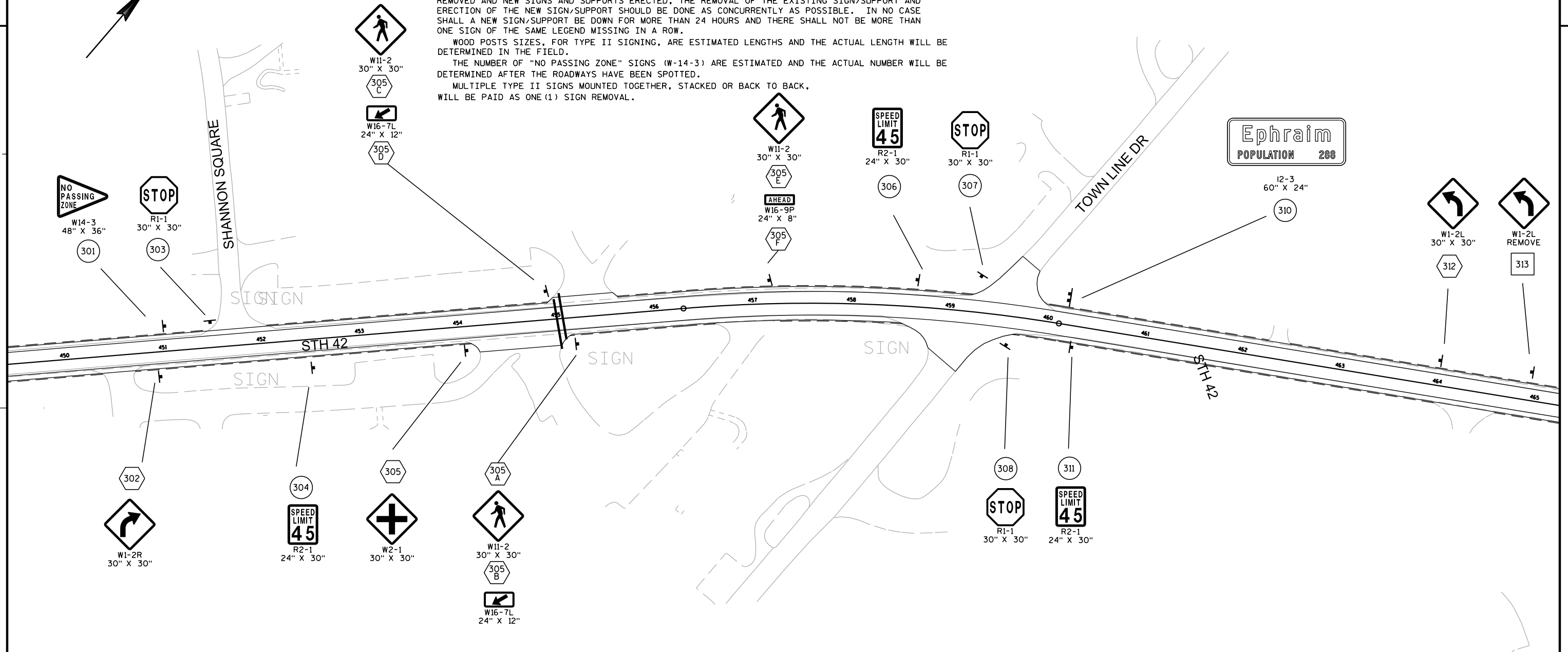
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W2-1  
30" X 30"

314



R2-1  
REMOVE

315



R2-1  
24" X 30"

316



W2-1  
REMOVE

317



R1-1  
30" X 30"

318

LITTLE SISTER HILL RD.

319



R1-1  
30" X 30"

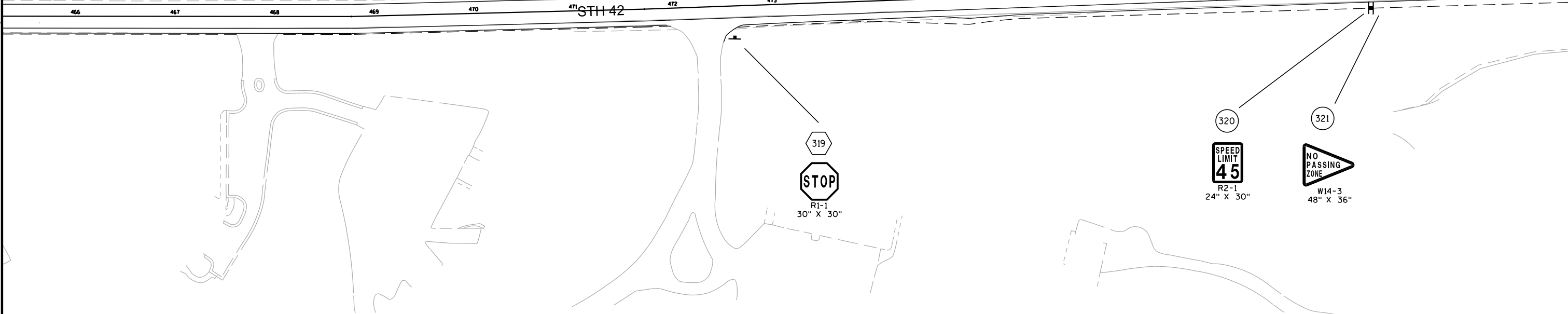
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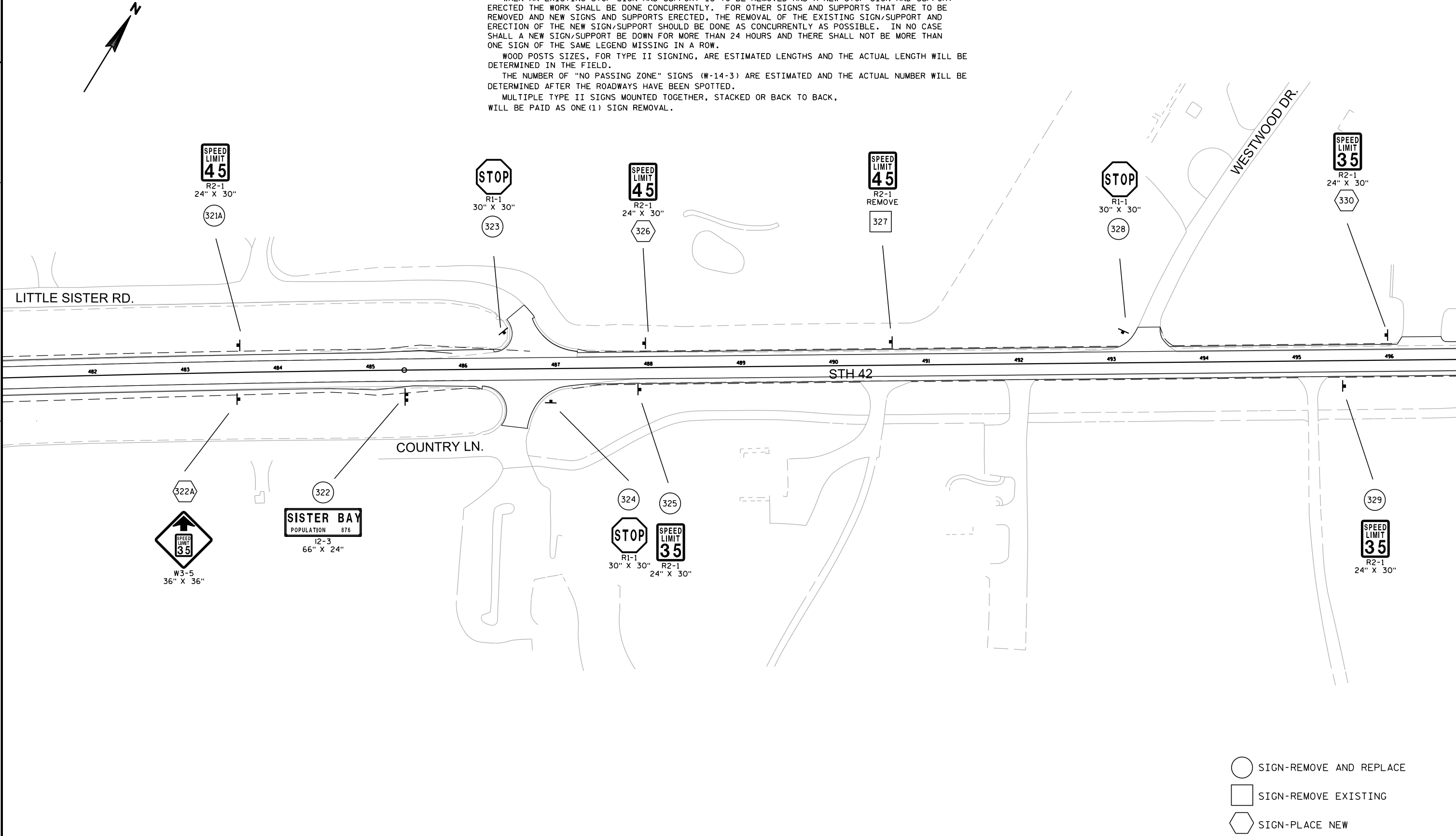
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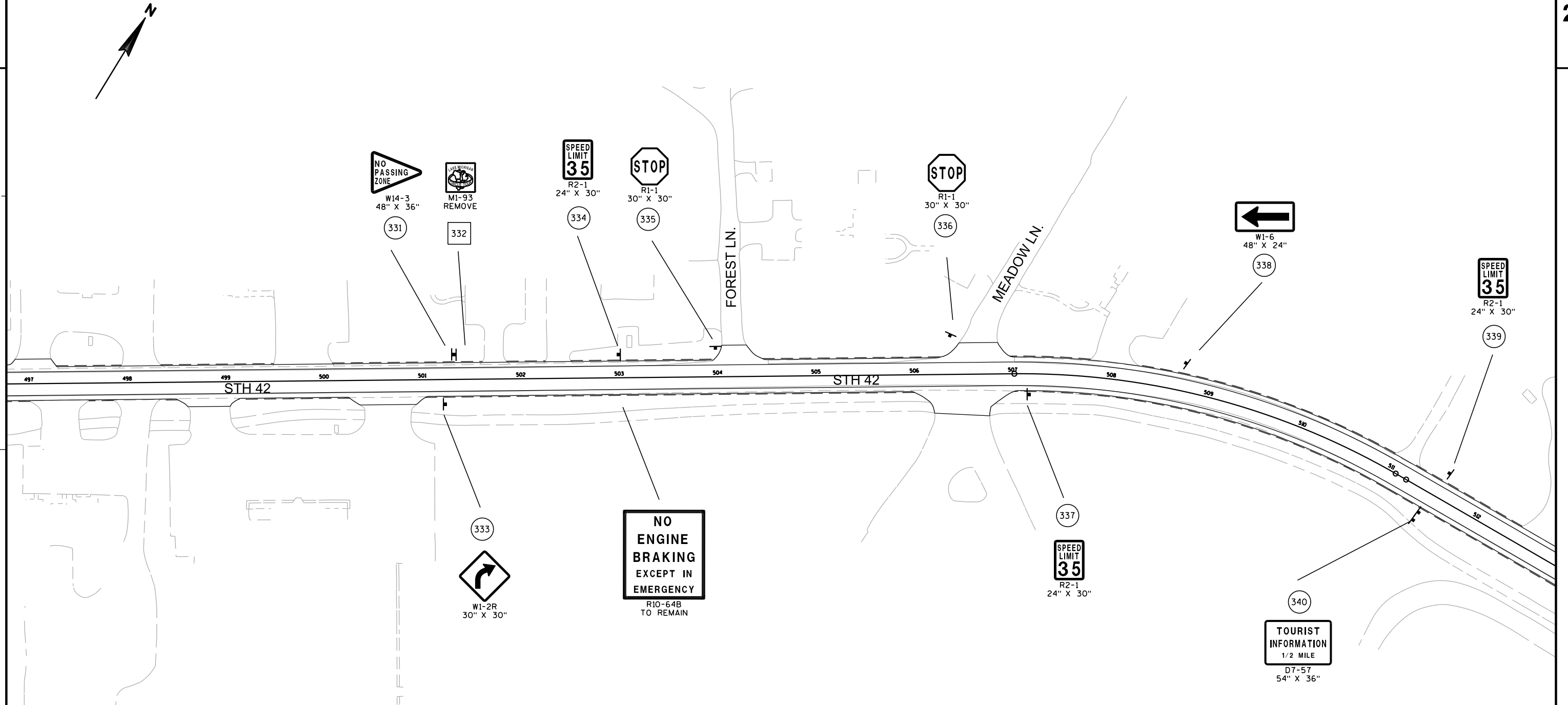
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- SIGN-REMOVE EXISTING
- SIGN-PLACE NEW





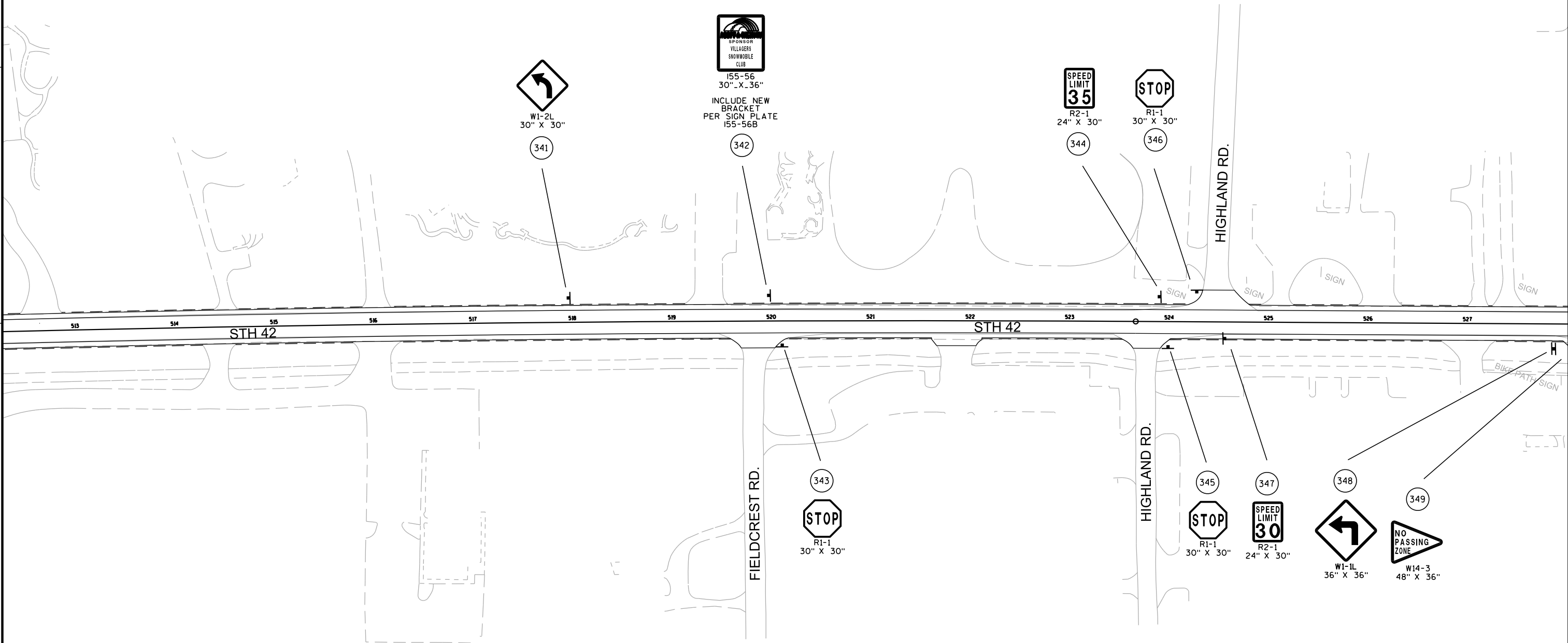
SIGNING NOTES

WHEN AN EXISTING STOP SIGN AND 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 POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

THE NUMBER OF "NO PASSING ZONE" SIGNS (W-14-3) ARE ESTIMATED AND THE ACTUAL NUMBER WILL BE DETERMINED AFTER THE ROADWAYS HAVE BEEN SPOTTED.

MULTIPLE TYPE II SIGNS MOUNTED TOGETHER, STACKED OR BACK TO BACK, WILL BE PAID AS ONE (1) SIGN REMOVAL.



LEGEND

A

MARKING LINE EPOXY 4-INCH (WHITE)

B

MARKING LINE EPOXY 4-INCH (YELLOW)

E

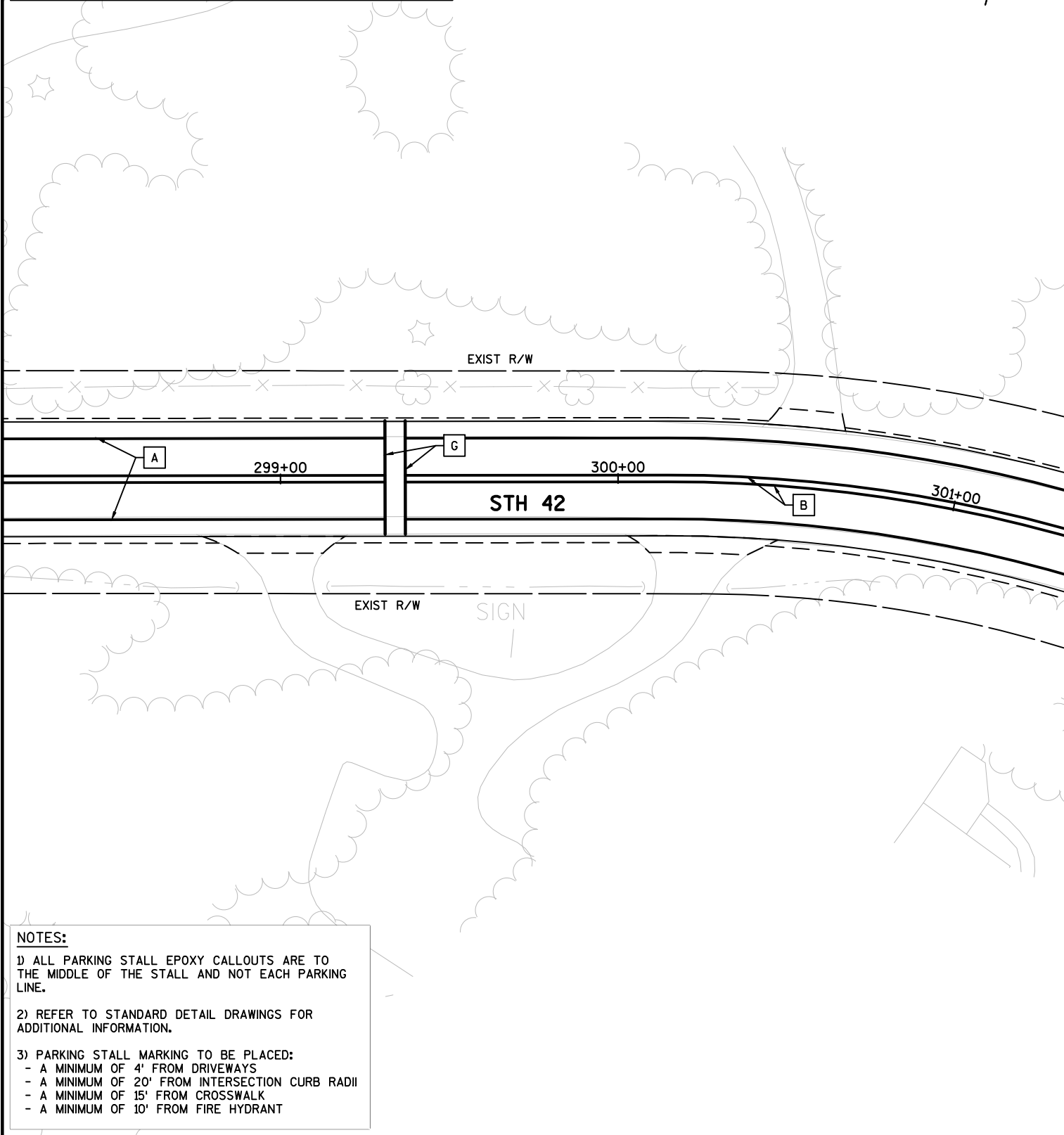
MARKING STOP LINE EPOXY 18-INCH (WHITE)

F

MARKING PARKING STALL EPOXY (WHITE)

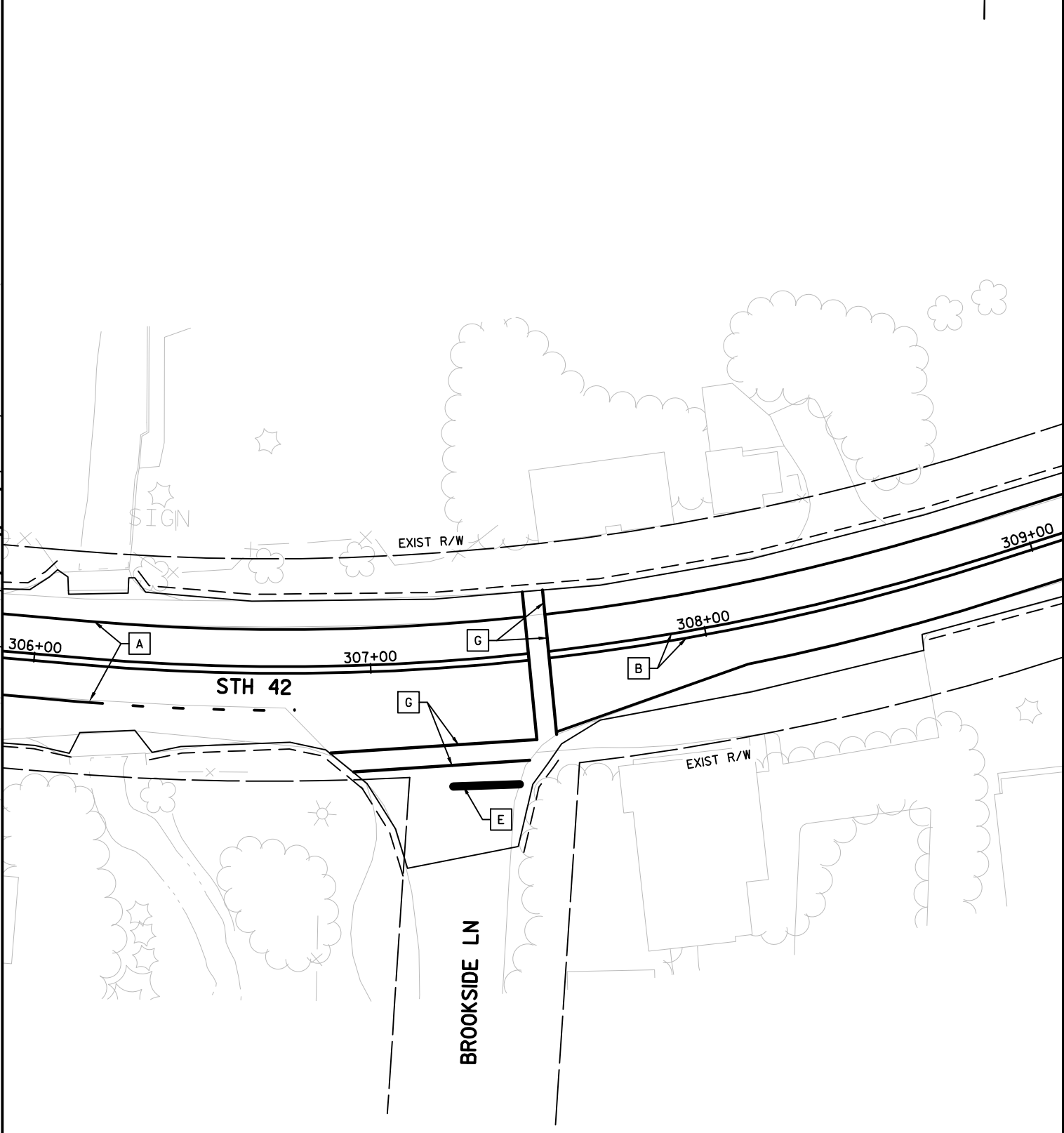
G

MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)



NOTES:

- 1) ALL PARKING STALL EPOXY CALLOUTS ARE TO THE MIDDLE OF THE STALL AND NOT EACH PARKING LINE.
- 2) REFER TO STANDARD DETAIL DRAWINGS FOR ADDITIONAL INFORMATION.
- 3) PARKING STALL MARKING TO BE PLACED:
  - A MINIMUM OF 4' FROM DRIVEWAYS
  - A MINIMUM OF 20' FROM INTERSECTION CURB RADII
  - A MINIMUM OF 15' FROM CROSSWALK
  - A MINIMUM OF 10' FROM FIRE HYDRANT



PROJECT NO: 4140-19-72

HWY: STH 42

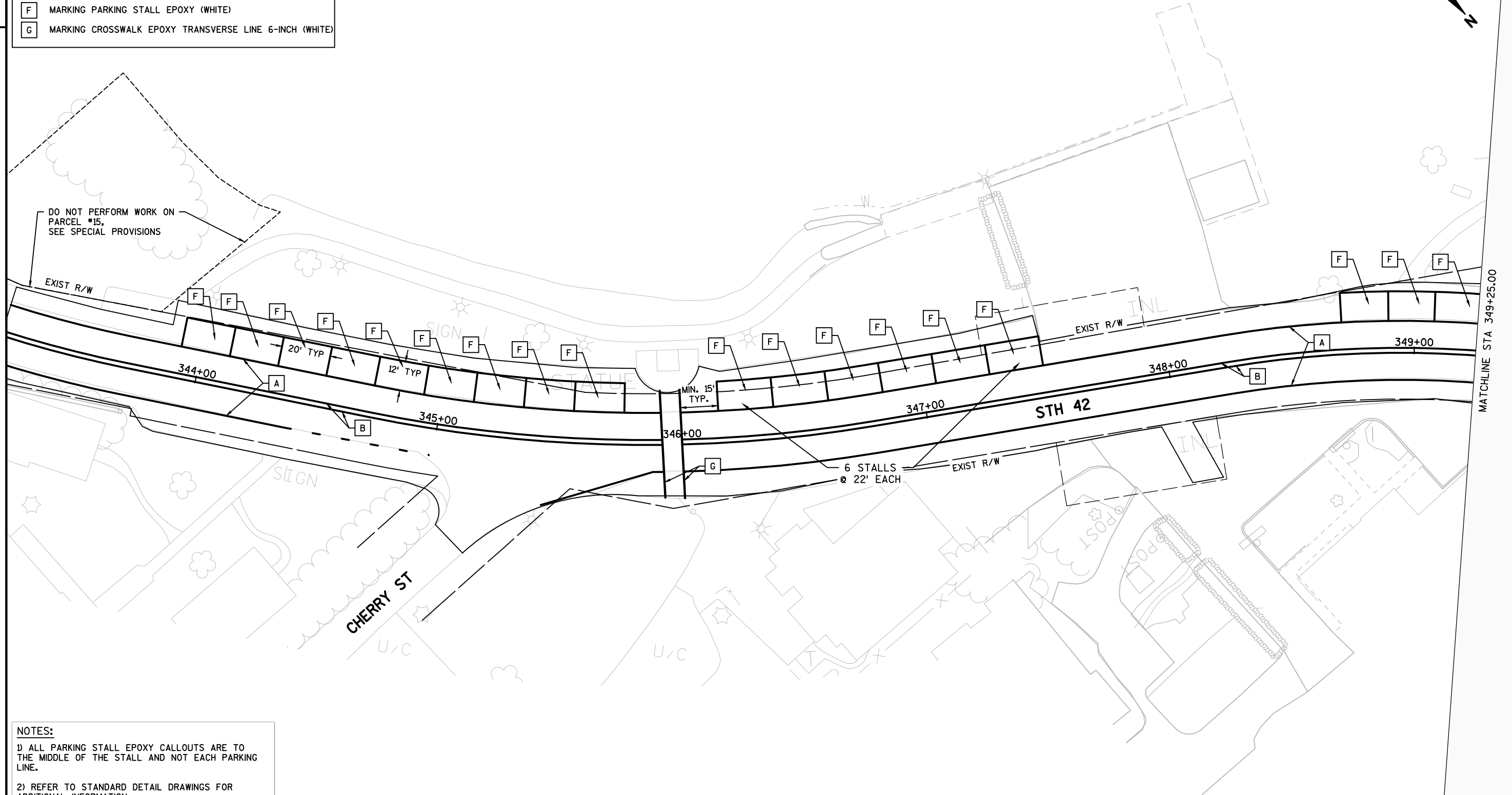
COUNTY: DOOR

PAVEMENT MARKNGS

SHEET

E

| LEGEND |                                                        |
|--------|--------------------------------------------------------|
| A      | MARKING LINE EPOXY 4-INCH (WHITE)                      |
| B      | MARKING LINE EPOXY 4-INCH (YELLOW)                     |
| E      | MARKING STOP LINE EPOXY 18-INCH (WHITE)                |
| F      | MARKING PARKING STALL EPOXY (WHITE)                    |
| G      | MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE) |



## NOTES:

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  - A MINIMUM OF 10' FROM FIRE HYDRANT

PROJECT NO: 4140-19-72

HWY: STH 42

COUNTY: DOOR

PAVEMENT MARKNGS

SHEET

E

FILE NAME : N:\PDS\C3D\41401972\SHEETSP\PLAN\024501-PM.DWG  
LAYOUT NAME - 024501-PM

PLOT DATE : 1/10/2019 4:39 PM

PLOT BY : KIRST, DOUGLAS P

PLOT NAME :

PLOT SCALE : 1 IN:40 FT

WISDOT/CADDs SHEET 42

LEGEND

A

MARKING LINE EPOXY 4-INCH (WHITE)

B

MARKING LINE EPOXY 4-INCH (YELLOW)

E

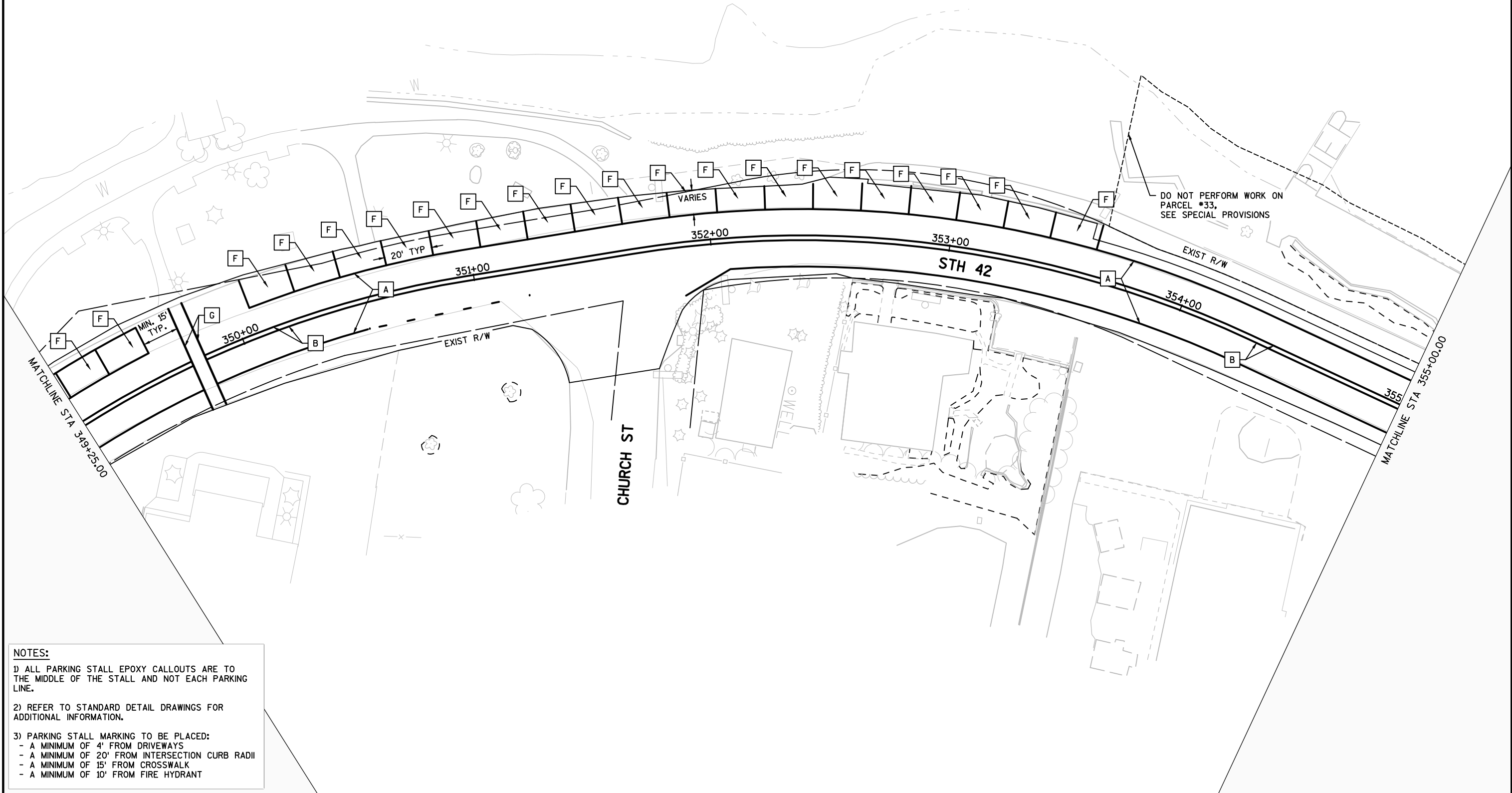
MARKING STOP LINE EPOXY 18-INCH (WHITE)

F

MARKING PARKING STALL EPOXY (WHITE)

G

MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)



NOTES:

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LEGEND

A

MARKING LINE EPOXY 4-INCH (WHITE)

B

MARKING LINE EPOXY 4-INCH (YELLOW)

E

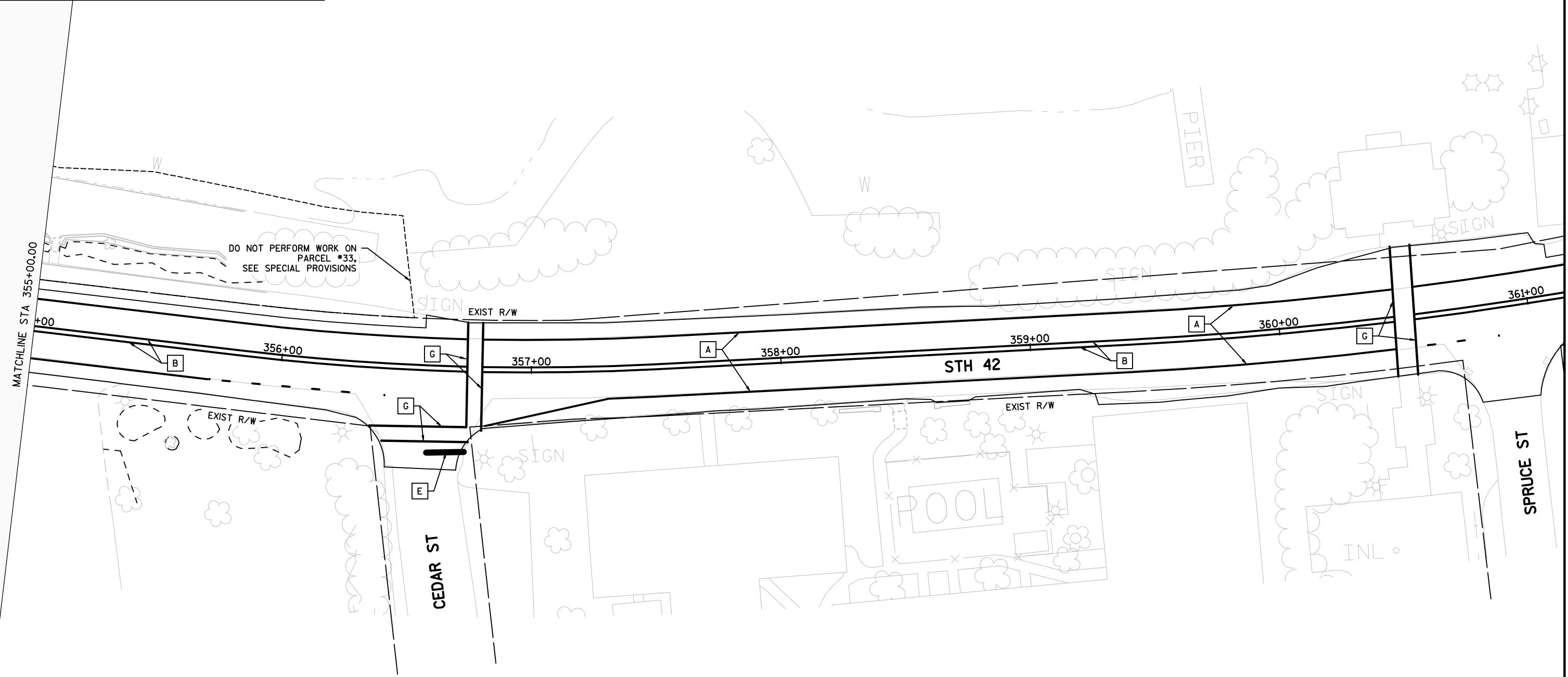
MARKING STOP LINE EPOXY 18-INCH (WHITE)

F

MARKING PARKING STALL EPOXY (WHITE)

G

MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)



- NOTES:
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LEGEND

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B

MARKING LINE EPOXY 4-INCH (YELLOW)

E

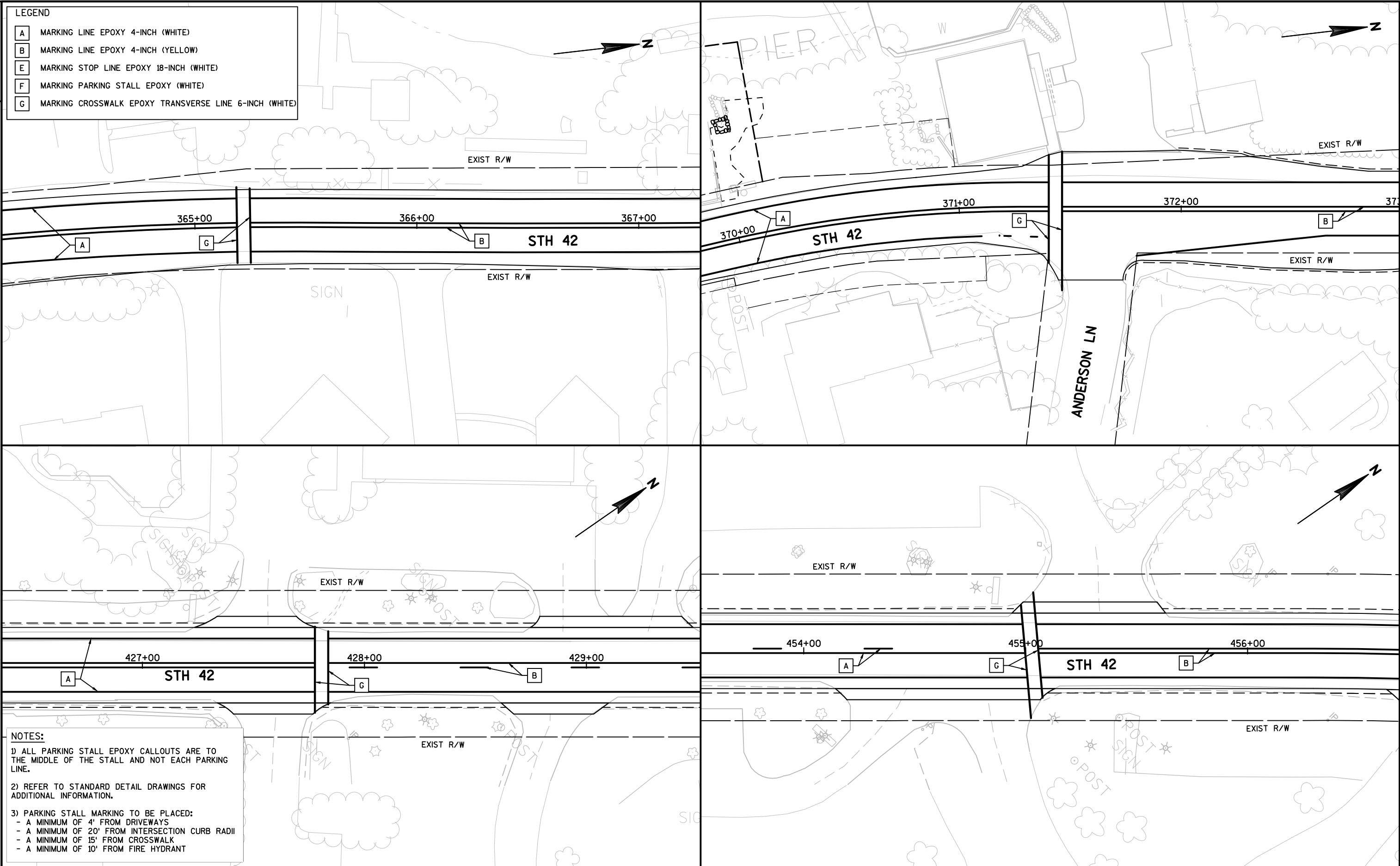
MARKING STOP LINE EPOXY 18-INCH (WHITE)

F

MARKING PARKING STALL EPOXY (WHITE)

G

MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)



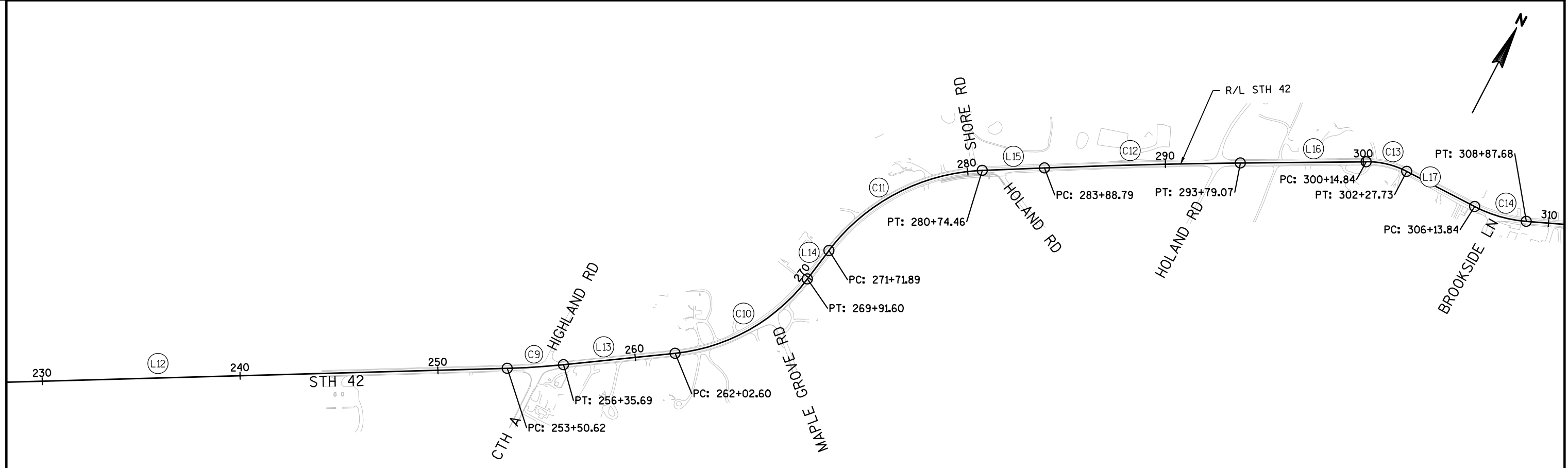
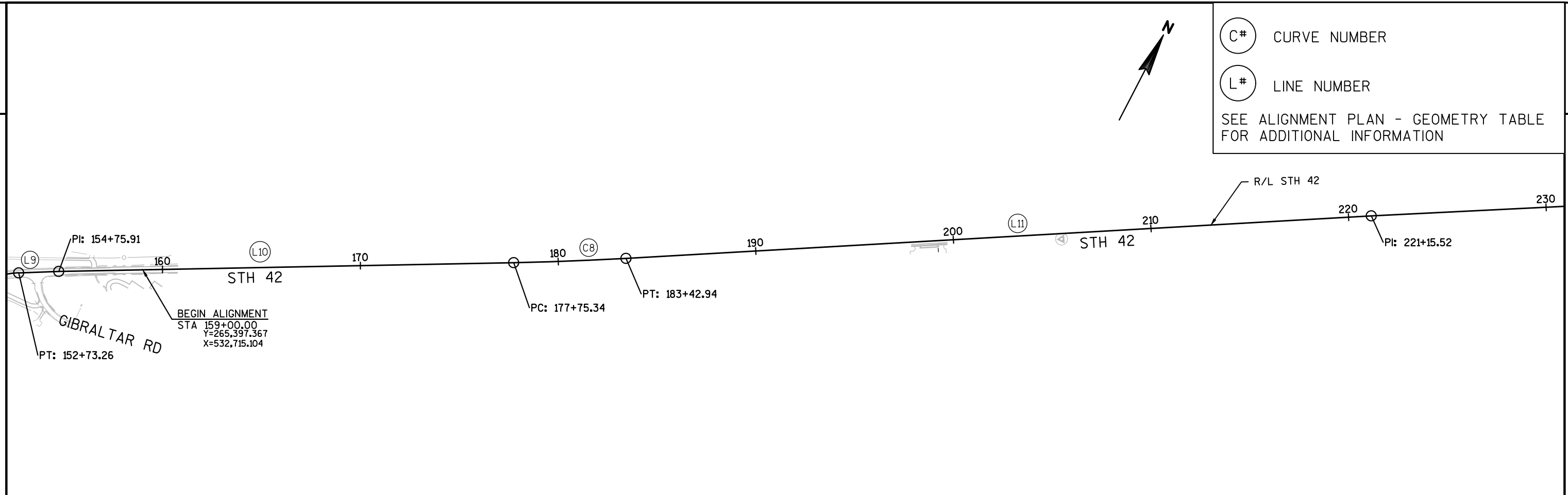
NOTES:

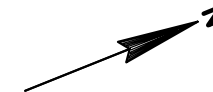
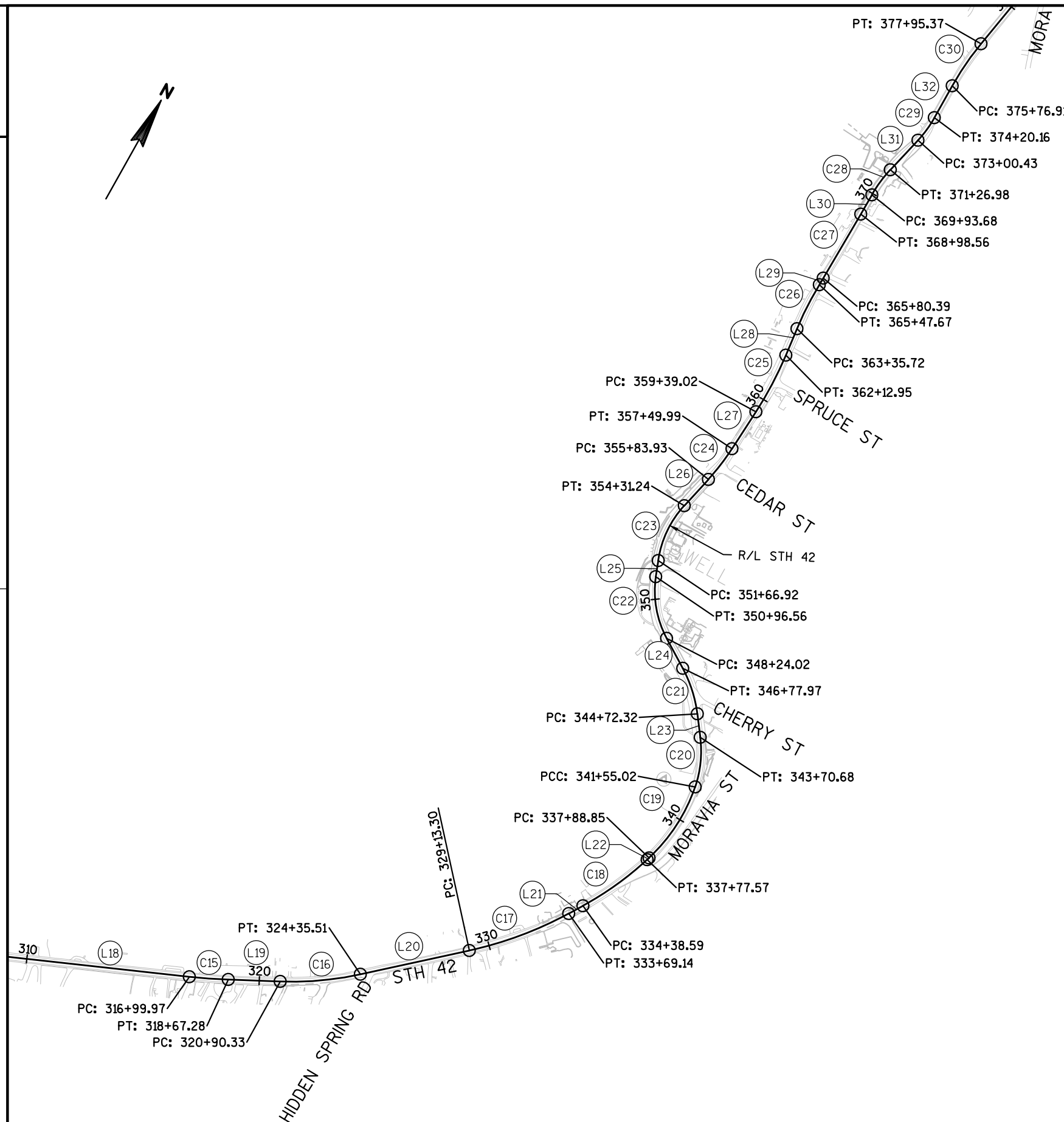
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2) REFER TO STANDARD DETAIL DRAWINGS FOR ADDITIONAL INFORMATION.

3) PARKING STALL MARKING TO BE PLACED:

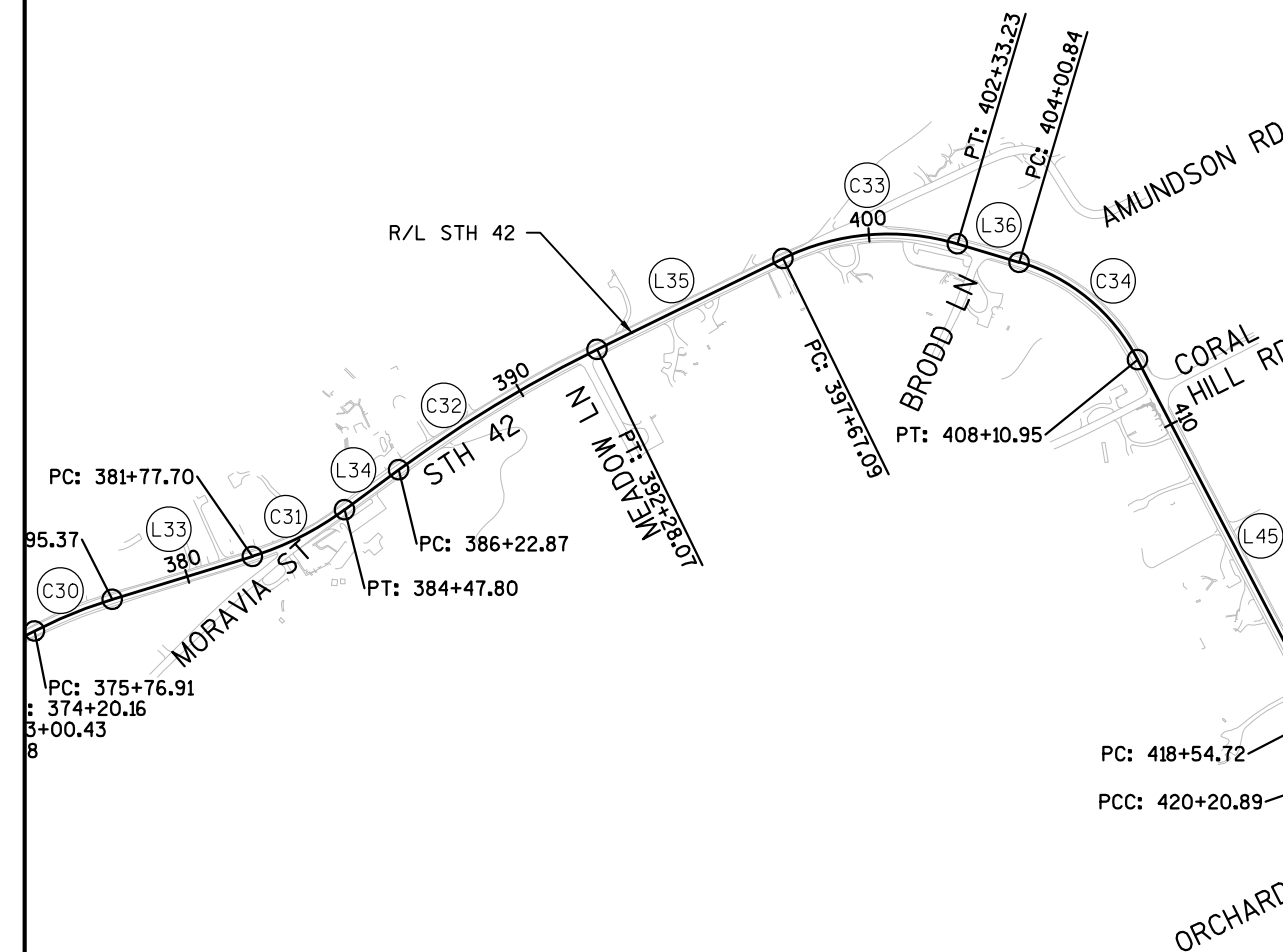
- A MINIMUM OF 4' FROM DRIVEWAYS
- A MINIMUM OF 20' FROM INTERSECTION CURB RADII
- A MINIMUM OF 15' FROM CROSSWALK
- A MINIMUM OF 10' FROM FIRE HYDRANT





C# CURVE NUMBER  
L# LINE NUMBER

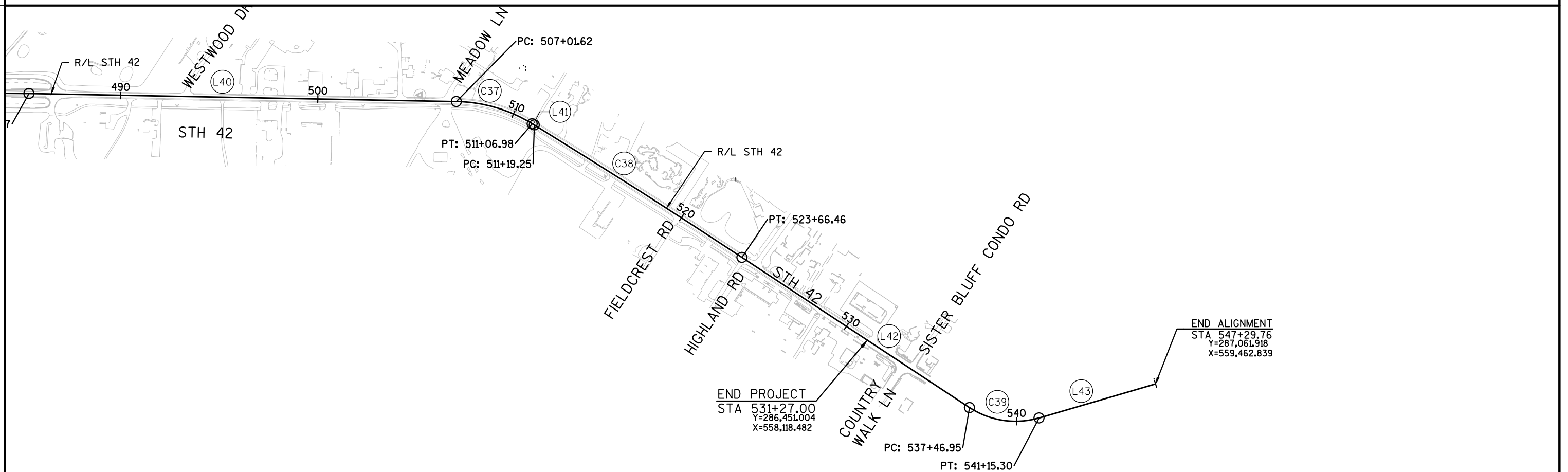
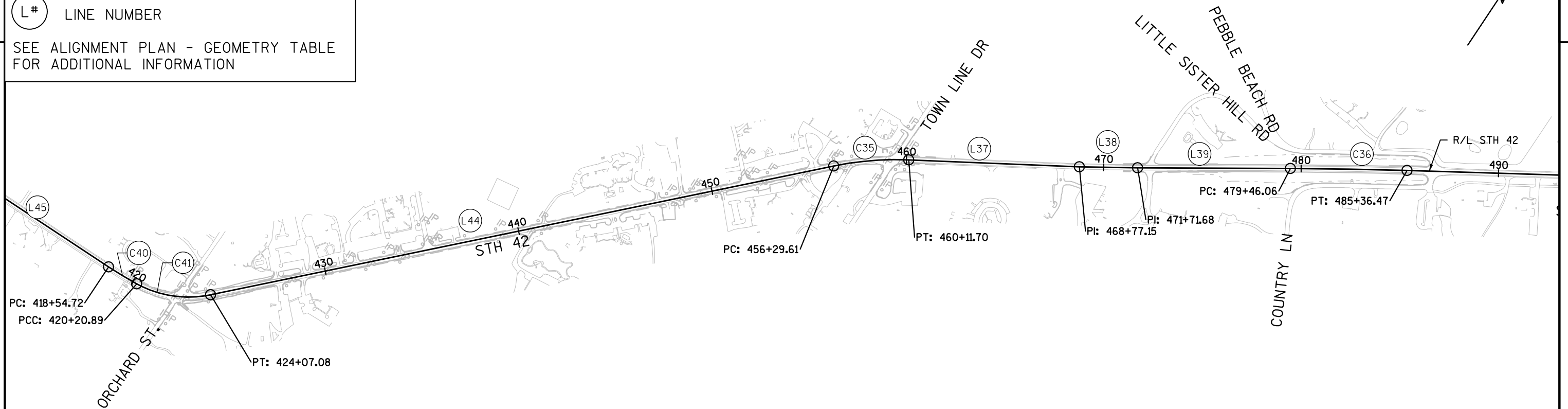
SEE ALIGNMENT PLAN - GEOMETRY TABLE  
FOR ADDITIONAL INFORMATION





C# CURVE NUMBER  
L# LINE NUMBER

SEE ALIGNMENT PLAN - GEOMETRY TABLE  
FOR ADDITIONAL INFORMATION



| GEOMETRY TABLE |          |         |                      |               |            |            |                |
|----------------|----------|---------|----------------------|---------------|------------|------------|----------------|
| Number         | Radius   | Length  | Line/Chord Direction | Start Station | Northing   | Easting    | Superelevation |
| L9             |          | 202.64  | N61°41'46"E          | 152+73.26     | 265106.492 | 532159.975 |                |
| L10            |          | 2299.44 | N62°39'26"E          | 154+75.91     | 265202.575 | 532338.392 |                |
| C8             | 15096.65 | 567.60  | N61°34'49"E          | 177+75.34     | 266258.735 | 534380.923 | NC             |
| L11            |          | 3772.58 | N60°30'11"E          | 183+42.94     | 266528.854 | 534880.085 |                |
| L12            |          | 3235.11 | N60°55'03"E          | 221+15.52     | 268386.385 | 538163.671 |                |
| C9             | 3835.00  | 285.06  | N58°47'17"E          | 253+50.62     | 269958.872 | 540990.894 | RC             |
| L13            |          | 566.92  | N56°39'31"E          | 256+35.69     | 270106.561 | 541234.641 |                |
| C10            | 963.00   | 788.99  | N33°11'13"E          | 262+02.60     | 270418.154 | 541708.249 | 6.0%           |
| L14            |          | 180.29  | N09°42'56"E          | 269+91.60     | 271060.139 | 542128.145 |                |
| C11            | 1025.00  | 902.57  | N34°56'31"E          | 271+71.89     | 271237.842 | 542158.570 | 5.9%           |
| L15            |          | 314.33  | N60°10'05"E          | 280+74.46     | 271954.040 | 542658.974 |                |
| C12            | 32085.00 | 990.28  | N61°03'08"E          | 283+88.79     | 272110.407 | 542931.654 | NC             |
| L16            |          | 635.76  | N61°56'11"E          | 293+79.07     | 272589.695 | 543798.175 |                |
| C13            | 437.00   | 212.89  | N75°53'33"E          | 300+14.84     | 272888.791 | 544359.189 | 5.1%           |
| L17            |          | 386.12  | N89°50'56"E          | 302+27.73     | 272940.169 | 544563.623 |                |
| C14            | 689.00   | 273.84  | N78°27'47"E          | 306+13.84     | 272941.188 | 544949.739 | MATCH EXISTING |
| L18            |          | 812.29  | N67°04'38"E          | 308+87.68     | 272995.595 | 545216.279 |                |
| C15            | 2265.81  | 167.31  | N64°57'43"E          | 316+99.97     | 273311.974 | 545964.424 | MATCH EXISTING |
| L19            |          | 223.05  | N62°50'47"E          | 318+67.28     | 273382.769 | 546115.980 |                |
| C16            | 1376.00  | 345.17  | N55°39'36"E          | 320+90.33     | 273484.565 | 546314.448 | MATCH EXISTING |
| L20            |          | 477.79  | N48°28'25"E          | 324+35.51     | 273678.766 | 546598.711 |                |
| C17            | 1610.28  | 455.84  | N40°21'50"E          | 329+13.30     | 273995.525 | 546956.409 | MATCH EXISTING |
| L21            |          | 69.45   | N32°15'15"E          | 333+69.14     | 274341.695 | 547250.647 |                |
| C18            | 1360.00  | 338.98  | N25°06'49"E          | 334+38.59     | 274400.428 | 547287.711 | MATCH EXISTING |
| L22            |          | 11.28   | N17°58'24"E          | 337+77.57     | 274706.568 | 547431.207 |                |
| C19            | 741.49   | 366.17  | N03°49'34"E          | 337+88.85     | 274717.297 | 547434.688 | MATCH EXISTING |
| C20            | 471.85   | 215.66  | N23°24'53"W          | 341+55.02     | 275078.949 | 547458.874 | MATCH EXISTING |
| L23            |          | 101.64  | N36°30'29"W          | 343+70.68     | 275275.132 | 547373.918 |                |
| C21            | 563.59   | 205.65  | N46°57'42"W          | 344+72.32     | 275356.831 | 547313.447 | MATCH EXISTING |
| L24            |          | 146.05  | N57°24'54"W          | 346+77.97     | 275496.409 | 547163.969 |                |
| C22            | 427.99   | 272.54  | N39°10'20"W          | 348+24.02     | 275575.062 | 547040.910 | MATCH EXISTING |
| L25            |          | 70.36   | N20°55'46"W          | 350+96.56     | 275782.797 | 546871.653 |                |
| C23            | 442.00   | 264.31  | N03°47'53"W          | 351+66.92     | 275848.517 | 546846.519 | MATCH EXISTING |
| L26            |          | 152.70  | N13°19'59"E          | 354+31.24     | 276108.337 | 546829.270 |                |
| C24            | 982.00   | 166.06  | N08°29'20"E          | 355+83.93     | 276256.920 | 546864.484 | MATCH EXISTING |
| L27            |          | 189.03  | N03°38'40"E          | 357+49.99     | 276420.961 | 546888.967 |                |
| C25            | 1553.11  | 273.93  | N01°24'30"W          | 359+39.02     | 276609.606 | 546900.983 | MATCH EXISTING |
| L28            |          | 122.77  | N06°27'41"W          | 362+12.95     | 276883.103 | 546894.258 |                |
| C26            | 1454.00  | 211.95  | N02°17'07"W          | 363+35.72     | 277005.089 | 546880.443 | MATCH EXISTING |
| L29            |          | 32.72   | N01°53'27"E          | 365+47.67     | 277216.687 | 546871.999 |                |
| C27            | 13700.00 | 318.17  | N01°13'32"E          | 365+80.39     | 277249.384 | 546873.079 | MATCH EXISTING |
| L30            |          | 95.12   | N00°33'37"E          | 368+98.56     | 277567.473 | 546879.884 |                |
| C28            | 578.00   | 133.30  | N07°10'01"E          | 369+93.68     | 277662.593 | 546880.814 | MATCH EXISTING |

| GEOMETRY TABLE |          |         |                      |               |            |            |                |
|----------------|----------|---------|----------------------|---------------|------------|------------|----------------|
| Number         | Radius   | Length  | Line/Chord Direction | Start Station | Northing   | Easting    | Superelevation |
| L31            |          | 173.45  | N13°46'25"E          | 371+26.98     | 277794.554 | 546897.407 |                |
| C29            | 500.00   | 119.73  | N06°54'49"E          | 373+00.43     | 277963.020 | 546938.703 | MATCH EXISTING |
| L32            |          | 156.75  | N00°03'13"E          | 374+20.16     | 278081.595 | 546953.081 |                |
| C30            | 1242.00  | 218.46  | N05°05'33"E          | 375+76.91     | 278238.342 | 546953.227 | MATCH EXISTING |
| L33            |          | 382.33  | N10°07'54"E          | 377+95.37     | 278455.662 | 546972.594 |                |
| C31            | 795.72   | 270.10  | N00°24'27"E          | 381+77.70     | 278832.033 | 547039.850 | NC             |
| L34            |          | 175.07  | N09°19'00"W          | 384+47.80     | 279100.827 | 547041.762 |                |
| C32            | 3312.00  | 605.20  | N04°04'54"W          | 386+22.87     | 279273.590 | 547013.420 | MATCH EXISTING |
| L35            |          | 539.01  | N01°09'11"E          | 392+28.07     | 279876.420 | 546970.401 |                |
| C33            | 627.82   | 466.15  | N22°25'25"E          | 397+67.09     | 280415.322 | 546981.248 | 3.1%           |
| L36            |          | 167.61  | N43°41'39"E          | 402+33.23     | 280836.394 | 547155.005 |                |
| C34            | 511.00   | 410.11  | N66°41'10"E          | 404+00.84     | 280957.582 | 547270.791 | 6.0%           |
| L45            |          | 1043.77 | N89°40'40"E          | 408+10.95     | 281115.570 | 547637.390 |                |
| C40            | 1955.04  | 166.17  | N87°14'34"E          | 418+54.72     | 281121.439 | 548681.139 | 6.0%           |
| C41            | 550.24   | 386.18  | N64°42'04"E          | 420+20.89     | 281129.430 | 548847.071 | 6.0%           |
| L44            |          | 3222.53 | N44°35'40"E          | 424+07.08     | 281291.096 | 549189.095 |                |
| C35            | 1560.00  | 382.09  | N51°36'41"E          | 456+29.61     | 283585.835 | 551451.586 | 6.0%           |
| L37            |          | 865.45  | N58°37'41"E          | 460+11.70     | 283822.519 | 551750.328 |                |
| L38            |          | 294.53  | N57°07'36"E          | 468+77.15     | 284273.067 | 552489.258 |                |
| L39            |          | 774.38  | N56°31'10"E          | 471+71.68     | 284432.933 | 552736.626 |                |
| C36            | 23000.00 | 590.41  | N57°15'18"E          | 479+46.06     | 284860.121 | 553382.514 | NC             |
| L40            |          | 2165.15 | N57°59'25"E          | 485+36.47     | 285179.466 | 553879.085 |                |
| C37            | 762.00   | 405.37  | N73°13'49"E          | 507+01.62     | 286327.129 | 555715.040 | 6.0%           |
| L41            |          | 12.26   | N88°28'13"E          | 511+06.98     | 286442.713 | 556098.606 |                |
| C38            | 37826.00 | 1247.21 | N89°24'54"E          | 511+19.25     | 286443.040 | 556110.867 | NC             |
| L42            |          | 1380.49 | S89°38'26"E          | 523+66.46     | 286455.776 | 557357.956 |                |
| C39            | 424.00   | 368.34  | N65°28'19"E          | 537+46.95     | 286447.114 | 558738.422 |                |
| L43            |          | 614.46  | N40°35'04"E          | 541+15.30     | 286595.264 | 559063.087 |                |

Estimate Of Quantities

| 4140-19-72 |            |                                                                  |      |             |             |
|------------|------------|------------------------------------------------------------------|------|-------------|-------------|
| Line       | Item       | Item Description                                                 | Unit | Total       | Qty         |
| 0002       | 201.0105   | Clearing                                                         | STA  | 3.000       | 3.000       |
| 0004       | 201.0205   | Grubbing                                                         | STA  | 3.000       | 3.000       |
| 0006       | 203.0100   | Removing Small Pipe Culverts                                     | EACH | 1.000       | 1.000       |
| 0008       | 204.0115   | Removing Asphaltic Surface Butt Joints                           | SY   | 1,160.000   | 1,160.000   |
| 0010       | 204.0120   | Removing Asphaltic Surface Milling                               | SY   | 140,330.000 | 140,330.000 |
| 0012       | 204.0165   | Removing Guardrail                                               | LF   | 1,740.000   | 1,740.000   |
| 0014       | 204.0215   | Removing Catch Basins                                            | EACH | 1.000       | 1.000       |
| 0016       | 204.0220   | Removing Inlets                                                  | EACH | 2.000       | 2.000       |
| 0018       | 204.0245   | Removing Storm Sewer (size) 01. 12-Inch                          | LF   | 63.000      | 63.000      |
| 0020       | 204.0245   | Removing Storm Sewer (size) 02. 15-Inch                          | LF   | 66.000      | 66.000      |
| 0022       | 204.0245   | Removing Storm Sewer (size) 03. 18-Inch                          | LF   | 8.000       | 8.000       |
| 0024       | 204.0280   | Sealing Pipes                                                    | EACH | 1.000       | 1.000       |
| 0026       | 204.0291.S | Abandoning Sewer                                                 | CY   | 2.000       | 2.000       |
| 0028       | 205.0100   | Excavation Common                                                | CY   | 827.000     | 827.000     |
| 0030       | 205.0200   | Excavation Rock                                                  | CY   | 31.000      | 31.000      |
| 0032       | 211.0100   | Prepare Foundation for Asphaltic Paving (project) 01. 4140-19-72 | LS   | 1.000       | 1.000       |
| 0034       | 211.0400   | Prepare Foundation for Asphaltic Shoulders                       | STA  | 50.000      | 50.000      |
| 0036       | 213.0100   | Finishing Roadway (project) 01. 4140-19-72                       | EACH | 1.000       | 1.000       |
| 0038       | 305.0110   | Base Aggregate Dense 3/4-Inch                                    | TON  | 5,220.000   | 5,220.000   |
| 0040       | 305.0120   | Base Aggregate Dense 1 1/4-Inch                                  | TON  | 2,705.000   | 2,705.000   |
| 0042       | 305.0500   | Shaping Shoulders                                                | STA  | 52.000      | 52.000      |
| 0044       | 315.0100   | Asphaltic Base                                                   | TON  | 70.000      | 70.000      |
| 0046       | 455.0605   | Tack Coat                                                        | GAL  | 15,750.000  | 15,750.000  |
| 0048       | 460.0105.S | HMA Percent Within Limits (PWL) Test Strip Volumetrics           | EACH | 2.000       | 2.000       |
| 0050       | 460.0110.S | HMA Percent Within Limits (PWL) Test Strip Density               | EACH | 2.000       | 2.000       |
| 0052       | 460.2005   | Incentive Density PWL HMA Pavement                               | DOL  | 20,141.000  | 20,141.000  |
| 0054       | 460.2007   | Incentive Density HMA Pavement Longitudinal Joints               | DOL  | 13,853.000  | 13,853.000  |
| 0056       | 460.2010   | Incentive Air Voids HMA Pavement                                 | DOL  | 29,990.000  | 29,990.000  |
| 0058       | 460.5223   | HMA Pavement 3 LT 58-28 S                                        | TON  | 14,800.000  | 14,800.000  |
| 0060       | 460.5224   | HMA Pavement 4 LT 58-28 S                                        | TON  | 15,190.000  | 15,190.000  |
| 0062       | 465.0120   | Asphaltic Surface Driveways and Field Entrances                  | TON  | 286.000     | 286.000     |
| 0064       | 465.0475   | Asphalt Centerline Rumble Strips 2-Lane Rural                    | LF   | 5,181.000   | 5,181.000   |
| 0066       | 520.8000   | Concrete Collars for Pipe                                        | EACH | 1.000       | 1.000       |
| 0068       | 521.1030   | Apron Endwalls for Culvert Pipe Steel 30-Inch                    | EACH | 2.000       | 2.000       |
| 0070       | 521.3130   | Culvert Pipe Corrugated Steel 30-Inch                            | LF   | 4.000       | 4.000       |
| 0072       | 522.1024   | Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch      | EACH | 1.000       | 1.000       |
| 0074       | 606.0200   | Riprap Medium                                                    | CY   | 2.000       | 2.000       |
| 0076       | 608.0005   | Storm Sewer Rock Excavation                                      | CY   | 14.000      | 14.000      |

Estimate Of Quantities

4140-19-72

| Line | Item       | Item Description                                              | Unit | Total     | Qty       |
|------|------------|---------------------------------------------------------------|------|-----------|-----------|
| 0078 | 608.0412   | Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch         | LF   | 63.000    | 63.000    |
| 0080 | 608.0415   | Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch         | LF   | 20.000    | 20.000    |
| 0082 | 608.0418   | Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch         | LF   | 103.000   | 103.000   |
| 0084 | 608.0424   | Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch         | LF   | 37.000    | 37.000    |
| 0086 | 611.0535   | Manhole Covers Type J-Special                                 | EACH | 1.000     | 1.000     |
| 0088 | 611.0612   | Inlet Covers Type C                                           | EACH | 2.000     | 2.000     |
| 0090 | 611.0645   | Inlet Covers Type MS-A                                        | EACH | 1.000     | 1.000     |
| 0092 | 611.1003   | Catch Basins 3-FT Diameter                                    | EACH | 2.000     | 2.000     |
| 0094 | 611.2005   | Manholes 5-FT Diameter                                        | EACH | 1.000     | 1.000     |
| 0096 | 611.8110   | Adjusting Manhole Covers                                      | EACH | 32.000    | 32.000    |
| 0098 | 611.8120.S | Cover Plates Temporary                                        | EACH | 32.000    | 32.000    |
| 0100 | 614.2300   | MGS Guardrail 3                                               | LF   | 1,266.000 | 1,266.000 |
| 0102 | 614.2330   | MGS Guardrail 3 K                                             | LF   | 575.000   | 575.000   |
| 0104 | 614.2610   | MGS Guardrail Terminal EAT                                    | EACH | 4.000     | 4.000     |
| 0106 | 618.0100   | Maintenance And Repair of Haul Roads (project) 01. 4140-19-72 | EACH | 1.000     | 1.000     |
| 0108 | 619.1000   | Mobilization                                                  | EACH | 1.000     | 1.000     |
| 0110 | 624.0100   | Water                                                         | MGAL | 30.500    | 30.500    |
| 0112 | 625.0100   | Topsoil                                                       | SY   | 699.000   | 699.000   |
| 0114 | 625.0500   | Salvaged Topsoil                                              | SY   | 3,353.000 | 3,353.000 |
| 0116 | 627.0200   | Mulching                                                      | SY   | 1,235.000 | 1,235.000 |
| 0118 | 628.1504   | Silt Fence                                                    | LF   | 3,809.000 | 3,809.000 |
| 0120 | 628.1520   | Silt Fence Maintenance                                        | LF   | 3,809.000 | 3,809.000 |
| 0122 | 628.1905   | Mobilizations Erosion Control                                 | EACH | 4.000     | 4.000     |
| 0124 | 628.1910   | Mobilizations Emergency Erosion Control                       | EACH | 4.000     | 4.000     |
| 0126 | 628.2004   | Erosion Mat Class I Type B                                    | SY   | 3,097.000 | 3,097.000 |
| 0128 | 628.7010   | Inlet Protection Type B                                       | EACH | 11.000    | 11.000    |
| 0130 | 628.7020   | Inlet Protection Type D                                       | EACH | 2.000     | 2.000     |
| 0132 | 628.7504   | Temporary Ditch Checks                                        | LF   | 20.000    | 20.000    |
| 0134 | 628.7555   | Culvert Pipe Checks                                           | EACH | 24.000    | 24.000    |
| 0136 | 628.7570   | Rock Bags                                                     | EACH | 126.000   | 126.000   |
| 0138 | 629.0210   | Fertilizer Type B                                             | CWT  | 3.300     | 3.300     |
| 0140 | 630.0130   | Seeding Mixture No. 30                                        | LB   | 45.000    | 45.000    |
| 0142 | 630.0140   | Seeding Mixture No. 40                                        | LB   | 33.000    | 33.000    |
| 0144 | 630.0200   | Seeding Temporary                                             | LB   | 85.000    | 85.000    |
| 0146 | 633.5200   | Markers Culvert End                                           | EACH | 3.000     | 3.000     |
| 0148 | 634.0614   | Posts Wood 4x6-Inch X 14-FT                                   | EACH | 125.000   | 125.000   |

Estimate Of Quantities

4140-19-72

| Line | Item       | Item Description                                                   | Unit | Total      | Qty        |
|------|------------|--------------------------------------------------------------------|------|------------|------------|
| 0150 | 634.0616   | Posts Wood 4x6-Inch X 16-FT                                        | EACH | 62.000     | 62.000     |
| 0152 | 637.2210   | Signs Type II Reflective H                                         | SF   | 756.540    | 756.540    |
| 0154 | 637.2230   | Signs Type II Reflective F                                         | SF   | 461.420    | 461.420    |
| 0156 | 638.2602   | Removing Signs Type II                                             | EACH | 163.000    | 163.000    |
| 0158 | 638.3000   | Removing Small Sign Supports                                       | EACH | 173.000    | 173.000    |
| 0160 | 642.5401   | Field Office Type D                                                | EACH | 1.000      | 1.000      |
| 0162 | 643.0300   | Traffic Control Drums                                              | DAY  | 1,095.000  | 1,095.000  |
| 0164 | 643.0310.S | Temporary Portable Rumble Strips                                   | LS   | 1.000      | 1.000      |
| 0166 | 643.0900   | Traffic Control Signs                                              | DAY  | 3,766.000  | 3,766.000  |
| 0168 | 643.1050   | Traffic Control Signs PCMS                                         | DAY  | 28.000     | 28.000     |
| 0170 | 643.5000   | Traffic Control                                                    | EACH | 1.000      | 1.000      |
| 0172 | 645.0120   | Geotextile Type HR                                                 | SY   | 5.000      | 5.000      |
| 0174 | 646.1020   | Marking Line Epoxy 4-Inch                                          | LF   | 27,790.000 | 27,790.000 |
| 0176 | 646.1040   | Marking Line Grooved Wet Ref Epoxy 4-Inch                          | LF   | 43,400.000 | 43,400.000 |
| 0178 | 646.4520   | Marking Line Same Day Epoxy 4-Inch                                 | LF   | 45,956.000 | 45,956.000 |
| 0180 | 646.6120   | Marking Stop Line Epoxy 18-Inch                                    | LF   | 34.000     | 34.000     |
| 0182 | 646.7420   | Marking Crosswalk Epoxy Transverse Line 6-Inch                     | LF   | 1,060.000  | 1,060.000  |
| 0184 | 646.8320   | Marking Parking Stall Epoxy                                        | LF   | 894.000    | 894.000    |
| 0186 | 648.0100   | Locating No-Passing Zones                                          | MI   | 6.960      | 6.960      |
| 0188 | 649.0105   | Temporary Marking Line Paint 4-Inch                                | LF   | 81,375.000 | 81,375.000 |
| 0190 | 649.0120   | Temporary Marking Line Epoxy 4-Inch                                | LF   | 1,236.000  | 1,236.000  |
| 0192 | 650.4000   | Construction Staking Storm Sewer                                   | EACH | 5.000      | 5.000      |
| 0194 | 650.4500   | Construction Staking Subgrade                                      | LF   | 3,047.000  | 3,047.000  |
| 0196 | 650.5000   | Construction Staking Base                                          | LF   | 3,047.000  | 3,047.000  |
| 0198 | 650.6000   | Construction Staking Pipe Culverts                                 | EACH | 1.000      | 1.000      |
| 0200 | 650.8000   | Construction Staking Resurfacing Reference                         | LF   | 34,633.000 | 34,633.000 |
| 0202 | 650.9910   | Construction Staking Supplemental Control (project) 01. 4140-19-72 | LS   | 1.000      | 1.000      |
| 0204 | 650.9920   | Construction Staking Slope Stakes                                  | LF   | 3,047.000  | 3,047.000  |
| 0206 | 690.0150   | Sawing Asphalt                                                     | LF   | 4,953.000  | 4,953.000  |
| 0208 | 740.0440   | Incentive IRI Ride                                                 | DOL  | 13,118.000 | 13,118.000 |
| 0210 | SPV.0060   | Special 01. Reconnecting Storm Sewer Laterals                      | EACH | 2.000      | 2.000      |
| 0212 | SPV.0060   | Special 02. Inlets Median 1 Grate Special                          | EACH | 1.000      | 1.000      |

| CLEARING AND GRUBBING |         |            |                      |                      |     |                                     |
|-----------------------|---------|------------|----------------------|----------------------|-----|-------------------------------------|
|                       |         |            | 201.0105<br>CLEARING | 201.0205<br>GRUBBING |     |                                     |
| CATEGORY              | STATION | TO STATION | LOCATION             | STA                  | STA | REMARKS                             |
| 0010                  | 474+62  | 476+94     | STH 42 LT            | 3                    | 3   | CLEAR UP TO 5' FROM SLOPE INTERCEPT |
| SUBTOTAL 0010         |         |            |                      | 3                    | 3   |                                     |
| TOTAL                 |         |            |                      | 3                    | 3   |                                     |

| REMOVING GUARDRAIL |         |            |           |       |  | 204.0165 |
|--------------------|---------|------------|-----------|-------|--|----------|
| CATEGORY           | STATION | TO STATION | LOCATION  | LF    |  |          |
| 0010               | 475+86  | - 484+61   | STH 42 RT | 876   |  |          |
| 0010               | 475+92  | - 484+54   | STH 42 LT | 864   |  |          |
| SUBTOTAL 0010      |         |            |           | 1,740 |  |          |
| TOTAL              |         |            |           | 1,740 |  |          |

| REMOVING DRAINAGE |        |                |           |              |                                             |               |                 |          |            |      |       |
|-------------------|--------|----------------|-----------|--------------|---------------------------------------------|---------------|-----------------|----------|------------|------|-------|
|                   |        | 203.0100       | 204.0215  | 204.0220     | 204.0245.01                                 | 204.0245.02   | 204.0245.03     | 204.0280 | 204.0291.S |      |       |
|                   |        | REMOVING SMALL | REMOVING  | REMOVING     | REMOVING STORM SEWER - REINFORCED CONCRETE* | SEALING PIPES |                 |          | ABANDONING |      |       |
| CATG              | STA.   | TO STA.        | LOCATION  | CULVERT PIPE | CATCH BASINS                                | INLETS        | 12-INCH OR LESS | 15-INCH  | 18-INCH    | EACH | SEWER |
|                   |        |                |           | EACH         | EACH                                        | EACH          | LF              | LF       | LF         |      | CY    |
| 0010              | 347+75 | - 348+09       | STH 42    | ---          | 1                                           | ---           | 63              | ---      | ---        | ---  | ---   |
| 0010              | 370+03 | - 370+07       | STH 42    | ---          | ---                                         | 1             | ---             | 66       | ---        | ---  | ---   |
| 0010              | 370+90 | - 371+08       | STH 42    | ---          | ---                                         | 1             | ---             | ---      | 8          | 1    | 2     |
| 0010              | 450+33 |                | STH 42 RT | 1            | ---                                         | ---           | ---             | ---      | ---        | ---  | ---   |
| SUBTOTAL 0010     |        |                |           | 1            | 1                                           | 2             | 63              | 66       | 8          | 1    | 2     |
| TOTAL             |        |                |           | 1            | 1                                           | 2             | 63              | 66       | 8          | 1    | 2     |

(1) REMOVE PORTION OF CORRUGATED METAL PIPE THAT EXTRUDES FROM EXISTING GRADE

| REMOVING ASPHALT |                 |                |                                              |         |                                                   |  |
|------------------|-----------------|----------------|----------------------------------------------|---------|---------------------------------------------------|--|
|                  |                 |                |                                              |         | 204.0120<br>REMOVING ASPHALTIC<br>SURFACE MILLING |  |
| CATG.            | STATION         | LOCATION       | DESCRIPTION                                  | SY      | REMARKS                                           |  |
| 0010             | 159+00 - 306+00 | STH 42         | BEGINNING OF PROJECT TO BROOKSIDE LANE       | 57,110  |                                                   |  |
| 0010             | 306+00 - 317+25 | STH 42         | BROOKSIDE LANE TO SOUTH EXEMPT LIMITS        | 4,600   |                                                   |  |
| 0010             | 343+19 - 384+00 | STH 42         | NORTH EXEMPT LIMITS TO N. JCT MORAVIA STREET | 18,320  |                                                   |  |
| 0010             | 384+00 - 531+27 | STH 42         | N. JCT MORAVIA STREET TO END OF PROJECT      | 55,850  |                                                   |  |
| 0010             | 96+50 - 531+27  | STH 42 LT & RT | INTERSECTIONS AND DRIVEWAYS                  | 4,450   |                                                   |  |
| SUBTOTAL 0010    |                 |                |                                              | 140,330 |                                                   |  |
| TOTAL            |                 |                |                                              | 140,330 |                                                   |  |

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| 204.0115<br>REMOVING ASPHALTIC SURFACE<br>BUTT JOINTS |         |           |    |                            |
|-------------------------------------------------------|---------|-----------|----|----------------------------|
| CATEGORY                                              | STATION | LOCATION  | SY | REMARKS                    |
| 0010                                                  | 159+00  | STH 42    | 7  | BEGIN PROJECT              |
| 0010                                                  | 163+72  | STH 42 RT | 5  | DWY                        |
| 0010                                                  | 164+96  | STH 42 RT | 7  |                            |
| 0010                                                  | 167+69  | STH 42 RT | 9  |                            |
| 0010                                                  | 169+02  | STH 42 RT | 11 |                            |
| 0010                                                  | 171+85  | STH 42 RT | 10 |                            |
| 0010                                                  | 175+58  | STH 42 RT | 10 |                            |
| 0010                                                  | 179+69  | STH 42 RT | 19 |                            |
| 0010                                                  | 189+16  | STH 42 RT | 5  |                            |
| 0010                                                  | 195+27  | STH 42 RT | 3  |                            |
| 0010                                                  | 196+67  | STH 42 RT | 9  |                            |
| 0010                                                  | 202+23  | STH 42 RT | 17 |                            |
| 0010                                                  | 206+78  | STH 42 RT | 10 |                            |
| 0010                                                  | 229+31  | STH 42 RT | 4  |                            |
| 0010                                                  | 242+25  | STH 42 RT | 13 |                            |
| 0010                                                  | 244+98  | STH 42 RT | 15 |                            |
| 0010                                                  | 254+90  | STH 42 RT | 7  | CTH A SOUTH                |
| 0010                                                  | 255+71  | STH 42 LT | 7  | CTH A NORTH                |
| 0010                                                  | 256+75  | STH 42 RT | 8  |                            |
| 0010                                                  | 259+13  | STH 42 RT | 7  |                            |
| 0010                                                  | 263+39  | STH 42 LT | 7  |                            |
| 0010                                                  | 264+21  | STH 42 LT | 7  |                            |
| 0010                                                  | 267+23  | STH 42 RT | 5  | MAPLE GROVE ROAD           |
| 0010                                                  | 269+74  | STH 42 LT | 4  |                            |
| 0010                                                  | 271+39  | STH 42 LT | 7  |                            |
| 0010                                                  | 273+98  | STH 42 RT | 6  |                            |
| 0010                                                  | 278+03  | STH 42 LT | 7  |                            |
| 0010                                                  | 280+32  | STH 42 LT | 5  | SHORE ROAD                 |
| 0010                                                  | 281+78  | STH 42 RT | 5  | HOLAND ROAD (SOUTH)        |
| 0010                                                  | 288+32  | STH 42 LT | 6  |                            |
| 0010                                                  | 292+46  | STH 42 RT | 6  | HOLAND ROAD (NORTH)        |
| 0010                                                  | 292+76  | STH 42 LT | 8  | CRYSTAL SPRINGS ROAD       |
| 0010                                                  | 295+80  | STH 42 LT | 4  |                            |
| 0010                                                  | 302+02  | STH 42 RT | 4  |                            |
| 0010                                                  | 304+27  | STH 42 RT | 4  |                            |
| 0010                                                  | 305+58  | STH 42 RT | 3  |                            |
| 0010                                                  | 307+23  | STH 42 RT | 8  | BROOKSIDE LANE             |
| 0010                                                  | 311+83  | STH 42 LT | 4  |                            |
| 0010                                                  | 312+65  | STH 42 LT | 7  |                            |
| 0010                                                  | 317+25  | STH 42    | 8  | SOUTH EXEMPT LIMITS        |
| 0010                                                  | 343+19  | STH 42    | 9  | NORTH EXEMPT LIMITS        |
| 0010                                                  | 345+12  | STH 42 RT | 4  | CHERRY STREET              |
| 0010                                                  | 351+52  | STH 42 RT | 9  | CTH Q                      |
| 0010                                                  | 356+57  | STH 42 RT | 6  | CEDAR ST                   |
| 0010                                                  | 359+89  | STH 42 RT | 3  | DWY                        |
| 0010                                                  | 360+88  | STH 42 RT | 5  | SPRUCE ST                  |
| 0010                                                  | 362+45  | STH 42 RT | 4  |                            |
| 0010                                                  | 365+00  | STH 42 RT | 4  |                            |
| 0010                                                  | 366+00  | STH 42 RT | 5  |                            |
| 0010                                                  | 367+19  | STH 42 RT | 4  |                            |
| 0010                                                  | 368+67  | STH 42 RT | 3  |                            |
| 0010                                                  | 368+76  | STH 42 LT | 6  |                            |
| 0010                                                  | 369+30  | STH 42 LT | 3  |                            |
| 0010                                                  | 369+43  | STH 42 RT | 3  | DWY, DO NOT DISTURB PAVERS |
| 0010                                                  | 369+84  | STH 42 RT | 3  | DWY, DO NOT DISTURB PAVERS |

REMOVING ASPHALTIC SURFACE BUTT JOINTS

| 204.0115<br>REMOVING ASPHALTIC SURFACE<br>BUTT JOINTS |         |           |    |                        |
|-------------------------------------------------------|---------|-----------|----|------------------------|
| CATEGORY                                              | STATION | LOCATION  | SY | REMARKS                |
| 0010                                                  | 371+58  | STH 42 RT | 7  | ANDERSON LANE EAST     |
| 0010                                                  | 371+72  | STH 42 LT | 12 | ANDERSON LANE WEST     |
| 0010                                                  | 373+64  | STH 42 LT | 6  |                        |
| 0010                                                  | 377+24  | STH 42 LT | 6  |                        |
| 0010                                                  | 380+19  | STH 42 LT | 5  |                        |
| 0010                                                  | 380+54  | STH 42 LT | 5  |                        |
| 0010                                                  | 381+00  | STH 42 LT | 4  |                        |
| 0010                                                  | 381+75  | STH 42 LT | 8  |                        |
| 0010                                                  | 382+45  | STH 42 RT | 6  | MORAVIA STREET (NORTH) |
| 0010                                                  | 382+60  | STH 42 LT | 6  |                        |
| 0010                                                  | 383+09  | STH 42 LT | 13 |                        |
| 0010                                                  | 384+15  | STH 42 RT | 11 |                        |
| 0010                                                  | 385+29  | STH 42 RT | 5  |                        |
| 0010                                                  | 385+92  | STH 42 LT | 34 |                        |
| 0010                                                  | 387+36  | STH 42 LT | 3  |                        |
| 0010                                                  | 388+61  | STH 42 LT | 3  |                        |
| 0010                                                  | 389+64  | STH 42 LT | 3  |                        |
| 0010                                                  | 390+94  | STH 42 LT | 3  |                        |
| 0010                                                  | 391+87  | STH 42 RT | 5  | MEADOW LANE            |
| 0010                                                  | 393+00  | STH 42 LT | 5  |                        |
| 0010                                                  | 394+30  | STH 42 RT | 5  |                        |
| 0010                                                  | 395+20  | STH 42 RT | 4  |                        |
| 0010                                                  | 395+62  | STH 42 RT | 4  |                        |
| 0010                                                  | 396+78  | STH 42 LT | 4  |                        |
| 0010                                                  | 397+56  | STH 42 RT | 3  |                        |
| 0010                                                  | 398+75  | STH 42 RT | 4  |                        |
| 0010                                                  | 398+92  | STH 42 LT | 10 | NORTH SHORE RD         |
| 0010                                                  | 399+62  | STH 42 RT | 3  |                        |
| 0010                                                  | 399+81  | STH 42 LT | 20 | AMUNDSON ROAD          |
| 0010                                                  | 401+05  | STH 42 RT | 6  |                        |
| 0010                                                  | 403+00  | STH 42 RT | 6  | BRODD LANE             |
| 0010                                                  | 409+05  | STH 42 LT | 8  | N CORAL HILL ROAD      |
| 0010                                                  | 409+15  | STH 42 RT | 6  | S CORAL HILL ROAD      |
| 0010                                                  | 410+25  | STH 42 RT | 3  |                        |
| 0010                                                  | 413+65  | STH 42 RT | 7  |                        |
| 0010                                                  | 414+76  | STH 42 RT | 8  |                        |
| 0010                                                  | 415+65  | STH 42 RT | 3  |                        |
| 0010                                                  | 422+17  | STH 42 RT | 5  | S ORCHARD STREET       |
| 0010                                                  | 422+56  | STH 42 RT | 4  |                        |
| 0010                                                  | 422+84  | STH 42 LT | 7  | N ORCHARD STREET       |
| 0010                                                  | 427+51  | STH 42 LT | 8  |                        |
| 0010                                                  | 427+59  | STH 42 RT | 8  |                        |
| 0010                                                  | 428+86  | STH 42 RT | 8  |                        |
| 0010                                                  | 429+11  | STH 42 LT | 14 |                        |
| 0010                                                  | 430+79  | STH 42 LT | 7  |                        |
| 0010                                                  | 431+64  | STH 42 LT | 6  |                        |
| 0010                                                  | 433+85  | STH 42 LT | 9  |                        |
| 0010                                                  | 435+34  | STH 42 LT | 6  | BELLA VISTA LANE       |
| 0010                                                  | 436+69  | STH 42 LT | 5  |                        |
| 0010                                                  | 440+42  | STH 42 RT | 11 |                        |
| 0010                                                  | 441+37  | STH 42 LT | 4  |                        |
| 0010                                                  | 445+00  | STH 42 RT | 14 |                        |
| 0010                                                  | 447+23  | STH 42 LT | 6  |                        |
| 0010                                                  | 447+72  | STH 42 RT | 6  |                        |
| 0010                                                  | 448+33  | STH 42 RT | 9  |                        |

| 204.0115<br>REMOVING ASPHALTIC SURFACE<br>BUTT JOINTS |         |           |      |                         |
|-------------------------------------------------------|---------|-----------|------|-------------------------|
| CATEGORY                                              | STATION | LOCATION  | SY   | REMARKS                 |
| 0010                                                  | 448+46  | STH 42 LT | 7    |                         |
| 0010                                                  | 450+54  | STH 42 RT | 6    |                         |
| 0010                                                  | 451+77  | STH 42 LT | 5    | SHANNON LANE            |
| 0010                                                  | 454+63  | STH 42 RT | 19   |                         |
| 0010                                                  | 455+28  | STH 42 LT | 13   |                         |
| 0010                                                  | 457+02  | STH 42 RT | 10   |                         |
| 0010                                                  | 458+95  | STH 42 RT | 8    | TOWNLIN E ROAD          |
| 0010                                                  | 459+79  | STH 42 LT | 5    | TOWNLIN E ROAD          |
| 0010                                                  | 467+83  | STH 42 RT | 8    |                         |
| 0010                                                  | 472+37  | STH 42 RT | 8    | NORDIC DRIVE            |
| 0010                                                  | 472+39  | STH 42 LT | 6    | LITTLE SISTER HILL ROAD |
| 0010                                                  | 486+55  | STH 42 RT | 6    | COUNTRY LANE            |
| 0010                                                  | 486+57  | STH 42 LT | 6    | LITTLE SISTER ROAD      |
| 0010                                                  | 490+57  | STH 42 RT | 10   |                         |
| 0010                                                  | 492+01  | STH 42 RT | 6    |                         |
| 0010                                                  | 493+40  | STH 42 LT | 5    | WESTWOOD DRIVE          |
| 0010                                                  | 495+17  | STH 42 RT | 6    |                         |
| 0010                                                  | 496+70  | STH 42 LT | 25   |                         |
| 0010                                                  | 497+31  | STH 42 RT | 11   |                         |
| 0010                                                  | 498+10  | STH 42 RT | 8    |                         |
| 0010                                                  | 498+14  | STH 42 LT | 8    |                         |
| 0010                                                  | 498+82  | STH 42 RT | 10   |                         |
| 0010                                                  | 499+79  | STH 42 LT | 12   |                         |
| 0010                                                  | 500+65  | STH 42 RT | 15   |                         |
| 0010                                                  | 501+73  | STH 42 LT | 5    |                         |
| 0010                                                  | 502+38  | STH 42 LT | 5    |                         |
| 0010                                                  | 504+16  | STH 42 LT | 6    | FOREST LANE             |
| 0010                                                  | 506+51  | STH 42 RT | 16   |                         |
| 0010                                                  | 506+64  | STH 42 LT | 9    | MEADOW LANE             |
| 0010                                                  | 508+02  | STH 42 LT | 8    |                         |
| 0010                                                  | 512+66  | STH 42 LT | 8    |                         |
| 0010                                                  | 514+45  | STH 42 RT | 6    |                         |
| 0010                                                  | 514+52  | STH 42 LT | 4    |                         |
| 0010                                                  | 516+03  | STH 42 RT | 9    |                         |
| 0010                                                  | 516+03  | STH 42 LT | 5    |                         |
| 0010                                                  | 519+34  | STH 42 LT | 8    |                         |
| 0010                                                  | 519+85  | STH 42 RT | 8    | FIELDCREST ROAD         |
| 0010                                                  | 521+87  | STH 42 RT | 10   |                         |
| 0010                                                  | 523+77  | STH 42 RT | 6    | S HIGHLAND ROAD         |
| 0010                                                  | 524+49  | STH 42 LT | 7    | N HIGHLAND ROAD         |
| 0010                                                  | 525+09  | STH 42 LT | 5    |                         |
| 0010                                                  | 526+12  | STH 42 LT | 8    |                         |
| 0010                                                  | 527+01  | STH 42 RT | 10   |                         |
| 0010                                                  | 527+42  | STH 42 LT | 6    |                         |
| 0010                                                  | 528+20  | STH 42 RT | 7    |                         |
| 0010                                                  | 528+39  | STH 42 LT | 5    |                         |
| 0010                                                  | 529+83  | STH 42 LT | 7    |                         |
| 0010                                                  | 531+27  | STH 42    | 9    | END PROJECT             |
| SUBTOTAL 0010                                         |         |           | 1160 |                         |
| TOTAL                                                 |         |           | 1160 |                         |

3

3

3

| Division                              | From/To Station     | 205.0100<br>Common Excavation |                       | Salvaged/Unusable<br>Pavement Material | Available<br>Material | 205.0200<br>Rock Excavation | Expanded Rock<br>(1) | Unexpanded<br>Fill | Expanded Fill<br>(2) | Mass Ordinate +/-<br>(3) | Waste | 208.0100<br>Borrow | Comment: |
|---------------------------------------|---------------------|-------------------------------|-----------------------|----------------------------------------|-----------------------|-----------------------------|----------------------|--------------------|----------------------|--------------------------|-------|--------------------|----------|
|                                       |                     | Cut                           | EBS Excavation<br>(3) |                                        |                       |                             | Factor<br>1.10       |                    | Factor<br>1.25       |                          |       |                    |          |
| CATG 0010-Division 1                  |                     |                               |                       |                                        |                       |                             |                      |                    |                      |                          |       |                    |          |
| STH 42 - ORCHARD RD SHOULDER WIDENING | 425+49.59/459+19.96 | 347                           | ---                   | ---                                    | 347                   | 31                          | 34                   | 99                 | 81                   | 266                      | 266   | ---                |          |
| CATG 0010-Division 1 Subtotal         |                     | 347                           | ---                   | ---                                    | 347                   | 31                          | 34                   | 99                 | 81                   | 266                      | 266   | ---                |          |
| CATG 0010-Division 2                  |                     |                               |                       |                                        |                       |                             |                      |                    |                      |                          |       |                    |          |
| STH 42 BEAMGUARD                      | 473+91.68/486+32.44 | 478                           | ---                   | ---                                    | 478                   | ---                         | ---                  | 268                | 335                  | 142                      | 142   | ---                |          |
| CATG 0010-Division 2 Subtotal         |                     | 478                           | ---                   | ---                                    | 478                   | ---                         | ---                  | 268                | 335                  | 142                      | 142   | ---                |          |
| CATG 0010-Division 3                  |                     |                               |                       |                                        |                       |                             |                      |                    |                      |                          |       |                    |          |
| STH 42 - ANDERSON PROPERTY            | 370+83/370+95       | 2                             | ---                   | ---                                    | 2                     | ---                         | ---                  | ---                | ---                  | 2                        | 2     | ---                |          |
| CATG 0010-Division 3 Subtotal         |                     | 2                             | ---                   | ---                                    | 2                     | ---                         | ---                  | ---                | ---                  | 2                        | 2     | ---                |          |
|                                       |                     |                               |                       |                                        |                       |                             |                      |                    |                      |                          |       |                    |          |
| SUBTOTAL 0010                         |                     | 827                           |                       | ---                                    | 827                   | 31                          | 34                   | 367                | 416                  | 411                      | 411   | ---                |          |
|                                       |                     |                               |                       |                                        |                       |                             |                      |                    |                      |                          |       |                    |          |
| TOTAL                                 |                     | 827                           |                       | ---                                    | 827                   | 31                          | 34                   | 367                | 416                  | 411                      | 411   | ---                |          |

Notes:  
(1) Expanded Rock Factor = 1.1  
(2) Expanding Fill Factor = 1.25  
Expanded Fill = (Unexpanded Fill - Rock\* Rock Factor - Reduced Marsh - Reduced EBS) \* 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.

| BASE AGGREGATES |               |    |          |                                  |                                     |          |                                   |
|-----------------|---------------|----|----------|----------------------------------|-------------------------------------|----------|-----------------------------------|
|                 |               |    |          | 305.0110                         | 305.0120                            | 624.0100 |                                   |
|                 |               |    |          | BASE AGGREGATE DENSE<br>3/4-INCH | BASE AGGREGATE DENSE<br>1 1/4-INCH* | WATER    |                                   |
| CATEGORY        | FROM          | TO | LOCATION | TON                              | TON                                 | MGAL     | REMARKS                           |
| 0010            | 159+00        | -  | 306+00   | 2,250                            | ---                                 | ---      |                                   |
| 0010            | 306+00        | -  | 317+25   | 50                               | ---                                 | ---      |                                   |
| 0010            | 343+19        | -  | 372+00   | ---                              | 180                                 | 1.8      | INCLUDES STORM SEWER INSTALLATION |
| 0010            | 372+00        | -  | 384+00   | 200                              | ---                                 | ---      |                                   |
| 0010            | 384+00        | -  | 423+20   | 580                              | ---                                 | ---      |                                   |
| 0010            | 423+20        | -  | 459+20   | 530                              | 1,050                               | 5.9      | INCLDUES ORCHARD SHLDR WIDENING   |
| 0010            | 474+00        | -  | 486+30   | 225                              | 975                                 | 8.6      | BEAMGUARD                         |
| 0010            | 459+20        | -  | 528+40   | 845                              | ---                                 | 9.2      | EXCLUDES BEAMGUARD                |
| 0010            | 528+40        | -  | 531+27   | 40                               | ---                                 | ---      |                                   |
| 0010            | UNDISTRIBUTED |    | STH 42   | 500                              | 500                                 | 5.0      |                                   |
| SUBTOTAL 0010   |               |    |          | 5,220                            | 2,705                               | 30.5     |                                   |
| TOTAL           |               |    |          | 5,220                            | 2,705                               | 30.5     |                                   |

| SHAPING SHOULDERS |            |         |          |          |         |                                                                                                                       |
|-------------------|------------|---------|----------|----------|---------|-----------------------------------------------------------------------------------------------------------------------|
|                   |            |         |          | 305.0500 |         |                                                                                                                       |
| CATEGORY          | STATION TO | STATION | LOCATION | STA      | REMAKRS |                                                                                                                       |
| 0010              | 372+00     | -       | 423+23   | STH 42   | 52      | BLADE AND SHAPE EXISTING SHOULDER MATERIAL TO CREATE UNIFORM GRAVEL BASE TO PLACE PROPOSED SHOULDERING MATERIAL ONTO. |
| SUBTOTAL 0010     |            |         |          | 52       |         |                                                                                                                       |
| TOTAL             |            |         |          | 52       |         |                                                                                                                       |

| STONE AND FABRIC |            |         |                  |                                 |    |                           |
|------------------|------------|---------|------------------|---------------------------------|----|---------------------------|
|                  |            |         | 606.0200         | 645.0120                        |    |                           |
|                  |            |         | RIPRAP<br>MEDIUM | GEOTEXTILE<br>FABRIC<br>TYPE HR |    |                           |
| CATEGORY         | STATION TO | STATION | LOCATION         | CY                              | SY | REMARKS                   |
| 0010             | 370+03     |         | STH 42 LT        | 2                               | 5  | ANDERSON LN STORM OUTFALL |
| SUBTOTAL 0010    |            |         |                  | 2                               | 5  |                           |
| TOTAL            |            |         |                  | 2                               | 5  |                           |

| ASPHALT CENTER LINE RUMBLE STRIPS 2-LANE RURAL |            |         |          |          |         |  |
|------------------------------------------------|------------|---------|----------|----------|---------|--|
|                                                |            |         |          | 465.0475 |         |  |
| CATEGORY                                       | STATION TO | STATION | LOCATION | LF       | REMARKS |  |
| 0010                                           | 190+00     | -       | 190+42   | STH 42   | 42      |  |
| 0010                                           | 192+42     | -       | 197+17   | STH 42   | 475     |  |
| 0010                                           | 200+36     | -       | 201+23   | STH 42   | 87      |  |
| 0010                                           | 203+23     | -       | 205+78   | STH 42   | 255     |  |
| 0010                                           | 207+78     | -       | 241+25   | STH 42   | 3,347   |  |
| 0010                                           | 243+25     | -       | 243+98   | STH 42   | 73      |  |
| 0010                                           | 245+98     | -       | 255+00   | STH 42   | 902     |  |
| SUBTOTAL 0010                                  |            |         |          | 5,181    |         |  |
| TOTAL                                          |            |         |          | 5,181    |         |  |



| ASPHALTIC DRIVEWAYS                                                |        |        |     |                                                                    |        |        |     |                                                                    |        |        |     |
|--------------------------------------------------------------------|--------|--------|-----|--------------------------------------------------------------------|--------|--------|-----|--------------------------------------------------------------------|--------|--------|-----|
| 465.0120<br>APSHALTIC SURFACE<br>DRIVEWAYS AND<br>FIELD ENTRANCES* |        |        |     | 465.0120<br>APSHALTIC SURFACE<br>DRIVEWAYS AND<br>FIELD ENTRANCES* |        |        |     | 465.0120<br>APSHALTIC SURFACE<br>DRIVEWAYS AND<br>FIELD ENTRANCES* |        |        |     |
| CATEGORY                                                           | STA.   | OFFSET | TON | CATEGORY                                                           | STA.   | OFFSET | TON | CATEGORY                                                           | STA.   | OFFSET | TON |
| 0010                                                               | 163+72 | RT     | 2   | 0010                                                               | 393+00 | LT     | 3   | 0010                                                               | 492+01 | RT     | 2   |
| 0010                                                               | 164+95 | RT     | 2   | 0010                                                               | 394+30 | RT     | 2   | 0010                                                               | 495+17 | RT     | 2   |
| 0010                                                               | 167+70 | RT     | 3   | 0010                                                               | 395+20 | LT     | 1   | 0010                                                               | 496+68 | LT     | 6   |
| 0010                                                               | 169+02 | RT     | 3   | 0010                                                               | 395+62 | RT     | 1   | 0010                                                               | 497+31 | RT     | 3   |
| 0010                                                               | 171+85 | RT     | 3   | 0010                                                               | 396+78 | RT     | 3   | 0010                                                               | 498+10 | RT     | 3   |
| 0010                                                               | 175+58 | RT     | 3   | 0010                                                               | 397+56 | RT     | 1   | 0010                                                               | 498+14 | LT     | 2   |
| 0010                                                               | 179+69 | RT     | 5   | 0010                                                               | 398+75 | RT     | 2   | 0010                                                               | 498+82 | RT     | 3   |
| 0010                                                               | 189+16 | RT     | 1   | 0010                                                               | 398+92 | LT     | 7   | 0010                                                               | 499+79 | LT     | 4   |
| 0010                                                               | 195+27 | RT     | 1   | 0010                                                               | 399+62 | RT     | 1   | 0010                                                               | 500+65 | RT     | 4   |
| 0010                                                               | 196+67 | RT     | 3   | 0010                                                               | 401+05 | RT     | 2   | 0010                                                               | 501+73 | LT     | 1   |
| 0010                                                               | 202+23 | RT     | 5   | 0010                                                               | 410+26 | RT     | 1   | 0010                                                               | 502+38 | LT     | 1   |
| 0010                                                               | 206+78 | RT     | 3   | 0010                                                               | 413+65 | RT     | 5   | 0010                                                               | 506+52 | RT     | 11  |
| 0010                                                               | 229+31 | RT     | 1   | 0010                                                               | 414+76 | RT     | 6   | 0010                                                               | 508+01 | LT     | 5   |
| 0010                                                               | 242+25 | RT     | 4   | 0010                                                               | 415+66 | RT     | 2   | 0010                                                               | 512+66 | LT     | 2   |
| 0010                                                               | 244+98 | RT     | 5   | 0010                                                               | 422+56 | RT     | 4   | 0010                                                               | 514+45 | RT     | 2   |
| 0010                                                               | 256+75 | RT     | 2   | 0010                                                               | 427+51 | LT     | 3   | 0010                                                               | 514+52 | LT     | 1   |
| 0010                                                               | 259+13 | RT     | 2   | 0010                                                               | 427+59 | RT     | 3   | 0010                                                               | 516+03 | LT     | 2   |
| 0010                                                               | 263+39 | LT     | 2   | 0010                                                               | 428+86 | RT     | 3   | 0010                                                               | 516+03 | RT     | 3   |
| 0010                                                               | 264+23 | LT     | 2   | 0010                                                               | 429+11 | LT     | 4   | 0010                                                               | 519+34 | LT     | 2   |
| 0010                                                               | 269+74 | LT     | 1   | 0010                                                               | 430+79 | LT     | 2   | 0010                                                               | 521+87 | RT     | 3   |
| 0010                                                               | 271+39 | LT     | 4   | 0010                                                               | 431+64 | LT     | 2   | 0010                                                               | 525+08 | LT     | 2   |
| 0010                                                               | 273+98 | LT     | 4   | 0010                                                               | 433+85 | LT     | 3   | 0010                                                               | 526+12 | LT     | 2   |
| 0010                                                               | 278+03 | LT     | 5   | 0010                                                               | 436+68 | LT     | 1   | 0010                                                               | 527+01 | RT     | 3   |
| 0010                                                               | 288+32 | LT     | 2   | 0010                                                               | 440+42 | RT     | 4   | 0010                                                               | 527+42 | LT     | 2   |
| 0010                                                               | 295+80 | LT     | 1   | 0010                                                               | 441+37 | LT     | 1   | 0010                                                               | 528+20 | RT     | 4   |
| 0010                                                               | 302+02 | RT     | 1   | 0010                                                               | 447+23 | LT     | 2   | 0010                                                               | 528+39 | LT     | 2   |
| 0010                                                               | 304+27 | RT     | 1   | 0010                                                               | 447+72 | RT     | 2   | 0010                                                               | 529+81 | LT     | 2   |
| 0010                                                               | 305+58 | RT     | 1   | 0010                                                               | 448+33 | RT     | 3   | SUBTOTAL 0010                                                      |        | 286    |     |
| 0010                                                               | 384+15 | RT     | 4   | 0010                                                               | 448+46 | LT     | 2   | TOTAL                                                              |        |        |     |
| 0010                                                               | 385+29 | RT     | 3   | 0010                                                               | 450+54 | RT     | 2   | 286                                                                |        |        |     |
| 0010                                                               | 385+82 | LT     | 17  | 0010                                                               | 454+64 | RT     | 6   | *SEE CONSTRUCTION DETAIL FOR DRIVEWAY DEPTH                        |        |        |     |
| 0010                                                               | 387+36 | LT     | 2   | 0010                                                               | 455+28 | LT     | 4   |                                                                    |        |        |     |
| 0010                                                               | 388+61 | LT     | 2   | 0010                                                               | 457+02 | RT     | 7   |                                                                    |        |        |     |
| 0010                                                               | 389+64 | LT     | 2   | 0010                                                               | 467+83 | RT     | 5   |                                                                    |        |        |     |
| 0010                                                               | 390+94 | LT     | 2   | 0010                                                               | 490+57 | RT     | 3   |                                                                    |        |        |     |

| ASPHALT TEST STRIPS               |      |                               |
|-----------------------------------|------|-------------------------------|
| 460.0105.S                        |      | 460.0110.S                    |
| HMA PWL TEST STRIP<br>VOLUMETRICS |      | HMA PWL TEST STRIP<br>DENSITY |
| MIX                               | EACH | EACH                          |
| 3 LT 58-28 S                      | 1    | 1                             |
| 4 LT 58-28 S                      | 1    | 1                             |
| SUBTOTAL 0010                     | 2    | 2                             |
| TOTAL                             | 2    | 2                             |

| ASPHALT ITEMS                                                |        |          |          |                               |                              |                           |                        |                           |                           |                        |                           |
|--------------------------------------------------------------|--------|----------|----------|-------------------------------|------------------------------|---------------------------|------------------------|---------------------------|---------------------------|------------------------|---------------------------|
| 211.0400<br>PREPARE FOUNDATION<br>FOR ASPHALTIC<br>SHOULDERS |        |          |          | 315.0100<br>ASPHALTIC<br>BASE | 455.0605<br>TACK COAT<br>GAL | HMA PAVEMENT 3 LT 58-28 S |                        |                           | HMA PAVEMENT 4 LT 58-28 S |                        |                           |
| CATG.                                                        | FROM   | TO       | LOCATION | STA                           | TON                          | 460.5223<br>TON           | PWL<br>DENSITY<br>TON* | PWL<br>AIR VOIDS<br>TON** | 460.5224<br>TON           | PWL<br>DENSITY<br>TON* | PWL<br>AIR VOIDS<br>TON** |
| 0010                                                         | 159+00 | - 306+00 | STH 42   | ---                           | ---                          | 6,870                     | 4,851                  | 7,650                     | 6,080                     | 4,165                  | 6,080                     |
| 0010                                                         | 306+00 | - 372+00 | STH 42   | ---                           | 70                           | 1,530                     | ---                    | ---                       | 2,250                     | 1,312                  | 2,250                     |
| 0010                                                         | 372+00 | - 531+27 | STH 42   | 50                            | ---                          | 7,350                     | 5,256                  | 7,150                     | 6,860                     | 4,557                  | 6,860                     |
| SUBTOTAL 0010                                                |        |          |          | 50                            | 70                           | 15,750                    | 10,107                 | 14,800                    | 15,190                    | 10,034                 | 15,190                    |
| TOTAL                                                        |        |          |          | 50                            | 70                           | 15,750                    | 10,107                 | 14,800                    | 15,190                    | 10,034                 | 15,190                    |

(1) EXCLUDES EPHRAIM RECONSTRUCT FROM STA. 317+25 - 343+19.  
(2) PREPARE FOUNDATION FOR ASPHALTIC SHOULDERING = STA. 423+23-459+20 & STA. 474+67-486+25  
\*TONNAGE IS ELIGIBLE FOR INCENTIVE DENSITY PWL 460.2005.  
\*\*TONNAGE IS ELIGIBLE FOR INCENTIVE AIR VOIDS 460.2010 AND DENSITY IS TESTED FOR ACCEPTANCE IN THOSE AREAS.

| PREPARE FOUNDATION FOR ASPHALTIC PAVING |                 |          |    |                |
|-----------------------------------------|-----------------|----------|----|----------------|
| 211.0100.01                             |                 |          |    |                |
| CATEGORY                                | STATION         | LOCATION | LS | REMARKS        |
| 0010                                    | 159+00 - 531+27 | STH 42   | 1  | PROJECT LIMITS |
| SUBTOTAL 0010                           |                 |          | 1  |                |
| TOTAL                                   |                 |          | 1  |                |

CULVERT PIPE AND APRON ENDWALLS

|               |           |           |          |          |          |                        |                                                           |                                                   |                                                        |                                           |                                          |  |
|---------------|-----------|-----------|----------|----------|----------|------------------------|-----------------------------------------------------------|---------------------------------------------------|--------------------------------------------------------|-------------------------------------------|------------------------------------------|--|
|               |           |           |          |          |          | 521.1030               | 521.3130                                                  | 522.1024                                          | 650.4000                                               | 650.6000                                  |                                          |  |
|               |           |           |          |          |          | INVERT<br>ELEVATIONS** | APRON<br>ENDWALLS<br>FOR CULVERT<br>PIPE STEEL<br>30-INCH | CULVERT<br>PIPE<br>CORRUGATED<br>STEEL<br>30-INCH | APRON<br>ENDWALLS<br>REINFORCED<br>CONCRETE<br>24-INCH | CONSTRUCTION<br>STAKING STORM<br>SEWER*** | CONSTRUCTION<br>STAKING PIPE<br>CULVERTS |  |
| CATG.         | STRUCTURE | STATION*  | OFFSET*  | LOCATION |          | EACH                   | LF                                                        | EACH                                              | EACH                                                   | EACH                                      | REMARKS                                  |  |
| 0010          | EPH-OUT   | 370+03.31 | 42.8' LT | STH 42   | 586.69   | ---                    | ---                                                       | 1                                                 | 1                                                      | ---                                       | PIPE THICKNESS = 0.079"                  |  |
| 0010          | CULVERT   | 450+33    | LT & RT  | STH 42   | MATCH EX | 2                      | 4                                                         | ---                                               | ---                                                    | 1                                         |                                          |  |
| SUBTOTAL 0010 |           |           |          |          |          | 2                      | 4                                                         | 1                                                 | 1                                                      | 1                                         |                                          |  |
| TOTAL         |           |           |          |          |          | 2                      | 4                                                         | 1                                                 | ****                                                   | 1                                         |                                          |  |

\* STATIONS AND OFFSETS ARE TO INVERT OF CONNECTING PIPE  
\*\*ELEVATIONSARE TO THE INVERT OF THE CONNECTING PIPE  
\*\*\*QUANTITY INCLUDED IN STORM SEWER STRUCTURE TABLE

STORM SEWER PIPE

|       |         |   |         |          |               |           |                | 520.8000                                | 608.0005                                | 608.0412                           | 608.0415                           | 608.0418                           | 608.0424                           |
|-------|---------|---|---------|----------|---------------|-----------|----------------|-----------------------------------------|-----------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
|       |         |   |         |          |               |           |                | CONCRETE<br>COLLARS<br>FOR PIPE<br>EACH | STORM SEWER<br>ROCK<br>EXCAVATION<br>CY | SSPRC<br>CLASS IV<br>12-INCH<br>LF | SSPRC<br>CLASS IV<br>15-INCH<br>LF | SSPRC<br>CLASS IV<br>18-INCH<br>LF | SSPRC<br>CLASS IV<br>24-INCH<br>LF |
| CATG. | FROM    | - | TO      | LOCATION | ELEVATION     |           | SLOPE<br>FT/FT |                                         |                                         |                                    |                                    |                                    |                                    |
| 0010  | EX PIPE | - | EPH-1   | STH 42   | INLET         | DISCHARGE |                |                                         |                                         |                                    |                                    |                                    |                                    |
|       |         |   |         |          |               |           |                |                                         |                                         |                                    |                                    |                                    |                                    |
| 0010  | EPH-1   | - | EPH-2   | STH 42   | 579.91        | 579.74    | 0.0031         | ---                                     | ---                                     | 55                                 | ---                                | ---                                | ---                                |
| 0010  | EPH-3   | - | EPH-5   | STH 42   | 588.89        | 587.96    | 0.0090         | ---                                     | 10                                      | ---                                | ---                                | 103                                | ---                                |
| 0010  | EPH-4   | - | EPH-5   | STH 42   | 588.66        | 588.21    | 0.0228         | ---                                     | 4                                       | ---                                | 20                                 | ---                                | ---                                |
| 0010  | EPH-5   | - | OUTFALL | STH 42   | 587.46        | 586.69    | 0.0208         | ---                                     | ---                                     | ---                                | ---                                | ---                                | 37                                 |
|       |         |   |         |          | SUBTOTAL 0010 |           |                | 1                                       | 14                                      | 63                                 | 20                                 | 103                                | 37                                 |
|       |         |   |         |          | TOTAL         |           |                | 1                                       | 14                                      | 63                                 | 20                                 | 103                                | 37                                 |

RECONNECTING EXISTING STORM SEWER LATERALS

| SPV.0060.01   |           |         |          |          |      |                   |
|---------------|-----------|---------|----------|----------|------|-------------------|
| CATEGORY      | STRUCTURE | STATION | OFFSET   | LOCATION | EACH | REMARKS           |
| 0010          | EPH-3     | 371+08  | 13.5' RT | STH 42   | 1    | 6-INCH PVC        |
| 0010          | EPH-4     | 370+07  | 13.6' RT | STH 42   | 1    | 6-INCH DRAIN TILE |
| SUBTOTAL 0010 |           |         |          |          | 2    |                   |
| TOTAL         |           |         |          |          | 2    |                   |

STORM SEWER COVERS AND STRUCTURES

|               |                                                                 |           |          |          |           |           |               |                                 |                       | 611.0535                 | 611.0612                  | 611.0645              | 611.1003                           | 611.2005                               | SPV.0060.02  | 650.4000 |  |  |
|---------------|-----------------------------------------------------------------|-----------|----------|----------|-----------|-----------|---------------|---------------------------------|-----------------------|--------------------------|---------------------------|-----------------------|------------------------------------|----------------------------------------|--------------|----------|--|--|
|               |                                                                 |           |          |          | ELEVATION |           | DEPTH<br>**** | MANHOLE COVER<br>TYPE J-SPECIAL | INLET COVER<br>TYPE C | INLET COVER<br>TYPE MS-A | CATCH BASINS<br>3-FT DIA. | MANHOLES<br>5-FT DIA. | INLET MEDIAN<br>1 GRATE<br>SPECIAL | CONSTRUCTION<br>STAKING<br>STORM SEWER |              |          |  |  |
| CATG.         | STRUCTURE                                                       | STATION   | OFFSET*  | LOCATION | RIM**     | INVERT*** | FT            | EACH                            | EACH                  | EACH                     | EACH                      | EACH                  | EACH                               | EACH                                   | REMARKS      |          |  |  |
| 0010          | EPH-1                                                           | 348+05.01 | 35.4' RT | STH 42   | 582.42    | 577.91    | 4.51          | ---                             | ---                   | 1                        | ---                       | ---                   | 1                                  | 1                                      |              |          |  |  |
| 0010          | EPH-5                                                           | 370+05.65 | 6' LT    | STH 42   | 592.7     | 587.46    | 4.24          | 1                               | ---                   | ---                      | ---                       | 1                     | ---                                | 1                                      |              |          |  |  |
| 0010          | EPH-4                                                           | 370+07.20 | 13.6' RT | STH 42   | 592.79    | 586.66    | 5.22          | ---                             | 1                     | ---                      | 1                         | ---                   | ---                                | 1                                      | 2-INCH RISER |          |  |  |
| 0010          | EPH-3                                                           | 371+07.59 | 13.5' RT | STH 42   | 593.47    | 586.89    | 5.67          | ---                             | 1                     | ---                      | 1                         | ---                   | ---                                | 1                                      | 2-INCH RISER |          |  |  |
| 0010          | SUBTOTAL FROM SPECIAL STORM SEWER STRUCTURES AND APRON ENDWALLS |           |          |          |           |           |               | ---                             | ---                   | ---                      | ---                       | ---                   | ---                                | 1                                      |              |          |  |  |
| SUBTOTAL 0010 |                                                                 |           |          |          |           |           |               | 1                               | 2                     | 1                        | 2                         | 1                     | 1                                  | 5                                      |              |          |  |  |
| TOTAL         |                                                                 |           |          |          |           |           |               | 1                               | 2                     | 1                        | 2                         | 1                     | 1                                  | 5                                      |              |          |  |  |

REMARKS  
\* STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE  
\*\*RIM ELEVATIONS ARE MEASURED FROM CENTER OF MH COVERS AND FLANGE OF INLET CASTINGS  
\*\*\* FOR STRUCTURES WITH SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE SUMP. FOR STRUCTURES WITHOUT SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE LOWEST PIPE FLOW LINE  
\*\*\*\* DEPTH = RIM ELEV - TOP OF STRUCTURE BASE ELEV - COVER HEIGHT - 6 -INCH ADJUSTMENT RING HEIGHT (UNLESS NOTED IN REMARKS)

| ADJUSTING AND RECONSTRUCTING |         |               |                       |                           |             |  |
|------------------------------|---------|---------------|-----------------------|---------------------------|-------------|--|
| CATEGORY                     | STATION | LOCATION      | 611.8110              | 611.8120.S                | REMARKS     |  |
|                              |         |               | ADJUSTING<br>MANHOLES | COVER PLATES<br>TEMPORARY |             |  |
|                              |         |               | EACH                  | EACH                      |             |  |
| 0010                         | 301+33  | STH 42 44' RT | 1                     | 1                         | STORM SEWER |  |
| SUBTOTAL 0010                |         |               | 1                     | 1                         |             |  |
| 0070                         | 295+47  | STH 42 RT     | 1                     | 1                         | SANITARY    |  |
| 0070                         | 296+81  | STH 42 RT     | 1                     | 1                         | SANITARY    |  |
| 0070                         | 298+44  | STH 42 RT     | 1                     | 1                         | SANITARY    |  |
| 0070                         | 301+46  | STH 42 RT     | 1                     | 1                         | SANITARY    |  |
| 0070                         | 304+46  | STH 42 RT     | 1                     | 1                         | SANITARY    |  |
| 0070                         | 386+36  | STH 42 RT     | 1                     | 1                         | SANITARY    |  |
| 0070                         | 389+12  | STH 42 RT     | 1                     | 1                         | SANITARY    |  |
| 0070                         | 391+82  | STH 42 RT     | 1                     | 1                         | SANITARY    |  |
| 0070                         | 395+79  | STH 42 RT     | 1                     | 1                         | SANITARY    |  |
| 0070                         | 398+87  | STH 42 RT     | 1                     | 1                         | SANITARY    |  |
| 0070                         | 398+95  | STH 42 LT     | 1                     | 1                         | SANITARY    |  |
| 0070                         | 400+88  | STH 42 RT     | 1                     | 1                         | SANITARY    |  |
| 0070                         | 402+92  | STH 42 RT     | 1                     | 1                         | SANITARY    |  |
| 0070                         | 404+92  | STH 42 RT     | 1                     | 1                         | SANITARY    |  |
| 0070                         | 406+94  | STH 42 RT     | 1                     | 1                         | SANITARY    |  |
| 0070                         | 409+18  | STH 42 RT     | 1                     | 1                         | SANITARY    |  |
| 0070                         | 413+16  | STH 42 RT     | 1                     | 1                         | SANITARY    |  |
| 0070                         | 415+18  | STH 42 RT     | 1                     | 1                         | SANITARY    |  |
| 0070                         | 417+17  | STH 42 RT     | 1                     | 1                         | SANITARY    |  |
| 0070                         | 420+28  | STH 42 RT     | 1                     | 1                         | SANITARY    |  |
| 0070                         | 422+30  | STH 42 RT     | 1                     | 1                         | SANITARY    |  |
| 0070                         | 427+61  | STH 42 LT     | 1                     | 1                         | SANITARY    |  |
| 0070                         | 427+63  | STH 42 RT     | 1                     | 1                         | SANITARY    |  |
| 0070                         | 431+94  | STH 42 RT     | 1                     | 1                         | SANITARY    |  |
| 0070                         | 435+53  | STH 42 RT     | 1                     | 1                         | SANITARY    |  |
| 0070                         | 440+35  | STH 42 RT     | 1                     | 1                         | SANITARY    |  |
| 0070                         | 445+35  | STH 42 RT     | 1                     | 1                         | SANITARY    |  |
| 0070                         | 450+29  | STH 42 RT     | 1                     | 1                         | SANITARY    |  |
| 0070                         | 451+92  | STH 42 RT     | 1                     | 1                         | SANITARY    |  |
| 0070                         | 456+38  | STH 42 RT     | 1                     | 1                         | SANITARY    |  |
| 0070                         | 459+39  | STH 42 LT     | 1                     | 1                         | SANITARY    |  |
| SUBTOTAL 0070                |         |               | 31                    | 31                        |             |  |
| TOTAL                        |         |               | 32                    | 32                        |             |  |

| GUARDRAIL ITEMS |         |    |         |           |                          |                            |                                          |
|-----------------|---------|----|---------|-----------|--------------------------|----------------------------|------------------------------------------|
| CATEGORY        | STATION | TO | STATION | LOCATION  | 614.2300                 | 614.2330                   | 614.2610                                 |
|                 |         |    |         |           | MGS<br>GUARDRAIL<br>3 LF | MGS<br>GUARDRAIL<br>3 K LF | MGS<br>GUARDRAIL<br>TERMINAL EAT<br>EACH |
| 0010            | 475+10  | -  | 475+63  | STH 42 LT | ---                      | ---                        | 1                                        |
| 0010            | 474+97  | -  | 475+50  | STH 42 RT | ---                      | ---                        | 1                                        |
| 0010            | 475+63  | -  | 485+01  | STH 42 LT | 938                      | ---                        | ---                                      |
| 0010            | 475+50  | -  | 476+00  | STH 42 RT | 50                       | ---                        | ---                                      |
| 0010            | 476+00  | -  | 481+75  | STH 42 RT | ---                      | 575                        | ---                                      |
| 0010            | 481+75  | -  | 484+53  | STH 42 RT | 278                      | ---                        | ---                                      |
| 0010            | 485+01  | -  | 485+54  | STH 42 LT | ---                      | ---                        | 1                                        |
| 0010            | 484+53  | -  | 485+06  | STH 42 RT | ---                      | ---                        | 1                                        |
| SUBTOTAL 0010   |         |    |         |           | 1,266                    | 575                        | 4                                        |
| TOTAL           |         |    |         |           | 1,266                    | 575                        | 4                                        |

| MARKERS CULVERT END |         |           |          |         |
|---------------------|---------|-----------|----------|---------|
| CATG.               | STATION | LOCATION  | 633.5200 | REMARKS |
|                     |         |           | EACH     |         |
| 0010                | 370+03  | STH 42 LT | 1        |         |
| 0010                | 450+30  | STH 42    | 2        |         |
| SUBTOTAL 0010       |         |           | 3        |         |
| TOTAL               |         |           | 3        |         |

| RESTORATION ITEMS |        |    |        |                  |          |          |                            |                   |                        |                        |                   |
|-------------------|--------|----|--------|------------------|----------|----------|----------------------------|-------------------|------------------------|------------------------|-------------------|
|                   |        |    |        | 625.0100         | 625.0500 | 627.0200 | 628.2004                   | 629.0210          | 630.0130               | 630.0140               | 630.0200          |
|                   |        |    |        | SALVAGED TOPSOIL |          | MULCHING | EROSION MAT CLASS I TYPE B | FERTILIZER TYPE B | SEEDING MIXTURE NO. 30 | SEEDING MIXTURE NO. 40 | SEEDING TEMPORARY |
| CATG.             | STA.   | TO | STA.   | LOCATION         | SY       | SY       | SY                         | CWT               | LB                     | LB                     | LB                |
| 0010              | 343+19 | -  | 372+00 | STH 42           | 640      | ---      | 640                        | ---               | 0.40                   | ---                    | 12                |
| 0010              | 369+98 | -  | 370+11 | STH 42 LT        | ---      | 72       | 72                         | ---               | 0.05                   | ---                    | 1                 |
| 0010              | 370+07 | -  | 370+21 | STH 42 RT        | ---      | 15       | 15                         | ---               | 0.00                   | ---                    | 1                 |
| 0010              | 370+76 | -  | 370+99 | STH 42 LT        | 39       | ---      | 39                         | ---               | 0.02                   | ---                    | 1                 |
| 0010              | 370+99 | -  | 371+17 | STH 42 RT        | ---      | 10       | 10                         | ---               | 0.01                   | ---                    | 1                 |
| 0010              | 425+50 | -  | 426+31 | STH 42 LT        | ---      | 50       | 50                         | ---               | 0.03                   | ---                    | 1                 |
| 0010              | 450+00 | -  | 450+40 | STH 42 RT        | ---      | 36       | 36                         | ---               | 0.02                   | ---                    | 1                 |
| 0010              | 451+25 | -  | 453+67 | STH 42 RT        | ---      | 77       | 77                         | ---               | 0.05                   | ---                    | 1                 |
| 0010              | 455+71 | -  | 459+20 | STH 42 LT        | ---      | 196      | 196                        | ---               | 0.12                   | ---                    | 4                 |
| 0010              | 474+18 | -  | 486+20 | STH 42 RT        | ---      | 1,189    | ---                        | 1,189             | 0.75                   | 16                     | ---               |
| 0010              | 473+92 | -  | 474+35 | STH 42 LT        | ---      | 59       | ---                        | 59                | 0.04                   | 1                      | ---               |
| 0010              | 474+68 | -  | 486+34 | STH 42 LT        | ---      | 1,349    | ---                        | 1,349             | 0.85                   | 18                     | ---               |
| 0010              | 00+00  | -  | 00+00  | UNDISTRIBUTED    | 20       | 300      | 100                        | 500               | 1.0                    | 10                     | 10                |
| SUBTOTAL 0010     |        |    |        |                  | 699      | 3,353    | 1,235                      | 3,097             | 3.3                    | 45                     | 33                |
| TOTAL             |        |    |        |                  | 699      | 3,353    | 1,235                      | 3,097             | 3.3                    | 45                     | 33                |

| INLET PROTECTION |         |        |           |                  |          |         |
|------------------|---------|--------|-----------|------------------|----------|---------|
|                  |         |        |           | 628.7010         | 628.7020 |         |
|                  |         |        |           | INLET PROTECTION |          |         |
|                  |         |        |           | TYPE B           | TYPE D   |         |
| CATEGORY         | STATION | OFFSET | LOCATION  | EACH             | EACH     | REMARKS |
| 0010             | 307+40  | 25.00' | STH 42 RT | 1                | ---      |         |
| 0010             | 311+00  | 20.00' | STH 42 RT | ---              | 1        |         |
| 0010             | 313+44  | 20.00' | STH 42 RT | ---              | 1        |         |
| 0010             | 345+75  | 14.00' | STH 42 RT | 1                | ---      |         |
| 0010             | 347+36  | 24.00' | STH 42 LT | 1                | ---      |         |
| 0010             | 347+87  | 16.00' | STH 42 LT | 1                | ---      |         |
| 0010             | 348+05  | 25.30' | STH 42 RT | 2                | ---      |         |
| 0010             | 348+81  | 57.00' | STH 42 RT | 1                | ---      |         |
| 0010             | 370+07  | 13.73' | STH 42 RT | 2                | ---      |         |
| 0010             | 371+08  | 12.54' | STH 42 RT | 2                | ---      |         |
| SUBTOTAL 0010    |         |        |           | 11               | 2        |         |
| TOTAL            |         |        |           | 11               | 2        |         |

| EROSION CONTROL |         |   |         |            |                        |                        |                     |           |
|-----------------|---------|---|---------|------------|------------------------|------------------------|---------------------|-----------|
|                 |         |   |         | 628.1504   | 628.1520               | 628.7504               | 628.7555            | 628.7570  |
|                 |         |   |         | SILT FENCE | SILT FENCE MAINTENANCE | TEMPORARY DITCH CHECKS | CULVERT PIPE CHECKS | ROCK BAGS |
| CATG.           | STATION | - | STATION | LOCATION   | LF                     | LF                     | LF                  | EACH      |
| 0010            | 369+96  | - | 370+15  | STH 42 LT  | 30                     | 30                     | ---                 | 21        |
| 0010            | 370+76  | - | 370+98  | STH 42 LT  | 21                     | 21                     | ---                 | 21        |
| 0010            | 424+56  |   |         | STH 42 LT  | ---                    | ---                    | 10                  | ---       |
| 0010            | 425+13  |   |         | STH 42 LT  | ---                    | ---                    | 10                  | ---       |
| 0010            | 441+62  | - | 446+84  | STH 42 LT  | 523                    | 523                    | ---                 | ---       |
| 0010            | 445+35  | - | 447+51  | STH 42 RT  | 217                    | 217                    | ---                 | ---       |
| 0010            | 447+85  | - | 448+09  | STH 42 RT  | 26                     | 26                     | ---                 | ---       |
| 0010            | 448+60  | - | 450+40  | STH 42 RT  | 181                    | 181                    | ---                 | ---       |
| 0010            | 450+33  |   |         | STH 42 LT  | ---                    | ---                    | 6                   | ---       |
| 0010            | 450+72  | - | 452+93  | STH 42 RT  | 221                    | 221                    | ---                 | ---       |
| 0010            | 453+73  | - | 454+18  | STH 42 RT  | 46                     | 46                     | ---                 | ---       |
| 0010            | 455+13  | - | 456+67  | STH 42 RT  | 154                    | 154                    | ---                 | ---       |
| 0010            | 455+62  | - | 459+41  | STH 42 LT  | 390                    | 390                    | ---                 | ---       |
| 0010            | 474+30  | - | 486+47  | STH 42 LT  | 1,206                  | 1,206                  | ---                 | 6         |
| 0010            | 475+89  | - | 484+12  | STH 42 RT  | 794                    | 794                    | ---                 | 12        |
| SUBTOTAL 0010   |         |   |         |            | 3,809                  | 3,809                  | 20                  | 24        |
| TOTAL           |         |   |         |            | 3,809                  | 3,809                  | 20                  | 24        |

| MOBILIZATIONS EROSION CONTROL |                           |                               |                           |
|-------------------------------|---------------------------|-------------------------------|---------------------------|
|                               |                           | 628.1905                      | 628.1910                  |
|                               |                           | MOBILIZATIONS EROSION CONTROL | EMERGENCY EROSION CONTROL |
| CATEGORY                      | DESCRIPTION               | EACH                          | EACH                      |
| 0010                          | BEGIN CONSTRUCTION        | 1                             | 1                         |
| 0010                          | ORCHARD SHOULDER WIDENING | 1                             | 1                         |
| 0010                          | BEAMGUARD                 | 1                             | 1                         |
| 0010                          | END CONSTRUCTION          | 1                             | 1                         |
| SUBTOTAL 0010                 |                           | 4                             | 4                         |
| TOTAL                         |                           | 4                             | 4                         |

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

| SIGN NO.       | LOCATION                   | SIGN CODE | W X H     | 637.2210<br>SIGNS<br>TYPE II<br>REFLECTIVE<br>TYPE H<br>S.F. | 637.2230<br>SIGNS<br>TYPE II<br>REFLECTIVE<br>TYPE F<br>S.F. | 634.0614<br>POSTS<br>WOOD<br>4x6x14<br>EACH | 634.0616<br>POSTS<br>WOOD<br>4x6x16<br>EACH | 638.2602<br>REMOVING<br>SIGNS<br>TYPE II<br>EACH | 638.3000<br>REMOVING<br>SMALL<br>SIGN<br>SUPPORTS<br>EACH | REMARKS |
|----------------|----------------------------|-----------|-----------|--------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------|---------------------------------------------|--------------------------------------------------|-----------------------------------------------------------|---------|
| 124            | STH 42, N. OF GIBRALTAR RD | W3-5      | 36" X 36" | ---                                                          | 9.00                                                         | ---                                         | 1                                           | 1                                                | 1                                                         | 30 MPH  |
| 125            | "                          | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         | 45 MPH  |
| 126            | "                          | W14-3     | 48" X 36" | ---                                                          | 6.00                                                         | ---                                         | 1                                           | 1                                                | 1                                                         |         |
| 127            | "                          | D7-51     | ---       | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 2                                                         |         |
| 128            | "                          | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         | 45 MPH  |
| 129            | "                          | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         | 55 MPH  |
| 130            | "                          | R7-1L     | 18" X 24" | 3.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |         |
| 131            | "                          | R7-1R     | 18" X 24" | 3.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |         |
| 132            | "                          | W3-5      | 36" X 36" | ---                                                          | 9.00                                                         | ---                                         | 1                                           | ---                                              | ---                                                       | 45 MPH  |
| 133            | "                          | W14-3     | 48" X 36" | ---                                                          | 6.00                                                         | ---                                         | 1                                           | 1                                                | 1                                                         |         |
| 134            | "                          | R7-1D     | 18" X 24" | 3.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |         |
| 135            | "                          | R7-1D     | 18" X 24" | 3.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |         |
| 136            | "                          | W3-5      | ---       | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 1                                                         |         |
| 137            | "                          | R7-1D     | 18" X 24" | 3.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |         |
| 138            | "                          | R7-1D     | 18" X 24" | 3.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |         |
| 139            | "                          | R7-1D     | 18" X 24" | 3.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |         |
| 140            | "                          | R7-1D     | 18" X 24" | 3.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |         |
| PAGE SUBTOTALS |                            |           |           | 39.00                                                        | 30.00                                                        | 11                                          | 4                                           | 16                                               | 17                                                        |         |

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

| SIGN NO.       | LOCATION                   | SIGN CODE | W X H     | 637.2210<br>SIGNS<br>TYPE II<br>REFLECTIVE<br>TYPE H<br>S.F. | 637.2230<br>SIGNS<br>TYPE II<br>REFLECTIVE<br>TYPE F<br>S.F. | 634.0614<br>POSTS<br>WOOD<br>4x6x14<br>EACH | 634.0616<br>POSTS<br>WOOD<br>4x6x16<br>EACH | 638.2602<br>REMOVING<br>SIGNS<br>TYPE II<br>EACH | 638.3000<br>REMOVING<br>SMALL<br>SIGN<br>SUPPORTS<br>EACH | REMARKS          |
|----------------|----------------------------|-----------|-----------|--------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------|---------------------------------------------|--------------------------------------------------|-----------------------------------------------------------|------------------|
| 141            | STH 42, N. OF GIBRALTAR RD | R7-1R     | 18" X 24" | 3.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                  |
| 142            | "                          | R7-1L     | 18" X 24" | 3.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                  |
| 143            | "                          | W14-3     | 48" X 36" | ---                                                          | 6.00                                                         | ---                                         | 1                                           | 1                                                | 1                                                         |                  |
| 144            | "                          | W14-3     | 48" X 36" | ---                                                          | 6.00                                                         | ---                                         | 1                                           | 1                                                | 1                                                         |                  |
| 145            | "                          | W14-3     | 48" X 36" | ---                                                          | 6.00                                                         | ---                                         | 1                                           | 1                                                | 1                                                         |                  |
| 146            | "                          | W54-54    | 30" X 30" | ---                                                          | 6.25                                                         | ---                                         | 1                                           | 1                                                | 1                                                         |                  |
| 147            | "                          | W16-2A    | ---       | ---                                                          | ---                                                          | ---                                         | ---                                         | ---                                              | ---                                                       |                  |
| 148            | "                          | W3-5      | 36" X 36" | ---                                                          | 9.00                                                         | ---                                         | 1                                           | 1                                                | 1                                                         |                  |
| 149            | "                          | W14-3     | 48" X 36" | ---                                                          | 6.00                                                         | ---                                         | 1                                           | ---                                              | ---                                                       |                  |
| 150            | "                          | J1-1      | 24" X 39" | 6.50                                                         | ---                                                          | ---                                         | 1                                           | 1                                                | 1                                                         | SEE PLAN SHEET   |
| 152            | "                          | W54-54    | 30" X 30" | ---                                                          | 6.25                                                         | ---                                         | 1                                           | ---                                              | ---                                                       |                  |
| 153            | "                          | D1-1      | ---       | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 2                                                         |                  |
| 154            | "                          | W54-54    | ---       | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 1                                                         |                  |
| 155            | "                          | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | ---                                              | ---                                                       | 55 MPH           |
| 156            | "                          | J4-3      | 72" X 36" | 18.00                                                        | ---                                                          | ---                                         | 2                                           | ---                                              | ---                                                       | SEE PLAN SHEET   |
| 157            | "                          | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         | 45 MPH           |
| 158            | "                          | R2-1      | ---       | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 1                                                         |                  |
| 159            | "                          | J13-1     | 24" X 45" | 7.50                                                         | ---                                                          | ---                                         | 1                                           | 1                                                | 1                                                         | SEE PLAN SHEET   |
| 160            | "                          | W14-3     | 48" X 36" | ---                                                          | 6.00                                                         | ---                                         | 1                                           | 1                                                | 1                                                         |                  |
| 161            | HIGHLAND RD                | J13-1     | 24" X 45" | 7.50                                                         | ---                                                          | ---                                         | 1                                           | 1                                                | 1                                                         | SEE PLAN SHEET   |
| 162            | "                          | R1-1      | 30" X 30" | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                  |
| 163            | CTH A                      | R1-1      | 36" X 36" | 7.46                                                         | ---                                                          | ---                                         | 1                                           | 1                                                | 1                                                         |                  |
| 164            | STH 42, N. OF CTH A        | J4-2      | 48" X 36" | 12.00                                                        | ---                                                          | ---                                         | 1                                           | ---                                              | ---                                                       | SEE PLAN SHEET   |
| 165            | "                          | J13-1     | 24" X 45" | 7.50                                                         | ---                                                          | ---                                         | 1                                           | 1                                                | 1                                                         | SEE PLAN SHEET   |
| 166            | "                          | W1-4L     | ---       | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 1                                                         |                  |
| 167            | "                          | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | ---                                              | ---                                                       | 45 MPH           |
| 168            | "                          | J4-2      | ---       | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 1                                                         |                  |
| 169            | "                          | W1-4L     | 30" X 30" | ---                                                          | 6.25                                                         | ---                                         | 1                                           | ---                                              | ---                                                       |                  |
| 170            | "                          | D1-1      | ---       | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 2                                                         |                  |
| 171            | "                          | I2-3      | ---       | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 2                                                         |                  |
| 172            | "                          | I2-3      | 60" X 24" | 10.00                                                        | ---                                                          | 2                                           | ---                                         | ---                                              | ---                                                       | SEE SIGN DETAILS |
| 173            | "                          | R2-1      | ---       | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 1                                                         |                  |
| 174            | "                          | J1-1      | 24" X 39" | 6.50                                                         | ---                                                          | ---                                         | 1                                           | 1                                                | 1                                                         | SEE PLAN SHEET   |
| 175            | MAPLE GROVE RD             | R1-1      | 30" X 30" | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                  |
| PAGE SUBTOTALS |                            |           |           | 114.32                                                       | 57.75                                                        | 9                                           | 18                                          | 25                                               | 28                                                        |                  |

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

| SIGN NO.       | LOCATION                     | SIGN CODE | W X H      | 637.2210<br>SIGNS<br>TYPE II<br>REFLECTIVE<br>TYPE H<br>S.F. | 637.2230<br>SIGNS<br>TYPE II<br>REFLECTIVE<br>TYPE F<br>S.F. | 634.0614<br>POSTS<br>WOOD<br>4x6x14<br>EACH | 634.0616<br>POSTS<br>WOOD<br>4x6x16<br>EACH | 638.2602<br>REMOVING<br>SIGNS<br>TYPE II<br>EACH | 638.3000<br>REMOVING<br>SMALL<br>SIGN<br>SUPPORTS<br>EACH | REMARKS                |
|----------------|------------------------------|-----------|------------|--------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------|---------------------------------------------|--------------------------------------------------|-----------------------------------------------------------|------------------------|
| 176            | STH 42, N. OF MAPLE GROVE RD | I55-56    | 30" X 36"  | 7.50                                                         | ---                                                          | ---                                         | 1                                           | 1                                                | 1                                                         | DOOR COUNTY ART LEAGUE |
| 177            | "                            | R2-1      | 24" X 30"  | 5.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         | 45 MPH                 |
| 178            | "                            | R2-1      | 24" X 30"  | 5.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         | 45 MPH                 |
| 179            | "                            | W2-1      | ---        | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 1                                                         |                        |
| 180            | "                            | W2-1      | 30" X 30"  | ---                                                          | 6.25                                                         | ---                                         | 1                                           | ---                                              | ---                                                       |                        |
| 181            | "                            | D2-2      | 102" X 24" | 17.00                                                        | ---                                                          | 2                                           | ---                                         | 1                                                | 2                                                         | SEE SIGN DETAILS       |
| 182            | SHORE RD                     | R1-1      | 30" X 30"  | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                        |
| 183            | STH 42, N. OF SHORE RD       | R2-1      | 24" X 30"  | 5.00                                                         | ---                                                          | 1                                           | ---                                         | ---                                              | ---                                                       | 45 MPH                 |
| 184            | HOLAND RD                    | R1-1      | 30" X 30"  | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                        |
| 185            | STH 42, N. OF HOLAND RD      | R2-1      | 24" X 30"  | 5.00                                                         | ---                                                          | 1                                           | ---                                         | ---                                              | ---                                                       | 45 MPH                 |
| 186            | "                            | D7-53R    | 54" X 36"  | 13.50                                                        | ---                                                          | ---                                         | 2                                           | 1                                                | 1                                                         | SEE SIGN DETAILS       |
| 187            | "                            | R2-1      | ---        | ---                                                          | ---                                                          | ---                                         | ---                                         | ---                                              | ---                                                       |                        |
| 188            | "                            | W1-4L     | 30" X 30"  | ---                                                          | 6.25                                                         | ---                                         | 1                                           | ---                                              | ---                                                       |                        |
| 189            | "                            | W1-4L     | ---        | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 1                                                         |                        |
| 191            | CRYSTAL SPRINGS RD           | R1-1      | 30" X 30"  | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                        |
| 192            | HOLAND RD                    | R1-1      | 30" X 30"  | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                        |
| 193            | STH 42, N. OF HOLAND RD      | W1-2R     | 30" X 30"  | ---                                                          | 6.25                                                         | ---                                         | 1                                           | 1                                                | 1                                                         |                        |
| 194            | "                            | R2-1      | 24" X 30"  | 5.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         | 35 MPH                 |
| 194A           | "                            | D7-57;M   | ---        | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 2                                                         |                        |
| 194B           | "                            | D7-57;M   | 54" X 36"  | 13.50                                                        | 13.50                                                        | ---                                         | 2                                           | ---                                              | ---                                                       | 1 MILE                 |
| 195            | "                            | R2-1      | 24" X 30"  | 5.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         | 45 MPH                 |
| 196            | "                            | W2-1      | ---        | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 1                                                         |                        |
| 197            | "                            | W1-6      | 48" X 24"  | ---                                                          | 8.00                                                         | 1                                           | ---                                         | 1                                                | 1                                                         |                        |
| 198            | "                            | J4-2      | 48" X 36"  | 12.00                                                        | ---                                                          | ---                                         | 1                                           | 1                                                | 1                                                         | SEE PLAN SHEETS        |
| 199            | "                            | W11-2     | 30" X 30"  | ---                                                          | 6.25                                                         | ---                                         | 1                                           | 1                                                | 1                                                         |                        |
| 199A           |                              | W57-51    | 30" X 15"  | ---                                                          | 3.13                                                         | ---                                         | ---                                         | ---                                              | ---                                                       | MOUNT BELOW SIGN 199   |
| 200            | "                            | W16-9P    | ---        | ---                                                          | ---                                                          | ---                                         | ---                                         | ---                                              | ---                                                       |                        |
| 201            | "                            | R2-1      | 24" X 30"  | 5.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         | 35 MPH                 |
| 202            | "                            | W5-52L    | 12" X 36"  | ---                                                          | 3.00                                                         | ---                                         | ---                                         | ---                                              | ---                                                       |                        |
| 203            | "                            | W5-52R    | 12" X 36"  | ---                                                          | 3.00                                                         | ---                                         | ---                                         | ---                                              | ---                                                       |                        |
| 204            | "                            | W5-52R    | 12" X 36"  | ---                                                          | 3.00                                                         | ---                                         | ---                                         | ---                                              | ---                                                       |                        |
| 205            | "                            | W5-52L    | 12" X 36"  | ---                                                          | 3.00                                                         | ---                                         | ---                                         | ---                                              | ---                                                       |                        |
| 206            | BROOKSIDE LN                 | R1-1      | 30" X 30"  | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                        |
| 207-222        | VACANT                       | ---       | ---        | ---                                                          | ---                                                          | ---                                         | ---                                         | ---                                              | ---                                                       |                        |
| PAGE SUBTOTALS |                              |           |            | 124.40                                                       | 61.63                                                        | 15                                          | 10                                          | 21                                               | 23                                                        |                        |

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

| SIGN NO.       | LOCATION                | SIGN CODE | W X H     | 637.2210<br>SIGNS<br>TYPE II<br>REFLECTIVE<br>TYPE H<br>S.F. | 637.2230<br>SIGNS<br>TYPE II<br>REFLECTIVE<br>TYPE F<br>S.F. | 634.0614<br>POSTS<br>WOOD<br>4x6x14<br>EACH | 634.0616<br>POSTS<br>WOOD<br>4x6x16<br>EACH | 638.2602<br>REMOVING<br>SIGNS<br>TYPE II<br>EACH | 638.3000<br>REMOVING<br>SMALL<br>SIGN<br>SUPPORTS<br>EACH | REMARKS               |
|----------------|-------------------------|-----------|-----------|--------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------|---------------------------------------------|--------------------------------------------------|-----------------------------------------------------------|-----------------------|
| 223            | "                       | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         | 35 MPH                |
| 224            | "                       | J1-1      | ---       | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 1                                                         |                       |
| 225            | CHERRY ST               | W14-1     | 30" X 30" | ---                                                          | 6.25                                                         | 1                                           | ---                                         | 1                                                | 1                                                         |                       |
| 226            | "                       | R1-1      | 30" X 30" | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                       |
| 227            | STH 42, N. OF CHERRY ST | J1-1      | 24" X 39" | 6.50                                                         | ---                                                          | ---                                         | 1                                           | ---                                              | ---                                                       | SEE PLAN SHEETS       |
| 227A           | "                       | W11-2     | 30" X 30" | ---                                                          | 6.25                                                         | ---                                         | 1                                           | ---                                              | ---                                                       |                       |
| 227B           | "                       | W16-7L    | 24" X 12" | ---                                                          | 2.00                                                         | ---                                         | ---                                         | ---                                              | ---                                                       | MOUNT BELOW SIGN 227A |
| 227C           | "                       | W11-2     | 30" X 30" | ---                                                          | 6.25                                                         | ---                                         | 1                                           | ---                                              | ---                                                       |                       |
| 227D           | "                       | W16-7L    | 24" X 12" | ---                                                          | 2.00                                                         | ---                                         | ---                                         | ---                                              | ---                                                       | MOUNT BELOW SIGN 227C |
| 228            | "                       | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | ---                                              | ---                                                       | 35 MPH                |
| 229            | "                       | J4-3      | 72" X 36" | 18.00                                                        | ---                                                          | ---                                         | 2                                           | ---                                              | ---                                                       | SEE PLAN SHEETS       |
| 229A           | "                       | W11-2     | 30" X 30" | ---                                                          | 6.25                                                         | ---                                         | 1                                           | ---                                              | ---                                                       |                       |
| 229B           | "                       | W16-7L    | 24" X 12" | ---                                                          | 2.00                                                         | ---                                         | ---                                         | ---                                              | ---                                                       | MOUNT BELOW SIGN 229A |
| 229C           | "                       | W11-2     | 30" X 30" | ---                                                          | 6.25                                                         | ---                                         | 1                                           | ---                                              | ---                                                       |                       |
| 229D           | "                       | W16-7L    | 24" X 12" | ---                                                          | 2.00                                                         | ---                                         | ---                                         | ---                                              | ---                                                       | MOUNT BELOW SIGN 229C |
| 230            | "                       | R7-51L    | 18" X 24" | 3.00                                                         | ---                                                          | ---                                         | 1                                           | ---                                              | ---                                                       |                       |
| 231            | "                       | J13-1     | 24" X 45" | 7.50                                                         | ---                                                          | ---                                         | 1                                           | ---                                              | ---                                                       | SEE PLAN SHEETS       |
| 232            | CTH Q                   | R1-1      | 36" X 36" | 7.46                                                         | ---                                                          | ---                                         | 1                                           | 1                                                | 1                                                         |                       |
| 233            | STH 42, N. OF CTH Q     | J4-2      | 48" X 36" | 12.00                                                        | ---                                                          | ---                                         | 1                                           | ---                                              | ---                                                       | SEE PLAN SHEETS       |
| 234            | "                       | R2-1      | ---       | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 1                                                         |                       |
| 235            | "                       | J13-1     | ---       | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 1                                                         |                       |
| 236            | "                       | J13-1     | 24" X 45" | 7.50                                                         | ---                                                          | ---                                         | 1                                           | ---                                              | ---                                                       | SEE PLAN SHEETS       |
| 237            | "                       | J13-1     | 24" X 45" | 7.50                                                         | ---                                                          | ---                                         | 1                                           | ---                                              | ---                                                       | SEE PLAN SHEETS       |
| 238            | "                       | D1-1      | ---       | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 2                                                         |                       |
| 239            | "                       | R2-1      | ---       | ---                                                          | ---                                                          | ---                                         | ---                                         | ---                                              | ---                                                       |                       |
| 240            | "                       | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | ---                                              | ---                                                       | 35 MPH                |
| 241            | "                       | R2-1      | ---       | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 1                                                         |                       |
| 242            | CEDAR ST                | R1-1      | 30" X 30" | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                       |
| 243            | STH 42, N. OF CEDAR ST  | J1-1      | 24" X 39" | 6.50                                                         | ---                                                          | ---                                         | 1                                           | 1                                                | 1                                                         | SEE PLAN SHEETS       |
| 244            | "                       | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | ---                                              | ---                                                       | 35 MPH                |
| 245            | "                       | D7-59L    | 54" X 36" | 13.50                                                        | ---                                                          | ---                                         | 1                                           | 1                                                | 1                                                         |                       |
| PAGE SUBTOTALS |                         |           |           | 119.82                                                       | 39.25                                                        | 7                                           | 15                                          | 12                                               | 13                                                        |                       |



ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

| SIGN NO. | LOCATION                    | SIGN CODE | W X H     | 637.2210<br>SIGNS<br>TYPE II<br>REFLECTIVE<br>TYPE H<br>S.F. | 637.2230<br>SIGNS<br>TYPE II<br>REFLECTIVE<br>TYPE F<br>S.F. | 634.0614<br>POSTS<br>WOOD<br>4x6x14<br>EACH | 634.0616<br>POSTS<br>WOOD<br>4x6x16<br>EACH | 638.2602<br>REMOVING<br>SIGNS<br>TYPE II<br>EACH | 638.3000<br>REMOVING<br>SMALL<br>SIGN<br>SUPPORTS<br>EACH | REMARKS                   |
|----------|-----------------------------|-----------|-----------|--------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------|---------------------------------------------|--------------------------------------------------|-----------------------------------------------------------|---------------------------|
| 246      | SPRUCE ST                   | R1-1      | 30" X 30" | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                           |
| 247      | STH 42, N. OF SPRUCE ST     | D7-59R    | 54" X 36" | 13.50                                                        | ---                                                          | ---                                         | 1                                           | ---                                              | ---                                                       |                           |
| 248      | "                           | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         | 35 MPH                    |
| 249      | ANDERSON LN                 | R1-1      | 30" X 30" | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                           |
| 250      | STH 42, N. OF ANDERSON LN   | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         | 35 MPH                    |
| 251      | "                           | W11-2     | 30" X 30" | ---                                                          | 6.25                                                         | ---                                         | 1                                           | 1                                                | 1                                                         |                           |
| 251A     | "                           | W57-51    | 30" X 15" | ---                                                          | 3.13                                                         | ---                                         | ---                                         | ---                                              | ---                                                       | MOUNT BELOW SIGN 251      |
| 252      | "                           | I55-56    | 30" X 36" | 7.50                                                         | ---                                                          | ---                                         | 1                                           | 1                                                | 1                                                         | VILLAGERS SNOWMOBILE CLUB |
| 253      | "                           | W2-2      | 30" X 30" | ---                                                          | 6.25                                                         | 1                                           | ---                                         | 1                                                | 1                                                         |                           |
| 254      | "                           | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         | 35 MPH                    |
| 255      | MORAVIA ST                  | R3-1      | 24" X 24" | 4.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                           |
| 256      | "                           | W1-6      | 48" X 24" | ---                                                          | 8.00                                                         | ---                                         | ---                                         | ---                                              | ---                                                       | MOUNT TO BACK OF SIGN 255 |
| 257      | "                           | R1-1      | 30" X 30" | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                           |
| 258      | "                           | R3-2      | 24" X 24" | 4.00                                                         | ---                                                          | ---                                         | ---                                         | ---                                              | ---                                                       | MOUNT BELOW SIGN 257      |
| 259      | STH 42, N. OF MORAVIA       | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         | 35 MPH                    |
| 260      | "                           | M1-85     | ---       | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 1                                                         |                           |
| 261      | "                           | J3-1      | ---       | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 1                                                         |                           |
| 262      | "                           | S3-1      | 36" X 36" | ---                                                          | 9.00                                                         | 1                                           | ---                                         | 1                                                | 1                                                         |                           |
| 263      | MEADOW LN                   | R1-1      | 30" X 30" | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                           |
| 264      | STH 42, N. OF MEADOW LN     | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         | 35 MPH                    |
| 265      | "                           | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         | 35 MPH                    |
| 266      | SHORE RD                    | R1-1      | 30" X 30" | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                           |
| 266A     | AMUNDSON RD                 | R1-1      | 30" X 30" | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                           |
| 267      | "                           | W1-6      | 48" X 24" | ---                                                          | 8.00                                                         | 1                                           | ---                                         | 1                                                | 1                                                         |                           |
| 268      | STH 42, N. OF AMUNDSON RD   | W2-1      | 30" X 30" | ---                                                          | 6.25                                                         | 1                                           | ---                                         | 1                                                | 1                                                         |                           |
| 269      | BRODD LN                    | R1-1      | 30" X 30" | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                           |
| 270      | STH 42, N. OF BRODD LN      | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         | 35 MPH                    |
| 271      | "                           | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         | 35 MPH                    |
| 272      | "                           | W1-6      | 48" X 24" | ---                                                          | 8.00                                                         | 1                                           | ---                                         | 1                                                | 1                                                         |                           |
| 273      | "                           | D7-57;M   | 54" X 36" | 13.50                                                        | 13.50                                                        | ---                                         | 2                                           | 1                                                | 2                                                         | 1 MILE                    |
| 274      | CORAL HILL RD               | R1-1      | 30" X 30" | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                           |
| 274A     | "                           | R1-1      | 30" X 30" | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                           |
| 275      | STH 42, N. OF CORAL HILL RD | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         | 35 MPH                    |
| 276      | "                           | S3-1      | 36" X 36" | ---                                                          | 9.00                                                         | 1                                           | ---                                         | 1                                                | 1                                                         |                           |
| 277      | "                           | W1-2L     | ---       | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 1                                                         |                           |
| 278      | "                           | W1-2L     | 30" X 30" | ---                                                          | 6.25                                                         | 1                                           | ---                                         | 1                                                | 1                                                         |                           |
| 279      | "                           | W2-1      | 30" X 30" | ---                                                          | 6.25                                                         | 1                                           | ---                                         | ---                                              | ---                                                       |                           |
| 280      | "                           | R2-1      | ---       | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 1                                                         |                           |

PAGE SUBTOTALS

134.12

89.88

27

5

33

34

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

| SIGN NO. | LOCATION                     | SIGN CODE | W X H     | 637.2210<br>SIGNS<br>TYPE II<br>REFLECTIVE<br>TYPE H<br>S.F. | 637.2230<br>SIGNS<br>TYPE II<br>REFLECTIVE<br>TYPE F<br>S.F. | 634.0614<br>POSTS<br>WOOD<br>4x6x14<br>EACH | 634.0616<br>POSTS<br>WOOD<br>4x6x16<br>EACH | 638.2602<br>REMOVING<br>SIGNS<br>TYPE II<br>EACH | 638.3000<br>REMOVING<br>SMALL<br>SIGN<br>SUPPORTS<br>EACH | REMARKS               |
|----------|------------------------------|-----------|-----------|--------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------|---------------------------------------------|--------------------------------------------------|-----------------------------------------------------------|-----------------------|
| 281      | STH 42, N. OF CORAL HILL RD  | W1-2L     | 30" X 30" | ---                                                          | 6.25                                                         | 1                                           | ---                                         | ---                                              | ---                                                       |                       |
| 282      | "                            | W2-1      | ---       | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 1                                                         |                       |
| 283      | "                            | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | ---                                              | ---                                                       | 35 MPH                |
| 283A     | "                            | W2-1      | ---       | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 1                                                         |                       |
| 284      | "                            | W2-1      | 30" X 30" | ---                                                          | 6.25                                                         | 1                                           | ---                                         | ---                                              | ---                                                       |                       |
| 285      | "                            | J4-2      | ---       | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 1                                                         |                       |
| 286      | "                            | W1-6      | 48" X 24" | ---                                                          | 8.00                                                         | 1                                           | ---                                         | 1                                                | 1                                                         |                       |
| 287      | ORCHARD ST                   | R1-1      | 30" X 30" | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                       |
| 288      | "                            | R1-1      | 30" X 30" | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                       |
| 289      | STH 42, N. OF ORCHARD ST     | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         | 35 MPH                |
| 290      | "                            | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | ---                                              | ---                                                       | 45 MPH                |
| 290A     | "                            | R2-1      | ---       | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 1                                                         | 45 MPH                |
| 290B     | "                            | W11-2     | 30" X 30" | ---                                                          | 6.25                                                         | ---                                         | 1                                           | ---                                              | ---                                                       |                       |
| 290C     | "                            | W16-9P    | 24" X 8"  | ---                                                          | 1.33                                                         | ---                                         | ---                                         | ---                                              | ---                                                       | MOUNT BELOW SIGN 290C |
| 291      | "                            | S3-1      | 36" X 36" | ---                                                          | 9.00                                                         | 1                                           | ---                                         | 1                                                | 1                                                         |                       |
| 305A     | "                            | W11-2     | 30" X 30" | ---                                                          | 6.25                                                         | ---                                         | 1                                           | ---                                              | ---                                                       |                       |
| 305B     | "                            | W16-7L    | 24" X 12" | ---                                                          | 2.00                                                         | ---                                         | ---                                         | ---                                              | ---                                                       | MOUNT BELOW SIGN 305A |
| 305C     | "                            | W11-2     | 30" X 30" | ---                                                          | 6.25                                                         | ---                                         | 1                                           | ---                                              | ---                                                       |                       |
| 305D     | "                            | W16-7L    | 24" X 12" | ---                                                          | 2.00                                                         | ---                                         | ---                                         | ---                                              | ---                                                       | MOUNT BELOW SIGN 305C |
| 292      | "                            | W2-1      | 30" X 30" | ---                                                          | 6.25                                                         | 1                                           | ---                                         | 1                                                | 1                                                         |                       |
| 293      | "                            | W1-2R     | 30" X 30" | ---                                                          | 6.25                                                         | 1                                           | ---                                         | 1                                                | 1                                                         |                       |
| 294      | "                            | W1-6      | 48" X 24" | ---                                                          | 8.00                                                         | 1                                           | ---                                         | 1                                                | 1                                                         |                       |
| 295      | "                            | W1-7      | ---       | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 1                                                         |                       |
| 296      | BELLA VISTA LN               | R1-1      | 30" X 30" | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                       |
| 297      | STH 42, N. OF BELLA VISTA    | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         | 45 MPH                |
| 298      | "                            | W1-2R     | ---       | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 1                                                         |                       |
| 299      | "                            | J4-2      | ---       | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 1                                                         |                       |
| 300      | "                            | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         | 45 MPH                |
| 301      | "                            | W14-3     | 48" X 36" | ---                                                          | 6.00                                                         | ---                                         | 1                                           | 1                                                | 1                                                         |                       |
| 302      | "                            | W1-2R     | 30" X 30" | ---                                                          | 6.25                                                         | 1                                           | ---                                         | ---                                              | ---                                                       |                       |
| 303      | SHANNON SQUARE               | R1-1      | 30" X 30" | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                       |
| 304      | STH 42, N. OF SHANNON SQUARE | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         | 45 MPH                |
| 305      | "                            | W2-1      | 30" X 30" | ---                                                          | 6.25                                                         | 1                                           | ---                                         | ---                                              | ---                                                       |                       |
| 305A     | "                            | W11-2     | 30" X 30" | ---                                                          | 6.25                                                         | ---                                         | 1                                           | ---                                              | ---                                                       |                       |
| 305B     | "                            | W16-7L    | 24" X 12" | ---                                                          | 2.00                                                         | ---                                         | ---                                         | ---                                              | ---                                                       | MOUNT BELOW SIGN 305A |
| 305C     | "                            | W11-2     | 30" X 30" | ---                                                          | 6.25                                                         | ---                                         | 1                                           | ---                                              | ---                                                       |                       |
| 305D     | "                            | W16-7L    | 24" X 12" | ---                                                          | 2.00                                                         | ---                                         | ---                                         | ---                                              | ---                                                       | MOUNT BELOW SIGN 305C |
| 305E     | "                            | W11-2     | 30" X 30" | ---                                                          | 6.25                                                         | ---                                         | 1                                           | ---                                              | ---                                                       |                       |
| 305F     | "                            | W16-9P    | 24" X 8"  | ---                                                          | 1.33                                                         | ---                                         | ---                                         | ---                                              | ---                                                       | MOUNT BELOW SIGN 305E |
| 306      | "                            | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         | 45 MPH                |
| 307      | TOWNLIN DR                   | R1-1      | 30" X 30" | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                       |
| 308      | "                            | R1-1      | 30" X 30" | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                       |
| 310      | "                            | I2-3      | 60" X 24" | 10.00                                                        | ---                                                          | 2                                           | ---                                         | 1                                                | 2                                                         | SEE SIGN DETAILS      |
| 311      | "                            | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         | 45 MPH                |
| 312      | "                            | W1-2L     | 30" X 30" | ---                                                          | 6.25                                                         | 1                                           | ---                                         | ---                                              | ---                                                       |                       |

PAGE SUBTOTALS

81.08

122.92

26

7

26

27

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

| SIGN NO.       | LOCATION                            | SIGN CODE | W X H     | 637.2210<br>SIGNS<br>TYPE II<br>REFLECTIVE<br>TYPE H<br>S.F. | 637.2230<br>SIGNS<br>TYPE II<br>REFLECTIVE<br>TYPE F<br>S.F. | 634.0614<br>POSTS<br>WOOD<br>4x6x14<br>EACH | 634.0616<br>POSTS<br>WOOD<br>4x6x16<br>EACH | 638.2602<br>REMOVING<br>SIGNS<br>TYPE II<br>EACH | 638.3000<br>REMOVING<br>SMALL<br>SIGN<br>SUPPORTS<br>EACH | REMARKS                   |
|----------------|-------------------------------------|-----------|-----------|--------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------|---------------------------------------------|--------------------------------------------------|-----------------------------------------------------------|---------------------------|
| 313            | "                                   | W1-2L     | ---       | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 1                                                         |                           |
| 314            | "                                   | W2-1      | 30" X 30" | ---                                                          | 6.25                                                         | 1                                           | ---                                         | ---                                              | ---                                                       |                           |
| 315            | "                                   | R2-1      | ---       | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 1                                                         |                           |
| 316            | STH 42, N. OF TOWNLINE DR           | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | ---                                              | ---                                                       | 45 MPH                    |
| 317            | "                                   | W2-1      | ---       | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 1                                                         |                           |
| 318            | LITTLE SISTER HILL RD               | R1-1      | 30" X 30" | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                           |
| 319            | "                                   | R1-1      | 30" X 30" | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                           |
| 320            | STH 42, N. OF LITTLE SISTER HILL RD | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         | 45 MPH                    |
| 321            | "                                   | W14-3     | 48" X 36" | ---                                                          | 6.00                                                         | ---                                         | ---                                         | ---                                              | ---                                                       | MOUNT OT BACK OF SIGN 320 |
| 321A           | "                                   | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | ---                                              | ---                                                       | 45 MPH                    |
| 322            | "                                   | I2-3      | 66" X 24" | 11.00                                                        | ---                                                          | 2                                           | ---                                         | 1                                                | 2                                                         | SEE SIGN DETAILS          |
| 322A           | "                                   | W3-5      | 36" X 36" | ---                                                          | 9.00                                                         | 1                                           | ---                                         | ---                                              | ---                                                       | 35 MPH                    |
| 323            | LITTLE SISTER RD                    | R1-1      | 30" X 30" | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                           |
| 324            | COUNTRY LN                          | R1-1      | 30" X 30" | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                           |
| 325            | STH 42, N. OF COUNTRY LN            | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         | 35 MPH                    |
| 326            | "                                   | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | ---                                              | ---                                                       | 45 MPH                    |
| 327            | "                                   | R2-1      | ---       | ---                                                          | ---                                                          | ---                                         | ---                                         | 1                                                | 1                                                         |                           |
| 328            | WESTWOOD DR                         | R1-1      | 30" X 30" | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                           |
| 329            | STH 42, N. OF WESTWOOD DR           | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         | 35 MPH                    |
| 330            | "                                   | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | ---                                              | ---                                                       | 35 MPH                    |
| 331            | "                                   | W14-3     | 48" X 36" | ---                                                          | 6.00                                                         | ---                                         | ---                                         | 1                                                | 1                                                         |                           |
| 332            | "                                   | M1-93     | ---       | ---                                                          | ---                                                          | ---                                         | ---                                         | ---                                              | ---                                                       |                           |
| 333            | "                                   | W1-2R     | 30" X 30" | ---                                                          | 6.25                                                         | 1                                           | ---                                         | 1                                                | 1                                                         |                           |
| 334            | "                                   | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         | 35 MPH                    |
| 335            | FOREST LN                           | R1-1      | 30" X 30" | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                           |
| 336            | MEADOW LN                           | R1-1      | 30" X 30" | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                           |
| 337            | ST H42, N. OF MEADOW LN             | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         | 35 MPH                    |
| 338            | "                                   | W1-6      | 48" X 24" | ---                                                          | 8.00                                                         | 1                                           | ---                                         | 1                                                | 1                                                         |                           |
| 339            | "                                   | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         | 35 MPH                    |
| 340            | "                                   | D7-57     | 54" X 36" | 13.50                                                        | ---                                                          | ---                                         | 2                                           | 1                                                | 1                                                         |                           |
| 341            | "                                   | W1-2L     | 30" X 30" | ---                                                          | 6.25                                                         | 1                                           | ---                                         | 1                                                | 1                                                         |                           |
| 342            | "                                   | I55-56    | 30" X 36" | 7.50                                                         | ---                                                          | ---                                         | 1                                           | 1                                                | 1                                                         | VILLAGERS SNOWMOBILE CLUB |
| 343            | FIELDCREST RD                       | R1-1      | 30" X 30" | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                           |
| 344            | STH 42, AT HIGHLAND RD              | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         | 35 MPH                    |
| 345            | HIGHLAND RD                         | R1-1      | 30" X 30" | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                           |
| 346            | "                                   | R1-1      | 30" X 30" | 5.18                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         |                           |
| 347            | STH 42, N. OF HIGHLAND RD           | R2-1      | 24" X 30" | 5.00                                                         | ---                                                          | 1                                           | ---                                         | 1                                                | 1                                                         | 35 MPH                    |
| 348            | "                                   | W1-1L     | 30" X 30" | ---                                                          | 6.25                                                         | 1                                           | ---                                         | 1                                                | 1                                                         |                           |
| 349            | "                                   | W14-3     | 48" X 36" | ---                                                          | 6.00                                                         | ---                                         | ---                                         | ---                                              | ---                                                       | MOUNT OT BACK OF SIGN 349 |
| 350            | "                                   |           | X         | 0.00                                                         | 0.00                                                         | ---                                         | ---                                         | ---                                              | ---                                                       |                           |
| PAGE SUBTOTALS |                                     |           |           | 143.80                                                       | 60.00                                                        | 30                                          | 3                                           | 30                                               | 31                                                        |                           |
| PROJECT TOTALS |                                     |           |           | 756.54                                                       | 461.42                                                       | 125                                         | 62                                          | 163                                              | 173                                                       |                           |

TRAFFIC CONTROL SUMMARY

|               |                |         | ESTIAMTED<br>DAYS | 643.0300     | 643.0310.S<br>TEMPORARY<br>PORTABLE<br>RUMBLE STRIPS | 643.0900     | 643.1050             | 643.5000                   |                                                      |  |
|---------------|----------------|---------|-------------------|--------------|------------------------------------------------------|--------------|----------------------|----------------------------|------------------------------------------------------|--|
| CATEGORY      | STATION TO     | STATION | LOCATION          | DRUMS<br>DAY | LS                                                   | SIGNS<br>DAY | SIGNS<br>PCMS<br>DAY | TRAFFIC<br>CONTROL<br>EACH | REMARKS                                              |  |
| 0010          | PROJECT LIMITS |         | MAINLINE          | 70           | ---                                                  | 560          | 28                   | 1                          | PCMS ONE WEEK PRIOR TO MAY AND SEPT START            |  |
| 0010          | PROJECT LIMITS |         | SIDE ROADS        | 70           | ---                                                  | 3,150        | ---                  | ---                        |                                                      |  |
| 0010          | 159+00 -       | 531+27  | MILLING/PAVING    | 33           | ---                                                  | 1            | ---                  | ---                        | FLAGGING AND ASSOCIATED SIGNS INCIDENTAL TO CONTRACT |  |
| 0010          | 159+00 -       | 531+27  | SHOULDERING       | 11           | 220                                                  | ---          | 22                   | ---                        |                                                      |  |
| 0010          | 348+00 -       | 371+00  | STORM SEWER WORK  | 3            | 105                                                  | ---          | 6                    | ---                        |                                                      |  |
| 0010          | 422+00 -       | 460+00  | SHLDR WIDENING    | 7            | 420                                                  | ---          | 14                   | ---                        |                                                      |  |
| 0010          | 474+00 -       | 486+00  | MGS               | 7            | 350                                                  | ---          | 14                   | ---                        |                                                      |  |
| SUBTOTAL 0010 |                |         |                   | 1,095        | 1                                                    | 3,766        | 28                   | 1                          |                                                      |  |
| TOTAL         |                |         |                   | 1,095        | 1                                                    | 3,766        | 28                   | 1                          |                                                      |  |

CONSTRUCTION STAKING

|               |                |         | 650.4500<br>SUBGRADE | 650.5000<br>BASE | 650.8000<br>RESURFACING<br>REFERENCE | 650.9910<br>SUPPLEMENTAL<br>CONTROL (PROJECT) | 650.9920<br>SLOPE<br>STAKES |       |         |
|---------------|----------------|---------|----------------------|------------------|--------------------------------------|-----------------------------------------------|-----------------------------|-------|---------|
| CATEGORY      | STATION TO     | STATION | LOCATION             | LF               | LF                                   | LF                                            | LS                          | LF    | REMARKS |
| 0010          | PROJECT LIMITS |         | STH 42               | ---              | ---                                  | 34,633                                        | 1                           | ---   |         |
| 0010          | 425+50 -       | 426+31  | STH 42               | 81               | 81                                   | ---                                           | ---                         | 81    |         |
| 0010          | 441+54 -       | 459+20  | STH 42               | 1,766            | 1,766                                | ---                                           | ---                         | 1,766 |         |
| 0010          | 474+00 -       | 486+00  | STH 42               | 1,200            | 1,200                                | ---                                           | ---                         | 1,200 |         |
| SUBTOTAL 0010 |                |         |                      | 3,047            | 3,047                                | 34,633                                        | 1                           | 3,047 |         |
| TOTAL         |                |         |                      | 3,047            | 3,047                                | 34,633                                        | 1                           | 3,047 |         |

| PAVEMENT MARKING |         |    |         |          |              |                  |                |                 |                    |               |               |                                    |
|------------------|---------|----|---------|----------|--------------|------------------|----------------|-----------------|--------------------|---------------|---------------|------------------------------------|
|                  |         |    |         |          | 646.1020     | 646.1040*        | 646.4520       | 646.6120        | 646.7420           | 649.0105      | 649.0120      |                                    |
|                  |         |    |         |          | MARKING LINE | GROOVED WET      | MARKING LINE   | MARKING         | MARKING CROSSWALK  | TEMP. MARKING | TEMP. MARKING |                                    |
|                  |         |    |         |          | EPOXY 4-INCH | REFLECTIVE EPOXY | SAME DAY EPOXY | STOP LINE EPOXY | EPOXY TRANSV. LINE | LINE PAINT    | LINE EPOXY    |                                    |
|                  |         |    |         |          | LF           | 4-INCH           | 4-INCH         | 18-INCH         | 6-INCH             | 4-INCH        | 4-INCH        |                                    |
| CATEGORY         | STATION | TO | STATION | LOCATION |              | LF               | LF             | LF              | LF                 | EACH          | EACH          | REMARKS                            |
| 0010             | 153+72  | -  | 159+00  | STH 42   | 1,056        | ---              | ---            | ---             | ---                | ---           | ---           | LOCATING NO PASSING OUTSIDE LIMITS |
| 0010             | 159+00  | -  | 182+30  | STH 42   | 1,800        | 2,860            | 588            | ---             | ---                | 1,126         | ---           | PASSING ZONE                       |
| 0010             | 182+30  | -  | 188+28  | STH 42   | ---          | 1,196            | 748            | ---             | ---                | 1,496         | ---           | CENTERLINE SKIPS AND SOLID         |
| 0010             | 188+28  | -  | 190+03  | STH 42   | ---          | 350              | 50             | ---             | ---                | 100           | ---           | PASSING ZONE                       |
| 0010             | 190+03  | -  | 196+64  | STH 42   | ---          | 1,322            | 836            | ---             | ---                | 1,672         | 836           | CENTERLINE SKIPS AND SOLID         |
| 0010             | 196+64  | -  | 212+59  | STH 42   | ---          | 3,190            | 400            | ---             | ---                | 800           | 400           | PASSING ZONE                       |
| 0010             | 212+59  | -  | 219+94  | STH 42   | ---          | 1,470            | 923            | ---             | ---                | 1,845         | ---           | CENTERLINE SKIPS AND SOLID         |
| 0010             | 219+94  | -  | 220+97  | STH 42   | ---          | 206              | 38             | ---             | ---                | 75            | ---           | PASSING ZONE                       |
| 0010             | 220+97  | -  | 226+61  | STH 42   | ---          | 1,128            | 714            | ---             | ---                | 1,428         | ---           | CENTERLINE SKIPS AND SOLID         |
| 0010             | 226+61  | -  | 229+26  | STH 42   | ---          | 530              | 530            | ---             | ---                | 1,060         | ---           | NO PASSING                         |
| 0010             | 229+26  | -  | 235+49  | STH 42   | ---          | 1,246            | 786            | ---             | ---                | 1,571         | ---           | CENTERLINE SKIPS AND SOLID         |
| 0010             | 235+49  | -  | 244+88  | STH 42   | ---          | 1,878            | 1,177          | ---             | ---                | 2,353         | ---           | CENTERLINE SKIPS AND SOLID         |
| 0010             | 244+88  | -  | 254+95  | STH 42   | ---          | 2,014            | 263            | ---             | ---                | 525           | ---           | PASSING ZONE                       |
| 0010             | 254+95  | -  | 263+81  | STH 42   | ---          | 1,772            | 1,111          | ---             | ---                | 2,222         | ---           | CENTERLINE SKIPS AND SOLID         |
| 0010             | 263+81  | -  | 317+25  | STH 42   | 3,450        | 7,238            | 10,688         | ---             | ---                | 19,126        | ---           | NO PASSING                         |
| 0010             | 299+34  | -  |         | STH 42   | ---          | ---              | ---            | ---             | 66                 | ---           | ---           | WETLAND PRESERVE CROSSING          |
| 0010             | 306+83  | -  | 307+50  | STH 42   | ---          | ---              | ---            | 19              | 200                | ---           | ---           | BROOKSIDE LANE CROSSING            |
| 0010             | 343+19  | -  | 427+27  | STH 42   | 11,774       | 4,854            | 16,816         | ---             | ---                | 25,470        | ---           | NO PASSING                         |
| 0010             | 345+91  | -  | 345+99  | STH 42   | ---          | ---              | ---            | ---             | 88                 | ---           | ---           | MONUMENT CROSSING                  |
| 0010             | 349+80  | -  |         | STH 42   | ---          | ---              | ---            | ---             | 92                 | ---           | ---           | VILLAGE HALL CROSSING              |
| 0010             | 356+35  | -  | 356+82  | STH 42   | ---          | ---              | ---            | 15              | 160                | ---           | ---           | CEDAR ST CROSSING                  |
| 0010             | 360+50  | -  |         | STH 42   | ---          | ---              | ---            | ---             | 104                | ---           | ---           | TOURIST CENTER CROSSING            |
| 0010             | 365+22  | -  |         | STH 42   | ---          | ---              | ---            | ---             | 68                 | ---           | ---           | EPHRAIM YACHT CLUB CROSSING        |
| 0010             | 371+34  | -  | 371+38  | STH 42   | ---          | ---              | ---            | ---             | 110                | ---           | ---           | ANDERSON LN CROSSING               |
| 0010             | 427+27  | -  | 433+96  | STH 42   | ---          | 1,338            | 844            | ---             | ---                | 1,688         | ---           | CENTERLINE SKIPS AND SOLID         |
| 0010             | 427+80  | -  |         | STH 42   | ---          | ---              | ---            | ---             | 72                 | ---           | ---           | BLUE DOLPHIN CROSSING              |
| 0010             | 455+02  | -  |         | STH 42   | ---          | ---              | ---            | ---             | 100                | ---           | ---           | CITY FARMER CROSSING               |
| 0010             | 433+96  | -  | 452+48  | STH 42   | ---          | 3,704            | 475            | ---             | ---                | 950           | ---           | PASSING ZONE                       |
| 0010             | 452+48  | -  | 458+99  | STH 42   | ---          | 1,302            | 826            | ---             | ---                | 1,652         | ---           | CENTERLINE SKIPS AND SOLID         |
| 0010             | 458+99  | -  | 471+11  | STH 42   | ---          | 2,424            | 2,424          | ---             | ---                | 4,848         | ---           | NO PASSING                         |
| 0010             | 471+11  | -  | 479+14  | STH 42   | ---          | 1,606            | 1,016          | ---             | ---                | 2,031         | ---           | CENTERLINE SKIPS AND SOLID         |
| 0010             | 479+14  | -  | 501+31  | STH 42   | 2,662        | 1,772            | 563            | ---             | ---                | 1,125         | ---           | PASSING ZONE                       |
| 0010             | 501+31  | -  | 510+16  | STH 42   | 1,770        | ---              | 1,110          | ---             | ---                | 2,220         | ---           | CENTERLINE SKIPS AND SOLID         |
| 0010             | 510+16  | -  | 520+16  | STH 42   | 2,000        | ---              | 2,000          | ---             | ---                | 4,000         | ---           | CENTERLINE DOUBLE SOLID            |
| 0010             | 520+16  | -  | 527+62  | STH 42   | 1,492        | ---              | 934            | ---             | ---                | 1,867         | ---           | CENTERLINE SKIPS AND SOLID         |
| 0010             | 527+62  | -  | 531+27  | STH 42   | ---          | 730              | 100            | ---             | ---                | 125           | ---           | PASSING ZONE                       |
| 0010             | 531+27  | -  | 536+55  | STH 42   | 1,056        | ---              | ---            | ---             | ---                | ---           | ---           | LOCATING NO PASSING OUTSIDE LIMITS |
| SUBTOTAL 0010    |         |    |         |          | 27,790       | 43,400           | 45,956         | 34              | 1,060              | 81,375        | 1,236         |                                    |
| TOTALS           |         |    |         |          | 27,790       | 43,400           | 45,956         | 34              | 1,060              | 81,375        | 1,236         |                                    |

\*USE GROOVED WET REFLECTIVE EPOXY 4-INCH EDGELINE WHERE POSTED SPEEDS EXCEEDS 40 MPH

LOCATING NO PASSING ZONES

| 648.0100      |         |    |         |          |      |         |
|---------------|---------|----|---------|----------|------|---------|
| CATEGORY      | STATION | TO | STATION | LOCATION | MI   | REMARKS |
| 0010          | 153+72  | -  | 322+53  | STH 42   | 3.20 |         |
| 0010          | 337+91  | -  | 536+55  | STH 42   | 3.76 |         |
| SUBTOTAL 0010 |         |    |         |          | 6.96 |         |
| TOTAL         |         |    |         |          | 6.96 |         |

55 MPH SPOTTING SIGHT DISTANCE = 0.21

MARKING PARKING STALLS EPOXY

| 646.8320      |         |    |         |           |     |         |
|---------------|---------|----|---------|-----------|-----|---------|
| CATEGORY      | STATION | TO | STATION | LOCATION  | LF  | REMARKS |
| 0070          | 343+56  | -  | 345+76  | STH 42 LT | 300 |         |
| 0070          | 346+15  | -  | 347+50  | STH 42 LT | 216 |         |
| 0070          | 348+71  | -  | 353+60  | STH 42 LT | 378 |         |
| SUBTOTAL 0070 |         |    |         |           | 894 |         |
| TOTAL         |         |    |         |           | 894 |         |

SAWING ASPHALT

| 690.0150 |                   |           |     |                   |
|----------|-------------------|-----------|-----|-------------------|
| CATG.    | STATION - STATION | LOCATION  | LF  | REMARKS           |
| 0010     | 163+72            | STH 42 RT | 24  | DRIVEWAY          |
| 0010     | 164+96            | STH 42 RT | 28  | DRIVEWAY          |
| 0010     | 167+70            | STH 42 RT | 40  | DRIVEWAY          |
| 0010     | 169+20            | STH 42 RT | 47  | DRIVEWAY          |
| 0010     | 171+63 - 172+10   | STH 42 RT | 50  | DRIVEWAY          |
| 0010     | 175+59            | STH 42 RT | 42  | DRIVEWAY          |
| 0010     | 179+70            | STH 42 RT | 83  | NORTHHAVEN DR     |
| 0010     | 189+16            | STH 42 RT | 20  | DRIVEWAY          |
| 0010     | 195+27            | STH 42 RT | 11  | DRIVEWAY          |
| 0010     | 196+67            | STH 42 RT | 42  | DRIVEWAY          |
| 0010     | 202+23            | STH 42 RT | 76  | DRIVEWAY          |
| 0010     | 206+79            | STH 42 RT | 44  | DRIVEWAY          |
| 0010     | 229+31            | STH 42 RT | 19  | DRIVEWAY          |
| 0010     | 242+25            | STH 42 RT | 58  | DRIVEWAY          |
| 001      | 244+98            | STH 42 RT | 64  | DRIVEWAY          |
| 0010     | 254+79            | STH 42 RT | 31  | CTH A             |
| 0010     | 255+68            | STH 42 LT | 29  | HIGHLAND RD       |
| 0010     | 256+75            | STH 42 RT | 33  | DRIVEWAY          |
| 0010     | 259+13            | STH 42 RT | 30  | DRIVEWAY          |
| 0010     | 263+39            | STH 42 LT | 30  | DRIVEWAY          |
| 0010     | 264+21            | STH 42 LT | 29  | DRIVEWAY          |
| 0010     | 267+24            | STH 42 RT | 24  | MAPLE GROVE RD    |
| 0010     | 269+76            | STH 42 LT | 15  | DRIVEWAY          |
| 0010     | 271+40            | STH 42 LT | 27  | DRIVEWAY          |
| 0010     | 273+97            | STH 42 LT | 25  | DRIVEWAY          |
| 0010     | 278+10            | STH 42 LT | 29  | DRIVEWAY          |
| 0010     | 280+31            | STH 42 LT | 21  | SHORE RD          |
| 0010     | 281+77            | STH 42 RT | 24  | HOLAND RD         |
| 0010     | 288+32            | STH 42 LT | 24  | DRIVEWAY          |
| 0010     | 292+50            | STH 42 RT | 25  | HOLAND RD         |
| 0010     | 292+76            | STH 42 LT | 33  | CRYSTAL SPRING RD |
| 0010     | 295+80            | STH 42 LT | 18  | DRIVEWAY          |
| 0010     | 302+02            | STH 42 RT | 14  | DRIVEWAY          |
| 0010     | 304+28            | STH 42 RT | 16  | DRIVEWAY          |
| 0010     | 305+58            | STH 42 RT | 16  | DRIVEWAY          |
| 0010     | 307+23            | STH 42 RT | 31  | BROOKSIDE LN      |
| 0010     | 317+25            | STH 42    | 28  |                   |
| 0010     | 343+19            | STH42     | 40  |                   |
| 0010     | 345+11            | STH 42 RT | 16  | CHERRY ST         |
| 0010     | 347+70 - 348+15   | STH 42    | 209 |                   |
| 0010     | 351+51            | STH 42    | 38  | CTH Q             |
| 0010     | 356+57            | STH 42 RT | 29  | CEDAR ST          |
| 0010     | 360+88            | STH 42 RT | 23  | SPRUCE ST         |
| 0010     | 370+00 - 371+20   | STH 42    | 244 |                   |
| 0010     | 371+59            | STH 42 RT | 29  | ANDERSON LN       |
| 0010     | 382+48            | STH 42 RT | 24  | MORAVIA ST        |
| 0010     | 384+17            | STH 42 RT | 46  | DRIVEWAY          |
| 0010     | 385+26            | STH 42 RT | 24  | DRIVEWAY          |
| 0010     | 385+10 - 386+47   | STH 42 LT | 160 |                   |
| 0010     | 387+35            | STH 42 LT | 12  | DRIVEWAY          |

| 690.0150 |                   |           |    |                       |
|----------|-------------------|-----------|----|-----------------------|
| CATG.    | STATION - STATION | LOCATION  | LF | REMARKS               |
| 0010     | 388+62            | STH 42 LT | 13 | DRIVEWAY              |
| 0010     | 389+65            | STH 42 LT | 13 | DRIVEWAY              |
| 0010     | 390+94            | STH 42 LT | 13 | DRIVEWAY              |
| 0010     | 391+89            | STH 42 RT | 23 | MEADOW LN             |
| 0010     | 393+14            | STH 42 LT | 22 | DRIVEWAY              |
| 0010     | 394+30            | STH 42 RT | 23 | DRIVEWAY              |
| 0010     | 395+12 - 395+69   | STH 42 RT | 35 | DRIVEWAY              |
| 0010     | 396+83            | STH 42 LT | 17 | DRIVEWAY              |
| 0010     | 397+57            | STH 42 RT | 11 | DRIVEWAY              |
| 0010     | 398+93            | STH 42 LT | 43 | N SHORE RD            |
| 0010     | 398+68 - 399+67   | STH 42 RT | 33 | DRIVEWAY              |
| 0010     | 401+50            | STH 42 RT | 29 | DRIVEWAY              |
| 0010     | 399+81            | STH 42 LT | 90 | AMUNDSON RD           |
| 0010     | 402+94            | STH 42 RT | 26 | BRODD LN              |
| 0010     | 409+70            | STH 42 LT | 34 | CORAL HILL RD         |
| 0010     | 409+15            | STH 42 RT | 25 | CORAL HILL RD         |
| 0010     | 410+25            | STH 42 RT | 14 | DRIVEWAY              |
| 0010     | 413+54 - 415+71   | STH 42 RT | 76 | DRIVEWAY              |
| 0010     | 422+18            | STH 42 RT | 22 | ORCHARD RD            |
| 0010     | 422+58            | STH 42 RT | 16 | DRIVEWAY              |
| 0010     | 422+82            | STH 42 LT | 30 | ORCHARD RD            |
| 0010     | 427+34 - 427+77   | STH 42    | 71 | DRIVEWAY              |
| 0010     | 428+85            | STH 42 RT | 36 | DRIVEWAY              |
| 0010     | 429+11            | STH 42 LT | 64 | DRIVEWAY              |
| 0010     | 430+64 - 431+77   | STH 42 LT | 58 | DRIVEWAY              |
| 0010     | 433+84            | STH 42 LT | 39 | DRIVEWAY              |
| 0010     | 435+33            | STH 42 LT | 27 | BELLA VISTA LN        |
| 0010     | 436+69            | STH 42 LT | 21 | DRIVEWAY              |
| 0010     | 440+45            | STH 42 RT | 50 | DRIVEWAY              |
| 0010     | 441+37            | STH 42 LT | 20 | DRIVEWAY              |
| 0010     | 444+90            | STH 42 RT | 64 | DRIVEWAY              |
| 0010     | 447+24            | STH 42 LT | 27 | DRIVEWAY              |
| 0010     | 447+57 - 448+52   | STH 42 RT | 65 | DRIVEWAY              |
| 0010     | 448+47            | STH 42    | 31 | DRIVEWAY              |
| 0010     | 450+55            | STH 42 RT | 29 | DRIVEWAY              |
| 0010     | 451+74            | STH 42 LT | 23 | SHANNON SQUARE        |
| 0010     | 454+63            | STH 42 RT | 87 | DRIVEWAY              |
| 0010     | 455+29            | STH 42 LT | 60 | DRIVEWAY              |
| 0010     | 456+95            | STH 42 RT | 42 | DRIVEWAY              |
| 0010     | 458+96            | STH 42 RT | 37 | TOWNLINE RD           |
| 0010     | 459+75            | STH 42 LT | 23 | TOWNLINE RD           |
| 0010     | 467+82            | STH 42 RT | 34 | DRIVEWAY              |
| 0010     | 472+43            | STH 42 LT | 26 | LITTLE SISTER HILL RD |
| 0010     | 272+33            | STH 42 RT | 33 | NIRDIC DR             |
| 0010     | 486+55            | STH 42 RT | 28 | COUNTRY LN            |
| 0010     | 486+57            | STH 42 LT | 24 | LITTLE SISTER RD      |
| 0010     | 490+53            | STH 42 RT | 43 | DRIVEWAY              |
| 0010     | 492+01            | STH 42 RT | 28 | DRIVEWAY              |
| 0010     | 493+41            | STH 42 LT | 24 | WESTWOOD DR           |
| 0010     | 495+16            | STH 42 RT | 24 | DRIVEWAY              |

| 690.0150      |                   |           |       |               |
|---------------|-------------------|-----------|-------|---------------|
| CATG.         | STATION - STATION | LOCATION  | LF    | REMARKS       |
| 0010          | 496+35            | STH 42 LT | 45    | DRIVEWAY      |
| 0010          | 497+07 - 498+28   | STH 42 RT | 85    | DRIVEWAY      |
| 0010          | 496+84 - 498+31   | STH 42 LT | 76    | DRIVEWAY      |
| 0010          | 498+58 - 500+98   | STH 42 RT | 114   | DRIVEWAY      |
| 0010          | 499+79            | STH 42 LT | 56    | DRIVEWAY      |
| 0010          | 501+73            | STH 42 LT | 20    | DRIVEWAY      |
| 0010          | 502+38            | STH 42 LT | 23    | DRIVEWAY      |
| 0010          | 504+17            | STH 42 LT | 25    | FOREST LN     |
| 0010          | 506+65            | STH 42 LT | 39    | MEADOW LN     |
| 0010          | 506+50            | STH 42 RT | 72    | DRIVEWAY      |
| 0010          | 507+99            | STH 42 LT | 34    | DRIVEWAY      |
| 0010          | 512+66            | STH 42 LT | 36    | DRIVEWAY      |
| 0010          | 514+44            | STH 42 RT | 27    | DRIVEWAY      |
| 0010          | 514+52            | STH 42 LT | 17    | DRIVEWAY      |
| 0010          | 516+02            | STH 42 RT | 39    | DRIVEWAY      |
| 0010          | 516+03            | STH 42 LT | 23    | DRIVEWAY      |
| 0010          | 519+36            | STH 42 LT | 35    | DRIVEWAY      |
| 0010          | 519+87            | STH 42 RT | 34    | FIELDCREST RD |
| 0010          | 521+86            | STH 42 RT | 44    | DRIVEWAY      |
| 0010          | 523+78            | STH 42 RT | 27    | HIGHLAND RD   |
| 0010          | 524+50            | STH 42 RT | 31    | HIGHLAND RD   |
| 0010          | 524+99 - 526+30   | STH 42 LT | 58    | DRIVEWAY      |
| 0010          | 526+80 - 528+36   | STH 42 RT | 72    | DRIVEWAY      |
| 0010          | 527+41            | STH 42 LT | 26    | DRIVEWAY      |
| 0010          | 528+39            | STH 42 LT | 21    | DRIVEWAY      |
| 0010          | 529+83            | STH 42 LT | 33    | DRIVEWAY      |
| SUBTOTAL 0010 |                   |           | 4,953 |               |
| TOTAL         |                   |           | 4,953 |               |

**Document Number**  
**VACATION ORDER**  
**TRANSPORTATION PROJECT PLAT**

Wisconsin Department of Transportation  
DT2222 4/2017 s.84.095(3)(b) Wis. Stats.

This Vacation Order applies to Transportation Project Plat 4140-19-21-4.03, recorded on June 16, 2017 as Document Number 805370 in the Office of the Register of Deeds for Door County.

Whereas, parcel 32 of the above-described Transportation Project Plat has been determined to be unnecessary for transportation improvement project purposes, said parcel is vacated and rescinded.

DOC #: 811714  
RECORDED ON:  
03/02/2018 10:59:06 AM  
CAREY PETERSILKA  
REGISTER OF DEEDS  
DOOR COUNTY, WI  
FEE AMOUNT PAID: 30.00

This space is reserved for recording data

Return to

WisDOT  
944 Vanderperren Way  
Green Bay WI 54304

Parcel Identification Number/Tax Key Number

121240035B

This Vacation Order has been approved by the Wisconsin Department of Transportation.

x *Greg Belanger*  
(Signature)

Greg Belanger

(Print Name)

Right of Way Plat Coordinator

(Title)

2/22/2018

(Date - m/d/yyyy)

State of Wisconsin

Brown County } ss.

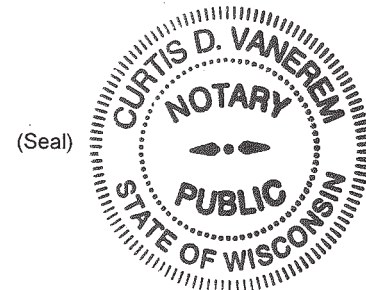
On the above date, this instrument was acknowledged before me by the named person(s).

x *Curtis D. VanEem*  
(Signature, Notary Public, State of Wisconsin)

Curtis D. VanEem  
(Print or Type Name, Notary Public, State of Wisconsin)

11/29/19

(Date Commission Expires)





See Vacation Document #811714

| SCHEDULE OF LANDS & INTERESTS REQUIRED |                                                                |                   |                      |          |       |
|----------------------------------------|----------------------------------------------------------------|-------------------|----------------------|----------|-------|
| PARCEL NUMBER                          | *OWNER                                                         | INTEREST REQUIRED | R/W ACRE(S) REQUIRED |          |       |
|                                        |                                                                |                   | NEW                  | EXISTING | TOTAL |
|                                        |                                                                |                   |                      |          | AREA  |
| 16                                     | EVERGREEN BEACH REAL ESTATE, LLC                               | FEE               | 0.002                |          | 0.002 |
| 17                                     | PAUL & MARIANNE ROPPULD                                        | FEE               | 0.012                |          | 0.012 |
| 18                                     | PATRICIA W FESS AS TRUSTEE OF THE PATRICIA W FESS TRUST        | FEE               | 0.060                |          | 0.060 |
| 19                                     | JOHN T MURPHY AS TRUSTEE OF THE JOHN T & AMY E MURPHY TRUST    | FEE               | 0.028                |          | 0.028 |
| 21                                     | VILLAGE OF EPHRAIM                                             | FEE               | 0.030                |          | 0.030 |
| 23                                     | VILLAGE OF EPHRAIM                                             | FEE               | 0.004                |          | 0.004 |
| 24                                     | VILLAGE OF EPHRAIM & CHRISTOFFERSON DOCK, LLC, 1/99th INTEREST | FEE, TLE          | 0.003                |          | 0.003 |
| 26                                     | VILLAGE OF EPHRAIM                                             | FEE, TLE          | 0.042                | 0.011    | 0.053 |
| 27                                     | NELSON SOUTH SHORE PIER, LLC                                   | TLE               |                      |          | 0.015 |
| 29                                     | THE HILLSIDE OF EPHRAIM, LLC                                   | FEE               | 0.023                |          | 0.023 |
| 31                                     | ROY A & DIANE M ELQUIST                                        | FEE, TLE          | 0.001                |          | 0.001 |
| 32                                     | TIMOTHY & NANCY A. CHRISTOFFERSON                              | TLE               |                      |          | 0.008 |

\*OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

#### SCHEDULE OF UTILITIES & INTERESTS REQUIRED

| UTILITY NUMBER | *OWNER                                          | INTEREST REQUIRED |
|----------------|-------------------------------------------------|-------------------|
| 300            | FRONTIER COMMUNICATIONS OF WI LLC               | RELEASE OF RIGHTS |
| 304            | WISCONSIN PUBLIC SERVICE CORPORATION - ELECTRIC | RELEASE OF RIGHTS |

- 300 FRONTIER COMMUNICATIONS OF WI LLC  
DOC. 260442  
PARCELS 17, 18
- 304 WISCONSIN PUBLIC SERVICE CORPORATION - ELECTRIC  
PARCEL 18



0 50 100 200  
SCALE, FEET

#### STATION OFFSET TABLE

| POINT  | STATION   | OFFSET | Y         | X         |
|--------|-----------|--------|-----------|-----------|
| PRW225 | 334+61.29 | -19.80 | 274429.61 | 547283.31 |
| BD916  | 334+61.29 | 19.80  | 274409.17 | 547317.24 |
| ERW857 | 336+91.78 | 49.25  | 274607.75 | 547484.05 |
| ERW858 | 337+13.46 | 43.45  | 274630.75 | 547450.69 |
| ERW812 | 337+51.02 | 10.67  | 274677.89 | 547432.86 |
| PRW286 | 337+77.21 | -19.80 | 274712.32 | 547412.26 |
| PRW285 | 337+88.87 | -19.80 | 274723.41 | 547415.85 |
| ERW856 | 337+93.95 | 78.74  | 274698.35 | 547511.31 |
| ERW855 | 338+46.81 | 83.20  | 274753.63 | 547531.30 |
| PRW226 | 338+56.35 | -19.80 | 274786.71 | 547433.25 |
| PRW227 | 338+56.70 | -18.29 | 274786.71 | 547434.80 |
| ERW863 | 339+22.15 | 11.32  | 274845.57 | 547475.45 |
| ERW862 | 340+04.03 | 6.26   | 274928.51 | 547476.93 |
| ERW861 | 340+04.20 | 14.33  | 274928.50 | 547485.00 |
| ERW860 | 340+05.50 | 80.73  | 274928.39 | 547551.41 |
| ERW814 | 340+53.01 | 19.01  | 274968.19 | 547489.56 |
| ERW813 | 340+53.82 | 7.09   | 274968.20 | 547477.64 |
| PRW235 | 340+48.19 | 19.80  | 274973.53 | 547490.18 |
| PRW283 | 341+18.00 | 18.50  | 275044.76 | 547482.94 |
| PRW284 | 341+18.00 | 19.80  | 275044.93 | 547484.23 |
| PRW236 | 341+47.99 | 19.73  | 275075.35 | 547479.55 |
| PRW228 | 341+52.16 | -19.80 | 275072.64 | 547439.89 |
| PRW224 | 341+55.04 | -19.80 | 275075.40 | 547439.39 |
| ERW833 | 341+76.40 | 26.18  | 275105.72 | 547480.09 |
| ERW815 | 341+77.27 | -14.41 | 275097.47 | 547440.33 |
| PRW229 | 342+11.04 | -19.80 | 275127.49 | 547426.68 |
| PRW237 | 342+13.53 | 19.80  | 275141.62 | 547463.75 |
| ERW850 | 342+21.14 | -21.82 | 275223.10 | 547358.14 |
| PRW238 | 343+21.22 | 19.80  | 275243.94 | 547418.28 |
| ERW816 | 343+21.37 | 18.82  | 275243.58 | 547417.36 |
| PRW282 | 343+76.85 | 16.80  | 275290.07 | 547383.77 |
| PRW281 | 343+76.85 | 19.80  | 275291.85 | 547386.18 |
| PRW245 | 344+72.35 | 19.80  | 275368.61 | 547329.36 |
| PRW239 | 345+03.12 | 19.80  | 275393.68 | 547309.72 |
| ERW817 | 345+07.07 | 14.97  | 275393.72 | 547303.40 |
| ERW834 | 345+55.33 | 19.58  | 275433.49 | 547273.21 |
| PRW230 | 345+59.69 | -19.80 | 275408.64 | 547242.35 |
| ERW835 | 345+59.82 | 26.86  | 275467.50 | 547247.35 |
| ERW818 | 345+56.88 | -13.38 | 275437.84 | 547220.19 |
| PRW231 | 346+75.84 | -19.80 | 275478.60 | 547155.06 |
| PRW240 | 346+76.10 | 19.80  | 275512.03 | 547176.28 |
| PRW241 | 346+78.00 | 19.80  | 275513.09 | 547174.63 |
| TLE546 | 347+26.00 | -36.28 | 275491.69 | 547103.98 |
| TLE545 | 347+26.00 | -20.28 | 275505.17 | 547112.60 |
| TLE549 | 347+50.00 | 19.80  | 275551.87 | 547113.96 |
| TLE550 | 347+50.00 | 45.80  | 275573.78 | 547127.97 |
| TLE547 | 347+93.00 | -36.92 | 275527.23 | 547047.18 |
| TLE548 | 347+93.00 | -20.92 | 275540.72 | 547055.80 |
| TLE552 | 348+16.00 | 19.80  | 275587.41 | 547058.14 |
| TLE551 | 348+16.00 | 45.80  | 275609.32 | 547072.35 |
| PRW242 | 348+24.05 | 19.80  | 275591.75 | 547051.57 |
| ERW819 | 349+45.48 | 0.14   | 275654.09 | 546949.28 |
| ERW849 | 349+46.00 | -41.40 | 275627.19 | 546913.29 |
| PRW243 | 350+38.70 | 19.80  | 275739.79 | 546913.29 |
| PRW232 | 350+40.69 | -19.80 | 275722.62 | 546877.55 |
| PRW233 | 350+96.59 | -19.80 | 275775.72 | 546853.16 |
| BD911  | 351+15.90 | 180.90 | 275865.46 | 547033.72 |
| BD921  | 351+29.82 | 133.57 | 275861.56 | 546984.54 |
| BD922  | 351+47.14 | 68.04  | 275854.32 | 546917.14 |
| PRW234 | 351+56.43 | -19.80 | 275831.62 | 546831.78 |
| BD910  | 351+57.33 | 75.06  | 275866.35 | 546920.47 |
| ERW836 | 351+59.96 | 19.71  | 275849.03 | 546867.02 |
| BD919  | 351+86.55 | 0.00   | 275866.98 | 546839.92 |
| BD909  | 351+93.65 | -21.89 | 275867.16 | 546816.86 |
| ERW820 | 351+95.57 | 17.71  | 275880.80 | 546854.08 |

#### COURSE TABLE

| POINT TO POINT | BEARING     | DIST.  |
|----------------|-------------|--------|
| ERW814 ERW861  | S06°33'54"W | 39.95' |
| ERW861 ERW863  | S06°33'54"W | 83.48' |
| ERW863 ERW862  | N01°01'15"E | 82.96' |
| ERW862 ERW861  | S89°54'26"E | 8.07'  |

| Curve # | Arc Length | Radius   | Delta     | LCH    | LCB         |
|---------|------------|----------|-----------|--------|-------------|
| C16     | 311.40'    | 1363.24' | 13°05'17" | 310.73 | N24°31'02"E |
| C17     | 53.65'     | 452.05'  | 6°47'59"  | 53.62  | N13°43'15"W |
| C18     | 112.07'    | 543.79'  | 11°48'28" | 111.87 | N51°17'31"W |
| C19     | 58.48'     | 447.79'  | 7°28'57"  | 58.44  | N24°40'14"W |
| C20     | 71.68'     | 761.29'  | 5°23'40"  | 71.65  | N4°45'42"W  |
| C21     | 112.20'    | 491.65'  | 13°04'33" | 111.96 | N23°57'40"W |
| C22     | 204.72'    | 408.19'  | 28°44'10" | 202.58 | S43°02'50"E |
| C40     | 65.68'     | 721.69'  | 5°12'51"  | 65.65  | N15°21'58"E |
| C41     | 31.85'     | 583.39'  | 3°07'42"  | 31.85  | N38°04'20"W |
| C42     | 1.95'      | 583.39'  | 0°11'34"  | 1.96   | N5°19'08"W  |
| C43     | 2.81'      | 721.69'  | 0°13'22"  | 2.81   | N10°12'35"W |
| C44     | 19.60'     | 442.00'  | 2°32'29"  | 19.60  | S19°39'31"E |

## TRANSPORTATION PROJECT PLAT NO: 4140-19-21 - 4.03

PART OF LOTS 25, 26 AND 30, OF BLOCK L, AND PART OF LOTS 31, 32 AND 34, OF BLOCK M, OF THE ORIGINAL PLAT OF EPHRAIM, LOCATED IN AND INCLUDING LANDS IN GOVERNMENT LOT 1, AND PART OF GOVERNMENT LOT 2, ALL IN SECTION 24, TOWNSHIP 31 NORTH, RANGE 27 EAST, LOCATED IN THE VILLAGE OF EPHRAIM, DOOR COUNTY, WISCONSIN.

#### RELOCATION ORDER STH 42 DOOR COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE NAMED PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:  
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE NAMED PROJECT.  
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SUBSECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

#### COURSE TABLE NEW RIGHT-OF-WAY

| POINT TO POINT | BEARING     | DIST.    |
|----------------|-------------|----------|
| SEC1067 BD911  | N89°33'02"W | 2035.97' |
| BD911 BD921    | S85°27'50"W | 49.33'   |
| BD921 BD922    | S83°52'06"W | 67.79'   |
| BD922 ERW836   | S83°56'09"W | 50.00'   |
| ERW836 PRW243  | S22°46'40"W | 118.48'  |
| PRW243 PRW242  | S43°02'50"E | 202.58'  |
| PRW242 PRW241  | S57°24'54"E | 146.05'  |
| PRW241 PRW240  | S57°19'08"E | 1.96'    |
| PRW240 ERW835  | S57°57'42"E | 83.83'   |
| ERW835 ERW834  | S37°12'00"E | 42.77'   |
| ERW834 PRW239  | S42°31'42"E | 54.02'   |
| PRW239 PRW245  | S38°04'20"E | 31.85'   |
| PRW245 PRW281  | S36°30'29"E | 95.50'   |
| PRW281 PRW282  | S53°29'31"E | 3.00'    |
| PRW282 PRW238  | S36°48'18"E | 57.61'   |
| PRW238 PRW237  | S23°57'40"E | 111.96'  |
| PRW237 ERW833  | S24°28'02"E | 39.44'   |
| ERW833 PRW236  | S01°01'15"W | 30.37'   |
| PRW236 PRW283  | S06°19'53"E | 30.78'   |
| PRW283 PRW284  | N82°32'28"E | 1.30'    |
| PRW284 PRW235  | S04°45'42"E | 71.65'   |
| PRW235 ERW814  | S06°33'54"W | 5.37'    |
| ERW814 ERW860  | S57°14'19"E | 73.55'   |
| ERW860 ERW855  | S06°33'54"W | 175.91'  |
| ERW855 ERW856  | S19°52'53"W | 58.79'   |
| ERW856 ERW857  | S34°55'22"W | 110.49'  |
| ERW857 ERW858  | N06°33'21"E | 23.14'   |
| BD916 PRW225   | S31°03'41"W | 258.66'  |
| PRW225 PRW286  | N58°56'19"W | 39.60'   |
| PRW286 PRW285  | N24°31'02"E | 310.73'  |
| PRW285 PRW226  | N17°58'24"E | 11.66'   |
| PRW226 PRW227  | N15°21'58"E | 65.65'   |
| PRW227 PRW228  | S89°54'38"E | 1.55'    |
| PRW228 PRW229  | N01°01'15"E | 285.97'  |
| PRW229 PRW224  | N10°12'35"W | 2.81'    |
| PRW224 PRW223  | N13°43'15"W | 53.62'   |
| PRW223 PRW229  | N22°46'40"W | 105.11'  |
| PRW229 ERW850  | N37°12'00"W | 232.87'  |
| ERW850 PRW230  | N51°17'31"W | 111.87'  |
| PRW230 ERW849  | N57°57'42"W | 280.09'  |
| ERW849 PRW232  | N22°46'40"W | 103.51'  |
| PRW232 PRW233  | N24°40'14"W | 58.44'   |
| PRW233 PRW234  | N20°55'46"W | 59.84'   |
| PRW234 BD909   | N22°46'40"W | 38.54'   |
| BD909 SEC1066  | S89°33'02"E | 1.06'    |
| SEC1066 BD911  | S89°33'02"E | 215.81'  |

\* INDICATES LCH AND LCB

#### NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, DOOR COUNTY, NAD 83 (1991) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4"x24" IRON ROD), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.

EXISTING RIGHT-OF-WAY WAS RE-ESTABLISHED UNDER PROJECT:

TRANSPORTATION PROJECT PLAT NO: 4140-21-00-4.27

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. ALL (TLEs) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

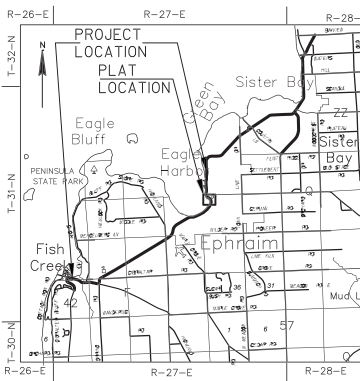
RIGHT OF WAY REFERENCE LINE MAY NOT BE THE SAME AS THE CONSTRUCTION REFERENCE LINE.

#### CONVENTIONAL SYMBOLS AND ABBREVIATIONS

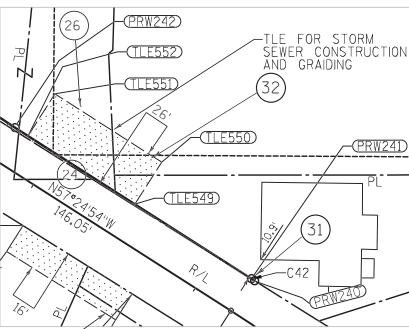
| STATE, COUNTY, or TOWN LINE | ACCESS POINT / DRIVEWAY CONNECTION | AP        |
|-----------------------------|------------------------------------|-----------|
| SECTION LINE                | ACCESS RIGHTS                      | AR        |
| QUARTER LINE                | ACRES                              | AC.       |
| SIXTEENTH LINE              | AND OTHERS                         | ET AL.    |
| CENTERLINE                  | C/L                                | C/L       |
| PROPOSED R/W LINE           | CERTIFIED SURVEY MAP               | CSM       |
| EXISTING R/W LINE           | DOCUMENT                           | DOC.      |
| PROPERTY LINE               | HIGHWAY EASEMENT                   | H.E.      |
| EASEMENT LINE               | LAND CONTRACT                      | LC        |
| CORPORATE LIMITS            | MEANDER LINE                       | ML        |
| EXISTING CENTERLINE         | MONUMENT                           | MON.      |
| LOT & TIE LINES             | PAGE                               | P.        |
| WATERMAIN                   | PERMANENT LIMITED ESEMENT          | PLE       |
| SANITARY SEWER              | PROPERTY LINE                      | PL        |
| TELEPHONE                   | RECORDED AS                        | PL (100') |
| ELECTRIC                    | REFERENCE LINE                     | R/L       |
| FIBER OPTIC                 | REMAINING                          | REM.      |
| RIGHT-OF-WAY                | R/W                                | R/W       |
| SECTION                     | SEC.                               | SEC.      |
| SECTION LINE                | S/L                                | S/L       |
| SQUARE FEET                 | SO. FT.                            | SO. FT.   |
| STATION                     | STA.                               | STA.      |
| TEMPORARY LIMITED EASEMENT  | TLE                                | TLE       |
| VOLUME                      | V.                                 | V.        |

#### CURVE DATA

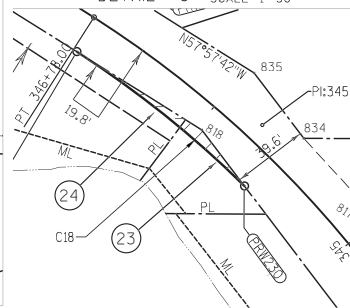
| LONG CHORD         | LCH   |
|--------------------|-------|
| LONG CHORD BEARING | LCB   |
| RADIUS             | R     |
| DEGREE OF CURVE    | D     |
| DELTA              | DELTA |
| LENGTH OF CURVE    | L     |
| TANGENT            | TAN   |



#### DETAIL "B" SCALE 1"=50'



#### DETAIL "C" SCALE 1"=50'



I, GARY D. SCHNEIDER, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE *Gary D. Schneider* DATE 06/12/2017  
GARY D. SCHNEIDER, P.L.S. S-1297

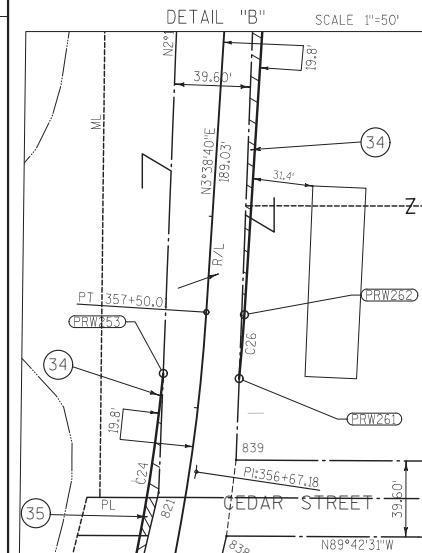
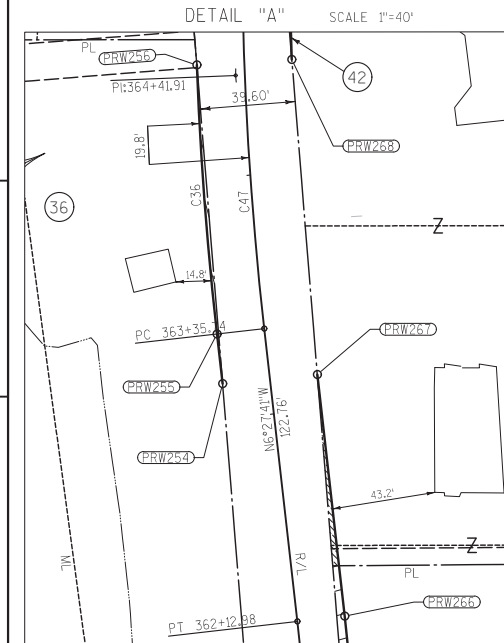
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION, NORTHEAST REGION.

SIGNATURE \_\_\_\_\_ DATE 06/16/2017



| SCHEDULE OF LANDS & INTERESTS REQUIRED |                                                      |                   |                      |          |       |
|----------------------------------------|------------------------------------------------------|-------------------|----------------------|----------|-------|
| PARCEL NUMBER                          | *OWNER                                               | INTEREST REQUIRED | R/W ACRE(S) REQUIRED |          |       |
|                                        |                                                      |                   | NEW                  | EXISTING | TOTAL |
| 33                                     | EPHRAIM SHORES, INC.                                 | FEE               | 0.016                |          | 0.016 |
| 34                                     | EDGEWATER RESORT CONDOMINIUM OWNER'S ASSOCIATION     | FEE               | 0.029                |          | 0.029 |
| 35                                     | VILLAGE OF EPHRAIM                                   | FEE               | 0.002                |          | 0.002 |
| 36                                     | EPHRAIM YACHT HARBOR, INC.                           | FEE               | 0.003                |          | 0.003 |
| 37                                     | ONESON TRUST OF 1994                                 | FEE               | 0.006                | 0.030    | 0.036 |
| 38                                     | BRAD & AMY H RUSSELL                                 | FEE               | 0.010                |          | 0.010 |
| 39                                     | VILLAGE OF EPHRAIM                                   | FEE               | 0.010                |          | 0.010 |
| 41                                     | EPHRAIM FOUNDATION, INC.                             | FEE               | 0.010                |          | 0.010 |
| 42                                     | EPHRAIM YACHT HARBOR CONDOMINIUM OWNER'S ASSOCIATION | FEE               | 0.005                |          | 0.005 |

\*OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO THE DEPARTMENT



| Curve # | Arc Length | Radius   | Delta     | LCH     | LCB        |
|---------|------------|----------|-----------|---------|------------|
| C23     | 50.45'     | 461.80'  | 6°19'36"  | 50.43'  | N0°12'11"E |
| C24     | 129.48'    | 962.20'  | 7°42'37"  | 129.39' | N9°28'41"E |
| C25     | 178.57'    | 301.40'  | 33°56'42" | 175.97' | S5°14'51"E |
| C26     | 33.40'     | 1001.80' | 1°54'37"  | 33.40'  | S4°35'58"W |
| C27     | 133.84'    | 1572.91' | 4°52'31"  | 133.80' | S1°12'24"W |
| C29     | 63.67'     | 1434.20' | 2°32'37"  | 63.67'  | S0°47'06"E |
| C36     | 112.40'    | 1473.80' | 4°22'11"  | 112.38' | N4°16'35"W |
| C38     | 103.96'    | 1572.91' | 3°47'13"  | 103.94' | S4°34'04"E |
| C45     | 157.47'    | 248.98'  | 36°13'19" | 154.80' | S4°40'00"E |



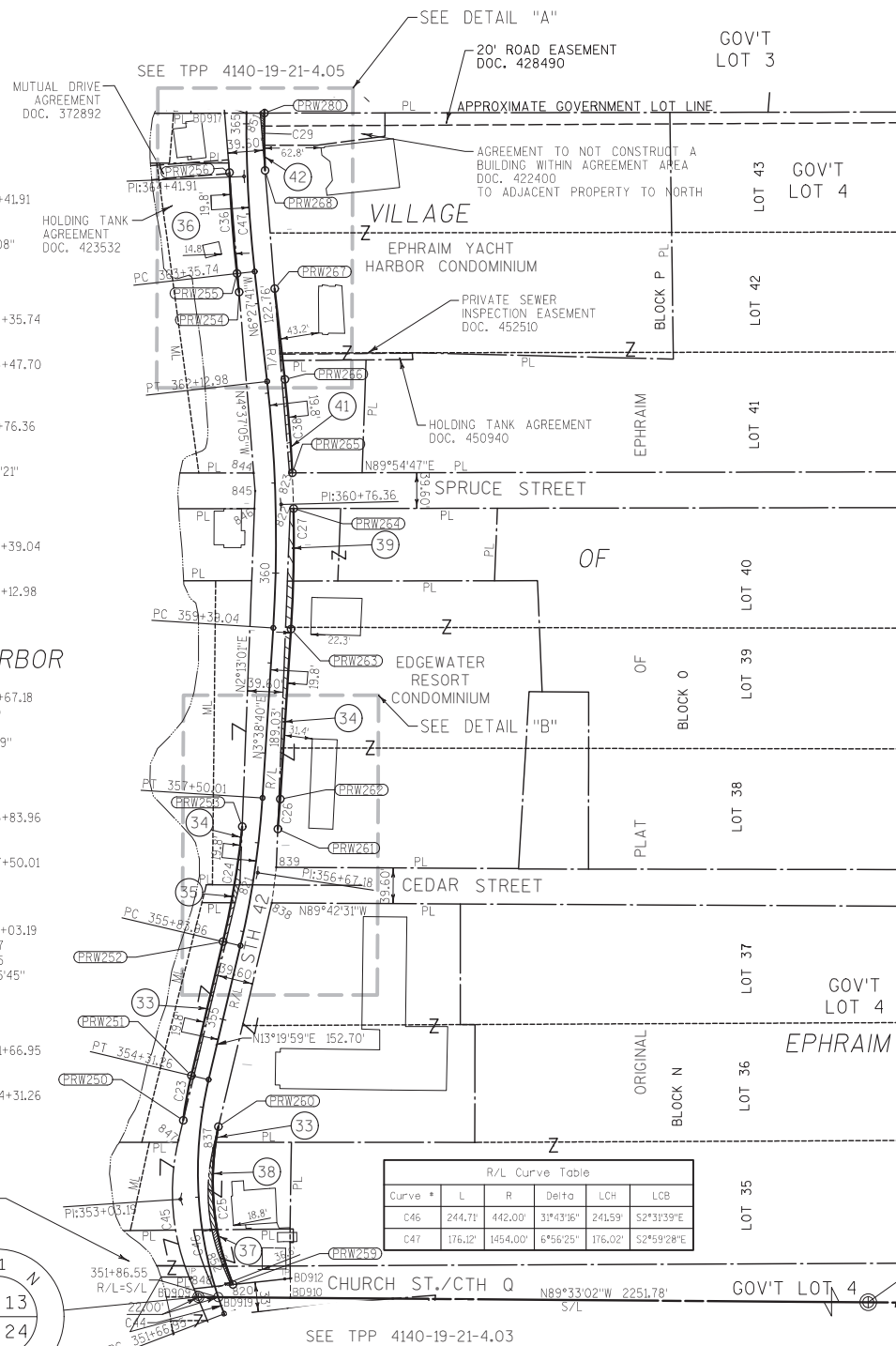
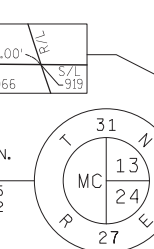
MEAN #1066  
ALUMINUM MON.  
WITH CAP  
Y = 275867.15  
X = 546817.92

PI STA = 364+41.91  
Y = 27710.58  
X = 546868.50  
DELTA = 8°21'08"  
D = 3°56'26"  
T = 106.17  
L = 211.95  
R = 1454.00  
PC STA = 363+35.74  
Y 277005.09  
X 546880.44  
PT STA = 365+47.70  
Y 277216.69  
X 546872.00

PI STA = 360+76.36  
Y = 276746.65  
X = 546909.71  
DELTA = 10°06'12"  
D = 3°41'21"  
T = 137.32  
L = 273.93  
R = 1553.31  
PC STA = 359+39.04  
Y 276609.61  
X 546900.98  
PT STA = 362+12.98  
Y 276883.10  
X 546894.26

PI STA = 356+67.18  
Y = 276337.90  
X = 546883.68  
DELTA = 3°41'19"  
D = 5°50'05"  
T = 83.23  
L = 166.06  
R = 982.00  
PC STA = 355+83.96  
Y 276256.92  
X 546864.48  
PT STA = 357+50.01  
Y 276420.96  
X 546888.97

PI STA = 353+03.19  
Y = 275975.77  
X = 546797.85  
DELTA = 34°15'45"  
D = 12°57'46"  
T = 136.24  
L = 264.31  
R = 442.00  
PC STA = 351+66.95  
Y 275848.52  
X 546846.52  
PT STA = 354+31.26  
Y 276108.34  
X 546829.27



# TRANSPORTATION PROJECT PLAT NO: 4140-19-21 - 4.04 AMENDMENT NO: 1 CHANGES FEE ACQUISITION OF PARCELS 33, 37 AND 38 OF TRANSPORTATION PROJECT PLAT NO: 4140-19-21 - 4.04, RECORDED AS DOCUMENT NO: 805371 ON JUNE 16, 2017

PART OF LOTS 35 AND 36, OF BLOCK N, PART OF LOT 40, OF BLOCK O, AND PART OF LOT 41, OF BLOCK P, OF THE ORIGINAL PLAT OF EPHRAIM, AND PART OF EDGEWATER RESORT CONDOMINIUM, AS RECORDED WITHIN DOCUMENT NO. 590627, IN HANGER 176, AND PART OF EPHRAIM YACHT HARBOR CONDOMINIUM, AS RECORDED WITHIN DOCUMENT NO. 418094, ALL LOCATED IN AND INCLUDING LANDS IN GOVERNMENT LOT 4, OF SECTION 13, TOWNSHIP 31 NORTH, RANGE 27 EAST, LOCATED IN THE VILLAGE OF EPHRAIM, DOOR COUNTY, WISCONSIN.

RELOCATION ORDER STH 42 DOOR COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE NAMED PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:  
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS Laid OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE NAMED PROJECT.  
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SUBSECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

## NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, DOOR COUNTY, NAD 83 (1993) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4"x24" IRON ROD), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.

EXISTING RIGHT-OF-WAY WAS RE-ESTABLISHED UNDER PROJECT:  
TRANSPORTATION PROJECT PLAT NO: 4140-21-00-4-28

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPANCY LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

RIGHT OF WAY REFERENCE LINE MAY NOT BE THE SAME AS THE CONSTRUCTION REFERENCE LINE.

## COURSE TABLE NEW RIGHT-OF-WAY

| POINT TO POINT | BEARING             | DIST.    |
|----------------|---------------------|----------|
| SEC1067        | BD910 N89°33'02"W   | 2149.63' |
| BD910          | SEC1066 N89°33'02"W | 102.15'  |
| SEC1066        | BD909 N89°33'02"W   | 1.06'    |
| BD909          | ERW848 N22°46'40"W  | 21.72'   |
| ERW848         | ERW847 N04°40'00"W  | 154.80'  |
| ERW847         | PRW250 N13°26'39"E  | 22.42'   |
| PRW250         | PRW251* N04°12'11"E | 50.43'   |
| PRW251         | PRW252 N13°19'59"E  | 152.70'  |
| PRW252         | PRW253* N09°28'41"E | 129.39'  |
| PRW253         | ERW845 N02°13'01"E  | 372.65'  |
| ERW845         | PRW254 N04°37'05"W  | 221.40'  |
| PRW254         | PRW255 N06°27'41"W  | 20.83'   |
| PRW255         | PRW256* N04°16'35"W | 112.38'  |
| PRW256         | BD917 N04°37'05"W   | 66.11'   |
| BD917          | PRW280 N89°54'16"E  | 43.99'   |
| PRW280         | PRW268* S00°47'06"E | 63.67'   |
| PRW268         | PRW267 S04°37'05"E  | 131.68'  |
| PRW267         | PRW266 S06°27'41"E  | 101.30'  |
| PRW266         | PRW265* S04°34'04"E | 103.94'  |
| PRW265         | PRW264 S01°57'10"E  | 39.62'   |
| PRW264         | PRW263* S01°12'24"W | 133.80'  |
| PRW263         | PRW262 S03°38'40"W  | 189.03'  |
| PRW262         | PRW261* S04°35'58"W | 33.40'   |
| PRW261         | ERW839 S02°13'01"W  | 42.43'   |
| ERW839         | ERW838 S07°09'32"W  | 39.89'   |
| ERW838         | PRW260 S13°26'39"W  | 255.17'  |
| PRW260         | PRW259* S05°14'51"E | 175.97'  |
| PRW259         | BD912 N83°56'09"E   | 64.10'   |
| BD912          | BD910 S00°20'00"E   | 21.45'   |

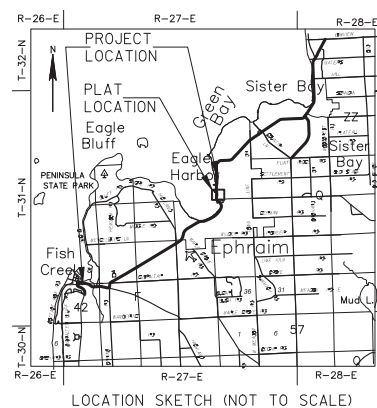
\* INDICATES LCH AND LCB

## STATION OFFSET TABLE

| POINT  | STATION   | OFFSET | Y         | X         |
|--------|-----------|--------|-----------|-----------|
| 0910   | 351+57.33 | 75.06  | 275866.35 | 546920.07 |
| 0912   | 351+79.81 | 82.46  | 275887.80 | 546919.94 |
| 0909   | 351+93.65 | -21.89 | 275887.16 | 546816.86 |
| PRW259 | 351+95.13 | 19.80  | 275881.03 | 546856.20 |
| ERW820 | 351+95.57 | 17.71  | 275880.80 | 546854.08 |
| ERW848 | 352+14.15 | -24.40 | 275887.18 | 546808.45 |
| ERW852 | 352+19.83 | 14.78  | 275902.51 | 546844.96 |
| ERW837 | 353+55.26 | 16.23  | 276032.26 | 546834.37 |
| ERW847 | 353+61.77 | -22.82 | 276041.47 | 546795.86 |
| PRW260 | 353+80.71 | 19.80  | 276056.26 | 546840.11 |
| PRW250 | 353+82.97 | -19.80 | 276063.27 | 546801.07 |
| PRW251 | 354+11.26 | -19.80 | 276112.90 | 546810.00 |
| PRW252 | 355+83.96 | -19.80 | 276261.49 | 546845.22 |
| ERW838 | 356+36.96 | 24.52  | 276304.44 | 546899.44 |
| ERW821 | 356+53.14 | -14.12 | 276327.02 | 546864.12 |
| ERW839 | 356+75.88 | 23.16  | 276344.01 | 546904.41 |
| PRW253 | 357+16.11 | -19.80 | 276389.11 | 546866.52 |
| PRW261 | 357+17.27 | 19.80  | 276386.41 | 546906.05 |
| PRW262 | 357+50.01 | 19.80  | 276419.70 | 546908.73 |
| PRW263 | 359+39.04 | 19.80  | 276608.35 | 546920.74 |
| PRW264 | 360+71.20 | 19.80  | 276742.12 | 546923.56 |
| ERW822 | 360+71.27 | 16.06  | 276742.11 | 546919.82 |
| ERW846 | 360+72.08 | -23.56 | 276742.05 | 546880.19 |
| PRW265 | 360+91.76 | -22.26 | 276761.47 | 546880.94 |
| PRW266 | 361+10.32 | 19.80  | 276781.72 | 546922.21 |
| ERW823 | 361+10.46 | 16.63  | 276781.71 | 546919.03 |
| ERW844 | 361+12.29 | -23.06 | 276781.65 | 546879.31 |
| PRW266 | 362+12.98 | 19.80  | 276885.33 | 546913.93 |
| PRW267 | 363+14.27 | 19.80  | 276895.98 | 546902.53 |
| PRW254 | 363+14.91 | -19.80 | 276892.16 | 546863.11 |
| PRW255 | 363+35.76 | -19.80 | 277002.86 | 546860.77 |
| PRW256 | 364+46.64 | -19.80 | 277114.92 | 546852.39 |
| PRW268 | 364+47.51 | 19.80  | 277117.24 | 546891.93 |
| 0917   | 365+11.63 | -24.19 | 277180.82 | 546847.07 |
| ERW851 | 365+12.02 | 15.53  | 277180.89 | 546886.79 |
| PRW280 | 365+12.07 | 19.80  | 277180.90 | 546891.06 |

## CONVENTIONAL SYMBOLS AND ABBREVIATIONS

|                                                     |     |                                   |             |
|-----------------------------------------------------|-----|-----------------------------------|-------------|
| STATE, COUNTY, or TOWN LINE                         | --- | ACCESS POINT/ DRIVEWAY CONNECTION | AP          |
| SECTION LINE                                        | --- | ACCESS RIGHTS                     | AR          |
| QUARTER LINE                                        | --- | ACRES                             | AC.         |
| SIXTEENTH LINE                                      | --- | AND OTHERS                        | ET. AL.     |
| PROPOSED REFERENCE LINE                             | --- | CENTERLINE                        | C/L         |
| PROPOSED R/W LINE                                   | --- | CERTIFIED SURVEY MAP              | CSM         |
| EXISTING R/W LINE                                   | --- | DOCUMENT                          | DOC.        |
| PROPERTY LINE                                       | --- | HIGHWAY EASEMENT                  | H.E.        |
| EASEMENT LINE                                       | --- | LAND CONTRACT                     | LC          |
| CORPORATE LIMITS                                    | --- | MEANDER LINE                      | ML          |
| EXISTING CENTERLINE                                 | --- | MONUMENT                          | MON.        |
| LOT & TIE LINES                                     | --- | PAGE                              | P.          |
| WATERMAIN                                           | --- | PERMANENT LIMITED ESEMENT         | PL          |
| SANITARY SEWER                                      | --- | PROPERTY LINE                     | PL          |
| TELEPHONE                                           | --- | RECORDED AS                       | (100')      |
| ELECTRIC                                            | --- | REFERENCE LINE                    | R/L         |
| FIBER OPTIC                                         | --- | REMAINING                         | REM.        |
| GAS                                                 | --- | RIGHT-OF-WAY                      | R/W         |
| OVERHEAD ELECTRIC                                   | --- | SECTION                           | SEC.        |
| ACCESS RESTRICTED (BY PREVIOUS ACQUISITION/CONTROL) | --- | SECTION LINE                      | S/L         |
| NO ACCESS                                           | --- | SQUARE FEET                       | SO. FT.     |
| BY STATUTORY AUTHORITY                              | --- | STATION                           | STA.        |
| FEE (HATCH VARIES)                                  | --- | TEMPORARY LIMITED EASEMENT        | TLE         |
| TEMPORARY LIMITED EASEMENT                          | --- | VOLUME                            | V.          |
| PERMANENT LIMITED EASEMENT                          | --- | CURVE DATA                        |             |
| PARCEL NUMBER                                       | --- | LONG CHORD                        | LCH         |
| UTILITY PARCEL NUMBER                               | --- | LONG CHORD BEARING                | LCB         |
| SIGN NUMBER (OFF PREMISE)                           | --- | RADIUS                            | R           |
| BUILDING                                            | --- | DEGREE OF CURVE                   | D           |
| FOUND IRON PIPE/PIN                                 | --- | DELTA                             | DELTA       |
| R/W MONUMENT                                        | --- | LENGTH OF CURVE                   | L           |
| R/W STANDARD                                        | --- | TANGENT                           | TAN         |
| SIGN                                                | --- | NON COMPENSABLE                   | NON         |
|                                                     | --- | COMPENSABLE                       | COMPENSABLE |
|                                                     | --- | POWER POLE                        | PP          |
|                                                     | --- | TELEPHONE POLE                    | TP          |
|                                                     | --- | TELEPHONE PEDESTAL                | TPD         |
|                                                     | --- | N.T.S.                            | N.T.S.      |



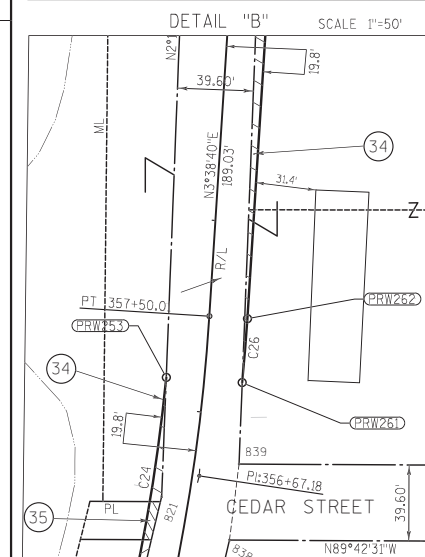
I, GARY D. SCHNEIDER, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE *Gary D. Schneider* DATE 09/25/2017  
GARY D. SCHNEIDER, P.L.S. S-1297

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION, NORTHEAST REGION.

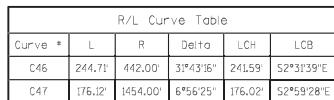
SIGNATURE \_\_\_\_\_ DATE 10/16/2017  
PRINT CURT VAN EREM

\*OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO THE DEPARTMENT



MEAN #1066  
ALUMINUM MON.  
WITH CAP

Y = 275867.15  
X = 546817.92





| SCHEDULE OF LANDS & INTERESTS REQUIRED |                                                      |                   |                      |          |       |             |             |
|----------------------------------------|------------------------------------------------------|-------------------|----------------------|----------|-------|-------------|-------------|
| PARCEL NUMBER                          | *OWNER                                               | INTEREST REQUIRED | R/W ACRE(S) REQUIRED |          |       | P.I.E. AREA | T.I.E. AREA |
|                                        |                                                      |                   | NEW                  | EXISTING | TOTAL |             |             |
| 43                                     | PAUL L & JUDITH M FLOTTMAN                           | FEE, PLE, TLE     | 0.004                | 0.074    | 0.078 | 0.030       | 0.056       |
| 44                                     | VILLAGE OF EPHRAIM                                   | FEE, TLE          | 0.002                |          | 0.002 |             | 0.012       |
| 45                                     | ANDREW D. & JOAN D. KLIMPEL                          | FEE               | 0.010                |          | 0.010 |             |             |
| 46                                     | PRIME SITES DOOR COUNTY DEV., LLC                    | FEE               | 0.027                | 0.178    | 0.205 |             |             |
| 47                                     | BETTEL AND POKER CONDOMINIUM OWNER'S ASSOCIATION     | FEE               | 0.011                |          | 0.011 |             |             |
| 48                                     | CHARLES W & ELINOR W PEARSON                         | TLE               |                      |          |       |             | 0.009       |
| 49                                     | EPHRAIM FOUNDATION, INC.                             | FEE               | 0.017                |          | 0.017 |             |             |
| 50                                     | JOHN BAKER WELCH, AS TRUSTEE OF THE JOHN BAKER TRUST | FEE               | 0.006                |          | 0.006 |             |             |
| 51                                     | ANDERSON FAMILY PROPERTIES, LLC                      | FEE               | 0.007                |          | 0.007 |             |             |

\*OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

# TRANSPORTATION PROJECT PLAT NO: 4140-19-21 - 4.05 AMENDMENT NO: 2, AMENDS PARCEL NO: 48, OF TRANSPORTATION PROJECT PLAT NO: 4140-19-21-4.05, RECORDED AS DOCUMENT NO: 805372

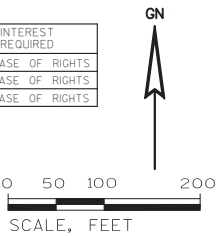
## SCHEDULE OF UTILITIES & INTERESTS REQUIRED

| UTILITY NUMBER | *OWNER                                          | INTEREST REQUIRED |
|----------------|-------------------------------------------------|-------------------|
| 300            | FRONTIER COMMUNICATIONS OF WI LLC               | RELEASE OF RIGHTS |
| 303            | CHARTER COMMUNICATIONS                          | RELEASE OF RIGHTS |
| 304            | WISCONSIN PUBLIC SERVICE CORPORATION - ELECTRIC | RELEASE OF RIGHTS |

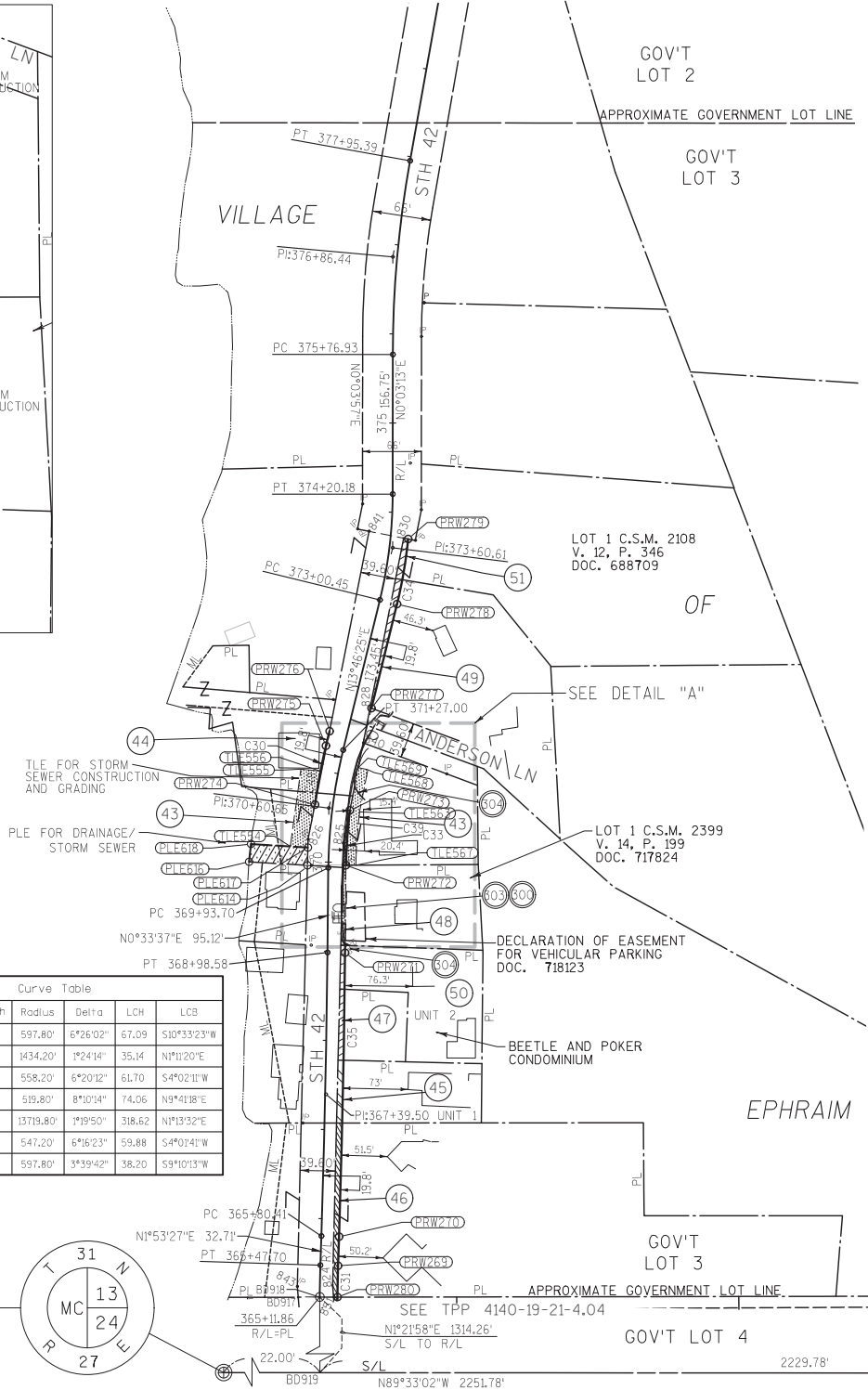
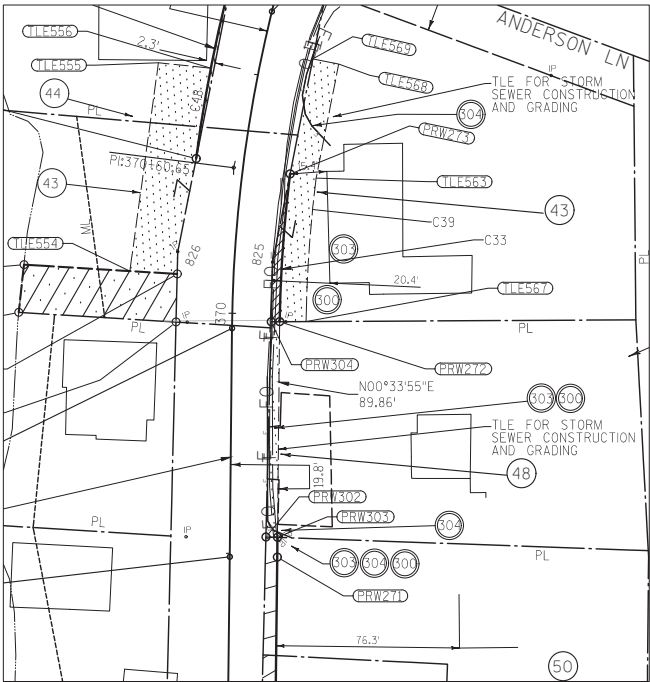
300 FRONTIER COMMUNICATIONS OF WI LLC  
PARCELS 43, 48, 50

303 CHARTER COMMUNICATIONS  
PARCELS 43, 48, 50

304 WISCONSIN PUBLIC SERVICE CORPORATION - ELECTRIC  
PARCELS 43, 48, 50



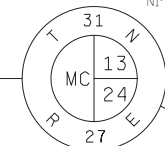
DETAIL "A" SCALE 1"=40'



|                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PI STA = 376+86.44<br>Y = 278347.86<br>X = 546953.33<br>DELTA = 10°04'41"<br>D = 4°36'47"<br>T = 109.51<br>L = 218.46<br>R = 1242.00<br>PC STA = 375+76.93<br>Y 278238.34<br>X 546953.23<br>PT STA = 377+95.39<br>Y 278455.66<br>X 546972.59 | PI STA = 373+60.61<br>Y = 278021.44<br>X = 546953.02<br>DELTA = 13°43'12"<br>D = 11°27'33"<br>T = 60.15<br>L = 119.73<br>R = 500.00<br>PC STA = 373+00.45<br>Y 277963.02<br>X 546938.70<br>PT STA = 374+20.18<br>Y 278081.59<br>X 546953.08 | PI STA = 370+60.65<br>Y = 277729.53<br>X = 546881.47<br>DELTA = 13°12'48"<br>D = 9°54'46"<br>T = 66.94<br>L = 133.30<br>R = 578.00<br>PC STA = 369+93.70<br>Y 277662.59<br>X 546880.81<br>PT STA = 371+27.00<br>Y 277794.55<br>X 546897.41 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| Curve | Arc Length | Radius    | Delta    | LCH    | LCB         |
|-------|------------|-----------|----------|--------|-------------|
| C30   | 67.13'     | 597.80'   | 6°26'02" | 67.09  | S10°33'23"W |
| C31   | 35.14'     | 1434.20'  | 1°24'14" | 35.14  | N11°10'20"E |
| C33   | 61.73'     | 558.20'   | 6°20'12" | 61.70  | S4°02'11"W  |
| C34   | 74.12'     | 519.80'   | 8°10'14" | 74.06  | N9°41'18"E  |
| C35   | 318.63'    | 13719.80' | 1°19'50" | 318.62 | N13°32'E    |
| C39   | 59.91'     | 547.20'   | 6°16'23" | 59.88  | S4°07'41"W  |
| C48   | 38.20'     | 597.80'   | 3°39'42" | 38.20  | S9°10'13"W  |

MEAN \*1066  
ALUMINUM MON.  
WITH CAP  
Y = 275867.15  
X = 546817.92



| POINT  | TO POINT | BEARING     | DIST.  |
|--------|----------|-------------|--------|
| PLE614 | PLE616   | N86°30'12"W | 65.65' |
| PLE616 | PLE618   | N06°10'33"E | 20.02' |
| PLE618 | PLE617   | S86°30'12"E | 63.98' |
| PLE617 | PLE614   | S01°22'57"W | 20.01' |

\* INDICATES LCH AND LCB

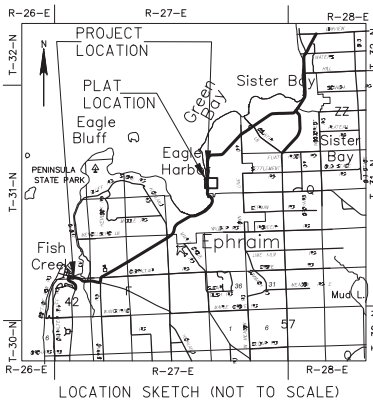
## COURSE TABLE NEW RIGHT-OF-WAY

| POINT TO POINT | BEARING | DIST.                |
|----------------|---------|----------------------|
| SEC1067        | BD919   | N89°33'02"W 2229.78' |
| BD919          | BD918   | N01°21'58"E 1314.26' |
| BD918          | BD917   | S89°54'16"W 24.19'   |
| BD917          | ERW843  | N04°37'05"W 12.12'   |
| ERW843         | ERW826  | N01°22'57"E 501.74'  |
| ERW826         | PRW274  | N11°12'13"E 39.57'   |
| PRW274         | PRW275  | N10°33'23"E 67.09'   |
| PRW275         | PRW276  | N13°46'25"E 16.90'   |
| PRW276         | ERW841  | N11°12'13"E 228.66'  |
| ERW841         | ERW830  | S78°47'47"E 39.60'   |
| ERW830         | PRW279  | S78°47'47"E 5.02'    |
| PRW279         | PRW278  | S09°41'18"W 74.06'   |
| PRW278         | PRW277  | S13°46'25"W 120.24'  |
| ERW840         | ERW840  | S13°29'10"W 39.89'   |
| PRW277         | PRW273  | S11°12'13"W 77.26'   |
| PRW273         | PRW272  | S04°02'11"W 61.70'   |
| PRW272         | PRW304  | S89°42'15"W 3.54'    |
| PRW304         | PRW302  | S01°22'57"W 89.69'   |
| PRW302         | PRW303  | S87°56'57"E 4.82'    |
| PRW303         | PRW271  | S00°33'37"W 8.27'    |
| PRW271         | PRW270  | S01°13'32"W 318.62'  |
| PRW270         | PRW269  | S01°53'27"W 32.72'   |
| PRW269         | PRW280  | S01°11'20"W 35.14'   |
| PRW280         | BD918   | S89°54'16"W 19.80'   |

\* INDICATES LCH AND LCB

## CONVENTIONAL SYMBOLS AND ABBREVIATIONS

|                                                   |       |                                   |                    |
|---------------------------------------------------|-------|-----------------------------------|--------------------|
| STATE, COUNTY, or TOWN LINE                       | ----- | ACCESS POINT/ DRIVEWAY CONNECTION | AP                 |
| SECTION LINE                                      | ----- | ACCESS RIGHTS                     | AR                 |
| QUARTER LINE                                      | ----- | ACRES                             | AC.                |
| SIXTEENTH LINE                                    | ----- | AND OTHERS                        | C/L AL.            |
| PROPOSED REFERENCE LINE                           | ----- | CENTERLINE                        | CSM                |
| PROPOSED R/W LINE                                 | ----- | CERTIFIED SURVEY MAP              | DOC.               |
| EXISTING R/W LINE                                 | ----- | DOCUMENT                          | LC                 |
| PROPERTY LINE                                     | ----- | HIGHWAY EASEMENT                  | H.E.               |
| EASEMENT LINE                                     | ----- | LAND CONTRACT                     | LC                 |
| CORPORATE LIMITS                                  | ----- | MANOR LINE                        | ML                 |
| EXISTING CENTERLINE                               | ----- | MONUMENT                          | MON.               |
| LOT & TIE LINES                                   | ----- | PAGE                              | P.                 |
| WATERMAIN                                         | ----- | PERMANENT LIMITED ESEMENT         | PLE                |
| SANITARY SEWER                                    | ----- | PROPERTY LINE                     | PL                 |
| RECORDED AS                                       | ----- | RECORDED AS                       | (100')             |
| ELECTRIC                                          | ----- | REFERENCE LINE                    | R/L                |
| FIBER OPTIC                                       | ----- | REMAINING                         | REM.               |
| GAS                                               | ----- | RIGHT-OF-WAY                      | R/W                |
| OVERHEAD ELECTRIC                                 | ----- | SECTION                           | SEC.               |
| ACCESS RESTRICTED BY PREVIOUS ACQUISITION/CONTROL | ----- | SECTION LINE                      | S/L                |
| ACCESS RESTRICTED (BY ACQUISITION)                | ----- | SQUARE FEET                       | SQ. FT.            |
| NO ACCESS                                         | ----- | STATION                           | STA.               |
| FEE (HATCH VARIES)                                | ----- | TEMPORARY LIMITED EASEMENT        | TLE                |
| TEMPORARY LIMITED EASEMENT                        | ----- | VOLUME                            | V.                 |
| PERMANENT LIMITED EASEMENT                        | ----- | CURVE DATA                        |                    |
| PARCEL NUMBER                                     | ----- | LONG CHORD                        | LCH                |
| UTILITY PARCEL NUMBER                             | ----- | LONG CHORD BEARING                | LCB                |
| SIGN NUMBER (OFF PREMISE)                         | ----- | RADIUS                            | R                  |
| BUILDING                                          | ----- | DEGREE OF CURVE                   | P                  |
| FOUND IRON PIPE/PIN                               | ----- | DELTA                             | DELTA              |
| R/W MONUMENT                                      | ----- | LENGTH OF CURVE                   | L                  |
| R/W STANDARD                                      | ----- | TANGENT                           | TAN                |
| SIGN                                              | ----- | NON COMPENSABLE                   | NON                |
| SECTION CORNER SYMBOL                             | ----- | POWER POLE                        | POWER POLE         |
|                                                   | ----- | TELEPHONE POLE                    | TELEPHONE POLE     |
|                                                   | ----- | TELEPHONE PEDESTAL                | TELEPHONE PEDESTAL |
|                                                   | ----- | N.T.S.                            | N.T.S.             |



I, GARY D. SCHNEIDER, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE *Gary D. Schneider* DATE 11/07/2017  
GARY D. SCHNEIDER, P.L.S. S-1297  
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION, NORTHEAST REGION.  
SIGNATURE \_\_\_\_\_ DATE 11/13/2017  
PRINT CURT VAN EREM

| SCHEDULE OF LANDS & INTERESTS REQUIRED |                                                      |                   |                      |          |       |             |             |
|----------------------------------------|------------------------------------------------------|-------------------|----------------------|----------|-------|-------------|-------------|
| PARCEL NUMBER                          | *OWNER                                               | INTEREST REQUIRED | R/W ACRE(S) REQUIRED |          |       | P.L.E. AREA | T.L.E. AREA |
|                                        |                                                      |                   | NEW                  | EXISTING | TOTAL |             |             |
| 43                                     | PAUL L & JUDITH M FLOTTMAN                           | FEE, PLE, TLE     | 0.004                | 0.074    | 0.078 | 0.030       | 0.056       |
| 44                                     | VILLAGE OF EPHRAIM                                   | FEE, TLE          | 0.002                |          | 0.002 |             | 0.012       |
| 45                                     | ANDREW D. & JOAN D. KLIMPEL                          | FEE               | 0.010                |          | 0.010 |             |             |
| 46                                     | PRIME SITES DOOR COUNTY DEV., LLC                    | FEE               | 0.027                | 0.178    | 0.205 |             |             |
| 47                                     | BETTEL AND POKER CONDOMINIUM OWNER'S ASSOCIATION     | FEE               | 0.011                |          | 0.011 |             |             |
| 48                                     | CHARLES W & ELINOR W PEARSON                         | FEE               | 0.009                |          | 0.009 |             |             |
| 49                                     | EPHRAIM FOUNDATION, INC.                             | FEE               | 0.017                |          | 0.017 |             |             |
| 50                                     | JOHN BAKER WELCH, AS TRUSTEE OF THE JOHN BAKER TRUST | FEE               | 0.006                |          | 0.006 |             |             |
| 51                                     | ANDERSON FAMILY PROPERTIES, LLC                      | FEE               | 0.007                |          | 0.007 |             |             |

\*OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

# TRANSPORTATION PROJECT PLAT NO: 4140-19-21 - 4.05 AMENDMENT NO: 1, CHANGES UTILITY NUMBER 305 TO UTILITY NUMBER 300, OF TRANSPORTATION PROJECT PLAT NO: 4140-19-21-4.05, RECORDED AS DOCUMENT NO: 805372

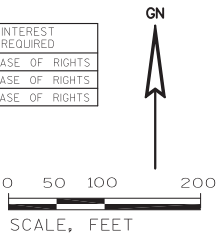
## SCHEDULE OF UTILITIES & INTERESTS REQUIRED

| UTILITY NUMBER | *OWNER                                          | INTEREST REQUIRED |
|----------------|-------------------------------------------------|-------------------|
| 300            | FRONTIER COMMUNICATIONS OF WI LLC               | RELEASE OF RIGHTS |
| 303            | CHARTER COMMUNICATIONS                          | RELEASE OF RIGHTS |
| 304            | WISCONSIN PUBLIC SERVICE CORPORATION - ELECTRIC | RELEASE OF RIGHTS |

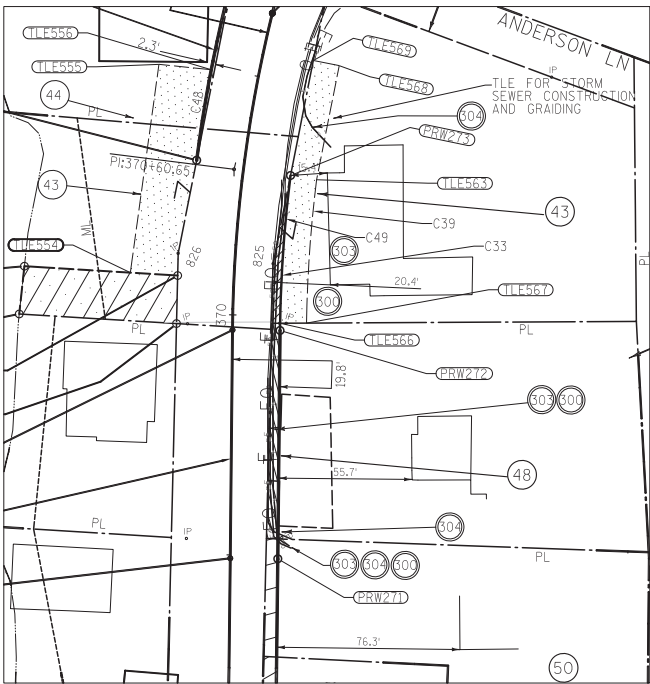
300 FRONTIER COMMUNICATIONS OF WI LLC  
PARCELS 43, 48, 50

303 CHARTER COMMUNICATIONS  
PARCELS 43, 48, 50

304 WISCONSIN PUBLIC SERVICE CORPORATION - ELECTRIC  
PARCELS 43, 48, 50



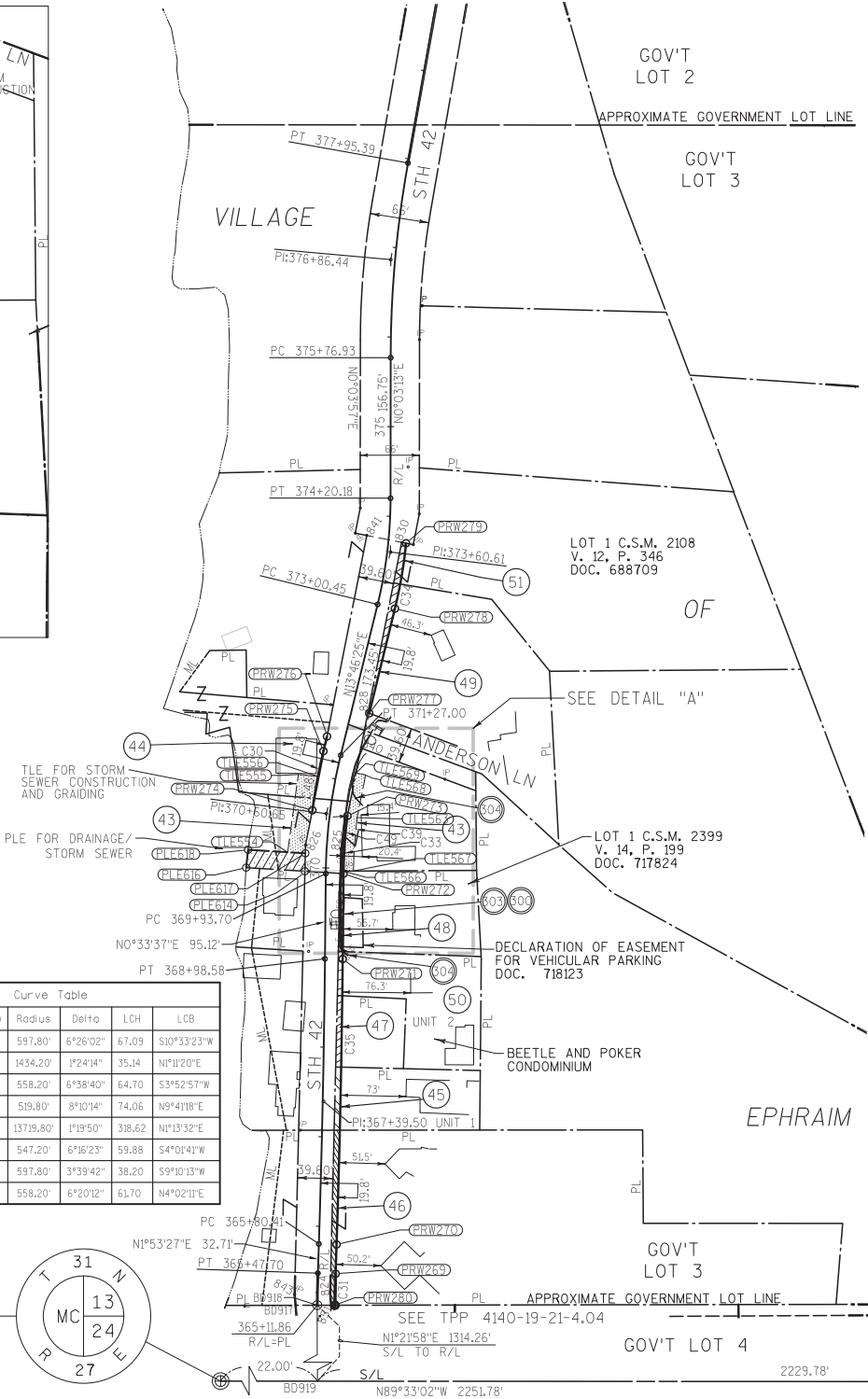
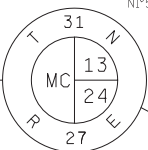
DETAIL "A" SCALE 1"=40'



|                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PI STA = 376+86.44<br>Y = 278347.86<br>X = 546953.33<br>DELTA = 10°04'41"<br>D = 4°36'47"<br>T = 109.51<br>L = 218.46<br>R = 1242.00<br>PC STA = 375+76.93<br>Y 278238.34<br>X 546953.23<br>PT STA = 377+95.39<br>Y 278455.66<br>X 546972.59 | PI STA = 373+60.61<br>Y = 278021.44<br>X = 546953.02<br>DELTA = 13°43'12"<br>D = 11°27'33"<br>T = 60.15<br>L = 119.73<br>R = 500.00<br>PC STA = 373+00.45<br>Y 277963.02<br>X 546938.70<br>PT STA = 374+20.18<br>Y 278081.59<br>X 546953.08 | PI STA = 370+60.65<br>Y = 277729.53<br>X = 546881.47<br>DELTA = 13°12'48"<br>D = 9°54'46"<br>T = 66.94<br>L = 133.30<br>R = 578.00<br>PC STA = 369+93.70<br>Y 277662.59<br>X 546880.81<br>PT STA = 371+27.00<br>Y 277794.51<br>X 546897.41 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| Curve Table |            |          |          |        |             |  |
|-------------|------------|----------|----------|--------|-------------|--|
| Curve       | Arc Length | Radius   | Delta    | LCH    | LCB         |  |
| C30         | 67.13'     | 597.80'  | 6°26'02" | 67.09  | S10°33'23"W |  |
| C31         | 35.14'     | 1434.20' | 1°24'14" | 35.14  | N11°20'10"E |  |
| C33         | 64.73'     | 558.20'  | 6°38'40" | 64.70  | S3°52'57"W  |  |
| C34         | 74.12'     | 519.80'  | 8°10'14" | 74.06  | N9°41'08"E  |  |
| C35         | 318.63'    | 1379.80' | 1°19'50" | 318.62 | N1°13'32"E  |  |
| C39         | 59.91'     | 547.20'  | 6°16'23" | 59.88  | S4°01'41"W  |  |
| C48         | 38.20'     | 597.80'  | 3°39'42" | 38.20  | S9°10'13"W  |  |
| C49         | 61.73'     | 558.20'  | 6°20'12" | 61.70  | N4°02'11"E  |  |

MEAN \*1066  
ALUMINUM MON.  
WITH CAP  
Y = 275867.15  
X = 546817.92



## STATION OFFSET TABLE

| POINT  | STATION   | OFFSET | Y         | X         |
|--------|-----------|--------|-----------|-----------|
| BD919  | 351+86.55 | -0.00  | 275866.98 | 546839.92 |
| BD917  | 365+11.63 | -24.19 | 277180.82 | 546847.07 |
| BD918  | 365+11.86 | 0.00   | 277180.86 | 546871.26 |
| ERW851 | 365+12.02 | 15.53  | 277180.89 | 546886.79 |
| PRW280 | 365+12.07 | 0.80   | 277180.90 | 546891.06 |
| ERW843 | 365+23.49 | -25.31 | 277192.90 | 546846.09 |
| ERW824 | 365+25.27 | 14.30  | 277194.02 | 546885.73 |
| PRW269 | 365+47.70 | 19.80  | 277216.03 | 546899.68 |
| PRW270 | 365+80.41 | 19.80  | 277248.73 | 546892.87 |
| PRW271 | 368+98.58 | 19.80  | 277567.28 | 546899.68 |
| PRW272 | 369+93.70 | 19.80  | 277662.40 | 546900.61 |
| PLE614 | 369+96.05 | -23.35 | 277665.26 | 546857.49 |
| TLE566 | 369+96.81 | 19.80  | 277665.40 | 546900.65 |
| TLE567 | 369+97.05 | 30.80  | 277665.46 | 546911.65 |
| PLE616 | 369+98.73 | -89.94 | 277669.26 | 546791.96 |
| PLE617 | 370+15.28 | -23.48 | 277685.27 | 546857.97 |
| TLE554 | 370+15.54 | -43.24 | 277686.47 | 546838.25 |
| PLE618 | 370+16.06 | -87.45 | 277689.17 | 546794.12 |
| ERW825 | 370+22.21 | 15.94  | 277690.14 | 546897.70 |
| ERW826 | 370+24.15 | -23.76 | 277694.50 | 546858.20 |
| TLE563 | 370+60.33 | 30.80  | 277725.19 | 546915.86 |
| PRW273 | 370+60.73 | 19.80  | 277726.95 | 546904.99 |
| PRW274 | 370+62.09 | -19.80 | 277733.31 | 546865.88 |
| TLE555 | 370+97.20 | -41.64 | 277773.26 | 546850.17 |
| TLE556 | 370+99.03 | -19.80 | 277771.02 | 546871.97 |
| TLE569 | 371+11.38 | 21.07  | 277774.87 | 546914.49 |
| TLE568 | 371+11.58 | 32.07  | 277772.73 | 546925.28 |
| PRW275 | 371+27.00 | -19.80 | 277799.27 | 546878.18 |
| ERW840 | 371+40.33 | 20.00  | 277802.74 | 546920.01 |
| PRW276 | 371+43.90 | -19.80 | 277815.68 | 546882.20 |
| PRW277 | 371+80.21 | 19.80  | 277841.52 | 546929.31 |
| ERW828 | 371+80.40 | 18.20  | 277842.09 | 546927.80 |
| PRW278 | 373+00.45 | 19.80  | 277958.31 | 546957.93 |
| PRW279 | 373+71.75 | 19.80  | 278031.31 | 546970.40 |
| ERW830 | 373+72.23 | 14.80  | 278032.29 | 546965.47 |
| ERW841 | 37376.33  | -24.59 | 278039.98 | 546926.63 |

## COURSE TABLE

| POINT  | TO POINT | BEARING     | DIST.  |
|--------|----------|-------------|--------|
| PLE614 | PLE616   | N86°30'12"W | 65.65' |
| PLE616 | PLE618   | N06°10'33"E | 20.02' |
| PLE618 | PLE617   | S86°30'12"E | 63.98' |
| PLE617 | PLE614   | S01°22'57"W | 20.01' |

\* INDICATES LCH AND LCB

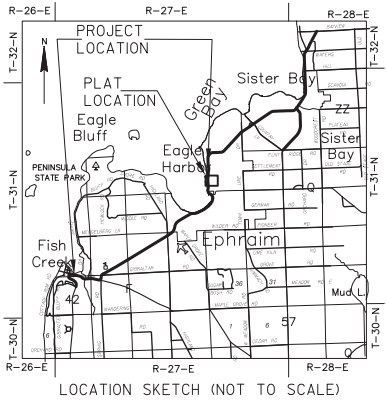
## COURSE TABLE NEW RIGHT-OF-WAY

| POINT TO POINT | BEARING | DIST.                |
|----------------|---------|----------------------|
| SEC1067        | BD919   | N89°33'02"W 2229.78' |
| BD919          | BD918   | N01°21'58"E 1314.26' |
| BD918          | BD917   | S89°54'16"W 24.19'   |
| BD917          | ERW843  | N04°37'05"W 12.12'   |
| ERW843         | ERW826  | N01°22'57"E 501.74'  |
| ERW826         | PRW274  | N11°12'13"E 39.57'   |
| PRW274         | PRW275  | N10°33'23"E 67.09'   |
| PRW275         | PRW276  | N13°46'25"E 16.90'   |
| PRW276         | ERW841  | N11°12'13"E 228.66'  |
| ERW841         | ERW830  | S78°47'47"E 39.60'   |
| ERW830         | PRW279  | S78°47'47"E 5.02'    |
| PRW279         | PRW278  | S09°41'18"W 74.06'   |
| PRW278         | PRW277  | S13°46'25"W 120.24'  |
| PRW277         | ERW840  | S13°29'10"W 39.89'   |
| ERW840         | PRW273  | S11°12'13"W 77.26'   |
| PRW273         | PRW272  | S03°52'57"W 64.70'   |
| PRW272         | PRW271  | S00°33'37"W 95.12'   |
| PRW271         | PRW270  | S01°13'32"W 318.62'  |
| PRW270         | PRW269  | S01°53'27"W 32.72'   |
| PRW269         | BD918   | S01°12'20"W 35.14'   |
| BD918          | BD919   | S89°54'16"W 19.80'   |

\* INDICATES LCH AND LCB

## CONVENTIONAL SYMBOLS AND ABBREVIATIONS

|                                    |       |                                   |                    |
|------------------------------------|-------|-----------------------------------|--------------------|
| STATE, COUNTY, or TOWN LINE        | ----- | ACCESS POINT/ DRIVEWAY CONNECTION | AP                 |
| SECTION LINE                       | ----- | ACCESS RIGHTS                     | AR                 |
| QUARTER LINE                       | ----- | ACRES                             | AC.                |
| SIXTEENTH LINE                     | ----- | AND OTHERS                        | ET.AL.             |
| PROPOSED REFERENCE LINE            | ----- | CENTERLINE                        | C/L                |
| PROPOSED R/W LINE                  | ----- | CERTIFIED SURVEY MAP              | CSM                |
| EXISTING R/W LINE                  | ----- | DOCUMENT                          | DOC.               |
| PROPERTY LINE                      | ----- | HIGHWAY EASEMENT                  | H.E.               |
| EASEMENT LINE                      | ----- | LAND CONTRACT                     | LC                 |
| CORPORATE LIMITS                   | ----- | MEANDER LINE                      | ML                 |
| EXISTING CENTERLINE                | ----- | MONUMENT                          | MON.               |
| LOT & TIE LINES                    | ----- | PAGE                              | P.                 |
| WATERMAIN                          | ----- | PERMANENT LIMITED ESEMENT         | PLE                |
| SANITARY SEWER                     | ----- | PROPERTY LINE                     | PL                 |
| TELEPHONE                          | ----- | RECORDED AS                       | (100')             |
| ELECTRIC                           | ----- | REFERENCE LINE                    | R/L                |
| FIBER OPTIC                        | ----- | REMAINING                         | REM.               |
| GAS                                | ----- | RIGHT-OF-WAY                      | R/W                |
| OVERHEAD ELECTRIC                  | ----- | SECTION LINE                      | SEC.               |
| ACCESS RESTRICTED                  | ----- | SECTION LINE                      | S/L                |
| BY PREVIOUS ACQUISITION/CONTROL    | ----- | SQUARE FEET                       | SQ.FT.             |
| ACCESS RESTRICTED (BY ACQUISITION) | ----- | STATION                           | STA.               |
| NO ACCESS (BY STATUTORY AUTHORITY) | ----- | TEMPORARY LIMITED EASEMENT        | TLE                |
| FEE (HATCH VARIES)                 | ----- | VOLUME                            | V.                 |
| TEMPORARY LIMITED EASEMENT         | ----- | CURVE DATA                        |                    |
| PERMANENT LIMITED EASEMENT         | ----- | LONG CHORD                        | LCH                |
| PARCEL NUMBER                      | ----- | LONG CHORD BEARING                | LCB                |
| UTILITY PARCEL NUMBER              | ----- | RADIUS                            | R                  |
| SIGN NUMBER (OFF PREMISE)          | ----- | DEGREE OF CURVE                   | P.D.               |
| BUILDING                           | ----- | DELTA                             | DELTA              |
| FOUND IRON PIPE/PIN                | ----- | LENGTH OF CURVE                   | L                  |
| R/W MONUMENT                       | ----- | TANGENT                           | TAN                |
| R/W STANDARD                       | ----- | NON COMPENSABLE                   | NON                |
| SIGN                               | ----- | COMPENSABLE                       | COMPENSABLE        |
| SECTION CORNER SYMBOL              | ----- | POWER POLE                        | POWER POLE         |
|                                    | ----- | TELEPHONE POLE                    | TELEPHONE POLE     |
|                                    | ----- | TELEPHONE PEDESTAL                | TELEPHONE PEDESTAL |
|                                    | ----- | N.T.S.                            | N.T.S.             |



SIGNATURE *Gary D. Schneider* DATE 08/23/2017  
GARY D. SCHNEIDER, P.L.S. S-1297  
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION, NORTHEAST REGION.  
SIGNATURE \_\_\_\_\_ DATE 8/23/2017  
PRINT CURT VAN EREM

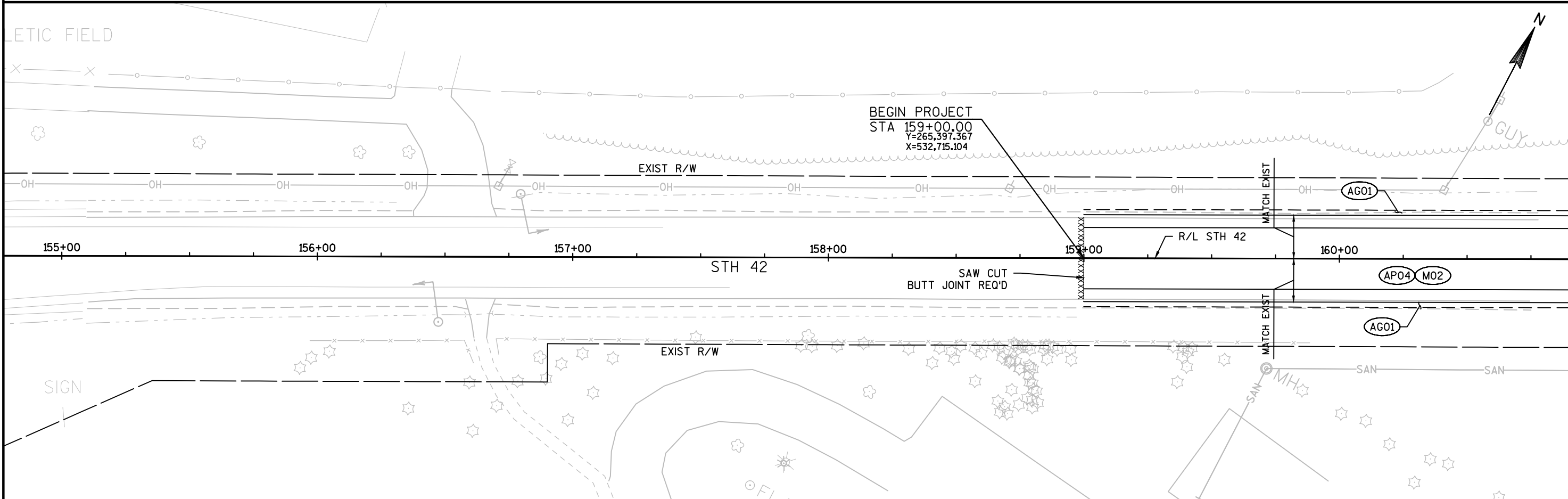


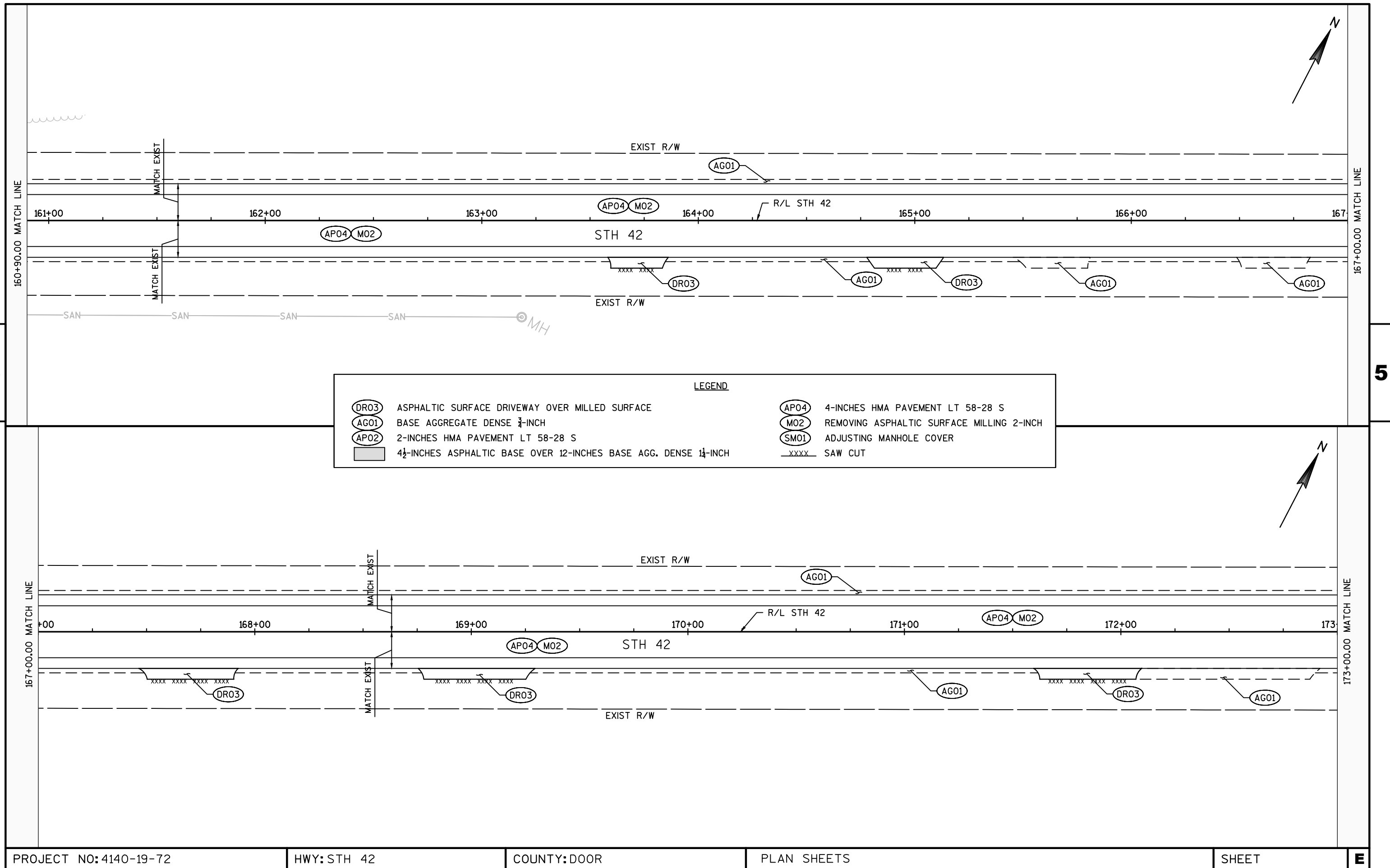




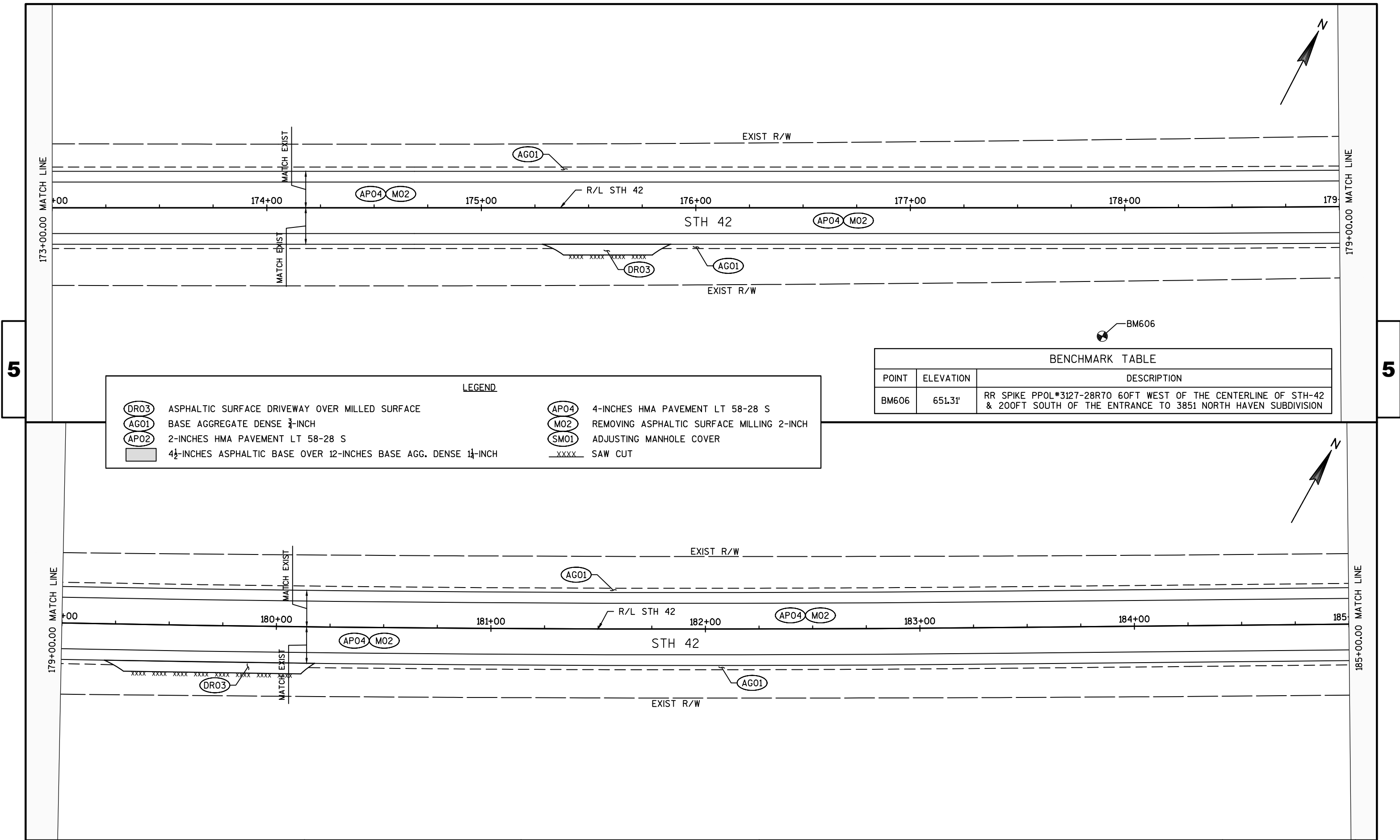
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LEGEND

DR03

ASPHALTIC SURFACE DRIVEWAY OVER MILLED SURFACE

AG01

BASE AGGREGATE DENSE ¾-INCH

AP02

2-INCHES HMA PAVEMENT LT 58-28 S

4½-INCHES ASPHALTIC BASE OVER 12-INCHES BASE AGG. DENSE 1½-INCH

AP04

4-INCHES HMA PAVEMENT LT 58-28 S

M02

REMOVING ASPHALTIC SURFACE MILLING 2-INCH

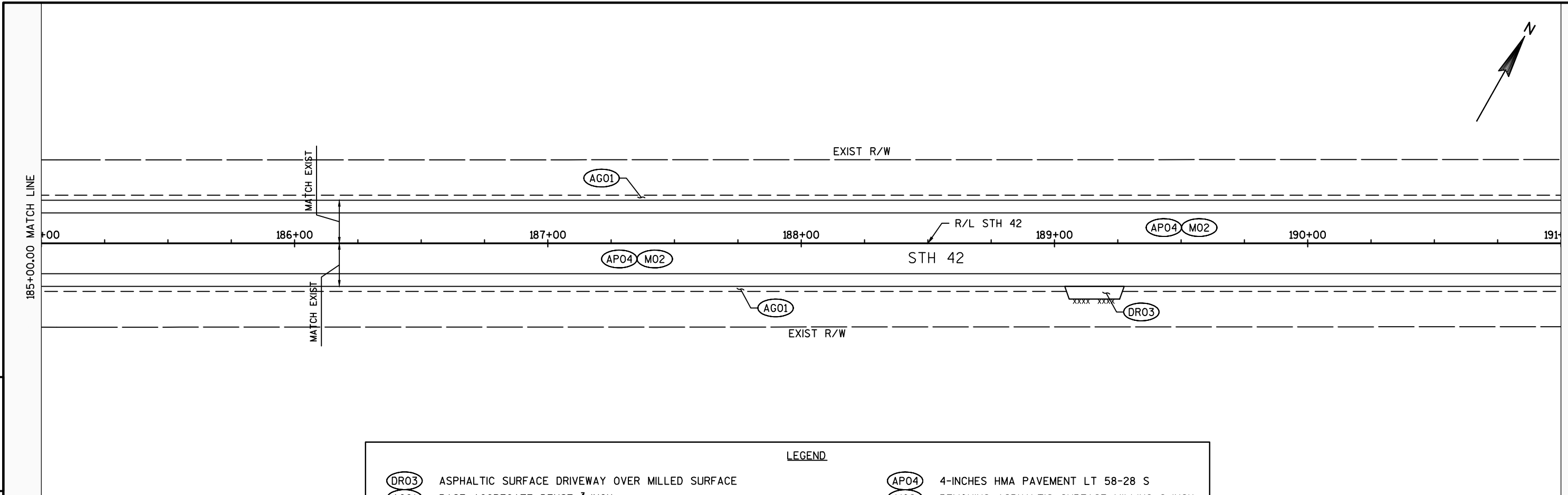
SM01

ADJUSTING MANHOLE COVER

XXXX

SAW CUT

| BENCHMARK TABLE |           |                                                                                                                              |
|-----------------|-----------|------------------------------------------------------------------------------------------------------------------------------|
| POINT           | ELEVATION | DESCRIPTION                                                                                                                  |
| BM606           | 651.31'   | RR SPIKE PPOL#3127-28R70 60FT WEST OF THE CENTERLINE OF STH-42 & 200FT SOUTH OF THE ENTRANCE TO 3851 NORTH HAVEN SUBDIVISION |



LEGEND

DR03

ASPHALTIC SURFACE DRIVEWAY OVER MILLED SURFACE

AG01

BASE AGGREGATE DENSE  $\frac{3}{4}$ -INCH

AP02

2-INCHES HMA PAVEMENT LT 58-28 S

4 $\frac{1}{2}$ -INCHES ASPHALTIC BASE OVER 12-INCHES BASE AGG. DENSE  $1\frac{1}{4}$ -INCH

AP04

4-INCHES HMA PAVEMENT LT 58-28 S

M02

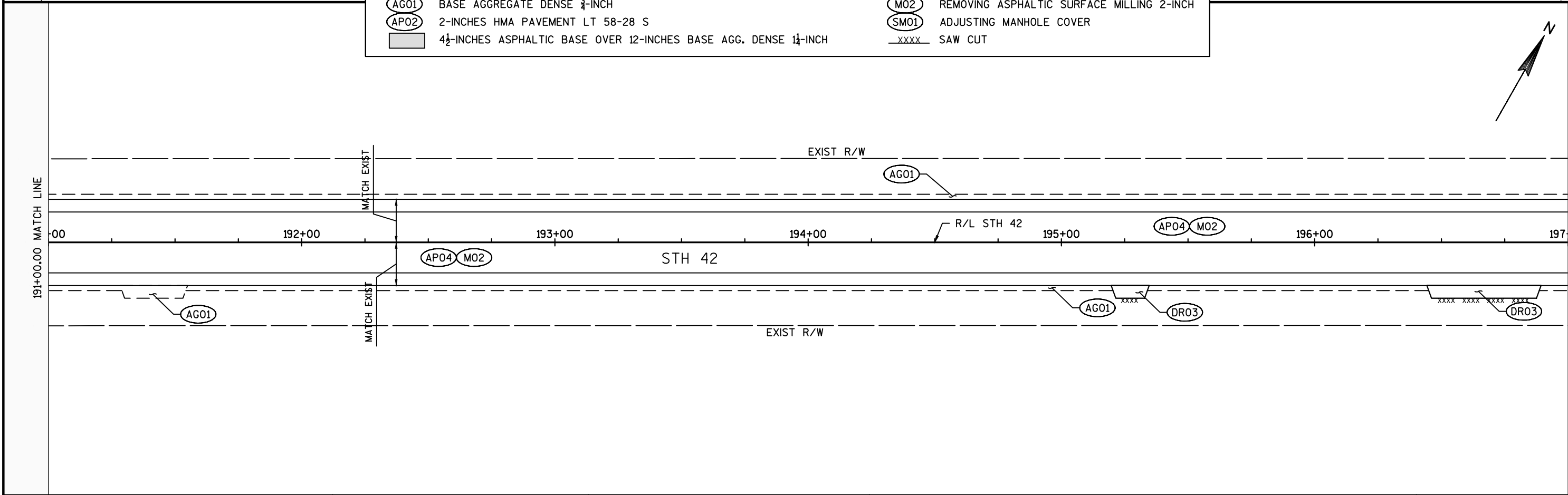
REMOVING ASPHALTIC SURFACE MILLING 2-INCH

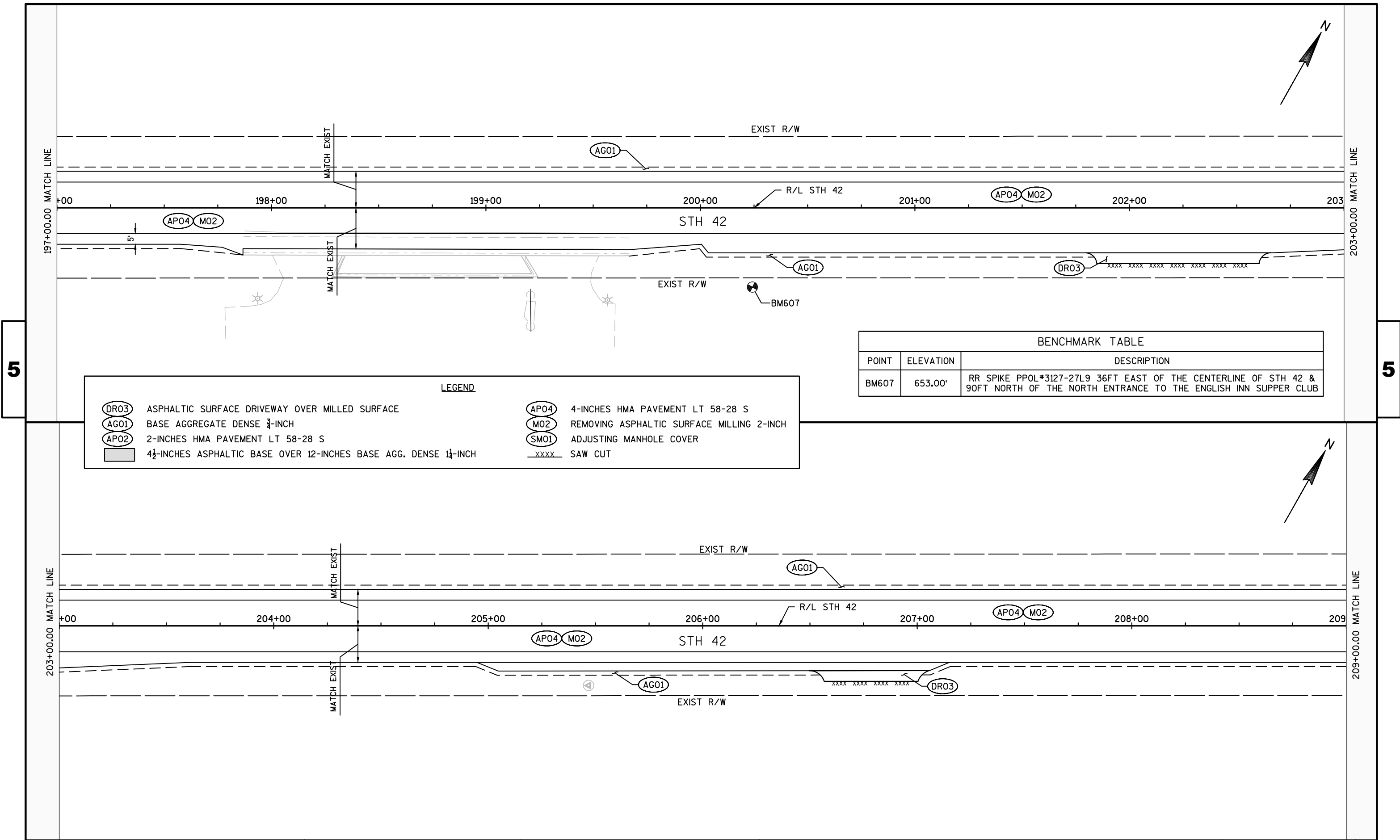
SM01

ADJUSTING MANHOLE COVER

xxxx

SAW CUT





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
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LEGEND

- DR03** ASPHALTIC SURFACE DRIVEWAY OVER MILLED SURFACE

**AG01** BASE AGGREGATE DENSE  $\frac{3}{4}$ -INCH

**AP02** 2-INCHES HMA PAVEMENT LT 58-28 S

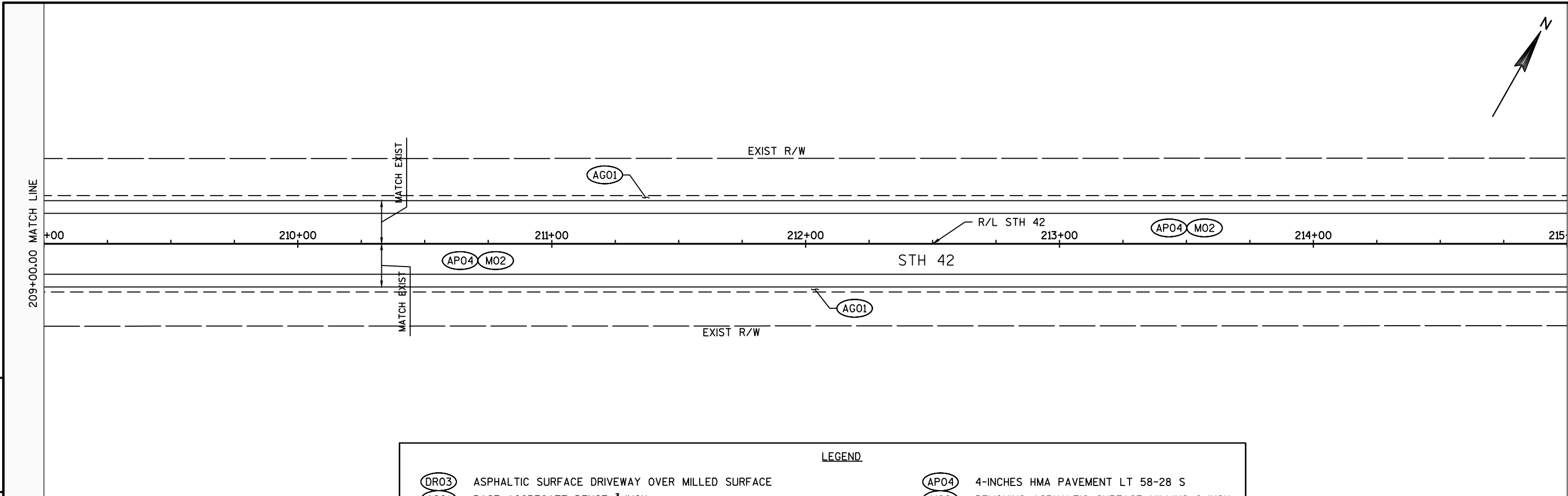
 4½-INCHES ASPHALTIC BASE OVER 12-INCHES BASE AGG. DENSE  $\frac{1}{2}$ -INCH
- AP04** 4-INCHES HMA PAVEMENT LT 58-28 S

**M02** REMOVING ASPHALTIC SURFACE MILLING 2-INCH

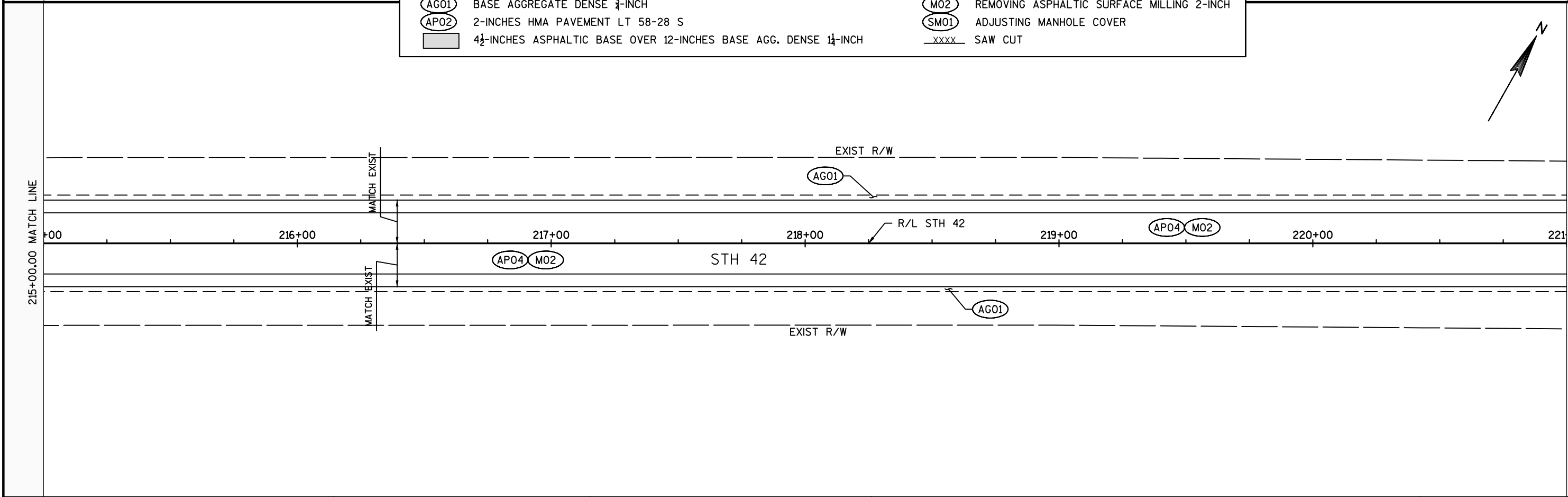
**SM01** ADJUSTING MANHOLE COVER

XXXX SAW CUT

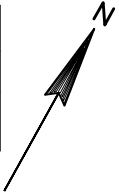
| BENCHMARK TABLE |           |                                                                                                                                 |
|-----------------|-----------|---------------------------------------------------------------------------------------------------------------------------------|
| POINT           | ELEVATION | DESCRIPTION                                                                                                                     |
| BM607           | 653.00'   | RR SPIKE PPOL#3127-27L9 36FT EAST OF THE CENTERLINE OF STH 42 & 90FT NORTH OF THE NORTH ENTRANCE TO THE ENGLISH INN SUPPER CLUB |



| LEGEND     |                                                                       |
|------------|-----------------------------------------------------------------------|
| (DR03)     | ASPHALTIC SURFACE DRIVEWAY OVER MILLED SURFACE                        |
| (AG01)     | BASE AGGREGATE DENSE 3/4-INCH                                         |
| (AP02)     | 2-INCHES HMA PAVEMENT LT 58-28 S                                      |
| (AP04)     | 4-INCHES HMA PAVEMENT LT 58-28 S                                      |
| (M02)      | REMOVING ASPHALTIC SURFACE MILLING 2-INCH                             |
| (SM01)     | ADJUSTING MANHOLE COVER                                               |
| XXXX       | SAW CUT                                                               |
| (Grey Box) | 4 1/2-INCHES ASPHALTIC BASE OVER 12-INCHES BASE AGG. DENSE 1 1/4-INCH |



| BENCHMARK TABLE |           |                                                                                                                                           |
|-----------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------|
| POINT           | ELEVATION | DESCRIPTION                                                                                                                               |
| BM608           | 725.67'   | RR SPIKE IN A 24" RED OAK 35FT EAST OF THE CENTERLINE OF STH 42 & 10 FT NORTH OF THE EXTENDED CENTERLINE OF A PRIVATE ENTRANCE FIRE #3565 |



5

5

| LEGEND          |                                                                       |
|-----------------|-----------------------------------------------------------------------|
| <div>DR03</div> | ASPHALTIC SURFACE DRIVEWAY OVER MILLED SURFACE                        |
| <div>AG01</div> | BASE AGGREGATE DENSE 3/4-INCH                                         |
| <div>APO2</div> | 2-INCHES HMA PAVEMENT LT 58-28 S                                      |
| <div></div>     | 4 1/2-INCHES ASPHALTIC BASE OVER 12-INCHES BASE AGG. DENSE 1 1/4-INCH |
| <div>APO4</div> | 4-INCHES HMA PAVEMENT LT 58-28 S                                      |
| <div>M02</div>  | REMOVING ASPHALTIC SURFACE MILLING 2-INCH                             |
| <div>SM01</div> | ADJUSTING MANHOLE COVER                                               |
| <div>xxxx</div> | SAW CUT                                                               |



PROJECT NO: 4140-19-72

HWY: STH 42

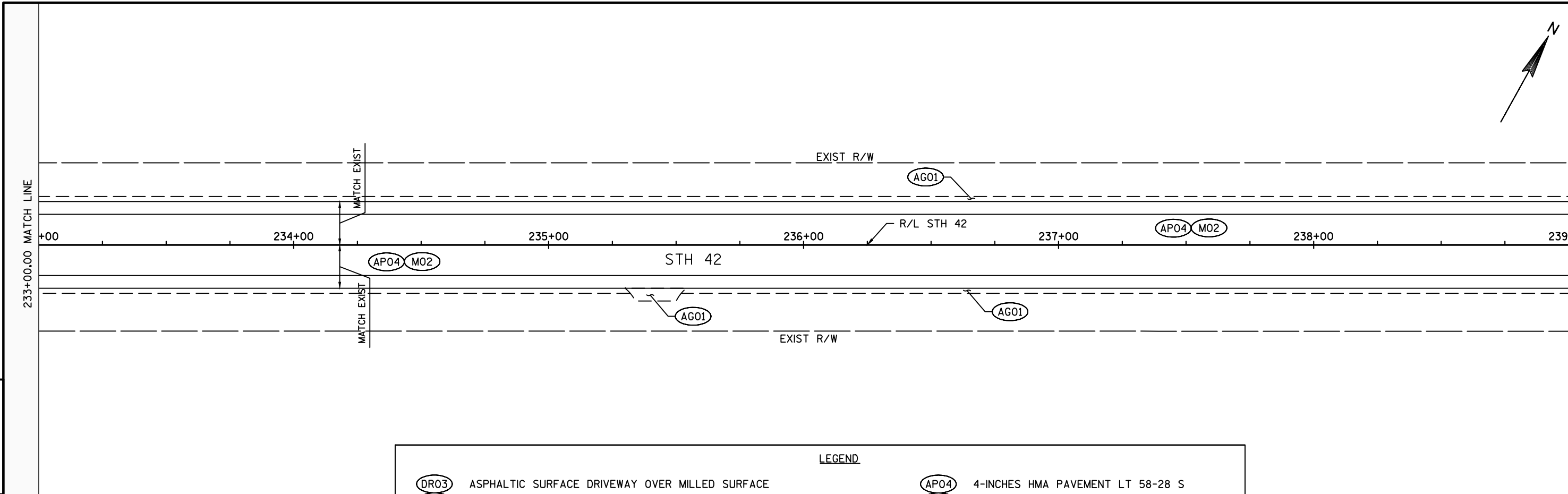
COUNTY: DOOR

PLAN SHEETS

SHEET

E

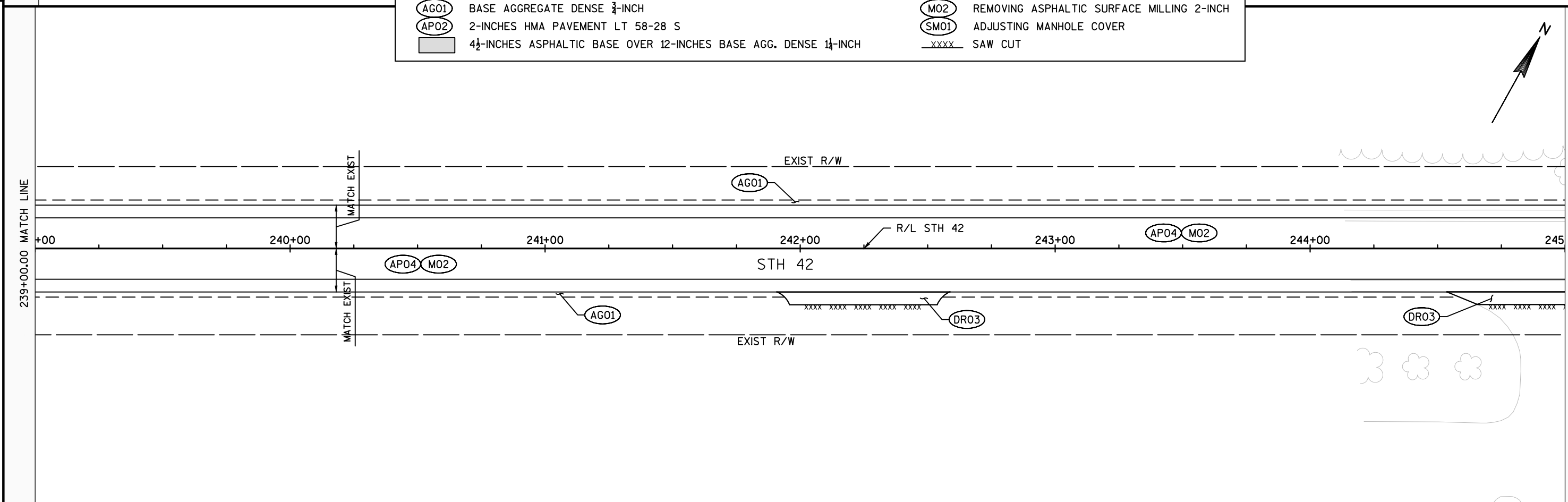
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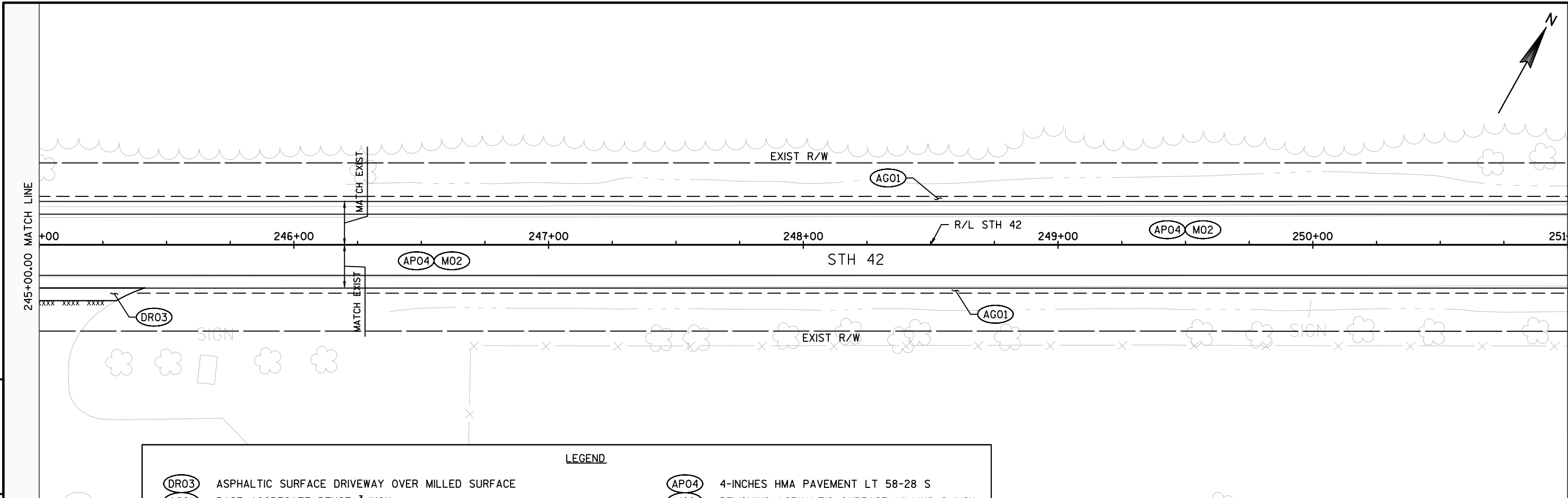
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LEGEND

|                   |                                                                              |                   |                                           |
|-------------------|------------------------------------------------------------------------------|-------------------|-------------------------------------------|
| <span>DR03</span> | ASPHALTIC SURFACE DRIVEWAY OVER MILLED SURFACE                               | <span>AP04</span> | 4-INCHES HMA PAVEMENT LT 58-28 S          |
| <span>AG01</span> | BASE AGGREGATE DENSE $\frac{3}{4}$ -INCH                                     | <span>M02</span>  | REMOVING ASPHALTIC SURFACE MILLING 2-INCH |
| <span>AP02</span> | 2-INCHES HMA PAVEMENT LT 58-28 S                                             | <span>SM01</span> | ADJUSTING MANHOLE COVER                   |
| <span></span>     | 4½-INCHES ASPHALTIC BASE OVER 12-INCHES BASE AGG. DENSE $1\frac{1}{4}$ -INCH | <span>XXXX</span> | SAW CUT                                   |



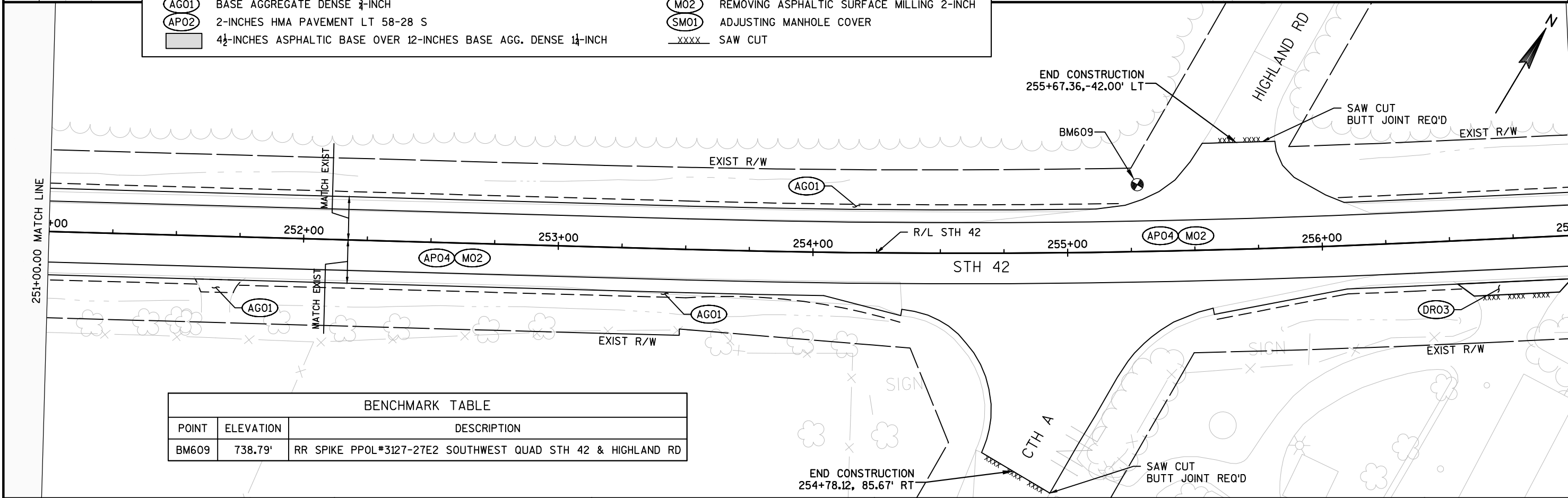
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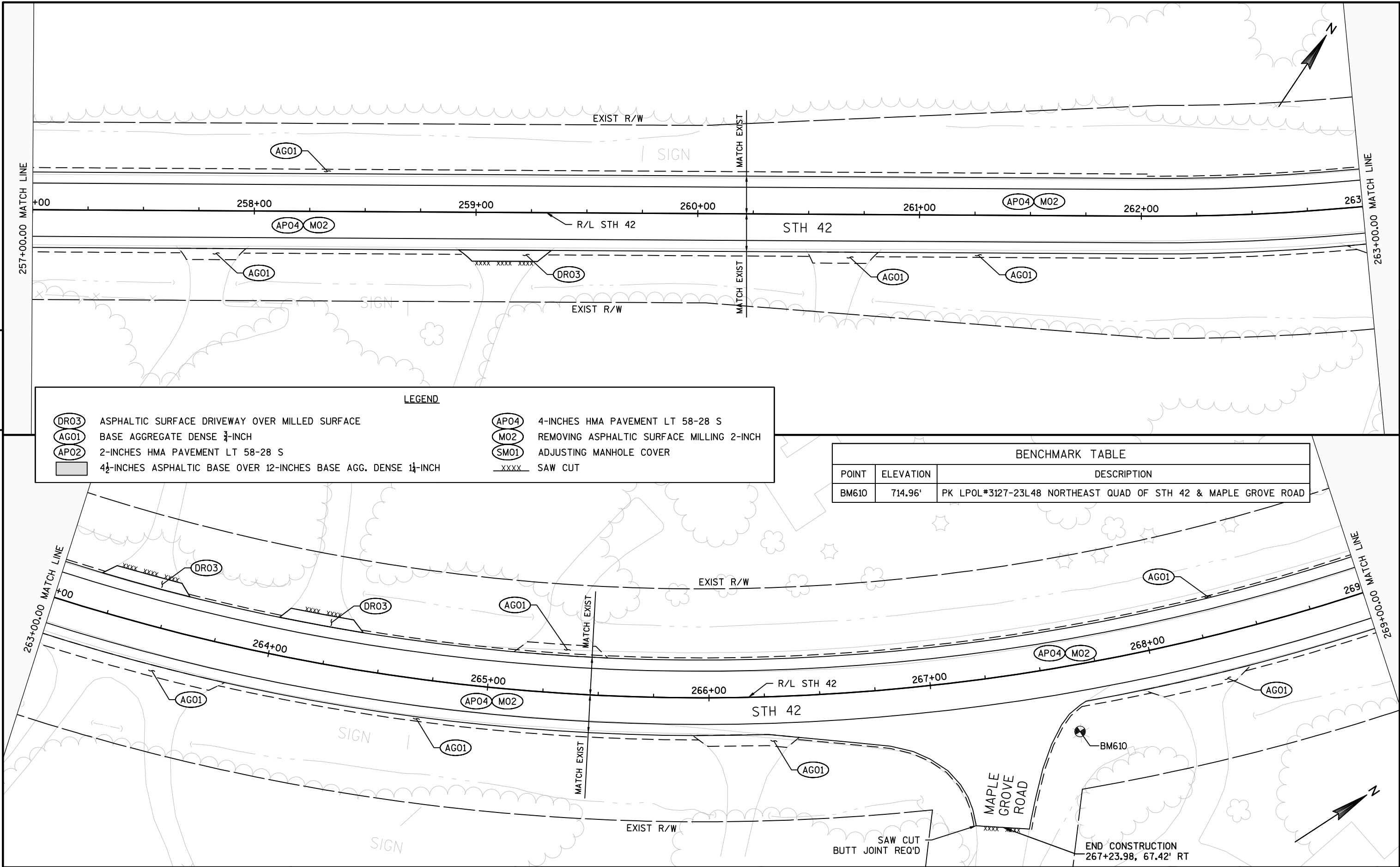
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**LEGEND**

|             |                                                                 |             |                                           |
|-------------|-----------------------------------------------------------------|-------------|-------------------------------------------|
| <b>DR03</b> | ASPHALTIC SURFACE DRIVEWAY OVER MILLED SURFACE                  | <b>AP04</b> | 4-INCHES HMA PAVEMENT LT 58-28 S          |
| <b>AG01</b> | BASE AGGREGATE DENSE ¾-INCH                                     | <b>M02</b>  | REMOVING ASPHALTIC SURFACE MILLING 2-INCH |
| <b>AP02</b> | 2-INCHES HMA PAVEMENT LT 58-28 S                                | <b>SM01</b> | ADJUSTING MANHOLE COVER                   |
|             | 4½-INCHES ASPHALTIC BASE OVER 12-INCHES BASE AGG. DENSE 1½-INCH | <b>XXXX</b> | SAW CUT                                   |



| BENCHMARK TABLE |           |                                                             |
|-----------------|-----------|-------------------------------------------------------------|
| POINT           | ELEVATION | DESCRIPTION                                                 |
| BM609           | 738.79'   | RR SPIKE PPOL#3127-27E2 SOUTHWEST QUAD STH 42 & HIGHLAND RD |



LEGEND

DR03

ASPHALTIC SURFACE DRIVEWAY OVER MILLED SURFACE

AG01

BASE AGGREGATE DENSE 3/4-INCH

AP02

2-INCHES HMA PAVEMENT LT 58-28 S

4 1/2-INCHES ASPHALTIC BASE OVER 12-INCHES BASE AGG. DENSE 1 1/4-INCH

AP04

4-INCHES HMA PAVEMENT LT 58-28 S

M02

REMOVING ASPHALTIC SURFACE MILLING 2-INCH

SM01

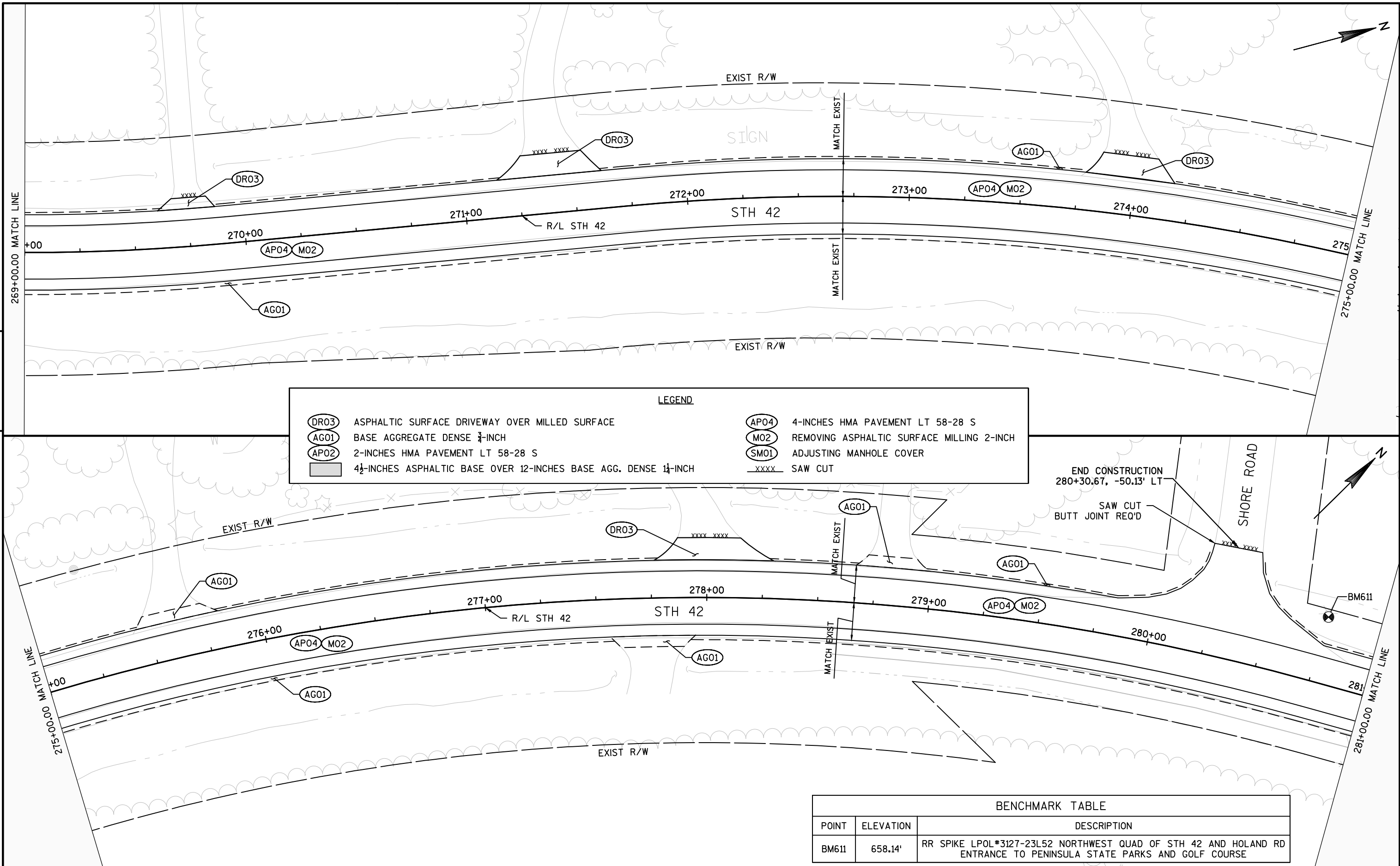
ADJUSTING MANHOLE COVER

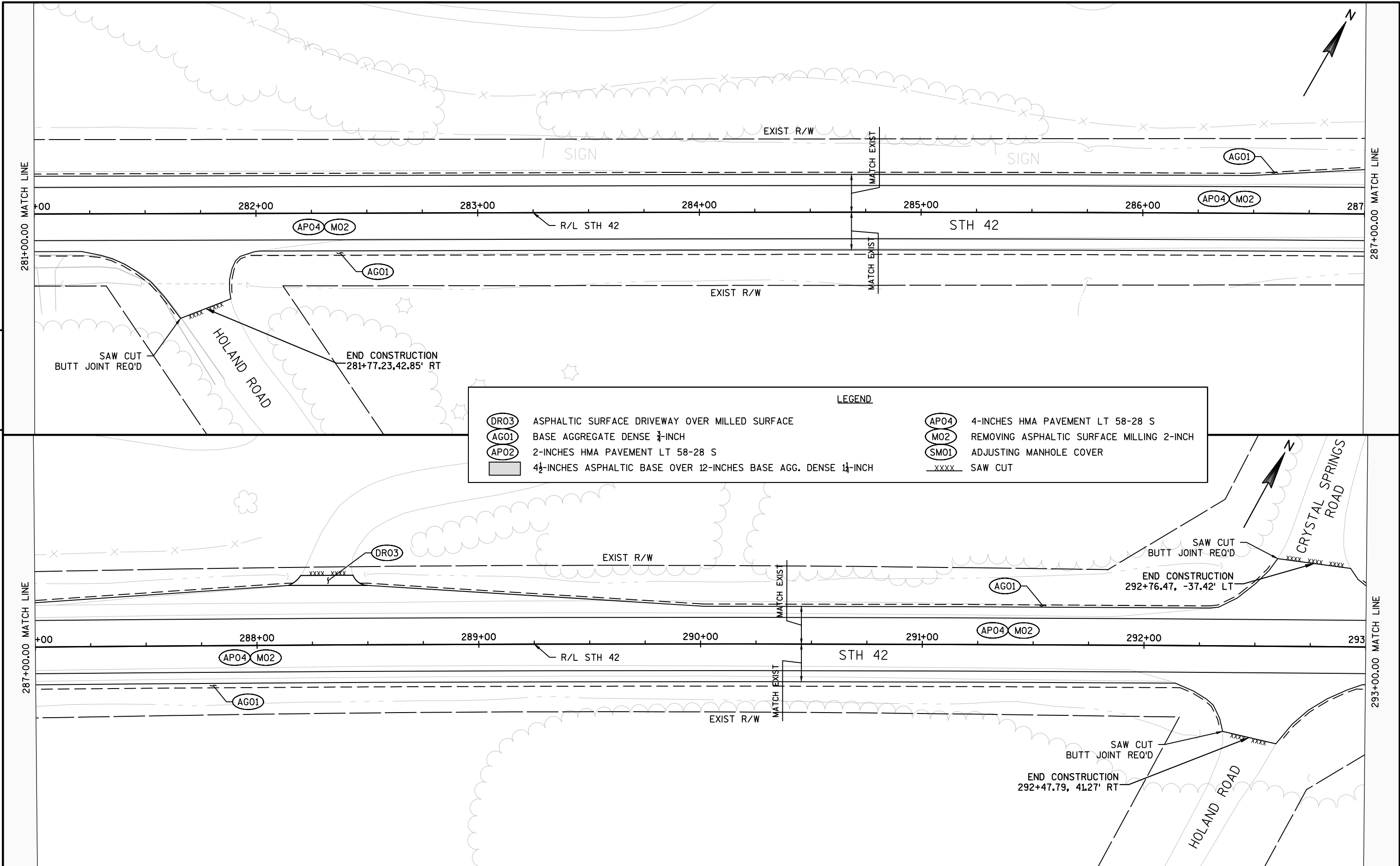
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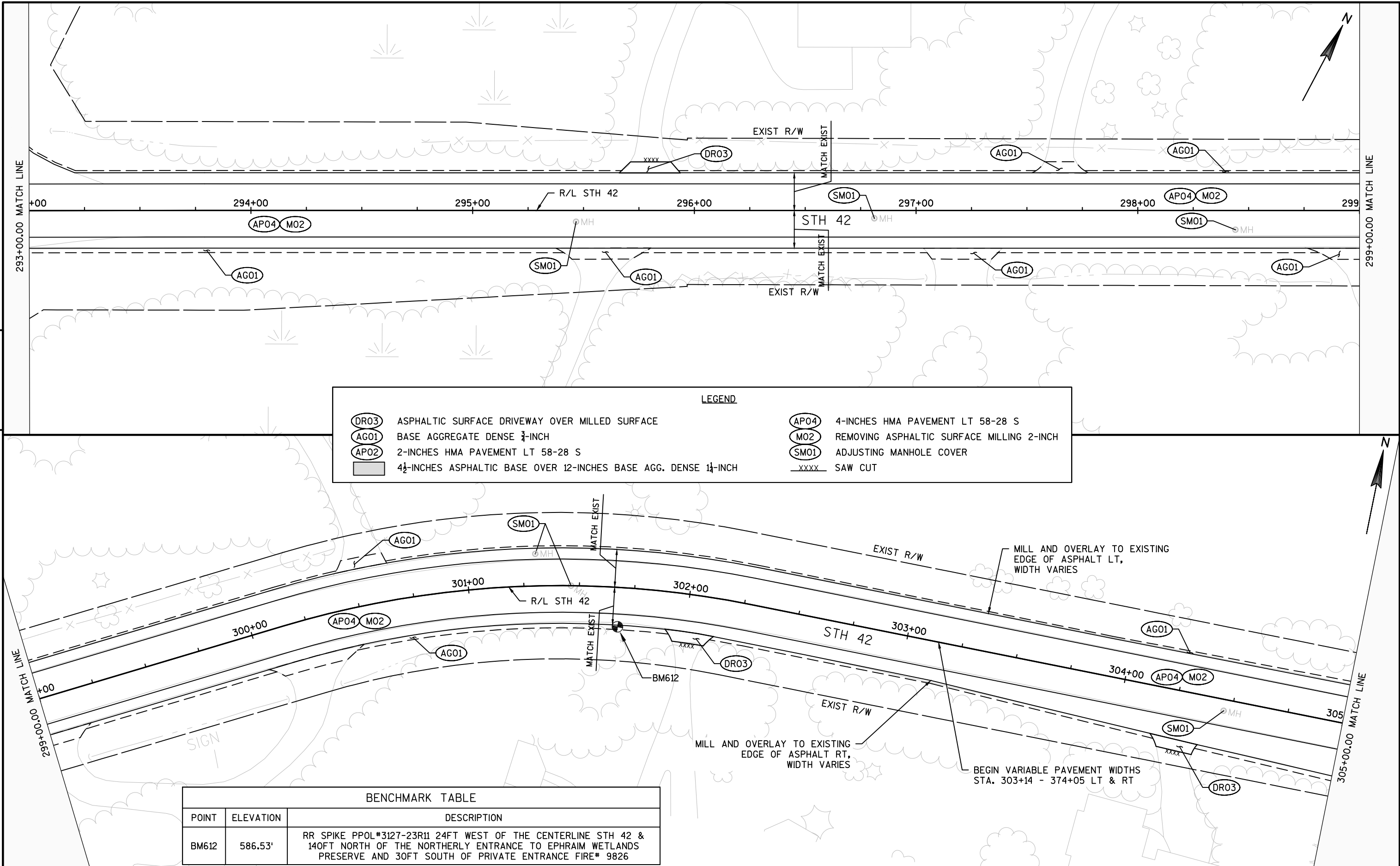
SAW CUT

| BENCHMARK TABLE |           |                                                                |
|-----------------|-----------|----------------------------------------------------------------|
| POINT           | ELEVATION | DESCRIPTION                                                    |
| BM610           | 714.96'   | PK LPOL#3127-23L48 NORTHEAST QUAD OF STH 42 & MAPLE GROVE ROAD |









LEGEND

DR03

ASPHALTIC SURFACE DRIVEWAY OVER MILLED SURFACE

AG01

BASE AGGREGATE DENSE ¾-INCH

AP02

2-INCHES HMA PAVEMENT LT 58-28 S

4½-INCHES ASPHALTIC BASE OVER 12-INCHES BASE AGG. DENSE 1½-INCH

AP04

4-INCHES HMA PAVEMENT LT 58-28 S

M02

REMOVING ASPHALTIC SURFACE MILLING 2-INCH

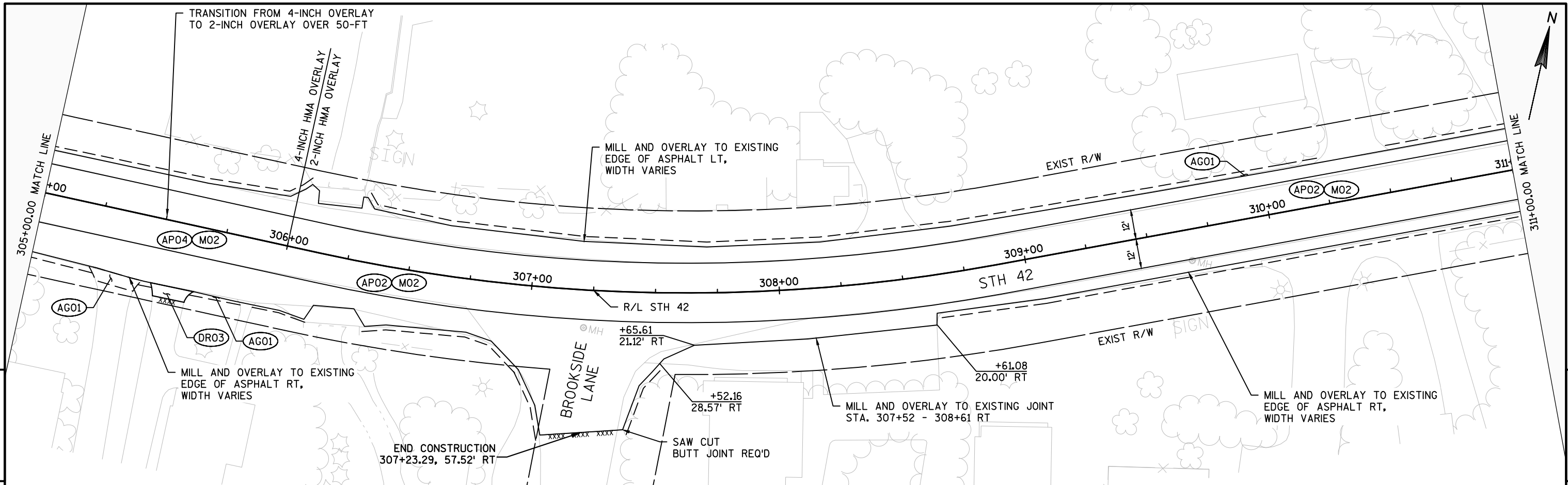
SM01

ADJUSTING MANHOLE COVER

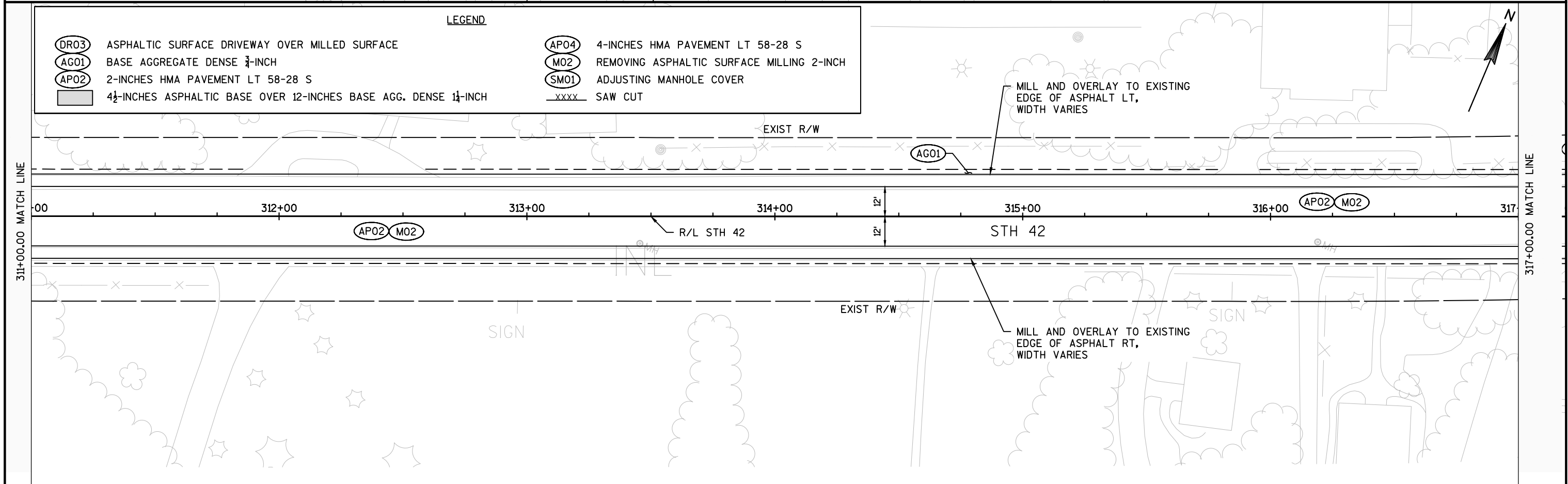
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SAW CUT

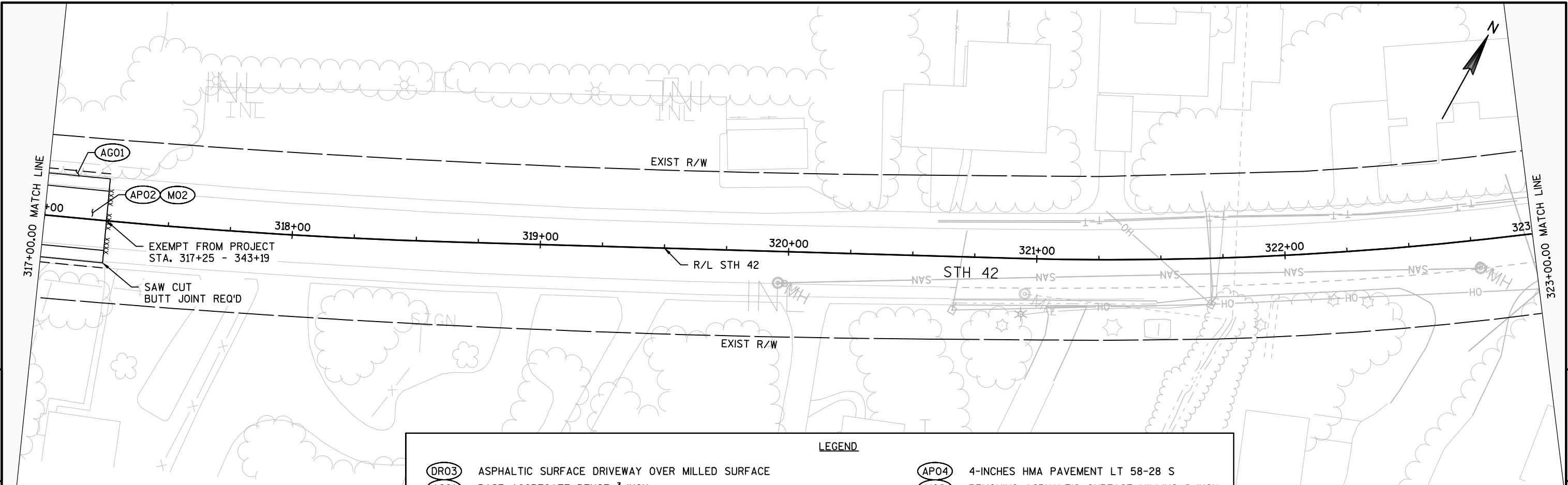
| BENCHMARK TABLE |           |                                                                                                                                                                                |
|-----------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| POINT           | ELEVATION | DESCRIPTION                                                                                                                                                                    |
| BM612           | 586.53'   | RR SPIKE PPOL#3127-23R11 24FT WEST OF THE CENTERLINE STH 42 & 140FT NORTH OF THE NORTHERLY ENTRANCE TO EPHRAIM WETLANDS PRESERVE AND 30FT SOUTH OF PRIVATE ENTRANCE FIRE# 9826 |



| LEGEND |                                                                       |        |                                           |
|--------|-----------------------------------------------------------------------|--------|-------------------------------------------|
| (DR03) | ASPHALTIC SURFACE DRIVEWAY OVER MILLED SURFACE                        | (AP04) | 4-INCHES HMA PAVEMENT LT 58-28 S          |
| (AG01) | BASE AGGREGATE DENSE 3/4-INCH                                         | (M02)  | REMOVING ASPHALTIC SURFACE MILLING 2-INCH |
| (AP02) | 2-INCHES HMA PAVEMENT LT 58-28 S                                      | (SM01) | ADJUSTING MANHOLE COVER                   |
|        | 4 1/2-INCHES ASPHALTIC BASE OVER 12-INCHES BASE AGG. DENSE 1 1/4-INCH | XXXX   | SAW CUT                                   |




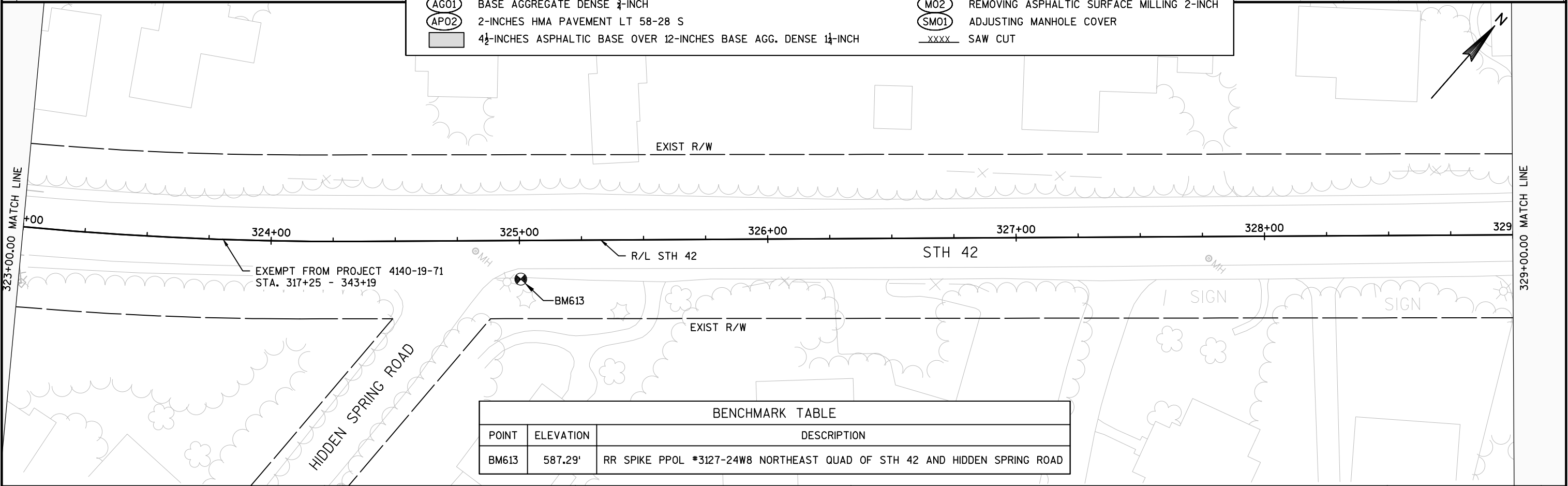
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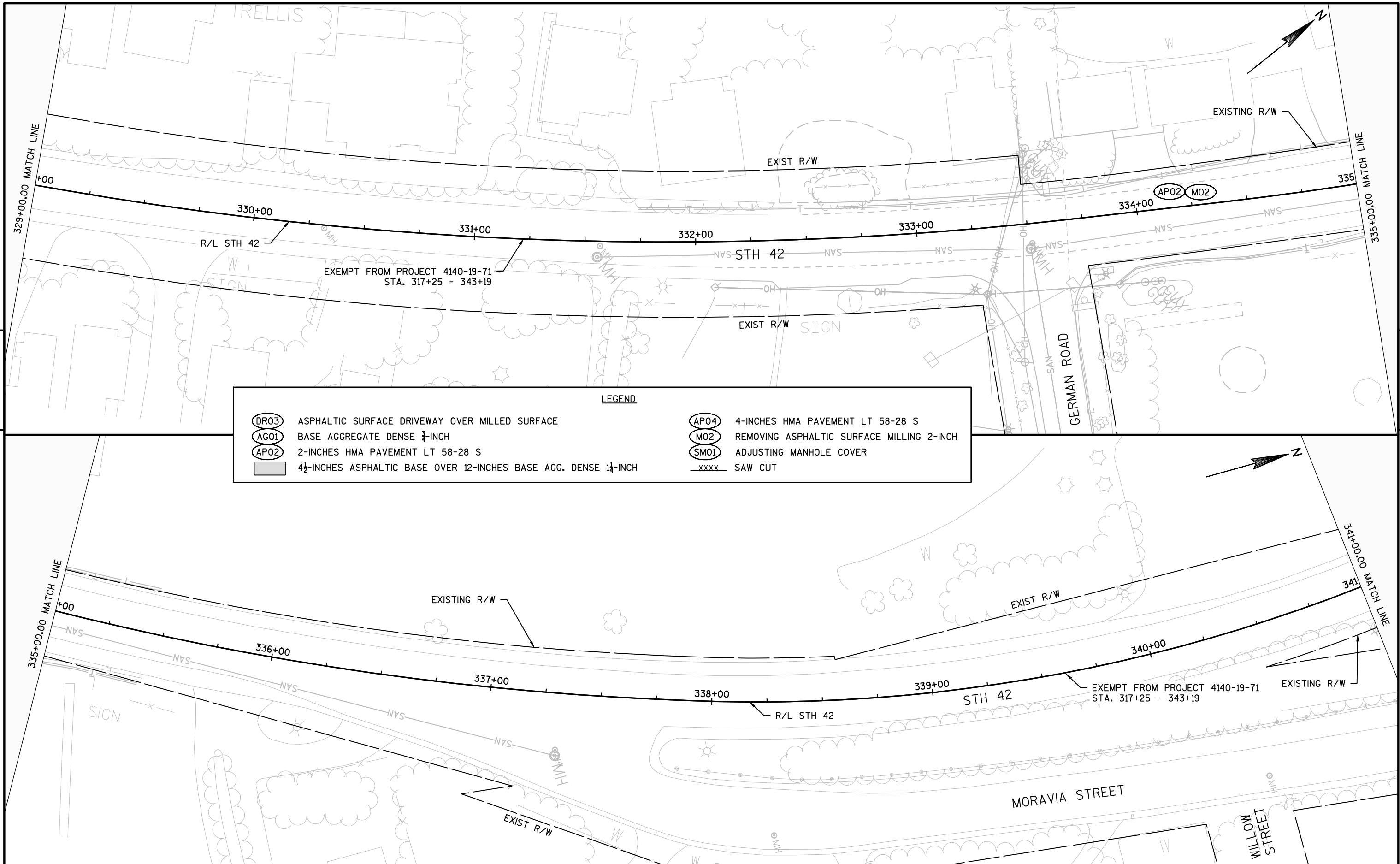
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**LEGEND**


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|-------------------------------------------------------------------------------------|-----------------------------------------------------------------|---------------|-------------------------------------------|
| <b>(DR03)</b>                                                                       | ASPHALTIC SURFACE DRIVEWAY OVER MILLED SURFACE                  | <b>(AP04)</b> | 4-INCHES HMA PAVEMENT LT 58-28 S          |
| <b>(AG01)</b>                                                                       | BASE AGGREGATE DENSE ¾-INCH                                     | <b>(M02)</b>  | REMOVING ASPHALTIC SURFACE MILLING 2-INCH |
| <b>(AP02)</b>                                                                       | 2-INCHES HMA PAVEMENT LT 58-28 S                                | <b>(SM01)</b> | ADJUSTING MANHOLE COVER                   |
|  | 4½-INCHES ASPHALTIC BASE OVER 12-INCHES BASE AGG. DENSE 1½-INCH | <b>XXXX</b>   | SAW CUT                                   |



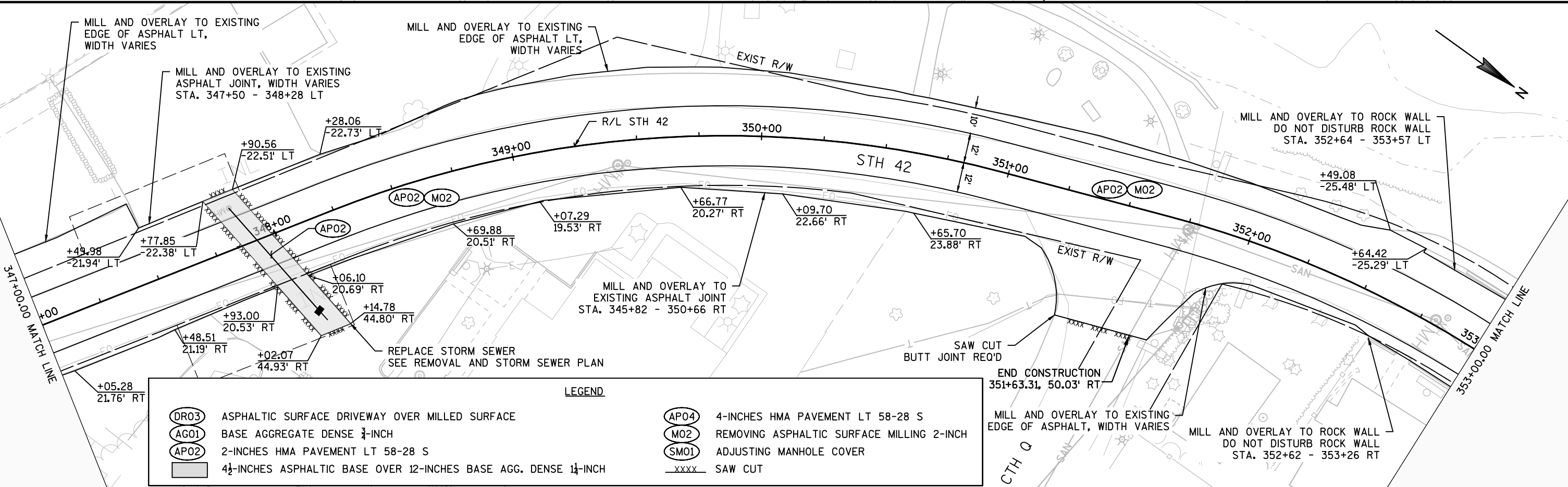
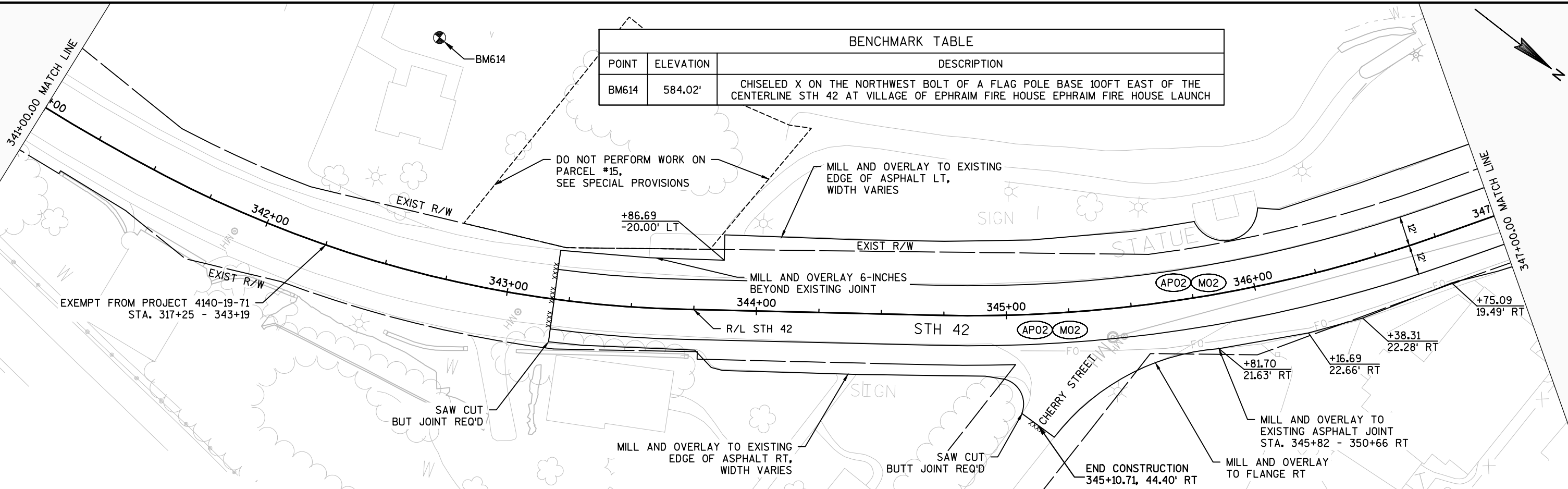
| BENCHMARK TABLE |           |                                                                          |
|-----------------|-----------|--------------------------------------------------------------------------|
| POINT           | ELEVATION | DESCRIPTION                                                              |
| BM613           | 587.29'   | RR SPIKE PPOL #3127-24W8 NORTHEAST QUAD OF STH 42 AND HIDDEN SPRING ROAD |



LEGEND

|                                                                                     |                                                                 |        |                                           |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------|--------|-------------------------------------------|
| (DR03)                                                                              | ASPHALTIC SURFACE DRIVEWAY OVER MILLED SURFACE                  | (AP04) | 4-INCHES HMA PAVEMENT LT 58-28 S          |
| (AG01)                                                                              | BASE AGGREGATE DENSE ¾-INCH                                     | (M02)  | REMOVING ASPHALTIC SURFACE MILLING 2-INCH |
| (AP02)                                                                              | 2-INCHES HMA PAVEMENT LT 58-28 S                                | (SM01) | ADJUSTING MANHOLE COVER                   |
|  | 4½-INCHES ASPHALTIC BASE OVER 12-INCHES BASE AGG. DENSE 1½-INCH | XXXX   | SAW CUT                                   |

| BENCHMARK TABLE |           |                                                                                                                                                     |
|-----------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| POINT           | ELEVATION | DESCRIPTION                                                                                                                                         |
| BM614           | 584.02'   | CHISELED X ON THE NORTHWEST BOLT OF A FLAG POLE BASE 100FT EAST OF THE CENTERLINE STH 42 AT VILLAGE OF EPHRAIM FIRE HOUSE EPHRAIM FIRE HOUSE LAUNCH |



- LEGEND**
- DR03 ASPHALTIC SURFACE DRIVEWAY OVER MILLED SURFACE
  - AG01 BASE AGGREGATE DENSE 3/4-INCH
  - AP02 2-INCHES HMA PAVEMENT LT 58-28 S
  - 4 1/2-INCHES ASPHALTIC BASE OVER 12-INCHES BASE AGG. DENSE 1 1/4-INCH

- AP04 4-INCHES HMA PAVEMENT LT 58-28 S
- M02 REMOVING ASPHALTIC SURFACE MILLING 2-INCH
- SM01 ADJUSTING MANHOLE COVER
- XXXX SAW CUT

PROJECT NO: 4140-19-72

HWY: STH 42

COUNTY: DOOR

PLAN SHEETS

SHEET

E

FILE NAME : N:\PDS\C3D\41401972\SHEETPLAN\050201-PN.DWG  
LAYOUT NAME - 050238-PN

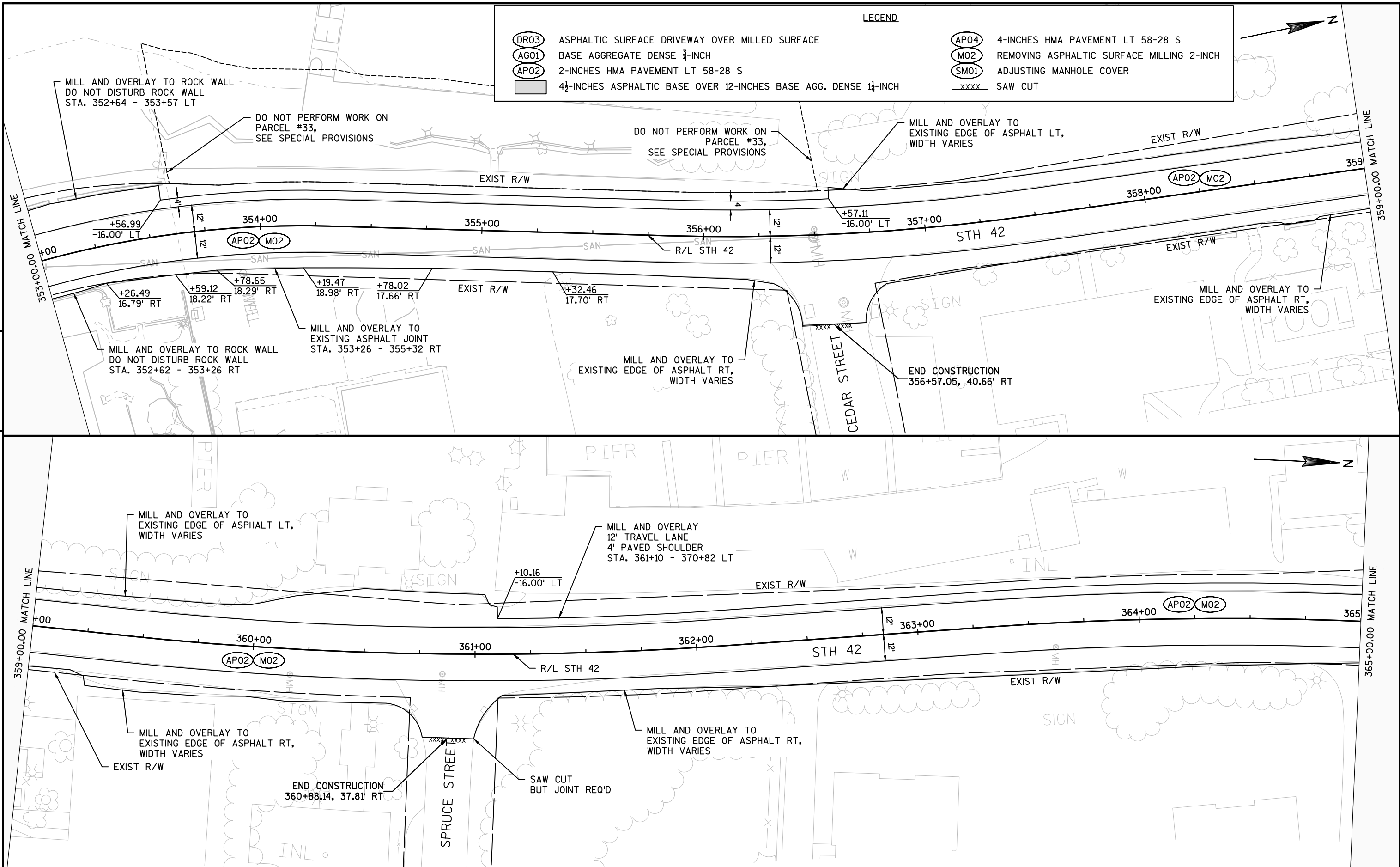
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PLOT BY : KIRST, DOUGLAS P

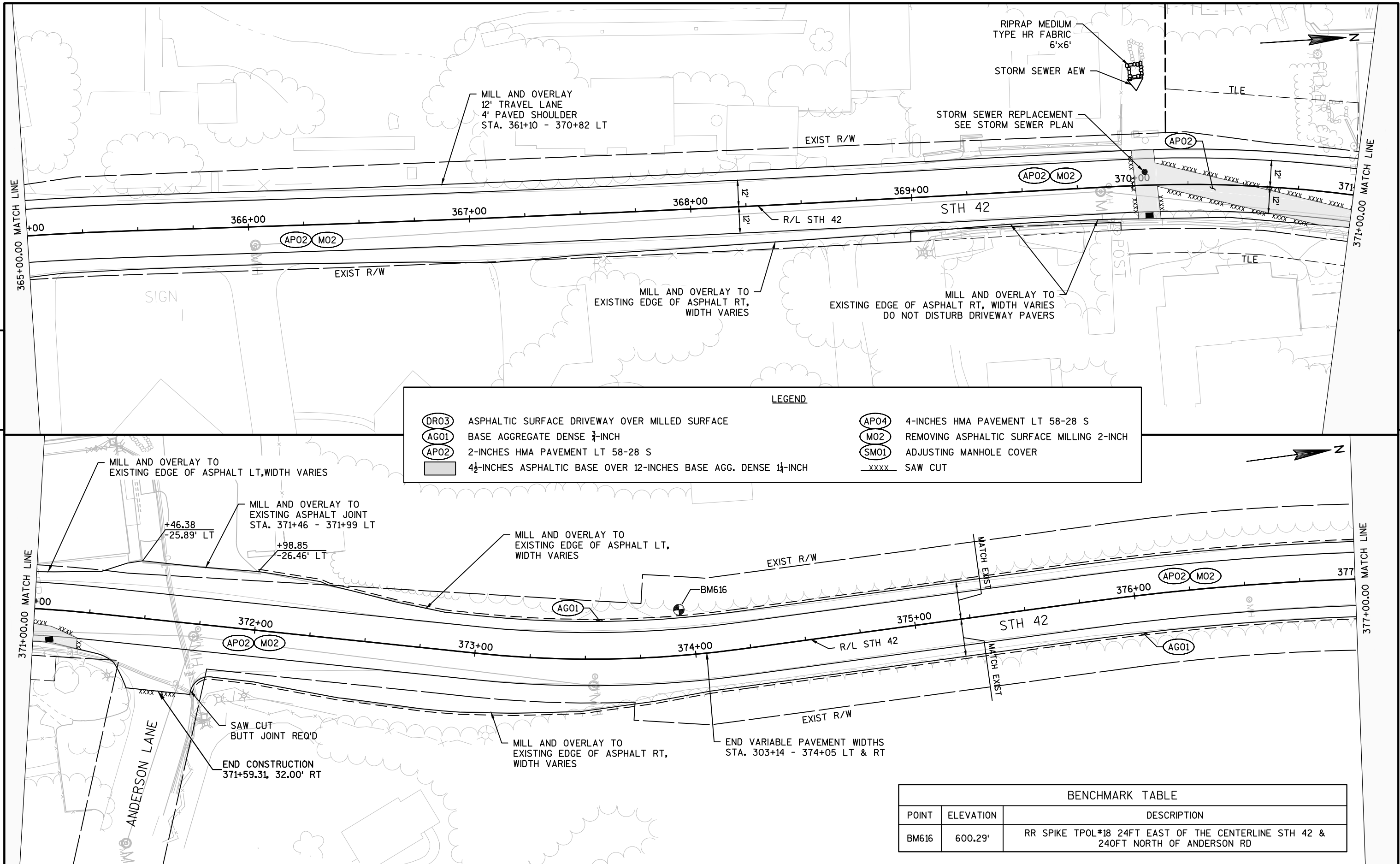
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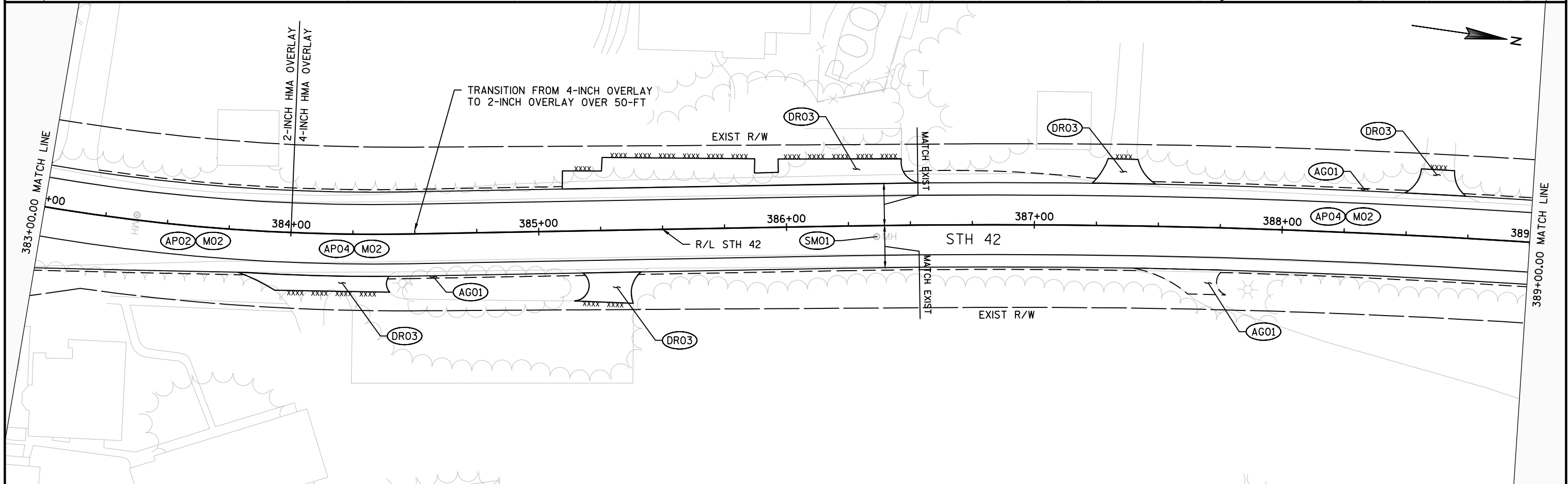
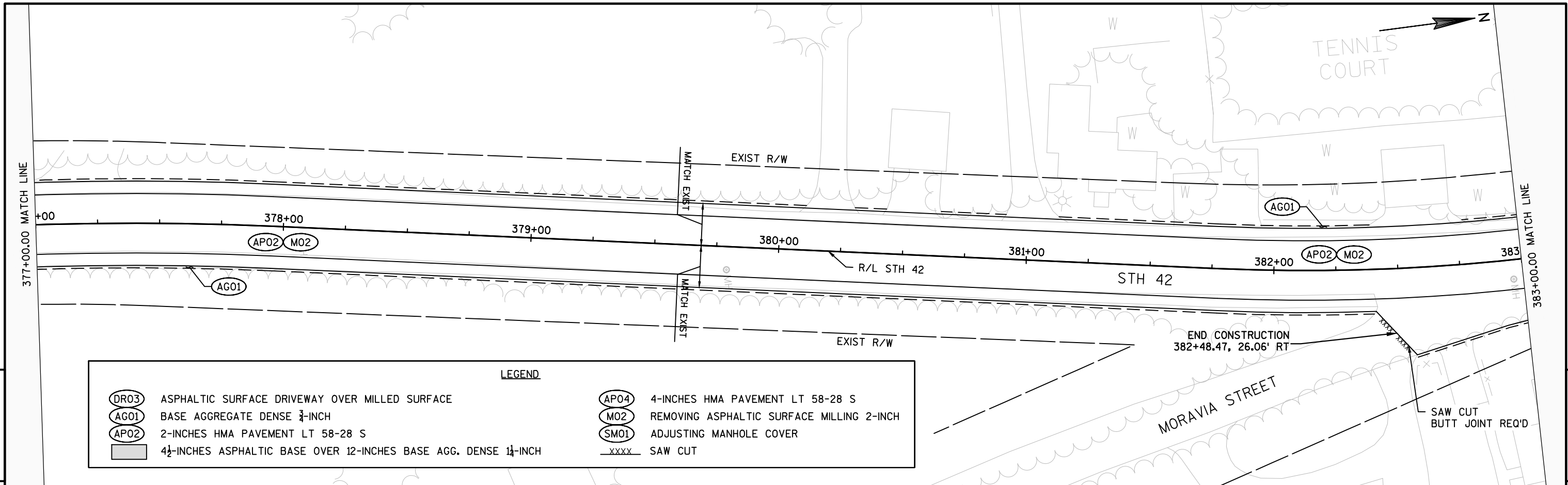
PLOT SCALE : 1 IN:40 FT

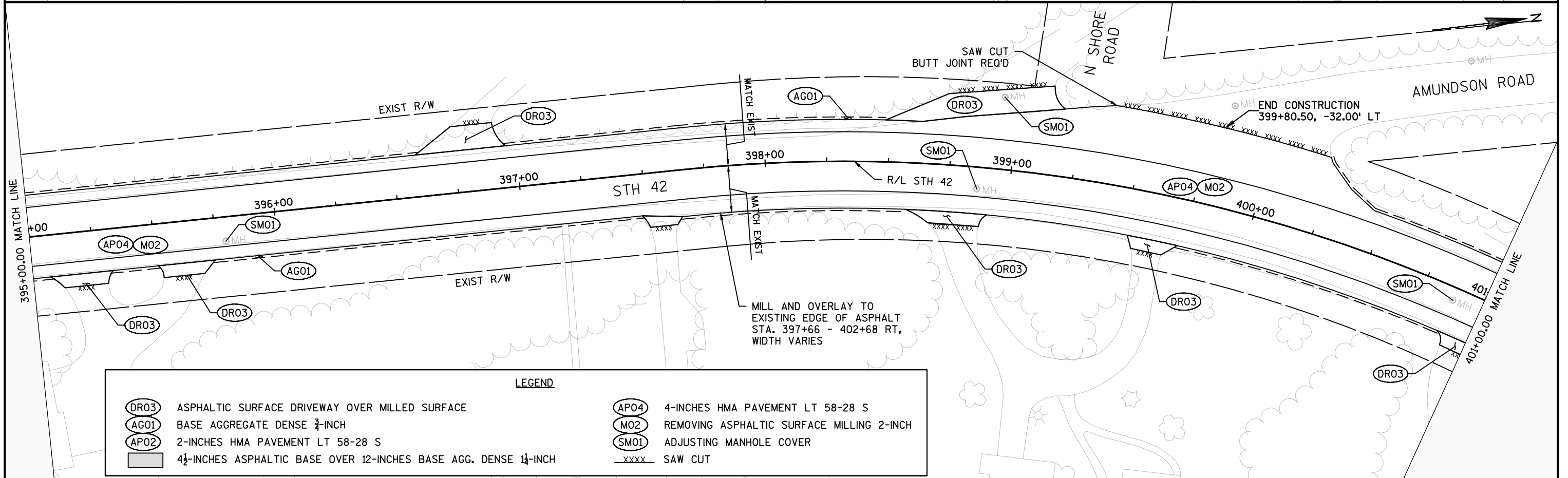
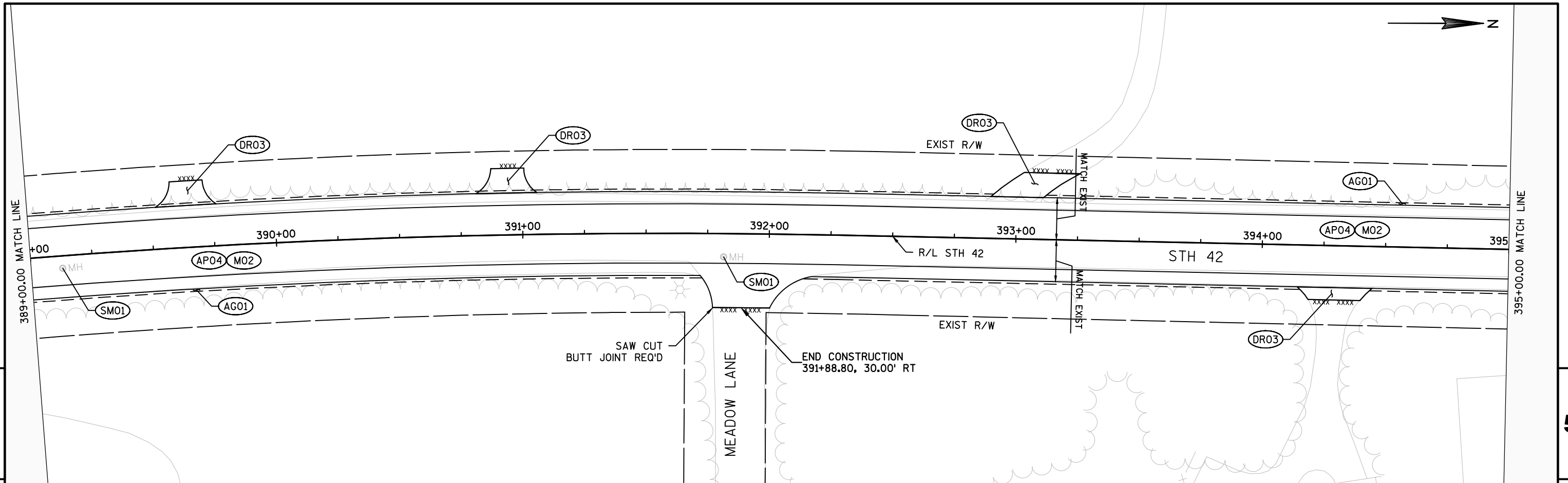
WISDOT/CADDs SHEET 44



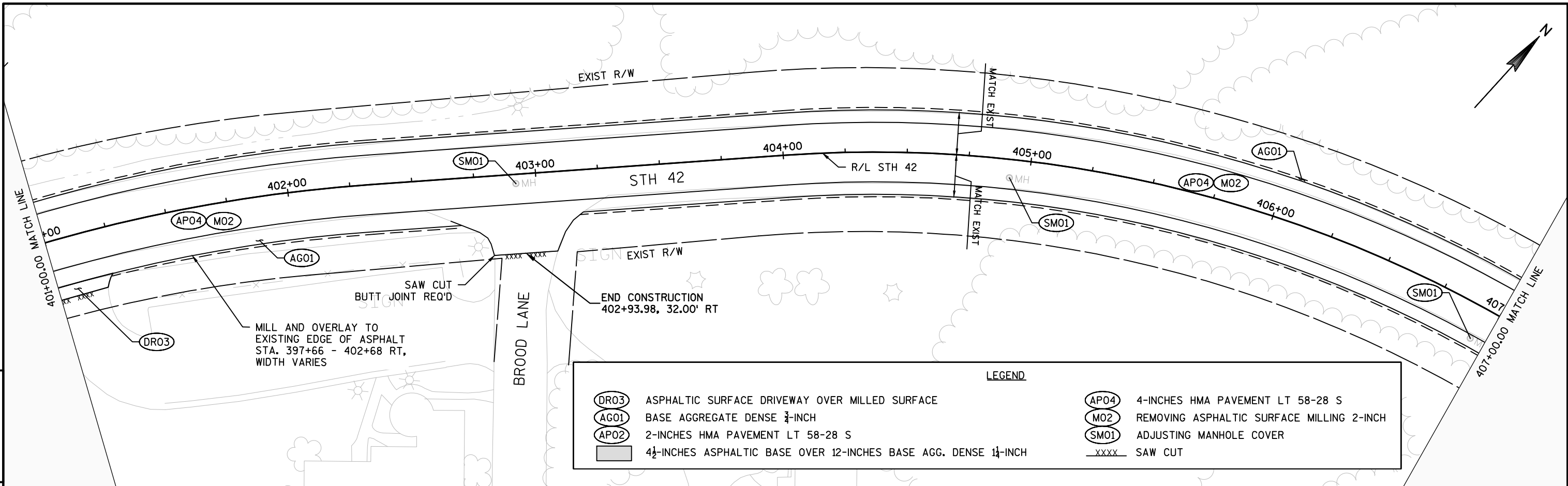




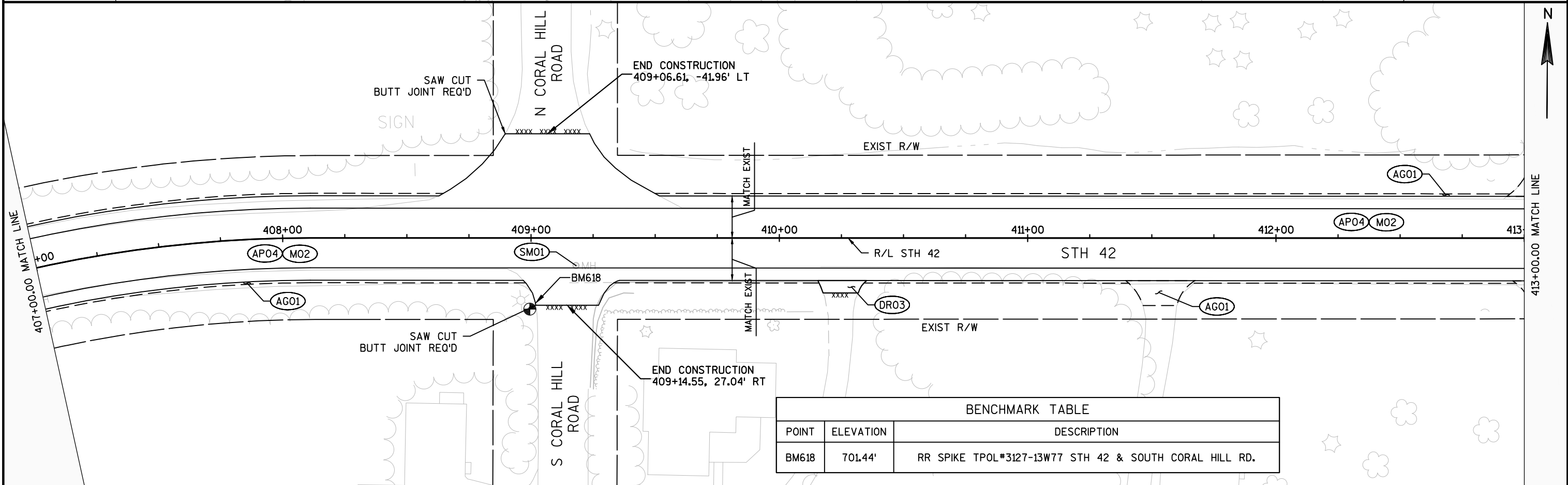




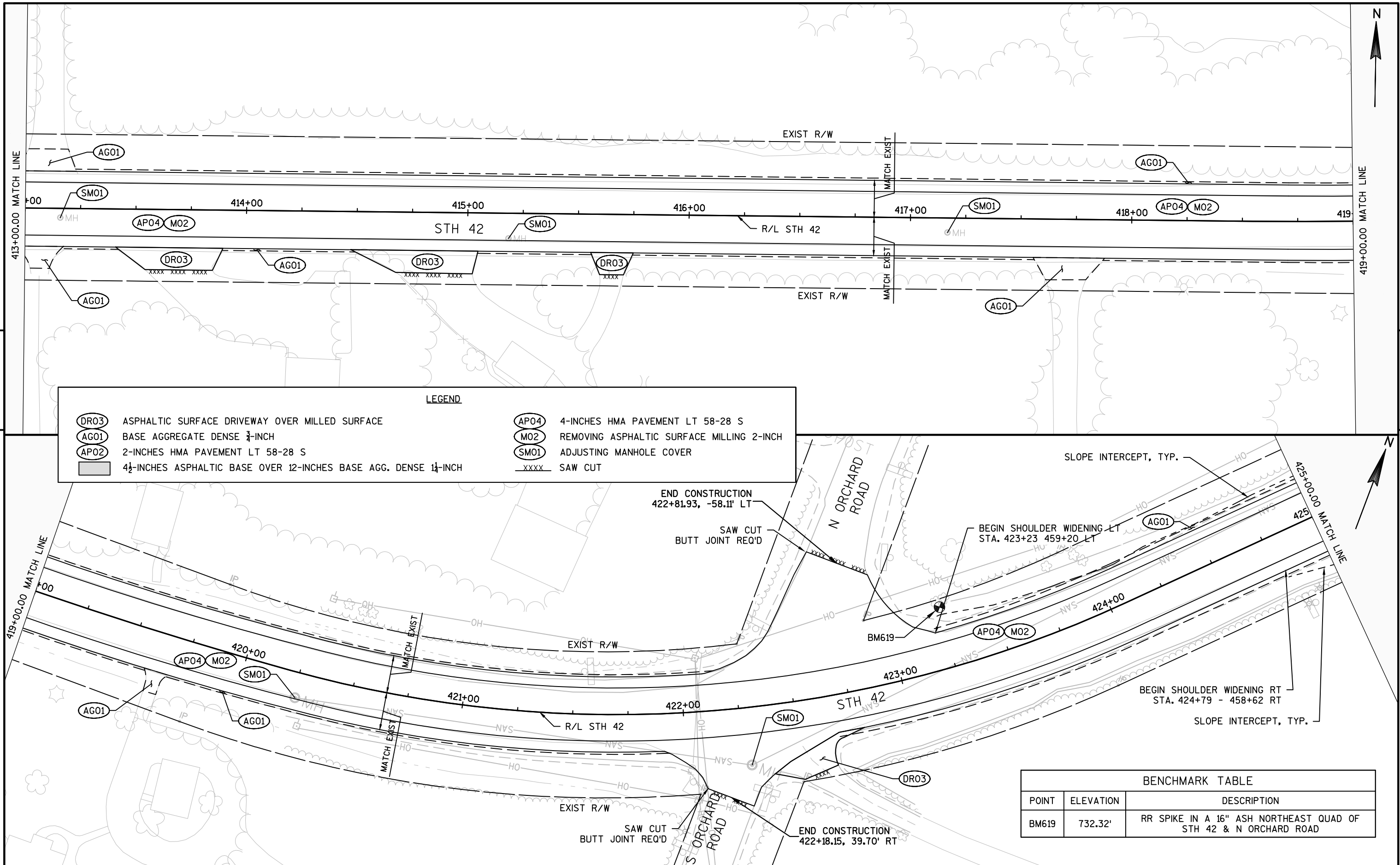
| LEGEND                                                                                                                      |                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">DR03</span>                                        | ASPHALTIC SURFACE DRIVEWAY OVER MILLED SURFACE                  |
| <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">AG01</span>                                        | BASE AGGREGATE DENSE ¾-INCH                                     |
| <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">AP02</span>                                        | 2-INCHES HMA PAVEMENT LT 58-28 S                                |
| <span style="display: inline-block; width: 20px; height: 10px; background-color: #cccccc; border: 1px solid black;"></span> | 4½-INCHES ASPHALTIC BASE OVER 12-INCHES BASE AGG. DENSE 1¼-INCH |
| <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">AP04</span>                                        | 4-INCHES HMA PAVEMENT LT 58-28 S                                |
| <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">M02</span>                                         | REMOVING ASPHALTIC SURFACE MILLING 2-INCH                       |
| <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">SM01</span>                                        | ADJUSTING MANHOLE COVER                                         |
| XXXX                                                                                                                        | SAW CUT                                                         |

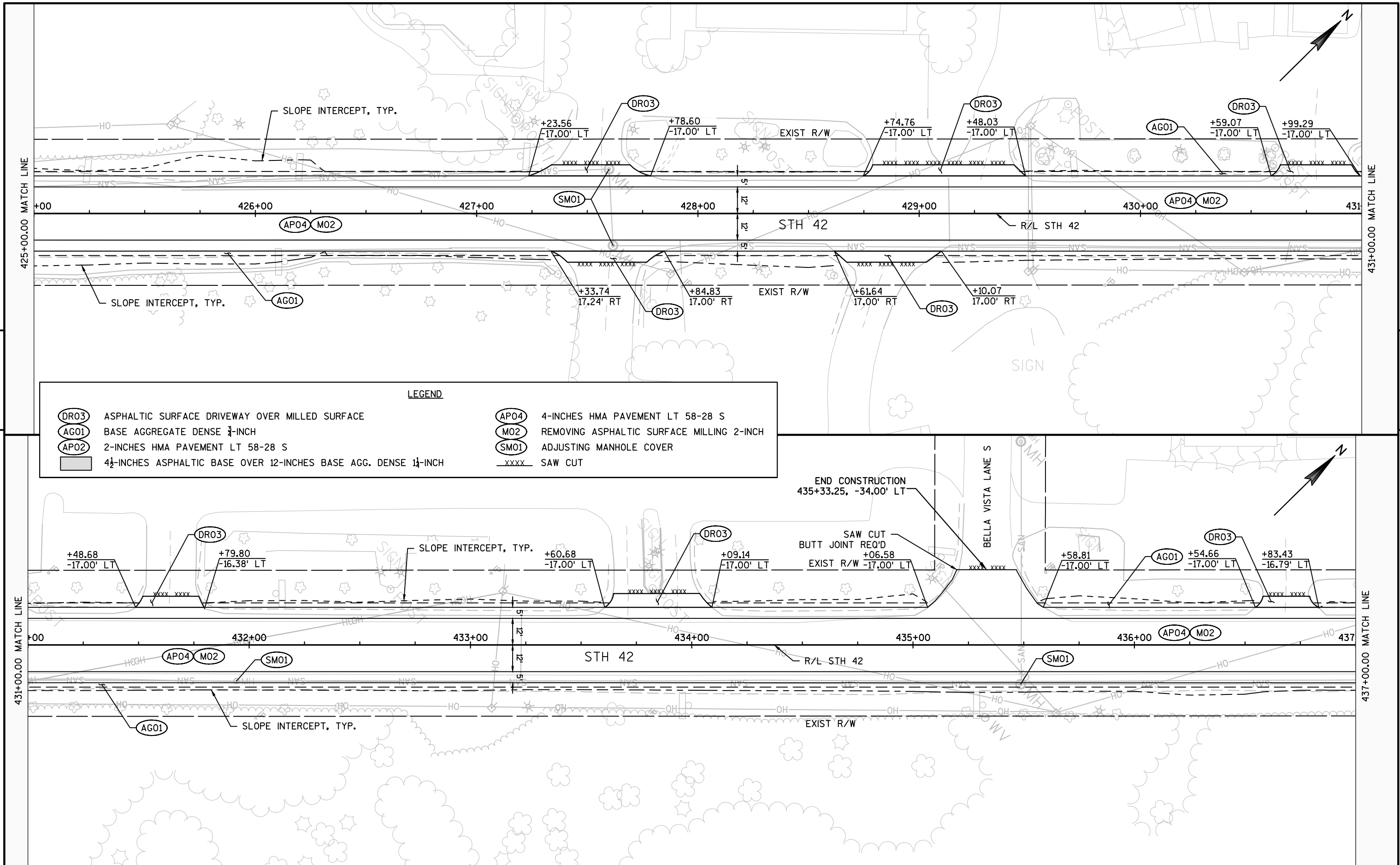


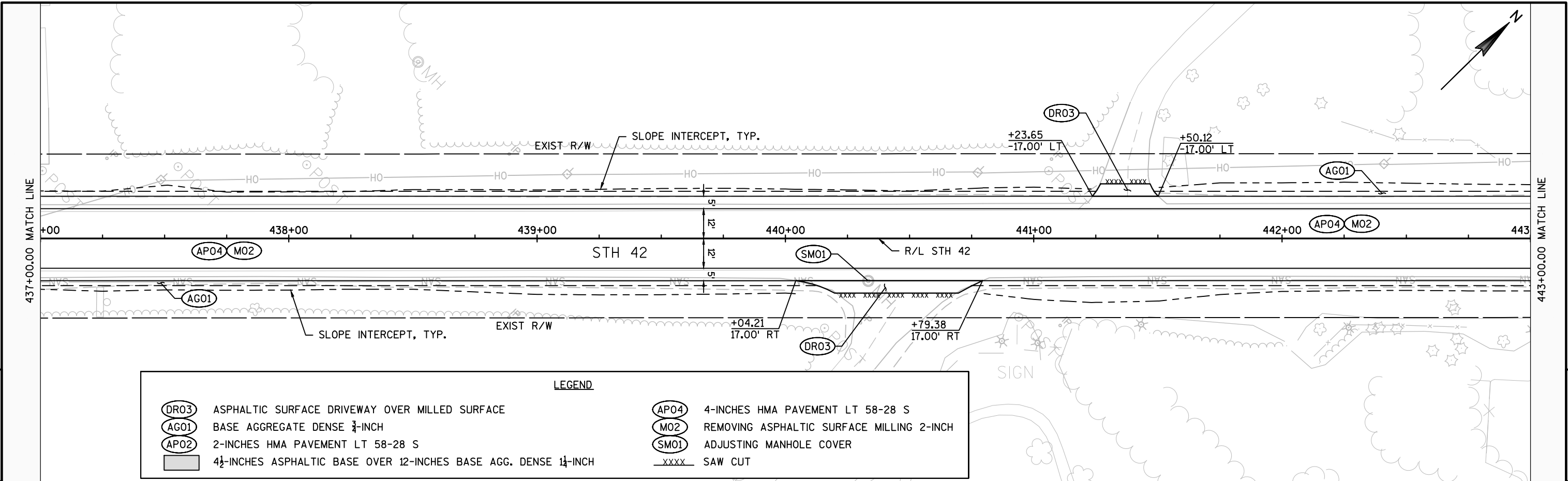
| LEGEND |                                                                 |
|--------|-----------------------------------------------------------------|
| DR03   | ASPHALTIC SURFACE DRIVEWAY OVER MILLED SURFACE                  |
| AG01   | BASE AGGREGATE DENSE ¾-INCH                                     |
| AP02   | 2-INCHES HMA PAVEMENT LT 58-28 S                                |
|        | 4½-INCHES ASPHALTIC BASE OVER 12-INCHES BASE AGG. DENSE 1¼-INCH |
| AP04   | 4-INCHES HMA PAVEMENT LT 58-28 S                                |
| M02    | REMOVING ASPHALTIC SURFACE MILLING 2-INCH                       |
| SM01   | ADJUSTING MANHOLE COVER                                         |
| XXXX   | SAW CUT                                                         |



| BENCHMARK TABLE |           |                                                        |
|-----------------|-----------|--------------------------------------------------------|
| POINT           | ELEVATION | DESCRIPTION                                            |
| BM618           | 701.44'   | RR SPIKE TPOL*3127-13W77 STH 42 & SOUTH CORAL HILL RD. |







**LEGEND**

DR03 ASPHALTIC SURFACE DRIVEWAY OVER MILLED SURFACE

AG01 BASE AGGREGATE DENSE ¾-INCH

AP02 2-INCHES HMA PAVEMENT LT 58-28 S

4½-INCHES ASPHALTIC BASE OVER 12-INCHES BASE AGG. DENSE 1¼-INCH

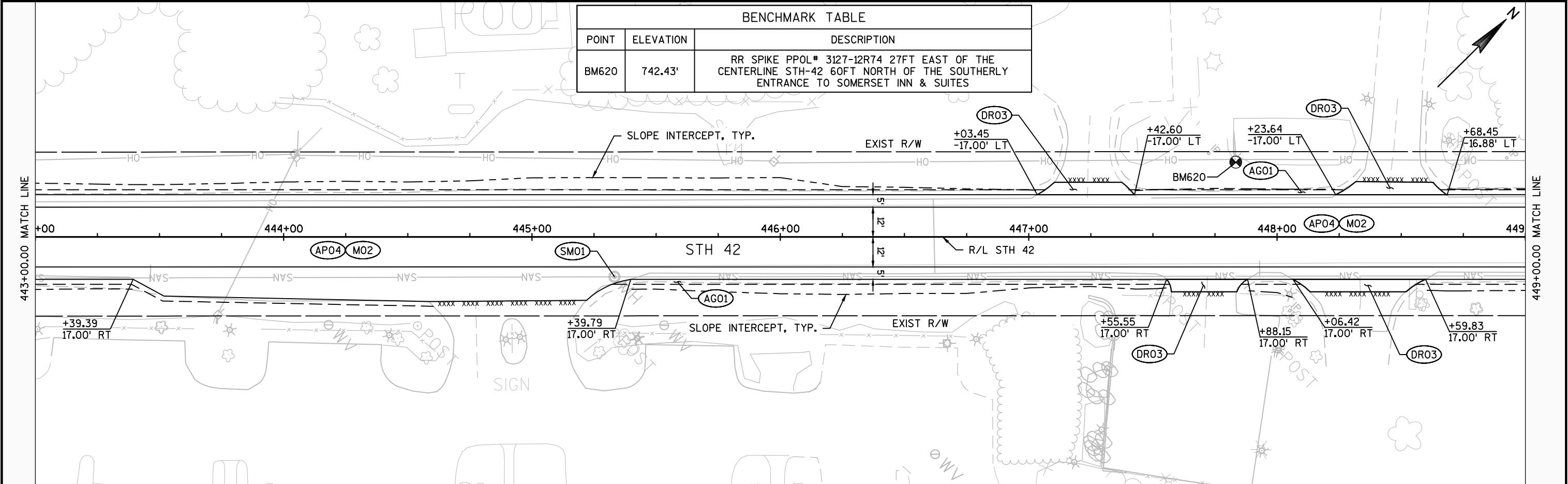
AP04 4-INCHES HMA PAVEMENT LT 58-28 S

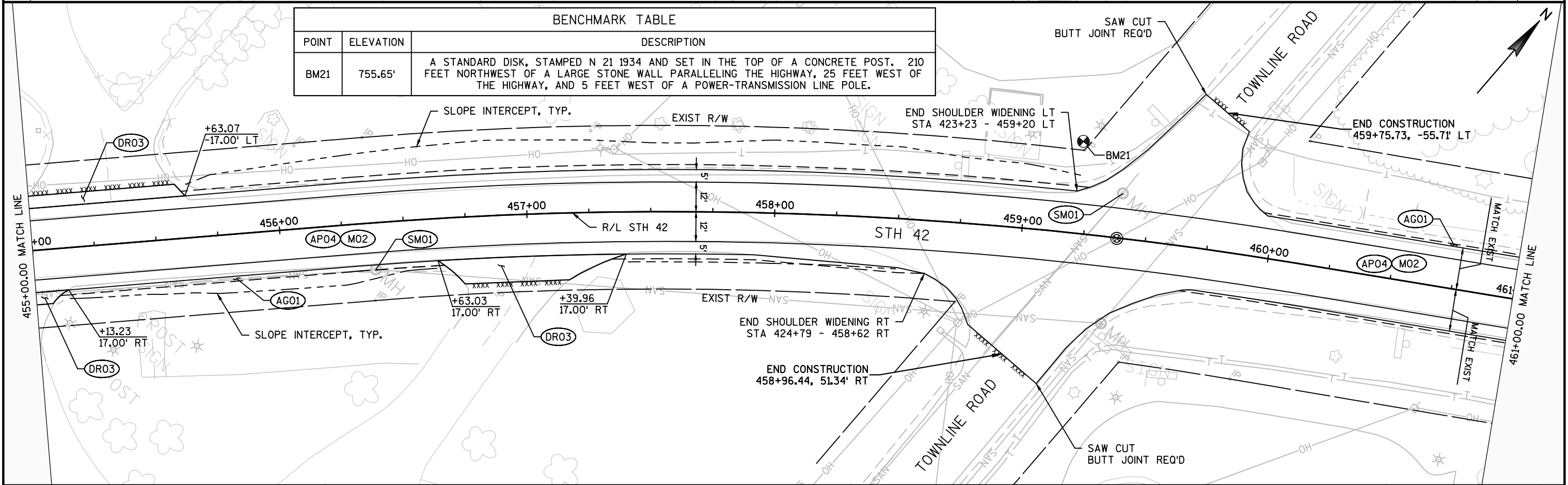
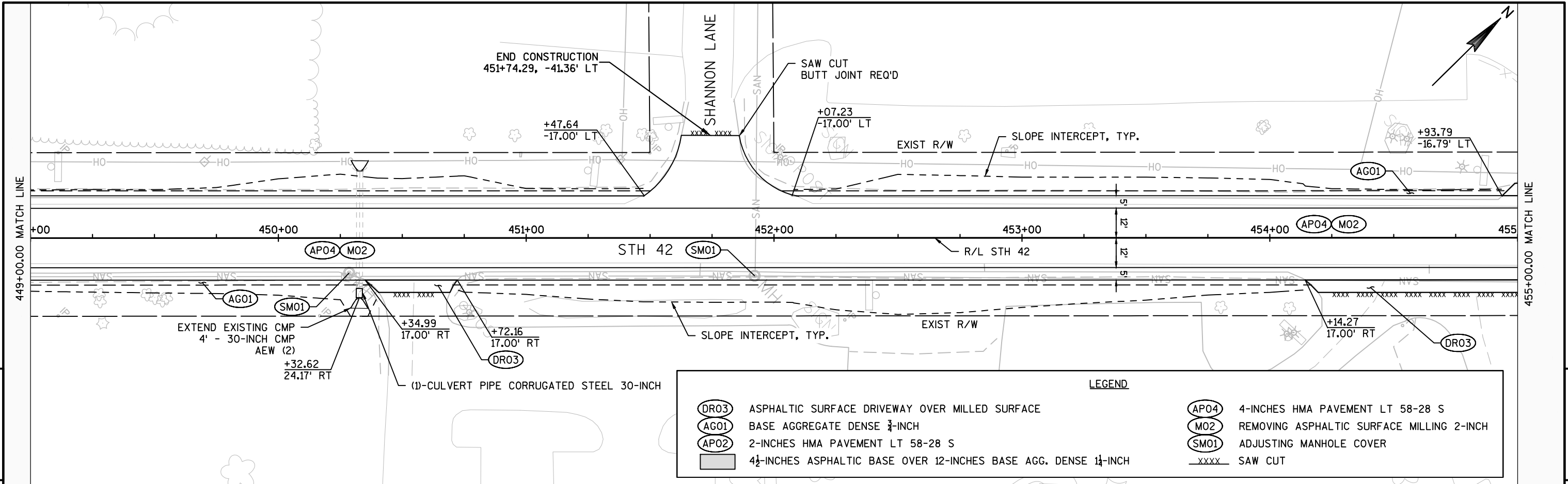
M02 REMOVING ASPHALTIC SURFACE MILLING 2-INCH

SM01 ADJUSTING MANHOLE COVER

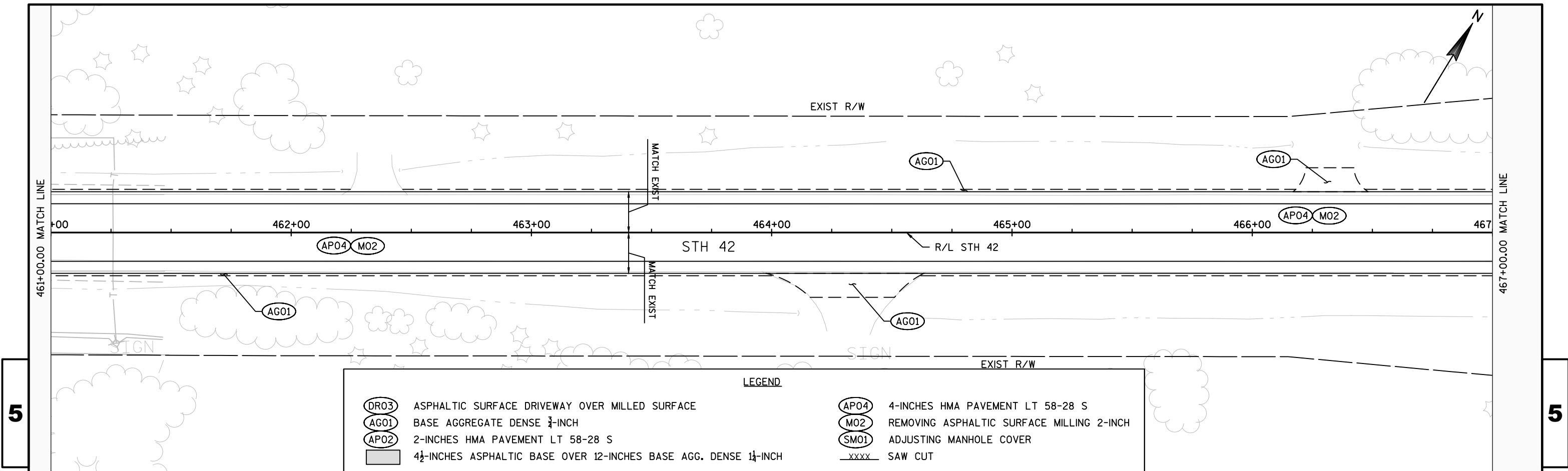
XXXX SAW CUT

| BENCHMARK TABLE |           |                                                                                                                            |
|-----------------|-----------|----------------------------------------------------------------------------------------------------------------------------|
| POINT           | ELEVATION | DESCRIPTION                                                                                                                |
| BM620           | 742.43'   | RR SPIKE PPOL* 3127-12R74 27FT EAST OF THE CENTERLINE STH-42 60FT NORTH OF THE SOUTHERLY ENTRANCE TO SOMERSET INN & SUITES |

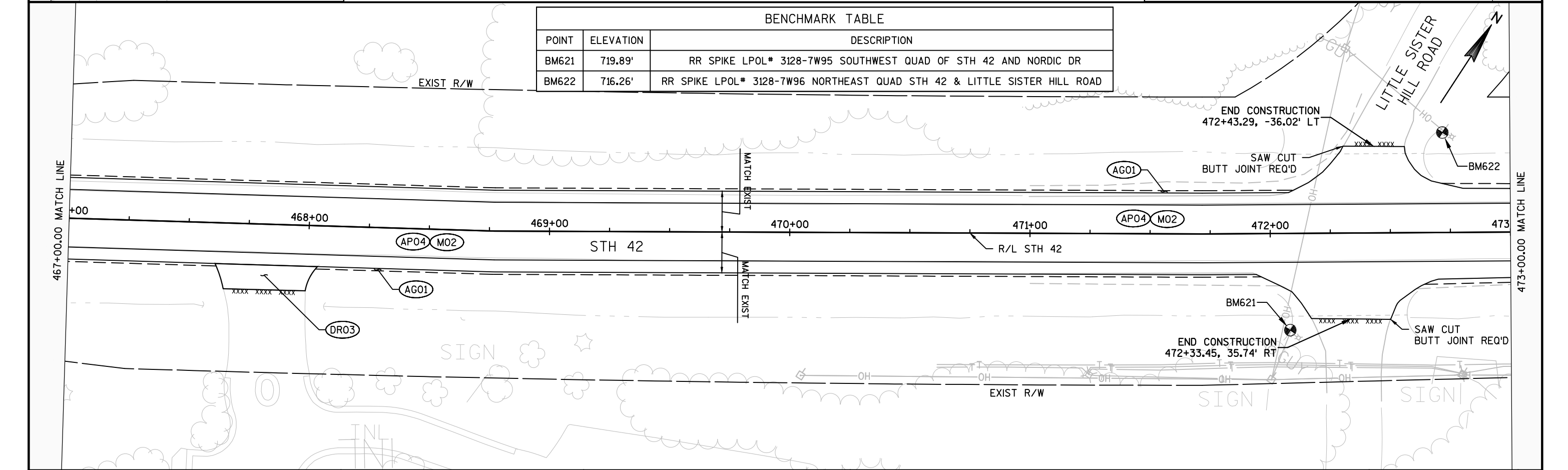


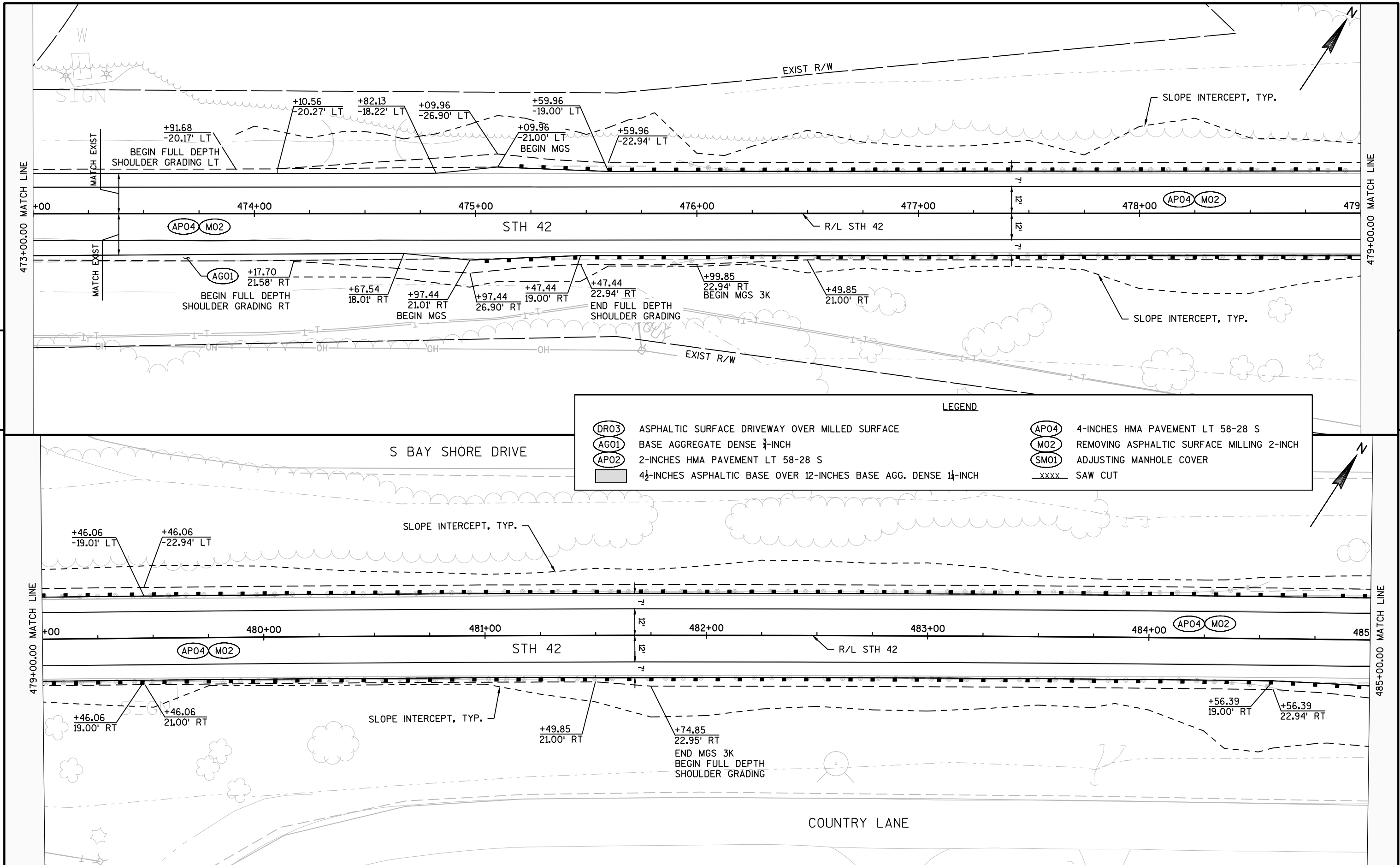


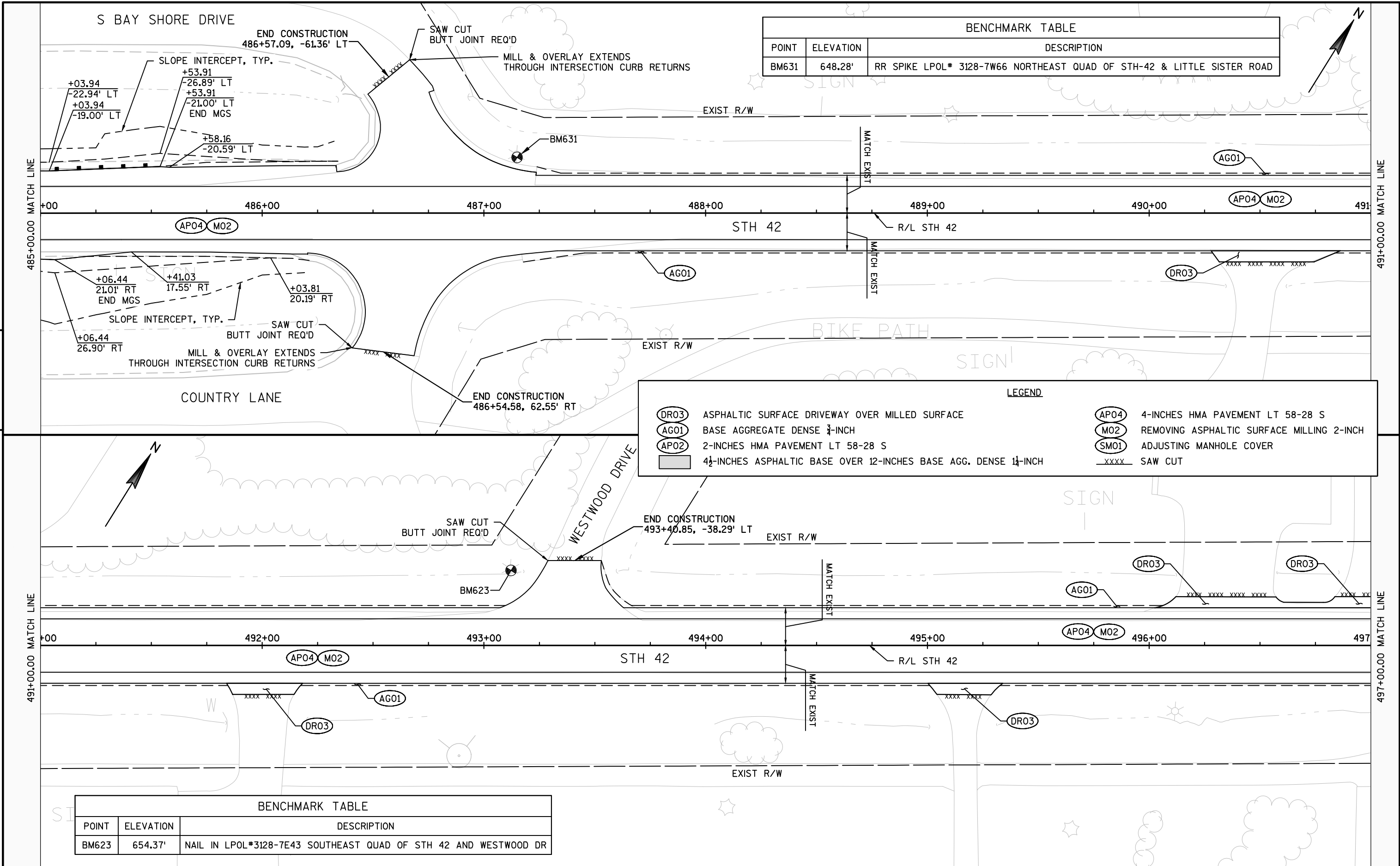


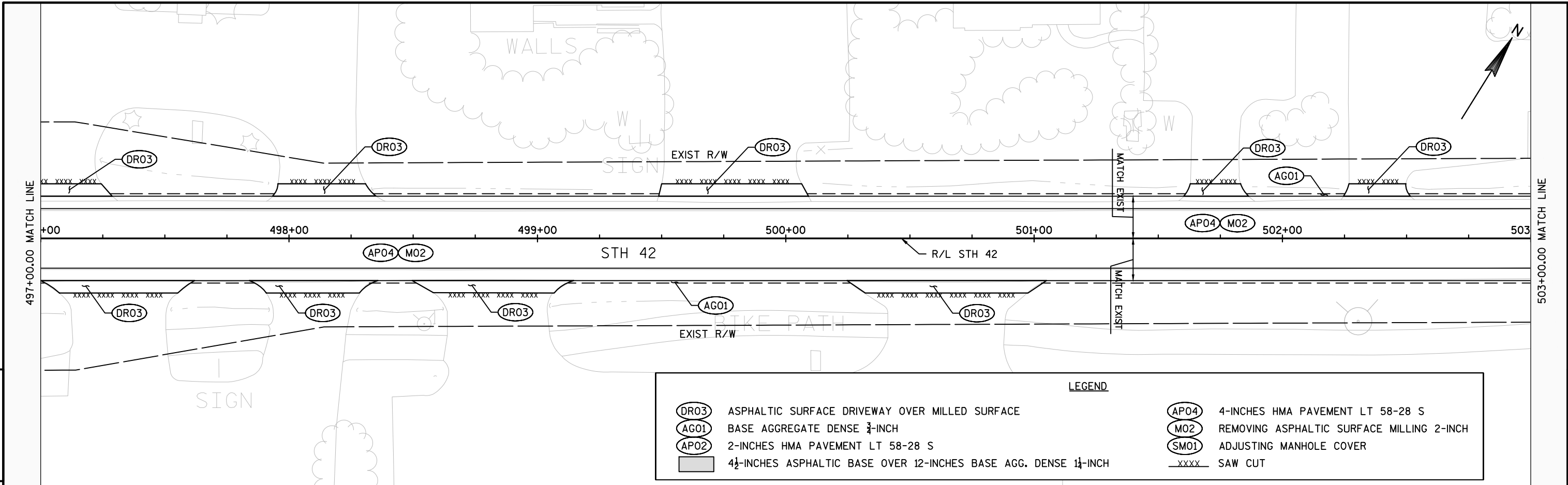


| BENCHMARK TABLE |           |                                                                          |
|-----------------|-----------|--------------------------------------------------------------------------|
| POINT           | ELEVATION | DESCRIPTION                                                              |
| BM621           | 719.89'   | RR SPIKE LPOL* 3128-7W95 SOUTHWEST QUAD OF STH 42 AND NORDIC DR          |
| BM622           | 716.26'   | RR SPIKE LPOL* 3128-7W96 NORTHEAST QUAD STH 42 & LITTLE SISTER HILL ROAD |









DR03

ASPHALTIC SURFACE DRIVEWAY OVER MILLED SURFACE

AG01

BASE AGGREGATE DENSE ¾-INCH

AP02

2-INCHES HMA PAVEMENT LT 58-28 S

4½-INCHES ASPHALTIC BASE OVER 12-INCHES BASE AGG. DENSE 1¼-INCH

LEGEND

AP04

4-INCHES HMA PAVEMENT LT 58-28 S

M02

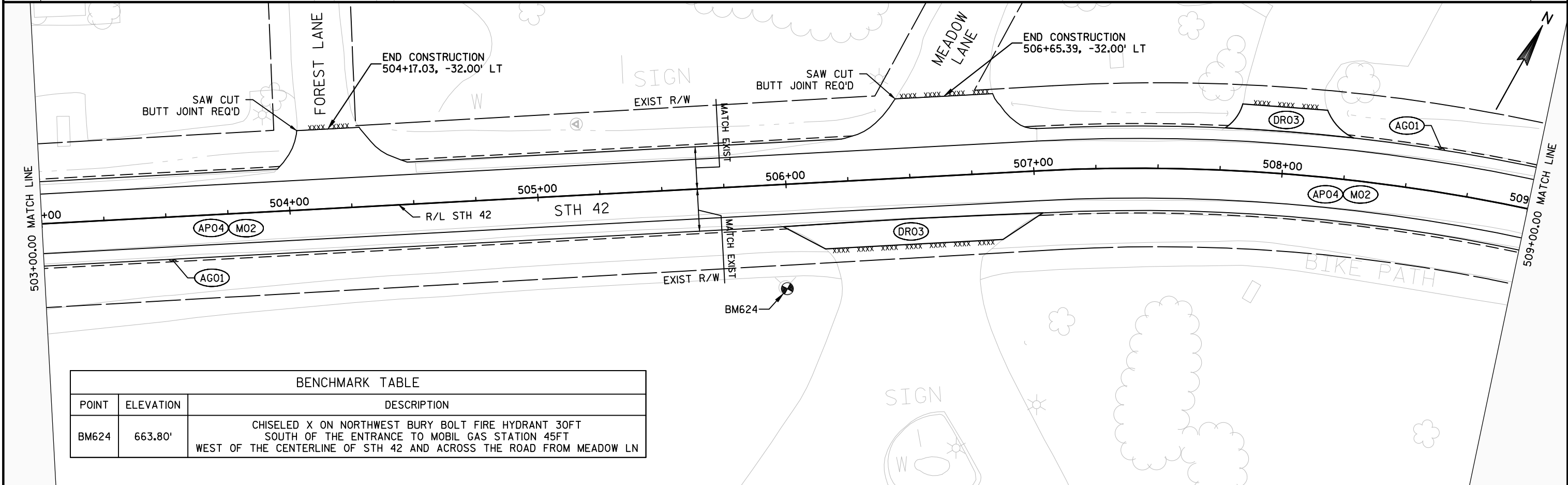
REMOVING ASPHALTIC SURFACE MILLING 2-INCH

SM01

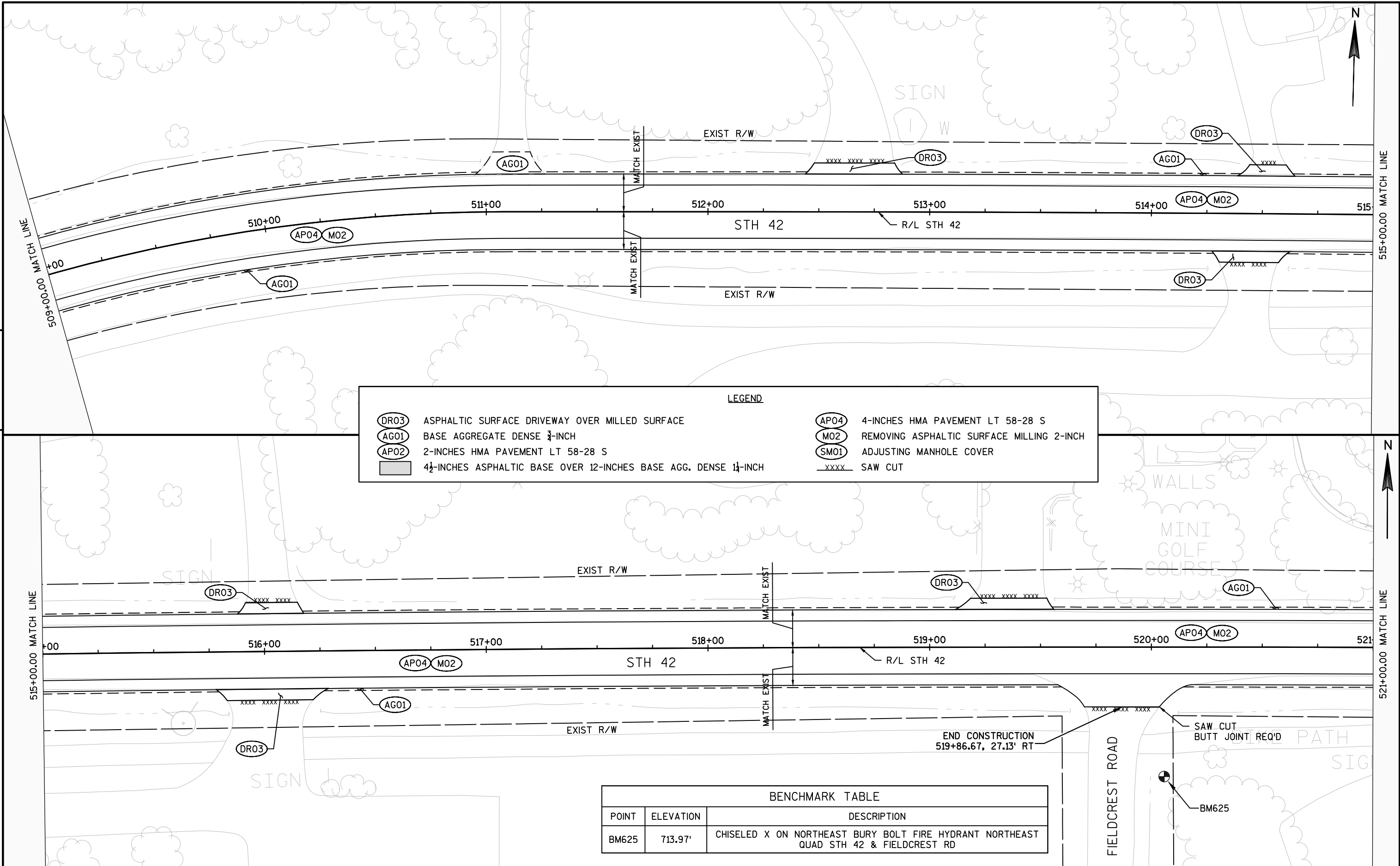
ADJUSTING MANHOLE COVER

xxxx

SAW CUT



| BENCHMARK TABLE |           |                                                                                                                                                                         |
|-----------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| POINT           | ELEVATION | DESCRIPTION                                                                                                                                                             |
| BM624           | 663.80'   | CHISELED X ON NORTHWEST BURY BOLT FIRE HYDRANT 30FT SOUTH OF THE ENTRANCE TO MOBIL GAS STATION 45FT WEST OF THE CENTERLINE OF STH 42 AND ACROSS THE ROAD FROM MEADOW LN |



LEGEND

DR03

ASPHALTIC SURFACE DRIVEWAY OVER MILLED SURFACE

AG01

BASE AGGREGATE DENSE ¾-INCH

AP02

2-INCHES HMA PAVEMENT LT 58-28 S

4½-INCHES ASPHALTIC BASE OVER 12-INCHES BASE AGG. DENSE 1½-INCH

AP04

4-INCHES HMA PAVEMENT LT 58-28 S

M02

REMOVING ASPHALTIC SURFACE MILLING 2-INCH

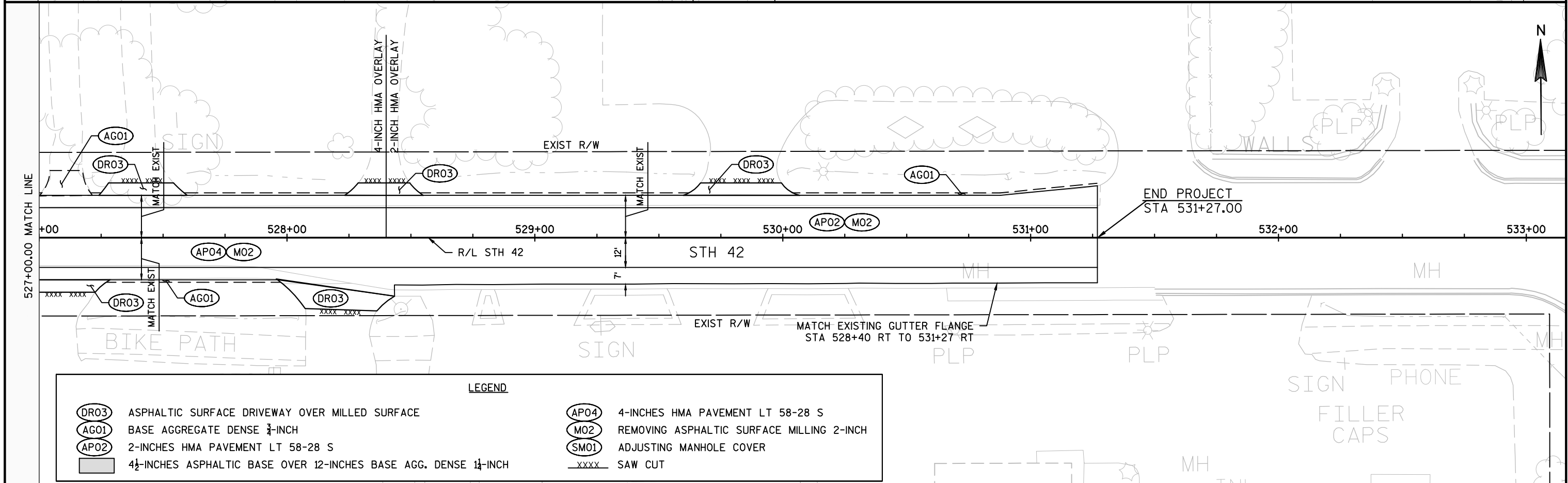
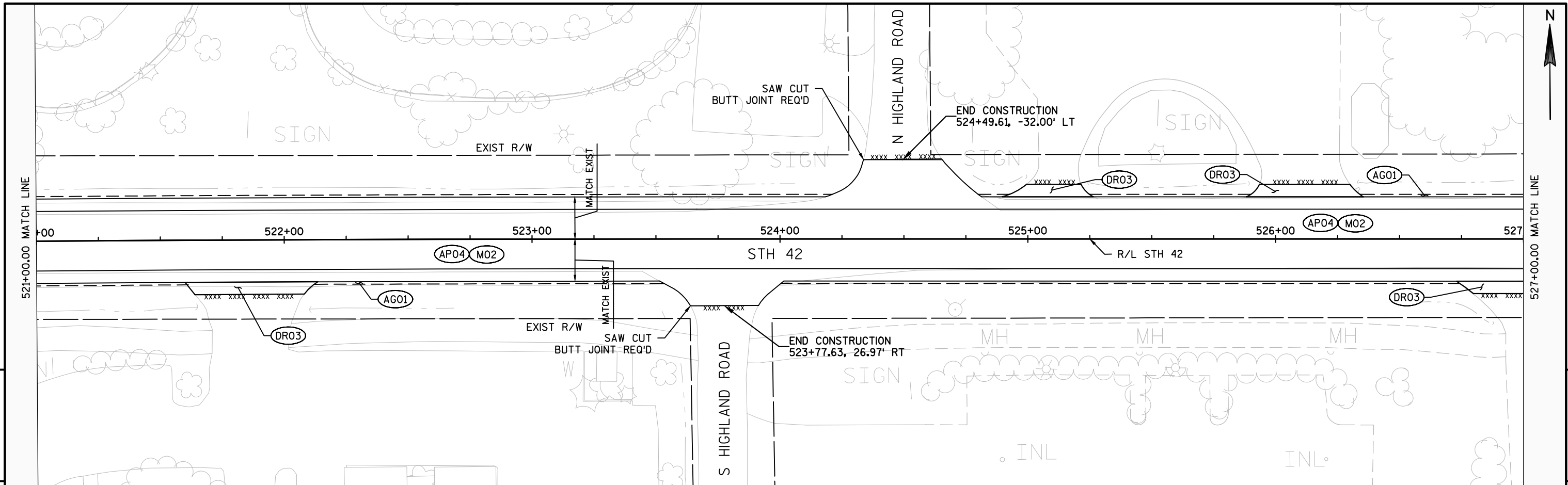
SM01

ADJUSTING MANHOLE COVER

xxxx

SAW CUT

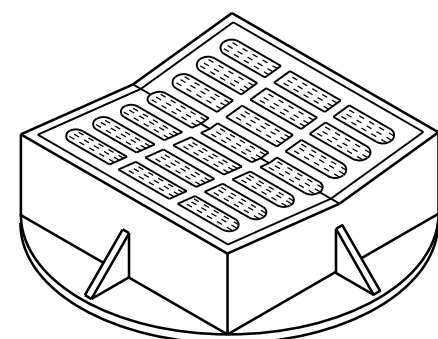
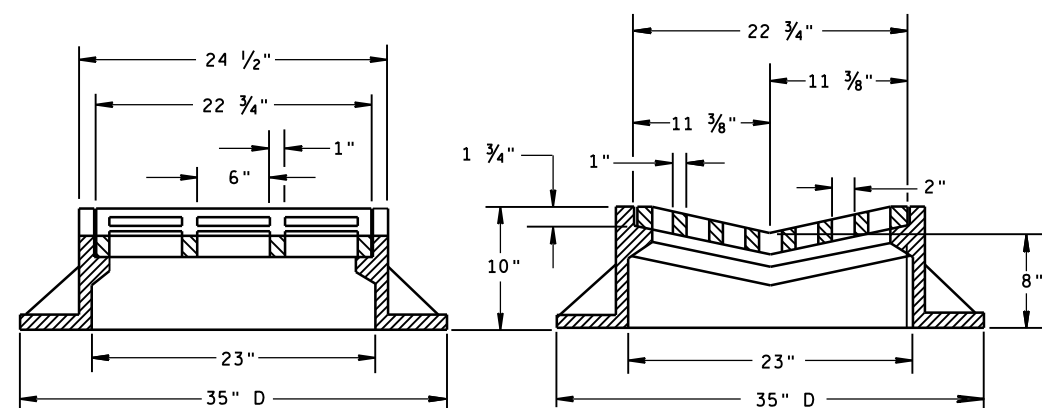
| BENCHMARK TABLE |           |                                                                                      |
|-----------------|-----------|--------------------------------------------------------------------------------------|
| POINT           | ELEVATION | DESCRIPTION                                                                          |
| BM625           | 713.97'   | CHISELED X ON NORTHEAST BURY BOLT FIRE HYDRANT NORTHEAST QUAD STH 42 & FIELDCREST RD |



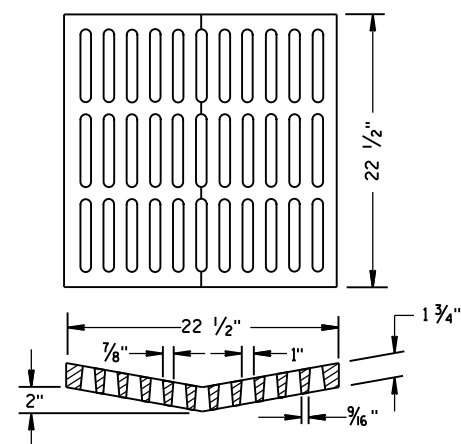
| LEGEND       |                                                                       |        |                                           |
|--------------|-----------------------------------------------------------------------|--------|-------------------------------------------|
| (DR03)       | ASPHALTIC SURFACE DRIVEWAY OVER MILLED SURFACE                        | (AP04) | 4-INCHES HMA PAVEMENT LT 58-28 S          |
| (AG01)       | BASE AGGREGATE DENSE 3/4-INCH                                         | (M02)  | REMOVING ASPHALTIC SURFACE MILLING 2-INCH |
| (AP02)       | 2-INCHES HMA PAVEMENT LT 58-28 S                                      | (SM01) | ADJUSTING MANHOLE COVER                   |
| [Shaded Box] | 4 1/2-INCHES ASPHALTIC BASE OVER 12-INCHES BASE AGG. DENSE 1 1/4-INCH | -XXXX- | SAW CUT                                   |

Standard Detail Drawing List

|           |                                                                                               |
|-----------|-----------------------------------------------------------------------------------------------|
| 08A05-19B | INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM                                                   |
| 08A05-19D | INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M                                    |
| 08A08-02  | CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER                                               |
| 08B09-02  | MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER                                       |
| 08C08-02  | INLETS MEDIAN 1 AND 2 GRATE                                                                   |
| 08D22-01  | DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL                                    |
| 08E08-03  | TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS                               |
| 08E09-06  | SILT FENCE                                                                                    |
| 08E10-02  | INLET PROTECTION TYPE A, B, C AND D                                                           |
| 08F01-11  | APRON ENDWALLS FOR CULVERT PIPE                                                               |
| 08F04-07  | JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL                                       |
| 09A01-13A | AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE |
| 09A01-13B | AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"                                             |
| 13A11-03A | 2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING                                                |
| 13A11-03B | 2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING                                                |
| 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)                                      |
| 15A03-02A | FLEXIBLE MARKER POST FOR CULVERT END                                                          |
| 15A03-02B | FLEXIBLE MARKER POST FOR CULVERT END                                                          |
| 15C05-05  | TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS                                      |
| 15C08-19A | LONGITUDINAL MARKING (MAINLINE)                                                               |
| 15C11-07B | CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS                             |
| 15C12-06  | TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION                                      |
| 15C19-05A | MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY                                    |
| 15C33-03  | STOP LINE AND CROSSWALK PAVEMENT MARKING                                                      |
| 15C35-03A | PAVEMENT MARKING (INTERSECTIONS)                                                              |
| 15D28-03  | TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY                          |
| 15D38-02A | TEMPORARY TRAFFIC CONTROL SIGN MOUNTING                                                       |
| 15D38-02B | ATTACHMENT OF SIGNS TO POSTS                                                                  |
| 15D39-02  | TRAFFIC CONTROL, DROP-OFF SIGNING                                                             |

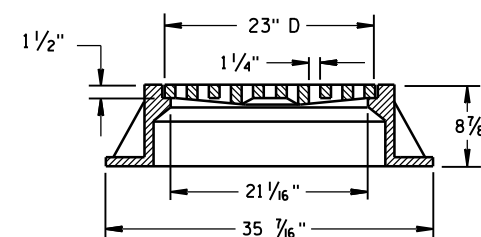
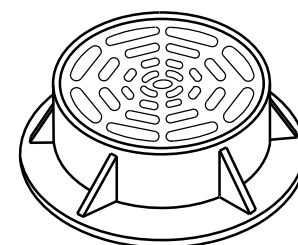
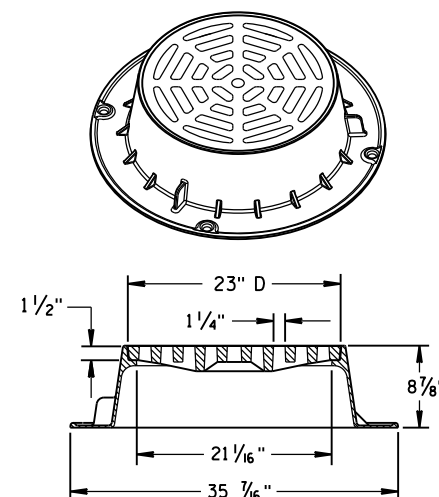


### TYPE "B"



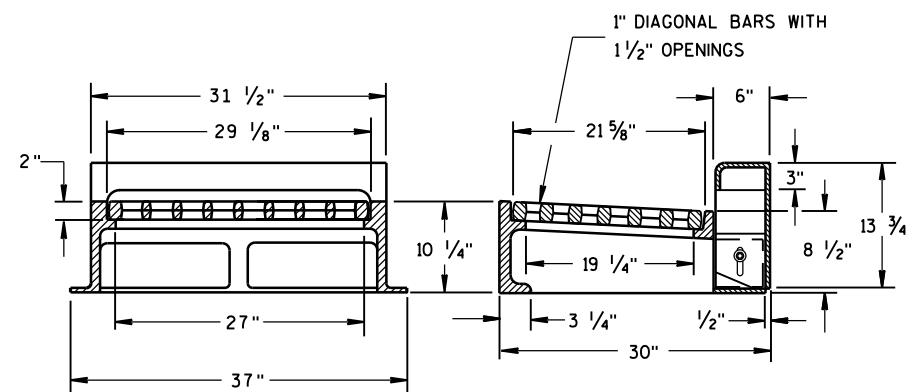
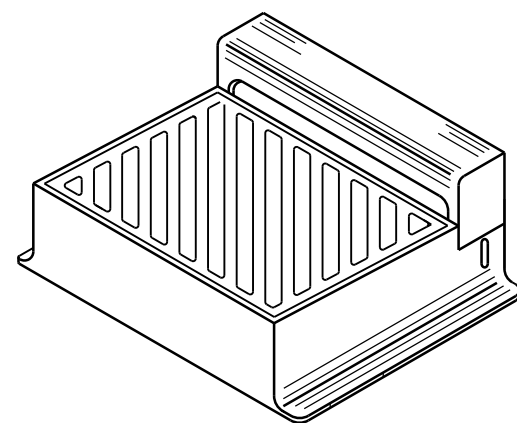
### ALTERNATIVE GRATE FOR TYPE "B" COVER

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



### TYPE "C"

**NOTE: EITHER CASTING IS ACCEPTABLE**



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

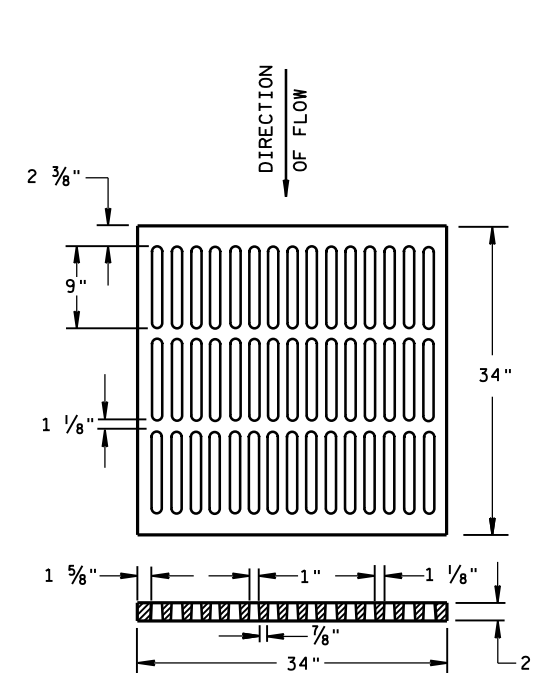
TYPE "WM"

## 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.

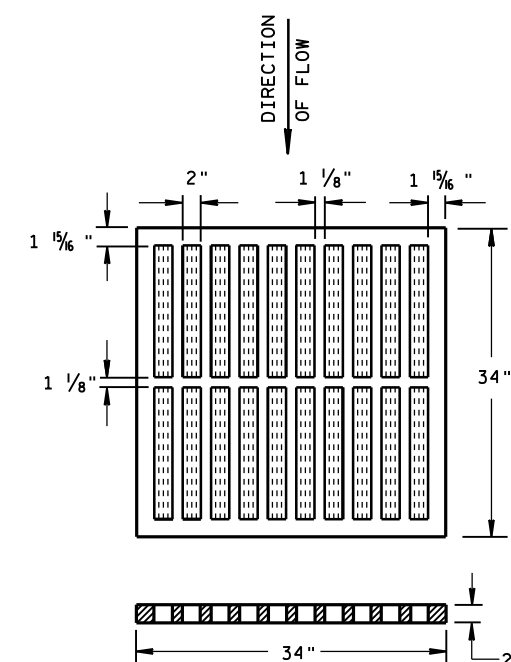
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

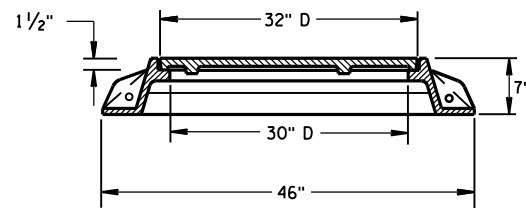
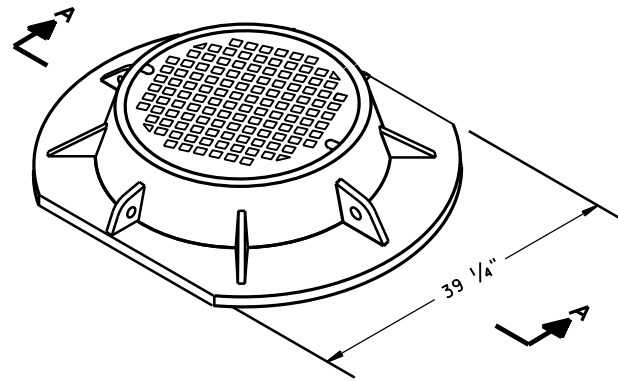
**INLET COVERS  
TYPE B, B-A, C,  
MS, MS-A, & WM**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

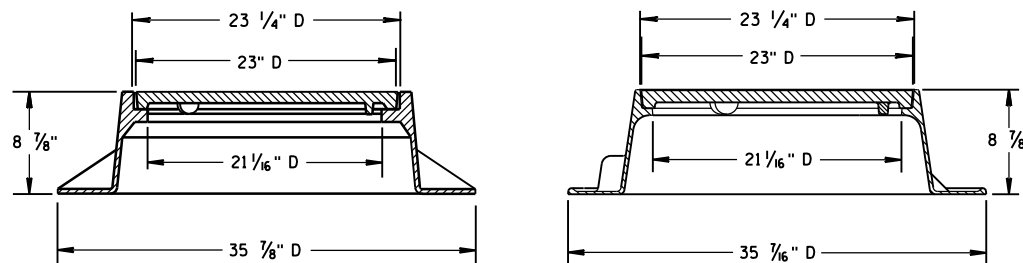
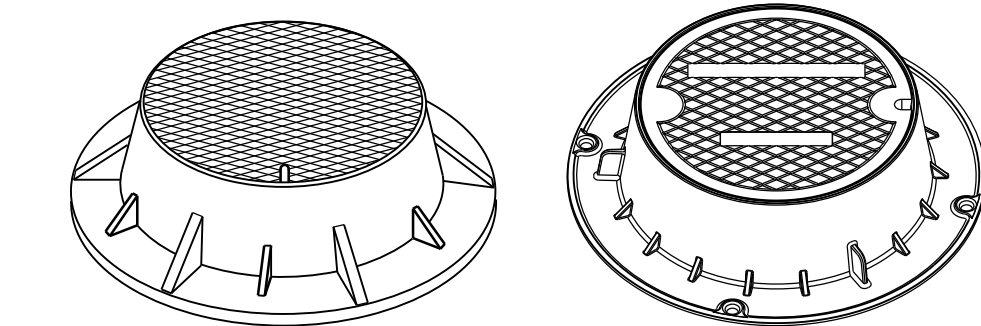
APPROVED  
11/27/2013  
DATE  
FHWA

/S/ Jerry H. Zogg  
ROADWAY STANDARDS DEVELOPMENT  
ENGINEER



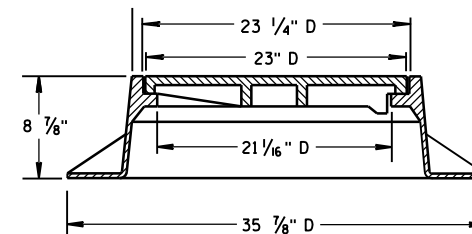
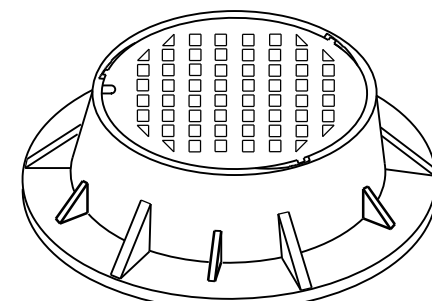
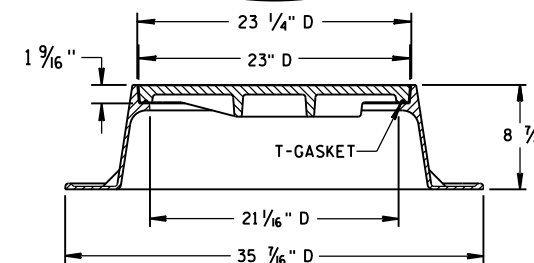
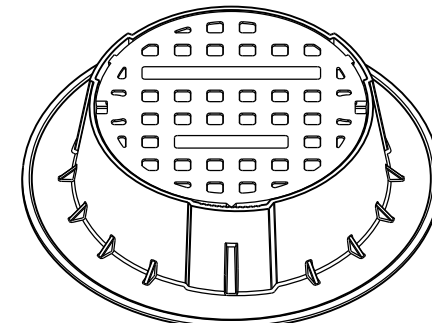


SECTION A-A  
TYPE "K"



TYPE "J"

NOTE: EITHER CASTING IS ACCEPTABLE

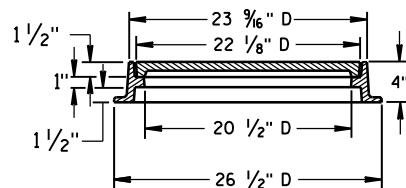
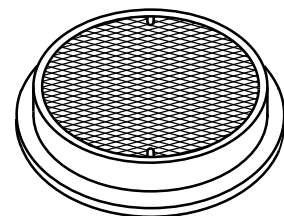


TYPE "J" SPECIAL

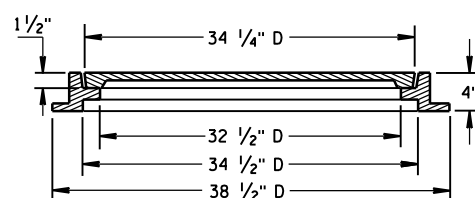
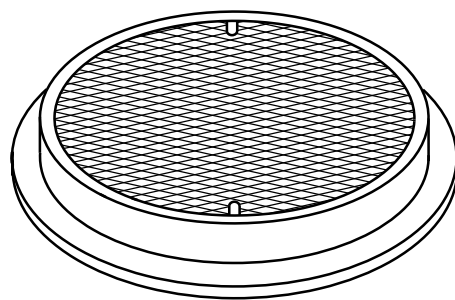
TYPE "B" NON-ROCKING SELF-SEAL LID

(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

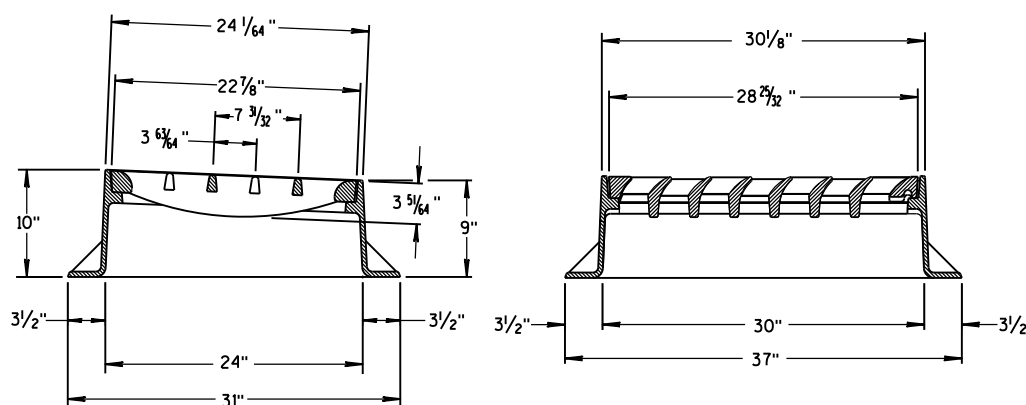
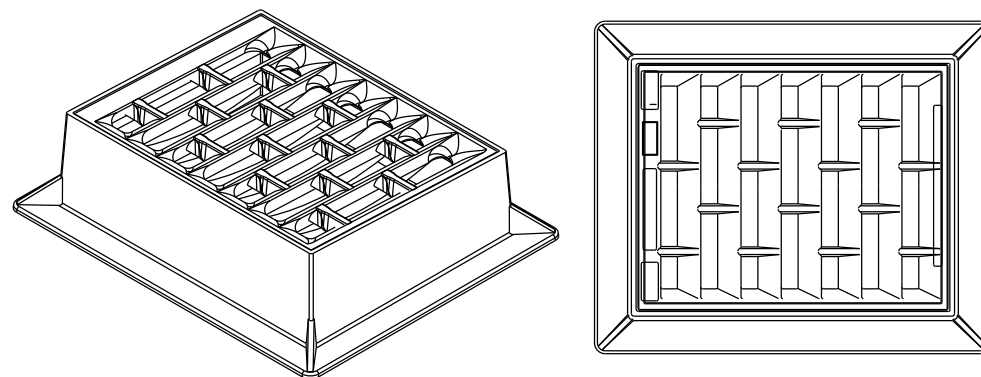
NOTE: EITHER CASTING IS ACCEPTABLE



TYPE "L"



TYPE "M"



INLET COVER TYPE "BW"

## 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 MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

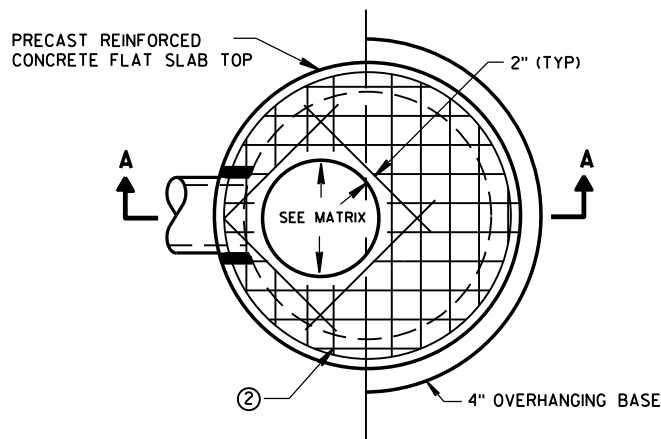
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

INLET COVER TYPE BW  
MANHOLE COVERS, TYPE K,  
J, J-S, L & M

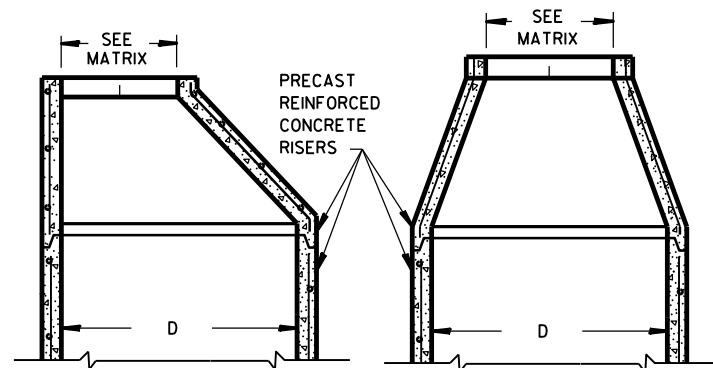
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
11/27/2013  
DATE  
FHWA

/S/ Jerry H. Zogg  
ROADWAY STANDARDS DEVELOPMENT  
ENGINEER

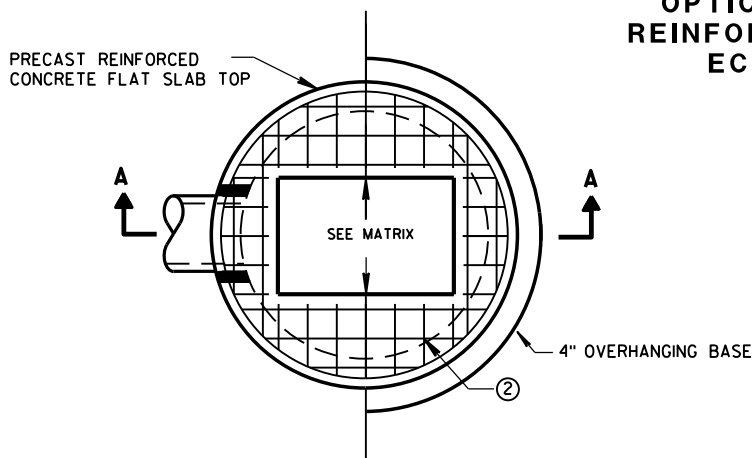


PLAN VIEW CIRCULAR OPENING

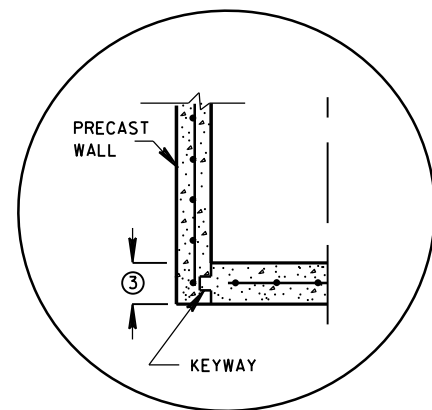


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

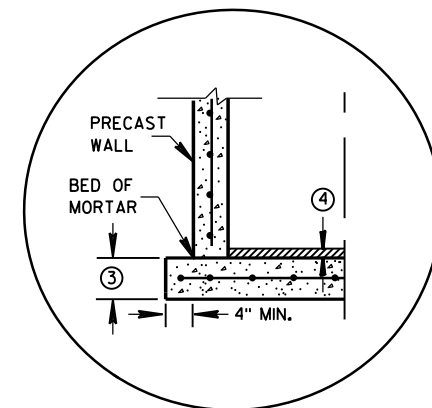
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



PLAN VIEW RECTANGULAR OPENING

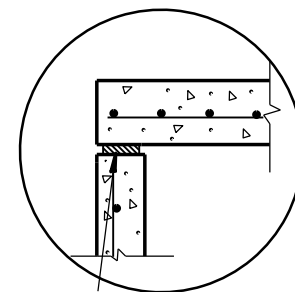


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

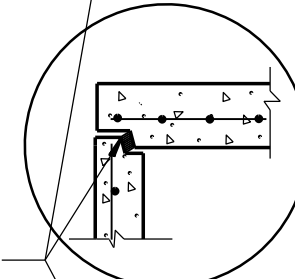


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

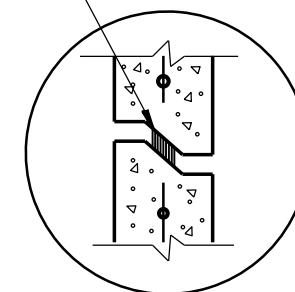
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



TOP WITH PLAIN END JOINT

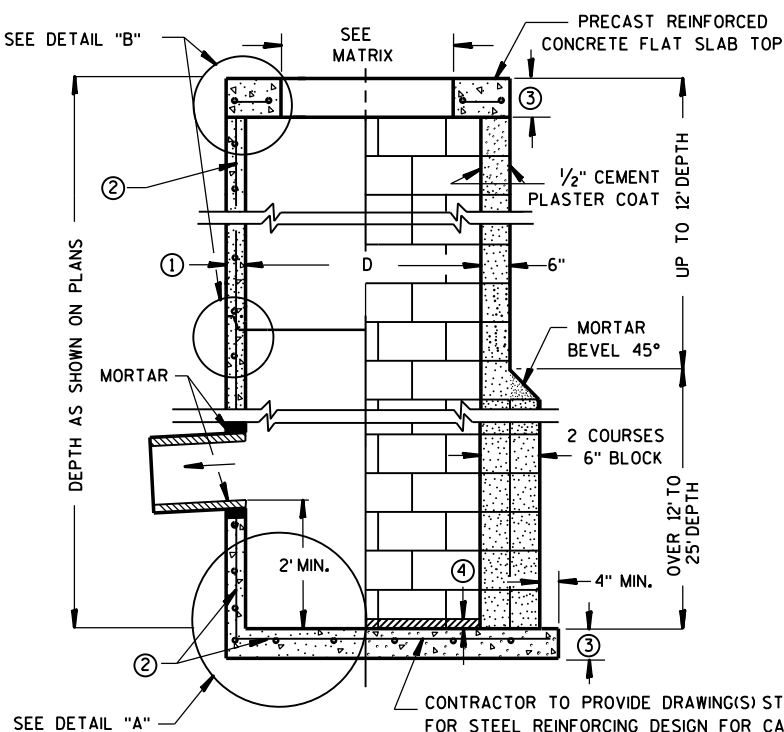


TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

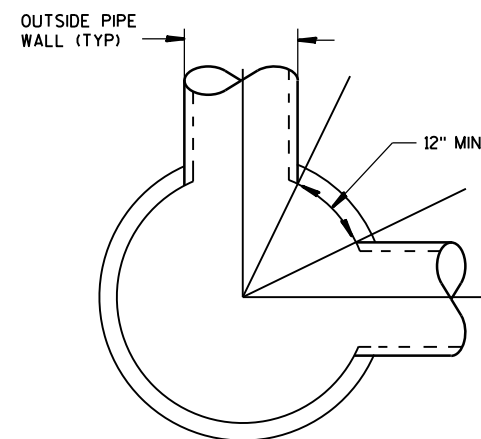
DETAIL "B"



SECTION A-A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②



DETAIL "C"

## 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 CATCH BASIN UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES 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.

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF 1/2 INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

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

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

- MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT AND 7 INCHES FOR 6-FT DIAMETER PRECAST CATCH BASINS.
- FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.
- PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".
- 1" CONCRETE KEY POURED AFTER INSTALLATION. 2" SUMP MEASURED FROM TOP OF KEY.

## CATCH BASIN COVER OPENING MATRIX

| CATCH BASIN SIZE | INLET COVER TYPE<br>OPENING SIZE (FT) | ALL A'S | ALL B'S | BW | C | F | ALL H'S | S | T | V | WM | Z |
|------------------|---------------------------------------|---------|---------|----|---|---|---------|---|---|---|----|---|
| 3-FT             | 2X2                                   | X       | X       |    |   |   |         | X |   | X |    |   |
|                  | 2 DIA.                                |         |         |    | X |   |         |   |   |   |    | X |
| 4-FT-<br>6-FT    | 2X2                                   | X       | X       |    |   |   |         | X |   | X |    |   |
|                  | 2X2.5                                 |         |         | X  |   |   |         | X | X | X | X  |   |
|                  | 2 DIA.                                |         |         |    | X |   |         |   |   |   |    | X |
|                  | 2X3                                   |         |         |    |   |   | X       |   |   |   |    |   |
|                  | 2.5X3                                 |         |         |    |   | X |         |   |   |   |    |   |

## PIPE MATRIX

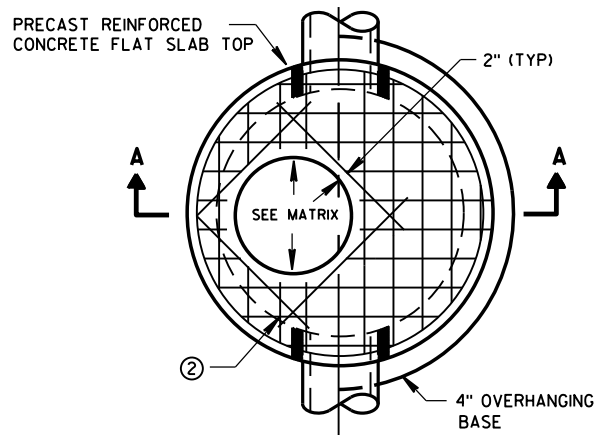
| CATCH BASIN SIZE | MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES |                     |
|------------------|--------------------------------------------|---------------------|
|                  | 180° SEPARATION (IN)                       | 90° SEPARATION (IN) |
| 3-FT             | 15                                         | 12                  |
| 4-FT             | 24                                         | 18                  |
| 5-FT             | 36                                         | 24                  |
| 6-FT             | 42                                         | 30                  |

CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

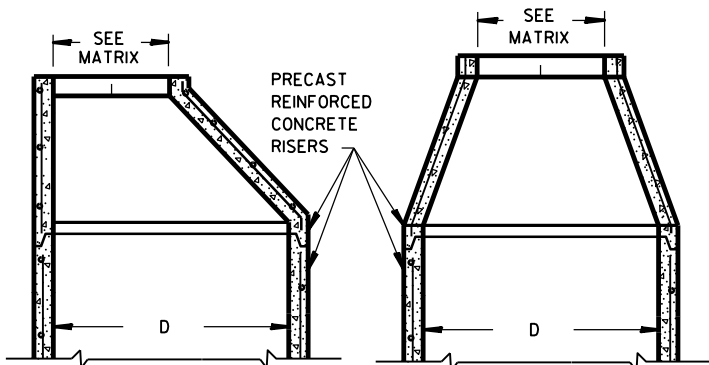
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
Sept., 2016  
DATE  
/S/ Rodney Taylor  
ROADWAY STANDARDS DEVELOPMENT  
UNIT SUPERVISOR  
FHWA

CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

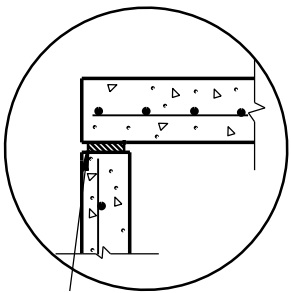


PLAN VIEW CIRCULAR OPENING

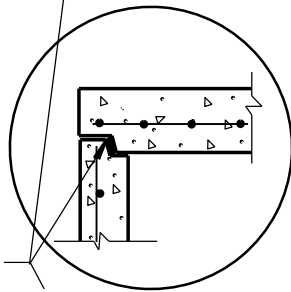


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

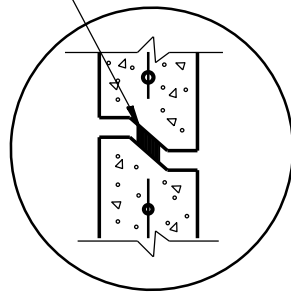
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



TOP WITH PLAIN END JOINT



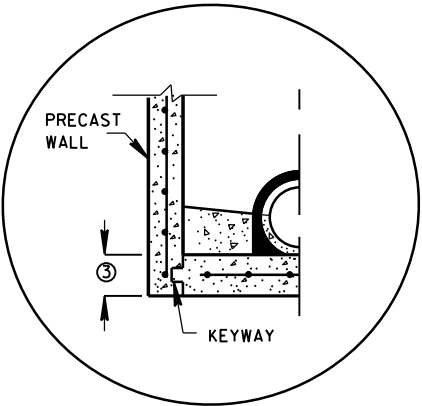
TOP WITH TONGUE AND GROOVE JOINT



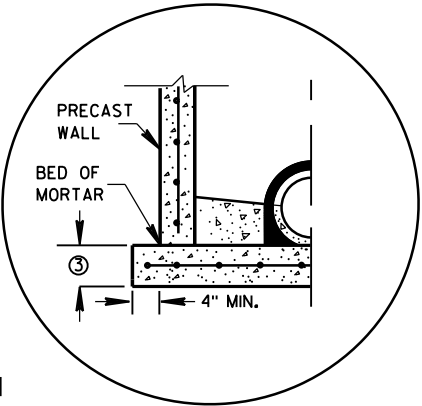
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

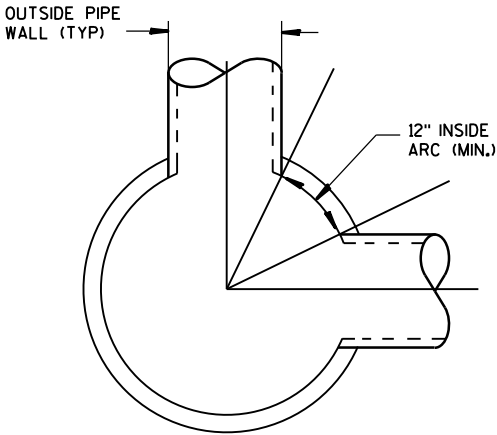


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

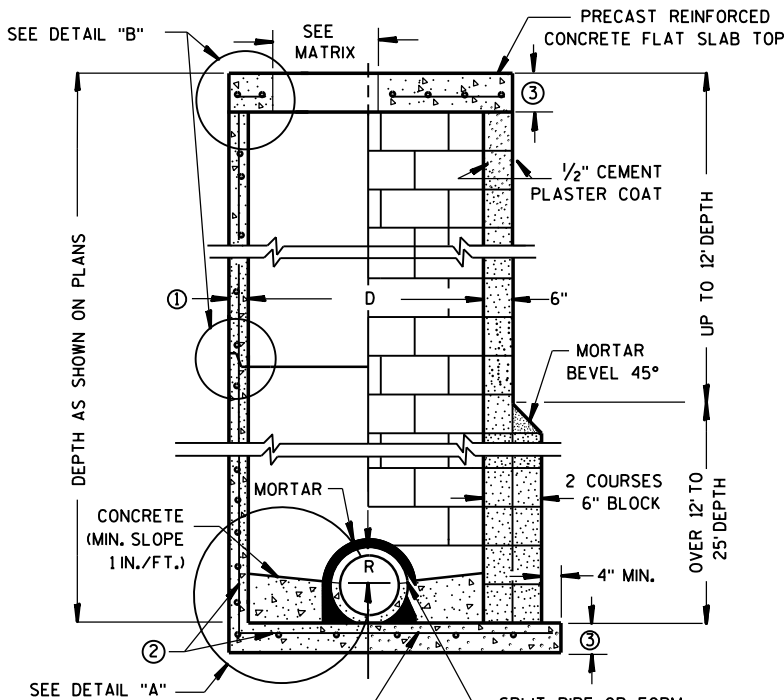


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"



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

PRECAST REINFORCED CONCRETE BLOCK WITH CONCRETE WITH MONOLITHIC BASE CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

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 MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES 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.

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF 1/2" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

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

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

- ① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.
- ② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.
- ③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

| MANHOLE COVER TYPE | C | ALL J'S | K | L | M |
|--------------------|---|---------|---|---|---|
| OPENING SIZE (FT)  |   |         |   |   |   |
| 2 DIA.             | X | X       |   | X |   |
| 3 DIA.             |   |         | X |   | X |

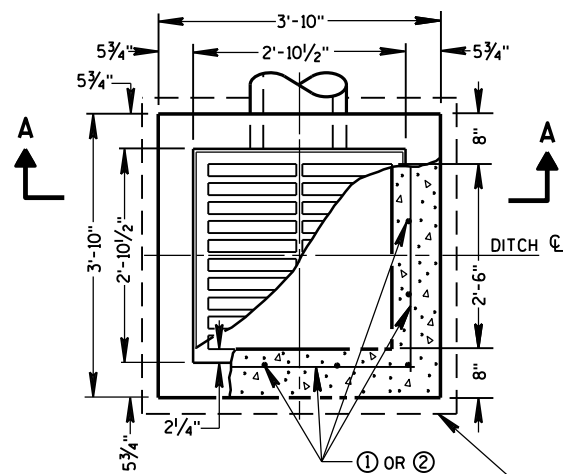
PIPE MATRIX

| MANHOLE SIZE | MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES |                     |
|--------------|--------------------------------------------|---------------------|
|              | 180° SEPARATION (IN)                       | 90° SEPARATION (IN) |
| 3-FT         | 15                                         | 12                  |
| 4-FT         | 24                                         | 18                  |
| 5-FT         | 36                                         | 24                  |
| 6-FT         | 42                                         | 36                  |
| 7-FT         | 48                                         | 36                  |
| 8-FT         | 60                                         | 42                  |

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

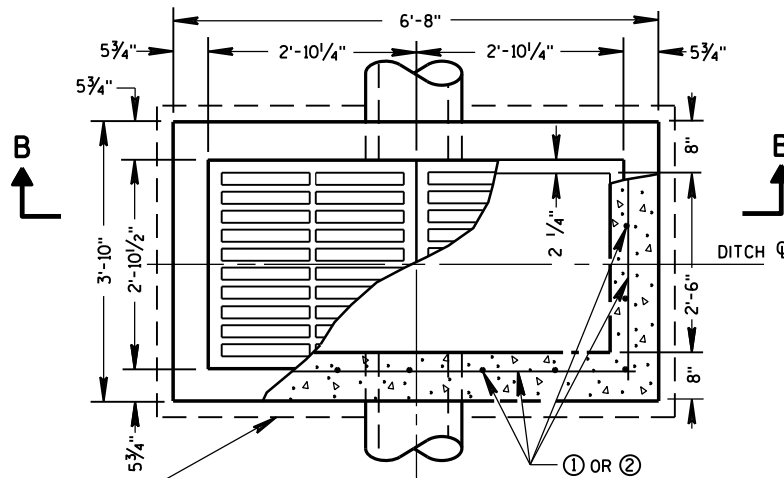
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
Sep 11, 2016 /S/ Rodney Taylor  
DATE ROADWAY STANDARDS DEVELOPMENT  
FHWA UNIT SUPERVISOR

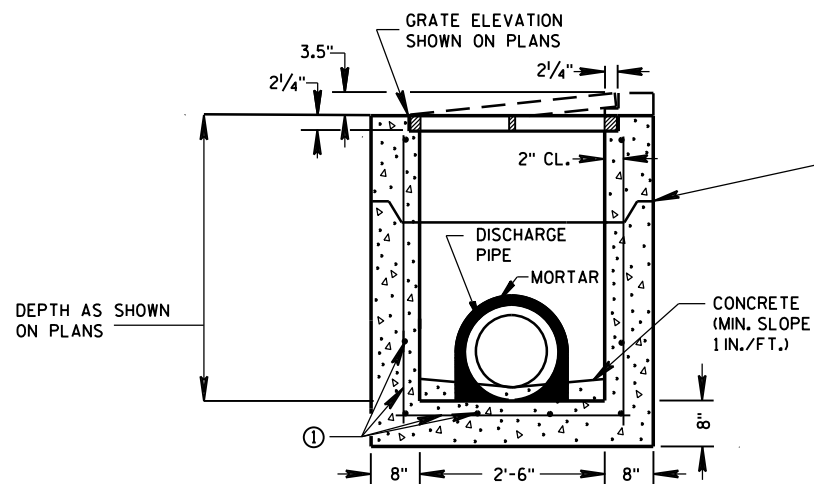


PLAN VIEW

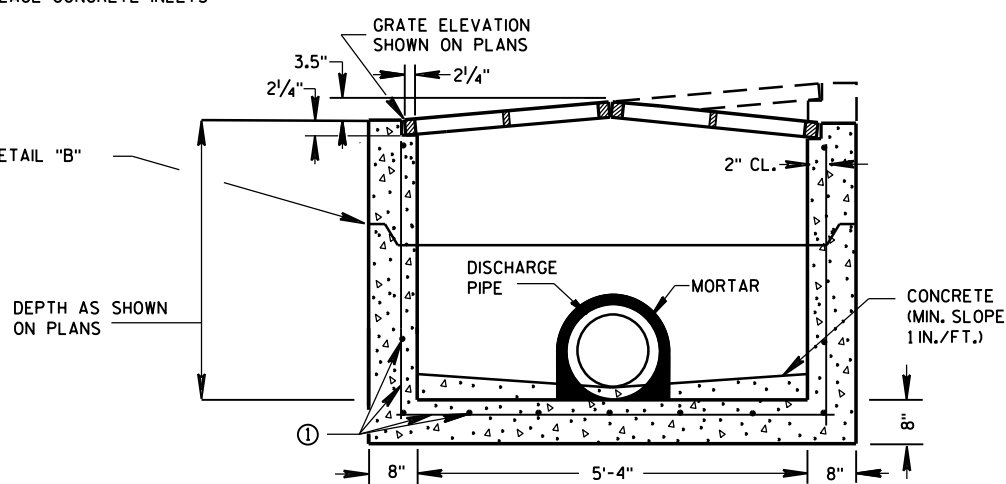
4" OVERHANGING BASE ON REINFORCED  
CAST-IN-PLACE CONCRETE INLETS



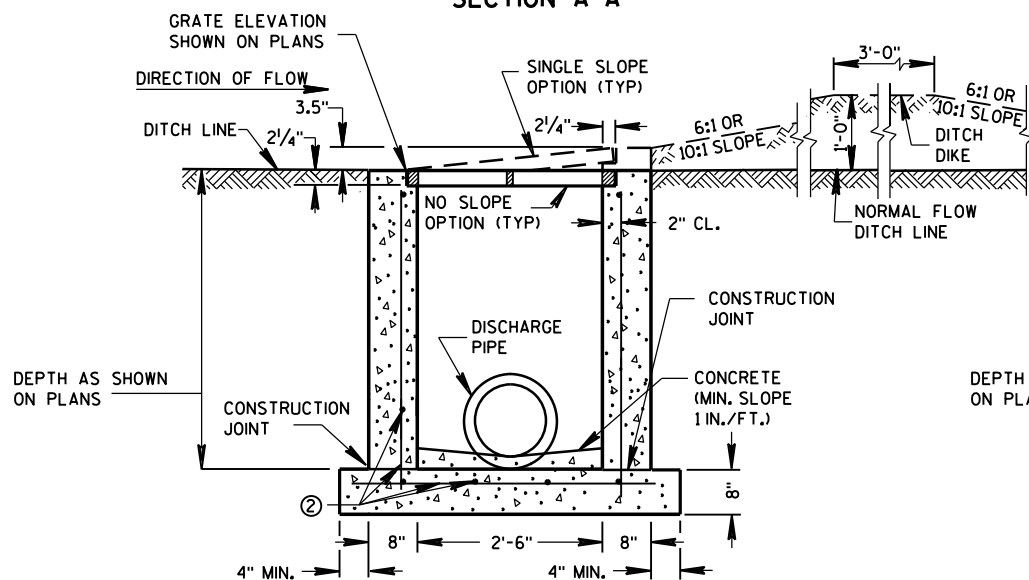
PLAN VIEW



PRECAST REINFORCED CONCRETE  
SECTION A-A

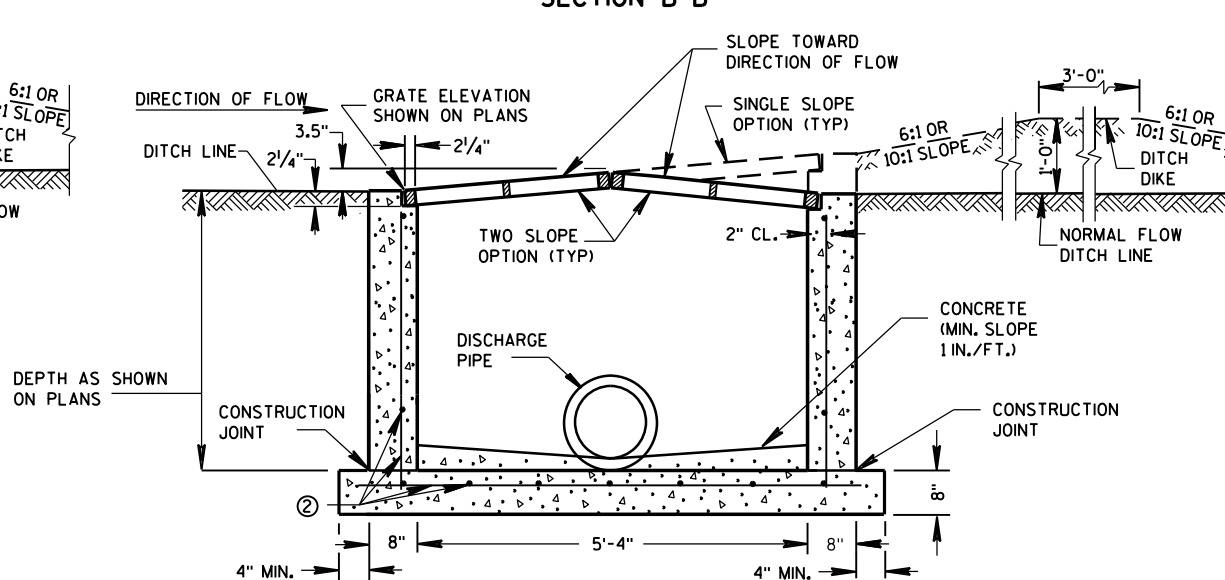


PRECAST REINFORCED CONCRETE  
SECTION B-B



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, IG-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.

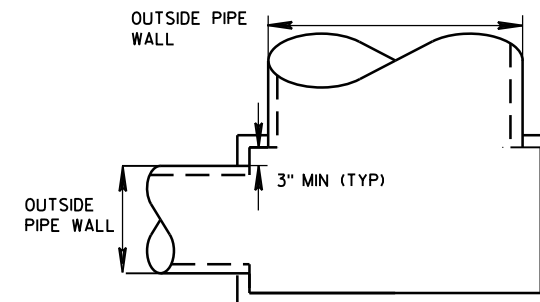
ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

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.

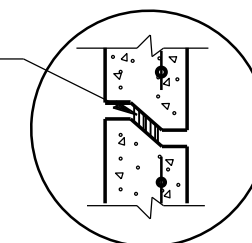
## PIPE MATRIX

| INLET SIZE | MAXIMUM INSIDE PIPE DIAMETER |             |
|------------|------------------------------|-------------|
|            | 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"

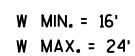
INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

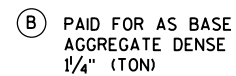
APPROVED  
Sept., 2016  
DATE  
FHWA

/S/ Rodney Taylor  
ROADWAY STANDARDS DEVELOPMENT  
UNIT SUPERVISOR

① DESIGN WILL DETERMINE FINAL DRIVEWAY ASPHALTIC THICKNESS BASED ON TYPE OF USAGE AND LOADINGS.

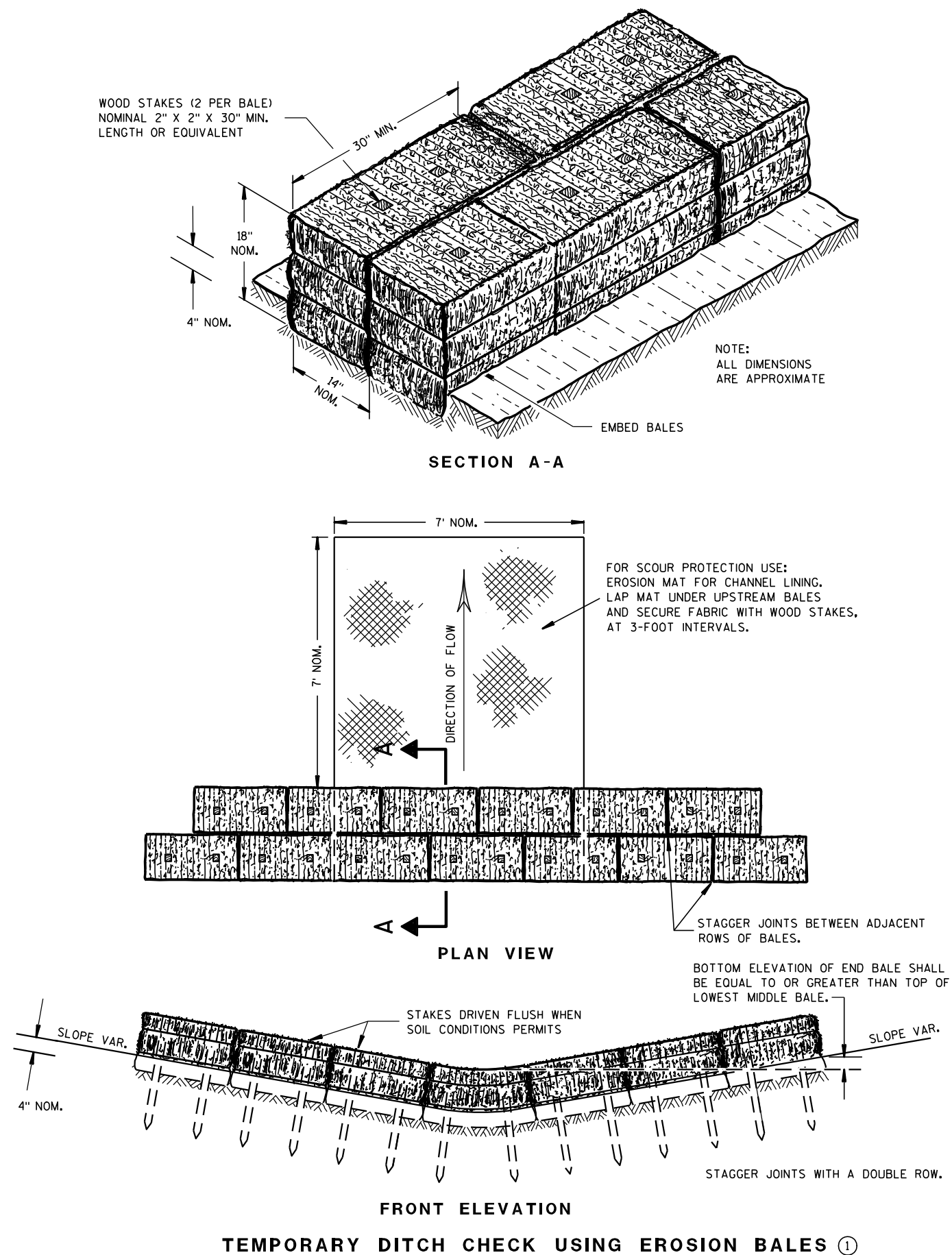


PLAN VIEW  
HALF SECTION



PLAN VIEW  
HALF SECTION

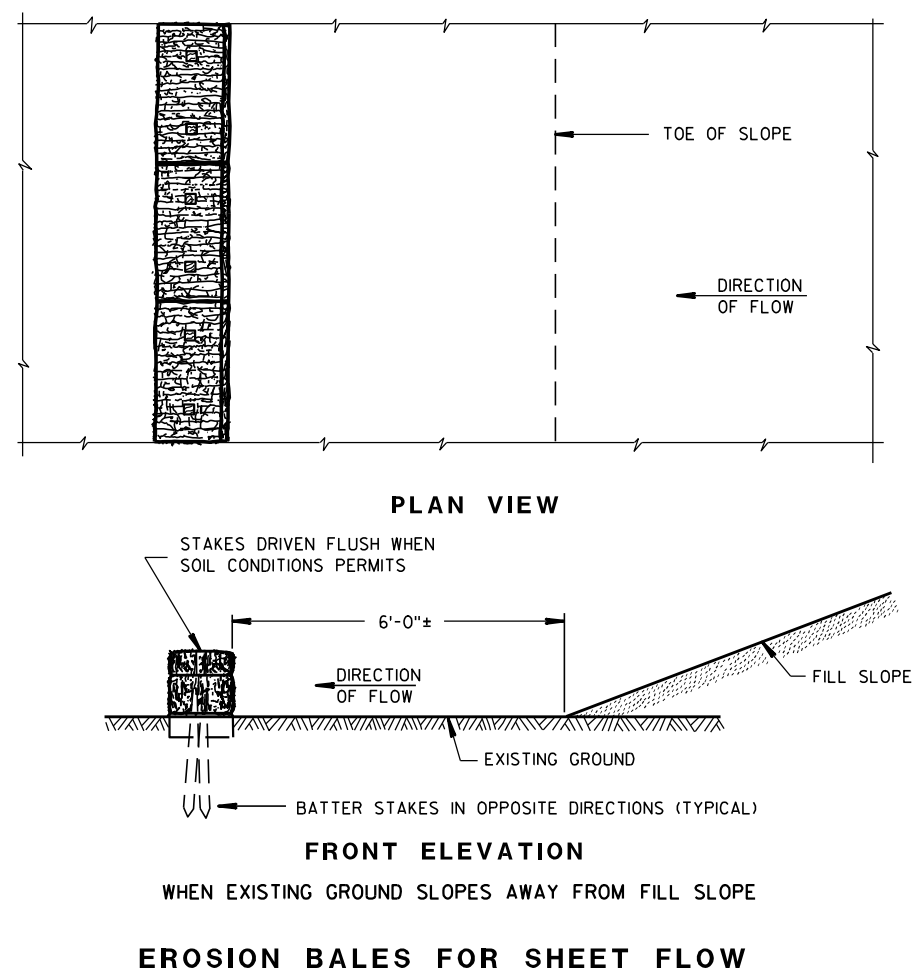
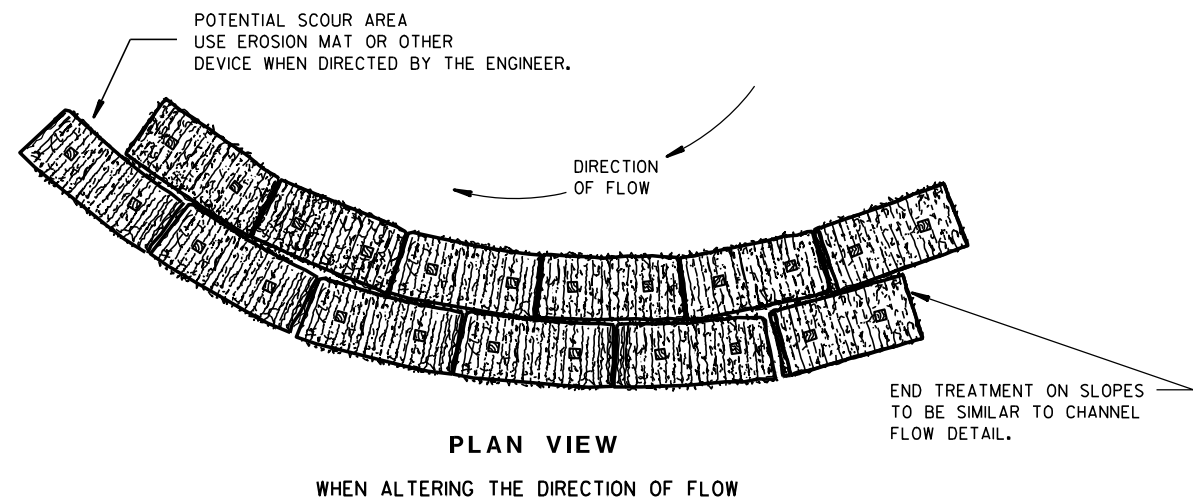




## GENERAL NOTES

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.

TYPICAL INSTALLATIONS OF  
EROSION BALES / TEMPORARY  
DITCH CHECKS

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

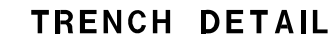
6/04/02  
DATE

FHWA

/S/ Beth Canestra  
CHIEF ROADWAY DEVELOPMENT ENGINEER

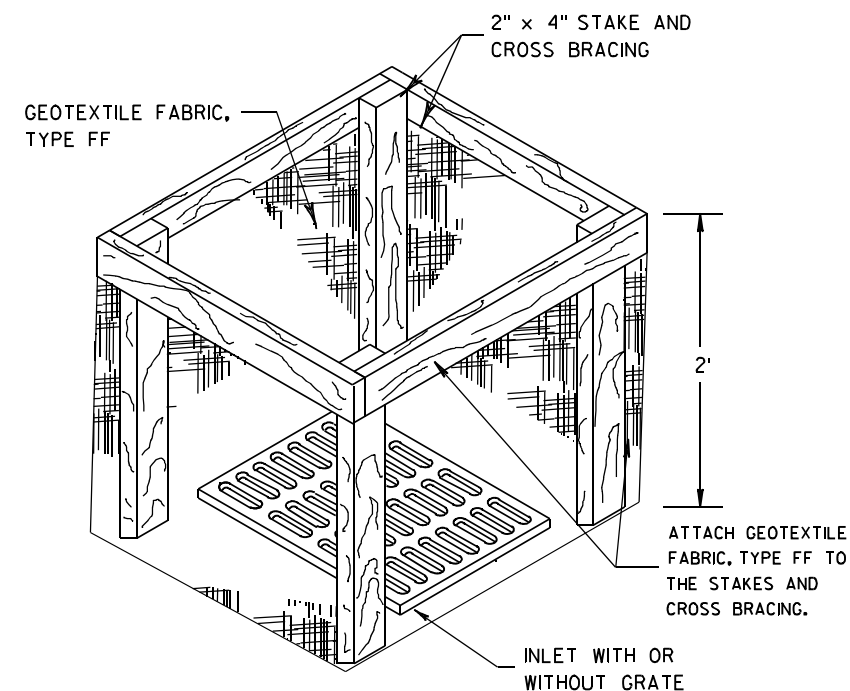
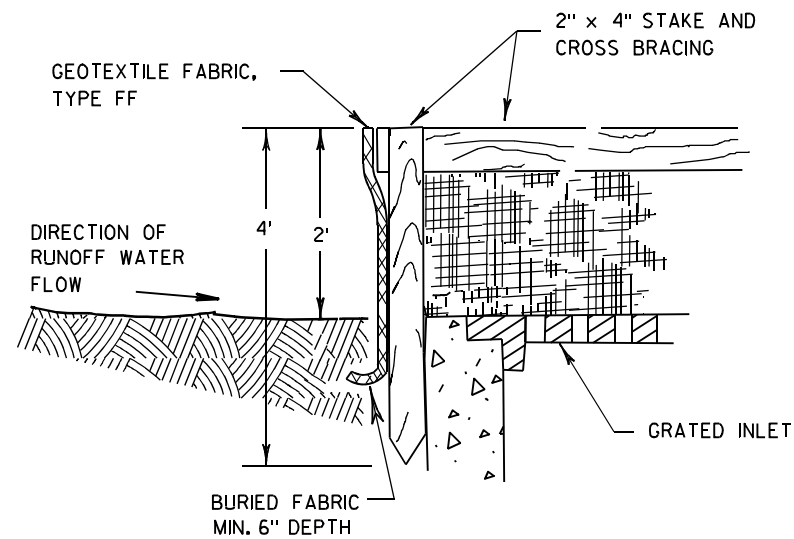


- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1½" X 1½" 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.



|                                                            |                                                                 |
|------------------------------------------------------------|-----------------------------------------------------------------|
| <b>SILT FENCE</b>                                          |                                                                 |
| <b>STATE OF WISCONSIN<br/>DEPARTMENT OF TRANSPORTATION</b> |                                                                 |
| <b>APPROVED</b><br><u>4-29-05</u><br>DATE                  | <u>/S/ Beth Cannestra</u><br>CHIEF ROADWAY DEVELOPMENT ENGINEER |





## INLET PROTECTION, TYPE A

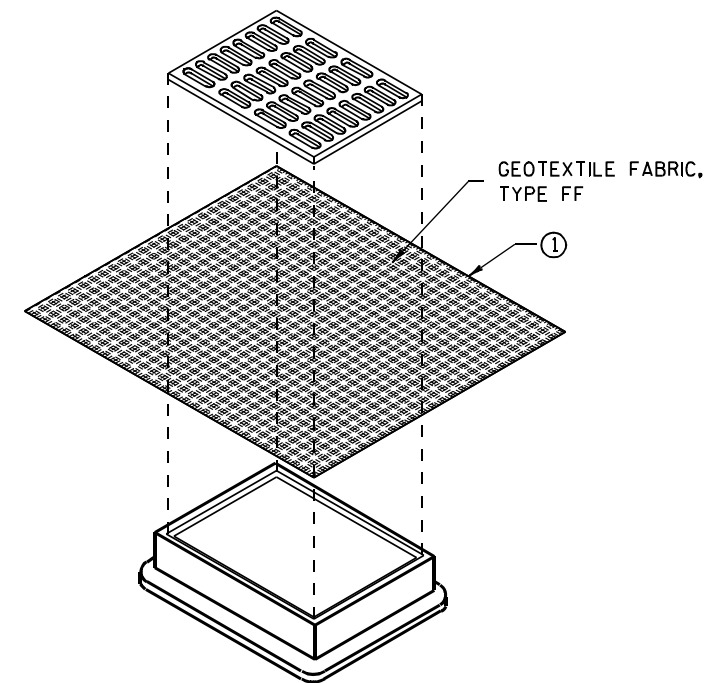
## GENERAL NOTES

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.

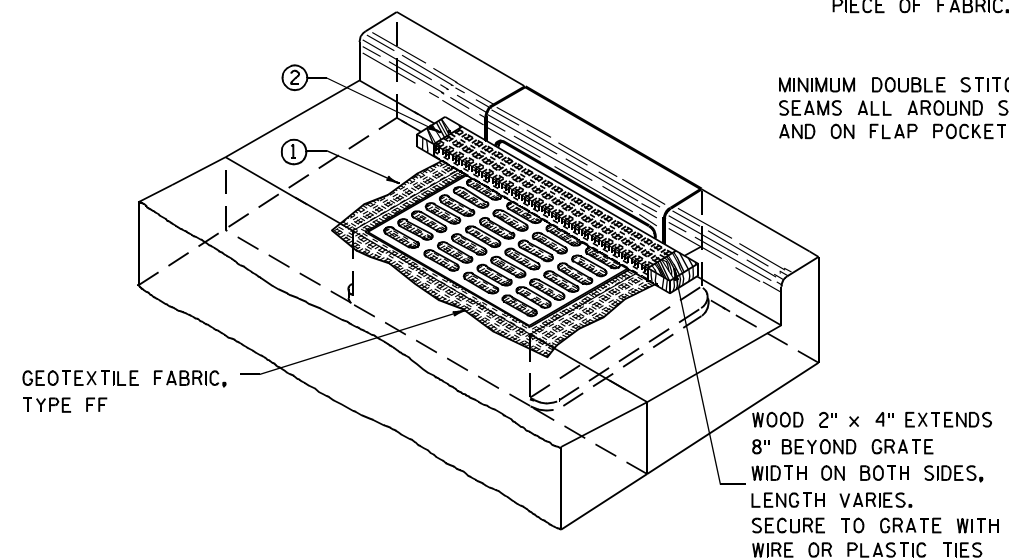
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.



### INLET PROTECTION, TYPE B (WITHOUT CURB BOX)

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



### INLET PROTECTION, TYPE C (WITH CURB BOX)

## INSTALLATION NOTES

## TYPE B & C

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

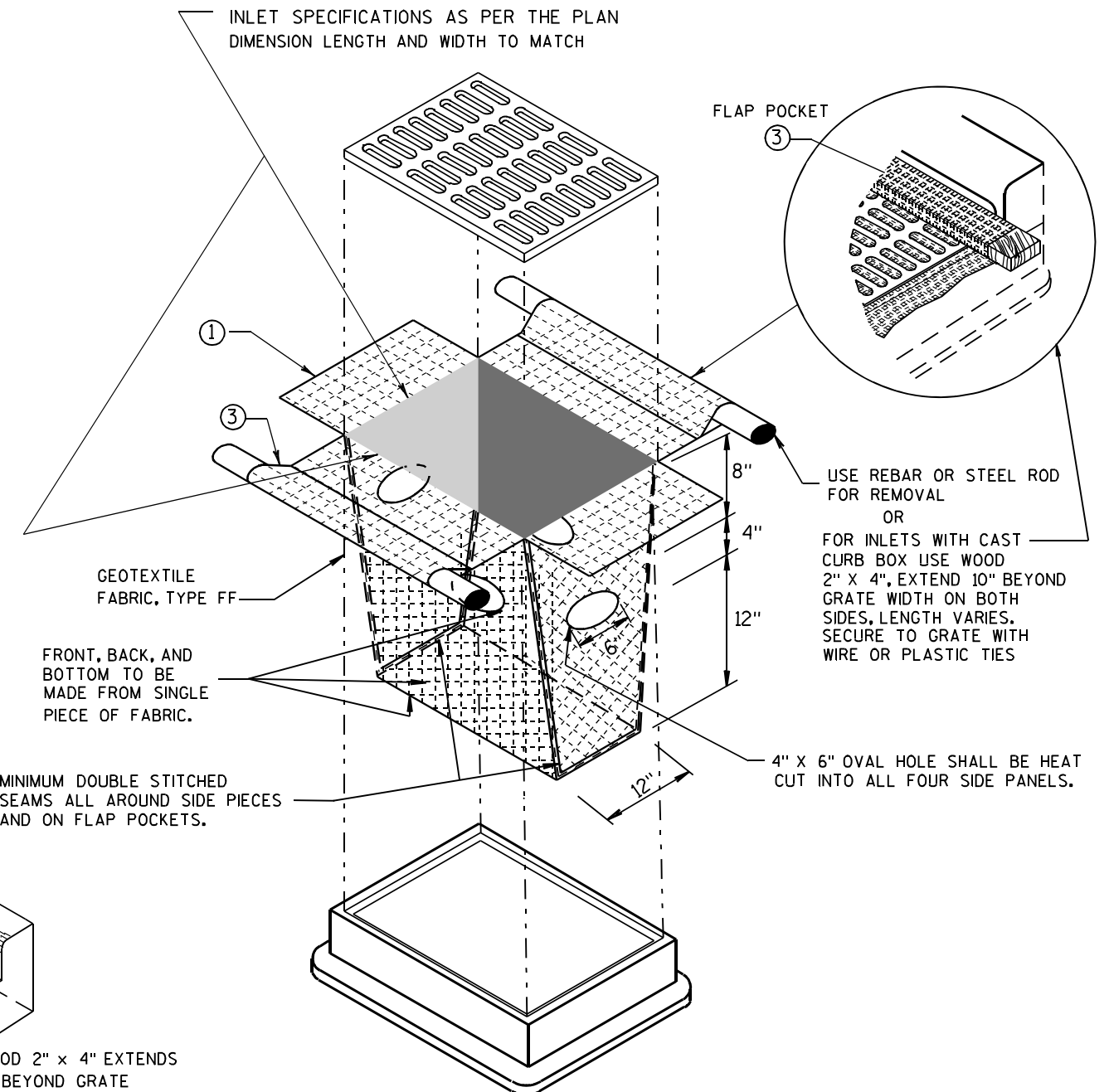
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

## 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 D

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

### INLET PROTECTION TYPE A, B, C, AND D

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

**APPROVED**

10/16/02

DA  
FHWA

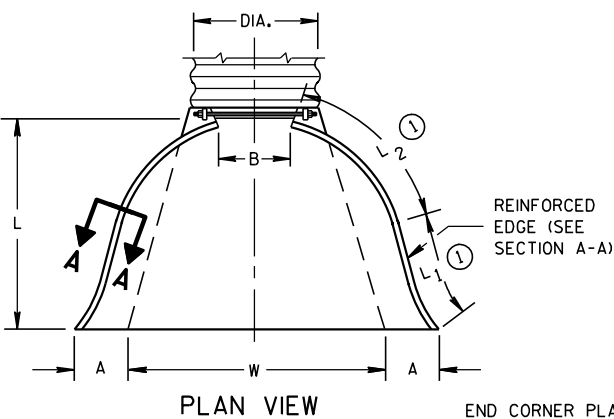
/S/ Beth Cannestra

CHIEF ROADWAY DEVELOPMENT ENGINEER



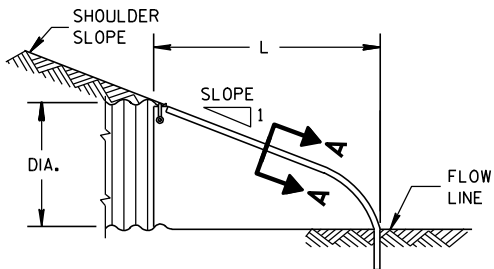
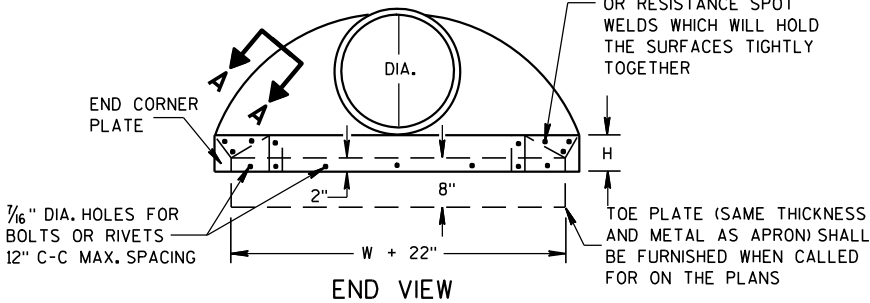
| METAL APRON ENDWALLS |                         |       |                     |             |            |                |         |         |            |               |       |
|----------------------|-------------------------|-------|---------------------|-------------|------------|----------------|---------|---------|------------|---------------|-------|
| PIPE DIA.<br>(IN.)   | MIN. THICK.<br>(Inches) |       | DIMENSIONS (Inches) |             |            |                |         |         |            | APPROX. SLOPE | BODY  |
|                      | STEEL                   | ALUM. | A<br>(±1")          | B<br>(MAX.) | H<br>(±1") | L<br>(±1 1/2") | L1<br>① | L2<br>① | W<br>(±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                   | .109x                   | .105x | 18                  | 33          | 12         | 87             | —       | —       | 114        | 2 to 1        | 3 Pc. |
| 66                   | .109x                   | .105x | 18                  | 36          | 12         | 87             | —       | —       | 120        | 2 to 1        | 3 Pc. |
| 72                   | .109x                   | .105x | 18                  | 39          | 12         | 87             | —       | —       | 126        | 2 to 1        | 3 Pc. |
| 78                   | .109x                   | .105x | 18                  | 42          | 12         | 87             | —       | —       | 132        | 1 1/2 to 1    | 3 Pc. |
| 84                   | .109x                   | .105x | 18                  | 45          | 12         | 87             | —       | —       | 138        | 1 1/2 to 1    | 3 Pc. |
| 90                   | .109x                   | .105x | 18                  | 37          | 12         | 87             | —       | —       | 144        | 1 1/2 to 1    | 3 Pc. |
| 96                   | .109x                   | .105x | 18                  | 35          | 12         | 87             | —       | —       | 150        | 1 1/2 to 1    | 3 Pc. |

\* EXCEPT CENTER PANEL  
SEE GENERAL NOTES



END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER

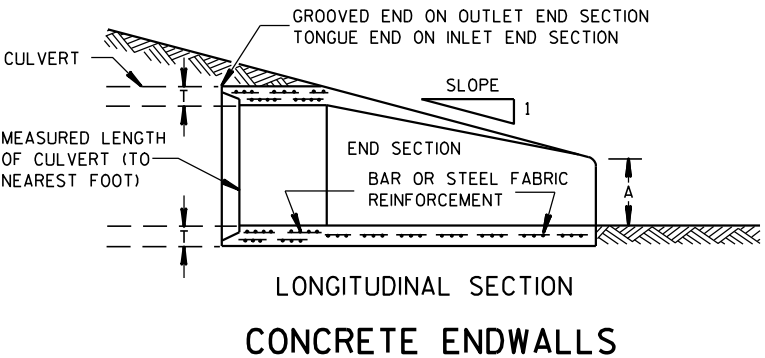
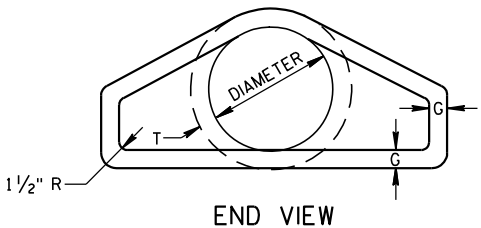
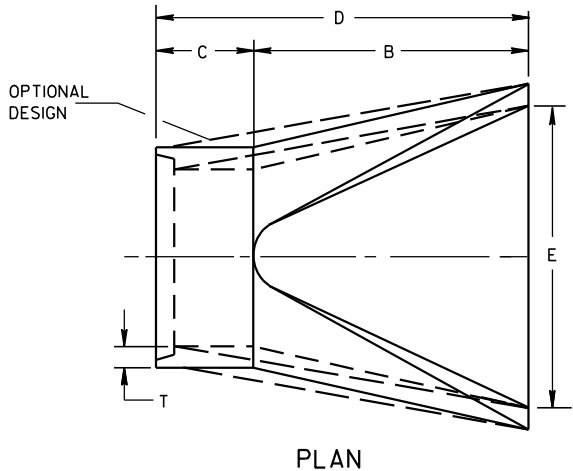
TOE PLATE (SAME THICKNESS AND METAL AS APRON) SHALL BE FURNISHED WHEN CALLED FOR ON THE PLANS



SIDE ELEVATION  
METAL ENDWALLS

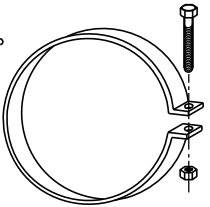
| REINFORCED CONCRETE APRON ENDWALLS |                     |        |        |           |            |     |       |               |  |  |  |
|------------------------------------|---------------------|--------|--------|-----------|------------|-----|-------|---------------|--|--|--|
| PIPE DIA.<br>(IN.)                 | DIMENSIONS (Inches) |        |        |           |            |     |       | APPROX. SLOPE |  |  |  |
|                                    | T                   | A      | B      | C         | D          | E   | G     |               |  |  |  |
| 12                                 | 2                   | 4      | 24     | 48 7/8    | 72 7/8     | 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

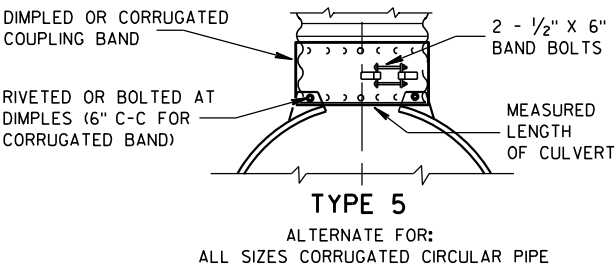
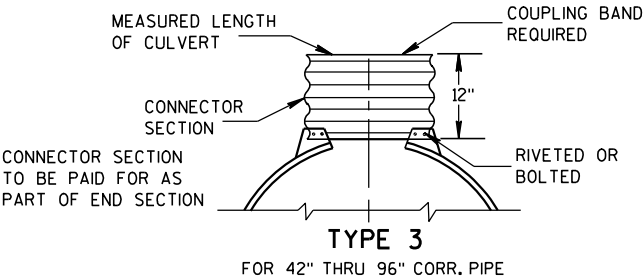
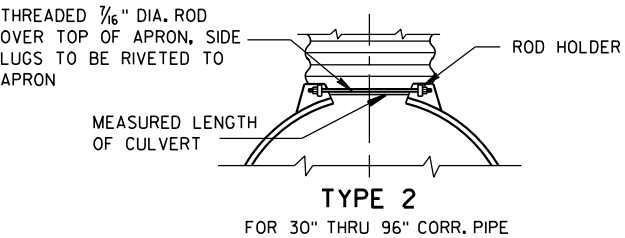
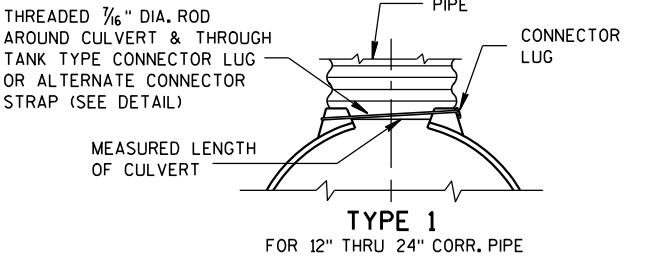


LONGITUDINAL SECTION  
CONCRETE ENDWALLS

1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



ALTERNATE FOR TYPE 1 CONNECTION  
END SECTION CONNECTOR STRAP



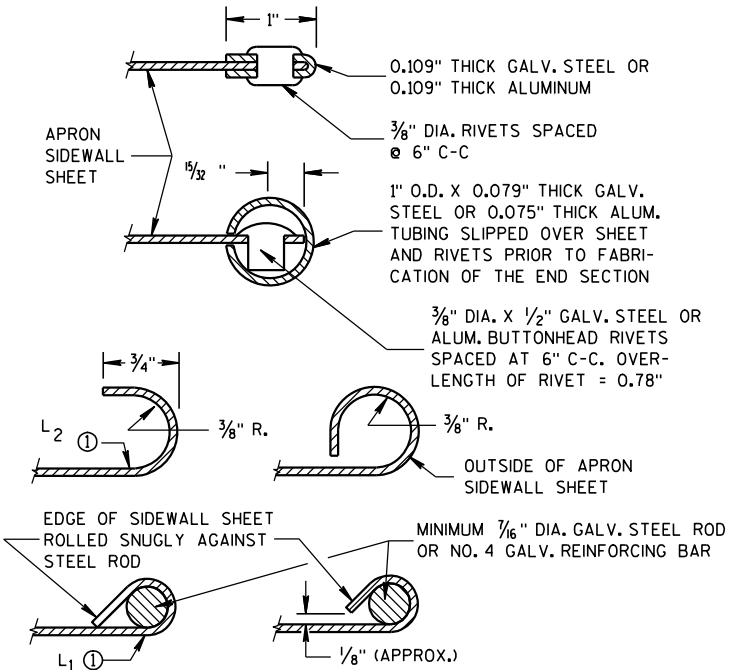
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

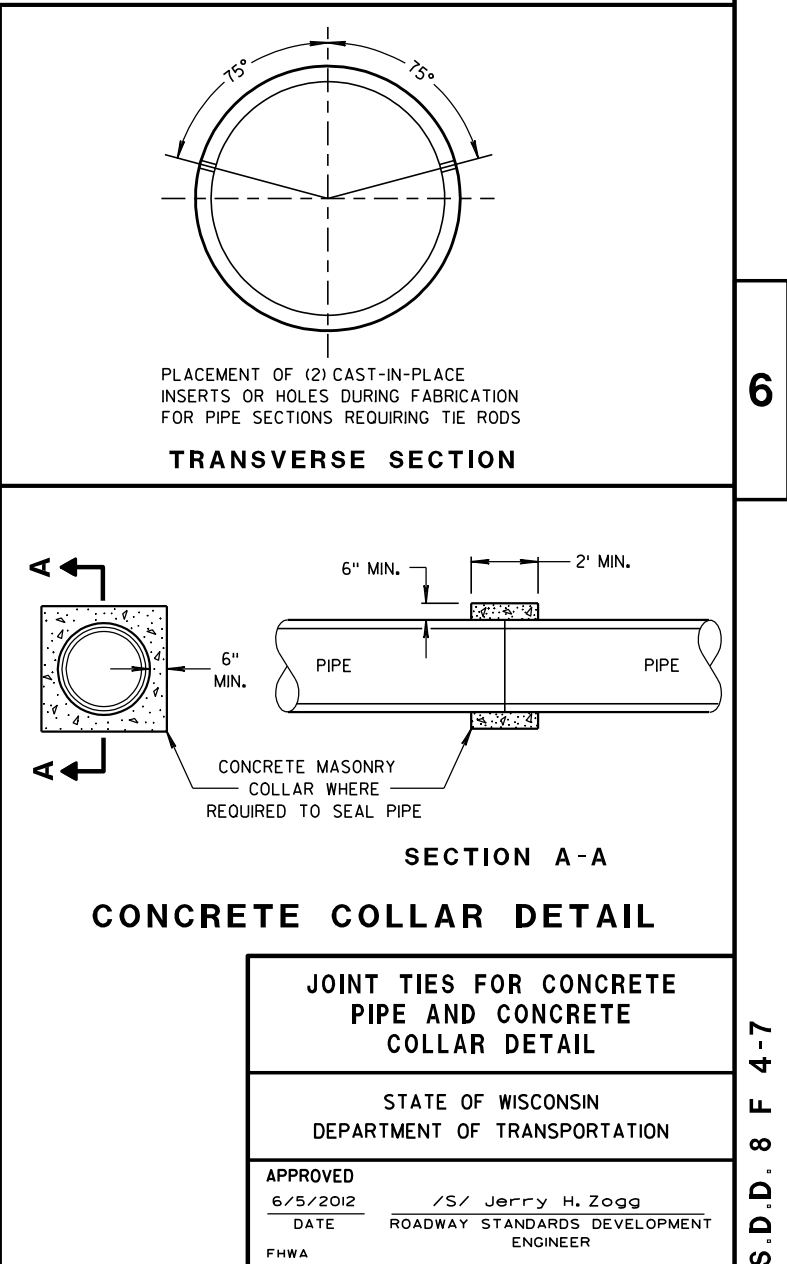
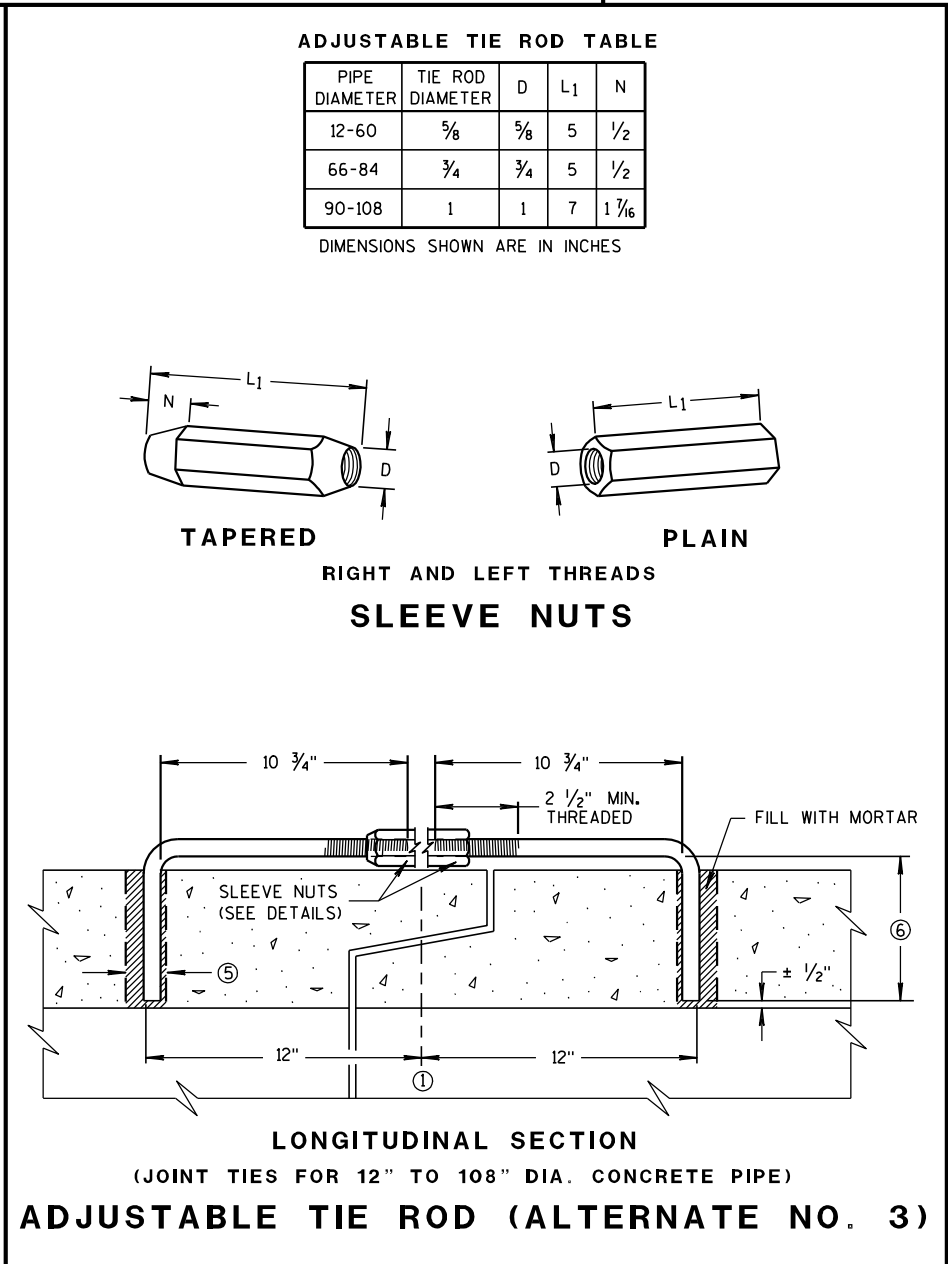
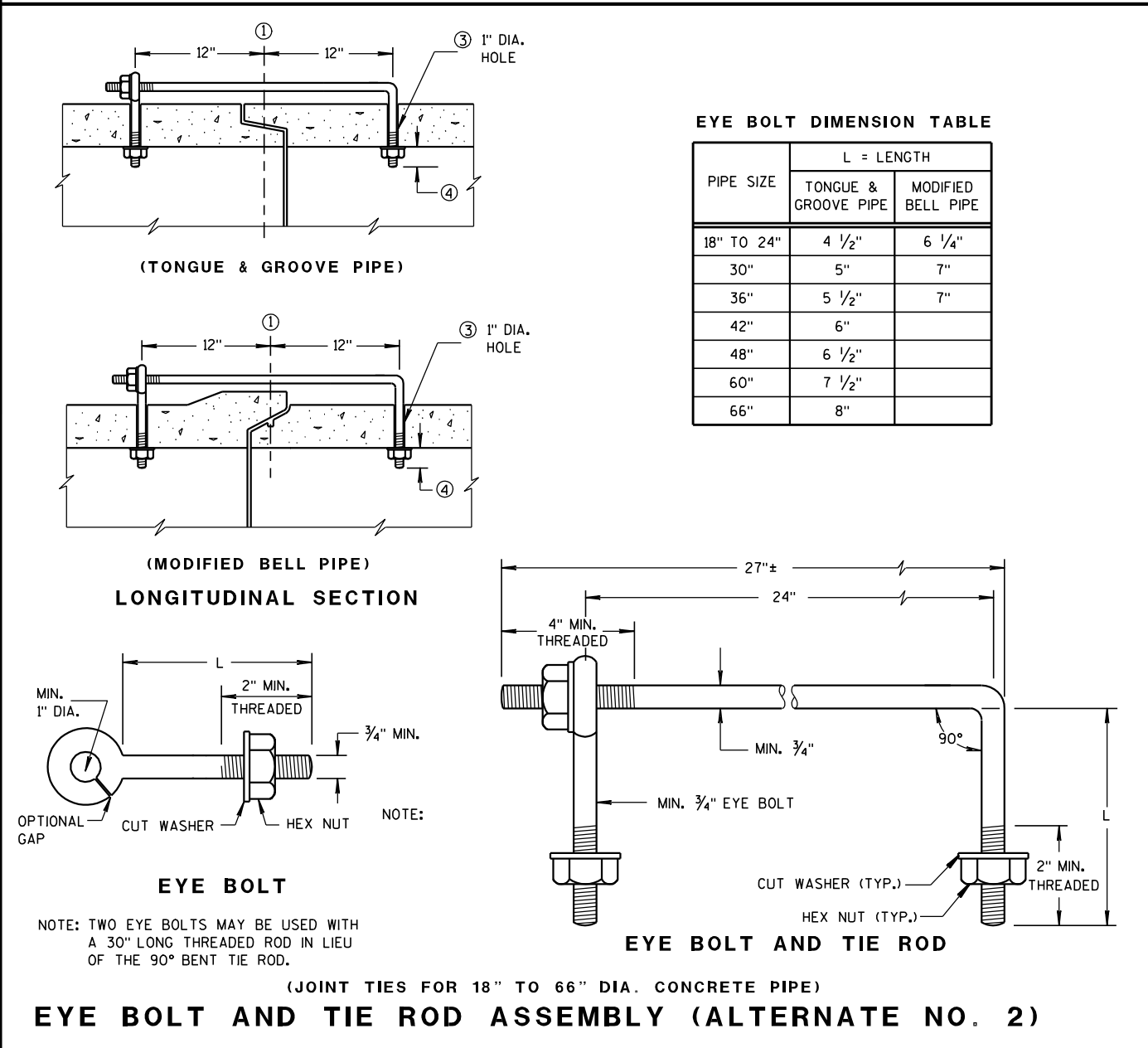
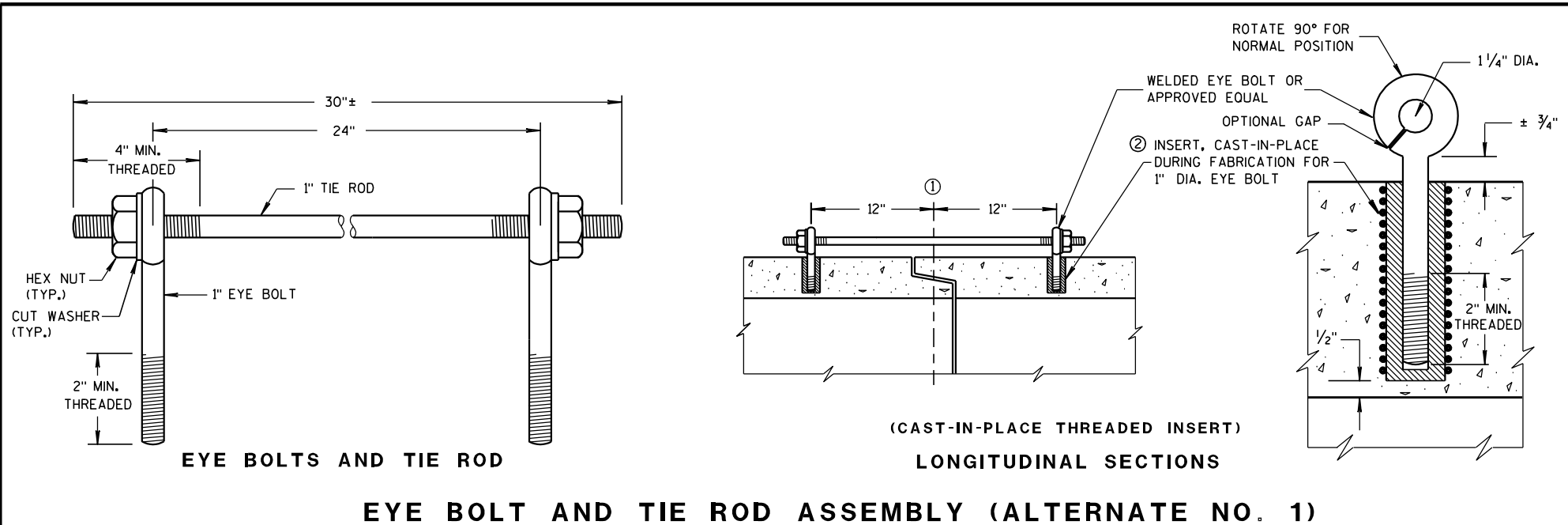
ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT 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.

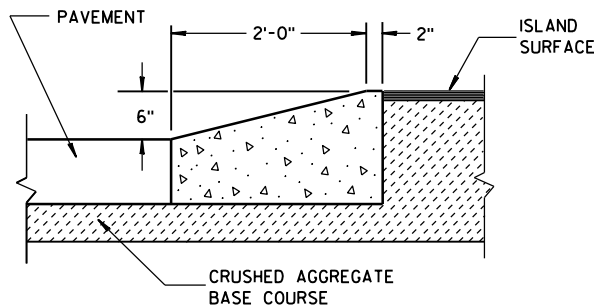
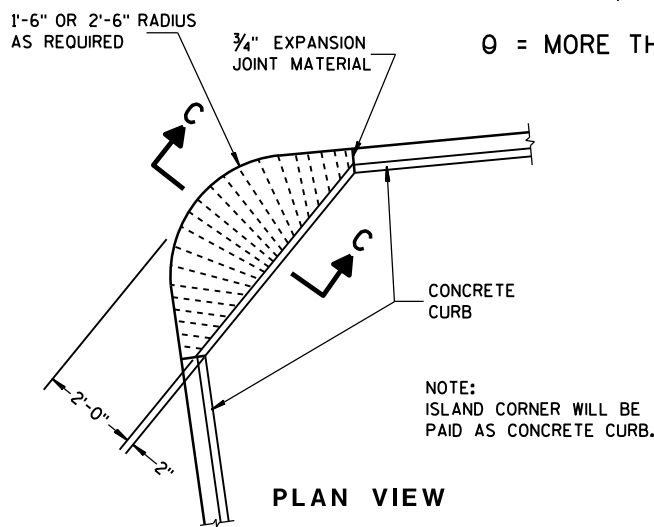
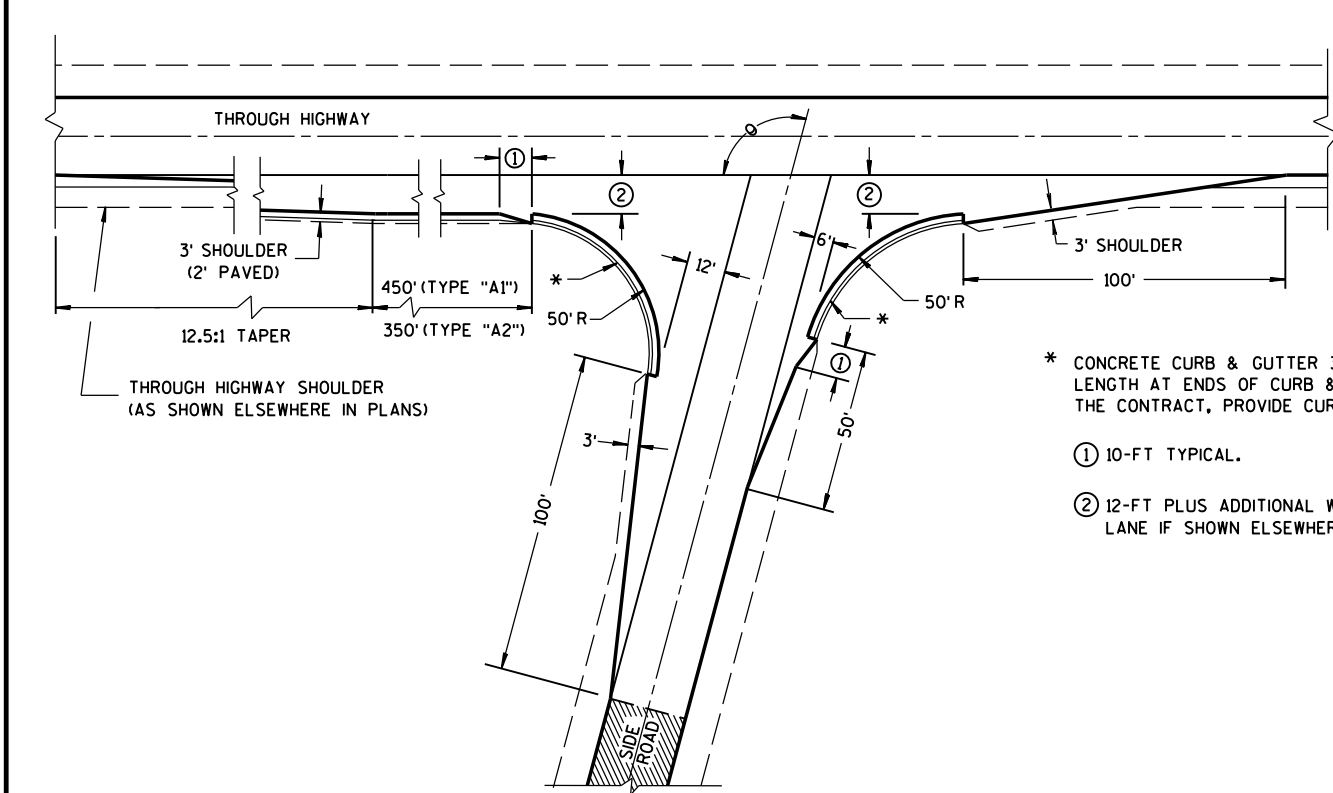
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

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<br>DEPARTMENT OF TRANSPORTATION |                                                              |
| APPROVED<br>11/30/94<br>DATE                       | /S/ Rory L. Rhinesmith<br>CHIEF ROADWAY DEVELOPMENT ENGINEER |
| FHWA                                               |                                                              |



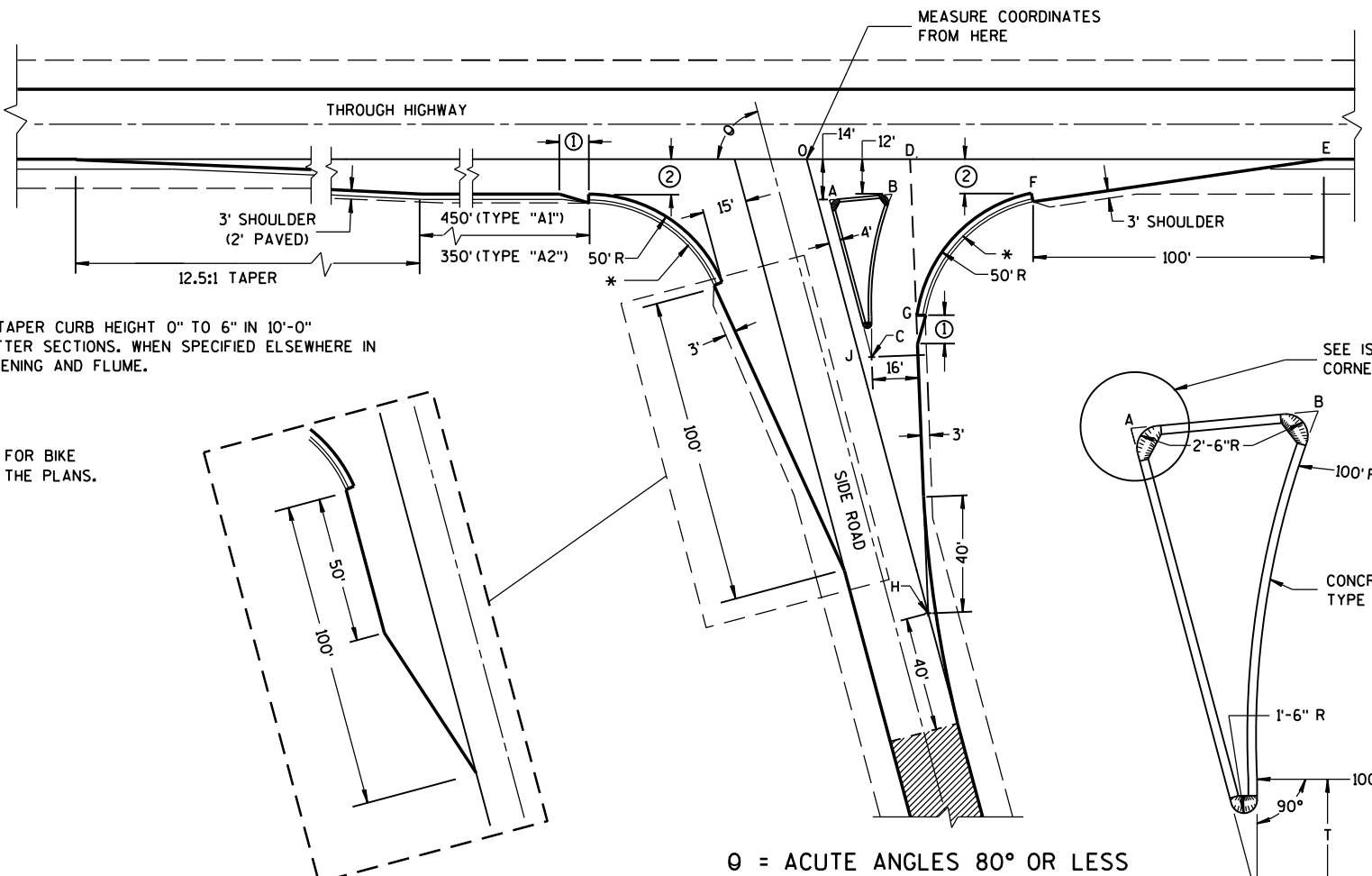




SECTION C-C

ISLAND CORNER DETAIL  
(TO BE CONSTRUCTED AT ALL ISLAND CORNERS)

- \* CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.
- ① 10-FT TYPICAL.
- ② 12-FT PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLANS.



SIDE ROAD WIDENING AND TAPER REQUIRED WHERE THE THROUGH HIGHWAY CARRIES TWO-WAY TRAFFIC  
 $\theta$  = ACUTE ANGLES 70° OR LESS

TABLE OF DIMENSIONS FOR  
VARIABLE SIDE ROAD INTERSECTION ANGLES  
(INTERPOLATE VALUES FOR ANGLES NOT SHOWN)

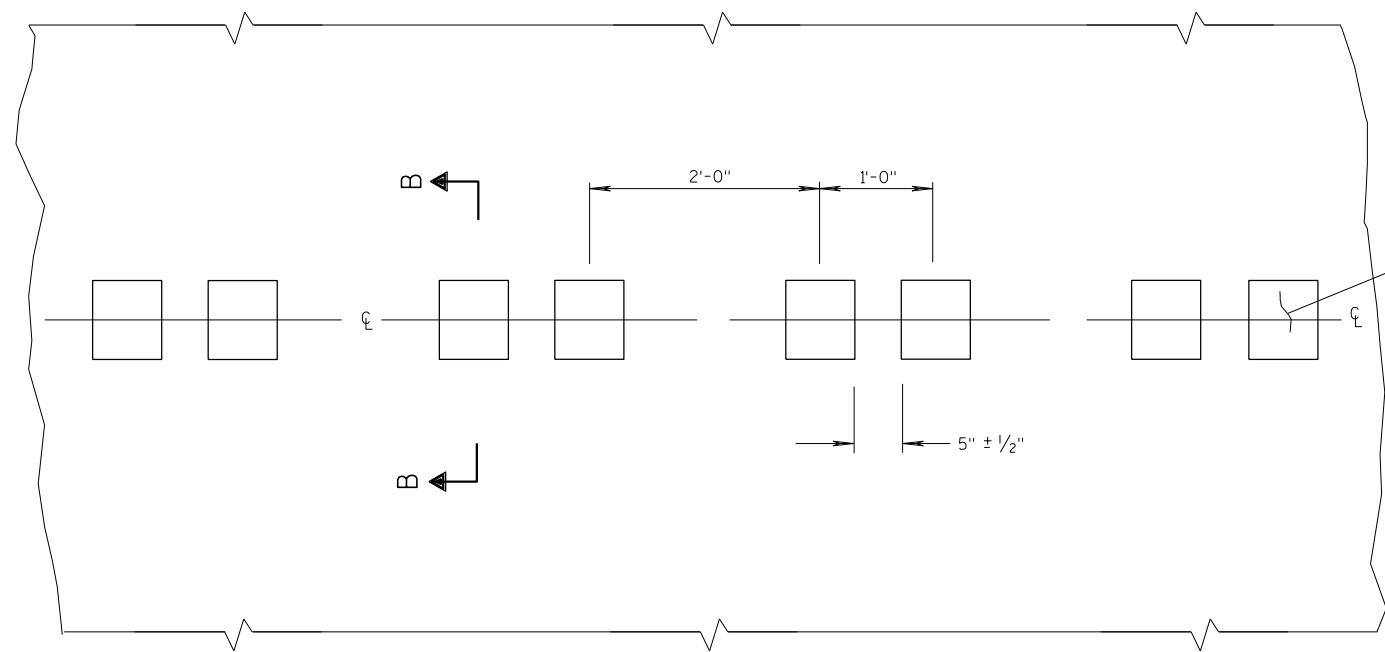
| ANGLE<br>$\theta$<br>DEGREES | COORDINATES IN FEET<br>(MEASURED FROM POINT "O") |               |               |             |              |                |               |                | LENGTH IN FEET |      |      |      |       |
|------------------------------|--------------------------------------------------|---------------|---------------|-------------|--------------|----------------|---------------|----------------|----------------|------|------|------|-------|
|                              | A                                                | B             | C             | D           | E            | F              | G             | H              | AB             | AC   | T    | OJ   | OH    |
| 60                           | 12.7<br>-14.0                                    | 44.9<br>-12.0 | 46.4<br>-72.4 | 41.9<br>0.0 | 205.0<br>0.0 | 104.6<br>-12.0 | 64.0<br>-75.5 | 85.0<br>-147.1 | 32.3           | 67.4 | 4.9  | 85.9 | 169.9 |
| 65                           | 10.9<br>-14.0                                    | 39.0<br>-12.0 | 37.8<br>-71.6 | 39.4<br>0.0 | 196.1<br>0.0 | 95.7<br>-12.0  | 54.1<br>-71.5 | 70.5<br>-151.3 | 28.2           | 63.6 | 8.5  | 80.9 | 166.9 |
| 70                           | 9.4<br>-14.0                                     | 33.9<br>-12.0 | 29.8<br>-70.1 | 37.4<br>0.0 | 188.3<br>0.0 | 87.8<br>-12.0  | 45.6<br>-67.5 | 56.1<br>-154.2 | 24.6           | 59.7 | 11.5 | 76.1 | 164.1 |
| 75                           | 7.9<br>-14.0                                     | 29.3<br>-12.0 | 22.3<br>-67.9 | 35.7<br>0.0 | 181.2<br>0.0 | 80.7<br>-12.0  | 38.2<br>-63.4 | 41.8<br>-155.9 | 21.5           | 55.8 | 13.8 | 71.4 | 161.4 |
| 80                           | 6.5<br>-14.0                                     | 25.4<br>-12.0 | 15.6<br>-65.2 | 34.4<br>0.0 | 174.8<br>0.0 | 74.4<br>-12.0  | 31.8<br>-59.3 | 27.6<br>-156.5 | 18.9           | 52.0 | 15.6 | 66.9 | 158.9 |

TYPE "A1" & "A2" SIDE ROAD INTERSECTION DETAILS

AT-GRADE SIDE ROAD  
INTERSECTION, TYPE "A1" & "A2"

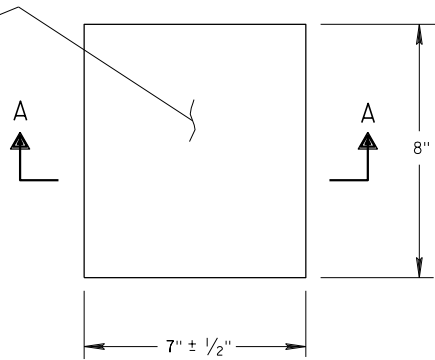
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
12/18/12 /S/ Jerry H. Zogg  
DATE ROADWAY STANDARDS DEVELOPMENT  
ENGINEER  
FHWA



PLAN VIEW  
CENTER LINE WITH GROOVES

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP



PLAN VIEW  
(SINGLE GROOVE)

GENERAL NOTES

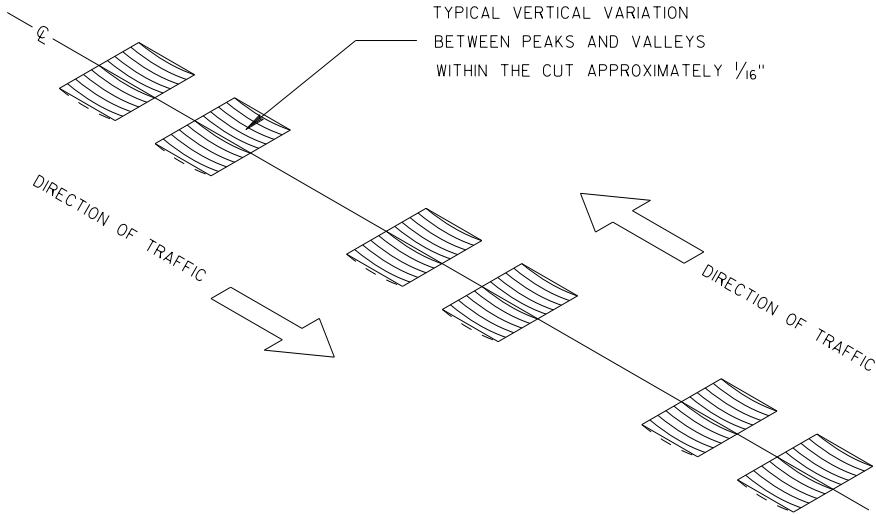
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL CENTER LINE GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

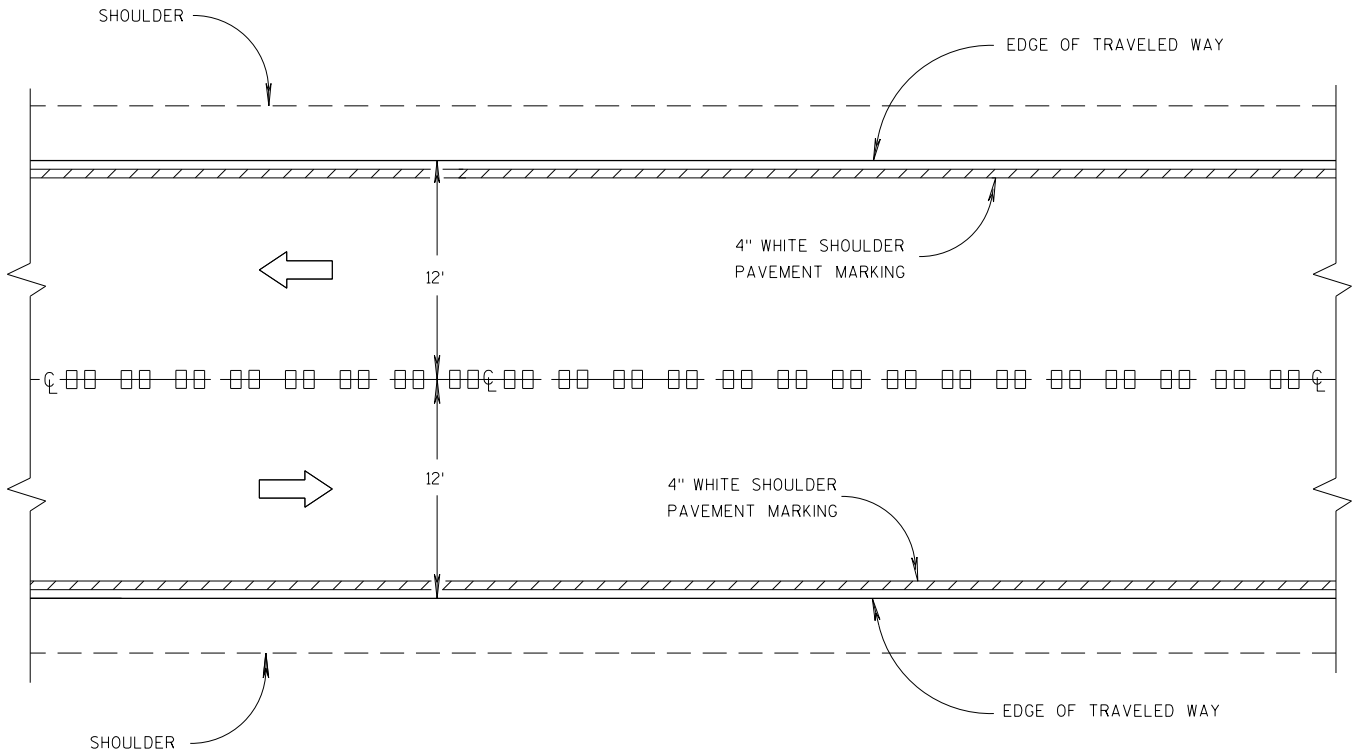
INSTALL PERMANENT MARKING EPOXY 4-INCH AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

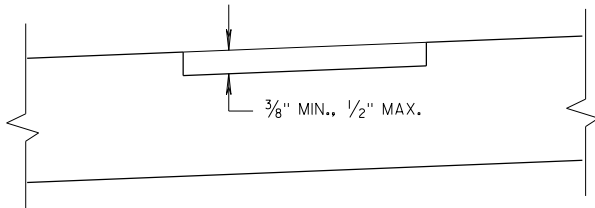
- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



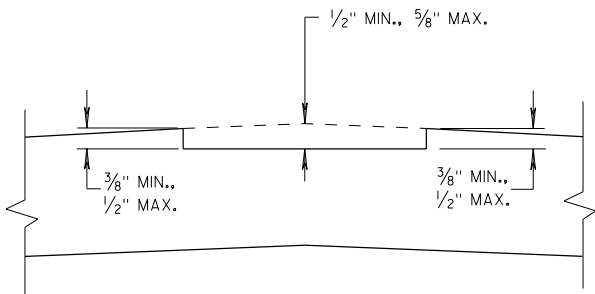
ISOMETRIC



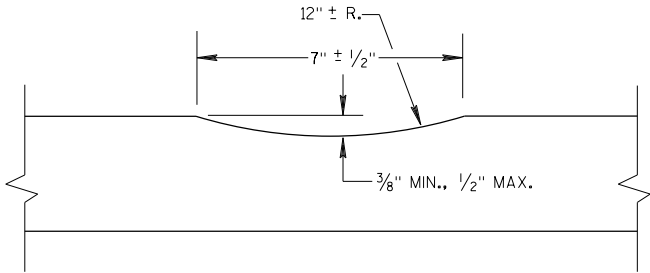
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B  
SUPERELEVATED ROADWAY



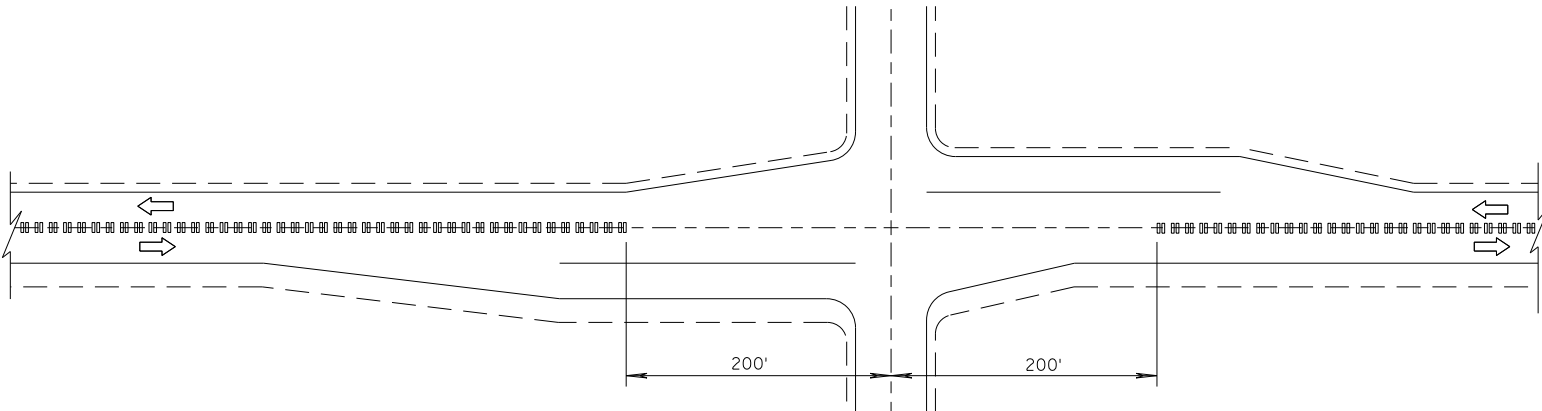
SECTION B-B  
CROWNED ROADWAY



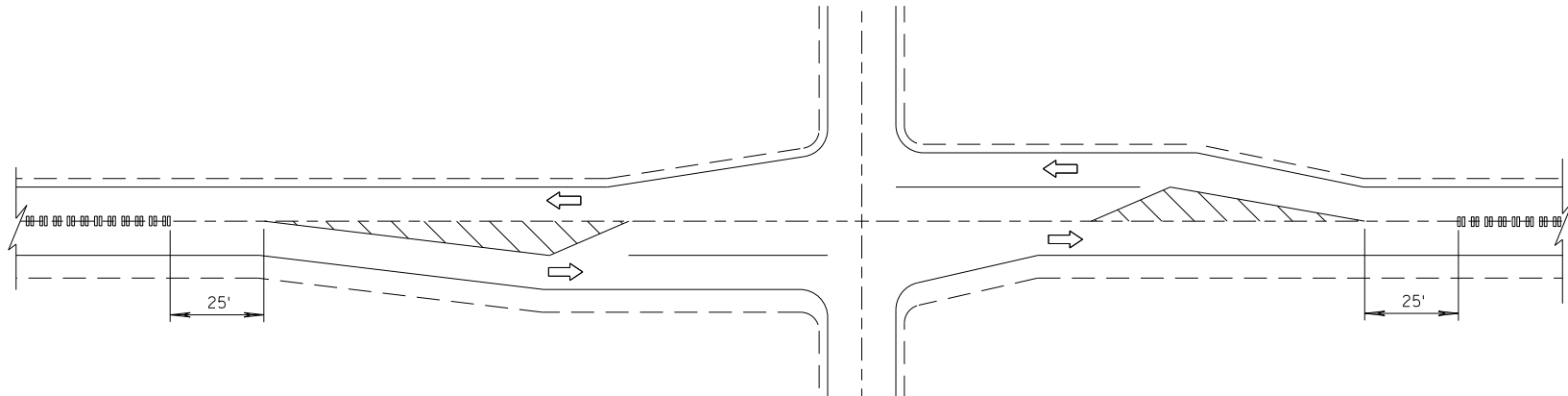
SECTION A-A

2-LANE RURAL  
CENTER LINE RUMBLE STRIP,  
MILLING

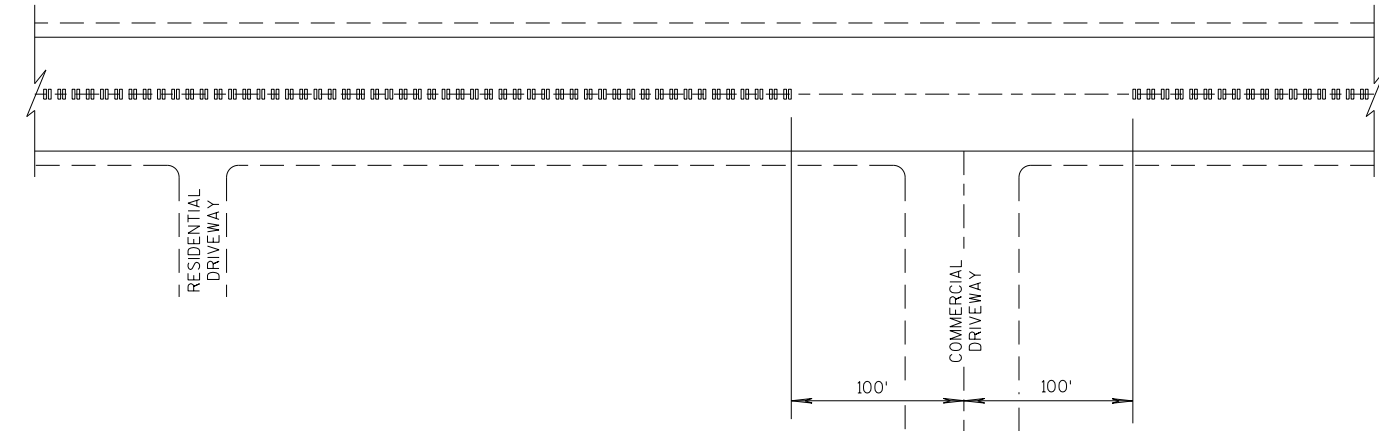
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



CENTER LINE GROOVES AT INTERSECTIONS



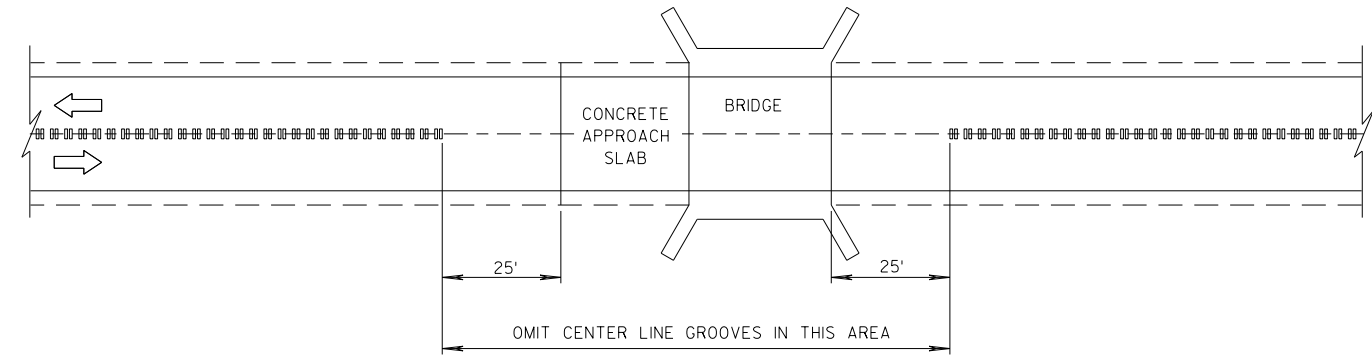
CENTER LINE GROOVES AT INTERSECTIONS  
(WITH LEFT TURN LANES)



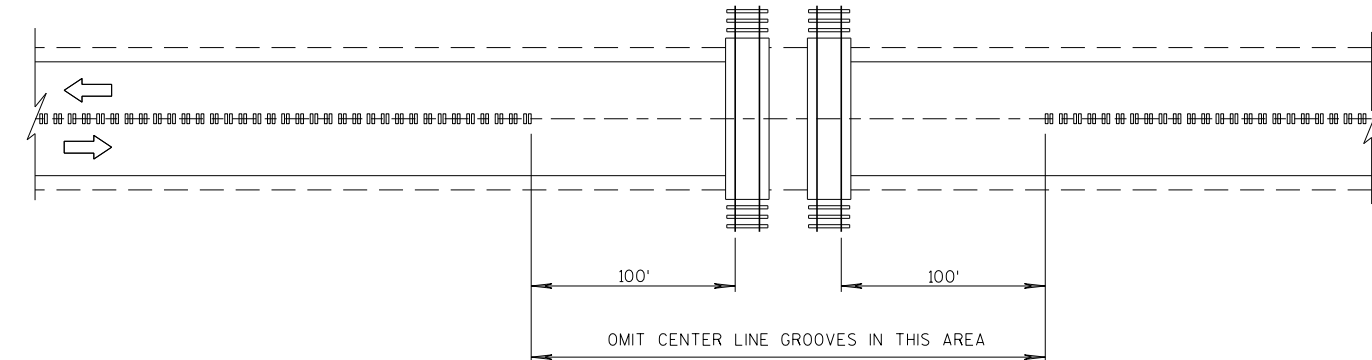
CENTER LINE GROOVES AT DRIVEWAYS

1

1 CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.

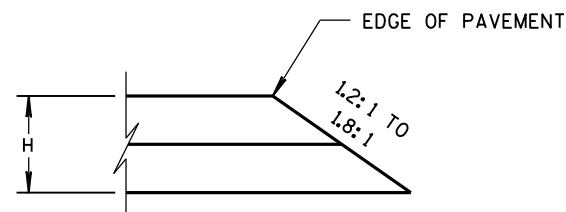


CENTER LINE GROOVES AT BRIDGES

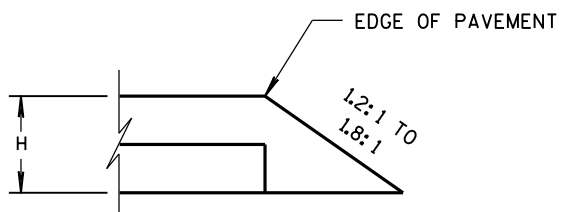


CENTER LINE GROOVES AT RAILROADS

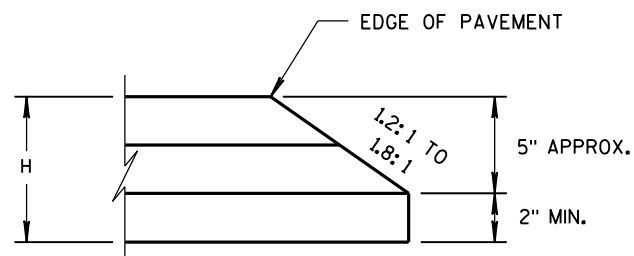
|                                                      |                                                                       |
|------------------------------------------------------|-----------------------------------------------------------------------|
| 2-LANE RURAL<br>CENTER LINE RUMBLE STRIP,<br>MILLING |                                                                       |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION   |                                                                       |
| APPROVED<br>7/2018<br>DATE                           | /S/ Rodney Taylor<br>ROADWAY STANDARDS DEVELOPMENT<br>UNIT SUPERVISOR |
| FHWA                                                 |                                                                       |



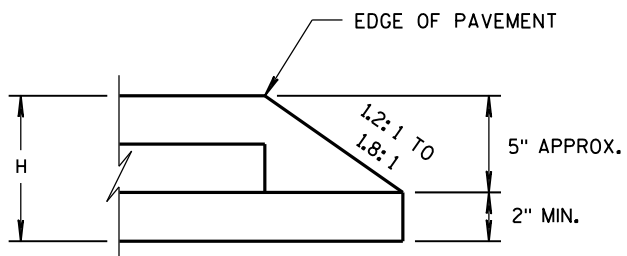
CONSTRUCTED WITH FINAL TWO LAYERS  
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER  
FOR H 5" OR LESS

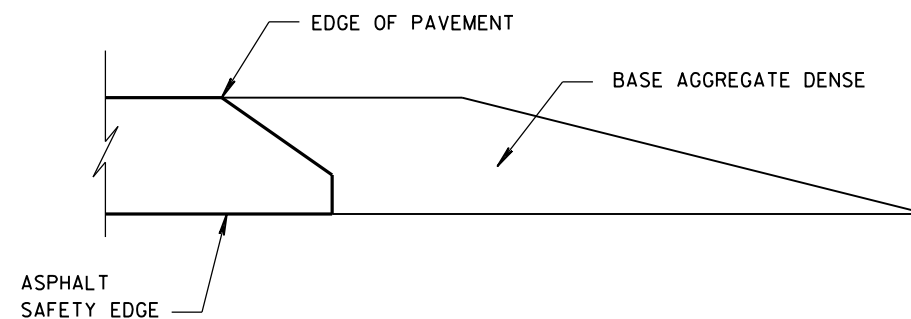


CONSTRUCTED WITH FINAL TWO LAYERS  
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER  
FOR H GREATER THAN 5"

### HMA PAVEMENT AND HMA OVERLAYS



### FINISHED SHOULDER AGGREGATE PLACEMENT

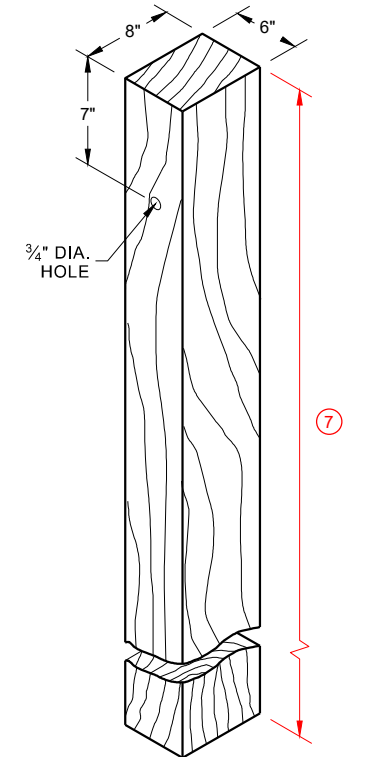
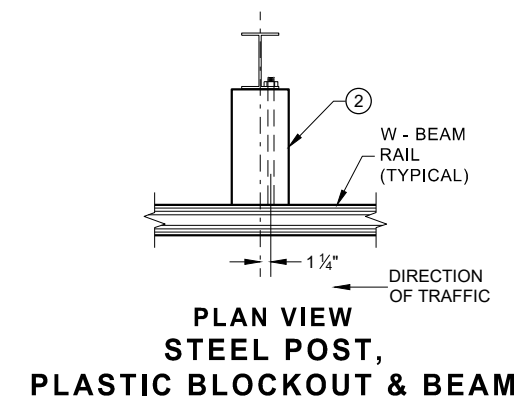
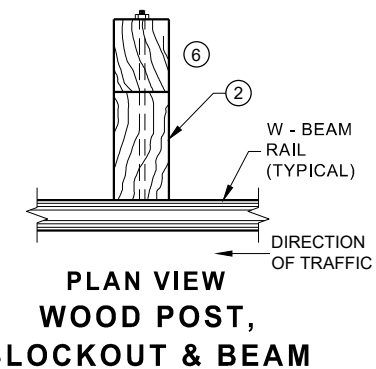
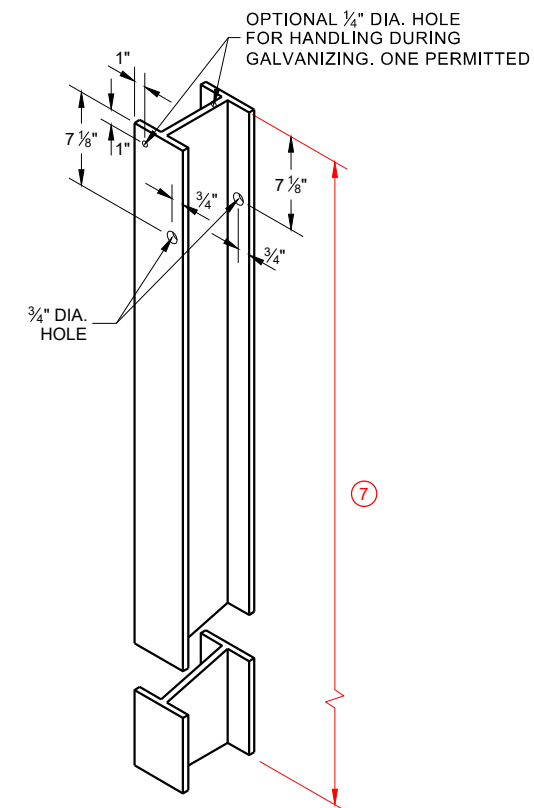
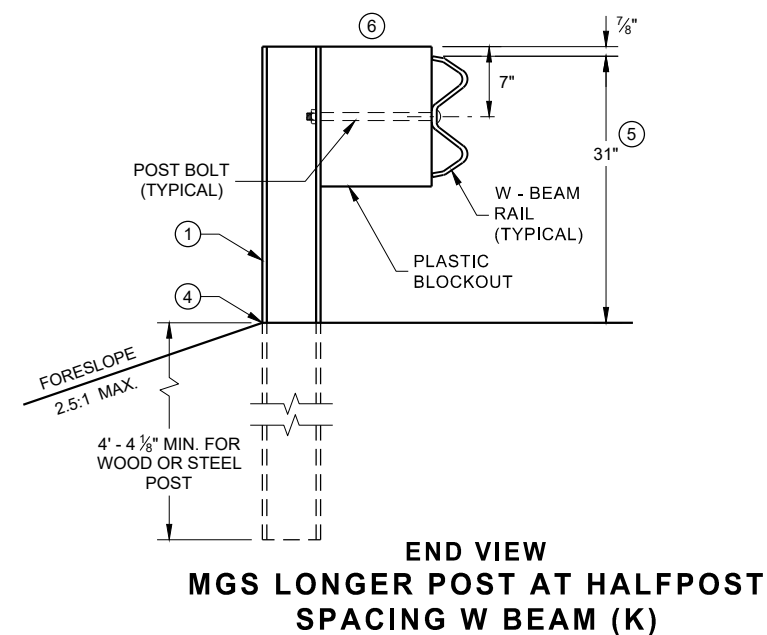
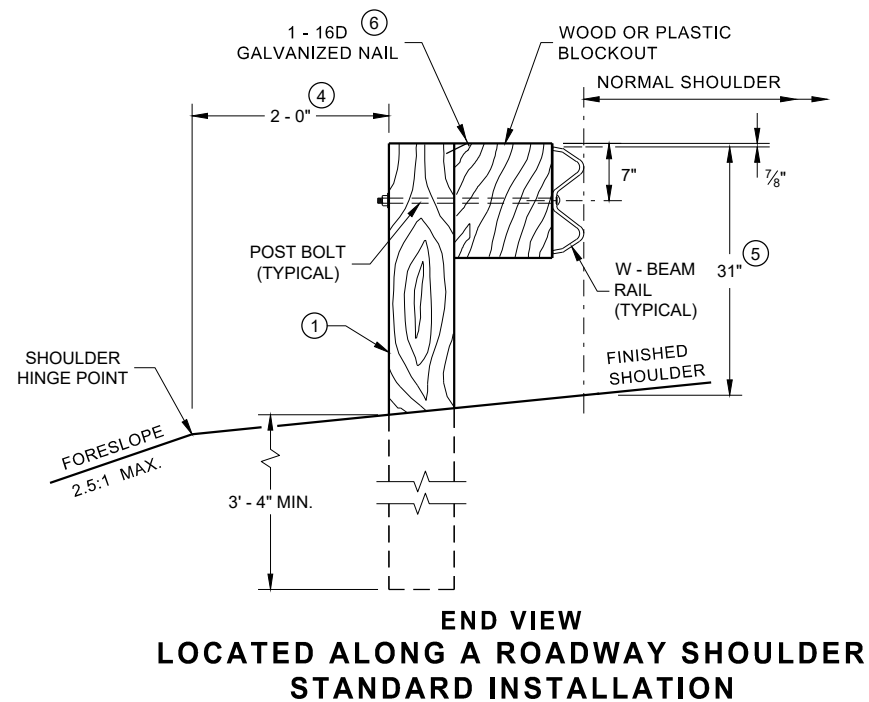
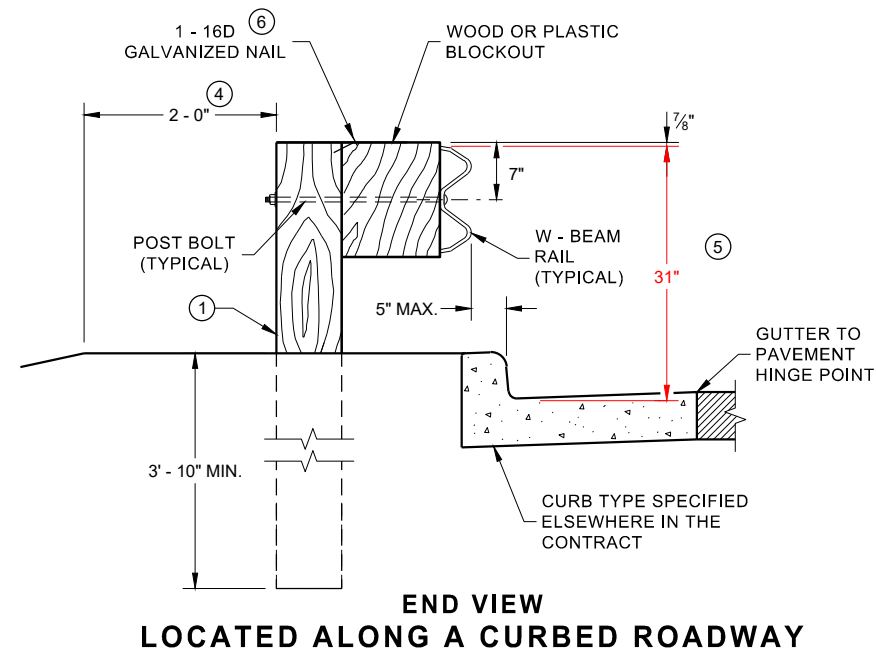
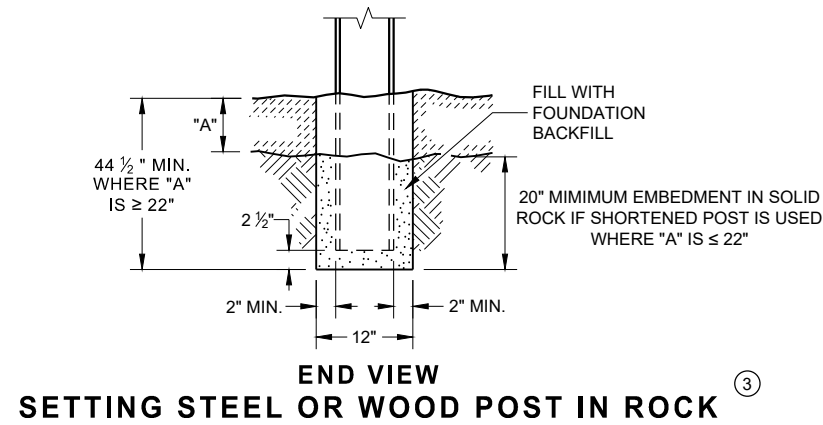
SAFETY EDGE<sub>SM</sub>

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

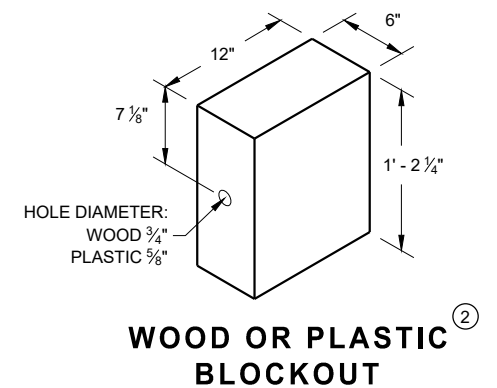
APPROVED  
11/30/2012  
DATE  
FHWA

/s/ Jerry H. Zogg  
ROADWAY STANDARDS DEVELOPMENT  
ENGINEER

- 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 AND 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  $\pm 1"$ . FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 3/4" 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".



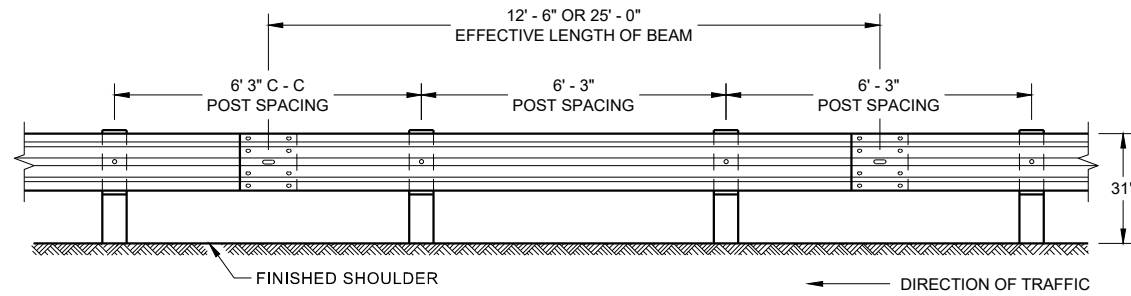
**WOOD POST (6" X 8") NOMINAL** <sup>(1)</sup>



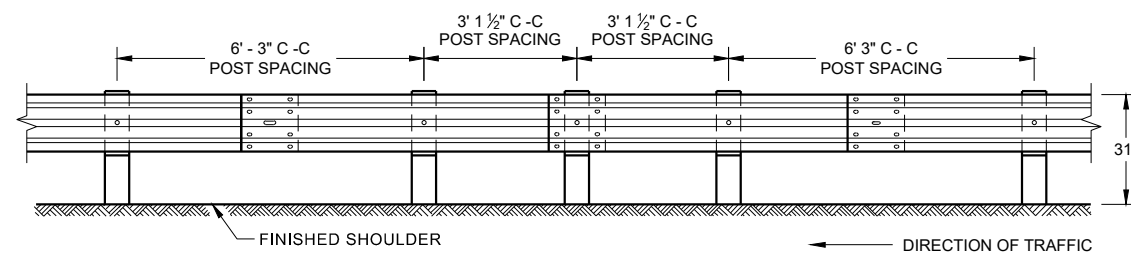
**MIDWEST GUARDRAIL SYSTEM  
(MGS) GUARDRAIL**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

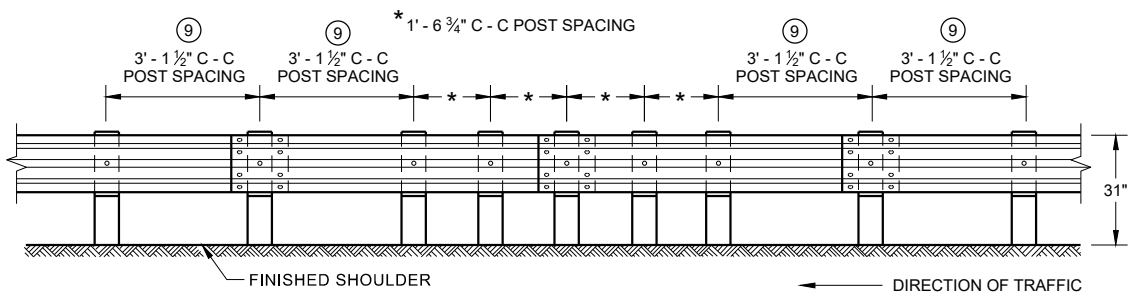




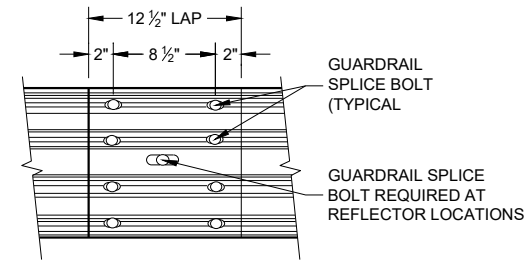
**FRONT VIEW  
POST SPACING STANDARD INSTALLATION**



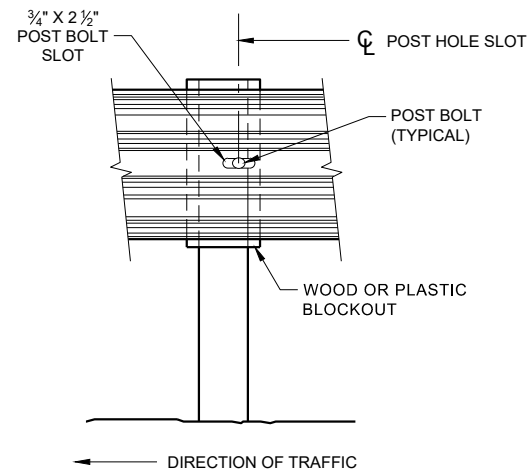
**FRONT VIEW  
HALF POST SPACING (HS) AND  
HALF POST SPACING WITH LONGER POSTS (K)**



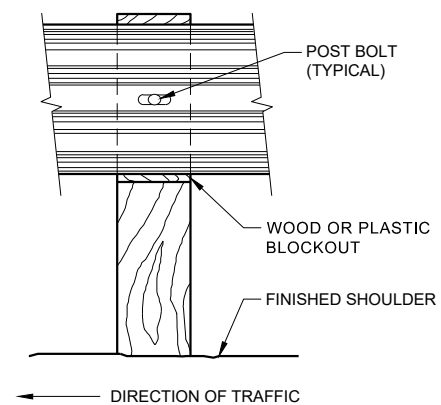
**FRONT VIEW  
QUARTER POST SPACING (QS)**



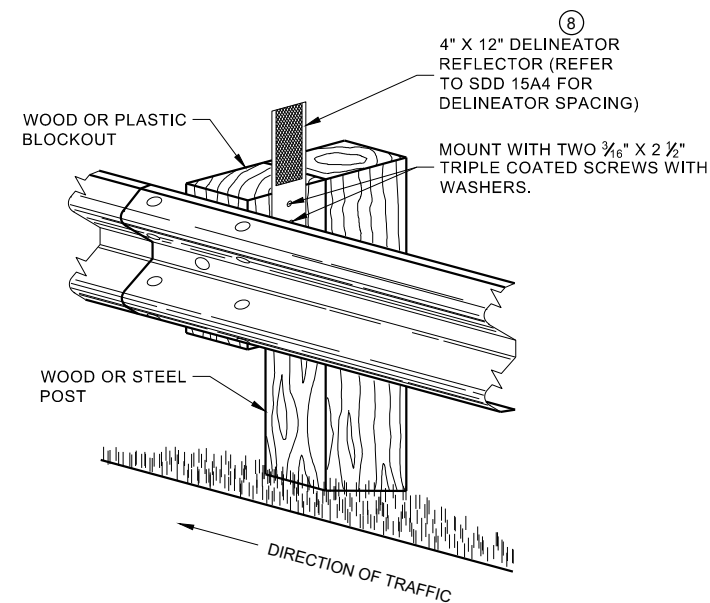
**FRONT VIEW  
MID-SPAN BEAM SPLICE**



**FRONT VIEW AT STEEL POST**



**FRONT VIEW AT WOOD POST**



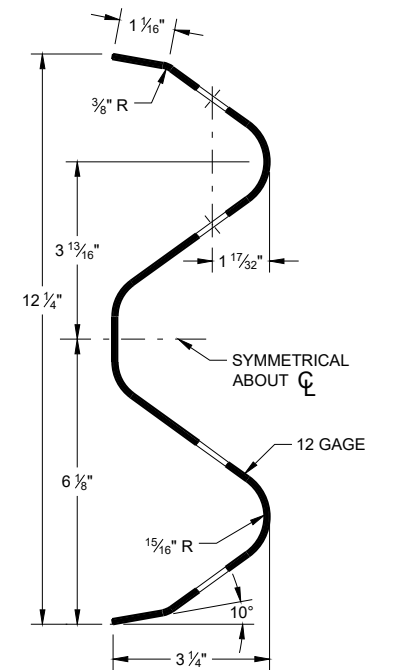
**ONE SIDED REFLECTOR DETAIL  
AND TYPICAL INSTALLATION**

## 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 3/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 3/4" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 3/4" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

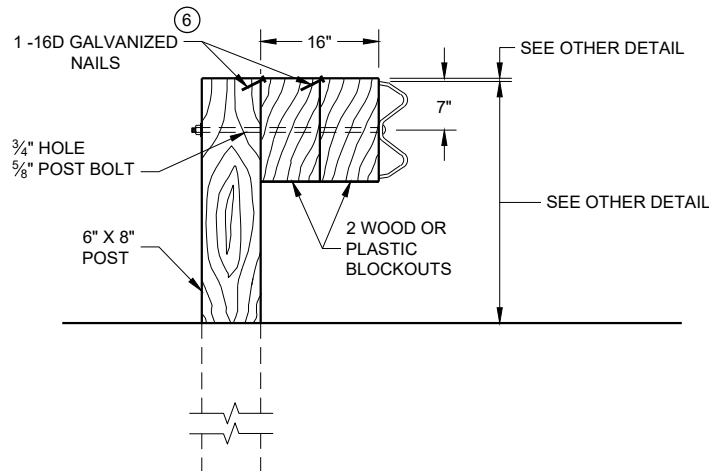
GUARD RAIL SPLICE BOLTS ARE A 3/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 3/4" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



**SECTION THRU W-BEAM RAIL**

**MIDWEST GUARDRAIL SYSTEM  
(MGS) GUARDRAIL**

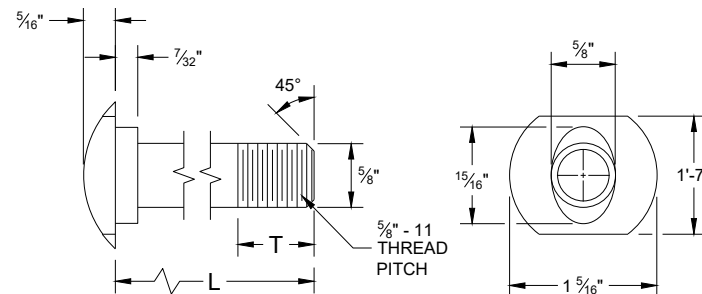
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



DETAIL FOR 16" BLOCKOUT DEPTH

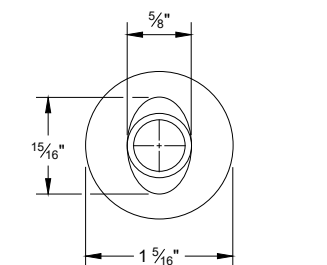
IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

- NOTE:
1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF  $\frac{3}{16}$ ".
  2. IF THE BOLT EXTENDS MORE THAN  $\frac{1}{4}$ " FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

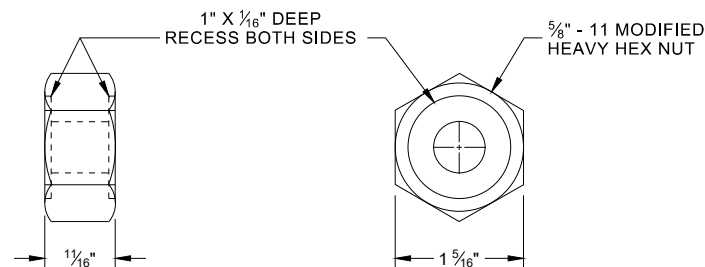


POST BOLT TABLE

| L      | T (MIN.) |
|--------|----------|
| 1 1/4" | 1 1/8"   |
| 2"     | 1 3/4"   |
| 10"    | 4"       |
| 14"    | 4 1/16"  |
| 18"    | 4"       |
| 21"    | 4 1/16"  |
| 25"    | 4"       |

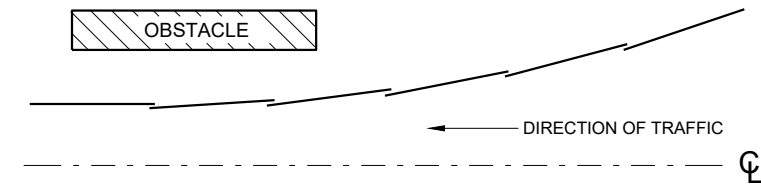


ALTERNATE BOLT HEAD

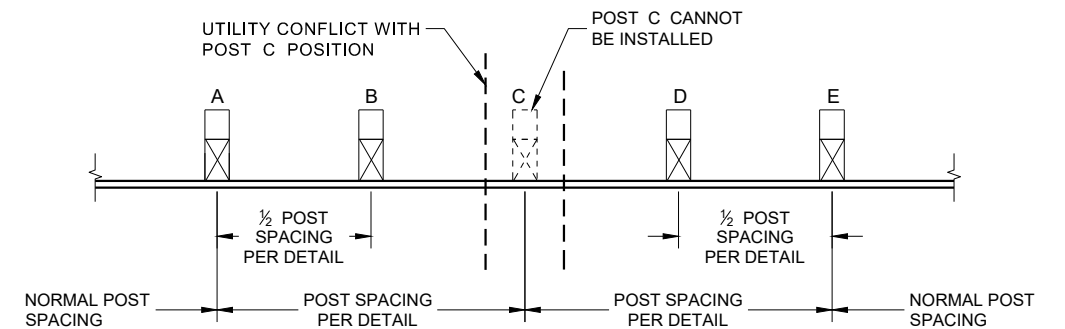


POST BOLT, SPLICE BOLT  
AND RECESS NUT

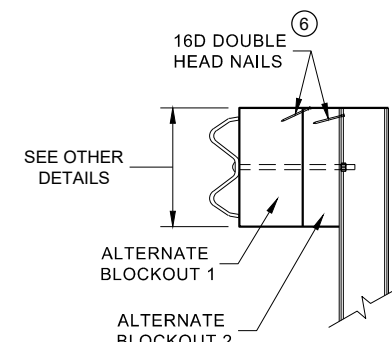
- ⑥ WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



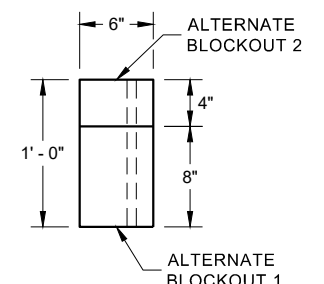
PLAN VIEW  
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS  
UNDERGROUND OBSTRUCTION



SIDE VIEW



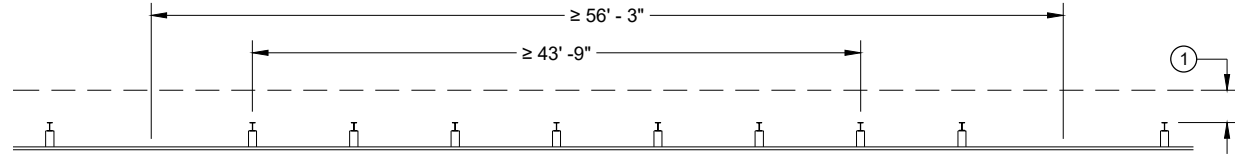
PLAN VIEW

ALTERNATE WOOD  
BLOCKOUT DETAIL

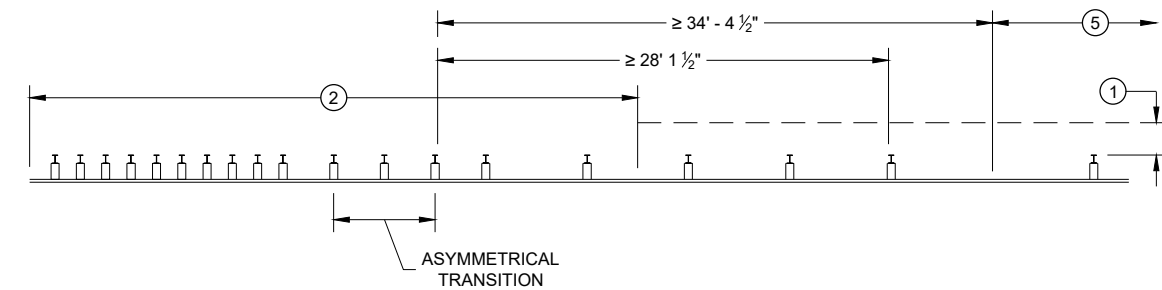
- NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.
- DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

MIDWEST GUARDRAIL SYSTEM  
(MGS) GUARDRAIL

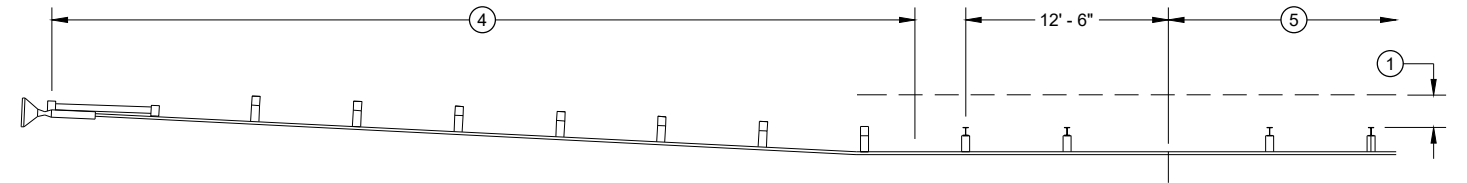
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



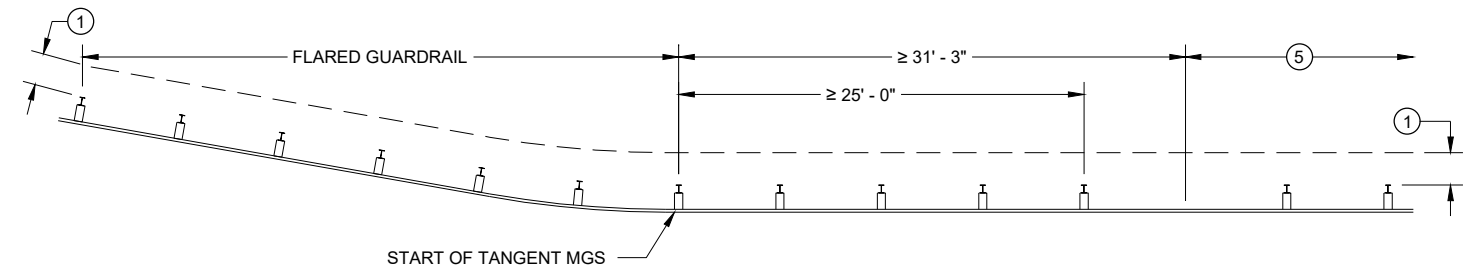
MISSING POST IN NORMAL BEAM GUARD RUN



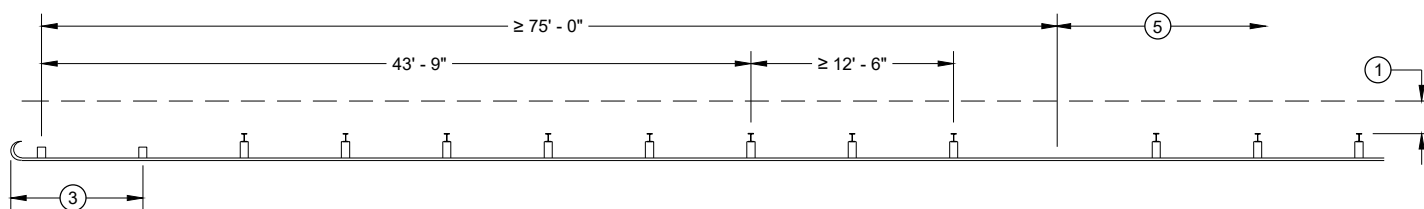
MISSING POST NEAR APPROACH THRIE BEAM TRANSITION



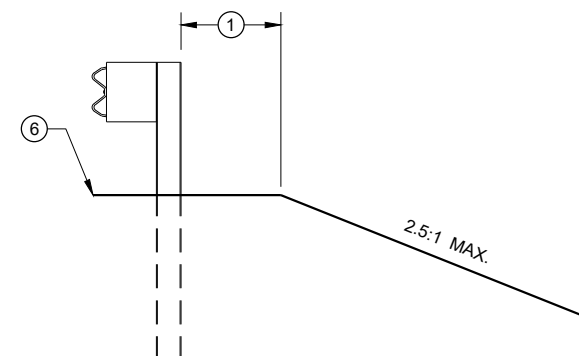
MISSING POST IN NORMAL BEAM GUARD RUN NEAR EAT



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 DEVELOPMENT  
UNIT SUPERVISOR  
FHWA

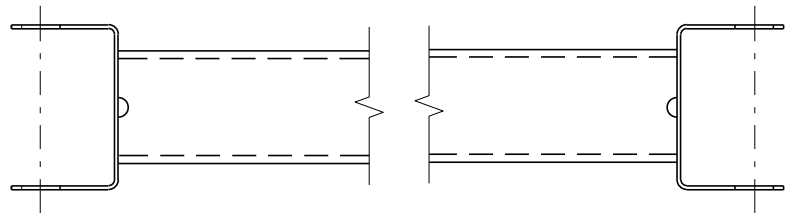
- (A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.
- (B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED
- (C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. 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.

THE CENTER OF THE UPPER 3 1/2" 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.

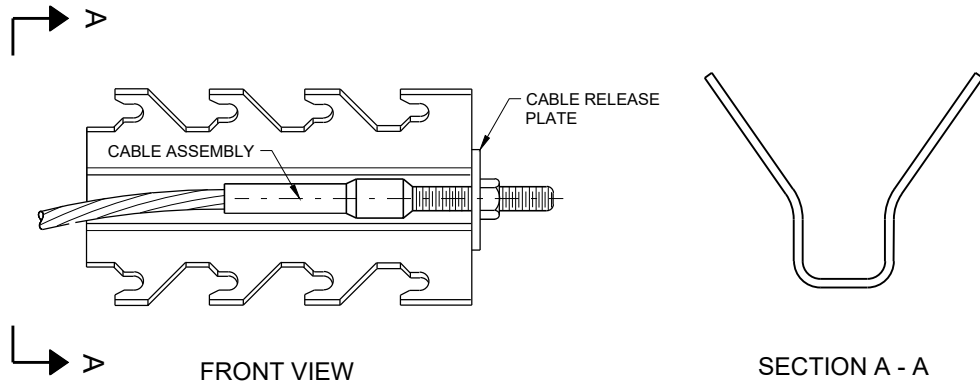


STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

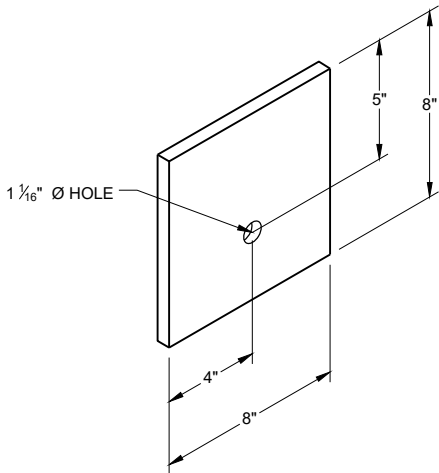


GENERIC GROUND STRUT<sup>⑨</sup> <sup>Ⓔ</sup>

| BILL OF MATERIALS |                                                                                                                |
|-------------------|----------------------------------------------------------------------------------------------------------------|
| PART NO.          | DESCRIPTION<br>MATERIALS PROVIDED BY MGS EAT MANUFACTURER.<br>SEE MANUFACTURER'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.<br>SECTIONS VARY IN LENGTH.                                  |
| ⑫                 | IMPACT HEAD                                                                                                    |
| ⑬                 | EAT MARKER POST - YELLOW<br>(SEE APPROVED PRODUCTS LIST)                                                       |
| ⑭                 | SOIL PLATE                                                                                                     |
| ⑮                 | UPPER POST NO. 2                                                                                               |
| ⑯                 | LOWER POST NO. 2                                                                                               |



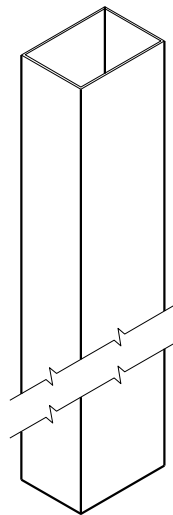
GENERIC ANCHOR CABLE BOX<sup>⑨</sup> <sup>Ⓔ</sup>



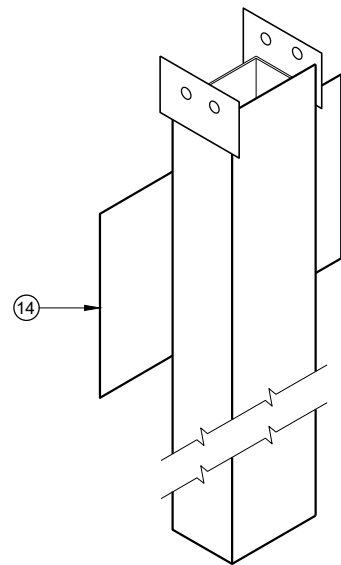
BEARING PLATE<sup>⑥</sup> <sup>Ⓔ</sup>

MIDWEST GUARDRAIL SYSTEM  
ENERGY ABSORBING TERMINAL  
(MGS)

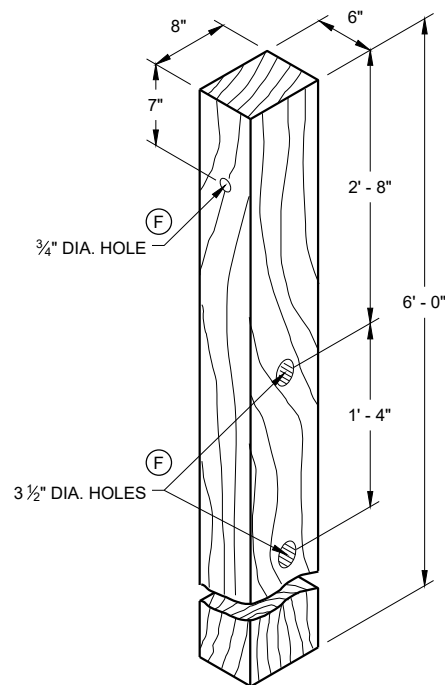
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



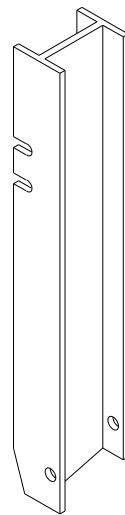
UPPER POST NO. 1 <sup>(1)</sup> (E)



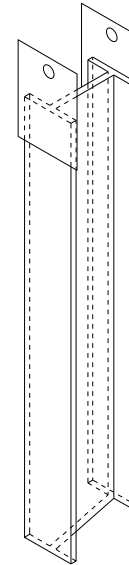
LOWER POST NO. 1 <sup>(2)</sup> (E)



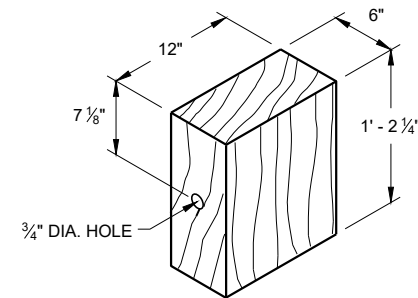
WOOD CRT POST <sup>(3)</sup> (E)  
POSTS NUMBER 3-9



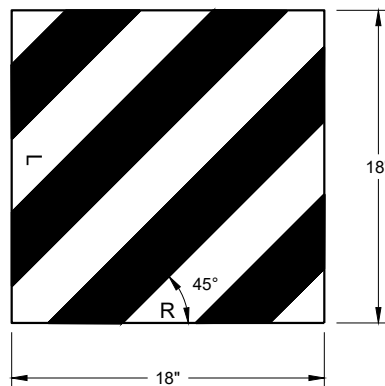
UPPER POST NO. 2 <sup>(15)</sup> (E)



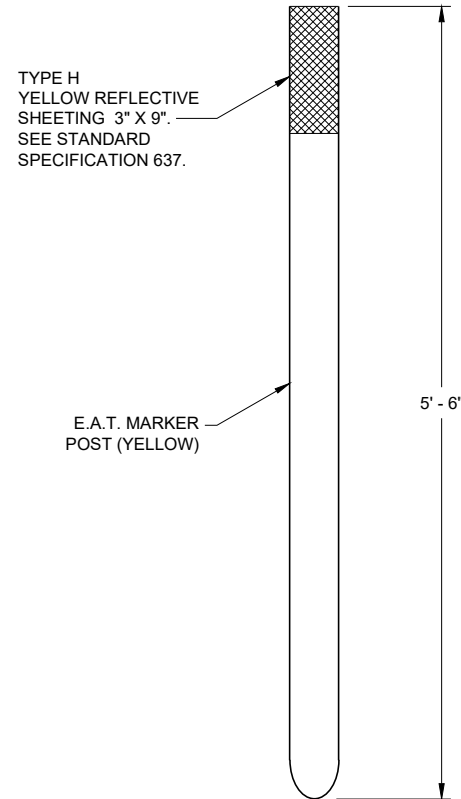
LOWER POST NO. 2 <sup>(16)</sup> (E)



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



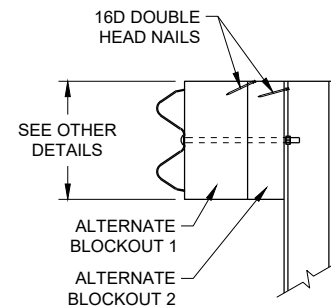
REFLECTIVE SHEETING DETAIL <sup>(E)</sup>



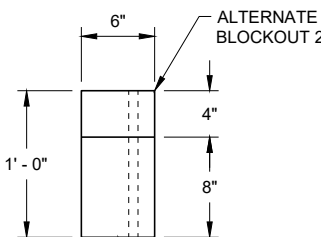
FRONT VIEW

SIDE VIEW

E.A.T. MARKER POST <sup>(13)</sup>



SIDE VIEW



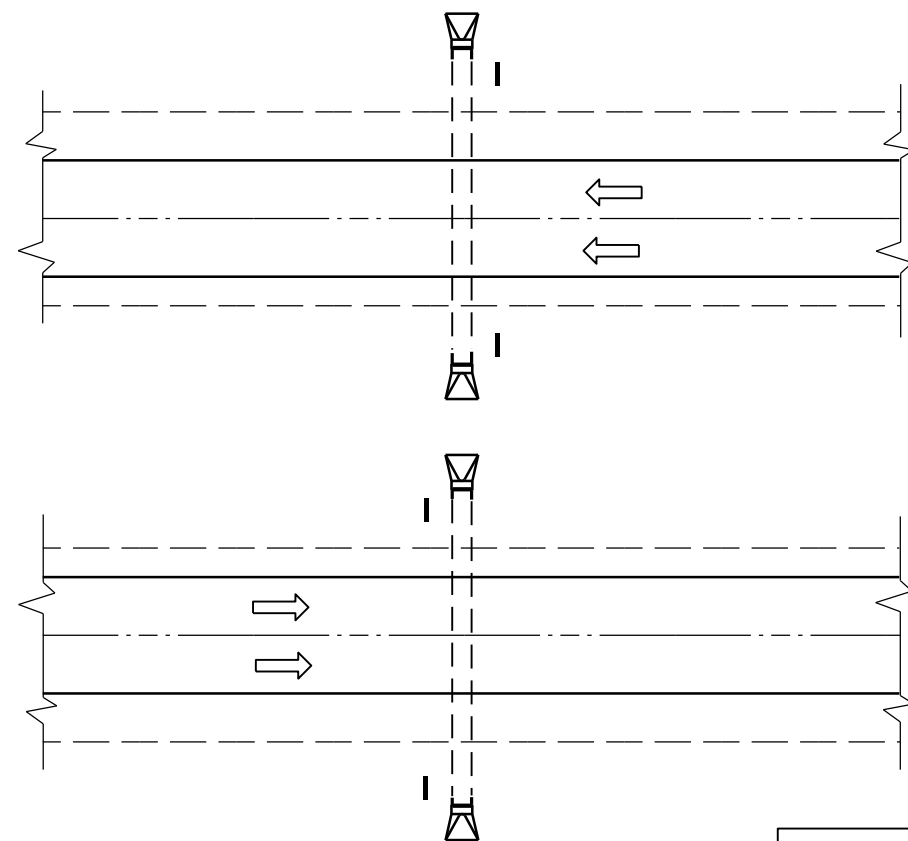
TOP VIEW

ALTERNATE WOOD  
BLOCKOUT DETAIL

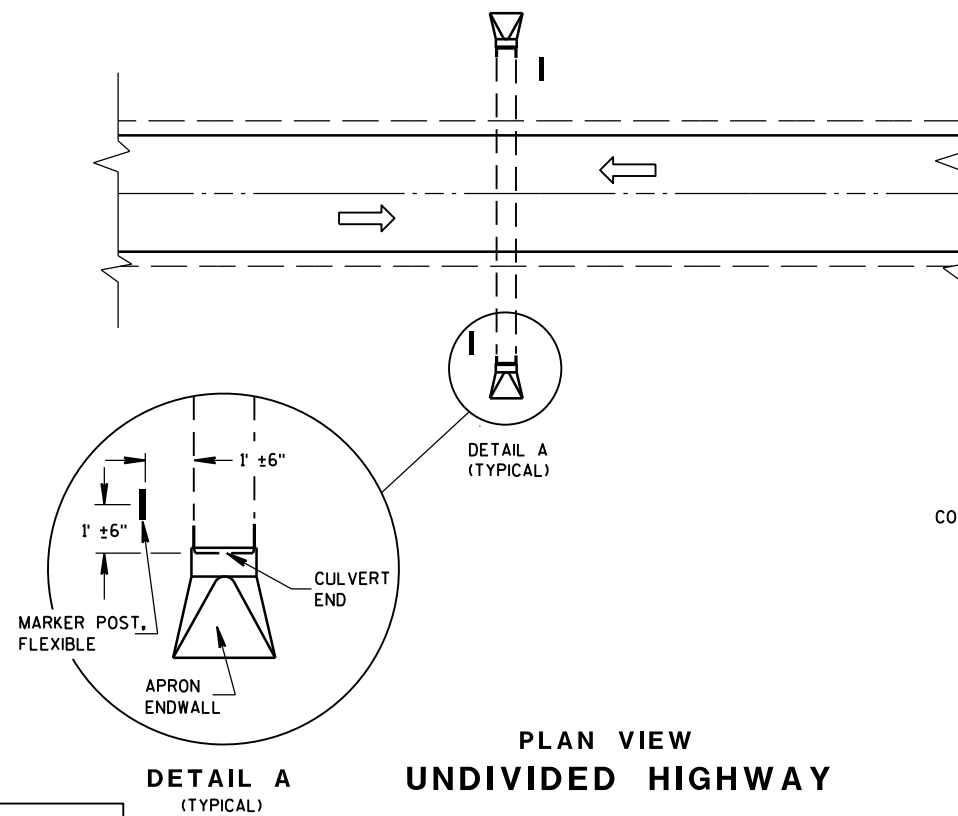
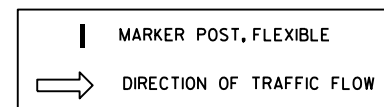
**MIDWEST GUARDRAIL SYSTEM  
ENERGY ABSORBING TERMINAL  
(MGS)**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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



PLAN VIEW  
DIVIDED HIGHWAY

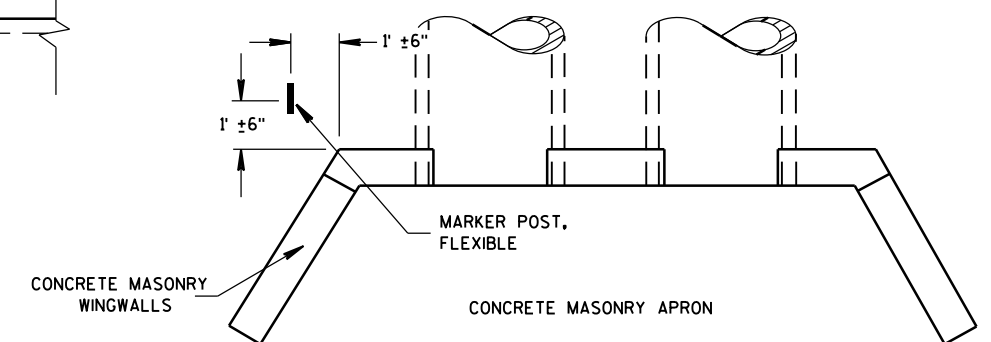


PLAN VIEW  
UNDIVIDED HIGHWAY

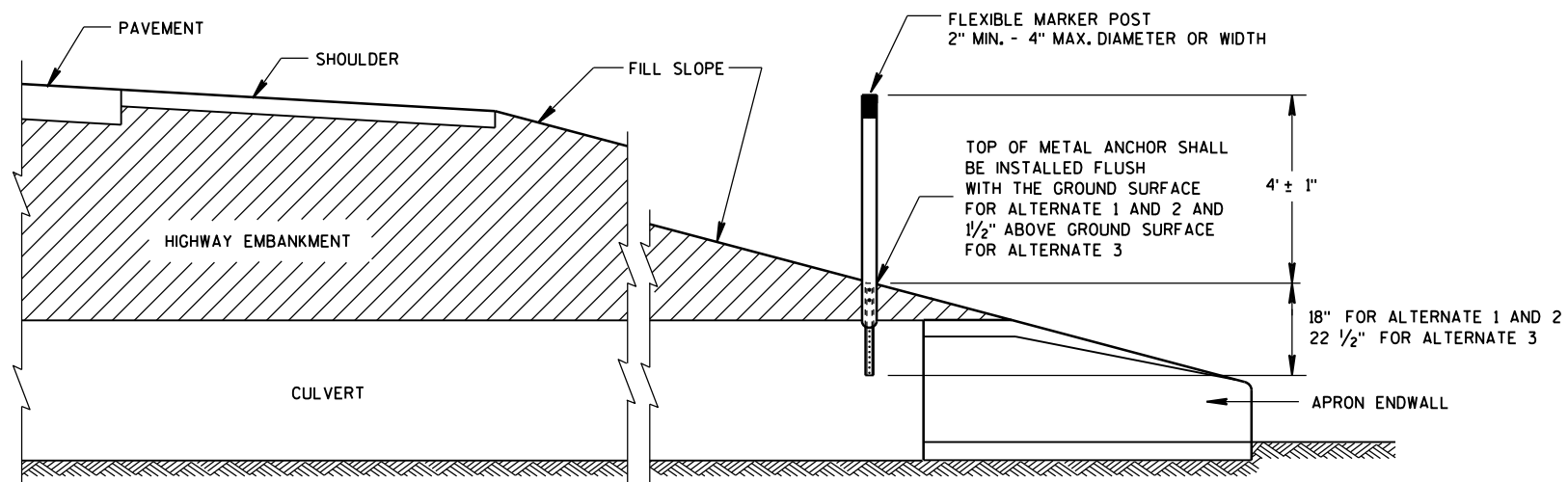
### FLEXIBLE MARKER POST LOCATION

### 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.



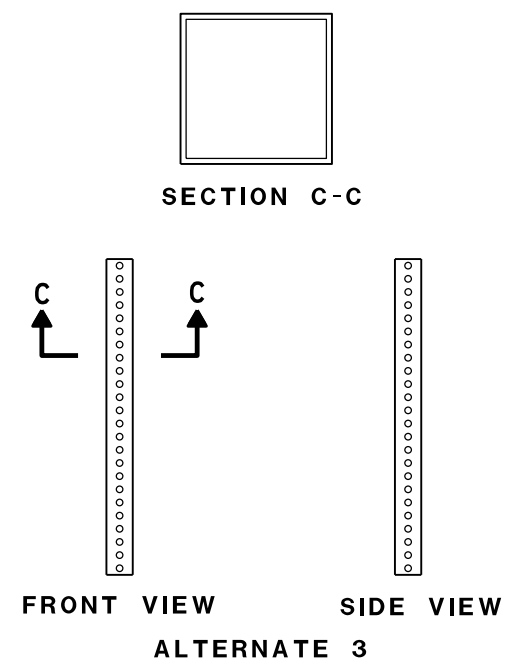
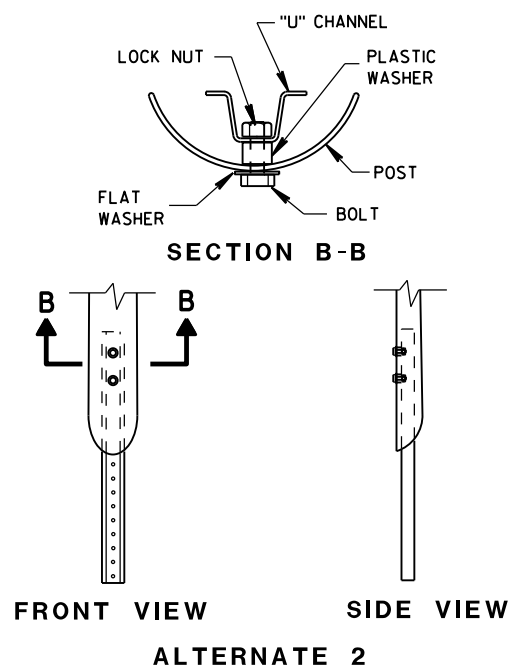
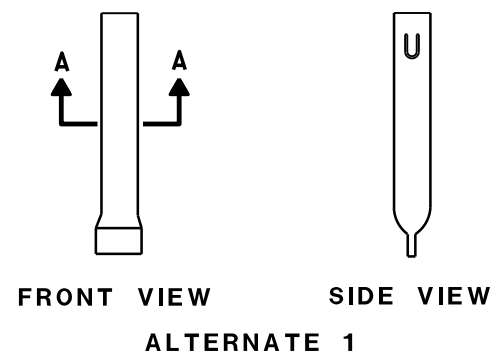
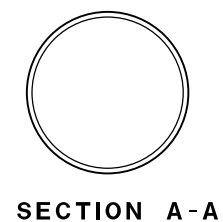
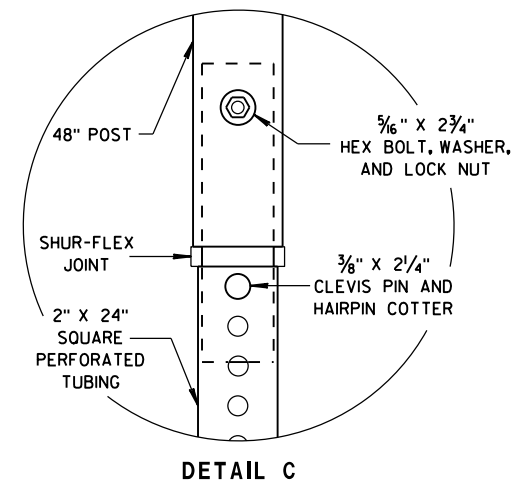
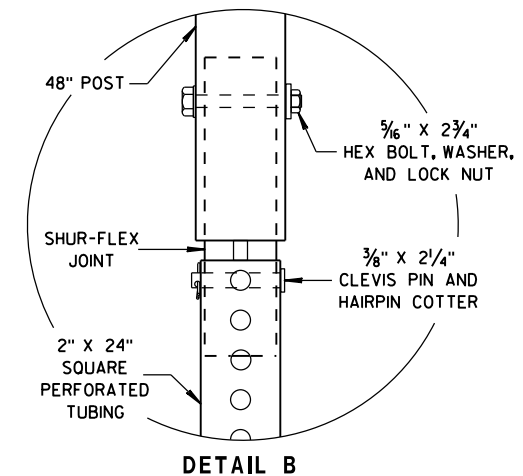
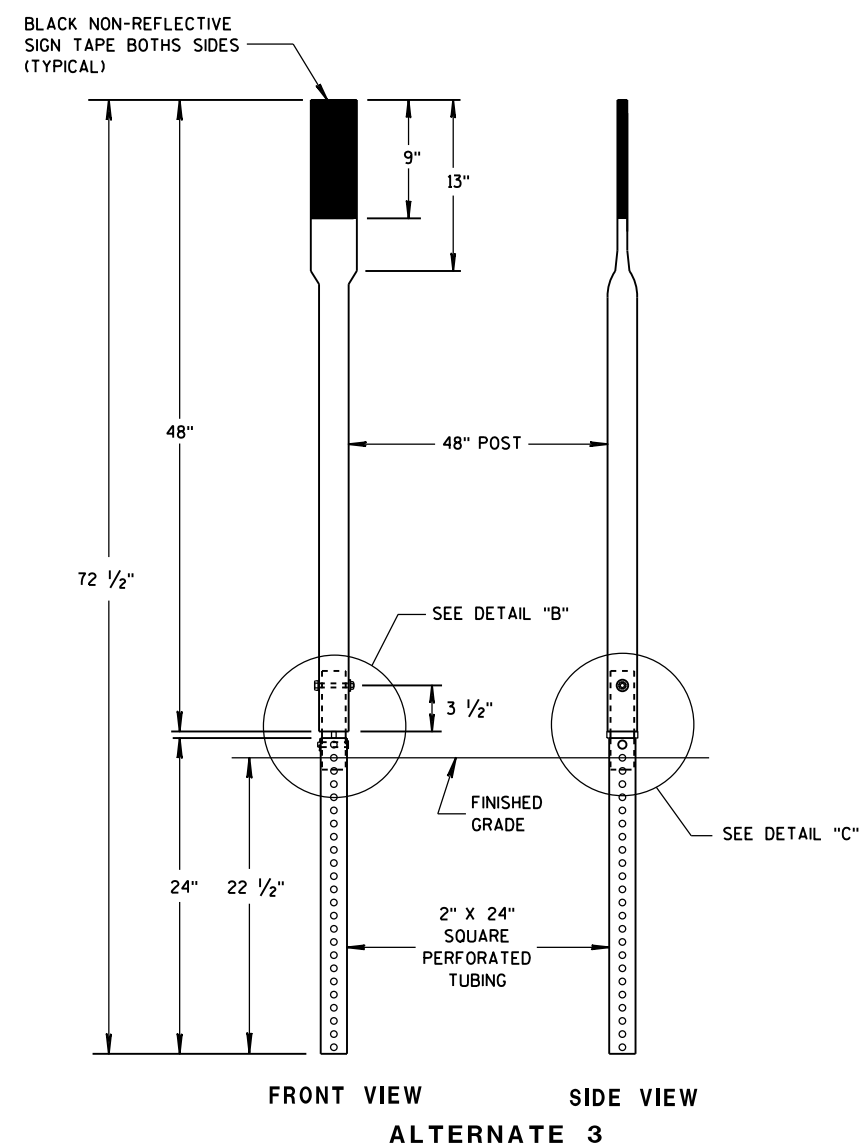
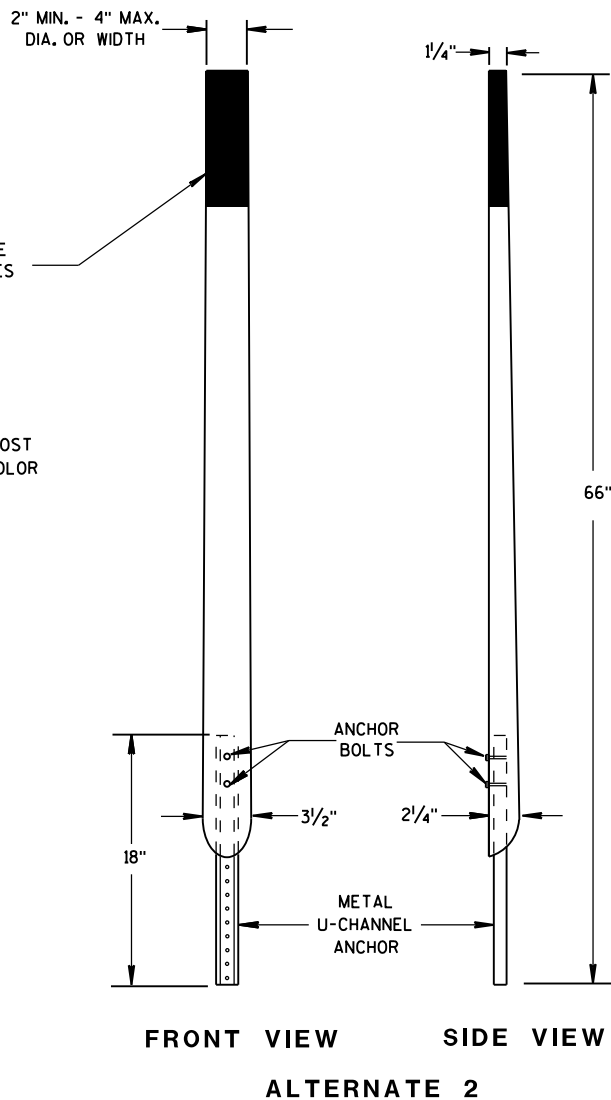
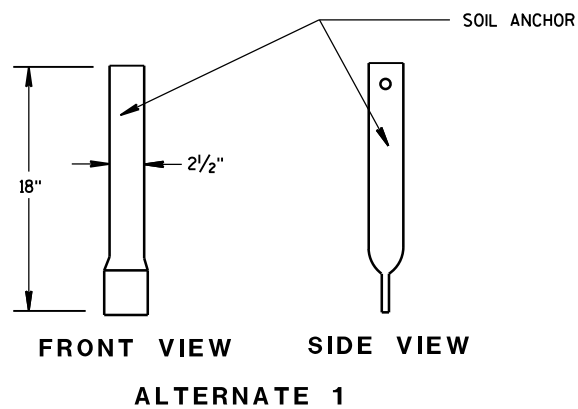
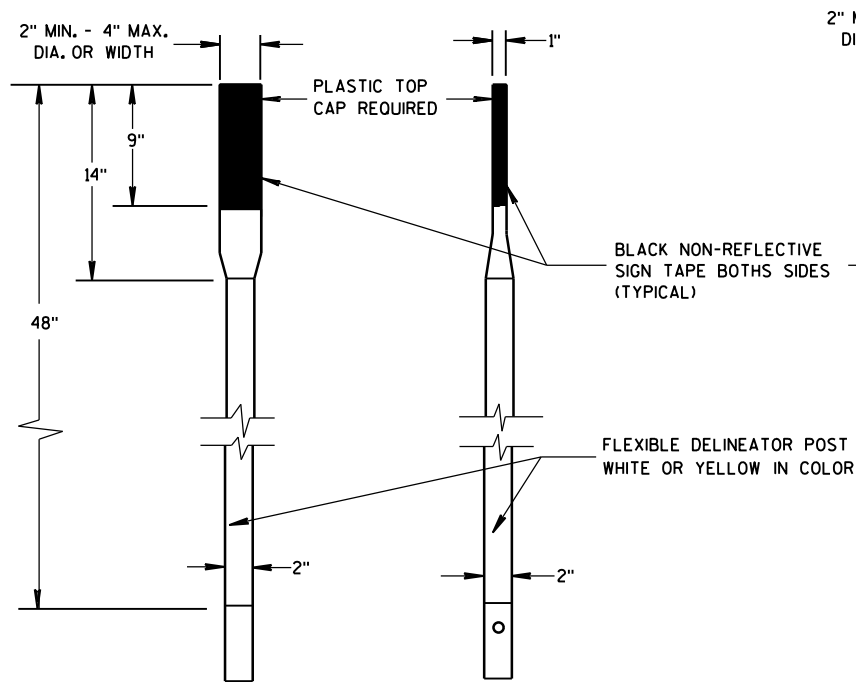
PLAN VIEW  
CONCRETE MASONRY ENDWALLS FOR  
CULVERT PIPE AND PIPE ARCH



CROSS SECTION  
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST  
FOR CULVERT END

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

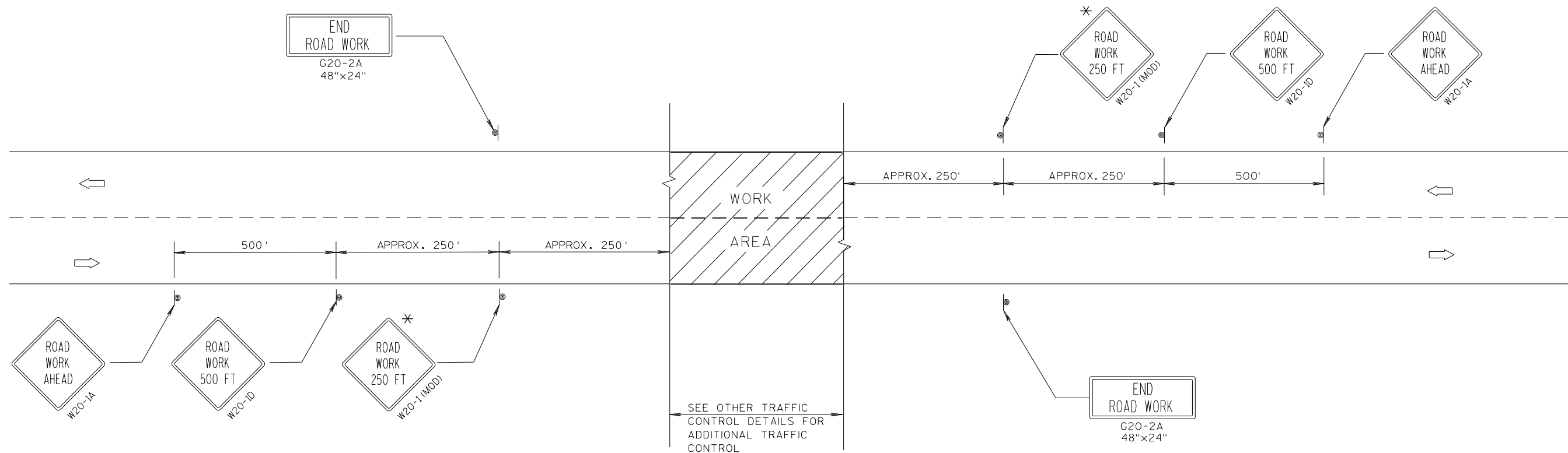


# FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
10/1/2012 /S/ Travis Feltes  
DATE STATE TRAFFIC ENGINEER OF DESIGN  
FHWA





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.

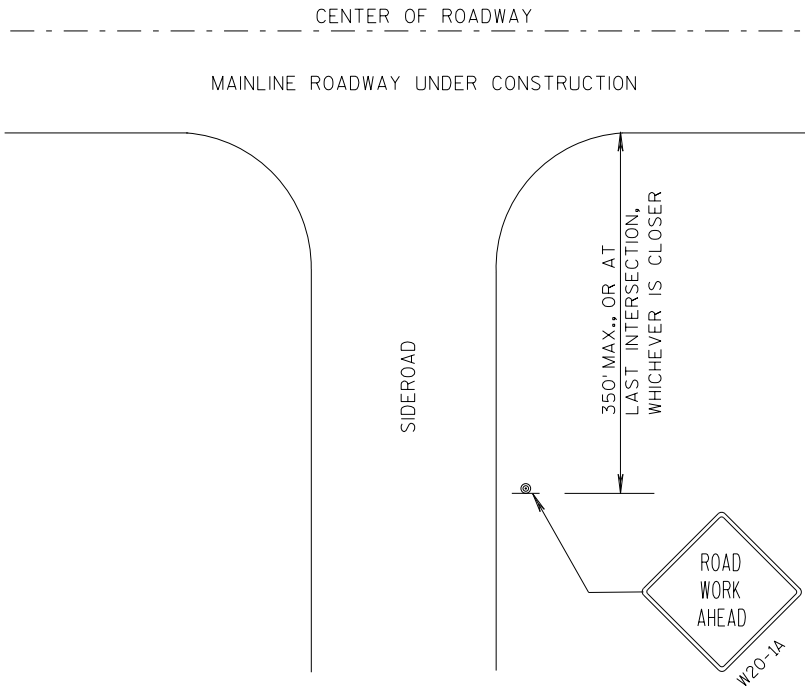
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

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.

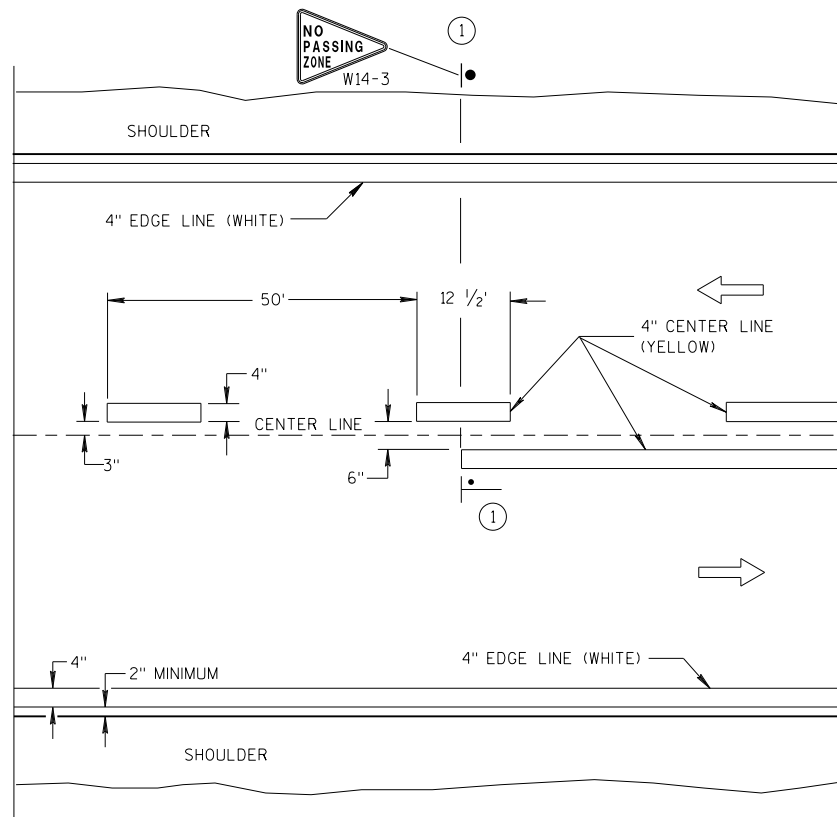
\* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



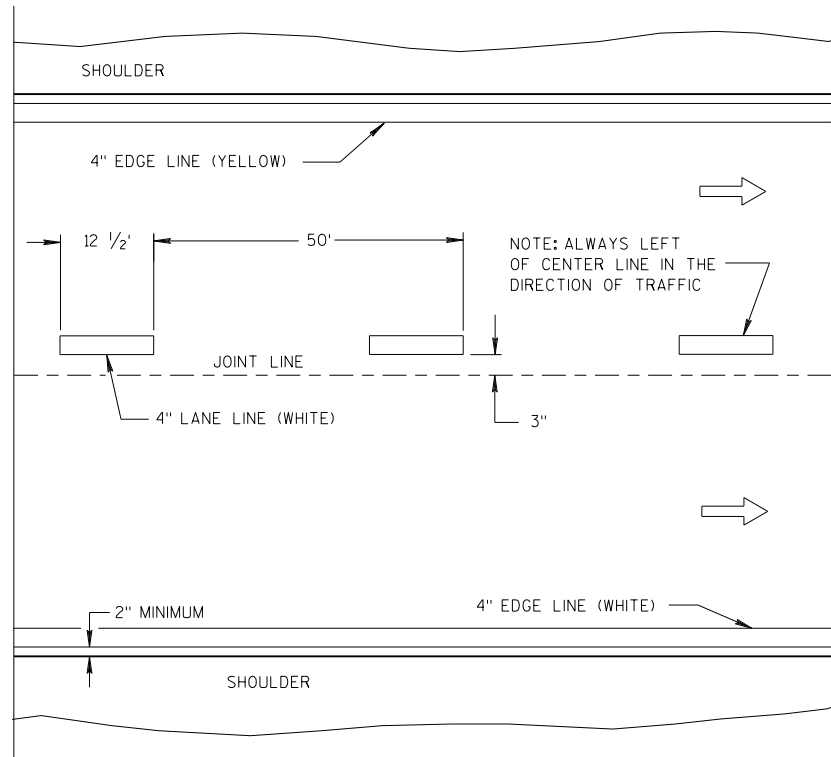
LEGEND

- ⊙ SIGN ON PERMANENT SUPPORT
- ➡ DIRECTION OF TRAFFIC
- ▨ WORK AREA

|                                                                                                          |                                          |
|----------------------------------------------------------------------------------------------------------|------------------------------------------|
| TRAFFIC CONTROL. ADVANCE<br>WARNING SIGNS 40 M.P.H.<br>OR LESS TWO-WAY UNDIVIDED<br>ROAD OPEN TO TRAFFIC |                                          |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION                                                       |                                          |
| APPROVED<br>7/2018<br>DATE                                                                               | /S/ Andrew Heidtke<br>WORK ZONE ENGINEER |
| FHWA                                                                                                     |                                          |

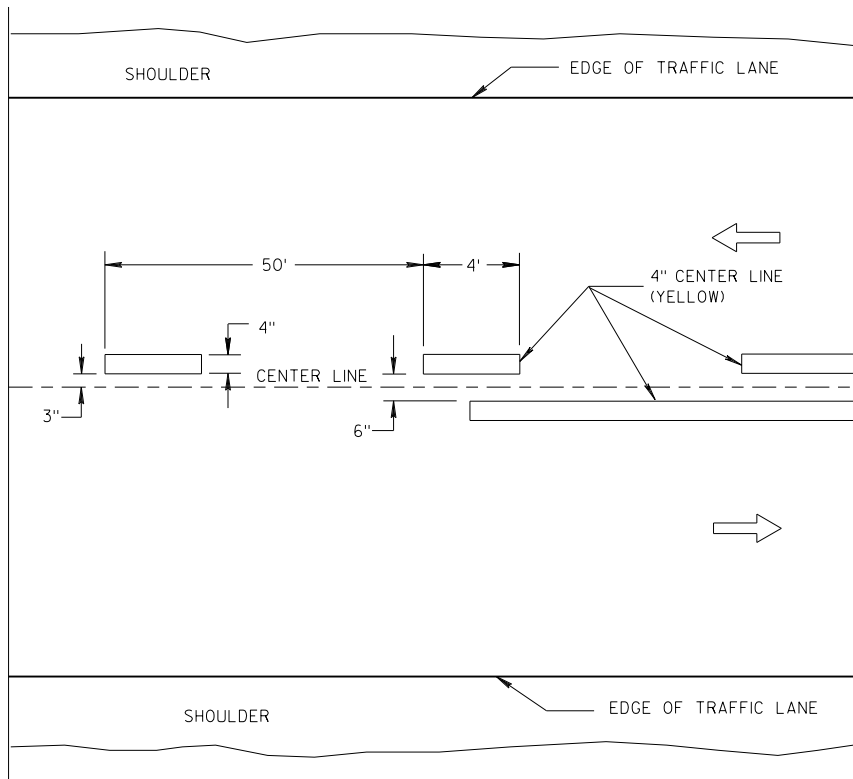


TWO WAY TRAFFIC

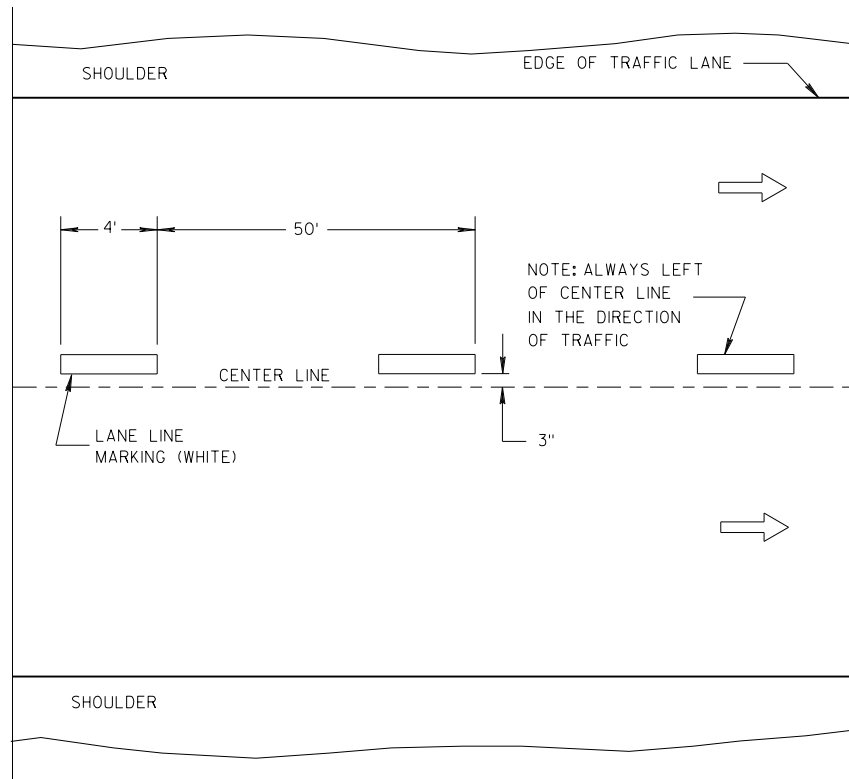


ONE WAY TRAFFIC

## PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC


## TEMPORARY 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

## LONGITUDINAL MARKING (MAINLINE)

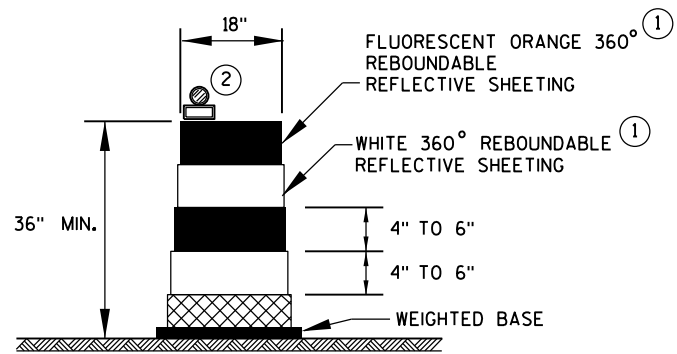
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

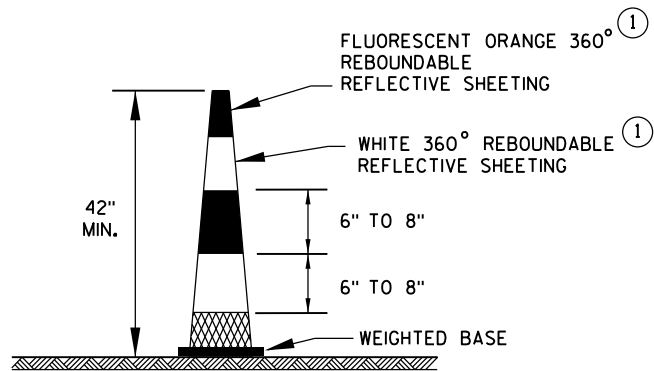
7/2018  
DATE

FHWA

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



**DRUM**

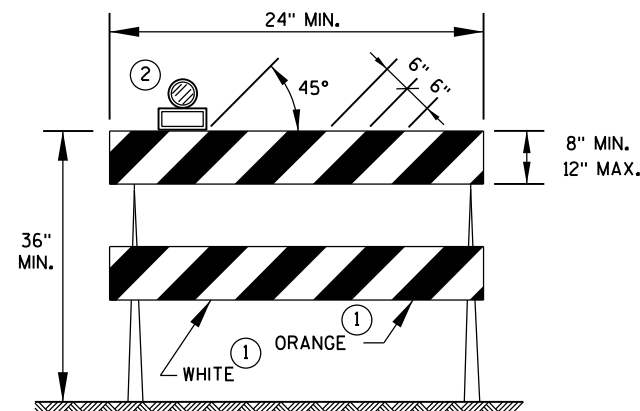


**42" CONE**

DO NOT USE IN TAPERS  
1/2 SPACING OF DRUMS

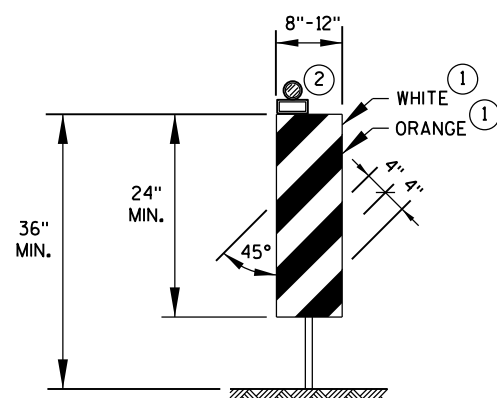
**GENERAL NOTES**

- 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.



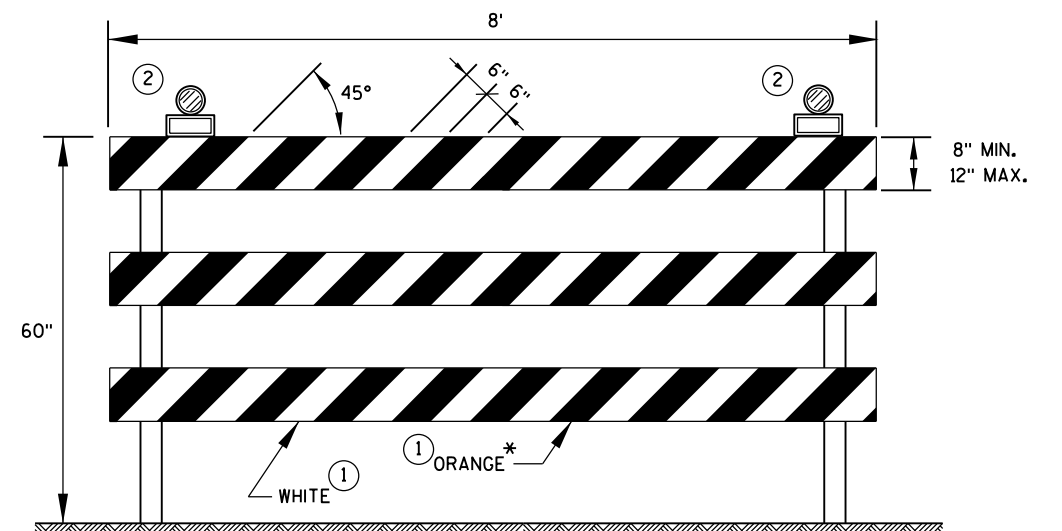
**TYPE 2 BARRICADE**

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

FHWA

/S/ Andrew Heidtke  
WORK ZONE ENGINEER

LEGEND

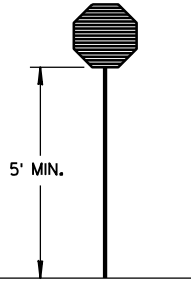
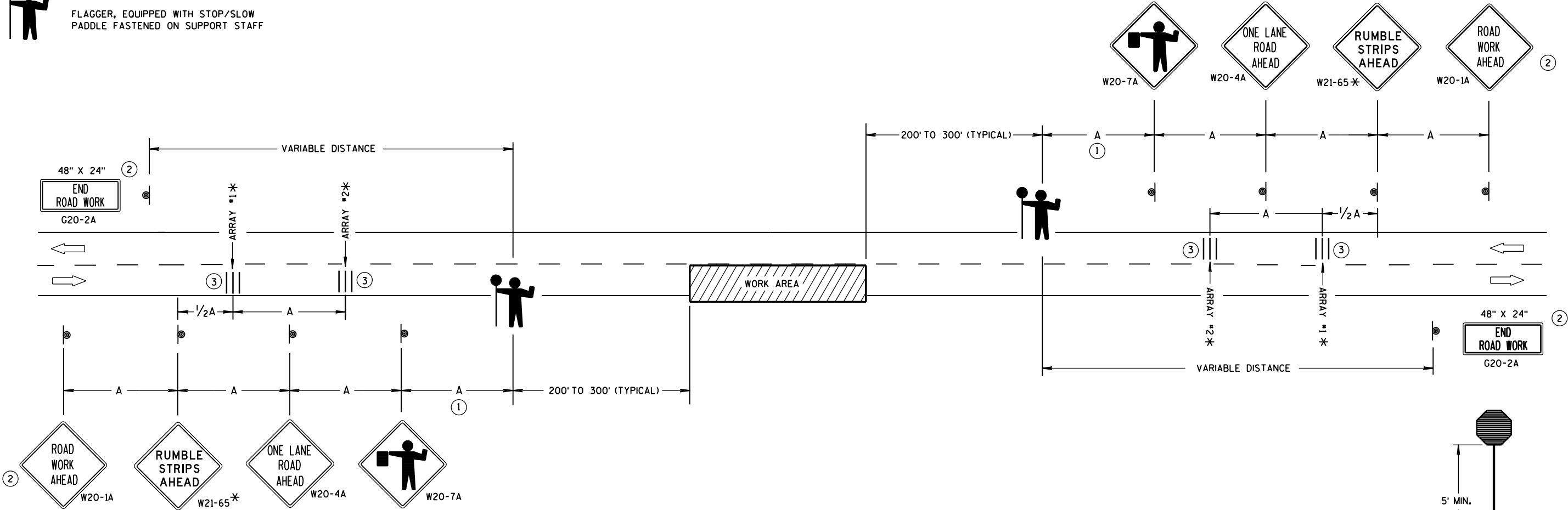
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

| SPEED LIMIT | SPACING A |
|-------------|-----------|
| 25-35 MPH   | 200'      |
| 35-40 MPH   | 350'      |
| 45-55 MPH   | 500'      |



USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING A.



STOP/SLOW PADDLE ON SUPPORT STAFF

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

"W0" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

WHEN A SIDE ROAD OR 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.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS. PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, REMOVE TEMPORARY RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

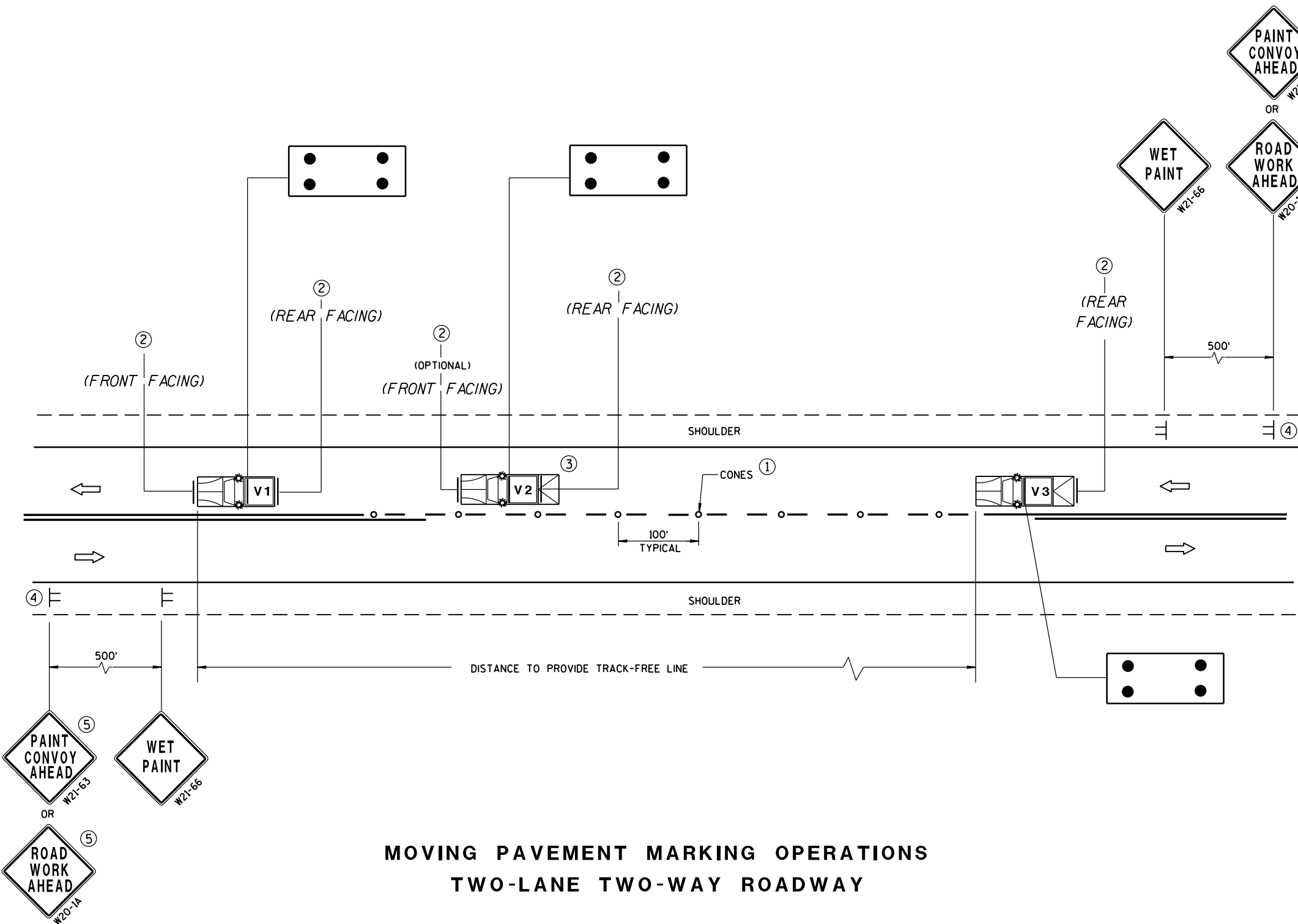
\* UTILIZE TEMPORARY RUMBLE STRIPS WHEN FLAGGING OPERATION IS ANTICIPATED TO BE STATIONARY IN EXCESS OF TWO HOURS.

- FOR A MOVING WORK OPERATION, SIGNING AND TEMPORARY RUMBLE STRIPS (IF USED) SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3,500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.
- EACH TEMPORARY RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

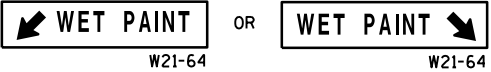
APPROVED  
June 2017 /S/ Andrew Heldtke  
DATE WORK ZONE ENGINEER  
FHWA



MOVING PAVEMENT MARKING OPERATIONS  
TWO-LANE TWO-WAY ROADWAY

GENERAL NOTES

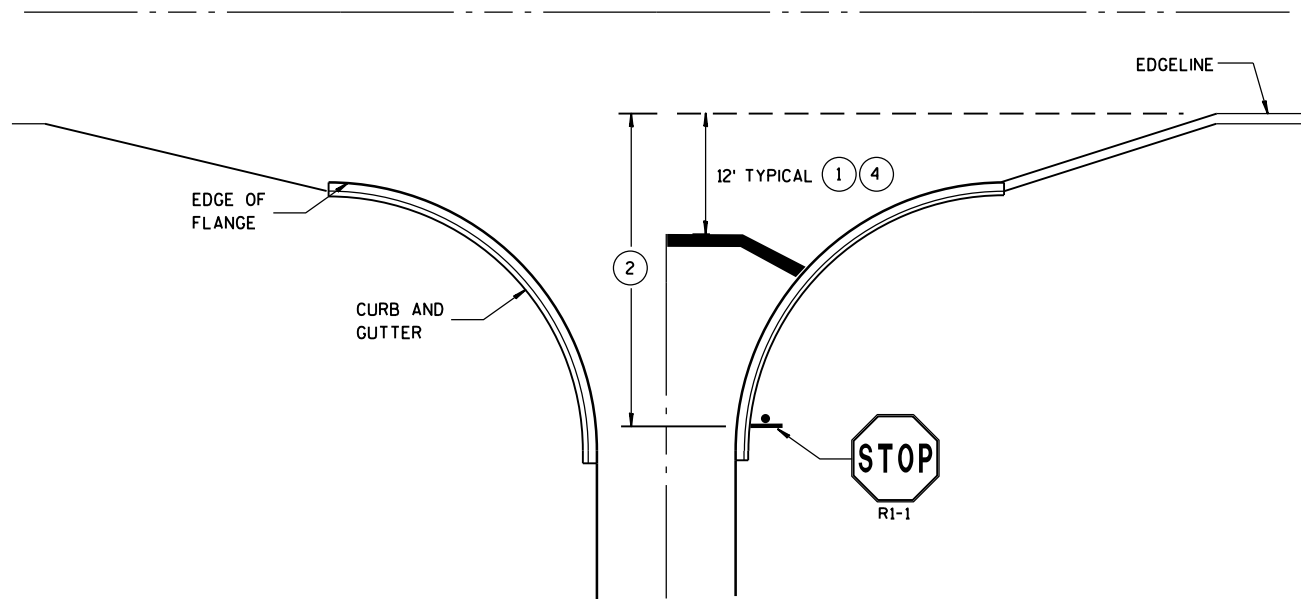
- ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.
- VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW 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.
- THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.
- THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.
- WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.
- 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.
- ③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.
- ④ SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.
- ⑤ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.



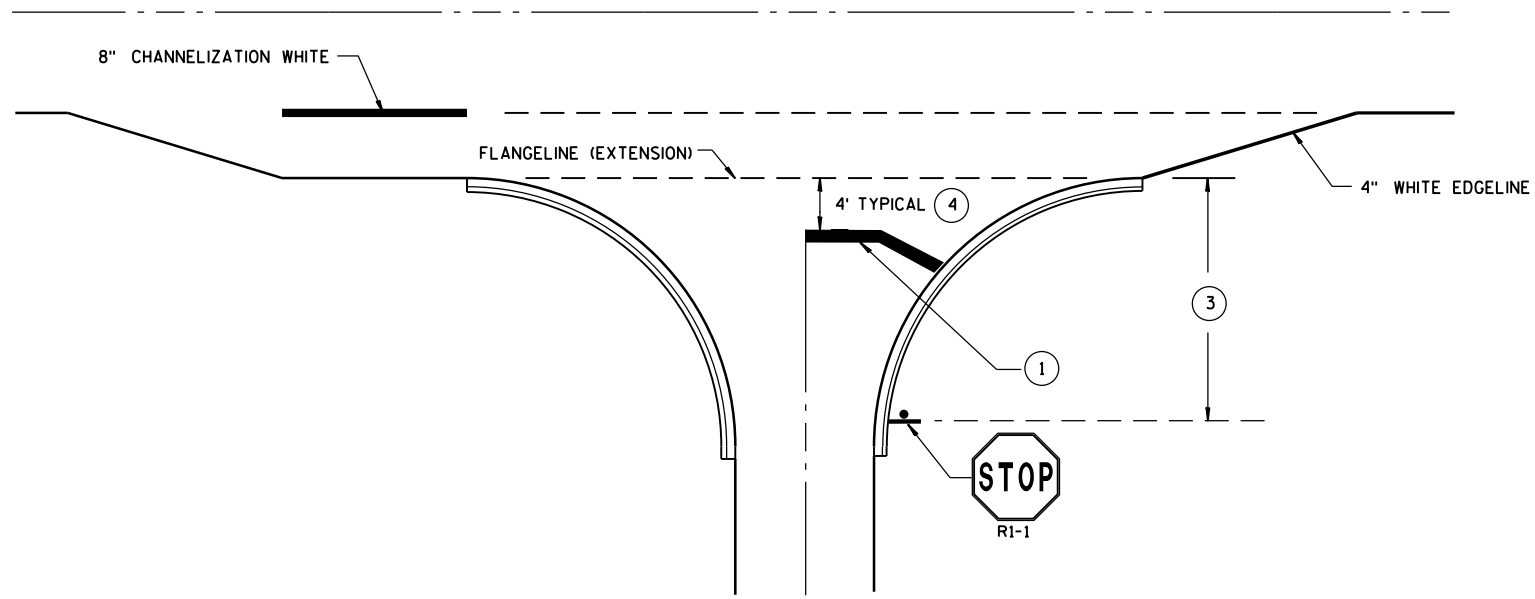
LEGEND

- 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 (CAUTION)

|                                                                  |                                          |
|------------------------------------------------------------------|------------------------------------------|
| MOVING PAVEMENT MARKING<br>OPERATION<br>TWO-LANE TWO-WAY ROADWAY |                                          |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION               |                                          |
| APPROVED<br>DATE<br>Sept., 2017                                  | /S/ Andrew Heidtke<br>WORK ZONE ENGINEER |
| FHWA                                                             |                                          |



TYPICAL STOP LINE PAVEMENT MARKING  
WITH CURB AND GUTTER

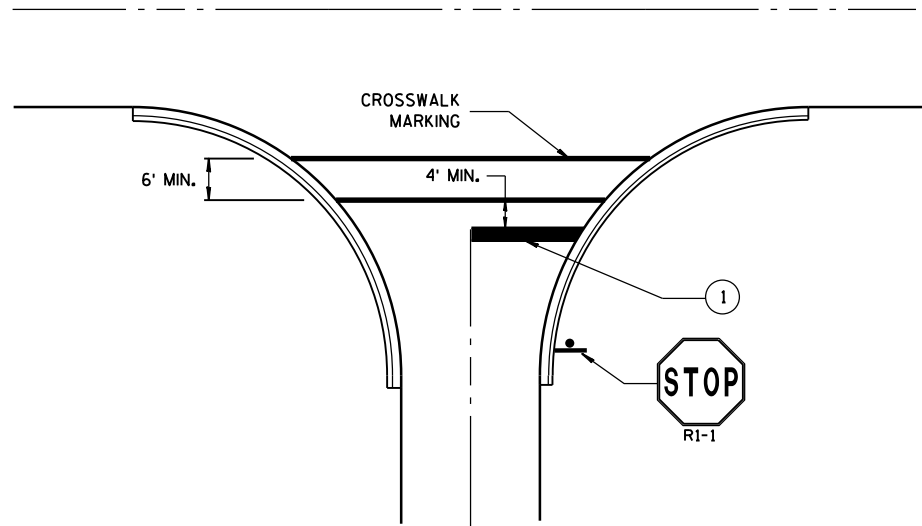


TYPICAL STOP LINE PAVEMENT MARKING  
FOR SIDEROADS WITH RIGHT TURN LANE

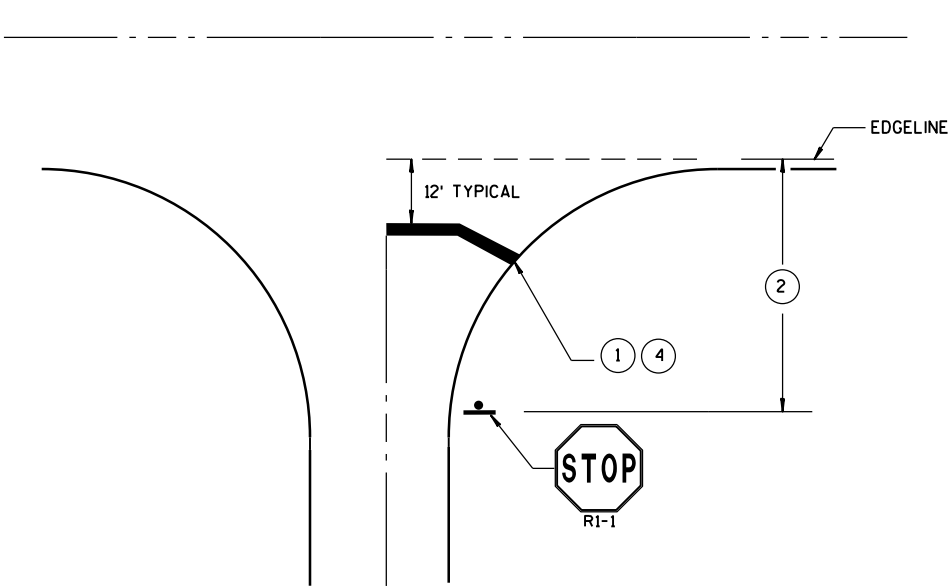
GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGE LINE 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 EDGE LINE 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).

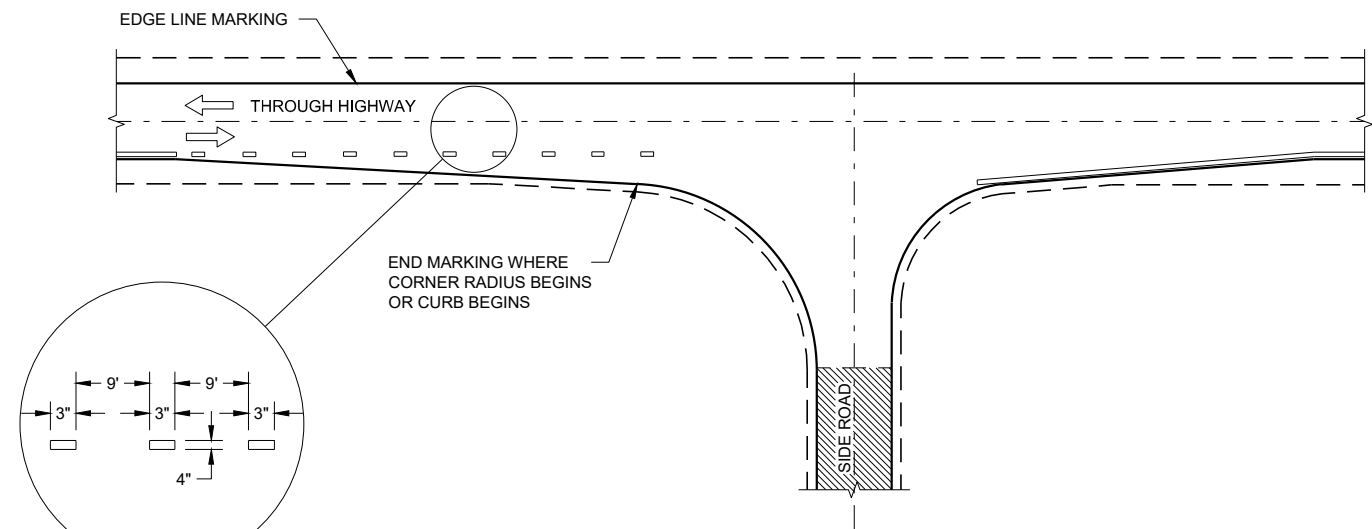


TYPICAL STOP LINE PAVEMENT MARKING  
FOR SIDEROADS WITH CROSSWALK MARKING

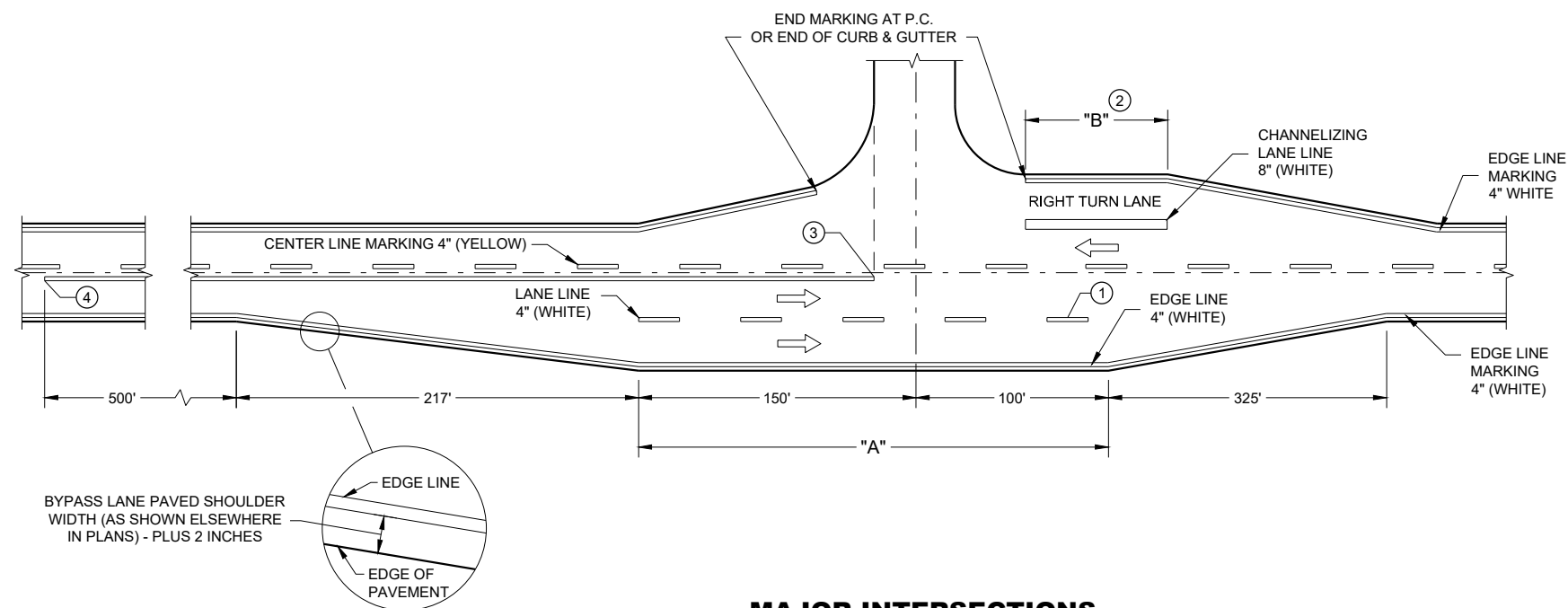


TYPICAL STOP LINE PAVEMENT MARKING  
WITHOUT CURB AND GUTTER

|                                                    |                                                            |
|----------------------------------------------------|------------------------------------------------------------|
| STOP LINE AND CROSSWALK<br>PAVEMENT MARKING        |                                                            |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION |                                                            |
| APPROVED<br>DATE<br>Sept., 2017                    | /S/ Matthew R. Rauch<br>STATE SIGNING AND MARKING ENGINEER |
| FHWA                                               |                                                            |



**MINOR INTERSECTION**



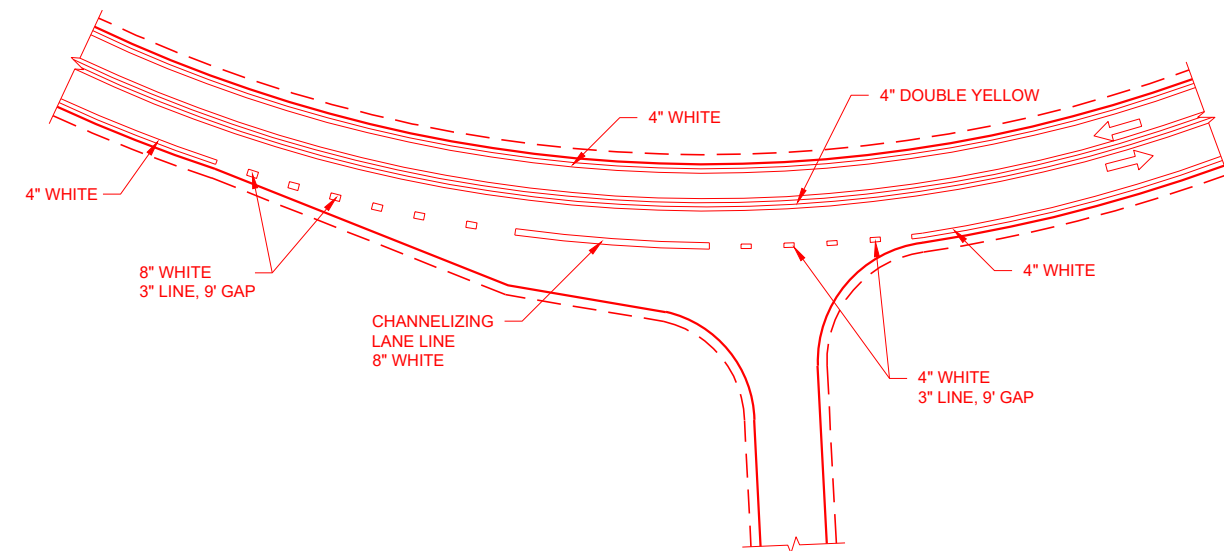
**MAJOR INTERSECTIONS**  
**(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)**

**GENERAL NOTES**

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
- ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER

ARROW SYMBOL ( ➞ ) SHOWS DIRECTION OF TRAVEL



**INTERSECTION ON OUTSIDE OF CURVE**

**PAVEMENT MARKING**  
**(INTERSECTIONS)**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

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.

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

TABLE A

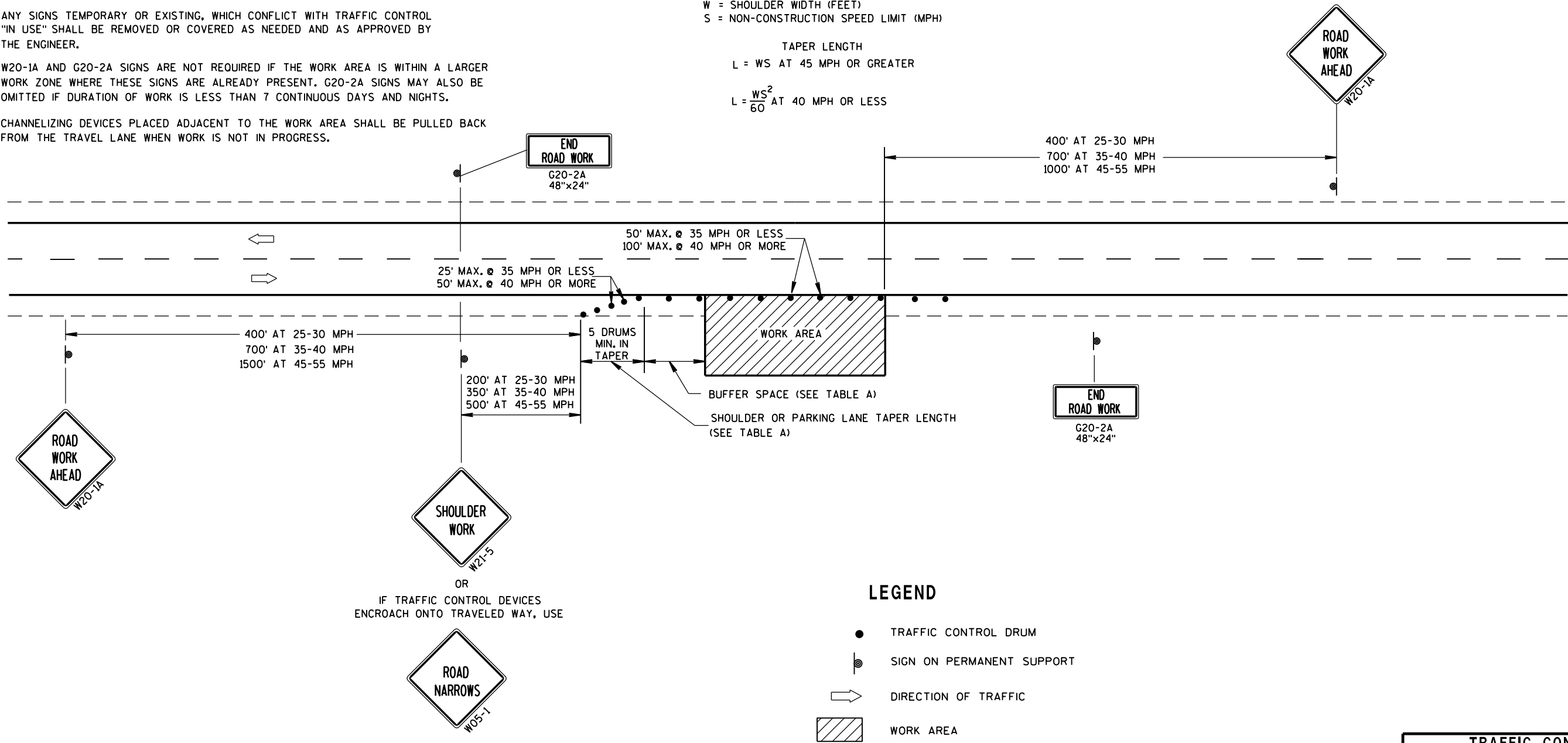
| SHOULDER TAPER LENGTH (FEET) |    |     |     |     | BUFFER SPACE (FEET) |
|------------------------------|----|-----|-----|-----|---------------------|
| S                            | W  | 4   | 6   | 8   |                     |
| 30                           | 20 | 30  | 40  | 50  | 200                 |
| 35                           | 30 | 45  | 55  | 70  | 250                 |
| 40                           | 40 | 55  | 75  | 90  | 305                 |
| 45                           | 60 | 90  | 120 | 150 | 360                 |
| 50                           | 70 | 100 | 135 | 170 | 425                 |
| 55                           | 75 | 110 | 150 | 185 | 495                 |

W = SHOULDER WIDTH (FEET)  
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH  
L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$  AT 40 MPH OR LESS

SHOULDER TAPER LENGTH =  $\frac{1}{3}L$



LEGEND

- TRAFFIC CONTROL DRUM
- ⦿ SIGN ON PERMANENT SUPPORT
- ➡ DIRECTION OF TRAFFIC
- ▨ WORK AREA

|                                                                               |                                                                           |
|-------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| TRAFFIC CONTROL,<br>WORK ON SHOULDER OR<br>PARKING LANE,<br>UNDIVIDED ROADWAY |                                                                           |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION                            |                                                                           |
| APPROVED<br>July 14, 2015<br>DATE                                             | /S/ Peter Amakobe Atepe<br>STATEWIDE WORK ZONE TRAFFIC<br>SAFETY ENGINEER |
| FHWA                                                                          |                                                                           |



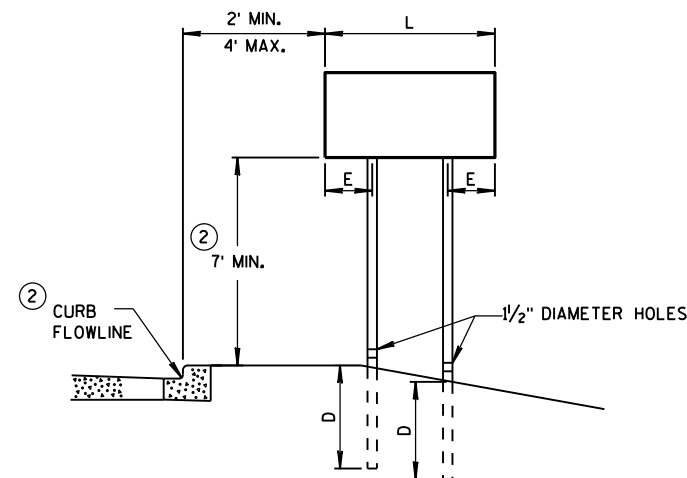
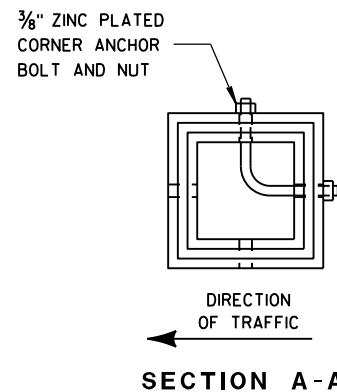


DETAIL OF TUBULAR STEEL SIGN POST

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.

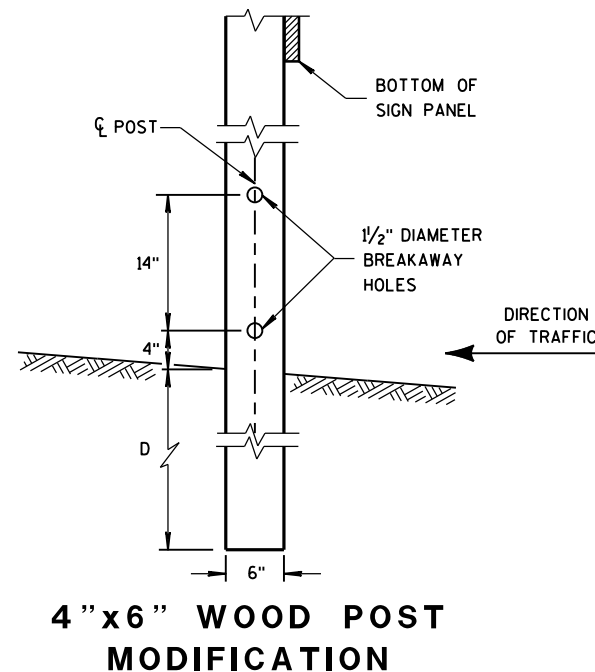


URBAN AREA

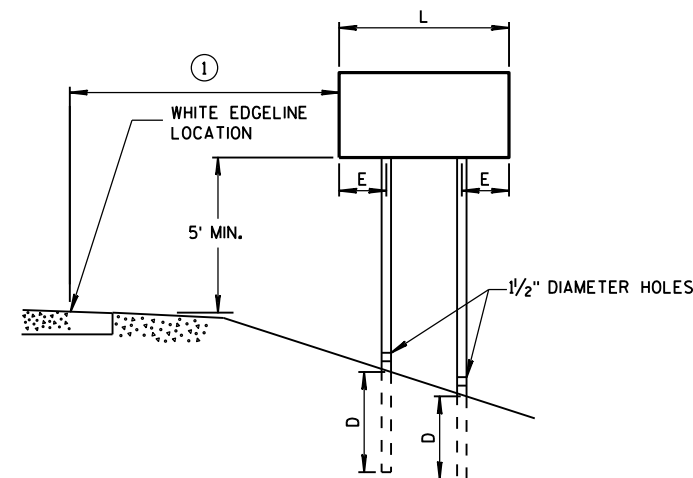
POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

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 MODIFICATION



RURAL AREA

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

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.

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



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.

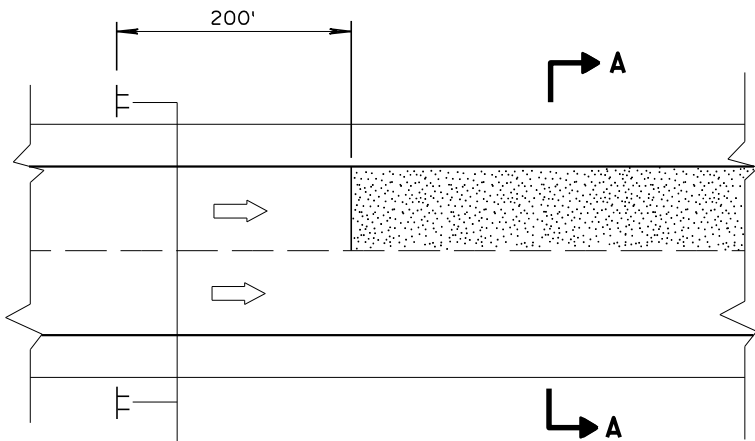
- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" x 3"
  - MACHINE BOLTS - 5/16" x 6-1/2" OR 7" LENGTH W/ NUTS

- 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.

|                                                    |                                          |
|----------------------------------------------------|------------------------------------------|
| ATTACHMENT OF SIGNS<br>TO POSTS                    |                                          |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION |                                          |
| APPROVED<br>June 2017<br>DATE                      | /S/ Andrew Heidtke<br>WORK ZONE ENGINEER |
| FHWA                                               |                                          |

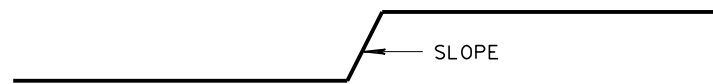


MULTI-LANE

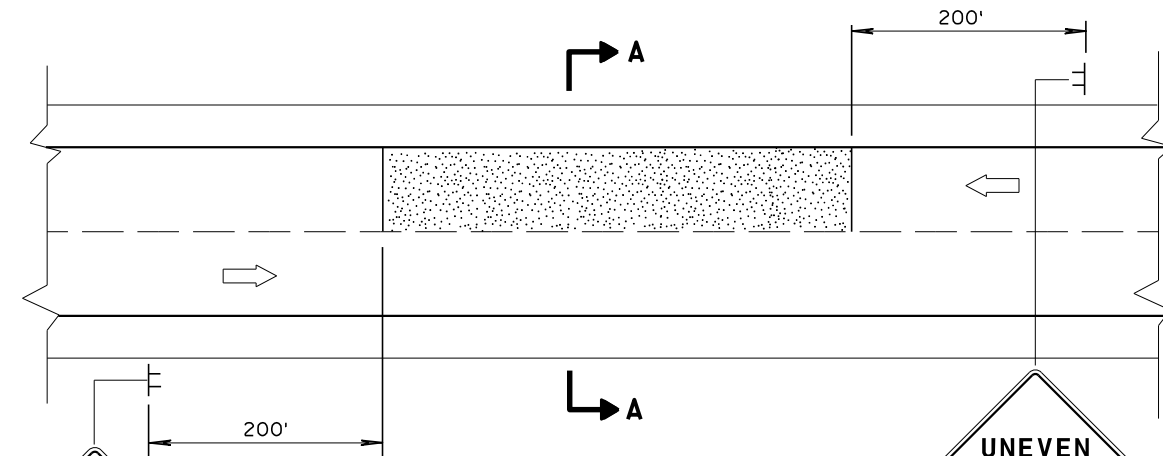


SECTION A-A

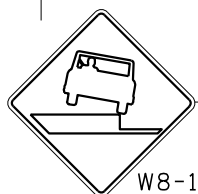
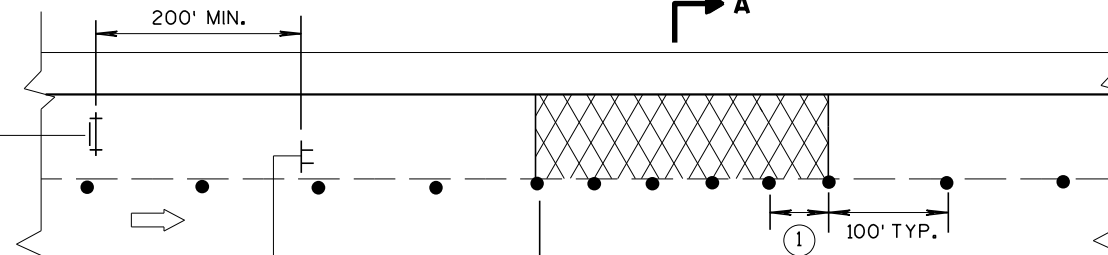
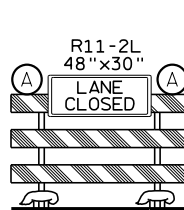
OR



SECTION A-A

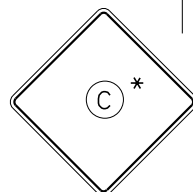
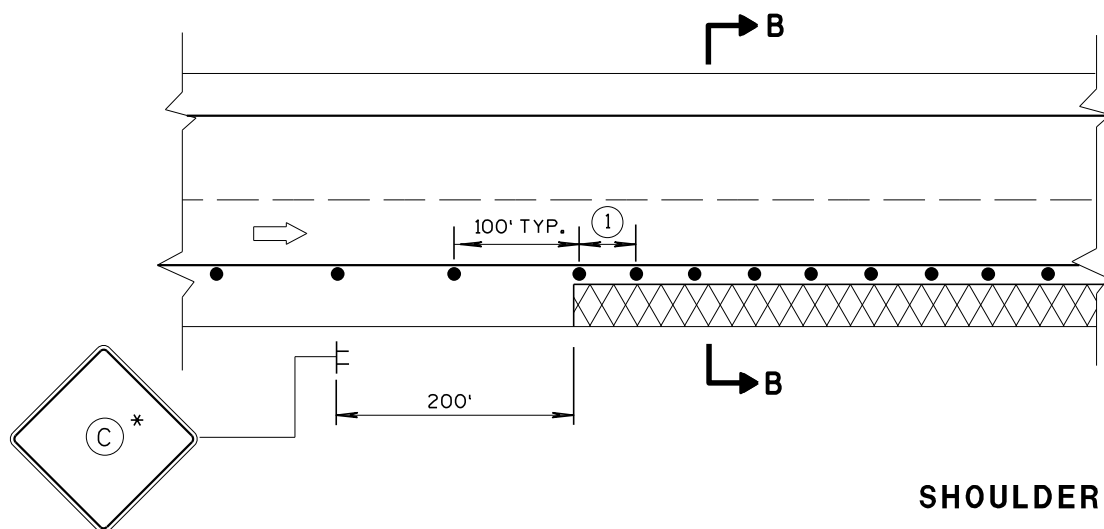


TWO-WAY TWO LANE

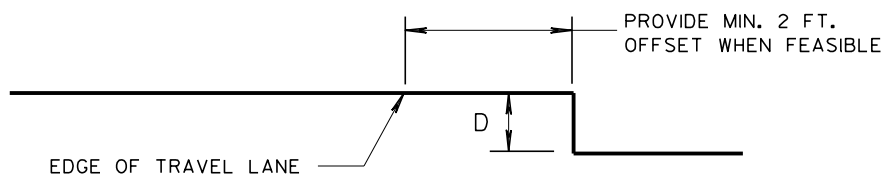


MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS



SHOULDER DROP-OFFS



SECTION B-B

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

\* IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EACH ENTRANCE RAMP.

① USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

TYPE III BARRICADE WITH ATTACHED SIGN

SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUM

TYPE "A" WARNING LIGHT (FLASHING)

DIRECTION OF TRAFFIC

WORK AREA WITH DROP-OFF

MILLED SURFACE

| D                                     | SIGN C                                                                           |
|---------------------------------------|----------------------------------------------------------------------------------|
| < 2" WITH A SLOPE STEEPER THAN 3:1    | <br>W08-9                                                                        |
| 2" < 6" WITH A SLOPE STEEPER THAN 3:1 | <br>W8-9A<br>PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT |

TRAFFIC CONTROL,  
DROP-OFF SIGNING

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

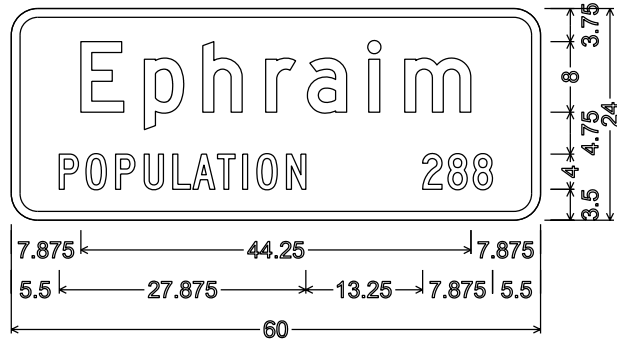
APPROVED

March 2018  
DATE

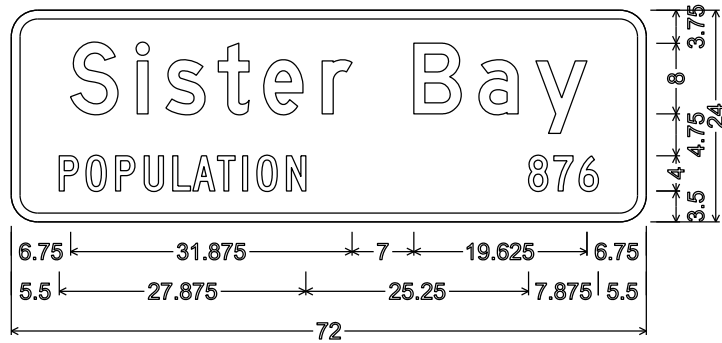
/S/ Andrew Heidtke  
WORK ZONE ENGINEER

FHWA

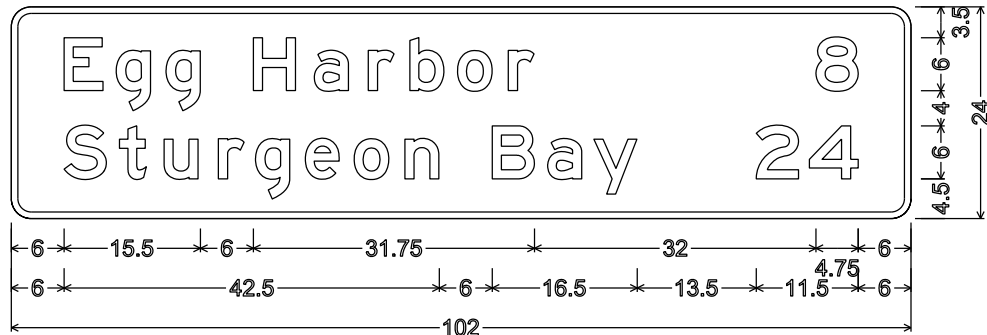
7



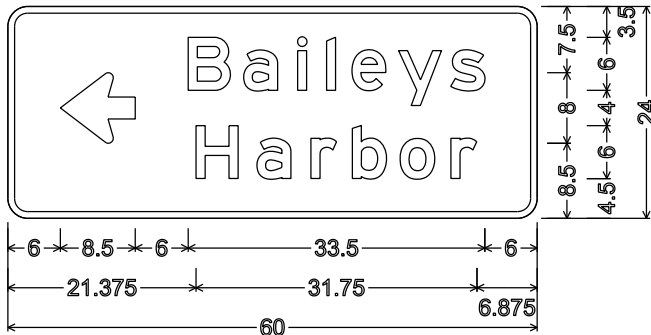
I2-3;  
3.000" Radius, 1.000" Border,  
"Ephraim" D; "POPULATION" C; "288" C



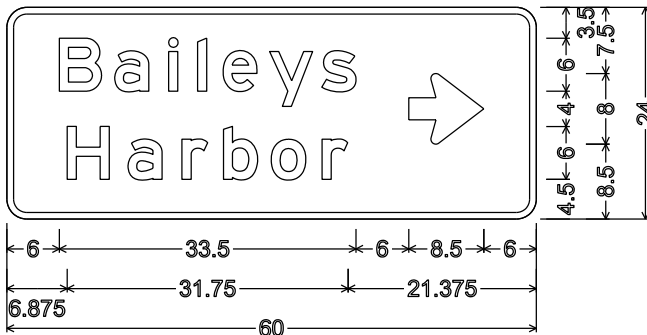
I2-3; 3.000" Radius, 1.000" Border,  
"Sister" D; "Bay" D; "POPULATION" C; "876" C



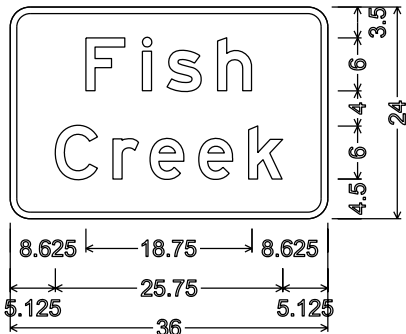
D2-2; 2.250" Radius, 0.750" Border



D1-2; 2.250" Radius, 0.750" Border



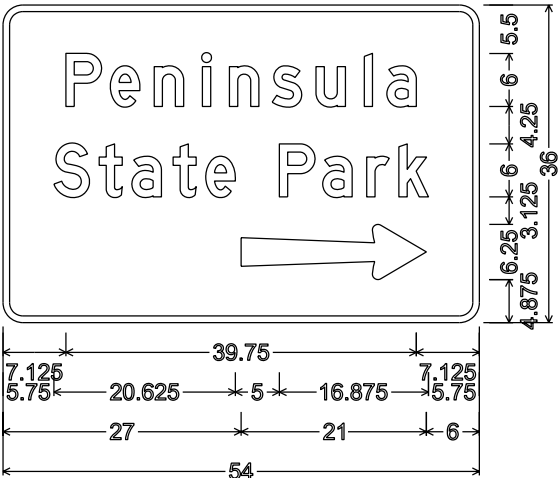
D1-2; 2.250" Radius, 0.750" Border



I3-1; 2.250" Radius, 0.750" Border

## NOTES

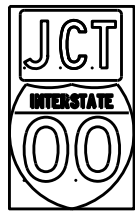
1. All Signs Type II - Type H Reflective
2. Color:  
Background - Green except as noted  
Message - White
3. Message Series - E except as noted



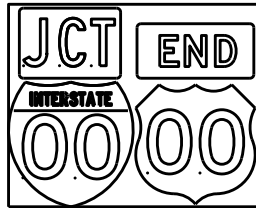
D7-53R;  
2.250" Radius, 0.750" Border, White on Brown;  
"Peninsula" D; "State" D; "Park" D

7

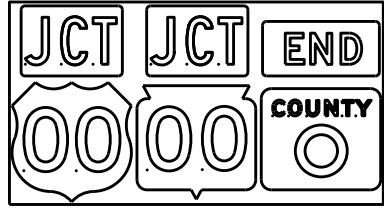
TYPICAL ASSEMBLIES



J1-1



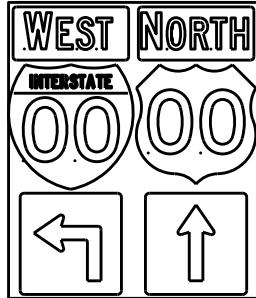
J1-2



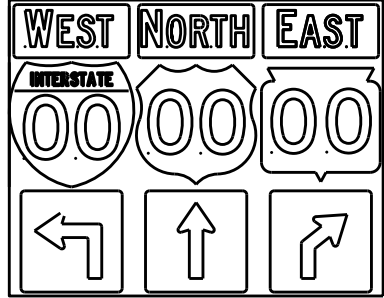
J1-3



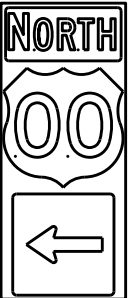
J2-1



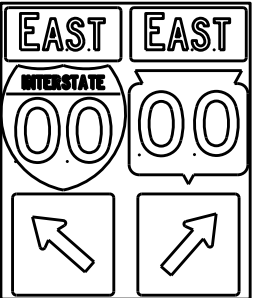
J2-2



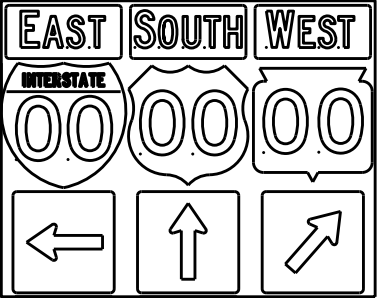
J2-3



J3-1



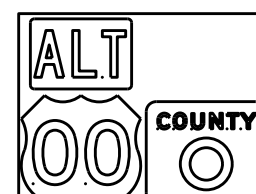
J3-2



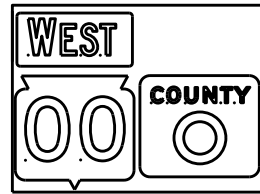
J3-3



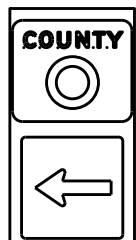
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1



J23-1

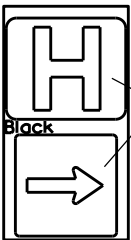


J22-1



JV

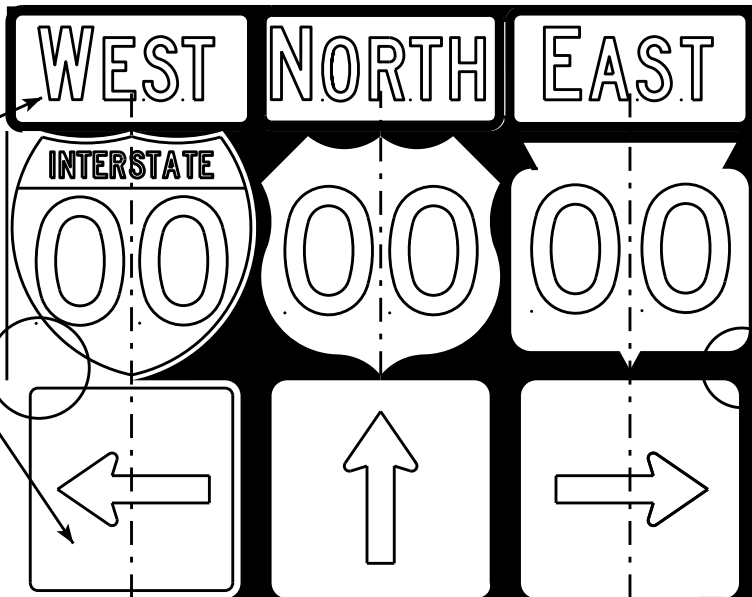
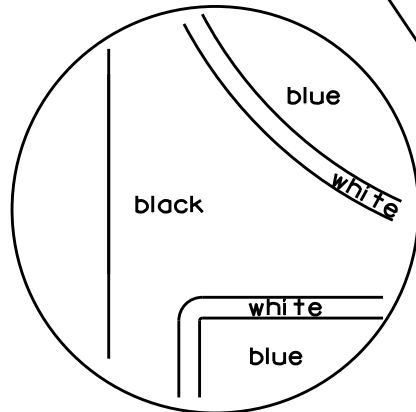
(Typical Vertical J-Assembly  
See Note 10 and 11)



JH-1

Blue Background

[blue background  
with interstate]



[black background]

ROUTE MARKERS & COMPONENTS  
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 2/06/14 PLATE NO. A2-1S.8

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Black Non-reflective  
Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

PROJECT NO:

FILE NAME : C:\CAEFiles\Projects\tr\_stdplate\A21S.DGN

PLOT DATE : 06-FEB-2014 14:10

PLOT BY : mscs.ja

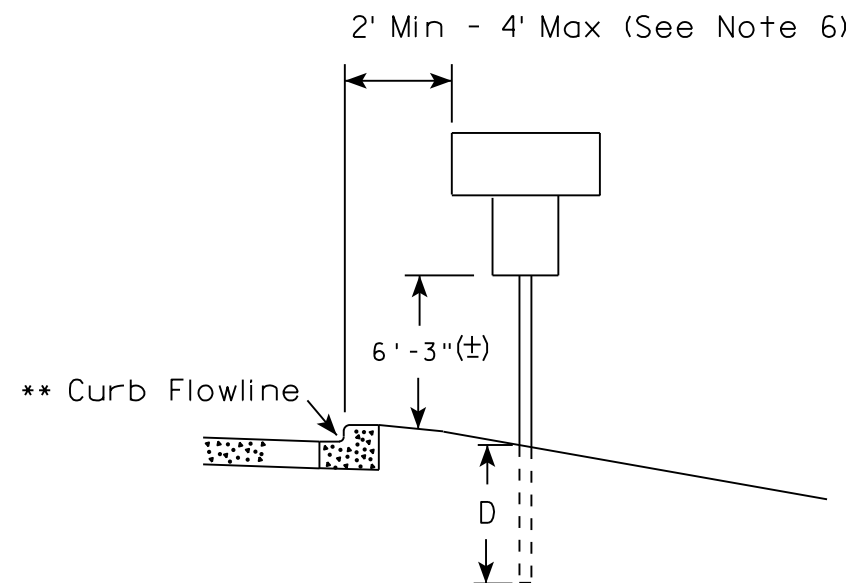
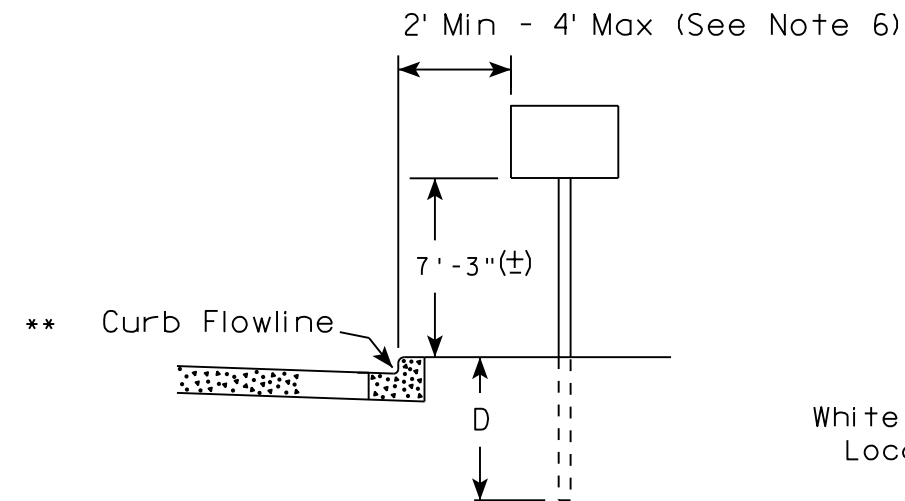
PLOT NAME :

SHEET NO:

E

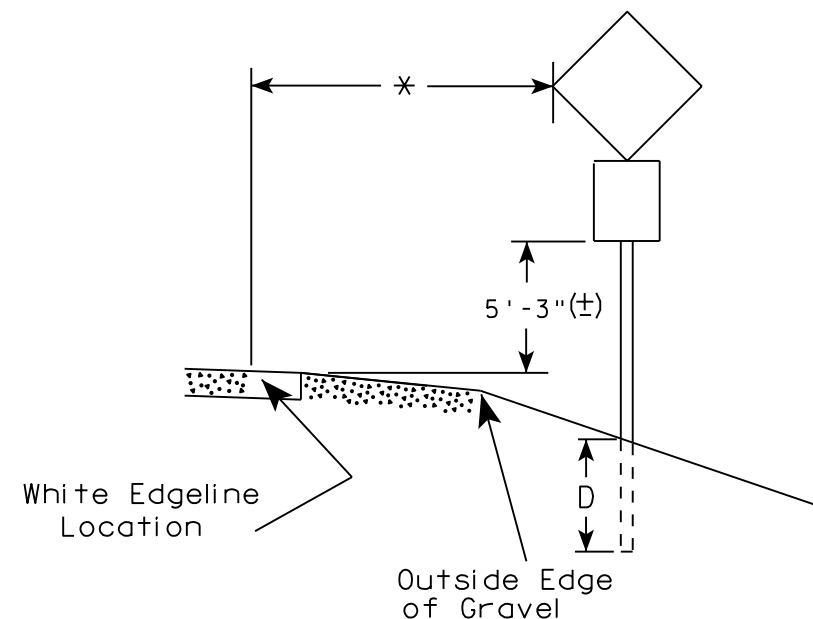
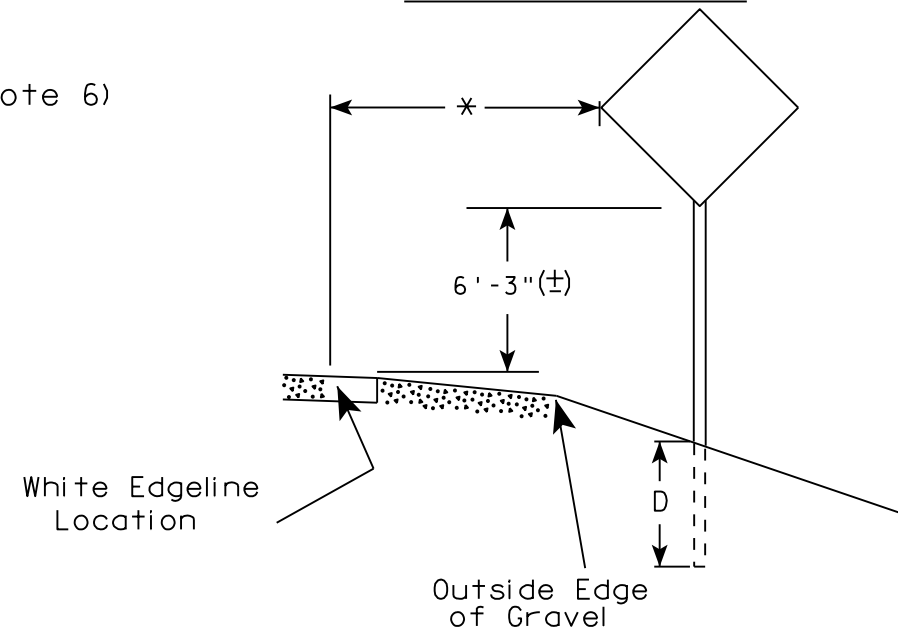
WISDOT/CADDs SHEET 42

## URBAN AREA



✱✱ 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.

## RURAL AREA (See Note 2)



\* 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<br>( Sq. Ft. ) | D<br>( Min ) |
|------------------------------------------|--------------|
| 20 or Less                               | 4'           |
| Greater than 20                          | 5'           |

## GENERAL NOTES

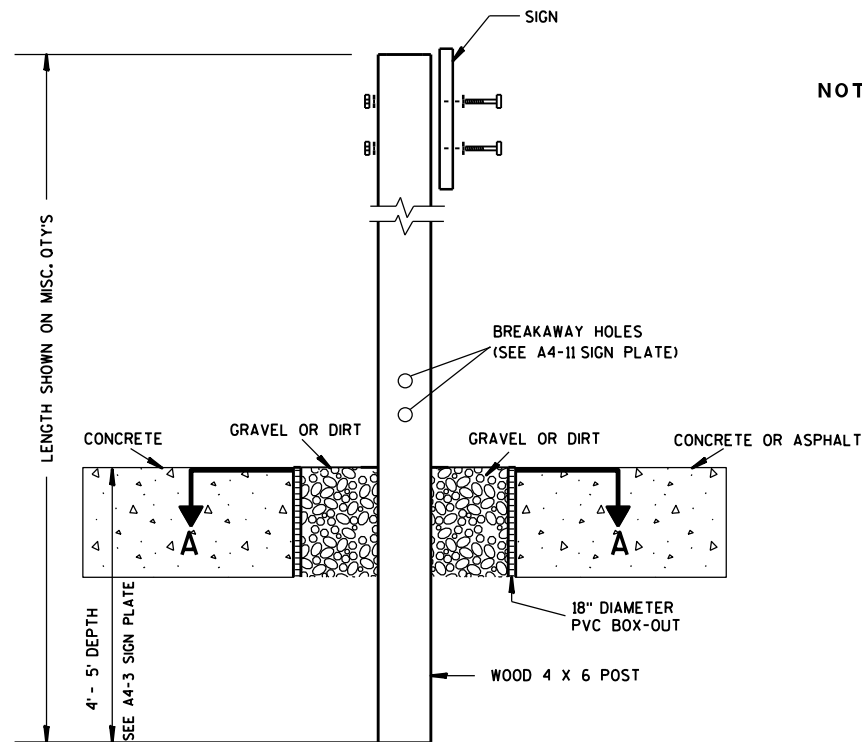
1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. J-Assemblies 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 directed 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

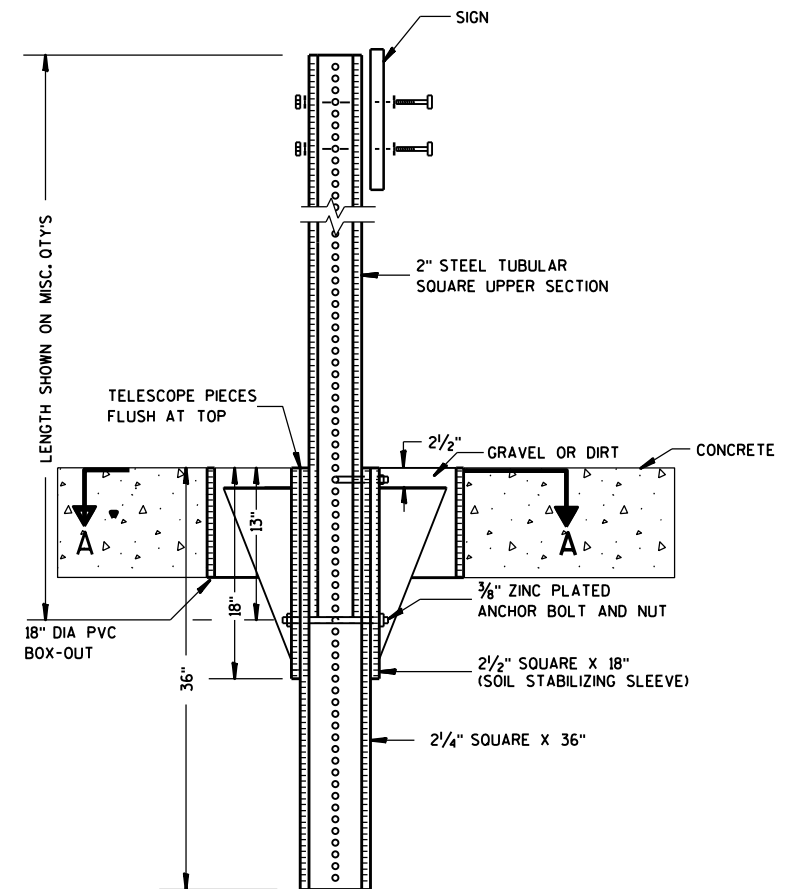
DATE 8/21/17 PLATE NO. A4-3.21



### ELEVATION VIEW

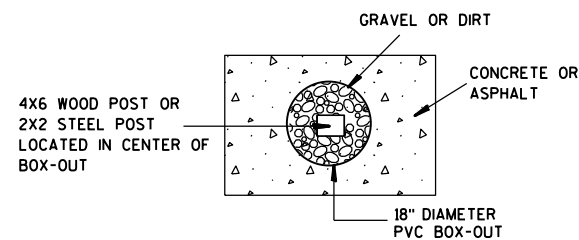
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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

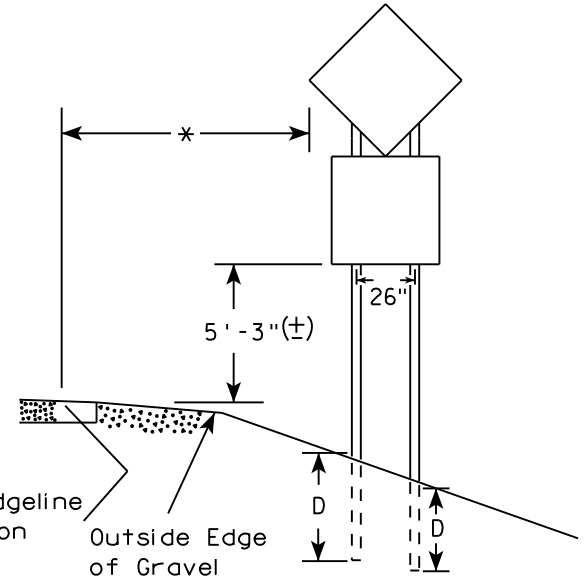
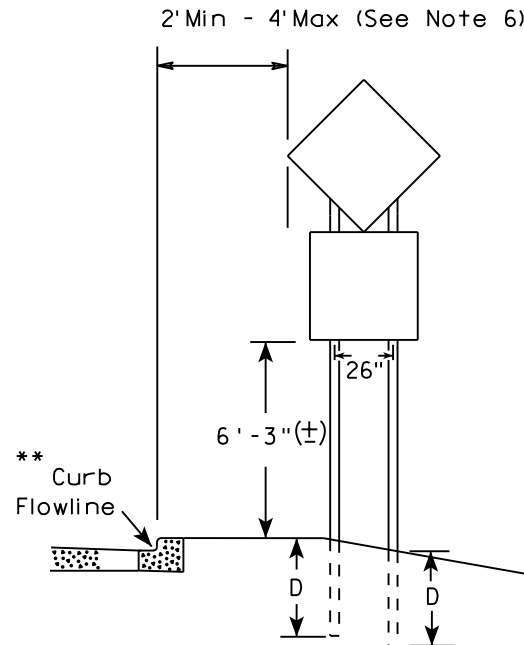
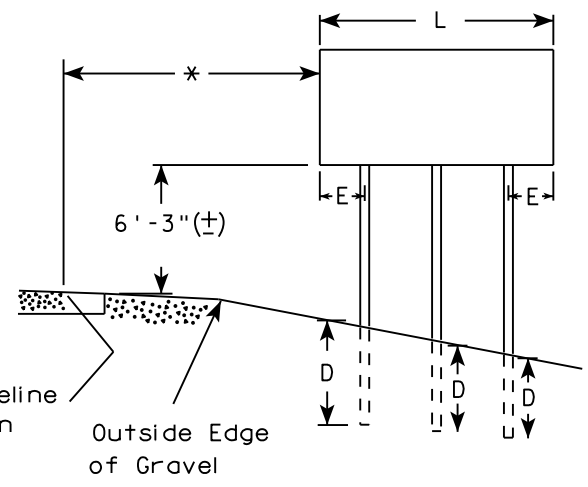
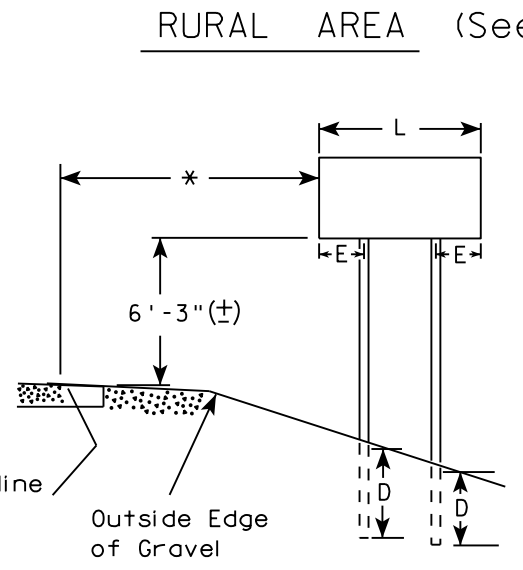
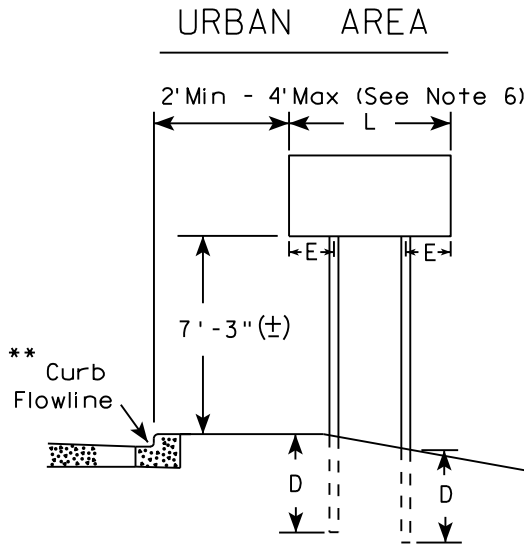
FOR NEW CONCRETE/ASPHALT INSTALLATIONS

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



48" DIAMOND WARNING SIGN

48" DIAMOND WARNING SIGN

\*\*\*

| SIGN SHAPE OTHER THAN DIAMOND<br>(TWO POSTS REQUIRED) |     |
|-------------------------------------------------------|-----|
| L                                                     | E   |
| Greater than 48"<br>Less than 60"                     | 12" |
| 60" to 108"                                           | L/5 |

| SIGN SHAPE OTHER THAN DIAMOND<br>(THREE POSTS REQUIRED) |     |
|---------------------------------------------------------|-----|
| L                                                       | E   |
| Greater than 108"<br>to 144"                            | 12" |

POST EMBEDMENT DEPTH

| Area of Sign<br>Installation<br>( Sq. Ft. ) | D<br>( Min ) |
|---------------------------------------------|--------------|
| 20 or Less                                  | 4'           |
| Greater than 20                             | 5'           |

TYPICAL INSTALLATION  
OF TYPE II SIGNS  
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

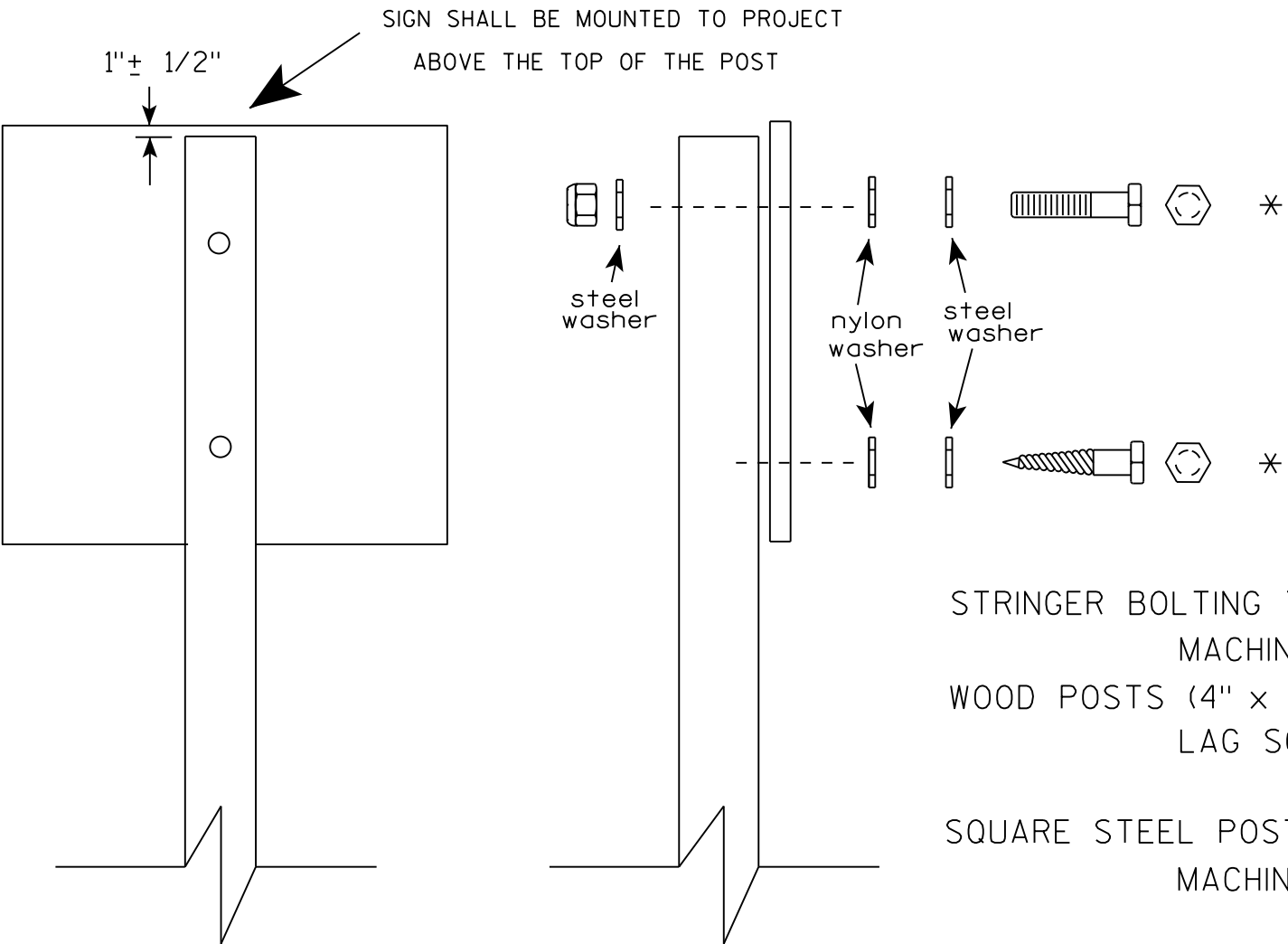
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

- 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.





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.

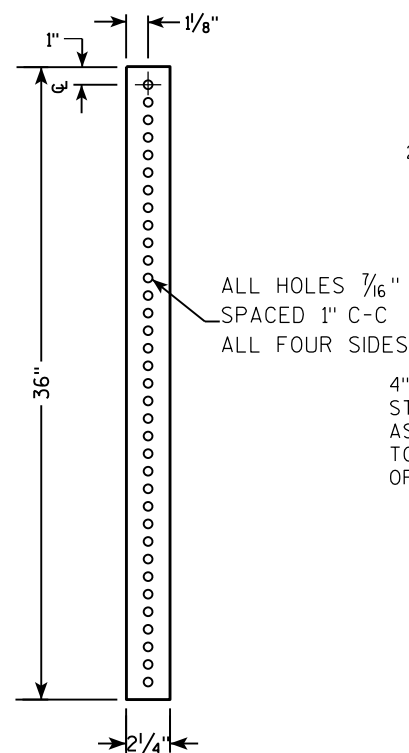
ATTACHMENT OF SIGNS  
TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

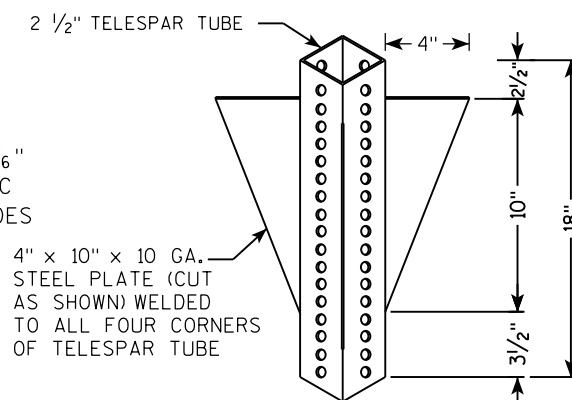
APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 8/11/16 PLATE NO. A4-8.8

**2 1/4 " SQUARE  
12 GAUGE  
PERFORATED  
GALVANIZED FINISH**



**2 1/2" SQUARE  
12 GAUGE  
OMNI-DIRECTIONAL  
PERFORATED  
SOIL STABILIZING SLEEVE  
GALVANIZED FINISH**



TECHNICAL DRAWING OF A SIGN POST ASSEMBLY.

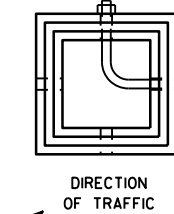
**Labels and Dimensions:**

- 18" DIA SCHEDULE 40 PVC BOX-OUT** (at the base)
- 36"** (height of the PVC box-out)
- 13"** (width of the sign plate)
- 18"** (width of the soil stabilizing sleeve)
- 2 1/4" SQUARE X 36"** (main post section)
- 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)**
- 2" STEEL TUBULAR SQUARE UPPER SECTION**
- ALL HOLES 7/16" SPACED 1" C-C ALL FOUR SIDES**
- 3/8" ZINC PLATED CORNER ANCHOR BOLT AND NUT**
- 2 1/2" GRAVEL OR DIRT**
- 3/16" ZINC PLATED ANCHOR BOLT AND NUT**
- SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL**
- SIGN**
- TELESCOPE PIECES FLUSH AT TOP**

TECHNICAL DRAWING OF A SIGNPOST ASSEMBLY:

- TELESCOPE PIECES FLUSH AT TOP**: Indicated by a dimension line on the left.
- 2" STEEL TUBULAR SQUARE UPPER SECTION**: The main vertical support.
- ALL HOLES  $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES**: Specification for the perforations in the upper section.
- SIGN**: Attached to the top of the upper section.
- SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL**: Reference to a sign plate for hardware details.
- 3/8" ZINC PLATED CORNER ANCHOR BOLT AND NUT**: Hardware used to secure the post to the base.
- 1"**: Dimension for the offset of the anchor bolt from the post face.
- 3/8" ZINC PLATED ANCHOR BOLT AND NUT**: Hardware used to secure the base plate to the ground.
- 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)**: The base plate of the post.
- 2 1/4" SQUARE X 36"**: The main vertical support post.
- Dimensions**:
  - 36" (Total height of the main post section)
  - 18" (Height of the upper section)
  - 12" (Height of the lower section)
- Arrows A**: Indicate downward forces or weights applied to the sign and the base plate.

3/8" ZINC PLATED CORNER  
ANCHOR BOLT AND NUT



**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 NO. A4-9.9

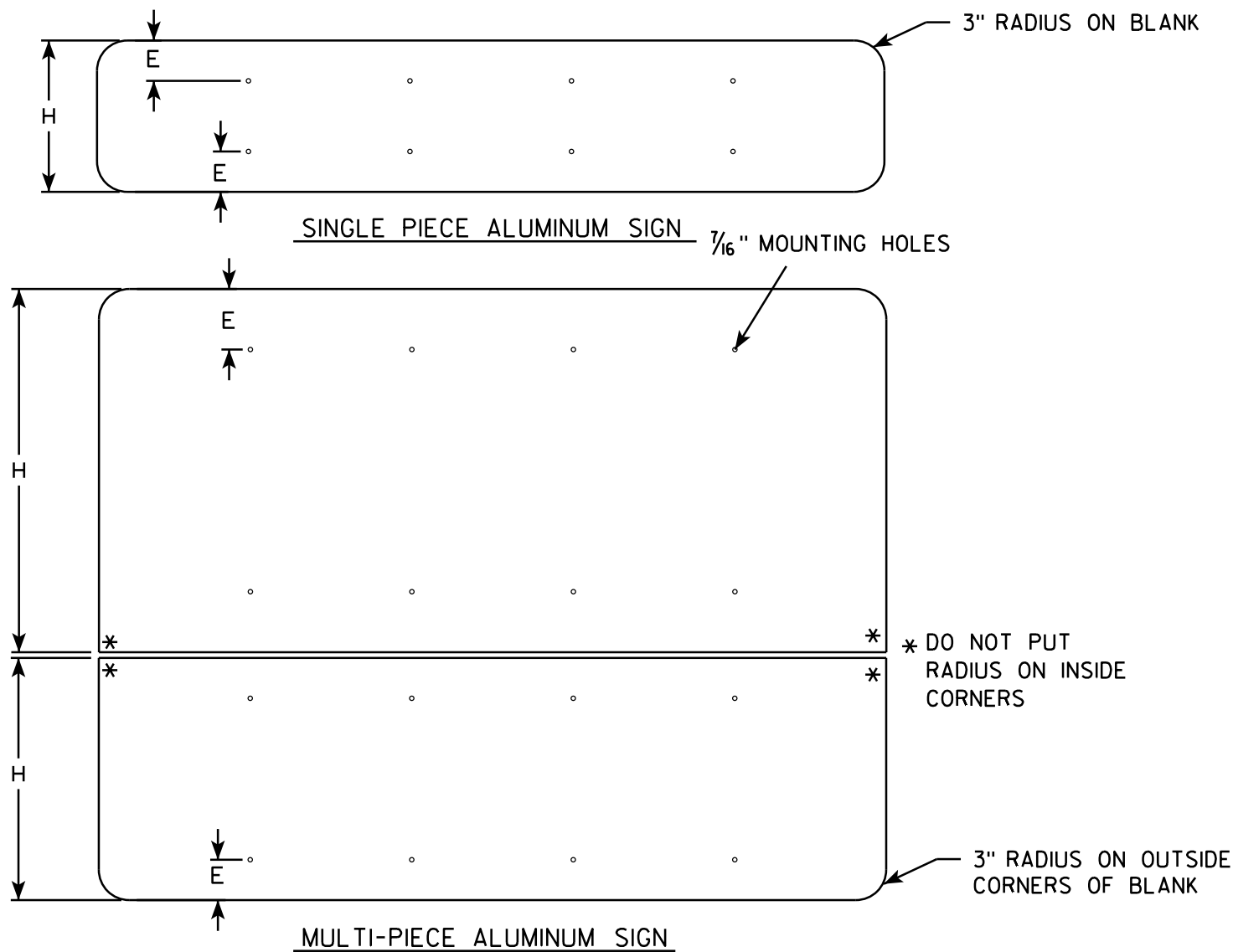
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

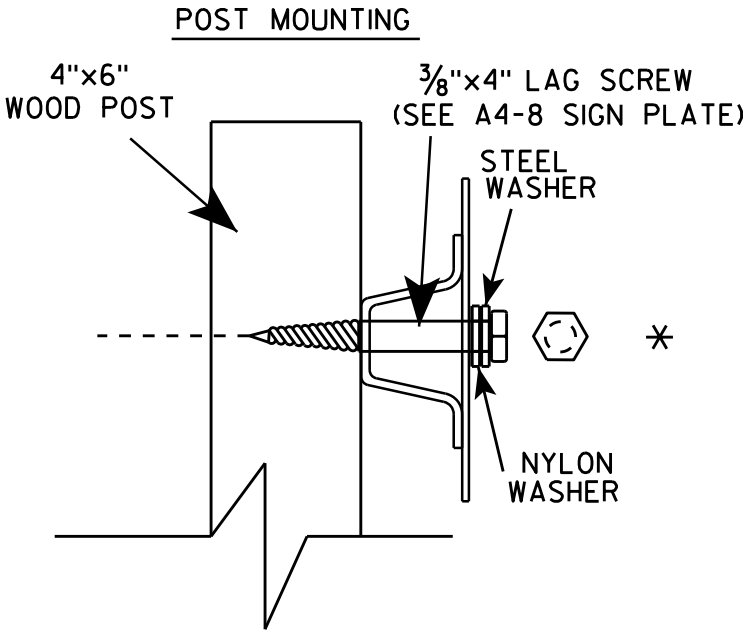
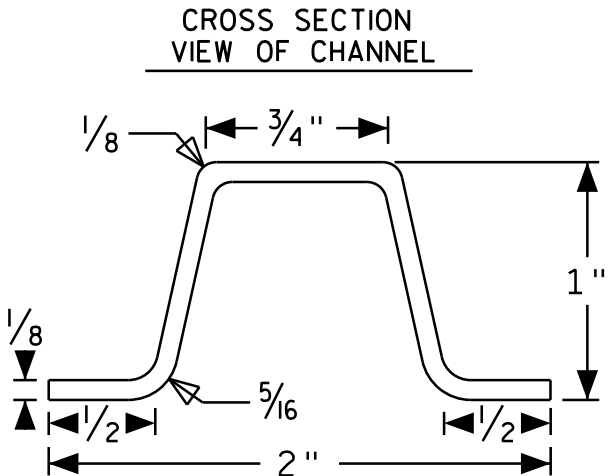
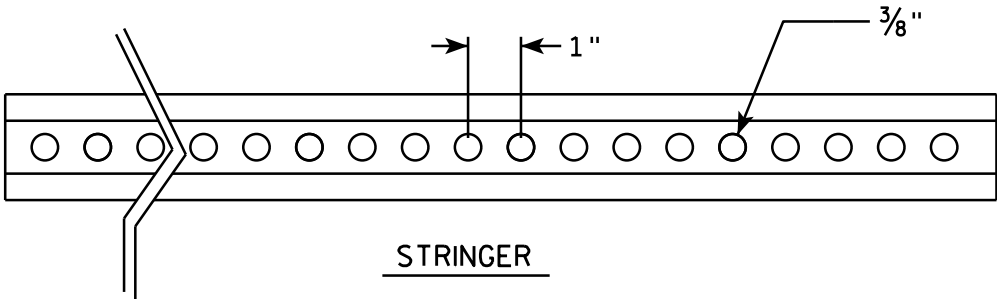
E



GENERAL NOTES

- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

| SIGN WIDTH | STRINGER WIDTH | POSTS | HOLE SPACING | MOUNTING HOLES |         |         |                   |
|------------|----------------|-------|--------------|----------------|---------|---------|-------------------|
| 78"        | 72"            | 2     | 16"          | 15"            | 31"     | 47"     | 63"               |
| 84"        | 72"            | 2     | 17"          | 16 1/2"        | 33 1/2" | 50 1/2" | 67 1/2"           |
| 90"        | 72"            | 2     | 18"          | 18"            | 36"     | 54"     | 72"               |
| 96"        | 90"            | 2     | 19"          | 19 1/2"        | 38 1/2" | 57 1/2" | 76 1/2"           |
| 102"       | 90"            | 2     | 20"          | 21"            | 41"     | 61"     | 81"               |
| 108"       | 90"            | 2     | 21"          | 22 1/2"        | 43 1/2" | 64 1/2" | 85 1/2"           |
| 114"       | 108"           | 3     | 15"          | 12"            | 27"     | 42"     | 57" 72" 87" 102"  |
| 120"       | 108"           | 3     | 16"          | 12"            | 28"     | 44"     | 60" 76" 92" 108"  |
| 126"       | 108"           | 3     | 17"          | 12"            | 29"     | 46"     | 63" 80" 97" 114"  |
| 132"       | 126"           | 3     | 18"          | 12"            | 30"     | 48"     | 66" 84" 102" 120" |
| 138"       | 126"           | 3     | 19"          | 12"            | 31"     | 50"     | 69" 88" 107" 126" |
| 144"       | 126"           | 3     | 20"          | 12"            | 32"     | 52"     | 72" 92" 112" 132" |



SIGN STRINGER  
MOUNTING REQUIREMENTS

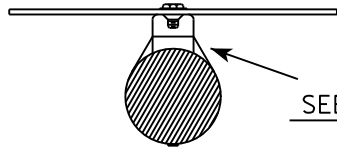
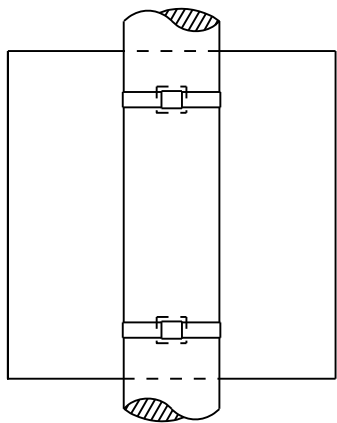
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 4/26/16 PLATE NO. A4-18.1

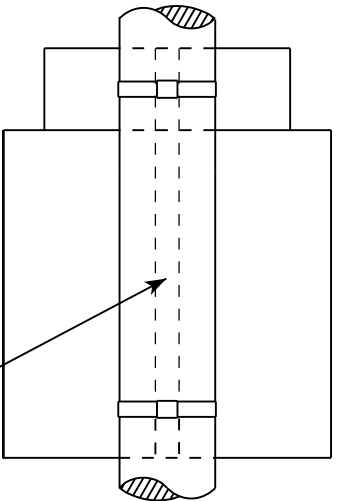
BANDING

SINGLE SIGN

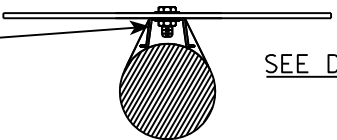


SEE DETAIL A

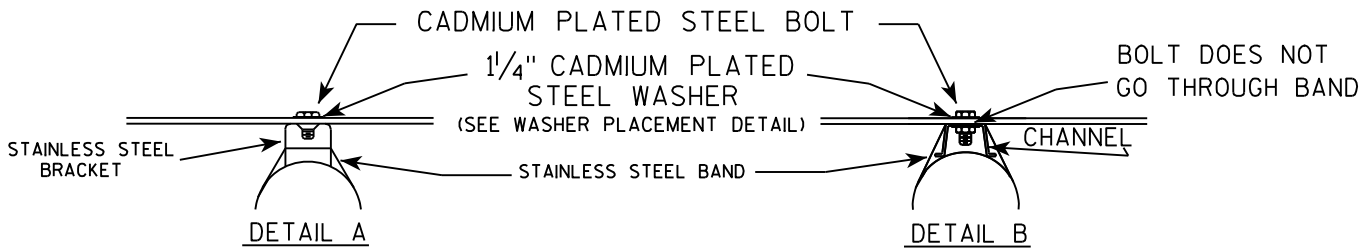
"J" ASSEMBLY



CHANNEL  
SEE TYPICAL PANEL  
INSTALLATION SHEET



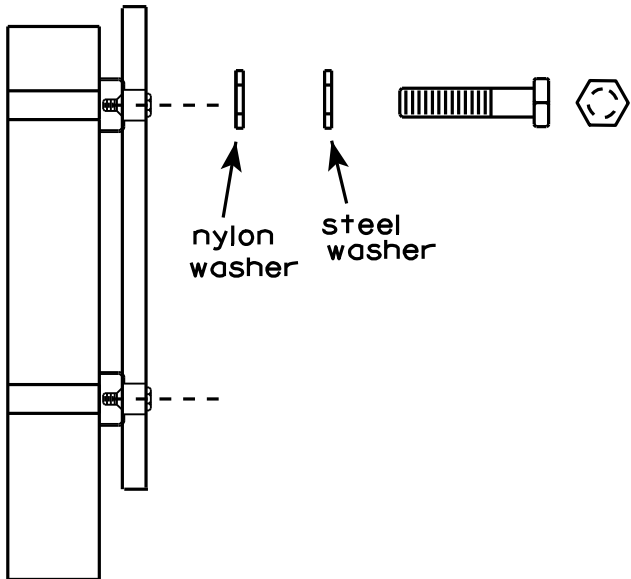
SEE DETAIL B



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  $\frac{3}{4}$ " in width and 0.025" thickness.

WASHER PLACEMENT



nylon washer

steel washer

WASHERS (ALL POSTS) -  
1-1/4" O.D. X  $\frac{3}{8}$ " I.D. X  $\frac{1}{16}$ " STEEL  
1-1/4" O.D. X  $\frac{3}{8}$ " 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 8/16/13

PLATE NO. A5-9.3

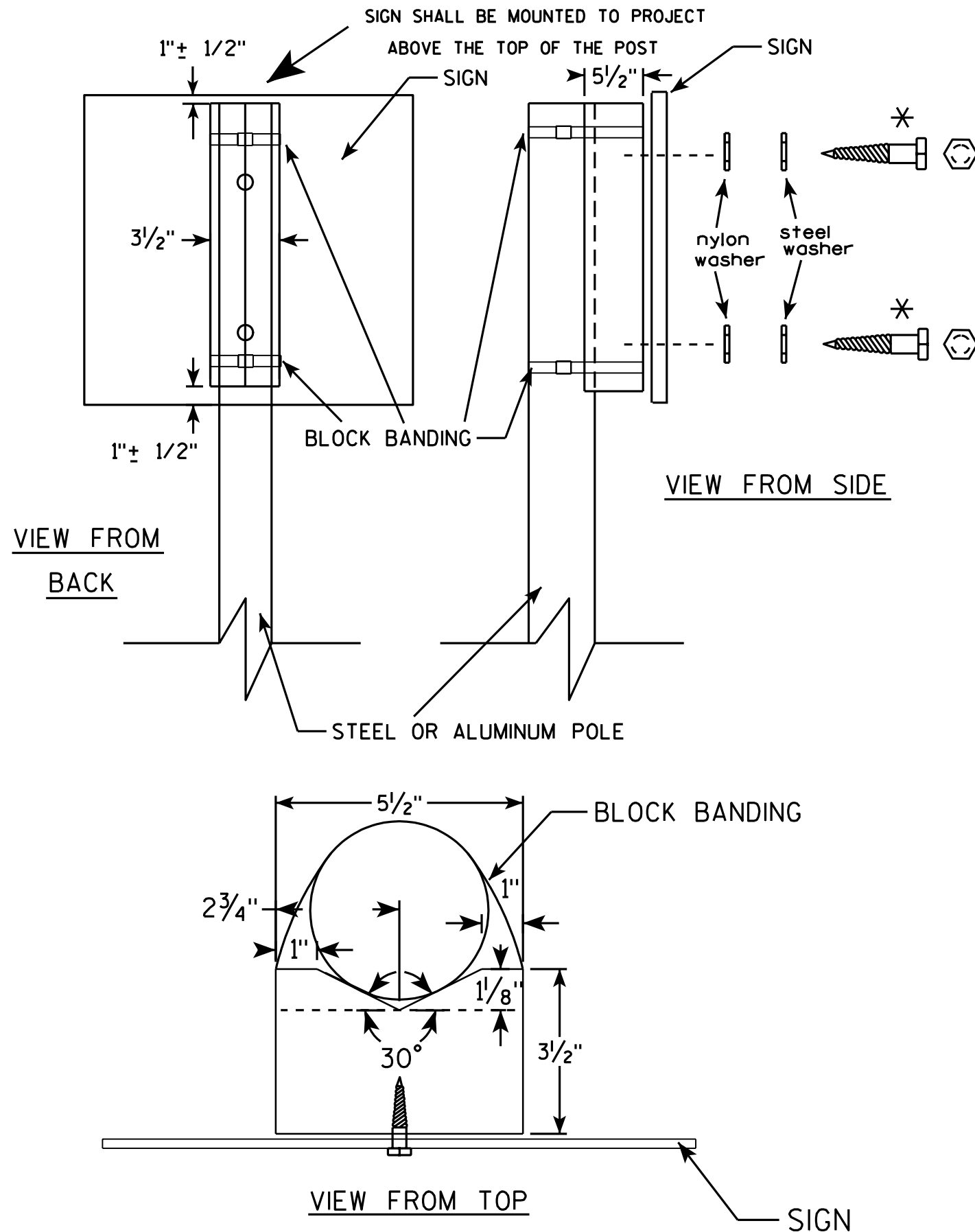
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



## 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, 3/4" 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 NORMALLY 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, or
  - b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
  - c. 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 1 1/4" O.D. X 3/8" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1 1/4" O.D. X 3/8" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE 3/8" X 2 1/2"

BLOCK BANDING DETAIL  
( V-BLOCK OPTION )

WISCONSIN DEPT OF TRANSPORTATION

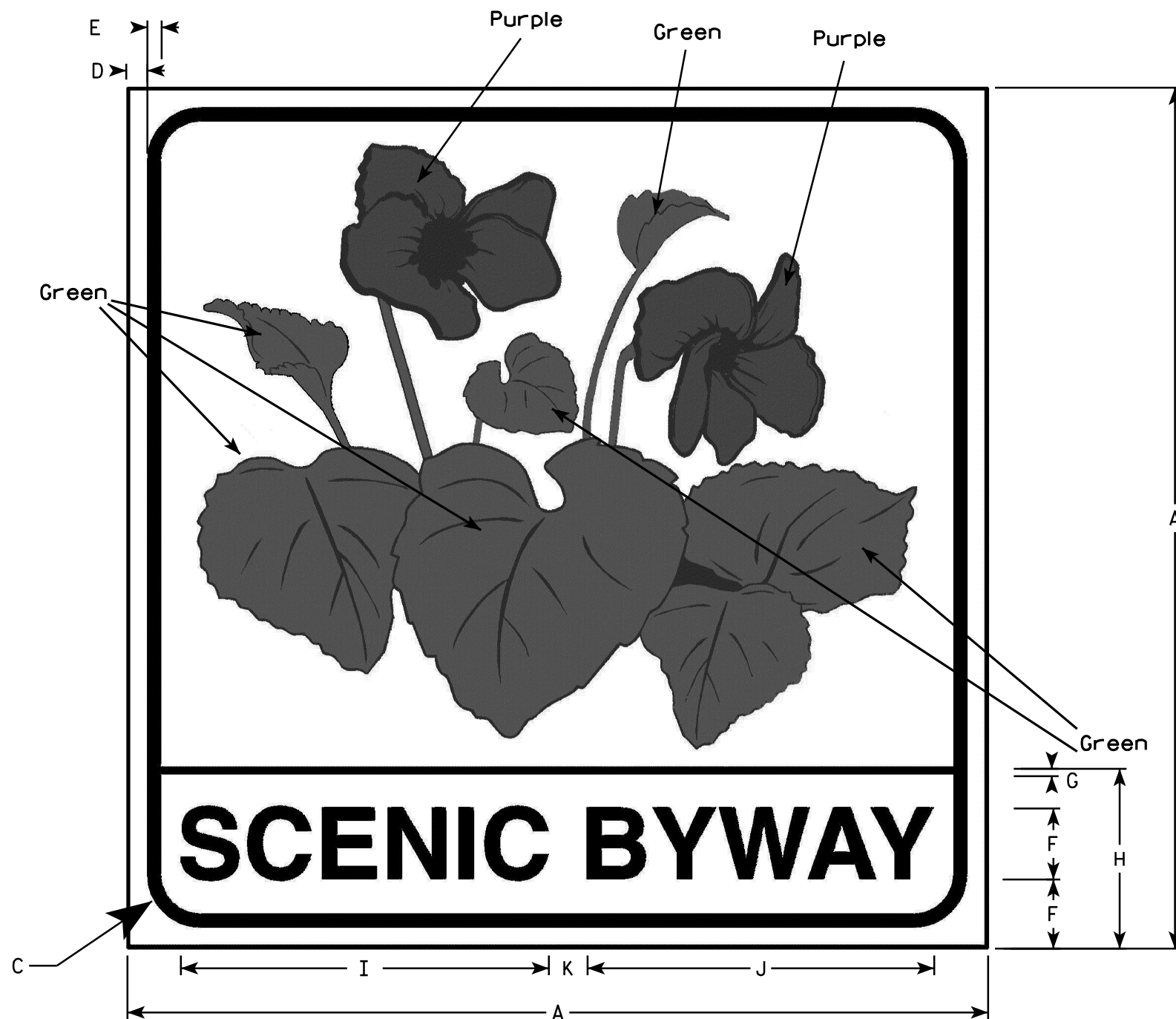
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

SHEET NO:

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 Except as noted  
Border of Leaves and Flowers is Black
3. Message Series - Special
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. Contact WisDOT with any questions.

7

7

| SIZE | A  | B | C     | D   | E   | F | G   | H     | I      | J      | K     | L | M | N | O | P | O | R | S | T | U | V | W | X | Y | Z | Area<br>sq. ft. | Area<br>m <sup>2</sup> |
|------|----|---|-------|-----|-----|---|-----|-------|--------|--------|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|------------------------|
| 1    |    |   |       |     |     |   |     |       |        |        |       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |                        |
| 2    | 24 |   | 1 1/2 | 5/8 | 3/8 | 2 | 1/4 | 5     | 10 1/4 | 9 5/8  | 1 1/8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4.0             | .36                    |
| 3    |    |   |       |     |     |   |     |       |        |        |       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |                        |
| 4    | 36 |   | 4     | 7/8 | 5/8 | 3 | 1/4 | 7 1/2 | 15 3/8 | 14 1/2 | 1 5/8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 9.0             | .81                    |
| 5    |    |   |       |     |     |   |     |       |        |        |       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |                        |

STANDARD SIGN  
D6-4S

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
State Traffic Engineer

DATE 10/05/09 For PLATE NO. D6-4S.1

PROJECT NO:

HWY:

COUNTY:

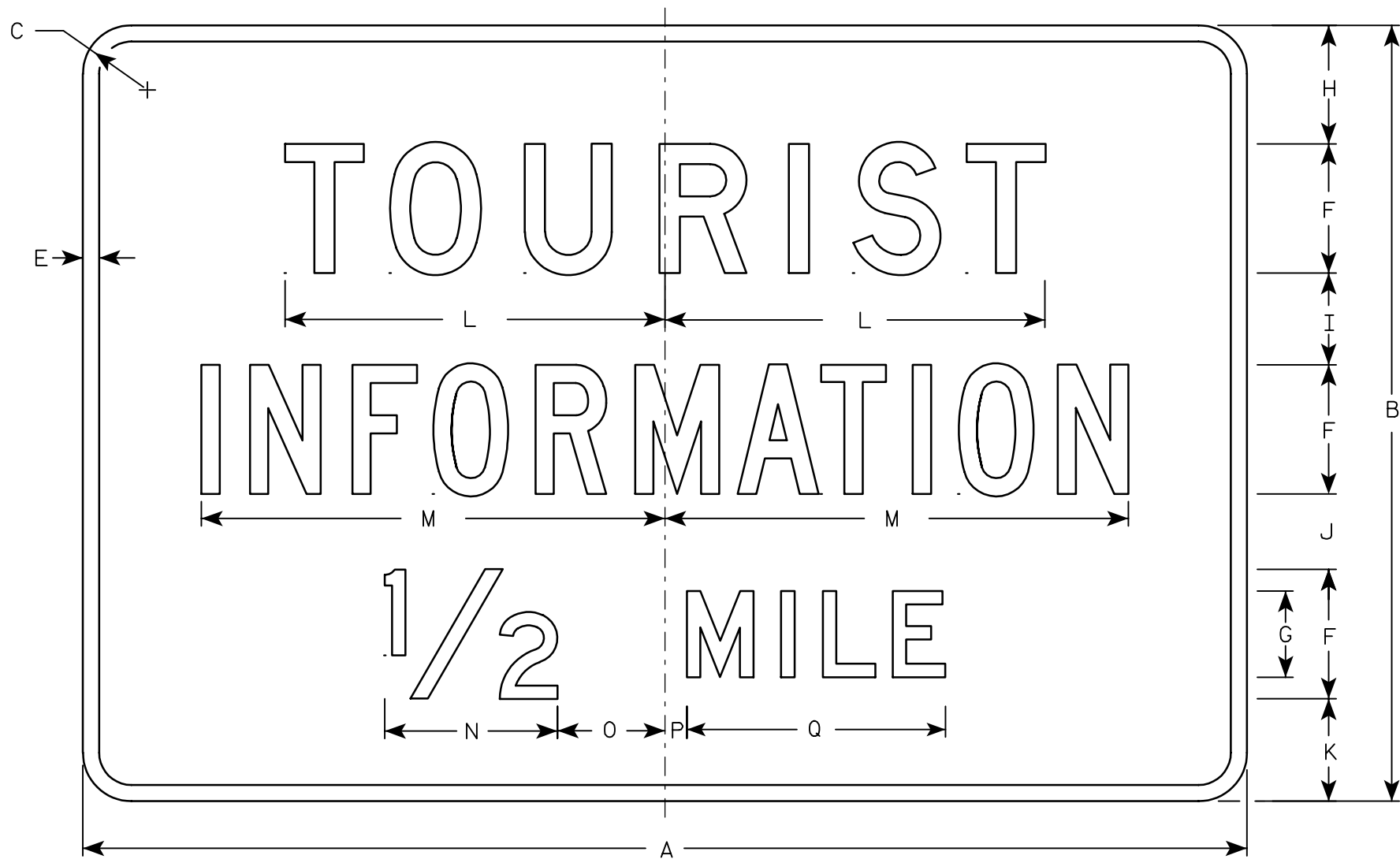
SHEET NO:

E

58.59, 61.61, 62.63

7

LEVELS ON - 2, 3, 5, 6



D7-57

Metric equivalent  
for this sign is:

| SIZE |                  |
|------|------------------|
| 1    |                  |
| 2    | 1350 mm X 900 mm |
| 3    |                  |
| 4    |                  |
| 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<br>sq. ft. | Area<br>m2 |
|------|----|----|-------|---|-----|---|---|-------|-------|-------|-------|--------|--------|---|---|---|----|---|---|---|---|---|---|---|---|---|-----------------|------------|
| 1    |    |    |       |   |     |   |   |       |       |       |       |        |        |   |   |   |    |   |   |   |   |   |   |   |   |   |                 |            |
| 2    | 54 | 36 | 2 1/4 |   | 3/4 | 6 | 4 | 5 1/2 | 4 1/4 | 3 1/2 | 4 3/4 | 17 5/8 | 21 1/2 | 8 | 5 | 1 | 12 |   |   |   |   |   |   |   |   |   | 13.5            | 1.22       |
| 3    |    |    |       |   |     |   |   |       |       |       |       |        |        |   |   |   |    |   |   |   |   |   |   |   |   |   |                 |            |
| 4    |    |    |       |   |     |   |   |       |       |       |       |        |        |   |   |   |    |   |   |   |   |   |   |   |   |   |                 |            |
| 5    |    |    |       |   |     |   |   |       |       |       |       |        |        |   |   |   |    |   |   |   |   |   |   |   |   |   |                 |            |

STATE PROJECT NUMBER:

SHEET NO:

E

NOTES

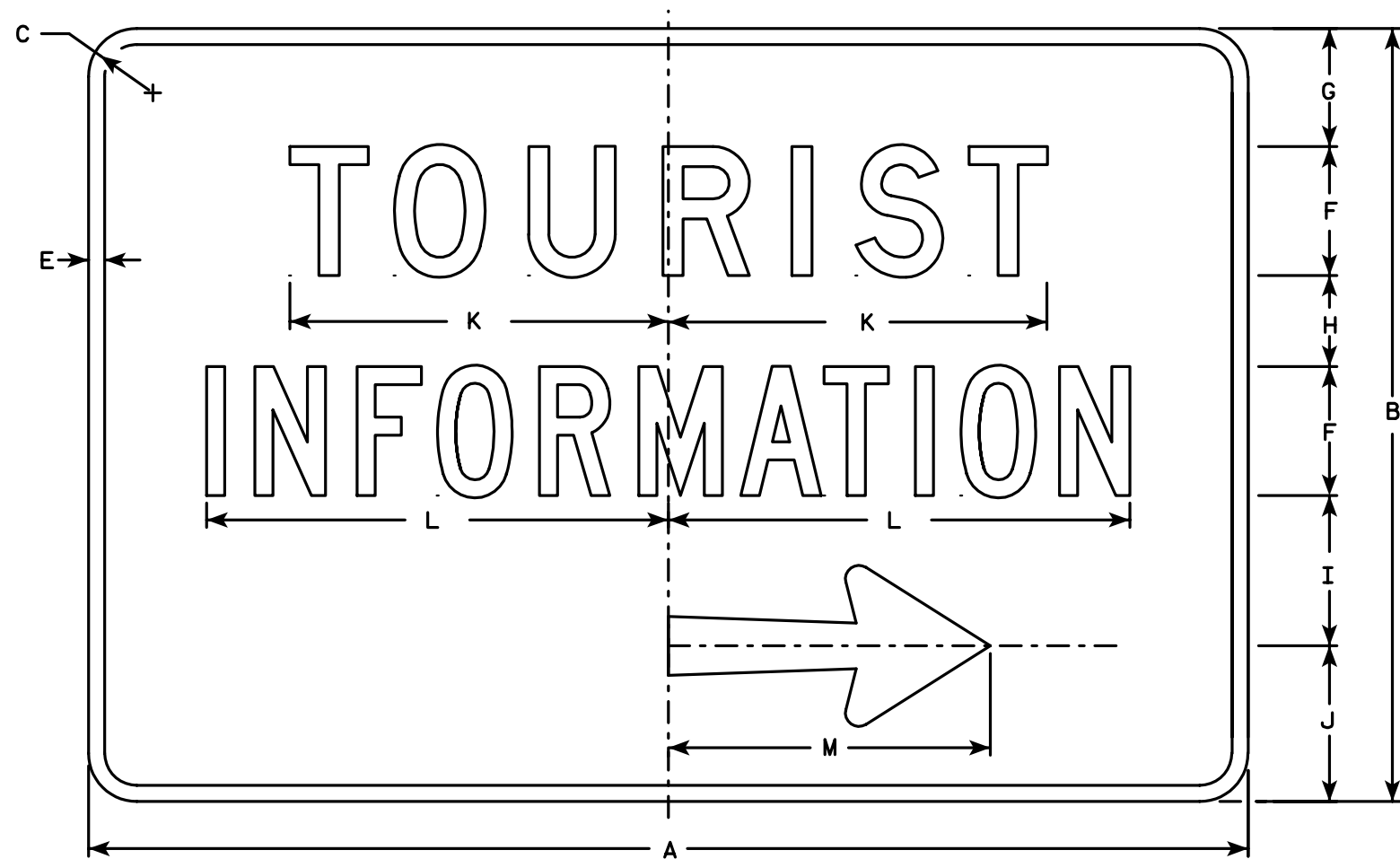
- Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:  
Background - Blue  
Message - White - Type H Reflective
- Message Series - See note 5
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- Lines 1 & 3 are series D  
Line 2 is series C.

7

58, 59, 60, 61, 62, 63

7

LEVELS ON - 2, 3, 5, 6, 10.



D7-59R

Metric equivalent for this sign is:

| SIZE |                  |
|------|------------------|
| 1    |                  |
| 2    | 1350 mm X 900 mm |
| 3    |                  |
| 4    |                  |
| 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<br>sq. ft. | Area<br>sq. m. |
|------|----|----|-------|---|-----|---|-------|-------|---|-------|--------|--------|----|-------|-----|-------|-------|-----|-------|---|---|---|---|---|---|---|-----------------|----------------|
| 1    |    |    |       |   |     |   |       |       |   |       |        |        |    |       |     |       |       |     |       |   |   |   |   |   |   |   |                 |                |
| 2    | 54 | 36 | 2 1/4 |   | 3/4 | 6 | 5 1/2 | 4 1/4 | 7 | 7 1/4 | 17 5/8 | 21 1/2 | 15 | 2 3/4 | 1/8 | 2 1/8 | 6 1/8 | 5/8 | 3 1/8 |   |   |   |   |   |   |   | 13.5            | 1.22           |
| 3    |    |    |       |   |     |   |       |       |   |       |        |        |    |       |     |       |       |     |       |   |   |   |   |   |   |   |                 |                |
| 4    |    |    |       |   |     |   |       |       |   |       |        |        |    |       |     |       |       |     |       |   |   |   |   |   |   |   |                 |                |
| 5    |    |    |       |   |     |   |       |       |   |       |        |        |    |       |     |       |       |     |       |   |   |   |   |   |   |   |                 |                |

STATE PROJECT NUMBER:

FILE NAME : C:\Users\Projects\tr\_std\late\D759.DGN

PLOT DATE : 22-JAN-2002 08:12

ORG DATE : 5/21/97

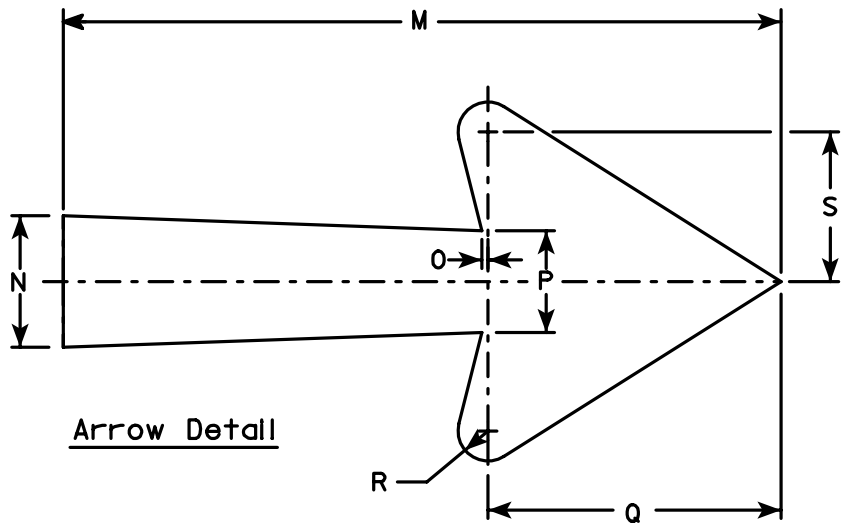
Originator : Don Kluever

SHEET NO:

E

NOTES

- Sign Is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:  
Background - Blue  
Message - White - Type H Reflective
- Message Series - See note 5
- 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.
- Line 1 are series D  
Line 2 is series C
- D7-59L is same as D7-59R except the arrow is reversed.



STANDARD SIGN  
D7-59

WISCONSIN DEPT OF TRANSPORTATION

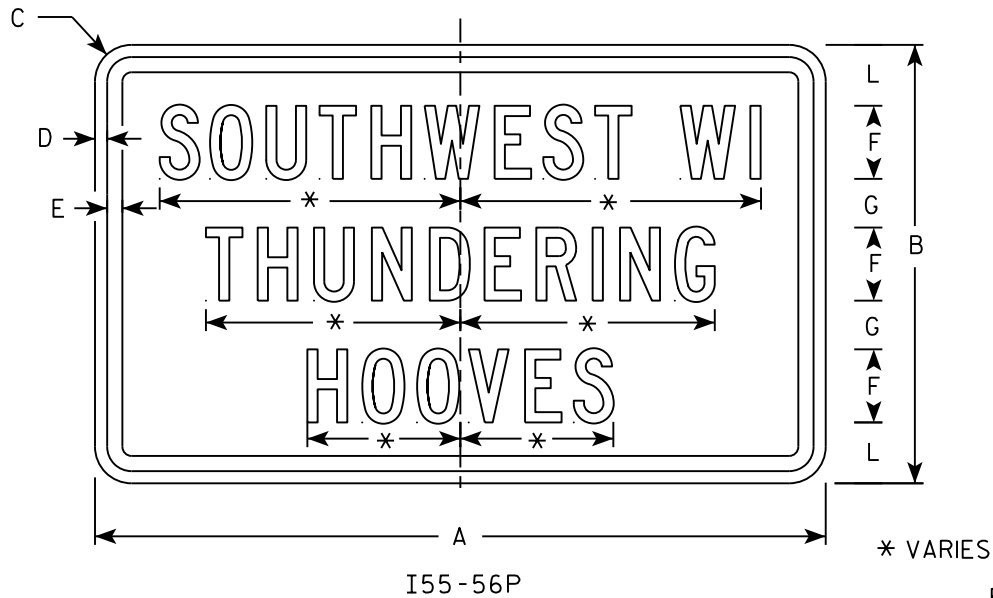
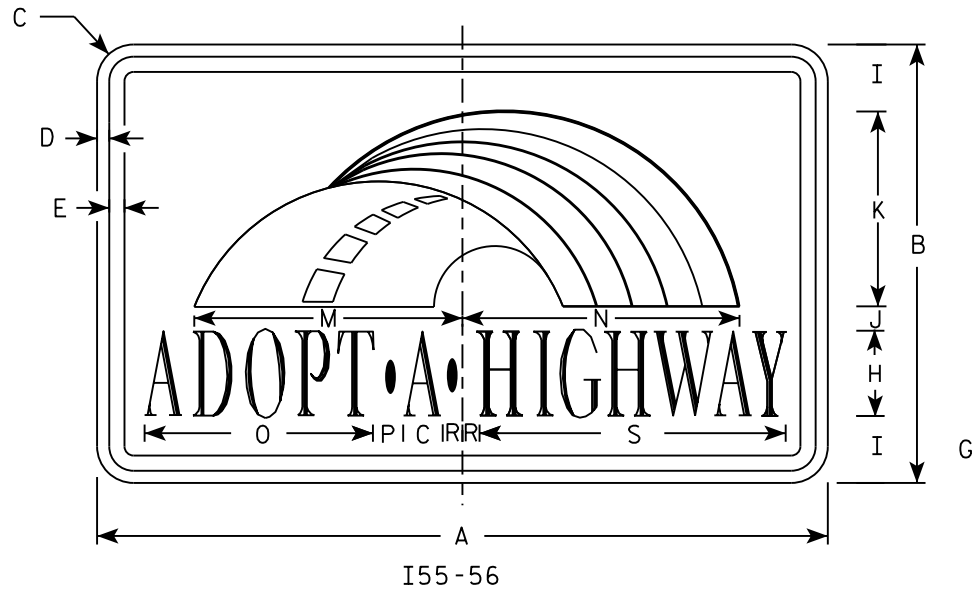
APPROVED

*Chita J. Spay*  
State Traffic Engineer

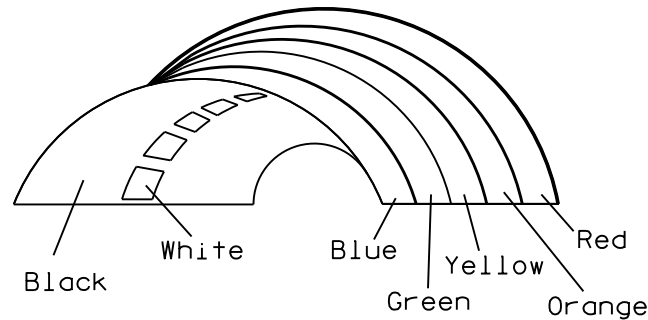
DATE 1/11/02

PLATE NO. D7-59.6





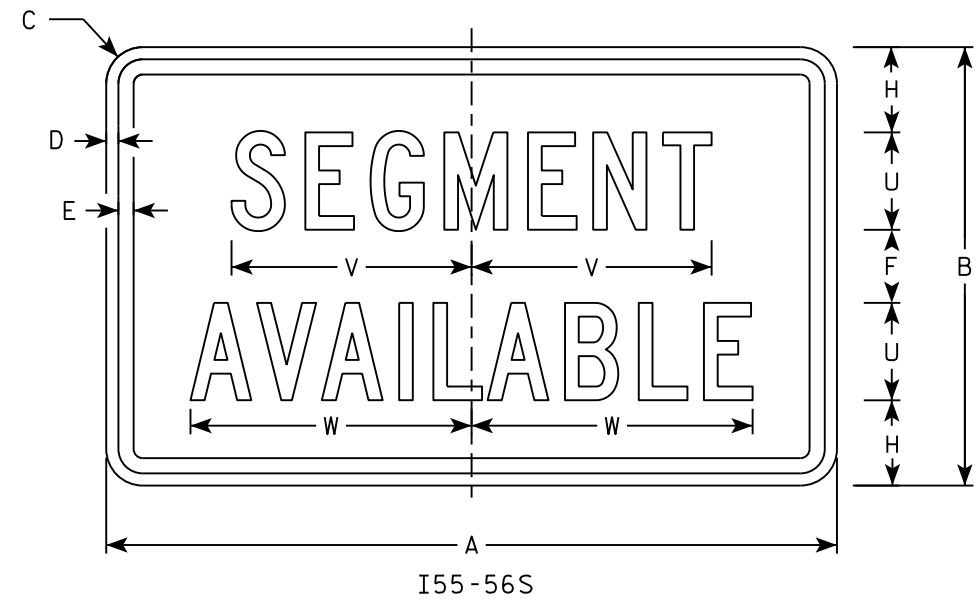
Background Colors of Symbol\*



\*1/4" Black Border between each color of rainbow and border of rainbow

NOTES

1. Sign is Type II - Type H Reflective
2. Color:  
Background - White  
Message - (See Note 4)
3. Message Series - (See Note 5)
4. Border - Blue  
Adopt a Highway - Red  
All other Text - Blue
5. Adopt a Highway - Dutch 8011L  
All other Text - Series C
6. Contractor shall provide and install a new post bracket in accordance with the I55-56B sign 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<br>sq. ft. |
|------|----|----|-------|-----|-----|---|---|-------|-------|---|---|-------|--------|--------|-------|-------|---|-----|--------|-------|---|-------|--------|---|---|---|-----------------|
| 1    |    |    |       |     |     |   |   |       |       |   |   |       |        |        |       |       |   |     |        |       |   |       |        |   |   |   |                 |
| 2    | 30 | 18 | 1 1/2 | 1/2 | 5/8 | 3 | 2 | 3 1/2 | 2 3/4 | 1 | 8 | 2 1/2 | 11 1/4 | 11 1/8 | 9 3/8 | 1 1/4 |   | 3/4 | 12 5/8 | 7 1/2 | 4 | 9 7/8 | 11 1/2 |   |   |   | 3.75            |
| 3    |    |    |       |     |     |   |   |       |       |   |   |       |        |        |       |       |   |     |        |       |   |       |        |   |   |   |                 |
| 4    |    |    |       |     |     |   |   |       |       |   |   |       |        |        |       |       |   |     |        |       |   |       |        |   |   |   |                 |
| 5    |    |    |       |     |     |   |   |       |       |   |   |       |        |        |       |       |   |     |        |       |   |       |        |   |   |   |                 |

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

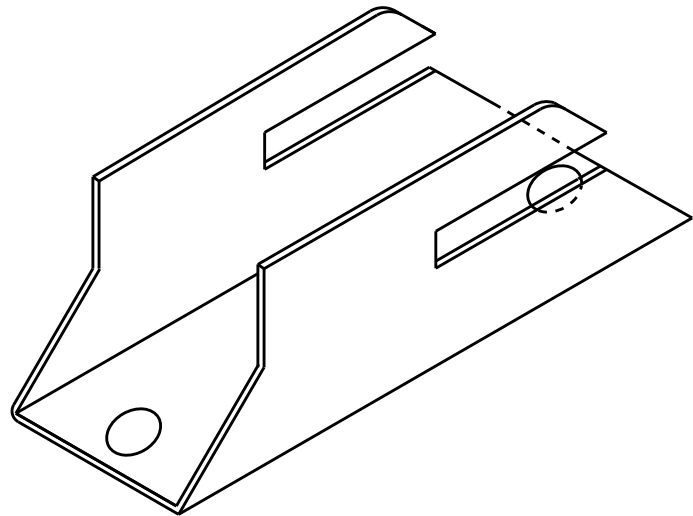
STANDARD SIGN  
I55-56

WISCONSIN DEPT OF TRANSPORTATION

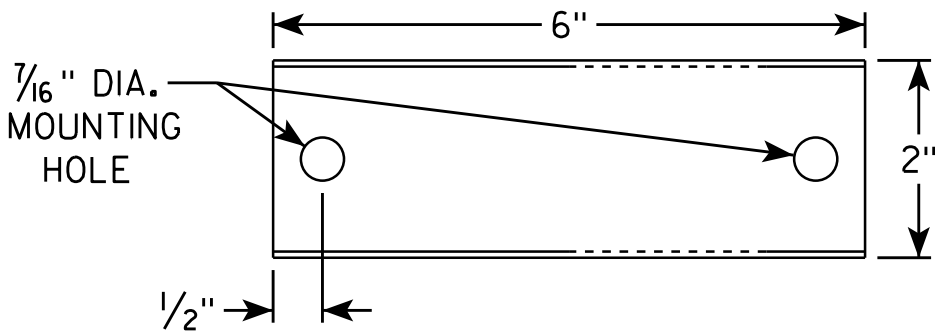
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 2/20/18 PLATE NO. I55-56.4

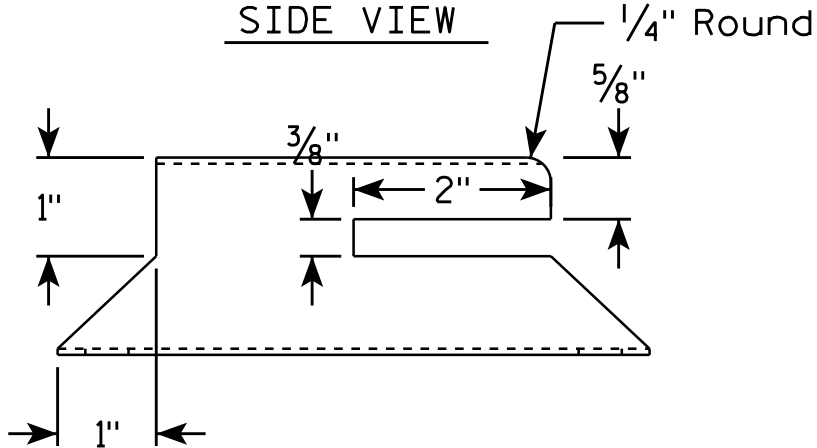
ISOMETRIC VIEW



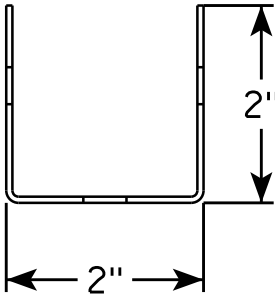
TOP VIEW



SIDE VIEW



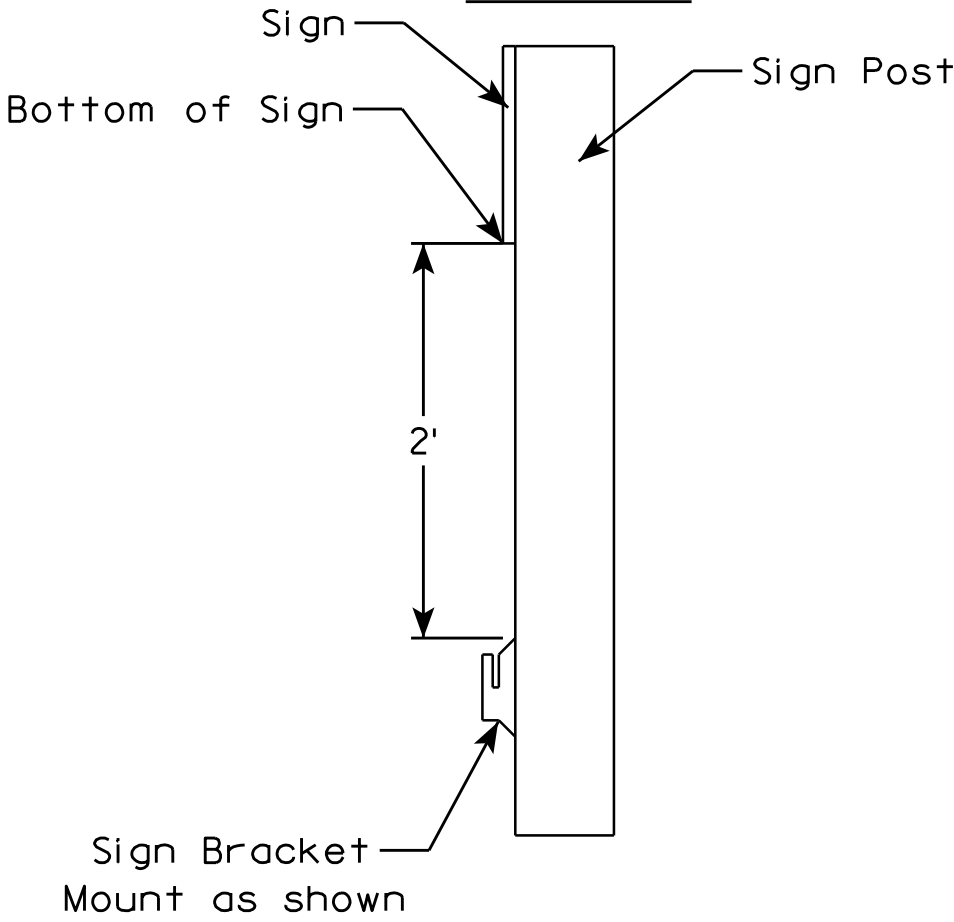
END VIEW



NOTES

1. Must be capable of permanent attachment to a wood or steel channel sign post utilizing the fastening hardware specified on the A4-8 sign plate.
2. Shall be entirely primed and painted with two coats of a black powder coated enamel paint.
3. Shall be made with 12 gauge steel, and incorporate no welds, no hinged components, no threaded lock-type components, and no parts which are loose or can be separated from the main body.
4. Shall have rounded edges with at least 1/8" radii.
5. Shall not have unrounded and uncoated metal edges which can contact the back surface of the roll-up sign.
6. Top of bracket shall be mounted 2' below the bottom of the I55-56 sign.
7. Cost of bracket and fastening hardware shall be incidental to the I55-56 sign.

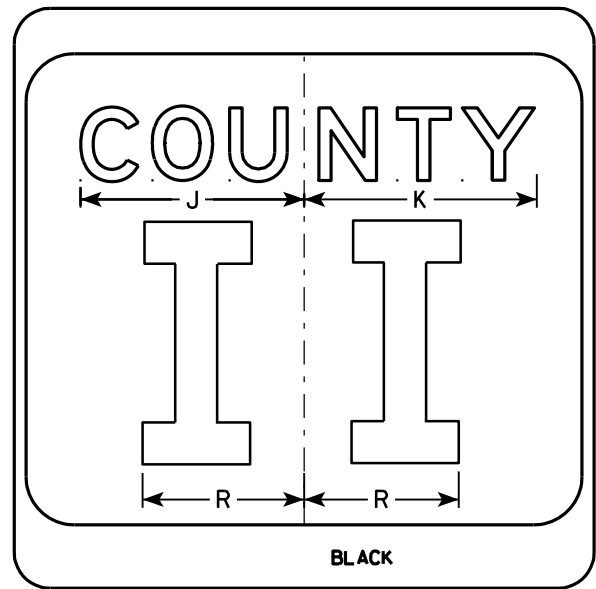
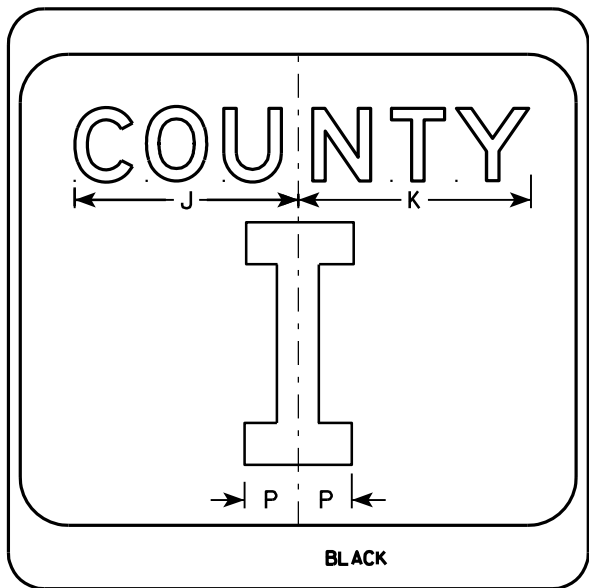
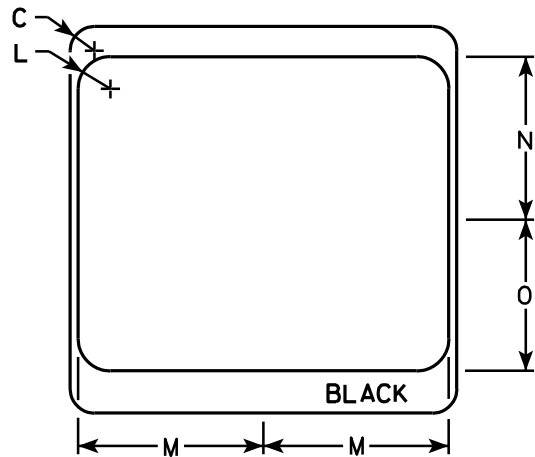
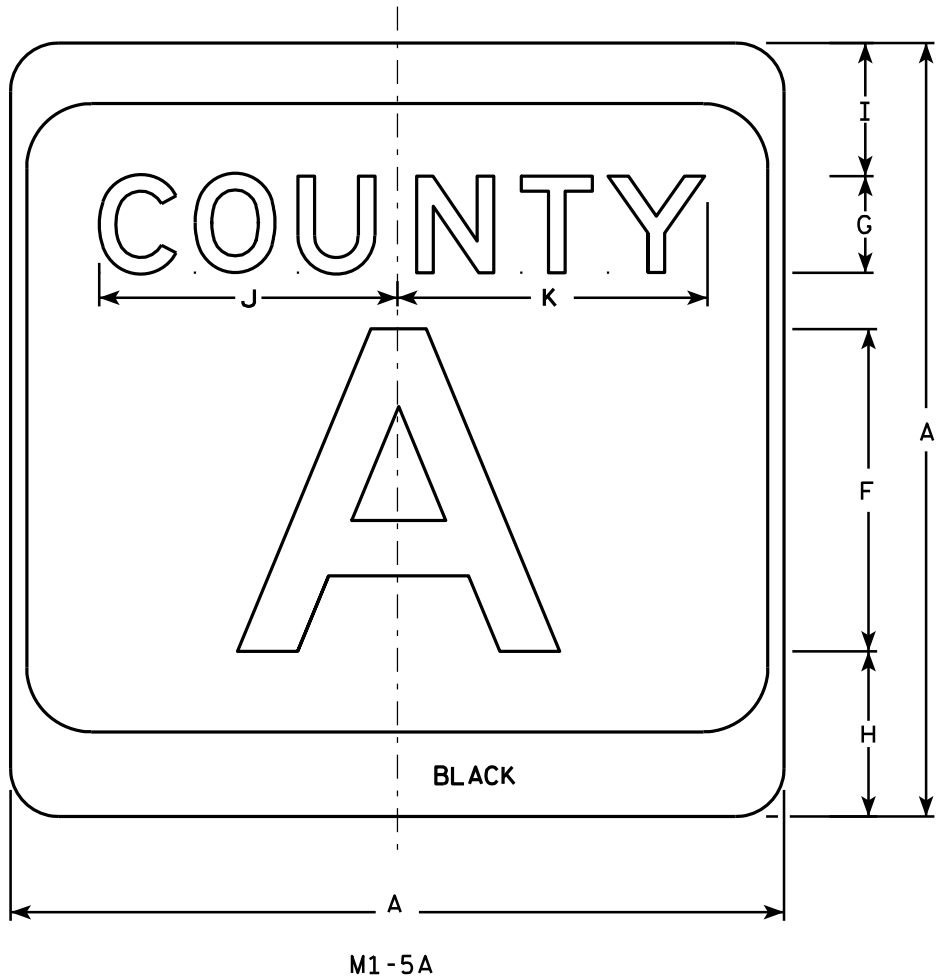
SIDE VIEW



ROLLUP SIGN BRACKET  
I55-56B

WISCONSIN DEPT OF TRANSPORTATION  
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer  
DATE 4/26/16 PLATE NO. I55-56B.2

7



NOTES

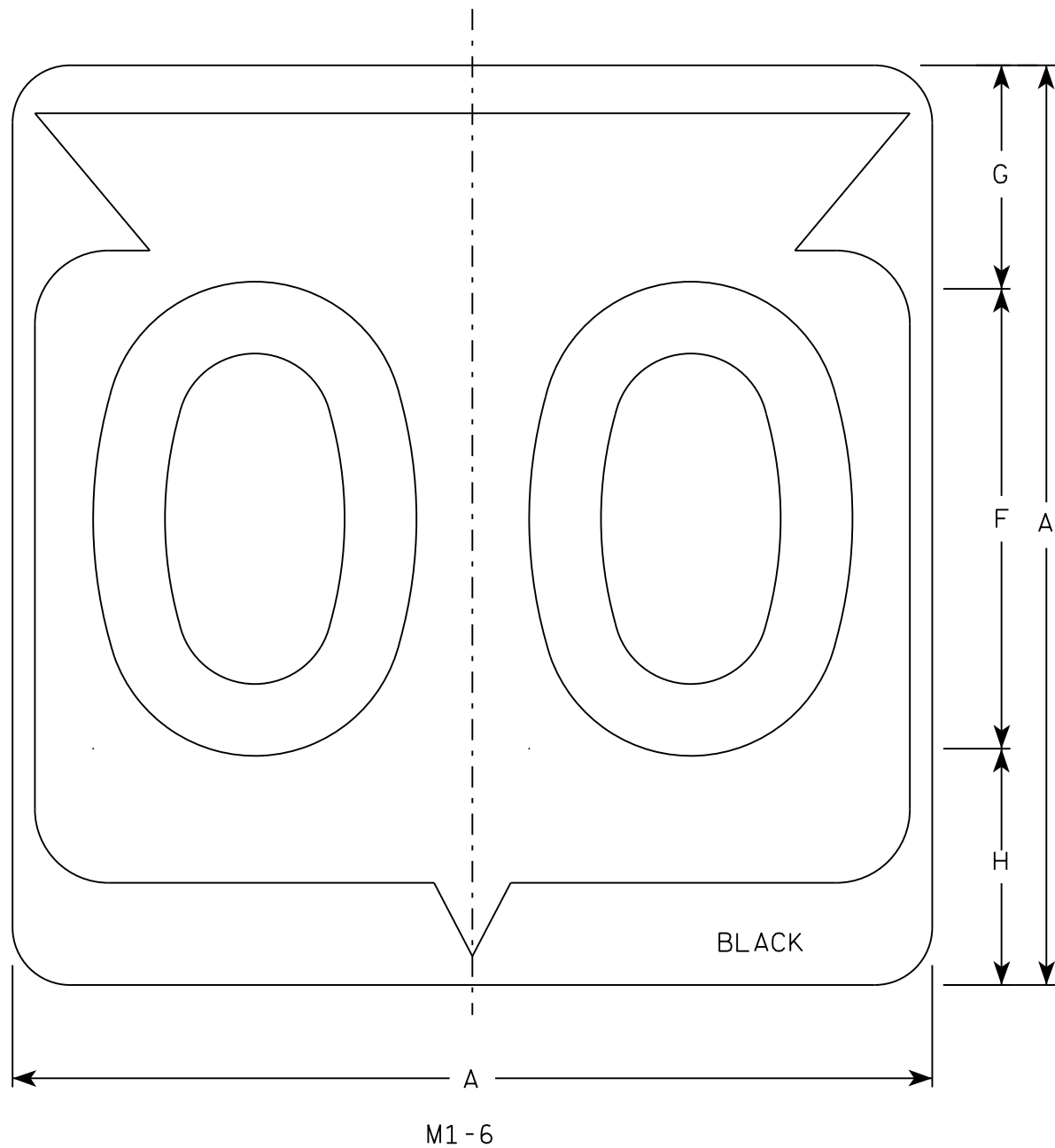
1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - White & Black - See Note 7  
Message - Black
3. Message Series - see Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Message Series E for 1 letter.  
Message Series D for 2 letters unless message is too big then Series C.  
Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs  
Background - Type H Reflective  
Detour or temporary Signs  
Background - Reflective

| 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<br>sq. ft. |
|------|----|---|-------|---|---|----|---|-------|-------|--------|--------|---|--------|--------|-------|-------|---|-------|---|---|---|---|---|---|---|---|-----------------|
| 1    |    |   |       |   |   |    |   |       |       |        |        |   |        |        |       |       |   |       |   |   |   |   |   |   |   |   |                 |
| 2    | 24 |   | 1 1/2 |   |   | 10 | 3 | 5 1/8 | 4 1/8 | 9 1/4  | 9 5/8  | 2 | 11 1/2 | 10 1/8 | 9 3/8 | 2 1/4 |   | 6 5/8 |   |   |   |   |   |   |   |   | 4.0             |
| 3    | 36 |   | 2 1/4 |   |   | 16 | 4 | 7 5/8 | 5 5/8 | 12 1/4 | 12 7/8 | 3 | 17 1/8 | 15 1/4 | 14    | 3 3/8 |   | 10    |   |   |   |   |   |   |   |   | 9.0             |
| 4    | 36 |   | 2 1/4 |   |   | 16 | 4 | 7 5/8 | 5 5/8 | 12 1/4 | 12 7/8 | 3 | 17 1/8 | 15 1/4 | 14    | 3 3/8 |   | 10    |   |   |   |   |   |   |   |   | 9.0             |
| 5    | 36 |   | 2 1/4 |   |   | 16 | 4 | 7 5/8 | 5 5/8 | 12 1/4 | 12 7/8 | 3 | 17 1/8 | 15 1/4 | 14    | 3 3/8 |   | 10    |   |   |   |   |   |   |   |   | 9.0             |

|                                  |                                                       |
|----------------------------------|-------------------------------------------------------|
| CTH MARKER                       |                                                       |
| M1-5A FOR ASSEMBLIES             |                                                       |
| WISCONSIN DEPT OF TRANSPORTATION |                                                       |
| APPROVED                         | <i>Matthew R. Rauch</i><br>For State Traffic Engineer |
| DATE 9/27/11                     | PLATE NO. M1-5A.8                                     |

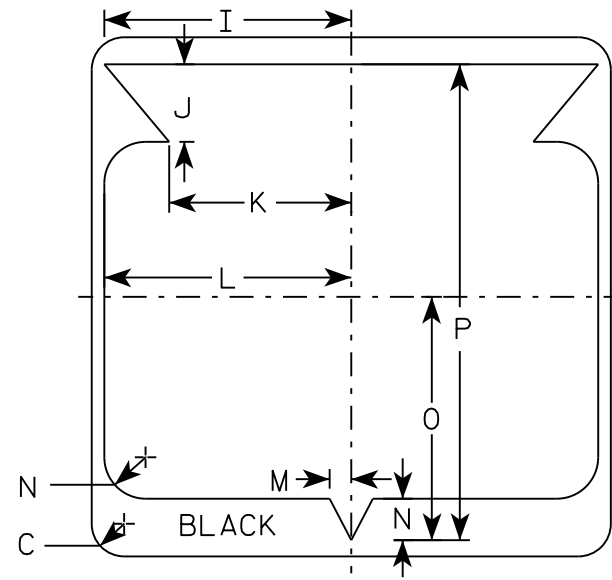
|             |      |         |           |   |
|-------------|------|---------|-----------|---|
| PROJECT NO: | HWY: | COUNTY: | SHEET NO: | E |
|-------------|------|---------|-----------|---|

7



NOTES

1. Sign is Type II - Type H Reflective
2. Color:  
Background - White  
Message - Black
3. Message Series - D except 3 number signs 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.



7

| 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<br>sq. ft. |
|------|----|---|-------|---|---|----|-------|-------|--------|-------|--------|--------|-------|-------|--------|--------|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    |    |   |       |   |   |    |       |       |        |       |        |        |       |       |        |        |   |   |   |   |   |   |   |   |   |   |                 |
| 2    | 24 |   | 1 1/2 |   |   | 12 | 5 1/2 | 6 1/2 | 10 1/4 | 2 1/2 | 8 7/8  | 11 1/2 | 1     | 1 7/8 | 11 1/4 | 21 7/8 |   |   |   |   |   |   |   |   |   |   | 4.0             |
| 3    | 36 |   | 2 1/4 |   |   | 18 | 8 3/4 | 9 1/4 | 15 3/8 | 5 3/8 | 12 5/8 | 17 1/8 | 1 1/2 | 2 7/8 | 16 7/8 | 33     |   |   |   |   |   |   |   |   |   |   | 9.0             |
| 4    | 36 |   | 2 1/4 |   |   | 18 | 8 3/4 | 9 1/4 | 15 3/8 | 5 3/8 | 12 5/8 | 17 1/8 | 1 1/2 | 2 7/8 | 16 7/8 | 33     |   |   |   |   |   |   |   |   |   |   | 9.0             |
| 5    | 36 |   | 2 1/4 |   |   | 18 | 8 3/4 | 9 1/4 | 15 3/8 | 5 3/8 | 12 5/8 | 17 1/8 | 1 1/2 | 2 7/8 | 16 7/8 | 33     |   |   |   |   |   |   |   |   |   |   | 9.0             |

STATE ROUTE MARKER  
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

SHEET NO: 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 - Green
  - Message - White - Graphics - White
  - Circle Tour Message is Green
- 3. Message Series - Special
- 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<br>sq. ft. | Area<br>m2 |
|------|----|---|---|-------|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|------------|
| 1    |    |   |   |       |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |            |
| 2    | 24 |   |   | 1 1/8 | 1/2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4.0             | .36        |
| 3    |    |   |   |       |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |            |
| 4    | 36 |   |   | 1 5/8 | 3/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 9.0             | .81        |
| 5    |    |   |   |       |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |            |

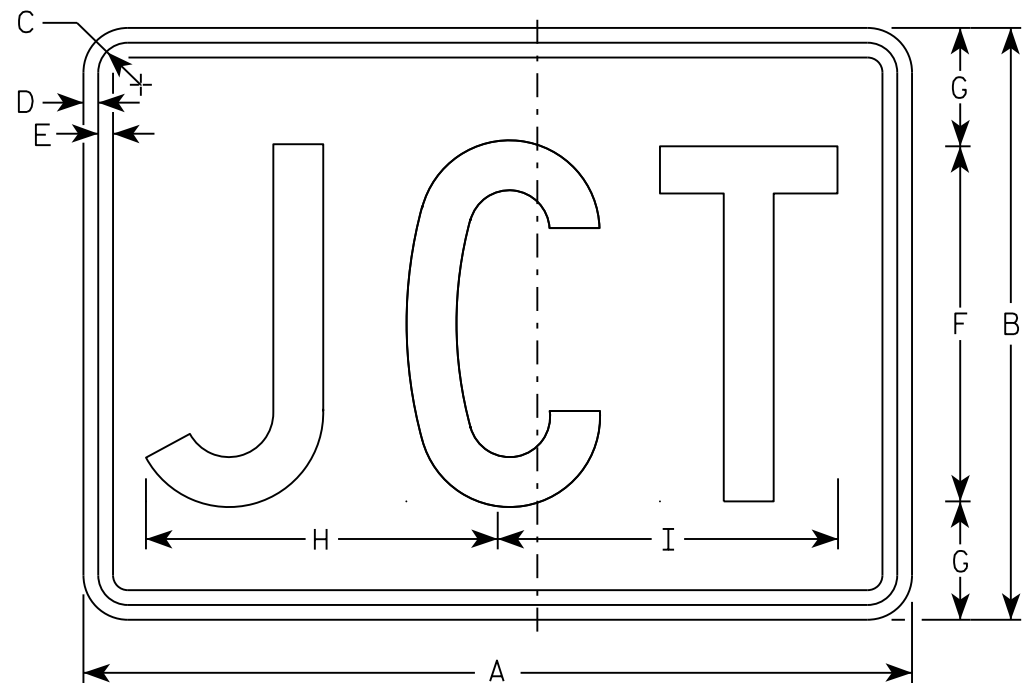
STANDARD SIGN

M1-93

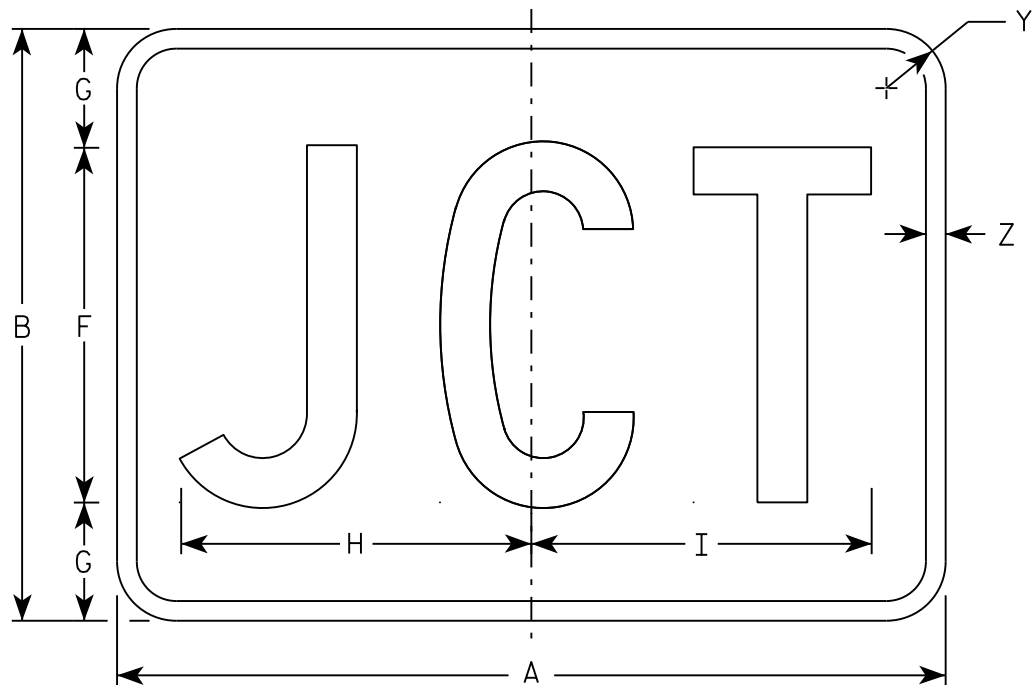
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
State Traffic Engineer

DATE 11/5/15 for PLATE NO. M1-93.2



M2-1  
MM2-1  
MP2-1



MB2-1  
MK2-1  
MN2-1  
MR2-1

NOTES

- 1. Sign is 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. M2-1 Background - White  
    Message - Black  
    MB2-1 Background - Blue  
    Message - White  
    MK2-1 Background - Green  
    Message - White  
    MM2-1 Background - White  
    Message - Green  
    MN2-1 Background - Brown  
    Message - White  
    MP2-1 Background - White  
    Message - Blue  
    MR2-1 Background - Brown  
    Message - Yellow

| 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<br>sq. ft. |
|------|----|----|-------|-----|-----|----|---|--------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|-----|-----------------|
| 1    |    |    |       |     |     |    |   |        |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |     |                 |
| 2    | 21 | 15 | 1 1/8 | 3/8 | 3/8 | 9  | 3 | 8 7/8  | 8 5/8  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1/2 | 1/2 | 2.20            |
| 3    | 30 | 21 | 1 1/8 | 3/8 | 3/8 | 13 | 4 | 12 7/8 | 12 3/8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1/2 | 1/2 | 4.40            |
| 4    | 30 | 21 | 1 1/8 | 3/8 | 3/8 | 13 | 4 | 12 7/8 | 12 3/8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1/2 | 1/2 | 4.40            |
| 5    | 30 | 21 | 1 1/8 | 3/8 | 3/8 | 13 | 4 | 12 7/8 | 12 3/8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1/2 | 1/2 | 4.40            |

STANDARD SIGN

M2 - 1

WISCONSIN DEPT OF TRANSPORTATION

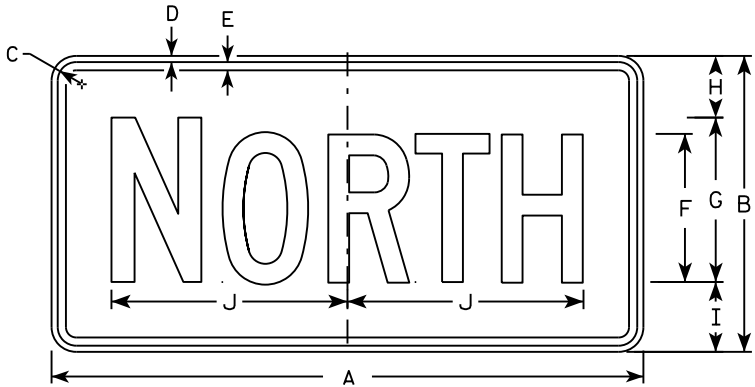
APPROVED

Matthew R. Rauch

For State Traffic Engineer

DATE 10/15/15

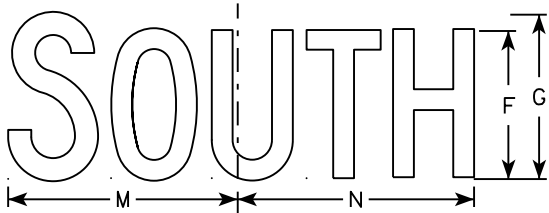
PLATE NO. M2-1.12



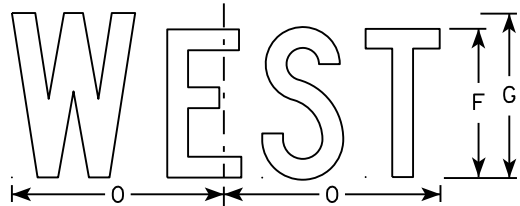
M3-1  
MM3-1  
MP3-1



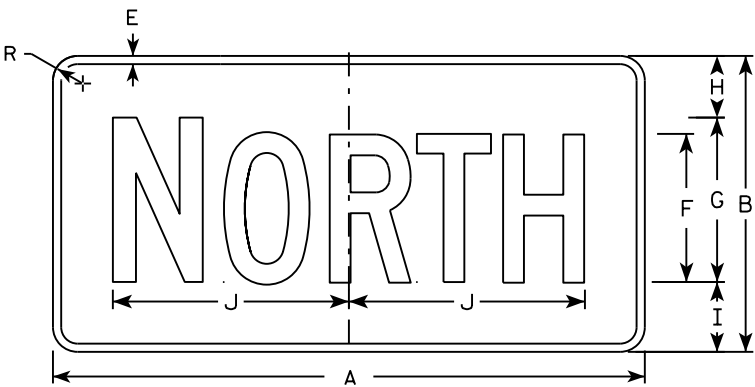
M3-2  
MM3-2  
MP3-2



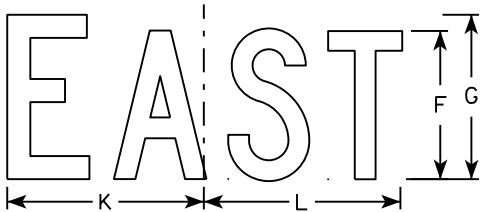
M3-3  
MM3-3  
MP3-3



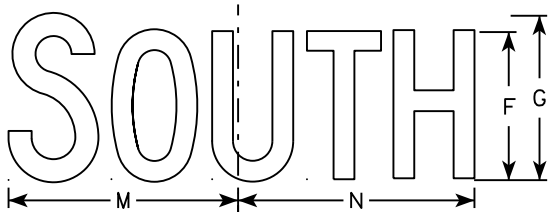
M3-4  
MM3-4  
MP3-4



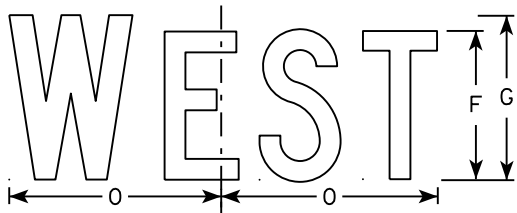
MB3-1  
MK3-1  
MN3-1



MB3-2  
MK3-2  
MN3-2



MB3-3  
MK3-3  
MN3-3



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.

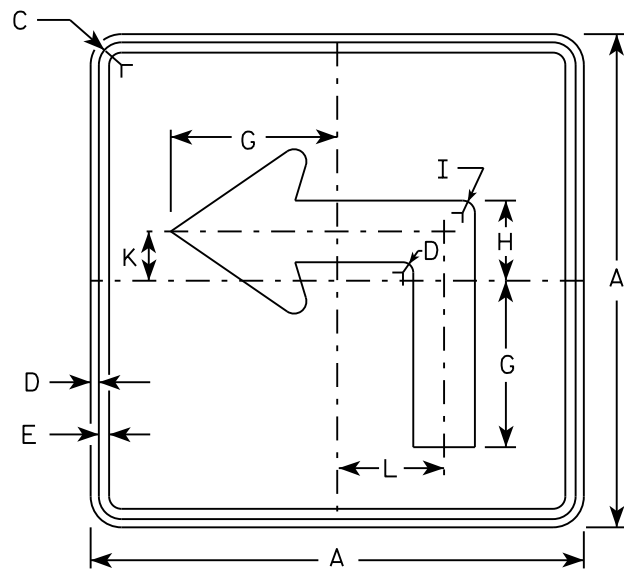
| SIZE | A  | B  | C     | D   | E   | F | G  | H     | I     | J      | K     | L      | M      | N      | O     | P | Q | R     | S | T | U | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|----|-------|-----|-----|---|----|-------|-------|--------|-------|--------|--------|--------|-------|---|---|-------|---|---|---|---|---|---|---|---|-----------------|
| 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 thru M3-4  
SERIES

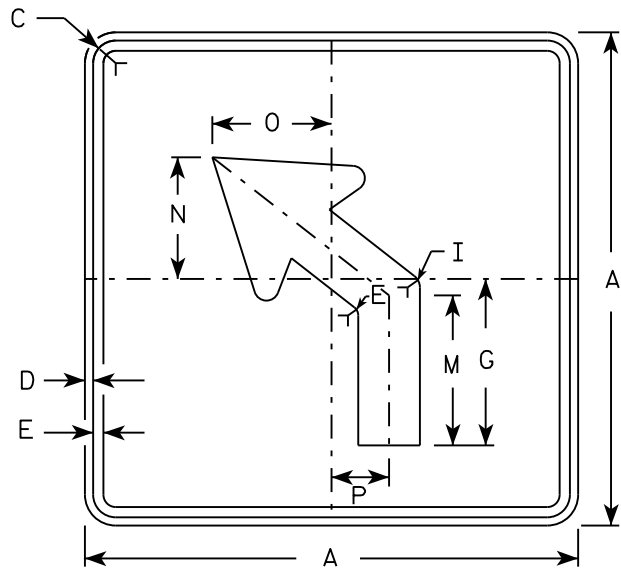
WISCONSIN DEPT OF TRANSPORTATION

APPROVED  
*Matthew R. Rauch*  
for State Traffic Engineer

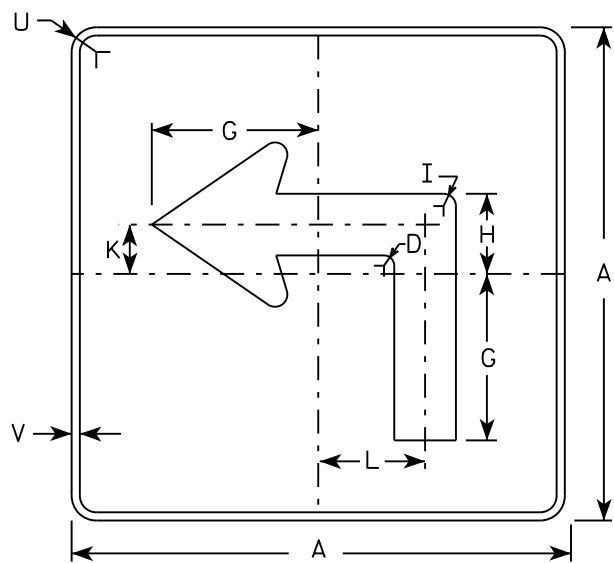
DATE 10/15/15 PLATE NO. M3-1.14



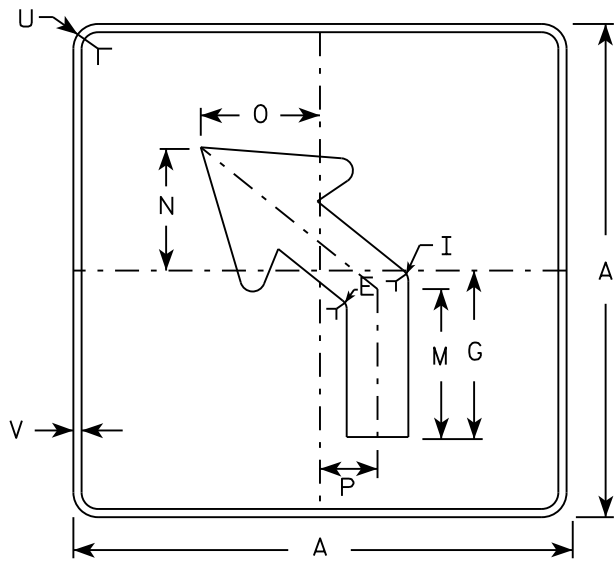
M5-1L  
MM5-1L  
M05-1L  
MP5-1L



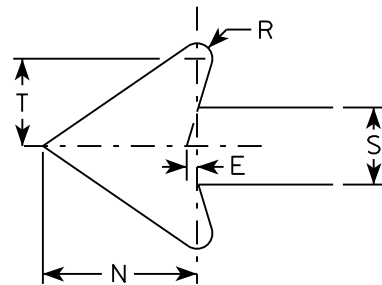
M5-2L  
MM5-2L  
M05-2L  
MP5-2L



MB5-1L  
MK5-1L  
MN5-1L  
MR5-1L



MB5-2L  
MK5-2L  
MN5-2L  
MR5-2L



NOTES

- Signs are Type II - Type H reflective except as shown
- Color:  
Background - See note 4  
Message - See note 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.
- |                 |                                         |
|-----------------|-----------------------------------------|
| M5-1 and M5-2   | Background - White                      |
|                 | Message - Black                         |
| MB5-1 and MB5-2 | Background - Blue                       |
|                 | Message - White                         |
| MK5-1 and MK5-2 | Background - Green                      |
|                 | Message - White                         |
| MM5-1 and MM5-2 | Background - White                      |
|                 | Message - Green                         |
| MN5-1 and MN5-2 | Background - Brown                      |
|                 | Message - White                         |
| M05-1 and M05-2 | Background - Orange - Type F Reflective |
|                 | Message - Black                         |
| MP5-1 and MP5-2 | Background - White - Type H Reflective  |
|                 | Message - Blue                          |
| MR5-1 and MR5-2 | Background - Brown                      |
|                 | Message - Yellow                        |
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

| 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<br>sq. ft. |
|------|----|---|-------|-----|-----|---|--------|-------|-----|---|-------|-------|-------|-------|-------|-------|---|-----|-------|-------|-------|-----|---|---|---|---|-----------------|
| 1    |    |   |       |     |     |   |        |       |     |   |       |       |       |       |       |       |   |     |       |       |       |     |   |   |   |   |                 |
| 2    | 21 |   | 1 1/8 | 3/8 | 3/8 |   | 7      | 3 3/8 | 5/8 |   | 2 1/8 | 4 1/2 | 6 3/8 | 5 1/4 | 5     | 2 1/2 |   | 1/2 | 2 5/8 | 3     | 1 1/2 | 1/2 |   |   |   |   | 3.06            |
| 3    | 30 |   | 1 3/8 | 1/2 | 5/8 |   | 10 1/8 | 4 7/8 | 7/8 |   | 3     | 6 1/2 | 9 1/8 | 7 1/2 | 7 1/4 | 3 1/2 |   | 3/4 | 3 3/4 | 4 1/4 | 1 7/8 | 1/2 |   |   |   |   | 6.25            |
| 4    | 30 |   | 1 3/8 | 1/2 | 5/8 |   | 10 1/8 | 4 7/8 | 7/8 |   | 3     | 6 1/2 | 9 1/8 | 7 1/2 | 7 1/4 | 3 1/2 |   | 3/4 | 3 3/4 | 4 1/4 | 1 7/8 | 1/2 |   |   |   |   | 6.25            |
| 5    | 30 |   | 1 3/8 | 1/2 | 5/8 |   | 10 1/8 | 4 7/8 | 7/8 |   | 3     | 6 1/2 | 9 1/8 | 7 1/2 | 7 1/4 | 3 1/2 |   | 3/4 | 3 3/4 | 4 1/4 | 1 7/8 | 1/2 |   |   |   |   | 6.25            |

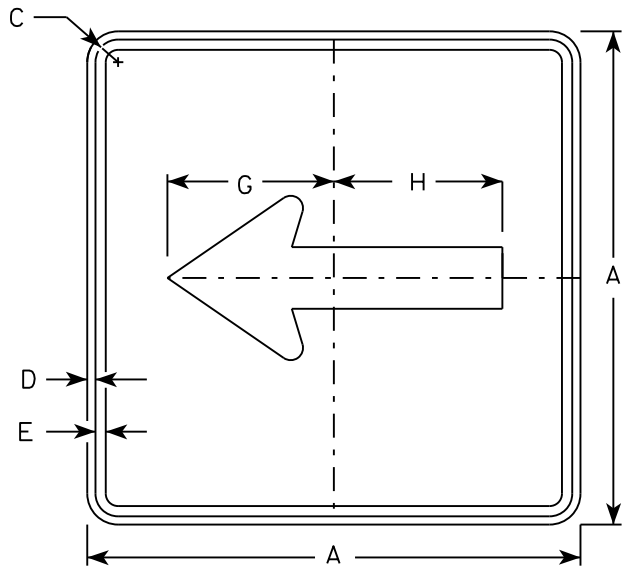
STANDARD SIGN  
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

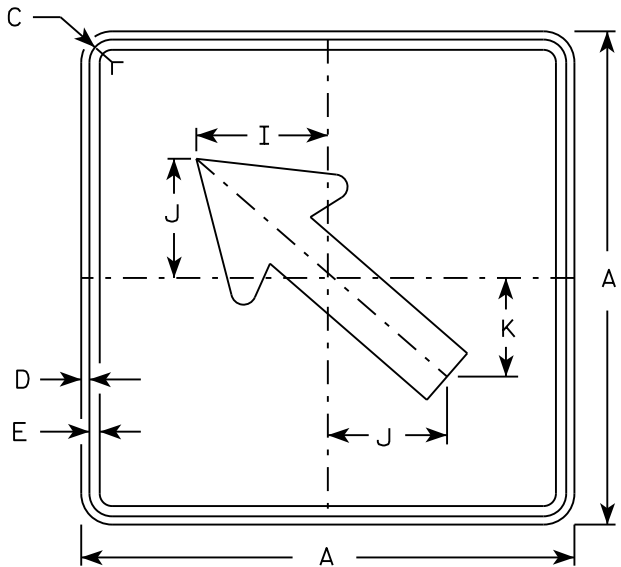
APPROVED  
*Matthew R. Rauch*  
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M5-1.13

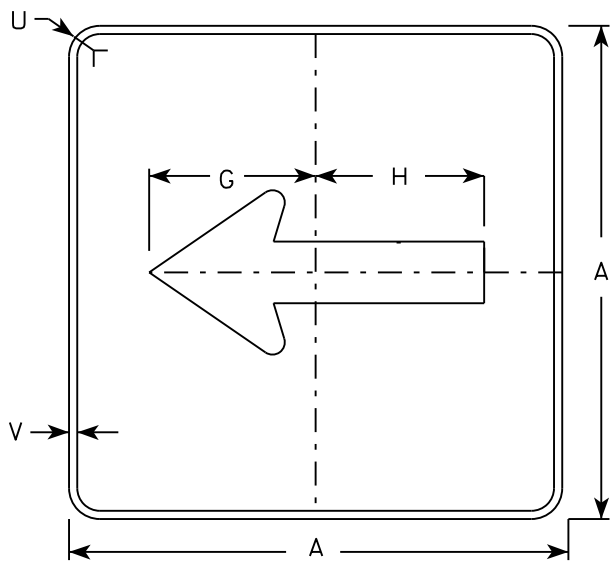




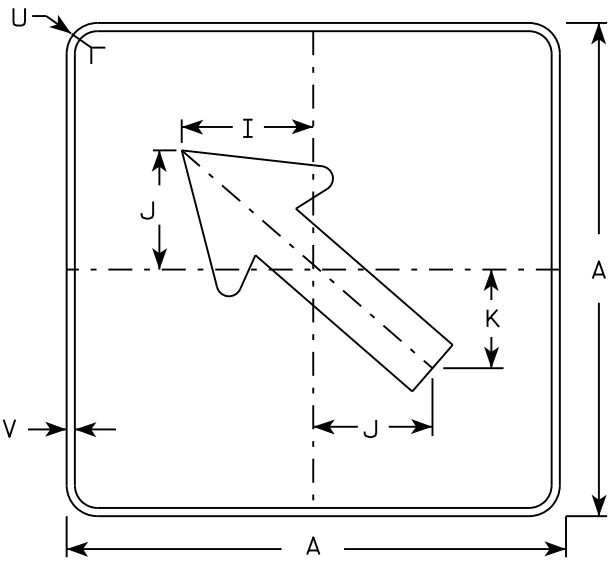
M6 - 1  
MM6 - 1  
M06 - 1  
MP6 - 1



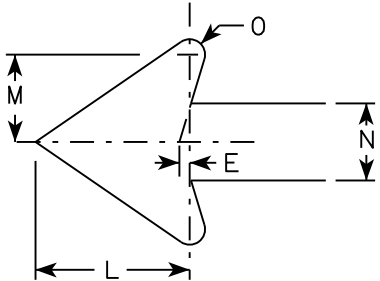
M6 - 2  
MM6 - 2  
M06 - 2  
MP6 - 2



MB6 - 1  
MK6 - 1  
MN6 - 1  
MR6 - 1



MB6 - 2  
MK6 - 2  
MN6 - 2  
MR6 - 2



NOTES

- 1. Signs are Type II - Type H except as Shown
- 2. Color:
  - Background - See note 4
  - 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. M6-1 and M6-2 Background - White  
Message - Black  
MB6-1 and MB6-2 Background - Blue  
Message - White  
MK6-1 and MK6-2 Background - Green  
Message - White  
MM6-1 and MM6-2 Background - White  
Message - Green  
MN6-1 and MN6-2 Background - Brown  
Message - White  
M06-1 and M06-2 Background - Orange - Type F Reflective  
Message - Black  
MP6-1 and MP6-2 Background - White  
Message - Blue  
MR6-1 and MR6-2 Background - Brown  
Message - Yellow

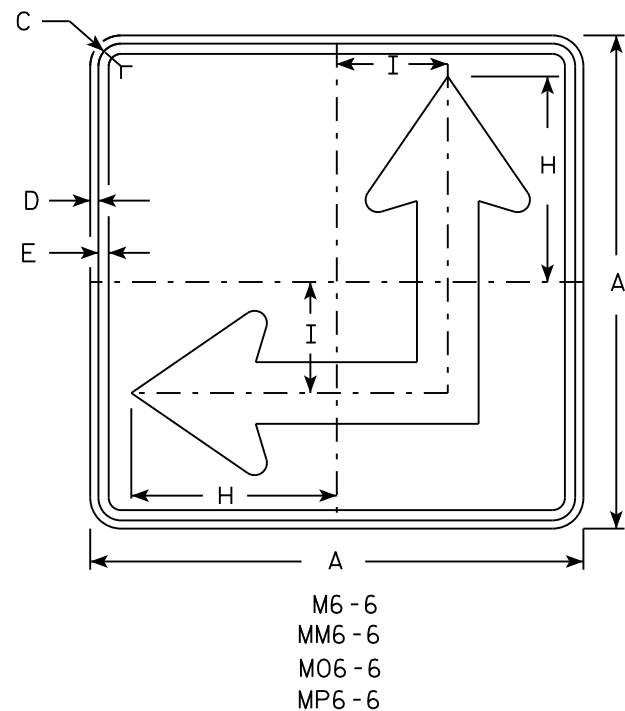
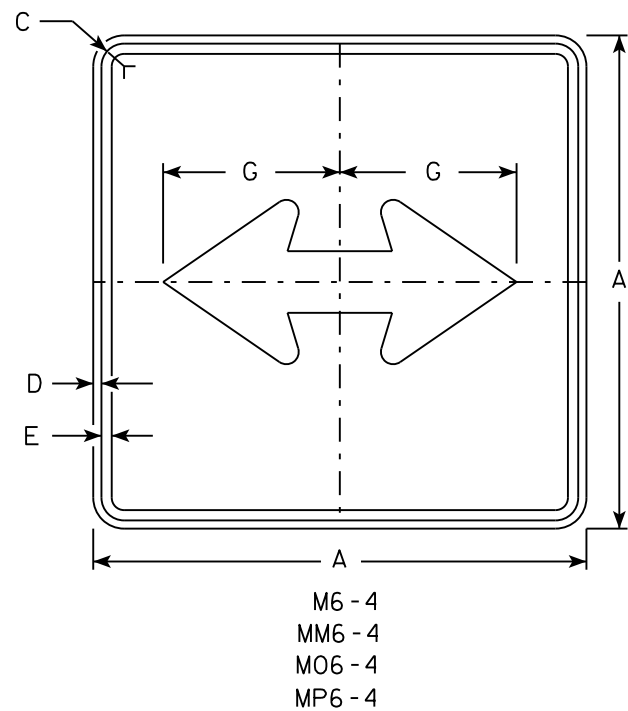
| SIZE | A  | B | C     | D   | E   | F | G      | H      | I     | J     | K     | L     | M     | N     | O   | P | Q | R | S | T | U     | V   | W | X | Y | Z | Area<br>sq. ft. |
|------|----|---|-------|-----|-----|---|--------|--------|-------|-------|-------|-------|-------|-------|-----|---|---|---|---|---|-------|-----|---|---|---|---|-----------------|
| 1    |    |   |       |     |     |   |        |        |       |       |       |       |       |       |     |   |   |   |   |   |       |     |   |   |   |   |                 |
| 2    | 21 |   | 1 1/8 | 3/8 | 3/8 |   | 7 1/2  | 7 1/8  | 5 5/8 | 5     | 4 1/4 | 5 1/4 | 3     | 2 5/8 | 1/2 |   |   |   |   |   | 1 1/2 | 1/2 |   |   |   |   | 3.06            |
| 3    | 30 |   | 1 3/8 | 1/2 | 5/8 |   | 10 3/4 | 10 1/4 | 8     | 7 1/4 | 6     | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 |   |   |   |   |   | 1 7/8 | 1/2 |   |   |   |   | 6.25            |
| 4    | 30 |   | 1 3/8 | 1/2 | 5/8 |   | 10 3/4 | 10 1/4 | 8     | 7 1/4 | 6     | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 |   |   |   |   |   | 1 7/8 | 1/2 |   |   |   |   | 6.25            |
| 5    | 30 |   | 1 3/8 | 1/2 | 5/8 |   | 10 3/4 | 10 1/4 | 8     | 7 1/4 | 6     | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 |   |   |   |   |   | 1 7/8 | 1/2 |   |   |   |   | 6.25            |

STANDARD SIGN  
M6 - 1 & M6 - 2  
SERIES

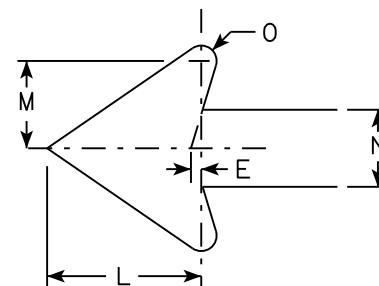
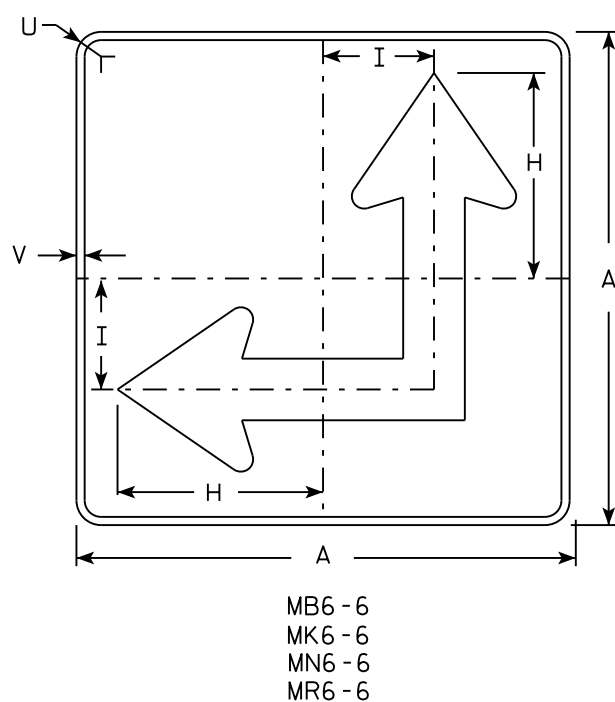
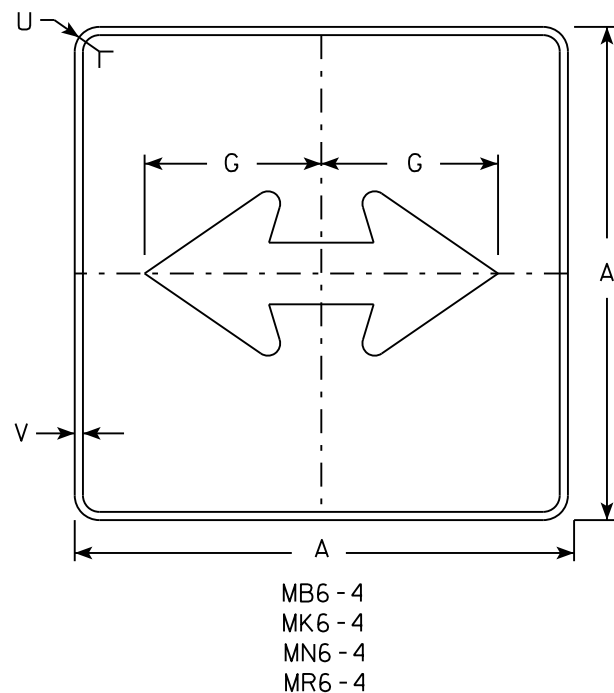
WISCONSIN DEPT OF TRANSPORTATION

APPROVED  
*Matthew R. Rauch*  
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M6-1.15



- NOTES
- Signs are Type II - Type H except as Shown
  - Color:  
Background - See Note 4  
Message - See Note 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.
  - M6-4 and M6-6 Background - White  
Message - Black  
MB6-4 and MB6-6 Background - Blue  
Message - White  
MK6-4 and MK6-6 Background - Green  
Message - White  
MM6-4 and MM6-6 Background - White  
Message - Green  
MN6-4 and MN6-6 Background - Brown  
Message - White  
M06-4 and M06-6 Background - Orange - Type F Reflective  
Message - Black  
MP6-4 and MP6-6 Background - White  
Message - Blue  
MR6-4 and MR6-6 Background - Brown  
Message - Yellow
  - M6-6R same as M6-6L except arrow points ahead and right.



| 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<br>sq. ft. |
|------|----|---|-------|-----|-----|---|--------|--------|-------|---|---|-------|-------|-------|-----|---|---|---|---|---|-------|-----|---|---|---|---|-----------------|
| 1    |    |   |       |     |     |   |        |        |       |   |   |       |       |       |     |   |   |   |   |   |       |     |   |   |   |   |                 |
| 2    | 21 |   | 1 1/8 | 3/8 | 3/8 |   | 7 1/2  | 8 3/4  | 4 1/4 |   |   | 5 1/4 | 3     | 2 5/8 | 1/2 |   |   |   |   |   | 1 1/2 | 1/2 |   |   |   |   | 3.06            |
| 3    | 30 |   | 1 3/8 | 1/2 | 5/8 |   | 10 3/4 | 12 1/2 | 6 3/4 |   |   | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 |   |   |   |   |   | 1 7/8 | 1/2 |   |   |   |   | 6.25            |
| 4    | 30 |   | 1 3/8 | 1/2 | 5/8 |   | 10 3/4 | 12 1/2 | 6 3/4 |   |   | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 |   |   |   |   |   | 1 7/8 | 1/2 |   |   |   |   | 6.25            |
| 5    | 30 |   | 1 3/8 | 1/2 | 5/8 |   | 10 3/4 | 12 1/2 | 6 3/4 |   |   | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 |   |   |   |   |   | 1 7/8 | 1/2 |   |   |   |   | 6.25            |

|             |      |         |           |   |
|-------------|------|---------|-----------|---|
| PROJECT NO: | HWY: | COUNTY: | SHEET NO: | E |
|-------------|------|---------|-----------|---|

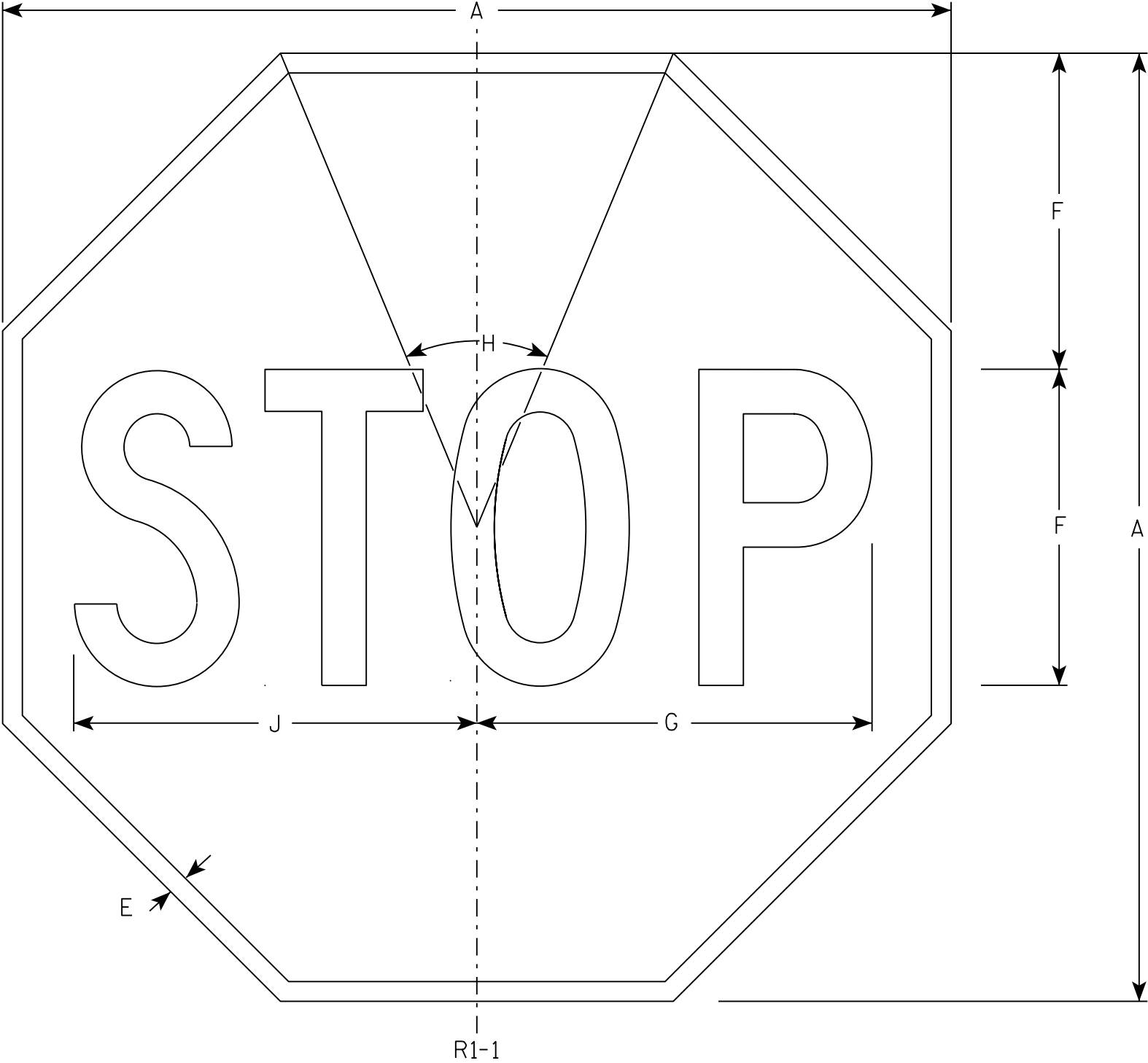
STANDARD SIGN  
M6 - 4 & M6 - 6  
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 10/15/15      PLATE NO. M6-4.10

7



NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:  
Background - Red  
Message - White
- 3. Message Series - C

7

R1-1

| 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<br>sq. ft. |
|------|----|---|---|---|-----|----|--------|-----|---|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    | 30 |   |   |   | 5/8 | 10 | 12 1/2 | 45° |   | 12 3/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 5.18            |
| 2S   | 30 |   |   |   | 5/8 | 10 | 12 1/2 | 45° |   | 12 3/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 5.18            |
| 2M   | 36 |   |   |   | 3/4 | 12 | 15     | 45° |   | 15 3/8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 7.46            |
| 3    | 36 |   |   |   | 3/4 | 12 | 15     | 45° |   | 15 3/8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 7.46            |
| 4    | 48 |   |   |   | 1   | 16 | 20     | 45° |   | 20 1/2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 13.25           |
| 5    | 48 |   |   |   | 1   | 16 | 20     | 45° |   | 20 1/2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 13.25           |
| 6    | 18 |   |   |   | 3/8 | 6  | 7 3/4  | 45° |   | 7 3/4  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1.86            |
| 7    | 12 |   |   |   | 1/4 | 4  | 5      | 45° |   | 5 1/8  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 0.78            |

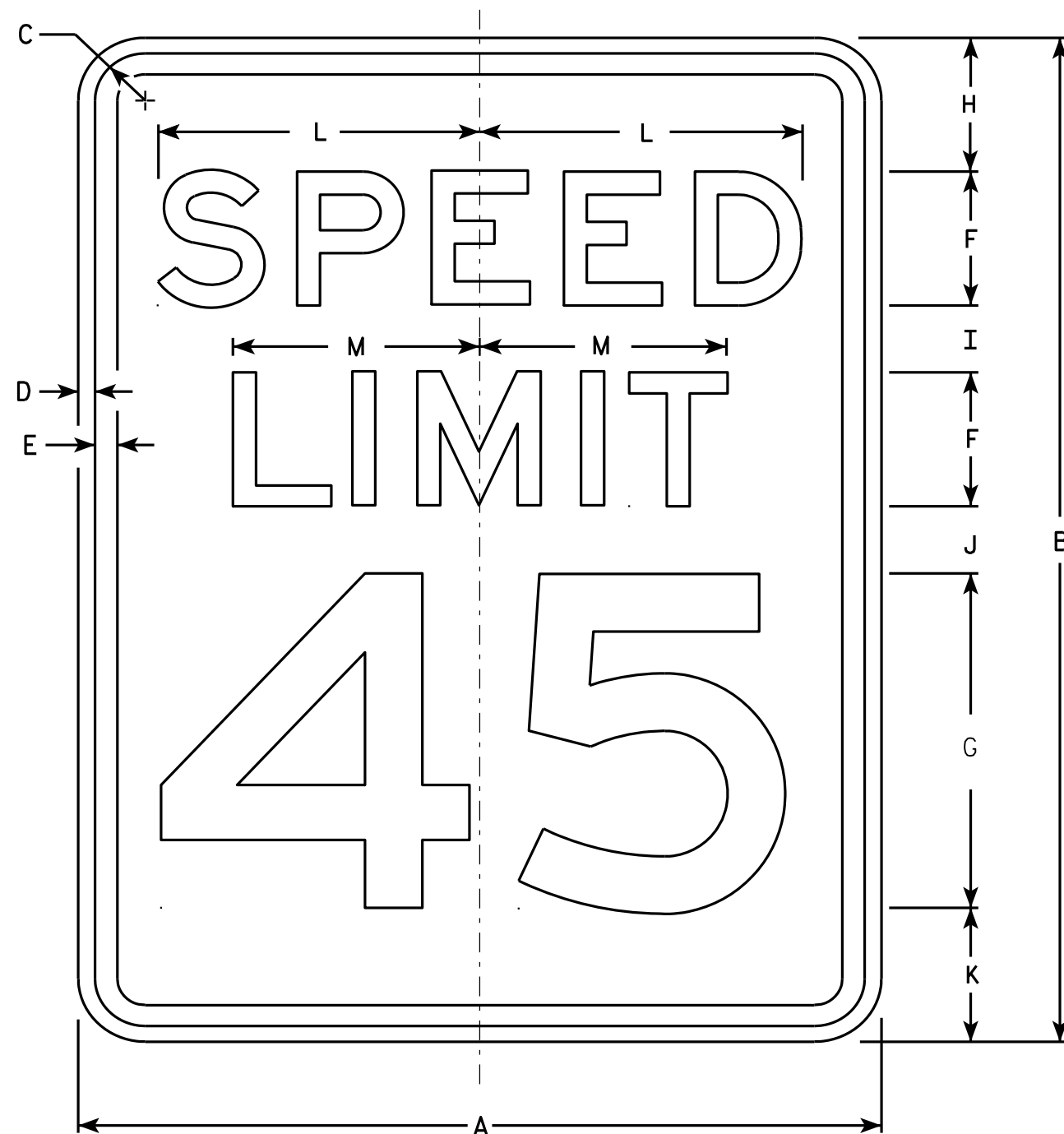
STANDARD SIGN

R1 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13



### 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
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. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

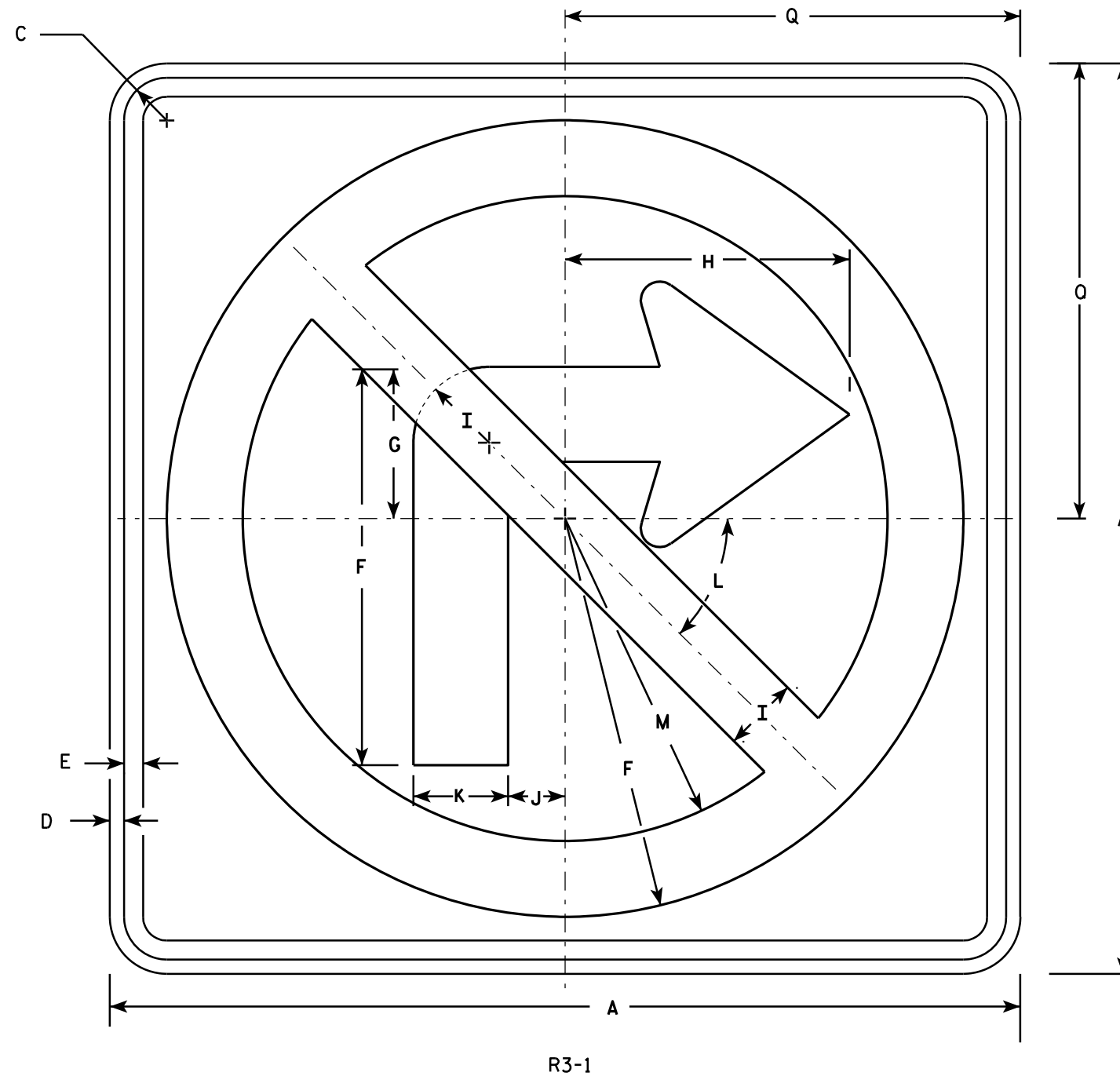
R2-1

| 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<br>sq. ft. |
|------|----|----|-------|-----|-----|---|----|---|-------|-------|-------|--------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    | 18 | 24 | 1 1/8 | 3/8 | 1/2 | 3 | 8  | 3 | 2     | 2     | 3     | 7 1/4  | 5 1/2  |   |   |   |   |   |   |   |   |   |   |   |   |   | 3.0             |
| 2S   | 24 | 30 | 1 1/8 | 3/8 | 1/2 | 4 | 10 | 3 | 2 1/4 | 3 3/8 | 3 3/8 | 9 5/8  | 7 3/8  |   |   |   |   |   |   |   |   |   |   |   |   |   | 5.0             |
| 2M   | 30 | 36 | 1 3/8 | 1/2 | 5/8 | 5 | 12 | 5 | 2 1/2 | 2 1/2 | 4     | 12     | 9 1/4  |   |   |   |   |   |   |   |   |   |   |   |   |   | 7.5             |
| 3    | 36 | 48 | 1 3/8 | 1/2 | 5/8 | 6 | 14 | 6 | 5     | 5     | 6     | 14 3/8 | 11     |   |   |   |   |   |   |   |   |   |   |   |   |   | 12.0            |
| 4    | 36 | 48 | 1 3/8 | 1/2 | 5/8 | 6 | 14 | 6 | 5     | 5     | 6     | 14 3/8 | 11     |   |   |   |   |   |   |   |   |   |   |   |   |   | 12.0            |
| 5    | 48 | 60 | 2 1/4 | 3/4 | 1   | 8 | 20 | 6 | 4 1/2 | 6 3/4 | 6 3/4 | 19 1/4 | 14 5/8 |   |   |   |   |   |   |   |   |   |   |   |   |   | 20.0            |

### STANDARD SIGN R2-1

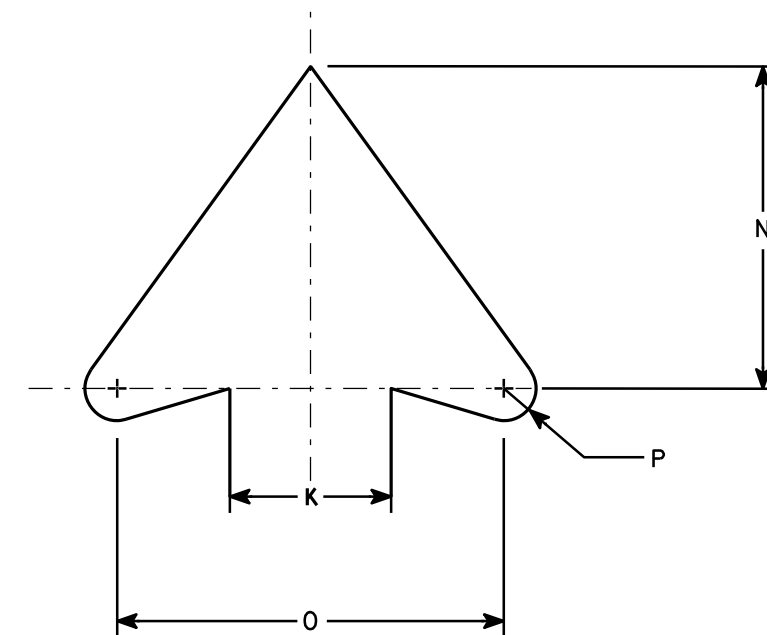
WISCONSIN DEPT OF TRANSPORTATION  
APPROVED *Matthew R. Rauch*  
For State Traffic Engineer  
DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: HWY: COUNTY: SHEET NO: E



## NOTES

- Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:  
Background - White  
Message - See note 4
- CornerRadius 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.
- 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    | 24 |   | 1 1/8 | 3/8 | 1/2 | 10 1/2 | 4 | 7 1/2  | 2 | 1 1/2 | 2 1/2 | 45  | 8 1/2  | 5     | 6  | 1/2 | 12 |   |   |   |   |   |   |   |   |   | 4.0          |
| 2S   | 24 |   | 1 1/8 | 3/8 | 1/2 | 10 1/2 | 4 | 7 1/2  | 2 | 1 1/2 | 2 1/2 | 45° | 8 1/2  | 5     | 6  | 1/2 | 12 |   |   |   |   |   |   |   |   |   | 4.0          |
| 2M   | 36 |   | 1 5/8 | 5/8 | 3/4 | 15 3/4 | 6 | 11 1/4 | 3 | 2 1/4 | 3 3/4 | 45  | 12 3/4 | 7 1/2 | 9  | 3/4 | 18 |   |   |   |   |   |   |   |   |   | 9.0          |
| 3    | 36 |   | 1 5/8 | 5/8 | 3/4 | 15 3/4 | 6 | 11 1/4 | 3 | 2 1/4 | 3 3/4 | 45  | 12 3/4 | 7 1/2 | 9  | 3/4 | 18 |   |   |   |   |   |   |   |   |   | 9.0          |
| 4    | 36 |   | 1 5/8 | 5/8 | 3/4 | 15 3/4 | 6 | 11 1/4 | 3 | 2 1/4 | 3 3/4 | 45° | 12 3/4 | 7 1/2 | 9  | 3/4 | 18 |   |   |   |   |   |   |   |   |   | 9.0          |
| 5    | 48 |   | 2 1/4 | 3/4 | 1   | 21     | 8 | 15     | 4 | 3     | 5     | 45° | 17     | 10    | 12 | 1   | 24 |   |   |   |   |   |   |   |   |   | 16.0         |

## STANDARD SIGN

R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

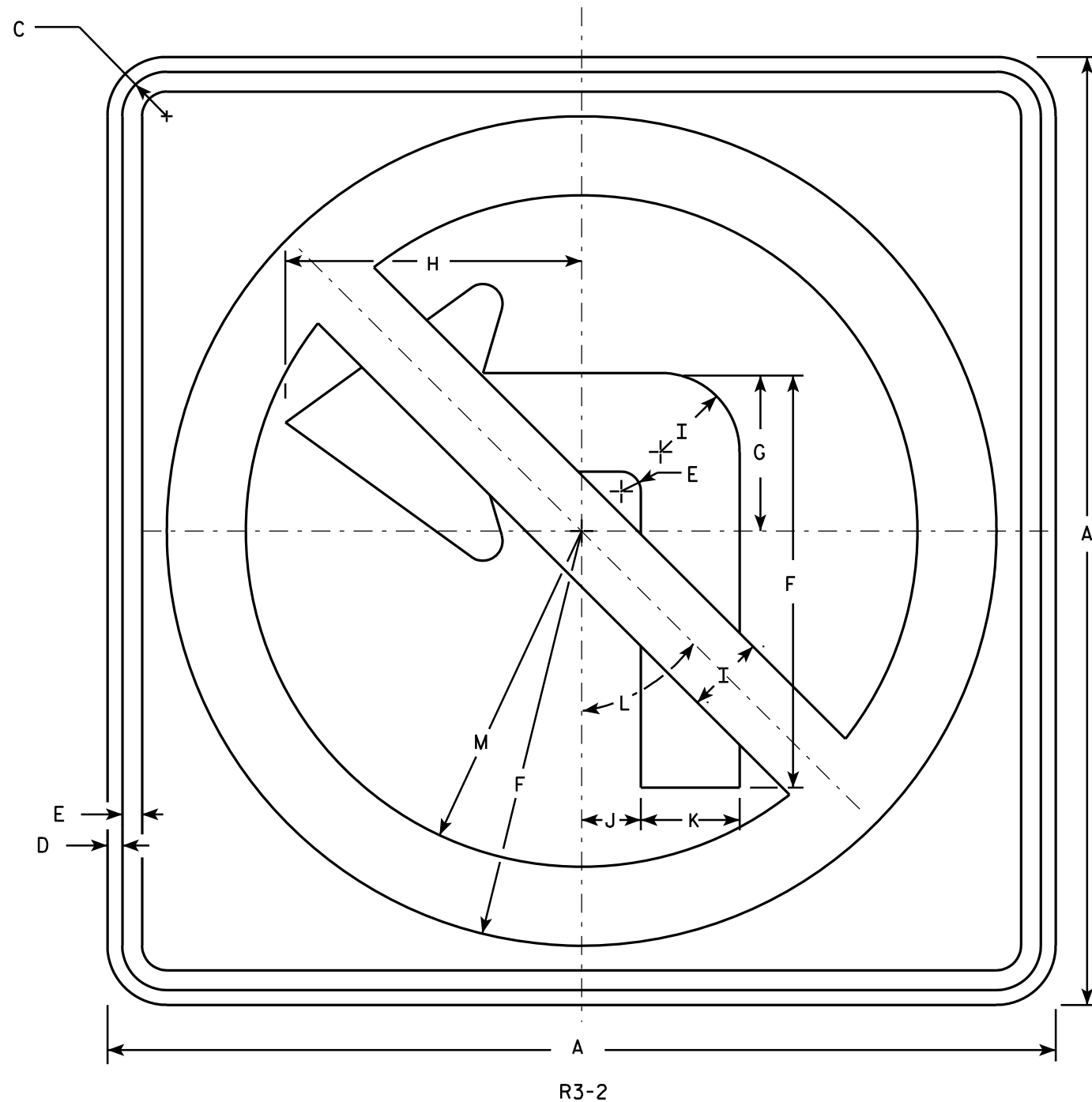
PROJECT NO:

HWY:

COUNTY:

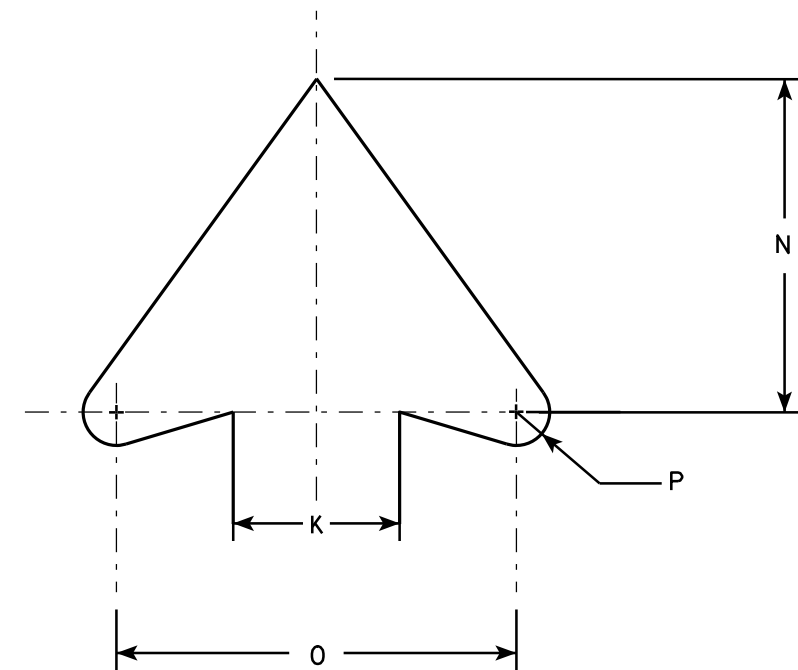
SHEET NO:

E



NOTES

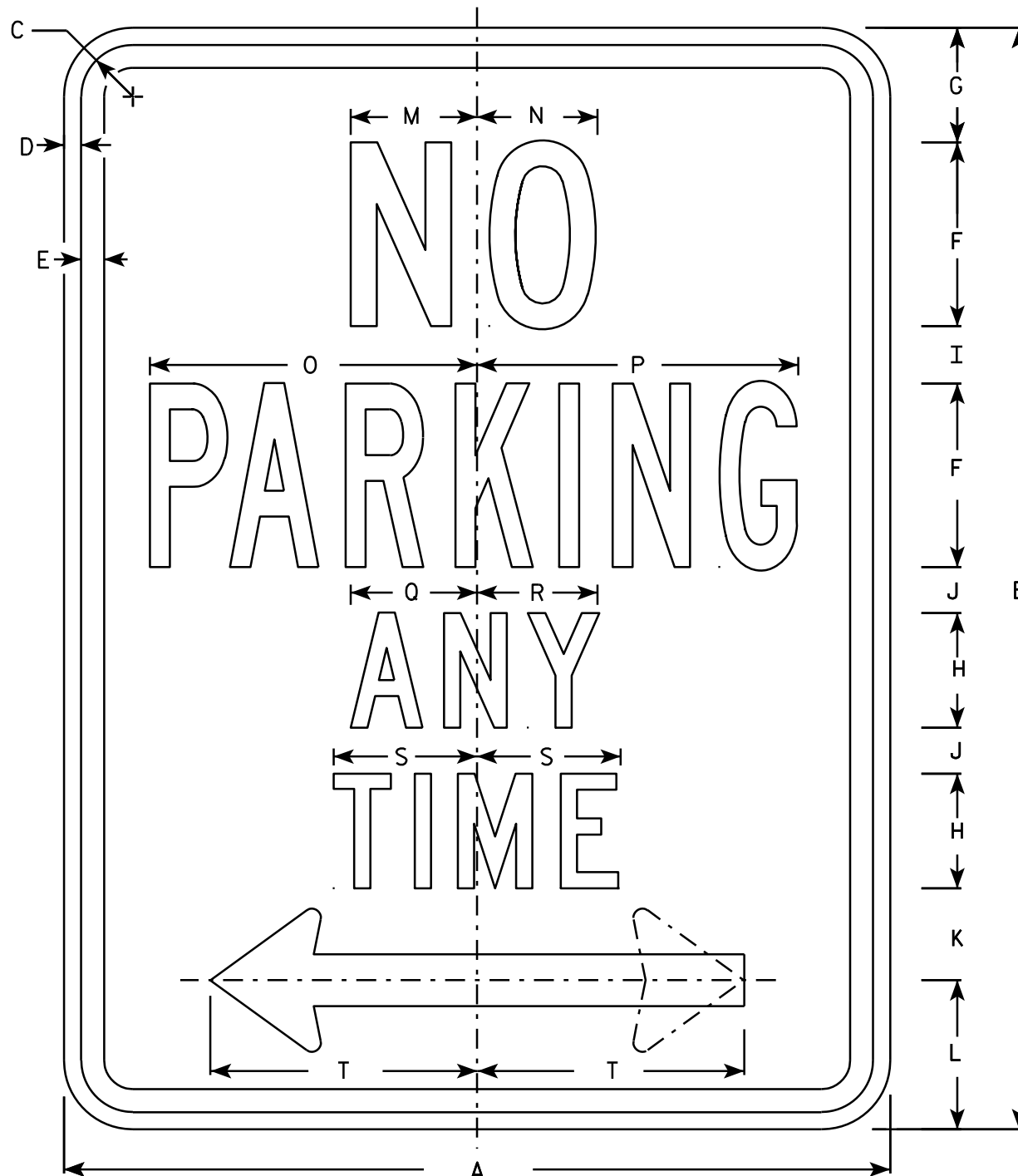
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - White  
Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When 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.



| 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<br>sq. ft. |
|------|----|---|-------|-----|-----|--------|---|--------|---|-------|-------|-----|--------|-------|----|-----|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    | 24 |   | 1 1/8 | 3/8 | 1/2 | 10 1/2 | 4 | 7 1/2  | 2 | 1 1/2 | 2 1/2 | 45° | 8 1/2  | 5     | 6  | 1/2 |   |   |   |   |   |   |   |   |   |   | 4.0             |
| 2S   | 24 |   | 1 1/8 | 3/8 | 1/2 | 10 1/2 | 4 | 7 1/2  | 2 | 1 1/2 | 2 1/2 | 45° | 8 1/2  | 5     | 6  | 1/2 |   |   |   |   |   |   |   |   |   |   | 4.0             |
| 2M   | 36 |   | 1 5/8 | 5/8 | 3/4 | 15 3/4 | 6 | 11 1/4 | 3 | 2 1/4 | 3 3/4 | 45° | 12 3/4 | 7 1/2 | 9  | 3/4 |   |   |   |   |   |   |   |   |   |   | 9.0             |
| 3    | 36 |   | 1 5/8 | 5/8 | 3/4 | 15 3/4 | 6 | 11 1/4 | 3 | 2 1/4 | 3 3/4 | 45° | 12 3/4 | 7 1/2 | 9  | 3/4 |   |   |   |   |   |   |   |   |   |   | 9.0             |
| 4    | 36 |   | 1 5/8 | 5/8 | 3/4 | 15 3/4 | 6 | 11 1/4 | 3 | 2 1/4 | 3 3/4 | 45° | 12 3/4 | 7 1/2 | 9  | 3/4 |   |   |   |   |   |   |   |   |   |   | 9.0             |
| 5    | 48 |   | 2 1/4 | 3/4 | 1   | 21     | 8 | 15     | 4 | 3     | 5     | 45° | 17     | 10    | 12 | 1   |   |   |   |   |   |   |   |   |   |   | 16.0            |

|                                  |                                                       |
|----------------------------------|-------------------------------------------------------|
| STANDARD SIGN<br>R3-2            |                                                       |
| WISCONSIN DEPT OF TRANSPORTATION |                                                       |
| APPROVED                         | <i>Matthew R. Rauch</i><br>for State Traffic Engineer |
| DATE 12/08/10                    | PLATE NO. R3-2.10                                     |

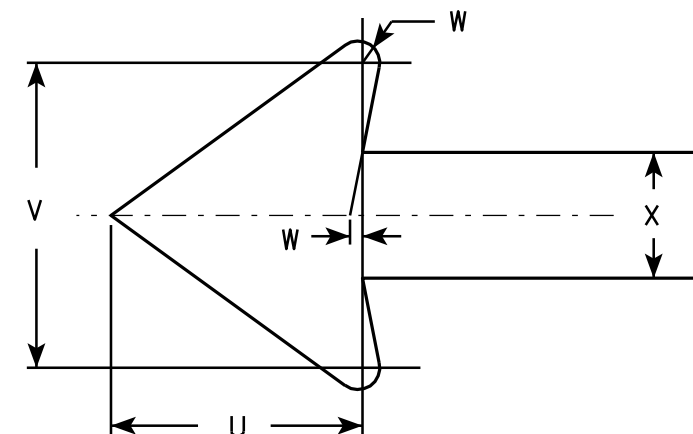
|             |      |         |           |   |
|-------------|------|---------|-----------|---|
| PROJECT NO: | HWY: | COUNTY: | SHEET NO: | E |
|-------------|------|---------|-----------|---|



R7-1

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 - Red
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, 3 and 4 are series C, line 2 is series B.
6. R7-1D (double arrow)  
R7-1L (left arrow)  
R7-1R (right arrow)



| 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<br>sq. ft. |
|------|----|----|-------|-----|-----|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-------|---|---|-----------------|
| 1    | 12 | 18 | 1 1/8 | 3/8 | 3/8 | 3 | 1 7/8 | 2     | 7/8   | 5/8   | 1 1/2 | 2 1/2 | 2     | 2     | 4 7/8 | 4 7/8 | 2 1/4 | 2 1/8 | 2 1/2 | 3 7/8 | 1 1/2 | 1 3/4 | 1/8 | 3/4   |   |   | 1.5             |
| 2S   | 18 | 24 | 1 1/8 | 3/8 | 1/2 | 4 | 2 1/2 | 2 1/2 | 1 1/4 | 1     | 2     | 3 1/4 | 2 3/4 | 2 5/8 | 7 1/8 | 7     | 2 3/4 | 2 5/8 | 3 1/8 | 5 7/8 | 2 1/4 | 2 5/8 | 1/4 | 1 1/8 |   |   | 3.0             |
| 2M   | 24 | 30 | 1 1/8 | 3/8 | 1/2 | 5 | 3     | 3     | 2     | 1 1/4 | 2 1/2 | 4     | 3 1/4 | 3 3/8 | 9 1/4 | 9 1/4 | 3 1/4 | 3 1/4 | 3 3/4 | 7 3/4 | 3     | 3 1/2 | 1/4 | 1 1/2 |   |   | 5.0             |
| 3    | 24 | 30 | 1 1/8 | 3/8 | 1/2 | 5 | 3     | 3     | 2     | 1 1/4 | 2 1/2 | 4     | 3 1/4 | 3 3/8 | 9 1/4 | 9 1/4 | 3 1/4 | 3 1/4 | 3 3/4 | 7 3/4 | 3     | 3 1/2 | 1/4 | 1 1/2 |   |   | 5.0             |
| 4    |    |    |       |     |     |   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |     |       |   |   |                 |
| 5    |    |    |       |     |     |   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |     |       |   |   |                 |

STANDARD SIGN  
R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-1.9

PROJECT NO: HWY: COUNTY: SHEET NO: E

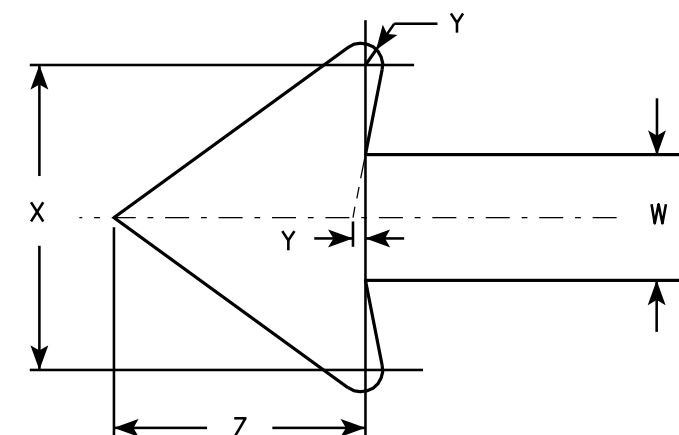
7



R7-51

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 - Red
3. Message Series - See Note 6
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. R7-51D (double arrow)  
R7-51R (right arrow)  
R7-51L (left arrow)
6. Lines 1, 3 and 4 are Series C.  
Line 2 is Series B.



ARROW DETAIL

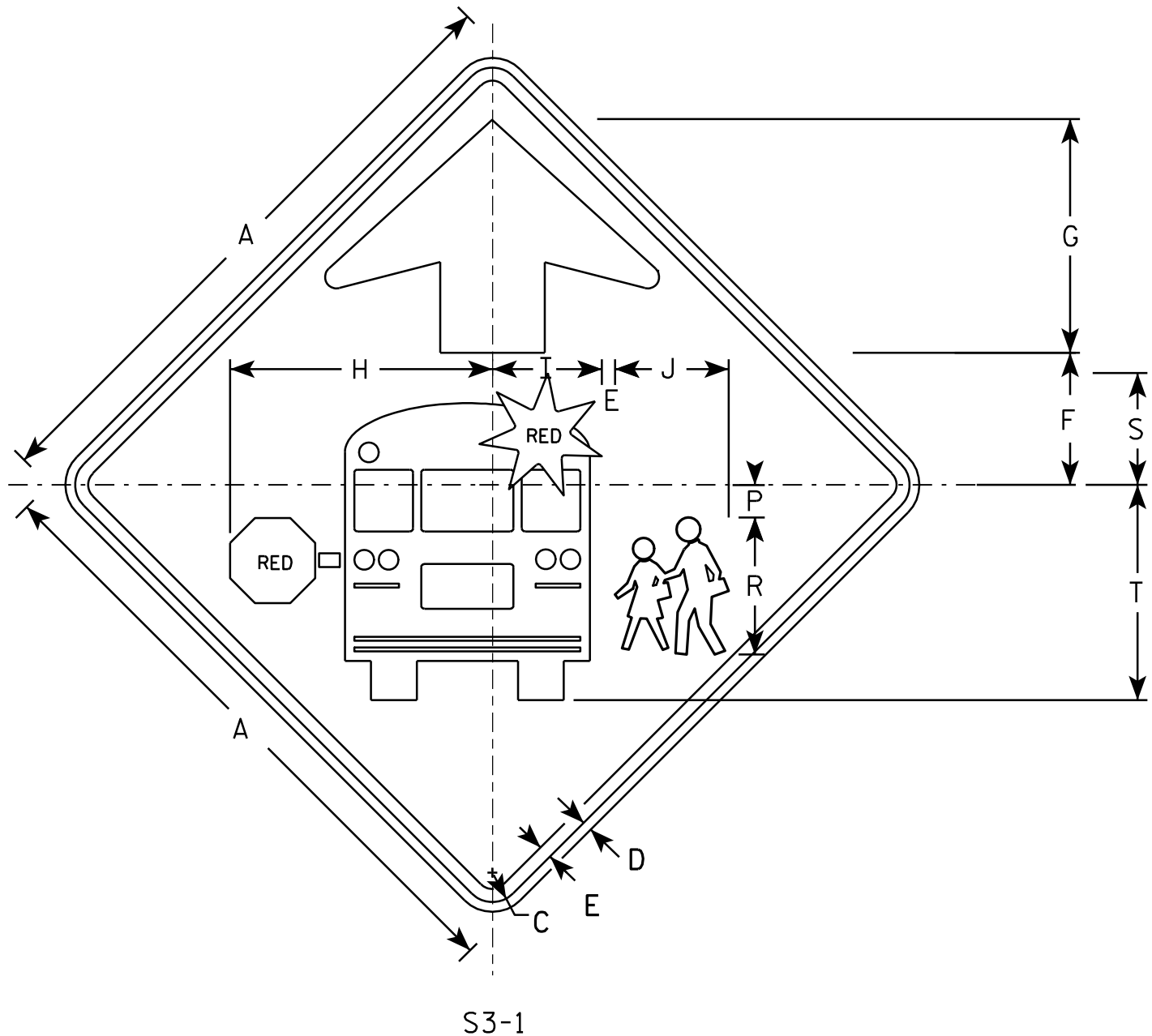
7

| SIZE | A  | B  | C     | D   | E   | F | G     | H     | I     | J     | K     | L     | M     | N     | O     | P     | O     | R     | S     | T     | U     | V     | W     | X     | Y   | Z     | Area<br>sq. ft. |
|------|----|----|-------|-----|-----|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-------|-----------------|
| 1    | 12 | 18 | 1 1/8 | 3/8 | 3/8 | 3 | 1 7/8 | 2     | 7/8   | 5/8   | 1 1/2 | 2 1/2 | 2     | 2     | 4 7/8 | 4 7/8 | 4 7/8 | 5/8   | 1 3/4 | 2 1/2 | 4 3/8 | 3 7/8 | 3/4   | 1 3/4 | 1/8 | 1 1/2 | 1.5             |
| 2S   | 18 | 24 | 1 1/8 | 3/8 | 1/2 | 4 | 2 1/2 | 2 1/2 | 1 1/4 | 1     | 2     | 3 1/4 | 2 3/4 | 2 5/8 | 7 1/8 | 7     | 5 3/4 | 1 1/8 | 1 1/2 | 3 1/8 | 5 1/2 | 5 7/8 | 1 1/8 | 2 5/8 | 1/4 | 2 1/4 | 3.0             |
| 2M   | 24 | 30 | 1 1/8 | 3/8 | 1/2 | 5 | 3     | 3     | 2     | 1 1/4 | 2 1/2 | 4     | 3 1/4 | 3 3/8 | 9 1/4 | 9 1/4 | 7 1/8 | 1 1/4 | 2     | 3 3/4 | 6 1/2 | 7 3/4 | 1 1/2 | 3 1/2 | 1/4 | 3     | 5.0             |
| 3    | 24 | 30 | 1 1/8 | 3/8 | 1/2 | 5 | 3     | 3     | 2     | 1 1/4 | 2 1/2 | 4     | 3 1/4 | 3 3/8 | 9 1/4 | 9 1/4 | 7 1/8 | 1 1/4 | 2     | 3 3/4 | 6 1/2 | 7 3/4 | 1 1/2 | 3 1/2 | 1/4 | 3     | 5.0             |
| 4    |    |    |       |     |     |   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |     |       |                 |
| 5    |    |    |       |     |     |   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |     |       |                 |

|                                  |                                                       |
|----------------------------------|-------------------------------------------------------|
| STANDARD SIGN<br>R7-51           |                                                       |
| WISCONSIN DEPT OF TRANSPORTATION |                                                       |
| APPROVED                         | <i>Matthew R. Rauch</i><br>For State Traffic Engineer |
| DATE 3/31/2011                   | PLATE NO. R7-51.6                                     |

|             |      |         |  |           |   |
|-------------|------|---------|--|-----------|---|
| PROJECT NO: | HWY: | COUNTY: |  | SHEET NO: | E |
|-------------|------|---------|--|-----------|---|

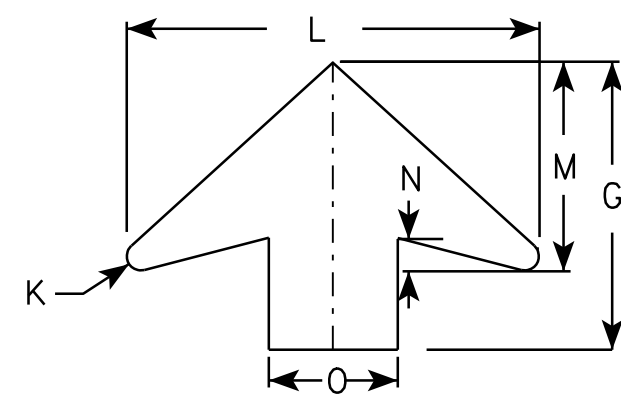




S3-1

### NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - YELLOW-GREEN  
Message - BLACK except as noted  
Circles except PEDS- RED BACKGROUND
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.



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<br>sq. ft. |
|------|----|---|-------------------------------|-----|-----|-------|--------|--------|-------|-------|-----|--------|-------|-------|---|-------|---|--------|-------|--------|---|---|---|---|---|---|-----------------|
| 1    | 30 |   | 1 <sup>3</sup> / <sub>8</sub> | 1/2 | 5/8 | 6 1/4 | 11 1/4 | 12 1/2 | 5 1/4 | 5 1/2 | 1/2 | 16     | 8     | 1 1/4 | 5 | 1 1/2 |   | 6 5/8  | 5 3/8 | 10 3/8 |   |   |   |   |   |   | 6.25            |
| 2    | 36 |   | 1 5/8                         | 5/8 | 3/4 | 7 1/2 | 13 1/2 | 15 1/8 | 6 1/4 | 6 1/2 | 5/8 | 19 1/4 | 9 3/4 | 1 5/8 | 6 | 1 7/8 |   | 7 7/8  | 6 3/8 | 12 3/8 |   |   |   |   |   |   | 9.0             |
| 3    | 48 |   | 2 1/4                         | 3/4 | 1   | 10    | 17 7/8 | 20 1/8 | 8 3/8 | 8 3/4 | 7/8 | 25 5/8 | 13    | 2     | 8 | 2 1/2 |   | 10 1/2 | 8 1/2 | 16 1/2 |   |   |   |   |   |   | 16.0            |
| 4    | 48 |   | 2 1/4                         | 3/4 | 1   | 10    | 17 7/8 | 20 1/8 | 8 3/8 | 8 3/4 | 7/8 | 25 5/8 | 13    | 2     | 8 | 2 1/2 |   | 10 1/2 | 8 1/2 | 16 1/2 |   |   |   |   |   |   | 16.0            |
| 5    |    |   |                               |     |     |       |        |        |       |       |     |        |       |       |   |       |   |        |       |        |   |   |   |   |   |   |                 |

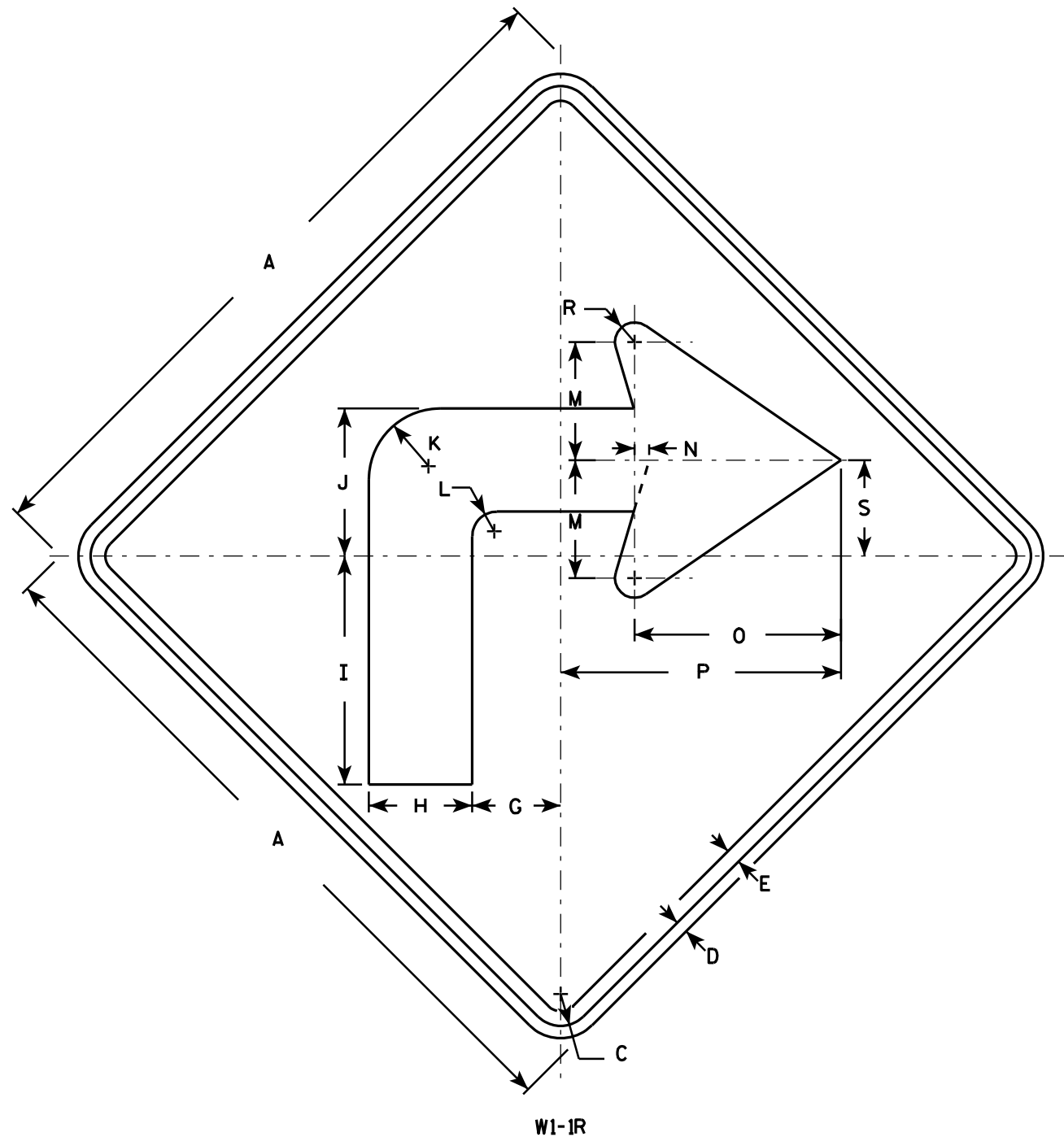
|             |           |   |
|-------------|-----------|---|
| PROJECT NO: | SHEET NO: | E |
|-------------|-----------|---|

**STANDARD SIGN**  
**S3-1**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 6/8/10 PLATE NO. S3-1.6



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - 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. W1-1L is the same as W1-1R except the arrow 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<br>sq. ft. |
|------|----|---|-------|-----|-----|---|-------|-------|--------|-------|-------|-------|---|-----|--------|--------|---|-------|-------|---|---|---|---|---|---|---|-----------------|
| 1    | 24 |   | 1 1/8 | 3/8 | 1/2 |   | 3     | 3 1/2 | 7 3/4  | 5     | 2 1/2 | 7/8   | 4 | 1/2 | 7      | 9 1/2  |   | 5/8   | 3 1/4 |   |   |   |   |   |   |   | 4.0             |
| 2S   | 36 |   | 1 5/8 | 5/8 | 3/4 |   | 4 1/2 | 5 1/4 | 11 5/8 | 7 1/2 | 3 5/8 | 1 1/4 | 6 | 3/4 | 10 1/2 | 14 1/4 |   | 1     | 4 7/8 |   |   |   |   |   |   |   | 9.0             |
| 2M   | 36 |   | 1 5/8 | 5/8 | 3/4 |   | 4 1/2 | 5 1/4 | 11 5/8 | 7 1/2 | 3 5/8 | 1 1/4 | 6 | 3/4 | 10 1/2 | 14 1/4 |   | 1     | 4 7/8 |   |   |   |   |   |   |   | 9.0             |
| 3    | 36 |   | 1 5/8 | 5/8 | 3/4 |   | 4 1/2 | 5 1/4 | 11 5/8 | 7 1/2 | 3 5/8 | 1 1/4 | 6 | 3/4 | 10 1/2 | 14 1/4 |   | 1     | 4 7/8 |   |   |   |   |   |   |   | 9.0             |
| 4    | 48 |   | 2 1/4 | 3/4 | 1   |   | 6     | 7     | 15 1/2 | 10    | 4 7/8 | 1 5/8 | 8 | 1   | 14     | 19     |   | 1 1/4 | 6 1/2 |   |   |   |   |   |   |   | 16.0            |
| 5    | 48 |   | 2 1/4 | 3/4 | 1   |   | 6     | 7     | 15 1/2 | 10    | 4 7/8 | 1 5/8 | 8 | 1   | 14     | 19     |   | 1 1/4 | 6 1/2 |   |   |   |   |   |   |   | 16.0            |

STANDARD SIGN

W1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-1.11

PROJECT NO:

HWY:

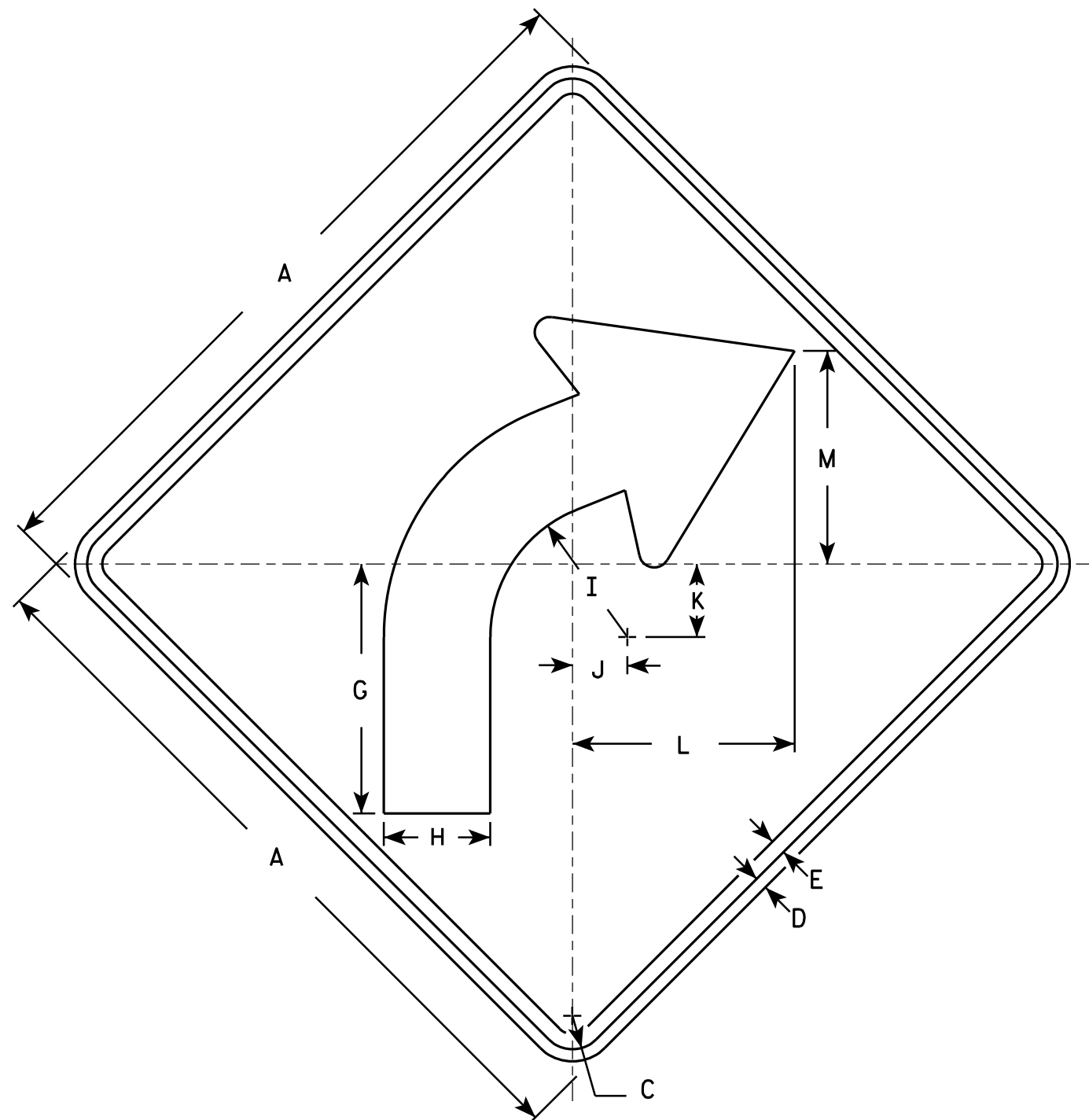
COUNTY:

SHEET NO:

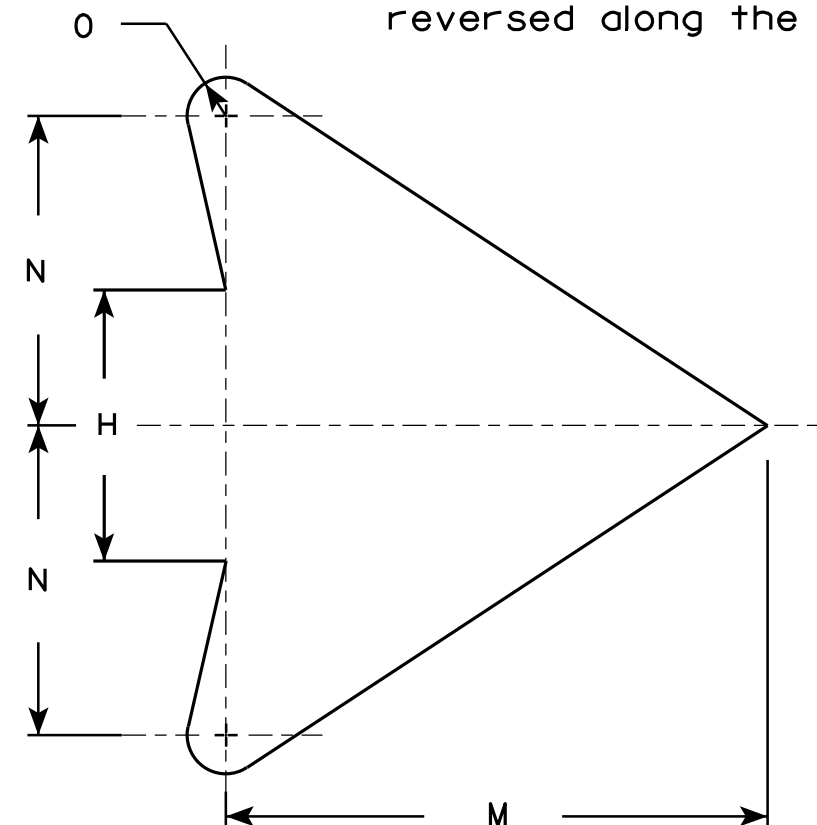
E

# 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. W1-2L is the same as W1-2R except the arrow is reversed along the vertical centerline.



W1-2R



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<br>sq. ft. |
|------|----|---|-------|-----|-----|---|--------|-------|-------|-------|-------|--------|--------|---|-----|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    | 24 |   | 1 1/8 | 3/8 | 1/2 |   | 8 1/4  | 3 1/2 | 4 1/2 | 1 3/4 | 2 3/8 | 7 1/4  | 7      | 4 | 1/2 |   |   |   |   |   |   |   |   |   |   |   | 4.0             |
| 2S   | 30 |   | 1 3/8 | 1/2 | 5/8 |   | 10 1/4 | 4 3/8 | 5 5/8 | 2 1/4 | 3     | 9 1/8  | 8 3/4  | 5 | 5/8 |   |   |   |   |   |   |   |   |   |   |   | 6.25            |
| 2M   | 36 |   | 1 5/8 | 5/8 | 3/4 |   | 12 3/8 | 5 1/4 | 6 3/4 | 2 5/8 | 3 1/2 | 10 7/8 | 10 1/2 | 6 | 3/4 |   |   |   |   |   |   |   |   |   |   |   | 9.0             |
| 3    | 36 |   | 1 5/8 | 5/8 | 3/4 |   | 12 3/8 | 5 1/4 | 6 3/4 | 2 5/8 | 3 1/2 | 10 7/8 | 10 1/2 | 6 | 3/4 |   |   |   |   |   |   |   |   |   |   |   | 9.0             |
| 4    | 36 |   | 1 5/8 | 5/8 | 3/4 |   | 12 3/8 | 5 1/4 | 6 3/4 | 2 5/8 | 3 1/2 | 10 7/8 | 10 1/2 | 6 | 3/4 |   |   |   |   |   |   |   |   |   |   |   | 9.0             |
| 5    | 48 |   | 2 1/4 | 3/4 | 1   |   | 16 1/2 | 7     | 9     | 3 1/2 | 4 5/8 | 14 1/2 | 14     | 8 | 1   |   |   |   |   |   |   |   |   |   |   |   | 16.0            |

## STANDARD SIGN W1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-2.10

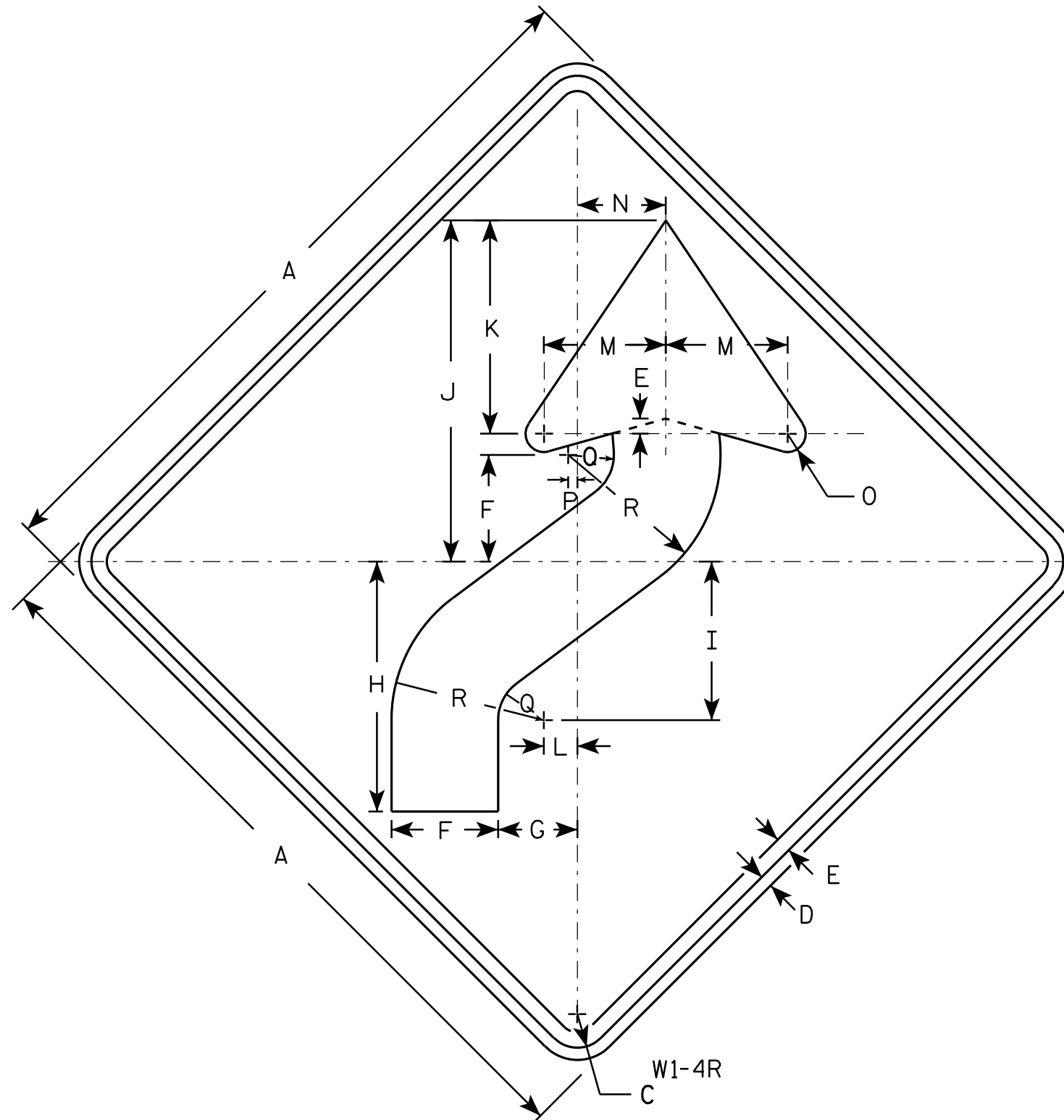
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



# NOTES

- Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:  
Background - Yellow  
Message - Black
- 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.
- W1-4L is the same as W1-4R except the arrow 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<br>sq. ft. |
|------|----|---|-------|-----|-----|-------|-------|--------|--------|--------|--------|-------|---|-------|-------|-----|-------|-------|---|---|---|---|---|---|---|---|-----------------|
| 1    | 24 |   | 1 1/8 | 3/8 | 1/2 | 3 1/2 | 2 5/8 | 8 1/4  | 5 1/4  | 11 1/4 | 7      | 1 1/8 | 4 | 3     | 5/8   | 1/4 | 1 1/2 | 5     |   |   |   |   |   |   |   |   | 4.0             |
| 2S   | 30 |   | 1 3/8 | 1/2 | 5/8 | 4 3/8 | 3 1/4 | 10 1/4 | 6 1/2  | 14     | 8 3/4  | 1 3/8 | 5 | 3 5/8 | 3/4   | 3/8 | 1 7/8 | 6 1/4 |   |   |   |   |   |   |   |   | 6.25            |
| 2M   | 36 |   | 1 5/8 | 5/8 | 3/4 | 5 1/4 | 4     | 12 3/8 | 7 7/8  | 16 7/8 | 10 1/2 | 1 5/8 | 6 | 4 1/2 | 1     | 1/2 | 2 1/4 | 7 1/2 |   |   |   |   |   |   |   |   | 9.0             |
| 3    | 36 |   | 1 5/8 | 5/8 | 3/4 | 5 1/4 | 4     | 12 3/8 | 7 7/8  | 16 7/8 | 10 1/2 | 1 5/8 | 6 | 4 1/2 | 1     | 1/2 | 2 1/4 | 7 1/2 |   |   |   |   |   |   |   |   | 9.0             |
| 4    | 36 |   | 1 5/8 | 5/8 | 3/4 | 5 1/4 | 4     | 12 3/8 | 7 7/8  | 16 7/8 | 10 1/2 | 1 5/8 | 6 | 4 1/2 | 1     | 1/2 | 2 1/4 | 7 1/2 |   |   |   |   |   |   |   |   | 9.0             |
| 5    | 48 |   | 2 1/4 | 3/4 | 1   | 7     | 5 1/4 | 16 1/2 | 10 1/2 | 22 1/2 | 14     | 2 1/4 | 8 | 6     | 1 1/4 | 5/8 | 3     | 10    |   |   |   |   |   |   |   |   | 16.0            |

## STANDARD SIGN W1 - 4

WISCONSIN DEPT OF TRANSPORTATION

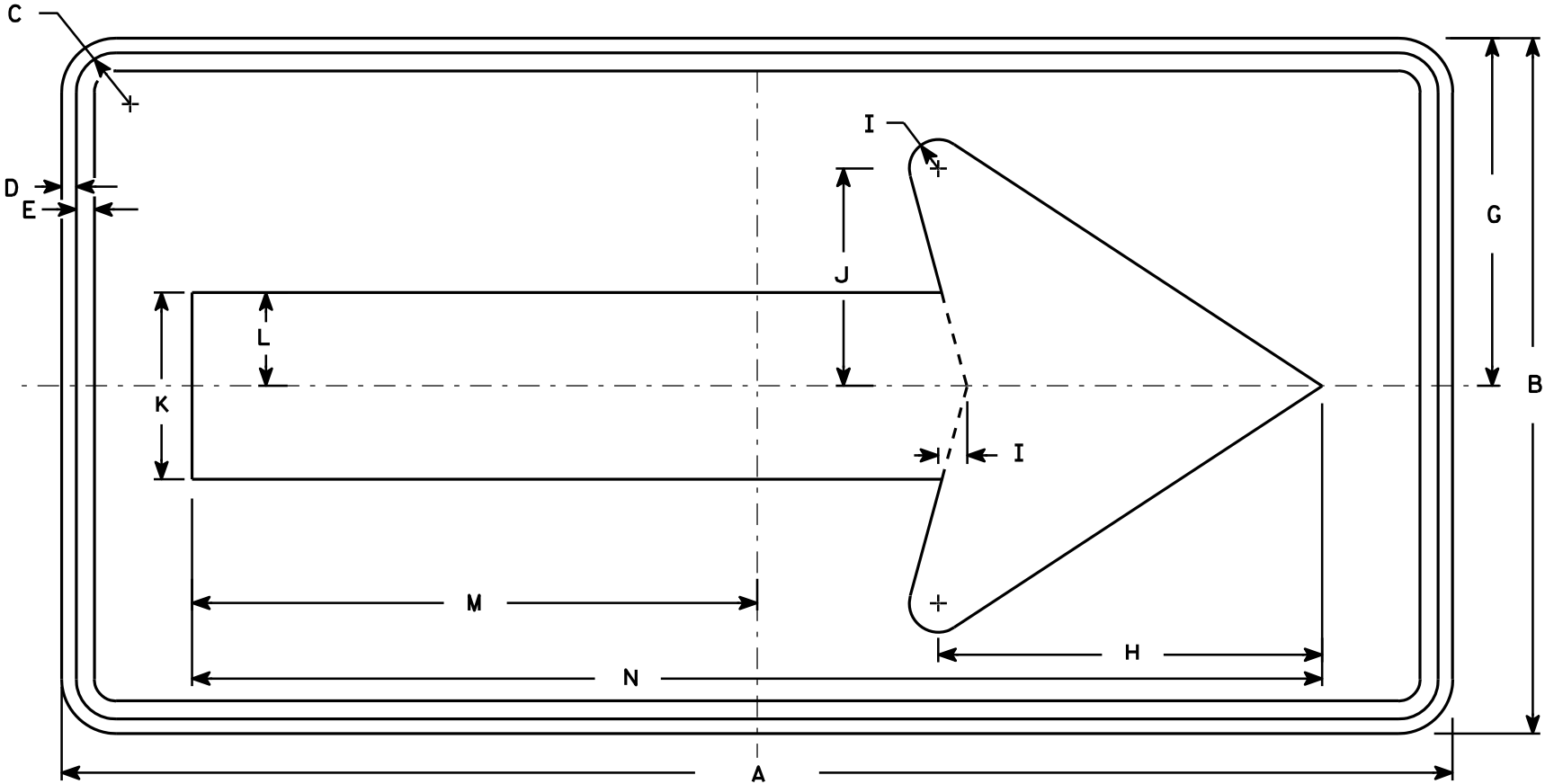
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 5/17/12 PLATE NO. W1-4.11

|             |      |         |           |   |
|-------------|------|---------|-----------|---|
| PROJECT NO: | HWY: | COUNTY: | SHEET NO: | E |
|-------------|------|---------|-----------|---|

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.



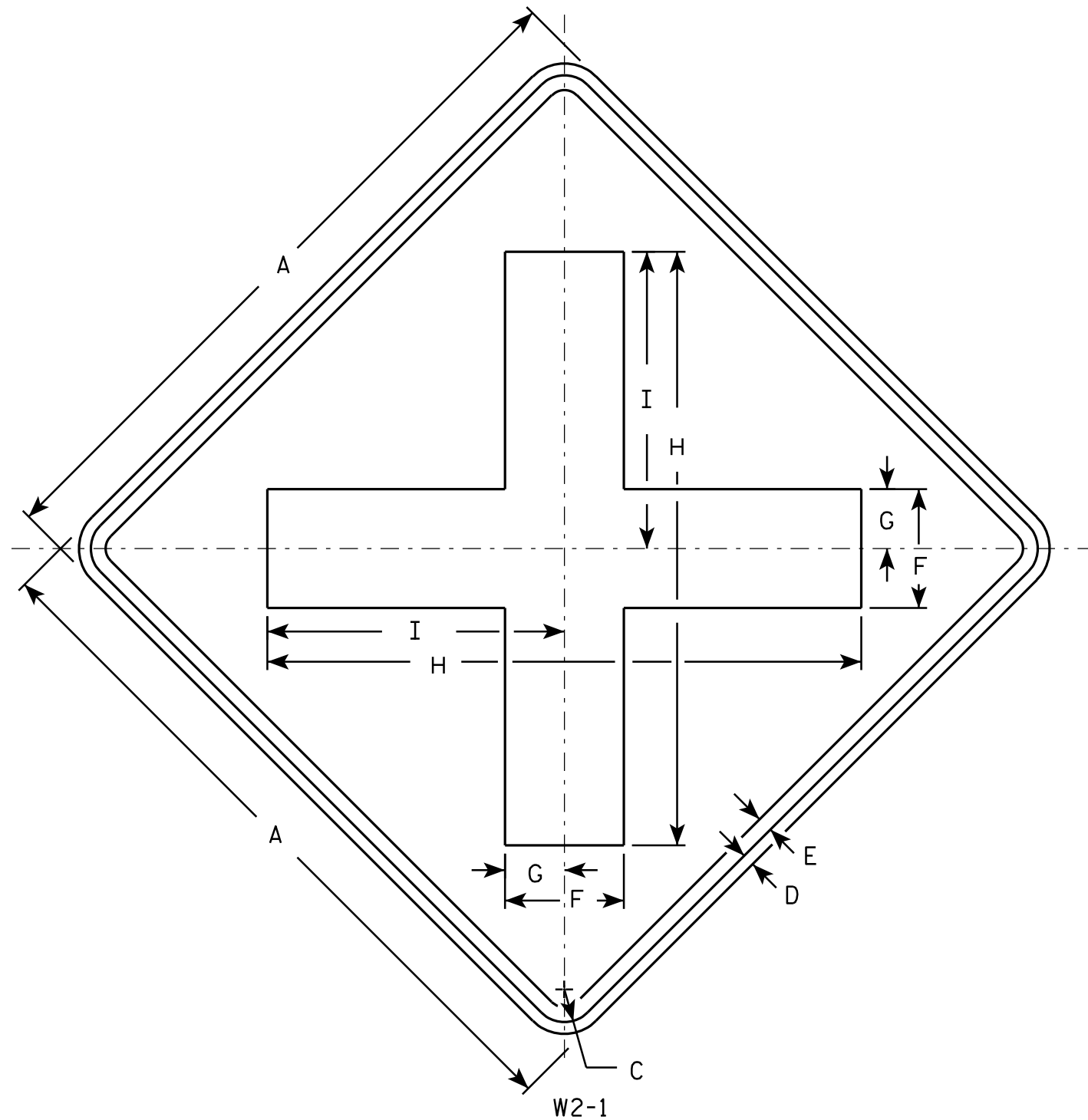
W1-6

| 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<br>sq. ft. |
|------|----|----|-------|-----|-----|---|----|--------|-------|-------|-------|-------|--------|--------|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    | 36 | 18 | 1 1/8 | 3/8 | 3/8 |   | 9  | 10     | 3/4   | 5 5/8 | 4 3/4 | 2 3/8 | 14 5/8 | 29 1/4 |   |   |   |   |   |   |   |   |   |   |   |   | 4.5             |
| 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    | 96 | 48 | 2 1/4 | 3/4 | 1   |   | 24 | 26 1/2 | 2     | 15    | 13    | 6 1/2 | 39     | 78     |   |   |   |   |   |   |   |   |   |   |   |   | 32.0            |

STANDARD SIGN  
W1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer  
DATE 6/7/10 PLATE NO. W1-6.8



# 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.

| 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<br>sq. ft. |
|------|----|---|-------|-----|-----|---|-------|----|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    | 24 |   | 1 1/8 | 3/8 | 1/2 | 4 | 2     | 20 | 10     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4.0             |
| 2S   | 30 |   | 1 3/8 | 1/2 | 5/8 | 5 | 2 1/2 | 25 | 12 1/2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 6.25            |
| 2M   | 30 |   | 1 3/8 | 1/2 | 5/8 | 5 | 2 1/2 | 25 | 12 1/2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 6.25            |
| 3    | 36 |   | 1 5/8 | 5/8 | 3/4 | 6 | 3     | 30 | 15     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 9.0             |
| 4    | 48 |   | 2 1/4 | 3/4 | 1   | 8 | 4     | 40 | 20     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 16.0            |
| 5    |    |   |       |     |     |   |       |    |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |

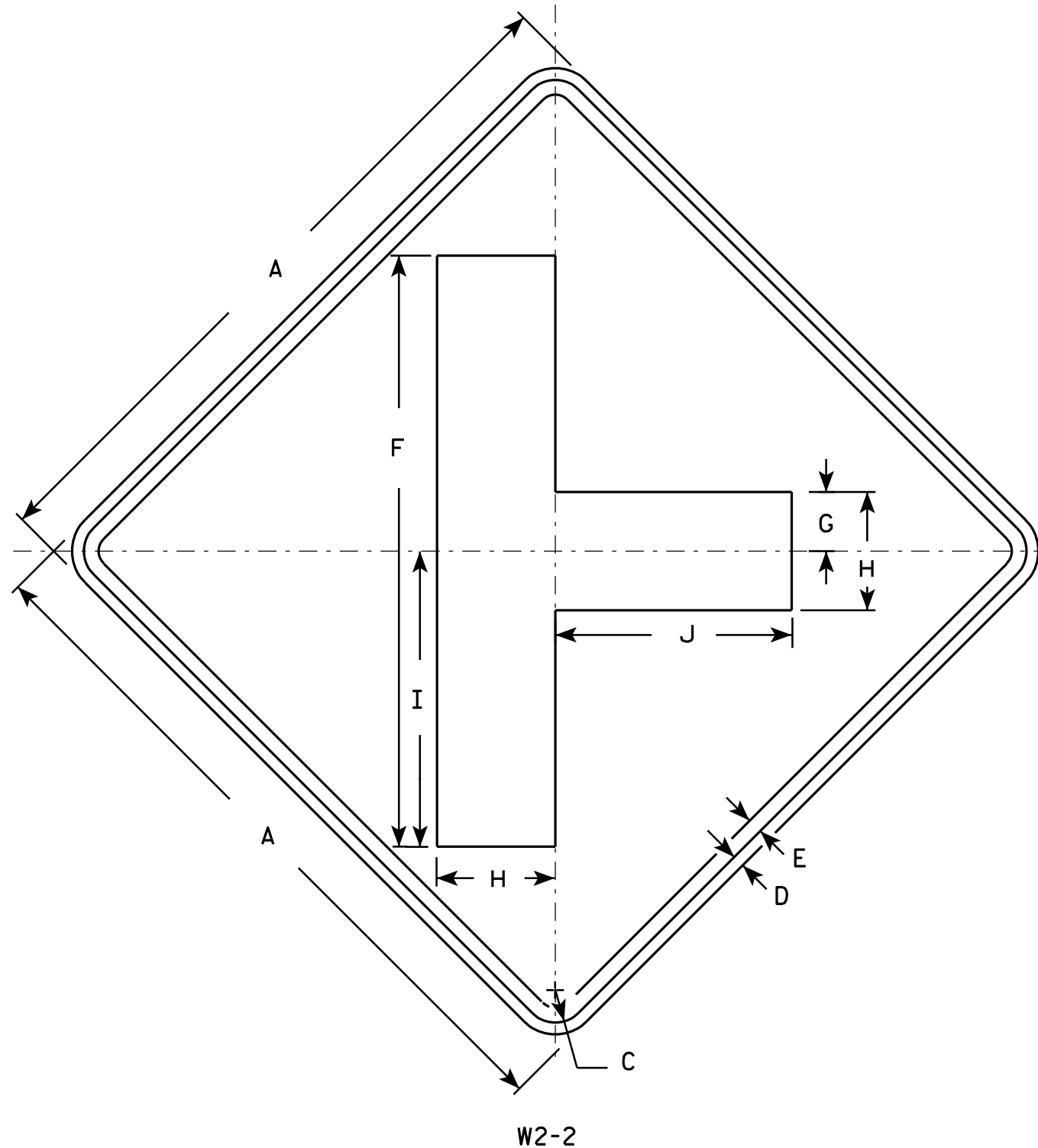
## STANDARD SIGN W2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W2-1.9

PROJECT NO: HWY: COUNTY: SHEET NO: E



# 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.

W2-2

| 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<br>sq. ft. |
|------|----|---|-------|-----|-----|----|-------|---|--------|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    | 24 |   | 1 1/8 | 3/8 | 1/2 | 20 | 2     | 4 | 10     | 8  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4.0             |
| 2S   | 30 |   | 1 3/8 | 1/2 | 5/8 | 25 | 2 1/2 | 5 | 12 1/2 | 10 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 6.25            |
| 2M   | 30 |   | 1 3/8 | 1/2 | 5/8 | 25 | 2 1/2 | 5 | 12 1/2 | 10 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 6.25            |
| 3    | 36 |   | 1 5/8 | 5/8 | 3/4 | 30 | 3     | 6 | 15     | 12 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 9.0             |
| 4    | 48 |   | 2 1/4 | 3/4 | 1   | 40 | 4     | 8 | 20     | 16 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 16.0            |
| 5    |    |   |       |     |     |    |       |   |        |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |

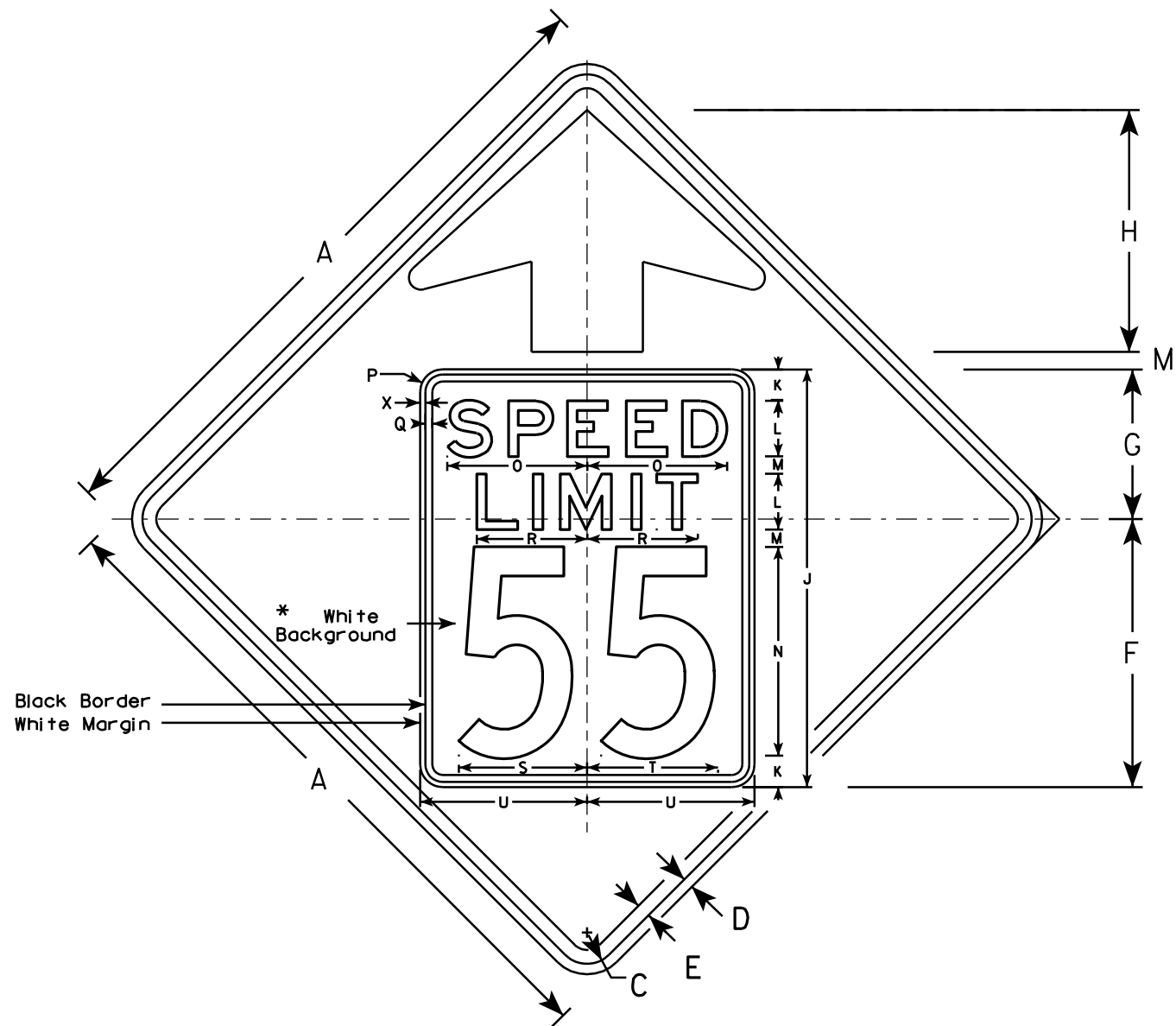
## STANDARD SIGN W2-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W2-2.6

PROJECT NO: HWY: COUNTY: SHEET NO: E

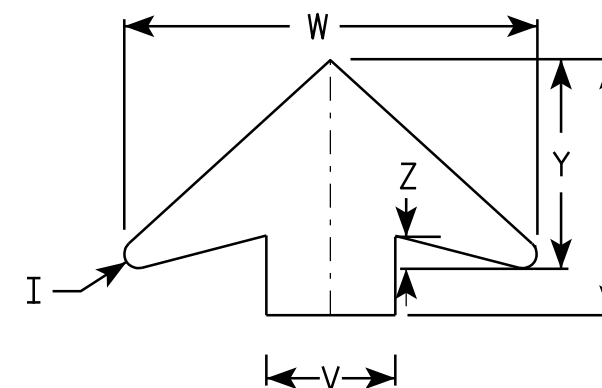


W3-5

### 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. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

\*Speed Limit Sign shall have a White Background



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<br>sq. ft. |
|------|----|---|-------|-----|-----|--------|--------|--------|-----|----|-------|---|-------|----|-------|-------|-----|-------|-------|-------|----|---|--------|-----|-------|-------|-----------------|
| 1    |    |   |       |     |     |        |        |        |     |    |       |   |       |    |       |       |     |       |       |       |    |   |        |     |       |       |                 |
| 2S   | 36 |   | 1 5⁄8 | 5⁄8 | 3⁄4 | 14 1⁄2 | 9 1⁄2  | 11 1⁄2 | 5⁄8 | 24 | 2     | 3 | 1     | 12 | 7 1⁄8 | 1 1⁄2 | 3⁄8 | 5 3⁄4 | 7 1⁄4 | 7 1⁄8 | 9  | 6 | 19 1⁄4 | 3⁄8 | 9 3⁄4 | 1 5⁄8 | 9.0             |
| 2M   | 36 |   | 1 5⁄8 | 5⁄8 | 3⁄4 | 14 1⁄2 | 9 1⁄2  | 11 1⁄2 | 5⁄8 | 24 | 2     | 3 | 1     | 12 | 7 1⁄8 | 1 1⁄2 | 3⁄8 | 5 3⁄4 | 7 1⁄4 | 7 1⁄8 | 9  | 6 | 19 1⁄4 | 3⁄8 | 9 3⁄4 | 1 5⁄8 | 9.0             |
| 3    | 36 |   | 1 5⁄8 | 5⁄8 | 3⁄4 | 14 1⁄2 | 9 1⁄2  | 11 1⁄2 | 5⁄8 | 24 | 2     | 3 | 1     | 12 | 7 1⁄8 | 1 1⁄2 | 3⁄8 | 5 3⁄4 | 7 1⁄4 | 7 1⁄8 | 9  | 6 | 19 1⁄4 | 3⁄8 | 9 3⁄4 | 1 5⁄8 | 9.0             |
| 4    | 48 |   | 2 1⁄4 | 3⁄4 | 1   | 19 1⁄4 | 10 3⁄4 | 17 3⁄8 | 7⁄8 | 30 | 2 1⁄4 | 4 | 1 1⁄4 | 15 | 10    | 1 5⁄8 | 1⁄2 | 8     | 9 1⁄4 | 9 3⁄8 | 12 | 8 | 25 5⁄8 | 3⁄8 | 13    | 2     | 16.0            |
| 5    | 48 |   | 2 1⁄4 | 3⁄4 | 1   | 19 1⁄4 | 10 3⁄4 | 17 3⁄8 | 7⁄8 | 30 | 2 1⁄4 | 4 | 1 1⁄4 | 15 | 10    | 1 5⁄8 | 1⁄2 | 8     | 9 1⁄4 | 9 3⁄8 | 12 | 8 | 25 5⁄8 | 3⁄8 | 13    | 2     | 16.0            |

### STANDARD SIGN

W3-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

*Matthew R. Rauch*  
for State Traffic Engineer

DATE 5/29/12

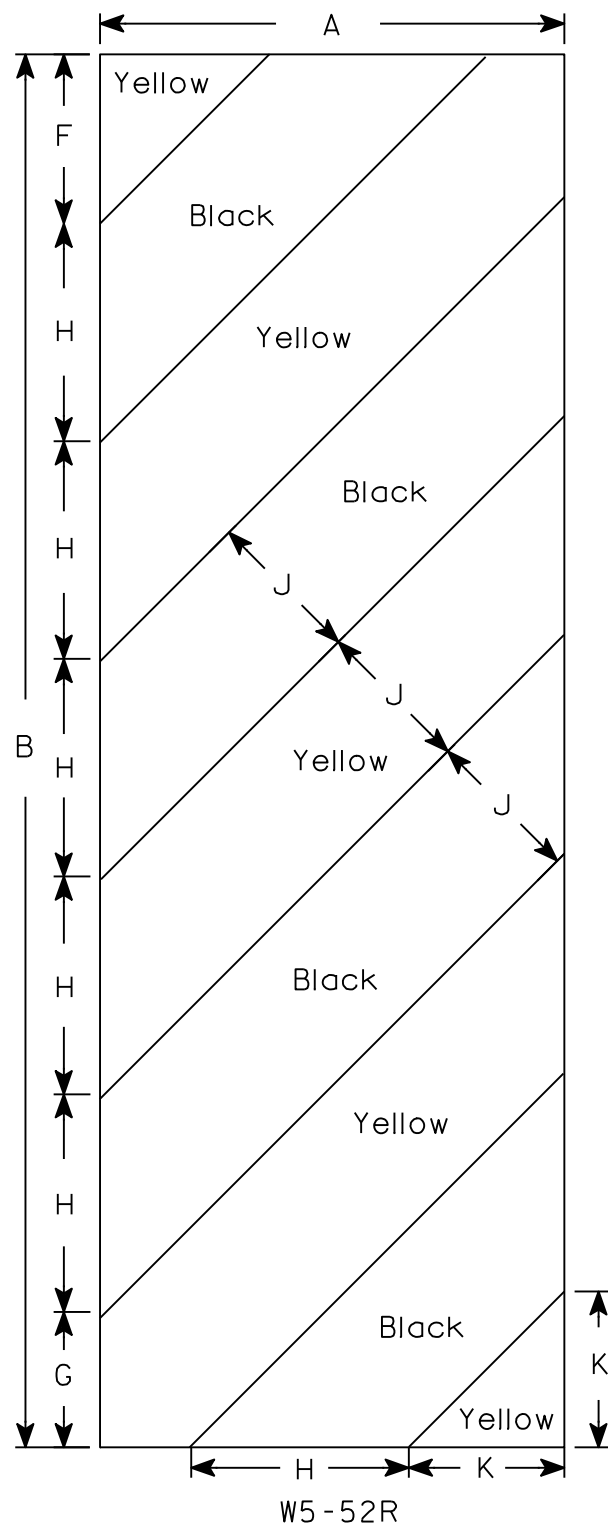
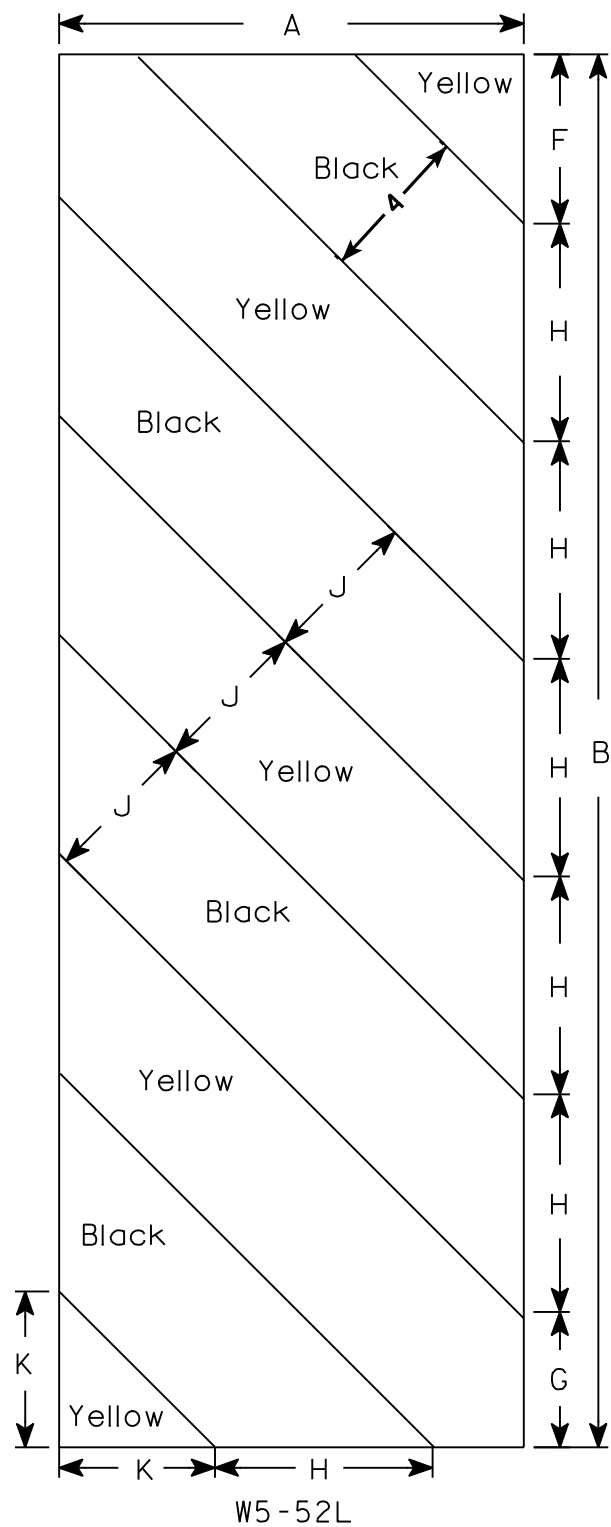
PLATE NO. W3-5.5

PROJECT NO:

SHEET NO:

E





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.

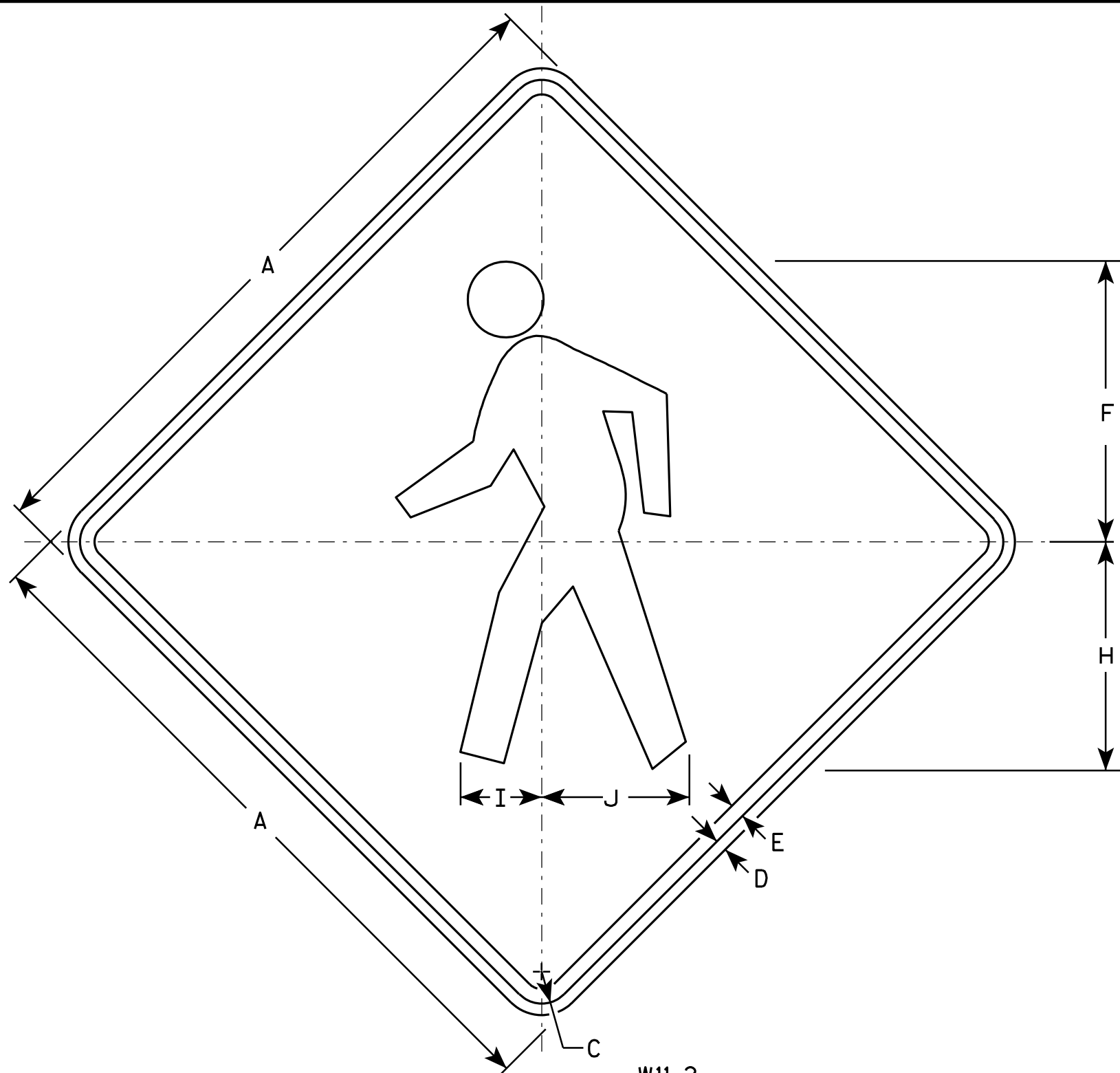
| SIZE | A  | B  | C | D | E | F     | G     | H     | I   | J | K      | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|----|---|---|---|-------|-------|-------|-----|---|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 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 5⁄16 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 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



### 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.

W11-2

| 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<br>sq. ft. |
|------|----|---|-------|-----|-----|--------|---|--------|-------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    | 24 |   | 1 1/8 | 3/8 | 1/2 | 9 3/4  |   | 7 7/8  | 2 7/8 | 5 1/8  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4.0             |
| 2S   | 30 |   | 1 3/8 | 1/2 | 5/8 | 12 1/8 |   | 9 7/8  | 3 1/2 | 6 3/8  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 6.25            |
| 2M   | 36 |   | 1 5/8 | 5/8 | 3/4 | 14 1/2 |   | 11 7/8 | 4 1/4 | 7 5/8  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 9.0             |
| 3    | 36 |   | 1 5/8 | 5/8 | 3/4 | 14 1/2 |   | 11 7/8 | 4 1/4 | 7 5/8  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 9.0             |
| 4    | 48 |   | 2 1/4 | 3/4 | 1   | 19 3/8 |   | 15 3/4 | 5 5/8 | 10 1/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 16.0            |
| 5    |    |   |       |     |     |        |   |        |       |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |

## STANDARD SIGN W11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W11-2.7

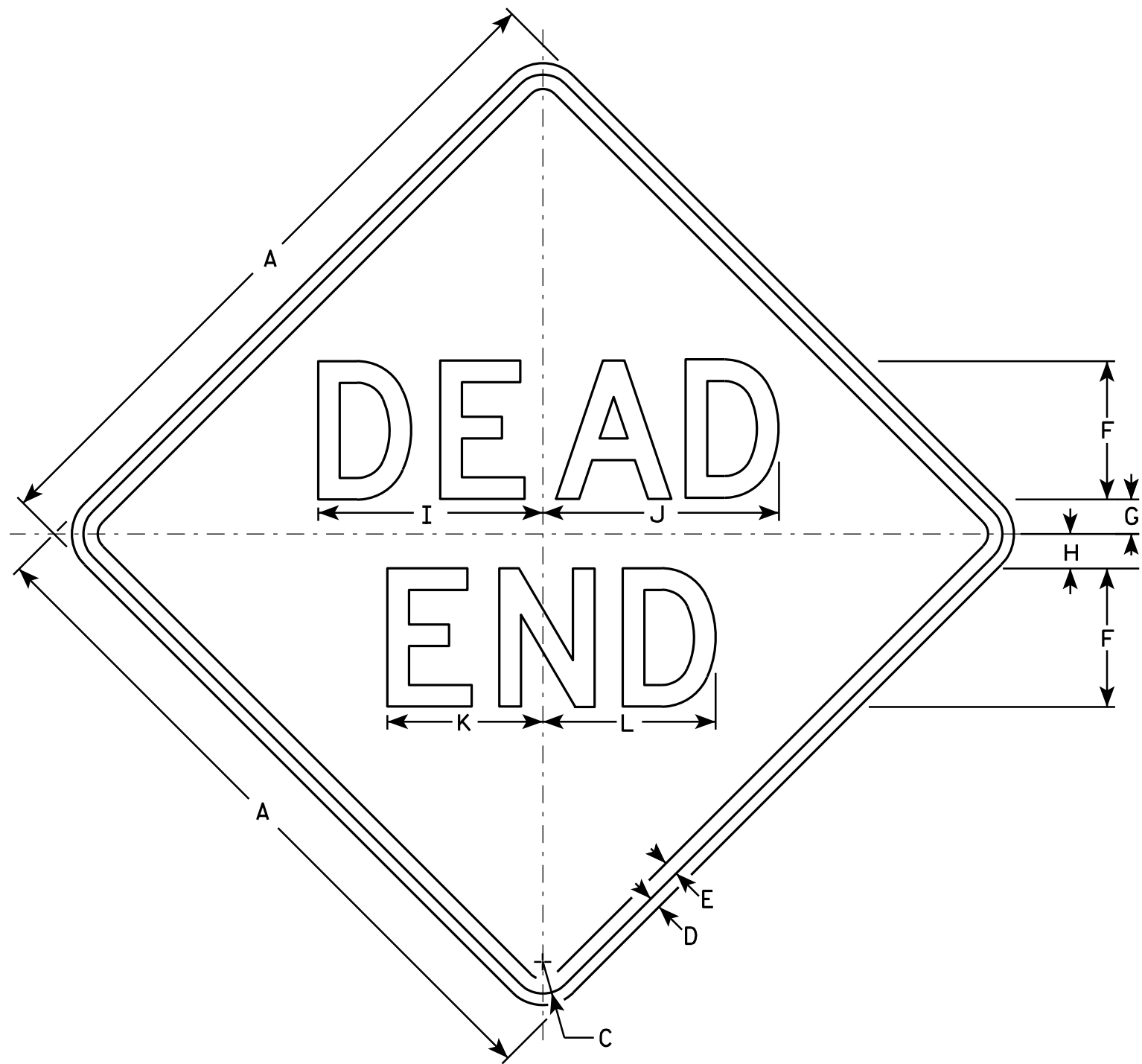
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



W14-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Yellow  
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,<br>sq. ft. |
|------|----|---|-------|-----|-----|---|-------|-------|--------|--------|-------|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|------------------|
| 1    | 24 |   | 1 1/8 | 3/8 | 1/2 | 5 | 1     | 2     | 8 1/4  | 8 5/8  | 5 5/8 | 6 1/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4.0              |
| 2S   | 30 |   | 1 3/8 | 1/2 | 5/8 | 6 | 1 1/2 | 2 1/2 | 9 3/4  | 10 1/4 | 6 3/4 | 7 1/2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 6.25             |
| 2M   | 30 |   | 1 3/8 | 1/2 | 5/8 | 6 | 1 1/2 | 2 1/2 | 9 3/4  | 10 1/4 | 6 3/4 | 7 1/2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 6.25             |
| 3    | 36 |   | 1 5/8 | 5/8 | 3/4 | 7 | 2     | 3     | 11 3/8 | 12     | 7 7/8 | 8 3/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 9.0              |
| 4    |    |   |       |     |     |   |       |       |        |        |       |       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                  |
| 5    |    |   |       |     |     |   |       |       |        |        |       |       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                  |

STANDARD SIGN  
W14-1

WISCONSIN DEPT OF TRANSPORTATION

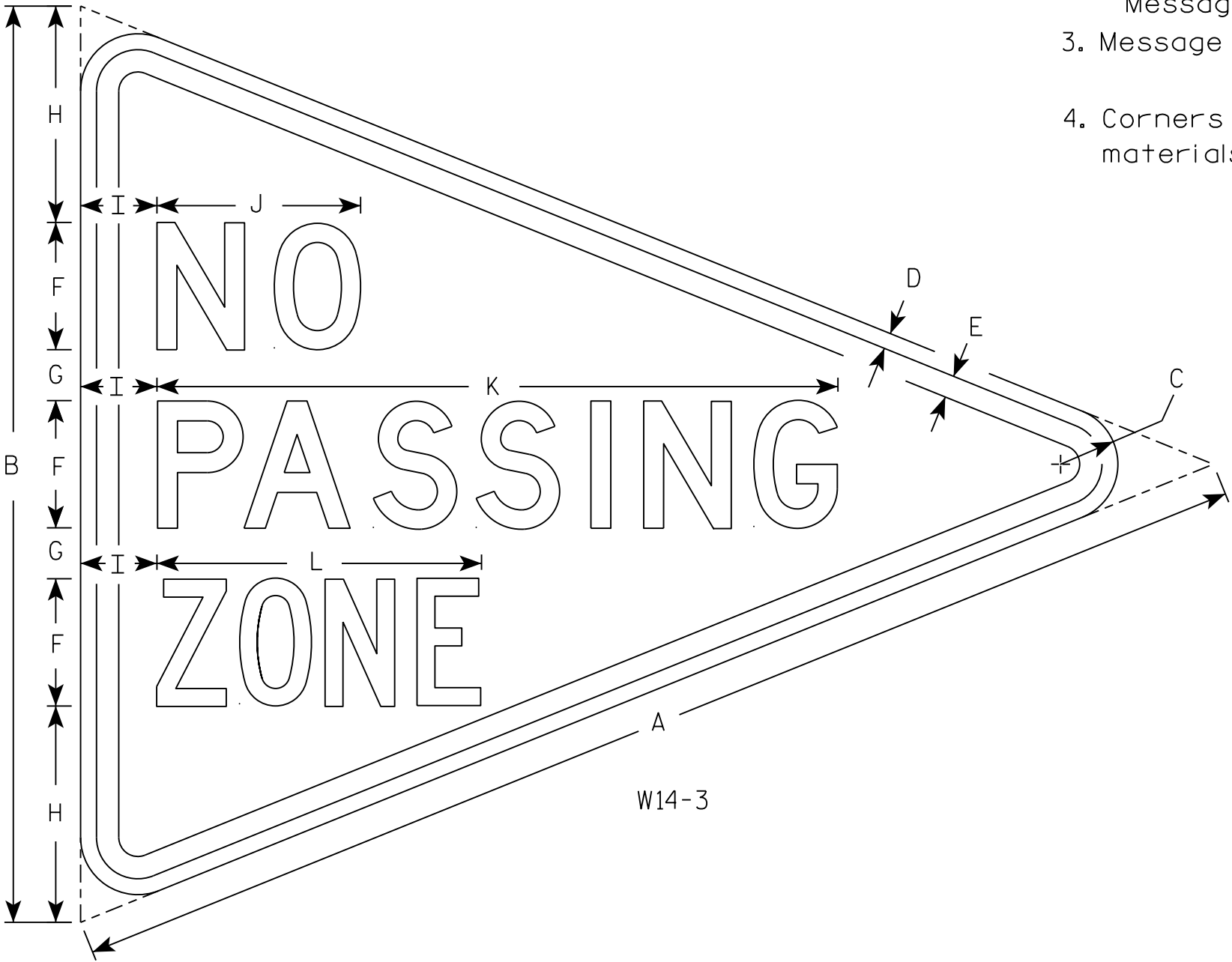
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W14-1.7

PROJECT NO: HWY: COUNTY: SHEET NO: E

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:  
Background - Yellow  
Message - Black
- 3. Message Series - Lines 1 and 2 are Series D.  
Line 3 is series C.
- 4. Corners and borders shall be rounded on all base materials for this 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<br>sq. ft. |
|------|----|----|-------|-----|-----|---|---|-------|---|---|--------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    |    |    |       |     |     |   |   |       |   |   |        |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 2S   | 48 | 36 | 2 1/4 | 5/8 | 7/8 | 5 | 2 | 8 1/2 | 3 | 8 | 26 3/4 | 12 3/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 5.56            |
| 2M   |    |    |       |     |     |   |   |       |   |   |        |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 3    |    |    |       |     |     |   |   |       |   |   |        |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 4    |    |    |       |     |     |   |   |       |   |   |        |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 5    |    |    |       |     |     |   |   |       |   |   |        |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |

STANDARD SIGN  
W14-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

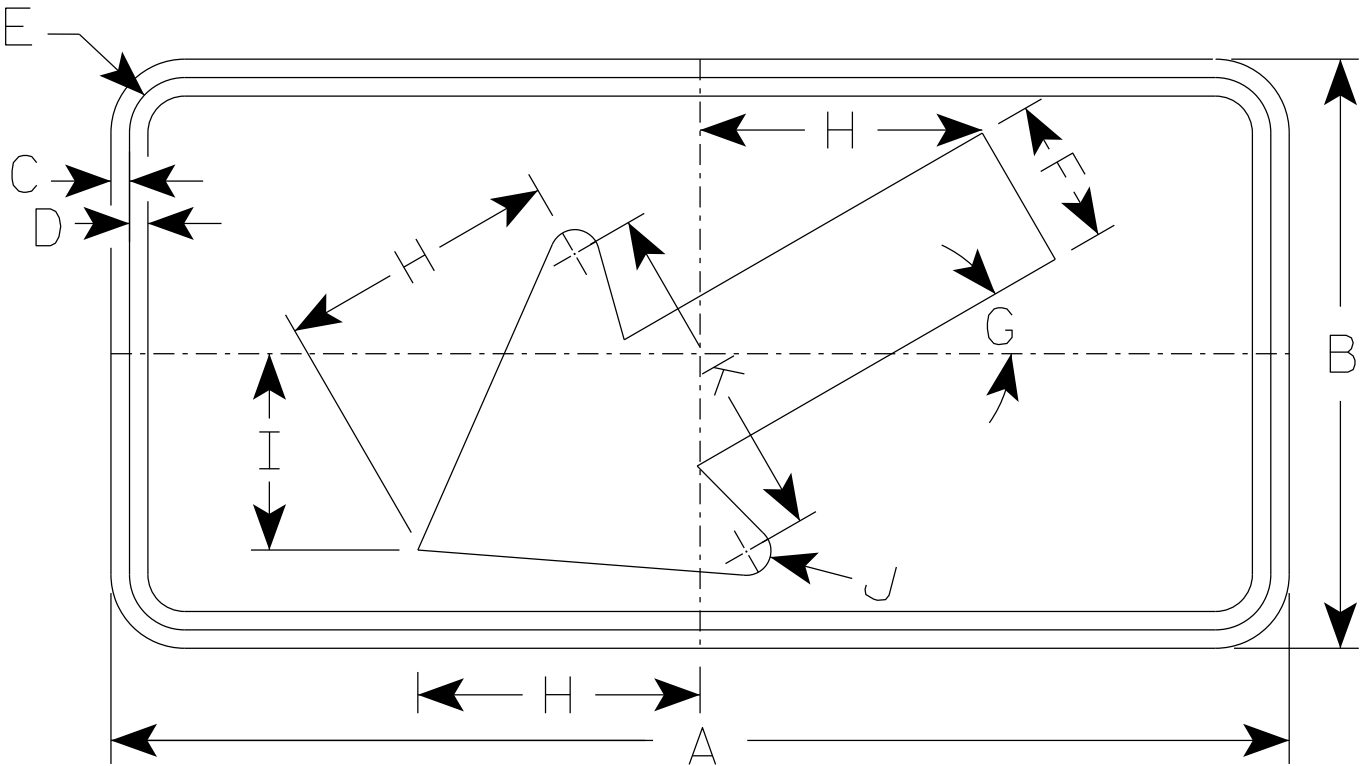
DATE 3/21/17 PLATE NO. W14-3.10

NOTES

1. Sign is Type II - Type F Reflective
2. Color:

Background - Yellow

Message - Black
3. W16-7R is the same as W16-L  
except the arrow is reversed along  
the vertical centerline.



W16 - 7L

| 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<br>sq. ft. |
|------|----|----|-----|-----|-------|-------|-----|--------|---|-----|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    |    |    |     |     |       |       |     |        |   |     |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 2S   | 24 | 12 | 3⁄8 | 3⁄8 | 1 1⁄8 | 3     | 30° | 5 3⁄4  | 4 | 1⁄2 | 7      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2.0             |
| 2M   | 30 | 18 | 3⁄8 | 1⁄2 | 1 1⁄8 | 4 1⁄2 | 30° | 8 1⁄2  | 6 | 5⁄8 | 10 1⁄4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3.75            |
| 3    | 30 | 18 | 3⁄8 | 1⁄2 | 1 1⁄8 | 4 1⁄2 | 30° | 8 1⁄2  | 6 | 5⁄8 | 10 1⁄4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3.75            |
| 4    | 48 | 24 | 1⁄2 | 5⁄8 | 1 3⁄8 | 6     | 30° | 11 1⁄2 | 8 | 1   | 14     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 8.0             |
| 5    |    |    |     |     |       |       |     |        |   |     |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

STANDARD SIGN

W16 - 7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

*Matthew R. Rauch*

For State Traffic Engineer

DATE 7/11/18

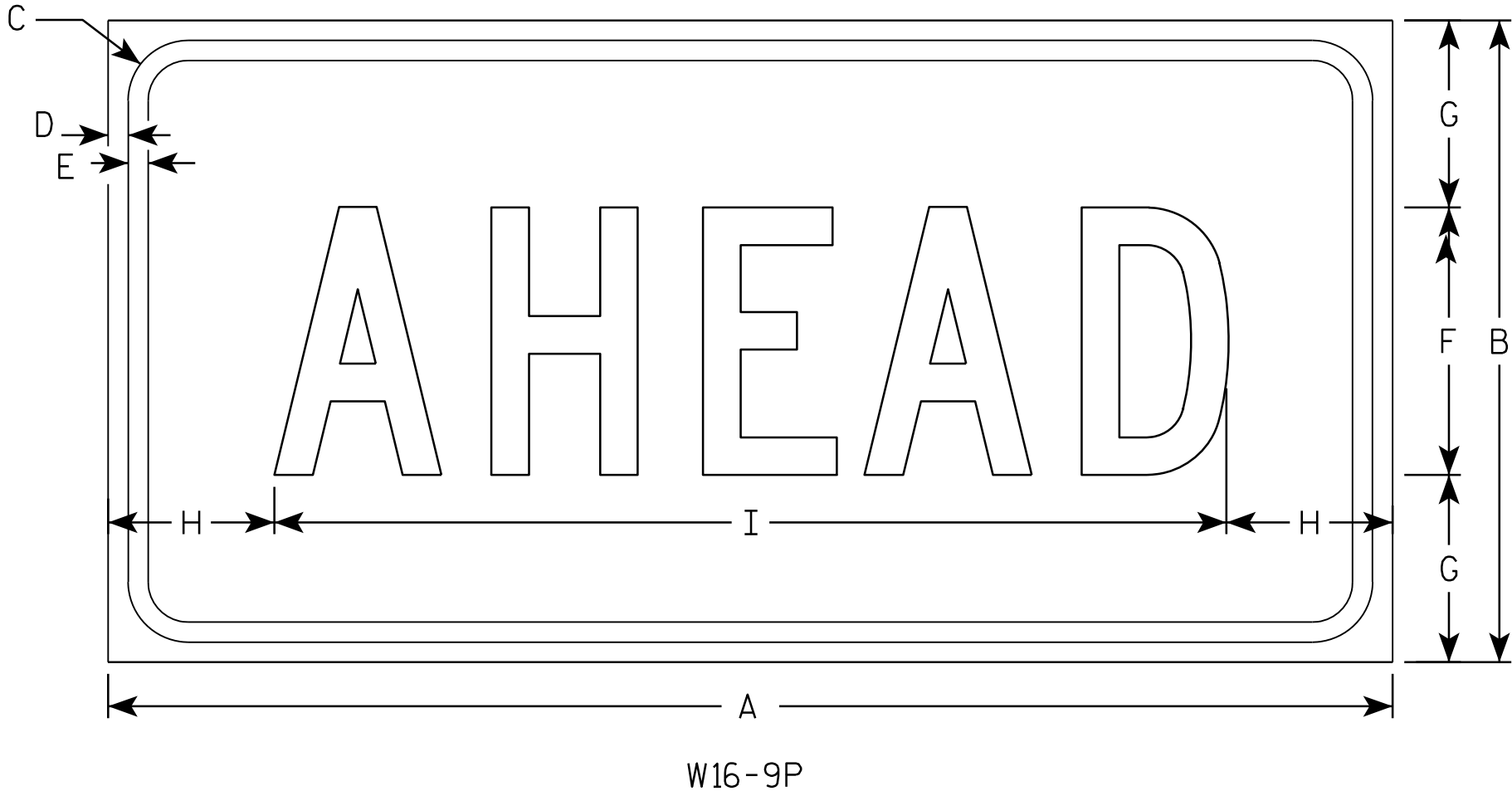
PLATE NO. W16-7.6

7

7

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. 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<br>sq. ft. |
|------|----|----|-------|-----|-----|----|-------|-------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    |    |    |       |     |     |    |       |       |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 2S   | 24 | 12 | 1 1/8 | 3/8 | 3/8 | 5  | 3 1/2 | 3 1/8 | 17 3/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2.0             |
| 2M   | 30 | 18 | 1 1/8 | 3/8 | 1/2 | 7  | 5 1/2 | 2 3/4 | 24 1/2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3.75            |
| 3    | 30 | 18 | 1 1/8 | 3/8 | 1/2 | 7  | 3 1/2 | 2 3/4 | 24 1/2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3.75            |
| 4    | 48 | 24 | 1 3/8 | 1/2 | 5/8 | 10 | 7     | 6 1/8 | 35 3/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 8.0             |
| 5    |    |    |       |     |     |    |       |       |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |

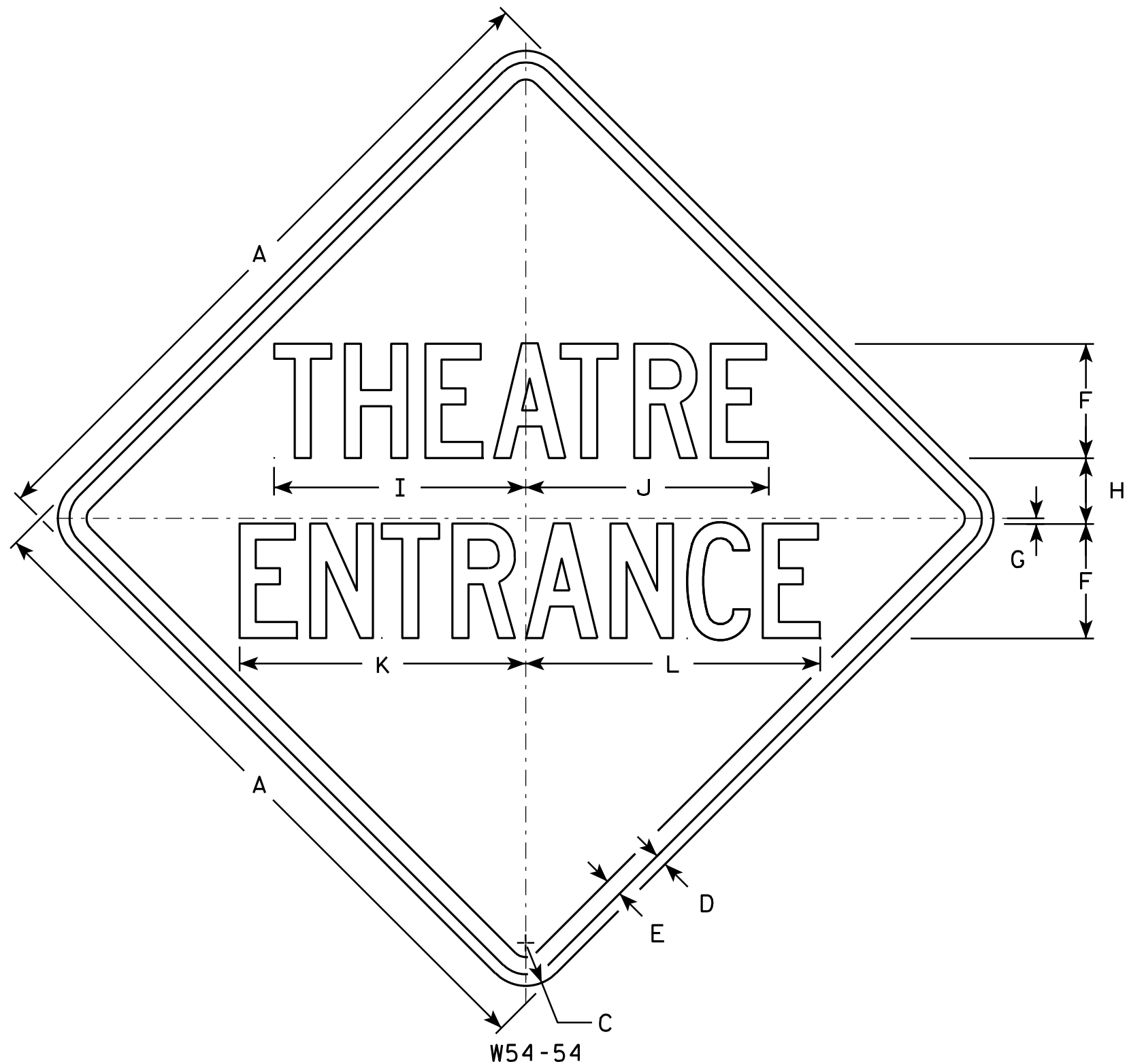
STANDARD SIGN

W16 - 9P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 12/28/10 PLATE NO. W16-9P.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 - Yellow  
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<br>sq. ft. |
|------|----|---|-------|-----|-----|---|-----|-------|--------|--------|--------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    |    |   |       |     |     |   |     |       |        |        |        |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 2S   | 30 |   | 1 3⁄8 | 1⁄2 | 5⁄8 | 5 | 1⁄4 | 2 7⁄8 | 11     | 10 5⁄8 | 12 1⁄2 | 12 7⁄8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 6.25            |
| 2M   | 36 |   | 1 5⁄8 | 5⁄8 | 3⁄4 | 6 | 3⁄8 | 3 3⁄8 | 13 1⁄8 | 12 3⁄4 | 15     | 15 3⁄8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 9.00            |
| 3    | 36 |   | 1 5⁄8 | 5⁄8 | 3⁄4 | 6 | 3⁄8 | 3 3⁄8 | 13 1⁄8 | 12 3⁄4 | 15     | 15 3⁄8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 9.00            |
| 4    |    |   |       |     |     |   |     |       |        |        |        |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 5    |    |   |       |     |     |   |     |       |        |        |        |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |

#### STANDARD SIGN

W54-54

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 3/13/13 PLATE NO. W54-54.6

PROJECT NO:

HWY:

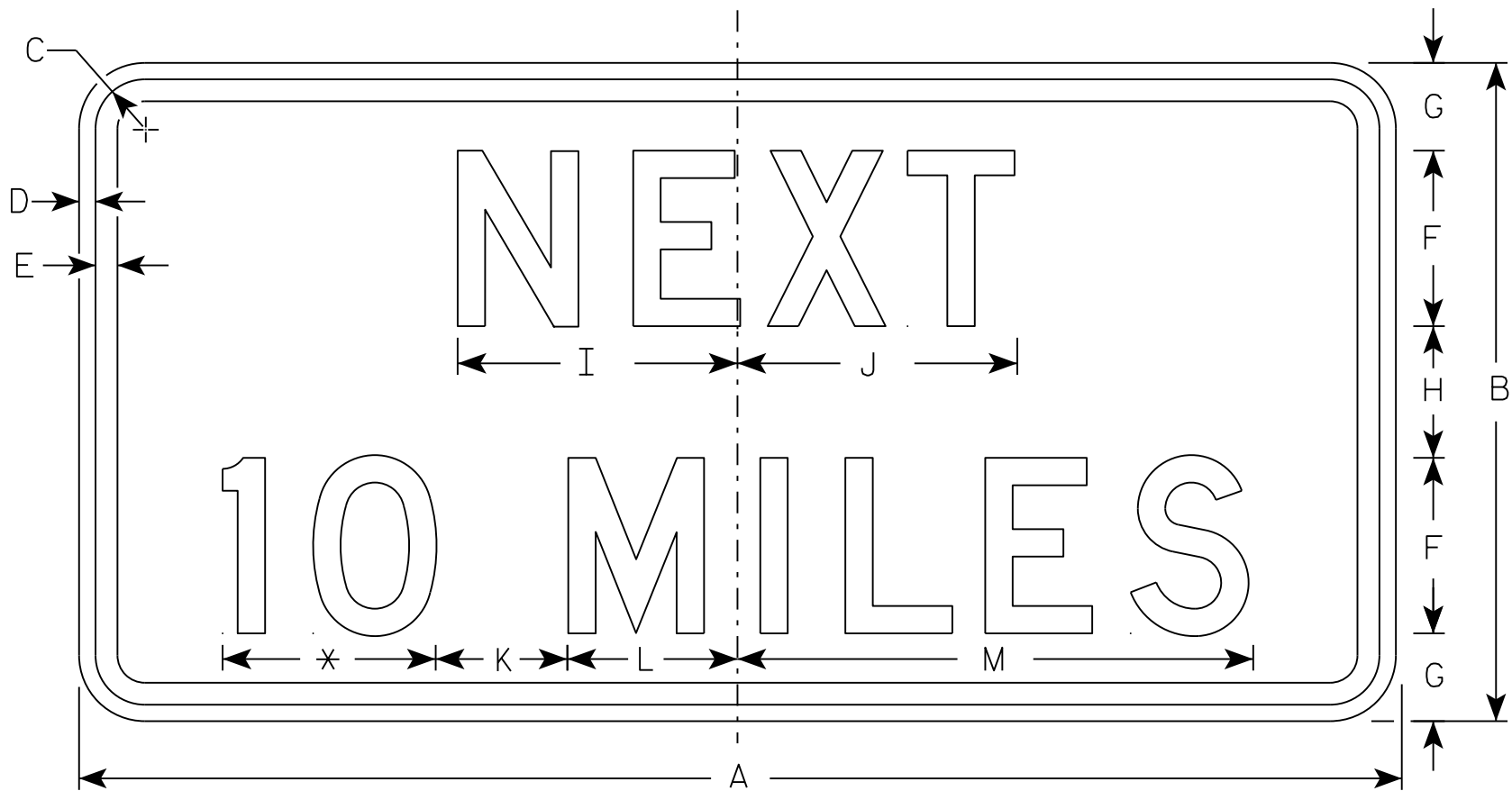
COUNTY:

SHEET NO:

E

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:  
Background - Yellow  
Message - Black
- 3. Message Series - D
- 4. Corners and borders shall be rounded.
- 5. Round distance to nearest whole Mile and substitute appropriate numerals and optically adjust spacing to achieve proper balance.



W57-51

\* 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<br>sq. ft. |
|------|----|----|-------|-----|-----|---|-------|-------|-------|--------|---|-------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    | 24 | 12 | 1 1/8 | 3/8 | 3/8 | 3 | 1 3/4 | 2 1/2 | 5     | 5 1/8  | 3 | 2 3/4 | 9 5/8  |   |   |   |   |   |   |   |   |   |   |   |   |   | 2.0             |
| 2S   | 30 | 15 | 1 1/8 | 3/8 | 1/2 | 4 | 2     | 3     | 6 3/8 | 6 3/8  | 3 | 3 7/8 | 11 3/4 |   |   |   |   |   |   |   |   |   |   |   |   |   | 3.13            |
| 2M   | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 5 | 2 5/8 | 2 3/4 | 7 7/8 | 8      | 5 | 4 1/8 | 15 3/8 |   |   |   |   |   |   |   |   |   |   |   |   |   | 4.5             |
| 3    | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 5 | 2 5/8 | 2 3/4 | 7 7/8 | 8      | 5 | 4 1/8 | 15 3/8 |   |   |   |   |   |   |   |   |   |   |   |   |   | 4.5             |
| 4    | 48 | 24 | 1 3/8 | 1/2 | 5/8 | 6 | 3 1/2 | 5     | 10    | 10 1/8 | 6 | 5 5/8 | 19     |   |   |   |   |   |   |   |   |   |   |   |   |   | 8.0             |
| 5    | 48 | 24 | 1 3/8 | 1/2 | 5/8 | 6 | 3 1/2 | 5     | 10    | 10 1/8 | 6 | 5 5/8 | 19     |   |   |   |   |   |   |   |   |   |   |   |   |   | 8.0             |

STANDARD SIGN  
W57-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 3/14/17 PLATE NO. W57-51.10

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



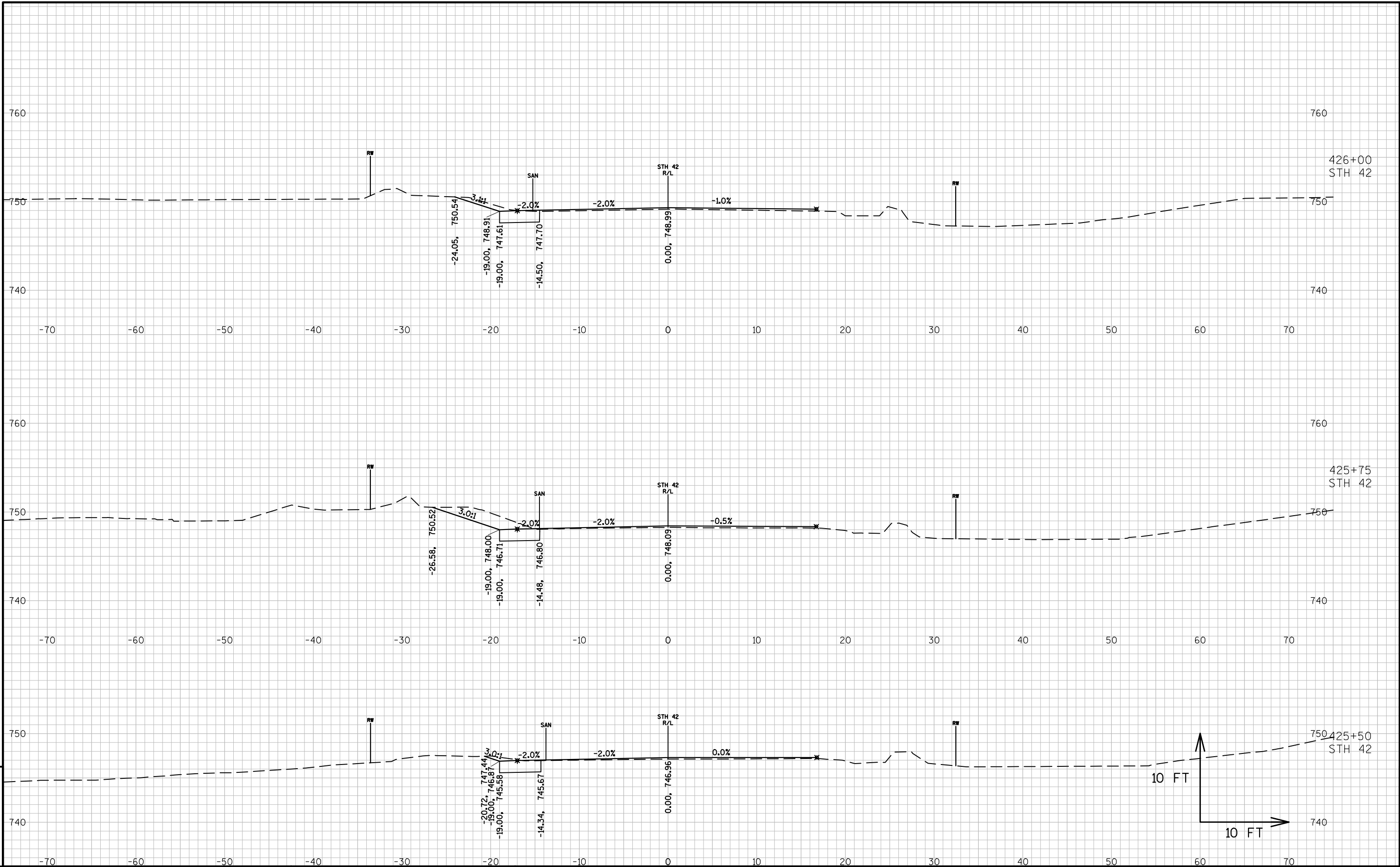
STH 42 - ORCHARD RD SHOULDER WIDENING

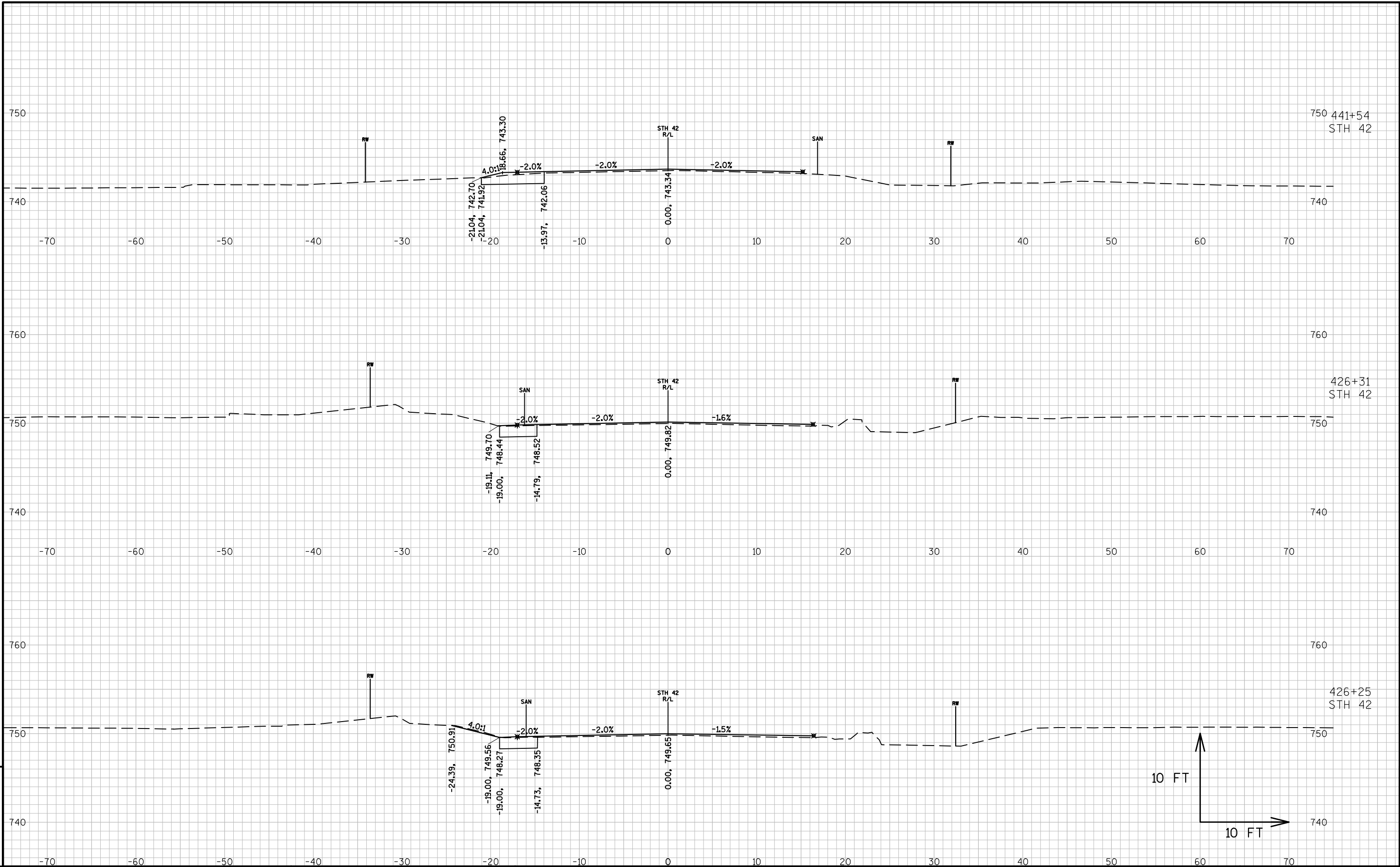
| STATION   | Real Station | Distance | AREA (SF)         |          |          |      |           |          | Incremental Vol (CY) (Unadjusted) |     |          |          |      |           | Cumulative Vol (CY) |     |             |              |                        |               |                      |                 |                 |               |
|-----------|--------------|----------|-------------------|----------|----------|------|-----------|----------|-----------------------------------|-----|----------|----------|------|-----------|---------------------|-----|-------------|--------------|------------------------|---------------|----------------------|-----------------|-----------------|---------------|
|           |              |          | Salvaged/Unusable |          |          |      |           |          | Salvaged/Unusable                 |     |          |          |      |           | Expanded            |     | Expanded    | Expanded     | Expanded               | Reduced Marsh |                      | Reduced EBS     |                 |               |
|           |              |          | Cut               | Pavement | Material | Fill | Marsh Exc | Rock Exc | EBS                               | Cut | Pavement | Material | Fill | Marsh Exc | Rock Exc            | EBS | Cut<br>1.00 | Fill<br>1.25 | Marsh Backfill<br>1.50 | Rock<br>1.10  | EBS Backfill<br>1.30 | in Fill<br>0.60 | in Fill<br>0.80 | Mass Ordinate |
| 425+49.59 | 42549.59     | 0.00     | 0.00              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0                                 | 0   | 0        | 0        | 0    | 0         | 0                   | 0   | 0           | 0            | 0                      | 0             | 0                    | 0               | 0               |               |
| 425+50    | 42550.00     | 0.41     | 0.00              | 0.00     | 0.00     | 0.00 | 0.00      | 7.11     | 0.00                              | 0   | 0        | 0        | 0    | 0         | 0                   | 0   | 0           | 0            | 0                      | 0             | 0                    | 0               | 0               |               |
| 425+75    | 42575.00     | 25.00    | 0.00              | 0.00     | 0.00     | 0.00 | 0.00      | 16.94    | 0.00                              | 0   | 0        | 0        | 0    | 11        | 0                   | 0   | -15         | 0            | 12                     | 0             | 0                    | 0               | 15              |               |
| 426+00    | 42600.00     | 25.00    | 0.00              | 0.00     | 0.00     | 0.00 | 0.00      | 8.36     | 0.00                              | 0   | 0        | 0        | 0    | 12        | 0                   | 0   | -31         | 0            | 25                     | 0             | 0                    | 0               | 31              |               |
| 426+25    | 42625.00     | 25.00    | 0.00              | 0.00     | 0.00     | 0.00 | 0.00      | 5.90     | 0.00                              | 0   | 0        | 0        | 0    | 7         | 0                   | 0   | -41         | 0            | 32                     | 0             | 0                    | 0               | 41              |               |
| 426+31.44 | 42631.44     | 6.44     | 0.00              | 0.00     | 0.00     | 0.00 | 0.00      | 5.23     | 0.00                              | 0   | 0        | 0        | 0    | 1         | 0                   | 0   | -42         | 0            | 34                     | 0             | 0                    | 0               | 42              |               |
| 426+31.53 | 42631.53     | 0.09     | 0.00              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 0   | 0        | 0        | 0    | 0         | 0                   | 0   | -42         | 0            | 34                     | 0             | 0                    | 0               | 42              |               |
| 441+53.4  | 44153.40     | 1521.87  | 0.00              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 0   | 0        | 0        | 0    | 0         | 0                   | 0   | -42         | 0            | 34                     | 0             | 0                    | 0               | 42              |               |
| 441+54.44 | 44154.44     | 1.04     | 7.11              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 0   | 0        | 0        | 0    | 0         | 0                   | 0   | -42         | 0            | 34                     | 0             | 0                    | 0               | 43              |               |
| 442+00    | 44200.00     | 45.56    | 6.38              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 11  | 0        | 0        | 0    | 0         | 0                   | 12  | -42         | 0            | 34                     | 0             | 0                    | 0               | 54              |               |
| 442+50    | 44250.00     | 50.00    | 6.38              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 12  | 0        | 0        | 0    | 0         | 0                   | 23  | -42         | 0            | 34                     | 0             | 0                    | 0               | 66              |               |
| 443+00    | 44300.00     | 50.00    | 7.35              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 13  | 0        | 0        | 0    | 0         | 0                   | 36  | -42         | 0            | 34                     | 0             | 0                    | 0               | 78              |               |
| 443+50    | 44350.00     | 50.00    | 6.95              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 13  | 0        | 0        | 0    | 0         | 0                   | 49  | -42         | 0            | 34                     | 0             | 0                    | 0               | 92              |               |
| 444+00    | 44400.00     | 50.00    | 7.07              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 13  | 0        | 0        | 0    | 0         | 0                   | 62  | -42         | 0            | 34                     | 0             | 0                    | 0               | 105             |               |
| 444+50    | 44450.00     | 50.00    | 7.13              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 13  | 0        | 0        | 0    | 0         | 0                   | 75  | -42         | 0            | 34                     | 0             | 0                    | 0               | 118             |               |
| 445+00    | 44500.00     | 50.00    | 6.71              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 13  | 0        | 0        | 0    | 0         | 0                   | 88  | -42         | 0            | 34                     | 0             | 0                    | 0               | 131             |               |
| 445+39.99 | 44539.99     | 39.99    | 6.17              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 10  | 0        | 0        | 0    | 0         | 0                   | 98  | -42         | 0            | 34                     | 0             | 0                    | 0               | 140             |               |
| 445+40.24 | 44540.24     | 0.25     | 10.05             | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 0   | 0        | 0        | 0    | 0         | 0                   | 98  | -42         | 0            | 34                     | 0             | 0                    | 0               | 140             |               |
| 446+00    | 44600.00     | 59.76    | 13.60             | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 26  | 0        | 0        | 0    | 0         | 0                   | 124 | -42         | 0            | 34                     | 0             | 0                    | 0               | 166             |               |
| 446+25    | 44625.00     | 25.00    | 12.86             | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 12  | 0        | 0        | 0    | 0         | 0                   | 136 | -42         | 0            | 34                     | 0             | 0                    | 0               | 179             |               |
| 446+25.08 | 44625.08     | 0.08     | 7.02              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 0   | 0        | 0        | 0    | 0         | 0                   | 136 | -42         | 0            | 34                     | 0             | 0                    | 0               | 179             |               |
| 446+50    | 44650.00     | 24.92    | 6.90              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 6   | 0        | 0        | 0    | 0         | 0                   | 143 | -42         | 0            | 34                     | 0             | 0                    | 0               | 185             |               |
| 447+00    | 44700.00     | 50.00    | 6.64              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 13  | 0        | 0        | 0    | 0         | 0                   | 155 | -42         | 0            | 34                     | 0             | 0                    | 0               | 198             |               |
| 447+55.36 | 44755.36     | 55.36    | 5.60              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 13  | 0        | 0        | 0    | 0         | 0                   | 168 | -42         | 0            | 34                     | 0             | 0                    | 0               | 210             |               |
| 447+55.52 | 44755.52     | 0.16     | 0.00              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 0   | 0        | 0        | 0    | 0         | 0                   | 168 | -42         | 0            | 34                     | 0             | 0                    | 0               | 210             |               |
| 447+88.54 | 44788.54     | 33.02    | 0.00              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 0   | 0        | 0        | 0    | 0         | 0                   | 168 | -42         | 0            | 34                     | 0             | 0                    | 0               | 210             |               |
| 447+88.68 | 44788.68     | 0.14     | 6.48              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 0   | 0        | 0        | 0    | 0         | 0                   | 168 | -42         | 0            | 34                     | 0             | 0                    | 0               | 210             |               |
| 448+06.07 | 44806.07     | 17.39    | 6.44              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 4   | 0        | 0        | 0    | 0         | 0                   | 172 | -42         | 0            | 34                     | 0             | 0                    | 0               | 214             |               |
| 448+06.5  | 44806.50     | 0.43     | 0.00              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 0   | 0        | 0        | 0    | 0         | 0                   | 172 | -42         | 0            | 34                     | 0             | 0                    | 0               | 214             |               |
| 448+60.04 | 44860.04     | 53.54    | 0.00              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 0   | 0        | 0        | 0    | 0         | 0                   | 172 | -42         | 0            | 34                     | 0             | 0                    | 0               | 214             |               |
| 448+60.4  | 44860.40     | 0.37     | 6.16              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 0   | 0        | 0        | 0    | 0         | 0                   | 172 | -42         | 0            | 34                     | 0             | 0                    | 0               | 215             |               |
| 449+00    | 44900.00     | 39.60    | 6.25              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 9   | 0        | 0        | 0    | 0         | 0                   | 181 | -42         | 0            | 34                     | 0             | 0                    | 0               | 224             |               |
| 449+50    | 44950.00     | 50.00    | 6.55              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 12  | 0        | 0        | 0    | 0         | 0                   | 193 | -42         | 0            | 34                     | 0             | 0                    | 0               | 235             |               |
| 450+00    | 45000.00     | 50.00    | 5.20              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 11  | 0        | 0        | 0    | 0         | 0                   | 204 | -42         | 0            | 34                     | 0             | 0                    | 0               | 246             |               |
| 450+32.83 | 45032.83     | 32.83    | 6.49              | 0.00     | 12.99    | 0.00 | 0.00      | 0.00     | 0.00                              | 7   | 0        | 8        | 0    | 0         | 0                   | 211 | -33         | 0            | 34                     | 0             | 0                    | 0               | 244             |               |
| 450+40.04 | 45040.04     | 7.20     | 8.36              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 2   | 0        | 2        | 0    | 0         | 0                   | 213 | -30         | 0            | 34                     | 0             | 0                    | 0               | 243             |               |
| 450+40.28 | 45040.28     | 0.24     | 0.00              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 0   | 0        | 0        | 0    | 0         | 0                   | 213 | -30         | 0            | 34                     | 0             | 0                    | 0               | 243             |               |
| 450+72.35 | 45072.35     | 32.07    | 0.00              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 0   | 0        | 0        | 0    | 0         | 0                   | 213 | -30         | 0            | 34                     | 0             | 0                    | 0               | 243             |               |
| 450+72.61 | 45072.61     | 0.26     | 7.29              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 0   | 0        | 0        | 0    | 0         | 0                   | 213 | -30         | 0            | 34                     | 0             | 0                    | 0               | 243             |               |
| 451+00    | 45100.00     | 27.39    | 6.77              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 7   | 0        | 0        | 0    | 0         | 0                   | 220 | -30         | 0            | 34                     | 0             | 0                    | 0               | 251             |               |
| 451+50    | 45150.00     | 50.00    | 5.13              | 0.00     | 0.16     | 0.00 | 0.00      | 0.00     | 0.00                              | 11  | 0        | 0        | 0    | 0         | 0                   | 231 | -30         | 0            | 34                     | 0             | 0                    | 0               | 261             |               |
| 452+00    | 45200.00     | 50.00    | 4.72              | 0.00     | 0.13     | 0.00 | 0.00      | 0.00     | 0.00                              | 9   | 0        | 0        | 0    | 0         | 0                   | 240 | -30         | 0            | 34                     | 0             | 0                    | 0               | 270             |               |
| 452+50    | 45250.00     | 50.00    | 3.49              | 0.00     | 8.34     | 0.00 | 0.00      | 0.00     | 0.00                              | 8   | 0        | 8        | 0    | 0         | 0                   | 248 | -20         | 0            | 34                     | 0             | 0                    | 0               | 268             |               |
| 453+00    | 45300.00     | 50.00    | 3.14              | 0.00     | 6.36     | 0.00 | 0.00      | 0.00     | 0.00                              | 6   | 0        | 14       | 0    | 0         | 0                   | 254 | -3          | 0            | 34                     | 0             | 0                    | 0               | 257             |               |
| 453+50    | 45350.00     | 50.00    | 2.97              | 0.00     | 2.27     | 0.00 | 0.00      | 0.00     | 0.00                              | 6   | 0        | 8        | 0    | 0         | 0                   | 260 | 7           | 0            | 34                     | 0             | 0                    | 0               | 253             |               |
| 454+13.42 | 45413.42     | 63.42    | 5.48              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 10  | 0        | 3        | 0    | 0         | 0                   | 270 | 10          | 0            | 34                     | 0             | 0                    | 0               | 259             |               |
| 454+13.64 | 45413.64     | 0.22     | 0.00              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 0   | 0        | 0        | 0    | 0         | 0                   | 270 | 10          | 0            | 34                     | 0             | 0                    | 0               | 259             |               |
| 455+14.7  | 45514.70     | 101.06   | 0.00              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 0   | 0        | 0        | 0    | 0         | 0                   | 270 | 10          | 0            | 34                     | 0             | 0                    | 0               | 259             |               |
| 455+63.18 | 45563.18     | 48.48    | 5.56              | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 5   | 0        | 0        | 0    | 0         | 0                   | 275 | 10          | 0            | 34                     | 0             | 0                    | 0               | 264             |               |
| 455+63.71 | 45563.71     | 0.53     | 10.36             | 0.00     | 0.00     | 0.00 | 0.00      | 0.00     | 0.00                              | 0   | 0        | 0        | 0    | 0         | 0                   | 275 | 10          | 0            | 34                     | 0             | 0                    | 0               | 265             |               |
| 455+73.94 | 45573.947    |          |                   |          |          |      |           |          |                                   |     |          |          |      |           |                     |     |             |              |                        |               |                      |                 |                 |               |

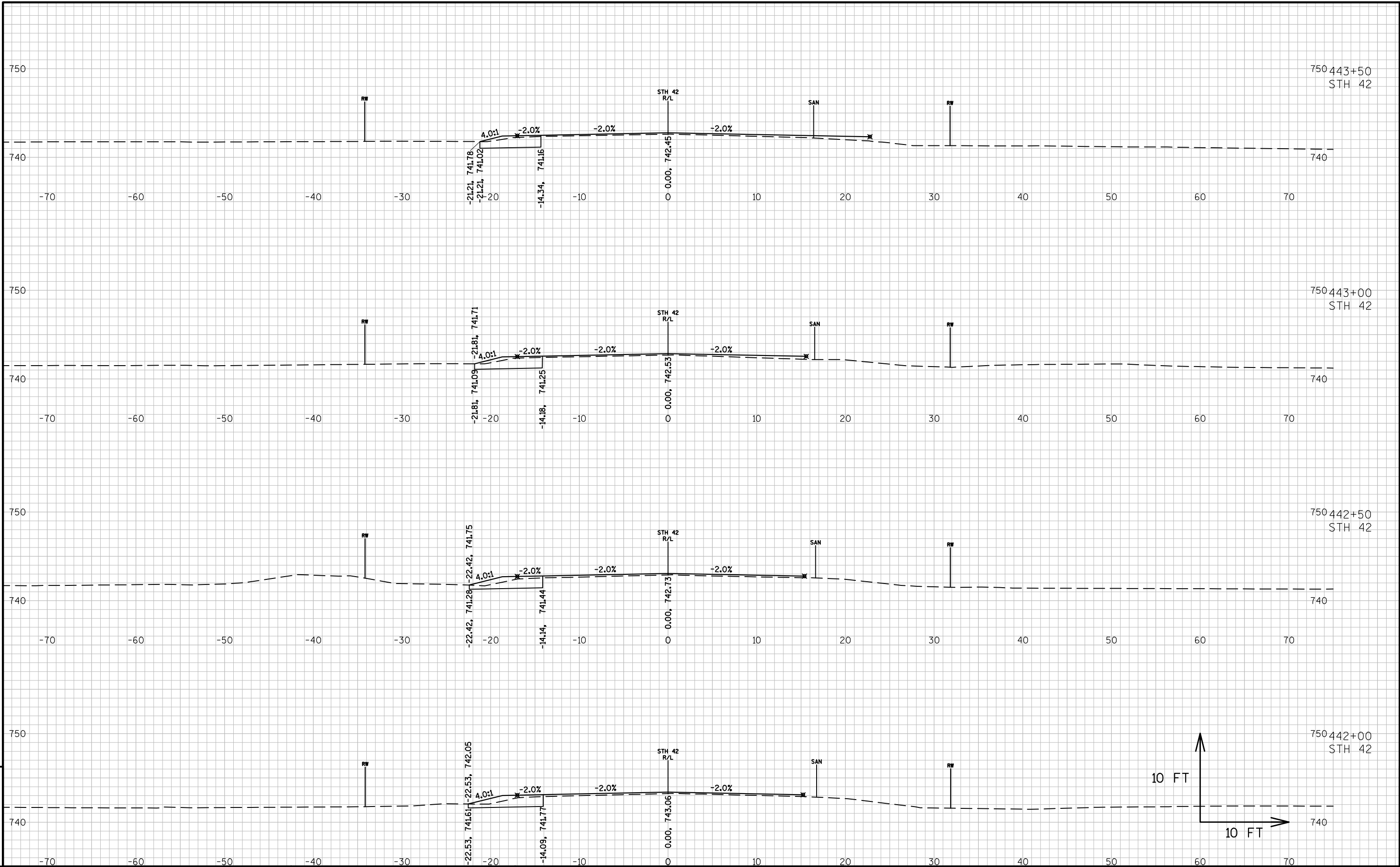
STH 42 BEAMGUARD

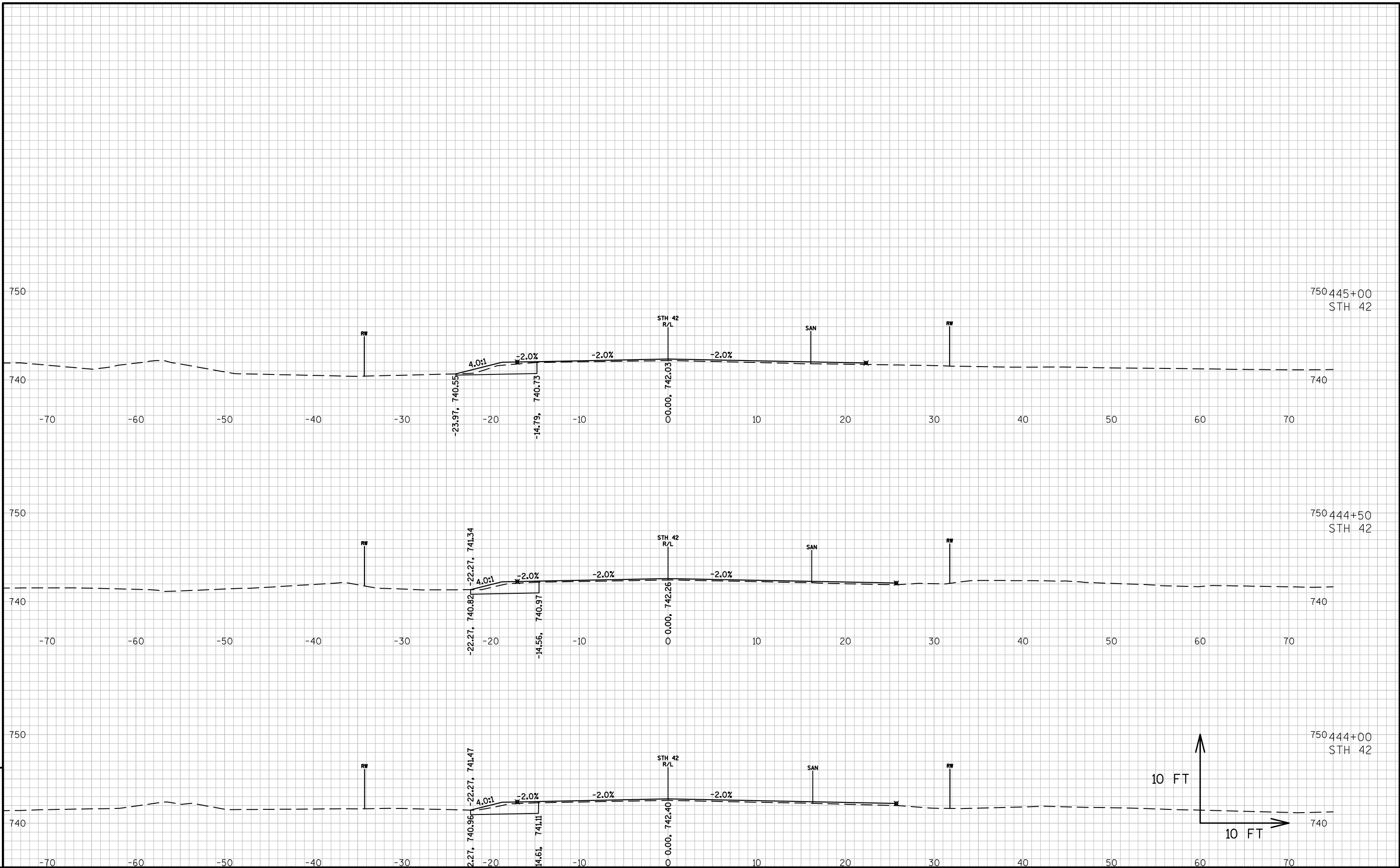
| STATION   | Real Station | Distance | AREA (SF) |                                        |       |      |           |          |     | Incremental Vol (CY) (Unadjusted) |                                        |   |      |           |          |     | Cumulative Vol (CY) |          |          |          |          |                          |                                  | Reduced Marsh<br>in Fill<br>0.60 | Reduced EBS<br>in Fill<br>0.80 | Mass Ordinate |     |   |
|-----------|--------------|----------|-----------|----------------------------------------|-------|------|-----------|----------|-----|-----------------------------------|----------------------------------------|---|------|-----------|----------|-----|---------------------|----------|----------|----------|----------|--------------------------|----------------------------------|----------------------------------|--------------------------------|---------------|-----|---|
|           |              |          | Cut       | Salvaged/Unusable<br>Pavement Material |       | Fill | Marsh Exc | Rock Exc | EBS | Cut                               | Salvaged/Unusable<br>Pavement Material |   | Fill | Marsh Exc | Rock Exc | EBS | Cut<br>1.00         | Expanded | Expanded | Expanded | Expanded | Expanded<br>Rock<br>1.10 | Expanded<br>EBS Backfill<br>1.30 |                                  |                                |               |     |   |
|           |              |          |           |                                        |       |      |           |          |     |                                   |                                        |   |      |           |          |     |                     |          |          |          |          |                          |                                  |                                  |                                |               |     |   |
| 473+91.68 | 47391.68     | 0.00     | 6.39      | 0.00                                   | 1.90  | 0.00 | 0.00      | 0.00     | 0   | 0                                 | 0                                      | 0 | 0    | 0         | 0        | 0   | 0                   | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 0   | 0 |
| 474+00    | 47400.00     | 8.32     | 5.76      | 0.00                                   | 3.24  | 0.00 | 0.00      | 0.00     | 2   | 0                                 | 1                                      | 0 | 0    | 0         | 0        | 2   | 1                   | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 1   |   |
| 474+49.78 | 47449.78     | 49.78    | 14.85     | 0.00                                   | 0.00  | 0.00 | 0.00      | 0.00     | 19  | 0                                 | 3                                      | 0 | 0    | 0         | 0        | 21  | 5                   | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 16  |   |
| 474+50    | 47450.00     | 0.22     | 30.79     | 0.00                                   | 0.00  | 0.00 | 0.00      | 0.00     | 0   | 0                                 | 0                                      | 0 | 0    | 0         | 0        | 21  | 5                   | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 16  |   |
| 474+97.59 | 47497.59     | 47.59    | 21.99     | 0.00                                   | 14.52 | 0.00 | 0.00      | 0.00     | 47  | 0                                 | 13                                     | 0 | 0    | 0         | 0        | 68  | 21                  | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 47  |   |
| 475+00    | 47500.00     | 2.41     | 21.68     | 0.00                                   | 16.80 | 0.00 | 0.00      | 0.00     | 2   | 0                                 | 1                                      | 0 | 0    | 0         | 0        | 70  | 22                  | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 47  |   |
| 475+10.09 | 47510.09     | 10.09    | 21.45     | 0.00                                   | 22.65 | 0.00 | 0.00      | 0.00     | 8   | 0                                 | 7                                      | 0 | 0    | 0         | 0        | 78  | 32                  | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 46  |   |
| 475+10.11 | 47510.11     | 0.02     | 21.45     | 0.00                                   | 22.65 | 0.00 | 0.00      | 0.00     | 0   | 0                                 | 0                                      | 0 | 0    | 0         | 0        | 78  | 32                  | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 46  |   |
| 475+22.59 | 47522.59     | 12.48    | 21.19     | 0.00                                   | 16.23 | 0.00 | 0.00      | 0.00     | 10  | 0                                 | 9                                      | 0 | 0    | 0         | 0        | 87  | 43                  | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 45  |   |
| 475+22.62 | 47522.62     | 0.02     | 21.19     | 0.00                                   | 16.22 | 0.00 | 0.00      | 0.00     | 0   | 0                                 | 0                                      | 0 | 0    | 0         | 0        | 87  | 43                  | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 45  |   |
| 475+35.12 | 47535.12     | 12.50    | 20.97     | 0.00                                   | 9.55  | 0.00 | 0.00      | 0.00     | 10  | 0                                 | 6                                      | 0 | 0    | 0         | 0        | 97  | 50                  | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 47  |   |
| 475+47.44 | 47547.44     | 12.32    | 7.46      | 0.00                                   | 4.99  | 0.00 | 0.00      | 0.00     | 6   | 0                                 | 3                                      | 0 | 0    | 0         | 0        | 104 | 55                  | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 49  |   |
| 475+47.6  | 47547.60     | 0.16     | 5.67      | 0.00                                   | 4.79  | 0.00 | 0.00      | 0.00     | 0   | 0                                 | 0                                      | 0 | 0    | 0         | 0        | 104 | 55                  | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 49  |   |
| 475+50    | 47550.00     | 2.40     | 5.69      | 0.00                                   | 3.95  | 0.00 | 0.00      | 0.00     | 1   | 0                                 | 0                                      | 0 | 0    | 0         | 0        | 104 | 55                  | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 49  |   |
| 475+60.12 | 47560.12     | 10.12    | 5.80      | 0.00                                   | 2.42  | 0.00 | 0.00      | 0.00     | 2   | 0                                 | 1                                      | 0 | 0    | 0         | 0        | 106 | 57                  | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 50  |   |
| 475+80.84 | 47580.84     | 20.72    | 6.08      | 0.00                                   | 14.08 | 0.00 | 0.00      | 0.00     | 5   | 0                                 | 6                                      | 0 | 0    | 0         | 0        | 111 | 64                  | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 46  |   |
| 476+00    | 47600.00     | 19.16    | 7.24      | 0.00                                   | 0.00  | 0.00 | 0.00      | 0.00     | 5   | 0                                 | 5                                      | 0 | 0    | 0         | 0        | 116 | 71                  | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 45  |   |
| 476+50    | 47650.00     | 50.00    | 4.02      | 0.00                                   | 6.06  | 0.00 | 0.00      | 0.00     | 10  | 0                                 | 6                                      | 0 | 0    | 0         | 0        | 126 | 78                  | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 48  |   |
| 477+00    | 47700.00     | 50.00    | 3.86      | 0.00                                   | 2.34  | 0.00 | 0.00      | 0.00     | 7   | 0                                 | 8                                      | 0 | 0    | 0         | 0        | 133 | 87                  | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 46  |   |
| 477+25    | 47725.00     | 25.00    | 4.02      | 0.00                                   | 2.13  | 0.00 | 0.00      | 0.00     | 4   | 0                                 | 2                                      | 0 | 0    | 0         | 0        | 137 | 90                  | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 47  |   |
| 477+50    | 47750.00     | 25.00    | 4.72      | 0.00                                   | 3.39  | 0.00 | 0.00      | 0.00     | 4   | 0                                 | 3                                      | 0 | 0    | 0         | 0        | 141 | 93                  | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 48  |   |
| 477+75    | 47775.00     | 25.00    | 8.41      | 0.00                                   | 0.00  | 0.00 | 0.00      | 0.00     | 6   | 0                                 | 2                                      | 0 | 0    | 0         | 0        | 147 | 95                  | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 52  |   |
| 478+00    | 47800.00     | 25.00    | 4.20      | 0.00                                   | 4.79  | 0.00 | 0.00      | 0.00     | 6   | 0                                 | 2                                      | 0 | 0    | 0         | 0        | 153 | 98                  | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 55  |   |
| 478+50    | 47850.00     | 50.00    | 3.55      | 0.00                                   | 3.58  | 0.00 | 0.00      | 0.00     | 7   | 0                                 | 8                                      | 0 | 0    | 0         | 0        | 160 | 108                 | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 53  |   |
| 479+00    | 47900.00     | 50.00    | 3.91      | 0.00                                   | 2.32  | 0.00 | 0.00      | 0.00     | 7   | 0                                 | 5                                      | 0 | 0    | 0         | 0        | 167 | 114                 | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 53  |   |
| 479+50    | 47950.00     | 50.00    | 3.35      | 0.00                                   | 5.16  | 0.00 | 0.00      | 0.00     | 7   | 0                                 | 7                                      | 0 | 0    | 0         | 0        | 174 | 123                 | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 51  |   |
| 480+00    | 48000.00     | 50.00    | 3.69      | 0.00                                   | 4.72  | 0.00 | 0.00      | 0.00     | 7   | 0                                 | 9                                      | 0 | 0    | 0         | 0        | 180 | 135                 | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 46  |   |
| 480+50    | 48050.00     | 50.00    | 5.26      | 0.00                                   | 1.55  | 0.00 | 0.00      | 0.00     | 8   | 0                                 | 6                                      | 0 | 0    | 0         | 0        | 189 | 142                 | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 47  |   |
| 481+00    | 48100.00     | 50.00    | 6.12      | 0.00                                   | 1.36  | 0.00 | 0.00      | 0.00     | 11  | 0                                 | 3                                      | 0 | 0    | 0         | 0        | 199 | 145                 | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 54  |   |
| 481+50    | 48150.00     | 50.00    | 4.78      | 0.00                                   | 2.21  | 0.00 | 0.00      | 0.00     | 10  | 0                                 | 3                                      | 0 | 0    | 0         | 0        | 209 | 149                 | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 60  |   |
| 481+74.69 | 48174.69     | 24.69    | 4.25      | 0.00                                   | 1.90  | 0.00 | 0.00      | 0.00     | 4   | 0                                 | 2                                      | 0 | 0    | 0         | 0        | 213 | 152                 | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 62  |   |
| 481+74.85 | 48174.85     | 0.15     | 13.19     | 0.00                                   | 8.35  | 0.00 | 0.00      | 0.00     | 0   | 0                                 | 0                                      | 0 | 0    | 0         | 0        | 213 | 152                 | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 62  |   |
| 482+00    | 48200.00     | 25.15    | 13.22     | 0.00                                   | 8.73  | 0.00 | 0.00      | 0.00     | 12  | 0                                 | 8                                      | 0 | 0    | 0         | 0        | 226 | 162                 | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 64  |   |
| 482+25    | 48225.00     | 25.00    | 14.27     | 0.00                                   | 8.78  | 0.00 | 0.00      | 0.00     | 13  | 0                                 | 8                                      | 0 | 0    | 0         | 0        | 239 | 172                 | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 67  |   |
| 482+50    | 48250.00     | 25.00    | 12.84     | 0.00                                   | 8.62  | 0.00 | 0.00      | 0.00     | 13  | 0                                 | 8                                      | 0 | 0    | 0         | 0        | 251 | 182                 | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 69  |   |
| 483+00    | 48300.00     | 50.00    | 13.32     | 0.00                                   | 8.96  | 0.00 | 0.00      | 0.00     | 24  | 0                                 | 16                                     | 0 | 0    | 0         | 0        | 275 | 202                 | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 73  |   |
| 483+50    | 48350.00     | 50.00    | 14.50     | 0.00                                   | 4.08  | 0.00 | 0.00      | 0.00     | 26  | 0                                 | 12                                     | 0 | 0    | 0         | 0        | 301 | 217                 | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 84  |   |
| 484+00    | 48400.00     | 50.00    | 14.27     | 0.00                                   | 4.26  | 0.00 | 0.00      | 0.00     | 27  | 0                                 | 8                                      | 0 | 0    | 0         | 0        | 328 | 227                 | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 101 |   |
| 484+25    | 48425.00     | 25.00    | 16.17     | 0.00                                   | 11.24 | 0.00 | 0.00      | 0.00     | 14  | 0                                 | 7                                      | 0 | 0    | 0         | 0        | 342 | 236                 | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 106 |   |
| 484+34.54 | 48434.54     | 9.54     | 16.65     | 0.00                                   | 18.46 | 0.00 | 0.00      | 0.00     | 6   | 0                                 | 5                                      | 0 | 0    | 0         | 0        | 348 | 243                 | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 105 |   |
| 484+50    | 48450.00     | 15.46    | 17.56     | 0.00                                   | 15.96 | 0.00 | 0.00      | 0.00     | 10  | 0                                 | 10                                     | 0 | 0    | 0         | 0        | 357 | 255                 | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 103 |   |
| 484+56.55 | 48456.55     | 6.55     | 18.51     | 0.00                                   | 10.29 | 0.00 | 0.00      | 0.00     | 4   | 0                                 | 3                                      | 0 | 0    | 0         | 0        | 362 | 259                 | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 103 |   |
| 484+81.57 | 48481.57     | 25.02    | 20.82     | 0.00                                   | 10.51 | 0.00 | 0.00      | 0.00     | 18  | 0                                 | 10                                     | 0 | 0    | 0         | 0        | 380 | 271                 | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 109 |   |
| 484+94.08 | 48494.08     | 12.51    | 20.01     | 0.00                                   | 14.69 | 0.00 | 0.00      | 0.00     | 9   | 0                                 | 6                                      | 0 | 0    | 0         | 0        | 389 | 278                 | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 111 |   |
| 485+00    | 48500.00     | 5.92     | 19.73     | 0.00                                   | 17.94 | 0.00 | 0.00      | 0.00     | 4   | 0                                 | 4                                      | 0 | 0    | 0         | 0        | 394 | 283                 | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 111 |   |
| 485+04.09 | 48504.09     | 4.09     | 19.54     | 0.00                                   | 20.66 | 0.00 | 0.00      | 0.00     | 3   | 0                                 | 3                                      | 0 | 0    | 0         | 0        | 397 | 286                 | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 110 |   |
| 485+06.6  | 48506.60     | 2.50     | 19.44     | 0.00                                   | 22.38 | 0.00 | 0.00      | 0.00     | 2   | 0                                 | 2                                      | 0 | 0    | 0         | 0        | 399 | 289                 | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 110 |   |
| 485+29.18 | 48529.18     | 22.59    | 19.24     | 0.00                                   | 15.19 | 0.00 | 0.00      | 0.00     | 16  | 0                                 | 16                                     | 0 | 0    | 0         | 0        | 415 | 308                 | 0        | 0        | 0        | 0        | 0                        | 0                                | 0                                | 0                              | 0             | 106 |   |
| 485+41.55 | 48541.55     | 12       |           |                                        |       |      |           |          |     |                                   |                                        |   |      |           |          |     |                     |          |          |          |          |                          |                                  |                                  |                                |               |     |   |

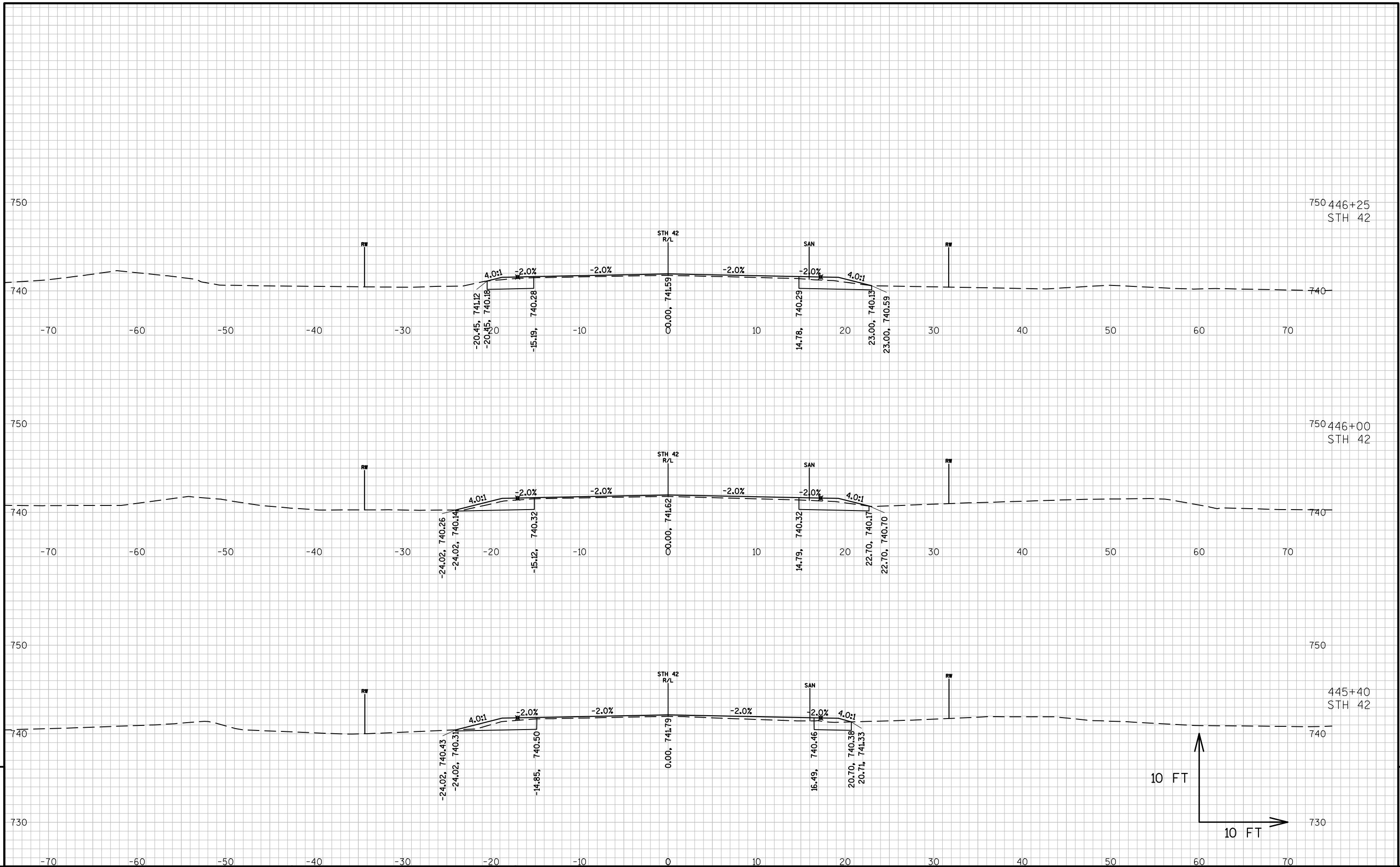
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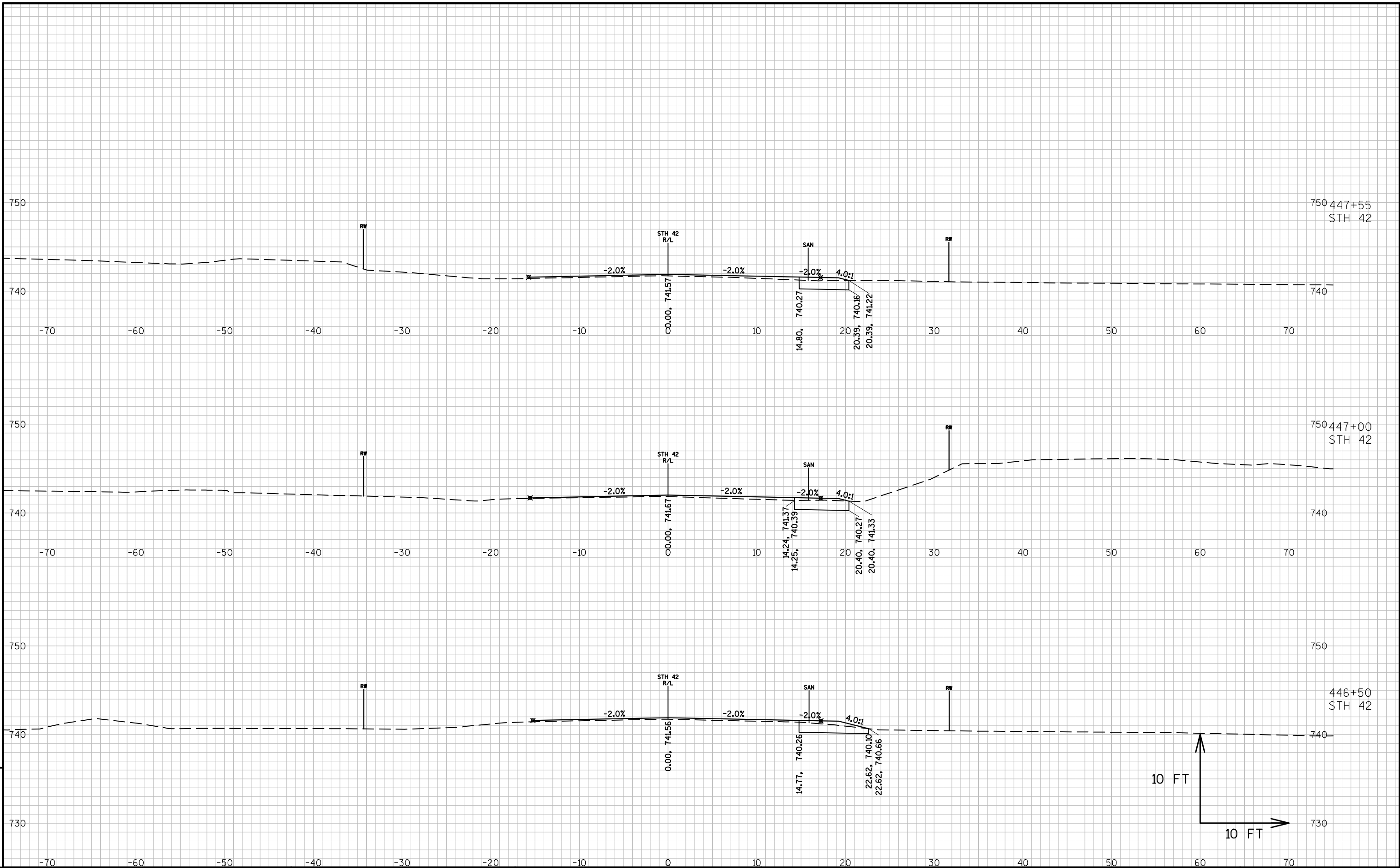




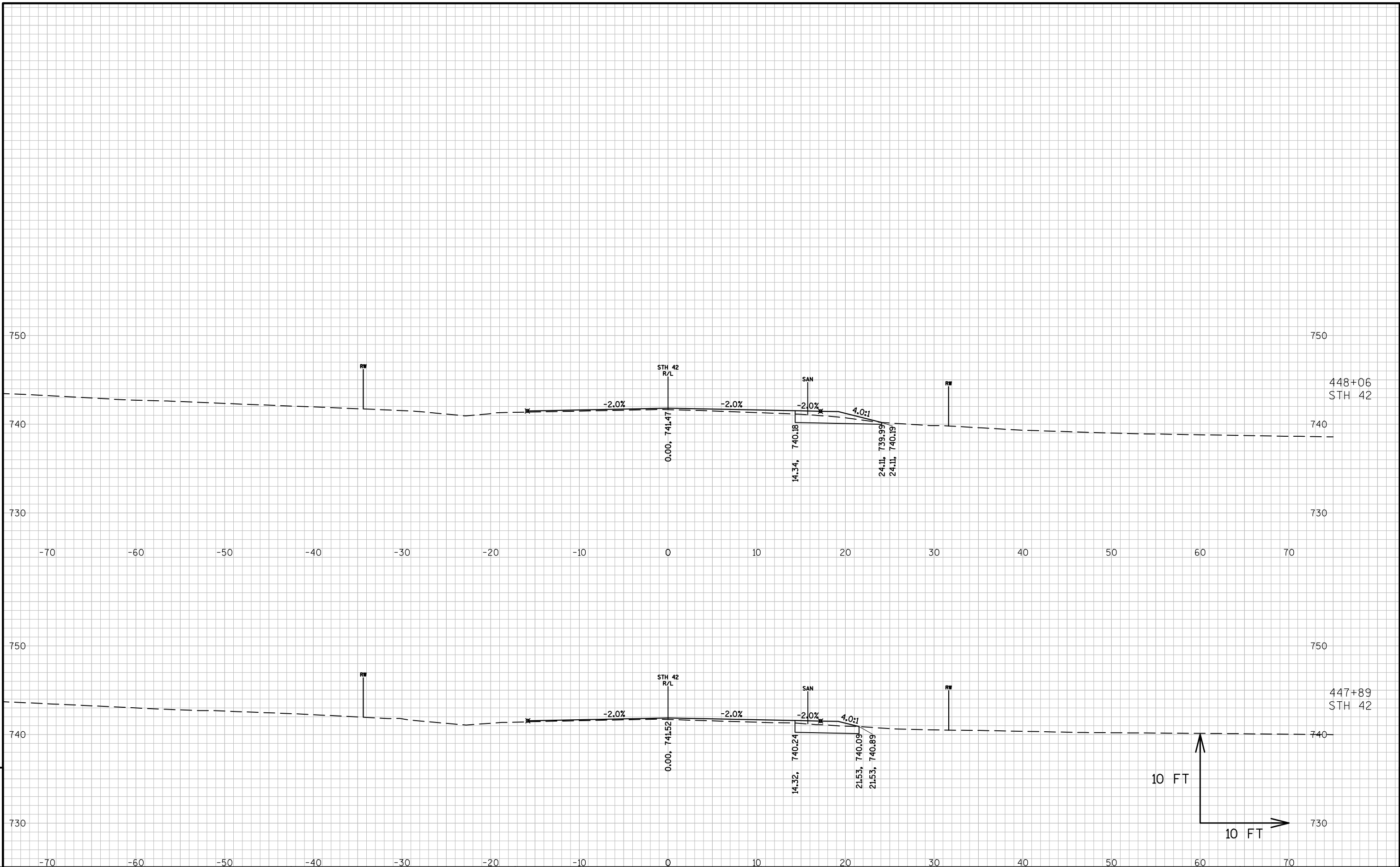


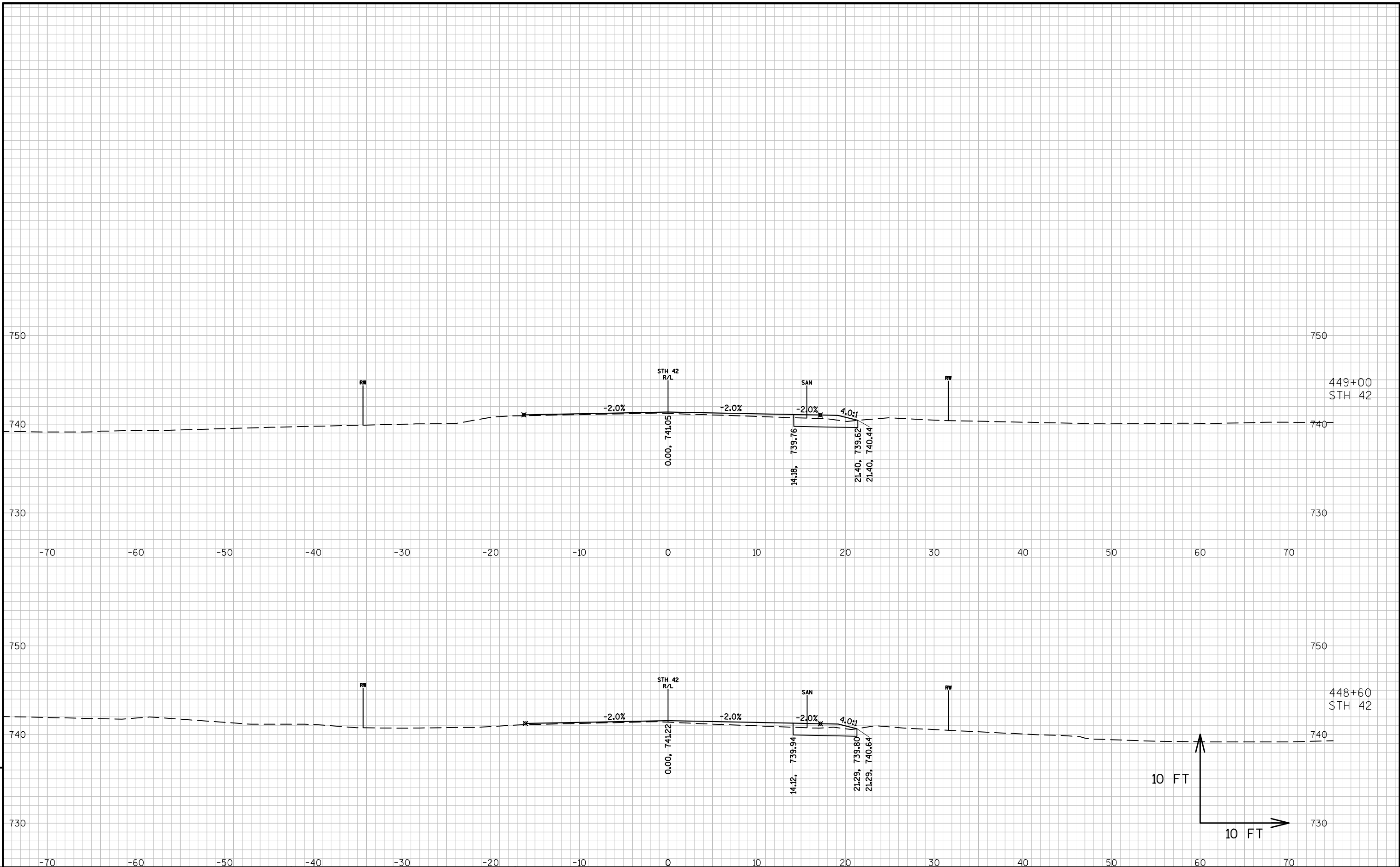


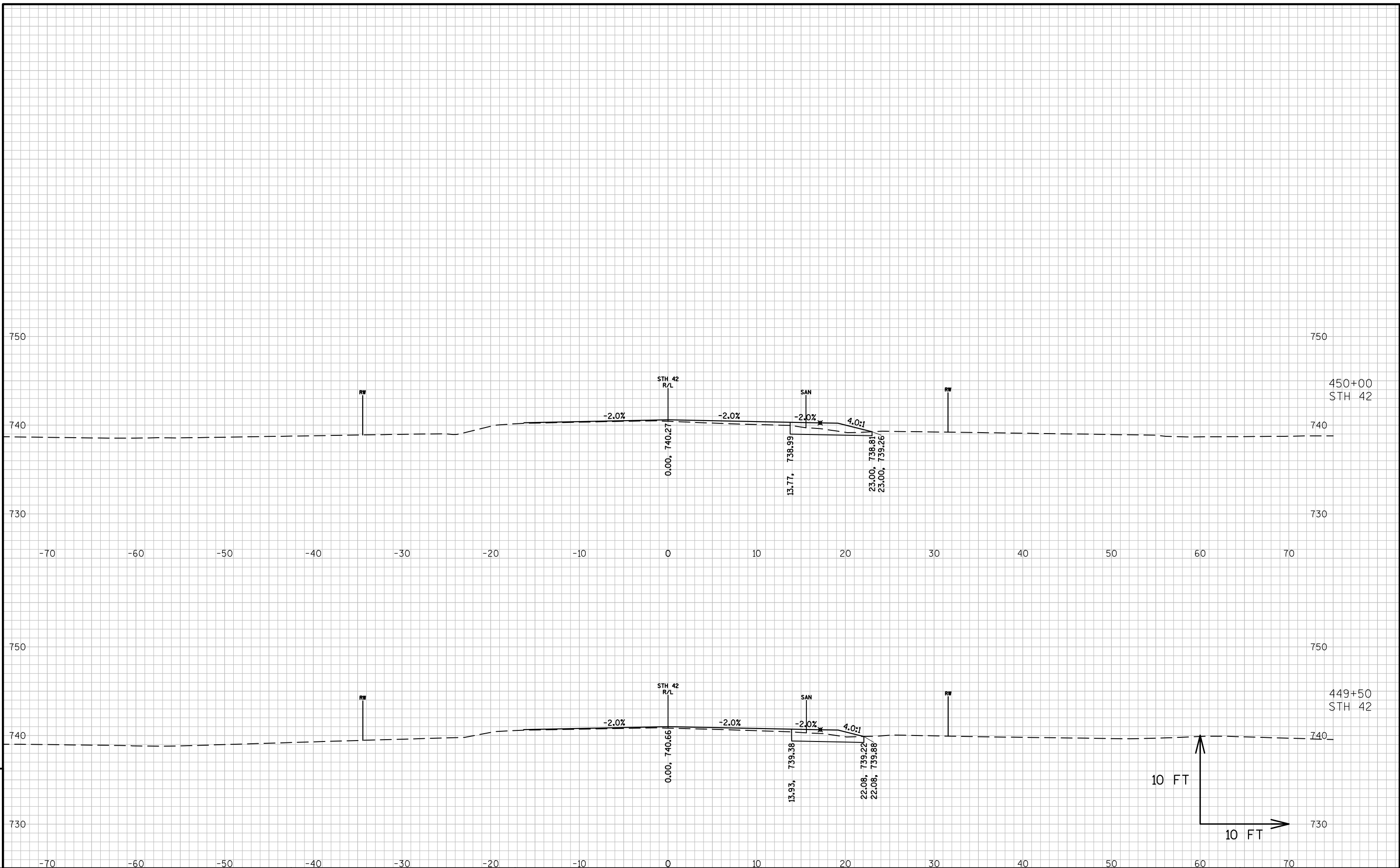


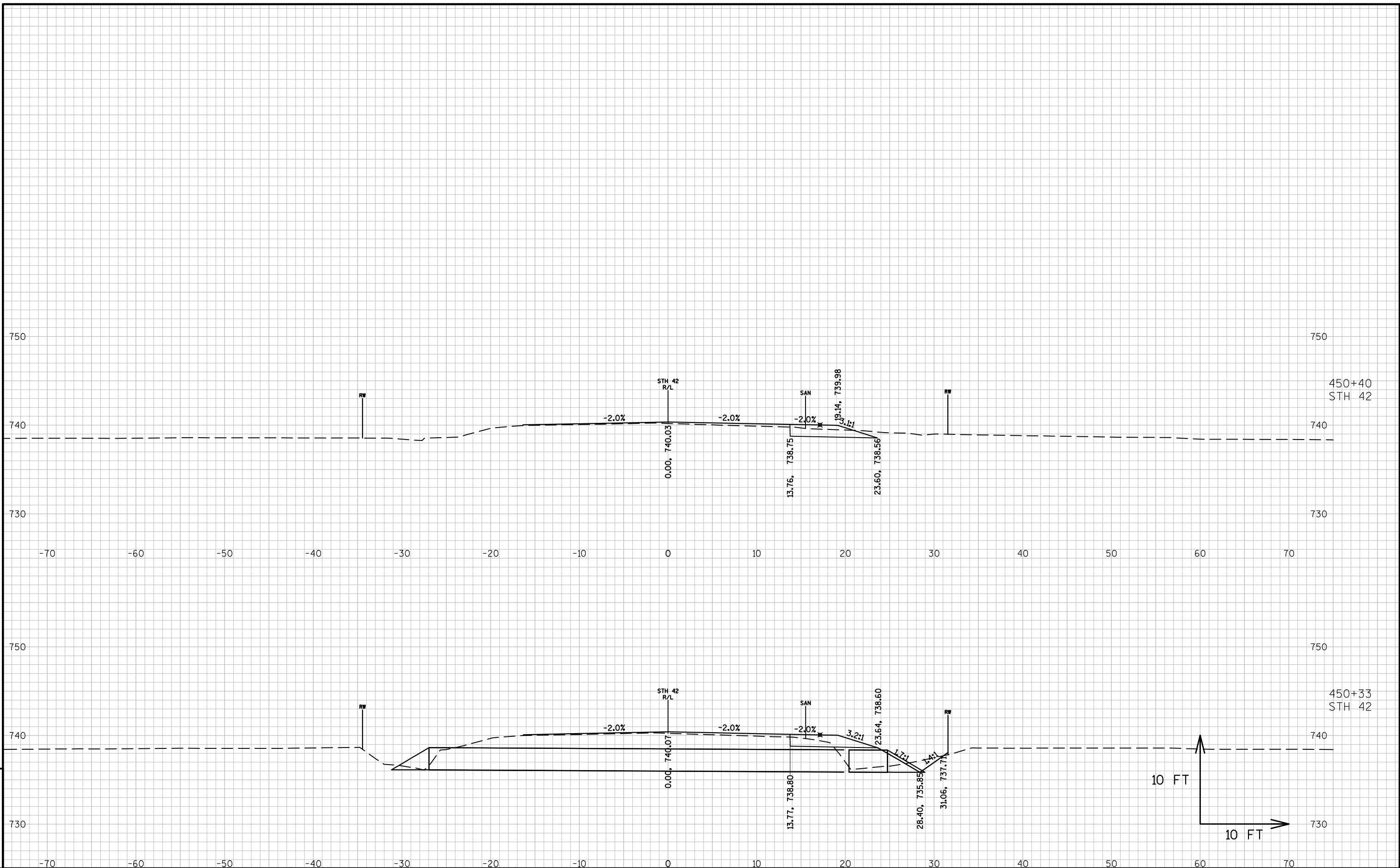


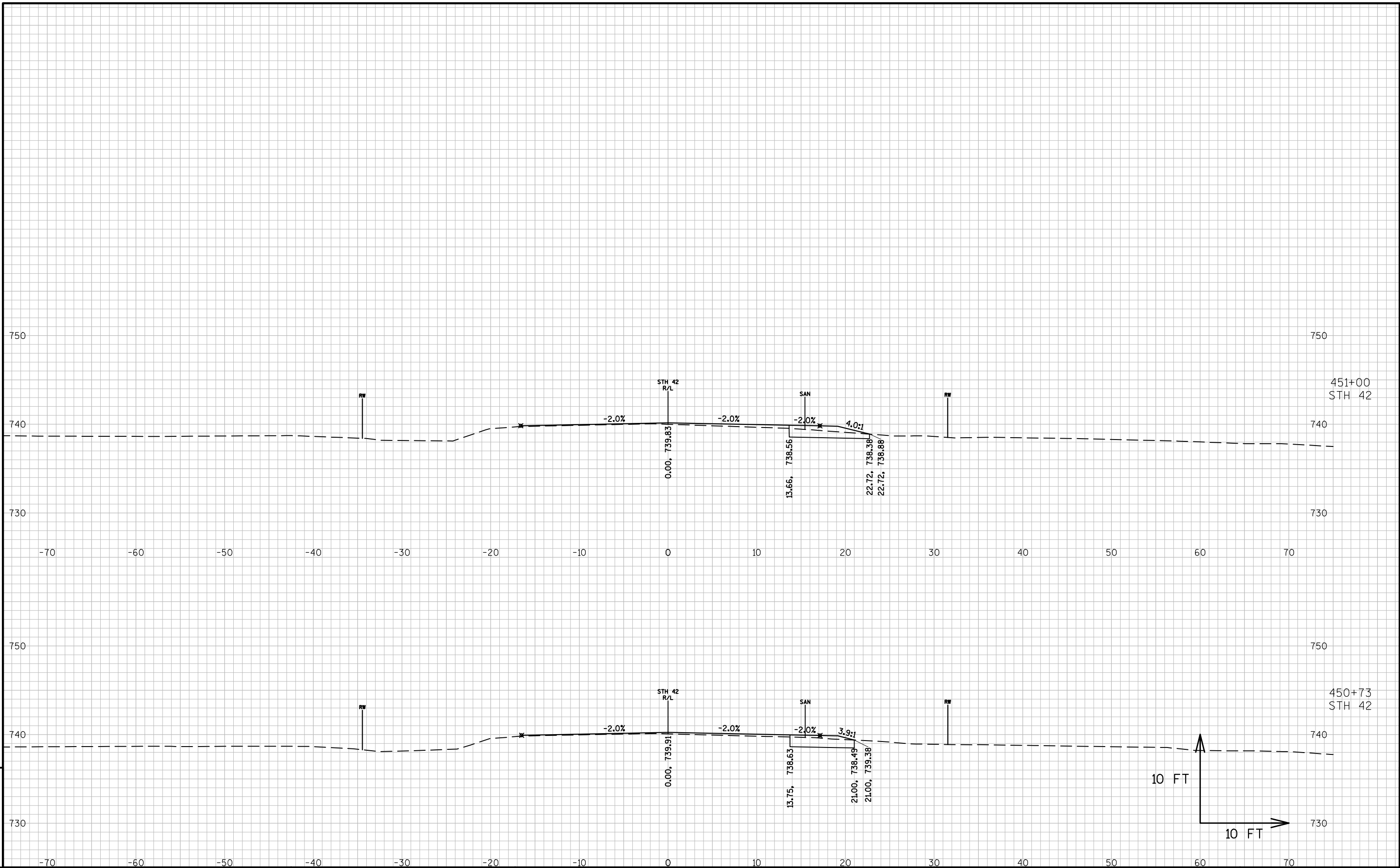


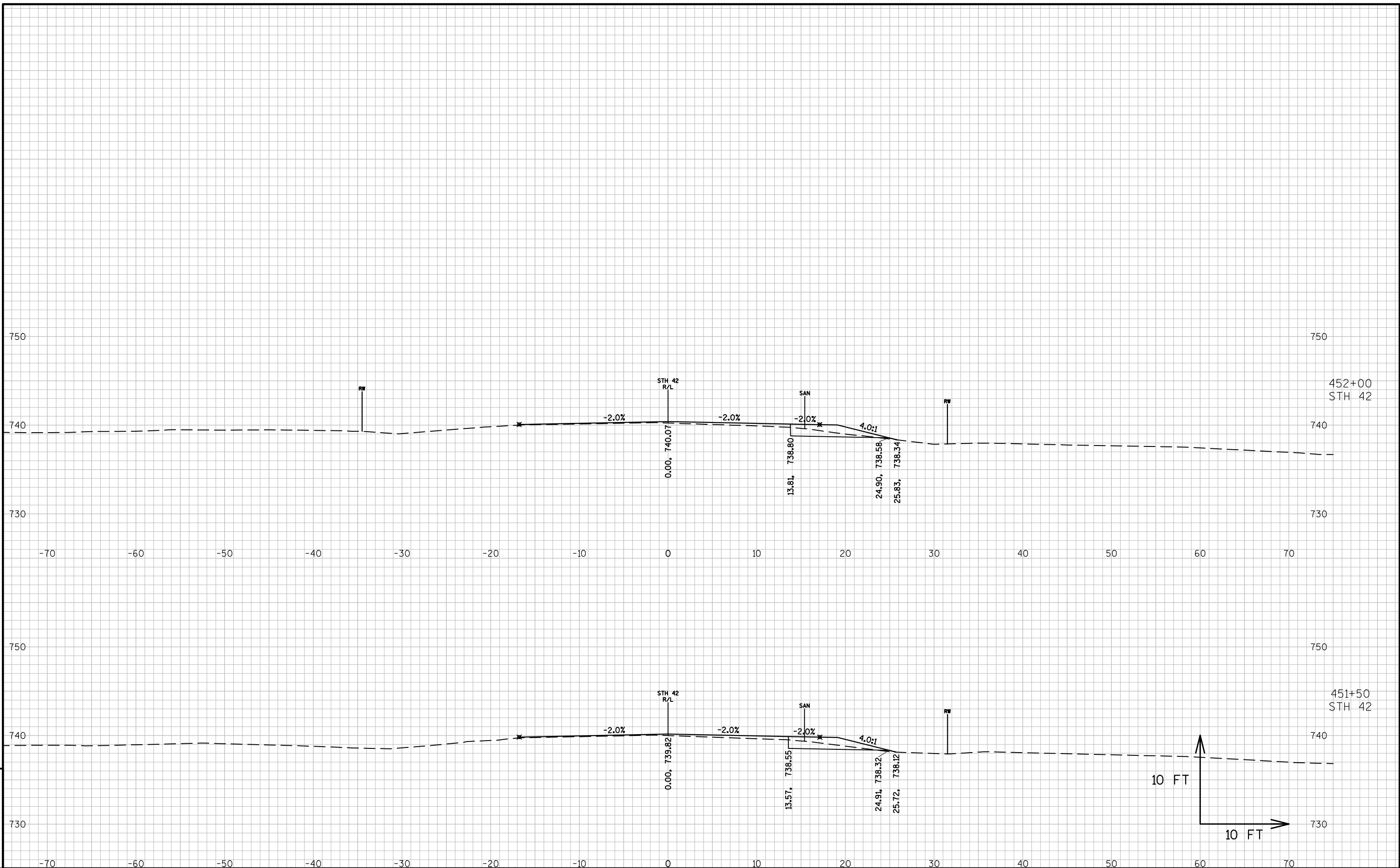


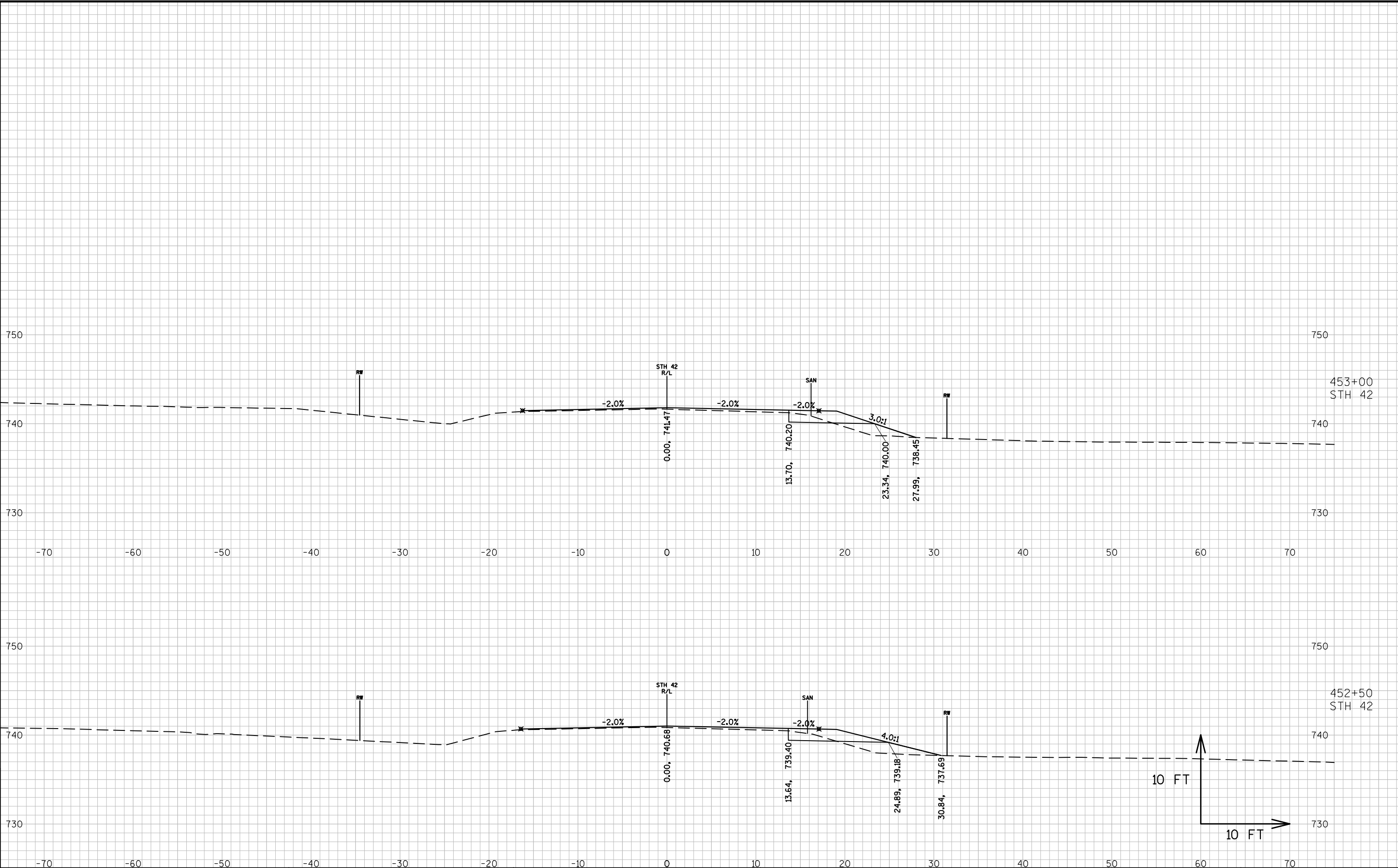


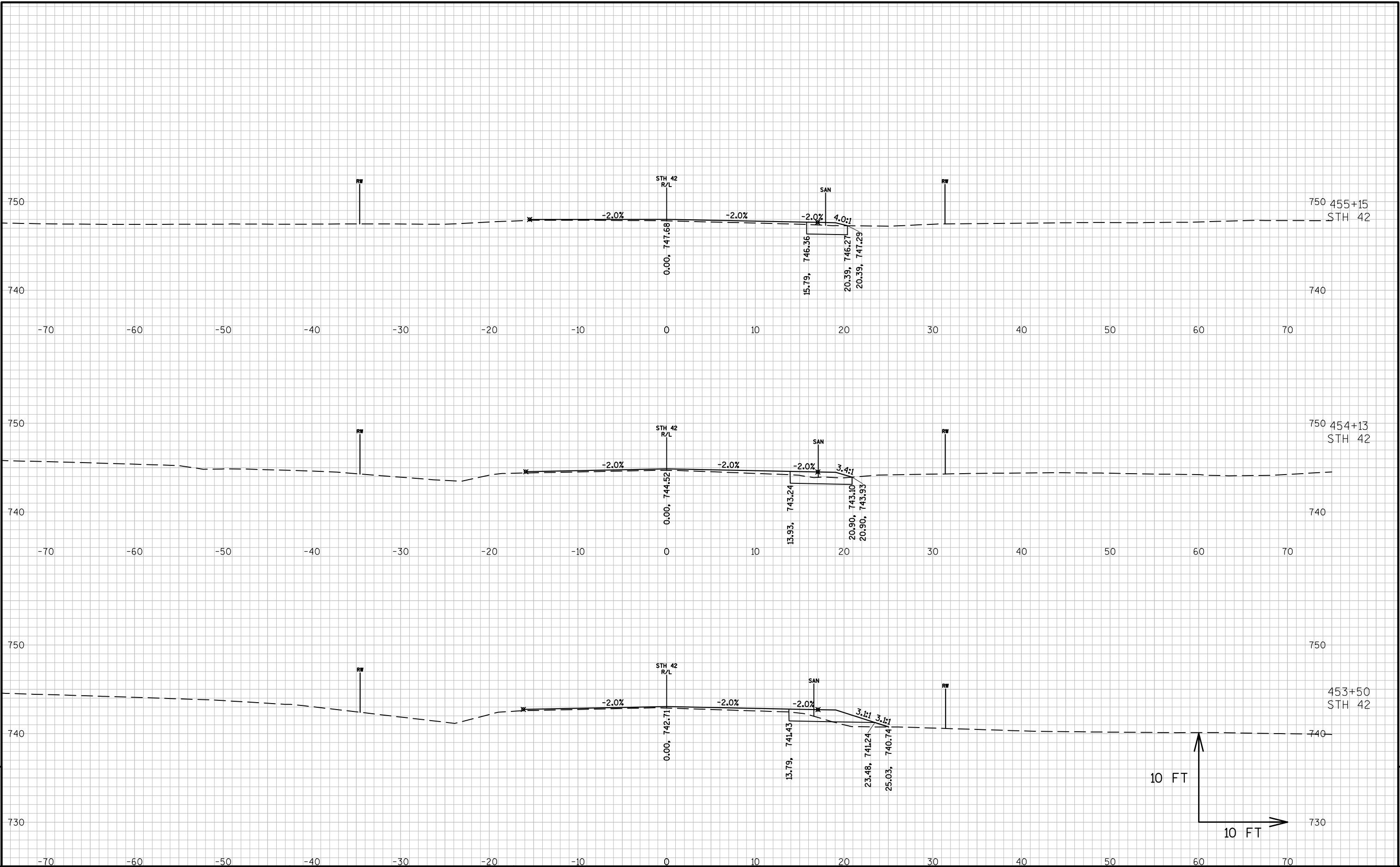




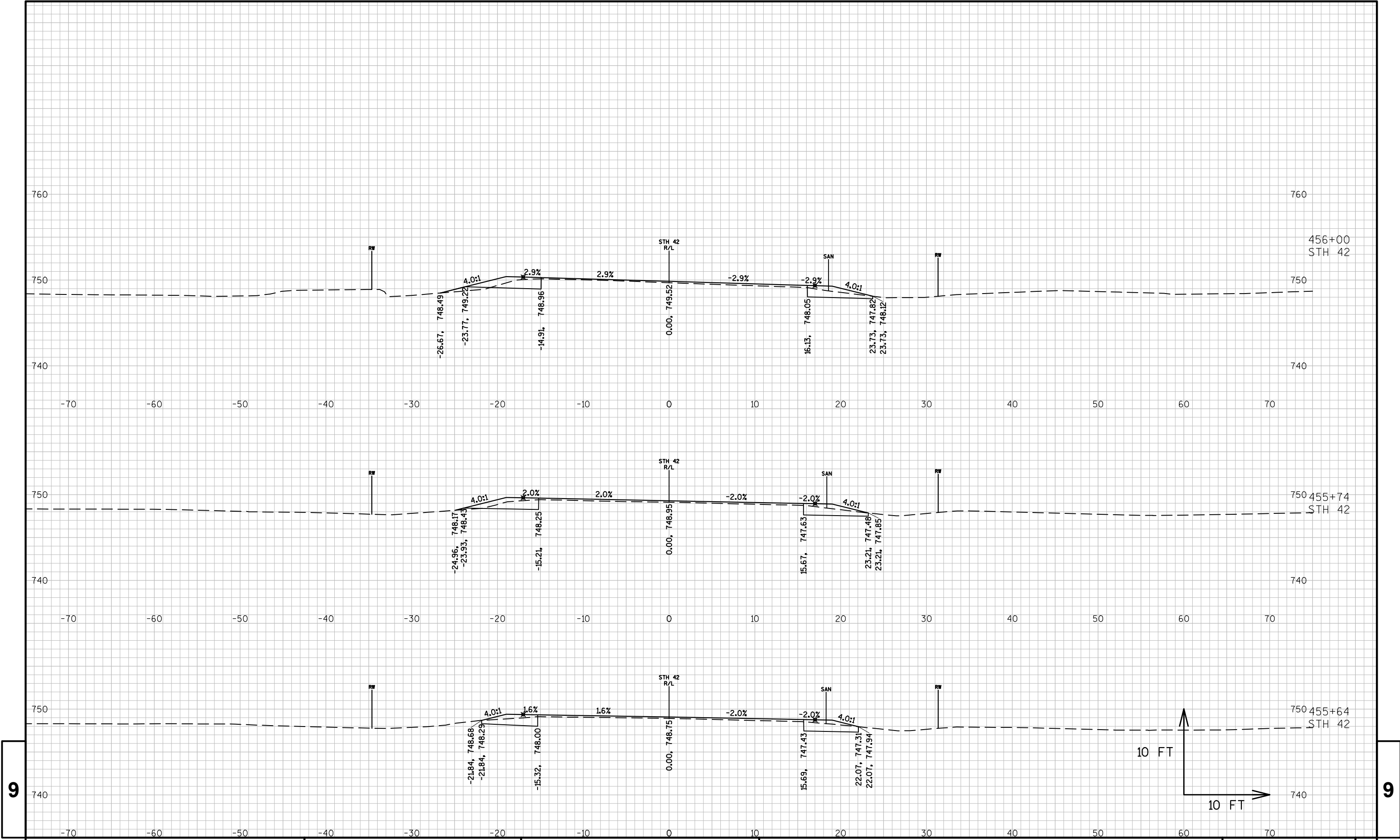






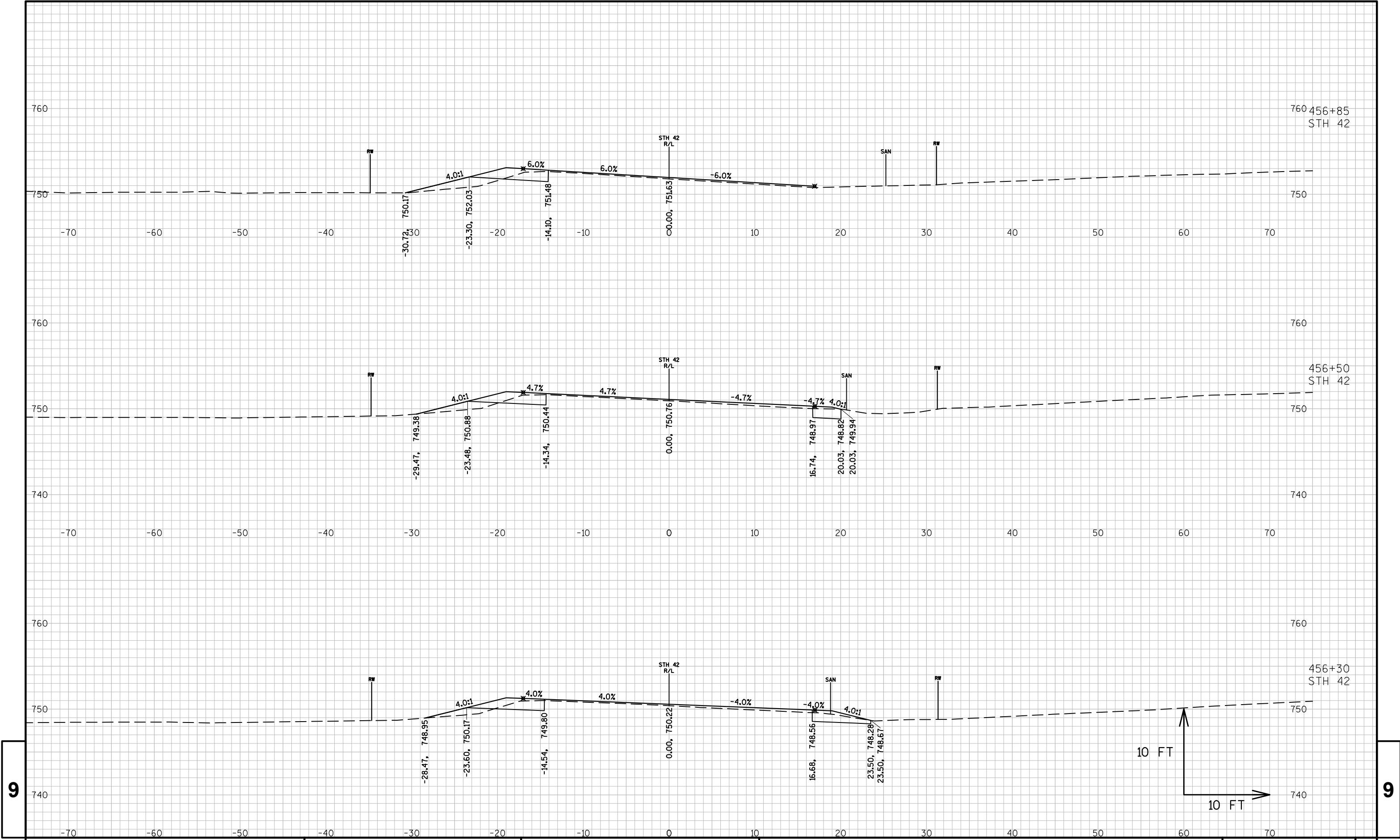






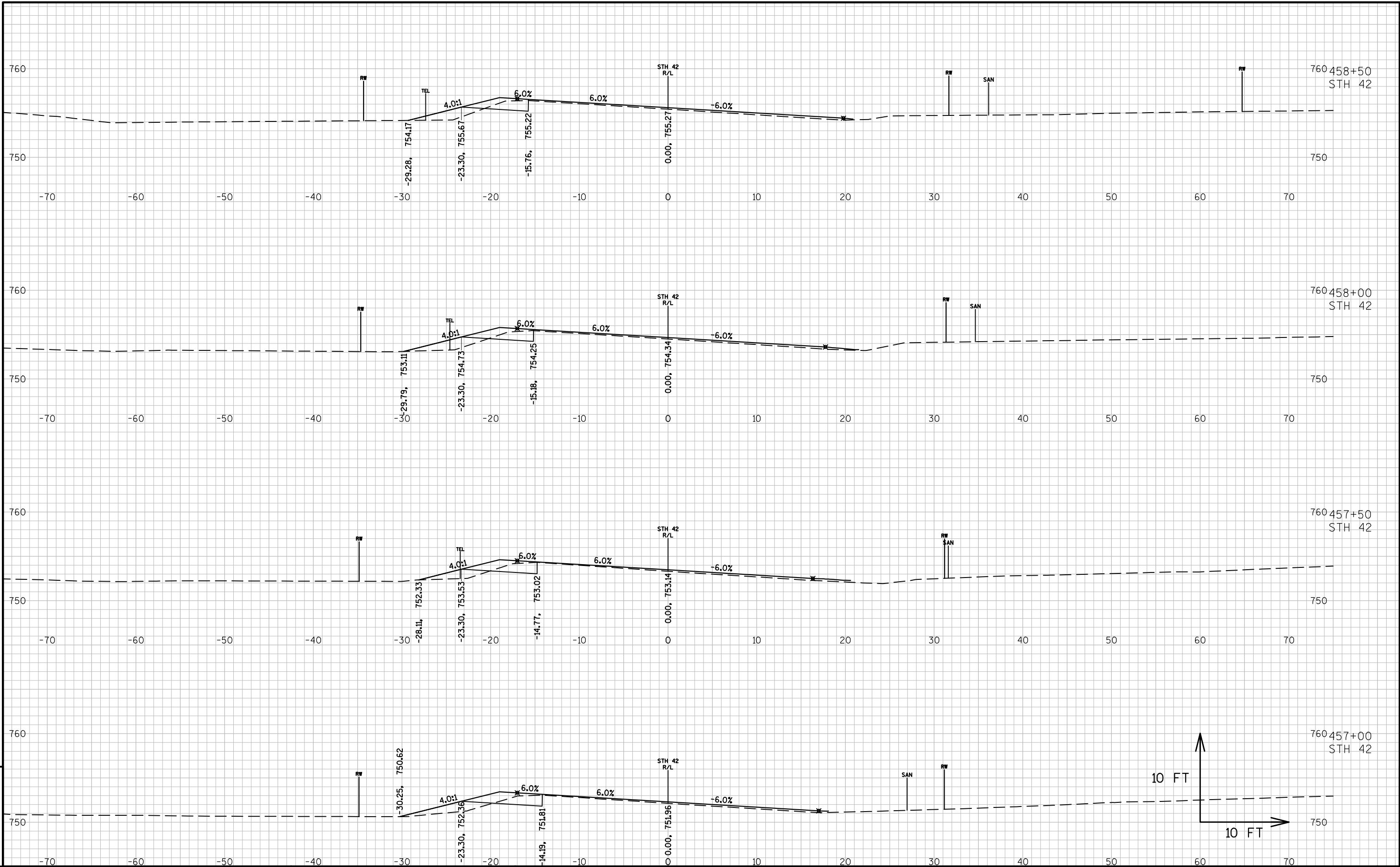
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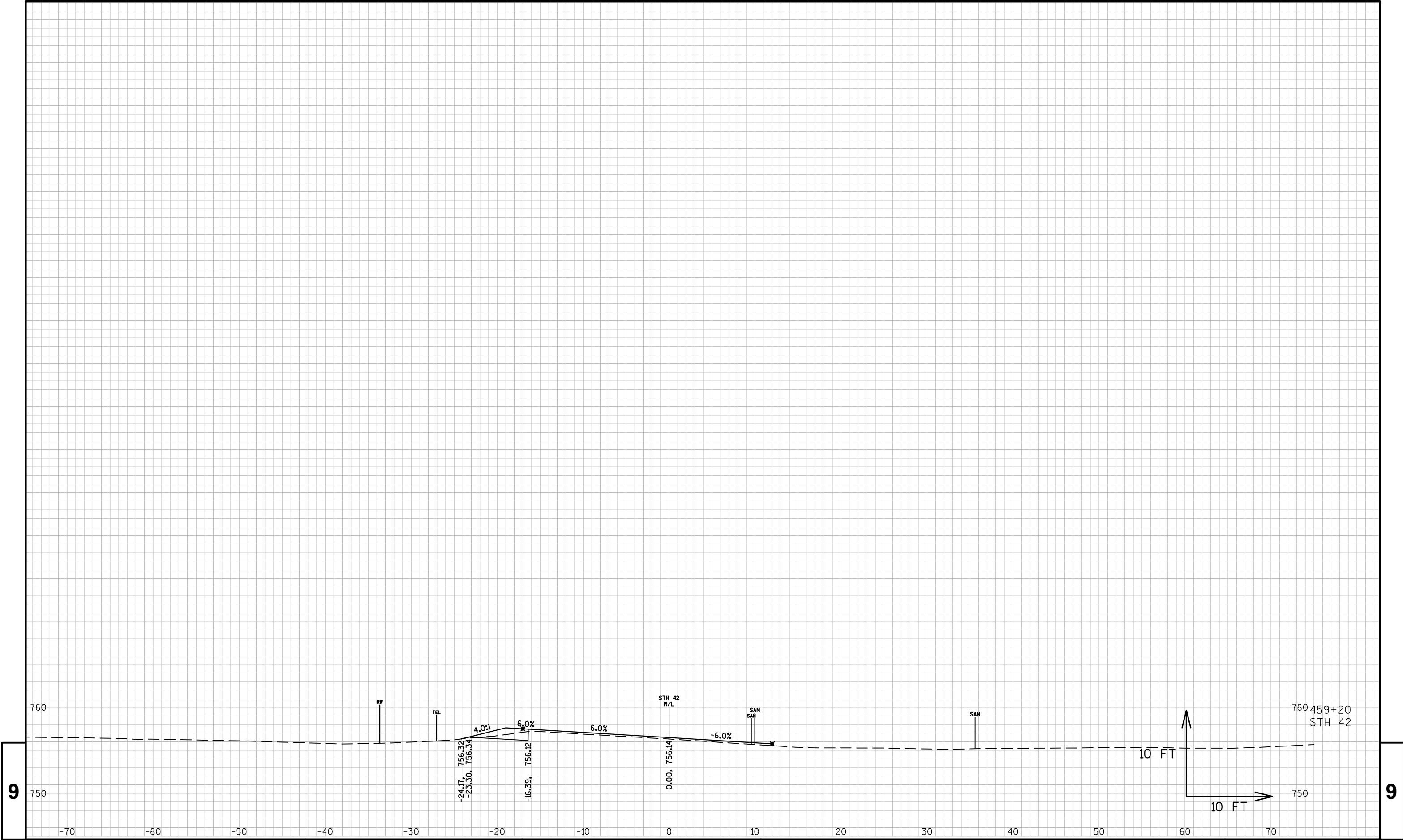
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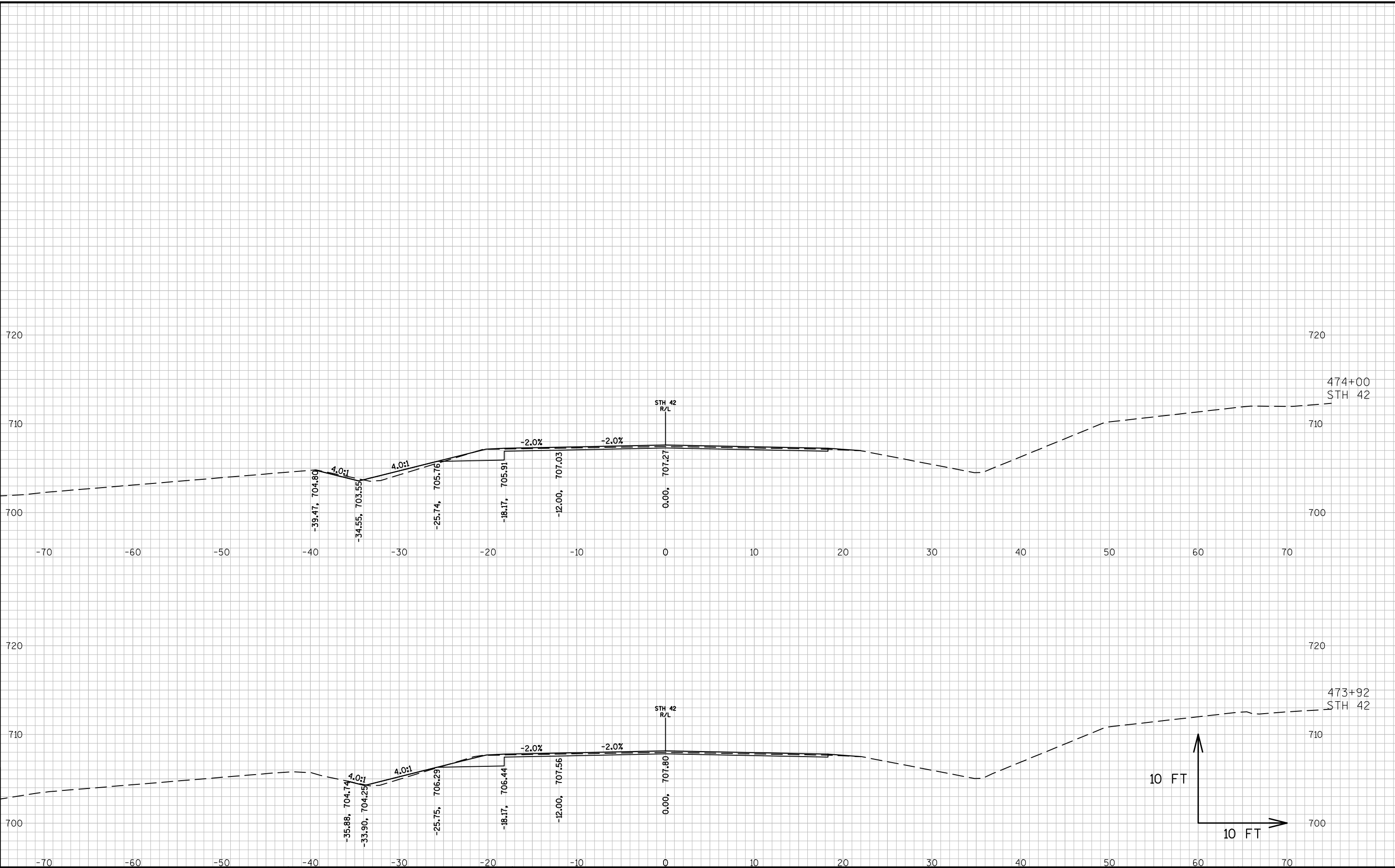


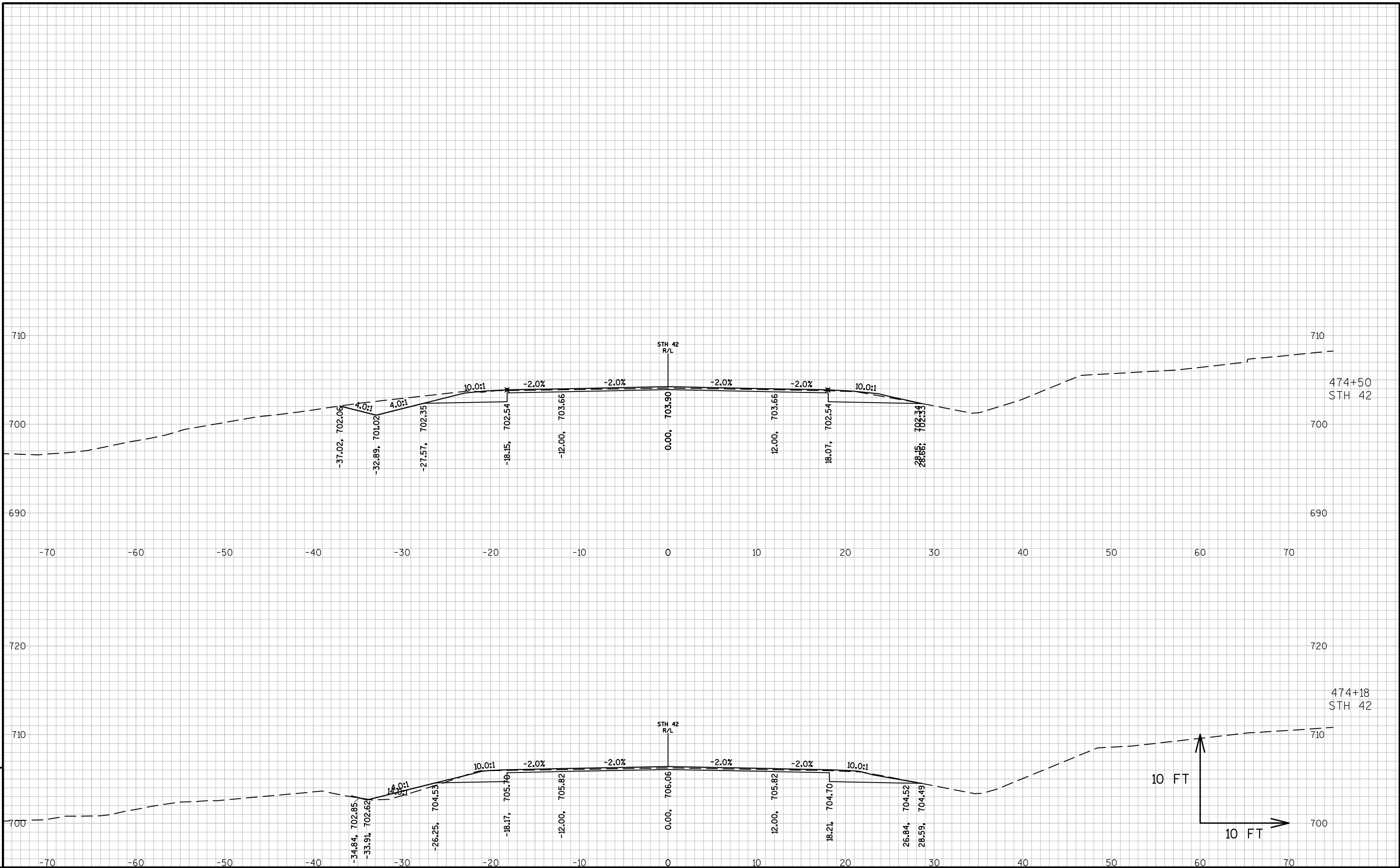


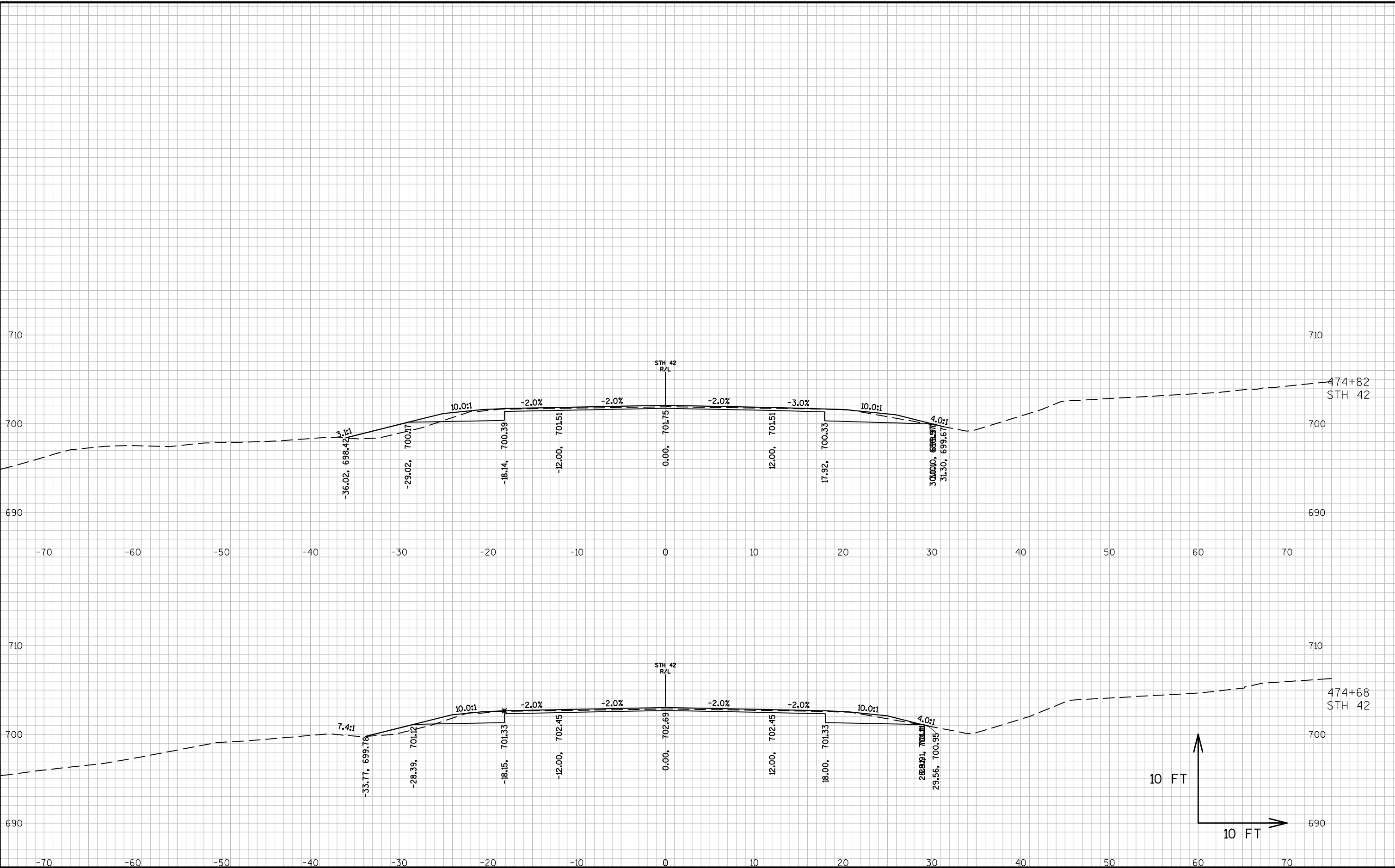
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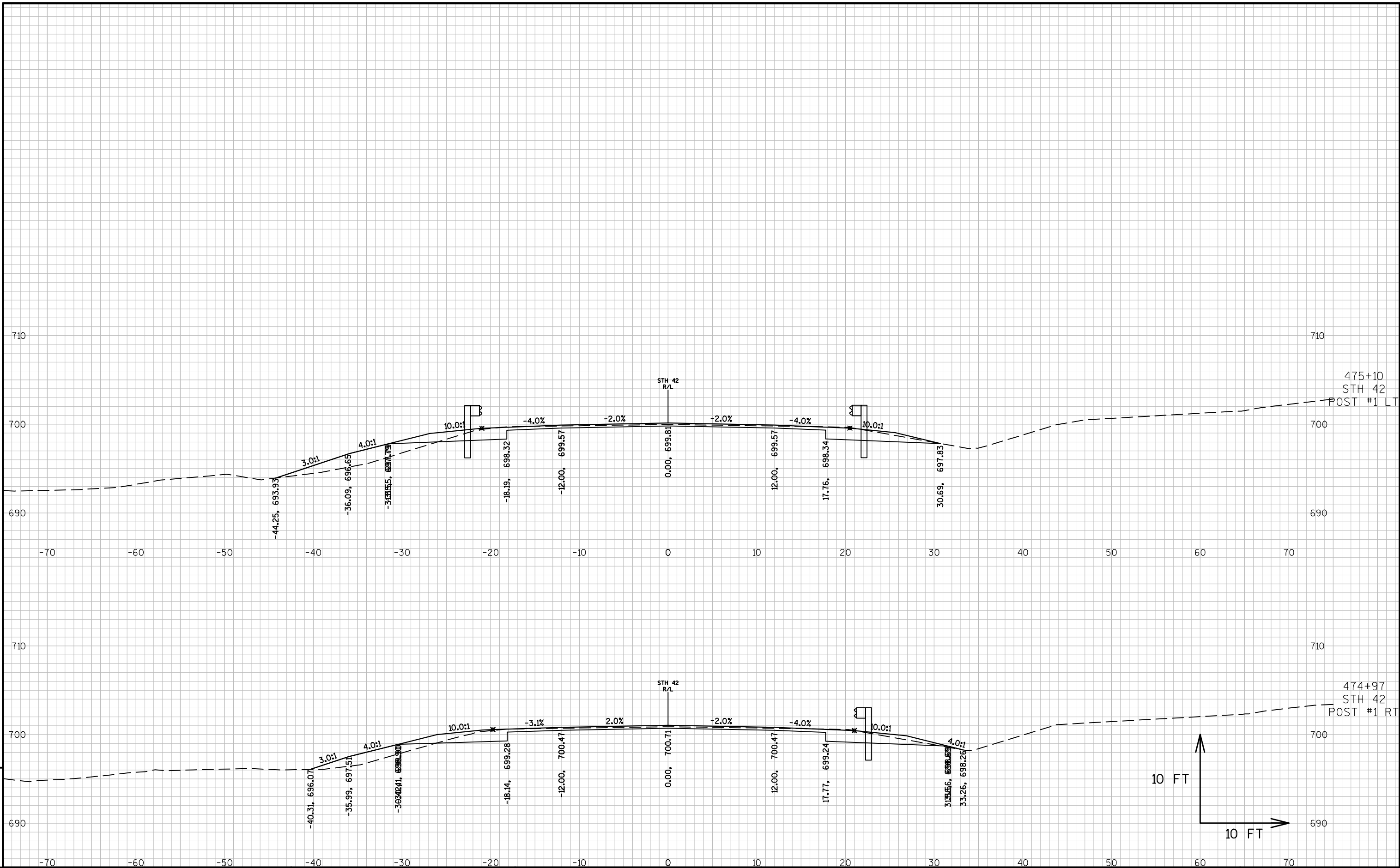
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| PROJECT NO: 4140-19-72 | HWY: STH 42 | COUNTY: DOOR | CROSS SECTIONS: STH 42 | SHEET | E |
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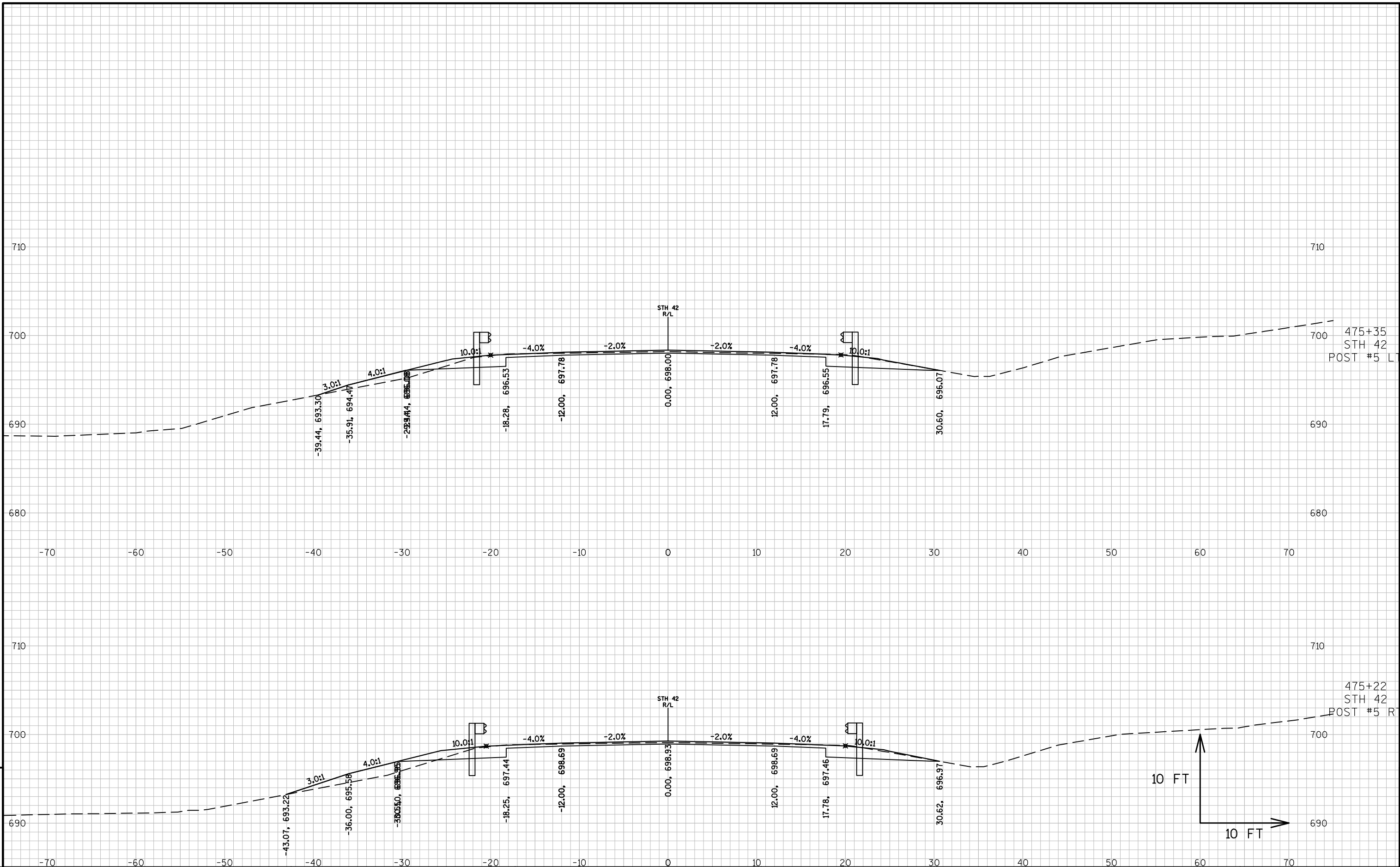


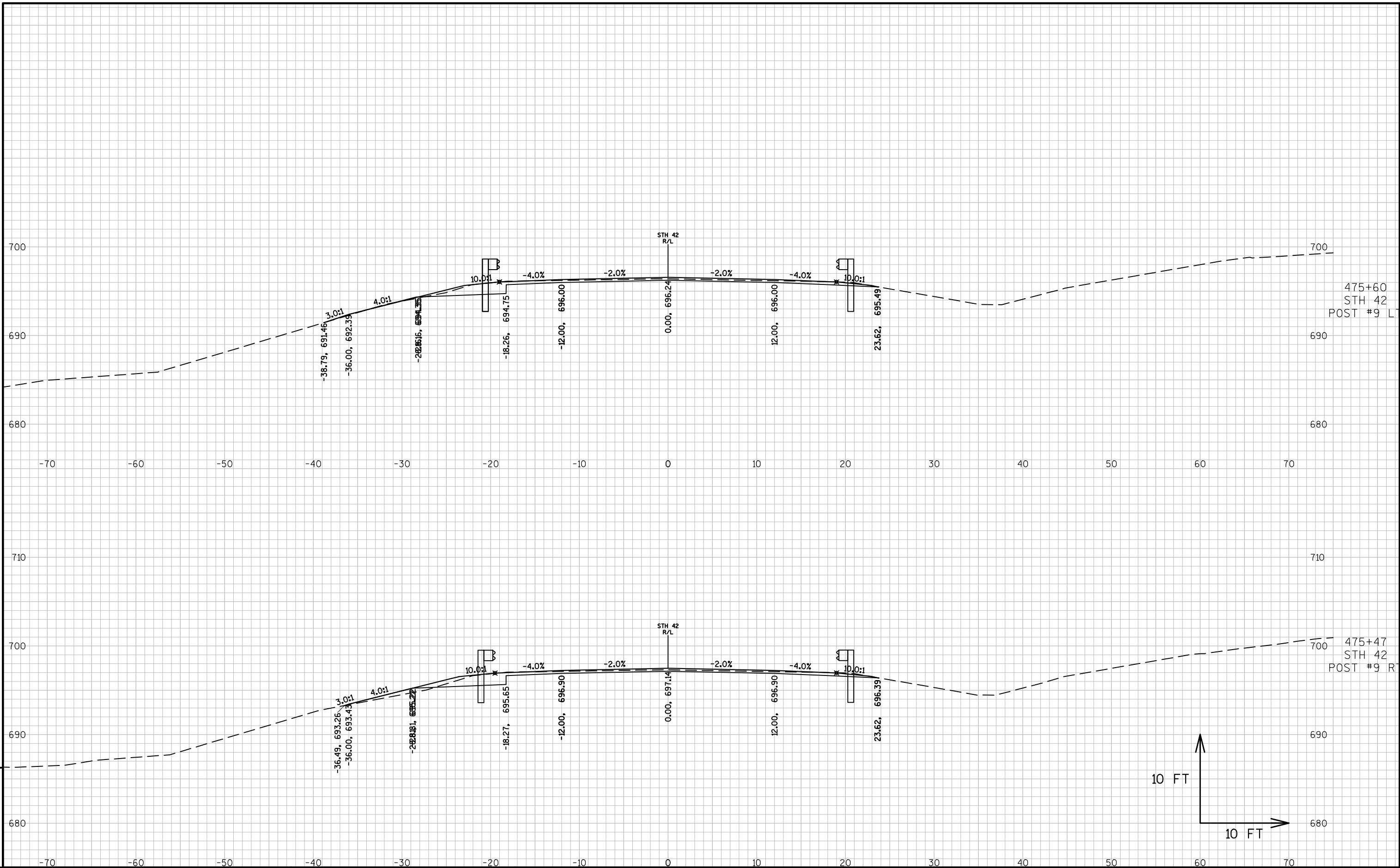


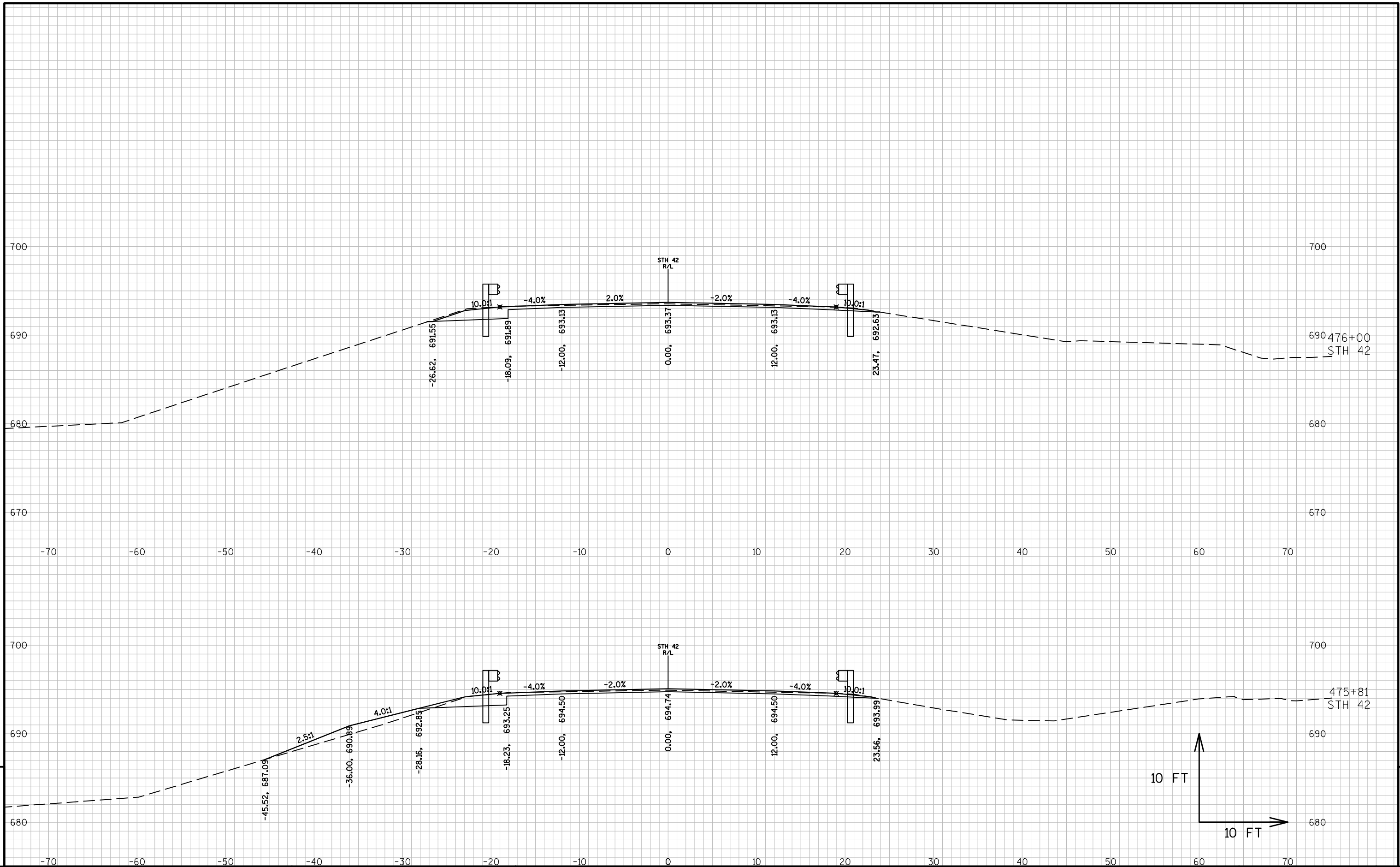


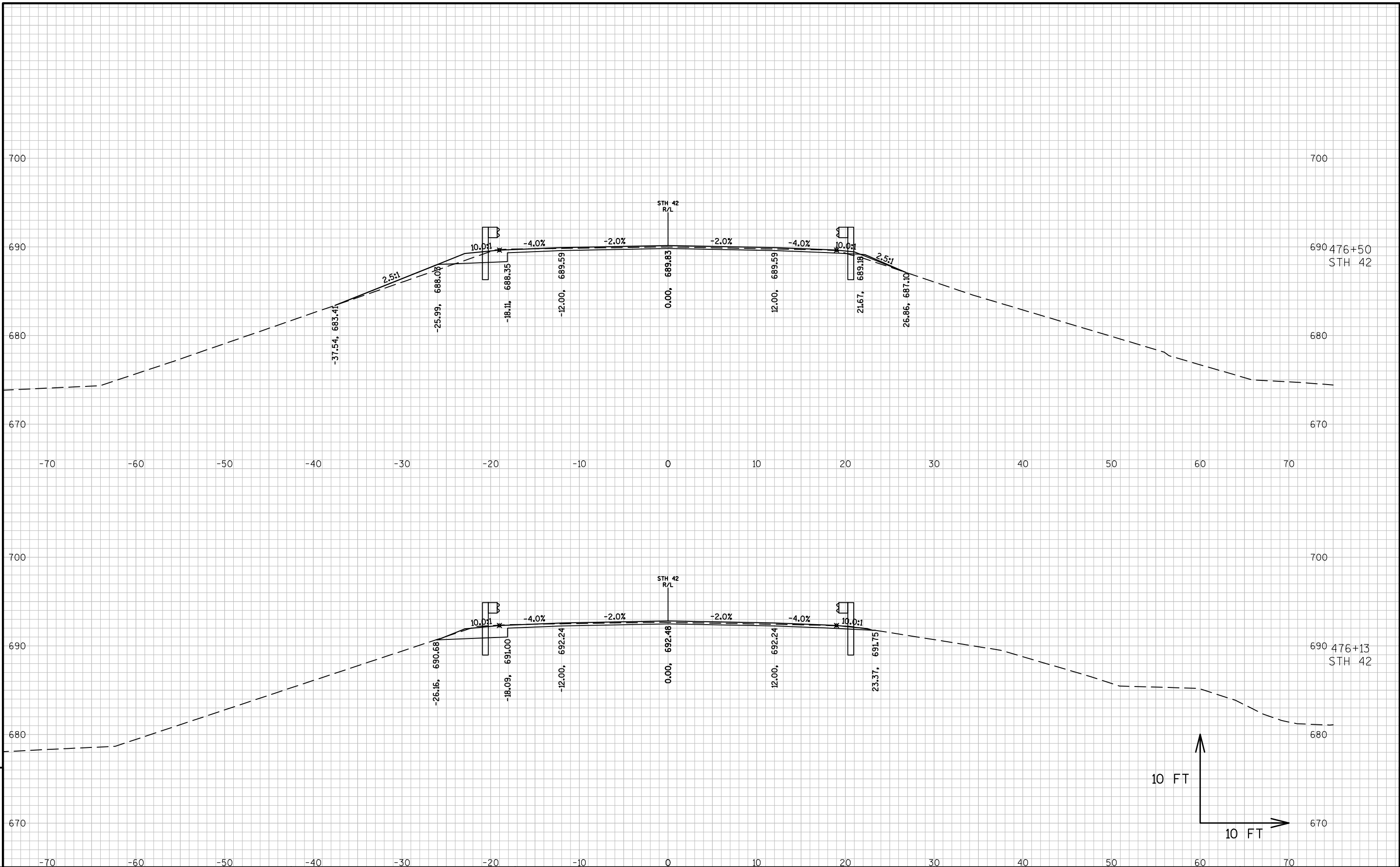


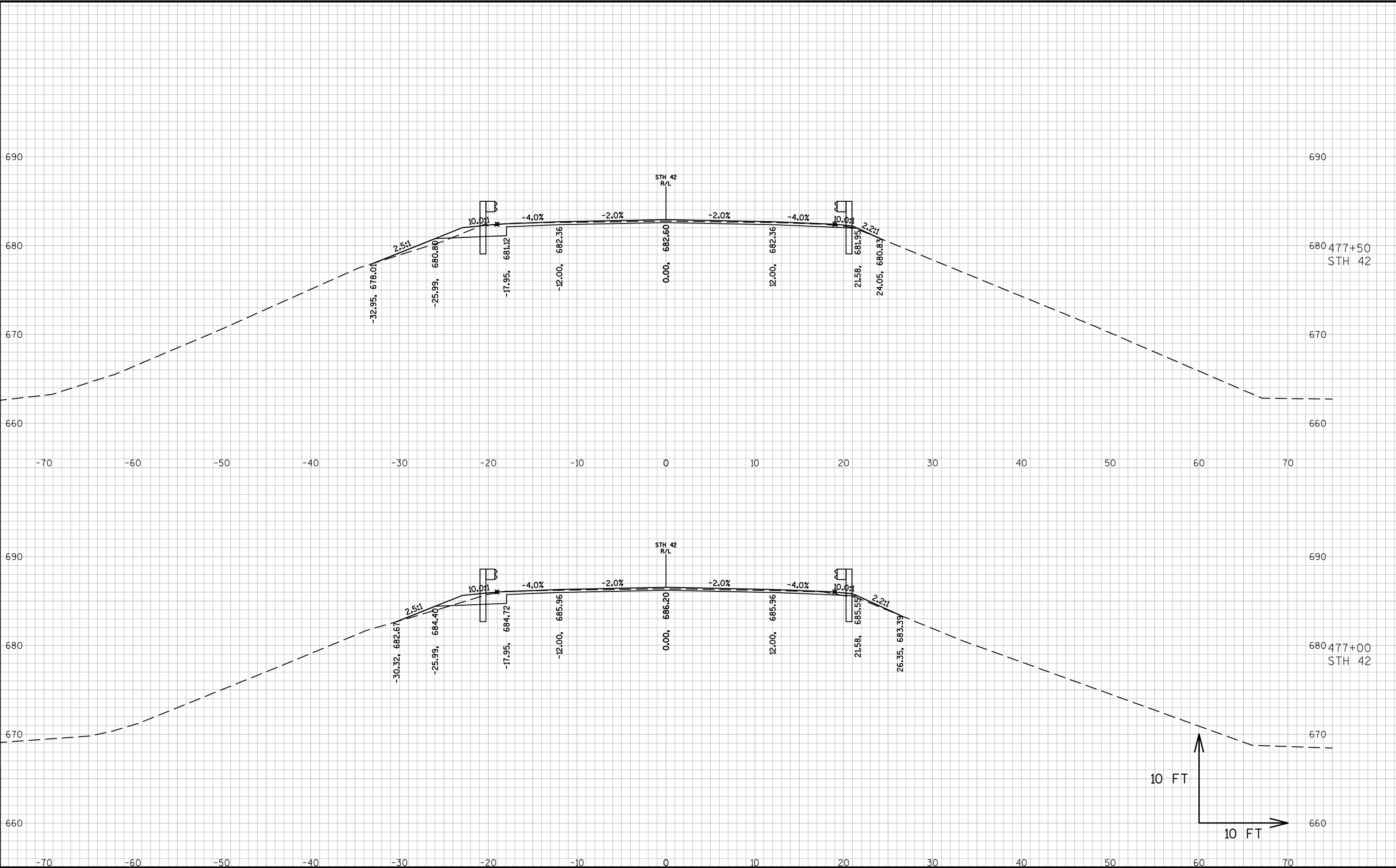


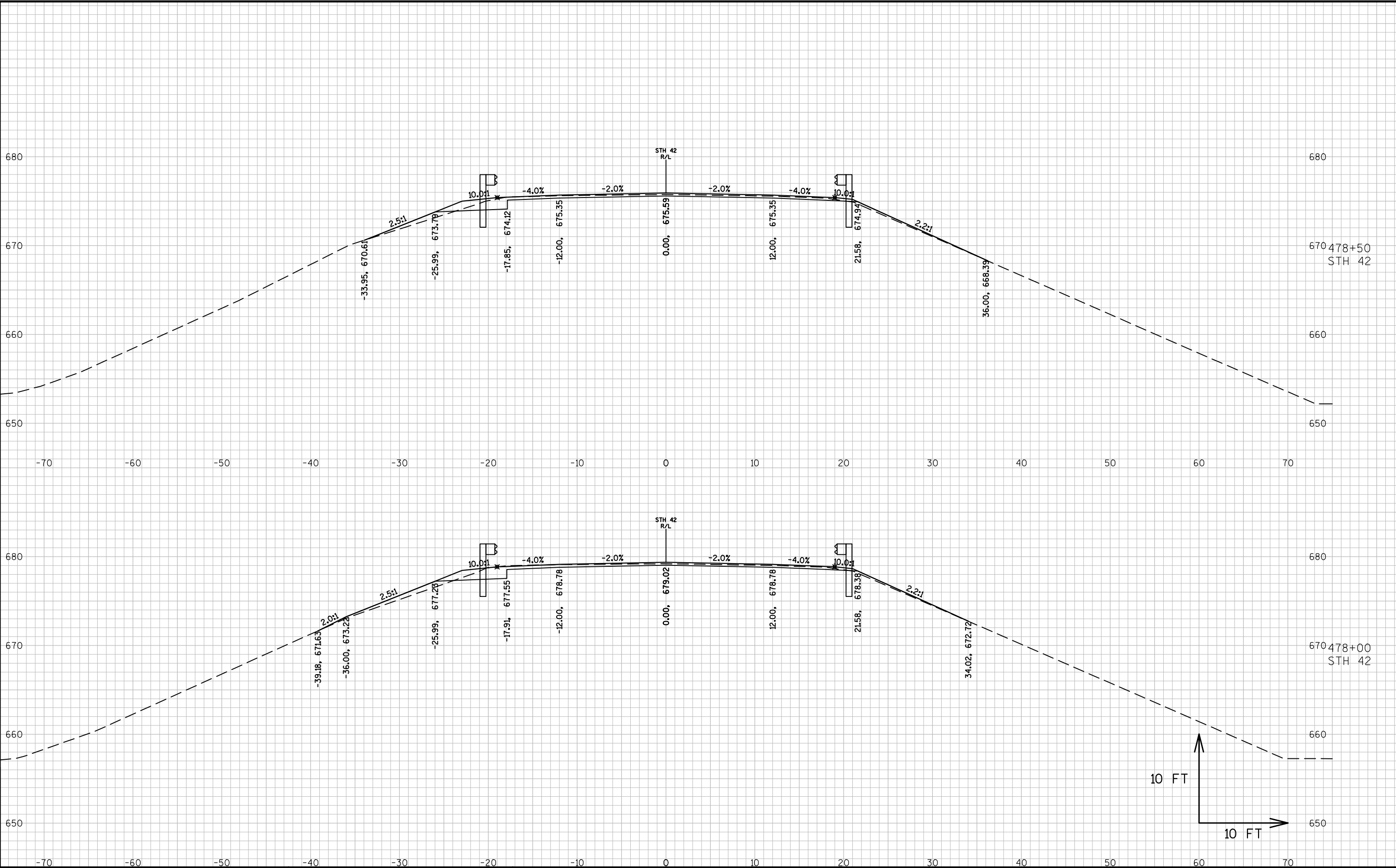


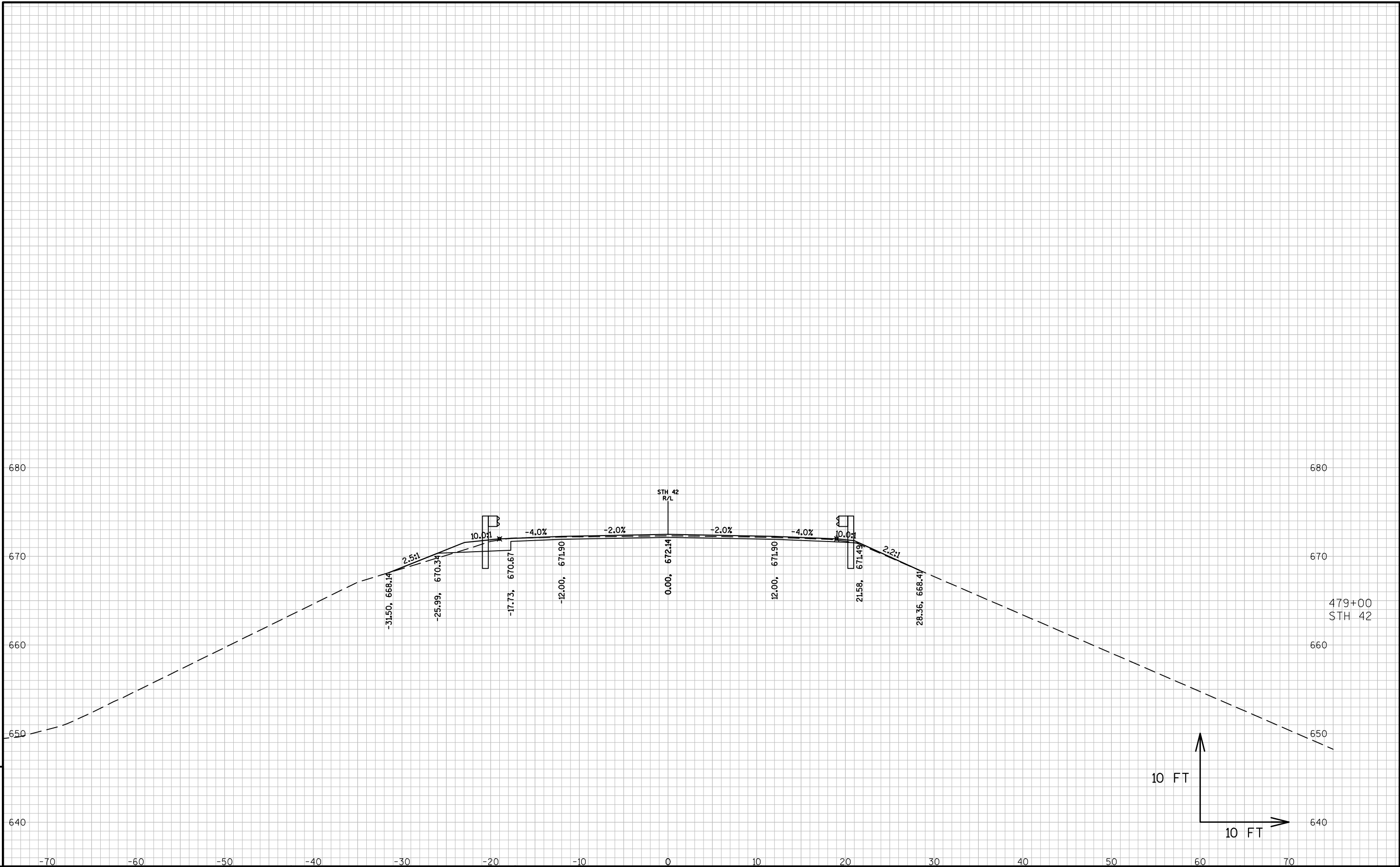


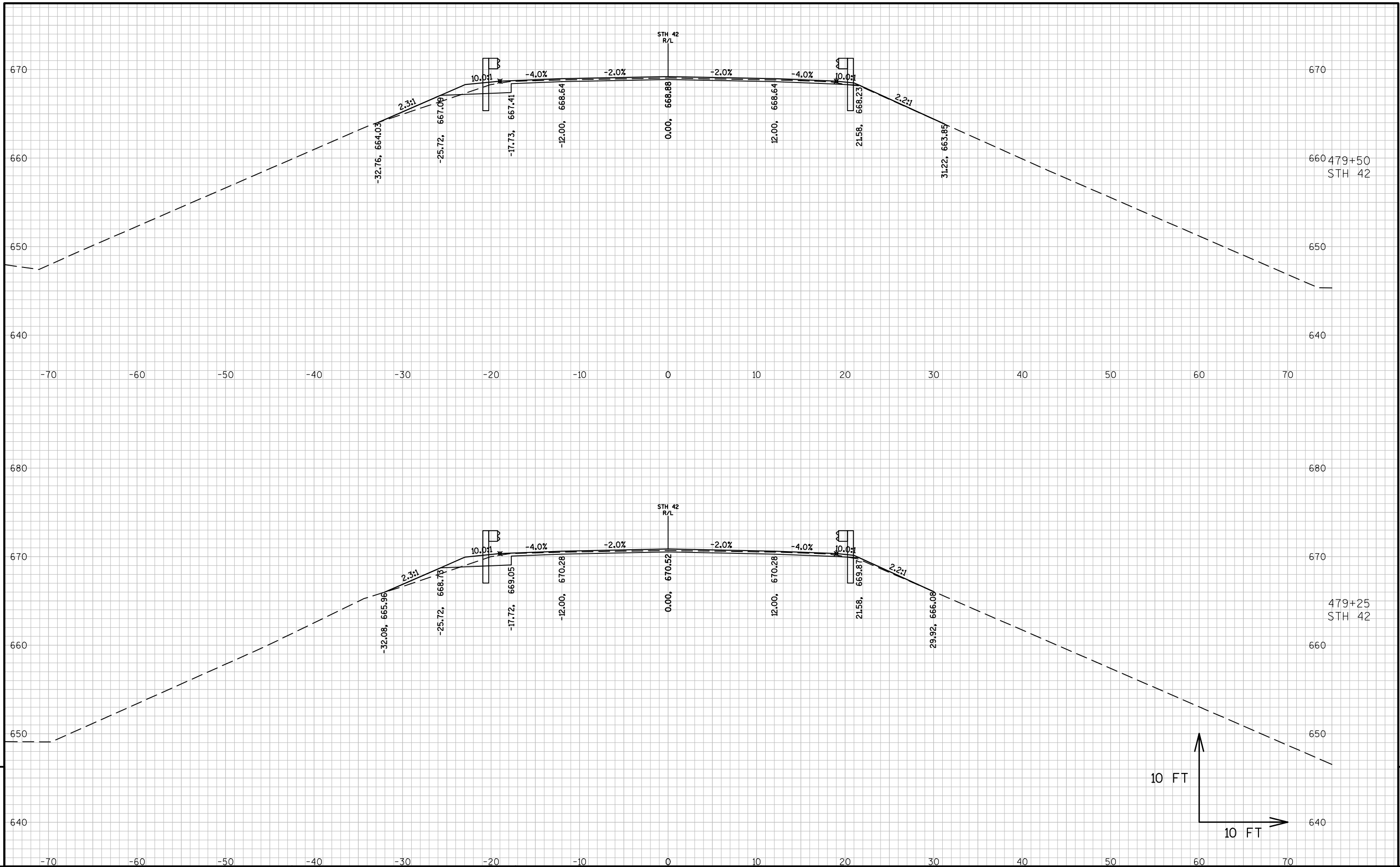




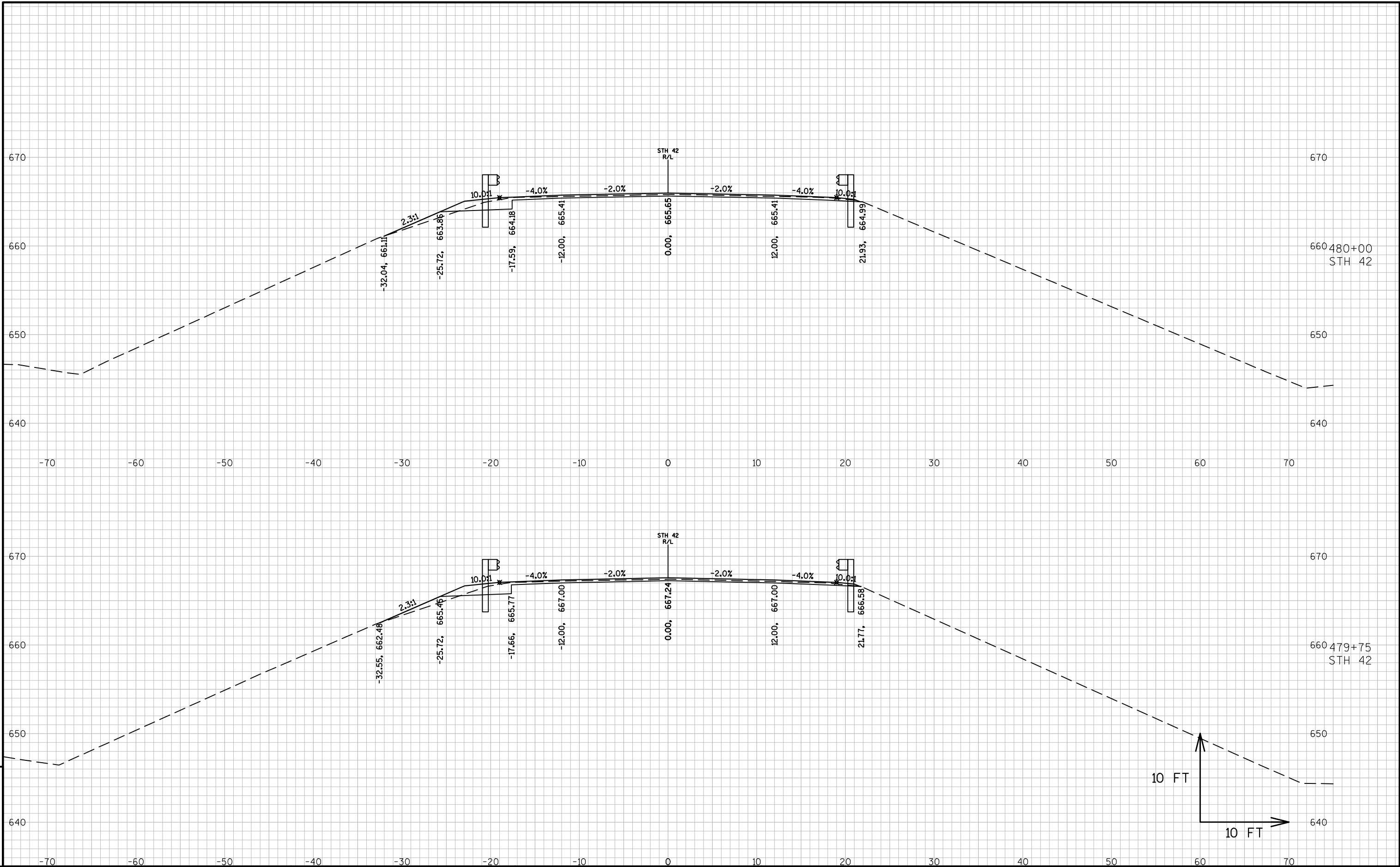


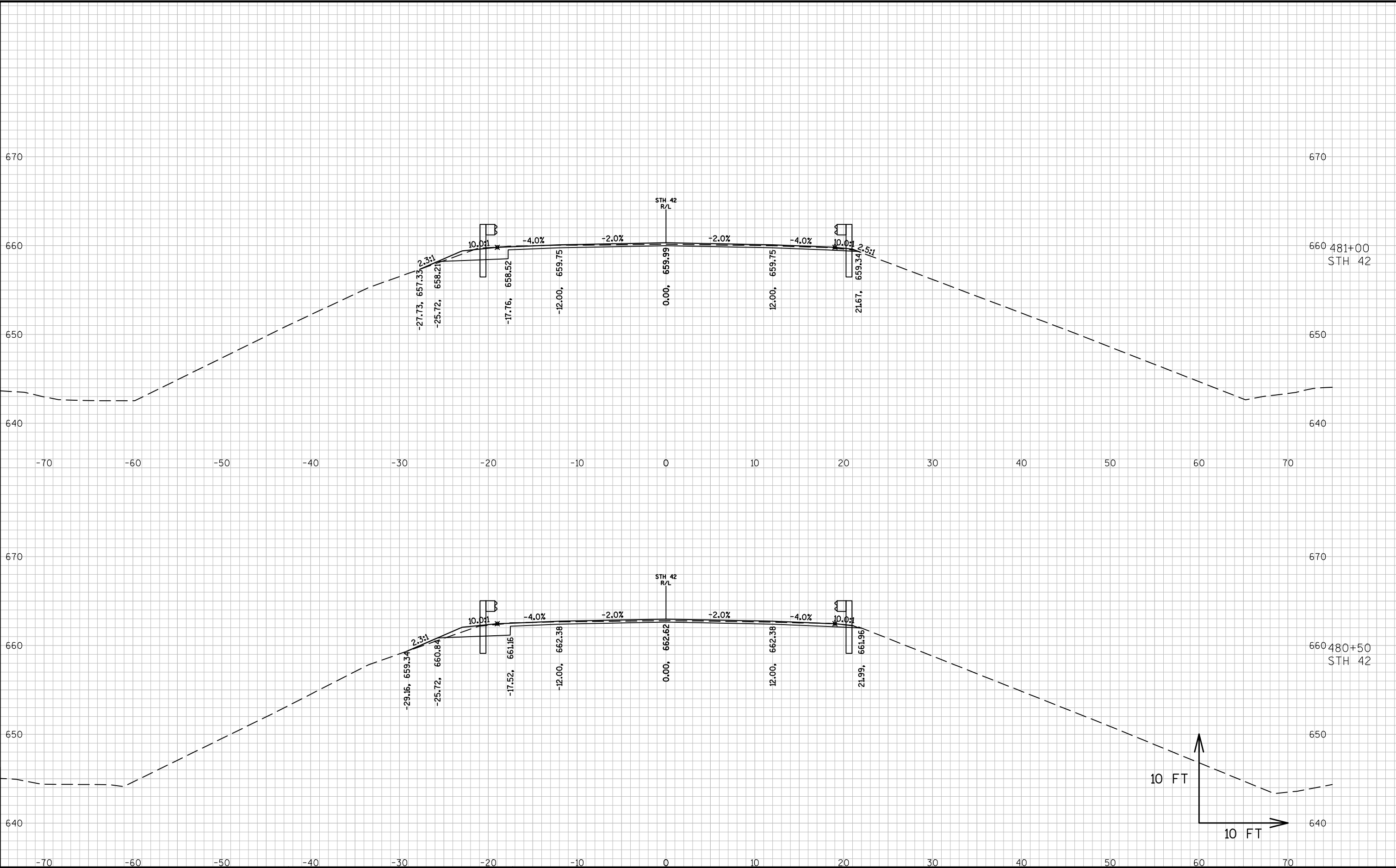


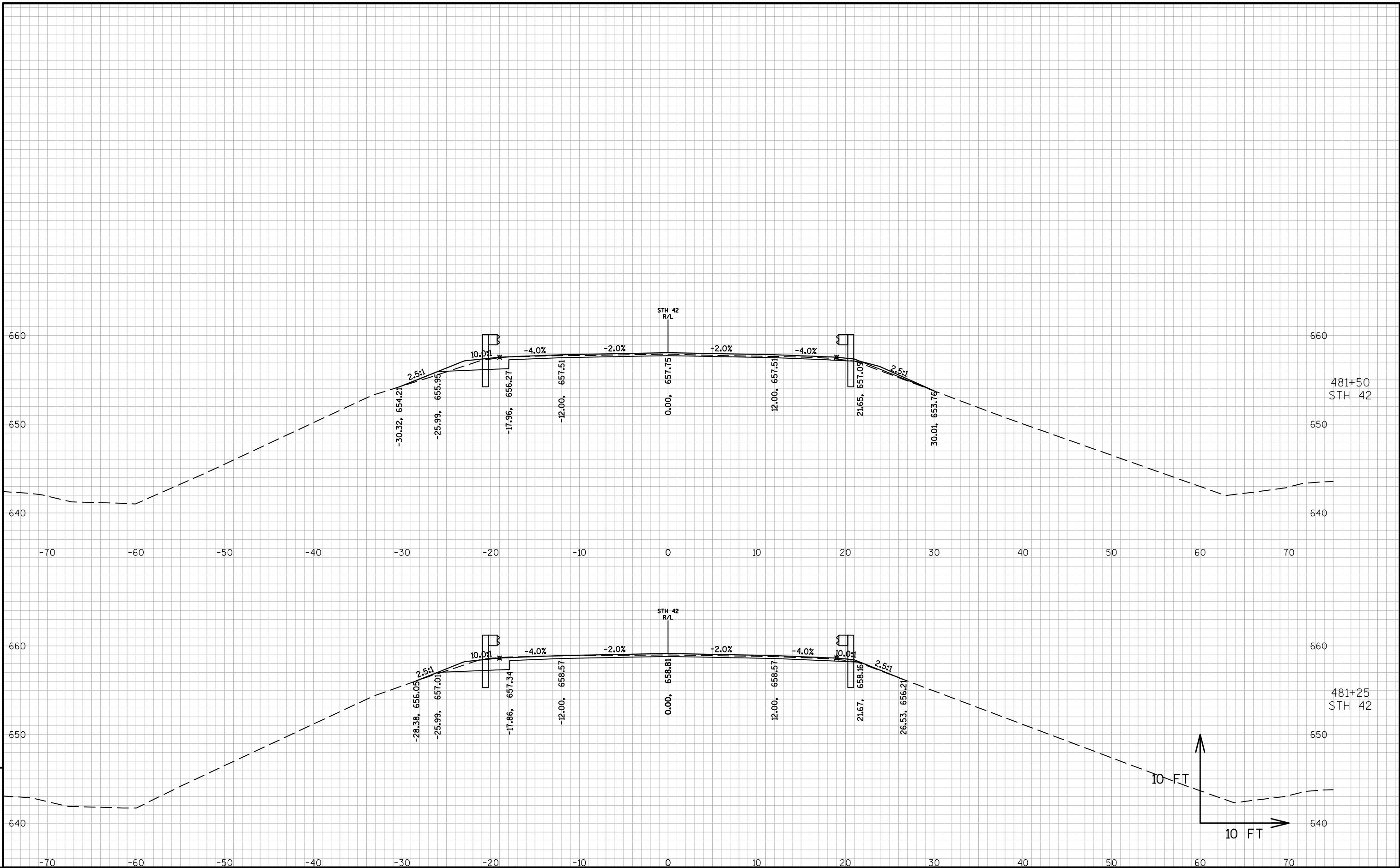


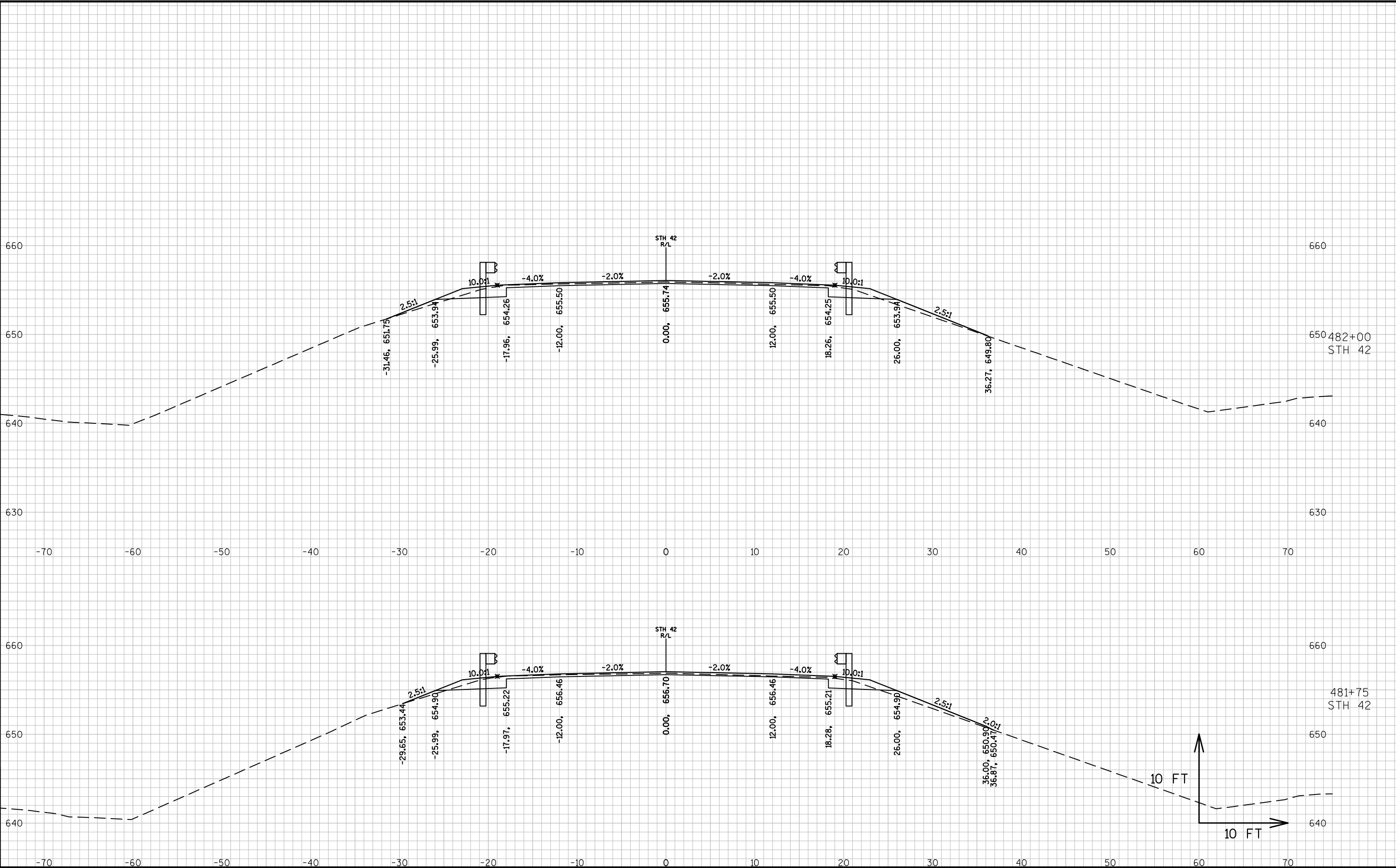


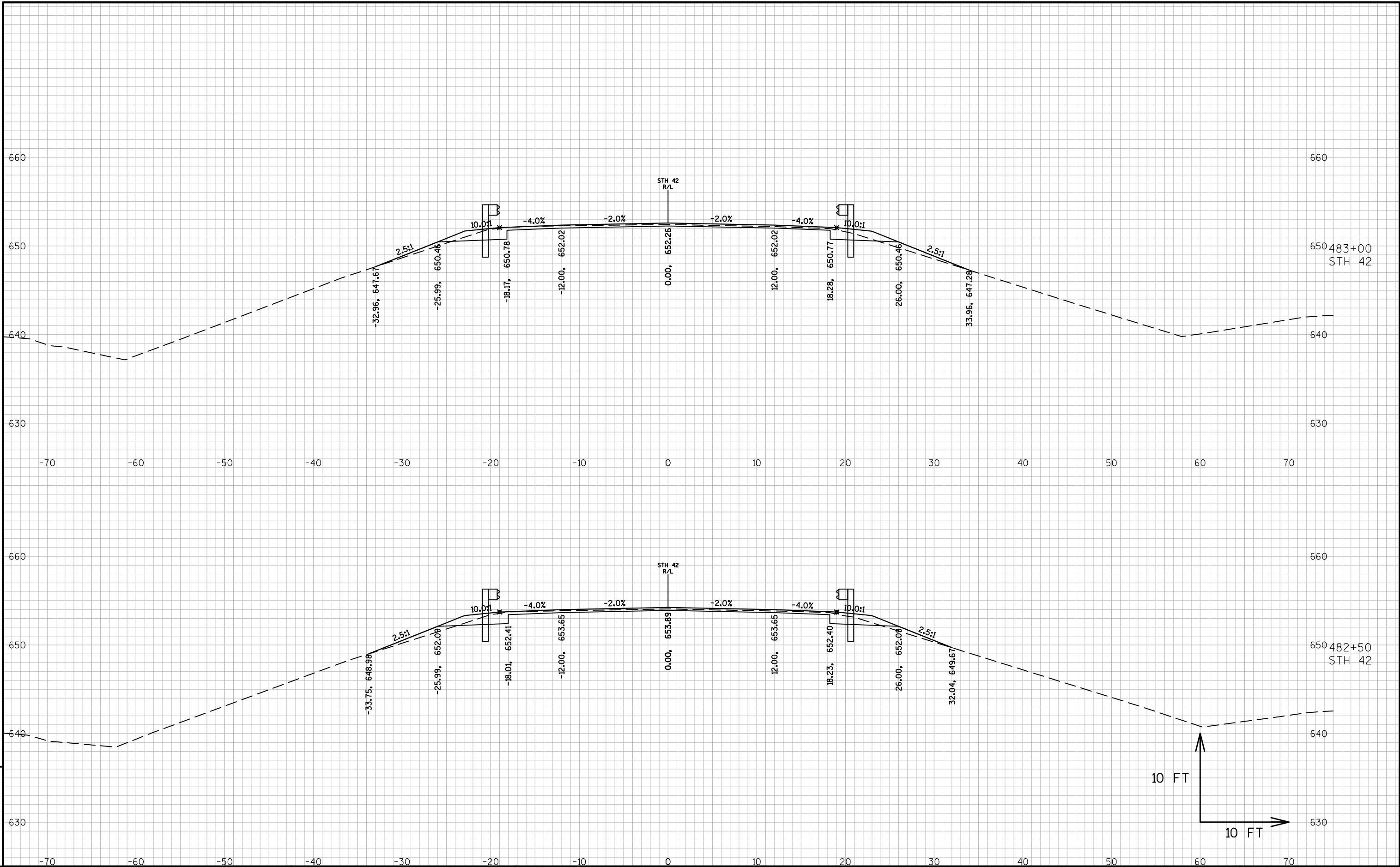


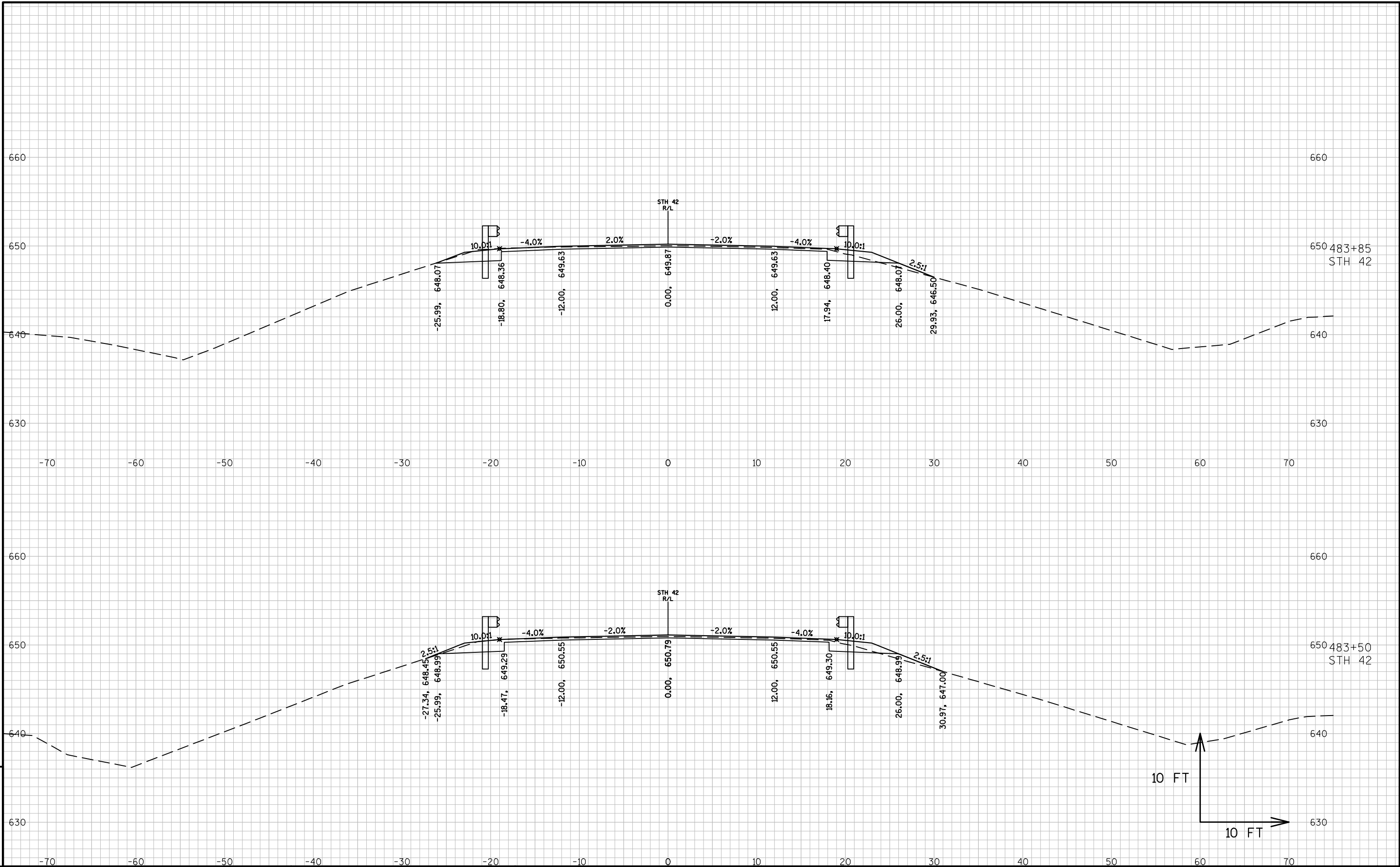


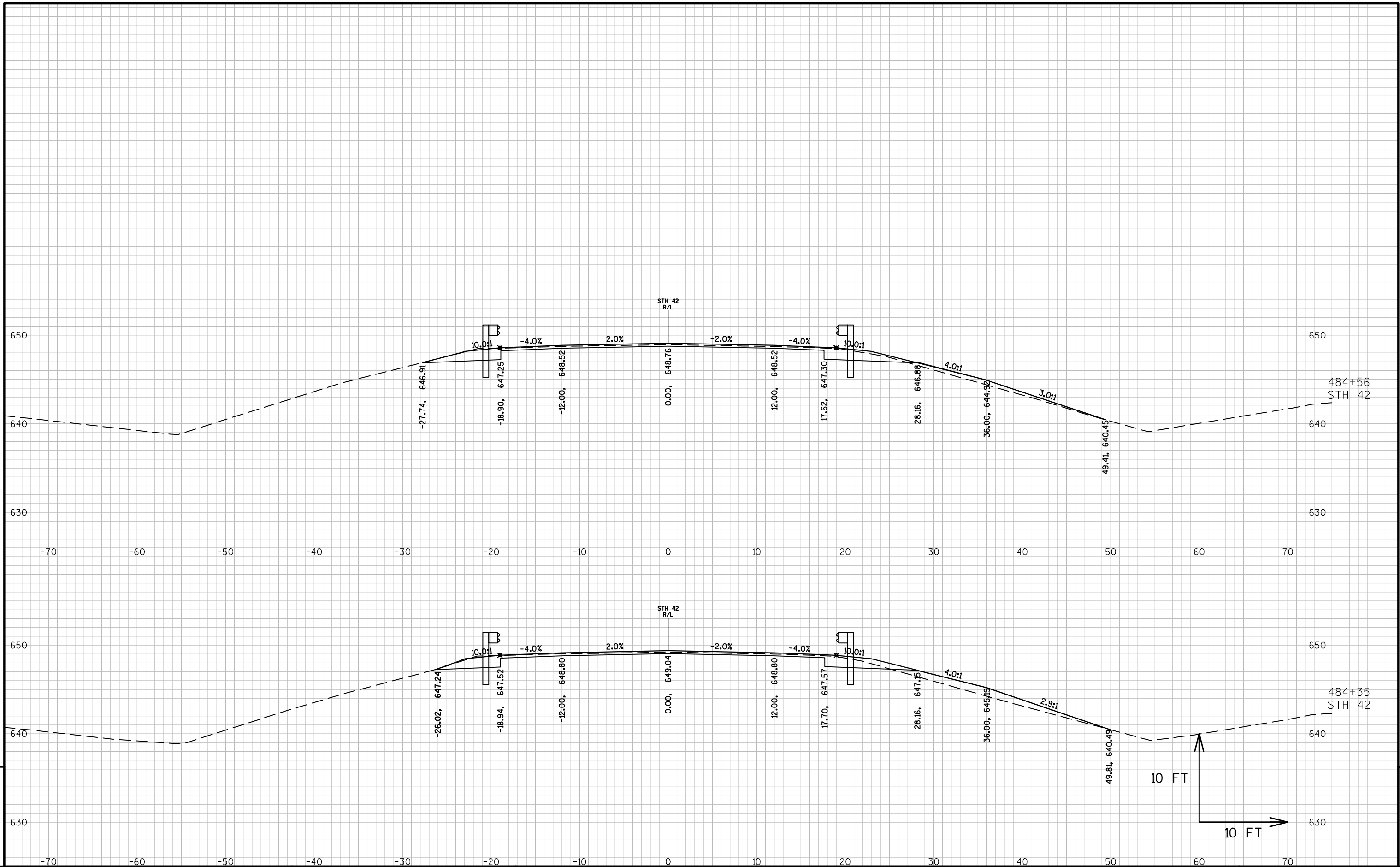


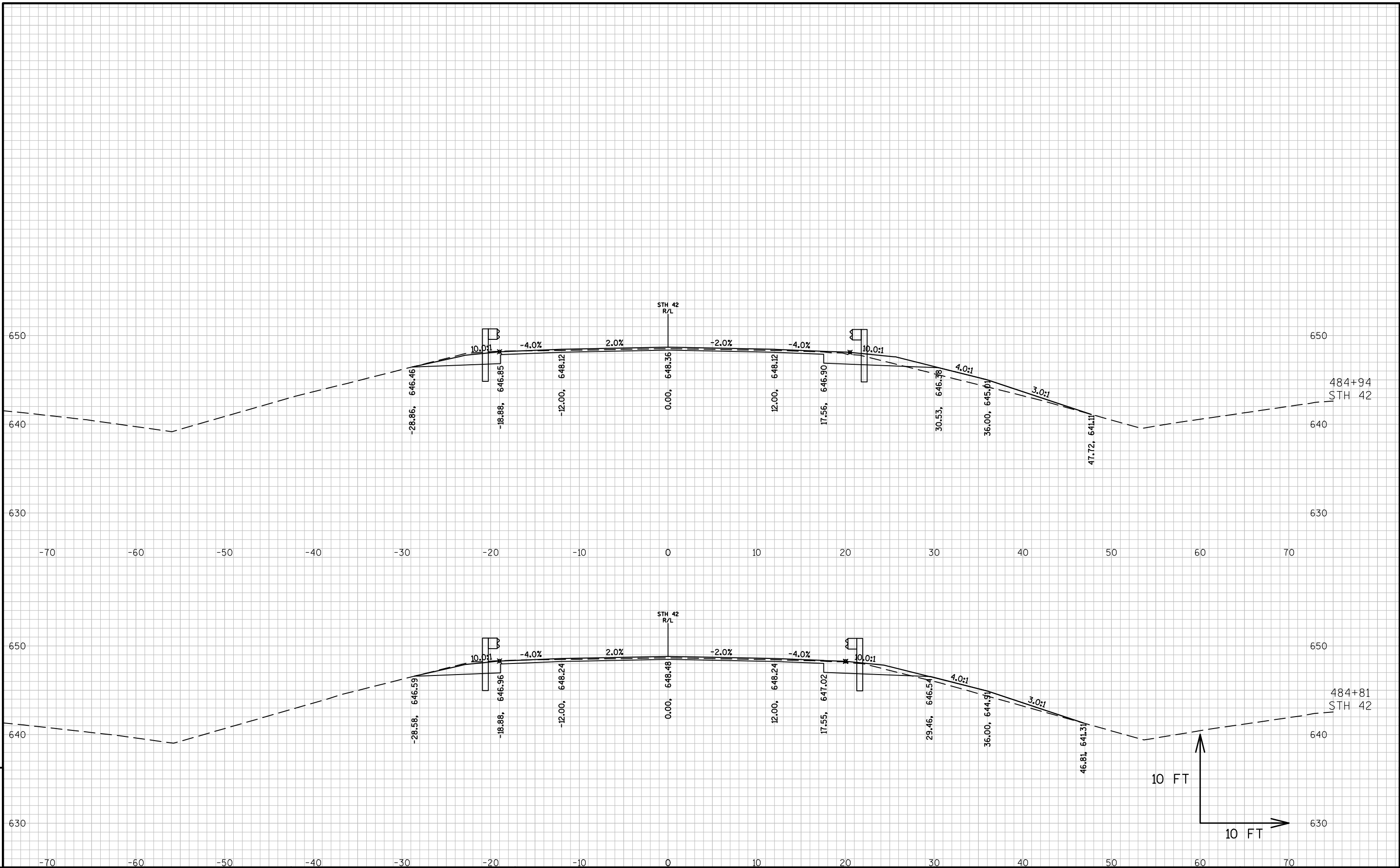




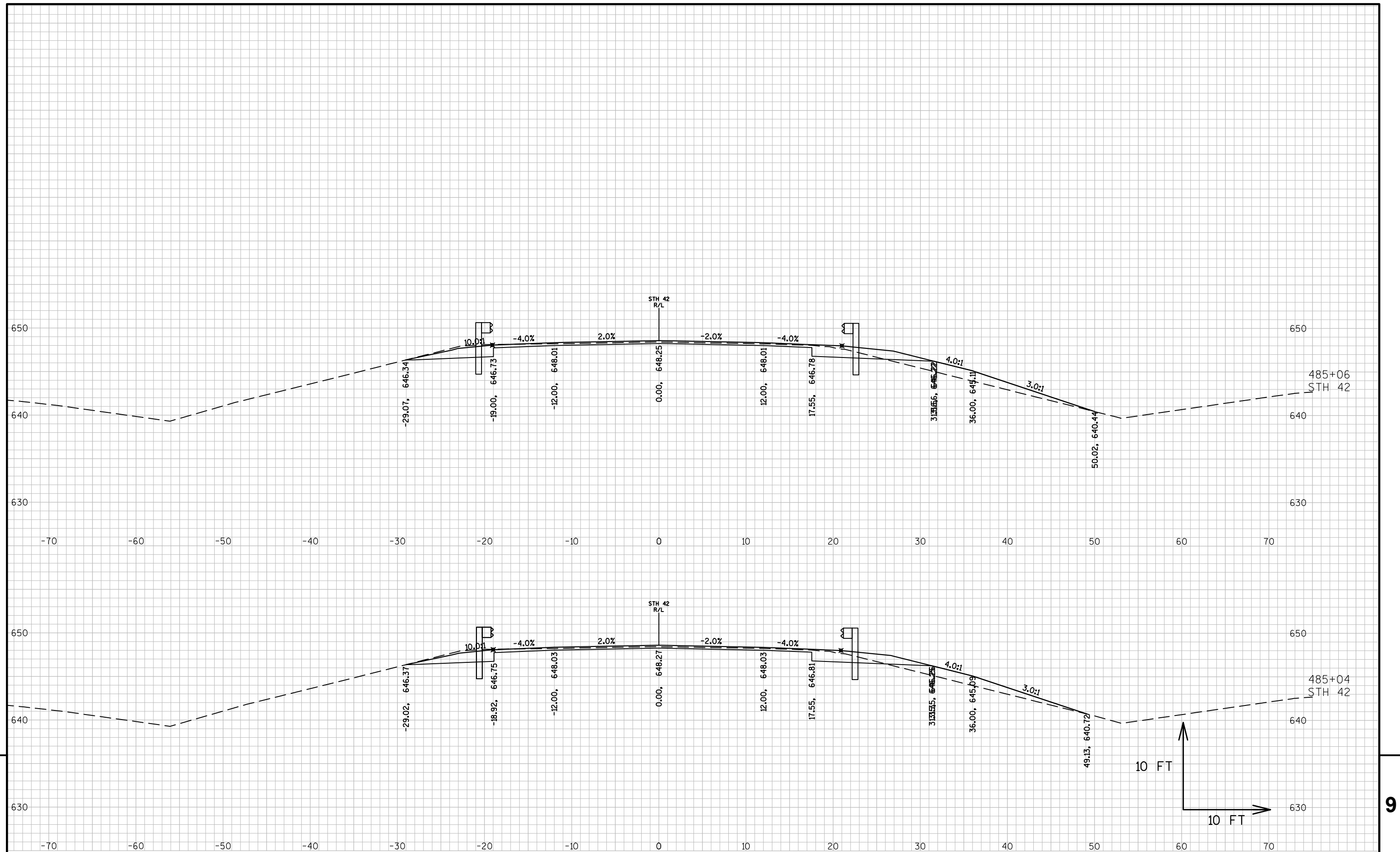


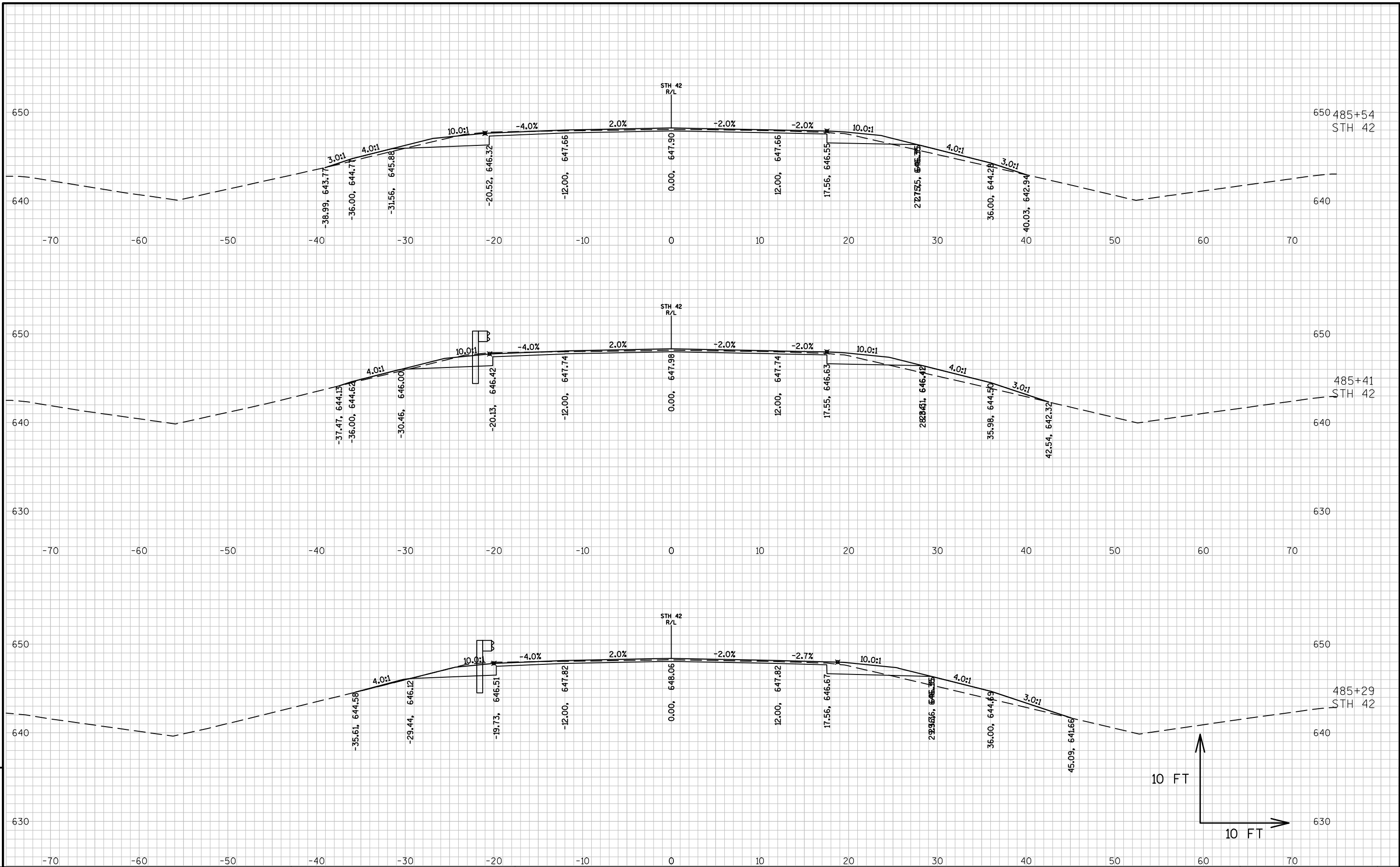




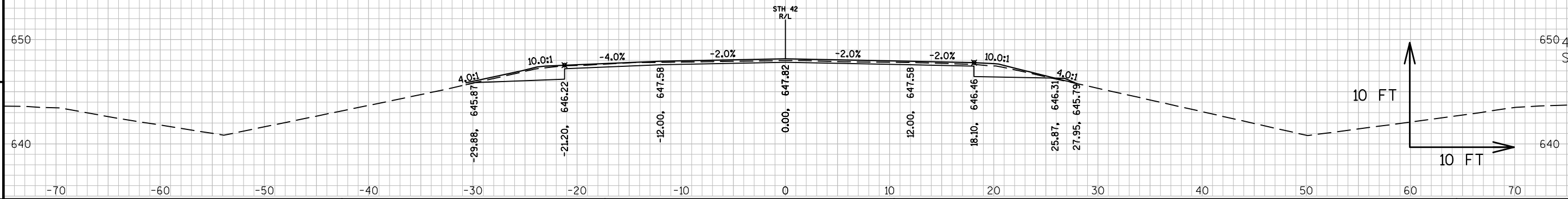








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