

GRE

PROJECT ID:

9269-00-14

COUNTY:

BROWN

WITH:

JANUARY 2022

ORDER OF SHEETS

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

TOTAL SHEETS = 230

PROJECT LOCATION



DESIGN DESIGNATION

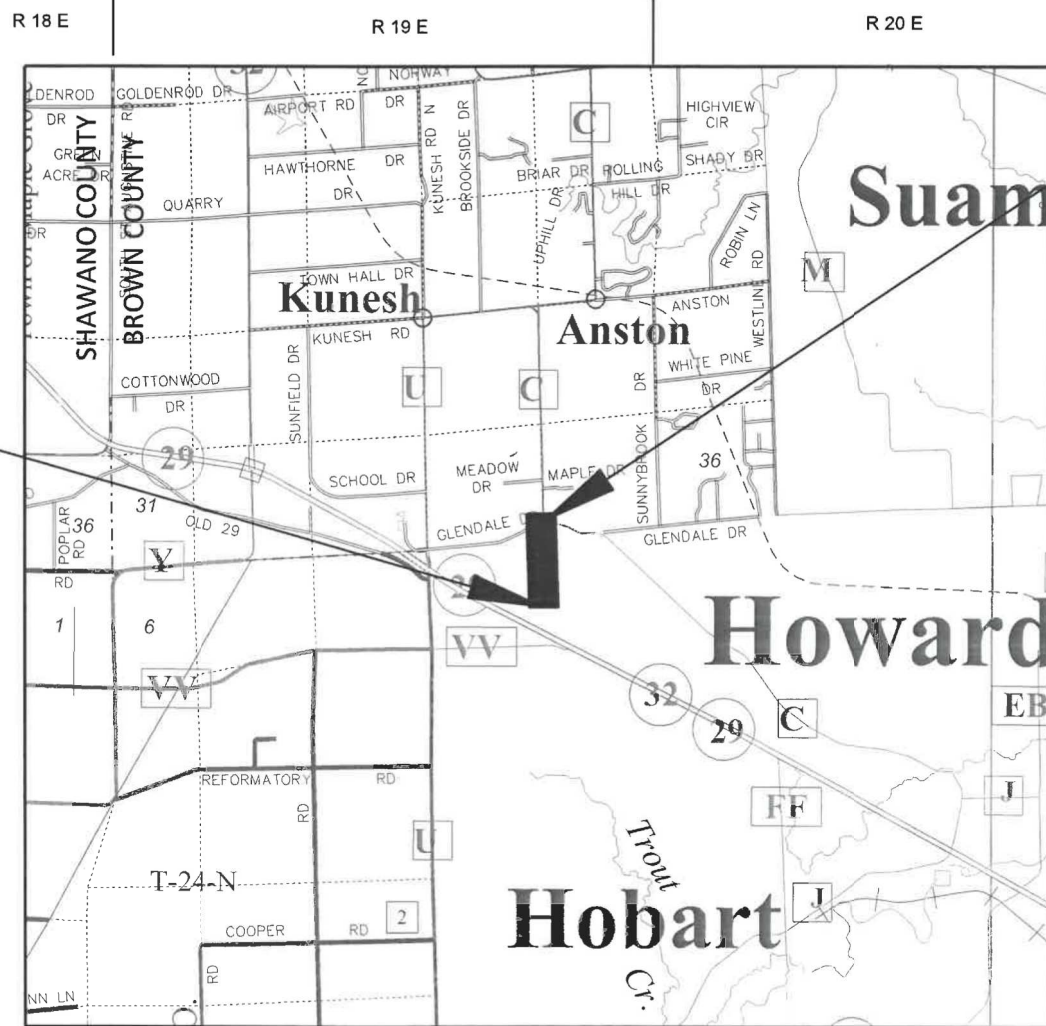
|              |      |   |         |
|--------------|------|---|---------|
| A.A.D.T.     | 2022 | = | 5100    |
| A.A.D.T.     | 2042 | = | 7600    |
| D.H.V.       |      | = | 950     |
| D.D.         |      | = | 50/50   |
| T.           |      | = | 5.0%    |
| DESIGN SPEED |      | = | 40 MPH  |
| ESALS        |      | = | 720,000 |

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           |  |

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

BEGIN PROJECT  
STA. 65+25  
Y = 591680.231  
X = 59346.571



LAYOUT  
SCALE 0 2 MI  
TOTAL NET LENGTH OF CENTERLINE = 0.677 MI.

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), BROWN COUNTY, NAD83 ( 2011 ), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 ( 2012 ). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12B.

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

V HOWARD, MARLEY STREET

MILLWOOD COURT - CTH C

LOC STR

BROWN COUNTY

STATE PROJECT NUMBER  
9269-00-14

STATE PROJECT

9269-00-14

FEDERAL PROJECT

PROJECT

WISC 2022124

CONTRACT

1

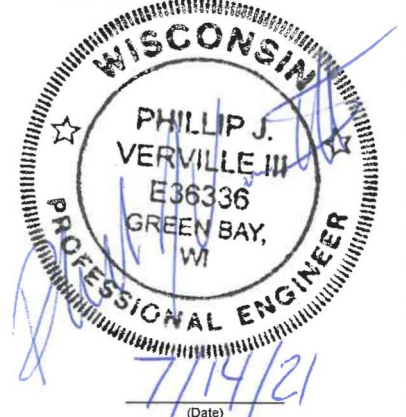
END PROJECT  
STA. 101+00

ACCEPTED FOR  
BROWN COUNTY

7-15-21  
DATE  
COUNTY ENGINEERING MANAGER

ORIGINAL PLANS PREPARED BY

AYRES



STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor  
Designer  
Project Manager  
Regional Supervisor

APPROVED FOR THE DEPARTMENT

DATE: 07/26/2021  
SIGNATURE

GENERAL NOTES

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLAN 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.

A VERTICAL SAW JOINT IS REQUIRED WHERE NEW HMA PAVEMENT MEETS EXISTING HMA PAVEMENT.

ALL TIES ON THIS PLAN ARE HORIZONTAL UNLESS DESCRIBED OTHERWISE.

RADIUS POINTS, UNLESS OTHERWISE NOTED, ARE TO FACE OF CURB.

CURVE DATA IS BASED ON ARC DEFINITION.

BEARINGS SHOWN ON THE PLAN ARE TRUE BEARINGS.

PROPERTY LINES SHOWN ARE APPROXIMATE.

CONCRETE DEPTH ON ALL CURB RAMPS SHALL BE 6-INCH.

REMOVAL OF ANY MESH OR REINFORCEMENT FOUND IN CONCRETE PAVEMENT SHALL BE INCIDENTAL TO THE REMOVING PAVEMENT ITEM.

MAINTAIN DRIVING SURFACE TO ALL PROPERTY OWNERS WITH BASE AGGREGATE DENSE 1 1/4-INCH.

THE EXACT LOCATIONS OF PRIVATE ENTRANCES ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER. ALL DRIVEWAYS ARE TO BE REPLACED IN KIND UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR AS SHOWN ON THE PLANS. BASE AGGREGATE DENSE 1 1/4-INCH WILL BE USED UNDER ALL DRIVEWAYS.

SAW CUT ASPHALTIC AND CONCRETE DRIVEWAYS AND/OR PARKING LOTS AT THE MATCHLINE AS SHOWN ON THE PLAN DETAILS OR AS DIRECTED BY THE ENGINEER.

PRIOR TO ORDERING DRAINAGE PIPES AND STRUCTURES, VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN AND PROVIDE DOCUMENTATION TO THE ENGINEER.

INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES SHOWN ON THE PLAN MAY BE ADJUSTED BY THE ENGINEER TO FIT FIELD CONDITIONS.

TEMPORARY STORAGE OF ANY EXCAVATED MATERIAL WILL NOT BE PERMITTED IN WETLANDS, FLOODWAY OR FLOODPLAIN OF ANY WETLANDS.

PLACE EROSION CONTROL DEVICES IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER. EROSION CONTROL FEATURES ARE SHOWN AT APPROXIMATE LOCATIONS, WITH EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.

NO TREES OR SHRUBS SHALL BE REMOVED WITHOUT APPROVAL BY THE ENGINEER.

STATIONING, DISTANCES, AND OFFSETS FOR SIGNS AND TRAFFIC CONTROL DEVICES SHOWN IN THE PLANS ARE APPROXIMATE. EXACT LOCATIONS ARE DETERMINED BY THE ENGINEER.

RESHAPE AND SEEDING OF ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY OPERATIONS OUTSIDE OF THE ENGINEER DETERMINED CONSTRUCTION LIMITS ARE INCIDENTAL TO THE CONTRACT.

ORDER OF SECTION 2 SHEETS

- GENERAL NOTES & CONTACTS
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- PLAN GRADES
- PLAN OFFSETS
- CURB RAMP DETAILS
- EROSION CONTROL
- STORM SEWER
- PAVEMENT MARKING
- ALIGNMENT DIAGRAM

STANDARD ABBREVIATIONS

|                |                                  |
|----------------|----------------------------------|
| ABUT           | ABUTMENT                         |
| AC             | ACRE                             |
| AGG            | AGGREGATE                        |
| AH             | AHEAD                            |
| ET AL          | AND OTHERS                       |
| BK             | BACK                             |
| BLDG           | BUILDING                         |
| BLK            | BLOCK                            |
| BR             | BRIDGE                           |
| CB             | CATCH BASIN                      |
| C/L            | CENTERLINE                       |
| Δ              | CENTRAL ANGLE OR DELTA           |
| CE             | COMMERCIAL ENTRANCE              |
| CONC           | CONCRETE                         |
| CPCA           | CULVERT PIPE CORRUGATED ALUMINUM |
| CPCS           | CULVERT PIPE CORRUGATED STEEL    |
| CTH            | COUNTY TRUNK HIGHWAY             |
| CR             | CREEK                            |
| CP             | CULVERT PIPE                     |
| C & G          | CURB AND GUTTER                  |
| D              | DEGREE OF CURVE                  |
| DNV            | DESIGN HOURLY VOLUME             |
| DIA            | DIAMETER                         |
| DWY            | DRIVEWAY                         |
| E              | EAST                             |
| X              | EAST COORDINATE                  |
| EB             | EASTBOUND                        |
| EL OR ELEV     | ELEVATION                        |
| ENT            | ENTRANCE                         |
| ESALS          | EQUIVALENT SINGLE AXLE LOAD      |
| EXIST          | EXISTING                         |
| F-F            | FACE TO FACE                     |
| FE             | FIELD ENTRANCE                   |
| FG             | FINISHED GRADE                   |
| FT             | FOOT                             |
| INL            | INLET                            |
| INV            | INVERT                           |
| IP             | IRON PIPE OR PIN                 |
| LT             | LEFT                             |
| L              | LENGTH OF CURVE                  |
| LIN. FT OR FT. | LINEAL FOOT                      |
| MH             | MANHOLE                          |
| N/C            | NORMAL CROWN                     |
| NW OR N/W      | NORMAL WATER                     |
| N              | NORTH                            |
| Y              | NORTH COORDINATE                 |
| NB             | NORTHBOUND                       |
| PT             | POINT                            |
| PCC            | POINT OF COMPOUND CURVE          |
| PC             | POINT OF CURVATURE               |
| PI             | POINT OF INTERSECTION            |
| PRC            | POINT OF REVERSE CURVATURE       |
| POC            | POINT ON CURVE                   |
| POT            | POINT OF TANGENT                 |
| R/L            | REFERENCE LINE                   |
| REBAR          | REINFORCED BAR                   |
| REQ'D.         | REQUIRED                         |
| R/W            | RIGHT OF WAY                     |
| R              | RADIUS                           |
| S              | SOUTH                            |
| SB             | SOUTHBOUND                       |
| STH            | STATE TRUNK HIGHWAY              |
| STA            | STATION                          |
| SS             | STORM SEWER                      |
| SE             | SUPERELEVATION                   |
| SURF           | SURFACE                          |
| T              | TANGENT                          |
| TYP            | TYPICAL                          |
| WB             | WESTBOUND                        |

UTILITY CONTACTS

COMMUNICATION LINE

NSIGHT  
ATTN: RICK VINCENT  
450 SECURITY BLVD.  
PO BOX 17079  
GREEN BAY, WI 54307-9079  
PHONE: 920-617-7316  
EMAIL: rick.vincent@nsight.com  
  
CHARTER COMMUNICATIONS  
ATTN: VINCE ALBIN  
3520 DESTINATION DR  
APPLETON, WI 54915  
PHONE: 920-831-9249  
EMAIL: vince.albin@charter.com  
  
BROWN COUNTY  
ATTN: DAVID PEKAH  
111 N JEFFERSON STREET  
GREEN BAY, WI 54301  
PHONE: 920-448-4031  
EMAIL: David.Pekah@browncountywi.gov

ELECTRICITY & GAS/PETROLUM

WISCONSIN PUBLIC SERVICE  
ATTN: ROBERT SMITH  
700 N. ADAMS STREET  
PO BOX 19001  
GREEN BAY, WI 54307-9001  
PHONE: 920-617-5284  
EMAIL: robert.smith@wisconsinpublicservice.com

SANITARY SEWER & WATER

VILLAGE OF HOWARD  
ATTN: MIKE KASTER  
1336 CORNELL RD  
GREEN BAY, WI 54313  
PHONE: 920-434-4060  
EMAIL: kaster@villageofhoward.com

SANITARY SEWER

VILLAGE OF PULASKI  
ATTN: JOEL VAN LANNEN  
585 EAST GLENBROOK DRIVE  
PULASKI, WI 54162  
PHONE: 920-822-8618  
CELL: 920-609-2443  
EMAIL: jvanlannen@villageofpulaski.org  
  
NEW WATER  
ATTN: ROB REINHART  
2231 N. QUINCY STREET  
GREEN BAY, WI 54302-1248  
PHONE: 920-438-1035  
EMAIL: rreinhardt@newwater.us  
  
PITTSFIELD SANITARY DISTRICT  
ATTN: DAVID TAUSCHER  
4682 ANSTON ROAD  
GREEN BAY, WI 54303  
PHONE: 920-785-0902  
EMAIL: davidtauscher@hotmail.com



Dial 811 or (800)242-8511

www.DiggersHotline.com

\* NON-MEMBER OF DIGGERS HOTLINE

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-<br>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-<br>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 AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 10.8 ACRES  
SOIL GROUP C

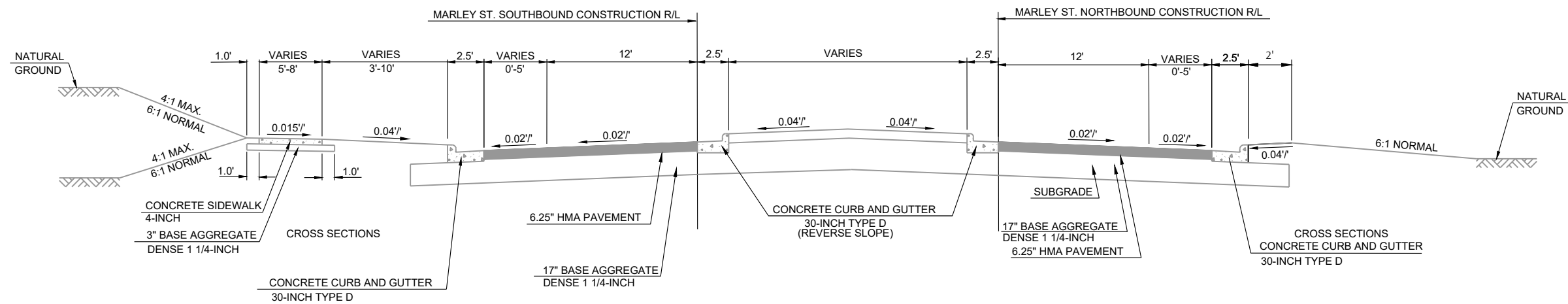
PROJECT CONTACTS

WISCONSIN DEPARTMENT OF NATURAL RESOURCES  
NORTHEAST REGION HEADQUARTERS  
ATTN: JIM DOPERALSKI JR.  
2984 SHAWANO AVENUE  
PO BOX 10488  
GREEN BAY, WI 54307-0448  
PHONE: 920-412-0165  
EMAIL: james.doperalski@wisconsin.gov

WIS. DEPT OF TRANSPORTATION  
NORTHEAST REGION - PRIMARY CONTACT  
ATTN: MATTHEW TERNES-PROJECT MANAGER  
944 VANDERPERRON WAY  
PO BOX 28080  
GREEN BAY, WI 54324-0080  
PHONE: 920-366-3028  
EMAIL: matthew.ternes@dot.wi.gov

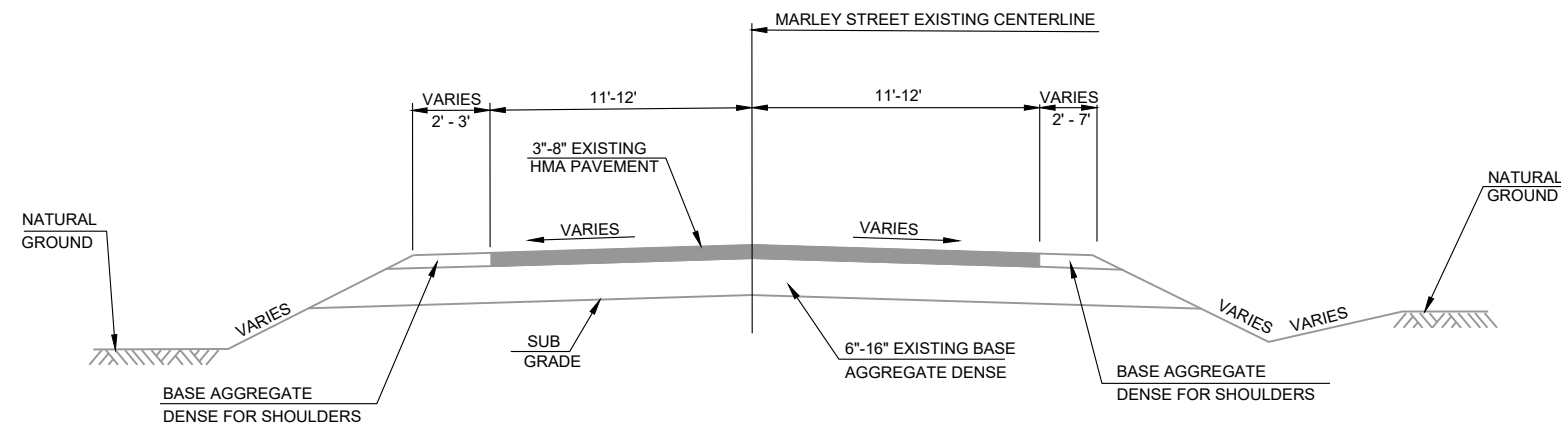
AYRES ASSOCIATES  
ATTN: PHIL VERVILLE III  
3376 PACKERLAND DRIVE  
ASHWAUBENON, WI 54115  
PHONE: 920-327-7822  
EMAIL: Vervillep@ayresassociates.com

BROWN COUNTY SURVEYOR  
ATTN: RYAN L. DUCKART, PLS  
PO BOX 23600  
GREEN BAY, WI 54305-3600  
920-448-4493  
Ryan.Duckart@browncountywi.gov



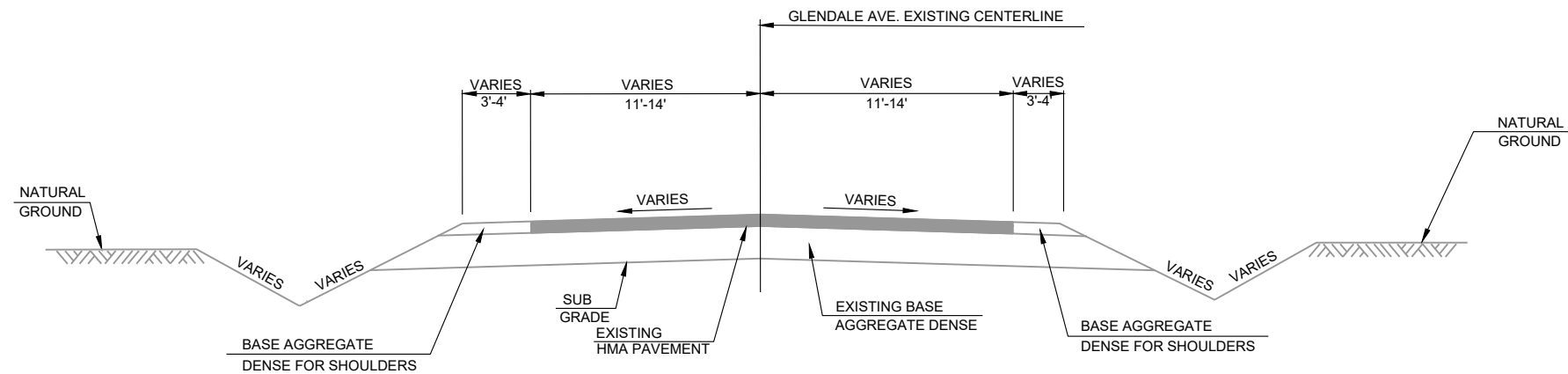
EXISTING TYPICAL SECTION FOR MARLEY STREET

STA. 64+25'NB' - STA. 65+25'NB'



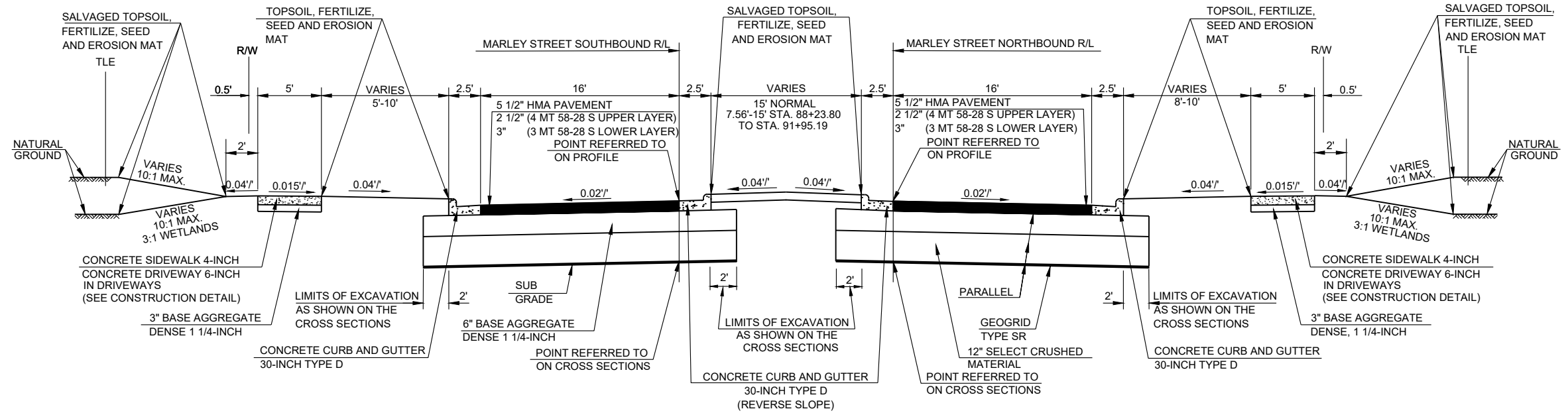
EXISTING TYPICAL SECTION FOR MARLEY STREET

STA. 65+25'NB' - STA. 101+00'NB'



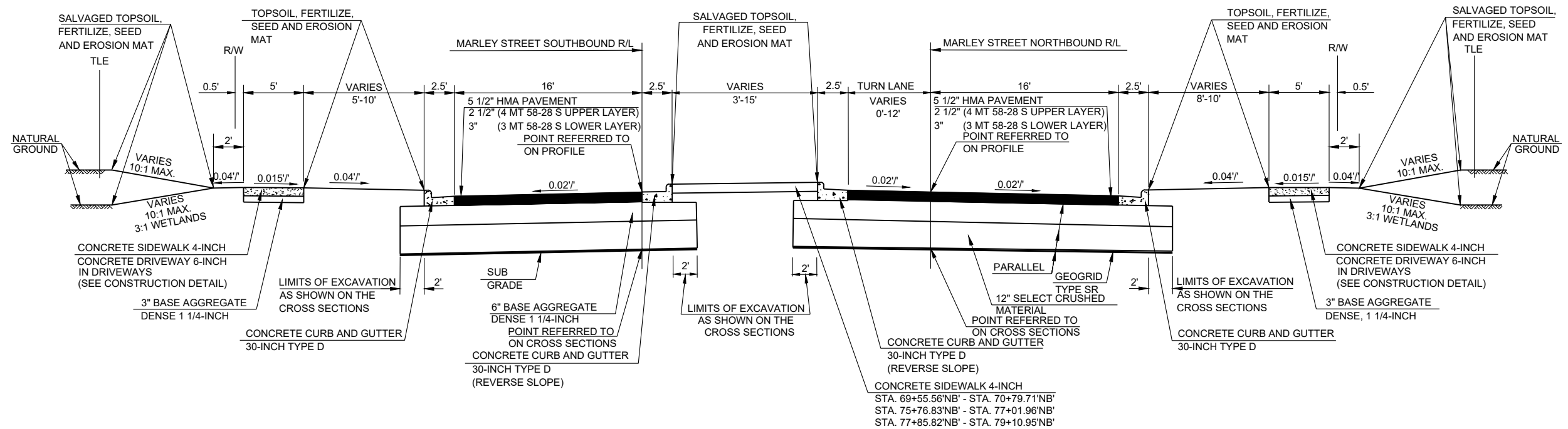
EXISTING TYPICAL SECTION FOR CTH C/GLENDALE AVENUE

STA. 201+25'GL' - STA. 212+50'GL'



**TYPICAL FINISHED CROSS SECTION FOR MARLEY STREET**

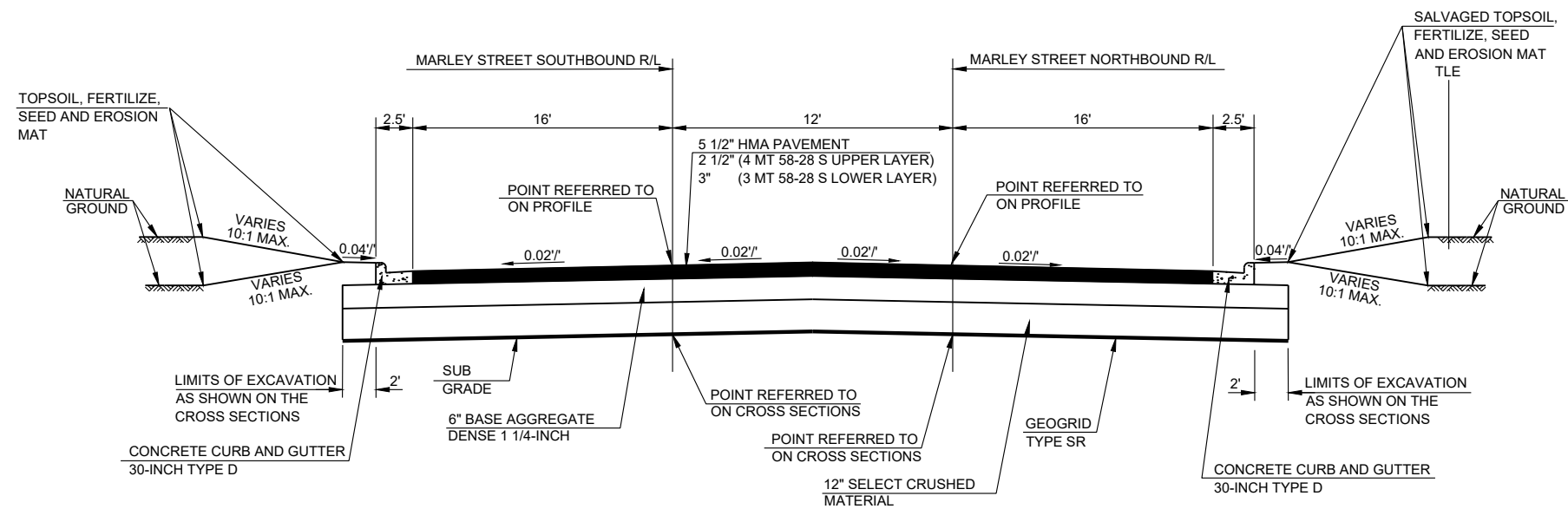
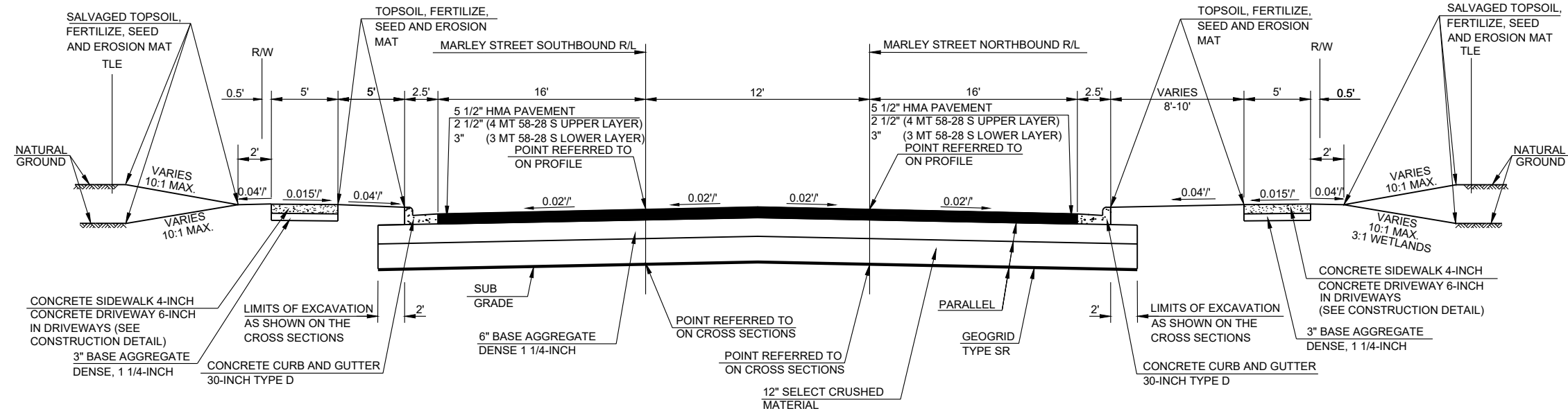
STA. 65+25'NB' - STA. 67+59.69'NB'  
STA. 71+76.54'NB' - STA. 74+80.96'NB'  
STA. 80+06.82'NB' - STA. 91+95.19'NB'

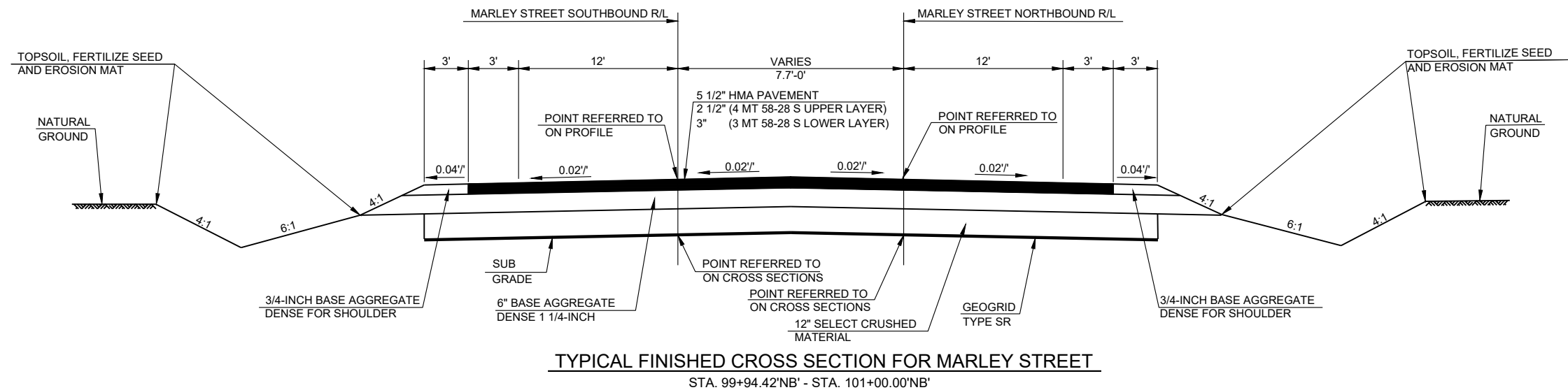
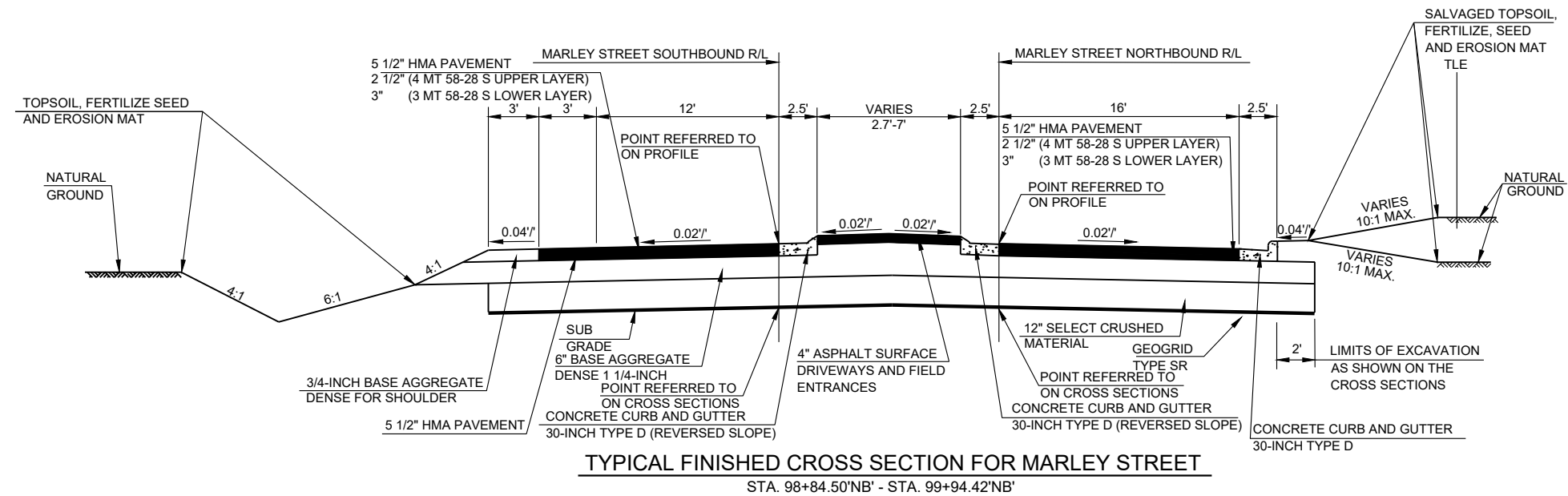
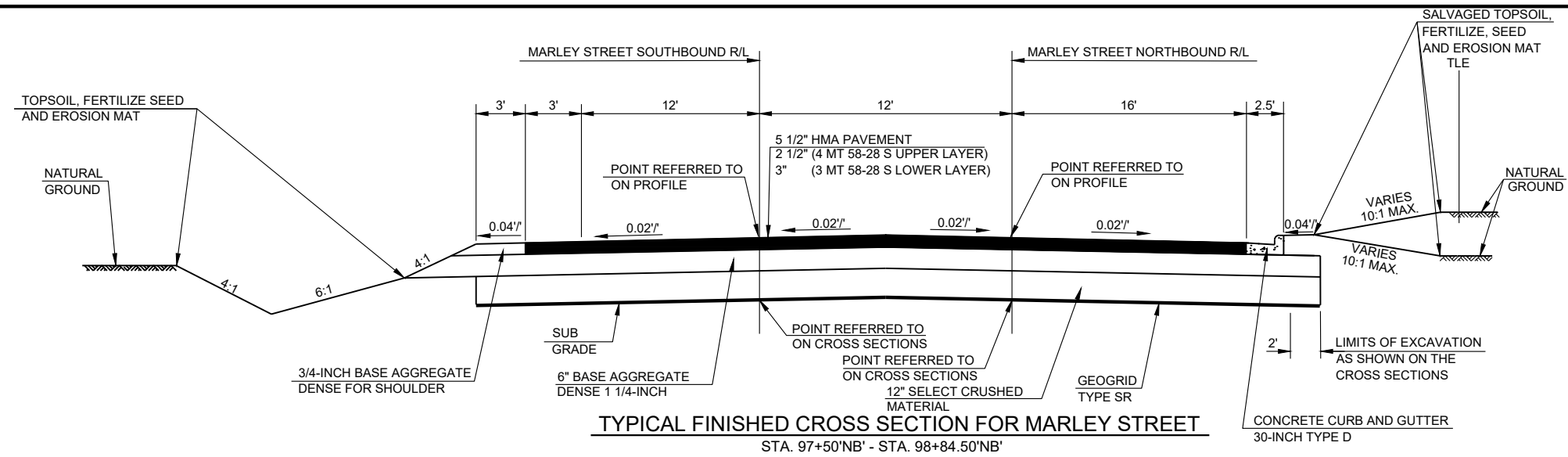


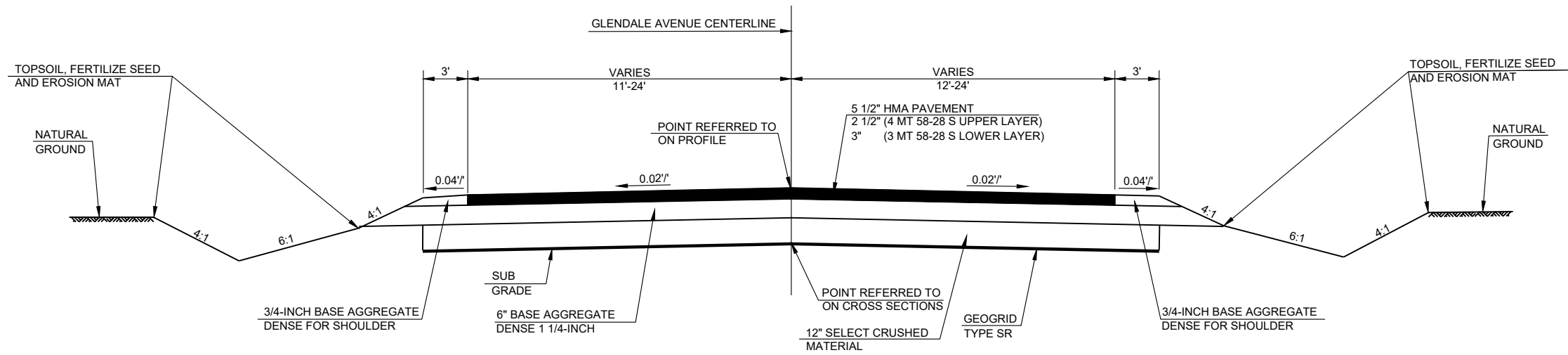
**TYPICAL FINISHED CROSS SECTION FOR MARLEY STREET**

STA. 67+59.69'NB' - STA. 71+76.54'NB'  
STA. 74+80.96'NB' - STA. 80+06.82'NB'



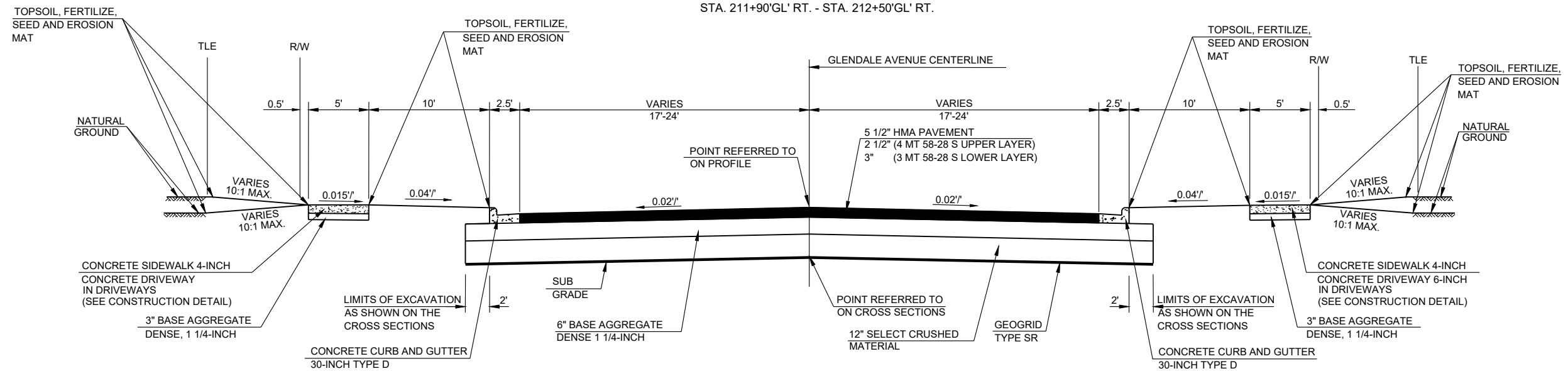






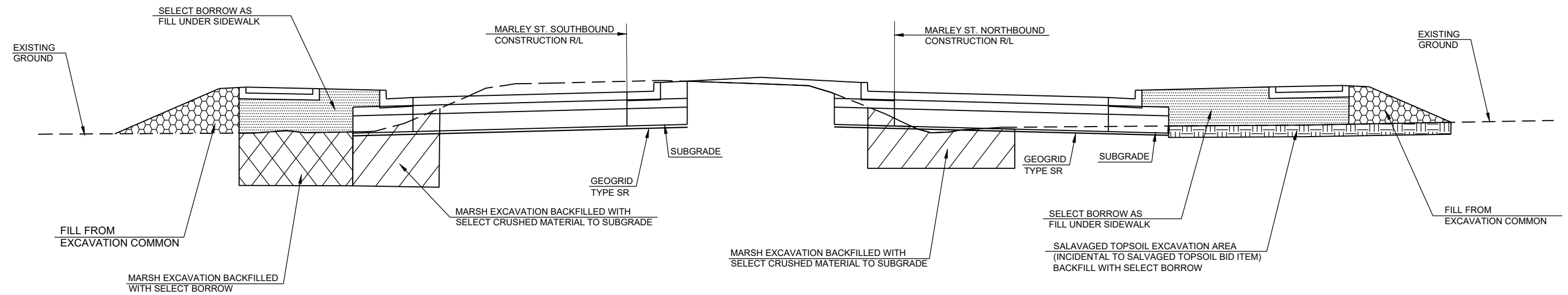
**TYPICAL FINISHED CROSS SECTION FOR GLENDALE AVENUE**

STA. 201+24.78'GL' - STA. 205+01.50'GL'  
STA. 211+75'GL' LT. - STA. 212+50'GL' LT.  
STA. 211+90'GL' RT. - STA. 212+50'GL' RT.

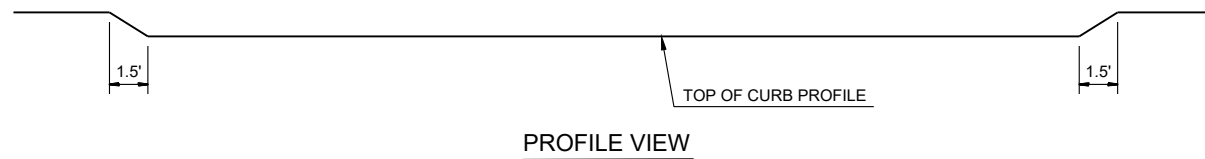
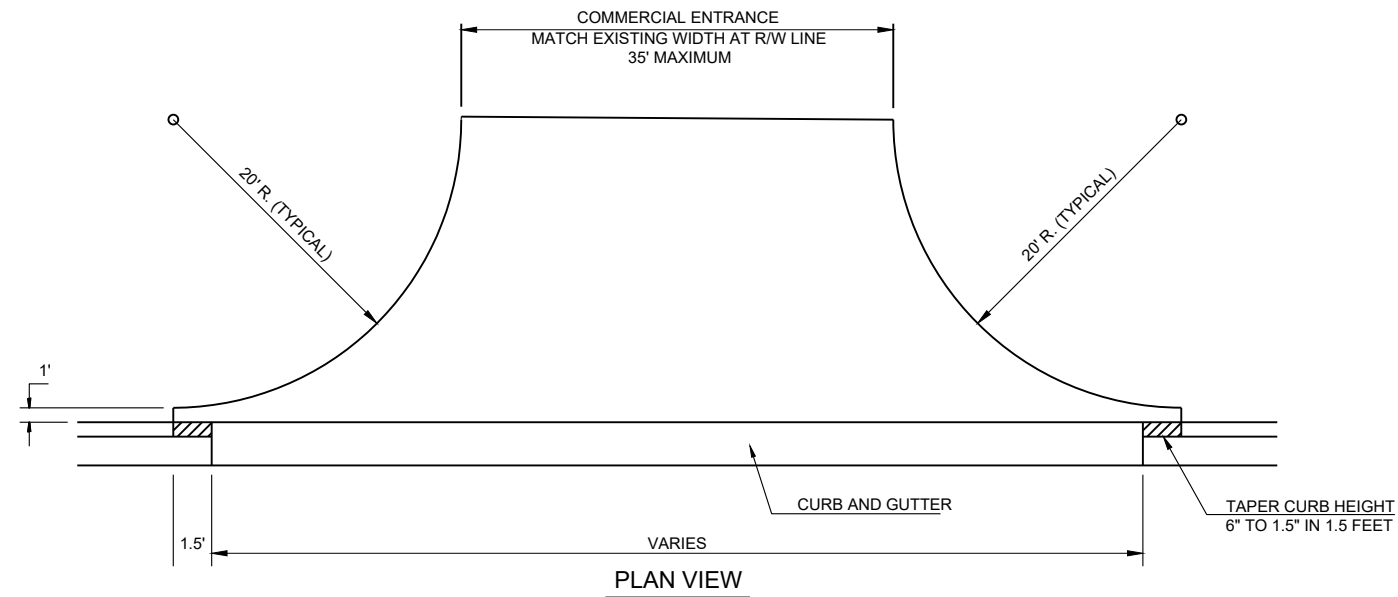


**TYPICAL FINISHED CROSS SECTION FOR GLENDALE AVENUE**

STA. 205+01.50'GL' LT. - STA. 211+75.00'GL' LT.  
STA. 205+01.50'GL' RT. - STA. 211+90.00'GL' RT.



DETAIL FOR EXCAVATION AND BACKFILL

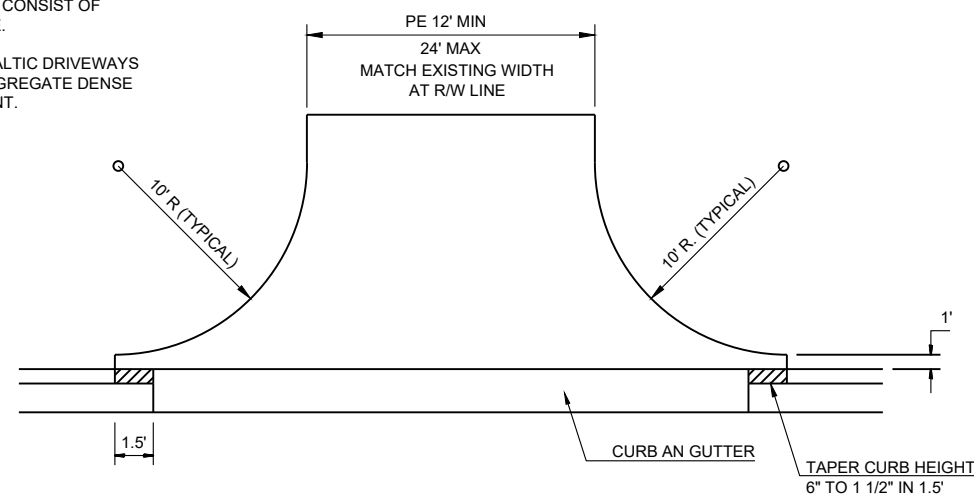


### COMMERCIAL ENTRANCES

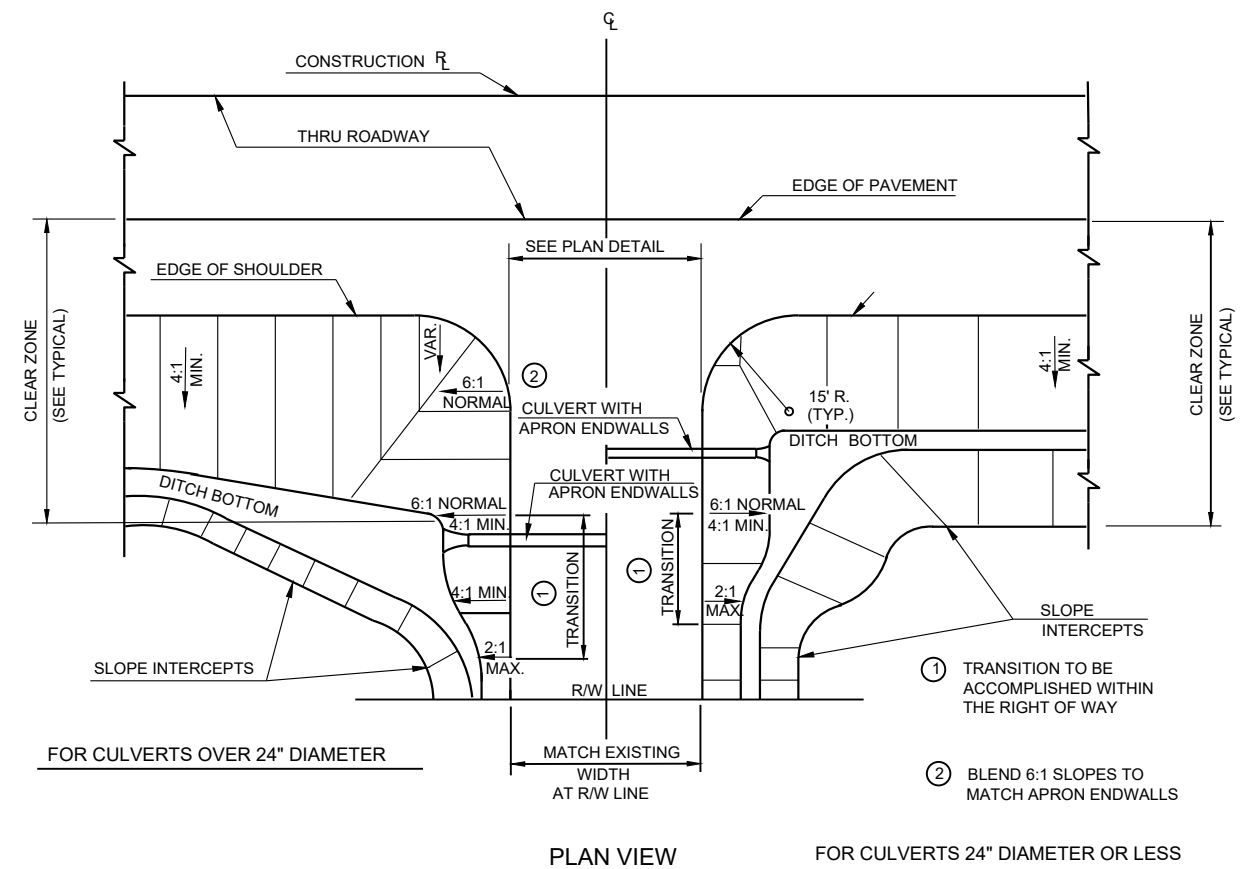
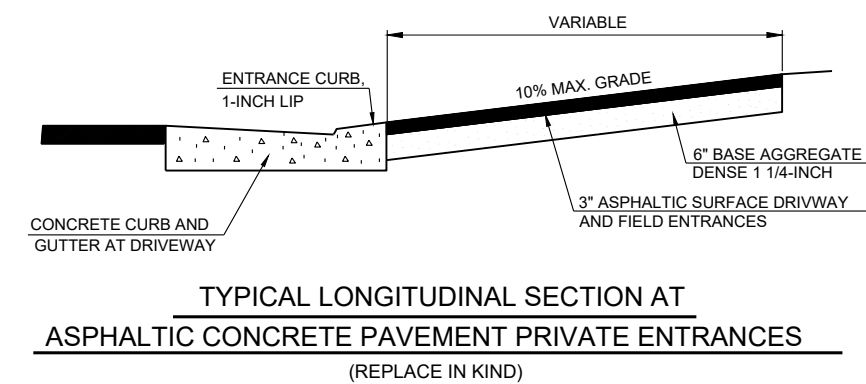
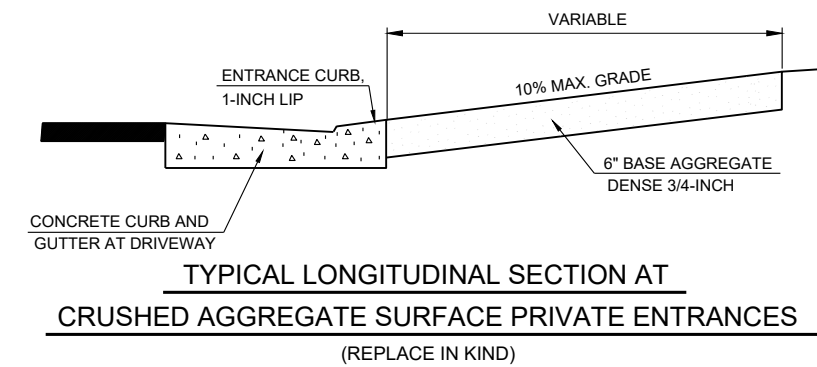
#### NOTES:

NON-PAVED DRIVEWAYS SHALL CONSIST OF 6" OF BASE AGGREGATE DENSE.

RESIDENTIAL ENTRANCE ASPHALTIC DRIVEWAYS SHALL CONSIST OF 6" BASE AGGREGATE DENSE AND 3" OF ASPHALTIC PAVEMENT.

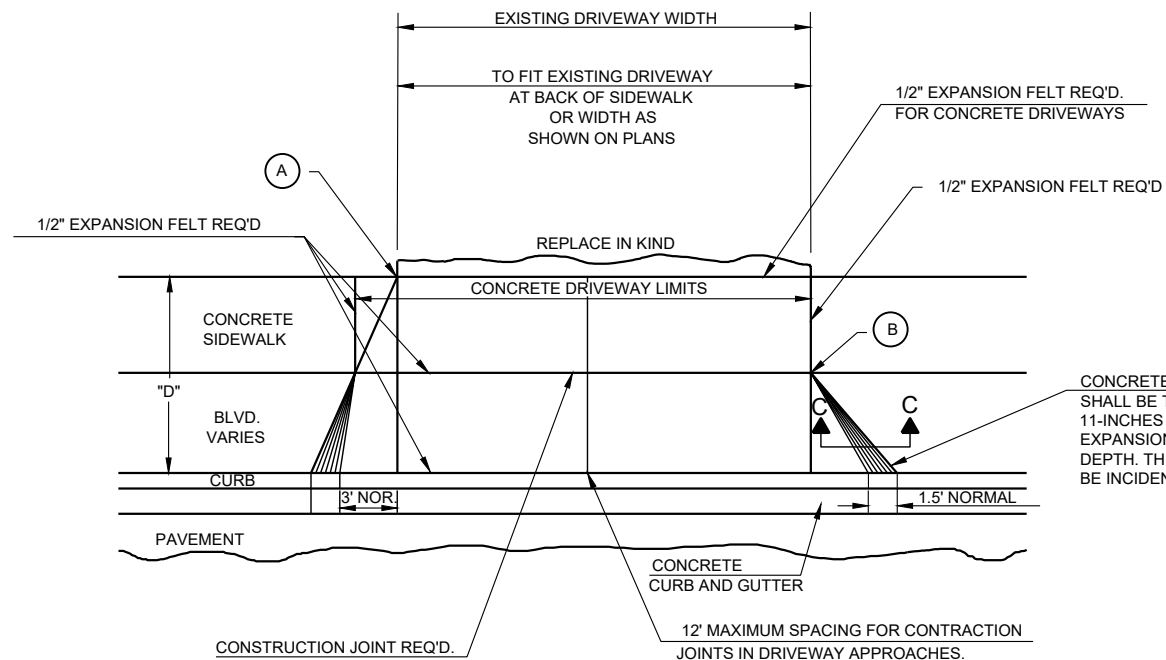


### RURAL DRIVEWAYS WITH CURB AND GUTTER



### ENTRANCE GRADING DETAIL

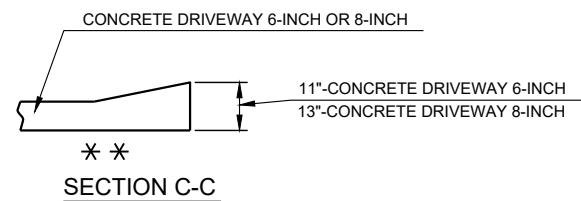




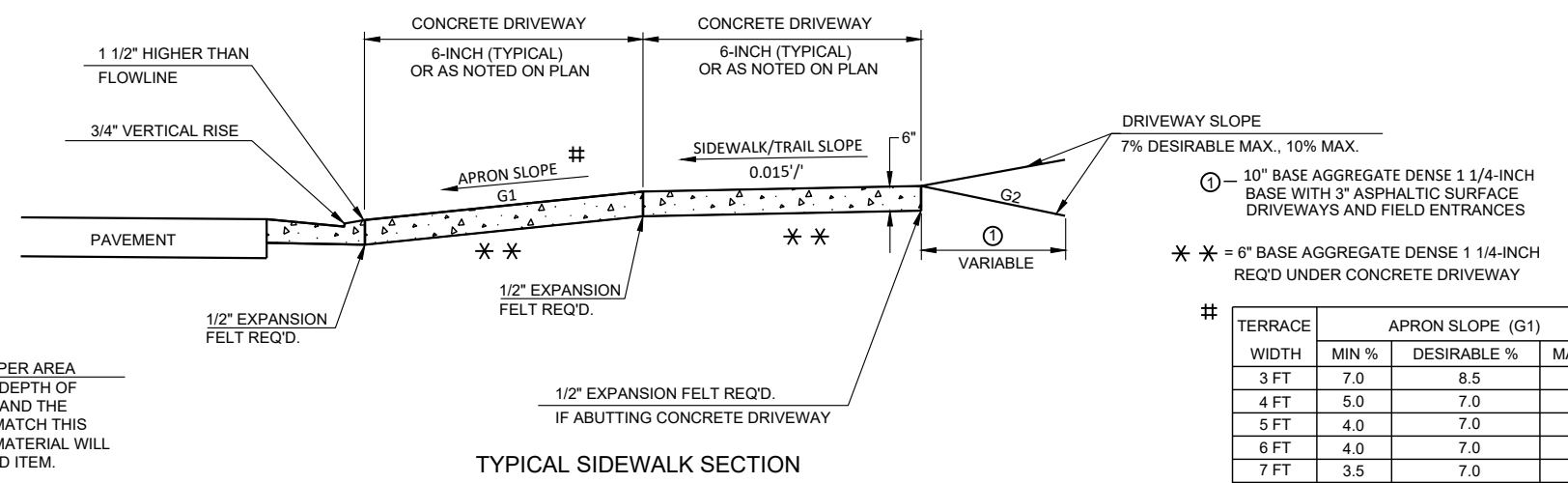
(A) WHEN "D" IS 13' OR LESS, ALIGN TAPER WITH BACK OF SIDEWALK

(B) WHEN "D" IS GREATER THAN 13', ALIGN TAPER WITH FRONT OF SIDEWALK

PLAN VIEW



NORMAL SIDEWALK PROFILE



① 10" BASE AGGREGATE DENSE 1 1/4-INCH BASE WITH 3" ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

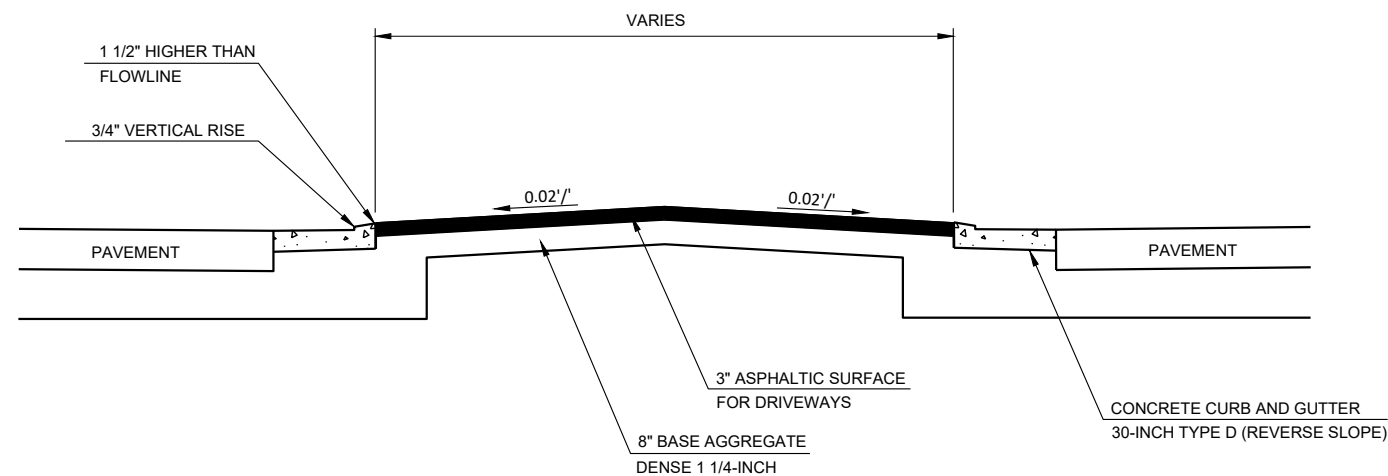
\* \* = 6" BASE AGGREGATE DENSE 1 1/4-INCH REQ'D UNDER CONCRETE DRIVEWAY

| # | TERRACE WIDTH | APRON SLOPE (G1) |             |       |
|---|---------------|------------------|-------------|-------|
|   |               | MIN %            | DESIRABLE % | MAX % |
|   | 3 FT          | 7.0              | 8.5         | 9.0   |
|   | 4 FT          | 5.0              | 7.0         | 9.0   |
|   | 5 FT          | 4.0              | 7.0         | 9.0   |
|   | 6 FT          | 4.0              | 7.0         | 9.0   |
|   | 7 FT          | 3.5              | 7.0         | 9.0   |
|   | 8 FT          | 3.0              | 7.0         | 9.0   |
|   | 9 FT          | 3.0              | 7.0         | 9.0   |
|   | 10 FT         | 3.0              | 7.0         | 9.0   |

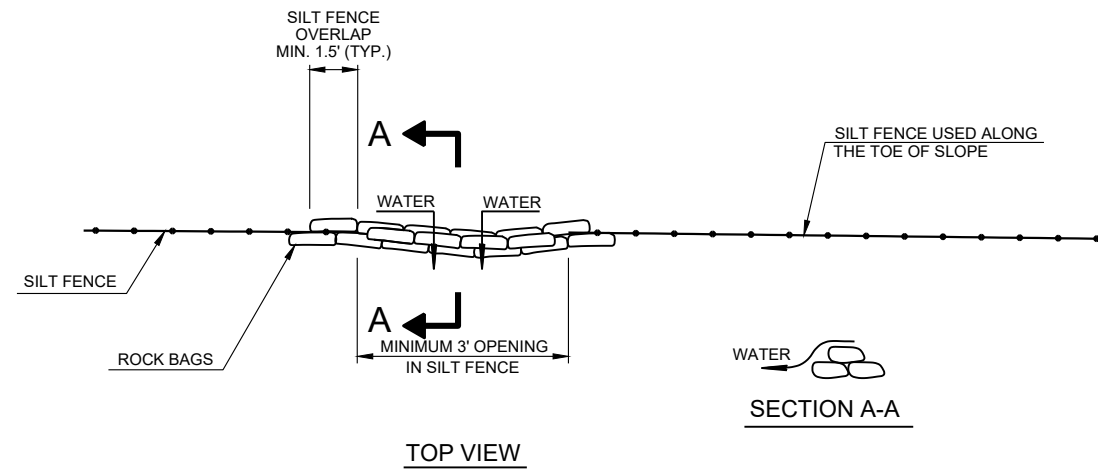
NOTE: ALGEBRAIC DIFFERENCE BETWEEN TANGENT GRADES G1 & G2 TO NOT EXCEED 15%  
DEPRESS SIDEWALK PROFILE IF DRIVEWAY APRON EXCEEDS MAX SLOPE

DEPRESSED SIDEWALK PROFILE DETAIL

DRIVEWAY ENTRANCE DETAIL WITH SIDEWALK, CURB AND GUTTER

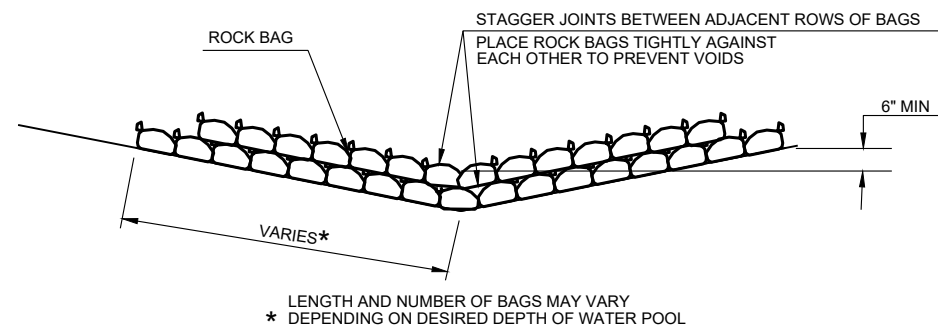
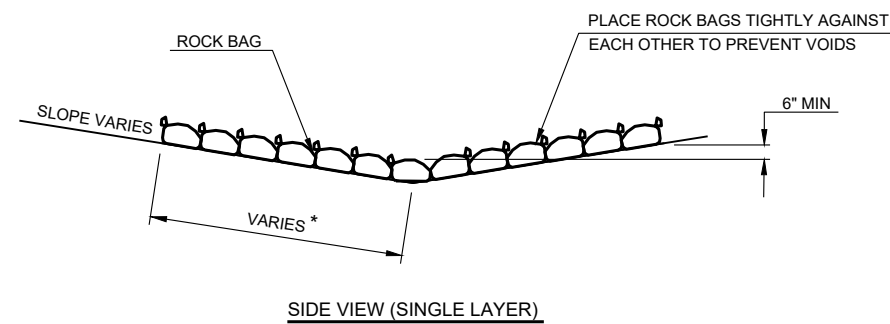


ASPHALTIC SURFACE FOR DRIVEWAYS MEDIAN DETAIL



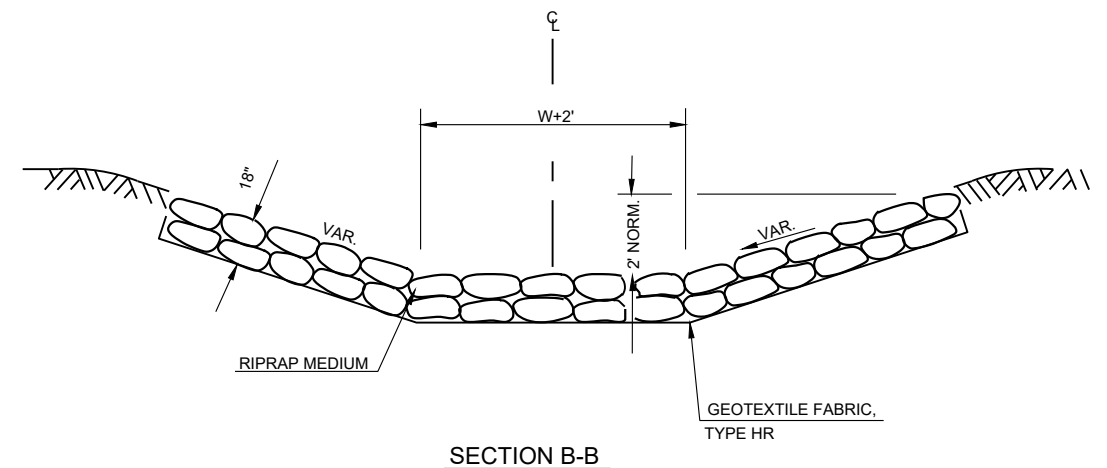
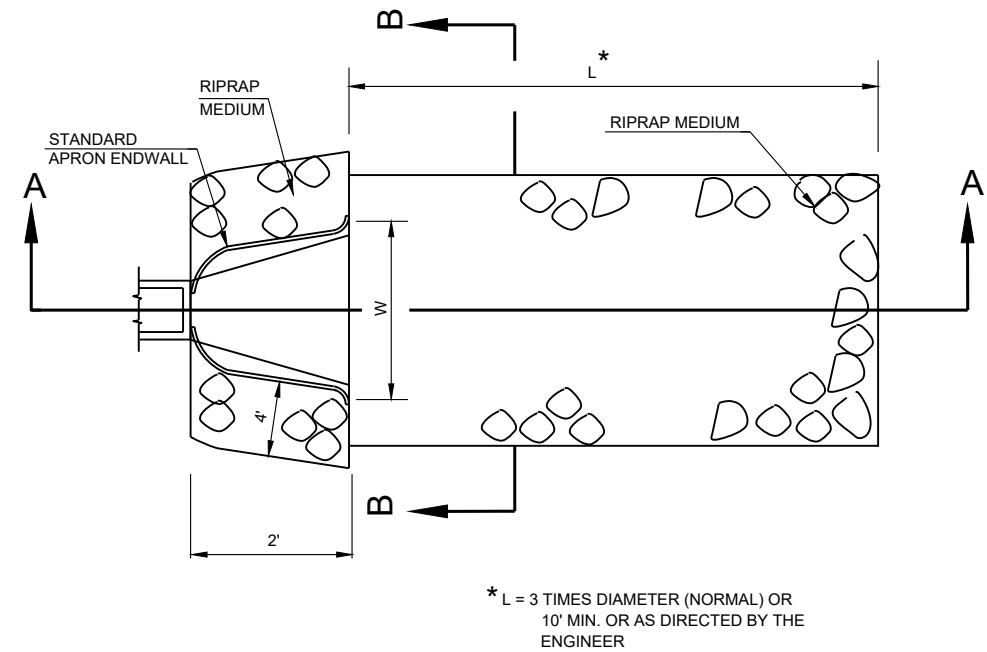
### ROCK BAGS USED FOR SILT FENCE RELIEF DETAIL

PAID AS ROCK BAGS  
(SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS)



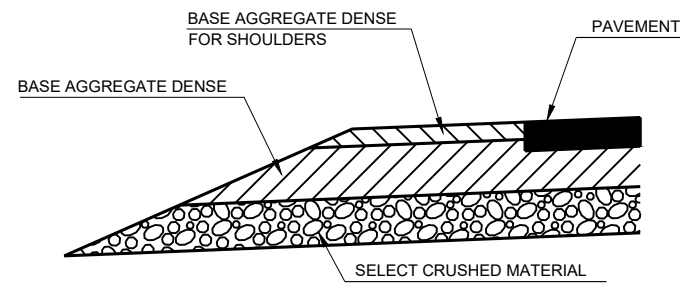
### ROCK BAGS DITCH CHECK

PAID AS ROCK BAGS  
(SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS)

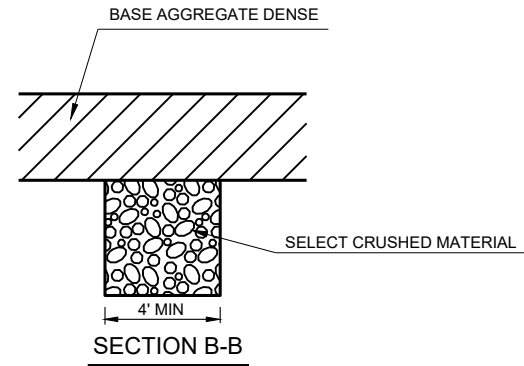


### RIPRAP MEDIUM AND GEOTEXTILE FABRIC DETAIL AT APRON ENDWALLS

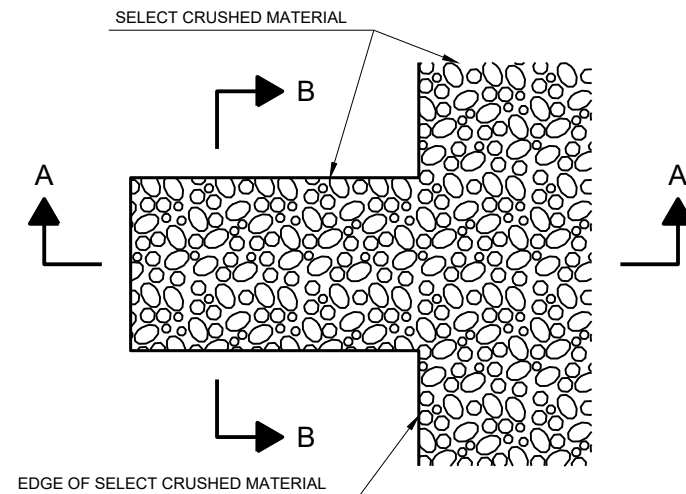
(SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS)



SECTION A-A

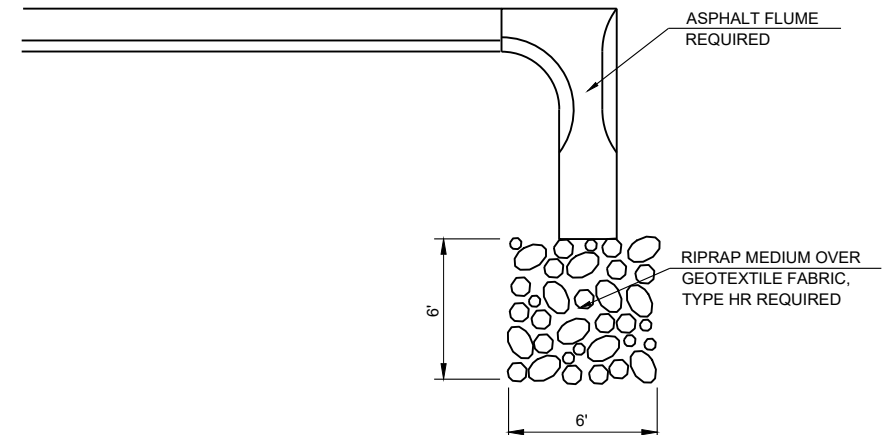


SECTION B-B

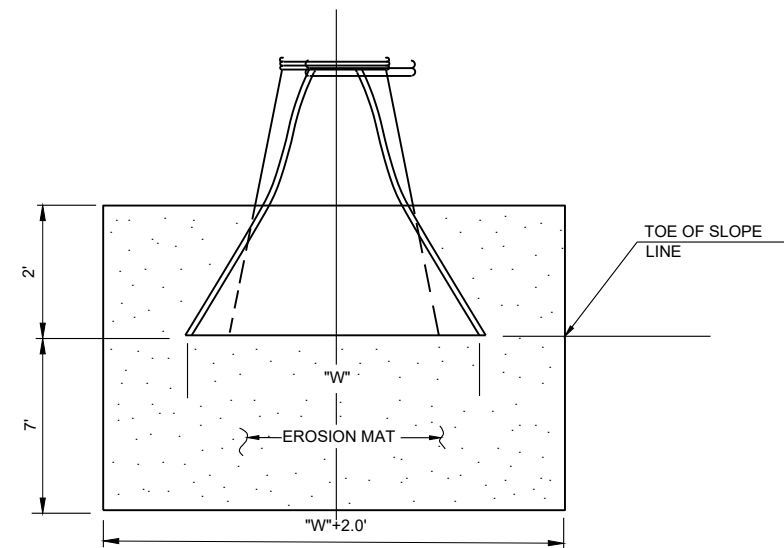


DETAIL FOR FRENCH DRAINS

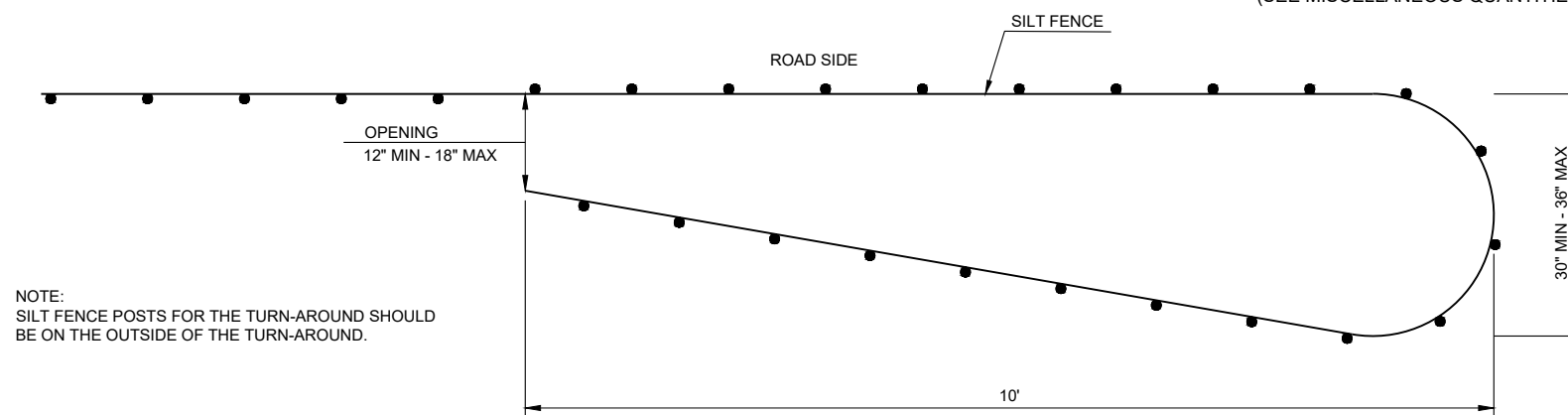
STA. 97+50'NB' - STA. 101+00'NB' LT.  
DRAINS ARE TO BE CONSTRUCTED AT LEAST EVERY 250' AND AT EACH SAG VERTICAL CURVE IN THE PROFILE. LOCATIONS TO BE DETERMINED IN THE FIELD BY THE ENGINEER. EXCAVATION REQUIRED TO CONSTRUCT FRENCH DRAINS SHALL BE CONSIDERED INCIDENTAL TO THE ITEM "SELECT CRUSHED MATERIAL".



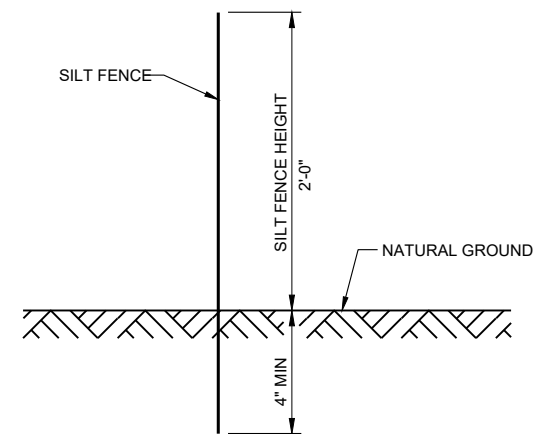
RIPRAP MEDIUM AT ASPHALT FLUME  
(SEE MISCELLANEOUS QUANTITIES FOR LOCATION)



EROSION MAT AT END OF PIPE  
(CONCRETE OR METAL)  
(SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS)

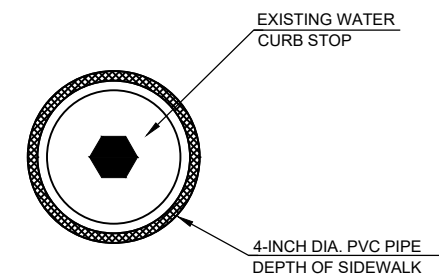
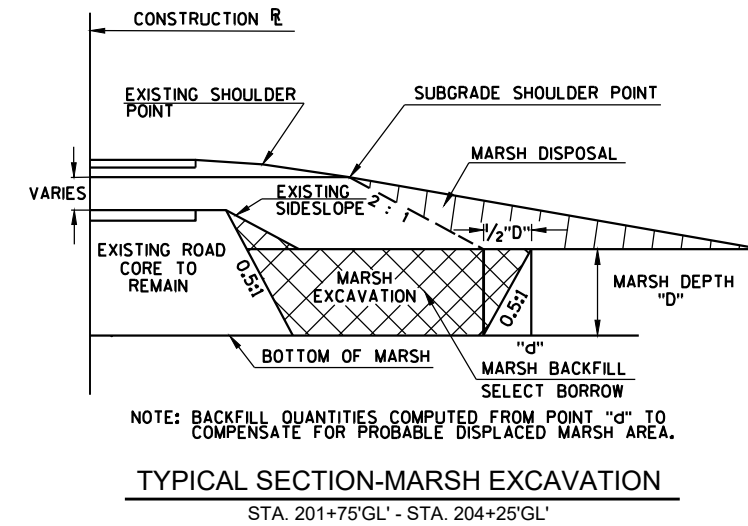
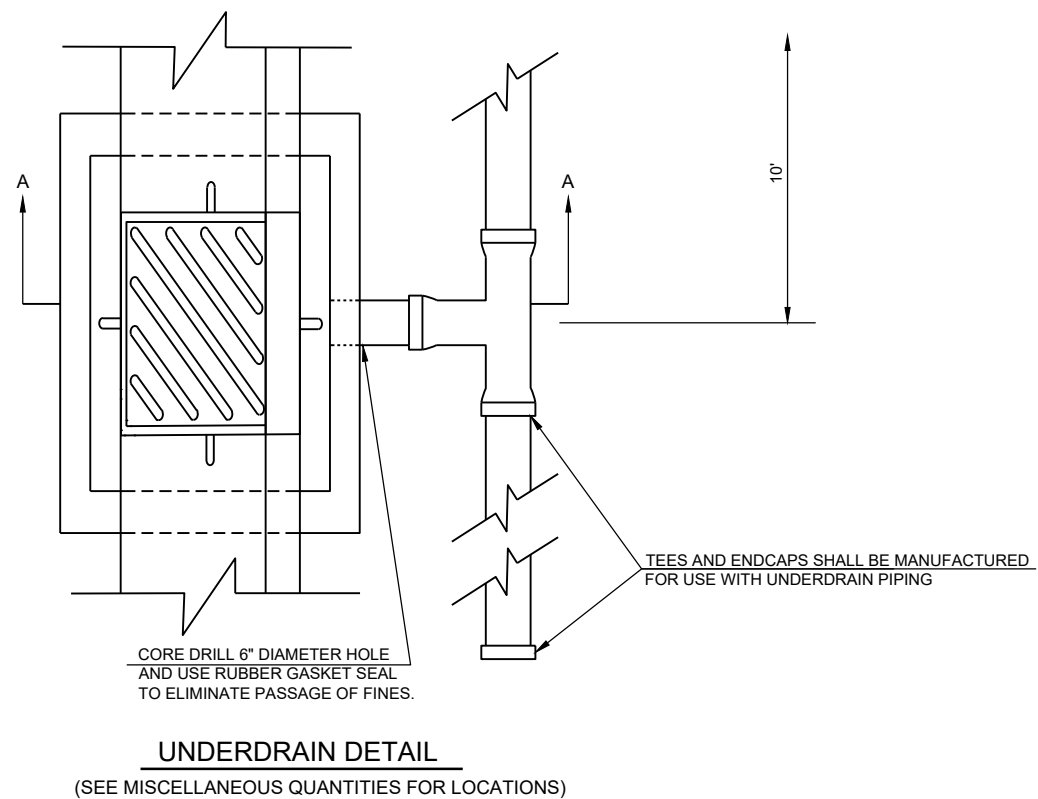
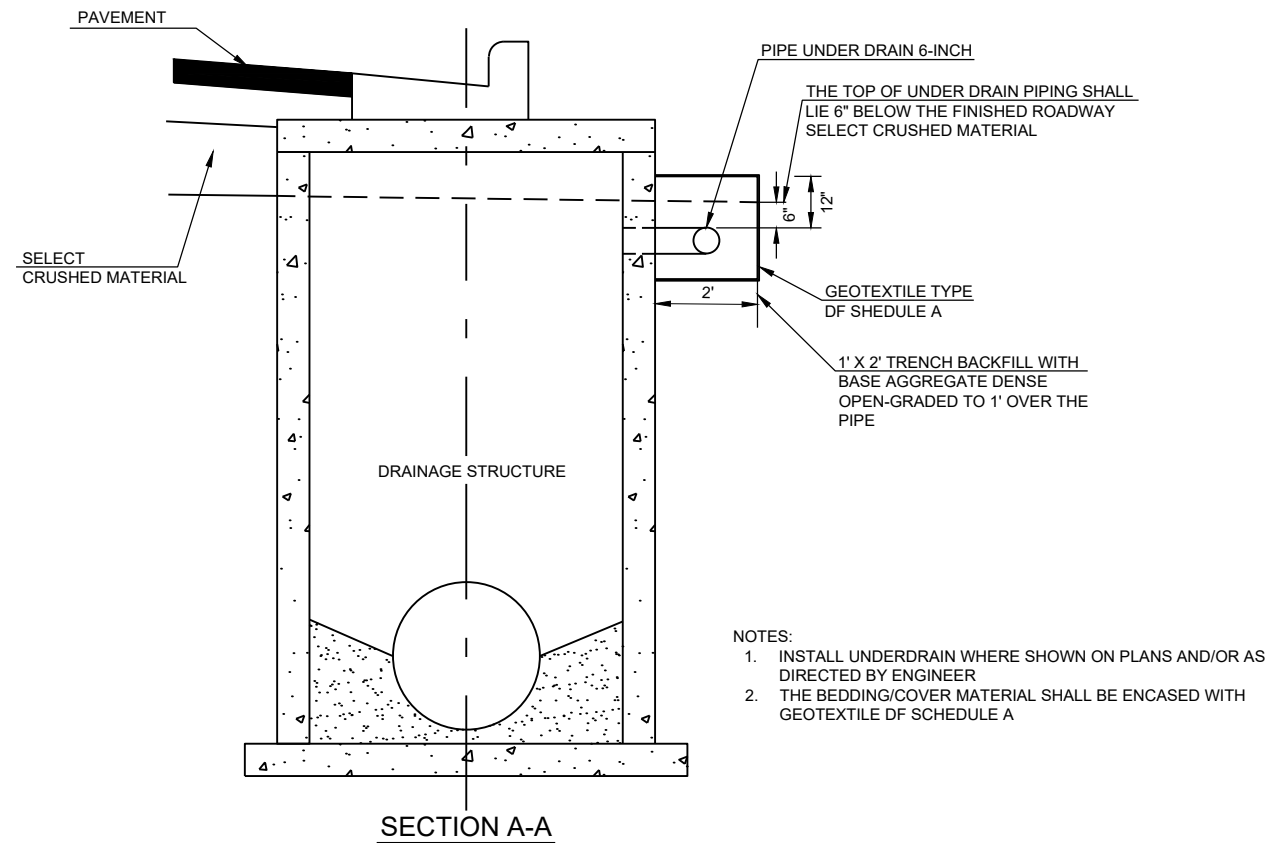


PLAN VIEW



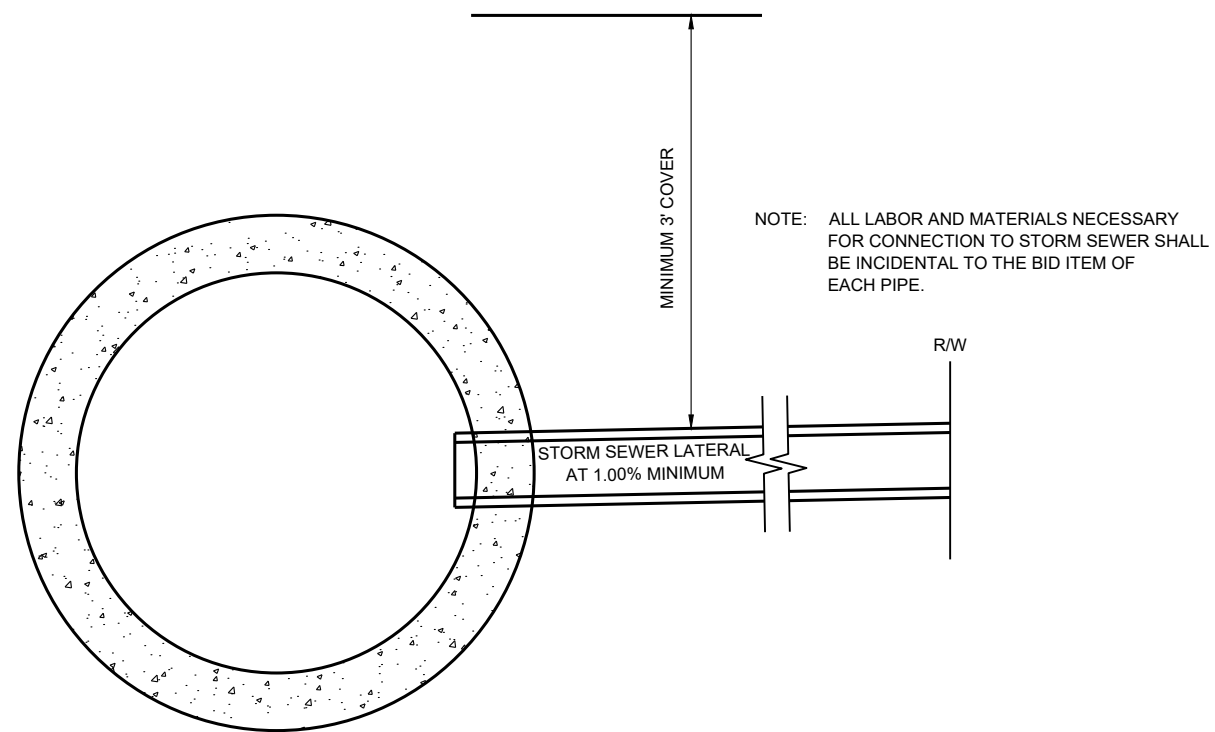
SIDE VIEW

SILT FENCE TURN-AROUND DETAIL

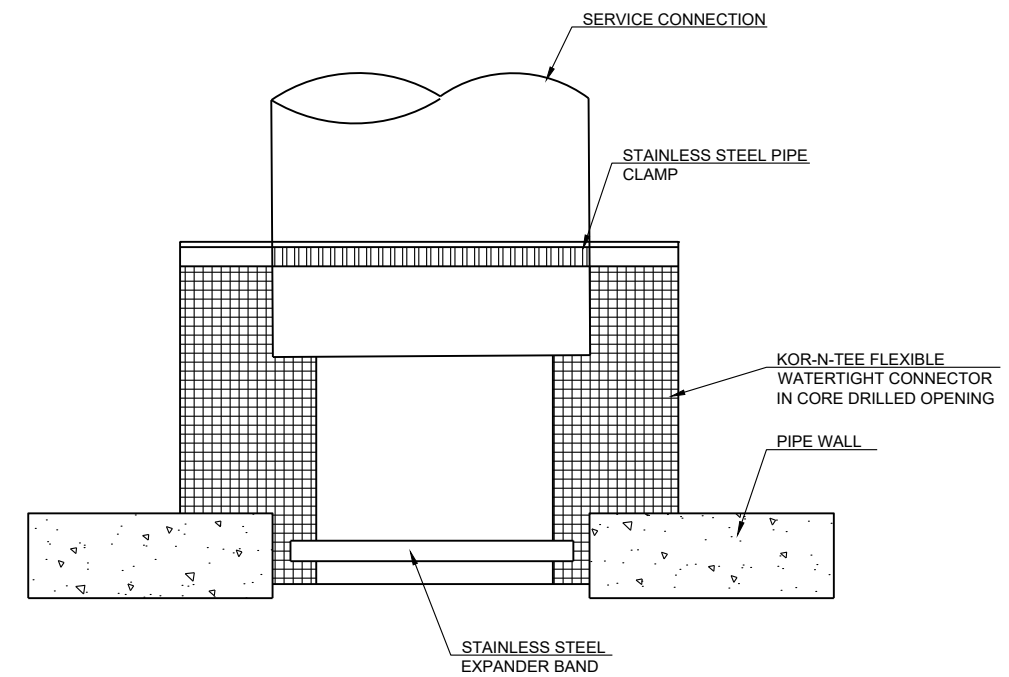


NOTE:  
COST OF PVC PIPE IS  
INCIDENTAL TO ITEMS  
OF CONCRETE SIDEWALK

DETAIL FOR WATER CURB STOP IN SIDEWALK



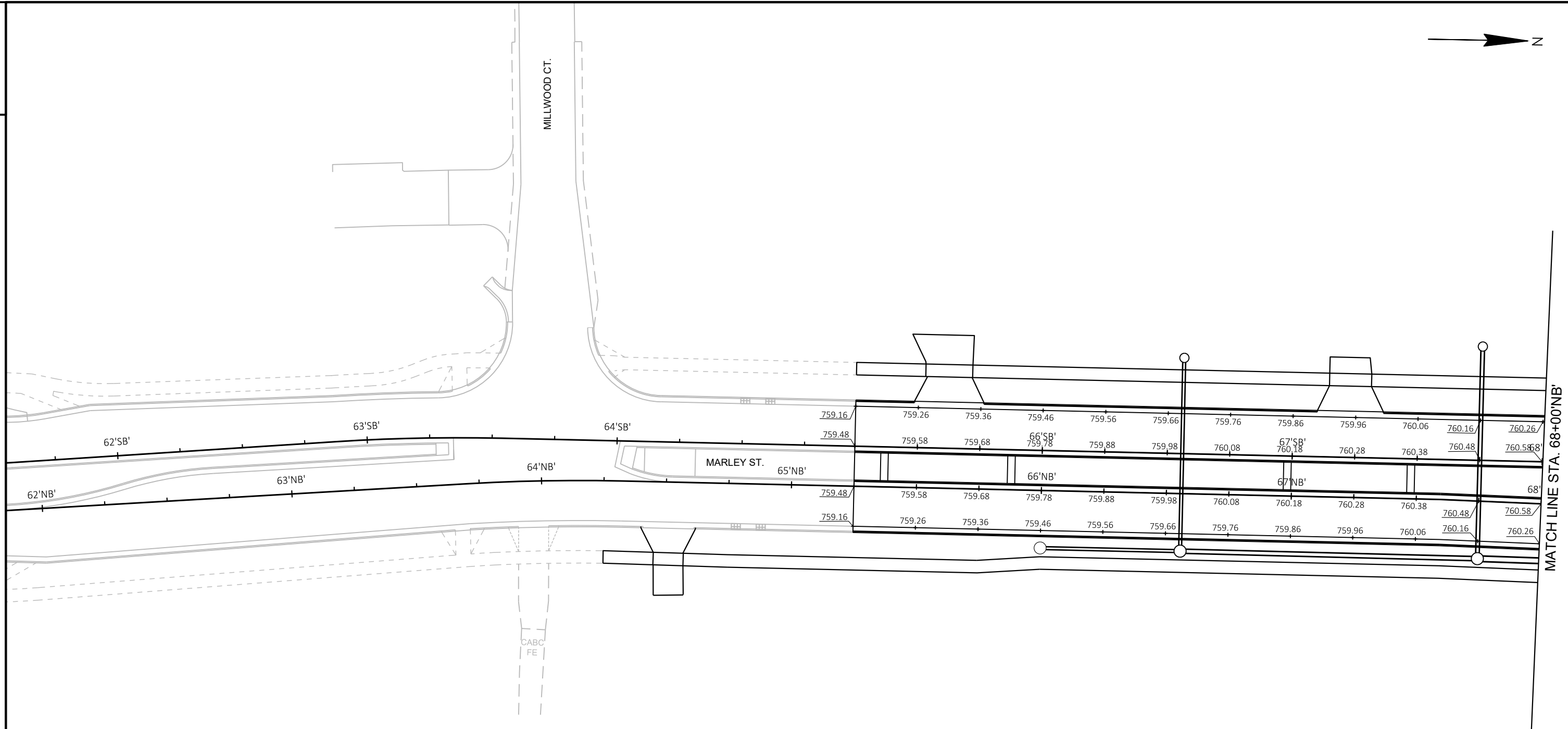
STORM SEWER LATERAL DETAIL



STORM SEWER LATERAL INSTALLATION

2

2



|             |            |
|-------------|------------|
| PROJECT NO: | 9269-00-14 |
|-------------|------------|

HWY: MARLEY STREET

COUNTY: BROWN

| PLAN GRADES |  |
|-------------|--|
|-------------|--|

|       |    |
|-------|----|
| SHEET | 15 |
|-------|----|

E

FILE NAME : I:\45\450490 MARLEY STREET\C3D\SHEETSPLAN\021201 GR.DWG  
LAYOUT NAME - 021201 gr

PLOT DATE : 11/11/2021 10:55 AM

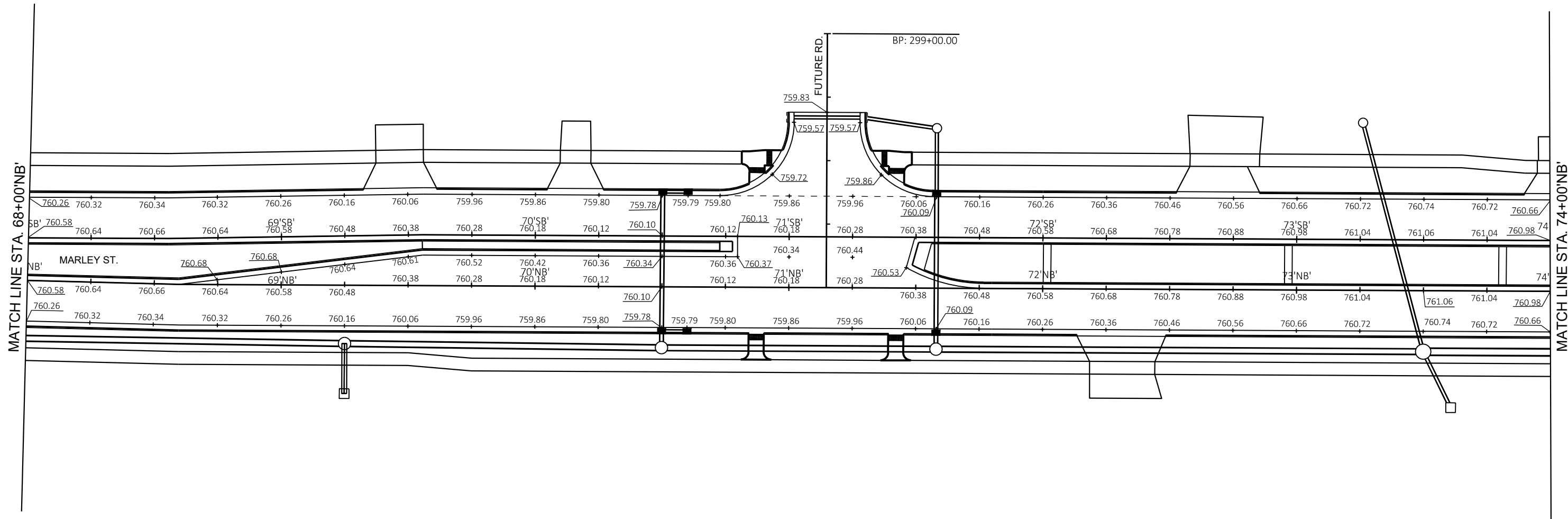
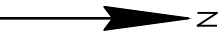
PLOT BY : GARNICA, BRANDON

PLOT NAME :

PLOT SCALE : 1 IN:40 FT

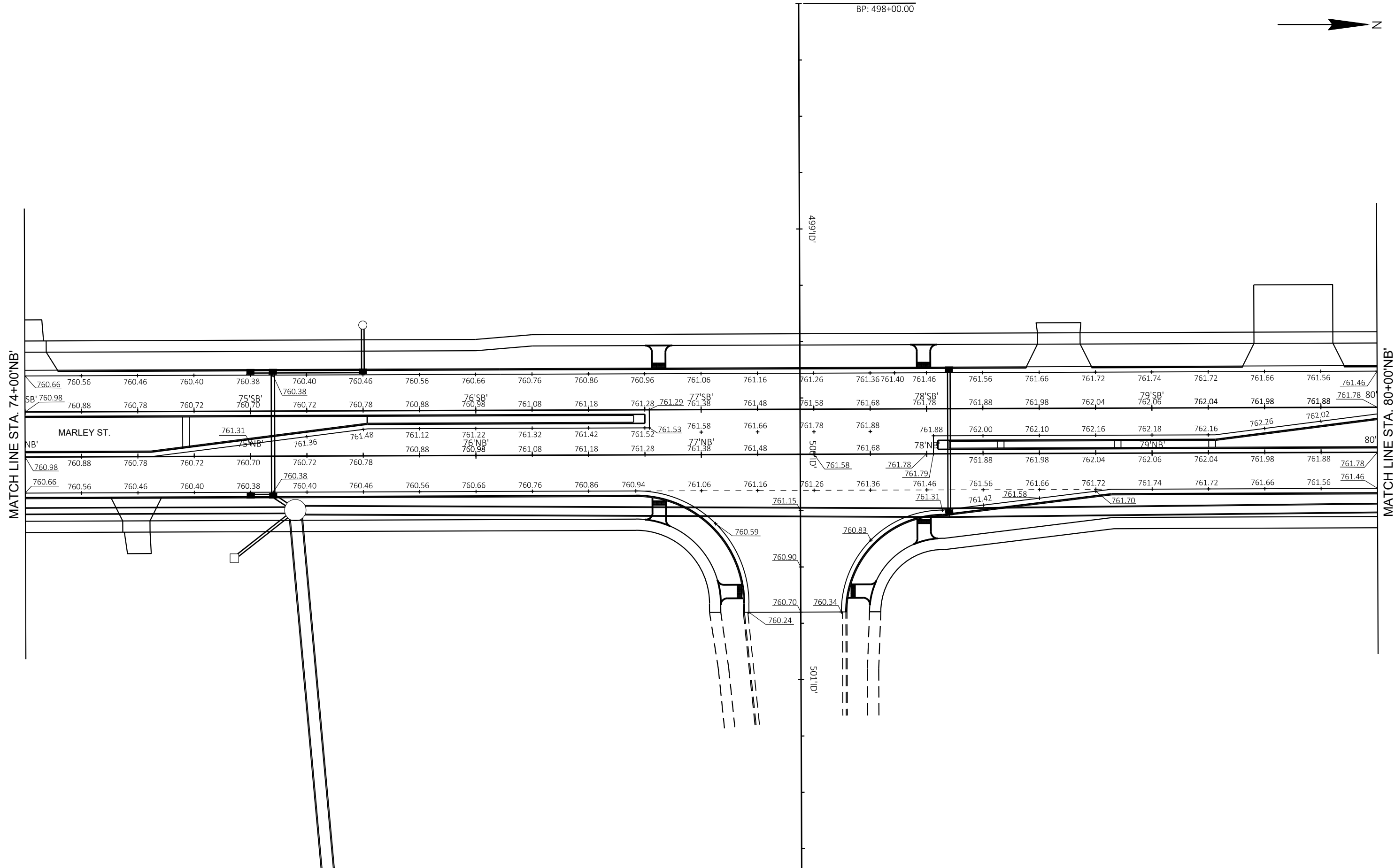
WISDOT/CADDS SHEET 42





2

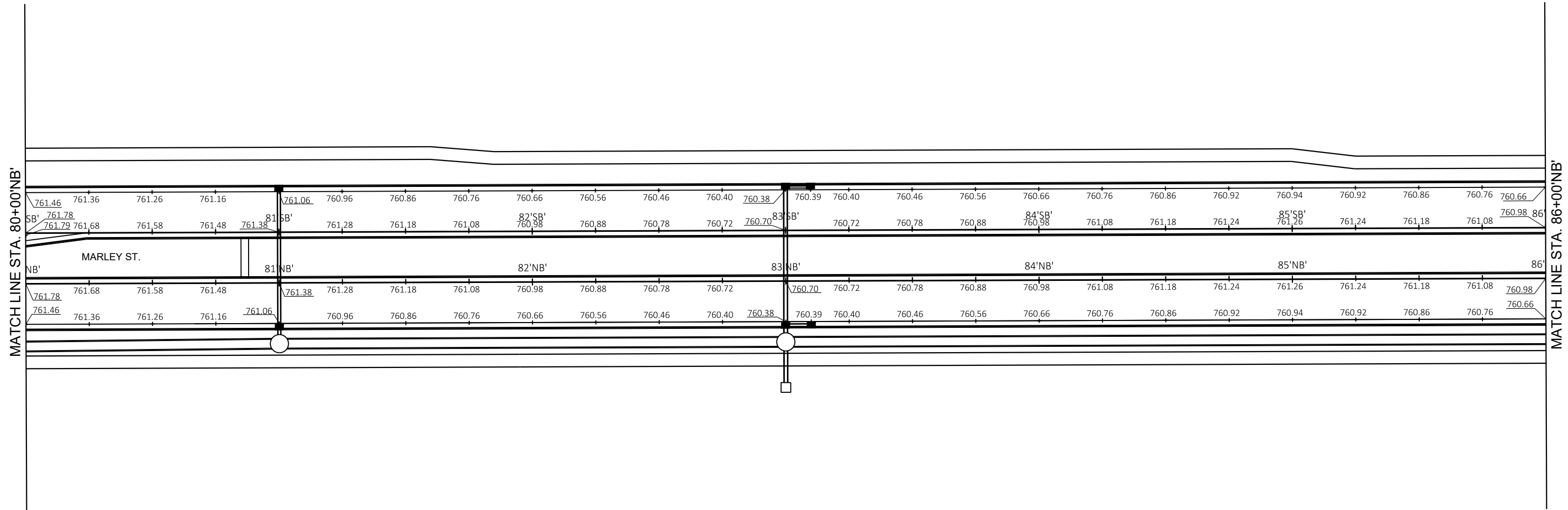
2





2

2



|             |            |
|-------------|------------|
| PROJECT NO: | 9269-00-14 |
|-------------|------------|

HWY: MARLEY STREET

COUNTY: BROWN

## PLAN GRADES

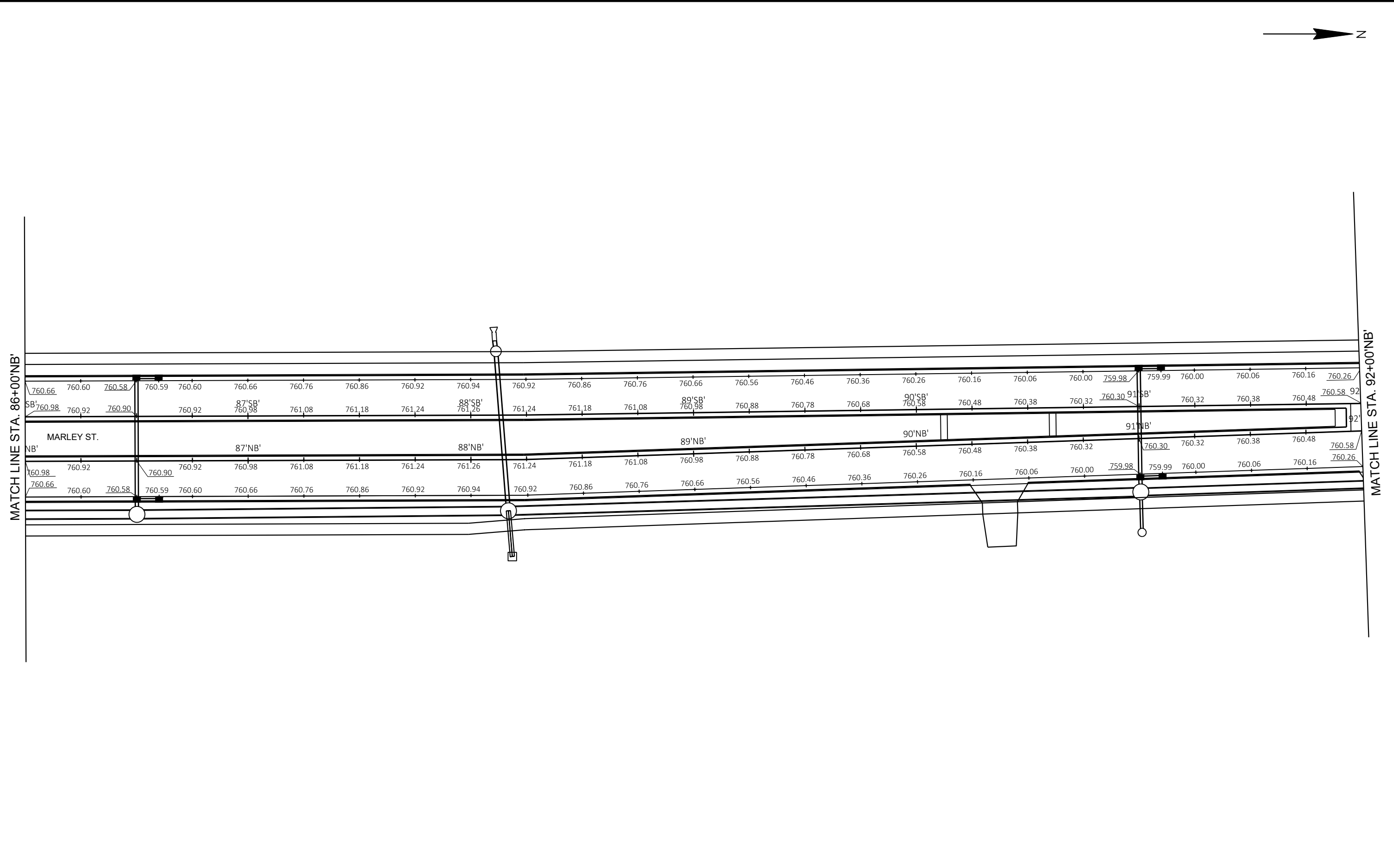
SHEET

8

1

2

2



|             |            |
|-------------|------------|
| PROJECT NO: | 9269-00-14 |
|-------------|------------|

HWY: MARLEY STREET

|               |
|---------------|
| COUNTY: BROWN |
|---------------|

|             |
|-------------|
| PLAN GRADES |
|-------------|

SHEET 19

FILE NAME : I:\45\450490 MARLEY STREET\C3D\SHEETSP\021205 GR.DWG  
LAYOUT NAME - 021205 gr

PLOT DATE : 11/11/2021 10:56 AM

PLOT BY : GARNICA, BRANDON

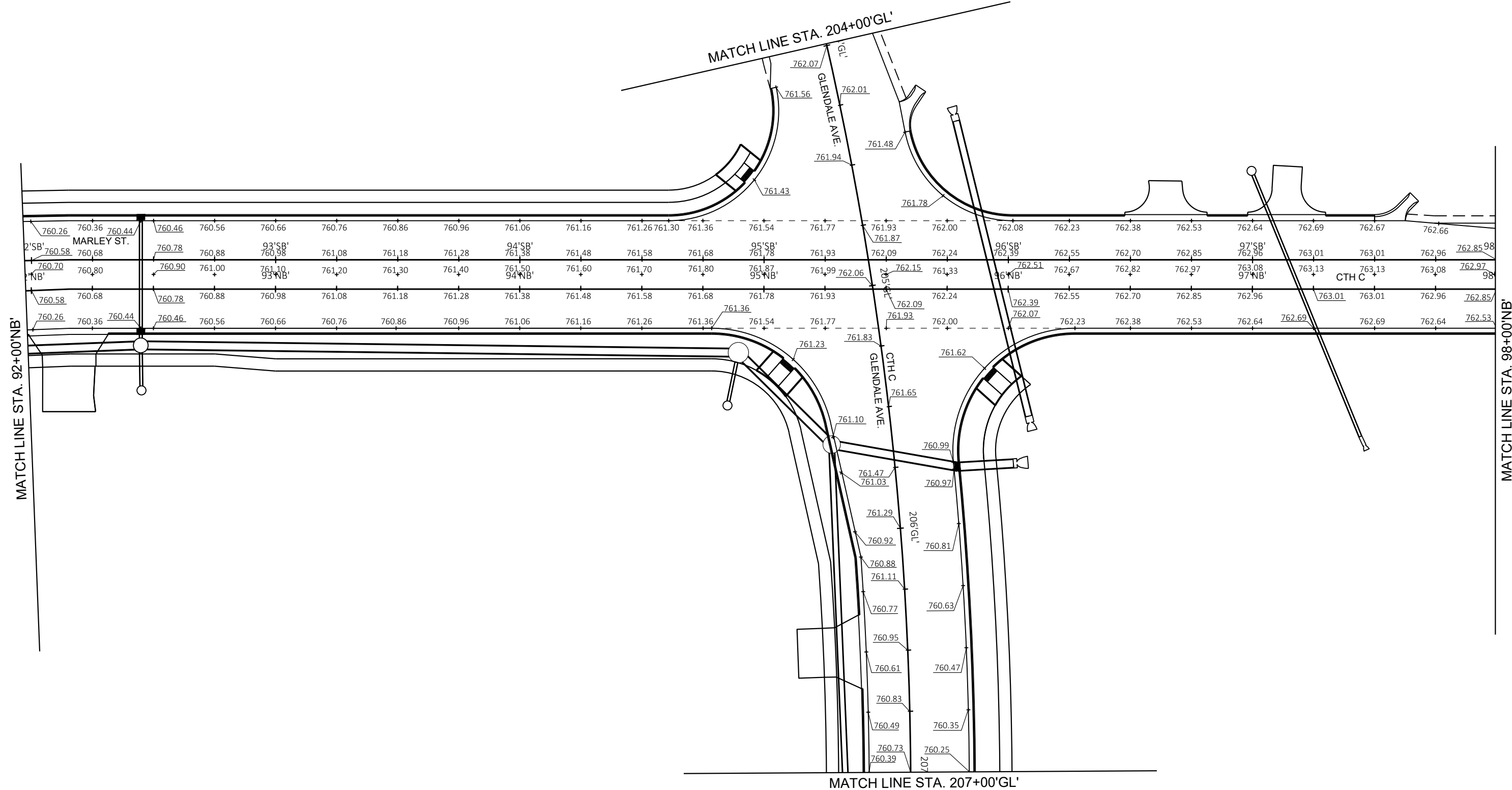
PLOT NAME : PLOT SCALE :

PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2



|             |            |
|-------------|------------|
| PROJECT NO: | 9269-00-14 |
|-------------|------------|

HWY: MARLEY STREET

COUNTY: BROWN

| PLAN GRADES |  |
|-------------|--|
|-------------|--|

SHEET 20 E

FILE NAME : I:\45\450490 MARLEY STREET\C3D\SHEETSPLAN\021206 GR.DWG  
LAYOUT NAME - 021206 gr

PLOT DATE : 11/11/2021 10:57 AM

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PLOT BY : GARNICA, BRANDON

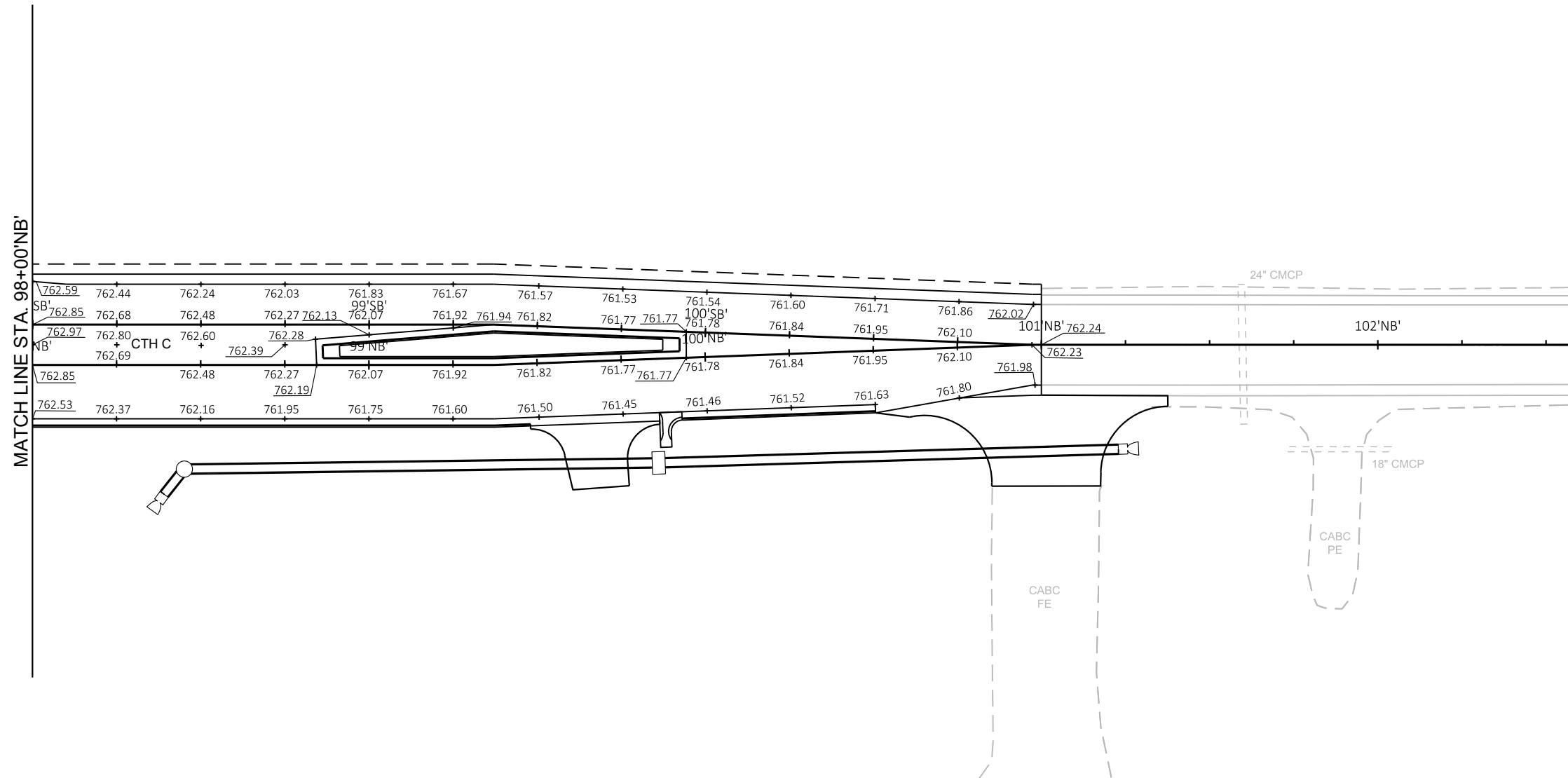
PLOT NAME : \_\_\_\_\_

PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

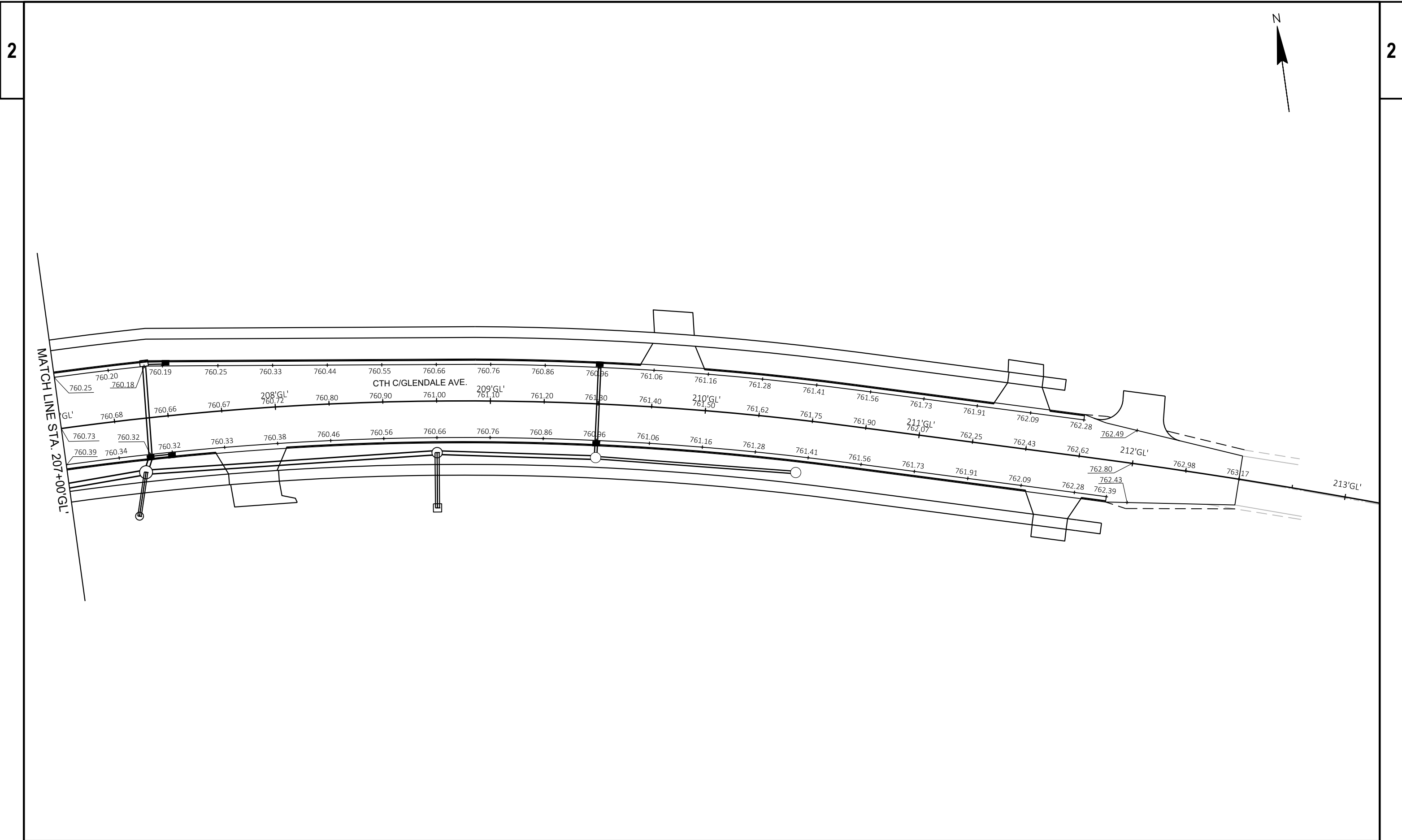
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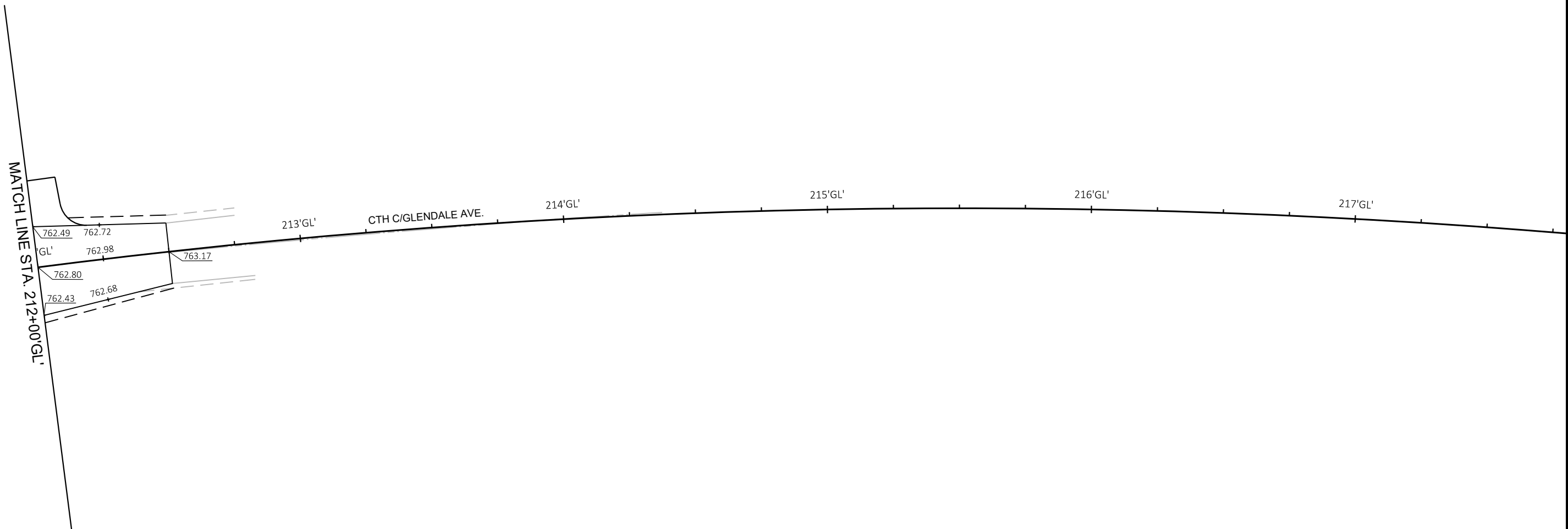
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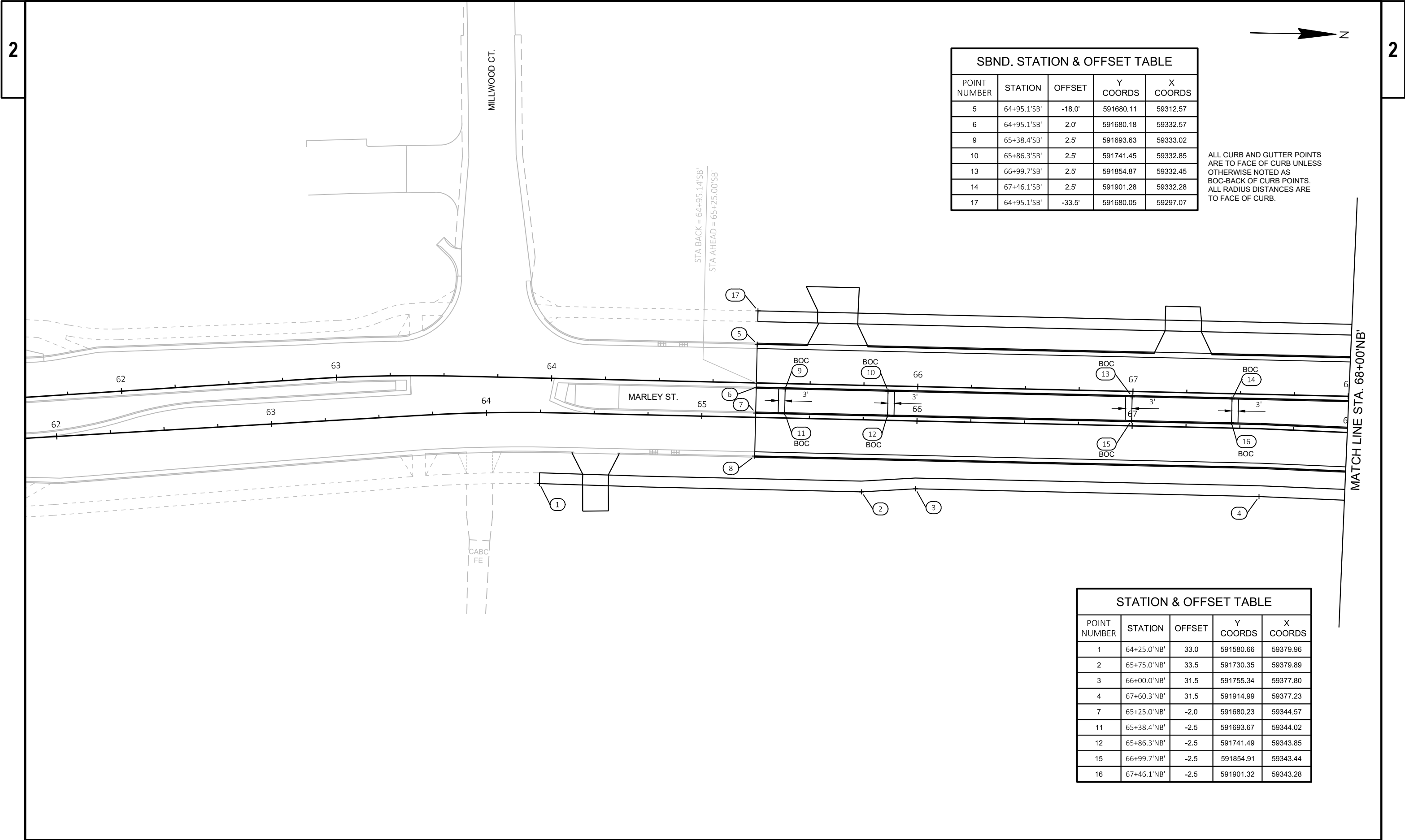
2











| SBND. STATION & OFFSET TABLE |             |        |           |          |
|------------------------------|-------------|--------|-----------|----------|
| POINT NUMBER                 | STATION     | OFFSET | Y COORDS  | X COORDS |
| 5                            | 64+95.1'SB' | -18.0' | 591680.11 | 59312.57 |
| 6                            | 64+95.1'SB' | 2.0'   | 591680.18 | 59332.57 |
| 9                            | 65+38.4'SB' | 2.5'   | 591693.63 | 59333.02 |
| 10                           | 65+86.3'SB' | 2.5'   | 591741.45 | 59332.85 |
| 13                           | 66+99.7'SB' | 2.5'   | 591854.87 | 59332.45 |
| 14                           | 67+46.1'SB' | 2.5'   | 591901.28 | 59332.28 |
| 17                           | 64+95.1'SB' | -33.5' | 591680.05 | 59297.07 |

ALL CURB AND GUTTER POINTS  
ARE TO FACE OF CURB UNLESS  
OTHERWISE NOTED AS  
BOC-BACK OF CURB POINTS.  
ALL RADIUS DISTANCES ARE  
TO FACE OF CURB.

| STATION & OFFSET TABLE |             |        |           |          |
|------------------------|-------------|--------|-----------|----------|
| POINT NUMBER           | STATION     | OFFSET | Y COORDS  | X COORDS |
| 1                      | 64+25.0'NB' | 33.0   | 591580.66 | 59379.96 |
| 2                      | 65+75.0'NB' | 33.5   | 591730.35 | 59379.89 |
| 3                      | 66+00.0'NB' | 31.5   | 591755.34 | 59377.80 |
| 4                      | 67+60.3'NB' | 31.5   | 591914.99 | 59377.23 |
| 7                      | 65+25.0'NB' | -2.0   | 591680.23 | 59344.57 |
| 11                     | 65+38.4'NB' | -2.5   | 591693.67 | 59344.02 |
| 12                     | 65+86.3'NB' | -2.5   | 591741.49 | 59343.85 |
| 15                     | 66+99.7'NB' | -2.5   | 591854.91 | 59343.44 |
| 16                     | 67+46.1'NB' | -2.5   | 591901.32 | 59343.28 |



| SBND. STATION & OFFSET TABLE |             |        |           |          |
|------------------------------|-------------|--------|-----------|----------|
| POINT NUMBER                 | STATION     | OFFSET | Y COORDS  | X COORDS |
| 23                           | 69+55.5'SB' | 6.0'   | 592110.75 | 59333.03 |
| 24                           | 70+72.7'SB' | 6.0'   | 592227.88 | 59332.62 |
| 25                           | 70+79.7'SB' | 8.0'   | 592234.89 | 59334.59 |
| 32                           | 73+82.6'SB' | -2.5'  | 592537.83 | 59343.01 |
| 33                           | 69+55.5'SB' | 5.5'   | 592110.75 | 59332.53 |
| 34                           | 69+55.4'SB' | 2.5'   | 592110.65 | 59329.54 |
| 35                           | 70+72.7'SB' | -18.0' | 592227.78 | 59308.62 |
| 36                           | 70+91.8'SB' | -25.9' | 592246.85 | 59300.64 |
| 37                           | 70+99.7'SB' | -45.0' | 592254.70 | 59281.52 |
| 38                           | 70+72.7'SB' | -45.0' | 592227.70 | 59281.62 |

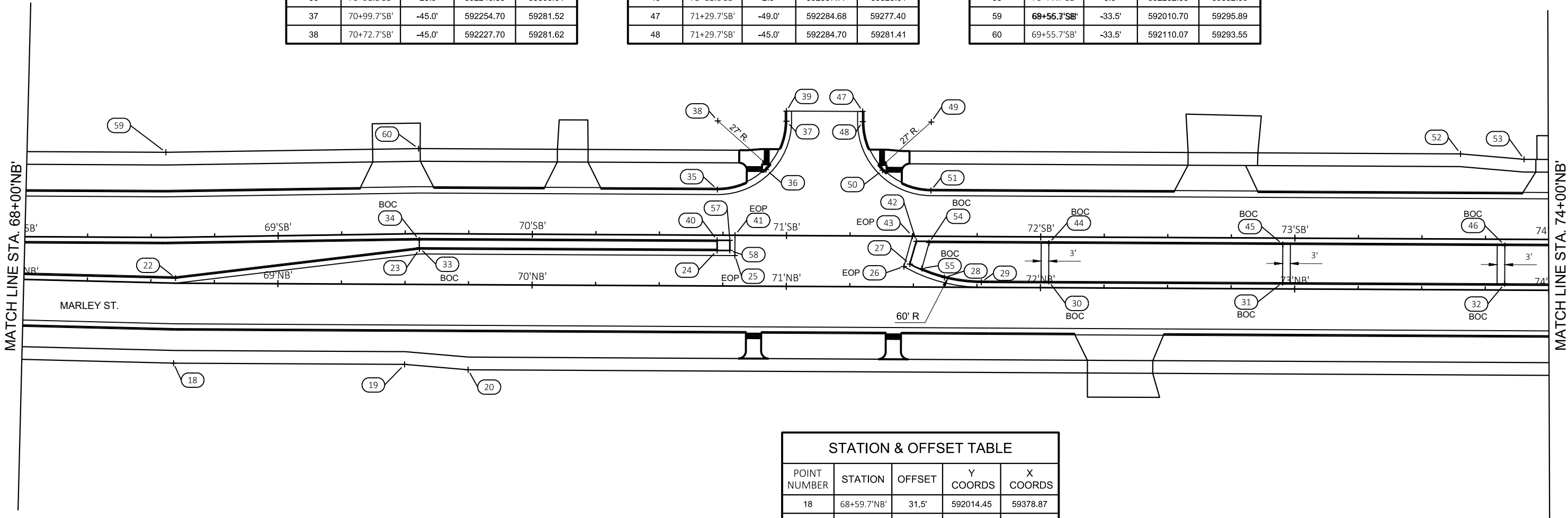
| SBND. STATION & OFFSET TABLE |             |        |           |          |
|------------------------------|-------------|--------|-----------|----------|
| POINT NUMBER                 | STATION     | OFFSET | Y COORDS  | X COORDS |
| 39                           | 70+99.7'SB' | -49.0' | 592254.68 | 59277.51 |
| 40                           | 70+72.7'SB' | 2.0'   | 592227.86 | 59328.62 |
| 41                           | 70+79.7'SB' | 0.0'   | 592234.86 | 59326.59 |
| 42                           | 71+51.1'SB' | 2.0'   | 592306.21 | 59328.34 |
| 43                           | 71+49.5'SB' | 0.0'   | 592304.68 | 59326.34 |
| 44                           | 72+03.2'SB' | 2.5'   | 592358.36 | 59328.65 |
| 45                           | 72+95.2'SB' | 2.5'   | 592450.38 | 59328.32 |
| 46                           | 73+82.6'SB' | 2.5'   | 592537.77 | 59328.01 |
| 47                           | 71+29.7'SB' | -49.0' | 592284.68 | 59277.40 |
| 48                           | 71+29.7'SB' | -45.0' | 592284.70 | 59281.41 |

| SBND. STATION & OFFSET TABLE |             |        |           |          |
|------------------------------|-------------|--------|-----------|----------|
| POINT NUMBER                 | STATION     | OFFSET | Y COORDS  | X COORDS |
| 49                           | 71+56.7'SB' | -45.0' | 592311.70 | 59281.32 |
| 50                           | 71+37.6'SB' | -25.9' | 592292.67 | 59300.48 |
| 51                           | 71+56.7'SB' | -18.0' | 592311.79 | 59308.32 |
| 52                           | 73+65.0'SB' | -33.5' | 592520.02 | 59292.07 |
| 53                           | 73+90.0'SB' | -31.5' | 592545.03 | 59293.98 |
| 54                           | 71+56.1'SB' | 2.5'   | 592311.26 | 59328.82 |
| 57                           | 70+77.7'SB' | 2.0'   | 592232.86 | 59328.60 |
| 58                           | 70+77.7'SB' | 6.0'   | 592232.88 | 59332.60 |
| 59                           | 69+56.3'SB' | -33.5' | 592010.70 | 59295.89 |
| 60                           | 69+55.7'SB' | -33.5' | 592110.07 | 59293.55 |

→ Z

ALL CURB AND GUTTER POINTS  
ARE TO FACE OF CURB UNLESS  
OTHERWISE NOTED AS  
BOC-BACK OF CURB POINTS.  
EOP-EDGE OF PAVEMENT

ALL RADIUS DISTANCES ARE  
TO FACE OF CURB.



| STATION & OFFSET TABLE |             |        |           |          |
|------------------------|-------------|--------|-----------|----------|
| POINT NUMBER           | STATION     | OFFSET | Y COORDS  | X COORDS |
| 18                     | 68+59.7'NB' | 31.5'  | 592014.45 | 59378.87 |
| 19                     | 69+50.0'NB' | 31.5   | 592105.33 | 59378.55 |
| 20                     | 69+75.0'NB' | 33.5   | 592130.33 | 59380.46 |
| 22                     | 68+59.7'NB' | -2.0   | 592014.92 | 59345.38 |
| 26                     | 71+46.2'NB' | -8.0   | 592301.40 | 59338.33 |
| 27                     | 71+48.6'NB' | -9.0   | 592303.75 | 59337.33 |
| 28                     | 71+62.2'NB' | -3.8   | 592317.41 | 59342.52 |
| 29                     | 71+76.7'NB' | -2.0   | 592331.92 | 59344.24 |
| 30                     | 72+03.2'NB' | -2.5   | 592358.42 | 59343.65 |
| 31                     | 72+95.2'NB' | -2.5   | 592450.44 | 59343.32 |
| 32                     | 73+82.6'NB' | -2.5   | 592537.83 | 59343.01 |
| 55                     | 71+53.3'NB' | -7.3   | 592308.47 | 59339.02 |

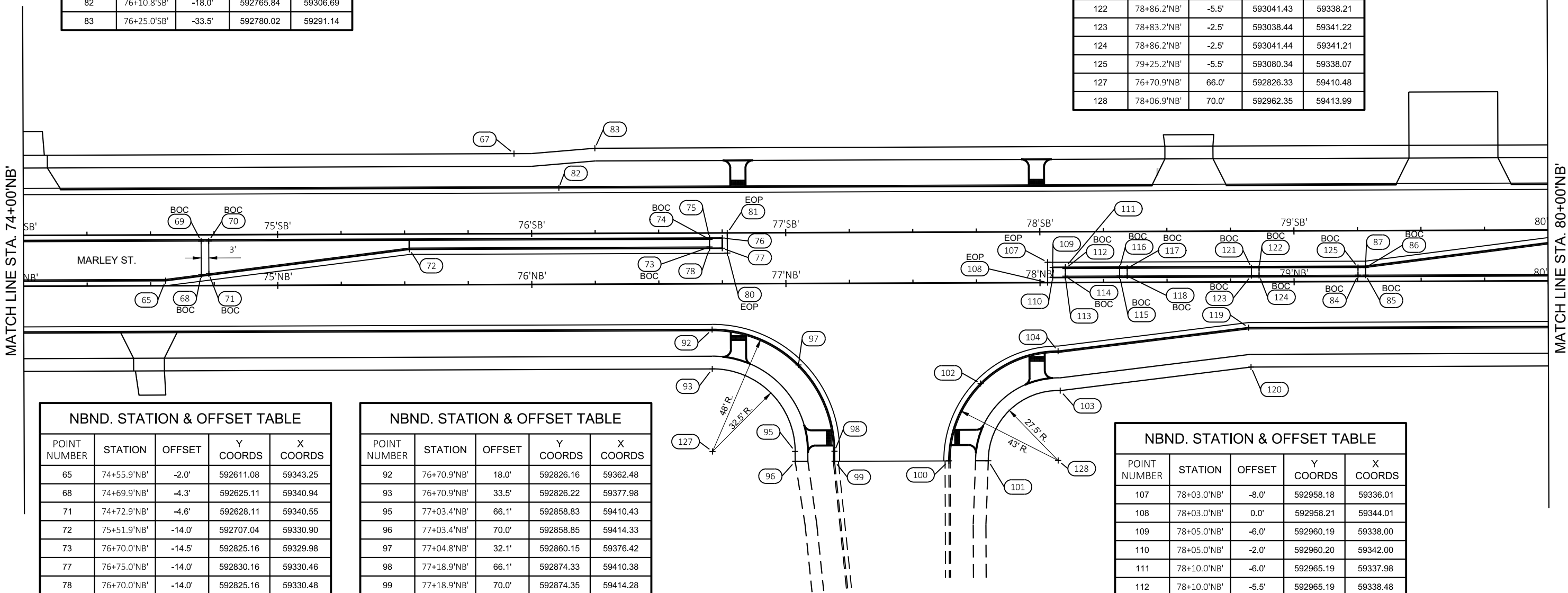
| SBND. STATION & OFFSET TABLE |             |        |           |          |
|------------------------------|-------------|--------|-----------|----------|
| POINT NUMBER                 | STATION     | OFFSET | Y COORDS  | X COORDS |
| 67                           | 75+93.2'SB' | -31.5' | 592748.20 | 59293.26 |
| 69                           | 74+69.9'SB' | 2.5'   | 592625.07 | 59327.70 |
| 70                           | 74+72.9'SB' | 2.5'   | 592628.07 | 59327.69 |
| 74                           | 76+70.0'SB' | 2.5'   | 592825.15 | 59326.98 |
| 75                           | 76+70.0'SB' | 2.0'   | 592825.15 | 59326.48 |
| 76                           | 76+75.0'SB' | 2.0'   | 592830.15 | 59326.46 |
| 81                           | 76+77.0'SB' | 0.0'   | 592832.14 | 59324.46 |
| 82                           | 76+10.8'SB' | -18.0' | 592765.84 | 59306.69 |
| 83                           | 76+25.0'SB' | -33.5' | 592780.02 | 59291.14 |

| NBND. STATION & OFFSET TABLE |             |        |           |          |
|------------------------------|-------------|--------|-----------|----------|
| POINT NUMBER                 | STATION     | OFFSET | Y COORDS  | X COORDS |
| 119                          | 78+82.0'NB' | 18.0'  | 593037.28 | 59361.72 |
| 120                          | 78+82.9'NB' | 33.5'  | 593038.26 | 59377.22 |
| 121                          | 78+83.2'NB' | -5.5'  | 593038.43 | 59338.22 |
| 122                          | 78+86.2'NB' | -5.5'  | 593041.43 | 59338.21 |
| 123                          | 78+83.2'NB' | -2.5'  | 593038.44 | 59341.22 |
| 124                          | 78+86.2'NB' | -2.5'  | 593041.44 | 59341.21 |
| 125                          | 79+25.2'NB' | -5.5'  | 593080.34 | 59338.07 |
| 127                          | 76+70.9'NB' | 66.0'  | 592826.33 | 59410.48 |
| 128                          | 78+06.9'NB' | 70.0'  | 592962.35 | 59413.99 |

→ Z

ALL CURB AND GUTTER POINTS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED AS BOC-BACK OF CURB POINTS. EOP-EDGE OF PAVEMENT

ALL RADIUS DISTANCES ARE TO FACE OF CURB.



| NBND. STATION & OFFSET TABLE |             |        |           |          |
|------------------------------|-------------|--------|-----------|----------|
| POINT NUMBER                 | STATION     | OFFSET | Y COORDS  | X COORDS |
| 65                           | 74+55.9'NB' | -2.0'  | 592611.08 | 59343.25 |
| 68                           | 74+69.9'NB' | -4.3'  | 592625.11 | 59340.94 |
| 71                           | 74+72.9'NB' | -4.6'  | 592628.11 | 59340.55 |
| 72                           | 75+51.9'NB' | -14.0' | 592707.04 | 59330.90 |
| 73                           | 76+70.0'NB' | -14.5' | 592825.16 | 59329.98 |
| 77                           | 76+75.0'NB' | -14.0' | 592830.16 | 59330.46 |
| 78                           | 76+70.0'NB' | -14.0' | 592825.16 | 59330.48 |
| 80                           | 76+77.0'NB' | -12.1' | 592832.17 | 59332.37 |
| 84                           | 79+25.2'NB' | -2.5'  | 593080.36 | 59341.07 |
| 85                           | 79+28.2'NB' | -2.5'  | 593083.36 | 59341.06 |
| 86                           | 79+28.2'NB' | -5.5'  | 593083.34 | 59338.06 |
| 87                           | 79+28.1'NB' | -6.0'  | 593083.31 | 59337.56 |

| NBND. STATION & OFFSET TABLE |             |        |           |          |
|------------------------------|-------------|--------|-----------|----------|
| POINT NUMBER                 | STATION     | OFFSET | Y COORDS  | X COORDS |
| 92                           | 76+70.9'NB' | 18.0'  | 592826.16 | 59362.48 |
| 93                           | 76+70.9'NB' | 33.5'  | 592826.22 | 59377.98 |
| 95                           | 77+03.4'NB' | 66.1'  | 592858.83 | 59410.43 |
| 96                           | 77+03.4'NB' | 70.0'  | 592858.85 | 59414.33 |
| 97                           | 77+04.8'NB' | 32.1'  | 592860.15 | 59376.42 |
| 98                           | 77+18.9'NB' | 66.1'  | 592874.33 | 59410.38 |
| 99                           | 77+18.9'NB' | 70.0'  | 592874.35 | 59414.28 |
| 100                          | 77+63.9'NB' | 70.0'  | 592919.35 | 59414.15 |
| 101                          | 77+79.4'NB' | 70.0'  | 592934.85 | 59414.09 |
| 102                          | 77+76.5'NB' | 39.6'  | 592931.83 | 59383.70 |
| 103                          | 78+07.8'NB' | 42.5'  | 592963.17 | 59386.50 |
| 104                          | 78+07.0'NB' | 27.0'  | 592962.31 | 59370.99 |

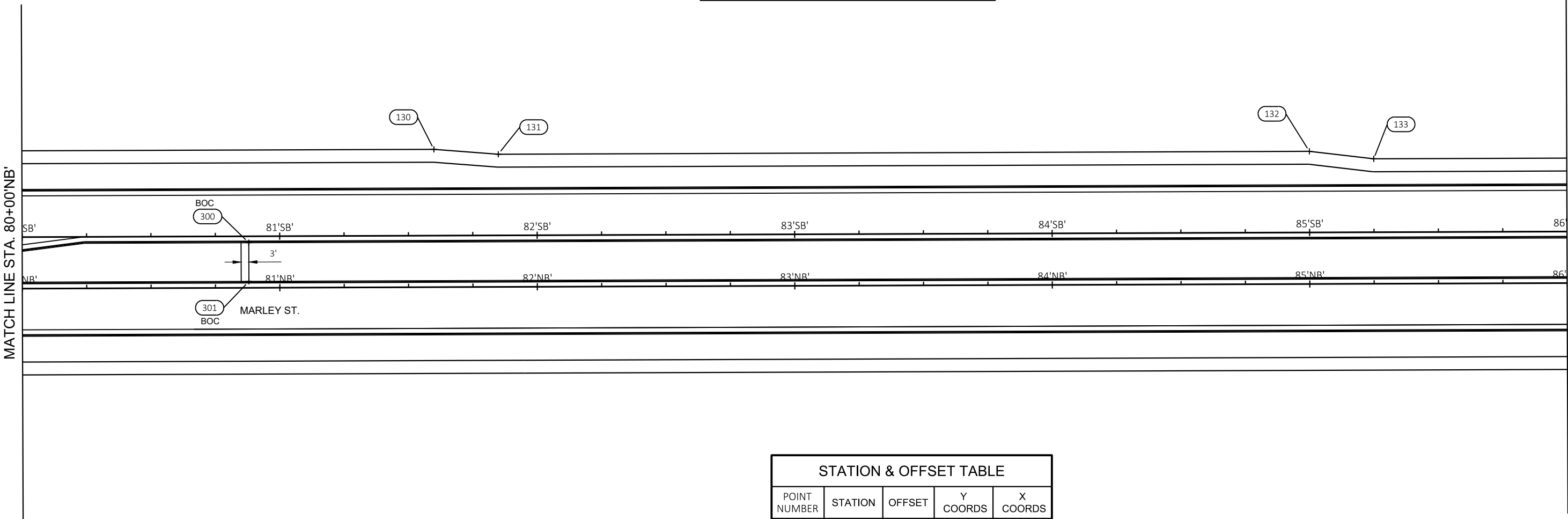
| NBND. STATION & OFFSET TABLE |             |        |           |          |
|------------------------------|-------------|--------|-----------|----------|
| POINT NUMBER                 | STATION     | OFFSET | Y COORDS  | X COORDS |
| 107                          | 78+03.0'NB' | -8.0'  | 592958.18 | 59336.01 |
| 108                          | 78+03.0'NB' | 0.0'   | 592958.21 | 59344.01 |
| 109                          | 78+05.0'NB' | -6.0'  | 592960.19 | 59338.00 |
| 110                          | 78+05.0'NB' | -2.0'  | 592960.20 | 59342.00 |
| 111                          | 78+10.0'NB' | -6.0'  | 592965.19 | 59337.98 |
| 112                          | 78+10.0'NB' | -5.5'  | 592965.19 | 59338.48 |
| 113                          | 78+10.0'NB' | -2.0'  | 592965.20 | 59341.98 |
| 114                          | 78+10.0'NB' | -2.5'  | 592965.20 | 59341.48 |
| 115                          | 78+31.3'NB' | -2.5'  | 592986.53 | 59341.41 |
| 116                          | 78+31.3'NB' | -5.5'  | 592986.52 | 59338.41 |
| 117                          | 78+34.3'NB' | -5.5'  | 592989.52 | 59338.39 |
| 118                          | 78+34.3'NB' | -2.5'  | 592989.53 | 59341.39 |



ALL CURB AND GUTTER POINTS  
ARE TO FACE OF CURB UNLESS  
OTHERWISE NOTED AS  
BOC-BACK OF CURB POINTS.  
EOP-EDGE OF PAVEMENT

ALL RADIUS DISTANCES ARE  
TO FACE OF CURB.

| SBND. STATION & OFFSET TABLE |             |        |           |          |
|------------------------------|-------------|--------|-----------|----------|
| POINT NUMBER                 | STATION     | OFFSET | Y COORDS  | X COORDS |
| 130                          | 81+60.0'SB' | -33.5' | 593315.02 | 59289.23 |
| 131                          | 81+85.0'SB' | -31.5' | 593340.02 | 59291.14 |
| 132                          | 85+00.0'SB' | -31.5' | 593655.02 | 59290.02 |
| 133                          | 85+25.0'SB' | -28.5' | 593680.03 | 59292.93 |
| 300                          | 80+88.0'SB' | 2.5'   | 593243.15 | 59325.49 |



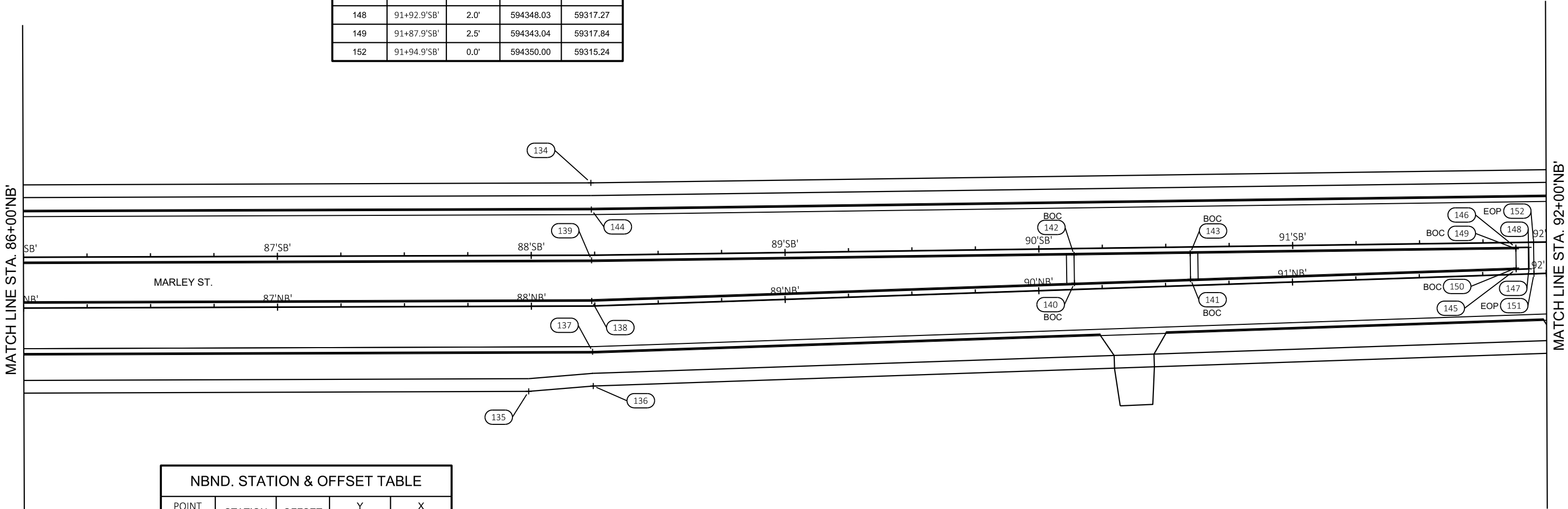
| STATION & OFFSET TABLE |             |        |           |          |
|------------------------|-------------|--------|-----------|----------|
| POINT NUMBER           | STATION     | OFFSET | Y COORDS  | X COORDS |
| 301                    | 80+88.0'NB' | -2.5   | 593243.20 | 59340.49 |

| SBND. STATION & OFFSET TABLE |             |        |           |          |
|------------------------------|-------------|--------|-----------|----------|
| POINT NUMBER                 | STATION     | OFFSET | Y COORDS  | X COORDS |
| 134                          | 88+23.8'SB' | -28.5' | 593978.64 | 59291.86 |
| 139                          | 88+23.8'SB' | 2.0'   | 593978.91 | 59322.36 |
| 142                          | 90+13.8'SB' | 2.5'   | 594168.97 | 59320.24 |
| 143                          | 90+59.6'SB' | 2.5'   | 594214.74 | 59319.61 |
| 144                          | 88+23.9'SB' | -18.0' | 593978.82 | 59302.36 |
| 146                          | 91+87.9'SB' | 2.0'   | 594343.03 | 59317.34 |
| 148                          | 91+92.9'SB' | 2.0'   | 594348.03 | 59317.27 |
| 149                          | 91+87.9'SB' | 2.5'   | 594343.04 | 59317.84 |
| 152                          | 91+94.9'SB' | 0.0'   | 594350.00 | 59315.24 |

→ Z

ALL CURB AND GUTTER POINTS  
ARE TO FACE OF CURB UNLESS  
OTHERWISE NOTED AS  
BOC-BACK OF CURB POINTS.  
EOP-EDGE OF PAVEMENT

ALL RADIUS ARE TO FACE OF  
CURB.

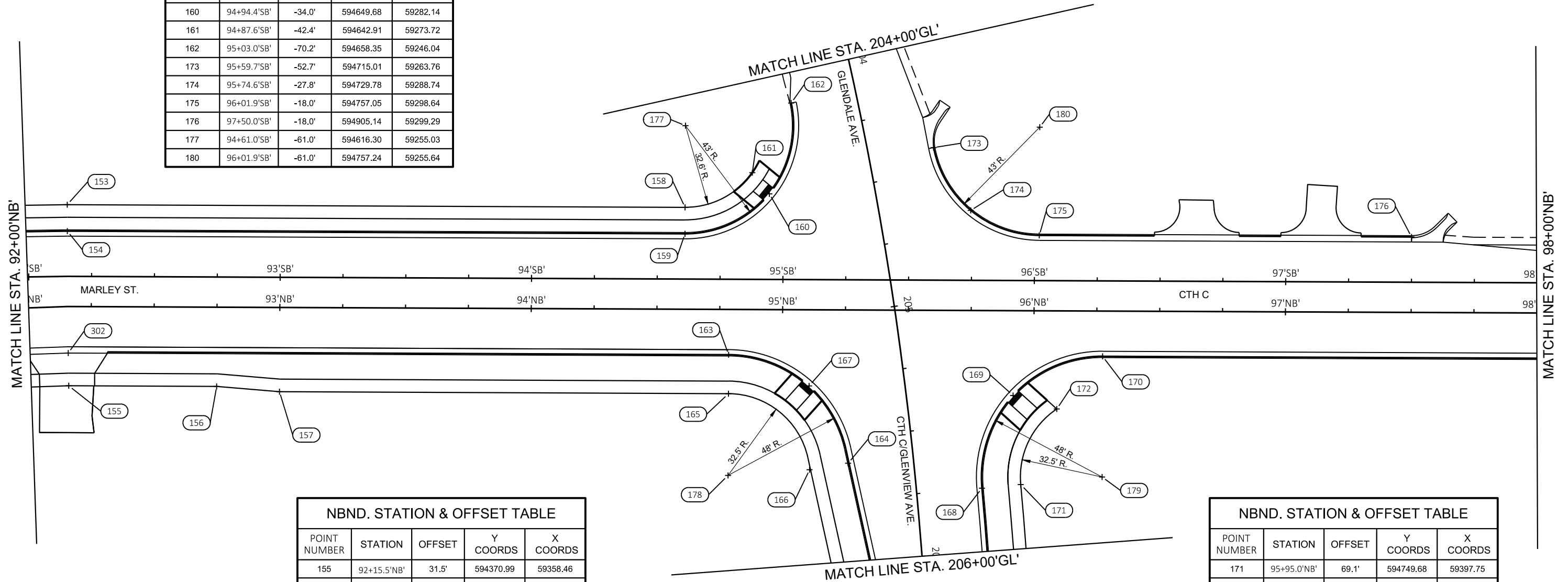


| NBND. STATION & OFFSET TABLE |             |        |           |          |
|------------------------------|-------------|--------|-----------|----------|
| POINT NUMBER                 | STATION     | OFFSET | Y COORDS  | X COORDS |
| 135                          | 87+98.8'NB' | 33.5'  | 593954.13 | 59373.95 |
| 136                          | 88+23.8'NB' | 18.0'  | 593979.56 | 59371.86 |
| 137                          | 88+23.8'NB' | 31.5'  | 593979.31 | 59358.36 |
| 138                          | 88+23.8'NB' | -2.0'  | 593978.97 | 59338.36 |
| 140                          | 90+14.1'NB' | -2.5'  | 594169.12 | 59331.35 |
| 141                          | 90+59.9'NB' | -2.5'  | 594214.88 | 59329.79 |
| 145                          | 91+88.2'NB' | -2.0'  | 594343.15 | 59325.90 |
| 147                          | 91+93.2'NB' | -2.0'  | 594348.15 | 59325.73 |
| 150                          | 91+88.2'NB' | -2.5'  | 594343.14 | 59325.40 |
| 151                          | 91+95.2'NB' | 0.0'   | 594350.18 | 59327.66 |

| SBND. STATION & OFFSET TABLE |             |        |           |          |
|------------------------------|-------------|--------|-----------|----------|
| POINT NUMBER                 | STATION     | OFFSET | Y COORDS  | X COORDS |
| 153                          | 92+15.4'SB' | -28.5' | 594370.39 | 59286.46 |
| 154                          | 92+15.4'SB' | -18.0' | 594370.44 | 59296.96 |
| 158                          | 94+61.0'SB' | -28.5' | 594616.16 | 59287.53 |
| 159                          | 94+61.0'SB' | -18.0' | 594616.12 | 59298.03 |
| 160                          | 94+94.4'SB' | -34.0' | 594649.68 | 59282.14 |
| 161                          | 94+87.6'SB' | -42.4' | 594642.91 | 59273.72 |
| 162                          | 95+03.0'SB' | -70.2' | 594658.35 | 59246.04 |
| 173                          | 95+59.7'SB' | -52.7' | 594715.01 | 59263.76 |
| 174                          | 95+74.6'SB' | -27.8' | 594729.78 | 59288.74 |
| 175                          | 96+01.9'SB' | -18.0' | 594757.05 | 59298.64 |
| 176                          | 97+50.0'SB' | -18.0' | 594905.14 | 59299.29 |
| 177                          | 94+61.0'SB' | -61.0' | 594616.30 | 59255.03 |
| 180                          | 96+01.9'SB' | -61.0' | 594757.24 | 59255.64 |

ALL CURB AND GUTTER POINTS ARE TO FACE OF CURB  
UNLESS OTHERWISE NOTED AS BOC-BACK OF CURB POINTS.  
EOP-EDGE OF PAVEMENT

ALL RADIUS ARE TO FACE OF CURB.

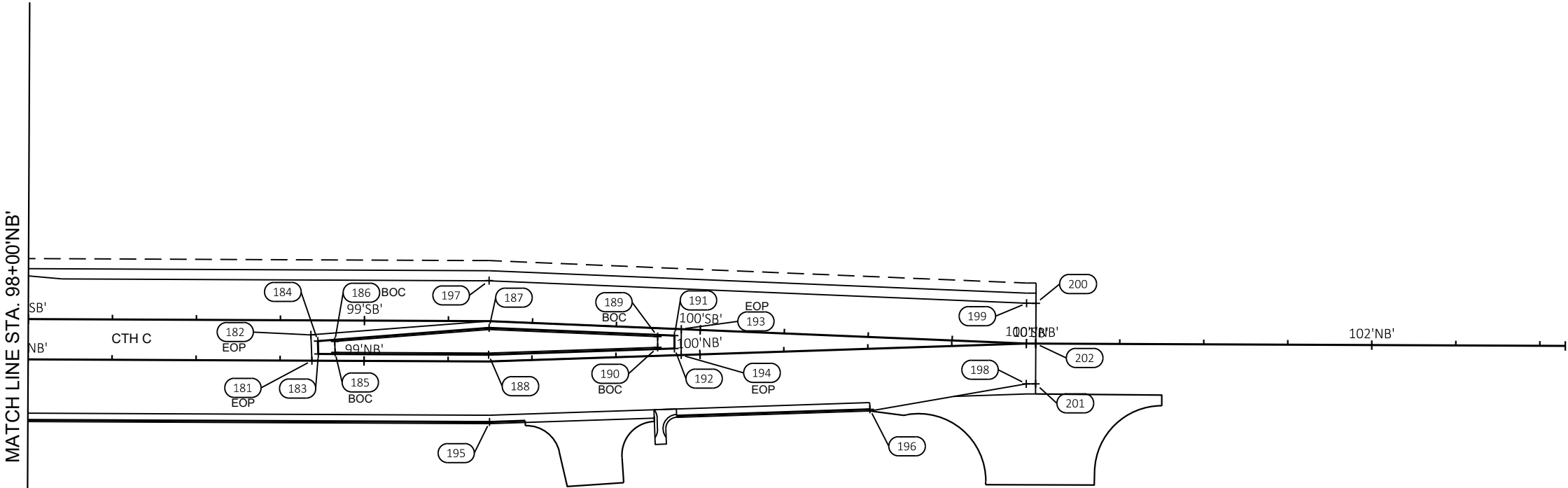


| NBND. STATION & OFFSET TABLE |             |        |           |          |
|------------------------------|-------------|--------|-----------|----------|
| POINT NUMBER                 | STATION     | OFFSET | Y COORDS  | X COORDS |
| 155                          | 92+15.5'NB' | 31.5'  | 594370.99 | 59358.46 |
| 156                          | 92+75.0'NB' | 31.5'  | 594429.84 | 59358.72 |
| 157                          | 93+00.0'NB' | 33.5'  | 594454.83 | 59360.83 |
| 163                          | 94+78.6'NB' | 18.0'  | 594633.48 | 59346.11 |
| 164                          | 95+26.3'NB' | 61.0'  | 594681.02 | 59389.28 |
| 165                          | 94+78.6'NB' | 33.5'  | 594633.41 | 59361.61 |
| 166                          | 95+11.0'NB' | 63.6'  | 594665.69 | 59391.85 |
| 167                          | 95+10.6'NB' | 30.3'  | 594665.49 | 59358.53 |
| 168                          | 95+79.6'NB' | 70.6'  | 594734.24 | 59399.18 |
| 169                          | 95+91.8'NB' | 33.7'  | 594746.64 | 59362.34 |
| 170                          | 96+27.4'NB' | 18.0'  | 594782.25 | 59346.75 |

| NBND. STATION & OFFSET TABLE |             |        |           |          |
|------------------------------|-------------|--------|-----------|----------|
| POINT NUMBER                 | STATION     | OFFSET | Y COORDS  | X COORDS |
| 171                          | 95+95.0'NB' | 69.1'  | 594749.68 | 59397.75 |
| 172                          | 96+09.2'NB' | 39.0'  | 594764.03 | 59367.70 |
| 178                          | 94+78.6'NB' | 66.0'  | 594633.27 | 59394.11 |
| 179                          | 96+27.4'NB' | 66.0'  | 594782.04 | 59394.75 |
| 302                          | 92+15.9'NB' | 18.5'  | 594370.79 | 59345.46 |



ALL CURB AND GUTTER POINTS ARE TO FACE OF CURB  
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BOC-BACK OF CURB  
EOP-EDGE OF PAVEMENT  
  
ALL RADIUS ARE TO FACE OF CURB.



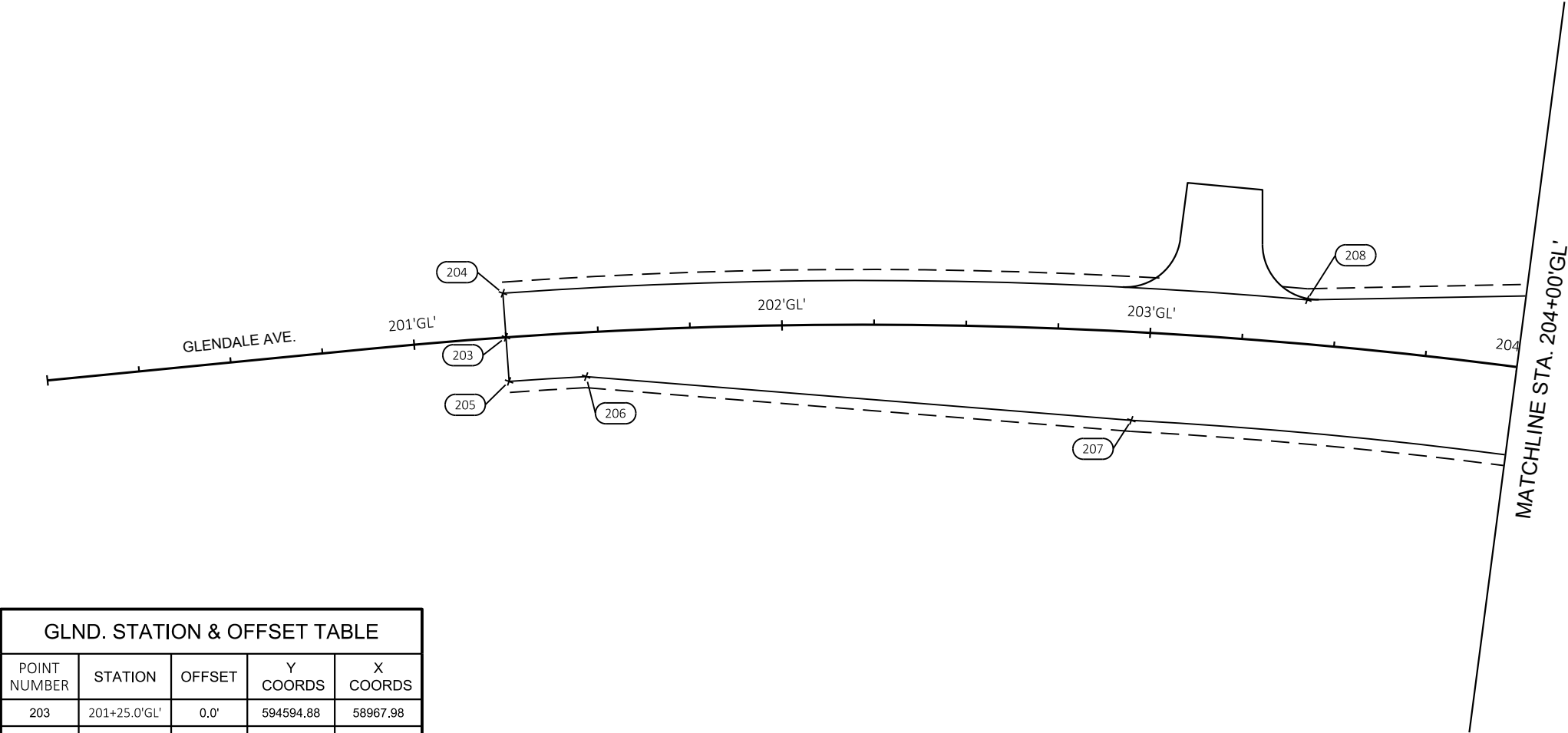
| NBND. STATION & OFFSET TABLE |             |        |           |          |
|------------------------------|-------------|--------|-----------|----------|
| POINT NUMBER                 | STATION     | OFFSET | Y COORDS  | X COORDS |
| 181                          | 98+84.5'NB' | 0.0'   | 595039.44 | 59329.87 |
| 182                          | 98+84.2'NB' | -7.7'  | 595039.16 | 59322.20 |
| 183                          | 98+86.4'NB' | -2.0'  | 595041.37 | 59327.88 |
| 184                          | 98+86.2'NB' | -5.8'  | 595041.23 | 59324.04 |
| 185                          | 98+91.4'NB' | -2.5'  | 595046.35 | 59327.40 |
| 186                          | 98+91.2'NB' | -5.7'  | 595046.23 | 59324.16 |
| 187                          | 99+37.1'NB' | -10.0' | 595092.18 | 59320.11 |
| 188                          | 99+37.1'NB' | -2.0'  | 595092.03 | 59328.10 |
| 189                          | 99+87.6'NB' | -5.7'  | 595142.35 | 59322.70 |
| 190                          | 99+87.5'NB' | -2.5'  | 595142.34 | 59325.93 |
| 191                          | 99+92.6'NB' | -5.9'  | 595147.35 | 59322.41 |

| NBND. STATION & OFFSET TABLE |              |        |           |          |
|------------------------------|--------------|--------|-----------|----------|
| POINT NUMBER                 | STATION      | OFFSET | Y COORDS  | X COORDS |
| 192                          | 99+92.5'NB'  | -2.0'  | 595147.34 | 59326.26 |
| 193                          | 99+94.7'NB'  | -7.7'  | 595149.36 | 59320.49 |
| 194                          | 99+94.4'NB'  | 0.0'   | 595149.33 | 59328.20 |
| 195                          | 99+37.1'NB'  | -18.0' | 595092.32 | 59348.10 |
| 196                          | 100+50.0'NB' | 18.0'  | 595205.50 | 59344.34 |
| 197                          | 99+37.1'NB'  | -24.0' | 595092.17 | 59306.06 |
| 198                          | 100+97.2'NB' | 12.0'  | 595252.03 | 59336.79 |
| 199                          | 100+97.2'NB' | -12.0' | 595252.14 | 59312.79 |
| 200                          | 101+00.0'NB' | -12.0' | 595254.93 | 59312.80 |
| 201                          | 101+00.0'NB' | 12.0'  | 595254.83 | 59336.80 |
| 202                          | 101+00.0'NB' | 0.0'   | 595254.88 | 59324.80 |



ALL CURB AND GUTTER POINTS  
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EOP-EDGE OF PAVEMENT

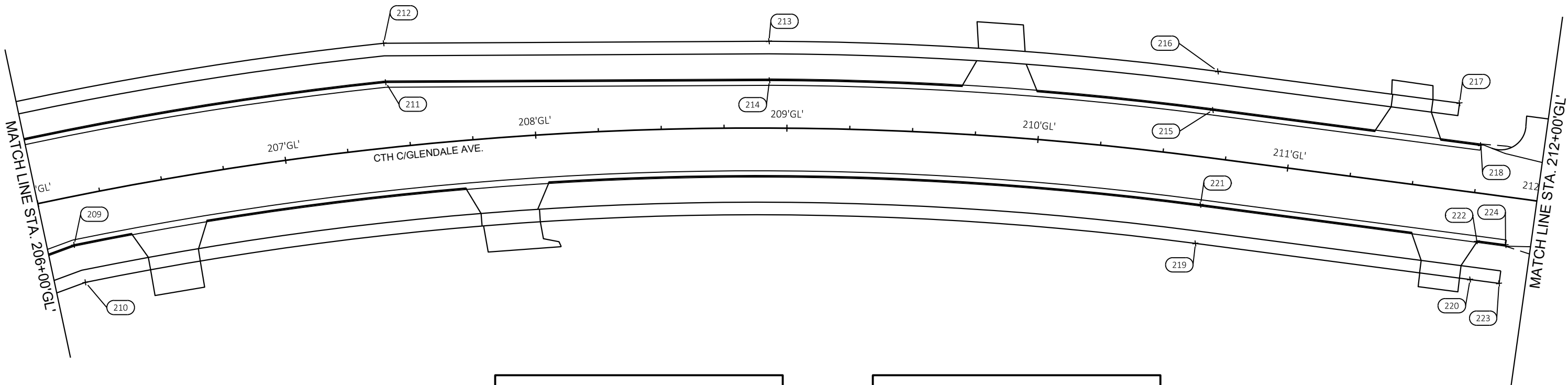
ALL RADIUS ARE TO FACE OF  
CURB.



| GLND. STATION & OFFSET TABLE |              |        |           |          |
|------------------------------|--------------|--------|-----------|----------|
| POINT NUMBER                 | STATION      | OFFSET | Y COORDS  | X COORDS |
| 203                          | 201+25.0'GL' | 0.0'   | 594594.88 | 58967.98 |
| 204                          | 201+25.0'GL' | -12.0' | 594605.84 | 58963.09 |
| 205                          | 201+25.0'GL' | 12.0'  | 594583.92 | 58972.87 |
| 206                          | 201+46.2'GL' | 12.0'  | 594592.32 | 58992.08 |
| 207                          | 202+96.2'GL' | 24.0'  | 594631.76 | 59135.19 |
| 208                          | 203+41.7'GL' | -12.0' | 594678.84 | 59168.88 |



ALL CURB AND GUTTER POINTS ARE TO FACE  
OF CURB UNLESS OTHERWISE NOTED AS  
BOC-BACK OF CURB POINTS.  
EOP-EDGE OF PAVEMENT  
  
ALL RADIUS ARE TO FACE OF CURB.



| GLND. STATION & OFFSET TABLE |              |        |           |          |
|------------------------------|--------------|--------|-----------|----------|
| POINT NUMBER                 | STATION      | OFFSET | Y COORDS  | X COORDS |
| 209                          | 206+10.8'GL' | 19.00  | 594692.22 | 59438.31 |
| 210                          | 206+12.2'GL' | 34.50  | 594676.84 | 59440.73 |
| 211                          | 207+42.9'GL' | -26.00 | 594739.58 | 59569.81 |
| 212                          | 207+43.7'GL' | -41.50 | 594755.05 | 59571.10 |
| 213                          | 208+92.8'GL' | -34.50 | 594735.17 | 59723.09 |
| 214                          | 208+93.0'GL' | -19.00 | 594719.78 | 59721.20 |
| 215                          | 210+67.5'GL' | -19.00 | 594684.26 | 59894.38 |
| 216                          | 210+67.5'GL' | -34.50 | 594699.21 | 59898.45 |
| 217                          | 211+64.4'GL' | -34.50 | 594673.76 | 59991.95 |
| 218                          | 211+75.0'GL' | -19.00 | 594656.02 | 59998.11 |
| 219                          | 210+67.5'GL' | 34.50  | 594632.63 | 59880.33 |

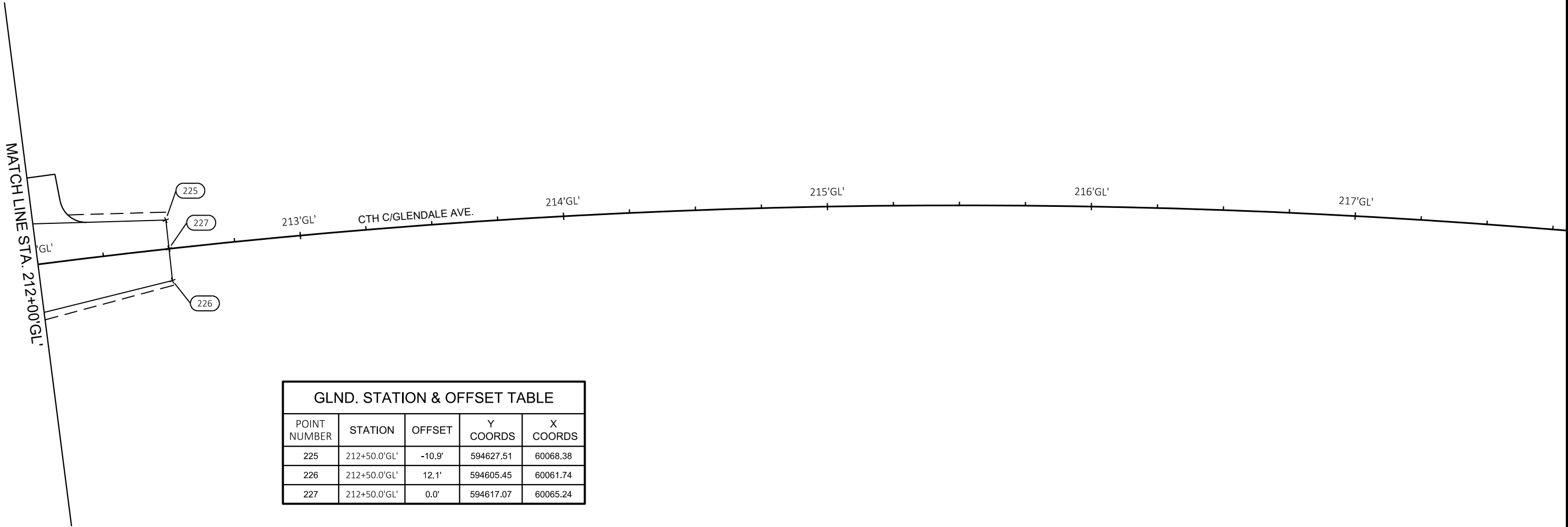
| GLND. STATION & OFFSET TABLE |              |        |           |          |
|------------------------------|--------------|--------|-----------|----------|
| POINT NUMBER                 | STATION      | OFFSET | Y COORDS  | X COORDS |
| 220                          | 211+77.7'GL' | 34.50  | 594603.69 | 59986.66 |
| 221                          | 210+67.5'GL' | 19.00  | 594647.59 | 59884.40 |
| 222                          | 211+78.4'GL' | 19.02  | 594618.44 | 59991.38 |
| 223                          | 211+89.5'GL' | 34.52  | 594600.59 | 59997.88 |
| 224                          | 211+90.0'GL' | 19.02  | 594615.38 | 60002.51 |





ALL CURB AND GUTTER POINTS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED AS BOC-BACK OF CURB POINTS.  
EOP-EDGE OF PAVEMENT

ALL RADIUS ARE TO FACE OF CURB.

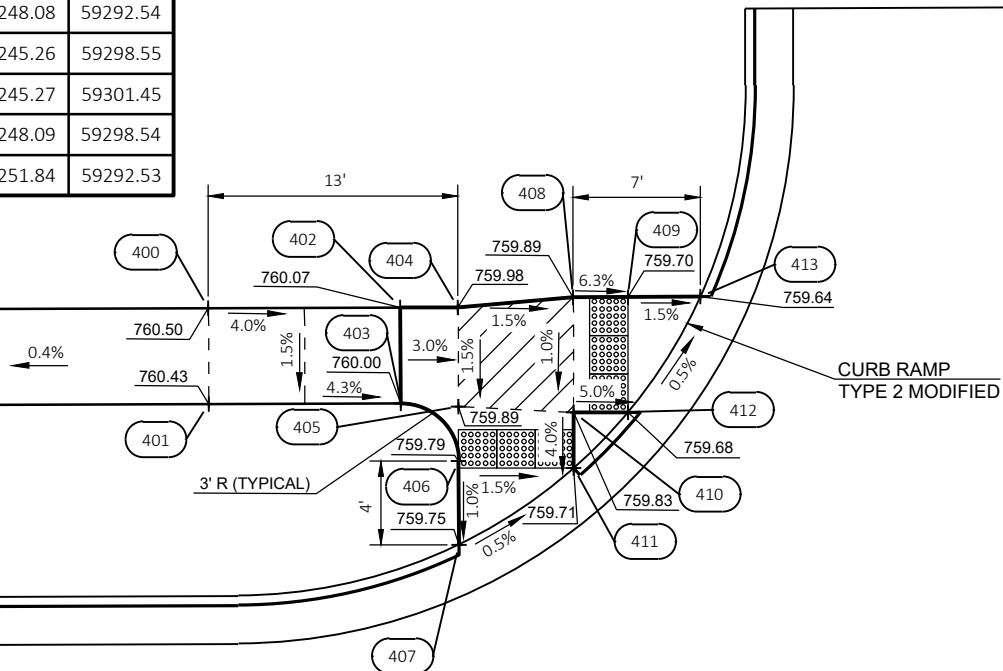


| GLND. STATION & OFFSET TABLE |              |        |           |          |
|------------------------------|--------------|--------|-----------|----------|
| POINT NUMBER                 | STATION      | OFFSET | Y COORDS  | X COORDS |
| 225                          | 212+50.0'GL' | -10.9' | 594627.51 | 60068.38 |
| 226                          | 212+50.0'GL' | 12.1'  | 594605.45 | 60061.74 |
| 227                          | 212+50.0'GL' | 0.0'   | 594617.07 | 60065.24 |

| MARLEY STREET CURB RAMP |              |          |           |          |
|-------------------------|--------------|----------|-----------|----------|
| POINT                   | STATION      | OFFSET   | Y COORDS  | X COORDS |
| 400                     | 70+71.2 'SB' | -33.5 LT | 592226.24 | 59293.12 |
| 401                     | 70+71.2 'SB' | -28.5 LT | 592226.25 | 59298.12 |
| 402                     | 70+81.2 'SB' | -33.5 LT | 592236.24 | 59293.08 |
| 403                     | 70+81.2 'SB' | -28.5 LT | 592236.25 | 59298.08 |
| 404                     | 70+84.2 'SB' | -33.5 LT | 592239.24 | 59293.07 |
| 405                     | 70+84.2 'SB' | -28.3 LT | 592239.26 | 59298.24 |
| 406                     | 70+84.2 'SB' | -25.5 LT | 592239.27 | 59301.07 |
| 407                     | 70+84.2 'SB' | -21.1 LT | 592239.28 | 59305.45 |
| 408                     | 70+90.2 'SB' | -34.0 LT | 592245.24 | 59292.55 |
| 409                     | 70+93.1 'SB' | -34.0 LT | 592248.08 | 59292.54 |
| 410                     | 70+90.2 'SB' | -28.0 LT | 592245.26 | 59298.55 |
| 411                     | 70+90.2 'SB' | -25.1 LT | 592245.27 | 59301.45 |
| 412                     | 70+93.0 'SB' | -28.0 LT | 592248.09 | 59298.54 |
| 413                     | 70+96.8 'SB' | -34.0 LT | 592251.84 | 59292.53 |

LEGEND

- LIMITS OF CONCRETE  
SIDEWALK 6-INCH
- LEVEL LANDING AREA
- DETECTABLE WARNING  
FIELD (2' X 6')



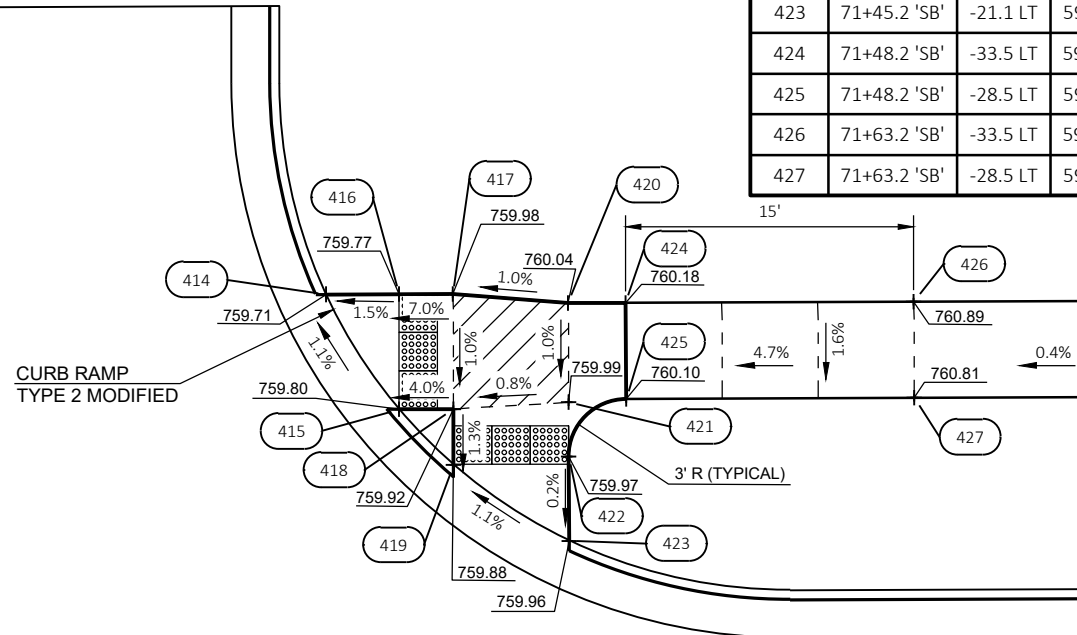
MARLEY STREET

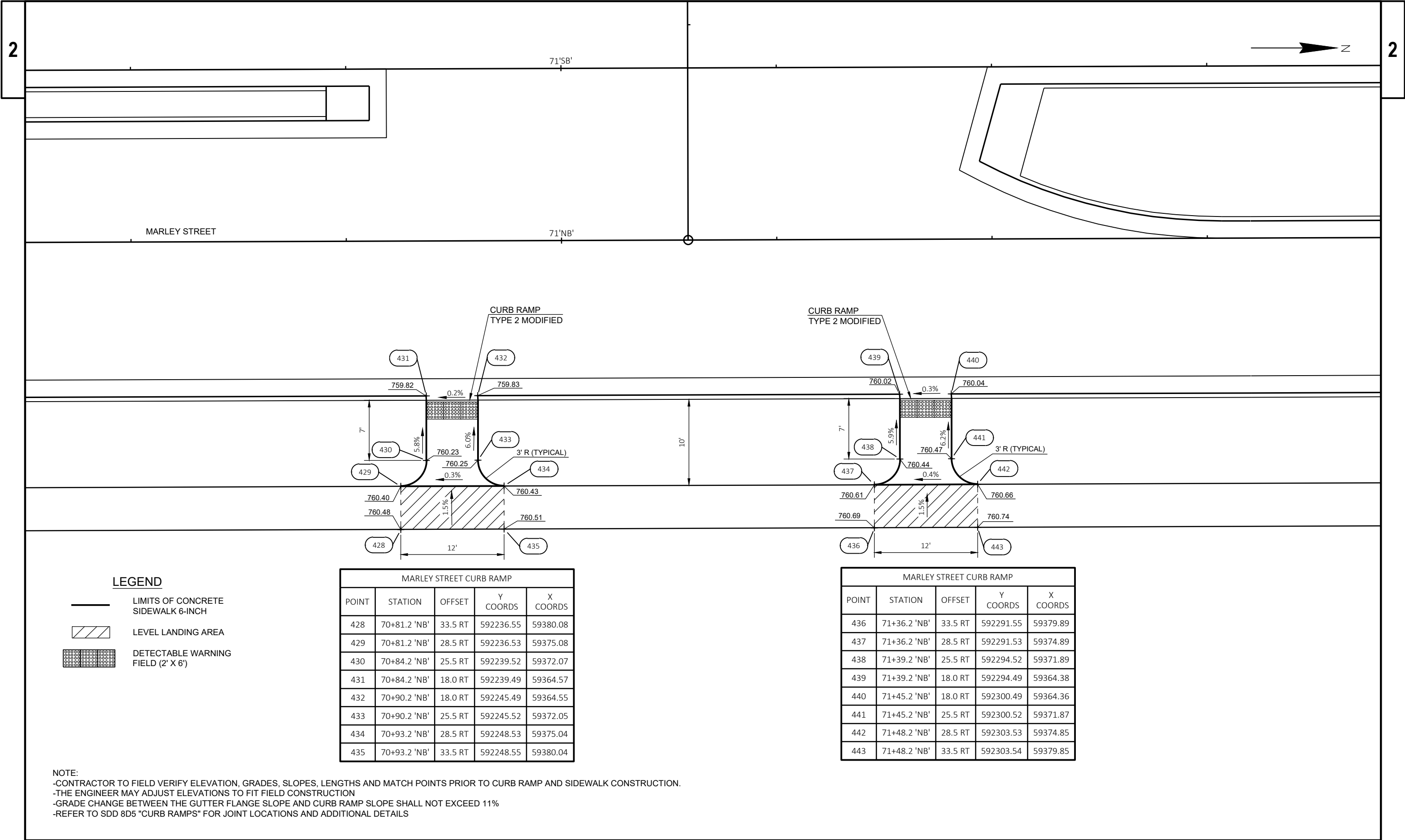
71'SB'

71'NB'

NOTE:  
-CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.  
-THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION  
-GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%  
-REFER TO SDD 8D5 "CURB RAMPS" FOR JOINT LOCATIONS AND ADDITIONAL DETAILS

| MARLEY STREET CURB RAMP |              |          |           |          |
|-------------------------|--------------|----------|-----------|----------|
| POINT                   | STATION      | OFFSET   | Y COORDS  | X COORDS |
| 414                     | 71+32.6 'SB' | -34.0 LT | 592287.63 | 59292.40 |
| 415                     | 71+36.4 'SB' | -28.0 LT | 592291.43 | 59298.39 |
| 416                     | 71+36.4 'SB' | -34.0 LT | 592291.43 | 59292.39 |
| 417                     | 71+39.2 'SB' | -34.0 LT | 592294.24 | 59292.38 |
| 418                     | 71+39.2 'SB' | -28.0 LT | 592294.26 | 59298.38 |
| 419                     | 71+39.2 'SB' | -25.1 LT | 592294.27 | 59301.28 |
| 420                     | 71+45.2 'SB' | -33.5 LT | 592300.24 | 59292.86 |
| 421                     | 71+45.2 'SB' | -28.3 LT | 592300.26 | 59298.02 |
| 422                     | 71+45.2 'SB' | -25.5 LT | 592300.27 | 59300.86 |
| 423                     | 71+45.2 'SB' | -21.1 LT | 592300.28 | 59305.23 |
| 424                     | 71+48.2 'SB' | -33.5 LT | 592303.24 | 59292.85 |
| 425                     | 71+48.2 'SB' | -28.5 LT | 592303.25 | 59297.85 |
| 426                     | 71+63.2 'SB' | -33.5 LT | 592318.24 | 59292.79 |
| 427                     | 71+63.2 'SB' | -28.5 LT | 592318.25 | 59297.79 |

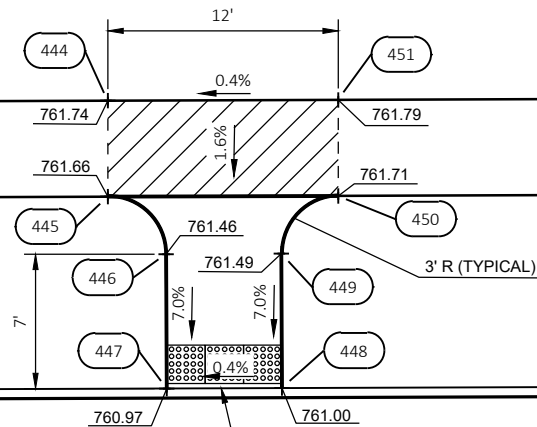




LEGEND

- LIMITS OF CONCRETE  
SIDEWALK 6-INCH
- LEVEL LANDING AREA
- DETECTABLE WARNING  
FIELD (2' X 6')

| MARLEY STREET CURB RAMP |              |          |             |             |
|-------------------------|--------------|----------|-------------|-------------|
| POINT                   | STATION      | OFFSET   | Y<br>COORDS | X<br>COORDS |
| 444                     | 76+75.2 'SB' | -33.5 LT | 592830.27   | 59290.96    |
| 445                     | 76+75.2 'SB' | -28.5 LT | 592830.29   | 59295.96    |
| 446                     | 76+78.2 'SB' | -25.5 LT | 592833.30   | 59298.95    |
| 447                     | 76+78.2 'SB' | -18.5 LT | 592833.32   | 59305.95    |
| 448                     | 76+84.2 'SB' | -18.5 LT | 592839.32   | 59305.93    |
| 449                     | 76+84.2 'SB' | -25.5 LT | 592839.30   | 59298.93    |
| 450                     | 76+87.2 'SB' | -28.5 LT | 592842.29   | 59295.92    |
| 451                     | 76+87.2 'SB' | -33.5 LT | 592842.27   | 59290.92    |



CURB RAMP  
TYPE 2 MODIFIED

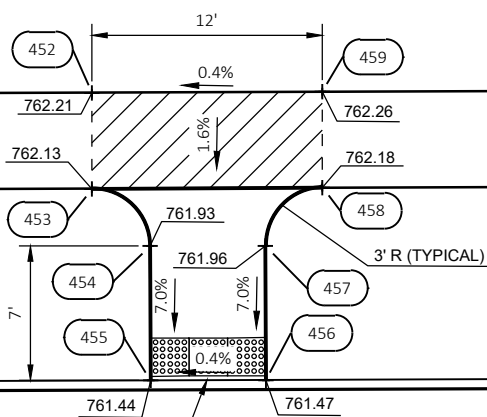
MARLEY STREET

77'SB'

NOTE:  
-CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.  
-THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION  
-GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%  
-REFER TO SDD 8D5 "CURB RAMPS" FOR JOINT LOCATIONS AND ADDITIONAL DETAILS



| MARLEY STREET CURB RAMP |              |          |             |             |
|-------------------------|--------------|----------|-------------|-------------|
| POINT                   | STATION      | OFFSET   | Y<br>COORDS | X<br>COORDS |
| 452                     | 77+92.8 'SB' | -33.5 LT | 592947.77   | 59290.54    |
| 453                     | 77+92.8 'SB' | -28.5 LT | 592947.79   | 59295.54    |
| 454                     | 77+95.8 'SB' | -25.5 LT | 592950.80   | 59298.53    |
| 455                     | 77+95.8 'SB' | -18.5 LT | 592950.82   | 59305.53    |
| 456                     | 78+01.8 'SB' | -18.5 LT | 592956.82   | 59305.51    |
| 457                     | 78+01.8 'SB' | -25.5 LT | 592956.80   | 59298.51    |
| 458                     | 78+04.8 'SB' | -28.5 LT | 592959.79   | 59295.50    |
| 459                     | 78+04.8 'SB' | -33.5 LT | 592959.77   | 59290.50    |



CURB RAMP  
TYPE 2 MODIFIED

78'SB'

2

The site plan illustrates a parking lot layout with two curbside ramps, labeled "CURB RAMP TYPE 2 MODIFIED". The ramps are located at the top and bottom right of the plan. The top ramp is associated with points 460 through 469, and the bottom ramp is associated with points 470 through 477. The parking stalls are numbered 460 through 477. The plan also shows various dimensions, including a 77' NB' dimension at the top, and a 3' R (TYPICAL) dimension for the ramp area. The plan includes a table of data for the parking stalls, which is reproduced below.

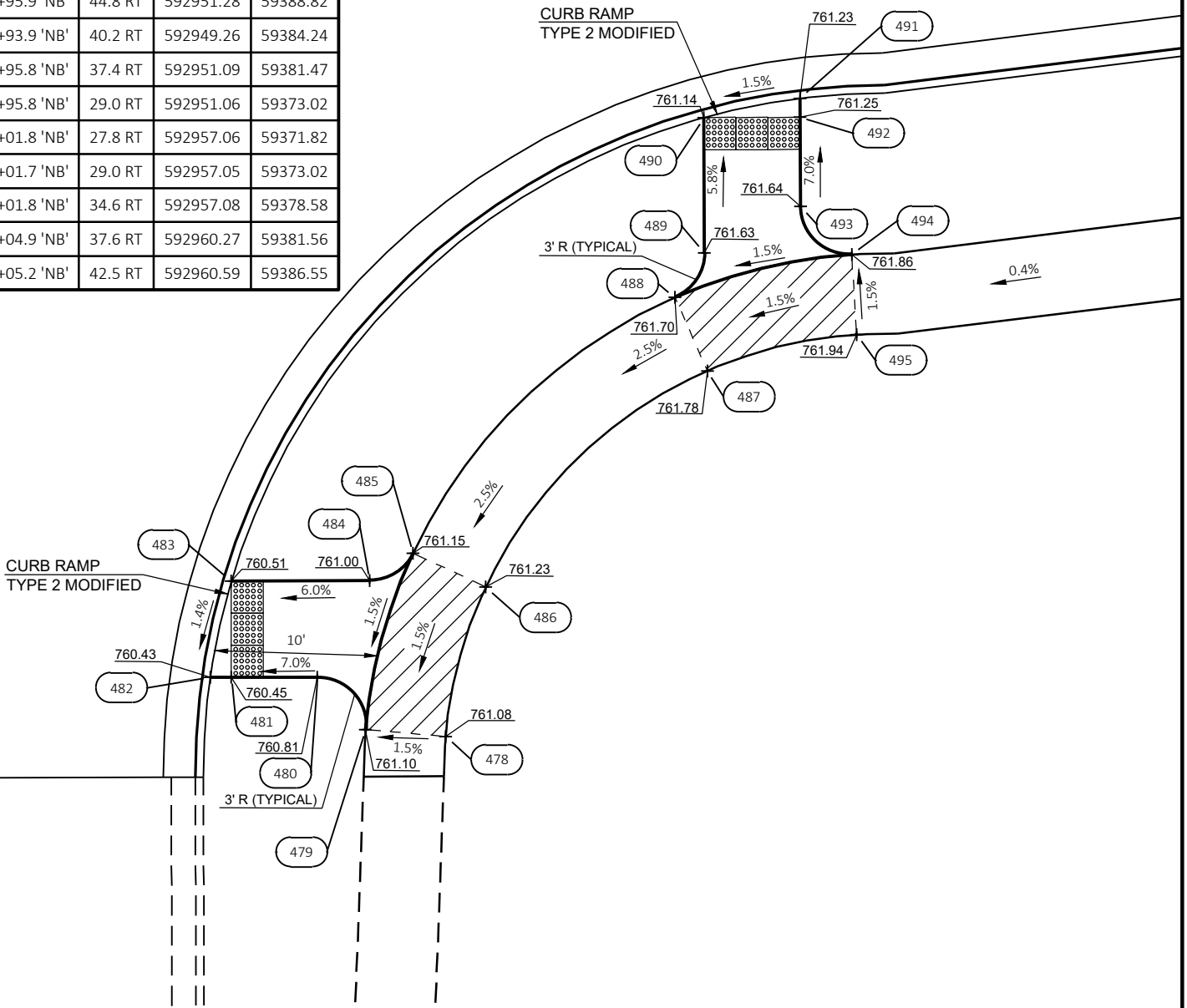
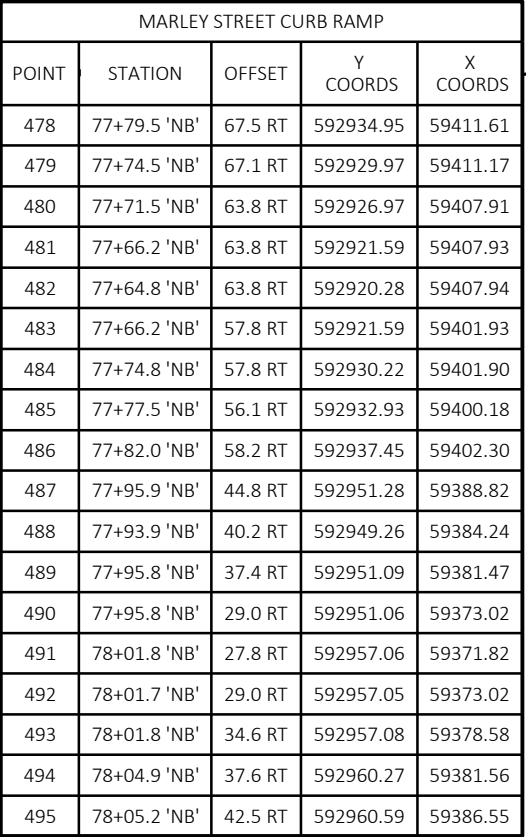
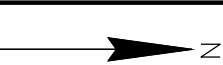
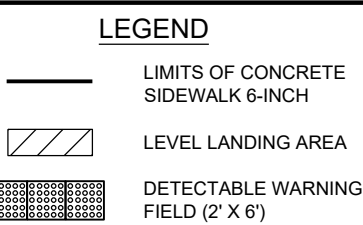
| POINT | STATION      | OFFSET  | Y COORDS  | X COORDS |
|-------|--------------|---------|-----------|----------|
| 460   | 76+74.4 'NB' | 33.7 RT | 592829.72 | 59378.15 |
| 461   | 76+74.9 'NB' | 28.7 RT | 592830.24 | 59373.18 |
| 462   | 76+78.2 'NB' | 25.7 RT | 592833.55 | 59370.19 |
| 463   | 76+78.2 'NB' | 20.4 RT | 592833.53 | 59364.85 |
| 464   | 76+78.2 'NB' | 19.1 RT | 592833.53 | 59363.53 |
| 465   | 76+84.2 'NB' | 20.4 RT | 592839.53 | 59364.85 |
| 466   | 76+84.2 'NB' | 29.0 RT | 592839.56 | 59373.38 |
| 467   | 76+84.0 'NB' | 36.3 RT | 592839.36 | 59380.70 |
| 468   | 76+86.0 'NB' | 31.7 RT | 592841.36 | 59376.12 |
| 469   | 77+02.1 'NB' | 57.0 RT | 592857.53 | 59401.37 |
| 470   | 77+06.9 'NB' | 55.6 RT | 592862.33 | 59399.97 |
| 471   | 77+09.8 'NB' | 57.8 RT | 592865.22 | 59402.13 |
| 472   | 77+17.7 'NB' | 57.8 RT | 592873.09 | 59402.11 |
| 473   | 77+18.3 'NB' | 63.8 RT | 592873.78 | 59408.10 |
| 474   | 77+17.6 'NB' | 63.8 RT | 592873.09 | 59408.10 |
| 475   | 77+11.4 'NB' | 63.8 RT | 592866.82 | 59408.13 |
| 476   | 77+08.4 'NB' | 66.8 RT | 592863.83 | 59411.14 |
| 477   | 77+03.4 'NB' | 66.8 RT | 592858.83 | 59411.16 |

| MARLEY STREET CURB RAMP |              |         |             |             |
|-------------------------|--------------|---------|-------------|-------------|
| POINT                   | STATION      | OFFSET  | Y<br>COORDS | X<br>COORDS |
| 460                     | 76+74.4 'NB' | 33.7 RT | 592829.72   | 59378.15    |
| 461                     | 76+74.9 'NB' | 28.7 RT | 592830.24   | 59373.18    |
| 462                     | 76+78.2 'NB' | 25.7 RT | 592833.55   | 59370.19    |
| 463                     | 76+78.2 'NB' | 20.4 RT | 592833.53   | 59364.85    |
| 464                     | 76+78.2 'NB' | 19.1 RT | 592833.53   | 59363.53    |
| 465                     | 76+84.2 'NB' | 20.4 RT | 592839.53   | 59364.85    |
| 466                     | 76+84.2 'NB' | 29.0 RT | 592839.56   | 59373.38    |
| 467                     | 76+84.0 'NB' | 36.3 RT | 592839.36   | 59380.70    |
| 468                     | 76+86.0 'NB' | 31.7 RT | 592841.36   | 59376.12    |
| 469                     | 77+02.1 'NB' | 57.0 RT | 592857.53   | 59401.37    |
| 470                     | 77+06.9 'NB' | 55.6 RT | 592862.33   | 59399.97    |
| 471                     | 77+09.8 'NB' | 57.8 RT | 592865.22   | 59402.13    |
| 472                     | 77+17.7 'NB' | 57.8 RT | 592873.09   | 59402.11    |
| 473                     | 77+18.3 'NB' | 63.8 RT | 592873.78   | 59408.10    |
| 474                     | 77+17.6 'NB' | 63.8 RT | 592873.09   | 59408.10    |
| 475                     | 77+11.4 'NB' | 63.8 RT | 592866.82   | 59408.13    |
| 476                     | 77+08.4 'NB' | 66.8 RT | 592863.83   | 59411.14    |
| 477                     | 77+03.4 'NB' | 66.8 RT | 592858.83   | 59411.16    |

|   | INDUSTRIAL DRIVE | TION |
|---|------------------|------|
| 6 | 4                |      |
| 3 | 0                |      |
| 0 | 1                |      |
| 3 | 7                |      |
| 7 | 7                |      |
| 2 | 0                |      |
| 8 | 8                |      |
| 5 | 5                |      |
| 3 | 5                |      |
| 9 | 8                | S    |
| 5 |                  |      |

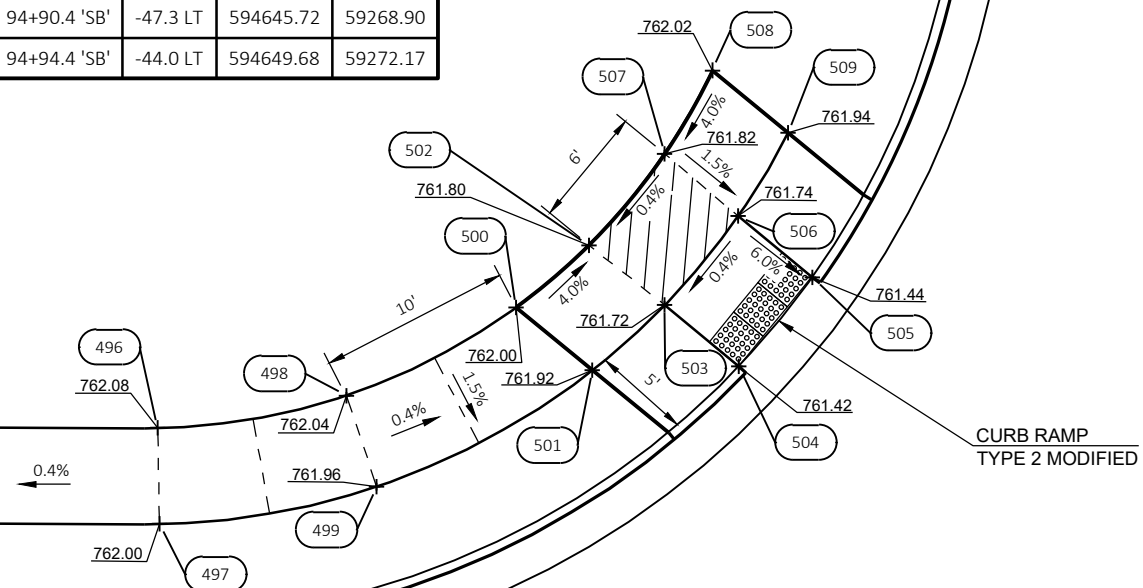
2

### LEGEND



2

| MARLEY STREET CURB RAMP |              |          |             |             |
|-------------------------|--------------|----------|-------------|-------------|
| POINT                   | STATION      | OFFSET   | Y<br>COORDS | X<br>COORDS |
| 496                     | 94+61.6 'SB' | -28.5 LT | 594616.84   | 59287.53    |
| 497                     | 94+61.7 'SB' | -23.5 LT | 594616.93   | 59292.53    |
| 498                     | 94+71.4 'SB' | -30.2 LT | 594626.66   | 59285.84    |
| 499                     | 94+73.0 'SB' | -25.5 LT | 594628.25   | 59290.58    |
| 500                     | 94+80.3 'SB' | -34.9 LT | 594635.50   | 59281.26    |
| 501                     | 94+84.2 'SB' | -31.6 LT | 594639.48   | 59284.52    |
| 502                     | 94+84.0 'SB' | -38.1 LT | 594639.30   | 59278.01    |
| 503                     | 94+88.0 'SB' | -35.0 LT | 594643.25   | 59281.13    |
| 504                     | 94+91.9 'SB' | -31.9 LT | 594647.12   | 59284.30    |
| 505                     | 94+95.7 'SB' | -36.5 LT | 594650.93   | 59279.68    |
| 506                     | 94+91.8 'SB' | -39.7 LT | 594647.07   | 59276.50    |
| 507                     | 94+88.0 'SB' | -42.9 LT | 594643.24   | 59273.24    |
| 508                     | 94+90.4 'SB' | -47.3 LT | 594645.72   | 59268.90    |
| 509                     | 94+94.4 'SB' | -44.0 LT | 594649.68   | 59272.17    |



MARLEY STREET

NOTE:  
 -CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.  
 -THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION  
 -GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%  
 -REFER TO SDD 8D5 "CURB RAMPS" FOR JOINT LOCATIONS AND ADDITIONAL DETAILS

95'SB'

95'NB'

205' GL

# 2

### LEGEND

|                                                                                     |                                       |
|-------------------------------------------------------------------------------------|---------------------------------------|
|  | LIMITS OF CONCRETE<br>SIDEWALK 6-INCH |
|  | LEVEL LANDING AREA                    |
|  | DETECTABLE WARNING<br>FIELD (2' X 6') |



|             |            |
|-------------|------------|
| PROJECT NO: | 9269-00-14 |
|-------------|------------|

HWY: MARLEY STREET

COUNTY: BROWN

CURB RAMP DETAILS

SHEET

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NOTE:  
-CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.  
-THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION  
-GRADE CHANGE BETWEEN THE GUTTER FLANGE SLOPE AND CURB RAMP SLOPE SHALL NOT EXCEED 11%  
-REFER TO SDD 8D5 "CURB RAMP" FOR JOINT LOCATIONS AND ADDITIONAL DETAILS

LEGEND

LIMITS OF CONCRETE  
SIDEWALK 6-INCH

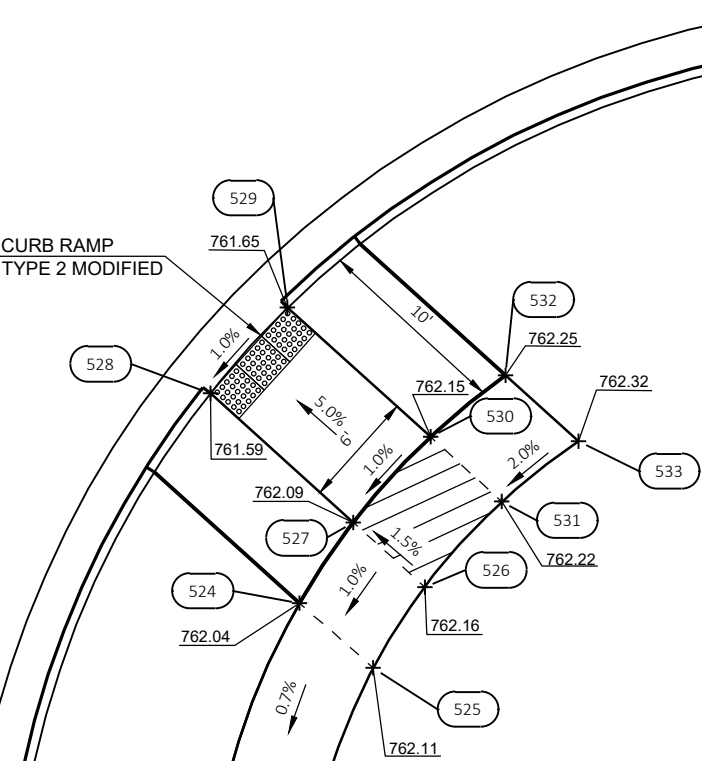
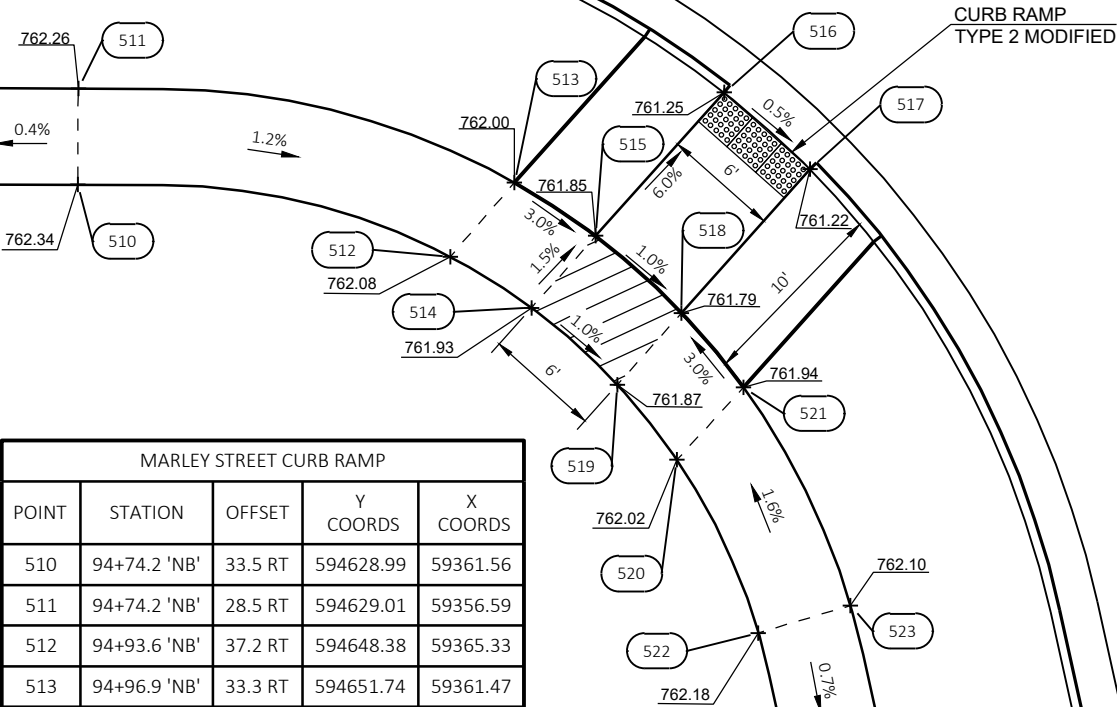
LEVEL LANDING AREA

DETECTABLE WARNING  
FIELD (2' X 6')

→ Z

MARLEY STREET

| MARLEY STREET CURB RAMP |              |         |           |          |
|-------------------------|--------------|---------|-----------|----------|
| POINT                   | STATION      | OFFSET  | Y COORDS  | X COORDS |
| 524                     | 95+94.7 'NB' | 47.5 RT | 594749.49 | 59376.13 |
| 525                     | 95+98.6 'NB' | 50.9 RT | 594753.34 | 59379.50 |
| 526                     | 96+01.2 'NB' | 46.6 RT | 594756.01 | 59375.29 |
| 527                     | 95+97.5 'NB' | 43.3 RT | 594752.29 | 59371.92 |
| 528                     | 95+90.0 'NB' | 36.6 RT | 594744.85 | 59365.20 |
| 529                     | 95+94.0 'NB' | 32.1 RT | 594748.87 | 59360.75 |
| 530                     | 96+01.5 'NB' | 38.8 RT | 594756.31 | 59367.47 |
| 531                     | 96+05.2 'NB' | 42.2 RT | 594760.03 | 59370.84 |
| 532                     | 96+05.4 'NB' | 35.6 RT | 594760.22 | 59364.26 |
| 533                     | 96+09.2 'NB' | 39.0 RT | 594764.03 | 59367.70 |



2

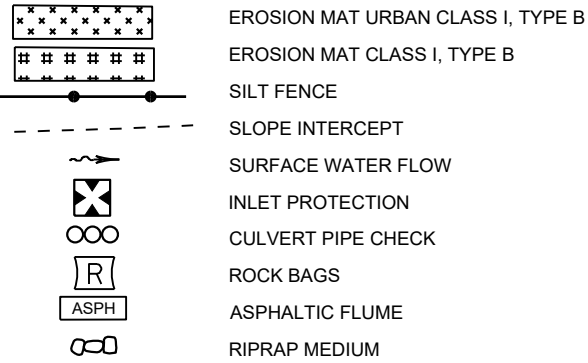
**NOTE:**

TYPE A INLET PROTECTION IS REQUIRED FOR ALL INLETS AFTER INSTALLATION AND BEFORE CURB PLACEMENT.

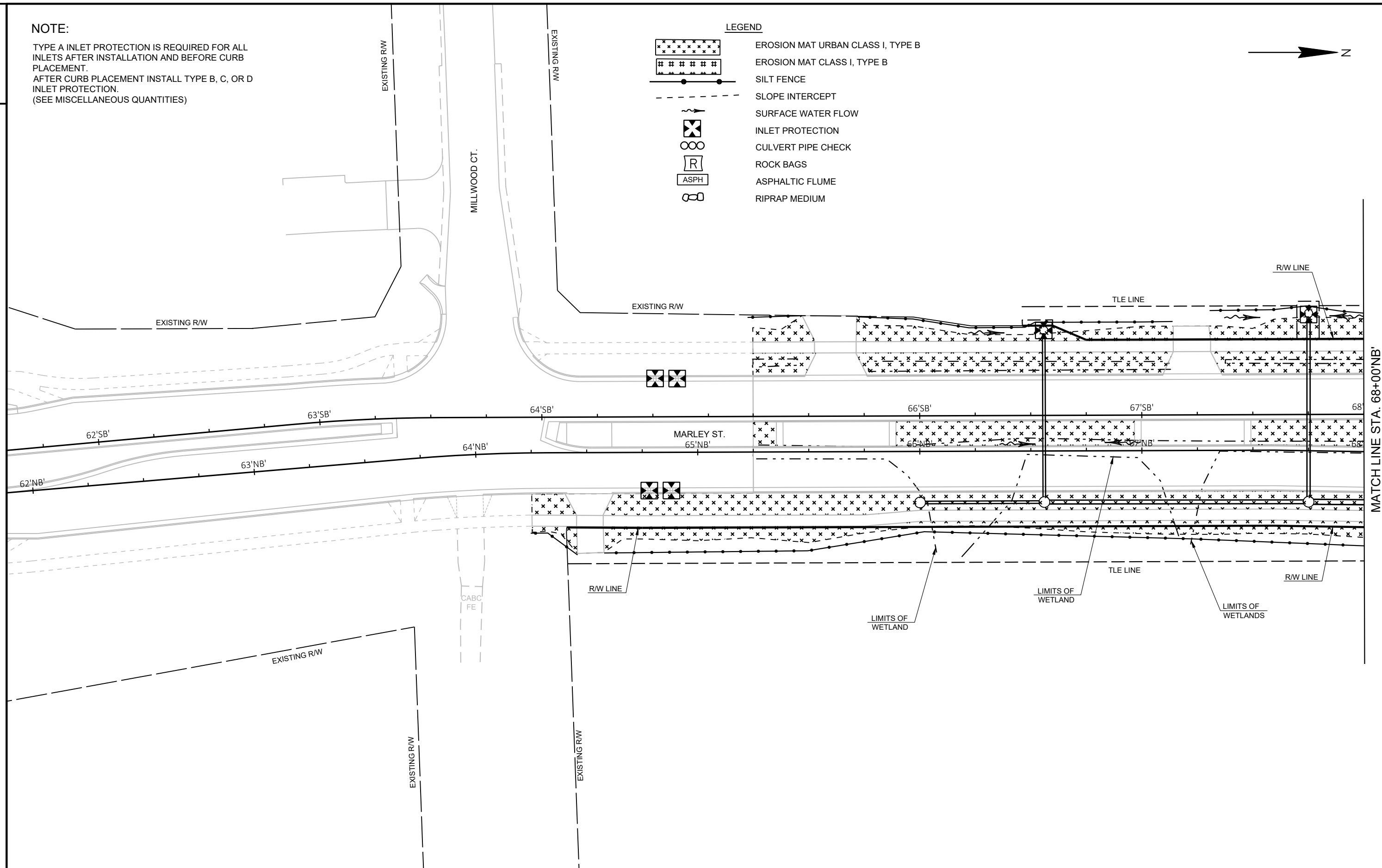
AFTER CURB PLACEMENT INSTALL TYPE B, C, OR D INLET PROTECTION.

(SEE MISCELLANEOUS QUANTITIES)

### LEGEND



# 2



PROJECT NO: 9269-00-14

HWY: MARLEY STREET

COUNTY: BROWN

## EROSION CONTROL

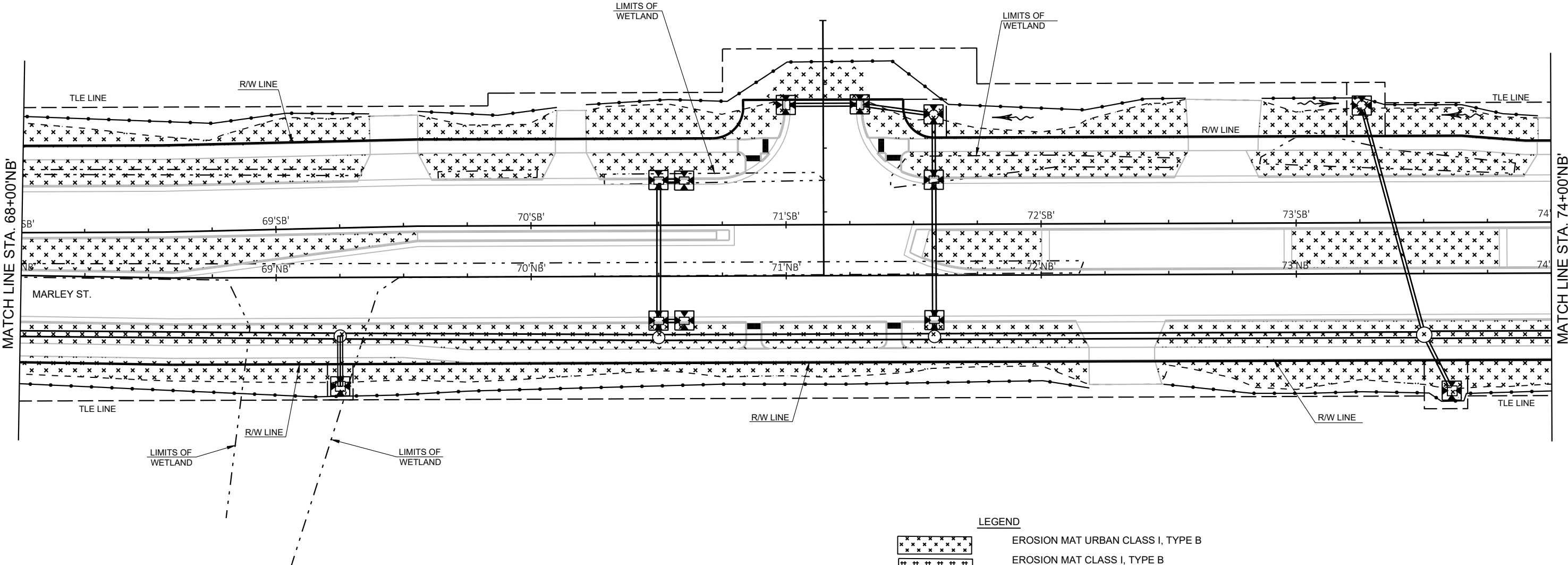
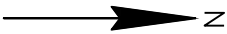
SHEET

41

# E



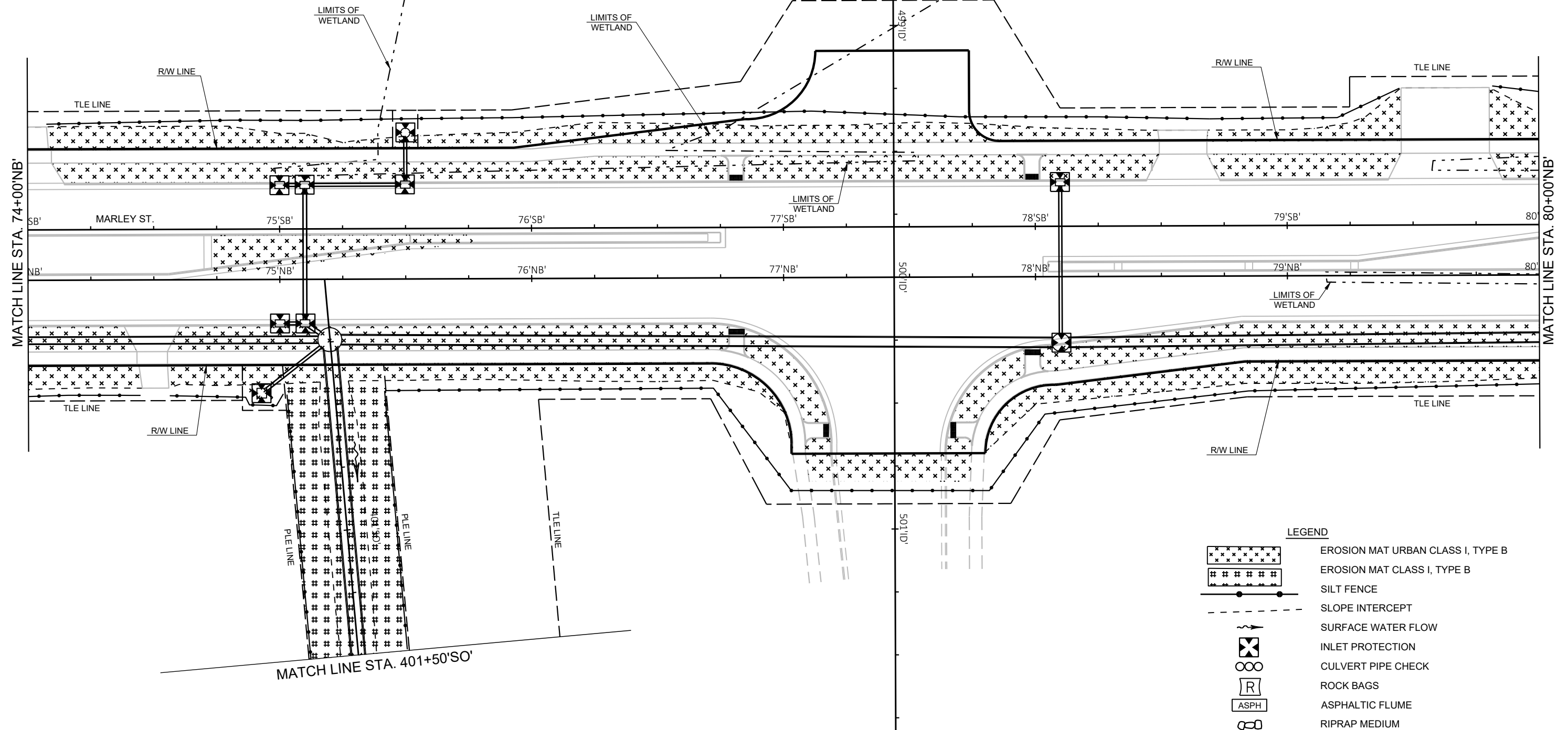
NOTE:  
TYPE A INLET PROTECTION IS REQUIRED FOR ALL  
INLETS AFTER INSTALLATION AND BEFORE CURB  
PLACEMENT.  
AFTER CURB PLACEMENT INSTALL TYPE B, C, OR D  
INLET PROTECTION.  
(SEE MISCELLANEOUS QUANTITIES)



- LEGEND
- EROSION MAT URBAN CLASS I, TYPE B
  - EROSION MAT CLASS I, TYPE B
  - SILT FENCE
  - SLOPE INTERCEPT
  - SURFACE WATER FLOW
  - INLET PROTECTION
  - CULVERT PIPE CHECK
  - ROCK BAGS
  - ASPHALTIC FLUME
  - RIPRAP MEDIUM

## NOTE:

TYPE A INLET PROTECTION IS REQUIRED FOR ALL  
INLETS AFTER INSTALLATION AND BEFORE CURB  
PLACEMENT.  
AFTER CURB PLACEMENT INSTALL TYPE B, C, OR D  
INLET PROTECTION.  
(SEE MISCELLANEOUS QUANTITIES)



PROJECT NO: 9269-00-14

HWY: MARLEY STREET

COUNTY: BROWN

EROSION CONTROL

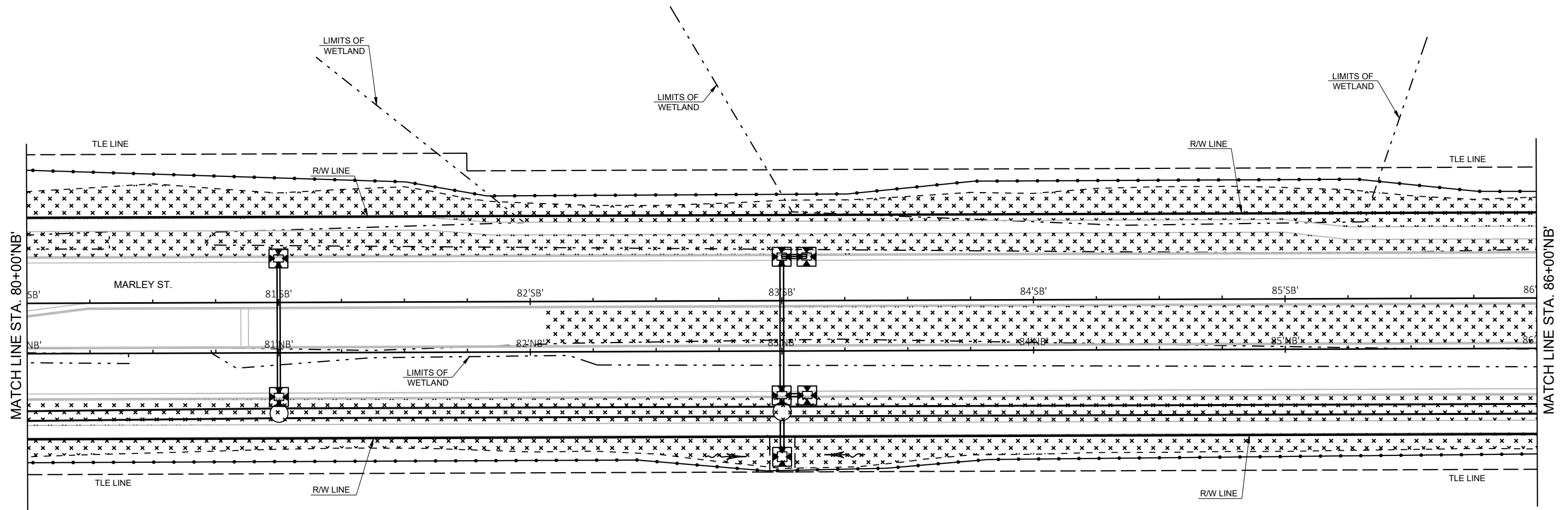
SHEET

43

E

## NOTE:

TYPE A INLET PROTECTION IS REQUIRED FOR ALL  
INLETS AFTER INSTALLATION AND BEFORE CURB  
PLACEMENT.  
AFTER CURB PLACEMENT INSTALL TYPE B, C, OR D  
INLET PROTECTION.  
(SEE MISCELLANEOUS QUANTITIES)



## LEGEND

|  |                                   |
|--|-----------------------------------|
|  | EROSION MAT URBAN CLASS I, TYPE B |
|  | EROSION MAT CLASS I, TYPE B       |
|  | SILT FENCE                        |
|  | SLOPE INTERCEPT                   |
|  | SURFACE WATER FLOW                |
|  | INLET PROTECTION                  |
|  | CULVERT PIPE CHECK                |
|  | ROCK BAGS                         |
|  | ASPHALTIC FLUME                   |
|  | RIPRAP MEDIUM                     |

PROJECT NO: 9269-00-14

HWY: MARLEY STREET

COUNTY: BROWN

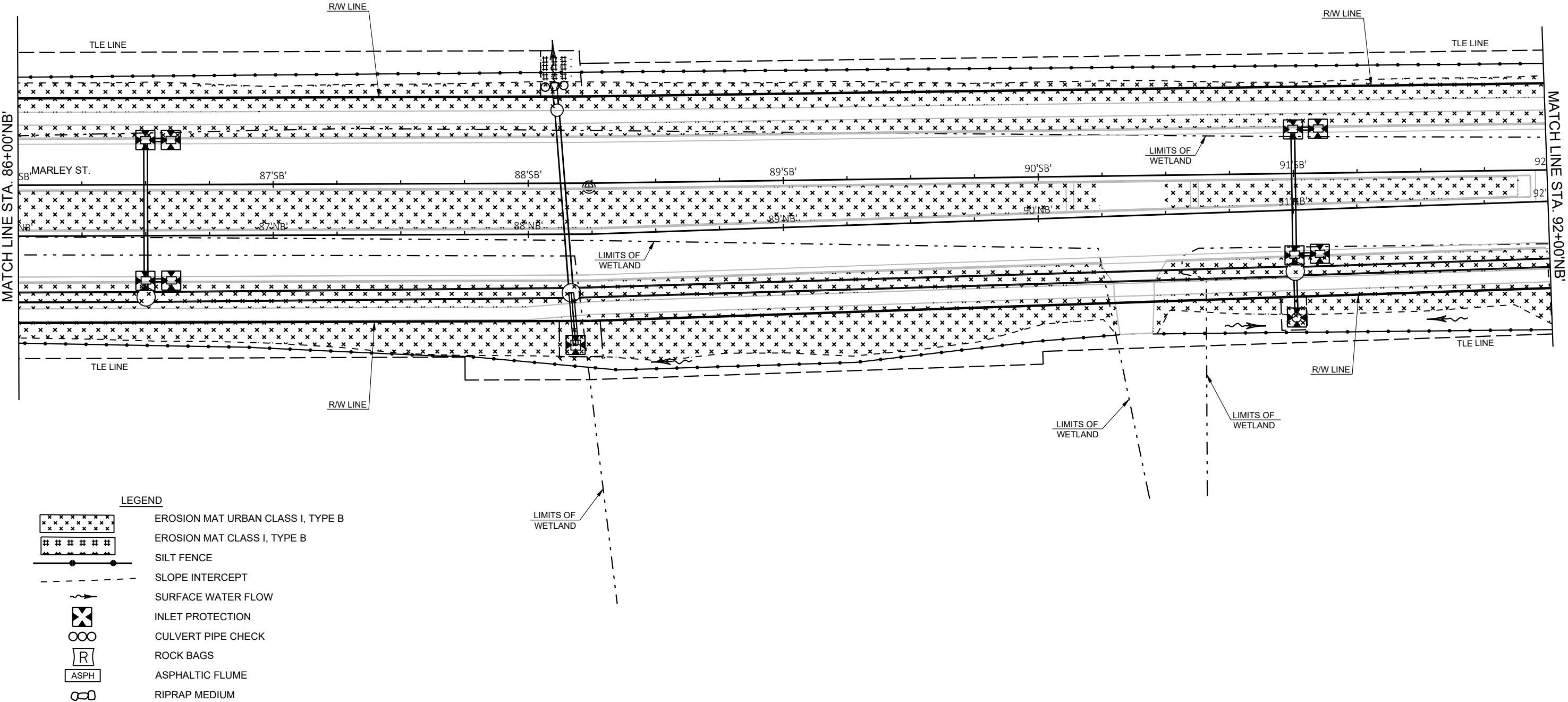
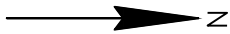
EROSION CONTROL

SHEET

44

E

NOTE:  
TYPE A INLET PROTECTION IS REQUIRED FOR ALL  
INLETS AFTER INSTALLATION AND BEFORE CURB  
PLACEMENT.  
AFTER CURB PLACEMENT INSTALL TYPE B, C, OR D  
INLET PROTECTION.  
(SEE MISCELLANEOUS QUANTITIES)

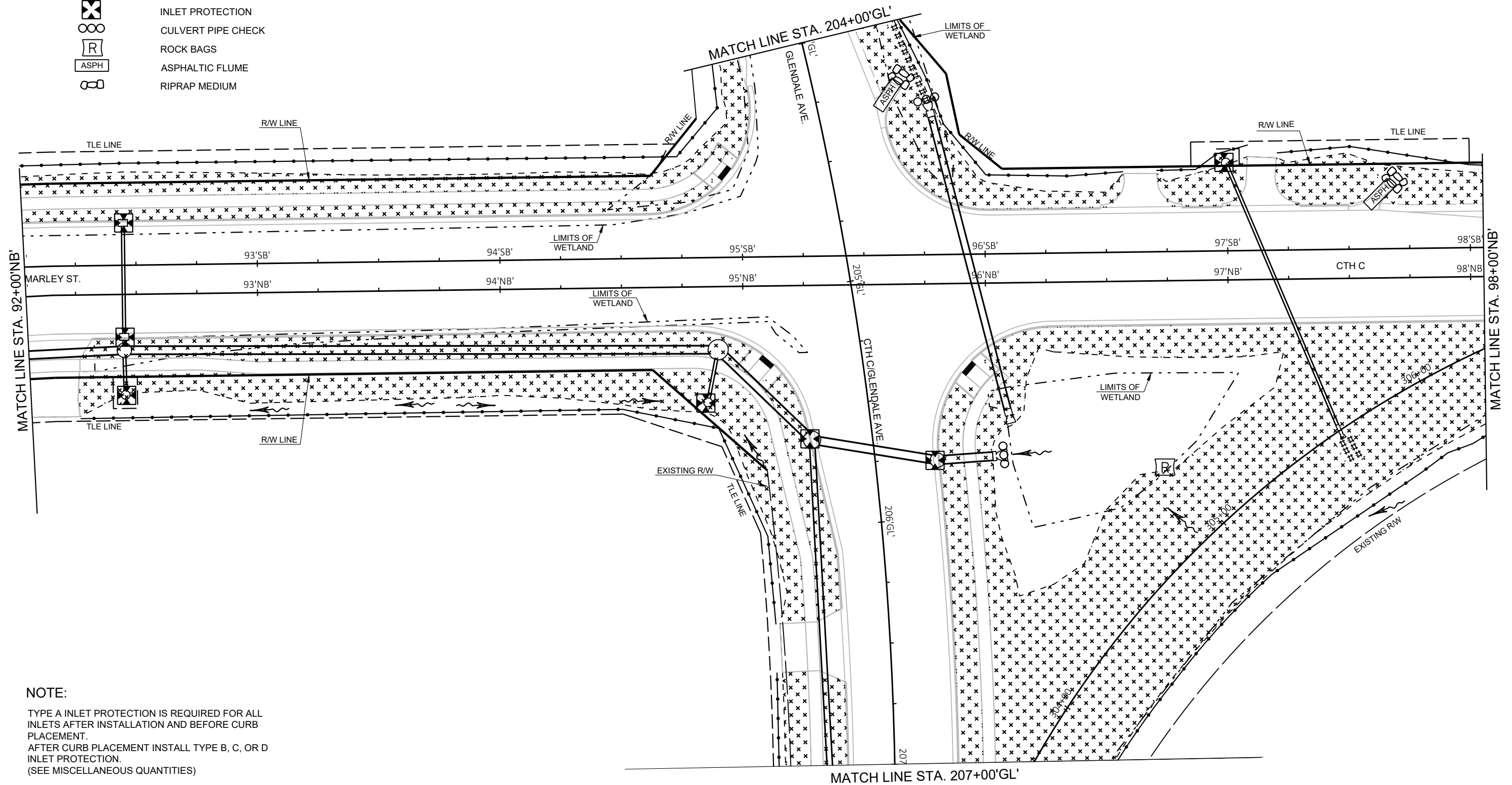
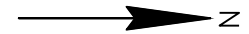


LEGEND

- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS I, TYPE B
- SILTS FENCE
- SLOPE INTERCEPT
- SURFACE WATER FLOW
- INLET PROTECTION
- CULVERT PIPE CHECK
- ROCK BAGS
- ASPHALTIC FLUME
- RIPRAP MEDIUM

## LEGEND

|  |                                   |
|--|-----------------------------------|
|  | EROSION MAT URBAN CLASS I, TYPE B |
|  | EROSION MAT CLASS I, TYPE B       |
|  | SILT FENCE                        |
|  | SLOPE INTERCEPT                   |
|  | SURFACE WATER FLOW                |
|  | INLET PROTECTION                  |
|  | CULVERT PIPE CHECK                |
|  | ROCK BAGS                         |
|  | ASPHALTIC FLUME                   |
|  | RIPRAP MEDIUM                     |



## NOTE:

TYPE A INLET PROTECTION IS REQUIRED FOR ALL INLETS AFTER INSTALLATION AND BEFORE CURB PLACEMENT.  
AFTER CURB PLACEMENT INSTALL TYPE B, C, OR D INLET PROTECTION.  
(SEE MISCELLANEOUS QUANTITIES)

PROJECT NO: 9269-00-14

HWY: MARLEY STREET

COUNTY: BROWN

EROSION CONTROL

SHEET

46

E

FILE NAME: I:\45\450490 MARLEY STREET\C3D\SHEETS\PLAN\022001 EC.DWG  
LAYOUT NAME - 022006 ec

PLOT DATE: 11/12/2021 2:17 PM

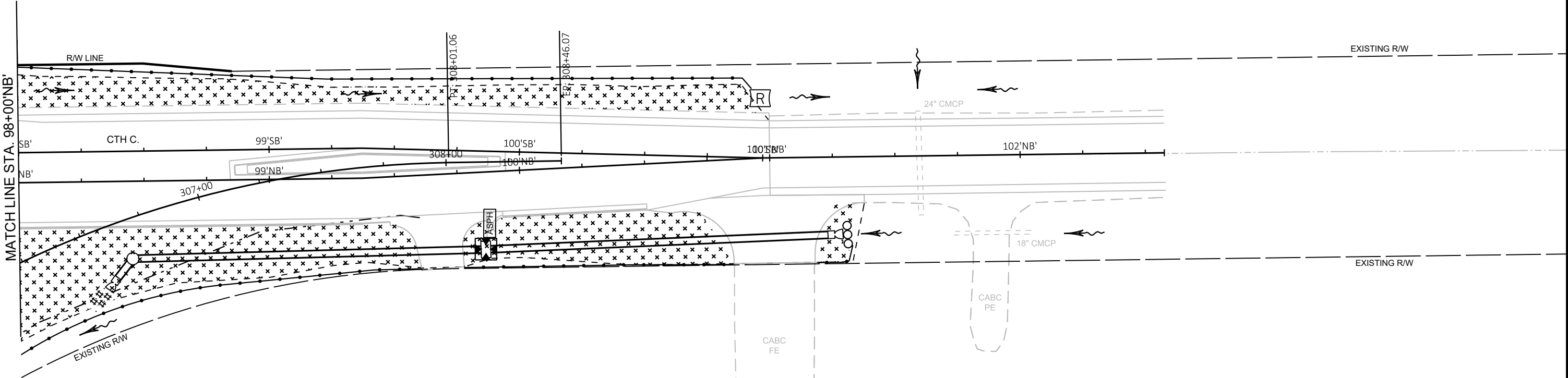
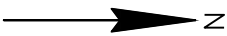
PLOT BY: SEIBERT, CHELSEA

PLOT NAME:

PLOT SCALE: 1 IN=40 FT

WISDOT/CADDs SHEET 42

NOTE:  
TYPE A INLET PROTECTION IS REQUIRED FOR ALL  
INLETS AFTER INSTALLATION AND BEFORE CURB  
PLACEMENT.  
AFTER CURB PLACEMENT INSTALL TYPE B, C, OR D  
INLET PROTECTION.  
(SEE MISCELLANEOUS QUANTITIES)

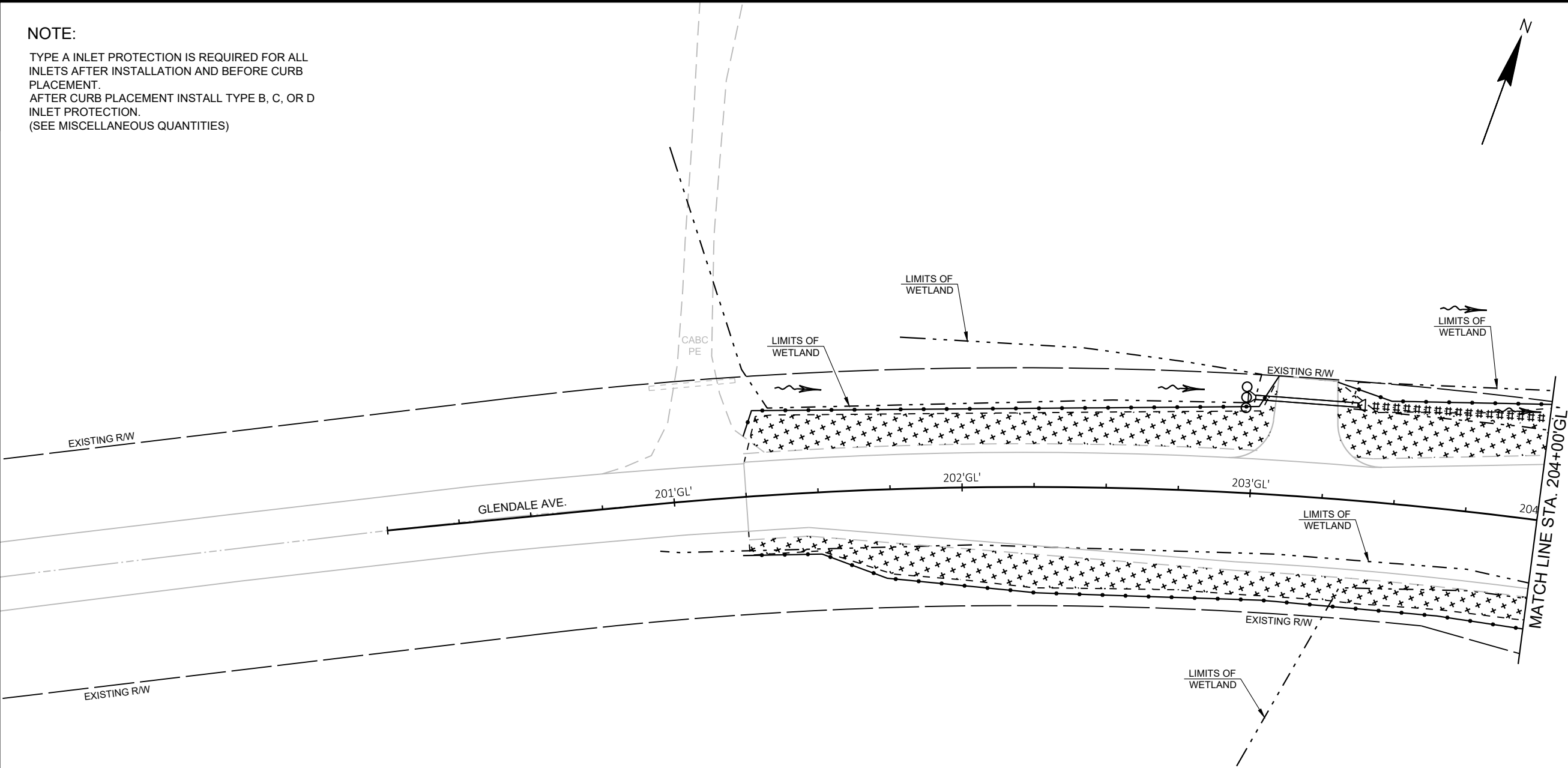


LEGEND

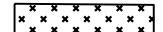
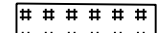
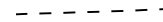
- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- SLOPE INTERCEPT
- SURFACE WATER FLOW
- INLET PROTECTION
- CULVERT PIPE CHECK
- ROCK BAGS
- ASPHALTIC FLUME
- RIPRAP MEDIUM



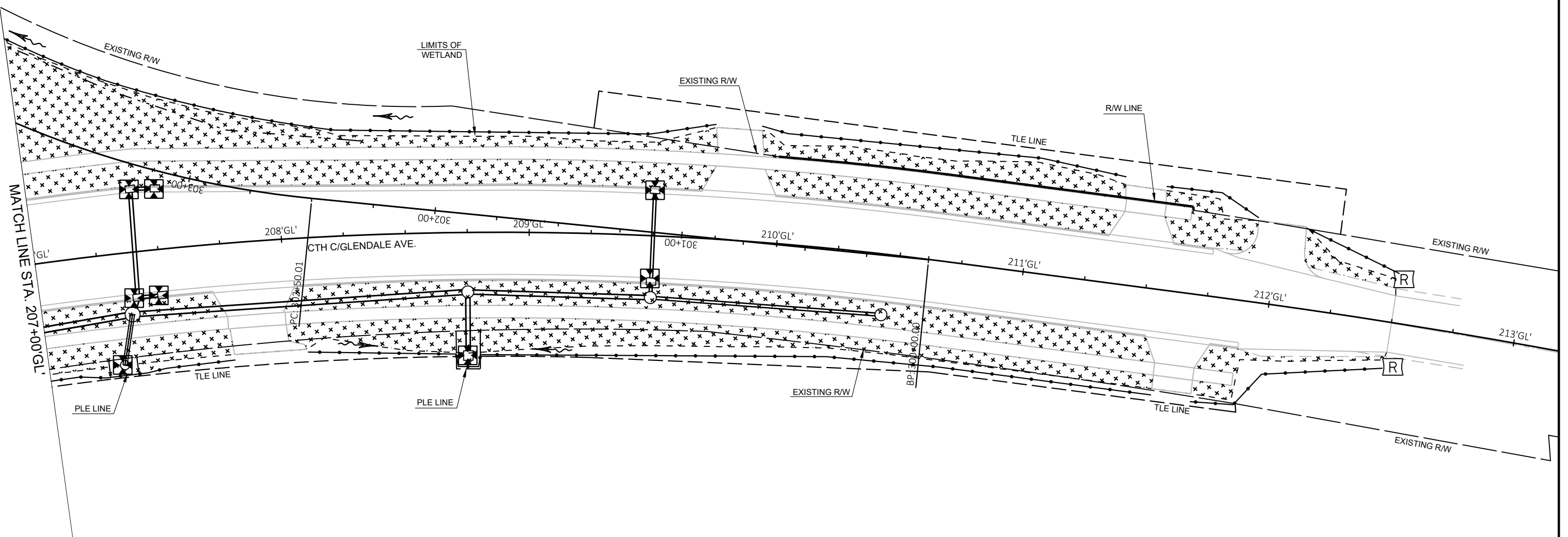
NOTE:  
TYPE A INLET PROTECTION IS REQUIRED FOR ALL  
INLETS AFTER INSTALLATION AND BEFORE CURB  
PLACEMENT.  
AFTER CURB PLACEMENT INSTALL TYPE B, C, OR D  
INLET PROTECTION.  
(SEE MISCELLANEOUS QUANTITIES)



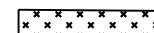
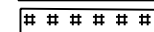
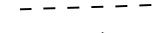
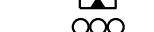
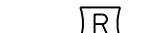
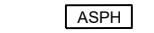
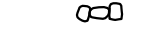
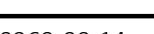
LEGEND

-  EROSION MAT URBAN CLASS I, TYPE B
-  EROSION MAT CLASS I, TYPE B
-  SILT FENCE
-  SLOPE INTERCEPT
-  SURFACE WATER FLOW
-  INLET PROTECTION
-  CULVERT PIPE CHECK
-  ROCK BAGS
-  ASPHALTIC FLUME
-  RIPRAP MEDIUM

NOTE:  
TYPE A INLET PROTECTION IS REQUIRED FOR ALL  
INLETS AFTER INSTALLATION AND BEFORE CURB  
PLACEMENT.  
AFTER CURB PLACEMENT INSTALL TYPE B, C, OR D  
INLET PROTECTION.  
(SEE MISCELLANEOUS QUANTITIES)



LEGEND

-  EROSION MAT URBAN CLASS I, TYPE B
-  EROSION MAT CLASS I, TYPE B
-  SILT FENCE
-  SLOPE INTERCEPT
-  SURFACE WATER FLOW
-  INLET PROTECTION
-  CULVERT PIPE CHECK
-  ROCK BAGS
-  ASPHALTIC FLUME
-  RIPRAP MEDIUM

PROJECT NO: 9269-00-14

HWY: MARLEY STREET

COUNTY: BROWN

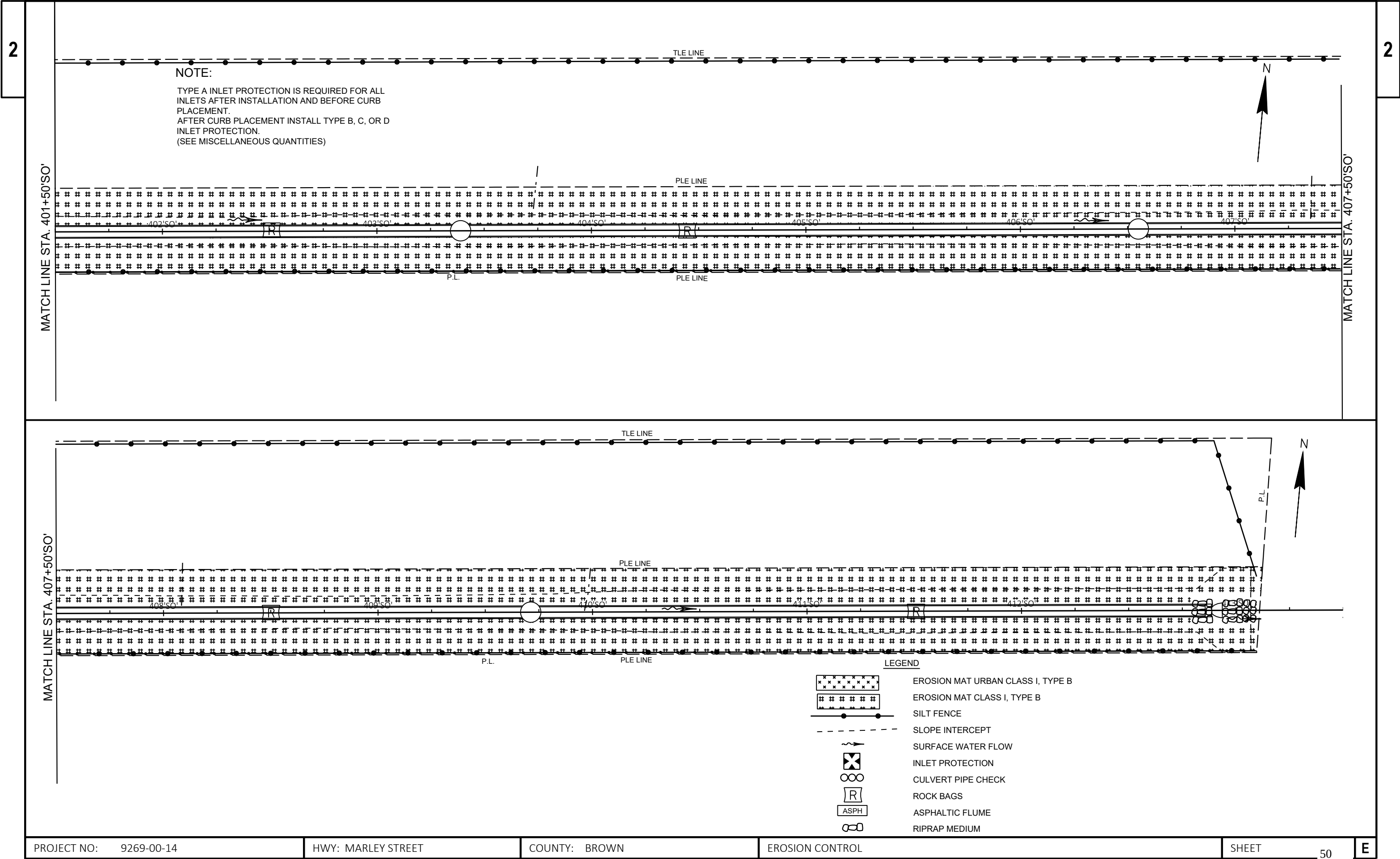
EROSION CONTROL

SHEET

49

E





NOTE:  
TYPE A INLET PROTECTION IS REQUIRED FOR ALL  
INLETS AFTER INSTALLATION AND BEFORE CURB  
PLACEMENT.  
AFTER CURB PLACEMENT INSTALL TYPE B, C, OR D  
INLET PROTECTION.  
(SEE MISCELLANEOUS QUANTITIES)

LEGEND

- |  |                                   |
|--|-----------------------------------|
|  | EROSION MAT URBAN CLASS I, TYPE B |
|  | EROSION MAT CLASS I, TYPE B       |
|  | SILT FENCE                        |
|  | SLOPE INTERCEPT                   |
|  | SURFACE WATER FLOW                |
|  | INLET PROTECTION                  |
|  | CULVERT PIPE CHECK                |
|  | ROCK BAGS                         |
|  | ASPHALTIC FLUME                   |
|  | RIPRAP MEDIUM                     |

PROJECT NO: 9269-00-14

HWY: MARLEY STREET

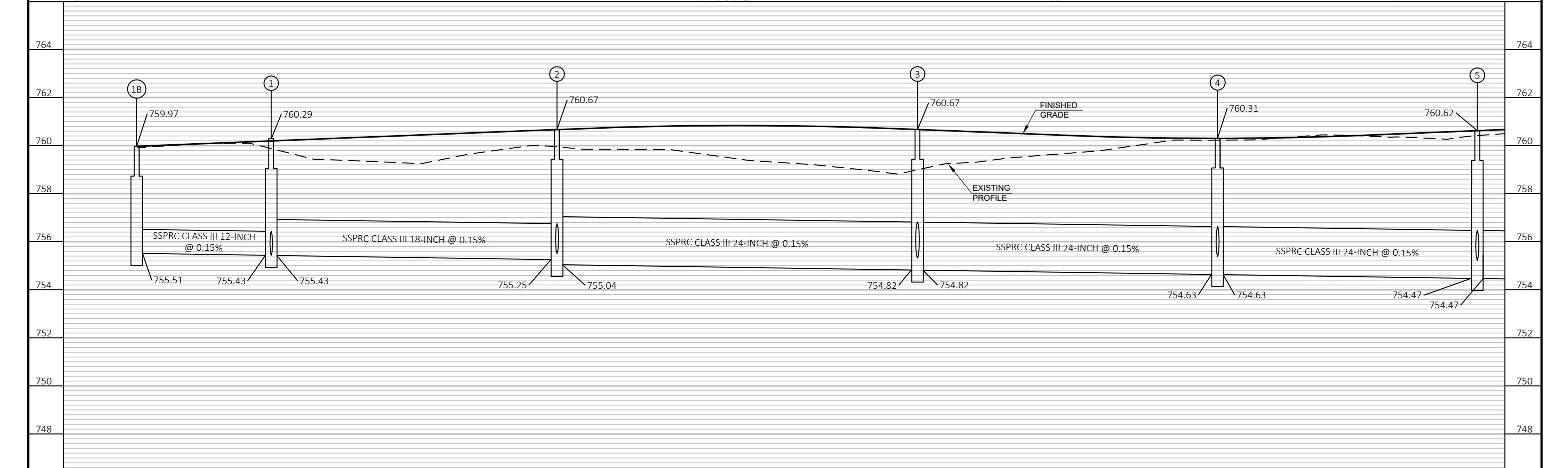
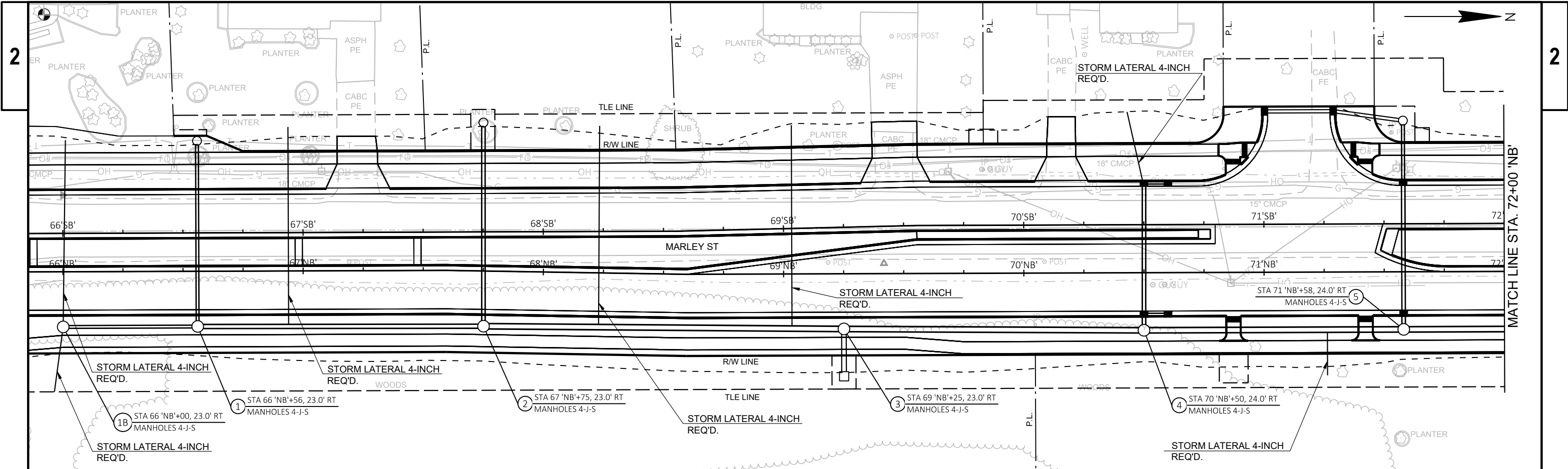
COUNTY: BROWN

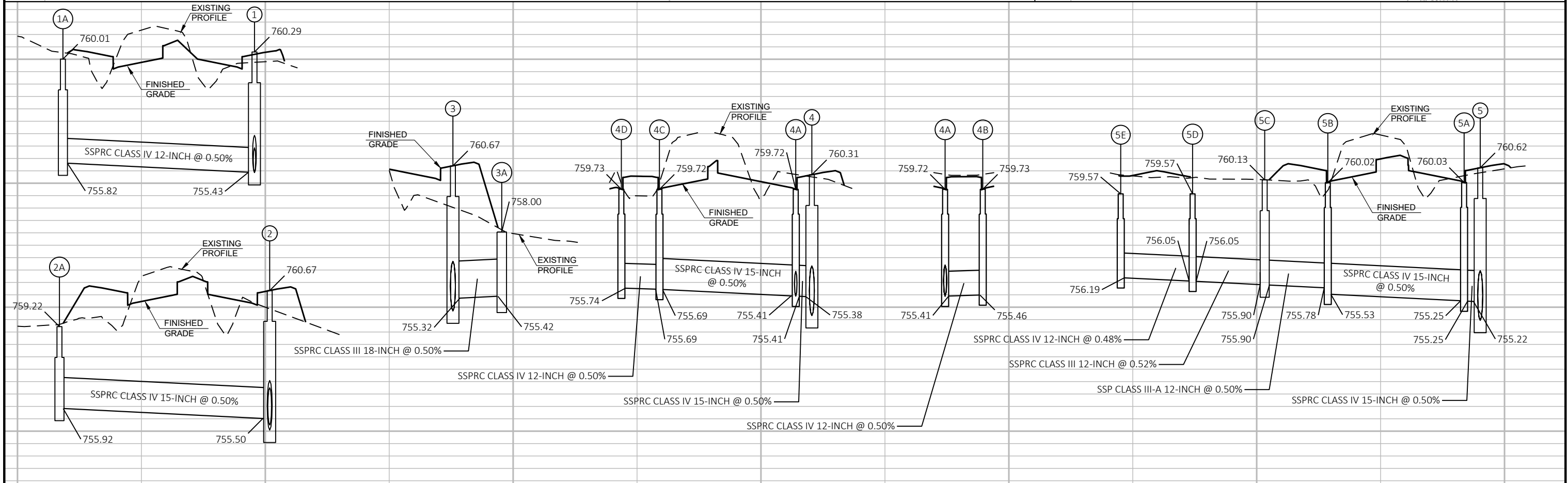
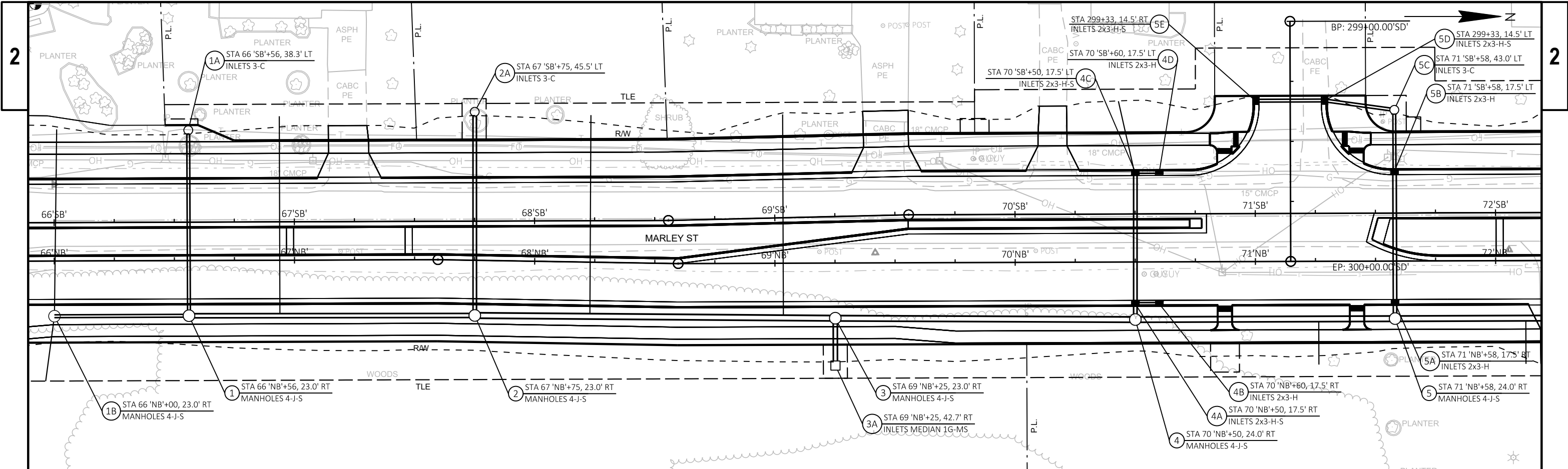
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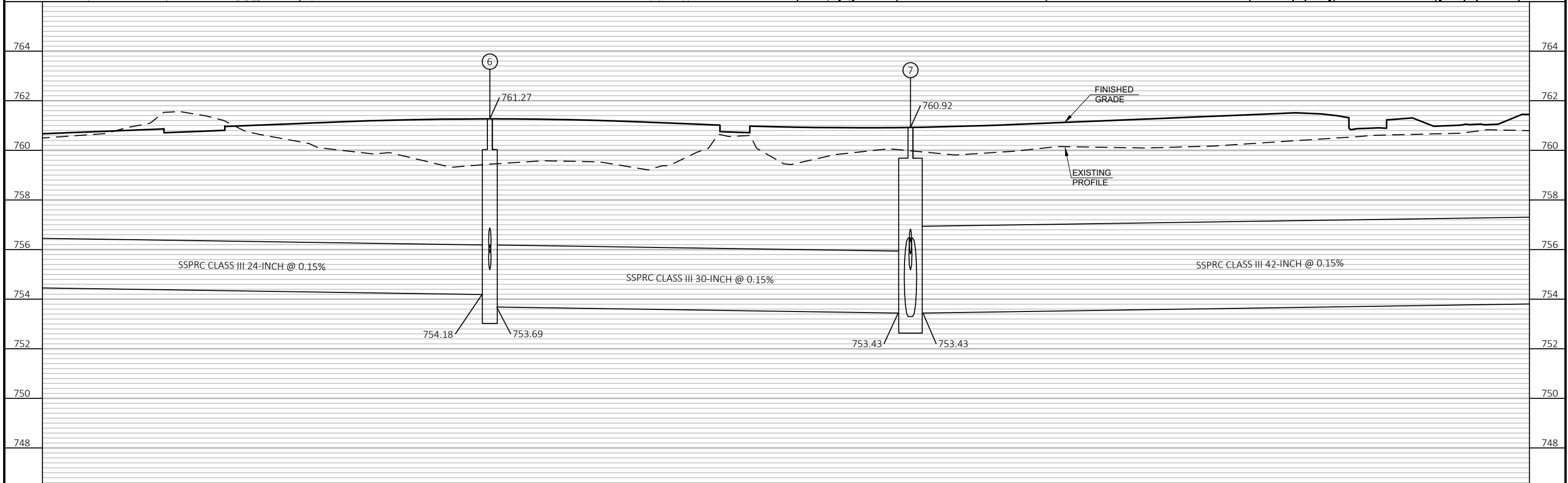
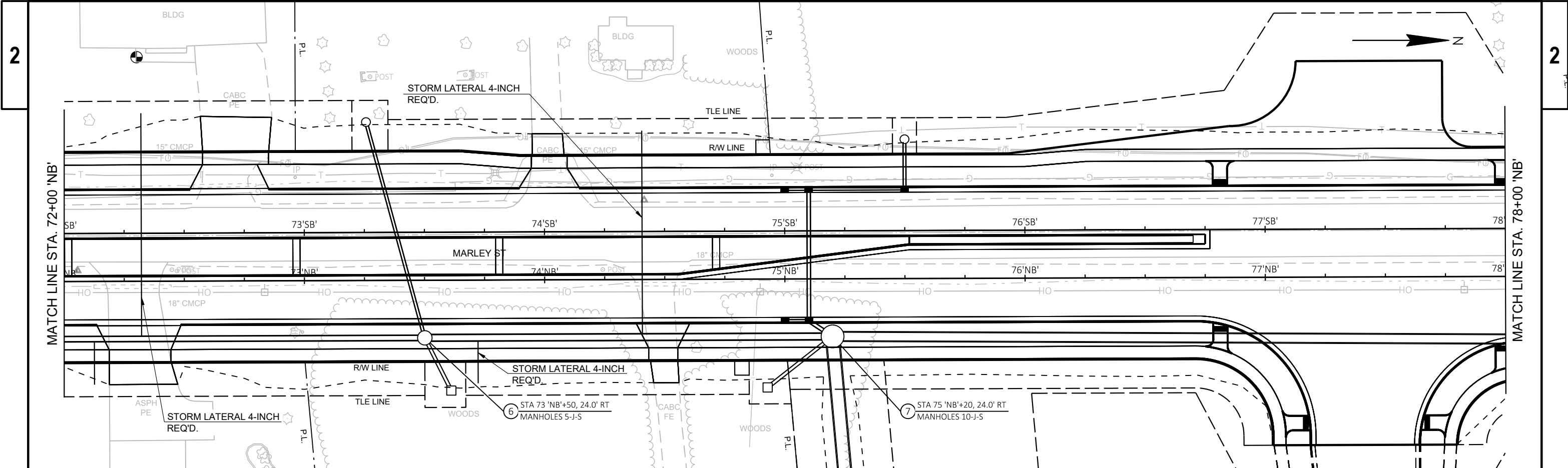
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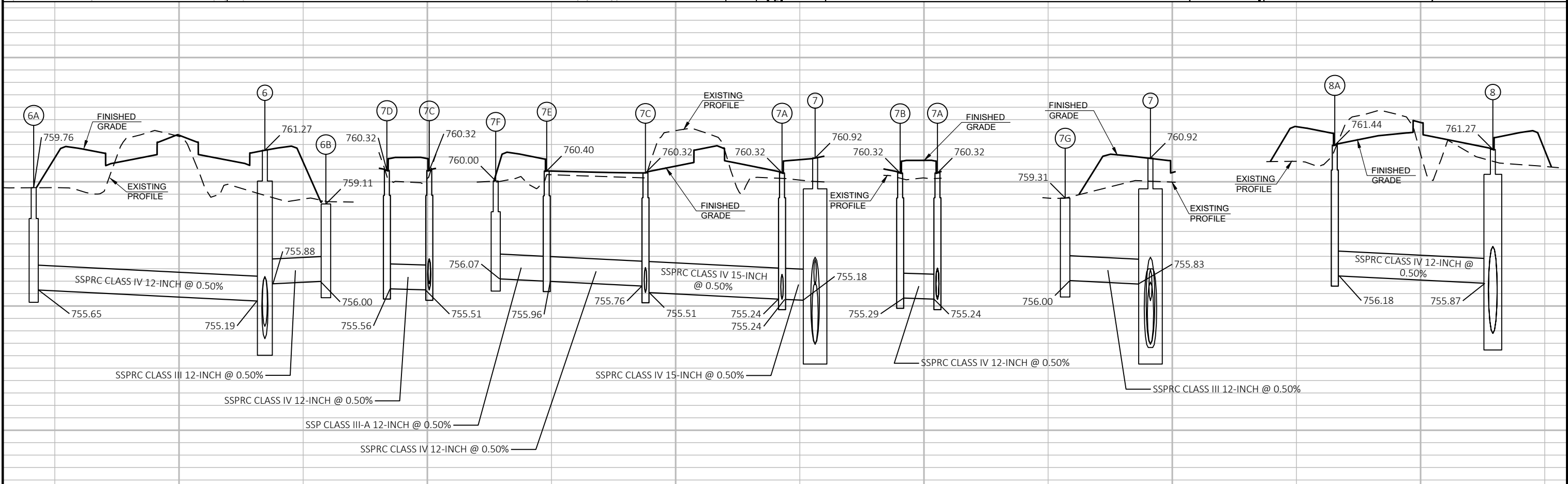
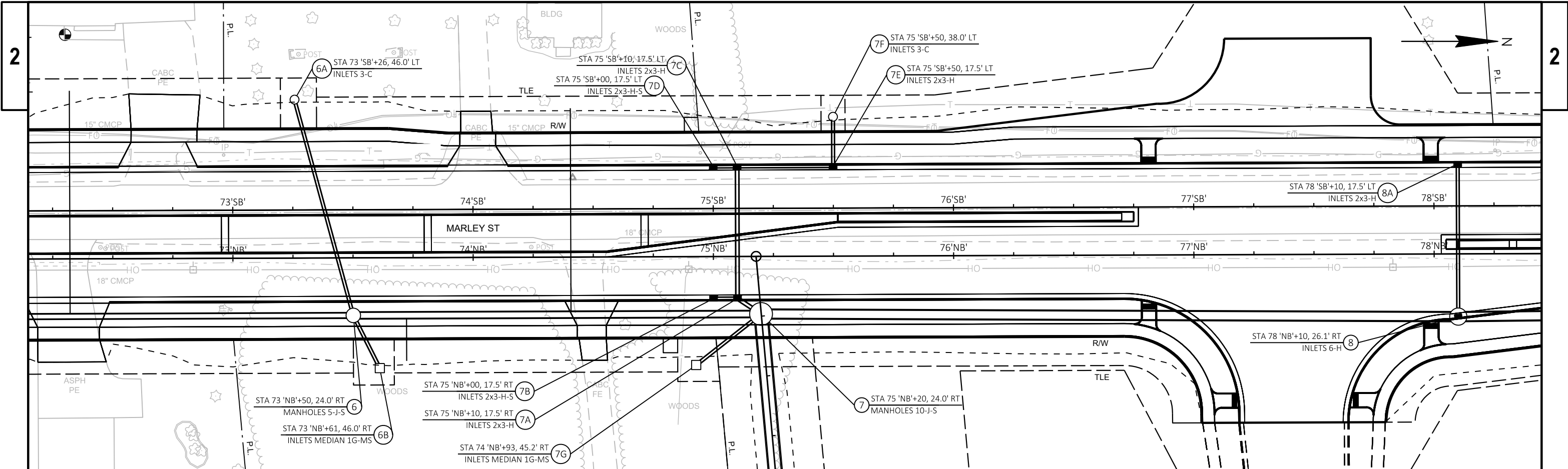
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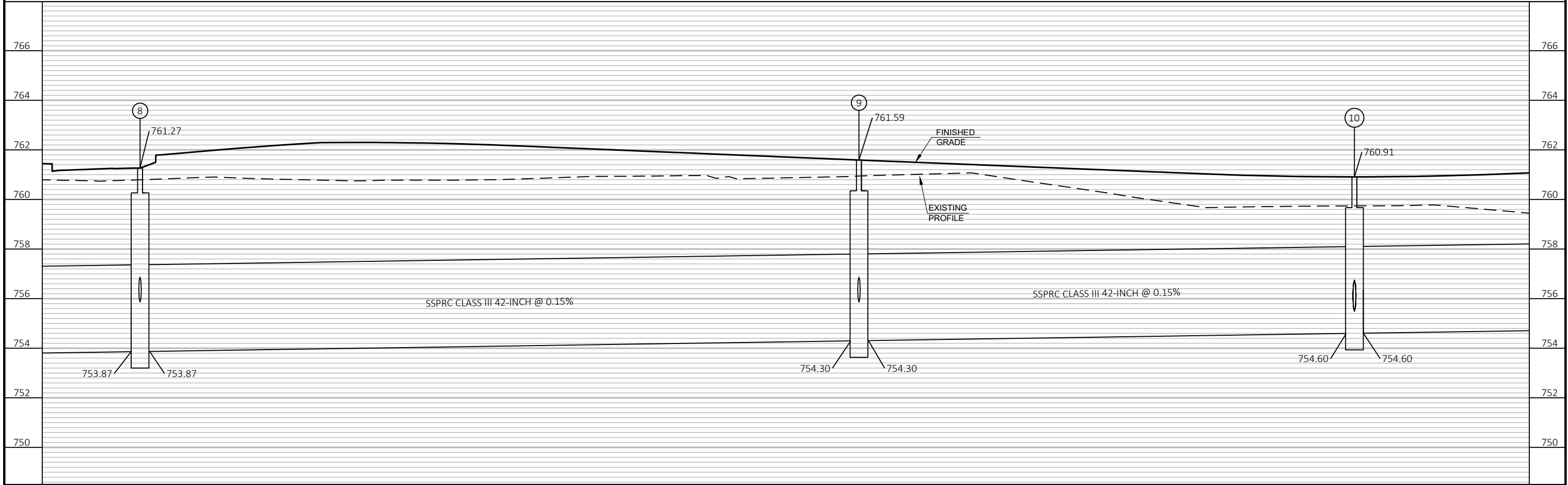
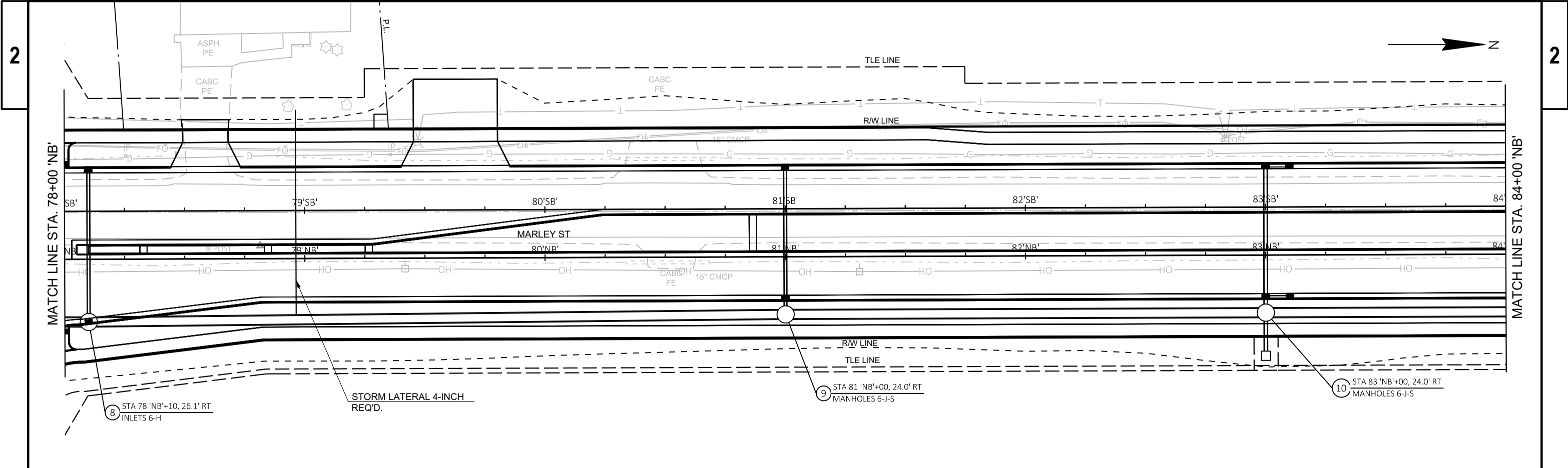
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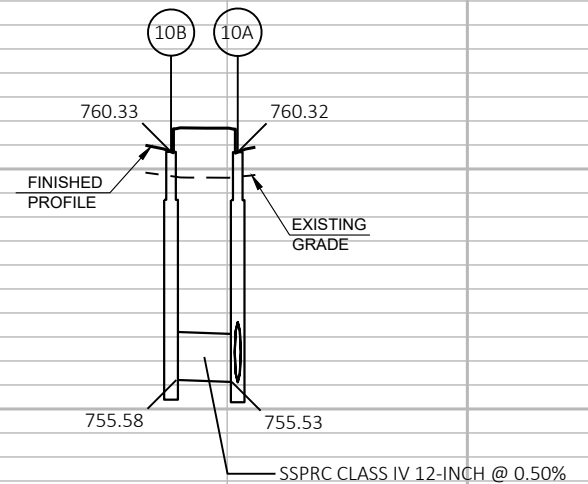
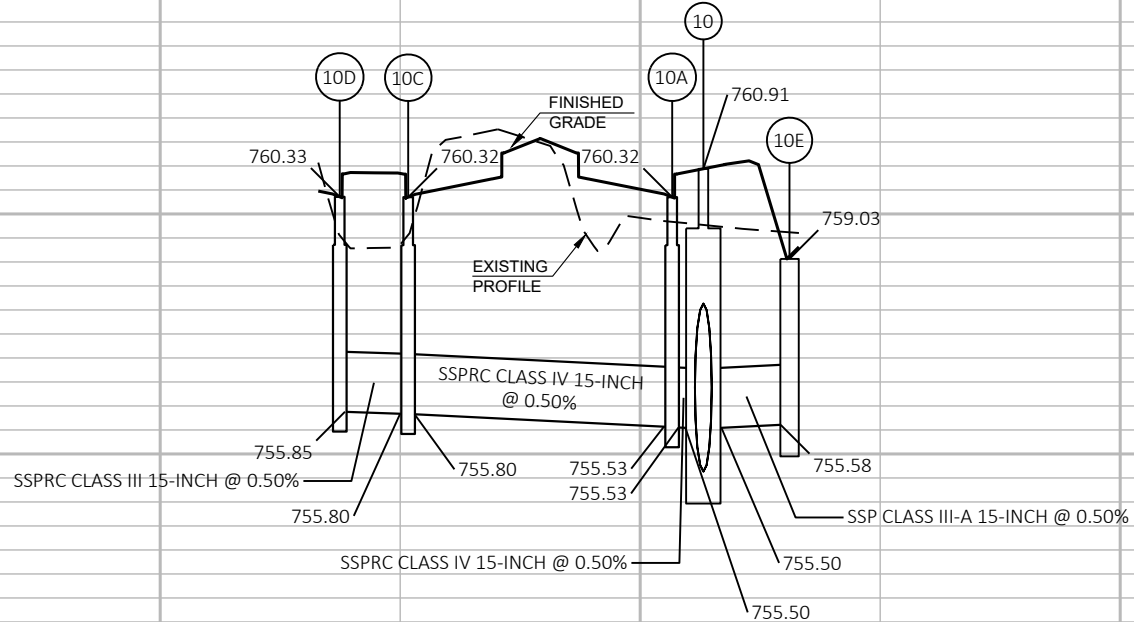
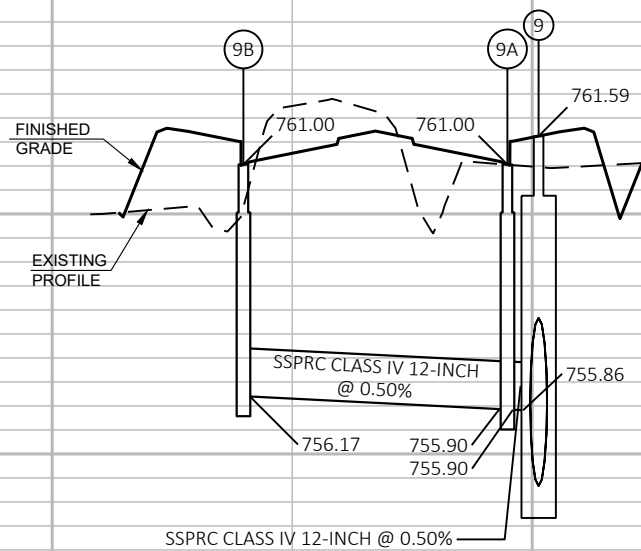
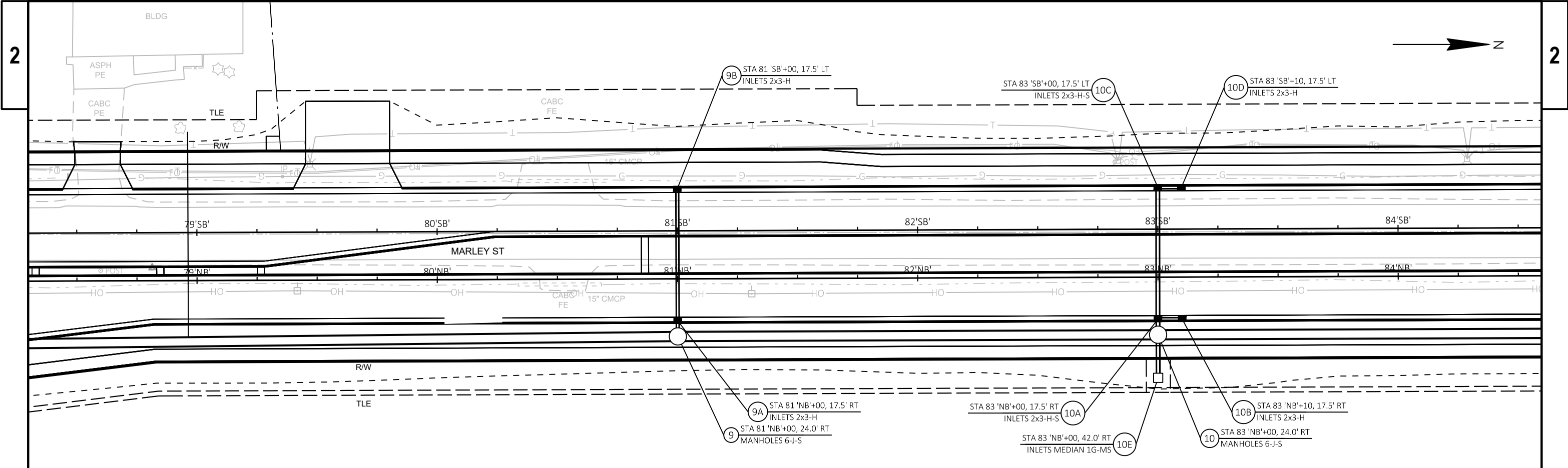


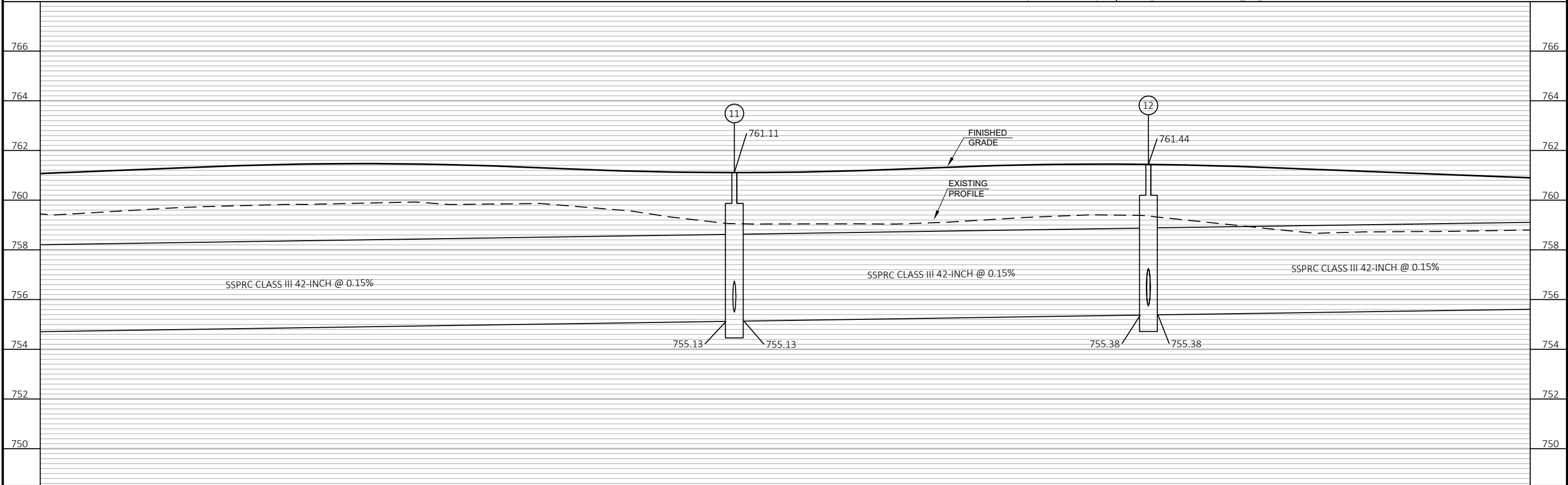
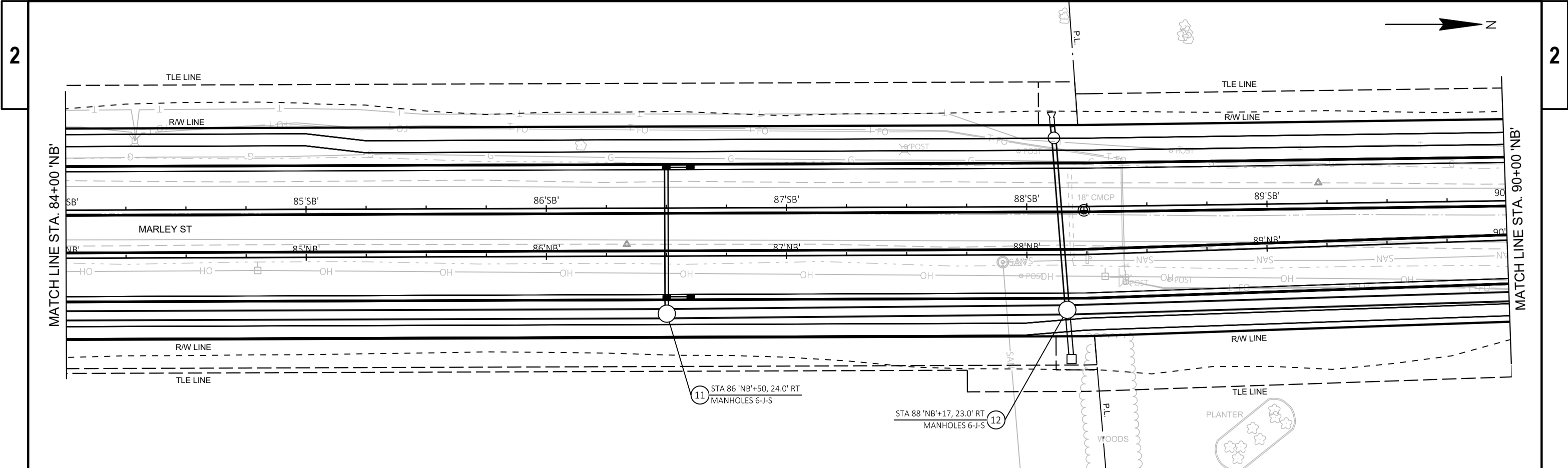




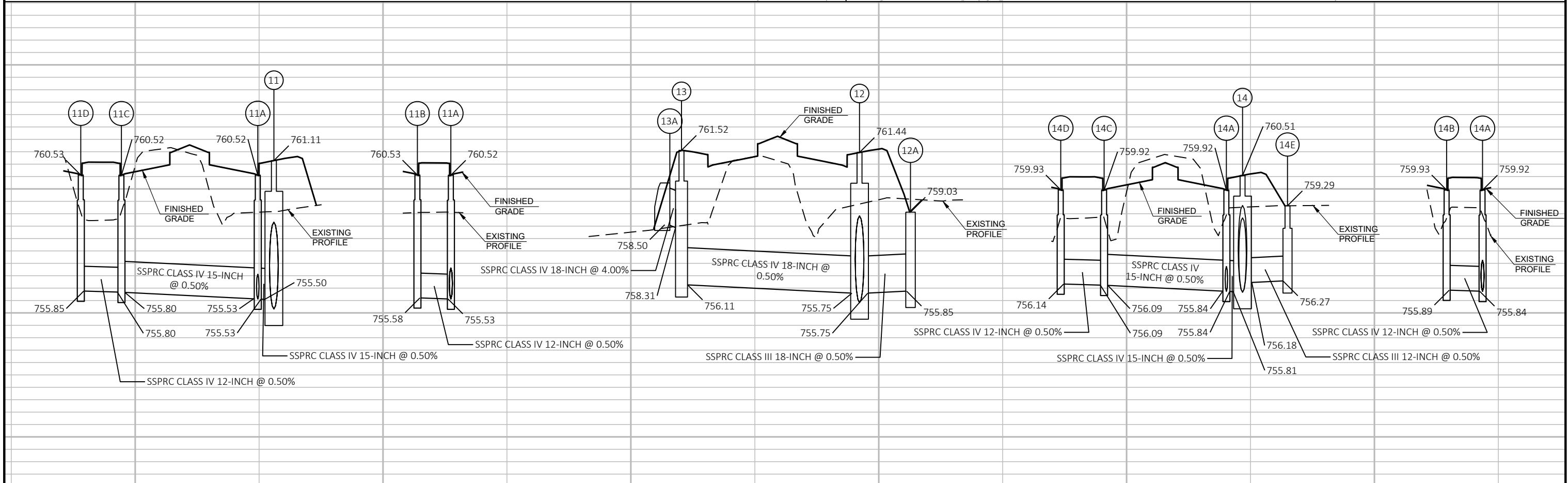
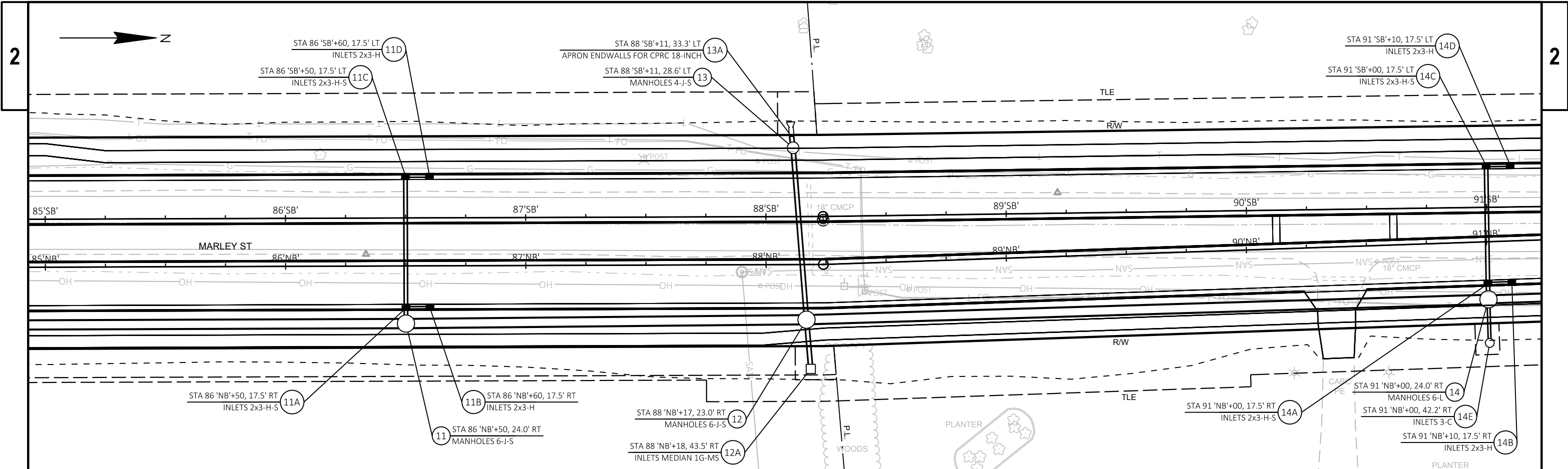
|                        |                    |               |             |          |   |
|------------------------|--------------------|---------------|-------------|----------|---|
| PROJECT NO: 9269-00-14 | HWY: MARLEY STREET | COUNTY: BROWN | STORM SEWER | SHEET 55 | E |
|------------------------|--------------------|---------------|-------------|----------|---|

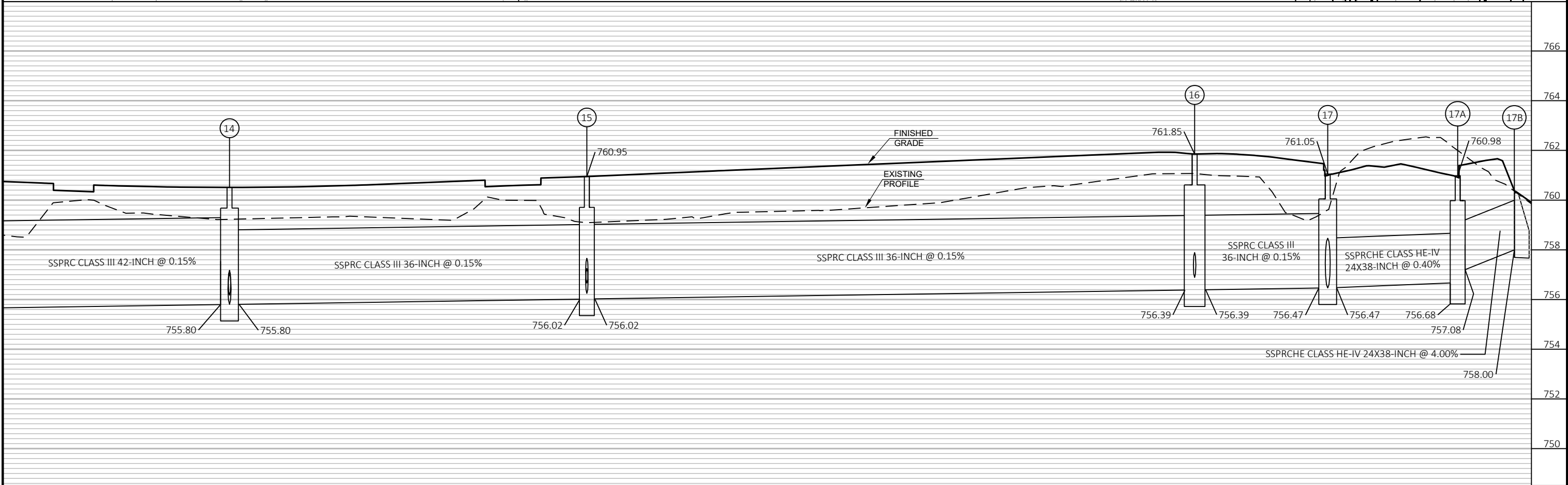
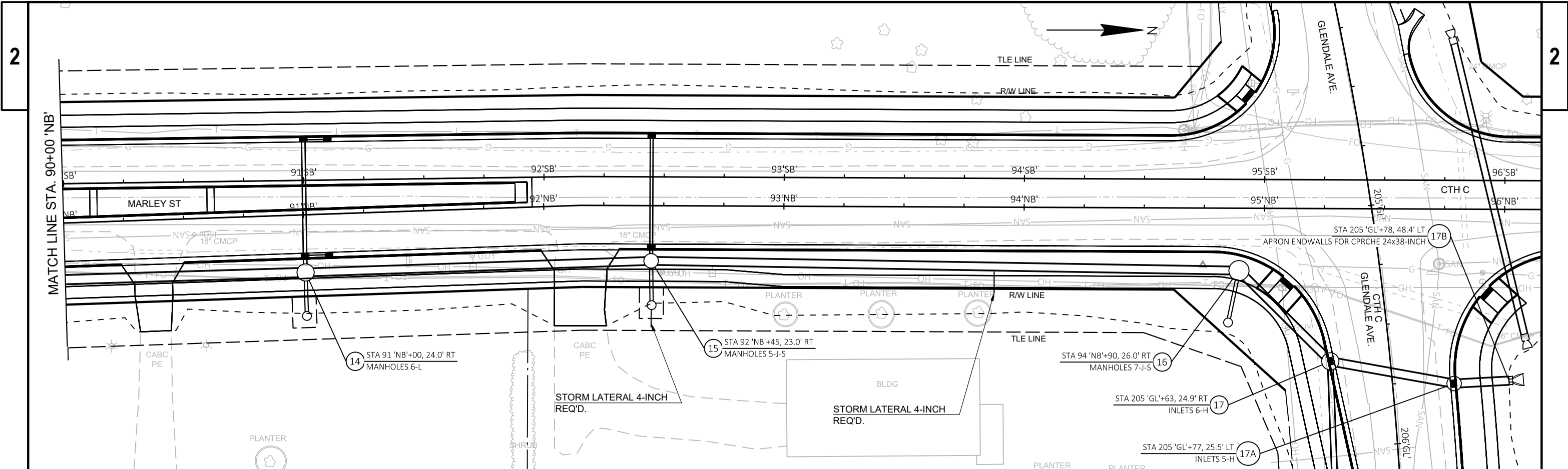


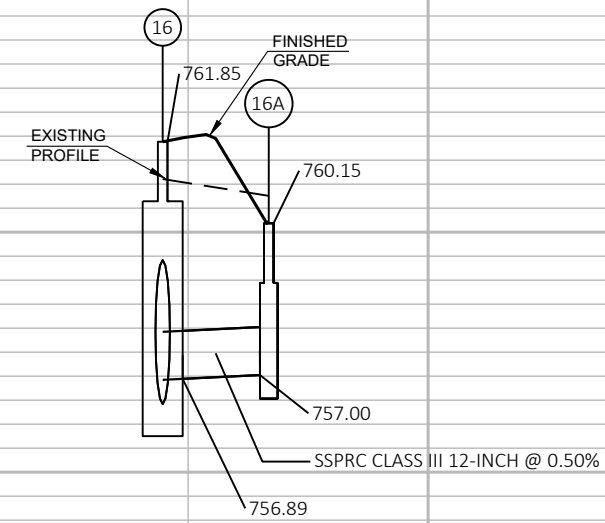
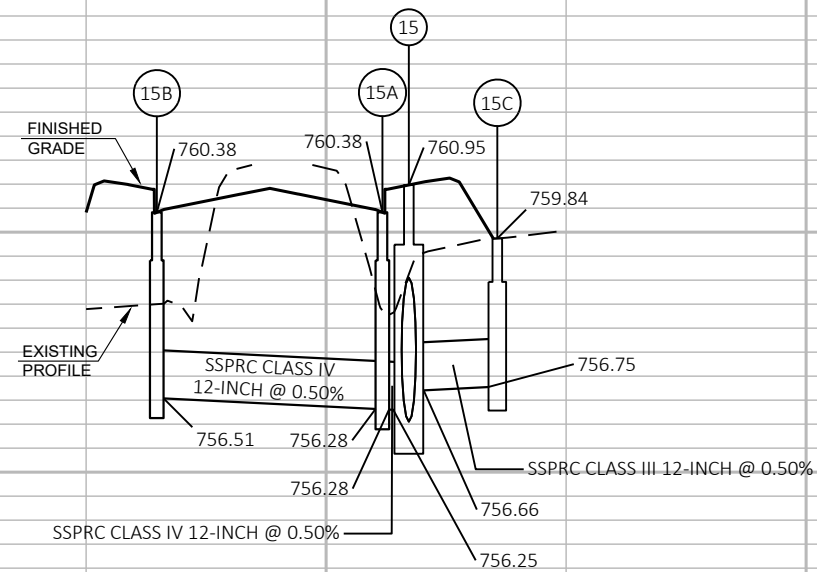
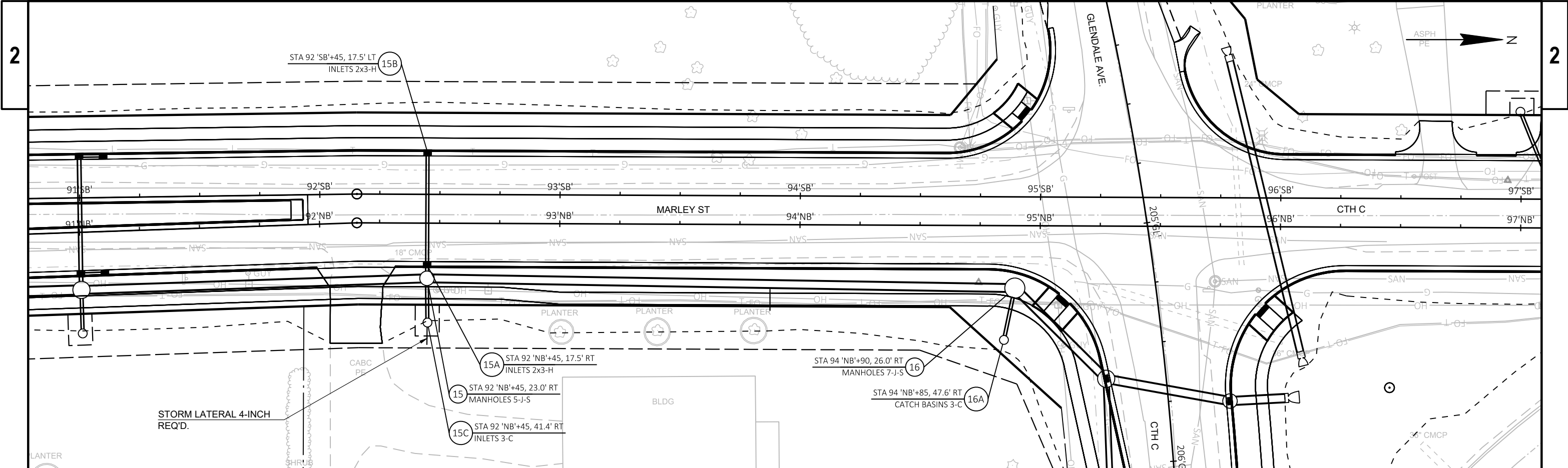


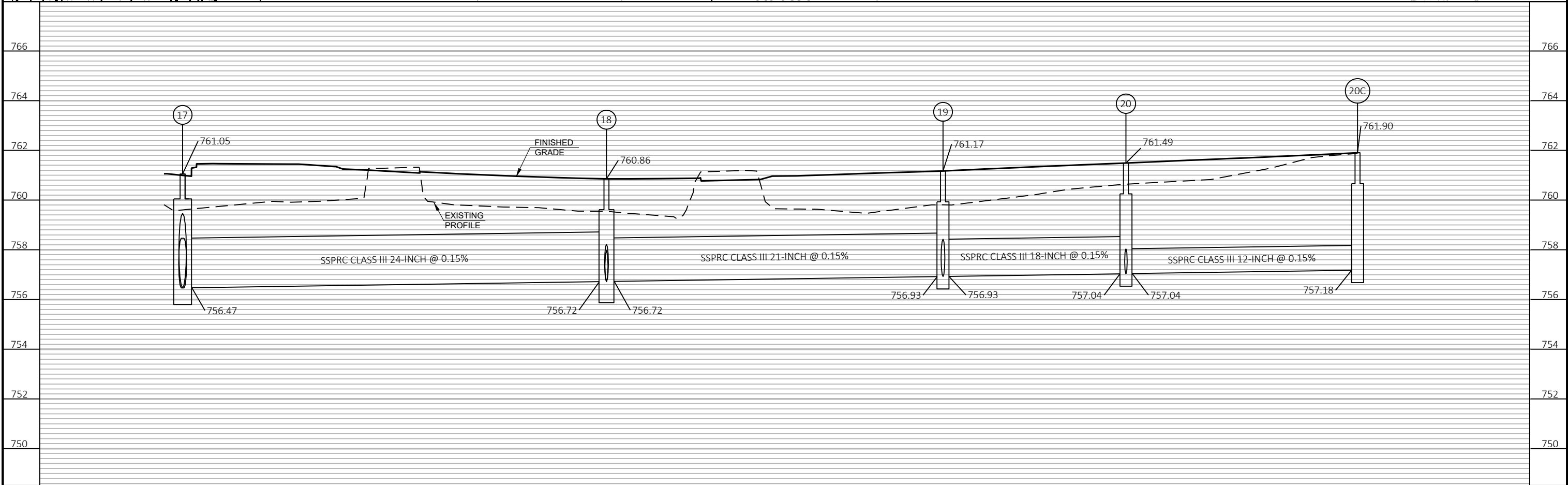
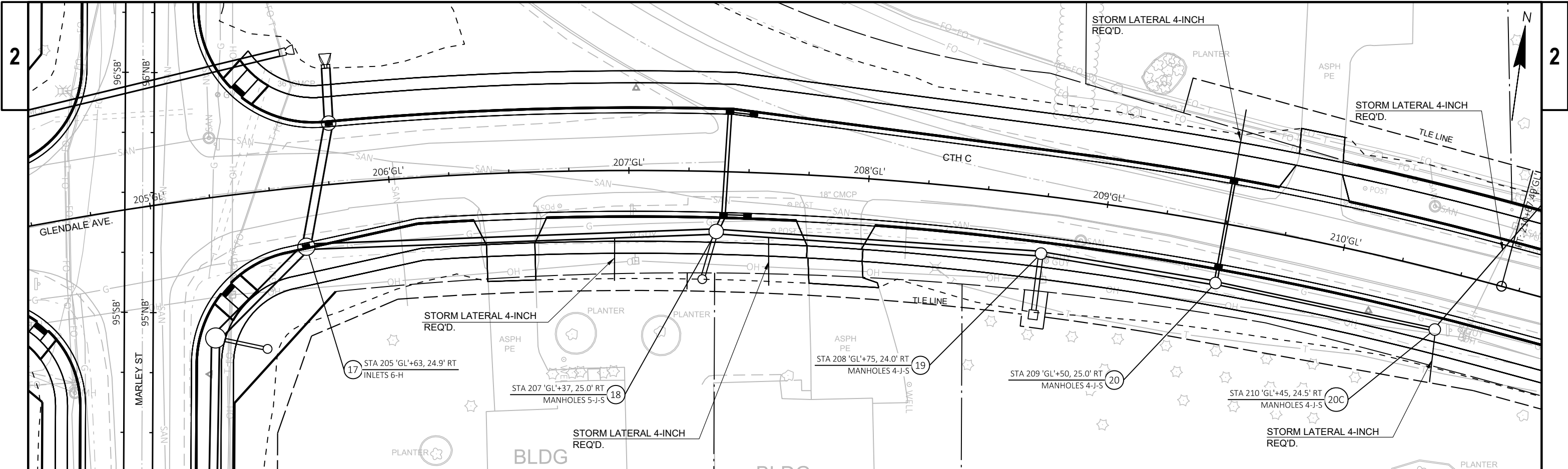


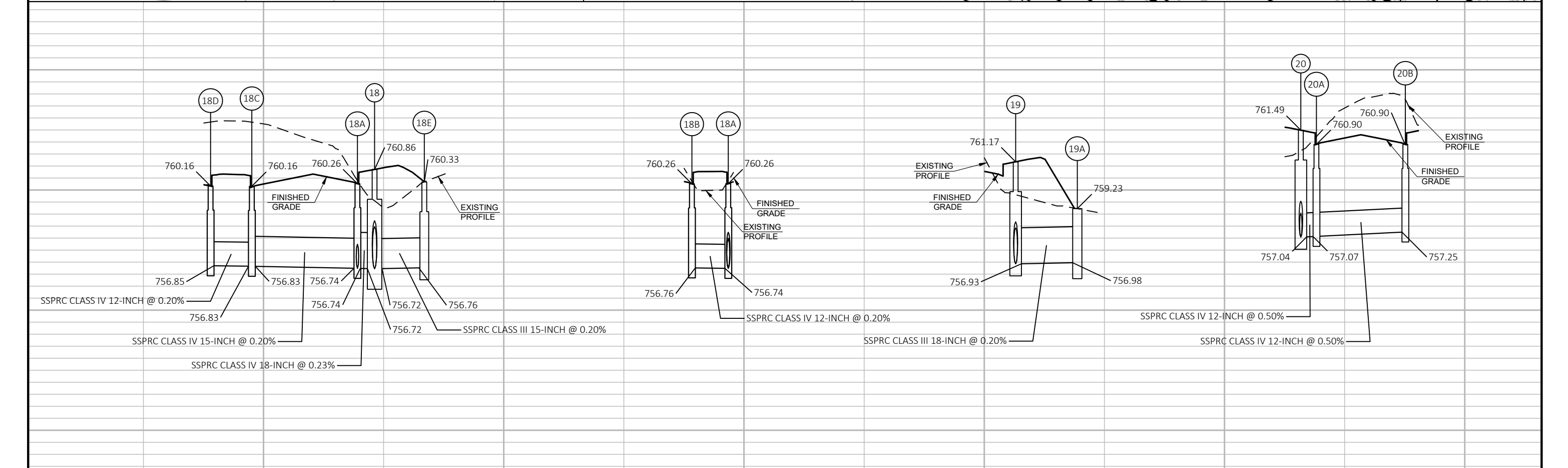
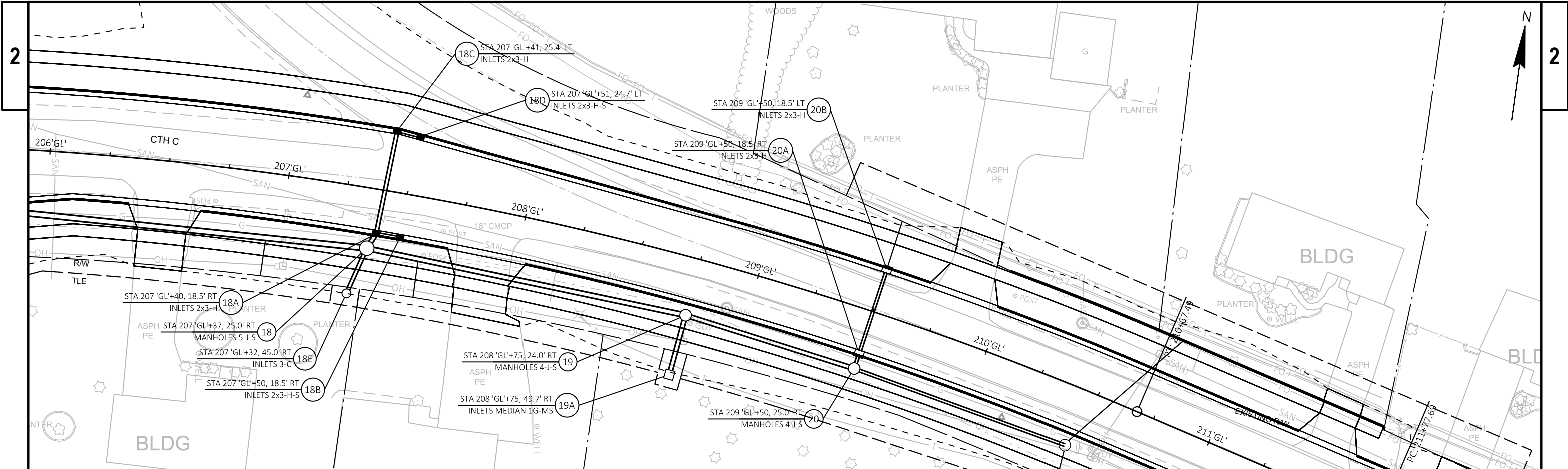


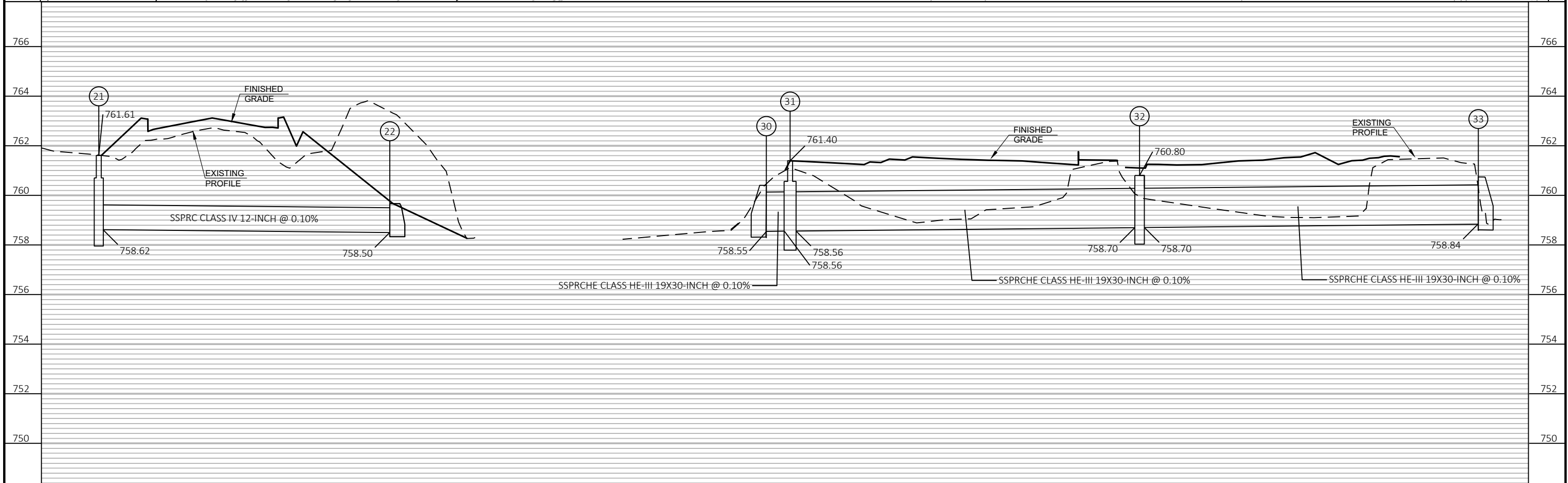
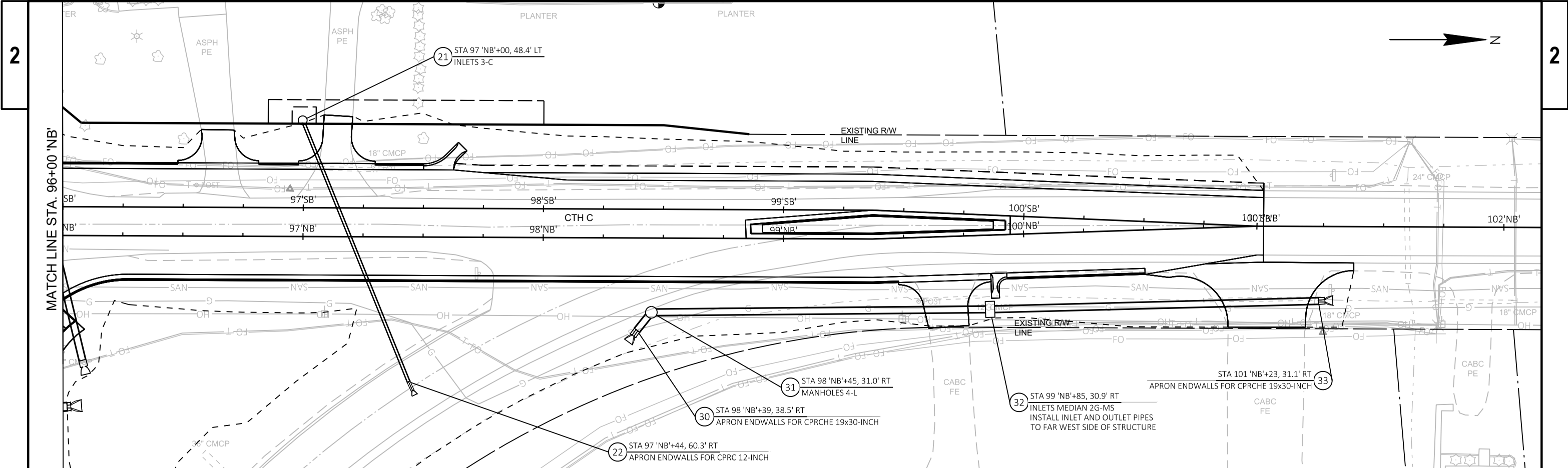




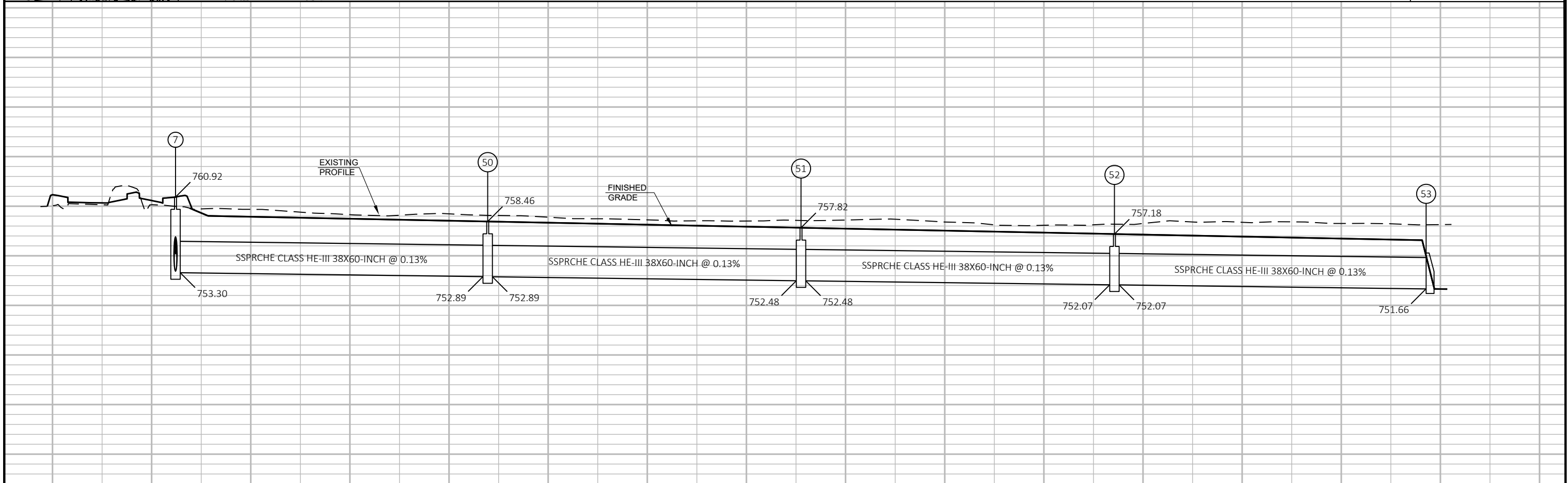
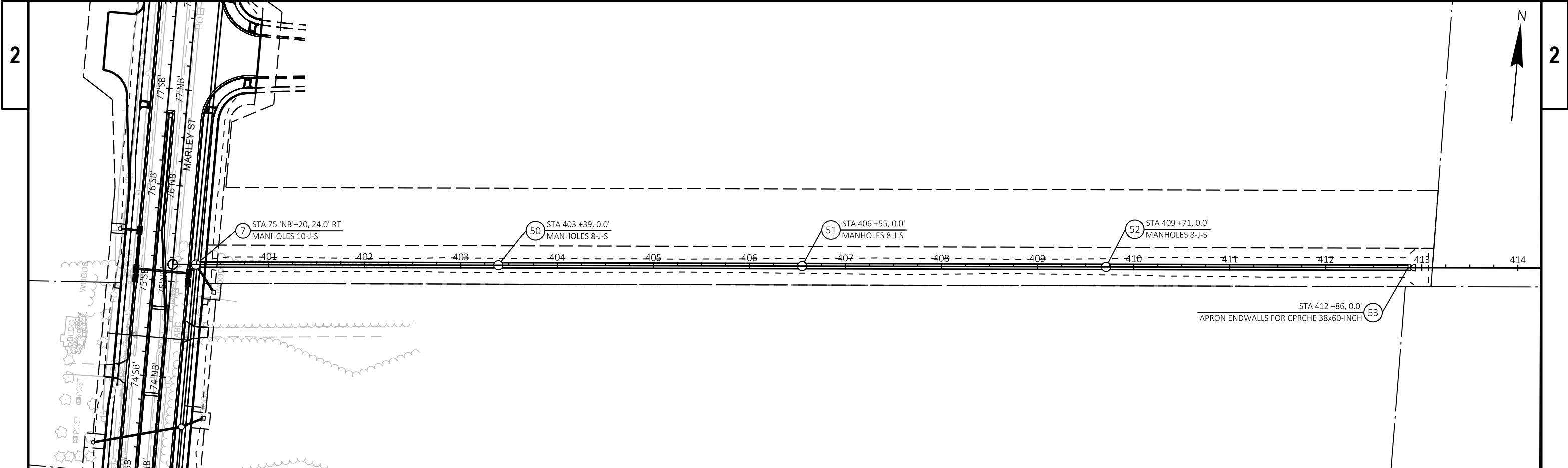






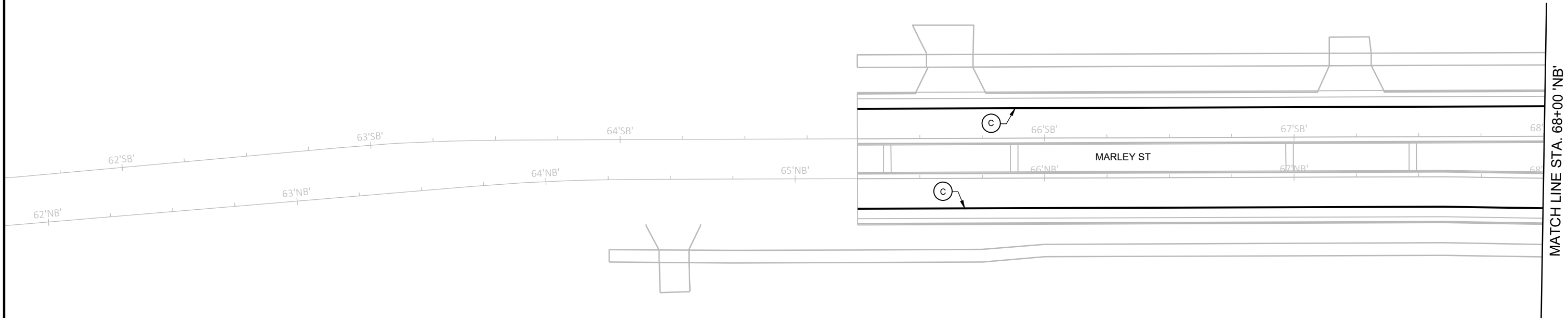






LEGEND

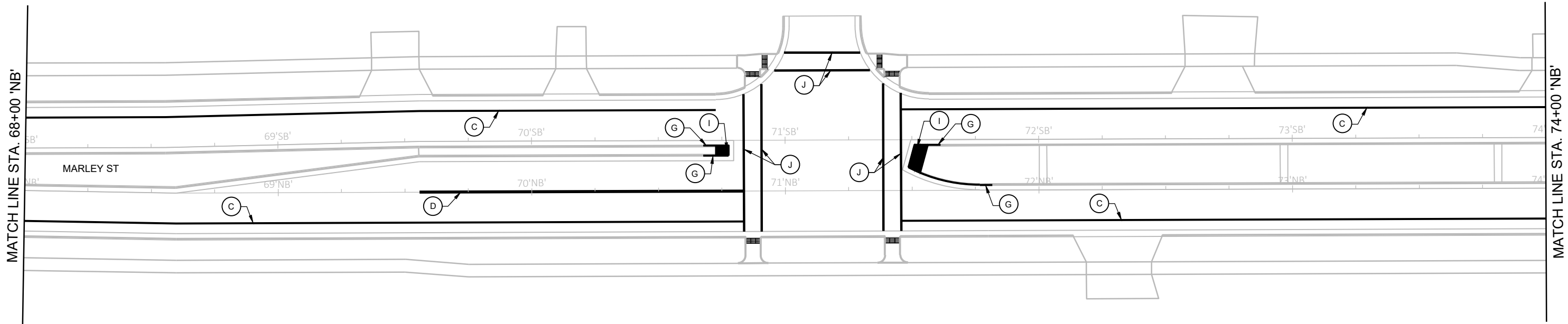
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- B MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
- C MARKING LINE EPOXY 4-INCH (WHITE)
- D MARKING LINE EPOXY 8-INCH (WHITE)
- E MARKING ARROW EPOXY (WHITE)
- F MARKING WORD EPOXY (WHITE)
- G MARKING CURB EPOXY (YELLOW)
- H MARKING STOP LINE EPOXY 18-INCH (WHITE)
- I MARKING ISLAND NOSE EPOXY (YELLOW)
- J MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- K MARKING DIAGONAL EPOXY 12-INCH (YELLOW)





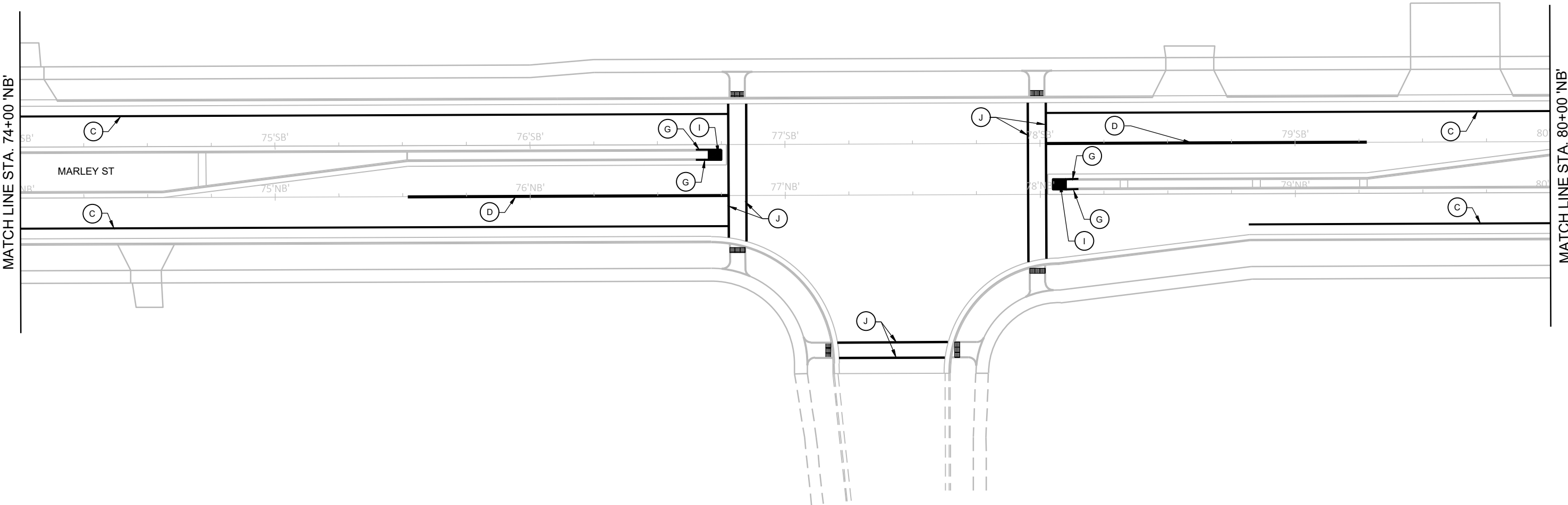
LEGEND

- (A) MARKING LINE EPOXY 4-INCH (YELLOW)
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- (G) MARKING CURB EPOXY (YELLOW)
- (H) MARKING STOP LINE EPOXY 18-INCH (WHITE)
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- (J) MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- (K) MARKING DIAGONAL EPOXY 12-INCH (YELLOW)



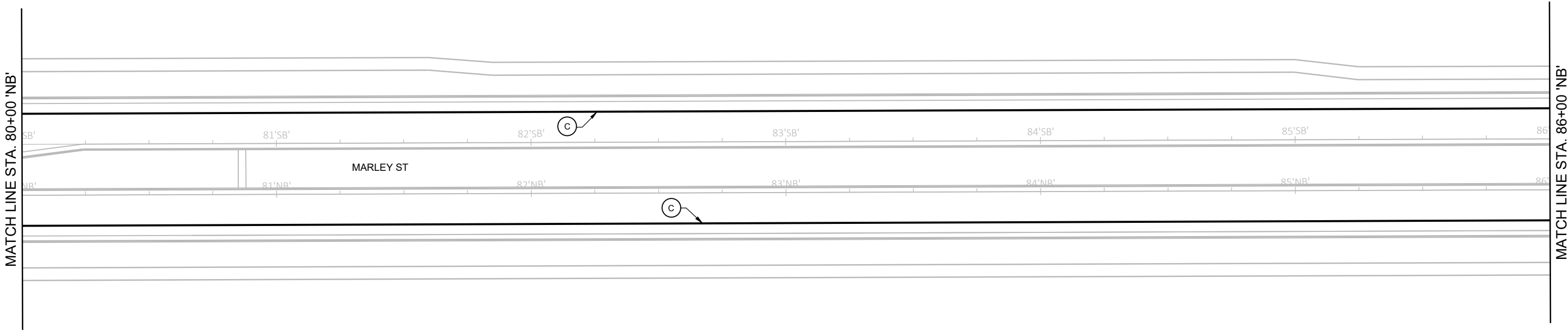
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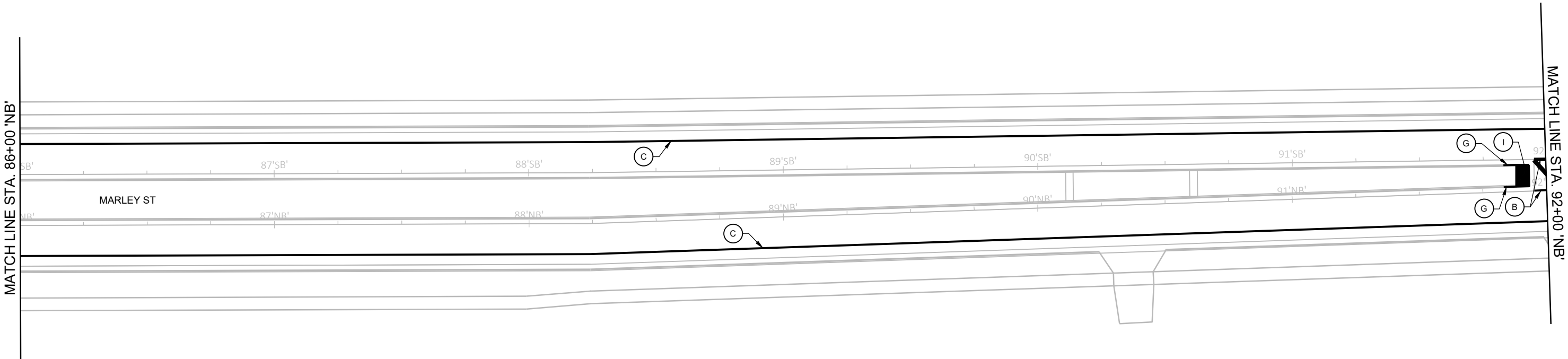
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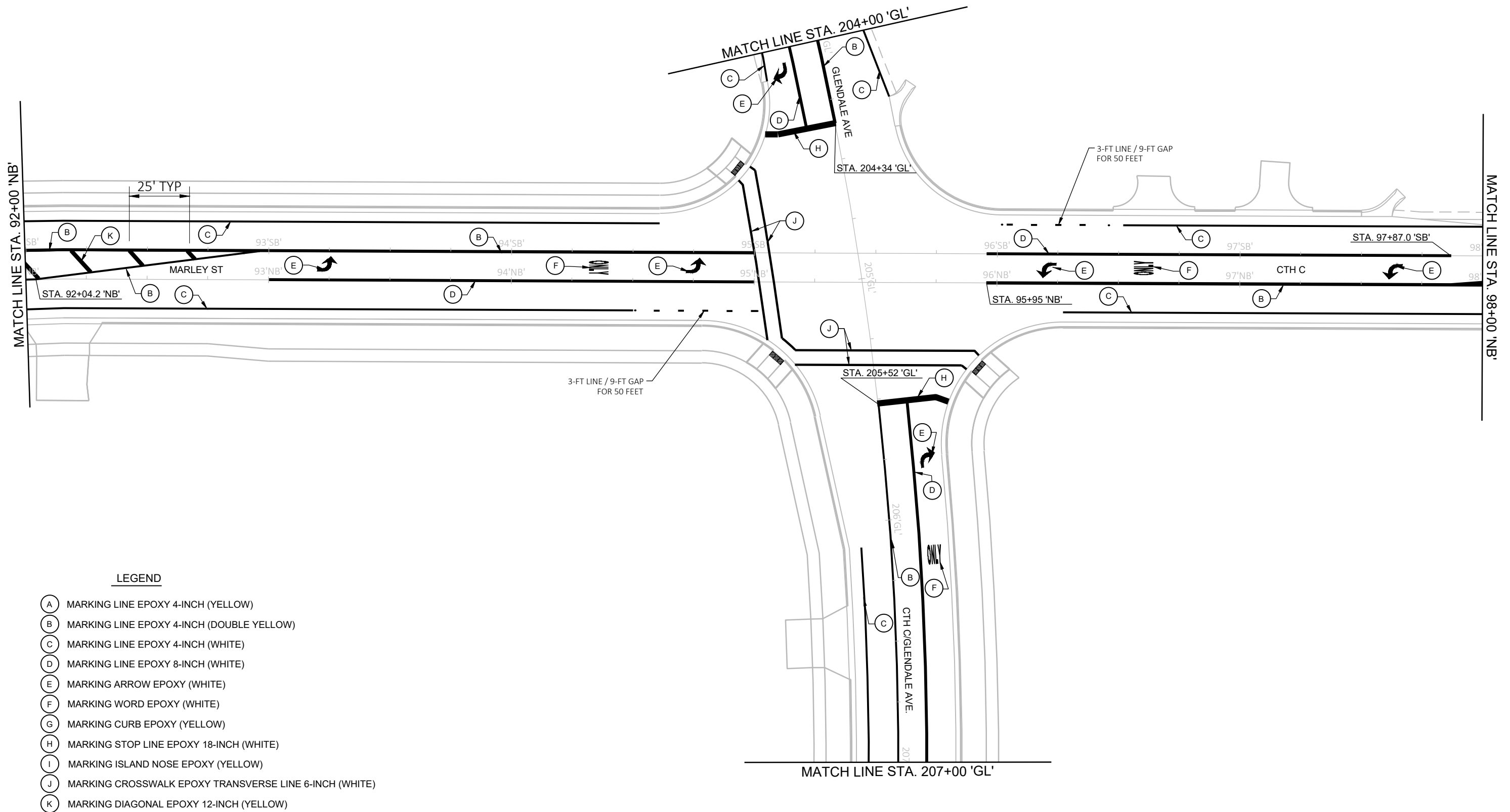
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LEGEND

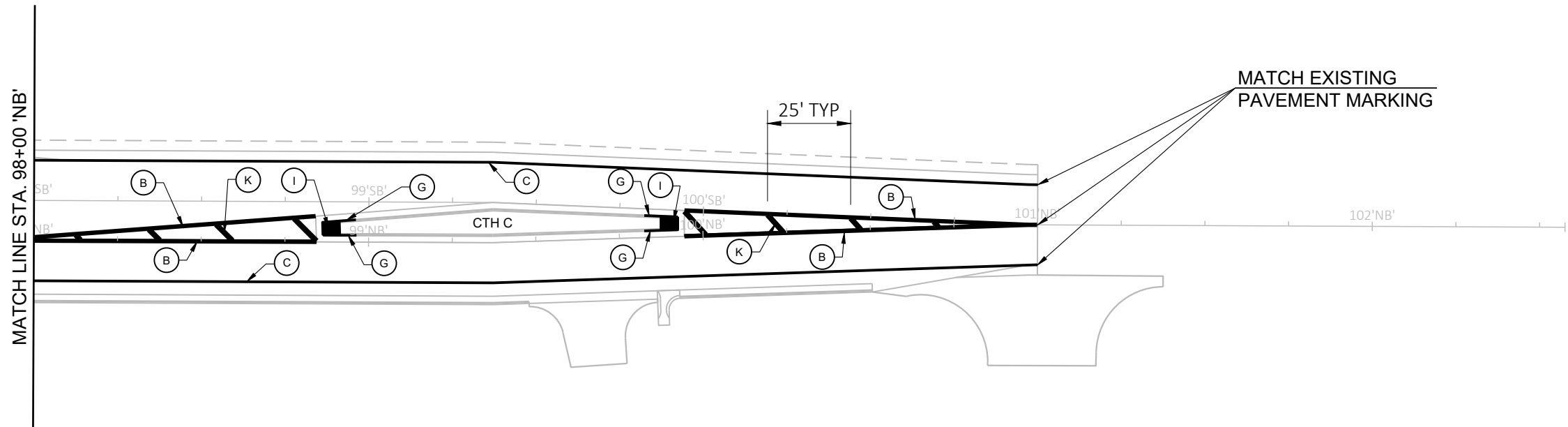
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LEGEND

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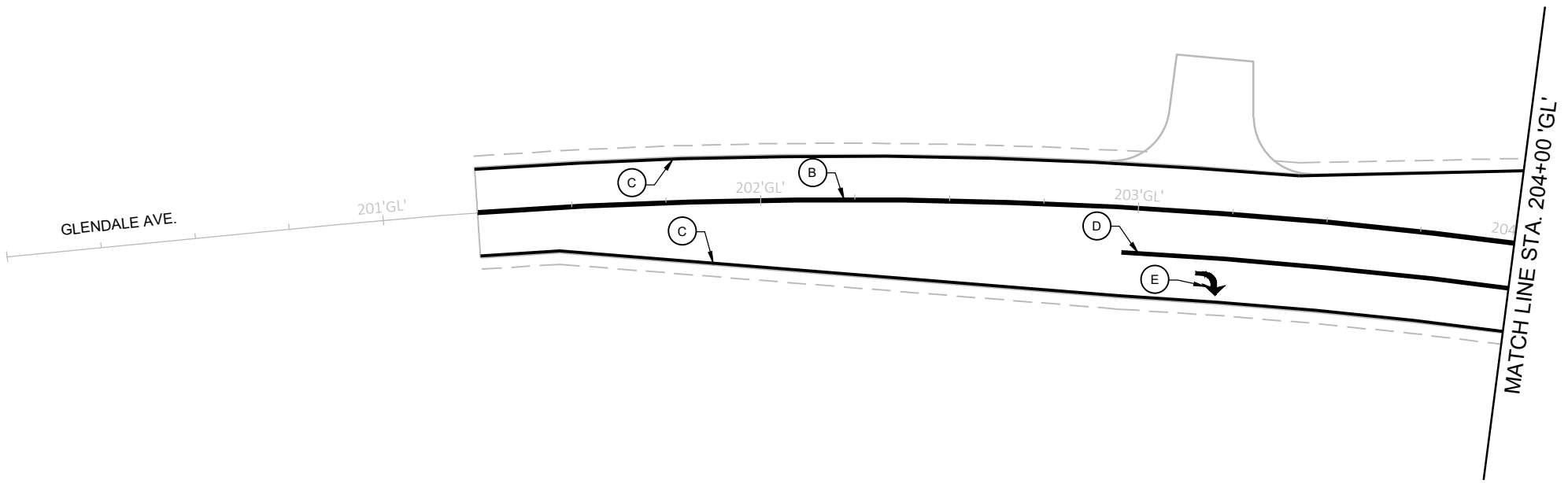






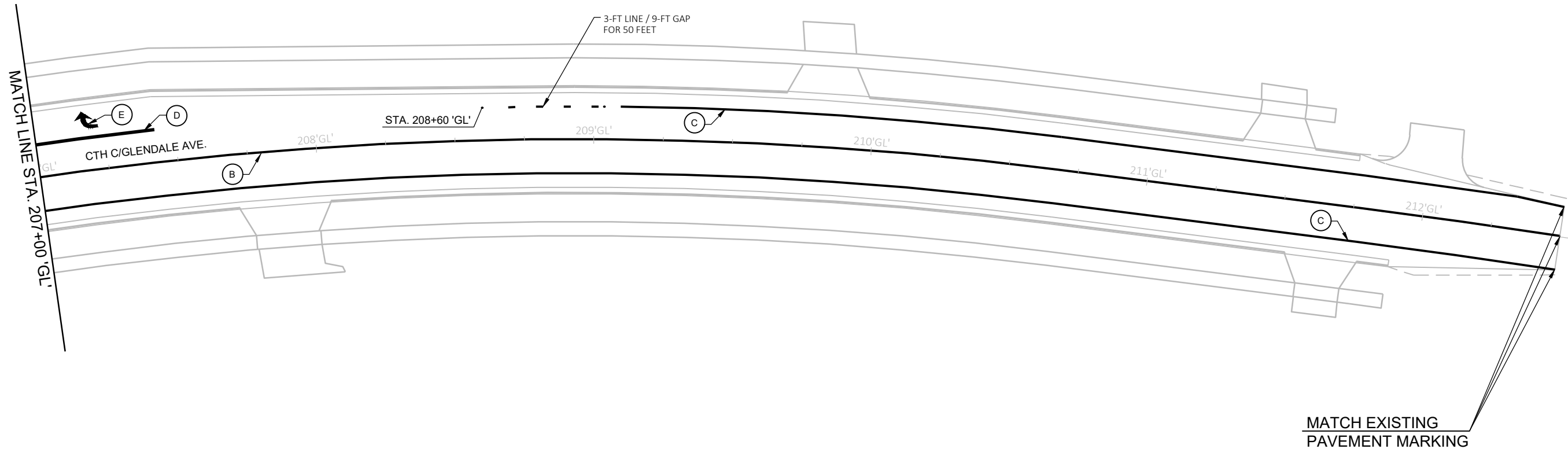
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MARLEY STREET SB CONSTRUCTION R/L

C2

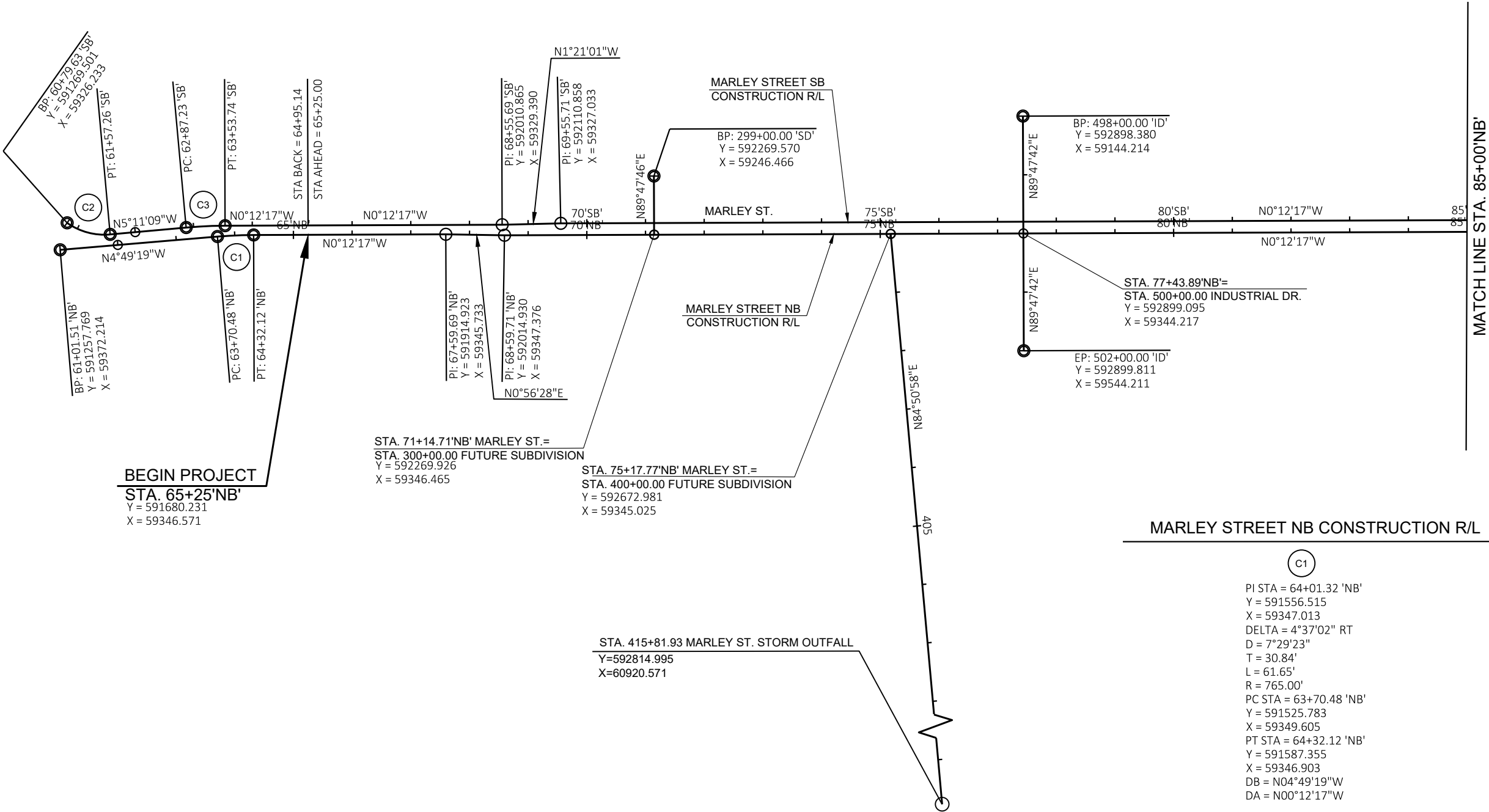
PI STA = 61+20.14 'SB'  
Y = 591302.583  
X = 59349.612  
DELTA = 40°26'03" LT  
D = 52°05'13"  
T = 40.51'  
L = 77.63'  
R = 110.00'  
PC STA = 60+79.63 'SB'  
Y = 591269.501  
X = 59326.233  
PT STA = 61+57.26 'SB'  
Y = 591342.927  
X = 59345.951  
DB = N35°14'53"E  
DA = N05°11'09"W

C3

PI STA = 63+20.51 'SB'  
Y = 591505.505  
X = 59331.195  
DELTA = 4°58'52" RT  
D = 7°29'23"  
T = 33.28'  
L = 66.51'  
R = 765.00'  
PC STA = 62+87.23 'SB'  
Y = 591472.366  
X = 59334.203  
PT STA = 63+53.74 'SB'  
Y = 591538.780  
X = 59331.076  
DB = N05°11'09"W  
DA = N00°12'17"W



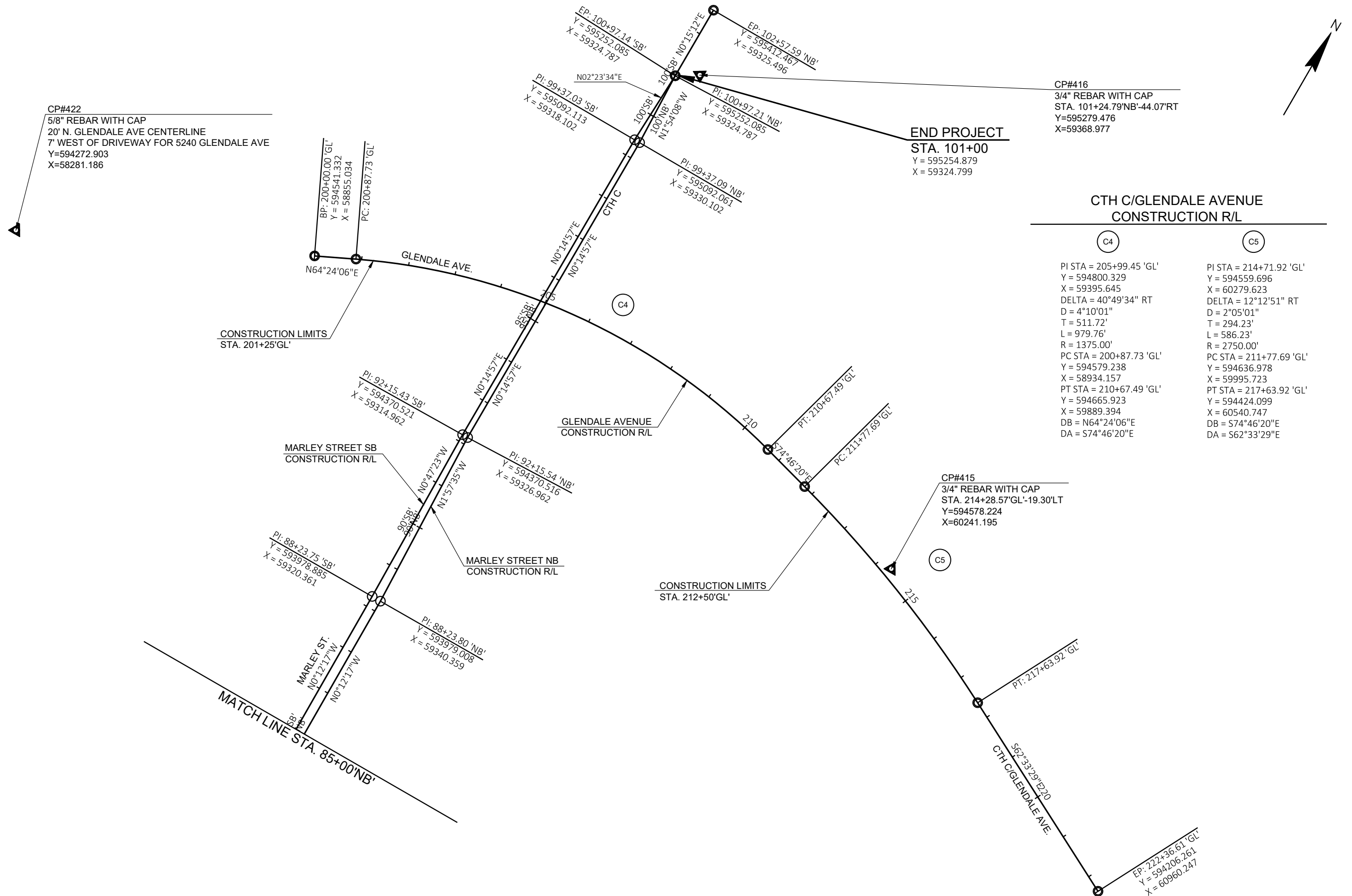
CP#421  
3/4" REBAR WITH CAP  
15' S. MILLWOOD CT CENTERLINE  
6.7' EAST OF DRIVEWAY 4969 MILLWOOD CT  
Y=591509.075  
X=58419.346



MARLEY STREET NB CONSTRUCTION R/L

C1

PI STA = 64+01.32 'NB'  
Y = 591556.515  
X = 59347.013  
DELTA = 4°37'02" RT  
D = 7°29'23"  
T = 30.84'  
L = 61.65'  
R = 765.00'  
PC STA = 63+70.48 'NB'  
Y = 591525.783  
X = 59349.605  
PT STA = 64+32.12 'NB'  
Y = 591587.355  
X = 59346.903  
DB = N04°49'19"W  
DA = N00°12'17"W



CP#422  
5/8" REBAR WITH CAP  
20' N. GLENDALE AVE CENTERLINE  
7' WEST OF DRIVEWAY FOR 5240 GLENDALE AVE  
Y=594272.903  
X=58281.186

CP#416  
3/4" REBAR WITH CAP  
STA. 101+24.79'NB'-44.07'RT  
Y=595279.476  
X=59368.977

END PROJECT  
STA. 101+00  
Y = 595254.879  
X = 59324.799

CTH C/GLENDALE AVENUE  
CONSTRUCTION R/L

| C4                      | C5                      |
|-------------------------|-------------------------|
| PI STA = 205+99.45 'GL' | PI STA = 214+71.92 'GL' |
| Y = 594800.329          | Y = 594559.696          |
| X = 59395.645           | X = 60279.623           |
| DELTA = 40°49'34" RT    | DELTA = 12°12'51" RT    |
| D = 4°10'01"            | D = 2°05'01"            |
| T = 511.72'             | T = 294.23'             |
| L = 979.76'             | L = 586.23'             |
| R = 1375.00'            | R = 2750.00'            |
| PC STA = 200+87.73 'GL' | PC STA = 211+77.69 'GL' |
| Y = 594579.238          | Y = 594636.978          |
| X = 58934.157           | X = 59995.723           |
| PT STA = 210+67.49 'GL' | PT STA = 217+63.92 'GL' |
| Y = 594665.923          | Y = 594424.099          |
| X = 59889.394           | X = 60540.747           |
| DB = N64°24'06"E        | DB = S74°46'20"E        |
| DA = S74°46'20"E        | DA = S62°33'29"E        |

CP#415  
3/4" REBAR WITH CAP  
STA. 214+28.57'GL'-19.30'LT  
Y=594578.224  
X=60241.195

## Estimate Of Quantities

9269-00-14

| Line | Item       | Item Description                                                                     | Unit | Total      | Qty        |
|------|------------|--------------------------------------------------------------------------------------|------|------------|------------|
| 0002 | 201.0105   | Clearing                                                                             | STA  | 12.000     | 12.000     |
| 0004 | 201.0120   | Clearing                                                                             | ID   | 190.000    | 190.000    |
| 0006 | 201.0205   | Grubbing                                                                             | STA  | 12.000     | 12.000     |
| 0008 | 201.0220   | Grubbing                                                                             | ID   | 190.000    | 190.000    |
| 0010 | 203.0100   | Removing Small Pipe Culverts                                                         | EACH | 21.000     | 21.000     |
| 0012 | 204.0100   | Removing Concrete Pavement                                                           | SY   | 450.000    | 450.000    |
| 0014 | 204.0110   | Removing Asphaltic Surface                                                           | SY   | 4,680.000  | 4,680.000  |
| 0016 | 204.0245   | Removing Storm Sewer (size) 01. 12-Inch                                              | LF   | 43.000     | 43.000     |
| 0018 | 204.0291.S | Abandoning Sewer                                                                     | CY   | 1.500      | 1.500      |
| 0020 | 205.0100   | Excavation Common                                                                    | CY   | 27,425.000 | 27,425.000 |
| 0022 | 205.0400   | Excavation Marsh                                                                     | CY   | 3,775.000  | 3,775.000  |
| 0024 | 208.1100   | Select Borrow                                                                        | CY   | 7,480.000  | 7,480.000  |
| 0026 | 213.0100   | Finishing Roadway (project) 01. 9269-00-14                                           | EACH | 1.000      | 1.000      |
| 0028 | 305.0110   | Base Aggregate Dense 3/4-Inch                                                        | TON  | 125.000    | 125.000    |
| 0030 | 305.0120   | Base Aggregate Dense 1 1/4-Inch                                                      | TON  | 10,900.000 | 10,900.000 |
| 0032 | 310.0115   | Base Aggregate Open-Graded                                                           | CY   | 96.000     | 96.000     |
| 0034 | 312.0110   | Select Crushed Material                                                              | TON  | 31,330.000 | 31,330.000 |
| 0036 | 416.0160   | Concrete Driveway 6-Inch                                                             | SY   | 660.000    | 660.000    |
| 0038 | 455.0605   | Tack Coat                                                                            | GAL  | 1,400.000  | 1,400.000  |
| 0040 | 460.2000   | Incentive Density HMA Pavement                                                       | DOL  | 4,090.000  | 4,090.000  |
| 0042 | 460.6223   | HMA Pavement 3 MT 58-28 S                                                            | TON  | 3,480.000  | 3,480.000  |
| 0044 | 460.6224   | HMA Pavement 4 MT 58-28 S                                                            | TON  | 2,910.000  | 2,910.000  |
| 0046 | 465.0120   | Asphaltic Surface Driveways and Field Entrances                                      | TON  | 175.000    | 175.000    |
| 0048 | 465.0315   | Asphaltic Flumes                                                                     | SY   | 30.000     | 30.000     |
| 0050 | 521.1018   | Apron Endwalls for Culvert Pipe Steel 18-Inch                                        | EACH | 2.000      | 2.000      |
| 0052 | 521.3118   | Culvert Pipe Corrugated Steel 18-Inch                                                | LF   | 36.000     | 36.000     |
| 0054 | 522.1012   | Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch                          | EACH | 1.000      | 1.000      |
| 0056 | 522.1018   | Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch                          | EACH | 1.000      | 1.000      |
| 0058 | 522.2419   | Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 19x30-Inch        | LF   | 124.000    | 124.000    |
| 0060 | 522.2619   | Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 19x30-Inch | EACH | 4.000      | 4.000      |
| 0062 | 522.2624   | Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 24x38-Inch | EACH | 1.000      | 1.000      |
| 0064 | 522.2638   | Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 38x60-Inch | EACH | 1.000      | 1.000      |
| 0066 | 601.0411   | Concrete Curb & Gutter 30-Inch Type D                                                | LF   | 13,220.000 | 13,220.000 |
| 0068 | 602.0405   | Concrete Sidewalk 4-Inch                                                             | SF   | 35,680.000 | 35,680.000 |
| 0070 | 602.0415   | Concrete Sidewalk 6-Inch                                                             | SF   | 1,270.000  | 1,270.000  |
| 0072 | 602.0515   | Curb Ramp Detectable Warning Field Natural Patina                                    | SF   | 180.000    | 180.000    |
| 0074 | 603.8000   | Concrete Barrier Temporary Precast Delivered                                         | LF   | 25.000     | 25.000     |
| 0076 | 603.8125   | Concrete Barrier Temporary Precast Installed                                         | LF   | 25.000     | 25.000     |
| 0078 | 606.0200   | Riprap Medium                                                                        | CY   | 30.000     | 30.000     |
| 0080 | 608.0312   | Storm Sewer Pipe Reinforced Concrete Class III 12-Inch                               | LF   | 370.000    | 370.000    |
| 0082 | 608.0315   | Storm Sewer Pipe Reinforced Concrete Class III 15-Inch                               | LF   | 39.000     | 39.000     |
| 0084 | 608.0318   | Storm Sewer Pipe Reinforced Concrete Class III 18-Inch                               | LF   | 186.000    | 186.000    |
| 0086 | 608.0321   | Storm Sewer Pipe Reinforced Concrete Class III 21-Inch                               | LF   | 136.000    | 136.000    |
| 0088 | 608.0324   | Storm Sewer Pipe Reinforced Concrete Class III 24-Inch                               | LF   | 746.000    | 746.000    |
| 0090 | 608.0330   | Storm Sewer Pipe Reinforced Concrete Class III 30-Inch                               | LF   | 170.000    | 170.000    |
| 0092 | 608.0336   | Storm Sewer Pipe Reinforced Concrete Class III 36-Inch                               | LF   | 442.000    | 442.000    |
| 0094 | 608.0342   | Storm Sewer Pipe Reinforced Concrete Class III 42-Inch                               | LF   | 1,581.000  | 1,581.000  |
| 0096 | 608.0412   | Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch                                | LF   | 668.000    | 668.000    |
| 0098 | 608.0415   | Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch                                | LF   | 500.000    | 500.000    |

Estimate Of Quantities

9269-00-14

| Line | Item     | Item Description                                                                   | Unit | Total      | Qty        |
|------|----------|------------------------------------------------------------------------------------|------|------------|------------|
| 0100 | 608.0418 | Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch                              | LF   | 158.000    | 158.000    |
| 0102 | 608.2319 | Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 19x30-Inch | LF   | 288.000    | 288.000    |
| 0104 | 608.2338 | Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 38x60-Inch | LF   | 1,261.000  | 1,261.000  |
| 0106 | 608.2424 | Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 24x38-Inch  | LF   | 76.000     | 76.000     |
| 0108 | 611.0535 | Manhole Covers Type J-Special                                                      | EACH | 22.000     | 22.000     |
| 0110 | 611.0545 | Manhole Covers Type L                                                              | EACH | 2.000      | 2.000      |
| 0112 | 611.0612 | Inlet Covers Type C                                                                | EACH | 10.000     | 10.000     |
| 0114 | 611.0624 | Inlet Covers Type H                                                                | EACH | 27.000     | 27.000     |
| 0116 | 611.0639 | Inlet Covers Type H-S                                                              | EACH | 12.000     | 12.000     |
| 0118 | 611.0642 | Inlet Covers Type MS                                                               | EACH | 8.000      | 8.000      |
| 0120 | 611.2004 | Manholes 4-FT Diameter                                                             | EACH | 11.000     | 11.000     |
| 0122 | 611.2005 | Manholes 5-FT Diameter                                                             | EACH | 3.000      | 3.000      |
| 0124 | 611.2006 | Manholes 6-FT Diameter                                                             | EACH | 5.000      | 5.000      |
| 0126 | 611.2007 | Manholes 7-FT Diameter                                                             | EACH | 1.000      | 1.000      |
| 0128 | 611.2008 | Manholes 8-FT Diameter                                                             | EACH | 3.000      | 3.000      |
| 0130 | 611.3003 | Inlets 3-FT Diameter                                                               | EACH | 10.000     | 10.000     |
| 0132 | 611.3230 | Inlets 2x3-FT                                                                      | EACH | 36.000     | 36.000     |
| 0134 | 611.3901 | Inlets Median 1 Grate                                                              | EACH | 6.000      | 6.000      |
| 0136 | 611.3902 | Inlets Median 2 Grate                                                              | EACH | 1.000      | 1.000      |
| 0138 | 612.0106 | Pipe Underdrain 6-Inch                                                             | LF   | 600.000    | 600.000    |
| 0140 | 618.0100 | Maintenance And Repair of Haul Roads (project) 01. 9269-00-14                      | EACH | 1.000      | 1.000      |
| 0142 | 619.1000 | Mobilization                                                                       | EACH | 1.000      | 1.000      |
| 0144 | 620.0300 | Concrete Median Sloped Nose                                                        | SF   | 480.000    | 480.000    |
| 0146 | 621.0100 | Landmark Reference Monuments                                                       | EACH | 4.000      | 4.000      |
| 0148 | 623.0200 | Dust Control Surface Treatment                                                     | SY   | 15,000.000 | 15,000.000 |
| 0150 | 624.0100 | Water                                                                              | MGAL | 125.000    | 125.000    |
| 0152 | 625.0100 | Topsoil                                                                            | SY   | 14,675.000 | 14,675.000 |
| 0154 | 625.0500 | Salvaged Topsoil                                                                   | SY   | 22,000.000 | 22,000.000 |
| 0156 | 627.0200 | Mulching                                                                           | SY   | 12,500.000 | 12,500.000 |
| 0158 | 628.1504 | Silt Fence                                                                         | LF   | 14,500.000 | 14,500.000 |
| 0160 | 628.1520 | Silt Fence Maintenance                                                             | LF   | 29,000.000 | 29,000.000 |
| 0162 | 628.1905 | Mobilizations Erosion Control                                                      | EACH | 12.000     | 12.000     |
| 0164 | 628.1910 | Mobilizations Emergency Erosion Control                                            | EACH | 8.000      | 8.000      |
| 0166 | 628.2004 | Erosion Mat Class I Type B                                                         | SY   | 7,200.000  | 7,200.000  |
| 0168 | 628.2008 | Erosion Mat Urban Class I Type B                                                   | SY   | 24,700.000 | 24,700.000 |
| 0170 | 628.7005 | Inlet Protection Type A                                                            | EACH | 56.000     | 56.000     |
| 0172 | 628.7010 | Inlet Protection Type B                                                            | EACH | 17.000     | 17.000     |
| 0174 | 628.7015 | Inlet Protection Type C                                                            | EACH | 27.000     | 27.000     |
| 0176 | 628.7020 | Inlet Protection Type D                                                            | EACH | 12.000     | 12.000     |
| 0178 | 628.7555 | Culvert Pipe Checks                                                                | EACH | 35.000     | 35.000     |
| 0180 | 628.7560 | Tracking Pads                                                                      | EACH | 5.000      | 5.000      |
| 0182 | 628.7570 | Rock Bags                                                                          | EACH | 100.000    | 100.000    |
| 0184 | 629.0210 | Fertilizer Type B                                                                  | CWT  | 27.000     | 27.000     |
| 0186 | 630.0120 | Seeding Mixture No. 20                                                             | LB   | 610.000    | 610.000    |
| 0188 | 630.0140 | Seeding Mixture No. 40                                                             | LB   | 390.000    | 390.000    |
| 0190 | 630.0500 | Seed Water                                                                         | MGAL | 710.000    | 710.000    |
| 0192 | 642.5001 | Field Office Type B                                                                | EACH | 1.000      | 1.000      |
| 0194 | 643.0300 | Traffic Control Drums                                                              | DAY  | 4,500.000  | 4,500.000  |
| 0196 | 643.0420 | Traffic Control Barricades Type III                                                | DAY  | 2,052.000  | 2,052.000  |

## Estimate Of Quantities

9269-00-14

| Line | Item     | Item Description                                                   | Unit | Total      | Qty        |
|------|----------|--------------------------------------------------------------------|------|------------|------------|
| 0198 | 643.0705 | Traffic Control Warning Lights Type A                              | DAY  | 4,104.000  | 4,104.000  |
| 0200 | 643.0900 | Traffic Control Signs                                              | DAY  | 2,592.000  | 2,592.000  |
| 0202 | 643.1050 | Traffic Control Signs PCMS                                         | DAY  | 42.000     | 42.000     |
| 0204 | 643.5000 | Traffic Control                                                    | EACH | 1.000      | 1.000      |
| 0206 | 645.0111 | Geotextile Type DF Schedule A                                      | SY   | 558.000    | 558.000    |
| 0208 | 645.0120 | Geotextile Type HR                                                 | SY   | 60.000     | 60.000     |
| 0210 | 645.0220 | Geogrid Type SR                                                    | SY   | 27,700.000 | 27,700.000 |
| 0212 | 646.1020 | Marking Line Epoxy 4-Inch                                          | LF   | 12,260.000 | 12,260.000 |
| 0214 | 646.3020 | Marking Line Epoxy 8-Inch                                          | LF   | 1,125.000  | 1,125.000  |
| 0216 | 646.5020 | Marking Arrow Epoxy                                                | EACH | 8.000      | 8.000      |
| 0218 | 646.5120 | Marking Word Epoxy                                                 | EACH | 3.000      | 3.000      |
| 0220 | 646.6120 | Marking Stop Line Epoxy 18-Inch                                    | LF   | 70.000     | 70.000     |
| 0222 | 646.7120 | Marking Diagonal Epoxy 12-Inch                                     | LF   | 90.000     | 90.000     |
| 0224 | 646.7420 | Marking Crosswalk Epoxy Transverse Line 6-Inch                     | LF   | 895.000    | 895.000    |
| 0226 | 646.8120 | Marking Curb Epoxy                                                 | LF   | 90.000     | 90.000     |
| 0228 | 646.8220 | Marking Island Nose Epoxy                                          | EACH | 7.000      | 7.000      |
| 0230 | 650.4000 | Construction Staking Storm Sewer                                   | EACH | 85.000     | 85.000     |
| 0232 | 650.4500 | Construction Staking Subgrade                                      | LF   | 4,655.000  | 4,655.000  |
| 0234 | 650.5000 | Construction Staking Base                                          | LF   | 4,655.000  | 4,655.000  |
| 0236 | 650.5500 | Construction Staking Curb Gutter and Curb & Gutter                 | LF   | 13,220.000 | 13,220.000 |
| 0238 | 650.6000 | Construction Staking Pipe Culverts                                 | EACH | 2.000      | 2.000      |
| 0240 | 650.9000 | Construction Staking Curb Ramps                                    | EACH | 15.000     | 15.000     |
| 0242 | 650.9910 | Construction Staking Supplemental Control (project) 01. 9269-00-14 | LS   | 1.000      | 1.000      |
| 0244 | 650.9920 | Construction Staking Slope Stakes                                  | LF   | 6,313.000  | 6,313.000  |
| 0246 | 690.0150 | Sawing Asphalt                                                     | LF   | 373.000    | 373.000    |
| 0248 | 690.0250 | Sawing Concrete                                                    | LF   | 5.000      | 5.000      |
| 0250 | 740.0440 | Incentive IRI Ride                                                 | DOL  | 2,668.000  | 2,668.000  |
| 0252 | ASP.1T0A | On-the-Job Training Apprentice at \$5.00/HR                        | HRS  | 2,000.000  | 2,000.000  |
| 0254 | ASP.1T0G | On-the-Job Training Graduate at \$5.00/HR                          | HRS  | 1,320.000  | 1,320.000  |
| 0256 | SPV.0035 | Special 01. Excavation Waste                                       | CY   | 26,900.000 | 26,900.000 |
| 0258 | SPV.0060 | Special 01. Manholes 10-FT Diameter                                | EACH | 1.000      | 1.000      |
| 0260 | SPV.0060 | Special 02. Inlets 5-FT Diameter                                   | EACH | 1.000      | 1.000      |
| 0262 | SPV.0060 | Special 03. Inlets 6-FT Diameter                                   | EACH | 2.000      | 2.000      |
| 0264 | SPV.0060 | Special 04. Adjusting Fiber Optic Handhole                         | EACH | 2.000      | 2.000      |
| 0266 | SPV.0090 | Special 01. Storm Lateral 4-Inch                                   | LF   | 879.000    | 879.000    |

CLEARING AND GRUBBING

|         |    |         |              | 201.0105 | 201.0120 | 201.0205 | 201.0220 |
|---------|----|---------|--------------|----------|----------|----------|----------|
|         |    |         |              | CLEARING | CLEARING | GRUBBING | GRUBBING |
| STATION | TO | STATION | LOCATION     | STA      | ID       | STA      | ID       |
| 64+00   | -  | 76+00   | MARLEY ST    | 12       |          | 12       |          |
| 86+00   | -  | 86+25   | MARLEY ST    | -        | 24       | -        | 24       |
| 93+00   | -  | 94+00   | MARLEY ST    | -        | 10       | -        | 10       |
| 96+00   | -  | 98+00   | MARLEY ST    | -        | 90       | -        | 90       |
| 209+00  | -  | 212+00  | GLENDALE AVE | -        | 66       | -        | 66       |
| TOTALS  |    |         |              | 12       | 190      | 12       | 190      |

REMOVING SMALL PIPE CULVERTS

|         |                   |      |                 | 203.0100       |
|---------|-------------------|------|-----------------|----------------|
|         |                   |      |                 | REMOVING SMALL |
|         |                   |      |                 | PIPE CULVERTS  |
| STATION | LOCATION          | EACH | REMARKS         |                |
| 65+62   | MARLEY ST NB, LT  | 1    | 28 LF, 15" CMCP |                |
| 67+25   | MARLEY ST SB, LT  | 1    | 26 LF, 18" CMCP |                |
| 69+46   | MARLEY ST SB, LT  | 1    | 35 LF, 18" CMCP |                |
| 70+15   | MARLEY ST SB, LT  | 1    | 28 LF, 18" CMCP |                |
| 71+25   | MARLEY ST SB, LT  | 1    | 26 LF, 15" CMCP |                |
| 72+30   | MARLEY ST NB, RT  | 1    | 32 LF, 18" CMCP |                |
| 72+67   | MARLEY ST SB, LT  | 1    | 26 LF, 15" CMCP |                |
| 74+02   | MARLEY ST SB, LT  | 1    | 28 LF, 15" CMCP |                |
| 74+46   | MARLEY ST NB, RT  | 1    | 26 LF, 18" CMCP |                |
| 80+50   | MARLEY ST SB, LT  | 1    | 40 LF, 15" CMCP |                |
| 80+50   | MARLEY ST NB, RT  | 1    | 35 LF, 15" CMCP |                |
| 88+18   | MARLEY ST NB, C/L | 1    | 37 LF, 18" CMCP |                |
| 90+38   | MARLEY ST NB, RT  | 1    | 24 LF, 18" CMCP |                |
| 92+15   | MARLEY ST NB, RT  | 1    | 24 LF, 18" CMCP |                |
| 95+83   | MARLEY ST NB, C/L | 1    | 57 LF, 24" CMCP |                |
| 97+14   | MARLEY ST SB, LT  | 1    | 30 LF, 18" CMCP |                |
| 99+67   | MARLEY ST NB, RT  | 1    | 28 LF, 12" CMCP |                |
| 101+00  | MARLEY ST NB, RT  | 1    | 50 LF, 18" CMCP |                |
| 203+18  | GLENDALE AVE, LT  | 1    | 25 LF, 18" CMCP |                |
| 205+34  | GLENDALE AVE, C/L | 1    | 80 LF, 36" CMCP |                |
| 304+80  | CTH C, C/L        | 1    | 55 LF, 36" CMCP |                |
| TOTAL   |                   | 21   |                 |                |

REMOVING CONCRETE PAVEMENT

|         |    |         |           |  | 204.0100          |
|---------|----|---------|-----------|--|-------------------|
|         |    |         |           |  | REMOVING CONCRETE |
|         |    |         |           |  | PAVEMENT          |
| STATION | TO | STATION | LOCATION  |  | SY                |
| 95+75   | -  | 97+75   | MARLEY ST |  | 450               |
| TOTAL   |    |         |           |  | 450               |

REMOVING STORM SEWER

|         |    |         |                  | 204.0291.S | 204.0245.01          |
|---------|----|---------|------------------|------------|----------------------|
|         |    |         |                  | ABANDONING | REMOVING STORM SEWER |
|         |    |         |                  | SEWER      | (SIZE) (01. 12-INCH) |
| STATION | TO | STATION | LOCATION         | CY         | LF                   |
| 64+78   | -  | 65+07   | MARLEY ST NB, RT | 1          | -                    |
| 65+07   | -  | 65+40   | MARLEY ST NB, RT | -          | 33                   |
| 65+16   | -  | 65+33   | MARLEY ST SB, LT | 0.5        | -                    |
| 65+33   | -  | 65+43   | MARLEY ST SB, LT | -          | 10                   |
| TOTALS  |    |         |                  | 1.5        | 43                   |

REMOVING ASPHALTIC SURFACE

|         |    |         |              |       |         | 204.0110           |
|---------|----|---------|--------------|-------|---------|--------------------|
|         |    |         |              |       |         | REMOVING ASPHALTIC |
|         |    |         |              |       |         | SURFACE            |
| STATION | TO | STATION | LOCATION     | SY    | REMARKS |                    |
| 65+25   | -  | 88+00   | MARLEY ST    | -     | **      |                    |
| 88+00   | -  | 95+75   | MARLEY ST    | 1,040 | **      |                    |
| 95+75   | -  | 101+00  | MARLEY ST    | 400   | **      |                    |
| 201+25  | -  | 204+70  | GLENDALE AVE | 840   | **      |                    |
| 205+20  | -  | 212+50  | GLENDALE AVE | 1,040 | **      |                    |
| 303+00  | -  | 306+50  | CTH C        | 1,360 |         |                    |
| TOTAL   |    |         |              | 4,680 |         |                    |

NOTE: CONCRETE PAVEMENT LOCATED UNDER EXISTING ASPHALT BETWEEN 95+75 AND 97+75.  
\*\*SEWER AND WATER UTILITY INSTALLATION EXPECTED TO REMOVE PORTIONS OF EXISTING PAVEMENT

BASE AGGREGATE DENSE AND SELECT CRUSHED MATERIAL

|         |    |         |                             |                |                  |                |          | * |
|---------|----|---------|-----------------------------|----------------|------------------|----------------|----------|---|
|         |    |         |                             | 305.0110       | 305.0120         | 312.0110       | 624.0100 |   |
|         |    |         |                             | BASE AGGREGATE | BASE AGGREGATE   | SELECT CRUSHED | WATER    |   |
|         |    |         |                             | DENSE 3/4-INCH | DENSE 1 1/4-INCH | MATERIAL       | MGAL     |   |
| STATION | TO | STATION | LOCATION                    | TON            | TON              | TON            |          |   |
| 65+25   | -  | 71+15   | MARLEY ST                   | -              | 1230             | 2110           | 12.3     |   |
| 71+15   | -  | 77+41   | MARLEY ST                   | -              | 1580             | 2770           | 15.8     |   |
| 77+41   | -  | 91+95   | MARLEY ST                   | -              | 3380             | 5930           | 33.8     |   |
| 91+95   | -  | 101+00  | MARLEY ST                   | 40             | 1660             | 3030           | 16.6     |   |
| 201+25  |    | 204+70  | GLENDALE AVE                | 70             | 590              | 1120           | 5.9      |   |
| 204+70  | -  | 212+50  | GLENDALE AVE                | 15             | 1440             | 2260           | 14.4     |   |
|         |    |         | DRIVEWAYS & MEDIAN OPENINGS | -              | 620              | -              | 6.2      |   |
|         |    |         | MAINTAIN PROPERTY ACCESS    | -              | 400              | -              | -        |   |
|         |    |         | DUST CONTROL                | -              | -                | -              | 20.0     |   |
| TOTALS  |    |         |                             | 125            | 10,900           | 17,220         | 125.0    |   |

\* - ADDITIONAL QUANTITIES SHOWN ELSEWHERE



EARTHWORK SUMMARY

|                         |                 |                 |                                           |         |                                   |                                             |                                    | Unexpanded  |                           | Expanded    |                        |                           |                       |                       |              | *                        |                                      |                                           |                                          |  |
|-------------------------|-----------------|-----------------|-------------------------------------------|---------|-----------------------------------|---------------------------------------------|------------------------------------|-------------|---------------------------|-------------|------------------------|---------------------------|-----------------------|-----------------------|--------------|--------------------------|--------------------------------------|-------------------------------------------|------------------------------------------|--|
| Division                | From/To Station | Location        | Excavation Common (1)<br>(item #205.0100) |         | Unusable Pavement Material<br>(3) | Marsh Excavation<br>(item #205.0400)<br>(4) | Salvaged Topsoil Excavation<br>(5) | Fill<br>(6) | Select Borrow Fill<br>(7) | Fill        | Select Borrow Backfill | Salvaged Topsoil Backfill | Marsh Backfill Select | Marsh Backfill Select | EBS Backfill | Mass Ordinate +/-<br>(8) | Waste<br>(Item # SPV.0035.01)<br>(9) | Select Borrow<br>(item #208.1100)<br>(10) | Select Crushed Material<br>(TON)<br>(11) |  |
|                         |                 |                 | Cut                                       | EBS (2) |                                   |                                             |                                    |             |                           | Factor 1.43 | Factor 1.20            | Factor 1.20               | Factor 1.50           | Factor 1.10           | Factor 1.10  |                          |                                      |                                           |                                          |  |
| 1                       | 64+25 - 101+00  | Marley Street   | 14,440                                    | 0       | 339                               | 3,516                                       | 1,300                              | 1,985       | 2,582                     | 2,839       | 3,098                  | 1,560                     | 2,079                 | 1,462                 | 0            | 11,262                   | 14,778                               | 6,737                                     | 2,560                                    |  |
| 2                       | 201+25 - 212+50 | Glendale Avenue | 5,004                                     | 0       | 334                               | 259                                         | 0                                  | 415         | 295                       | 593         | 354                    | 0                         | 389                   | 0                     | 0            | 4,077                    | 4,336                                | 743                                       | 0                                        |  |
| 3                       | 303+50 - 306+41 | Existing CTH C  | 1,344                                     | 0       | 172                               | 0                                           | 0                                  | 16          | 0                         | 23          | 0                      | 0                         | 0                     | 0                     | 0            | 1,149                    | 1,149                                | 0                                         | 0                                        |  |
| 4                       | 400+60 - 413+07 | Storm Outfall   | 637                                       | 0       | 0                                 | 0                                           | 0                                  | 0           | 0                         | 0           | 0                      | 0                         | 0                     | 0                     | 0            | 637                      | 637                                  | 0                                         | 0                                        |  |
| 5                       |                 | Undistributed   | 0                                         | 6,000   | 0                                 | 0                                           | 0                                  | 0           | 0                         | 0           | 0                      | 0                         | 0                     | 0                     | 6,600        | 6,000                    | 6,000                                | 0                                         | 11,550                                   |  |
|                         |                 | Totals          | 21,425                                    | 6,000   | 845                               | 3,775                                       | 1,300                              | 2,416       | 2,877                     | 3,455       | 3,452                  | 1,560                     | 2,468                 | 1,462                 | 6,600        | 23,125                   | 26,900                               | 7,480                                     | 14,110                                   |  |
| Total Common Excavation |                 |                 |                                           |         | 27,425                            |                                             |                                    |             |                           |             |                        |                           |                       |                       |              |                          |                                      |                                           |                                          |  |

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100.

2) EBS Excavation to be backfilled with Select Crushed Material.

3) Unusable Pavement Material is included in Cut

4) Marsh Excavation under proposed roadway to be backfilled with Item 312.0110 Select Crushed. Marsh Excavation outside of proposed roadway to be backfilled with Item 208.1100 Select Borrow. (See Construction Detail)

5) Area used for backfill quantity calculation only. Excavation for Salvaged Topsoil incidental to Item 625.0500 Salvaged Topsoil. Excavation area will be backfilled with Item 208.1100 Select Borrow. (See Construction Detail)

6) Fill areas to be backfilled with cut material from the roadway. These areas are located from back of sidewalk to slope intercept. (See Construction Detail)

7) Select Borrow Fill areas to be backfilled with Item 208.1100 Select Borrow. (See Construction Detail)

8) Mass Ordinate = Cut + EBS - Unusable Pavement Material - Expanded Fill. 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.

9) Waste = Excess Mass Ordinate + EBS + Marsh Excavation (Item # SPV.0035.01)

10) Select Borrow = Expanded Select Borrow Backfill + Expanded Salvaged Topsoil Backfill + Expanded Marsh Backfill Select Borrow

11) Select Crushed Material = Expanded Marsh Backfill Select Crushed + Expanded EBS Backfill

\* Additional quantities shown elsewhere

| HMA PAVEMENT |    |         |              |           |              |              |
|--------------|----|---------|--------------|-----------|--------------|--------------|
| STATION      | TO | STATION | LOCATION     | 455.0605  | 460.6223     | 460.6224     |
|              |    |         |              | TACK COAT | HMA PAVEMENT | HMA PAVEMENT |
|              |    |         |              | GAL       | 3 MT 58-28 S | 4 MT 58-28 S |
|              |    |         |              | TON       | TON          | TON          |
| 65+25        | -  | 71+15   | MARLEY ST    | 173       | 430          | 360          |
| 71+15        | -  | 77+41   | MARLEY ST    | 208       | 520          | 430          |
| 77+41        | -  | 91+95   | MARLEY ST    | 406       | 1,010        | 840          |
| 91+95        | -  | 101+00  | MARLEY ST    | 283       | 700          | 590          |
| 201+25       |    | 204+70  | GLENDALE AVE | 108       | 270          | 230          |
|              |    |         |              |           |              |              |
| 205+20       |    | 212+50  | GLENDALE AVE | 223       | 550          | 460          |
|              |    |         |              |           |              |              |
| TOTALS       |    |         |              | 1,400     | 3,480        | 2,910        |

| ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES |                  |     |         |
|-------------------------------------------------|------------------|-----|---------|
| 465.0120                                        |                  |     |         |
| STATION                                         | LOCATION         | TON | REMARKS |
| 64+50                                           | MARLEY ST NB, RT | 3   | MEDIAN  |
| 65+62                                           | MARLEY ST SB, LT | 5   |         |
| 65+62                                           | MARLEY ST SB, RT | 6   |         |
| 67+25                                           | MARLEY ST SB, RT | 5   |         |
| 69+50                                           | MARLEY ST SB, LT | 4   |         |
|                                                 |                  |     |         |
| 72+25                                           | MARLEY ST NB, RT | 5   | MEDIAN  |
| 72+25                                           | MARLEY ST NB, LT | 20  |         |
| 74+25                                           | MARLEY ST NB, LT | 25  |         |
| 78+60                                           | MARLEY ST NB, LT | 4   |         |
| 80+00                                           | MARLEY ST SB, RT | 32  |         |
|                                                 |                  |     |         |
| 90+36                                           | MARLEY ST NB, LT | 5   | MEDIAN  |
| 96+70                                           | MARLEY ST SB, LT | 5   |         |
| 97+15                                           | MARLEY ST SB, LT | 5   |         |
| 99+50                                           | MARLEY ST NB, LT | 14  |         |
| 203+20                                          | GLENDALE AVE, LT | 13  |         |
| 206+50                                          | GLENDALE AVE, RT | 4   |         |
|                                                 |                  |     |         |
| 207+85                                          | GLENDALE AVE, RT | 5   |         |
| 209+80                                          | GLENDALE AVE, LT | 4   |         |
| 211+45                                          | GLENDALE AVE, LT | 2   |         |
| 211+65                                          | GLENDALE AVE, RT | 2   |         |
| 212+00                                          | GLENDALE AVE, LT | 7   |         |
|                                                 |                  |     |         |
| TOTAL                                           |                  | 175 |         |

| ASPHALTIC FLUMES |        |         |                  |          |                |          |          |                |               |
|------------------|--------|---------|------------------|----------|----------------|----------|----------|----------------|---------------|
|                  |        |         |                  | 465.0315 |                |          |          |                |               |
|                  |        | STATION | LOCATION         | SY       |                |          |          |                |               |
|                  |        | 204+33  | GLENDALE AVE, LT | 10       |                |          |          |                |               |
|                  |        | 97+60   | MARLEY ST NB, LT | 10       |                |          |          |                |               |
|                  |        | 99+85   | MARLEY ST NB, RT | 10       |                |          |          |                |               |
|                  |        |         |                  | TOTAL    |                |          |          |                |               |
|                  |        |         |                  | 30       |                |          |          |                |               |
|                  |        |         |                  |          |                |          |          |                |               |
| CONCRETE ITEMS   |        |         |                  |          |                |          |          |                |               |
|                  |        |         |                  | 416.0160 | 601.0411       | 602.0405 | 602.0415 | 602.0515       | 620.0300      |
|                  |        |         |                  | CONCRETE | CONCRETE CURB  | CONCRETE | CONCRETE | CURB RAMP      |               |
|                  |        |         |                  | DRIVEWAY | & GUTTER       | SIDEWALK | SIDEWALK | DETECTABLE     | CONCRETE      |
|                  |        |         |                  | 6-INCH   | 30-INCH TYPE D | 4-INCH   | 6-INCH   | WARNING FIELD  | MEDIAN SLOPED |
| STATION          | TO     | STATION | LOCATION         | SY       | LF             | SF       | SF       | NATURAL PATINA | NOSE          |
| 64+95            | -      | 71+15   | MARLEY ST        | -        | 2,350          | 6,520    | 180      | 36             | 60            |
| 71+15            | -      | 77+41   | MARLEY ST        | -        | 2,300          | 5,660    | 390      | 72             | 160           |
| 77+41            | -      | 95+45   | MARLEY ST        | -        | 6,410          | 17,070   | 530      | 60             | 145           |
| 95+45            | -      | 101+00  | MARLEY ST        | -        | 890            | 650      | 170      | 12             | 115           |
| 205+50           | -      | 211+85  | GLENDALE AVE     | -        | 1,270          | 5,780    | -        | -              | -             |
|                  |        |         |                  |          |                |          |          |                |               |
|                  | 64+50  |         | MARLEY ST, RT    | 27       | -              | -        | -        | -              | -             |
|                  | 65+62  |         | MARLEY ST, LT    | 39       | -              | -        | -        | -              | -             |
|                  | 67+25  |         | MARLEY ST, LT    | 34       | -              | -        | -        | -              | -             |
|                  | 69+50  |         | MARLEY ST, LT    | 38       | -              | -        | -        | -              | -             |
|                  | 70+15  |         | MARLEY ST, LT    | 26       | -              | -        | -        | -              | -             |
|                  |        |         |                  |          |                |          |          |                |               |
|                  | 72+25  |         | MARLEY ST, RT    | 49       | -              | -        | -        | -              | -             |
|                  | 72+75  |         | MARLEY ST, LT    | 49       | -              | -        | -        | -              | -             |
|                  | 74+00  |         | MARLEY ST, LT    | 26       | -              | -        | -        | -              | -             |
|                  | 74+50  |         | MARLEY ST, RT    | 26       | -              | -        | -        | -              | -             |
|                  | 78+59  |         | MARLEY ST, LT    | 28       | -              | -        | -        | -              | -             |
|                  |        |         |                  |          |                |          |          |                |               |
|                  | 79+50  |         | MARLEY ST, LT    | 64       | -              | -        | -        | -              | -             |
|                  | 90+36  |         | MARLEY ST, RT    | 28       | -              | -        | -        | -              | -             |
|                  | 92+25  |         | MARLEY ST, RT    | 37       | -              | -        | -        | -              | -             |
|                  | 206+50 |         | GLENDALE AVE, RT | 40       | -              | -        | -        | -              | -             |
|                  | 208+00 |         | GLENDALE AVE, RT | 44       | -              | -        | -        | -              | -             |
|                  |        |         |                  |          |                |          |          |                |               |
|                  | 209+75 |         | GLENDALE AVE, LT | 39       | -              | -        | -        | -              | -             |
|                  | 211+50 |         | GLENDALE AVE, LT | 33       | -              | -        | -        | -              | -             |
|                  | 211+65 |         | GLENDALE AVE, RT | 33       | -              | -        | -        | -              | -             |
|                  |        |         |                  |          |                |          |          |                |               |
| TOTALS           |        |         |                  | 660      | 13,220         | 35,680   | 1,270    | 180            | 480           |



CULVERT PIPES AND APRON ENDWALLS

|         |                  | 521.1018                                            | 521.3118                                    |                           |                                                                                                    | *                                                                                                         |                               |                 |                          |        |
|---------|------------------|-----------------------------------------------------|---------------------------------------------|---------------------------|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------------------------|-----------------|--------------------------|--------|
|         |                  | APRON ENDWALLS<br>FOR CULVERT PIPE<br>STEEL 18-INCH | CULVERT PIPE<br>CORRUGATED<br>STEEL 18-INCH | STEEL THICKNESS<br>INCHES | 522.2419<br>CULVERT PIPE REINFORCED<br>CONCRETE HORIZONTAL<br>ELLIPTICAL CLASS HE-IV<br>19X30-INCH | 522.2619<br>APRON ENDWALLS FOR<br>CULVERT PIPE REINFORCED<br>CONCRETE HORIZONTAL<br>ELLIPTICAL 19X30-INCH | END OF PIPE<br>STATION/OFFSET |                 | END OF PIPE<br>ELEVATION |        |
| STATION | LOCATION         | EACH                                                | LF                                          |                           | LF                                                                                                 | EACH                                                                                                      | INLET                         | OUTLET          | INLET                    | OUTLET |
| 95+90   | MARLEY ST NB LT  | -                                                   | -                                           | -                         | 124                                                                                                | 2                                                                                                         | 95+78.7, 68.8' LT             | 96+08.4, 52' RT | 758.42                   | 758.30 |
| 203+20  | GLENDALE AVE, LT | 2                                                   | 36                                          | 0.064                     | -                                                                                                  | -                                                                                                         | -                             | -               | 759.20                   | 759.00 |
| TOTALS  |                  | 2                                                   | 36                                          |                           | 124                                                                                                | 2                                                                                                         |                               |                 |                          |        |

\* - ADDITIONAL QUANTITIES SHOWN ELSEWHERE

UNDERDRAIN

|         |                    | 310.0115<br>BASE<br>AGGREGATE<br>OPEN-GRADED | 612.0106<br>PIPE<br>UNDERDRAIN<br>6-INCH | 645.0111<br>GEOTEXTILE<br>TYPE DF<br>SCHEDULE A | REMARKS   |
|---------|--------------------|----------------------------------------------|------------------------------------------|-------------------------------------------------|-----------|
| STATION | LOCATION           | CY                                           | LF                                       | SY                                              |           |
| 70+55   | MARLEY ST - NB, RT | 5                                            | 30                                       | 29                                              | 4A - 4B   |
| 70+55   | MARLEY ST - SB, LT | 5                                            | 30                                       | 29                                              | 4C - 4D   |
| 71+58   | MARLEY ST - NB, RT | 3                                            | 20                                       | 19                                              | 5A        |
| 71+58   | MARLEY ST - SB, LT | 3                                            | 20                                       | 19                                              | 5B        |
| 75+05   | MARLEY ST - NB, RT | 5                                            | 30                                       | 29                                              | 7B - 7A   |
| 75+05   | MARLEY ST - SB, LT | 5                                            | 30                                       | 29                                              | 7D - 7C   |
| 75+50   | MARLEY ST - SB, LT | 3                                            | 20                                       | 19                                              | 7E        |
| 78+10   | MARLEY ST - SB, LT | 3                                            | 20                                       | 19                                              | 8A        |
| 81+00   | MARLEY ST - NB, RT | 3                                            | 20                                       | 19                                              | 9A        |
| 81+00   | MARLEY ST - SB, LT | 3                                            | 20                                       | 19                                              | 9B        |
| 83+05   | MARLEY ST - NB, RT | 5                                            | 30                                       | 29                                              | 10A - 10B |
| 83+05   | MARLEY ST - SB, LT | 5                                            | 30                                       | 29                                              | 10C - 10D |
| 86+55   | MARLEY ST - NB, RT | 5                                            | 30                                       | 29                                              | 11A - 11B |
| 86+55   | MARLEY ST - SB, LT | 5                                            | 30                                       | 29                                              | 11C - 11D |
| 91+05   | MARLEY ST - NB, RT | 5                                            | 30                                       | 29                                              | 14A - 14B |
| 91+05   | MARLEY ST - SB, LT | 5                                            | 30                                       | 29                                              | 14C - 14D |
| 92+45   | MARLEY ST - NB, RT | 3                                            | 20                                       | 19                                              | 15A       |
| 92+45   | MARLEY ST - SB, LT | 3                                            | 20                                       | 19                                              | 15B       |
| 95+79   | MARLEY ST - NB, RT | 3                                            | 20                                       | 19                                              | 17A       |
| 205+63  | GLENDALE AVE, RT   | 3                                            | 20                                       | 19                                              | 17        |
| 207+45  | GLENDALE AVE, RT   | 5                                            | 30                                       | 29                                              | 18A - 18B |
| 207+46  | GLENDALE AVE, LT   | 5                                            | 30                                       | 29                                              | 18C - 18D |
| 209+50  | GLENDALE AVE, RT   | 3                                            | 20                                       | 19                                              | 20A       |
| 209+50  | GLENDALE AVE, LT   | 3                                            | 20                                       | 1                                               | 20B       |
| TOTALS  |                    | 96                                           | 600                                      | 558                                             |           |

APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE

|           |         |          |              | *<br>522.1012 522.1018 522.2619 522.2624 522.2638<br>HORIZONTAL HORIZONTAL HORIZONTAL<br>ELLIPTICAL ELLIPTICAL ELLIPTICAL<br>12-INCH 18-INCH 19X30-INCH 24X38-INCH 38X60-INCH |      |      |      |      |
|-----------|---------|----------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------|------|
| STRUCTURE | STATION | OFFSET   | LOCATION     | EACH                                                                                                                                                                          | EACH | EACH | EACH | EACH |
| 13A       | 88+10   | 33.3' LT | MARLEY ST-SB | -                                                                                                                                                                             | 1    | -    | -    | -    |
| 22        | 97+44   | 60.3' RT | MARLEY ST-NB | 1                                                                                                                                                                             | -    | -    | -    | -    |
| 30        | 98+39   | 38.5' RT | MARLEY ST-NB | -                                                                                                                                                                             | -    | 1    | -    | -    |
| 33        | 101+23  | 31.1' RT | MARLEY ST-NB | -                                                                                                                                                                             | -    | 1    | -    | -    |
| 17B       | 205+78  | 48.3' RT | GLENDALE AVE | -                                                                                                                                                                             | -    | -    | 1    | -    |
| 53        | 412+86  | 0.0' RT  | STORM OUTLET | -                                                                                                                                                                             | -    | -    | -    | 1    |
| TOTALS    |         |          |              | 1                                                                                                                                                                             | 1    | 2    | 1    | 1    |

\* - ADDITIONAL QUANTITIES SHOWNS ELSEWHERE

| STORM SEWER PIPES |   |    |                |                                      |           |           |           |           |           |           |           |          |          |          |                   |                   |                  |         |
|-------------------|---|----|----------------|--------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|----------|----------|-------------------|-------------------|------------------|---------|
|                   |   |    |                | STORM SEWER PIPE REINFORCED CONCRETE |           |           |           |           |           |           |           |          |          |          |                   |                   |                  |         |
|                   |   |    |                | 608.0312                             | 608.0315  | 608.0318  | 608.0321  | 608.0324  | 608.0330  | 608.0336  | 608.0342  | 608.0412 | 608.0415 | 608.0418 | 608.2319          | 608.2338          | 608.2424         | REMARKS |
|                   |   |    |                | CLASS III                            | CLASS III | CLASS III | CLASS III | CLASS III | CLASS III | CLASS III | CLASS III | CLASS IV | CLASS IV | CLASS IV | HORIZONTAL        | HORIZONTAL        | HORIZONTAL       |         |
| FROM              | - | TO | LOCATION       | 12-INCH                              | 15-INCH   | 18-INCH   | 21-INCH   | 24-INCH   | 30-INCH   | 36-INCH   | 42-INCH   | 12-INCH  | 15-INCH  | 18-INCH  | ELLIPTICAL CLASS  | ELLIPTICAL CLASS  | ELLIPTICAL CLASS |         |
|                   |   |    |                | LF                                   | LF        | LF        | LF        | LF        | LF        | LF        | LF        | LF       | LF       | LF       | HE-III 19X30-INCH | HE-III 38X60-INCH | HE-IV 24X38-INCH |         |
| 1                 | - | 2  | MARLEY ST - NB | -                                    | -         | 119       | -         | -         | -         | -         | -         | -        | -        | -        | -                 | -                 | -                | -       |
| 1A                | - | 1  | MARLEY ST - NB | -                                    | -         | -         | -         | -         | -         | -         | -         | 77       | -        | -        | -                 | -                 | -                | -       |
| 1B                | - | 1  | MARLEY ST - NB | 56                                   | -         | -         | -         | -         | -         | -         | -         | -        | -        | -        | -                 | -                 | -                | -       |
| 2                 | - | 3  | MARLEY ST - NB | -                                    | -         | -         | -         | 150       | -         | -         | -         | -        | -        | -        | -                 | -                 | -                | -       |
| 2A                | - | 2  | MARLEY ST - NB | -                                    | -         | -         | -         | -         | -         | -         | -         | -        | 85       | -        | -                 | -                 | -                | -       |
| 3                 | - | 4  | MARLEY ST - NB | -                                    | -         | -         | -         | 125       | -         | -         | -         | -        | -        | -        | -                 | -                 | -                | -       |
| 3                 | - | 3A | MARLEY ST - NB | -                                    | -         | 20        | -         | -         | -         | -         | -         | -        | -        | -        | -                 | -                 | -                | -       |
| 4                 | - | 5  | MARLEY ST - NB | -                                    | -         | -         | -         | 108       | -         | -         | -         | -        | -        | -        | -                 | -                 | -                | -       |
| 4A                | - | 4  | MARLEY ST - NB | -                                    | -         | -         | -         | -         | -         | -         | -         | -        | 7        | -        | -                 | -                 | -                | -       |
| 4B                | - | 4A | MARLEY ST - NB | -                                    | -         | -         | -         | -         | -         | -         | -         | 10       | -        | -        | -                 | -                 | -                | -       |
| 4C                | - | 4A | MARLEY ST - NB | -                                    | -         | -         | -         | -         | -         | -         | -         | -        | 55       | -        | -                 | -                 | -                | -       |
| 4D                | - | 4C | MARLEY ST - SB | -                                    | -         | -         | -         | -         | -         | -         | -         | 10       | -        | -        | -                 | -                 | -                | -       |
| 5                 | - | 6  | MARLEY ST - NB | -                                    | -         | -         | -         | 192       | -         | -         | -         | -        | -        | -        | -                 | -                 | -                | -       |
| 5A                | - | 5  | MARLEY ST - NB | -                                    | -         | -         | -         | -         | -         | -         | -         | -        | 7        | -        | -                 | -                 | -                | -       |
| 5B                | - | 5A | MARLEY ST - NB | -                                    | -         | -         | -         | -         | -         | -         | -         | -        | 55       | -        | -                 | -                 | -                | -       |
| 5C                | - | 5B | MARLEY ST - SB | 25                                   | -         | -         | -         | -         | -         | -         | -         | -        | -        | -        | -                 | -                 | -                | -       |
| 5D                | - | 5C | MARLEY ST - NB | 29                                   | -         | -         | -         | -         | -         | -         | -         | -        | -        | -        | -                 | -                 | -                | -       |
| 5E                | - | 5D | MARLEY ST - NB | 29                                   | -         | -         | -         | -         | -         | -         | -         | -        | -        | -        | -                 | -                 | -                | -       |
| 6                 | - | 7  | MARLEY ST - NB | -                                    | -         | -         | -         | -         | 170       | -         | -         | -        | -        | -        | -                 | -                 | -                | -       |
| 6                 | - | 6B | MARLEY ST - NB | 25                                   | -         | -         | -         | -         | -         | -         | -         | -        | -        | -        | -                 | -                 | -                | -       |
| 6A                | - | 6  | MARLEY ST - NB | -                                    | -         | -         | -         | -         | -         | -         | -         | 93       | -        | -        | -                 | -                 | -                | -       |
| 7                 | - | 50 | MARLEY ST - NB | -                                    | -         | -         | -         | -         | -         | -         | -         | -        | -        | -        | -                 | 315               | -                | -       |
| 7B                | - | 7A | MARLEY ST - NB | -                                    | -         | -         | -         | -         | -         | -         | -         | 10       | -        | -        | -                 | -                 | -                | -       |
| 7A                | - | 7  | MARLEY ST - NB | -                                    | -         | -         | -         | -         | -         | -         | -         | -        | 12       | -        | -                 | -                 | -                | -       |
| 7D                | - | 7C | MARLEY ST - SB | -                                    | -         | -         | -         | -         | -         | -         | -         | 10       | -        | -        | -                 | -                 | -                | -       |
| 7C                | - | 7A | MARLEY ST - NB | -                                    | -         | -         | -         | -         | -         | -         | -         | -        | 55       | -        | -                 | -                 | -                | -       |
| 7E                | - | 7C | MARLEY ST - SB | -                                    | -         | -         | -         | -         | -         | -         | -         | 40       | -        | -        | -                 | -                 | -                | -       |
| 7F                | - | 7E | MARLEY ST - SB | 21                                   | -         | -         | -         | -         | -         | -         | -         | -        | -        | -        | -                 | -                 | -                | -       |
| 7G                | - | 7  | MARLEY ST - NB | 34                                   | -         | -         | -         | -         | -         | -         | -         | -        | -        | -        | -                 | -                 | -                | -       |
| 8                 | - | 7  | MARLEY ST - NB | -                                    | -         | -         | -         | -         | -         | -         | 290       | -        | -        | -        | -                 | -                 | -                | -       |
| 8A                | - | 8  | MARLEY ST - NB | -                                    | -         | -         | -         | -         | -         | -         | -         | 64       | -        | -        | -                 | -                 | -                | -       |
| 9                 | - | 8  | MARLEY ST - NB | -                                    | -         | -         | -         | -         | -         | -         | 290       | -        | -        | -        | -                 | -                 | -                | -       |
| 9A                | - | 9  | MARLEY ST - NB | -                                    | -         | -         | -         | -         | -         | -         | -         | 6        | -        | -        | -                 | -                 | -                | -       |
| 9B                | - | 9A | MARLEY ST - NB | -                                    | -         | -         | -         | -         | -         | -         | -         | 55       | -        | -        | -                 | -                 | -                | -       |
| 10                | - | 9  | MARLEY ST - NB | -                                    | -         | -         | -         | -         | -         | -         | 200       | -        | -        | -        | -                 | -                 | -                | -       |

STORM SEWER PIPES (CONTINUED)

|      |   |     |                | STORM SEWER PIPE REINFORCED CONCRETE |                            |                            |                            |                            |                            |                            |                            |                           |                           |                           |                                                           |                                                           |                                                          |          |  |
|------|---|-----|----------------|--------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|---------------------------|---------------------------|---------------------------|-----------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------|----------|--|
|      |   |     |                |                                      |                            |                            |                            |                            |                            |                            |                            |                           |                           |                           |                                                           |                                                           |                                                          |          |  |
|      |   |     |                | 608.0312                             | 608.0315                   | 608.0318                   | 608.0321                   | 608.0324                   | 608.0330                   | 608.0336                   | 608.0342                   | 608.0412                  | 608.0415                  | 608.0418                  | 608.2319                                                  | 608.2338                                                  |                                                          | 608.2424 |  |
| FROM | - | TO  | LOCATION       | CLASS III<br>12-INCH<br>LF           | CLASS III<br>15-INCH<br>LF | CLASS III<br>18-INCH<br>LF | CLASS III<br>21-INCH<br>LF | CLASS III<br>24-INCH<br>LF | CLASS III<br>30-INCH<br>LF | CLASS III<br>36-INCH<br>LF | CLASS III<br>42-INCH<br>LF | CLASS IV<br>12-INCH<br>LF | CLASS IV<br>15-INCH<br>LF | CLASS IV<br>18-INCH<br>LF | HORIZONTAL<br>ELLIPTICAL CLASS<br>HE-III 19X30-INCH<br>LF | HORIZONTAL<br>ELLIPTICAL CLASS<br>HE-III 38X60-INCH<br>LF | HORIZONTAL<br>ELLIPTICAL CLASS<br>HE-IV 24X38-INCH<br>LF | REMARKS  |  |
| 10E  | - | 10  | MARLEY ST - NB | -                                    | 18                         | -                          | -                          | -                          | -                          | -                          | -                          | -                         | -                         | -                         | -                                                         | -                                                         | -                                                        | -        |  |
| 10A  | - | 10  | MARLEY ST - NB | -                                    | -                          | -                          | -                          | -                          | -                          | -                          | -                          | -                         | 7                         | -                         | -                                                         | -                                                         | -                                                        | -        |  |
| 10B  | - | 10A | MARLEY ST - NB | -                                    | -                          | -                          | -                          | -                          | -                          | -                          | -                          | 10                        | -                         | -                         | -                                                         | -                                                         | -                                                        | -        |  |
| 10C  | - | 10A | MARLEY ST - NB | -                                    | -                          | -                          | -                          | -                          | -                          | -                          | -                          | -                         | 55                        | -                         | -                                                         | -                                                         | -                                                        | -        |  |
| 10D  | - | 10C | MARLEY ST - SB | -                                    | -                          | -                          | -                          | -                          | -                          | -                          | -                          | 10                        | -                         | -                         | -                                                         | -                                                         | -                                                        | -        |  |
| 11   | - | 10  | MARLEY ST - NB | -                                    | -                          | -                          | -                          | -                          | -                          | -                          | 350                        | -                         | -                         | -                         | -                                                         | -                                                         | -                                                        | -        |  |
| 11A  | - | 11  | MARLEY ST - NB | -                                    | -                          | -                          | -                          | -                          | -                          | -                          | -                          | -                         | 7                         | -                         | -                                                         | -                                                         | -                                                        | -        |  |
| 11B  | - | 11A | MARLEY ST - NB | -                                    | -                          | -                          | -                          | -                          | -                          | -                          | -                          | 10                        | -                         | -                         | -                                                         | -                                                         | -                                                        | -        |  |
| 11C  | - | 11A | MARLEY ST - NB | -                                    | -                          | -                          | -                          | -                          | -                          | -                          | -                          | -                         | 55                        | -                         | -                                                         | -                                                         | -                                                        | -        |  |
| 11D  | - | 11C | MARLEY ST - SB | -                                    | -                          | -                          | -                          | -                          | -                          | -                          | -                          | 10                        | -                         | -                         | -                                                         | -                                                         | -                                                        | -        |  |
| 12   | - | 11  | MARLEY ST - NB | -                                    | -                          | -                          | -                          | -                          | -                          | -                          | 167                        | -                         | -                         | -                         | -                                                         | -                                                         | -                                                        | -        |  |
| 12A  | - | 12  | MARLEY ST - NB | -                                    | -                          | 21                         | -                          | -                          | -                          | -                          | -                          | -                         | -                         | -                         | -                                                         | -                                                         | -                                                        | ***      |  |
| 13   | - | 12  | MARLEY ST - NB | -                                    | -                          | -                          | -                          | -                          | -                          | -                          | -                          | -                         | -                         | 72                        | -                                                         | -                                                         | -                                                        | ***      |  |
| 13A  | - | 13  | MARLEY ST - SB | -                                    | -                          | -                          | -                          | -                          | -                          | -                          | -                          | -                         | -                         | 5                         | -                                                         | -                                                         | -                                                        | ***      |  |
| 14   | - | 12  | MARLEY ST - NB | -                                    | -                          | -                          | -                          | -                          | -                          | -                          | 284                        | -                         | -                         | -                         | -                                                         | -                                                         | -                                                        | ***      |  |
| 14A  | - | 14  | MARLEY ST - NB | -                                    | -                          | -                          | -                          | -                          | -                          | -                          | -                          | -                         | 7                         | -                         | -                                                         | -                                                         | -                                                        | ***      |  |
| 14B  | - | 14A | MARLEY ST - NB | -                                    | -                          | -                          | -                          | -                          | -                          | -                          | -                          | 10                        | -                         | -                         | -                                                         | -                                                         | -                                                        | ***      |  |
| 14C  | - | 14A | MARLEY ST - NB | -                                    | -                          | -                          | -                          | -                          | -                          | -                          | -                          | -                         | 49                        | -                         | -                                                         | -                                                         | -                                                        | ***      |  |
| 14D  | - | 14C | MARLEY ST - SB | -                                    | -                          | -                          | -                          | -                          | -                          | -                          | -                          | 10                        | -                         | -                         | -                                                         | -                                                         | -                                                        | ***      |  |
| 14E  | - | 14  | MARLEY ST - NB | 18                                   | -                          | -                          | -                          | -                          | -                          | -                          | -                          | -                         | -                         | -                         | -                                                         | -                                                         | -                                                        | ***      |  |
| 15   | - | 14  | MARLEY ST - NB | -                                    | -                          | -                          | -                          | -                          | -                          | 144                        | -                          | -                         | -                         | -                         | -                                                         | -                                                         | -                                                        | ***      |  |
| 15A  | - | 15  | MARLEY ST - NB | -                                    | -                          | -                          | -                          | -                          | -                          | -                          | -                          | 6                         | -                         | -                         | -                                                         | -                                                         | -                                                        | ***      |  |
| 15B  | - | 15A | MARLEY ST - NB | -                                    | -                          | -                          | -                          | -                          | -                          | -                          | -                          | 47                        | -                         | -                         | -                                                         | -                                                         | -                                                        | ***      |  |
| 15C  | - | 15  | MARLEY ST - NB | 18                                   | -                          | -                          | -                          | -                          | -                          | -                          | -                          | -                         | -                         | -                         | -                                                         | -                                                         | -                                                        | ***      |  |
| 15   | - | 16  | MARLEY ST - NB | -                                    | -                          | -                          | -                          | -                          | -                          | 245                        | -                          | -                         | -                         | -                         | -                                                         | -                                                         | -                                                        | ***      |  |
| 16   | - | 17  | MARLEY ST - NB | -                                    | -                          | -                          | -                          | -                          | -                          | 53                         | -                          | -                         | -                         | -                         | -                                                         | -                                                         | -                                                        | ***      |  |
| 16A  | - | 16  | MARLEY ST - NB | 22                                   | -                          | -                          | -                          | -                          | -                          | -                          | -                          | -                         | -                         | -                         | -                                                         | -                                                         | -                                                        | ***      |  |
| 17   | - | 18  | MARLEY ST - NB | -                                    | -                          | -                          | -                          | 171                        | -                          | -                          | -                          | -                         | -                         | -                         | -                                                         | -                                                         | -                                                        | ***      |  |
| 17A  | - | 17  | MARLEY ST - NB | -                                    | -                          | -                          | -                          | -                          | -                          | -                          | -                          | -                         | -                         | -                         | -                                                         | -                                                         | 53                                                       | ***      |  |
| 17B  | - | 17A | MARLEY ST - NB | -                                    | -                          | -                          | -                          | -                          | -                          | -                          | -                          | -                         | -                         | -                         | -                                                         | -                                                         | 23                                                       | ***      |  |
| 18   | - | 19  | MARLEY ST - NB | -                                    | -                          | -                          | 136                        | -                          | -                          | -                          | -                          | -                         | -                         | -                         | -                                                         | -                                                         | -                                                        | ***      |  |
| 18A  | - | 18  | GLENDALE AVE   | -                                    | -                          | -                          | -                          | -                          | -                          | -                          | -                          | -                         | -                         | 7                         | -                                                         | -                                                         | -                                                        | ***      |  |
| 18B  | - | 18A | GLENDALE AVE   | -                                    | -                          | -                          | -                          | -                          | -                          | -                          | -                          | 10                        | -                         | -                         | -                                                         | -                                                         | -                                                        | ***      |  |
| 18C  | - | 18A | GLENDALE AVE   | -                                    | -                          | -                          | -                          | -                          | -                          | -                          | -                          | -                         | 44                        | -                         | -                                                         | -                                                         | -                                                        | ***      |  |
| 18D  | - | 18C | GLENDALE AVE   | -                                    | -                          | -                          | -                          | -                          | -                          | -                          | -                          | 10                        | -                         | -                         | -                                                         | -                                                         | -                                                        | ***      |  |

STORM SEWER PIPES (CONTINUED)

| FROM - TO |           |           |                | STORM SEWER PIPE REINFORCED CONCRETE |           |           |           |           |           |          |                   |                   |                  |          |          |          | REMARKS |
|-----------|-----------|-----------|----------------|--------------------------------------|-----------|-----------|-----------|-----------|-----------|----------|-------------------|-------------------|------------------|----------|----------|----------|---------|
|           |           |           |                |                                      |           |           |           |           |           |          |                   |                   |                  |          |          |          |         |
|           |           |           |                | 608.0312                             | 608.0315  | 608.0318  | 608.0321  | 608.0324  | 608.0330  | 608.0336 | 608.0342          | 608.0412          | 608.0415         | 608.0418 | 608.2319 | 608.2338 |         |
| CLASS III | CLASS III | CLASS III | CLASS III      | CLASS III                            | CLASS III | CLASS III | CLASS III | CLASS III | CLASS III | CLASS IV | CLASS IV          | CLASS IV          | 608.2319         | 608.2338 | 608.2424 |          |         |
| 12-INCH   | 15-INCH   | 18-INCH   | 21-INCH        | 24-INCH                              | 30-INCH   | 36-INCH   | 42-INCH   | 12-INCH   | 15-INCH   | 18-INCH  | HE-III 19X30-INCH | HE-III 38X60-INCH | HE-IV 24X38-INCH |          |          |          |         |
| LF        | LF        | LF        | LF             | LF                                   | LF        | LF        | LF        | LF        | LF        | LF       | LF                | LF                | LF               | LF       | LF       |          |         |
| 18E       | -         | 18        | GLENDALE AVE   | -                                    | 21        | -         | -         | -         | -         | -        | -                 | -                 | -                | -        | -        | ***      |         |
| 19A       | -         | 19        | GLENDALE AVE   | -                                    | -         | 26        | -         | -         | -         | -        | -                 | -                 | -                | -        | -        | ***      |         |
| 19        | -         | 20        | GLENDALE AVE   | -                                    | -         | -         | -         | -         | -         | -        | -                 | -                 | 74               | -        | -        | ***      |         |
| 20A       | -         | 20        | GLENDALE AVE   | -                                    | -         | -         | -         | -         | -         | -        | 6                 | -                 | -                | -        | -        | ***      |         |
| 20B       | -         | 20A       | GLENDALE AVE   | -                                    | -         | -         | -         | -         | -         | -        | 37                | -                 | -                | -        | -        | ***      |         |
| 20C       | -         | 20        | GLENDALE AVE   | 93                                   | -         | -         | -         | -         | -         | -        | -                 | -                 | -                | -        | -        | ***      |         |
| 21        | -         | 22        | MARLEY ST - NB | -                                    | -         | -         | -         | -         | -         | -        | 117               | -                 | -                | -        | -        | ***      |         |
| 30        | -         | 31        | MARLEY ST - NB | -                                    | -         | -         | -         | -         | -         | -        | -                 | -                 | -                | 10       | -        | ***      |         |
| 31        | -         | 32        | MARLEY ST - NB | -                                    | -         | -         | -         | -         | -         | -        | -                 | -                 | -                | 141      | -        | ***      |         |
| 32        | -         | 33        | MARLEY ST - NB | -                                    | -         | -         | -         | -         | -         | -        | -                 | -                 | -                | 137      | -        | ***      |         |
| 50        | -         | 51        | STORM OUTLET   | -                                    | -         | -         | -         | -         | -         | -        | -                 | -                 | -                | -        | 316      | -        |         |
| 51        | -         | 52        | STORM OUTLET   | -                                    | -         | -         | -         | -         | -         | -        | -                 | -                 | -                | -        | 316      | -        |         |
| 52        | -         | 53        | STORM OUTLET   | -                                    | -         | -         | -         | -         | -         | -        | -                 | -                 | -                | -        | 314      | -        |         |
| TOTALS    |           |           |                | 370                                  | 39        | 186       | 136       | 746       | 170       | 442      | 1,581             | 668               | 500              | 158      | 288      | 1,261    | 76      |

\*\*\* TRACER WIRE REQUIRED

STORM LATERALS

| STORM LATERAL 4-INCH<br>SPV.0090.01 |          |                |     |
|-------------------------------------|----------|----------------|-----|
| STATION                             | LOCATION |                | LF  |
| 65+96                               | RT       | MARLEY ST - NB | 27  |
| 66+01                               | LT       | MARLEY ST - NB | 77  |
| 66+94                               | LT       | MARLEY ST - NB | 82  |
| 68+23                               | LT       | MARLEY ST - NB | 83  |
| 69+03                               | LT       | MARLEY ST - NB | 83  |
| 70+43                               | LT       | MARLEY ST - NB | 30  |
| 71+26                               | RT       | MARLEY ST - NB | 18  |
| 72+12                               | RT       | MARLEY ST - NB | 18  |
| 72+32                               | LT       | MARLEY ST - NB | 93  |
| 73+72                               | RT       | MARLEY ST - NB | 18  |
| 74+40                               | LT       | MARLEY ST - NB | 85  |
| 78+97                               | LT       | MARLEY ST - NB | 85  |
| 92+45                               | RT       | MARLEY ST - NB | 8   |
| 93+88                               | RT       | MARLEY ST - NB | 9   |
| 206+94                              | RT       | GLENDAL AVE    | 18  |
| 207+59                              | RT       | GLENDAL AVE    | 21  |
| 209+50                              | LT       | GLENDAL AVE    | 29  |
| 210+48                              | RT       | GLENDAL AVE    | 21  |
| 210+78                              | LT       | GLENDAL AVE    | 74  |
| TOTAL                               |          |                | 879 |

NOTE: LOCATIONS SUBJECT TO CHANGE BASED ON FIELD CONDITIONS

3

| STORM SEWER STRUCTURES |         |          |              |                        |                |                |                |                  |                 |                          |                          |                          |                          |                          |                           |                          |                          |                          |                |                           |                           |         |
|------------------------|---------|----------|--------------|------------------------|----------------|----------------|----------------|------------------|-----------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---------------------------|--------------------------|--------------------------|--------------------------|----------------|---------------------------|---------------------------|---------|
| STRUCTURE              | STATION | OFFSET   | LOCATION     | MANHOLE COVERS         |                | INLET COVERS   |                |                  |                 | MANHOLES                 |                          |                          |                          |                          |                           | INLETS                   |                          |                          |                |                           |                           | REMARKS |
|                        |         |          |              | 611.0535               | 611.0545       | 611.0612       | 611.0624       | 611.0639         | 611.0642        | 611.2004                 | 611.2005                 | 611.2006                 | 611.2007                 | 611.2008                 | SPV.0060.01               | 611.3003                 | SPV.0060.02              | SPV.0060.03              | 611.3230       | 611.3901                  | 611.3902                  |         |
|                        |         |          |              | TYPE J-SPECIAL<br>EACH | TYPE L<br>EACH | TYPE C<br>EACH | TYPE H<br>EACH | TYPE H-S<br>EACH | TYPE MS<br>EACH | 4-FT<br>DIAMETER<br>EACH | 5-FT<br>DIAMETER<br>EACH | 6-FT<br>DIAMETER<br>EACH | 7-FT<br>DIAMETER<br>EACH | 8-FT<br>DIAMETER<br>EACH | 10-FT<br>DIAMETER<br>EACH | 3-FT<br>DIAMETER<br>EACH | 5-FT<br>DIAMETER<br>EACH | 6-FT<br>DIAMETER<br>EACH | 2X3-FT<br>EACH | MEDIAN 1<br>GRATE<br>EACH | MEDIAN 2<br>GRATE<br>EACH |         |
| 1                      | 66+56   | 23.0' RT | MARLEY ST-NB | 1                      | -              | -              | -              | -                | -               | 1                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | -              | -                         | -                         |         |
| 1A                     | 66+56   | 38.3' LT | MARLEY ST-SB | -                      | -              | 1              | -              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | 1                        | -                        | -                        | -              | -                         | -                         |         |
| 1B                     | 66+00   | 23.0' RT | MARLEY ST-NB | 1                      | -              | -              | -              | -                | -               | 1                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | -              | -                         | -                         |         |
| 2                      | 67+75   | 23.0' RT | MARLEY ST-NB | 1                      | -              | -              | -              | -                | -               | 1                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | -              | -                         | -                         |         |
| 2A                     | 67+75   | 45.5' LT | MARLEY ST-SB | -                      | -              | 1              | -              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | 1                        | -                        | -                        | -              | -                         | -                         |         |
| 3                      | 69+25   | 23.0' RT | MARLEY ST-NB | 1                      | -              | -              | -              | -                | -               | 1                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | -              | -                         | -                         |         |
| 3A                     | 69+25   | 42.7' RT | MARLEY ST-NB | -                      | -              | -              | -              | -                | 1               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | 1              | -                         | -                         |         |
| 4                      | 70+50   | 24.0' RT | MARLEY ST-NB | 1                      | -              | -              | -              | -                | -               | 1                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | -              | -                         | -                         |         |
| 4A                     | 70+50   | 17.5' RT | MARLEY ST-NB | -                      | -              | -              | -              | 1                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | 1              | -                         | -                         |         |
| 4B                     | 70+60   | 17.5' RT | MARLEY ST-NB | -                      | -              | -              | 1              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | 1              | -                         | -                         |         |
| 4C                     | 70+50   | 17.5' LT | MARLEY ST-SB | -                      | -              | -              | -              | 1                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | 1              | -                         | -                         |         |
| 4D                     | 70+60   | 17.5' LT | MARLEY ST-NB | -                      | -              | -              | 1              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | 1              | -                         | -                         |         |
| 5                      | 71+58   | 24.0' RT | MARLEY ST-NB | 1                      | -              | -              | -              | -                | -               | 1                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | -              | -                         | -                         |         |
| 5A                     | 71+58   | 17.5' RT | MARLEY ST-NB | -                      | -              | -              | 1              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | 1              | -                         | -                         |         |
| 5B                     | 71+58   | 17.5' LT | MARLEY ST-SB | -                      | -              | -              | 1              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | 1              | -                         | -                         |         |
| 5C                     | 71+58   | 43.0' LT | MARLEY ST-SB | -                      | -              | 1              | -              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | 1                        | -                        | -                        | -              | -                         | -                         |         |
| 5D                     | 299+33  | 14.5' LT | FUTURE RD    | -                      | -              | -              | 1              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | 1              | -                         | -                         |         |
| 5E                     | 299+33  | 14.5' RT | FUTURE RD    | -                      | -              | -              | 1              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | 1              | -                         | -                         |         |
| 6                      | 73+50   | 24.0' RT | MARLEY ST-NB | 1                      | -              | -              | -              | -                | -               | -                        | 1                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | -              | -                         | -                         |         |
| 6A                     | 73+26   | 46.0' LT | MARLEY ST-SB | -                      | -              | 1              | -              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | 1                        | -                        | -                        | -              | -                         | -                         |         |
| 6B                     | 73+61   | 46.0' RT | MARLEY ST-NB | -                      | -              | -              | -              | -                | 1               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | -              | 1                         | -                         |         |
| 7                      | 75+20   | 24.0' RT | MARLEY ST-NB | 1                      | -              | -              | -              | -                | -               | -                        | -                        | -                        | -                        | -                        | 1                         | -                        | -                        | -                        | -              | -                         | -                         |         |
| 7A                     | 75+10   | 17.5' RT | MARLEY ST-NB | -                      | -              | -              | 1              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | 1              | -                         | -                         |         |
| 7B                     | 75+00   | 17.5' RT | MARLEY ST-NB | -                      | -              | -              | -              | 1                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | 1              | -                         | -                         |         |
| 7C                     | 75+10   | 17.5' LT | MARLEY ST-SB | -                      | -              | -              | 1              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | 1              | -                         | -                         |         |
| 7D                     | 75+00   | 17.5' LT | MARLEY ST-SB | -                      | -              | -              | -              | 1                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | 1              | -                         | -                         |         |
| 7E                     | 75+50   | 17.5' LT | MARLEY ST-SB | -                      | -              | -              | 1              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | 1              | -                         | -                         |         |
| 7F                     | 75+50   | 38.0' LT | MARLEY ST-SB | -                      | -              | 1              | -              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | 1                        | -                        | -                        | -              | -                         | -                         |         |
| 7G                     | 74+93   | 45.2' RT | MARLEY ST-NB | -                      | -              | -              | -              | -                | 1               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | 1              | -                         | -                         |         |
| 8                      | 78+10   | 26.1' RT | MARLEY ST-NB | -                      | -              | -              | 1              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | 1                        | -              | -                         | -                         |         |
| 8A                     | 78+10   | 17.5' LT | MARLEY ST-SB | -                      | -              | -              | 1              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | 1              | -                         | -                         |         |
| 9                      | 81+00   | 24.0' RT | MARLEY ST-NB | 1                      | -              | -              | -              | -                | -               | -                        | -                        | 1                        | -                        | -                        | -                         | -                        | -                        | -                        | -              | -                         | -                         |         |
| 9A                     | 81+00   | 17.5' RT | MARLEY ST-NB | -                      | -              | -              | 1              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | 1              | -                         | -                         |         |
| 9B                     | 81+00   | 17.5' LT | MARLEY ST-SB | -                      | -              | -              | 1              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | 1              | -                         | -                         |         |
| 10                     | 83+00   | 24.0' RT | MARLEY ST-NB | 1                      | -              | -              | -              | -                | -               | -                        | -                        | 1                        | -                        | -                        | -                         | -                        | -                        | -                        | -              | -                         | -                         |         |
| 10A                    | 83+00   | 17.5' RT | MARLEY ST-NB | -                      | -              | -              | -              | 1                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | 1              | -                         | -                         |         |
| 10B                    | 83+10   | 17.5' RT | MARLEY ST-NB | -                      | -              | -              | 1              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | 1              | -                         | -                         |         |
| 10C                    | 83+00   | 17.5' LT | MARLEY ST-SB | -                      | -              | -              | -              | 1                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | 1              | -                         | -                         |         |
| 10D                    | 83+10   | 17.5' LT | MARLEY ST-SB | -                      | -              | -              | 1              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | 1              | -                         | -                         |         |
| 10E                    | 83+00   | 42.0' RT | MARLEY ST-NB | -                      | -              | -              | -              | -                | 1               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | 1              | -                         | -                         |         |

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| STORM SEWER STRUCTURES (CONTINUED)                                                                             |         |          |                |                        |                |                |                |                  |                 |                          |                          |                          |                          |                          |                           |                          |                          |                          |                |                           |                           |         |
|----------------------------------------------------------------------------------------------------------------|---------|----------|----------------|------------------------|----------------|----------------|----------------|------------------|-----------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---------------------------|--------------------------|--------------------------|--------------------------|----------------|---------------------------|---------------------------|---------|
| STRUCTURE                                                                                                      | STATION | OFFSET   | LOCATION       | MANHOLE COVERS         |                | INLET COVERS   |                |                  |                 | MANHOLES                 |                          |                          |                          |                          |                           | INLETS                   |                          |                          |                |                           |                           | REMARKS |
|                                                                                                                |         |          |                | 611.0535               | 611.0545       | 611.0612       | 611.0624       | 611.0639         | 611.0642        | 611.2004                 | 611.2005                 | 611.2006                 | 611.2007                 | 611.2008                 | SPV.0060.01               | 611.3003                 | SPV.0060.02              | SPV.0060.03              | 611.3230       | 611.3901                  | 611.3902                  |         |
|                                                                                                                |         |          |                | TYPE J-SPECIAL<br>EACH | TYPE L<br>EACH | TYPE C<br>EACH | TYPE H<br>EACH | TYPE H-S<br>EACH | TYPE MS<br>EACH | 4-FT<br>DIAMETER<br>EACH | 5-FT<br>DIAMETER<br>EACH | 6-FT<br>DIAMETER<br>EACH | 7-FT<br>DIAMETER<br>EACH | 8-FT<br>DIAMETER<br>EACH | 10-FT<br>DIAMETER<br>EACH | 3-FT<br>DIAMETER<br>EACH | 5-FT<br>DIAMETER<br>EACH | 6-FT<br>DIAMETER<br>EACH | 2X3-FT<br>EACH | MEDIAN 1<br>GRATE<br>EACH | MEDIAN 2<br>GRATE<br>EACH |         |
| 11                                                                                                             | 86+50   | 24.0' RT | MARLEY ST -NB  | 1                      | -              | -              | -              | -                | -               | -                        | -                        | 1                        | -                        | -                        | -                         | -                        | -                        | -                        | -              | -                         | -                         |         |
| 11A                                                                                                            | 86+50   | 17.5' RT | MARLEY ST -NB  | -                      | -              | -              | -              | 1                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | 1                        | -              | -                         | -                         |         |
| 11B                                                                                                            | 86+60   | 17.5' RT | MARLEY ST -NB  | -                      | -              | -              | 1              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | 1                        | -              | -                         | -                         |         |
| 11C                                                                                                            | 86+50   | 17.5' LT | MARLEY ST -SB  | -                      | -              | -              | -              | 1                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | 1                        | -              | -                         | -                         |         |
| 11D                                                                                                            | 86+60   | 17.5' LT | MARLEY ST -SB  | -                      | -              | -              | 1              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | 1                        | -              | -                         | -                         |         |
| 12                                                                                                             | 88+17   | 23.0' RT | MARLEY ST -NB  | 1                      | -              | -              | -              | -                | -               | -                        | -                        | 1                        | -                        | -                        | -                         | -                        | -                        | -                        | -              | -                         | -                         |         |
| 12A                                                                                                            | 88+18   | 43.5' RT | MARLEY ST -NB  | -                      | -              | -              | -              | -                | 1               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | 1              | -                         | -                         |         |
| 13                                                                                                             | 88+11   | 28.6' LT | MARLEY ST -SB  | 1                      | -              | -              | -              | -                | -               | 1                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | -              | -                         | -                         |         |
| 14                                                                                                             | 91+00   | 24.0' RT | MARLEY ST -NB  | -                      | 1              | -              | -              | -                | -               | -                        | -                        | 1                        | -                        | -                        | -                         | -                        | -                        | -                        | -              | -                         | -                         |         |
| 14A                                                                                                            | 91+00   | 17.5' RT | MARLEY ST -NB  | -                      | -              | -              | -              | 1                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | 1                        | -              | -                         | -                         |         |
| 14B                                                                                                            | 91+10   | 17.5' RT | MARLEY ST -NB  | -                      | -              | -              | 1              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | 1                        | -              | -                         | -                         |         |
| 14C                                                                                                            | 91+00   | 17.5' LT | MARLEY ST -SB  | -                      | -              | -              | -              | 1                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | 1                        | -              | -                         | -                         |         |
| 14D                                                                                                            | 91+10   | 17.5' LT | MARLEY ST -SB  | -                      | -              | -              | 1              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | 1                        | -              | -                         | -                         |         |
| 14E                                                                                                            | 91+00   | 42.2' RT | MARLEY ST -NB  | -                      | -              | 1              | -              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | 1                        | -                        | -                        | -              | -                         | -                         |         |
| 15                                                                                                             | 92+45   | 23.0' RT | MARLEY ST -SB  | 1                      | -              | -              | -              | -                | -               | -                        | 1                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | -              | -                         | -                         |         |
| 15A                                                                                                            | 92+45   | 17.5' RT | MARLEY ST -NB  | -                      | -              | -              | 1              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | 1                        | -              | -                         | -                         |         |
| 15B                                                                                                            | 92+45   | 17.5' LT | MARLEY ST -SB  | -                      | -              | -              | 1              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | 1                        | -              | -                         | -                         |         |
| 15C                                                                                                            | 92+45   | 41.4' RT | MARLEY ST -NB  | -                      | -              | 1              | -              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | 1                        | -                        | -                        | -              | -                         | -                         |         |
| 16                                                                                                             | 94+90   | 26.0' RT | MARLEY ST -NB  | 1                      | -              | -              | -              | -                | -               | -                        | -                        | -                        | 1                        | -                        | -                         | -                        | -                        | -                        | -              | -                         | -                         |         |
| 16A                                                                                                            | 94+85   | 47.6' RT | MARLEY ST -NB  | -                      | -              | 1              | -              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | 1                        | -                        | -                        | -              | -                         | -                         |         |
| 17                                                                                                             | 205+63  | 25.2' RT | GLENDALE AVE   | -                      | -              | -              | 1              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | 1                        | -              | -                         | -                         |         |
| 17A                                                                                                            | 95+80   | 72.7' RT | MARLEY ST -NB  | -                      | -              | -              | 1              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | 1                        | -                        | -              | -                         | -                         |         |
| 18                                                                                                             | 207+37  | 25.0' RT | GLENDALE AVE   | 1                      | -              | -              | -              | -                | -               | -                        | 1                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | -              | -                         | -                         |         |
| 18A                                                                                                            | 207+40  | 18.5' RT | GLENDALE AVE   | -                      | -              | -              | 1              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | 1                        | -              | -                         | -                         |         |
| 18B                                                                                                            | 207+50  | 18.5' RT | GLENDALE AVE   | -                      | -              | -              | -              | 1                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | 1                        | -              | -                         | -                         |         |
| 18C                                                                                                            | 207+41  | 25.4' LT | GLENDALE AVE   | -                      | -              | -              | 1              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | 1                        | -              | -                         | -                         |         |
| 18D                                                                                                            | 207+51  | 24.7' LT | GLENDALE AVE   | -                      | -              | -              | -              | 1                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | 1                        | -              | -                         | -                         |         |
| 18E                                                                                                            | 207+32  | 45.0' RT | GLENDALE AVE   | -                      | -              | 1              | -              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | 1                        | -                        | -                        | -              | -                         | -                         |         |
| 19                                                                                                             | 208+75  | 24.0' RT | GLENDALE AVE   | 1                      | -              | -              | -              | -                | -               | 1                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | -              | -                         | -                         |         |
| 19A                                                                                                            | 208+75  | 49.7' RT | GLENDALE AVE   | -                      | -              | -              | -              | -                | 1               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | 1              | -                         | -                         |         |
| 20                                                                                                             | 209+50  | 25.0' RT | GLENDALE AVE   | 1                      | -              | -              | -              | -                | -               | 1                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | -              | -                         | -                         |         |
| 20A                                                                                                            | 209+50  | 18.5' RT | GLENDALE AVE   | -                      | -              | -              | 1              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | 1                        | -              | -                         | -                         |         |
| 20B                                                                                                            | 209+50  | 18.5' LT | GLENDALE AVE   | -                      | -              | -              | 1              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | 1                        | -              | -                         | -                         |         |
| 20C                                                                                                            | 210+45  | 24.5' RT | GLENDALE AVE   | 1                      | -              | -              | -              | -                | -               | 1                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | -              | -                         | -                         |         |
| 21                                                                                                             | 97+00   | 48.4' LT | MARLEY ST - NB | -                      | -              | 1              | -              | -                | -               | -                        | -                        | -                        | -                        | -                        | -                         | 1                        | -                        | -                        | -              | -                         | -                         |         |
| 31                                                                                                             | 98+45   | 31.0' RT | MARLEY ST - NB | -                      | 1              | -              | -              | -                | -               | 1                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | -              | -                         | -                         |         |
| 32                                                                                                             | 99+85   | 31.0' RT | MARLEY ST -NB  | -                      | -              | -              | -              | -                | 2               | -                        | -                        | -                        | -                        | -                        | -                         | -                        | -                        | -                        | -              | 1                         | **                        |         |
| 50                                                                                                             | 403+39  | 0.0' RT  | STORM OUTLET   | 1                      | -              | -              | -              | -                | -               | -                        | -                        | -                        | -                        | 1                        | -                         | -                        | -                        | -                        | -              | -                         | -                         |         |
| 51                                                                                                             | 406+55  | 0.0' RT  | STORM OUTLET   | 1                      | -              | -              | -              | -                | -               | -                        | -                        | -                        | -                        | 1                        | -                         | -                        | -                        | -                        | -              | -                         | -                         |         |
| 52                                                                                                             | 409+71  | 0.0' RT  | STORM OUTLET   | 1                      | -              | -              | -              | -                | -               | -                        | -                        | -                        | -                        | 1                        | -                         | -                        | -                        | -                        | -              | -                         | -                         |         |
| TOTALS                                                                                                         |         |          |                | 22                     | 2              | 10             | 27             | 12               | 8               | 11                       | 3                        | 5                        | 1                        | 3                        | 1                         | 10                       | 1                        | 2                        | 36             | 6                         | 1                         |         |
| ** INSTALL SINGLE SLOPE GRATE ON 6:1 SIDE SLOPE. INSTALL INLET AND OUTLET PIPES TO FAR WEST SIDE OF STRUCTURE. |         |          |                |                        |                |                |                |                  |                 |                          |                          |                          |                          |                          |                           |                          |                          |                          |                |                           |                           |         |
| PROJECT NO: 9269-00-14                                                                                         |         |          |                | HWY: MARLEY STREET     |                |                |                |                  | COUNTY: BROWN   |                          |                          |                          |                          | MISCELLANEOUS QUANTITIES |                           |                          |                          |                          | SHEET: 87      |                           |                           | E       |



3

| RIPRAP MEDIUM                                            |                 |    |    |                             |
|----------------------------------------------------------|-----------------|----|----|-----------------------------|
| 606.0200 645.0120<br>RIPRAP GEOTEXTILE<br>MEDIUM TYPE HR |                 |    |    |                             |
| STATION                                                  | LOCATION        | CY | SY | REMARKS                     |
| 204+33                                                   | GLENDAL AVE, LT | 5  | 15 | FLUME                       |
| 97+60                                                    | MARLEY ST, LT   | 5  | 15 | FLUME                       |
| 412+80                                                   | STORM OUTFALL   | 5  | 10 | DITCH LINING BEFORE ENDWALL |
| 413+00                                                   | STORM OUTFALL   | 17 | 35 | ENDWALL DISCHARGE           |
| UNDISTRIBUTED                                            | PROJECT         | 8  | 15 |                             |
| TOTAL                                                    |                 | 30 | 60 |                             |

| LANDMARK REFERENCE MONUMENTS                   |           |      |               |
|------------------------------------------------|-----------|------|---------------|
| 621.0100<br>LANDMARK<br>REFERENCE<br>MONUMENTS |           |      |               |
| STATION                                        | LOCATION  | EACH | REMARKS       |
| 88+24                                          | MARLEY ST | 4    | SECTION CONER |
| TOTALS                                         |           | 4    |               |

3

| DUST CONTROL SURFACE TREATMENT                   |          |        |              | LANDSCAPING |                  |          |                            |                                  |                   |                        |                        |            |
|--------------------------------------------------|----------|--------|--------------|-------------|------------------|----------|----------------------------|----------------------------------|-------------------|------------------------|------------------------|------------|
| 623.0200<br>DUST CONTROL<br>SURFACE<br>TREATMENT |          |        |              | 625.0100    | 625.0500         | 627.0200 | 628.2004                   | 628.2008                         | 629.0210          | 630.0120               | 630.0140               | 630.0500   |
|                                                  |          |        |              | TOPSOIL     | SALVAGED TOPSOIL | MULCHING | EROSION MAT CLASS I TYPE B | EROSION MAT URBAN CLASS I TYPE B | FERTILIZER TYPE B | SEEDING MIXTURE NO. 20 | SEEDING MIXTURE NO. 40 | SEED WATER |
| STATION                                          | LOCATION | SY     |              | SY          | SY               | SY       | SY                         | SY                               | CWT               | LB                     | LB                     | MGAL       |
| 64+95                                            | -        | 71+15  | MARLEY ST    | 1,193       | 1,357            | -        | -                          | 2,550                            | 2                 | -                      | 46                     | 57         |
| 71+15                                            | -        | 77+41  | MARLEY ST    | 1,260       | 1,420            | -        | -                          | 2,680                            | 2                 | -                      | 48                     | 60         |
| 77+41                                            | -        | 95+45  | MARLEY ST    | 2,896       | 5,243            | -        | 6                          | 8,139                            | 6                 | -                      | 147                    | 196        |
| 95+45                                            | -        | 101+00 | MARLEY ST    | 1,360       | -                | -        | 10                         | 1,360                            | 1                 | -                      | 25                     | 31         |
| 201+25                                           | -        | 204+00 | GLENDAL AVE  | 645         | -                | -        | 110                        | 645                              | 0.5               | -                      | 12                     | 14         |
| 205+75                                           | -        | 212+50 | GLENDAL AVE  | 1,985       | -                | -        | -                          | 1,985                            | 1                 | -                      | 36                     | 45         |
| 300+92                                           | -        | 307+89 | CTH C        | 2,400       | -                | -        | -                          | 2,400                            | 1.5               | 65                     | -                      | 54         |
| 400+40                                           | -        | 413+10 | STORM OUTLET | -           | 13,980           | -        | 5,625                      | -                                | 1.5               | 152                    | -                      | 127        |
| UNDISTRIBUTED                                    |          |        | WASTE SITE   | -           | -                | 10,000   | -                          | -                                | 6.5               | 270                    | -                      | -          |
| UNDISTRIBUTED                                    |          |        | PROJECT      | 2,936       | -                | 2,500    | 1,449                      | 4,941                            | 5                 | 123                    | 76                     | 126        |
| TOTALS                                           |          |        |              | 14,675      | 22,000           | 12,500   | 7,200                      | 24,700                           | 27.0              | 610                    | 390                    | 710        |

3

|               |    |         |              | SILT FENCE |                |
|---------------|----|---------|--------------|------------|----------------|
|               |    |         |              | 628.1504   | 628.1520       |
|               |    |         |              | SILT FENCE | SILT FENCE     |
| STATION       | TO | STATION | LOCATION     | LF         | MAINTENANCE LF |
| 64+95         | -  | 71+15   | MARLEY ST    | 1,475      | 2,950          |
| 71+15         | -  | 77+41   | MARLEY ST    | 1,240      | 2,480          |
| 77+41         | -  | 95+45   | MARLEY ST    | 3,685      | 7,370          |
| 95+45         | -  | 101+00  | MARLEY ST    | 995        | 1,990          |
| 201+25        | -  | 204+00  | GLENDALE AVE | 560        | 1,120          |
| 205+75        | -  | 212+50  | GLENDALE AVE | 880        | 1,760          |
| 300+92        | -  | 307+89  | CTH C, RT    | 670        | 1,340          |
| 400+46        | -  | 413+07  | STORM OUTLET | 2,600      | 5,200          |
| UNDISTRIBUTED |    |         | WASTE SITE   | 1,200      | 2,400          |
| UNDISTRIBUTED |    |         | PROJECT      | 1,195      | 2,390          |
| TOTAL         |    |         |              | 14,500     | 29,000         |

| <u>EROSION CONTROL MOBILIZATION</u> |                                                 |                                                           |
|-------------------------------------|-------------------------------------------------|-----------------------------------------------------------|
|                                     | 628.1905<br>MOBILIZATIONS<br>EROSION<br>CONTROL | 628.1910<br>MOBILIZATIONS<br>EMERGENCY<br>EROSION CONTROL |
| LOCATION                            | EACH                                            | EACH                                                      |
| MARLEY ST                           | 9                                               | 6                                                         |
| GLENDAL                             | 3                                               | 2                                                         |
| TOTALS                              | 12                                              | 8                                                         |

| CULVERT PIPE CHECKS |                  |              |
|---------------------|------------------|--------------|
|                     |                  | 628.7555     |
|                     |                  | CULVERT PIPE |
| STATION             | LOCATION         | CHECKS EACH  |
| 88+11               | MARLEY ST, LT    | 3            |
| 96+02               | MARLEY ST, RT    | 7            |
| 96+10               | MARLEY ST, RT    | 5            |
| 101+32              | MARLEY ST, RT    | 5            |
| 203+00              | GLENDALE AVE, LT | 3            |
| 205+79              | GLENDALE AVE, LT | 5            |
| UNDISTRIBUTED       | PROJECT          | 7            |
| TOTAL               |                  | 35           |

3

| TRACKING PADS |              |      |                           |
|---------------|--------------|------|---------------------------|
| 628.7560      |              |      |                           |
| TRACKING PADS |              |      |                           |
| STATION       | LOCATION     | EACH | REMARKS                   |
| 65+25         | MARLEY ST    | 1    |                           |
| 101+00        | MARLEY ST    | 1    |                           |
| 208+00        | GLENDALE AVE | 1    |                           |
| 212+50        | GLENDALE AVE | 1    | USED DURING CTH C CLOSURE |
| UNDISTRIBUTED | WASTE SITE   | 1    |                           |
| TOTAL         |              | 5    |                           |

| <u>ROCK BAGS</u> |                       |           |
|------------------|-----------------------|-----------|
|                  |                       | 628.7570  |
|                  |                       | ROCK BAGS |
| STATION          | LOCATION              | EACH      |
| 100+95           | MARLEY ST, LT         | 15        |
| 212+50           | GLENDALE AVE, LT & RT | 30        |
| UNDISTRIBUTED    | WASTE SITE            | 30        |
| UNDISTRIBUTED    | PROJECT               | 25        |
|                  | TOTAL                 | 100       |



| INLET PROTECTION    |               |                            |                            |                            |                            |
|---------------------|---------------|----------------------------|----------------------------|----------------------------|----------------------------|
| STRUCTURE<br>NUMBER | LOCATION      | 628.7005<br>TYPE A<br>EACH | 628.7010<br>TYPE B<br>EACH | 628.7015<br>TYPE C<br>EACH | 628.7020<br>TYPE D<br>EACH |
| 1A                  | MARLEY ST, LT | 1                          | 1                          | -                          | -                          |
| 2A                  | MARLEY ST, LT | 1                          | 1                          | -                          | -                          |
| 3A                  | MARLEY ST, RT | 1                          | 1                          | -                          | -                          |
| 4A                  | MARLEY ST, RT | 1                          | -                          | -                          | 1                          |
| 4B                  | MARLEY ST, RT | 1                          | -                          | 1                          | -                          |
| 4C                  | MARLEY ST, LT | 1                          | -                          | -                          | 1                          |
| 4D                  | MARLEY ST, LT | 1                          | -                          | 1                          | -                          |
| 5A                  | MARLEY ST, RT | 1                          | -                          | 1                          | -                          |
| 5B                  | MARLEY ST, LT | 1                          | -                          | 1                          | -                          |
| 5C                  | MARLEY ST, LT | 1                          | 1                          | -                          | -                          |
| 5D                  | FUTURE RD, LT | 1                          | -                          | 1                          | -                          |
| 5E                  | FUTURE RD, RT | 1                          | -                          | 1                          | -                          |
| 6A                  | MARLEY ST, LT | 1                          | 1                          | -                          | -                          |
| 6B                  | MARLEY ST, RT | 1                          | 1                          | -                          | -                          |
| 7A                  | MARLEY ST, RT | 1                          | -                          | 1                          | -                          |
| 7B                  | MARLEY ST, RT | 1                          | -                          | -                          | 1                          |
| 7C                  | MARLEY ST, LT | 1                          | -                          | 1                          | -                          |
| 7D                  | MARLEY ST, LT | 1                          | -                          | -                          | 1                          |
| 7E                  | MARLEY ST, LT | 1                          | -                          | 1                          | -                          |
| 7F                  | MARLEY ST, LT | 1                          | 1                          | -                          | -                          |
| 7G                  | MARLEY ST, RT | 1                          | 1                          | -                          | -                          |
| 8                   | MARLEY ST, RT | 1                          | -                          | 1                          | -                          |
| 8A                  | MARLEY ST, LT | 1                          | -                          | 1                          | -                          |
| 9A                  | MARLEY ST, RT | 1                          | -                          | 1                          | -                          |
| 9B                  | MARLEY ST, LT | 1                          | -                          | 1                          | -                          |
| 10A                 | MARLEY ST, RT | 1                          | -                          | -                          | 1                          |
| 10B                 | MARLEY ST, RT | 1                          | -                          | 1                          | -                          |
| 10C                 | MARLEY ST, LT | 1                          | -                          | -                          | 1                          |
| 10D                 | MARLEY ST, LT | 1                          | -                          | 1                          | -                          |
| 10E                 | MARLEY ST, RT | 1                          | 1                          | -                          | -                          |
| 11A                 | MARLEY ST, RT | 1                          | -                          | -                          | 1                          |
| 11B                 | MARLEY ST, RT | 1                          | -                          | 1                          | -                          |
| 11C                 | MARLEY ST, LT | 1                          | -                          | -                          | 1                          |
| 11D                 | MARLEY ST, LT | 1                          | -                          | 1                          | -                          |
| 12A                 | MARLEY ST, RT | 1                          | 1                          | -                          | -                          |
| 14A                 | MARLEY ST, RT | 1                          | -                          | -                          | 1                          |
| 14B                 | MARLEY ST, RT | 1                          | -                          | 1                          | -                          |
| 14C                 | MARLEY ST, LT | 1                          | -                          | -                          | 1                          |
| 14D                 | MARLEY ST, LT | 1                          | -                          | 1                          | -                          |
| 14E                 | MARLEY ST, RT | 1                          | 1                          | -                          | -                          |

| INLET PROTECTION (CONTINUED) |                   |                            |                            |                            |                            |
|------------------------------|-------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| STRUCTURE<br>NUMBER          | LOCATION          | 628.7005<br>TYPE A<br>EACH | 628.7010<br>TYPE B<br>EACH | 628.7015<br>TYPE C<br>EACH | 628.7020<br>TYPE D<br>EACH |
| 15A                          | MARLEY ST, RT     | 1                          | -                          | 1                          | -                          |
| 15B                          | MARLEY ST, LT     | 1                          | -                          | 1                          | -                          |
| 15C                          | MARLEY ST, RT     | 1                          | 1                          | -                          | -                          |
| 16A                          | MARLEY ST, RT     | 1                          | 1                          | -                          | -                          |
| 17                           | GLENDALE AVE, RT  | 1                          | -                          | 1                          | -                          |
| 17A                          | GLENDALE AVE, LT  | 1                          | -                          | 1                          | -                          |
| 18A                          | GLENDALE AVE, RT  | 1                          | -                          | 1                          | -                          |
| 18B                          | GLENDALE AVE, RT  | 1                          | -                          | -                          | 1                          |
| 18C                          | GLENADALE AVE, LT | 1                          | -                          | 1                          | -                          |
| 18D                          | GLENADALE AVE, LT | 1                          | -                          | -                          | 1                          |
| 18E                          | GLENADALE AVE, RT | 1                          | 1                          | -                          | -                          |
| 19A                          | GLENADALE AVE, RT | 1                          | 1                          | -                          | -                          |
| 20A                          | GLENADALE AVE, RT | 1                          | -                          | 1                          | -                          |
| 20B                          | GLENADALE AVE, LT | 1                          | -                          | 1                          | -                          |
| 21                           | MARLEY ST, LT     | 1                          | 1                          | -                          | -                          |
| 32                           | MARLEY ST, RT     | 1                          | 1                          | -                          | -                          |
| TOTALS                       |                   | 56                         | 17                         | 27                         | 12                         |

| GEOGRID TYPE SR             |    |         |              |        |         |
|-----------------------------|----|---------|--------------|--------|---------|
| 645.0220<br>GEOGRID TYPE SR |    |         |              |        |         |
| STATION                     | TO | STATION | LOCATION     | SY     | REMARKS |
| 64+95                       | -  | 71+15   | MARLEY ST    | 3,650  |         |
| 71+15                       | -  | 77+41   | MARLEY ST    | 4,300  |         |
| 77+41                       | -  | 95+45   | MARLEY ST    | 11,300 |         |
| 95+45                       | -  | 101+00  | MARLEY ST    | 3,550  |         |
| 201+25                      | -  | 204+00  | GLENDALE AVE | 1,450  |         |
| 205+75                      | -  | 212+50  | GLENDALE AVE | 3,450  |         |
| TOTALS                      |    |         |              | 27,700 |         |

TRAFFIC CONTROL SUMMARY

| LOCATION                      | APPROXIMATE<br>SERVICE DAYS | 643.0300                 |       | 643.0420                               |     | 643.0705                                    |     | 643.0900                 |     | 643.1050                      |     | 643.5000           | 603.8000                                                 | 603.8125                                                 | REMARKS                                                                               |
|-------------------------------|-----------------------------|--------------------------|-------|----------------------------------------|-----|---------------------------------------------|-----|--------------------------|-----|-------------------------------|-----|--------------------|----------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------------------------------------|
|                               |                             | TRAFFIC CONTROL<br>DRUMS |       | TRAFFIC CONTROL<br>BARRICADES TYPE III |     | TRAFFIC CONTROL<br>WARNING LIGHTS<br>TYPE A |     | TRAFFIC CONTROL<br>SIGNS |     | TRAFFIC CONTROL<br>SIGNS PCMS |     | TRAFFIC<br>CONTROL | CONCRETE<br>BARRIER<br>TEMPORARY<br>PRECAST<br>DELIVERED | CONCRETE<br>BARRIER<br>TEMPORARY<br>PRECAST<br>INSTALLED |                                                                                       |
|                               |                             | NO. IN<br>SERVICE        | DAY   | NO. IN<br>SERVICE                      | DAY | NO. IN<br>SERVICE                           | DAY | NO. IN<br>SERVICE        | DAY | NO. IN<br>SERVICE             | DAY | EACH               | LF                                                       | LF                                                       |                                                                                       |
| MARLEY STREET                 | 7                           | -                        | -     | -                                      | -   | -                                           | -   | -                        | -   | 2                             | 14  | 1                  | -                                                        | -                                                        | ADVANCED WARNING FOR MARLEY STREET CLOSURE                                            |
| MARLEY STREET/CONNECTION ROAD | 180                         | -                        | -     | 2                                      | 360 | 4                                           | 720 | 3                        | 540 | -                             | -   | -                  | -                                                        | -                                                        | ROAD CLOSED 0.5 MILES AHEAD - SEE BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL C |
| MARLEY STREET SOUTH LIMITS    | 180                         | -                        | -     | 2                                      | 360 | 4                                           | 720 | 3                        | 540 | -                             | -   | -                  | -                                                        | -                                                        | SEE BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL C/E                             |
| MARLEY STREET/CTH C           | 180                         | -                        | -     | 2                                      | 360 | 4                                           | 720 | 1                        | 180 | -                             | -   | -                  | -                                                        | -                                                        | SEE BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL E                               |
| GLENDALE AVE/CTH C            | 180                         | -                        | -     | 2                                      | 360 | 4                                           | 720 | 1                        | 180 | -                             | -   | -                  | -                                                        | -                                                        | SEE BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL E                               |
| GLENDALE AVE WEST LIMITS      | 180                         | -                        | -     | 2                                      | 360 | 4                                           | 720 | 3                        | 540 | -                             | -   | -                  | -                                                        | -                                                        | SEE BARRICADES AND SIGNS FOR SIDEROAD CLOSURES DETAIL 4                               |
| CTH C NORTH AND EAST LIMITS   | 180                         | -                        | -     | -                                      | -   | -                                           | -   | 2                        | 360 | -                             | -   | -                  | -                                                        | -                                                        | ROAD WORK AHEAD                                                                       |
| CTH C                         | 7                           | -                        | -     | -                                      | -   | -                                           | -   | -                        | -   | 2                             | 14  | -                  | -                                                        | -                                                        | ADVANCED WARNING FOR CTH C CLOSURE                                                    |
| CTH C/CTH FF                  | 21                          | -                        | -     | 2                                      | 42  | 4                                           | 84  | 1                        | 21  | -                             | -   | -                  | -                                                        | -                                                        | ROAD CLOSED 2.5 MILES AHEAD - SEE BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL A |
| CTH C/GLENDALE AVENUE EAST    | 21                          | -                        | -     | 2                                      | 42  | 4                                           | 84  | 3                        | 63  | -                             | -   | -                  | -                                                        | -                                                        | ROAD CLOSED 0.4 MILES AHEAD - SEE BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL C |
| CTH C EAST LIMITS             | 21                          | -                        | -     | 2                                      | 42  | 4                                           | 84  | 3                        | 63  | -                             | -   | -                  | -                                                        | -                                                        | SEE BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL C/E                             |
| CTH C NORTH LIMITS            | 21                          | -                        | -     | 2                                      | 42  | 4                                           | 84  | 1                        | 21  | -                             | -   | -                  | -                                                        | -                                                        | SEE BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL E                               |
| CTH C/MAPLE DRIVE             | 21                          | -                        | -     | 2                                      | 42  | 4                                           | 84  | 3                        | 63  | -                             | -   | -                  | -                                                        | -                                                        | SEE BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL C/E                             |
| CTH C/CTH U                   | 21                          | -                        | -     | 2                                      | 42  | 4                                           | 84  | 1                        | 21  | -                             | -   | -                  | -                                                        | -                                                        | ROAD CLOSED 1.7 MILES AHEAD - SEE BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL A |
| UNDISTRIBUTED                 | 180                         | 25                       | 4,500 | -                                      | -   | -                                           | -   | -                        | -   | -                             | 14  | -                  | 25                                                       | 25                                                       | CONCRETE BARRIER INTENDED TO CLOSE ROAD AT HOWARD-PITTSFIELD BOUNDARY                 |
| TOTALS                        |                             | 4,500                    |       | 2,052                                  |     | 4,104                                       |     | 2,592                    |     | 42                            |     | 1                  | 25                                                       | 25                                                       |                                                                                       |

PAVEMENT MARKING

| STATION   | TO | STATION | LOCATION     | 646.1020                              |                                        | 646.3020                     | 646.5020               | 646.5120              | 646.6120                           | 646.7120                  | 646.7420                                             | 646.8120              | 646.8220                        | REMARKS                                |
|-----------|----|---------|--------------|---------------------------------------|----------------------------------------|------------------------------|------------------------|-----------------------|------------------------------------|---------------------------|------------------------------------------------------|-----------------------|---------------------------------|----------------------------------------|
|           |    |         |              | MARKING LINE<br>EPOXY 4-INCH<br>WHITE | MARKING LINE<br>EPOXY 4-INCH<br>YELLOW | MARKING LINE<br>EPOXY 8-INCH | MARKING<br>ARROW EPOXY | MARKING WORD<br>EPOXY | MARKING STOP LINE<br>EPOXY 18-INCH | DIAGONAL EPOXY<br>12-INCH | MARKING CROSSWALK<br>EPOXY TRANSVERSE LINE<br>6-INCH | MARKING<br>CURB EPOXY | MARKING<br>ISLAND NOSE<br>EPOXY |                                        |
|           |    |         |              | LF                                    | LF                                     | LF                           | EACH                   | EACH                  | LF                                 | LF                        | LF                                                   | LF                    | EACH                            |                                        |
| 65+25     | -  | 68+00   | MARLEY ST    | 550                                   | -                                      | -                            | -                      | -                     | -                                  | -                         | -                                                    | -                     | -                               |                                        |
| 68+00     | -  | 74+00   | MARLEY ST    | 1,040                                 | -                                      | 125                          | -                      | -                     | -                                  | -                         | 292                                                  | 40                    | 2                               |                                        |
| 74+00     | -  | 80+00   | MARLEY ST    | 865                                   | -                                      | 250                          | -                      | -                     | -                                  | -                         | 314                                                  | 20                    | 2                               |                                        |
| 80+00     | -  | 91+95   | MARLEY ST    | 2,390                                 | -                                      | -                            | -                      | -                     | -                                  | -                         | -                                                    | 10                    | 1                               |                                        |
| 91+95     | -  | 98+00   | MARLEY ST    | 915                                   | 1,240                                  | 400                          | 4                      | 2                     | --                                 | 40                        | -                                                    | -                     | -                               |                                        |
| 98+00     | -  | 101+50  | MARLEY ST    | 610                                   | 970                                    | -                            | -                      | -                     | -                                  | 50                        | -                                                    | 20                    | 2                               |                                        |
| 201+25    | -  | 204+00  | GLENDALE AVE | 555                                   | 550                                    | 100                          | 1                      | -                     | -                                  | -                         | -                                                    | -                     | -                               |                                        |
| 204+00    | -  | 207+00  | GLENDALE AVE | 125                                   | 410                                    | 205                          | 2                      | 1                     | 70                                 | -                         | 289                                                  | -                     | -                               | INCLUDES ALL CROSSWALK AT INTERSECTION |
| 207+00    | -  | 207+00  | GLENDALE AVE | 940                                   | 1,100                                  | 45                           | 1                      | -                     | -                                  | -                         | -                                                    | -                     | -                               |                                        |
| SUBTOTALS |    |         |              | 7,990                                 | 4,270                                  | 1,125                        | 8                      | 3                     | 70                                 | 90                        | 895                                                  | 90                    | 7                               |                                        |
| TOTALS    |    |         |              | 12,260                                |                                        | 1,125                        | 8                      | 3                     | 70                                 | 90                        | 895                                                  | 90                    | 7                               |                                        |

| CONSTRUCTION STAKING |    |         |              |             |          |          |                 |               |            |                      |              |
|----------------------|----|---------|--------------|-------------|----------|----------|-----------------|---------------|------------|----------------------|--------------|
|                      |    |         |              | 650.4000    | 650.4500 | 650.5000 | 650.5500        | 650.6000      | 650.9000   | 650.9910.01          | 650.9920     |
|                      |    |         |              | STORM SEWER | SUBGRADE | BASE     | CURB GUTTER AND | PIPE CULVERTS | CURB RAMPS | SUPPLEMENTAL CONTROL | SLOPE STAKES |
|                      |    |         |              | EACH        | LF       | LF       | CURB & GUTTER   | EACH          | EACH       | (9269-00-14)         | LF           |
| STATION              | TO | STATION | LOCATION     |             |          |          |                 |               |            | LS                   |              |
| 64+25                | -  | 71+15   | MARLEY ST    | 11          | 590      | 590      | 2,350           | -             | 3          | -                    | 690          |
| 71+15                | -  | 77+41   | MARLEY ST    | 17          | 626      | 626      | 2,300           | -             | 6          | -                    | 626          |
| 77+41                | -  | 95+45   | MARLEY ST    | 31          | 1804     | 1,804    | 6,410           | -             | 5          | -                    | 1,804        |
| 95+45                | -  | 101+00  | MARLEY ST    | 6           | 555      | 555      | 890             | 2             | 1          | -                    | 555          |
| 201+25               | -  | 204+73  | GLENDALE AVE | -           | 348      | 348      | -               | -             | -          | -                    | 348          |
| 205+18               | -  | 212+50  | GLENDALE AVE | 16          | 732      | 732      | 1,270           | -             | -          | -                    | 732          |
| 303+50               | -  | 306+41  | CTH C        | -           | -        | -        | -               | -             | -          | -                    | 291          |
| 400+40               | -  | 413+07  | STORM OUTLET | 4           | -        | -        | -               | -             | -          | -                    | 1,267        |
| PROJECT              |    |         |              | -           | -        | -        | -               | -             | -          | 1                    | -            |
| TOTALS               |    |         |              | 85          | 4,655    | 4,655    | 13,220          | 2             | 15         | 1                    | 6,313        |

| SAWING  |                  |          |          |                                    |
|---------|------------------|----------|----------|------------------------------------|
|         |                  | 690.0150 | 690.0250 |                                    |
|         |                  | SAWING   | SAWING   |                                    |
|         |                  | ASPHALT  | CONCRETE |                                    |
| STATION | LOCATION         | LF       | LF       | REMARKS                            |
| 64+50   | MARLEY ST NB, RT | 12       | -        |                                    |
| 65+25   | MARLEY ST        | 48       | 5        | SOUTH PROJECT LIMITS - MARLEY ST   |
| 65+62   | MARLEY ST SB, LT | 25       | -        |                                    |
| 69+50   | MARLEY ST SB, LT | 19       | -        |                                    |
| 72+25   | MARLEY ST NB, RT | 29       | -        |                                    |
| 96+70   | MARLEY ST SB, LT | 14       | -        |                                    |
| 97+15   | MARLEY ST SB, LT | 12       | -        |                                    |
| 101+00  | MARLEY ST NB     | 24       | -        | NORTH PROJECT LIMITS - MARLEY ST   |
| 201+25  | GLENDALE AVE     | 24       | -        | WEST PROJECT LIMITS - GLENDALE AVE |
| 203+20  | GLENDALE AVE, LT | 21       | -        |                                    |
| 206+50  | GLENDALE AVE, RT | 20       | -        |                                    |
| 207+85  | GLENDALE AVE, RT | 29       | -        |                                    |
| 209+80  | GLENDALE AVE, LT | 19       | -        |                                    |
| 211+45  | GLENDALE AVE, LT | 17       | -        |                                    |
| 211+65  | GLENDALE AVE, RT | 16       | -        |                                    |
| 212+00  | GLENDALE AVE, LT | 20       | -        |                                    |
| 212+50  | GLENDALE AVE     | 24       | -        | EAST PROJECT LIMITS - GLENDALE AVE |
| TOTALS  |                  | 373      | 5        |                                    |

| ADJUSTING FIBER OPTIC HANDHOLE |         |               |             |
|--------------------------------|---------|---------------|-------------|
|                                |         |               | SPV.0060.04 |
| CATEGORY                       | STATION | LOCATION      | EACH        |
| 0020                           | 80+67   | MARLEY ST, LT | 1           |
| 0020                           | 94+71   | MARLEY ST, LT | 1           |
| TOTAL                          |         |               | 2           |



TRANSPORTATION PROJECT PLAT NO: 9269-00-14-4.01 AMENDMENT NO:1 - AMENDS UTILITY NUMBERS 50 AND 51 OF TRANSPORTATION PLAT NO: 9269-00-14-4.01 RECORDED AS DOC. 2944553, IN VOLUME 1 ON PAGE 225

PART OF LOT 1, VOLUME 39, CERTIFIED SURVEY MAPS, PAGE 141, MAP #5946, DOC. NO. 1705394, LOT 2, VOLUME 36, CERTIFIED SURVEY MAPS, PAGE 245, MAP #5545, DOC. NO. 1580135, AND LOT 1, VOLUME 39, CERTIFIED SURVEY MAPS, PAGE 153, MAP #5950, DOC. NO. 1706256, BEING IN PART OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4, IN SECTION 2, AND PART OF LOT 1, VOLUME 37, CERTIFIED SURVEY MAPS, PAGE 95, MAP #5625, DOC. NO. 1605767, AND LOT 1, VOLUME 55, CERTIFIED SURVEY MAPS, PAGE 46, MAP #7936, DOC. NO. 2435434, BEING IN AND INCLUDING PART OF THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4, IN SECTION 3, T24N, R19E, VILLAGE OF HOWARD, BROWN COUNTY, WISCONSIN.

RELOCATION ORDER - BROWN COUNTY CTH VV - (MILLWOOD COURT TO CTH C)

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, BROWN COUNTY 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 SECTION 83.07 AND 83.08, WISCONSIN STATUTES, THE COUNTY OF BROWN 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.

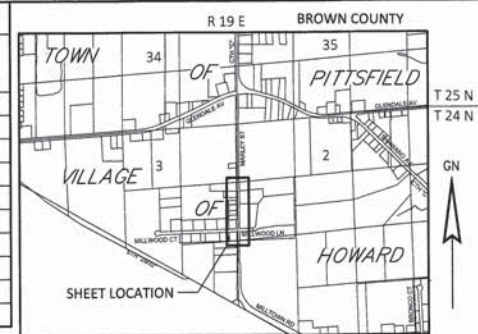
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE COUNTY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE BROWN COUNTY, PURSUANT TO THE PROVISIONS OF SECTIONS 83.07 AND 83.08, WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED

| PARCEL NUMBER | OWNER(S)                                 | INTEREST REQUIRED | NEW R/W ACRES | EXISTING R/W ACRES | TOTAL R/W ACRES | PLE ACRES | PLE ACRES (UTILITIES) | TLE ACRES |
|---------------|------------------------------------------|-------------------|---------------|--------------------|-----------------|-----------|-----------------------|-----------|
| 1             | FRANK T. SLEIK III AND MICHELE M. SLEIK  | FEE, PLE & TLE    | 0.144         | -----              | 0.144           | 0.003     | -----                 | 0.195     |
| 2             | LEONARD L. MADISON AND EUNICE D. MADISON | FEE, PLE & TLE    | 0.085         | -----              | 0.085           | -----     | 0.003                 | 0.092     |
| 3             | LELAND HILL AND JENNIFER STACHURA        | FEE, PLE & TLE    | 0.058         | -----              | 0.058           | 0.014     | 0.001                 | 0.053     |
| 4             | SCOTT D. LOCK AND MICHELLE RAE KORNTVED  | FEE, PLE & TLE    | 0.044         | -----              | 0.044           | 0.007     | 0.001                 | 0.063     |
| 6             | DANIEL A. WERNER                         | FEE, PLE & TLE    | 0.038         | -----              | 0.038           | 0.005     | 0.001                 | 0.076     |
| 7             | JIMIDA 2 LLC                             | FEE & TLE         | 0.037         | -----              | 0.037           | -----     | -----                 | 0.029     |
| 8             | KENDRA GONNERING                         | FEE, PLE & TLE    | 0.025         | -----              | 0.025           | -----     | 0.001                 | 0.043     |
| 9             | DEBRA K. FREY                            | FEE, PLE & TLE    | 0.029         | -----              | 0.029           | -----     | 0.001                 | 0.040     |
| 10            | JERRY GIESE AND DONALEE GIESE            | FEE, PLE & TLE    | 0.021         | -----              | 0.021           | 0.004     | -----                 | 0.032     |
| 11            | JERRY GIESE AND DONALEE GIESE            | FEE, PLE & TLE    | 0.024         | -----              | 0.024           | 0.001     | -----                 | 0.032     |

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE COUNTY.

| POINT TABLE |            |           |
|-------------|------------|-----------|
| POINT NAME  | Y COORDS   | X COORDS  |
| IP 1000     | 591801.413 | 59289.806 |
| IP 1001     | 592138.380 | 59303.789 |
| IP 1002     | 592238.455 | 59303.391 |
| IP 1003     | 592451.359 | 59302.782 |
| IP 1004     | 592649.774 | 59301.908 |
| IP 1005     | 592454.355 | 59367.221 |
| IP 1006     | 592159.991 | 59368.402 |



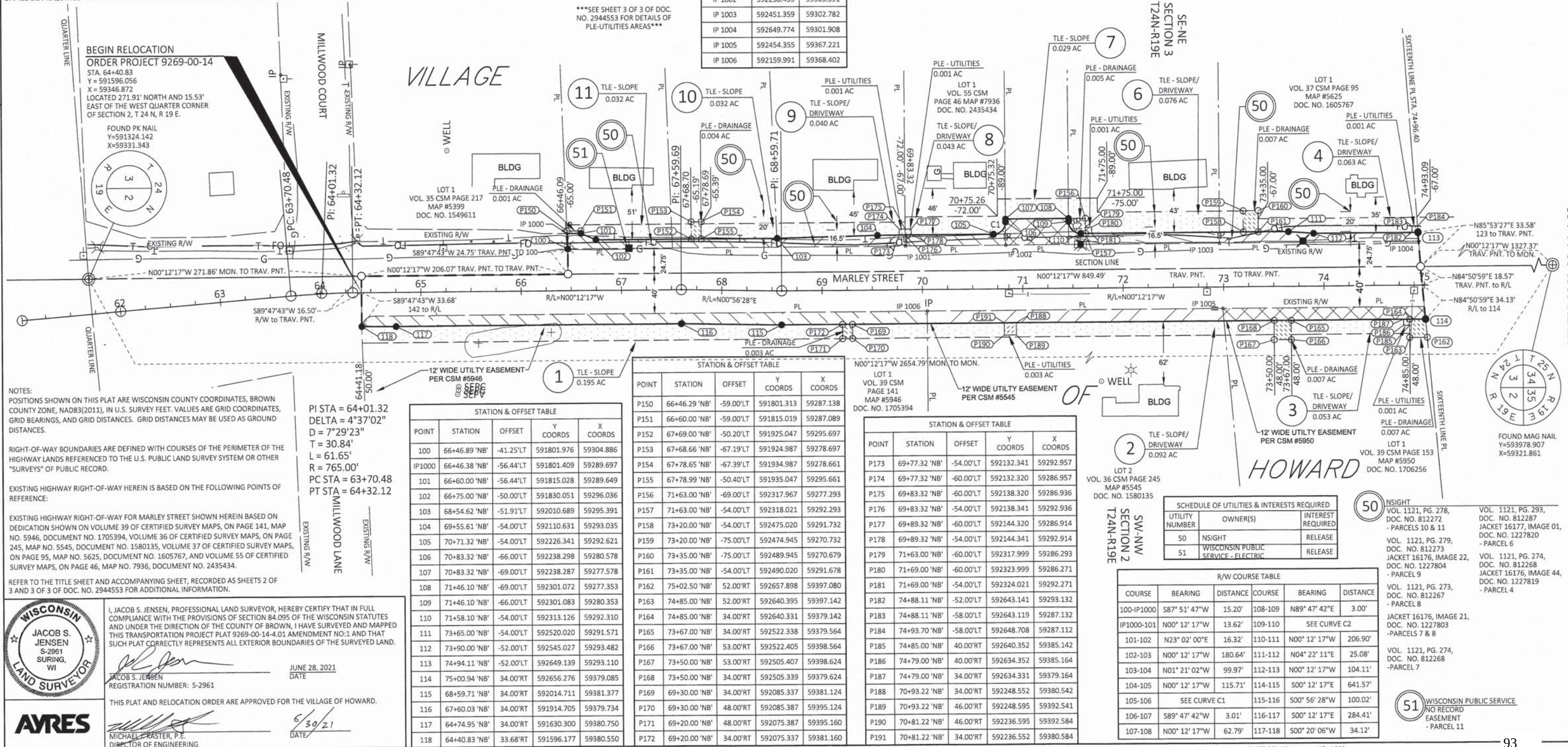
LOCATION MAP NOT TO SCALE

| R/W CURVE TABLE |        |        |            |                    |
|-----------------|--------|--------|------------|--------------------|
| CURVE           | LENGTH | RADIUS | LONG CHORD | LONG CHORD BEARING |
| C1              | 18.85' | 12.00' | 16.97'     | N45°11'35"W        |
| C2              | 18.85' | 12.00' | 16.97'     | N44°47'44"E        |

2967855  
VOLUME: 1  
PAGE: 241  
CHERYL BERKEN  
BROWN COUNTY  
REGISTER OF DEEDS  
GREEN BAY, WI  
RECORDED ON  
07/15/2021 03:45 PM  
REC FEE: 25.00  
PAGES: 1

RESERVED FOR REGISTER OF DEEDS  
PROJECT NUMBER 9269-00-14-4.01  
AMENDMENT NO: 1

0 50 100  
SCALE, FEET



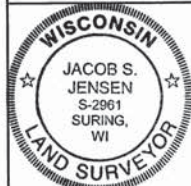
NOTES:  
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, BROWN COUNTY ZONE, NAD83(2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

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.

EXISTING HIGHWAY RIGHT-OF-WAY HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:

EXISTING HIGHWAY RIGHT-OF-WAY FOR MARLEY STREET SHOWN HEREIN BASED ON DEDICATION SHOWN ON VOLUME 39 OF CERTIFIED SURVEY MAPS, ON PAGE 141, MAP NO. 5946, DOCUMENT NO. 1705394, VOLUME 36 OF CERTIFIED SURVEY MAPS, ON PAGE 245, MAP NO. 5545, DOCUMENT NO. 1580135, VOLUME 37 OF CERTIFIED SURVEY MAPS, ON PAGE 95, MAP NO. 5625, DOCUMENT NO. 1605767, AND VOLUME 55 OF CERTIFIED SURVEY MAPS, ON PAGE 46, MAP NO. 7936, DOCUMENT NO. 2435434.

REFER TO THE TITLE SHEET AND ACCOMPANYING SHEET, RECORDED AS SHEETS 2 OF 3 AND 3 OF 3 OF DOC. NO. 2944553 FOR ADDITIONAL INFORMATION.



I, JACOB S. JENSEN, 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 COUNTY OF BROWN, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT 9269-00-14-4.01 AMENDMENT NO:1 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

JACOB S. JENSEN  
REGISTRATION NUMBER: S-2961  
DATE: JUNE 28, 2021

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE VILLAGE OF HOWARD.

MICHAEL CRASTER, P.E.  
DIRECTOR OF ENGINEERING  
DATE: 5/30/21

FILE NAME: I:\45\450490 MARLEY STREET\CD\RW\4.01.DWG  
APPRAISAL PLAT DATE:

PLOT DATE: JANUARY 22, 2021

PLOT BY: JENSEN, JACOB

PLOT NAME:

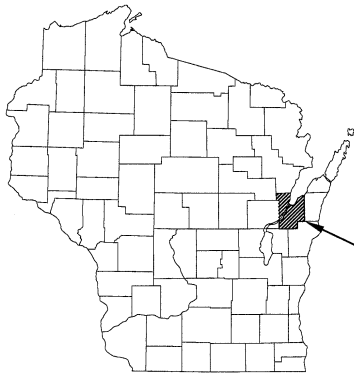
PLOT SCALE: 1"=100'



BROWN COUNTY HIGHWAY DEPARTMENT  
TRANSPORTATION PROJECT PLAT TITLE SHEET

PROJECT NO. 9269-00-14

MILLWOOD COURT - CTH C  
CTH VV  
BROWN COUNTY



PROJECT LOCATION

CONVENTIONAL SYMBOLS

|                                                                       |       |                                                    |       |                          |          |
|-----------------------------------------------------------------------|-------|----------------------------------------------------|-------|--------------------------|----------|
| SECTION LINE                                                          | ----- | SECTION CORNER                                     |       | R/W MONUMENT             | ●        |
| QUARTER LINE                                                          | ----- |                                                    |       | NON-MONUMENTED R/W POINT | ○        |
| SIXTEENTH LINE                                                        | ----- | NOTATION FOR COMBUSTIBLE FLUIDS                    |       | FOUND IRON PIN           | IP       |
| NEW REFERENCE LINE                                                    | ----- |                                                    |       | VALVE (GAS, WATER, ETC.) | ○ (TYPE) |
| NEW R/W LINE                                                          | ----- | NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES       |       | SIGN                     | ♣ SIGN   |
| EXISTING R/W LINE                                                     | ----- |                                                    |       | OFF-PREMISE SIGN         | ♣ SIGN   |
| PROPERTY LINE                                                         | ----- |                                                    |       |                          |          |
| LOT, TIE & OTHER MINOR LINES                                          | ----- |                                                    |       |                          |          |
| CORPORATE LIMITS                                                      | ----- |                                                    |       |                          |          |
| UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)                  | ----- | ELECTRIC POLE                                      | ●     | COMPENSABLE              | ●        |
| FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)                       | ----- | TELEPHONE POLE                                     | ●     | NON-COMPENSABLE          | □        |
| TEMPORARY LIMITED EASEMENT AREA                                       | ----- | PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)        | ●     |                          |          |
| EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT) | ----- |                                                    |       |                          |          |
| TRANSMISSION STRUCTURES                                               | ----- | ACCESS CONTROLLED BY ACQUISITION                   | ----- |                          |          |
| BUILDING                                                              | ----- | NO ACCESS (BY STATUTORY AUTHORITY)                 | ----- |                          |          |
| GEODETIC SURVEY MONUMENT                                              | ----- | ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL) | ----- |                          |          |
| SIXTEENTH CORNER MONUMENT                                             | ----- | NEW ACCESS (NEW HIGHWAY)                           | ----- |                          |          |
|                                                                       |       |                                                    |       | PARCEL NUMBER            | (25)     |
|                                                                       |       |                                                    |       | UTILITY NUMBER           | (40)     |

CONVENTIONAL ABBREVIATIONS

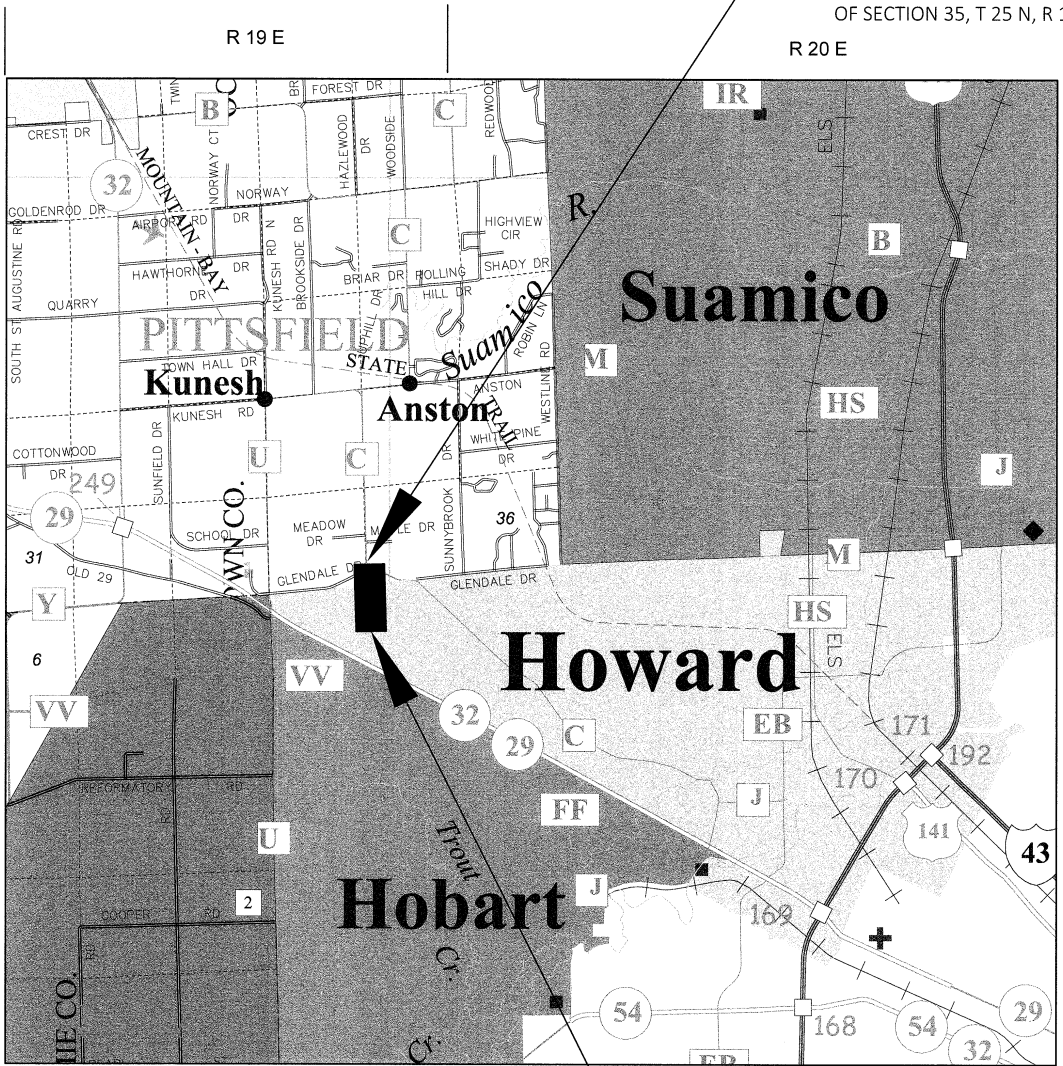
|                            |       |                         |         |
|----------------------------|-------|-------------------------|---------|
| ACCESS RIGHTS              | AR    | POINT OF COMPOUND CURVE | PCC     |
| ACRES                      | AC    | POINT OF INTERSECTION   | PI      |
| AHEAD                      | AH    | POINT OF BEGINNING      | POB     |
| ALUMINUM                   | ALUM  | POINT OF CURVATURE      | PC      |
| AND OTHERS                 | ET AL | PROPERTY LINE           | PL      |
| BACK                       | BK    | RECORDED AS             | (100' ) |
| BLOCK                      | BLK   | REFERENCE LINE          | R/L     |
| BUILDING                   | BLDG  | REMAINING               | REM     |
| CENTERLINE                 | C/L   | RIGHT                   | RT      |
| CERTIFIED SURVEY MAP       | CSM   | RIGHT OF WAY            | R/W     |
| CONCRETE                   | CONC  | SECTION                 | SEC     |
| COUNTY                     | CO    | SEPTIC VENT             | SEPV    |
| COUNTY TRUNK HIGHWAY       | CTH   | SQUARE FEET             | SF      |
| DISTANCE                   | DIST  | STATE TRUNK HIGHWAY     | STH     |
| CORNER                     | COR   | STATION                 | STA     |
| DOCUMENT NUMBER            | DOC   | SUBDIVISION             | SUBD    |
| EASEMENT                   | EASE  | TANGENT                 | TAN     |
| EXISTING                   | EX    | TELEPHONE PEDESTAL      | TP      |
| GAS VALVE                  | GV    | TEMPORARY LIMITED       | TLE     |
| GRID NORTH                 | GN    | EASEMENT                |         |
| HIGHWAY EASEMENT           | HE    | TRANSPORTATION PROJECT  | TPP     |
| HOUSE                      | HSE   | PLAT                    |         |
| IDENTIFICATION             | ID    | UNITED STATES HIGHWAY   | USH     |
| LAND CONTRACT              | LC    | VOLUME                  | V       |
| LEFT                       | LT    |                         |         |
| MONUMENT                   | MON   |                         |         |
| NATIONAL GEODETIC SURVEY   | NGS   |                         |         |
| NUMBER                     | NO    |                         |         |
| OUTLOT                     | OL    |                         |         |
| PAGE                       | P     |                         |         |
| POINT OF TANGENCY          | PT    |                         |         |
| PERMANENT LIMITED EASEMENT | PLE   |                         |         |

CURVE DATA

|                        |     |
|------------------------|-----|
| LONG CHORD             | LC  |
| LONG CHORD BEARING     | LCB |
| RADIUS                 | R   |
| DEGREE OF CURVE        | D   |
| CENTRAL ANGLE OR DELTA | L   |
| LENGTH OF CURVE        | T   |
| TANGENT                | DA  |
| DIRECTION AHEAD        | DB  |
| DIRECTION BACK         |     |

CONVENTIONAL UTILITY SYMBOLS

|                    |       |
|--------------------|-------|
| WATER              | —W—   |
| GAS                | —G—   |
| TELEPHONE          | —T—   |
| OVERHEAD           | —OH—  |
| TRANSMISSION LINES | —E—   |
| ELECTRIC           | —TV—  |
| CABLE TELEVISION   | —FO—  |
| FIBER OPTIC        | —SAN— |
| SANITARY SEWER     | —SS—  |
| STORM SEWER        |       |



BEGIN PROJECT

STA . 64+40.83  
Y = 591596.056  
X = 59346.872  
LOCATED 271.91' NORTH AND 15.53'  
EAST OF THE WEST QUARTER CORNER  
OF SECTION 2, T 24 N, R 19 E.

END PROJECT

STA. 98+96.53  
Y = 595051.498  
X = 59329.925  
LOCATED 1580.78' SOUTH AND 3.37'  
WEST OF THE WEST QUARTER CORNER  
OF SECTION 35, T 25 N, R 19 E.

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, BROWN, NAD83 (2011). IN THE 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" X 24" CAPPED IRON REBAR), 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.

EXISTING ACCESS CONTROL ALONG MARLEY STREET

FOR CURRENT ACCESS CONTROL INFORMATION CONTACT BROWN COUNTY.

PARCEL IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE SCHEDULE OF LANDS & INTERESTS REQUIRED.

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

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.

A PERMANENT LIMITED EASEMENT (PLE) FOR THE RIGHT TO CONSTRUCT AND MAINTAIN STORM SEWER, INCLUDING FOR SUCH PURPOSE THE RIGHT TO OPERATE THE NECESSARY EQUIPMENT THEREON AND 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 NECESSARY TO DESIRABLE, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHT TO MAKE OR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES WITHIN THE RIGHT OF WAY.

A PERMANENT LIMITED EASEMENT (PLE) FOR THE RIGHT TO CONSTRUCT, INSTALL, OPERATE, MAINTAIN, REPAIR, REPLACE, REMOVE AND EXTEND UNDERGROUND UTILITY FACILITIES NEEDED FOR ELECTRIC, GAS, AND COMMUNICATION PURPOSES, INCLUDING FOR SUCH PURPOSE THE RIGHT TO OPERATE THE NECESSARY EQUIPMENT THEREON AND 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 UTILITY AUTHORITIES MAY DEEM NECESSARY TO DESIRABLE, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHT TO MAKE OR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE UTILITY FACILITIES WITHIN THE EASEMENT.

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.

EXISTING HIGHWAY RIGHT-OF-WAY HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:

EXISTING HIGHWAY RIGHT-OF-WAY FOR MARLEY STREET SHOWN HEREIN BASED ON DEDICATION SHOWN ON VOLUME 39 OF CERTIFIED SURVEY MAPS, ON PAGE 141, MAP NO. 5946, DOCUMENT NO. 1705394, VOLUME 36 OF CERTIFIED SURVEY MAPS, ON PAGE 245, MAP NO. 5545, DOCUMENT NO. 1580135, VOLUME 37 OF CERTIFIED SURVEY MAPS, ON PAGE 95, MAP NO. 5625, DOCUMENT NO. 1605767, AND VOLUME 55 OF CERTIFIED SURVEY MAPS, ON PAGE 46, MAP NO. 7936, DOCUMENT NO. 2435434.

EXISTING HIGHWAY RIGHT-OF-WAY FOR GLENDALE AVENUE SHOWN HEREIN BASED ON DEDICATION SHOWN ON VOLUME 44 OF CERTIFIED SURVEY MAPS, ON PAGE 205, DOCUMENT NO. 1925185, VOLUME 40 OF CERTIFIED SURVEY MAPS, ON PAGE 265, DOCUMENT NO. 1749287 AND VOLUME 56 OF CERTIFIED SURVEY MAPS, ON PAGE 279, DOCUMENT NO. 2528885.

PROJECT NUMBER 9269-00-14-4.01  
SHEET 2 OF 3  
AMENDMENT NO:

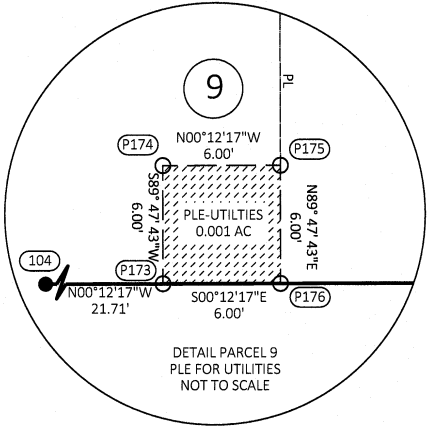
TRANSPORTATION PROJECT PLAT NO: 9269-00-14-4.01  
EXTENSION SHEET

RELOCATION ORDER - BROWN COUNTY CTH VV - (MILLWOOD COURT TO CTH C)

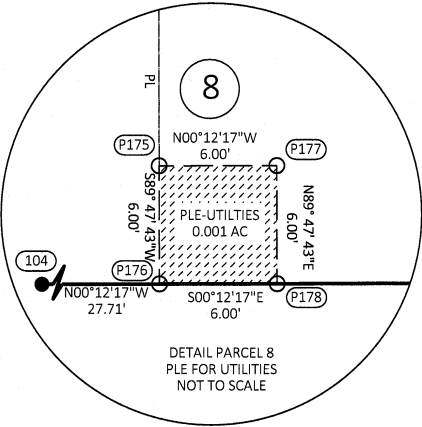
NOTES:  
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, BROWN COUNTY ZONE, NAD83(2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.



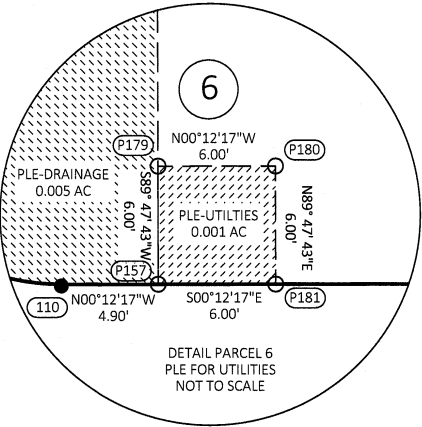
| PARCEL 9 PLE FOR UTILITIES TABLE |               |          |
|----------------------------------|---------------|----------|
| COURSE                           | BEARING       | DISTANCE |
| 104-P173                         | N00° 12' 17"W | 21.71'   |
| P173-P174                        | S89° 47' 43"W | 6.00'    |
| P174-P175                        | N00° 12' 17"W | 6.00'    |
| P175-P176                        | N89° 47' 43"E | 6.00'    |
| P176-P173                        | S00° 12' 17"E | 6.00'    |



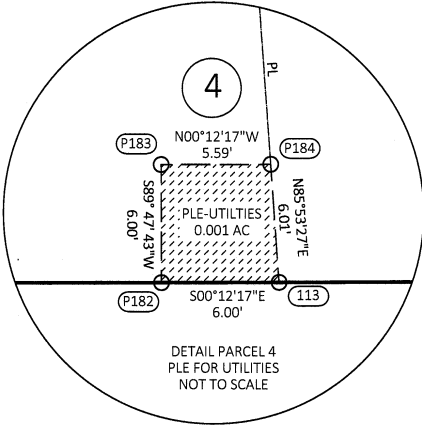
| PARCEL 8 PLE FOR UTILITIES TABLE |               |          |
|----------------------------------|---------------|----------|
| COURSE                           | BEARING       | DISTANCE |
| 104-P176                         | N00° 12' 17"W | 27.71'   |
| P176-P175                        | S89° 47' 43"W | 6.00'    |
| P175-P177                        | N00° 12' 17"W | 6.00'    |
| P177-P178                        | N89° 47' 43"E | 6.00'    |
| P178-P176                        | S00° 12' 17"E | 6.00'    |



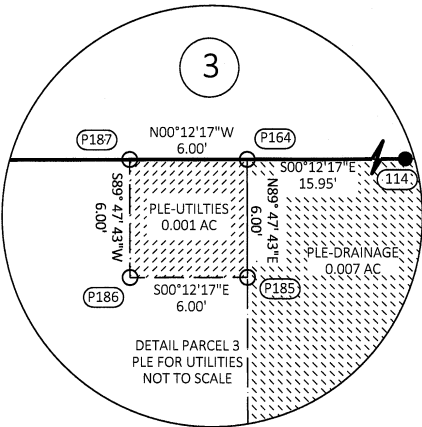
| PARCEL 6 PLE FOR UTILITIES TABLE |               |          |
|----------------------------------|---------------|----------|
| COURSE                           | BEARING       | DISTANCE |
| 110-P157                         | N00° 12' 17"W | 4.90'    |
| P157-P179                        | S89° 47' 43"W | 6.00'    |
| P179-P180                        | N00° 12' 17"W | 6.00'    |
| P180-P181                        | N89° 47' 43"E | 6.00'    |
| P181-P157                        | S00° 12' 17"E | 6.00'    |



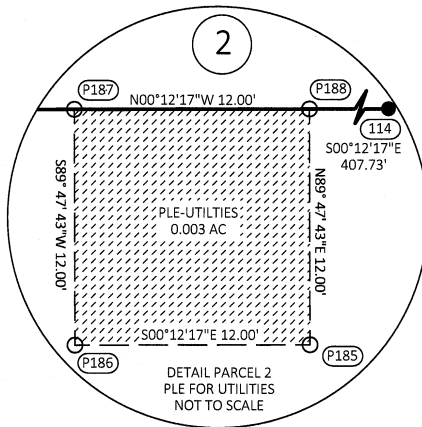
| PARCEL 4 PLE FOR UTILITIES TABLE |               |          |
|----------------------------------|---------------|----------|
| COURSE                           | BEARING       | DISTANCE |
| 113-P182                         | S00° 12' 17"E | 6.00'    |
| P182-P183                        | S89° 47' 43"W | 6.00'    |
| P183-P184                        | N00° 12' 17"W | 5.59'    |
| P184-113                         | N85° 53'27"E  | 6.01'    |



| PARCEL 3 PLE FOR UTILITIES TABLE |               |          |
|----------------------------------|---------------|----------|
| COURSE                           | BEARING       | DISTANCE |
| 114-P164                         | S00° 12' 17"E | 15.95'   |
| P164-P185                        | N89° 47' 43"E | 6.00'    |
| P185-P186                        | S00° 12' 17"E | 6.00'    |
| P186-P187                        | S89° 47' 43"W | 6.00'    |
| P187-P164                        | N00° 12' 17"W | 6.00'    |



| PARCEL 2 PLE FOR UTILITIES TABLE |               |          |
|----------------------------------|---------------|----------|
| COURSE                           | BEARING       | DISTANCE |
| 114-P188                         | S00° 12' 17"E | 407.73'  |
| P188-P189                        | N89° 47' 43"E | 12.00'   |
| P189-P190                        | S00° 12' 17"E | 12.00'   |
| P190-P191                        | S89° 47' 43"W | 12.00'   |
| P191-P188                        | N00° 12' 17"W | 12.00'   |



| STATION & OFFSET TABLE |               |           |            |           |
|------------------------|---------------|-----------|------------|-----------|
| POINT                  | STATION       | OFFSET    | Y COORDS   | X COORDS  |
| 100                    | 66+46.89 'NB' | -41.25'LT | 591801.976 | 59304.886 |
| IP1000                 | 66+46.38 'NB' | -56.44'LT | 591801.409 | 59289.697 |
| 101                    | 66+60.00 'NB' | -56.44'LT | 591815.028 | 59289.649 |
| 102                    | 66+75.00 'NB' | -50.00'LT | 591830.051 | 59296.036 |
| 103                    | 68+54.62 'NB' | -51.91'LT | 592010.689 | 59295.391 |
| 104                    | 69+55.61 'NB' | -54.00'LT | 592110.631 | 59293.035 |
| 105                    | 70+71.32 'NB' | -54.00'LT | 592226.341 | 59292.621 |
| 106                    | 70+83.32 'NB' | -66.00'LT | 592238.298 | 59280.578 |
| 107                    | 70+83.32 'NB' | -69.00'LT | 592238.287 | 59277.578 |
| 108                    | 71+46.10 'NB' | -69.00'LT | 592301.072 | 59277.353 |
| 109                    | 71+46.10 'NB' | -66.00'LT | 592301.083 | 59280.353 |
| 110                    | 71+58.10 'NB' | -54.00'LT | 592313.126 | 59292.310 |
| 111                    | 73+65.00 'NB' | -54.00'LT | 592520.020 | 59291.571 |
| 112                    | 73+90.00 'NB' | -52.00'LT | 592545.027 | 59293.482 |
| 113                    | 74+94.11 'NB' | -52.00'LT | 592649.139 | 59293.110 |
| 114                    | 75+00.94 'NB' | 34.00'RT  | 592656.276 | 59379.085 |
| 115                    | 68+59.71 'NB' | 34.00'RT  | 592014.711 | 59381.377 |
| 116                    | 67+60.03 'NB' | 34.00'RT  | 591914.705 | 59379.734 |
| 117                    | 64+74.95 'NB' | 34.00'RT  | 591630.300 | 59380.750 |
| 118                    | 64+40.83 'NB' | 33.68'RT  | 591596.177 | 59380.550 |

| STATION & OFFSET TABLE |               |           |            |           |
|------------------------|---------------|-----------|------------|-----------|
| POINT                  | STATION       | OFFSET    | Y COORDS   | X COORDS  |
| P150                   | 66+46.29 'NB' | -59.00'LT | 591801.313 | 59287.138 |
| P151                   | 66+60.00 'NB' | -59.00'LT | 591815.019 | 59287.089 |
| P152                   | 67+69.00 'NB' | -50.20'LT | 591925.047 | 59295.697 |
| P153                   | 67+68.66 'NB' | -67.19'LT | 591924.987 | 59278.697 |
| P154                   | 67+78.65 'NB' | -67.39'LT | 591934.987 | 59278.661 |
| P155                   | 67+78.99 'NB' | -50.40'LT | 591935.047 | 59295.661 |
| P156                   | 71+63.00 'NB' | -69.00'LT | 592317.967 | 59277.293 |
| P157                   | 71+63.00 'NB' | -54.00'LT | 592318.021 | 59292.293 |
| P158                   | 73+20.00 'NB' | -54.00'LT | 592475.020 | 59291.732 |
| P159                   | 73+20.00 'NB' | -75.00'LT | 592474.945 | 59270.732 |
| P160                   | 73+35.00 'NB' | -75.00'LT | 592489.945 | 59270.679 |
| P161                   | 73+35.00 'NB' | -54.00'LT | 592490.020 | 59291.678 |
| P162                   | 75+02.50 'NB' | 52.00'RT  | 592657.898 | 59397.080 |
| P163                   | 74+85.00 'NB' | 52.00'RT  | 592640.395 | 59397.142 |
| P164                   | 74+85.00 'NB' | 34.00'RT  | 592640.331 | 59379.142 |
| P165                   | 73+67.00 'NB' | 34.00'RT  | 592522.338 | 59379.564 |
| P166                   | 73+67.00 'NB' | 53.00'RT  | 592522.405 | 59398.564 |
| P167                   | 73+50.00 'NB' | 53.00'RT  | 592505.407 | 59398.624 |
| P168                   | 73+50.00 'NB' | 34.00'RT  | 592505.339 | 59379.624 |
| P169                   | 69+30.00 'NB' | 34.00'RT  | 592085.337 | 59381.124 |
| P170                   | 69+30.00 'NB' | 48.00'RT  | 592085.387 | 59395.124 |
| P171                   | 69+20.00 'NB' | 48.00'RT  | 592075.387 | 59395.160 |
| P172                   | 69+20.00 'NB' | 34.00'RT  | 592075.337 | 59381.160 |

| STATION & OFFSET TABLE |               |           |            |           |
|------------------------|---------------|-----------|------------|-----------|
| POINT                  | STATION       | OFFSET    | Y COORDS   | X COORDS  |
| P173                   | 69+77.32 'NB' | -54.00'LT | 592132.341 | 59292.957 |
| P174                   | 69+77.32 'NB' | -60.00'LT | 592132.320 | 59286.957 |
| P175                   | 69+83.32 'NB' | -60.00'LT | 592138.320 | 59286.936 |
| P176                   | 69+83.32 'NB' | -54.00'LT | 592138.341 | 59292.936 |
| P177                   | 69+89.32 'NB' | -60.00'LT | 592144.320 | 59286.914 |
| P178                   | 69+89.32 'NB' | -54.00'LT | 592144.341 | 59292.914 |
| P179                   | 71+63.00 'NB' | -60.00'LT | 592317.999 | 59286.293 |
| P180                   | 71+69.00 'NB' | -60.00'LT | 592323.999 | 59286.271 |
| P181                   | 71+69.00 'NB' | -54.00'LT | 592324.021 | 59292.271 |
| P182                   | 74+88.11 'NB' | -52.00'LT | 592643.141 | 59293.132 |
| P183                   | 74+88.11 'NB' | -58.00'LT | 592643.119 | 59287.132 |
| P184                   | 74+93.70 'NB' | -58.00'LT | 592648.708 | 59287.112 |
| P185                   | 74+85.00 'NB' | 40.00'RT  | 592640.352 | 59385.142 |
| P186                   | 74+79.00 'NB' | 40.00'RT  | 592634.352 | 59385.164 |
| P187                   | 74+79.00 'NB' | 34.00'RT  | 592634.331 | 59379.164 |
| P188                   | 70+93.22 'NB' | 34.00'RT  | 592248.552 | 59380.542 |
| P189                   | 70+93.22 'NB' | 46.00'RT  | 592248.595 | 59392.541 |
| P190                   | 70+81.22 'NB' | 46.00'RT  | 592236.595 | 59392.584 |
| P191                   | 70+81.22 'NB' | 34.00'RT  | 592236.552 | 59380.584 |

| R/W CURVE TABLE |        |        |            |                    |
|-----------------|--------|--------|------------|--------------------|
| CURVE           | LENGTH | RADIUS | LONG CHORD | LONG CHORD BEARING |
| C1              | 18.85' | 12.00' | 16.97'     | N45°11'35"W        |
| C2              | 18.85' | 12.00' | 16.97'     | N44°47'44"E        |

| PARCEL 4 PLE TABLE |               |          |
|--------------------|---------------|----------|
| COURSE             | BEARING       | DISTANCE |
| 110-P158           | N00° 12' 17"W | 161.90'  |
| P158-P159          | S89° 47' 43"W | 21.00'   |
| P159-P160          | N00° 12' 17"W | 15.00'   |
| P160-P161          | N89° 47' 43"E | 21.00'   |
| P161-P158          | S00° 12' 17"E | 15.00'   |

| PARCEL 3 PLE TABLE |               |          |
|--------------------|---------------|----------|
| COURSE             | BEARING       | DISTANCE |
| 114-P162           | N84°50'59"E   | 18.07'   |
| P162-P163          | S00° 12' 17"E | 17.50'   |
| P163-P164          | S89° 47' 43"W | 18.00'   |
| P164-114           | N00° 12' 17"W | 15.95'   |

| PARCEL 3 PLE TABLE |               |          |
|--------------------|---------------|----------|
| COURSE             | BEARING       | DISTANCE |
| 114-P165           | S00° 12' 17"E | 133.94'  |
| P165-P166          | N89° 47' 43"E | 19.00'   |
| P166-P167          | S00° 12' 17"E | 17.00'   |
| P167-P168          | S89° 47' 43"W | 19.00'   |
| P168-P165          | N00° 12' 17"W | 17.00'   |

| PARCEL 2 PLE TABLE |               |          |
|--------------------|---------------|----------|
| COURSE             | BEARING       | DISTANCE |
| 114-P169           | S00° 12' 17"E | 570.94'  |
| P169-P170          | N89° 47' 43"E | 14.00'   |
| P170-P171          | S00° 12' 17"E | 10.00'   |
| P171-P172          | S89° 47' 43"W | 14.00'   |
| P172-P169          | N00° 12' 17"W | 10.00'   |

| PARCEL 6 PLE TABLE |               |          |
|--------------------|---------------|----------|
| COURSE             | BEARING       | DISTANCE |
| 108-P156           | N00° 12' 17"W | 16.89'   |
| P156-P157          | N89° 47' 43"E | 15.00'   |
| P157-110           | S00° 12' 17"E | 4.90'    |
| 110-109            | SEE CURVE C2  |          |
| 109-108            | S89° 51' 58"W | 3.00'    |

| PARCEL 10 PLE TABLE |               |          |
|---------------------|---------------|----------|
| COURSE              | BEARING       | DISTANCE |
| 102-P152            | N00°12'17"W   | 95.00'   |
| P152-P153           | S89° 47' 43"W | 17.00'   |
| P153-P154           | N00° 12' 17"W | 10.00'   |
| P154-P155           | N89° 47' 43"E | 17.00'   |
| P155-P152           | S00° 12' 17"E | 10.00'   |

| PARCEL 11 PLE TABLE |               |          |
|---------------------|---------------|----------|
| COURSE              | BEARING       | DISTANCE |
| 100-IP1000          | S87° 51' 47"W | 15.20'   |
| IP1000-P150         | S87° 51' 47"W | 2.56'    |
| P150-P151           | N00° 12' 17"W | 13.71'   |
| P151-101            | N89° 47' 43"E | 2.56'    |
| 101-IP1000          | S00° 12' 17"E | 13.62'   |



REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 3 OF THIS DOCUMENT FOR ADDITIONAL INFORMATION.

PROJECT NUMBER 9269-00-14-4.01  
SHEET 3 OF 3  
AMENDMENT NO:

FILE NAME : I:\45\450490 MARLEY STREET\C3D\RW\4.01.DWG  
APPRAISAL PLAT DATE : \_\_\_\_\_

PLOT DATE : JANUARY 22, 2021

PLOT BY : BOSTEDT, JILL

PLOT NAME :

PLOT SCALE : 1"=100'



TRANSPORTATION PROJECT PLAT NO: 9269-00-14-4.02 AMENDMENT NO:1 - AMENDS PARCEL 12 OF  
TRANSPORTATION PLAT NO: 9269-00-14-4.02 RECORDED AS DOC. 2945073, IN VOLUME 1 ON PAGE 228

BEING IN AND INCLUDING PART OF THE NORTHWEST ¼ OF THE NORTHWEST ¼, IN SECTION 2, AND BEING IN AND INCLUDING PART OF  
THE NORTHEAST ¼ OF THE NORTHEAST ¼, IN SECTION 3, T24N, R19E, VILLAGE OF HOWARD, BROWN COUNTY, WISCONSIN.

RELOCATION ORDER - BROWN COUNTY CTH VV - (MILLWOOD COURT TO CTH C)

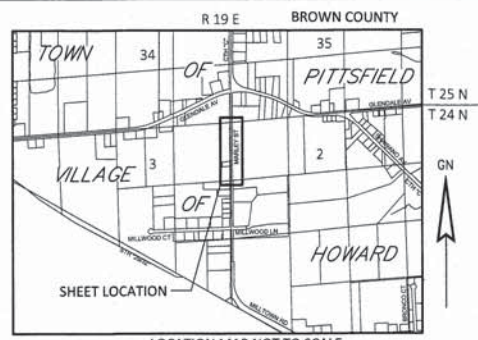
TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE,  
VILLAGE OF HOWARD DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE  
NAMED PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 61.34 (3), (3M), AND 61.36, WISCONSIN STATUTES, THE VILLAGE OF HOWARD 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 COUNTY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE  
NAME OF THE VILLAGE OF HOWARD, PURSUANT TO THE PROVISIONS OF  
SECTIONS 61.34 (3), (3M), AND 61.36, WISCONSIN STATUTES.

| SCHEDULE OF LANDS & INTERESTS REQUIRED |                                                                         |                      |                  |                          |                       |              |                          |
|----------------------------------------|-------------------------------------------------------------------------|----------------------|------------------|--------------------------|-----------------------|--------------|--------------------------|
| PARCEL<br>NUMBER                       | OWNER(S)                                                                | INTEREST<br>REQUIRED | NEW R/W<br>ACRES | EXISTING<br>R/W<br>ACRES | TOTAL<br>R/W<br>ACRES | PLE<br>ACRES | PLE ACRES<br>(UTILITIES) |
| 12                                     | VILLAGE OF HOWARD                                                       | FEE, PLE & TLE       | 0.680            | -----                    | 0.680                 | 1.181        | 0.350                    |
| 13                                     | ROBERT L. VANDER VELDEN AND BEVERLY J. VANDER VELDEN                    | FEE, PLE & TLE       | 0.364            | -----                    | 0.364                 | 0.009        | -----                    |
| 14                                     | ROBERT L. VANDER VELDEN AND BEVERLY J. VANDER VELDEN<br>REVOCABLE TRUST | FEE, PLE & TLE       | 0.027            | -----                    | 0.027                 | -----        | 0.001                    |

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS  
TO THE COUNTY.



**2967856**  
VOLUME: 1  
PAGE: 242  
CHERYL BERKEN  
BROWN COUNTY  
REGISTER OF DEEDS  
GREEN BAY, WI  
RECORDED ON  
07/15/2021 03:45 PM  
REC FEE: 25.00  
PAGES: 1

RESERVED FOR REGISTER OF DEEDS  
PROJECT NUMBER 9269-00-14-4.02  
AMENDMENT NO: 1

| R/W CURVE TABLE |        |        |            |                    |
|-----------------|--------|--------|------------|--------------------|
| CURVE           | LENGTH | RADIUS | LONG CHORD | LONG CHORD BEARING |
| C3              | 43.35' | 27.00' | 38.84'     | N44°12'27"W        |
| C4              | 18.85' | 12.00' | 16.97'     | N44°47'43"E        |
| C5              | 43.35' | 27.00' | 38.84'     | S44°12'29"E        |
| C6              | 50.33' | 32.00' | 45.30'     | S44°51'17"W        |
| C7              | 24.88' | 15.00' | 22.12'     | S42°41'41"E        |
| C8              | 31.46' | 20.00' | 28.31'     | S44°51'17"W        |

| PARCEL 12 PLE TABLE |             |          |
|---------------------|-------------|----------|
| COURSE              | BEARING     | DISTANCE |
| 216-P265            | N00°12'17"W | 40.15'   |
| P265-P266           | N84°50'57"E | 1276.59' |
| P266-P267           | S01°00'57"E | 40.11'   |
| P267-216            | S84°50'59"W | 1277.16' |

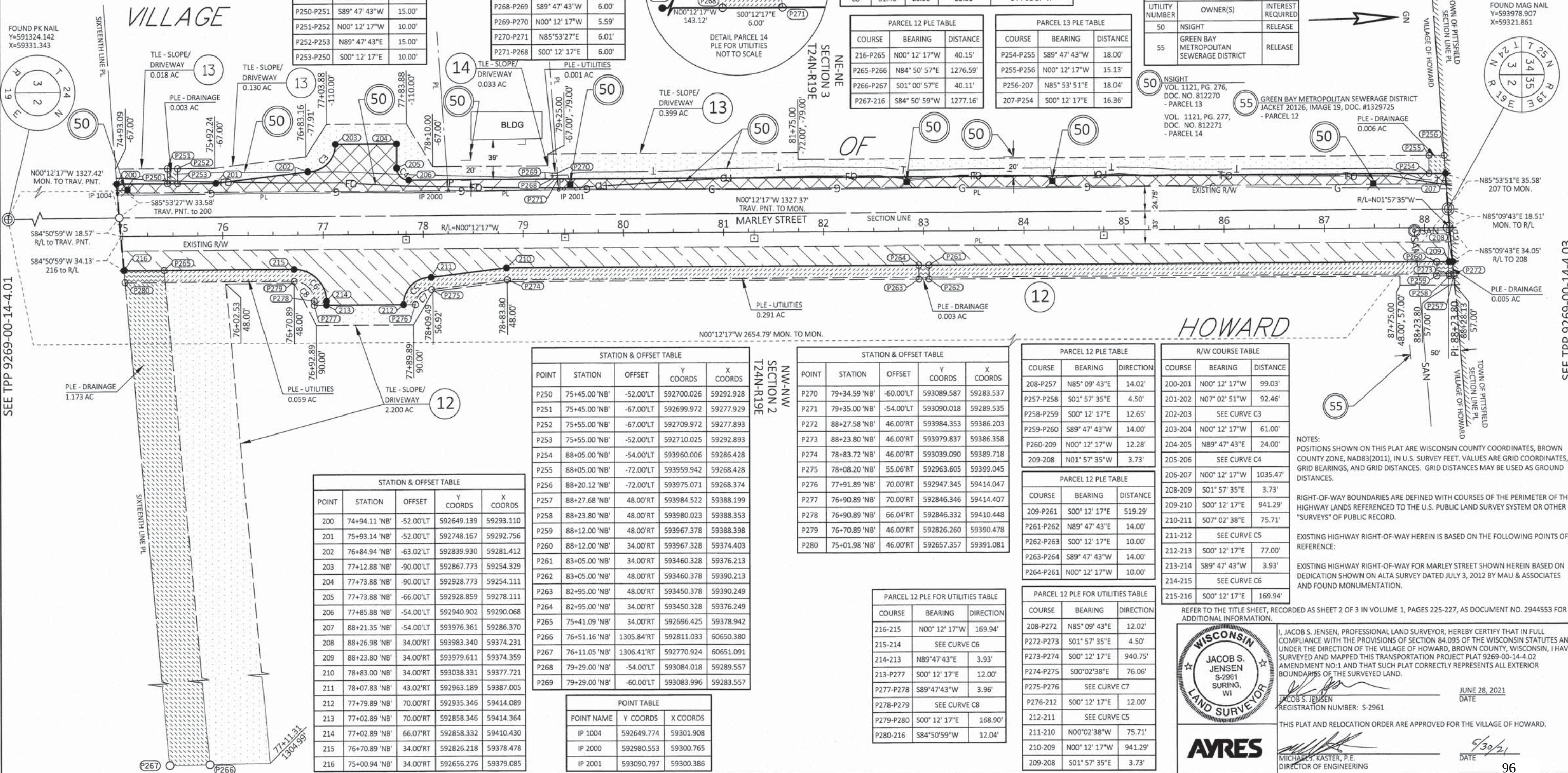
| PARCEL 13 PLE TABLE |             |          |
|---------------------|-------------|----------|
| COURSE              | BEARING     | DISTANCE |
| P254-P255           | S89°47'43"W | 18.00'   |
| P255-P256           | N00°12'17"W | 15.13'   |
| P256-207            | N85°53'51"E | 18.04'   |
| 207-P254            | S00°12'17"E | 16.36'   |

| SCHEDULE OF UTILITIES<br>& INTERESTS REQUIRED |                                             |                      |
|-----------------------------------------------|---------------------------------------------|----------------------|
| UTILITY<br>NUMBER                             | OWNER(S)                                    | INTEREST<br>REQUIRED |
| 50                                            | NSIGHT                                      | RELEASE              |
| 55                                            | GREEN BAY METROPOLITAN<br>SEWERAGE DISTRICT | RELEASE              |

50 NSIGHT  
VOL. 1121, PG. 276,  
DOC. NO. 812270  
- PARCEL 13  
VOL. 1121, PG. 277,  
DOC. NO. 812271  
- PARCEL 14  
55 GREEN BAY METROPOLITAN SEWERAGE DISTRICT  
JACKET 20126, IMAGE 19, DOC. #1329725  
- PARCEL 12

0 50 100  
SCALE, FEET

FOUND MAG NAIL  
Y=593978.907  
X=59321.861





TRANSPORTATION PROJECT PLAT NO: 9269-00-14-4.03

PART OF LOT 1, VOLUME 44, CERTIFIED SURVEY MAPS, PAGE 205, MAP #6637, DOC. NO. 1925185, BEING IN AND INCLUDING PART OF THE SOUTHEAST 1/4 OF THE SOUTHEAST 1/4, IN SECTION 34, T25N, R19E, TOWN OF PITTSFIELD, BROWN COUNTY, WISCONSIN.

RELOCATION ORDER - BROWN COUNTY CTH VV - (MILLWOOD COURT TO CTH C)

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

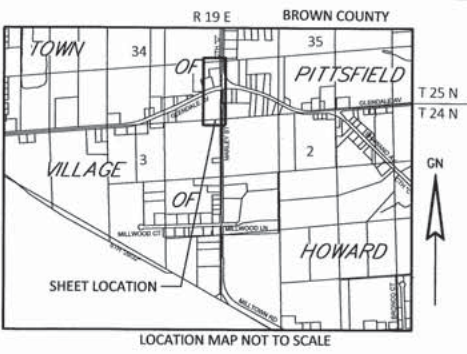
TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 60.50 AND 82.12, WISCONSIN STATUTES, THE TOWN OF PITTSFIELD HEREBY ORDERS THAT:

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 COUNTY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE TOWN OF PITTSFIELD, PURSUANT TO THE PROVISIONS OF SECTIONS 60.50 AND 82.12, WISCONSIN STATUTES.

| SCHEDULE OF LANDS & INTERESTS REQUIRED |                                    |                   |               |                    |                 |           |
|----------------------------------------|------------------------------------|-------------------|---------------|--------------------|-----------------|-----------|
| PARCEL NUMBER                          | OWNER(S)                           | INTEREST REQUIRED | NEW R/W ACRES | EXISTING R/W ACRES | TOTAL R/W ACRES | TLE ACRES |
| 16                                     | JAMES R. WARD AND VICTORIA M. WARD | FEE & TLE         | 0.245         | ---                | 0.245           | 0.193     |
| 17                                     | THE ZEGERS FAMILY TRUST            | FEE, PLE & TLE    | 0.074         | ---                | 0.074           | 0.002     |

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE COUNTY.

| SCHEDULE OF UTILITIES & INTERESTS REQUIRED |          |                   |
|--------------------------------------------|----------|-------------------|
| UTILITY NUMBER                             | OWNER(S) | INTEREST REQUIRED |
| 50                                         | NSIGHT   | RELEASE           |



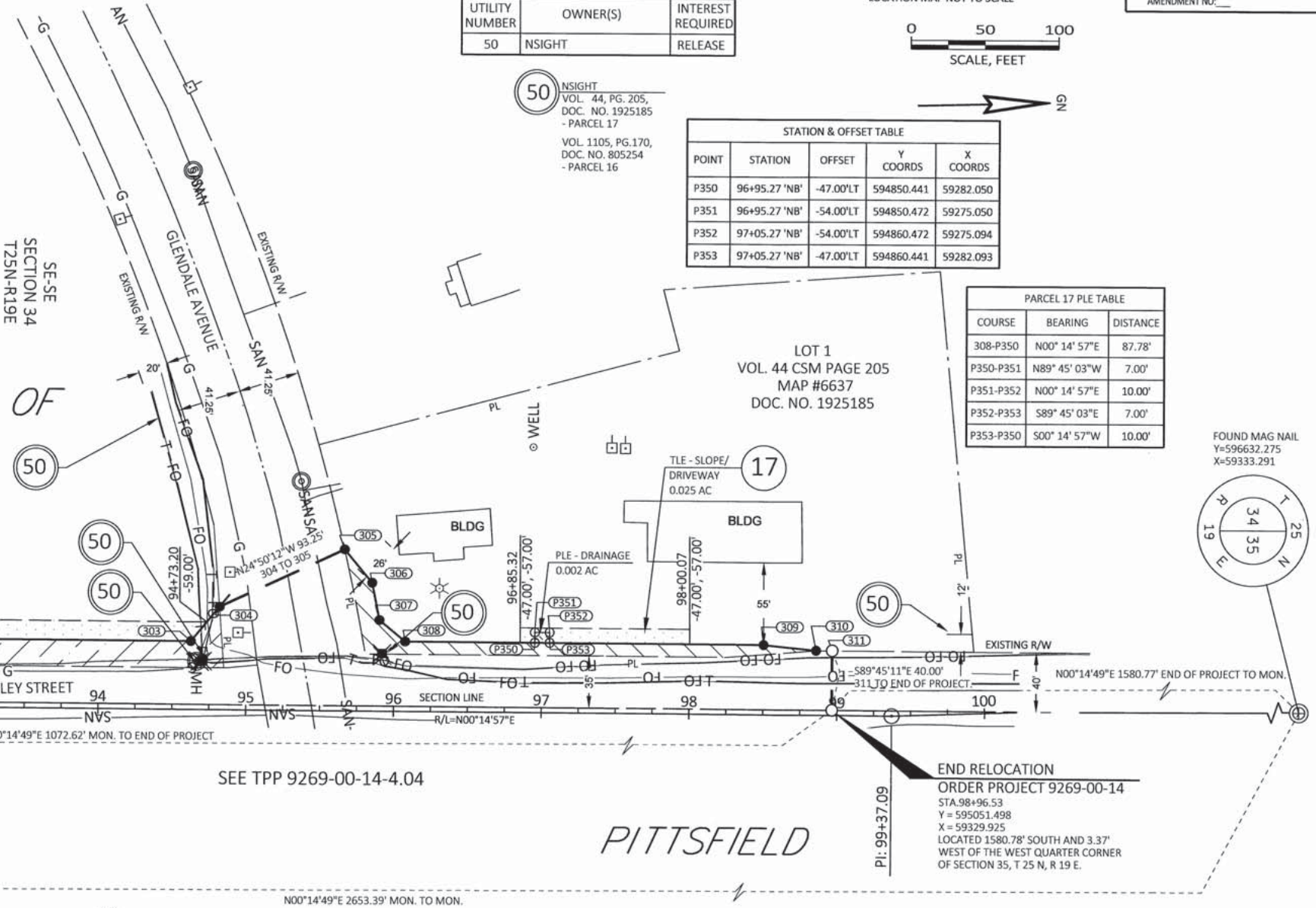
2945074  
VOLUME: 1  
PAGE: 229  
CHERYL BERKEN  
BROWN COUNTY  
REGISTER OF DEEDS  
GREEN BAY, WI  
RECORDED ON  
02/16/2021 02:31 PM  
REC FEE: 25.00  
PAGES: 1

RESERVED FOR REGISTER OF DEEDS  
PROJECT NUMBER 9269-00-14-4.03  
AMENDMENT NO: \_\_\_\_\_

| STATION & OFFSET TABLE |               |            |            |           |
|------------------------|---------------|------------|------------|-----------|
| POINT                  | STATION       | OFFSET     | Y COORDS   | X COORDS  |
| 300                    | 88+21.35 'NB' | -54.00'LT  | 593976.361 | 59286.370 |
| 301                    | 88+25.23 'NB' | -53.98'LT  | 593978.590 | 59286.362 |
| 302                    | 92+15.54 'NB' | -46.00'LT  | 594370.361 | 59280.961 |
| 303                    | 94+62.49 'NB' | -46.00'LT  | 594617.666 | 59282.037 |
| 304                    | 94+81.74 'NB' | -69.38'LT  | 594637.011 | 59258.743 |
| 305                    | 95+66.19 'NB' | -108.91'LT | 594721.636 | 59219.575 |
| 306                    | 95+84.93 'NB' | -86.48'LT  | 594740.278 | 59242.086 |
| 307                    | 95+89.99 'NB' | -61.39'LT  | 594745.229 | 59267.200 |
| 308                    | 96+07.49 'NB' | -47.00'LT  | 594762.664 | 59281.668 |
| 309                    | 98+50.07 'NB' | -47.00'LT  | 595005.241 | 59282.724 |
| 310                    | 98+85.63 'NB' | -43.43'LT  | 595040.788 | 59286.448 |
| 311                    | 98+96.53 'NB' | -43.44'LT  | 595051.686 | 59286.482 |

| STATION & OFFSET TABLE |               |           |            |           |
|------------------------|---------------|-----------|------------|-----------|
| POINT                  | STATION       | OFFSET    | Y COORDS   | X COORDS  |
| P350                   | 96+95.27 'NB' | -47.00'LT | 594850.441 | 59282.050 |
| P351                   | 96+95.27 'NB' | -54.00'LT | 594850.472 | 59275.050 |
| P352                   | 97+05.27 'NB' | -54.00'LT | 594860.472 | 59275.094 |
| P353                   | 97+05.27 'NB' | -47.00'LT | 594860.441 | 59282.093 |

| PARCEL 17 PLE TABLE |               |          |
|---------------------|---------------|----------|
| COURSE              | BEARING       | DISTANCE |
| 308-P350            | N00° 14' 57"E | 87.78'   |
| P350-P351           | N89° 45' 03"W | 7.00'    |
| P351-P352           | N00° 14' 57"E | 10.00'   |
| P352-P353           | S89° 45' 03"E | 7.00'    |
| P353-P350           | S00° 14' 57"W | 10.00'   |



| R/W COURSE TABLE |               |          |
|------------------|---------------|----------|
| COURSE           | BEARING       | DISTANCE |
| 300-301          | N00° 12' 17"W | 2.23'    |
| 301-302          | N00° 47' 23"W | 391.81'  |
| 302-303          | N00° 14' 57"E | 247.31'  |
| 303-304          | N50° 17' 29"W | 30.28'   |
| 305-306          | N50° 22' 14"E | 29.23'   |
| 306-307          | N78° 50' 48"E | 25.60'   |
| 307-308          | N39° 41' 16"E | 22.66'   |
| 308-309          | N00° 14' 57"E | 242.58'  |
| 309-310          | N05° 58' 54"E | 35.74'   |
| 310-311          | N00° 10' 36"E | 10.90'   |

REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 3 IN VOLUME 1, PAGES 225-227, AS DOCUMENT NO. 2944553 FOR ADDITIONAL INFORMATION.



I, JACOB S. JENSEN, 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 TOWN OF PITTSFIELD, BROWN COUNTY, WISCONSIN, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT 9269-00-14-4.03 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

JACOB S. JENSEN  
REGISTRATION NUMBER: S-2961  
FEBRUARY 12, 2021  
DATE

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE TOWN OF PITTSFIELD.

AYRES

KEITH DENEYS  
CHAIRPERSON

2/15/21  
DATE

SEE TPP 9269-00-14-4.02

SEE TPP 9269-00-14-4.04

NOTES:  
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, BROWN COUNTY ZONE, NAD83(2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

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.

EXISTING HIGHWAY RIGHT-OF-WAY HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:

EXISTING HIGHWAY RIGHT-OF-WAY FOR MARLEY STREET SHOWN HEREIN BASED ON DEDICATION SHOWN ON VOLUME 44 OF CERTIFIED SURVEY MAPS, ON PAGE 205, DOCUMENT NO. 1925185.

EXISTING HIGHWAY RIGHT-OF-WAY FOR GLENDALE AVENUE SHOWN HEREIN BASED ON DEDICATION SHOWN ON VOLUME 44 OF CERTIFIED SURVEY MAPS, ON PAGE 205, DOCUMENT NO. 1925185.



TRANSPORTATION PROJECT PLAT NO: 9269-00-14-4.04 AMENDMENT NO:1 - REMOVES UTILITY NUMBER 55 AND CREATES UTILITY NUMBER 56 OF TRANSPORTATION PLAT NO: 9269-00-14-4.04 RECORDED AS DOC. 2945075, IN VOLUME 1 ON PAGE 230

PART OF LOTS 1 AND 2, VOLUME 40, CERTIFIED SURVEY MAPS, PAGE 265, MAP #6122, DOC. NO. 1749287, PART OF LOT 1, VOLUME 56, CERTIFIED SURVEY MAPS, PAGE 279, MAP #8130, DOC. NO. 2528885, BEING IN AND INCLUDING PART OF THE SOUTHWEST ¼ OF THE SOUTHWEST ¼, IN SECTION 35, T25N, R19E, TOWN OF PITTSFIELD, BROWN COUNTY, WISCONSIN.

RELOCATION ORDER - BROWN COUNTY CTH VV - (MILLWOOD COURT TO CTH C)

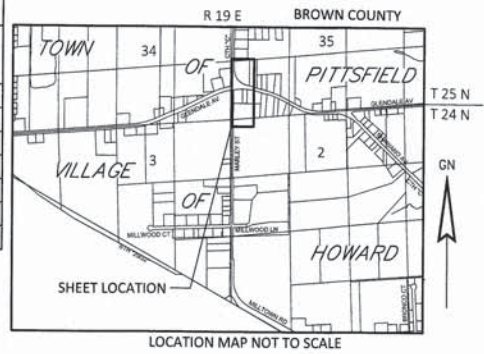
TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, TOWN OF PITTSFIELD DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE NAMED PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 60.50 AND 82.12, WISCONSIN STATUTES, THE TOWN OF PITTSFIELD HEREBY ORDERS THAT:

- 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.
- THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE COUNTRY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE TOWN OF PITTSFIELD, PURSUANT TO THE PROVISIONS OF SECTIONS 0.50 AND 82.12, WISCONSIN STATUTES.

| SCHEDULE OF LANDS & INTERESTS REQUIRED |                                       |                   |               |                    |                 |           |
|----------------------------------------|---------------------------------------|-------------------|---------------|--------------------|-----------------|-----------|
| PARCEL NUMBER                          | OWNER(S)                              | INTEREST REQUIRED | NEW R/W ACRES | EXISTING R/W ACRES | TOTAL R/W ACRES | PLE ACRES |
| 18                                     | SCOTT M. ASCHER AND PATTY S. ASCHER   | FEE, PLE & TLE    | 0.087         | 0.087              | 0.087           | 0.003     |
| 19                                     | ALLEN J. SIGL AND AUDREY SIGL         | FEE, PLE & TLE    | 0.052         | 0.052              | 0.052           | 0.005     |
| 21                                     | JEFF NARGES                           | TLE               | 0.021         | 0.021              | 0.021           | 0.003     |
| 22                                     | JAY L. MEYERS AND DONNA A. MEYERS     | PLE & TLE         | 0.063         | 0.063              | 0.063           | 0.003     |
| 23                                     | JEREMY L. MAJORS AND ALYSSA R. MAJORS | TLE               | 0.025         | 0.025              | 0.025           | 0.003     |
| 24                                     | TODD M. SAYEN                         | FEE & TLE         | 0.012         | 0.012              | 0.012           | 0.003     |
| 26                                     | GARRET GOODMAN AND HELENE GOODMAN     | FEE & TLE         | 0.003         | 0.003              | 0.003           | 0.003     |

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE COUNTY.

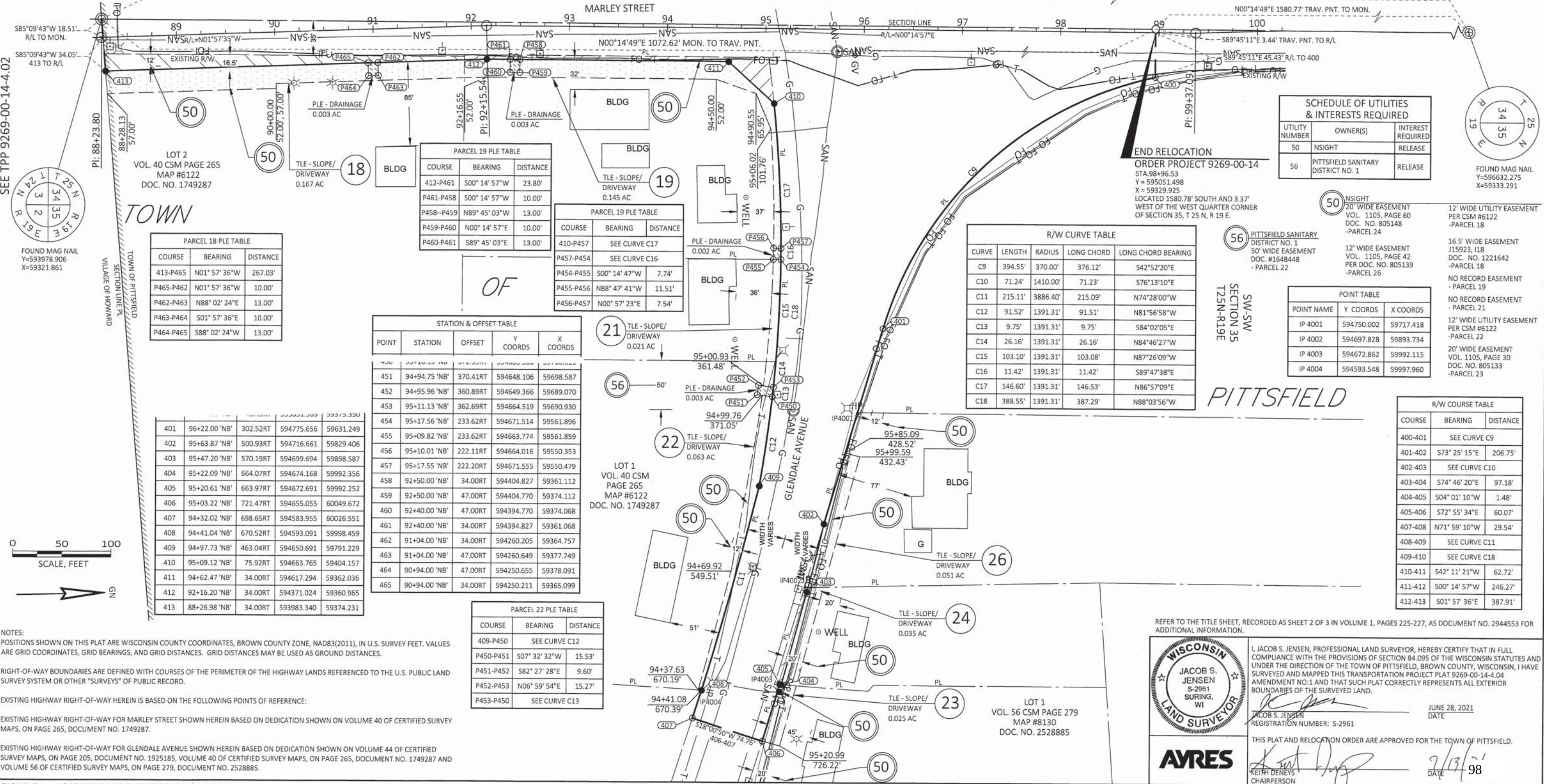


2967857  
VOLUME: 1  
PAGE: 243  
CHERYL BERKEN  
BROWN COUNTY  
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07/15/2021 03:45 PM  
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RESERVED FOR REGISTER OF DEEDS  
PROJECT NUMBER 9269-00-14-4.04  
AMENDMENT NO: 1

SEE TPP 9269-00-14-4.03

N00°14'49"E 2653.39' MON. TO MON.



NOTES:  
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, BROWN COUNTY ZONE, NAD83(2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

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.

EXISTING HIGHWAY RIGHT-OF-WAY HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:

EXISTING HIGHWAY RIGHT-OF-WAY FOR MARLEY STREET SHOWN HEREIN BASED ON DEDICATION SHOWN ON VOLUME 40 OF CERTIFIED SURVEY MAPS, ON PAGE 265, DOCUMENT NO. 1749287.

EXISTING HIGHWAY RIGHT-OF-WAY FOR GLENDALE AVENUE SHOWN HEREIN BASED ON DEDICATION SHOWN ON VOLUME 44 OF CERTIFIED SURVEY MAPS, ON PAGE 205, DOCUMENT NO. 1925185, VOLUME 40 OF CERTIFIED SURVEY MAPS, ON PAGE 265, DOCUMENT NO. 1749287 AND VOLUME 56 OF CERTIFIED SURVEY MAPS, ON PAGE 279, DOCUMENT NO. 2528885.

FILE NAME : I:\45\450490 MARLEY STREET\3D\RW\4.04.DWG  
APPRAISAL PLAT DATE : FEBRUARY 12, 2021

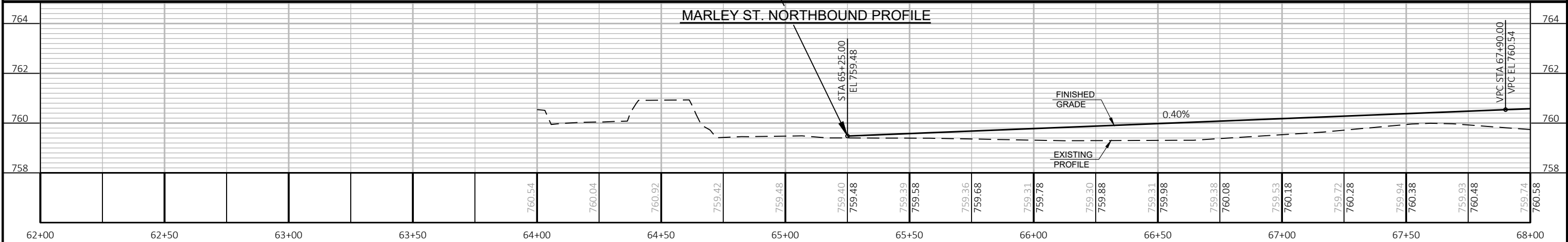
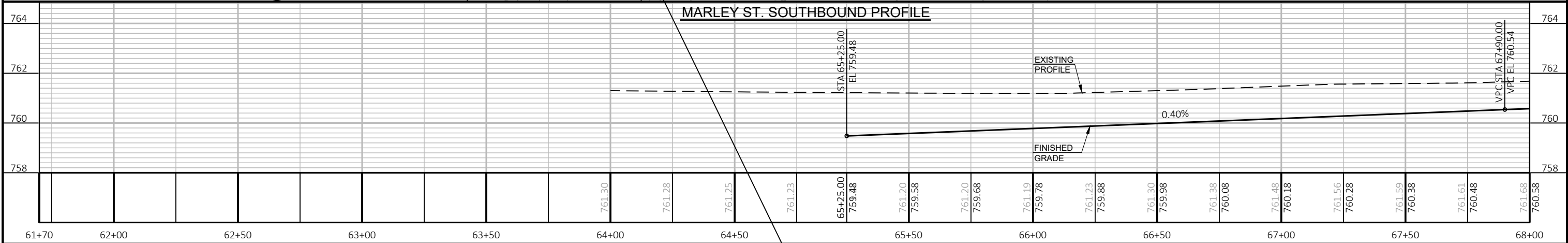
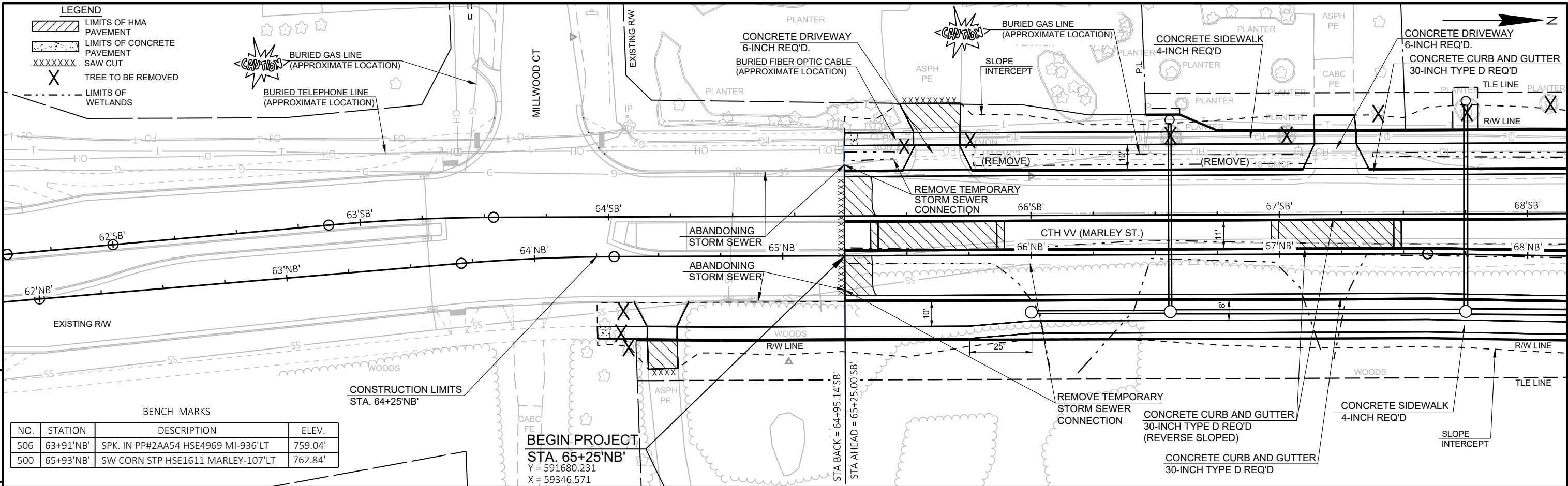
PLOT DATE : JANUARY 22, 2021

PLOT BY : JENSEN, JACOB

PLOT NAME :

PLOT SCALE : 1"=100'

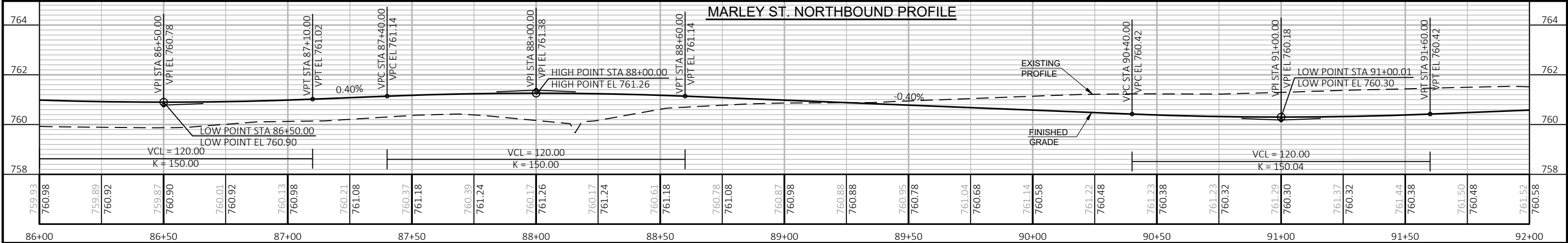
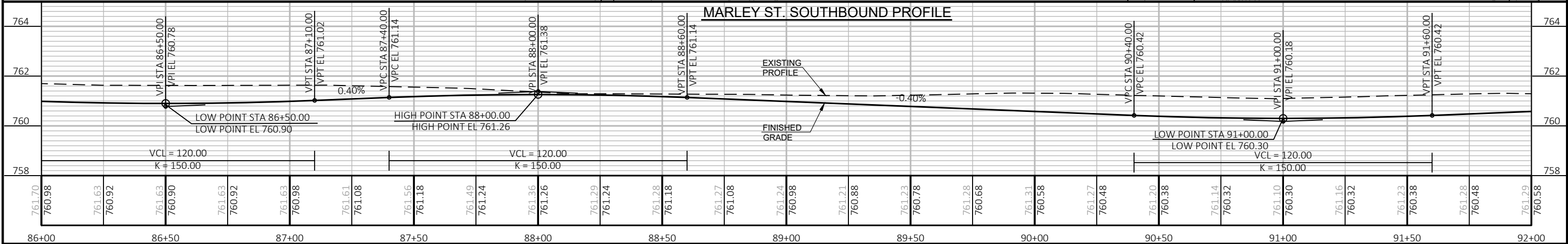
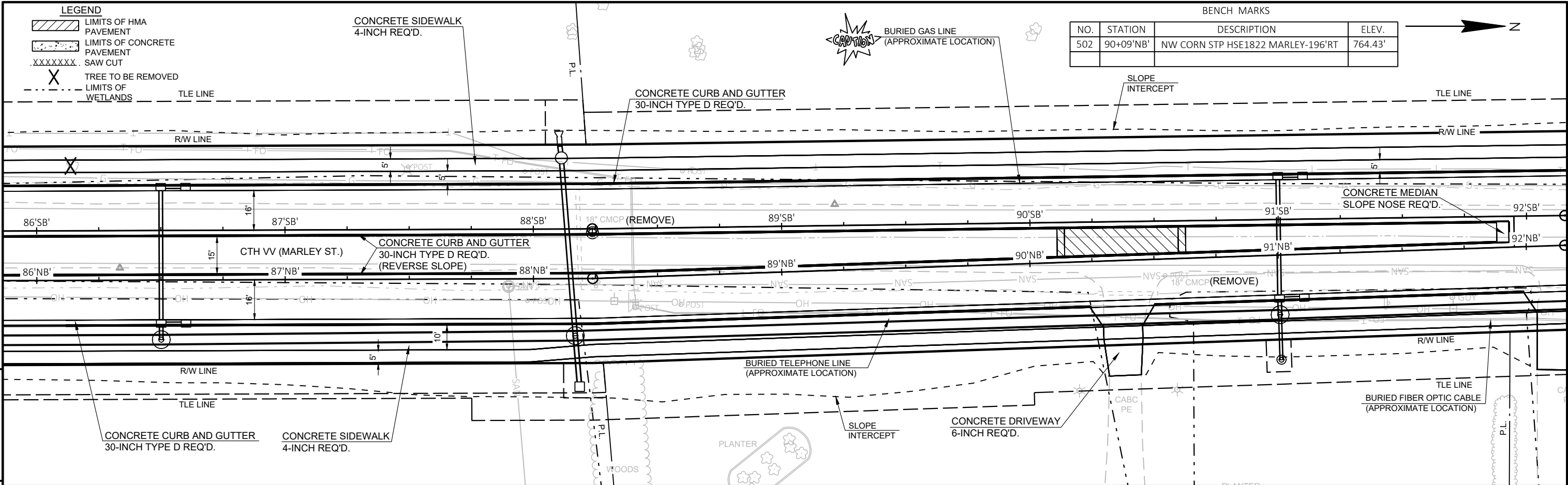


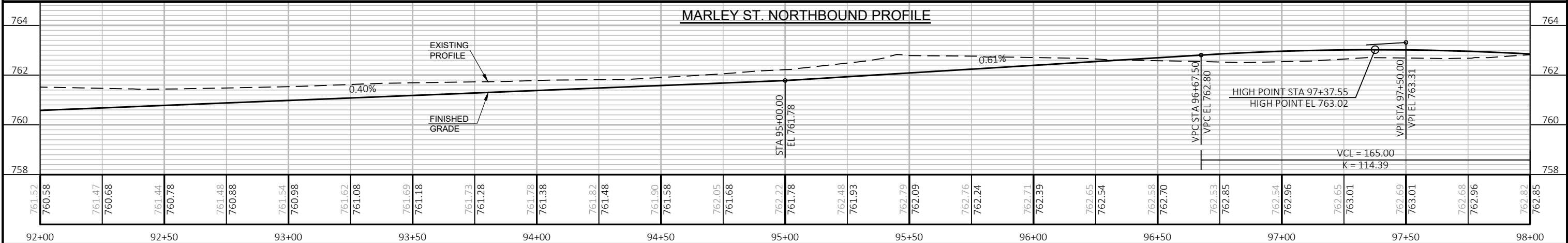
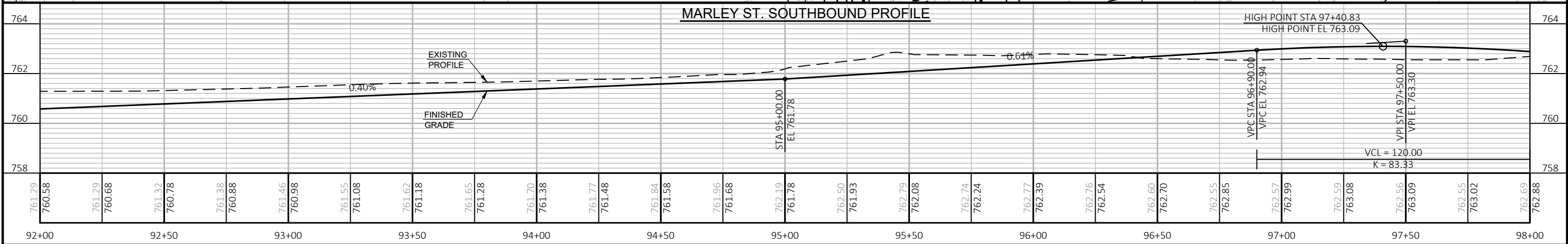
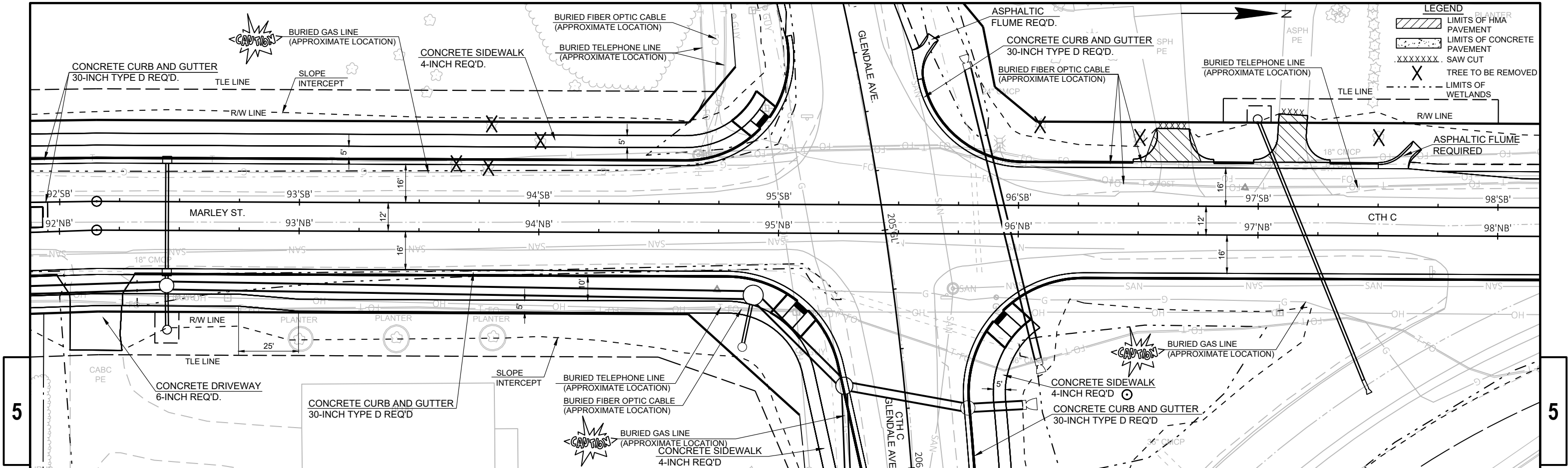








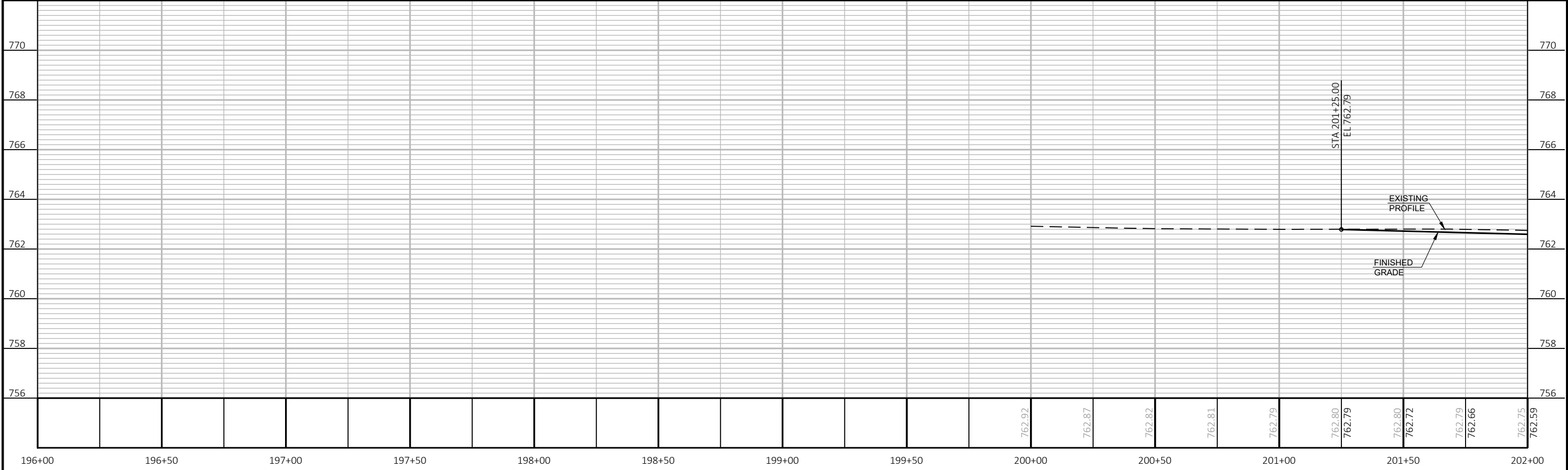
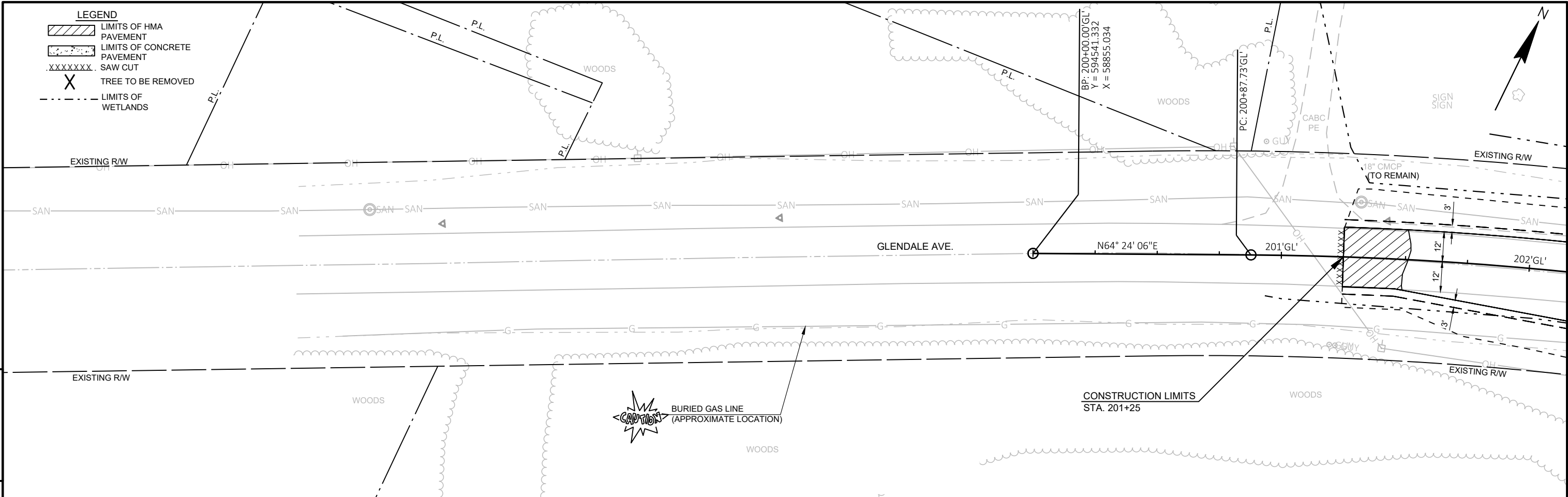


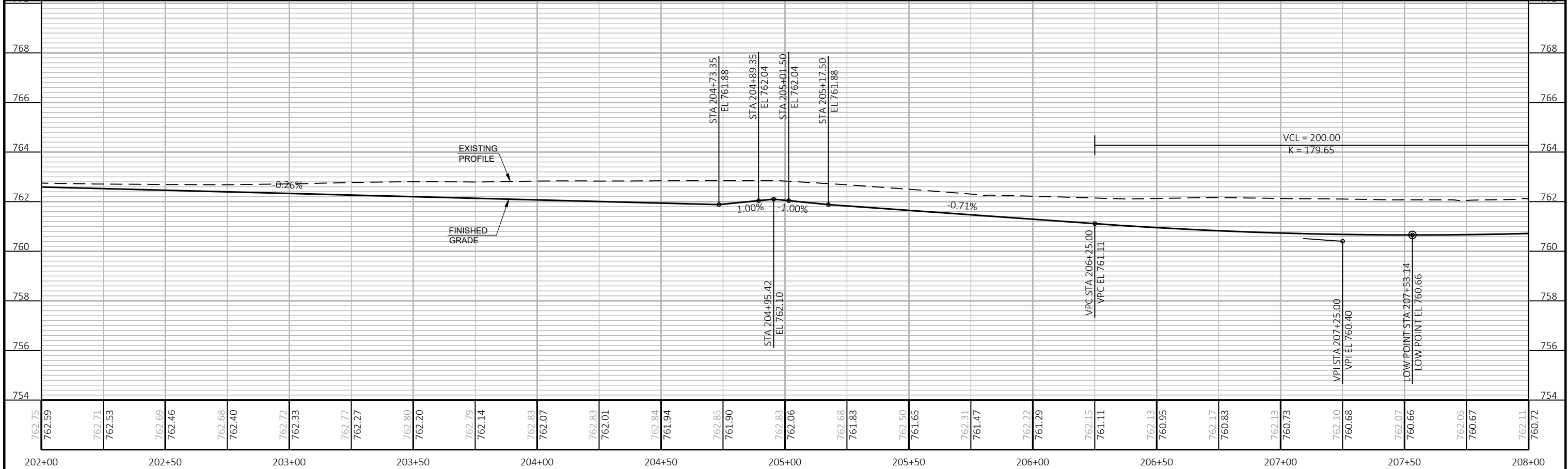
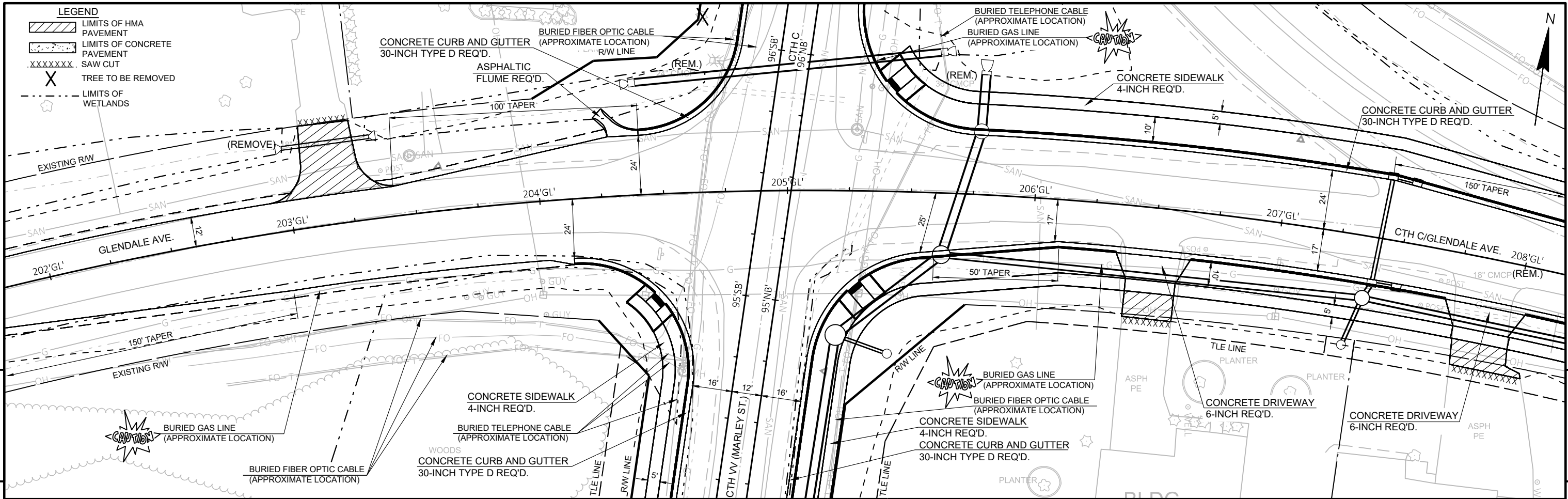


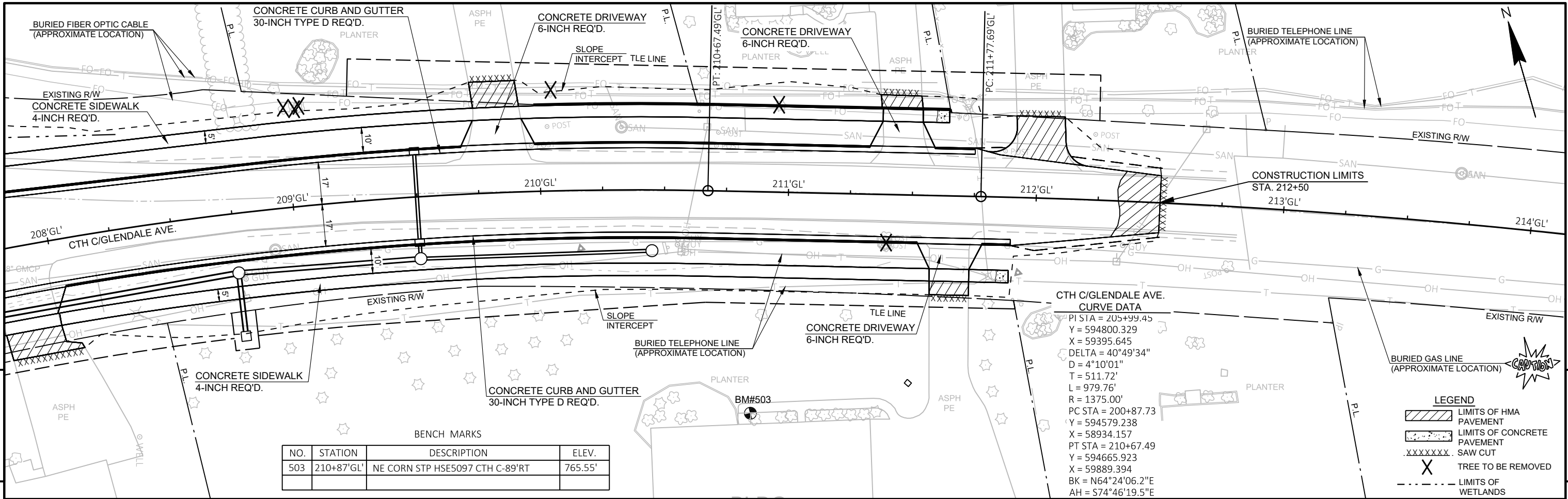




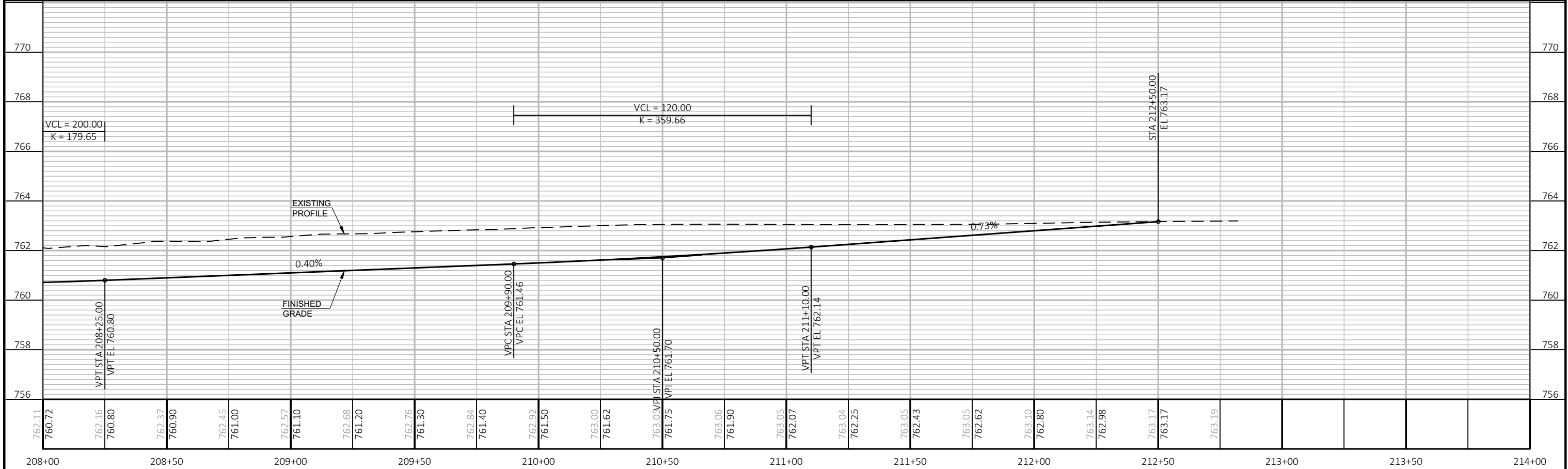








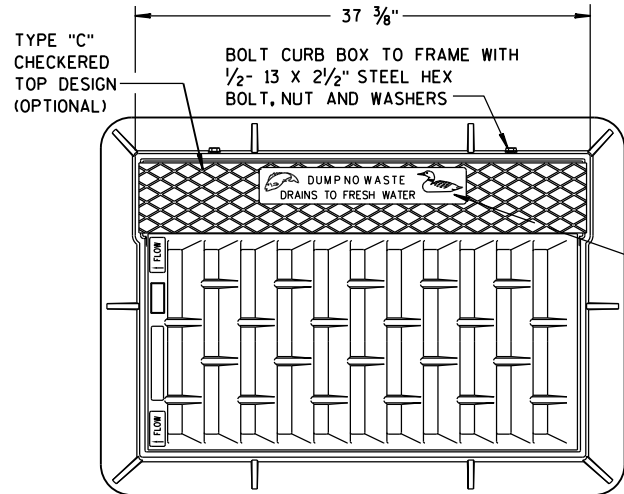
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|-------------|------------|---------------------------------|---------|
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| 503         | 210+87'GL' | NE CORN STP HSE5097 CTH C-89'RT | 765.55' |



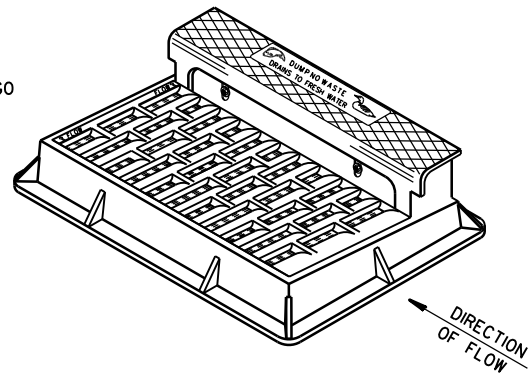
|             |            |      |               |         |       |                   |                  |       |     |   |
|-------------|------------|------|---------------|---------|-------|-------------------|------------------|-------|-----|---|
| PROJECT NO: | 9269-00-14 | HWY: | MARLEY STREET | COUNTY: | BROWN | PLAN AND PROFILE: | PLAN AND PROFILE | SHEET | 108 | E |
|-------------|------------|------|---------------|---------|-------|-------------------|------------------|-------|-----|---|

Standard Detail Drawing List

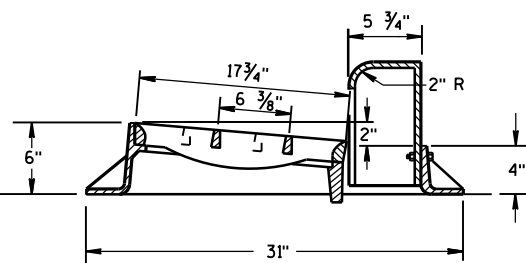
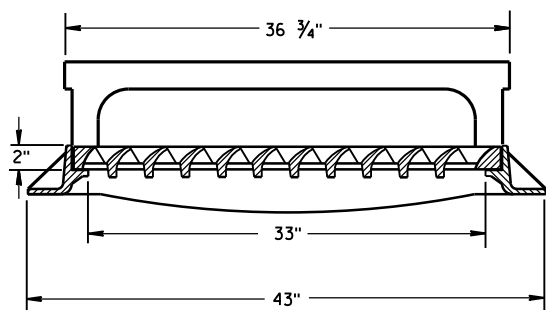
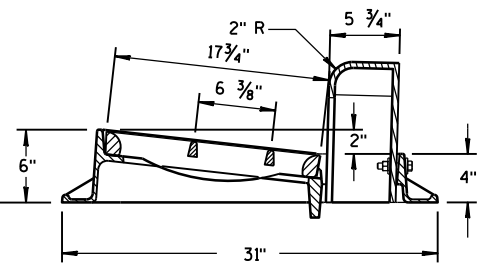
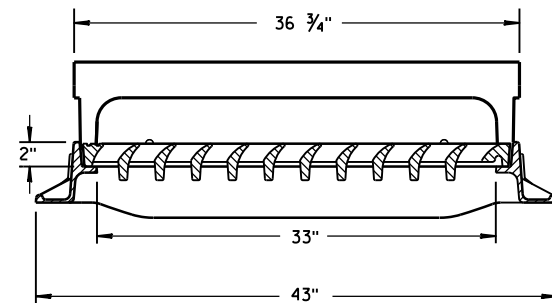
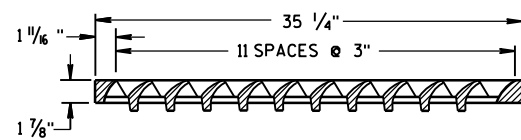
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|-----------|-------------------------------------------------------------------|
| 08A05-19A | INLET COVERS TYPE A, H, A-S, H-S & Z                              |
| 08A05-19B | INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM                       |
| 08A05-19D | INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M        |
| 08B09-02  | MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER           |
| 08C06-02  | INLETS 3-FT AND 4-FT DIAMETER                                     |
| 08C07-02  | INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT                      |
| 08C08-02  | INLETS MEDIAN 1 AND 2 GRATE                                       |
| 08D01-22A | CONCRETE CURB & GUTTER                                            |
| 08D01-22B | CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS              |
| 08D04-05  | CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES                        |
| 08D05-20A | CURB RAMPS TYPES 1 AND 1-A                                        |
| 08D05-20B | CURB RAMPS TYPES 2 AND 3                                          |
| 08D05-20C | CURB RAMPS TYPES 4A AND 4A1                                       |
| 08D05-20D | CURB RAMPS TYPE 4B AND 4B1                                        |
| 08D05-20E | CURB RAMPS TYPES 5, 6, 7A, 7B & 8                                 |
| 08D05-20F | CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS           |
| 08D05-20G | CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES       |
| 08E09-06  | SILT FENCE                                                        |
| 08E10-02  | INLET PROTECTION TYPE A, B, C AND D                               |
| 08E14-01  | TRACKING PAD                                                      |
| 08E15-01  | CULVERT PIPE CHECK                                                |
| 08F01-11  | APRON ENDWALLS FOR CULVERT PIPE                                   |
| 08F02-01  | APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE                  |
| 08F04-07  | JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL           |
| 11B02-02  | CONCRETE MEDIAN NOSE                                              |
| 13C19-03  | HMA LONGITUDINAL JOINTS                                           |
| 14B07-15A | CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"                        |
| 14B07-15B | CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"                        |
| 14B07-15C | CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"                        |
| 14B07-15D | CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"                        |
| 14B07-15E | CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"                        |
| 14B07-15F | CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"                        |
| 14B07-15G | CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"                        |
| 14B07-15H | CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"                        |
| 14B07-15I | CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"                        |
| 15C02-08A | BARRICADES AND SIGNS FOR MAINLINE CLOSURES                        |
| 15C02-08B | BARRICADES AND SIGNS FOR VARIOUS CLOSURES                         |
| 15C03-05  | BARRICADES AND SIGNS FOR SIDEROAD CLOSURES                        |
| 15C07-15B | PAVEMENT MARKING WORDS                                            |
| 15C07-15C | PAVEMENT MARKING ARROWS                                           |
| 15C08-20A | LONGITUDINAL MARKING (MAINLINE)                                   |
| 15C08-20B | PAVEMENT MARKING (TURN LANES)                                     |
| 15C08-20C | PAVEMENT MARKING (TURN LANES)                                     |
| 15C11-09B | CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS |
| 16A01-07  | LANDMARK REFERENCE MONUMENTS AND COVERS                           |



NOTE:  
GRATE IS REVERSIBLE.

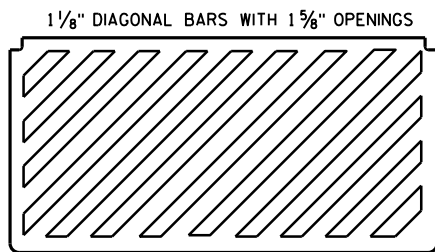


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"



TYPE "H"

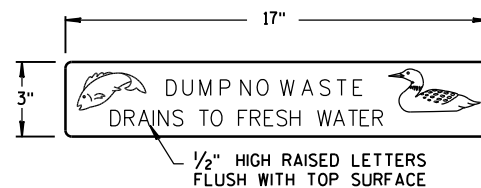
NOTE: EITHER CASTING IS ACCEPTABLE



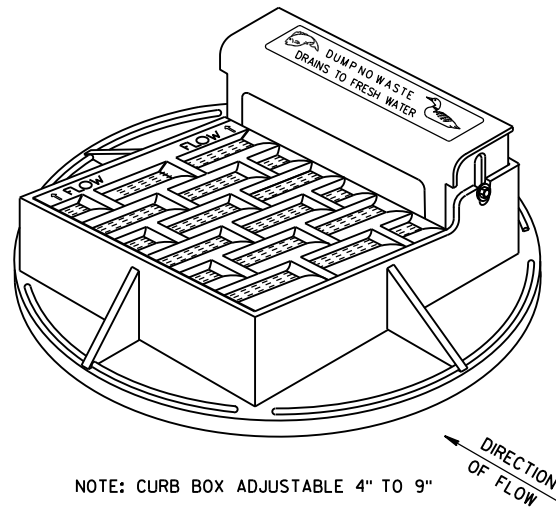
SPECIAL GRATE FOR  
TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

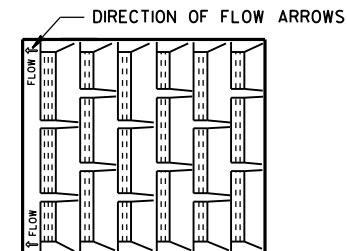


LOGO DETAIL

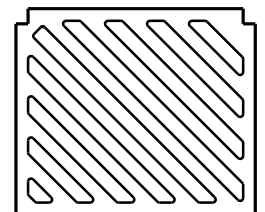


NOTE: CURB BOX ADJUSTABLE 4" TO 9"

NOTE:  
GRATE IS REVERSIBLE.



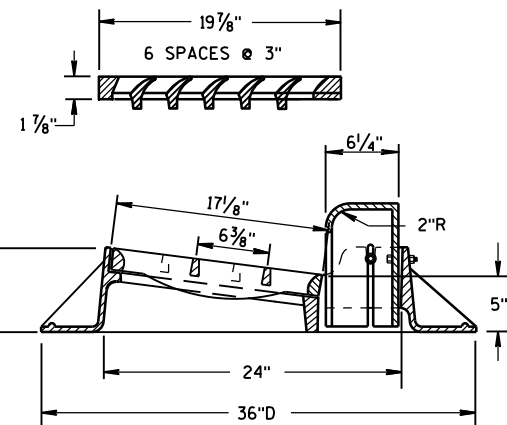
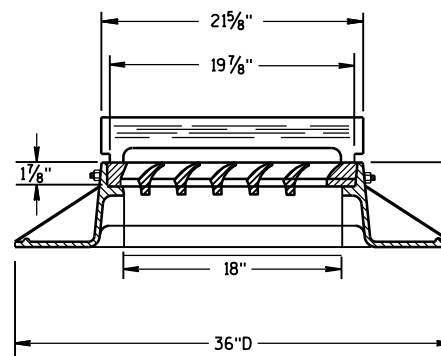
1" DIAGONAL BARS  
WITH 1 1/2" OPENINGS



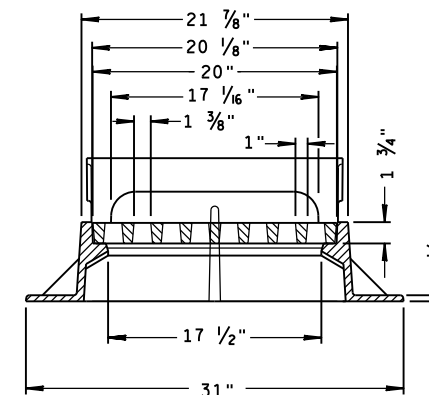
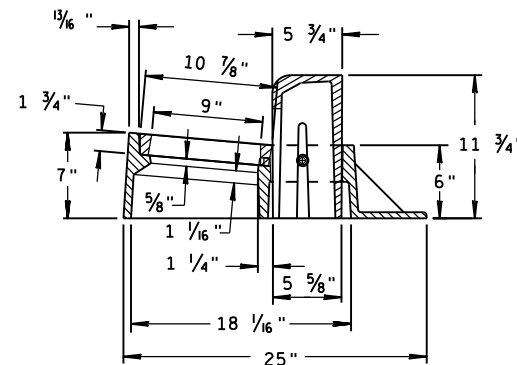
SPECIAL GRATE FOR  
TYPE "A" COVER

(MEASURES 19 3/4" X 17" X 1 1/8")

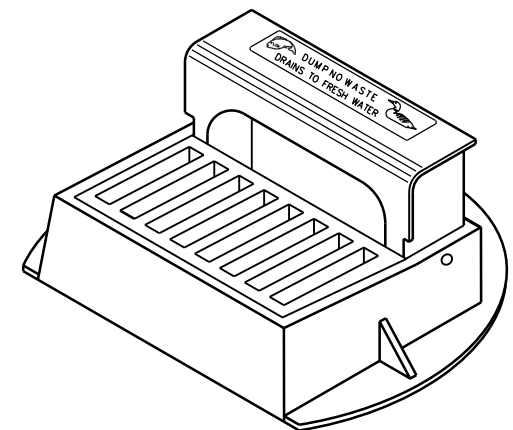
(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "A"



TYPE "Z"



INLET COVERS  
TYPE A, H, A-S, H-S & Z

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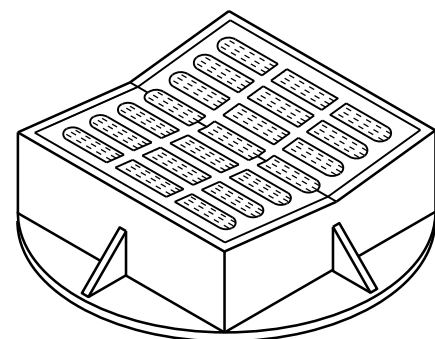
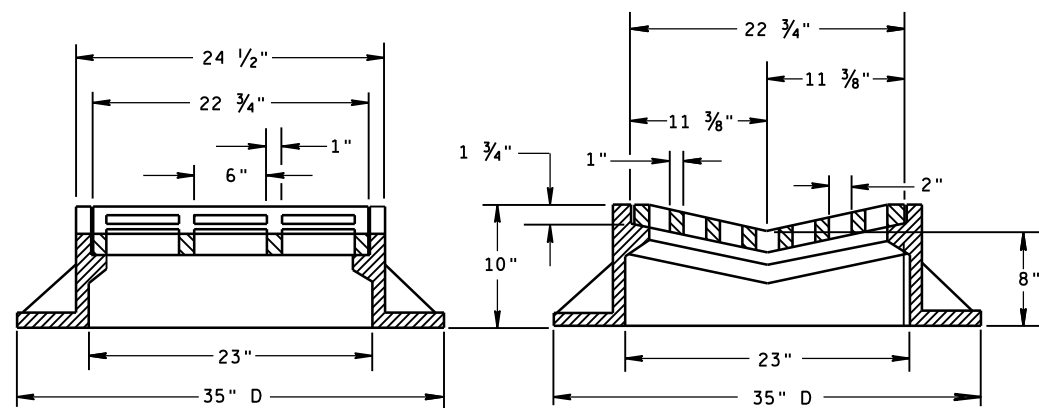
DATE

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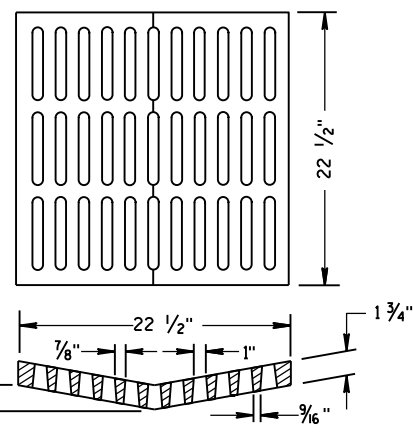
/S/ Jerry H. Zogg

ROADWAY STANDARDS 110

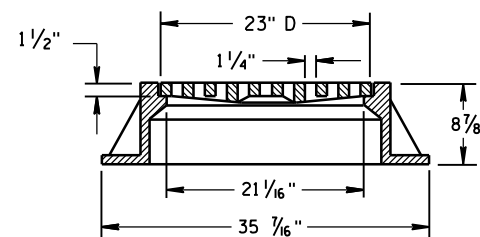
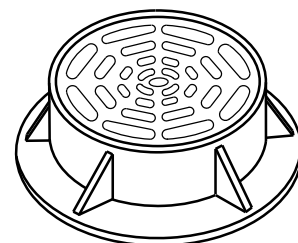
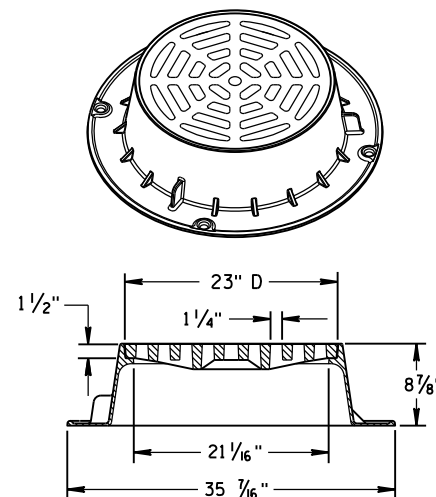
ENGINEER ENT



TYPE "B"

ALTERNATIVE GRATE FOR  
TYPE "B" COVER

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



TYPE "C"

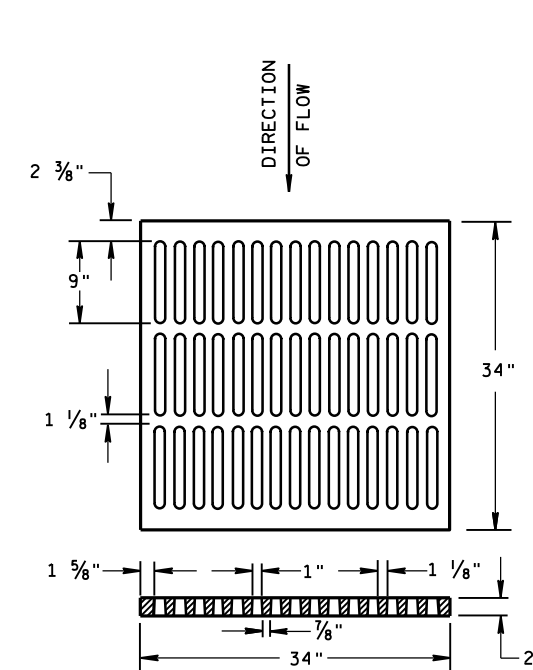
NOTE: EITHER CASTING IS ACCEPTABLE

## GENERAL NOTES

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

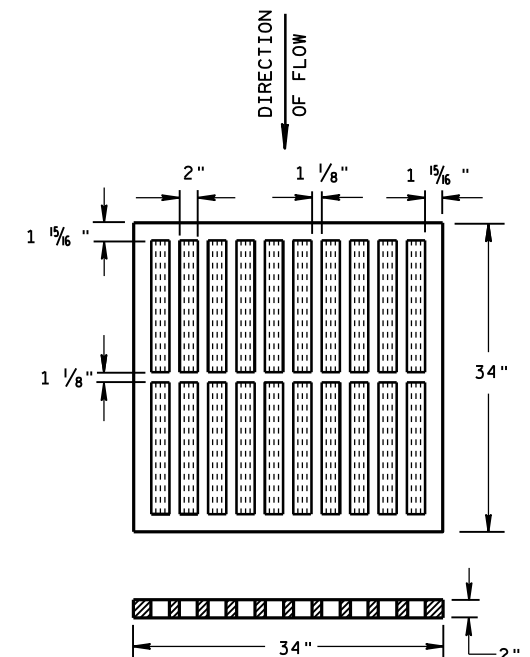
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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



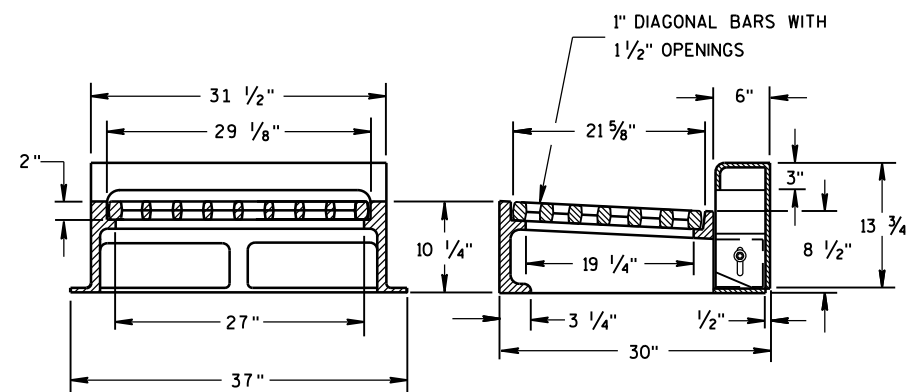
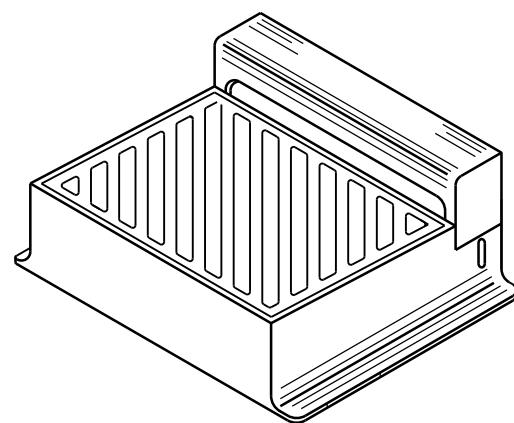
ALTERNATIVE TYPE "MS"

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



TYPE "MS"

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



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

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

DIRECTION  
OF FLOW

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

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 DEPARTMENT OF TRANSPORTATION

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DATE

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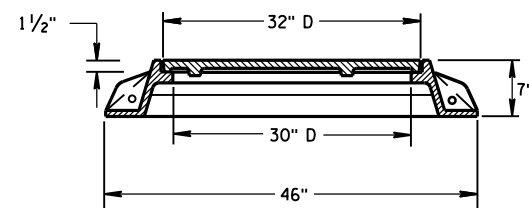
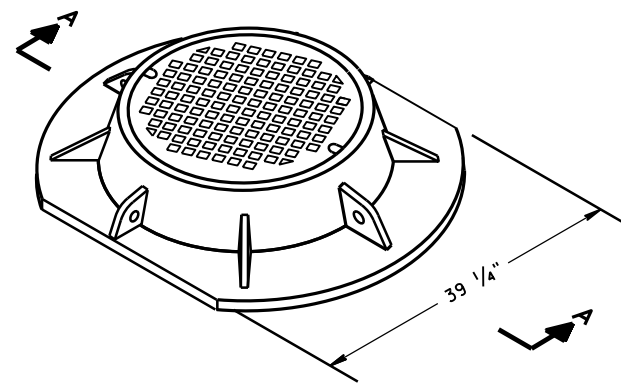
/S/ Jerry H. Zogg

ROADWAY STANDARDS C 111

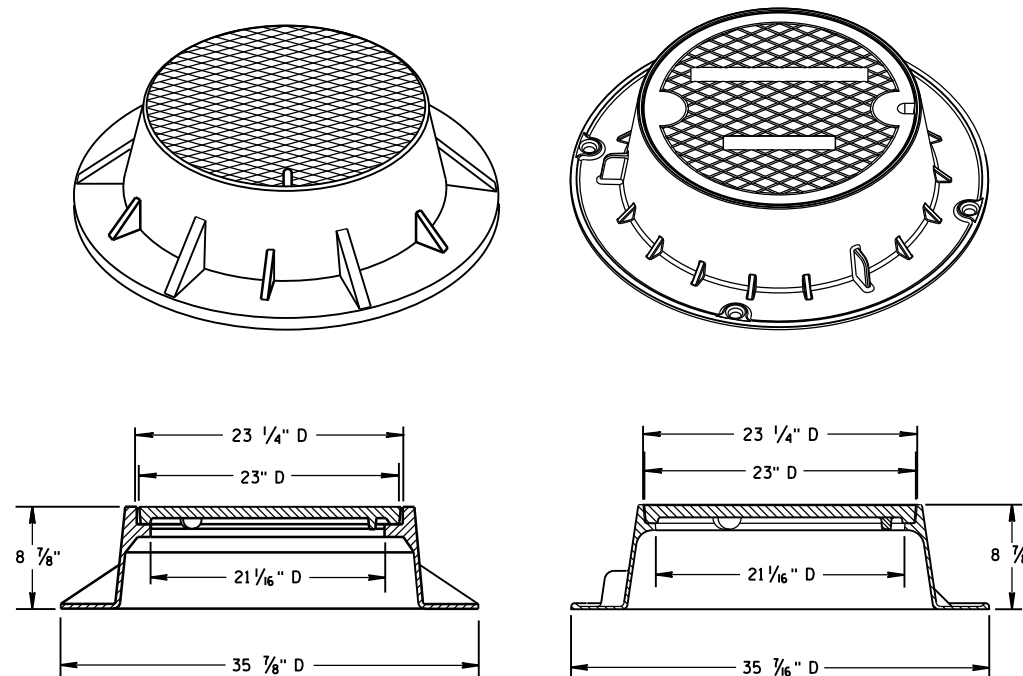
ENGINEER

NT



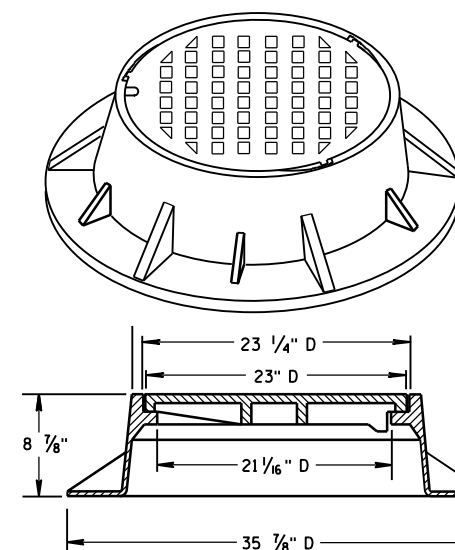
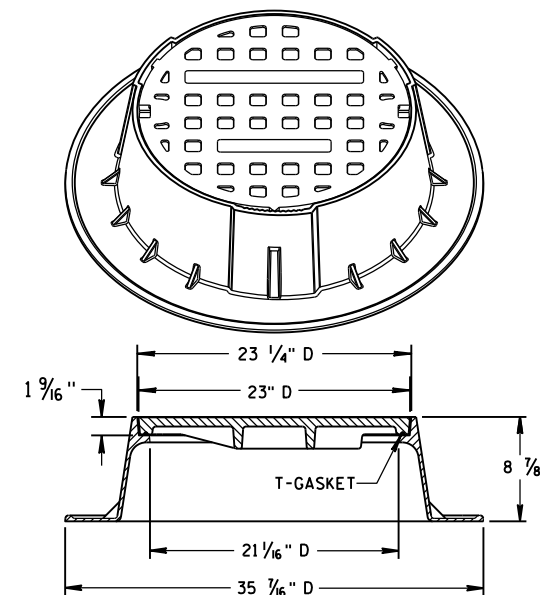


SECTION A-A  
TYPE "K"



TYPE "J"

NOTE: EITHER CASTING IS ACCEPTABLE

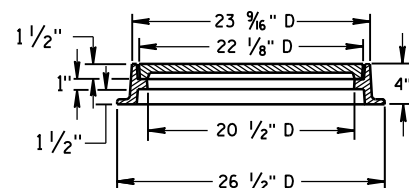
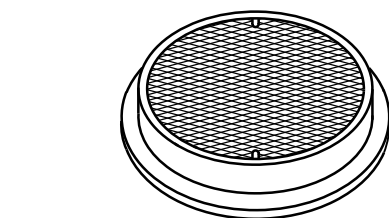


TYPE "J" SPECIAL

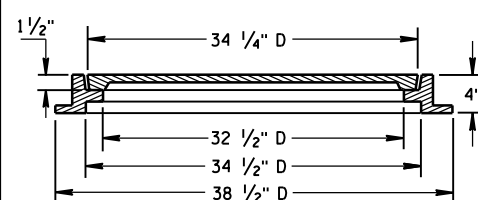
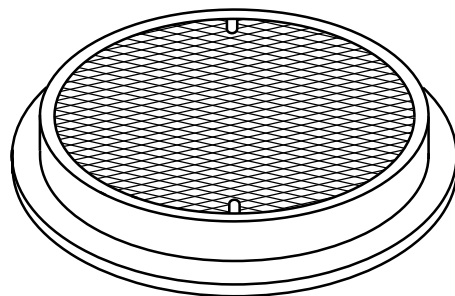
TYPE "B" NON-ROCKING SELF-SEAL LID

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

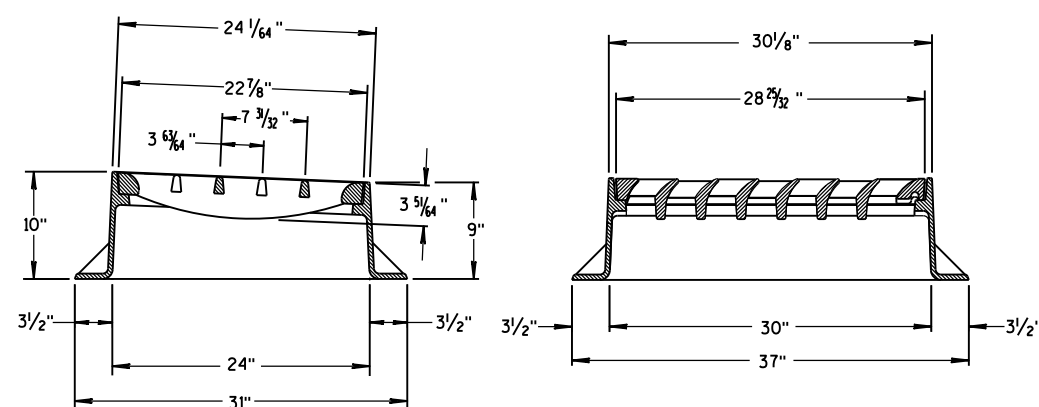
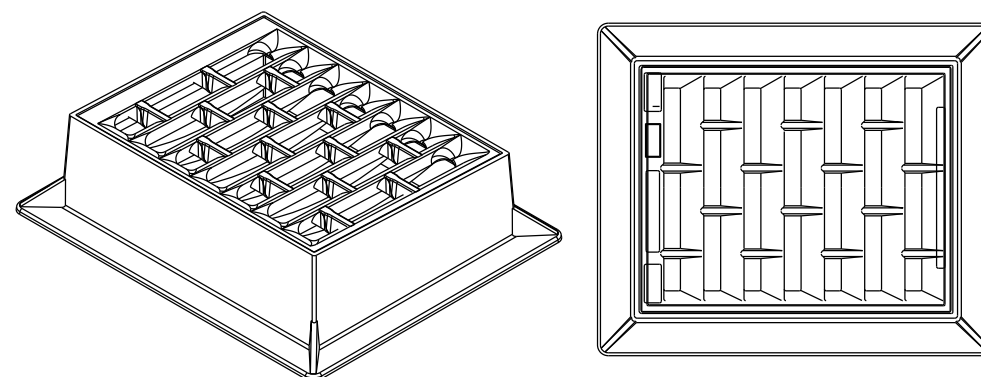
NOTE: EITHER CASTING IS ACCEPTABLE



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

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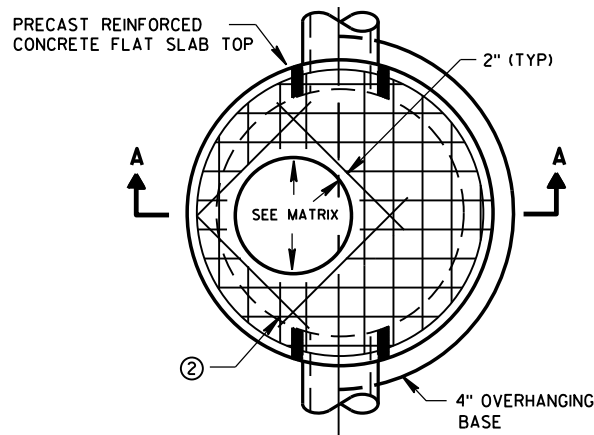
DATE

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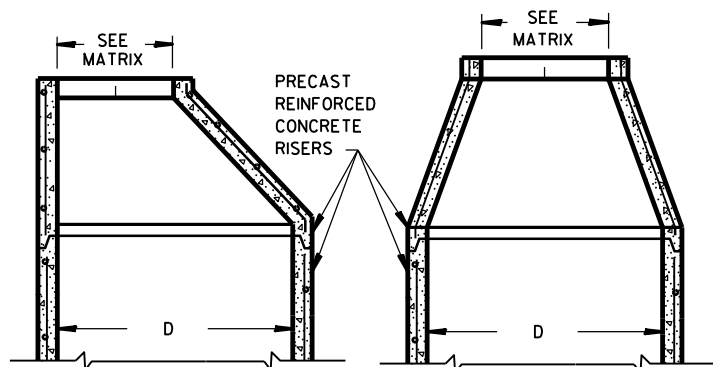
/S/ Jerry H. Zogg

ROADWAY STANDARDS 112

ENGINEER

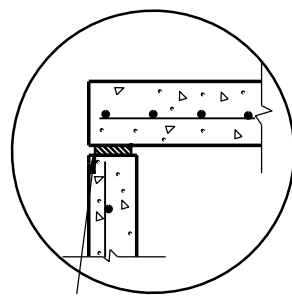


PLAN VIEW CIRCULAR OPENING

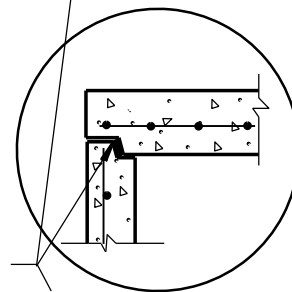


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

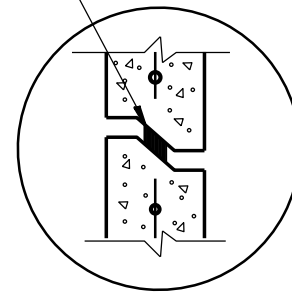
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



TOP WITH PLAIN END JOINT

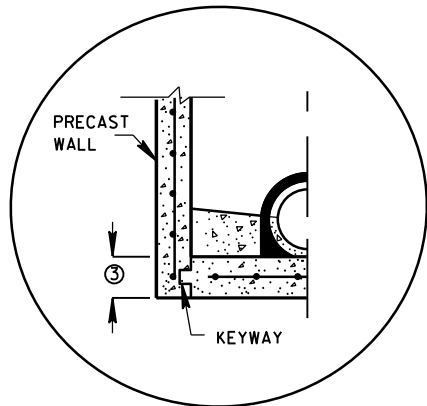


TOP WITH TONGUE AND GROOVE JOINT

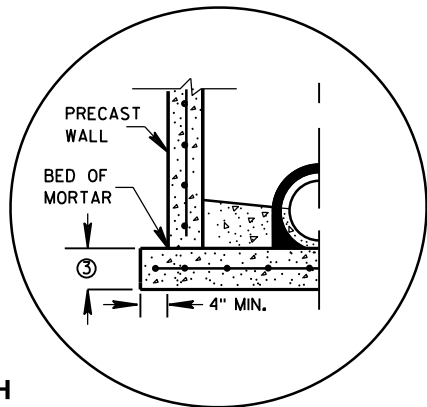


DETAIL "B"

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

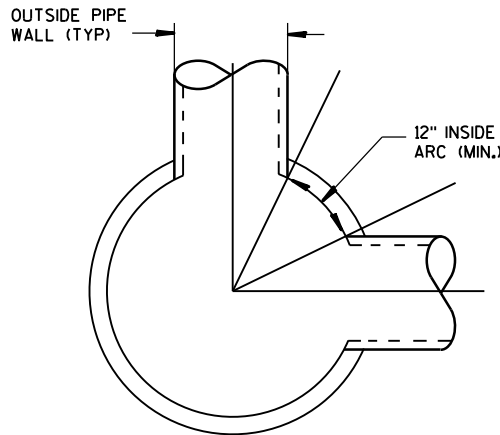


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

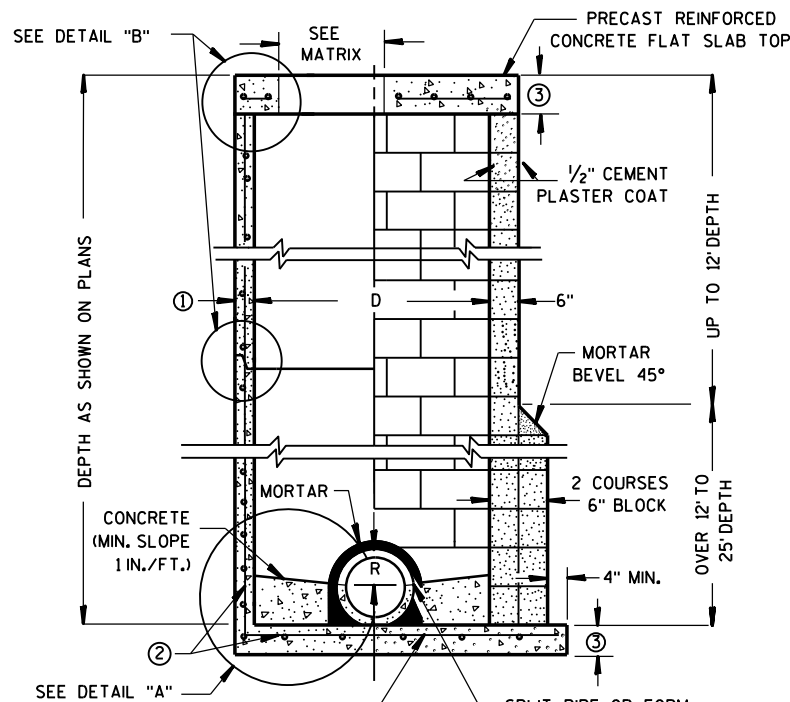


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

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

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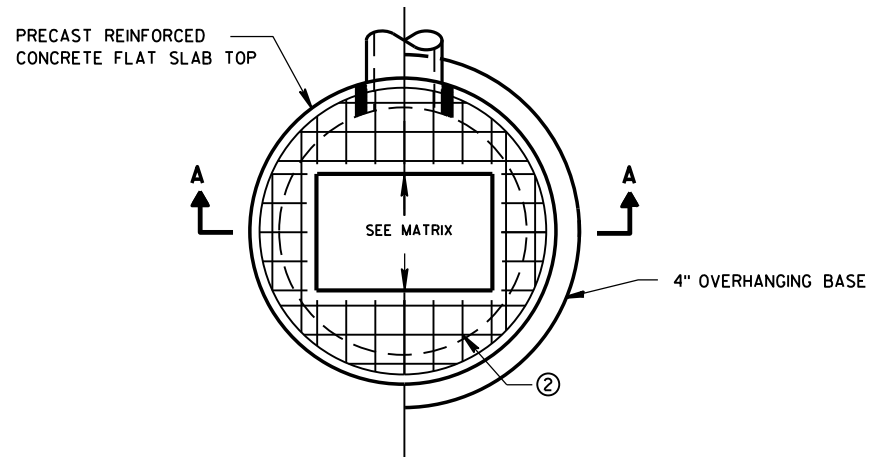
APPROVED

Sept., 2016  
DATE

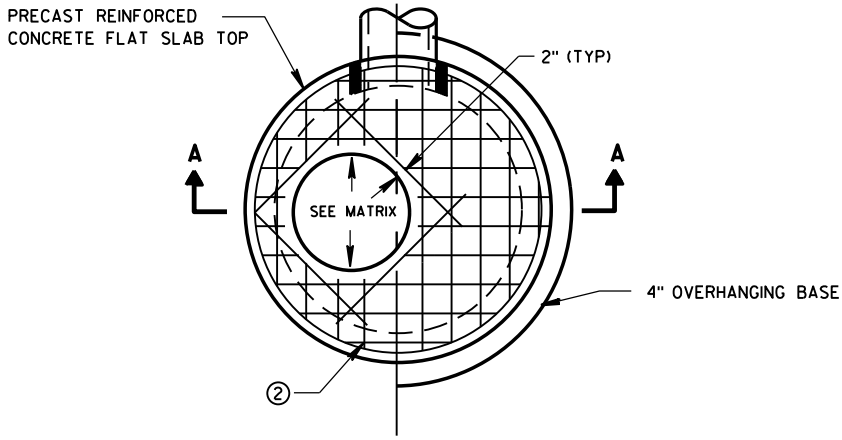
/S/ Rodney Taylor  
ROADWAY STANDARDS DEVELOPMENT  
UNIT SUPERV 113

FHWA

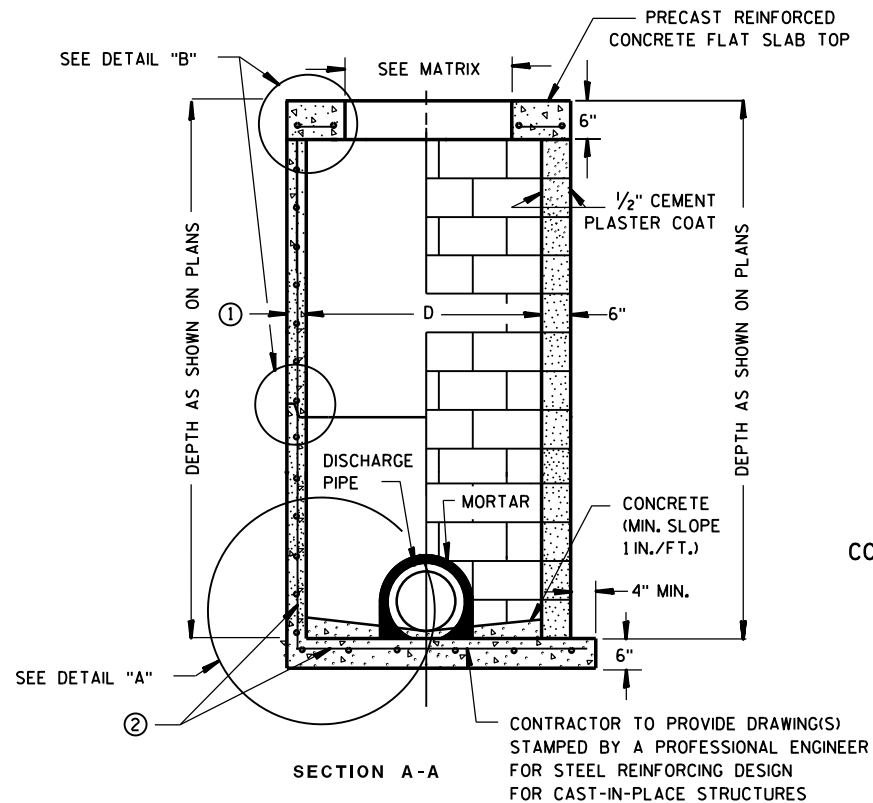




PLAN VIEW RECTANGULAR OPENING

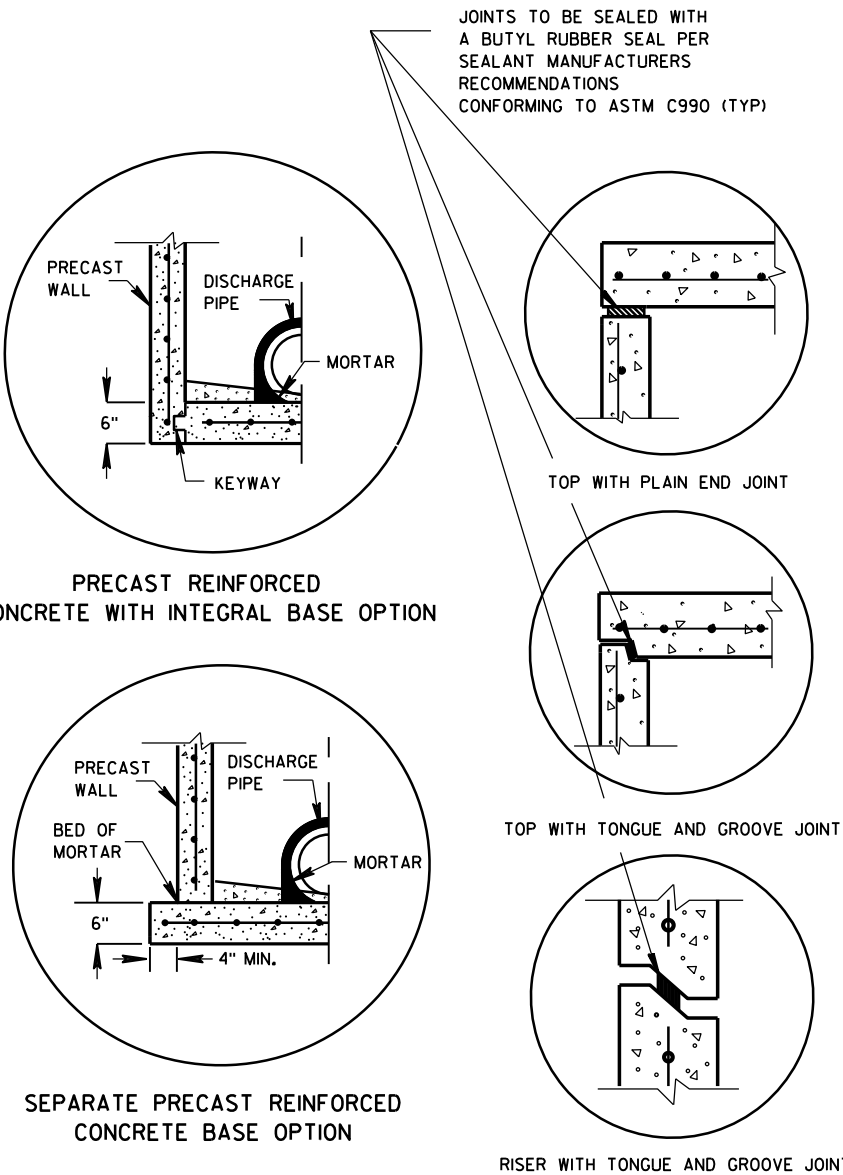


PLAN VIEW CIRCULAR OPENING



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

**CIRCULAR INLETS W/ FLAT TOP**



DETAIL "A"

DETAIL "B"

**INLETS 3-FT AND 4-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 INLET 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.

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.

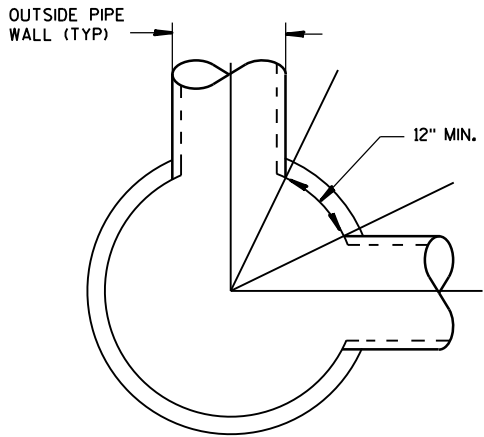
4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.
- ② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

**INLET COVER OPENING MATRIX**

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



DETAIL "C"

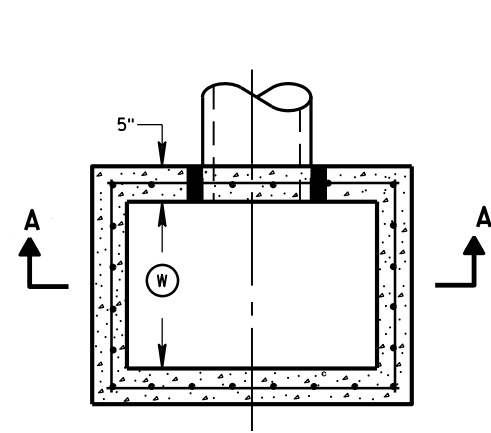
**PIPE MATRIX**

| INLET SIZE | MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES |                     |
|------------|--------------------------------------------|---------------------|
|            | 180° SEPARATION (IN)                       | 90° SEPARATION (IN) |
| 3-FT       | 15                                         | 12                  |
| 4-FT       | 24                                         | 18                  |

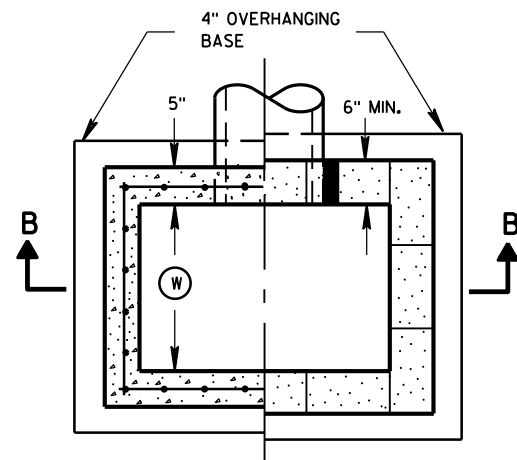
**INLETS 3-FT AND 4-FT DIAMETER**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

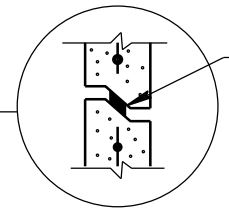
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Sept., 2016 /S/ Rodney Taylor  
DATE ROADWAY STANDARDS UNIT SUPERVISOR  
FHWA 114 ENT



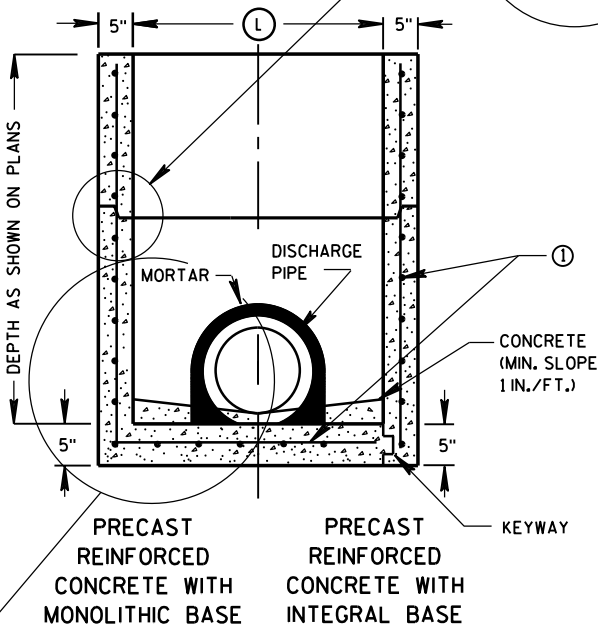
PLAN VIEW



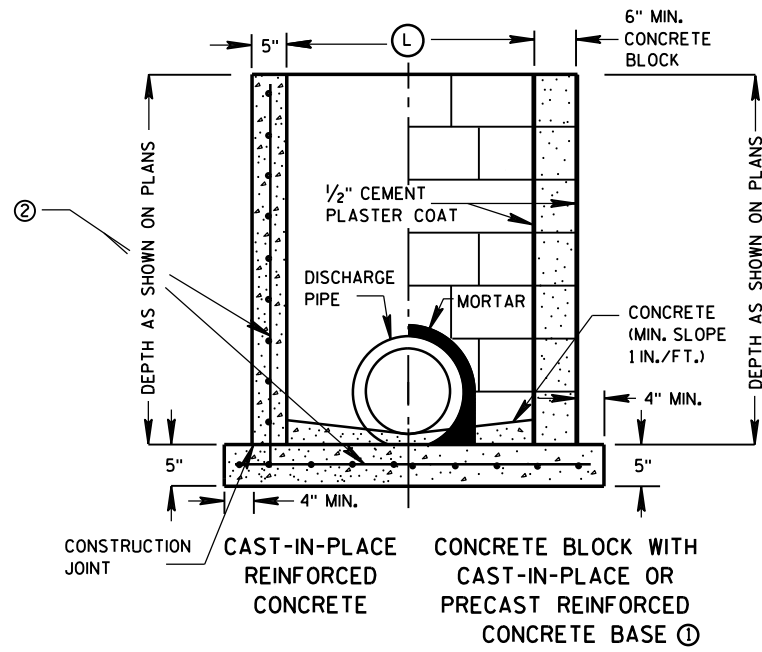
PLAN VIEW



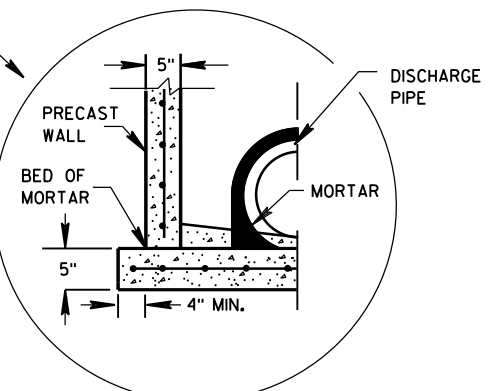
RISER JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

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

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

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

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.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND 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.

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

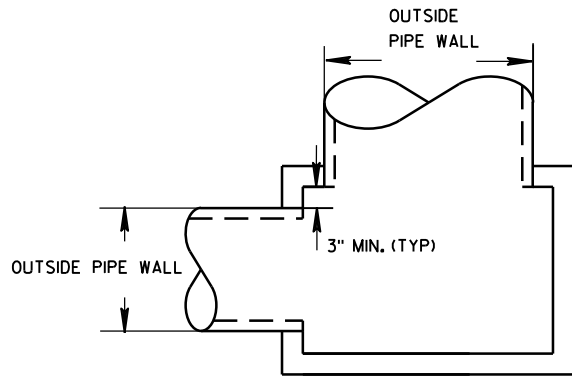
- 1 FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- 2 CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

| INLET SIZE |              | INLET COVER TYPE | ALL A'S | ALL B'S | BW | F | ALL H'S | S | T | V | WM |
|------------|--------------|------------------|---------|---------|----|---|---------|---|---|---|----|
|            | WIDTH ① (FT) | LENGTH ② (FT)    |         |         |    |   |         |   |   |   |    |
| 2X2-FT     | 2            | 2                | X       | X       |    |   |         | X |   | X |    |
| 2X2.5-FT   | 2            | 2.5              |         |         | X  |   |         | X | X | X | X  |
| 2X3-FT     | 2            | 3                |         |         |    |   | X       |   |   |   |    |
| 2.5X3-FT   | 2.5          | 3                |         |         |    | X |         |   |   |   |    |

PIPE MATRIX

| INLET SIZE | MAXIMUM INSIDE PIPE DIAMETER |             |
|------------|------------------------------|-------------|
|            | WIDTH (IN)                   | LENGTH (IN) |
| 2X2-FT     | 12                           | 12          |
| 2X2.5-FT   | 12                           | 18          |
| 2X3-FT     | 12                           | 24          |
| 2.5X3-FT   | 18                           | 24          |



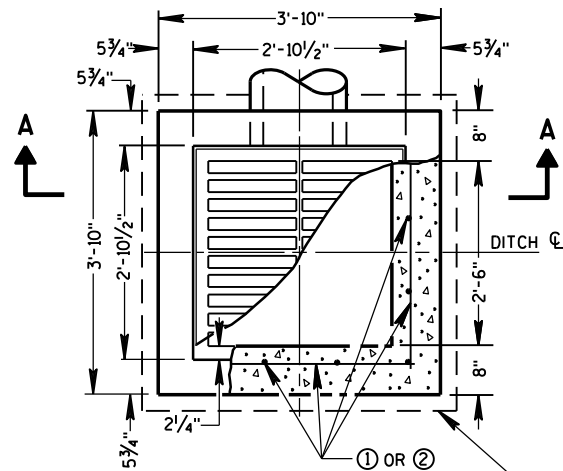
DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

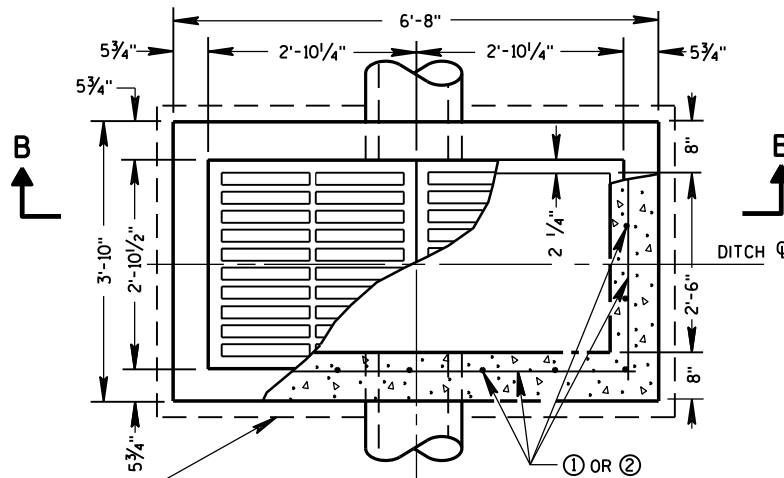
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
Sept., 2016 /S/ Rodney Taylor  
DATE ROADWAY STANDARDS D 115 IT  
FHWA UNIT SUPERVIS

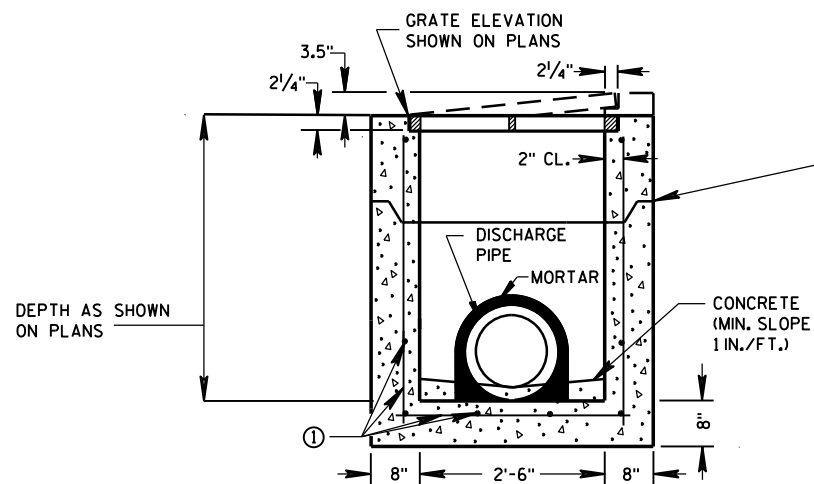


PLAN VIEW

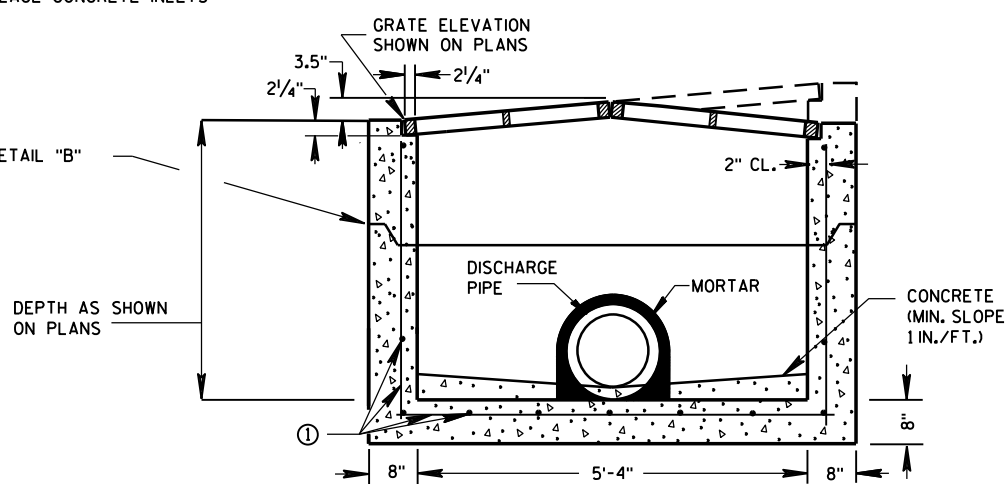
4" OVERHANGING BASE ON REINFORCED  
CAST-IN-PLACE CONCRETE INLETS



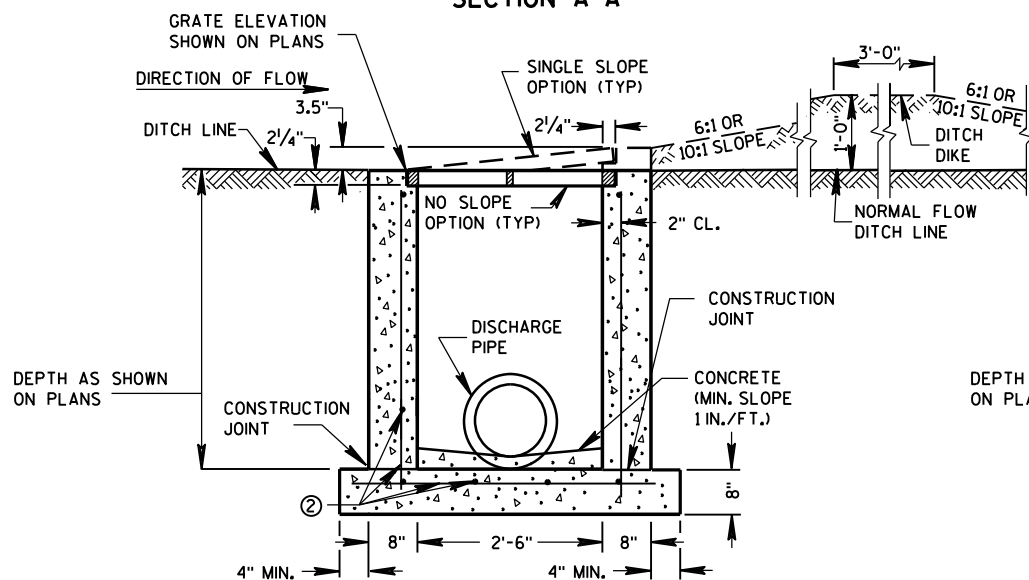
PLAN VIEW



PRECAST REINFORCED CONCRETE  
SECTION A-A

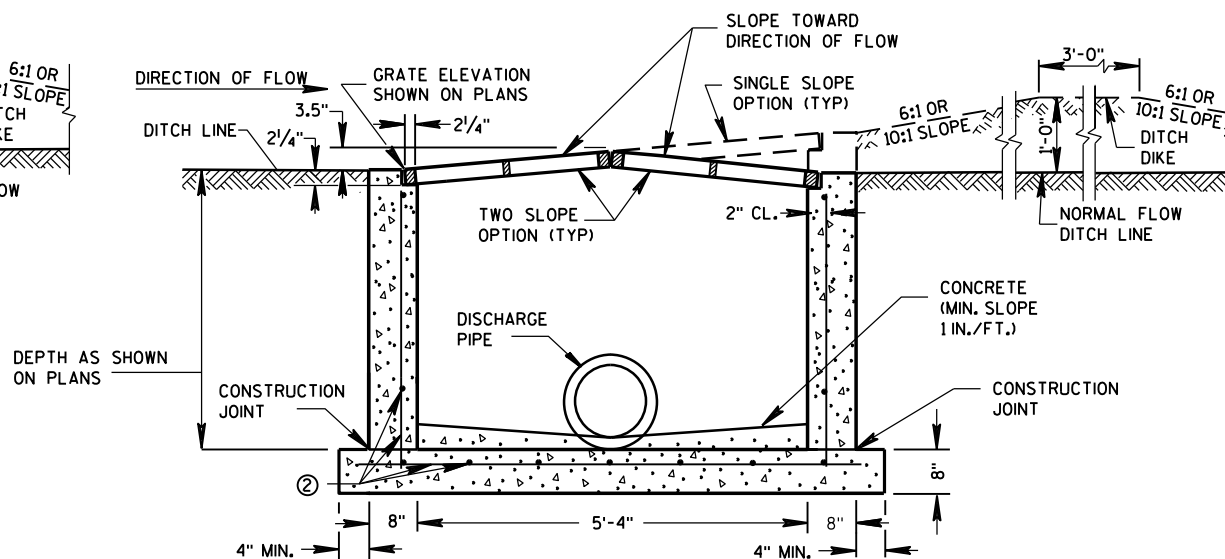


PRECAST REINFORCED CONCRETE  
SECTION B-B



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.

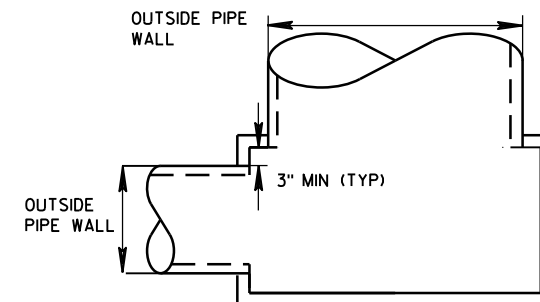
ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

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.

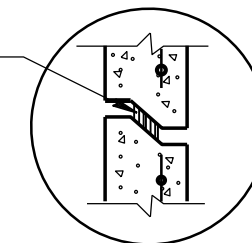
## PIPE MATRIX

| 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"

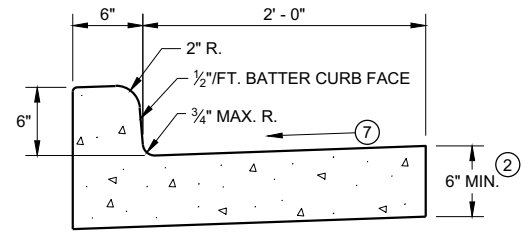
INLETS MEDIAN 1 AND 2 GRATE

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DEPARTMENT OF TRANSPORTATION

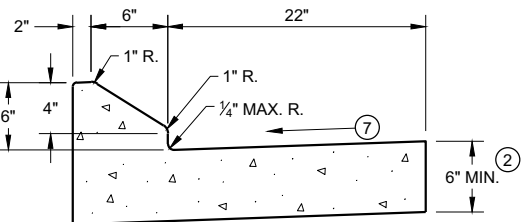
APPROVED  
Sept., 2016 /S/ Rodney Taylor  
DATE ROADWAY STANDARDS UNIT SUPERVISOR  
FHWA

116

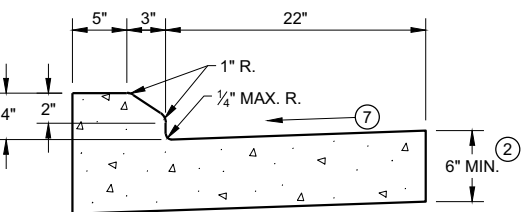
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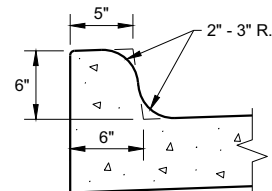
TYPES A<sup>①</sup> & D



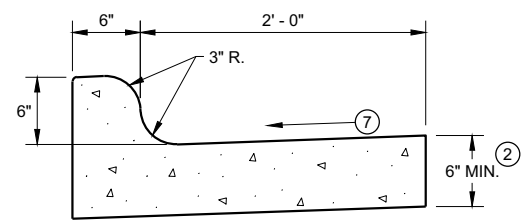
6" SLOPED CURB TYPES G<sup>①</sup> & J



4" SLOPED CURB TYPES G<sup>①</sup> & J

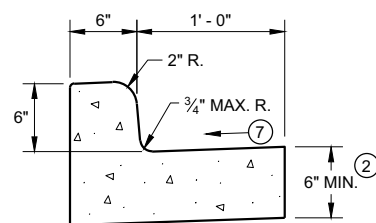


TYPES K<sup>①</sup> & L  
(OPTIONAL CURB SHAPE)



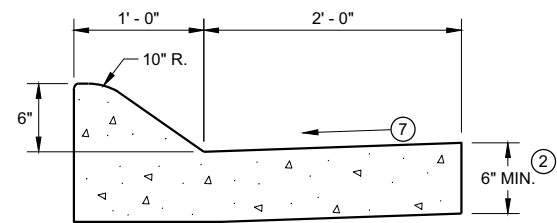
TYPES K<sup>①</sup> & L

CONCRETE CURB AND GUTTER 30"

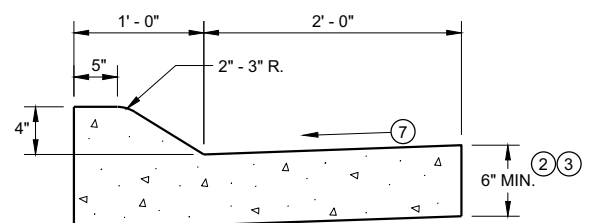


TYPES A<sup>①</sup> & D

CONCRETE CURB AND GUTTER 18"

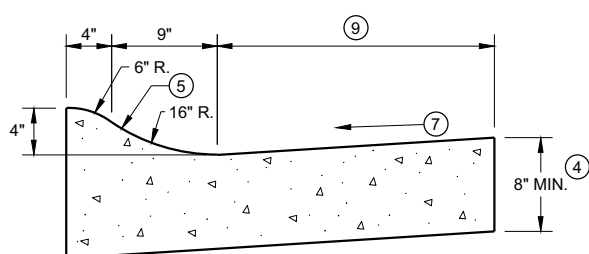


6" SLOPED CURB TYPES A<sup>①</sup> & D



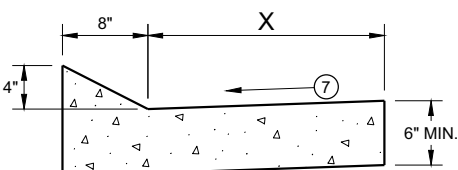
4" SLOPED CURB TYPES A<sup>①</sup> & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R<sup>①</sup> & T

| TBT & TBTT | X   |
|------------|-----|
| 30"        | 22" |
| 36"        | 28" |

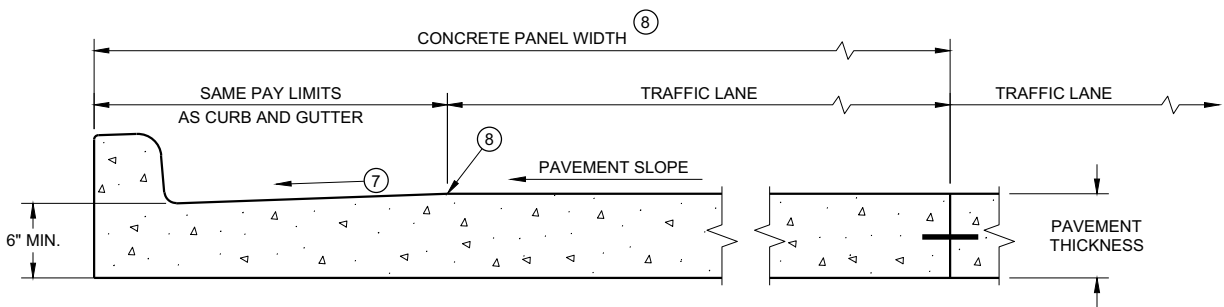


TYPES TBT & TBTT<sup>①</sup>

CONCRETE CURB AND GUTTER

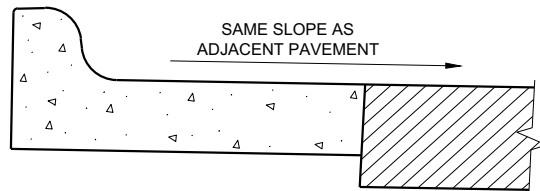
PAVEMENT THICKNESS  
AND MAXIMUM CONCRETE  
PANEL WIDTH TABLE

| PAVEMENT THICKNESS | MAXIMUM PANEL WIDTH |
|--------------------|---------------------|
| LESS THAN 10"      | 12'                 |
| 10" & ABOVE        | 15'                 |



PARTIAL SECTION OF PAVEMENT \*  
WITH INTEGRAL CURB AND GUTTER

\* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER<sup>⑥</sup>  
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

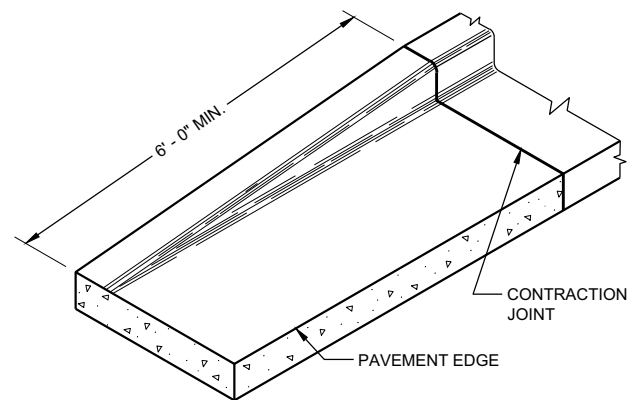
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

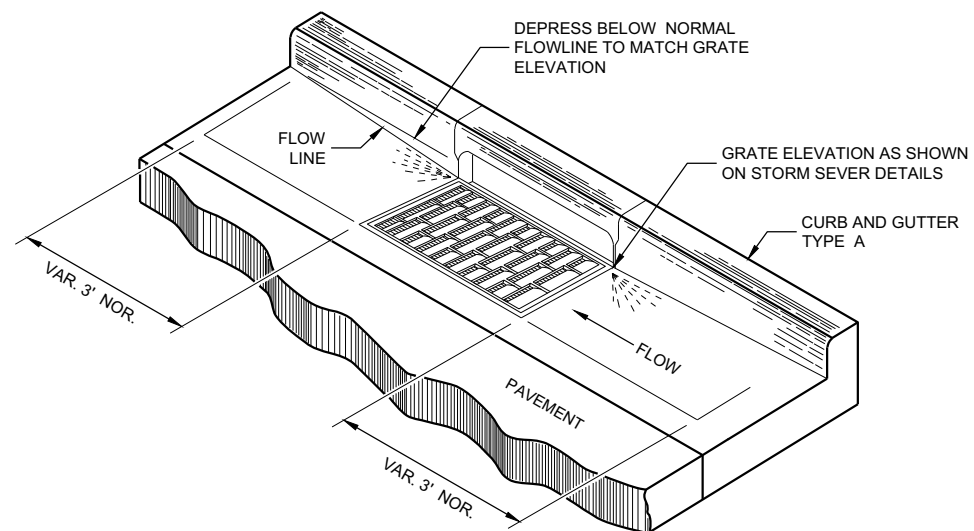
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
- ④ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑤ UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑥ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.
- ⑦ USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
- ⑧ INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.
- ⑨ CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES  
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

CONCRETE CURB AND GUTTER

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

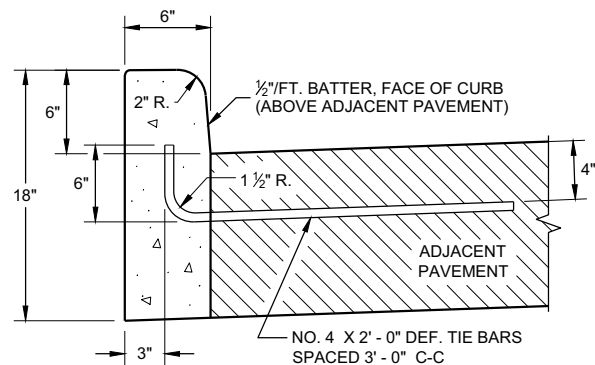
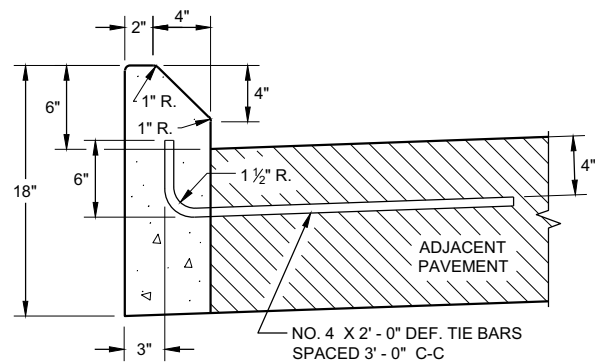


END SECTION CURB AND GUTTER

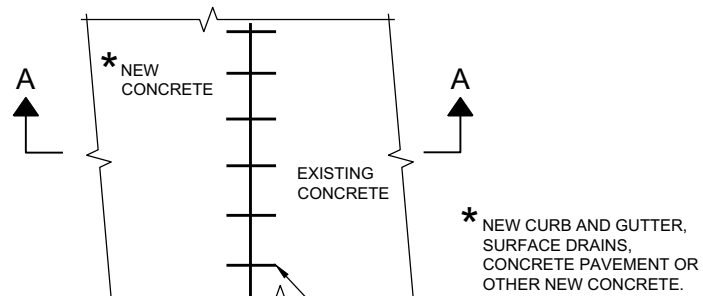


DETAIL OF CURB AND GUTTER AT INLETS

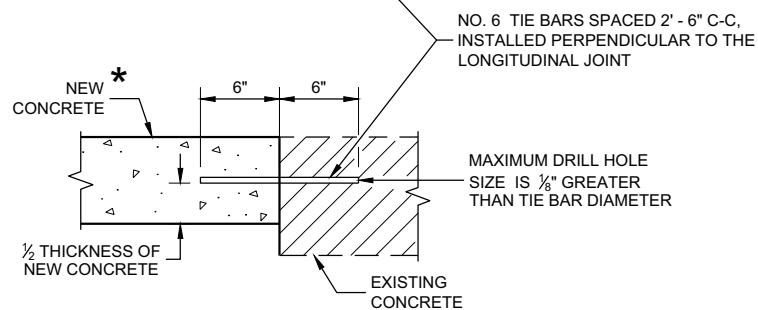
(TYPICAL H INLET COVER SHOWN)

TYPES A<sup>①</sup> & DTYPES G<sup>①</sup> & J

CONCRETE CURB



PLAN VIEW



SECTION A - A

TIE BARS DRILLED  
INTO EXISTING PAVEMENT

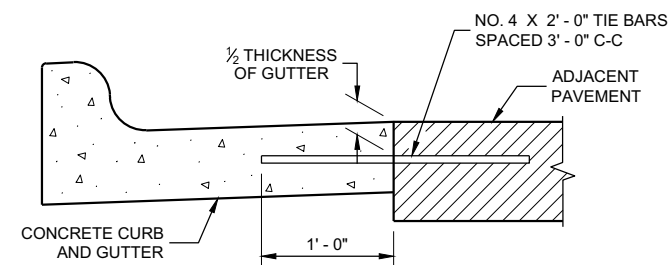
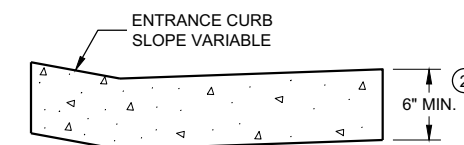
## GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑨ REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

TYPICAL TIE BAR LOCATION<sup>①</sup>DRIVEWAY ENTRANCE CURB<sup>⑨</sup>  
(WHEN DIRECTED BY THE ENGINEER)CONCRETE CURB, TIES  
AND CURB AND GUTTER  
APPLICATIONS

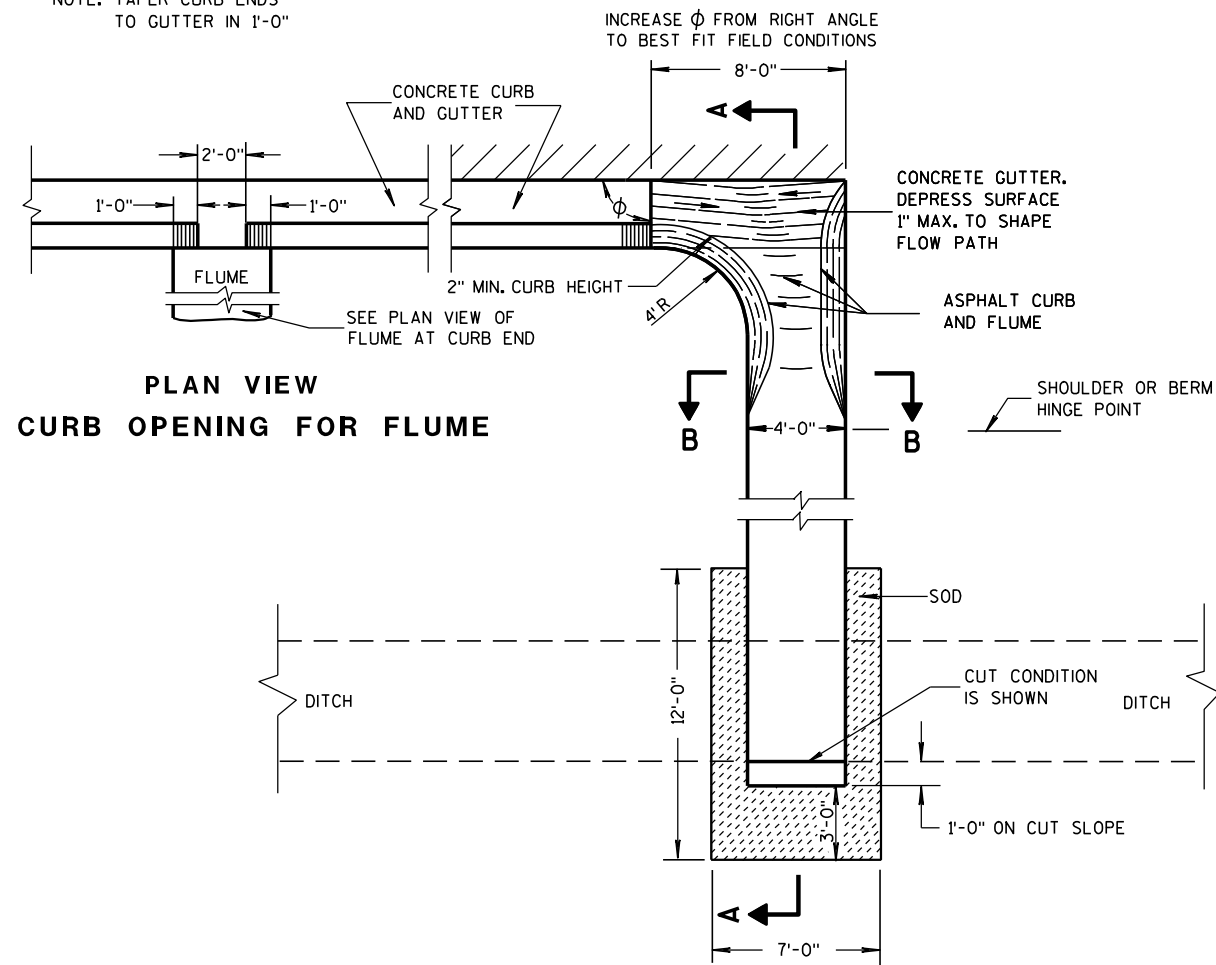
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
February 2021 /S/ Rodney Taylor  
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER 118

FHWA

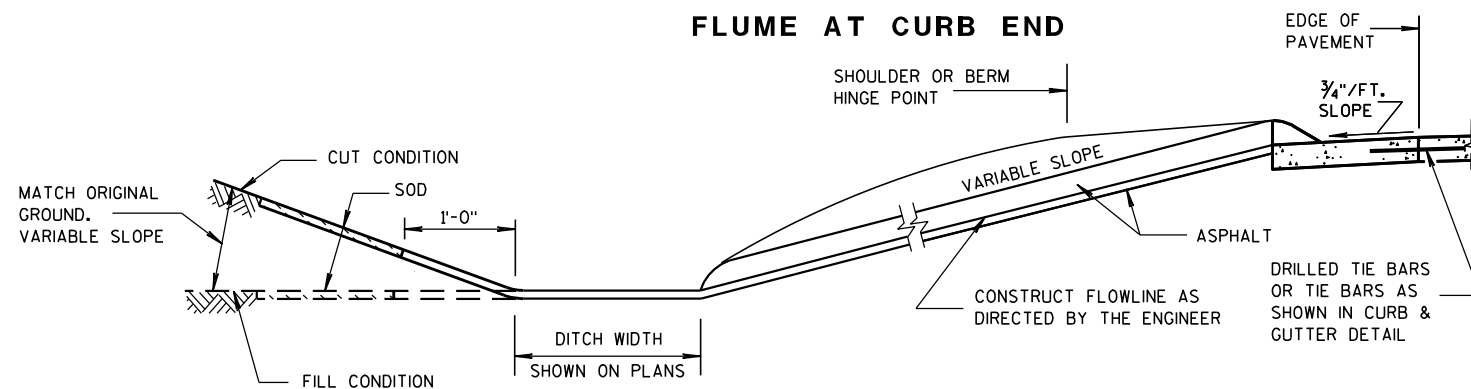
## ASPHALTIC FLUME

NOTE: TAPER CURB ENDS  
TO GUTTER IN 1'-0"

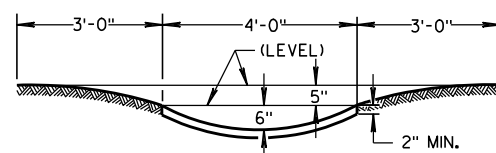


PLAN VIEW  
CURB OPENING FOR FLUME

PLAN VIEW  
FLUME AT CURB END



SECTION A-A



SECTION B-B

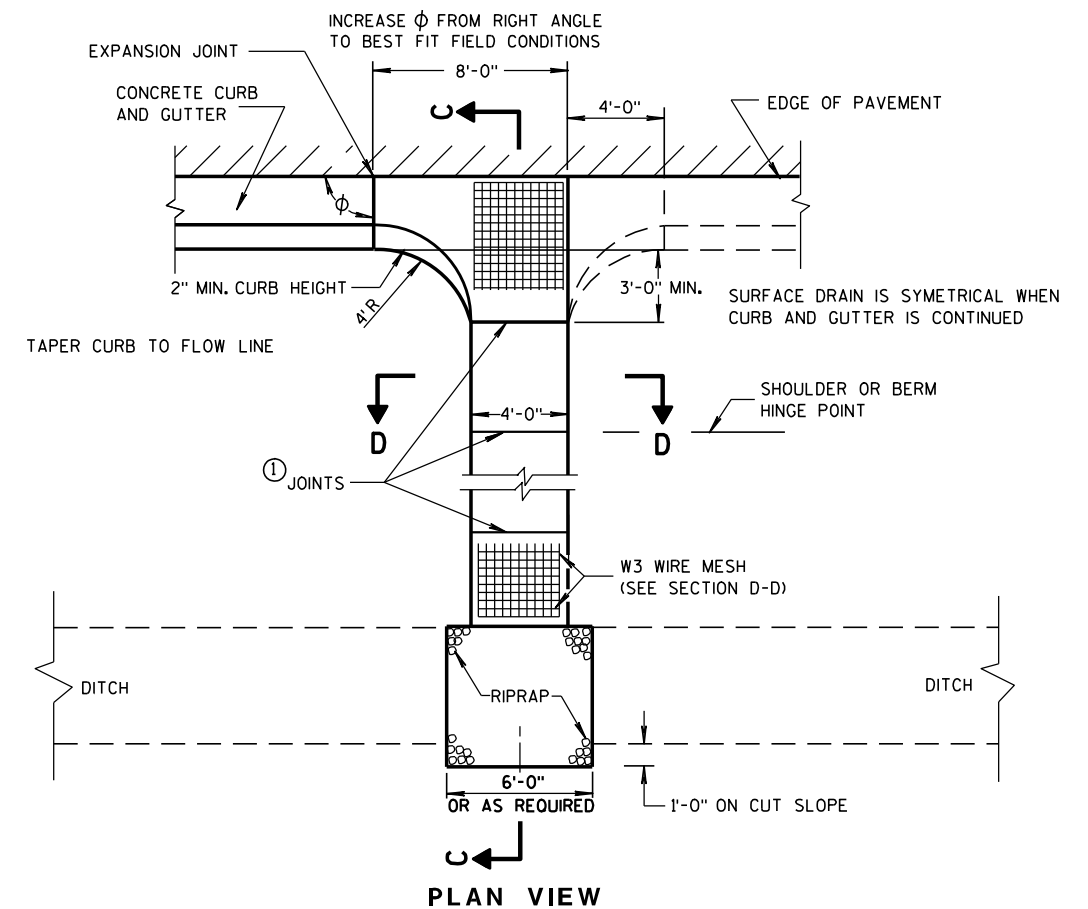
## GENERAL NOTES

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

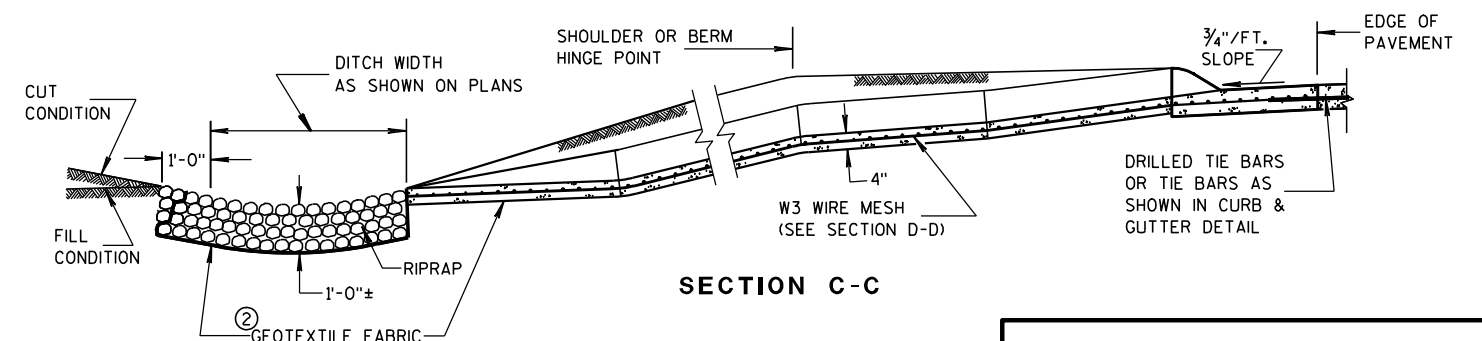
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

- ① JOINTS SHALL BE  $\frac{1}{8}$  TO  $\frac{1}{4}$  INCH WIDE BY  $1\frac{1}{2}$  INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- ② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- ③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

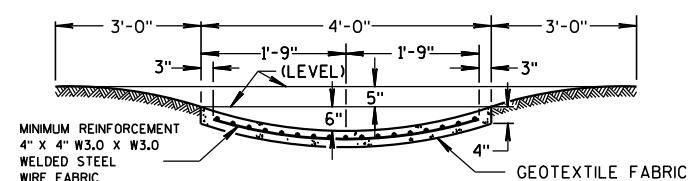
## ③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

## CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

9-4-08

DATE

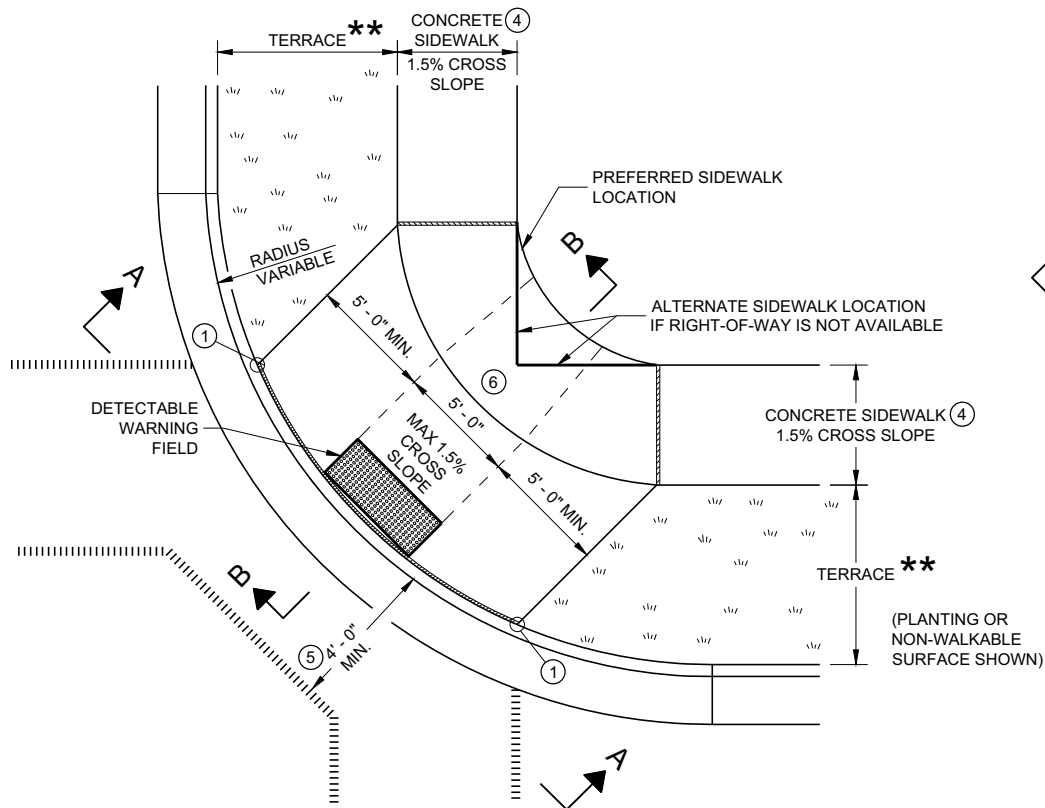
/s/ Jerry H. 7000

ROADWAY STANDARDS 119

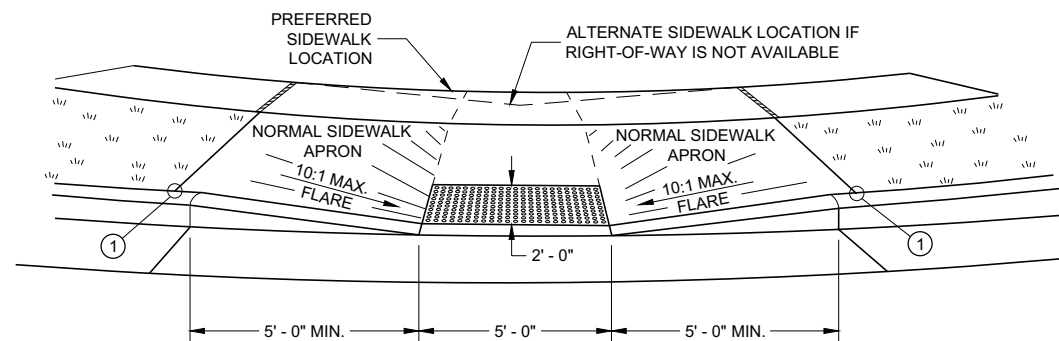
ENGINEER

FHWA



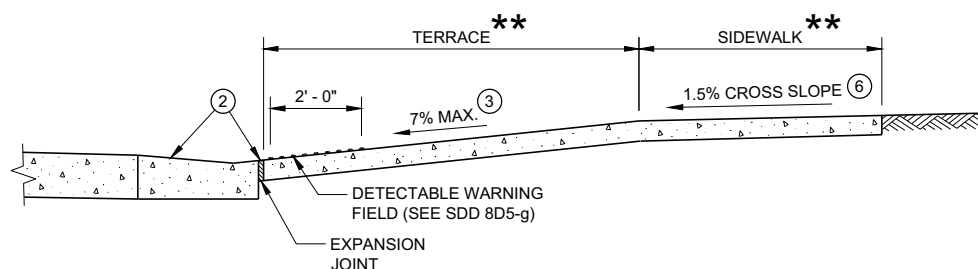


**PLAN VIEW**  
**CURB RAMP TYPE 1**  
**(CENTER OF CORNER RADIUS)**

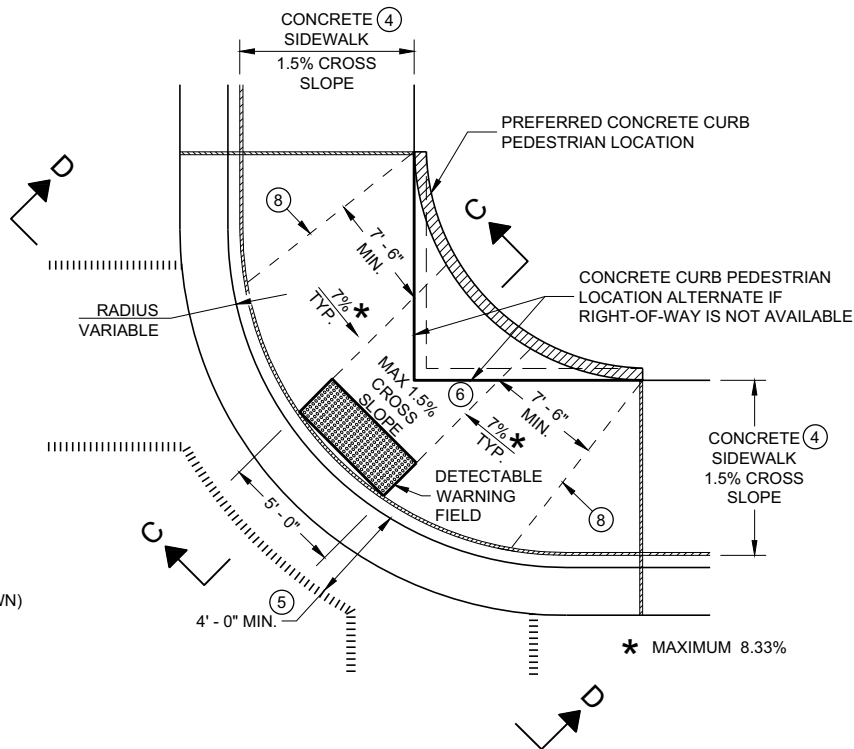


**VIEW A - A FOR TYPE 1**

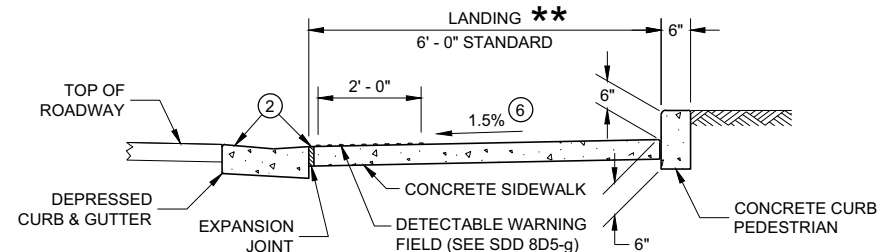
\*\* WIDTH SHOWN ELSEWHERE  
IN THE PLANS



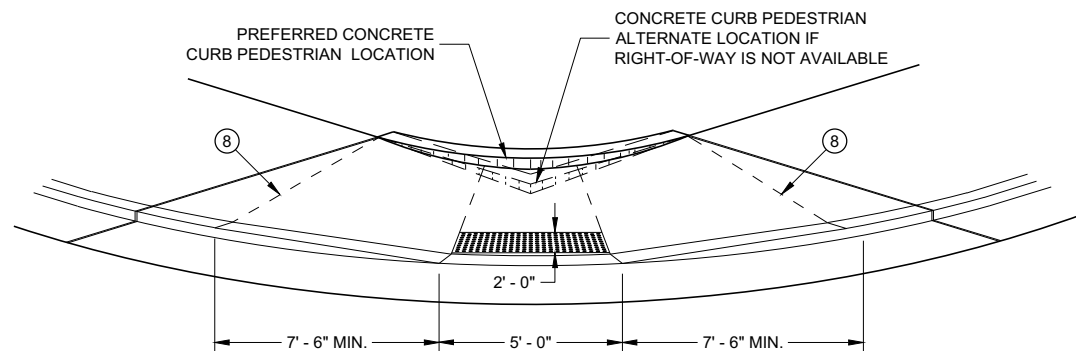
**SECTION B - B FOR TYPE 1**



**PLAN VIEW**  
**CURB RAMP TYPE 1 - A**  
**(NO TERRACE)**



**SECTION C - C FOR TYPE 1 - A**



**VIEW D - D FOR TYPE 1 - A**

## GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 CURB RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAR FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD"

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

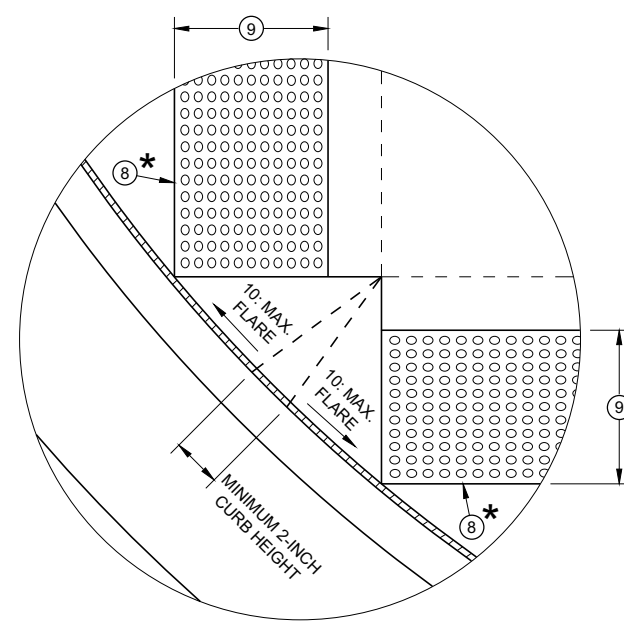
- THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.
- GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4" INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.
- PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

## LEGEND

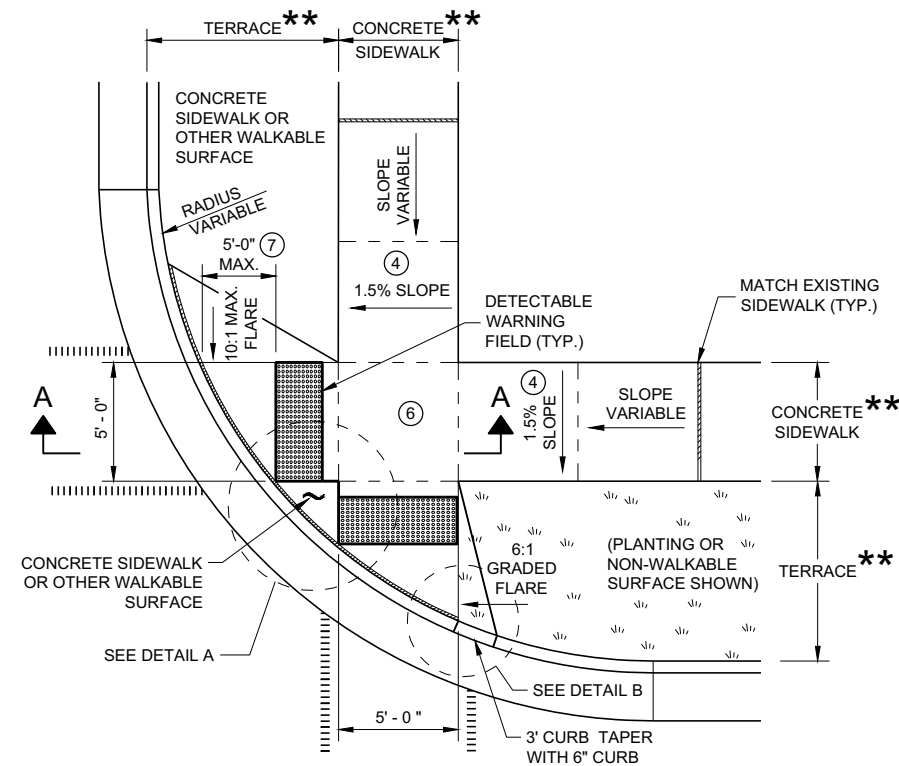
- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

## CURB RAMPS TYPE 1 AND 1-A

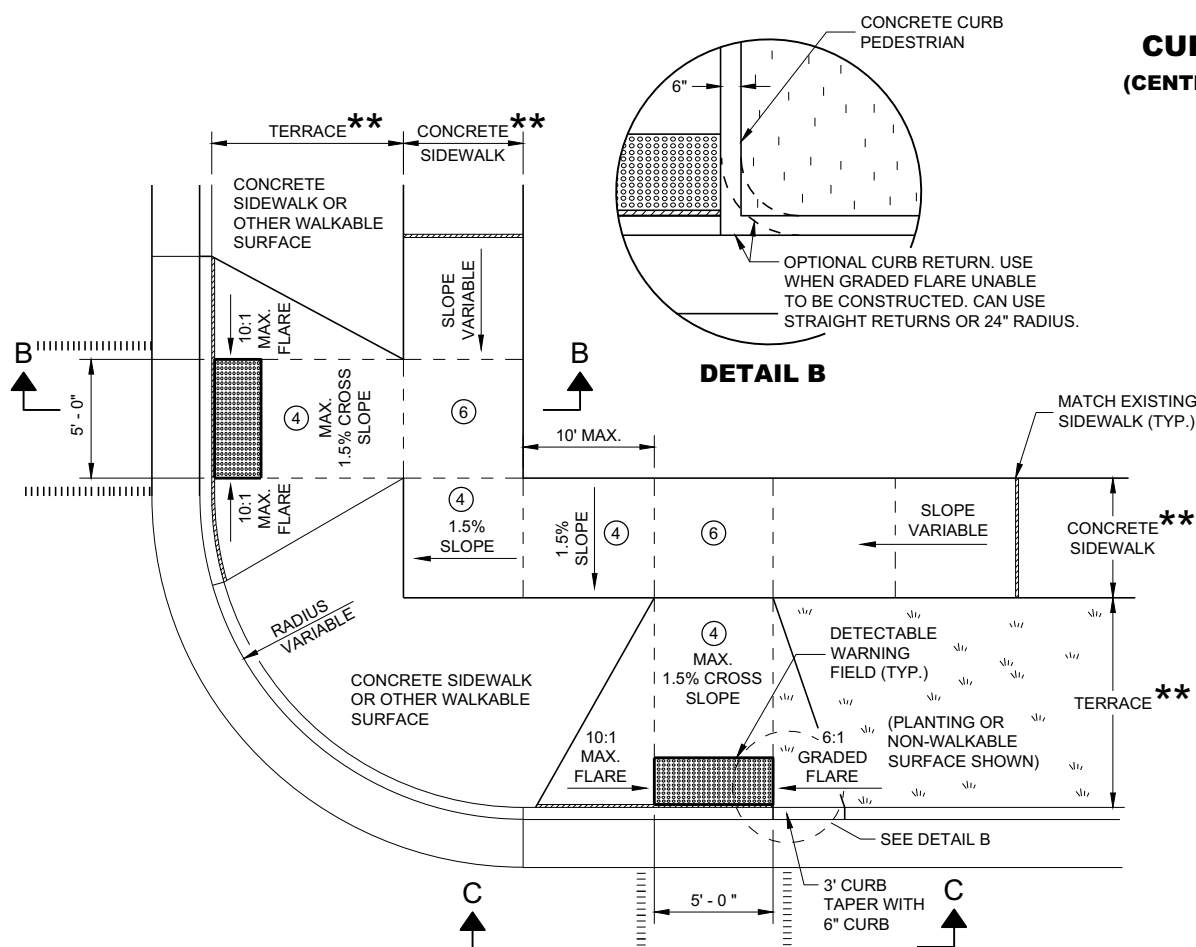
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



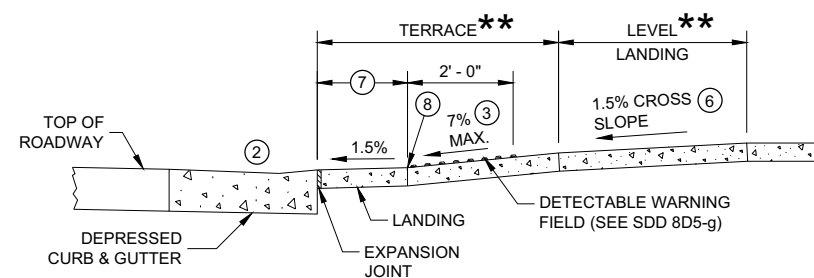
### DETAIL A



**PLAN VIEW**  
**CURB RAMP TYPE 2**  
**(CENTER OF CORNER RADIUS)**



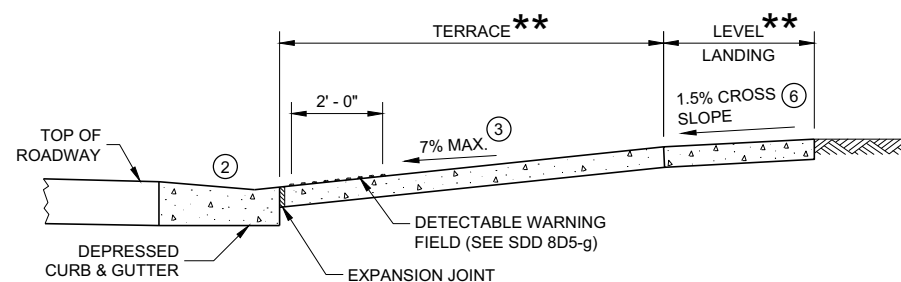
**PLAN VIEW**  
**CURB RAMP TYPE 3**  
**(OUTSIDE OF CROSSWALK AREA)**



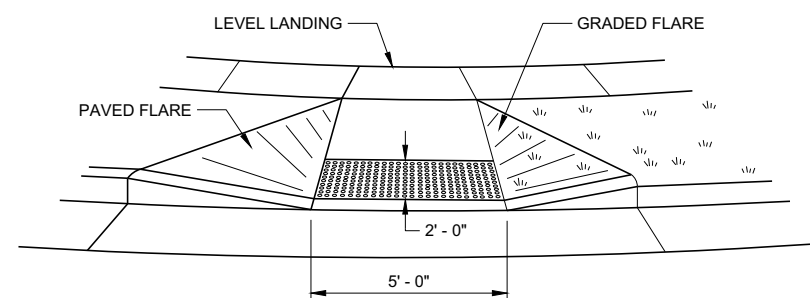
## SECTION A - A FOR TYPE 2

\* MAXIMUM 2.0% SLOPE  
IN ALL DIRECTIONS IN  
FRONT OF GRADE BREAK

**\*\* WIDTH SHOWN ELSEWHERE  
IN THE PLANS**



### SECTION B - B FOR TYPE 3



**VIEW C - C FOR TYPE 3**

## GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE SHALL BE FROM THE SAME MANUFACTURER.

- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN  $\frac{1}{4}$  - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.
- ④  $\pm 0.5\%$  CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.
- ⑦ WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑨ WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.

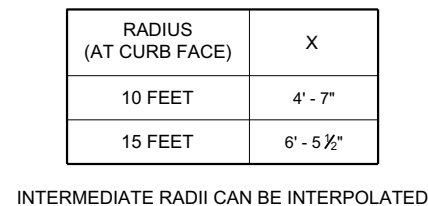
## LEGEND

- |                                                                                       |                                    |
|---------------------------------------------------------------------------------------|------------------------------------|
|  | 1/2" EXPANSION JOINT SIDEWALK      |
|  | CONTRACTION JOINT SIDEWALK         |
|  | PAVEMENT MARKING CROSSWALK (WHITE) |

## CURB RAMPS TYPE 2 AND 3

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION 121





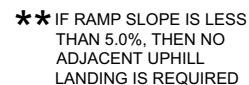
## INTERMEDIATE RADII CAN BE INTERPOLATED



## 6



\* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK



## 6



AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

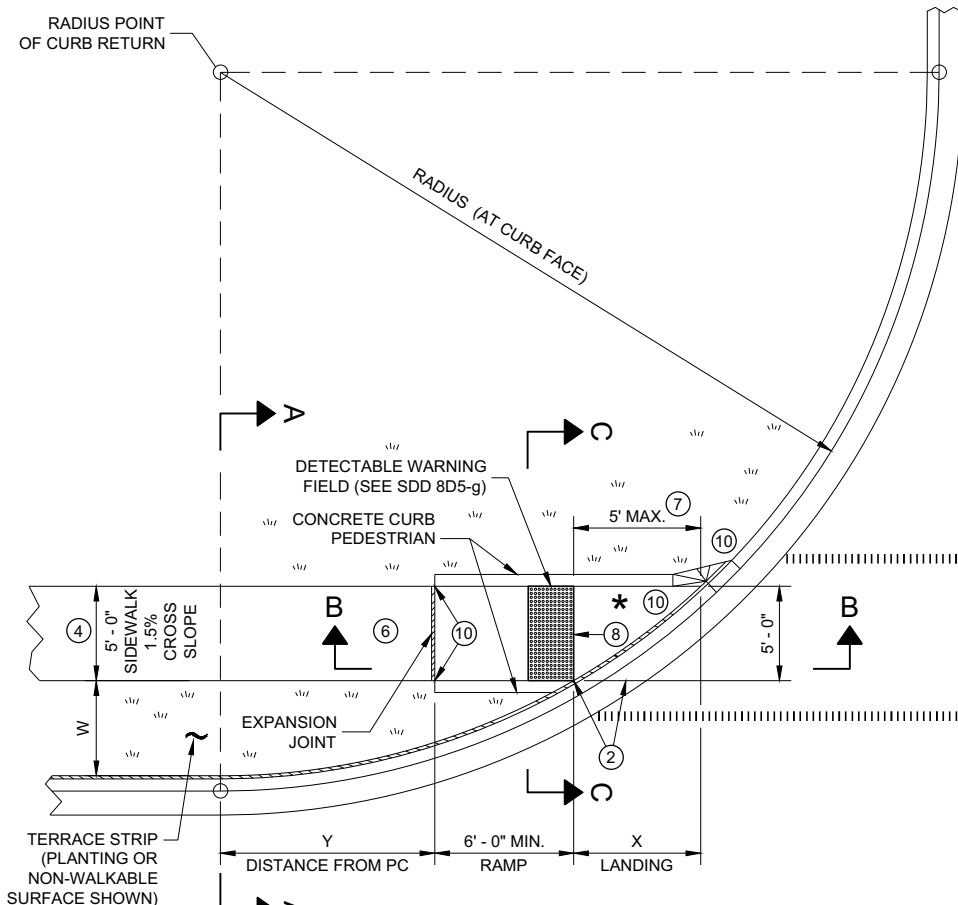
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN  $\frac{1}{4}$  - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④  $\pm 0.5\%$  CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- ⑦ WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑩ INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

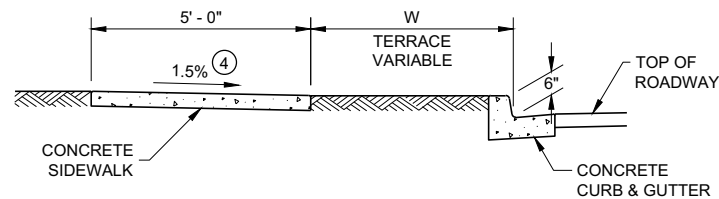
## 6



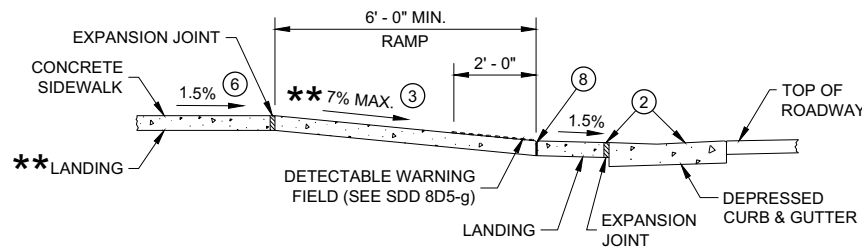
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION 122



PLAN VIEW  
CURB RAMP TYPE 4B



SECTION A - A FOR TYPE 4B



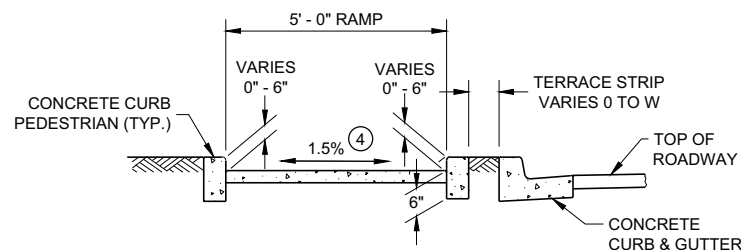
\*\* IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

SECTION B - B FOR  
TYPE 4B AND TYPE 4B1

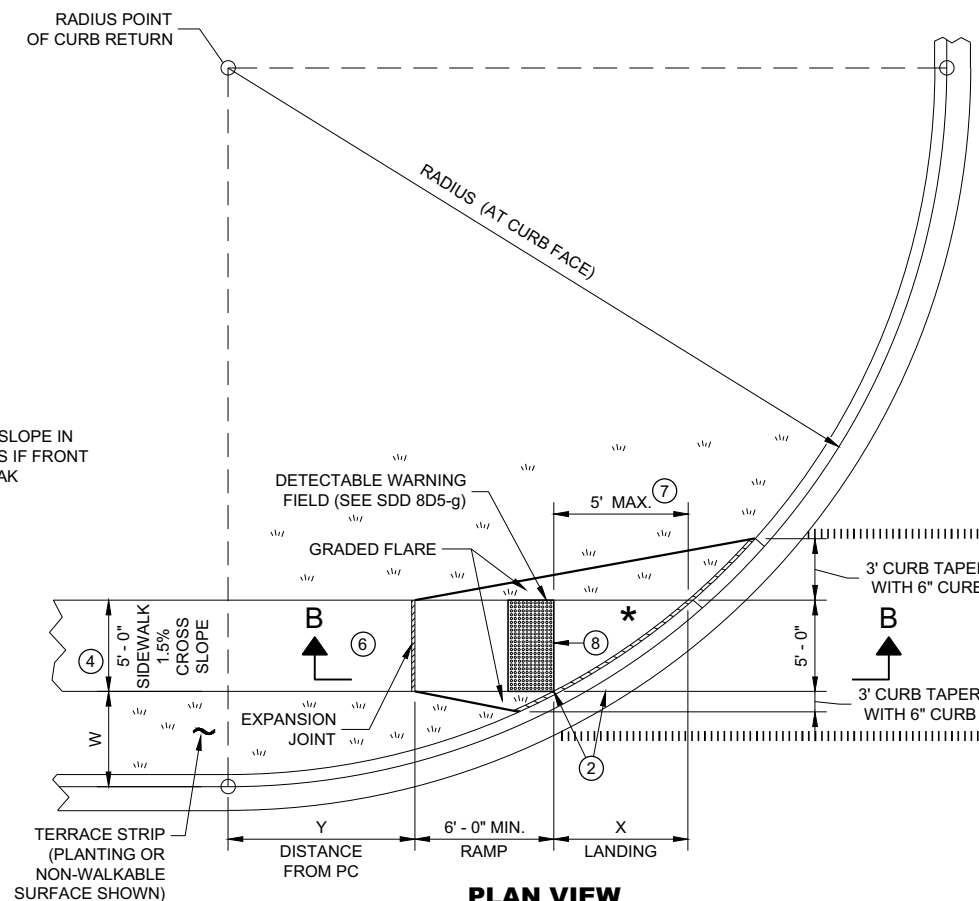
\* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

| RADIUS<br>(AT CURB FACE) | W = 3' - 0"  |             | W = 4' - 0"  |              | W = 5' - 0" |             | W = 6' - 0" |              | W = 7' - 0"  |              | W = 8' - 0" |              | W = 9' - 0" |              | W = 10' - 0" |              |
|--------------------------|--------------|-------------|--------------|--------------|-------------|-------------|-------------|--------------|--------------|--------------|-------------|--------------|-------------|--------------|--------------|--------------|
|                          | X            | Y           | X            | Y            | X           | Y           | X           | Y            | X            | Y            | X           | Y            | X           | Y            | X            | Y            |
| 10 FEET                  | 2' - 10 1/4" | 0' - 5"     | 2' - 1"      | 1' - 4 1/2"  | 1' - 5"     | 2' - 1"     | 0' - 10"    | 2' - 7 1/2"  | 0' - 3 3/4"  | 3' - 0 1/4"  |             |              |             |              |              |              |
| 15 FEET                  | 4' - 6 3/4"  | 2' - 1 3/4" | 3' - 9"      | 3' - 5 3/4"  | 3' - 1 1/4" | 4' - 6"     | 2' - 6 3/4" | 5' - 4 1/2"  | 2' - 1"      | 6' - 1"      | 1' - 8"     | 6' - 8 1/2"  | 1' - 3 1/4" | 7' - 2 1/2"  | 0' - 10 3/4" | 7' - 7 1/4"  |
| 20 FEET                  | 5' - 9 3/4"  | 3' - 6 1/2" | 4' - 11 1/2" | 5' - 1 3/4"  | 4' - 3 1/4" | 6' - 5 1/2" | 3' - 8 3/4" | 7' - 7"      | 3' - 3"      | 8' - 6 1/2"  | 2' - 10"    | 9' - 4 1/2"  | 2' - 5 1/2" | 10' - 1 1/4" | 2' - 1 1/4"  | 10' - 9"     |
| 30 FEET                  |              |             | 6' - 9 1/4"  | 7' - 11 1/2" | 6' - 0 1/4" | 9' - 8"     | 5' - 5"     | 11' - 1 3/4" | 4' - 10 3/4" | 12' - 5 3/4" | 4' - 5 1/2" | 13' - 7 3/4" | 4' - 0 3/4" | 14' - 8 1/2" | 3' - 8 1/2"  | 15' - 8 1/4" |
| 40 FEET                  |              |             |              |              |             |             |             |              | 6' - 1 3/4"  | 15' - 8 1/2" | 5' - 8"     | 17' - 2"     | 5' - 3"     | 18' - 5 3/4" | 4' - 10 3/4" | 19' - 8 1/4" |
| 50 FEET                  |              |             |              |              |             |             |             |              |              |              |             |              |             |              | 5' - 10 1/4" | 23' - 2"     |

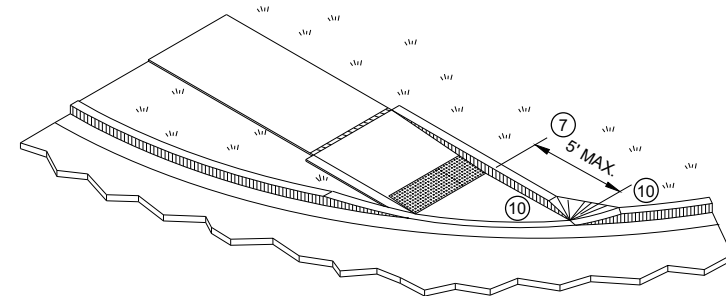
INTERMEDIATE RADII CAN BE INTERPOLATED  
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH  
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH



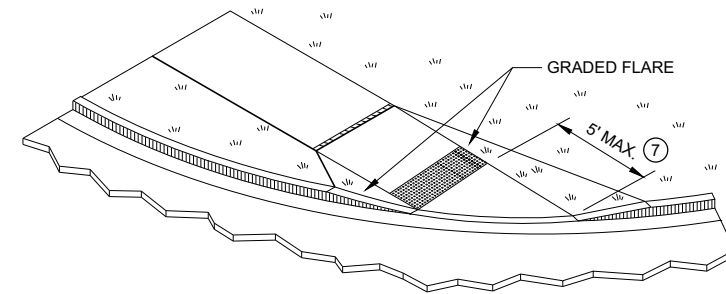
SECTION C - C FOR TYPE 4B



PLAN VIEW  
CURB RAMP TYPE 4B1



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

LEGEND

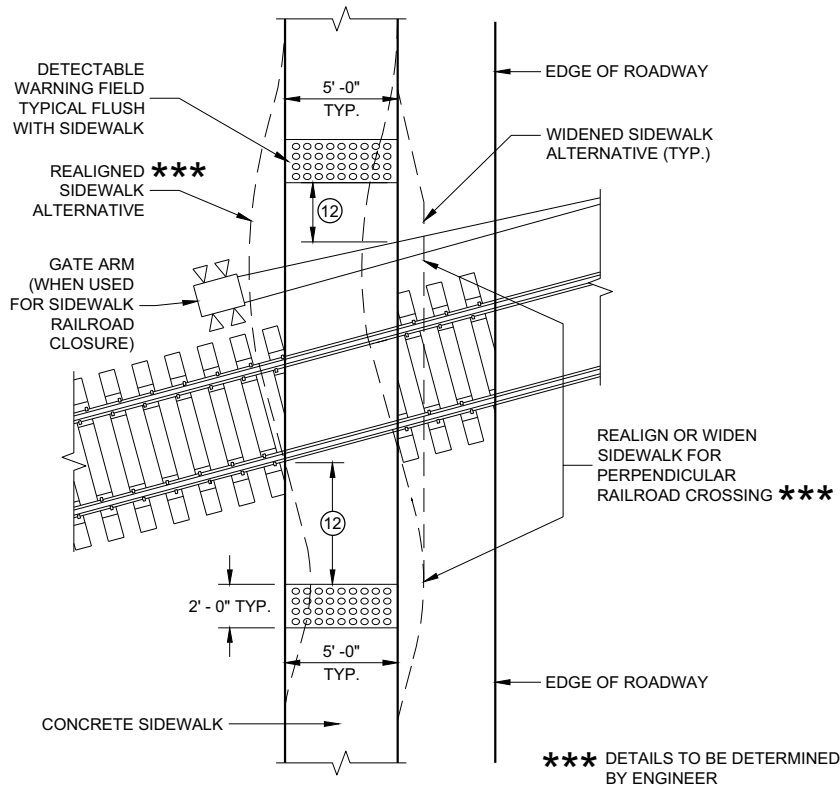
- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- 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.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4" INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

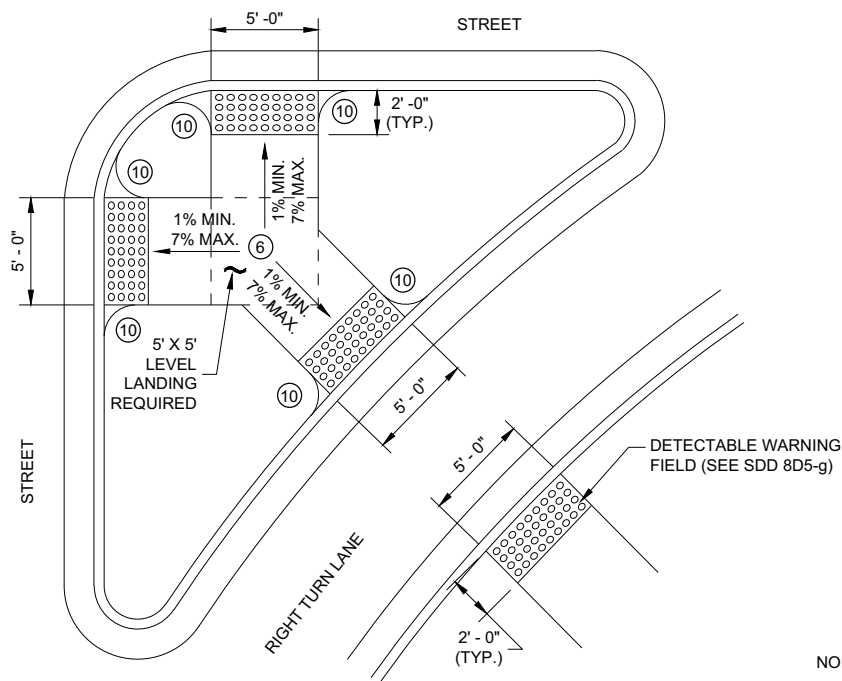
CURB RAMPS  
TYPE 4B AND 4B1

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION 123



**CURB RAMP TYPE 8**

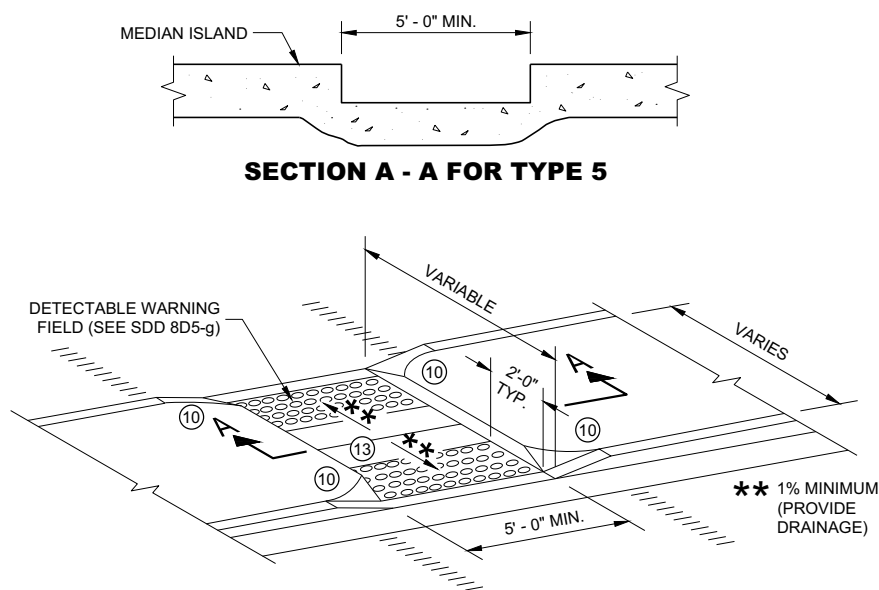
**DETECTABLE WARNINGS AT RAILROAD CROSSING**



**CURB RAMP TYPE 6**

**DETECTABLE WARNING AT ISLANDS**

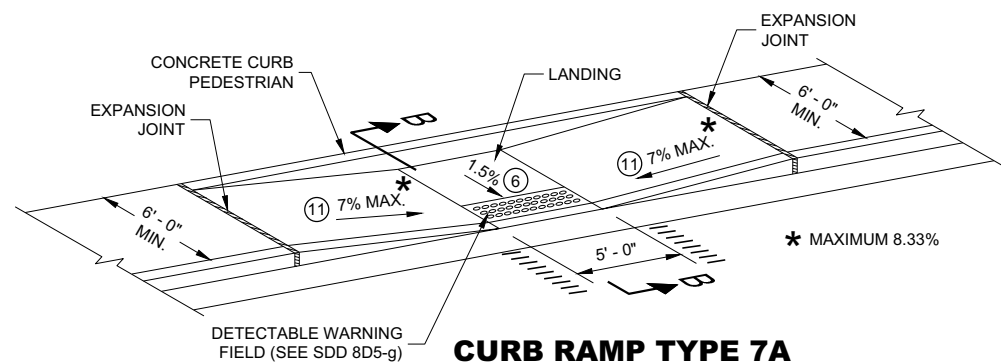
REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



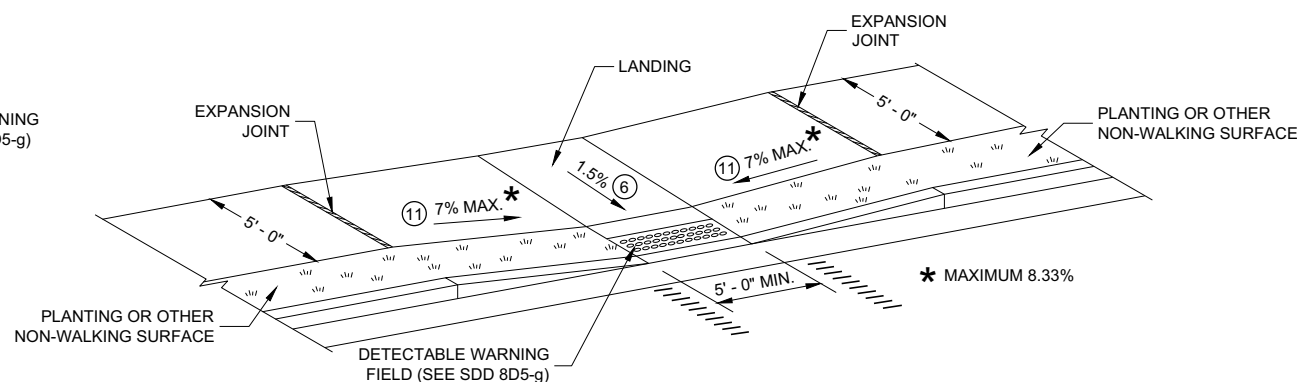
**SECTION A - A FOR TYPE 5**

**CURB RAMP TYPE 5**

**MEDIAN ISLAND  
NON-ELEVATED PEDESTRIAN CROSSING**



**CURB RAMP TYPE 7A  
MID BLOCK CROSSING**



**CURB RAMP TYPE 7B  
MID BLOCK CROSSING**

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

**GENERAL NOTES**

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

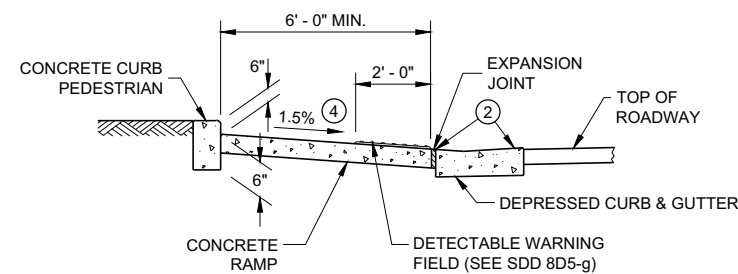
SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

- GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.
- SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ±0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.
- DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STEET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

**LEGEND**

- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

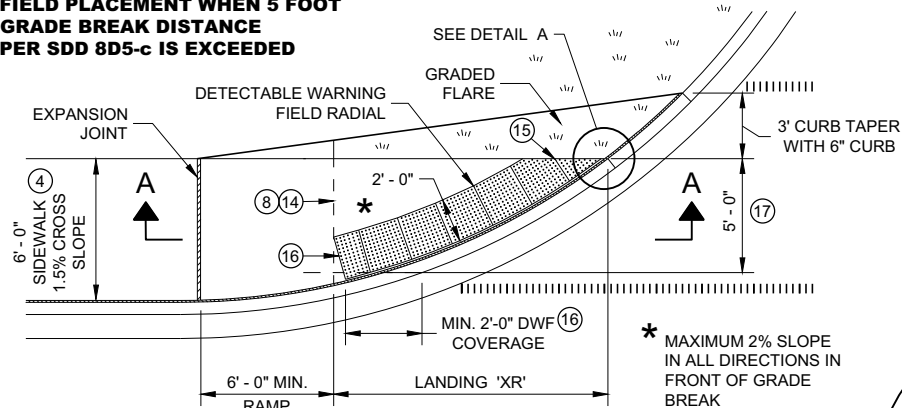


**SECTION B - B FOR TYPE 7A**

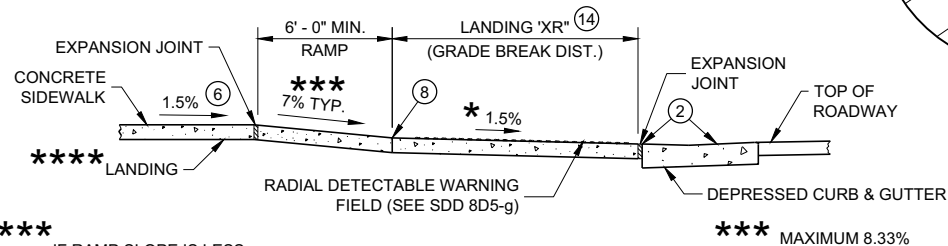
**CURB RAMPS  
TYPE 5, 6, 7A, 7B & 8**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION 124

**RADIAL DETECTABLE WARNING  
FIELD PLACEMENT WHEN 5 FOOT  
GRADE BREAK DISTANCE  
PER SDD 8D5-c IS EXCEEDED**



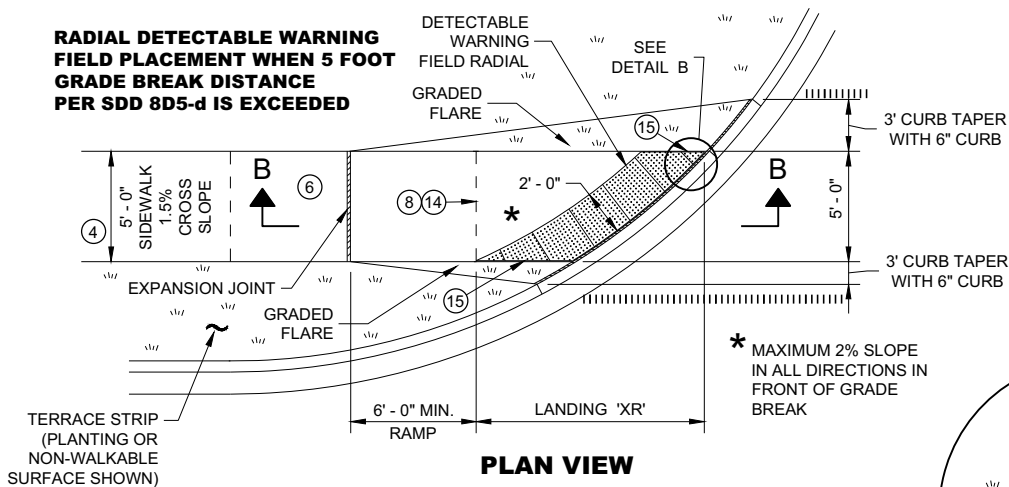
**PLAN VIEW  
CURB RAMP TYPE 4A1  
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**



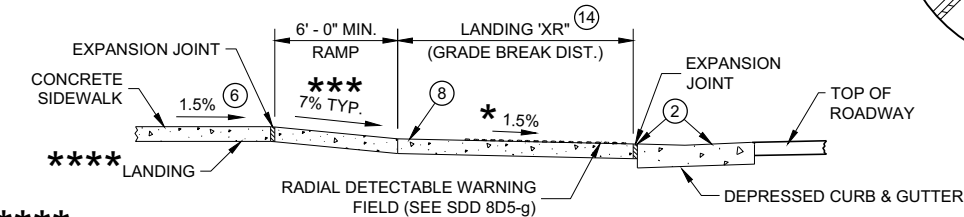
\*\*\*\*  
IF RAMP SLOPE IS LESS  
THAN 5.0%, THEN NO  
ADJACENT UPHILL  
LANDING IS REQUIRED

**SECTION A - A FOR TYPE 4A1**

**RADIAL DETECTABLE WARNING  
FIELD PLACEMENT WHEN 5 FOOT  
GRADE BREAK DISTANCE  
PER SDD 8D5-d IS EXCEEDED**



**PLAN VIEW  
CURB RAMP TYPE 4B1  
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**

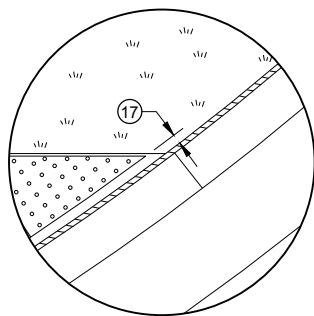


\*\*\*\*  
IF RAMP SLOPE IS LESS  
THAN 5.0%, THEN NO  
ADJACENT UPHILL  
LANDING IS REQUIRED

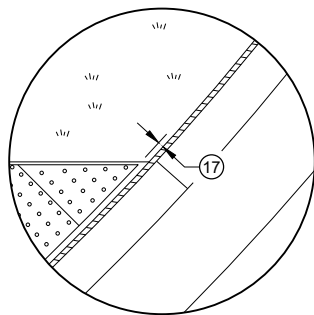
**SECTION B - B FOR TYPE 4B1**

**LEGEND**

- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)



**DETAIL A**



**DETAIL B**

**GENERAL NOTES**

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.

REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

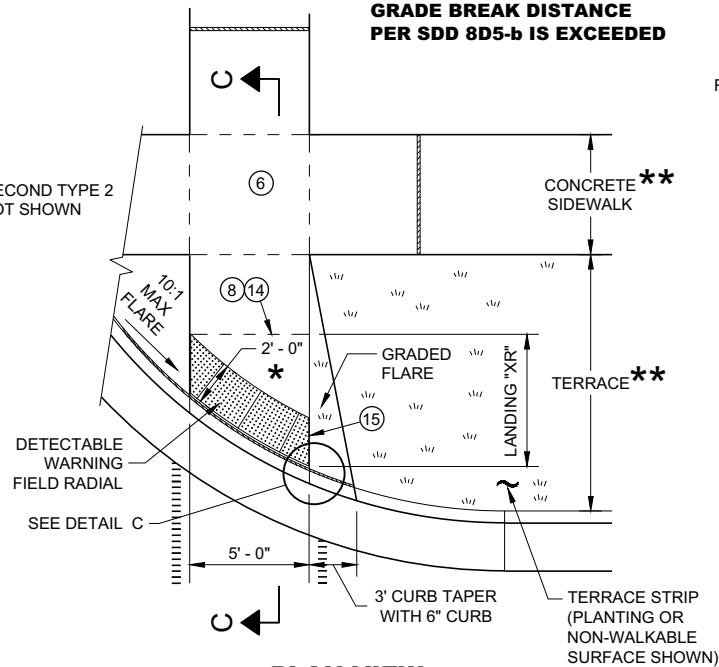
FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FIELD ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

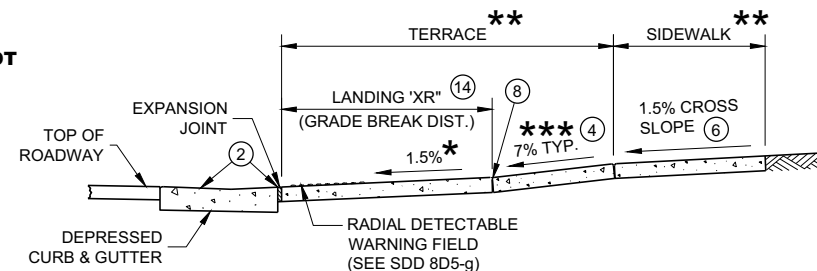
- 2 GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- 3 AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- 4 ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- 6 PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.
- 8 PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- 14 CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.
- 15 FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.
- 16 USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.
- 17 A MAXIMUM 3 INCH CONCRETE BORDER WITH IS ALLOWABLE IN FROM OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

**RADIAL DETECTABLE WARNING  
FIELD PLACEMENT WHEN 5 FOOT  
GRADE BREAK DISTANCE  
PER SDD 8D5-b IS EXCEEDED**

NOTE: SECOND TYPE 2  
RAMP NOT SHOWN

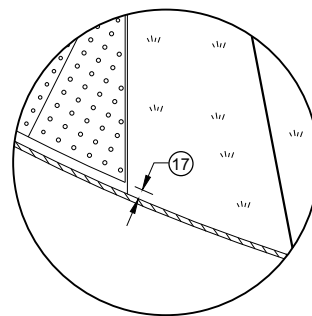


**PLAN VIEW  
CURB RAMP TYPE 2  
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)  
(ON LINE WITH SIDEWALK)**



**SECTION C - C FOR TYPE 2**

- \* MAXIMUM 2% SLOPE  
IN ALL DIRECTIONS IN  
FRONT OF GRADE  
BREAK
- \*\* WIDTH SHOWN ELSEWHERE  
IN THE PLANS
- \*\*\* MAXIMUM 8.33%



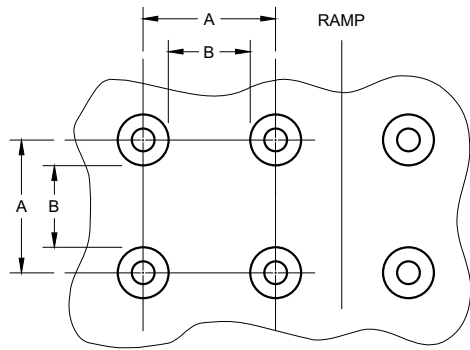
**DETAIL C**

**CURB RAMPS  
RADIAL DETECTABLE WARNING  
FIELD APPLICATIONS**

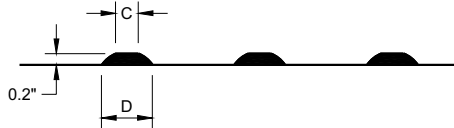
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION 125

|   | MIN.  | MAX. |
|---|-------|------|
| A | 1.6"  | 2.4" |
| B | 0.65" | 1.5" |
| C | *     | *    |
| D | 0.9"  | 1.4" |

\* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.

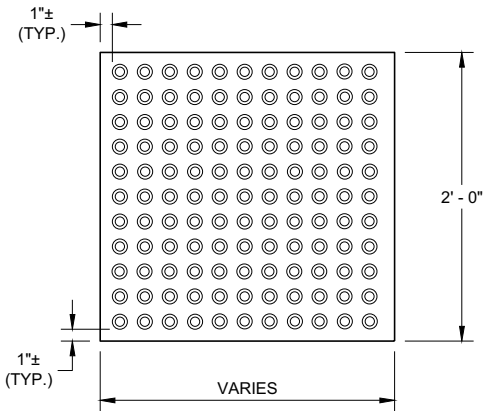


PLAN VIEW

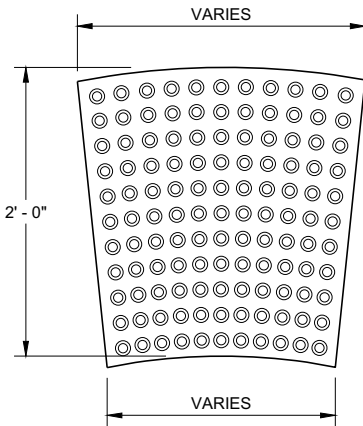


ELEVATION VIEW

TRUNCATED DOMES  
DETECTABLE WARNING PATTERN DETAIL

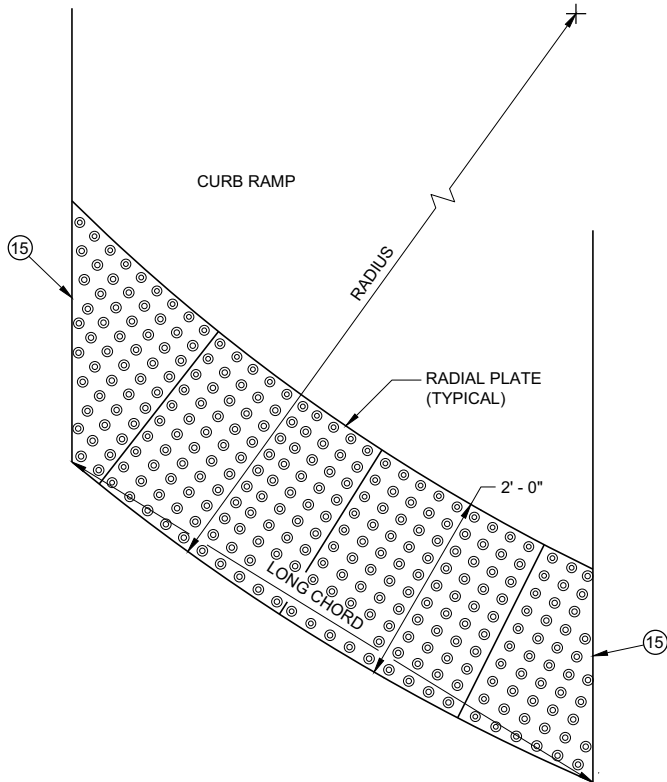


RECTANGULAR  
PLATES



RADIAL  
PLATES

PLAN VIEW  
DETECTABLE WARNING FIELDS (TYPICAL)



PLAN VIEW  
RADIAL DETECTABLE  
WARNING FIELD ATTRIBUTES

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

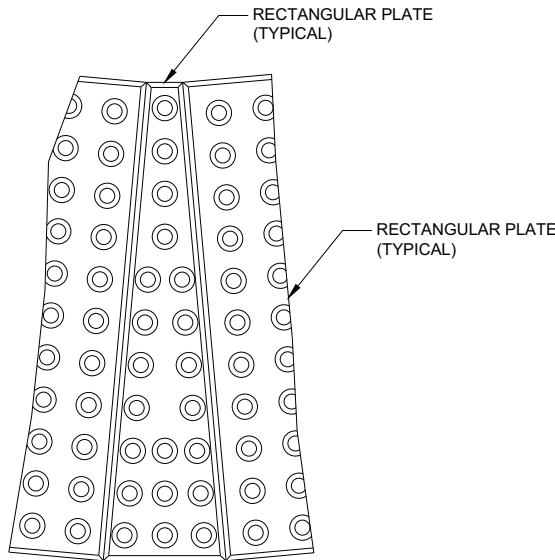
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.



PLAN VIEW  
RADIAL WEDGE PLATE  
CONNECTION DETAIL

CURB RAMPS  
RECTANGULAR AND RADIAL  
DETECTABLE WARNING PLATES

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
May 2019 /S/ Rodney Taylor  
DATE ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR  
FHWA 126



- 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.



SILT FENCE

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
4-29-05  
DATE

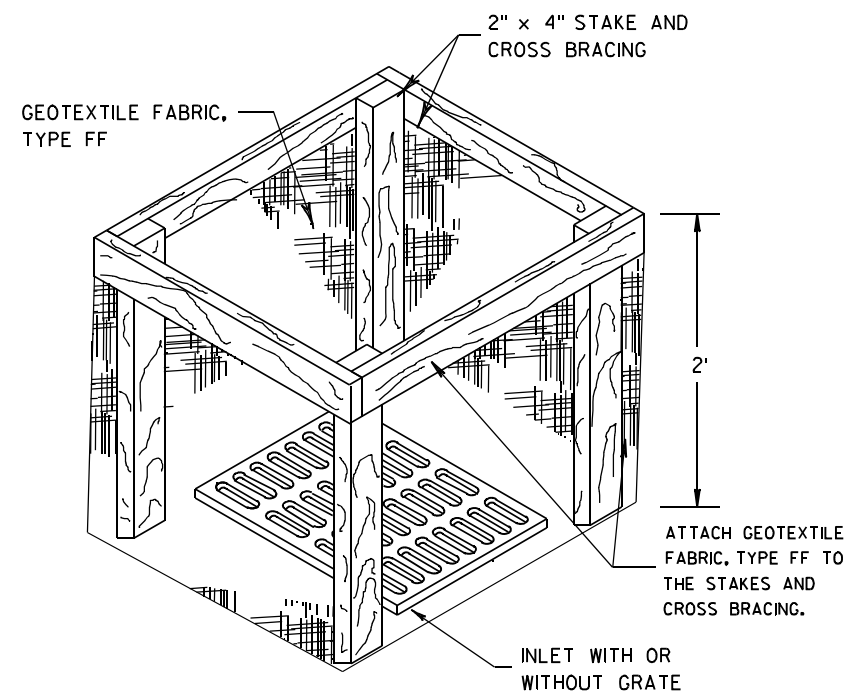
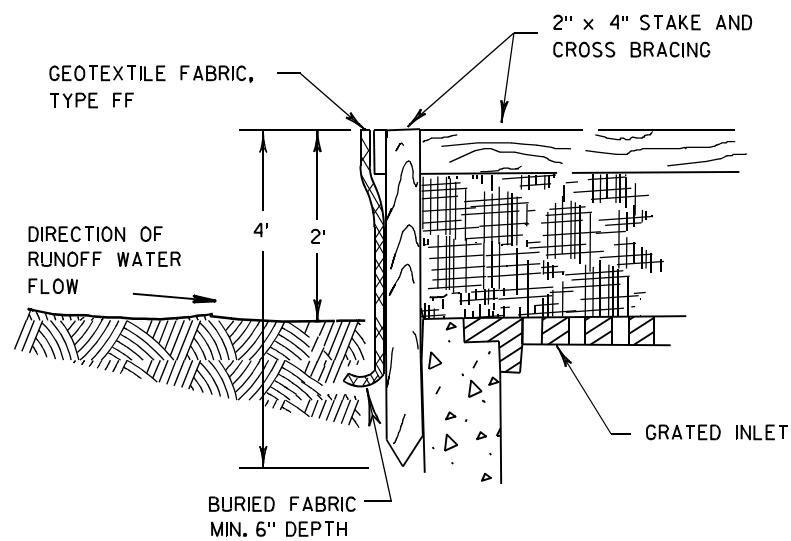
/S/ Beth Connolly  
CHIEF ROADWAY DEVELOPMENT

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ENGINEER

FHWA





**INLET PROTECTION, TYPE A**

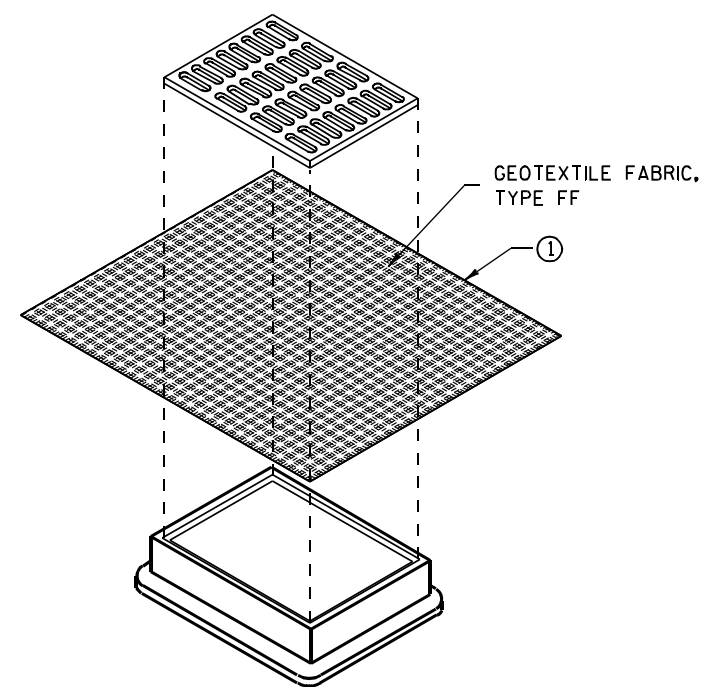
**GENERAL NOTES**

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.

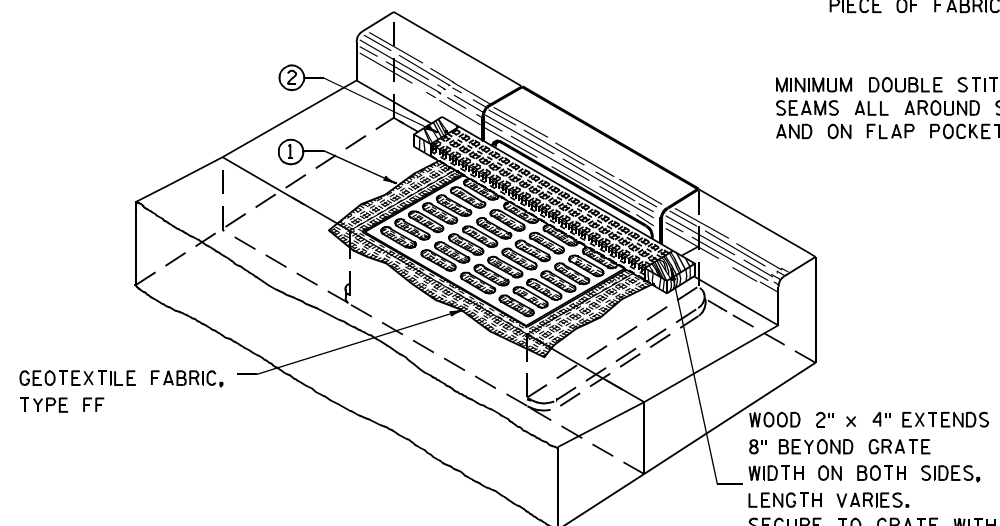
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.

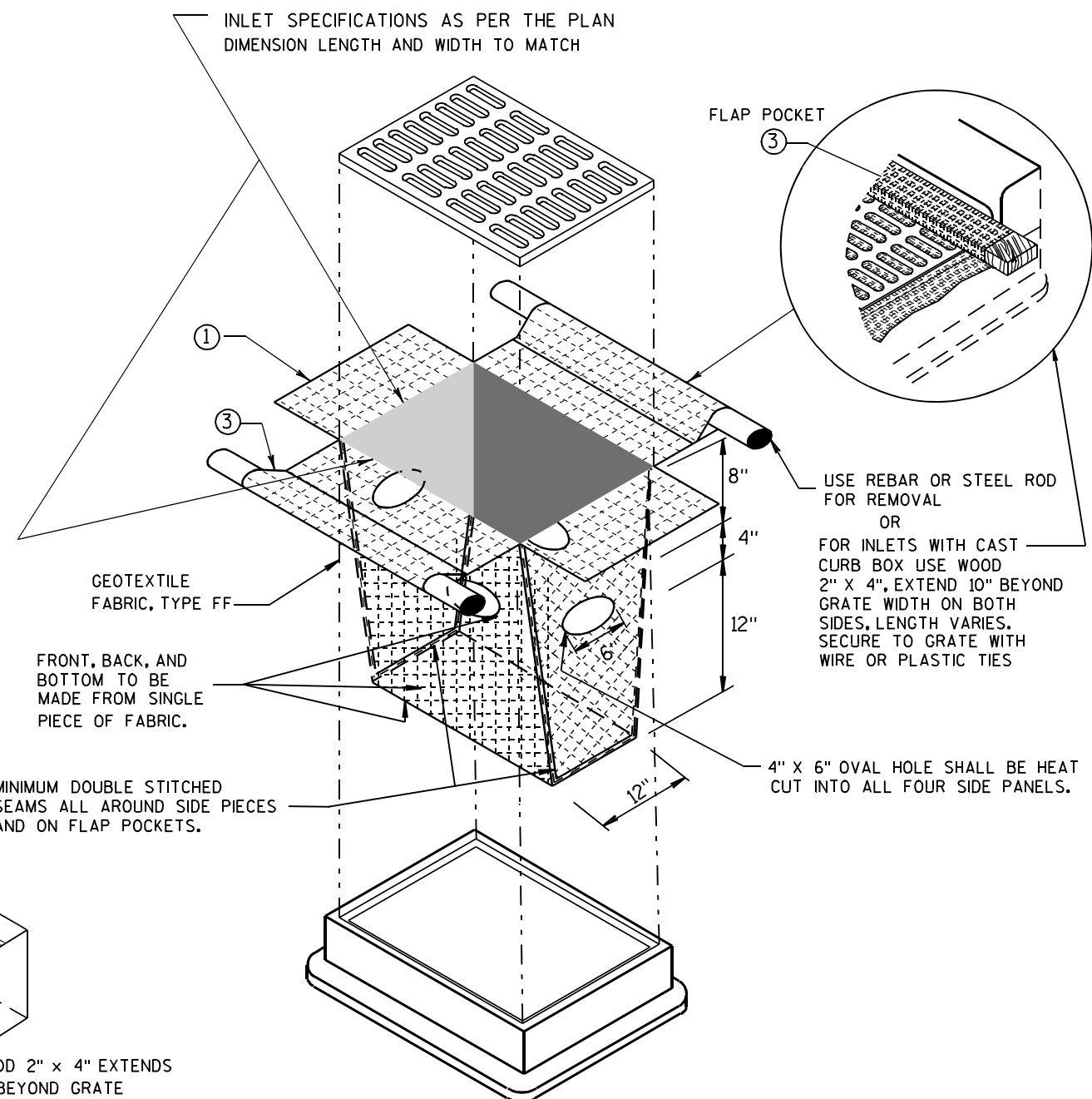
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

**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.



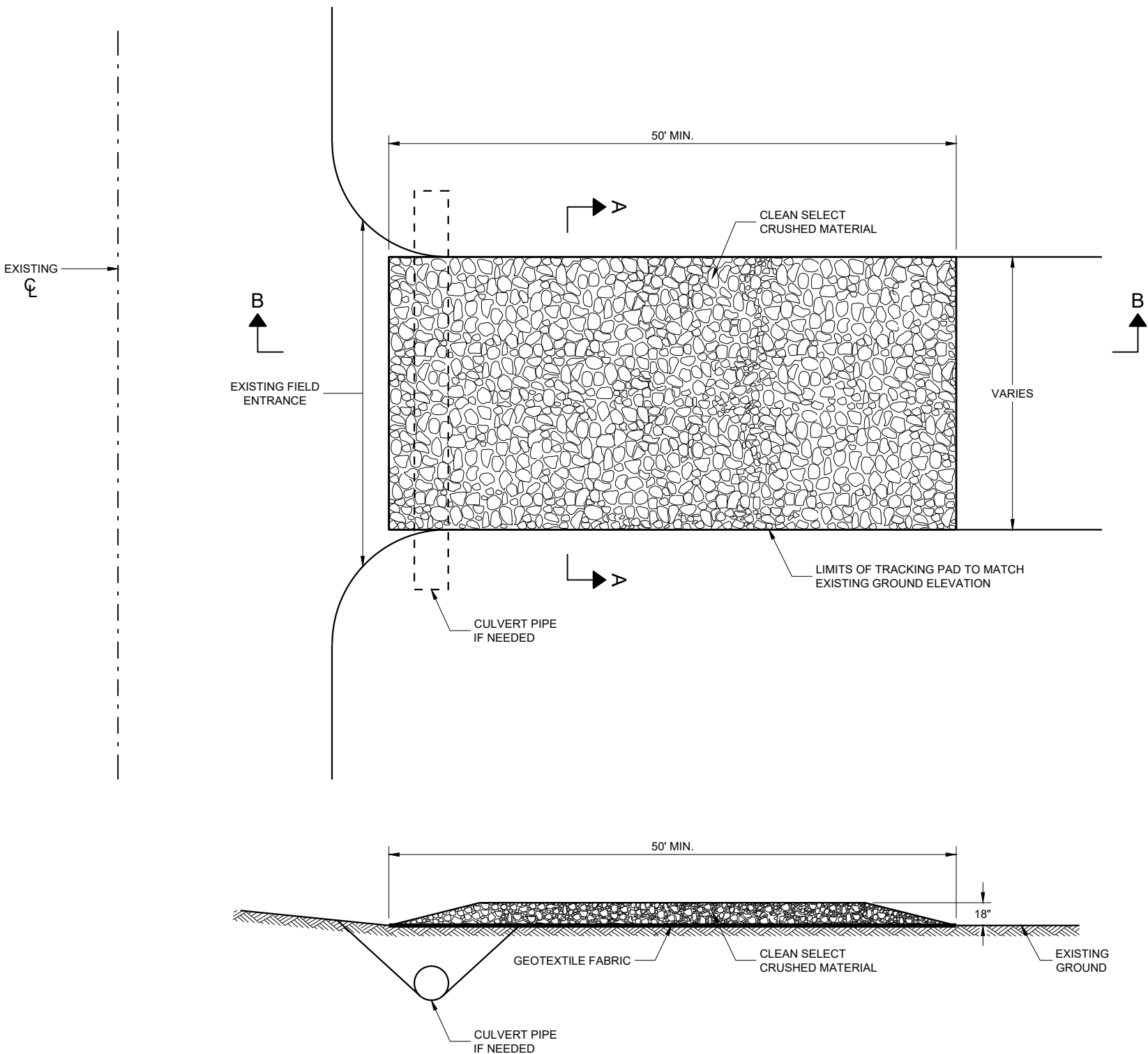
**INLET PROTECTION, TYPE D**

(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 /S/ Beth Connolly  
DATE 128  
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER



SECTION B - B

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.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

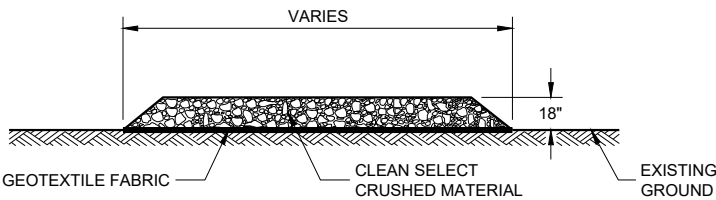
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A - A

TRACKING PAD

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

3/24/2011

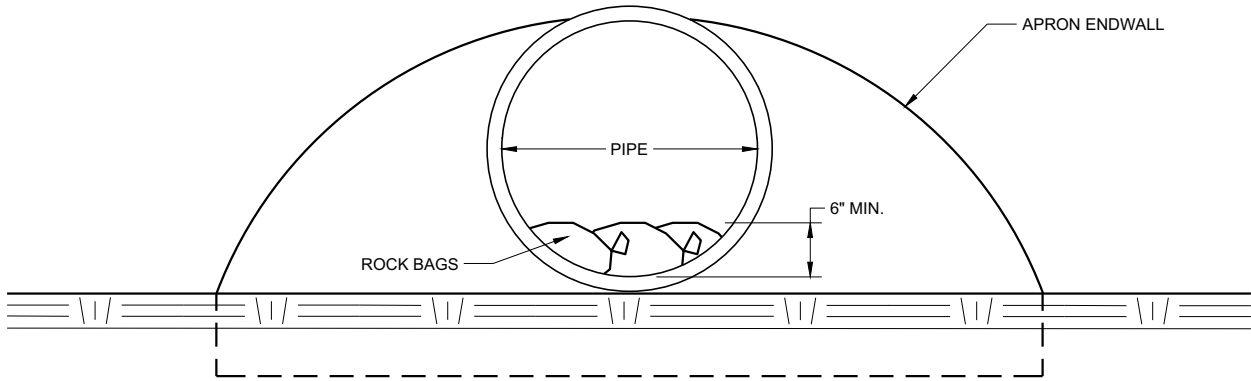
DATE

FHWA

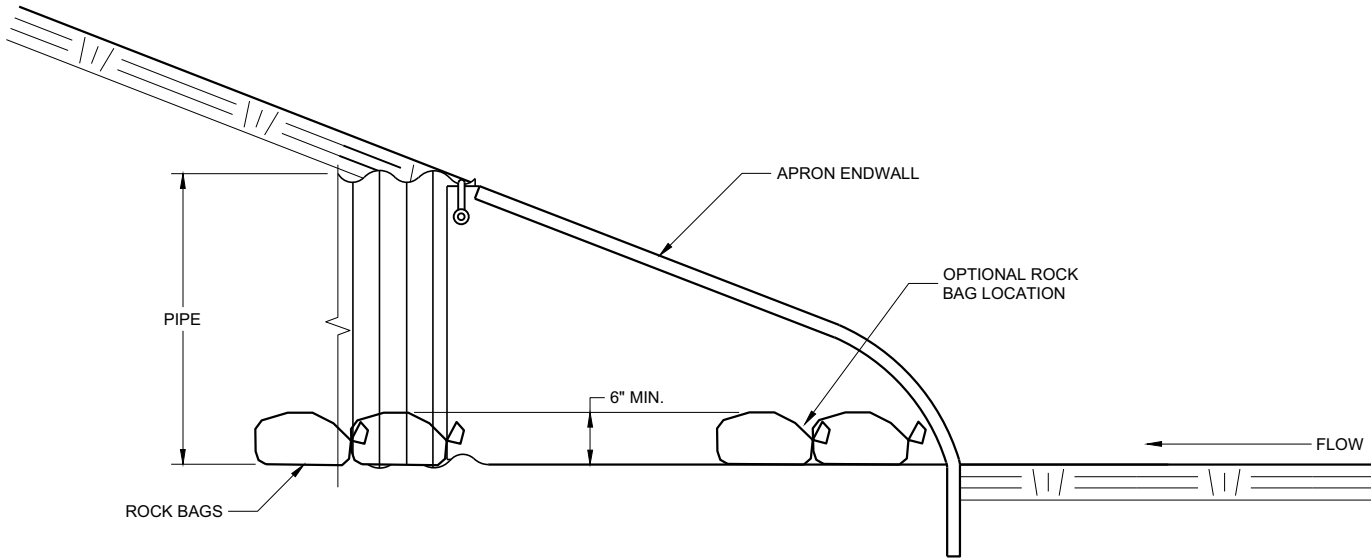
/S/ Jerry H. Zogg  
ROADWAY STANDARDS DEVE  
ENGINEER

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END VIEW



SIDE VIEW

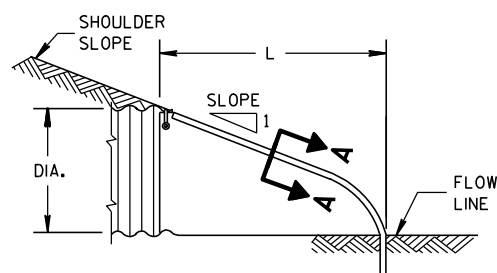
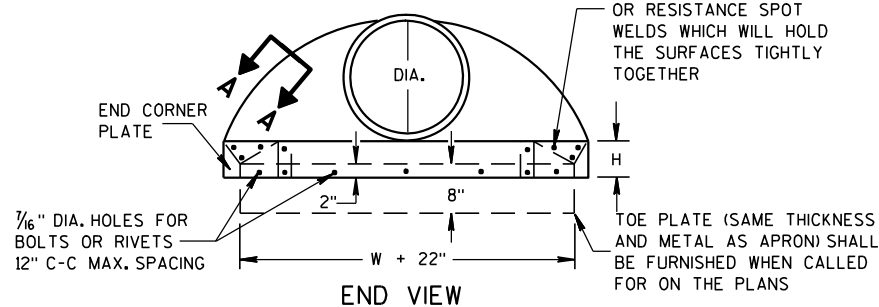
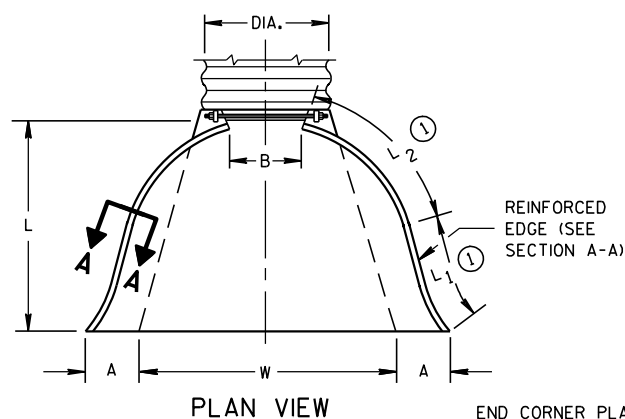
**CULVERT PIPE CHECK**  
(INSTALL ON INLET END ONLY)

| CULVERT PIPE CHECK                                 |                                               |
|----------------------------------------------------|-----------------------------------------------|
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION |                                               |
| APPROVED<br>May 2019<br>DATE                       | /S/ Daniel Schave<br>EROSION CONTROL ENGI 130 |
| FHWA                                               |                                               |

## 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") | L <sub>1</sub><br>① | L <sub>2</sub><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

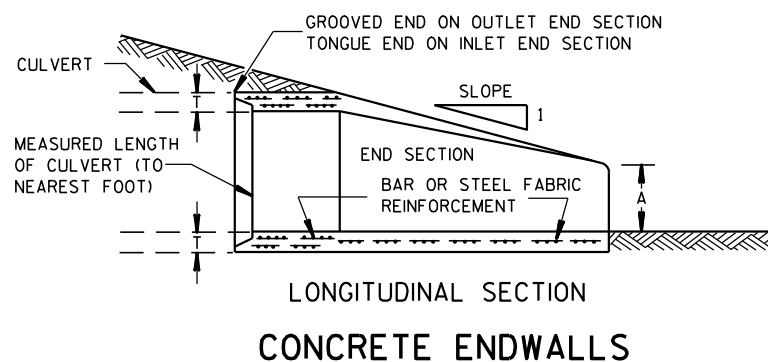
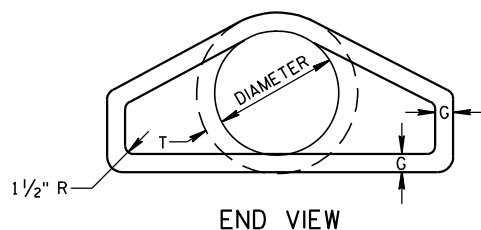
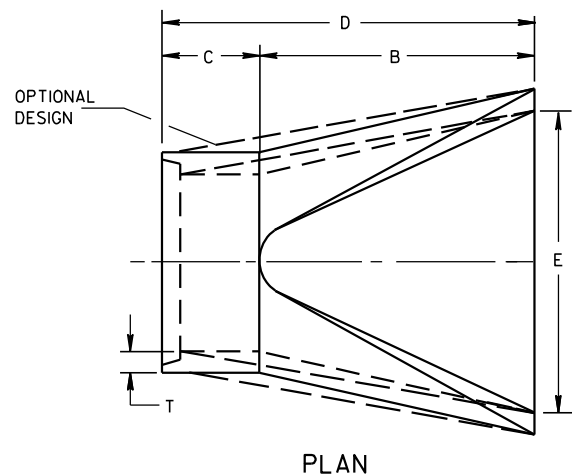


METAL ENDWALLS

## REINFORCED CONCRETE APRON ENDWALLS

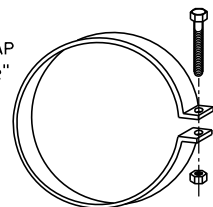
| PIPE DIA.<br>(IN.) | DIMENSIONS (Inches) |        |        |           |            |     |       | APPROX. SLOPE |
|--------------------|---------------------|--------|--------|-----------|------------|-----|-------|---------------|
|                    | T                   | A      | B      | C         | D          | E   | G     |               |
| 12                 | 2                   | 4      | 24     | 48 1/8    | 72 1/8     | 24  | 2     | 3 to 1        |
| 15                 | 2 1/4               | 6      | 27     | 46        | 73         | 30  | 2 1/4 | 3 to 1        |
| 18                 | 2 1/2               | 9      | 27     | 46        | 73         | 36  | 2 1/2 | 3 to 1        |
| 21                 | 2 3/4               | 9      | 36     | 37 1/2    | 73 1/2     | 42  | 2 3/4 | 3 to 1        |
| 24                 | 3                   | 9 1/2  | 43 1/2 | 30        | 73 1/2     | 48  | 3     | 3 to 1        |
| 27                 | 3 1/4               | 10 1/2 | 49 1/2 | 24        | 73 1/2     | 54  | 3 1/4 | 3 to 1        |
| 30                 | 3 1/2               | 12     | 54     | 19 3/4    | 73 1/2     | 60  | 3 1/2 | 3 to 1        |
| 36                 | 4                   | 15     | 63     | 34 3/4    | 97 3/4     | 72  | 4     | 3 to 1        |
| 42                 | 4 1/2               | 21     | 63     | 35        | 98         | 78  | 4 1/2 | 3 to 1        |
| 48                 | 5                   | 24     | 72     | 26        | 98         | 84  | 5     | 3 to 1        |
| 54                 | 5 1/2               | 27     | 65     | 33 1/4-35 | 98 1/4-100 | 90  | 5 1/2 | 2 1/2 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

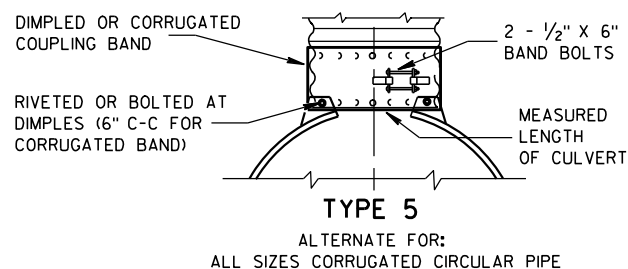
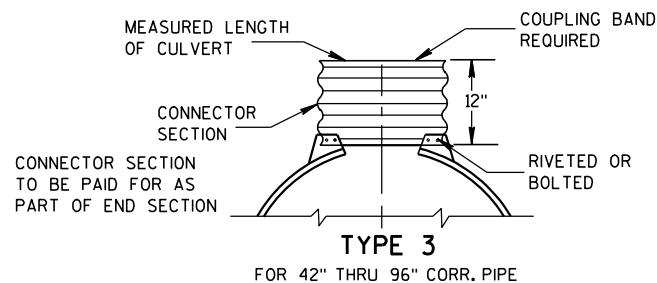
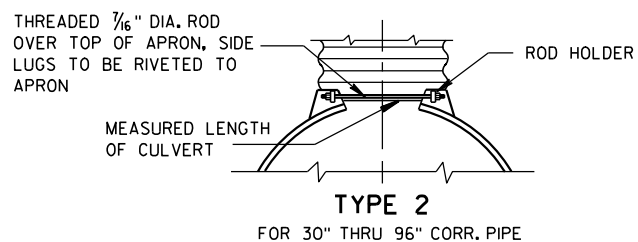
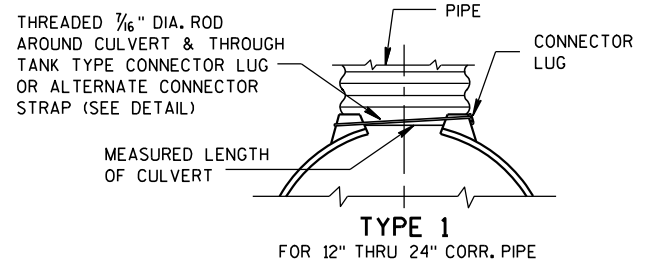


CONCRETE ENDWALLS

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



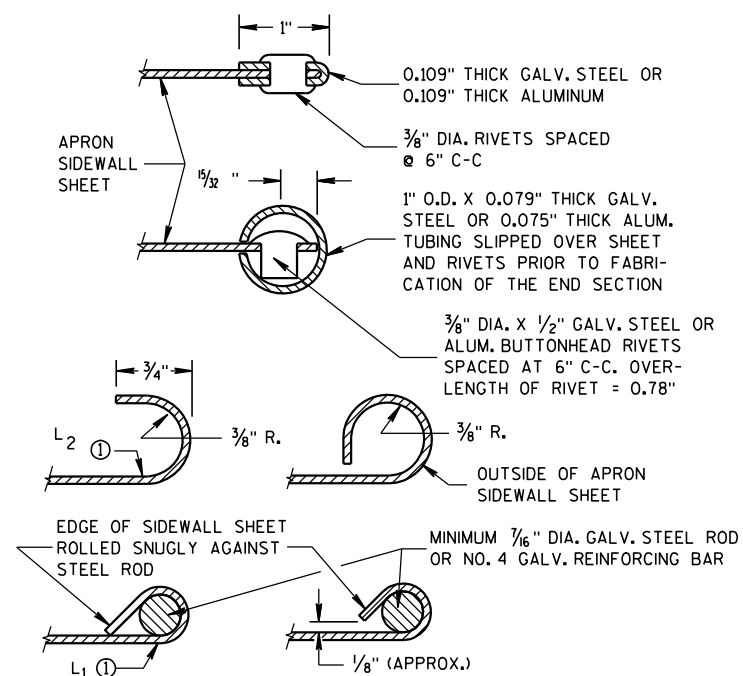
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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



## GENERAL NOTES

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

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

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

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

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

① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

## APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/94

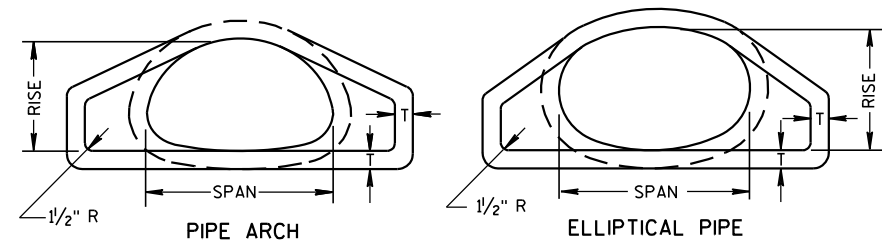
DATE

FHWA

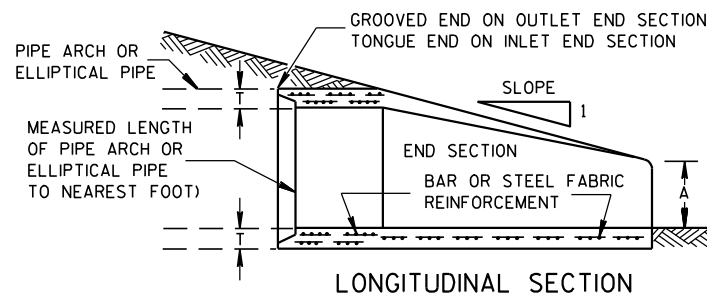
/S/ Rory L. Rhinehart

CHIEF ROADWAY DEVELOPER

131 NEER

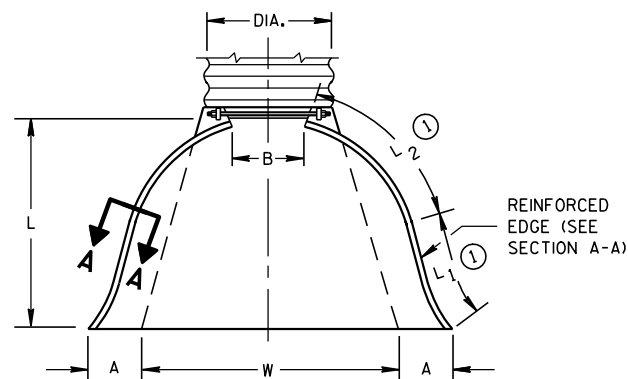


END VIEW



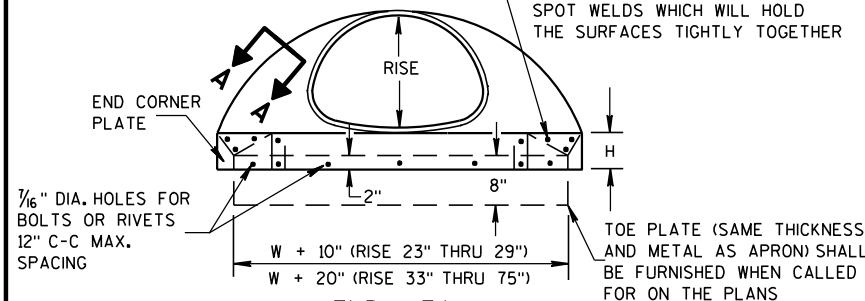
LONGITUDINAL SECTION

CONCRETE ENDWALLS

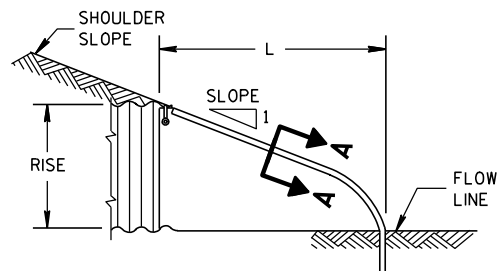


PLAN VIEW

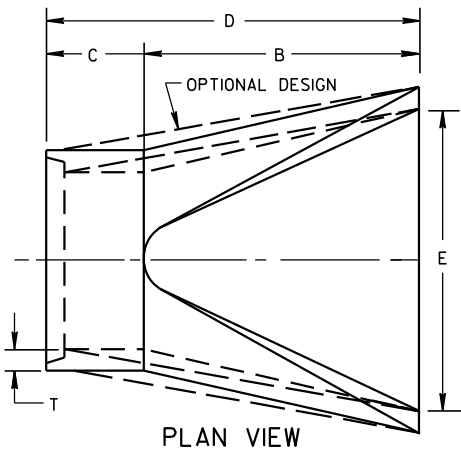
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER



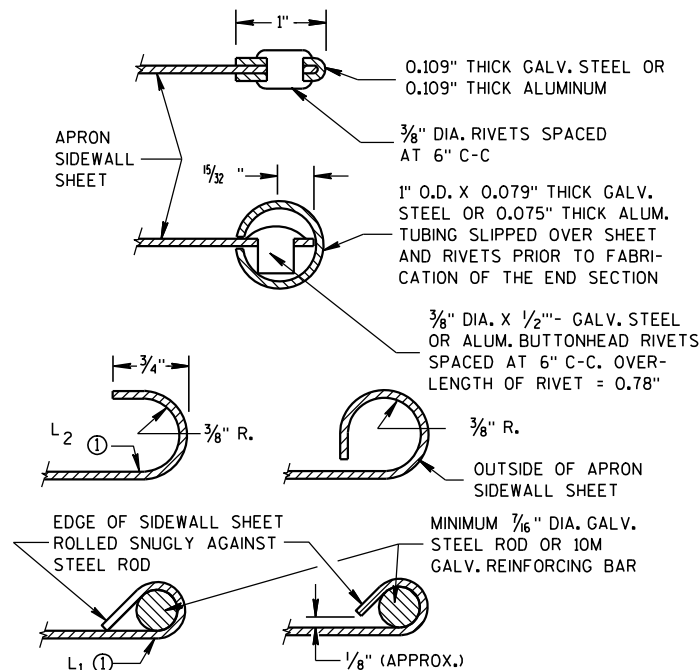
END VIEW



SIDE ELEVATION  
METAL ENDWALLS



PLAN VIEW



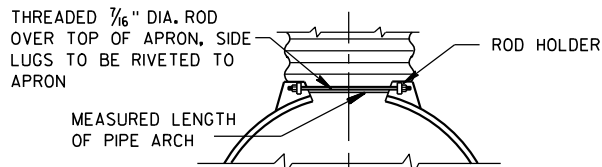
SECTION A-A

| 2- 2⅓" X ½" CORRUGATIONS   |          |      |                         |       |                     |             |            |             |         |          |            |                  |       |
|----------------------------|----------|------|-------------------------|-------|---------------------|-------------|------------|-------------|---------|----------|------------|------------------|-------|
| EQUIV.<br>DIA.<br>(Inches) | (Inches) |      | MIN. THICK.<br>(Inches) |       | DIMENSIONS (Inches) |             |            |             |         |          |            | APPROX.<br>SLOPE | BODY  |
|                            | SPAN     | RISE | STEEL                   | ALUM. | A<br>(±1")          | B<br>(MAX.) | H<br>(±1") | L<br>(±1½") | L1<br>① | L 2<br>① | W<br>(±2") |                  |       |
| 15                         | 17       | 13   | .064                    | .060  | 7                   | 9           | 6          | 19          | 14      | 16       | 30         | 2½ to 1          | 1 Pc. |
| 18                         | 21       | 15   | .064                    | .060  | 7                   | 10          | 6          | 23          | 14      | 19⅜      | 36         | 2½ to 1          | 1 Pc. |
| 21                         | 24       | 18   | .064                    | .060  | 8                   | 12          | 6          | 28          | 18      | 21¾      | 42         | 2½ to 1          | 1 Pc. |
| 24                         | 28       | 20   | .064                    | .060  | 9                   | 14          | 6          | 32          | 18      | 27½      | 48         | 2½ to 1          | 1 Pc. |
| 30                         | 35       | 24   | .079                    | .075  | 10                  | 16          | 6          | 39          | 18      | 37⅝      | 60         | 2½ to 1          | 1 Pc. |
| 36                         | 42       | 29   | .079                    | .075  | 12                  | 18          | 8          | 46          | 24      | 45⅝      | 75         | 2½ to 1          | 1 Pc. |
| 42                         | 49       | 33   | .109                    | .105  | 13                  | 21          | 9          | 53          | 24      | 54¾      | 85         | 2½ to 1          | 2 Pc. |
| 48                         | 57       | 38   | .109                    | .105  | 18                  | 26          | 12         | 63          | 24      | 68       | 90         | 2½ to 1          | 3 Pc. |
| 54                         | 64       | 43   | .109                    | .105  | 18                  | 30          | 12         | 70          | 24      | 72¾      | 102        | 2¼ to 1          | 3 Pc. |
| 60                         | 71       | 47   | .109*                   | .105* | 18                  | 33          | 12         | 77          | 30      | 82¼      | 114        | 2¼ to 1          | 3 Pc. |
| 66                         | 77       | 52   | .109*                   | .105* | 18                  | 36          | 12         | 77          | —       | —        | 126        | 2 to 1           | 3 Pc. |
| 72                         | 83       | 57   | .109*                   | .105* | 18                  | 39          | 12         | 77          | —       | —        | 138        | 2 to 1           | 3 Pc. |

| 3" X 1" CORRUGATIONS       |          |      |                         |       |                     |        |       |           |                |                |       |                  |       |
|----------------------------|----------|------|-------------------------|-------|---------------------|--------|-------|-----------|----------------|----------------|-------|------------------|-------|
| EQUIV.<br>DIA.<br>(Inches) | (Inches) |      | MIN. THICK.<br>(Inches) |       | DIMENSIONS (Inches) |        |       |           |                |                |       | APPROX.<br>SLOPE | BODY  |
|                            |          |      |                         |       | A                   | B      | H     | L         | L <sub>1</sub> | L <sub>2</sub> | W     |                  |       |
|                            | SPAN     | RISE | STEEL                   | ALUM. | (±1")               | (MAX.) | (±1") | (±1 1/2") | ①              | ①              | (±2") |                  |       |
| 48                         | 53       | 41   | .109                    | .105  | 18                  | 26     | 12    | 63        | 24             | 72 3/4         | 90    | 2 1/2 to 1       | 2 Pc. |
| 54                         | 60       | 46   | .109                    | .105  | 18                  | 30     | 12    | 70        | 30             | 82 1/4         | 102   | 2 to 1           | 2 Pc. |
| 60                         | 66       | 51   | .109*                   | .105* | 18                  | 33     | 12    | 77        | —              | —              | 114   | 1 1/2 to 1       | 3 Pc. |
| 66                         | 73       | 55   | .109*                   | .105* | 18                  | 36     | 12    | 77        | —              | —              | 126   | 1 1/2 to 1       | 3 Pc. |
| 72                         | 81       | 59   | .109*                   | .105* | 18                  | 39     | 12    | 77        | —              | —              | 138   | 2 to 1           | 3 Pc. |
| 78                         | 87       | 63   | .109*                   | .105* | 22                  | 38     | 12    | 77        | —              | —              | 148   | 1 1/2 to 1       | 3 Pc. |
| 84                         | 95       | 67   | .109*                   | .105* | 22                  | 34     | 12    | 77        | —              | —              | 162   | 1 1/2 to 1       | 3 Pc. |
| 90                         | 103      | 71   | .109*                   | .105* | 22                  | 38     | 12    | 77        | —              | —              | 174   | 1 1/2 to 1       | 3 Pc. |
| 96                         | 112      | 75   | .109*                   | .105* | 24                  | 40     | 12    | 77        | —              | —              | 174   | 1 1/2 to 1       | 3 Pc. |

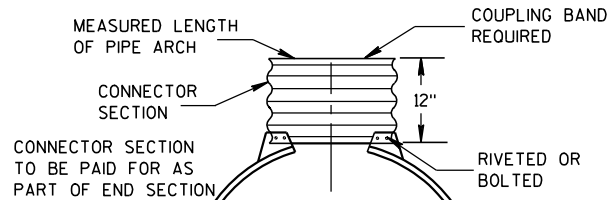
NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

\* EXCEPT CENTER PANEL SEE GENERAL NOTES



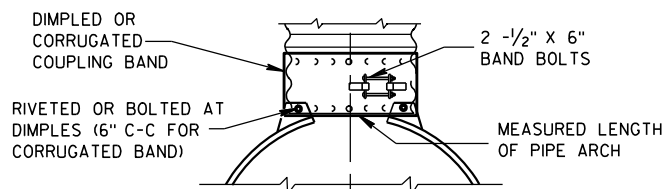
TYPE 2

FOR 17" X 13" THRU 112" X 75" PIPE ARCH



TYPE 3

FOR 64" X 43" THRU 112" X 75" PIPE ARCH



TYPE 5

ALTERNATE FOR:  
ALL SIZES CORRUGATED PIPE ARCHES

NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

| REINFORCED CONCRETE PIPE ARCH |                     |         |    |     |    |    |     |     |                  |
|-------------------------------|---------------------|---------|----|-----|----|----|-----|-----|------------------|
| EQUIV.<br>DIA.<br>(Inches)    | DIMENSIONS (Inches) |         |    |     |    |    |     |     | APPROX.<br>SLOPE |
|                               | ** SPAN             | ** RISE | T  | A   | B  | C  | D   | E   |                  |
| 24                            | 29                  | 18      | 3  | 8½  | 39 | 33 | 72  | 48  | 3 to 1           |
| 30                            | 36                  | 22      | 3½ | 9½  | 50 | 46 | 96  | 60  | 3 to 1           |
| 36                            | 44                  | 27      | 4  | 11⅞ | 60 | 36 | 96  | 72  | 3 to 1           |
| 42                            | 51                  | 31      | 4½ | 15⅞ | 60 | 36 | 96  | 78  | 3 to 1           |
| 48                            | 58                  | 36      | 5  | 21  | 60 | 36 | 96  | 84  | 3 to 1           |
| 54                            | 65                  | 40      | 5½ | 25½ | 60 | 36 | 96  | 90  | 3 to 1           |
| 60                            | 73                  | 45      | 6  | 31  | 60 | 36 | 96  | 96  | 3 to 1           |
| 72                            | 88                  | 54      | 7  | 31  | 60 | 39 | 99  | 120 | 2 to 1           |
| 84                            | 102                 | 62      | 8  | 28½ | 83 | 19 | 102 | 144 | 2 to 1           |

| REINFORCED CONCRETE ELLIPTICAL PIPE |                     |         |    |     |    |    |    |    |                  |
|-------------------------------------|---------------------|---------|----|-----|----|----|----|----|------------------|
| EQUIV.<br>DIA.<br>(Inches)          | DIMENSIONS (Inches) |         |    |     |    |    |    |    | APPROX.<br>SLOPE |
|                                     | ** SPAN             | ** RISE | T  | A   | B  | C  | D  | E  |                  |
| 24                                  | 30                  | 19      | 3¼ | 8½  | 39 | 33 | 72 | 48 | 3 to 1           |
| 30                                  | 38                  | 24      | 3¾ | 9½  | 54 | 18 | 72 | 60 | 3 to 1           |
| 36                                  | 45                  | 29      | 4½ | 11⅛ | 60 | 24 | 84 | 72 | 2½ to 1          |
| 42                                  | 53                  | 34      | 5  | 15¾ | 60 | 36 | 96 | 78 | 2½ to 1          |
| 48                                  | 60                  | 38      | 5½ | 21  | 60 | 36 | 96 | 84 | 2½ to 1          |
| 54                                  | 68                  | 43      | 6  | 25½ | 60 | 36 | 96 | 90 | 2½ to 1          |
| 60                                  | 76                  | 48      | 6½ | 30  | 60 | 36 | 96 | 96 | 2½ to 1          |

\*\*NOMINAL SIZE

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 APRON ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM APRON ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH 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 ARCH 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 77" X 52" THROUGH 112" X 75" 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 ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR  
PIPE ARCH AND  
ELLIPTICAL PIPE

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/94

DATE

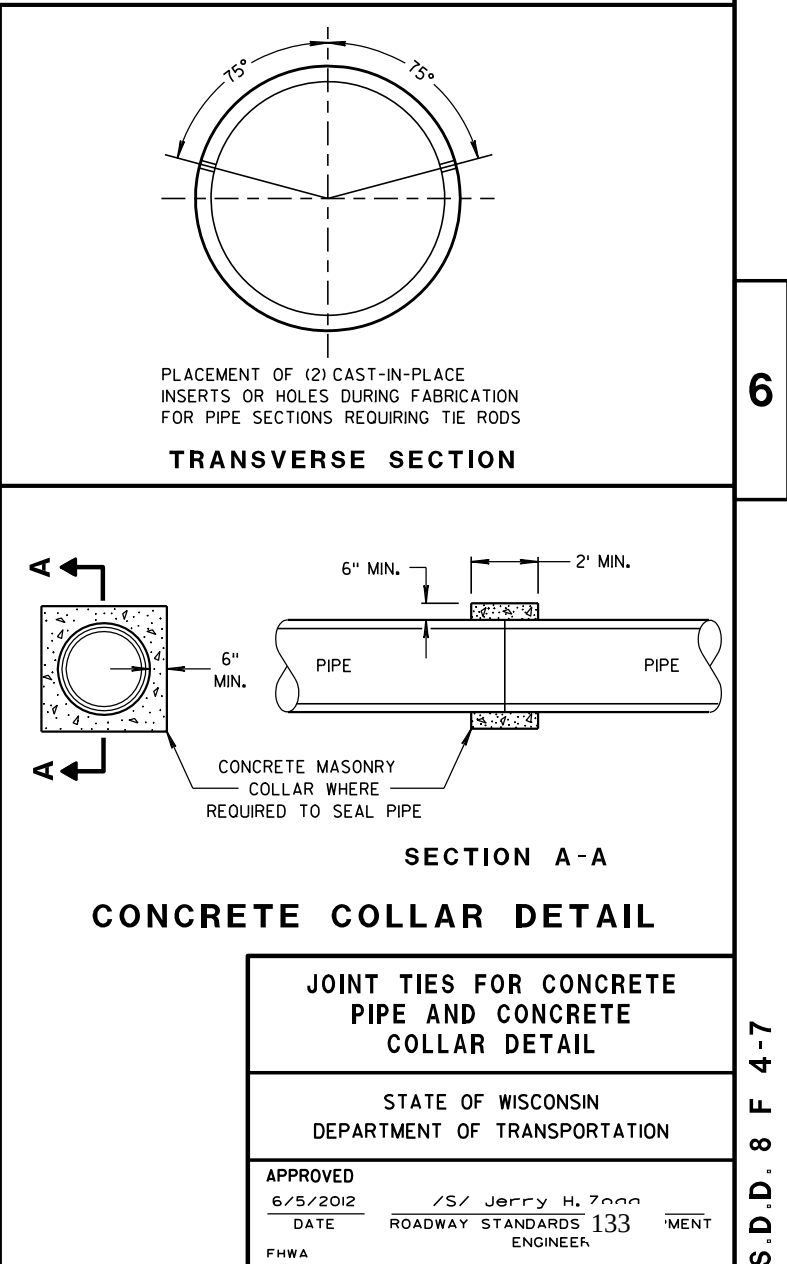
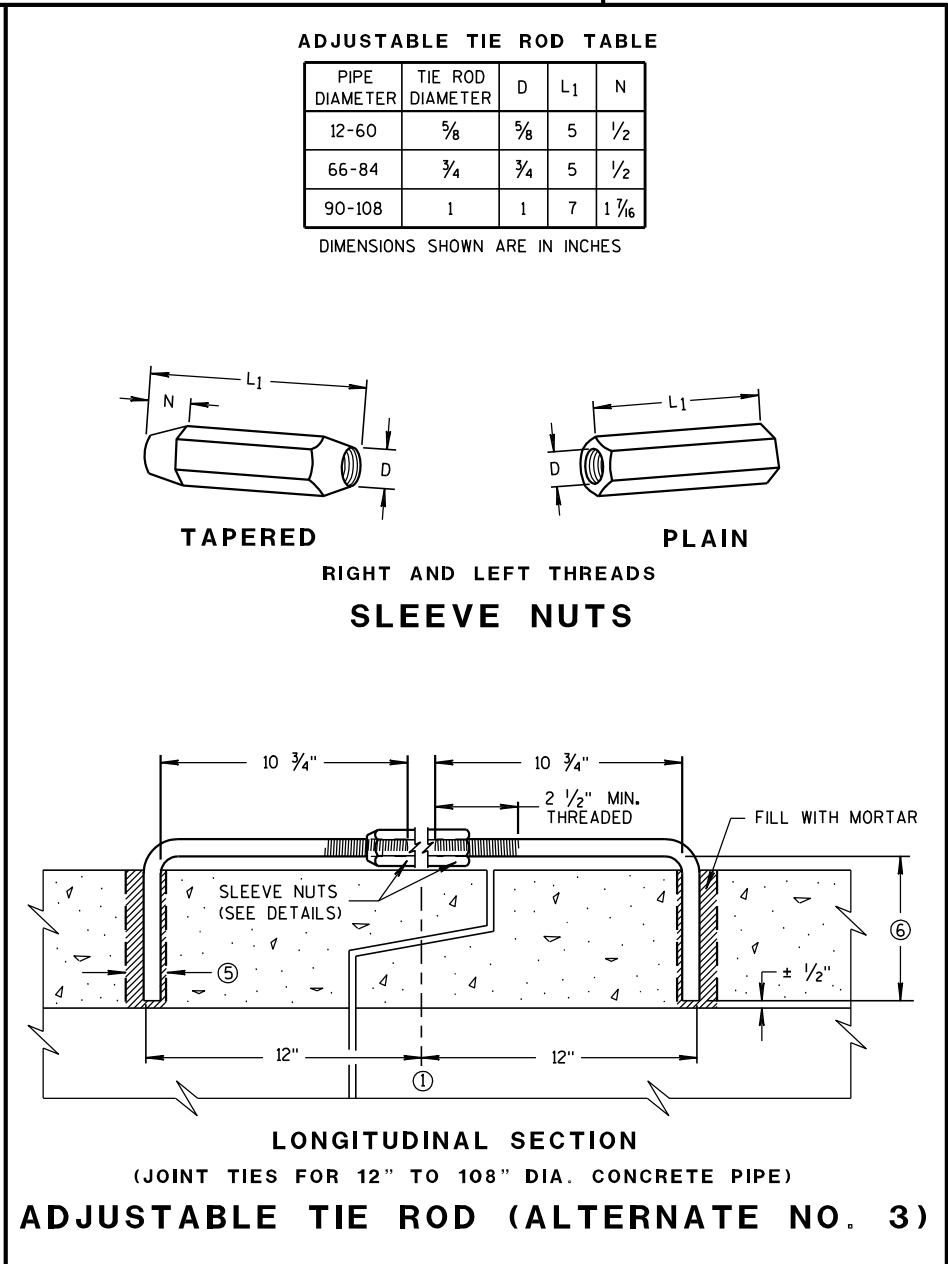
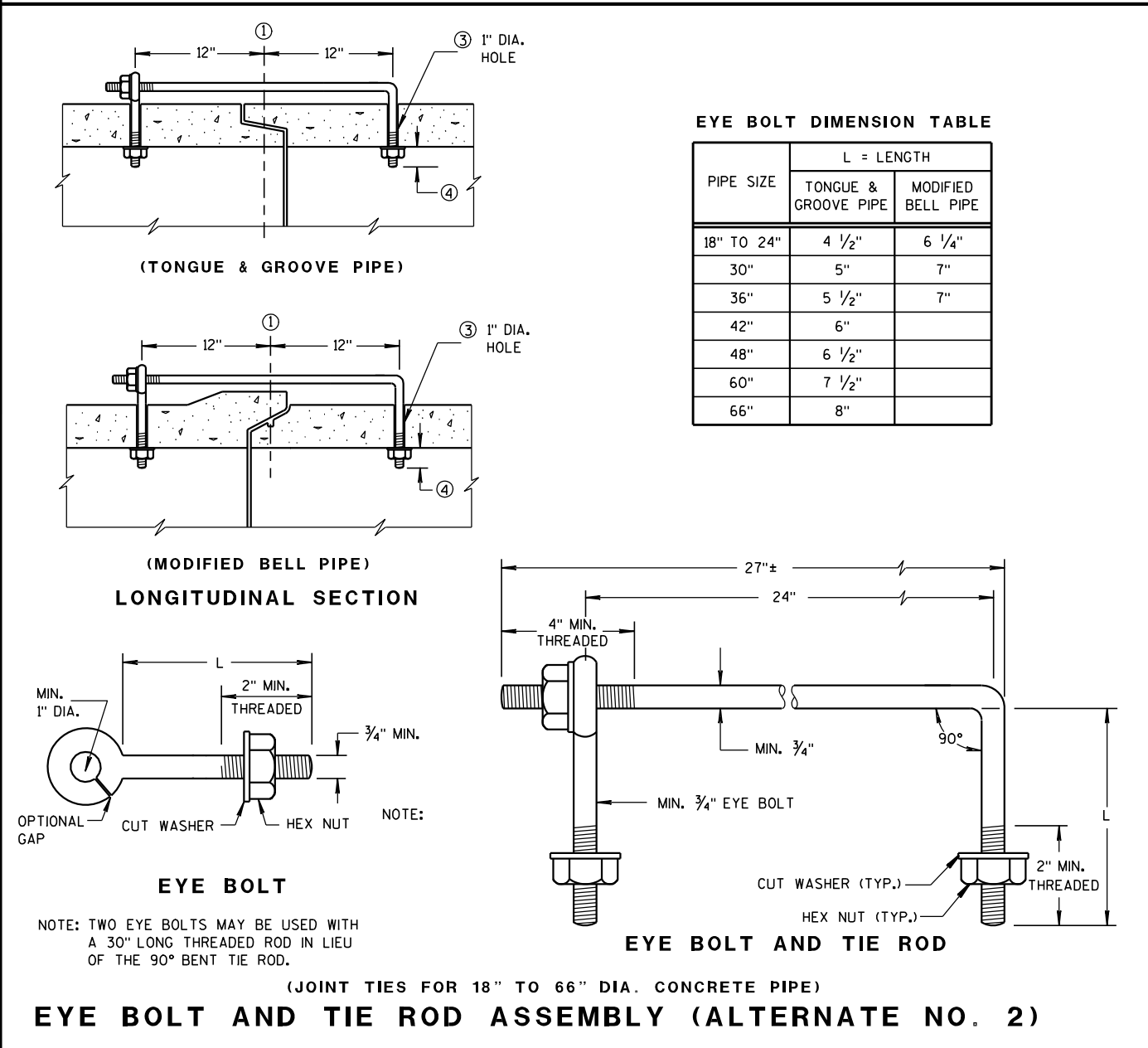
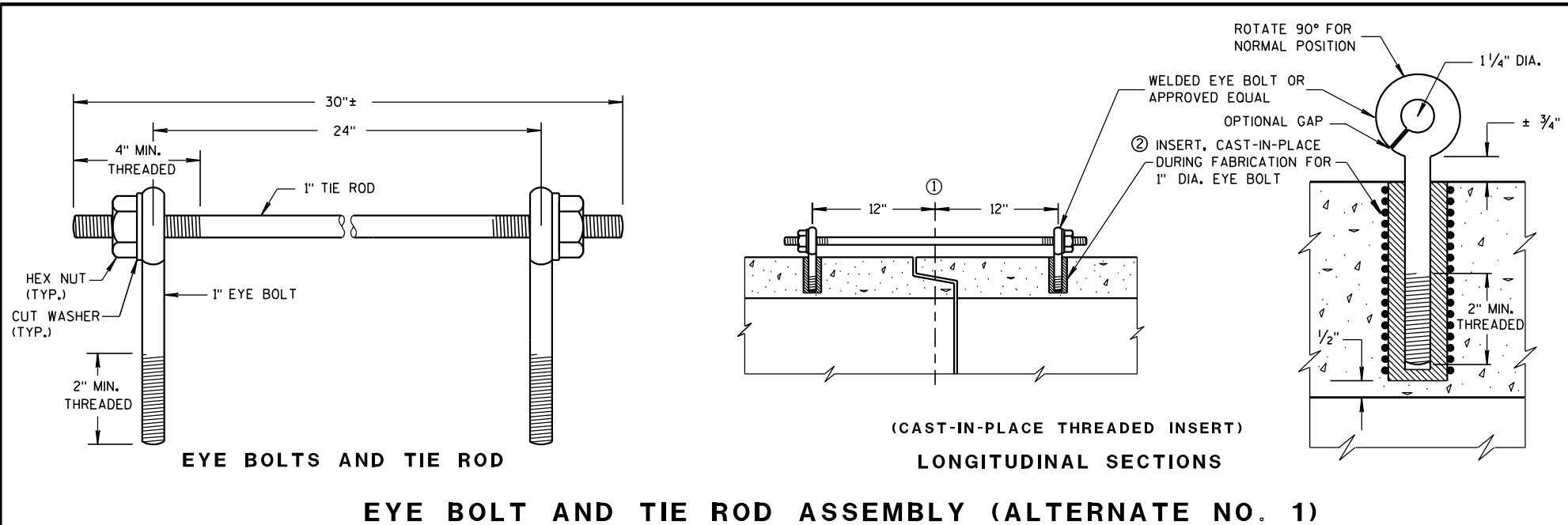
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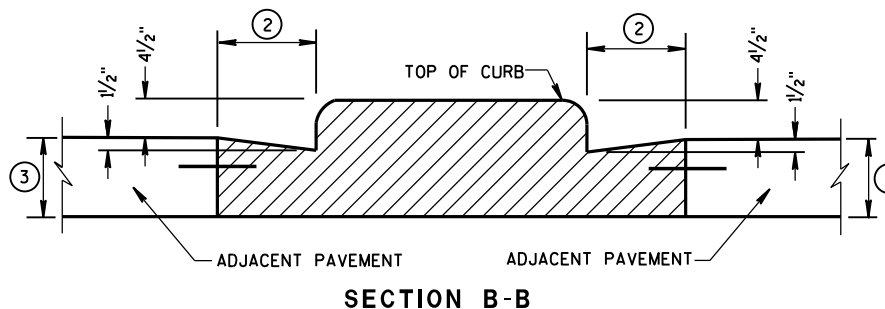
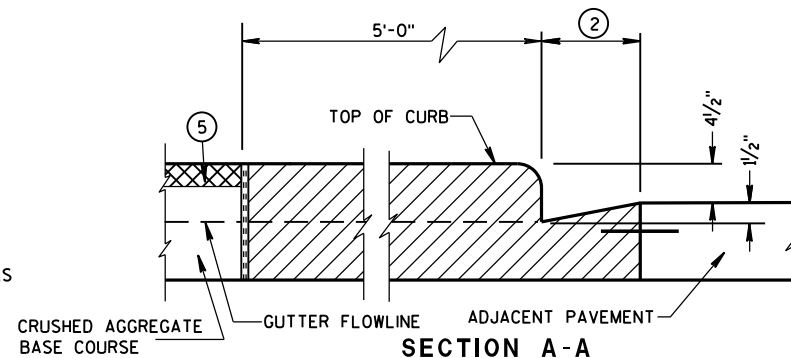
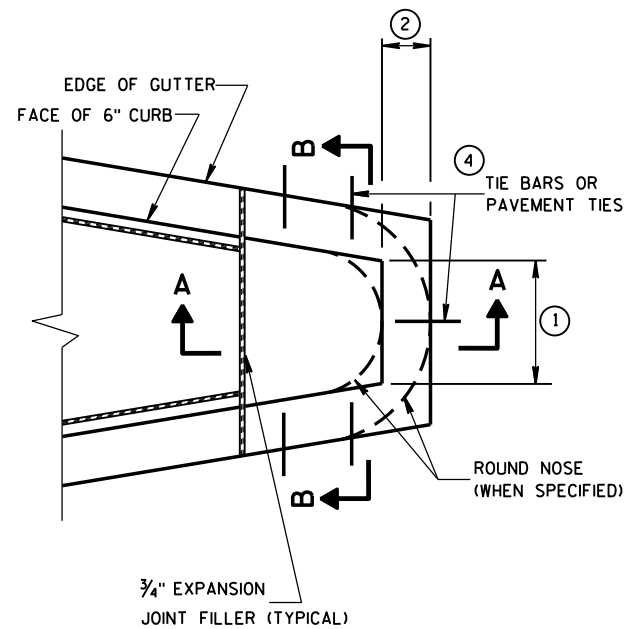
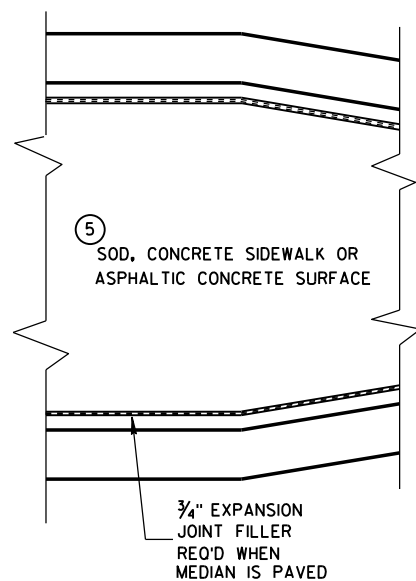
/S/ Rory L. Rhinehart

CHIEF ROADWAY DEVELOPER

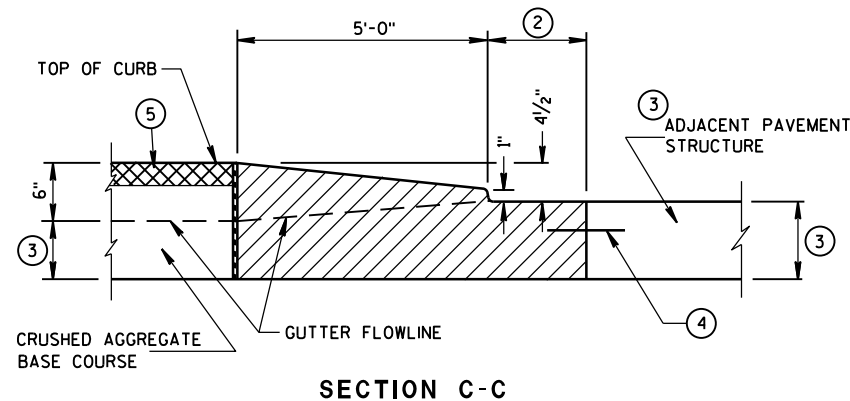
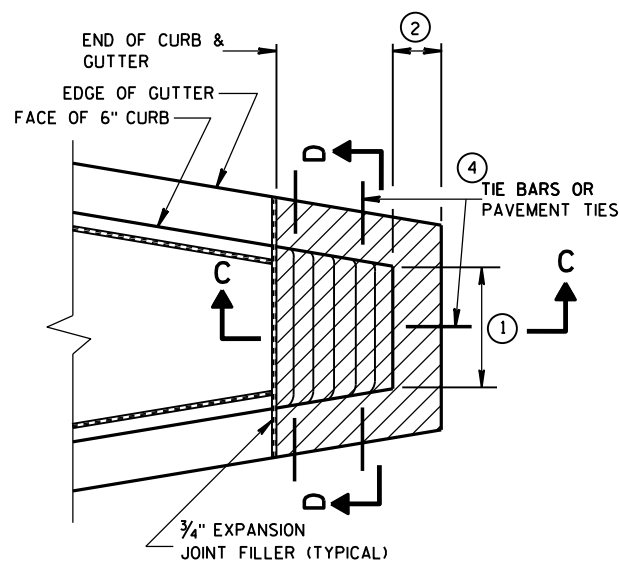
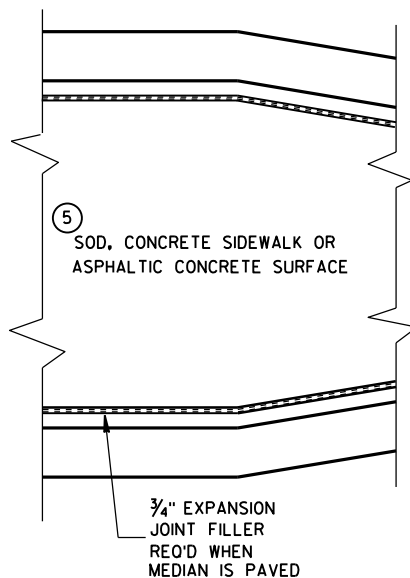
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ENGINEER

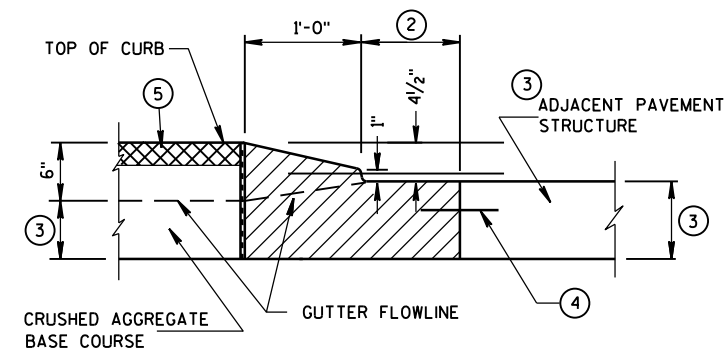
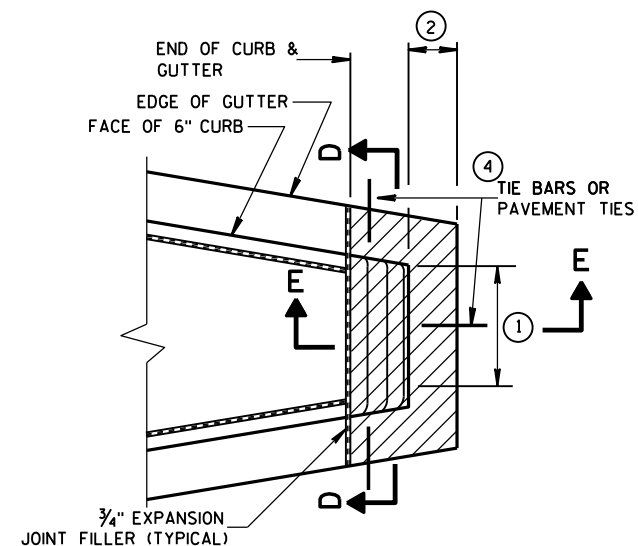




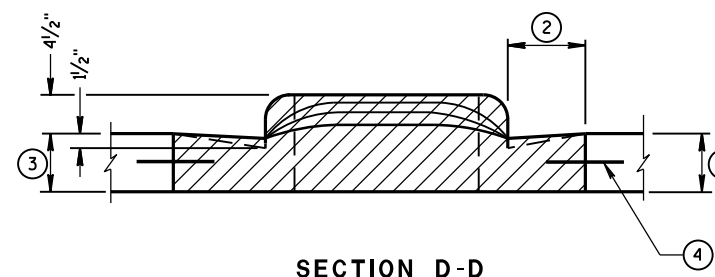
CONCRETE MEDIAN BLUNT NOSE DETAIL



CONCRETE MEDIAN SLOPED NOSE TYPE 1



CONCRETE MEDIAN SLOPED NOSE TYPE 2



## 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 SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).
- ② WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.
- ③ DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:
  - (1) NEW OR EXISTING CONCRETE PAVEMENT.
  - (2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.
  - (3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

- ④ TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

- ⑤ SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

6/8/2006

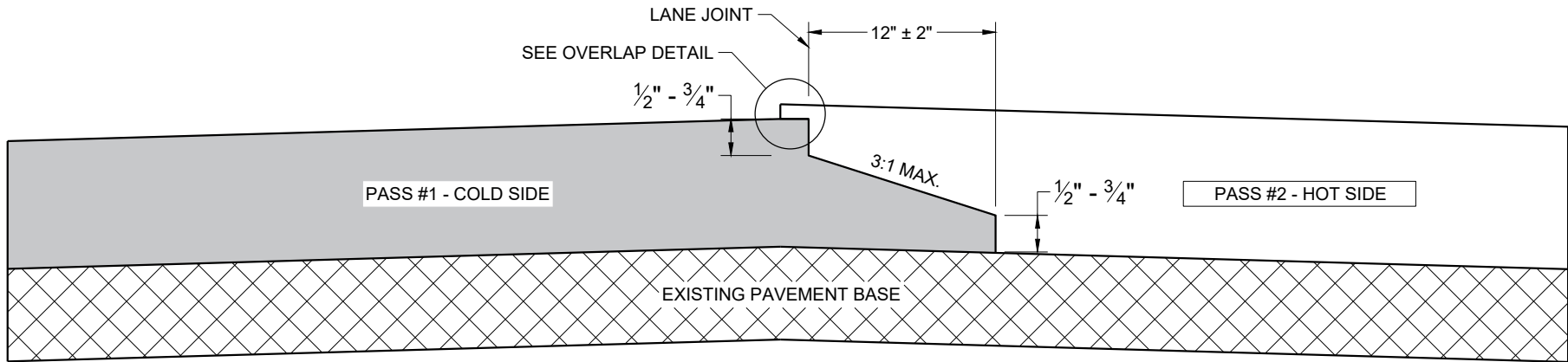
DATE

FHWA

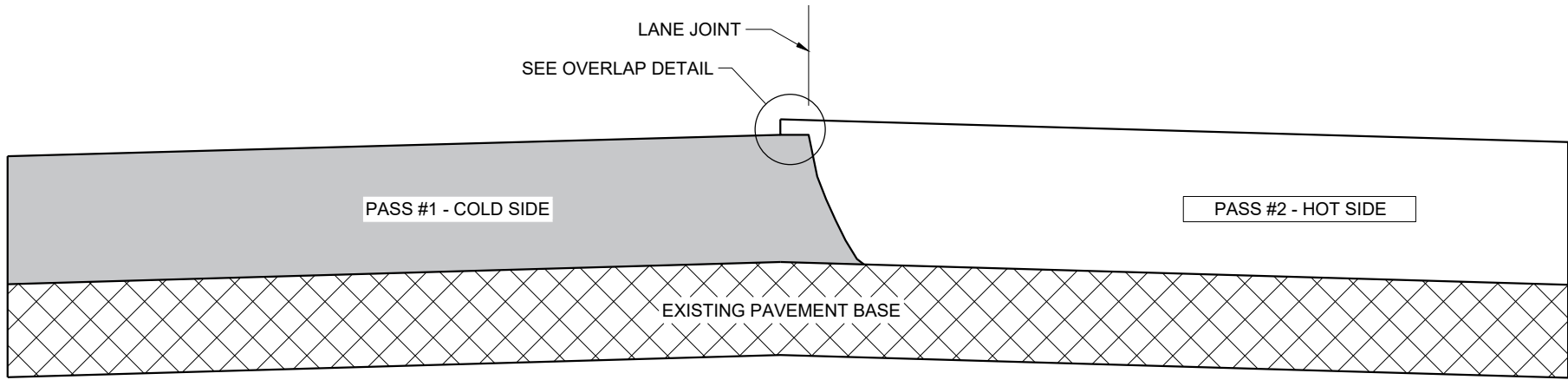
/S/ Jerry H. Zogg  
ROADWAY STANDARDS ENGINEER

134

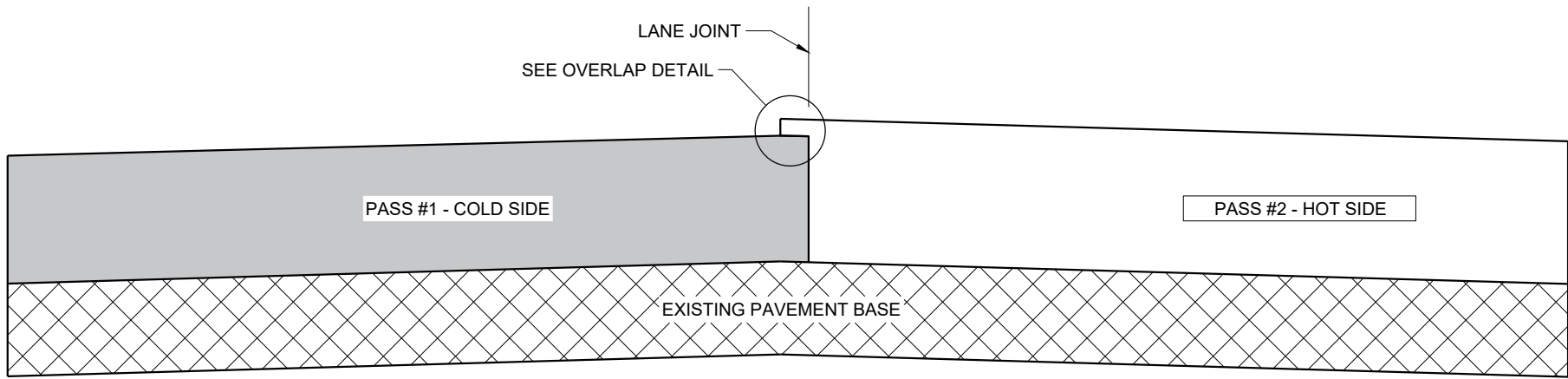
4T



TYPICAL PAVEMENT CROSS SECTION  
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION  
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION  
VERTICAL JOINT (MILLED)

GENERAL NOTES

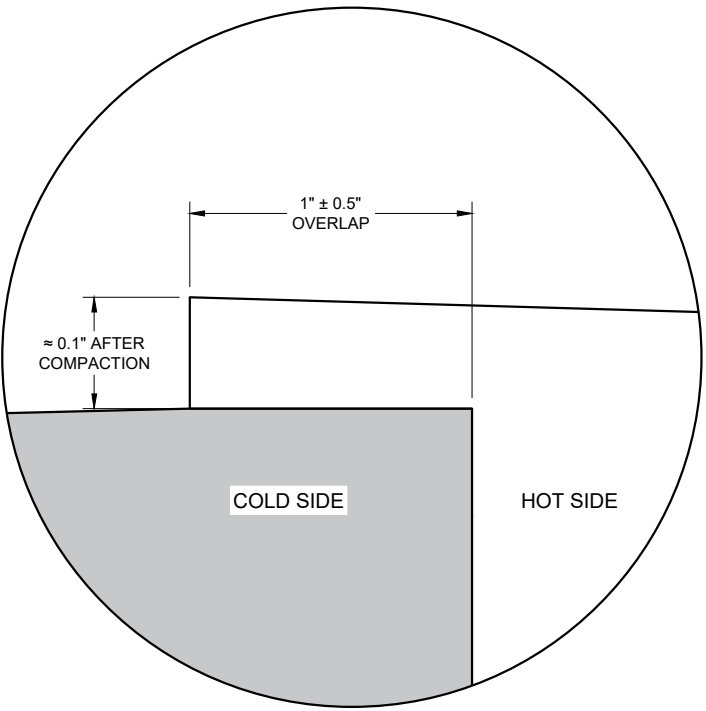
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY  $1" \pm 0.5"$  AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY 0.1" AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO 2" FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.



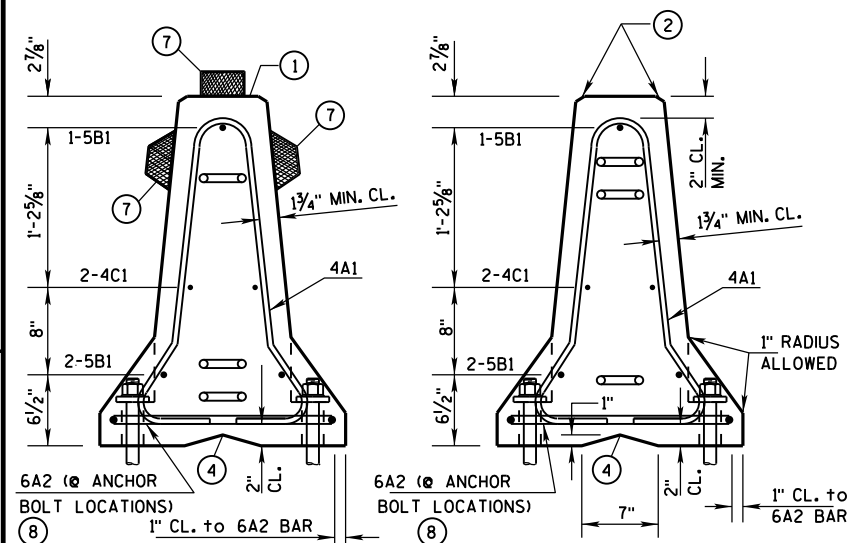
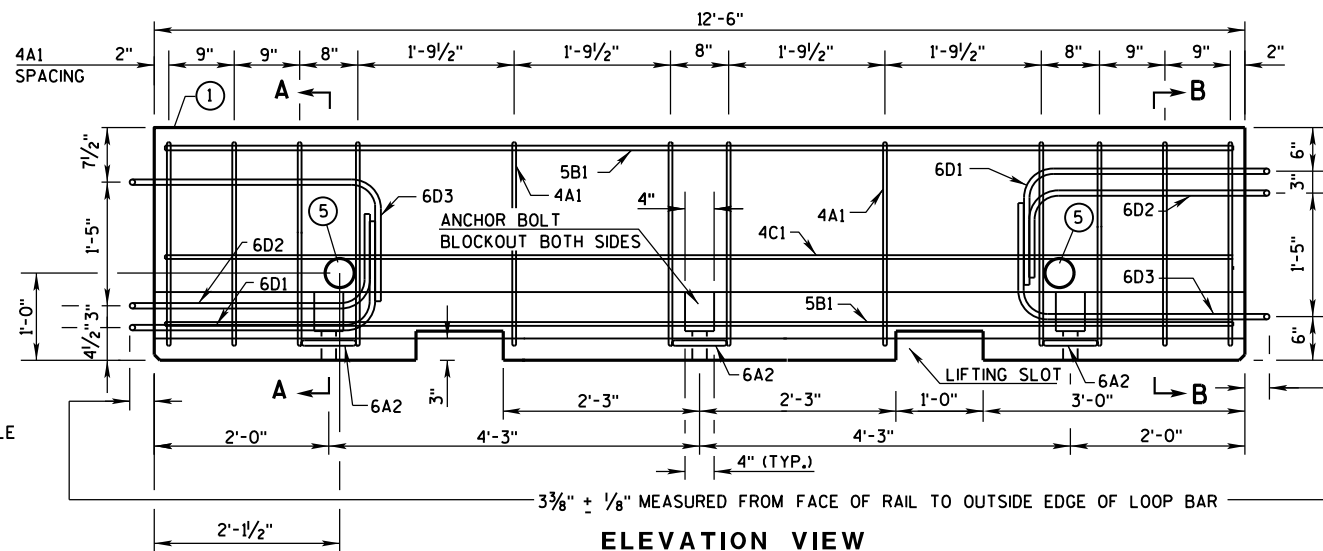
OVERLAP DETAIL (TYPICAL)

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

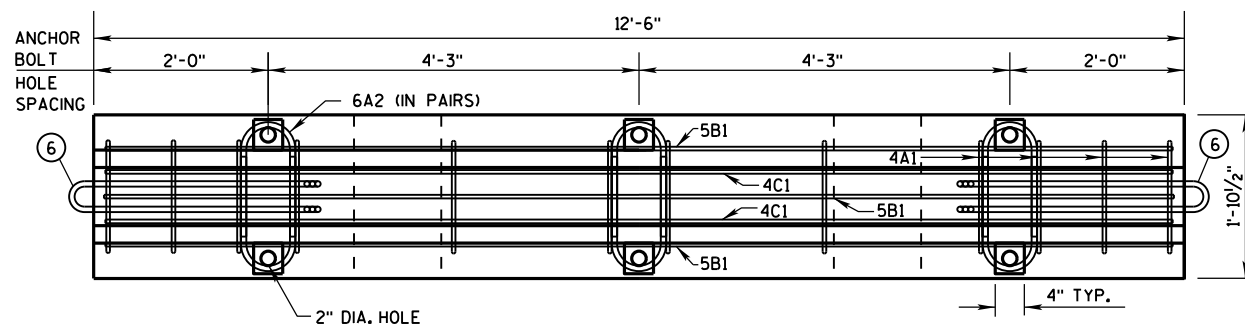
APPROVED  
November 2020 /S/ Steven Hefel  
DATE HMA PAVEMENT ENGIN 135  
FHWA





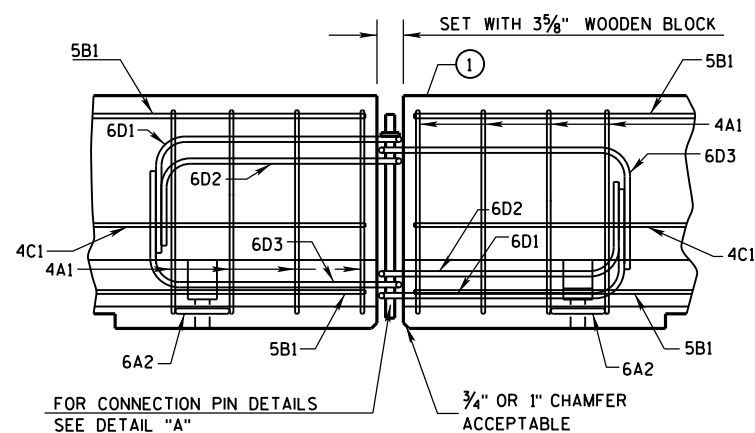
**SECTION A-A**  
(STIRRUP PLACEMENT)

**SECTION B-B**  
(STIRRUP PLACEMENT)

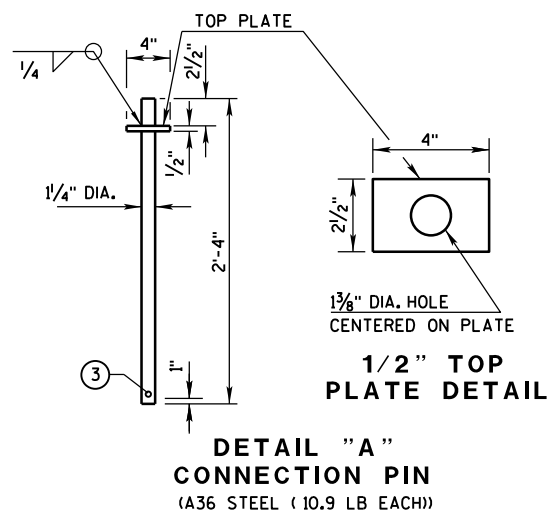


## PLAN VIEW

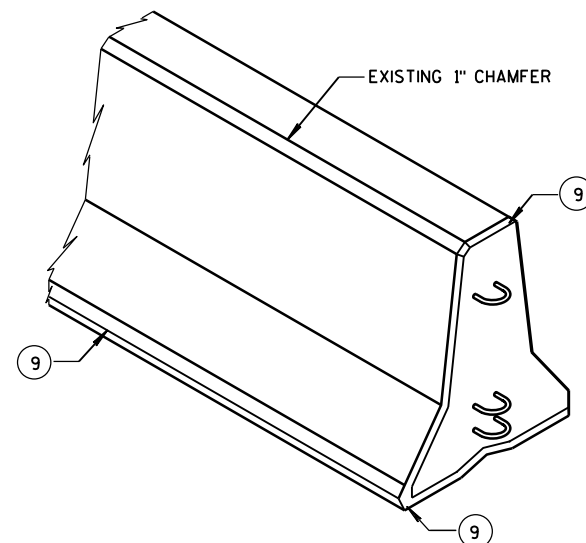
## DETAILS OF BARRIER SECTION



## DETAILS OF BARRIER CONNECTION



**DETAIL "A"**  
**CONNECTION PIN**  
(A36 STEEL (10.9 LB EACH))



## GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-15(a) THRU 14B7-15(i).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE  $\frac{3}{4}$ " SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A  $3\frac{1}{2}$ " PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN  $\frac{1}{4}$ " OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

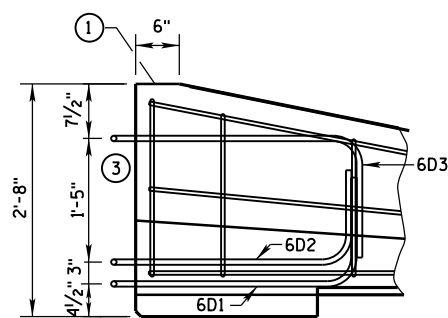
INSTALL MECHANICAL OR ADHESIVE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS.  
PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

- ① MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
  - a. TYPE: WICBTP
  - b. MANUFACTURER
  - c. DATE MANUFACTURED (MONTH AND YEAR)
- ② 1" CHAMFER TO PREVENT SPALLING.
- ③ A  $\frac{3}{8}$ " HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..
- ④ "V" NOTCH IS OPTIONAL.
- ⑤ THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).
- ⑥ NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.
- ⑦ USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.
- ⑧ SEE SHEET D FOR HOW TO ANCHOR BARRIER. SEE SHEET E FOR WHEN TO ANCHOR BARRIER.
- ⑨ 1" CHAMFER OPTIONAL.

 $f'_c = 4,000 \text{ psi}$ 

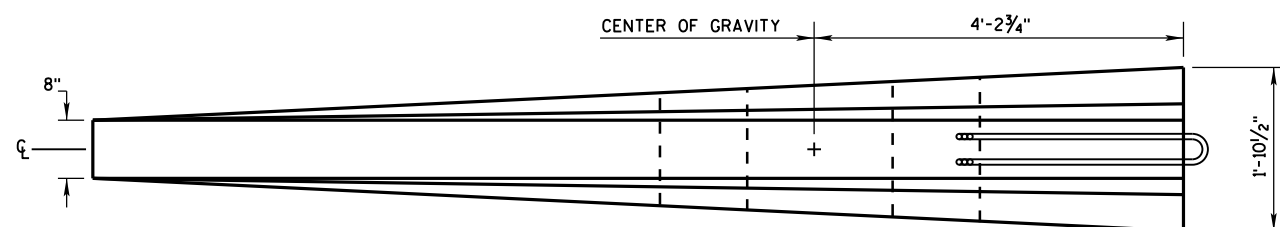
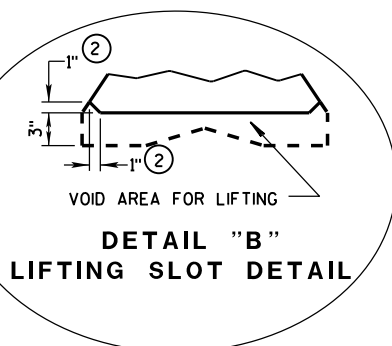
CONCRETE BARRIER  
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION 136



- ① MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
  - a. TYPE WICBTP
  - b. MANUFACTURER
  - c. DATE MANUFACTURED (MONTH AND YEAR)
- ② 1" CHAMFER TO PREVENT SPALLING.
- ③ NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

LOOP BAR ASSEMBLY INVERTED  
FOR OPPOSITE END.  
(FOR CONNECTION TO RIGHT END OF BARRIER)



**CHAMFER  
DETAIL**

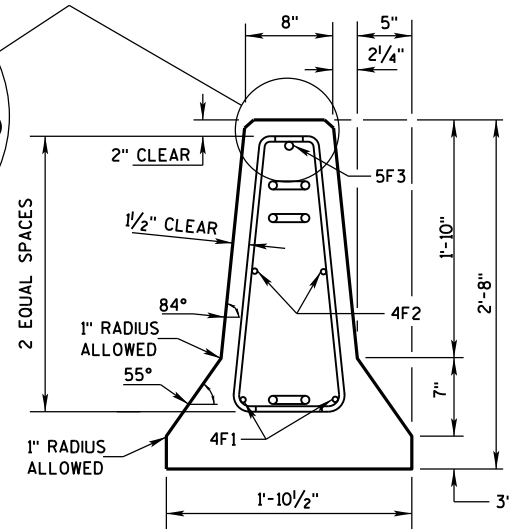


Diagram illustrating the barrier placement on a curve. The diagram shows a cross-section of a barrier on a sloped ground. Key dimensions and specifications include:

- 10" ± OFFSET**: The distance from the centerline to the barrier.
- 5° ± MAX.**: The maximum angle of the barrier relative to the centerline.
- 12'-6"**: The length of the barrier segments.
- BARRIER ON CURVE**: The title of the diagram.
- END SECTION**: The label for the end of the barrier section.

## FLARE AT BARRIER END

| POSTED<br>SPEED, (MPH) | FLARE<br>RATE |
|------------------------|---------------|
| 40 OR LESS             | 6:1           |
| 45 OR GREATER          | 8:1           |

### DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER  
TEMPORARY PRECAST, 12'-6"

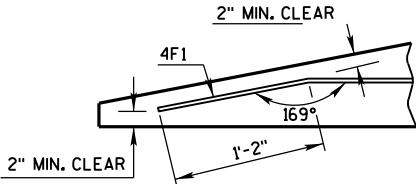
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION 137



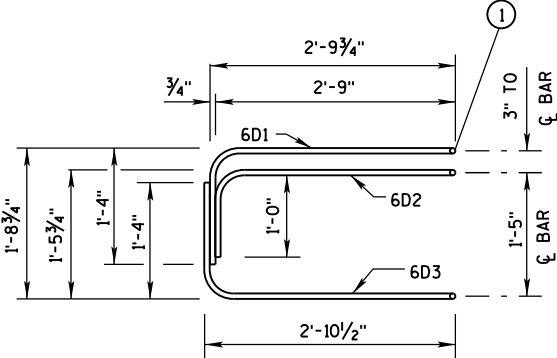
BARRIER TAPER SECTION  
BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

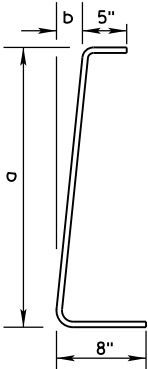
| BAR           | BAR SIZE | NO. OF BARS | LENGTH FT. |
|---------------|----------|-------------|------------|
| 4V1           | 4        | 2           | 1'-11"     |
| 4V2           | 4        | 2           | 2'-2"      |
| 4V3           | 4        | 2           | 2'-6"      |
| 4V4           | 4        | 2           | 2'-9"      |
| 4V5           | 4        | 2           | 3'-2"      |
| 4V6           | 4        | 2           | 3'-4"      |
| 4F1           | 4        | 2           | 12'-0"     |
| 4F2           | 4        | 2           | 7'-6"      |
| 5F3           | 5        | 1           | 11'-9"     |
| LOOP ASSEMBLY |          |             |            |
| 6D1           | 6        | 1           | 8'-5"      |
| 6D2           | 6        | 1           | 7'-7"      |
| 6D3           | 6        | 1           | 8'-6"      |



DETAIL "C"  
BENT BAR DETAIL



ELEVATION  
LOOP BAR ASSEMBLY



4V BARS  
2 AT EACH SIZE REQUIRED  
FOR STIRRUP ASSEMBLY

| BAR | a         | b      |
|-----|-----------|--------|
| V1  | 10"       | 1"     |
| V2  | 1'-1"     | 1 1/4" |
| V3  | 1'-5"     | 1 5/8" |
| V4  | 1'-8"     | 1 7/8" |
| V5  | 2'-0 1/2" | 2 3/8" |
| V6  | 2'-3"     | 2 3/4" |

TAPER BARRIER SECTION

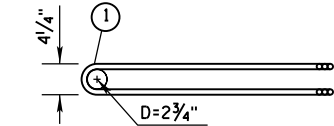
GENERAL NOTES

① NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

BARRIER SECTION  
BILL OF MATERIALS

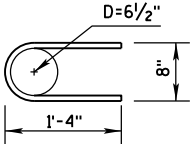
(PER 12'-6" BARRIER SECTION)

| BAR           | BAR SIZE | NO. OF BARS | LENGTH FT. |
|---------------|----------|-------------|------------|
| 4A1           | 4        | 12          | 6'-0"      |
| 6A2           | 6        | 6           | 2'-11"     |
| 5B1           | 5        | 3           | 12'-2"     |
| 4C1           | 4        | 2           | 12'-2"     |
| LOOP ASSEMBLY |          |             |            |
| 6D1           | 6        | 2           | 8'-5"      |
| 6D2           | 6        | 2           | 7'-7"      |
| 6D3           | 6        | 2           | 8'-6"      |

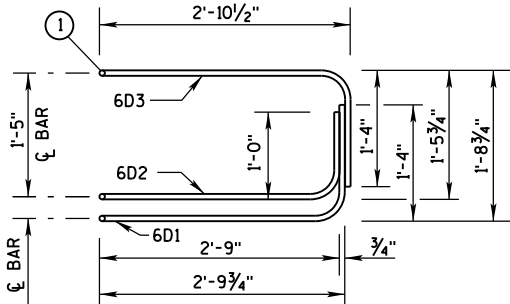


PLAN VIEW  
LOOP BAR ASSEMBLY

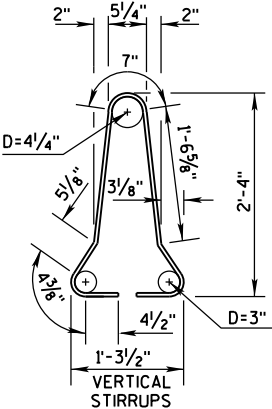
(MARKED END SHOWN, INVERT FOR OTHER END)



6A2



ELEVATION VIEW



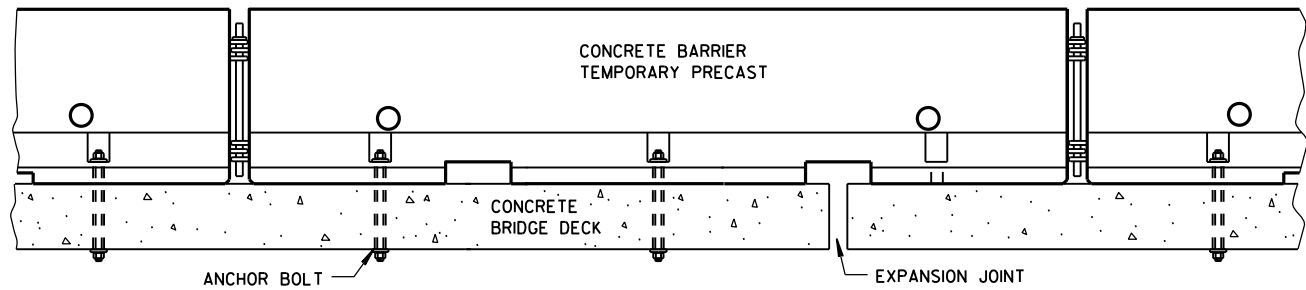
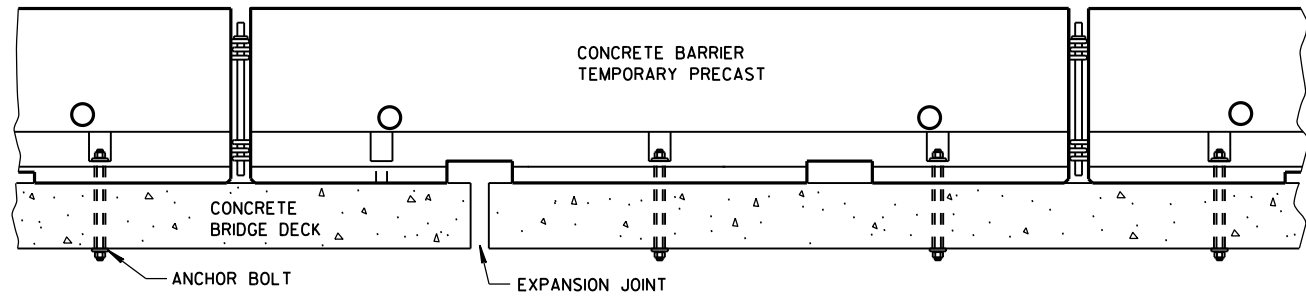
4A1

BARRIER SECTION

CONCRETE BARRIER  
TEMPORARY PRECAST, 12'-6"

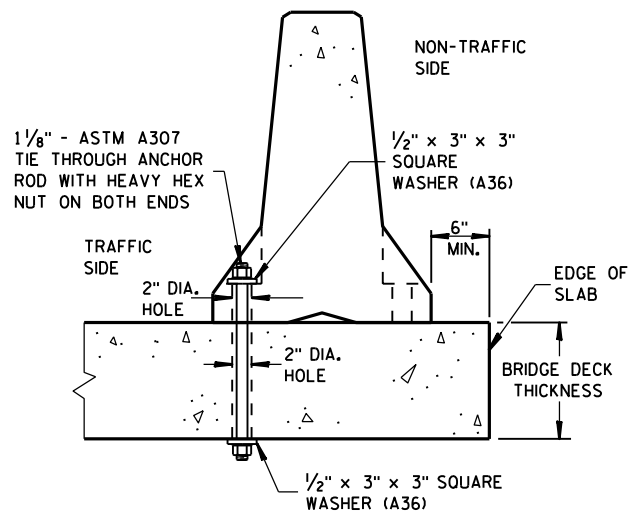
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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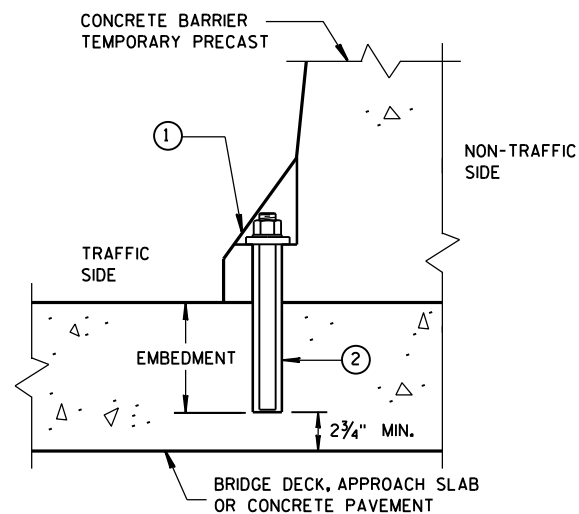
### TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)



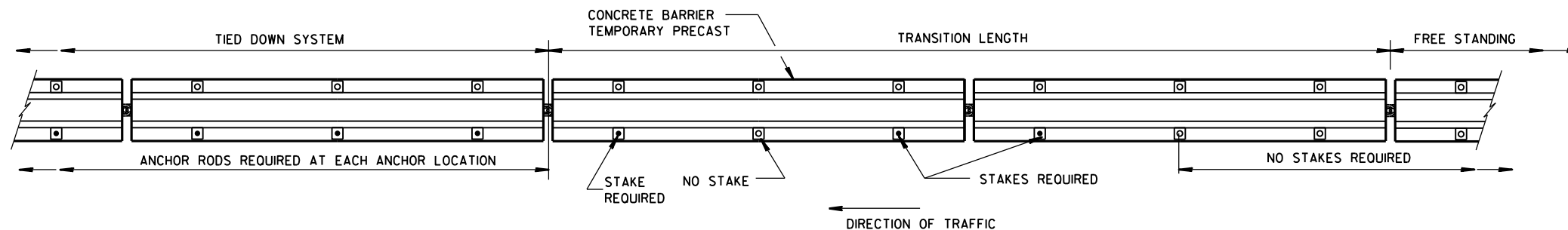
### THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



### REMOVABLE ADHESIVE ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)



### PLAN VIEW

### FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

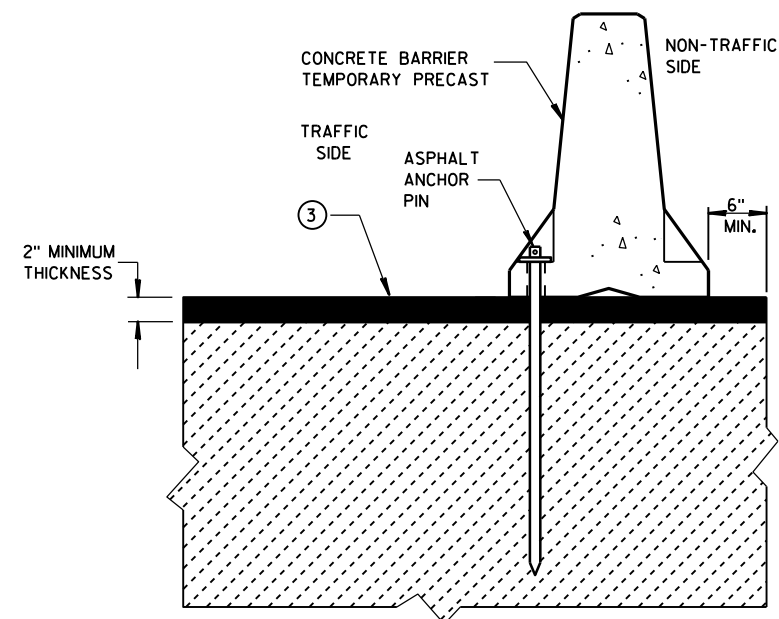
(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

### GENERAL NOTES

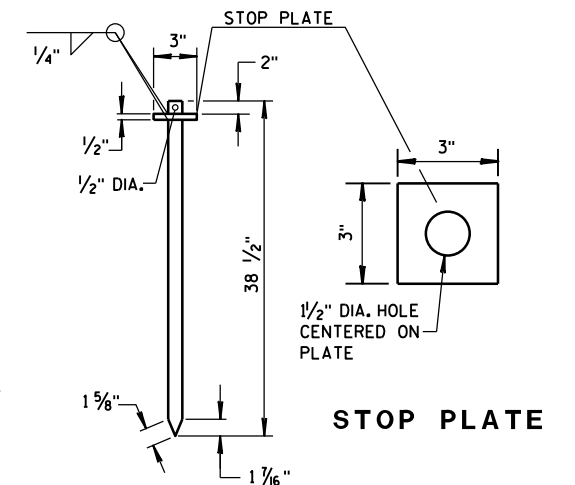
SEE SHEET E FOR WHEN TO ANCHOR. OTHER PARTS OF THE PLAN MAY SHOW ADDITIONAL LOCATIONS REQUIRING ANCHORING.

REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH SLABS WITH NON-SHRINK COMMERCIAL GROUT FROM THE APPROVED PRODUCT LIST. FILL ASPHALT PAVEMENTS WITH ASTM D6690 TYPE II RUBBERIZED CRACK FILLER.

- ① 1/8" DIAMETER A307 THREADED ROD, 1/2" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL, ASTM A563A HEAVY HEX NUT.
- ② ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5/4" EMBEDMENT. SEE 603.2 AND 603.3.12 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.
- ③ ASPHALT SURFACE SHOWN. CONTRACTOR MAY DRILL THROUGH CONCRETE PAVEMENT AND THEN DRIVE ASPHALT ANCHOR PIN.



### STAKE DOWN INSTALLATION FOR ASPHALTIC SURFACE

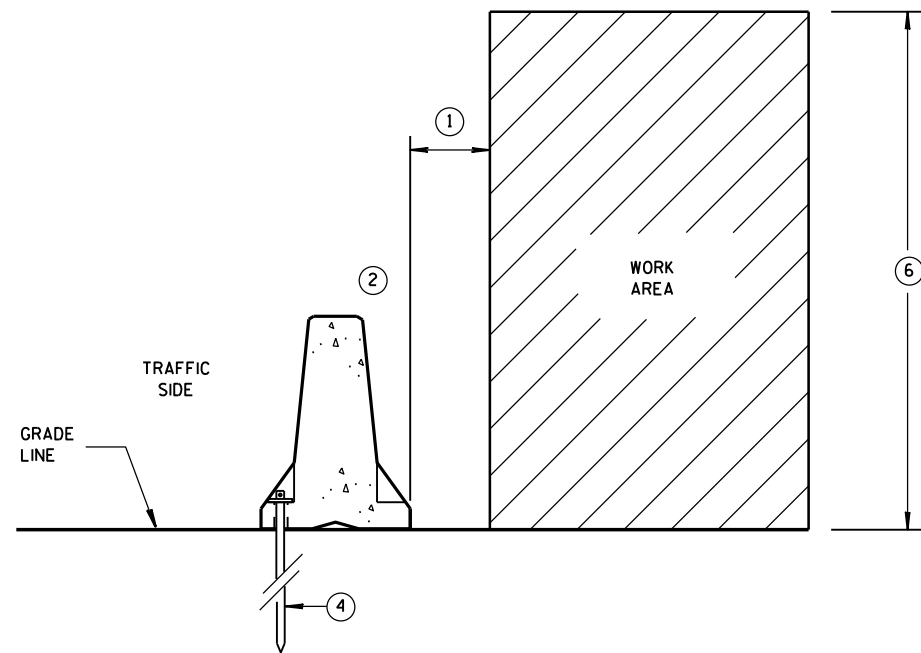


### ASPHALT ANCHOR PIN

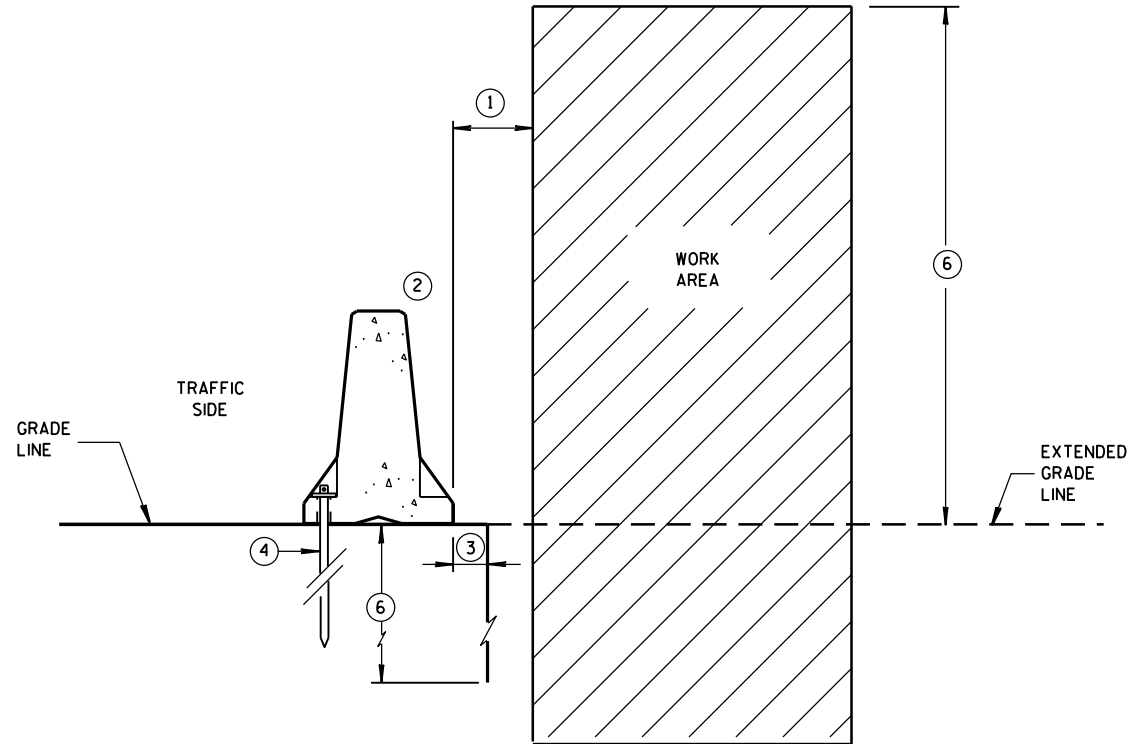
(ASTM A36 STEEL)

CONCRETE BARRIER  
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN  
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**ANCHORED BARRIER SPACE REQUIREMENTS  
FOR HAZARDS EXTENDED  
ABOVE THE GRADE LINE**

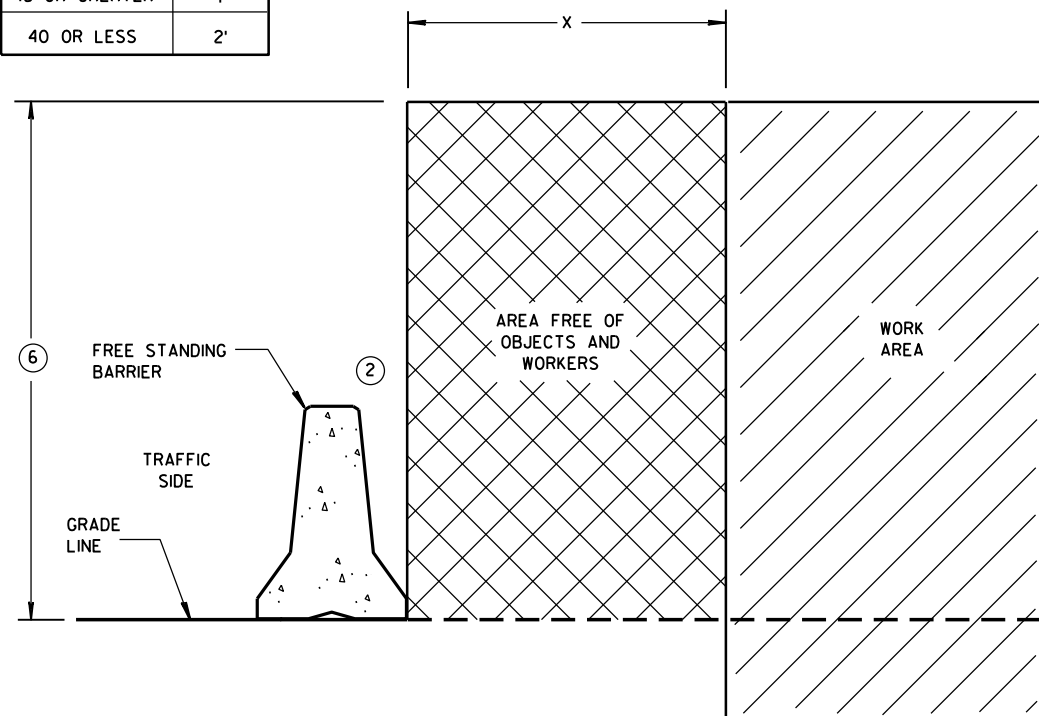


**ANCHORED BARRIER SPACE REQUIREMENTS  
ON VERTICAL DROP OFFS**

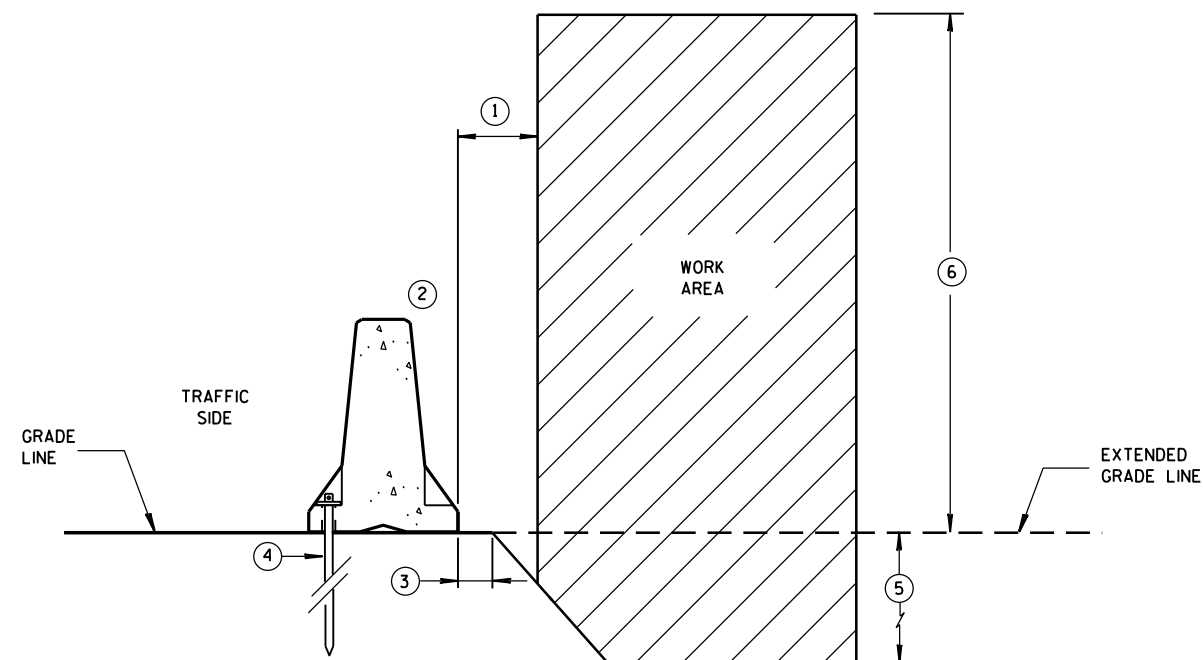
### GENERAL NOTES

- ① WHEN OBJECTS EXTEND ABOVE THE GRADE, A MINIMUM OF 1 FOOT IS REQUIRED FROM BACK OF BARRIER TO OBJECT. SEE OTHER DETAILS FOR FOR THE MINIMUM OFFSET FROM BACK OF BARRIER TO SLOPES OR VERTICAL DROPS.
- ② OBJECTS ARE NOT TO BE PLACED ON, MOUNTED TO, OR LEANED AGAINST THE BARRIER WITHOUT PERMISSION OF THE PROJECT ENGINEER.
- ③ SEE OTHER DETAIL ON SHEET "D" FOR SPACE REQUIREMENTS.
- ④ SEE BOLT THROUGH DECK, REMOVABLE ADHESIVE ANCHOR, OR A STAKE DOWN FOR ASPHALTIC SURFACE TREATMENT DETAILS. ASPHALTIC ANCHOR SHOWN.
- ⑤ DEPTH OF 3 FEET OR MORE.
- ⑥ Y = 6'-6".

| POSTED SPEED<br>MPH | X  |
|---------------------|----|
| 45 OR GREATER       | 4' |
| 40 OR LESS          | 2' |



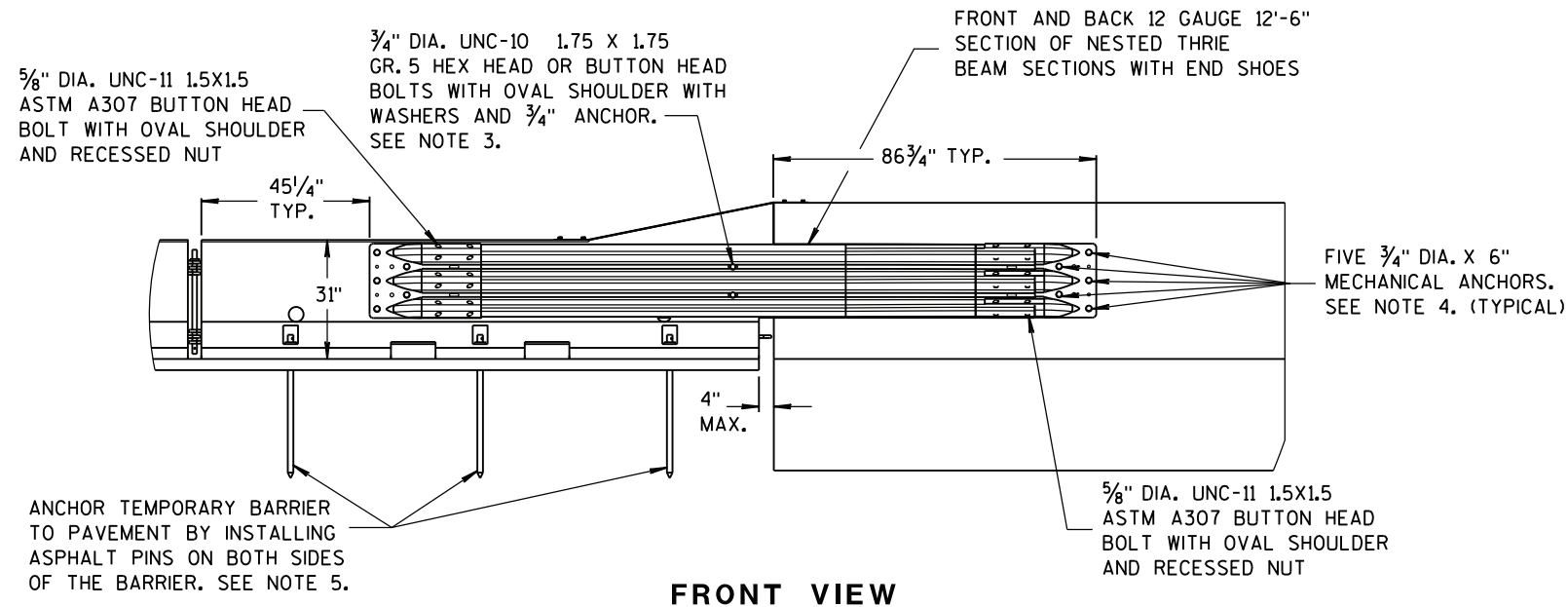
**FREE STANDING BARRIER SPACE REQUIREMENTS**



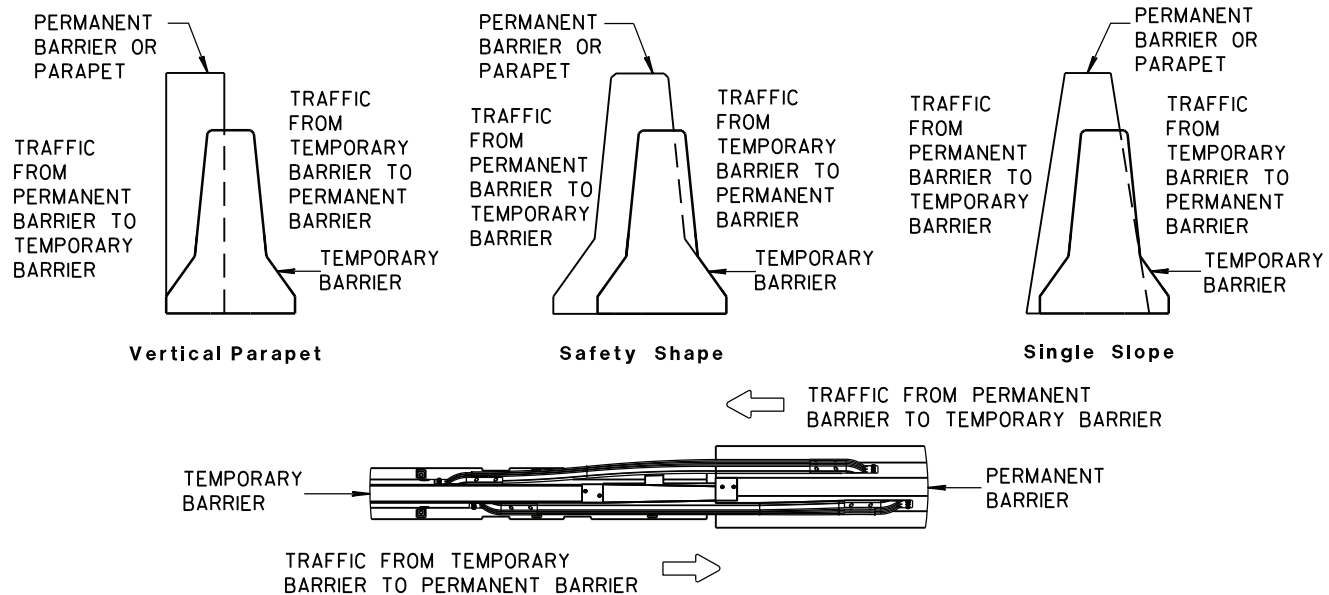
**ANCHORED BARRIER SPACE REQUIREMENTS  
ON SLOPES**

**CONCRETE BARRIER  
TEMPORARY PRECAST, 12'-6"**

STATE OF WISCONSIN  
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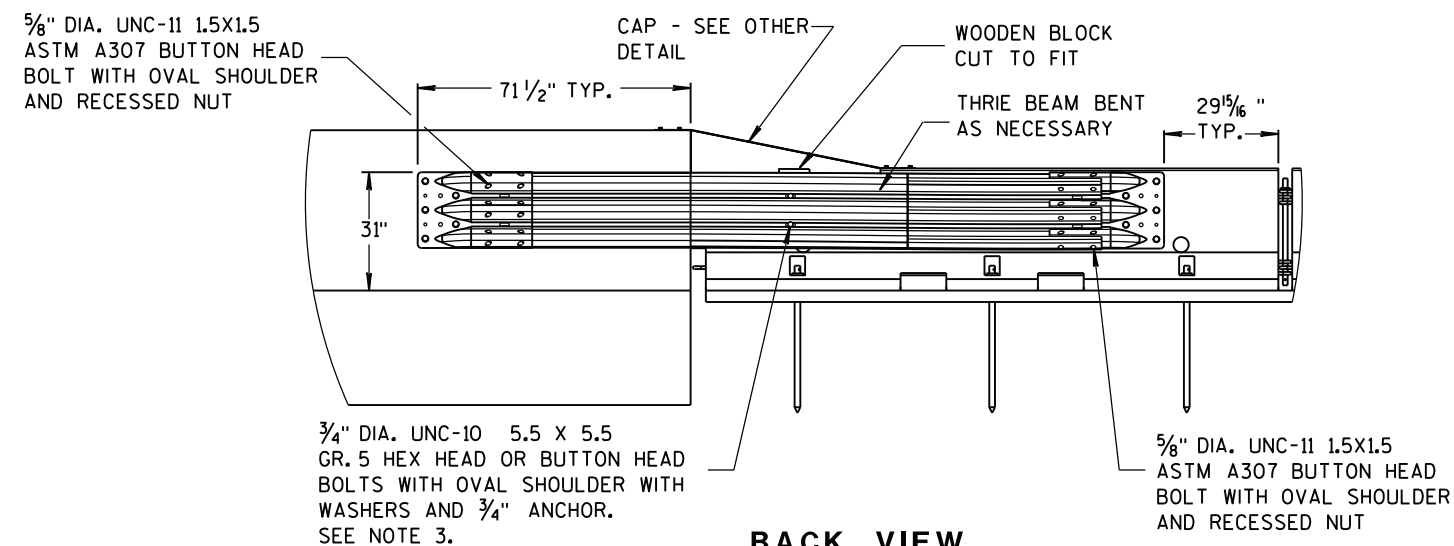
FRONT VIEW



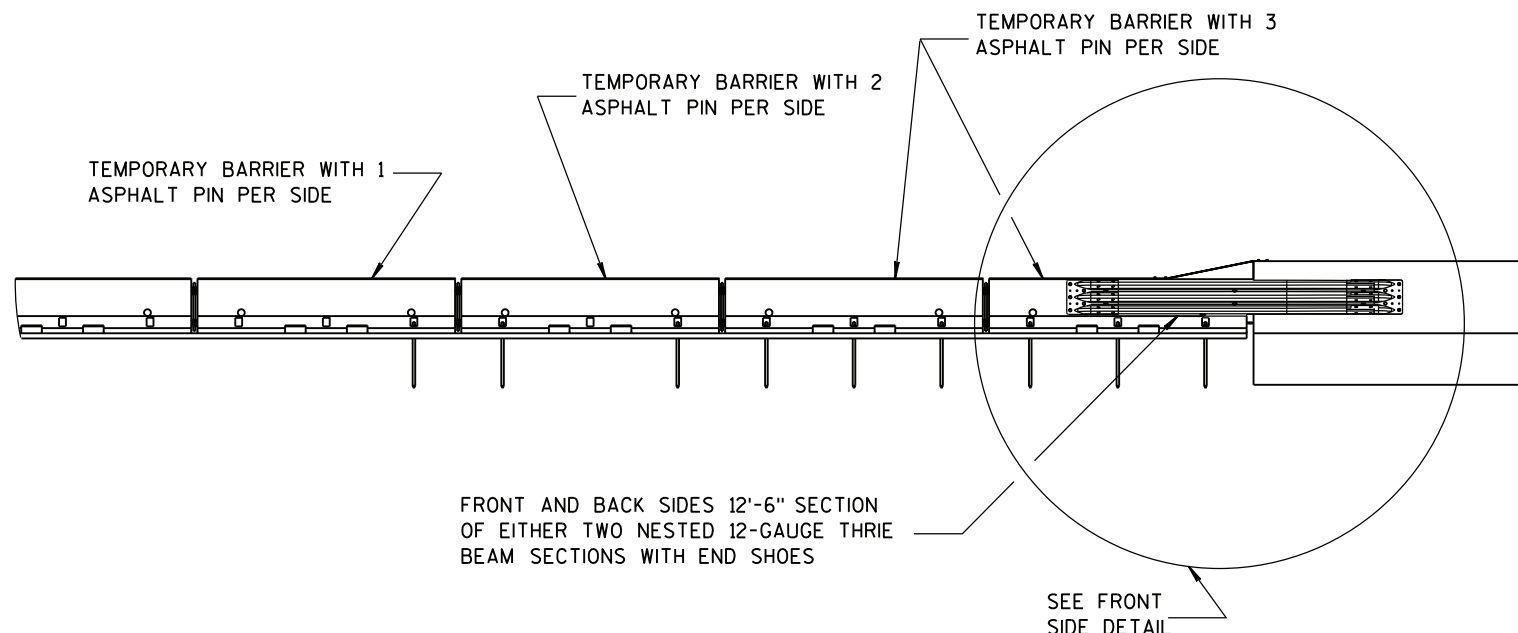
TEMPORARY BARRIER PLACEMENT FOR TRANSITION TO TIED DOWN SYSTEM

# NOTES

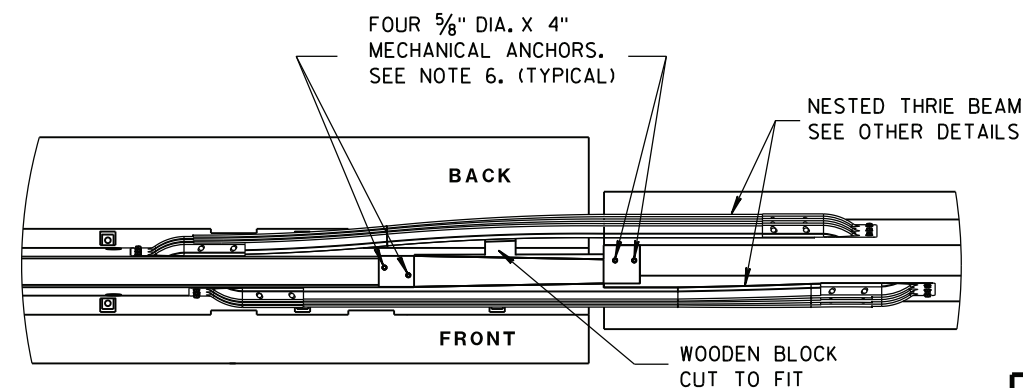
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.



BACK VIEW



FRONT VIEW

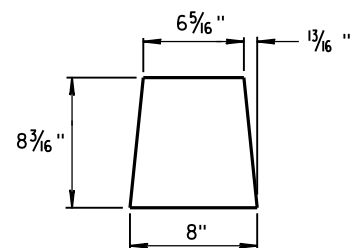


PLAN VIEW

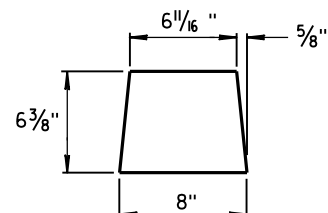
TRANSITION TO TIED DOWN SYSTEM

CONCRETE BARRIER  
TEMPORARY PRECAST, 12'-6"

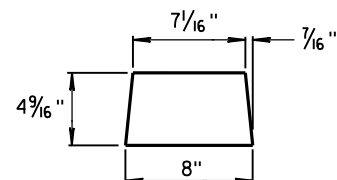
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION 141



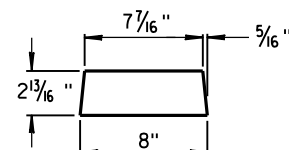
**GUSSET 1**



**GUSSET 2**

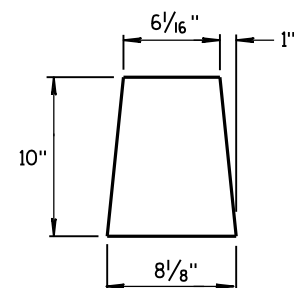


**GUSSET 3**

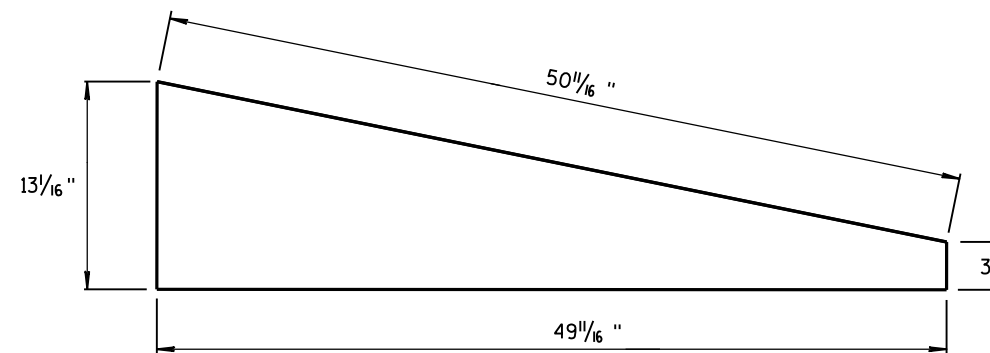


**GUSSET 4**

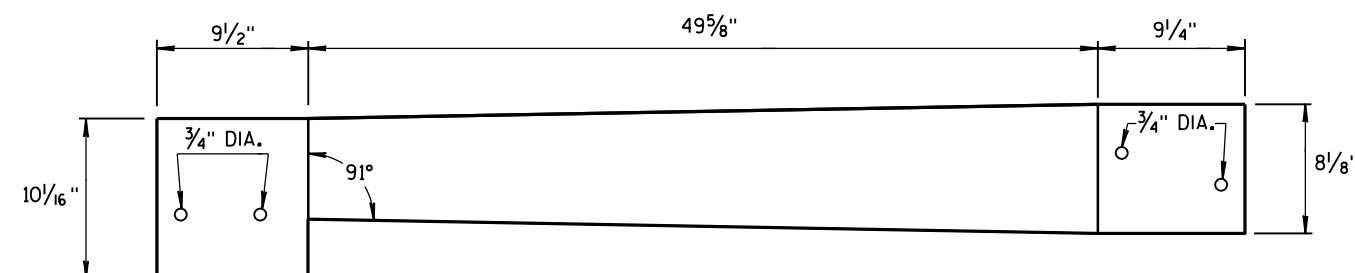
**GUSSETS**



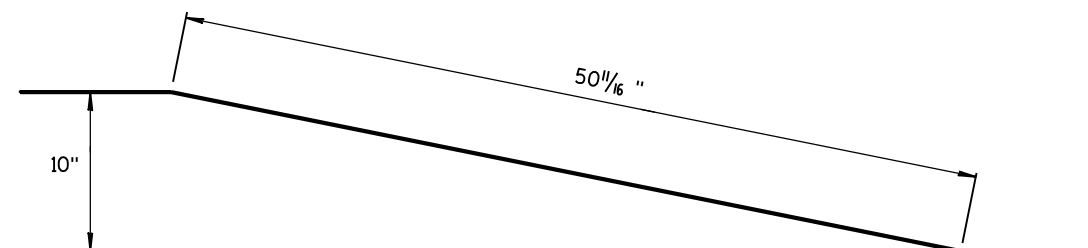
**END PLATE**



**SIDE PLATE**

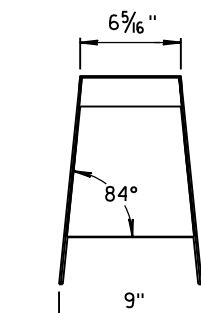
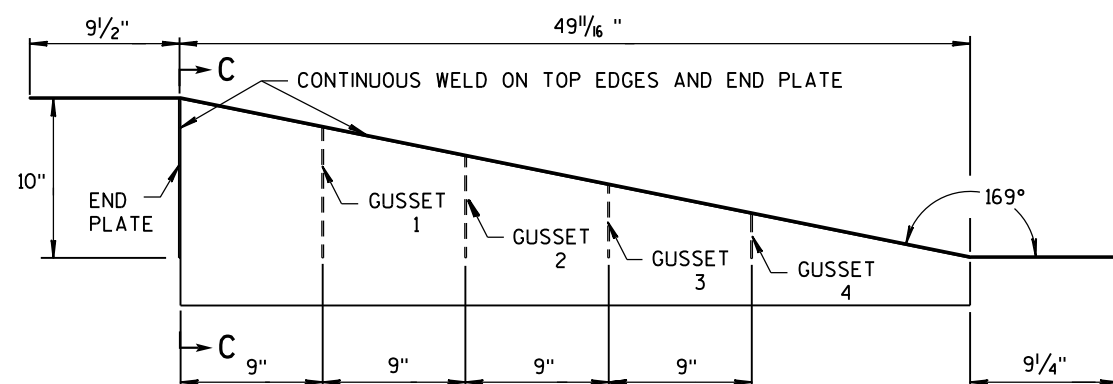
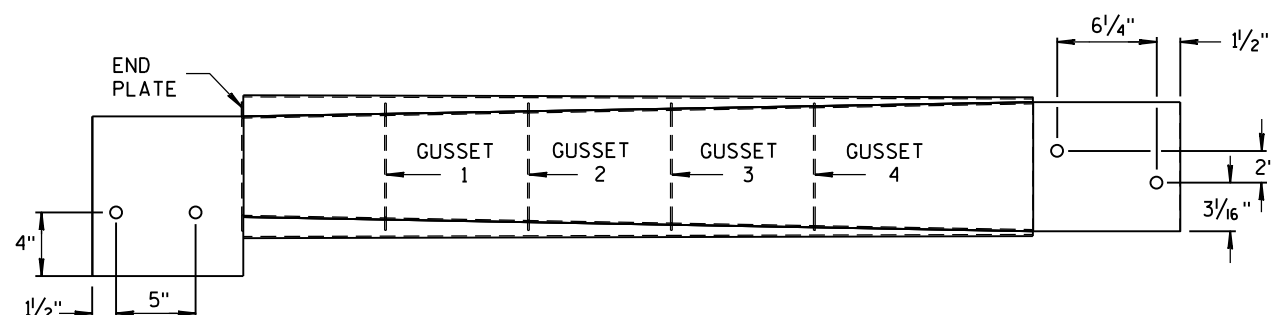


**TOP PLATE**



**SIDE, TOP AND END PLATES FOR CAP  
FROM TEMPORARY CONCRETE BARRIER  
TO 42" PERMANENT CONCRETE BARRIER**

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.



**SECTION C-C**

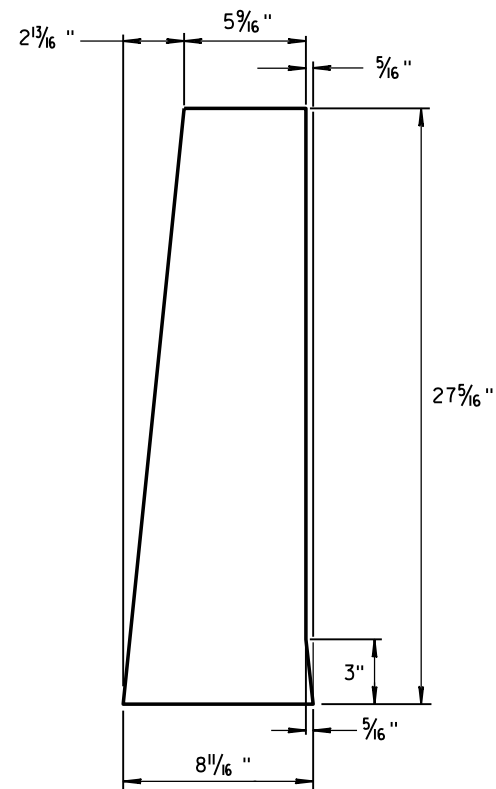
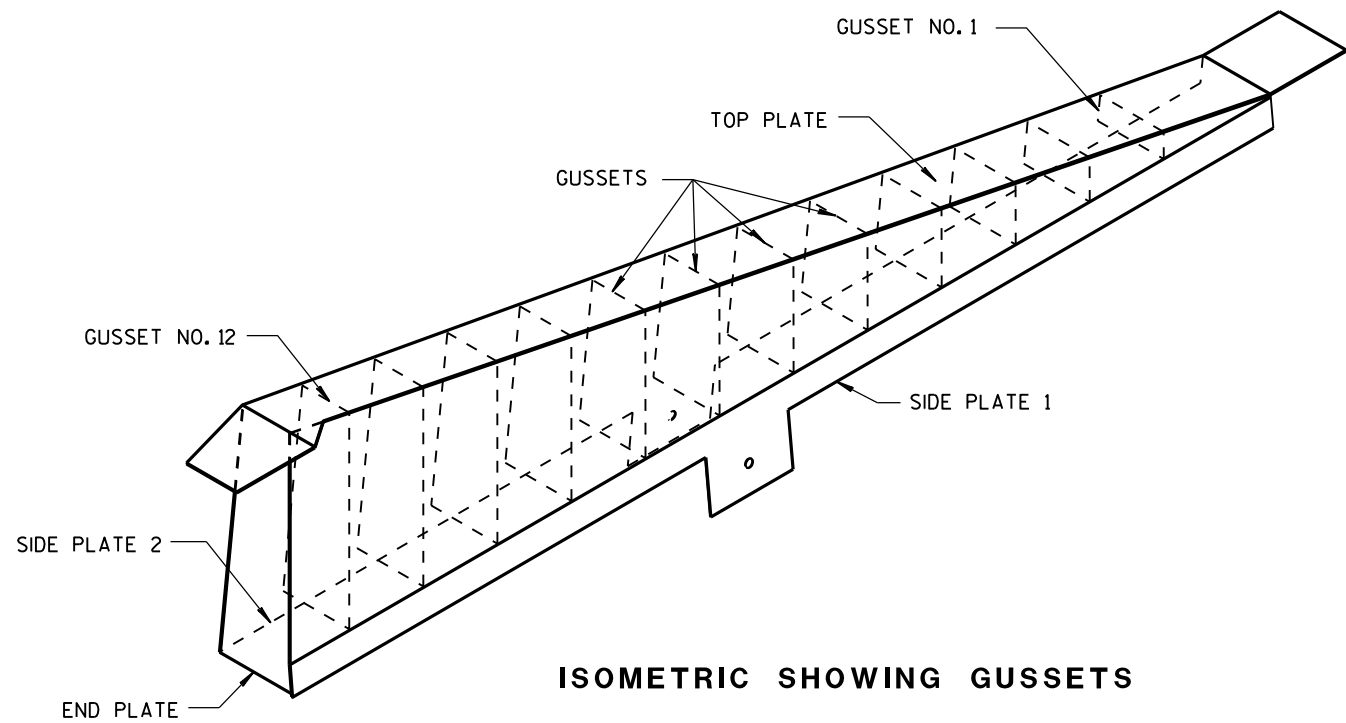
**NOTES**

1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

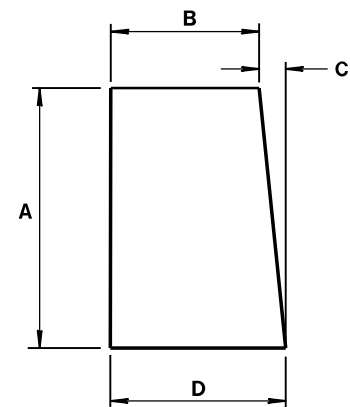
**CAP DETAILS FOR TEMPORARY CONCRETE  
BARRIER TO 42" PERMANENT CONCRETE BARRIER**

**CONCRETE BARRIER  
TEMPORARY PRECAST, 12'-6"**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION 142



END PLATE  
1/8" STEEL PLATE

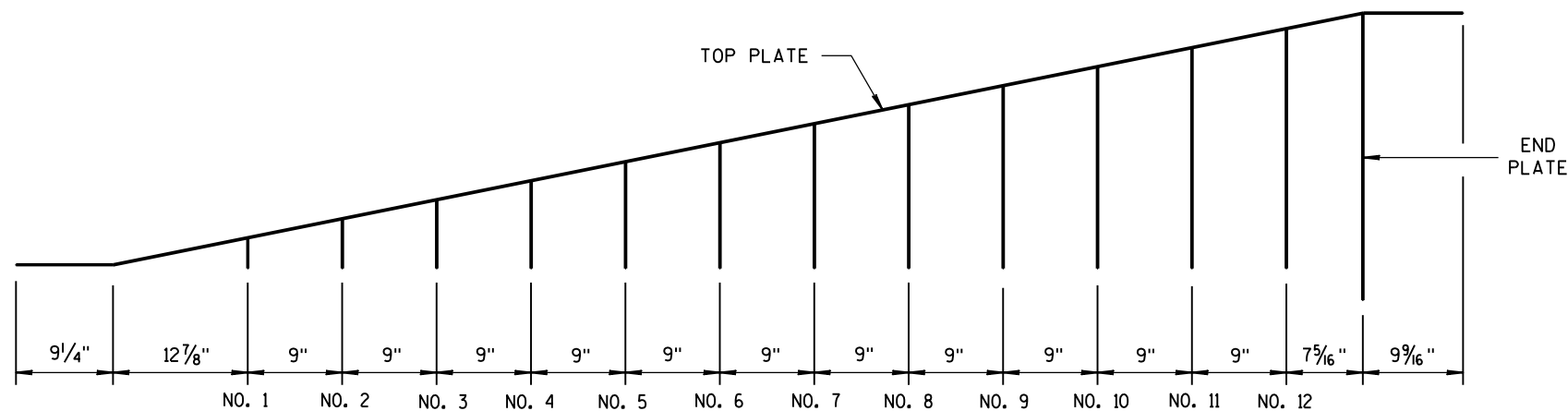


GUSSETS 1 - 12  
ALL GUSSETS 1/8" STEEL PLATE

| GUSSET DIMENSIONS |            |           |           |          |
|-------------------|------------|-----------|-----------|----------|
| GUSSET NO.        | A          | B         | C         | D        |
| 1                 | 2 7/8"     | 7 3/4"    | 1/4"      | 8        |
| 2                 | 4 1/16 "   | 7 9/16 "  | 1/2"      | 8        |
| 3                 | 6 1/2"     | 7 3/8 "   | 1 1/16 "  | 8 1/16 " |
| 4                 | 8 5/16 "   | 7 3/16 "  | 7/8"      | 8 1/16 " |
| 5                 | 10 1/8 "   | 7"        | 1 1/16 "  | 8 1/16 " |
| 6                 | 11 5/16 "  | 6 13/16 " | 1 1/4"    | 8 1/16 " |
| 7                 | 13 3/4"    | 6 5/8 "   | 1 7/16 "  | 8 1/16 " |
| 8                 | 15 9/16 "  | 6 7/16 "  | 1 9/16 "  | 8 1/16 " |
| 9                 | 17 3/8"    | 6 1/4"    | 1 13/16 " | 8 1/16 " |
| 10                | 19 3/16 "  | 6 1/16 "  | 1 15/16 " | 8 1/16 " |
| 11                | 21"        | 5 7/8 "   | 2 3/16 "  | 8 1/16 " |
| 12                | 22 13/16 " | 5 11/16 " | 2 5/16 "  | 8 1/16 " |

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



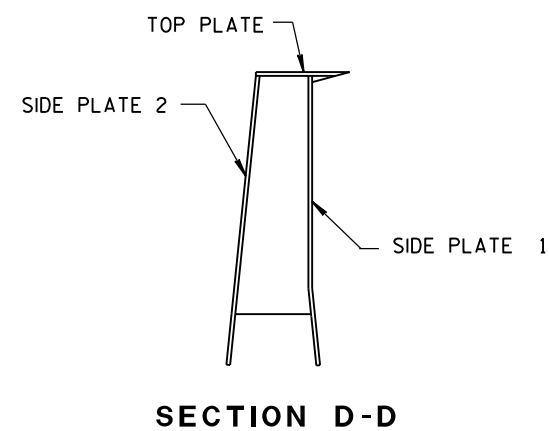
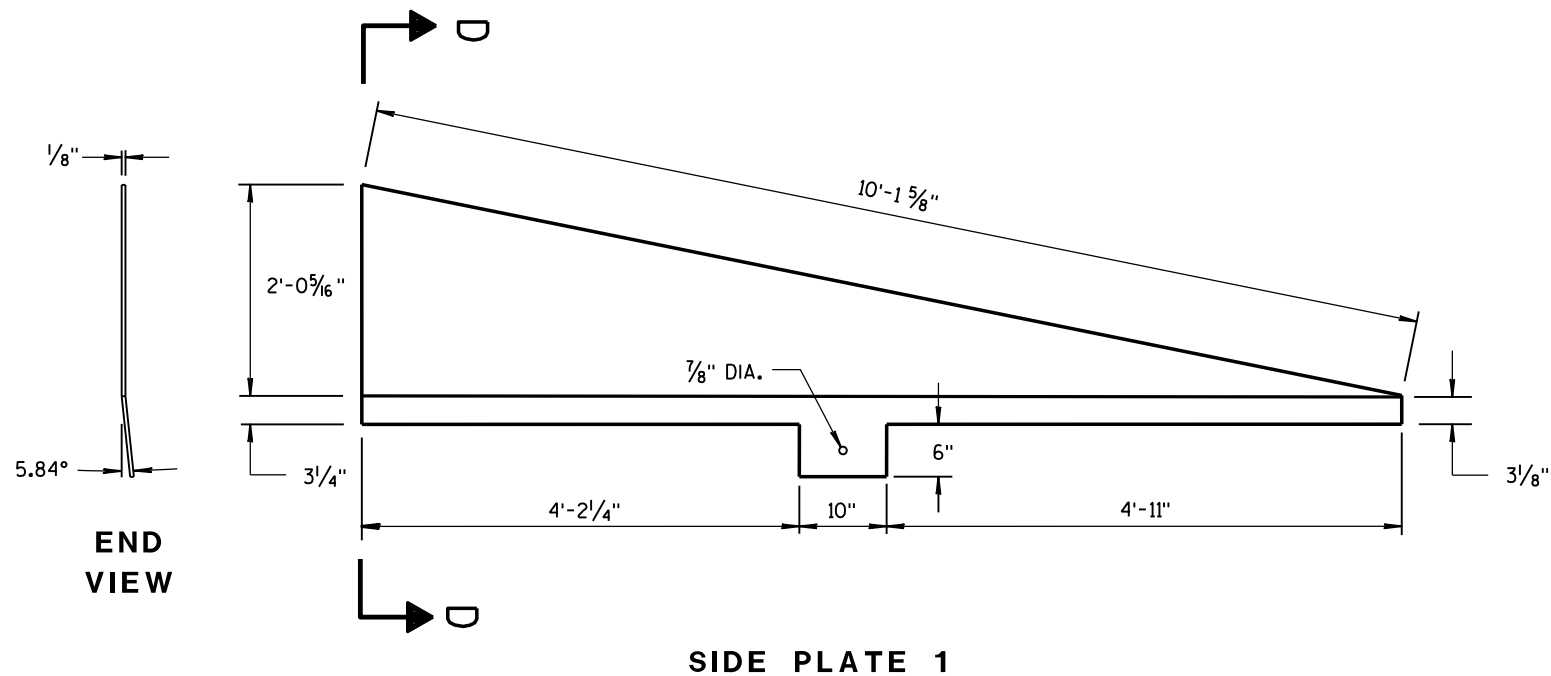
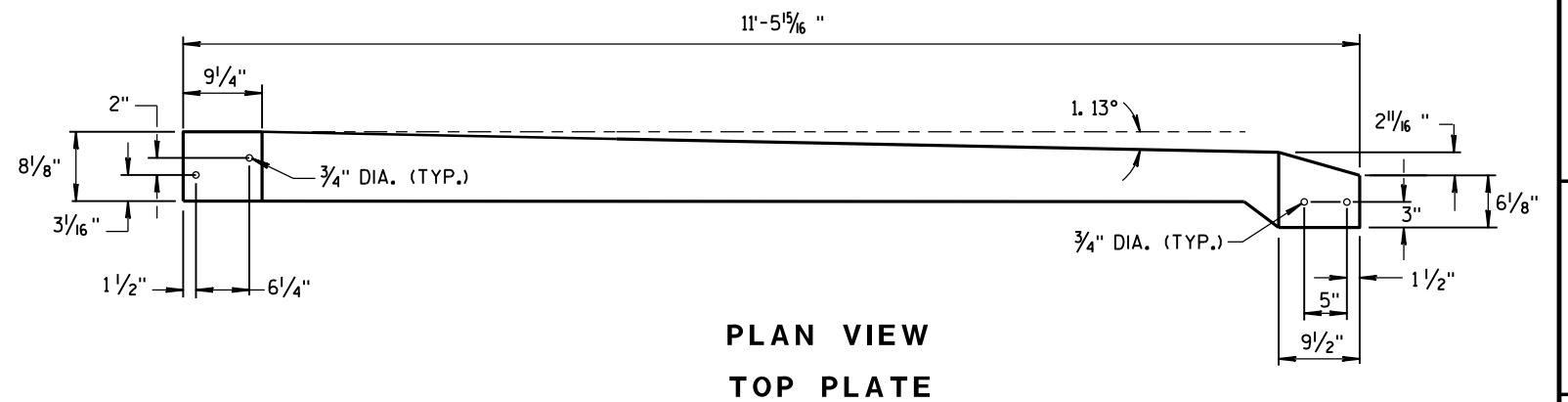
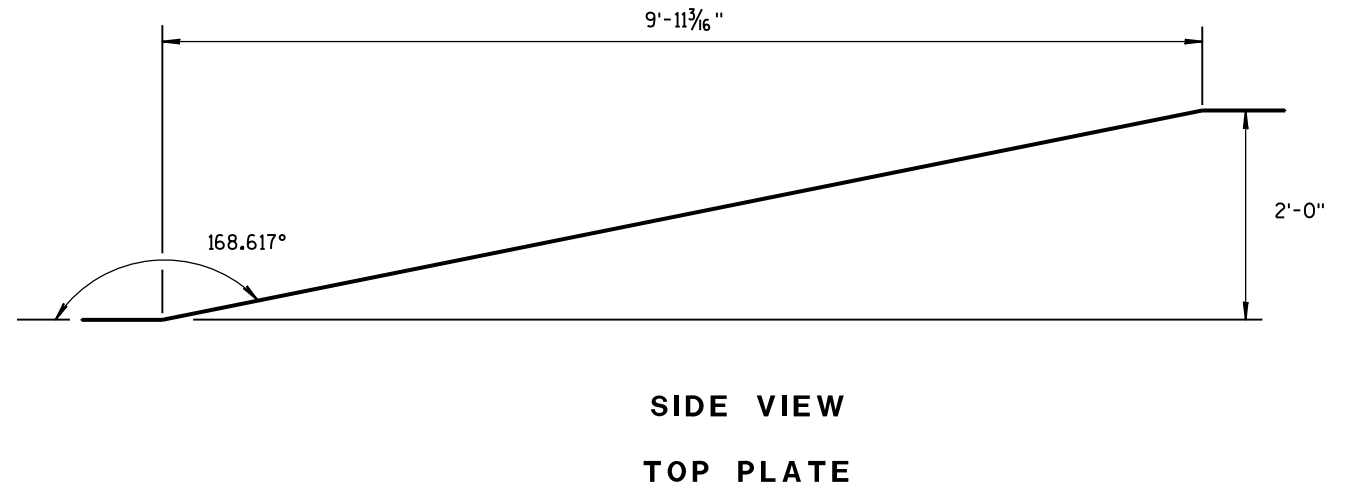
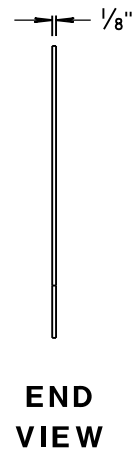
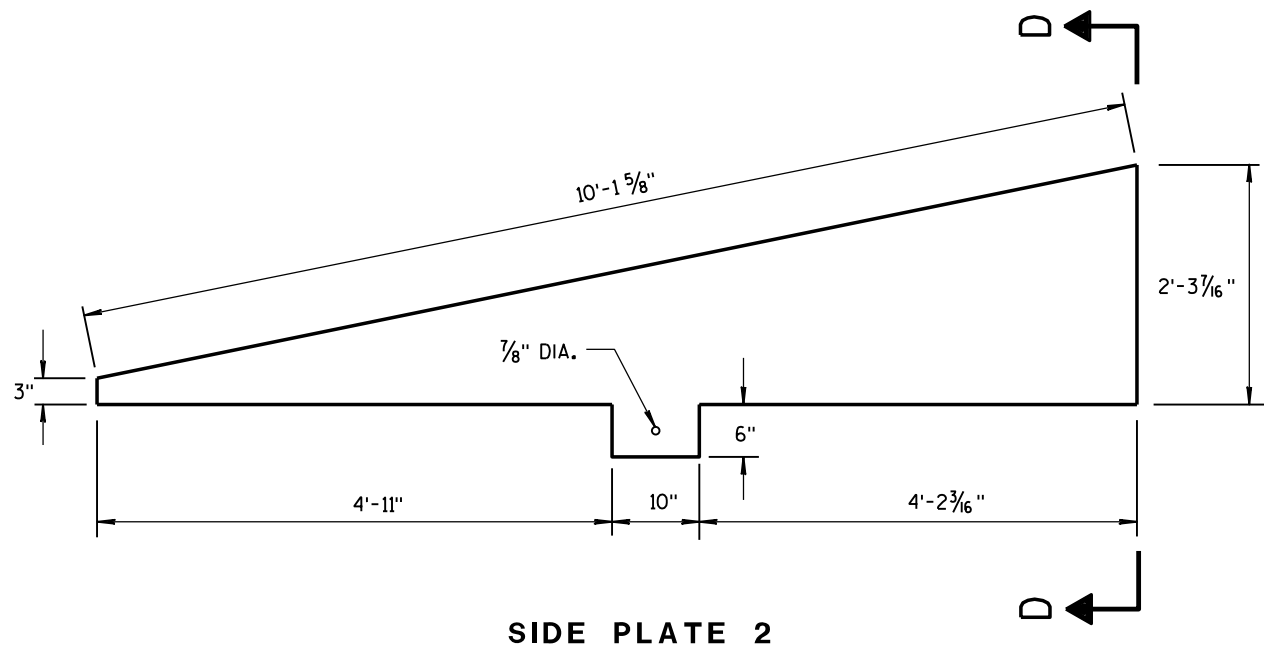
GUSSET LOCATION

CAP DETAILS FOR TEMPORARY CONCRETE  
BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER  
TEMPORARY PRECAST, 12'-6"

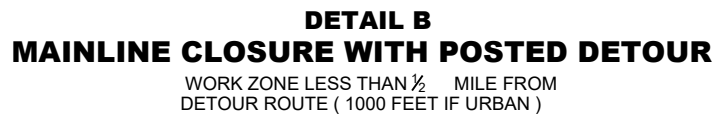
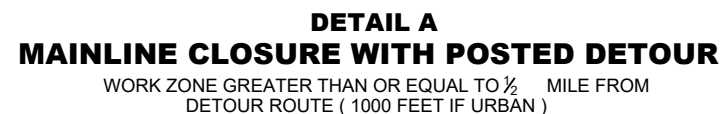
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION 143





**CAP DETAILS FOR TEMPORARY CONCRETE  
BARRIER TO 56" PERMANENT CONCRETE BARRIER**

|                                                    |                   |     |     |
|----------------------------------------------------|-------------------|-----|-----|
| CONCRETE BARRIER<br>TEMPORARY PRECAST, 12'-6"      |                   |     |     |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION |                   |     |     |
| APPROVED<br>June 2017                              | /S/ Rodney Taylor |     |     |
| DATE                                               | ROADWAY STANDARD  | 144 | ENT |
| FHWA                                               | UNIT SUPERVISOR   |     |     |



| SPEED LIMIT<br>(MPH) | "STOP AHEAD"<br>ADVANCE WARNING<br>DISTANCE (FT) |
|----------------------|--------------------------------------------------|
| 25                   | 200                                              |
| 30                   | 200                                              |
| 35                   | 350                                              |
| 40                   | 350                                              |
| 45                   | 500                                              |
| 50                   | 550                                              |
| 55                   | 750                                              |

SEE SDD 15C2-SHEET "b"  
FOR GENERAL NOTES  
AND FOOTNOTES ① THROUGH ⑦

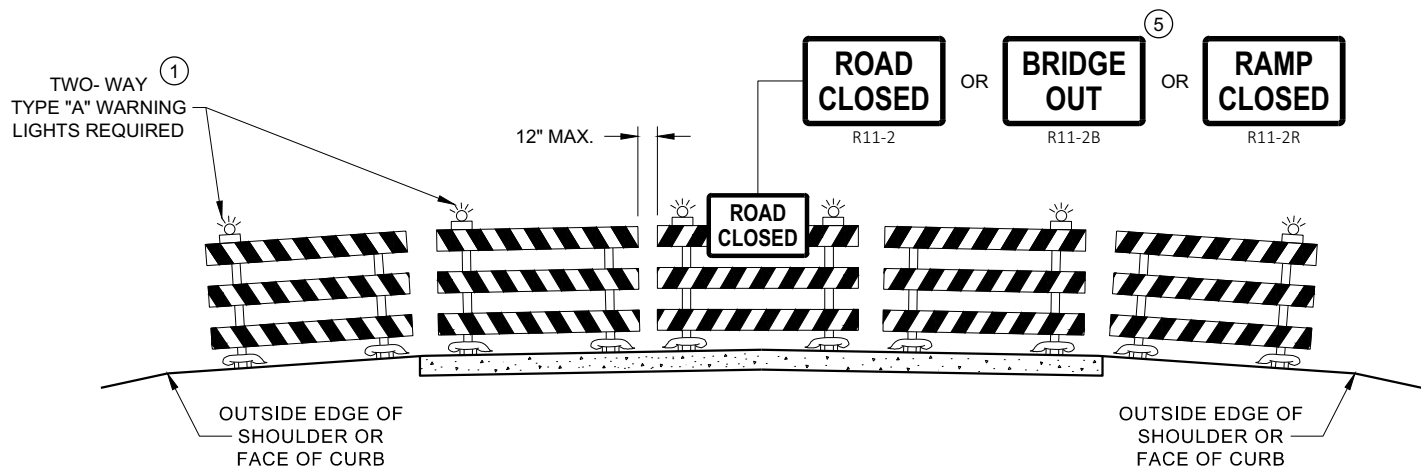


|                                                                                       |                                       |
|---------------------------------------------------------------------------------------|---------------------------------------|
|    | SIGN ON PERMANENT SUPPORT             |
|   | TYPE III BARRICADE                    |
|  | TYPE III BARRICADE WITH ATTACHED SIGN |
|  | TYPE "A" WARNING LIGHT (FLASHING)     |
|  | WORK AREA                             |
|  | FLAGS, 16" X 16" MIN. (ORANGE)        |

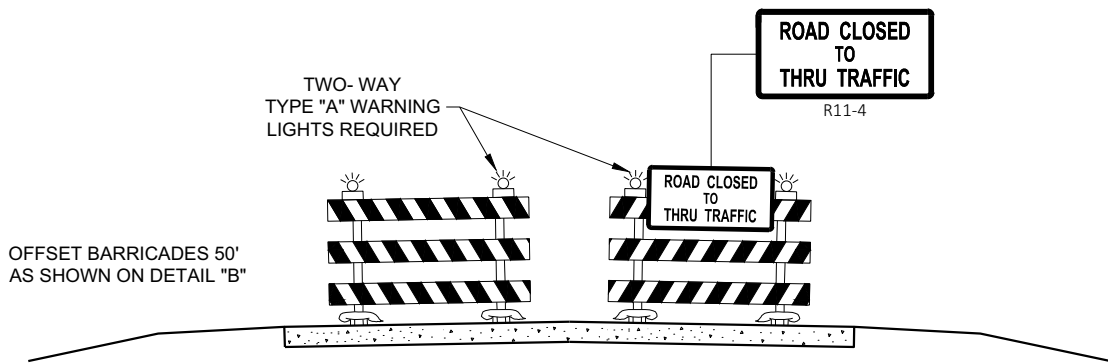
 M4 - 8  
 M3 - X  
 OR  OR   
M1 - 4 M1 - 6 M1 - 5A  
 OR   
M05 - 1 M06 - 1

APPROVED  
February 2020 \_\_\_\_\_ /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER 145





**DETAIL D**  
**ROAD CLOSURE BARRICADE DETAIL**  
**APPROACH VIEW**



**DETAIL E**  
**LANE CLOSURE BARRICADE DETAIL**  
**APPROACH VIEW**

SEE SDD 15C2 - SHEET "a" FOR LEGEND

**GENERAL NOTES**

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

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.

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.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW - INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

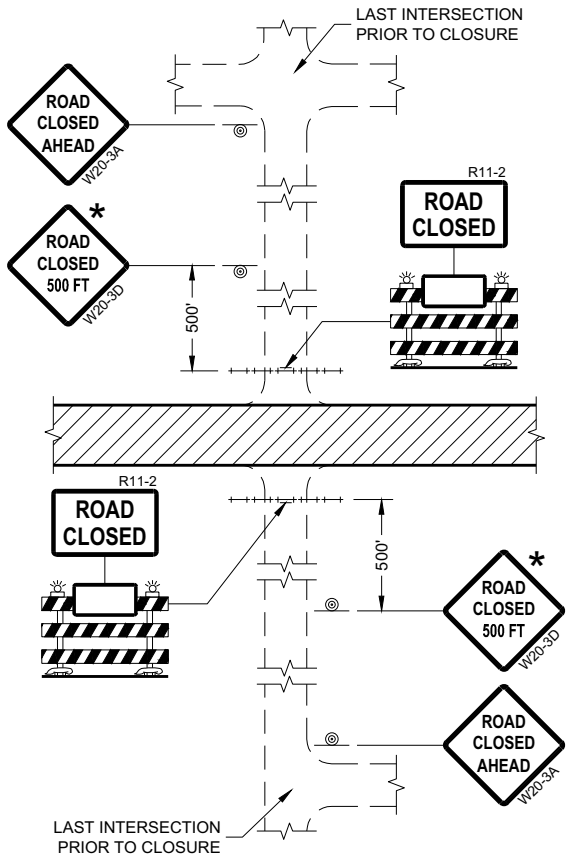
- ① TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- ② THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.
- ③ FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".
- ④ FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".
- ⑤ FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.
- ⑥ INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- ⑦ "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

**BARRICADES AND SIGNS**  
**FOR**  
**VARIOUS CLOSURES**

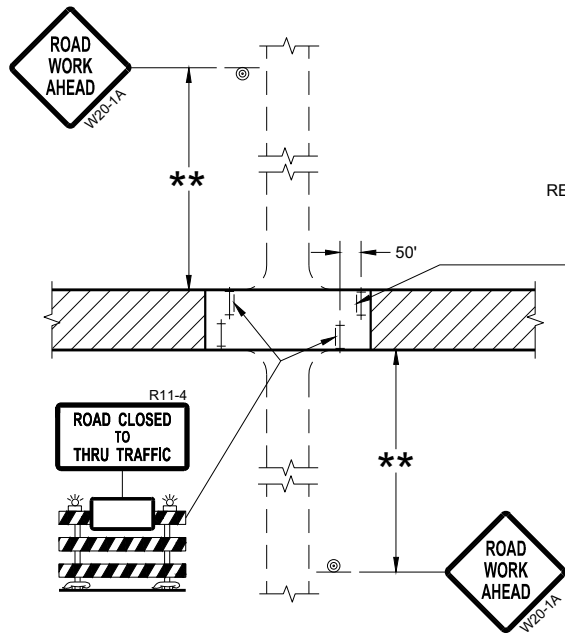
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
February 2020 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER 146

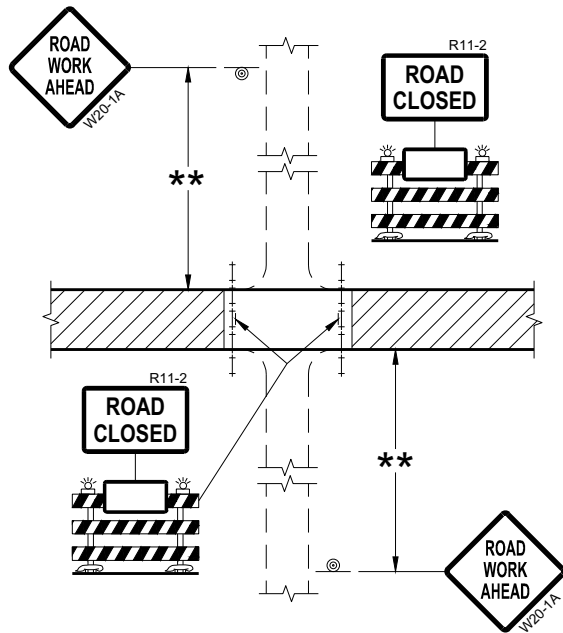
FHWA



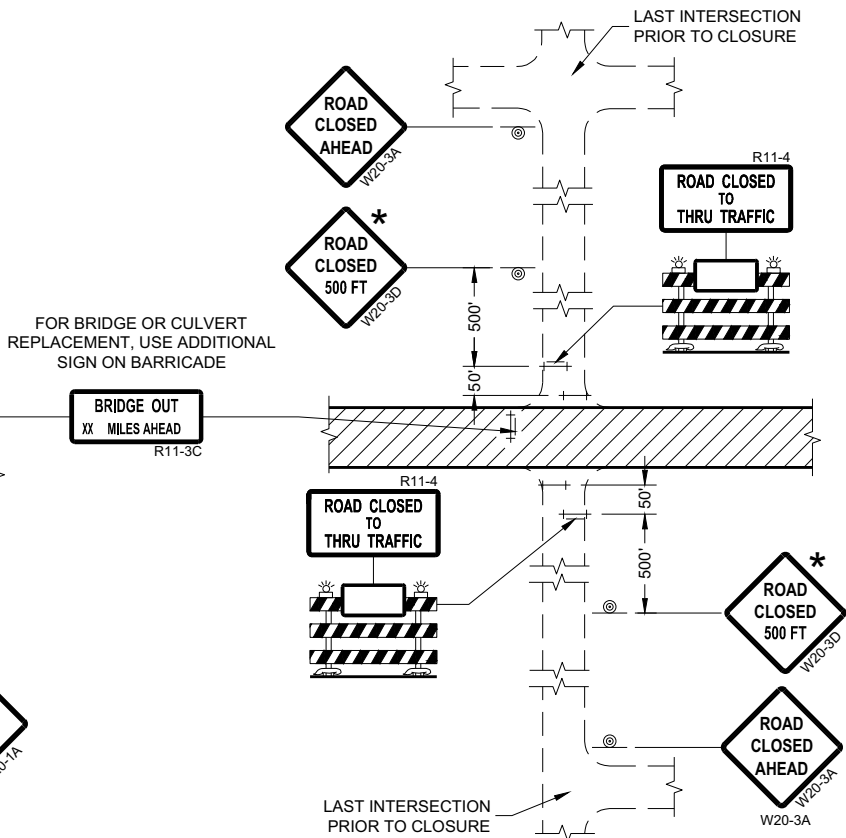
**DETAIL 1**  
(NO ACCESS TO PROJECT)



**DETAIL 3**  
(PUBLIC CROSS-TRAFFIC MAINTAINED.  
CONTRACTOR, LOCAL BUSINESS AND  
RESIDENT ACCESS TO PROJECT)



**DETAIL 2**  
(PUBLIC CROSS-TRAFFIC MAINTAINED.  
NO ACCESS TO PROJECT)



**DETAIL 4**  
(CONTRACTOR, LOCAL BUSINESS AND  
RESIDENT ACCESS TO PROJECT)

**GENERAL NOTES**

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

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.

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

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 REESTABLISHED.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:  
R11-2 SHALL BE 48" X 30".  
R11-4 AND R11-3 SHALL BE 60" X 30".

- \* OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.
- \*\* 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

**LEGEND**

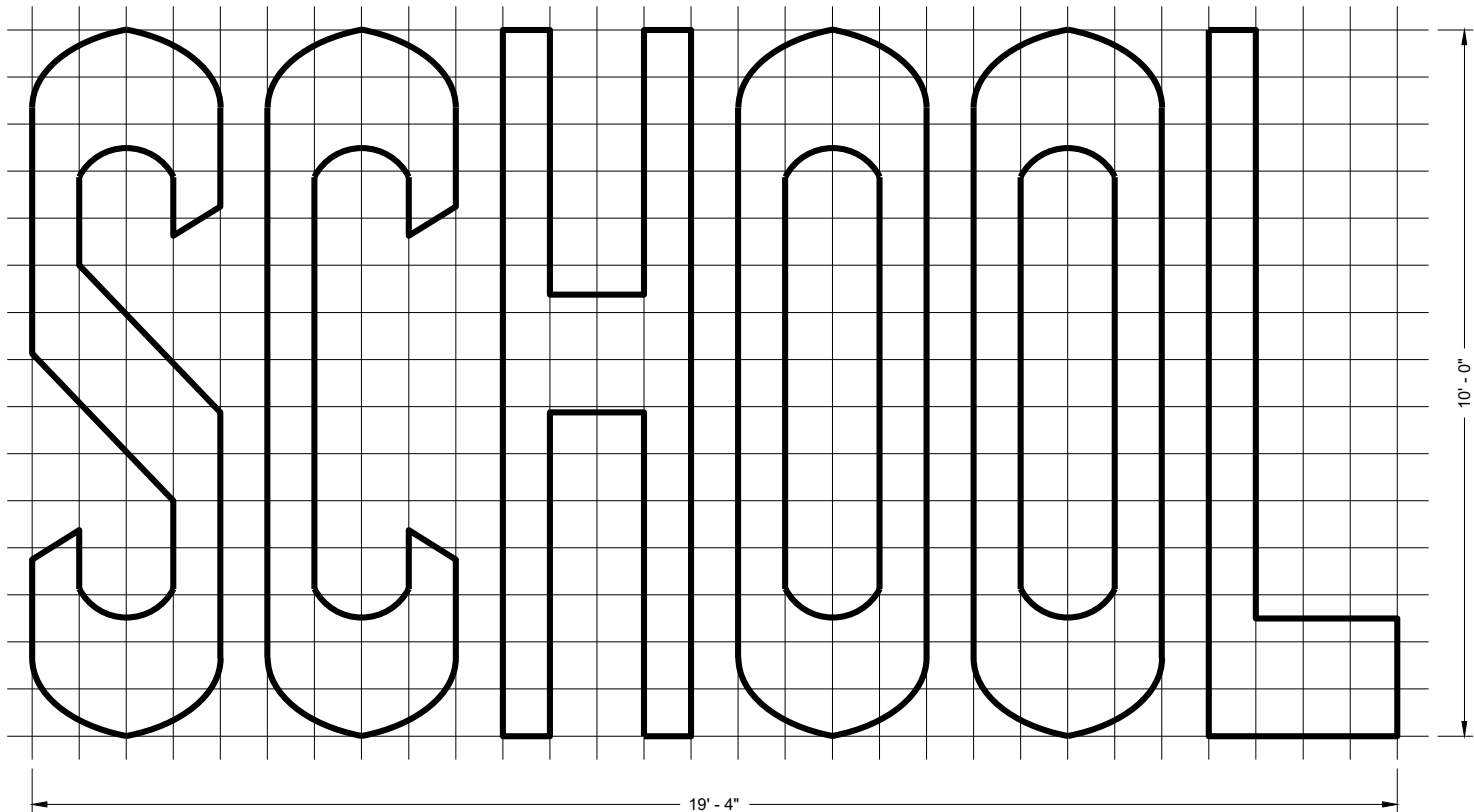
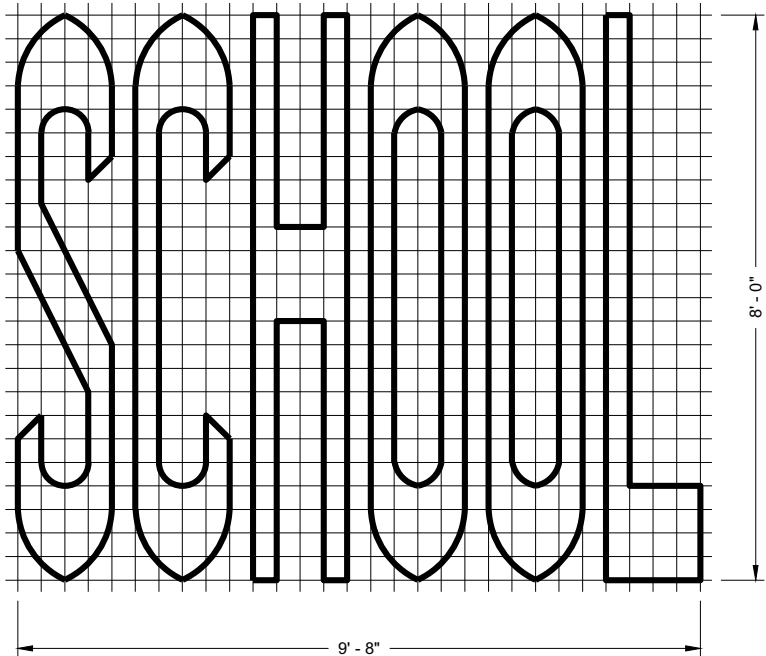
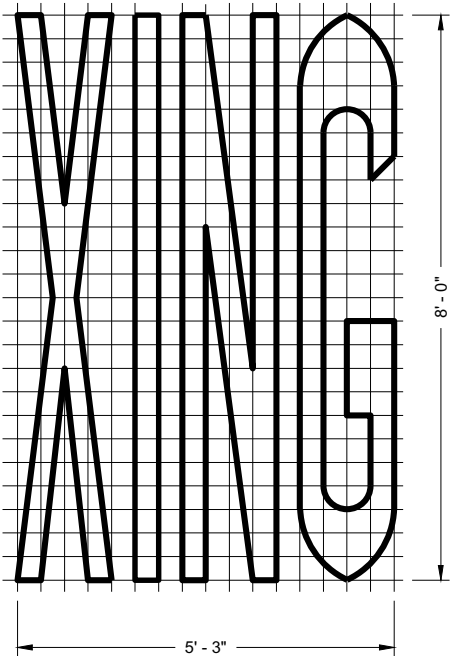
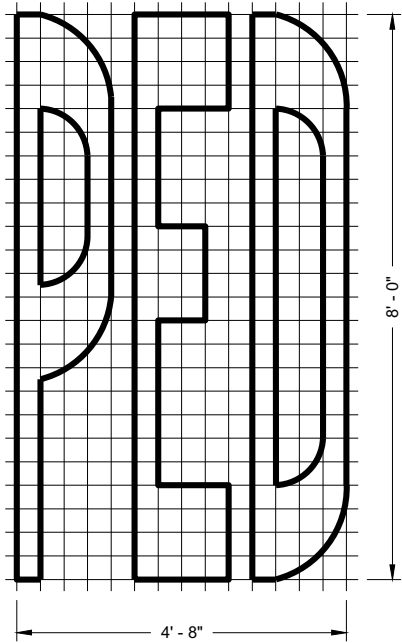
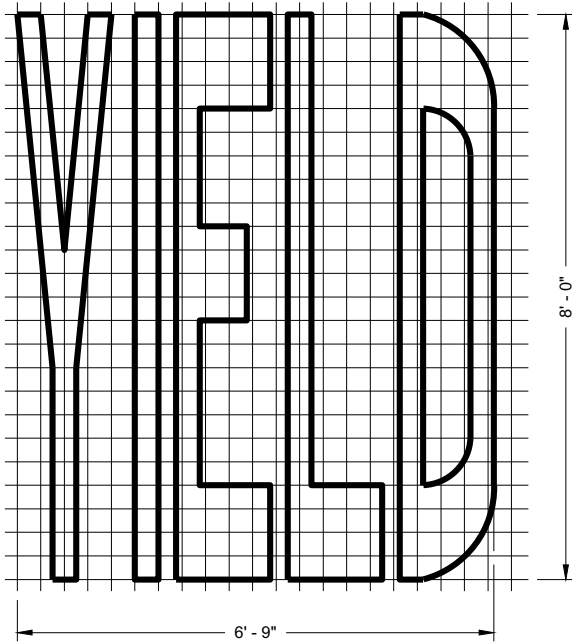
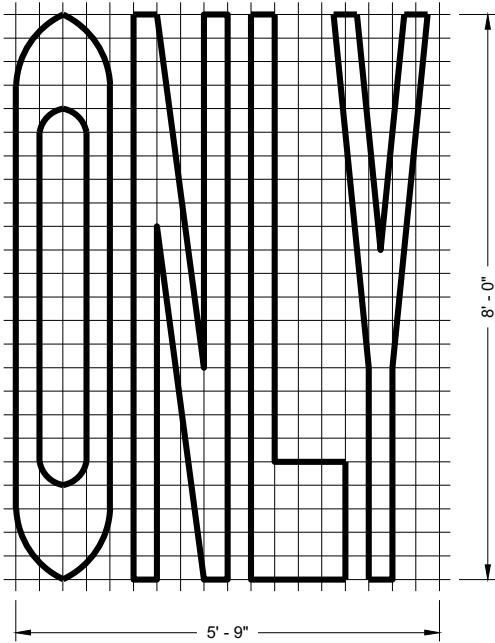
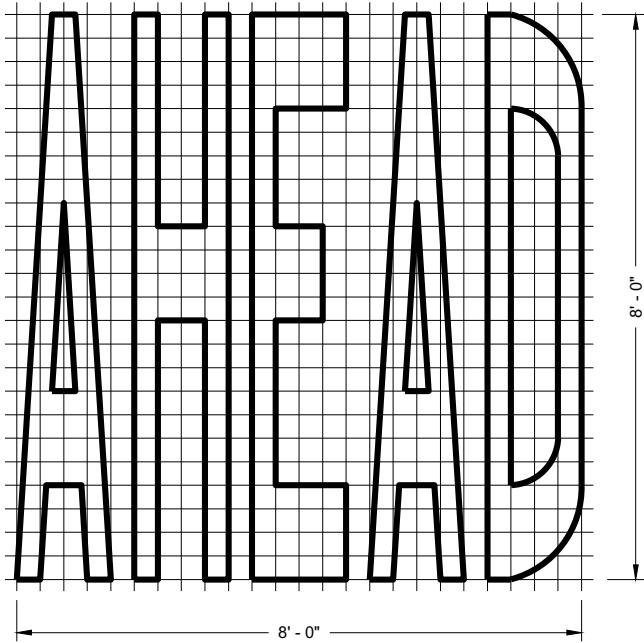
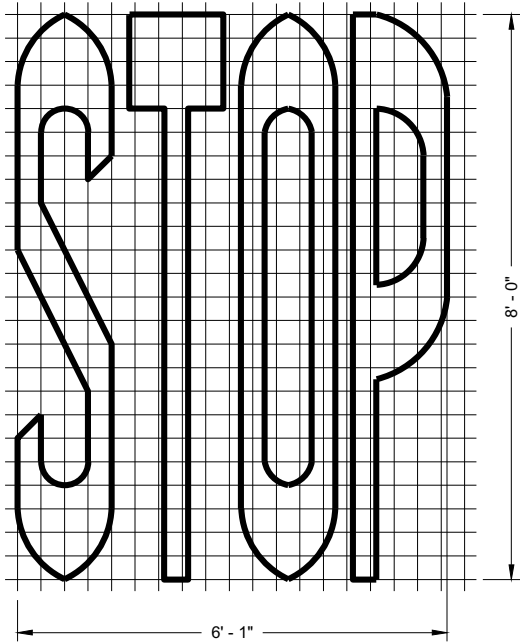
- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

**BARRICADES AND SIGNS  
FOR  
SIDEROAD CLOSURES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
July 2018 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER 147

FHWA



SINGLE LANE

TWO - LANE

#### GENERAL NOTES

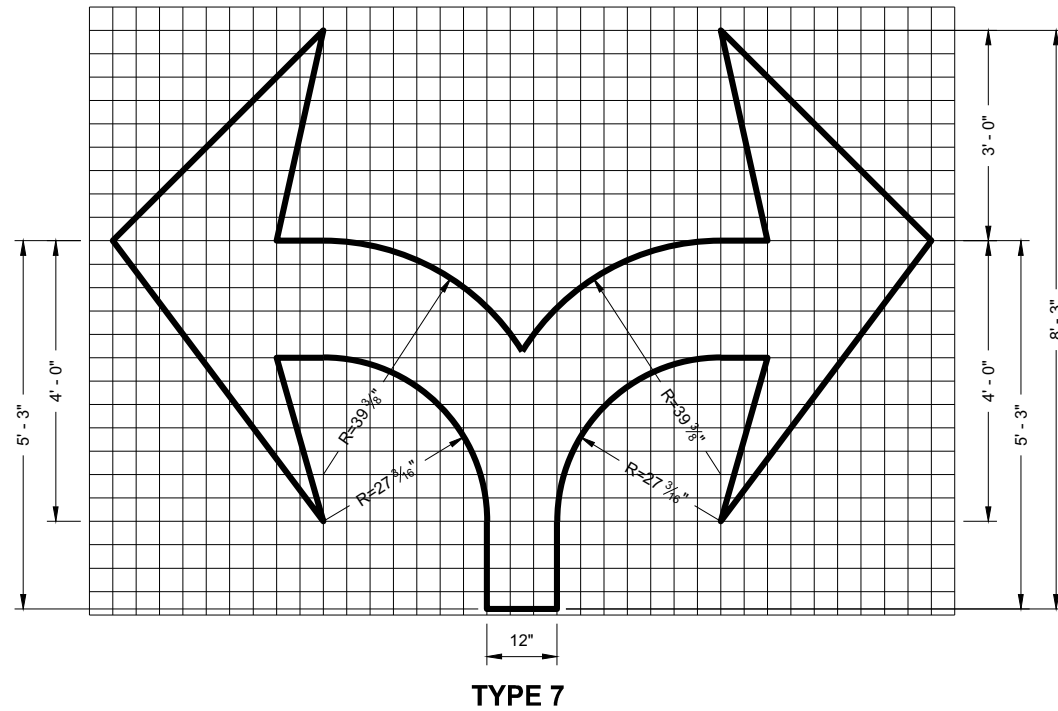
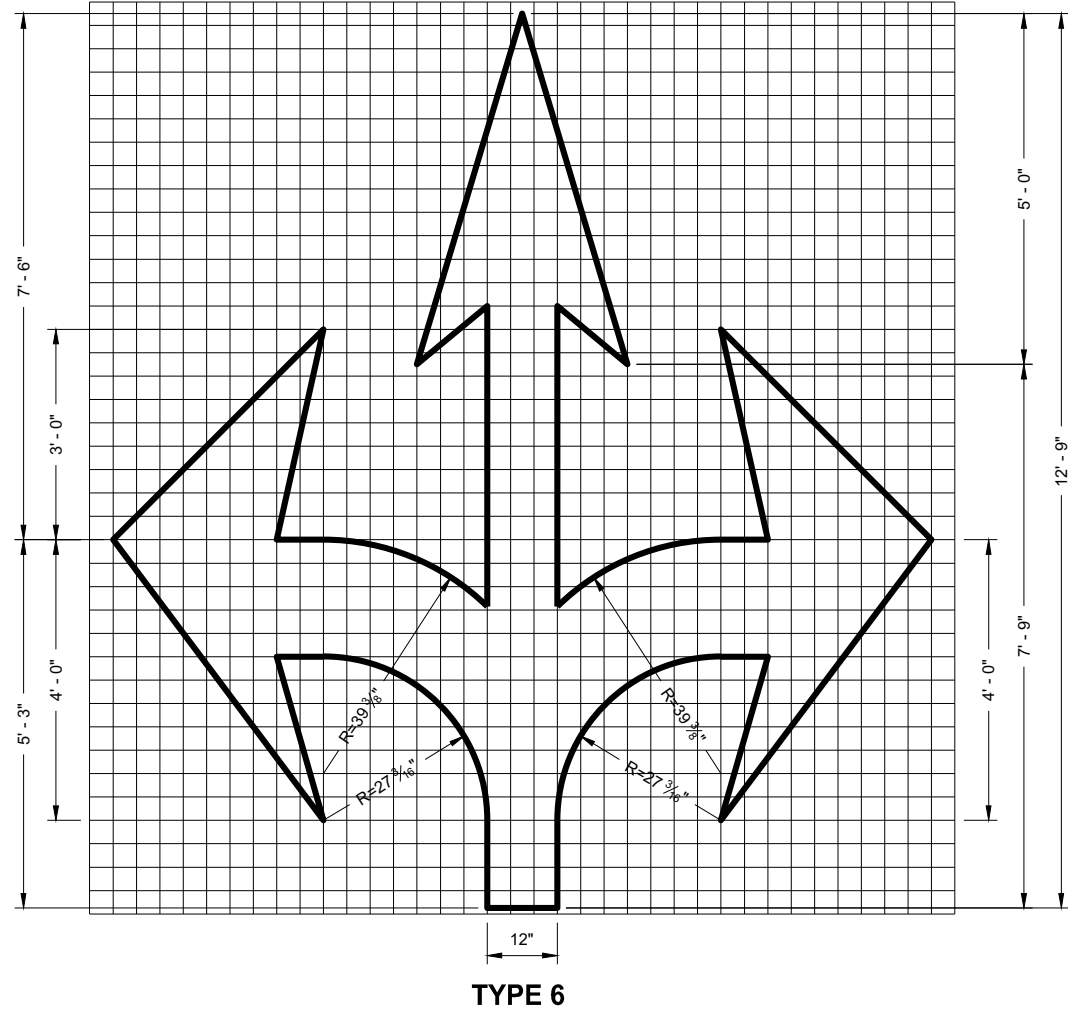
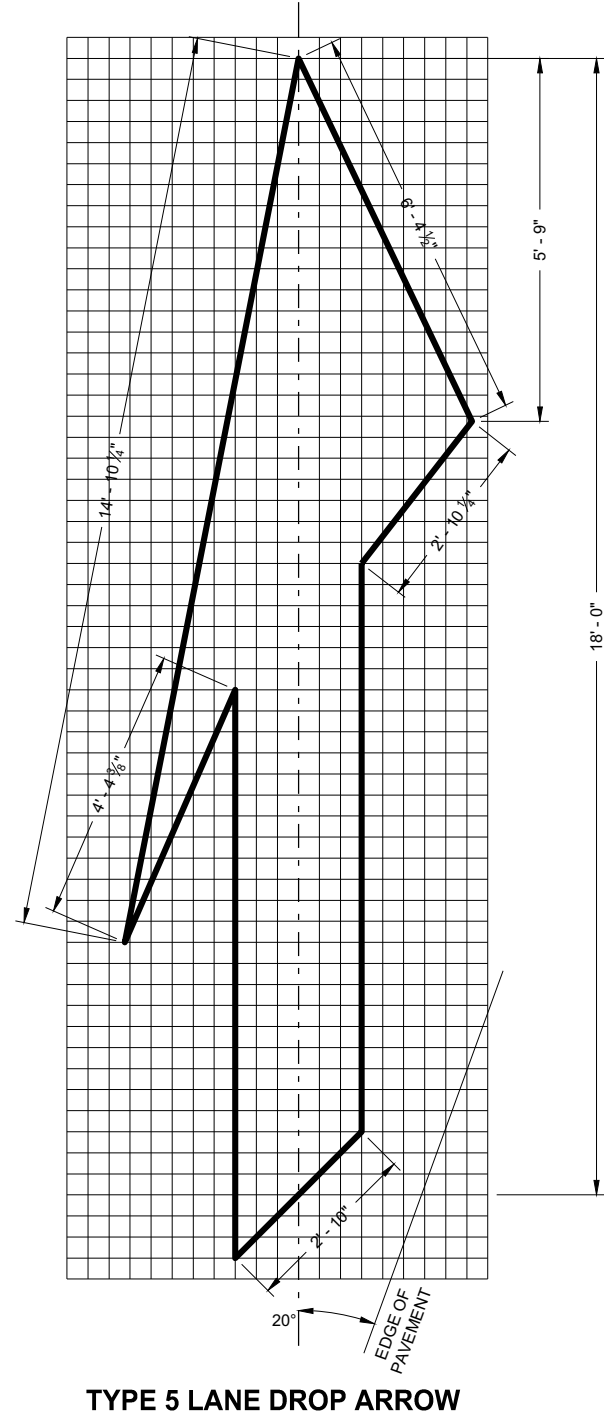
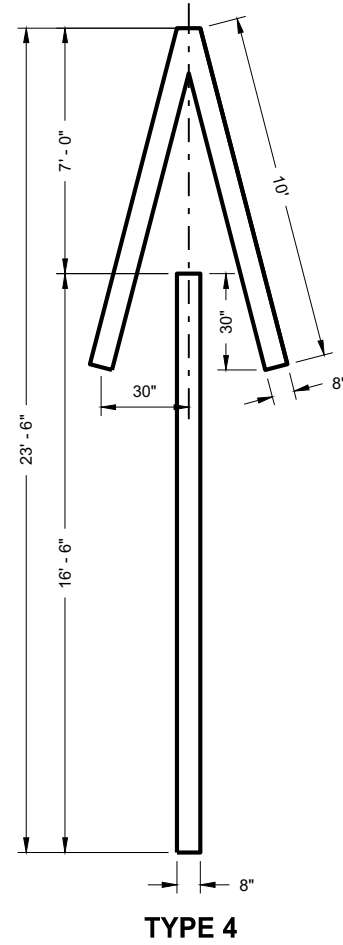
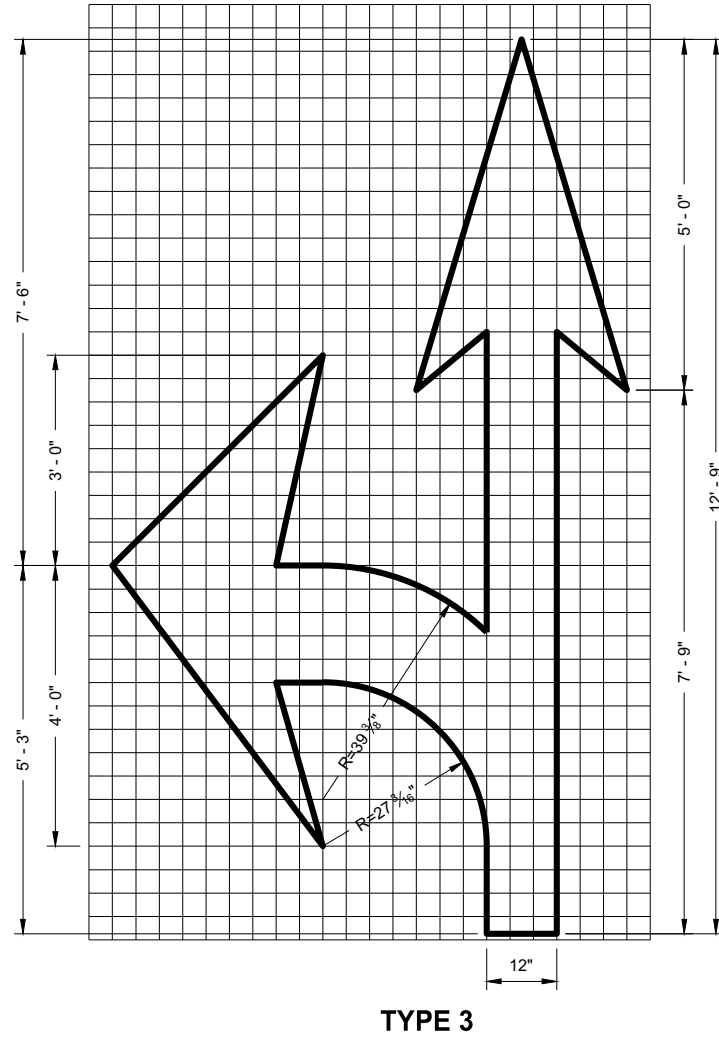
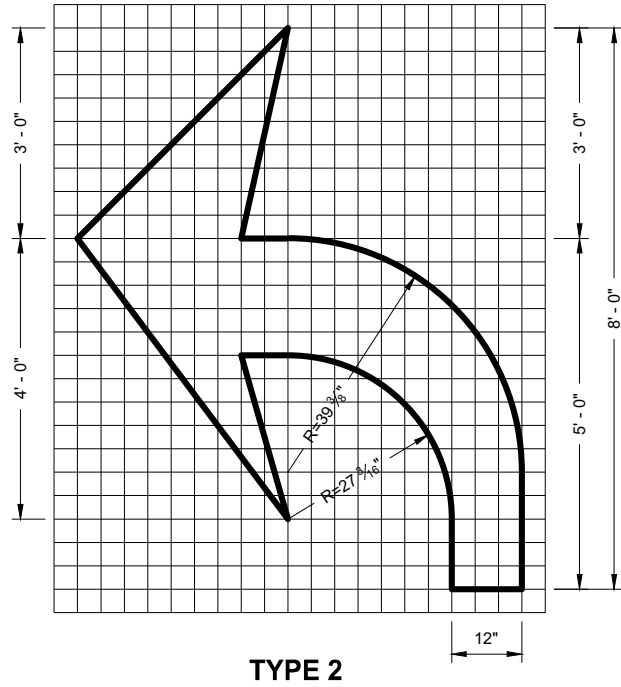
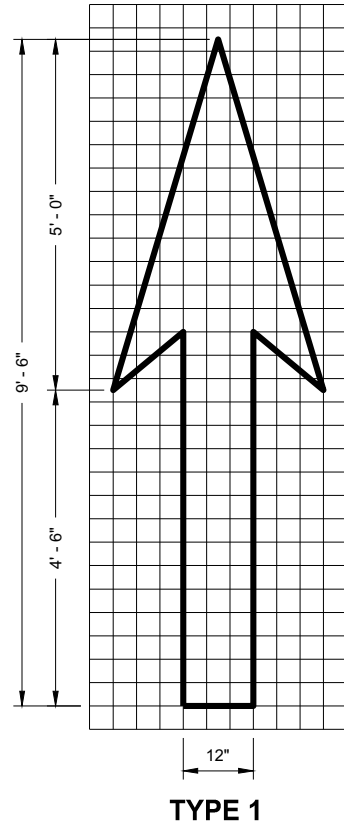
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

#### PAVEMENT MARKING WORDS

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
November 2019 /S/ Matthew Rauch  
DATE STATE SIGNING AND MAP ENGINEER 148

FHWA



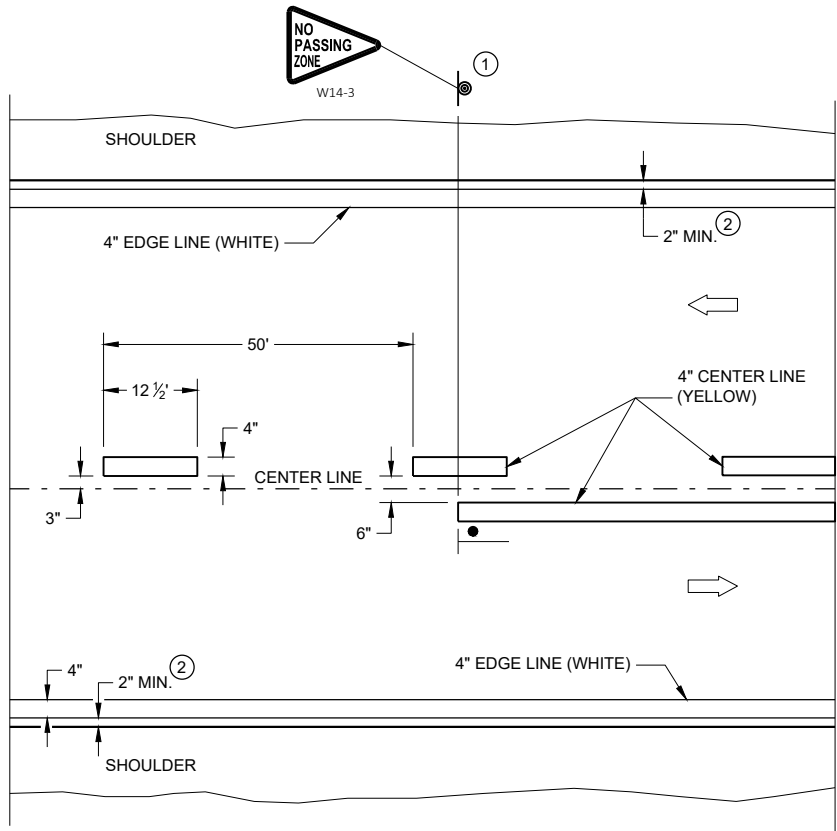
### GENERAL NOTES

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

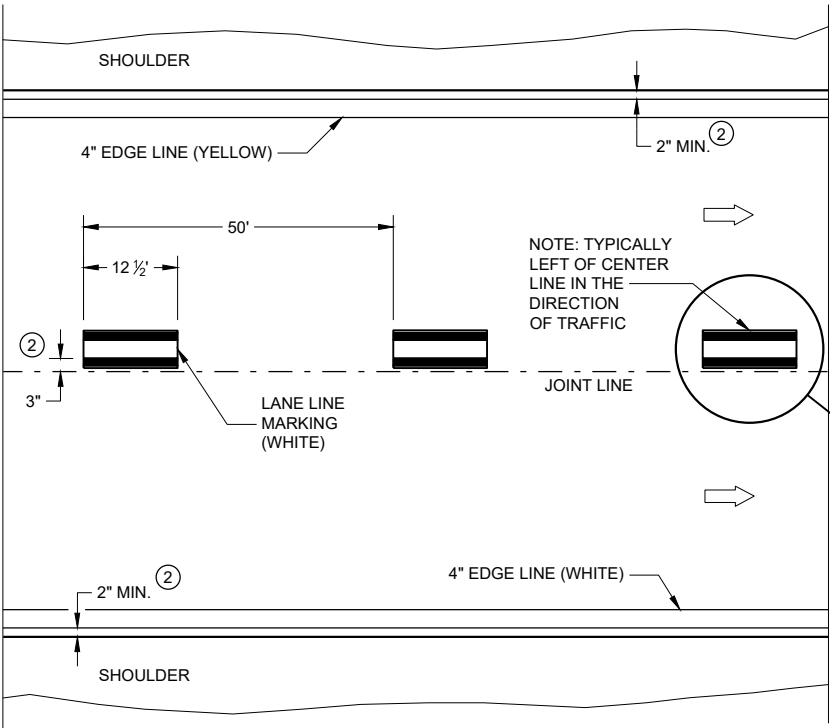
### PAVEMENT MARKING ARROWS

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
November 2019  
DATE  
/S/ Matthew Rauch  
STATE SIGNING AND MAP ENGINEER 149  
FHWA

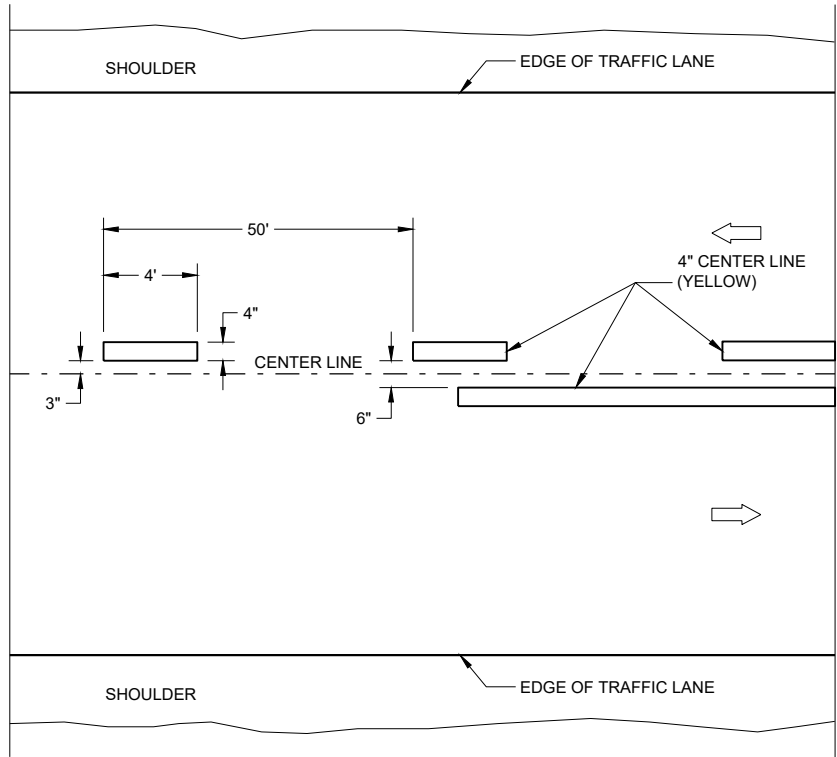


TWO WAY TRAFFIC

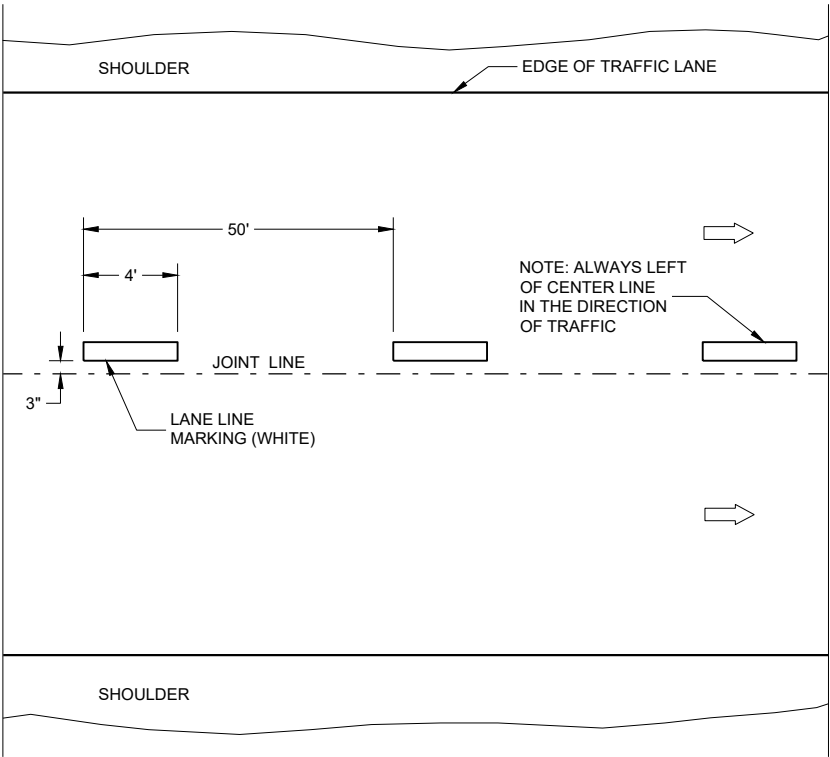


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

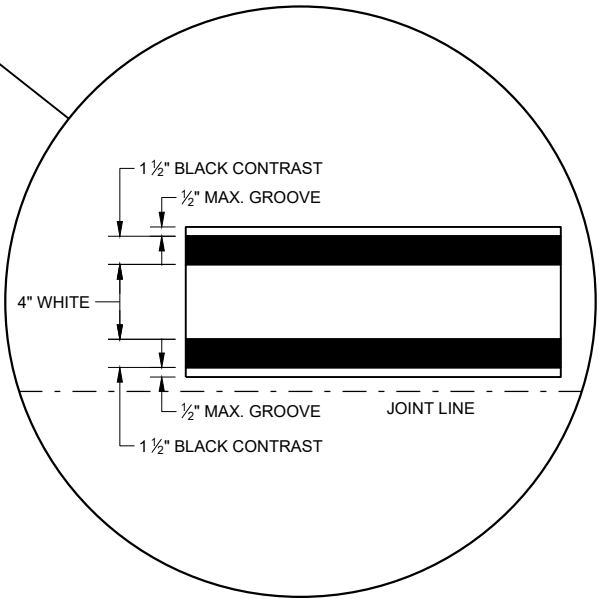
GENERAL NOTES

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
- ② MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

- "T" MARKING
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC

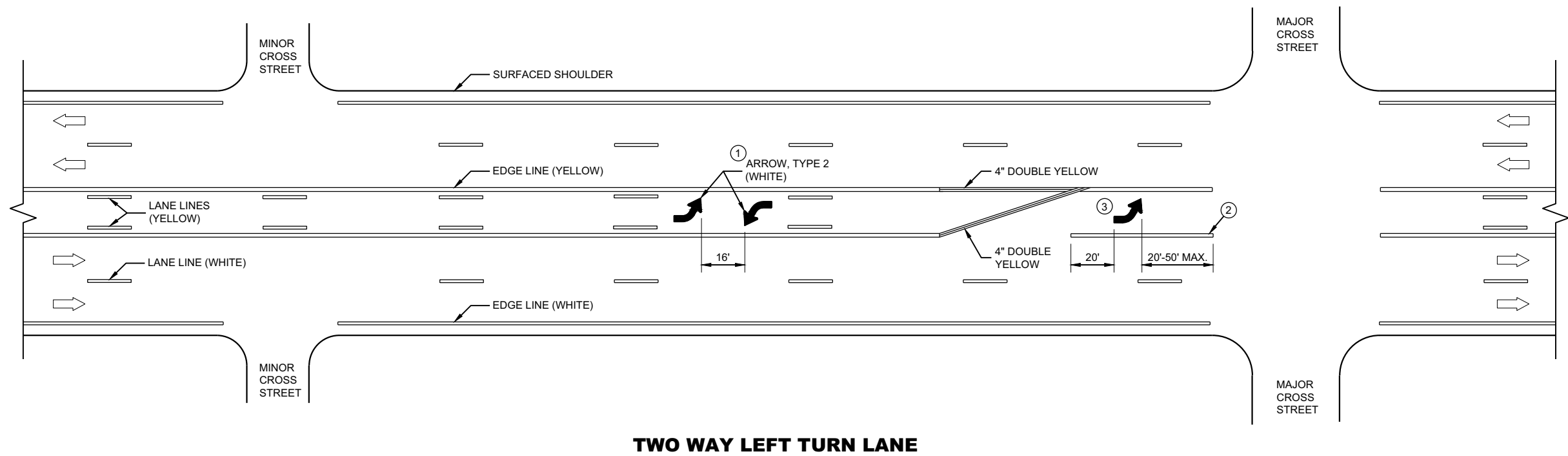


LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
February 2020 /S/ Matthew Rauch  
DATE STATEWIDE SIGNING AND N  
ENGINEER 150

FHWA



**GENERAL NOTES**

- ① A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
- ② 8" WHITE
- ③ TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

➡ DIRECTION OF TRAFFIC

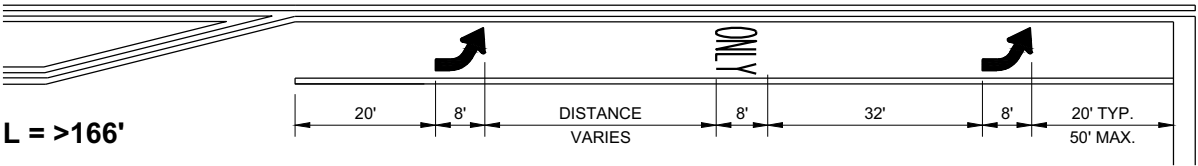
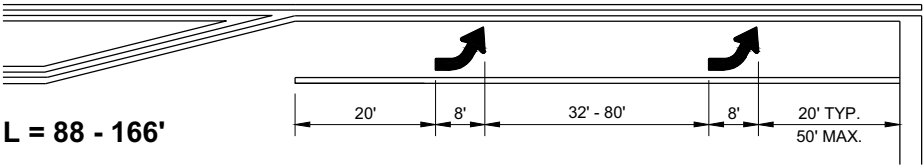
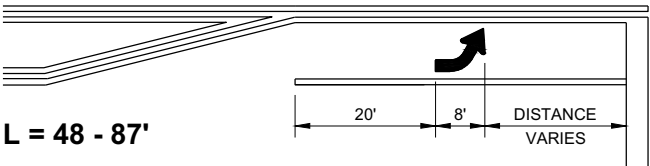
**PAVEMENT MARKING  
(TURN LANES)**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION 151



TURN LANE OPTIONS

LENGTH OF TURN BAY ( **L** ) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



\*(SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

GENERAL NOTES

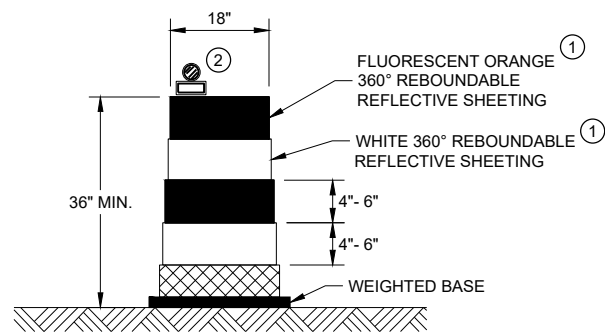
- ① 8" WHITE
- ② QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

➡ DIRECTION OF TRAFFIC

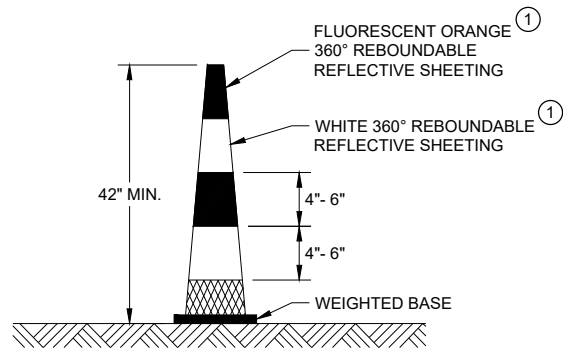
**L** = LENGTH OF TURN BAY

PAVEMENT MARKING  
(TURN LANES)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION 152

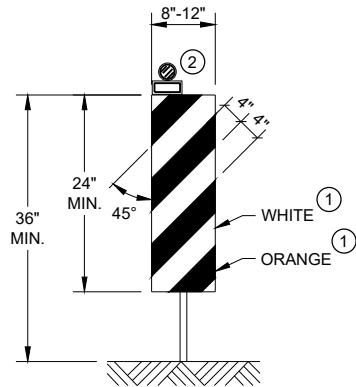


DRUM



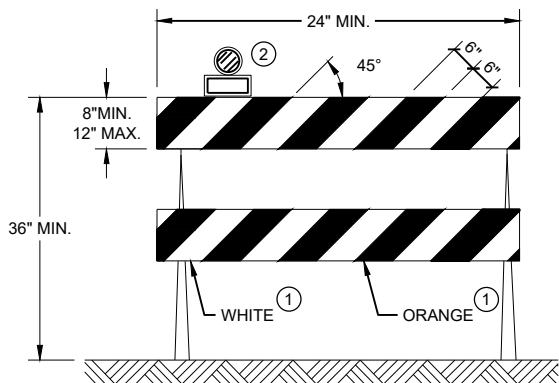
42" CONE

DO NOT USE IN TAPERS  
½ SPACING OF DRUMS



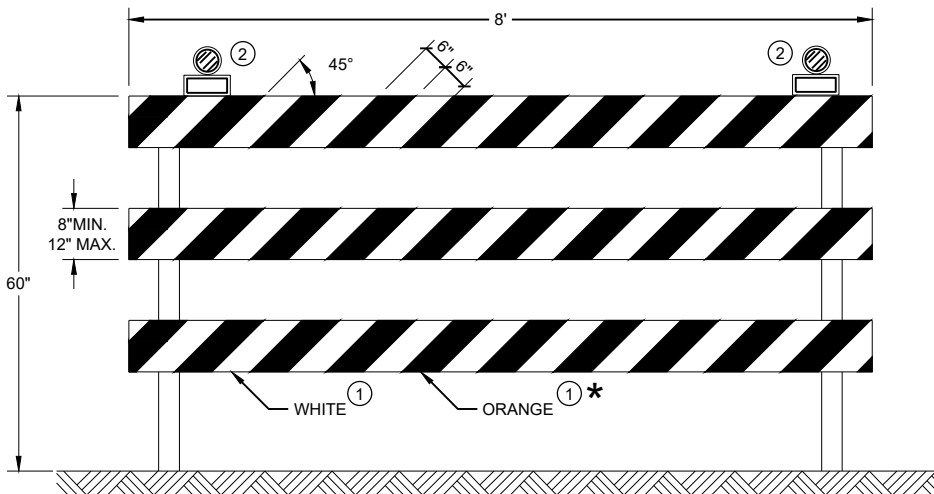
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III 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.

GENERAL NOTES

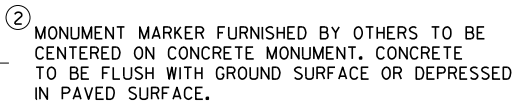
- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

CHANNELIZING DEVICES  
DRUMS, CONES, BARRICADES  
AND VERTICAL PANELS

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
May 2021 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER 153  
FHWA

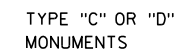




## PRECAST



(INCLUDES MARKER)



(APPROXIMATE WEIGHT 2 LBS)  
(FOR CONCRETE PAVEMENT ONLY)



(APPROXIMATE WEIGHT 95 LBS)

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.

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

PERMANENT MAGNETS SHALL BE INSERTED NEAR THE TOP AND BOTTOM OF ALL ALUMINUM MONUMENTS SO THE MONUMENT CAN EASILY BE DETECTED BY A METAL DETECTOR.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

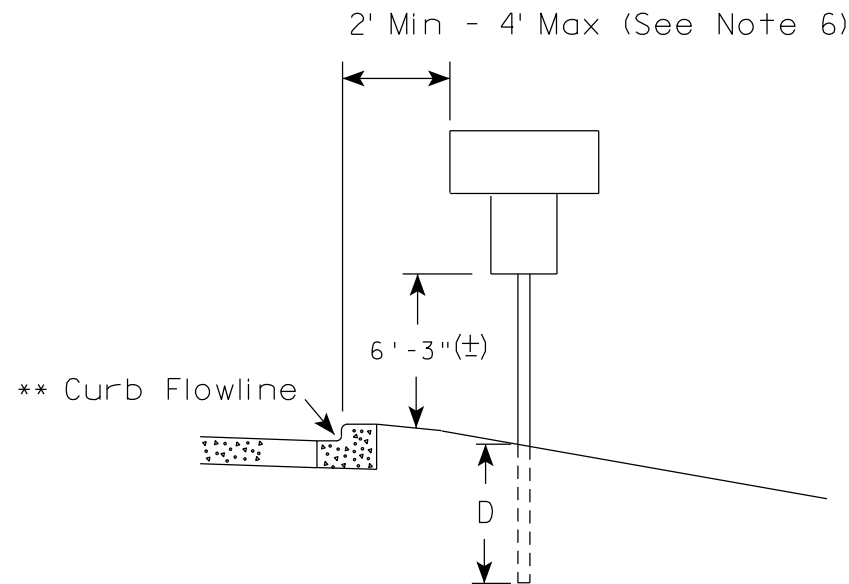
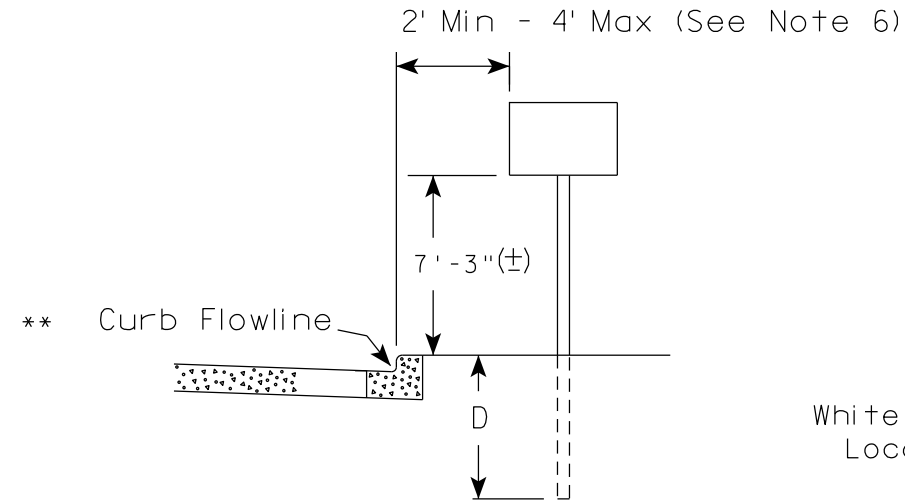
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER

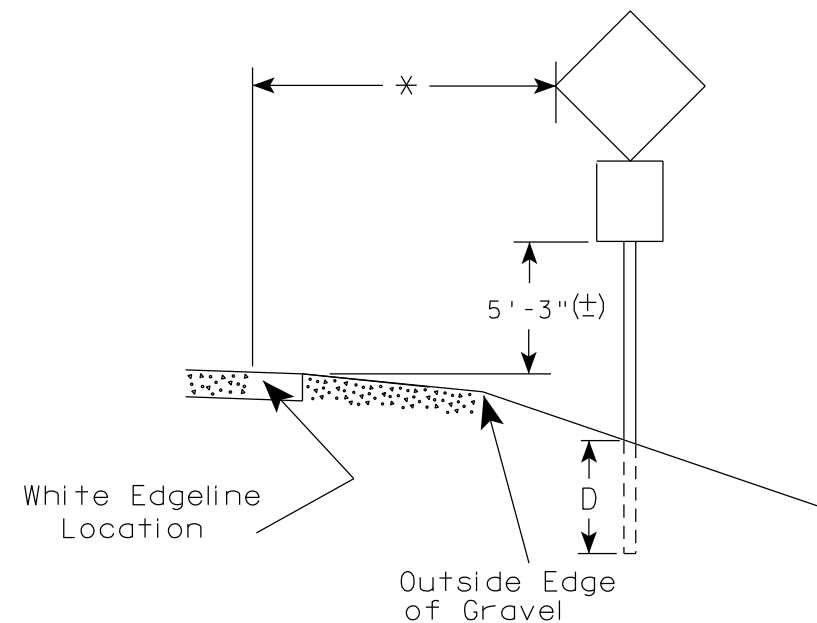
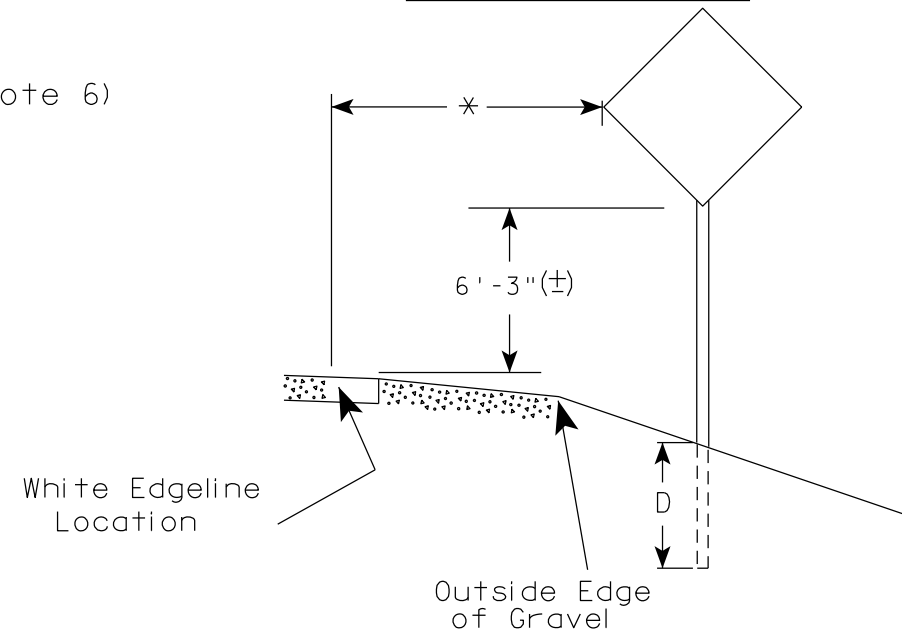
- ① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.
- ② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.

## 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

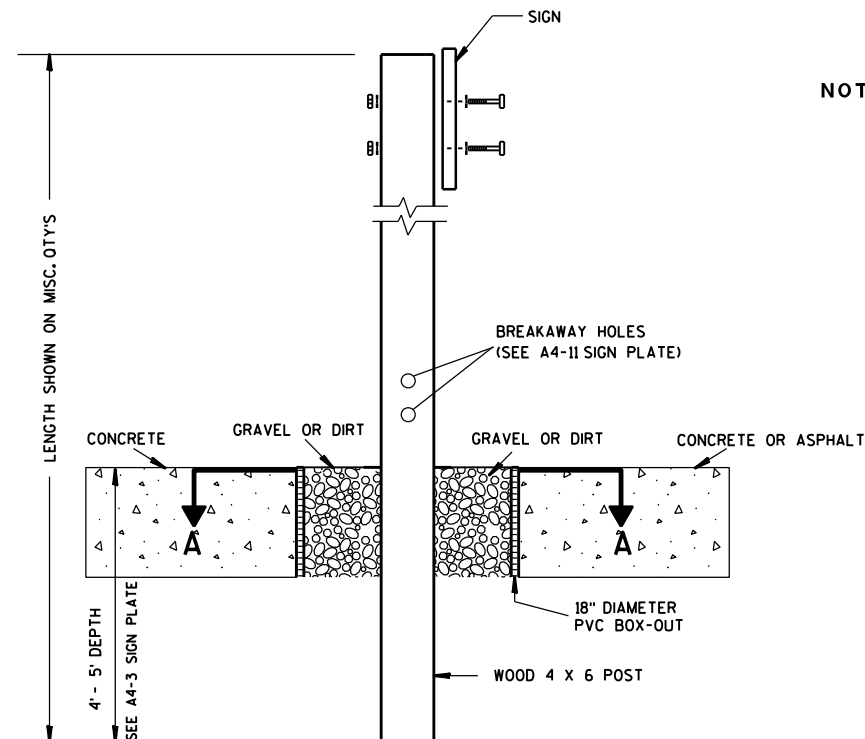
- Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
- If signs are mounted on or behind barrier wall, see A4-10 sign plate.  
The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (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" (±).
- For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
- Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
- Offset distance shall be consistent with existing signs or consistent throughout length of project.
- The (±) tolerance for mounting height is 3 inches.
- Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.

### TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

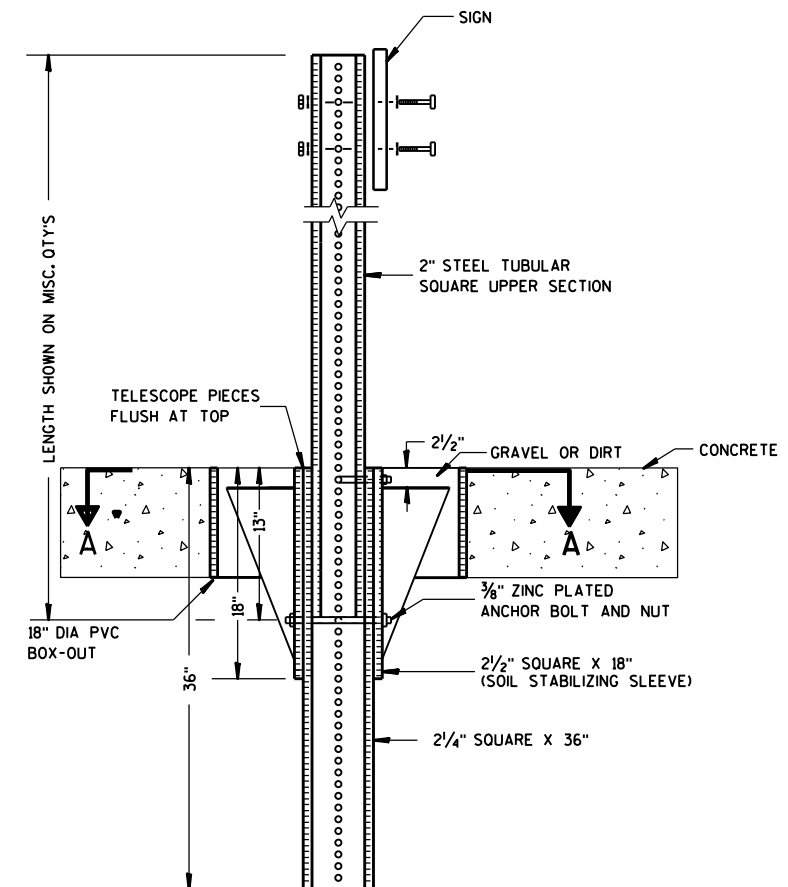
DATE 5/13/2020 PLATE NO. A4-3.22



### ELEVATION VIEW

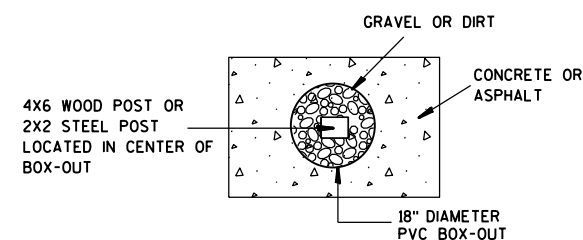
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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 PLAT 156 A4-3B.1

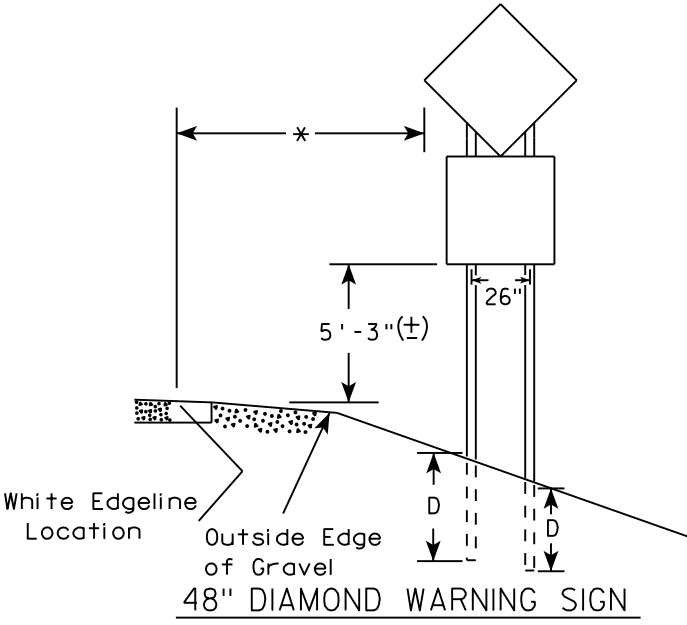
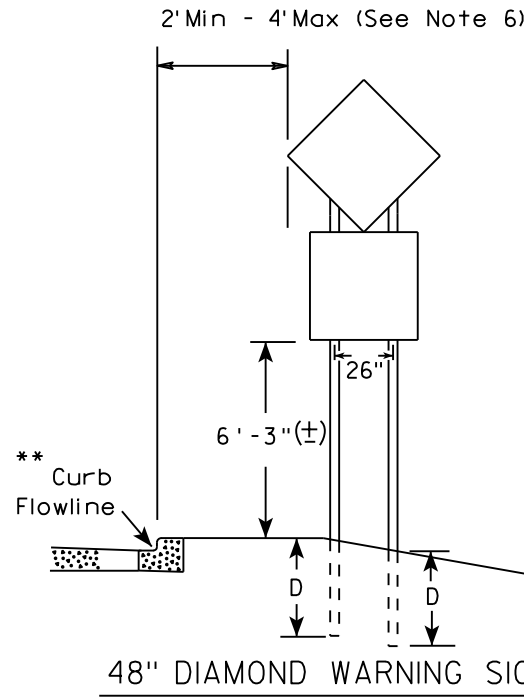
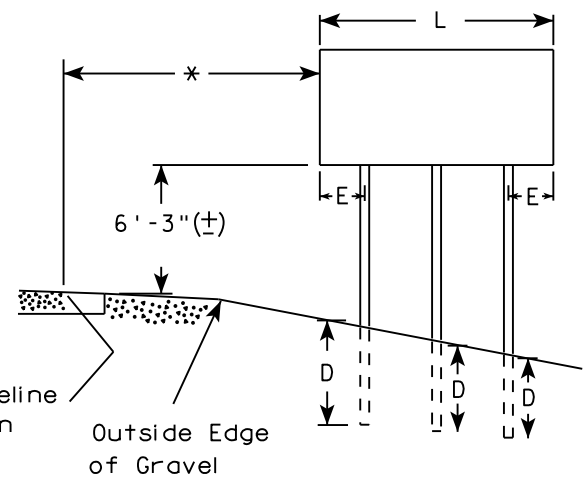
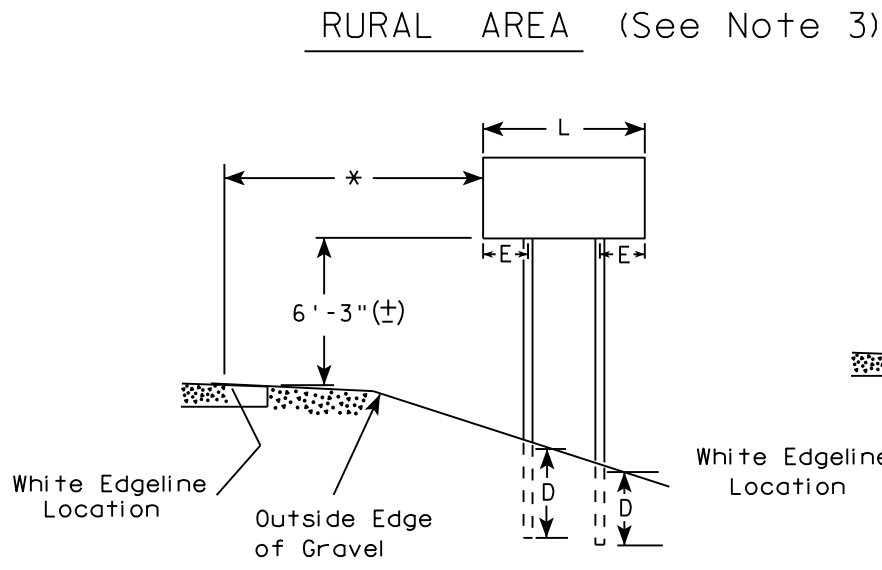
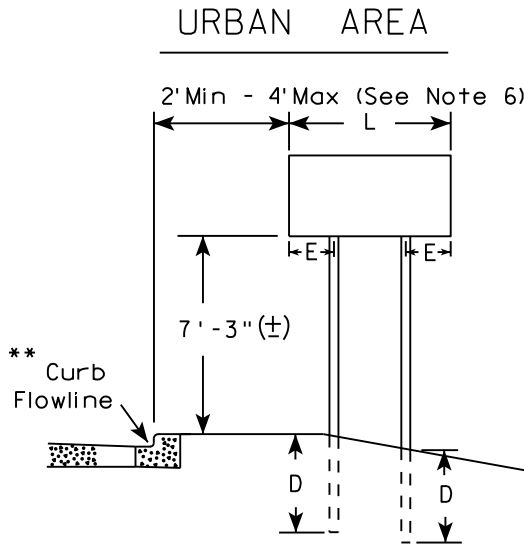
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



- 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.

\*\*\*

| 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

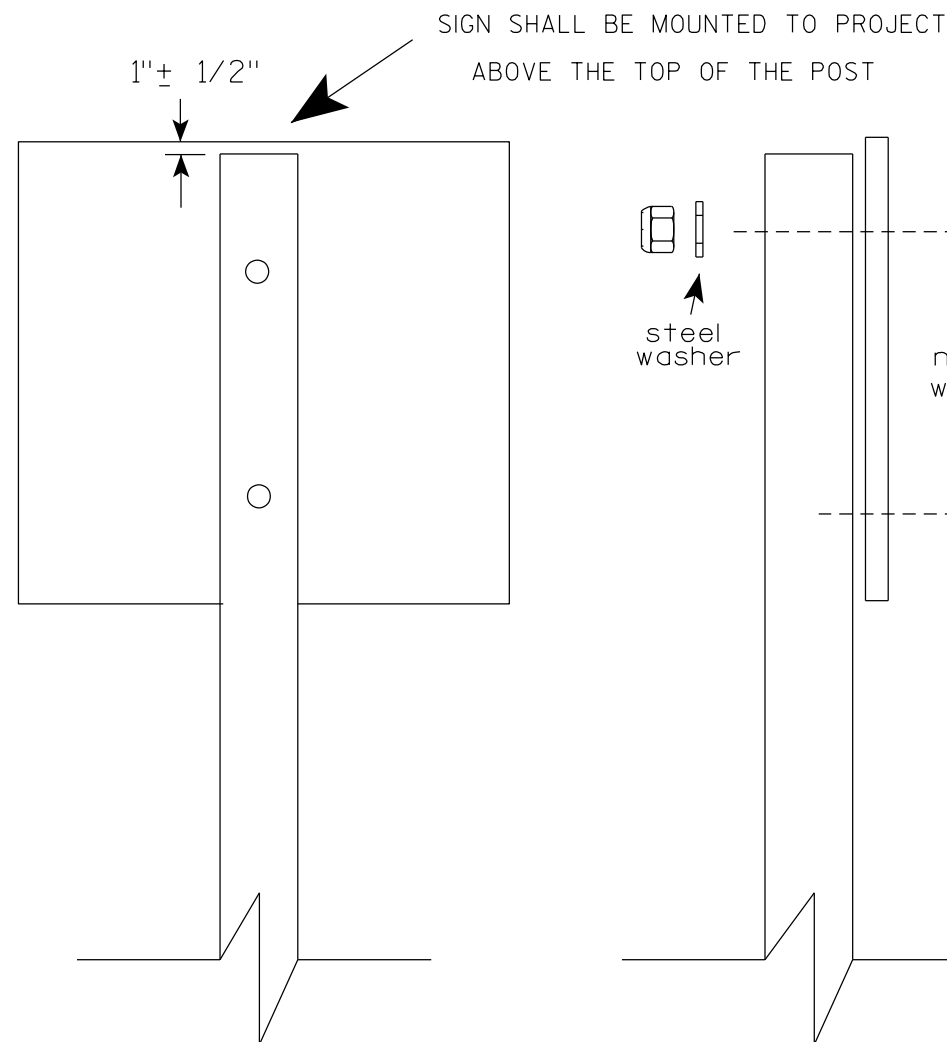
| Area of Sign<br>Installation<br>( Sq. Ft. ) | D<br>( Min ) |
|---------------------------------------------|--------------|
| 20 or Less                                  | 4'           |
| Greater than 20                             | 5'           |

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



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.

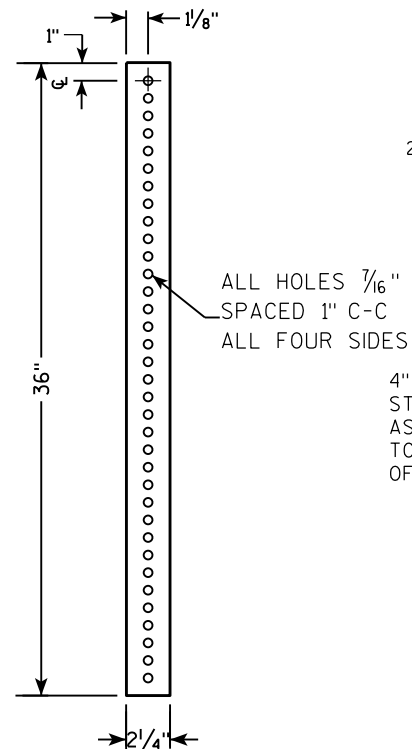
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS -  $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS -  $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)  
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS -  $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)  
 $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS -  $\frac{9}{32}$ " (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  $\frac{3}{8}$ " I.D. X  $\frac{1}{16}$ " STEEL
  - 1-1/4" O.D. X  $\frac{3}{8}$ " I.D. X .080 NYLON

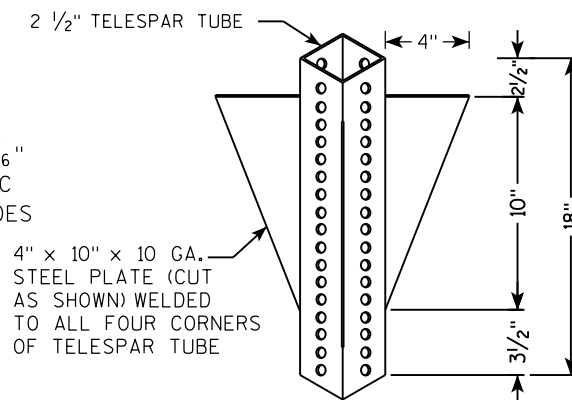
\* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

|                                  |                                                       |
|----------------------------------|-------------------------------------------------------|
| ATTACHMENT OF SIGNS<br>TO POSTS  |                                                       |
| WISCONSIN DEPT OF TRANSPORTATION |                                                       |
| APPROVED                         | <i>Matthew R. Rauch</i><br>For State Traffic Engineer |
| DATE 4/1/2020                    | PLATE NO. A4-8.9                                      |

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



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



LENGTH SHOWN ON MISC. QTY'S

18" DIA SCHEDULE 40 PVC BOX-OUT

TELESCOPE PIECES FLUSH AT TOP

2" STEEL TUBULAR SQUARE UPPER SECTION

ALL HOLES  $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES

$\frac{3}{8}$ " ZINC PLATED CORNER ANCHOR BOLT AND NUT

2 1/2" GRAVEL OR DIRT

$\frac{3}{8}$ " ZINC PLATED ANCHOR BOLT AND NUT

2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)

2 1/4" SQUARE X 36"

SIGN

SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL

36"

18"

13"

18"

LENGTH SHOWN ON MISC. QTY'S

TELESCOPE PIECES FLUSH AT TOP

2" STEEL TUBULAR SQUARE UPPER SECTION

ALL HOLES  $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES

$\frac{3}{8}$ " ZINC PLATED CORNER ANCHOR BOLT AND NUT

1"

$\frac{3}{8}$ " ZINC PLATED ANCHOR BOLT AND NUT

2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)

2 1/4" SQUARE X 36"

SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL

SIGN

DIRECTION  
OF TRAFFIC

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                        |

TUBULAR STEEL  
SIGN POST  
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

DATE 2/05/15 PLATI 159 14-9.9

SHEET NO: E

PROJECT NO:

HWY:

COUNTY:

FILE NAME : C:\CAEFiles\Projects\tr\_stdplate\A49.DGN

PLOT DATE : 05-FEB-2015 17:09

PLOT BY : mscs\_ja

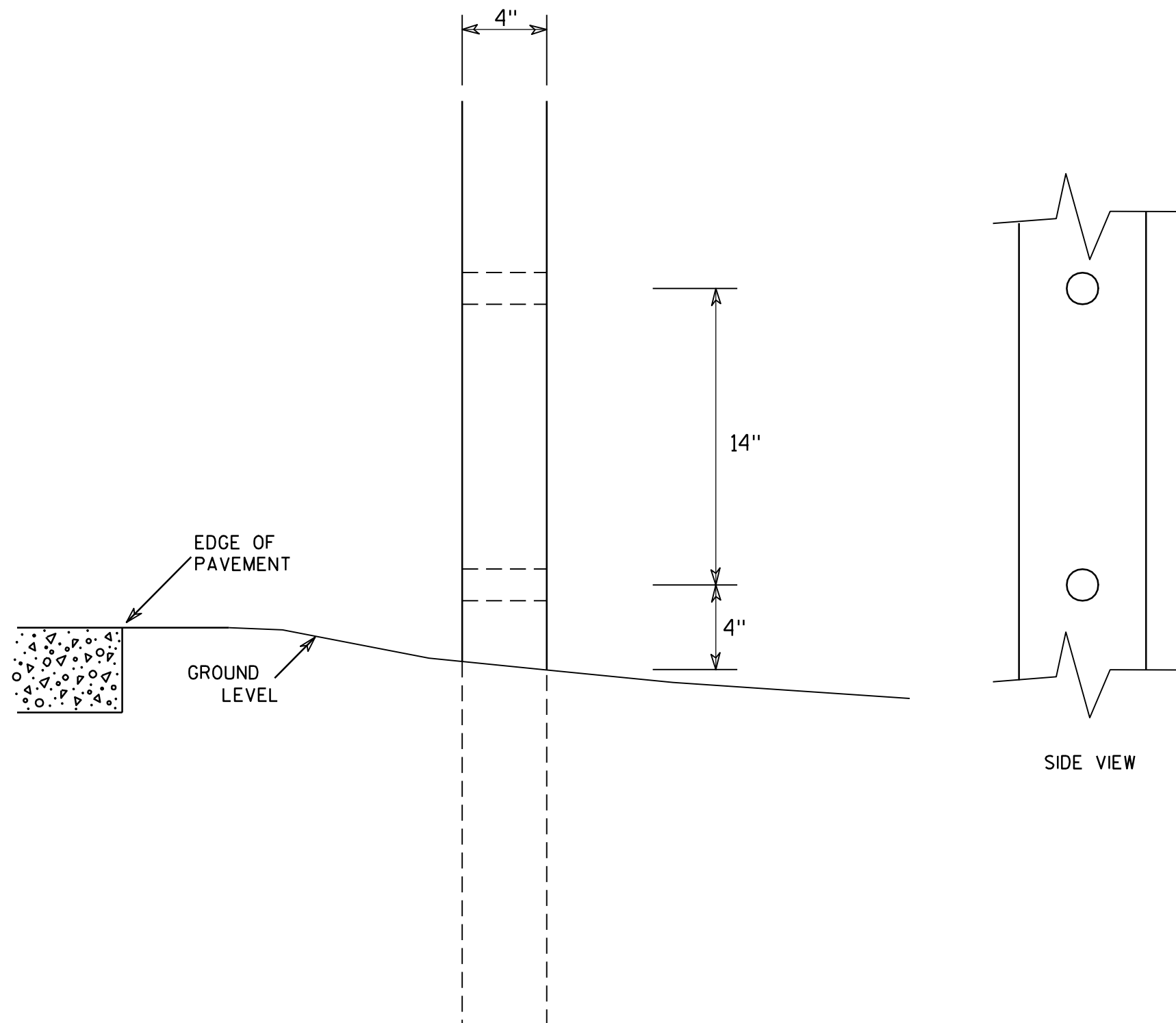
PLOT NAME :

PLOT SCALE : 13.659812:1.000000

WISDOT/CADDS SHEET 42



7



### GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

### 4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

*Chester J. Spang*  
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

HWY:

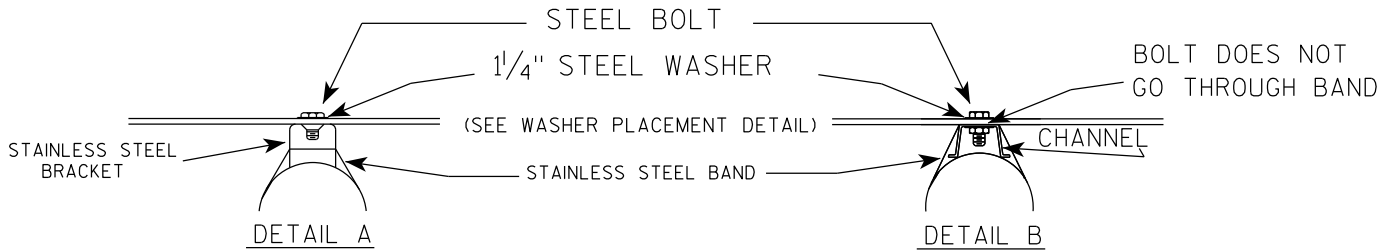
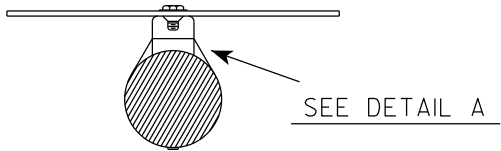
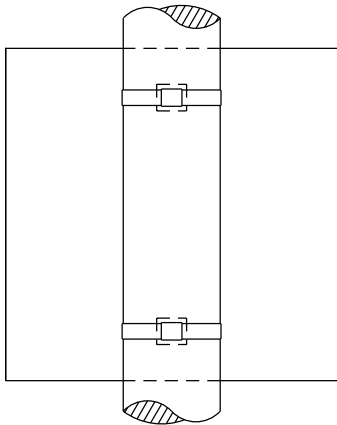
COUNTY:

SHEET NO: 160

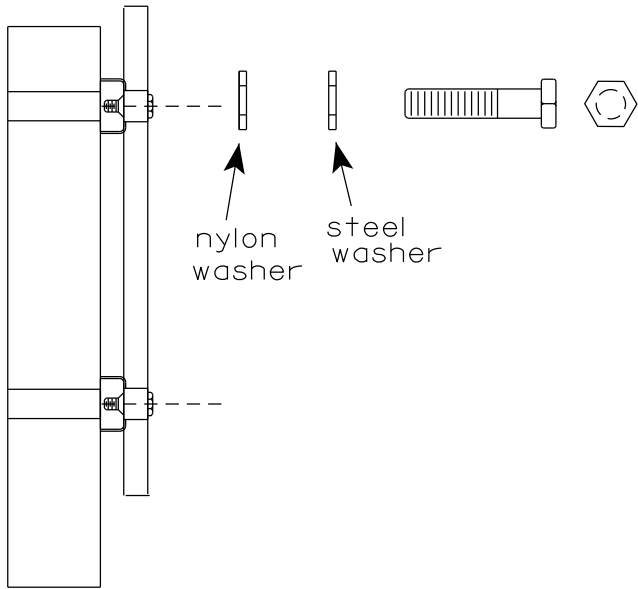
E

BANDING

SINGLE SIGN



WASHER PLACEMENT

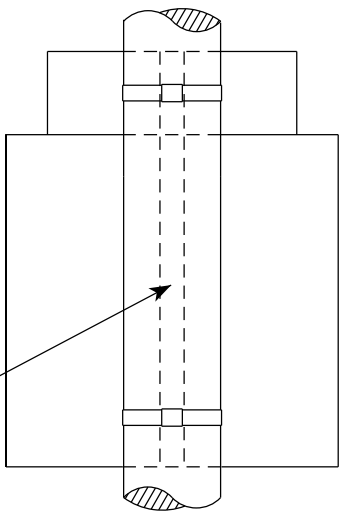


WASHERS (ALL POSTS) -  
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL  
1-1/4" O.D. X 3/8" I.D. X .080 NYLON  
FOR ALL TYPE H SIGNS

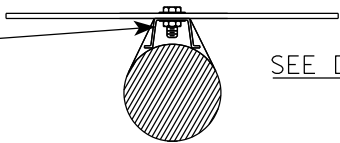
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
  - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
  - b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



CHANNEL  
SEE TYPICAL PANEL  
INSTALLATION SHEET



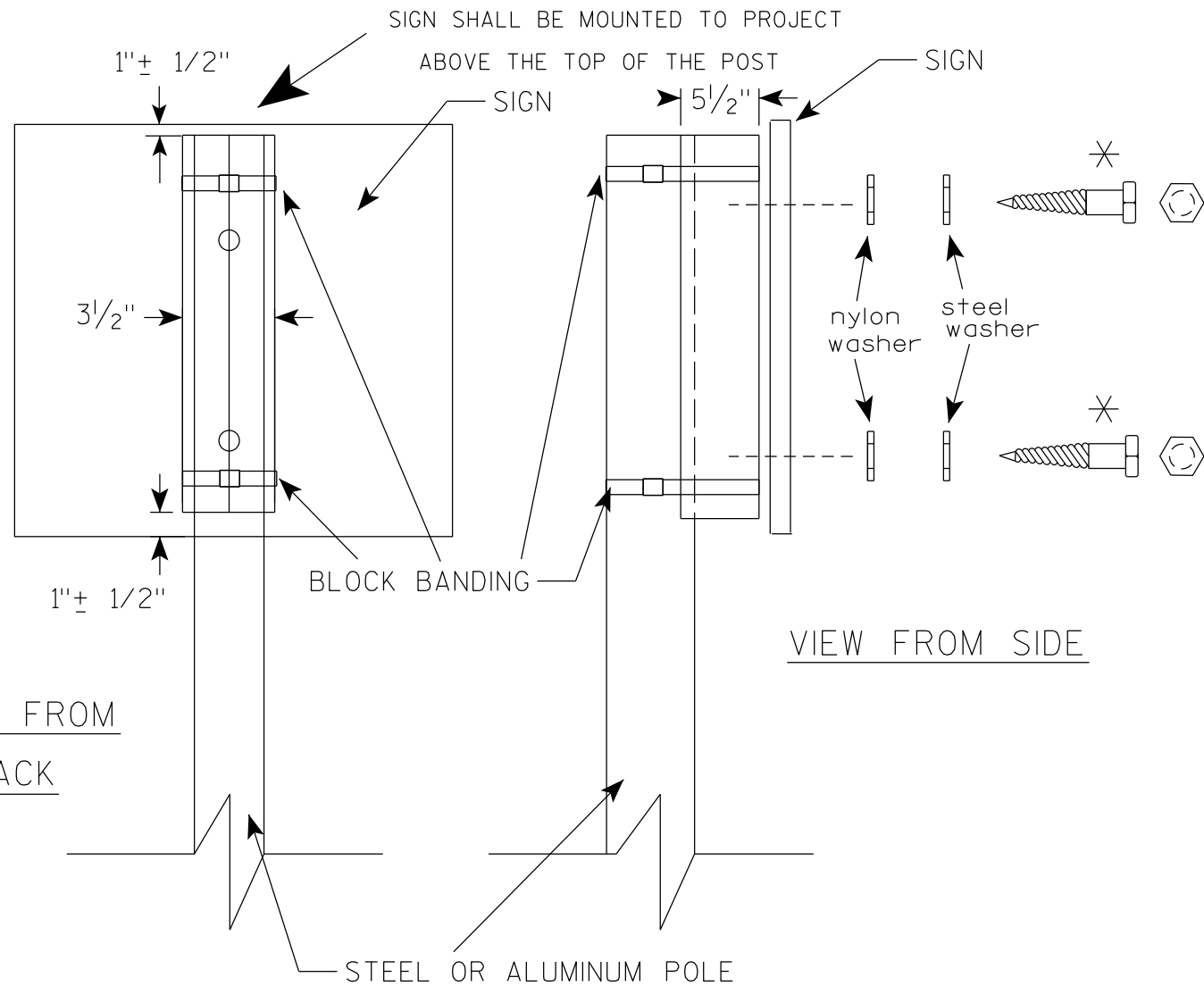
STANDARD SIGN  
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

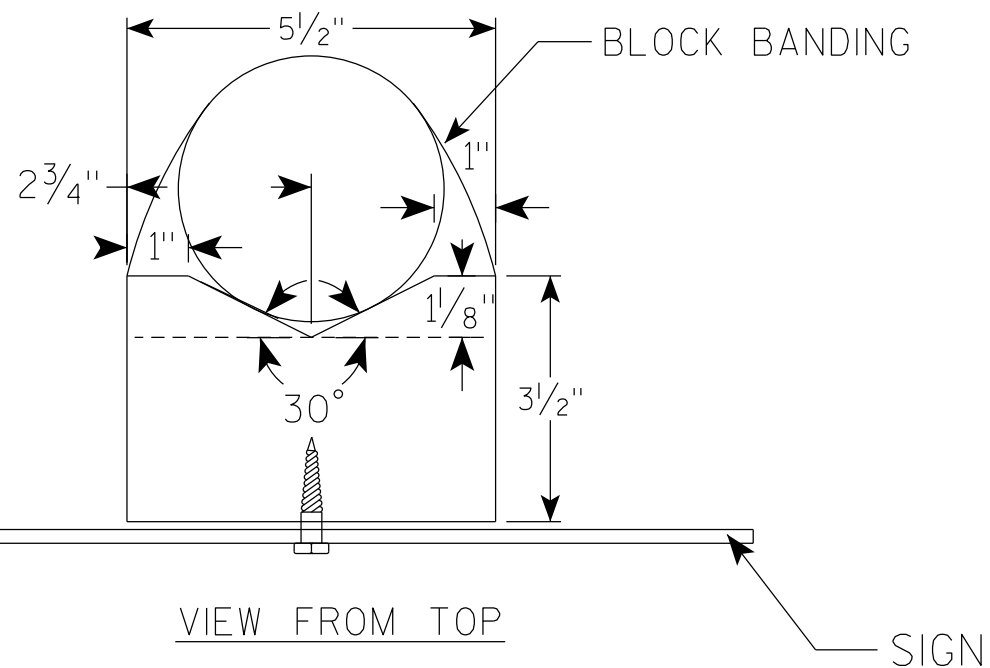
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer  
DATE 6/10/19 PLATE NO. A5-9.4



VIEW FROM  
BACK



VIEW FROM SIDE



## 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,  $\frac{3}{4}$ " 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
  - b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE  $1\frac{1}{4}$ " O.D. X  $\frac{3}{8}$ " I.D. X  $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE  $1\frac{1}{4}$ " O.D. X  $\frac{3}{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE  $\frac{3}{8}$ " X  $2\frac{1}{2}$ "

BLOCK BANDING DETAIL  
( V-BLOCK OPTION )

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R. Rauch  
for State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-10.2

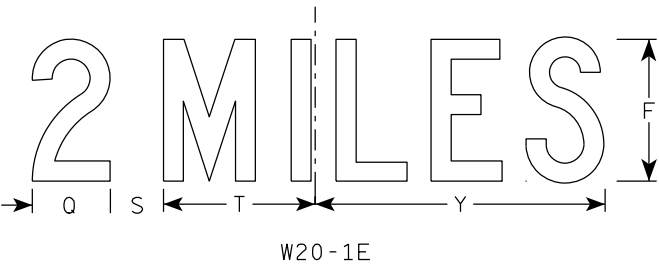
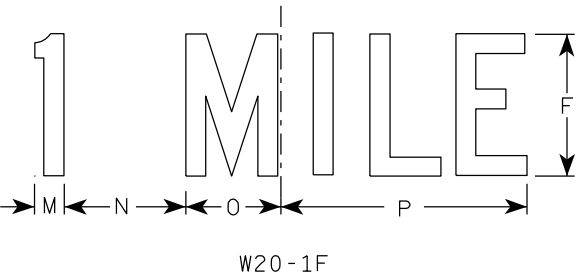
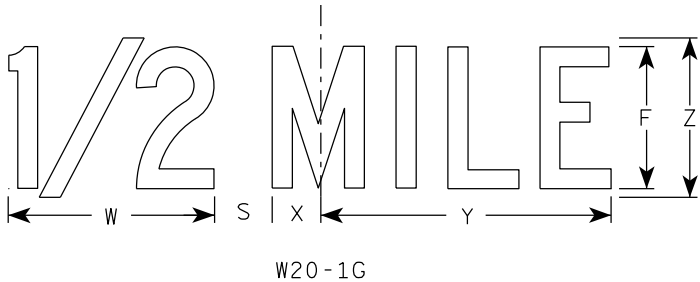
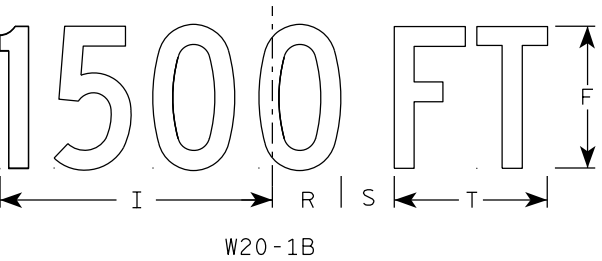
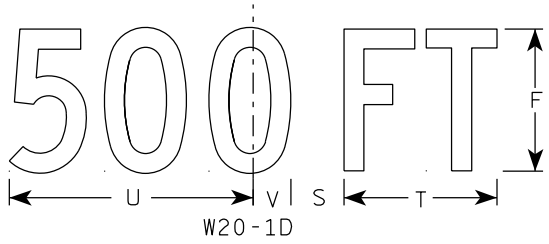
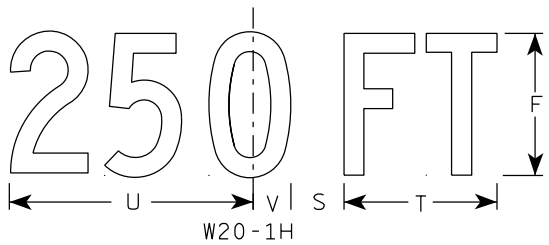
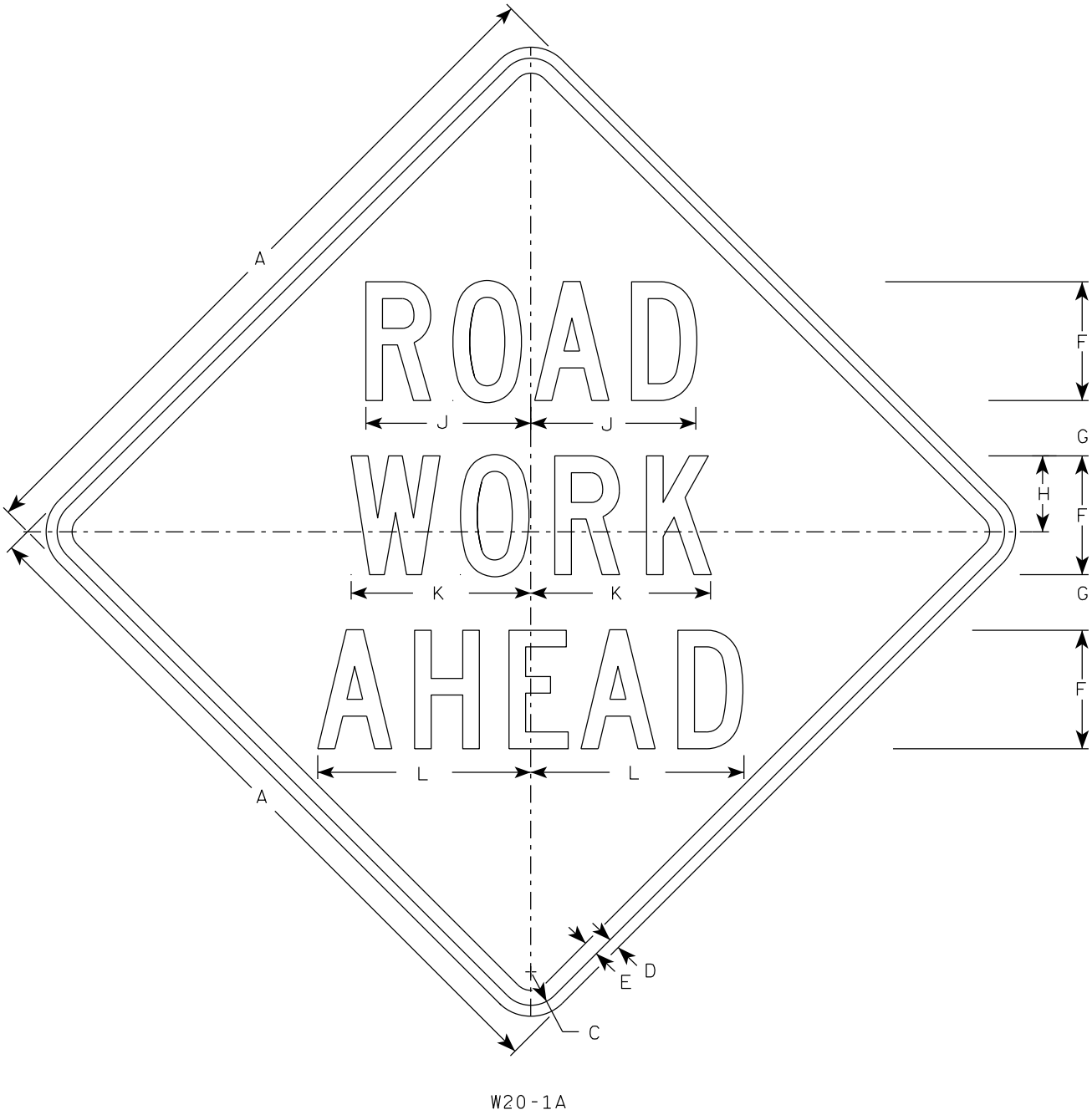
PROJECT NO:

SHEET NO: 162

E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:  
Background - Orange  
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



| SIZE | A  | B | C     | D   | E   | F | G     | H     | I      | J      | K      | L      | M     | N     | O     | P      | Q     | R     | S     | T     | U      | V     | W      | X     | Y      | Z | A <sub>req</sub><br>sq. ft. |
|------|----|---|-------|-----|-----|---|-------|-------|--------|--------|--------|--------|-------|-------|-------|--------|-------|-------|-------|-------|--------|-------|--------|-------|--------|---|-----------------------------|
| 1    | 36 |   | 1 5/8 | 5/8 | 3/4 | 5 | 2 5/8 | 3 1/4 | 10 1/8 | 7      | 7 5/8  | 8 7/8  | 1 1/8 | 4 1/2 | 3 1/2 | 9      | 3 1/4 | 2 1/2 | 2 1/4 | 5 5/8 | 9      | 1 3/8 | 8      | 1 3/4 | 10 3/4 | 6 | 9.0                         |
| 2S   | 48 |   | 2 1/4 | 3/4 | 1   | 8 | 3 3/4 | 5 1/8 | 15 3/8 | 11 1/8 | 12 1/8 | 14 3/8 | 1 5/8 | 6 7/8 | 5 3/8 | 13 7/8 | 4 3/8 | 3 7/8 | 3     | 8 5/8 | 13 3/4 | 2 1/8 | 11 7/8 | 2 3/4 | 16 3/8 | 9 | 16.0                        |
| 2M   | 48 |   | 2 1/4 | 3/4 | 1   | 8 | 3 3/4 | 5 1/8 | 15 3/8 | 11 1/8 | 12 1/8 | 14 3/8 | 1 5/8 | 6 7/8 | 5 3/8 | 13 7/8 | 4 3/8 | 3 7/8 | 3     | 8 5/8 | 13 3/4 | 2 1/8 | 11 7/8 | 2 3/4 | 16 3/8 | 9 | 16.0                        |
| 3    | 48 |   | 2 1/4 | 3/4 | 1   | 8 | 3 3/4 | 5 1/8 | 15 3/8 | 11 1/8 | 12 1/8 | 14 3/8 | 1 5/8 | 6 7/8 | 5 3/8 | 13 7/8 | 4 3/8 | 3 7/8 | 3     | 8 5/8 | 13 3/4 | 2 1/8 | 11 7/8 | 2 3/4 | 16 3/8 | 9 | 16.0                        |
| 4    | 48 |   | 2 1/4 | 3/4 | 1   | 8 | 3 3/4 | 5 1/8 | 15 3/8 | 11 1/8 | 12 1/8 | 14 3/8 | 1 5/8 | 6 7/8 | 5 3/8 | 13 7/8 | 4 3/8 | 3 7/8 | 3     | 8 5/8 | 13 3/4 | 2 1/8 | 11 7/8 | 2 3/4 | 16 3/8 | 9 | 16.0                        |
| 5    | 48 |   | 2 1/4 | 3/4 | 1   | 8 | 3 3/4 | 5 1/8 | 15 3/8 | 11 1/8 | 12 1/8 | 14 3/8 | 1 5/8 | 6 7/8 | 5 3/8 | 13 7/8 | 4 3/8 | 3 7/8 | 3     | 8 5/8 | 13 3/4 | 2 1/8 | 11 7/8 | 2 3/4 | 16 3/8 | 9 | 16.0                        |

STANDARD SIGN  
W20-1A, B, C, D, E, F, G & H

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 3/25/2020 PLATE NO. W20-1.11

| EARTHWORK - MARLEY STREET  |                                |                                  |                                                             |                                                                                                                                                                                                  |                     |                    |                                   |                                  |      |                          |                     |              |                       |                                    |                                                        |                                                           |                                                              |                                                               |                                |               |  |   |
|----------------------------|--------------------------------|----------------------------------|-------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------|-----------------------------------|----------------------------------|------|--------------------------|---------------------|--------------|-----------------------|------------------------------------|--------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------|--------------------------------|---------------|--|---|
| STATION                    | AREA (SF)                      |                                  |                                                             |                                                                                                                                                                                                  |                     |                    | Incremental Vol (CY) (Unadjusted) |                                  |      |                          |                     |              | Cumulative Vol (CY)   |                                    |                                                        |                                                           |                                                              |                                                               | Mass<br>Ordinate<br><br>Note 8 |               |  |   |
|                            | Cut                            | Unusable<br>Pavement<br>Material | Fill                                                        | Select<br>Borrow<br>Fill                                                                                                                                                                         | Salvaged<br>Topsoil | Marsh<br>Exc       | Cut                               | Unusable<br>Pavement<br>Material | Fill | Select<br>Borrow<br>Fill | Salvaged<br>Topsoil | Marsh<br>Exc | Cut<br>1.00<br>Note 1 | Expanded<br>Fill<br>1.43<br>Note 3 | Expanded<br>Select Borrow<br>Backfill<br>1.2<br>Note 4 | Expanded<br>Salvaged Topsoil<br>Backfill<br>1.2<br>Note 5 | Expanded<br>Marsh Backfill<br>Select Borrow<br>1.5<br>Note 7 | Expanded<br>Marsh Backfill<br>Select Crushed<br>1.1<br>Note 7 |                                |               |  |   |
|                            |                                |                                  |                                                             |                                                                                                                                                                                                  |                     |                    |                                   |                                  |      |                          |                     |              |                       |                                    |                                                        |                                                           |                                                              |                                                               |                                |               |  |   |
|                            |                                |                                  |                                                             |                                                                                                                                                                                                  |                     |                    |                                   |                                  |      |                          |                     |              |                       |                                    |                                                        |                                                           |                                                              |                                                               |                                |               |  |   |
| 64+25                      | 4.0                            | 0.0                              | 0.2                                                         | 0.0                                                                                                                                                                                              | 0.0                 | 0.0                | 0                                 | 0                                | 0    | 0                        | 0                   | 0            | 0                     | 0                                  | 0                                                      | 0                                                         | 0                                                            | 0                                                             | 0                              |               |  |   |
| 64+50                      | 21.1                           | 0.0                              | 0.0                                                         | 0.0                                                                                                                                                                                              | 0.0                 | 0.0                | 12                                | 0                                | 0    | 0                        | 0                   | 0            | 12                    | 0                                  | 0                                                      | 0                                                         | 0                                                            | 0                                                             | 11                             |               |  |   |
| 64+75                      | 10.6                           | 0.0                              | 0.0                                                         | 0.0                                                                                                                                                                                              | 0.0                 | 0.0                | 15                                | 0                                | 0    | 0                        | 0                   | 0            | 26                    | 0                                  | 0                                                      | 0                                                         | 0                                                            | 0                                                             | 26                             |               |  |   |
| 65+00                      | 12.9                           | 0.0                              | 0.0                                                         | 0.0                                                                                                                                                                                              | 0.0                 | 0.0                | 11                                | 0                                | 0    | 0                        | 0                   | 0            | 37                    | 0                                  | 0                                                      | 0                                                         | 0                                                            | 0                                                             | 37                             |               |  |   |
| BEGIN PROJECT              |                                |                                  |                                                             |                                                                                                                                                                                                  |                     |                    |                                   |                                  |      |                          |                     |              |                       |                                    |                                                        |                                                           |                                                              |                                                               |                                |               |  |   |
| 65+25                      | 157.8                          | 0.0                              | 0.1                                                         | 5.7                                                                                                                                                                                              | 0.0                 | 33.5               | 79                                | 0                                | 0    | 3                        | 0                   | 16           | 37                    | 0                                  | 0                                                      | 0                                                         | 0                                                            | 0                                                             | 116                            |               |  |   |
| 65+50                      | 169.1                          | 0.0                              | 0.0                                                         | 0.6                                                                                                                                                                                              | 0.0                 | 30.8               | 151                               | 0                                | 0    | 3                        | 0                   | 30           | 188                   | 0                                  | 3                                                      | 0                                                         | 31                                                           | 0                                                             | 267                            |               |  |   |
| 65+75                      | 156.2                          | 0.0                              | 0.0                                                         | 2.0                                                                                                                                                                                              | 0.0                 | 26.5               | 151                               | 0                                | 0    | 1                        | 0                   | 27           | 339                   | 0                                  | 5                                                      | 0                                                         | 71                                                           | 0                                                             | 418                            |               |  |   |
| 66+00                      | 132.3                          | 0.0                              | 0.6                                                         | 7.5                                                                                                                                                                                              | 0.0                 | 26.4               | 134                               | 0                                | 0    | 4                        | 0                   | 24           | 472                   | 1                                  | 10                                                     | 0                                                         | 106                                                          | 0                                                             | 551                            |               |  |   |
| 66+25                      | 129.1                          | 0.0                              | 0.3                                                         | 7.4                                                                                                                                                                                              | 0.0                 | 25.9               | 121                               | 0                                | 0    | 7                        | 0                   | 24           | 593                   | 1                                  | 18                                                     | 0                                                         | 140                                                          | 0                                                             | 671                            |               |  |   |
| 66+50                      | 123.2                          | 0.0                              | 1.1                                                         | 8.6                                                                                                                                                                                              | 0.0                 | 24.8               | 117                               | 0                                | 1    | 7                        | 0                   | 23           | 710                   | 2                                  | 27                                                     | 0                                                         | 173                                                          | 0                                                             | 787                            |               |  |   |
| 66+75                      | 114.4                          | 0.0                              | 3.8                                                         | 15.0                                                                                                                                                                                             | 0.0                 | 24.4               | 110                               | 0                                | 2    | 11                       | 0                   | 23           | 820                   | 5                                  | 40                                                     | 0                                                         | 205                                                          | 0                                                             | 894                            |               |  |   |
| 67+00                      | 111.7                          | 0.0                              | 5.1                                                         | 18.2                                                                                                                                                                                             | 0.0                 | 23.7               | 105                               | 0                                | 4    | 15                       | 0                   | 22           | 925                   | 11                                 | 59                                                     | 0                                                         | 236                                                          | 0                                                             | 993                            |               |  |   |
| 67+25                      | 140.1                          | 0.0                              | 5.1                                                         | 10.0                                                                                                                                                                                             | 0.0                 | 23.8               | 117                               | 0                                | 5    | 13                       | 0                   | 22           | 1,041                 | 18                                 | 75                                                     | 0                                                         | 267                                                          | 0                                                             | 1,102                          |               |  |   |
| 67+50                      | 109.7                          | 0.0                              | 6.3                                                         | 17.4                                                                                                                                                                                             | 0.0                 | 23.0               | 116                               | 0                                | 5    | 13                       | 0                   | 22           | 1,157                 | 26                                 | 90                                                     | 0                                                         | 297                                                          | 0                                                             | 1,211                          |               |  |   |
| 67+75                      | 108.5                          | 0.0                              | 11.1                                                        | 20.4                                                                                                                                                                                             | 0.0                 | 21.6               | 101                               | 0                                | 8    | 18                       | 0                   | 21           | 1,258                 | 37                                 | 111                                                    | 0                                                         | 327                                                          | 0                                                             | 1,300                          |               |  |   |
| 68+00                      | 104.4                          | 0.0                              | 11.9                                                        | 22.8                                                                                                                                                                                             | 0.0                 | 21.4               | 99                                | 0                                | 11   | 20                       | 0                   | 20           | 1,356                 | 52                                 | 135                                                    | 0                                                         | 355                                                          | 0                                                             | 1,383                          |               |  |   |
| 68+25                      | 102.6                          | 0.0                              | 10.3                                                        | 22.2                                                                                                                                                                                             | 0.0                 | 21.3               | 96                                | 0                                | 10   | 21                       | 0                   | 20           | 1,452                 | 67                                 | 160                                                    | 0                                                         | 382                                                          | 0                                                             | 1,464                          |               |  |   |
| 68+50                      | 103.2                          | 0.0                              | 10.5                                                        | 24.4                                                                                                                                                                                             | 0.0                 | 21.1               | 95                                | 0                                | 10   | 22                       | 0                   | 20           | 1,547                 | 81                                 | 186                                                    | 0                                                         | 410                                                          | 0                                                             | 1,546                          |               |  |   |
| 68+75                      | 131.5                          | 0.0                              | 10.6                                                        | 24.9                                                                                                                                                                                             | 0.0                 | 21.1               | 109                               | 0                                | 10   | 23                       | 0                   | 20           | 1,656                 | 95                                 | 213                                                    | 0                                                         | 437                                                          | 0                                                             | 1,641                          |               |  |   |
| 69+00                      | 129.8                          | 0.0                              | 11.8                                                        | 26.4                                                                                                                                                                                             | 0.0                 | 21.1               | 121                               | 0                                | 10   | 24                       | 0                   | 20           | 1,777                 | 110                                | 242                                                    | 0                                                         | 464                                                          | 0                                                             | 1,747                          |               |  |   |
| 69+25                      | 145.1                          | 0.0                              | 11.4                                                        | 24.4                                                                                                                                                                                             | 0.0                 | 21.8               | 127                               | 0                                | 11   | 24                       | 0                   | 20           | 1,904                 | 125                                | 270                                                    | 0                                                         | 492                                                          | 0                                                             | 1,859                          |               |  |   |
| 69+50                      | 189.2                          | 0.0                              | 22.2                                                        | 0.0                                                                                                                                                                                              | 0.0                 | 21.0               | 155                               | 0                                | 16   | 11                       | 0                   | 20           | 2,059                 | 147                                | 283                                                    | 0                                                         | 519                                                          | 0                                                             | 1,991                          |               |  |   |
| 69+75                      | 168.6                          | 0.0                              | 7.0                                                         | 15.9                                                                                                                                                                                             | 0.0                 | 24.3               | 166                               | 0                                | 14   | 7                        | 0                   | 21           | 2,225                 | 167                                | 292                                                    | 0                                                         | 547                                                          | 0                                                             | 2,138                          |               |  |   |
| 70+00                      | 180.2                          | 0.0                              | 12.6                                                        | 4.0                                                                                                                                                                                              | 0.0                 | 23.6               | 161                               | 0                                | 9    | 9                        | 0                   | 22           | 2,386                 | 179                                | 303                                                    | 0                                                         | 577                                                          | 0                                                             | 2,286                          |               |  |   |
| 70+25                      | 207.6                          | 0.0                              | 2.6                                                         | 2.2                                                                                                                                                                                              | 0.0                 | 27.1               | 180                               | 0                                | 7    | 3                        | 0                   | 23           | 2,566                 | 190                                | 307                                                    | 0                                                         | 609                                                          | 0                                                             | 2,456                          |               |  |   |
| 70+50                      | 195.3                          | 0.0                              | 1.0                                                         | 2.7                                                                                                                                                                                              | 0.0                 | 30.8               | 187                               | 0                                | 2    | 2                        | 0                   | 27           | 2,752                 | 192                                | 309                                                    | 0                                                         | 644                                                          | 0                                                             | 2,640                          |               |  |   |
| 70+75                      | 186.1                          | 0.0                              | 1.1                                                         | 3.3                                                                                                                                                                                              | 0.0                 | 0.0                | 177                               | 0                                | 1    | 3                        | 0                   | 14           | 2,929                 | 193                                | 313                                                    | 0                                                         | 672                                                          | 0                                                             | 2,815                          |               |  |   |
| 71+15                      | 182.1                          | 0.0                              | 1.4                                                         | 3.9                                                                                                                                                                                              | 0.0                 | 0.0                | 271                               | 0                                | 2    | 5                        | 0                   | 0            | 3,200                 | 196                                | 319                                                    | 0                                                         | 688                                                          | 0                                                             | 3,083                          |               |  |   |
| 71+50                      | 156.8                          | 0.0                              | 3.0                                                         | 7.5                                                                                                                                                                                              | 0.0                 | 0.0                | 222                               | 0                                | 3    | 7                        | 0                   | 0            | 3,421                 | 200                                | 328                                                    | 0                                                         | 688                                                          | 0                                                             | 3,300                          |               |  |   |
| 71+75                      | 129.0                          | 0.0                              | 1.1                                                         | 6.3                                                                                                                                                                                              | 0.0                 | 0.0                | 132                               | 0                                | 2    | 6                        | 0                   | 0            | 3,553                 | 203                                | 336                                                    | 0                                                         | 688                                                          | 0                                                             | 3,430                          |               |  |   |
| 72+00                      | 132.0                          | 0.0                              | 0.3                                                         | 5.7                                                                                                                                                                                              | 0.0                 | 0.0                | 121                               | 0                                | 1    | 6                        | 0                   | 0            | 3,674                 | 204                                | 342                                                    | 0                                                         | 688                                                          | 0                                                             | 3,550                          |               |  |   |
| 72+25                      | 194.2                          | 0.0                              | 0.0                                                         | 6.4                                                                                                                                                                                              | 0.0                 | 0.0                | 151                               | 0                                | 0    | 6                        | 0                   | 0            | 3,825                 | 204                                | 349                                                    | 0                                                         | 688                                                          | 0                                                             | 3,701                          |               |  |   |
| 72+50                      | 140.7                          | 0.0                              | 0.0                                                         | 6.1                                                                                                                                                                                              | 0.0                 | 0.0                | 155                               | 0                                | 0    | 6                        | 0                   | 0            | 3,980                 | 204                                | 356                                                    | 0                                                         | 688                                                          | 0                                                             | 3,856                          |               |  |   |
| 72+75                      | 143.3                          | 0.0                              | 8.6                                                         | 0.0                                                                                                                                                                                              | 0.0                 | 0.0                | 131                               | 0                                | 4    | 3                        | 0                   | 0            | 4,112                 | 210                                | 359                                                    | 0                                                         | 688                                                          | 0                                                             | 3,982                          |               |  |   |
| 9                          | Notes:                         |                                  |                                                             |                                                                                                                                                                                                  |                     |                    |                                   |                                  |      |                          |                     |              |                       |                                    |                                                        |                                                           |                                                              |                                                               |                                |               |  |   |
|                            | 1 - Cut                        |                                  |                                                             | Cut includes Unusable Pavement Material                                                                                                                                                          |                     |                    |                                   |                                  |      |                          |                     |              |                       |                                    |                                                        |                                                           |                                                              |                                                               |                                |               |  |   |
|                            | 2 - Unusable Pavement Material |                                  |                                                             | This does not show up in cross sections. Paid for as Item 204.0110 Removing Asphaltic Surface or 204.0100 Removing Concrete Pavement                                                             |                     |                    |                                   |                                  |      |                          |                     |              |                       |                                    |                                                        |                                                           |                                                              |                                                               |                                |               |  |   |
|                            | 3 - Fill                       |                                  |                                                             | Fill areas outside the back of sidewalk only. (See Construction Detail)                                                                                                                          |                     |                    |                                   |                                  |      |                          |                     |              |                       |                                    |                                                        |                                                           |                                                              |                                                               |                                |               |  |   |
|                            | 4 - Select Borrow Fill         |                                  |                                                             | For fill areas behind curb/under terrace and under sidewalk. Will be backfilled with Select Borrow (See Construction Detail)                                                                     |                     |                    |                                   |                                  |      |                          |                     |              |                       |                                    |                                                        |                                                           |                                                              |                                                               |                                |               |  |   |
|                            | 5 - Salvaged Topsoil           |                                  |                                                             | Area used for backfill quantity calculation only. Excavation for Salvaged Topsoil incidental to Item 625.0500 Salvaged Topsoil. Will be backfilled with Select Borrow. (See Construction Detail) |                     |                    |                                   |                                  |      |                          |                     |              |                       |                                    |                                                        |                                                           |                                                              |                                                               |                                |               |  |   |
|                            | 6 - Marsh Excavation           |                                  |                                                             | Anticipated marsh excavation areas shown in cross sections.                                                                                                                                      |                     |                    |                                   |                                  |      |                          |                     |              |                       |                                    |                                                        |                                                           |                                                              |                                                               |                                |               |  |   |
|                            | 7 - Expanded Marsh Backfill    |                                  |                                                             | Marsh Excavation under proposed roadway backfilled with Item 312.0110 Select Crushed, outside of proposed roadway backfilled with Item 208.1100 Select Borrow. (See Construction Detail)         |                     |                    |                                   |                                  |      |                          |                     |              |                       |                                    |                                                        |                                                           |                                                              |                                                               |                                |               |  |   |
| 8 - Mass Ordinate          |                                |                                  | Cut + EBS - Unsuable Pavement Material - Fill * Fill Factor |                                                                                                                                                                                                  |                     |                    |                                   |                                  |      |                          |                     |              |                       |                                    |                                                        |                                                           |                                                              |                                                               |                                |               |  |   |
| PROJECT NUMBER: 9269-00-14 |                                |                                  |                                                             |                                                                                                                                                                                                  |                     | HWY: MARLEY STREET |                                   |                                  |      | COUNTY: BROWN            |                     |              |                       | COMPUTER EARTHWORK DATA            |                                                        |                                                           |                                                              |                                                               |                                | SHEET NO: 164 |  | E |

| EARTHWORK - MARLEY STREET (CONTINUED) |           |                                  |      |                          |                     |              |                                   |                                  |      |                          |                     |              |                       |                                    |                                                        |                                                           |                                                              |                                                               |                                |
|---------------------------------------|-----------|----------------------------------|------|--------------------------|---------------------|--------------|-----------------------------------|----------------------------------|------|--------------------------|---------------------|--------------|-----------------------|------------------------------------|--------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------|--------------------------------|
| STATION                               | AREA (SF) |                                  |      |                          |                     |              | Incremental Vol (CY) (Unadjusted) |                                  |      |                          |                     |              | Cumulative Vol (CY)   |                                    |                                                        |                                                           |                                                              |                                                               | Mass<br>Ordinate<br><br>Note 8 |
|                                       | Cut       | Unusable<br>Pavement<br>Material | Fill | Select<br>Borrow<br>Fill | Salvaged<br>Topsoil | Marsh<br>Exc | Cut                               | Unusable<br>Pavement<br>Material | Fill | Select<br>Borrow<br>Fill | Salvaged<br>Topsoil | Marsh<br>Exc | Cut<br>1.00<br>Note 1 | Expanded<br>Fill<br>1.43<br>Note 3 | Expanded<br>Select Borrow<br>Backfill<br>1.2<br>Note 4 | Expanded<br>Salvaged Topsoil<br>Backfill<br>1.2<br>Note 5 | Expanded<br>Marsh Backfill<br>Select Borrow<br>1.5<br>Note 7 | Expanded<br>Marsh Backfill<br>Select Crushed<br>1.1<br>Note 7 |                                |
|                                       |           |                                  |      |                          |                     |              |                                   |                                  |      |                          |                     |              |                       |                                    |                                                        |                                                           |                                                              |                                                               |                                |
|                                       |           |                                  |      |                          |                     |              |                                   |                                  |      |                          |                     |              |                       |                                    |                                                        |                                                           |                                                              |                                                               |                                |

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| EARTHWORK - MARLEY STREET (CONTINUED) |                                         |     |                                                                                                                                                                                                  |      |                            |                    |                                         |        |                          |               |                            |        |                     |                         |          |          |          |        |                                |               |         |       |  |          |  |       |  |
|---------------------------------------|-----------------------------------------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------------------------|--------------------|-----------------------------------------|--------|--------------------------|---------------|----------------------------|--------|---------------------|-------------------------|----------|----------|----------|--------|--------------------------------|---------------|---------|-------|--|----------|--|-------|--|
| STATION                               | AREA (SF)                               |     |                                                                                                                                                                                                  |      |                            |                    | Incremental Vol (CY) (Unadjusted)       |        |                          |               |                            |        | Cumulative Vol (CY) |                         |          |          |          |        | Mass<br>Ordinate<br><br>Note 8 |               |         |       |  |          |  |       |  |
|                                       | Unusable<br>Cut<br>Pavement<br>Material |     | Select<br>Borrow<br>Fill                                                                                                                                                                         |      | Salvaged<br>Topsoil<br>Exc |                    | Unusable<br>Cut<br>Pavement<br>Material |        | Select<br>Borrow<br>Fill |               | Salvaged<br>Topsoil<br>Exc |        | Expanded            |                         | Expanded |          | Expanded |        |                                | Expanded      |         |       |  |          |  |       |  |
|                                       |                                         |     |                                                                                                                                                                                                  |      |                            |                    |                                         |        |                          |               |                            |        | Expanded            |                         | Expanded |          | Expanded |        |                                | Expanded      |         |       |  |          |  |       |  |
|                                       |                                         |     |                                                                                                                                                                                                  |      |                            |                    |                                         |        |                          |               |                            |        | Select              |                         | Borrow   |          | Salvaged |        |                                | Topsoil       |         | Marsh |  | Backfill |  | Marsh |  |
|                                       |                                         |     |                                                                                                                                                                                                  |      |                            |                    |                                         |        |                          |               |                            |        | Backfill            | Backfill                | Backfill | Backfill | Select   | Select |                                | Crushed       | Crushed |       |  |          |  |       |  |
| 1.00                                  | 1.43                                    | 1.2 | 1.2                                                                                                                                                                                              | 1.5  | 1.1                        | Note 1             | Note 3                                  | Note 4 | Note 5                   | Note 7        | Note 7                     | Note 8 |                     |                         |          |          |          |        |                                |               |         |       |  |          |  |       |  |
| 82+25                                 | 86.5                                    | 0.0 | 23.6                                                                                                                                                                                             | 14.8 | 19.0                       | 35.5               | 82                                      | 0      | 20                       | 14            | 18                         | 34     | 8,248               | 904                     | 1,251    | 864      | 688      | 77     | 7,424                          |               |         |       |  |          |  |       |  |
| 82+50                                 | 84.7                                    | 0.0 | 10.6                                                                                                                                                                                             | 29.4 | 19.5                       | 36.0               | 79                                      | 0      | 16                       | 20            | 18                         | 33     | 8,328               | 926                     | 1,275    | 885      | 688      | 77     | 7,481                          |               |         |       |  |          |  |       |  |
| 82+75                                 | 86.5                                    | 0.0 | 23.3                                                                                                                                                                                             | 14.2 | 19.3                       | 39.7               | 79                                      | 0      | 16                       | 20            | 18                         | 35     | 8,407               | 949                     | 1,300    | 907      | 688      | 77     | 7,537                          |               |         |       |  |          |  |       |  |
| 83+00                                 | 87.7                                    | 0.0 | 9.3                                                                                                                                                                                              | 27.5 | 19.5                       | 42.5               | 81                                      | 0      | 15                       | 19            | 18                         | 38     | 8,488               | 970                     | 1,323    | 928      | 688      | 77     | 7,597                          |               |         |       |  |          |  |       |  |
| 83+25                                 | 86.3                                    | 0.0 | 22.8                                                                                                                                                                                             | 14.8 | 36.0                       | 14.8               | 81                                      | 0      | 15                       | 20            | 26                         | 27     | 8,568               | 992                     | 1,346    | 959      | 688      | 77     | 7,656                          |               |         |       |  |          |  |       |  |
| 83+50                                 | 80.9                                    | 0.0 | 24.0                                                                                                                                                                                             | 18.3 | 36.3                       | 14.1               | 77                                      | 0      | 22                       | 15            | 33                         | 13     | 8,646               | 1,023                   | 1,365    | 999      | 688      | 77     | 7,702                          |               |         |       |  |          |  |       |  |
| 83+75                                 | 75.1                                    | 0.0 | 32.5                                                                                                                                                                                             | 16.4 | 37.5                       | 13.7               | 72                                      | 0      | 26                       | 16            | 34                         | 13     | 8,718               | 1,060                   | 1,384    | 1,040    | 688      | 77     | 7,737                          |               |         |       |  |          |  |       |  |
| 84+00                                 | 75.1                                    | 0.0 | 11.9                                                                                                                                                                                             | 36.5 | 36.5                       | 13.5               | 70                                      | 0      | 21                       | 24            | 34                         | 13     | 8,787               | 1,089                   | 1,413    | 1,082    | 688      | 77     | 7,777                          |               |         |       |  |          |  |       |  |
| 84+25                                 | 75.4                                    | 0.0 | 23.3                                                                                                                                                                                             | 22.8 | 35.8                       | 17.7               | 70                                      | 0      | 16                       | 27            | 33                         | 14     | 8,857               | 1,113                   | 1,446    | 1,122    | 688      | 77     | 7,824                          |               |         |       |  |          |  |       |  |
| 84+50                                 | 73.9                                    | 0.0 | 10.2                                                                                                                                                                                             | 38.1 | 35.8                       | 17.3               | 69                                      | 0      | 16                       | 28            | 33                         | 16     | 8,926               | 1,135                   | 1,480    | 1,162    | 688      | 77     | 7,871                          |               |         |       |  |          |  |       |  |
| 84+75                                 | 72.5                                    | 0.0 | 10.3                                                                                                                                                                                             | 39.6 | 36.3                       | 17.2               | 68                                      | 0      | 9                        | 36            | 33                         | 16     | 8,994               | 1,148                   | 1,523    | 1,202    | 688      | 77     | 7,925                          |               |         |       |  |          |  |       |  |
| 85+00                                 | 68.2                                    | 0.0 | 11.7                                                                                                                                                                                             | 42.8 | 36.3                       | 17.4               | 65                                      | 0      | 10                       | 38            | 34                         | 16     | 9,059               | 1,163                   | 1,569    | 1,242    | 688      | 77     | 7,975                          |               |         |       |  |          |  |       |  |
| 85+25                                 | 68.3                                    | 0.0 | 11.8                                                                                                                                                                                             | 39.2 | 19.8                       | 39.0               | 63                                      | 0      | 11                       | 38            | 26                         | 26     | 9,122               | 1,179                   | 1,615    | 1,273    | 695      | 77     | 8,023                          |               |         |       |  |          |  |       |  |
| 85+50                                 | 64.6                                    | 0.0 | 13.5                                                                                                                                                                                             | 37.8 | 19.5                       | 37.5               | 62                                      | 0      | 12                       | 36            | 18                         | 35     | 9,184               | 1,195                   | 1,657    | 1,295    | 714      | 77     | 8,068                          |               |         |       |  |          |  |       |  |
| 85+75                                 | 64.7                                    | 0.0 | 30.8                                                                                                                                                                                             | 19.0 | 19.0                       | 42.2               | 60                                      | 0      | 21                       | 26            | 18                         | 37     | 9,244               | 1,225                   | 1,689    | 1,316    | 741      | 77     | 8,098                          |               |         |       |  |          |  |       |  |
| 86+00                                 | 62.9                                    | 0.0 | 32.1                                                                                                                                                                                             | 18.8 | 19.5                       | 38.1               | 59                                      | 0      | 29                       | 18            | 18                         | 37     | 9,303               | 1,266                   | 1,710    | 1,338    | 768      | 77     | 8,116                          |               |         |       |  |          |  |       |  |
| 86+25                                 | 57.3                                    | 0.0 | 35.9                                                                                                                                                                                             | 19.0 | 19.8                       | 36.2               | 56                                      | 0      | 31                       | 18            | 18                         | 34     | 9,358               | 1,311                   | 1,731    | 1,360    | 794      | 77     | 8,126                          |               |         |       |  |          |  |       |  |
| 86+50                                 | 56.1                                    | 0.0 | 41.6                                                                                                                                                                                             | 18.4 | 20.5                       | 38.8               | 53                                      | 0      | 36                       | 17            | 19                         | 35     | 9,411               | 1,363                   | 1,752    | 1,382    | 819      | 77     | 8,127                          |               |         |       |  |          |  |       |  |
| 86+75                                 | 53.9                                    | 0.0 | 20.4                                                                                                                                                                                             | 44.2 | 21.0                       | 38.6               | 51                                      | 0      | 29                       | 29            | 19                         | 36     | 9,462               | 1,404                   | 1,786    | 1,405    | 843      | 77     | 8,137                          |               |         |       |  |          |  |       |  |
| 87+00                                 | 53.7                                    | 0.0 | 23.7                                                                                                                                                                                             | 47.2 | 21.3                       | 49.3               | 50                                      | 0      | 20                       | 42            | 20                         | 41     | 9,512               | 1,433                   | 1,837    | 1,428    | 869      | 77     | 8,158                          |               |         |       |  |          |  |       |  |
| 87+25                                 | 48.5                                    | 0.0 | 26.2                                                                                                                                                                                             | 51.2 | 21.5                       | 51.4               | 47                                      | 0      | 23                       | 46            | 20                         | 47     | 9,559               | 1,466                   | 1,892    | 1,452    | 899      | 77     | 8,172                          |               |         |       |  |          |  |       |  |
| 87+50                                 | 48.3                                    | 0.0 | 46.2                                                                                                                                                                                             | 34.4 | 21.5                       | 46.7               | 45                                      | 0      | 34                       | 40            | 20                         | 45     | 9,604               | 1,514                   | 1,939    | 1,476    | 931      | 79     | 8,169                          |               |         |       |  |          |  |       |  |
| 87+75                                 | 44.8                                    | 0.0 | 26.3                                                                                                                                                                                             | 57.5 | 21.8                       | 49.5               | 43                                      | 0      | 34                       | 43            | 20                         | 45     | 9,647               | 1,562                   | 1,990    | 1,500    | 963      | 82     | 8,164                          |               |         |       |  |          |  |       |  |
| 88+00                                 | 41.2                                    | 3.7 | 27.4                                                                                                                                                                                             | 59.7 | 21.5                       | 48.2               | 40                                      | 2      | 25                       | 54            | 20                         | 45     | 9,687               | 1,597                   | 2,056    | 1,524    | 994      | 87     | 8,167                          |               |         |       |  |          |  |       |  |
| 88+25                                 | 39.4                                    | 3.7 | 28.5                                                                                                                                                                                             | 64.0 | 21.5                       | 73.5               | 37                                      | 3      | 26                       | 57            | 20                         | 56     | 9,724               | 1,634                   | 2,124    | 1,548    | 1,026    | 119    | 8,164                          |               |         |       |  |          |  |       |  |
| 88+50                                 | 40.2                                    | 3.7 | 31.9                                                                                                                                                                                             | 65.3 | 0.0                        | 69.8               | 37                                      | 3      | 28                       | 60            | 10                         | 66     | 9,761               | 1,674                   | 2,196    | 1,560    | 1,058    | 176    | 8,157                          |               |         |       |  |          |  |       |  |
| 88+75                                 | 42.6                                    | 3.7 | 31.7                                                                                                                                                                                             | 62.8 | 0.0                        | 73.5               | 38                                      | 3      | 29                       | 59            | 0                          | 66     | 9,799               | 1,716                   | 2,267    | 1,560    | 1,091    | 234    | 8,150                          |               |         |       |  |          |  |       |  |
| 89+00                                 | 42.0                                    | 3.7 | 30.1                                                                                                                                                                                             | 54.8 | 0.0                        | 80.2               | 39                                      | 3      | 29                       | 54            | 0                          | 71     | 9,838               | 1,757                   | 2,333    | 1,560    | 1,124    | 295    | 8,145                          |               |         |       |  |          |  |       |  |
| 89+25                                 | 46.5                                    | 3.7 | 25.9                                                                                                                                                                                             | 45.3 | 0.0                        | 82.0               | 41                                      | 3      | 26                       | 46            | 0                          | 75     | 9,879               | 1,794                   | 2,388    | 1,560    | 1,155    | 355    | 8,145                          |               |         |       |  |          |  |       |  |
| 89+50                                 | 49.9                                    | 3.7 | 21.3                                                                                                                                                                                             | 38.8 | 0.0                        | 82.7               | 45                                      | 3      | 22                       | 39            | 0                          | 76     | 9,924               | 1,826                   | 2,435    | 1,560    | 1,187    | 412    | 8,155                          |               |         |       |  |          |  |       |  |
| 89+75                                 | 53.6                                    | 3.7 | 19.5                                                                                                                                                                                             | 36.0 | 0.0                        | 82.8               | 48                                      | 3      | 19                       | 35            | 0                          | 77     | 9,972               | 1,853                   | 2,477    | 1,560    | 1,220    | 467    | 8,173                          |               |         |       |  |          |  |       |  |
| 90+00                                 | 58.1                                    | 3.7 | 19.3                                                                                                                                                                                             | 34.9 | 0.0                        | 78.5               | 52                                      | 3      | 18                       | 33            | 0                          | 75     | 10,024              | 1,878                   | 2,516    | 1,560    | 1,253    | 519    | 8,196                          |               |         |       |  |          |  |       |  |
| 90+25                                 | 85.6                                    | 3.7 | 16.5                                                                                                                                                                                             | 26.7 | 0.0                        | 73.0               | 67                                      | 3      | 17                       | 29            | 0                          | 70     | 10,090              | 1,902                   | 2,550    | 1,560    | 1,286    | 565    | 8,235                          |               |         |       |  |          |  |       |  |
| 90+50                                 | 87.4                                    | 3.7 | 12.7                                                                                                                                                                                             | 19.3 | 0.0                        | 74.2               | 80                                      | 3      | 14                       | 21            | 0                          | 68     | 10,170              | 1,921                   | 2,576    | 1,560    | 1,318    | 604    | 8,292                          |               |         |       |  |          |  |       |  |
| 90+75                                 | 75.9                                    | 3.7 | 13.4                                                                                                                                                                                             | 21.4 | 0.0                        | 75.8               | 76                                      | 3      | 12                       | 19            | 0                          | 69     | 10,246              | 1,939                   | 2,598    | 1,560    | 1,350    | 645    | 8,347                          |               |         |       |  |          |  |       |  |
| Notes:                                |                                         |     |                                                                                                                                                                                                  |      |                            |                    |                                         |        |                          |               |                            |        |                     |                         |          |          |          |        |                                |               |         |       |  |          |  |       |  |
| 1 - Cut                               |                                         |     | Cut includes Unusable Pavement Material                                                                                                                                                          |      |                            |                    |                                         |        |                          |               |                            |        |                     |                         |          |          |          |        |                                |               |         |       |  |          |  |       |  |
| 2 - Unusable Pavement Material        |                                         |     | This does not show up in cross sections. Paid for as Item 204.0110 Removing Asphaltic Surface or 204.0100 Removing Concrete Pavement                                                             |      |                            |                    |                                         |        |                          |               |                            |        |                     |                         |          |          |          |        |                                |               |         |       |  |          |  |       |  |
| 3 - Fill                              |                                         |     | Fill areas outside the back of sidewalk only. (See Construction Detail)                                                                                                                          |      |                            |                    |                                         |        |                          |               |                            |        |                     |                         |          |          |          |        |                                |               |         |       |  |          |  |       |  |
| 4 - Select Borrow Fill                |                                         |     | For fill areas behind curb/under terrace and under sidewalk. Will be backfilled with Select Borrow (See Construction Detail)                                                                     |      |                            |                    |                                         |        |                          |               |                            |        |                     |                         |          |          |          |        |                                |               |         |       |  |          |  |       |  |
| 5 - Salvaged Topsoil                  |                                         |     | Area used for backfill quantity calculation only. Excavation for Salvaged Topsoil incidental to Item 625.0500 Salvaged Topsoil. Will be backfilled with Select Borrow. (See Construction Detail) |      |                            |                    |                                         |        |                          |               |                            |        |                     |                         |          |          |          |        |                                |               |         |       |  |          |  |       |  |
| 6 - Marsh Excavation                  |                                         |     | Anticipated marsh excavation areas shown in cross sections.                                                                                                                                      |      |                            |                    |                                         |        |                          |               |                            |        |                     |                         |          |          |          |        |                                |               |         |       |  |          |  |       |  |
| 7 - Expanded Marsh Backfill           |                                         |     | Marsh Excavation under proposed roadway backfilled with Item 312.0110 Select Crushed, outside of proposed roadway backfilled with Item 208.1100 Select Borrow. (See Construction Detail)         |      |                            |                    |                                         |        |                          |               |                            |        |                     |                         |          |          |          |        |                                |               |         |       |  |          |  |       |  |
| 8 - Mass Ordinate                     |                                         |     | Cut + EBS - Unsuable Pavement Material - Fill * Fill Factor                                                                                                                                      |      |                            |                    |                                         |        |                          |               |                            |        |                     |                         |          |          |          |        |                                |               |         |       |  |          |  |       |  |
| PROJECT NUMBER: 9269-00-14            |                                         |     |                                                                                                                                                                                                  |      |                            | HWY: MARLEY STREET |                                         |        |                          | COUNTY: BROWN |                            |        |                     | COMPUTER EARTHWORK DATA |          |          |          |        |                                | SHEET NO: 166 |         | E     |  |          |  |       |  |

| EARTHWORK - MARLEY STREET (CONTINUED)      |                                |                                                             |                                                                                                                                                                                                  |        |              |                    |                                   |     |                      |               |                     |              |                     |                         |          |       |          |          |                  |                  |               |                |
|--------------------------------------------|--------------------------------|-------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------------|--------------------|-----------------------------------|-----|----------------------|---------------|---------------------|--------------|---------------------|-------------------------|----------|-------|----------|----------|------------------|------------------|---------------|----------------|
| STATION                                    | AREA (SF)                      |                                                             |                                                                                                                                                                                                  |        |              |                    | Incremental Vol (CY) (Unadjusted) |     |                      |               |                     |              | Cumulative Vol (CY) |                         |          |       |          |          | Mass<br>Ordinate |                  |               |                |
|                                            | Unusable                       |                                                             | Select Salvaged                                                                                                                                                                                  |        | Marsh<br>Exc |                    | Unusable                          |     | Select               |               | Salvaged<br>Topsoil | Marsh<br>Exc | Expanded            |                         | Expanded |       | Expanded |          |                  | Mass<br>Ordinate |               |                |
|                                            | Cut                            | Pavement<br>Material                                        | Fill                                                                                                                                                                                             | Borrow |              |                    | Topsoil                           | Cut | Pavement<br>Material | Fill          |                     |              | Borrow              | Topsoil                 | Cut      | Fill  | Backfill | Backfill |                  |                  | Select Borrow | Select Crushed |
|                                            |                                |                                                             |                                                                                                                                                                                                  |        |              |                    |                                   |     |                      |               |                     |              |                     |                         |          |       |          |          |                  |                  |               |                |
| 91+00                                      | 79.1                           | 3.7                                                         | 14.0                                                                                                                                                                                             | 22.0   | 0.0          | 76.2               | 72                                | 3   | 13                   | 20            | 0                   | 70           | 10,318              | 1,957                   | 2,622    | 1,560 | 1,382    | 688      | 8,397            |                  |               |                |
| 91+25                                      | 79.3                           | 3.7                                                         | 15.3                                                                                                                                                                                             | 23.1   | 0.0          | 78.9               | 73                                | 3   | 14                   | 21            | 0                   | 72           | 10,391              | 1,976                   | 2,647    | 1,560 | 1,415    | 730      | 8,448            |                  |               |                |
| 91+50                                      | 78.6                           | 3.7                                                         | 16.3                                                                                                                                                                                             | 24.7   | 0.0          | 83.5               | 73                                | 3   | 15                   | 22            | 0                   | 75           | 10,464              | 1,997                   | 2,674    | 1,560 | 1,447    | 776      | 8,497            |                  |               |                |
| 91+75                                      | 77.5                           | 3.7                                                         | 14.9                                                                                                                                                                                             | 26.1   | 0.0          | 82.4               | 72                                | 3   | 14                   | 24            | 0                   | 77           | 10,536              | 2,018                   | 2,702    | 1,560 | 1,480    | 824      | 8,545            |                  |               |                |
| 92+00                                      | 84.7                           | 3.7                                                         | 14.1                                                                                                                                                                                             | 23.8   | 0.0          | 82.0               | 75                                | 3   | 13                   | 23            | 0                   | 76           | 10,611              | 2,037                   | 2,730    | 1,560 | 1,512    | 872      | 8,598            |                  |               |                |
| 92+25                                      | 84.3                           | 3.7                                                         | 19.0                                                                                                                                                                                             | 18.1   | 0.0          | 91.8               | 78                                | 3   | 15                   | 19            | 0                   | 80           | 10,690              | 2,059                   | 2,753    | 1,560 | 1,545    | 923      | 8,650            |                  |               |                |
| 92+50                                      | 79.5                           | 3.7                                                         | 20.5                                                                                                                                                                                             | 33.9   | 0.0          | 80.5               | 76                                | 3   | 18                   | 24            | 0                   | 80           | 10,765              | 2,085                   | 2,782    | 1,560 | 1,579    | 978      | 8,697            |                  |               |                |
| 92+75                                      | 75.8                           | 3.7                                                         | 18.9                                                                                                                                                                                             | 33.3   | 0.0          | 86.0               | 72                                | 3   | 18                   | 31            | 0                   | 77           | 10,837              | 2,111                   | 2,819    | 1,560 | 1,612    | 1,033    | 8,739            |                  |               |                |
| 93+00                                      | 74.1                           | 3.7                                                         | 18.8                                                                                                                                                                                             | 34.9   | 0.0          | 85.6               | 69                                | 3   | 17                   | 32            | 0                   | 79           | 10,907              | 2,136                   | 2,857    | 1,560 | 1,645    | 1,087    | 8,780            |                  |               |                |
| 93+25                                      | 72.3                           | 3.7                                                         | 17.0                                                                                                                                                                                             | 32.0   | 0.0          | 85.5               | 68                                | 3   | 17                   | 31            | 0                   | 79           | 10,974              | 2,160                   | 2,895    | 1,560 | 1,678    | 1,139    | 8,821            |                  |               |                |
| 93+50                                      | 70.3                           | 3.7                                                         | 15.9                                                                                                                                                                                             | 30.3   | 0.0          | 82.8               | 66                                | 3   | 15                   | 29            | 0                   | 78           | 11,040              | 2,182                   | 2,929    | 1,560 | 1,711    | 1,189    | 8,862            |                  |               |                |
| 93+75                                      | 69.4                           | 3.7                                                         | 15.3                                                                                                                                                                                             | 28.5   | 0.0          | 78.9               | 65                                | 3   | 14                   | 27            | 0                   | 75           | 11,105              | 2,202                   | 2,962    | 1,560 | 1,744    | 1,235    | 8,902            |                  |               |                |
| 94+00                                      | 67.2                           | 3.7                                                         | 14.3                                                                                                                                                                                             | 25.7   | 0.0          | 82.2               | 63                                | 3   | 14                   | 25            | 0                   | 75           | 11,168              | 2,222                   | 2,992    | 1,560 | 1,776    | 1,279    | 8,943            |                  |               |                |
| 94+25                                      | 67.4                           | 3.7                                                         | 15.2                                                                                                                                                                                             | 23.6   | 0.0          | 78.9               | 62                                | 3   | 14                   | 23            | 0                   | 75           | 11,231              | 2,241                   | 3,019    | 1,560 | 1,808    | 1,323    | 8,982            |                  |               |                |
| 94+50                                      | 68.0                           | 3.7                                                         | 13.2                                                                                                                                                                                             | 20.2   | 0.0          | 77.0               | 63                                | 3   | 13                   | 20            | 0                   | 72           | 11,293              | 2,260                   | 3,044    | 1,560 | 1,841    | 1,365    | 9,022            |                  |               |                |
| 94+75                                      | 74.7                           | 4.0                                                         | 9.5                                                                                                                                                                                              | 15.5   | 0.0          | 83.1               | 66                                | 4   | 11                   | 17            | 0                   | 74           | 11,359              | 2,275                   | 3,063    | 1,560 | 1,875    | 1,406    | 9,070            |                  |               |                |
| 95+44                                      | 421.7                          | 16.0                                                        | 0.0                                                                                                                                                                                              | 0.0    | 0.0          | 0.0                | 632                               | 25  | 12                   | 20            | 0                   | 106          | 11,991              | 2,293                   | 3,087    | 1,560 | 1,993    | 1,462    | 9,659            |                  |               |                |
| 96+28                                      | 101.5                          | 7.3                                                         | 7.9                                                                                                                                                                                              | 0.0    | 0.0          | 0.0                | 818                               | 36  | 12                   | 0             | 0                   | 0            | 12,809              | 2,310                   | 3,087    | 1,560 | 2,079    | 1,462    | 10,422           |                  |               |                |
| 96+50                                      | 92.2                           | 7.3                                                         | 10.2                                                                                                                                                                                             | 0.0    | 0.0          | 0.0                | 79                                | 6   | 7                    | 0             | 0                   | 0            | 12,887              | 2,321                   | 3,087    | 1,560 | 2,079    | 1,462    | 10,484           |                  |               |                |
| 96+75                                      | 79.3                           | 7.3                                                         | 14.2                                                                                                                                                                                             | 0.0    | 0.0          | 0.0                | 79                                | 7   | 11                   | 0             | 0                   | 0            | 12,967              | 2,337                   | 3,087    | 1,560 | 2,079    | 1,462    | 10,541           |                  |               |                |
| 97+00                                      | 70.5                           | 7.3                                                         | 25.1                                                                                                                                                                                             | 0.0    | 0.0          | 0.0                | 69                                | 7   | 18                   | 0             | 0                   | 0            | 13,036              | 2,363                   | 3,087    | 1,560 | 2,079    | 1,462    | 10,577           |                  |               |                |
| 97+25                                      | 72.3                           | 7.3                                                         | 13.6                                                                                                                                                                                             | 0.0    | 0.0          | 0.0                | 66                                | 7   | 18                   | 0             | 0                   | 0            | 13,102              | 2,388                   | 3,087    | 1,560 | 2,079    | 1,462    | 10,611           |                  |               |                |
| 97+50                                      | 64.3                           | 7.3                                                         | 6.0                                                                                                                                                                                              | 2.1    | 0.0          | 0.0                | 63                                | 7   | 9                    | 1             | 0                   | 0            | 13,165              | 2,401                   | 3,088    | 1,560 | 2,079    | 1,462    | 10,655           |                  |               |                |
| 97+75                                      | 71.6                           | 7.3                                                         | 7.3                                                                                                                                                                                              | 2.5    | 0.0          | 0.0                | 63                                | 7   | 6                    | 2             | 0                   | 0            | 13,228              | 2,410                   | 3,091    | 1,560 | 2,079    | 1,462    | 10,702           |                  |               |                |
| 98+00                                      | 82.2                           | 21.9                                                        | 8.5                                                                                                                                                                                              | 1.4    | 0.0          | 0.0                | 71                                | 14  | 7                    | 2             | 0                   | 0            | 13,300              | 2,421                   | 3,093    | 1,560 | 2,079    | 1,462    | 10,749           |                  |               |                |
| 98+25                                      | 96.0                           | 17.8                                                        | 9.3                                                                                                                                                                                              | 0.7    | 0.0          | 0.0                | 83                                | 18  | 8                    | 1             | 0                   | 0            | 13,382              | 2,433                   | 3,094    | 1,560 | 2,079    | 1,462    | 10,802           |                  |               |                |
| 98+50                                      | 102.7                          | 14.7                                                        | 15.6                                                                                                                                                                                             | 0.2    | 0.0          | 0.0                | 92                                | 15  | 12                   | 0             | 0                   | 0            | 13,474              | 2,449                   | 3,095    | 1,560 | 2,079    | 1,462    | 10,862           |                  |               |                |
| 98+75                                      | 106.6                          | 12.3                                                        | 32.9                                                                                                                                                                                             | 0.0    | 0.0          | 0.0                | 97                                | 13  | 22                   | 0             | 0                   | 0            | 13,571              | 2,481                   | 3,095    | 1,560 | 2,079    | 1,462    | 10,914           |                  |               |                |
| 99+00                                      | 108.7                          | 10.7                                                        | 39.6                                                                                                                                                                                             | 0.0    | 0.0          | 0.0                | 100                               | 11  | 34                   | 0             | 0                   | 0            | 13,671              | 2,529                   | 3,095    | 1,560 | 2,079    | 1,462    | 10,955           |                  |               |                |
| 99+25                                      | 103.7                          | 10.0                                                        | 33.3                                                                                                                                                                                             | 0.0    | 0.0          | 0.0                | 98                                | 10  | 34                   | 0             | 0                   | 0            | 13,769              | 2,577                   | 3,095    | 1,560 | 2,079    | 1,462    | 10,996           |                  |               |                |
| 99+50                                      | 99.9                           | 9.5                                                         | 31.6                                                                                                                                                                                             | 0.0    | 0.0          | 0.0                | 94                                | 9   | 30                   | 0             | 0                   | 0            | 13,863              | 2,620                   | 3,095    | 1,560 | 2,079    | 1,462    | 11,038           |                  |               |                |
| 99+75                                      | 101.8                          | 9.5                                                         | 7.9                                                                                                                                                                                              | 0.0    | 0.0          | 0.0                | 93                                | 9   | 18                   | 0             | 0                   | 0            | 13,957              | 2,646                   | 3,095    | 1,560 | 2,079    | 1,462    | 11,096           |                  |               |                |
| 100+00                                     | 96.7                           | 10.0                                                        | 35.8                                                                                                                                                                                             | 0.0    | 0.0          | 0.0                | 92                                | 9   | 20                   | 0             | 0                   | 0            | 14,048              | 2,675                   | 3,095    | 1,560 | 2,079    | 1,462    | 11,150           |                  |               |                |
| 100+25                                     | 93.7                           | 10.0                                                        | 38.6                                                                                                                                                                                             | 0.0    | 0.0          | 0.0                | 88                                | 9   | 34                   | 0             | 0                   | 0            | 14,137              | 2,725                   | 3,095    | 1,560 | 2,079    | 1,462    | 11,180           |                  |               |                |
| 100+50                                     | 88.0                           | 10.0                                                        | 40.1                                                                                                                                                                                             | 0.0    | 0.0          | 0.0                | 84                                | 9   | 36                   | 0             | 0                   | 0            | 14,221              | 2,777                   | 3,095    | 1,560 | 2,079    | 1,462    | 11,203           |                  |               |                |
| 100+75                                     | 77.3                           | 10.0                                                        | 26.1                                                                                                                                                                                             | 0.0    | 0.0          | 0.0                | 77                                | 9   | 31                   | 0             | 0                   | 0            | 14,297              | 2,821                   | 3,095    | 1,560 | 2,079    | 1,462    | 11,226           |                  |               |                |
| 101+00                                     | 59.4                           | 10.0                                                        | 0.0                                                                                                                                                                                              | 0.0    | 0.0          | 0.0                | 63                                | 9   | 12                   | 0             | 0                   | 0            | 14,361              | 2,838                   | 3,095    | 1,560 | 2,079    | 1,462    | 11,263           |                  |               |                |
| Totals: 14,440 339 1,985 2,582 1,300 3,621 |                                |                                                             |                                                                                                                                                                                                  |        |              |                    |                                   |     |                      |               |                     |              |                     |                         |          |       |          |          |                  |                  |               |                |
| 9                                          | Notes:                         |                                                             |                                                                                                                                                                                                  |        |              |                    |                                   |     |                      |               |                     |              |                     |                         |          |       |          |          |                  |                  |               |                |
|                                            | 1 - Cut                        |                                                             | Cut includes Unusable Pavement Material                                                                                                                                                          |        |              |                    |                                   |     |                      |               |                     |              |                     |                         |          |       |          |          |                  |                  |               |                |
|                                            | 2 - Unusable Pavement Material |                                                             | This does not show up in cross sections. Paid for as Item 204.0110 Removing Asphaltic Surface or 204.0100 Removing Concrete Pavement                                                             |        |              |                    |                                   |     |                      |               |                     |              |                     |                         |          |       |          |          |                  |                  |               |                |
|                                            | 3 - Fill                       |                                                             | Fill areas outside the back of sidewalk only. (See Construction Detail)                                                                                                                          |        |              |                    |                                   |     |                      |               |                     |              |                     |                         |          |       |          |          |                  |                  |               |                |
|                                            | 4 - Select Borrow Fill         |                                                             | For fill areas behind curb/under terrace and under sidewalk. Will be backfilled with Select Borrow (See Construction Detail)                                                                     |        |              |                    |                                   |     |                      |               |                     |              |                     |                         |          |       |          |          |                  |                  |               |                |
|                                            | 5 - Salvaged Topsoil           |                                                             | Area used for backfill quantity calculation only. Excavation for Salvaged Topsoil incidental to Item 625.0500 Salvaged Topsoil. Will be backfilled with Select Borrow. (See Construction Detail) |        |              |                    |                                   |     |                      |               |                     |              |                     |                         |          |       |          |          |                  |                  |               |                |
|                                            | 6 - Marsh Excavation           |                                                             | Anticipated marsh excavation areas shown in cross sections.                                                                                                                                      |        |              |                    |                                   |     |                      |               |                     |              |                     |                         |          |       |          |          |                  |                  |               |                |
|                                            | 7 - Expanded Marsh Backfill    |                                                             | Marsh Excavation under proposed roadway backfilled with Item 312.0110 Select Crushed, outside of proposed roadway backfilled with Item 208.1100 Select Borrow. (See Construction Detail)         |        |              |                    |                                   |     |                      |               |                     |              |                     |                         |          |       |          |          |                  |                  |               |                |
| 8 - Mass Ordinate                          |                                | Cut + EBS - Unsuable Pavement Material - Fill * Fill Factor |                                                                                                                                                                                                  |        |              |                    |                                   |     |                      |               |                     |              |                     |                         |          |       |          |          |                  |                  |               |                |
| PROJECT NUMBER: 9269-00-14                 |                                |                                                             |                                                                                                                                                                                                  |        |              | HWY: MARLEY STREET |                                   |     |                      | COUNTY: BROWN |                     |              |                     | COMPUTER EARTHWORK DATA |          |       |          |          |                  | SHEET NO: 167    |               | E              |



EARTHWORK - GLENDALE AVENUE

| STATION                    | AREA (SF) |                                  |      |                          |                     | Incremental Vol (CY) (Unadjusted) |                                  |      |                          |                     | Cumulative Vol (CY)   |                                 |                                                        |                                                | Mass Ordinate |
|----------------------------|-----------|----------------------------------|------|--------------------------|---------------------|-----------------------------------|----------------------------------|------|--------------------------|---------------------|-----------------------|---------------------------------|--------------------------------------------------------|------------------------------------------------|---------------|
|                            | Cut       | Unusable<br>Pavement<br>Material | Fill | Select<br>Borrow<br>Fill | Marsh<br>Excavation | Cut                               | Unusable<br>Pavement<br>Material | Fill | Select<br>Borrow<br>Fill | Marsh<br>Excavation | Cut<br>1.00<br>Note 1 | Expanded Fill<br>1.43<br>Note 3 | Expanded<br>Select Borrow<br>Backfill<br>1.2<br>Note 4 | Expanded<br>Marsh<br>Backfill<br>1.5<br>Note 7 |               |
|                            |           |                                  |      |                          |                     |                                   |                                  |      |                          |                     |                       |                                 |                                                        |                                                |               |
| 201+25                     | 47.1      | 10.0                             | 0.0  | 0.0                      | 0.0                 | 0                                 | 0                                | 0    | 0                        | 0                   | 0                     | 0                               | 0                                                      | 0                                              | 0             |
| 201+50                     | 69.1      | 10.0                             | 0.0  | 0.0                      | 0.0                 | 54                                | 9                                | 0    | 0                        | 0                   | 54                    | 0                               | 0                                                      | 0                                              | 45            |
| 201+75                     | 72.4      | 10.0                             | 3.5  | 3.0                      | 16.6                | 66                                | 9                                | 2    | 1                        | 8                   | 119                   | 2                               | 2                                                      | 12                                             | 98            |
| 202+00                     | 75.9      | 10.0                             | 5.6  | 6.0                      | 25.2                | 69                                | 9                                | 4    | 4                        | 19                  | 188                   | 8                               | 7                                                      | 41                                             | 152           |
| 202+25                     | 79.7      | 10.0                             | 7.8  | 8.0                      | 27.6                | 72                                | 9                                | 6    | 6                        | 24                  | 260                   | 17                              | 14                                                     | 77                                             | 206           |
| 202+50                     | 84.9      | 10.0                             | 8.7  | 9.0                      | 24.0                | 76                                | 9                                | 8    | 8                        | 24                  | 336                   | 28                              | 24                                                     | 113                                            | 262           |
| 202+75                     | 88.9      | 10.0                             | 8.6  | 9.0                      | 26.4                | 80                                | 9                                | 8    | 8                        | 23                  | 417                   | 40                              | 34                                                     | 148                                            | 322           |
| 203+00                     | 98.8      | 10.0                             | 9.9  | 10.0                     | 29.7                | 87                                | 9                                | 9    | 9                        | 26                  | 504                   | 52                              | 44                                                     | 187                                            | 387           |
| 203+25                     | 132.4     | 10.0                             | 10.8 | 11.0                     | 31.0                | 107                               | 9                                | 10   | 10                       | 28                  | 611                   | 66                              | 56                                                     | 229                                            | 471           |
| 203+50                     | 110.3     | 10.0                             | 10.6 | 11.0                     | 30.6                | 112                               | 9                                | 10   | 10                       | 29                  | 723                   | 80                              | 68                                                     | 272                                            | 560           |
| 203+75                     | 111.8     | 10.0                             | 9.1  | 9.0                      | 29.7                | 103                               | 9                                | 9    | 9                        | 28                  | 826                   | 93                              | 79                                                     | 314                                            | 640           |
| 204+00                     | 119.8     | 5.0                              | 10.2 | 10.0                     | 27.5                | 107                               | 7                                | 9    | 9                        | 26                  | 933                   | 106                             | 90                                                     | 354                                            | 728           |
| 204+25                     | 131.3     | 5.0                              | 18.1 | 18.0                     | 19.2                | 116                               | 5                                | 13   | 13                       | 22                  | 1,049                 | 124                             | 106                                                    | 386                                            | 821           |
| MARLEY STREET INTERSECTION |           |                                  |      |                          |                     |                                   |                                  |      |                          |                     |                       |                                 |                                                        |                                                |               |
| 205+75                     | 148.8     | 5.0                              | 34.5 | 23.0                     | 0.0                 | 0                                 | 0                                | 0    | 0                        | 0                   | 1,049                 | 124                             | 106                                                    | 386                                            | 821           |
| 206+00                     | 154.7     | 5.0                              | 28.2 | 20.0                     | 0.0                 | 141                               | 5                                | 29   | 20                       | 0                   | 1,190                 | 166                             | 129                                                    | 386                                            | 915           |
| 206+25                     | 170.8     | 5.0                              | 18.8 | 15.0                     | 0.0                 | 151                               | 5                                | 22   | 16                       | 0                   | 1,340                 | 197                             | 149                                                    | 386                                            | 1,030         |
| 206+50                     | 206.7     | 5.0                              | 0.0  | 0.0                      | 0.0                 | 175                               | 5                                | 9    | 7                        | 0                   | 1,515                 | 209                             | 157                                                    | 386                                            | 1,188         |
| 206+75                     | 203.2     | 5.0                              | 19.1 | 12.0                     | 0.0                 | 190                               | 5                                | 9    | 6                        | 0                   | 1,705                 | 222                             | 164                                                    | 386                                            | 1,360         |
| 207+00                     | 216.7     | 5.0                              | 21.9 | 15.0                     | 0.0                 | 194                               | 5                                | 19   | 13                       | 0                   | 1,899                 | 249                             | 179                                                    | 386                                            | 1,523         |
| 207+25                     | 219.1     | 5.0                              | 23.1 | 16.0                     | 0.0                 | 202                               | 5                                | 21   | 14                       | 0                   | 2,101                 | 279                             | 196                                                    | 386                                            | 1,690         |
| 207+50                     | 229.7     | 10.0                             | 22.1 | 16.0                     | 0.0                 | 208                               | 7                                | 21   | 15                       | 0                   | 2,309                 | 309                             | 214                                                    | 386                                            | 1,861         |
| 207+75                     | 209.2     | 10.0                             | 0.3  | 0.0                      | 0.0                 | 203                               | 9                                | 10   | 7                        | 0                   | 2,512                 | 324                             | 223                                                    | 386                                            | 2,040         |
| 208+00                     | 195.6     | 10.0                             | 1.2  | 1.0                      | 0.0                 | 187                               | 9                                | 1    | 0                        | 0                   | 2,700                 | 325                             | 223                                                    | 386                                            | 2,217         |
| 208+25                     | 167.3     | 10.0                             | 22.4 | 15.0                     | 0.0                 | 168                               | 9                                | 11   | 7                        | 0                   | 2,868                 | 340                             | 232                                                    | 386                                            | 2,361         |
| 208+50                     | 155.9     | 10.0                             | 31.5 | 19.0                     | 0.0                 | 150                               | 9                                | 25   | 16                       | 0                   | 3,017                 | 376                             | 251                                                    | 386                                            | 2,465         |
| 208+75                     | 147.7     | 10.0                             | 32.4 | 19.0                     | 0.0                 | 141                               | 9                                | 30   | 18                       | 0                   | 3,158                 | 418                             | 272                                                    | 386                                            | 2,554         |
| 209+00                     | 147.8     | 10.0                             | 26.8 | 17.0                     | 0.0                 | 137                               | 9                                | 27   | 17                       | 0                   | 3,295                 | 457                             | 292                                                    | 386                                            | 2,643         |
| 209+25                     | 147.8     | 10.0                             | 19.4 | 10.0                     | 0.0                 | 137                               | 9                                | 21   | 13                       | 0                   | 3,431                 | 488                             | 307                                                    | 386                                            | 2,740         |
| 209+50                     | 146.8     | 10.0                             | 17.3 | 8.0                      | 0.0                 | 136                               | 9                                | 17   | 8                        | 0                   | 3,568                 | 512                             | 317                                                    | 386                                            | 2,842         |
| 209+75                     | 176.2     | 10.0                             | 14.8 | 8.0                      | 0.0                 | 150                               | 9                                | 15   | 7                        | 0                   | 3,717                 | 534                             | 326                                                    | 386                                            | 2,961         |
| 210+00                     | 143.4     | 10.0                             | 11.0 | 7.0                      | 0.0                 | 148                               | 9                                | 12   | 7                        | 0                   | 3,865                 | 551                             | 334                                                    | 386                                            | 3,083         |
| 210+25                     | 140.4     | 10.0                             | 7.8  | 5.0                      | 0.0                 | 131                               | 9                                | 9    | 6                        | 0                   | 3,997                 | 563                             | 341                                                    | 386                                            | 3,193         |
| 210+50                     | 140.0     | 10.0                             | 4.8  | 2.0                      | 0.0                 | 130                               | 9                                | 6    | 3                        | 0                   | 4,126                 | 571                             | 345                                                    | 386                                            | 3,305         |

Notes:

- 1 - Cut
- 2 - Unusable Pavement Material
- 3 - Fill
- 4 - Select Borrow Fill
- 5 - Salvaged Topsoil
- 6 - Marsh Excavation
- 7 - EBS
- 8 - Mass Ordinate

Cut includes Unusable Pavement Material  
This does not show up in cross sections. Paid for as Item 204.0110 Removing Asphaltic Surface  
Fill areas outside the back of sidewalk only. (See Construction Detail)  
For fill areas behind curb/under terrace and under sidewalk. Will be backfilled with Select Borrow (See Construction Detail)  
Area used for backfill quantity calculation only. Excavation for Salvaged Topsoil incidental to Item 625.0500 Salvaged Topsoil. Will be backfilled with Select Borrow. (See Construction Detail)  
For marsh areas behind curb/under terrace and under sidewalk. Will be backfilled with Select Borrow. (See Construction Detail)  
Includes marsh areas under the roadway excavation. Will be backfilled with Select Crushed Material. (See Construction Detail)  
Cut + EBS - Unsuable Pavement Material - Fill \* Fill Factor

EARTHWORK - GLENDALE AVENUE (CONTINUED)

| STATION | AREA (SF) |                   |      |                    |                  | Incremental Vol (CY) (Unadjusted) |                   |      |                    |                  | Cumulative Vol (CY) |                       |                               |                                 | Mass Ordinate |
|---------|-----------|-------------------|------|--------------------|------------------|-----------------------------------|-------------------|------|--------------------|------------------|---------------------|-----------------------|-------------------------------|---------------------------------|---------------|
|         | Unusable  |                   |      |                    |                  | Unusable                          |                   |      |                    |                  | Expanded            |                       |                               |                                 |               |
|         | Cut       | Pavement Material | Fill | Select Borrow Fill | Marsh Excavation | Cut                               | Pavement Material | Fill | Select Borrow Fill | Marsh Excavation | Cut<br>1.00         | Expanded Fill<br>1.43 | Select Borrow Backfill<br>1.2 | Expanded Marsh Backfill<br>1.25 |               |
|         |           |                   |      |                    |                  |                                   |                   |      |                    |                  |                     |                       |                               |                                 |               |
| 210+75  | 144.0     | 10.0              | 2.9  | 0.0                | 0.0              | 131                               | 9                 | 4    | 1                  | 0                | 4,258               | 577                   | 346                           | 386                             | 3,422         |
| 211+00  | 141.9     | 10.0              | 3.1  | 2.0                | 0.0              | 132                               | 9                 | 3    | 1                  | 0                | 4,390               | 581                   | 347                           | 386                             | 3,541         |
| 211+25  | 131.4     | 10.0              | 2.6  | 2.0                | 0.0              | 127                               | 9                 | 3    | 2                  | 0                | 4,517               | 584                   | 349                           | 386                             | 3,655         |
| 211+50  | 136.5     | 10.0              | 0.3  | 0.0                | 0.0              | 124                               | 9                 | 1    | 1                  | 0                | 4,641               | 586                   | 351                           | 386                             | 3,768         |
| 211+75  | 116.8     | 10.0              | 1.6  | 2.0                | 0.0              | 117                               | 9                 | 1    | 1                  | 0                | 4,758               | 587                   | 352                           | 386                             | 3,874         |
| 211+90  | 110.7     | 10.0              | 7.8  | 4.0                | 0.0              | 63                                | 6                 | 3    | 2                  | 0                | 4,821               | 591                   | 354                           | 386                             | 3,928         |
| 212+00  | 98.8      | 10.0              | 0.0  | 0.0                | 0.0              | 39                                | 4                 | 1    | 1                  | 0                | 4,860               | 593                   | 355                           | 386                             | 3,961         |
| 212+25  | 82.7      | 20.0              | 0.0  | 0.0                | 0.0              | 84                                | 14                | 0    | 0                  | 0                | 4,944               | 593                   | 355                           | 386                             | 4,031         |
| 212+50  | 45.7      | 20.0              | 0.0  | 0.0                | 0.0              | 59                                | 19                | 0    | 0                  | 0                | 5,004               | 593                   | 355                           | 386                             | 4,072         |

Totals: 5,004 338 415 295 257

|                                |                                                                                                                                                                                                  |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Notes:                         |                                                                                                                                                                                                  |
| 1 - Cut                        | Cut includes Unusable Pavement Material                                                                                                                                                          |
| 2 - Unusable Pavement Material | This does not show up in cross sections. Paid for as Item 204.0110 Removing Asphaltic Surface or 204.0100 Removing Concrete Pavement                                                             |
| 3 - Fill                       | Fill areas outside the back of sidewalk only. (See Construction Detail)                                                                                                                          |
| 4 - Select Borrow Fill         | For fill areas behind curb/under terrace and under sidewalk. Will be backfilled with Select Borrow (See Construction Detail)                                                                     |
| 5 - Salvaged Topsoil           | Area used for backfill quantity calculation only. Excavation for Salvaged Topsoil incidental to Item 625.0500 Salvaged Topsoil. Will be backfilled with Select Borrow. (See Construction Detail) |
| 6 - Marsh Excavation           | Anticipated marsh excavation areas shown in cross sections.                                                                                                                                      |
| 7 - Expanded Marsh Backfill    | Marsh Excavation under proposed roadway backfilled with Item 312.0110 Select Crushed, outside of proposed roadway backfilled with Item 208.1100 Select Borrow. (See Construction Detail)         |
| 8 - Mass Ordinate              | Cut + EBS - Unsuable Pavement Material - Fill * Fill Factor                                                                                                                                      |



EARTHWORK - EXISTING CTH C

| STATION | AREA (SF) |                            |      | Incremental Vol (CY) (Unadjusted) |                            |      | Cumulative Vol (CY) |                       | Mass Ordinate |
|---------|-----------|----------------------------|------|-----------------------------------|----------------------------|------|---------------------|-----------------------|---------------|
|         | Cut       | Unusable Pavement Material | Fill | Cut                               | Unusable Pavement Material | Fill | Cut<br>1.00         | Expanded Fill<br>1.43 |               |
|         |           |                            |      |                                   |                            |      |                     |                       |               |
| 303+50  | 51.3      | 16.0                       | 0.0  | 0                                 |                            | 0    | 0                   | 0                     | 0             |
| 303+75  | 98.6      | 16.0                       | 0.0  | 69                                | 15                         | 0    | 69                  | 0                     | 55            |
| 304+00  | 149.8     | 16.0                       | 0.0  | 115                               | 15                         | 0    | 184                 | 0                     | 155           |
| 304+25  | 152.6     | 16.0                       | 0.0  | 140                               | 15                         | 0    | 324                 | 0                     | 280           |
| 304+50  | 138.2     | 16.0                       | 0.0  | 135                               | 15                         | 0    | 459                 | 0                     | 400           |
| 304+75  | 228.0     | 16.0                       | 0.0  | 136                               | 12                         | 0    | 595                 | 0                     | 524           |
| 305+00  | 161.0     | 16.0                       | 0.0  | 137                               | 11                         | 0    | 732                 | 0                     | 649           |
| 305+25  | 154.2     | 16.0                       | 0.0  | 210                               | 21                         | 0    | 942                 | 0                     | 838           |
| 305+50  | 148.2     | 16.0                       | 0.0  | 140                               | 15                         | 0    | 1,082               | 0                     | 963           |
| 305+75  | 112.4     | 16.0                       | 13.8 | 121                               | 15                         | 6    | 1,202               | 9                     | 1,060         |
| 306+00  | 70.9      | 16.0                       | 3.1  | 85                                | 15                         | 8    | 1,287               | 20                    | 1,119         |
| 306+25  | 28.1      | 16.0                       | 0.3  | 46                                | 15                         | 2    | 1,333               | 23                    | 1,147         |
| 306+41  | 7.4       | 16.0                       | 0.7  | 11                                | 9                          | 0    | 1,344               | 23                    | 1,148         |
|         |           |                            |      | 1,344                             | 172                        | 16   |                     |                       |               |

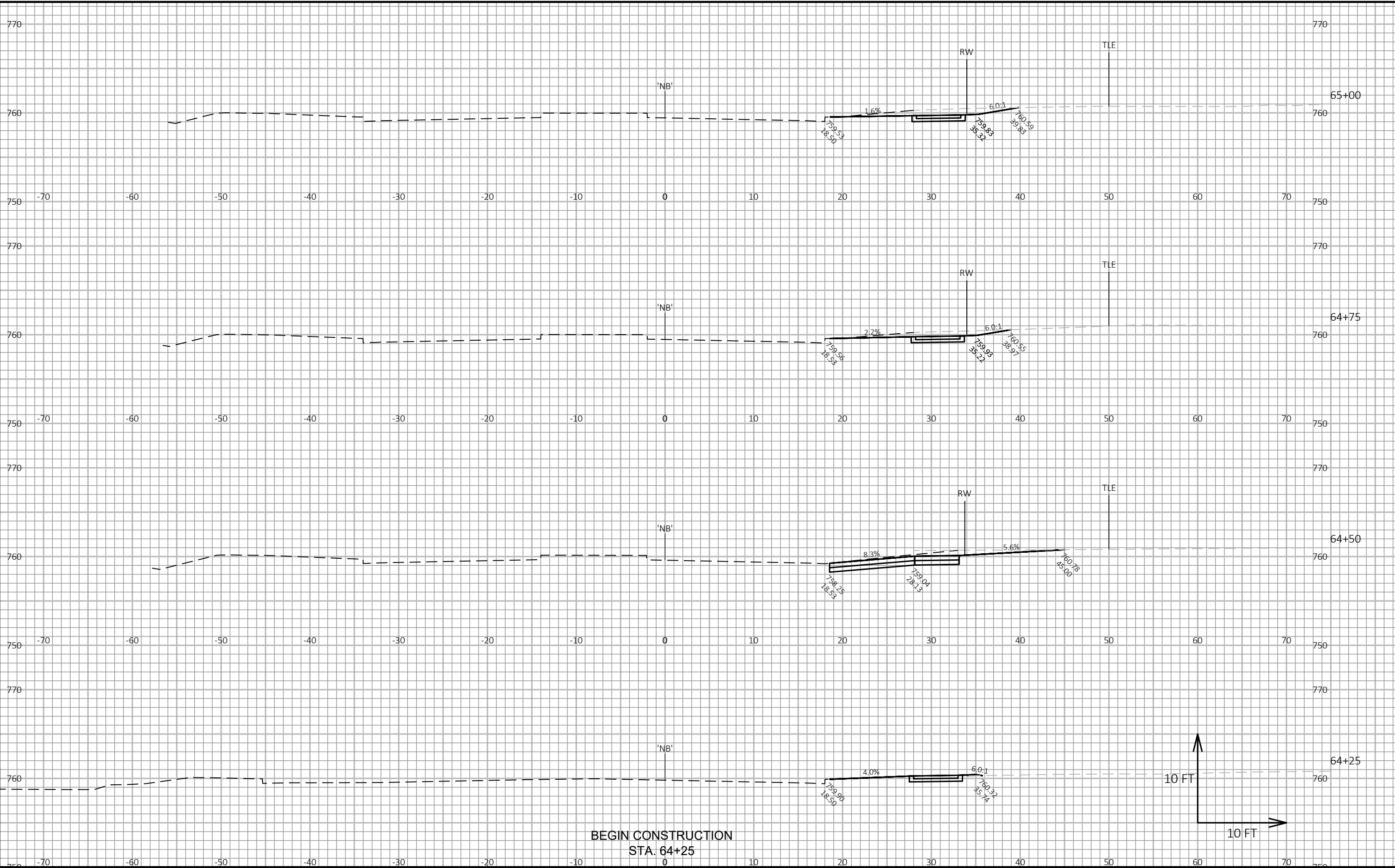
|                                |                                                                                                                                                                                                  |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Notes:                         |                                                                                                                                                                                                  |
| 1 - Cut                        | Cut includes Unusable Pavement Material                                                                                                                                                          |
| 2 - Unusable Pavement Material | This does not show up in cross sections. Paid for as Item 204.0110 Removing Asphaltic Surface or 204.0100 Removing Concrete Pavement                                                             |
| 3 - Fill                       | Fill areas outside the back of sidewalk only. (See Construction Detail)                                                                                                                          |
| 4 - Select Borrow Fill         | For fill areas behind curb/under terrace and under sidewalk. Will be backfilled with Select Borrow (See Construction Detail)                                                                     |
| 5 - Salvaged Topsoil           | Area used for backfill quantity calculation only. Excavation for Salvaged Topsoil incidental to Item 625.0500 Salvaged Topsoil. Will be backfilled with Select Borrow. (See Construction Detail) |
| 6 - Marsh Excavation           | Anticipated marsh excavation areas shown in cross sections.                                                                                                                                      |
| 7 - Expanded Marsh Backfill    | Marsh Excavation under proposed roadway backfilled with Item 312.0110 Select Crushed, outside of proposed roadway backfilled with Item 208.1100 Select Borrow. (See Construction Detail)         |
| 8 - Mass Ordinate              | Cut + EBS - Unsuable Pavement Material - Fill * Fill Factor                                                                                                                                      |

EARTHWORK - STORM SEWER OUTFALL

| STATION | AREA (SF) |      | Incremental Vol (CY) (Unadjusted) |                    | Cumulative Vol (CY)   |                                 | Mass Ordinate<br><br>Note 8 |
|---------|-----------|------|-----------------------------------|--------------------|-----------------------|---------------------------------|-----------------------------|
|         | Cut       | Fill | Cut<br><br>Note 1                 | Fill<br><br>Note 3 | Cut<br>1.00<br>Note 1 | Expanded Fill<br>1.43<br>Note 3 |                             |
|         |           |      |                                   |                    |                       |                                 |                             |
| 400+60  | 9.1       | 0.0  | 0                                 | 0                  | 0                     | 0                               | 0                           |
| 400+75  | 9.2       | 0.0  | 5                                 | 0                  | 5                     | 0                               | 5                           |
| 401+00  | 8.9       | 0.0  | 8                                 | 0                  | 13                    | 0                               | 13                          |
| 401+50  | 6.6       | 0.0  | 14                                | 0                  | 28                    | 0                               | 28                          |
| 402+00  | 4.6       | 0.0  | 10                                | 0                  | 38                    | 0                               | 38                          |
| 402+50  | 5.2       | 0.0  | 9                                 | 0                  | 47                    | 0                               | 47                          |
| 403+00  | 8.4       | 0.0  | 13                                | 0                  | 60                    | 0                               | 60                          |
| 403+50  | 7.4       | 0.0  | 15                                | 0                  | 74                    | 0                               | 74                          |
| 404+00  | 6.4       | 0.0  | 13                                | 0                  | 87                    | 0                               | 87                          |
| 404+50  | 5.7       | 0.0  | 11                                | 0                  | 98                    | 0                               | 98                          |
| 405+00  | 5.6       | 0.0  | 10                                | 0                  | 109                   | 0                               | 109                         |
| 405+50  | 5.6       | 0.0  | 10                                | 0                  | 119                   | 0                               | 119                         |
| 406+00  | 6.7       | 0.0  | 11                                | 0                  | 131                   | 0                               | 131                         |
| 406+50  | 9.0       | 0.0  | 15                                | 0                  | 145                   | 0                               | 145                         |
| 407+00  | 11.0      | 0.0  | 19                                | 0                  | 164                   | 0                               | 164                         |
| 407+50  | 13.8      | 0.0  | 23                                | 0                  | 187                   | 0                               | 187                         |
| 408+00  | 11.0      | 0.0  | 23                                | 0                  | 210                   | 0                               | 210                         |
| 408+50  | 8.3       | 0.0  | 18                                | 0                  | 228                   | 0                               | 228                         |
| 409+00  | 9.1       | 0.0  | 16                                | 0                  | 244                   | 0                               | 244                         |
| 409+50  | 11.2      | 0.0  | 19                                | 0                  | 262                   | 0                               | 262                         |
| 410+00  | 15.0      | 0.0  | 24                                | 0                  | 287                   | 0                               | 287                         |
| 410+50  | 19.5      | 0.0  | 32                                | 0                  | 319                   | 0                               | 319                         |
| 411+00  | 20.7      | 0.0  | 37                                | 0                  | 356                   | 0                               | 356                         |
| 411+50  | 23.4      | 0.0  | 41                                | 0                  | 397                   | 0                               | 397                         |
| 412+00  | 22.2      | 0.0  | 42                                | 0                  | 439                   | 0                               | 439                         |
| 412+50  | 23.5      | 0.0  | 42                                | 0                  | 481                   | 0                               | 481                         |
| 412+75  | 22.7      | 0.0  | 21                                | 0                  | 503                   | 0                               | 503                         |
| 412+94  | 148.4     | 0.0  | 60                                | 0                  | 563                   | 0                               | 563                         |
| 413+07  | 151.5     | 0.0  | 72                                | 0                  | 635                   | 0                               | 635                         |

635 0

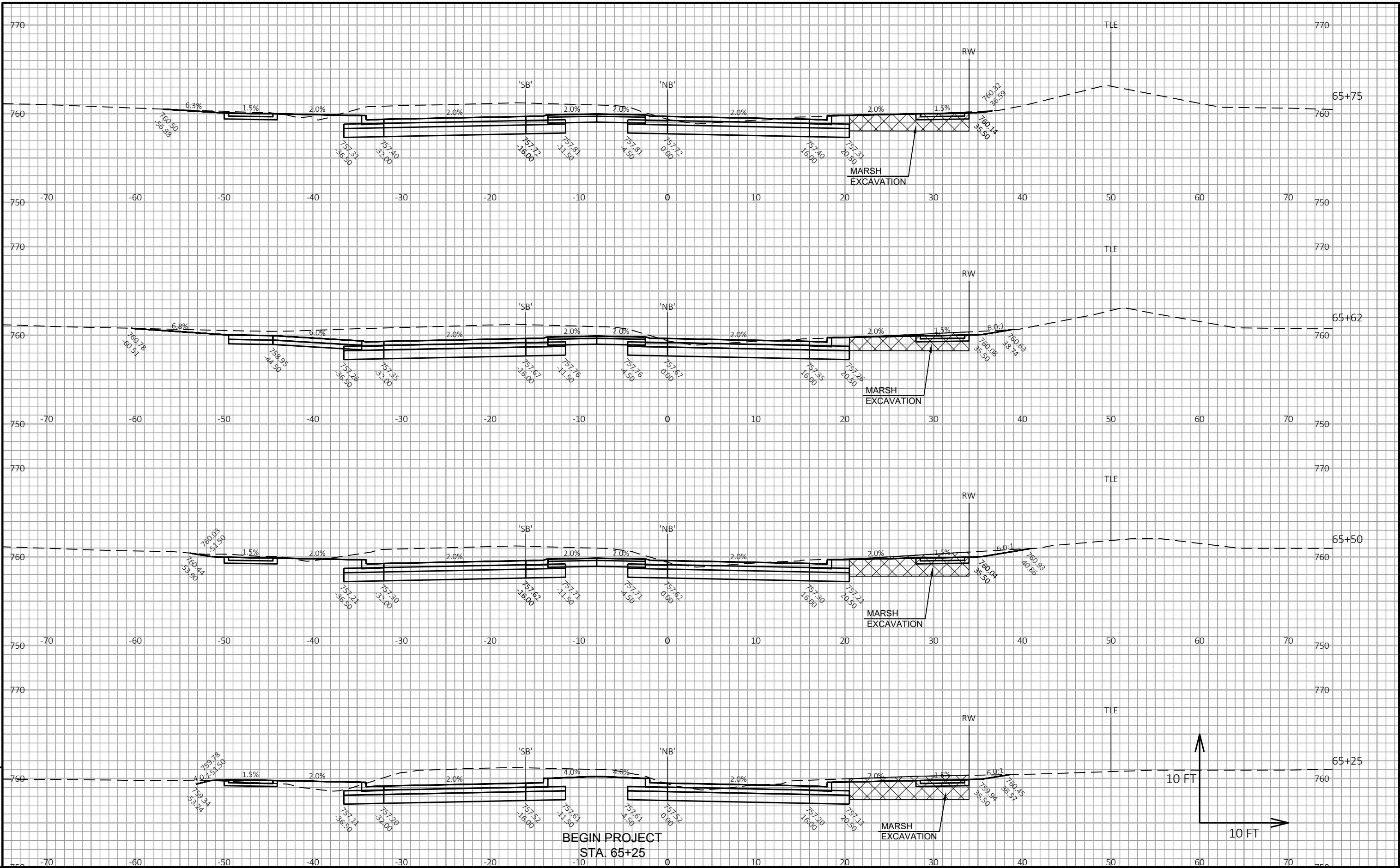
|                                |                                                                                                                                                                                                  |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Notes:                         |                                                                                                                                                                                                  |
| 1 - Cut                        | Cut includes Unusable Pavement Material                                                                                                                                                          |
| 2 - Unusable Pavement Material | This does not show up in cross sections. Paid for as Item 204.0110 Removing Asphaltic Surface or 204.0100 Removing Concrete Pavement                                                             |
| 3 - Fill                       | Fill areas outside the back of sidewalk only. (See Construction Detail)                                                                                                                          |
| 4 - Select Borrow Fill         | For fill areas behind curb/under terrace and under sidewalk. Will be backfilled with Select Borrow (See Construction Detail)                                                                     |
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| 6 - Marsh Excavation           | Anticipated marsh excavation areas shown in cross sections.                                                                                                                                      |
| 7 - Expanded Marsh Backfill    | Marsh Excavation under proposed roadway backfilled with Item 312.0110 Select Crushed, outside of proposed roadway backfilled with Item 208.1100 Select Borrow. (See Construction Detail)         |
| 8 - Mass Ordinate              | Cut + EBS - Unusable Pavement Material - Fill * Fill Factor                                                                                                                                      |

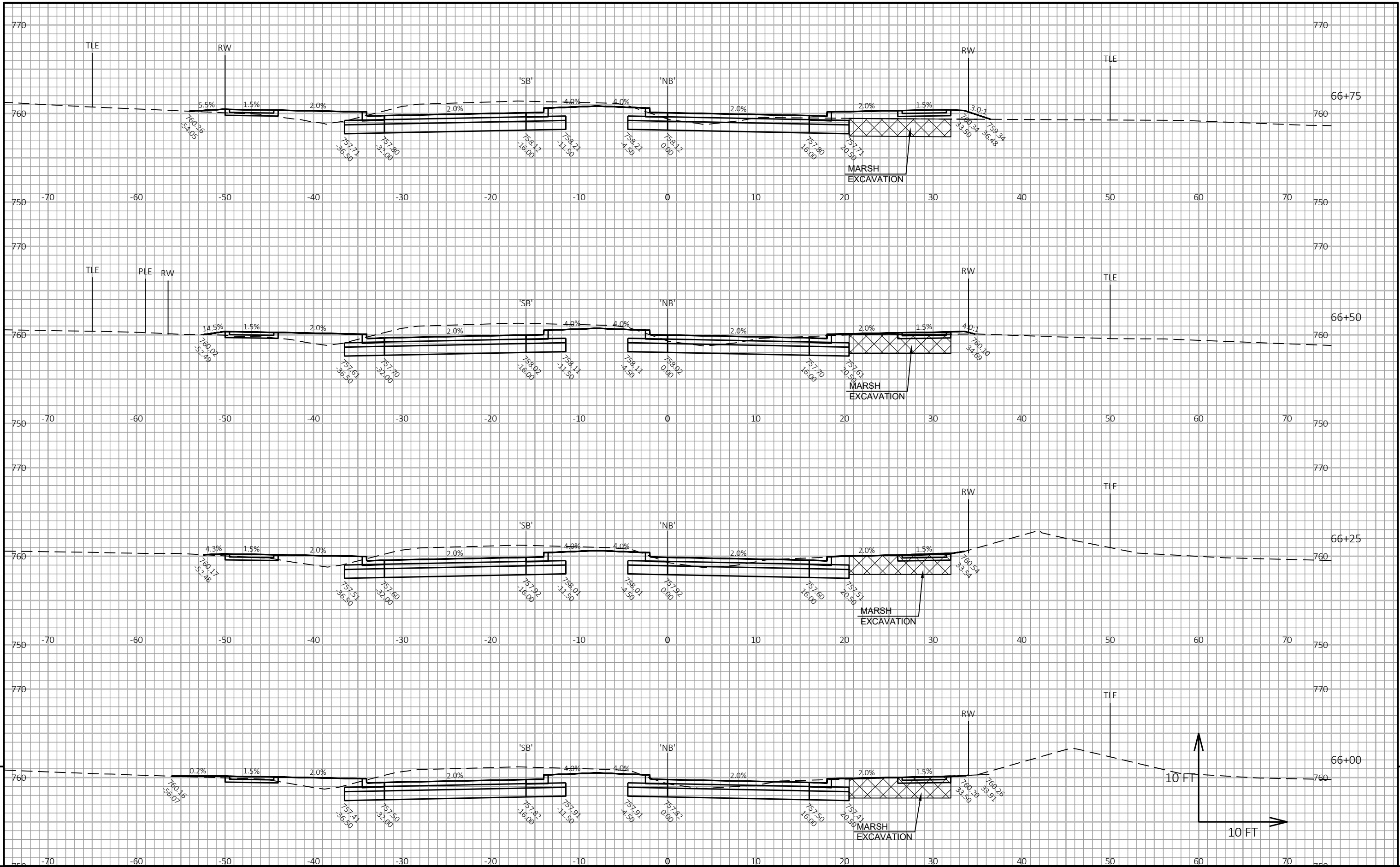


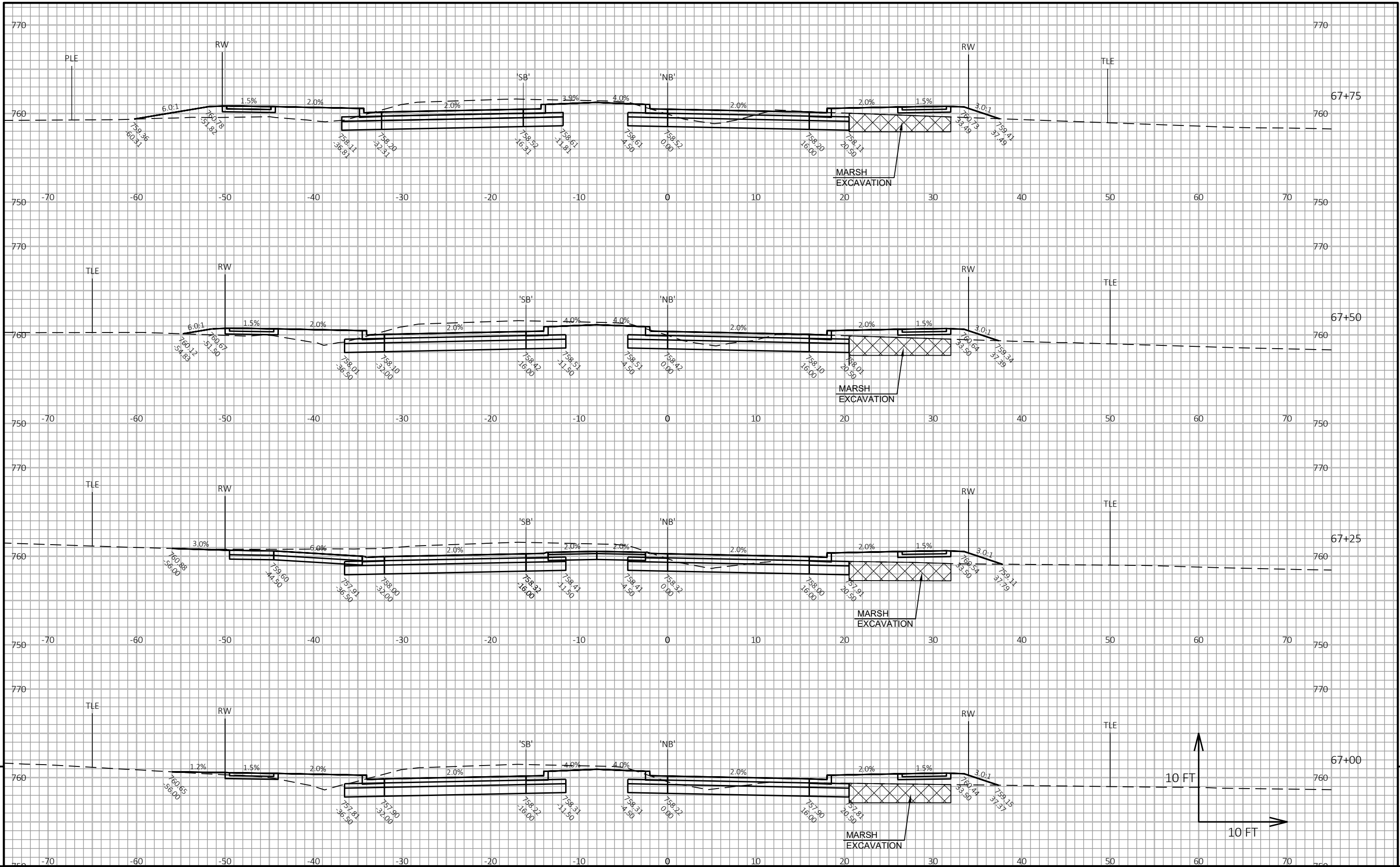
BEGIN CONSTRUCTION  
STA. 64+25

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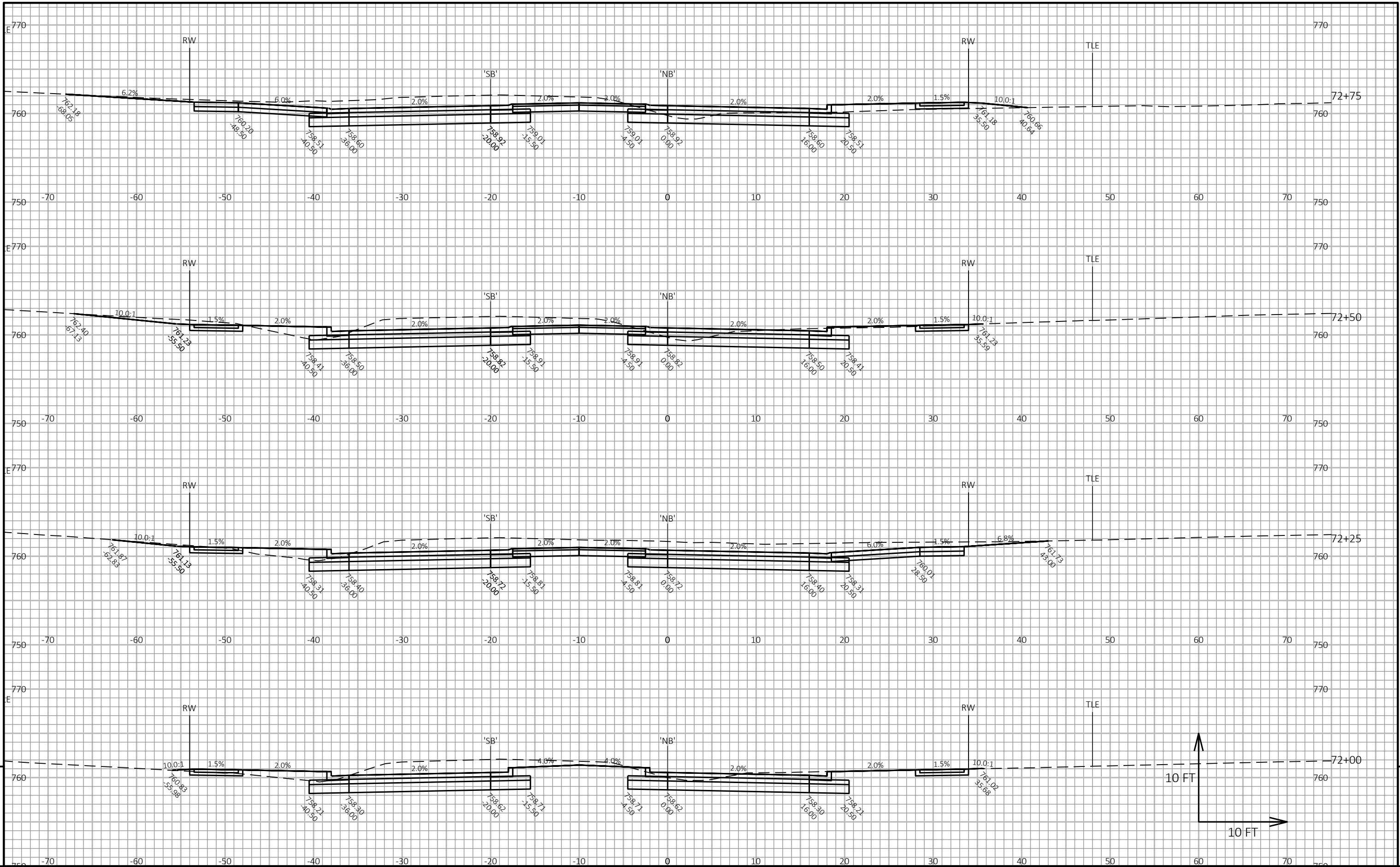


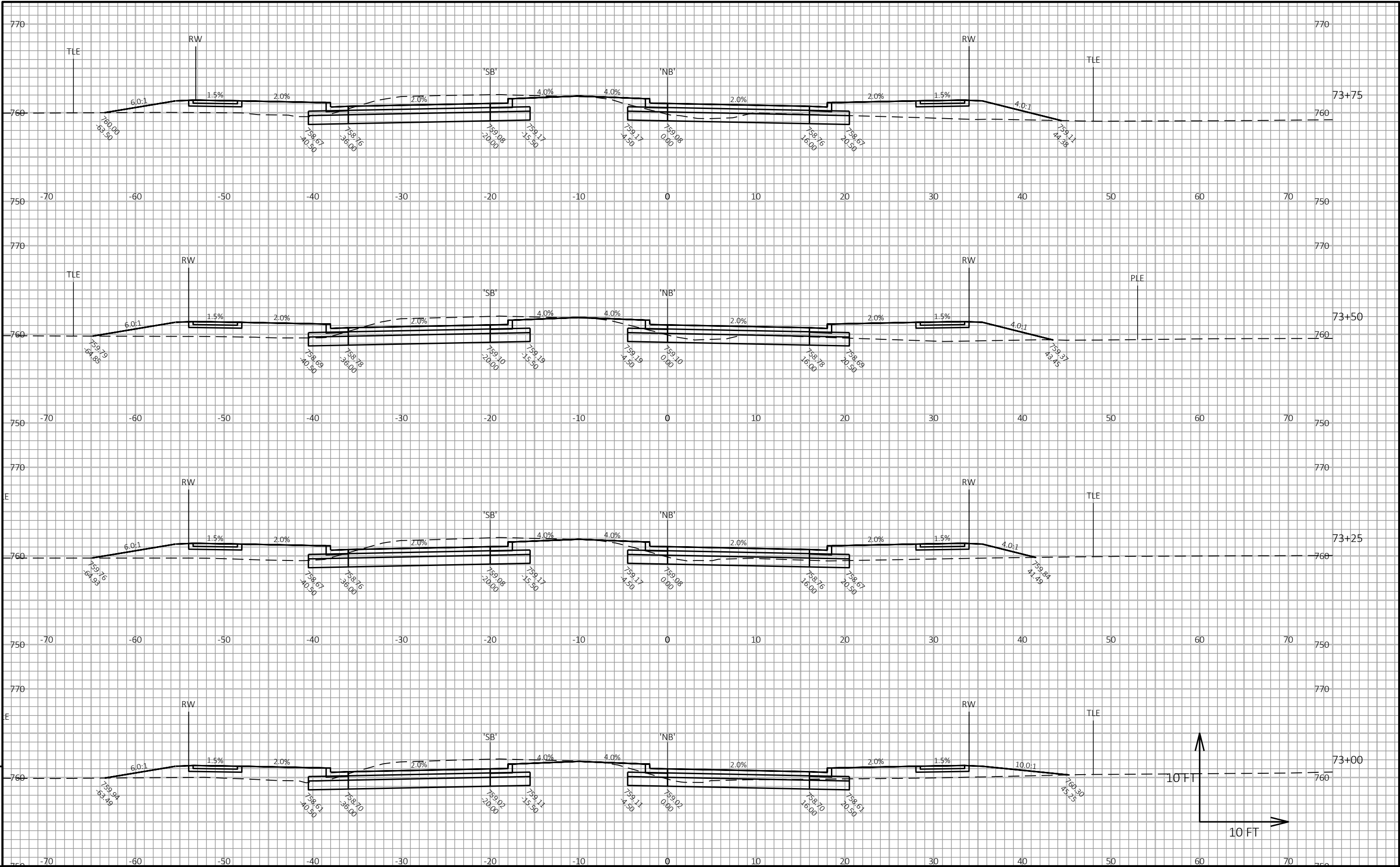


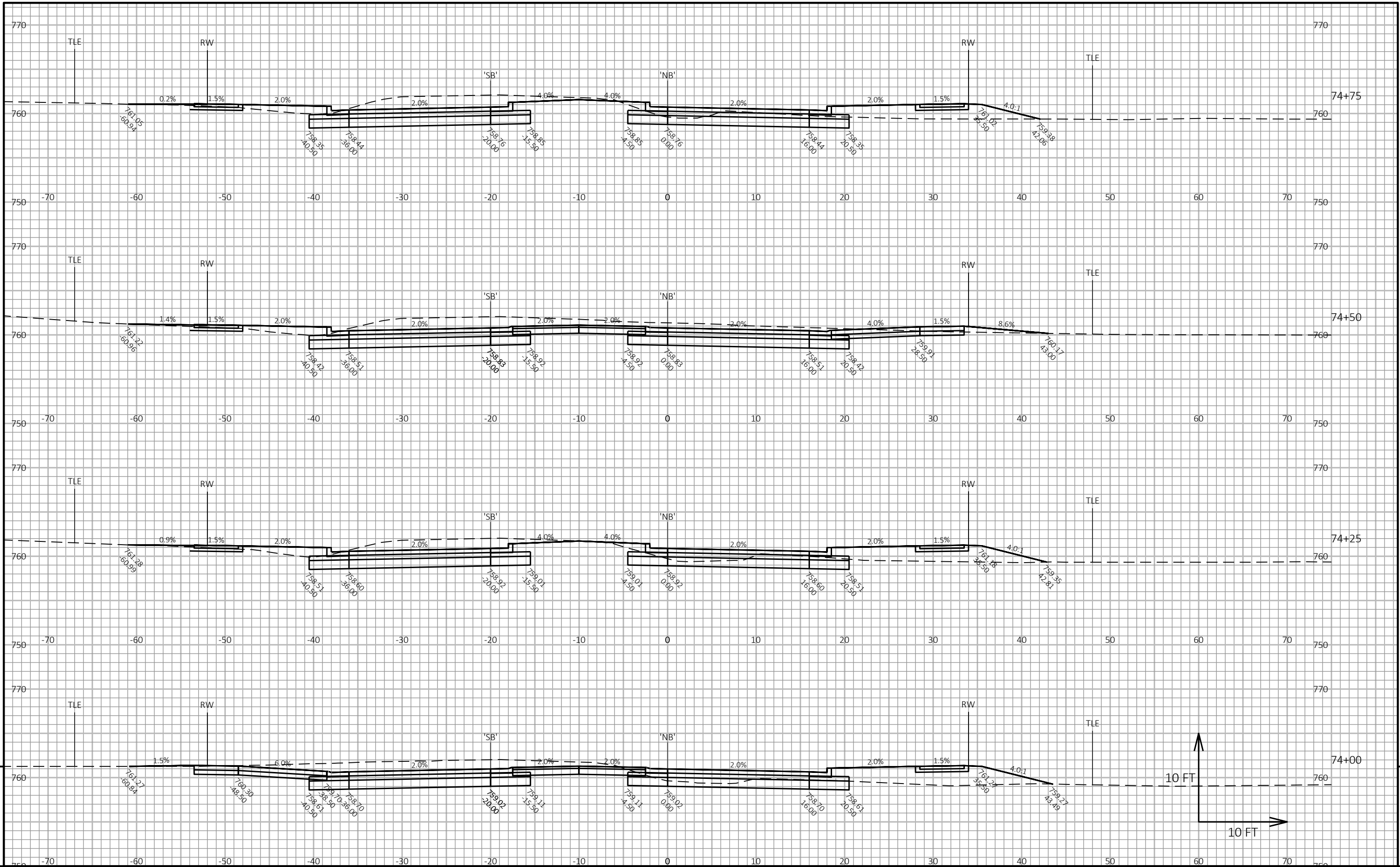


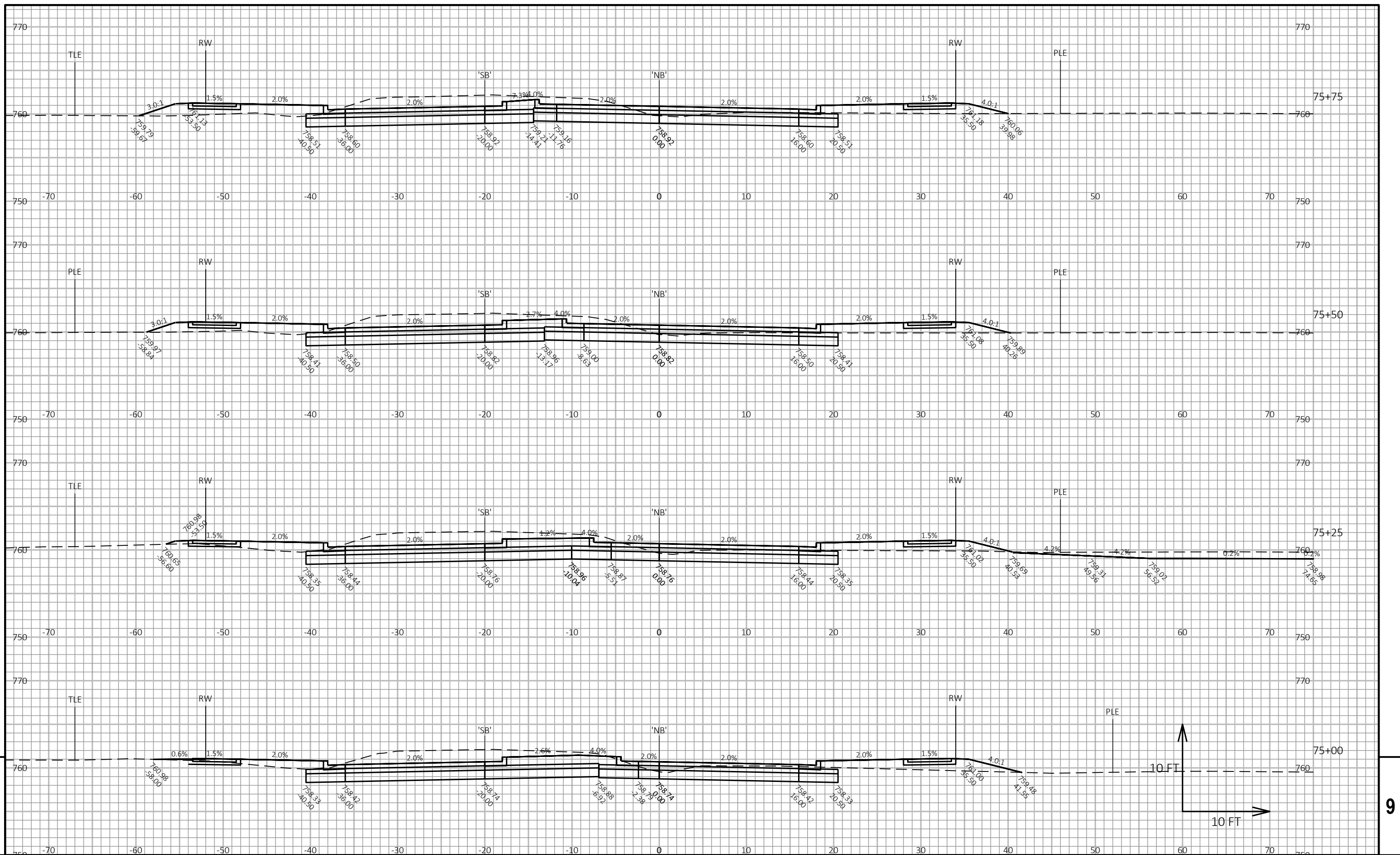












|             |            |
|-------------|------------|
| PROJECT NO: | 9269-00-14 |
|-------------|------------|

HWY: MARLEY STREET

COUNTY: BROWN

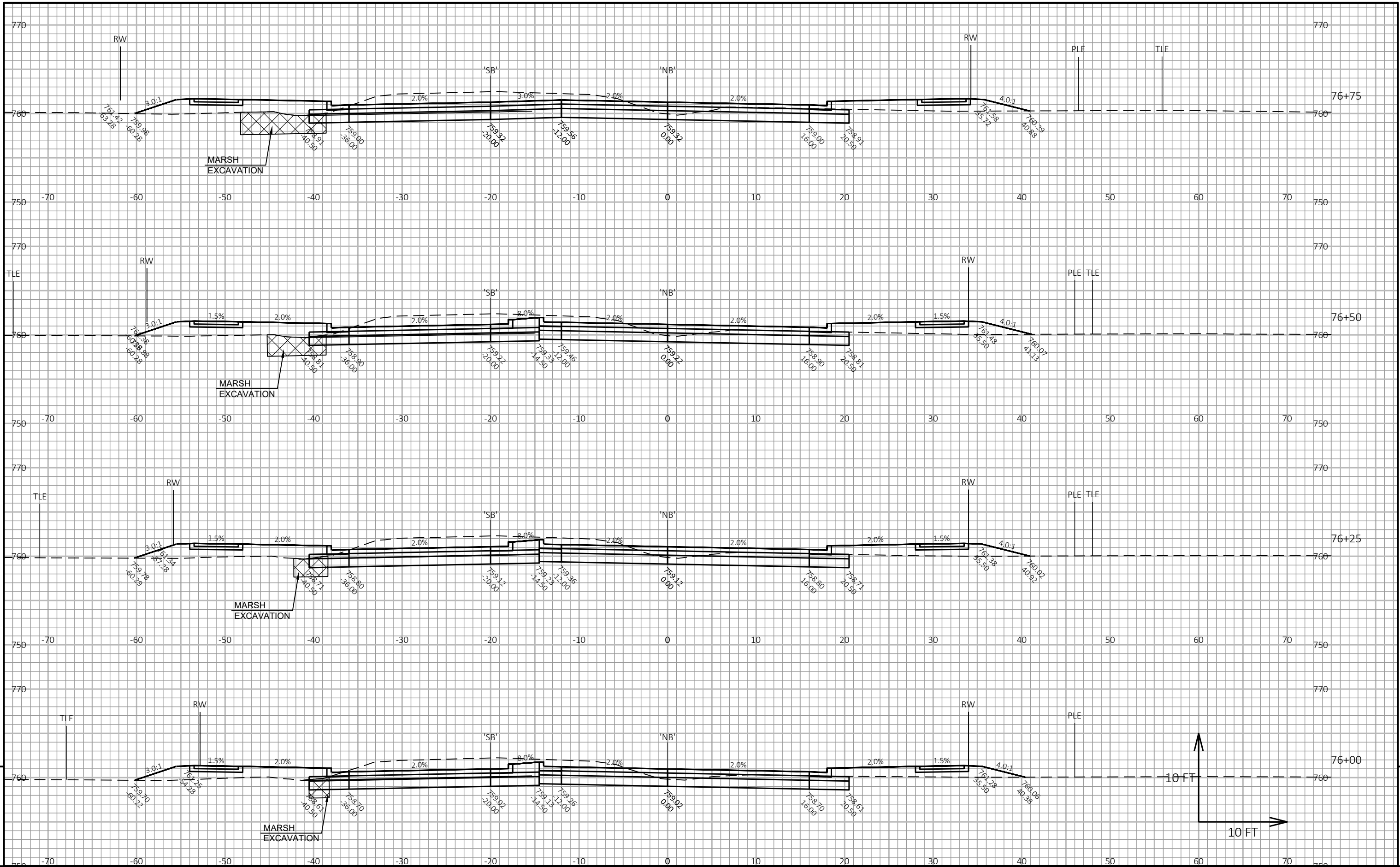
CROSS SECTIONS: MARLEY ST

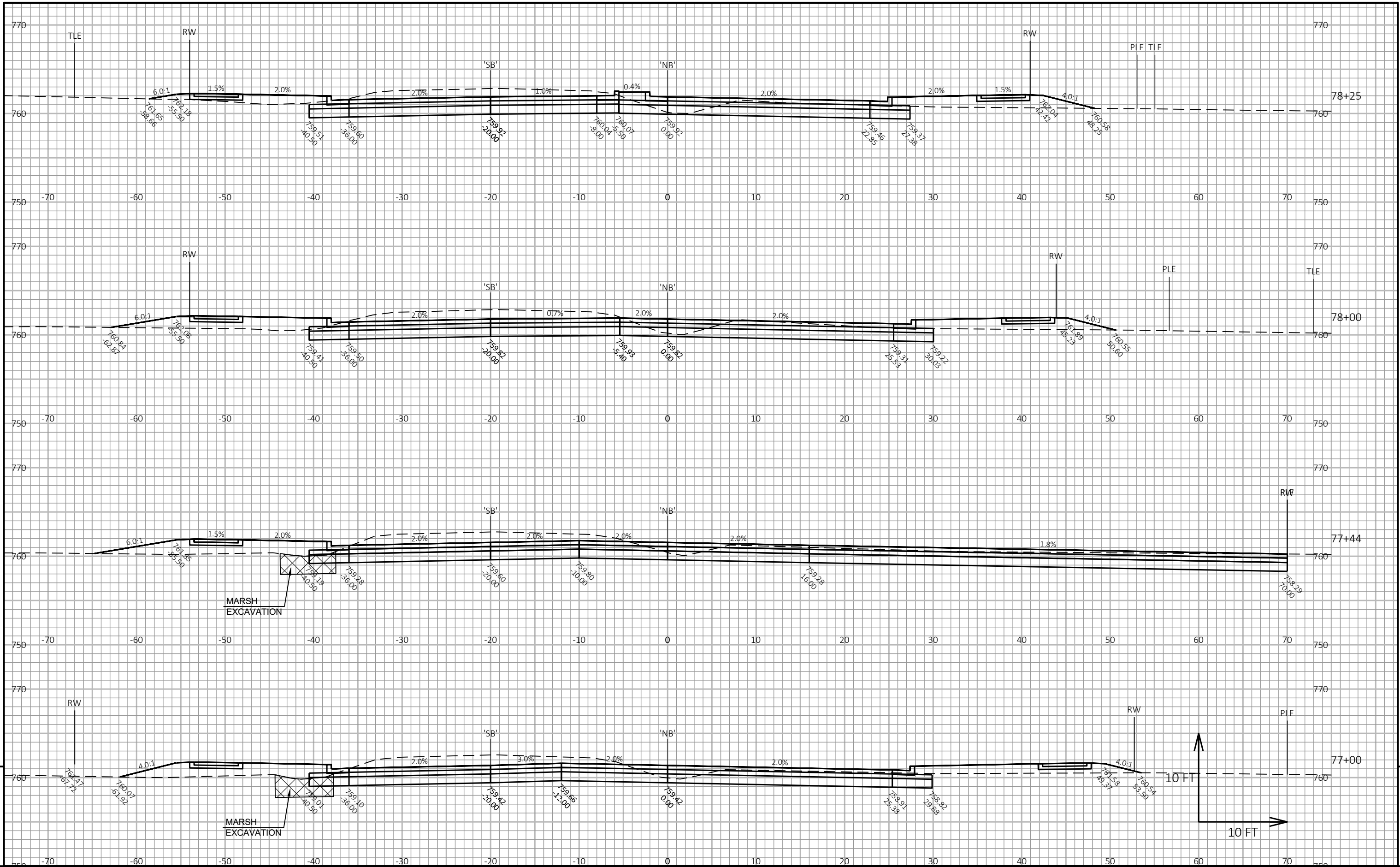
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SHEET
183

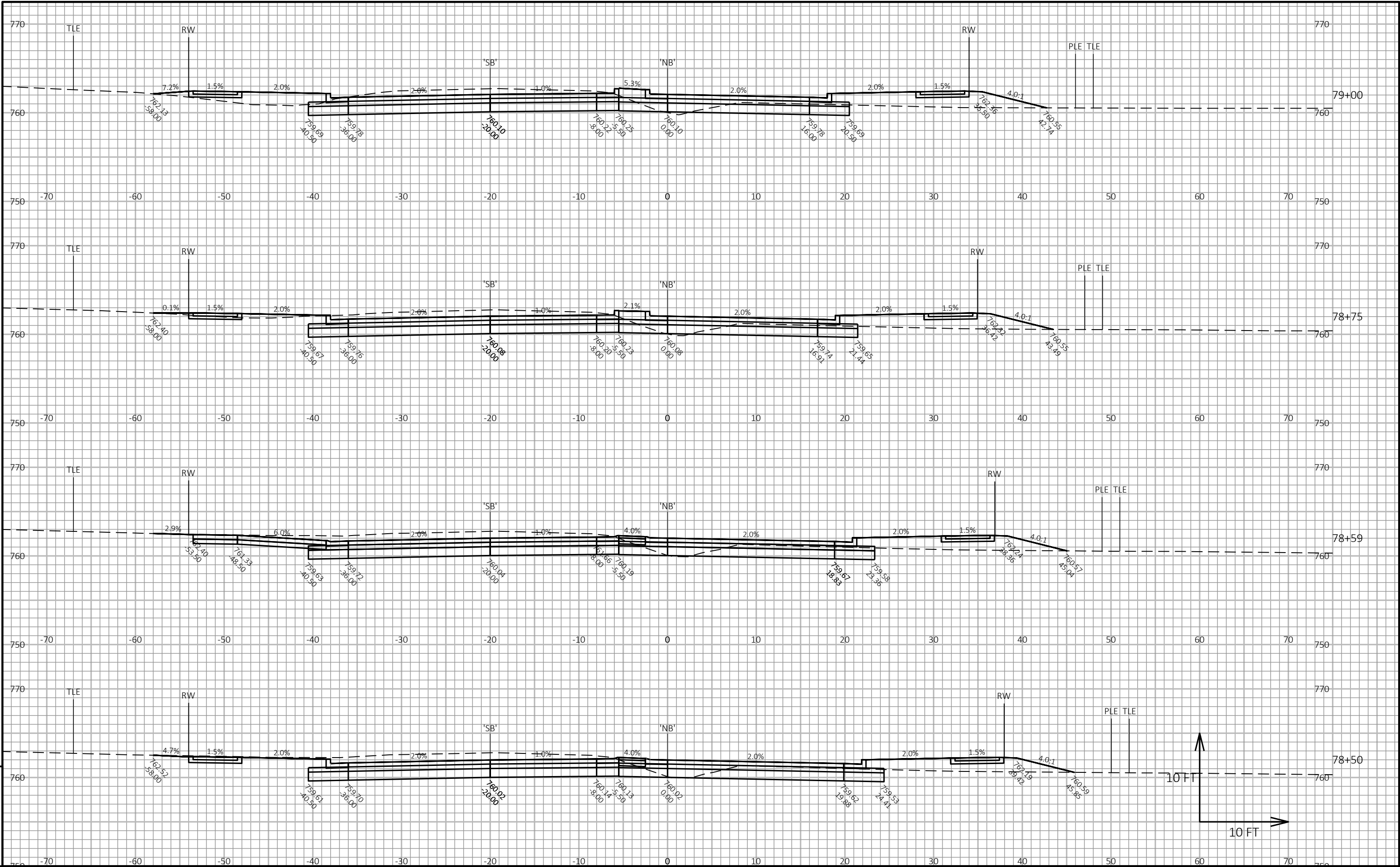
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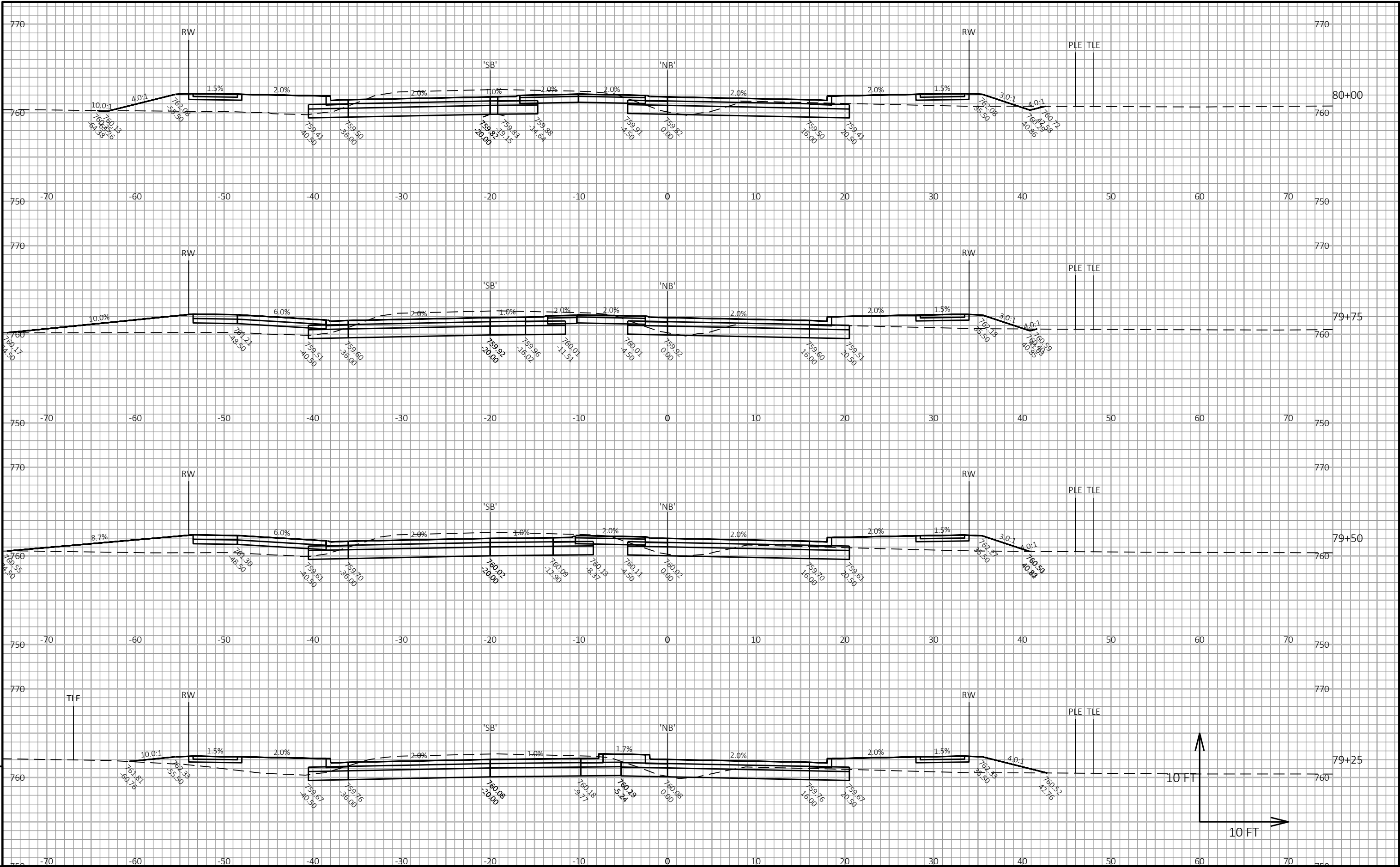


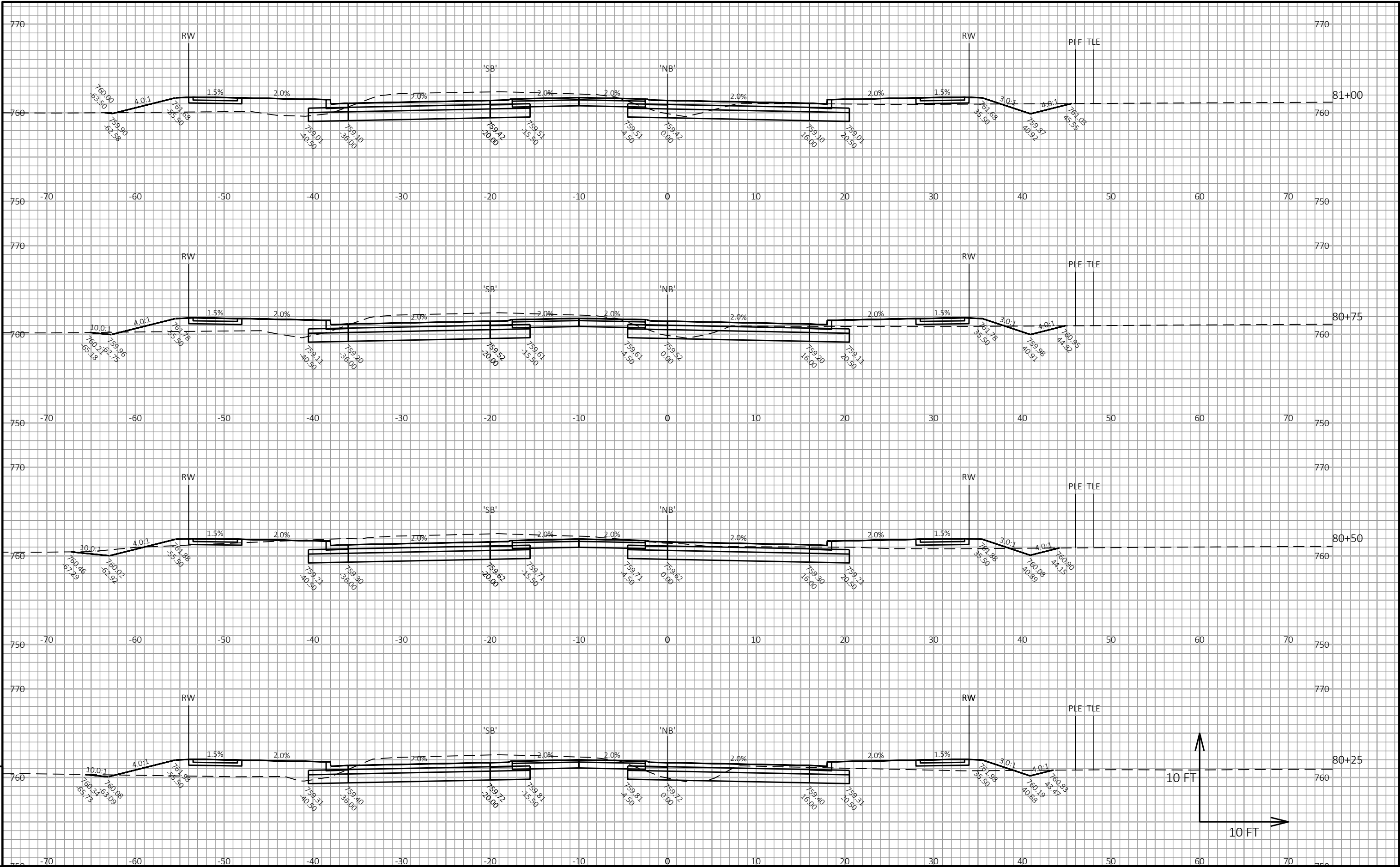


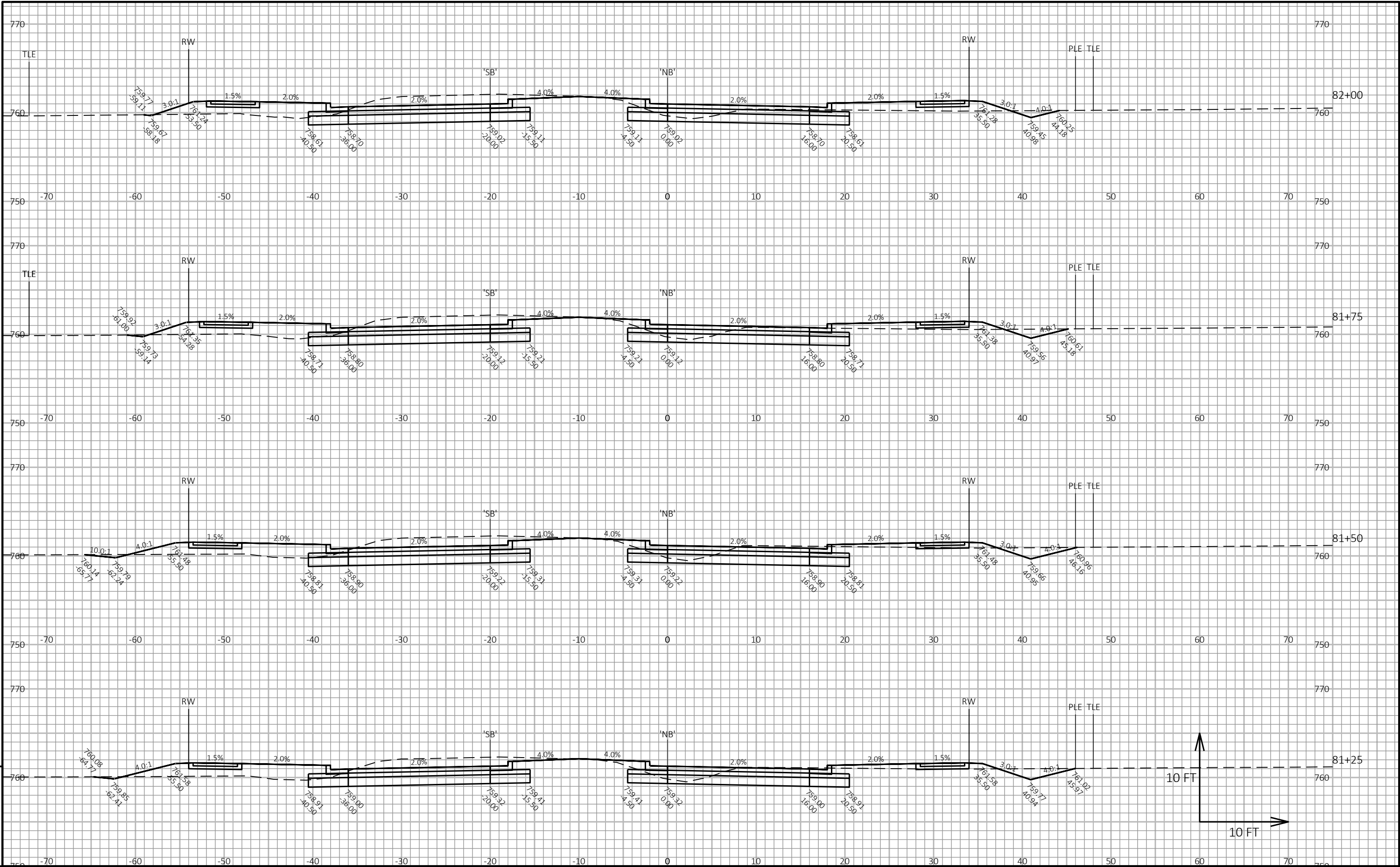


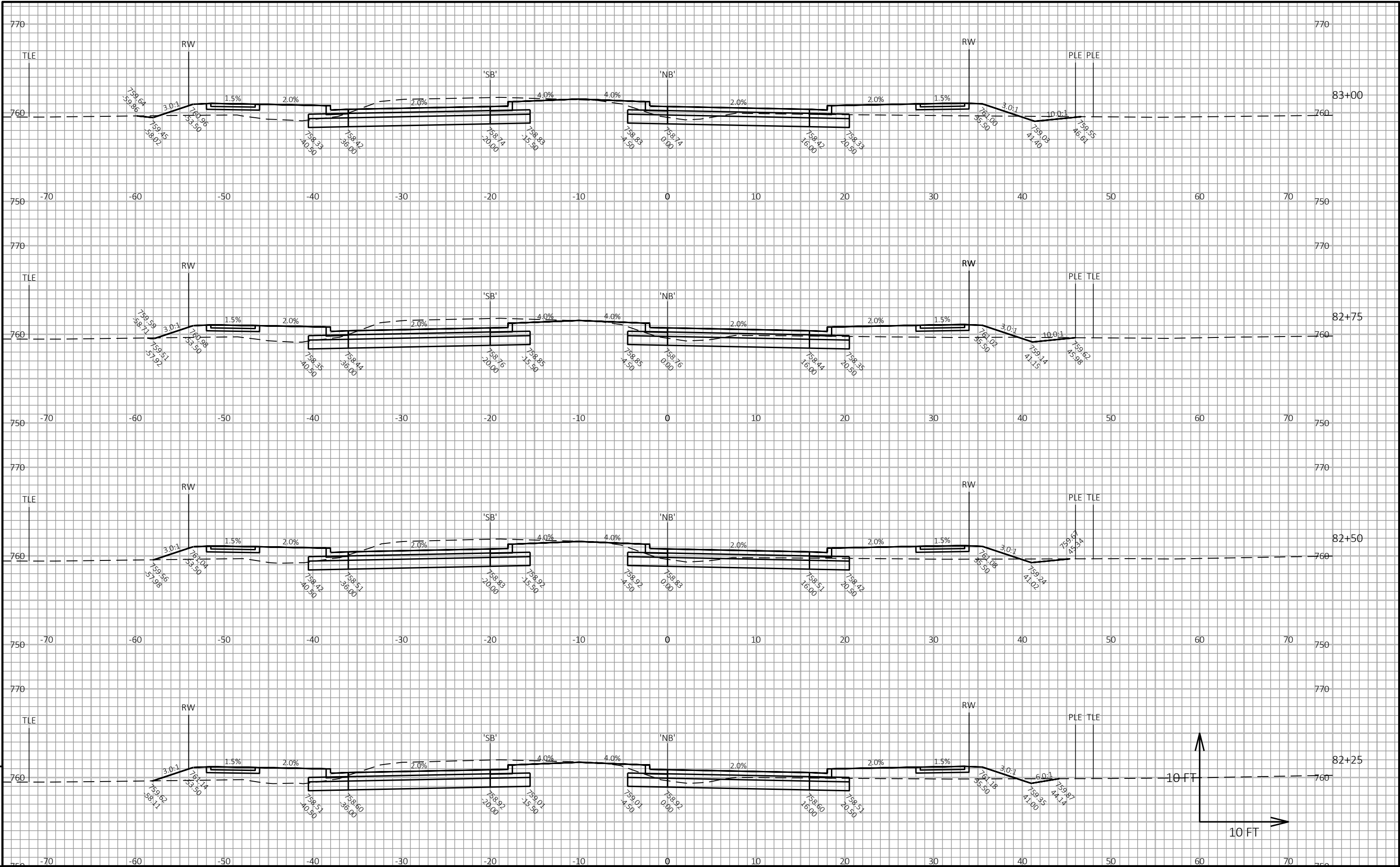






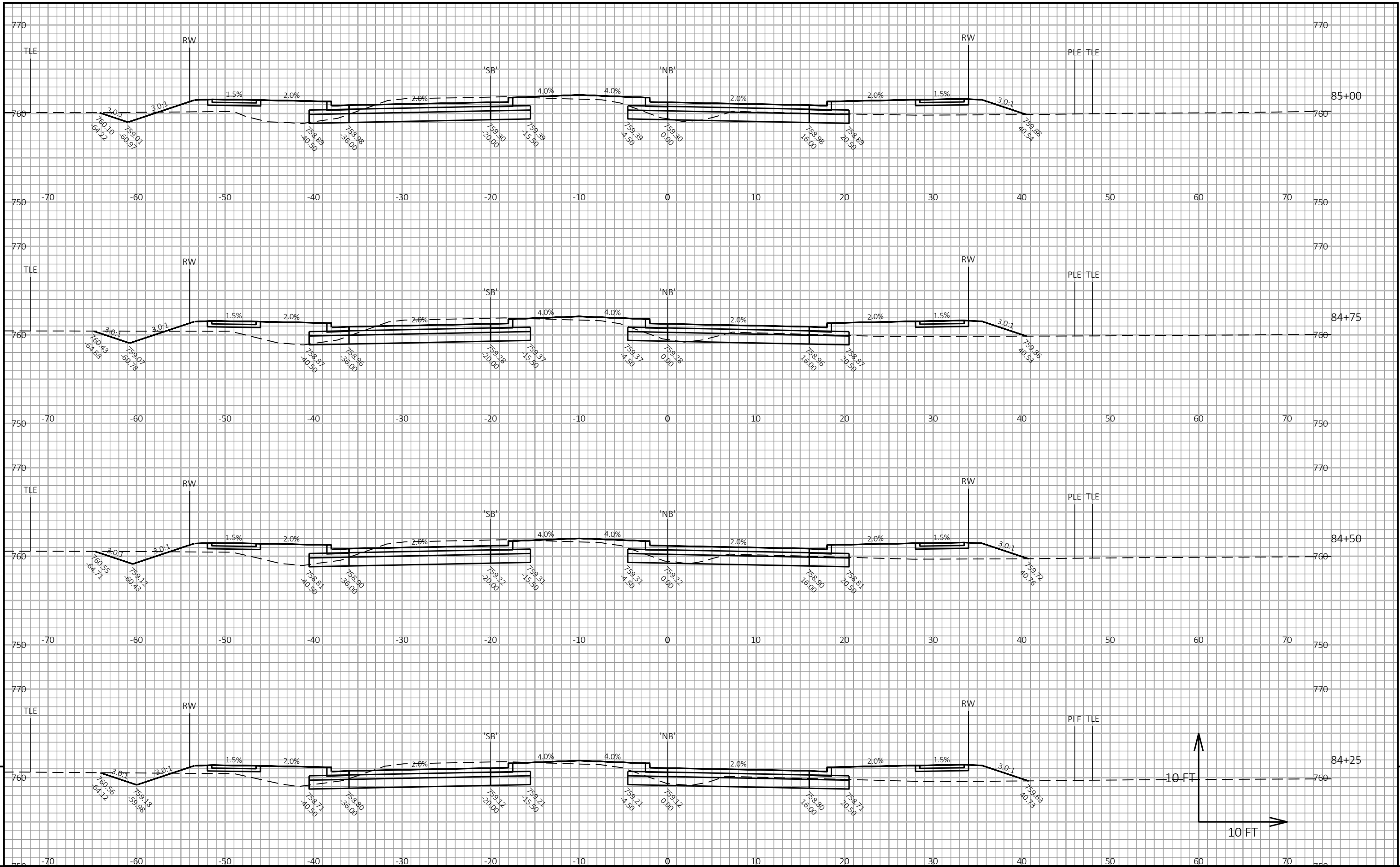


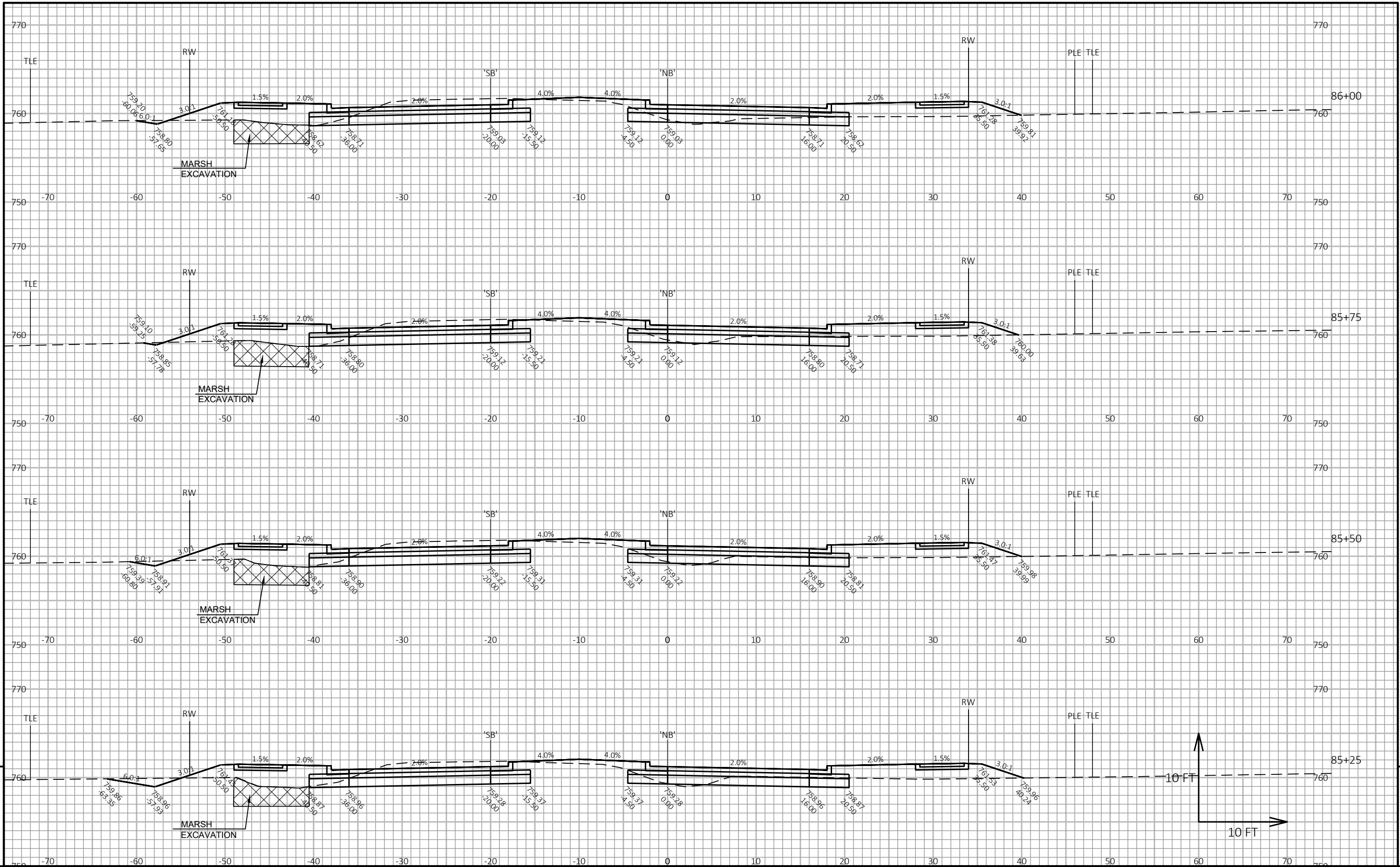




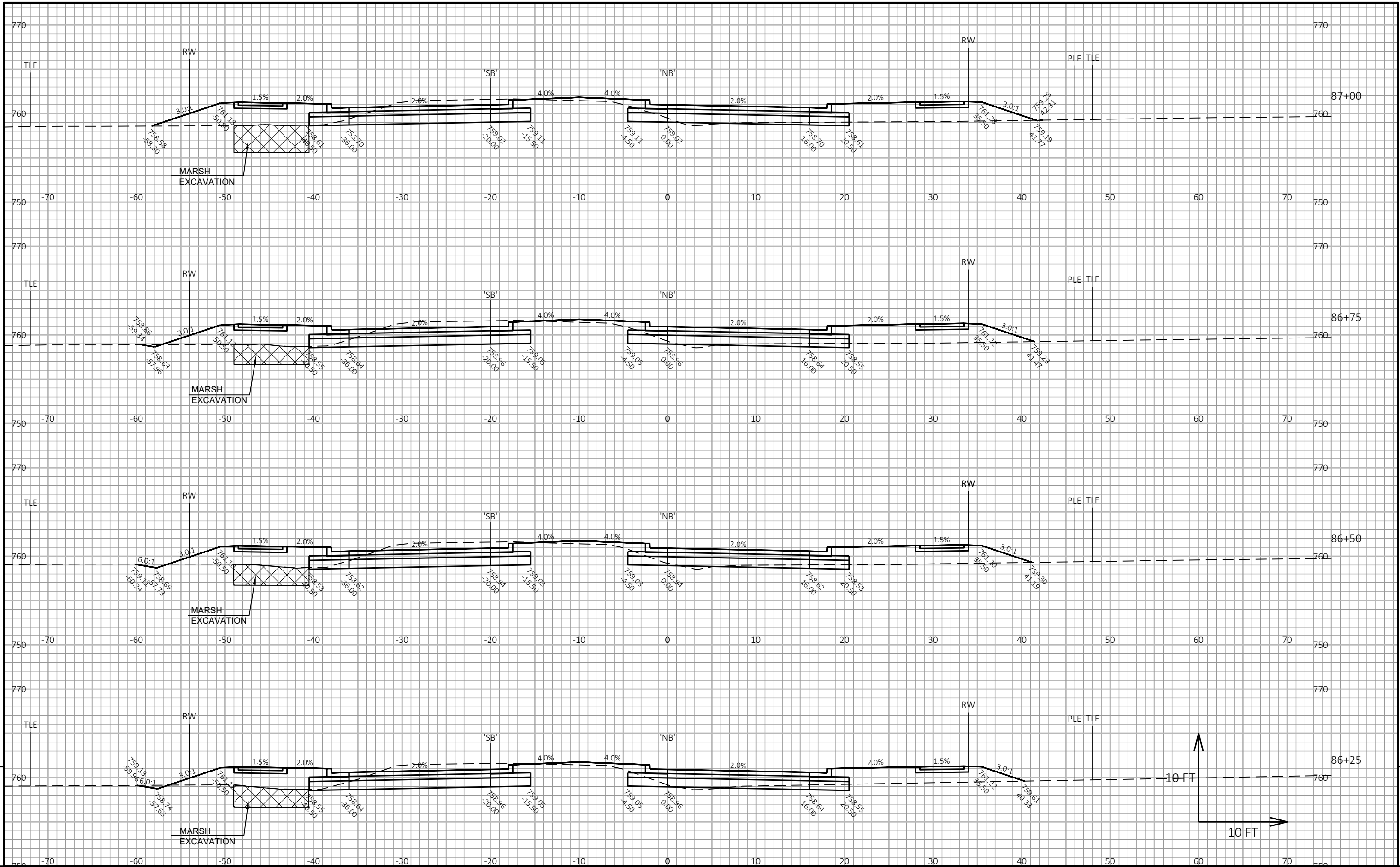


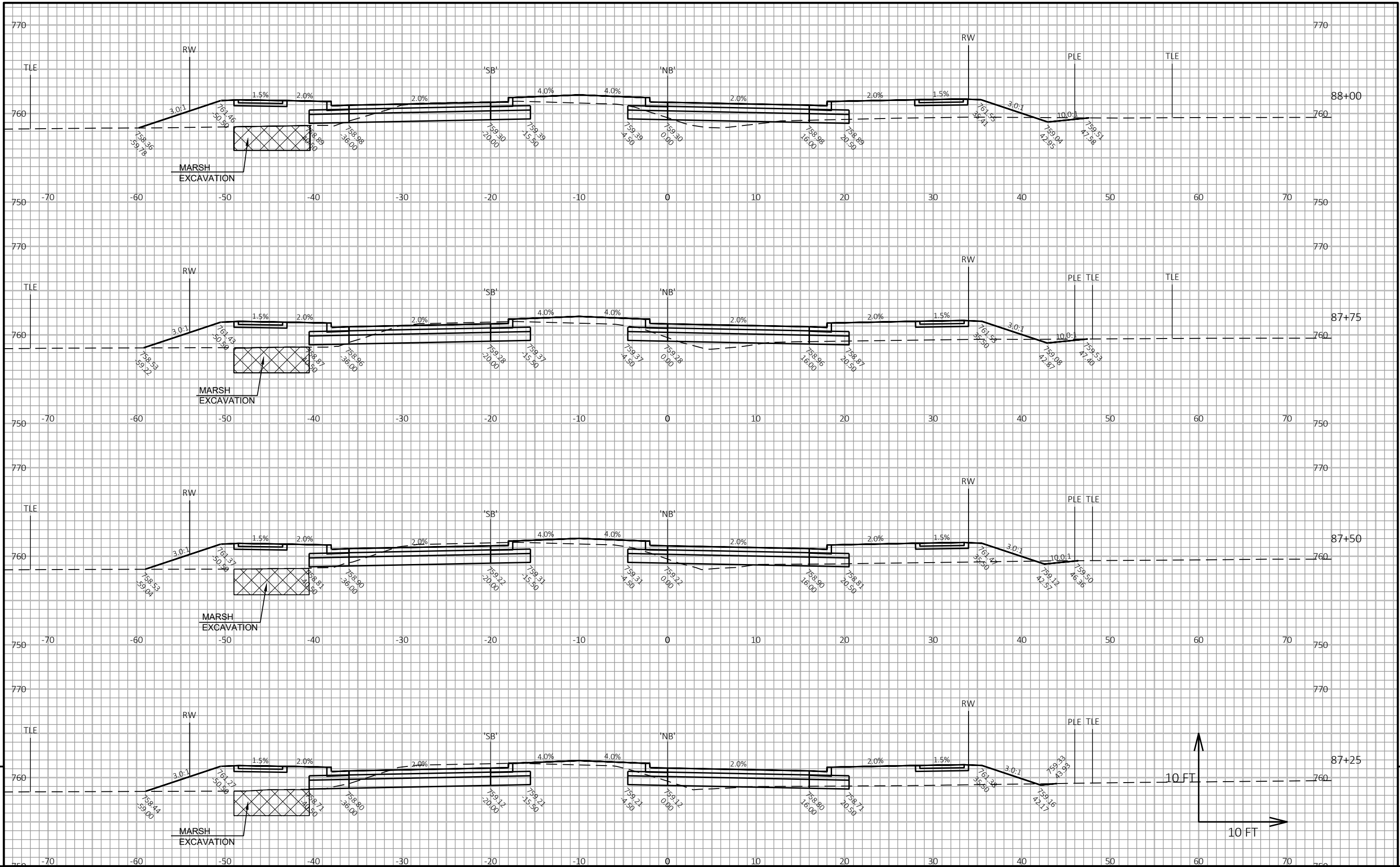




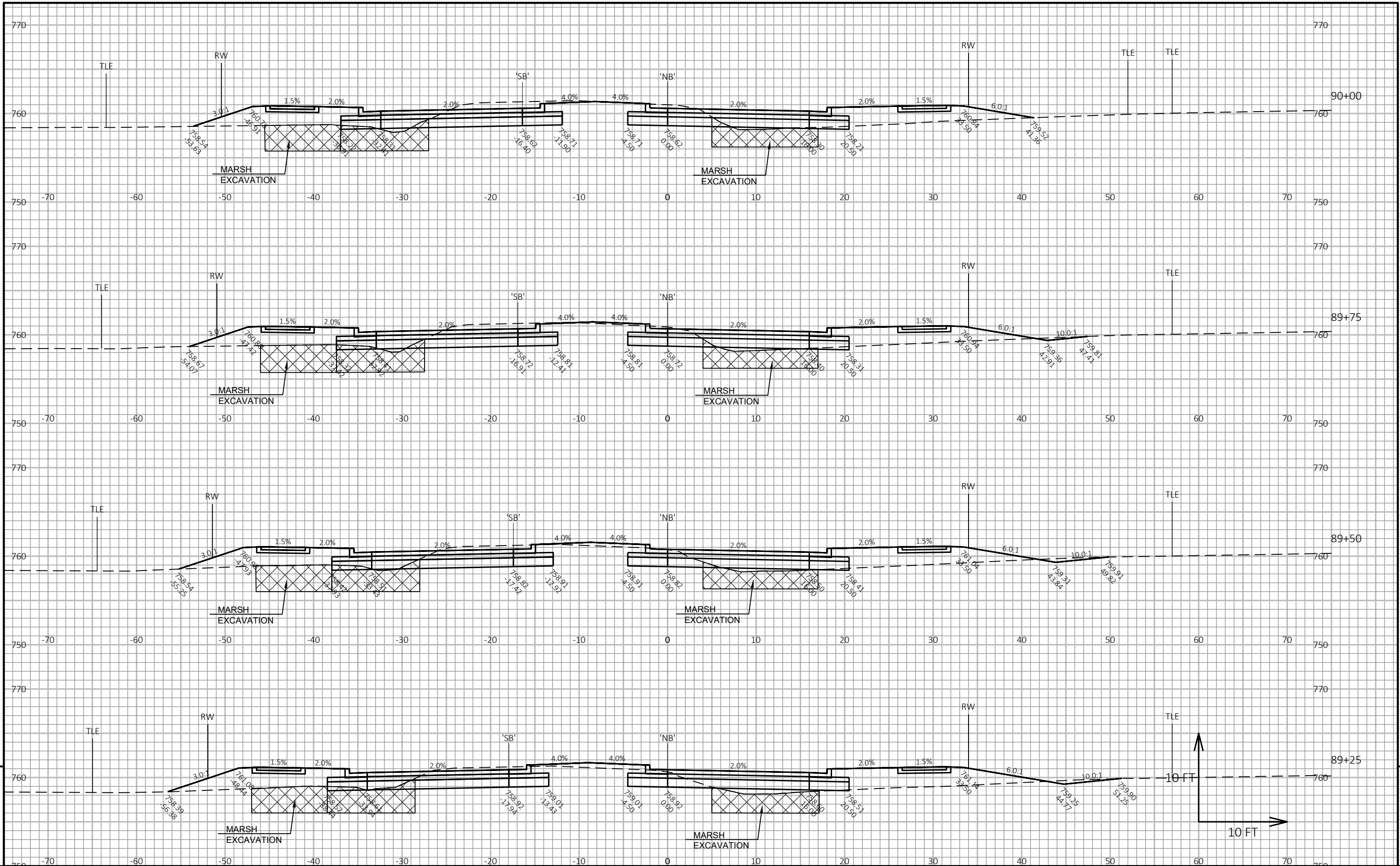


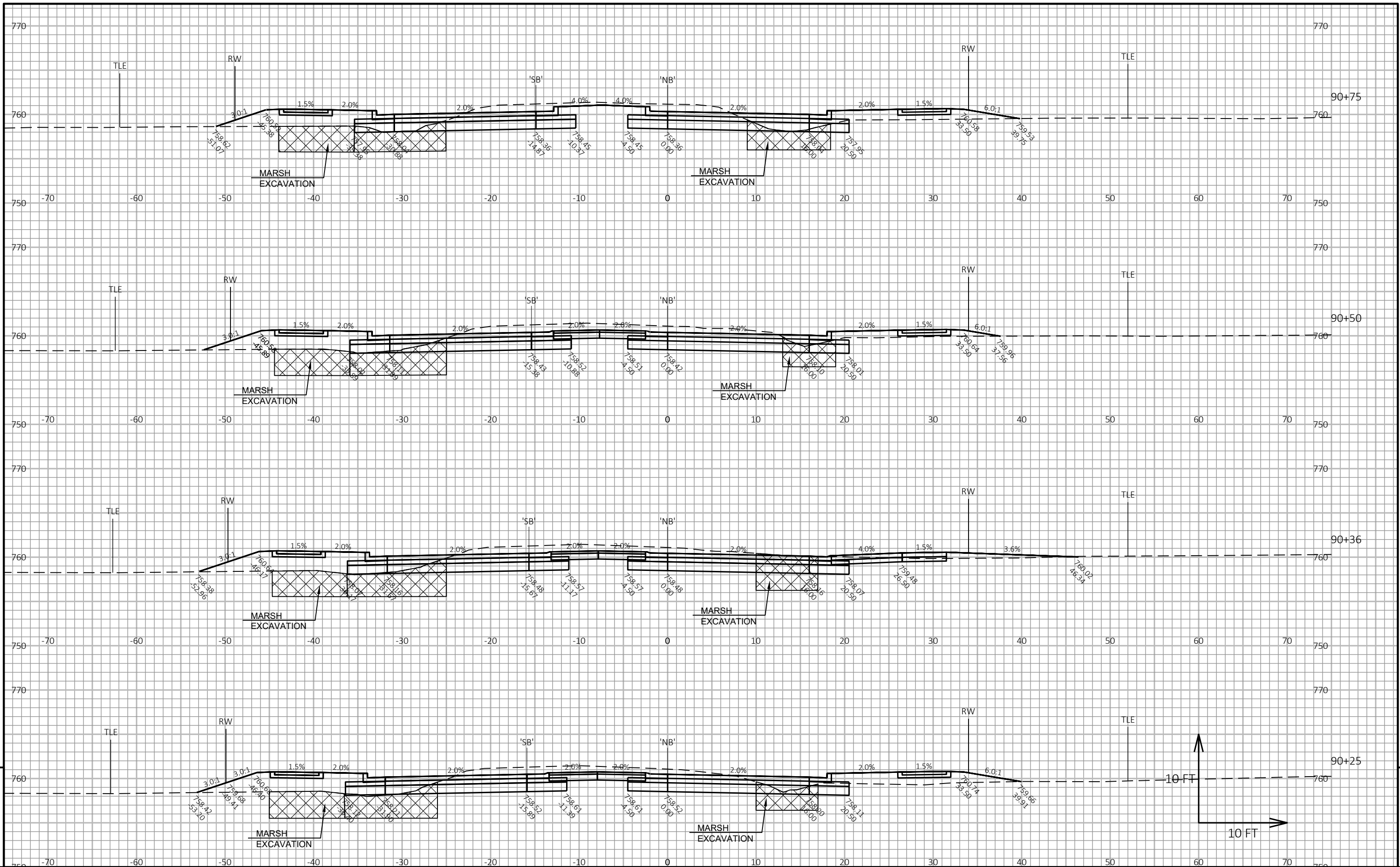


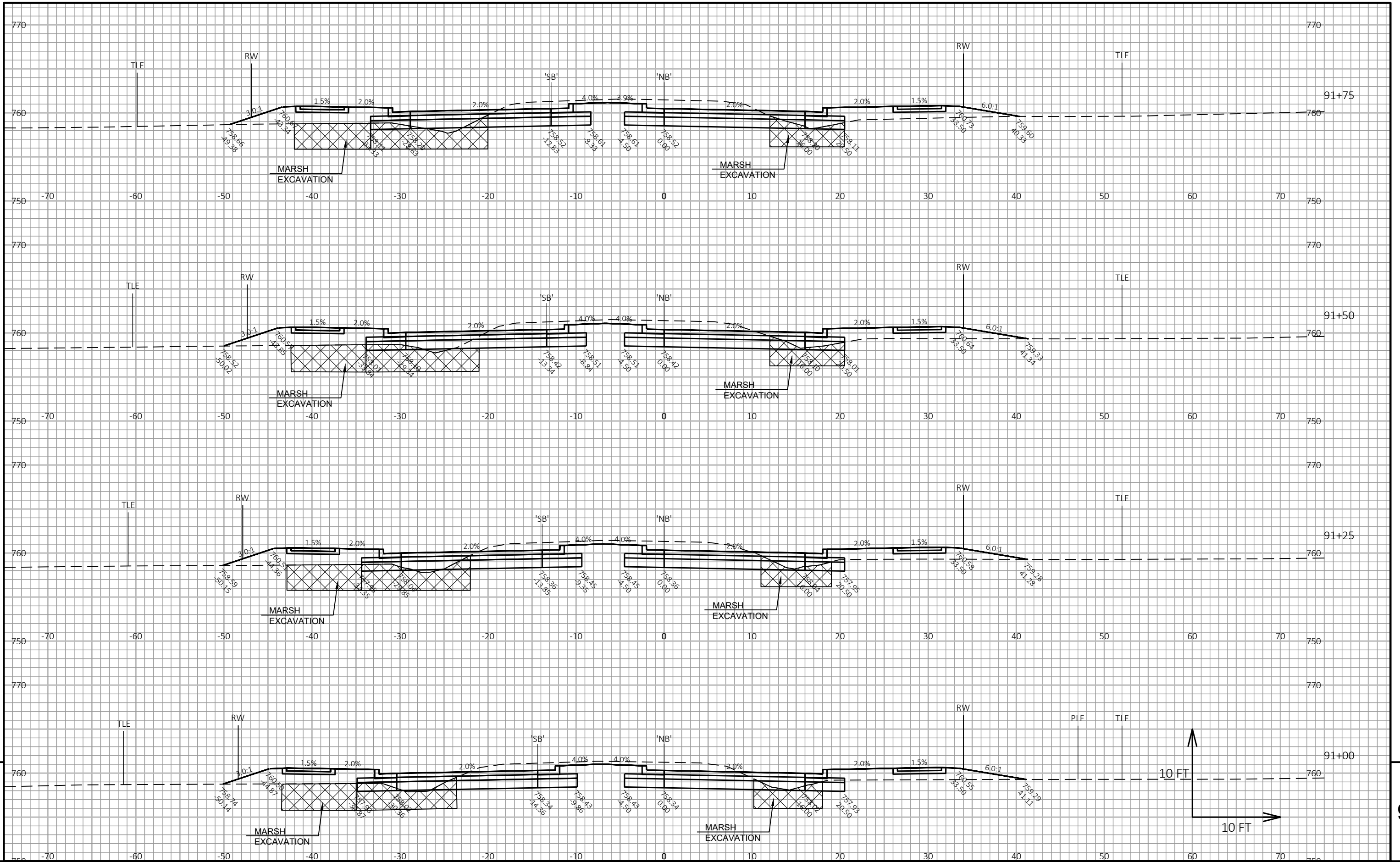




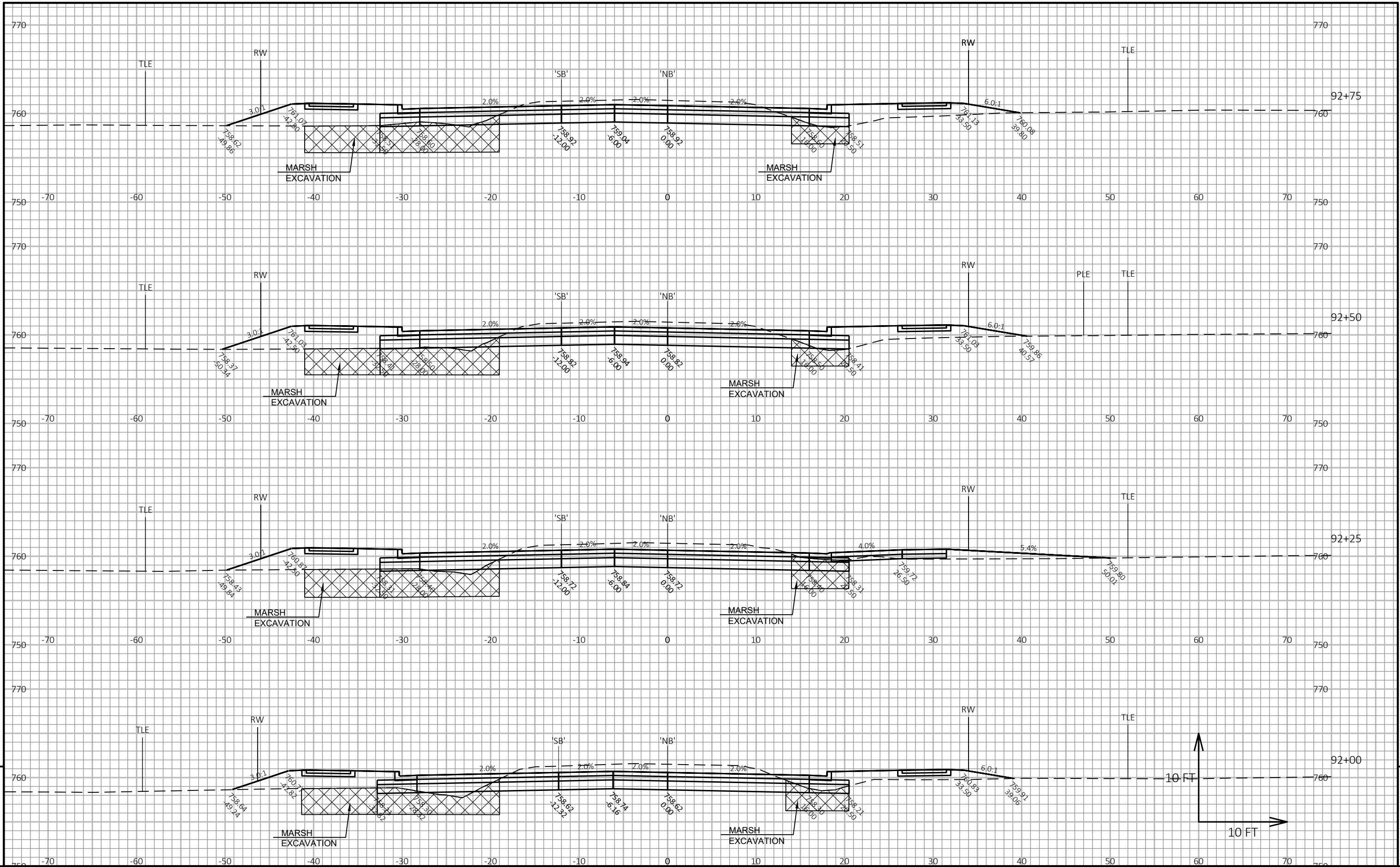


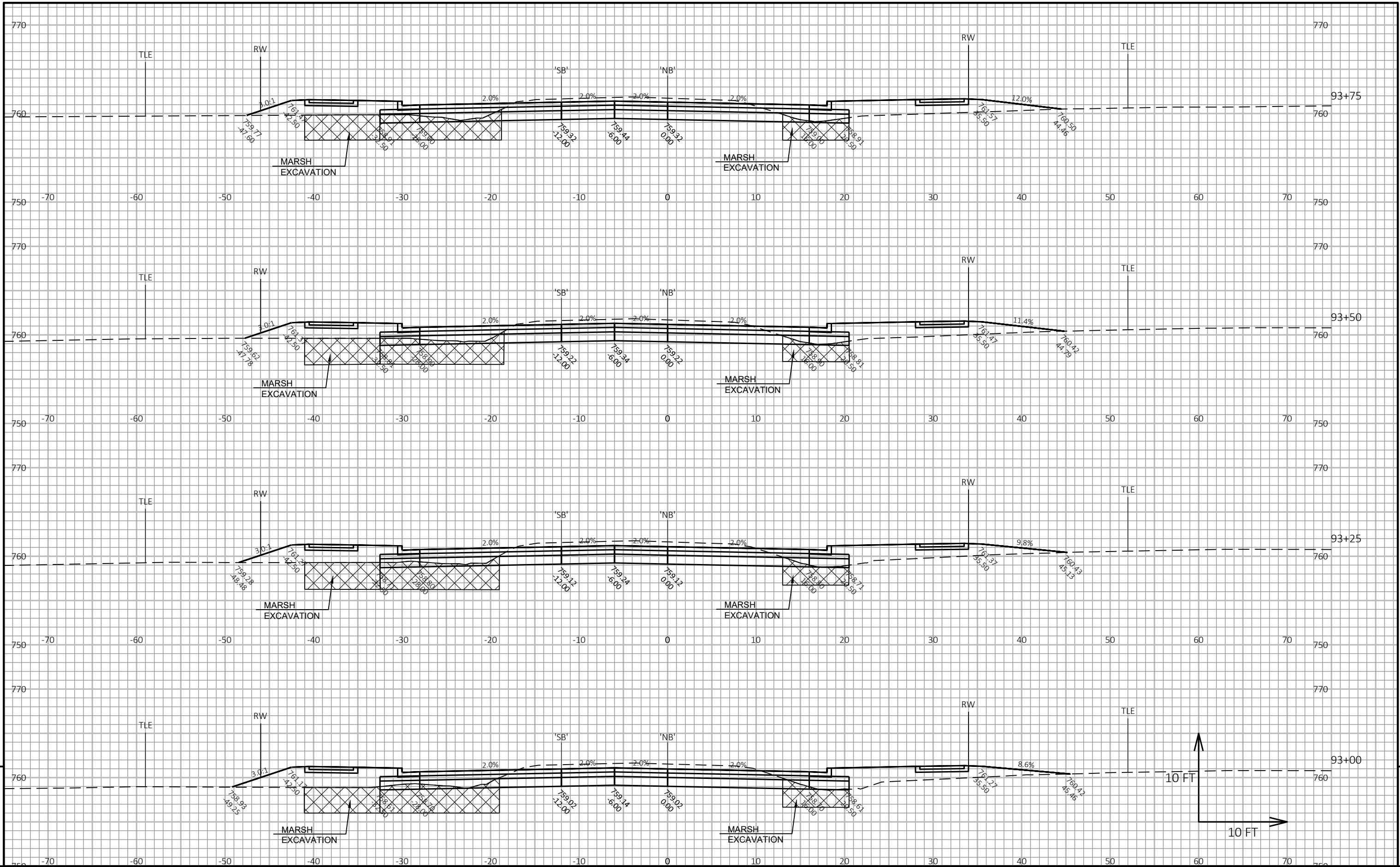




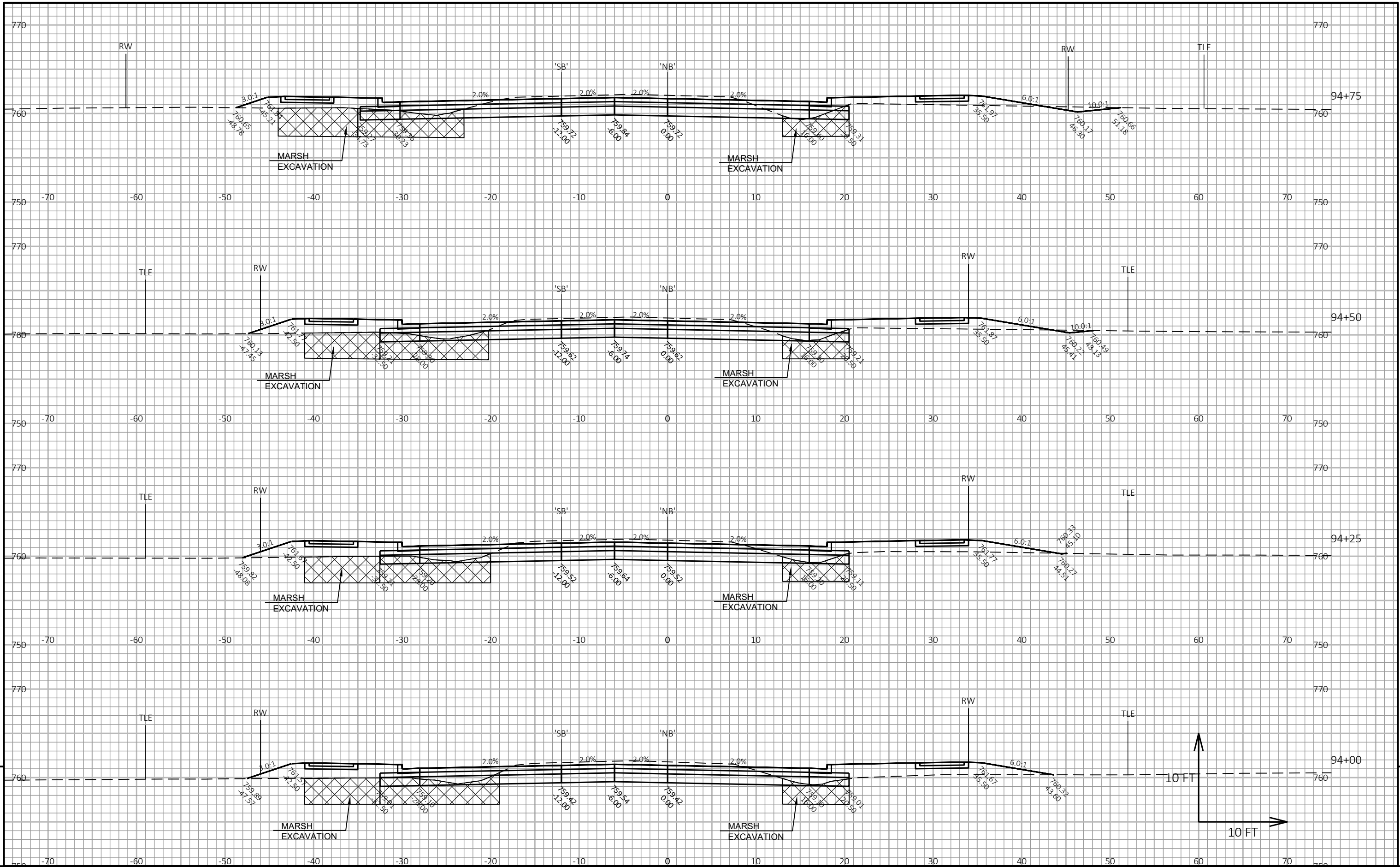


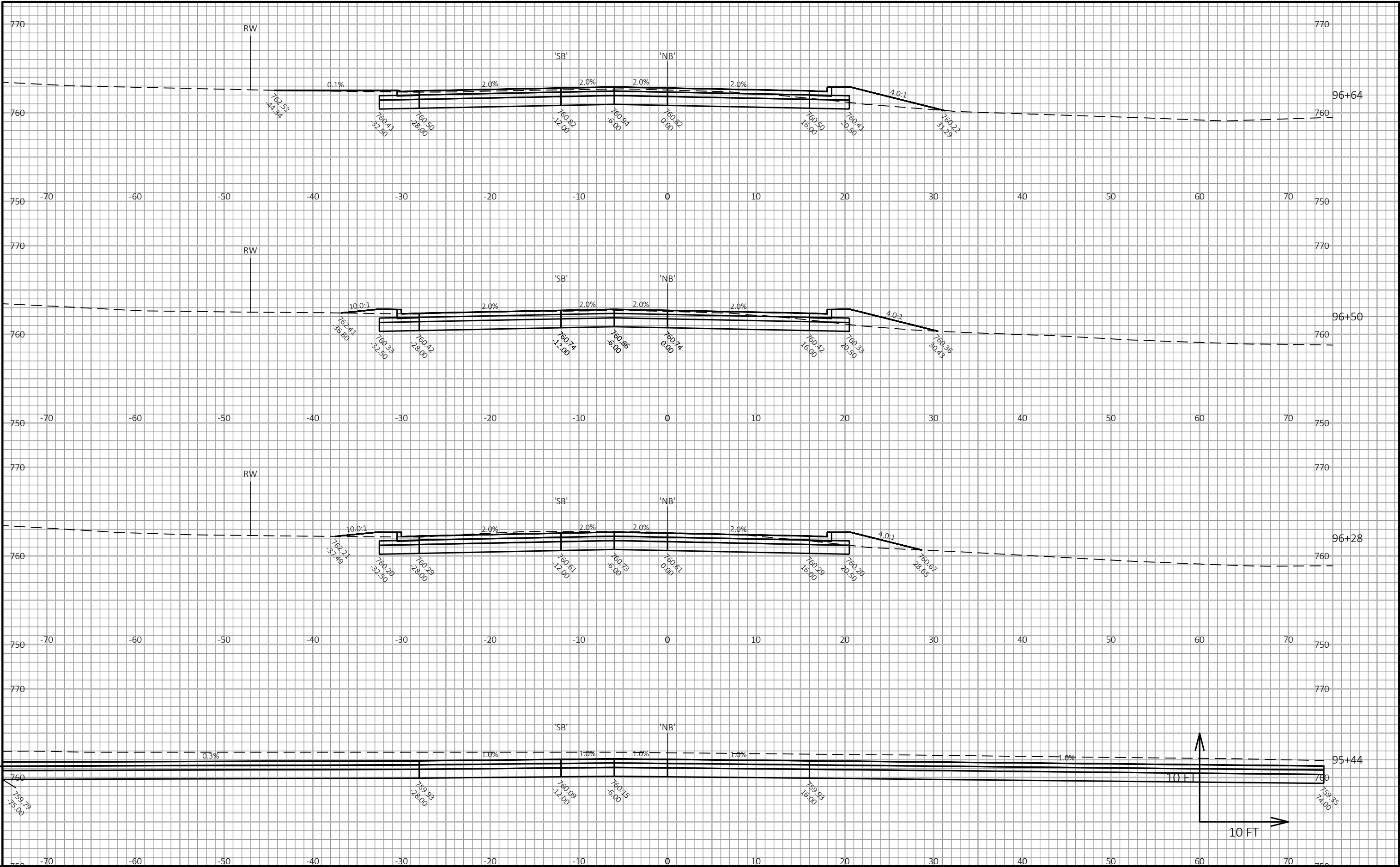


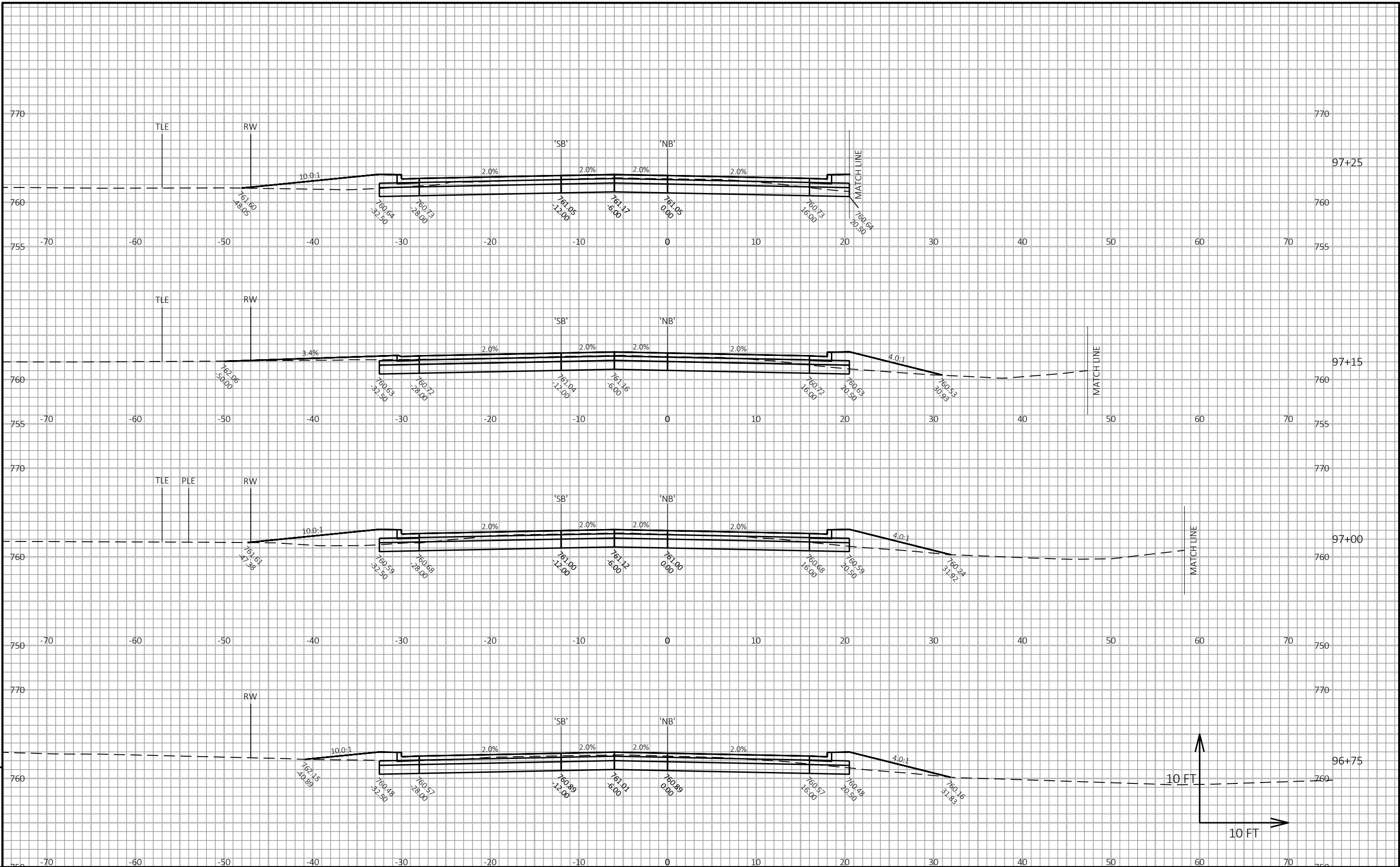


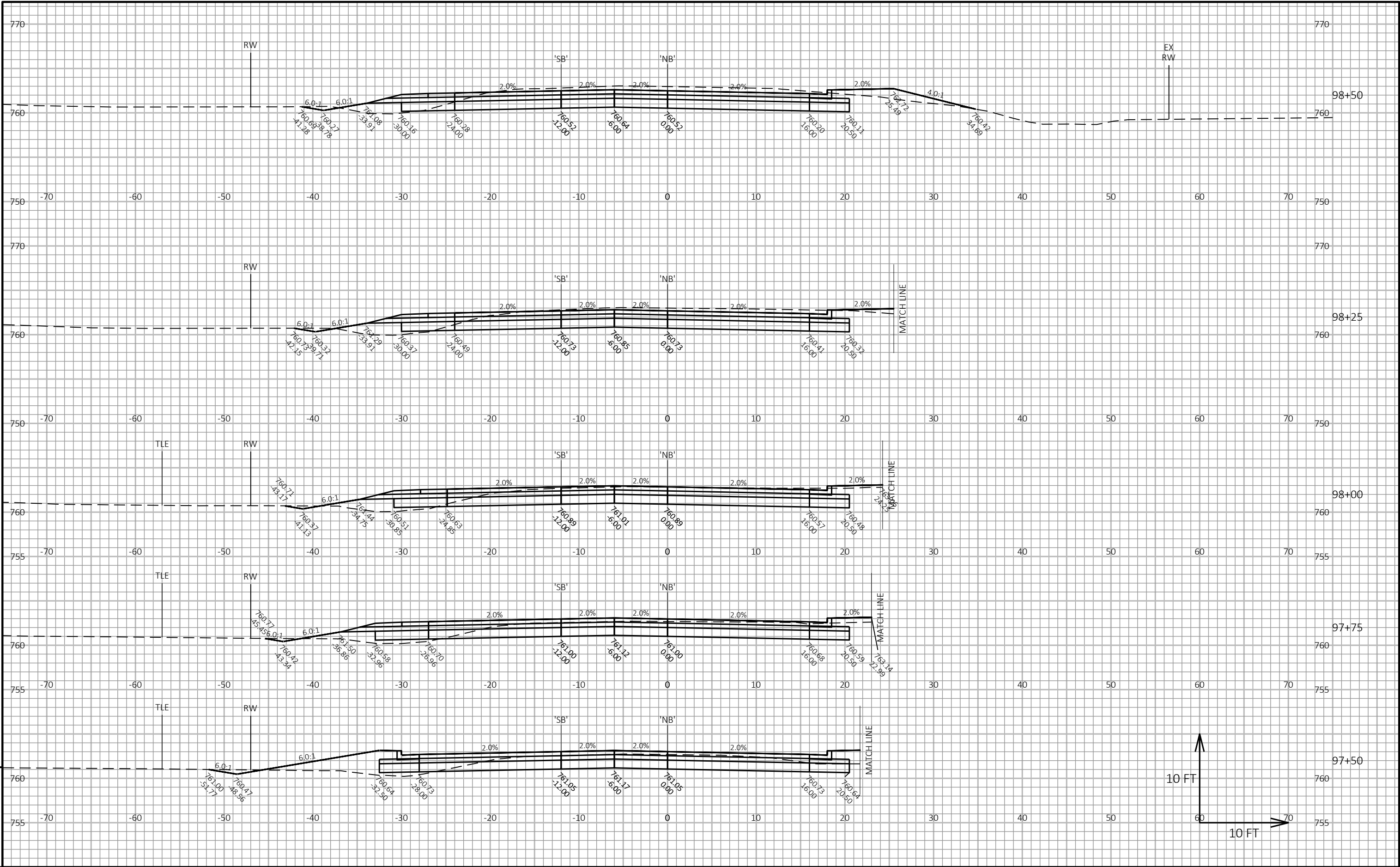


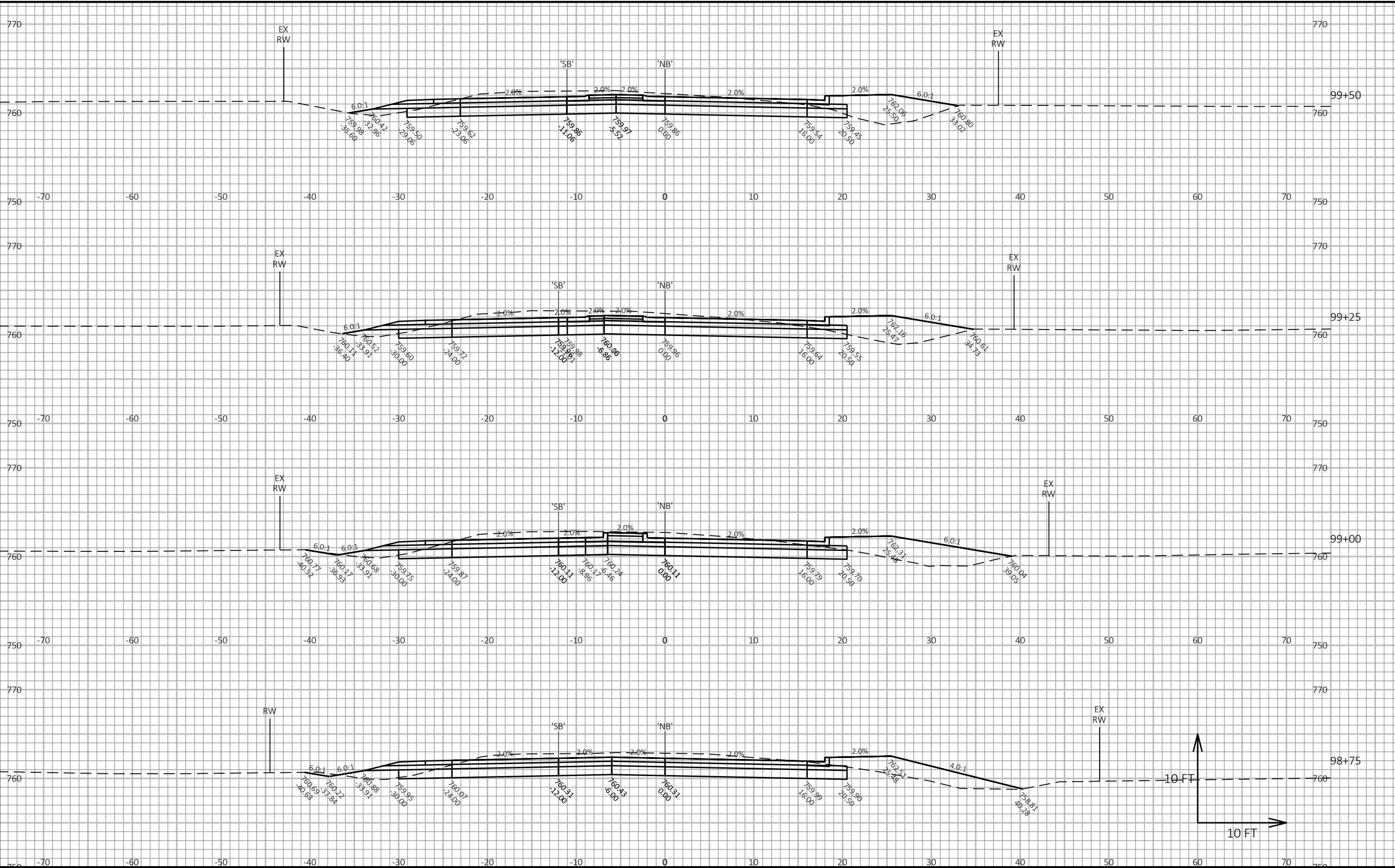


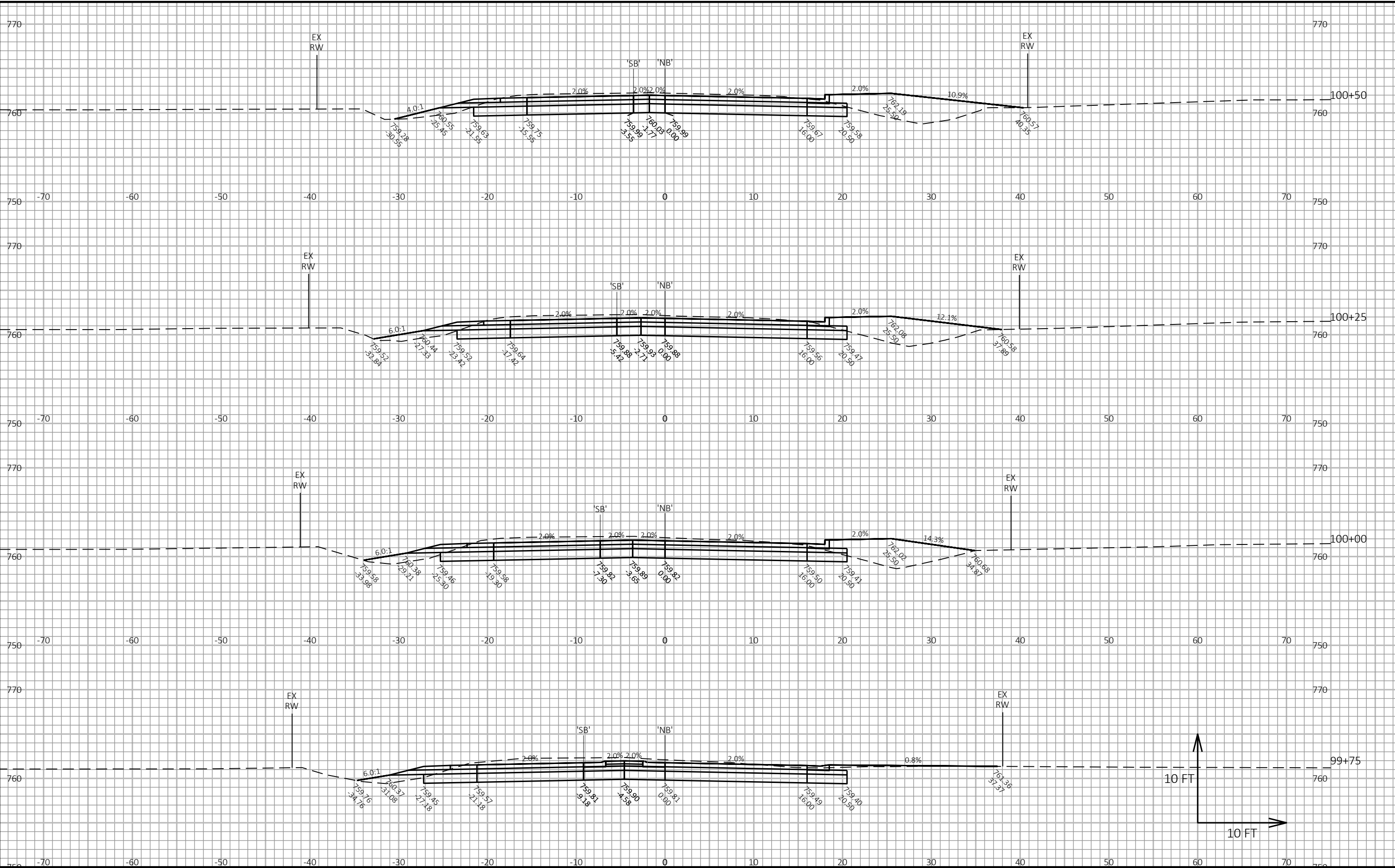




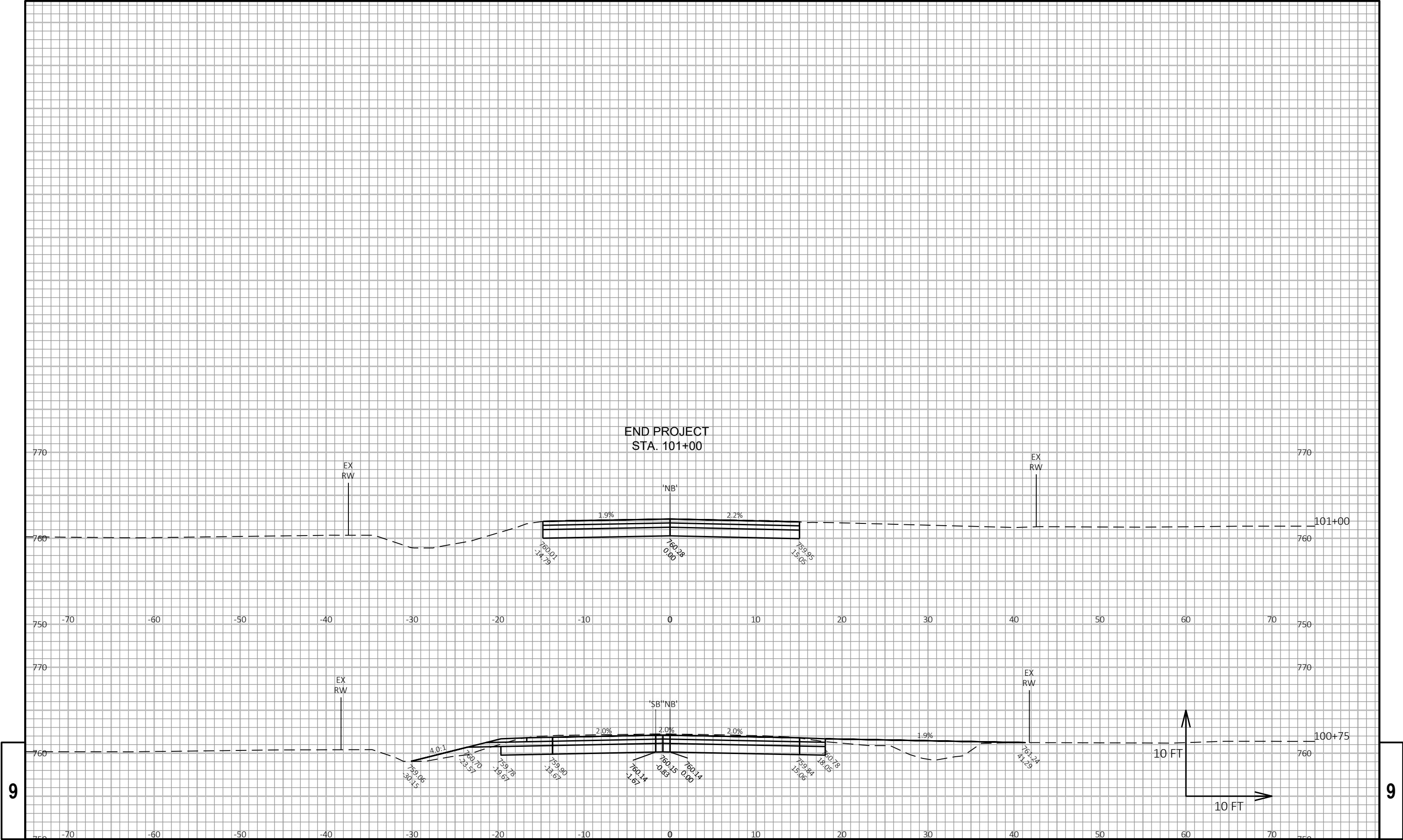


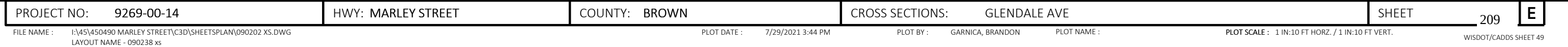
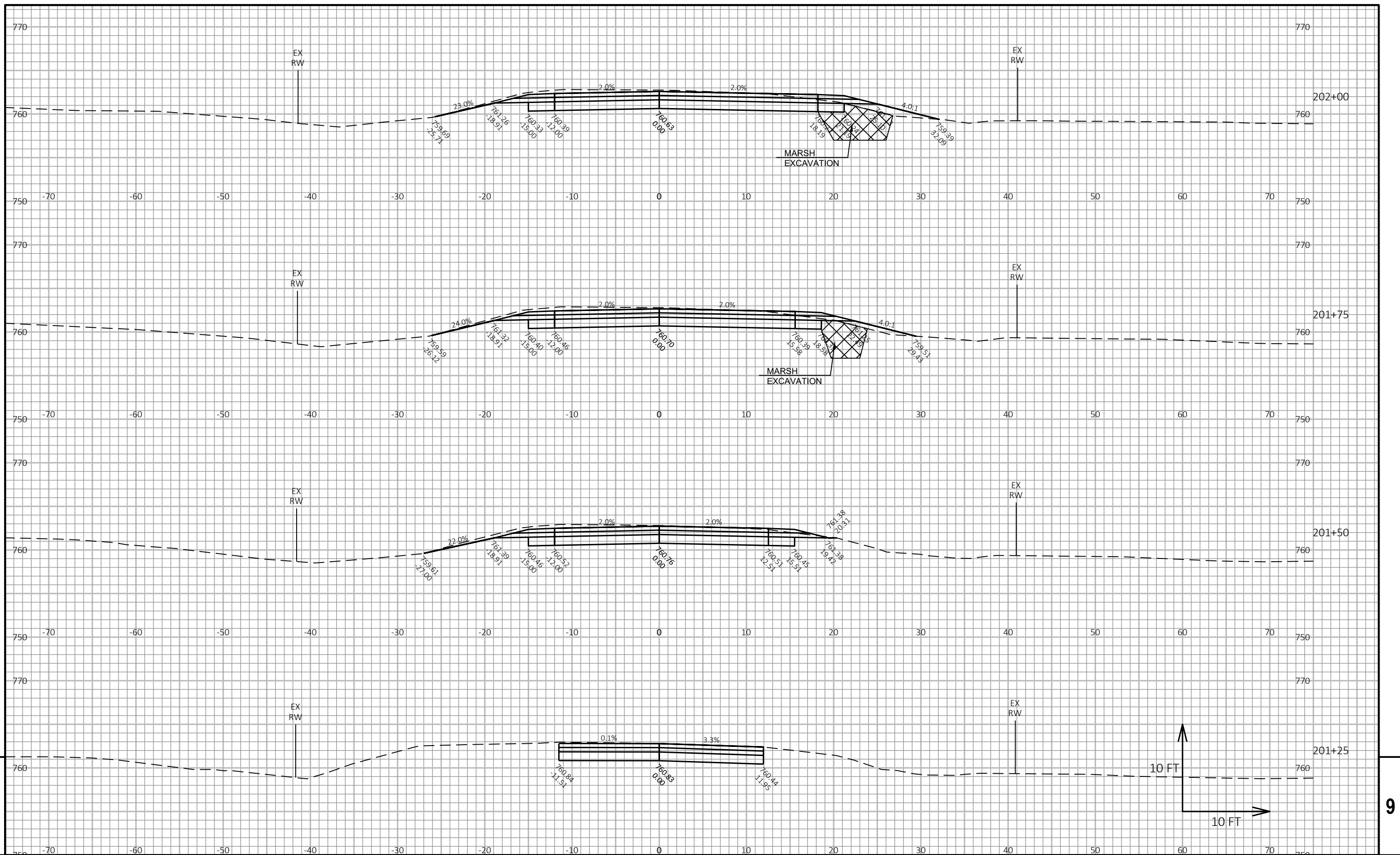




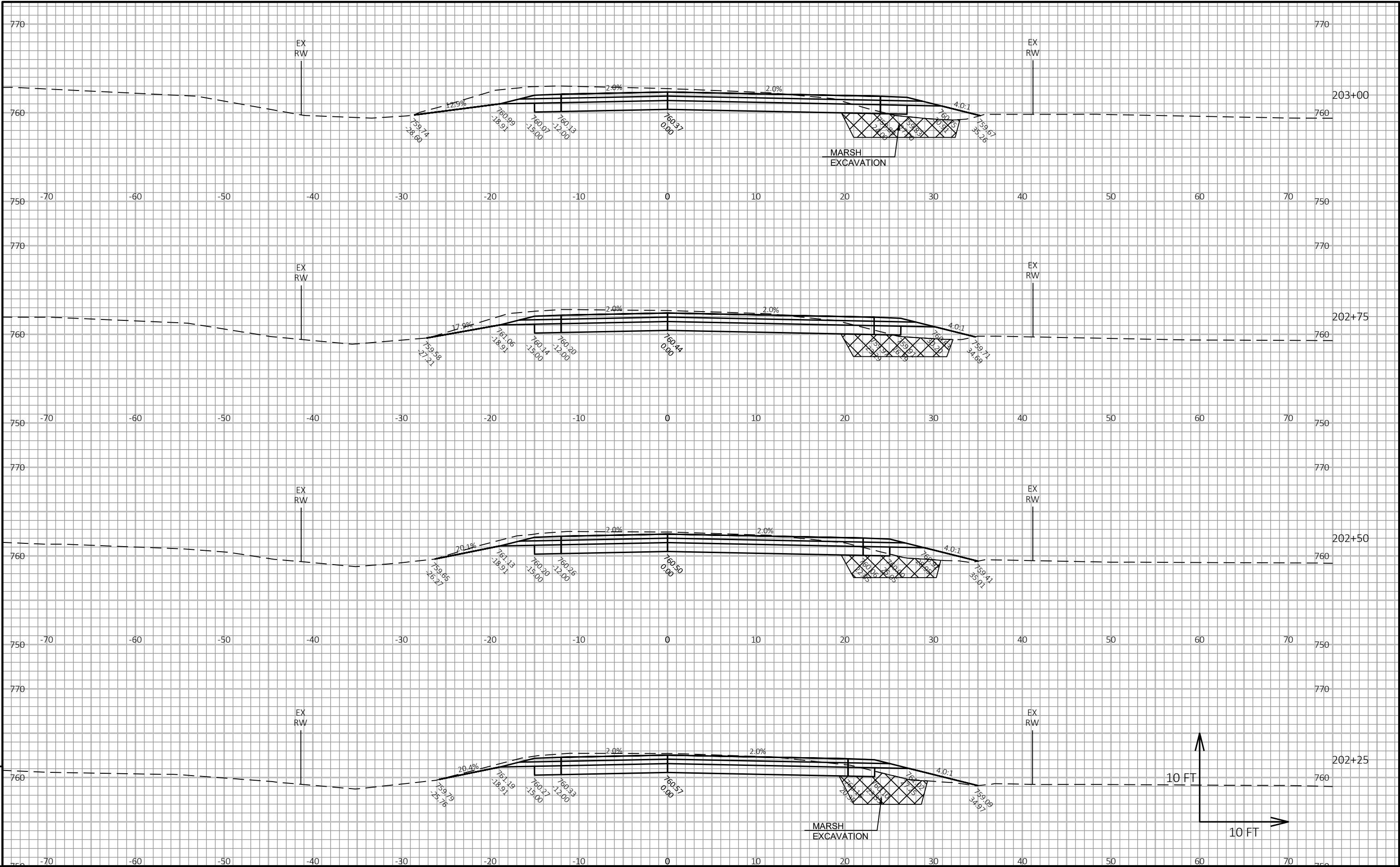


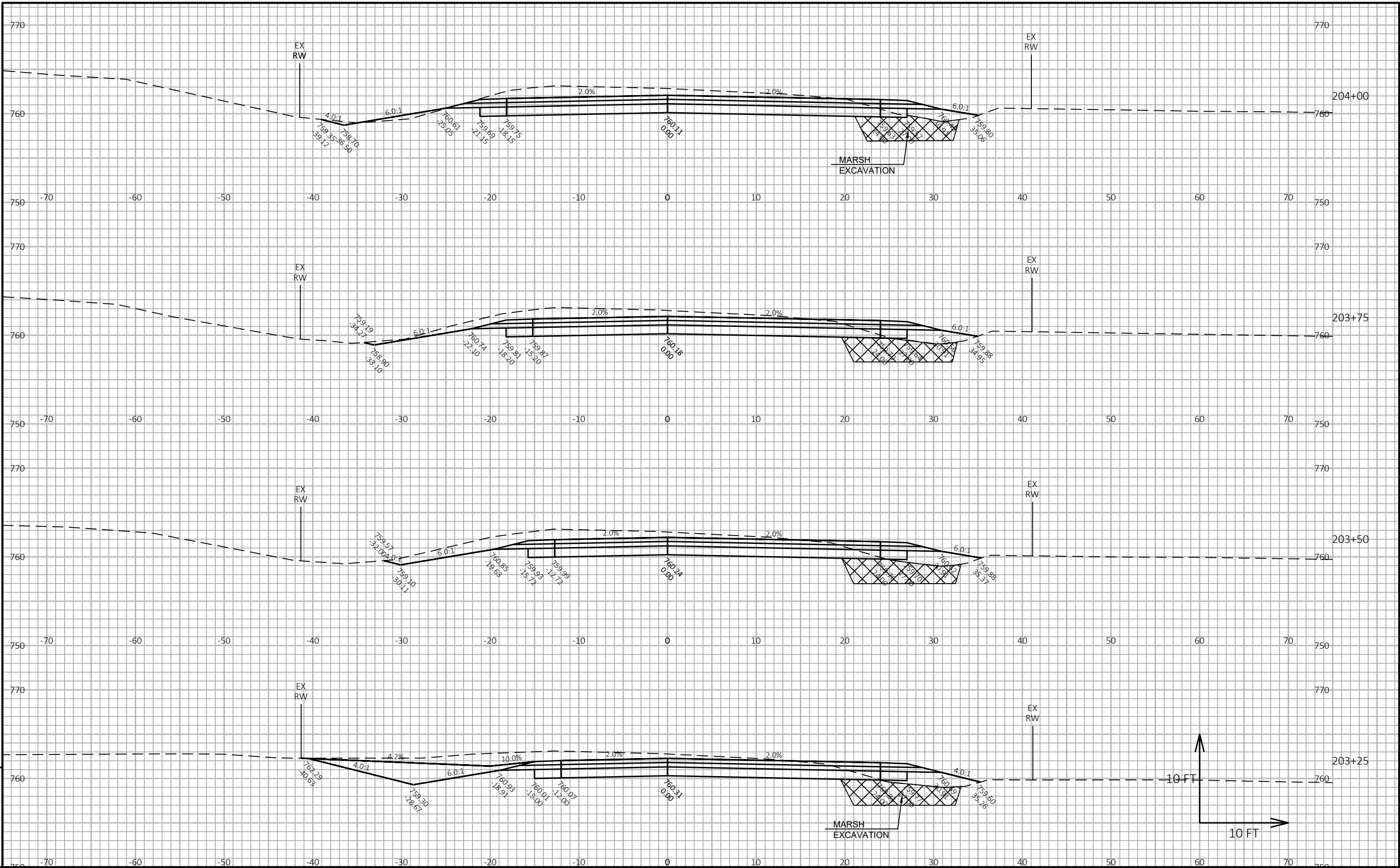


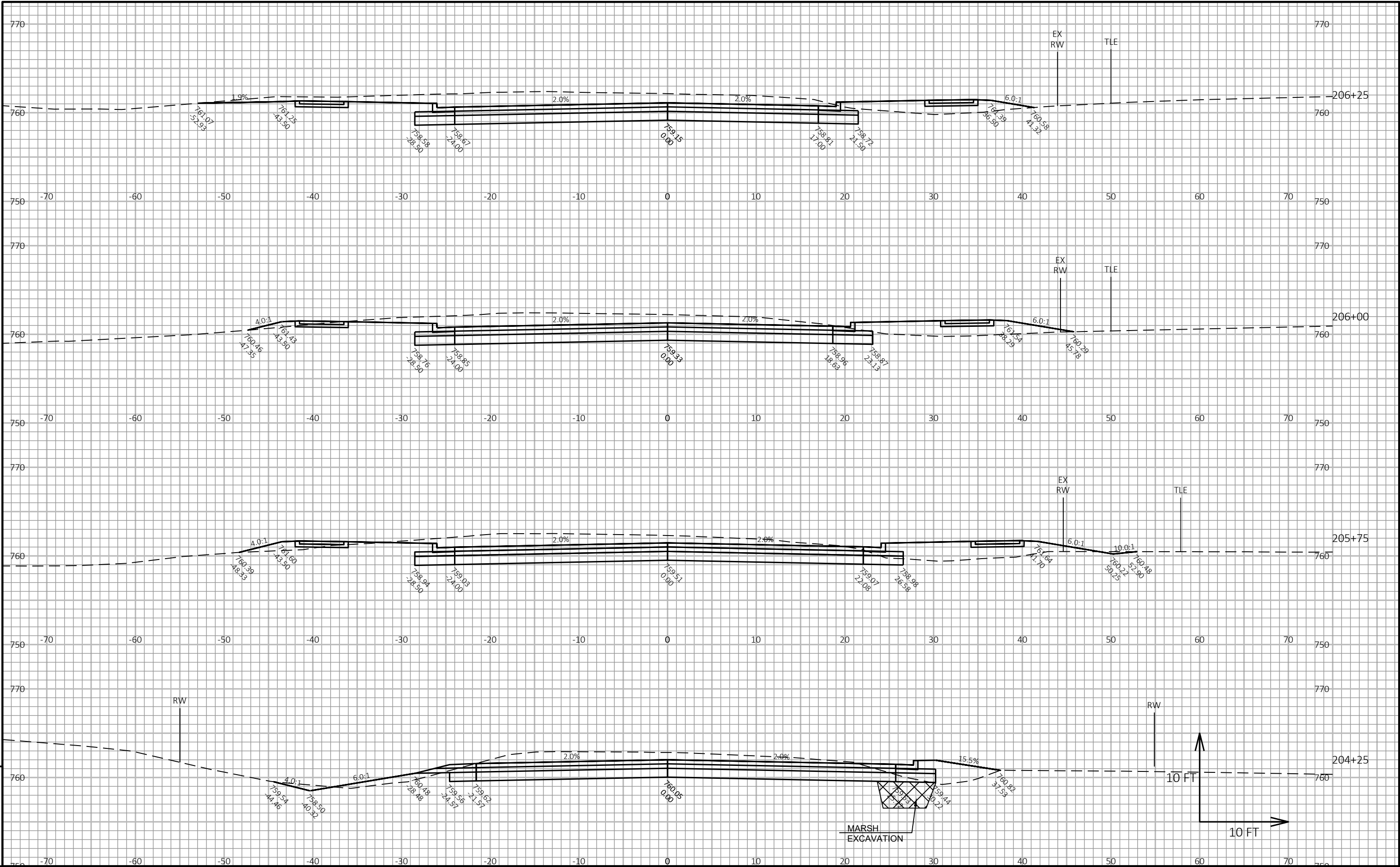




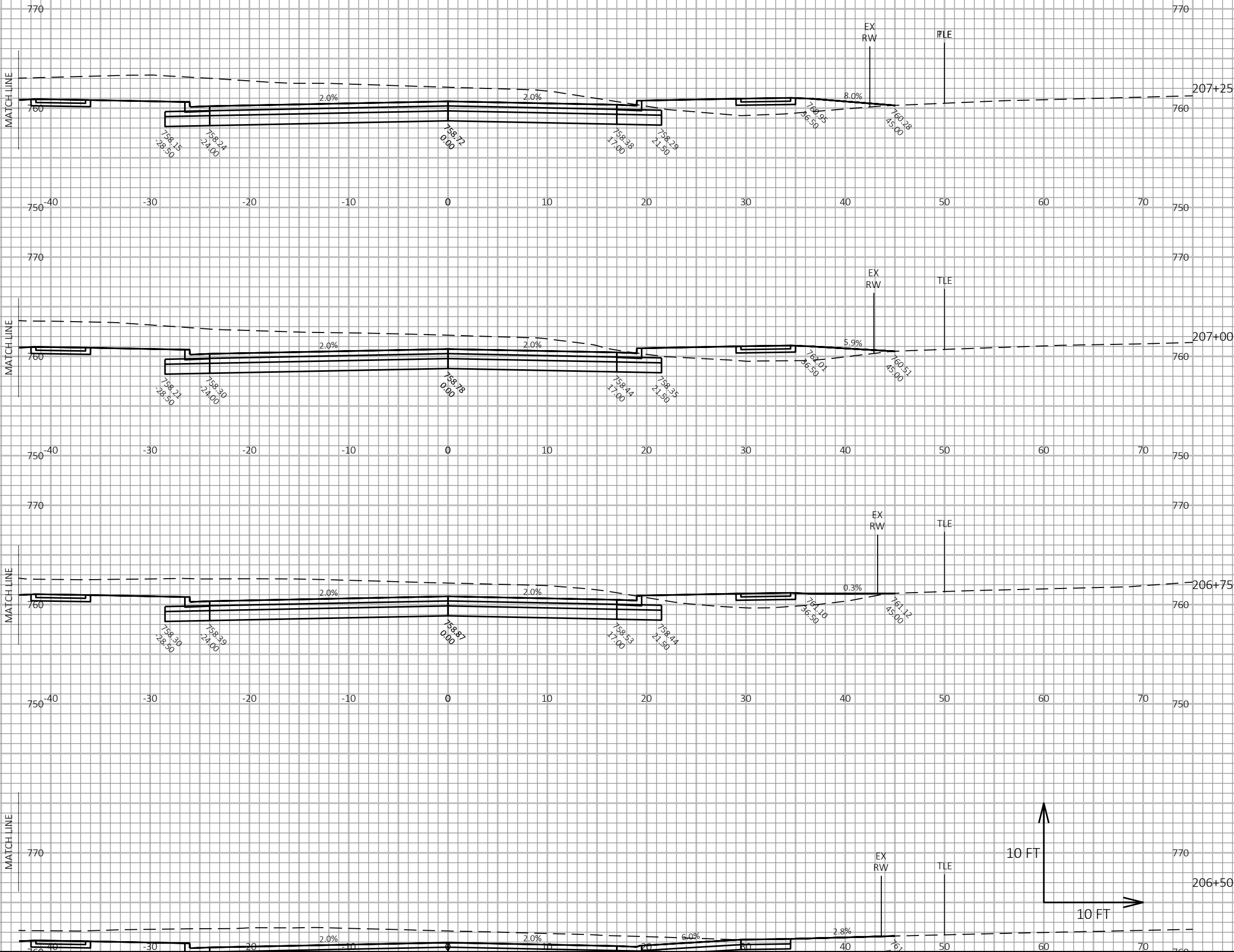








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PROJECT NO: 9269-00-14

HWY: MARLEY STREET

COUNTY: BROWN

CROSS SECTIONS: GLENDALE AVE

SHEET 213

E

FILE NAME : I:\45\450490 MARLEY STREET\C3D\SHEETS\PLAN\090202 XS.DWG  
LAYOUT NAME - 090242 xs

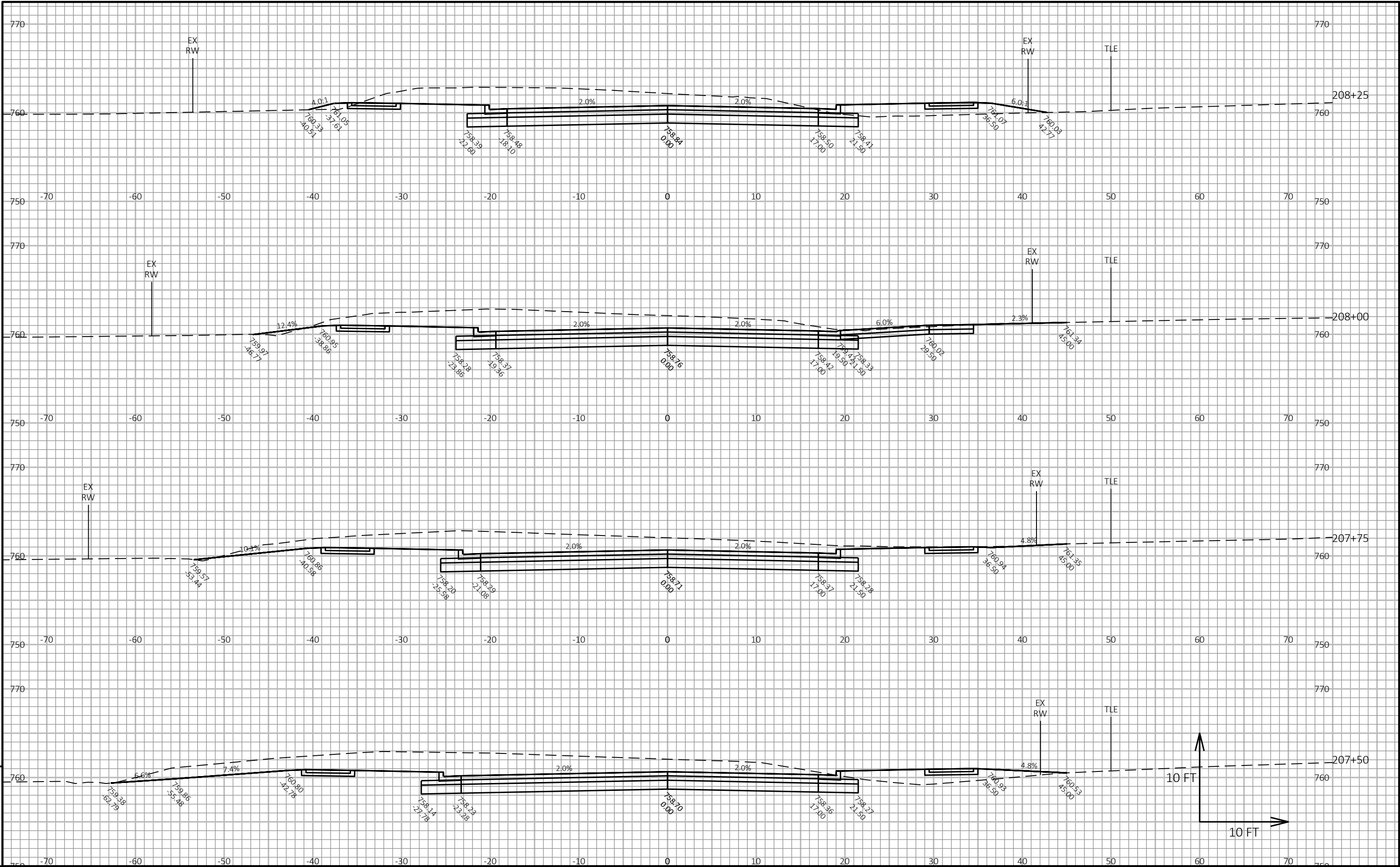
PLOT DATE : 7/29/2021 3:45 PM

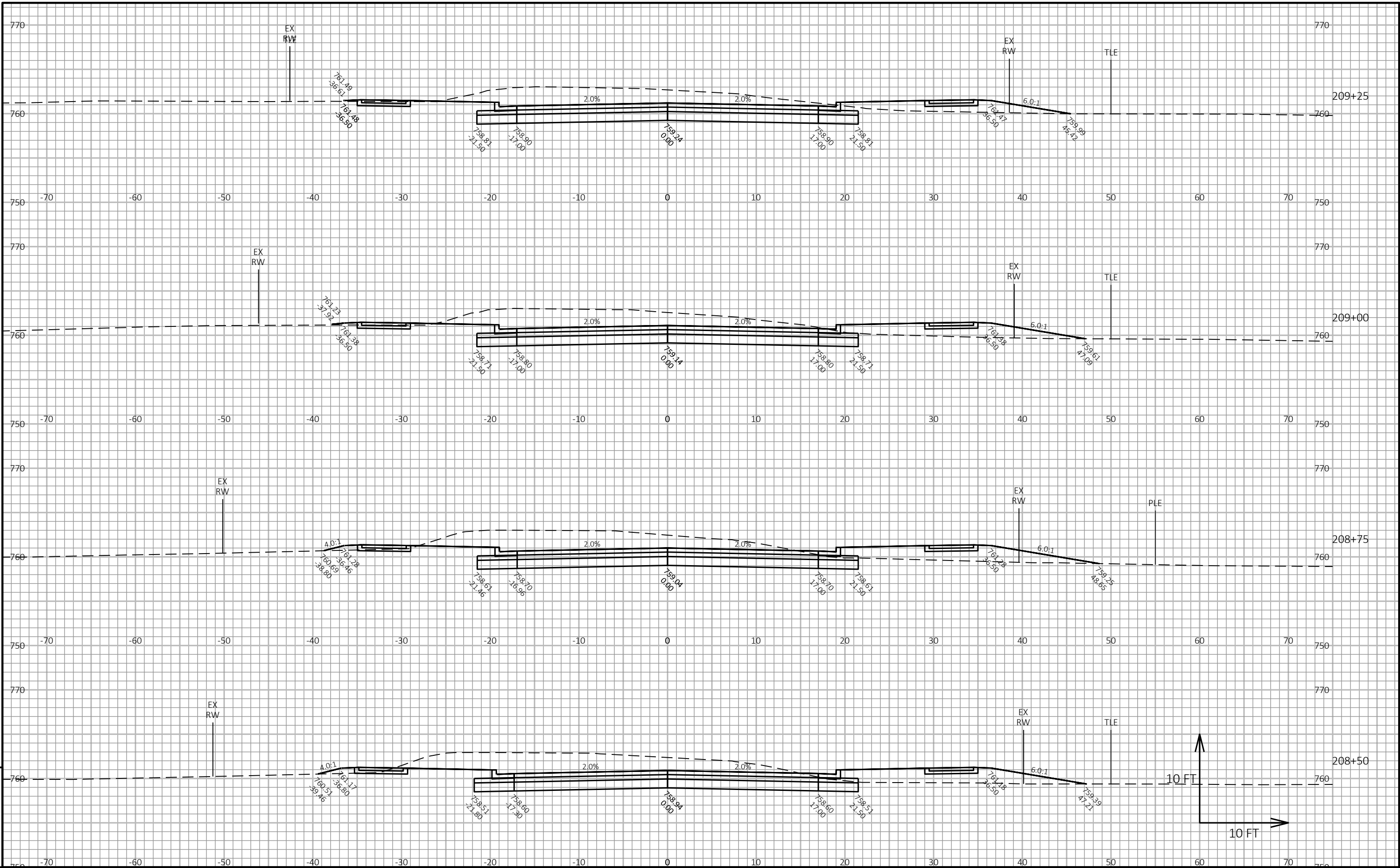
PLOT BY : GARNICA, BRANDON

PLOT NAME :

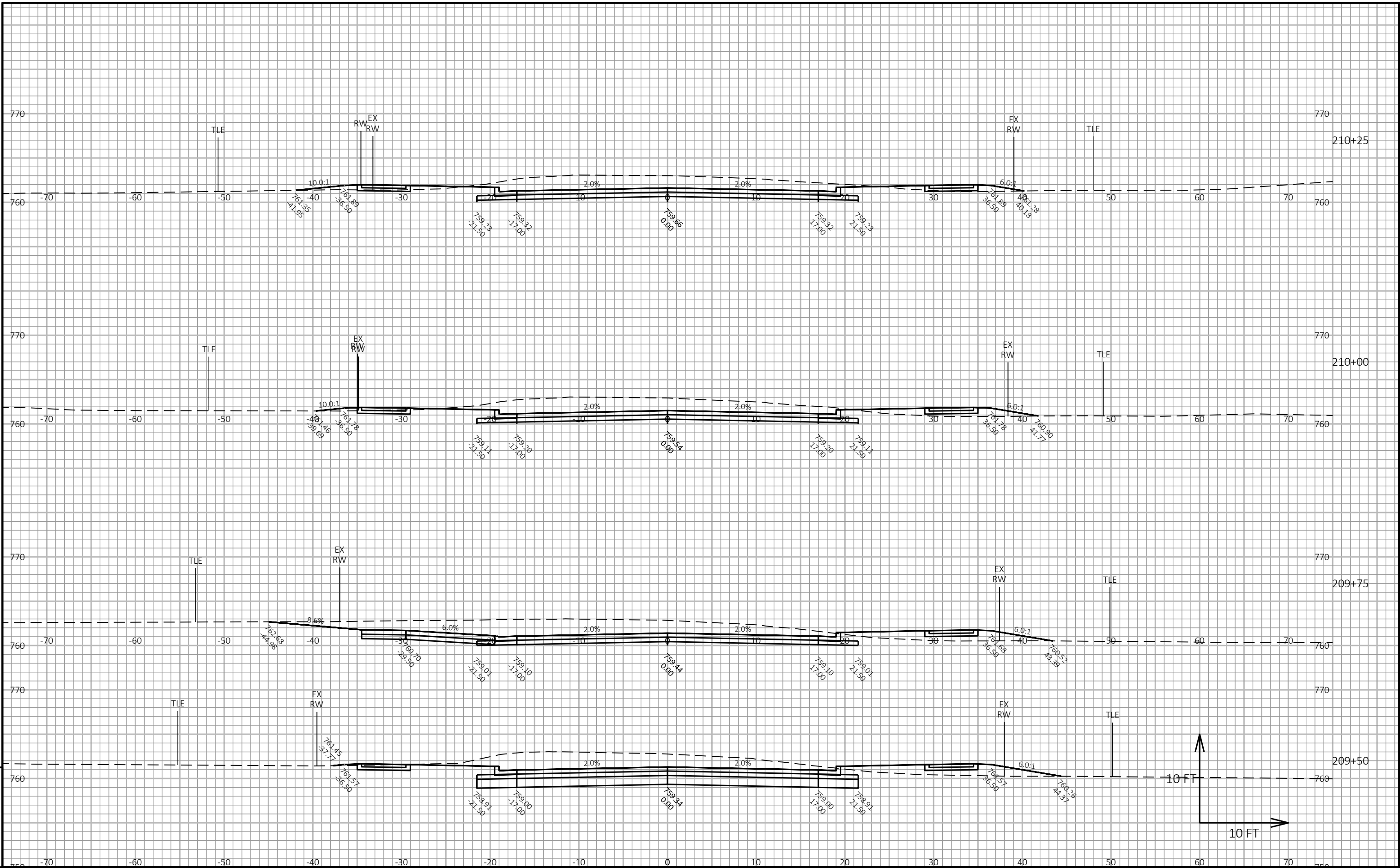
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

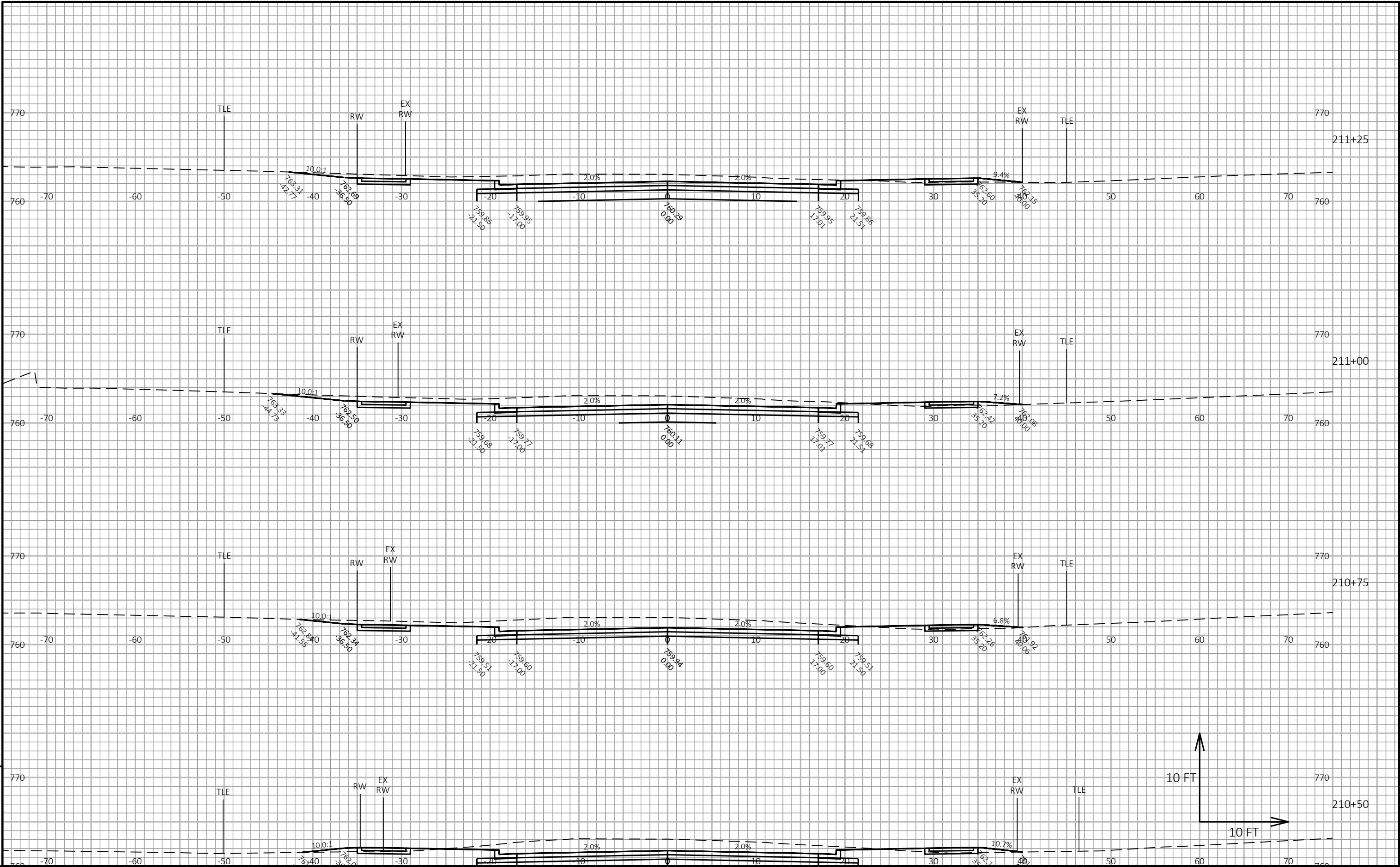
WISDOT/CADDs SHEET 49



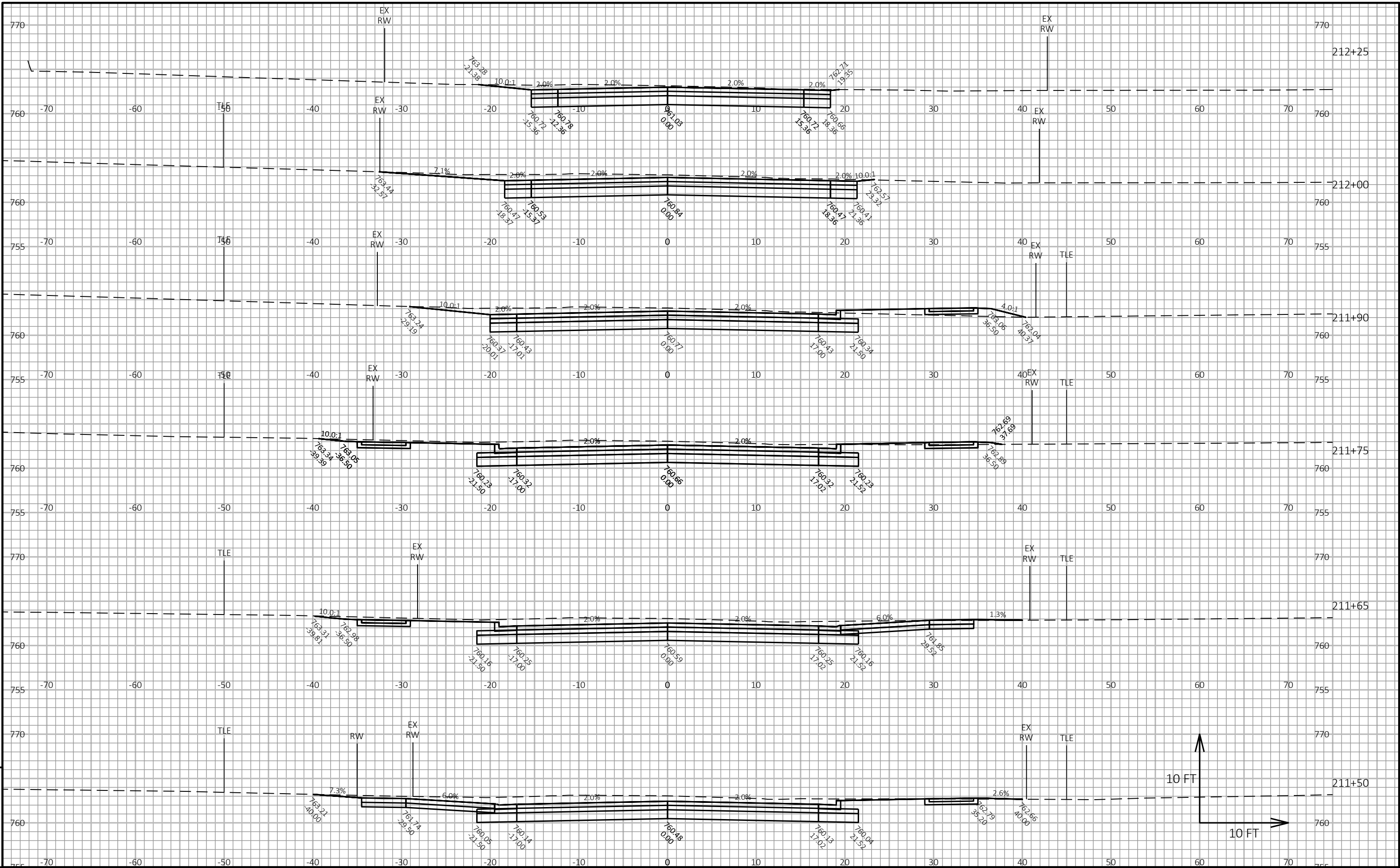


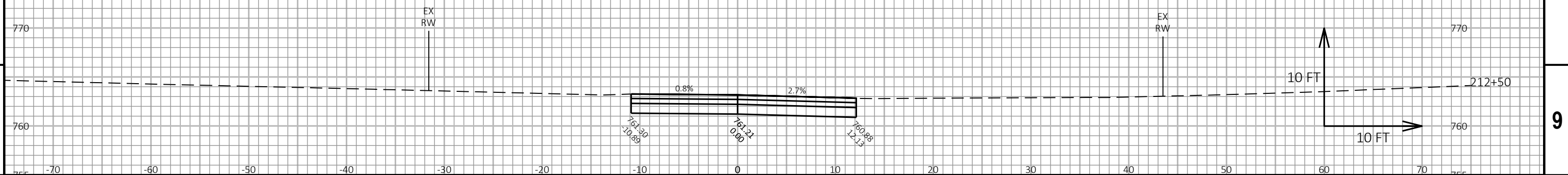
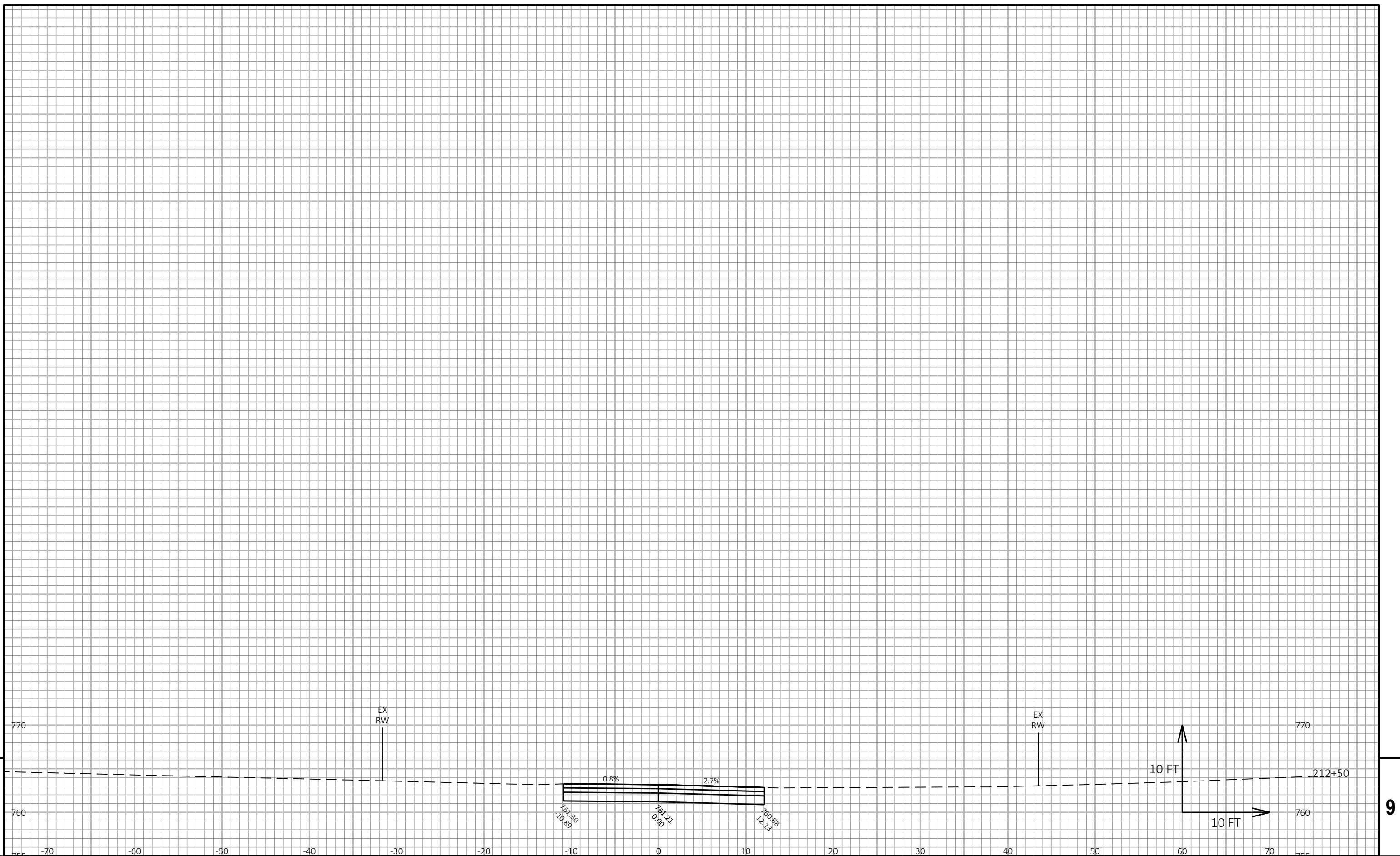




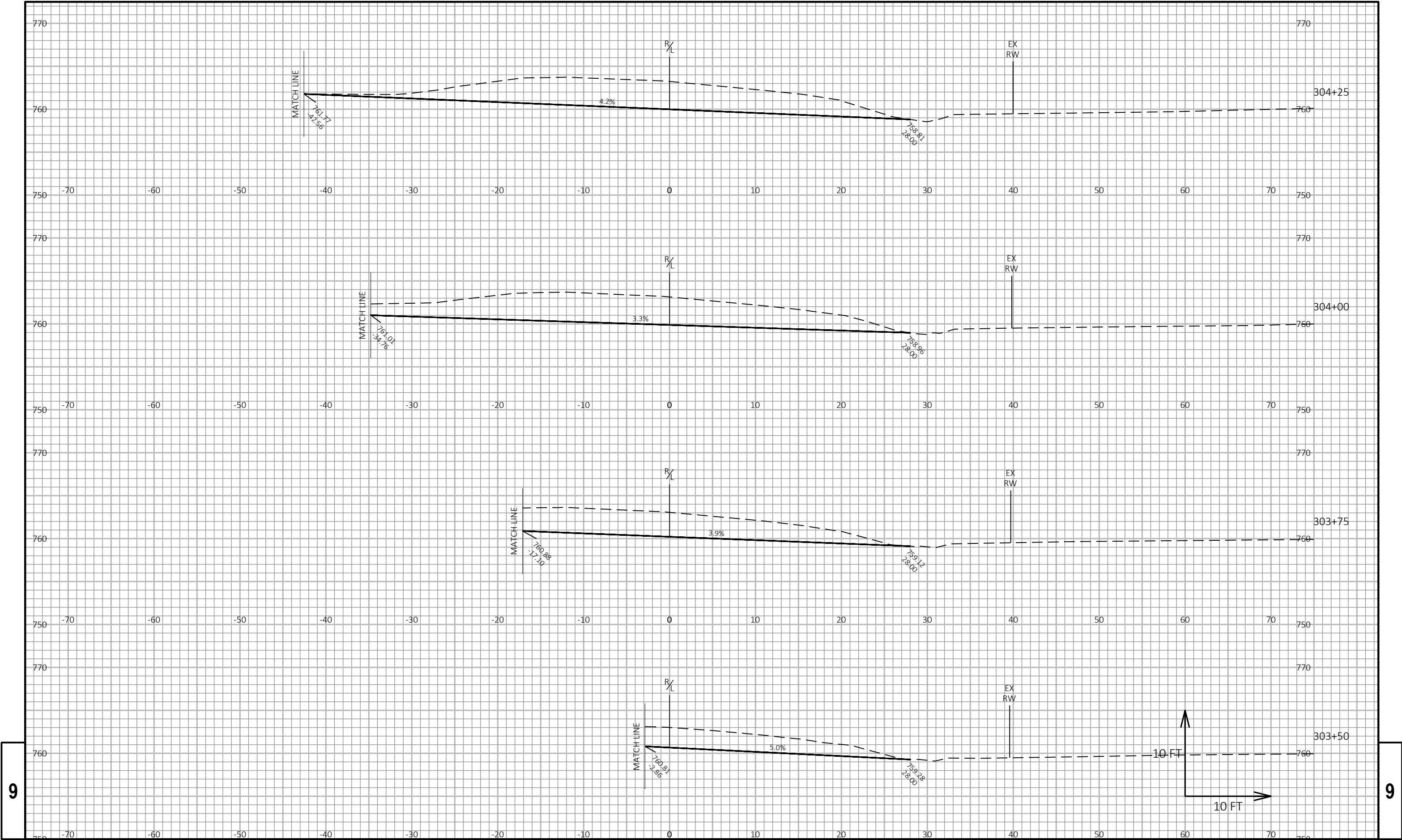






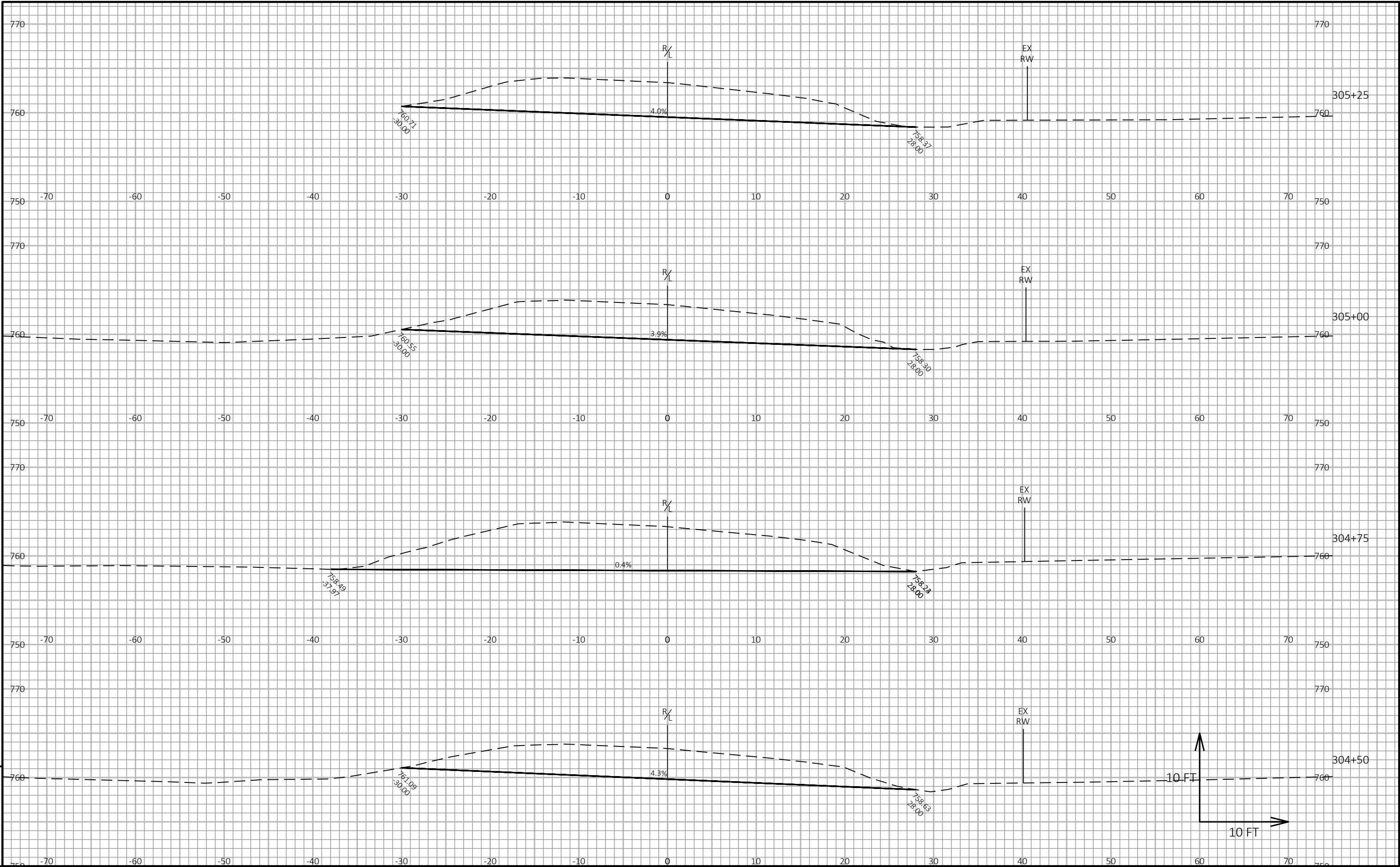


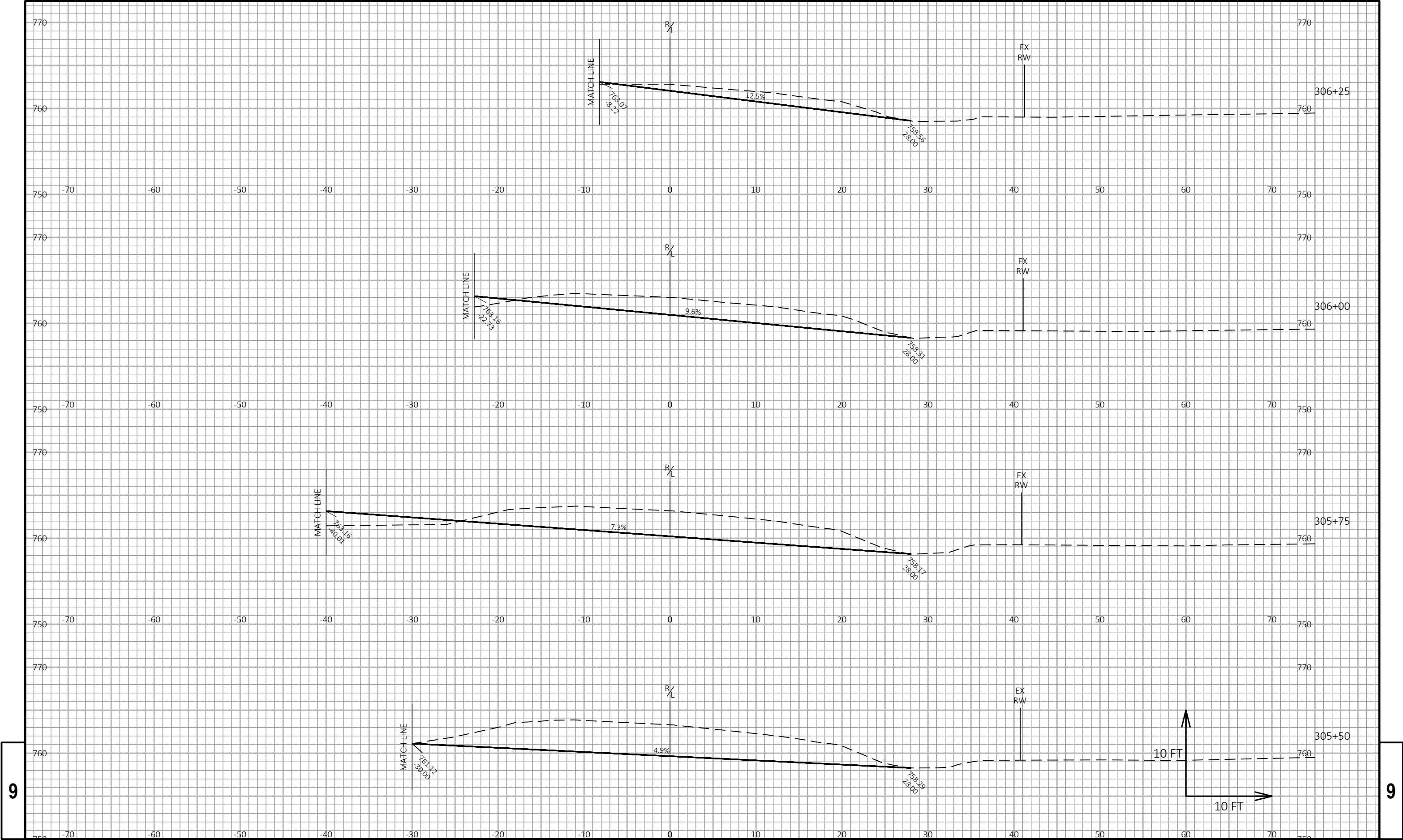
|                                                                                             |  |                    |  |                               |  |                              |  |             |  |                                                  |  |
|---------------------------------------------------------------------------------------------|--|--------------------|--|-------------------------------|--|------------------------------|--|-------------|--|--------------------------------------------------|--|
| PROJECT NO: 9269-00-14                                                                      |  | HWY: MARLEY STREET |  | COUNTY: BROWN                 |  | CROSS SECTIONS: GLENDALE AVE |  | SHEET 219   |  | E                                                |  |
| FILE NAME : I:\45\450490 MARLEY STREET\C3D\SHEETSP\090202 XS.DWG<br>LAYOUT NAME - 090248 xs |  |                    |  | PLOT DATE : 7/29/2021 3:46 PM |  | PLOT BY : GARNICA, BRANDON   |  | PLOT NAME : |  | PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. |  |
| WISDOT/CADD SHEET 49                                                                        |  |                    |  |                               |  |                              |  |             |  |                                                  |  |



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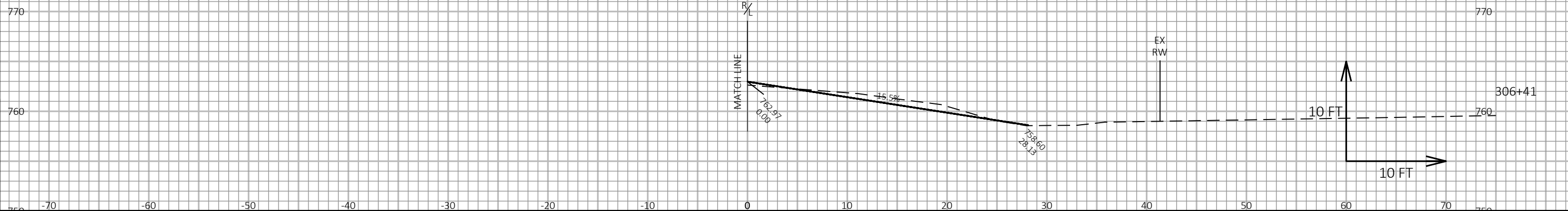




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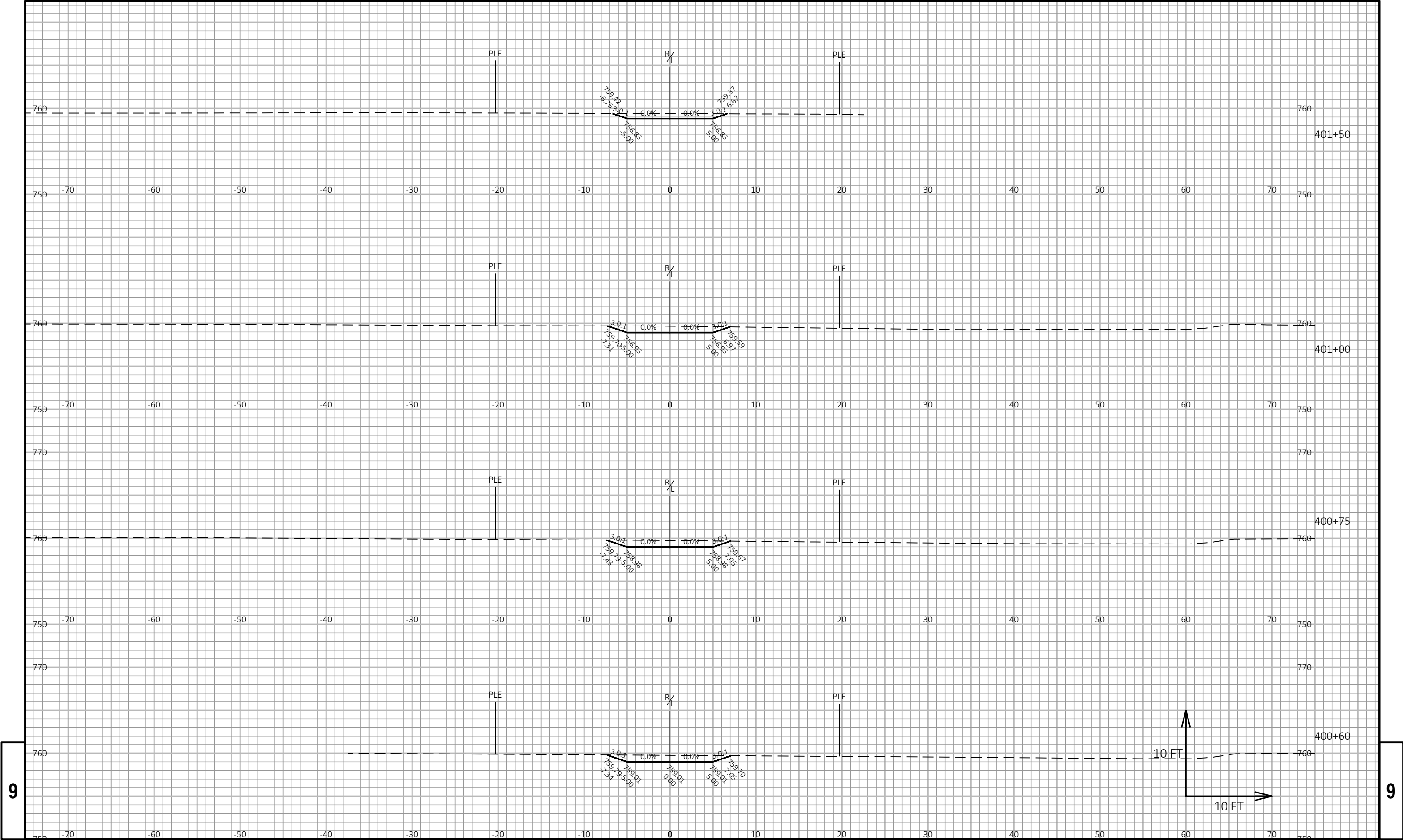
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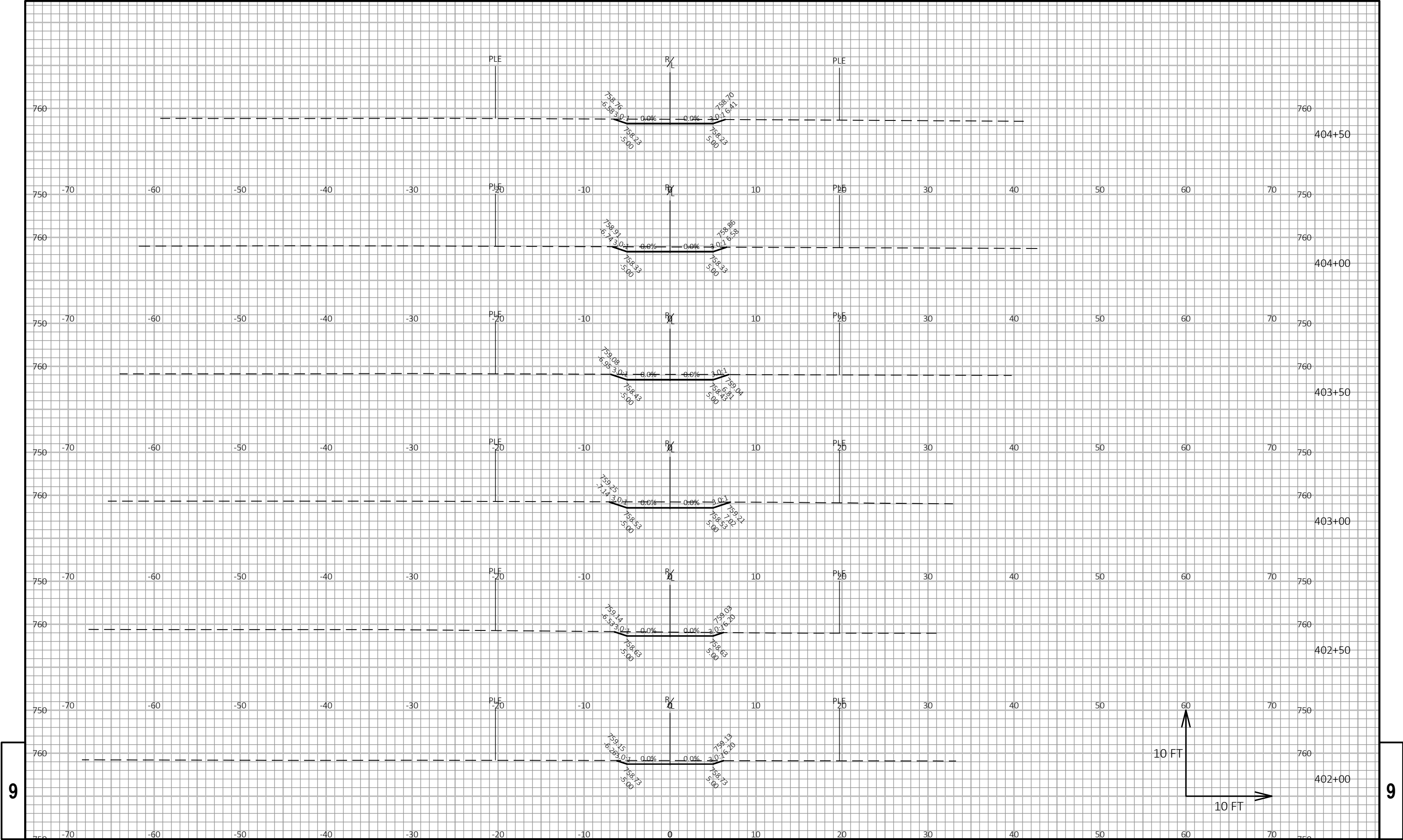
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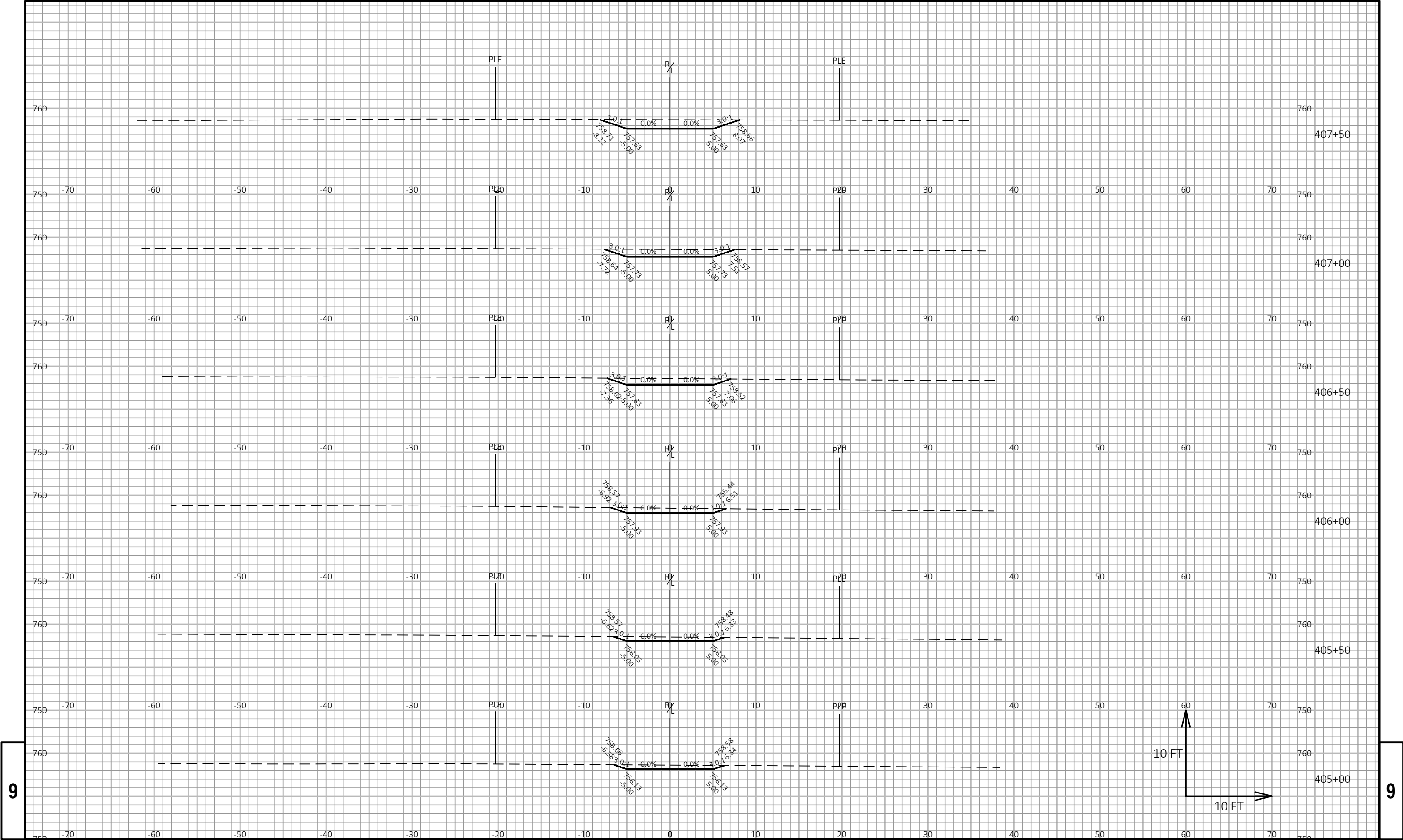




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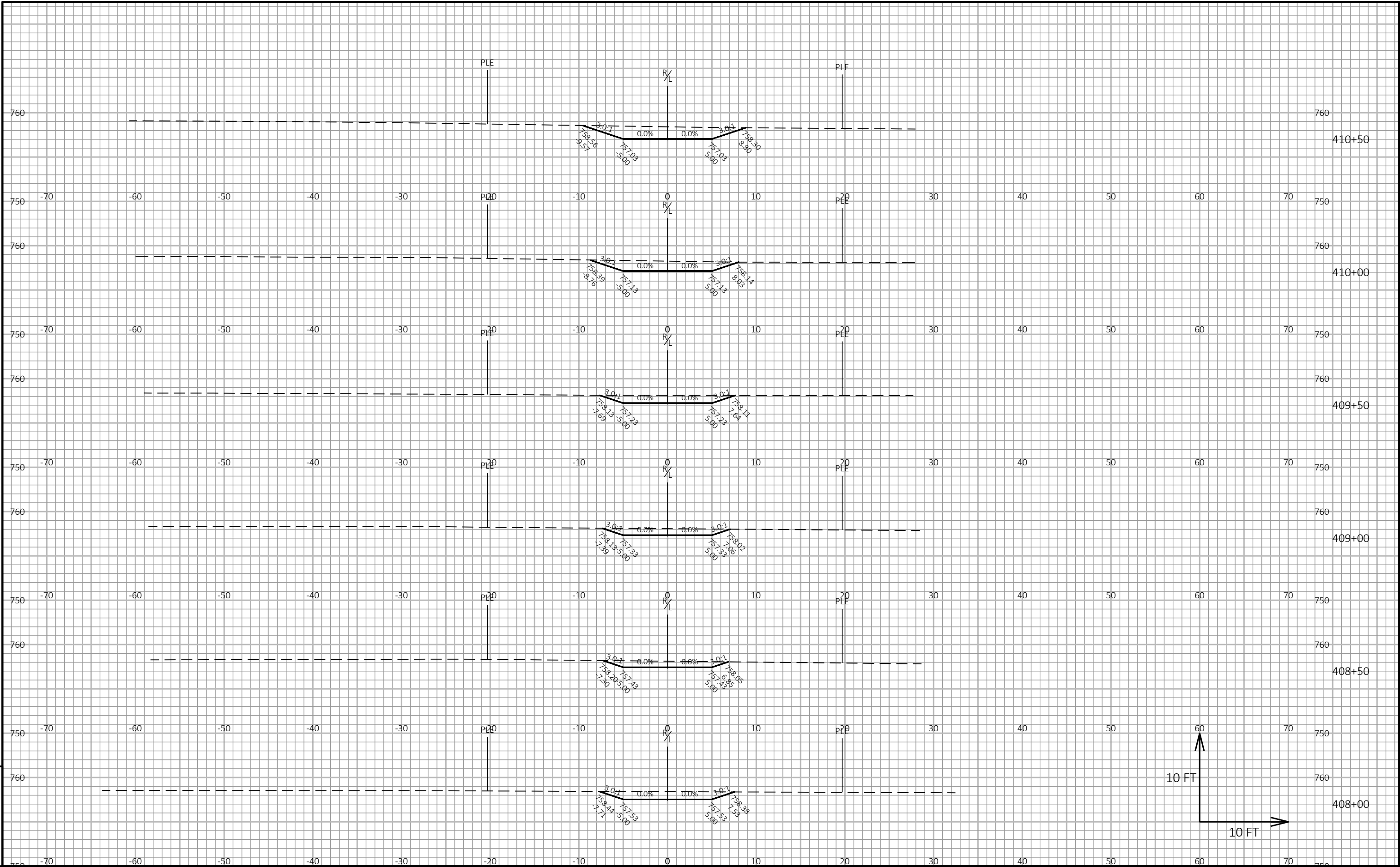
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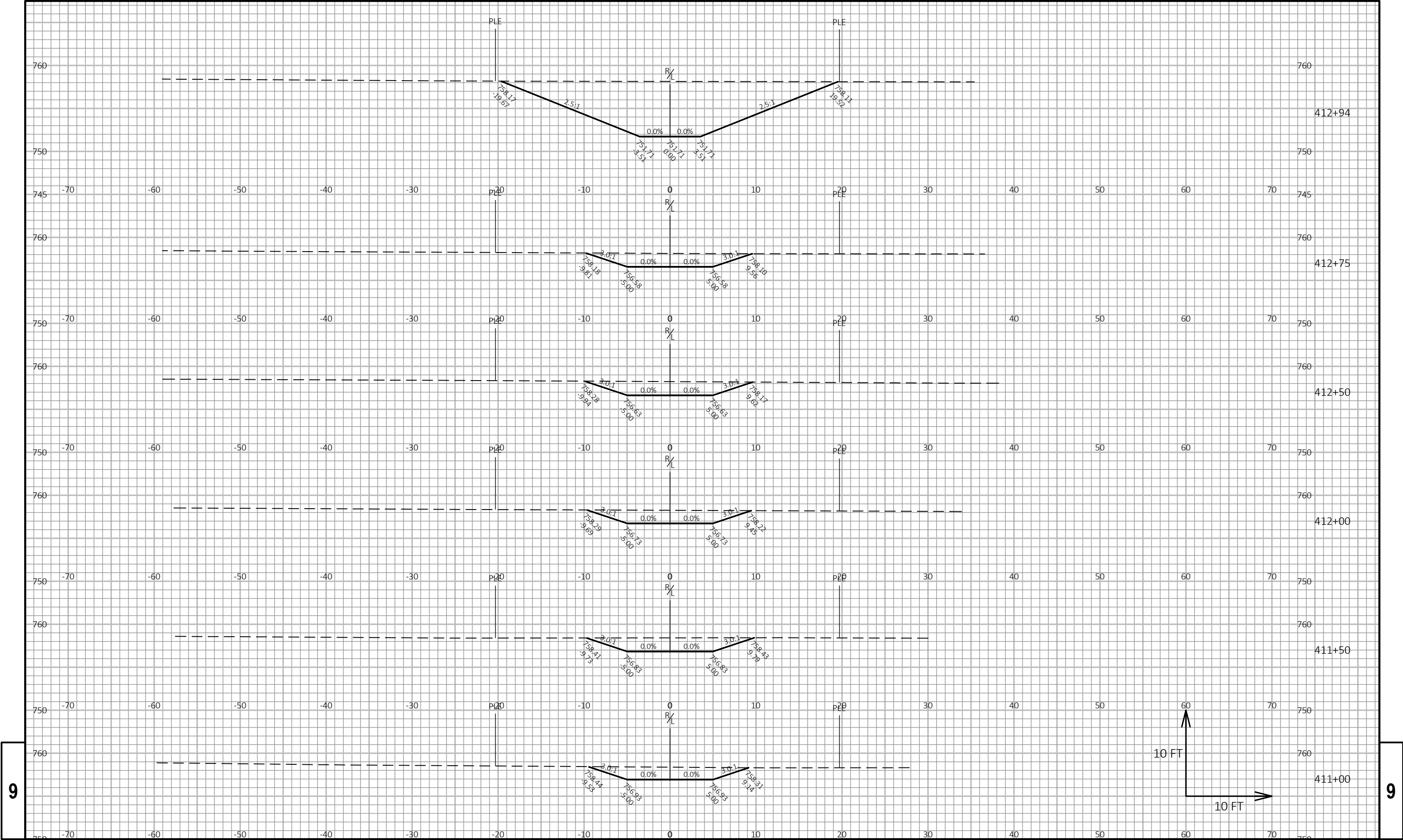




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PROJECT NO: 9269-00-14

HWY: MARLEY STREET

COUNTY: BROWN

CROSS SECTIONS: STORM SEWER OUTFALL

SHEET 228

E

FILE NAME : I:\45\450490 MARLEY STREET\C3D\SHEETSPLAN\090202 XS.DWG  
LAYOUT NAME - 090257 xs

PLOT DATE : 7/29/2021 3:48 PM

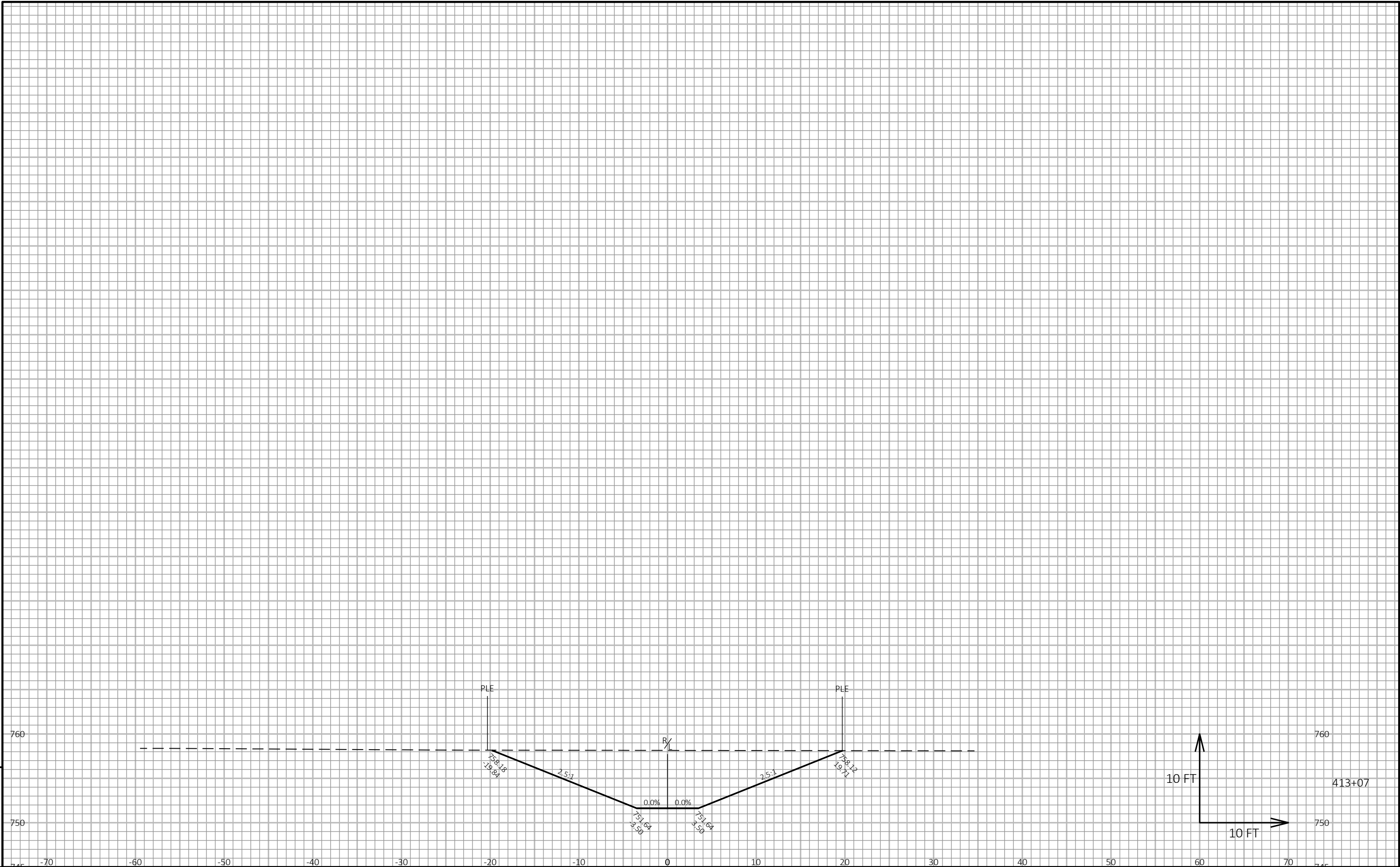
PLOT BY : GARNICA, BRANDON

PLOT NAME :

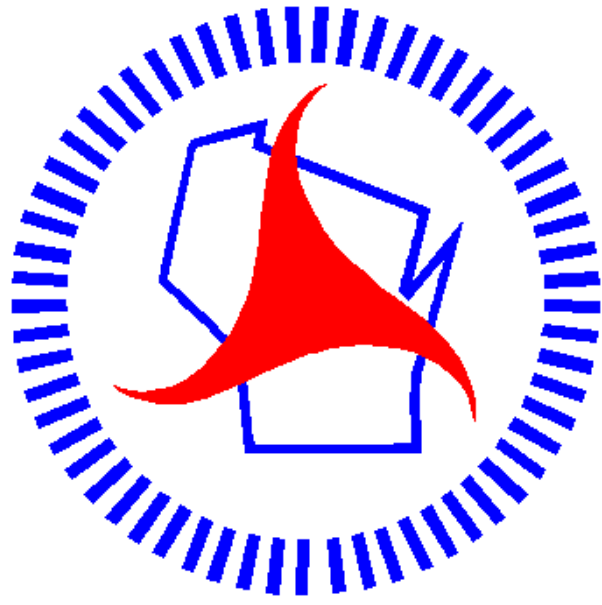
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDs SHEET 49

9



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## ***Wisconsin Department of Transportation***

Dedicated people creating transportation solutions through innovation and exceptional service.

<http://www.dot.wisconsin.gov>