MAD

PROJECT ID: 1161-02-74

WITH:

COUNTY: COLUMBIA

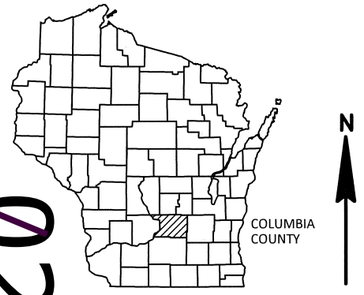
02

MARCH 2018

ORDER OF SHEETS


| | | |
|---|---|---|
| Section No. | 1 | Title |
| Section No. | 2 | Typical Sections and Details (Includes Erosion Control) |
| 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 = 476




DESIGN DESIGNATION

| | | | |
|---|---|---|---|
| A.A.D.T. | (2017) | = | 9,000 |
| A.A.D.T. | (2037) | = | 10,900 |
| D.H.V. | | = | 1,090 |
| D.D. | | = | 59/41 |
| T. | | = | 11.7% |
| DESIGN SPEED | | = | 50 MPH |
| ESALS | | = | 2,200,000 (HMA) |

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

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

UTILITIES

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

# STATE OF WISCONSIN
# DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

# PORTAGE - COLUMBUS

IH 39/ STH 16 INTERCHANGE AREA

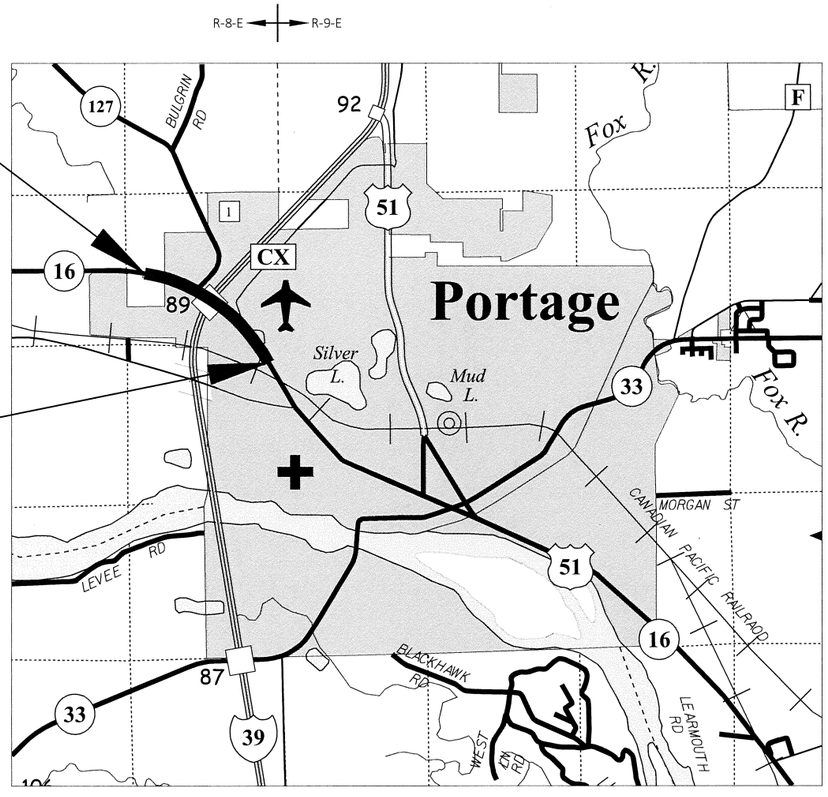
## STH 16
## COLUMBIA COUNTY

| STATE PROJECT NUMBER |
|---|
| 1161-02-74 |

| STATE PROJECT | FEDERAL PROJECT | |
|---|---|---|
| | PROJECT | CONTRACT |
| 1161-02-74 | WISC 2018136 | 1 |
| | | |
| | | |
| | | |

BEGIN PROJECT
STA 713'EB'+50
X=526096.446
Y=402392.629

END PROJECT
STA 777'EB'+00




LAYOUT

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 1.203 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, COLUMBIA COUNTY, NAD83 ( 2007 ), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (2012) (NAVD 88-2012).

ORIGINAL PLANS PREPARED BY


GREMMER & ASSOCIATES, INC.
CONSULTING ENGINEERS
Stevens Point • Fond du Lac
85 South Pioneer Road, Suite 300 • Fond du Lac, WI 54935
(920) 924-5720 • fax (920) 924-5725


WISCONSIN
BENJAMIN L. OITZINGER
E-36149
NEENAH, WI
PROFESSIONAL ENGINEER

DATE: 10-20-2017

BENJAMIN L. OITZINGER, PE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

| | |
|---|---|
| Surveyor | WDOT/ GREMMER & ASSOCIATES, INC. |
| Designer | GREMMER & ASSOCIATES, INC. |
| Project Manager | MATTHEW DAPP |
| Regional Examiner | |
| Regional Supervisor | WILLIAM STROBEL |

APPROVED FOR THE DEPARTMENT

DATE: 10/20/17 Matthew Dapp (Signature)

E

## GENERAL NOTES

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

THE CONTRACTOR SHALL COORDINATE THEIR CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.

A VERTICAL SAW CUT SHALL BE MADE THROUGH EXISTING DRIVEWAYS, SIDEWALKS AND PAVEMENTS AT THE REMOVAL LIMITS.

A BUTT JOINT SHALL BE PROVIDED AT ALL LOCATIONS WHERE NEW PAVEMENT MATCHES EXISTING PAVEMENT.

SAWCUT LOCATIONS SHOWN ON THE PLANS ARE SUBJECT TO ADJUSTMENT BY THE ENGINEER IN THE FIELD.

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

SALVAGED TOPSOIL, FERTILIZER, SEED AND MULCH OR EROSION MAT AS SHOWN IN PLANS OR AS DIRECTED BY THE ENGINEER SHALL BE PLACED ON ALL DISTURBED AREAS, EXCLUSIVE OF THE AREA OCCUPIED BY THE NEW PAVEMENTS, SIDEWALKS, ENTRANCES, AND RELATED STRUCTURES.

SECTIONS AS SHOWN ON THE CROSS-SECTIONS INCLUDE THE THICKNESS OF TOPSOIL WHERE REQUIRED.

CONTRACTOR SHALL VERIFY EXISTING PIPE SIZES, MATERIALS AND INVERT ELEVATIONS WHEN CONNECTING NEW STORM SEWER INTO EXISTING PIPES PRIOR TO MANUFACTURING INLETS AND MANHOLES.

EROSION CONTROL ITEMS SHOWN ARE APPROXIMATE, THE EXACT LOCATION SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THAT THE MEASURE IS NO LONGER NECESSARY. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING EROSION CONTROL MEASURE AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, PASSING, OR PARKING LANE.

INSTALL SAFETY EDGE ON ALL UNCONFINED EDGES OF HMA PAVEMENTS.

WHEN PLACING TACK COAT USE AN APPLICATION RATE OF 0.050 GALLONS PER SQUARE YARD IF TACK COAT WILL BE PLACED OVER PREVIOUSLY PLACED LOWER LAYERS AND USE AN APPLICATION RATE OF 0.070 GALLONS PER SQUARE YARD IF PLACING OVER MILLED HMA OR EXISTING CONCRETE.

## ABBREVIATIONS

| | |
|---|---|
| AEW | APRON ENDWALL |
| AGG | AGGREGATE |
| AH | AHEAD |
| ASP | ASPHALT |
| BK | BACK |
| BAD | BASE AGGREGATE DENSE |
| BM | BENCH MARK |
| CE | COMMERCIAL ENTRANCE |
| C&G | CURB AND GUTTER |
| C/L | CENTER OR CONSTRUCTION LINE |
| CONC | CONCRETE |
| CP | CULVERT PIPE |
| CPCM | CULVERT PIPE CORRUGATED METAL |
| CPCS | CULVERT PIPE CORRUGATED STEEL |
| CPRC | CULVERT PIPE REINFORCED CONCRETE |
| CSD | CONCRETE SURFACE DRAIN |
| CY | CUBIC YARD |
| D | DEGREE OF CURVE |
| Δ | DELTA |
| DISCH | DISCHARGE |
| EB | EASTBOUND |
| ELEV | ELEVATION |
| FE | FIELD ENTRANCE |
| HMA | HOT MIX ASPHALT |
| HP | HIGH POINT |
| HT | HEIGHT |
| INV | INVERT |
| L | LENGTH OF CURVE |
| LHF | LEFT HAND FORWARD |
| LP | LOW POINT |
| LT | LEFT |
| MAX | MAXIMUM |
| MIN | MINIMUM |
| M/L | MATCHLINE |
| NB | NORTHBOUND |
| NC | NORMAL CROWN |
| NOM | NOMINAL |
| NOR | NORMAL |
| OH | OVERHEAD |
| PAVT | PAVEMENT |
| PC | POINT OF CURVE |
| PCC | POINT OF COMPOUND CURVE |
| PE | PRIVATE ENTRANCE |
| PI | POINT OF INTERSECTION |
| PLE | PERMANENT LIMITED EASEMENT |
| PT | POINT OF TANGENT |
| R | RADIUS OF CURVE |
| R/L | REFERENCE LINE |
| R/W | RIGHT OF WAY |
| RC | REVERSE CROWN |
| RCAEW | APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE |
| RCP | REINFORCED CONCRETE PIPE |
| REQ'D | REQUIRED |
| RHF | RIGHT HAND FORWARD |
| RO | RUN OFF LENGTH |
| RT | RIGHT |
| SALV | SALVAGED |
| SB | SOUTHBOUND |
| SDD | STANDARD DETAIL DRAWING |
| SE | SUPER ELEVATION |
| SEG | SEGMENT |
| SF | SQUARE FOOT |
| SS | STORM SEWER |
| STA | STATION |
| SY | SQUARE YARD |
| T | TANGENT LENGTH |
| TLE | TEMPORARY LIMITED EASEMENT |
| TYP | TYPICAL |
| UG | UNDERGROUND |
| V | VELOCITY OR DESIGN SPEED |
| VC | VERTICAL CURVE |
| VCL | VERTICAL CURVE LENGTH |
| VPC | POINT OF VERTICAL CURVE |
| VPI | POINT OF VERTICAL INTERSECTION |
| VPRC | POINT OF VERTICAL REVERSE CURVE |
| VPT | POINT OF VERTICAL TANGENT |
| WB | WESTBOUND |

## ORDER OF SECTION 2 SHEETS


GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN
PAVING DETAILS
PAVEMENT GRADES
FTMS
EROSION CONTROL PLAN
STORM SEWER LAYOUT
SIGN REMOVAL PLAN
PERMANENT SIGNING
LIGHTING PLAN
TRAFFIC SIGNAL PLAN
PAVEMENT MARKING PLAN
DETOUR
TRAFFIC CONTROL
ALIGNMENT DIAGRAM


## REFERENCE LINE CALL OUTS

| | |
|---|---|
| 'EB' | EASTBOUND STH 16 (EXISTING) |
| 'WB' | WESTBOUND STH 16 (EXISTING) |
| 'REB' | EASTBOUND STH 16 (RECONSTRUCTION) |
| 'RWB' | WESTBOUND STH 16 (RECONSTRUCTION) |
| 'NEB' | EASTBOUND STH 16 (PAVEMENT REPLACEMENT) |
| 'NB' | NORTHBOUND STH 127 (RECONSTRUCTION) |
| 'SB' | SOUTHBOUND STH 127 (RECONSTRUCTION) |
| 'RA' | RAMP 'A' (RECONSTRUCTION) |
| 'RB' | RAMP 'B' (RECONSTRUCTION) |
| 'RAB' | ROUNDABOUT CENTRAL ISLAND |
| 'E' | RAMP 'E' (EXISTING) |
| 'TA' | RAMP 'A' TEMPORARY CONNECTION |
| 'TB' | RAMP 'B' TEMPORARY CONNECTION |
| 'TEB' | EASTBOUND STH 16 - STAGED CONSTRUCTION |
| 'TWB' | WESTBOUND STH 16 - STAGED CONSTRUCTION |

## UTILITIES

**ELECTRIC**

ATC MANAGEMENT, INC.
W234 N2000 RIDGEVIEW PARKWAY COURT
PO BOX 47
WAUKESHA, WI 53187-0047
ATTN: TONY MARCINIAK
PHONE: (262) 506-6814
EMAIL: tmarciniak@atcllc.com

**ELECTRIC & GAS**

ALLIANT ENERGY
4902 NORTH BILTMORE LANE
SUITE 1000
MADISON, WI 53718
ATTN: MIKE BROLIN
PHONE: (608) 458-4871
EMAIL: michaelbrolin@alliantenergy.com

**AIRPORT FACILITY**

PORTAGE MUNICIPAL AIRPORT
1011 SILVER LAKE DRIVE
PORTAGE, WI 53901
ATTN: JOHN POPPY
PHONE: (608) 742-3300
EMAIL: poppy@air-portage.com

**COMMUNICATIONS**

CHARTER COMMUNICATIONS
2701 DANIELS STREET
MADISON, WI 53718
ATTN: BRANDON STORM
PHONE: (608) 274-3822
EMAIL: brandon.storm@charter.com

**COMMUNICATIONS**

FRONTIER COMMUNICATIONS OF WI LLC
2222 WEST WISCONSIN STREET
PORTAGE, WI 53901
ATTN: JERRY MOORE
PHONE: (608) 742-9507
EMAIL: jerald.r.moore@ftr.com

**COMMUNICATIONS**

MADISON AREA TECHNICAL COLLEGE
1701 WRIGHT STREET
MADISON, WI 53704
ATTN: WESLEY MARQUARDT
PHONE: (608) 243-4040
MOBILE: (608) 246-6331
EMAIL: WMarquardt@madisoncollege.edu

**SEWER & WATER**

CITY OF PORTAGE UTILITIES
115 WEST PLEASANT STREET
PORTAGE, WI 53901
ATTN: AARON JAHNCKE
PHONE: (608) 742-2176
EMAIL: aaron.jahncke@portagewi.gov

**WATER**

PORTAGE WATER UTILITY
135 NORTHRIDGE DRIVE
PORTAGE, WI 53901
ATTN: KEVIN BORTZ
PHONE: (608) 697-0266
EMAIL: kevin.bortz@portagewi.gov

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

## DESIGN CONTACT

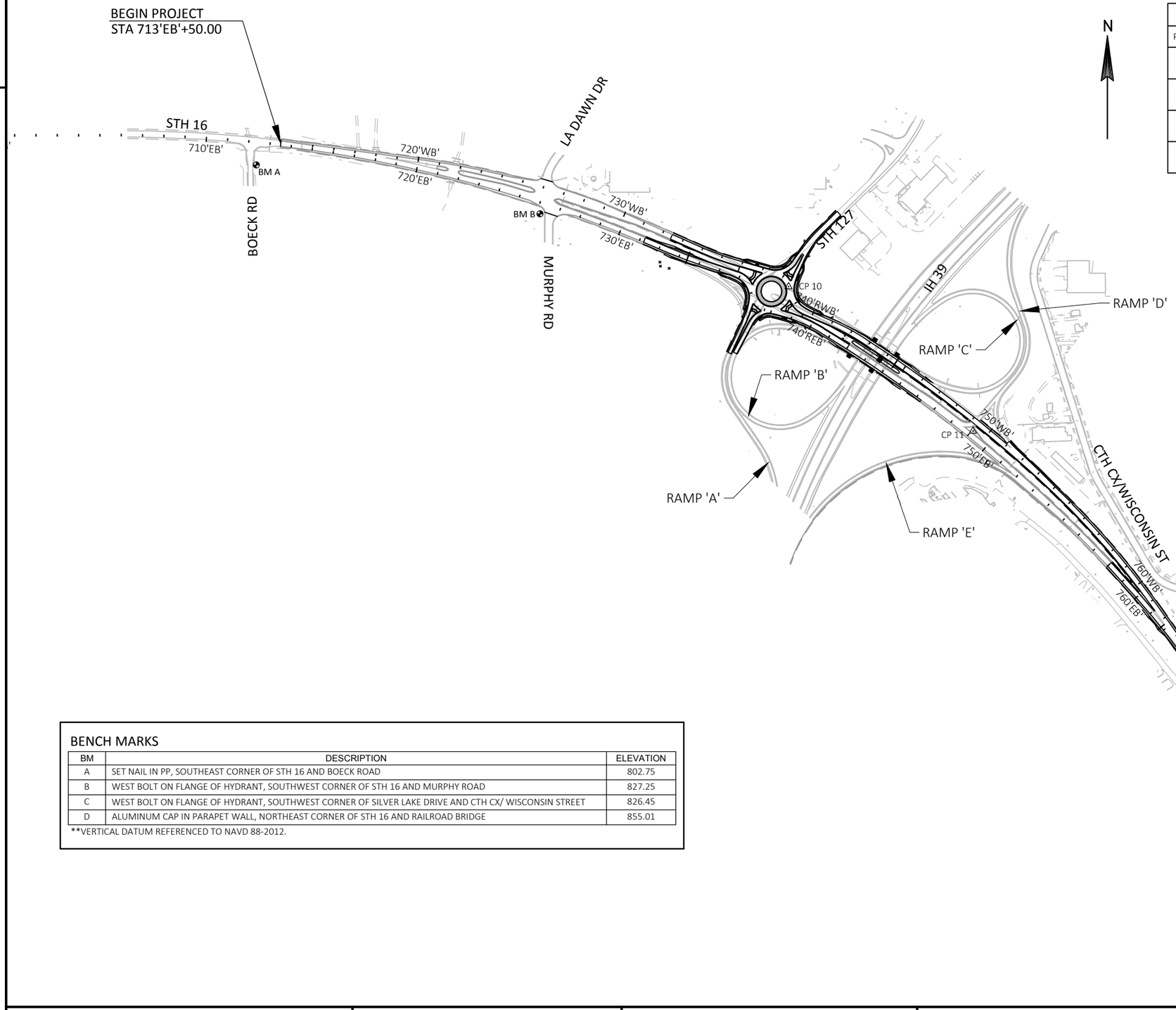
GREMMER & ASSOCIATES, INC.
93 S. PIONEER ROAD, SUITE 300
FOND DU LAC, WI 54935
ATTN: BENJAMIN OITZINGER
PHONE: (920) 924-5720
EMAIL: b.oitzinger@gremmerassociates.com

## WISDOT CONTACT

WISCONSIN DEPARTMENT OF TRANSPORTATION
2101 WRIGHT STREET
MADISON, WI 53704-2583
ATTN: MATTHEW DAPP
PHONE: (608) 246-5353
EMAIL: matthew.dapp@dot.wi.gov

## DNR AREA LIAISON

WISCONSIN DEPT. OF NATURAL RESOURCES
3911 FISH HATGHERY ROAD
FITCHBURG, WI 53711
ATTN: ERIC HEGGELUND
PHONE: (608) 275-3301
EMAIL: eric.heggelund@wisconsin.gov



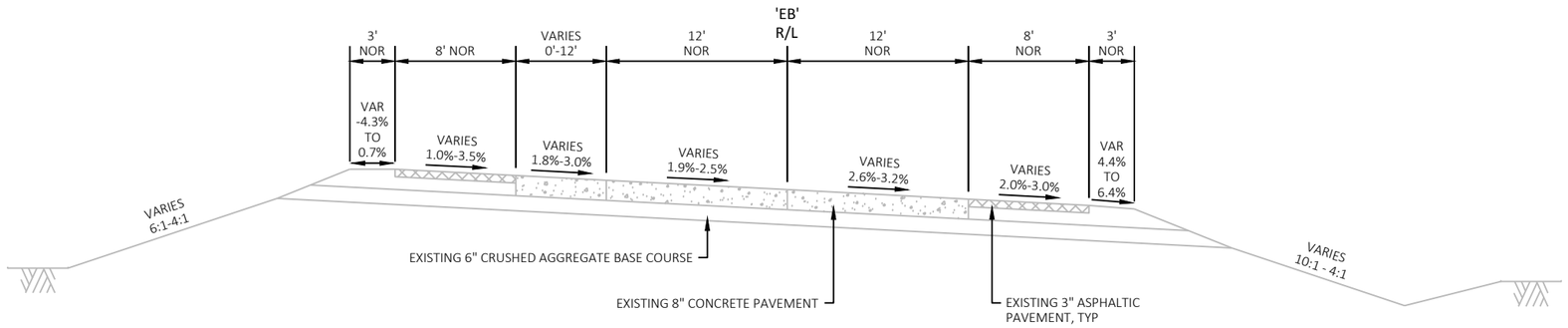

| CONTROL POINT TABLE | | | |
|---|---|---|---|
| Point # | Northing | Easting | DESCRIPTION |
| CP 10 | 401721.542 | 528478.5500 | 1" IP IN GRASS, NORTHEAST QUADRANT OF STH 16 AND STH 127, 10' NORTH OF EDGE OF CONCRETE, 6' EAST OF EAST END OF CURB & GUTTER |
| CP 11 | 401043.620 | 529343.4620 | MAG NAIL IN ASPHALT MEDIAN AT LEFT TURN LANE FOR NB IH 39, 10' NORTH OF EDGE OF CONCRETE, 4' WEST OF EDGE OF ASPHALT |
| CP 12 | 399467.273 | 530787.8820 | MAG NAIL IN ASPHALT DRIVEWAY FOR COUNTY BUILDING, 45' EAST OF EDGE OF CONCRETE, 3' WEST OF SIDEWALK, 8' NORTH OF EDGE OF ASPHALT |
| CP 13 | 399090.717 | 530969.8250 | MAG NAIL IN ASPHALT SHOULDER OF STH 16, 10' EAST OF EDGE OF CONCRETE, 25' SOUTH OF NORTH BEAMGURD TERMINAL |

BENCH MARKS

| BM | DESCRIPTION | ELEVATION |
|---|---|---|
| A | SET NAIL IN PP, SOUTHEAST CORNER OF STH 16 AND BOECK ROAD | 802.75 |
| B | WEST BOLT ON FLANGE OF HYDRANT, SOUTHWEST CORNER OF STH 16 AND MURPHY ROAD | 827.25 |
| C | WEST BOLT ON FLANGE OF HYDRANT, SOUTHWEST CORNER OF SILVER LAKE DRIVE AND CTH CX/ WISCONSIN STREET | 826.45 |
| D | ALUMINUM CAP IN PARAPET WALL, NORTHEAST CORNER OF STH 16 AND RAILROAD BRIDGE | 855.01 |

**VERTICAL DATUM REFERENCED TO NAVD 88-2012.

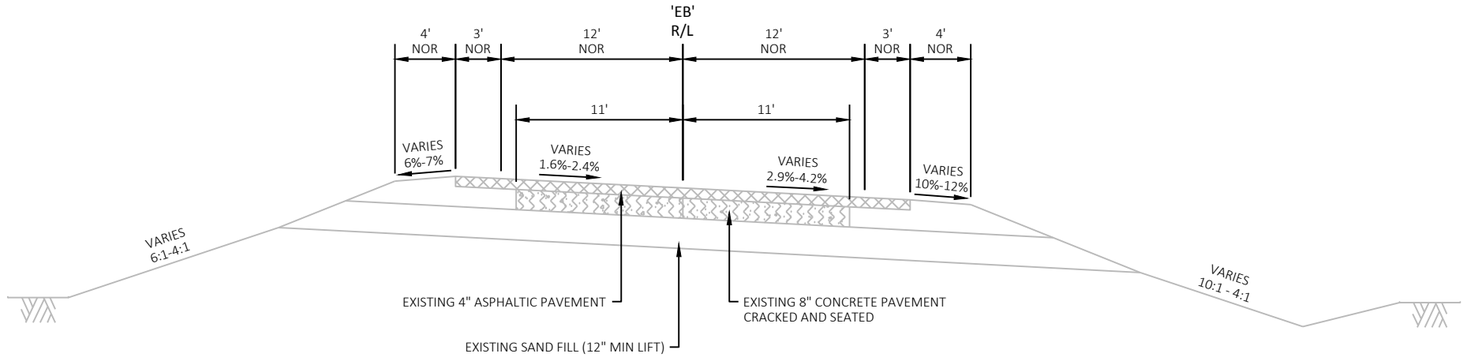
2




TYPICAL EXISTING SECTION

STH 16

STA 714'EB'+50 - STA 718'EB'+47



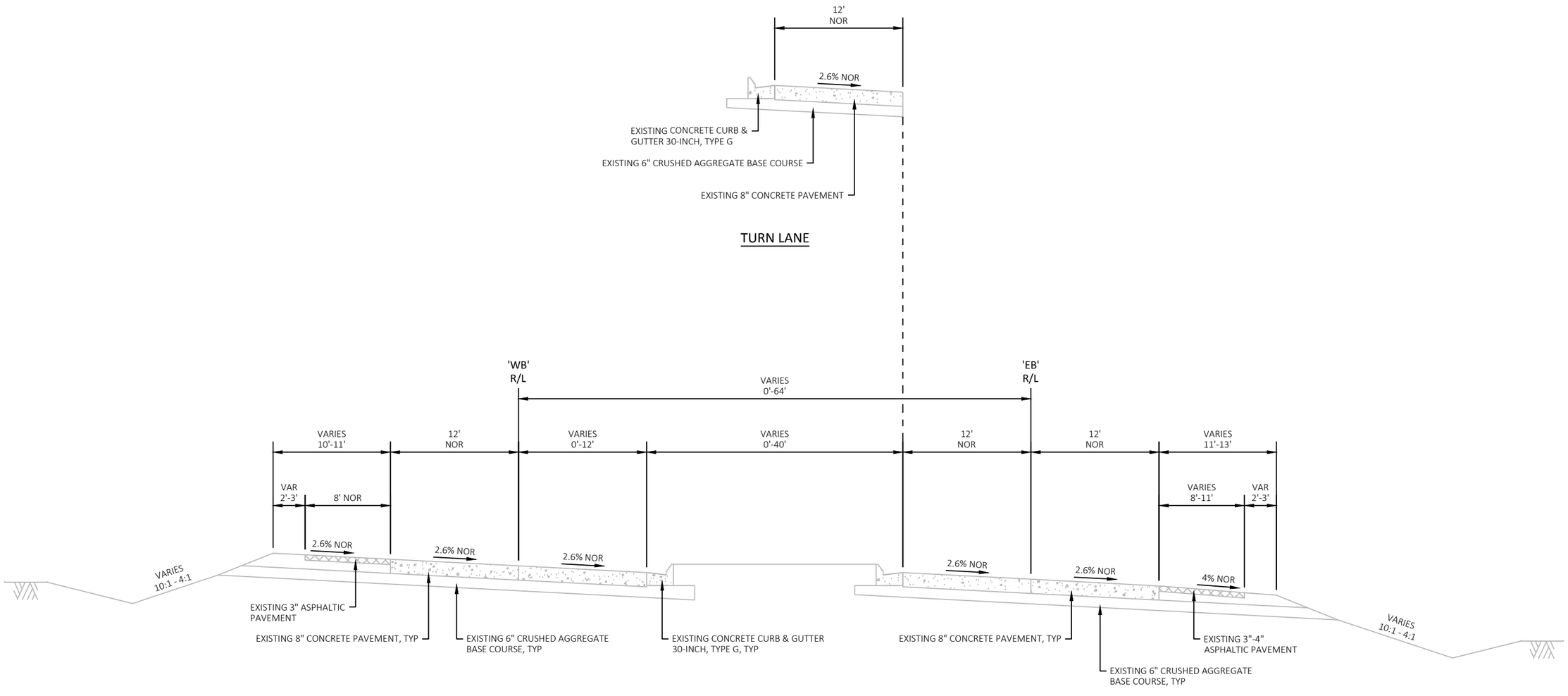

TYPICAL EXISTING SECTION

STH 16

STA 713'EB'+50 - STA 714'EB'+50

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TYPICAL SECTIONS: STH 16 | SHEET 4 | E |
|---|---|---|---|---|---|

2




TURN LANE

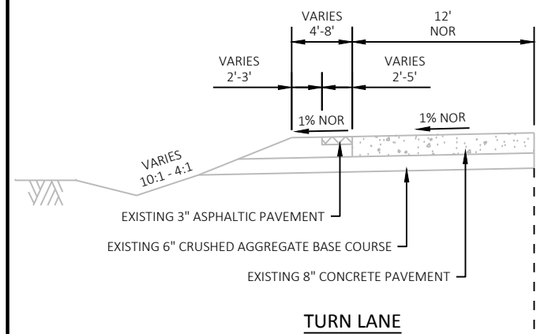
TYPICAL EXISTING SECTION

STH 16

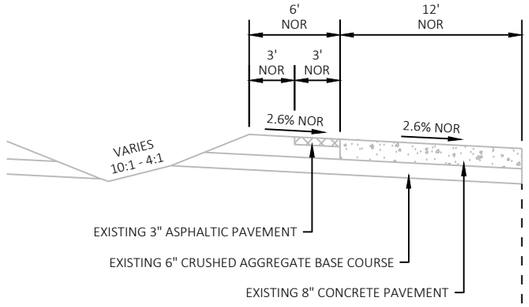
STA 718'EB'+47 - STA 726'EB'+60

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TYPICAL SECTIONS: STH 16 | SHEET 5 | E |
|---|---|---|---|---|---|

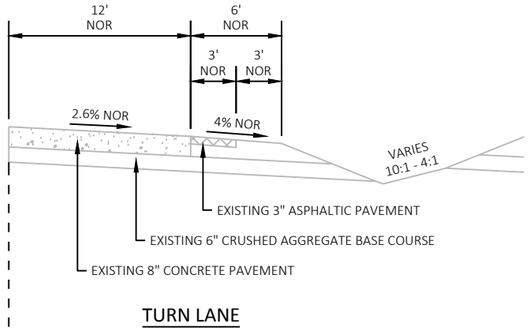
2



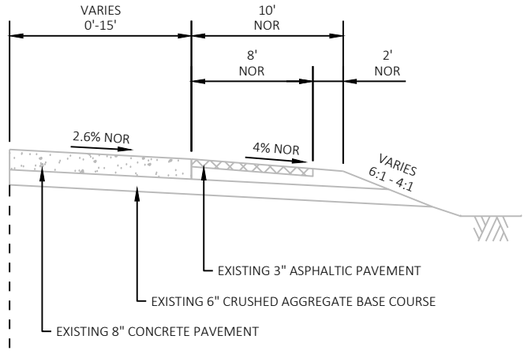

TURN LANE



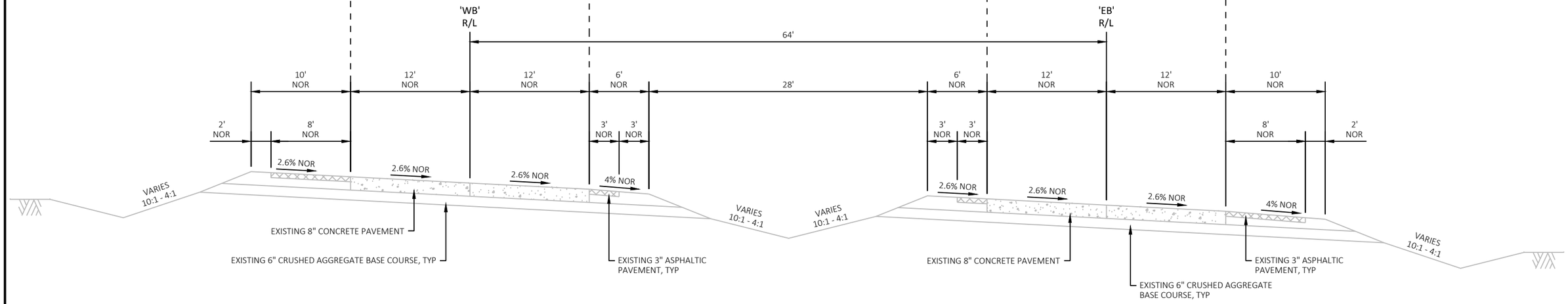

TURN LANE




TURN LANE




RAMP 'A' EXIT LANE



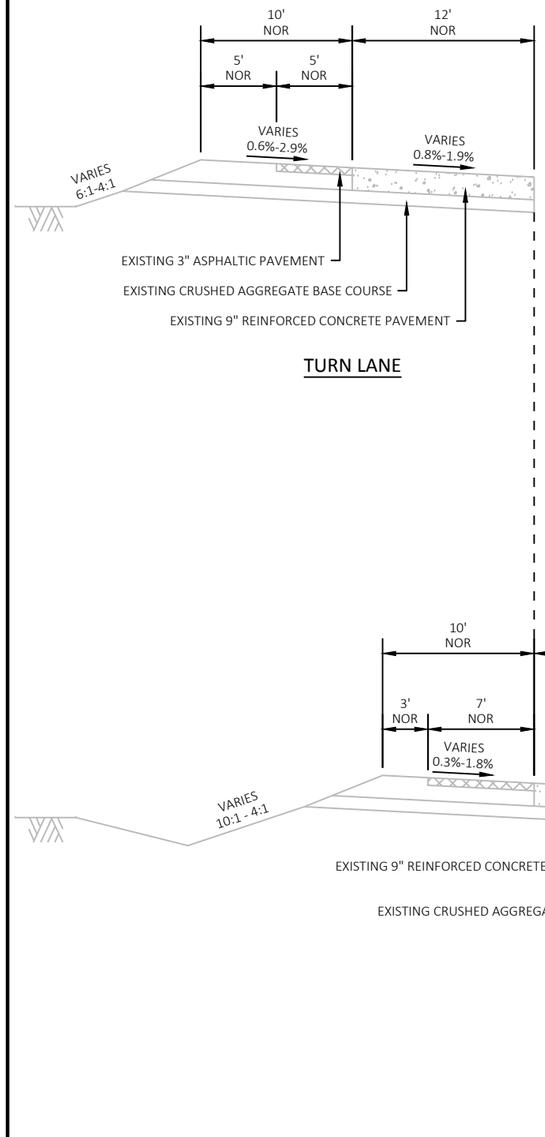

## TYPICAL EXISTING SECTION

STH 16

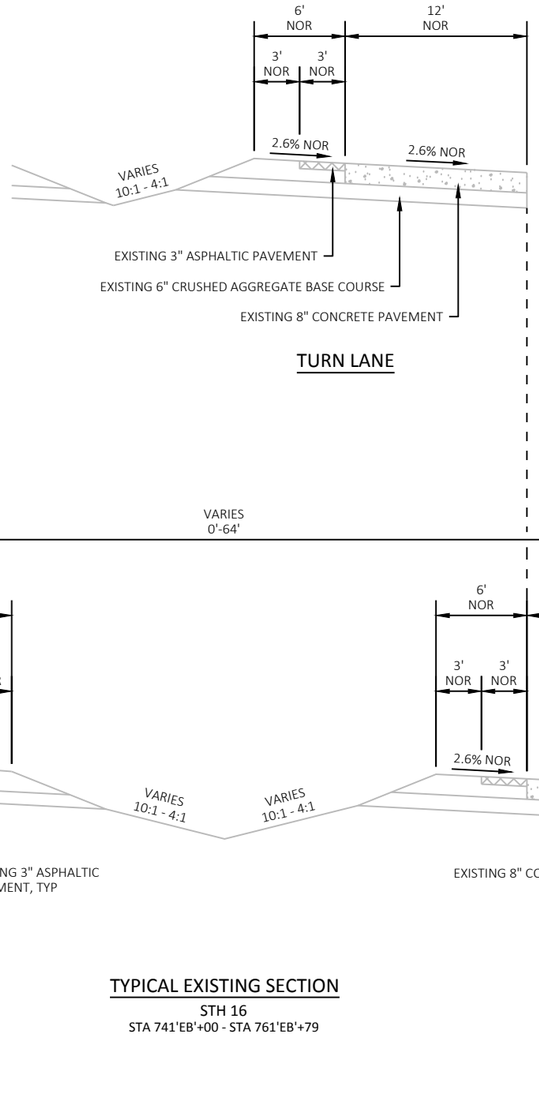
STA 726'EB'+60 - STA 741'EB'+00

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TYPICAL SECTIONS: STH 16 | SHEET 6 | E |
|---|---|---|---|---|---|

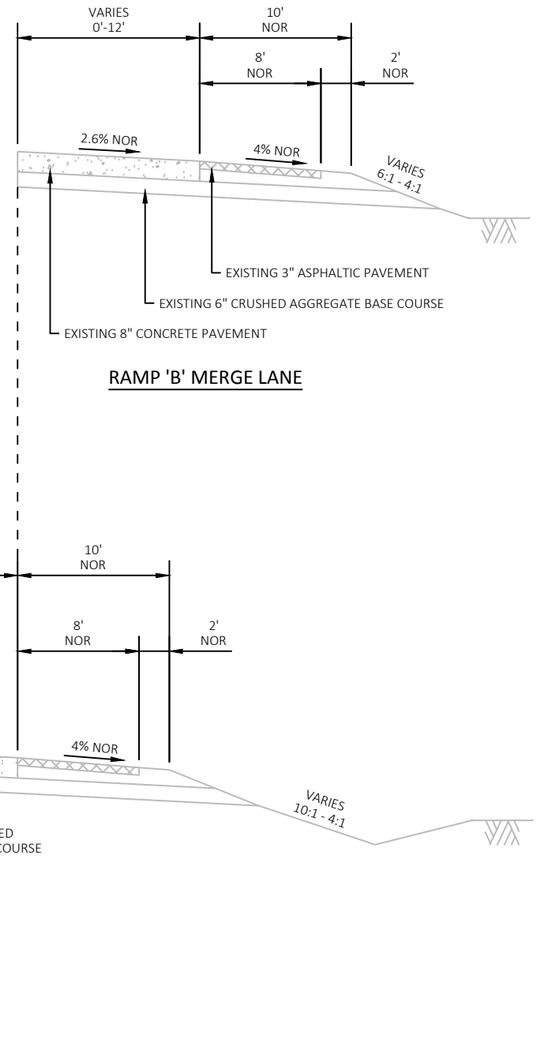
2



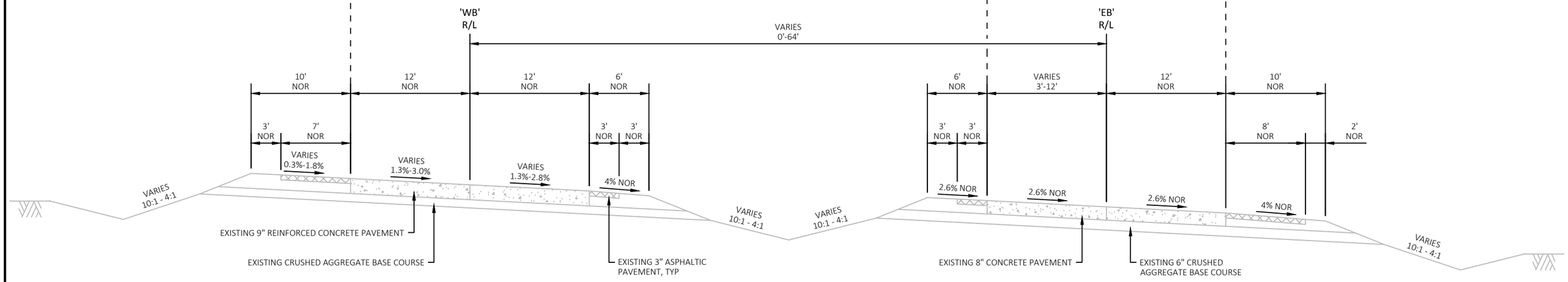

TURN LANE




TURN LANE




RAMP 'B' MERGE LANE



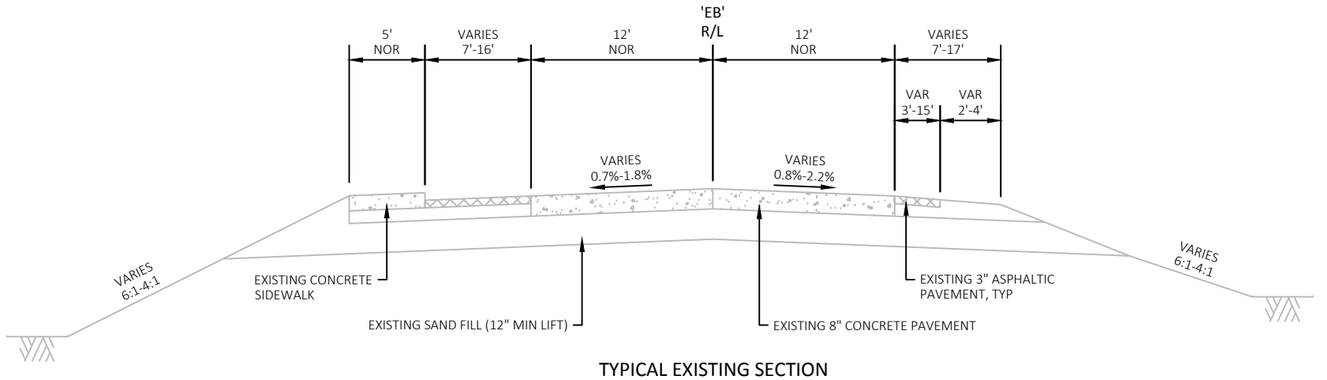

## TYPICAL EXISTING SECTION

STH 16

STA 741'EB'+00 - STA 761'EB'+79

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TYPICAL SECTIONS: STH 16 | SHEET 7 | E |
|---|---|---|---|---|---|

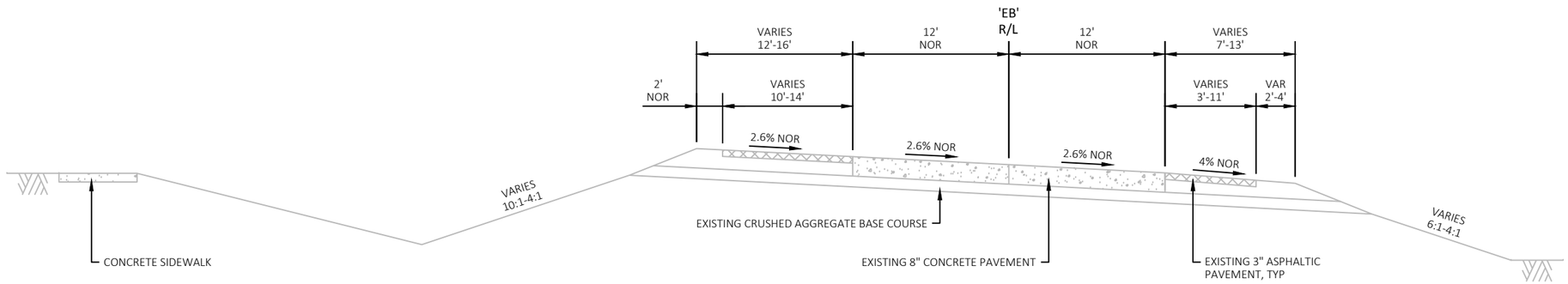
2




**TYPICAL EXISTING SECTION**

STH 16

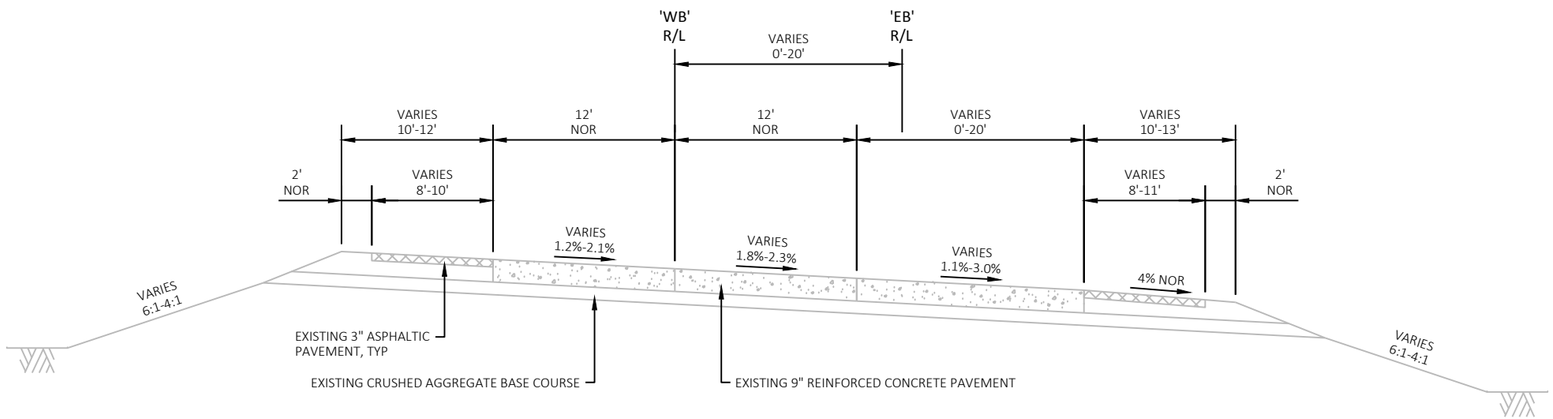
STA 771'EB'+00 - STA 777'EB'+00




**TYPICAL EXISTING SECTION**

STH 16

STA 766'EB'+73 - STA 771'EB'+00



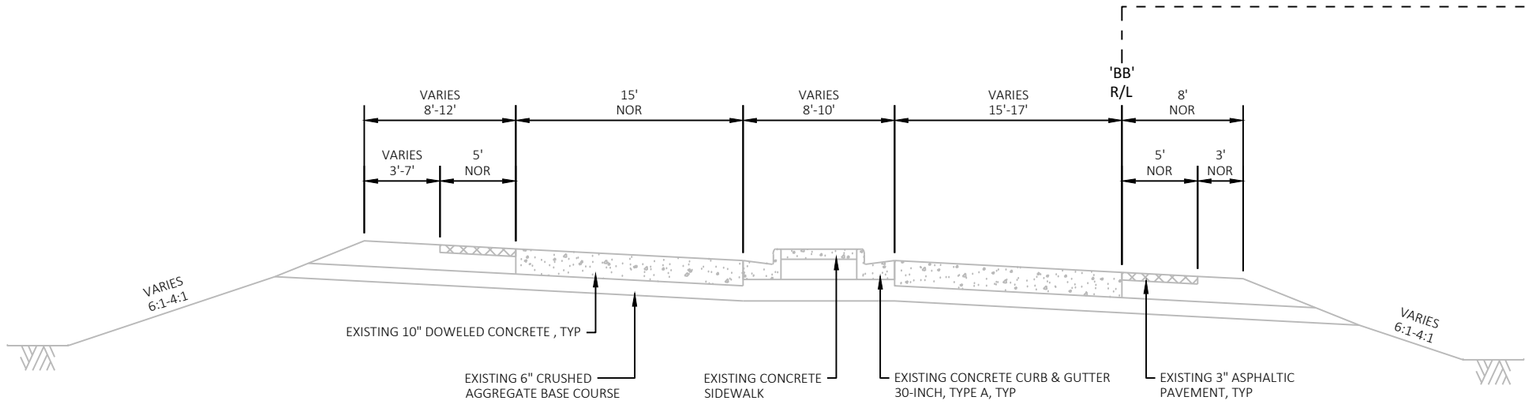

**TYPICAL EXISTING SECTION**

STH 16

STA 761'EB'+79 - STA 766'EB'+73

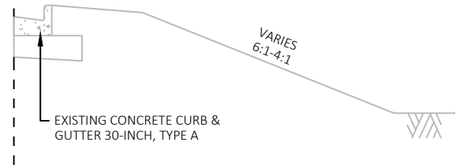
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TYPICAL SECTIONS: STH 16 | SHEET 8 | E |
|---|---|---|---|---|---|

2



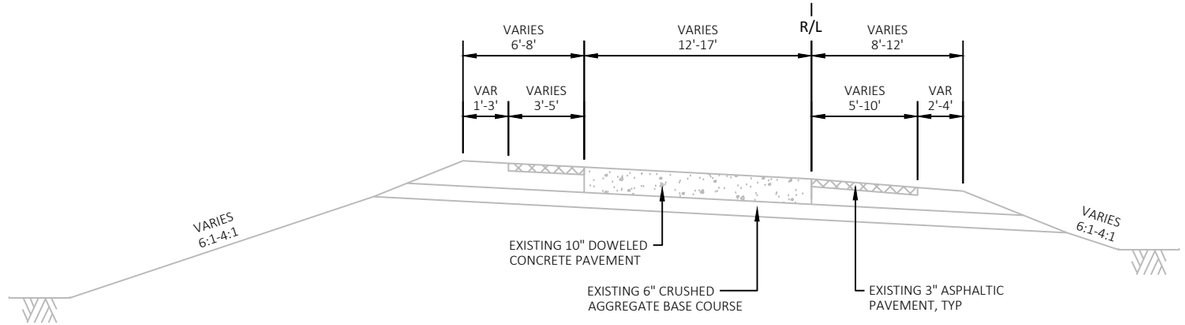

TYPICAL EXISTING SECTION

RAMP 'BB'




CURB & GUTTER SECTION

RAMP 'BB'
RAMP 'B'
RAMP 'C'



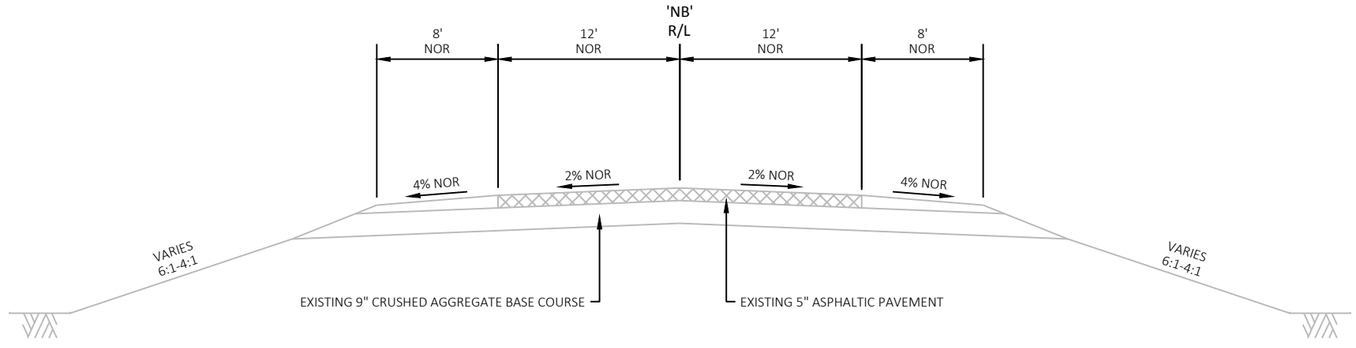

TYPICAL EXISTING SECTION

RAMP 'A'
RAMP 'B'
RAMP 'C'
RAMP 'E'

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TYPICAL SECTIONS: STH 16 | SHEET 9 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-020301-TS.DWG
LAYOUT NAME - Sheet-06

PLOT DATE : 10/19/2017 9:04 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

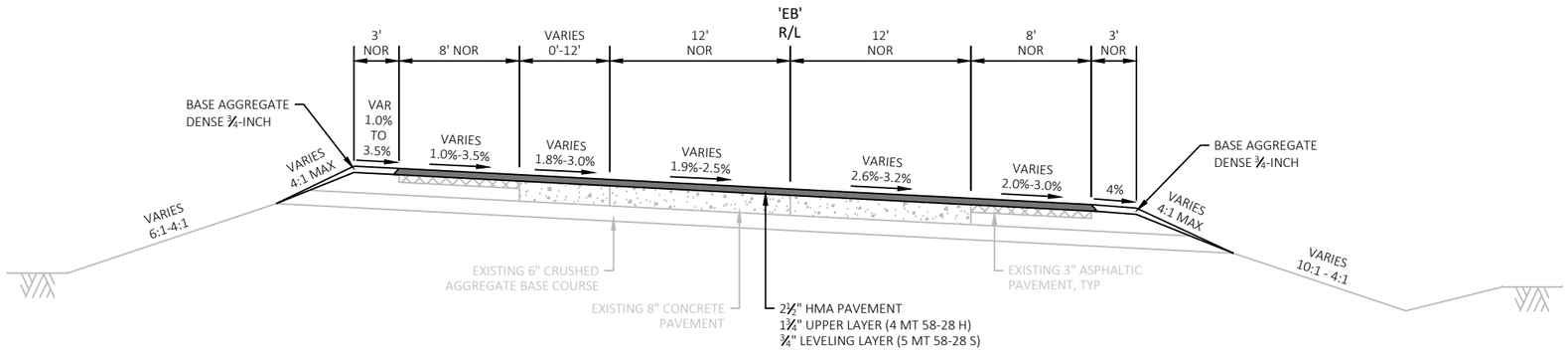



TYPICAL EXISTING SECTION

STH 127

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TYPICAL SECTIONS: STH 16 | SHEET 10 | E |
|---|---|---|---|---|---|

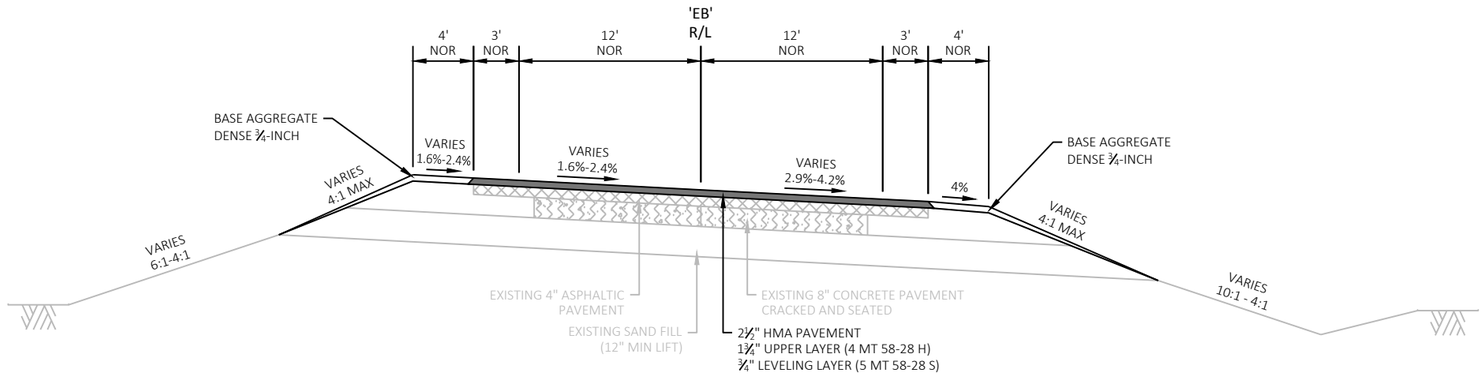
2




TYPICAL FINISHED SECTION

STH 16

STA 714'EB'+50 - STA 718'EB'+47

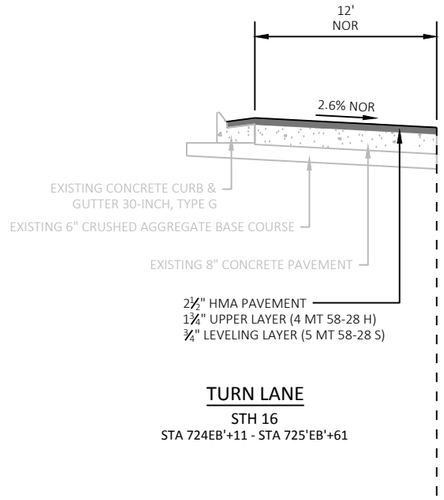



TYPICAL FINISHED SECTION

STH 16

STA 713'EB'+50 - STA 714'EB'+50

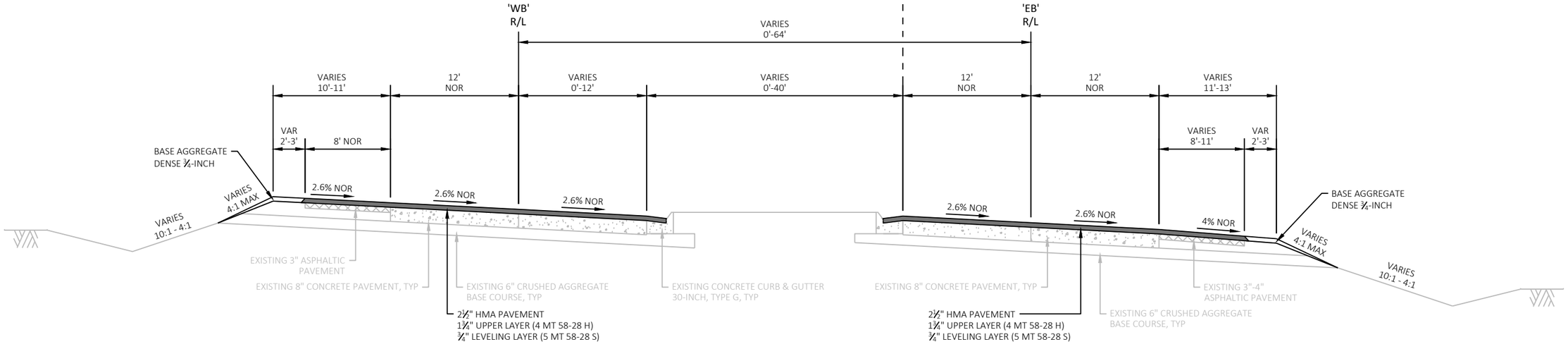
2




**TURN LANE**

STH 16

STA 724EB'+11 - STA 725'EB'+61




**TYPICAL FINISHED SECTION**

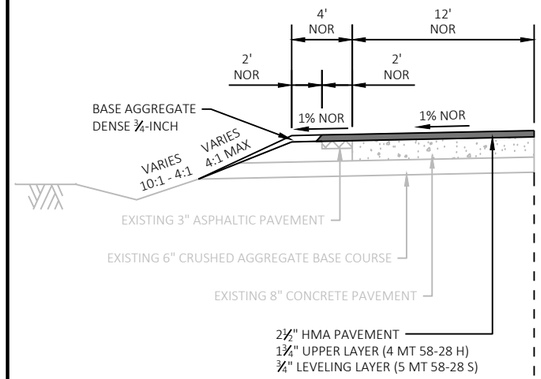
STH 16

STA 718'EB'+47 - STA 726'EB'+60

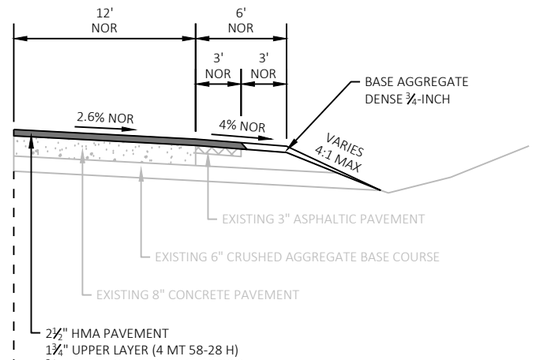
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TYPICAL SECTIONS: STH 16 | SHEET 12 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-020301-TS.DWG
LAYOUT NAME - Sheet-09
PLOT DATE : 10/19/2017 9:04 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

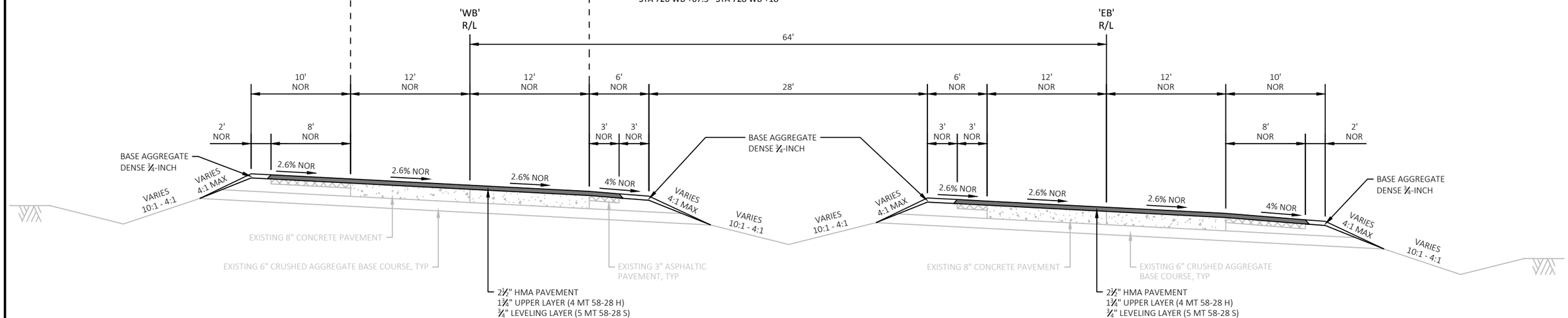
2




**TURN LANE**
STH 16
STA 726'WB'+67.5 - STA 728'WB'+74



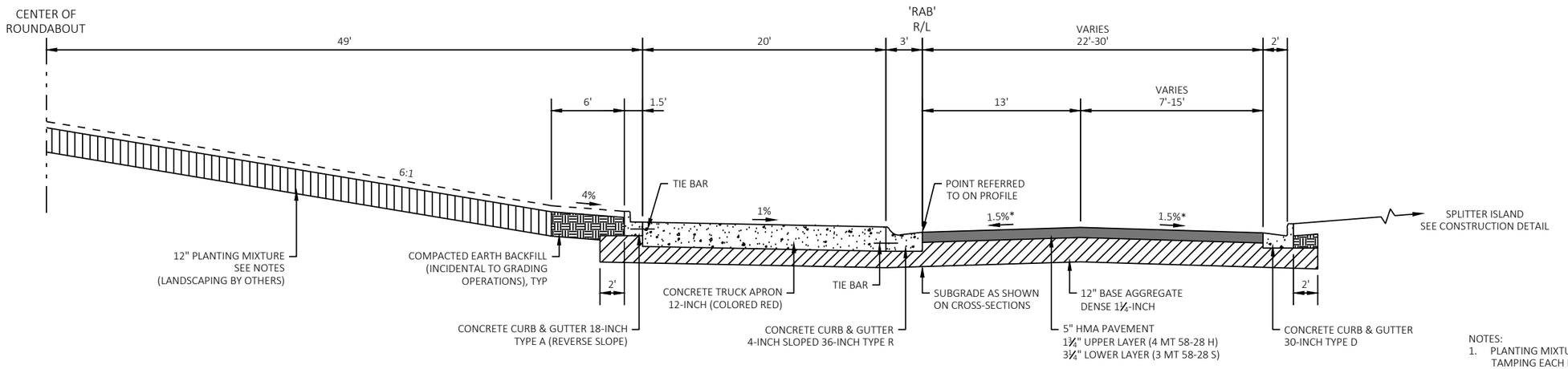

**TURN LANE**
STH 16
STA 726'WB'+67.5 - STA 728'WB'+18




**TYPICAL FINISHED SECTION**
STH 16
STA 726'EB'+60 - STA 731'EB'+20.5
STA 726'WB'+67.5 - STA 732'WB'+43.5

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TYPICAL SECTIONS: STH 16 | SHEET 13 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-020301-TS.DWG
LAYOUT NAME - Sheet-10
PLOT DATE : 10/19/2017 9:04 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

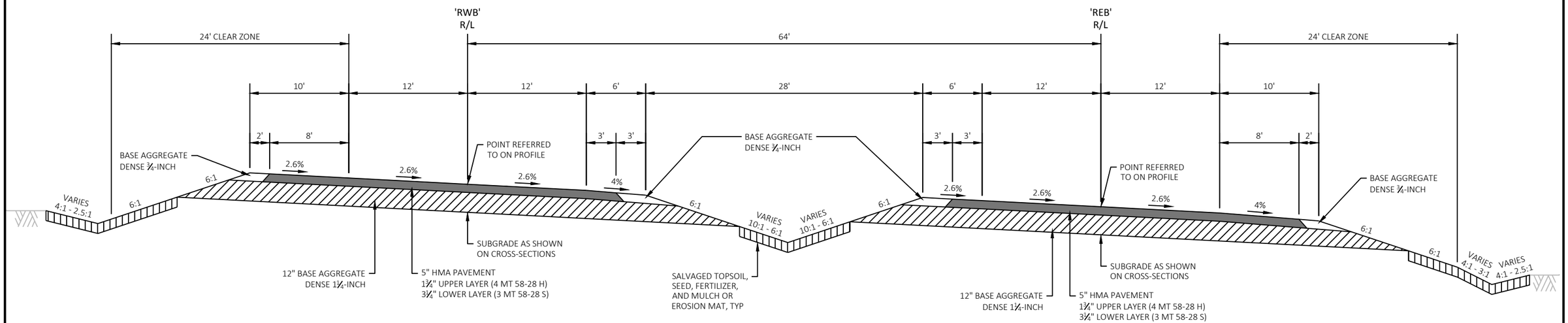



NOTES:
1. PLANTING MIXTURE SHALL BE INSTALLED IN 6-8" LAYERS, TAMPING EACH LAYER TO REMOVE AIR POCKETS AND PREVENT SETTLING. TOP OF PLANTING MIXTURE TO BE 3" BELOW FINISHED GRADE.

* CROSS SLOPE VARIES DUE TO TO INTERSECTION WARPING (SEE PAVING PLANS FOR FURTHER DETAILS)

## TYPICAL FINISHED SECTION

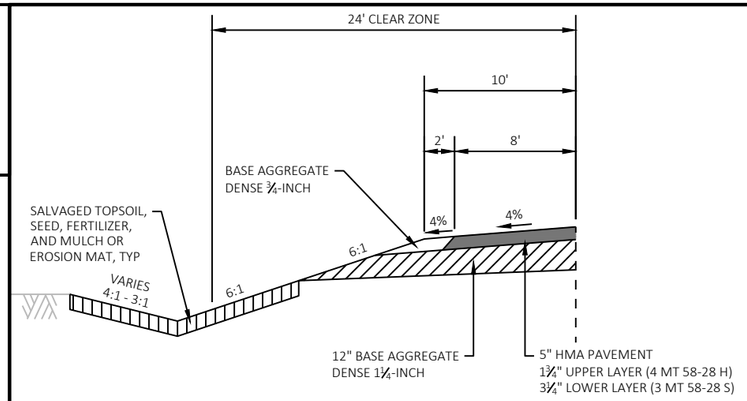
STH 16
STA 10'RAB'+00.00 - STA 14'RAB'+52.38



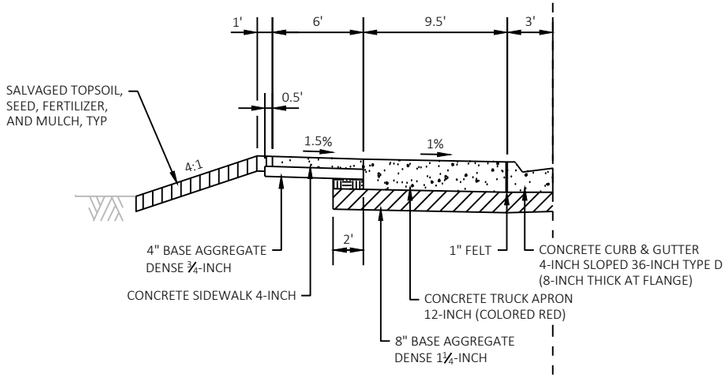

## TYPICAL FINISHED SECTION

STH 16
STA 731'REB'+20.5 - STA 733'REB'+65
STA 732'RWB'+43.5 - STA 733'RWB'+76
STA 741'REB'+50 - STA 742'REB'+00
STA 741'RWB'+70 - STA 745'RWB'+00

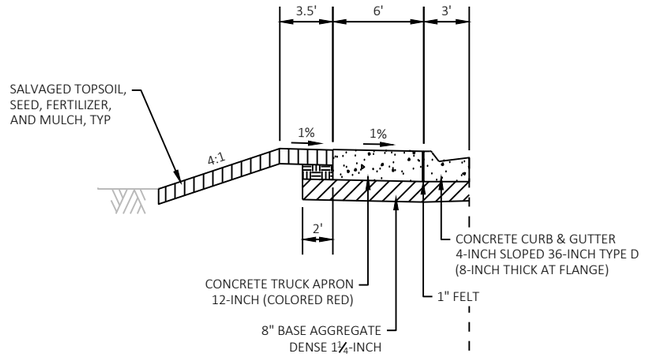
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TYPICAL SECTIONS: STH 16 | SHEET 14 | E |
|---|---|---|---|---|---|



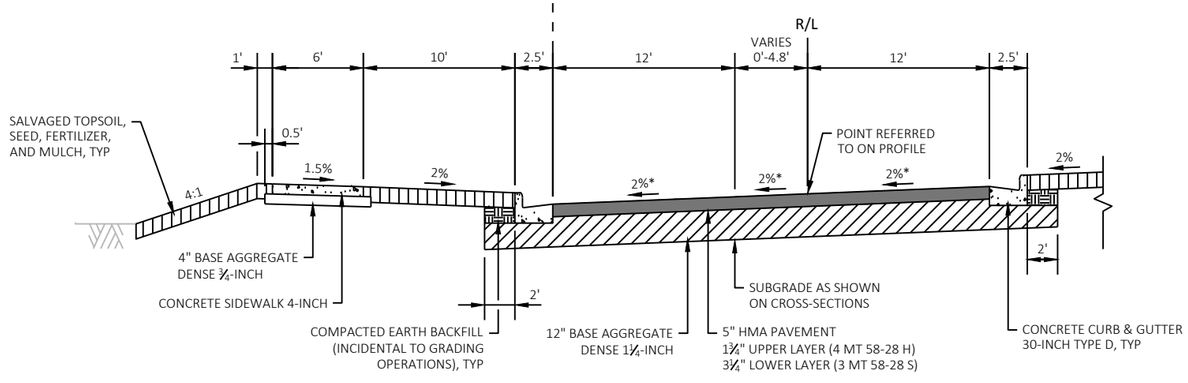

RURAL SHOULDER SECTION




TRUCK APRON W/ SIDEWALK SECTION



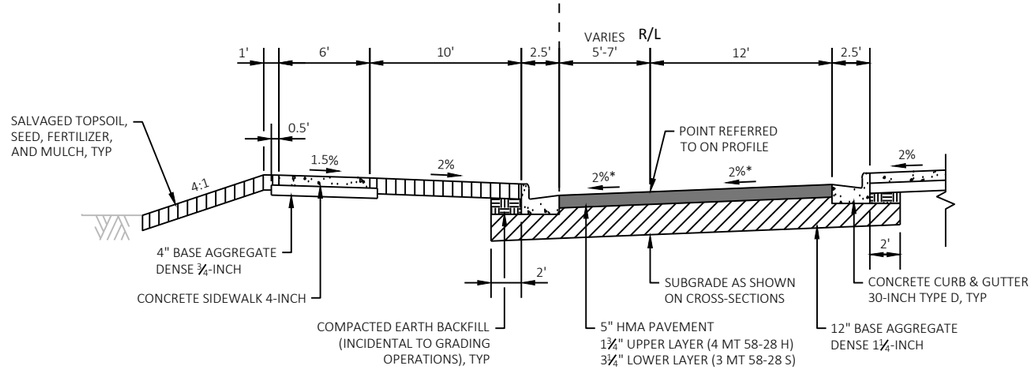

TRUCK APRON W/O SIDEWALK SECTION




TYPICAL FINISHED HALF SECTION

STH 16 ROUNDABOUT APPROACH
STA 733'REB'+65 - STA 736'REB'+72
STA 733'RWB'+76 - STA 737'RWB'+11
STA 738'REB'+31 - STA 741'REB'+50
STA 738'RWB'+71 - STA 741'RWB'+70

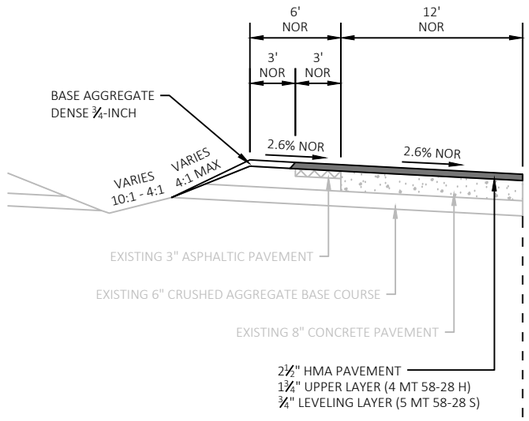
* CROSS SLOPE VARIES DUE TO SUPERELEVATION (SEE CROSS SECTIONS AND SUPER ELEVATION TABLE FOR FURTHER DEATILS)



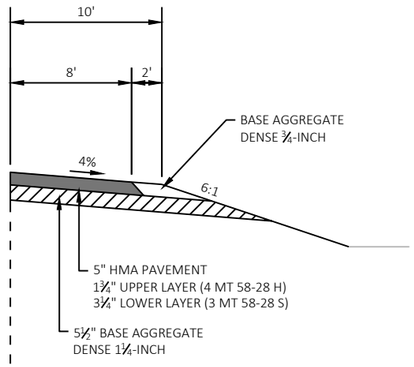

TYPICAL FINISHED HALF SECTION

STH 127, RAMP 'A' & RAMP 'B' ROUNDABOUT APPROACH
STA 48'RA'+84 - STA 50'RA'+00
STA 59'RB'+16 - STA 60'RB'+00
STA 80'NB'+00 - STA 81'NB'+43
STA 80'SB'+08 - STA 81'SB'+42

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TYPICAL SECTIONS: ROUNDABOUT APPROACHES | SHEET 15 | E |
|---|---|---|---|---|---|

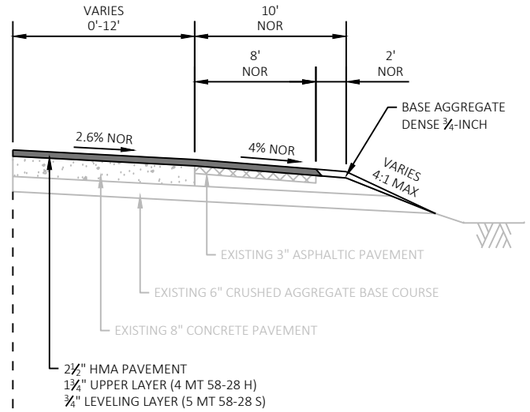



TURN LANE

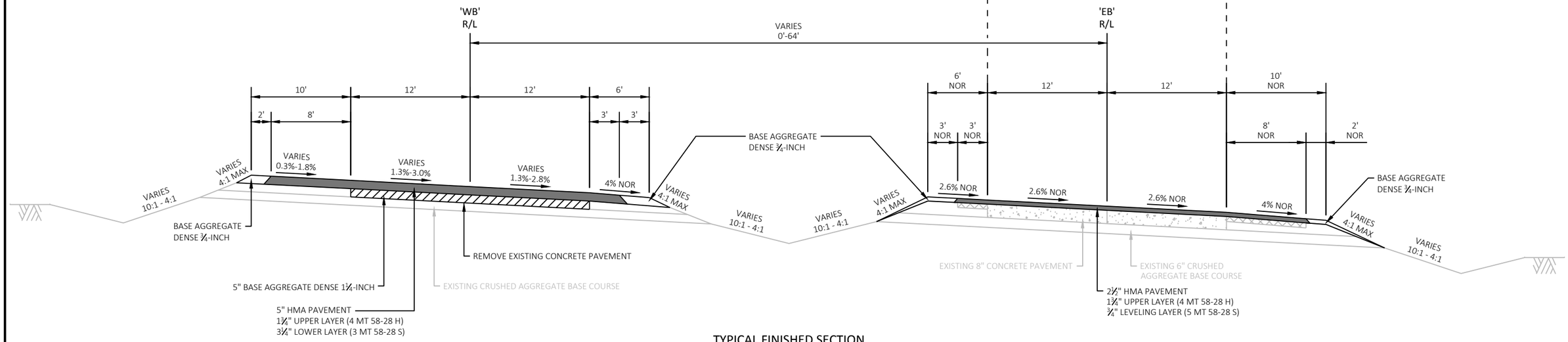



SHOULDER REPLACEMENT

STA 742'EB'+07 - STA 746'EB'+26




RAMP 'E' MERGE LANE




TYPICAL FINISHED SECTION

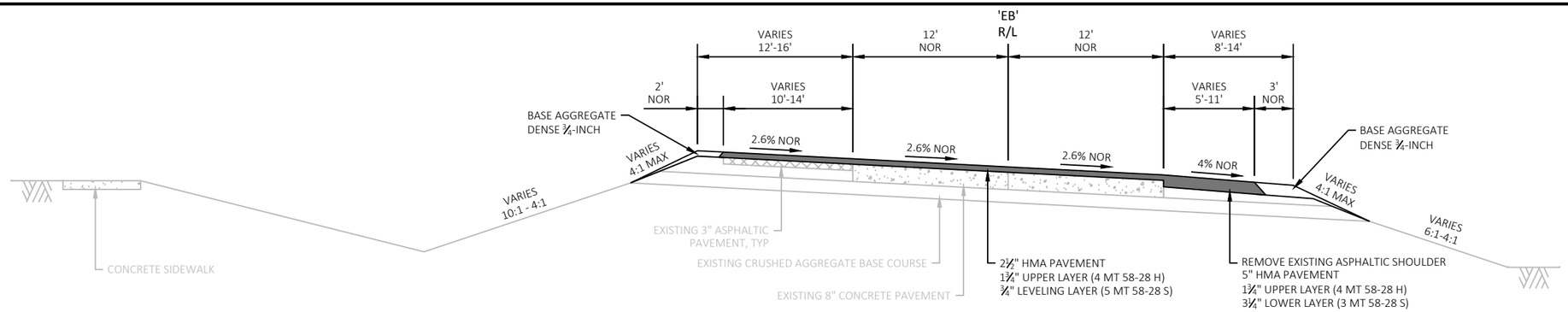
STH 16

STA 742'EB'+00 - STA 758EB'+00

STA 745'WB'+00 - STA 758'WB'+39

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TYPICAL SECTIONS: STH 16 | SHEET 16 | E |
|---|---|---|---|---|---|

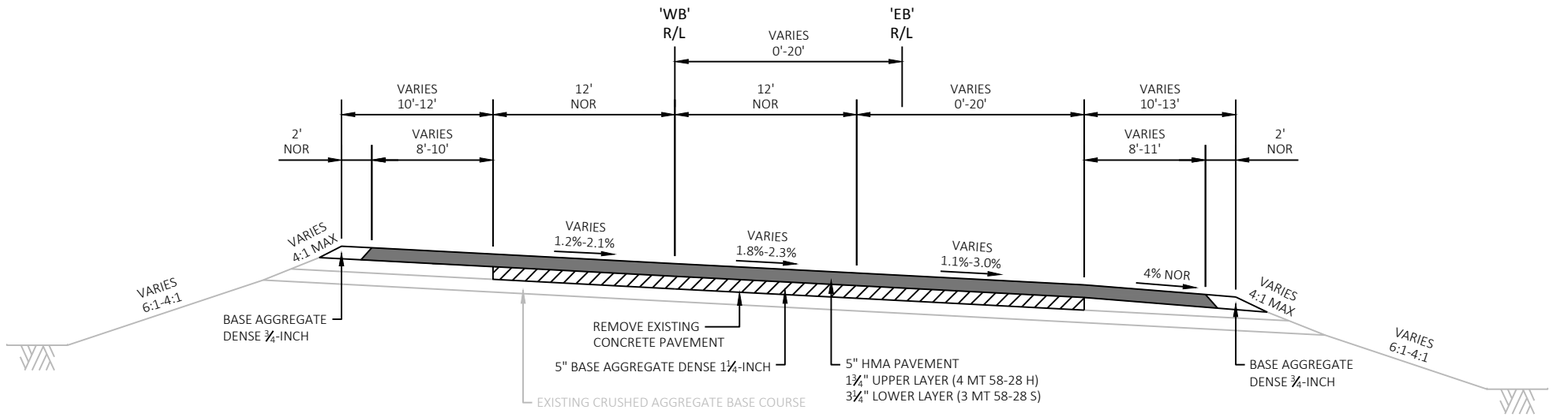
FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-020301-TS.DWG
LAYOUT NAME - Sheet-13
PLOT DATE : 10/19/2017 9:05 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42




**TYPICAL FINISHED SECTION**

STH 16

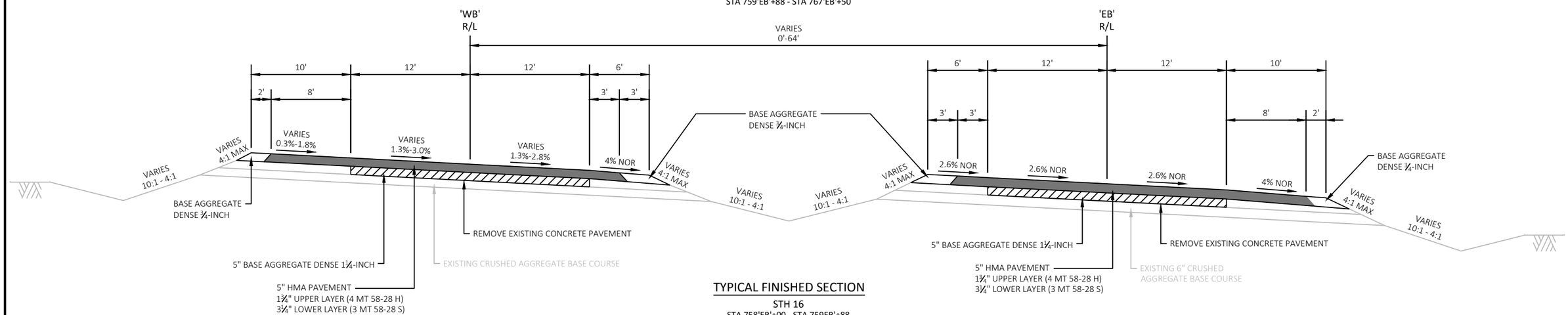
STA 767'EB'+50 - STA 771'EB'+26




**TYPICAL FINISHED SECTION**

STH 16

STA 759'EB'+88 - STA 767'EB'+50




**TYPICAL FINISHED SECTION**

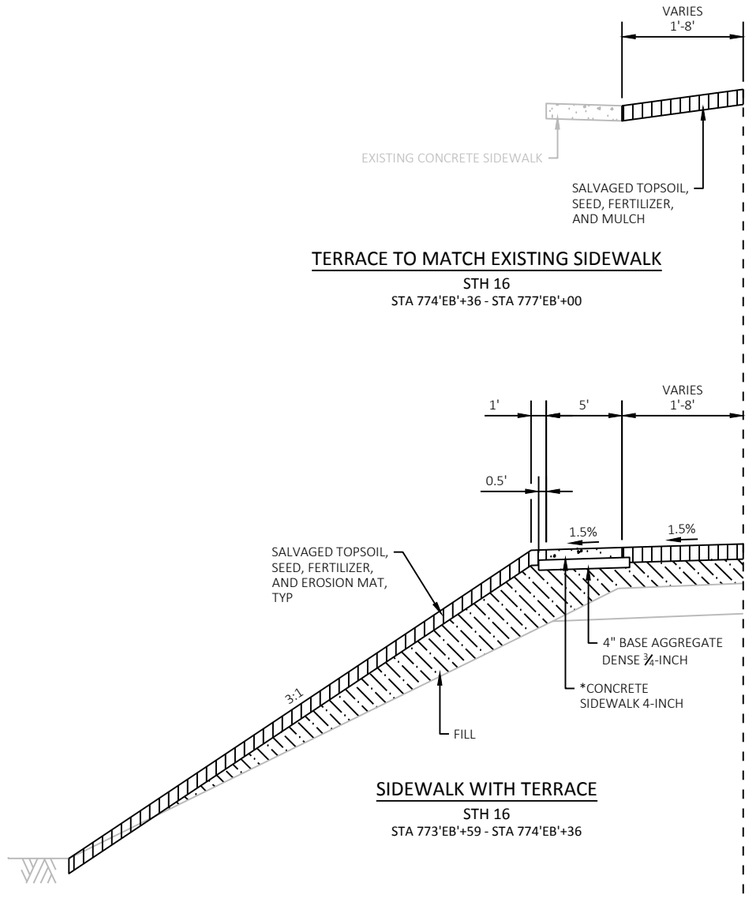
STH 16

STA 758'EB'+00 - STA 759EB'+88

STA 758'WB'+39 - STA 760'WB'+30

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TYPICAL SECTIONS: STH 16 | SHEET 17 | E |
|---|---|---|---|---|---|

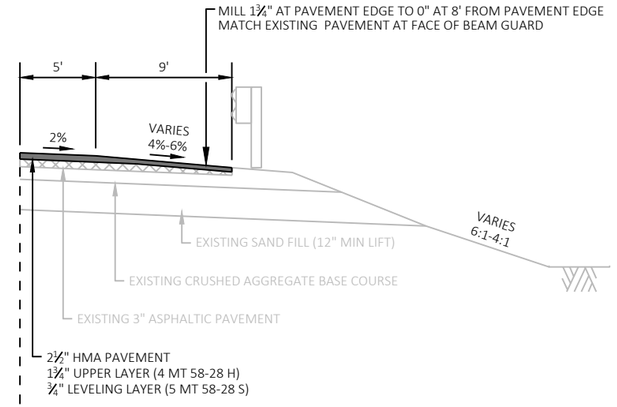
FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-020301-TS.DWG
LAYOUT NAME - Sheet-14
PLOT DATE : 10/19/2017 9:05 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42



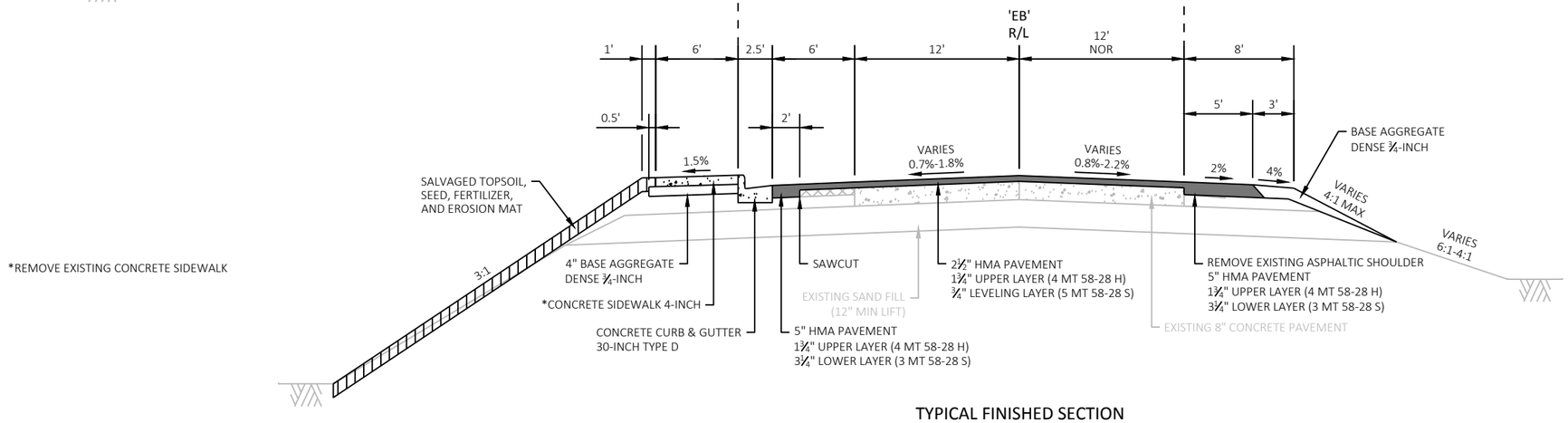

TERRACE TO MATCH EXISTING SIDEWALK
STH 16
STA 774'EB'+36 - STA 777'EB'+00




SIDEWALK WITH TERRACE
STH 16
STA 773'EB'+59 - STA 774'EB'+36



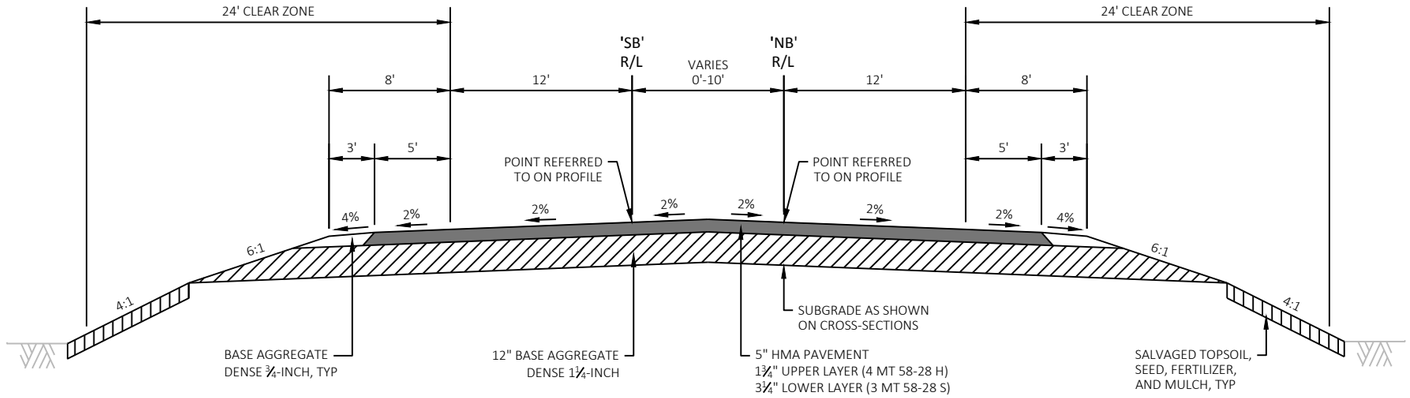

BEAM GUARD SECTION




TYPICAL FINISHED SECTION
STH 16
STA 771'EB'+00 - STA 777'EB'+00

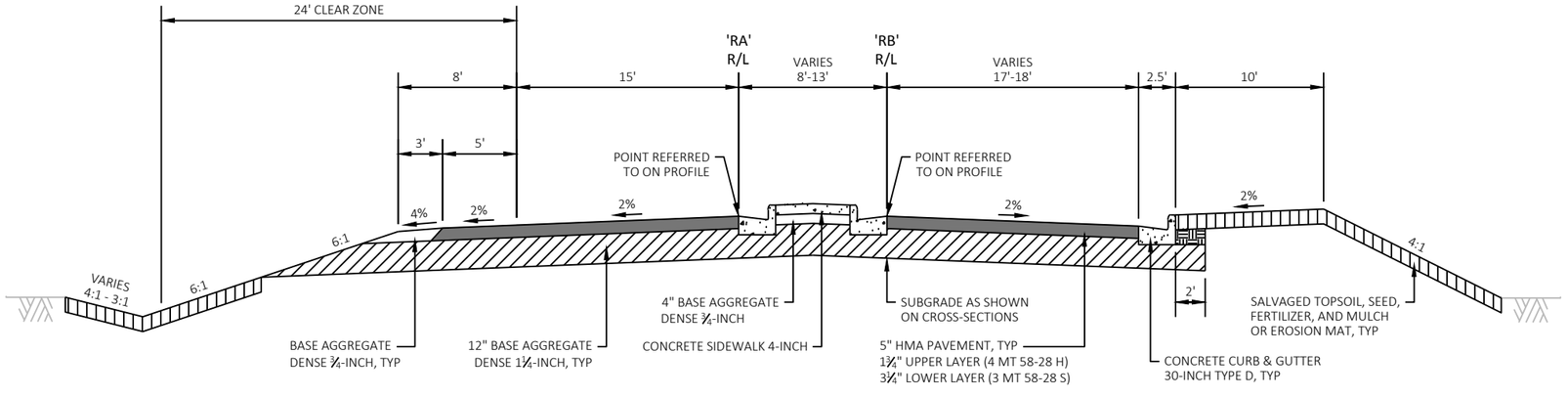
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TYPICAL SECTIONS: STH 16 | SHEET 18 | E |
|---|---|---|---|---|---|

2




## TYPICAL FINISHED SECTION

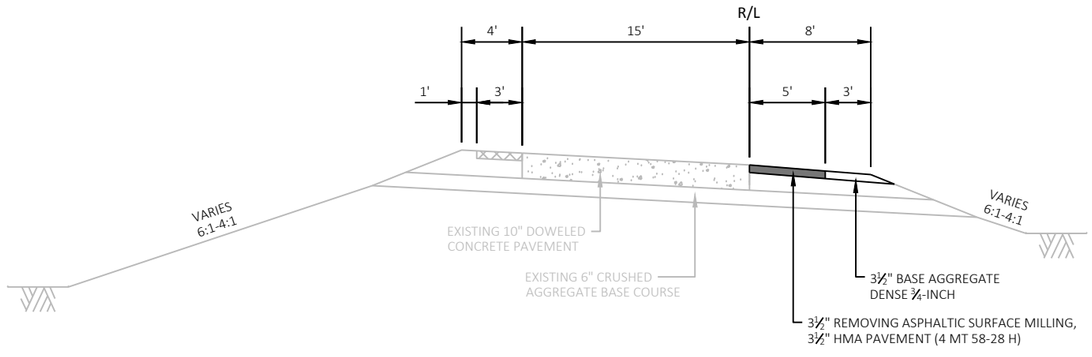
STH 127
STA 81'NB'+43 - STA 84'NB'+00
STA 81'SB'+42 - STA 82'SB'+95




## TYPICAL FINISHED SECTION

RAMPS 'RA' & 'RB'
STA 47'RA'+37 - STA 48'RA'+84
STA 57'RB'+59 - STA 59'RB'+16

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TYPICAL SECTIONS: RAMP 'A', RAMP 'B', & STH 127 | SHEET 19 | E |
|---|---|---|---|---|---|

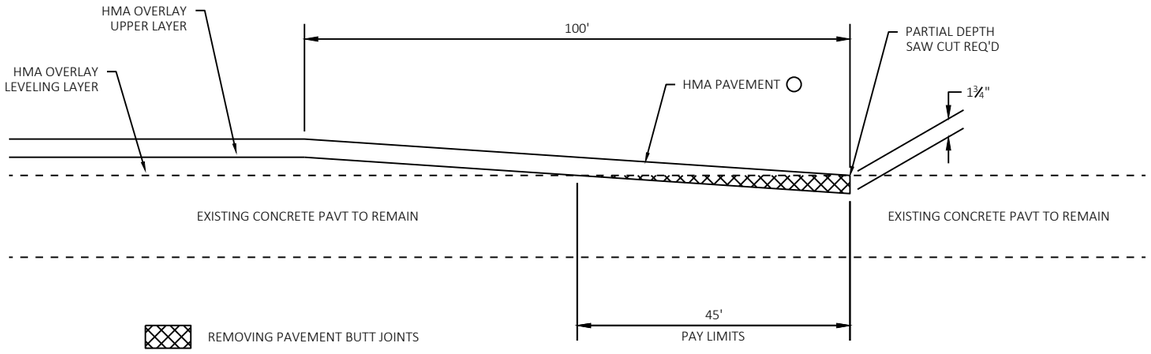



## TYPICAL FINISHED SECTION

RAMP 'E'

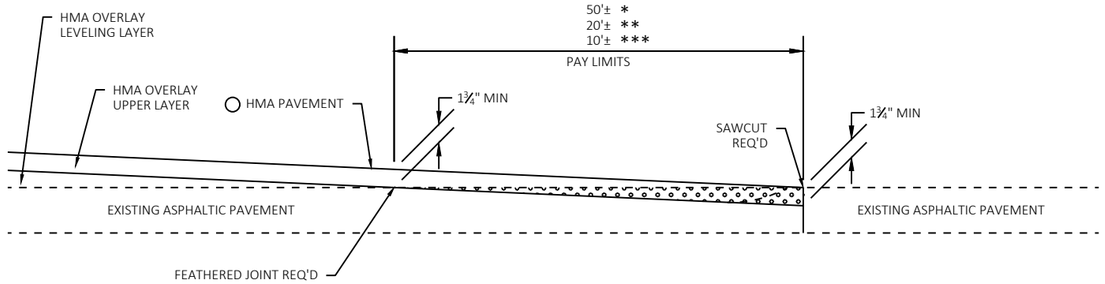
STA 10'E'+00 - STA 21'E'+50

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TYPICAL SECTIONS: RAMP 'E' | SHEET 20 | E |
|---|---|---|---|---|---|




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

## REMOVING PAVEMENT BUTT JOINTS DETAIL

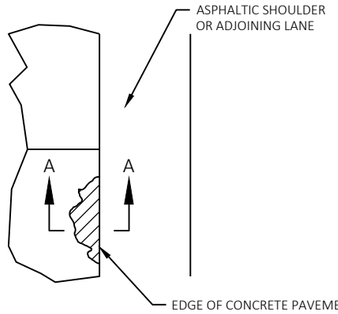



○ SEE TYPICAL CROSS SECTION FOR PAVEMENT TYPE AND THICKNESS OF INDIVIDUAL LAYERS

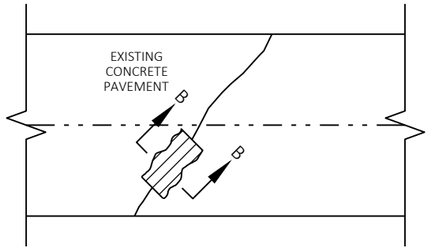
REMOVING ASPHALTIC SURFACE, BUTT JOINTS

## REMOVING ASPHALTIC SURFACE BUTT JOINTS DETAIL

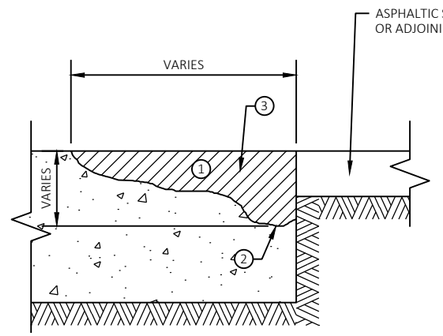
* MAINLINE
** SIDEROADS
*** PRIVATE ENTRANCES



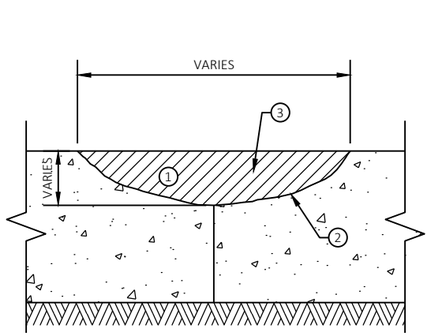

PLAN VIEW




PLAN VIEW




SECTION A-A




SECTION B-B

EDGE REPAIR

CRACK/JOINT REPAIR

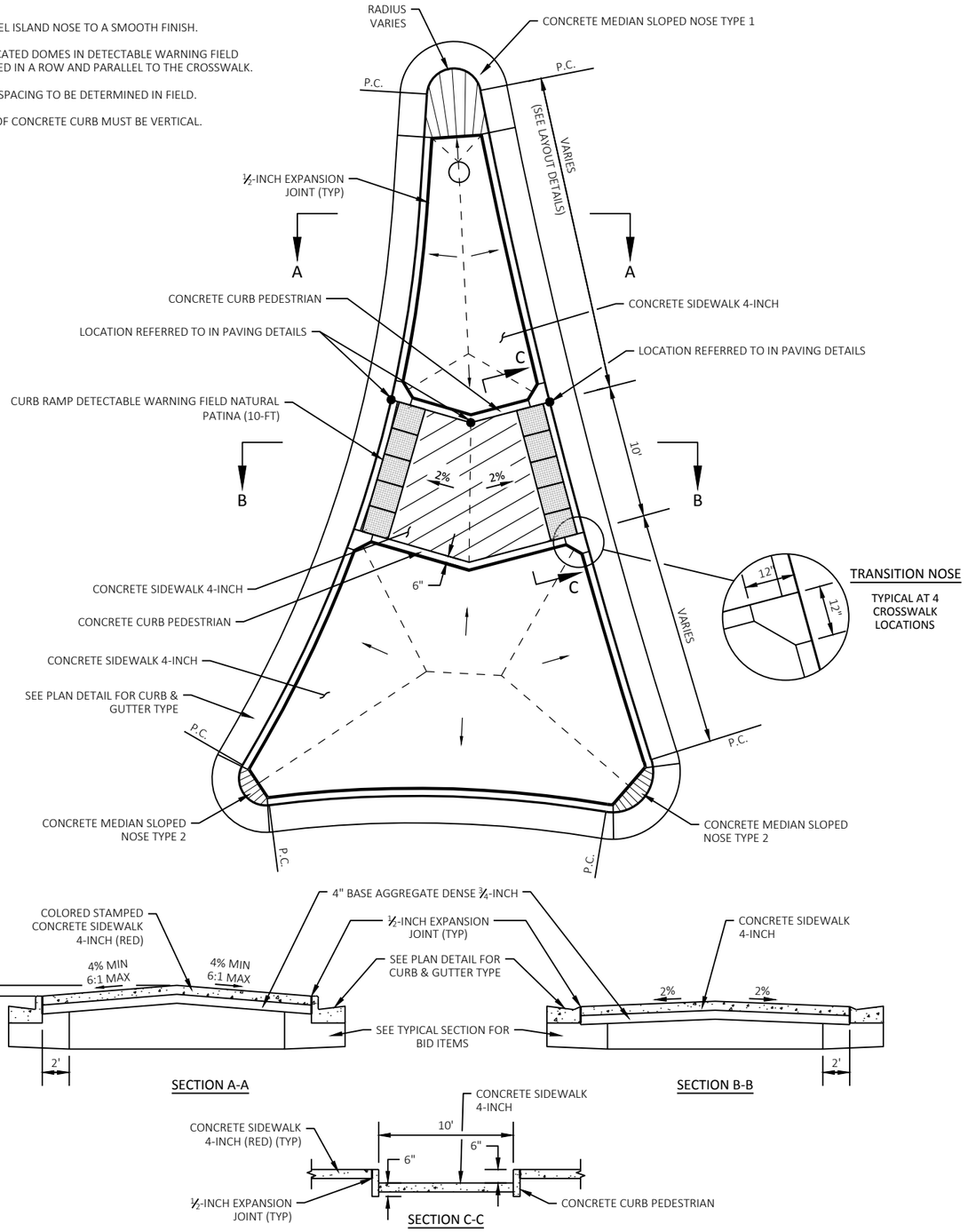
1. REMOVE ALL UNSOUND AND DETERIORATED MATERIAL.
2. BLOW OUT REPAIR AREAS WITH 80 PSI MINIMUM COMPRESSED AIR.
3. ASPHALTIC SURFACE WITH TACK COAT

## CONCRETE JOINT AND CRACK CLEANING DETAIL

2

NOTES:

1. TROWEL ISLAND NOSE TO A SMOOTH FINISH.
2. TRUNCATED DOMES IN DETECTABLE WARNING FIELD ALIGNED IN A ROW AND PARALLEL TO THE CROSSWALK.
3. JOINT SPACING TO BE DETERMINED IN FIELD.
4. BACK OF CONCRETE CURB MUST BE VERTICAL.



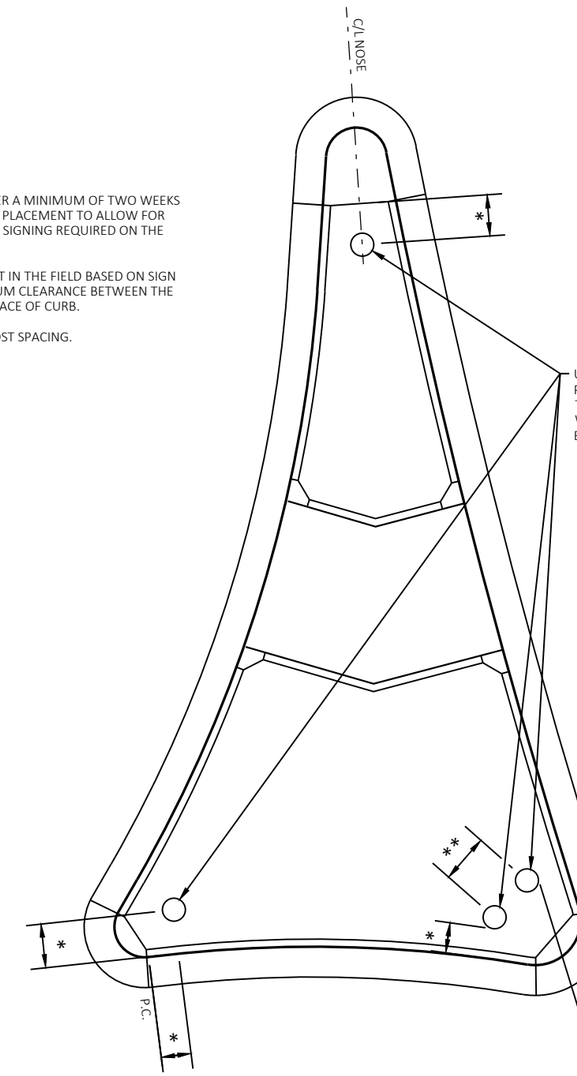

SPLITTER ISLAND DETAIL (TYP)

NOTES:

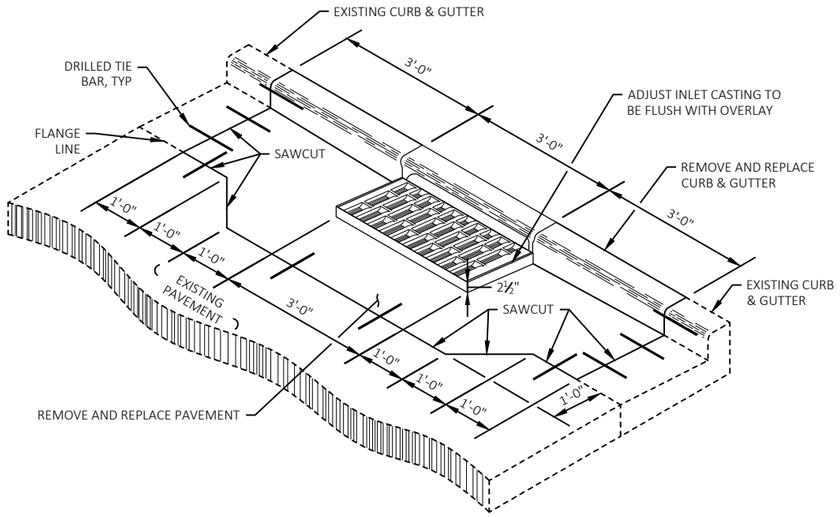
NOTIFY THE PROJECT ENGINEER A MINIMUM OF TWO WEEKS PRIOR TO THE NEED FOR SIGN PLACEMENT TO ALLOW FOR STAKING OF ANY PERMANENT SIGNING REQUIRED ON THE PROJECT.

* DISTANCE TO BE LAID OUT IN THE FIELD BASED ON SIGN SIZE. TWO FOOT MINIMUM CLEARANCE BETWEEN THE EDGE OF SIGN AND THE FACE OF CURB.

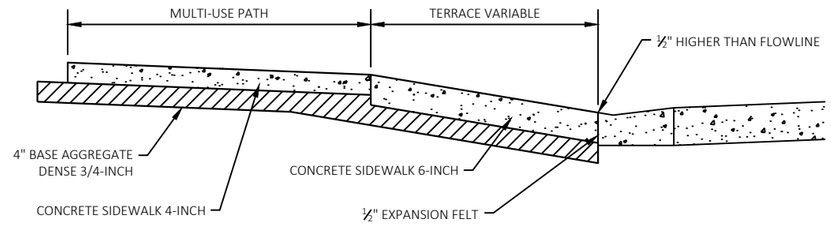
** SEE SIGN DETAILS FOR POST SPACING.



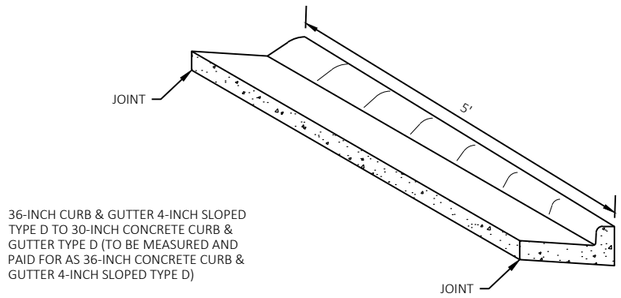

ISLAND SIGN LOCATION DETAIL (TYP)



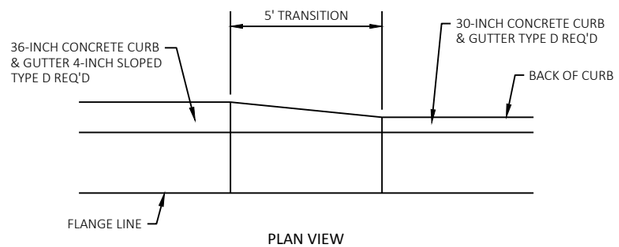

INLET ADJUSTMENT DETAIL




SECTION A-A

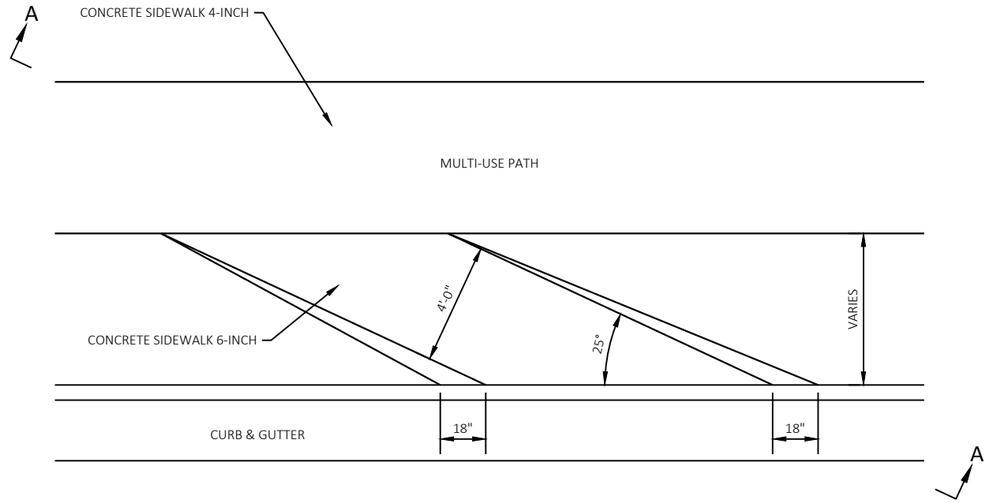



ISOMETRIC VIEW




PLAN VIEW

DETAIL OF CURB & GUTTER TRANSITION



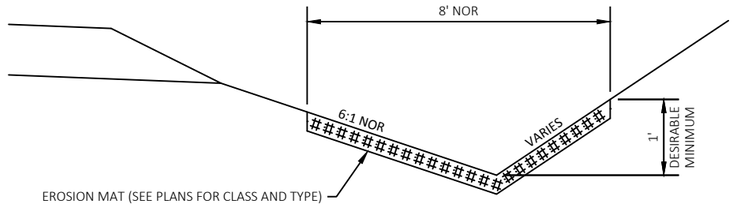

BIKE RAMP DETAIL

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

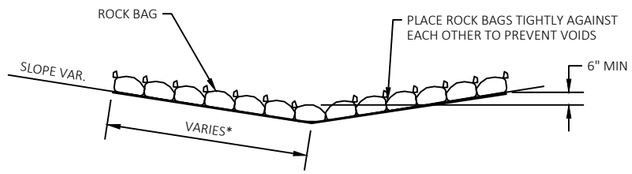
TOTAL PROJECT AREA = 40 ACRES

TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 19 ACRES

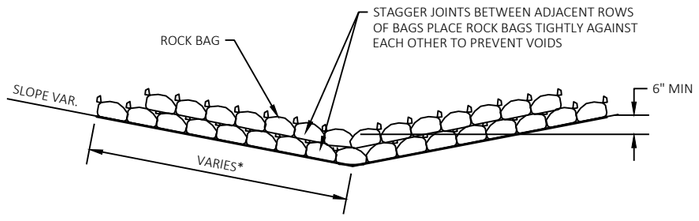
RUNOFF COEFFICIENT TABLE




EROSION MAT DETAIL FOR DITCHES



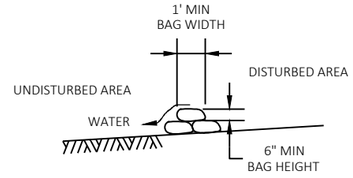

SIDE VIEW (SINGLE LAYER)



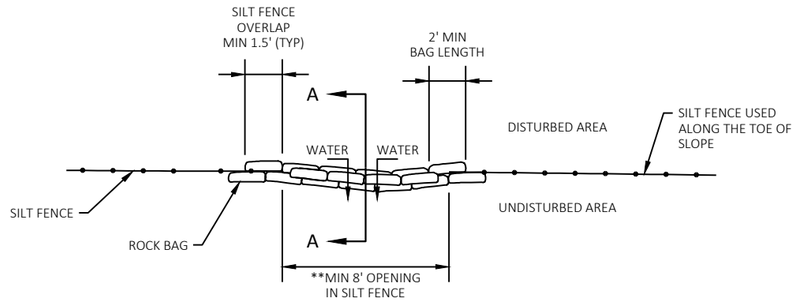

* LENGTH AND NUMBER OF BAGS MAY VARY DEPENDING ON DESIRED DEPTH OF WATER POOL

SIDE VIEW (MULTIPLE LAYER)

ROCK BAGS USED FOR DITCH CHECKS



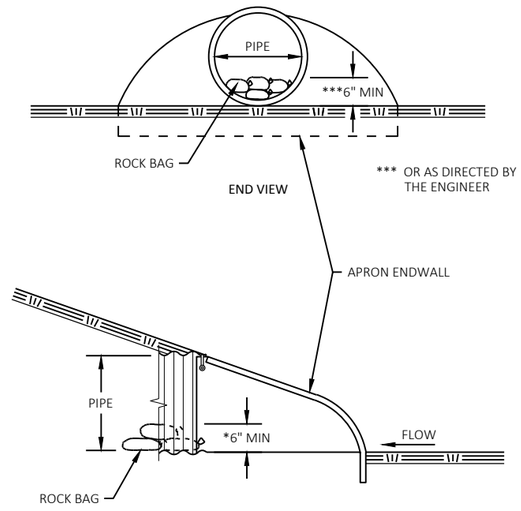

SECTION A-A




** 17 ROCK BAGS MINIMUM PER 8' OPENING.

PLAN VIEW

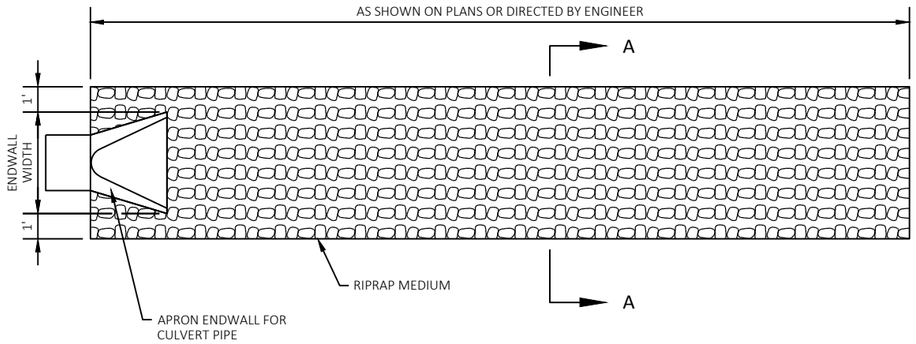
ROCK BAGS USED FOR SILT FENCE RELIEF POINT



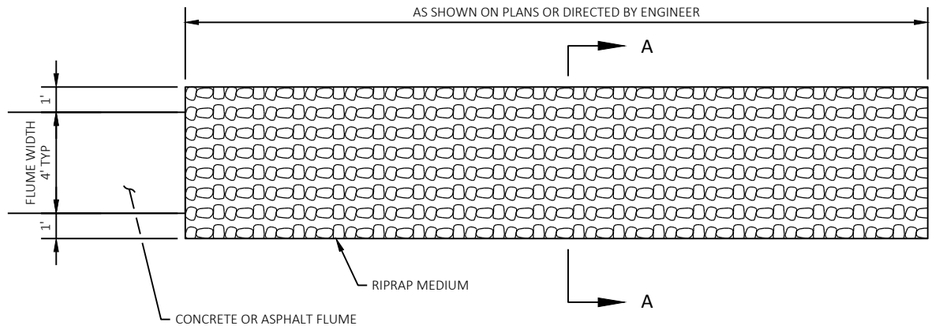

ROCK BAGS USED FOR CULVERT PIPE CHECKS

| ESTIMATED BAG SIZE = 18" X 12" X 6" | |
|---|---|
| PIPE SIZE | ESTIMATED NUMBER OF BAGS |
| 12" | 1 |
| 15" | 2 |
| 18" | 2 |
| 21" | 3 |
| 24" | 3 |
| 30" | 5 |
| 36" | 7 |
| 42" | 7 |
| 48" | 10 |
| 54" | 10 |
| 60" | 13 |
| 66" | 14 |
| 72" | 16 |
| 14"X23" | 3 |
| 19"X30" | 5 |
| 24"X38" | 8 |
| 29"X45" | 10 |
| 34"X53" | 10 |
| 38"X60" | 13 |
| 48"X76" | 18 |

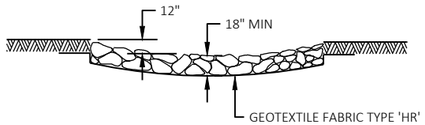
ROCK BAGS DETAIL




PLAN VIEW
RIPRAP AT APRON ENDWALL

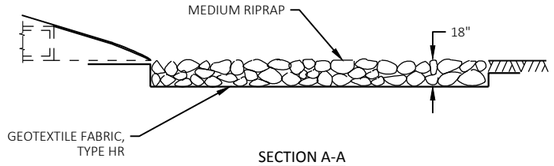



PLAN VIEW
RIPRAP AT FLUME

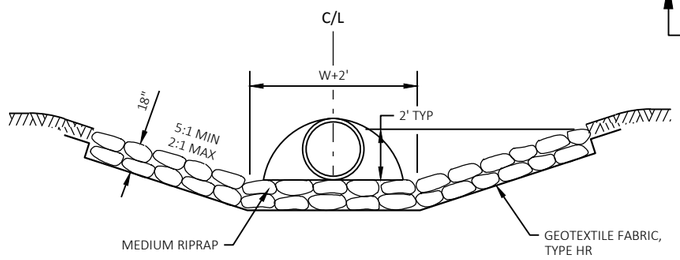



SECTION A-A

RIPRAP MEDIAN DETAIL

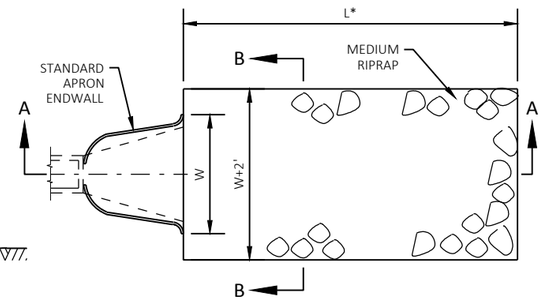



SECTION A-A



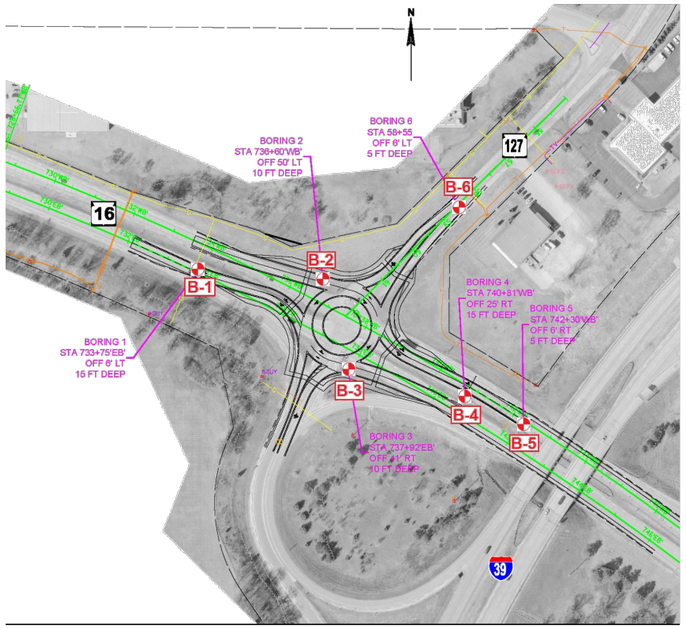

SECTION B-B

* L = 3 TIMES DIAMETER (NOR) OR 10' MINIMUM OR AS DIRECTED BY THE ENGINEER




PLAN VIEW

MEDIUM RIPRAP AND GEOTEXTILE FABRIC
DETAIL AT APRON ENDWALLS




| | | |
|---|---|---|
| psi | Proposed IH 39/STH 16 Interchange Area<br>STH 16<br>Portage, Wisconsin | SCALE: N/A |
| | | PROJECT NO: 0094333 |
| | FIGURE 1: BORING LOCATION PLAN | PAGE 1 OF 1 |

psi Information To Build On
Engineering • Consulting • Testing

## SOIL BORING LOG: B - 1

**Project:** IH 39/STH 16 Interchange Area
**Project No.:** 0094333
**Location:** Portage, Wisconsin
**Drill Date:** April 18, 2016
**Drilled By:** KD

| DEPTH/EL. (feet) | VISUAL SOIL CLASSIFICATION<br>GROUND SURFACE ELEVATION: 101.4 | SAMPLE NO. | N (bpf) | Qp (tsf) | Qu (tsf) | MC (%) | REMARKS |
|---|---|---|---|---|---|---|---|
| 0 / 100.4 | 0-4.5": ASPHALT Pavement | | | | | | |
| | Brown SAND, with silt and trace gravel, moist (FILL) | 1-SS | 7 | | | 4 | |
| 2 / 99.4 | Brown Sandy CLAY, with silt, moist | | | 3.3 | | 14 | |
| | | | | | | | |
| 3 / 98.4 | Light brown Fine SAND, with trace silt, moist | 2-SS | 19 | 1.3 | | 10 | |
| 4 / 97.4 | | | | | | | |
| 5 / 96.4 | | 3-SS | 16 | | | 2 | |
| 6 / 95.4 | | | | | | | |
| 7 / 94.4 | | 4-SS | 19 | | | 3 | |
| 8 / 93.4 | | | | | | | |
| 9 / 92.4 | | 5-SS | 18 | | | 4 | |
| 10 / 91.4 | | | | | | | |
| 11 / 90.4 | | | | | | | |
| 12 / 89.4 | | | | | | | |
| 13 / 88.4 | | | | | | | |
| 14 / 87.4 | | | | | | | |
| 15 / 86.4 | | 6-SS | 22 | | | 4 | |
| 16 / 85.4 | | | | | | | |
| 17 / 84.4 | END OF BORING @ 16.5± FEET | | | | | | |

**FIELD OBSERVATIONS:**
Water Level during drilling: Not encountered
Water Level upon completion: Dry
Caved at upon completion: 4± feet below ground surface (EL. 97.4±)
Delay Time: N/A
Water Level delayed: N/A
Caved at delayed: N/A

**ADDITIONAL COMMENTS:**

**Note:** Lines of stratification represent an **approximate** boundary between soil types. Variations may occur between sampling intervals and/or boring locations. Transitions may also be gradual.

psi Information To Build On
Engineering • Consulting • Testing

## SOIL BORING LOG: B - 2

**Project:** IH 39/STH 16 Interchange Area
**Project No.:** 0094333
**Location:** Portage, Wisconsin
**Drill Date:** April 18, 2016
**Drilled By:** KD

| DEPTH/EL. (feet) | VISUAL SOIL CLASSIFICATION<br>GROUND SURFACE ELEVATION: 101.5 | SAMPLE NO. | N (bpf) | Qp (tsf) | Qu (tsf) | MC (%) | REMARKS |
|---|---|---|---|---|---|---|---|
| 0 / 100.5 | Brown SAND, with silt, moist | 1-SS | 9 | | | 7 | |
| 2 / 99.5 | | | | | | | |
| 3 / 98.5 | Brown Silty SAND, moist | 2-SS | 31 | | | 7 | |
| 4 / 97.5 | | | | | | | |
| 5 / 96.5 | | 3-SS | 33 | | | 8 | |
| 6 / 95.5 | | | | | | | |
| 7 / 94.5 | Brown Silty Fine SAND, moist | 4-SS | 5 | | | 14 | |
| 8 / 93.5 | | | | | | | |
| 9 / 92.5 | Brown Silty CLAY to Clayey SILT, with sand, wet | 5-SS | 5 | | | 23 | |
| 10 / 91.5 | | | | | | | |
| 11 / 90.5 | END OF BORING @ 11.5± FEET | | | | | | |
| 12 / 89.5 | | | | | | | |
| 13 / 88.5 | | | | | | | |
| 14 / 87.5 | | | | | | | |
| 15 / 86.5 | | | | | | | |

**FIELD OBSERVATIONS:**
Water Level during drilling: 11± feet below ground surface (EL. 90.5±)
Water Level upon completion: Dry
Caved at upon completion: 4± feet below ground surface (EL. 97.5±)
Delay Time: N/A
Water Level delayed: N/A
Caved at delayed: N/A

**ADDITIONAL COMMENTS:**

**Note:** Lines of stratification represent an **approximate** boundary between soil types. Variations may occur between sampling intervals and/or boring locations. Transitions may also be gradual.

SOIL BORING LOG

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CONSTRUCTION DETAILS | SHEET 26 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-021001-CD.DWG
LAYOUT NAME - Sheet - 06
PLOT DATE : 10/19/2017 9:05 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:1 FT
WISDOT/CADDS SHEET 42

2

2

## SOIL BORING LOG: B - 3

**Project:** IH 39/STH 16 Interchange Area **Project No.:** 0094333

**Location:** Portage, Wisconsin **Drill Date:** April 18, 2016 **Drilled By:** KD

| DEPTH/EL. (feet) | VISUAL SOIL CLASSIFICATION — GROUND SURFACE ELEVATION: 97.8 | SAMPLE NO. | N (bpf) | Qp (tsf) | Qu (tsf) | MC (%) | REMARKS |
|---|---|---|---|---|---|---|---|
| 1 / 96.8 | Brown Clayey SAND, with silt, moist | 1-SS | 6 | | | 12 | |
| 2 / 95.8 | | | | | | | |
| 3 / 94.8 | Brown Gravelly SAND, with trace silt, moist | 2-SS* | 24 | | | 6 | |
| 4 / 93.8 | | | | | | | |
| 5 / 92.8 | Light brown Fine SAND, with trace silt, moist | 3-SS | 14 | | | 2 | |
| 6 / 91.8 | | | | | | | |
| 7 / 90.8 | | 4-SS | 13 | | | 3 | |
| 8 / 89.8 | | | | | | | |
| 9 / 88.8 | | 5-SS | 21 | | | 5 | |
| 10 / 87.8 | | | | | | | |
| 11 / 86.8 | | | | | | | |
| 12 / 85.8 | END OF BORING @ 11.5± FEET | | | | | | |
| 13 / 84.8 | | | | | | | |
| 14 / 83.8 | | | | | | | |
| 15 / 82.8 | | | | | | | |

**FIELD OBSERVATIONS:**
Water Level during drilling: Not encountered
Water Level upon completion: Dry
Caved at upon completion: 4± feet below ground surface (EL. 93.8±)
Delay Time: N/A
Water Level delayed: N/A
Caved at delayed: N/A

**ADDITIONAL COMMENTS:**
* Poor sample recovery

**Note:** Lines of stratification represent an **approximate** boundary between soil types. Variations may occur between sampling intervals and/or boring locations. Transitions may also be gradual.

## SOIL BORING LOG: B - 4

**Project:** IH 39/STH 16 Interchange Area **Project No.:** 0094333

**Location:** Portage, Wisconsin **Drill Date:** April 18, 2016 **Drilled By:** KD

| DEPTH/EL. (feet) | VISUAL SOIL CLASSIFICATION — GROUND SURFACE ELEVATION: 95.1 | SAMPLE NO. | N (bpf) | Qp (tsf) | Qu (tsf) | MC (%) | REMARKS |
|---|---|---|---|---|---|---|---|
| 1 / 94.1 | 0-5": Brown Gravelly SAND, with silt, moist (FILL) | | | | | | |
| 2 / 93.1 | Brown SAND, with silt and very dark brown silty clay chunks, moist (FILL) | 1-SS | 14 | | | 7 | |
| 3 / 92.1 | Brown SAND, with silt, moist | 2-SS | 10 | | | 10 | |
| 4 / 91.1 | | | | | | | |
| 5 / 90.1 | (Very moist at 5± feet) | 3-SS | 17 | | | 15 | |
| 6 / 89.1 | | | | | | | |
| 7 / 88.1 | | 4-SS | 10 | | | 16 | |
| 8 / 87.1 | Brown Silty SAND, very moist | | | | | | |
| 9 / 86.1 | | 5-SS | 2 | 0.3 | 0.5 | 16 | |
| 10 / 85.1 | Brown Silty CLAY, moist | | | | | | |
| 11 / 84.1 | | | | | | | |
| 12 / 83.1 | | | | | | | |
| 13 / 82.1 | | | | | | | |
| 14 / 81.1 | | | | | | | |
| 15 / 80.1 | | 6-SS | 4 | 1.3 | | 26 | |
| 16 / 79.1 | | | | | | | |
| 17 / 78.1 | END OF BORING @ 16.5± FEET | | | | | | |

**FIELD OBSERVATIONS:**
Water Level during drilling: Not encountered
Water Level upon completion: Dry
Caved at upon completion: 4± feet below ground surface (EL. 91.1±)
Delay Time: N/A
Water Level delayed: N/A
Caved at delayed: N/A

**ADDITIONAL COMMENTS:**

**Note:** Lines of stratification represent an **approximate** boundary between soil types. Variations may occur between sampling intervals and/or boring locations. Transitions may also be gradual.

## SOIL BORING LOG: B - 5

**Project:** IH 39/STH 16 Interchange Area **Project No.:** 0094333

**Location:** Portage, Wisconsin **Drill Date:** April 18, 2016 **Drilled By:** KD

| DEPTH/EL. (feet) | VISUAL SOIL CLASSIFICATION — GROUND SURFACE ELEVATION: 91.3 | SAMPLE NO. | N (bpf) | Qp (tsf) | Qu (tsf) | MC (%) | REMARKS |
|---|---|---|---|---|---|---|---|
| 90.8 | 0-8": Brown Gravelly SAND, with trace silt, moist (FILL) | 1-SS | 7 | | | 4 | |
| 1 / 90.3 | Brown SAND, with gravel and trace silt, (FILL) | | | | | | |
| 89.8 | Brown SAND, with silt, moist | | | | | | |
| 2 / 89.3 | | 2-SS | 21 | | | 6 | |
| 88.8 | | | | | | | |
| 3 / 88.3 | | | | | | | |
| 87.8 | | 3-SS | 32 | | | 5 | |
| 4 / 87.3 | | | | | | | |
| 86.8 | | | | | | | |
| 5 / 86.3 | END OF BORING @ 5± FEET | | | | | | |
| 85.8 | | | | | | | |
| 6 / 85.3 | | | | | | | |

**FIELD OBSERVATIONS**
Water Level during drilling: Not encountered
Water Level upon completion: Dry
Caved at upon completion: 5± feet below existing grade (EL. 86.3±)
Delay Time: N/A
Water Level delayed: N/A
Caved at delayed: N/A

**ADDITIONAL COMMENTS:**

**Note:** Lines of stratification represent an **approximate** boundary between soil types. Variations may occur between sampling intervals and/or boring locations. Transitions may also be gradual. Dashed lines are indicative of potentially erratic or unknown transitions, such as fill-to-natural soil zone transitions.

SOIL BORING LOG

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CONSTRUCTION DETAILS | SHEET 27 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-021001-CD.DWG
LAYOUT NAME - Sheet - 07
PLOT DATE : 10/19/2017 9:05 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:1 FT

psi Information To Build On
Engineering • Consulting • Testing

## SOIL BORING LOG: B - 6

**Project:** IH 39/STH 16 Interchange Area
**Project No.:** 0094333
**Location:** Portage, Wisconsin
**Drill Date:** April 18, 2016
**Drilled By:** KD

| DEPTH/EL. (feet) | VISUAL SOIL CLASSIFICATION — GROUND SURFACE ELEVATION: 93.8 | SAMPLE NO. | N (bpf) | Qp (tsf) | Qu (tsf) | MC (%) | REMARKS |
|---|---|---|---|---|---|---|---|
| 93.3 | 0-12": Brown Gravelly SAND, with trace silt, moist (FILL) | 1-SS | 6 | | | 4 | |
| 1 92.8 | Brown Fine SAND, with trace silt, moist | | | | | | |
| 92.3 | | 2-SS | 21 | | | 4 | |
| 2 91.8 | | | | | | | |
| 91.3 | | | | | | | |
| 3 90.8 | Brown SAND, with silt, moist | | | | | | |
| 90.3 | | 3-SS | 33 | | | 9 | |
| 4 89.8 | | | | | | | |
| 89.3 | | | | | | | |
| 5 88.8 | END OF BORING @ 5± FEET | | | | | | |
| 88.3 | | | | | | | |
| 6 87.8 | | | | | | | |

**FIELD OBSERVATIONS**
Water Level during drilling: Not encountered
Water Level upon completion: Dry
Caved at upon completion: 4± feet below existing grade (EL. 89.8±)
Delay Time: N/A
Water Level delayed: N/A
Caved at delayed: N/A

**ADDITIONAL COMMENTS:**

**Note:** Lines of stratification represent an **approximate** boundary between soil types. Variations may occur between sampling intervals and/or boring locations. Transitions may also be gradual. Dashed lines are indicative of potentially erratic or unknown transitions, such as fill-to-natural soil zone transitions.

DT1433 11/2006 **FIELD BORING LOG** Wisconsin Department of Transportation

| Boring No. | Structure | County | Sheet |
|---|---|---|---|
| B-1 | Roadway | Columbia | 1 Of 1 |
| Project 1161-02-04 | Road STH 16 W.B. | | |
| Station 753+25 | Offset 6' Rt. of ℄ | Surface Elevation | |

GROUND WATER OBSERVATIONS
Streambed Elevation: | Time After Drilling:
Water Elevation: | Depth to Water:
Top of Well Elevation:

MOISTURE: D = Damp, M = Moist, W = Wet
DRILLING METHOD: HS = Hollowstem, WA = Wash Ahead, RB = Rockbit, ST = Shelby Tube, SS = Splitspoon, DM = Drilling Mud, A = Auger, C = Coring, W = Wash, E = Easy, M = Medium, H = Hard

Unit #3 | Chief Ruda | Start 8-21-16 | Finish 8-21-16

| Sample No. | Moisture | Blows on Sampler | Sample and Recovery | Total Blows | VISUAL FIELD CLASSIFICATION AND REMARKS | Unconfined Strength | Boulders | Drilling Method |
|---|---|---|---|---|---|---|---|---|
| | | | | | 9" ACC | | | A |
| | | | | | 1' 9" Base Course 1' | | | E-M |
| S-1 | m | 7 | | 26 | | | | |
| | | 11 | | | 2' Sand, F., fw gravel, tr silt, brown, firm 2' | | | |
| | | 15 | | | | | | |
| | | 18 | | | 3' 3' | | | |
| S-2 | m | 6 | | 32 | | | | |
| | | 12 | | | 4' Sand, F., tr silt, brown, Firm 4' | | | |
| | | 20 | | | | | | |
| | | 26 | | | 5' 5' | | | |
| | | | | | End of Boring B-1 @ 5.0' | | | |
| | | | | | 6' 6' | | | |
| | | | | | 7' 7' | | | |
| | | | | | 8' 8' | | | |
| | | | | | 9' 9' | | | |
| | | | | | 10' 10' | | | |
| | | | | | 11' 11' | | | |
| | | | | | 12' 12' | | | |
| | | | | | 13' 13' | | | |

Checked By | Final | Boring No. B-1

DT1433 11/2006 **FIELD BORING LOG** Wisconsin Department of Transportation

| Boring No. | Structure | County | Sheet |
|---|---|---|---|
| B-2 | Roadway | Columbia | 1 Of 1 |
| Project 1161-02-04 | Road STH 16 W.B. | | |
| Station 759+45 | Offset 6' Rt. ℄ | Surface Elevation | |

GROUND WATER OBSERVATIONS
Streambed Elevation: | Time After Drilling:
Water Elevation: | Depth to Water:
Top of Well Elevation:

MOISTURE: D = Damp, M = Moist, W = Wet
DRILLING METHOD: HS = Hollowstem, WA = Wash Ahead, RB = Rockbit, ST = Shelby Tube, SS = Splitspoon, DM = Drilling Mud, A = Auger, C = Coring, W = Wash, E = Easy, M = Medium, H = Hard

Unit #3 | Chief Ruda | Start 8-21-16 | Finish 8-21-16

| Sample No. | Moisture | Blows on Sampler | Sample and Recovery | Total Blows | VISUAL FIELD CLASSIFICATION AND REMARKS | Unconfined Strength | Boulders | Drilling Method |
|---|---|---|---|---|---|---|---|---|
| | | | | | 9" ACC | | | A |
| | | | | | 1' 9" Base Course 1' | | | E-M |
| S-1 | m | 8 | | 16 | | | | |
| | | 8 | | | 2' Sand, F., tr, brown, Some silt, firm 2' | | | |
| | | 8 | | | | | | |
| | | 10 | | | 3' 6" TOP Soil 3'-3.5' 3' | | | |
| S-2 | m | 3 | | 17 | | | | |
| | | 8 | | | 4' Sand, F., brown, tr silt firm 4' | | | |
| | | 9 | | | | | | |
| | | 10 | | | 5' 5' | | | |
| | | | | | End of B-2 @ 5.0' | | | |
| | | | | | 6' 6' | | | |
| | | | | | 7' 7' | | | |
| | | | | | 8' 8' | | | |
| | | | | | 9' 9' | | | |
| | | | | | 10' 10' | | | |
| | | | | | 11' 11' | | | |
| | | | | | 12' 12' | | | |
| | | | | | 13' 13' | | | |

Checked By | Final | Boring No. B-2

SOIL BORING LOG

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CONSTRUCTION DETAILS | SHEET 28 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-021001-CD.DWG
LAYOUT NAME - Sheet - 08
PLOT DATE : 10/19/2017 9:05 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:1 FT
WISDOT/CADDS SHEET 42

2

2

NOTES:

1) PROVIDE AN IDENTIFICATION PLAQUE FOR ALL OVERHEAD SIGN SUPPORTS AS SPECIFIED IN STANDARD SPECIFICATIONS 641.3.1.4 AND SHOWN IN STANDARD DETAIL DRAWING 12A4.

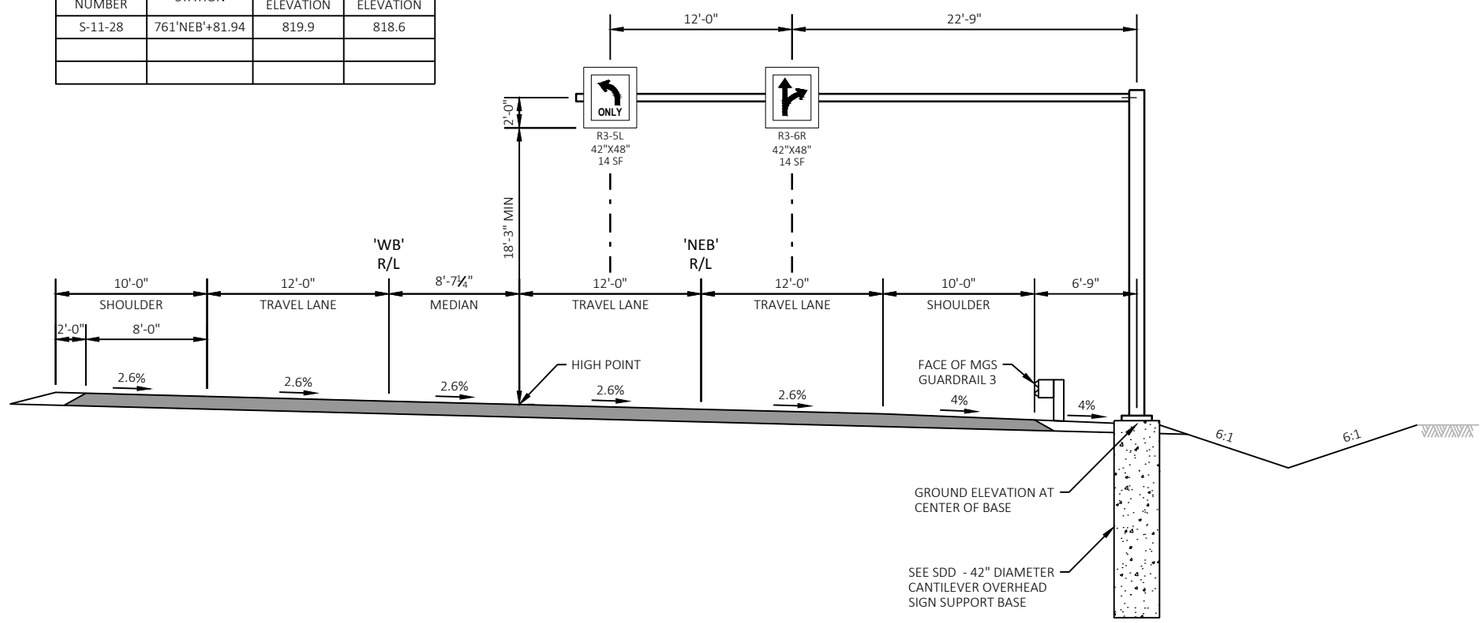
2) DESIGN NEW OVERHEAD SIGN SUPPORTS ACCORDING TO THE AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES, AND TRAFFIC SIGNALS", 6TH EDITION AND INTERIM REVISIONS.
   - FATIGUE CATEGORY I

3) SIZE THE ANCHOR ROD/ TEMPLATE ASSEMBLY TO FIT WITHIN THE BAR CAGE OF THE FOOTING BASE SHOWN IN THE CONTRACT PLANS IN ADDITION TO MEETING ALL APPLICABLE DESIGN REQUIREMENTS FOR THE DESIGN OF THE UPRIGHT BASE CONNECTION.

4) INSTALL SIGNS OR BLANKS ON THE OVERHEAD SIGN SUPPORTS AT THE TIME OF ERECTION AS SPECIFIED IN STANDARD SPECIFICATIONS 641.3.1.4. BLANKS, IF USED, SHALL BE OF THE SAME SIZE AND LOCATIONS AS PERMANENT SIGNS.

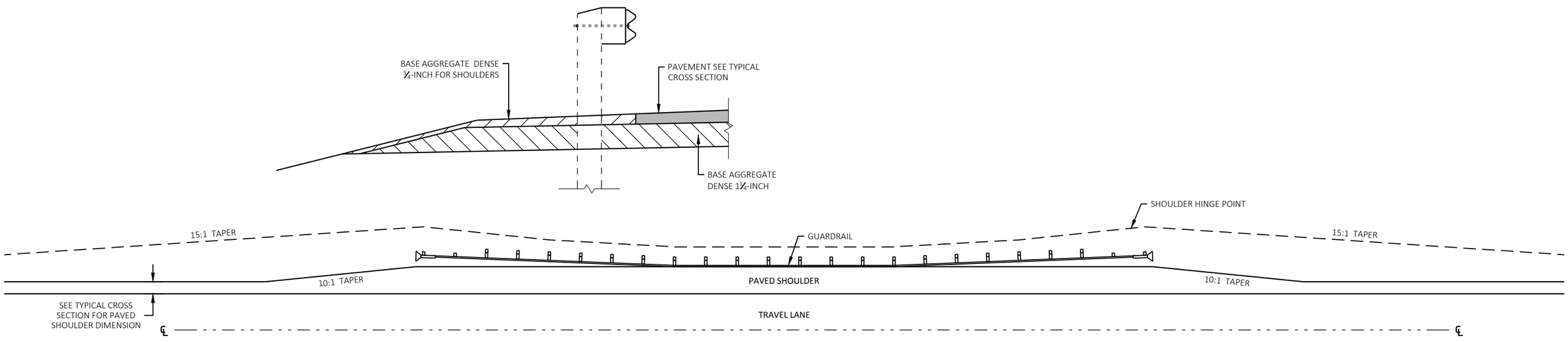
5) DESIGN THE STRUCTURE BASE PLATE CONNECTION TO ACCOMMODATE A MINIMUM OF SIX (6) ANCHOR RODS.

| STRUCTURE NUMBER | STATION | HIGH POINT ELEVATION | GROUND ELEVATION |
|---|---|---|---|
| S-11-28 | 761'NEB'+81.94 | 819.9 | 818.6 |
| | | | |
| | | | |




S-11-28
STATION 761'NEB'+81.94

OVERHEAD SIGN SUPPORT DETAILS




DETAIL FOR PAVED SHOULDER AT GUARDRAIL

2

GENERAL NOTES

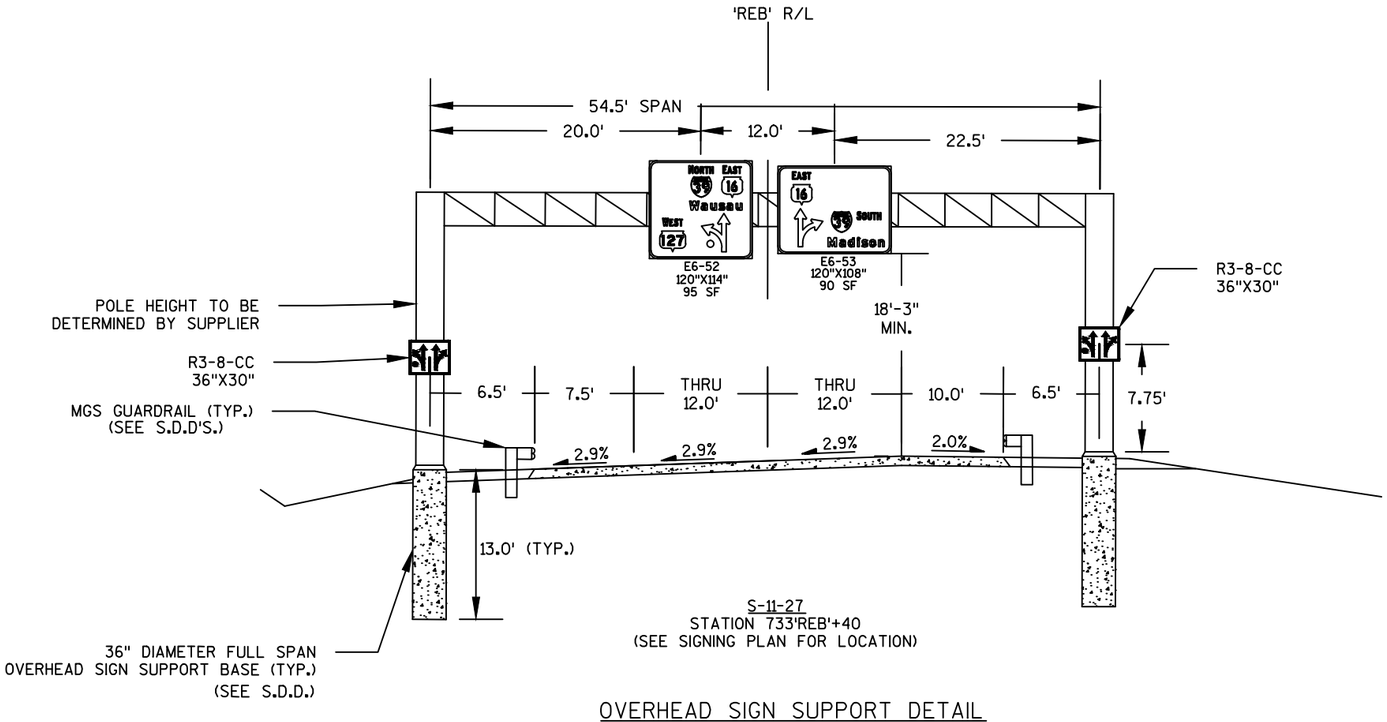
1. DRAWINGS NOT TO SCALE
2. THE SIGN STRUCTURE SHALL BE DESIGNED TO SUPPORT THE SIGN SHOWN.
3. WIND VELOCITY PER WISDOT STANDARD SPECIFICATIONS.
4. BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 3" CLEAR UNLESS DETAILED OTHERWISE.
5. PROVIDE AN IDENTIFICATION PLAQUE FOR OVERHEAD SIGN SUPPORTS AS SPECIFIED IN STANDARD SPEC 641.3.1.4
6. DESIGN NEW OVERHEAD SIGN SUPPORTS ACCORDING TO THE AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORT FOR HIGHWAY SIGNS, LUMINARIES, AND TRAFFIC SIGNALS, 6TH EDITION AND INTERIM REVISIONS.
   -FATIGUE LOADS ARE NOT APPLIED
7. SIZE THE ANCHOR ROD / TEMPLATE ASSEMBLY TO FIT WITHIN THE BAR CAGE OF THE FOOTING BASE SHOWN IN THE CONTRACT PLANS IN ADDITION TO MEETING ALL APPLICABLE DESIGN REQUIREMENTS FOR THE DESIGN OF THE UPRIGHT BASE CONNECTION.
8. INSTALL SIGNS OR SIGN BLANKS ON OVERHEAD SIGN SUPPORTS AT THE TIME OF ERECTION AS SPECIFIED IN STANDARD SPEC 641.3.1.4
9. DESIGN THE STRUCTURE BASE PLATE CONNECTION TO ACCOMMODATE A MINIMUM OF SIX (6) ANCHOR RODS.
10. REFER TO SIGN PLATE NO. A4-7.4 FOR ATTACHMENT OF SIGNS TO THE OVERHEAD SIGN SUPPORT.

NOTE, CONTRACTOR SHALL:

1. SUBMIT SHOP DRAWINGS OF OVERHEAD SIGN SUPPORT. FOOTING IS INCIDENTAL TO OVERHEAD SIGN SUPPORT.
2. PROVIDE DESIGN CALCULATIONS.
3. SHOW SIGNS ON SHOP DRAWINGS.

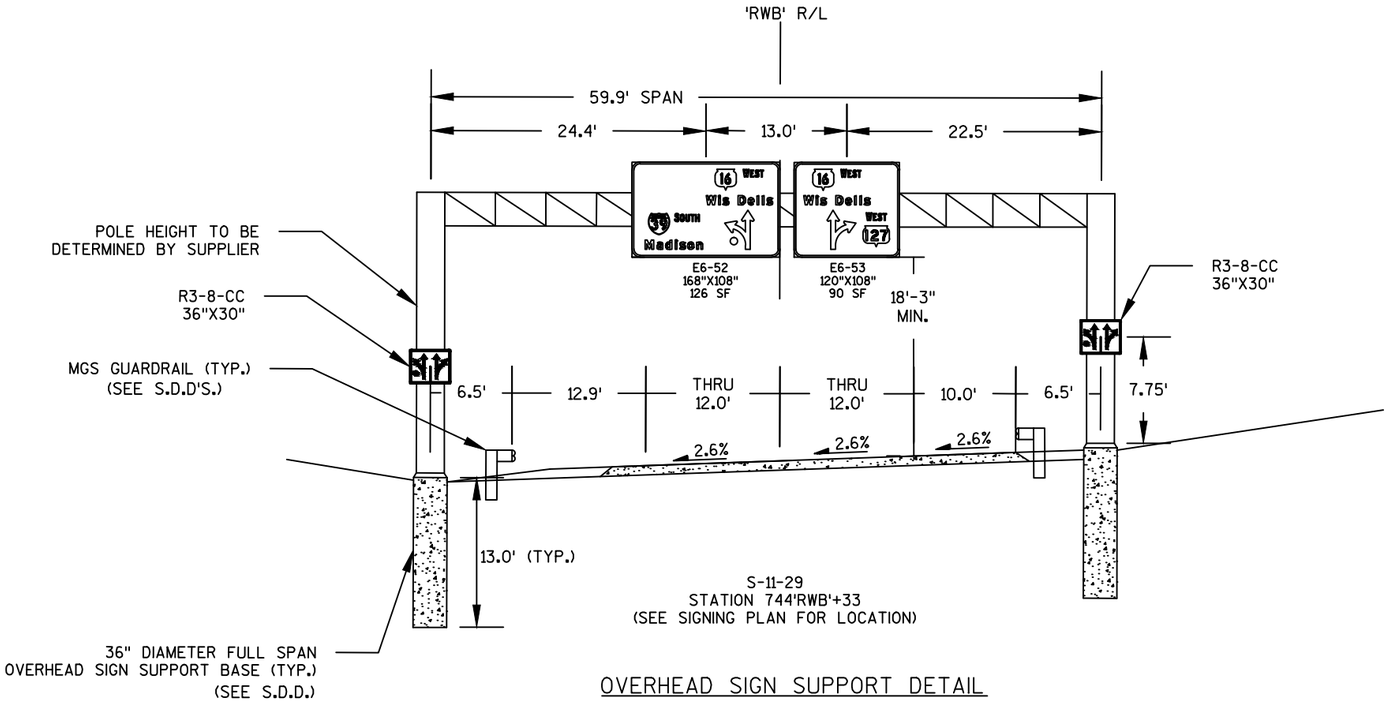
MOUNTING BRACKETS FOR SIGNS:
- TO BE PRE APPROVED FROM PRODUCT LIST - TYPE II SIGNS
- I BEAMS W5X3.7 FOR TYPE I SIGNS INCIDENTAL TO SIGNS

| STRUCTURE NUMBER | STATION | HIGH POINT ELEVATION | GROUND ELEVATION LEFT | GROUND ELEVATION RIGHT |
|---|---|---|---|---|
| S-11-27 | 733'REB'+40 | 833.9 | 832.9 | 833.5 |
| S-11-29 | 744'RWB'+33 | 821.4 | 819.5 | 821.5 |




S-11-27
STATION 733'REB'+40
(SEE SIGNING PLAN FOR LOCATION)

OVERHEAD SIGN SUPPORT DETAIL




S-11-29
STATION 744'RWB'+33
(SEE SIGNING PLAN FOR LOCATION)

OVERHEAD SIGN SUPPORT DETAIL

2

2

N

BEGIN PROJECT
STA 713'EB'+50.00
MATCH EXISTING
BUTT JOINT REQUIRED

FRONTIER
(UG COMMUNICATIONS)

BASE PATCHING CONCRETE

EXISTING R/W

BP: 714+50.00'WB'

PC: 705+75.30'EB'

706'EB'

708'EB'

710'EB'

712'EB'

714'EB'

716'WB'

716'EB'

718'WB'

718'EB'

STH 16

STA 719'EB'+00

MATCH LINE

BASE PATCHING ASPHALTIC

EXISTING R/W

CAUTION

ALLIANT
(UG GAS)

BM A

BOECK RD

MATC
(UG COMMUNICATIONS)

FRONTIER
(UG COMMUNICATIONS)

CHARTER
(UG COMMUNICATIONS)

ALLIANT
(OH ELECTRIC)

EXISTING R/W

EXISTING R/W

LEGEND

- BASE PATCHING ASPHALTIC
- BASE PATCHING CONCRETE
- BASE PATCHING CONCRETE SHES

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PLAN - STH 16 | SHEET 31 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-021201-PD.DWG
LAYOUT NAME - 01

PLOT DATE : 10/19/2017 9:05 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

2

2

N

EQUATION

STA BACK = 732'WB'+43.50
STA AHEAD = 732'RWB'+43.50
END OVERLAY
BEGIN RECONSTRUCT
SAWCUT REQUIRED

CONSTRUCTION LIMITS
MATCH EXISTING
BUTT JOINT REQUIRED

FRONTIER
(UG COMMUNICATIONS)

ALLIANT
(UG ELECTRIC)

ALLIANT
(OH ELECTRIC)

ADJUST INLET
(SEE DETAIL)

LA DAWN DR

EXISTING R/W

PC: 720+26.50'WB'

PCC: 728+66.77'WB'

BP: 732'RWB'+43.50

ALLIANT
(UG GAS)

STA 719'EB'+00

720'WB'
722'WB'
724'WB'
726'WB'
728'WB'
730'WB'
732'WB'

STH 16

720'EB'
722'EB'
724'EB'
726'EB'
728'EB'
730'EB'
732'REB'

STA 733'EB'+00

MATCH LINE

CITY OF PORTAGE (UG WATER)

BM B

CITY OF PORTAGE (UG SANITARY)

CHARTER (UG COMMUNICATIONS)

ALLIANT
(OH ELECTRIC)

FRONTIER
(UG COMMUNICATIONS)

MURPHY RD

BP: 731'REB'+20.48

PC: 732'REB'+31.18

ADJUST INLET UP 2.5"

CONSTRUCTION LIMITS
MATCH EXISTING
BUTT JOINT REQUIRED

EQUATION

STA BACK = 731'EB'+20.48
STA AHEAD = 731'REB'+20.48
END OVERLAY
BEGIN RECONSTRUCT
SAWCUT REQUIRED

LEGEND

- BASE PATCHING ASPHALTIC
- BASE PATCHING CONCRETE
- BASE PATCHING CONCRETE SHES

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PLAN - STH 16 | SHEET 32 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-021201-PD.DWG
LAYOUT NAME - 02

PLOT DATE : 10/19/2017 9:05 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

2

N

STH 127

STH 16

IH 39

EXISTING R/W

ALLIANT (UG GAS)

CAUTION

ALLIANT (OH ELECTRIC)

FRONTIER (UG COMMUNICATIONS)

CHARTER (UG COMMUNICATIONS)

MATC (UG COMMUNICATIONS)

STA BACK = 738'RWB'+53.33
STA AHEAD = 738'RWB'+14.87
EQUATION

STA BACK = 745'RWB'+00.00
STA AHEAD = 745'WB'+00.00
END RECONSTRUCT
BEGIN PAVEMENT REPLACEMENT
EQUATION

STA BACK = 742'REB'+00.00
STA AHEAD = 742'EB'+00.00
END RECONSTRUCT
BEGIN OVERLAY
SAWCUT REQUIRED
EQUATION

STA AHEAD = 737'REB'+75.96
STA BACK = 738'REB'+07.15
EQUATION

WORK COMPLETED UNDER PROJECT 1161-02-61

S-11-29

S-11-27

SLOPE INTERCEPT, TYP.

RAMP 'A'

RAMP 'B'

RAMP 'E'

MATCH LINE

STA 733'EB'+00

STA 747'EB'+00

PC: 734'RWB'+15.84

PT: 735'RWB'+51.19

PC: 737'RWB'+52.42

PT: 738'RWB'+14.87

PC: 738'RWB'+69.86

PT: 739'RWB'+58.14

PC: 740'RWB'+99.46

PCC: 742'RWB'+65.89

EP: 746'RWB'+00.00

734'RWB

736'RWB

738'RWB

740'RWB

742'RWB

744'RWB

746'RWB

734'REB

736'REB

738'REB

740'REB

742'EB'

744'EB'

746'EB'

PT: 734'REB'+15.31

PC: 735'REB'+64.94

PT: 736'REB'+73.22

PC: 737'REB'+28.71

PT: 737'REB'+75.96

PC: 738'REB'+57.79

PCC: 740'REB'+59.45

EP: 742'REB'+00.00

LEGEND

- BASE PATCHING ASPHALTIC
- BASE PATCHING CONCRETE
- BASE PATCHING CONCRETE SHES

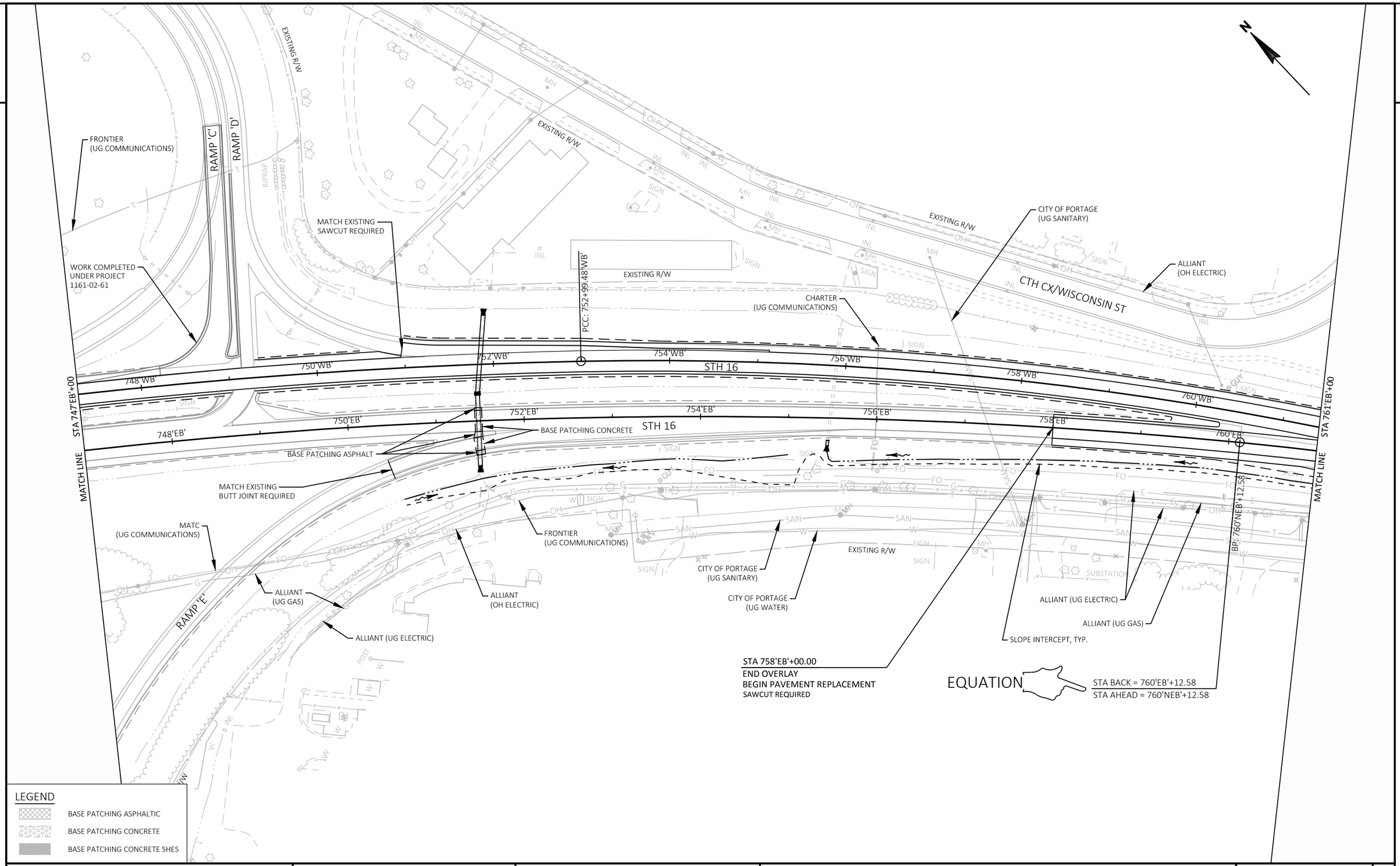
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PLAN - STH 16 | SHEET 33 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-021201-PD.DWG
LAYOUT NAME - 03

PLOT DATE : 10/19/2017 9:05 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2




| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PLAN - STH 16 | SHEET 34 | E |
|---|---|---|---|---|---|

2

2

EXISTING R/W

CTH CX/WISCONSIN ST

EXISTING R/W

EXISTING R/W

EXISTING R/W

SILVER LAKE DRIVE

CITY OF PORTAGE (UG WATER)

CONSTRUCTION LIMITS
MATCH EXISTING
BUTT JOINT REQUIRED

BM C

CAUTION

ALLIANT
(UG GAS)

ALLIANT
(OH ELECTRIC)

FRONTIER
(UG COMMUNICATIONS)

MATC
(UG COMMUNICATIONS)

ALLIANT
(OH ELECTRIC)

FRONTIER
(UG COMMUNICATIONS)

SLOPE INTERCEPT, TYP.

EXISTING R/W

30" CONCRETE CURB & GUTTER

CONCRETE SIDEWALK

PT: 761+47.89'WB'

PT: 771+91.00'EB'

STA 761'EB'+00

STA 775'EB'+00

MATCH LINE

MATCH LINE

762'WB'

764'WB'

766'WB'

768'EB'

770'EB'

772'EB'

774'EB'

762'NEB'

764'NEB'

766'NEB'

STH 16

S-11-28

PT: 764'NEB'+49.21'

EP: 766'NEB'+78.21

EXISTING R/W

ALLIANT (UG ELECTRIC)

CITY OF PORTAGE
(UG SANITARY)

ALLIANT
(UG GAS)

CITY OF PORTAGE
(UG SANITARY)

SLOPE INTERCEPT, TYP.

MATC
(UG COMMUNICATIONS)

CITY OF PORTAGE
(UG WATER)

CONSTRUCTION LIMITS
MATCH EXISTING
BUTT JOINT REQUIRED

CITY OF PORTAGE
(UG SANITARY)

STA 767'EB'+50.00
END PAVEMENT REPLACEMENT
BEGIN OVERLAY
SAWCUT REQUIRED

STA BACK = 766'NEB'+78.21
STA AHEAD = 766'EB'+78.63

EQUATION

CAUTION

ALLIANT
(UG GAS)

BASE PATCHING CONCRETE SHES, TYP

ALLIANT
(OH ELECTRIC)

ATC
(OH ELECTRIC)

LEGEND

BASE PATCHING ASPHALTIC

BASE PATCHING CONCRETE

BASE PATCHING CONCRETE SHES

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PLAN - STH 16 | SHEET 35 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-021201-PD.DWG
LAYOUT NAME - 05

PLOT DATE : 10/19/2017 9:06 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

N

ALLIANT
(OH ELECTRIC)

SLOPE INTERCEPT, TYP.

EXISTING R/W

30" CONCRETE CURB & GUTTER

BASE PATCHING CONCRETE SHES, TYP

BM D

STA 775'EB+00

776'EB'

778'EB'

780'EB'

782'EB'

EP: 782+01.00'EB'

STH 16

CANADIAN PACIFIC

EXISTING R/W

SIGN

MH

MATCH LINE

ALLIANT
(UG GAS)

EXISTING R/W

CANADIAN PACIFIC

EXISTING R/W

END CONSTRUCTION
STA 778'EB'+21.09

ALLIANT
(OH ELECTRIC)

END PROJECT
STA 777'EB'+00.00
MATCH EXISTING
BUTT JOINT REQUIRED

ATC
(OH ELECTRIC)

INL

W

LEGEND

BASE PATCHING ASPHALTIC

BASE PATCHING CONCRETE

BASE PATCHING CONCRETE SHES

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PLAN - STH 16 | SHEET 36 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-021201-PD.DWG
LAYOUT NAME - 06

PLOT DATE : 10/19/2017 9:06 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

2

N

IH 39

IH 39

RIPRAP

SIGN

MATC
(UG COMMUNICATIONS)

746'EB'

FRONTIER
(UG COMMUNICATIONS)

748'WB'

RAMP 'C'

RAMP 'D'

RAMP 'E'

14'E'

16'E'

12'E'

18'E'

BP: 10+00.00'E'

EXISTING R/W

RIPRAP

748'EB'

PCC: 19+62.47'E'

CAUTION

ALLIANT
(UG GAS)

20'E'

MILL 3½" OF ASPHALT SHOULDER
PAVE 3½" HMA PAVEMENT (SEE TYPICAL SECTION)

STA 10'E'+00.00
BEGIN SHOULDER MILLING
MATCH EXISTING
SAWCUT REQUIRED

EXISTING R/W

ALLIANT (UG ELECTRIC)

22'E'

750'WB'

750'EB'

752'WB'

EXISTING R/W

STA 21'E'+50.00
END SHOULDER MILLING
BEGIN OVERLAY
MATCH EXISTING
BUTT JOINT REQUIRED

ALLIANT
(OH ELECTRIC)

752'EB'

FRONTIER
(UG COMMUNICATIONS)

EP: 23'E'+12.47

PCC: 752+99.48'WB'

EXISTING R/W

754'WB'

STH 16

STH 16

754'EB'

ALLIANT
(OH ELECTRIC)

EXISTING R/W

CITY OF PORTAGE
(UG SANITARY)

CITY OF PORTAGE
(UG WATER)

CTH CX/WISCONSIN ST

EXISTING R/W

LEGEND

- BASE PATCHING ASPHALTIC
- BASE PATCHING CONCRETE
- BASE PATCHING CONCRETE SHES

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PLAN - RAMP 'E' | SHEET 37 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-021202-PD.DWG
LAYOUT NAME - 01

PLOT DATE : 10/19/2017 9:06 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

2

## NOTES

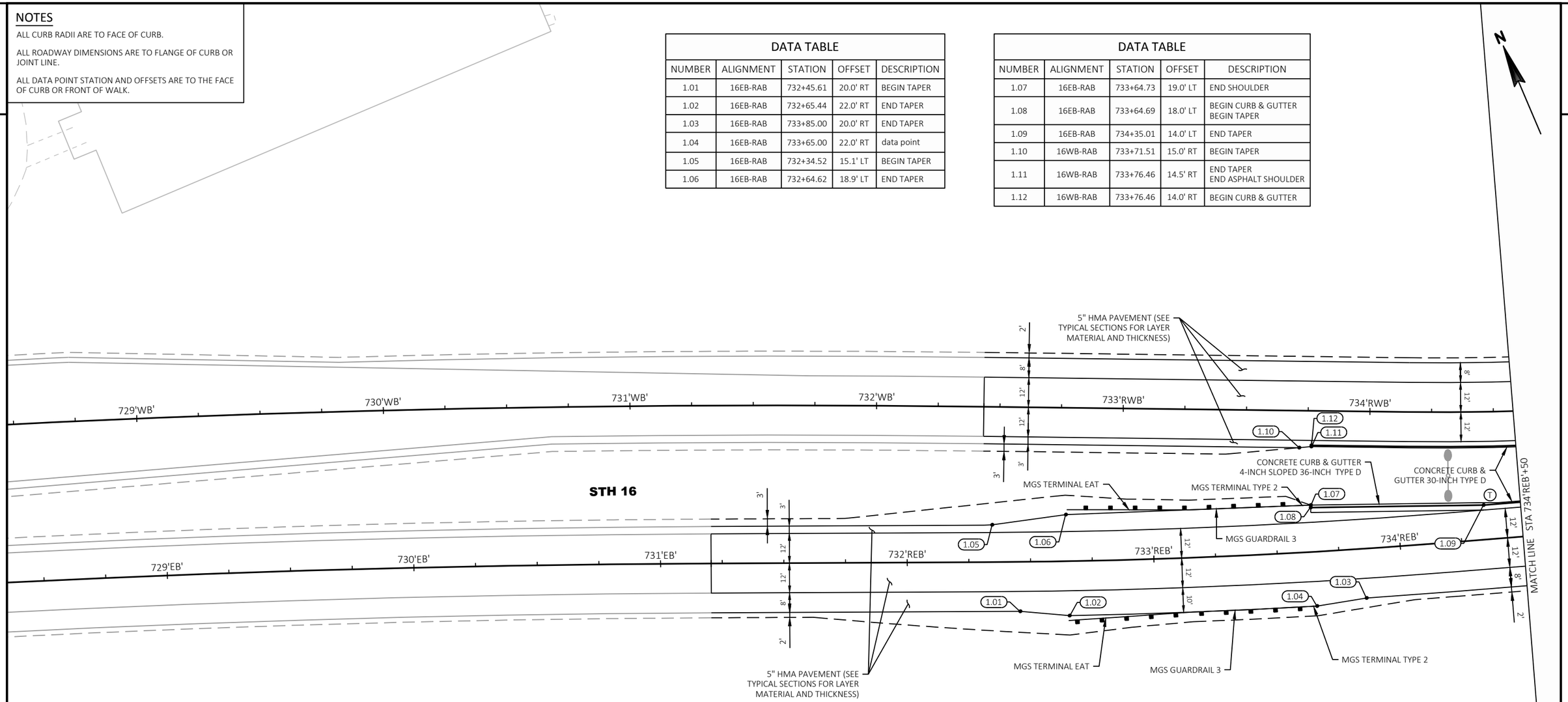
ALL CURB RADII ARE TO FACE OF CURB.

ALL ROADWAY DIMENSIONS ARE TO FLANGE OF CURB OR JOINT LINE.

ALL DATA POINT STATION AND OFFSETS ARE TO THE FACE OF CURB OR FRONT OF WALK.

| DATA TABLE | | | | |
|---|---|---|---|---|
| NUMBER | ALIGNMENT | STATION | OFFSET | DESCRIPTION |
| 1.01 | 16EB-RAB | 732+45.61 | 20.0' RT | BEGIN TAPER |
| 1.02 | 16EB-RAB | 732+65.44 | 22.0' RT | END TAPER |
| 1.03 | 16EB-RAB | 733+85.00 | 20.0' RT | END TAPER |
| 1.04 | 16EB-RAB | 733+65.00 | 22.0' RT | data point |
| 1.05 | 16EB-RAB | 732+34.52 | 15.1' LT | BEGIN TAPER |
| 1.06 | 16EB-RAB | 732+64.62 | 18.9' LT | END TAPER |

| DATA TABLE | | | | |
|---|---|---|---|---|
| NUMBER | ALIGNMENT | STATION | OFFSET | DESCRIPTION |
| 1.07 | 16EB-RAB | 733+64.73 | 19.0' LT | END SHOULDER |
| 1.08 | 16EB-RAB | 733+64.69 | 18.0' LT | BEGIN CURB & GUTTER<br>BEGIN TAPER |
| 1.09 | 16EB-RAB | 734+35.01 | 14.0' LT | END TAPER |
| 1.10 | 16WB-RAB | 733+71.51 | 15.0' RT | BEGIN TAPER |
| 1.11 | 16WB-RAB | 733+76.46 | 14.5' RT | END TAPER<br>END ASPHALT SHOULDER |
| 1.12 | 16WB-RAB | 733+76.46 | 14.0' RT | BEGIN CURB & GUTTER |




## LEGEND

- 1 CONCRETE MEDIAN SLOPED NOSE TYPE 1
- 2 CONCRETE MEDIAN SLOPED NOSE TYPE 2
- 1 CONCRETE CURB RAMP TYPE 1
- 1A CONCRETE CURB RAMP TYPE 1A
- 5 CONCRETE CURB RAMP TYPE 5
- T CONCRETE CURB & GUTTER TRANSITION
- PROPOSED CATCH BASIN/ INLET
- PROPOSED ENDWALL
- DATA POINT
- PROPOSED LIGHT POLE
- PROPOSED CONTROL CABINET
- PROPOSED PULL BOX

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PAVING DEATILS - STH 16 | SHEET 38 | E |
|---|---|---|---|---|---|


FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-021211-PD.DWG
LAYOUT NAME - 01-A
PLOT DATE : 10/19/2017 9:07 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

## NOTES

ALL CURB RADII ARE TO FACE OF CURB.

ALL ROADWAY DIMENSIONS ARE TO FLANGE OF CURB OR JOINT LINE.

ALL DATA POINT STATION AND OFFSETS ARE TO THE FACE OF CURB OR FRONT OF WALK.

2

SEE PLAN DETAILS - STH 127
FOR ADDITIONAL INFORMATION

N

STH 127

STH 16

19'NW'
81'SB'
81'NB'
21'NE'
20'NW'
738'RWB'
737'RWB'
736'RWB'
735'RWB'
21'NW'
13'RAB'
14'RAB'
12'RAB'
20'NE'
19'NE'
739'RWB'
740'RWB'
736'REB'
735'REB'
19'SW'
18'SW'
737'REB'
20'SW'
738'REB'
739'REB'
740'REB'
21'SE'
20'SE'
50'RA'
49'RA'
21'SW'
RAMP 'A'
RAMP 'B'
19'SE'

MATCH LINE STA 734'REB+50

MATCH LINE STA 740'REB+00

5" HMA PAVEMENT (SEE TYPICAL SECTIONS FOR LAYER MATERIAL AND THICKNESS)

BIKE RAMP

CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D

CONCRETE TRUCK APRON 12-INCH (COLORED RED)

CONCRETE CURB & GUTTER 30-INCH TYPE D

CONCRETE SIDEWALK 4-INCH

CONCRETE SIDEWALK 6-INCH

CONCRETE CURB PEDESTRIAN

CONCRETE SIDEWALK 4-INCH

CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE R

CONCRETE TRUCK APRON 12-INCH (COLORED RED)

CONCRETE CURB & GUTTER 18-INCH TYPE A (REVERSE SLOPE GUTTER)

STA AHEAD = 738'RWB'+14.87
STA BACK = 738'RWB'+53.33

CONCRETE TRUCK APRON 12-INCH

CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D

CONCRETE SIDEWALK 4-INCH

CONCRETE TRUCK APRON 12-INCH

CONCRETE CURB & GUTTER 30-INCH TYPE D

CONCRETE SIDEWALK 4-INCH

CONCRETE CURB PEDESTRIAN

CONCRETE CURB & GUTTER 30-INCH TYPE D

CONCRETE CURB & GUTTER 30-INCH TYPE D

CONCRETE SIDEWALK 4-INCH

BIKE RAMP

CONCRETE CURB & GUTTER 30-INCH TYPE D

CONCRETE TRUCK APRON 12-INCH

CONCRETE TRUCK APRON 12-INCH (COLORED RED)

CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D

STA AHEAD = 737'REB'+75.96
STA BACK = 738'REB'+07.15

CONCRETE SIDEWALK 4-INCH

CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D

CONCRETE TRUCK APRON 12-INCH (COLORED RED)

CONCRETE TRUCK APRON 12-INCH

BIKE RAMP

CONCRETE CURB & GUTTER 30-INCH TYPE D

CONCRETE SURFACE DRAIN

5" HMA PAVEMENT (SEE TYPICAL SECTIONS FOR LAYER MATERIAL AND THICKNESS)

SEE PLAN DETAILS - RAMPS 'A' & 'B'
FOR ADDITIONAL INFORMATION

## LEGEND

- CONCRETE MEDIAN SLOPED NOSE TYPE 1
- CONCRETE MEDIAN SLOPED NOSE TYPE 2
- CONCRETE CURB RAMP TYPE 1
- CONCRETE CURB RAMP TYPE 1A
- CONCRETE CURB RAMP TYPE 5
- CONCRETE CURB & GUTTER TRANSITION
- PROPOSED CATCH BASIN/ INLET
- PROPOSED ENDWALL
- DATA POINT
- PROPOSED LIGHT POLE
- PROPOSED CONTROL CABINET
- PROPOSED PULL BOX

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PAVING DEATILS - STH 16 | SHEET 39 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-021211-PD.DWG
LAYOUT NAME - 02-A
PLOT DATE : 10/19/2017 9:07 AM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

| DATA TABLE | | | | |
|---|---|---|---|---|
| NUMBER | ALIGNMENT | STATION | OFFSET | DESCRIPTION |
| 2.01 | 16EB-RAB | 734+62.69 | 20.0' RT | END SHOULDER |
| 2.02 | 16EB-RAB | 734+62.69 | 22.0' RT | BEGIN CURB & GUTTER |
| 2.03 | 16EB-RAB | 734+82.81 | 22.0' RT | BEGIN TAPER |
| 2.04 | 16EB-RAB | 734+94.09 | 20.6' RT | BIKE RAMP OPENING |
| 2.05 | 16EB-RAB | 735+01.56 | 19.7' RT | BIKE RAMP OPENING |
| 2.06 | 16EB-RAB | 735+46.81 | 14.0' RT | END TAPER |
| 2.07 | CR-SW-RAB | 19+33.96 | 2.0' RT | BEGIN TRUCK APRON<br>BEGIN CURB RAMP |
| 2.08 | CR-SW-RAB | 19+40.20 | 2.0' RT | CURB RAMP OPENING |
| 2.09 | CR-SW-RAB | 19+50.41 | 2.0' RT | CURB RAMP OPENING |
| 2.10 | CR-SW-RAB | 19+56.65 | 2.0' RT | END CURB RAMP |
| 2.11 | 16EB-RAB | 738+58.19 | 14.0' RT | BEGIN CURB RAMP |
| 2.12 | 16EB-RAB | 738+64.32 | 14.0' RT | CURB RAMP OPENING |
| 2.13 | 16EB-RAB | 738+74.51 | 14.0' RT | CURB RAMP OPENING |
| 2.14 | 16EB-RAB | 738+80.64 | 14.0' RT | END CURB RAMP |
| 2.15 | 16EB-RAB | 738+99.80 | 14.0' RT | BEGIN TAPER |
| 2.16 | 16EB-RAB | 739+25.54 | 18.5' RT | BIKE RAMP OPENING |
| 2.17 | 16EB-RAB | 739+34.08 | 19.8' RT | BIKE RAMP OPENING |
| 2.18 | 16EB-RAB | 739+50.44 | 22.0' RT | END TAPER |
| 2.19 | 16EB-RAB | 739+71.12 | 22.0' RT | END CURB & GUTTER |
| 2.20 | 16EB-RAB | 739+71.12 | 20.0' RT | BEGIN SHOULDER |
| 2.21 | 16EB-RAB | 736+39.69 | 14.0' LT | CURB RAMP OPENING |
| 2.22 | 16EB-RAB | 736+48.46 | 14.0' LT | CURB RAMP OPENING |
| 2.23 | 16EB-RAB | 736+63.55 | 14.0' LT | BEGIN RADIUS |
| 2.24 | RAB | 14+18.24 | 22.0' RT | END RADIUS |
| 2.25 | RAB | 11+46.39 | 22.0' RT | BEGIN RADIUS |
| 2.26 | 16EB-RAB | 738+47.48 | 14.0' LT | END RADIUS |
| 2.27 | 16EB-RAB | 738+64.51 | 14.0' LT | CURB RAMP OPENING |
| 2.28 | 16EB-RAB | 738+74.33 | 14.0' LT | CURB RAMP OPENING |
| 2.29 | 16WB-RAB | 735+66.00 | 20.0' LT | END SHOULDER |
| 2.30 | 16WB-RAB | 735+66.00 | 22.0' LT | BEGIN CURB & GUTTER |

| DATA TABLE | | | | |
|---|---|---|---|---|
| NUMBER | ALIGNMENT | STATION | OFFSET | DESCRIPTION |
| 2.31 | 16WB-RAB | 735+86.12 | 22.0' LT | BEGIN TAPER |
| 2.32 | 16WB-RAB | 735+97.41 | 20.6' LT | BIKE RAMP OPENING |
| 2.33 | 16WB-RAB | 736+04.87 | 19.7' LT | BIKE RAMP OPENING |
| 2.34 | 16WB-RAB | 736+50.12 | 14.0' LT | END TAPER |
| 2.35 | 16WB-RAB | 736+63.62 | 14.0' LT | CURB RAMP OPENING |
| 2.36 | 16WB-RAB | 736+73.62 | 14.0' LT | CURB RAMP OPENING |
| 2.37 | 16WB-RAB | 737+29.28 | 14.0' LT | BEGIN TRUCK APRON |
| 2.38 | CR-NE-RAB | 19+58.12 | 2.0' RT | BEGIN CURB RAMP |
| 2.39 | CR-NE-RAB | 19+51.88 | 2.0' RT | CURB RAMP OPENING |
| 2.40 | CR-NE-RAB | 19+41.67 | 2.0' RT | CURB RAMP OPENING |
| 2.41 | CR-NE-RAB | 19+35.43 | 2.0' RT | END CURB RAMP |
| 2.42 | 16WB-RAB | 739+96.27 | 14.0' LT | BEGIN TAPER |
| 2.43 | 16WB-RAB | 736+63.62 | 14.0' RT | CURB RAMP OPENING |
| 2.44 | 16WB-RAB | 736+73.62 | 14.0' RT | CURB RAMP OPENING |
| 2.45 | 16WB-RAB | 736+95.90 | 14.0' RT | BEGIN RADIUS |
| 2.46 | RAB | 13+72.36 | 22.0' RT | END RADIUS |
| 2.47 | RAB | 11+85.92 | 22.0' RT | BEGIN RADIUS |
| 2.48 | 16WB-RAB | 738+79.53 | 14.0' RT | END RADIUS |
| 2.49 | 16WB-RAB | 738+92.94 | 14.0' RT | CURB RAMP OPENING |
| 2.50 | 16WB-RAB | 739+01.71 | 14.0' RT | CURB RAMP OPENING |
| 2.51 | 16EB-RAB | 735+84.94 | 14.5' LT | BEGIN MEDIAN SIDEWALK |
| 2.52 | 16WB-RAB | 735+91.44 | 14.5' RT | BEGIN MEDIAN SIDEWALK |
| 2.53 | 16EB-RAB | 736+40.05 | 37.7' LT | CURB RAMP |
| 2.54 | 16EB-RAB | 736+47.18 | 41.1' LT | CURB RAMP |
| 2.55 | 16EB-RAB | 738+64.65 | 36.1' LT | CURB RAMP |
| 2.56 | 16EB-RAB | 738+74.21 | 32.5' LT | CURB RAMP |
| 2.57 | 16EB-RAB | 739+44.11 | 14.5' LT | END MEDIAN SIDEALK |
| 2.58 | 16WB-RAB | 739+58.14 | 14.5' RT | END MEDIAN SIDEALK |
| 2.59 | 16EB-RAB | 735+11.94 | 24.5' RT | END BIKE RAMP |
| 2.60 | CR-SW-RAB | 19+33.96 | 12.5' RT | BEGIN TRUCK APRON<br>BEGIN CURB RAMP |

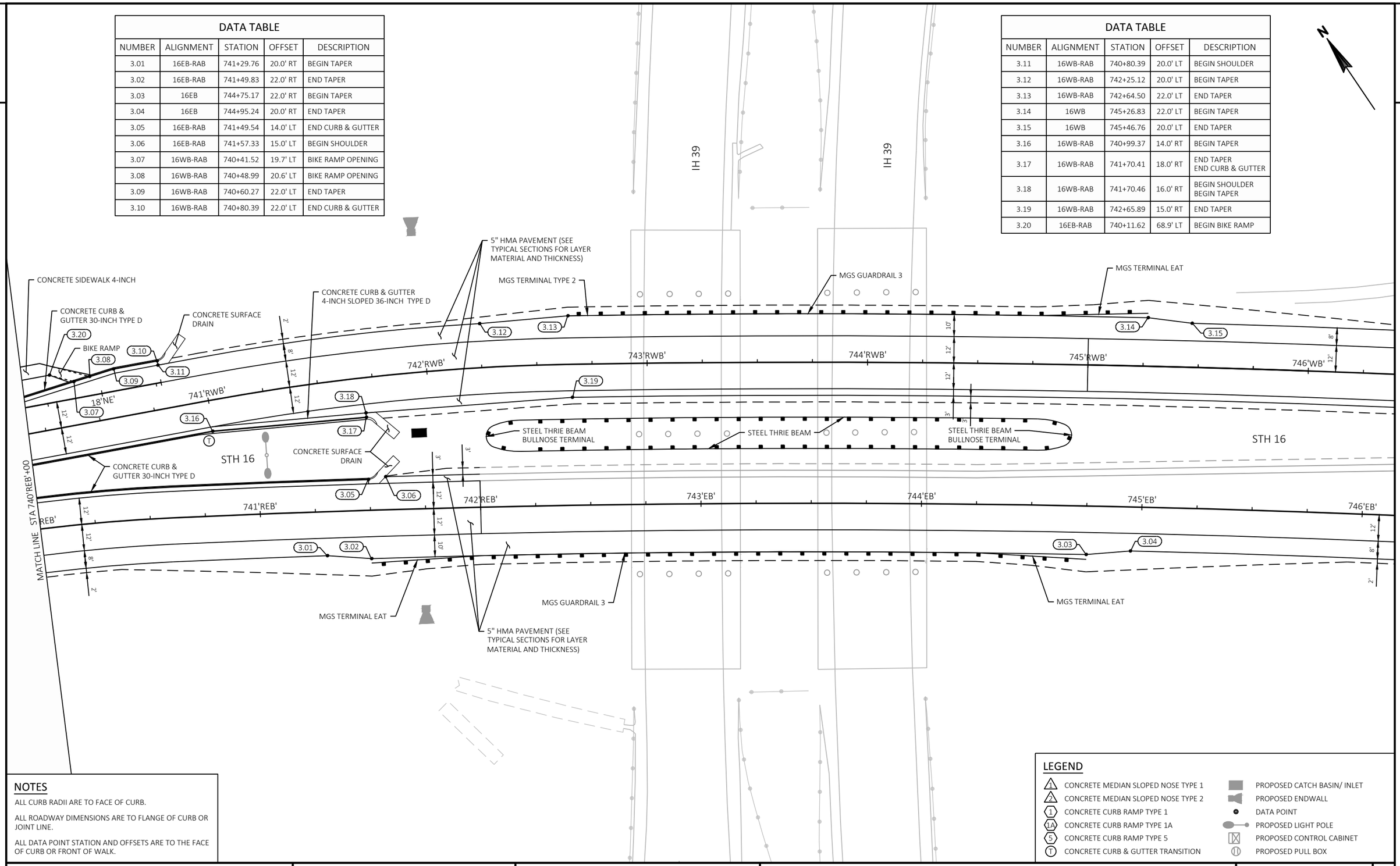
| DATA TABLE | | | | |
|---|---|---|---|---|
| NUMBER | ALIGNMENT | STATION | OFFSET | DESCRIPTION |
| 2.61 | CR-SW-RAB | 19+39.59 | 12.5' RT | CURB RAMP |
| 2.62 | CR-SW-RAB | 19+51.02 | 12.5' RT | CURB RAMP |
| 2.63 | CR-SW-RAB | 19+56.65 | 12.5' RT | END CURB RAMP |
| 2.64 | 16EB-RAB | 738+58.19 | 24.5' RT | BEGIN CURB RAMP |
| 2.65 | 16EB-RAB | 738+64.25 | 24.5' RT | CURB RAMP |
| 2.66 | 16EB-RAB | 738+74.59 | 24.5' RT | CURB RAMP |
| 2.67 | 16EB-RAB | 738+80.64 | 24.5' RT | END CURB RAMP |
| 2.68 | 16EB-RAB | 739+07.10 | 24.5' RT | BEGIN BIKE RAMP |
| 2.69 | 16WB-RAB | 736+15.26 | 24.5' LT | END BIKE RAMP |
| 2.70 | 16WB-RAB | 736+63.62 | 24.5' LT | CURB RAMP |
| 2.71 | 16WB-RAB | 736+73.62 | 24.5' LT | CURB RAMP |
| 2.72 | 16WB-RAB | 737+29.28 | 24.5' LT | BEGIN TRUCK APRON |
| 2.73 | CR-NE-RAB | 19+58.12 | 12.5' RT | BEGIN CURB RAMP |
| 2.74 | CR-NE-RAB | 19+52.49 | 12.5' RT | CURB RAMP |
| 2.75 | CR-NE-RAB | 19+41.06 | 12.5' RT | CURB RAMP |
| 2.76 | CR-NE-RAB | 19+35.43 | 12.5' RT | END CURB RAMP |

| RADIUS POINT TABLE | | | | |
|---|---|---|---|---|
| NUMBER | ALIGNMENT | STATION | OFFSET | RADIUS |
| R2.01 | 16EB-RAB | 736+63.55 | -16.00' LT | 2.0' RADIUS |
| R2.02 | 16EB-RAB | 738+47.48 | -18.00' LT | 4.0' RADIUS |
| R2.03 | 16WB-RAB | 736+95.90 | 18.00' RT | 4.0' RADIUS |
| R2.04 | 16WB-RAB | 738+79.53 | 16.00' RT | 2.0' RADIUS |

2

| DATA TABLE | | | | |
|---|---|---|---|---|
| NUMBER | ALIGNMENT | STATION | OFFSET | DESCRIPTION |
| 3.01 | 16EB-RAB | 741+29.76 | 20.0' RT | BEGIN TAPER |
| 3.02 | 16EB-RAB | 741+49.83 | 22.0' RT | END TAPER |
| 3.03 | 16EB | 744+75.17 | 22.0' RT | BEGIN TAPER |
| 3.04 | 16EB | 744+95.24 | 20.0' RT | END TAPER |
| 3.05 | 16EB-RAB | 741+49.54 | 14.0' LT | END CURB & GUTTER |
| 3.06 | 16EB-RAB | 741+57.33 | 15.0' LT | BEGIN SHOULDER |
| 3.07 | 16WB-RAB | 740+41.52 | 19.7' LT | BIKE RAMP OPENING |
| 3.08 | 16WB-RAB | 740+48.99 | 20.6' LT | BIKE RAMP OPENING |
| 3.09 | 16WB-RAB | 740+60.27 | 22.0' LT | END TAPER |
| 3.10 | 16WB-RAB | 740+80.39 | 22.0' LT | END CURB & GUTTER |

| DATA TABLE | | | | |
|---|---|---|---|---|
| NUMBER | ALIGNMENT | STATION | OFFSET | DESCRIPTION |
| 3.11 | 16WB-RAB | 740+80.39 | 20.0' LT | BEGIN SHOULDER |
| 3.12 | 16WB-RAB | 742+25.12 | 20.0' LT | BEGIN TAPER |
| 3.13 | 16WB-RAB | 742+64.50 | 22.0' LT | END TAPER |
| 3.14 | 16WB | 745+26.83 | 22.0' LT | BEGIN TAPER |
| 3.15 | 16WB | 745+46.76 | 20.0' LT | END TAPER |
| 3.16 | 16WB-RAB | 740+99.37 | 14.0' RT | BEGIN TAPER |
| 3.17 | 16WB-RAB | 741+70.41 | 18.0' RT | END TAPER<br>END CURB & GUTTER |
| 3.18 | 16WB-RAB | 741+70.46 | 16.0' RT | BEGIN SHOULDER<br>BEGIN TAPER |
| 3.19 | 16WB-RAB | 742+65.89 | 15.0' RT | END TAPER |
| 3.20 | 16EB-RAB | 740+11.62 | 68.9' LT | BEGIN BIKE RAMP |




## NOTES

ALL CURB RADII ARE TO FACE OF CURB.

ALL ROADWAY DIMENSIONS ARE TO FLANGE OF CURB OR JOINT LINE.

ALL DATA POINT STATION AND OFFSETS ARE TO THE FACE OF CURB OR FRONT OF WALK.

## LEGEND

- CONCRETE MEDIAN SLOPED NOSE TYPE 1
- CONCRETE MEDIAN SLOPED NOSE TYPE 2
- CONCRETE CURB RAMP TYPE 1
- CONCRETE CURB RAMP TYPE 1A
- CONCRETE CURB RAMP TYPE 5
- CONCRETE CURB & GUTTER TRANSITION
- PROPOSED CATCH BASIN/ INLET
- PROPOSED ENDWALL
- DATA POINT
- PROPOSED LIGHT POLE
- PROPOSED CONTROL CABINET
- PROPOSED PULL BOX

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PAVING DEATILS - STH 16 | SHEET 41 | E |
|---|---|---|---|---|---|

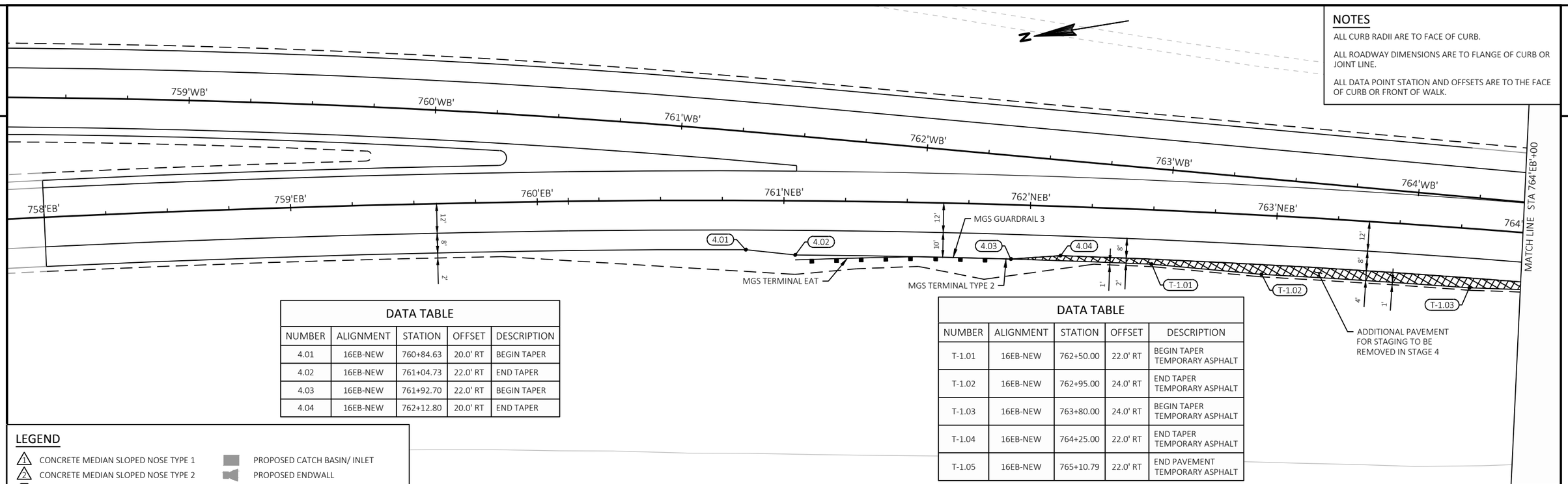

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-021211-PD.DWG
LAYOUT NAME - 03-A
PLOT DATE : 10/19/2017 9:07 AM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

## NOTES

ALL CURB RADII ARE TO FACE OF CURB.

ALL ROADWAY DIMENSIONS ARE TO FLANGE OF CURB OR JOINT LINE.

ALL DATA POINT STATION AND OFFSETS ARE TO THE FACE OF CURB OR FRONT OF WALK.




| DATA TABLE | | | | |
|---|---|---|---|---|
| NUMBER | ALIGNMENT | STATION | OFFSET | DESCRIPTION |
| 4.01 | 16EB-NEW | 760+84.63 | 20.0' RT | BEGIN TAPER |
| 4.02 | 16EB-NEW | 761+04.73 | 22.0' RT | END TAPER |
| 4.03 | 16EB-NEW | 761+92.70 | 22.0' RT | BEGIN TAPER |
| 4.04 | 16EB-NEW | 762+12.80 | 20.0' RT | END TAPER |

| DATA TABLE | | | | |
|---|---|---|---|---|
| NUMBER | ALIGNMENT | STATION | OFFSET | DESCRIPTION |
| T-1.01 | 16EB-NEW | 762+50.00 | 22.0' RT | BEGIN TAPER TEMPORARY ASPHALT |
| T-1.02 | 16EB-NEW | 762+95.00 | 24.0' RT | END TAPER TEMPORARY ASPHALT |
| T-1.03 | 16EB-NEW | 763+80.00 | 24.0' RT | BEGIN TAPER TEMPORARY ASPHALT |
| T-1.04 | 16EB-NEW | 764+25.00 | 22.0' RT | END TAPER TEMPORARY ASPHALT |
| T-1.05 | 16EB-NEW | 765+10.79 | 22.0' RT | END PAVEMENT TEMPORARY ASPHALT |

## LEGEND

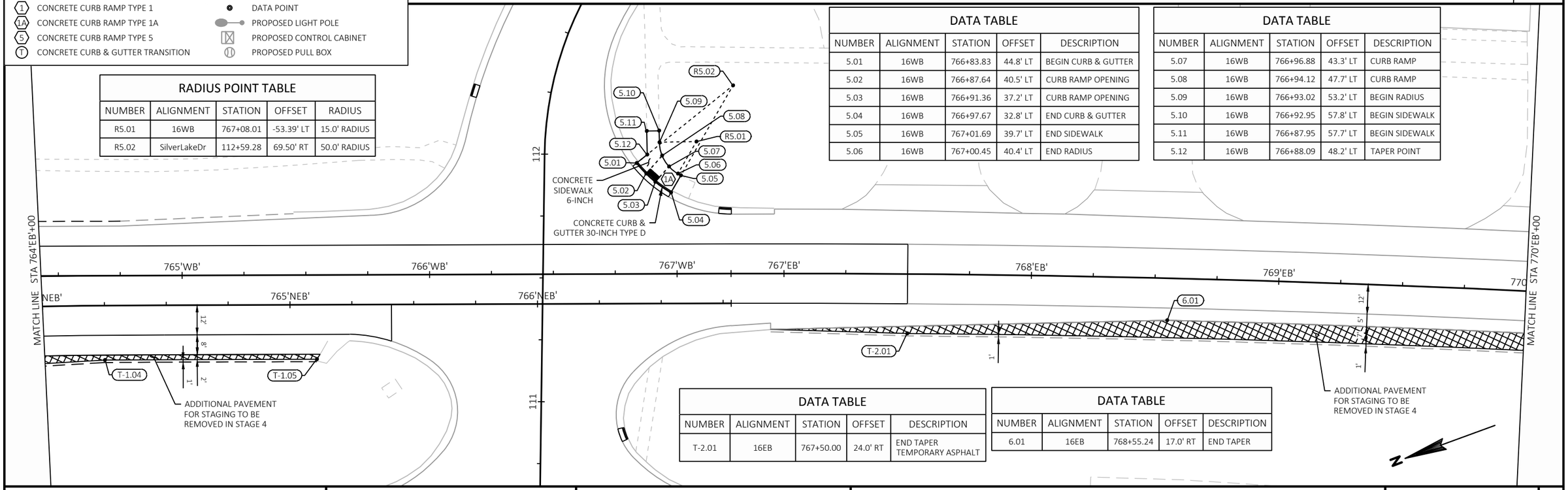
- CONCRETE MEDIAN SLOPED NOSE TYPE 1
- CONCRETE MEDIAN SLOPED NOSE TYPE 2
- CONCRETE CURB RAMP TYPE 1
- CONCRETE CURB RAMP TYPE 1A
- CONCRETE CURB RAMP TYPE 5
- CONCRETE CURB & GUTTER TRANSITION
- PROPOSED CATCH BASIN/ INLET
- PROPOSED ENDWALL
- DATA POINT
- PROPOSED LIGHT POLE
- PROPOSED CONTROL CABINET
- PROPOSED PULL BOX

| RADIUS POINT TABLE | | | | |
|---|---|---|---|---|
| NUMBER | ALIGNMENT | STATION | OFFSET | RADIUS |
| R5.01 | 16WB | 767+08.01 | -53.39' LT | 15.0' RADIUS |
| R5.02 | SilverLakeDr | 112+59.28 | 69.50' RT | 50.0' RADIUS |




| DATA TABLE | | | | |
|---|---|---|---|---|
| NUMBER | ALIGNMENT | STATION | OFFSET | DESCRIPTION |
| 5.01 | 16WB | 766+83.83 | 44.8' LT | BEGIN CURB & GUTTER |
| 5.02 | 16WB | 766+87.64 | 40.5' LT | CURB RAMP OPENING |
| 5.03 | 16WB | 766+91.36 | 37.2' LT | CURB RAMP OPENING |
| 5.04 | 16WB | 766+97.67 | 32.8' LT | END CURB & GUTTER |
| 5.05 | 16WB | 767+01.69 | 39.7' LT | END SIDEWALK |
| 5.06 | 16WB | 767+00.45 | 40.4' LT | END RADIUS |

| DATA TABLE | | | | |
|---|---|---|---|---|
| NUMBER | ALIGNMENT | STATION | OFFSET | DESCRIPTION |
| 5.07 | 16WB | 766+96.88 | 43.3' LT | CURB RAMP |
| 5.08 | 16WB | 766+94.12 | 47.7' LT | CURB RAMP |
| 5.09 | 16WB | 766+93.02 | 53.2' LT | BEGIN RADIUS |
| 5.10 | 16WB | 766+92.95 | 57.8' LT | BEGIN SIDEWALK |
| 5.11 | 16WB | 766+87.95 | 57.7' LT | BEGIN SIDEWALK |
| 5.12 | 16WB | 766+88.09 | 48.2' LT | TAPER POINT |




| DATA TABLE | | | | |
|---|---|---|---|---|
| NUMBER | ALIGNMENT | STATION | OFFSET | DESCRIPTION |
| T-2.01 | 16EB | 767+50.00 | 24.0' RT | END TAPER TEMPORARY ASPHALT |

| DATA TABLE | | | | |
|---|---|---|---|---|
| NUMBER | ALIGNMENT | STATION | OFFSET | DESCRIPTION |
| 6.01 | 16EB | 768+55.24 | 17.0' RT | END TAPER |

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PAVING DEATILS - STH 16 | SHEET 42 | E |
|---|---|---|---|---|---|

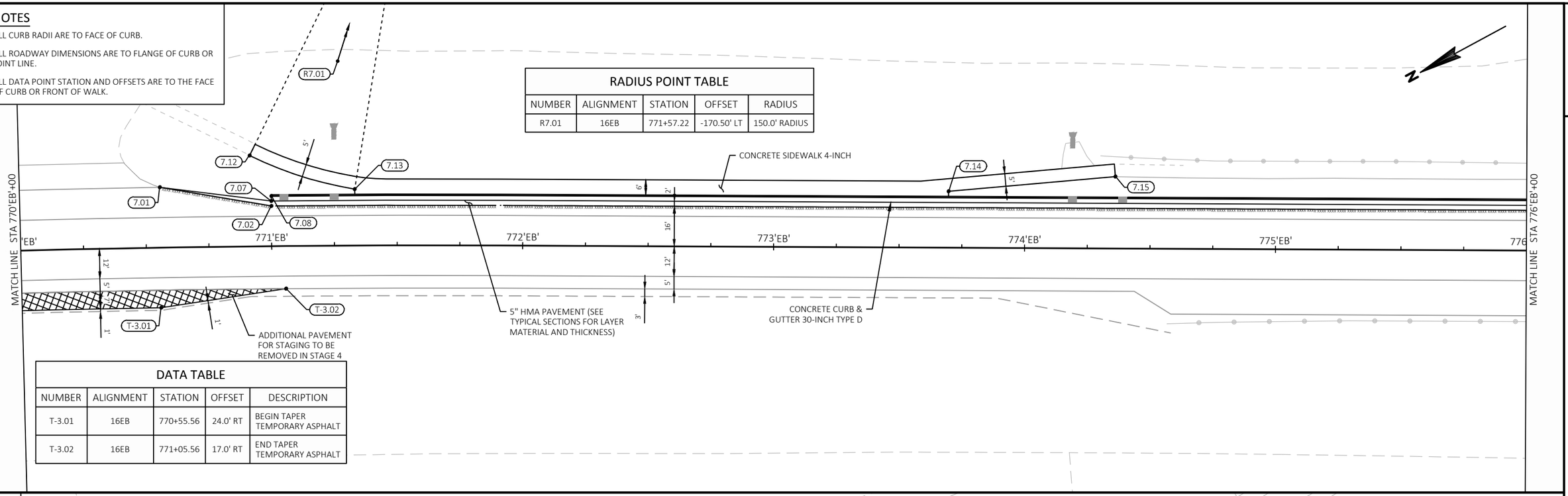

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-021211-PD.DWG
LAYOUT NAME - 04-A
PLOT DATE : 10/19/2017 9:07 AM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

## NOTES

ALL CURB RADII ARE TO FACE OF CURB.

ALL ROADWAY DIMENSIONS ARE TO FLANGE OF CURB OR JOINT LINE.

ALL DATA POINT STATION AND OFFSETS ARE TO THE FACE OF CURB OR FRONT OF WALK.

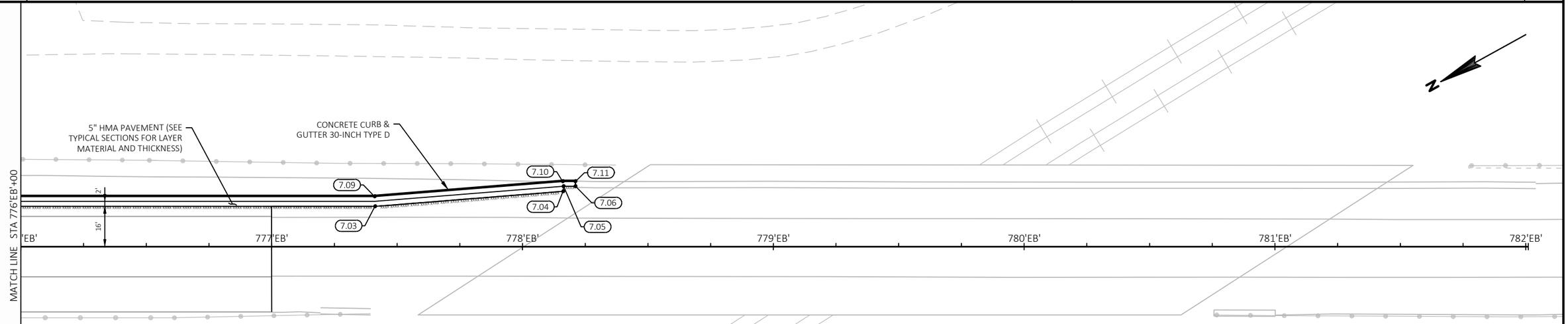



### RADIUS POINT TABLE

| NUMBER | ALIGNMENT | STATION | OFFSET | RADIUS |
|---|---|---|---|---|
| R7.01 | 16EB | 771+57.22 | -170.50' LT | 150.0' RADIUS |

### DATA TABLE

| NUMBER | ALIGNMENT | STATION | OFFSET | DESCRIPTION |
|---|---|---|---|---|
| T-3.01 | 16EB | 770+55.56 | 24.0' RT | BEGIN TAPER TEMPORARY ASPHALT |
| T-3.02 | 16EB | 771+05.56 | 17.0' RT | END TAPER TEMPORARY ASPHALT |




### DATA TABLE

| NUMBER | ALIGNMENT | STATION | OFFSET | DESCRIPTION |
|---|---|---|---|---|
| 7.01 | 16EB | 770+55.80 | 24.0' LT | BEGIN SAWCUT BEGIN TAPER |
| 7.02 | 16EB | 771+00.00 | 16.0' LT | END TAPER |
| 7.03 | 16EB | 777+41.25 | 16.0' LT | BEGIN TAPER |
| 7.04 | 16EB | 778+16.25 | 22.0' LT | END TAPER |
| 7.05 | 16EB | 778+16.35 | 24.0' LT | SAWCUT PI |

### DATA TABLE

| NUMBER | ALIGNMENT | STATION | OFFSET | DESCRIPTION |
|---|---|---|---|---|
| 7.06 | 16EB | 778+21.09 | 24.0' LT | END SAWCUT |
| 7.07 | 16EB | 771+00.00 | 18.0' LT | END TAPER |
| 7.08 | 16EB | 771+00.00 | 20.0' LT | BEGIN CURB & GUTTER |
| 7.09 | 16EB | 777+41.09 | 20.0' LT | BEGIN TAPER |
| 7.10 | 16EB | 778+16.09 | 26.0' LT | END TAPER |

### DATA TABLE

| NUMBER | ALIGNMENT | STATION | OFFSET | DESCRIPTION |
|---|---|---|---|---|
| 7.11 | 16EB | 778+21.09 | 26.0' LT | END CURB & GUTTER |
| 7.12 | 16EB | 770+91.56 | 36.2' LT | BEGIN SIDEWALK BEGIN RADIUS |
| 7.13 | 16EB | 771+33.17 | 22.5' LT | END RADIUS |
| 7.14 | 16EB | 773+69.62 | 22.5' LT | BEGIN TAPER |
| 7.15 | 16EB | 774+36.06 | 28.7' LT | END TAPER END SIDEWALK |

## LEGEND

- 1 CONCRETE MEDIAN SLOPED NOSE TYPE 1
- 2 CONCRETE MEDIAN SLOPED NOSE TYPE 2
- 1 CONCRETE CURB RAMP TYPE 1
- 1A CONCRETE CURB RAMP TYPE 1A
- 5 CONCRETE CURB RAMP TYPE 5
- T CONCRETE CURB & GUTTER TRANSITION
- PROPOSED CATCH BASIN/ INLET
- PROPOSED ENDWALL
- DATA POINT
- PROPOSED LIGHT POLE
- PROPOSED CONTROL CABINET
- PROPOSED PULL BOX

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PAVING DEATILS - STH 16 | SHEET 43 | E |
|---|---|---|---|---|---|


FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-021211-PD.DWG
LAYOUT NAME - 05-A
PLOT DATE : 10/19/2017 9:07 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

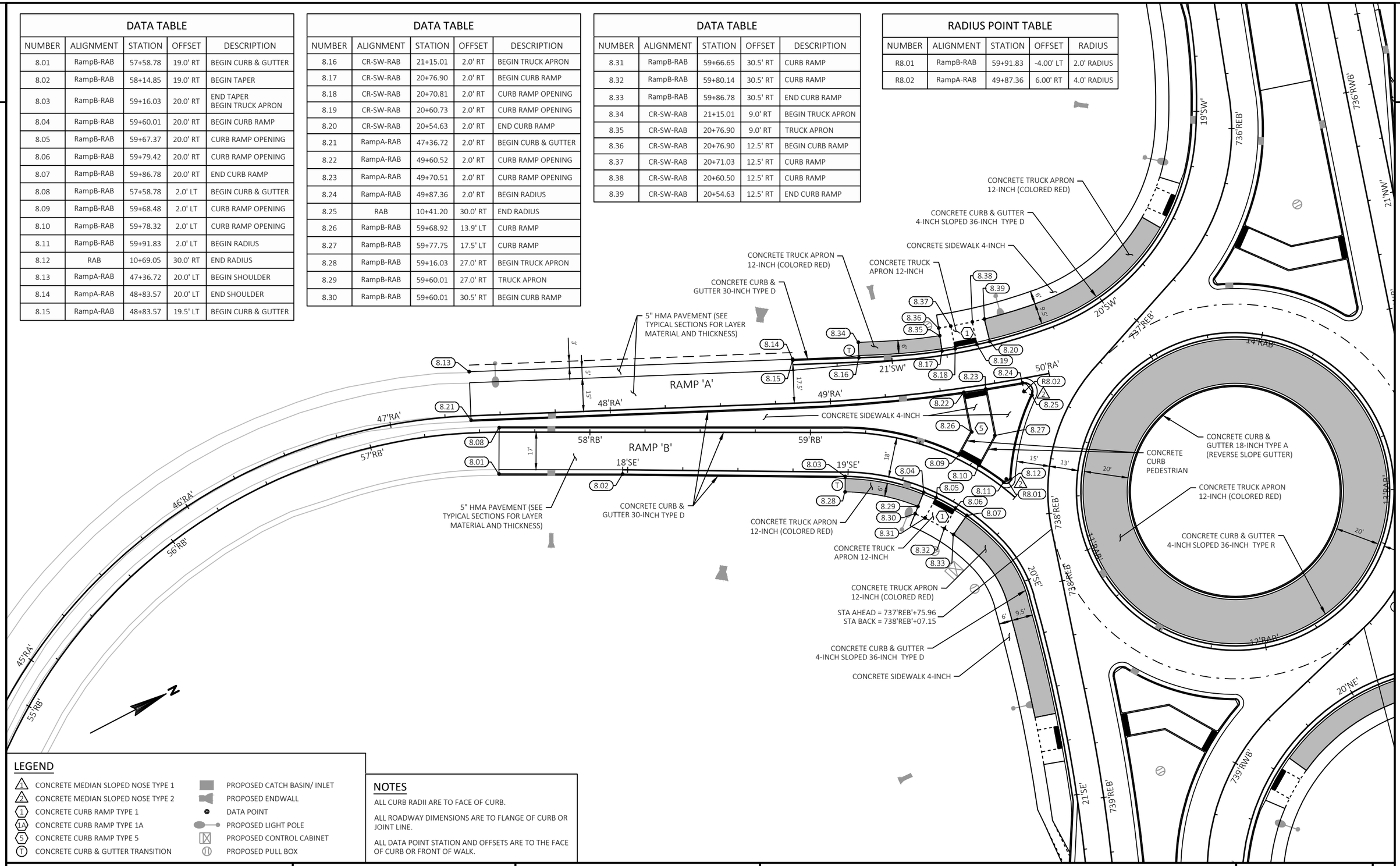
2

| DATA TABLE | | | | |
|---|---|---|---|---|
| NUMBER | ALIGNMENT | STATION | OFFSET | DESCRIPTION |
| 8.01 | RampB-RAB | 57+58.78 | 19.0' RT | BEGIN CURB & GUTTER |
| 8.02 | RampB-RAB | 58+14.85 | 19.0' RT | BEGIN TAPER |
| 8.03 | RampB-RAB | 59+16.03 | 20.0' RT | END TAPER<br>BEGIN TRUCK APRON |
| 8.04 | RampB-RAB | 59+60.01 | 20.0' RT | BEGIN CURB RAMP |
| 8.05 | RampB-RAB | 59+67.37 | 20.0' RT | CURB RAMP OPENING |
| 8.06 | RampB-RAB | 59+79.42 | 20.0' RT | CURB RAMP OPENING |
| 8.07 | RampB-RAB | 59+86.78 | 20.0' RT | END CURB RAMP |
| 8.08 | RampB-RAB | 57+58.78 | 2.0' LT | BEGIN CURB & GUTTER |
| 8.09 | RampB-RAB | 59+68.48 | 2.0' LT | CURB RAMP OPENING |
| 8.10 | RampB-RAB | 59+78.32 | 2.0' LT | CURB RAMP OPENING |
| 8.11 | RampB-RAB | 59+91.83 | 2.0' LT | BEGIN RADIUS |
| 8.12 | RAB | 10+69.05 | 30.0' RT | END RADIUS |
| 8.13 | RampA-RAB | 47+36.72 | 20.0' LT | BEGIN SHOULDER |
| 8.14 | RampA-RAB | 48+83.57 | 20.0' LT | END SHOULDER |
| 8.15 | RampA-RAB | 48+83.57 | 19.5' LT | BEGIN CURB & GUTTER |

| DATA TABLE | | | | |
|---|---|---|---|---|
| NUMBER | ALIGNMENT | STATION | OFFSET | DESCRIPTION |
| 8.16 | CR-SW-RAB | 21+15.01 | 2.0' RT | BEGIN TRUCK APRON |
| 8.17 | CR-SW-RAB | 20+76.90 | 2.0' RT | BEGIN CURB RAMP |
| 8.18 | CR-SW-RAB | 20+70.81 | 2.0' RT | CURB RAMP OPENING |
| 8.19 | CR-SW-RAB | 20+60.73 | 2.0' RT | CURB RAMP OPENING |
| 8.20 | CR-SW-RAB | 20+54.63 | 2.0' RT | END CURB RAMP |
| 8.21 | RampA-RAB | 47+36.72 | 2.0' RT | BEGIN CURB & GUTTER |
| 8.22 | RampA-RAB | 49+60.52 | 2.0' RT | CURB RAMP OPENING |
| 8.23 | RampA-RAB | 49+70.51 | 2.0' RT | CURB RAMP OPENING |
| 8.24 | RampA-RAB | 49+87.36 | 2.0' RT | BEGIN RADIUS |
| 8.25 | RAB | 10+41.20 | 30.0' RT | END RADIUS |
| 8.26 | RampB-RAB | 59+68.92 | 13.9' LT | CURB RAMP |
| 8.27 | RampB-RAB | 59+77.75 | 17.5' LT | CURB RAMP |
| 8.28 | RampB-RAB | 59+16.03 | 27.0' RT | BEGIN TRUCK APRON |
| 8.29 | RampB-RAB | 59+60.01 | 27.0' RT | TRUCK APRON |
| 8.30 | RampB-RAB | 59+60.01 | 30.5' RT | BEGIN CURB RAMP |

| DATA TABLE | | | | |
|---|---|---|---|---|
| NUMBER | ALIGNMENT | STATION | OFFSET | DESCRIPTION |
| 8.31 | RampB-RAB | 59+66.65 | 30.5' RT | CURB RAMP |
| 8.32 | RampB-RAB | 59+80.14 | 30.5' RT | CURB RAMP |
| 8.33 | RampB-RAB | 59+86.78 | 30.5' RT | END CURB RAMP |
| 8.34 | CR-SW-RAB | 21+15.01 | 9.0' RT | BEGIN TRUCK APRON |
| 8.35 | CR-SW-RAB | 20+76.90 | 9.0' RT | TRUCK APRON |
| 8.36 | CR-SW-RAB | 20+76.90 | 12.5' RT | BEGIN CURB RAMP |
| 8.37 | CR-SW-RAB | 20+71.03 | 12.5' RT | CURB RAMP |
| 8.38 | CR-SW-RAB | 20+60.50 | 12.5' RT | CURB RAMP |
| 8.39 | CR-SW-RAB | 20+54.63 | 12.5' RT | END CURB RAMP |

| RADIUS POINT TABLE | | | | |
|---|---|---|---|---|
| NUMBER | ALIGNMENT | STATION | OFFSET | RADIUS |
| R8.01 | RampB-RAB | 59+91.83 | -4.00' LT | 2.0' RADIUS |
| R8.02 | RampA-RAB | 49+87.36 | 6.00' RT | 4.0' RADIUS |




## LEGEND

- 1 CONCRETE MEDIAN SLOPED NOSE TYPE 1
- 2 CONCRETE MEDIAN SLOPED NOSE TYPE 2
- 1 CONCRETE CURB RAMP TYPE 1
- 1A CONCRETE CURB RAMP TYPE 1A
- 5 CONCRETE CURB RAMP TYPE 5
- T CONCRETE CURB & GUTTER TRANSITION
- PROPOSED CATCH BASIN/ INLET
- PROPOSED ENDWALL
- DATA POINT
- PROPOSED LIGHT POLE
- PROPOSED CONTROL CABINET
- PROPOSED PULL BOX

## NOTES

ALL CURB RADII ARE TO FACE OF CURB.

ALL ROADWAY DIMENSIONS ARE TO FLANGE OF CURB OR JOINT LINE.

ALL DATA POINT STATION AND OFFSETS ARE TO THE FACE OF CURB OR FRONT OF WALK.

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PAVING DEATILS - RAMPS 'A' & 'B' | SHEET 44 | E |
|---|---|---|---|---|---|

| DATA TABLE | | | | |
|---|---|---|---|---|
| NUMBER | ALIGNMENT | STATION | OFFSET | DESCRIPTION |
| 9.01 | CR-NE-RAB | 20+50.94 | 2.0' RT | BEGIN CURB RAMP |
| 9.02 | CR-NE-RAB | 20+57.05 | 2.0' RT | CURB RAMP OPENING |
| 9.03 | CR-NE-RAB | 20+67.15 | 2.0' RT | CURB RAMP OPENING |
| 9.04 | CR-NE-RAB | 20+73.27 | 2.0' RT | END CURB RAMP |
| 9.05 | CR-NE-RAB | 20+84.16 | 2.0' RT | END TRUCK APRON |
| 9.06 | CR-NE-RAB | 21+29.17 | 2.0' RT | BIKE RAMP OPENING |
| 9.07 | CR-NE-RAB | 21+38.39 | 2.0' RT | BIKE RAMP OPENING |
| 9.08 | CR-NE-RAB | 21+67.88 | 2.0' RT | END CURB & GUTTER |
| 9.09 | 127NB-RAB | 81+38.51 | 17.0' RT | BEGIN SHOULDER |
| 9.10 | 127NB-RAB | 84+00.00 | 17.0' RT | END SHOULDER |
| 9.11 | RAB | 12+61.12 | 30.0' RT | BEGIN RADIUS |
| 9.12 | 127NB-RAB | 80+12.64 | 2.0' LT | END RADIUS |

| DATA TABLE | | | | |
|---|---|---|---|---|
| NUMBER | ALIGNMENT | STATION | OFFSET | DESCRIPTION |
| 9.13 | 127NB-RAB | 80+25.89 | 2.0' LT | CURB RAMP OPENING |
| 9.14 | 127NB-RAB | 80+35.88 | 2.0' LT | CURB RAMP OPENING |
| 9.15 | 127NB-RAB | 81+38.35 | 2.0' LT | BEGIN RADIUS |
| 9.16 | 127SB-RAB | 80+19.68 | 20.0' LT | BEGIN CURB RAMP |
| 9.17 | 127SB-RAB | 80+27.04 | 20.0' LT | CURB RAMP OPENING |
| 9.18 | 127SB-RAB | 80+39.09 | 20.0' LT | CURB RAMP OPENING |
| 9.19 | 127SB-RAB | 80+46.45 | 20.0' LT | END CURB RAMP |
| 9.20 | 127SB-RAB | 80+83.99 | 20.0' LT | END TRUCK APRON |
| 9.21 | 127SB-RAB | 81+29.63 | 20.0' LT | BIKE RAMP OPENING |
| 9.22 | 127SB-RAB | 81+39.10 | 20.0' LT | BIKE RAMP OPENING |
| 9.23 | 127SB-RAB | 81+87.97 | 20.0' LT | END CURB & GUTTER |
| 9.24 | 127SB-RAB | 81+87.97 | 18.0' LT | BEGIN SHOULDER |

| DATA TABLE | | | | |
|---|---|---|---|---|
| NUMBER | ALIGNMENT | STATION | OFFSET | DESCRIPTION |
| 9.25 | 127SB-RAB | 82+65.15 | 18.0' LT | BEGIN TAPER |
| 9.26 | 127NB-RAB | 82+98.84 | 17.0' LT | END TAPER |
| 9.27 | 127NB-RAB | 84+00.00 | 17.0' LT | END SHOULDER |
| 9.28 | RAB | 12+89.70 | 28.0' RT | BEGIN RADIUS |
| 9.29 | 127SB-RAB | 80+16.78 | 2.0' RT | END RADIUS |
| 9.30 | 127SB-RAB | 80+28.15 | 2.0' RT | CURB RAMP OPENING |
| 9.31 | 127SB-RAB | 80+37.98 | 2.0' RT | CURB RAMP OPENING |
| 9.32 | 127SB-RAB | 81+37.18 | 2.0' RT | END RADIUS |
| 9.33 | 127NB-RAB | 80+25.06 | 23.6' LT | CURB RAMP |
| 9.34 | 127NB-RAB | 80+34.93 | 20.3' LT | CURB RAMP |
| 9.35 | CR-NE-RAB | 20+50.94 | 12.5' RT | BEGIN CURB RAMP |
| 9.36 | CR-NE-RAB | 20+56.77 | 12.5' RT | CURB RAMP |

| DATA TABLE | | | | |
|---|---|---|---|---|
| NUMBER | ALIGNMENT | STATION | OFFSET | DESCRIPTION |
| 9.37 | CR-NE-RAB | 20+67.44 | 12.5' RT | CURB RAMP |
| 9.38 | CR-NE-RAB | 20+73.27 | 12.5' RT | END CURB RAMP |
| 9.39 | CR-NE-RAB | 20+73.27 | 6.0' RT | TRUCK APRON |
| 9.40 | CR-NE-RAB | 20+84.21 | 6.0' RT | END TRUCK APRON |
| 9.41 | CR-NE-RAB | 20+81.72 | 12.5' RT | BEGIN TAPER |
| 9.42 | CR-NE-RAB | 21+07.97 | 12.2' RT | END TAPER<br>BEGIN BIKE RAMP |
| 9.43 | 127SB-RAB | 80+19.68 | 30.5' LT | BEGIN CURB RAMP |
| 9.44 | 127SB-RAB | 80+26.32 | 30.5' LT | CURB RAMP |
| 9.45 | 127SB-RAB | 80+39.81 | 30.5' LT | CURB RAMP |
| 9.46 | 127SB-RAB | 80+46.45 | 30.5' LT | END CURB RAMP |
| 9.47 | 127SB-RAB | 80+83.99 | 30.5' LT | END TRUCK APRON<br>BEGIN TAPER |
| 9.48 | 127SB-RAB | 81+10.48 | 28.9' LT | END TAPER<br>BEGIN BIKE RAMP |

| RADIUS POINT TABLE | | | | |
|---|---|---|---|---|
| NUMBER | ALIGNMENT | STATION | OFFSET | RADIUS |
| R9.01 | 127NB-RAB | 80+12.64 | -6.00' LT | 4.0' RADIUS |
| R9.02 | 127SB-RAB | 80+16.78 | 4.00' RT | 2.0' RADIUS |
| R9.03 | 127NB-RAB | 81+38.35 | -5.00' LT | 3.0' RADIUS |

## NOTES

ALL CURB RADII ARE TO FACE OF CURB.

ALL ROADWAY DIMENSIONS ARE TO FLANGE OF CURB OR JOINT LINE.

ALL DATA POINT STATION AND OFFSETS ARE TO THE FACE OF CURB OR FRONT OF WALK.

## LEGEND

- CONCRETE MEDIAN SLOPED NOSE TYPE 1
- CONCRETE MEDIAN SLOPED NOSE TYPE 2
- CONCRETE CURB RAMP TYPE 1
- CONCRETE CURB RAMP TYPE 1A
- CONCRETE CURB RAMP TYPE 5
- CONCRETE CURB & GUTTER TRANSITION
- PROPOSED CATCH BASIN/ INLET
- PROPOSED ENDWALL
- DATA POINT
- PROPOSED LIGHT POLE
- PROPOSED CONTROL CABINET
- PROPOSED PULL BOX

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PAVING DEATILS - STH 127 | SHEET 45 | E |
|---|---|---|---|---|---|

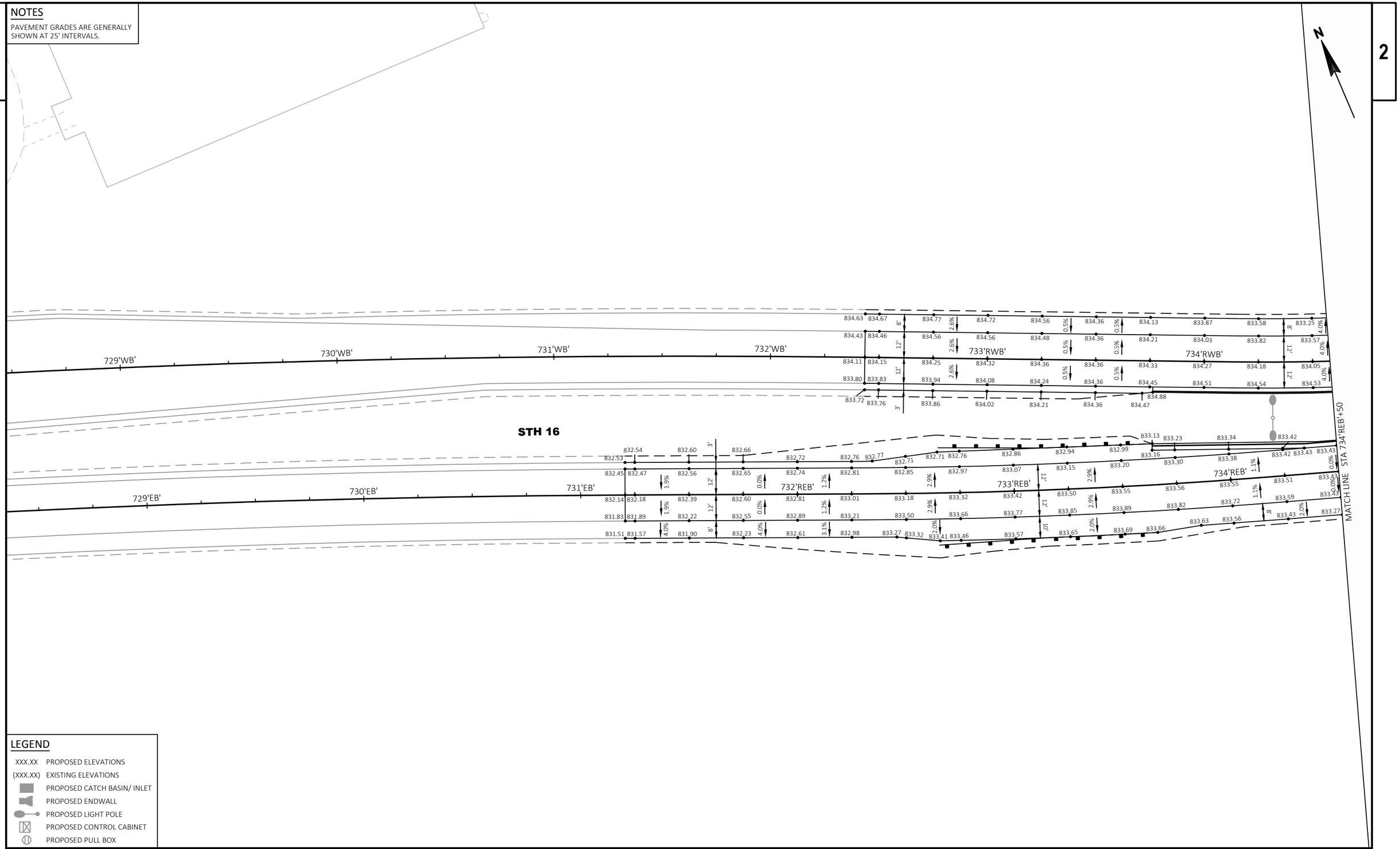
FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-021212-PD.DWG
LAYOUT NAME - 02

PLOT DATE : 10/19/2017 9:08 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42

NOTES

PAVEMENT GRADES ARE GENERALLY SHOWN AT 25' INTERVALS.




LEGEND

| | |
|---|---|
| XXX.XX | PROPOSED ELEVATIONS |
| (XXX.XX) | EXISTING ELEVATIONS |
| | PROPOSED CATCH BASIN/ INLET |
| | PROPOSED ENDWALL |
| | PROPOSED LIGHT POLE |
| | PROPOSED CONTROL CABINET |
| | PROPOSED PULL BOX |

| | | | | |
|---|---|---|---|---|
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PAVEMENT GRADES - STH 16 | SHEET 46 E |

NOTES

PAVEMENT GRADES ARE GENERALLY SHOWN AT 25' INTERVALS.

SEE PAVEMENT GRADES - STH 127 FOR additional INFORMATION

STA AHEAD = 738'RWB'+14.87
STA BACK = 738'RWB'+53.33

STA AHEAD = 737'REB'+75.96
STA BACK = 738'REB'+07.15

SEE PAVEMENT GRADES - RAMPS 'A' & 'B' FOR ADDITIONAL INFORMATION

REVERSE SLOPE GUTTER

MATCH LINE STA 734'REB'+50

MATCH LINE STA 740'REB'+00

LEGEND

| | |
|---|---|
| XXX.XX | PROPOSED ELEVATIONS |
| (XXX.XX) | EXISTING ELEVATIONS |
| | PROPOSED CATCH BASIN/ INLET |
| | PROPOSED ENDWALL |
| | PROPOSED LIGHT POLE |
| | PROPOSED CONTROL CABINET |
| | PROPOSED PULL BOX |

| | | | | |
|---|---|---|---|---|
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PAVEMENT GRADES - STH 16 | SHEET 47 E |

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-021221-PG.DWG
LAYOUT NAME - 02

PLOT DATE : 10/19/2017 9:08 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

## NOTES

PAVEMENT GRADES ARE GENERALLY SHOWN AT 25' INTERVALS.

N

IH 39

IH 39

STH 16

STH 16

MATCH LINE STA 740'REB'+00

18'NE'

741'RWB'

742'RWB'

743'RWB'

744'RWB'

745'RWB'

746'WB'

741'REB'

742'REB'

743'EB'

744'EB'

745'EB'

746'EB'

## LEGEND

| | |
|---|---|
| XXX.XX | PROPOSED ELEVATIONS |
| (XXX.XX) | EXISTING ELEVATIONS |
| | PROPOSED CATCH BASIN/ INLET |
| | PROPOSED ENDWALL |
| | PROPOSED LIGHT POLE |
| | PROPOSED CONTROL CABINET |
| | PROPOSED PULL BOX |

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PAVEMENT GRADES - STH 16 | SHEET 48 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-021221-PG.DWG
LAYOUT NAME - 03

PLOT DATE : 10/19/2017 9:08 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

## NOTES

PAVEMENT GRADES ARE GENERALLY SHOWN AT 25' INTERVALS.

N

RAMP 'A'
47'RA'
57'RB'
RAMP 'B'
46'RA'
56'RB'
45'RA'
55'RB'
48'RA'
49'RA'
50'RA'
58'RB'
59'RB'
18'SE'
19'SE'
21'SW'
20'SW'
19'SW'
STA AHEAD = 737'REB'+75.96
STA BACK = 738'REB'+07.15
737'REB'
736'REB'
736'RWB'
14'RAB'
12'RAB'
11'RAB'
738'REB'
738'RWB'
20'SE'
21'SE'
739'REB'
739'RWB'
20'NE'
STH 16
STH 16

## LEGEND

- XXX.XX PROPOSED ELEVATIONS
- (XXX.XX) EXISTING ELEVATIONS
- PROPOSED CATCH BASIN/ INLET
- PROPOSED ENDWALL
- PROPOSED LIGHT POLE
- PROPOSED CONTROL CABINET
- PROPOSED PULL BOX

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PAVEMENT GRADES - RAMPS 'A' & 'B' | SHEET 49 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-021222-PG.DWG
LAYOUT NAME - 01

PLOT DATE : 10/31/2017 9:01 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : ##########

## NOTES

PAVEMENT GRADES ARE GENERALLY SHOWN AT 25' INTERVALS.

STA AHEAD = 738'RWB'+14.87
STA BACK = 738'RWB'+53.33

## LEGEND

| | |
|---|---|
| XXX.XX | PROPOSED ELEVATIONS |
| (XXX.XX) | EXISTING ELEVATIONS |
| | PROPOSED CATCH BASIN/ INLET |
| | PROPOSED ENDWALL |
| | PROPOSED LIGHT POLE |
| | PROPOSED CONTROL CABINET |
| | PROPOSED PULL BOX |

| | | | | |
|---|---|---|---|---|
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PAVEMENT GRADES - STH 127 | SHEET 50 E |

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-021222-PG.DWG
LAYOUT NAME - 02
PLOT DATE : 10/19/2017 9:09 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42

## LEGEND

| FTMS CONVENTIONAL SYMBOLS | EXISTING | PROPOSED |
|---|---|---|
| CCTV CAMERA AND POLE | | CAMERA ORIENTATION |
| POLE MOUNTED CABINET | | |
| 24X42-INCH NON-CONDUCTIVE PULL BOX | | |
| FTMS (ITS) CONDUIT | | |
| BREAKER DISCONNECT BOX | | |
| FIBER OPTIC COMMUNICATIONS VAULT | V | |
| MICROWAVE VEHICLE DETECTOR | | |
| VEHICLE DETECTION ZONE | | |

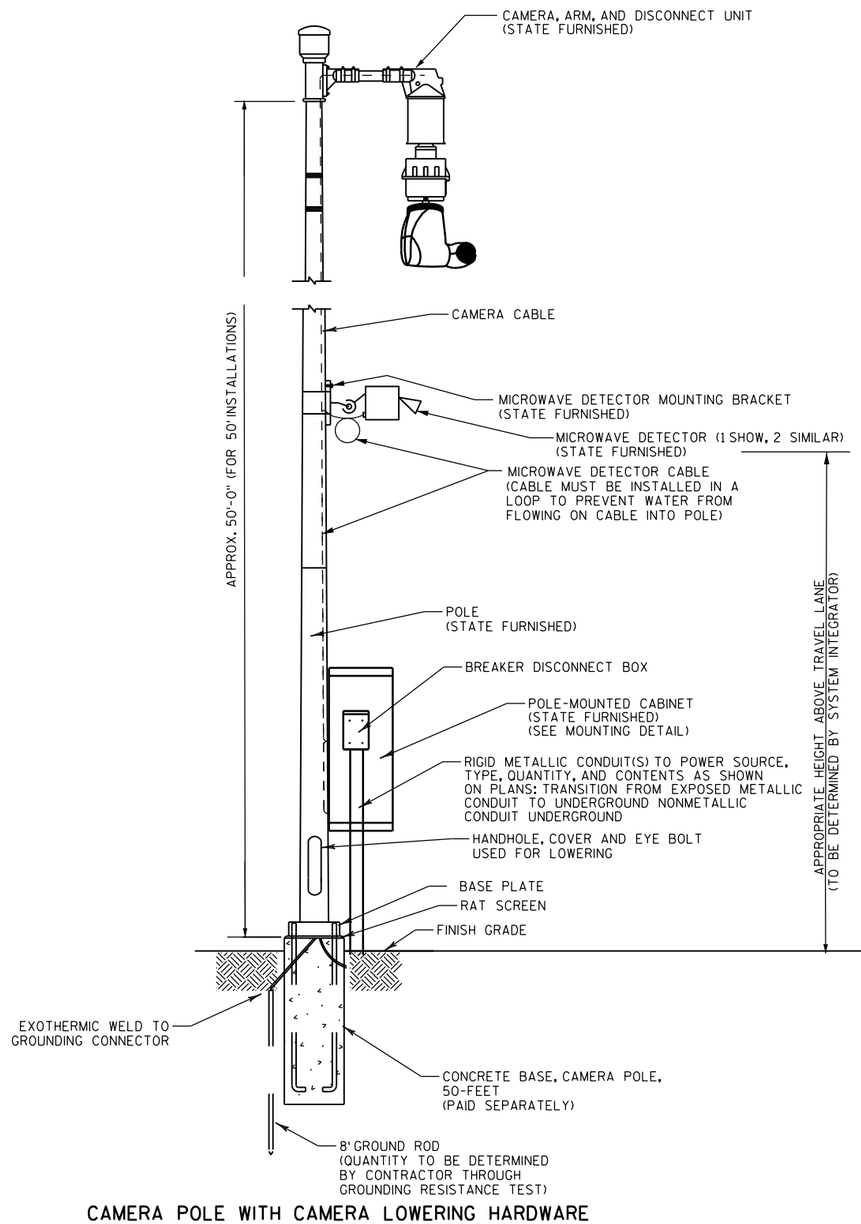
## FTMS STANDARD ABBREVIATIONS

| | |
|---|---|
| CB | CONTROLLER CABINET |
| CCTV | CLOSED CIRCUIT TELEVISION SITE |
| CV | COMMUNICATIONS VAULT |
| PB | PULL BOX |
| EX | EXISTING |

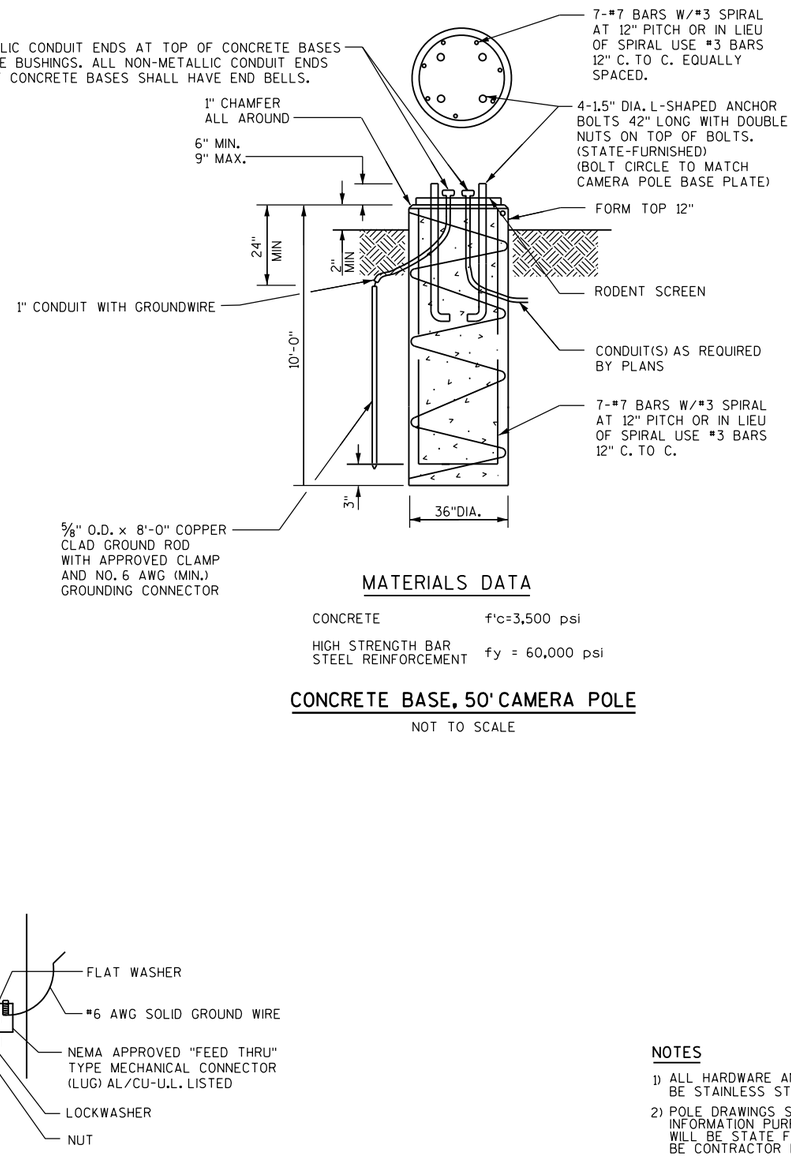
## FTMS GENERAL NOTES

1. THESE PLANS AND THE ASSOCIATED SPECIAL PROVISIONS REFLECT CONDITIONS KNOWN DURING THE DEVELOPMENT OF THE PLANS AND TECHNICAL SPECIAL PROVISIONS. ALL SCALES, DIMENSIONS AND LOCATIONS SHOWN IN THESE PLANS ARE APPROXIMATE. ACTUAL PHYSICAL FIELD CONDITIONS SHALL PROVIDE THE BASIS FOR THE APPLICATION OF WORK SHOWN IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR THE APPLICATION OF ALL WORK SHOWN IN THE PLANS TO THE ACTUAL PHYSICAL FIELD CONDITIONS TO PROVIDE A COMPLETE AND ACCEPTED PROJECT. IN THE EVENT THAT ACTUAL PHYSICAL FIELD CONDITIONS AFFECT OR PREVENT THE APPLICATION OR PROGRESSION OF ANY WORK SHOWN IN THE PLANS OR TECHNICAL SPECIAL PROVISIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY, AND PRIOR TO ANY FURTHER WORK ACTIVITY. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY LOCATION CHANGES OTHER THAN MINOR ADJUSTMENTS.
2. BE AWARE THAT ALL EXISTING UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES WITHIN THE SCOPE OF THIS PROJECT MAY NOT BE LOCATED IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR LOCATING AND AVOIDING ALL UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES.
3. BE AWARE THAT NO TEST BORINGS WERE MADE WHERE CONDUITS, PULLBOXES, POLES, CABINET FOUNDATIONS, OR OTHER EQUIPMENT IS TO BE INSTALLED. THE CONTRACTOR IS FULLY RESPONSIBLE FOR EXAMINING THE JOB SITE CONDITIONS BEFORE SUBMITTING BID PROPOSALS.
4. NO TREES (AND/OR SHRUBS) SHALL BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.
5. AREAS WITHIN THE RIGHT-OF-WAY DISTURBED SPECIFICALLY FOR FTMS CONSTRUCTION SHALL BE RESTORED TO THE ORIGINAL CONDITION WITH TOPSOIL, FERTILIZER, SEED, AND EROSION MAT, AND SHALL BE INCLUDED IN THE COST OF INSTALLING FTMS ITEMS. RESTORATION FOR AREAS DISTURBED FOR OTHER CONSTRUCTION OPERATIONS BUT ALSO CONTAINING FTMS CONSTRUCTION SHALL BE DONE ACCORDING TO REQUIREMENTS AND PAYMENT PROVISIONS FOR THE OTHER CONSTRUCTION OPERATIONS.
6. THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
7. DUE TO RAMP, LANE, SHOULDER CLOSURE RESTRICTIONS, AND WORK UNDER OTHER CONTRACTS, SOME WORK MAY BE REQUIRED TO BE PERFORMED AT NIGHT.
8. THE CONTRACTOR IS FULLY RESPONSIBLE FOR COORDINATING RAMP, LANE, SHOULDER, AND ROADWAY CLOSURES WITH OTHER CONTRACTS IN THE AREA.
9. THE CONTRACTOR SHALL CONTACT THE WISDOT STATEWIDE TRAFFIC OPERATIONS CENTER AT (414) 227-2166 FIVE (5) WORKING DAYS PRIOR TO ENTERING ANY EXISTING WISDOT FTMS OR ITS CABINET.
10. ALL LOOP DETECTORS ARE STATIONED TO CENTER OF LEADING EDGE AS APPROACHED BY NORMAL VEHICLE PATH.
11. HAND DIG TRENCHES CROSSING EXISTING CONDUIT CONTAINING FIBER OPTIC CABLE.
12. VISUALLY VERIFY DEPTHS OF EXISTING CONDUITS CONTAINING FIBER OPTIC CABLE PRIOR TO CROSSING BY DIRECTIONAL BORE OR SPECIAL METHOD.

NOTIFY THE REGIONAL TRAFFIC UNIT (PRIMARY 608-246-5367, SECONDARY 608-246-5362), A MINIMUM OF TWO (2) WEEKS PRIOR TO STAKING THE ITS ITEMS.




CAMERA POLE WITH CAMERA LOWERING HARDWARE

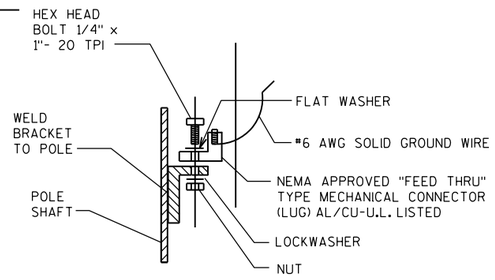



## MATERIALS DATA

| | |
|---|---|
| CONCRETE | f'c=3,500 psi |
| HIGH STRENGTH BAR STEEL REINFORCEMENT | fy = 60,000 psi |

CONCRETE BASE, 50' CAMERA POLE

NOT TO SCALE



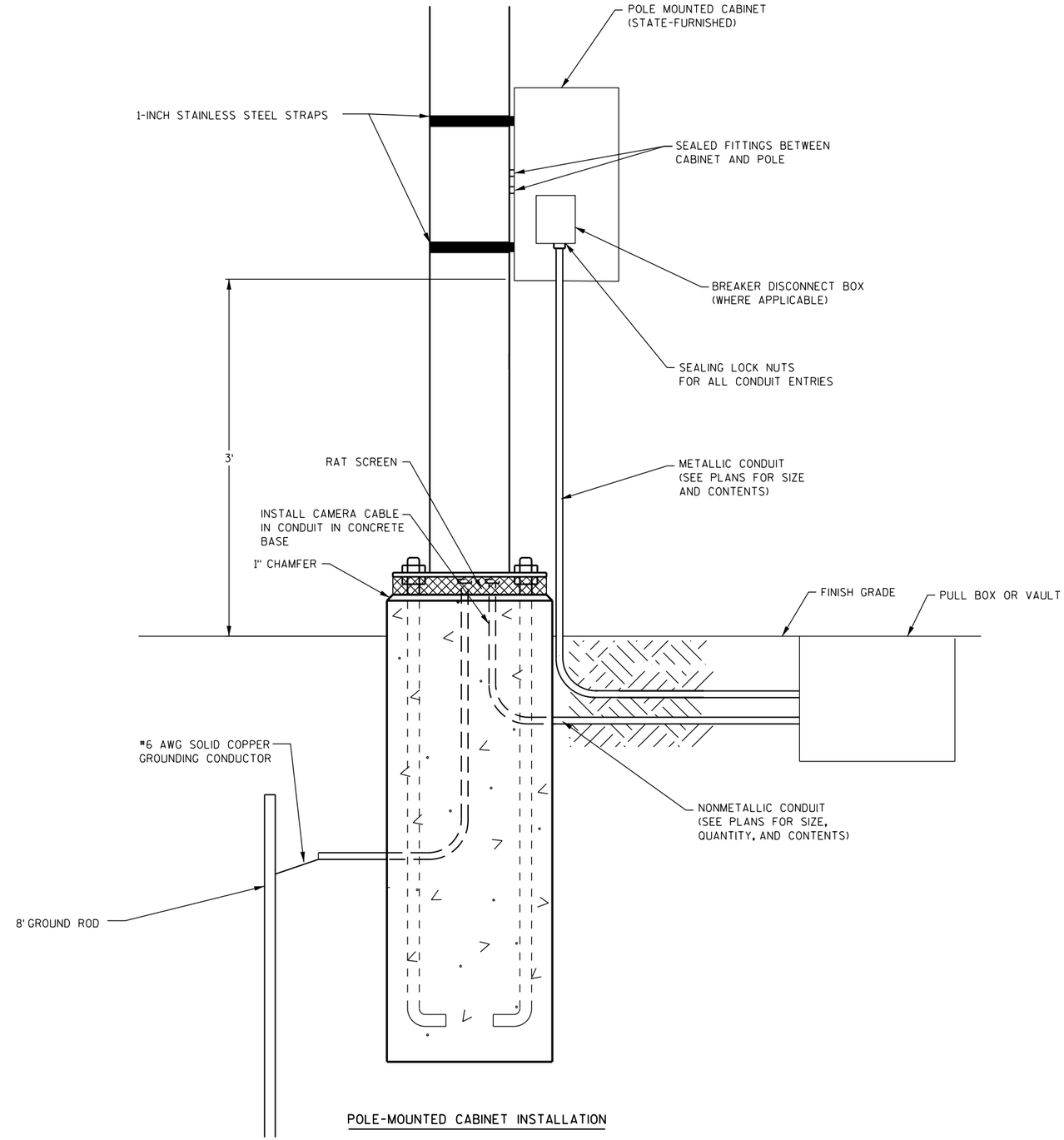

FIELD INSTALLED GROUNDING LUG

## NOTES

1) ALL HARDWARE AND FASTENERS SHALL BE STAINLESS STEEL
2) POLE DRAWINGS SHOWN FOR BIDDING INFORMATION PURPOSES ONLY. POLES WILL BE STATE FURNISHED. BASE TO BE CONTRACTOR DESIGNED.
3) CONTRACTOR SHALL CONFIRM BOLT PATTERN OF CAMERA POLE PRIOR TO CONSTRUCTION OF CONCRETE BASE.
4) CONTRACTOR SHALL INSTALL GROUNDING LUG AS SHOWN

CAMERA POLES & FOUNDATIONS

2




POLE-MOUNTED CABINET INSTALLATION

2

PROPOSED LIGHTING CABINET
CONNECT POWER DISTRIBUTION WIRES
TO SEPARATE BREAKER IN PEDESTAL

SPLICING BY OTHERS
CONTACT JAMES LOWE OF MATC
AT (608) 243-4898 TO COORDINATE
SPLICING

EXCV1601

PB1601

PB1602

PB1603

(1) 2-INCH NONMETALLIC CONDUIT WITH
(1) 6-COUNT FOC (S-F) AND
(1) NO. 12 AWG LIGHTING WIRE

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (1) 6-COUNT FOC (S-F) AND
(1) NO. 12 AWG LIGHTING WIRE

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (1) 6-COUNT FOC (S-F) AND
(1) NO. 12 AWG LIGHTING WIRE
(1) WITH (3) NO. 4 AWG LIGHTING WIRES

(1) 2-INCH NONMETALLIC CONDUIT WITH
(1) NO. 12 AWG LIGHTING WIRE
(1) WITH (3) NO. 4 AWG LIGHTING WIRES

(1) 2-INCH METALLIC CONDUIT WITH
(3) NO. 4 AWG LIGHTING WIRES

CCTV-11-0131 / SDS-11-0161
(1) 50-FOOT CAMERA POLE CONCRETE BASE
(1) 50-FOOT CAMERA POLE (S-F)
(1) CCTV CAMERA (S-F)
(2) MICROWAVE VEHICLE DETECTORS (S-F)
(1) POLE-MOUNTED CABINET (S-F)
(1) BREAKER DISCONNECT BOX
(1) F.O. TERMINATION PANEL (S-F)
(6) F.O. TERMINATIONS
(1) ETHERNET SWITCH (S-F)

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (1) 6-COUNT FOC (S-F) AND
(1) NO. 12 AWG LIGHTING WIRE

CAMERA ORIENTATION

1048ML

745'RW

STH 16

I SIGN

SIGN

POST

GUY

RIPRAP

INL

N

2

| PROJECT NO: 1161-02-74 | HWY: IH 39 | COUNTY: COLUMBIA | FTMS DESIGN SHEET | SHEET 54 | E |
|---|---|---|---|---|---|

FILE NAME : \\mlww400\ingrproj\66067\11610274_WIS16_Col_Co\11610274_ftms.dgn PLOT DATE : 8/31/2017 PLOT BY : pkutz PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

## LEGEND

- SLOPE INTERCEPT
- SILT FENCE
- CULVERT PIPE CHECKS
- ROCK BAGS FOR SILT FENCE RELIEF POINT
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE A
- RIPRAP MEDIUM
- SURFACE WATER FLOW EXISTING
- SURFACE WATER FLOW PROPOSED

ALL EXISTING INLETS WITHIN THE PROJECT LIMITS SHALL RECEIVE INLET PROTECTION.

THE FIRST SET OF EXISTING INLETS DOWNSTREAM OF THE CONSTRUCTION LIMITS SHALL RECEIVE INLET PROTECTION.

FINISHING ITEMS FOR TOPSOIL, SEED, FERTILIZER, MULCH, AND EROSION MAT ARE SHOWN ON TYPICAL SECTIONS AND MISCELLANEOUS QUANTITIES.

N

BEGIN PROJECT
STA 713'EB'+50.00

EXISTING R/W

706'EB'
708'EB'
710'EB'
712'EB'
714'EB'
716'WB'
716'EB'
718'WB'
718'EB'

STH 16

STA 719'EB'+00

MATCH LINE

GUY
GUY

EXISTING R/W

BOECK RD

EXISTING R/W

EXISTING R/W

2

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | EROSION CONTROL PLAN | SHEET 55 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-022001-EC.DWG
LAYOUT NAME - 01

PLOT DATE : 10/19/2017 9:09 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

## LEGEND

- SLOPE INTERCEPT
- SILT FENCE
- CULVERT PIPE CHECKS
- ROCK BAGS FOR SILT FENCE RELIEF POINT
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE A
- RIPRAP MEDIUM
- SURFACE WATER FLOW EXISTING
- SURFACE WATER FLOW PROPOSED

ALL EXISTING INLETS WITHIN THE PROJECT LIMITS SHALL RECEIVE INLET PROTECTION.

THE FIRST SET OF EXISTING INLETS DOWNSTREAM OF THE CONSTRUCTION LIMITS SHALL RECEIVE INLET PROTECTION.

FINISHING ITEMS FOR TOPSOIL, SEED, FERTILIZER, MULCH, AND EROSION MAT ARE SHOWN ON TYPICAL SECTIONS AND MISCELLANEOUS QUANTITIES.

N

EQUATION

STA BACK = 732'WB'+43.50
STA AHEAD = 732'RWB'+43.50

EQUATION

STA BACK = 731'EB'+20.48
STA AHEAD = 731'REB'+20.48

LA DAWN DR

MURPHY RD

STH 16

STA 719'EB'+00

STA 733'EB'+00

MATCH LINE

720'WB'
720'EB'
722'WB'
722'EB'
724'WB'
724'EB'
726'WB'
726'EB'
728'WB'
728'EB'
730'WB'
730'EB'
732'WB'
732'REB'

TYPE A
TYPE B
TYPE C

EXISTING R/W

SIGN

GUY

WV

MH

INL

FLAG

SLOPE INTERCEPT, TYP.

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | EROSION CONTROL PLAN | SHEET 56 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-022001-EC.DWG
LAYOUT NAME - 02

PLOT DATE : 10/19/2017 9:09 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

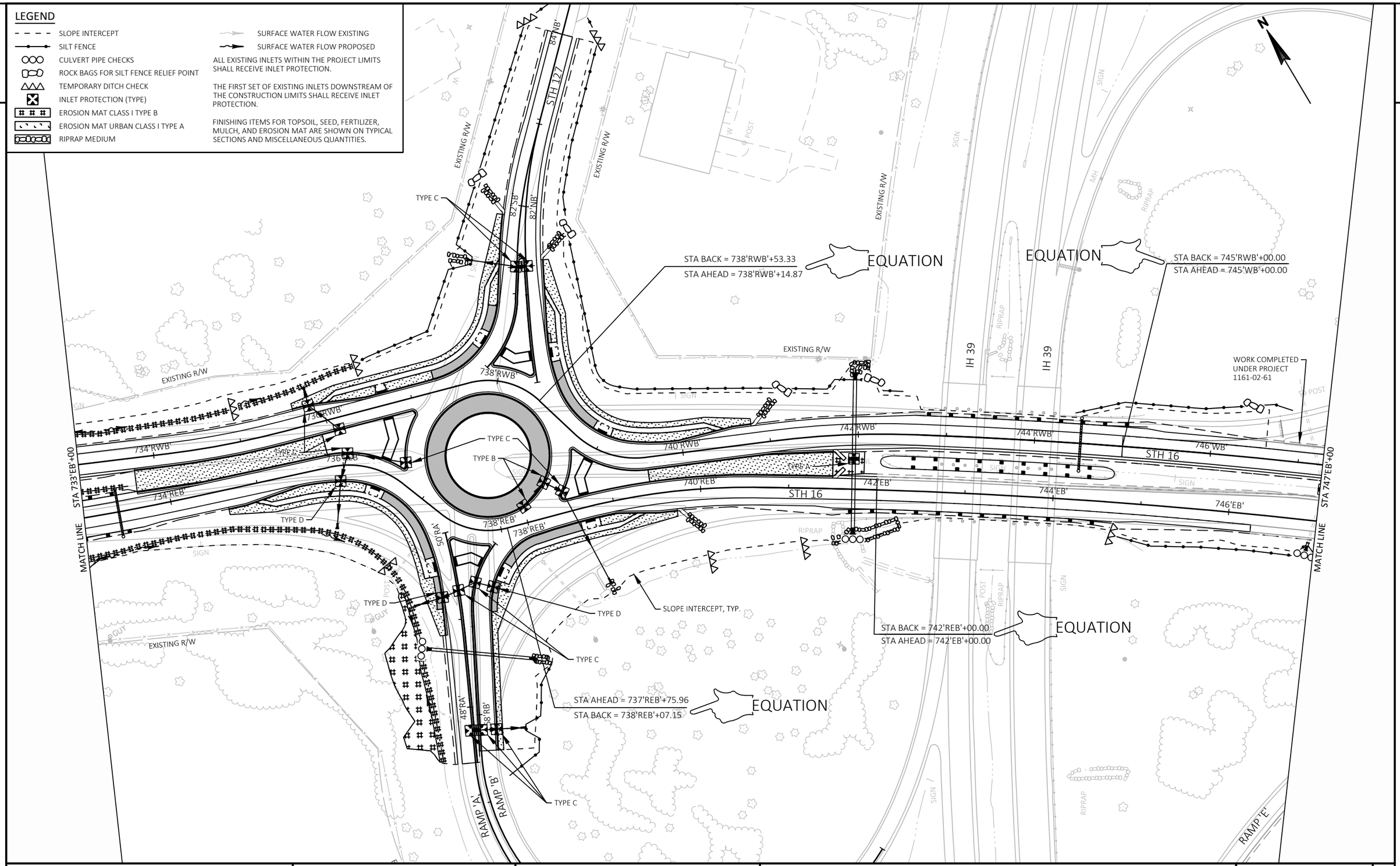
## LEGEND

- SLOPE INTERCEPT
- SILT FENCE
- CULVERT PIPE CHECKS
- ROCK BAGS FOR SILT FENCE RELIEF POINT
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE A
- RIPRAP MEDIUM
- SURFACE WATER FLOW EXISTING
- SURFACE WATER FLOW PROPOSED

ALL EXISTING INLETS WITHIN THE PROJECT LIMITS SHALL RECEIVE INLET PROTECTION.

THE FIRST SET OF EXISTING INLETS DOWNSTREAM OF THE CONSTRUCTION LIMITS SHALL RECEIVE INLET PROTECTION.

FINISHING ITEMS FOR TOPSOIL, SEED, FERTILIZER, MULCH, AND EROSION MAT ARE SHOWN ON TYPICAL SECTIONS AND MISCELLANEOUS QUANTITIES.




| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | EROSION CONTROL PLAN | SHEET 57 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-022001-EC.DWG
LAYOUT NAME - 03

PLOT DATE : 10/19/2017 9:09 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

## LEGEND

- SLOPE INTERCEPT
- SILT FENCE
- CULVERT PIPE CHECKS
- ROCK BAGS FOR SILT FENCE RELIEF POINT
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE A
- RIPRAP MEDIUM
- SURFACE WATER FLOW EXISTING
- SURFACE WATER FLOW PROPOSED

ALL EXISTING INLETS WITHIN THE PROJECT LIMITS SHALL RECEIVE INLET PROTECTION.

THE FIRST SET OF EXISTING INLETS DOWNSTREAM OF THE CONSTRUCTION LIMITS SHALL RECEIVE INLET PROTECTION.

FINISHING ITEMS FOR TOPSOIL, SEED, FERTILIZER, MULCH, AND EROSION MAT ARE SHOWN ON TYPICAL SECTIONS AND MISCELLANEOUS QUANTITIES.

N

RAMP 'C'
RAMP 'D'
RAMP 'E'
EXISTING R/W
RIPRAP
WORK COMPLETED UNDER PROJECT 1161-02-61
CTH CX/WISCONSIN ST
STH 16
STH 16
748'WB'
750'WB'
752'WB'
754'WB'
756'WB'
758'WB'
760'WB'
748'EB'
750'EB'
752'EB'
754'EB'
756'EB'
758'EB'
760'EB'
TYPE A
TYPE A
STA 747'EB'+00
STA 761'EB'+00
MATCH LINE
MATCH LINE
SLOPE INTERCEPT, TYP.
EQUATION
STA BACK = 760'EB'+12.58
STA AHEAD = 760'NEB'+12.58
SUBSTATION

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | EROSION CONTROL PLAN | SHEET 58 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-022001-EC.DWG
LAYOUT NAME - 04

PLOT DATE : 10/19/2017 9:09 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

2

2

## LEGEND

- SLOPE INTERCEPT
- SILT FENCE
- CULVERT PIPE CHECKS
- ROCK BAGS FOR SILT FENCE RELIEF POINT
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE A
- RIPRAP MEDIUM
- SURFACE WATER FLOW EXISTING
- SURFACE WATER FLOW PROPOSED

ALL EXISTING INLETS WITHIN THE PROJECT LIMITS SHALL RECEIVE INLET PROTECTION.

THE FIRST SET OF EXISTING INLETS DOWNSTREAM OF THE CONSTRUCTION LIMITS SHALL RECEIVE INLET PROTECTION.

FINISHING ITEMS FOR TOPSOIL, SEED, FERTILIZER, MULCH, AND EROSION MAT ARE SHOWN ON TYPICAL SECTIONS AND MISCELLANEOUS QUANTITIES.

N

CTH CX/WISCONSIN ST

SILVER LAKE DRIVE

EXISTING R/W

STA 761'EB'+00

MATCH LINE

762'WB'

764'WB'

766'WB'

762'NEB'

764'NEB'

766'NEB'

768'EB'

770'EB'

772'EB'

774'EB'

STA 775'EB'+00

STH 16

SLOPE INTERCEPT, TYP.

TYPE C

RIPRAP

SLOPE INTERCEPT, TYP.

STA BACK = 766'NEB'+78.21

STA AHEAD = 766'EB'+78.63

EQUATION

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | EROSION CONTROL PLAN | SHEET 59 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-022001-EC.DWG
LAYOUT NAME - 05

PLOT DATE : 10/19/2017 9:09 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

2

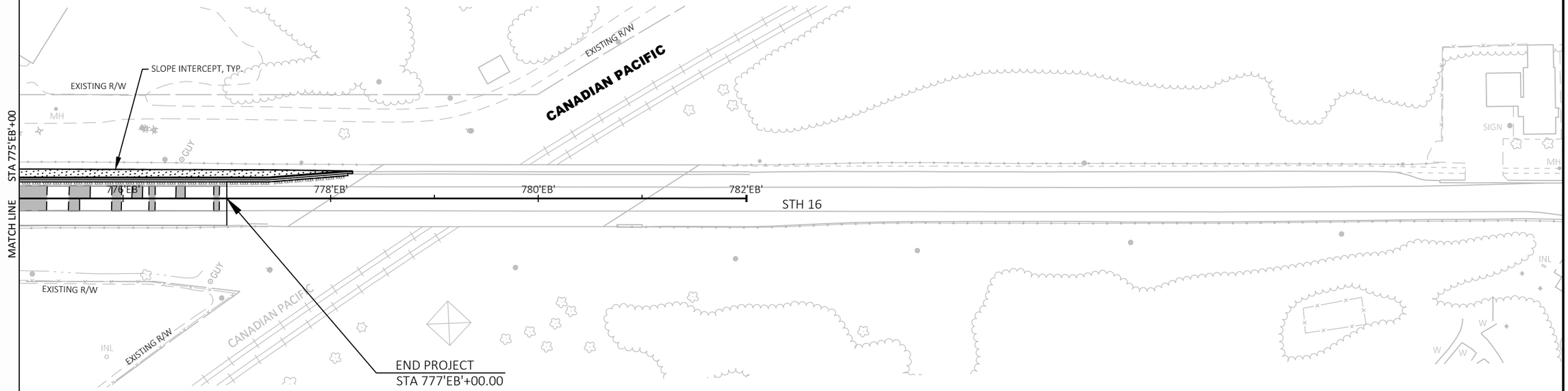
## LEGEND

- SLOPE INTERCEPT
- SILT FENCE
- CULVERT PIPE CHECKS
- ROCK BAGS FOR SILT FENCE RELIEF POINT
- TEMPORARY DITCH CHECK
- INLET PROTECTION (TYPE)
- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE A
- RIPRAP MEDIUM
- SURFACE WATER FLOW EXISTING
- SURFACE WATER FLOW PROPOSED

ALL EXISTING INLETS WITHIN THE PROJECT LIMITS SHALL RECEIVE INLET PROTECTION.

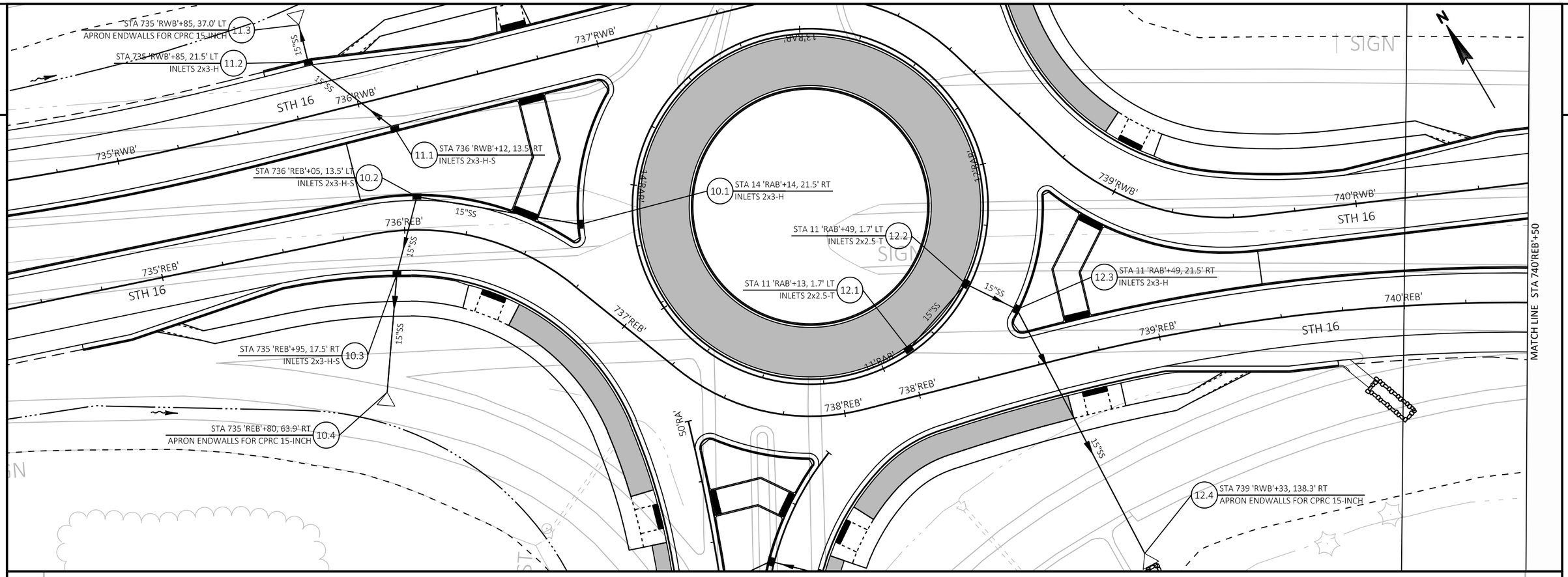
THE FIRST SET OF EXISTING INLETS DOWNSTREAM OF THE CONSTRUCTION LIMITS SHALL RECEIVE INLET PROTECTION.

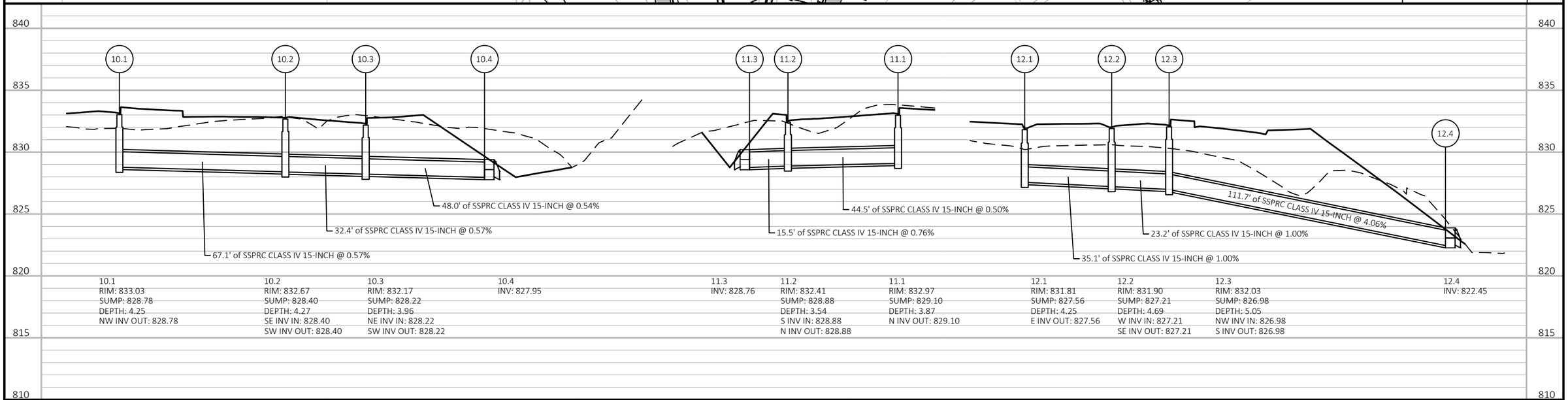
FINISHING ITEMS FOR TOPSOIL, SEED, FERTILIZER, MULCH, AND EROSION MAT ARE SHOWN ON TYPICAL SECTIONS AND MISCELLANEOUS QUANTITIES.




| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | EROSION CONTROL PLAN | SHEET 60 | E |
|---|---|---|---|---|---|


FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-022001-EC.DWG
LAYOUT NAME - 06
PLOT DATE : 10/19/2017 9:09 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

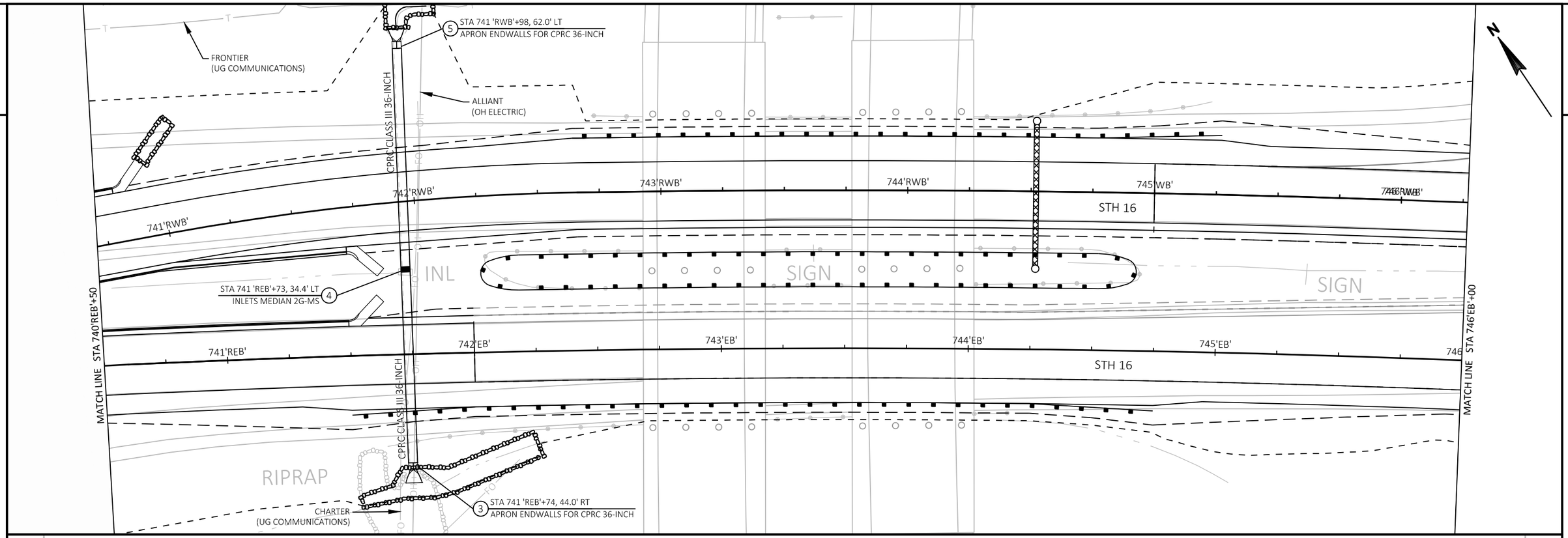


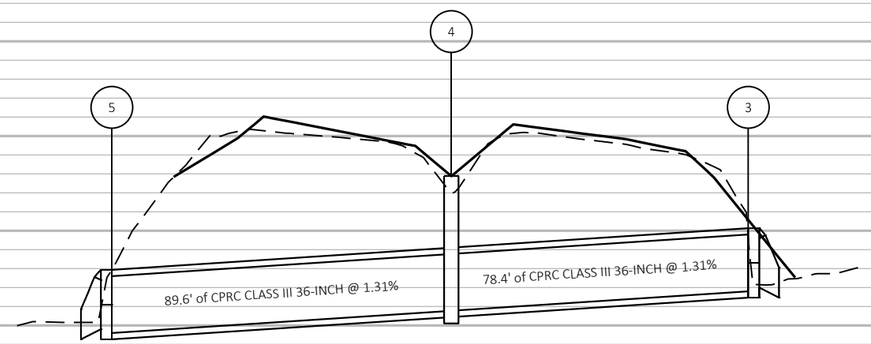




| 10.1 | 10.2 | 10.3 | 10.4 | 11.3 | 11.2 | 11.1 | 12.1 | 12.2 | 12.3 | 12.4 |
|---|---|---|---|---|---|---|---|---|---|---|
| RIM: 833.03 | RIM: 832.67 | RIM: 832.17 | INV: 827.95 | INV: 828.76 | RIM: 832.41 | RIM: 832.97 | RIM: 831.81 | RIM: 831.90 | RIM: 832.03 | INV: 822.45 |
| SUMP: 828.78 | SUMP: 828.40 | SUMP: 828.22 | | | SUMP: 828.88 | SUMP: 829.10 | SUMP: 827.56 | SUMP: 827.21 | SUMP: 826.98 | |
| DEPTH: 4.25 | DEPTH: 4.27 | DEPTH: 3.96 | | | DEPTH: 3.54 | DEPTH: 3.87 | DEPTH: 4.25 | DEPTH: 4.69 | DEPTH: 5.05 | |
| NW INV OUT: 828.78 | SE INV IN: 828.40 | NE INV IN: 828.22 | | | S INV IN: 828.88 | N INV OUT: 829.10 | E INV OUT: 827.56 | W INV IN: 827.21 | NW INV IN: 826.98 | |
| | SW INV OUT: 828.40 | SW INV OUT: 828.22 | | | N INV OUT: 828.88 | | | SE INV OUT: 827.21 | S INV OUT: 826.98 | |

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | STORM SEWER LAYOUT | SHEET 61 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-022501-SS.DWG
LAYOUT NAME - 01
PLOT DATE : 10/19/2017 9:10 AM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42



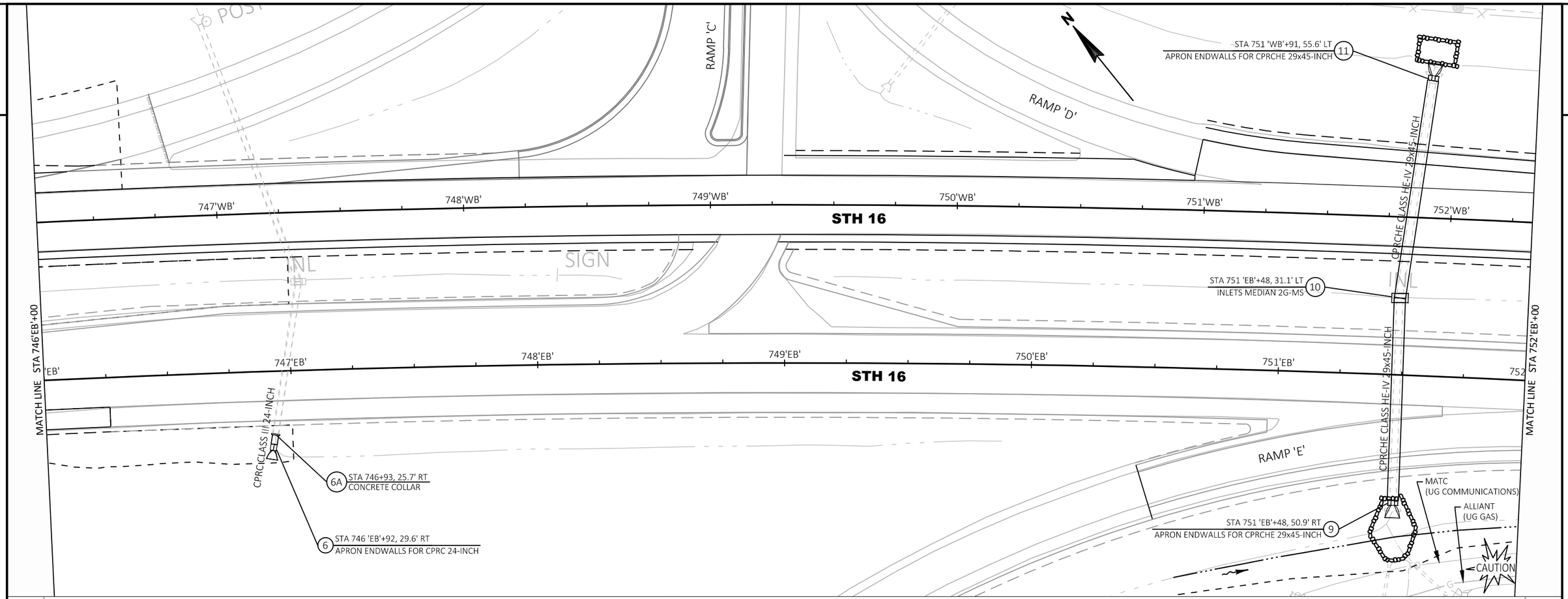



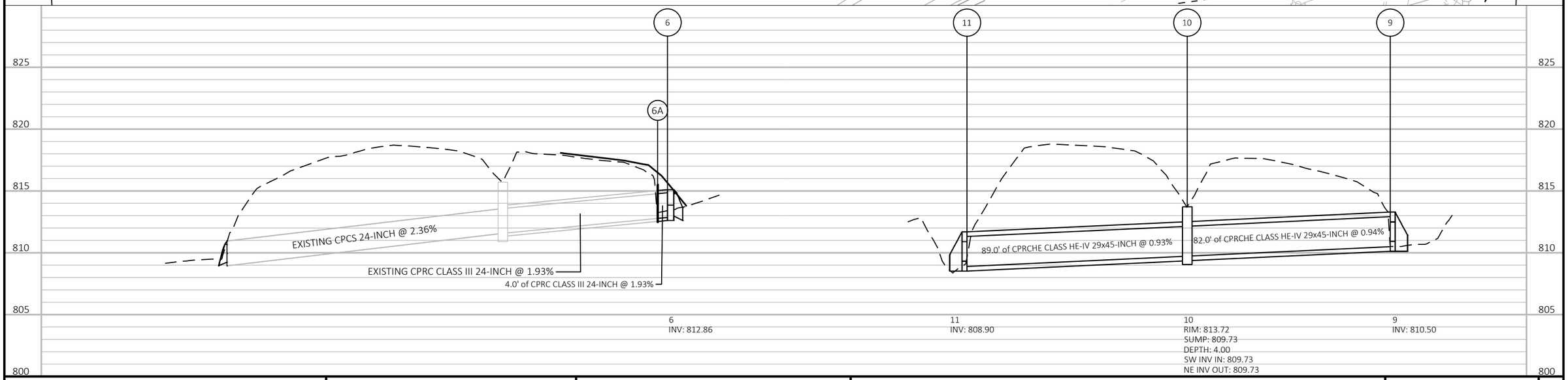

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | STORM SEWER LAYOUT | SHEET 62 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-022501-SS.DWG
LAYOUT NAME - 02

PLOT DATE : 10/19/2017 9:10 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2




| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | STORM SEWER LAYOUT | SHEET 63 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-022501-SS.DWG
LAYOUT NAME - 03
PLOT DATE : 10/19/2017 9:10 AM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

753'WB' 754'WB' 755'WB' 756'WB' 757'WB' 758'WB'

STH 16

753'EB' 754'EB' 755'EB' 756'EB' 757'EB' 758'EB'

STH 16

MATCH LINE STA 752'EB'+00

MATCH LINE STA 758'EB'+00

CHARTER
(UG COMMUNICATIONS)

CITY OF PORTAGE
(UG SANITARY)

SIGN

SIGN

SIGN

CPRC CLASS III 30-INCH

12A STA 755+45, 25.5' RT
CONCRETE COLLAR

12 STA 755 'EB'+44, 31.5' RT
APRON ENDWALLS FOR CPRC 30-INCH

MATC
(UG COMMUNICATIONS)

CAUTION

ALLIANT (UG GAS)

ALLIANT (UG ELECTRIC)

FRONTIER
(UG COMMUNICATIONS)

ALLIANT
(OH ELECTRIC)

FRONTIER
(UG COMMUNICATIONS)

ALLIANT (UG ELECTRIC)

12A

12

EXISTING CPRC CLASS III 30-INCH @ 0.76%

6.0' of CPRC CLASS III 30-INCH @ 1.00%

12
INV: 812.41

830 825 820 815 810 805 800

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | STORM SEWER LAYOUT | SHEET 64 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-022501-SS.DWG
LAYOUT NAME - 04

PLOT DATE : 10/19/2017 9:10 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

STA 771 'EB'+05, 19.5' LT
INLETS 2x3-H
40.1

40.3 STA 771 +25, 42.5' LT
APRON ENDWALLS FOR CPRC 15-INCH

40.2 STA 771 +25, 19.5' LT
INLETS 2x3-H

FRONTIER
(UG COMMUNICATIONS)

ALLIANT
(OH ELECTRIC)

41.3 STA 774 'EB'+19, 40.0' LT
APRON ENDWALLS FOR CPRC 15-INCH

41.2 STA 774 'EB'+19, 19.5' LT
INLETS 2x3-H

41.1 STA 774 'EB'+39, 19.5' LT
INLETS 2x3-H

MH

RIPRAP

15"SS

15"SS

15"SS

MATCH LINE STA 770'EB'+00

MATCH LINE STA 776'EB'+00

'EB' 771'EB' 772'EB' 773'EB' 774'EB' 775'EB' 776

**STH 16**

ALLIANT
(UG GAS)

CAUTION

SIGN

SIGN

ALLIANT
(OH ELECTRIC)

840 835 830 825 820 815 810

850 845 840 835 830 825 820

40.1 40.2 40.3

20.1' of SSPRC CLASS IV 15-INCH @ 1.00%
23.0' of SSPRC CLASS IV 15-INCH @ 2.00%

| 40.1 | 40.2 | 40.3 |
|---|---|---|
| RIM: 834.84 | RIM: 835.38 | INV: 829.93 |
| SUMP: 830.59 | SUMP: 830.39 | |
| DEPTH: 4.25 | DEPTH: 4.98 | |
| SE INV OUT: 830.59 | NW INV IN: 830.39 | |
| | NE INV OUT: 830.39 | |

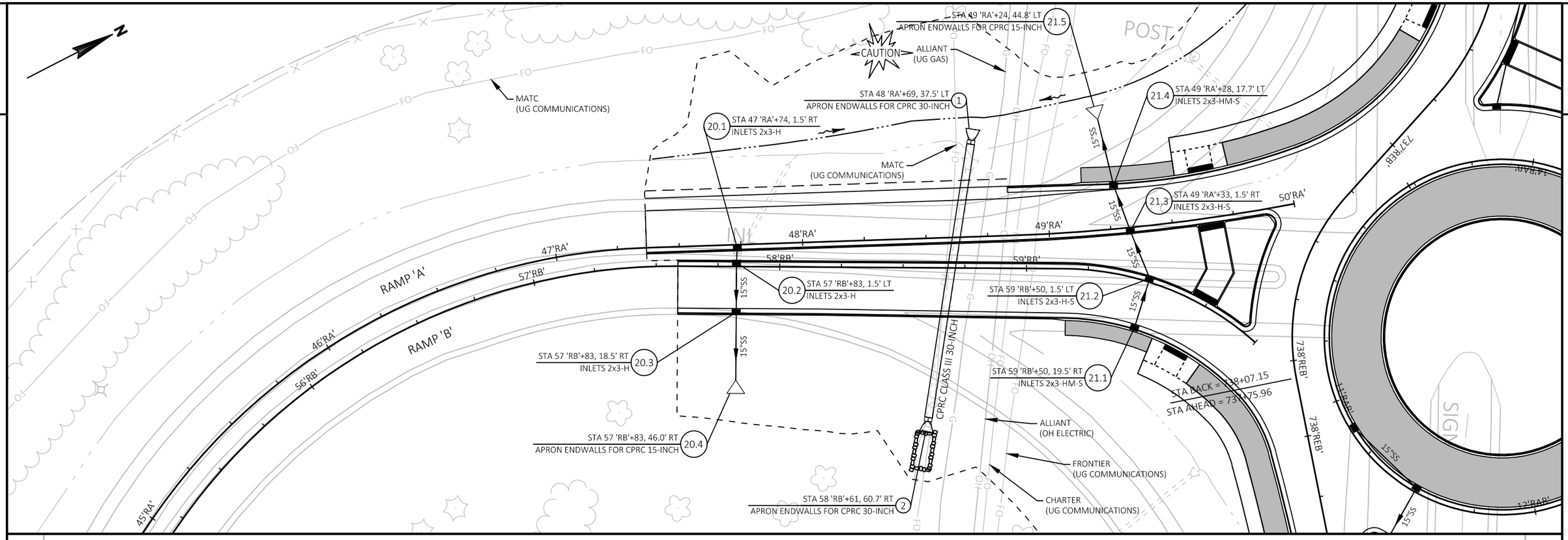
41.1 41.2 41.3

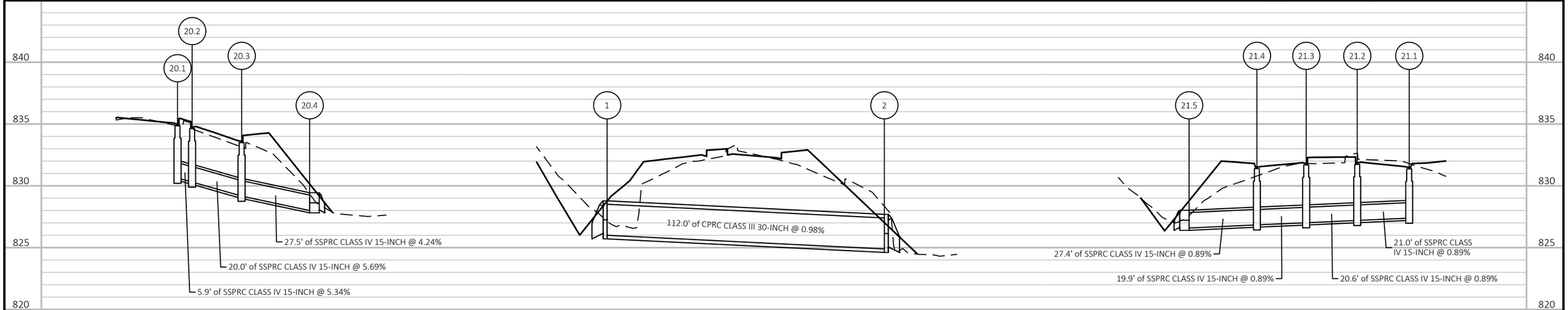
20.0' of SSPRC CLASS IV 15-INCH @ 2.67%
20.5' of SSPRC CLASS IV 15-INCH @ 2.00%

| 41.1 | 41.2 | 41.3 |
|---|---|---|
| RIM: 843.11 | RIM: 842.58 | INV: 837.92 |
| SUMP: 838.86 | SUMP: 838.33 | |
| DEPTH: 4.25 | DEPTH: 4.25 | |
| NW INV OUT: 838.86 | SE INV IN: 838.33 | |
| | NE INV OUT: 838.33 | |

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | STORM SEWER LAYOUT | SHEET 65 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-022501-SS.DWG
LAYOUT NAME - 05
PLOT DATE : 10/19/2017 9:11 AM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

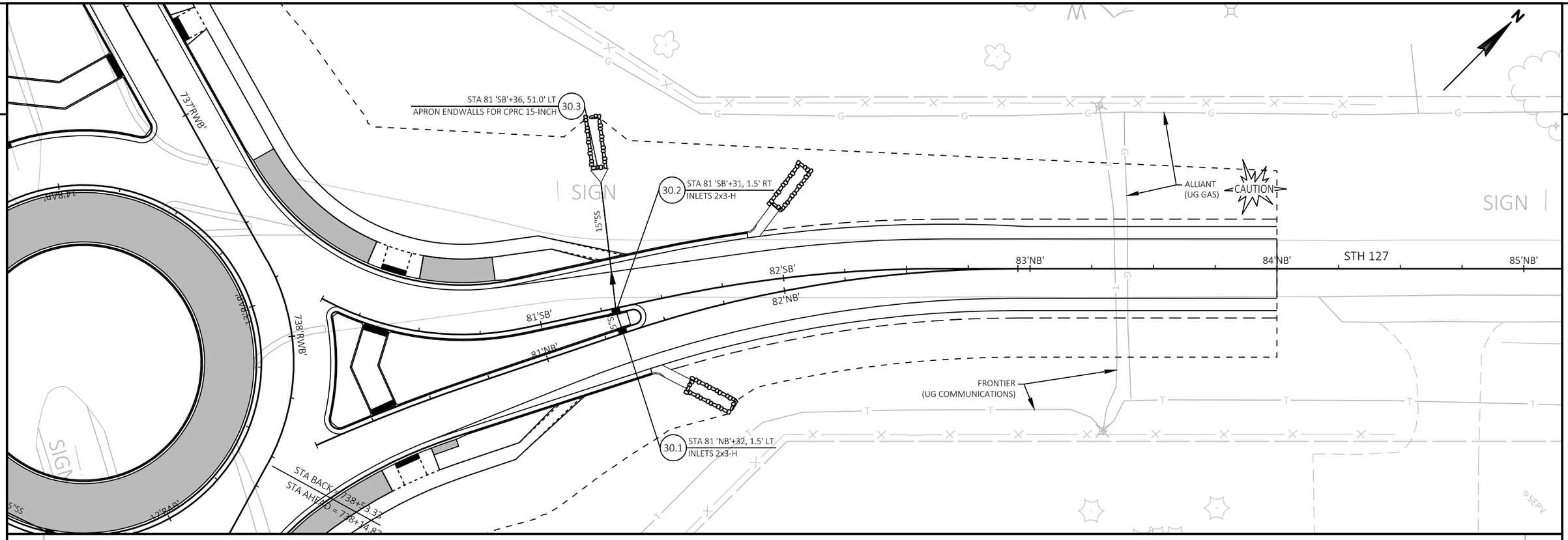


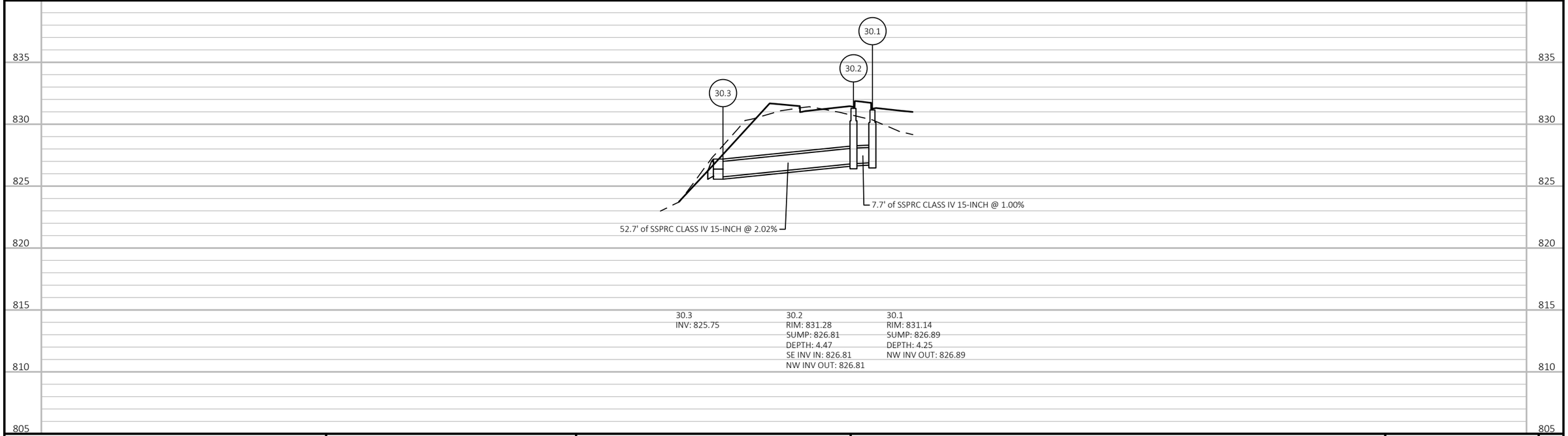




| 20.1 | 20.2 | 20.3 | 20.4 | 1 | 2 | 21.5 | 21.4 | 21.3 | 21.2 | 21.1 |
|---|---|---|---|---|---|---|---|---|---|---|
| RIM: 834.87 | RIM: 834.63 | RIM: 833.49 | INV: 828.00 | INV: 826.00 | INV: 824.90 | INV: 826.59 | RIM: 831.39 | RIM: 831.70 | RIM: 831.74 | RIM: 831.38 |
| SUMP: 830.62 | SUMP: 830.30 | SUMP: 829.17 | | | | | SUMP: 826.84 | SUMP: 827.01 | SUMP: 827.20 | SUMP: 827.39 |
| DEPTH: 4.25 | DEPTH: 4.32 | DEPTH: 4.32 | | | | | DEPTH: 4.55 | DEPTH: 4.68 | DEPTH: 4.54 | DEPTH: 3.99 |
| SE INV OUT: 830.62 | NW INV IN: 830.30 | NW INV IN: 829.17 | | | | | E INV IN: 826.84 | E INV IN: 827.01 | SE INV IN: 827.20 | NW INV OUT: 827.39 |
| | SE INV OUT: 830.30 | SE INV OUT: 829.17 | | | | | W INV OUT: 826.84 | W INV OUT: 827.01 | W INV OUT: 827.20 | |

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | STORM SEWER LAYOUT | SHEET 66 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-022502-SS.DWG
LAYOUT NAME - 01
PLOT DATE : 10/31/2017 9:08 AM
PLOT BY : BENJAMIN OITZINGER
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42




| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | STORM SEWER LAYOUT | SHEET 67 | E |
|---|---|---|---|---|---|

## STORM SEWER STRUCTURE DATA

| STRUCTURE NUMBER | ALIGNMENT | STATION | OFFSET | LOCATION | TYPE | RIM/GRATE ELEVATION | STRUCTURE INV ELEV | TOTAL DEPTH | SUMP DEPTH | CONNECTING PIPES | PIPE DIRECTION | PIPE SIZE & TYPE | PIPE INVERT | PIPE ROUTE | PIPE LENGTH | PIPE SLOPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10.1 | RAB | 14+14.33 | 21.50 | RT | INLETS 2X3-H | 833.03 | 828.78 | 4.25' | 0.00' | 10.1-10.2 OUT | NW | SSPRC CLASS IV 15-INCH | 828.78 | TO STR: 10.2 | 67.06' | 0.57% | |
| 10.2 | 16EB-RAB | 736+05.00 | -13.50 | LT | INLETS 2X3-H-S | 832.67 | 828.40 | 4.27' | 0.00' | 10.1-10.2 IN<br>10.2-10.3 OUT | SE<br>SW | SSPRC CLASS IV 15-INCH<br>SSPRC CLASS IV 15-INCH | 828.40<br>828.40 | FROM STR: 10.1<br>TO STR: 10.3 | --<br>32.44' | --<br>0.57% | |
| 10.3 | 16EB-RAB | 735+95.05 | 17.48 | RT | INLETS 2X3-H-S | 832.17 | 828.22 | 3.96' | 0.00' | 10.2-10.3 IN<br>10.3-10.4 OUT | NE<br>SW | SSPRC CLASS IV 15-INCH<br>SSPRC CLASS IV 15-INCH | 828.22<br>828.22 | FROM STR: 10.2<br>TO STR: 10.4 | --<br>48.00' | --<br>0.54% | |
| 10.4 | 16EB-RAB | 735+79.71 | 63.95 | RT | APRON ENDWALLS FOR CPRC 15-INCH | | | | | 10.3-10.4 IN | NE | SSPRC CLASS IV 15-INCH | 827.95 | FROM STR: 10.3 | -- | -- | |
| 11.1 | 16WB-RAB | 736+12.00 | 13.50 | RT | INLETS 2X3-H-S | 832.97 | 829.10 | 3.87' | 0.00' | 11.1-11.2 OUT | N | SSPRC CLASS IV 15-INCH | 829.10 | TO STR: 11.2 | 44.51' | 0.50% | |
| 11.2 | 16WB-RAB | 735+84.50 | -21.50 | LT | INLETS 2X3-H | 832.41 | 828.88 | 3.54' | 0.00' | 11.1-11.2 IN<br>11.2-11.3 OUT | S<br>N | SSPRC CLASS IV 15-INCH<br>SSPRC CLASS IV 15-INCH | 828.88<br>828.88 | FROM STR: 11.1<br>TO STR: 11.3 | --<br>15.50' | --<br>0.76% | |
| 11.3 | 16WB-RAB | 735+84.50 | -37.00 | LT | APRON ENDWALLS FOR CPRC 15-INCH | | | | | 11.2-11.3 IN | S | SSPRC CLASS IV 15-INCH | 828.76 | FROM STR: 11.2 | -- | -- | |
| 12.1 | RAB | 11+13.00 | -1.71 | LT | INLETS 2X2.5-T | 831.81 | 827.56 | 4.25' | 0.00' | 12.1-12.2 OUT | E | SSPRC CLASS IV 15-INCH | 827.56 | TO STR: 12.2 | 35.14' | 1.00% | RUBBER ADJUSTMENT RINGS REQD |
| 12.2 | RAB | 11+49.38 | -1.71 | LT | INLETS 2X2.5-T | 831.90 | 827.21 | 4.69' | 0.00' | 12.1-12.2 IN<br>12.2-12.3 OUT | W<br>SE | SSPRC CLASS IV 15-INCH<br>SSPRC CLASS IV 15-INCH | 827.21<br>827.21 | FROM STR: 12.1<br>TO STR: 12.3 | --<br>23.21' | --<br>1.00% | RUBBER ADJUSTMENT RINGS REQD |
| 12.3 | RAB | 11+49.38 | 21.50 | RT | INLETS 2X3-H | 832.03 | 826.98 | 5.05' | 0.00' | 12.2-12.3 IN<br>12.3-12.4 OUT | NW<br>S | SSPRC CLASS IV 15-INCH<br>SSPRC CLASS IV 15-INCH | 826.98<br>826.98 | FROM STR: 12.2<br>TO STR: 12.4 | --<br>111.66' | --<br>4.06% | |
| 12.4 | 16EB-RAB | 738+74.38 | 84.53 | RT | APRON ENDWALLS FOR CPRC 15-INCH | | | | | 12.3-12.4 IN | N | SSPRC CLASS IV 15-INCH | 822.45 | FROM STR: 12.3 | -- | -- | |
| 20.1 | RAMPA-RAB | 47+73.50 | 1.50 | RT | INLETS 2X3-H | 834.87 | 830.62 | 4.25' | 0.00' | 20.1-20.2 OUT | SE | SSPRC CLASS IV 15-INCH | 830.62 | TO STR: 20.2 | 5.88' | 5.34% | |
| 20.2 | RAMPB-RAB | 57+82.50 | -1.50 | LT | INLETS 2X3-H | 834.63 | 830.30 | 4.32' | 0.00' | 20.1-20.2 IN<br>20.2-20.3 OUT | NW<br>SE | SSPRC CLASS IV 15-INCH<br>SSPRC CLASS IV 15-INCH | 830.30<br>830.30 | FROM STR: 20.1<br>TO STR: 20.3 | --<br>20.00' | --<br>5.69% | |
| 20.3 | RAMPB-RAB | 57+82.50 | 18.50 | RT | INLETS 2X3-H | 833.49 | 829.17 | 4.32' | 0.00' | 20.2-20.3 IN<br>20.3-20.4 OUT | NW<br>SE | SSPRC CLASS IV 15-INCH<br>SSPRC CLASS IV 15-INCH | 829.17<br>829.17 | FROM STR: 20.2<br>TO STR: 20.4 | --<br>27.50' | --<br>4.24% | |
| 20.4 | RAMPB-RAB | 57+82.50 | 46.00 | RT | APRON ENDWALLS FOR CPRC 15-INCH | | | | | 20.3-20.4 IN | NW | SSPRC CLASS IV 15-INCH | 828.00 | FROM STR: 20.3 | -- | -- | |
| 21.1 | RAMPB-RAB | 59+50.07 | 19.50 | RT | INLETS 2X3-HM-S | 831.38 | 827.39 | 3.99' | 0.00' | 21.1-21.2 OUT | NW | SSPRC CLASS IV 15-INCH | 827.39 | TO STR: 21.2 | 21.00' | 0.89% | |
| 21.2 | RAMPB-RAB | 59+50.00 | -1.50 | LT | INLETS 2X3-H-S | 831.74 | 827.20 | 4.54' | 0.00' | 21.1-21.2 IN<br>21.2-21.3 OUT | SE<br>W | SSPRC CLASS IV 15-INCH<br>SSPRC CLASS IV 15-INCH | 827.20<br>827.20 | FROM STR: 21.1<br>TO STR: 21.3 | --<br>20.64' | --<br>0.89% | |
| 21.3 | RAMPA-RAB | 49+32.80 | 1.50 | RT | INLETS 2X3-H-S | 831.70 | 827.01 | 4.68' | 0.00' | 21.2-21.3 IN<br>21.3-21.4 OUT | E<br>W | SSPRC CLASS IV 15-INCH<br>SSPRC CLASS IV 15-INCH | 827.01<br>827.01 | FROM STR: 21.2<br>TO STR: 21.4 | --<br>19.89' | --<br>0.89% | |
| 21.4 | RAMPA-RAB | 49+27.74 | -17.75 | LT | INLETS 2X3-HM-S | 831.39 | 826.84 | 4.55' | 0.00' | 21.3-21.4 IN<br>21.4-21.5 OUT | E<br>W | SSPRC CLASS IV 15-INCH<br>SSPRC CLASS IV 15-INCH | 826.84<br>826.84 | FROM STR: 21.3<br>TO STR: 21.5 | --<br>27.39' | --<br>0.89% | |
| 21.5 | RAMPA-RAB | 49+23.51 | -44.84 | LT | APRON ENDWALLS FOR CPRC 15-INCH | | | | | 21.4-21.5 IN | E | SSPRC CLASS IV 15-INCH | 826.59 | FROM STR: 21.4 | -- | -- | |
| 30.1 | 127NB-RAB | 81+32.41 | -1.50 | LT | INLETS 2X3-H | 831.14 | 826.89 | 4.25' | 0.00' | 30.1-30.2 OUT | NW | SSPRC CLASS IV 15-INCH | 826.89 | TO STR: 30.2 | 7.66' | 1.00% | |
| 30.2 | 127SB-RAB | 81+30.75 | 1.50 | RT | INLETS 2X3-H | 831.28 | 826.81 | 4.47' | 0.00' | 30.1-30.2 IN<br>30.2-30.3 OUT | SE<br>NW | SSPRC CLASS IV 15-INCH<br>SSPRC CLASS IV 15-INCH | 826.81<br>826.81 | FROM STR: 30.1<br>TO STR: 30.3 | --<br>52.74' | --<br>2.02% | |
| 30.3 | 127SB-RAB | 81+35.80 | -51.00 | LT | APRON ENDWALLS FOR CPRC 15-INCH | | | | | 30.2-30.3 IN | SE | SSPRC CLASS IV 15-INCH | 825.75 | FROM STR: 30.2 | -- | -- | |
| 40.1 | 16EB | 771+05.00 | -19.50 | LT | INLETS 2X3-H | 834.84 | 830.59 | 4.25' | 0.00' | 40.1-40.2 OUT | SE | SSPRC CLASS IV 15-INCH | 830.59 | TO STR: 40.2 | 20.06' | 1.00% | |
| 40.2 | 16EB | 771+25.00 | -19.50 | LT | INLETS 2X3-H | 835.38 | 830.39 | 4.98' | 0.00' | 40.1-40.2 IN<br>40.2-40.3 OUT | NW<br>NE | SSPRC CLASS IV 15-INCH<br>SSPRC CLASS IV 15-INCH | 830.39<br>830.39 | FROM STR: 40.1<br>TO STR: 40.3 | --<br>23.00' | --<br>2.00% | |
| 40.3 | 16EB | 771+25.00 | -42.50 | LT | APRON ENDWALLS FOR CPRC 15-INCH | | | | | 40.2-40.3 IN | SW | SSPRC CLASS IV 15-INCH | 829.93 | FROM STR: 40.2 | -- | -- | |
| 41.1 | 16EB | 774+39.00 | -19.50 | LT | INLETS 2X3-H | 843.11 | 838.86 | 4.25' | 0.00' | 41.1-41.2 OUT | NW | SSPRC CLASS IV 15-INCH | 838.86 | TO STR: 41.2 | 20.00' | 2.67% | |
| 41.2 | 16EB | 774+19.00 | -19.50 | LT | INLETS 2X3-H | 842.58 | 838.33 | 4.25' | 0.00' | 41.1-41.2 IN<br>41.2-41.3 OUT | SE<br>NE | SSPRC CLASS IV 15-INCH<br>SSPRC CLASS IV 15-INCH | 838.33<br>838.33 | FROM STR: 41.1<br>TO STR: 41.3 | --<br>20.50' | --<br>2.00% | |
| 41.3 | 16EB | 774+19.00 | -40.00 | LT | APRON ENDWALLS FOR CPRC 15-INCH | | | | | 41.2-41.3 IN | SW | SSPRC CLASS IV 15-INCH | 837.92 | FROM STR: 41.2 | -- | -- | |

2

N

REMOVE

710'EB'

711'EB'

712'EB'

713'EB'

714'EB'

715'WB'

715'EB'

716

716

STA 716'EB'+00

MATCH LINE

STH 16

BM A

BOECK RD

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | SIGN REMOVAL PLAN - STH 16 | SHEET 69 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-023201-SR.DWG
LAYOUT NAME - 01

PLOT DATE : 10/19/2017 9:12 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

2

N

DO NOT ENTER
REMOVE

REMOVE

SPEED LIMIT 45
REMOVE

SPEED LIMIT 45
REMOVE

INL

INL

717'WB'

718'WB'

719'WB'

720'WB'

721'WB'

722'W

717'EB'

718'EB'

719'EB'

720'EB'

721'EB'

722

STH 16

STA 716'EB'+00

STA 722'EB'+00

MATCH LINE

MATCH LINE

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | SIGN REMOVAL PLAN - STH 16 | SHEET 70 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-023201-SR.DWG
LAYOUT NAME - 02

PLOT DATE : 10/19/2017 9:12 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

2

N

LA DAWN DR

HWY 16
LA DAWN DR
TO REMAIN

STOP
DIVIDED HIGHWAY
REMOVE

REMOVE

REMOVE

WRONG WAY
REMOVE

LEFT LANE ENDS
REMOVE

FLAG
LEFT LANE ENDS
REMOVE

DO NOT ENTER
REMOVE

DO NOT ENTER
REMOVE

723'WB'
724'WB'
725'WB'
726'WB'
727'WB'
728'WB'

STH 16

INL

SIGN

REMOVE

REMOVE

STA 722'EB'+00

723'EB'
724'EB'
725'EB'
726'EB'
727'EB'
728

STA 728'EB'+00

MATCH LINE

MATCH LINE

WEST NORTH EAST
INTERSTATE
127 39 16
REMOVE

SIGN

JCT JCT
INTERSTATE
39 127
REMOVE

WRONG WAY
REMOVE

DO NOT ENTER
REMOVE

BM B

INL

MURPHY RD
ST HWY 16
REMOVE BY OTHERS

STOP
DIVIDED HIGHWAY
REMOVE

SOUTH TO TO
INTERSTATE INTERSTATE
39 90 78
REMOVE

SIGN

SIGN

MURPHY RD

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | SIGN REMOVAL PLAN - STH 16 | SHEET 71 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-023201-SR.DWG
LAYOUT NAME - 03

PLOT DATE : 10/19/2017 9:12 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

2

N

MH

INL

SPEED LIMIT 45
REMOVE

WRONG WAY
REMOVE

REMOVE

REMOVE

WRONG WAY
REMOVE

WRONG WAY
REMOVE

*
Wis Dells 15
REMOVE

SIGN

ADOPT A HIGHWAY
SPONSOR
KIWANIS CLUB OF PORTAGE
REMOVE

SIGN

729'WB' 730'WB' 731'WB' 732'WB' 733'RWB' 734'RWB'

STH 16

STA 728'EB'+00

729'EB' 730'EB' 731'EB' 732'REB' 733'REB' 734'REB'

STA 734'EB'+00

MATCH LINE

MATCH LINE

SIGN

SPEED LIMIT 45
REMOVE

SPEED LIMIT 45
REMOVE

*
Portage
Stevens Point
Merrimac
Madison
REMOVE

WRONG WAY
REMOVE

REMOVE

REMOVE

* MOVE/ COVER SIGNS FOR STAGING PURPOSES.
REMOVE WHEN PERMANENT SIGNING IS INSTALLED

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | SIGN REMOVAL PLAN - STH 16 | SHEET 72 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-023201-SR.DWG
LAYOUT NAME - 04

PLOT DATE : 10/19/2017 9:12 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

2

MATCH LINE STA 80'NB'+75

N

STH 127

WEST 16 ONE WAY — REMOVE

STOP — REMOVE

ST HWY 16 COLUMBIA DR — REMOVE BY OTHERS

STOP DIVIDED HIGHWAY — REMOVE

WEST 127 — REMOVE

SOUTH TO TO 39 90 78 — REMOVE

Briggsville
Columbia Correctional Institution — REMOVE

WRONG WAY — REMOVE

WEST ALTERNATE 16 39 — REMOVE

738'RWB'

737'RWB'

736'RWB'

735'RWB'

SIGN

STA BACK = 738+53.33
STA AHEAD = 738+14.87

DO NOT ENTER — REMOVE

STH 16

REMOVE

739'RWB'

740'RWB'

736'REB'

735'REB'

SIGN

STA 734'EB'+00

MATCH LINE

Columbia Correctional Institution — REMOVE

737'REB'

REMOVE

STOP DIVIDED HIGHWAY — REMOVE

ONE WAY — REMOVE

REMOVE

739'REB'

738'REB'

740'

STA 740'EB'+00

MATCH LINE

SIGN

50'RA'

NORTH WEST 39 16 — REMOVE

STA BACK = 738+07.15
STA AHEAD = 737+75.96

DO NOT ENTER — REMOVE

SOUTH TO TO 39 90 78 — REMOVE

WEST 127 — REMOVE

POST

YIELD — REMOVE

RAMP 'A'

RAMP 'B'

SPEED LIMIT 45 — REMOVE

REMOVE

SPEED LIMIT 45 — REMOVE

WEST EAST 127 16 — REMOVE

49'RA'

RB'

MATCH LINE STA 59'RB'+00

ALTERNATE 39 — REMOVE

REMOVE

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | SIGN REMOVAL PLAN - STH 16 | SHEET 73 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-023201-SR.DWG
LAYOUT NAME - 05

PLOT DATE : 10/19/2017 9:12 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

N

* MOVE/ COVER SIGNS FOR STAGING PURPOSES.
REMOVE WHEN PERMANENT SIGNING IS INSTALLED

IH 39

IH 39

RIPRAP

SPEED LIMIT 45
REMOVE

SPEED LIMIT 45
REMOVE

*
Merrimac Madison
REMOVE

WEST 16 WEST 127
REMOVE

SOUTH TO INTERSTATE 39 TO INTERSTATE 90 TO 78
REMOVE

741'RWB'

742'RWB'

743'RWB'

744'RWB'

745'RWB'

746'WB'

STA 740'EB'+00

MATCH LINE

STH 16

INL

SIGN

SIGN

741'REB'

742'REB'

743'EB'

744'EB'

745'EB'

746

STA 746'EB'+00

MATCH LINE

RIPRAP

NORTH TO INTERSTATE 39 TO 51
REMOVE

*
Stevens Point
REMOVE

POST

RIPRAP

SIGN

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | SIGN REMOVAL PLAN - STH 16 | SHEET 74 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-023201-SR.DWG
LAYOUT NAME - 06

PLOT DATE : 10/19/2017 9:12 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

2

N

RAMP 'C'

RAMP 'D'

JCT 127
REMOVE

POST

REMOVE

DO NOT ENTER
REMOVE

REMOVE

NORTH TO INTERSTATE 39 51
REMOVE

747'WB' 748'WB' 749'WB' 750'WB' 751'WB' 752'WB'

INL

SIGN

**STH 16**

INL

STA 746'EB'+00

747'EB' 748'EB' 749'EB' 750'EB' 751'EB' 752'EB'

STA 752'EB'+00

MATCH LINE

MATCH LINE

REMOVE

WRONG WAY
REMOVE

NORTH TO INTERSTATE 39 51 H
REMOVE

HELD
REMOVE

REMOVE

RAMP 'E'

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | SIGN REMOVAL PLAN - STH 16 | SHEET 75 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-023201-SR.DWG
LAYOUT NAME - 07

PLOT DATE : 10/19/2017 9:12 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

N

INL

* MOVE/ COVER SIGNS FOR STAGING PURPOSES.
REMOVE WHEN PERMANENT SIGNING IS INSTALLED

MH

SIGN

INL

CTH CX/WISCONSIN ST

INL

MH

SIGN

MH

INL

INL

*

Merrimac
Madison
Stevens Point

REMOVE

SIGN

753'WB' 754'WB' 755'WB' 756'WB' 757'WB' 758'WB'

STH 16

STA 752'EB'+00

753'EB' 754'EB' 755'EB' 756'EB' 757'EB' 758

STA 758'EB'+00

MATCH LINE

MATCH LINE

SIGN

EAST ALTERNATE INTERSTATE A 16 ALTERNATE INTERSTATE A 39 90

REMOVE

SIGN

HISTORIC PORTAGE
TO REMAIN

LEFT LANE ENDS

REMOVE

LEFT LANE ENDS

REMOVE

JCT COUNTY CX

REMOVE

REMOVE

REMOVE

W SIGN

MH

MH

MH

SIGN

SIGN

2

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | SIGN REMOVAL PLAN - STH 16 | SHEET 76 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-023201-SR.DWG
LAYOUT NAME - 08

PLOT DATE : 10/19/2017 9:12 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

2

SIGN

MH
INL

CTH CX/WISCONSIN ST

INL

INL

SOUTH NORTH TO
INTERSTATE 39 INTERSTATE 39 51
REMOVE

SPEED LIMIT 45
REMOVE

SIGN

ONLY
REMOVE

REMOVE

SIGN

759'WB'
760'WB'
761'WB'
762'WB'
763'WB'
764'WB'

STA 758'EB'+00

'EB'
759'EB'
760'EB'
761'NEB'
762'NEB'
763'NEB'
764'

STA 764'EB'+00

**STH 16**

MATCH LINE

MATCH LINE

SIGN

WRONG WAY
REMOVE

National Guard Armory
Madison Area Technical College
REMOVE

DO NOT ENTER
REMOVE

SPEED LIMIT 35
ONLY
REMOVE

ONLY
REMOVE

INL

SUBSTATION

SIGN

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | SIGN REMOVAL PLAN - STH 16 | SHEET 77 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-023201-SR.DWG
LAYOUT NAME - 09

PLOT DATE : 10/19/2017 9:12 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

2

N

BM C

SILVER LAKE DRIVE

113

112

111

W

W

MH

CANOPY

National Guard Armory

Madison Area Technical College

REMOVE

G.P. G.P.

POSTS

HWY 16

SILVER LAKE DR

TO REMAIN

STOP

REMOVE

COUNTY CX

REMOVE

JCT INTERSTATE 39

REMOVE

STOP

REMOVE

SIGN

MH

MH

MH

SIGN

REMOVE

STA 764'EB'+00

765'WB'

766'WB'

767'WB'

767'EB'

768'EB'

769'EB'

770

STA 770'EB'+00

MATCH LINE

765'NEB'

765'NEB'

766'NEB'

STH 16

MATCH LINE

COUNTY CX

REMOVE

STOP

REMOVE

RIPRAP

MH

STOP

REMOVE

SIGN

PORTAGE

POPULATION 10,324

REMOVE

PORTAGE

State Champions

REMOVE BY OTHERS

An Amtrak Served Community

REMOVE BY OTHERS

TRUCK ROUTES HAVE YELLOW SIGN POSTS

TO REMAIN

SPEED LIMIT 35

REMOVE

SIGN

SIGN

SIGN

INL

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | SIGN REMOVAL PLAN - STH 16 | SHEET 78 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-023201-SR.DWG
LAYOUT NAME - 10

PLOT DATE : 10/19/2017 9:12 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

2

POSTS

WALLS

WALLS

JCT
COUNTY
CX
REMOVE

REMOVE

MH

RIPRAP

STA 770'EB'+00

'EB'

771'EB'

772'EB'

773'EB'

774'EB'

775'EB'

776

STA 776'EB'+00

MATCH LINE

STH 16

MATCH LINE

NO
ENGINE
BRAKING
EXCEPT IN
EMERGENCY
WITHIN
CITY
LIMITS

MOVE BY
OTHERS

EAST
16

REMOVE

REMOVE

SIGN

SIGN

INL

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | SIGN REMOVAL PLAN - STH 16 | SHEET 79 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-023201-SR.DWG
LAYOUT NAME - 11

PLOT DATE : 10/19/2017 9:12 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

2

N

CANADIAN PACIFIC

SPEED LIMIT 35
REMOVE

BM D

STA 776'EB'+00

'EB'

777'EB'

778'EB'

779'EB'

780'EB'

781'EB'

782'EB'

STH 16

MATCH LINE

CANADIAN PACIFIC

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | SIGN REMOVAL PLAN - STH 16 | SHEET 80 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-023201-SR.DWG
LAYOUT NAME - 12

PLOT DATE : 10/19/2017 9:12 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

2

N

TO REMAIN

TO REMAIN

TO REMAIN

PEDESTRIANS
BICYCLES
NON MOTORIZED TRAFFIC
MOTOR BICYCLES
PROHIBITED
REMOVE

TO REMAIN

RAMP 'A'

RAMP 'B'

45'RA'

46'RA'

44'RA'

55'RB'

56'RB'

43'RA'

47'RA'

57'RB'

54'RB'

TO REMAIN

TO REMAIN

TO REMAIN

WRONG WAY
TO REMAIN

TO REMAIN

GAS
FOOD
FOLLOW HWY CX
TO REMAIN

TO REMAIN

RAMP
30
MPH
REMOVE

WRONG WAY
TO REMAIN

INL

INL

48'RA'

58'RB'

53'RB'

TO REMAIN

REMOVE

59

STA 59'RB' +00

MATCH LINE

TO REMAIN

52'RB'

TO REMAIN

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | SIGN REMOVAL PLAN - RAMPS 'A' & 'B' | SHEET 81 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-023201-SR.DWG
LAYOUT NAME - 13

PLOT DATE : 10/19/2017 9:12 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

2

N

NORTH EAST SOUTH WEST
INTERSTATE 39 16 INTERSTATE 39 16

REMOVE

SIGN

M

T

NORTH EAST SOUTH WEST
INTERSTATE 39 16 INTERSTATE 39 16

REMOVE

SIGN

STH 127

83'NB'

84'NB'

85'NB'

86'NB'

82'SB'

82'NB'

81'SB'

81'NB'

MATCH LINE

STA 80'NB+75

WEST
127

REMOVE

SPEED LIMIT
45

REMOVE

SIGN

FLAG

POST

W

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | SIGN REMOVAL PLAN - STH 127 | SHEET 82 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-023201-SR.DWG
LAYOUT NAME - 14

PLOT DATE : 10/19/2017 9:12 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

2

N

W6-3
36"X36"

1-01

710'EB'+00

711'EB'+00

712'EB'+00

713'EB'+00

714'EB'+00

715'WB'+00

715'EB'+00

STH 16

MATCH LINE
STA. 715'EB'+75

BOECK RD

LEGEND

PROPOSED SIGN MOUNTED ON POST(S)

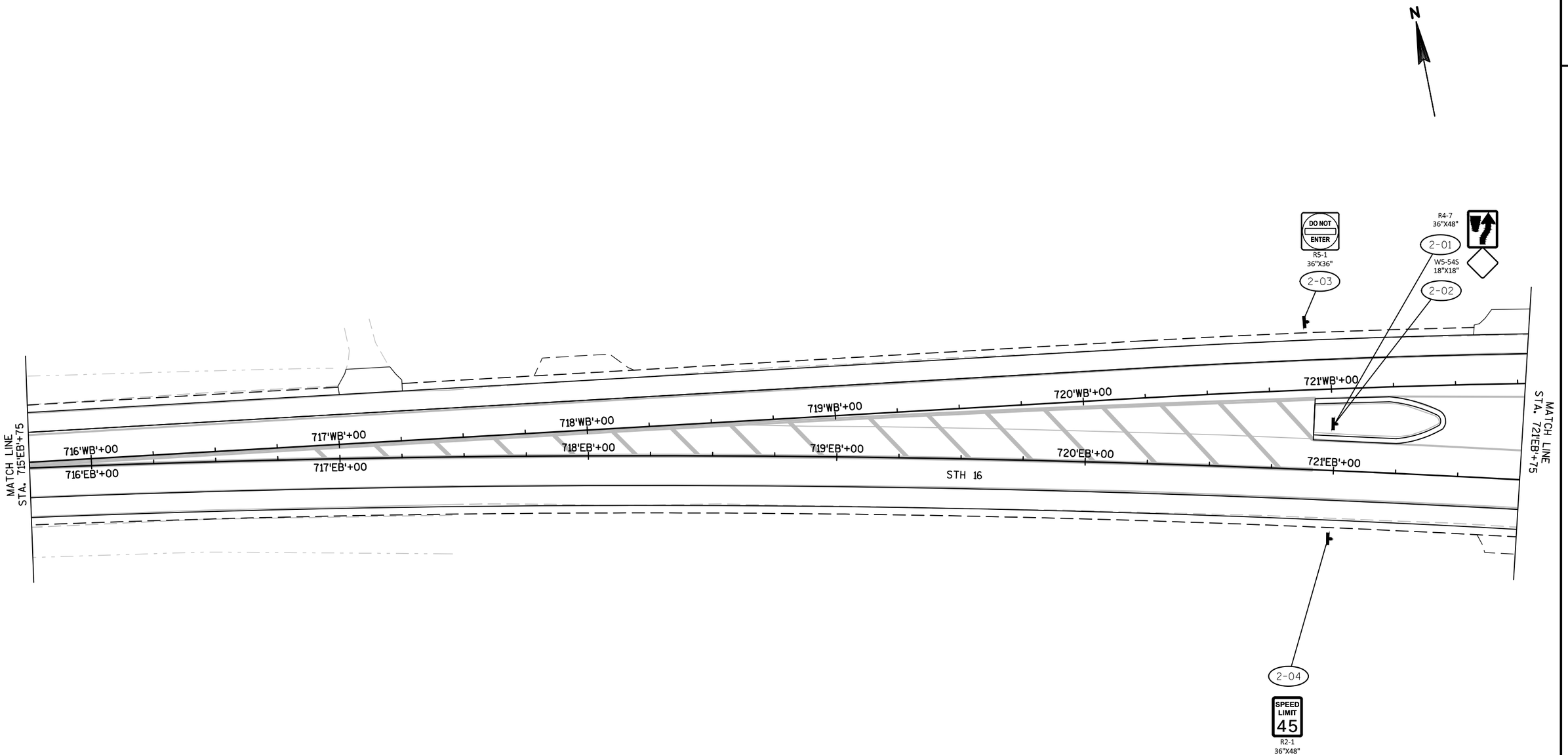
PROPOSED SIGN MOUNTED ON POLE

XX-XX DENOTES SIGN NUMBER

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PERMANENT SIGNING | SHEET 83 E |
|---|---|---|---|---|

FILE NAME : G:\GREMMER\15037 - I-39 & STH 16 & STH 127\CIVIL 3D\SHEETS PLAN\023201-PS.DWG PLOT DATE : 1/3/2018 12:07 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2




LEGEND

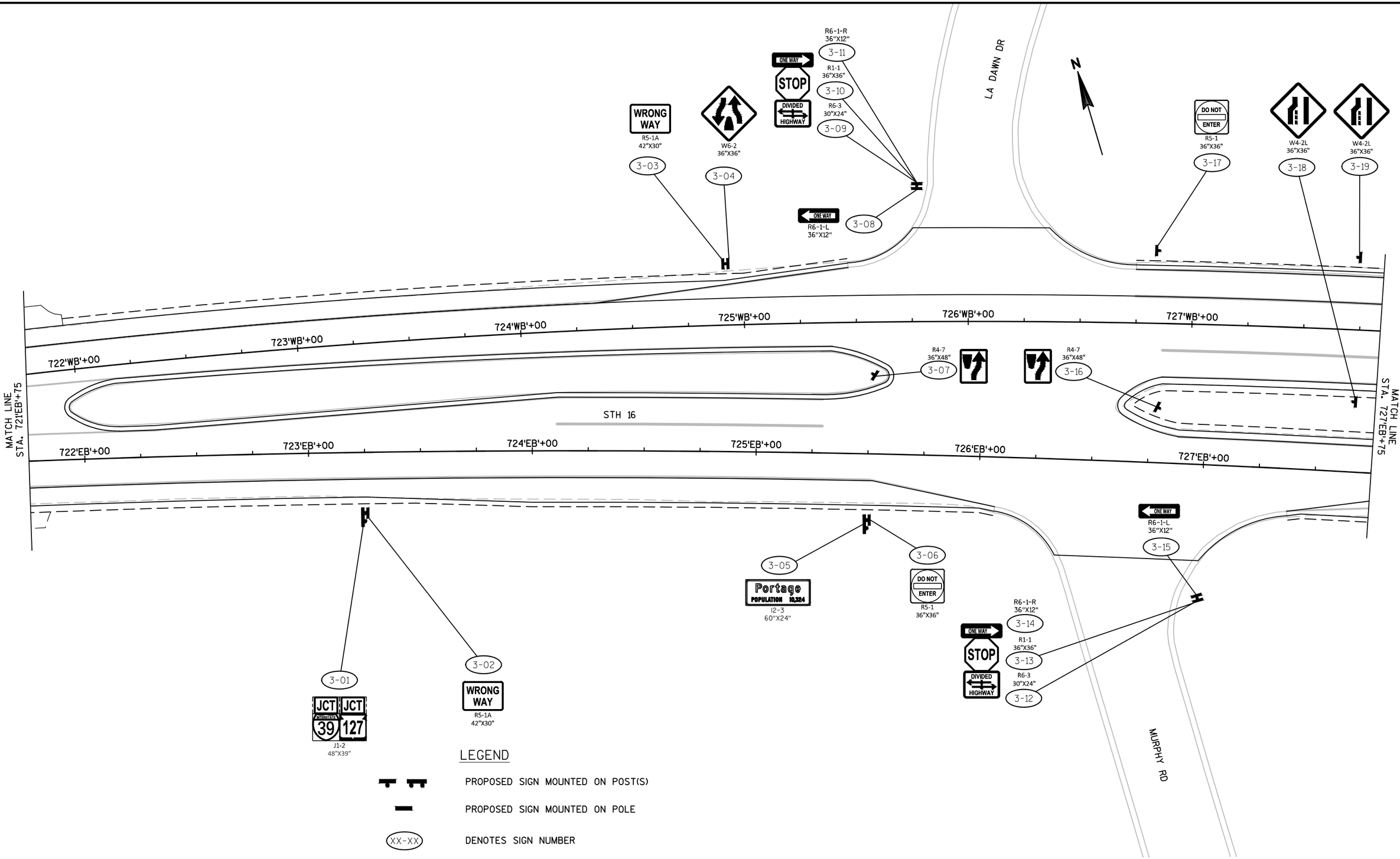
PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POLE

XX-XX DENOTES SIGN NUMBER

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PERMANENT SIGNING | SHEET 84 E |
|---|---|---|---|---|

2




LEGEND

PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POLE

XX-XX DENOTES SIGN NUMBER

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PERMANENT SIGNING | SHEET 85 E |
|---|---|---|---|---|

2

N

WRONG WAY
R5-1A
42"X30"
4-01

ADOPT A HIGHWAY
SPONSOR
KIWANIS
CLUB
OF PORTAGE
I55-56
30"X36"
4-06

LEFT LANE ENDS
W9-1L
36"X36"
4-08

LEFT LANE ENDS
W9-1L
36"X36"
4-07

Wis Dells 15
D2-1
96"X21"
4-12

R3-8-CC
36"X30'
4-16

MATCH LINE
STA. 727'EB'+75

728'WB'+00 729'WB'+00 730'WB'+00 731'WB'+00 732'WB'+00 733'RWB'+00

MATCH LINE
STA. 734'REB'+05

728'EB'+00 729'EB'+00 730'EB'+00 731'EB'+00 732'REB'+00 733'REB'+00

S-11-27

STH 16

W2-6
36"X36"
4-03

W13-1
24"X24"
4-02

15 M.P.H.

W2-6
36"X36"
4-05

W13-1
24"X24"
4-04

15 M.P.H.

4-11
Columbia
Correctional
Institution
D1-3
114"X48"

4-13
R3-8-CC
36"X30'

4-10
W3-2
36"X36"

4-09
W3-2
36"X36"

4-15
NORTH EAST
39 16
Wausau
WEST
127
E6-52
120"X114"

4-14
EAST
16
39 SOUTH
Madison
E6-53
120"X108"

LEGEND

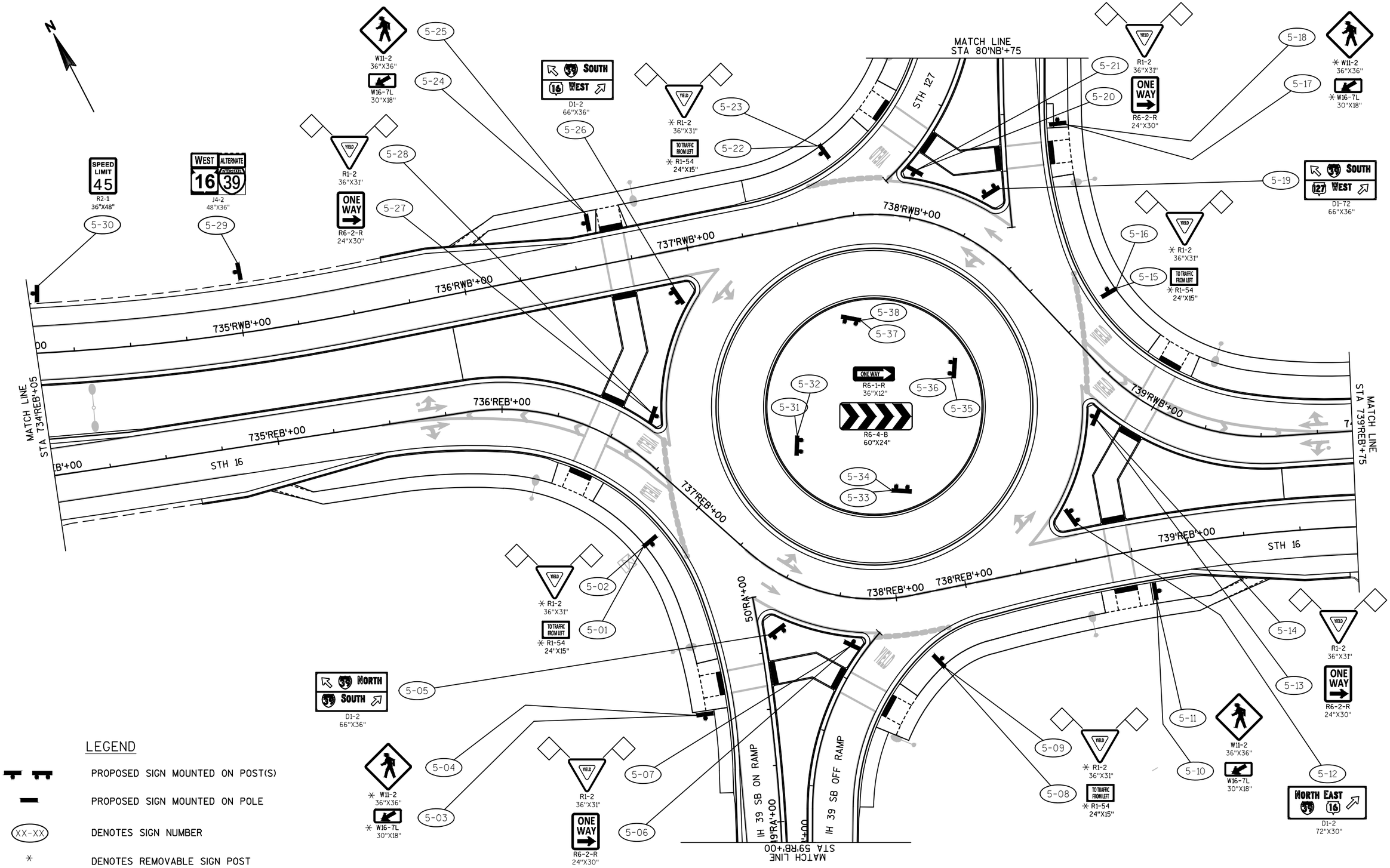
PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POLE

XX-XX DENOTES SIGN NUMBER

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PERMANENT SIGNING | SHEET 86 E |
|---|---|---|---|---|

2




## LEGEND

- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POLE
- XX-XX — DENOTES SIGN NUMBER
- ✳ — DENOTES REMOVABLE SIGN POST

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PERMANENT SIGNING | SHEET 87 | E |
|---|---|---|---|---|---|

FILE NAME : G:\GREMMER\15037 - I-39 & STH 16 & STH 127\CIVIL 3D\SHEETS PLAN\023201-PS.DWG PLOT DATE : 1/3/2018 12:07 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

N

Columbia Correctional Institution
D1-3
114"X48"
6-02

NORTH INTERSTATE 39 H
JH-1
48"X57"
6-03

W3-2
36"X36"
6-04

W3-2
36"X36"
6-05

IH 39 SB

IH 39 NB

R3-8-CC
36"X30'
6-09

ALTERNATE INTERSTATE 39
J2-1
24"X57"
6-10

SOUTH INTERSTATE 39
J2-1
24"X57"
6-11

S-11-29

741'RWB'+00

742'RWB'+00

743'RWB'+00

744'RWB'+00

745'RWB'+00

746'RW

746'WB

MATCH LINE
STA 739'REB'+75

740'REB'+00

741'REB'+00

742'REB'+00

743'EB'+00

744'EB'+00

745'EB'+00

STH 16

MATCH LINE
STA 745'EB'+75

6-01

SPEED LIMIT 45
R2-1
36"X48"

6-06

R3-8-CC
36"X30'

6-07

16 WEST
Wis Dells
39 SOUTH
Madison
E6-52
168"X108"

6-08

16 WEST
Wis Dells
WEST 127
E6-53
120"X108"

LEGEND

PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POLE

XX-XX DENOTES SIGN NUMBER

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PERMANENT SIGNING | SHEET 88 E |
|---|---|---|---|---|

2

2

IH 39 NB OFF RAMP

IH 39 NB ON RAMP

7-05 W2-6 36"X36"

7-03 W2-6 36"X36"

7-04 15 M.P.H. W13-1 24"X24"

7-02 15 M.P.H. W13-1 24"X24"

WEST 16 WEST 127 TO REMAIN

7-08 ALTERNATE INTERSTATE 39 J3-1 24"X57"

NORTH INTERSTATE 39 J3-1 24"X57" 7-13

7-12 R3-2 36"X36"

120'+00

110'+00

100'+00

747'WB'+00 748'WB'+00 749'WB'+00 750'WB'+00 751'WB'+00 752'WB'+0

MATCH LINE STA. 745'EB'+75

MATCH LINE STA. 751'EB'+75

746'EB'+00 747'EB'+00 748'EB'+00 749'EB'+00 750'EB'+00 751'EB'+00

STH 16

7-01 WRONG WAY R5-1A 42"X30"

7-06 H JH-1 24"X45"

7-07 39 NORTH Wausau D1-70 78"X42"

7-09 DO NOT ENTER R5-1 36"X36"

7-11 YIELD R1-2 36"X31"

7-10 W4-1R 36"X36"

220'+00

210'+00

200'+00

LEGEND

PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POLE

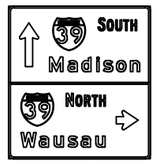
XX-XX DENOTES SIGN NUMBER

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PERMANENT SIGNING | SHEET 89 E |
|---|---|---|---|---|

FILE NAME : G:\GREMMER\15037 - I-39 & STH 16 & STH 127\CIVIL 3D\SHEETS PLAN\023201-PS.DWG PLOT DATE : 1/3/2018 12:07 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2




D1-70
78"X84"

8-01

J2-2
48"X57"

8-05

753'WB'+00 754'WB'+00 755'WB'+00 756'WB'+00 757'WB'+00 758'WB'+00

MATCH LINE
STA. 751'EB'+75

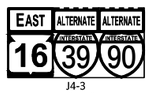
MATCH LINE
STA. 757'EB'+75

752'EB'+00 753'EB'+00 754'EB'+00 755'EB'+00 756'EB'+00 757'EB'+00

STH 16

23'E'+00

8-02




J4-3
72"X36"

8-03

W6-2
36"X36"

8-04

R5-1A
42"X30"

HISTORIC PORTAGE
TO REMAIN

8-06

J1-1
24"X39"

LEGEND

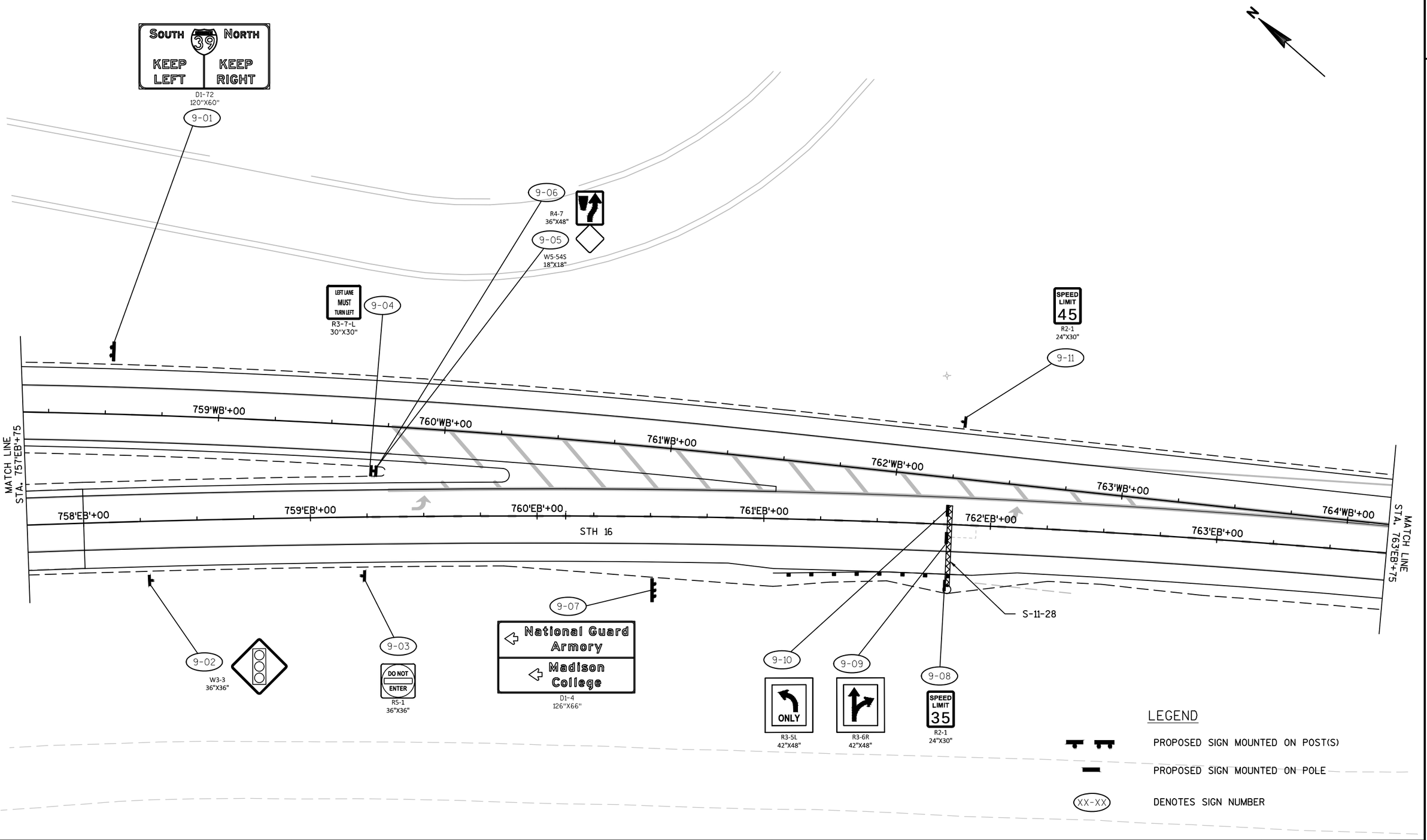
PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POLE

XX-XX DENOTES SIGN NUMBER

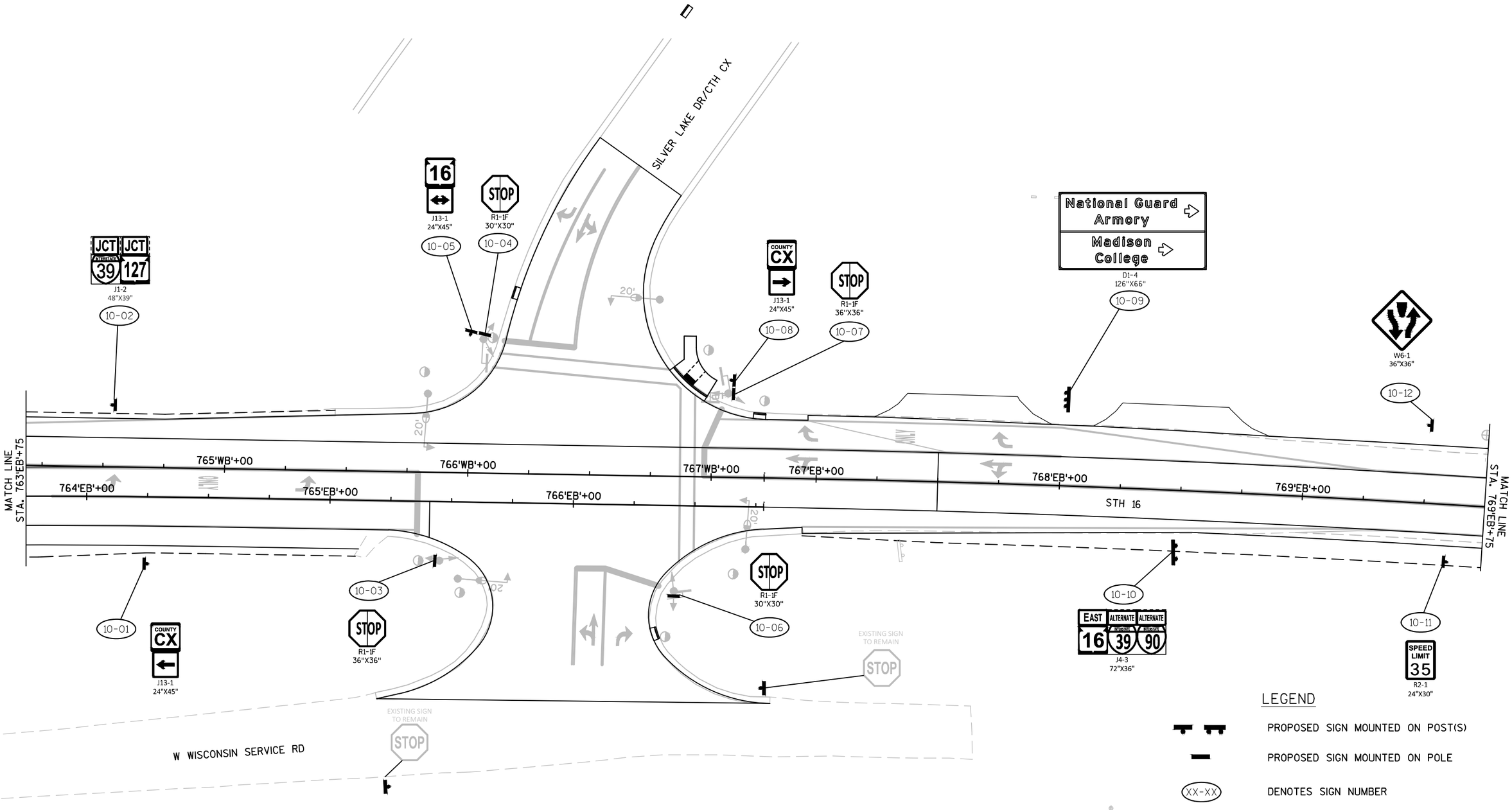
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PERMANENT SIGNING | SHEET 90 E |
|---|---|---|---|---|

2




| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PERMANENT SIGNING | SHEET 91 E |
|---|---|---|---|---|

2




| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PERMANENT SIGNING | SHEET 92 E |
|---|---|---|---|---|

2

N

W3-3
36"X36"

11-01

J1-1
24"X39"

11-02

MATCH LINE
STA. 769'EB'+75

770'EB'+00

771'EB'+00

772'EB'+00

773'EB'+00

774'EB'+00

775'EB'+00

MATCH LINE
STA. 775'EB'+75

STH 16

TRUCK ROUTES HAVE YELLOW SIGN POSTS TO REMAIN

NO ENGINE BRAKING EXCEPT IN EMERGENCY WITHIN CITY LIMITS TO REMAIN

LEGEND

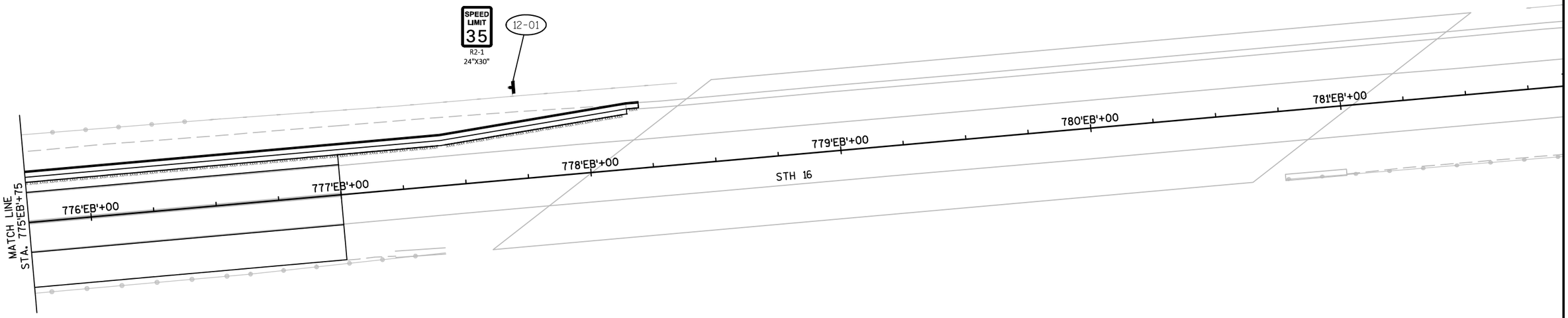
PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POLE

XX-XX DENOTES SIGN NUMBER

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PERMANENT SIGNING | SHEET 93 E |
|---|---|---|---|---|

2




LEGEND

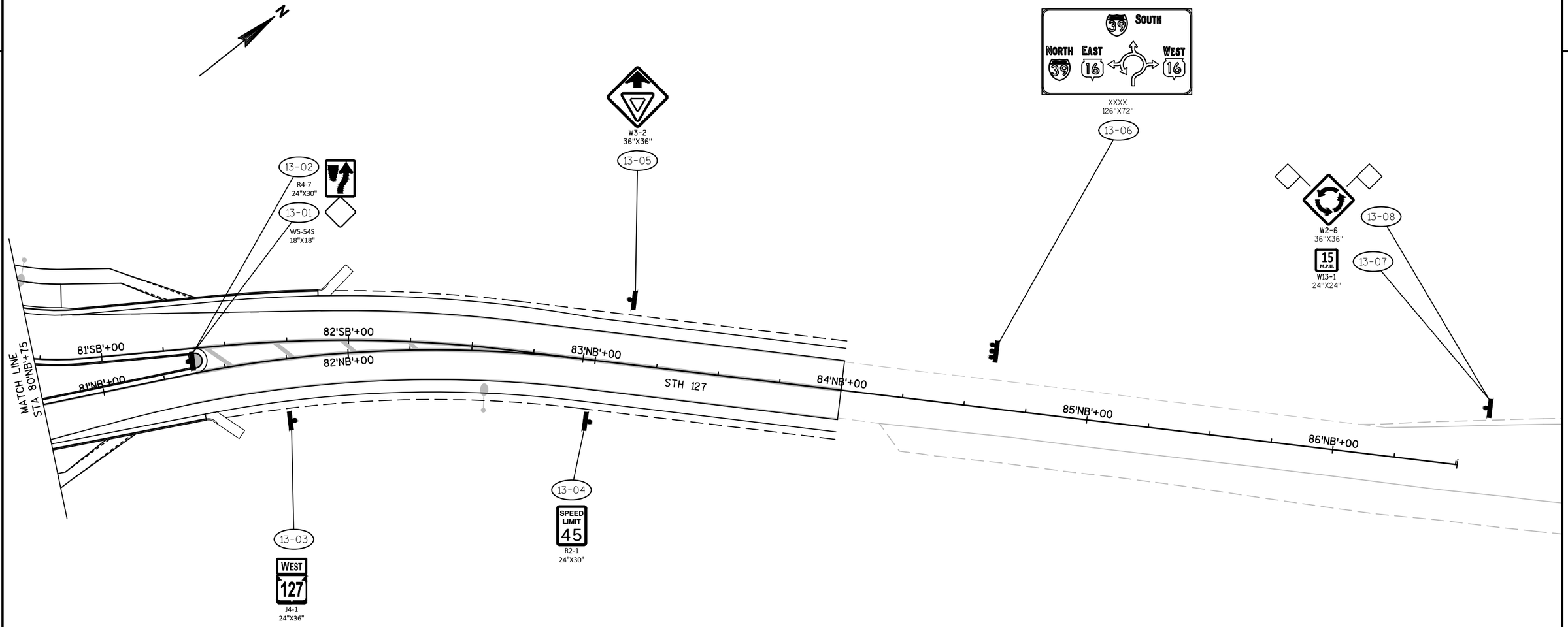
PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POLE

XX-XX DENOTES SIGN NUMBER

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PERMANENT SIGNING | SHEET 94 E |
|---|---|---|---|---|

2




LEGEND

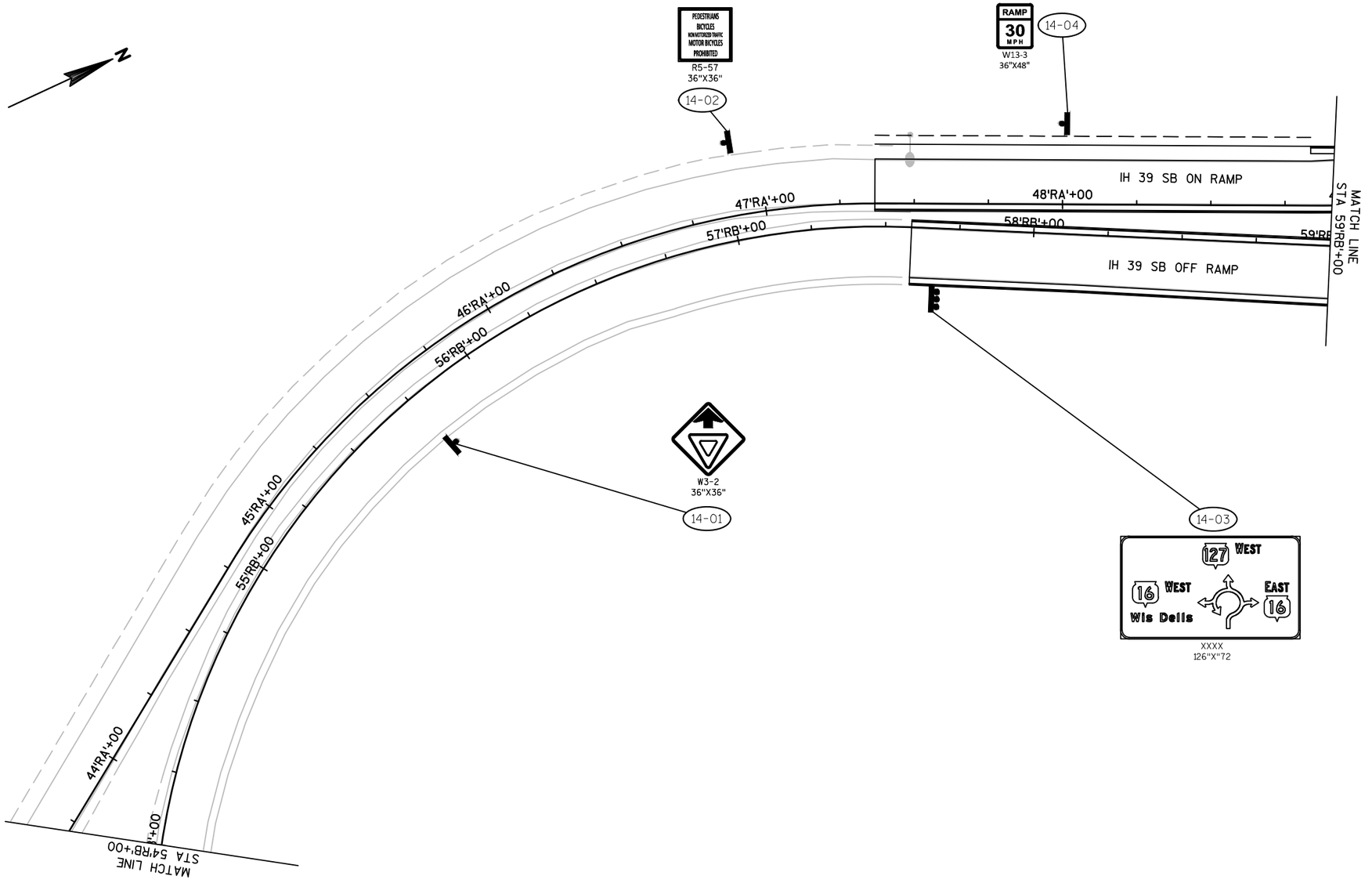
PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POLE

XX-XX DENOTES SIGN NUMBER

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PERMANENT SIGNING | SHEET 95 E |
|---|---|---|---|---|

2




LEGEND

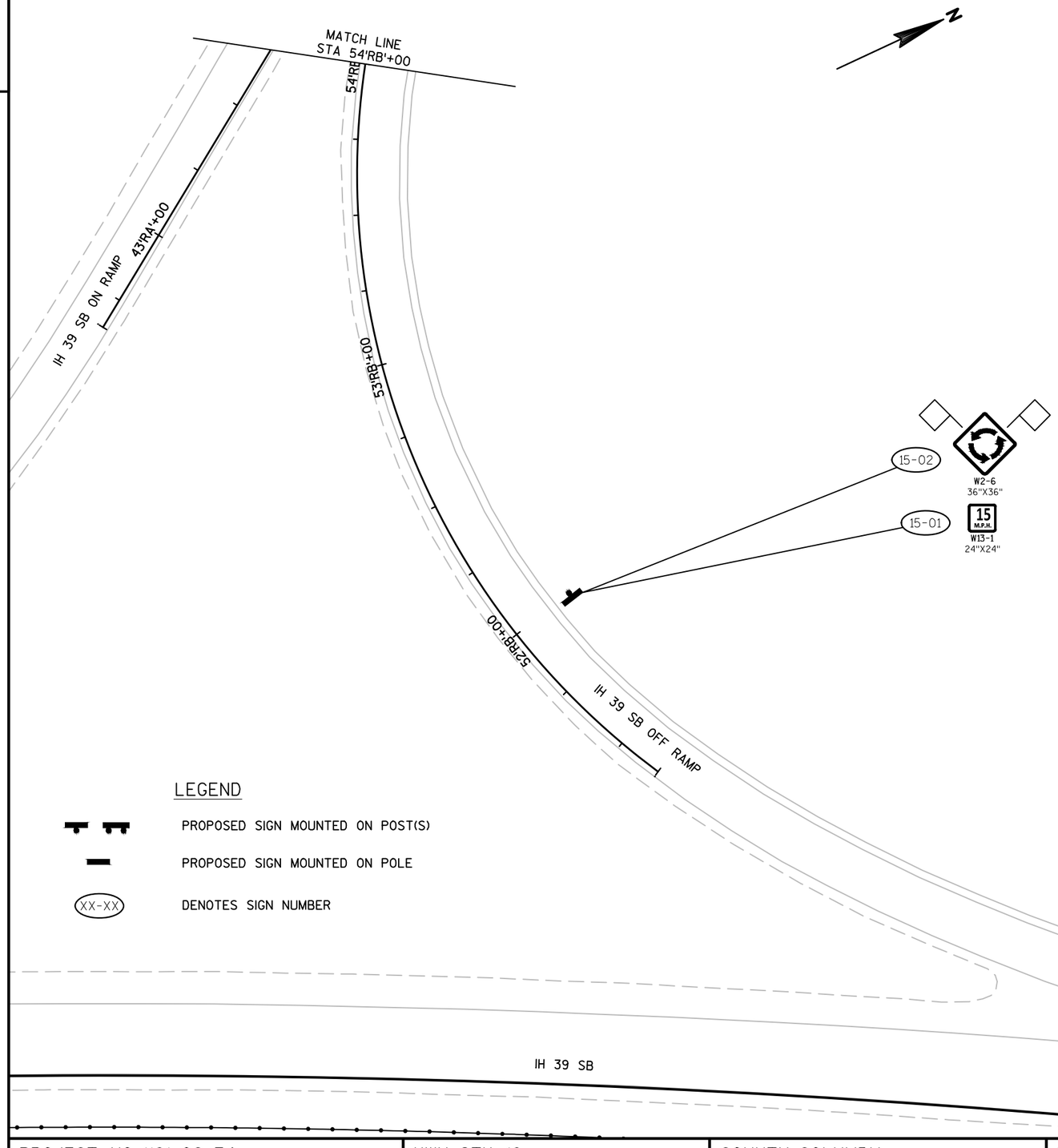
PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POLE

XX-XX DENOTES SIGN NUMBER

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PERMANENT SIGNING | SHEET 96 E |
|---|---|---|---|---|

2




LEGEND

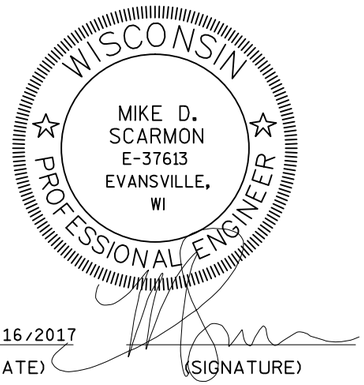
PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POLE

XX-XX DENOTES SIGN NUMBER

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PERMANENT SIGNING | SHEET 97 E |
|---|---|---|---|---|

STREET LIGHTING PLANS PREPARED BY:

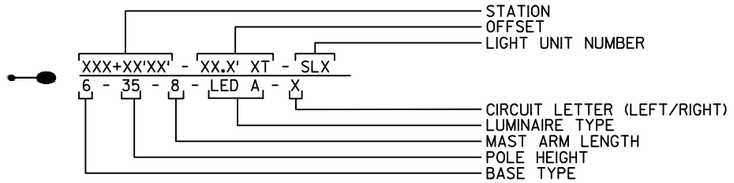



10/16/2017
(DATE) (SIGNATURE)

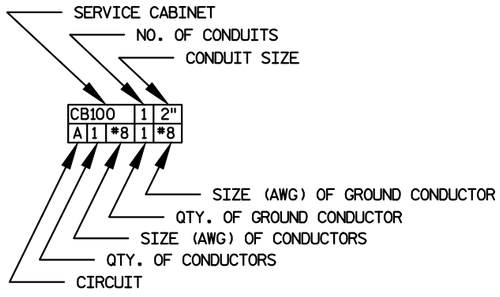
2

## LIGHTING PLAN LEGEND:

- PROPOSED STREET LIGHTING UNIT
- CONCRETE CONTROL CABINET BASE/ELECTRICAL SERVICE
- PULL BOX NON-CONDUCTIVE (24"X42")
- LIGHTING CONDUIT




## CONDUIT/CONDUCTOR LEGEND




PWO = PULL WIRE ONLY
NEU = NEUTRAL

## CONDUCTOR COLOR LEGEND

CB100

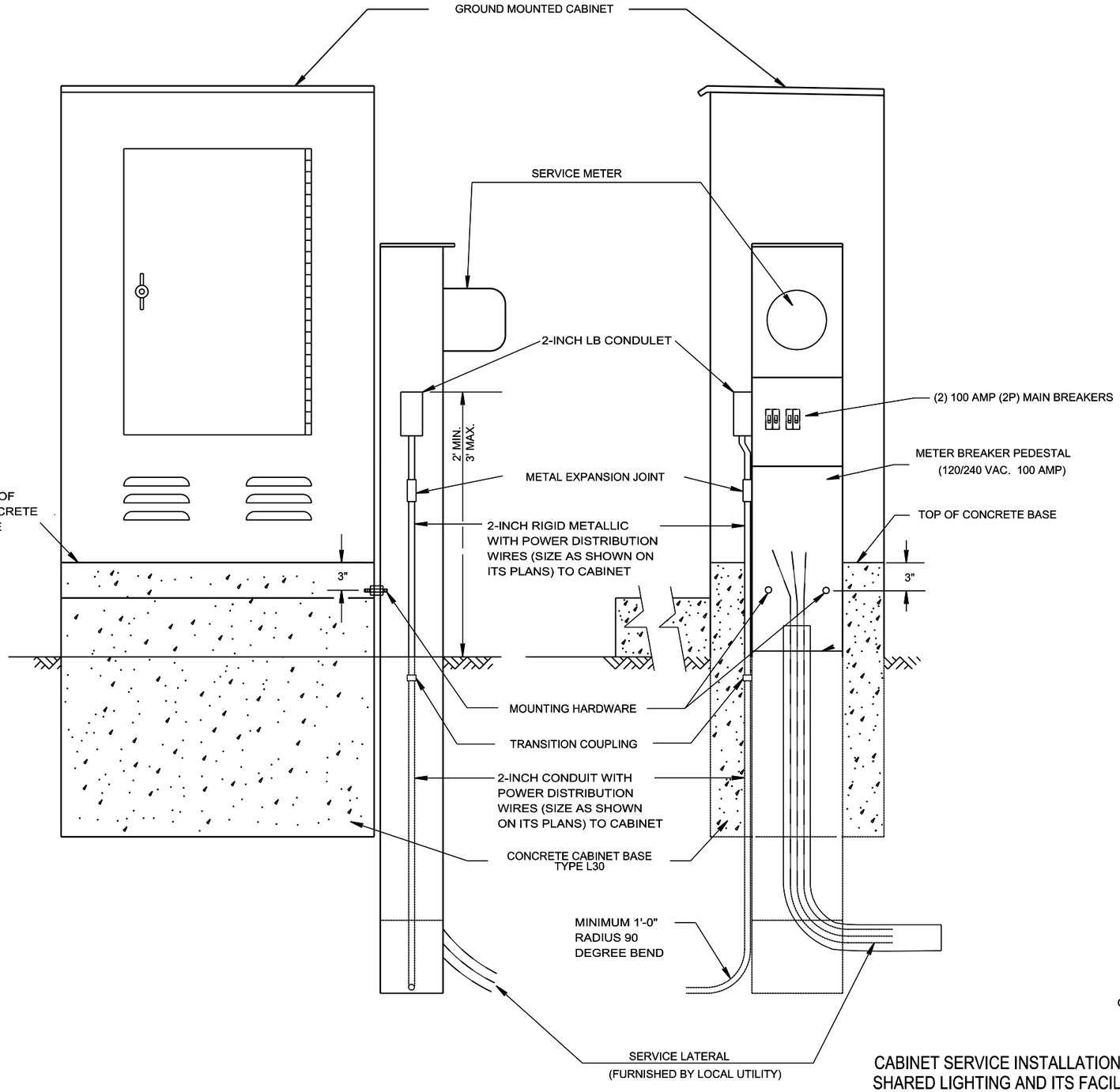
| LIGHTING CONDUCTORS |
|---|
| A - BLACK |
| B - RED |
| C - BLACK |
| D - RED |
| 240V PHASE TO PHASE |

GENERAL STREET LIGHTING NOTES:

1) THE ENGINEER SHALL APPROVE THE FINAL LOCATION FOR ALL CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION.

2) THE LOCATION OF EXISTING AND PROPOSED UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. IN ADDITION, THERE MAY BE OTHER UTILITIES WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

3) NO SPLICES ALLOWED IN PULL BOXES.




CABINET SERVICE INSTALLATION FOR SHARED LIGHTING AND ITS FACILITIES

NO SCALE

## GENERAL NOTES

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

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

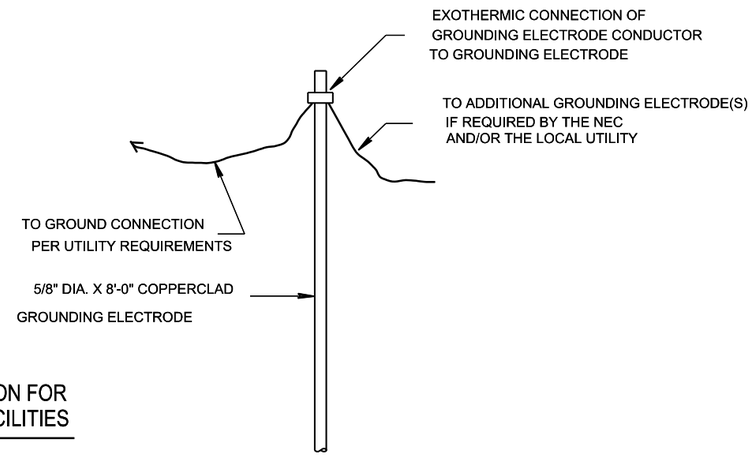
TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE) CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH. THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE NO LESS THAN 6 FEET OR PER LOCAL UTILITY REGULATIONS.



## GENERAL NOTES

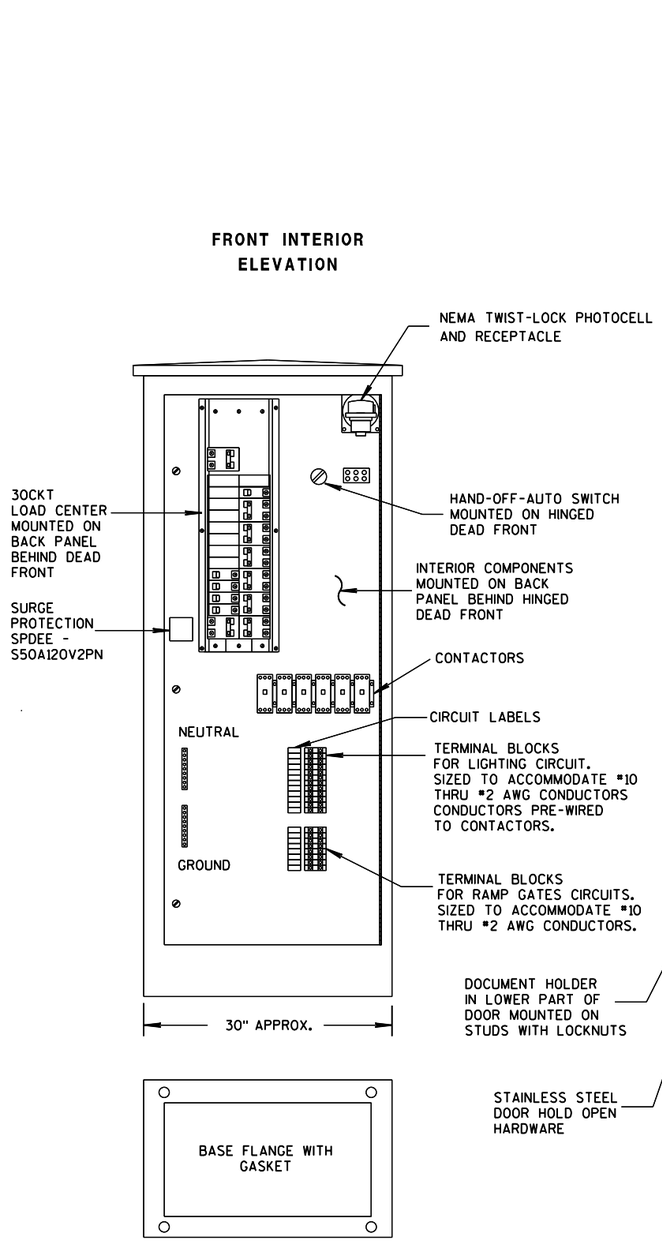
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

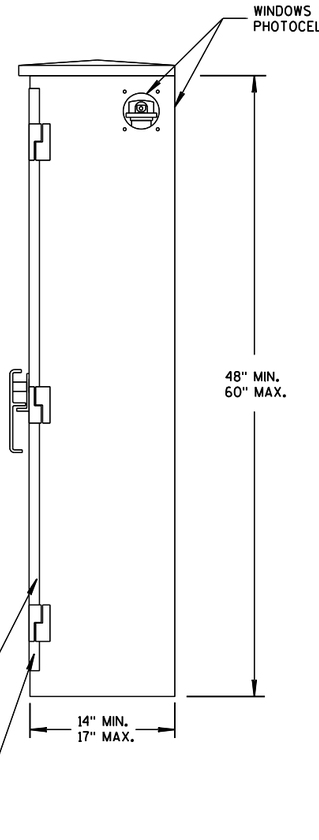
ALL INTERNAL ELECTRICAL COMPONENTS WILL BE PRE-WIRED BY THE CABINET FABRICATOR.

ALL CONDUIT ENTRIES SHALL BE SEALED WITH AN APPROPRIATE DUCT SEALING COMPOUND.

ORIENT PHOTOCELL AWAY FROM AMBIENT LIGHT SOURCES AND ONCOMING TRAFFIC HEADLIGHTS.

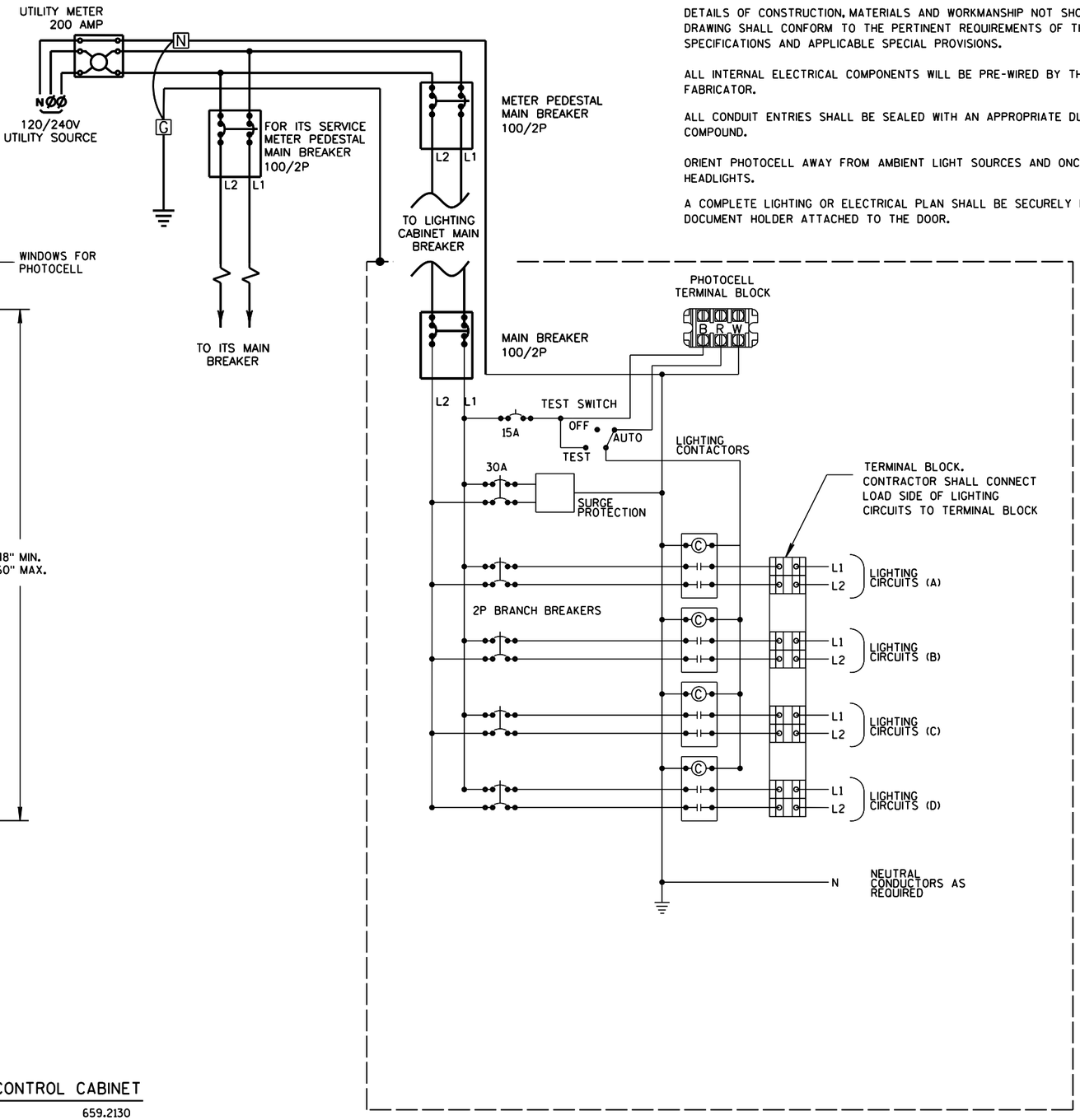
A COMPLETE LIGHTING OR ELECTRICAL PLAN SHALL BE SECURELY PLACED IN THE DOCUMENT HOLDER ATTACHED TO THE DOOR.




LIGHTING CONTROL CABINET

NO SCALE 659.2130



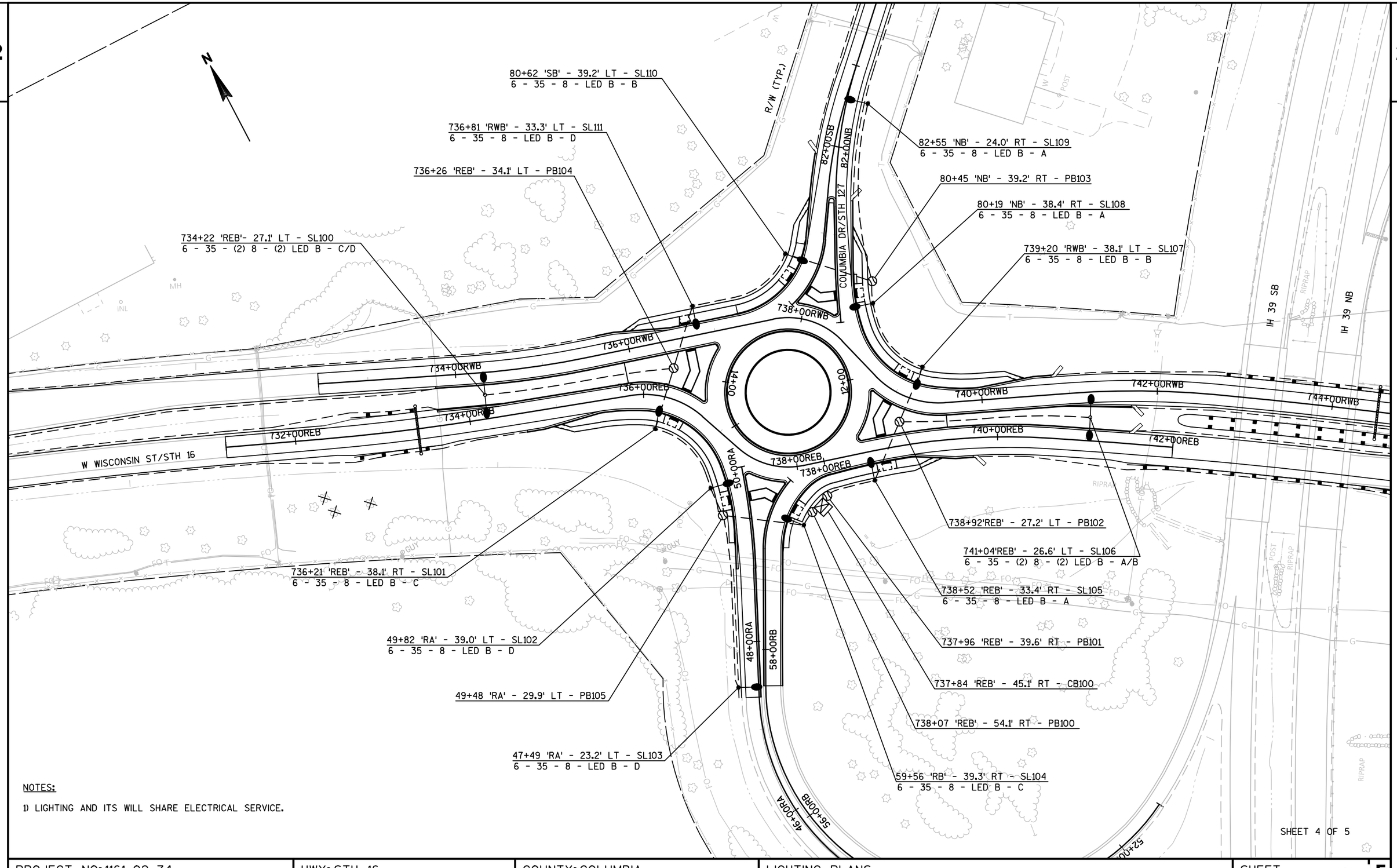

CONTROL CABINET SCHEMATIC



| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | LIGHTING PLANS - CONSTRUCTION DETAILS | SHEET 100 | E |
|---|---|---|---|---|---|

FILE NAME : G:\Gremmer\15037 - I-39 & STH 16 & STH 127\Civil 3D\Sheets Plan\021004-cd-Control Cabinet_LTG & ITS.dgn PLOT DATE : 10/16/2017 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :
WISDOT/CADDS SHEET 42

2




NOTES:

1) LIGHTING AND ITS WILL SHARE ELECTRICAL SERVICE.

SHEET 4 OF 5

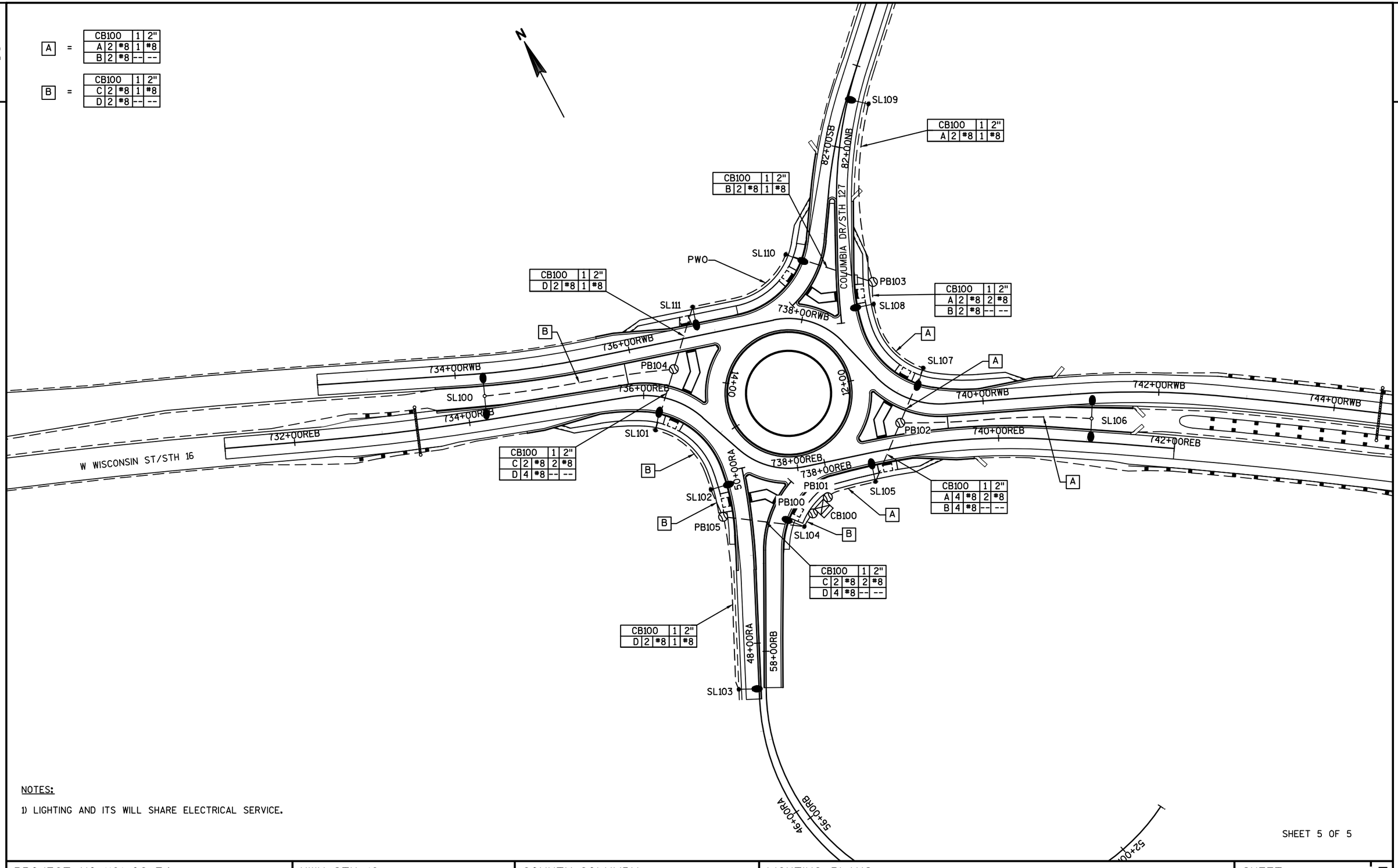
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | LIGHTING PLANS | SHEET 101 E |
|---|---|---|---|---|

FILE NAME : G:\GREMMER\15037 - I-39 & STH 16 & STH 127\CIVIL 3D\SHEETS PLAN\023601-LP.DWG PLOT DATE : 10/16/2017 9:55 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

| A = | CB100 | 1 | 2" |
|---|---|---|---|
| | A | 2 | *8 | 1 | *8 |
| | B | 2 | *8 | -- | -- |

| B = | CB100 | 1 | 2" |
|---|---|---|---|
| | C | 2 | *8 | 1 | *8 |
| | D | 2 | *8 | -- | -- |




NOTES:

1) LIGHTING AND ITS WILL SHARE ELECTRICAL SERVICE.

SHEET 5 OF 5

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | LIGHTING PLANS | SHEET 102 E |
|---|---|---|---|---|

2

LEGEND

- CONTROL CABINET (WORK BY OTHERS)
- NONMETALLIC CONDUIT
- TRAFFIC SIGNAL HEAD
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PEDESTRIAN COUNTDOWN TIMER 16-INCH
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 12" X 24"
- PULL BOX, 24" X 42"

NOTE: BOLD REPRESENTS ITEMS TO BE REMOVED (PULL BOXES) OR ABANDONED IN PLACE (LOOPS).

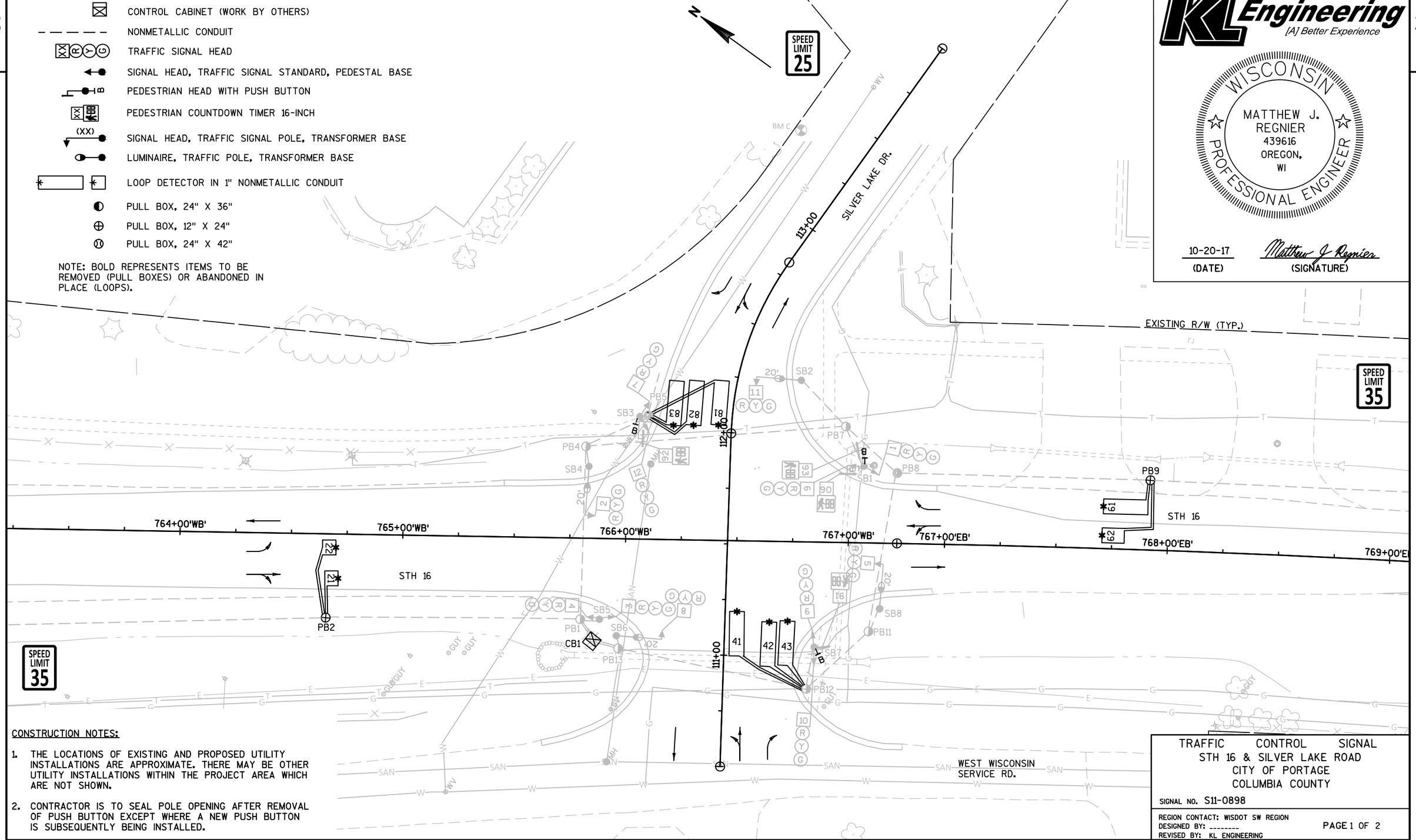
TRAFFIC SIGNAL PLANS PREPARED BY:

KL Engineering
[A] Better Experience

WISCONSIN
MATTHEW J. REGNIER
439616
OREGON, WI
PROFESSIONAL ENGINEER

10-20-17 (DATE)

Matthew J Regnier (SIGNATURE)




CONSTRUCTION NOTES:

1. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
2. CONTRACTOR IS TO SEAL POLE OPENING AFTER REMOVAL OF PUSH BUTTON EXCEPT WHERE A NEW PUSH BUTTON IS SUBSEQUENTLY BEING INSTALLED.

TRAFFIC CONTROL SIGNAL
STH 16 & SILVER LAKE ROAD
CITY OF PORTAGE
COLUMBIA COUNTY

SIGNAL NO. S11-0898

REGION CONTACT: WISDOT SW REGION
DESIGNED BY: --------
REVISED BY: KL ENGINEERING

PAGE 1 OF 2

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC SIGNAL REMOVAL PLAN | SHEET 103 E |
|---|---|---|---|---|

FILE NAME : G:\GREMMER\15037 - I-39 & STH 16 & STH 127\CIVIL 3D\SHEETS PLAN\024001-SR.DWG PLOT DATE : 10/20/2017 12:36 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

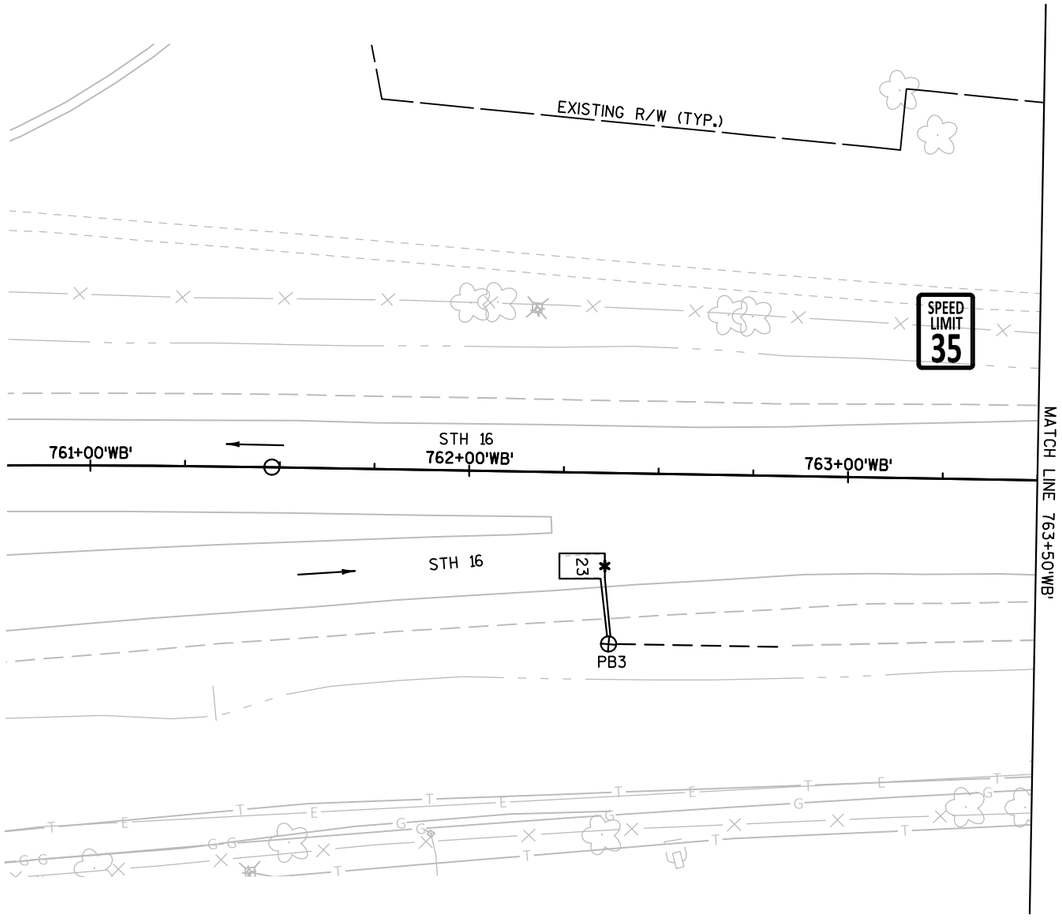
- – – – – – NONMETALLIC CONDUIT
- ⊠ LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- ⊕ PULL BOX, 12" X 24"

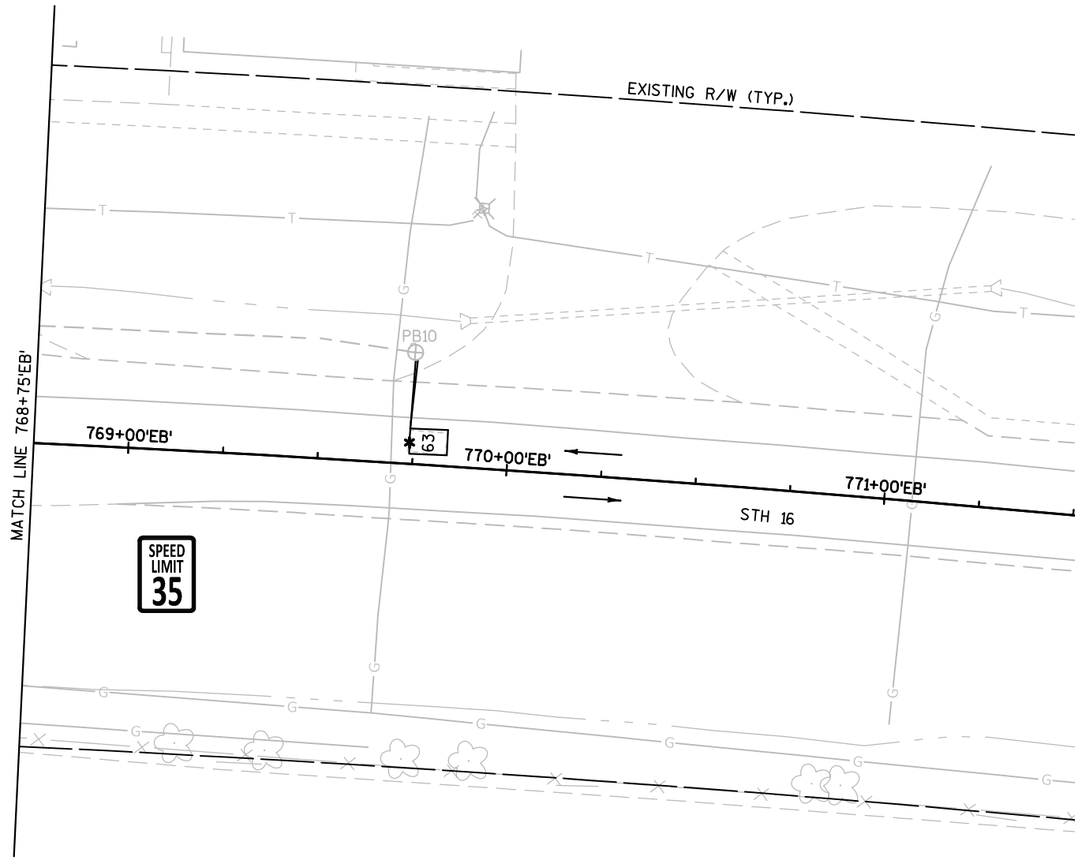
NOTE: BOLD REPRESENTS ITEMS TO BE REMOVED (PULL BOXES) OR ABANDONED IN PLACE (LOOPS).

CONSTRUCTION NOTES:

1. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.

2




TRAFFIC CONTROL SIGNAL
STH 16 & SILVER LAKE ROAD
CITY OF PORTAGE
COLUMBIA COUNTY

SIGNAL NO. S11-0898

REGION CONTACT: WISDOT SW REGION
DESIGNED BY: --------
REVISED BY: KL ENGINEERING

PAGE 2 OF 2

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC SIGNAL REMOVAL PLAN | SHEET 104 E |
|---|---|---|---|---|

2

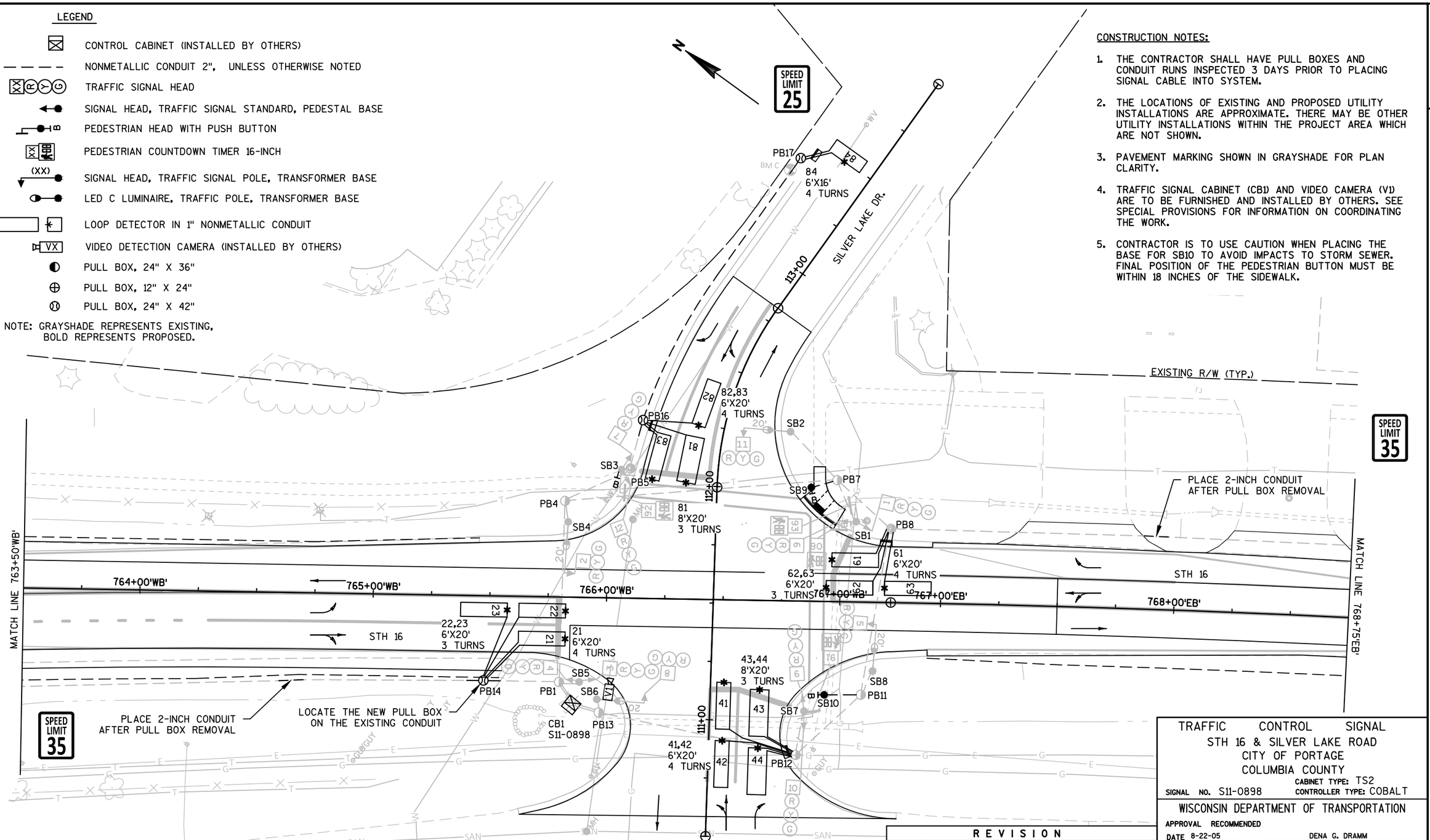
LEGEND

- CONTROL CABINET (INSTALLED BY OTHERS)
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- TRAFFIC SIGNAL HEAD
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PEDESTRIAN COUNTDOWN TIMER 16-INCH
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- LED C LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- VX VIDEO DETECTION CAMERA (INSTALLED BY OTHERS)
- PULL BOX, 24" X 36"
- PULL BOX, 12" X 24"
- PULL BOX, 24" X 42"

NOTE: GRAYSHADE REPRESENTS EXISTING, BOLD REPRESENTS PROPOSED.

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE PULL BOXES AND CONDUIT RUNS INSPECTED 3 DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
3. PAVEMENT MARKING SHOWN IN GRAYSHADE FOR PLAN CLARITY.
4. TRAFFIC SIGNAL CABINET (CB1) AND VIDEO CAMERA (V1) ARE TO BE FURNISHED AND INSTALLED BY OTHERS. SEE SPECIAL PROVISIONS FOR INFORMATION ON COORDINATING THE WORK.
5. CONTRACTOR IS TO USE CAUTION WHEN PLACING THE BASE FOR SB10 TO AVOID IMPACTS TO STORM SEWER. FINAL POSITION OF THE PEDESTRIAN BUTTON MUST BE WITHIN 18 INCHES OF THE SIDEWALK.




TRAFFIC CONTROL SIGNAL
STH 16 & SILVER LAKE ROAD
CITY OF PORTAGE
COLUMBIA COUNTY

SIGNAL NO. S11-0898
CABINET TYPE: TS2
CONTROLLER TYPE: COBALT

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
DATE 8-22-05 — DENA G. DRAMM, REGION TRAFFIC ENGINEER

APPROVED
DATE 9-1-05 — WILLIAM C. GILDING, STATE TRAFFIC ENGINEER

REVISION

| REV. NO. | | APPROVAL RECOMMENDED | | APPROVED | |
|---|---|---|---|---|---|
| | | REGION | | CENTRAL OFFICE | |
| | | DATE | BY | DATE | BY |
| 1 | ADDED LOOP DETECTION; UPDATE CABINET; INSTALL VIDEO DETECTION; INSTALL SB9 & SB10 | | | | |

REGION CONTACT: WISDOT SW REGION
DESIGNED BY: --------
REVISED BY: KL ENGINEERING

PAGE 1 OF 4

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC SIGNAL PLAN | SHEET 105 E |
|---|---|---|---|---|

FILE NAME : G:\GREMMER\15037 - I-39 & STH 16 & STH 127\CIVIL 3D\SHEETS PLAN\024201-SP.DWG
PLOT DATE : 10/17/2017 2:21 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

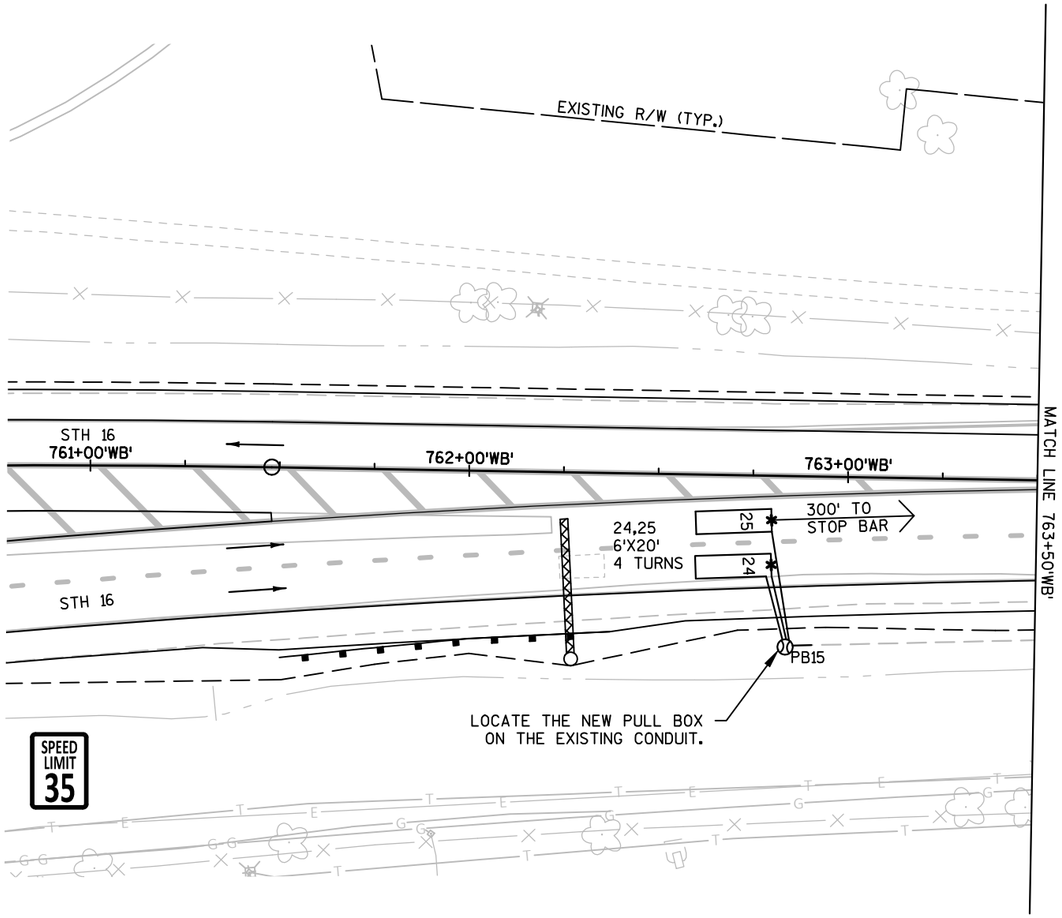
LEGEND

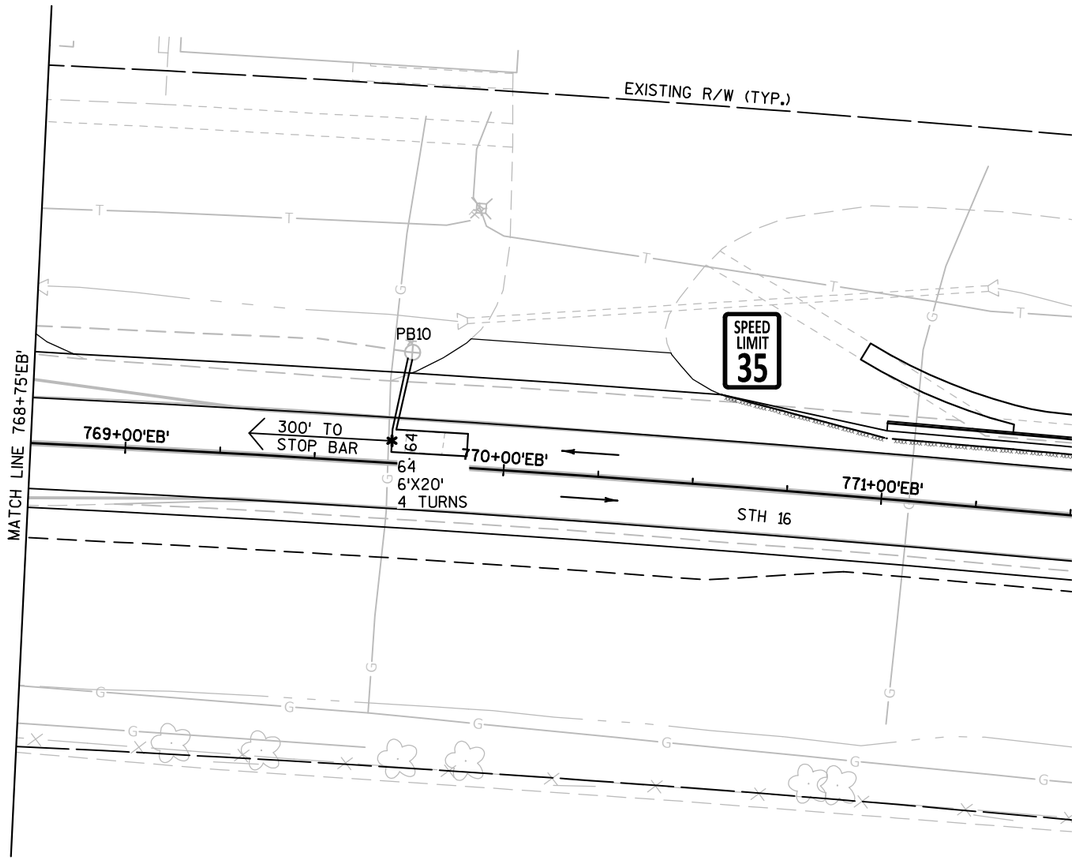
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 42"

NOTE: GRAYSHADE REPRESENTS EXISTING, BOLD REPRESENTS PROPOSED.

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE PULL BOXES AND CONDUIT RUNS INSPECTED 3 DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
3. PAVEMENT MARKING SHOWN IN GRAYSHADE FOR PLAN CLARITY.




TRAFFIC CONTROL SIGNAL
STH 16 & SILVER LAKE ROAD
CITY OF PORTAGE
COLUMBIA COUNTY

SIGNAL NO. S11-0898

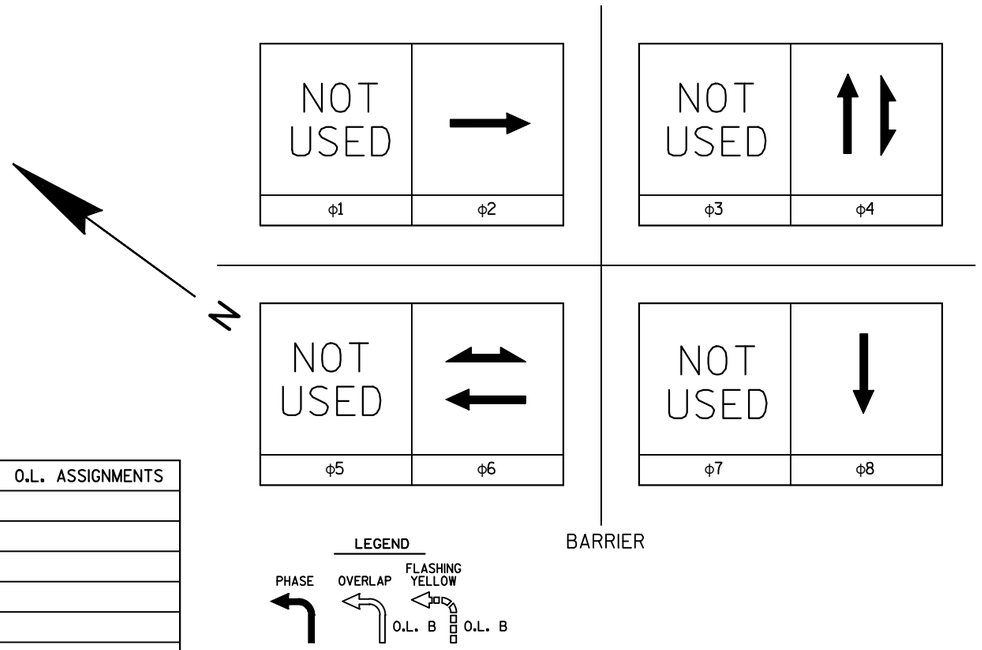
REGION CONTACT: WISDOT SW REGION
DESIGNED BY: --------
REVISED BY: KL ENGINEERING

PAGE 2 OF 4

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC SIGNAL PLAN | SHEET 106 E |
|---|---|---|---|---|

| HEAD ASSIGNMENTS | | |
|---|---|---|
| PHASE | HEAD NUMBERS | FLASH |
| φ1 | | |
| φ2 | 4-6 | R |
| φ3 | | |
| φ4 | 10-12 | R |
| φ5 | | |
| φ6 | 1-3 | R |
| φ7 | | |
| φ8 | 7-9 | R |
| φ2 PED | | |
| φ4 PED | 90,91 | |
| φ6 PED | 92,93 | |
| φ8 PED | | |

| O.L. ASSIGNMENTS | | | |
|---|---|---|---|
| OL A | | | |
| OL B | | | |
| OL C | | | |
| OL D | | | |
| OL E | | | |
| OL F | | | |
| OL G | | | |
| OL H | | | |




| PREEMPTION ASSIGNMENTS | | | |
|---|---|---|---|
| PREEMPTION DESIGNATION | PREEMPTION TYPE | EVP CHANNEL | PHASE(S) CALLED |
| 1 | RESERVED | | |
| 2 | RESERVED | | |
| 3 | NOT USED | | |
| 4 | NOT USED | | |
| 5 | NOT USED | | |
| 6 | NOT USED | | |
| 7 | NOT USED | | |
| 8 | NOT USED | | |
| 9 | NOT USED | | |
| 10 | NOT USED | | |

| CONTROLLER LOGIC | | | | |
|---|---|---|---|---|
| PHASE NUMBER | PHASE LOCKING | DUAL ENTRY W/ φ | PHASE RECALL | PHASE ACTIVE |
| φ1 | | | | |
| φ2 | X | 6 | MIN | X |
| φ3 | | | | |
| φ4 | | 8 | | X |
| φ5 | | | | |
| φ6 | X | 2 | MIN | X |
| φ7 | | | | |
| φ8 | | 4 | | X |

| TYPE OF LIGHTING | |
|---|---|
| BY OTHER AGENCY | |
| IN TRAFFIC SIGNAL CABINET | X |
| IN SEPERATE DOT LIGHTING CABINET | |

| TYPE OF INTERCONNECT | |
|---|---|
| NONE | X |
| TBC | |
| CLOSED LOOP TWISTED PAIR | |
| CLOSED LOOP FIBER OPTIC | |
| RADIO | |

| CENTRAL SYSTEM |
|---|
| LOCATION OF MASTER: |
| CONTROLLER NO. SXX-XXXX |
| SIGNAL SYSTEM NO. SSXX-XXXX |

| TYPE OF PREEMPTION | |
|---|---|
| NONE | X |
| RAILROAD | |
| EMERGENCY VEHICLE | |
| GTT | |
| TOMAR | |
| HARDWIRE | |
| OTHER | |
| LIFT BRIDGE | |
| QUEUE DETECTOR | |

## DETECTOR LOGIC

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DETECTOR INPUT | 3 | 1 | 7 | 5 | 11 | 9 | 15 | 13 |
| DETECTOR #(S) | 23 | 25 | 24 | 42 | 44 | 63 | 64 | 82 |
| PHASE CALLED | 2 | 2 | 2 | 4 | 4 | 6 | 6 | 8 |
| PHASE EXTENDED | 2 | 2 | 2 | 4 | 4 | 6 | 6 | 8 |
| DISCONNECT TIME | | | | | | | | |
| CALLING DELAY | | | | 3 | 15 | | | |
| EXTENSION STRETCH | | | | | | | | |
| LOOP FUNCTION | PAS | | | | | PAS | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DETECTOR INPUT | 19 | 17 | 23 | 21 | 27 | 25 | 31 | 29 |
| DETECTOR #(S) | 84 | | | | | | | |
| PHASE CALLED | 8 | | | | | | | |
| PHASE EXTENDED | | | | | | | | |
| DISCONNECT TIME | | | | | | | | |
| CALLING DELAY | | | | | | | | |
| EXTENSION STRETCH | 3 | | | | | | | |
| LOOP FUNCTION | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DETECTOR INPUT | 4 | 2 | 8 | 6 | 12 | 10 | 16 | 14 |
| DETECTOR #(S) | 21 | 23 | | 41 | 43 | 62 | 61 | 81 |
| PHASE CALLED | | | | 4 | 4 | | 6 | 8 |
| PHASE EXTENDED | 2 | | | 4 | 4 | 6 | | 8 |
| DISCONNECT TIME | | | | | | | | |
| CALLING DELAY | | | | 3 | 15 | | 10 | 3 |
| EXTENSION STRETCH | | | | | | | | |
| LOOP FUNCTION | PAS | | PAS | | | PAS | PAS | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DETECTOR INPUT | 20 | 18 | 24 | 22 | 28 | 26 | 32 | 30 |
| DETECTOR #(S) | 83 | | | | | | | |
| PHASE CALLED | 8 | | | | | | | |
| PHASE EXTENDED | 8 | | | | | | | |
| DISCONNECT TIME | | | | | | | | |
| CALLING DELAY | 15 | | | | | | | |
| EXTENSION STRETCH | | | | | | | | |
| LOOP FUNCTION | | | | | | | | |

| TYPE OF COORDINATION | |
|---|---|
| NONE | X |
| TBC | |
| TRAFFIC RESPONSIVE | |
| ADAPTIVE | |

| TYPE OF REMOTE COMMUNICATION | |
|---|---|
| NONE | |
| FIBER OPTIC | |
| CELL MODEM | X |
| PHONE | |

TRAFFIC CONTROL SIGNAL
STH 16 & SILVER LAKE ROAD
CITY OF PORTAGE COLUMBIA COUNTY
SIGNAL NO. S11-0898
REGION CONTACT: WISDOT SW REGION
DESIGNED BY: ------
REVISED BY: KL ENGINEERING
PAGE 3 OF 4

2

STH 16 & SILVER LAKE DRIVE
TRAFFIC SIGNAL CABLING CHART
NO. 14 CABLE

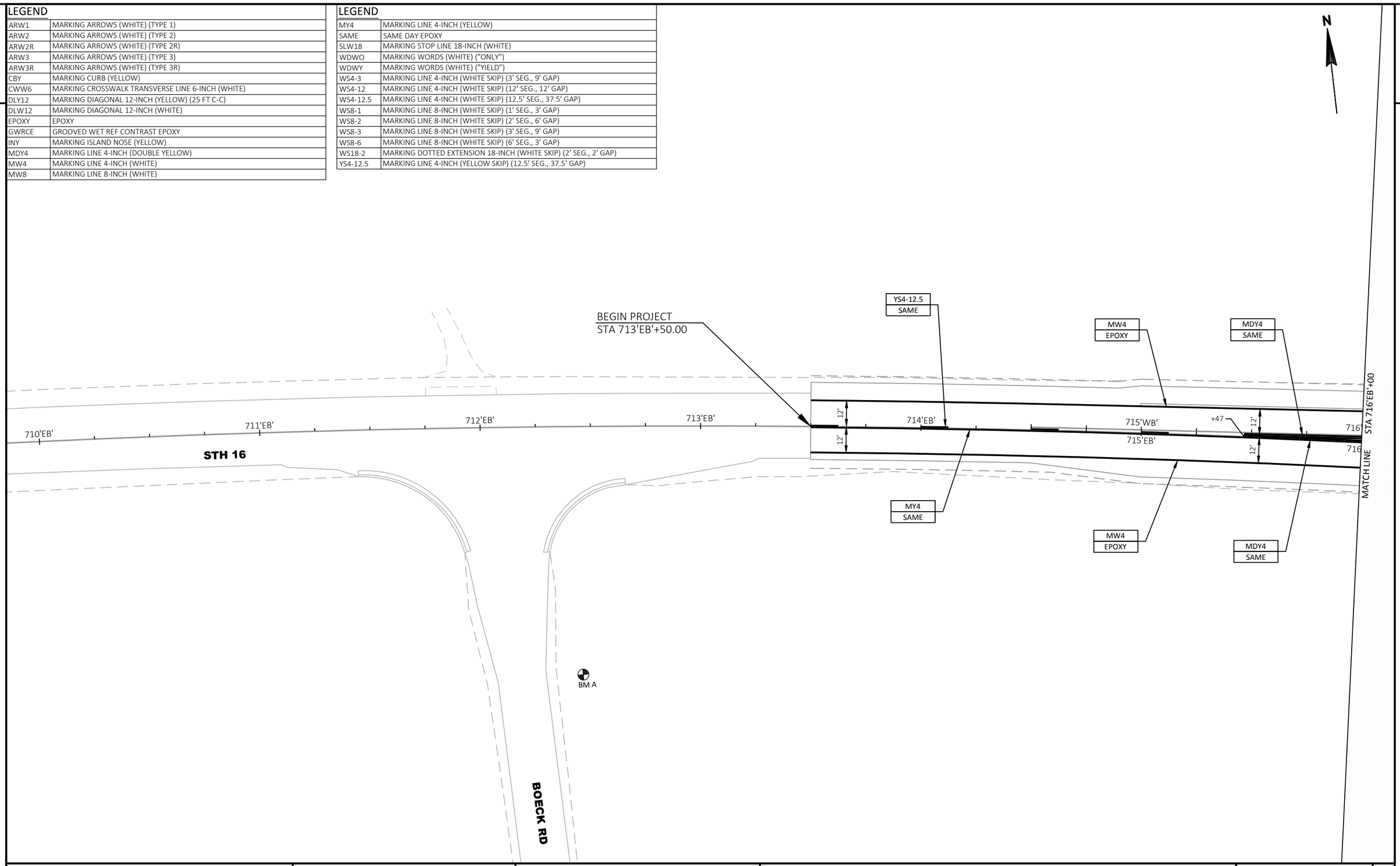
| CABLE RUN | CABLE | HEAD NUMBER | MOVEMENT | LENS | CONDUCTOR COLOR | REMARKS |
|---|---|---|---|---|---|---|
| CABINET TO SB-9 | 5C | -- | EB PED | BUTTON | BLK | ϕ6 |
| CABINET TO SB-10 | 5C | -- | NB PED | BUTTON | BLK | ϕ4 |

TRAFFIC CONTROL SIGNAL
STH 16 & SILVER LAKE ROAD
CITY OF PORTAGE COLUMBIA COUNTY
SIGNAL NO. S11-0898
REGION CONTACT: WISDOT SW REGION
DESIGNED BY: ------
REVISED BY: KL ENGINEERING
PAGE 4 OF 4

2

| LEGEND | |
|---|---|
| ARW1 | MARKING ARROWS (WHITE) (TYPE 1) |
| ARW2 | MARKING ARROWS (WHITE) (TYPE 2) |
| ARW2R | MARKING ARROWS (WHITE) (TYPE 2R) |
| ARW3 | MARKING ARROWS (WHITE) (TYPE 3) |
| ARW3R | MARKING ARROWS (WHITE) (TYPE 3R) |
| CBY | MARKING CURB (YELLOW) |
| CWW6 | MARKING CROSSWALK TRANSVERSE LINE 6-INCH (WHITE) |
| DLY12 | MARKING DIAGONAL 12-INCH (YELLOW) (25 FT C-C) |
| DLW12 | MARKING DIAGONAL 12-INCH (WHITE) |
| EPOXY | EPOXY |
| GWRCE | GROOVED WET REF CONTRAST EPOXY |
| INY | MARKING ISLAND NOSE (YELLOW) |
| MDY4 | MARKING LINE 4-INCH (DOUBLE YELLOW) |
| MW4 | MARKING LINE 4-INCH (WHITE) |
| MW8 | MARKING LINE 8-INCH (WHITE) |

| LEGEND | |
|---|---|
| MY4 | MARKING LINE 4-INCH (YELLOW) |
| SAME | SAME DAY EPOXY |
| SLW18 | MARKING STOP LINE 18-INCH (WHITE) |
| WDWO | MARKING WORDS (WHITE) ("ONLY") |
| WDWY | MARKING WORDS (WHITE) ("YIELD") |
| WS4-3 | MARKING LINE 4-INCH (WHITE SKIP) (3' SEG., 9' GAP) |
| WS4-12 | MARKING LINE 4-INCH (WHITE SKIP) (12' SEG., 12' GAP) |
| WS4-12.5 | MARKING LINE 4-INCH (WHITE SKIP) (12.5' SEG., 37.5' GAP) |
| WS8-1 | MARKING LINE 8-INCH (WHITE SKIP) (1' SEG., 3' GAP) |
| WS8-2 | MARKING LINE 8-INCH (WHITE SKIP) (2' SEG., 6' GAP) |
| WS8-3 | MARKING LINE 8-INCH (WHITE SKIP) (3' SEG., 9' GAP) |
| WS8-6 | MARKING LINE 8-INCH (WHITE SKIP) (6' SEG., 3' GAP) |
| WS18-2 | MARKING DOTTED EXTENSION 18-INCH (WHITE SKIP) (2' SEG., 2' GAP) |
| YS4-12.5 | MARKING LINE 4-INCH (YELLOW SKIP) (12.5' SEG., 37.5' GAP) |

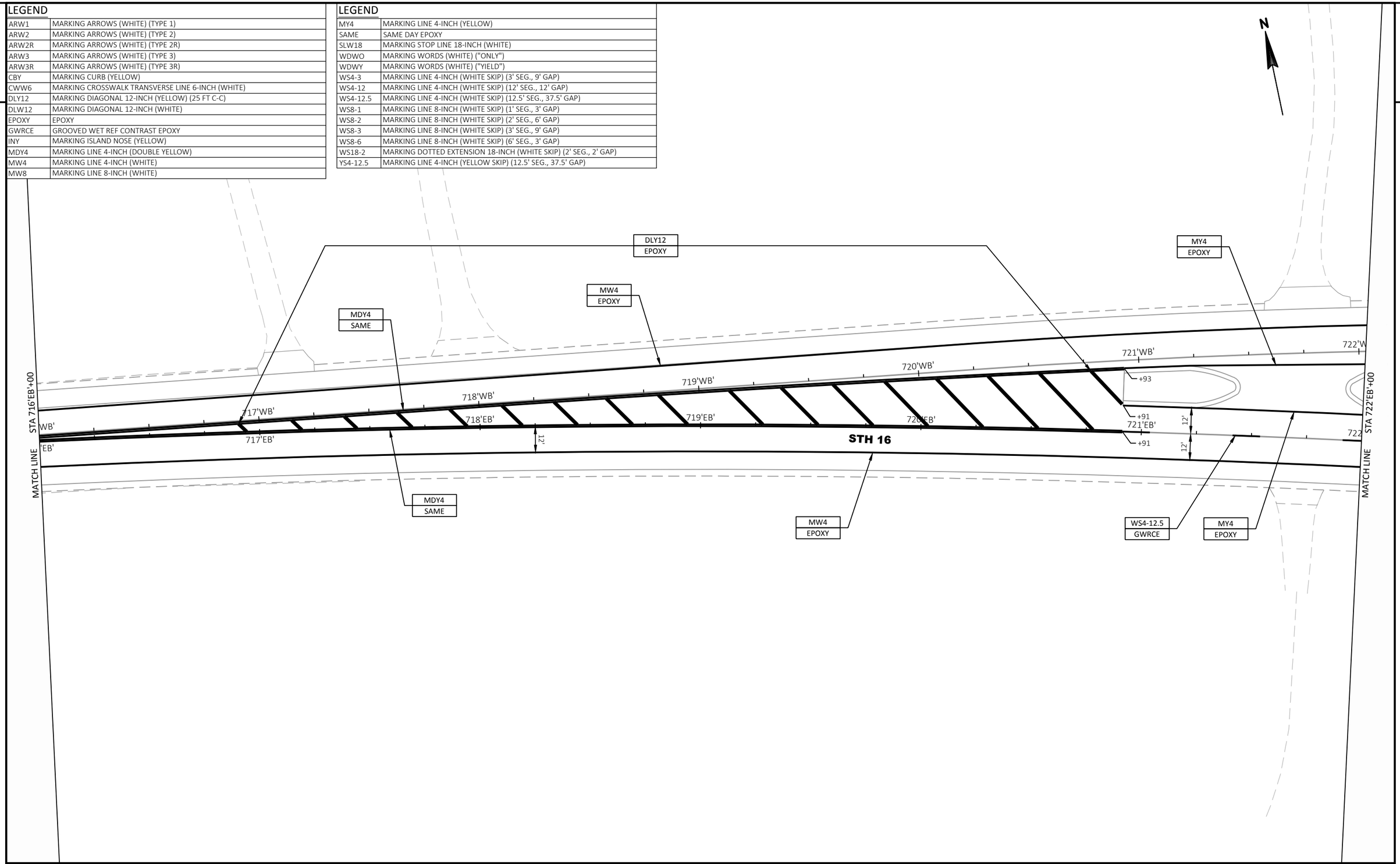



| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PAVEMENT MARKING - STH 16 | SHEET 109 | E |
|---|---|---|---|---|---|

2

| LEGEND | |
|---|---|
| ARW1 | MARKING ARROWS (WHITE) (TYPE 1) |
| ARW2 | MARKING ARROWS (WHITE) (TYPE 2) |
| ARW2R | MARKING ARROWS (WHITE) (TYPE 2R) |
| ARW3 | MARKING ARROWS (WHITE) (TYPE 3) |
| ARW3R | MARKING ARROWS (WHITE) (TYPE 3R) |
| CBY | MARKING CURB (YELLOW) |
| CWW6 | MARKING CROSSWALK TRANSVERSE LINE 6-INCH (WHITE) |
| DLY12 | MARKING DIAGONAL 12-INCH (YELLOW) (25 FT C-C) |
| DLW12 | MARKING DIAGONAL 12-INCH (WHITE) |
| EPOXY | EPOXY |
| GWRCE | GROOVED WET REF CONTRAST EPOXY |
| INY | MARKING ISLAND NOSE (YELLOW) |
| MDY4 | MARKING LINE 4-INCH (DOUBLE YELLOW) |
| MW4 | MARKING LINE 4-INCH (WHITE) |
| MW8 | MARKING LINE 8-INCH (WHITE) |

| LEGEND | |
|---|---|
| MY4 | MARKING LINE 4-INCH (YELLOW) |
| SAME | SAME DAY EPOXY |
| SLW18 | MARKING STOP LINE 18-INCH (WHITE) |
| WDWO | MARKING WORDS (WHITE) ("ONLY") |
| WDWY | MARKING WORDS (WHITE) ("YIELD") |
| WS4-3 | MARKING LINE 4-INCH (WHITE SKIP) (3' SEG., 9' GAP) |
| WS4-12 | MARKING LINE 4-INCH (WHITE SKIP) (12' SEG., 12' GAP) |
| WS4-12.5 | MARKING LINE 4-INCH (WHITE SKIP) (12.5' SEG., 37.5' GAP) |
| WS8-1 | MARKING LINE 8-INCH (WHITE SKIP) (1' SEG., 3' GAP) |
| WS8-2 | MARKING LINE 8-INCH (WHITE SKIP) (2' SEG., 6' GAP) |
| WS8-3 | MARKING LINE 8-INCH (WHITE SKIP) (3' SEG., 9' GAP) |
| WS8-6 | MARKING LINE 8-INCH (WHITE SKIP) (6' SEG., 3' GAP) |
| WS18-2 | MARKING DOTTED EXTENSION 18-INCH (WHITE SKIP) (2' SEG., 2' GAP) |
| YS4-12.5 | MARKING LINE 4-INCH (YELLOW SKIP) (12.5' SEG., 37.5' GAP) |

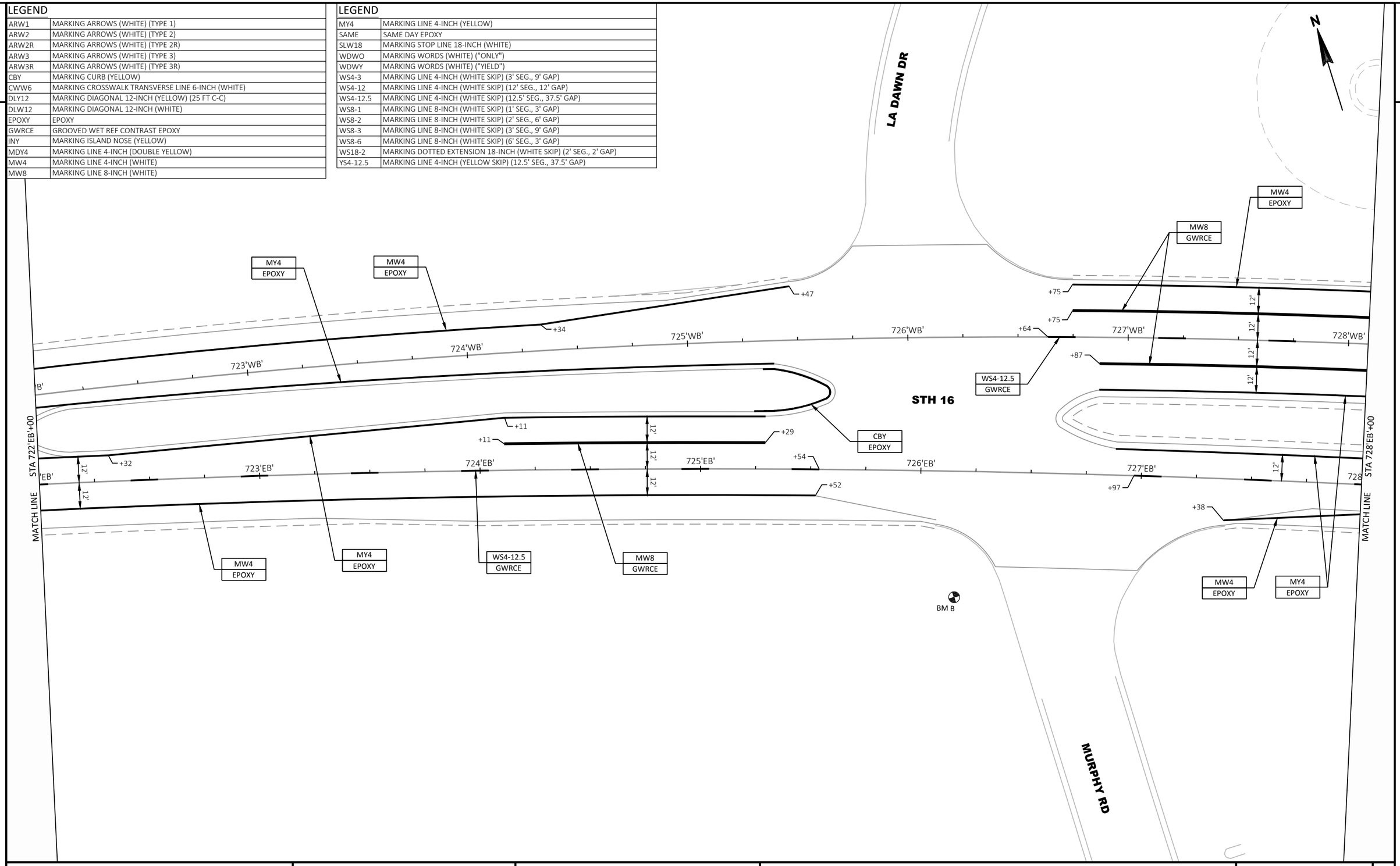



| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PAVEMENT MARKING - STH 16 | SHEET 110 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-024501-PM.DWG
LAYOUT NAME - 02
PLOT DATE : 1/2/2018 10:57 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

| LEGEND | |
|---|---|
| ARW1 | MARKING ARROWS (WHITE) (TYPE 1) |
| ARW2 | MARKING ARROWS (WHITE) (TYPE 2) |
| ARW2R | MARKING ARROWS (WHITE) (TYPE 2R) |
| ARW3 | MARKING ARROWS (WHITE) (TYPE 3) |
| ARW3R | MARKING ARROWS (WHITE) (TYPE 3R) |
| CBY | MARKING CURB (YELLOW) |
| CWW6 | MARKING CROSSWALK TRANSVERSE LINE 6-INCH (WHITE) |
| DLY12 | MARKING DIAGONAL 12-INCH (YELLOW) (25 FT C-C) |
| DLW12 | MARKING DIAGONAL 12-INCH (WHITE) |
| EPOXY | EPOXY |
| GWRCE | GROOVED WET REF CONTRAST EPOXY |
| INY | MARKING ISLAND NOSE (YELLOW) |
| MDY4 | MARKING LINE 4-INCH (DOUBLE YELLOW) |
| MW4 | MARKING LINE 4-INCH (WHITE) |
| MW8 | MARKING LINE 8-INCH (WHITE) |

| LEGEND | |
|---|---|
| MY4 | MARKING LINE 4-INCH (YELLOW) |
| SAME | SAME DAY EPOXY |
| SLW18 | MARKING STOP LINE 18-INCH (WHITE) |
| WDWO | MARKING WORDS (WHITE) ("ONLY") |
| WDWY | MARKING WORDS (WHITE) ("YIELD") |
| WS4-3 | MARKING LINE 4-INCH (WHITE SKIP) (3' SEG., 9' GAP) |
| WS4-12 | MARKING LINE 4-INCH (WHITE SKIP) (12' SEG., 12' GAP) |
| WS4-12.5 | MARKING LINE 4-INCH (WHITE SKIP) (12.5' SEG., 37.5' GAP) |
| WS8-1 | MARKING LINE 8-INCH (WHITE SKIP) (1' SEG., 3' GAP) |
| WS8-2 | MARKING LINE 8-INCH (WHITE SKIP) (2' SEG., 6' GAP) |
| WS8-3 | MARKING LINE 8-INCH (WHITE SKIP) (3' SEG., 9' GAP) |
| WS8-6 | MARKING LINE 8-INCH (WHITE SKIP) (6' SEG., 3' GAP) |
| WS18-2 | MARKING DOTTED EXTENSION 18-INCH (WHITE SKIP) (2' SEG., 2' GAP) |
| YS4-12.5 | MARKING LINE 4-INCH (YELLOW SKIP) (12.5' SEG., 37.5' GAP) |




| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PAVEMENT MARKING - STH 16 | SHEET 111 | E |
|---|---|---|---|---|---|

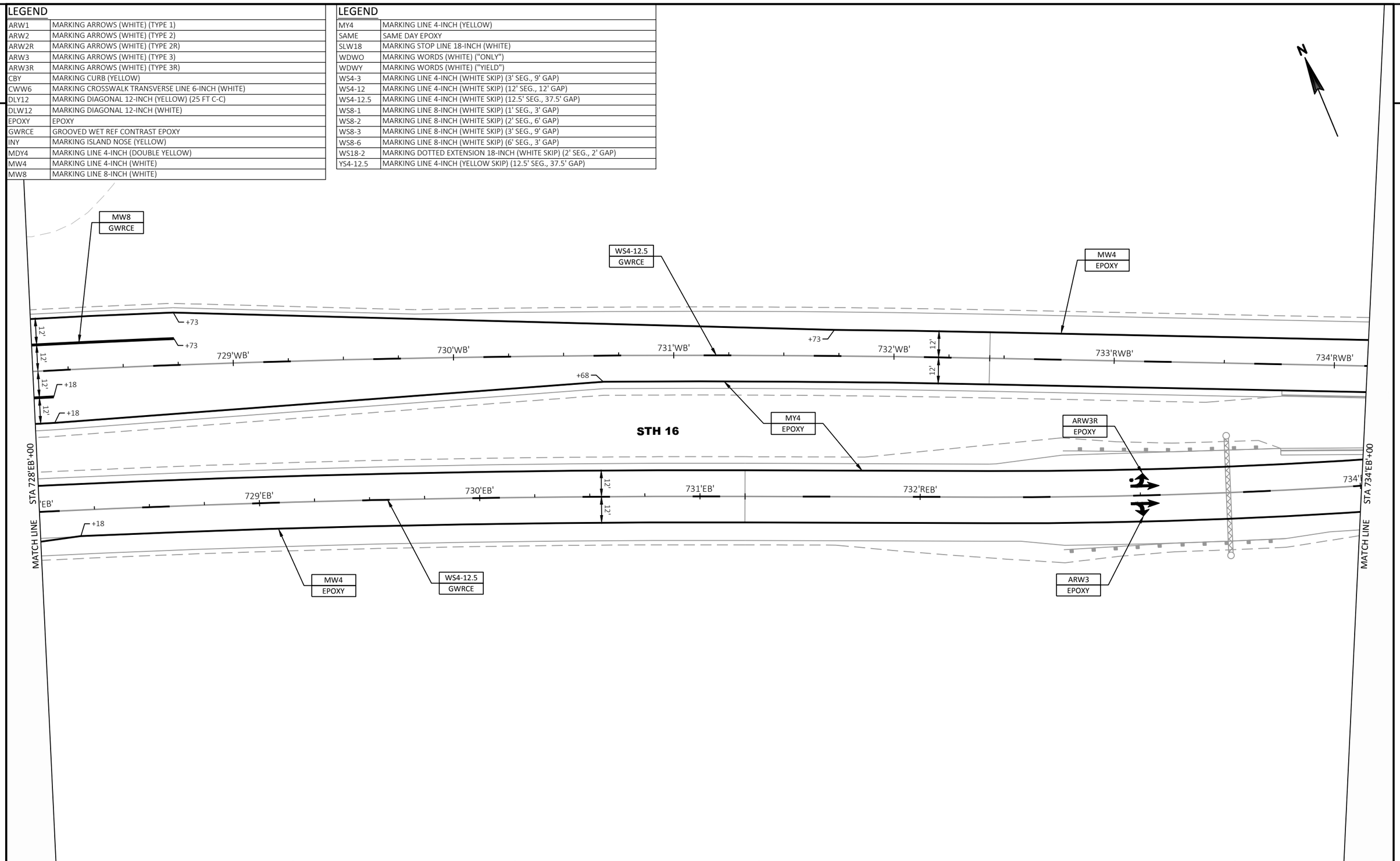
FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-024501-PM.DWG
LAYOUT NAME - 03

PLOT DATE : 1/2/2018 10:57 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

| LEGEND | |
|---|---|
| ARW1 | MARKING ARROWS (WHITE) (TYPE 1) |
| ARW2 | MARKING ARROWS (WHITE) (TYPE 2) |
| ARW2R | MARKING ARROWS (WHITE) (TYPE 2R) |
| ARW3 | MARKING ARROWS (WHITE) (TYPE 3) |
| ARW3R | MARKING ARROWS (WHITE) (TYPE 3R) |
| CBY | MARKING CURB (YELLOW) |
| CWW6 | MARKING CROSSWALK TRANSVERSE LINE 6-INCH (WHITE) |
| DLY12 | MARKING DIAGONAL 12-INCH (YELLOW) (25 FT C-C) |
| DLW12 | MARKING DIAGONAL 12-INCH (WHITE) |
| EPOXY | EPOXY |
| GWRCE | GROOVED WET REF CONTRAST EPOXY |
| INY | MARKING ISLAND NOSE (YELLOW) |
| MDY4 | MARKING LINE 4-INCH (DOUBLE YELLOW) |
| MW4 | MARKING LINE 4-INCH (WHITE) |
| MW8 | MARKING LINE 8-INCH (WHITE) |

| LEGEND | |
|---|---|
| MY4 | MARKING LINE 4-INCH (YELLOW) |
| SAME | SAME DAY EPOXY |
| SLW18 | MARKING STOP LINE 18-INCH (WHITE) |
| WDWO | MARKING WORDS (WHITE) ("ONLY") |
| WDWY | MARKING WORDS (WHITE) ("YIELD") |
| WS4-3 | MARKING LINE 4-INCH (WHITE SKIP) (3' SEG., 9' GAP) |
| WS4-12 | MARKING LINE 4-INCH (WHITE SKIP) (12' SEG., 12' GAP) |
| WS4-12.5 | MARKING LINE 4-INCH (WHITE SKIP) (12.5' SEG., 37.5' GAP) |
| WS8-1 | MARKING LINE 8-INCH (WHITE SKIP) (1' SEG., 3' GAP) |
| WS8-2 | MARKING LINE 8-INCH (WHITE SKIP) (2' SEG., 6' GAP) |
| WS8-3 | MARKING LINE 8-INCH (WHITE SKIP) (3' SEG., 9' GAP) |
| WS8-6 | MARKING LINE 8-INCH (WHITE SKIP) (6' SEG., 3' GAP) |
| WS18-2 | MARKING DOTTED EXTENSION 18-INCH (WHITE SKIP) (2' SEG., 2' GAP) |
| YS4-12.5 | MARKING LINE 4-INCH (YELLOW SKIP) (12.5' SEG., 37.5' GAP) |




| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PAVEMENT MARKING - STH 16 | SHEET 112 E |
|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-024501-PM.DWG
LAYOUT NAME - 04
PLOT DATE : 1/2/2018 10:57 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

| LEGEND | |
|---|---|
| ARW1 | MARKING ARROWS (WHITE) (TYPE 1) |
| ARW2 | MARKING ARROWS (WHITE) (TYPE 2) |
| ARW2R | MARKING ARROWS (WHITE) (TYPE 2R) |
| ARW3 | MARKING ARROWS (WHITE) (TYPE 3) |
| ARW3R | MARKING ARROWS (WHITE) (TYPE 3R) |
| CBY | MARKING CURB (YELLOW) |
| CWW6 | MARKING CROSSWALK TRANSVERSE LINE 6-INCH (WHITE) |
| DLY12 | MARKING DIAGONAL 12-INCH (YELLOW) (25 FT C-C) |
| DLW12 | MARKING DIAGONAL 12-INCH (WHITE) |
| EPOXY | EPOXY |
| GWRCE | GROOVED WET REF CONTRAST EPOXY |
| INY | MARKING ISLAND NOSE (YELLOW) |
| MDY4 | MARKING LINE 4-INCH (DOUBLE YELLOW) |
| MW4 | MARKING LINE 4-INCH (WHITE) |
| MW8 | MARKING LINE 8-INCH (WHITE) |

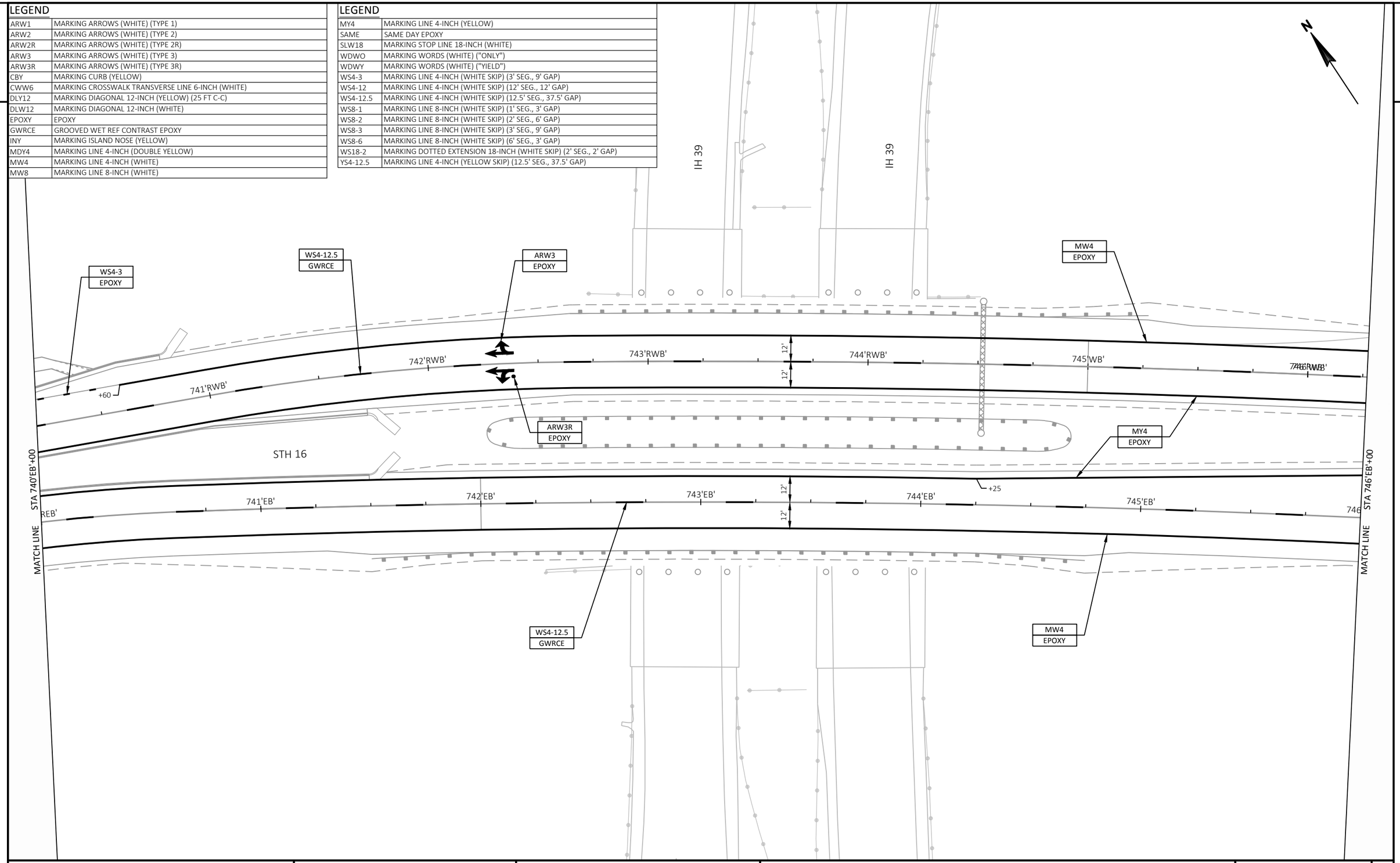
| LEGEND | |
|---|---|
| MY4 | MARKING LINE 4-INCH (YELLOW) |
| SAME | SAME DAY EPOXY |
| SLW18 | MARKING STOP LINE 18-INCH (WHITE) |
| WDWO | MARKING WORDS (WHITE) ("ONLY") |
| WDWY | MARKING WORDS (WHITE) ("YIELD") |
| WS4-3 | MARKING LINE 4-INCH (WHITE SKIP) (3' SEG., 9' GAP) |
| WS4-12 | MARKING LINE 4-INCH (WHITE SKIP) (12' SEG., 12' GAP) |
| WS4-12.5 | MARKING LINE 4-INCH (WHITE SKIP) (12.5' SEG., 37.5' GAP) |
| WS8-1 | MARKING LINE 8-INCH (WHITE SKIP) (1' SEG., 3' GAP) |
| WS8-2 | MARKING LINE 8-INCH (WHITE SKIP) (2' SEG., 6' GAP) |
| WS8-3 | MARKING LINE 8-INCH (WHITE SKIP) (3' SEG., 9' GAP) |
| WS8-6 | MARKING LINE 8-INCH (WHITE SKIP) (6' SEG., 3' GAP) |
| WS18-2 | MARKING DOTTED EXTENSION 18-INCH (WHITE SKIP) (2' SEG., 2' GAP) |
| YS4-12.5 | MARKING LINE 4-INCH (YELLOW SKIP) (12.5' SEG., 37.5' GAP) |

STH 16
STH 127
RAMP 'A'
RAMP 'B'
MATCH LINE
STA 734'EB'+00
STA 740'EB'+00
735'RWB'
736'RWB'
737'RWB'
738'RWB'
739'RWB'
740'RWB'
736'REB'
738'REB'
740'REB'
14'RAB'
12'RAB'
13'RAB'
11'RAB'
50'RA'
49'RA'
59'RB'
MW4 EPOXY
WS4-12.5 GWRCE
MY4 EPOXY
ARW3R EPOXY
ARW3 EPOXY
WS4-3 EPOXY
DLW12 EPOXY
CWW6 EPOXY
MW8 EPOXY
WS8-6 EPOXY
WS18-2 EPOXY
ARW1 EPOXY
WDWY EPOXY

2

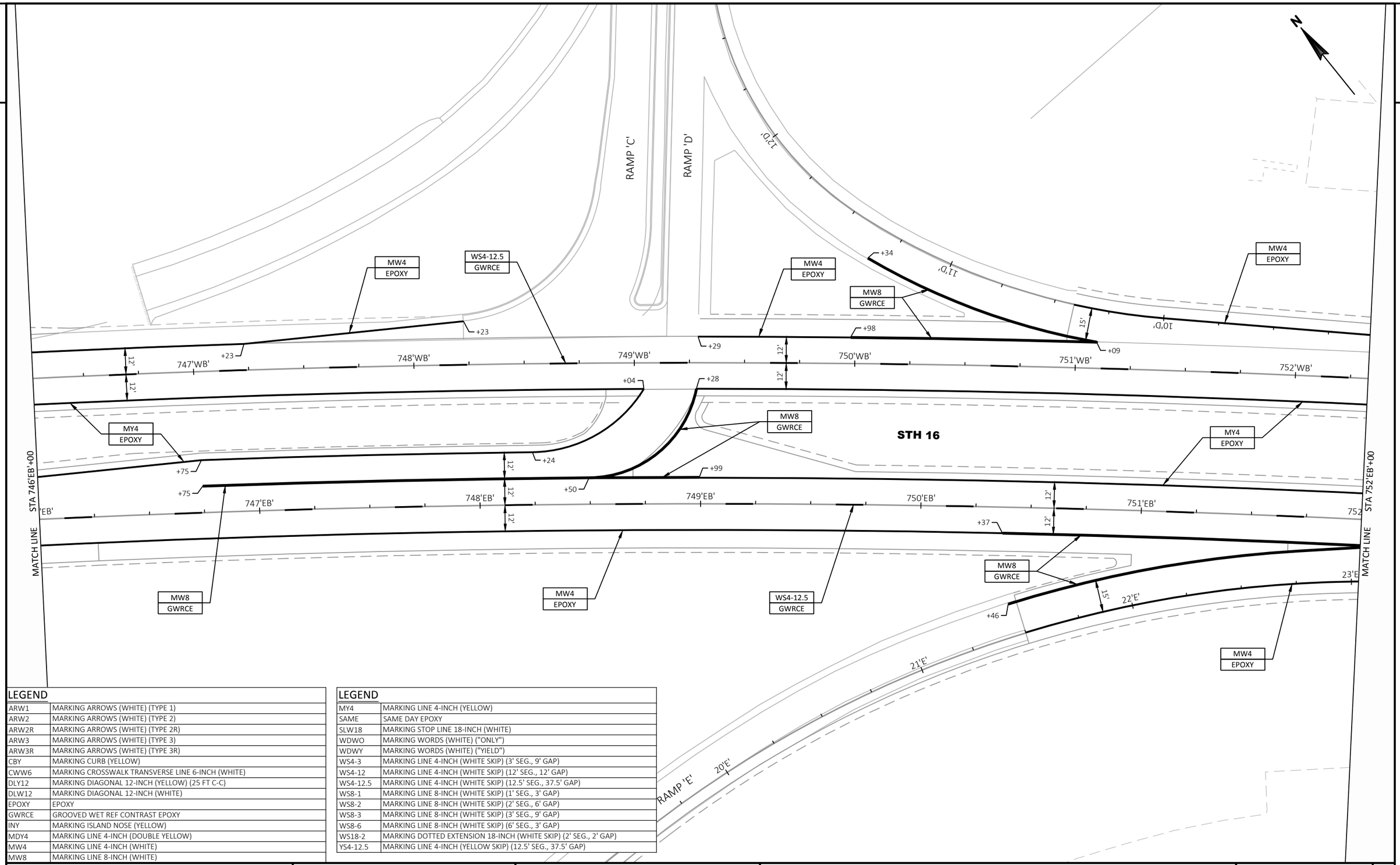
| LEGEND | |
|---|---|
| ARW1 | MARKING ARROWS (WHITE) (TYPE 1) |
| ARW2 | MARKING ARROWS (WHITE) (TYPE 2) |
| ARW2R | MARKING ARROWS (WHITE) (TYPE 2R) |
| ARW3 | MARKING ARROWS (WHITE) (TYPE 3) |
| ARW3R | MARKING ARROWS (WHITE) (TYPE 3R) |
| CBY | MARKING CURB (YELLOW) |
| CWW6 | MARKING CROSSWALK TRANSVERSE LINE 6-INCH (WHITE) |
| DLY12 | MARKING DIAGONAL 12-INCH (YELLOW) (25 FT C-C) |
| DLW12 | MARKING DIAGONAL 12-INCH (WHITE) |
| EPOXY | EPOXY |
| GWRCE | GROOVED WET REF CONTRAST EPOXY |
| INY | MARKING ISLAND NOSE (YELLOW) |
| MDY4 | MARKING LINE 4-INCH (DOUBLE YELLOW) |
| MW4 | MARKING LINE 4-INCH (WHITE) |
| MW8 | MARKING LINE 8-INCH (WHITE) |

| LEGEND | |
|---|---|
| MY4 | MARKING LINE 4-INCH (YELLOW) |
| SAME | SAME DAY EPOXY |
| SLW18 | MARKING STOP LINE 18-INCH (WHITE) |
| WDWO | MARKING WORDS (WHITE) ("ONLY") |
| WDWY | MARKING WORDS (WHITE) ("YIELD") |
| WS4-3 | MARKING LINE 4-INCH (WHITE SKIP) (3' SEG., 9' GAP) |
| WS4-12 | MARKING LINE 4-INCH (WHITE SKIP) (12' SEG., 12' GAP) |
| WS4-12.5 | MARKING LINE 4-INCH (WHITE SKIP) (12.5' SEG., 37.5' GAP) |
| WS8-1 | MARKING LINE 8-INCH (WHITE SKIP) (1' SEG., 3' GAP) |
| WS8-2 | MARKING LINE 8-INCH (WHITE SKIP) (2' SEG., 6' GAP) |
| WS8-3 | MARKING LINE 8-INCH (WHITE SKIP) (3' SEG., 9' GAP) |
| WS8-6 | MARKING LINE 8-INCH (WHITE SKIP) (6' SEG., 3' GAP) |
| WS18-2 | MARKING DOTTED EXTENSION 18-INCH (WHITE SKIP) (2' SEG., 2' GAP) |
| YS4-12.5 | MARKING LINE 4-INCH (YELLOW SKIP) (12.5' SEG., 37.5' GAP) |




| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PAVEMENT MARKING - STH 16 | SHEET 114 | E |
|---|---|---|---|---|---|

2




| LEGEND | |
|---|---|
| ARW1 | MARKING ARROWS (WHITE) (TYPE 1) |
| ARW2 | MARKING ARROWS (WHITE) (TYPE 2) |
| ARW2R | MARKING ARROWS (WHITE) (TYPE 2R) |
| ARW3 | MARKING ARROWS (WHITE) (TYPE 3) |
| ARW3R | MARKING ARROWS (WHITE) (TYPE 3R) |
| CBY | MARKING CURB (YELLOW) |
| CWW6 | MARKING CROSSWALK TRANSVERSE LINE 6-INCH (WHITE) |
| DLY12 | MARKING DIAGONAL 12-INCH (YELLOW) (25 FT C-C) |
| DLW12 | MARKING DIAGONAL 12-INCH (WHITE) |
| EPOXY | EPOXY |
| GWRCE | GROOVED WET REF CONTRAST EPOXY |
| INY | MARKING ISLAND NOSE (YELLOW) |
| MDY4 | MARKING LINE 4-INCH (DOUBLE YELLOW) |
| MW4 | MARKING LINE 4-INCH (WHITE) |
| MW8 | MARKING LINE 8-INCH (WHITE) |

| LEGEND | |
|---|---|
| MY4 | MARKING LINE 4-INCH (YELLOW) |
| SAME | SAME DAY EPOXY |
| SLW18 | MARKING STOP LINE 18-INCH (WHITE) |
| WDWO | MARKING WORDS (WHITE) ("ONLY") |
| WDWY | MARKING WORDS (WHITE) ("YIELD") |
| WS4-3 | MARKING LINE 4-INCH (WHITE SKIP) (3' SEG., 9' GAP) |
| WS4-12 | MARKING LINE 4-INCH (WHITE SKIP) (12' SEG., 12' GAP) |
| WS4-12.5 | MARKING LINE 4-INCH (WHITE SKIP) (12.5' SEG., 37.5' GAP) |
| WS8-1 | MARKING LINE 8-INCH (WHITE SKIP) (1' SEG., 3' GAP) |
| WS8-2 | MARKING LINE 8-INCH (WHITE SKIP) (2' SEG., 6' GAP) |
| WS8-3 | MARKING LINE 8-INCH (WHITE SKIP) (3' SEG., 9' GAP) |
| WS8-6 | MARKING LINE 8-INCH (WHITE SKIP) (6' SEG., 3' GAP) |
| WS18-2 | MARKING DOTTED EXTENSION 18-INCH (WHITE SKIP) (2' SEG., 2' GAP) |
| YS4-12.5 | MARKING LINE 4-INCH (YELLOW SKIP) (12.5' SEG., 37.5' GAP) |

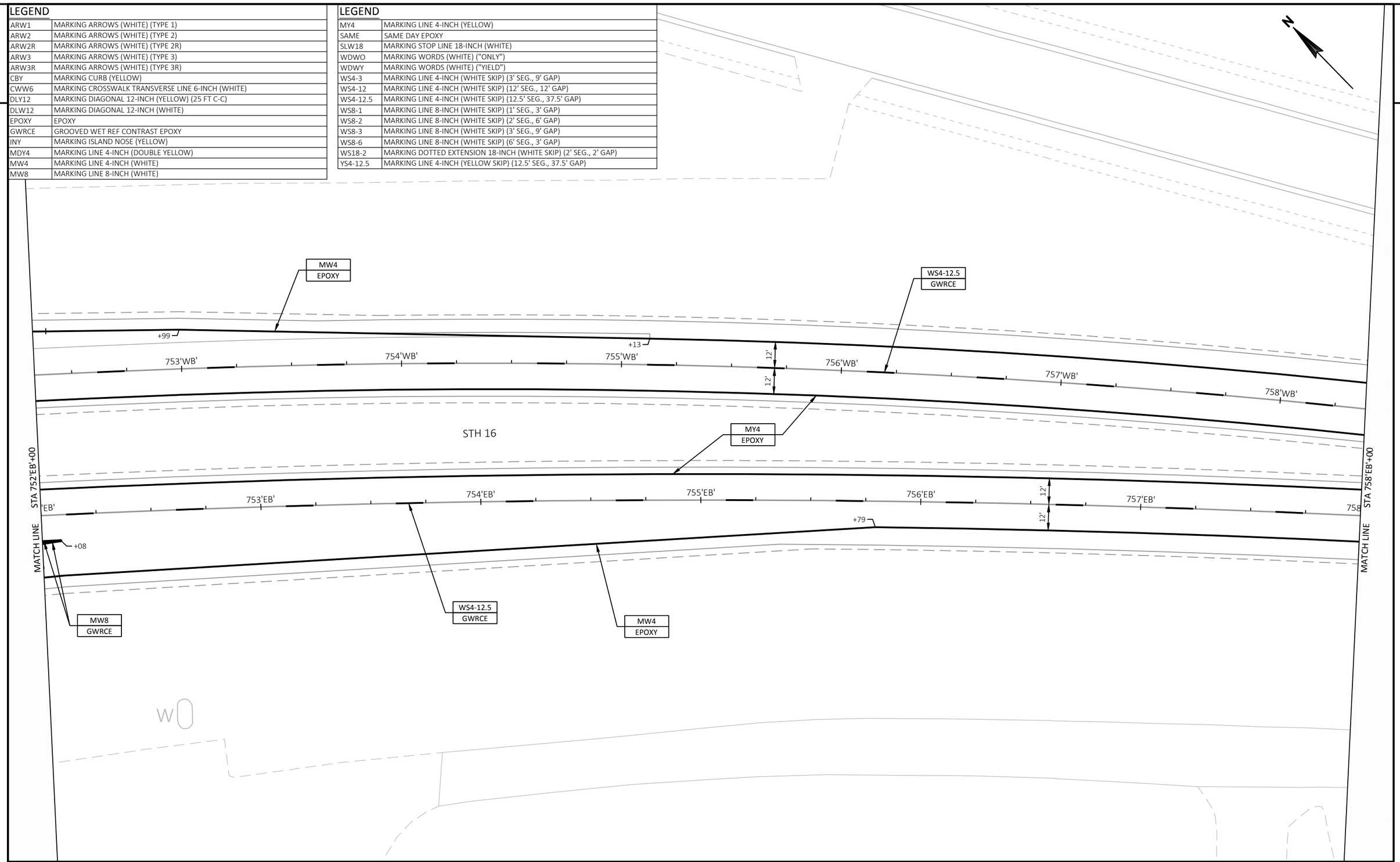
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PAVEMENT MARKING - STH 16 | SHEET 115 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-024501-PM.DWG
LAYOUT NAME - 07
PLOT DATE : 1/2/2018 10:58 AM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

| LEGEND | |
|---|---|
| ARW1 | MARKING ARROWS (WHITE) (TYPE 1) |
| ARW2 | MARKING ARROWS (WHITE) (TYPE 2) |
| ARW2R | MARKING ARROWS (WHITE) (TYPE 2R) |
| ARW3 | MARKING ARROWS (WHITE) (TYPE 3) |
| ARW3R | MARKING ARROWS (WHITE) (TYPE 3R) |
| CBY | MARKING CURB (YELLOW) |
| CWW6 | MARKING CROSSWALK TRANSVERSE LINE 6-INCH (WHITE) |
| DLY12 | MARKING DIAGONAL 12-INCH (YELLOW) (25 FT C-C) |
| DLW12 | MARKING DIAGONAL 12-INCH (WHITE) |
| EPOXY | EPOXY |
| GWRCE | GROOVED WET REF CONTRAST EPOXY |
| INY | MARKING ISLAND NOSE (YELLOW) |
| MDY4 | MARKING LINE 4-INCH (DOUBLE YELLOW) |
| MW4 | MARKING LINE 4-INCH (WHITE) |
| MW8 | MARKING LINE 8-INCH (WHITE) |

| LEGEND | |
|---|---|
| MY4 | MARKING LINE 4-INCH (YELLOW) |
| SAME | SAME DAY EPOXY |
| SLW18 | MARKING STOP LINE 18-INCH (WHITE) |
| WDWO | MARKING WORDS (WHITE) ("ONLY") |
| WDWY | MARKING WORDS (WHITE) ("YIELD") |
| WS4-3 | MARKING LINE 4-INCH (WHITE SKIP) (3' SEG., 9' GAP) |
| WS4-12 | MARKING LINE 4-INCH (WHITE SKIP) (12' SEG., 12' GAP) |
| WS4-12.5 | MARKING LINE 4-INCH (WHITE SKIP) (12.5' SEG., 37.5' GAP) |
| WS8-1 | MARKING LINE 8-INCH (WHITE SKIP) (1' SEG., 3' GAP) |
| WS8-2 | MARKING LINE 8-INCH (WHITE SKIP) (2' SEG., 6' GAP) |
| WS8-3 | MARKING LINE 8-INCH (WHITE SKIP) (3' SEG., 9' GAP) |
| WS8-6 | MARKING LINE 8-INCH (WHITE SKIP) (6' SEG., 3' GAP) |
| WS18-2 | MARKING DOTTED EXTENSION 18-INCH (WHITE SKIP) (2' SEG., 2' GAP) |
| YS4-12.5 | MARKING LINE 4-INCH (YELLOW SKIP) (12.5' SEG., 37.5' GAP) |




| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PAVEMENT MARKING - STH 16 | SHEET 116 | E |
|---|---|---|---|---|---|

2

2

CTH CX/WISCONSIN ST

STH 16

MATCH LINE STA 758'EB'+00

MATCH LINE STA 764'EB'+00

759'WB' 760'WB' 761'WB' 762'WB' 763'WB' 764'WB'

759'EB' 760'EB' 761'NEB' 762'NEB' 763'NEB' 764'

+77 +77 +81 +35 +25 +86

12' 12' 12' 12' 12' 12' 12'

DLY12 EPOXY

WS4-12.5 GWRCE

MY4 EPOXY

MW4 EPOXY

MDY4 EPOXY

MDY4 EPOXY

MW8 GWRCE

WS4-12.5 GWRCE

MY4 EPOXY

ARW2 EPOXY

MW4 EPOXY

MDY4 EPOXY

ARW2 EPOXY

WS8-3 GWRCE

| LEGEND | |
|---|---|
| ARW1 | MARKING ARROWS (WHITE) (TYPE 1) |
| ARW2 | MARKING ARROWS (WHITE) (TYPE 2) |
| ARW2R | MARKING ARROWS (WHITE) (TYPE 2R) |
| ARW3 | MARKING ARROWS (WHITE) (TYPE 3) |
| ARW3R | MARKING ARROWS (WHITE) (TYPE 3R) |
| CBY | MARKING CURB (YELLOW) |
| CWW6 | MARKING CROSSWALK TRANSVERSE LINE 6-INCH (WHITE) |
| DLY12 | MARKING DIAGONAL 12-INCH (YELLOW) (25 FT C-C) |
| DLW12 | MARKING DIAGONAL 12-INCH (WHITE) |
| EPOXY | EPOXY |
| GWRCE | GROOVED WET REF CONTRAST EPOXY |
| INY | MARKING ISLAND NOSE (YELLOW) |
| MDY4 | MARKING LINE 4-INCH (DOUBLE YELLOW) |
| MW4 | MARKING LINE 4-INCH (WHITE) |
| MW8 | MARKING LINE 8-INCH (WHITE) |

| LEGEND | |
|---|---|
| MY4 | MARKING LINE 4-INCH (YELLOW) |
| SAME | SAME DAY EPOXY |
| SLW18 | MARKING STOP LINE 18-INCH (WHITE) |
| WDWO | MARKING WORDS (WHITE) ("ONLY") |
| WDWY | MARKING WORDS (WHITE) ("YIELD") |
| WS4-3 | MARKING LINE 4-INCH (WHITE SKIP) (3' SEG., 9' GAP) |
| WS4-12 | MARKING LINE 4-INCH (WHITE SKIP) (12' SEG., 12' GAP) |
| WS4-12.5 | MARKING LINE 4-INCH (WHITE SKIP) (12.5' SEG., 37.5' GAP) |
| WS8-1 | MARKING LINE 8-INCH (WHITE SKIP) (1' SEG., 3' GAP) |
| WS8-2 | MARKING LINE 8-INCH (WHITE SKIP) (2' SEG., 6' GAP) |
| WS8-3 | MARKING LINE 8-INCH (WHITE SKIP) (3' SEG., 9' GAP) |
| WS8-6 | MARKING LINE 8-INCH (WHITE SKIP) (6' SEG., 3' GAP) |
| WS18-2 | MARKING DOTTED EXTENSION 18-INCH (WHITE SKIP) (2' SEG., 2' GAP) |
| YS4-12.5 | MARKING LINE 4-INCH (YELLOW SKIP) (12.5' SEG., 37.5' GAP) |

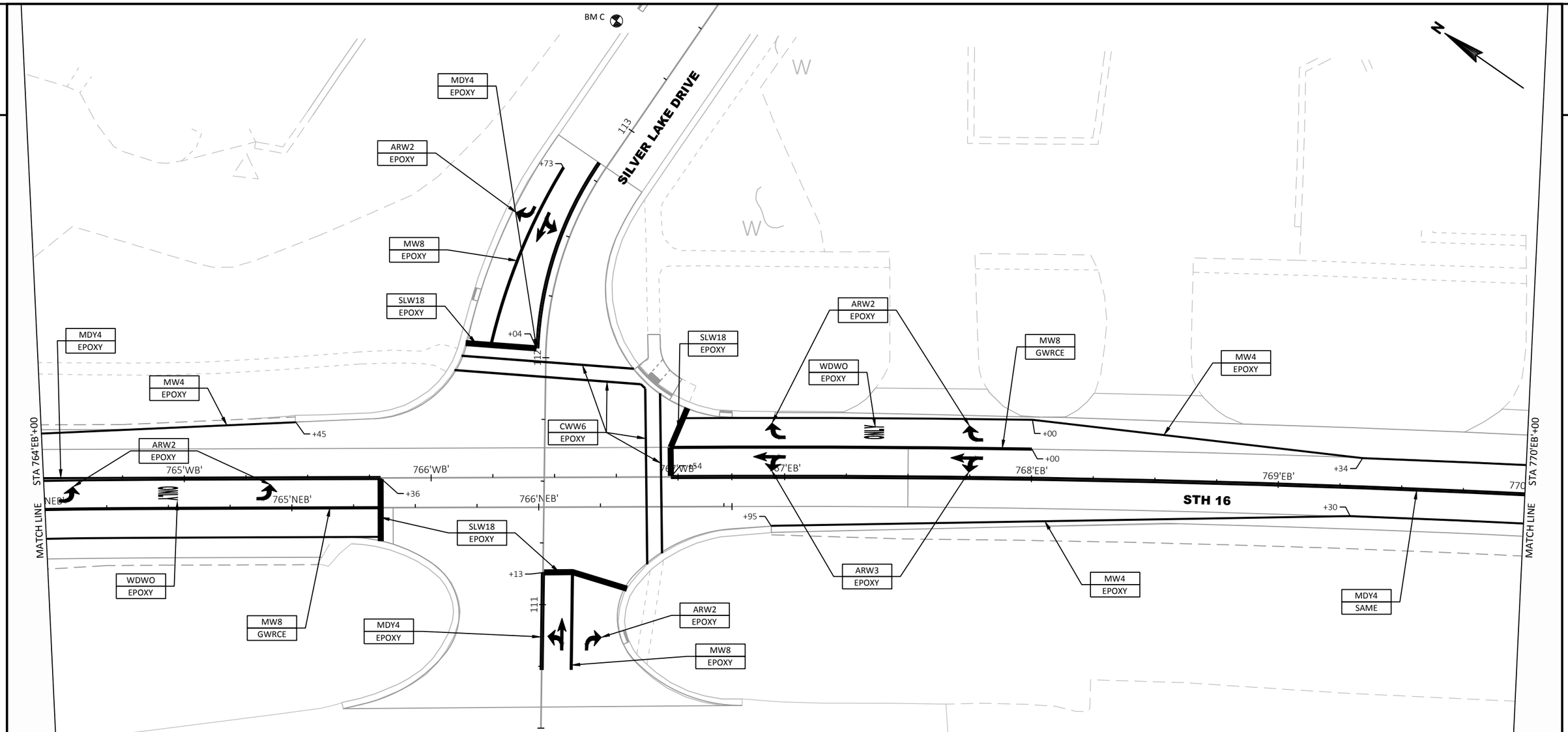
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PAVEMENT MARKING - STH 16 | SHEET 117 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-024501-PM.DWG
LAYOUT NAME - 09

PLOT DATE : 1/2/2018 10:58 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2




| LEGEND | |
|---|---|
| ARW1 | MARKING ARROWS (WHITE) (TYPE 1) |
| ARW2 | MARKING ARROWS (WHITE) (TYPE 2) |
| ARW2R | MARKING ARROWS (WHITE) (TYPE 2R) |
| ARW3 | MARKING ARROWS (WHITE) (TYPE 3) |
| ARW3R | MARKING ARROWS (WHITE) (TYPE 3R) |
| CBY | MARKING CURB (YELLOW) |
| CWW6 | MARKING CROSSWALK TRANSVERSE LINE 6-INCH (WHITE) |
| DLY12 | MARKING DIAGONAL 12-INCH (YELLOW) (25 FT C-C) |
| DLW12 | MARKING DIAGONAL 12-INCH (WHITE) |
| EPOXY | EPOXY |
| GWRCE | GROOVED WET REF CONTRAST EPOXY |
| INY | MARKING ISLAND NOSE (YELLOW) |
| MDY4 | MARKING LINE 4-INCH (DOUBLE YELLOW) |
| MW4 | MARKING LINE 4-INCH (WHITE) |
| MW8 | MARKING LINE 8-INCH (WHITE) |

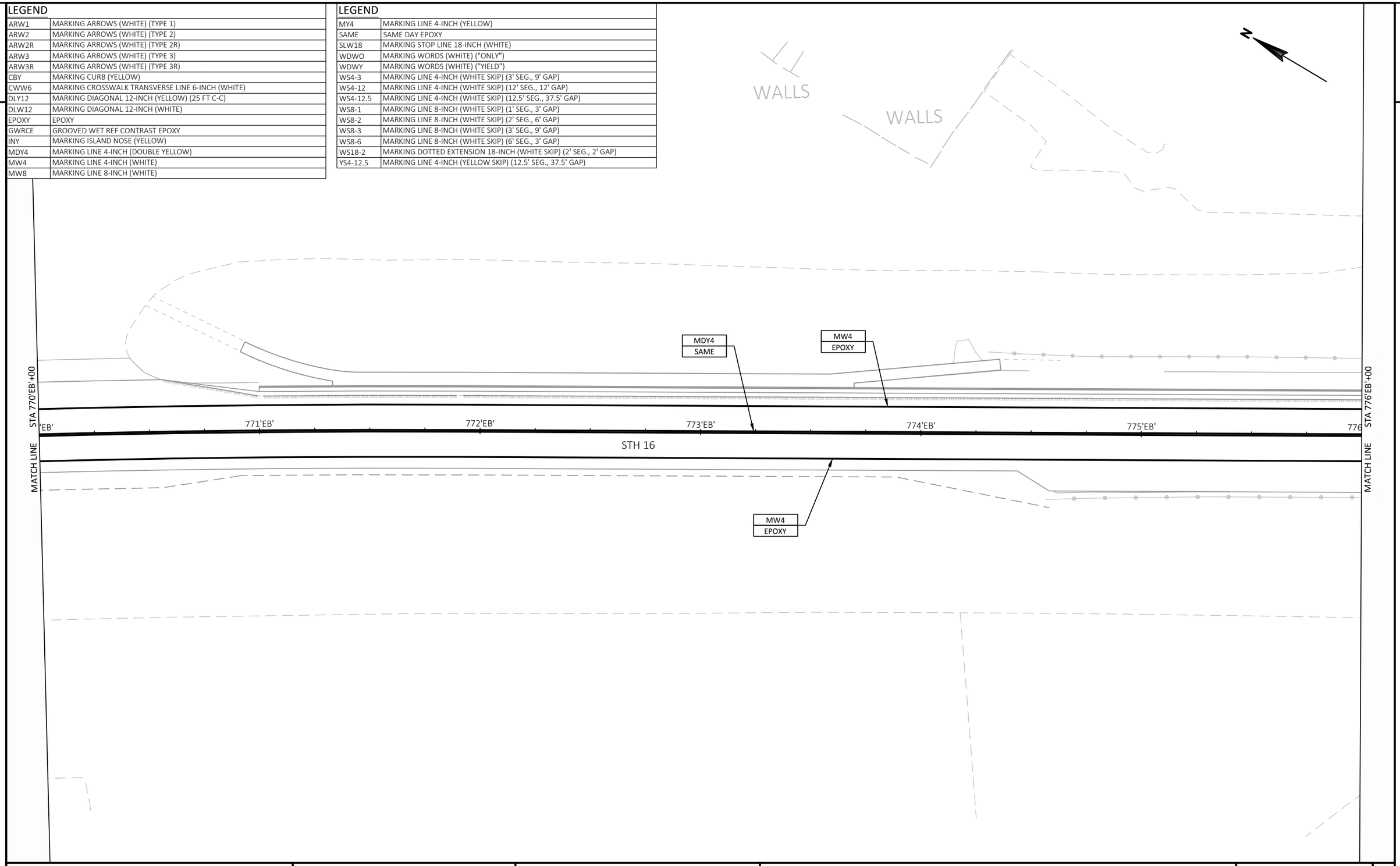
| LEGEND | |
|---|---|
| MY4 | MARKING LINE 4-INCH (YELLOW) |
| SAME | SAME DAY EPOXY |
| SLW18 | MARKING STOP LINE 18-INCH (WHITE) |
| WDWO | MARKING WORDS (WHITE) ("ONLY") |
| WDWY | MARKING WORDS (WHITE) ("YIELD") |
| WS4-3 | MARKING LINE 4-INCH (WHITE SKIP) (3' SEG., 9' GAP) |
| WS4-12 | MARKING LINE 4-INCH (WHITE SKIP) (12' SEG., 12' GAP) |
| WS4-12.5 | MARKING LINE 4-INCH (WHITE SKIP) (12.5' SEG., 37.5' GAP) |
| WS8-1 | MARKING LINE 8-INCH (WHITE SKIP) (1' SEG., 3' GAP) |
| WS8-2 | MARKING LINE 8-INCH (WHITE SKIP) (2' SEG., 6' GAP) |
| WS8-3 | MARKING LINE 8-INCH (WHITE SKIP) (3' SEG., 9' GAP) |
| WS8-6 | MARKING LINE 8-INCH (WHITE SKIP) (6' SEG., 3' GAP) |
| WS18-2 | MARKING DOTTED EXTENSION 18-INCH (WHITE SKIP) (2' SEG., 2' GAP) |
| YS4-12.5 | MARKING LINE 4-INCH (YELLOW SKIP) (12.5' SEG., 37.5' GAP) |

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PAVEMENT MARKING - STH 16 | SHEET 118 | E |
|---|---|---|---|---|---|

2

| LEGEND | |
|---|---|
| ARW1 | MARKING ARROWS (WHITE) (TYPE 1) |
| ARW2 | MARKING ARROWS (WHITE) (TYPE 2) |
| ARW2R | MARKING ARROWS (WHITE) (TYPE 2R) |
| ARW3 | MARKING ARROWS (WHITE) (TYPE 3) |
| ARW3R | MARKING ARROWS (WHITE) (TYPE 3R) |
| CBY | MARKING CURB (YELLOW) |
| CWW6 | MARKING CROSSWALK TRANSVERSE LINE 6-INCH (WHITE) |
| DLY12 | MARKING DIAGONAL 12-INCH (YELLOW) (25 FT C-C) |
| DLW12 | MARKING DIAGONAL 12-INCH (WHITE) |
| EPOXY | EPOXY |
| GWRCE | GROOVED WET REF CONTRAST EPOXY |
| INY | MARKING ISLAND NOSE (YELLOW) |
| MDY4 | MARKING LINE 4-INCH (DOUBLE YELLOW) |
| MW4 | MARKING LINE 4-INCH (WHITE) |
| MW8 | MARKING LINE 8-INCH (WHITE) |

| LEGEND | |
|---|---|
| MY4 | MARKING LINE 4-INCH (YELLOW) |
| SAME | SAME DAY EPOXY |
| SLW18 | MARKING STOP LINE 18-INCH (WHITE) |
| WDWO | MARKING WORDS (WHITE) ("ONLY") |
| WDWY | MARKING WORDS (WHITE) ("YIELD") |
| WS4-3 | MARKING LINE 4-INCH (WHITE SKIP) (3' SEG., 9' GAP) |
| WS4-12 | MARKING LINE 4-INCH (WHITE SKIP) (12' SEG., 12' GAP) |
| WS4-12.5 | MARKING LINE 4-INCH (WHITE SKIP) (12.5' SEG., 37.5' GAP) |
| WS8-1 | MARKING LINE 8-INCH (WHITE SKIP) (1' SEG., 3' GAP) |
| WS8-2 | MARKING LINE 8-INCH (WHITE SKIP) (2' SEG., 6' GAP) |
| WS8-3 | MARKING LINE 8-INCH (WHITE SKIP) (3' SEG., 9' GAP) |
| WS8-6 | MARKING LINE 8-INCH (WHITE SKIP) (6' SEG., 3' GAP) |
| WS18-2 | MARKING DOTTED EXTENSION 18-INCH (WHITE SKIP) (2' SEG., 2' GAP) |
| YS4-12.5 | MARKING LINE 4-INCH (YELLOW SKIP) (12.5' SEG., 37.5' GAP) |

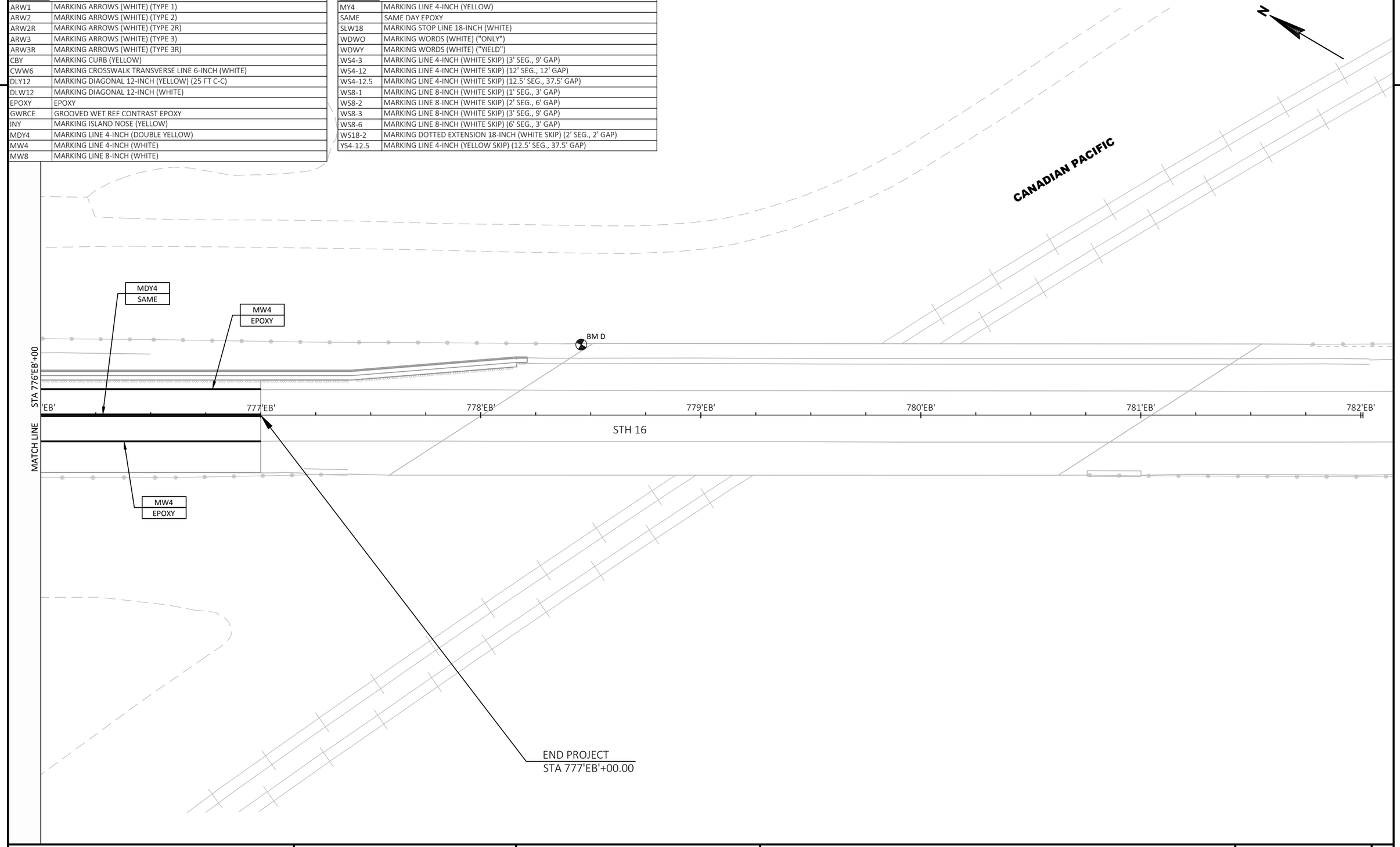



| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PAVEMENT MARKING - STH 16 | SHEET 119 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-024501-PM.DWG
LAYOUT NAME - 11
PLOT DATE : 1/2/2018 10:58 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

| LEGEND | |
|---|---|
| ARW1 | MARKING ARROWS (WHITE) (TYPE 1) |
| ARW2 | MARKING ARROWS (WHITE) (TYPE 2) |
| ARW2R | MARKING ARROWS (WHITE) (TYPE 2R) |
| ARW3 | MARKING ARROWS (WHITE) (TYPE 3) |
| ARW3R | MARKING ARROWS (WHITE) (TYPE 3R) |
| CBY | MARKING CURB (YELLOW) |
| CWW6 | MARKING CROSSWALK TRANSVERSE LINE 6-INCH (WHITE) |
| DLY12 | MARKING DIAGONAL 12-INCH (YELLOW) (25 FT C-C) |
| DLW12 | MARKING DIAGONAL 12-INCH (WHITE) |
| EPOXY | EPOXY |
| GWRCE | GROOVED WET REF CONTRAST EPOXY |
| INY | MARKING ISLAND NOSE (YELLOW) |
| MDY4 | MARKING LINE 4-INCH (DOUBLE YELLOW) |
| MW4 | MARKING LINE 4-INCH (WHITE) |
| MW8 | MARKING LINE 8-INCH (WHITE) |

| LEGEND | |
|---|---|
| MY4 | MARKING LINE 4-INCH (YELLOW) |
| SAME | SAME DAY EPOXY |
| SLW18 | MARKING STOP LINE 18-INCH (WHITE) |
| WDWO | MARKING WORDS (WHITE) ("ONLY") |
| WDWY | MARKING WORDS (WHITE) ("YIELD") |
| WS4-3 | MARKING LINE 4-INCH (WHITE SKIP) (3' SEG., 9' GAP) |
| WS4-12 | MARKING LINE 4-INCH (WHITE SKIP) (12' SEG., 12' GAP) |
| WS4-12.5 | MARKING LINE 4-INCH (WHITE SKIP) (12.5' SEG., 37.5' GAP) |
| WS8-1 | MARKING LINE 8-INCH (WHITE SKIP) (1' SEG., 3' GAP) |
| WS8-2 | MARKING LINE 8-INCH (WHITE SKIP) (2' SEG., 6' GAP) |
| WS8-3 | MARKING LINE 8-INCH (WHITE SKIP) (3' SEG., 9' GAP) |
| WS8-6 | MARKING LINE 8-INCH (WHITE SKIP) (6' SEG., 3' GAP) |
| WS18-2 | MARKING DOTTED EXTENSION 18-INCH (WHITE SKIP) (2' SEG., 2' GAP) |
| YS4-12.5 | MARKING LINE 4-INCH (YELLOW SKIP) (12.5' SEG., 37.5' GAP) |

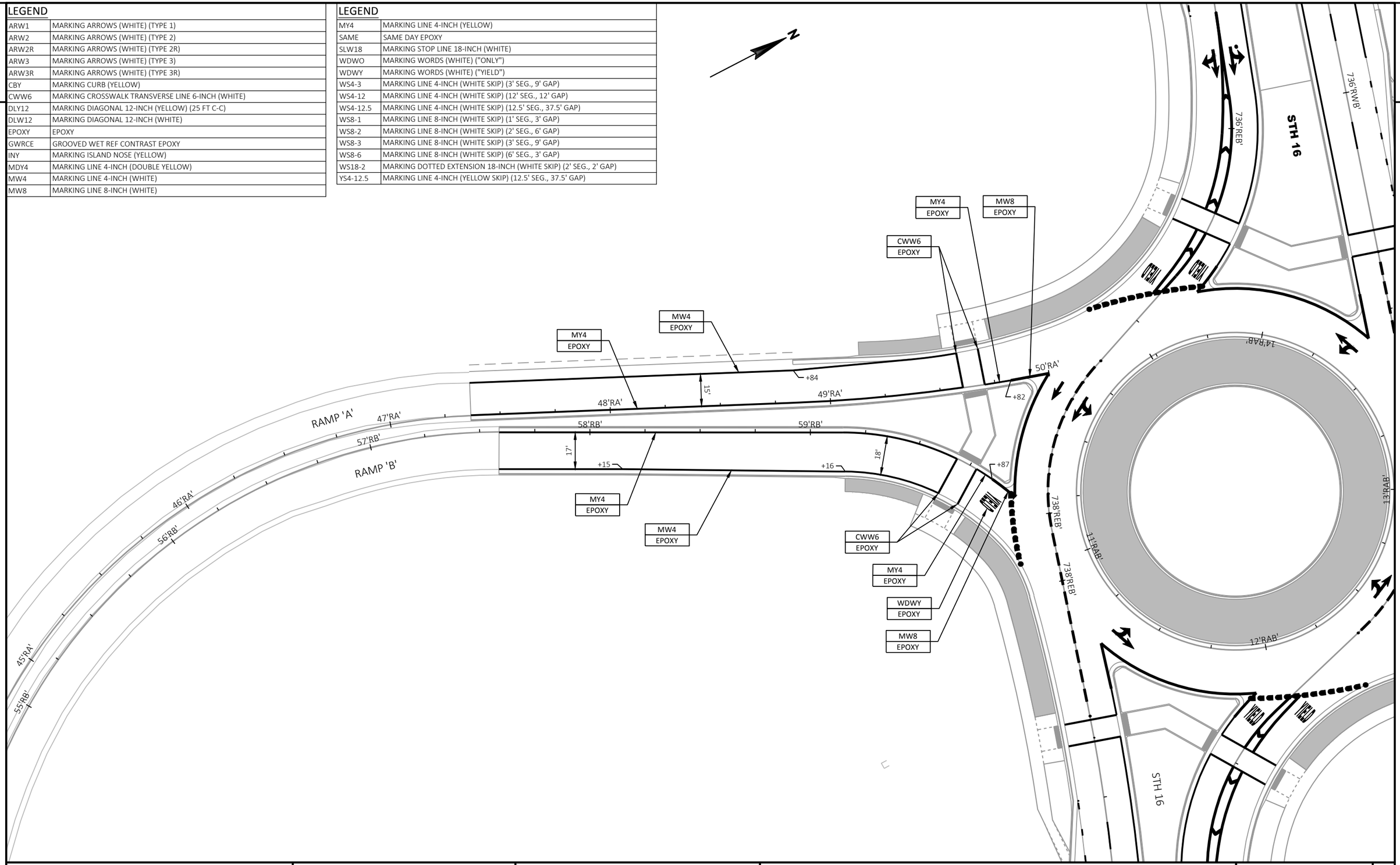



| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PAVEMENT MARKING - STH 16 | SHEET 120 | E |
|---|---|---|---|---|---|


FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-024501-PM.DWG
LAYOUT NAME - 12
PLOT DATE : 1/2/2018 10:58 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

| LEGEND | |
|---|---|
| ARW1 | MARKING ARROWS (WHITE) (TYPE 1) |
| ARW2 | MARKING ARROWS (WHITE) (TYPE 2) |
| ARW2R | MARKING ARROWS (WHITE) (TYPE 2R) |
| ARW3 | MARKING ARROWS (WHITE) (TYPE 3) |
| ARW3R | MARKING ARROWS (WHITE) (TYPE 3R) |
| CBY | MARKING CURB (YELLOW) |
| CWW6 | MARKING CROSSWALK TRANSVERSE LINE 6-INCH (WHITE) |
| DLY12 | MARKING DIAGONAL 12-INCH (YELLOW) (25 FT C-C) |
| DLW12 | MARKING DIAGONAL 12-INCH (WHITE) |
| EPOXY | EPOXY |
| GWRCE | GROOVED WET REF CONTRAST EPOXY |
| INY | MARKING ISLAND NOSE (YELLOW) |
| MDY4 | MARKING LINE 4-INCH (DOUBLE YELLOW) |
| MW4 | MARKING LINE 4-INCH (WHITE) |
| MW8 | MARKING LINE 8-INCH (WHITE) |

| LEGEND | |
|---|---|
| MY4 | MARKING LINE 4-INCH (YELLOW) |
| SAME | SAME DAY EPOXY |
| SLW18 | MARKING STOP LINE 18-INCH (WHITE) |
| WDWO | MARKING WORDS (WHITE) ("ONLY") |
| WDWY | MARKING WORDS (WHITE) ("YIELD") |
| WS4-3 | MARKING LINE 4-INCH (WHITE SKIP) (3' SEG., 9' GAP) |
| WS4-12 | MARKING LINE 4-INCH (WHITE SKIP) (12' SEG., 12' GAP) |
| WS4-12.5 | MARKING LINE 4-INCH (WHITE SKIP) (12.5' SEG., 37.5' GAP) |
| WS8-1 | MARKING LINE 8-INCH (WHITE SKIP) (1' SEG., 3' GAP) |
| WS8-2 | MARKING LINE 8-INCH (WHITE SKIP) (2' SEG., 6' GAP) |
| WS8-3 | MARKING LINE 8-INCH (WHITE SKIP) (3' SEG., 9' GAP) |
| WS8-6 | MARKING LINE 8-INCH (WHITE SKIP) (6' SEG., 3' GAP) |
| WS18-2 | MARKING DOTTED EXTENSION 18-INCH (WHITE SKIP) (2' SEG., 2' GAP) |
| YS4-12.5 | MARKING LINE 4-INCH (YELLOW SKIP) (12.5' SEG., 37.5' GAP) |




| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PAVEMENT MARKING - RAMPS 'A' & 'B' | SHEET 121 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-024502-PM.DWG
LAYOUT NAME - 01

PLOT DATE : 1/2/2018 10:58 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

| LEGEND | |
|---|---|
| ARW1 | MARKING ARROWS (WHITE) (TYPE 1) |
| ARW2 | MARKING ARROWS (WHITE) (TYPE 2) |
| ARW2R | MARKING ARROWS (WHITE) (TYPE 2R) |
| ARW3 | MARKING ARROWS (WHITE) (TYPE 3) |
| ARW3R | MARKING ARROWS (WHITE) (TYPE 3R) |
| CBY | MARKING CURB (YELLOW) |
| CWW6 | MARKING CROSSWALK TRANSVERSE LINE 6-INCH (WHITE) |
| DLY12 | MARKING DIAGONAL 12-INCH (YELLOW) (25 FT C-C) |
| DLW12 | MARKING DIAGONAL 12-INCH (WHITE) |
| EPOXY | EPOXY |
| GWRCE | GROOVED WET REF CONTRAST EPOXY |
| INY | MARKING ISLAND NOSE (YELLOW) |
| MDY4 | MARKING LINE 4-INCH (DOUBLE YELLOW) |
| MW4 | MARKING LINE 4-INCH (WHITE) |
| MW8 | MARKING LINE 8-INCH (WHITE) |

| LEGEND | |
|---|---|
| MY4 | MARKING LINE 4-INCH (YELLOW) |
| SAME | SAME DAY EPOXY |
| SLW18 | MARKING STOP LINE 18-INCH (WHITE) |
| WDWO | MARKING WORDS (WHITE) ("ONLY") |
| WDWY | MARKING WORDS (WHITE) ("YIELD") |
| WS4-3 | MARKING LINE 4-INCH (WHITE SKIP) (3' SEG., 9' GAP) |
| WS4-12 | MARKING LINE 4-INCH (WHITE SKIP) (12' SEG., 12' GAP) |
| WS4-12.5 | MARKING LINE 4-INCH (WHITE SKIP) (12.5' SEG., 37.5' GAP) |
| WS8-1 | MARKING LINE 8-INCH (WHITE SKIP) (1' SEG., 3' GAP) |
| WS8-2 | MARKING LINE 8-INCH (WHITE SKIP) (2' SEG., 6' GAP) |
| WS8-3 | MARKING LINE 8-INCH (WHITE SKIP) (3' SEG., 9' GAP) |
| WS8-6 | MARKING LINE 8-INCH (WHITE SKIP) (6' SEG., 3' GAP) |
| WS18-2 | MARKING DOTTED EXTENSION 18-INCH (WHITE SKIP) (2' SEG., 2' GAP) |
| YS4-12.5 | MARKING LINE 4-INCH (YELLOW SKIP) (12.5' SEG., 37.5' GAP) |



| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PAVEMENT MARKING - STH 127 | SHEET 122 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-024502-PM.DWG
LAYOUT NAME - 02
PLOT DATE : 1/2/2018 10:58 AM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE :
WISDOT/CADDS SHEET 42

2

## LEGEND

- SIGN LOCATION
- TYPE III BARRICADE WITH SIGN
- PROPOSED DETOUR ROUTE
- WORK AREA

## GENERAL NOTES - DETOUR

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" AND "DETOUR SIGNING FOR MAINLINE CLOSURES" FOR GENERAL NOTES AND SIGN SPACING REQUIREMENTS.

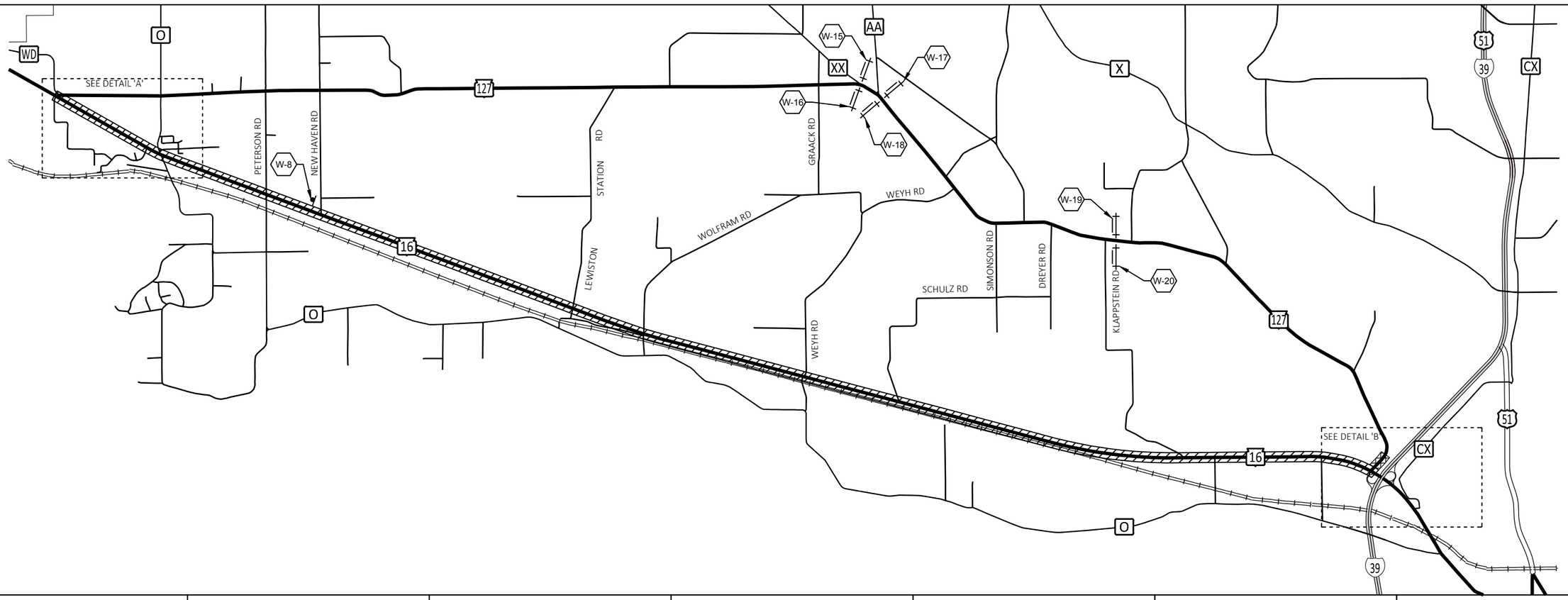
DRAWINGS SHOW TRAFFIC CONTROL FOR A TYPICAL SITUATION. ADDITIONAL TRAFFIC CONTROL DEVICES MAY BE REQUIRED AND/OR LAYOUT DETAILS MODIFIED DEPENDING ON FIELD CONDITIONS AND THE CONTRACTOR'S METHODS OR SEQUENCE OF OPERATION.

ALL EXISTING SIGN MESSAGES THAT CONFLICT WITH THE DETOUR SHALL BE COVERED OR REMOVED.

MAP SHOWN IS NOT TO SCALE.

N

2




| W-8 | W-15 | W-16 | W-17 | W-18 | W-19 | W-20 |
|---|---|---|---|---|---|---|
| DETOUR WEST 127 — M4-8 24"X12", M3-4 24"X12", M1-6 24"X24" | ROAD CLOSED 3 MILES AHEAD LOCAL TRAFFIC ONLY — R11-3 60"X30" | NO ACCESS TO STH 16 — R10-61 (MOD) 60"X30" | ROAD CLOSED 3 MILES AHEAD LOCAL TRAFFIC ONLY — R11-3 60"X30" | NO ACCESS TO STH 16 — R10-61 (MOD) 60"X30" | ROAD CLOSED 3 MILES AHEAD LOCAL TRAFFIC ONLY — R11-3 60"X30" | NO ACCESS TO STH 16 — R10-61 (MOD) 60"X30" |

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | DETOUR - STH 127 | SHEET 123 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-024901-DT.DWG
LAYOUT NAME - 01

PLOT DATE : 10/19/2017 9:14 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

2

LEGEND

- SIGN LOCATION
- TYPE III BARRICADE WITH SIGN
- PROPOSED DETOUR ROUTE
- WORK AREA

N

WD

16

127

O

W-9

W-10

W-11

W-12

W-13

W-14

W-9

DETOUR WEST 127

M4-8 24"X12"
M3-4 24"X12"
M1-6 24"X24"

W-10

END DETOUR WEST 127

M4-8A 24"X18"
M3-4 24"X12"
M1-6 24"X24"

W-11

ROAD CLOSED 14 MILES AHEAD LOCAL TRAFFIC ONLY

R11-3
60"X30"

W-12

NO ACCESS TO STH 16

R10-61 (MOD)
60"X30"

W-13

ROAD CLOSED 13 MILES AHEAD LOCAL TRAFFIC ONLY

R11-3
60"X30"

W-14

NO ACCESS TO STH 16

R10-61 (MOD)
60"X30"

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | DETOUR - STH 127 (DETAIL "A") | SHEET 124 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-024901-DT.DWG
LAYOUT NAME - 02

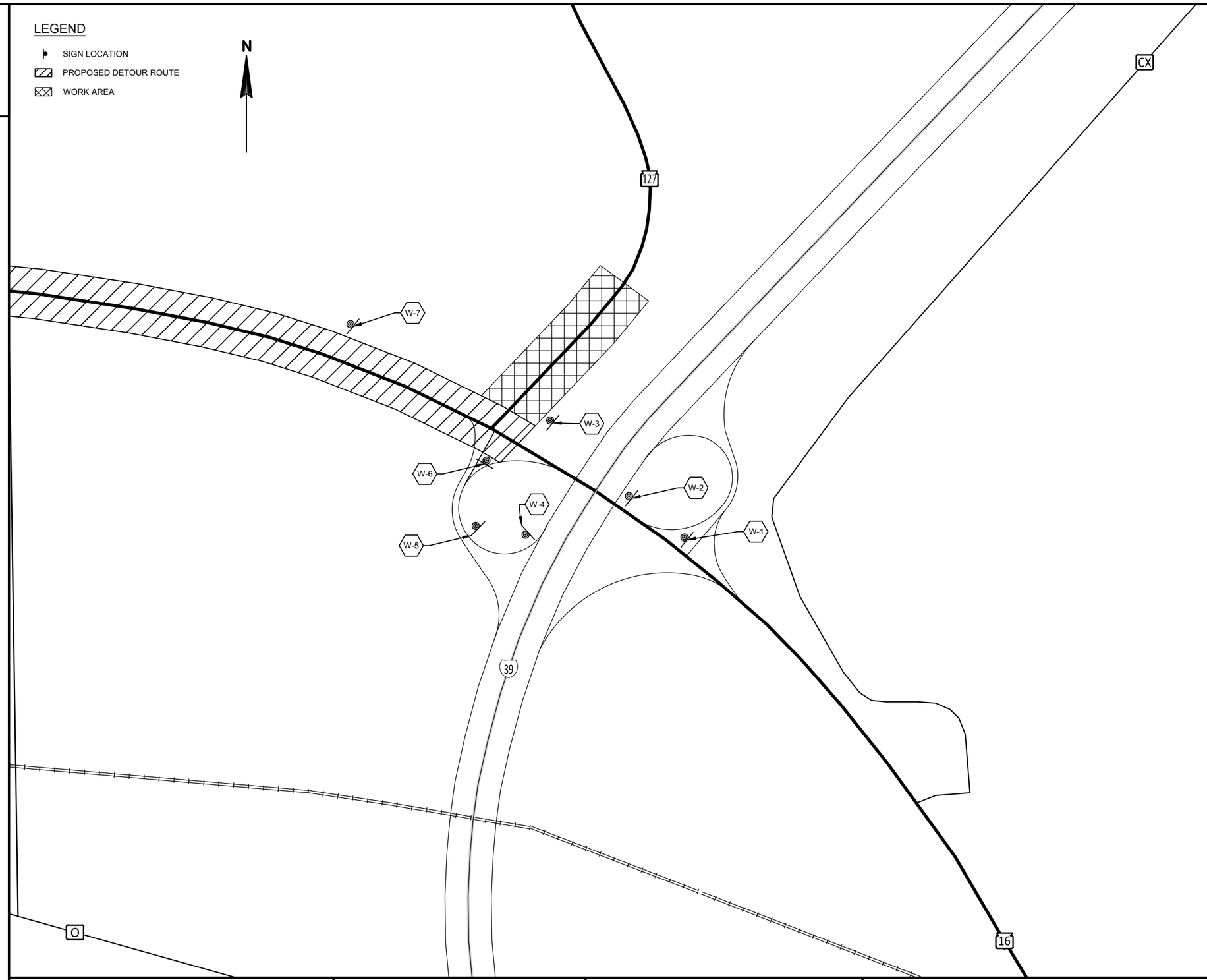
PLOT DATE : 10/19/2017 9:14 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

2

LEGEND

- SIGN LOCATION
- PROPOSED DETOUR ROUTE
- WORK AREA

N




2

**W-1**

MODIFY EXISTING SIGN

FROM: JCT 127

TO: WEST 127 (M3-4 24"X12")

DETOUR AHEAD (W20-2-A 48"X48")

**W-2**

MODIFY EXISTING SIGN

FROM: WEST 16 / WEST 127

TO: DETOUR WEST 16 / WEST 127 (M4-8 24"X12"; MO6-1 21"X21")

**W-3**

MODIFY EXISTING SIGN

FROM: WEST 127

TO: DETOUR WEST 127 (M4-8 24"X12"; MO6-1 21"X21")

**W-4**

WEST 127 (M3-4 24"X12"; M1-6 24"X24")

DETOUR AHEAD (W20-2-A 48"X48")

**W-5**

DETOUR WEST 127 (M4-8 24"X12"; M3-4 24"X12"; M1-6 24"X24"; MO5-1L 21"X21")

**W-6**

MODIFY EXISTING SIGN

FROM: WEST 127 / EAST 16

TO: DETOUR WEST 127 / EAST 16 (M4-8 24"X12"; MO6-1 21"X21")

**W-7**

DETOUR WEST 127 (M4-8 24"X12"; M3-4 24"X12"; M1-6 24"X24")

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | DETOUR - STH 127 (DETAIL "B") | SHEET 125 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-024901-DT.DWG
LAYOUT NAME - 03

PLOT DATE : 10/19/2017 9:14 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

SEE S.D.D. "DETOUR SIGNING FOR MAINLINE CLOSURES"

STH 16 SW ON-RAMP

EXISTING SIGN TO BE COVERED

EXISTING SIGN TO BE COVERED

EXISTING SIGN TO BE COVERED

DETOUR AHEAD

DETOUR AHEAD

CANADIAN PACIFIC RR

LEGEND

SW ON-RAMP CLOSED

STH 16 DETOUR ROUTE (IH 39 - USH 51)

EXISTING SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POST(S)

| | | | | | |
|---|---|---|---|---|---|
| M1-1 | 36"X36" *24"X24" | | M4-8A | 30"X24" | |
| M1-6 | 36"X36" *24"X24" | | MO5-1L/ MO5-1R | 30"X30" *21"X21" | |
| M3-3 | 36"X18" *24"X12" | | MO5-2L/ MO5-2R | 30"X30" | |
| MO4-5 | 36"X18" *24"X12" | | MO6-1 MO6-2 | 30"X30" *21"X21" | |
| W20-2-A | 48"X48" | | | | |

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | DETOUR - STH 16 SW ON-RAMP | SHEET 126 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-024902-DT.DWG
LAYOUT NAME - 01

PLOT DATE : 10/19/2017 9:15 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:1000 FT

WISDOT/CADDS SHEET 42

SEE S.D.D. "DETOUR SIGNING FOR MAINLINE CLOSURES"

2

2

N

EXISTING SIGNS TO BE COVERED

EXIT 89 B-A

ALTERNATE INTERSTATE 39

INTERSTATE 39

STH 16 SW OFF-RAMP

EXITS 89 B-A
16 TO 127
Portage
Wis Dells
CLOSED

COVER ARROW ON EXISTING SIGN

EXITS 89 B-A
16 TO 127
Portage
Wis Dells
CLOSED

DETOUR 16

END DETOUR 16

COUNTY CX

LOW FLYING AIRCRAFT

CANADIAN PACIFIC RR

16

51

## LEGEND

SW OFF-RAMP CLOSED

STH 16 DETOUR ROUTE
(USH 51 - CTH CX)

EXISTING SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POST(S)

| | | | | |
|---|---|---|---|---|
| XX | M1-6 | 36"X36"<br>*24"X24" | MO5-1L/<br>MO5-1R | *21"X21" |
| DETOUR | M4-8 | 36"X18"<br>*24"X12" | MO5-2L/<br>MO5-2R | 30"X30" |
| END DETOUR | M4-8A | *24"X18" | MO6-1<br>MO6-2 | 30"X30"<br>*21"X21" |
| CLOSED | G20-60<br>(ATTACH TO TYPE 1 SIGN) | 108"X24" | DETOUR AHEAD | W20-2-A 48"X48" |
| CLOSED | G20-61<br>(ATTACH TO TYPE 1 SIGN) | 102"X30" | | |

| PROJECT NO: | HWY: | COUNTY: | DETOUR - | SHEET | |
|---|---|---|---|---|---|
| 1161-02-74 | STH 16 | COLUMBIA | STH 16 SW OFF-RAMP | 127 | E |

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-024902-DT.DWG
LAYOUT NAME - 02
PLOT DATE : 10/19/2017 9:15 AM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:1000 FT
WISDOT/CADDS SHEET 42

2

2

END ROAD WORK G20-2A 48"X24"

ROAD WORK AHEAD W20-1A

690'EB' 700'EB' 710'EB'

STH 16

720'WB' 720'EB'

730'WB' 730'EB'

1000' 500' 500'

ROAD WORK AHEAD W20-1A

ROAD WORK 1000 FT W20-1C

ROAD WORK 500 FT W20-1D

MB

BOECK RD

MURPHY RD

LA DAWN DR

STH 127

SEE STH 127 STAGE DETAILS

IH 39

RAMP 'C'

RAMP 'D'

ROAD WORK AHEAD W20-1A

MB

MB

MB

740'EB'

750'WB' 750'EB'

END ROAD WORK G20-2A 48"X24"

RAMP 'A'

RAMP 'B'

RAMP 'B' SIGN SHOWN FOR STAGES 2A, 3, & 4. SEE RAMP 'B' CLOSURE SHEET FOR STAGES 1 & 2B.

RAMP 'E'

CTH CX/WISCONSIN ST

W WISCONSIN SERVICE RD

760'WB' 760'EB'

ROAD WORK AHEAD W20-1A

ROAD WORK AHEAD W20-1A

RAMP 'E' SIGN SHOWN FOR STAGE 4. RAMP 'E' CLOSURE IN STAGES 1, 2, & 3 WILL BE INSTALLED AND MAINTAINED UNDER PROJECT 1161-02-61.

SILVER LAKE DRIVE

END ROAD WORK G20-2A 48"X24"

770'EB'

STH 16

CANADIAN PACIFIC

MB

780'EB'

500'

500'

ROAD WORK 500 FT W20-1E

END ROAD WORK G20-2A 48"X24"

ROAD WORK AHEAD W20-1A

CTH O/CEMETERY RD

N

## NOTES

- DURING STAGES 2 & 3 PLACE W12-52 (MAX WIDTH 13') AND WO57-52 (XX MILES AHEAD) SIGNS AT INTERSECTIONS OF STH 16 & STH 23, STH 16 & CTH O, STH 16 & CTH O (CEMETERY ROAD), AND STH 16 & STH 33.
- ROAD CLOSED SIGNS AND BARRICADES ON STH 127 TO BE PLACED AFTER THE DETOUR SIGNING HAS BEEN PLACED.
- ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.
- ALL SIGNS SHOWN ON TRAFFIC CONTROL SHEETS TO BE PAID FOR AS "TRAFFIC CONTROL SIGNS"

MAX. XX WIDTH
W12-52
48"X48"

XX MILES AHEAD
WO57-52
48"X36"

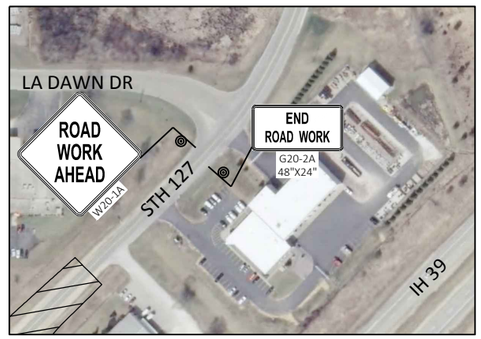
## LEGEND

MB — TRAFFIC CONTROL SIGNS PCMS (SEE TABLE FOR MESSAGES)

TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN

SIGN ON PERMANENT/TEMPORARY SUPPORT

WORK AREA




STH 127 STAGE 1 & 4 DETAIL

STH 127 STAGE 2 & 3 DETAIL

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - ADVANCED WARNING SIGNS | SHEET 128 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025001-TC.DWG
LAYOUT NAME - 01

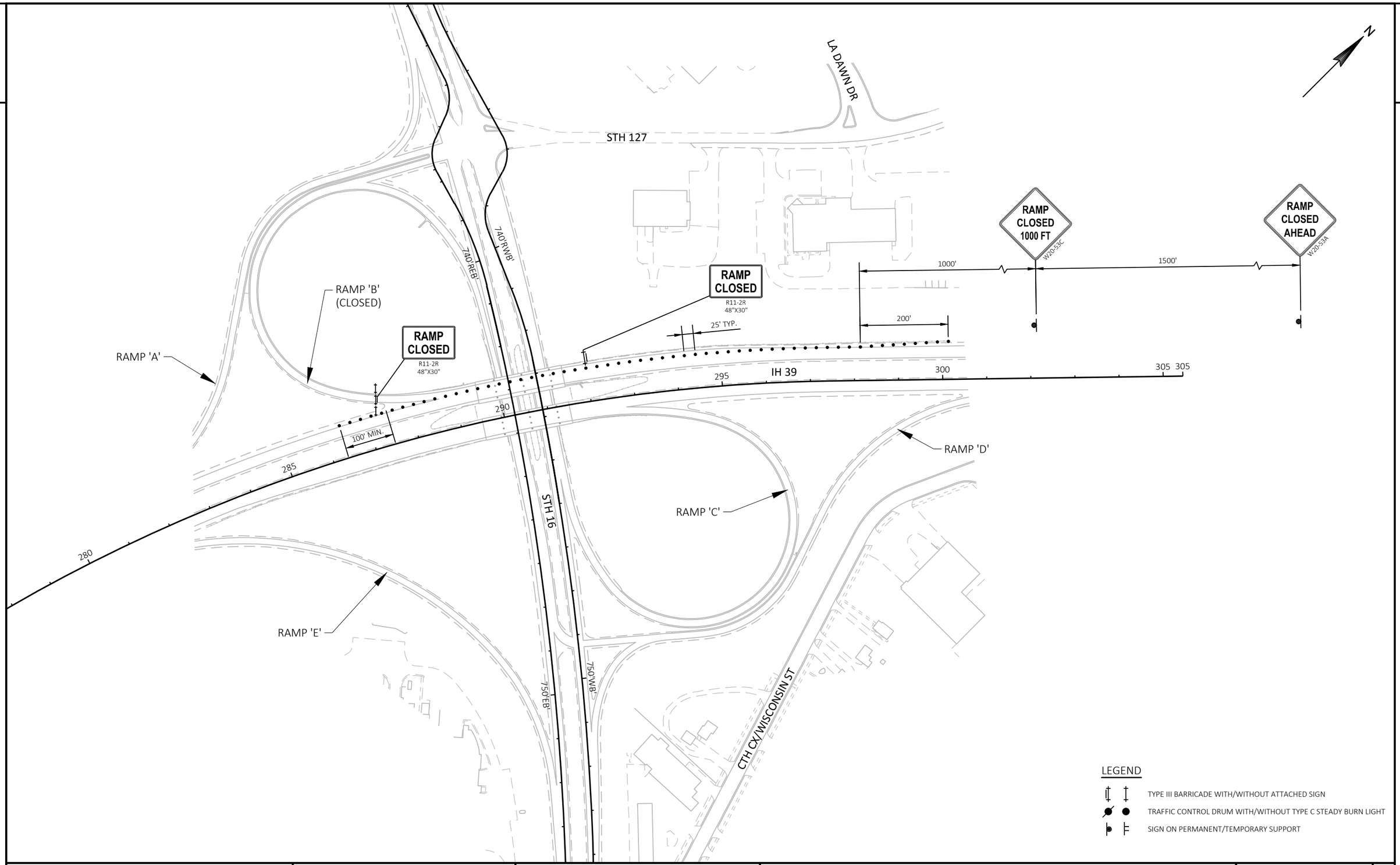
PLOT DATE : 10/19/2017 9:15 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

## PCMS MESSAGES

| | STH16 WB | | IH 39 RAMP 'B' | | IH 39 RAMP 'C' | | STH 16 EB | | IH 39 NB | |
|---|---|---|---|---|---|---|---|---|---|---|
| STAGE | PHASE 1 (2 SEC.) | PHASE 2 (2 SEC.) | PHASE 1 (2 SEC.) | PHASE 2 (2 SEC.) | PHASE 1 (2 SEC.) | PHASE 2 (2 SEC.) | PHASE 1 (2 SEC.) | PHASE 2 (2 SEC.) | PHASE 1 (2 SEC.) | PHASE 2 (2 SEC.) |
| 7 DAYS PRIOR TO STAGE 1 | ROADWORK BEGINS DATE XX | EXPECT DELAYS | RAMP CLOSED | DATE XX | ROADWORK BEGINS DATE XX | EXPECT DELAYS | ROADWORK BEGINS DATE XX | EXPECT DELAYS | -- | -- |
| 7 DAYS PRIOR TO STAGE 2B | -- | -- | RAMP CLOSED | DATE XX | -- | -- | -- | -- | -- | -- |
| 5 DAYS PRIOR TO RAMP 'C' CLOSURE | IH 39 NB RAMP TO CLOSE | DATE XX | -- | -- | -- | -- | IH 39 NB RAMP TO CLOSE | DATE XX | RAMP TO CLOSE | DATE XX |
| DURING RAMP 'C' CLOSURE | RAMP CLOSED | USE CTH CX | -- | -- | -- | -- | RAMP CLOSED | USE CTH CX | -- | -- |
| STAGE 4 | NEW TRAFFIC PATTERN | YEILD AHEAD | NEW TRAFFIC PATTERN | YEILD AHEAD | -- | -- | NEW TRAFFIC PATTERN | YEILD AHEAD | -- | -- |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

2



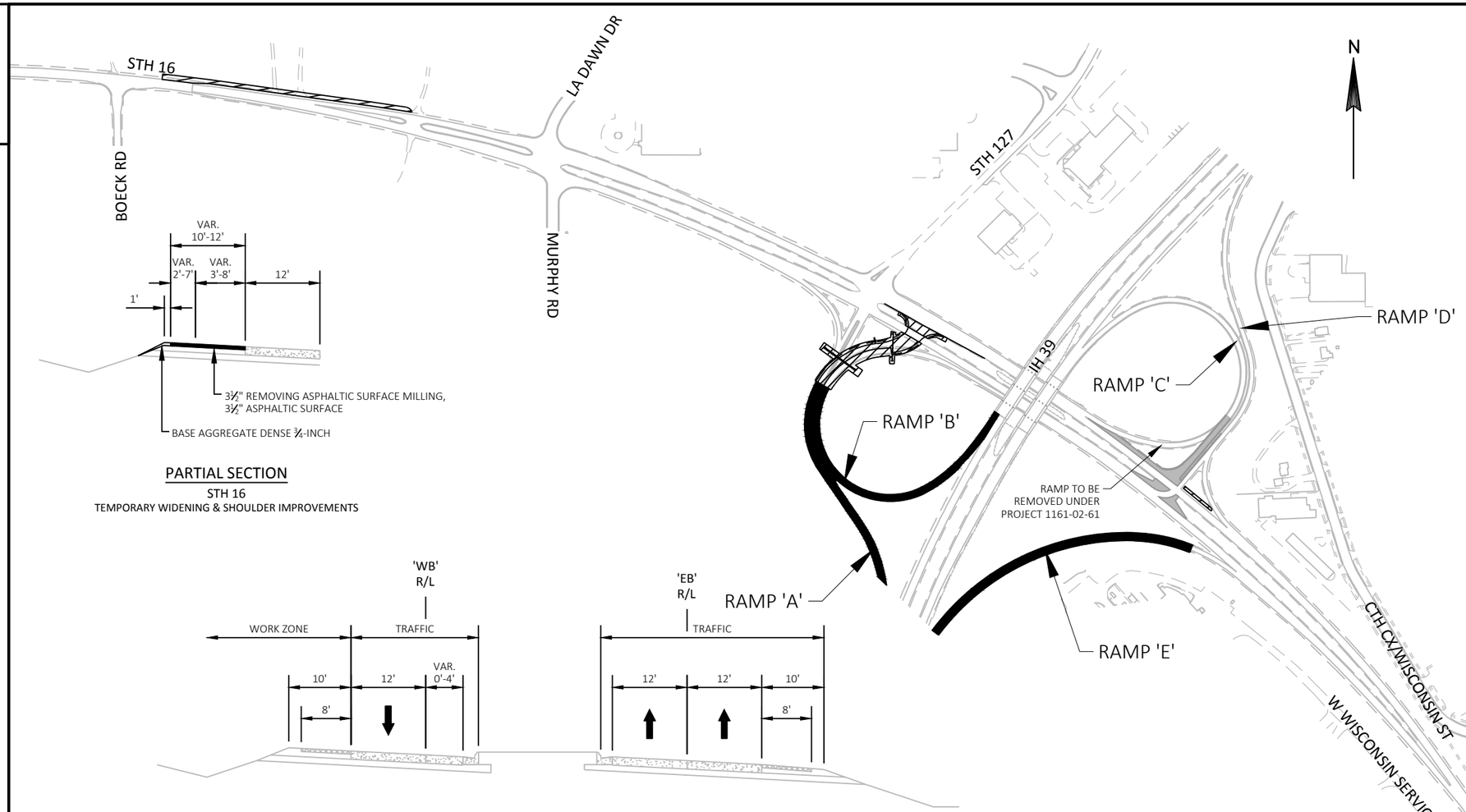

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT/TEMPORARY SUPPORT

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - RAMP 'B' CLOSURE | SHEET 130 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025002-TC.DWG
LAYOUT NAME - 01

PLOT DATE : 10/19/2017 9:15 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########



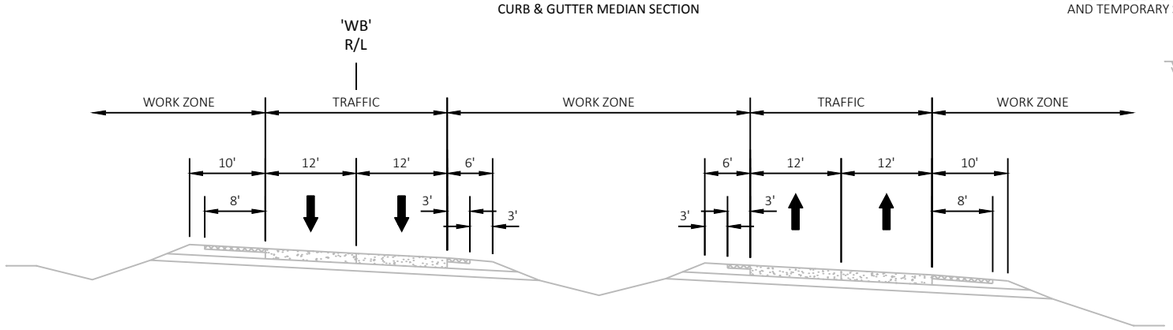




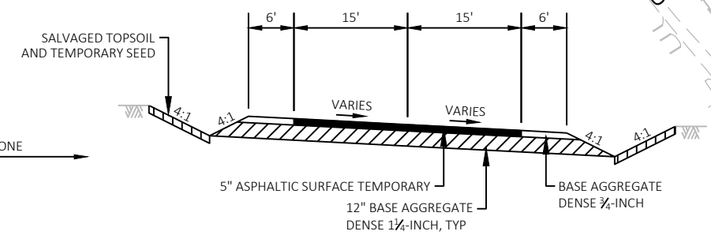
**PARTIAL SECTION**
STH 16
TEMPORARY WIDENING & SHOULDER IMPROVEMENTS




**TRAFFIC CONTROL TYPICAL SECTION**
STH 16 - STAGE 1
CURB & GUTTER MEDIAN SECTION




**TRAFFIC CONTROL TYPICAL SECTION**
STH 16 - STAGE 1
RURAL SECTION




**TYPICAL FINISHED SECTION**
RAMPS 'A' & 'B' - STAGE 1
TEMPORARY RAMP

## STAGE 1

MAINTENANCE OF TRAFFIC:

- STH 127 OPEN.
- STH 16 WESTBOUND - SHOULDER AND MEDIAN CLOSURES.
- STH 16 EASTBOUND - SHOULDER AND MEDIAN CLOSURES.
- MAINTAIN ACCESS TO MURPHY ROAD, LA DAWN DRIVE, SILVER LAKE DRIVE, W WISCONSIN SERVICE ROAD, AND IH 39 RAMPS 'C' & 'D' ALONG STH16.
- IH 39 NORTHBOUND OFF RAMP 'E' CLOSED UNDER PROJECT 1161-02-61. IH 39 NORTHBOUND OFF RAMP 'E' TO STH 16 TRAFFIC TO USE IH 39 NORTHBOUND OFF RAMP 'C'.
- IH 39 SOUTHBOUND RAMPS 'A' & 'B' CLOSED WITH POSTED DETOUR ALONG CTH CX & USH 51.
- NIGHTTIME FLAGGING OPERATIONS FOR BASE PATCHING FROM STA 713'EB'+50 TO STA 719'EB'+00 AND STA 767'EB'+50 TO STA 777'EB'+00.

CONSTRUCTION ACTIVITIES TO BE COMPLETED:

- TEMPORARY WIDENING ALONG STH 16.
- RAMPS 'A' & 'B' TEMPORARY CONNECTOR.
- BASE PATCHING FROM STA 714'EB'+50 - STA 714'EB'+68.

CONSTRUCTION ACTIVITIES/ AREAS AVAILABLE TO WORK ON:

- NIGHTTIME BASE PATCHING FROM STA 713'EB'+50 TO STA 719'EB'+00 AND STA 767'EB'+50 TO STA 777'EB'+00.
- STH 16 WESTBOUND TEMPORARY WIDENING.
- RAMPS 'A' & 'B' TEMPORARY CONNECTOR.
- CULVERT PIPE UNDER RAMPS 'A' & 'B'.

LEGEND

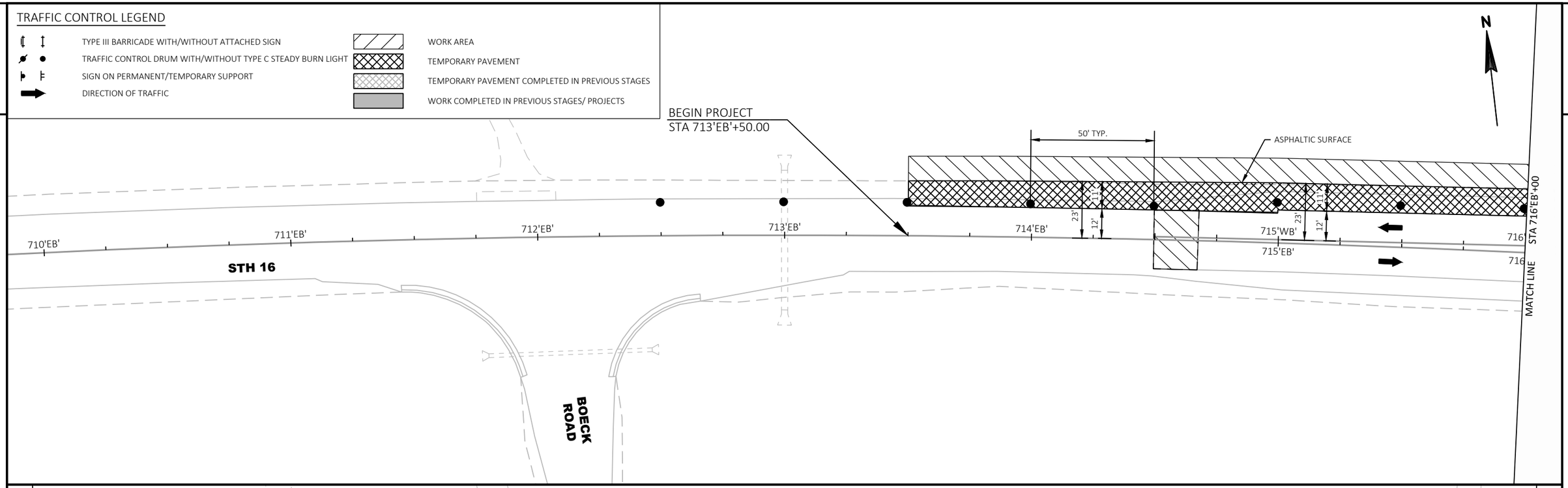
- WORK AREA
- RAMP CLOSED

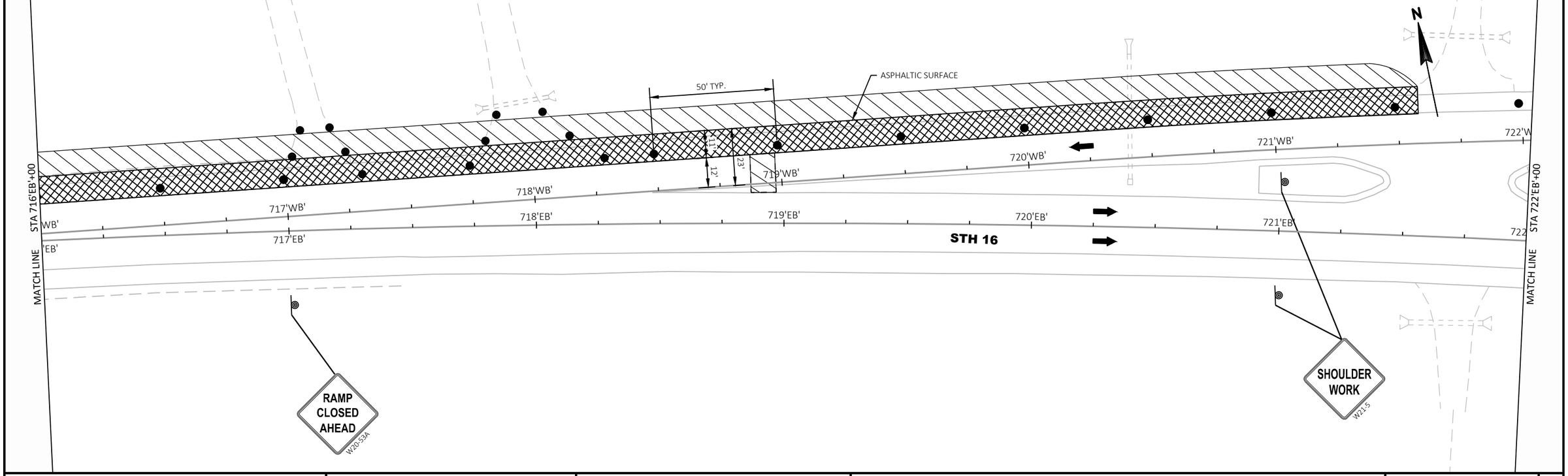
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 1: OVERVIEW | SHEET 131 | E |
|---|---|---|---|---|---|

2

## TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY PAVEMENT COMPLETED IN PREVIOUS STAGES
- WORK COMPLETED IN PREVIOUS STAGES/ PROJECTS



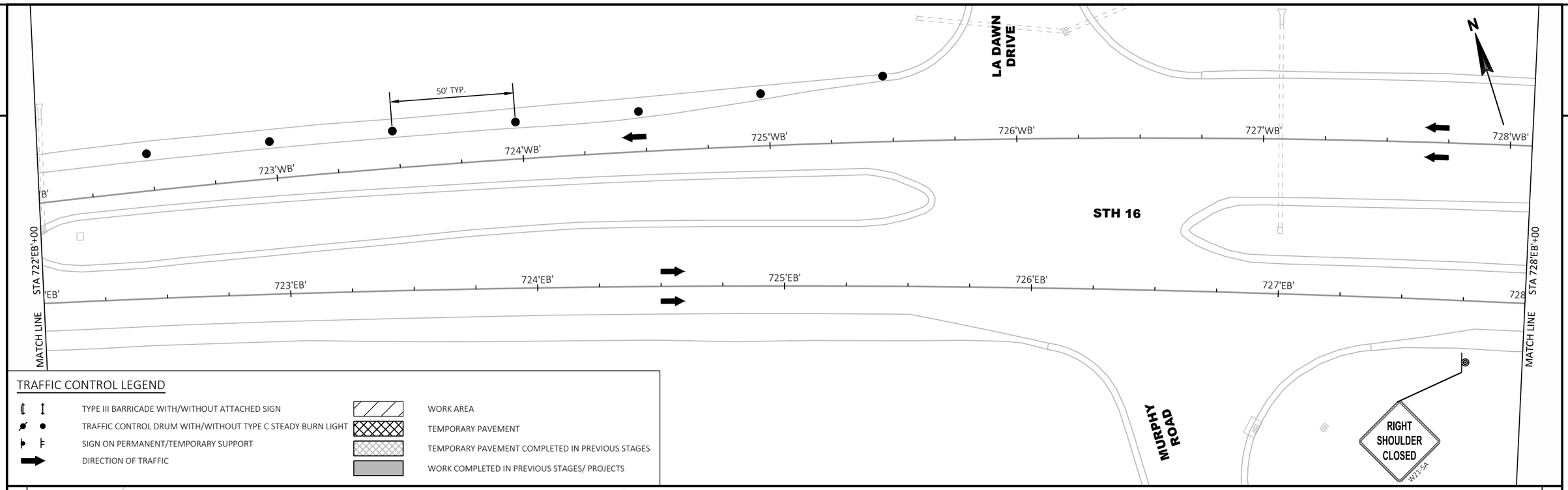

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 1 | SHEET 132 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025101-TC.DWG
LAYOUT NAME - 01

PLOT DATE : 1/2/2018 11:16 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

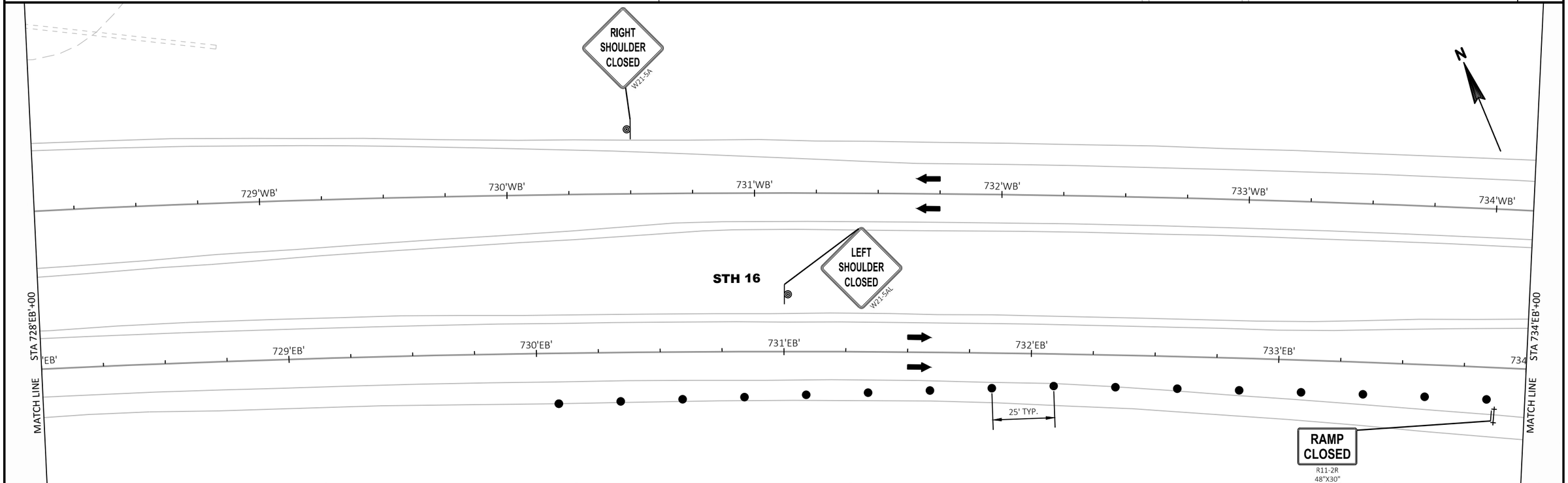
2




2

## TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY PAVEMENT COMPLETED IN PREVIOUS STAGES
- WORK COMPLETED IN PREVIOUS STAGES/ PROJECTS




| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 1 | SHEET 133 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025101-TC.DWG
LAYOUT NAME - 02

PLOT DATE : 1/2/2018 11:16 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

RIGHT SHOULDER CLOSED AHEAD
W21-5B

STH 16

735'WB' 736'WB' 737'WB' 738'WB' 739'WB' 740'WB'

RAMP CLOSED
R11-2R
48"X30"

ROAD CLOSED
R11-2
48"X30"

25' TYP.

TEMPORARY PAVEMENT

STA 734'EB'+00

735'EB' 736'EB' 737'EB' 738'EB' 739'EB'

25' TYP.

50' TYP.

STA 740'EB'+00

MATCH LINE

MATCH LINE

N

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY PAVEMENT COMPLETED IN PREVIOUS STAGES
- WORK COMPLETED IN PREVIOUS STAGES/ PROJECTS

IH 39

IH 39

N

741'WB' 742'WB' 743'WB' 744'WB' 745'WB' 746'WB'

50' TYP.

25' TYP.

LANE CLOSED
R11-2L
48"X30"

STH 16

STA 740'EB'+00

741'EB' 742'EB' 743'EB' 744'EB' 745'EB'

STA 746'EB'+00

MATCH LINE

MATCH LINE

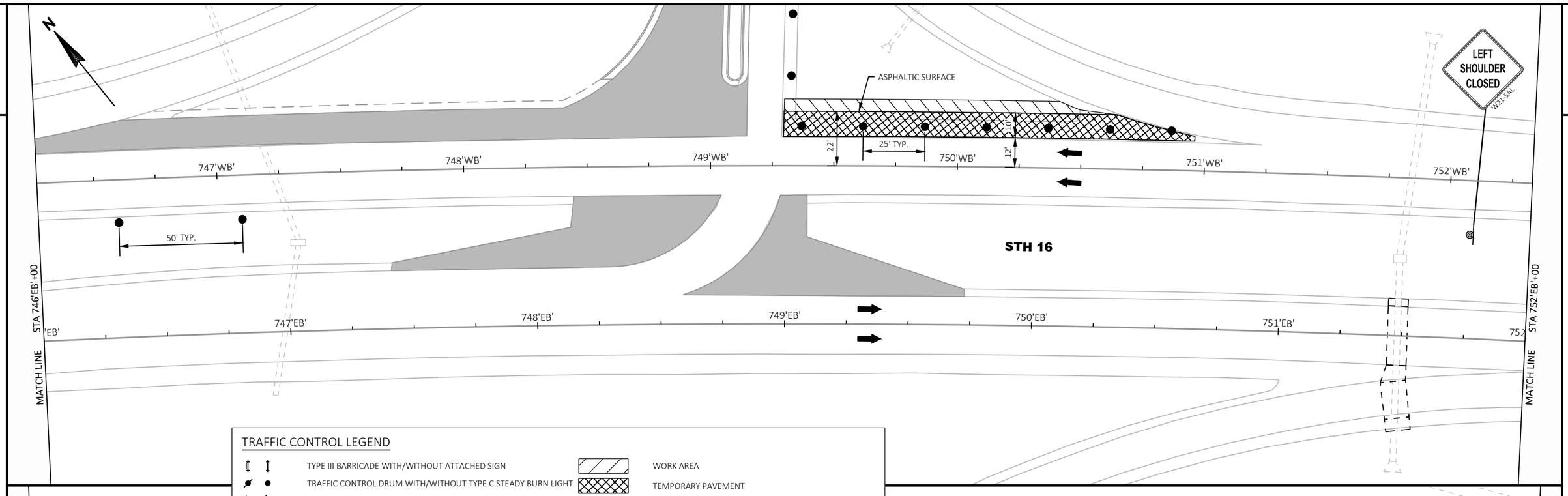
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 1 | SHEET 134 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025101-TC.DWG
LAYOUT NAME - 03

PLOT DATE : 1/2/2018 11:16 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

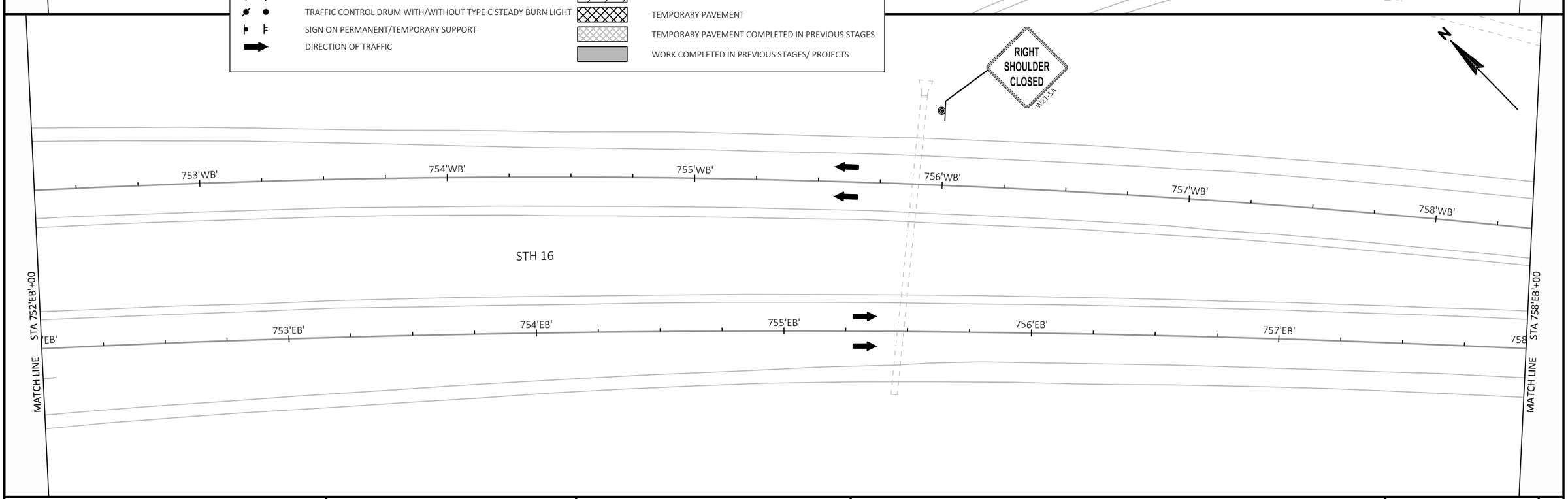
WISDOT/CADDS SHEET 42

2




TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY PAVEMENT COMPLETED IN PREVIOUS STAGES
- WORK COMPLETED IN PREVIOUS STAGES/ PROJECTS




| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 1 | SHEET 135 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025101-TC.DWG
LAYOUT NAME - 04

PLOT DATE : 1/2/2018 11:16 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

759'WB'

760'WB'

761'WB'

762'WB'

763'WB'

764'WB'

759'EB'

760'EB'

761'EB'

762'EB'

763'EB'

764'EB'

STH 16

STA 758'EB'+00

STA 764'EB'+00

MATCH LINE

MATCH LINE

763+39.1
22.0' LT

ASPHALTIC SURFACE

22'

10'

12'

25' TYP.

LEFT SHOULDER CLOSED AHEAD

W21.5BL

SILVER LAKE DRIVE

112

764+59.9
25.0' LT

765+45.1
25.0' LT

ASPHALTIC SURFACE

13'

12'

25' TYP.

25'

765'WB'

766'WB'

767'WB'

767'EB'

768'EB'

769'EB'

765'EB'

766'EB'

STH 16

ASPHALTIC SURFACE

10'

12'

25' TYP.

STA 764'EB'+00

STA 770'EB'+00

MATCH LINE

MATCH LINE

111

W WISCONSIN SERVICE RD

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY PAVEMENT COMPLETED IN PREVIOUS STAGES
- WORK COMPLETED IN PREVIOUS STAGES/ PROJECTS

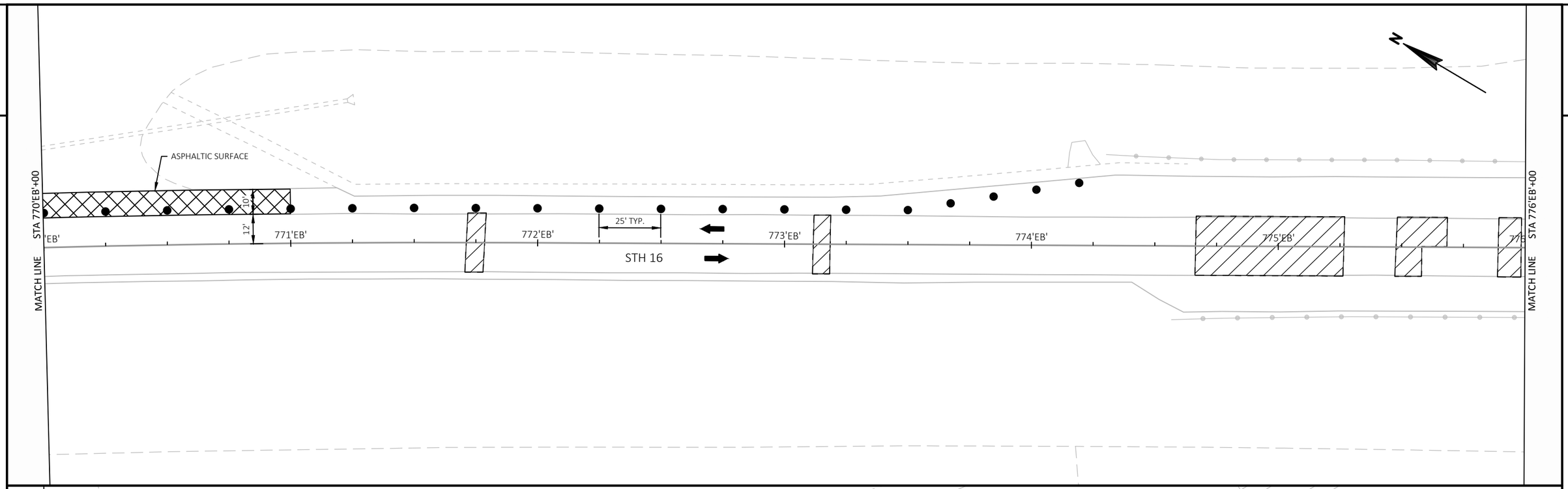
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 1 | SHEET 136 | E |
|---|---|---|---|---|---|

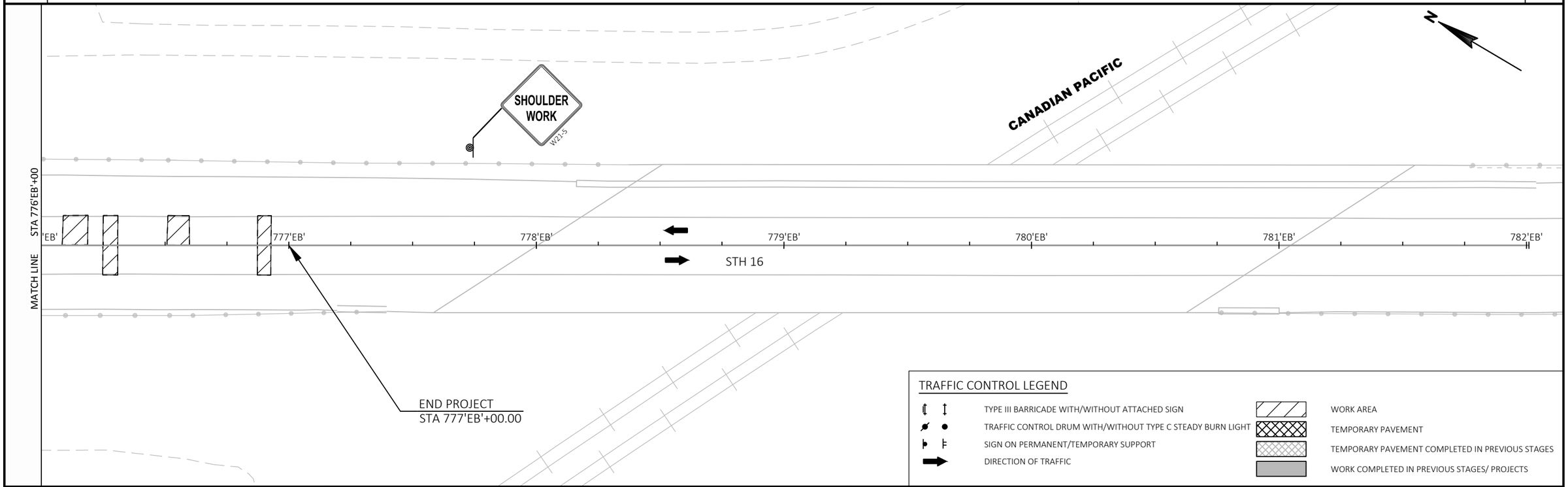
FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025101-TC.DWG
LAYOUT NAME - 05

PLOT DATE : 1/2/2018 11:16 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2




| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 1 | SHEET 137 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025101-TC.DWG
LAYOUT NAME - 06

PLOT DATE : 1/2/2018 11:16 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

## TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY PAVEMENT COMPLETED IN PREVIOUS STAGES
- WORK COMPLETED IN PREVIOUS STAGES/ PROJECTS

TEMPORARY PAVEMENT

TEMPORARY PAVEMENT

301'TA'

401'TB'

402'TA'

402'TB'

RAMP 'A'

RAMP 'B'

25'TYP.

737'EB'

737'WB'

ROAD CLOSED
R11-2
48"X30"

738'WB'

738'EB'

739'WB'

50' TYP.

25'TYP.

TEMPORARY PAVEMENT

739'EB'

STH 16

STH 16

740'TA'

740'WB'

740'EB'

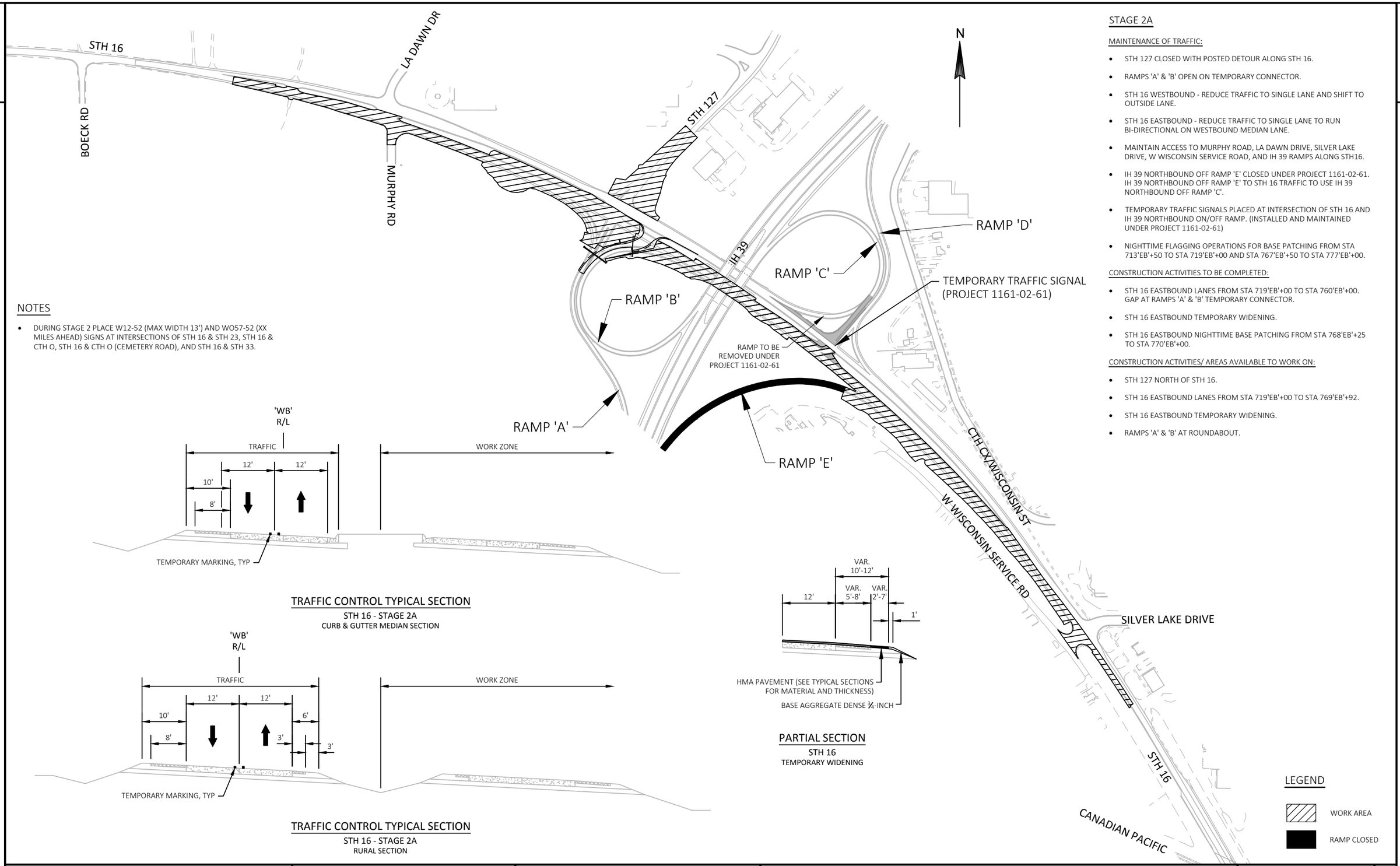
LANE CLOSED
R11-2L
48"X30"

741'WB'

2

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 1 | SHEET 138 | E |
|---|---|---|---|---|---|

2




## NOTES

- DURING STAGE 2 PLACE W12-52 (MAX WIDTH 13') AND WO57-52 (XX MILES AHEAD) SIGNS AT INTERSECTIONS OF STH 16 & STH 23, STH 16 & CTH O, STH 16 & CTH O (CEMETERY ROAD), AND STH 16 & STH 33.




TRAFFIC CONTROL TYPICAL SECTION
STH 16 - STAGE 2A
CURB & GUTTER MEDIAN SECTION




TRAFFIC CONTROL TYPICAL SECTION
STH 16 - STAGE 2A
RURAL SECTION




PARTIAL SECTION
STH 16
TEMPORARY WIDENING

## STAGE 2A

MAINTENANCE OF TRAFFIC:

- STH 127 CLOSED WITH POSTED DETOUR ALONG STH 16.
- RAMPS 'A' & 'B' OPEN ON TEMPORARY CONNECTOR.
- STH 16 WESTBOUND - REDUCE TRAFFIC TO SINGLE LANE AND SHIFT TO OUTSIDE LANE.
- STH 16 EASTBOUND - REDUCE TRAFFIC TO SINGLE LANE TO RUN BI-DIRECTIONAL ON WESTBOUND MEDIAN LANE.
- MAINTAIN ACCESS TO MURPHY ROAD, LA DAWN DRIVE, SILVER LAKE DRIVE, W WISCONSIN SERVICE ROAD, AND IH 39 RAMPS ALONG STH16.
- IH 39 NORTHBOUND OFF RAMP 'E' CLOSED UNDER PROJECT 1161-02-61. IH 39 NORTHBOUND OFF RAMP 'E' TO STH 16 TRAFFIC TO USE IH 39 NORTHBOUND OFF RAMP 'C'.
- TEMPORARY TRAFFIC SIGNALS PLACED AT INTERSECTION OF STH 16 AND IH 39 NORTHBOUND ON/OFF RAMP. (INSTALLED AND MAINTAINED UNDER PROJECT 1161-02-61)
- NIGHTTIME FLAGGING OPERATIONS FOR BASE PATCHING FROM STA 713'EB'+50 TO STA 719'EB'+00 AND STA 767'EB'+50 TO STA 777'EB'+00.

CONSTRUCTION ACTIVITIES TO BE COMPLETED:

- STH 16 EASTBOUND LANES FROM STA 719'EB'+00 TO STA 760'EB'+00. GAP AT RAMPS 'A' & 'B' TEMPORARY CONNECTOR.
- STH 16 EASTBOUND TEMPORARY WIDENING.
- STH 16 EASTBOUND NIGHTTIME BASE PATCHING FROM STA 768'EB'+25 TO STA 770'EB'+00.

CONSTRUCTION ACTIVITIES/ AREAS AVAILABLE TO WORK ON:

- STH 127 NORTH OF STH 16.
- STH 16 EASTBOUND LANES FROM STA 719'EB'+00 TO STA 769'EB'+92.
- STH 16 EASTBOUND TEMPORARY WIDENING.
- RAMPS 'A' & 'B' AT ROUNDABOUT.

LEGEND

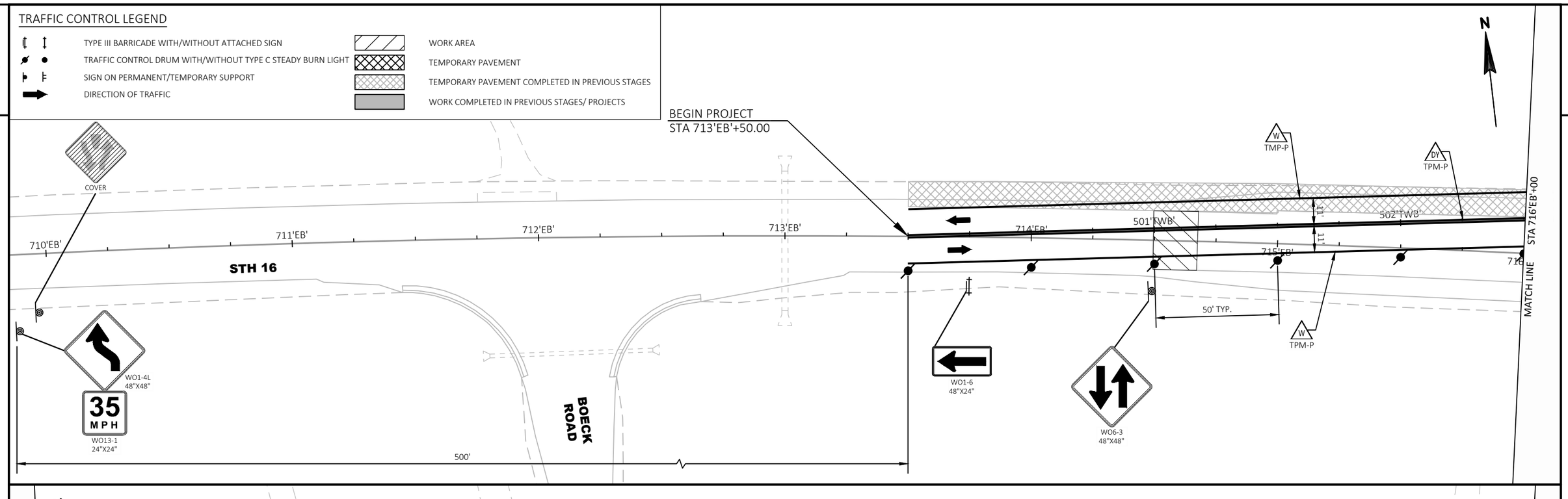
- WORK AREA
- RAMP CLOSED

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 2A: OVERVIEW | SHEET 139 | E |
|---|---|---|---|---|---|

2

## TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY PAVEMENT COMPLETED IN PREVIOUS STAGES
- WORK COMPLETED IN PREVIOUS STAGES/ PROJECTS

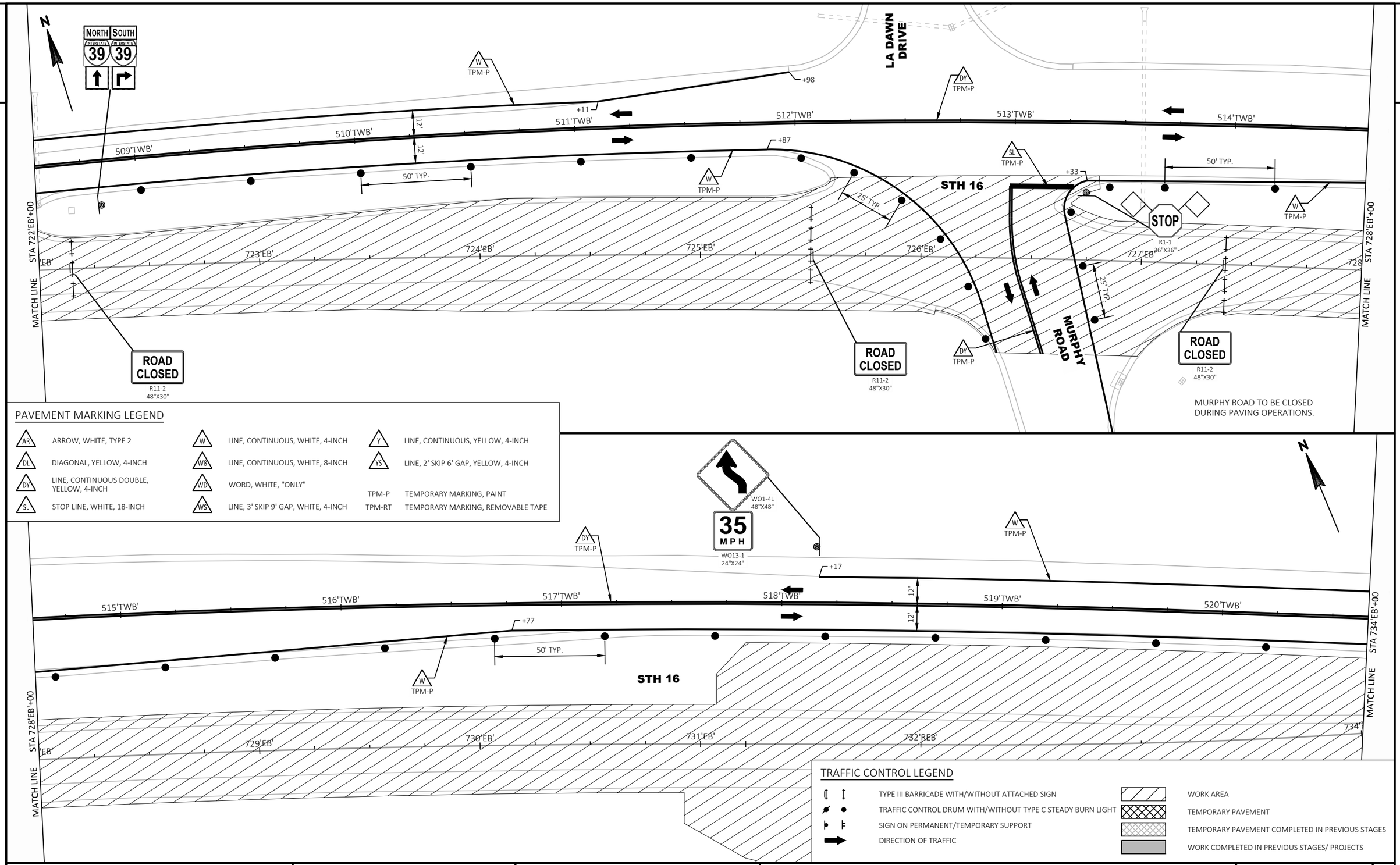



## PAVEMENT MARKING LEGEND

| | | | | | |
|---|---|---|---|---|---|
| AR | ARROW, WHITE, TYPE 2 | W | LINE, CONTINUOUS, WHITE, 4-INCH | Y | LINE, CONTINUOUS, YELLOW, 4-INCH |
| DL | DIAGONAL, YELLOW, 4-INCH | W8 | LINE, CONTINUOUS, WHITE, 8-INCH | YS | LINE, 2' SKIP 6' GAP, YELLOW, 4-INCH |
| DY | LINE, CONTINUOUS DOUBLE, YELLOW, 4-INCH | WD | WORD, WHITE, "ONLY" | TPM-P | TEMPORARY MARKING, PAINT |
| SL | STOP LINE, WHITE, 18-INCH | WS | LINE, 3' SKIP 9' GAP, WHITE, 4-INCH | TPM-RT | TEMPORARY MARKING, REMOVABLE TAPE |

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 2A | SHEET 140 | E |
|---|---|---|---|---|---|


FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025201-TC.DWG
LAYOUT NAME - 01
PLOT DATE : 1/2/2018 11:16 AM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42



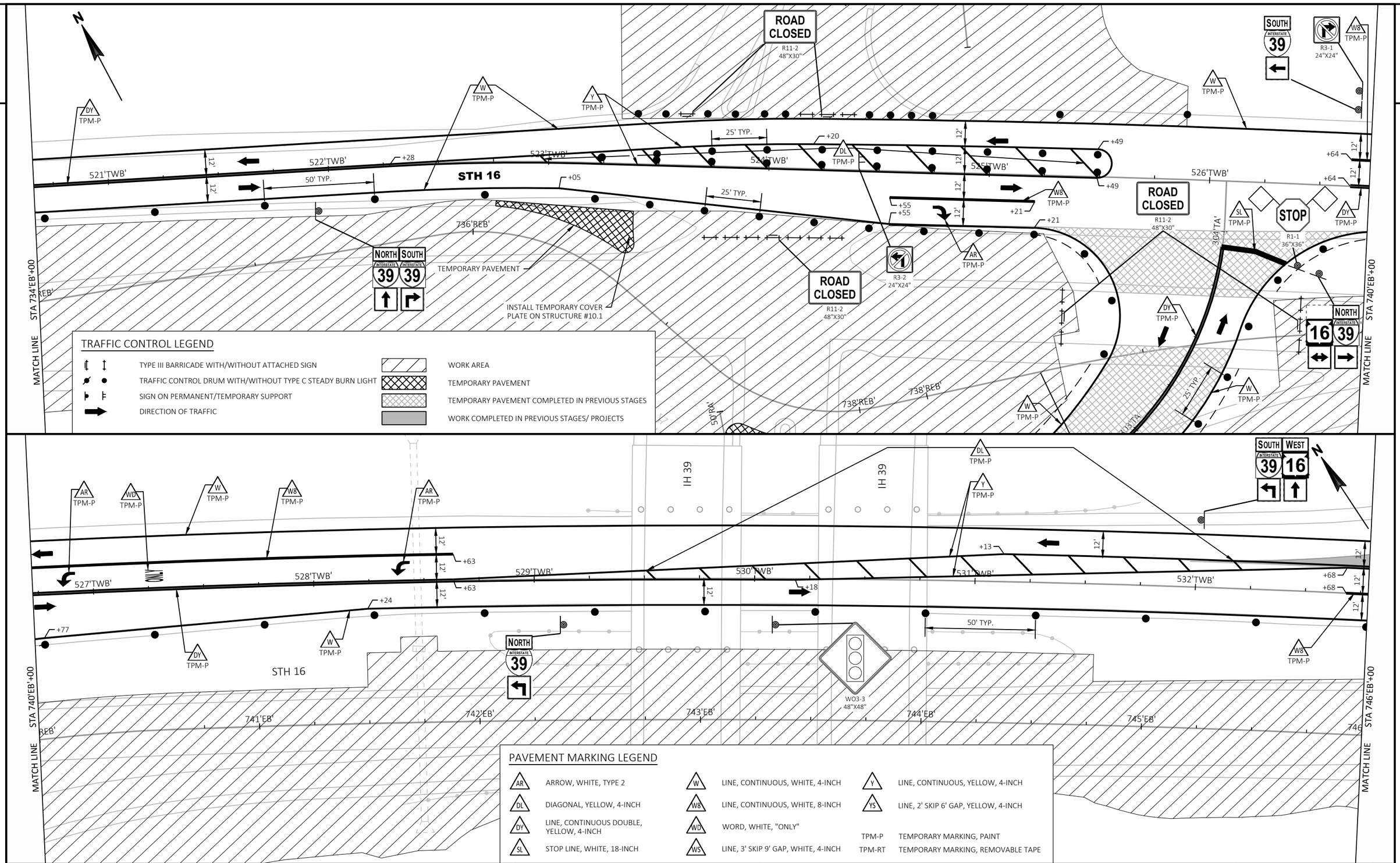

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 2A | SHEET 141 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025201-TC.DWG
LAYOUT NAME - 02

PLOT DATE : 1/2/2018 11:17 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

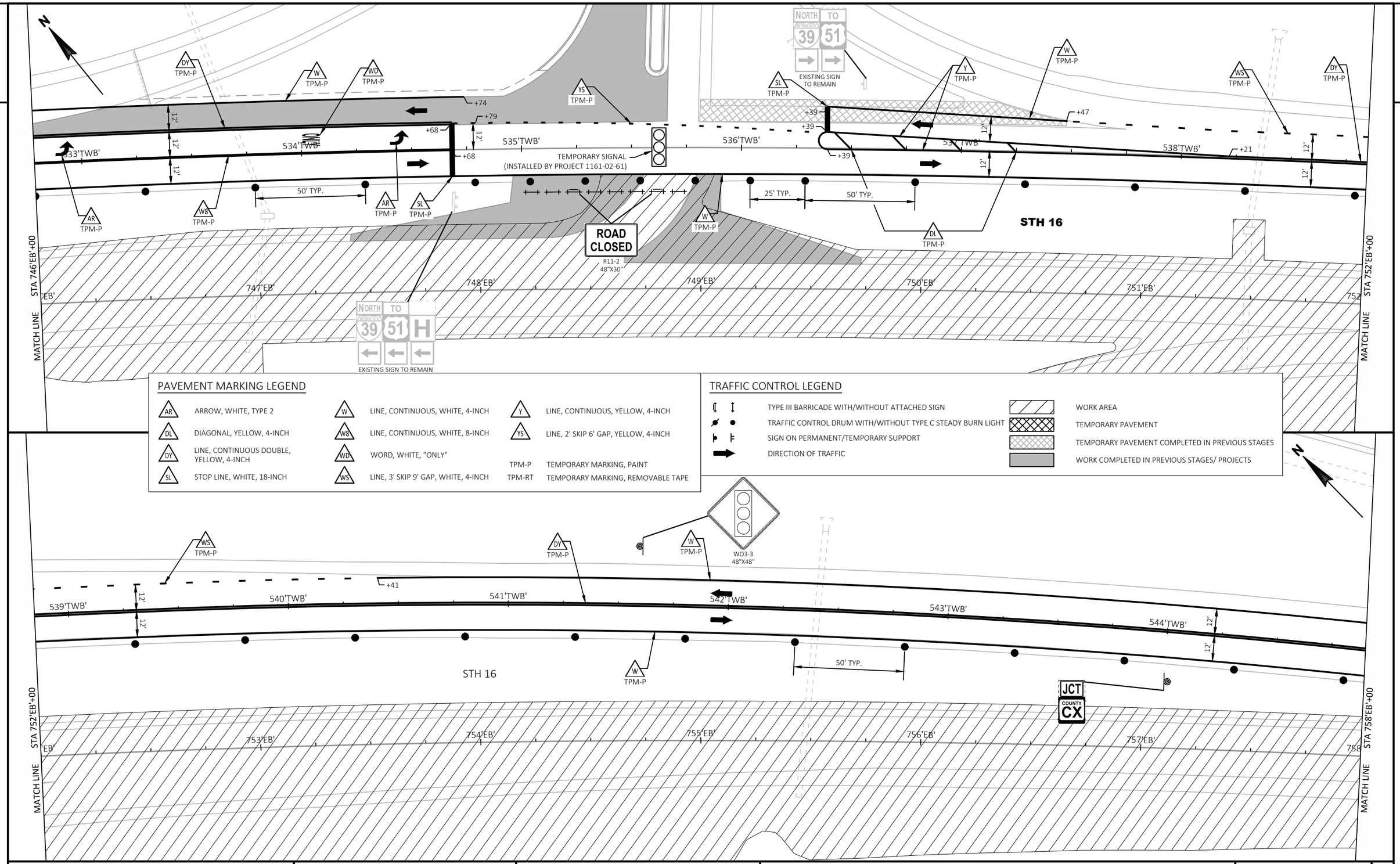
WISDOT/CADDS SHEET 42

2




| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 2A | SHEET 142 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025201-TC.DWG
LAYOUT NAME - 03
PLOT DATE : 1/2/2018 11:17 AM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42



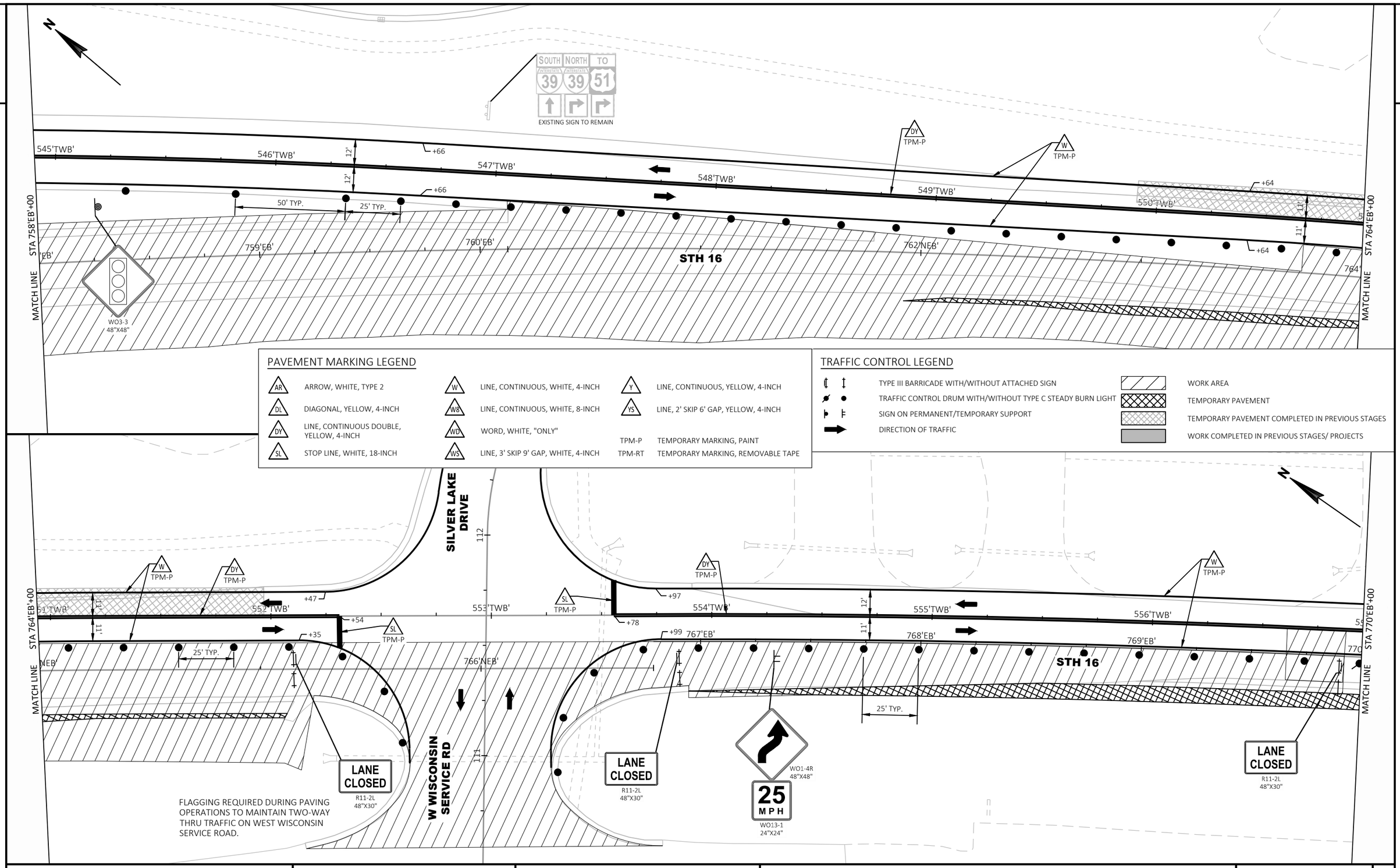

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 2A | SHEET 143 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025201-TC.DWG
LAYOUT NAME - 04

PLOT DATE : 1/2/2018 11:17 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2




## PAVEMENT MARKING LEGEND

| | | | | | |
|---|---|---|---|---|---|
| AR | ARROW, WHITE, TYPE 2 | W | LINE, CONTINUOUS, WHITE, 4-INCH | Y | LINE, CONTINUOUS, YELLOW, 4-INCH |
| DL | DIAGONAL, YELLOW, 4-INCH | W8 | LINE, CONTINUOUS, WHITE, 8-INCH | YS | LINE, 2' SKIP 6' GAP, YELLOW, 4-INCH |
| DY | LINE, CONTINUOUS DOUBLE, YELLOW, 4-INCH | WD | WORD, WHITE, "ONLY" | TPM-P | TEMPORARY MARKING, PAINT |
| SL | STOP LINE, WHITE, 18-INCH | WS | LINE, 3' SKIP 9' GAP, WHITE, 4-INCH | TPM-RT | TEMPORARY MARKING, REMOVABLE TAPE |

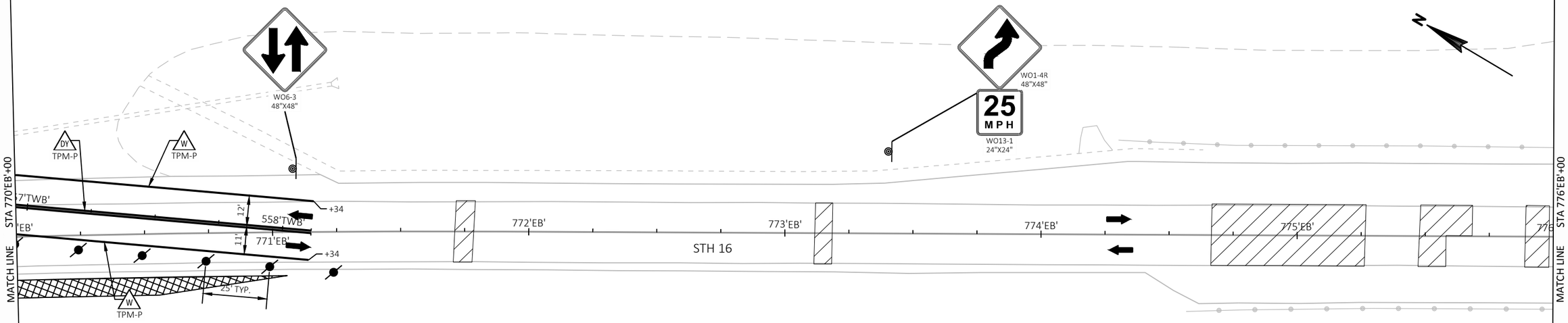
## TRAFFIC CONTROL LEGEND

| | |
|---|---|
| TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN | WORK AREA |
| TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT | TEMPORARY PAVEMENT |
| SIGN ON PERMANENT/TEMPORARY SUPPORT | TEMPORARY PAVEMENT COMPLETED IN PREVIOUS STAGES |
| DIRECTION OF TRAFFIC | WORK COMPLETED IN PREVIOUS STAGES/ PROJECTS |

FLAGGING REQUIRED DURING PAVING OPERATIONS TO MAINTAIN TWO-WAY THRU TRAFFIC ON WEST WISCONSIN SERVICE ROAD.

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 2A | SHEET 144 | E |
|---|---|---|---|---|---|

2

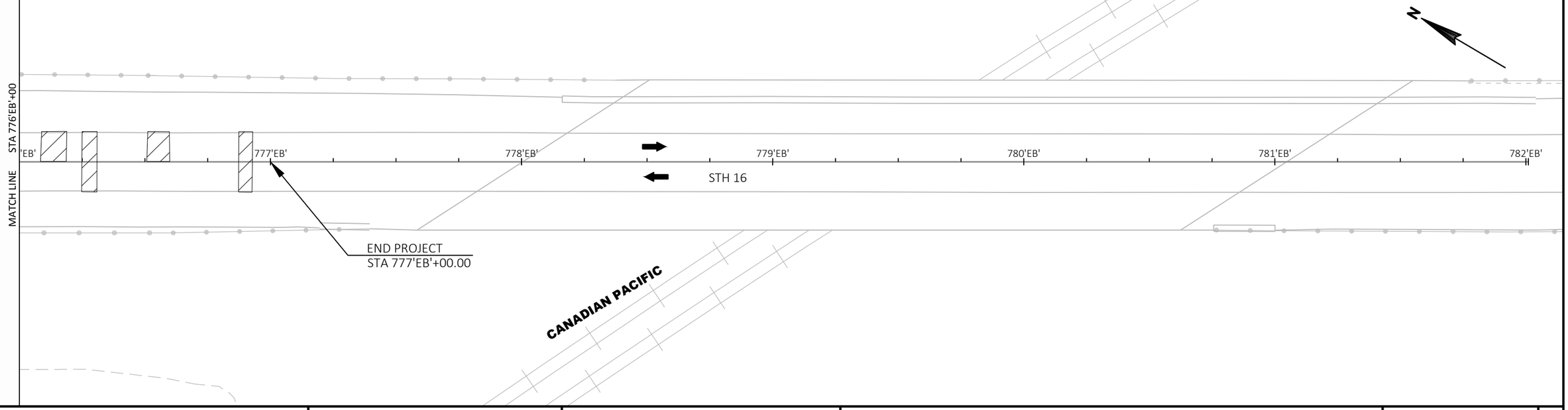



## TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY PAVEMENT COMPLETED IN PREVIOUS STAGES
- WORK COMPLETED IN PREVIOUS STAGES/ PROJECTS

## PAVEMENT MARKING LEGEND

| | | | | | |
|---|---|---|---|---|---|
| AR | ARROW, WHITE, TYPE 2 | W | LINE, CONTINUOUS, WHITE, 4-INCH | Y | LINE, CONTINUOUS, YELLOW, 4-INCH |
| DL | DIAGONAL, YELLOW, 4-INCH | W8 | LINE, CONTINUOUS, WHITE, 8-INCH | YS | LINE, 2' SKIP 6' GAP, YELLOW, 4-INCH |
| DY | LINE, CONTINUOUS DOUBLE, YELLOW, 4-INCH | WD | WORD, WHITE, "ONLY" | TPM-P | TEMPORARY MARKING, PAINT |
| SL | STOP LINE, WHITE, 18-INCH | WS | LINE, 3' SKIP 9' GAP, WHITE, 4-INCH | TPM-RT | TEMPORARY MARKING, REMOVABLE TAPE |



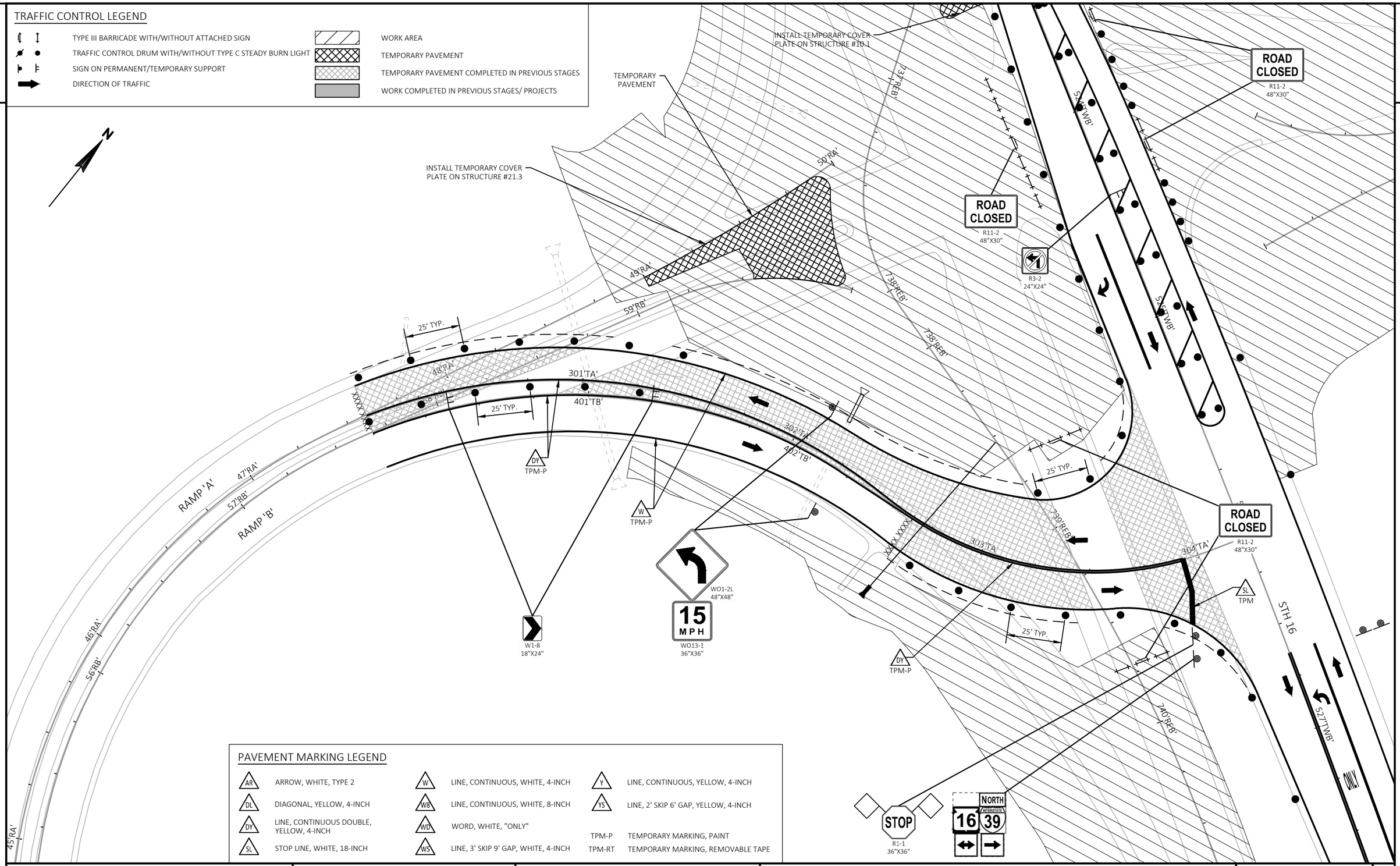

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 2A | SHEET 145 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025201-TC.DWG
LAYOUT NAME - 06
PLOT DATE : 1/2/2018 11:17 AM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

## TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY PAVEMENT COMPLETED IN PREVIOUS STAGES
- WORK COMPLETED IN PREVIOUS STAGES/ PROJECTS

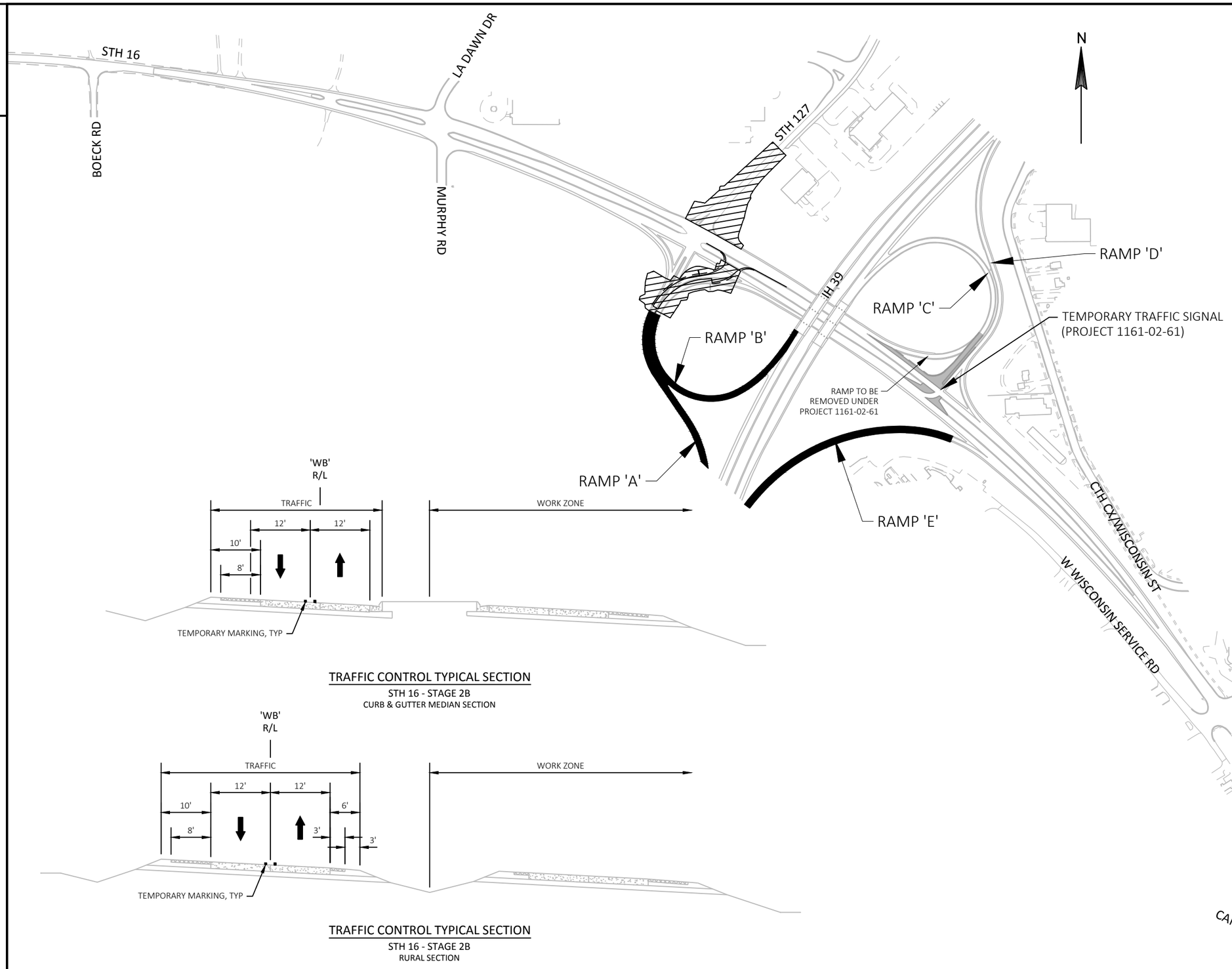



## PAVEMENT MARKING LEGEND

| | | | | | |
|---|---|---|---|---|---|
| AR | ARROW, WHITE, TYPE 2 | W | LINE, CONTINUOUS, WHITE, 4-INCH | Y | LINE, CONTINUOUS, YELLOW, 4-INCH |
| DL | DIAGONAL, YELLOW, 4-INCH | W8 | LINE, CONTINUOUS, WHITE, 8-INCH | YS | LINE, 2' SKIP 6' GAP, YELLOW, 4-INCH |
| DY | LINE, CONTINUOUS DOUBLE, YELLOW, 4-INCH | WD | WORD, WHITE, "ONLY" | TPM-P | TEMPORARY MARKING, PAINT |
| SL | STOP LINE, WHITE, 18-INCH | WS | LINE, 3' SKIP 9' GAP, WHITE, 4-INCH | TPM-RT | TEMPORARY MARKING, REMOVABLE TAPE |

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 2A | SHEET 146 | E |
|---|---|---|---|---|---|

2







TRAFFIC CONTROL TYPICAL SECTION
STH 16 - STAGE 2B
CURB & GUTTER MEDIAN SECTION




TRAFFIC CONTROL TYPICAL SECTION
STH 16 - STAGE 2B
RURAL SECTION

## STAGE 2B

MAINTENANCE OF TRAFFIC:

- STH 127 CLOSED WITH POSTED DETOUR ALONG STH 16.
- IH 39 SOUTHBOUND RAMPS 'A' & 'B' CLOSED WITH POSTED DETOUR ALONG CTH CX & USH 51.
- STH 16 WESTBOUND - REDUCE TRAFFIC TO SINGLE LANE AND SHIFT TO OUTSIDE LANE.
- STH 16 EASTBOUND - REDUCE TRAFFIC TO SINGLE LANE TO RUN BI-DIRECTIONAL ON WESTBOUND MEDIAN LANE.
- MAINTAIN ACCESS TO MURPHY ROAD, LA DAWN DRIVE, SILVER LAKE DRIVE, W WISCONSIN SERVICE ROAD, AND IH 39 RAMPS ALONG STH16.
- IH 39 NORTHBOUND OFF RAMP 'E' CLOSED UNDER PROJECT 1161-02-61. IH 39 NORTHBOUND OFF RAMP 'E' TO STH 16 TRAFFIC TO USE IH 39 NORTHBOUND OFF RAMP 'C'.
- TEMPORARY TRAFFIC SIGNALS PLACED AT INTERSECTION OF STH 16 AND IH 39 NORTHBOUND ON/OFF RAMP. (INSTALLED AND MAINTAINED UNDER PROJECT 1161-02-61)
- NIGHTTIME FLAGGING OPERATIONS FOR BASE PATCHING FROM STA 713'EB'+50 TO STA 719'EB'+00 AND STA 767'EB'+50 TO STA 777'EB'+00.

CONSTRUCTION ACTIVITIES TO BE COMPLETED:

- STH 16 EASTBOUND LANES FROM STA 738'REB'+60 - STA 739'REB'+60.
- RAMPS 'A' & 'B'.

CONSTRUCTION ACTIVITIES/ AREAS AVAILABLE TO WORK ON:

- STH 127 NORTH OF STH 16.
- STH 16 EASTBOUND LANES FROM STA 738'REB'+60 - STA 739'REB'+60.
- RAMPS 'A' & 'B'.

LEGEND

WORK AREA

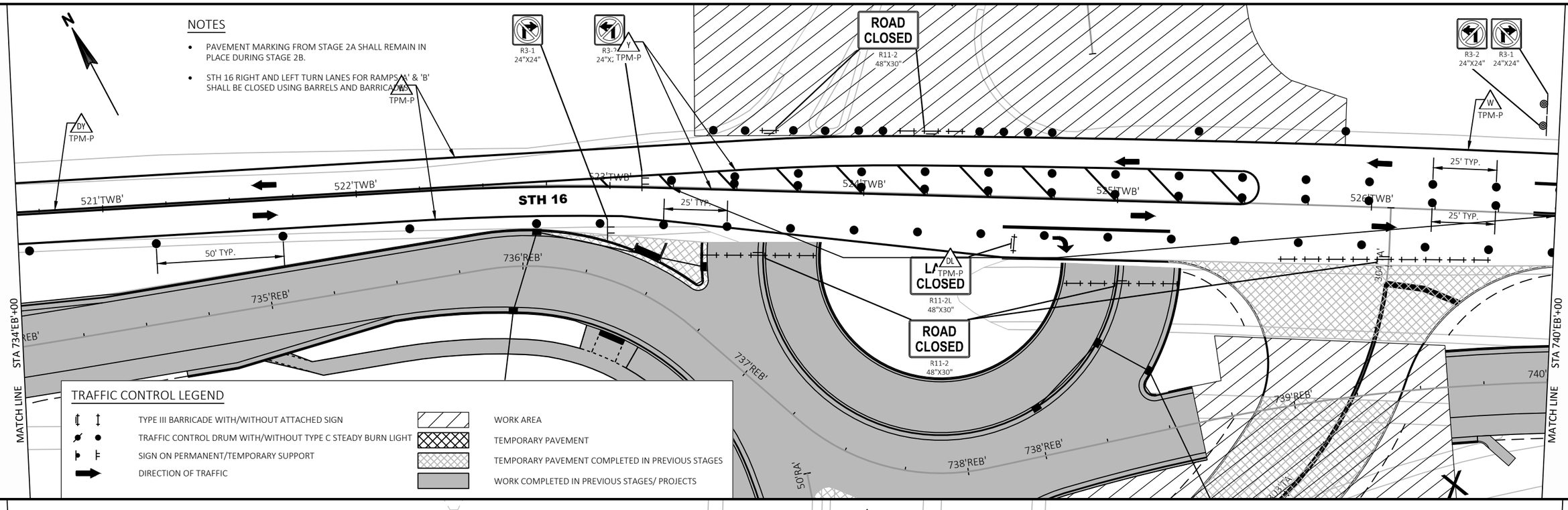
RAMP CLOSED

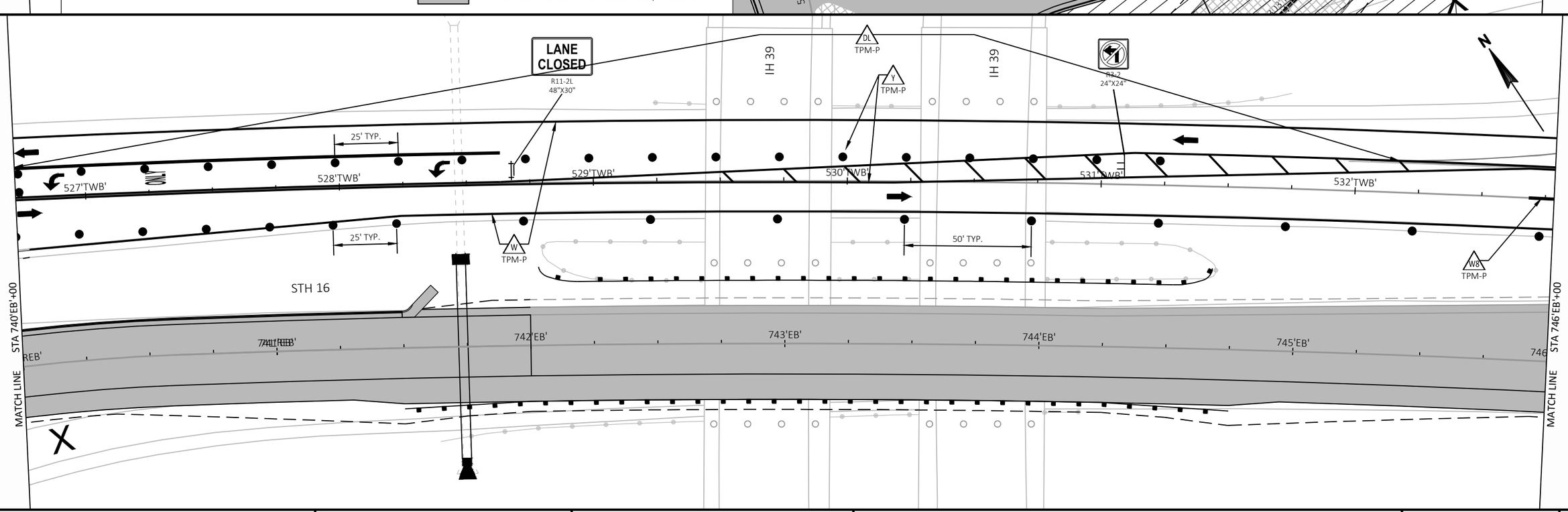
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 2B: OVERVIEW | SHEET 147 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025220-TC.DWG
LAYOUT NAME - 01
PLOT DATE : 1/2/2018 11:17 AM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

## NOTES

- PAVEMENT MARKING FROM STAGE 2A SHALL REMAIN IN PLACE DURING STAGE 2B.
- STH 16 RIGHT AND LEFT TURN LANES FOR RAMPS 'A' & 'B' SHALL BE CLOSED USING BARRELS AND BARRICADES.




| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 2B | SHEET 148 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025221-TC.DWG
LAYOUT NAME - 03
PLOT DATE : 1/2/2018 11:17 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

## TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY PAVEMENT COMPLETED IN PREVIOUS STAGES
- WORK COMPLETED IN PREVIOUS STAGES/ PROJECTS

N

ROAD CLOSED
R11-2
48"X30"

LANE CLOSED
R11-2L
48"X30"

ROAD CLOSED
R11-2
48"X30"

STH 16

RAMP 'A'

RAMP 'B'

## NOTES

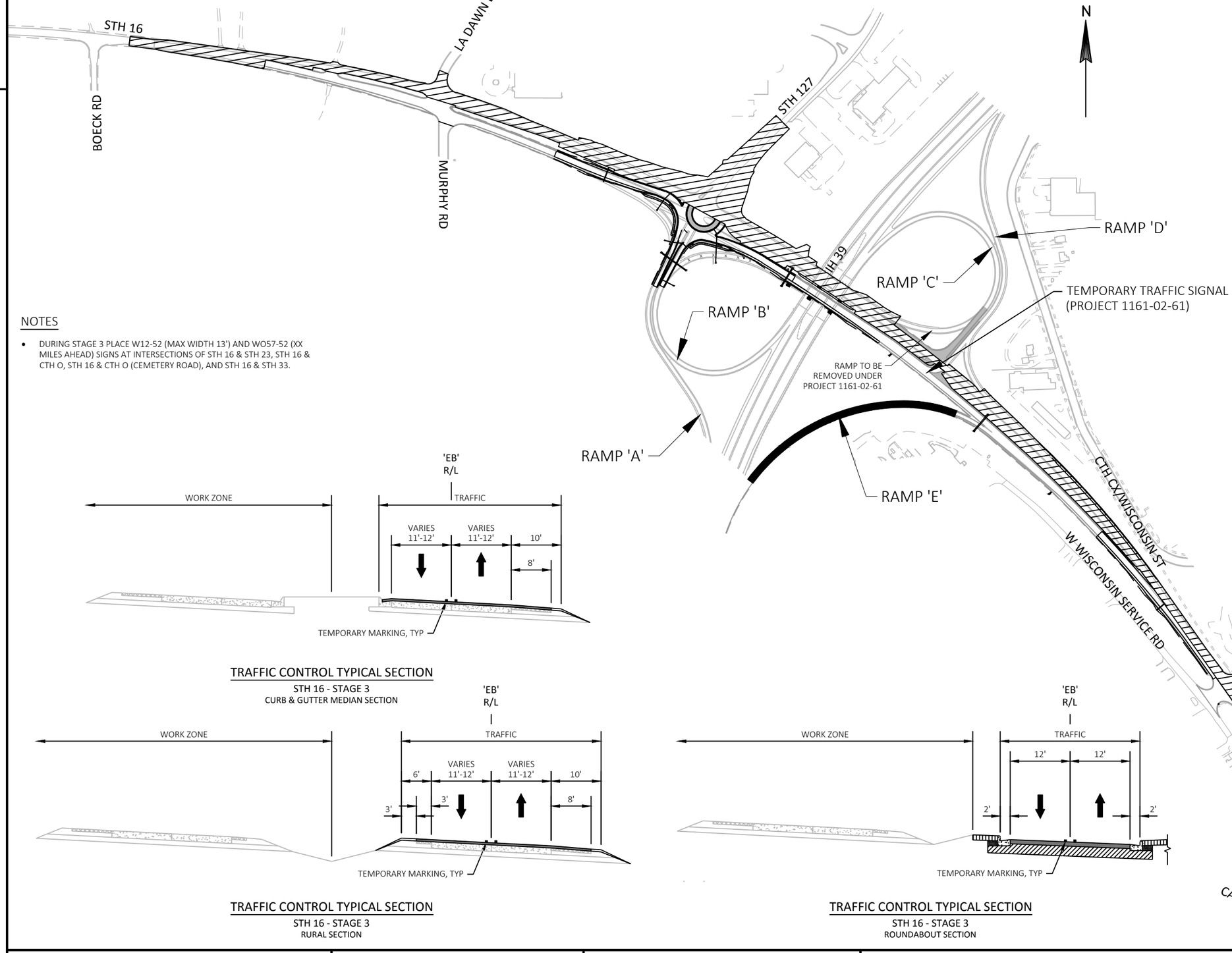
- PAVEMENT MARKING FROM STAGE 2A SHALL REMAIN IN PLACE DURING STAGE 2B.
- STH 16 RIGHT AND LEFT TURN LANES FOR RAMPS 'A' & 'B' SHALL BE CLOSED USING BARRELS AND BARRICADES.

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 2B | SHEET 149 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025222-TC.DWG
LAYOUT NAME - 01

PLOT DATE : 1/2/2018 11:17 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

2




## NOTES

- DURING STAGE 3 PLACE W12-52 (MAX WIDTH 13') AND WO57-52 (XX MILES AHEAD) SIGNS AT INTERSECTIONS OF STH 16 & STH 23, STH 16 & CTH O, STH 16 & CTH O (CEMETERY ROAD), AND STH 16 & STH 33.




**TRAFFIC CONTROL TYPICAL SECTION**
STH 16 - STAGE 3
CURB & GUTTER MEDIAN SECTION




**TRAFFIC CONTROL TYPICAL SECTION**
STH 16 - STAGE 3
RURAL SECTION




**TRAFFIC CONTROL TYPICAL SECTION**
STH 16 - STAGE 3
ROUNDABOUT SECTION

## STAGE 3

MAINTENANCE OF TRAFFIC:

- STH 127 CLOSED WITH POSTED DETOUR ALONG STH 16.
- STH 16 EASTBOUND - REDUCE TRAFFIC TO SINGLE LANE AND SHIFT TO OUTSIDE LANE.
- STH 16 WESTBOUND - REDUCE TRAFFIC TO SINGLE LANE TO RUN BI-DIRECTIONAL ON EASTBOUND MEDIAN LANE.
- MAINTAIN ACCESS TO MURPHY ROAD, LA DAWN DRIVE, SILVER LAKE DRIVE, W WISCONSIN SERVICE ROAD, AND IH 39 RAMPS ALONG STH16.
- IH 39 NORTHBOUND OFF RAMP 'E' CLOSED UNDER PROJECT 1161-02-61. IH 39 NORTHBOUND OFF RAMP 'E' TO STH 16 TRAFFIC TO USE IH 39 NORTHBOUND OFF RAMP 'C'.
- TEMPORARY TRAFFIC SIGNALS PLACED AT INTERSECTION OF STH 16 AND IH 39 NORTHBOUND ON/OFF RAMP. (INSTALLED AND MAINTAINED UNDER PROJECT 1161-02-61)
- NIGHTTIME FLAGGING OPERATIONS FOR BASE PATCHING FROM STA 713'EB'+50 TO STA 719'EB'+00 AND STA 767'EB'+50 TO STA 777'EB'+00.
- FLAGGING OPERATIONS FOR HMA OVERLAY FROM STA 713'EB'+50 TO STA 719'EB'+00 AND STA 768'EB'+25 TO STA 777'EB'+00.

CONSTRUCTION ACTIVITIES TO BE COMPLETED:

- STH 16 WESTBOUND LANES.
- STH 16 WESTBOUND NIGHTTIME BASE PATCHING FROM STA 768'EB'+25 TO STA 770'EB'+00.
- HMA OVERLAY FROM STA 713'EB'+50 TO STA 719'EB'+00 AND FROM STA 760'EB'+00 TO STA 777'EB'+00.

CONSTRUCTION ACTIVITIES/ AREAS AVAILABLE TO WORK ON:

- STH 127
- STH 16 WESTBOUND LANES.
-

LEGEND

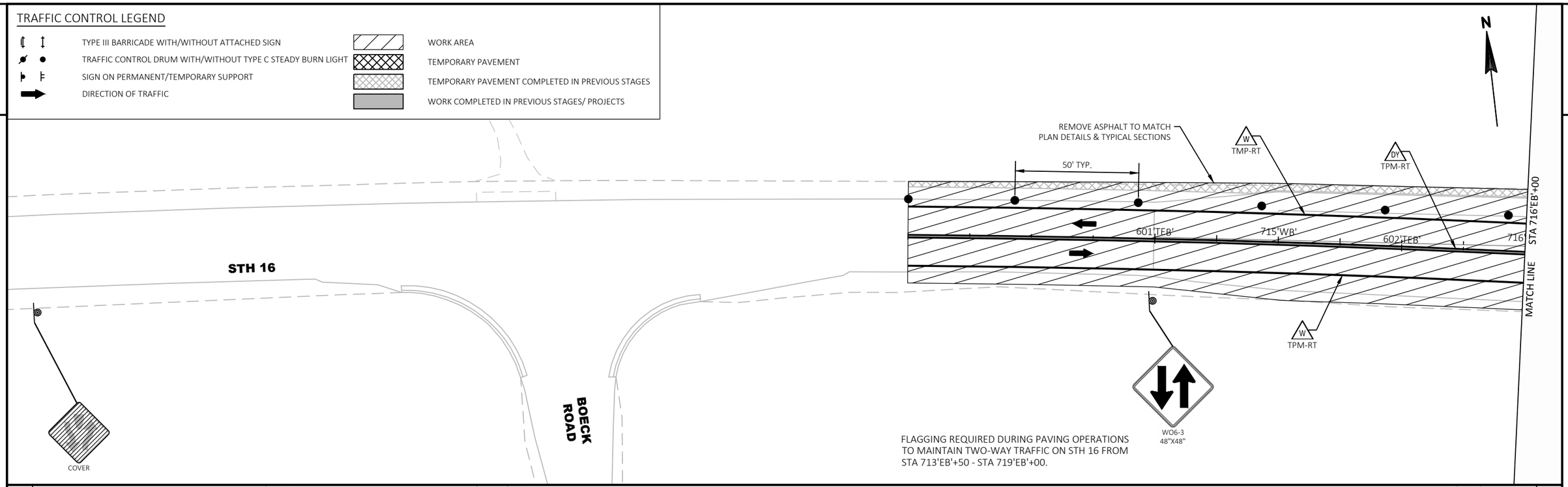
- WORK AREA
- RAMP CLOSED

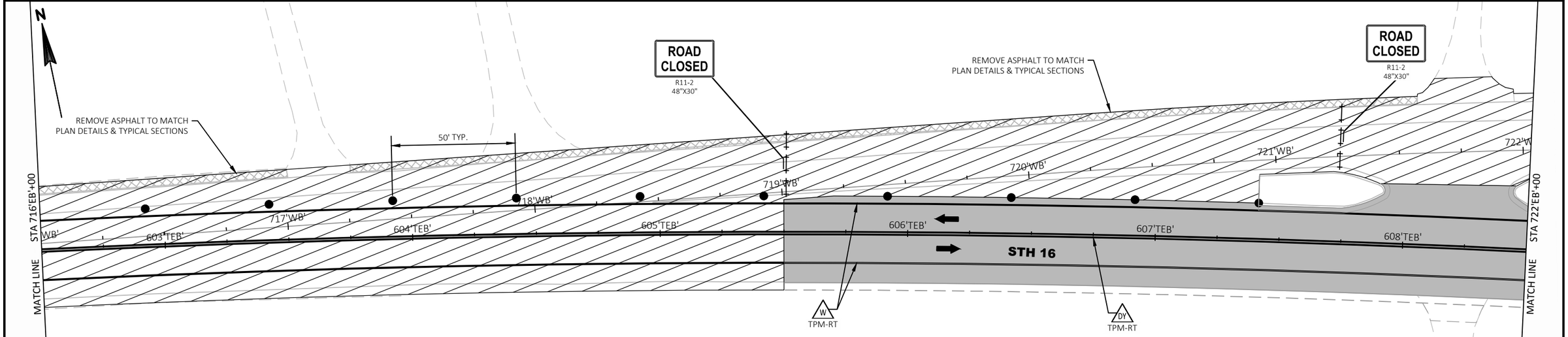
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 3: OVERVIEW | SHEET 150 | E |
|---|---|---|---|---|---|

2

## TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY PAVEMENT COMPLETED IN PREVIOUS STAGES
- WORK COMPLETED IN PREVIOUS STAGES/ PROJECTS




## PAVEMENT MARKING LEGEND

| | | | | | |
|---|---|---|---|---|---|
| AR | ARROW, WHITE, TYPE 2 | W | LINE, CONTINUOUS, WHITE, 4-INCH | Y | LINE, CONTINUOUS, YELLOW, 4-INCH |
| DL | DIAGONAL, YELLOW, 4-INCH | W8 | LINE, CONTINUOUS, WHITE, 8-INCH | YS | LINE, 2' SKIP 6' GAP, YELLOW, 4-INCH |
| DY | LINE, CONTINUOUS DOUBLE, YELLOW, 4-INCH | WD | WORD, WHITE, "ONLY" | TPM-P | TEMPORARY MARKING, PAINT |
| SL | STOP LINE, WHITE, 18-INCH | WS | LINE, 3' SKIP 9' GAP, WHITE, 4-INCH | TPM-RT | TEMPORARY MARKING, REMOVABLE TAPE |

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 3 | SHEET 151 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025301-TC.DWG
LAYOUT NAME - 01
PLOT DATE : 1/2/2018 11:18 AM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : ##########

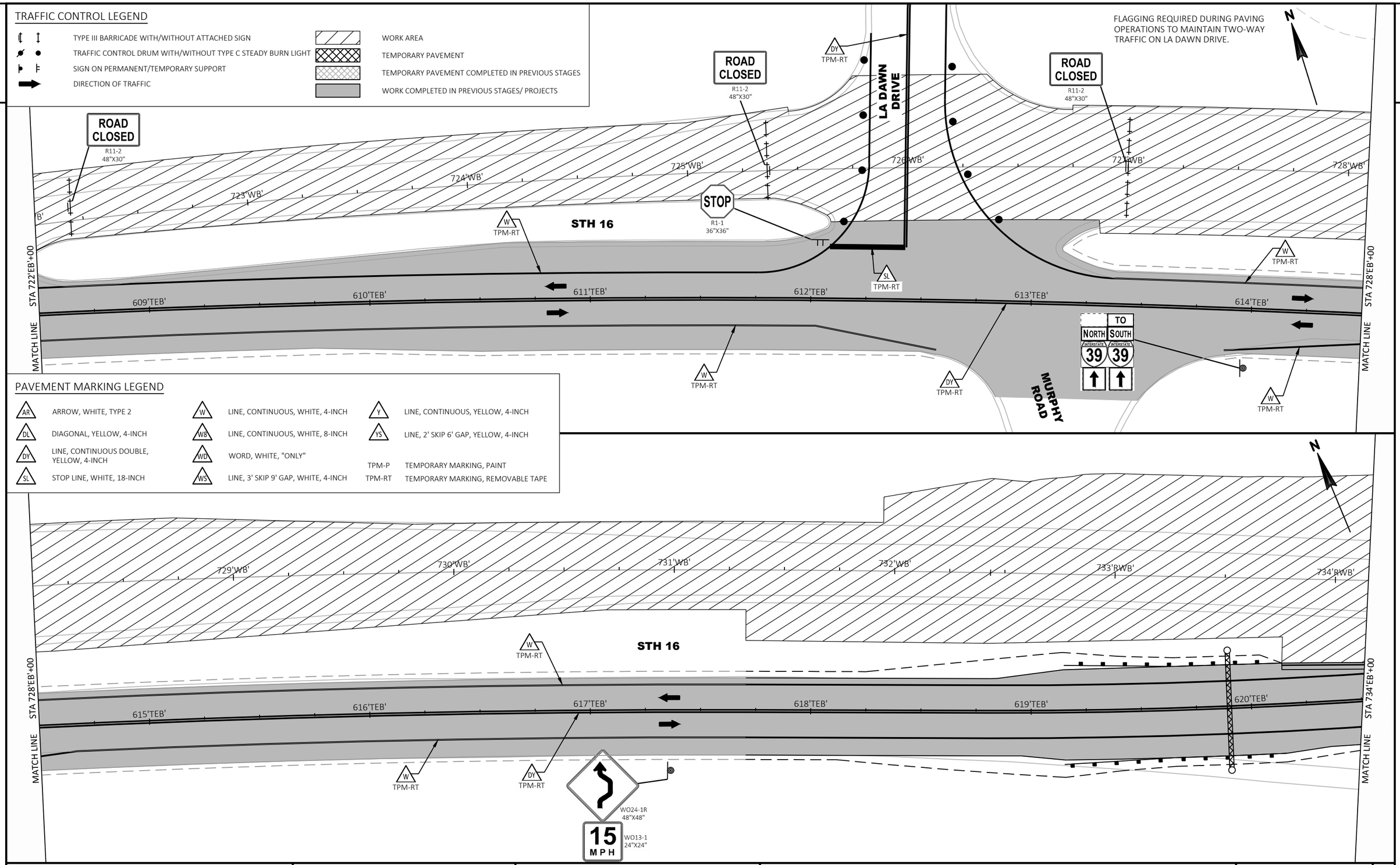
## TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY PAVEMENT COMPLETED IN PREVIOUS STAGES
- WORK COMPLETED IN PREVIOUS STAGES/ PROJECTS

## PAVEMENT MARKING LEGEND

| | | | | | |
|---|---|---|---|---|---|
| AR | ARROW, WHITE, TYPE 2 | W | LINE, CONTINUOUS, WHITE, 4-INCH | Y | LINE, CONTINUOUS, YELLOW, 4-INCH |
| DL | DIAGONAL, YELLOW, 4-INCH | W8 | LINE, CONTINUOUS, WHITE, 8-INCH | YS | LINE, 2' SKIP 6' GAP, YELLOW, 4-INCH |
| DY | LINE, CONTINUOUS DOUBLE, YELLOW, 4-INCH | WD | WORD, WHITE, "ONLY" | TPM-P | TEMPORARY MARKING, PAINT |
| SL | STOP LINE, WHITE, 18-INCH | WS | LINE, 3' SKIP 9' GAP, WHITE, 4-INCH | TPM-RT | TEMPORARY MARKING, REMOVABLE TAPE |

FLAGGING REQUIRED DURING PAVING OPERATIONS TO MAINTAIN TWO-WAY TRAFFIC ON LA DAWN DRIVE.




| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 3 | SHEET 152 E |
|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025301-TC.DWG
LAYOUT NAME - 02

PLOT DATE : 1/2/2018 11:18 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

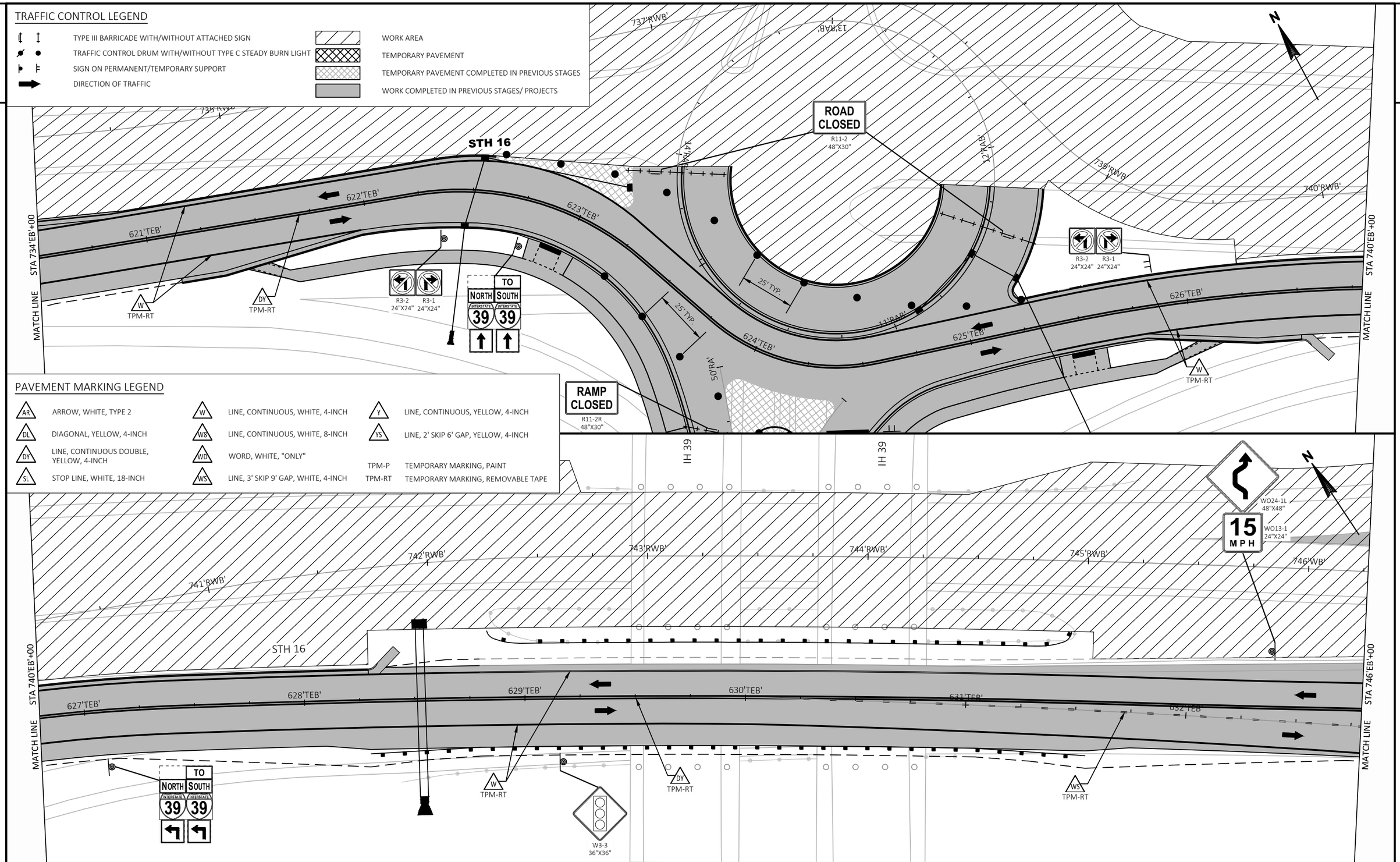
WISDOT/CADDS SHEET 42

## TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY PAVEMENT COMPLETED IN PREVIOUS STAGES
- WORK COMPLETED IN PREVIOUS STAGES/ PROJECTS

## PAVEMENT MARKING LEGEND

- AR — ARROW, WHITE, TYPE 2
- DL — DIAGONAL, YELLOW, 4-INCH
- DY — LINE, CONTINUOUS DOUBLE, YELLOW, 4-INCH
- SL — STOP LINE, WHITE, 18-INCH
- W — LINE, CONTINUOUS, WHITE, 4-INCH
- W8 — LINE, CONTINUOUS, WHITE, 8-INCH
- WD — WORD, WHITE, "ONLY"
- WS — LINE, 3' SKIP 9' GAP, WHITE, 4-INCH
- Y — LINE, CONTINUOUS, YELLOW, 4-INCH
- YS — LINE, 2' SKIP 6' GAP, YELLOW, 4-INCH
- TPM-P — TEMPORARY MARKING, PAINT
- TPM-RT — TEMPORARY MARKING, REMOVABLE TAPE

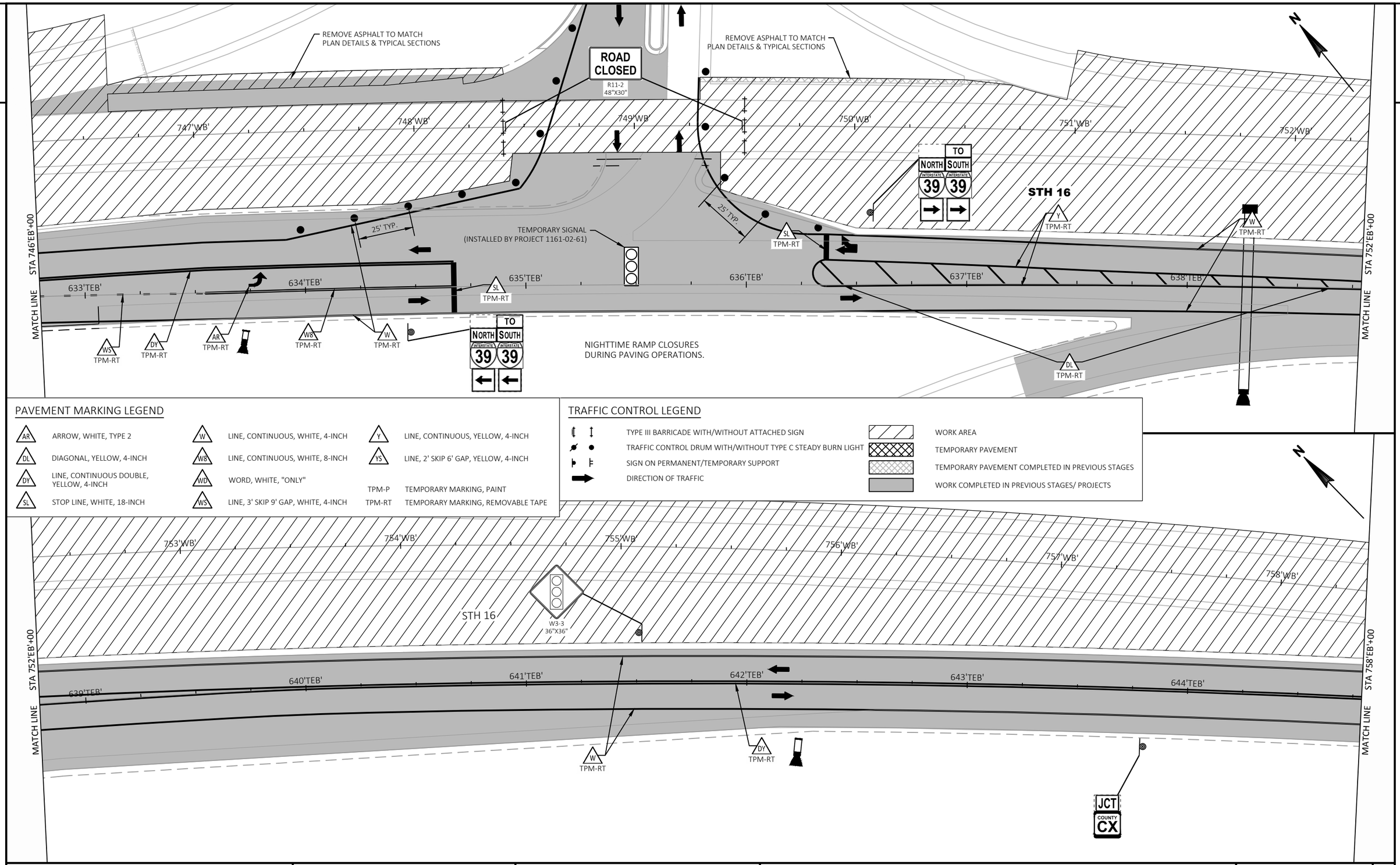



| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 3 | SHEET 153 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025301-TC.DWG
LAYOUT NAME - 03

PLOT DATE : 1/2/2018 11:18 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42




## PAVEMENT MARKING LEGEND

| | | | | | |
|---|---|---|---|---|---|
| AR | ARROW, WHITE, TYPE 2 | W | LINE, CONTINUOUS, WHITE, 4-INCH | Y | LINE, CONTINUOUS, YELLOW, 4-INCH |
| DL | DIAGONAL, YELLOW, 4-INCH | W8 | LINE, CONTINUOUS, WHITE, 8-INCH | YS | LINE, 2' SKIP 6' GAP, YELLOW, 4-INCH |
| DY | LINE, CONTINUOUS DOUBLE, YELLOW, 4-INCH | WD | WORD, WHITE, "ONLY" | | |
| SL | STOP LINE, WHITE, 18-INCH | WS | LINE, 3' SKIP 9' GAP, WHITE, 4-INCH | TPM-P | TEMPORARY MARKING, PAINT |
| | | | | TPM-RT | TEMPORARY MARKING, REMOVABLE TAPE |

## TRAFFIC CONTROL LEGEND

| | |
|---|---|
| | TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN |
| | TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT |
| | SIGN ON PERMANENT/TEMPORARY SUPPORT |
| | DIRECTION OF TRAFFIC |
| | WORK AREA |
| | TEMPORARY PAVEMENT |
| | TEMPORARY PAVEMENT COMPLETED IN PREVIOUS STAGES |
| | WORK COMPLETED IN PREVIOUS STAGES/ PROJECTS |

| | | | | |
|---|---|---|---|---|
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 3 | SHEET 154 E |


FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025301-TC.DWG
LAYOUT NAME - 04
PLOT DATE : 1/2/2018 11:18 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

## PAVEMENT MARKING LEGEND

| | | | | | |
|---|---|---|---|---|---|
| AR | ARROW, WHITE, TYPE 2 | W | LINE, CONTINUOUS, WHITE, 4-INCH | Y | LINE, CONTINUOUS, YELLOW, 4-INCH |
| DL | DIAGONAL, YELLOW, 4-INCH | W8 | LINE, CONTINUOUS, WHITE, 8-INCH | YS | LINE, 2' SKIP 6' GAP, YELLOW, 4-INCH |
| DY | LINE, CONTINUOUS DOUBLE, YELLOW, 4-INCH | WD | WORD, WHITE, "ONLY" | TPM-P | TEMPORARY MARKING, PAINT |
| SL | STOP LINE, WHITE, 18-INCH | WS | LINE, 3' SKIP 9' GAP, WHITE, 4-INCH | TPM-RT | TEMPORARY MARKING, REMOVABLE TAPE |

## TRAFFIC CONTROL LEGEND

| | |
|---|---|
| | TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN |
| | TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT |
| | SIGN ON PERMANENT/TEMPORARY SUPPORT |
| | DIRECTION OF TRAFFIC |
| | WORK AREA |
| | TEMPORARY PAVEMENT |
| | TEMPORARY PAVEMENT COMPLETED IN PREVIOUS STAGES |
| | WORK COMPLETED IN PREVIOUS STAGES/ PROJECTS |

N

TO SOUTH INTERSTATE 39 NORTH INTERSTATE 39

759'WB' 760'WB' 761'WB' 762'WB' 763'WB' 764'WB'

25' TYP.

STH 16

REMOVE ASPHALT TO MATCH PLAN DETAILS & TYPICAL SECTIONS

STA 758'EB'+00

STA 764'EB'+00

MATCH LINE

645'TEB' 646'TEB' 647'TEB' 648'TEB' 649'TEB' 650'TEB'

W3-3
36"X36"

DY TPM-RT

W TPM-RT

FLAGGING REQUIRED DURING PAVING OPERATIONS TO MAINTAIN TWO-WAY TRAFFIC ON SILVER LAKE DRIVE.

SILVER LAKE DRIVE

112

LANE CLOSED
R11-2L
48"X30"

LANE CLOSED
R11-2L
48"X30"

LANE CLOSED
R11-2L
48"X30"

REMOVE ASPHALT TO MATCH PLAN DETAILS & TYPICAL SECTIONS

STA 764'EB'+00

STA 770'EB'+00

25' TYP.

765'WB' 766'WB' 767'WB'

STH 16

25' TYP.

MATCH LINE

651'TEB' 652'TEB' 653'TEB' 654'TEB' 655'TEB' 656'TEB'

W TPM-RT

DY TPM-RT

SL TPM-RT

SL TPM-RT

DY TPM-RT

W TPM-RT

W WISCONSIN SERVICE RD

111

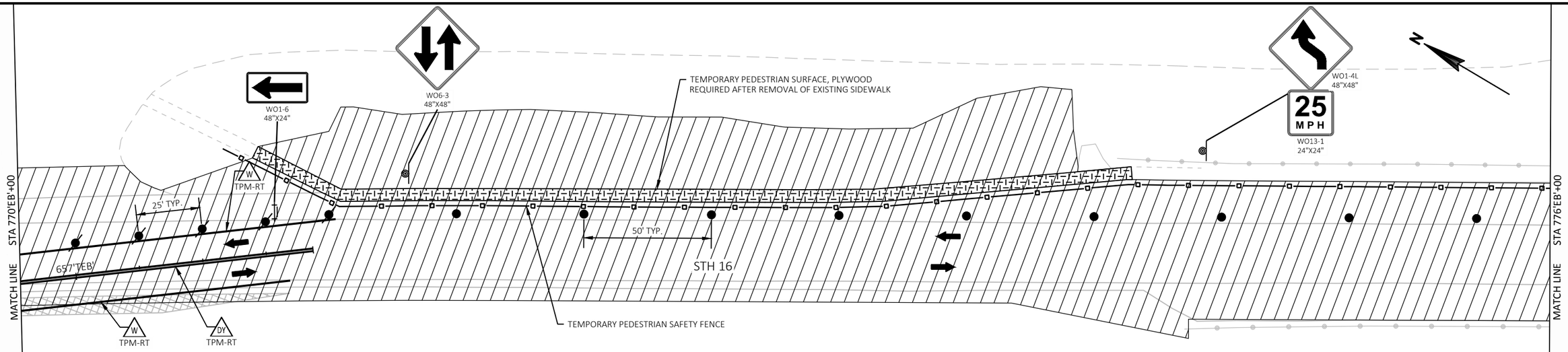
WO1-4L
48"X48"

25 MPH
WO13-1
24"X24"

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 3 | SHEET 155 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025301-TC.DWG
LAYOUT NAME - 05
PLOT DATE : 1/2/2018 11:18 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2



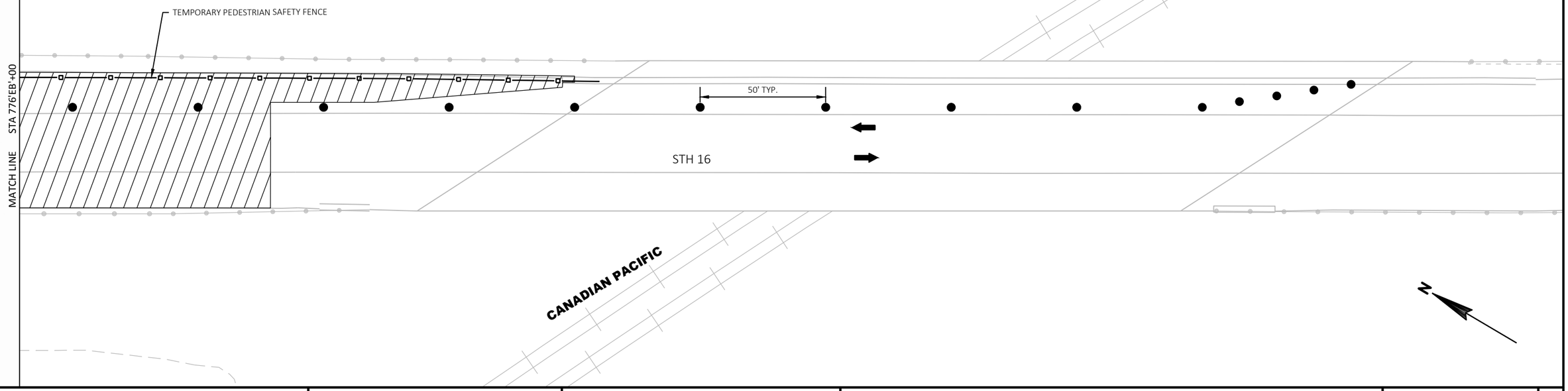

FLAGGING REQUIRED DURING PAVING OPERATIONS
TO MAINTAIN TWO-WAY TRAFFIC ON STH 16 FROM
STA 769'EB'+90 - STA 777'EB'+00.

## TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY PAVEMENT COMPLETED IN PREVIOUS STAGES
- WORK COMPLETED IN PREVIOUS STAGES/ PROJECTS

## PAVEMENT MARKING LEGEND

| | | | | | |
|---|---|---|---|---|---|
| AR | ARROW, WHITE, TYPE 2 | W | LINE, CONTINUOUS, WHITE, 4-INCH | Y | LINE, CONTINUOUS, YELLOW, 4-INCH |
| DL | DIAGONAL, YELLOW, 4-INCH | W8 | LINE, CONTINUOUS, WHITE, 8-INCH | YS | LINE, 2' SKIP 6' GAP, YELLOW, 4-INCH |
| DY | LINE, CONTINUOUS DOUBLE, YELLOW, 4-INCH | WD | WORD, WHITE, "ONLY" | TPM-P | TEMPORARY MARKING, PAINT |
| SL | STOP LINE, WHITE, 18-INCH | WS | LINE, 3' SKIP 9' GAP, WHITE, 4-INCH | TPM-RT | TEMPORARY MARKING, REMOVABLE TAPE |



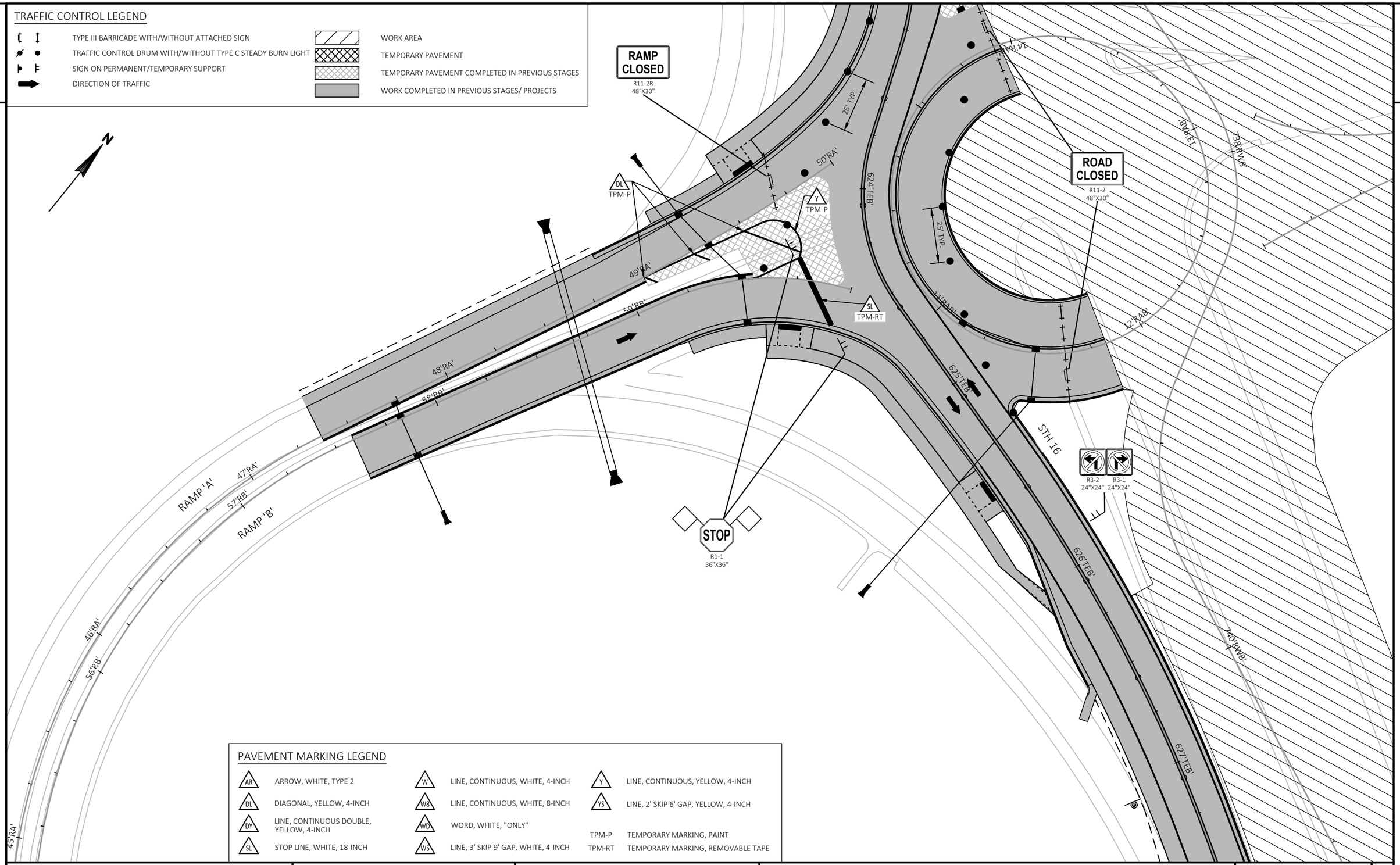

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 3 | SHEET 156 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025301-TC.DWG
LAYOUT NAME - 06
PLOT DATE : 1/2/2018 11:18 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

2

## TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY PAVEMENT COMPLETED IN PREVIOUS STAGES
- WORK COMPLETED IN PREVIOUS STAGES/ PROJECTS




## PAVEMENT MARKING LEGEND

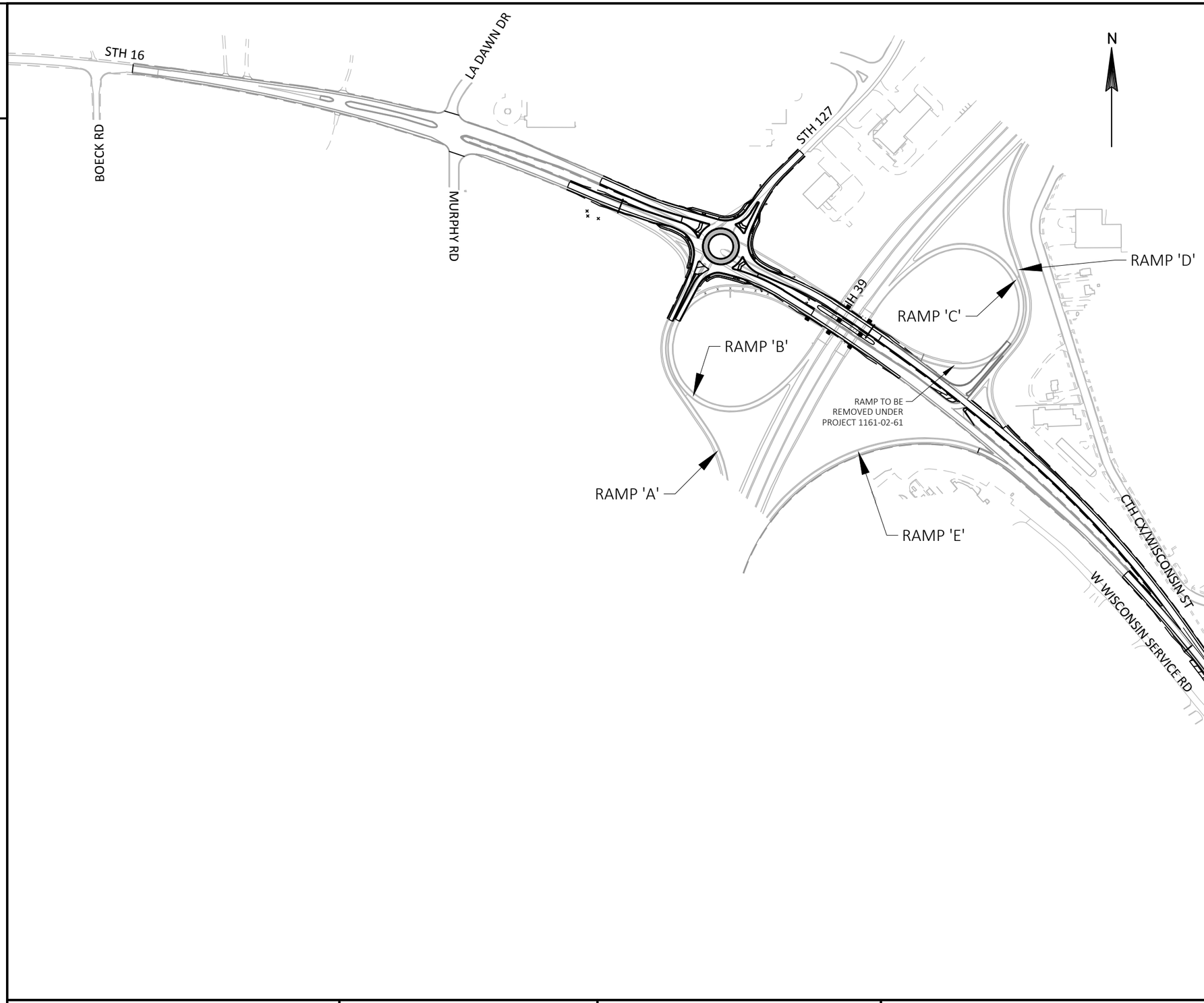
| | | | | | |
|---|---|---|---|---|---|
| AR | ARROW, WHITE, TYPE 2 | W | LINE, CONTINUOUS, WHITE, 4-INCH | Y | LINE, CONTINUOUS, YELLOW, 4-INCH |
| DL | DIAGONAL, YELLOW, 4-INCH | W8 | LINE, CONTINUOUS, WHITE, 8-INCH | YS | LINE, 2' SKIP 6' GAP, YELLOW, 4-INCH |
| DY | LINE, CONTINUOUS DOUBLE, YELLOW, 4-INCH | WD | WORD, WHITE, "ONLY" | TPM-P | TEMPORARY MARKING, PAINT |
| SL | STOP LINE, WHITE, 18-INCH | WS | LINE, 3' SKIP 9' GAP, WHITE, 4-INCH | TPM-RT | TEMPORARY MARKING, REMOVABLE TAPE |

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 3 | SHEET 157 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025302-TC.DWG
LAYOUT NAME - 01

PLOT DATE : 1/2/2018 11:19 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42




## STAGE 4

MAINTENANCE OF TRAFFIC:

- STH 16 MEDIAN LANE CLOSURE ( STAGE 4A)
- STH 16 OUTSIDE LANE CLOSURE (STAGE 4B)
- RAMPS 'A' AND 'B' MEDIAN CLOSURES.
- STH 16 EASTBOUND PAVEMENT MARKING MOVING OPERATIONS.
- STH 127 OPEN TO TRAFFIC.

CONSTRUCTION ACTIVITIES/ AREAS AVAILABLE TO WORK ON:

- RAMPS 'A' AND 'B' SPLITTER ISLAND.
- STH 16 MEDIAN.
- STH 16 SHOULDERS.

CONSTRUCTION ACTIVITIES TO BE COMPLETED:

- RAMPS 'A' AND 'B'.
- STH 16.
- STH 16 EASTBOUND PAVEMENT MARKING.

2

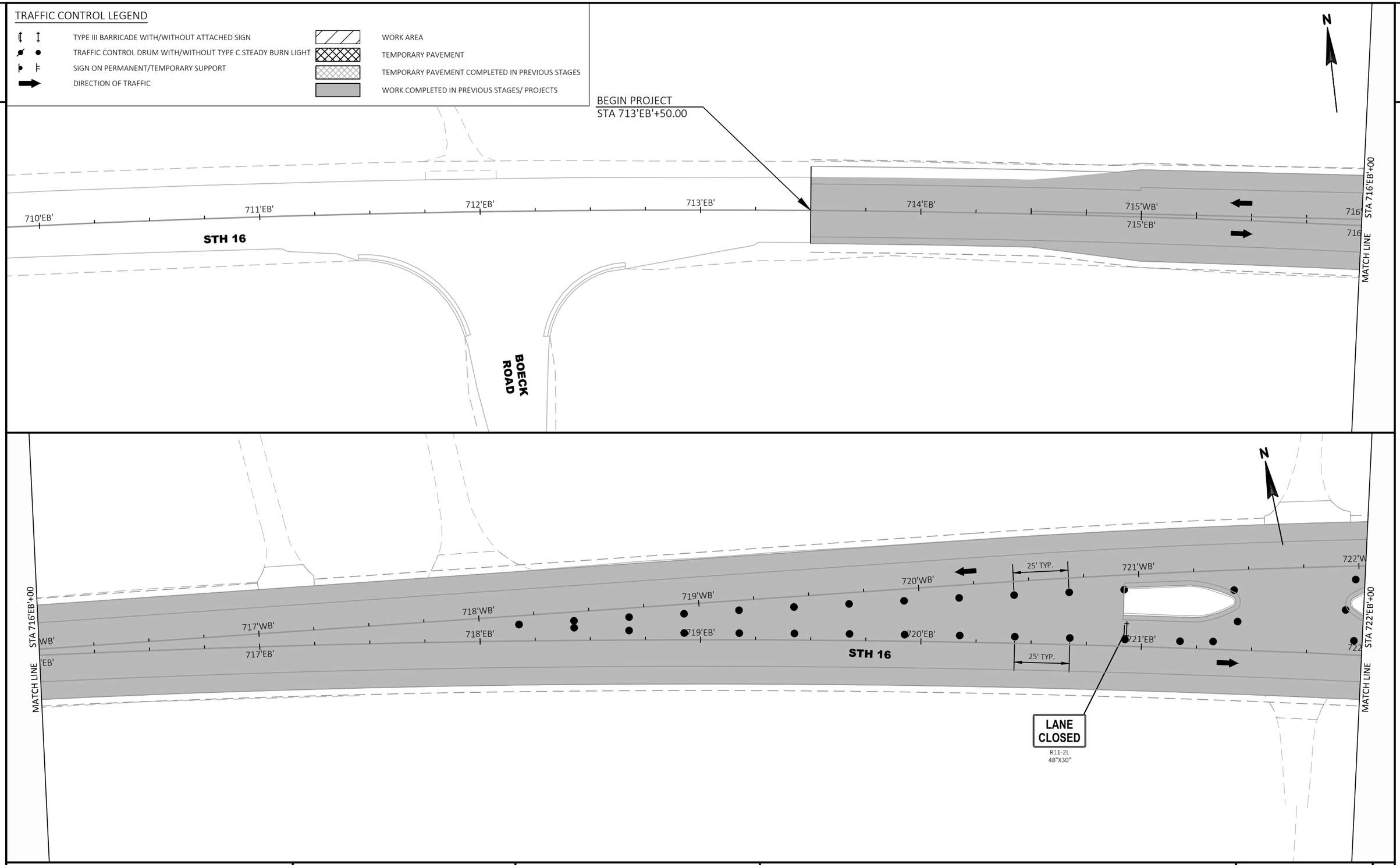
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 4: OVERVIEW | SHEET 158 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025400-TC.DWG
LAYOUT NAME - 01
PLOT DATE : 10/19/2017 9:21 AM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : ############
WISDOT/CADDS SHEET 42

2

## TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY PAVEMENT COMPLETED IN PREVIOUS STAGES
- WORK COMPLETED IN PREVIOUS STAGES/ PROJECTS

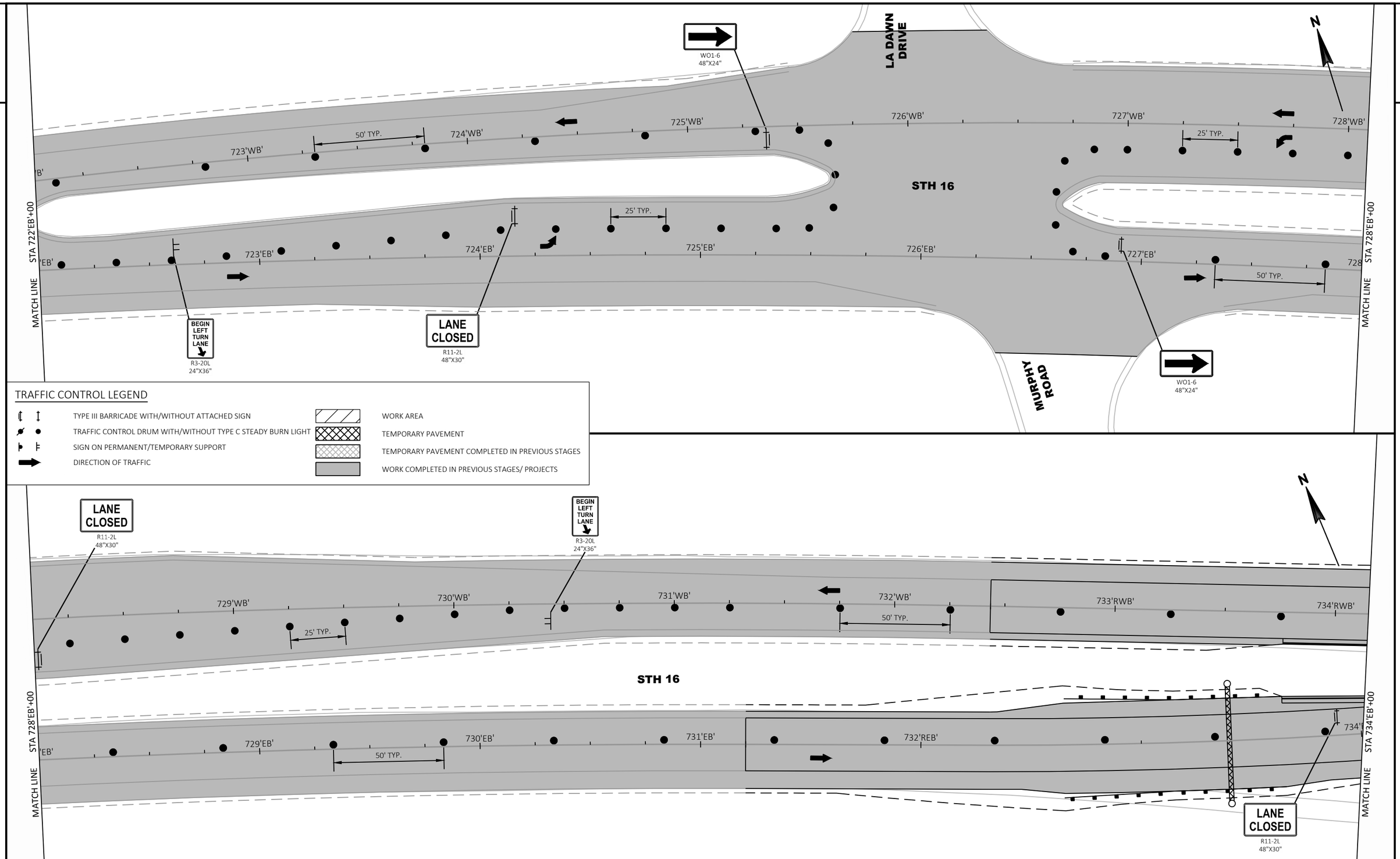



| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 4A | SHEET 159 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025401-TC.DWG
LAYOUT NAME - 01

PLOT DATE : 1/2/2018 11:19 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42




## TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY PAVEMENT COMPLETED IN PREVIOUS STAGES
- WORK COMPLETED IN PREVIOUS STAGES/ PROJECTS




| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 4A | SHEET 160 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025401-TC.DWG
LAYOUT NAME - 02

PLOT DATE : 1/2/2018 11:19 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

2

STH 16

LANE CLOSED
R11-2L
48"X30"

LANE CLOSED
R11-2L
48"X30"

LANE CLOSED
R11-2L
48"X30"

735'RWB'
736'RWB'
737'RWB'
738'RWB'
739'RWB'
740'RWB'
736'REB'
738'REB'
738'REB'
740'
50' TYP.
50' TYP.
50' TYP.
50' TYP.
50'RA'
12'RAP'
12'RAP'
12'RAP'
12'RAP'
STA 734'EB'+00
STA 740'EB'+00
MATCH LINE
MATCH LINE

IH 39
IH 39

741'RWB'
742'RWB'
743'RWB'
744'RWB'
745'WB'
746'WB'
50' TYP.
STH 16
BEGIN LEFT TURN LANE
R3-20L
24"X36"
741'EB'
742'EB'
743'EB'
744'EB'
745'EB'
50' TYP.
25' TYP.
STA 740'EB'+00
STA 746'EB'+00
MATCH LINE
MATCH LINE

TRAFFIC CONTROL LEGEND

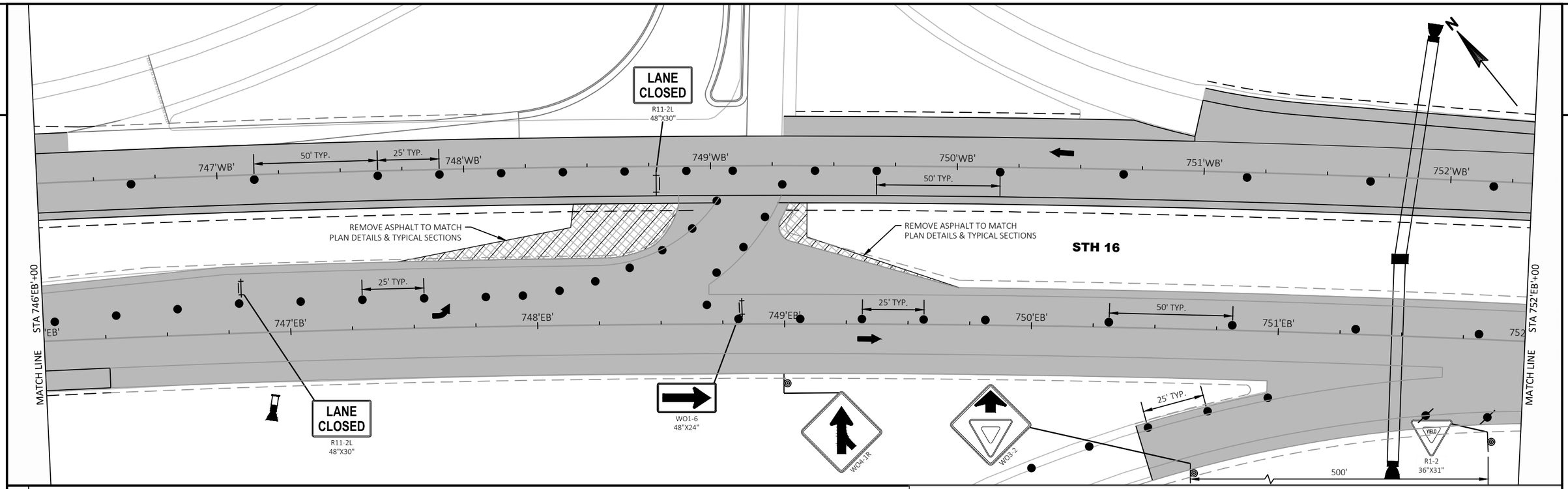
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY PAVEMENT COMPLETED IN PREVIOUS STAGES
- WORK COMPLETED IN PREVIOUS STAGES/ PROJECTS

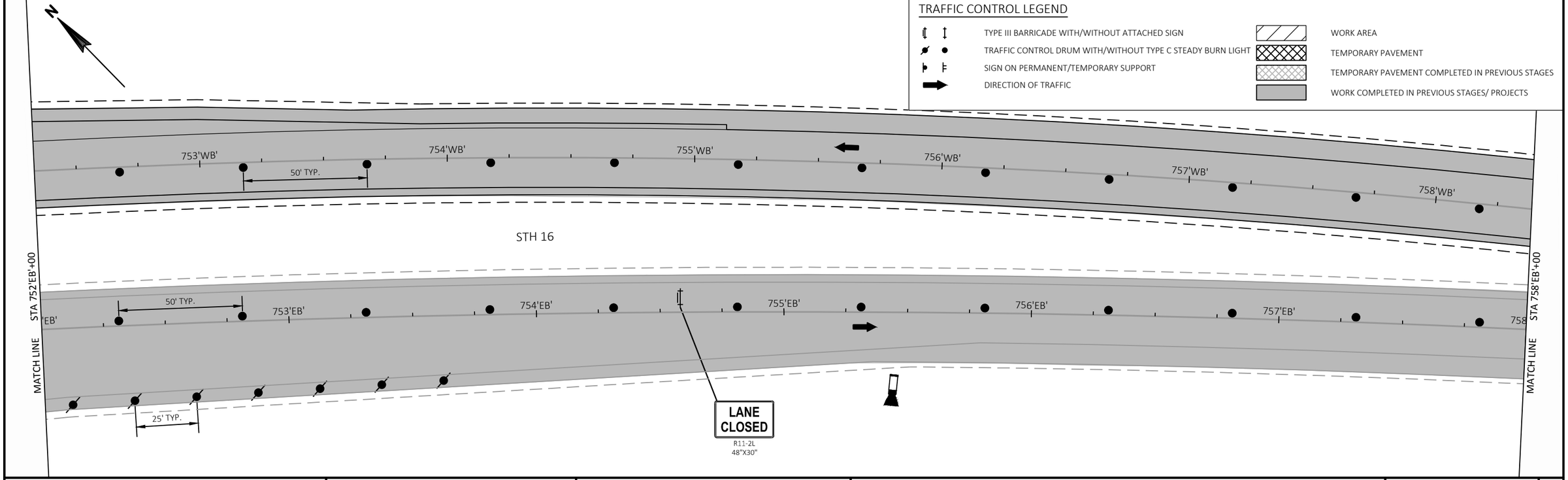
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 4A | SHEET 161 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025401-TC.DWG
LAYOUT NAME - 03

PLOT DATE : 1/2/2018 11:19 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

2

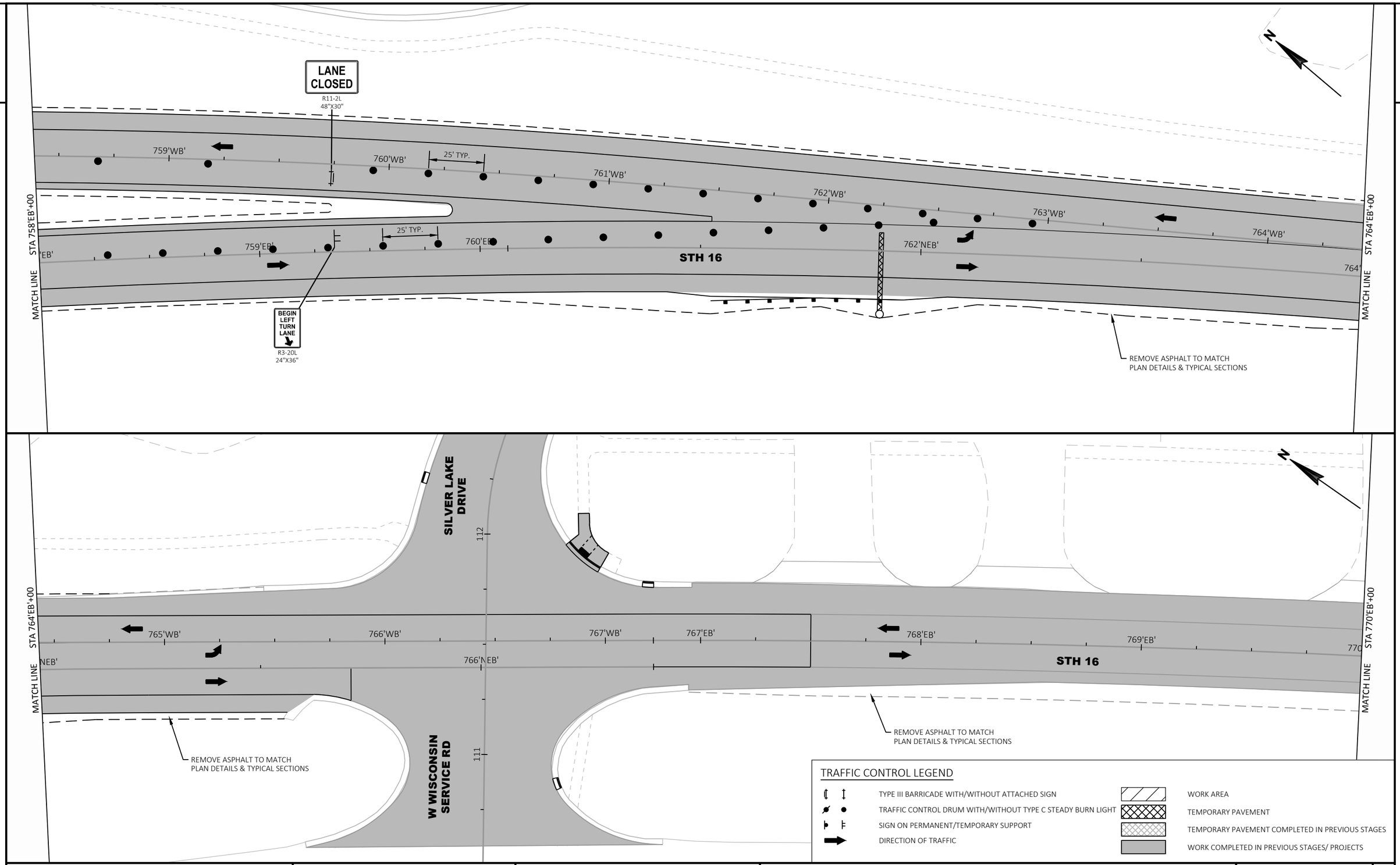



| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 4A | SHEET 162 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025401-TC.DWG
LAYOUT NAME - 04
PLOT DATE : 1/2/2018 11:19 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2




| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 4A | SHEET 163 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025401-TC.DWG
LAYOUT NAME - 05

PLOT DATE : 1/2/2018 11:19 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

2

2

STA 770'EB'+00

MATCH LINE

'EB'

771'EB'

772'EB'

773'EB'

774'EB'

775'EB'

776

STA 776'EB'+00

MATCH LINE

STH 16

REMOVE ASPHALT TO MATCH
PLAN DETAILS & TYPICAL SECTIONS

N

CANADIAN PACIFIC

STA 776'EB'+00

MATCH LINE

'EB'

777'EB'

778'EB'

779'EB'

780'EB'

781'EB'

782'EB'

STH 16

END PROJECT
STA 777'EB'+00.00

N

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY PAVEMENT COMPLETED IN PREVIOUS STAGES
- WORK COMPLETED IN PREVIOUS STAGES/ PROJECTS

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 4A | SHEET 164 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025401-TC.DWG
LAYOUT NAME - 06

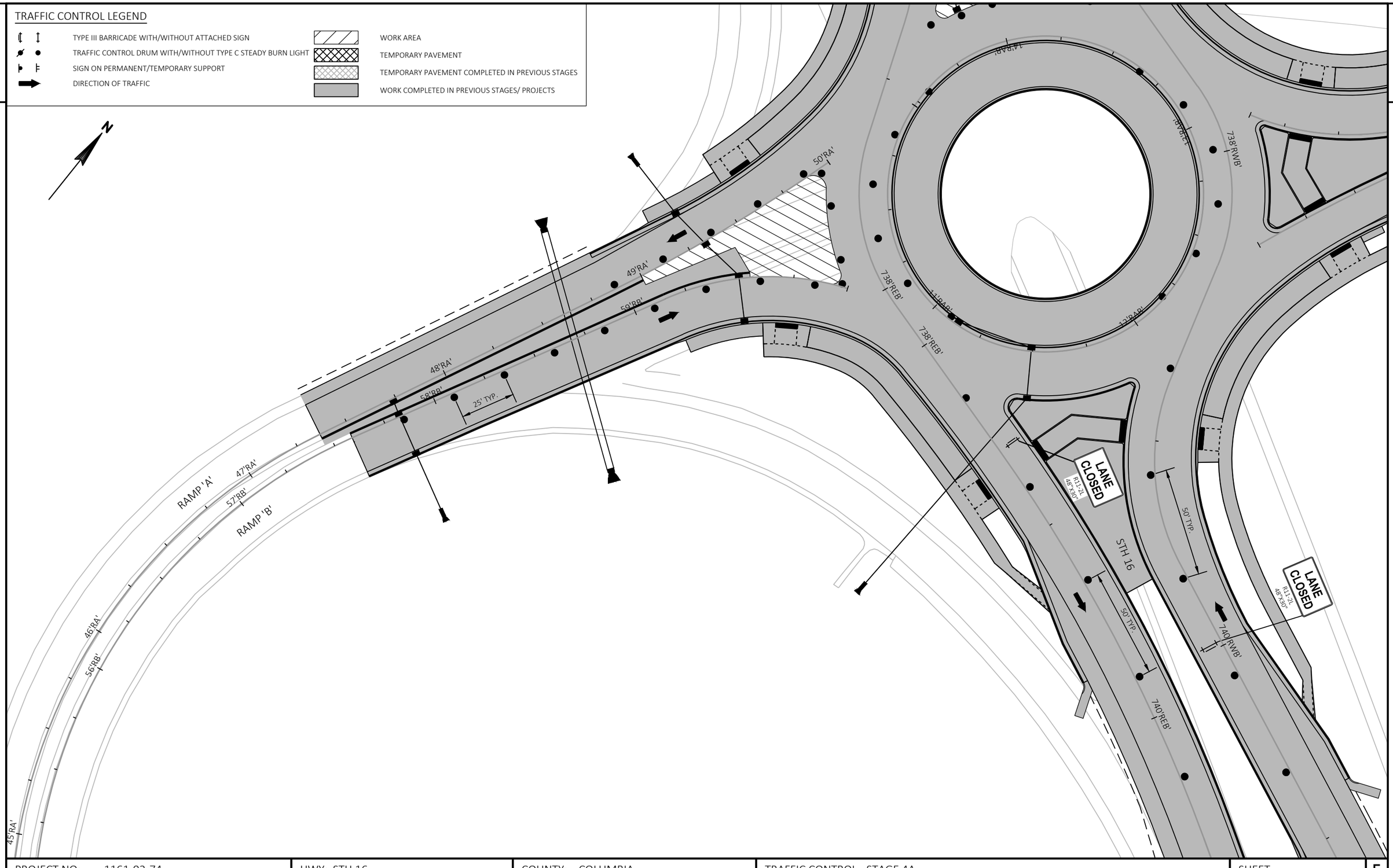
PLOT DATE : 1/2/2018 11:19 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

## TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY PAVEMENT COMPLETED IN PREVIOUS STAGES
- WORK COMPLETED IN PREVIOUS STAGES/ PROJECTS




| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 4A | SHEET 165 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025402-TC.DWG
LAYOUT NAME - 01

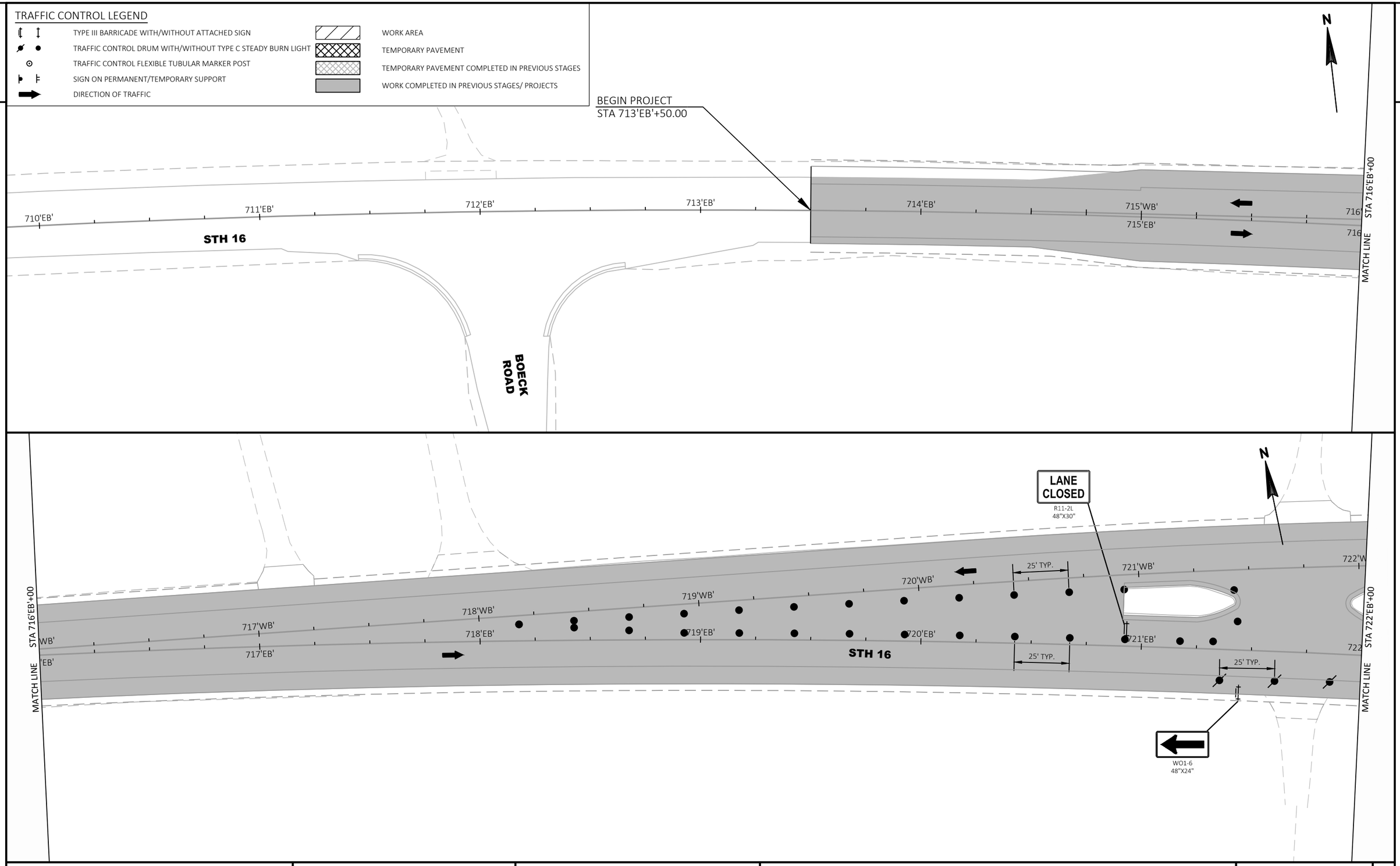
PLOT DATE : 1/2/2018 11:19 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

## TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY PAVEMENT COMPLETED IN PREVIOUS STAGES
- WORK COMPLETED IN PREVIOUS STAGES/ PROJECTS



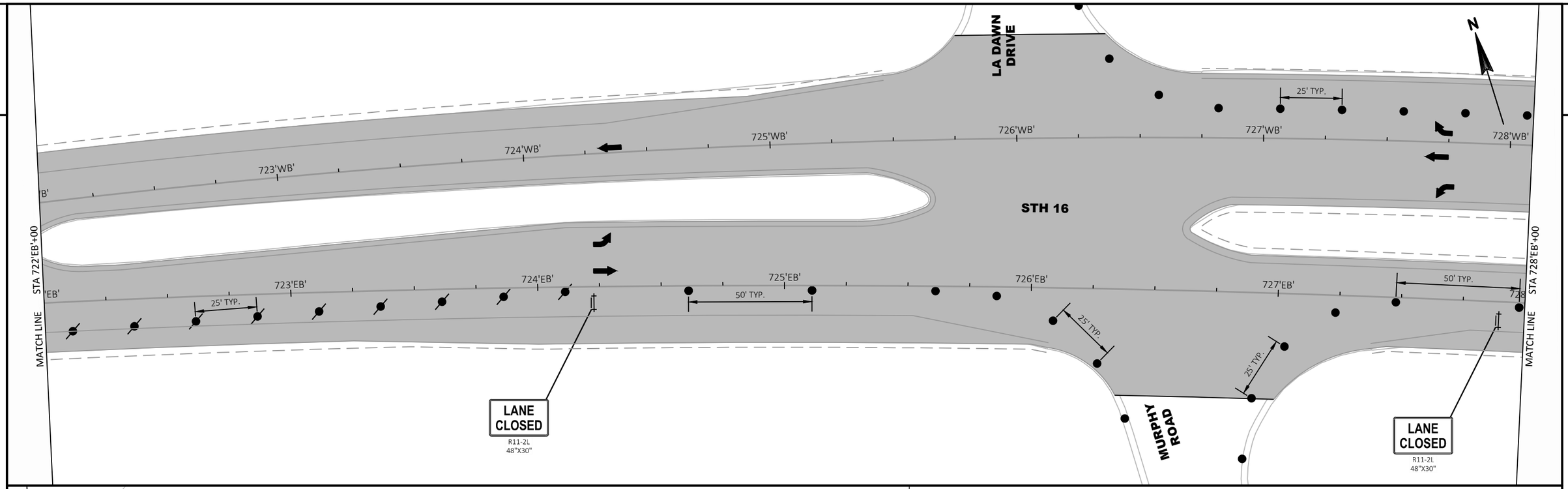

2

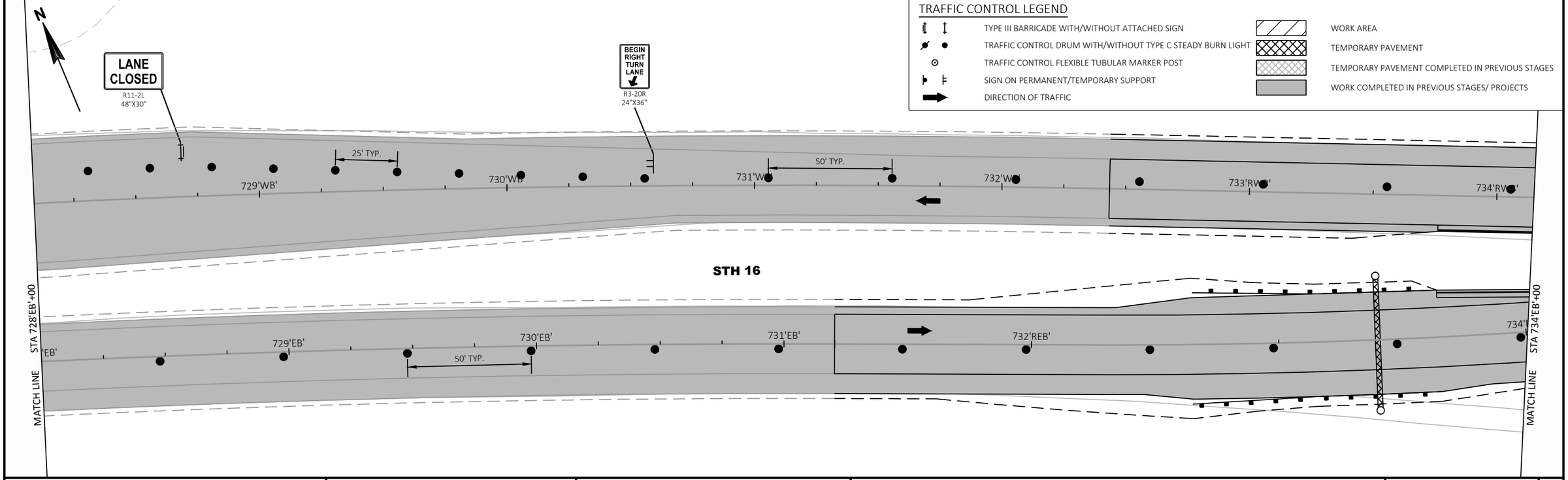
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 4B | SHEET 166 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025421-TC.DWG
LAYOUT NAME - 01

PLOT DATE : 1/2/2018 11:19 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42




TRAFFIC CONTROL LEGEND

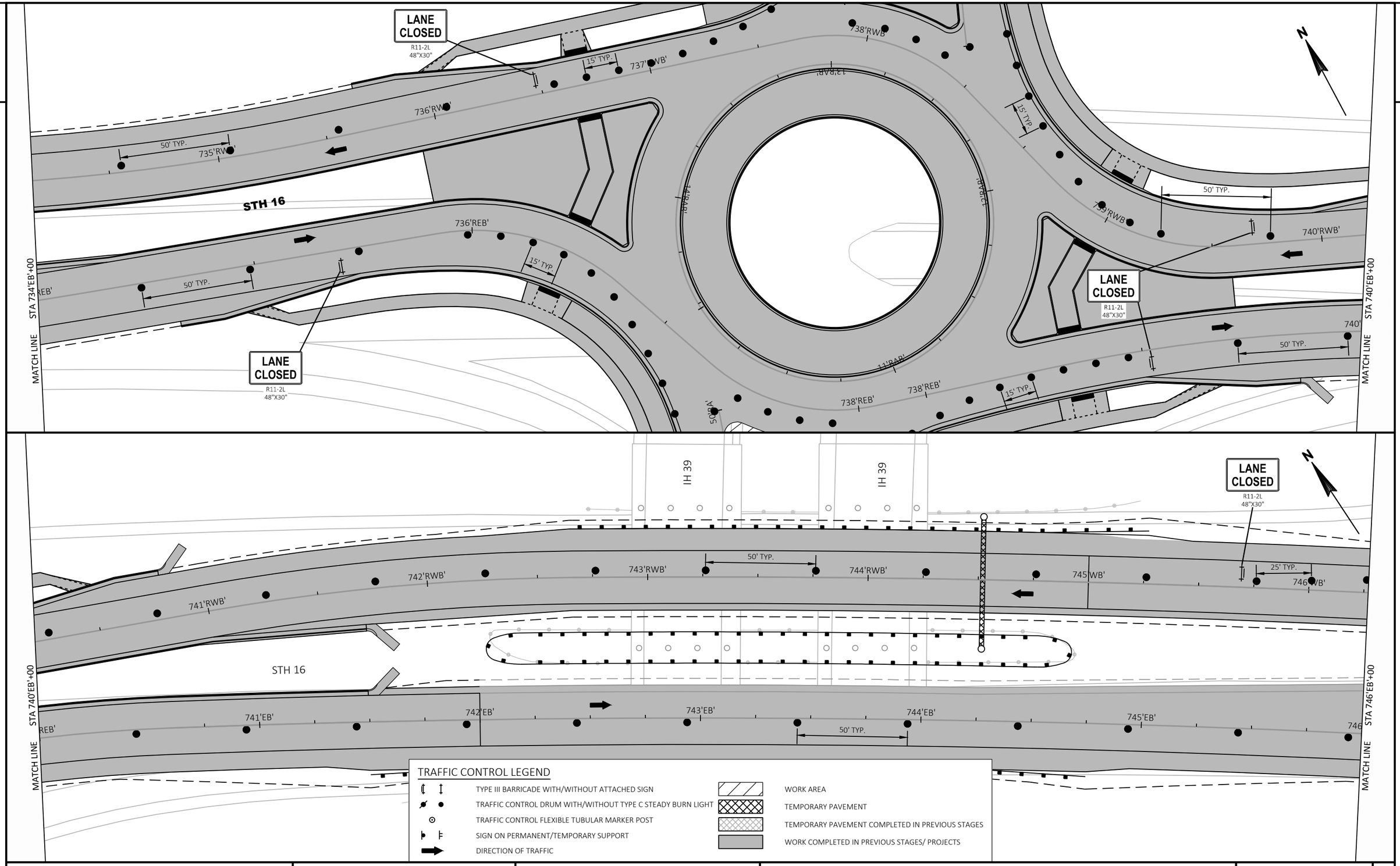
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY PAVEMENT COMPLETED IN PREVIOUS STAGES
- WORK COMPLETED IN PREVIOUS STAGES/ PROJECTS

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 4B | SHEET 167 E |
|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025421-TC.DWG
LAYOUT NAME - 02

PLOT DATE : 1/2/2018 11:20 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42




TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY PAVEMENT COMPLETED IN PREVIOUS STAGES
- WORK COMPLETED IN PREVIOUS STAGES/ PROJECTS

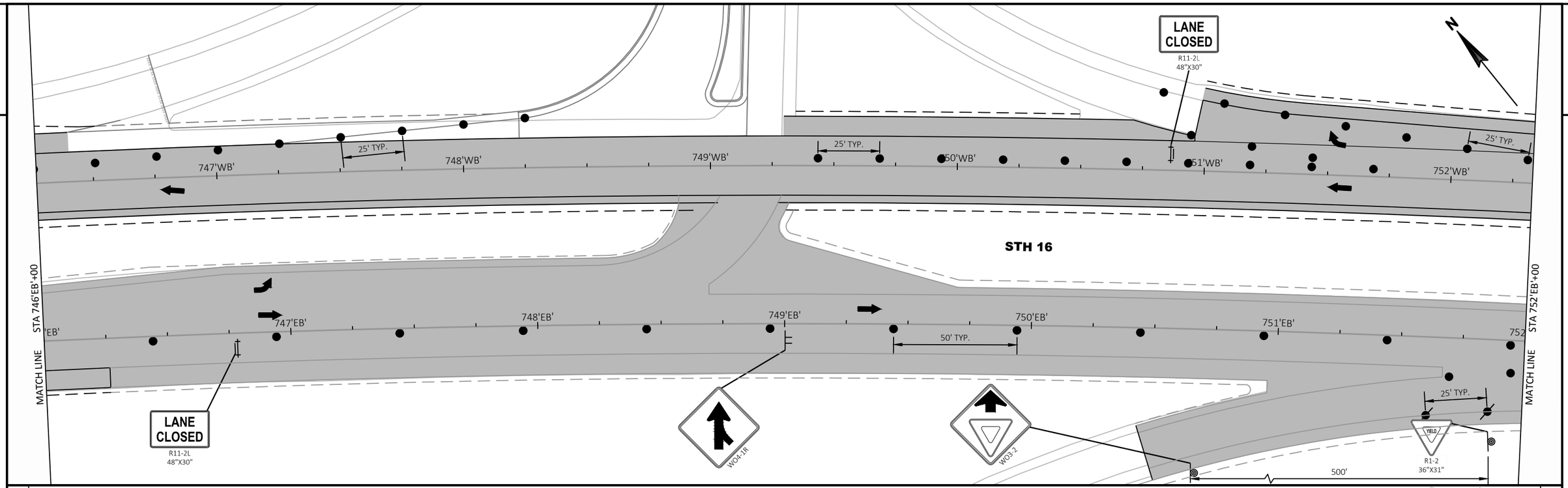
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 4B | SHEET 168 | E |
|---|---|---|---|---|---|

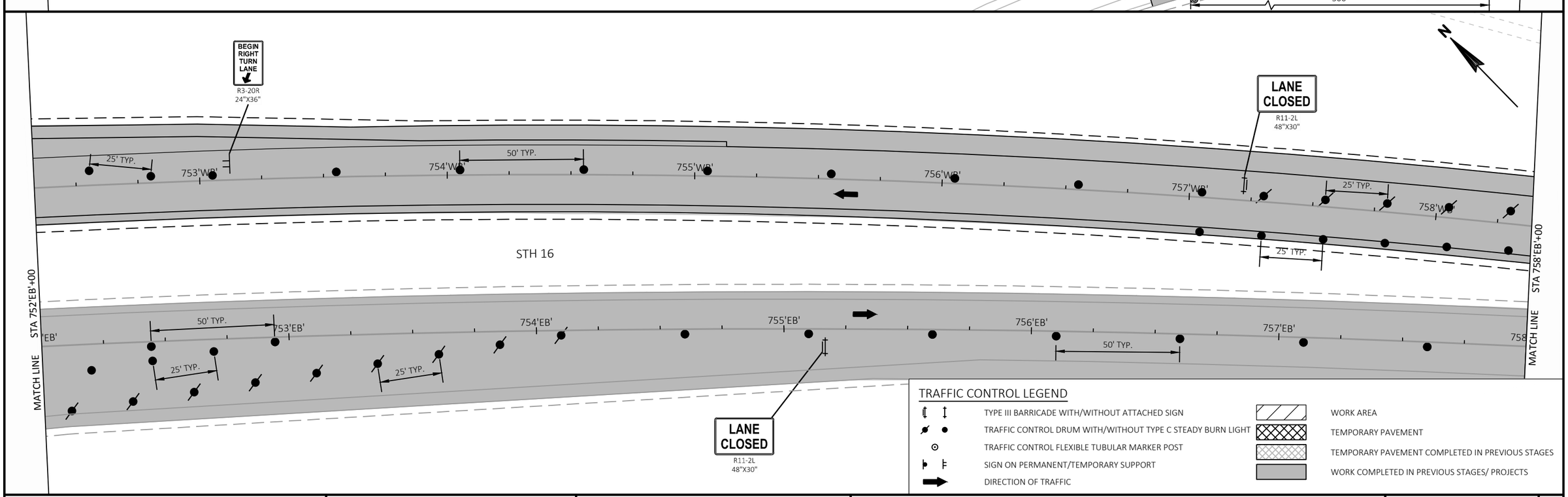
FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025421-TC.DWG
LAYOUT NAME - 03

PLOT DATE : 1/2/2018 11:20 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2



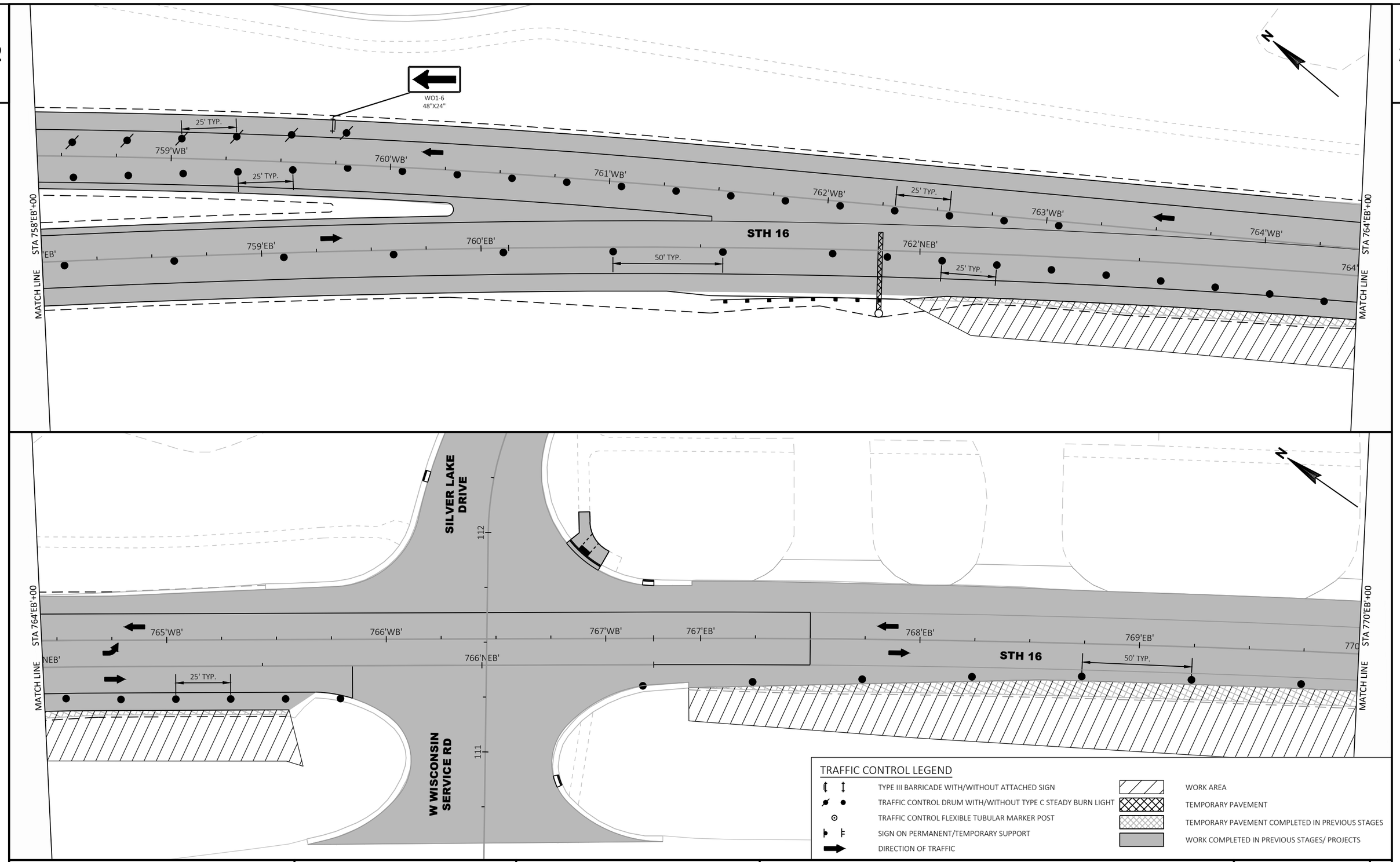

## TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POST
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY PAVEMENT COMPLETED IN PREVIOUS STAGES
- WORK COMPLETED IN PREVIOUS STAGES/ PROJECTS

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 4B | SHEET 169 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025421-TC.DWG
LAYOUT NAME - 04
PLOT DATE : 1/2/2018 11:20 AM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

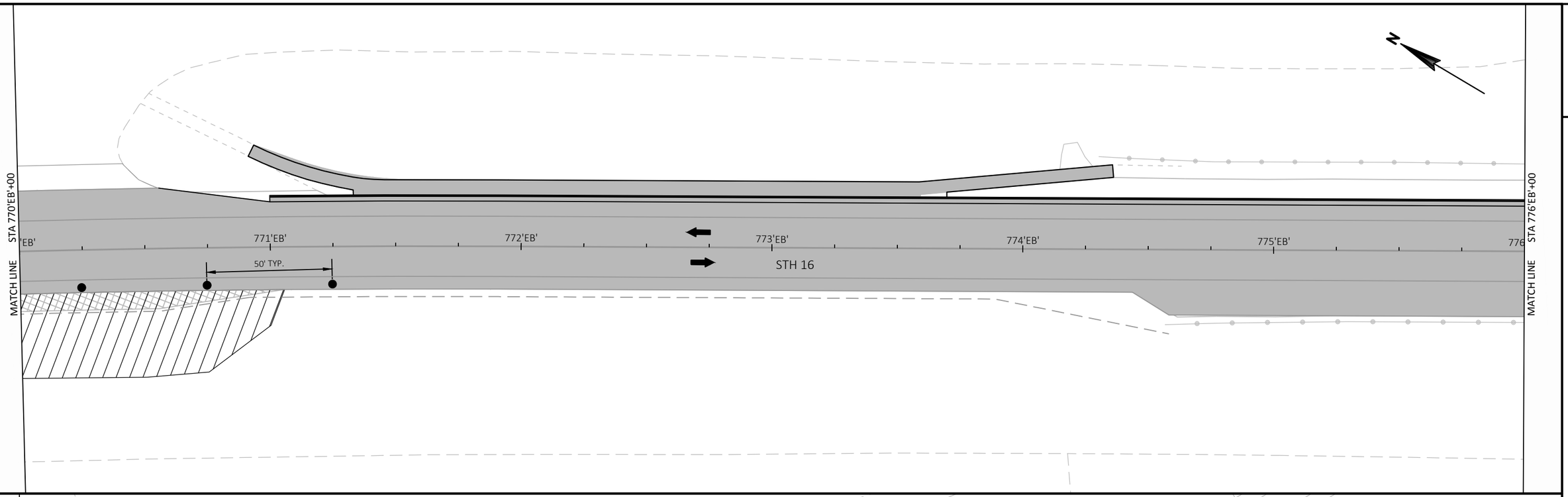
2

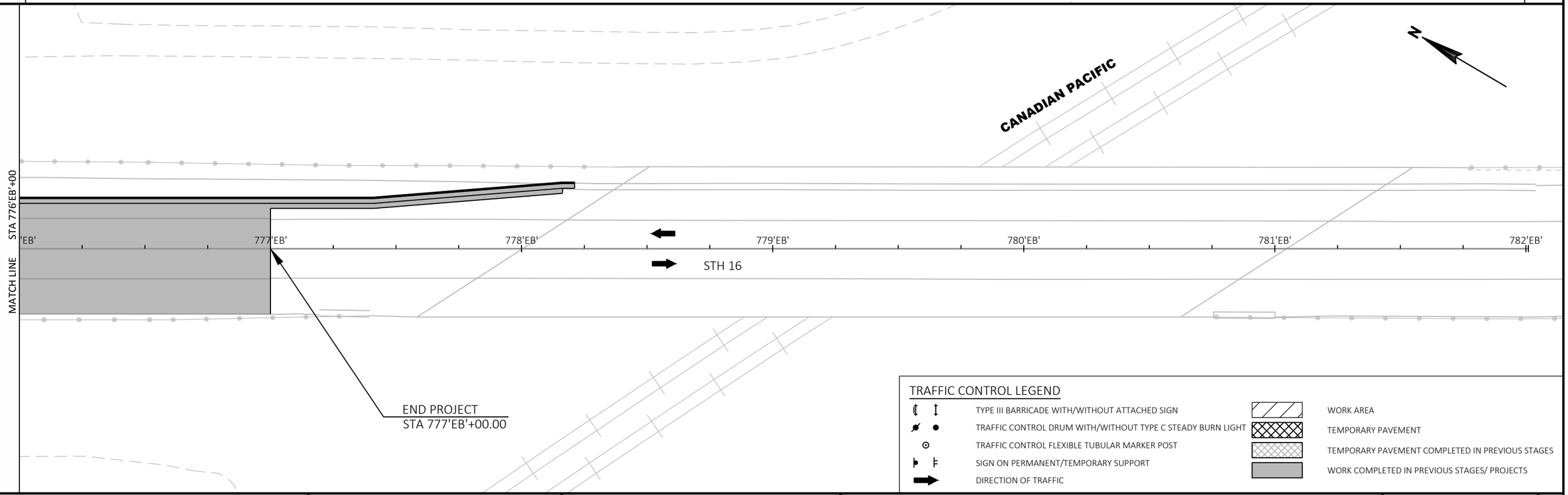



| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 4B | SHEET 170 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025421-TC.DWG
LAYOUT NAME - 05
PLOT DATE : 1/2/2018 11:20 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2



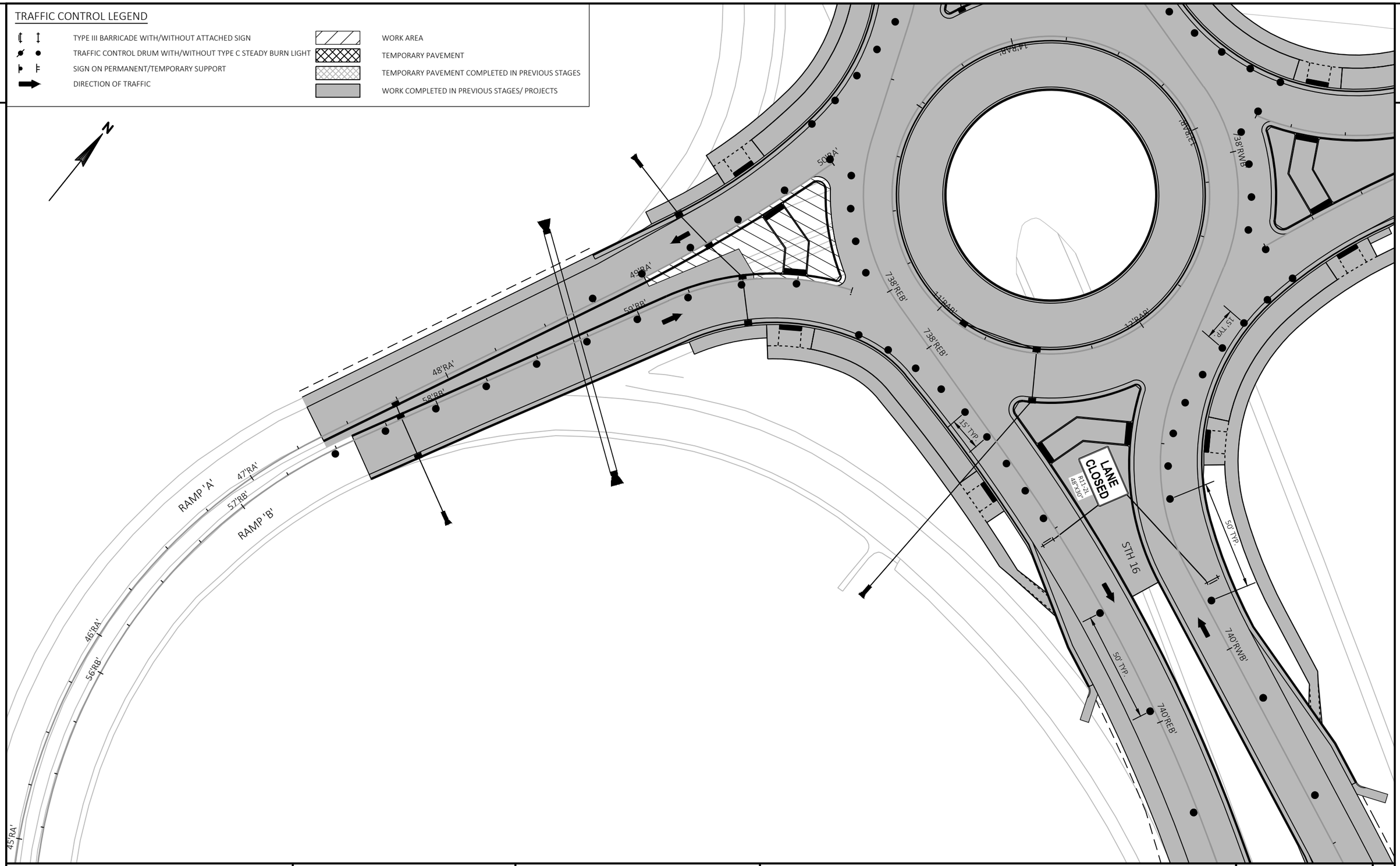

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 4B | SHEET 171 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025421-TC.DWG
LAYOUT NAME - 06
PLOT DATE : 1/2/2018 11:20 AM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

## TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY PAVEMENT COMPLETED IN PREVIOUS STAGES
- WORK COMPLETED IN PREVIOUS STAGES/ PROJECTS

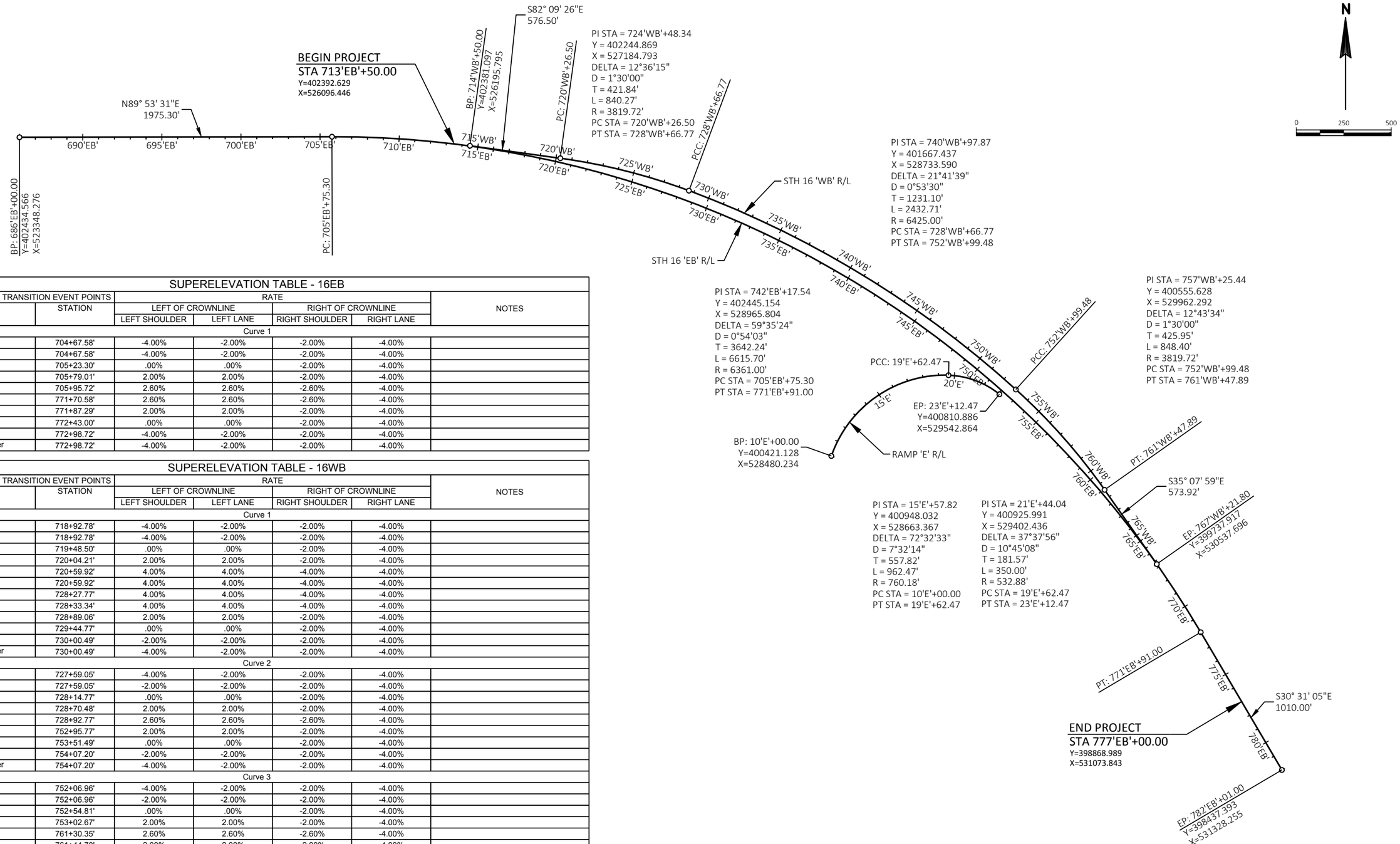



| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | TRAFFIC CONTROL - STAGE 4B | SHEET 172 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-025422-TC.DWG
LAYOUT NAME - 01

PLOT DATE : 1/2/2018 11:20 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

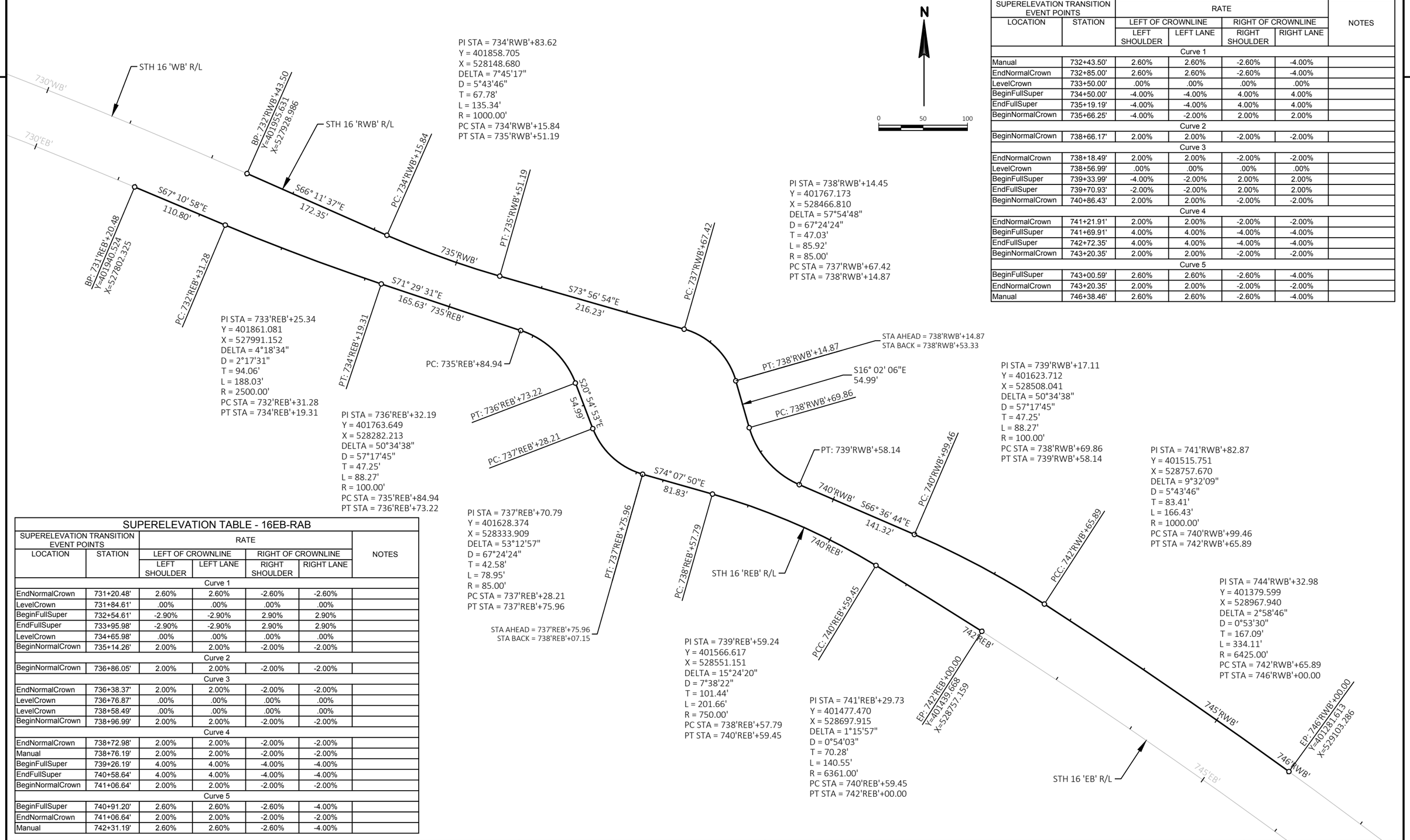



## SUPERELEVATION TABLE - 16EB

| SUPERELEVATION TRANSITION EVENT POINTS | | RATE | | | | NOTES |
|---|---|---|---|---|---|---|
| LOCATION | STATION | LEFT OF CROWNLINE | | RIGHT OF CROWNLINE | | |
| | | LEFT SHOULDER | LEFT LANE | RIGHT SHOULDER | RIGHT LANE | |
| Curve 1 | | | | | | |
| EndNormalShoulder | 704+67.58' | -4.00% | -2.00% | -2.00% | -4.00% | |
| EndNormalCrown | 704+67.58' | -4.00% | -2.00% | -2.00% | -4.00% | |
| LevelCrown | 705+23.30' | .00% | .00% | -2.00% | -4.00% | |
| ReverseCrown | 705+79.01' | 2.00% | 2.00% | -2.00% | -4.00% | |
| BeginFullSuper | 705+95.72' | 2.60% | 2.60% | -2.60% | -4.00% | |
| EndFullSuper | 771+70.58' | 2.60% | 2.60% | -2.60% | -4.00% | |
| ReverseCrown | 771+87.29' | 2.00% | 2.00% | -2.00% | -4.00% | |
| LevelCrown | 772+43.00' | .00% | .00% | -2.00% | -4.00% | |
| BeginNormalCrown | 772+98.72' | -4.00% | -2.00% | -2.00% | -4.00% | |
| BeginNormalShoulder | 772+98.72' | -4.00% | -2.00% | -2.00% | -4.00% | |

## SUPERELEVATION TABLE - 16WB

| SUPERELEVATION TRANSITION EVENT POINTS | | RATE | | | | NOTES |
|---|---|---|---|---|---|---|
| LOCATION | STATION | LEFT OF CROWNLINE | | RIGHT OF CROWNLINE | | |
| | | LEFT SHOULDER | LEFT LANE | RIGHT SHOULDER | RIGHT LANE | |
| Curve 1 | | | | | | |
| EndNormalShoulder | 718+92.78' | -4.00% | -2.00% | -2.00% | -4.00% | |
| EndNormalCrown | 718+92.78' | -4.00% | -2.00% | -2.00% | -4.00% | |
| LevelCrown | 719+48.50' | .00% | .00% | -2.00% | -4.00% | |
| ReverseCrown | 720+04.21' | 2.00% | 2.00% | -2.00% | -4.00% | |
| BeginFullSuper | 720+59.92' | 4.00% | 4.00% | -4.00% | -4.00% | |
| LowShoulderMatch | 720+59.92' | 4.00% | 4.00% | -4.00% | -4.00% | |
| EndFullSuper | 728+27.77' | 4.00% | 4.00% | -4.00% | -4.00% | |
| LowShoulderMatch | 728+33.34' | 4.00% | 4.00% | -4.00% | -4.00% | |
| ReverseCrown | 728+89.06' | 2.00% | 2.00% | -2.00% | -4.00% | |
| LevelCrown | 729+44.77' | .00% | .00% | -2.00% | -4.00% | |
| BeginNormalCrown | 730+00.49' | -2.00% | -2.00% | -2.00% | -4.00% | |
| BeginNormalShoulder | 730+00.49' | -4.00% | -2.00% | -2.00% | -4.00% | |
| Curve 2 | | | | | | |
| EndNormalShoulder | 727+59.05' | -4.00% | -2.00% | -2.00% | -4.00% | |
| EndNormalCrown | 727+59.05' | -2.00% | -2.00% | -2.00% | -4.00% | |
| LevelCrown | 728+14.77' | .00% | .00% | -2.00% | -4.00% | |
| ReverseCrown | 728+70.48' | 2.00% | 2.00% | -2.00% | -4.00% | |
| BeginFullSuper | 728+92.77' | 2.60% | 2.60% | -2.60% | -4.00% | |
| ReverseCrown | 752+95.77' | 2.00% | 2.00% | -2.00% | -4.00% | |
| LevelCrown | 753+51.49' | .00% | .00% | -2.00% | -4.00% | |
| BeginNormalCrown | 754+07.20' | -2.00% | -2.00% | -2.00% | -4.00% | |
| BeginNormalShoulder | 754+07.20' | -4.00% | -2.00% | -2.00% | -4.00% | |
| Curve 3 | | | | | | |
| EndNormalShoulder | 752+06.96' | -4.00% | -2.00% | -2.00% | -4.00% | |
| EndNormalCrown | 752+06.96' | -2.00% | -2.00% | -2.00% | -4.00% | |
| LevelCrown | 752+54.81' | .00% | .00% | -2.00% | -4.00% | |
| ReverseCrown | 753+02.67' | 2.00% | 2.00% | -2.00% | -4.00% | |
| EndFullSuper | 761+30.35' | 2.60% | 2.60% | -2.60% | -4.00% | |
| ReverseCrown | 761+44.70' | 2.00% | 2.00% | -2.00% | -4.00% | |
| LevelCrown | 761+92.55' | .00% | .00% | -2.00% | -4.00% | |
| BeginNormalCrown | 762+40.41' | -4.00% | -2.00% | -2.00% | -4.00% | |
| BeginNormalShoulder | 762+40.41' | -4.00% | -2.00% | -2.00% | -4.00% | |



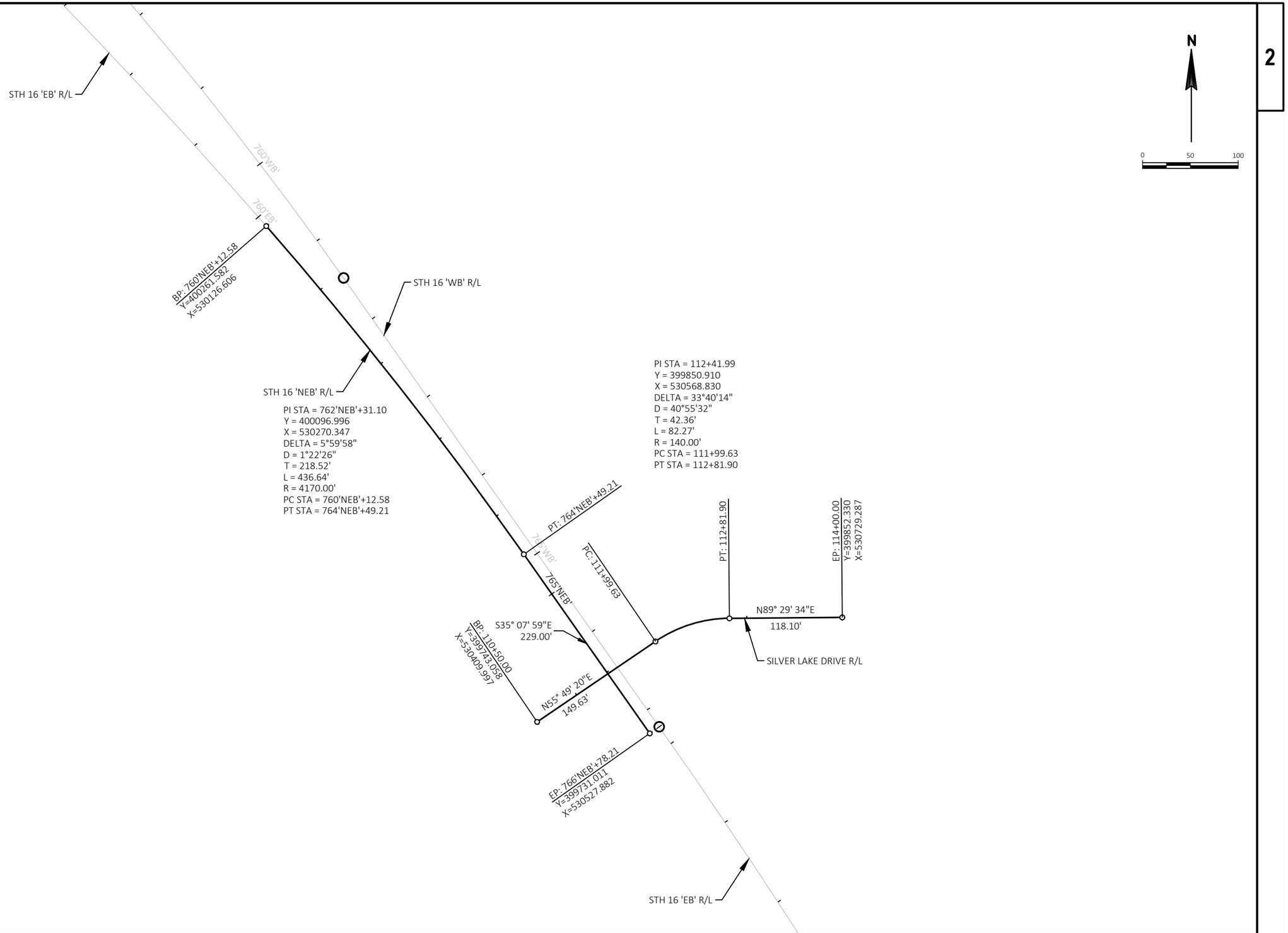

## SUPERELEVATION TABLE - 16WB-RAB

| SUPERELEVATION TRANSITION EVENT POINTS | | RATE | | | | NOTES |
|---|---|---|---|---|---|---|
| LOCATION | STATION | LEFT OF CROWNLINE | | RIGHT OF CROWNLINE | | |
| | | LEFT SHOULDER | LEFT LANE | RIGHT SHOULDER | RIGHT LANE | |
| Curve 1 | | | | | | |
| Manual | 732+43.50' | 2.60% | 2.60% | -2.60% | -4.00% | |
| EndNormalCrown | 732+85.00' | 2.60% | 2.60% | -2.60% | -4.00% | |
| LevelCrown | 733+50.00' | .00% | .00% | .00% | .00% | |
| BeginFullSuper | 734+50.00' | -4.00% | -4.00% | 4.00% | 4.00% | |
| EndFullSuper | 735+19.19' | -4.00% | -4.00% | 4.00% | 4.00% | |
| BeginNormalCrown | 735+66.25' | -4.00% | -2.00% | 2.00% | 2.00% | |
| Curve 2 | | | | | | |
| BeginNormalCrown | 738+66.17' | 2.00% | 2.00% | -2.00% | -2.00% | |
| Curve 3 | | | | | | |
| EndNormalCrown | 738+18.49' | 2.00% | 2.00% | -2.00% | -2.00% | |
| LevelCrown | 738+56.99' | .00% | .00% | .00% | .00% | |
| BeginFullSuper | 739+33.99' | -4.00% | -2.00% | 2.00% | 2.00% | |
| EndFullSuper | 739+70.93' | -2.00% | -2.00% | 2.00% | 2.00% | |
| BeginNormalCrown | 740+86.43' | 2.00% | 2.00% | -2.00% | -2.00% | |
| Curve 4 | | | | | | |
| EndNormalCrown | 741+21.91' | 2.00% | 2.00% | -2.00% | -2.00% | |
| BeginFullSuper | 741+69.91' | 4.00% | 4.00% | -4.00% | -4.00% | |
| EndFullSuper | 742+72.35' | 4.00% | 4.00% | -4.00% | -4.00% | |
| BeginNormalCrown | 743+20.35' | 2.00% | 2.00% | -2.00% | -2.00% | |
| Curve 5 | | | | | | |
| BeginFullSuper | 743+00.59' | 2.60% | 2.60% | -2.60% | -4.00% | |
| EndNormalCrown | 743+20.35' | 2.00% | 2.00% | -2.00% | -2.00% | |
| Manual | 746+38.46' | 2.60% | 2.60% | -2.60% | -4.00% | |

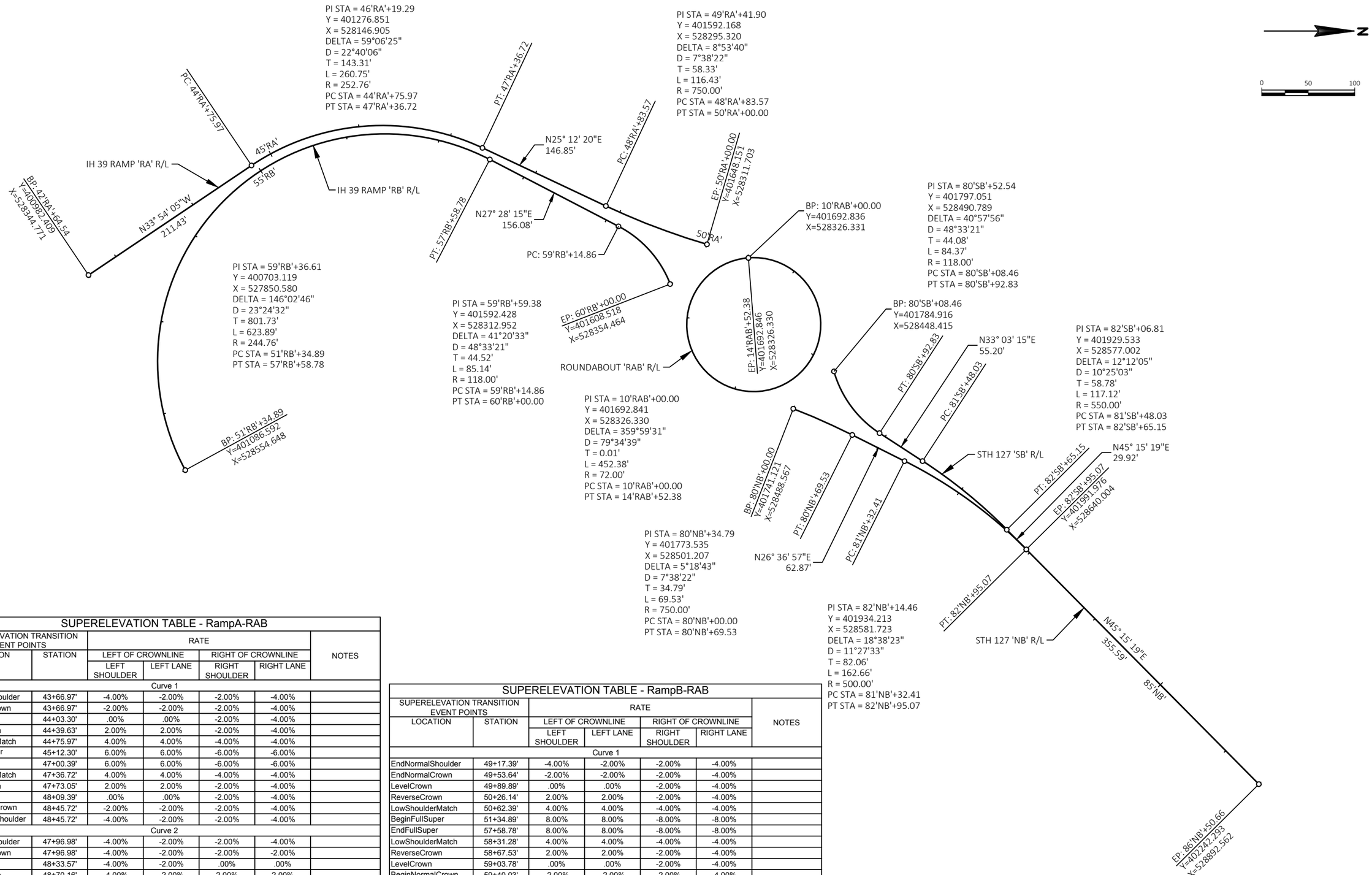
## SUPERELEVATION TABLE - 16EB-RAB

| SUPERELEVATION TRANSITION EVENT POINTS | | RATE | | | | NOTES |
|---|---|---|---|---|---|---|
| LOCATION | STATION | LEFT OF CROWNLINE | | RIGHT OF CROWNLINE | | |
| | | LEFT SHOULDER | LEFT LANE | RIGHT SHOULDER | RIGHT LANE | |
| Curve 1 | | | | | | |
| EndNormalCrown | 731+20.48' | 2.60% | 2.60% | -2.60% | -2.60% | |
| LevelCrown | 731+84.61' | .00% | .00% | .00% | .00% | |
| BeginFullSuper | 732+54.61' | -2.90% | -2.90% | 2.90% | 2.90% | |
| EndFullSuper | 733+95.98' | -2.90% | -2.90% | 2.90% | 2.90% | |
| LevelCrown | 734+65.98' | .00% | .00% | .00% | .00% | |
| BeginNormalCrown | 735+14.26' | 2.00% | 2.00% | -2.00% | -2.00% | |
| Curve 2 | | | | | | |
| BeginNormalCrown | 736+86.05' | 2.00% | 2.00% | -2.00% | -2.00% | |
| Curve 3 | | | | | | |
| EndNormalCrown | 736+38.37' | 2.00% | 2.00% | -2.00% | -2.00% | |
| LevelCrown | 736+76.87' | .00% | .00% | .00% | .00% | |
| LevelCrown | 738+58.49' | .00% | .00% | .00% | .00% | |
| BeginNormalCrown | 738+96.99' | 2.00% | 2.00% | -2.00% | -2.00% | |
| Curve 4 | | | | | | |
| EndNormalCrown | 738+72.98' | 2.00% | 2.00% | -2.00% | -2.00% | |
| Manual | 738+76.19' | 2.00% | 2.00% | -2.00% | -2.00% | |
| BeginFullSuper | 739+26.19' | 4.00% | 4.00% | -4.00% | -4.00% | |
| EndFullSuper | 740+58.64' | 4.00% | 4.00% | -4.00% | -4.00% | |
| BeginNormalCrown | 741+06.64' | 2.00% | 2.00% | -2.00% | -2.00% | |
| Curve 5 | | | | | | |
| BeginFullSuper | 740+91.20' | 2.60% | 2.60% | -2.60% | -4.00% | |
| EndNormalCrown | 741+06.64' | 2.00% | 2.00% | -2.00% | -2.00% | |
| Manual | 742+31.19' | 2.60% | 2.60% | -2.60% | -4.00% | |

2




| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | ALIGNMENT DIAGRAM - STH 16 & SILVER LAKE DRIVE | SHEET 175 | E |
|---|---|---|---|---|---|




## SUPERELEVATION TABLE - RampA-RAB

| SUPERELEVATION TRANSITION EVENT POINTS | | RATE | | | | NOTES |
|---|---|---|---|---|---|---|
| LOCATION | STATION | LEFT OF CROWNLINE | | RIGHT OF CROWNLINE | | |
| | | LEFT SHOULDER | LEFT LANE | RIGHT SHOULDER | RIGHT LANE | |
| Curve 1 | | | | | | |
| EndNormalShoulder | 43+66.97' | -4.00% | -2.00% | -2.00% | -4.00% | |
| EndNormalCrown | 43+66.97' | -2.00% | -2.00% | -2.00% | -4.00% | |
| LevelCrown | 44+03.30' | .00% | .00% | -2.00% | -4.00% | |
| ReverseCrown | 44+39.63' | 2.00% | 2.00% | -2.00% | -4.00% | |
| LowShoulderMatch | 44+75.97' | 4.00% | 4.00% | -4.00% | -4.00% | |
| BeginFullSuper | 45+12.30' | 6.00% | 6.00% | -6.00% | -6.00% | |
| EndFullSuper | 47+00.39' | 6.00% | 6.00% | -6.00% | -6.00% | |
| LowShoulderMatch | 47+36.72' | 4.00% | 4.00% | -4.00% | -4.00% | |
| ReverseCrown | 47+73.05' | 2.00% | 2.00% | -2.00% | -4.00% | |
| LevelCrown | 48+09.39' | .00% | .00% | -2.00% | -4.00% | |
| BeginNormalCrown | 48+45.72' | -2.00% | -2.00% | -2.00% | -4.00% | |
| BeginNormalShoulder | 48+45.72' | -4.00% | -2.00% | -2.00% | -4.00% | |
| Curve 2 | | | | | | |
| EndNormalShoulder | 47+96.98' | -4.00% | -2.00% | -2.00% | -4.00% | |
| EndNormalCrown | 47+96.98' | -4.00% | -2.00% | -2.00% | -2.00% | |
| LevelCrown | 48+33.57' | -4.00% | -2.00% | .00% | .00% | |
| ReverseCrown | 48+70.16' | -4.00% | -2.00% | 2.00% | 2.00% | |
| LowShoulderMatch | 49+06.74' | -4.00% | -4.00% | 4.00% | 4.00% | |

## SUPERELEVATION TABLE - RampB-RAB

| SUPERELEVATION TRANSITION EVENT POINTS | | RATE | | | | NOTES |
|---|---|---|---|---|---|---|
| LOCATION | STATION | LEFT OF CROWNLINE | | RIGHT OF CROWNLINE | | |
| | | LEFT SHOULDER | LEFT LANE | RIGHT SHOULDER | RIGHT LANE | |
| Curve 1 | | | | | | |
| EndNormalShoulder | 49+17.39' | -4.00% | -2.00% | -2.00% | -4.00% | |
| EndNormalCrown | 49+53.64' | -2.00% | -2.00% | -2.00% | -4.00% | |
| LevelCrown | 49+89.89' | .00% | .00% | -2.00% | -4.00% | |
| ReverseCrown | 50+26.14' | 2.00% | 2.00% | -2.00% | -4.00% | |
| LowShoulderMatch | 50+62.39' | 4.00% | 4.00% | -4.00% | -4.00% | |
| BeginFullSuper | 51+34.89' | 8.00% | 8.00% | -8.00% | -8.00% | |
| EndFullSuper | 57+58.78' | 8.00% | 8.00% | -8.00% | -8.00% | |
| LowShoulderMatch | 58+31.28' | 4.00% | 4.00% | -4.00% | -4.00% | |
| ReverseCrown | 58+67.53' | 2.00% | 2.00% | -2.00% | -4.00% | |
| LevelCrown | 59+03.78' | .00% | .00% | -2.00% | -4.00% | |
| BeginNormalCrown | 59+40.03' | -2.00% | -2.00% | -2.00% | -4.00% | |
| BeginNormalShoulder | 59+76.28' | -4.00% | -2.00% | -2.00% | -4.00% | |

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | ALIGNMENT DIAGRAM - RAMP 'A', RAMP 'B', ROUNDABOUT, & STH 127 | SHEET 176 | E |
|---|---|---|---|---|---|

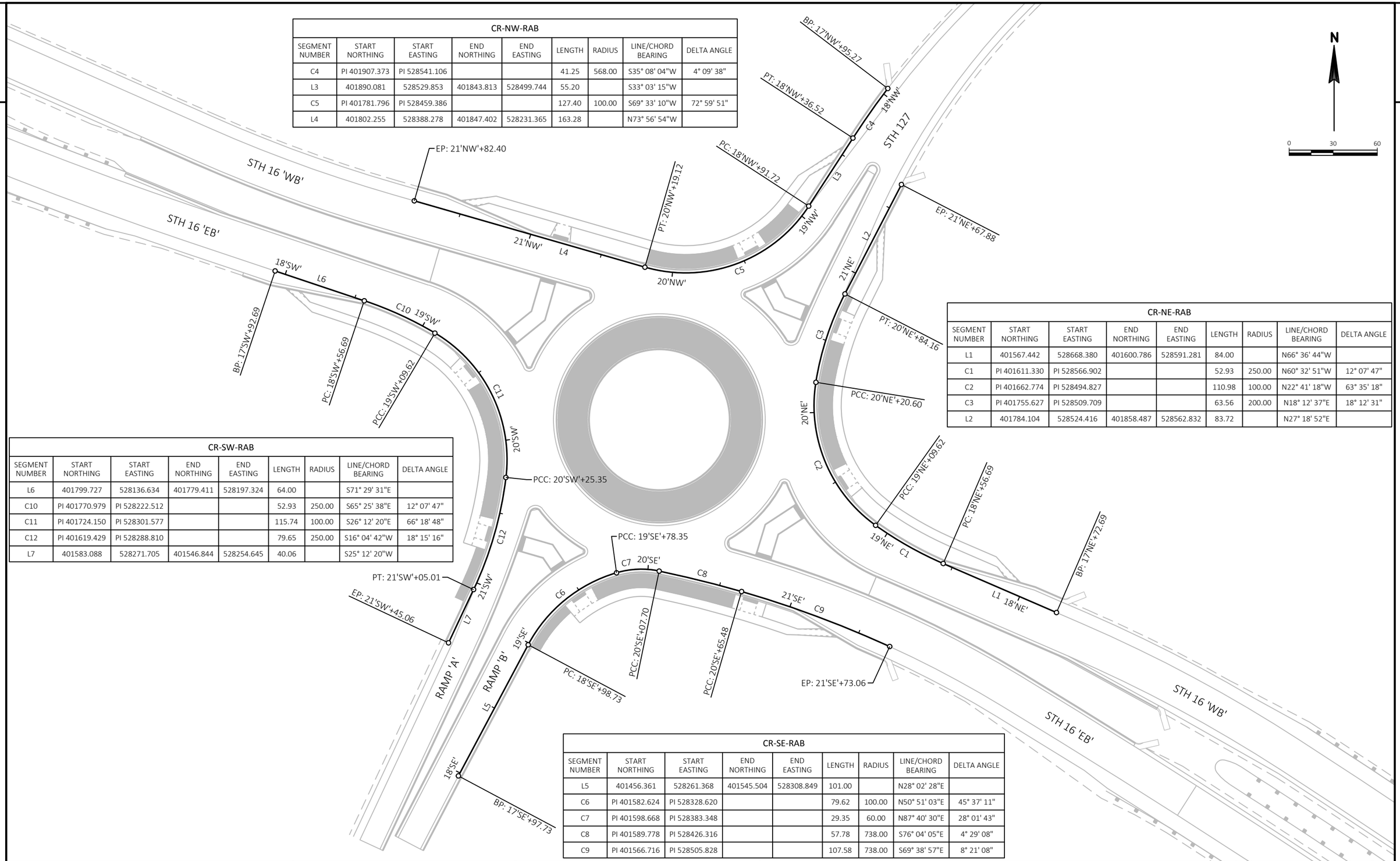
2

| CR-NW-RAB | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SEGMENT NUMBER | START NORTHING | START EASTING | END NORTHING | END EASTING | LENGTH | RADIUS | LINE/CHORD BEARING | DELTA ANGLE |
| C4 | PI 401907.373 | PI 528541.106 | | | 41.25 | 568.00 | S35° 08' 04"W | 4° 09' 38" |
| L3 | 401890.081 | 528529.853 | 401843.813 | 528499.744 | 55.20 | | S33° 03' 15"W | |
| C5 | PI 401781.796 | PI 528459.386 | | | 127.40 | 100.00 | S69° 33' 10"W | 72° 59' 51" |
| L4 | 401802.255 | 528388.278 | 401847.402 | 528231.365 | 163.28 | | N73° 56' 54"W | |

| CR-NE-RAB | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SEGMENT NUMBER | START NORTHING | START EASTING | END NORTHING | END EASTING | LENGTH | RADIUS | LINE/CHORD BEARING | DELTA ANGLE |
| L1 | 401567.442 | 528668.380 | 401600.786 | 528591.281 | 84.00 | | N66° 36' 44"W | |
| C1 | PI 401611.330 | PI 528566.902 | | | 52.93 | 250.00 | N60° 32' 51"W | 12° 07' 47" |
| C2 | PI 401662.774 | PI 528494.827 | | | 110.98 | 100.00 | N22° 41' 18"W | 63° 35' 18" |
| C3 | PI 401755.627 | PI 528509.709 | | | 63.56 | 200.00 | N18° 12' 37"E | 18° 12' 31" |
| L2 | 401784.104 | 528524.416 | 401858.487 | 528562.832 | 83.72 | | N27° 18' 52"E | |

| CR-SW-RAB | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SEGMENT NUMBER | START NORTHING | START EASTING | END NORTHING | END EASTING | LENGTH | RADIUS | LINE/CHORD BEARING | DELTA ANGLE |
| L6 | 401799.727 | 528136.634 | 401779.411 | 528197.324 | 64.00 | | S71° 29' 31"E | |
| C10 | PI 401770.979 | PI 528222.512 | | | 52.93 | 250.00 | S65° 25' 38"E | 12° 07' 47" |
| C11 | PI 401724.150 | PI 528301.577 | | | 115.74 | 100.00 | S26° 12' 20"E | 66° 18' 48" |
| C12 | PI 401619.429 | PI 528288.810 | | | 79.65 | 250.00 | S16° 04' 42"W | 18° 15' 16" |
| L7 | 401583.088 | 528271.705 | 401546.844 | 528254.645 | 40.06 | | S25° 12' 20"W | |

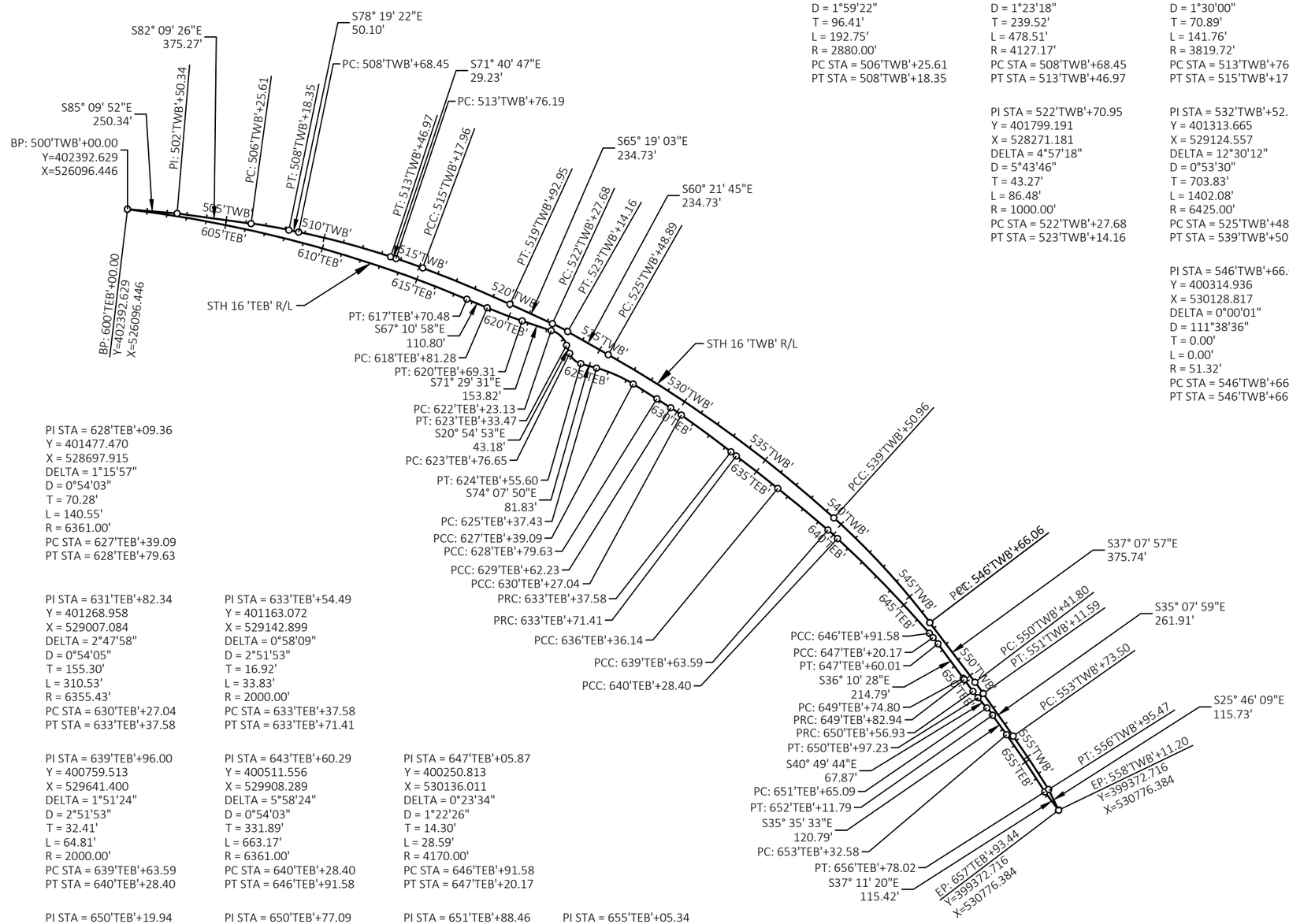
| CR-SE-RAB | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SEGMENT NUMBER | START NORTHING | START EASTING | END NORTHING | END EASTING | LENGTH | RADIUS | LINE/CHORD BEARING | DELTA ANGLE |
| L5 | 401456.361 | 528261.368 | 401545.504 | 528308.849 | 101.00 | | N28° 02' 28"E | |
| C6 | PI 401582.624 | PI 528328.620 | | | 79.62 | 100.00 | N50° 51' 03"E | 45° 37' 11" |
| C7 | PI 401598.668 | PI 528383.348 | | | 29.35 | 60.00 | N87° 40' 30"E | 28° 01' 43" |
| C8 | PI 401589.778 | PI 528426.316 | | | 57.78 | 738.00 | S76° 04' 05"E | 4° 29' 08" |
| C9 | PI 401566.716 | PI 528505.828 | | | 107.58 | 738.00 | S69° 38' 57"E | 8° 21' 08" |




| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | ALIGNMENT DIAGRAM - STH 16 RECONSTRUCT | SHEET 177 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-027204-AD.DWG
LAYOUT NAME - 01
PLOT DATE : 10/19/2017 9:24 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ############
WISDOT/CADDS SHEET 42

2




PI STA = 608'TEB'+91.00
Y = 402286.050
X = 526981.049
DELTA = 15°56'50"
D = 0°54'03"
T = 891.00'
L = 1770.48'
R = 6361.00'
PC STA = 600'TEB'+00.00
PT STA = 617'TEB'+70.48

PI STA = 619'TEB'+75.34
Y = 401861.081
X = 527991.152
DELTA = 4°18'34"
D = 2°17'31"
T = 94.06'
L = 188.03'
R = 2500.00'
PC STA = 618'TEB'+81.28
PT STA = 620'TEB'+69.31

PI STA = 622'TEB'+82.19
Y = 401763.649
X = 528282.213
DELTA = 50°34'38"
D = 45°50'12"
T = 59.06'
L = 110.34'
R = 125.00'
PC STA = 622'TEB'+23.13
PT STA = 623'TEB'+33.47

PI STA = 624'TEB'+19.23
Y = 401628.374
X = 528333.909
DELTA = 53°12'57"
D = 67°24'24"
T = 42.58'
L = 78.95'
R = 85.00'
PC STA = 623'TEB'+76.65
PT STA = 624'TEB'+55.60

PI STA = 626'TEB'+38.87
Y = 401566.617
X = 528551.151
DELTA = 15°24'20"
D = 7°38'22"
T = 101.44'
L = 201.66'
R = 750.00'
PC STA = 625'TEB'+37.43
PT STA = 627'TEB'+39.09

PI STA = 628'TEB'+09.36
Y = 401477.470
X = 528697.915
DELTA = 1°15'57"
D = 0°54'03"
T = 70.28'
L = 140.55'
R = 6361.00'
PC STA = 627'TEB'+39.09
PT STA = 628'TEB'+79.63

PI STA = 629'TEB'+20.93
Y = 401417.454
X = 528791.974
DELTA = 0°44'38"
D = 0°54'03"
T = 41.30'
L = 82.59'
R = 6361.00'
PC STA = 628'TEB'+79.63
PT STA = 629'TEB'+62.23

PI STA = 629'TEB'+94.64
Y = 401377.003
X = 528853.590
DELTA = 1°51'24"
D = 2°51'53"
T = 32.41'
L = 64.81'
R = 2000.00'
PC STA = 629'TEB'+62.23
PT STA = 630'TEB'+27.04

PI STA = 631'TEB'+82.34
Y = 401268.958
X = 529007.084
DELTA = 2°47'58"
D = 0°54'05"
T = 155.30'
L = 310.53'
R = 6355.43'
PC STA = 630'TEB'+27.04
PT STA = 633'TEB'+37.58

PI STA = 633'TEB'+54.49
Y = 401163.072
X = 529142.899
DELTA = 0°58'09"
D = 2°51'53"
T = 16.92'
L = 33.83'
R = 2000.00'
PC STA = 633'TEB'+37.58
PT STA = 633'TEB'+71.41

PI STA = 635'TEB'+03.79
Y = 401073.279
X = 529262.179
DELTA = 2°23'15"
D = 0°54'07"
T = 132.38'
L = 264.73'
R = 6353.00'
PC STA = 633'TEB'+71.41
PT STA = 636'TEB'+36.14

PI STA = 637'TEB'+99.90
Y = 400888.310
X = 529493.432
DELTA = 2°57'07"
D = 0°54'05"
T = 163.76'
L = 327.45'
R = 6355.43'
PC STA = 636'TEB'+36.14
PT STA = 639'TEB'+63.59

PI STA = 639'TEB'+96.00
Y = 400759.513
X = 529641.400
DELTA = 1°51'24"
D = 2°51'53"
T = 32.41'
L = 64.81'
R = 2000.00'
PC STA = 639'TEB'+63.59
PT STA = 640'TEB'+28.40

PI STA = 643'TEB'+60.29
Y = 400511.556
X = 529908.289
DELTA = 5°58'24"
D = 0°54'03"
T = 331.89'
L = 663.17'
R = 6361.00'
PC STA = 640'TEB'+28.40
PT STA = 646'TEB'+91.58

PI STA = 647'TEB'+05.87
Y = 400250.813
X = 530136.011
DELTA = 0°23'34"
D = 1°22'26"
T = 14.30'
L = 28.59'
R = 4170.00'
PC STA = 646'TEB'+91.58
PT STA = 647'TEB'+20.17

PI STA = 647'TEB'+40.10
Y = 400224.880
X = 530158.348
DELTA = 4°33'54"
D = 11°27'33"
T = 19.93'
L = 39.84'
R = 500.00'
PC STA = 647'TEB'+20.17
PT STA = 647'TEB'+60.01

PI STA = 649'TEB'+78.87
Y = 400032.123
X = 530299.293
DELTA = 0°57'11"
D = 11°43'01"
T = 4.07'
L = 8.13'
R = 489.00'
PC STA = 649'TEB'+74.80
PT STA = 649'TEB'+82.94

PI STA = 650'TEB'+19.94
Y = 399999.380
X = 530324.081
DELTA = 1°01'10"
D = 1°22'39"
T = 37.00'
L = 74.00'
R = 4159.00'
PC STA = 649'TEB'+82.94
PT STA = 650'TEB'+56.93

PI STA = 650'TEB'+77.09
Y = 399953.202
X = 530357.764
DELTA = 4°43'15"
D = 11°43'01"
T = 20.16'
L = 40.29'
R = 489.00'
PC STA = 650'TEB'+56.93
PT STA = 650'TEB'+97.23

PI STA = 651'TEB'+88.46
Y = 399868.917
X = 530430.592
DELTA = 5°14'11"
D = 11°12'44"
T = 23.37'
L = 46.70'
R = 511.01'
PC STA = 651'TEB'+65.09
PT STA = 652'TEB'+11.79

PI STA = 655'TEB'+05.34
Y = 399610.794
X = 530614.459
DELTA = 3°07'01"
D = 0°54'08"
T = 172.76'
L = 345.43'
R = 6350.00'
PC STA = 653'TEB'+32.58
PT STA = 656'TEB'+78.02

PI STA = 507'TWB'+22.02
Y = 402307.163
X = 526813.159
DELTA = 3°50'05"
D = 1°59'22"
T = 96.41'
L = 192.75'
R = 2880.00'
PC STA = 506'TWB'+25.61
PT STA = 508'TWB'+18.35

PI STA = 511'TWB'+07.98
Y = 402229.030
X = 527191.202
DELTA = 6°38'35"
D = 1°23'18"
T = 239.52'
L = 478.51'
R = 4127.17'
PC STA = 508'TWB'+68.45
PT STA = 513'TWB'+46.97

PI STA = 514'TWB'+47.08
Y = 402122.270
X = 527513.630
DELTA = 2°07'35"
D = 1°30'00"
T = 70.89'
L = 141.76'
R = 3819.72'
PC STA = 513'TWB'+76.19
PT STA = 515'TWB'+17.96

PI STA = 517'TWB'+55.56
Y = 402014.501
X = 527802.689
DELTA = 4°14'09"
D = 0°53'30"
T = 237.61'
L = 475.00'
R = 6425.00'
PC STA = 515'TWB'+17.96
PT STA = 519'TWB'+92.95

PI STA = 522'TWB'+70.95
Y = 401799.191
X = 528271.181
DELTA = 4°57'18"
D = 5°43'46"
T = 43.27'
L = 86.48'
R = 1000.00'
PC STA = 522'TWB'+27.68
PT STA = 523'TWB'+14.16

PI STA = 532'TWB'+52.72
Y = 401313.665
X = 529124.557
DELTA = 12°30'12"
D = 0°53'30"
T = 703.83'
L = 1402.08'
R = 6425.00'
PC STA = 525'TWB'+48.89
PT STA = 539'TWB'+50.96

PI STA = 543'TWB'+09.56
Y = 400600.822
X = 529912.346
DELTA = 10°43'35"
D = 1°30'00"
T = 358.60'
L = 715.09'
R = 3819.72'
PC STA = 539'TWB'+50.96
PT STA = 546'TWB'+66.06

PI STA = 546'TWB'+66.06
Y = 400314.936
X = 530128.817
DELTA = 0°00'01"
D = 111°38'36"
T = 0.00'
L = 0.00'
R = 51.32'
PC STA = 546'TWB'+66.06
PT STA = 546'TWB'+66.06

PI STA = 550'TWB'+76.70
Y = 399987.555
X = 530376.705
DELTA = 1°59'57"
D = 2°51'53"
T = 34.90'
L = 69.79'
R = 2000.00'
PC STA = 550'TWB'+41.80
PT STA = 551'TWB'+11.59

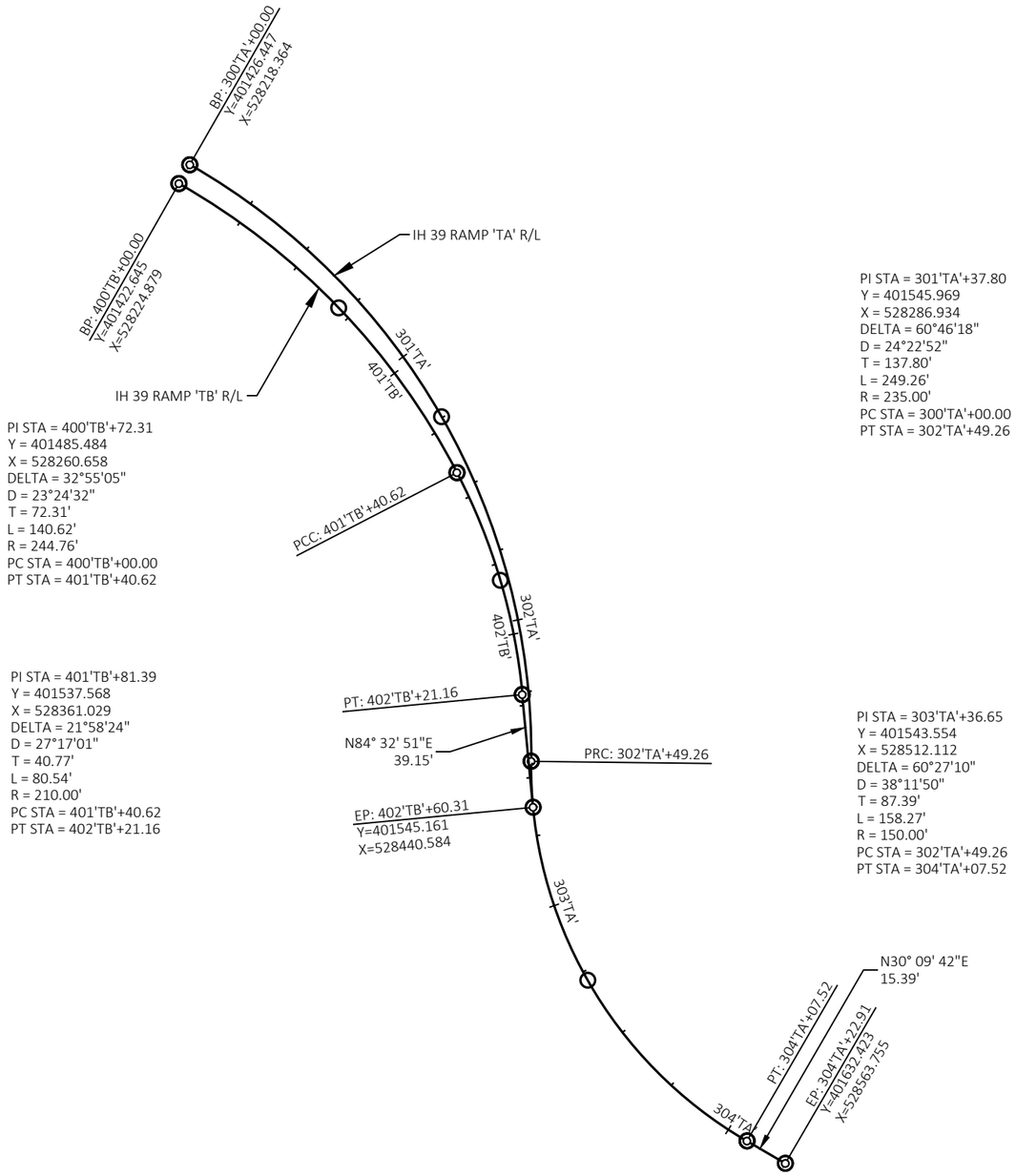
PI STA = 555'TWB'+34.52
Y = 399613.136
X = 530640.174
DELTA = 2°53'41"
D = 0°53'57"
T = 161.02'
L = 321.98'
R = 6373.00'
PC STA = 553'TWB'+73.50
PT STA = 556'TWB'+95.47

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | ALIGNMENT DIAGRAM - STH 16 TEMPORARY ALIGNMENTS | SHEET 178 | E |
|---|---|---|---|---|---|

2

N

0 25 50




PI STA = 301'TA'+37.80
Y = 401545.969
X = 528286.934
DELTA = 60°46'18"
D = 24°22'52"
T = 137.80'
L = 249.26'
R = 235.00'
PC STA = 300'TA'+00.00
PT STA = 302'TA'+49.26

PI STA = 400'TB'+72.31
Y = 401485.484
X = 528260.658
DELTA = 32°55'05"
D = 23°24'32"
T = 72.31'
L = 140.62'
R = 244.76'
PC STA = 400'TB'+00.00
PT STA = 401'TB'+40.62

PI STA = 401'TB'+81.39
Y = 401537.568
X = 528361.029
DELTA = 21°58'24"
D = 27°17'01"
T = 40.77'
L = 80.54'
R = 210.00'
PC STA = 401'TB'+40.62
PT STA = 402'TB'+21.16

PI STA = 303'TA'+36.65
Y = 401543.554
X = 528512.112
DELTA = 60°27'10"
D = 38°11'50"
T = 87.39'
L = 158.27'
R = 150.00'
PC STA = 302'TA'+49.26
PT STA = 304'TA'+07.52

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | ALIGNMENT DIAGRAM - RAMP 'A' & RAMP 'B' TEMPORARY ALIGNMENTS | SHEET 179 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-027212-AD.DWG
LAYOUT NAME - 01
PLOT DATE : 10/19/2017 9:25 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : ############
WISDOT/CADDS SHEET 42

1161-02-74

| Line | Item | Item Description | Unit | Total | Qty |
|---|---|---|---|---|---|
| 0002 | 201.0105 | Clearing | STA | 3.000 | 3.000 |
| 0004 | 201.0205 | Grubbing | STA | 3.000 | 3.000 |
| 0006 | 203.0100 | Removing Small Pipe Culverts | EACH | 8.000 | 8.000 |
| 0008 | 204.0100 | Removing Pavement | SY | 19,500.000 | 19,500.000 |
| 0010 | 204.0105 | Removing Pavement Butt Joints | SY | 550.000 | 550.000 |
| 0012 | 204.0110 | Removing Asphaltic Surface | SY | 4,750.000 | 4,750.000 |
| 0014 | 204.0115 | Removing Asphaltic Surface Butt Joints | SY | 1,425.000 | 1,425.000 |
| 0016 | 204.0120 | Removing Asphaltic Surface Milling | SY | 4,100.000 | 4,100.000 |
| 0018 | 204.0150 | Removing Curb & Gutter | LF | 250.000 | 250.000 |
| 0020 | 204.0155 | Removing Concrete Sidewalk | SY | 210.000 | 210.000 |
| 0022 | 204.0165 | Removing Guardrail | LF | 1,050.000 | 1,050.000 |
| 0024 | 204.0220 | Removing Inlets | EACH | 3.000 | 3.000 |
| 0026 | 205.0100 | Excavation Common | CY | 8,409.000 | 8,409.000 |
| 0028 | 208.0100 | Borrow | CY | 572.000 | 572.000 |
| 0030 | 211.0400 | Prepare Foundation for Asphaltic Shoulders | STA | 81.000 | 81.000 |
| 0032 | 213.0100 | Finishing Roadway (project) 01. 1161-02-74 | EACH | 1.000 | 1.000 |
| 0034 | 305.0110 | Base Aggregate Dense 3/4-Inch | TON | 3,300.000 | 3,300.000 |
| 0036 | 305.0120 | Base Aggregate Dense 1 1/4-Inch | TON | 18,100.000 | 18,100.000 |
| 0038 | 305.0500 | Shaping Shoulders | STA | 84.000 | 84.000 |
| 0040 | 390.0201 | Base Patching Asphaltic | TON | 55.000 | 55.000 |
| 0042 | 390.0303 | Base Patching Concrete | SY | 120.000 | 120.000 |
| 0044 | 390.0403 | Base Patching Concrete Shes | SY | 470.000 | 470.000 |
| 0046 | 405.0100 | Coloring Concrete WisDOT Red | CY | 425.000 | 425.000 |
| 0048 | 416.0512 | Concrete Truck Apron 12-Inch | SY | 1,420.000 | 1,420.000 |
| 0050 | 416.0610 | Drilled Tie Bars | EACH | 39.000 | 39.000 |
| 0052 | 416.0620 | Drilled Dowel Bars | EACH | 405.000 | 405.000 |
| 0054 | 416.1010 | Concrete Surface Drains | CY | 5.500 | 5.500 |
| 0056 | 440.4410 | Incentive IRI Ride | DOL | 6,166.000 | 6,166.000 |
| 0058 | 455.0605 | Tack Coat | GAL | 4,850.000 | 4,850.000 |
| 0060 | 460.2000 | Incentive Density HMA Pavement | DOL | 7,260.000 | 7,260.000 |
| 0062 | 460.4110.S | Reheating HMA Pavement Longitudinal Joints | LF | 27,667.000 | 27,667.000 |
| 0064 | 460.6223 | HMA Pavement 3 MT 58-28 S | TON | 4,700.000 | 4,700.000 |
| 0066 | 460.6225 | HMA Pavement 5 MT 58-28 S | TON | 1,130.000 | 1,130.000 |
| 0068 | 460.6424 | HMA Pavement 4 MT 58-28 H | TON | 5,500.000 | 5,500.000 |
| 0070 | 465.0105 | Asphaltic Surface | TON | 370.000 | 370.000 |
| 0072 | 465.0120 | Asphaltic Surface Driveways and Field Entrances | TON | 40.000 | 40.000 |
| 0074 | 465.0125 | Asphaltic Surface Temporary | TON | 360.000 | 360.000 |
| 0076 | 520.2018 | Culvert Pipe Temporary 18-Inch | LF | 14.000 | 14.000 |
| 0078 | 520.8000 | Concrete Collars for Pipe | EACH | 2.000 | 2.000 |
| 0080 | 522.0124 | Culvert Pipe Reinforced Concrete Class III 24-Inch | LF | 4.000 | 4.000 |

1161-02-74

| Line | Item | Item Description | Unit | Total | Qty |
|---|---|---|---|---|---|
| 0082 | 522.0130 | Culvert Pipe Reinforced Concrete Class III 30-Inch | LF | 118.000 | 118.000 |
| 0084 | 522.0136 | Culvert Pipe Reinforced Concrete Class III 36-Inch | LF | 168.000 | 168.000 |
| 0086 | 522.1015 | Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch | EACH | 8.000 | 8.000 |
| 0088 | 522.1024 | Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch | EACH | 1.000 | 1.000 |
| 0090 | 522.1030 | Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch | EACH | 3.000 | 3.000 |
| 0092 | 522.1036 | Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch | EACH | 2.000 | 2.000 |
| 0094 | 522.2429 | Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 29x45-Inch | LF | 171.000 | 171.000 |
| 0096 | 522.2629 | Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 29x45-Inch | EACH | 2.000 | 2.000 |
| 0098 | 524.0618 | Apron Endwalls for Culvert Pipe Salvaged 18-Inch | EACH | 1.000 | 1.000 |
| 0100 | 601.0405 | Concrete Curb & Gutter 18-Inch Type A | LF | 305.000 | 305.000 |
| 0102 | 601.0411 | Concrete Curb & Gutter 30-Inch Type D | LF | 3,690.000 | 3,690.000 |
| 0104 | 601.0553 | Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type D | LF | 840.000 | 840.000 |
| 0106 | 601.0580 | Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type R | LF | 440.000 | 440.000 |
| 0108 | 601.0600 | Concrete Curb Pedestrian | LF | 325.000 | 325.000 |
| 0110 | 602.0405 | Concrete Sidewalk 4-Inch | SF | 18,350.000 | 18,350.000 |
| 0112 | 602.0415 | Concrete Sidewalk 6-Inch | SF | 835.000 | 835.000 |
| 0114 | 602.0515 | Curb Ramp Detectable Warning Field Natural Patina | SF | 330.000 | 330.000 |
| 0116 | 606.0200 | Riprap Medium | CY | 150.000 | 150.000 |
| 0118 | 608.0415 | Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch | LF | 665.000 | 665.000 |
| 0120 | 611.0624 | Inlet Covers Type H | EACH | 12.000 | 12.000 |
| 0122 | 611.0636 | Inlet Covers Type HM-S | EACH | 2.000 | 2.000 |
| 0124 | 611.0639 | Inlet Covers Type H-S | EACH | 5.000 | 5.000 |
| 0126 | 611.0642 | Inlet Covers Type MS | EACH | 4.000 | 4.000 |
| 0128 | 611.0652 | Inlet Covers Type T | EACH | 2.000 | 2.000 |
| 0130 | 611.3225 | Inlets 2x2.5-FT | EACH | 2.000 | 2.000 |
| 0132 | 611.3230 | Inlets 2x3-FT | EACH | 19.000 | 19.000 |
| 0134 | 611.3902 | Inlets Median 2 Grate | EACH | 2.000 | 2.000 |
| 0136 | 611.8115 | Adjusting Inlet Covers | EACH | 2.000 | 2.000 |
| 0138 | 611.8120.S | Cover Plates Temporary | EACH | 2.000 | 2.000 |
| 0140 | 614.0220 | Steel Thrie Beam Bullnose Terminal | EACH | 2.000 | 2.000 |
| 0142 | 614.0230 | Steel Thrie Beam | LF | 325.000 | 325.000 |
| 0144 | 614.2300 | MGS Guardrail 3 | LF | 575.000 | 575.000 |
| 0146 | 614.2610 | MGS Guardrail Terminal EAT | EACH | 6.000 | 6.000 |
| 0148 | 614.2620 | MGS Guardrail Terminal Type 2 | EACH | 4.000 | 4.000 |

1161-02-74

| Line | Item | Item Description | Unit | Total | Qty |
|---|---|---|---|---|---|
| 0150 | 618.0100 | Maintenance And Repair of Haul Roads (project) 01. 1161-02-74 | EACH | 1.000 | 1.000 |
| 0152 | 619.1000 | Mobilization | EACH | 1.000 | 1.000 |
| 0154 | 620.0300 | Concrete Median Sloped Nose | SF | 220.000 | 220.000 |
| 0156 | 624.0100 | Water | MGAL | 300.000 | 300.000 |
| 0158 | 625.0500 | Salvaged Topsoil | SY | 34,080.000 | 34,080.000 |
| 0160 | 627.0200 | Mulching | SY | 23,040.000 | 23,040.000 |
| 0162 | 628.1504 | Silt Fence | LF | 2,610.000 | 2,610.000 |
| 0164 | 628.1520 | Silt Fence Maintenance | LF | 2,610.000 | 2,610.000 |
| 0166 | 628.1905 | Mobilizations Erosion Control | EACH | 15.000 | 15.000 |
| 0168 | 628.1910 | Mobilizations Emergency Erosion Control | EACH | 7.000 | 7.000 |
| 0170 | 628.2004 | Erosion Mat Class I Type B | SY | 6,250.000 | 6,250.000 |
| 0172 | 628.2006 | Erosion Mat Urban Class I Type A | SY | 3,780.000 | 3,780.000 |
| 0174 | 628.7005 | Inlet Protection Type A | EACH | 10.000 | 10.000 |
| 0176 | 628.7010 | Inlet Protection Type B | EACH | 4.000 | 4.000 |
| 0178 | 628.7015 | Inlet Protection Type C | EACH | 24.000 | 24.000 |
| 0180 | 628.7020 | Inlet Protection Type D | EACH | 4.000 | 4.000 |
| 0182 | 628.7504 | Temporary Ditch Checks | LF | 210.000 | 210.000 |
| 0184 | 628.7555 | Culvert Pipe Checks | EACH | 50.000 | 50.000 |
| 0186 | 628.7560 | Tracking Pads | EACH | 6.000 | 6.000 |
| 0188 | 628.7570 | Rock Bags | EACH | 130.000 | 130.000 |
| 0190 | 629.0205 | Fertilizer Type A | CWT | 20.900 | 20.900 |
| 0192 | 630.0120 | Seeding Mixture No. 20 | LB | 784.000 | 784.000 |
| 0194 | 630.0130 | Seeding Mixture No. 30 | LB | 73.000 | 73.000 |
| 0196 | 630.0200 | Seeding Temporary | LB | 100.000 | 100.000 |
| 0198 | 633.5200 | Markers Culvert End | EACH | 16.000 | 16.000 |
| 0200 | 634.0612 | Posts Wood 4x6-Inch X 12-FT | EACH | 2.000 | 2.000 |
| 0202 | 634.0614 | Posts Wood 4x6-Inch X 14-FT | EACH | 40.000 | 40.000 |
| 0204 | 634.0616 | Posts Wood 4x6-Inch X 16-FT | EACH | 51.000 | 51.000 |
| 0206 | 634.0618 | Posts Wood 4x6-Inch X 18-FT | EACH | 14.000 | 14.000 |
| 0208 | 634.0620 | Posts Wood 4x6-Inch X 20-FT | EACH | 2.000 | 2.000 |
| 0210 | 634.0812 | Posts Tubular Steel 2x2-Inch X 12-FT | EACH | 6.000 | 6.000 |
| 0212 | 637.1220 | Signs Type I Reflective SH | SF | 456.000 | 456.000 |
| 0214 | 637.2210 | Signs Type II Reflective H | SF | 1,121.450 | 1,121.450 |
| 0216 | 637.2215 | Signs Type II Reflective H Folding | SF | 25.320 | 25.320 |
| 0218 | 637.2230 | Signs Type II Reflective F | SF | 300.750 | 300.750 |
| 0220 | 638.2102 | Moving Signs Type II | EACH | 7.000 | 7.000 |
| 0222 | 638.2602 | Removing Signs Type II | EACH | 105.000 | 105.000 |
| 0224 | 638.3000 | Removing Small Sign Supports | EACH | 117.000 | 117.000 |
| 0226 | 638.3210 | Revising Signs Type I Demountable | EACH | 5.000 | 5.000 |

| Line | Item | Item Description | Unit | Total | Qty |
|---|---|---|---|---|---|
| 0228 | 638.4000 | Moving Small Sign Supports | EACH | 14.000 | 14.000 |
| 0230 | 641.8100 | Overhead Sign Support (structure) 01. S-11-27 | LS | 1.000 | 1.000 |
| 0232 | 641.8100 | Overhead Sign Support (structure) 02. S-11-28 | LS | 1.000 | 1.000 |
| 0234 | 641.8100 | Overhead Sign Support (structure) 03. S-11-29 | LS | 1.000 | 1.000 |
| 0236 | 642.5201 | Field Office Type C | EACH | 1.000 | 1.000 |
| 0238 | 643.0300 | Traffic Control Drums | DAY | 28,623.000 | 28,623.000 |
| 0240 | 643.0310.S | Temporary Portable Rumble Strips | LS | 1.000 | 1.000 |
| 0242 | 643.0420 | Traffic Control Barricades Type III | DAY | 7,687.000 | 7,687.000 |
| 0244 | 643.0705 | Traffic Control Warning Lights Type A | DAY | 11,508.000 | 11,508.000 |
| 0246 | 643.0715 | Traffic Control Warning Lights Type C | DAY | 1,828.000 | 1,828.000 |
| 0248 | 643.0900 | Traffic Control Signs | DAY | 20,458.000 | 20,458.000 |
| 0250 | 643.0910 | Traffic Control Covering Signs Type I | EACH | 4.000 | 4.000 |
| 0252 | 643.0920 | Traffic Control Covering Signs Type II | EACH | 10.000 | 10.000 |
| 0254 | 643.1050 | Traffic Control Signs PCMS | DAY | 105.000 | 105.000 |
| 0256 | 643.5000 | Traffic Control | EACH | 1.000 | 1.000 |
| 0258 | 644.1420.S | Temporary Pedestrian Surface Plywood | SF | 1,380.000 | 1,380.000 |
| 0260 | 644.1616.S | Temporary Pedestrian Safety Fence | LF | 760.000 | 760.000 |
| 0262 | 645.0120 | Geotextile Type HR | SY | 450.000 | 450.000 |
| 0264 | 646.1020 | Marking Line Epoxy 4-Inch | LF | 22,675.000 | 22,675.000 |
| 0266 | 646.1545 | Marking Line Grooved Wet Ref Contrast Epoxy 4-Inch | LF | 1,650.000 | 1,650.000 |
| 0268 | 646.3020 | Marking Line Epoxy 8-Inch | LF | 1,910.000 | 1,910.000 |
| 0270 | 646.3545 | Marking Line Grooved Wet Ref Contrast Epoxy 8-Inch | LF | 1,080.000 | 1,080.000 |
| 0272 | 646.4520 | Marking Line Same Day Epoxy 4-Inch | LF | 4,525.000 | 4,525.000 |
| 0274 | 646.5020 | Marking Arrow Epoxy | EACH | 26.000 | 26.000 |
| 0276 | 646.5120 | Marking Word Epoxy | EACH | 8.000 | 8.000 |
| 0278 | 646.6120 | Marking Stop Line Epoxy 18-Inch | LF | 120.000 | 120.000 |
| 0280 | 646.6320 | Marking Dotted Extension Epoxy 18-Inch | LF | 92.000 | 92.000 |
| 0282 | 646.7120 | Marking Diagonal Epoxy 12-Inch | LF | 650.000 | 650.000 |
| 0284 | 646.7420 | Marking Crosswalk Epoxy Transverse Line 6-Inch | LF | 635.000 | 635.000 |
| 0286 | 646.8120 | Marking Curb Epoxy | LF | 75.000 | 75.000 |
| 0288 | 646.8220 | Marking Island Nose Epoxy | EACH | 1.000 | 1.000 |
| 0290 | 646.9000 | Marking Removal Line 4-Inch | LF | 9,255.000 | 9,255.000 |
| 0292 | 646.9100 | Marking Removal Line 8-Inch | LF | 780.000 | 780.000 |
| 0294 | 646.9200 | Marking Removal Line Wide | LF | 45.000 | 45.000 |
| 0296 | 649.0105 | Temporary Marking Line Paint 4-Inch | LF | 24,385.000 | 24,385.000 |
| 0298 | 649.0150 | Temporary Marking Line Removable Tape 4-Inch | LF | 22,915.000 | 22,915.000 |
| 0300 | 649.0205 | Temporary Marking Line Paint 8-Inch | LF | 470.000 | 470.000 |
| 0302 | 649.0250 | Temporary Marking Line Removable Tape 8-Inch | LF | 115.000 | 115.000 |
| 0304 | 649.0505 | Temporary Marking Arrow Paint | EACH | 5.000 | 5.000 |
| 0306 | 649.0550 | Temporary Marking Arrow Removable Tape | EACH | 1.000 | 1.000 |

1161-02-74

| Line | Item | Item Description | Unit | Total | Qty |
|---|---|---|---|---|---|
| 0308 | 649.0605 | Temporary Marking Word Paint | EACH | 2.000 | 2.000 |
| 0310 | 649.0805 | Temporary Marking Stop Line Paint 18-Inch | LF | 129.000 | 129.000 |
| 0312 | 649.0850 | Temporary Marking Stop Line Removable Tape 18-Inch | LF | 132.000 | 132.000 |
| 0314 | 650.4000 | Construction Staking Storm Sewer | EACH | 29.000 | 29.000 |
| 0316 | 650.4500 | Construction Staking Subgrade | LF | 3,691.000 | 3,691.000 |
| 0318 | 650.5000 | Construction Staking Base | LF | 6,863.000 | 6,863.000 |
| 0320 | 650.5500 | Construction Staking Curb Gutter and Curb & Gutter | LF | 4,530.000 | 4,530.000 |
| 0322 | 650.6000 | Construction Staking Pipe Culverts | EACH | 5.000 | 5.000 |
| 0324 | 650.6500 | Construction Staking Structure Layout (structure) 01. S-11-27 | LS | 1.000 | 1.000 |
| 0326 | 650.6500 | Construction Staking Structure Layout (structure) 02. S-11-28 | LS | 1.000 | 1.000 |
| 0328 | 650.6500 | Construction Staking Structure Layout (structure) 03. S-11-29 | LS | 1.000 | 1.000 |
| 0330 | 650.8000 | Construction Staking Resurfacing Reference | LF | 6,114.000 | 6,114.000 |
| 0332 | 650.8500 | Construction Staking Electrical Installations (project) 01. 1161-02-74 | LS | 1.000 | 1.000 |
| 0334 | 650.9000 | Construction Staking Curb Ramps | EACH | 17.000 | 17.000 |
| 0336 | 650.9910 | Construction Staking Supplemental Control (project) 01. 1161-02-74 | LS | 1.000 | 1.000 |
| 0338 | 650.9920 | Construction Staking Slope Stakes | LF | 6,006.000 | 6,006.000 |
| 0340 | 652.0125 | Conduit Rigid Metallic 2-Inch | LF | 10.000 | 10.000 |
| 0342 | 652.0225 | Conduit Rigid Nonmetallic Schedule 40 2-Inch | LF | 3,353.000 | 3,353.000 |
| 0344 | 652.0800 | Conduit Loop Detector | LF | 1,654.000 | 1,654.000 |
| 0346 | 652.0900 | Loop Detector Slots | LF | 648.000 | 648.000 |
| 0348 | 653.0140 | Pull Boxes Steel 24x42-Inch | EACH | 4.000 | 4.000 |
| 0350 | 653.0164 | Pull Boxes Non-Conductive 24x42-Inch | EACH | 10.000 | 10.000 |
| 0352 | 653.0905 | Removing Pull Boxes | EACH | 3.000 | 3.000 |
| 0354 | 654.0101 | Concrete Bases Type 1 | EACH | 2.000 | 2.000 |
| 0356 | 654.0106 | Concrete Bases Type 6 | EACH | 12.000 | 12.000 |
| 0358 | 654.0230 | Concrete Control Cabinet Bases Type L30 | EACH | 1.000 | 1.000 |
| 0360 | 654.1150 | Concrete Bases Camera Pole 50-FT | EACH | 1.000 | 1.000 |
| 0362 | 655.0230 | Cable Traffic Signal 5-14 AWG | LF | 541.000 | 541.000 |
| 0364 | 655.0610 | Electrical Wire Lighting 12 AWG | LF | 3,032.000 | 3,032.000 |
| 0366 | 655.0620 | Electrical Wire Lighting 8 AWG | LF | 9,557.000 | 9,557.000 |
| 0368 | 655.0630 | Electrical Wire Lighting 4 AWG | LF | 1,725.000 | 1,725.000 |
| 0370 | 655.0700 | Loop Detector Lead In Cable | LF | 3,042.000 | 3,042.000 |
| 0372 | 655.0800 | Loop Detector Wire | LF | 5,904.000 | 5,904.000 |
| 0374 | 656.0200 | Electrical Service Meter Breaker Pedestal (location) 01. CB100 | LS | 1.000 | 1.000 |
| 0376 | 656.0500 | Electrical Service Breaker Disconnect Box (location) 01. | LS | 1.000 | 1.000 |

1161-02-74

| Line | Item | Item Description | Unit | Total | Qty |
|---|---|---|---|---|---|
| | | CCTV-11-0131 | | | |
| 0378 | 657.0100 | Pedestal Bases | EACH | 2.000 | 2.000 |
| 0380 | 657.0255 | Transformer Bases Breakaway 11 1/2-Inch Bolt Circle | EACH | 12.000 | 12.000 |
| 0382 | 657.0327 | Poles Type 6-Aluminum | EACH | 12.000 | 12.000 |
| 0384 | 657.0405 | Traffic Signal Standards Aluminum 3.5-FT | EACH | 2.000 | 2.000 |
| 0386 | 657.0615 | Luminaire Arms Single Member 4 1/2-Inch Clamp 8-FT | EACH | 14.000 | 14.000 |
| 0388 | 658.0500 | Pedestrian Push Buttons | EACH | 3.000 | 3.000 |
| 0390 | 659.1120 | Luminaires Utility LED B | EACH | 14.000 | 14.000 |
| 0392 | 659.2130 | Lighting Control Cabinets 120/240 30-Inch | EACH | 1.000 | 1.000 |
| 0394 | 670.0100 | Field System Integrator | LS | 1.000 | 1.000 |
| 0396 | 670.0200 | ITS Documentation | LS | 1.000 | 1.000 |
| 0398 | 671.0300 | Fiber Optic Cable Marker | EACH | 3.000 | 3.000 |
| 0400 | 673.0225.S | Install Pole Mounted Cabinet | EACH | 1.000 | 1.000 |
| 0402 | 675.0300 | Install Mounted Controller Microwave Detector Assembly | EACH | 2.000 | 2.000 |
| 0404 | 677.0150 | Install Camera Pole 50-FT | EACH | 1.000 | 1.000 |
| 0406 | 677.0200 | Install Camera Assembly | EACH | 1.000 | 1.000 |
| 0408 | 678.0006 | Install Fiber Optic Cable Outdoor Plant 6-CT | LF | 825.000 | 825.000 |
| 0410 | 678.0400 | Fiber Optic Termination | EACH | 6.000 | 6.000 |
| 0412 | 678.0600 | Install Ethernet Switches | EACH | 1.000 | 1.000 |
| 0414 | 690.0150 | Sawing Asphalt | LF | 4,335.000 | 4,335.000 |
| 0416 | 690.0250 | Sawing Concrete | LF | 2,275.000 | 2,275.000 |
| 0418 | 715.0415 | Incentive Strength Concrete Pavement | DOL | 500.000 | 500.000 |
| 0420 | ASP.1T0A | On-the-Job Training Apprentice at $5.00/HR | HRS | 800.000 | 800.000 |
| 0422 | ASP.1T0G | On-the-Job Training Graduate at $5.00/HR | HRS | 375.000 | 375.000 |
| 0424 | SPV.0035 | Special 01. Planting Mixture | CY | 330.000 | 330.000 |
| 0426 | SPV.0060 | Special 01. Remove Pedestrian Push Button | EACH | 3.000 | 3.000 |
| 0428 | SPV.0090 | Special 01. Concrete Joint and Crack Cleaning | LF | 14,850.000 | 14,850.000 |
| 0430 | SPV.0090 | Special 02. Removing HMA Pavement Notched Wedge Longitudinal Joint Milling | LF | 1,369.000 | 1,369.000 |

3

## REMOVING PAVEMENT, ASPHALTIC SURFACE AND CONCRETE SIDEWALK ITEMS

| STATION - STATION | LOCATION | 204.0100 REMOVING PAVEMENT SY | 204.0105 REMOVING PAVEMENT BUTT JOINTS SY | 204.0110 REMOVING ASPHALTIC SURFACE SY | 204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY | 204.0120 REMOVING ASPHALTIC SURFACE MILLING SY | 204.0155 REMOVING CONCRETE SIDEWALK SY | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| CATEGORY CODE 0010 | | | | | | | | |
| 731'REB'+20 - 742'REB'+00 | LT & RT | 11,205 | -- | -- | -- | -- | -- | RECONSTRUCT AREA |
| 742'EB'+00 - 746'EB'+26 | RT | 371 | -- | 240 | -- | -- | -- | EB OUTSIDE SHOULDER REPLACEMENT |
| 745'WB'+00 - 746'EB'+80 | LT | 336 | -- | 130 | -- | -- | -- | WB OUTSIDE SHOULDER REPLACEMENT |
| TRAFFIC CONTROL STAGE 4 | | -- | -- | 275 | -- | -- | -- | REMOVE TEMPORARY PAVEMENT FROM ISLANDS |
| CATEGORY CODE 0010 SUBTOTALS | | 11,912 | -- | 645 | -- | -- | -- | |
| CATEGORY CODE 0020 | | | | | | | | |
| 713'EB'+50 | LT & RT | -- | -- | -- | 167 | -- | -- | WEST PROJECT LIMITS |
| 717'WB'+13 | LT | -- | -- | -- | 26 | -- | -- | DRIVEWAY |
| 721'WB'+77 | LT | -- | -- | -- | 37 | -- | -- | DRIVEWAY |
| 722'WB'+03 | RT | 1 | -- | -- | -- | -- | -- | INLET ADJUSTMENT |
| 726'WB'+03 | LT | -- | 20 | -- | 157 | -- | -- | LA DAWN DRIVE LIMITS |
| 726'EB'+74 | RT | -- | 20 | -- | 175 | -- | -- | MURPHY ROAD LIMITS |
| 745'WB'+00 - 767'EB'+50 | LT & RT | 7,587 | -- | 2,455 | -- | -- | -- | PAVEMENT REPLACEMENT AREA |
| 748'EB'+86 | LT | -- | 75 | -- | 51 | -- | -- | STH 16 TURN LANE TO RAMP 'DD' |
| 758'EB'+00 | LT & RT | -- | 120 | -- | 61 | -- | -- | 'EB' @ PAVEMENT REPLACEMENT LIMITS |
| 766'WB'+85 - 767'WB'+07 | LT | -- | -- | -- | -- | -- | 20 | SILVER LAKE DRIVE CURB RAMP REPLACEMENT |
| 110+58 - 111+39 | LT & RT | -- | -- | -- | 235 | 875 | -- | WEST WISCONSIN SERVICE ROAD |
| 111+64 - 112+82 | LT & RT | -- | -- | -- | 94 | 1,020 | -- | SILVER LAKE DRIVE |
| 10'E'+00 - 21'E'+50 | RT | -- | -- | -- | -- | 640 | -- | RAMP 'E' SHOULDER MILL AND PAVE |
| 21'E'+50 | LT & RT | -- | 75 | -- | 45 | -- | -- | OVERLAY LIMITS ON RAMP 'E' |
| TRAFFIC CONTROL STAGE 1 | LT | -- | -- | -- | -- | 995 | -- | MILL EXISTING PAVEMENT FOR SHOULDER WIDENING AREAS |
| TRAFFIC CONTROL STAGE 3 | LT | -- | -- | 190 | -- | -- | -- | REMOVE ASPHALT SHOULDER TO MATCH PLANS |
| TRAFFIC CONTROL STAGE 4 | | -- | -- | 270 | -- | -- | -- | REMOVE ASPHALT SHOULDER TO MATCH PLANS |
| CATEGORY CODE 0020 SUBTOTALS | | 7,588 | 310 | 2,915 | 1,048 | 3,530 | 20 | |
| CATEGORY CODE 0030 | | | | | | | | |
| 767'EB'+50 | LT & RT | -- | 120 | -- | 74 | -- | -- | EAST PAVEMENT REPLACEMENT LIMITS |
| 767'EB'+50 - 774'EB'+44 | RT | -- | -- | 275 | -- | -- | -- | LEFT SHOULDER REPLACEMENT |
| 767'EB'+59 | LT | -- | -- | -- | 66 | -- | -- | DRIVEWAY |
| 768'EB'+46 | LT | -- | -- | -- | 65 | -- | -- | DRIVEWAY |
| 770'EB'+15 | LT | -- | -- | -- | 72 | -- | -- | DRIVEWAY |
| 770'EB'+56 - 778'EB'+16 | LT | -- | -- | 675 | -- | -- | -- | NEW CURB & GUTTER LOCATION |
| 771'EB'+11 - 774'EB'+36 | LT | -- | -- | -- | -- | -- | 190 | NEW SIDEWALK LOCATION |
| 774'EB'+44 - 777'EB'+00 | RT | -- | -- | -- | -- | 250 | -- | MATCH INTO BEAM GUARD |
| 777'EB'+00 | LT & RT | -- | 120 | -- | 100 | -- | -- | EAST PROJECT LIMITS |
| TRAFFIC CONTROL STAGE 1 | LT | -- | -- | -- | -- | 320 | -- | MILL EXISTING PAVEMENT FOR SHOULDER WIDENING AREAS |
| TRAFFIC CONTROL STAGE 4 | | -- | -- | 240 | -- | -- | -- | REMOVE ASPHALT SHOULDER TO MATCH PLANS |
| CATEGORY CODE 0030 SUBTOTALS | | -- | 240 | 1,190 | 377 | 570 | 190 | |
| | **TOTALS** | **19,500** | **550** | **4,750** | **1,425** | **4,100** | **210** | |

*ASPHALT REMOVAL WITHIN FULL RECONSTRUCT AREA SHALL BE PAID FOR AS COMMON EXCAVATION

## CLEARING AND GRUBBING ITEMS

| STATION - STATION | LOCATION | 201.0105 CLEARING STA | 201.0205 GRUBBING STA |
|---|---|---|---|
| CATEGORY CODE 0010 | | | |
| 731'EB'+00 - 733'EB'+00 | RT | 2 | 2 |
| 48'RA'+00 - 49'RA'+00 | LT | 1 | 1 |
| | **TOTALS** | **3** | **3** |

## REMOVING GUARDRAIL

| STATION - STATION | LOCATION | 204.0165 LF |
|---|---|---|
| CATEGORY CODE 0010 | | |
| 741'REB'+64 - 744'EB'+17 | RT | 253 |
| 742'EB'+05 - 744'EB'+69 | LT | 544 |
| 742'RWB'+72 - 745'WB'+23 | LT | 253 |
| | **TOTAL** | **1,050** |

3

## REMOVING CURB & GUTTER

| STATION - STATION | LOCATION | 204.0150 CURB & GUTTER LF | COMMENTS |
|---|---|---|---|
| CATEGORY CODE 0010 | | | |
| 736'REB'+83 - 737'RWB'+21 | RT | 45 | WEST QUADRANT OF STH 16/ STH 127 |
| 737'RWB'+30 - 737'RWB'+54 | LT & RT | 80 | SPLITTER ISLAND OF STH 127 |
| 737'RWB'+99 - 738'RWB'+17 | RT | 72 | EAST QUADRANT OF STH 16/ STH 127 |
| CATEGORY CODE 0010 SUBTOTAL | | 197 | |
| CATEGORY CODE 0020 | | | |
| 722'WB'+03 | RT | 9 | INLET ADJUSTMENT |
| 766'WB'+84 - 766'WB'+98 | LT | 19 | CURB RAMP AT EAST QUADRANT OF STH 16/ SILVER LAKE DR |
| TRAFFIC SIGNAL UNDISTRIBUTED | | 20 | VARIOUS LOCATIONS FOR LOOP DETECTOR INSTALLATION |
| CATEGORY CODE 0020 SUBTOTAL | | 48 | |
| CATEGORY CODE 0030 | | | |
| 778'EB'+16 - 778'EB'+21 | LT | 5 | NORTHEAST TRANSITION AT RR BRIDGE |
| CATEGORY CODE 0030 SUBTOTAL | | 5 | |
| **TOTAL** | | **250** | |

## REMOVING DRAINAGE ITEMS

| STATION - STATION | LOCATION | 203.0100 REMOVING SMALL PIPE CULVERTS EACH | 204.0220 REMOVING INLETS EACH | COMMENTS |
|---|---|---|---|---|
| CATEGORY CODE 0010 | | | | |
| 737'REB'+27 - 737'REB'+29 | RT | 1 | -- | 18-INCH CMP |
| 738'REB'+06 - 738'REB'+34 | RT | 1 | -- | 18-INCH CMP |
| 741'RWB'+99 - 741'REB'+74 | LT & RT | 2 | 1 | 36-INCH CMP |
| 47'RA'+95 - 47'RA'+74 | LT & RT | 1 | 1 | 18-INCH RCP |
| 48'RA'+68 - 58'RB'+61 | LT & RT | 1 | -- | 30-INCH CMP |
| CATEGORY CODE 0010 SUBTOTALS | | 6 | 2 | |
| CATEGORY CODE 0020 | | | | |
| 751'WB'+90 - 751'EB'+48 | LT & RT | 2 | 1 | 30-INCH CMP |
| CATEGORY CODE 0020 SUBTOTALS | | 2 | 1 | |
| | **TOTALS** | **8** | **3** | |

## EARTHWORK SUMMARY

| DIVISION | FROM/TO STATION | LOCATION | EXCAVATION COMMON (1) ITEM #205.0100 | | SALVAGED/ UNUSABLE PAVEMENT MATERIAL | AVAILABLE MATERIAL (4) | UNEXPANDED FILL | EXPANDED FILL | MASS ORDINATE +/- (5) | BORROW | COMMENT: |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | CUT (2) | EBS EXCAVATION (3) | | | | FACTOR 1.20 | | ITEM #208.0100 | |
| DIVISION 1 | | | | | | | | | | | |
| | 731+21 - 742+31 | REB | 2512 | 0 | 750 | 1762 | 695 | 833 | 929 | | |
| | 742+50 - 746+25 | EB 742 to 746 | 178 | 0 | 0 | 178 | 57 | 68 | 110 | | |
| | 751+48 - 760+00 | EB 751 to 760 | 179 | 0 | 0 | 179 | 282 | 338 | -160 | | |
| | 760+13 - 765+00 | NEB 760 to 765 | 57 | 0 | 0 | 57 | 21 | 26 | 31 | | |
| | 767+00 - 778+00 | EB 767 to 778 | 36 | 0 | 0 | 36 | 419 | 503 | -467 | | |
| | 47+37 - 50+00 | RAMP A | 602 | 0 | 300 | 302 | 169 | 203 | 99 | | |
| | 57+59 - 60+00 | RAMP B | 660 | 0 | 300 | 360 | 303 | 364 | -3 | | |
| | 732+43 - 746+38 | RWB | 2831 | 0 | 1,000 | 1831 | 841 | 1010 | 821 | | |
| | 80+00 - 84+00 | NB | 417 | 0 | 200 | 217 | 545 | 654 | -437 | | |
| | 80+08 - 82+95 | SB | 557 | 0 | 0 | 557 | 38 | 45 | 512 | | |
| | 10+00 - 14+52 | RAB | 181 | 0 | 0 | 181 | 1823 | 2187 | -2006 | | |
| | 0+00 - 0+00 | UNDISTRIBUTED | 0 | 200 | 0 | 0 | 0 | 0 | 0 | | |
| | | | | | | | | | | | |
| | | DIVISION 1 SUBTOTAL | 8209 | 200 | 0 | 5659 | 5193 | 6231 | -572 | 572 | |
| | | GRAND TOTAL | 8209 | 200 | 0 | 5659 | 5193 | 6231 | -572 | **572** | |

| TOTAL EXCAVATION COMMON | 8409 |
|---|---|

NOTES:

1 - COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
3 - EBS EXCAVATION TO BE BACKFILLED WITH BASE AGGREGATE DENSE 1 1/4-INCH.
4 - AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL
5 - 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.

## PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS

| STATION - STATION | LOCATION | 211.0400 STA | COMMENTS |
|---|---|---|---|
| CATEGORY CODE 0010 | | | |
| 742'EB'+00 - 747'EB'+00 | RT | 5 | EB OUTSIDE SHOULDER REPLACEMENT |
| 745'WB'+00 - 747'WB'+00 | LT | 2 | WB OUTSIDE SHOULDER REPLACEMENT |
| CATEGORY CODE 0010 SUBTOTAL | | 7 | |
| CATEGORY CODE 0020 | | | |
| 745'WB'+00 - 761'WB'+00 | RT | 16 | PAVEMENT REPLACEMENT AREA |
| 751'WB'+00 - 766'WB'+00 | LT | 15 | PAVEMENT REPLACEMENT AREA |
| 758'EB'+00 - 760'EB'+00 | LT | 2 | PAVEMENT REPLACEMENT AREA |
| 758'EB'+00 - 766'EB'+00 | RT | 8 | PAVEMENT REPLACEMENT AREA |
| 10'E'+00 - 21'E'+00 | RT | 11 | PAVEMENT REPLACEMENT AREA |
| 713'WB'+00 - 722'WB'+00 | LT | 9 | TRAFFIC CONTROL STAGE 1 |
| 749'WB'+00 - 751'WB'+00 | LT | 2 | TRAFFIC CONTROL STAGE 1 |
| 763'WB'+00 - 766'WB'+00 | LT | 3 | TRAFFIC CONTROL STAGE 1 |
| CATEGORY CODE 0020 SUBTOTAL | | 66 | |
| CATEGORY CODE 0030 | | | |
| 767'EB'+00 - 775'EB'+00 | RT | 8 | SHOULDER REPLACEMENT |
| CATEGORY CODE 0030 SUBTOTAL | | 8 | |
| **TOTAL** | | **81** | |

## BASE AGGREGATE DENSE AND WATER ITEMS

| STATION - STATION | LOCATION | 305.0110 BASE AGGREGATE DENSE 3/4-INCH TON | 305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON | 624.0100 WATER MGAL |
|---|---|---|---|---|
| CATEGORY CODE 0010 | | | | |
| 731'EB'+21 - 742'EB'+07 | LT & RT | 1,180 | 12,628 | 194 |
| TRAFFIC CONTROL UNDISTRIBUTED | | 126 | 1,211 | 19 |
| UNDISTRIBUTED EBS | | -- | 200 | 3 |
| CATEGORY CODE 0010 SUBTOTALS | | 1,306 | 14,039 | 216 |
| CATEGORY CODE 0020 | | | | |
| 713'EB'+50 - 731'EB'+21 | LT & RT | 448 | -- | 6 |
| 742'EB'+07 - 767'EB'+50 | LT & RT | 982 | 3,402 | 61 |
| 10'E'+00 - 21'E'+50 | RT | 118 | -- | 2 |
| TRAFFIC CONTROL UNDISTRIBUTED | | 200 | 377 | 8 |
| UNDISTRIBUTED EBS | | -- | 200 | 3 |
| CATEGORY CODE 0020 SUBTOTALS | | 1,748 | 3,979 | 80 |
| CATEGORY CODE 0030 | | | | |
| 767'EB'+50 - 777'EB'+00 | LT & RT | 178 | -- | 2 |
| TRAFFIC CONTROL UNDISTRIBUTED | | 68 | 82 | 2 |
| CATEGORY CODE 0030 SUBTOTALS | | 246 | 82 | 4 |
| **TOTALS** | | **3,300** | **18,100** | **300** |

BASE AGGREGATE DENSE 3/4-INCH WEIGHT CALCULATIONS BASED ON 2.1 TONS/CY.
BASE AGGREGATE DENSE 1 1/4-INCH WEIGHT CALCULATIONS BASED ON 2.0 TONS/CY.

## SHAPING SHOULDERS

| STATION - STATION | LOCATION | 305.0500 STA | COMMENTS |
|---|---|---|---|
| CATEGORY CODE 0010 | | | |
| 742'EB'+00 - 747'EB'+00 | RT | 5 | EB OUTSIDE SHOULDER REPLACEMENT |
| 745'WB'+00 - 747'WB'+00 | LT | 2 | WB OUTSIDE SHOULDER REPLACEMENT |
| CATEGORY CODE 0010 SUBTOTAL | | 7 | |
| CATEGORY CODE 0020 | | | |
| 745'WB'+00 - 761'WB'+00 | RT | 16 | PAVEMENT REPLACEMENT AREA |
| 751'WB'+00 - 766'WB'+00 | LT | 15 | PAVEMENT REPLACEMENT AREA |
| 758'EB'+00 - 760'EB'+00 | LT | 2 | PAVEMENT REPLACEMENT AREA |
| 758'EB'+00 - 766'EB'+00 | RT | 8 | PAVEMENT REPLACEMENT AREA |
| 10'E'+00 - 21'E'+00 | RT | 11 | PAVEMENT REPLACEMENT AREA |
| 713'WB'+00 - 722'WB'+00 | LT | 9 | TRAFFIC CONTROL STAGE 1 |
| 749'WB'+00 - 751'WB'+00 | LT | 2 | TRAFFIC CONTROL STAGE 1 |
| 763'WB'+00 - 766'WB'+00 | LT | 3 | TRAFFIC CONTROL STAGE 1 |
| CATEGORY CODE 0020 SUBTOTAL | | 66 | |
| CATEGORY CODE 0030 | | | |
| 767'EB'+00 - 775'EB'+00 | RT | 8 | SHOULDER REPLACEMENT |
| 774'EB'+00 - 777'EB'+00 | RT | 3 | SHAPE SHOULDERS AROUND EXISTING BEAM GUARD |
| CATEGORY CODE 0030 SUBTOTAL | | 11 | |
| **TOTAL** | | **84** | |

## BASE PATCHING ITEMS

| STATION - STATION | LOCATION | 390.0201 BASE PATCHING ASPHALTIC TON | 390.0303 BASE PATCHING CONCRETE SY | 390.0403 BASE PATCHING CONCRETE SHES SY | COMMENTS |
|---|---|---|---|---|---|
| CATEGORY CODE 0020 | | | | | |
| 714'EB'+50 - 714'EB'+68 | LT & RT | 24 | -- | -- | -- |
| 718'WB'+87 - 718'WB'+98 | LT & RT | -- | 19 | -- | -- |
| 720'EB'+40 | LT | 4 | -- | -- | INLET ADJUSTMENT |
| 722'WB'+03 | RT | -- | 1 | -- | INLET ADJUSTMENT |
| 751'EB'+42 - 751'EB'+55 | LT & RT | 7 | 40 | -- | CULVERT REPLACEMENT |
| UNDISTRIBUTED | | 20 | 60 | 30 | -- |
| CATEGORY CODE 0020 SUBTOTALS | | 55 | 120 | 30 | |
| CATEGORY CODE 0030 | | | | | |
| 768'EB'+49 - 768'EB'+55 | LT & RT | -- | -- | 20 | -- |
| 769'EB'+66 - 769'EB'+92 | LT & RT | -- | -- | 70 | -- |
| 771'EB'+71 - 771'EB'+79 | LT & RT | -- | -- | 20 | -- |
| 773'EB'+12 - 773'EB'+18 | LT & RT | -- | -- | 20 | -- |
| 774'EB'+66 - 775'EB'+27 | LT & RT | -- | -- | 160 | -- |
| 775'EB'+48 - 775'EB'+68 | LT & RT | -- | -- | 40 | -- |
| 775'EB'+89 - 775'EB'+98 | LT & RT | -- | -- | 25 | -- |
| 776'EB'+08 - 776'EB'+19 | LT | -- | -- | 15 | -- |
| 776'EB'+25 - 776'EB'+31 | LT & RT | -- | -- | 15 | -- |
| 776'EB'+51 - 776'EB'+60 | LT | -- | -- | 10 | -- |
| 776'EB'+87 - 776'EB'+93 | LT & RT | -- | -- | 15 | -- |
| UNDISTRIBUTED | | -- | -- | 30 | -- |
| CATEGORY CODE 0030 SUBTOTALS | | -- | -- | 440 | |
| TOTALS | | **55** | **120** | **470** | |

BASE PATCHING ASPHALTIC WEIGHT CALCULATIONS BASED ON 110 LB/SY/IN.

## CONCRETE SURFACE DRAINS

| STATION | LOCATION | 416.1010 CY |
|---|---|---|
| CATEGORY CODE 0010 | | |
| 739'REB'+71 | RT | 0.9 |
| 741'REB'+50 | LT | 0.9 |
| 740'RWB'+80 | RT | 0.9 |
| 741'RWB'+70 | RT | 1.0 |
| 81'NB'+39 | RT | 0.9 |
| 81'WB'+88 | LT | 0.9 |
| **TOTAL** | | **5.5** |

## CONCRETE PAVEMENT ITEMS

| STATION - STATION | LOCATION | 405.0100 COLORING CONCRETE WISDOT RED CY | 416.0512 CONCRETE TRUCK APRON 12-INCH SY |
|---|---|---|---|
| CATEGORY CODE 0010 | | | |
| 10'RAB'+00 - 14'RAB'+52 | LT | 278 | 825 |
| 18'NW'+99 - 20'NW'+19 | RT | 32 | 117 |
| 19'NE'+35 - 20'NE'+84 | RT | 32 | 140 |
| 18'SE'+99 - 20'SE'+84 | RT | 42 | 171 |
| 19'SW'+34 - 21'SW'+15 | RT | 41 | 167 |
| **TOTALS** | | **425** | **1,420** |

## REHEATING HMA PAVEMENT LONGITUDINAL JOINTS

| STATION - STATION | LOCATION | 460.4110.S LF |
|---|---|---|
| CATEGORY CODE 0010 | | |
| 731'EB'+20 - 742'EB'+00 | LT & RT | 1,757 |
| 732'WB'+44 - 745'WB'+00 | LT & RT | 2,120 |
| 10'RAB'+00 - 14'RAB'+52 | RT | 535 |
| 81'NB'+38 - 84'NB'+00 | LT & RT | 420 |
| CATEGORY CODE 0010 SUBTOTAL | | 4,832 |
| CATEGORY CODE 0020 | | |
| 713'EB'+50 - 731'EB'+20 | LT & RT | 4,493 |
| 715'WB'+00 - 732'WB'+44 | LT & RT | 4,502 |
| 742'EB'+00 - 767'EB'+50 | LT & RT | 6,013 |
| 745'WB'+00 - 767'WB'+22 | LT & RT | 4,977 |
| CATEGORY CODE 0020 SUBTOTAL | | 19,985 |
| CATEGORY CODE 0030 | | |
| 767'EB'+50 - 777'EB'+00 | LT & RT | 2,850 |
| CATEGORY CODE 0030 SUBTOTAL | | 2,850 |
| **TOTAL** | | **27,667** |

## DRILLED TIE BARS AND DRILLED DOWEL BARS

| STATION - STATION | LOCATION | 416.0610 DRILLED TIE BARS EACH | 416.0620 DRILLED DOWEL BARS EACH |
|---|---|---|---|
| CATEGORY CODE 0010 | | | |
| 47'RA'+37 | RT | 3 | -- |
| 57'RB'+59 | LT & RT | 6 | -- |
| CATEGORY CODE 0010 SUBTOTALS | | 9 | -- |
| CATEGORY CODE 0020 | | | |
| 714'EB'+68 | LT & RT | -- | 16 |
| 718'WB'+87 | LT & RT | -- | 9 |
| 718'WB'+87 - 718'WB'+98 | RT | 4 | -- |
| 718+'WB'+98 | LT & RT | -- | 10 |
| 722'WB'+03 | RT | 10 | -- |
| 751-EB'+42 - 751'EB'+54 | LT & RT | -- | 50 |
| CATEGORY CODE 0020 SUBTOTALS | | 14 | 85 |
| CATEGORY CODE 0030 | | | |
| 768'EB'+49 | LT & RT | -- | 16 |
| 768'EB'+55 | LT & RT | -- | 16 |
| 769'EB'+66 | LT & RT | -- | 16 |
| 769'EB'+92 | LT & RT | -- | 16 |
| 771'EB'+71 | LT & RT | -- | 16 |
| 771'EB'+79 | LT & RT | -- | 16 |
| 773'EB'+12 | LT & RT | -- | 16 |
| 773'EB'+18 | LT & RT | -- | 16 |
| 774'EB'+66 | LT & RT | -- | 16 |
| 775'EB'+27 | LT & RT | -- | 16 |
| 775'EB'+48 | LT & RT | -- | 16 |
| 775'EB'+58 | RT | -- | 8 |
| 775'EB'+58 - 775'EB'+68 | C/L | 4 | -- |
| 775'EB'+68 | LT | -- | 8 |
| 775'EB'+89 | LT & RT | -- | 16 |
| 775'EB'+98 | LT & RT | -- | 16 |
| 776'EB'+08 | LT | -- | 8 |
| 776'EB'+08 - 776'EB'+19 | C/L | 4 | -- |
| 776'EB'+19 | LT | -- | 8 |
| 776'EB'+25 | LT & RT | -- | 16 |
| 776'EB'+31 | LT & RT | -- | 16 |
| 776'EB'+51 | LT | -- | 8 |
| 776'EB'+51 - 776'EB'+60 | C/L | 3 | -- |
| 776'EB'+60 | LT | -- | 8 |
| 776'EB'+87 | LT & RT | -- | 16 |
| 776'EB'+93 | LT & RT | -- | 16 |
| 778'EB'+16 - 778'EB'+21 | LT | 5 | -- |
| CATEGORY CODE 0030 SUBTOTALS | | 16 | 320 |
| **TOTALS** | | **39** | **405** |

3

## ASPHALTIC ITEMS

| STATION - STATION | LOCATION | 455.0605 TACK COAT GAL | 460.6223 HMA PAVEMENT 3 MT 58-28 S TON | 460.6225 HMA PAVEMENT 5 MT 58-28 S TON | 460.6424 HMA PAVEMENT 4 MT 58-28 H TON | 465.0105 ASPHALTIC SURFACE TON | 465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON | 465.0125 ASPHALTIC SURFACE TEMPORARY TON |
|---|---|---|---|---|---|---|---|---|
| CATEGORY CODE 0010 | | | | | | | | |
| 731'REB'+20 - 742'REB'+50 | LT & RT | 645 | 2,292 | -- | 1,230 | -- | -- | -- |
| 742'EB'+00 - 746'EB'+26 | RT | 25 | 89 | -- | 50 | -- | -- | -- |
| 745'WB'+00 - 746'WB'+40 | LT | 5 | 27 | -- | 10 | -- | -- | -- |
| TRAFFIC CONTROL STAGE 1 | | 55 | -- | -- | -- | -- | -- | 302 |
| TRAFFIC CONTROL STAGE 2 | | -- | -- | -- | -- | -- | -- | 58 |
| CATEGORY CODE 0010 SUBTOTALS | | 730 | 2,408 | -- | 1,290 | -- | -- | 360 |
| CATEGORY CODE 0020 | | | | | | | | |
| 713'EB'+50 - 731'EB'+20 | LT & RT | 1,880 | -- | 640 | 1,500 | -- | 10 | -- |
| 742'EB'+00 - 758'EB'+00 | LT & RT | 950 | -- | 324 | 760 | -- | -- | -- |
| 742'WB'+66 - 767'EB'+50 | LT & RT | 590 | 2,113 | -- | 1,130 | -- | -- | -- |
| W. WISC. SERVICE RD | LT & RT | 70 | -- | -- | 90 | -- | -- | -- |
| SILVER LAKE DR | LT & RT | 80 | -- | -- | 110 | -- | -- | -- |
| 10'E'+00 - 21'E'+50 | RT | -- | -- | -- | 130 | -- | -- | -- |
| TRAFFIC CONTROL STAGE 1 | | -- | -- | -- | -- | 305 | -- | -- |
| TRAFFIC CONTROL STAGE 2 | | 5 | 19 | -- | 10 | -- | -- | -- |
| CATEGORY CODE 0020 SUBTOTALS | | 3,575 | 2,132 | 964 | 3,730 | 305 | 10 | -- |
| CATEGORY CODE 0030 | | | | | | | | |
| 767'EB'+50 - 777'EB'+00 | LT & RT | 530 | 113 | 166 | 450 | -- | 30 | -- |
| TRAFFIC CONTROL STAGE 1 | | -- | -- | -- | -- | 65 | -- | -- |
| TRAFFIC CONTROL STAGE 2 | | 15 | 47 | -- | 30 | -- | -- | -- |
| CATEGORY CODE 0030 SUBTOTALS | | 545 | 160 | 166 | 480 | 65 | 30 | -- |
| **TOTALS** | | **4,850** | **4,700** | **1,130** | **5,500** | **370** | **40** | **360** |

HMA PAVEMENT WEIGHT CALCULATIONS BASED ON 110 LB/SY/IN.
TACK COAT CALCULATIONS BASED ON 0.070 GAL/SY ON MILLED HMA, PULVERIZED HMA, CONCRETE OR RUBBLIZED CONCRETE
TACK COAT CALCULATIONS BASED ON 0.050 GAL/SY ON PREVIOUSLY PLACED LOWER LAYERS
ASPHALTIC SURFACE WEIGHT CALCULATIONS BASED ON 110 LB/SY/IN.

## CONCRETE CURB AND GUTTER ITEMS

| STATION - STATION | LOCATION | 601.0405 CONCRETE CURB & GUTTER 18-INCH TYPE A LF | 601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF | 601.0553 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D LF | 601.0580 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE R LF | 601.0600 CONCRETE CURB PEDESTRIAN LF | 650.5500 CONSTRUCTION STAKING CURB, GUTTER AND CURB & GUTTER LF | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| CATEGORY CODE 0010 | | | | | | | | |
| 733'REB'+65 - 736'REB'+65 | LT & RT | -- | 874 | 76 | -- | 101 | 950 | WEST OF RAB |
| 10'RAB'+00 - 14'RAB'+52 | LT & RT | 305 | 199 | 688 | 440 | -- | 887 | RAB & TRUCK APRONS |
| 738'REB'+43 - 741'REB'+50 | LT & RT | -- | 757 | 76 | -- | 86 | 833 | EAST OF RAB |
| 47'RA'+37 - 49'RA'+91 | LT & RT | -- | 666 | -- | -- | 66 | 666 | SOUTH OF RAB |
| 80'NB'+09 - 81'NB'+90 | LT & RT | -- | 424 | -- | -- | 72 | 424 | NORTH OF RAB |
| CATEGORY CODE 0010 SUBTOTALS | | 305 | 2,920 | 840 | 440 | 325 | 3,760 | |
| CATEGORY CODE 0020 | | | | | | | | |
| 722'WB'+03 | RT | -- | 9 | -- | -- | -- | 9 | INLET ADJUSTMENT |
| 766'WB'+84 - 766'WB'+98 | LT | -- | 18 | -- | -- | -- | 18 | SILVER LAKE DR CURB RAMP |
| TRAFFIC SIGNAL UNDISTRIBUTED | | -- | 20 | -- | -- | -- | 20 | -- |
| CATEGORY CODE 0020 SUBTOTALS | | -- | 47 | -- | -- | -- | 47 | |
| CATEGORY CODE 0030 | | | | | | | | |
| 771'EB'+00 - 778'EB'+21 | LT | -- | 723 | -- | -- | -- | 723 | SIDEWALK SEPARATION |
| CATEGORY CODE 0030 SUBTOTALS | | -- | 723 | -- | -- | -- | 723 | |
| **TOTALS** | | **305** | **3,690** | **840** | **440** | **325** | **4,530** | |

## CONCRETE SIDEWALK & DETECTABLE WARNING FIELD ITEMS

| STATION - STATION | LOCATION | 602.0405 CONCRETE SIDEWALK 4-INCH SF | 602.0415 CONCRETE SIDEWALK 6-INCH SF | 602.0515 CURB RAMP DETECTABLE WARINING FIELD NATURAL PATINA SF | COMMENTS |
|---|---|---|---|---|---|
| CATEGORY CODE 0010 | | | | | |
| 735'REB'+85 - 736'REB'+65 | LT | 3,560 | -- | 40 | -- |
| 738'REB'+44 - 739'REB'+44 | LT | 2,560 | -- | 40 | -- |
| 47'RA'+37 - 49'RA'+91 | RT | 2,760 | -- | 40 | -- |
| 80'NB'+09 - 81'NB'+41 | LT | 2,160 | -- | 40 | -- |
| 18'NW'+45 - 21'NW'+52 | RT | 1,440 | 298 | 40 | -- |
| 18'NE'+03 - 21'NE'+39 | RT | 1,570 | 189 | 40 | -- |
| 19'SE'+36 - 21'SE'+37 | RT | 940 | 102 | 40 | -- |
| 18'SW'+03 - 20'SW'+77 | RT | 1,390 | 66 | 40 | -- |
| CATEGORY CODE 0010 SUBTOTALS | | 16,380 | 655 | 320 | |
| CATEGORY CODE 0020 | | | | | |
| 766'WB'+84 - 767'WB'+02 | LT | -- | 180 | 10 | SILVER LAKE DR CURB RAMP |
| CATEGORY CODE 0020 SUBTOTALS | | -- | 180 | 10 | -- |
| CATEGORY CODE 0030 | | | | | |
| 771'EB'+11 - 774'EB'+36 | LT | 1,970 | -- | -- | -- |
| CATEGORY CODE 0030 SUBTOTALS | | 1,970 | -- | -- | -- |
| **TOTALS** | | **18,350** | **835** | **330** | **--** |

*CURB RAMPS ON THE OUTSIDE OF THE RAB TO BE PAID FOR AS CONCRETE TRUCK APRON 12-INCH
*BIKE RAMPS AND CURB RAMPS INSIDE THE MEDIAN TO BE PAID FOR AS CONCRETE SIDEWALK 4-INCH

## CULVERT PIPE ITEMS

| STATION | LOCATION | 520.8000 Concrete Collars for Pipe EACH | 522.0124 Culvert Pipe Reinforced Concrete Class III 24-Inch LF | 522.0130 Culvert Pipe Reinforced Concrete Class III 30-Inch LF | 522.0136 Culvert Pipe Reinforced Concrete Class III 36-Inch LF | 522.1024 Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch EACH | 522.1030 Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch EACH | 522.1036 Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch EACH | 522.2429 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 29x45-Inch LF | 522.2629 Apron Endwalls for Culvert Pipe Reinforced Concrete Horizont al Elliptical 29x45-Inch EACH | 611.0642 Inlet Covers Type MS EACH | 611.3902 Inlets Median 2 Grate EACH | 633.5200 ** Markers Culvert End EACH | 650.6000 Construction Staking Pipe Culverts EACH | * JOINT TIES EACH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CATEGORY CODE 0010 | | | | | | | | | | | | | | | |
| 58+69 | RAMPB-RAB | -- | -- | 112 | -- | -- | 2 | -- | -- | -- | -- | -- | 2 | 1 | 12 |
| 742+05 | 16EB-RAB | -- | -- | -- | 78 | -- | -- | 1 | -- | -- | 2 | 1 | 1 | 1 | 6 |
| 742+35 | 16WB-RAB | -- | -- | -- | 90 | -- | -- | 1 | -- | -- | -- | -- | 1 | -- | 6 |
| CATEGORY CODE 0010 SUBTOTALS | | -- | -- | 112 | 168 | -- | 2 | 2 | -- | -- | 2 | 1 | 4 | 2 | 24 |
| CATEGORY CODE 0020 | | | | | | | | | | | | | | | |
| 746+93, RT | 16EB | 1 | 4 | -- | -- | 1 | -- | -- | -- | -- | -- | -- | 1 | 1 | 6 |
| 751+48 | 16EB | -- | -- | -- | -- | -- | -- | -- | 82 | 1 | 2 | 1 | 1 | 1 | 6 |
| 751+86 | 16WB | -- | -- | -- | -- | -- | -- | -- | 89 | 1 | -- | -- | 1 | -- | 6 |
| 755+44, RT | 16EB | 1 | -- | 6 | -- | -- | 1 | -- | -- | -- | -- | -- | 1 | 1 | 6 |
| CATEGORY CODE 0020 SUBTOTALS | | 2 | 4 | 6 | -- | 1 | 1 | -- | 171 | 2 | 2 | 1 | 4 | 3 | 24 |
| **TOTALS** | | **2** | **4** | **118** | **168** | **1** | **3** | **2** | **171** | **2** | **4** | **2** | **8** | **5** | **48** |

* NON-BID ITEM: FOR INFORMATION ONLY

** ADDITIONAL QUANTIES SHOWN ELSEWHERE IN PLAN

## RIPRAP AND GEOTEXTILE FABRIC ITEMS

| STATION - STATION | LOCATION | 606.0200 RIPRAP MEDIUM CY | 645.0120 GEOTEXTILE TYPE HR SY | COMMENTS |
|---|---|---|---|---|
| CATEGORY CODE 0010 | | | | |
| 738'REB'+76 | RT | 3 | 10 | AT END OF AEW |
| 739'REB'+85 | RT | 7 | 22 | AT FLUME |
| 740'RWB'+93 | LT | 7 | 22 | AT FLUME |
| 741'REB'+54 - 741'REB'+83 | RT | 39 | 106 | AT END OF AEW |
| 741'RWB'+94 - 742'RWB'+13 | LT | 10 | 31 | AT END OF AEW |
| 58'RB'+59 | RT | 6 | 20 | AT END OF AEW |
| 81'SB'+36 | LT | 5 | 19 | AT END OF AEW |
| 81'NB'+52 | RT | 7 | 22 | AT FLUME |
| 82'SB'+00 | LT | 7 | 22 | AT FLUME |
| UNDISTRIBUTED | | 22 | 69 | |
| CATEGORY CODE 0010 SUBTOTALS | | 113 | 343 | |
| CATEGORY CODE 0020 | | | | |
| 751'EB'+48 | RT | 19 | 51 | AT END OF AEW |
| 751'WB'+91 | LT | 9 | 26 | AT END OF AEW |
| UNDISTRIBUTED | | 7 | 18 | |
| CATEGORY CODE 0020 SUBTOTALS | | 35 | 95 | |
| CATEGORY CODE 0030 | | | | |
| 771'EB'+25 | LT | 2 | 10 | AT END OF AEW |
| UNDISTRIBUTED | | -- | 2 | |
| CATEGORY CODE 0030 SUBTOTALS | | 2 | 12 | |
| **TOTALS** | | **150** | **450** | |

## STEEL PLATE BEAM GUARD ITEMS

| STATION - STATION | LOCATION | 614.0220 STEEL THRIE BEAM BULLNOSE TERMINAL EACH | 614.0230 STEEL THRIE BEAM LF | 614.2300 MGS GUARDRAIL 3 LF | 614.2610 MGS GUARDRAIL TERMINAL EAT EACH | 614.2620 MGS GUARDRAIL TERMINAL TYPE 2 EACH |
|---|---|---|---|---|---|---|
| CATEGORY CODE 0010 | | | | | | |
| 732'REB'+65 - 733'EB'+65 | LT & RT | -- | -- | 100.0 | 2.0 | 2.0 |
| 741'REB'+50 - 744'EB'+75 | RT | -- | -- | 225.0 | 2.0 | -- |
| 742'EB'+03 - 744'EB'+68 | LT | 2.0 | 325.0 | -- | -- | -- |
| 742'RWB'+63 - 745'WB'+26 | LT | -- | -- | 212.5 | 1.0 | 1.0 |
| CATEGORY CODE 0010 SUBTOTALS | | 2.0 | 325.0 | 537.5 | 5.0 | 3.0 |
| CATEGORY CODE 0020 | | | | | | |
| 761'NEB'+05 - 761'NEB'+93 | RT | -- | -- | 37.5 | 1.0 | 1.0 |
| CATEGORY CODE 0020 SUBTOTALS | | -- | -- | 37.5 | 1.0 | 1.0 |
| **TOTALS** | | **2.0** | **325.0** | **575.0** | **6.0** | **4.0** |

## CULVERT PIPE TEMPORARY ITEMS

| STATION | LOCATION | 520.2018 CULVERT PIPE TEMPORARY 18-INCH LF | 524.0618 APRON ENDWALLS FOR CULVERT PIPE SALVAGED 18-INCH EACH |
|---|---|---|---|
| CATEGORY CODE 0010 | | | |
| 302'TA'+17 | LT | 14 | 1 |
| **TOTALS** | | **14** | **1** |

## CONCRETE MEDIAN SLOPED NOSE

| STATION | LOCATION | 620.0300 SF | COMMENTS |
|---|---|---|---|
| CATEGORY CODE 0010 | | | |
| 736'REB'+64 | LT | 18 | TYPE 2 |
| 736'RWB'+99 | RT | 22 | TYPE 2 |
| 738'REB'+45 | LT | 22 | TYPE 2 |
| 738'RWB'+79 | RT | 18 | TYPE 2 |
| 49'RA'+90 | RT | 22 | TYPE 2 |
| 59'RB'+93 | LT | 18 | TYPE 2 |
| 80'SB'+16 | RT | 18 | TYPE 2 |
| 80'NB'+10 | LT | 22 | TYPE 2 |
| 81'NB'+36 | LT | 60 | TYPE 1 |
| **TOTAL** | | **220** | |

## STORM SEWER PIPES

| FROM | - | TO | LOCATION | 608.0415 Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch LF | * JOINT TIES EACH |
|---|---|---|---|---|---|
| CATEGORY CODE 0010 | | | | | |
| 10.1 | - | 10.2 | 16EB-RAB | 67 | -- |
| 10.2 | - | 10.3 | 16EB-RAB | 32 | -- |
| 10.3 | - | 10.4 | 16EB-RAB | 48 | 6 |
| 11.1 | - | 11.2 | 16WB-RAB | 45 | -- |
| 11.2 | - | 11.3 | 16WB-RAB | 15 | 6 |
| 12.1 | - | 12.2 | RAB | 35 | -- |
| 12.2 | - | 12.3 | RAB | 23 | -- |
| 12.3 | - | 12.4 | 16EB-RAB | 112 | 6 |
| 20.1 | - | 20.2 | RAMPA-RAB | 6 | -- |
| 20.2 | - | 20.3 | RAMPB-RAB | 20 | -- |
| 20.3 | - | 20.4 | RAMPB-RAB | 28 | 6 |
| 21.1 | - | 21.2 | RAMPB-RAB | 21 | -- |
| 21.2 | - | 21.3 | RAMPB-RAB | 21 | -- |
| 21.3 | - | 21.4 | RAMPA-RAB | 20 | -- |
| 21.4 | - | 21.5 | RAMPA-RAB | 27 | 6 |
| 30.1 | - | 30.2 | 127NB-RAB | 8 | -- |
| 30.2 | - | 30.3 | 127SB-RAB | 53 | 6 |
| CATEGORY CODE 0010 SUBTOTALS | | | | 581 | 36 |
| CATEGORY CODE 0030 | | | | | |
| 40.1 | - | 40.2 | 16EB | 20 | -- |
| 40.2 | - | 40.3 | 16EB | 23 | 6 |
| 41.1 | - | 41.2 | 16EB | 20 | -- |
| 41.2 | - | 41.3 | 16EB | 21 | 6 |
| CATEGORY CODE 0030 SUBTOTALS | | | | 84 | 12 |
| **TOTALS** | | | | **665** | **48** |

* NON-BID ITEM: FOR INFORMATION ONLY

## ADJUSTING INLET COVER ITEMS

| STATION | LOCATION | EXISTING ELEVATION | FINISHED ELEVATION | 611.8115 ADJUSTING INLET COVERS EACH | COMMENTS |
|---|---|---|---|---|---|
| CATEGORY CODE 0020 | | | | | |
| 720'WB'+40 | RT | 809.52 | 809.73 | 1 | 0.21' ADJUSTMENT UP |
| 722'WB'+03 | RT | 813.90 | 814.11 | 1 | 0.21' ADJUSTMENT UP |
| **TOTALS** | | | | **2** | |

## STORM SEWER STRUCTURES

| STRUCTURE | STATION | OFFSET* | LOCATION | 522.1015 Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch EACH | 611.0624 Inlet Covers Type H EACH | 611.0636 Inlet Covers Type HM-S EACH | 611.0639 Inlet Covers Type H-S EACH | 611.0652 Inlet Covers Type T EACH | 611.3225 Inlets 2x2.5-FT EACH | 611.3230 Inlets 2x3-FT EACH | 611.8120.S Cover Plates Temporary EACH | 633.5200 ** Markers Culvert End EACH | 650.4000 Construction Staking Storm Sewer EACH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CATEGORY CODE 0010 | | | | | | | | | | | | | |
| 10.1 | 14+14 | 21.5' RT | RAB | -- | 1 | -- | -- | -- | -- | 1 | 1 | -- | 1 |
| 10.2 | 736+05 | 13.5' LT | 16EB-RAB | -- | -- | -- | 1 | -- | -- | 1 | -- | -- | 1 |
| 10.3 | 735+95 | 17.5' RT | 16EB-RAB | -- | -- | -- | 1 | -- | -- | 1 | -- | -- | 1 |
| 10.4 | 735+74 | 84.9' RT | 16EB-RAB | 1 | -- | -- | -- | -- | -- | -- | -- | 1 | 1 |
| 11.1 | 736+12 | 13.5' RT | 16WB-RAB | -- | -- | -- | 1 | -- | -- | 1 | -- | -- | 1 |
| 11.2 | 735+85 | 21.5' LT | 16WB-RAB | -- | 1 | -- | -- | -- | -- | 1 | -- | -- | 1 |
| 11.3 | 735+85 | 37' LT | 16WB-RAB | 1 | -- | -- | -- | -- | -- | -- | -- | 1 | 1 |
| 12.1 | 11+13 | 1.7' RT | RAB | -- | -- | -- | -- | 1 | 1 | -- | -- | -- | 1 |
| 12.2 | 11+49 | 1.7' RT | RAB | -- | -- | -- | -- | 1 | 1 | -- | -- | -- | 1 |
| 12.3 | 11+49 | 21.5' RT | RAB | -- | 1 | -- | -- | -- | -- | 1 | -- | -- | 1 |
| 12.4 | 739+06 | 84.5' RT | 16EB-RAB | 1 | -- | -- | -- | -- | -- | -- | -- | 1 | 1 |
| 20.1 | 47+74 | 1.5' RT | RAMPA-RAB | -- | 1 | -- | -- | -- | -- | 1 | -- | -- | 1 |
| 20.2 | 57+83 | 1.5' RT | RAMPB-RAB | -- | 1 | -- | -- | -- | -- | 1 | -- | -- | 1 |
| 20.3 | 57+83 | 18.5' RT | RAMPB-RAB | -- | 1 | -- | -- | -- | -- | 1 | -- | -- | 1 |
| 20.4 | 57+83 | 52' RT | RAMPB-RAB | 1 | -- | -- | -- | -- | -- | -- | -- | 1 | 1 |
| 21.1 | 59+50 | 19.5' RT | RAMPB-RAB | -- | -- | 1 | -- | -- | -- | 1 | -- | -- | 1 |
| 21.2 | 59+50 | 1.5' RT | RAMPB-RAB | -- | -- | -- | 1 | -- | -- | 1 | -- | -- | 1 |
| 21.3 | 49+33 | 1.5' RT | RAMPA-RAB | -- | -- | -- | 1 | -- | -- | 1 | 1 | -- | 1 |
| 21.4 | 49+28 | 17.7' RT | RAMPA-RAB | -- | -- | 1 | -- | -- | -- | 1 | -- | -- | 1 |
| 21.5 | 49+24 | 44.8' RT | RAMPA-RAB | 1 | -- | -- | -- | -- | -- | -- | -- | 1 | 1 |
| 30.1 | 81+32 | 1.5' RT | 127NB-RAB | -- | 1 | -- | -- | -- | -- | 1 | -- | -- | 1 |
| 30.2 | 81+31 | 1.5' RT | 127SB-RAB | -- | 1 | -- | -- | -- | -- | 1 | -- | -- | 1 |
| 30.3 | 81+36 | 51.4' RT | 127SB-RAB | 1 | -- | -- | -- | -- | -- | -- | -- | 1 | 1 |
| CATEGORY CODE 0010 SUBTOTALS | | | | 6 | 8 | 2 | 5 | 2 | 2 | 15 | 2 | 6 | 23 |
| CATEGORY CODE 0030 | | | | | | | | | | | | | |
| 40.1 | 771+15 | 19.5' RT | 16EB | -- | 1 | -- | -- | -- | -- | 1 | -- | -- | 1 |
| 40.2 | 771+25 | 19.5' RT | 16EB | -- | 1 | -- | -- | -- | -- | 1 | -- | -- | 1 |
| 40.3 | 771+25 | 41' RT | 16EB | 1 | -- | -- | -- | -- | -- | -- | -- | 1 | 1 |
| 41.1 | 774+39 | 19.5' RT | 16EB | -- | 1 | -- | -- | -- | -- | 1 | -- | -- | 1 |
| 41.2 | 774+19 | 19.5' RT | 16EB | -- | 1 | -- | -- | -- | -- | 1 | -- | -- | 1 |
| 41.3 | 774+19 | 40' RT | 16EB | 1 | -- | -- | -- | -- | -- | -- | -- | 1 | 1 |
| CATEGORY CODE 0030 SUBTOTALS | | | | 2 | 4 | -- | -- | -- | -- | 4 | -- | 2 | 6 |
| **TOTALS** | | | | **8** | **12** | **2** | **5** | **2** | **2** | **19** | **2** | **8** | **29** |

REMARKS
* STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE
** ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS

3



FILE NAME : 11610274-030201-mq.ppt PLOT DATE: 1/2/2018 12:55 PM PLOT BY : gaajs PLOT SCALE : 1:1

3

## RESTORATION ITEMS

| STATION - STATION | 625.0500 SALVAGED TOPSOIL SY | 627.0200 MULCHING SY | 628.2004 EROSION MAT CLASS I TYPE B SY | 628.2006 EROSION MAT URBAN CLASS I TYPE A SY | 629.0205 FERTILIZER TYPE A CWT | 630.0120 SEED MIX NO. 20 LB | 630.0130 SEED MIX NO. 30 LB | 630.0200 SEEDING TEMPORARY LB | SPV.0035.01 PLANTING MIXTURE CY |
|---|---|---|---|---|---|---|---|---|---|
| CATEGORY CODE 0010 | | | | | | | | | |
| 731'REB'+21 RT - 47'RA'+37 LT | 4,381 | 2,188 | 1,796 | 397 | 2.8 | 118 | -- | -- | -- |
| 731'REB'+21 LT - 735'REB'+85 LT | 1,148 | 395 | 219 | 534 | 0.7 | -- | 21 | -- | -- |
| 732'RWB'+43 LT - 84'NB'+00 LT | 3,537 | 2,700 | 402 | 435 | 2.2 | 96 | -- | -- | -- |
| 57'RB'+59 RT - 747'EB'+00 RT | 4,388 | 4,024 | -- | 364 | 2.8 | 118 | -- | -- | -- |
| 84'NB'+00 RT - 746'WB'+62 LT | 3,647 | 3,205 | -- | 442 | 2.3 | 99 | -- | -- | -- |
| 739'REB'+44 LT - 747'EB'+00 LT | 1,958 | 1,422 | 92 | 444 | 1.2 | -- | 35 | -- | -- |
| 10'RAB'+00 LT - 14'RAB'+52 LT | -- | -- | -- | -- | -- | -- | -- | -- | 263 |
| TRAFFIC CONTROL UNDISTRIBUTED | 814 | -- | -- | -- | -- | -- | -- | -- | -- |
| UNDISTRIBUTED | 4,966 | 3,483 | 629 | 655 | 3.0 | 108 | 14 | 70 | 67 |
| CATEGORY CODE 0010 SUBTOTALS | 24,839 | 17,417 | 3,138 | 3,271 | 15.0 | 539 | 70 | 70 | 330 |
| CATEGORY CODE 0020 | | | | | | | | | |
| 750'EB'+51 RT - 765'NEB'+20 RT | 4,569 | 3,324 | 1,245 | -- | 3 | 123 | -- | -- | -- |
| 751'EB'+28 LT - 751'EB'+68 LT | 124 | -- | 124 | -- | | -- | 2 | -- | -- |
| 766'WB'+78 LT - 767'WB'+03 LT | 13 | -- | -- | 13 | -- | -- | -- | -- | -- |
| UNDISTRIBUTED | 1,176 | 831 | 343 | 3 | 1 | 31 | 1 | 20 | -- |
| CATEGORY CODE 0020 SUBTOTALS | 5,882 | 4,155 | 1,712 | 16 | 3.8 | 154 | 3 | 20 | -- |
| CATEGORY CODE 0030 | | | | | | | | | |
| 766'EB'+95 RT - 771'EB'+00 RT | 1,174 | 1,174 | -- | -- | 1 | 32 | -- | -- | -- |
| 770'EB'+56 LT - 778'EB'+16 LT | 1,513 | -- | 1,119 | 394 | 1 | 41 | -- | -- | -- |
| UNDISTRIBUTED | 672 | 294 | 281 | 99 | | 18 | -- | 10 | -- |
| CATEGORY CODE 0030 SUBTOTALS | 3,359 | 1,468 | 1,400 | 493 | 2.1 | 91 | -- | 10 | -- |
| **TOTALS** | **34,080** | **23,040** | **6,250** | **3,780** | **20.9** | **784** | **73** | **100** | **330** |

## SILT FENCE ITEMS

| STATION - STATION | 628.1504 SILT FENCE LF | 628.1520 SILT FENCE MAINTENANE LF |
|---|---|---|
| CATEGORY CODE 0010 | | |
| 736'RWB'+50 LT - 874'NB'+35 LT | 524 | 524 |
| 84'NB'+25 RT - 742'RWB'+50 LT | 781 | 781 |
| 744'RWB'+44 LT - 746'WB'+88 LT | 249 | 249 |
| 744'EB'+75 RT - 747'EB'+30 RT | 265 | 265 |
| 57'RB'+25 RT - 58'RB'+53 RT | 165 | 165 |
| UNDISTRIBUTED | 498 | 498 |
| CATEGORY CODE 0010 SUBTOTALS | 2,482 | 2,482 |
| CATEGORY CODE 0020 | | |
| 751'WB'+37 LT - 752'WB'+37 LT | 102 | 102 |
| UNDISTRIBUTED | 26 | 26 |
| CATEGORY CODE 0020 SUBTOTALS | 128 | 128 |
| **TOTALS** | **2,610** | **2,610** |

## EROSION CONTROL MOBILIZATIONS ITEMS

| LOCATION | 628.1905 EROSION CONTROL MOBILIZATION EACH | 628.1910 EMERGENCY EROSION CONTROL MOBILIZATION EACH |
|---|---|---|
| CATEGORY CODE 0010 | 9 | 5 |
| CATEGORY CODE 0020 | 3 | 1 |
| CATEGORY CODE 0030 | 3 | 1 |
| **TOTALS** | **15** | **7** |

## TRACKING PAD

| STATION | 628.7560 EACH |
|---|---|
| CATEGORY CODE 0010 | |
| STH 16 EB | 2 |
| STH 16 WB | 2 |
| STH 127 | 1 |
| RAMP 'A' | 1 |
| **TOTAL** | **6** |

## INLET PROTECTION ITEMS

| LOCATION | 628.7005 INLET PROTECTION TYPE A EACH | 628.7010 INLET PROTECTION TYPE B EACH | 628.7015 INLET PROTECTION TYPE C EACH | 628.7020 INLET PROTECTION TYPE D EACH |
|---|---|---|---|---|
| CATEGORY CODE 0010 | | | | |
| EXISTING STRUCTURES | 1 | -- | 1 | -- |
| PROPOSED STRUCTURES | 1 | 2 | 12 | 3 |
| UNDISTRIBUTED | -- | 1 | 3 | 1 |
| CATEGORY CODE 0010 SUBTOTALS | 2 | 3 | 16 | 4 |
| CATEGORY CODE 0020 | | | | |
| EXISTING STRUCTURES | 5 | 1 | 2 | -- |
| PROPOSED STRUCTURES | 1 | -- | -- | -- |
| UNDISTRIBUTED | 2 | -- | 1 | -- |
| CATEGORY CODE 0020 SUBTOTALS | 8 | 1 | 3 | -- |
| CATEGORY CODE 0030 | | | | |
| EXISTING STRUCTURES | -- | -- | -- | -- |
| PROPOSED STRUCTURES | -- | -- | 4 | -- |
| UNDISTRIBUTED | -- | -- | 1 | -- |
| CATEGORY CODE 0030 SUBTOTALS | -- | -- | 5 | -- |
| **TOTALS** | **10** | **4** | **24** | **4** |

## DITCH CHECK ITEMS

| STATION | 628.7504 TEMPORARY DITCH CHECKS LF | 628.7555 CULVERT PIPE CHECKS EACH | 628.7570 ROCK BAGS EACH |
|---|---|---|---|
| CATEGORY CODE 0010 | | | |
| 731'EB'+00 RT - 48'RA'+70 LT | 24 | 5 | -- |
| 732'WB'+00 LT - 84'NB'+00 LT | 48 | -- | 17 |
| 58'RB'+97 RT - 741'REB'+74 RT | 24 | 7 | 17 |
| 84'NB'+00 RT - 742'RWB'+19 LT | 12 | -- | 51 |
| 744'EB'+70 RT | 12 | -- | -- |
| 746'WB'+44 LT | -- | -- | 17 |
| UNDISTRIBUTED | 30 | 3 | 28 |
| CATEGORY CODE 0010 SUBTOTALS | 150 | 15 | 130 |
| CATEGORY CODE 0020 | | | |
| 746'EB'+90 RT | -- | 3 | -- |
| 751'EB'+48 RT - 762'EB'+84 RT | 48 | 15 | -- |
| 766'EB'+69 LT | -- | 3 | -- |
| 766'EB'+72 RT | -- | 5 | -- |
| UNDISTRIBUTED | 12 | 6 | -- |
| CATEGORY CODE 0020 SUBTOTALS | 60 | 32 | -- |
| CATEGORY CODE 0030 | | | |
| 771'EB'+31 LT | -- | 2 | -- |
| UNDISTRIBUTED | -- | 1 | -- |
| CATEGORY CODE 0030 SUBTOTALS | -- | 3 | -- |
| **TOTALS** | **210** | **50** | **130** |

## EXISTING SIGNING ITEMS

| EXISTING SIGN STATION | LOCATION | EXISTING ROADWAY | 638.2102 MOVING SIGNS TYPE II EACH | 638.2602 REMOVING SIGNS TYPE II EACH | 638.3000 REMOVING SMALL SIGN SUPPORTS EACH | 638.4000 MOVING SMALL SIGN SUPPORTS EACH | COMMENTS |
|---|---|---|---|---|---|---|---|
| CATEGORY CODE 0010 | | | | | | | |
| 732'REB'+18 | RT | STH 16 | -- | 1 | 1 | -- | -- |
| 732'REB'+20 | LT | STH 16 | -- | 1 | 1 | -- | -- |
| 733'RWB'+34 | LT | STH 16 | -- | 1 | 1 | -- | -- |
| 734'REB'+24 | LT | STH 16 | -- | 1 | 2 | -- | -- |
| 734'REB'+24 | RT | STH 16 | -- | 1 | 2 | -- | -- |
| 734'RWB'+42 | LT | STH 16 | -- | 1 | 1 | -- | -- |
| 736'REB'+42 | LT | STH 16 | -- | 1 | 1 | -- | -- |
| 736'REB'+70 | RT | STH 16 | -- | 1 | 1 | -- | -- |
| 736'REB'+82 | RT | STH 16 | -- | 1 | 1 | -- | -- |
| 49'RA'+76 | LT | RAMP 'A' | -- | 1 | 1 | -- | -- |
| 49'RA'+83 | RT | RAMP 'A' | -- | 1 | 1 | -- | -- |
| 47'RA'+99 | LT | RAMP 'A' | -- | 1 | 1 | -- | -- |
| 47'RA'+00 | LT | RAMP 'A' | -- | 1 | 1 | -- | -- |
| 53'RB'+00 | LT | RAMP 'B' | -- | 1 | 1 | -- | -- |
| 59'RB'+35 | RT | RAMP 'B' | -- | 1 | 1 | -- | -- |
| 59'RB'+41 | RT | RAMP 'B' | -- | 1 | 1 | -- | -- |
| 59'RB'+46 | RT | RAMP 'B' | -- | 1 | 1 | -- | -- |
| 59'RB'+52 | RT | RAMP 'B' | -- | 1 | 1 | -- | -- |
| 737'REB'+97 | LT | RAMP 'B' | -- | 1 | 1 | -- | -- |
| 738'REB'+04 | LT | RAMP 'B' | -- | 1 | 1 | -- | -- |
| 737'RWB'+04 | RT | STH 127 | -- | 1 | 1 | -- | -- |
| 737'RWB'+13 | RT | STH 127 | -- | 1 | 1 | -- | -- |
| 737'RWB'+38 | RT | STH 127 | -- | 1 | 1 | -- | -- |
| 81'NB'+01 | LT | STH 127 | -- | 1 | 1 | -- | -- |
| 81'SB'+18 | LT | STH 127 | -- | 1 | 2 | -- | -- |
| 83'NB'+01 | RT | STH 127 | -- | 1 | 1 | -- | -- |
| 85'NB'+08 | LT | STH 127 | -- | 1 | 2 | -- | -- |
| 738'RWB'+50 | RT | STH 16 | -- | 1 | 1 | -- | -- |
| 738'RWB'+57 | RT | STH 16 | -- | 1 | 2 | -- | -- |
| 738'REB'+14 | LT | STH 16 | -- | 1 | 1 | -- | -- |
| 738'RWB'+20 | RT | STH 16 | -- | 1 | 1 | -- | -- |
| 738'REB'+33 | RT | RAMP 'B' | -- | 1 | 1 | -- | -- |
| 739'REB'+06 | RT | STH 16 | -- | 1 | 1 | -- | -- |
| 739'REB'+17 | LT | STH 16 | -- | 1 | 1 | -- | -- |
| 739'REB'+14 | RT | RAMP 'B' | -- | 1 | 1 | -- | -- |
| 739'RWB'+99 | LT | STH 16 | -- | 1 | 2 | -- | -- |
| 741'RWB'+90 | RT | STH 16 | -- | 1 | 1 | -- | -- |
| 741'RWB'+91 | LT | STH 16 | -- | 1 | 1 | -- | -- |
| 743'RWB'+62 | RT | STH 16 | 2 | 1 | 2 | 4 | MOVE SIGN FOR STAGE 2A & 3 |
| CATEGORY CODE 0010 SUBTOTALS | | | 2 | 39 | 46 | 4 | |
| CATEGORY CODE 0020 | | | | | | | |
| 715'WB'+64 | LT | STH 16 | -- | 1 | 1 | -- | -- |
| 719'WB'+50 | LT | STH 16 | -- | 1 | 1 | -- | -- |
| 719'EB'+62 | LT | STH 16 | -- | 1 | 1 | -- | -- |
| 719'EB'+94 | RT | STH 16 | -- | 1 | 1 | -- | -- |
| 719'EB'+96 | LT | STH 16 | -- | 1 | 1 | -- | -- |
| 723'EB'+33 | RT | STH 16 | -- | 1 | 1 | -- | -- |
| 724'WB'+40 | LT | STH 16 | -- | 1 | 1 | -- | -- |
| 724'WB'+41 | RT | STH 16 | -- | 1 | 1 | -- | -- |
| 724'EB'+98 | RT | STH 16 | -- | 1 | 1 | -- | -- |
| 725'WB'+57 | RT | STH 16 | -- | 1 | 1 | -- | -- |
| 725'WB'+77 | LT | LA DAWN DRIVE | -- | 1 | -- | -- | -- |
| 726'EB'+75 | LT | STH 16 | -- | 1 | 1 | -- | -- |
| 727'EB'+00 | RT | MURPHY ROAD | -- | 1 | 1 | -- | -- |
| 727'WB'+32 | LT | STH 16 | -- | 1 | 1 | -- | -- |
| 727'WB'+33 | RT | STH 16 | -- | 1 | 1 | -- | -- |

3

## EXISTING SIGNING ITEMS

| EXISTING SIGN STATION | LOCATION | EXISTING ROADWAY | 638.2102 MOVING SIGNS TYPE II EACH | 638.2602 REMOVING SIGNS TYPE II EACH | 638.3000 REMOVING SMALL SIGN SUPPORTS EACH | 638.4000 MOVING SMALL SIGN SUPPORTS EACH | COMMENTS |
|---|---|---|---|---|---|---|---|
| 727'EB'+52 | LT | STH 16 | -- | 1 | 2 | -- | -- |
| 727'EB'+52 | RT | STH 16 | -- | 1 | 2 | -- | -- |
| 728'EB'+37 | LT | STH 16 | -- | 1 | 1 | -- | -- |
| 728'EB'+38 | RT | STH 16 | -- | 1 | 1 | -- | -- |
| 728'WB'+44 | LT | STH 16 | -- | 1 | 1 | -- | -- |
| 729'WB'+82 | RT | STH 16 | -- | 1 | 1 | -- | -- |
| 729'WB'+84 | LT | STH 16 | -- | 1 | 1 | -- | -- |
| 730'EB'+05 | LT | STH 16 | -- | 1 | 1 | -- | -- |
| 730'EB'+07 | RT | STH 16 | 2 | 1 | 2 | 4 | MOVE SIGN FOR STAGE 2A & 3 |
| 731'WB'+06 | LT | STH 16 | 1 | 1 | 2 | 2 | MOVE SIGN FOR STAGE 3 |
| 742'EB'+50 | LT | STH 16 | -- | 1 | 1 | -- | -- |
| 745'WB'+29 | LT | STH 16 | -- | 1 | 1 | -- | -- |
| 745'EB'+35 | LT | STH 16 | 1 | 1 | 2 | 2 | MOVE SIGN FOR STAGE 3 |
| 746'EB'+90 | RT | STH 16 | -- | 1 | 1 | -- | -- |
| 747'WB'+86 | LT | STH 16 | -- | 1 | 1 | -- | -- |
| 748'EB'+09 | LT | STH 16 | -- | 1 | 1 | -- | -- |
| 748'WB'+61 | RT | STH 16 | -- | 1 | 1 | -- | -- |
| 748'WB'+78 | RT | STH 16 | -- | 1 | 1 | -- | -- |
| 749'EB'+00 | LT | STH 16 | -- | 1 | 1 | -- | -- |
| 749'WB'+53 | RT | STH 16 | -- | 1 | 1 | -- | -- |
| 749'EB'+68 | RT | STH 16 | -- | 1 | 1 | -- | -- |
| 750'WB'+03 | LT | STH 16 | -- | 1 | 1 | -- | -- |
| 753'EB'+54 | RT | STH 16 | -- | 1 | 2 | -- | -- |
| 755'EB'+76 | RT | STH 16 | -- | 1 | 1 | -- | -- |
| 755'EB'+78 | LT | STH 16 | -- | 1 | 1 | -- | -- |
| 756'WB'+62 | LT | STH 16 | 1 | 1 | 2 | 2 | MOVE SIGN FOR STAGE 3 |
| 757'EB'+00 | RT | STH 16 | -- | 1 | 1 | -- | -- |
| 757'EB'+88 | LT | STH 16 | -- | 1 | 1 | -- | -- |
| 757'EB'+88 | RT | STH 16 | -- | 1 | 1 | -- | -- |
| 759'EB'+09 | RT | STH 16 | -- | 1 | 1 | -- | -- |
| 759'EB'+11 | LT | STH 16 | -- | 1 | 1 | -- | -- |
| 760'WB'+42 | LT | STH 16 | -- | 1 | 2 | -- | -- |
| 760'NEB'+86 | RT | STH 16 | -- | 1 | 2 | -- | -- |
| 760'NEB'+96 | RT | STH 16 | -- | 1 | 1 | -- | -- |
| 762'NEB'+32 | RT | STH 16 | -- | 1 | 1 | -- | -- |
| 762'WB'+77 | RT | STH 16 | -- | 1 | 1 | -- | -- |
| 764'NEB'+23 | RT | STH 16 | -- | 1 | 1 | -- | -- |
| 765'WB'+30 | LT | STH 16 | -- | 1 | 1 | -- | -- |
| 765'NEB'+46 | RT | STH 16 | -- | 1 | -- | -- | -- |
| 766'WB'+06 | LT | STH 16 | -- | 1 | -- | -- | -- |
| 766'NEB'+42 | RT | STH 16 | -- | 1 | -- | -- | -- |
| 767'WB'+07 | LT | STH 16 | -- | 1 | -- | -- | -- |
| 767'WB'+11 | LT | STH 16 | -- | 1 | -- | -- | -- |
| CATEGORY CODE 0020 SUBTOTALS | | | 5 | 58 | 61 | 10 | |
| CATEGORY CODE 0030 | | | | | | | |
| 767'EB'+36 | RT | STH 16 | -- | 1 | 2 | -- | -- |
| 768'EB'+01 | LT | STH 16 | -- | 1 | 2 | -- | -- |
| 769'EB'+50 | LT | STH 16 | -- | 1 | 1 | -- | -- |
| 769'EB'+58 | RT | STH 16 | -- | 1 | 1 | -- | -- |
| 771'EB'+64 | LT | STH 16 | -- | 1 | 1 | -- | -- |
| 773'EB'+56 | LT | STH 16 | -- | 1 | 1 | -- | -- |
| 773'EB'+59 | RT | STH 16 | -- | 1 | 1 | -- | -- |
| 777'EB'+71 | LT | STH 16 | -- | 1 | 1 | -- | -- |
| CATEGORY CODE 0030 SUBTOTALS | | | -- | 8 | 10 | -- | |
| | | **TOTALS** | **7** | **105** | **117** | **14** | |

## TRAFFIC CONTROL ITEMS

| | NUMBER OF DAYS IN SERVICE | 643.0300 TRAFFIC CONTROL DRUMS | | 643.0420 TRAFFIC CONTROL BARRICADES TYPE III | | 643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A | | 643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C | | 643.0900 TRAFFIC CONTROL SIGNS | | 643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE I | | 643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II | | 643.1050 TRAFFIC CONTROL SIGNS PCMS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *NO. REQ'D* | TOTAL DAY | *NO. REQ'D* | TOTAL DAY | *NO. REQ'D* | TOTAL DAY | *NO. REQ'D* | TOTAL DAY | *NO. REQ'D* | TOTAL DAY | *NO. CYCLES* | TOTAL EACH | *NO. CYCLES* | TOTAL EACH | *NO. REQ'D* | TOTAL DAY |
| CATEGORY CODE 0010 | | | | | | | | | | | | | | | | | |
| STAGE 1 | 19 | *125* | 2,375 | *14* | 266 | *20* | 380 | -- | -- | *32* | 608 | -- | -- | -- | -- | *4* | 28 |
| STAGE 2A | 37 | *69* | 2,553 | *20* | 740 | *26* | 962 | -- | -- | *63* | 2,331 | -- | -- | -- | -- | -- | -- |
| STAGE 2B | 14 | *152* | 2,128 | *32* | 448 | *42* | 588 | -- | -- | *40* | 560 | -- | -- | -- | -- | *1* | 7 |
| STAGE 3 | 66 | *17* | 1,122 | *16* | 1,056 | *20* | 1,320 | -- | -- | *51* | 3,366 | -- | -- | -- | -- | -- | -- |
| STAGE 4A | 8 | *81* | 648 | *18* | 144 | *8* | 64 | -- | -- | *24* | 192 | -- | -- | -- | -- | *3* | 24 |
| STAGE 4B | 7 | *99* | 693 | *4* | 28 | *8* | 56 | -- | -- | *24* | 168 | -- | -- | -- | -- | *3* | 21 |
| STH 127 DETOUR | 117 | -- | -- | *10* | 1,170 | *20* | 2,340 | -- | -- | *37* | 4,329 | -- | -- | -- | -- | -- | -- |
| RAMP 'A' DETOUR | 33 | -- | -- | -- | -- | -- | -- | -- | -- | *55* | 1,815 | -- | -- | *2* | 6 | -- | -- |
| RAMP 'B' DETOUR | 33 | -- | -- | -- | -- | -- | -- | -- | -- | *48* | 1,584 | *2* | 4 | *2* | 2 | -- | -- |
| CATEGORY CODE 0010 SUBTOTALS | | | 9,519 | | 3,852 | | 5,710 | | -- | | 14,953 | | 4 | | 8 | | 80 |
| CATEGORY CODE 0020 | | | | | | | | | | | | | | | | | |
| STAGE 1 | 19 | *89* | 1,691 | -- | -- | -- | -- | -- | -- | *4* | 76 | -- | -- | -- | -- | -- | -- |
| STAGE 2A | 37 | *127* | 4,699 | *32* | 1,184 | *48* | 1,776 | *22* | 814 | *33* | 1,221 | -- | -- | *1* | 1 | -- | -- |
| STAGE 2B | 14 | *127* | 1,778 | *32* | 448 | *48* | 672 | *22* | 308 | *33* | 462 | -- | -- | *1* | 1 | -- | -- |
| STAGE 3 | 66 | *114* | 7,524 | *31* | 2,046 | *46* | 3,036 | *6* | 396 | *53* | 3,498 | -- | -- | -- | -- | *5* | 25 |
| STAGE 4A | 8 | *220* | 1,760 | *10* | 80 | *20* | 160 | *9* | 72 | *17* | 136 | -- | -- | -- | -- | -- | -- |
| STAGE 4B | 7 | *236* | 1,652 | *11* | 77 | *22* | 154 | *34* | 238 | *16* | 112 | -- | -- | -- | -- | -- | -- |
| CATEGORY CODE 0020 SUBTOTALS | | | 19,104 | | 3,835 | | 5,798 | | 1,828 | | 5,505 | | -- | | 2 | | 25 |
| | **TOTALS** | | **28,623** | | **7,687** | | **11,508** | | **1,828** | | **20,458** | | **4** | | **10** | | **105** |

## TEMPORARY PEDESTRIAN ITEMS

| LOCATION | 644.1420.S TEMPORARY PEDESTRIAN SURFACE PLYWOOD SF | 644.1616.S TEMPORARY PEDESTRIAN SAFETY FENCE LF |
|---|---|---|
| CATEGORY CODE 0030 | | |
| 770'EB'+80 - 778'EB'+31 | 1,380.0 | 760.0 |
| **TOTAL** | **1,380.0** | **760.0** |

## REMOVING MARKING ITEMS

| STATION - STATION | LOCATION | 646.9000 MARKING REMOVAL LINE 4-INCH LF | 646.9100 MARKING REMOVAL LINE 8-INCH LF | 646.9200 MARKING REMOVAL LINE WIDE LF | COMMENTS |
|---|---|---|---|---|---|
| CATEGORY CODE 0010 | | | | | |
| 518'TWB'+95 - 531'TWB'+51 | LT & RT | 1,338 | 338 | -- | STAGE 2 |
| CATEGORY CODE 0010 SUBTOTALS | | 1,338 | 338 | -- | |
| CATEGORY CODE 0020 | | | | | |
| 500'TWB'+00 - 518'TWB'+95 | LT & RT | 3,073 | 152 | -- | STAGE 2 |
| 531'TWB'+51 - 558'TWB'+11 | LT & RT | 4,844 | 290 | 45 | STAGE 2 |
| CATEGORY CODE 0020 SUBTOTALS | | 7,917 | 442 | 45 | |
| **TOTALS** | | **9,255** | **780** | **45** | |

## MARKING ITEMS

| STATION - STATION | LOCATION | 646.1020 MARKING LINE EPOXY 4-INCH WHITE LF | 646.1020 MARKING LINE EPOXY 4-INCH YELLOW LF | 646.1545 MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH WHITE LF | 646.3020 MARKING LINE EPOXY 8-INCH WHITE LF | 646.3545 MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH WHITE LF | 646.4520 MARKING LINE SAME DAY EPOXY 4-INCH YELLOW LF | 646.5020 MARKING ARROW EPOXY WHITE EACH | 646.5120 MARKING WORD EPOXY WHITE EACH | 646.6120 MARKING STOP LINE EPOXY 18-INCH WHITE LF | 646.6320 MARKING DOTTED EXTENSION EPOXY 18-INCH WHITE LF | 646.7120 MARKING DIAGONAL EPOXY 12-INCH WHITE LF | 646.7120 MARKING DIAGONAL EPOXY 12-INCH YELLOW LF | 646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH WHITE LF | 646.8120 MARKING CURB EPOXY YELLOW LF | 646.8220 MARKING ISLAND NOSE EPOXY YELLOW EACH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CATEGORY CODE 0010 | | | | | | | | | | | | | | | | |
| 731'REB'+21 - 736'REB'+82 | LT & RT | 381 | 537 | 113 | 270 | -- | -- | 4 | 2 | -- | 28 | 23 | -- | 58 | -- | -- |
| 732'RWB'+43 - 737'RWB'+11 | LT & RT | 359 | 439 | 113 | 20 | -- | -- | -- | -- | -- | -- | -- | -- | 48 | -- | -- |
| 738'REB'+31 - 742'REB'+00 | LT & RT | 263 | 341 | 88 | 20 | -- | -- | -- | -- | -- | -- | -- | -- | 48 | -- | -- |
| 738'RWB'+61 - 745'RWB'+00 | LT & RT | 18 | 1,055 | 138 | 270 | -- | -- | 4 | 2 | -- | 28 | 23 | -- | 58 | -- | -- |
| 47'RA'+37 - 50'RA'+00 | LT | 221 | 236 | -- | 20 | -- | -- | -- | -- | -- | -- | -- | -- | 33 | -- | -- |
| 57'RB'+59 - 60'RB'+00 | RT | 201 | 218 | -- | 10 | -- | -- | -- | 1 | -- | 18 | -- | -- | 36 | -- | -- |
| 80'NB'+00 - 84'NB'+00 | LT & RT | 422 | 635 | -- | 20 | -- | -- | -- | -- | -- | -- | -- | 32 | 32 | -- | 1 |
| 80'SB'+08 - 82'SB'+66 | LT | 106 | 364 | -- | 10 | -- | -- | -- | 1 | -- | 18 | -- | -- | 36 | -- | -- |
| 10'RAB'+00 - 14'RAB'+52 | RT | -- | -- | -- | 520 | -- | -- | 6 | -- | -- | -- | -- | -- | -- | -- | -- |
| CATEGORY CODE 0010 SUBTOTALS | | 1,971 | 3,825 | 450 | 1,160 | -- | -- | 14 | 6 | -- | 92 | 46 | 32 | 349 | -- | 1 |
| CATEGORY CODE 0020 | | | | | | | | | | | | | | | | |
| 713'EB'+50 - 731'EB'+21 | LT & RT | 1,781 | 874 | 238 | -- | 118 | 1,325 | -- | -- | -- | -- | -- | 324 | -- | 75 | -- |
| 715'WB'+47 - 732'WB'+43 | LT & RT | 1,575 | 1,001 | 150 | -- | 330 | 1,100 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 742'EB'+00 - 767'EB'+50 | LT & RT | 2,471 | 2,531 | 438 | 360 | 632 | 200 | 6 | 2 | 54 | -- | -- | 248 | 137 | -- | -- |
| 745'WB'+00 - 765'WB'+80 | LT & RT | 1,845 | 2,658 | 375 | 220 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 110+73 - 111+13 | LT & RT | -- | 79 | -- | 40 | -- | -- | 2 | -- | 36 | -- | -- | -- | -- | -- | -- |
| 111+92 - 112+82 | LT & RT | -- | 161 | -- | 80 | -- | -- | 2 | -- | 30 | -- | -- | -- | 149 | -- | -- |
| CATEGORY CODE 0020 SUBTOTALS | | 7,672 | 7,304 | 1,200 | 700 | 1,080 | 2,625 | 10 | 2 | 120 | -- | -- | 572 | 286 | 75 | -- |
| CATEGORY CODE 0030 | | | | | | | | | | | | | | | | |
| 767'EB'+50 - 777'EB'+00 | LT & RT | 1,903 | -- | -- | 50 | -- | 1,900 | 2 | -- | -- | -- | -- | -- | -- | -- | -- |
| CATEGORY CODE 0030 SUBTOTALS | | 1,903 | -- | -- | 50 | -- | 1,900 | 2 | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 11,546 | 11,129 | | | | | | | | | 46 | 604 | | | |
| **TOTALS** | | **22,675** | | **1,650** | **1,910** | **1,080** | **4,525** | **26** | **8** | **120** | **92** | **650** | | **635** | **75** | **1** |

## TEMPORARY MARKING ITEMS

| STATION - STATION | LOCATION | 649.0105 TEMPORARY MARKING LINE PAINT 4-INCH WHITE LF | 649.0105 TEMPORARY MARKING LINE PAINT 4-INCH YELLOW LF | 649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH WHITE LF | 649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH YELLOW LF | 649.0205 TEMPORARY MARKING LINE PAINT 8-INCH WHITE LF | 649.0250 TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH WHITE LF | 649.0505 TEMPORARY MARKING ARROW PAINT WHITE EACH | 649.0550 TEMPORARY MARKING ARROW REMOVABLE TAPE WHITE EACH | 649.0605 TEMPORARY MARKING WORD PAINT WHITE EACH | 649.0805 TEMPORARY MARKING STOP LINE PAINT 18-INCH WHITE LF | 649.0850 TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH WHITE LF | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CATEGORY CODE 0010 | | | | | | | | | | | | | |
| 518'TWB'+95 - 531'TWB'+51 | LT & RT | 2,361 | 2,532 | -- | -- | 268 | -- | 3 | -- | 1 | -- | -- | STAGE 2 |
| 300'TA'+00 - 303'TA'+93 | LT & RT | 838 | 782 | -- | -- | -- | -- | -- | -- | -- | 31 | -- | STAGE 2 |
| 617'TEB'+70 - 628'TEB'+80 | LT & RT | -- | -- | 1,880 | 2,220 | -- | -- | -- | -- | -- | -- | -- | STAGE 3 |
| 49'RA'+00 - 49'RA'+70 | LT & RT | -- | 42 | -- | 115 | -- | -- | -- | -- | -- | -- | 34 | STAGE 3 |
| CATEGORY CODE 0010 SUBTOTALS | | 3,199 | 3,356 | 1,880 | 2,335 | 268 | -- | 3 | -- | 1 | 31 | 34 | |
| CATEGORY CODE 0020 | | | | | | | | | | | | | |
| 500'TWB'+00 - 518'TWB'+95 | LT & RT | 3,310 | 4,518 | -- | -- | -- | -- | -- | -- | -- | 31 | -- | STAGE 2 |
| 531'TWB'+51 - 558'TWB'+11 | LT & RT | 5,071 | 4,844 | -- | -- | 202 | -- | 2 | -- | 1 | 67 | -- | STAGE 2 |
| 600+'TEB'+00 - 617'TEB'+70 | LT & RT | -- | -- | 3,570 | 3,795 | -- | -- | -- | -- | -- | -- | 34 | STAGE 3 |
| 628'TEB'+80 - 657'TEB'+93 | LT & RT | 87 | -- | 5,960 | 5,375 | -- | 115 | -- | 1 | -- | -- | 64 | STAGE 3 |
| CATEGORY CODE 0020 SUBTOTALS | | 8,468 | 9,362 | 9,530 | 9,170 | 202 | 115 | 2 | 1 | 1 | 98 | 98 | |
| | | 11,667 | 12,718 | 11,410 | 11,505 | | | | | | | | |
| **TOTALS** | | **24,385** | | **22,915** | | **470** | **115** | **5** | **1** | **2** | **129** | **132** | |

## CONSTRUCTION STAKING ITEMS

| STATION - STATION | LOCATION | 650.4500 CONSTRUCTION STAKING SUBGRADE LF | 650.5000 CONSTRUCTION STAKING BASE LF | 650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF | 650.9000 CONSTRUCTION STAKING CURB RAMPS EACH | 650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL LS | 650.9920 CONSTRUCTION STAKING SLOPE STAKES LF |
|---|---|---|---|---|---|---|---|
| CATEGORY CODE 0010 | | | | | | | |
| 731'REB'+21 - 742'REB'+00 | RT | 905 | 905 | -- | 4 | 1 | 905 |
| 732'RWB'+43 - 745'RWB'+00 | LT | 1,083 | 1,083 | -- | 4 | -- | 1,083 |
| 742'EB'+00 - 747'EB'+00 | RT | 426 | 426 | -- | -- | -- | 500 |
| 745'WB'+00 - 746'WB'+62 | LT | 162 | 162 | -- | -- | -- | 162 |
| 47'RA'+37 - 50'RA'+00 | LT & RT | 263 | 263 | -- | 4 | -- | 263 |
| 80'NB'+00 - 84'NB'+00 | LT & RT | 400 | 400 | -- | 4 | -- | 400 |
| 10'RAB'+00 - 14'RAB'+52 | LT & RT | 452 | 452 | -- | -- | -- | 452 |
| CATEGORY CODE 0010 SUBTOTALS | | 3,691 | 3,691 | -- | 16 | 1 | 3,765 |
| CATEGORY CODE 0020 | | | | | | | |
| 713'EB'+50 - 731'EB'+21 | RT | -- | -- | 1,771 | -- | -- | -- |
| 714'WB'+50 - 732'WB'+43 | LT | -- | -- | 1,793 | -- | -- | -- |
| 742'EB'+00 - 758'EB'+00 | RT | -- | -- | 1,600 | -- | -- | -- |
| 745'WB'+00 - 767'WB'+22 | LT & RT | -- | 2,222 | -- | 1 | -- | -- |
| 750'EB'+62 - 765'EB'+17 | RT | -- | -- | -- | -- | -- | 1,455 |
| 758'EB'+00 - 767'EB'+50 | LT & RT | -- | 950 | -- | -- | -- | -- |
| CATEGORY CODE 0020 SUBTOTALS | | -- | 3,172 | 5,164 | 1 | -- | 1,455 |
| CATEGORY CODE 0030 | | | | | | | |
| 767'EB'+00 - 771'EB'+00 | RT | -- | -- | -- | -- | -- | 400 |
| 767'EB'+50 - 777'EB'+00 | LT & RT | -- | -- | 950 | -- | -- | -- |
| 770'EB'+50 - 774'EB'+36 | LT | -- | -- | -- | -- | -- | 386 |
| CATEGORY CODE 0030 SUBTOTALS | | -- | -- | 950 | -- | -- | 786 |
| **TOTALS** | | **3,691** | **6,863** | **6,114** | **17** | **1** | **6,006** |

* STAKING ITEMS FOR "STORM SEWER", "CURB GUTTER AND CURB & GUTTER", AND "PIPE CULVERTS" SHOWN ELSEWHERE IN PLANS

## CONCRETE JOINT & CRACK CLEANING

| STATION - STATION | LOCATION | SPV.0090.01 LF |
|---|---|---|
| CATEGORY CODE 0020 | | |
| 713'EB+50 - 731'EB'+21 | LT & RT | 8,475 |
| 742'EB'+00 - 758'EB'+00 | LT & RT | 4,390 |
| CATEGORY CODE 0020 SUBTOTAL | | 12,865 |
| CATEGORY CODE 0030 | | |
| 767'EB'+00 - 777'EB'+00 | LT & RT | 1,985 |
| CATEGORY CODE 0030 SUBTOTAL | | 1,985 |
| **TOTAL** | | **14,850** |

## REMOVING HMA PAVEMENT NOTCHED WEDGE LONGITUDINAL JOINT MILLING

| STATION - STATION | LOCATION | SPV.0090.02 LF |
|---|---|---|
| CATEGORY CODE 0020 | | |
| 719'WB'+00 - 720'WB'+93 | RT | 193 |
| 721'WB'+45 - 721'WB'+94 | RT | 49 |
| 725'WB'+66 - 726'WB'+87 | RT | 120 |
| 760'WB'+30 - 767'EB'+50 | RT | 764 |
| CATEGORY CODE 0020 SUBTOTAL | | 1,126 |
| CATEGORY CODE 0030 | | |
| 767'EB'+50 - 769'EB'+92 | C/L | 243 |
| CATEGORY CODE 0030 SUBTOTAL | | 243 |
| **TOTAL** | | **1,369** |

## SAWING PAVEMENT ITEMS

| STATION - STATION | LOCATION | 690.0150 ASPHALT LF | 690.0250 CONCRETE LF | COMMENTS |
|---|---|---|---|---|
| CATEGORY CODE 0010 | | | | |
| 731'REB'+21 | LT & RT | 11 | 24 | OVERLAY/ RECONSTRUCTION LIMITS |
| 732'RWB'+43 | LT & RT | 11 | 24 | OVERLAY/ RECONSTRUCTION LIMITS |
| 742'REB'+00 | LT & RT | 3 | 24 | OVERLAY/ RECONSTRUCTION LIMITS |
| 742'EB'+00 - 746'EB'+26 | RT | 8 | 426 | EB SHOULDER REPLACEMENT |
| 47'RA'+37 | LT & RT | 5 | 33 | RAMP 'A' LIMITS |
| 57'RB'+59 | LT & RT | -- | 22 | RAMP 'B' LIMITS |
| 84'NB'+00 | LT & RT | 24 | -- | STH 127 LIMITS |
| TRAFFIC CONTROL UNDISTRIBUTED | | 299 | 344 | -- |
| CATEGORY CODE 0010 SUBTOTALS | | 361 | 897 | |
| CATEGORY CODE 0020 | | | | |
| 713'EB'+50 | LT & RT | 30 | -- | WEST PROJECT LIMITS |
| 714'EB'+50 - 714'EB'+68 | LT & RT | -- | 48 | BASE PATCH |
| 717'EB'+04 - 717'WB'+22 | LT | 18 | -- | DRIVEWAY LIMITS |
| 718'WB'+87 - 718'WB'+98 | LT & RT | -- | 41 | BASE PATCH |
| 721'WB'+65 - 721'WB'+88 | LT | 23 | -- | DRIVEWAY LIMITS |
| 726'WB'+06 | LT | 56 | 4 | LA DAWN DR LIMITS |
| 726'EB'+67 | RT | 60 | 4 | MURPHY RD LMITS |
| 746'WB'+40 - 749'WB'+34 | LT | 452 | 15 | RAMP 'C' & 'DD' INTERSECTION |
| 748'EB'+86 | LT | 21 | 25 | STH 16 TURN LANE FOR RAMP 'DD' |
| 21'E'+50 | LT & RT | 8 | 15 | RAMP 'E' LIMITS |
| 10'RD'+41 | LT & RT | 5 | 15 | RAMP 'D' LIMITS |
| 758'EB'+00 | LT & RT | 11 | 24 | OVERLAY/ REPLACEMENT LIMITS |
| 766'WB'+85 - 767'WB'+07 | LT | -- | 10 | SILVER LAKE DRIVE CURB RAMP REPLACEMENT |
| 110+58 | RT | 162 | -- | W. WISC. SERV. RD. LIMITS |
| 112+82 | LT & RT | 41 | -- | SLIVER LAKE DR LIMITS |
| 10'E'+00 | RT | 5 | -- | RAMP 'E' SHOULDER REPLACEMENT LIMITS |
| TRAFFIC CONTROL UNDISTRIBUTED | | 1,719 | 585 | -- |
| TRAFFIC SIGNAL UNDISTRIBUTED | | -- | 20 | -- |
| CATEGORY CODE 0020 SUBTOTALS | | 2,611 | 806 | |
| CATEGORY CODE 0030 | | | | |
| 767'EB'+50 | LT & RT | 22 | 24 | OVERLAY/ REPLACEMENT LIMITS |
| 767'EB'+59 | LT | 45 | -- | DRIVEWAY LIMITS |
| 768'EB'+46 | LT | 44 | -- | DRIVEWAY LIMITS |
| 770'EB'+15 | LT | 53 | -- | DRIVEWAY LIMITS |
| 768'EB'+49 - 768'EB'+55 | LT & RT | -- | 48 | BASE PATCH |
| 769'EB'+66 - 769'EB'+92 | LT & RT | -- | 47 | BASE PATCH |
| 776'EB'+87 - 776'EB'+93 | LT & RT | -- | 48 | BASE PATCH |
| 770'EB'+56 - 778'EB'+21 | LT | 765 | 7 | NEW CURB & GUTTER LIMITS |
| 770'EB'+93 | LT | -- | 5 | SIDEWALK LIMITS |
| 771'EB'+71 - 771'EB'+79 | LT & RT | -- | 48 | BASE PATCH |
| 773'EB'+12 - 773'EB'+18 | LT & RT | -- | 48 | BASE PATCH |
| 774'EB'+36 | LT | -- | 5 | SIDEWALK LIMITS |
| 774'EB'+44 | RT | 5 | -- | ASPHALT SHOULDER REMOVAL LIMITS |
| 774'EB'+66 - 775'EB'+27 | LT & RT | -- | 48 | BASE PATCH |
| 775'EB'+48 - 775'EB'+68 | LT & RT | -- | 58 | BASE PATCH |
| 775'EB'+89 - 775'EB'+98 | LT & RT | -- | 48 | BASE PATCH |
| 776'EB'+08 - 776'EB'+19 | LT | -- | 34 | BASE PATCH |
| 776'EB'+25 - 776'EB'+31 | LT & RT | -- | 48 | BASE PATCH |
| 776'EB'+51 - 776'EB'+60 | LT | -- | 33 | BASE PATCH |
| 777'EB'+00 | LT & RT | 19 | 23 | EAST PROJECT LIMITS |
| TRAFFIC CONTROL UNDISTRIBUTED | | 410 | -- | -- |
| CATEGORY CODE 0030 SUBTOTALS | | 1,363 | 572 | |
| **TOTALS** | | **4,335** | **2,275** | |

3

## PERMANENT SIGNING TYPE II

| CATEGORY | SIGN # | SIGN CODE | SIGN SIZE w IN | X | H IN | 637.2210 SIGNS TYPE II REFLECTIVE H SF | 637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF | 637.2230 SIGNS TYPE II REFLECTIVE F SF | 634.0612 WOOD POSTS 4X6-INCH 12 FT EACH | 634.0614 WOOD POSTS 4X6-INCH 14 FT EACH | 634.0616 WOOD POSTS 4X6-INCH 16 FT EACH | 634.0618 WOOD POSTS 4X6-INCH 18 FT EACH | 634.0620 WOOD POSTS 4X6-INCH 20 FT EACH | 634.0812 POSTS TUBULAR STEEL 2X2-INCH 12 FT EACH | SIGN MOUNTED ON SAME POST AS | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0010 | | | | | | | | | | | | | | | | |
| | 4-09 | W3-2 | 36 | X | 36 | -- | -- | 9 | -- | -- | 1 | -- | -- | -- | -- | YIELD AHEAD |
| | 4-10 | W3-2 | 36 | X | 36 | -- | -- | 9 | -- | -- | 1 | -- | -- | -- | -- | YIELD AHEAD |
| | 4-11 | D1-3 | 114 | X | 48 | 38 | -- | -- | -- | -- | 2 | -- | -- | -- | -- | THREE DESTINATION (ARROWS) |
| | 4-12 | D2-1 | 96 | X | 21 | 14 | -- | -- | 2 | -- | -- | -- | -- | -- | -- | DESTINATION/DISTANCE (ONE DESTINATION) |
| | 4-13 | R3-8-CC | 36 | X | 30 | 7.5 | -- | -- | -- | -- | -- | -- | -- | -- | S-11-27 | LEFT, AHEAD / AHEAD, RIGHT (ROUNDABOUT) |
| | 4-16 | R3-8-CC | 36 | X | 30 | 7.5 | -- | -- | -- | -- | -- | -- | -- | -- | S-11-27 | LEFT, AHEAD / AHEAD, RIGHT (ROUNDABOUT) |
| | 5-01 | R1-54 | 24 | X | 15 | 2.5 | -- | -- | -- | -- | -- | -- | -- | 1 | 5-02 | TO TRAFFIC FROM LEFT |
| | 5-02 | R1-2 | 36 | X | 31 | 3.875 | -- | -- | -- | -- | -- | -- | -- | -- | 5-01 | YIELD |
| | 5-03 | W16-7L | 30 | X | 18 | -- | -- | 3.75 | -- | -- | -- | -- | -- | 1 | 5-04 | LEFT DIAGONAL DOWNWARD POINTING ARROW (YELLOW) |
| | 5-04 | W11-2 | 36 | X | 36 | -- | -- | 9 | -- | -- | -- | -- | -- | -- | 5-03 | PEDESTRIAN CROSSING SYMBOL |
| | 5-05 | D1-2 | 66 | X | 36 | 16.5 | -- | -- | -- | 2 | -- | -- | -- | -- | -- | TWO DESTINATION (ARROWS) |
| | 5-06 | R6-2-R | 24 | X | 30 | 5 | -- | -- | -- | -- | 1 | -- | -- | -- | 5-07 | ONE WAY RIGHT ARROW |
| | 5-07 | R1-2 | 36 | X | 31 | 3.875 | -- | -- | -- | -- | -- | -- | -- | -- | 5-06 | YIELD |
| | 5-08 | R1-54 | 24 | X | 15 | 2.5 | -- | -- | -- | -- | -- | -- | -- | 1 | 5-09 | TO TRAFFIC FROM LEFT |
| | 5-09 | R1-2 | 36 | X | 31 | 3.875 | -- | -- | -- | -- | -- | -- | -- | -- | 5-08 | YIELD |
| | 5-10 | W16-7L | 30 | X | 18 | -- | -- | 3.75 | -- | -- | 1 | -- | -- | -- | 5-11 | LEFT DIAGONAL DOWNWARD POINTING ARROW (YELLOW) |
| | 5-11 | W11-2 | 36 | X | 36 | -- | -- | 9 | -- | -- | -- | -- | -- | -- | 5-10 | PEDESTRIAN CROSSING SYMBOL |
| | 5-12 | D1-2 | 72 | X | 30 | 15 | -- | -- | -- | 2 | -- | -- | -- | -- | -- | TWO DESTINATION (ARROWS) |
| | 5-13 | R6-2-R | 24 | X | 30 | 5.00 | -- | -- | -- | -- | 1 | -- | -- | -- | 5-14 | ONE WAY RIGHT ARROW |
| | 5-14 | R1-2 | 36 | X | 31 | 3.875 | -- | -- | -- | -- | -- | -- | -- | -- | 5-13 | YIELD |
| | 5-15 | R1-54 | 24 | X | 15 | 2.50 | -- | -- | -- | -- | -- | -- | -- | 1 | 5-16 | TO TRAFFIC FROM LEFT |
| | 5-16 | R1-2 | 36 | X | 31 | 3.875 | -- | -- | -- | -- | -- | -- | -- | -- | 5-15 | YIELD |
| | 5-17 | W16-7L | 30 | X | 18 | -- | -- | 3.75 | -- | -- | -- | -- | -- | 1 | 5-18 | LEFT DIAGONAL DOWNWARD POINTING ARROW (YELLOW) |
| | 5-18 | W11-2 | 36 | X | 36 | -- | -- | 9.00 | -- | -- | -- | -- | -- | -- | 5-17 | PEDESTRIAN CROSSING SYMBOL |
| | 5-19 | D1-72 | 66 | X | 36 | 16.50 | -- | -- | -- | 2 | -- | -- | -- | -- | -- | ADVANCED ENTRANCE DIRECTION SIGN |
| | 5-20 | R6-2-R | 24 | X | 30 | 5.00 | -- | -- | -- | -- | 1 | -- | -- | -- | 5-21 | ONE WAY RIGHT ARROW |
| | 5-21 | R1-2 | 36 | X | 31 | 3.875 | -- | -- | -- | -- | -- | -- | -- | -- | 5-20 | YIELD |
| | 5-22 | R1-54 | 24 | X | 15 | 2.5 | -- | -- | -- | -- | -- | -- | -- | 1 | 5-23 | TO TRAFFIC FROM LEFT |
| | 5-23 | R1-2 | 36 | X | 31 | 7.75 | -- | -- | -- | -- | -- | -- | -- | -- | 5-22 | YIELD |
| | 5-24 | W16-7L | 30 | X | 18 | -- | -- | 3.75 | -- | -- | 1 | -- | -- | -- | 5-25 | LEFT DIAGONAL DOWNWARD POINTING ARROW (YELLOW) |
| | 5-25 | W11-2 | 36 | X | 36 | -- | -- | 9 | -- | -- | -- | -- | -- | -- | 5-24 | PEDESTRIAN CROSSING SYMBOL |
| | 5-26 | D1-2 | 66 | X | 36 | 16.5 | -- | -- | -- | 2 | -- | -- | -- | -- | -- | TWO DESTINATION (ARROWS) |
| | 5-27 | R6-2-R | 24 | X | 30 | 5 | -- | -- | -- | -- | 1 | -- | -- | -- | 5-28 | ONE WAY RIGHT ARROW |
| | 5-28 | R1-2 | 36 | X | 31 | 3.875 | -- | -- | -- | -- | -- | -- | -- | -- | 5-27 | YIELD |
| | 5-29 | J4-2 | 48 | X | 36 | 12 | -- | -- | -- | 1 | -- | -- | -- | -- | -- | REASSURANCE ASSEMBLY |
| | 5-30 | R2-1 | 36 | X | 48 | 12 | -- | -- | -- | -- | 1 | -- | -- | -- | -- | SPEED LIMIT 45 MPH |
| | 6-01 | R2-1 | 36 | X | 48 | 12 | -- | -- | -- | -- | 1 | -- | -- | -- | -- | SPEED LIMIT 45 MPH |
| | 6-02 | D1-3 | 114 | X | 48 | 38 | -- | -- | -- | -- | 2 | -- | -- | -- | -- | THREE DESTINATION (ARROWS) |
| | 6-03 | JH-1 | 48 | X | 57 | 19 | -- | -- | -- | -- | 1 | -- | -- | -- | -- | ROUTE TURN ASSEMBLY (3 HEADED ROUTE PANEL) / HOSPITAL ROUTE ASSEMBLY |
| | 6-04 | W3-2 | 36 | X | 36 | -- | -- | 9 | -- | -- | 1 | -- | -- | -- | -- | YIELD AHEAD |
| | 6-05 | W3-2 | 36 | X | 36 | -- | -- | 9 | -- | -- | 1 | -- | -- | -- | -- | YIELD AHEAD |
| | 6-06 | R3-8-CC | 36 | X | 30 | 7.5 | -- | -- | -- | -- | -- | -- | -- | -- | S-11-29 | LEFT, AHEAD / AHEAD, RIGHT (ROUNDABOUT) |
| | 6-09 | R3-8-CC | 36 | X | 30 | 7.5 | -- | -- | -- | -- | -- | -- | -- | -- | S-11-29 | LEFT, AHEAD / AHEAD, RIGHT (ROUNDABOUT) |
| | 13-01 | W5-54S | 18 | X | 18 | -- | -- | 2.25 | -- | 1 | -- | -- | -- | -- | 13-02 | CLEARANCE MARKER W/YELLOW TYPE H SHEETING |
| | 13-02 | R4-7 | 24 | X | 30 | 5 | -- | -- | -- | -- | -- | -- | -- | -- | 13-01 | KEEP RIGHT |
| | 13-03 | J4-1 | 24 | X | 36 | 6 | -- | -- | -- | 1 | -- | -- | -- | -- | -- | REASSURANCE ASSEMBLY |
| | 13-04 | R2-1 | 24 | X | 30 | 5 | -- | -- | -- | 1 | -- | -- | -- | -- | -- | SPEED LIMIT 45 MPH |
| | 13-05 | W3-2 | 36 | X | 36 | -- | -- | 9 | -- | -- | 1 | -- | -- | -- | -- | YIELD AHEAD |
| | 13-06 | -- | 126 | X | 72 | 63 | -- | -- | -- | -- | -- | 3 | -- | -- | -- | OVERHEAD GUIDANCE |
| | 13-07 | W13-1 | 24 | X | 24 | -- | -- | 4 | -- | -- | -- | -- | -- | -- | 13-08 | ADVISORY SPEED (YELLOW BACK) |
| SUBTOTAL | | | | | | 383.38 | | 102.25 | 2.00 | 12.00 | 18.00 | 3.00 | | 6.00 | | |

## PERMANENT SIGNING TYPE II (CONT.)

| CATEGORY | SIGN # | SIGN CODE | SIGN SIZE w IN X H IN | 637.2210 SIGNS TYPE II REFLECTIVE H SF | 637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF | 637.2230 SIGNS TYPE II REFLECTIVE F SF | 634.0612 WOOD POSTS 4X6-INCH 12 FT EACH | 634.0614 WOOD POSTS 4X6-INCH 14 FT EACH | 634.0616 WOOD POSTS 4X6-INCH 16 FT EACH | 634.0618 WOOD POSTS 4X6-INCH 18 FT EACH | 634.0620 WOOD POSTS 4X6-INCH 20 FT EACH | 634.0812 POSTS TUBULAR STEEL 2X2-INCH 12 FT EACH | SIGN MOUNTED ON SAME POST AS | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0010 | | | | | | | | | | | | | | |
| FROM PREVIOUS SHEET | | | | 383.38 | | 102.25 | 2.00 | 12.00 | 18.00 | 3.00 | | 6.00 | | |
| | 13-08 | W2-6 | 36 X 36 | -- | -- | 9 | -- | -- | 1 | -- | -- | -- | 13-07 | CIRCULAR INTERSECTION SIGN |
| | 14-01 | W3-2 | 36 X 36 | -- | -- | 9 | -- | -- | 1 | -- | -- | -- | -- | YIELD AHEAD |
| | 14-02 | R5-57 | 36 X 36 | 9 | -- | -- | -- | 1 | -- | -- | -- | -- | -- | PEDESTRIANS, ETC., PROHIBITED |
| | 14-03 | -- | 126 X 72 | 63 | -- | -- | -- | -- | -- | 3 | -- | -- | -- | OVERHEAD GUIDANCE |
| | 14-04 | W13-3 | 36 X 48 | -- | -- | 12 | -- | -- | 1 | -- | -- | -- | -- | RAMP SPEED 30 MPH |
| | 15-01 | W13-1 | 24 X 24 | -- | -- | 4 | -- | -- | -- | -- | -- | -- | 15-02 | ADVISORY SPEED (YELLOW BACK) |
| | 15-02 | W2-6 | 36 X 36 | -- | -- | 9 | -- | -- | 1 | -- | -- | -- | 15-01 | CIRCULAR INTERSECTION SIGN |
| CATEGORY 0010 SUBTOTAL | | | | 455.38 | | 145.25 | 2.00 | 13.00 | 22.00 | 6.00 | | 6.00 | | |
| CATEGORY 0020 | | | | | | | | | | | | | | |
| | 1-01 | W6-3 | 36 X 36 | -- | -- | 9 | -- | -- | 1 | -- | -- | -- | -- | TWO WAY TRAFFIC |
| | 2-01 | R4-7 | 36 X 48 | 12 | -- | -- | -- | -- | 1 | -- | -- | -- | 2-02 | KEEP RIGHT |
| | 2-02 | W5-54S | 18 X 18 | -- | -- | 2.25 | -- | -- | -- | -- | -- | -- | 2-01 | CLEARANCE MARKER W/YELLOW TYPE H SHEETING |
| | 2-03 | R5-1 | 36 X 36 | 9 | -- | -- | -- | 1 | -- | -- | -- | -- | -- | DO NOT ENTER |
| | 2-04 | R2-1 | 36 X 48 | 12 | -- | -- | -- | -- | 1 | -- | -- | -- | -- | SPEED LIMIT 45 MPH |
| | 3-01 | J1-2 | 48 X 39 | 13 | -- | -- | -- | 2 | -- | -- | -- | -- | 3-02 | JUNCTION OR END ASSEMBLY |
| | 3-02 | R5-1A | 42 X 30 | 8.75 | -- | -- | -- | -- | -- | -- | -- | -- | 3-01 | WRONG WAY |
| | 3-03 | R5-1A | 42 X 30 | 8.75 | -- | -- | -- | -- | 1 | -- | -- | -- | 3-05 | WRONG WAY |
| | 3-04 | W6-2 | 36 X 36 | -- | -- | 9 | -- | -- | -- | -- | -- | -- | 3-04 | DIVIDED HIGHWAY ENDS SYMBOL |
| | 3-05 | I2-3 | 60 X 24 | 10 | -- | -- | -- | 2 | -- | -- | -- | -- | 3-06 | MUNICIPALITY SIGN-POP OR UNINC |
| | 3-06 | R5-1 | 36 X 36 | 9 | -- | -- | -- | -- | -- | -- | -- | -- | 3-05 | DO NOT ENTER |
| | 3-07 | R4-7 | 36 X 48 | 12 | -- | -- | -- | -- | 1 | -- | -- | -- | -- | KEEP RIGHT |
| | 3-08 | R6-1-L | 36 X 12 | 3 | -- | -- | -- | -- | -- | -- | -- | -- | 3-09, 3-10, 3-11 | ONE WAY LEFT ARROW |
| | 3-09 | R6-3 | 30 X 24 | 5 | -- | -- | -- | -- | 1 | -- | -- | -- | 3-08, 3-10, 3-11 | DIVIDED HIGHWAY SIGN CROSSROAD |
| | 3-10 | R1-1 | 36 X 36 | 7.47 | -- | -- | -- | -- | -- | -- | -- | -- | 3-08, 3-09, 3-11 | STOP SIGN |
| | 3-11 | R6-1-R | 36 X 12 | 3 | -- | -- | -- | -- | -- | -- | -- | -- | 3-08, 3-09, 3-10 | ONE WAY RIGHT ARROW |
| | 3-12 | R6-3 | 30 X 24 | 5 | -- | -- | -- | -- | 1 | -- | -- | -- | 3-13, 3-14, 3-15 | DIVIDED HIGHWAY SIGN CROSSROAD |
| | 3-13 | R1-1 | 36 X 36 | 7.47 | -- | -- | -- | -- | -- | -- | -- | -- | 3-12, 3-14, 3-15 | STOP SIGN |
| | 3-14 | R6-1-R | 36 X 12 | 3 | -- | -- | -- | -- | -- | -- | -- | -- | 3-12, 3-13, 3-15 | ONE WAY RIGHT ARROW |
| | 3-15 | R6-1-L | 36 X 12 | 3 | -- | -- | -- | -- | -- | -- | -- | -- | 3-12, 3-13, 3-14 | ONE WAY LEFT ARROW |
| | 3-16 | R4-7 | 36 X 48 | 12 | -- | -- | -- | -- | 1 | -- | -- | -- | -- | KEEP RIGHT |
| | 3-17 | R5-1 | 36 X 36 | 9 | -- | -- | -- | 1 | -- | -- | -- | -- | -- | DO NOT ENTER |
| | 3-18 | W4-2L | 36 X 36 | -- | -- | 9 | -- | -- | 1 | -- | -- | -- | -- | LANE REDUCTION TRANSITION SYMBOL (LEFT) |
| | 3-19 | W4-2L | 36 X 36 | -- | -- | 9 | -- | -- | 1 | -- | -- | -- | -- | LANE REDUCTION TRANSITION SYMBOL (LEFT) |
| | 4-01 | R5-1A | 42 X 30 | 8.75 | -- | -- | -- | 1 | -- | -- | -- | -- | -- | WRONG WAY |
| | 4-02 | W13-1 | 24 X 24 | -- | -- | 4 | -- | -- | 1 | -- | -- | -- | 4-03 | ADVISORY SPEED (YELLOW BACK) |
| | 4-03 | W2-6 | 36 X 36 | -- | -- | 9 | -- | -- | -- | -- | -- | -- | 4-02 | CIRCULAR INTERSECTION SIGN |
| | 4-04 | W13-1 | 24 X 24 | -- | -- | 4 | -- | -- | 1 | -- | -- | -- | 4-05 | ADVISORY SPEED (YELLOW BACK) |
| | 4-05 | W2-6 | 36 X 36 | -- | -- | 9 | -- | -- | -- | -- | -- | -- | 4-04 | CIRCULAR INTERSECTION SIGN |
| | 4-06 | I55-56 | 30 X 36 | 7.5 | -- | -- | -- | 1 | -- | -- | -- | -- | -- | ADOPT A HIGHWAY SPONSOR |
| | 4-07 | W9-1L | 36 X 36 | -- | -- | 9 | -- | -- | 1 | -- | -- | -- | -- | LEFT LANE ENDS |
| | 4-08 | W9-1L | 36 X 36 | -- | -- | 9 | -- | -- | 1 | -- | -- | -- | -- | LEFT LANE ENDS |
| | 6-10 | J2-1 | 24 X 57 | 9.5 | -- | -- | -- | -- | 1 | -- | -- | -- | -- | ROUTE TURN ASSEMBLY |
| | 6-11 | J2-1 | 24 X 57 | 9.5 | -- | -- | -- | -- | 1 | -- | -- | -- | -- | ROUTE TURN ASSEMBLY |
| | 7-01 | R5-1A | 42 X 30 | 8.75 | -- | -- | -- | -- | 1 | -- | -- | -- | | WRONG WAY |
| | 7-02 | W13-1 | 24 X 24 | -- | -- | 4 | -- | -- | -- | -- | -- | -- | 7-03 | ADVISORY SPEED (YELLOW BACK) |
| | 7-03 | W2-6 | 36 X 36 | -- | -- | 9 | -- | -- | 1 | -- | -- | -- | 7-02 | CIRCULAR INTERSECTION SIGN |
| | 7-04 | W13-1 | 24 X 24 | -- | -- | 4 | -- | -- | -- | -- | -- | -- | 7-05 | ADVISORY SPEED (YELLOW BACK) |
| | 7-05 | W2-2 | 36 X 36 | -- | -- | 9 | -- | -- | 1 | -- | -- | -- | 7-04 | SIDE ROAD (90 DEGREES) |
| | 7-06 | JH-1 | 24 X 45 | 7.5 | -- | -- | -- | 1 | -- | -- | -- | -- | -- | HOSPITAL ROUTE ASSEMBLY |
| SUBTOTAL | | | | 203.94 | | 108.25 | | 9.00 | 19.00 | | | | | |

3

## PERMANENT SIGNING TYPE II (CONT.)

| CATEGORY | SIGN # | SIGN CODE | SIGN SIZE w IN X H IN | 637.2210 SIGNS TYPE II REFLECTIVE H SF | 637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF | 637.2230 SIGNS TYPE II REFLECTIVE F SF | 634.0612 WOOD POSTS 4X6-INCH 12 FT EACH | 634.0614 WOOD POSTS 4X6-INCH 14 FT EACH | 634.0616 WOOD POSTS 4X6-INCH 16 FT EACH | 634.0618 WOOD POSTS 4X6-INCH 18 FT EACH | 634.0620 WOOD POSTS 4X6-INCH 20 FT EACH | 634.0812 POSTS TUBULAR STEEL 2X2-INCH 12 FT EACH | SIGN MOUNTED ON SAME POST AS | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0020 FROM PREVIOUS SHEET | | | | 203.94 | | 108.25 | | 9.00 | 19.00 | | | | | |
| | 7-07 | D1-70 | 78 X 42 | 22.75 | -- | -- | -- | -- | 2 | -- | -- | -- | -- | ENTRANCE DIRECTION SIGN (ONE ARROW) |
| | 7-08 | J3-1 | 24 X 57 | 9.5 | -- | -- | -- | -- | 1 | -- | -- | -- | -- | DIRECTIONAL ASSEMBLY |
| | 7-09 | R5-1 | 36 X 36 | 9 | -- | -- | -- | 1 | -- | -- | -- | -- | -- | DO NOT ENTER |
| | 7-10 | W4-1 | 36 X 36 | -- | -- | 9 | -- | 1 | -- | -- | -- | -- | -- | MERGING TRAFFIC SYMBOL (RIGHT) |
| | 7-11 | R1-2 | 36 X 31 | 3.875 | -- | -- | -- | 1 | -- | -- | -- | -- | -- | YIELD |
| | 7-12 | R3-2 | 36 X 36 | 9 | -- | -- | -- | 1 | -- | -- | -- | -- | -- | NO LEFT TURN SYMBOL |
| | 7-13 | J3-1 | 24 X 57 | 9.5 | -- | -- | -- | -- | 1 | -- | -- | -- | -- | DIRECTIONAL ASSEMBLY |
| | 8-01 | D1-70 | 78 X 84 | 45.5 | -- | -- | -- | -- | -- | -- | 2 | -- | -- | ENTRANCE DIRECTION SIGN (ONE ARROW) |
| | 8-02 | J4-3 | 72 X 36 | 18 | -- | -- | -- | 2 | -- | -- | -- | -- | -- | REASSURANCE ASSEMBLY |
| | 8-03 | W6-2 | 36 X 36 | -- | -- | 9 | -- | -- | 1 | -- | -- | -- | 8-04 | DIVIDED HIGHWAY ENDS SYMBOL |
| | 8-04 | R5-1A | 42 X 30 | 8.75 | -- | -- | -- | -- | -- | -- | -- | -- | 8-03 | WRONG WAY |
| | 8-05 | J2-2 | 48 X 57 | 19 | -- | -- | -- | -- | 1 | -- | -- | -- | -- | ROUTE TURN ASSEMBLY |
| | 8-06 | J1-1 | 24 X 39 | 6.5 | -- | -- | -- | 1 | -- | -- | -- | -- | -- | JUNCTION OR END ASSEMBLY |
| | 9-01 | D1-72 | 120 X 60 | 50 | -- | -- | -- | -- | -- | 2 | -- | -- | -- | ADVANCED ENTRANCE DIRECTION SIGN |
| | 9-02 | W3-3 | 36 X 36 | -- | -- | 9 | -- | -- | 1 | -- | -- | -- | | SIGNAL AHEAD |
| | 9-03 | R5-1 | 36 X 36 | 9 | -- | -- | -- | 1 | -- | -- | -- | -- | -- | DO NOT ENTER |
| | 9-04 | R3-7-L | 30 X 30 | 6.25 | -- | -- | -- | -- | -- | -- | -- | -- | 9-05, 9-06 | LEFT LANE MUST TURN LEFT |
| | 9-05 | W5-54S | 18 X 18 | -- | -- | 2.25 | -- | -- | 1 | -- | -- | -- | 9-04, 9-06 | CLEARANCE MARKER W/YELLOW TYPE H SHEETING |
| | 9-06 | R4-7 | 36 X 48 | 12 | -- | -- | -- | -- | -- | -- | -- | -- | 9-04, 9-05 | KEEP RIGHT |
| | 9-07 | D1-4 | 126 X 66 | 57.75 | -- | -- | -- | -- | -- | 3 | -- | -- | -- | FOUR DESTINATION (ARROWS) *SPECIAL OCCASION ONLY* |
| | 9-08 | R2-1 | 24 X 30 | 5 | -- | -- | -- | -- | -- | -- | -- | -- | S-11-28 | SPEED LIMIT 35 MPH |
| | 9-09 | R3-6R | 42 X 48 | 14 | -- | -- | -- | -- | -- | -- | -- | -- | S-11-28 | LANE CONTROL SYMBOL W/ BLACK BORDER - AHEAD & RIGHT ARROW |
| | 9-10 | R3-5L | 42 X 48 | 14 | -- | -- | -- | -- | -- | -- | -- | -- | S-11-28 | LANE CONTROL SYMBOL W/ BLACK BORDER - LEFT ARROW |
| | 9-11 | R2-1 | 24 X 30 | 5 | -- | -- | -- | 1 | -- | -- | -- | -- | -- | SPEED LIMIT 45 MPH |
| | 10-01 | J13-1 | 24 X 45 | 7.5 | -- | -- | -- | 1 | -- | -- | -- | -- | -- | DIRECTIONAL WITHOUT CARDINAL |
| | 10-02 | J1-2 | 48 X 39 | 13 | -- | -- | -- | 1 | -- | -- | -- | -- | -- | JUNCTION OR END ASSEMBLY |
| | 10-03 | R1-1F | 36 X 36 | -- | 7.47 | -- | -- | -- | -- | -- | -- | -- | -- | STOP SIGN (FOLDING) |
| | 10-04 | R1-1F | 30 X 30 | -- | 5.19 | -- | -- | -- | -- | -- | -- | -- | -- | STOP SIGN (FOLDING) |
| | 10-05 | J13-1 | 24 X 45 | 7.5 | -- | -- | -- | 1 | -- | -- | -- | -- | -- | DIRECTIONAL WITHOUT CARDINAL |
| | 10-06 | R1-1F | 30 X 30 | -- | 5.19 | -- | -- | -- | -- | -- | -- | -- | -- | STOP SIGN (FOLDING) |
| | 10-07 | R1-1F | 36 X 36 | -- | 7.47 | -- | -- | -- | -- | -- | -- | -- | -- | STOP SIGN (FOLDING) |
| | 10-08 | J13-1 | 24 X 45 | 7.5 | -- | -- | -- | 1 | -- | -- | -- | -- | -- | DIRECTIONAL WITHOUT CARDINAL |
| | 10-09 | D1-4 | 126 X 66 | 57.75 | -- | -- | -- | -- | -- | 3 | -- | -- | -- | FOUR DESTINATION (ARROWS) *SPECIAL OCCASION ONLY* |
| | 10-10 | J4-3 | 72 X 36 | 18 | -- | -- | -- | 2 | -- | -- | -- | -- | -- | REASSURANCE ASSEMBLY |
| | 10-11 | R2-1 | 24 X 30 | 5 | -- | -- | -- | 1 | -- | -- | -- | -- | -- | SPEED LIMIT 35 MPH |
| | 10-12 | W6-1 | 36 X 36 | -- | -- | 9 | -- | -- | 1 | -- | -- | -- | -- | DIVIDED HIGHWAY AHEAD SYMBOL |
| | 11-01 | W3-3 | 36 X 36 | -- | -- | 9 | -- | -- | 1 | -- | -- | -- | -- | SIGNAL AHEAD |
| | 11-02 | J1-1 | 24 X 39 | 6.5 | -- | -- | -- | 1 | -- | -- | -- | -- | -- | JUNCTION OR END ASSEMBLY |
| | 12-01 | R2-1 | 24 X 30 | 5 | -- | -- | -- | 1 | -- | -- | -- | -- | -- | SPEED LIMIT 35 MPH |
| CATEGORY 0020 SUBTOTAL | | | | 666.07 | 25.32 | 155.50 | | 27.00 | 29.00 | 8.00 | 2.00 | | | |
| PROJECT 1161-02-74 TOTAL | | | | 1121.44 | 25.32 | 300.75 | 2.00 | 40.00 | 51.00 | 14.00 | 2.00 | 6.00 | | |

3

**PERMANENT SIGNING TYPE I**

| SIGN # | SIGN CODE | SIGN SIZE w FT | X | H FT | 637.1220 SIGNS TYPE I REFLECTIVE SH SF | 638.3210 REVISING SIGNS TYPE I DEMOUNTABLE EACH | SIGN MOUNTED ON | REMARKS |
|---|---|---|---|---|---|---|---|---|
| CATEGORY 0010 | | | | | | | | |
| 4-14 | E6-53 | 12 | X | 9 | 108 | -- | S-11-27 | -- |
| 4-15 | E6-52 | 12 | X | 9.5 | 114 | -- | S-11-27 | -- |
| 6-07 | E6-52 | 14 | X | 9 | 126 | -- | S-11-29 | -- |
| 6-08 | E6-53 | 12 | X | 9 | 108 | -- | S-11-29 | -- |
| PROJECT 1161-02-74 | | | | | -- | 5 | -- | REMOVE "TO" FROM TYPE I SIGNS ON IH 39 |
| CATEGORY 0010 TOTALS | | | | | 456 | 5 | | |

**OVERHEAD SIGNING**

| CATEGORY | STRUCTURE NO. | 641.8100.01 OVERHEAD SIGN SUPPORT (S-11-27) LS | 641.8100.02 OVERHEAD SIGN SUPPORT (S-11-28) LS | 641.8100.03 OVERHEAD SIGN SUPPORT (S-11-29) LS | 650.6500.01 CONSTRUCTION STAKING STRUCTURE LAYOUT (S-11-27) LS | 650.6500.02 CONSTRUCTION STAKING STRUCTURE LAYOUT (S-11-28) LS | 650.6500.03 CONSTRUCTION STAKING STRUCTURE LAYOUT (S-11-29) LS |
|---|---|---|---|---|---|---|---|
| 0010 | S-11-27 | 1 | -- | -- | 1 | -- | -- |
| | S-11-29 | -- | -- | 1 | -- | -- | 1 |
| 0020 | S-11-28 | -- | 1 | -- | -- | 1 | -- |
| **PROJECT TOTALS** | | **1** | **1** | **1** | **1** | **1** | **1** |

3

## REMOVING PULL BOXES

| CATEGORY | | 653.0905 EACH |
|---|---|---|
| 0020 | | |
| | STH 16 & SILVER LAKE DR | |
| | PB2 | 1 |
| | PB3 | 1 |
| | PB9 | 1 |
| **PROJECT 1161-02-74 TOTAL** | | **3** |

## PEDESTRIAN PUSH BUTTONS

| CATEGORY | LOCATION / BASE NUMBER | 658.0500 PEDESTRIAN PUSH BUTTONS EACH |
|---|---|---|
| 0020 | | |
| | STH 16 & SILVER LAKE DR | |
| | sb3 | 1 |
| | SB9 | 1 |
| | SB10 | 1 |

## TRAFFIC SIGNAL CONDUIT

| CATEGORY | LOCATION | FROM - TO | 652.0225 * CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF |
|---|---|---|---|
| 0020 | | | |
| | STH 16 & SILVER LAKE DR | | |
| | | PB1 - PB14 | 5 |
| | | PB14 - PB15 | 10 |
| | | PB16 - PB17 | 135 |
| | | PB7 - SB9 | 12 |
| | | PB11 - SB10 | 16 |
| | | 764+60 - 764+70 | 10 |
| | | 767+86 - 767+96 | 10 |
| **PROJECT 1161-02-74 TOTAL** | | | **198** |

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

3

## TRAFFIC SIGNAL PULL BOXES

| CATEGORY | LOCATION / PULL BOX NUMBER | STATION | OFFSET | L/R | 653.0140 PULL BOXES STEEL 24X42-INCH EACH |
|---|---|---|---|---|---|
| 0020 | | | | | |
| | STH 16 & SILVER LAKE DR | | | | |
| | PB14 | 765+48'WB' | 36.3' | RT | 1 |
| | PB15 | 762+84'WB' | 45.1' | RT | 1 |
| | PB16 | 111+22 | 34.9' | LT | 1 |
| | PB17 | 113+40 | 29.5' | LT | 1 |
| **PROJECT 1161-02-74 TOTAL** | | | | | **4** |

## TRAFFIC SIGNAL STRUCTURES

| CATEGORY | LOCATION / BASE NUMBER | STATION | OFFSET | L/R | 654.0101 CONCRETE BASES TYPE 1 EACH | 657.0100 PEDESTAL BASES EACH | 657.0405 TRAFFIC SIGNAL STANDARDS ALUMINUM 3.5-FT EACH |
|---|---|---|---|---|---|---|---|
| 0020 | | | | | | | |
| | STH 16 & SILVER LAKE DR | | | | | | |
| | SB2 | | EXISTING | | -- | -- | -- |
| | SB4 | | EXISTING | | -- | -- | -- |
| | SB6 | | EXISTING | | -- | -- | -- |
| | SB8 | | EXISTING | | -- | -- | -- |
| | SB9 | 112+02 | 40.4' | LT | 1 | 1 | 1 |
| | SB10 | 111+12 | 48.8' | RT | 1 | 1 | 1 |
| **PROJECT 1161-02-74 TOTAL** | | | | | **2** | **2** | **2** |

## TRAFFIC SIGNAL LOOP DETECTORS

| CATEGORY | LOCATION / LOOP NO. | STATION ** | OFFSET | L/R | SIZE FT X FT | NO. OF TURNS | INSTALLATION METHOD | 652.0900 LOOP DETECTOR SLOTS LF | 652.0800 CONDUIT LOOP DETECTOR LF | 655.0800 LOOP DETECTOR WIRE LF | 655.0700 * LOOP DETECTOR LEAD IN CABLE LF |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0020 | | | | | | | | | | | |
| | STH 16 & SILVER LAKE DR | | | | | | | | | | |
| | 21 | 765+83'WB' | 18' | RT | 6 X 20 | 4 | SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) | -- | 98 | 392 | 45 |
| | 22 | 765+83'WB' | 6' | RT | 6 X 20 | 3 | SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) | -- | 116 | 348 | 45 |
| | 23 | 765+58'WB' | 6' | RT | 6 X 20 | 3 | SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) | -- | 112 | 336 | 45 |
| | 24 | 762+80'WB' | 24' | RT | 6 X 20 | 4 | SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) | -- | 90 | 360 | 310 |
| | 25 | 762+80'WB' | 12' | RT | 6 X 20 | 4 | SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) | -- | 114 | 456 | 315 |
| | 41 | 111+16 | 6' | RT | 6 X 20 | 4 | SDD: LOOP DETECTOR INSTALLED IN EXISTING OR NEW ASPHALTIC PAVEMENT WITH NEW ASPHALTIC OVERLAY | 81 | 114 | 456 | 100 |
| | 42 | 110+91 | 6' | RT | 6 X 20 | 4 | SDD: LOOP DETECTOR INSTALLED IN EXISTING OR NEW ASPHALTIC PAVEMENT WITH NEW ASPHALTIC OVERLAY | 80 | 112 | 448 | 100 |
| | 43 | 111+14 | 21' | RT | 8 X 20 | 3 | SDD: LOOP DETECTOR INSTALLED IN EXISTING OR NEW ASPHALTIC PAVEMENT WITH NEW ASPHALTIC OVERLAY | 78 | 86 | 258 | 100 |
| | 44 | 110+89 | 21' | RT | 8 X 20 | 3 | SDD: LOOP DETECTOR INSTALLED IN EXISTING OR NEW ASPHALTIC PAVEMENT WITH NEW ASPHALTIC OVERLAY | 78 | 82 | 246 | 100 |
| | 61 | 766+96'WB' | 18' | LT | 6 X 20 | 4 | SDD: LOOP DETECTOR INSTALLED IN EXISTING CONCRETE PAVEMENT WITH NEW ASPHALTIC OVERLAY | 65 | 76 | 304 | 210 |
| | 62 | 766+94'WB' | 6' | LT | 6 X 30 | 3 | SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) | -- | 122 | 366 | 210 |
| | 63 | 767+49'WB' | 6' | LT | 6 X 20 | 3 | SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) | -- | 98 | 294 | 210 |
| | 64 | 769+70'EB' | 6' | LT | 6 X 20 | 4 | SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) | -- | 100 | 400 | 510 |
| | 81 | 112+01 | 13' | LT | 8 X 20 | 3 | SDD: LOOP DETECTOR INSTALLED IN EXISTING OR NEW ASPHALTIC PAVEMENT WITH NEW ASPHALTIC OVERLAY | 73 | 96 | 288 | 145 |
| | 82 | 112+24 | 11' | LT | 6 X 20 | 4 | SDD: LOOP DETECTOR INSTALLED IN EXISTING OR NEW ASPHALTIC PAVEMENT WITH NEW ASPHALTIC OVERLAY | 70 | 96 | 384 | 145 |
| | 83 | 112+62 | 28' | LT | 6 X 20 | 4 | SDD: LOOP DETECTOR INSTALLED IN EXISTING OR NEW ASPHALTIC PAVEMENT WITH NEW ASPHALTIC OVERLAY | 60 | 70 | 280 | 145 |
| | 84 | 113+49 | 13' | LT | 6 X 16 | 4 | SDD: LOOP DETECTOR INSTALLED IN EXISTING OR NEW ASPHALTIC PAVEMENT WITH NEW ASPHALTIC OVERLAY | 63 | 72 | 288 | 295 |
| **PROJECT 1161-02-74 TOTAL** | | | | | | | | **648** | **1,654** | **5,904** | **3,030** |

** LOCATION IS TO THE FRONT CENTER OF DETECTOR LOOP & FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.
* ADDITIONAL QUANTITIES SHOWN ELSEWHERE (TRAFFIC SIGNAL CABLE AND WIRE - ABOVE GROUND)
NOTE: LOOPS PLACED IN PAVEMENT IN MILL AND OVERLAY LIMITS ARE TO BE PLACED AFTER MILLING BUT BEFORE OVERLAY WORK

3

3

**TRAFFIC SIGNAL CABLE AND WIRE - BELOW GROUND**

| CATEGORY | LOCATION | FROM - TO | 655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG LF |
|---|---|---|---|
| 0020 | | | |
| | STH 16 & SILVER LAKE DR | | |
| | | CB1 - SB9 | 324 |
| | | CB1 - SB10 | 217 |
| **PROJECT 1161-02-74 TOTAL** | | | **541** |

**TRAFFIC SIGNAL CABLE AND WIRE - ABOVE GROUND**

| CATEGORY | LOCATION | FROM SIGNAL BASE | - | TO SIGNAL HEAD | 655.0700 * LOOP DETECTOR LEAD IN CABLE LF |
|---|---|---|---|---|---|
| 0020 | | | | | |
| | STH 16 & SILVER LAKE DR | | | | |
| | | SB9 | - | BUTTON | 6 |
| | | SB10 | - | BUTTON | 6 |
| **PROJECT 1161-02-74 TOTAL** | | | | | **12** |

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE
(TRAFFIC SIGNAL CABLE AND WIRE - BELOW GROUND, TRAFFIC SIGNAL LOOP DETECTORS)

**REMOVE PEDESTRIAN PUSH BUTTON**

| CATEGORY | LOCATION | SPV.0060.01 REMOVE PEDESTRIAN PUSH BUTTON EACH |
|---|---|---|
| 0020 | | |
| | SB1 | 1 |
| | SB3 | 1 |
| | SB7 | 1 |
| **PROJECT 1161-02-74 TOTAL** | | **3** |

3

## LIGHTING CONDUIT AND WIRE

| FROM | - | TO | 652.0225 * CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF | 655.0620 ELECTRICAL WIRE LIGHTING 8 AWG LF | REMARKS |
|---|---|---|---|---|---|
| ALL ITEMS ARE CATEGORY 0010 | | | | | |
| CB 100 | - | PB 101 | 15 | 165 | -- |
| PB 101 | | SL 105 | 60 | 365 | -- |
| SL 105 | - | PB 102 | 75 | 880 | -- |
| PB 102 | - | SL 106 | 225 | 1,190 | -- |
| PB 102 | - | SL 107 | 75 | 440 | -- |
| SL 107 | - | SL 108 | 100 | 550 | -- |
| SL 108 | - | PB 103 | 25 | 228 | -- |
| PB 103 | - | SL 109 | 215 | 684 | -- |
| PB 103 | - | SL 110 | 110 | 369 | -- |
| SL 110 | - | SL 111 | 135 | -- | PULL WIRE ONLY |
| SL 111 | - | PB 104 | 75 | 264 | -- |
| PB 104 | - | SL 100 | 225 | 1,190 | -- |
| PB 104 | - | SL 101 | 75 | 704 | -- |
| SL 101 | - | SL 102 | 100 | 550 | -- |
| SL 102 | - | PB 105 | 40 | 265 | -- |
| PB 105 | - | SL 103 | 200 | 639 | -- |
| PB 105 | - | SL 104 | 80 | 744 | -- |
| SL 104 | - | PB 100 | 20 | 165 | -- |
| PB 100 | - | CB 100 | 15 | 165 | -- |
| PROJECT TOTALS | | | 1,865 | 9,557 | |

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

## LIGHTING CONTROL

| CABINET NUMBER | STATION | OFFSET | R/L | 650.8500.01 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS 1161-02-74 LS | 654.0230 CONCRETE CONTROL CABINET BASES TYPE L30 EACH | 656.0200.01 ELECTRICAL SERVICE METER BREAKER PEDESTAL (CB100) LS | 659.2130 LIGHTING CONTROL CABINETS 120/240 30-INCH EACH |
|---|---|---|---|---|---|---|---|
| ALL ITEMS ARE CATEGORY 0010 | | | | | | | |
| CB100 | 737+84'REB' | 45.1' | RT | -- | 1 | 1 | 1 |
| PROJECT 1161-02-74 | | | | 1 | -- | -- | -- |
| PROJECT TOTALS | | | | 1 | 1 | 1 | 1 |

## STREET LIGHTS

| LIGHT NUMBER | STATION | OFFSET | R/L | 654.0106 CONCRETE BASES TYPE 6 EACH | 657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH | 657.0327 POLES TYPE 6 ALUMINUM EACH | 657.0615 LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 8-FT EACH | 659.1120 LUMINAIRES UTILITY LED B EACH | 655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF |
|---|---|---|---|---|---|---|---|---|---|
| ALL ITEMS ARE CATEGORY 0010 | | | | | | | | | |
| SL 100 | 734+22'REB' | 27.1' | LT | 1 | 1 | 1 | 2 | 2 | 336 |
| SL 101 | 736+21'REB' | 38.1' | RT | 1 | 1 | 1 | 1 | 1 | 168 |
| SL 102 | 49+82'RA' | 39.0' | LT | 1 | 1 | 1 | 1 | 1 | 168 |
| SL 103 | 47+49'RA' | 23.2' | LT | 1 | 1 | 1 | 1 | 1 | 168 |
| SL 104 | 59+56'RB' | 39.3' | RT | 1 | 1 | 1 | 1 | 1 | 168 |
| SL 105 | 738+52'REB' | 33.4' | RT | 1 | 1 | 1 | 1 | 1 | 168 |
| SL 106 | 741+04'REB' | 26.6' | LT | 1 | 1 | 1 | 2 | 2 | 336 |
| SL 107 | 739+20'RWB' | 38.1' | LT | 1 | 1 | 1 | 1 | 1 | 168 |
| SL 108 | 80+19'NB' | 38.4' | RT | 1 | 1 | 1 | 1 | 1 | 168 |
| SL 109 | 82+55'NB' | 24.0' | RT | 1 | 1 | 1 | 1 | 1 | 168 |
| SL 110 | 80+62'SB' | 39.2' | LT | 1 | 1 | 1 | 1 | 1 | 168 |
| SL 111 | 736+81'RWB' | 33.3' | LT | 1 | 1 | 1 | 1 | 1 | 168 |
| PROJECT TOTALS | | | | 12 | 12 | 12 | 14 | 14 | 2352 |

## LIGHTING PULL BOXES

| PULL BOX NUMBER | STATION | OFFSET | R/L | 653.0164 PULL BOX NON-CONDUCTIVE 24X42-INCH EACH |
|---|---|---|---|---|
| ALL ITEMS ARE CATEGORY 0010 | | | | |
| PB 100 | 738+07'REB' | 54.1' | RT | 1 |
| PB 101 | 737+96'REB' | 39.6' | RT | 1 |
| PB 102 | 738+92'REB' | 27.2' | LT | 1 |
| PB 103 | 80+45'NB' | 39.2' | RT | 1 |
| PB 104 | 736+26'REB' | 34.1' | LT | 1 |
| PB 105 | 49+48'RA' | 29.9' | LT | 1 |
| PROJECT TOTALS | | | | 6 |

3

## ITS PULL BOX

| LOCATION | ITEM ID | 653.0164 PULL BOXES NON-CONDUCTIVE 24 X 42-INCH EACH |
|---|---|---|
| IH 39 AND STH 16 | | |
| | PB1601 | 1 |
| | PB1602 | 1 |
| | PB1603 | 1 |
| | PB1604 | 1 |
| | TOTAL | 4 |

## ITS CONDUIT AND CABLE

| LOCATION | ITEM I.D. | FIBER SLACK | 652.0125 CONDUIT RIGID METALLIC 2-INCH LF | 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF | 655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF | 655.0630 ELECTRICAL WIRE LIGHTING 4 AWG LF | 671.0300 FIBER OPTIC CABLE MARKER EACH | 678.0006 INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 6-CT LF |
|---|---|---|---|---|---|---|---|---|
| IH 39 AND STH 16 | | | | | | | | |
| | EXCV1601 - PB1601 | 100 | -- | 80 | 90 | -- | 1 | 180 |
| | PB1601 - PB1602 | 15 | -- | 180 | 90 | | -- | 105 |
| | PB1602-LIGHTING CAB. | -- | -- | 60 | -- | 225 | -- | -- |
| | PB1602 - PB1603 | 15 | -- | 500 | 250 | 750 | 1 | 265 |
| | PB1603 - PB1604 | 15 | -- | 450 | 225 | 675 | 1 | 240 |
| | PB1604 - CCTV-11-0131 | 25 | 10 | 20 | 25 | 75 | -- | 35 |
| | TOTAL | | 10 | 1290 | 680 | 1725 | 3 | 825 |

3

## ITS MICROWAVE DETECTOR

| LOCATION | ITEM I.D. | 675.0300 INSTALL MOUNTED CONTROLLER MICROWAVE DETECTOR ASSEMBLY EACH |
|---|---|---|
| IH 39 AND STH 16 | | |
| | SDS-11-0161 | 2 |
| | TOTAL | 2 |

## ITS CAMERA

| LOCATION | ITEM I.D. | 654.1150 CONCRETE BASES CAMERA POLE 50-FOOT EACH | 673.0225.S INSTALL POLE MOUNTED CABINET EACH | 677.0150 INSTALL CAMERA POLE 50-FOOT EACH | 677.0200 INSTALL CAMERA ASSEMBLY EACH | 678.0400 FIBER OPTIC TERMINATION EACH | 678.0600 INSTALL ETHERNET SWITCHES EACH |
|---|---|---|---|---|---|---|---|
| IH 39 AND STH 16 | | | | | | | |
| | CCTV-11-00131 | 1 | 1 | 1 | 1 | 6 | 1 |
| | TOTAL | 1 | 1 | 1 | 1 | 6 | 1 |

## ITS LUMP SUM ITEMS

| LOCATION | ITEM ID ID | 656.0500.01 ELECTRICAL SERVICE BREAKER DISCONNECT BOX (CCTV-11-0131) LS | 670.0100 FIELD SYSTEM INTEGRATOR L.S. | 670.0200 ITS DOCUMENTATION L.S. |
|---|---|---|---|---|
| IH 39 AND STH 16 | | | | |
| | CCTV-11-0131 | 1 | -- | -- |
| | PROJECT | -- | 1 | 1 |
| TOTAL | | 1 | 1 | 1 |

N

MH

INL

EQUATION

STA 732'WB'+43.50=
STA 732'RWB'+43.50
END OVERLAY
BEGIN RECONSTRUCT
STA 732'RWB'+43.50
SAWCUT REQUIRED

ALLIANT
(UG GAS)

EXISTING R/W

SIGN

PCC: 728'WB'+66.77

BP: 732'RWB'+43.50

PC: 734'RWB'+15.84

**STH 16**

729'WB' 730'WB' 731'WB' 732'WB' 733'RWB' 734'RWB'

5

5

CAUTION

SIGN

STA 734'REB'+50

MATCH LINE

729'EB' 730'EB' 731'EB' 732'REB' 733'REB' 734'REB'

**STH 16**

MGS GUARDRAIL EAT

MGS GUARDRAIL

MGS GUARDRAIL
TYPE 2 TERMINAL

S-11-27

BP: 731'REB'+20.48

PC: 732'REB'+31.28

PT: 734'REB'+19.31

SIGN

EQUATION

STA 731'EB'+20.48=
STA 731'REB'+20.48
END OVERLAY
BEGIN RECONSTRUCT
STA 731'REB'+20.48
SAWCUT REQUIRED

SIGN

ALLIANT
(UG GAS)

FRONTIER (UG COMMUNICATIONS)

SLOPE INTERCEPT, TYP

MATC
(UG COMMUNICATIONS)

ALLIANT
(OH ELECTRIC)

FO

OH

GUY

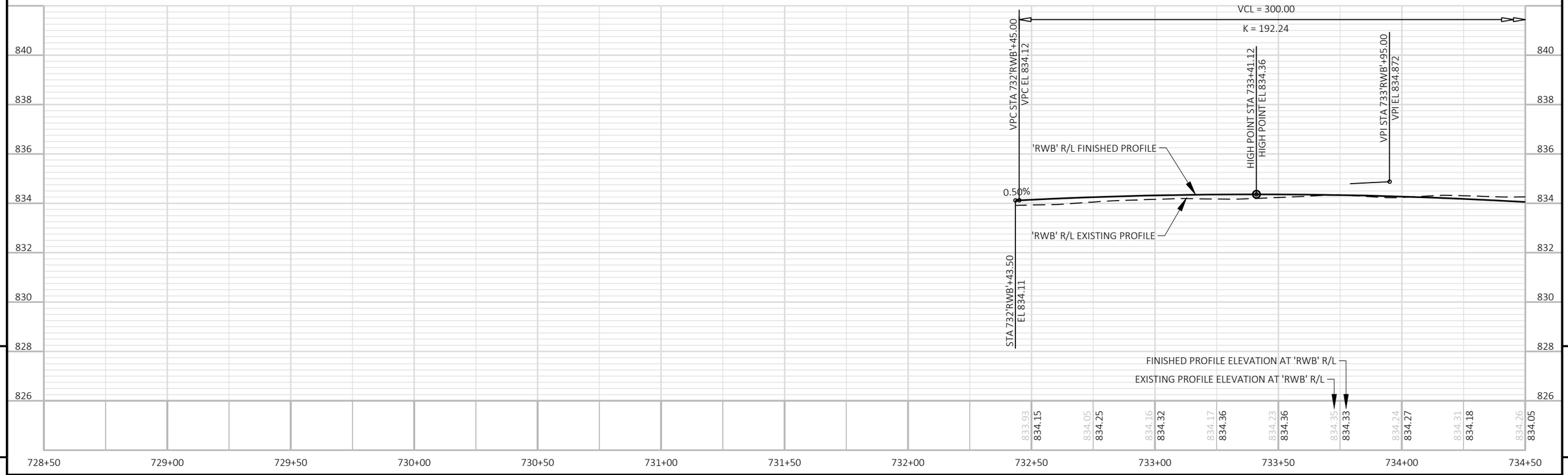
EXISTING R/W

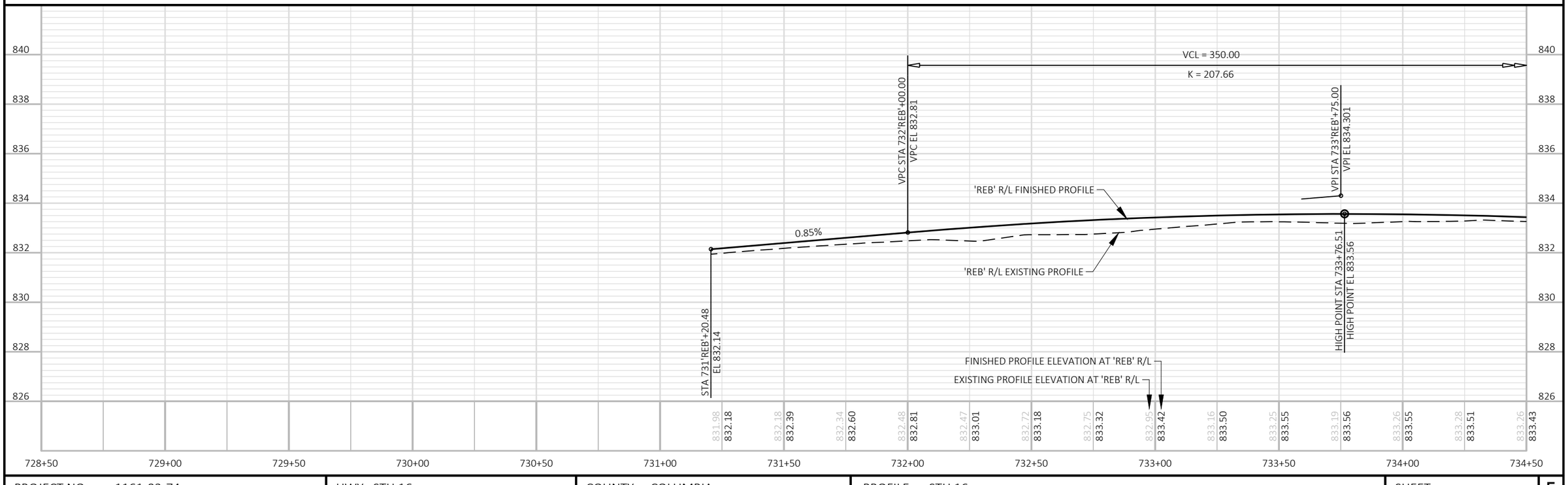
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PLAN: STH 16 | SHEET 205 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-050101-PP.DWG
LAYOUT NAME - 01-A

PLOT DATE : 10/19/2017 9:25 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

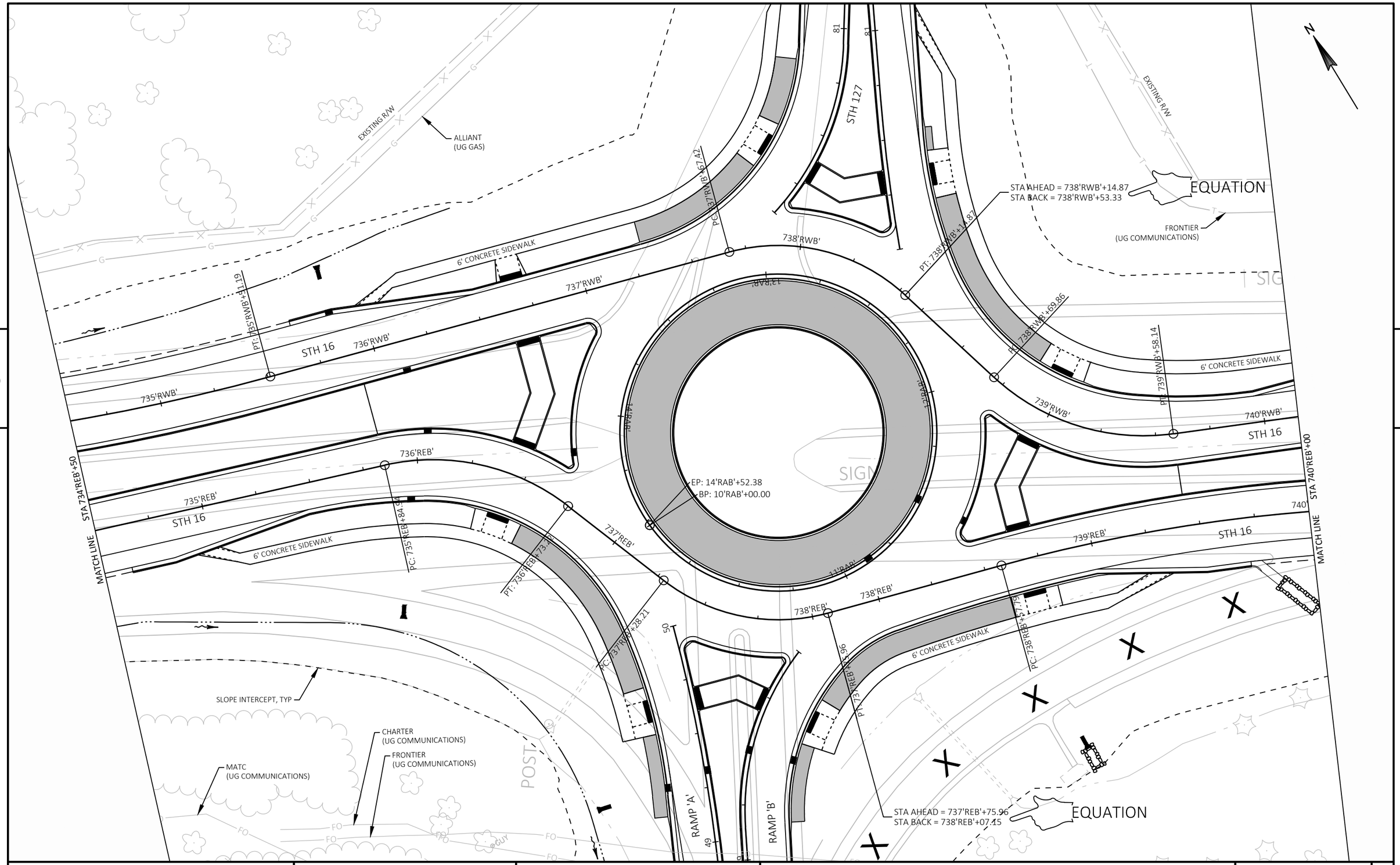
WISDOT/CADDS SHEET 44




| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PROFILE: STH 16 | SHEET 206 | E |
|---|---|---|---|---|---|


FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-050101-PP.DWG
LAYOUT NAME - 01-B
PLOT DATE : 10/19/2017 9:25 AM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

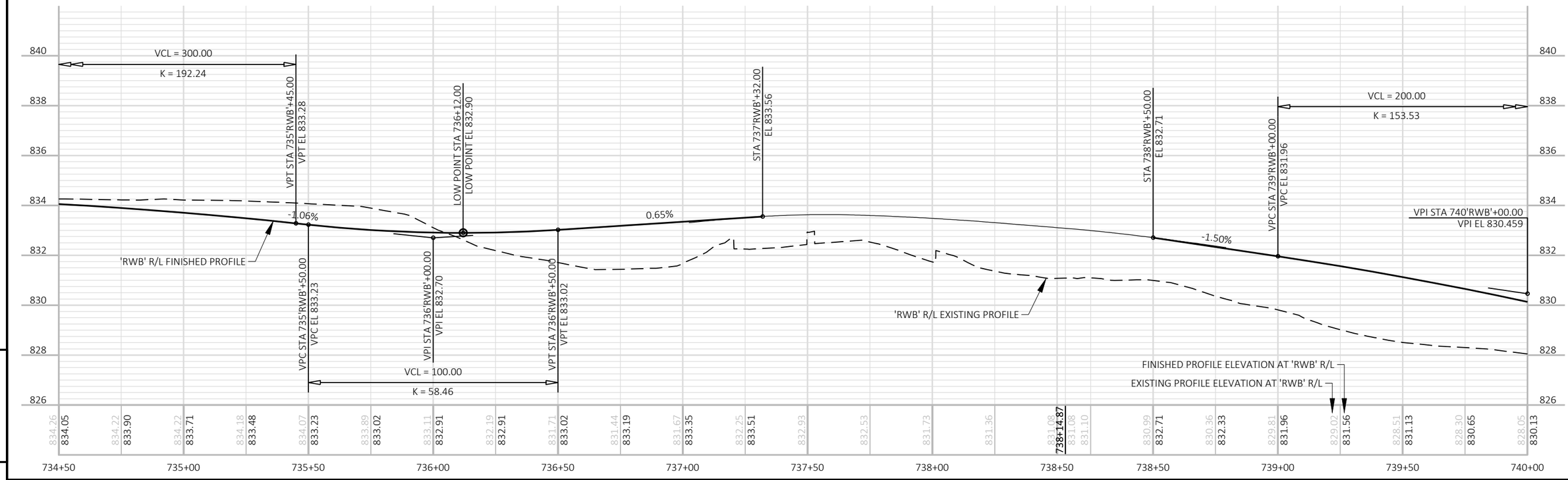


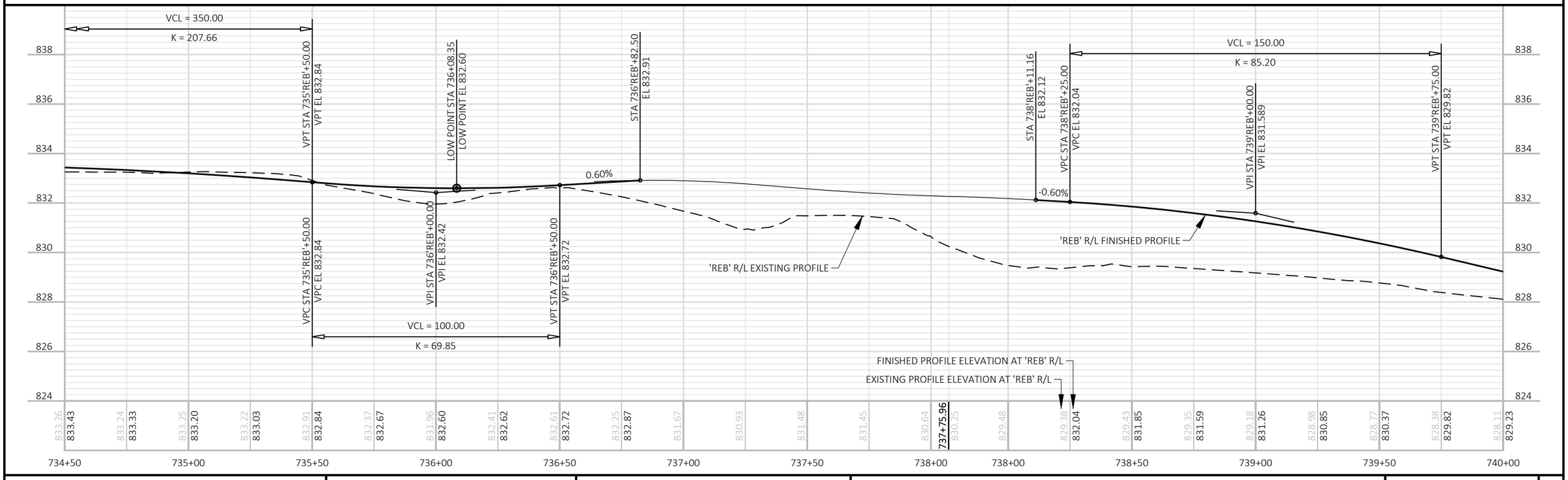

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PLAN: STH 16 | SHEET 207 E |
|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-050101-PP.DWG
LAYOUT NAME - 02-A

PLOT DATE : 10/19/2017 9:25 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44




| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PROFILE: STH 16 | SHEET 208 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-050101-PP.DWG
LAYOUT NAME - 02-B

PLOT DATE : 10/19/2017 9:25 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

5

5

FRONTIER
(UG COMMUNICATIONS)

N

EQUATION

STA 745'RWB'+00.00=
STA 745'WB'+00.00
END RECONSTRUCT
BEGIN PAVEMENT REPLACEMENT
STA 745'WB'+00.00

EXISTING R/W

FRONTIER
(UG COMMUNICATIONS)

SLOPE INTERCEPT, TYP

ALLIANT
(OH ELECTRIC)

PC: 740'RWB'+99.46

PCC: 741'RWB'+65.89

MGS GUARDRAIL TYPE 2 TERMINAL

MGS GUARDRAIL

S-11-29

MGS GUARDRAIL EAT

741'RWB'

742'RWB'

743'RWB'

744'RWB'

746'WB'

STH 16

STEEL THRIE BEAM
BULL NOSE TERMINAL

STEEL THRIE BEAM
BULL NOSE TERMINAL

STEEL THRIE BEAM

RIPRAP

IH 39

IH 39

INL

SIGN

SIGN

STA 740'REB'+00

MATCH LINE

741'REB'

742'REB'

743'EB'

744'EB'

745'EB'

746'EB'

STH 16

PCC: 740'REB'+59.45

RIPRAP

MGS GUARDRAIL EAT

MGS GUARDRAIL

MGS GUARDRAIL EAT

CHARTER
(UG COMMUNICATIONS)

STA 742'REB'+00.00=
STA 742'EB'+00.00
END RECONSTRUCT
BEGIN OVERLAY
STA 742'EB'+00.00
SAWCUT REQUIRED

EQUATION

POST

RIPRAP

SIGN

MATC
(UG COMMUNICATIONS)

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PLAN: STH 16 | SHEET 209 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-050101-PP.DWG
LAYOUT NAME - 03-A

PLOT DATE : 10/19/2017 9:26 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

VPI STA 740'RWB'+00.00
VPI EL 830.459

VCL = 275.00
K = 183.01

-2.80%

'RWB' R/L FINISHED PROFILE

'RWB' R/L EXISTING PROFILE

VPT STA 741'RWB'+00.00
VPT EL 827.66

VPC STA 741'RWB'+12.50
VPC EL 827.31

VCL = 200.00
K = 153.53

VPI STA 742'RWB'+50.00
VPI EL 823.45

VPT STA 743'RWB'+87.50
VPT EL 821.67

-1.30%

STA 745'RWB'+00.00
EL 820.20

741+94.03; 27.5 RT; EL=815.77
741+98.18; 62.0 LT; EL=814.60
90 LF OF CPRC CLASS III 36-INCH REQ'D

FINISHED PROFILE ELEVATION AT 'RWB' R/L

EXISTING PROFILE ELEVATION AT 'RWB' R/L

| 740+00 | 740+50 | 741+00 | 741+50 | 742+00 | 742+50 | 743+00 | 743+50 | 744+00 | 744+50 | 745+00 | 745+50 | 746+00 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 828.05 | 827.79 | 827.43 | 827.17 | 826.65 | 826.24 | 825.76 | 825.30 | 824.80 | 824.35 | 823.88 | 823.39 | 822.93 |
| 830.13 | 829.58 | 828.98 | 828.34 | 827.66 | 826.96 | 826.29 | 825.66 | 825.06 | 824.50 | 823.97 | 823.47 | 823.01 |

| 740+00 | 740+50 | 741+00 | 741+50 | 742+00 | 742+50 | 743+00 | 743+50 | 744+00 | 744+50 | 745+00 | 745+50 | 746+00 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 822.51 | 822.12 | 821.72 | 821.36 | 821.00 | 820.84 | 820.49 | 820.20 | 819.97 | 819.75 | 819.38 | | |
| 822.58 | 822.19 | 821.83 | 821.50 | 821.18 | 820.85 | 820.53 | 820.20 | | | | | |

-2.36%

'REB' R/L FINISHED PROFILE

'REB' R/L EXISTING PROFILE

741+73.95; 44.0 RT; EL=816.80
741+73.03; 34.4 LT; EL=815.77
78 LF OF CPRC CLASS III 36-INCH REQ'D

STA 742'REB'+00.00
EL 824.51

FINISHED PROFILE ELEVATION AT 'REB' R/L

EXISTING PROFILE ELEVATION AT 'REB' R/L

| 740+00 | 740+50 | 741+00 | 741+50 | 742+00 | 742+50 | 743+00 | 743+50 | 744+00 | 744+50 | 745+00 | 745+50 | 746+00 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 828.11 | 827.65 | 827.23 | 826.81 | 826.40 | 825.94 | 825.37 | 824.80 | | | | | |
| 829.23 | 828.64 | 828.05 | 827.46 | 826.87 | 826.28 | 825.69 | 825.10 | | | | | |

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PROFILE: STH 16 | SHEET 210 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-050101-PP.DWG
LAYOUT NAME - 03-B

PLOT DATE : 10/19/2017 9:26 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

N

EXISTING R/W

MATC
(UG COMMUNICATIONS)

CAUTION
ALLIANT
(UG GAS)

POST

MATC
(UG COMMUNICATIONS)

BEGIN CONSTRUCTION
STA 47'RA'+36.72
MATCH EXISTING
SAWCUT REQUIRED

PT: 47'RA'+36.72

PC: 48'RA'+83.57

PC: 50'RA'+00.00

50'RA'

49'RA'

48'RA'

47'RA'

58'RB'

59'RB'

57'RB'

RAMP 'A'

46'RA'

56'RB'

RAMP 'B'

45'RA'

55'RB'

44'RA'

PC: 44'RA'+75.97

PT: 57'RB'+58.78

PC: 59'RB'+14.86

BEGIN CONSTRUCTION
STA 57'RB'+58.78
MATCH EXISTING
SAWCUT REQUIRED

ALLIANT
(OH ELECTRIC)

CHARTER
(UG COMMUNICATIONS)

SLOPE INTERCEPT, TYP

MATC
(UG COMMUNICATIONS)

FRONTIER
(UG COMMUNICATIONS)

EP: 60'RB'+00.00

736'REB'

737'REB'

738'REB'

738'REB'

STH 16

739'REB'

739'RWB'

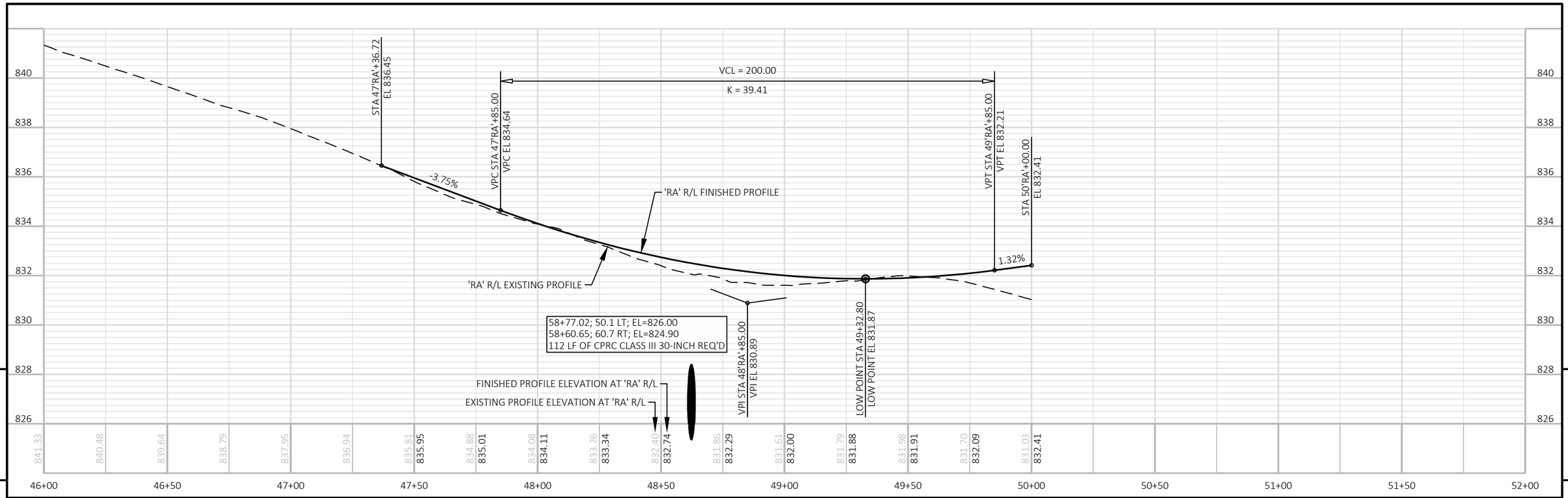
SIGN

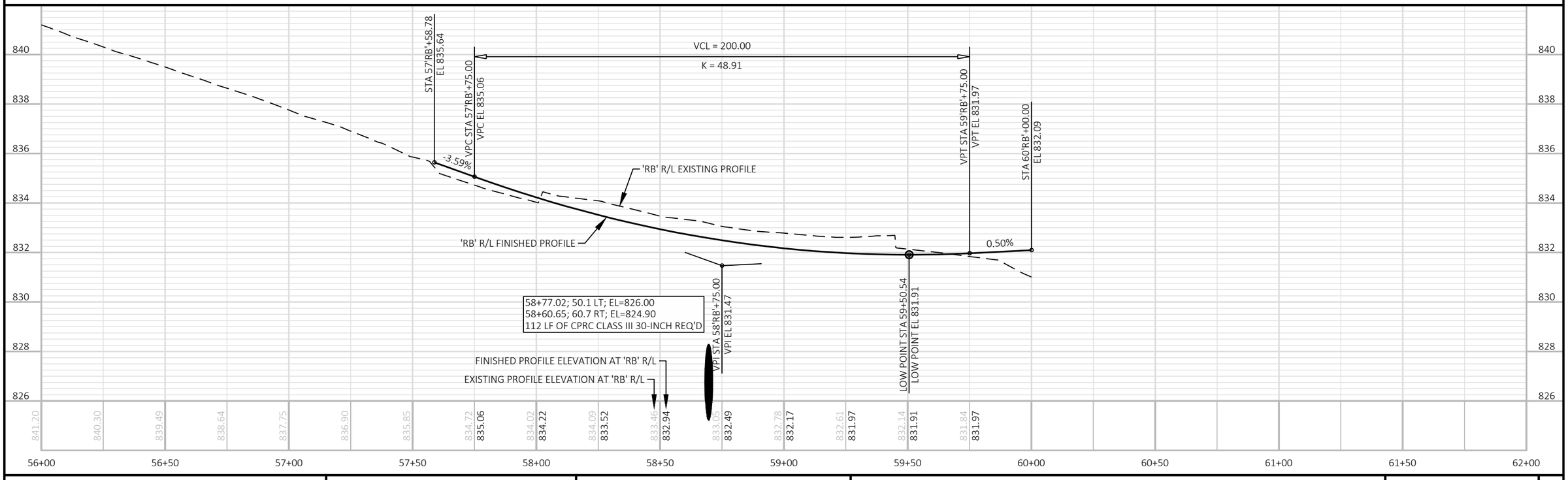
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PLAN: RAMP 'A' & RAMP 'B' | SHEET 211 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-050102-PP.DWG
LAYOUT NAME - 01-A

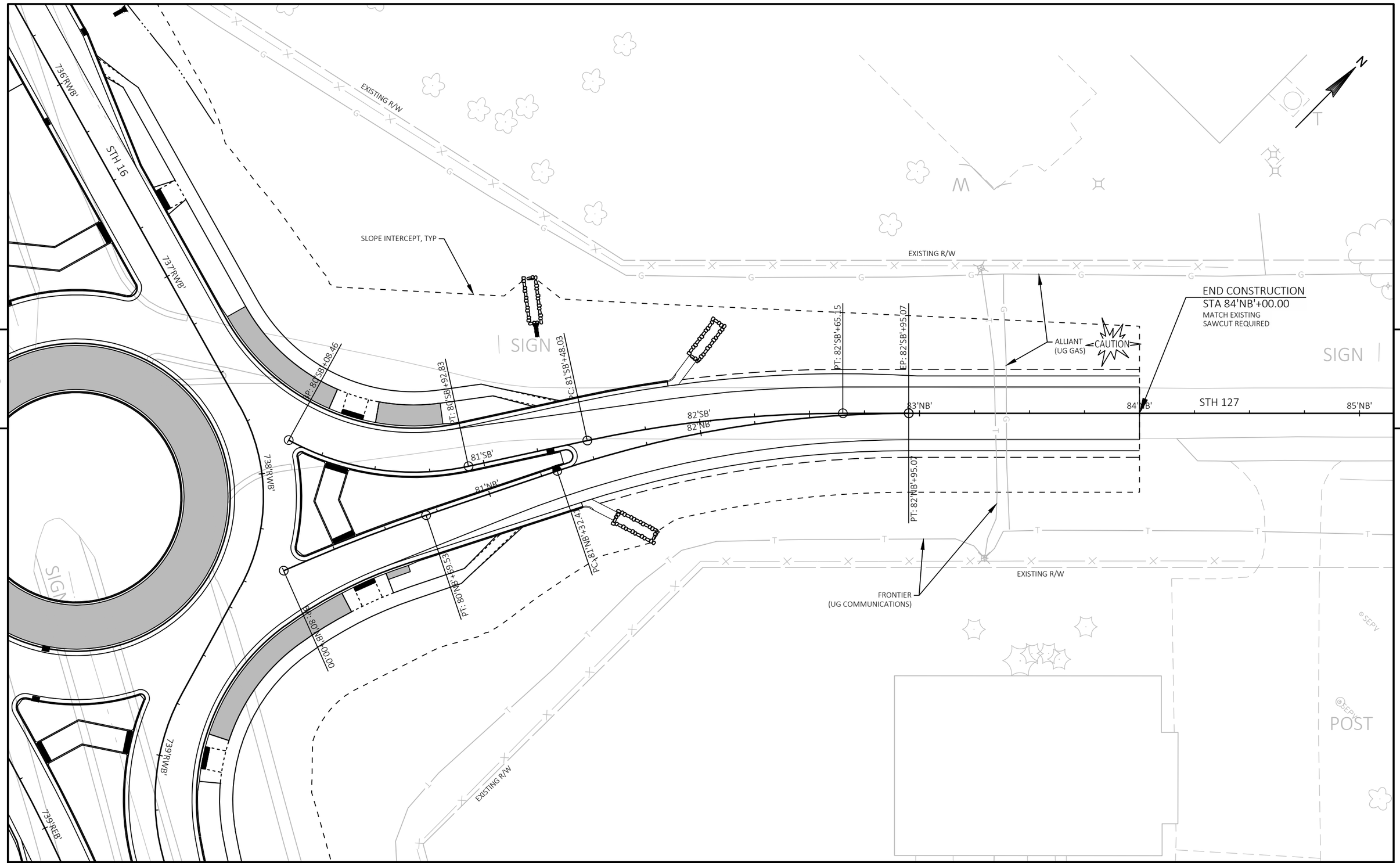
PLOT DATE : 10/19/2017 9:26 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44




| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PROFILE: RAMP 'A' & RAMP 'B' | SHEET 212 | E |
|---|---|---|---|---|---|

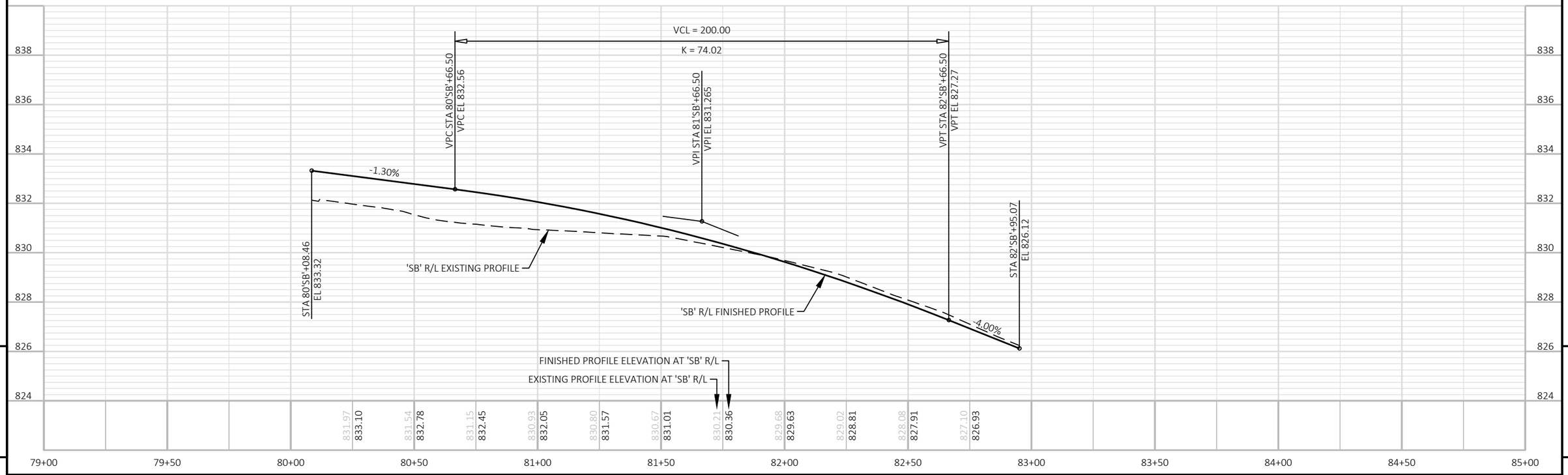


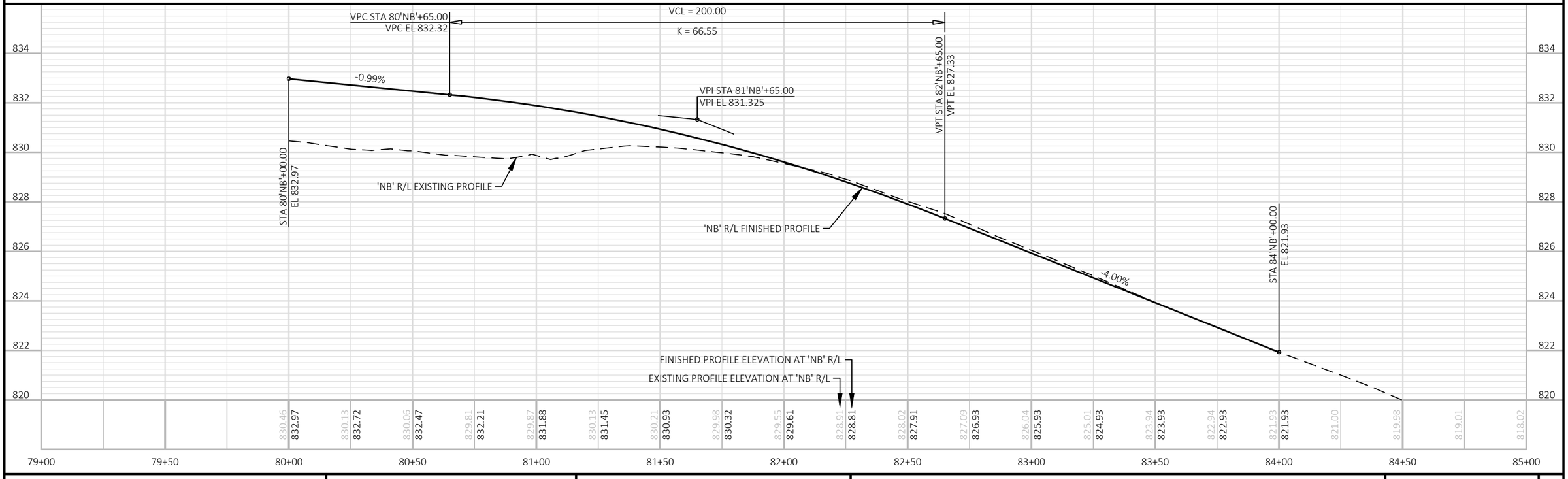

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PLAN: STH 127 | SHEET 213 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-050102-PP.DWG
LAYOUT NAME - 02-A

PLOT DATE : 10/19/2017 9:26 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT

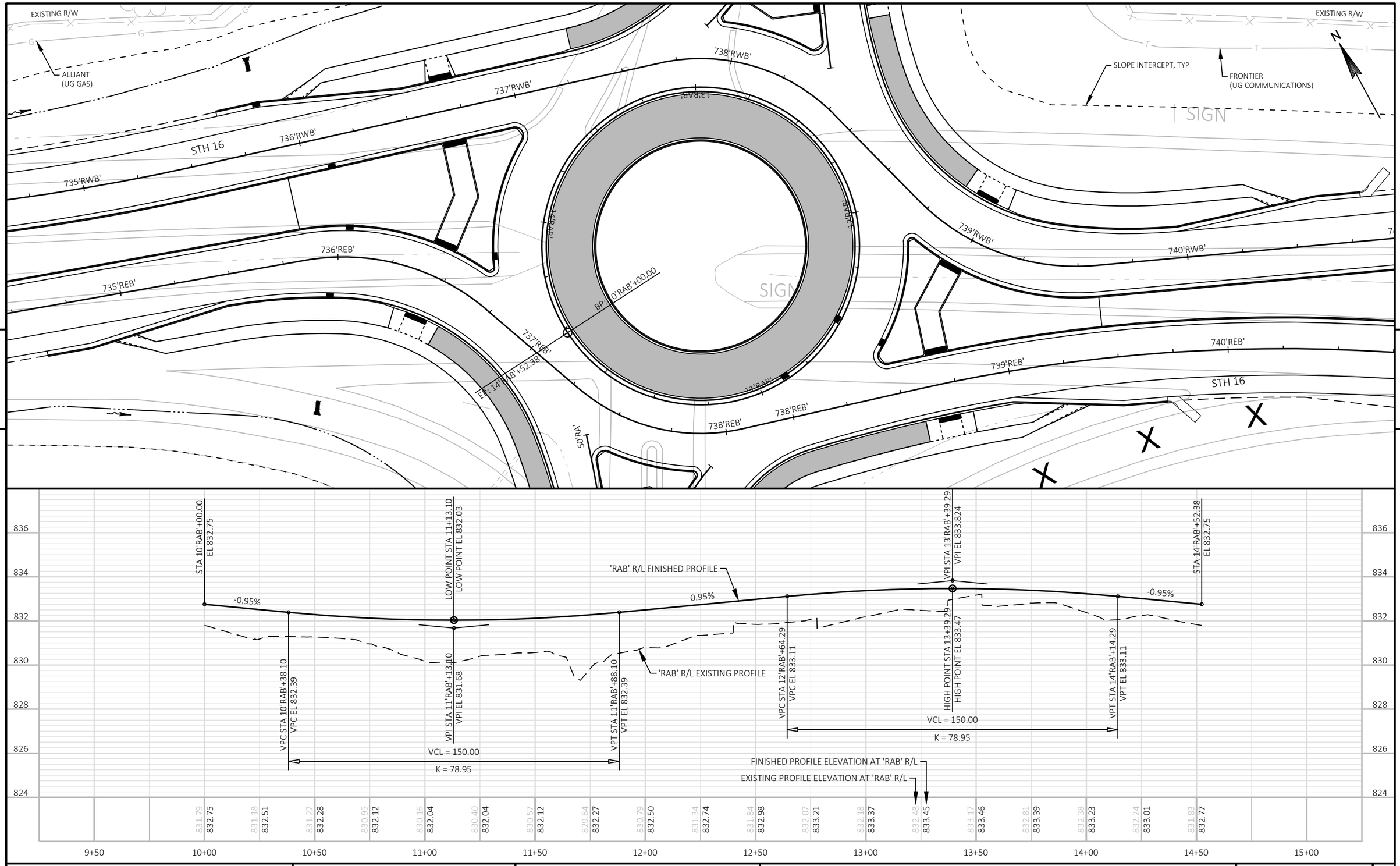
WISDOT/CADDS SHEET 44



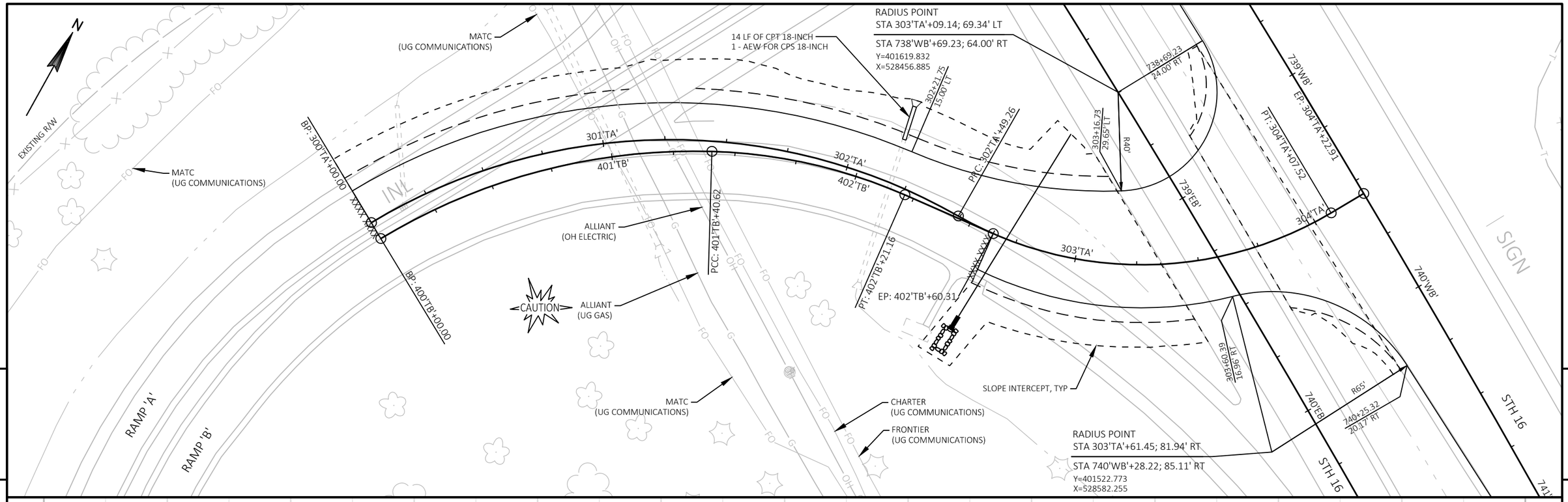

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PROFILE: STH 127 | SHEET 214 | E |
|---|---|---|---|---|---|

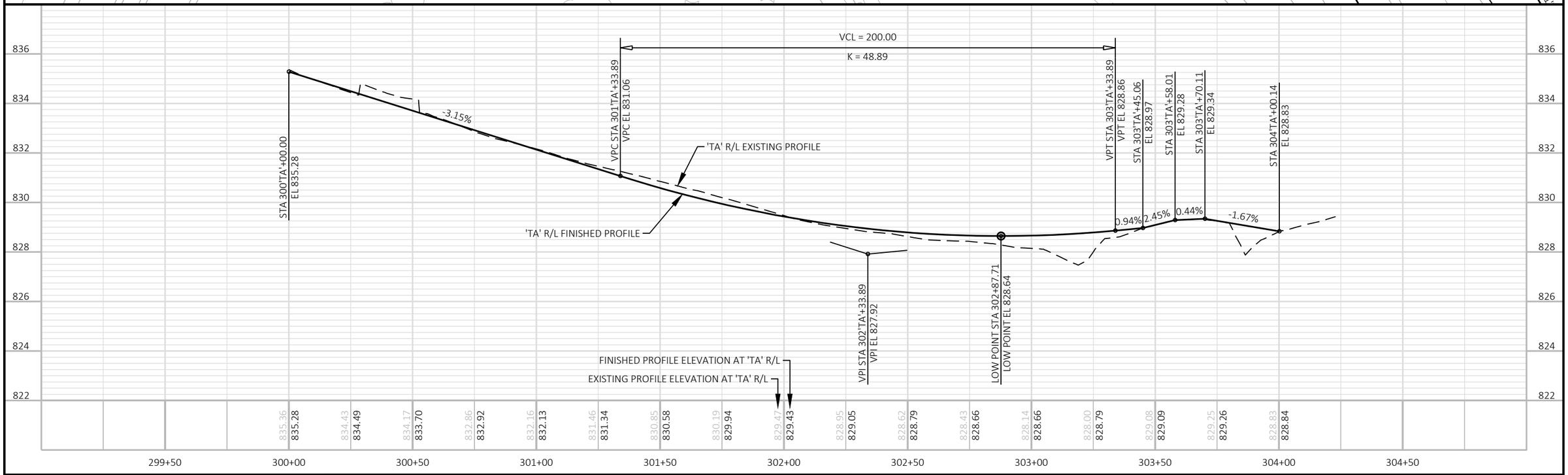

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-050102-PP.DWG
LAYOUT NAME - 02-B
PLOT DATE : 10/31/2017 9:30 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44




| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PLAN & PROFILE: ROUNDABOUT | SHEET 215 | E |
|---|---|---|---|---|---|


FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-050103-PP.DWG
LAYOUT NAME - 01
PLOT DATE : 10/19/2017 9:27 AM PLOT BY : AARON SARAUER PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44




| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PLAN & PROFILE: TEMPORARY RAMP CONNECTION | SHEET 216 | E |
|---|---|---|---|---|---|


FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-050111-PP.DWG
LAYOUT NAME - 01
PLOT DATE : 10/19/2017 9:27 AM
PLOT BY : AARON SARAUER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

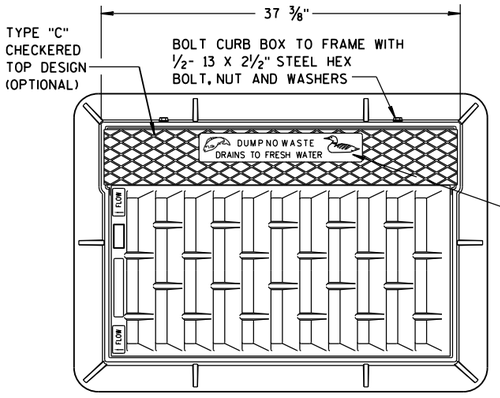
# Standard Detail Drawing List

| | |
|---|---|
| 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 |
| 08A05-19C | INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S |
| 08C07-02 | INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT |
| 08C08-02 | INLETS MEDIAN 1 AND 2 GRATE |
| 08D01-20A | CONCRETE CURB & GUTTER |
| 08D01-20B | CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS |
| 08D04-05 | CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES |
| 08D05-19A | CURB RAMPS TYPES 1 AND 1-A |
| 08D05-19B | CURB RAMPS TYPES 2 AND 3 |
| 08D05-19C | CURB RAMPS TYPES 4A AND 4A1 |
| 08D05-19D | CURB RAMPS TYPE 4B AND 4B1 |
| 08D05-19E | CURB RAMPS TYPES 5, 6, 7A, 7B & 8 |
| 08D05-19F | CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS |
| 08D05-19G | CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES |
| 08E08-03 | TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS |
| 08E09-06 | SILT FENCE |
| 08E10-02 | INLET PROTECTION TYPE A, B, C AND D |
| 08E14-01 | TRACKING PAD |
| 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 |
| 09B02-10 | CONDUIT |
| 09B04-11 | PULL BOX |
| 09C02-07 | CONCRETE BASES, TYPES 1, 2, 5, & 6 |
| 09C03-04 | TRANSFORMER/PEDESTAL BASES |
| 09C14-02 | CONCRETE CONTROL CABINET BASE, TYPE L |
| 09D01-05 | CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL) |
| 09D04-02 | LIGHTING CONTROL CABINET 120/240 VOLT |
| 09E01-14E | POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 6 (35 FEET) |
| 09E03-05 | NON-FREEWAY LIGHTING UNIT POLE WIRING |
| 09E07-05 | TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS |
| 09F10-04 | LOOP DETECTOR INSTALLED IN EXISTING OR NEW ASPHALTIC PAVEMENT WITH NEW ASPHALTIC OVERLAY |
| 09F11-04 | LOOP DETECTOR INSTALLED IN EXISTING CONCRETE PAVEMENT WITH NEW ASPHALTIC OVERLAY |
| 09F13-04 | LOOP DETECTOR INSTALLED IN EXISTING ASPHALTIC PAVEMENT |
| 09F15-04B | LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2) |
| 13C14-06A | BASE PATCHING CONCRETE |
| 13C14-06B | BASE PATCHING CONCRETE |
| 13C14-06C | BASE PATCHING CONCRETE |
| 13C15-06A | CONCRETE BASE |
| 13C15-06B | CONCRETE BASE |
| 14B26-03A | STEEL THRIE BEAM BULLNOSE TERMINAL |
| 14B26-03B | STEEL THRIE BEAM BULLNOSE TERMINAL |
| 14B26-03C | STEEL THRIE BEAM BULLNOSE TERMINAL |
| 14B26-03D | STEEL THRIE BEAM BULLNOSE TERMINAL |
| 14B26-03E | STEEL THRIE BEAM BULLNOSE TERMINAL |
| 14B29-01 | SAFETY EDGE |
| 14B42-05A | MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL |
| 14B42-05B | MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL |
| 14B42-05C | MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL |
| 14B42-05D | MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL |
| 14B44-03A | MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS) |
| 14B44-03B | MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS) |
| 14B44-03C | MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS) |
| 14B47-02A | MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL |
| 14B47-02B | MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL |
| 14B47-02C | MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL |
| 15A03-02A | FLEXIBLE MARKER POST FOR CULVERT END |
| 15A03-02B | FLEXIBLE MARKER POST FOR CULVERT END |
| 15A04-03A | FLEXIBLE DELINEATOR POST |
| 15A04-03B | DELINEATOR BRACKET WITH REFLECTIVE SHEETING |
| 15A04-03C | DELINEATOR POST WITH REFLECTIVE SHEETING |
| 15A04-03D | DELINEATOR WITH REFLECTIVE SHEETING |
| 15C02-06A | BARRICADES AND SIGNS FOR MAINLINE CLOSURES |
| 15C02-06B | BARRICADES AND SIGNS FOR MAINLINE CLOSURES |
| 15C02-06C | DETOUR SIGNING FOR MAINLINE CLOSURES |
| 15C03-03 | BARRICADES AND SIGNS FOR SIDEROAD CLOSURES |

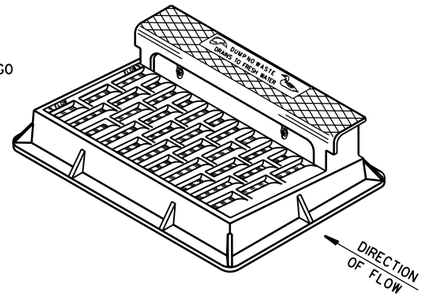
6

# Standard Detail Drawing List

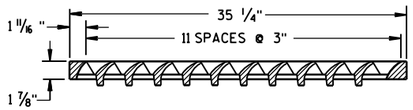
| | |
|---|---|
| 15C04-03 | TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC |
| 15C05-03 | TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS |
| 15C07-14A | PAVEMENT MARKING SYMBOLS |
| 15C07-14B | PAVEMENT MARKING WORDS |
| 15C07-14C | PAVEMENT MARKING ARROWS |
| 15C07-14D | ROUNDABOUT ARROWS |
| 15C08-18A | LONGITUDINAL MARKING (MAINLINE) |
| 15C08-18B | PAVEMENT MARKING (TURN LANES) |
| 15C12-06 | TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION |
| 15C19-04A | MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY |
| 15C19-04B | MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY |
| 15C19-04C | MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY |
| 15C21-08 | SIGNING AND MARKING FOR TWO LANE TO FOUR LANE DIVIDED TRANSITIONS |
| 15C25-04 | 42" DIAMETER CANTILEVER OVERHEAD SIGN SUPPORT BASE |
| 15C27-02B | PAVEMENT MARKING (ISLANDS) |
| 15C33-02 | STOP LINE AND CROSSWALK PAVEMENT MARKING |
| 15C35-01A | PAVEMENT MARKING (INTERSECTIONS) |
| 15D20-04 | TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY |
| 15D21-04 | TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE |
| 15D27-03 | TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY,  SPEEDS GREATER THAN 40 MPH |
| 15D28-03 | TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED  ROADWAY |
| 15D30-03A | TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION |
| 15D30-03B | TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION |
| 15D30-03C | TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION |
| 15D38-02A | TEMPORARY TRAFFIC CONTROL SIGN MOUNTING |
| 15D38-02B | ATTACHMENT OF SIGNS TO POSTS |

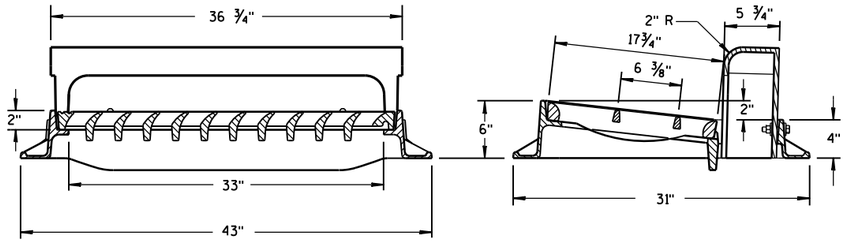


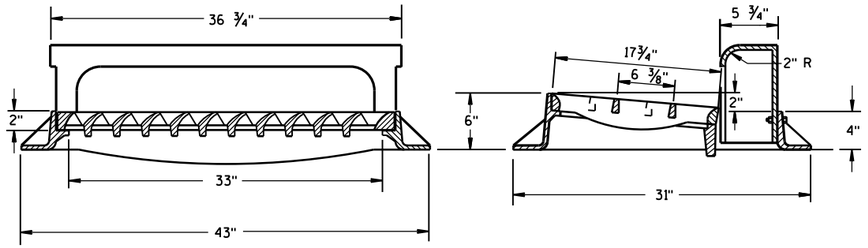

**NOTE:**
**GRATE IS REVERSIBLE.**




NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

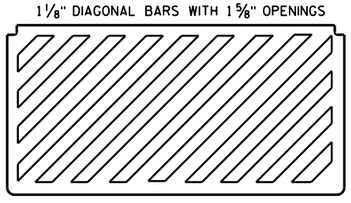



## TYPE "H"

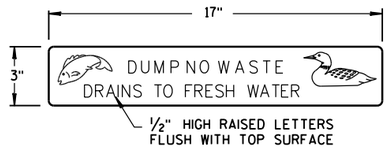
**NOTE: EITHER CASTING IS ACCEPTABLE**



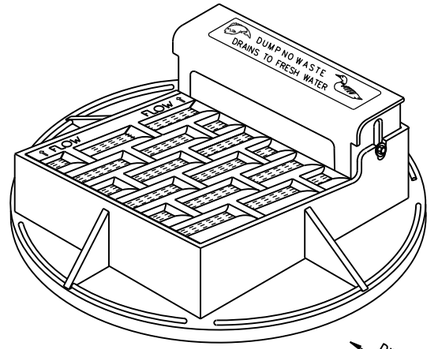

## SPECIAL GRATE FOR TYPE "H" COVER

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

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

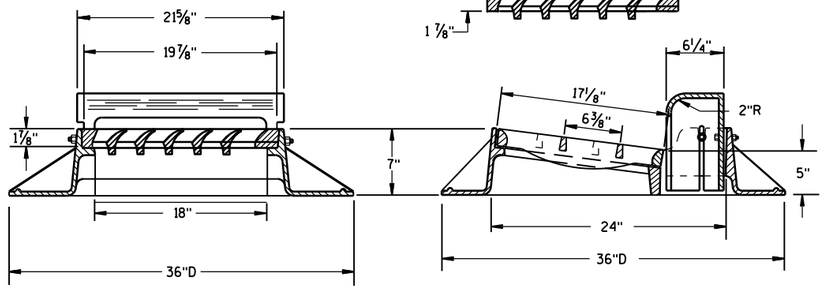



## LOGO DETAIL




NOTE: CURB BOX ADJUSTABLE 4" TO 9"

**NOTE:**
**GRATE IS REVERSIBLE.**



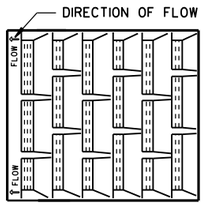

## TYPE "A"

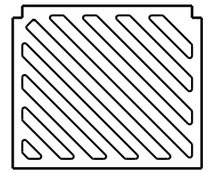
## GENERAL NOTES

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

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.

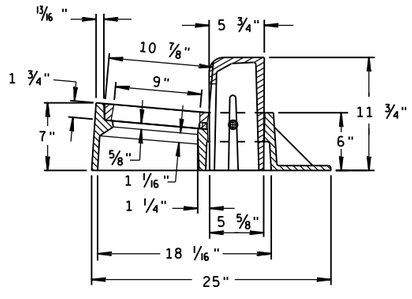


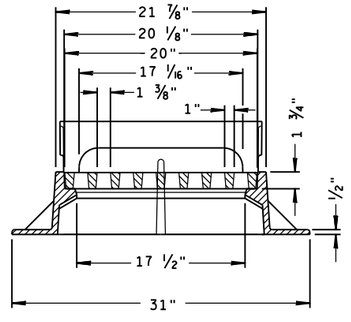




## SPECIAL GRATE FOR TYPE "A" COVER

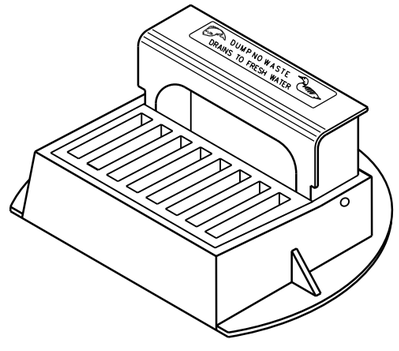
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)




## TYPE "Z"




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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

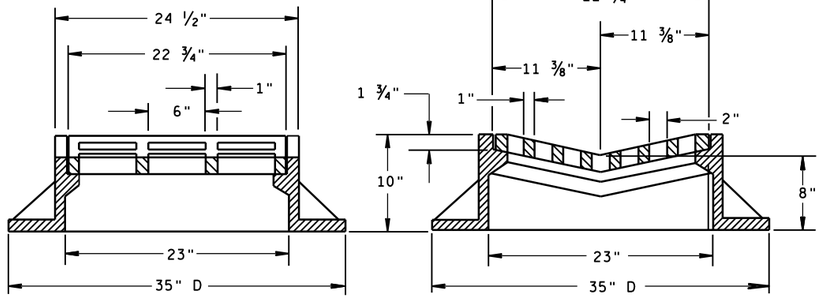
APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

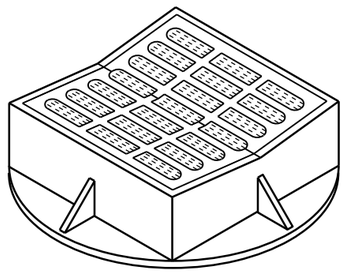


6

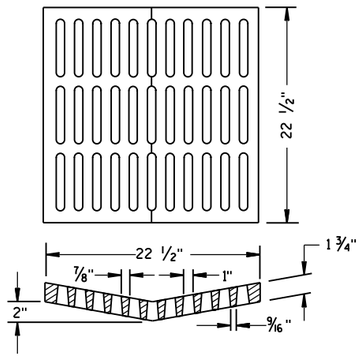


S.D.D. 8 A 5-19a



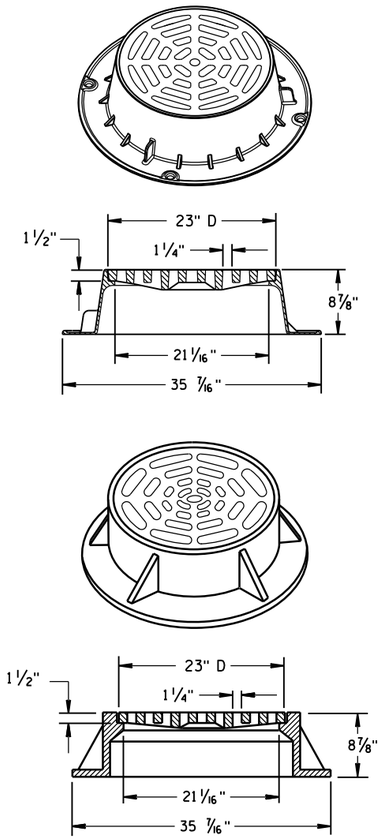



TYPE "B"




ALTERNATIVE GRATE FOR TYPE "B" COVER

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




TYPE "C"

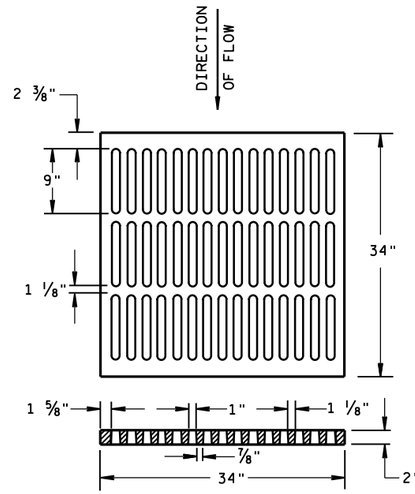
NOTE: EITHER CASTING IS ACCEPTABLE

## GENERAL NOTES

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

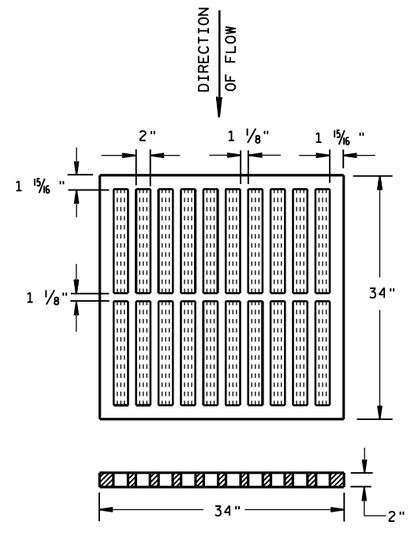
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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



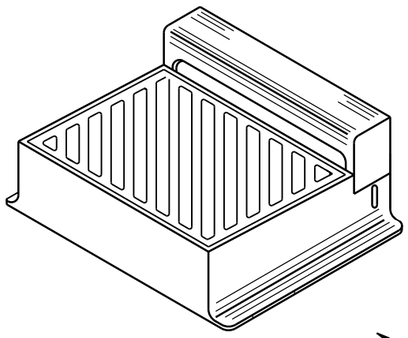

ALTERNATIVE TYPE "MS"

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



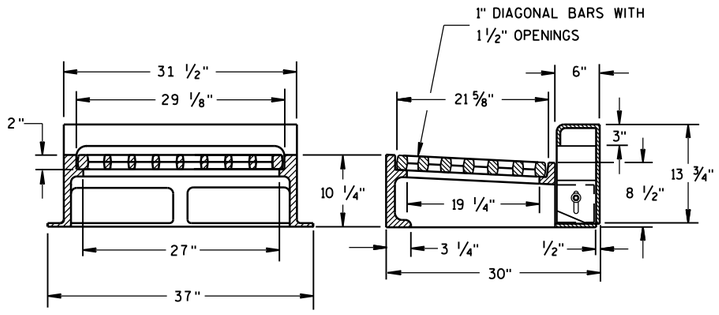

TYPE "MS"

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






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




NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

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

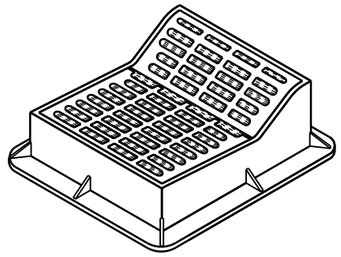
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

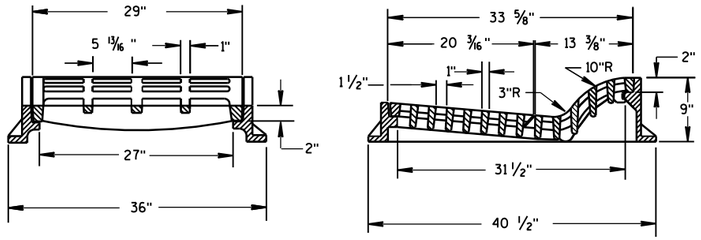
APPROVED
11/27/2013 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA



6

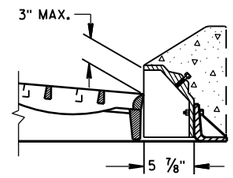
S.D.D. 8 A 5-19b






## TYPE "F"

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.




## ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

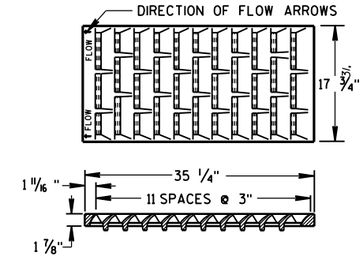
USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

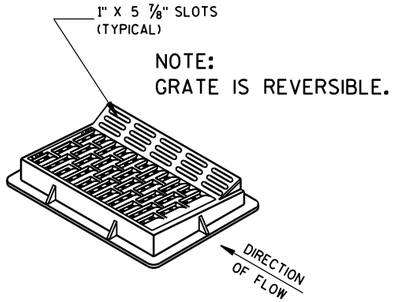
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

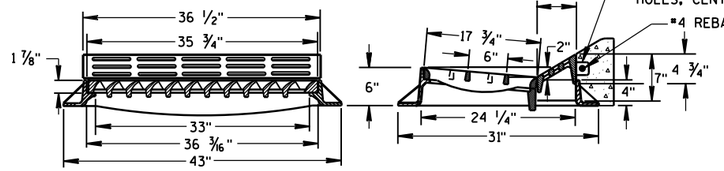
## GENERAL NOTES

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



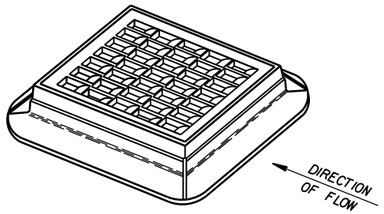



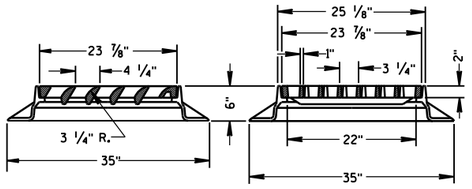




## TYPE "HM"

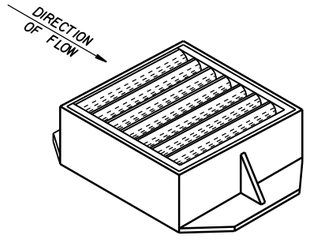
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

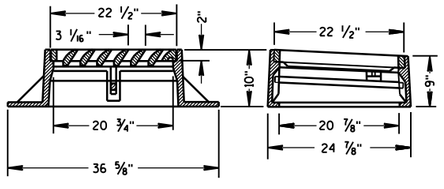
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE



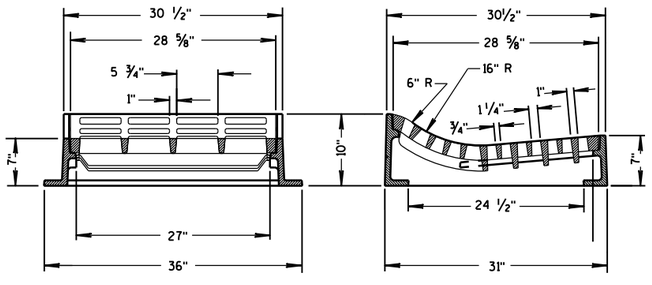



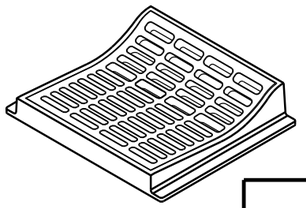

## TYPE "S"




## TYPE "V"



## TYPE "T"

USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.

## INLET COVERS
## TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

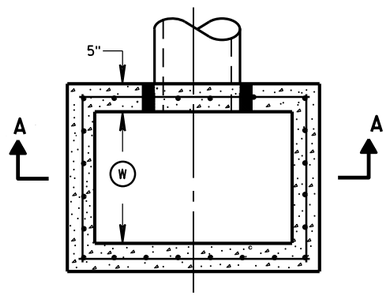


6

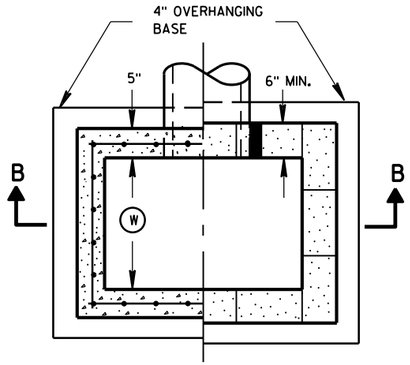
S.D.D. 8 A 5-19c

6

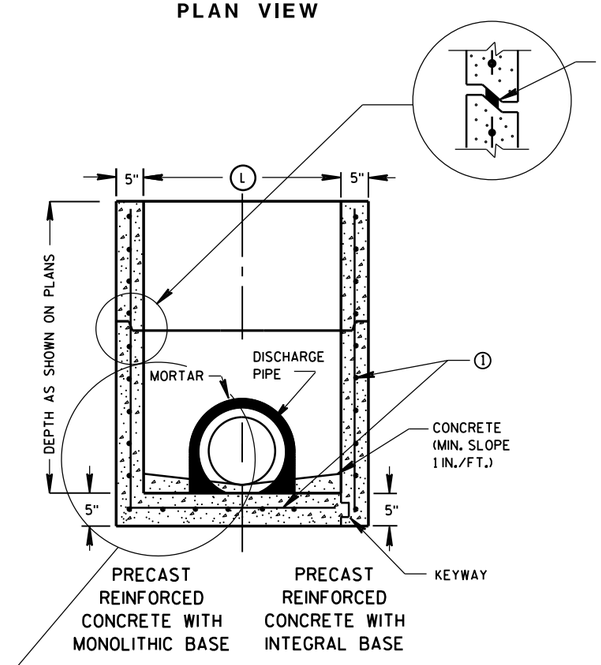
S.D.D. 8 A 5-19c



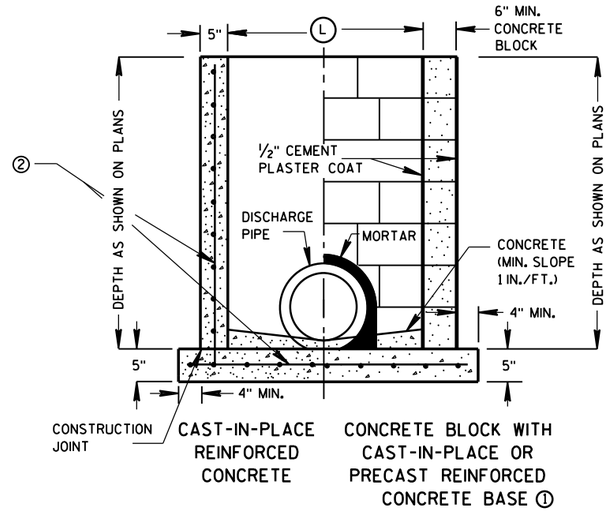

PLAN VIEW



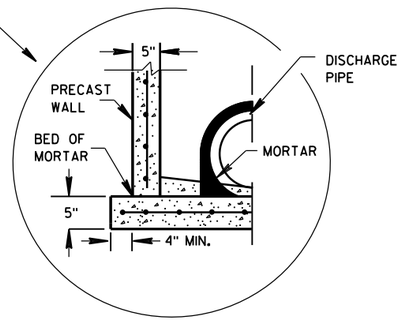

PLAN VIEW




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.

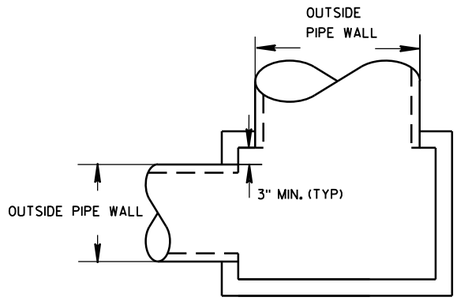
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

## INLET COVER MATRIX

| INLET SIZE | | INLET COVER TYPE | ALL A'S | ALL B'S | BW | F | ALL H'S | S | T | V | WM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | WIDTH (W) (FT) | LENGTH (L) (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

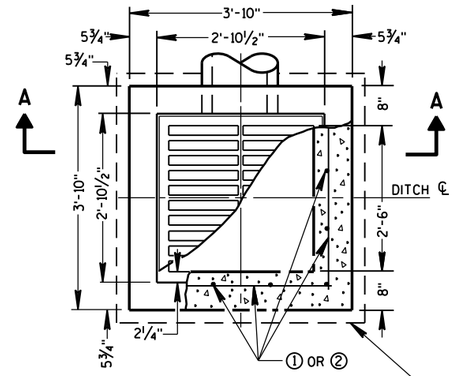
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

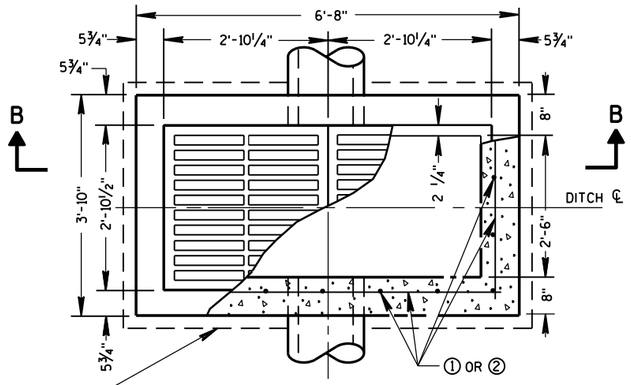




6
S.D.D. 8 C 7-2

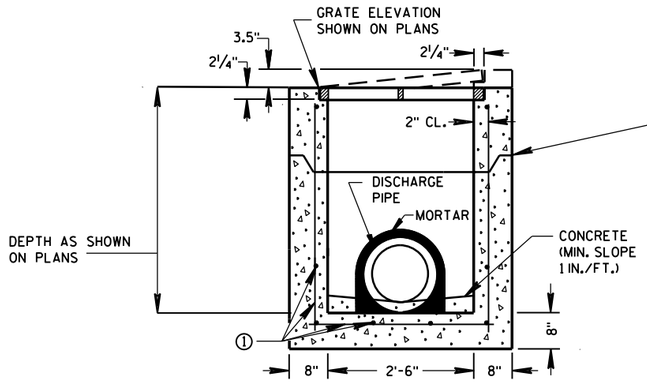



PLAN VIEW

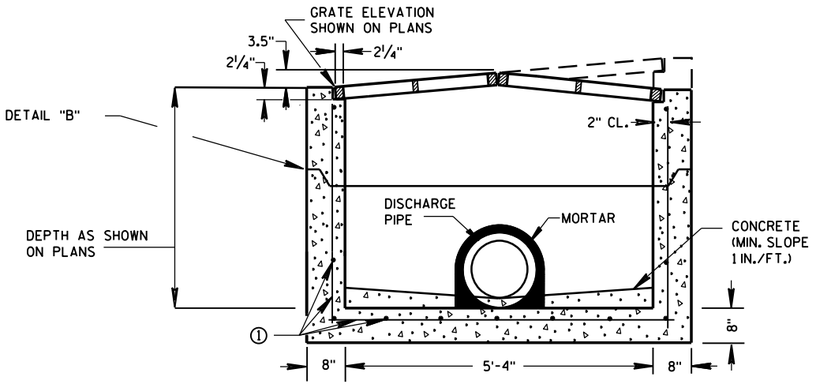



PLAN VIEW

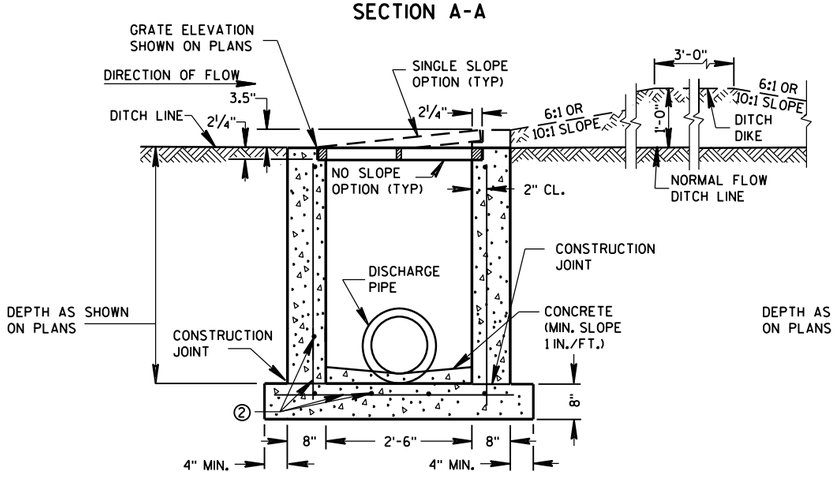
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



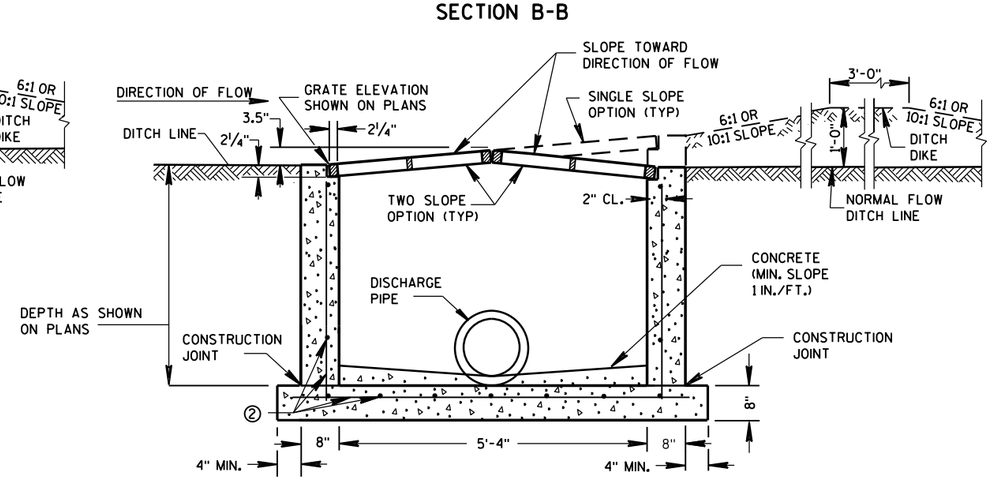

PRECAST REINFORCED CONCRETE SECTION A-A




PRECAST REINFORCED CONCRETE SECTION B-B




REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A




REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

## INLETS MEDIAN 1 GRATE

## INLETS MEDIAN 2 GRATE

# GENERAL NOTES

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

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

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

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

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

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

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

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

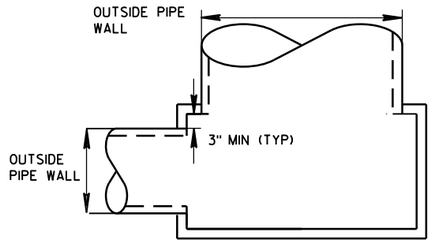
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

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

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

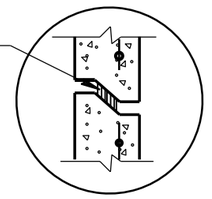
## PIPE MATRIX

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




DETAIL "A"

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



DETAIL "B"

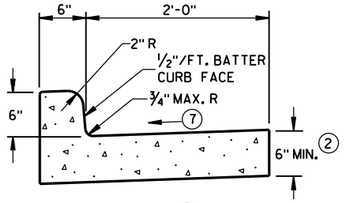
INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

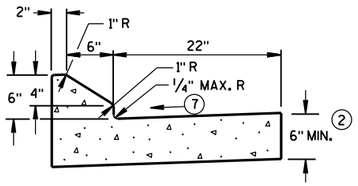
APPROVED
Sept., 2016 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVI ENT
FHWA



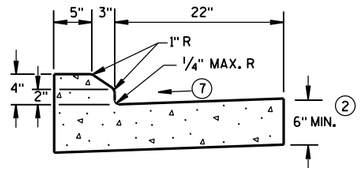

6
S.D.D. 8 C 8-2



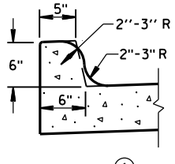

TYPES A (1) & D



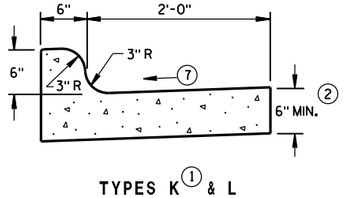

6" SLOPED CURB TYPES G (1) & J




4" SLOPED CURB TYPES G (1) & J

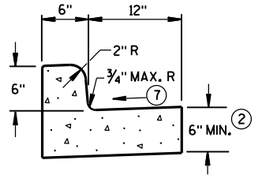



TYPES K (1) & L
(OPTIONAL CURB SHAPE)



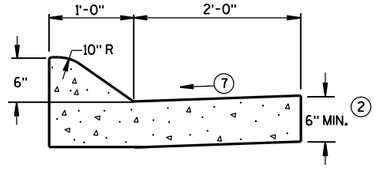

TYPES K (1) & L

CONCRETE CURB & GUTTER 30"

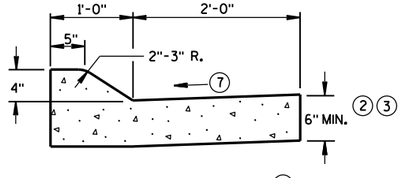



TYPES A (1) & D

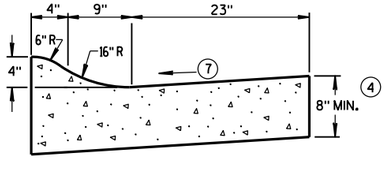
CONCRETE CURB & GUTTER 18"




6" SLOPED CURB TYPES A (1) & D

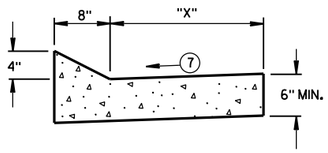



4" SLOPED CURB TYPES A (1) & D




4" SLOPED CURB TYPES R (1) & T (5)

CONCRETE CURB & GUTTER 36"




TYPES TBT & TBTT (1)

CONCRETE CURB & GUTTER

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

## GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS 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 & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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 GUTTER 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) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

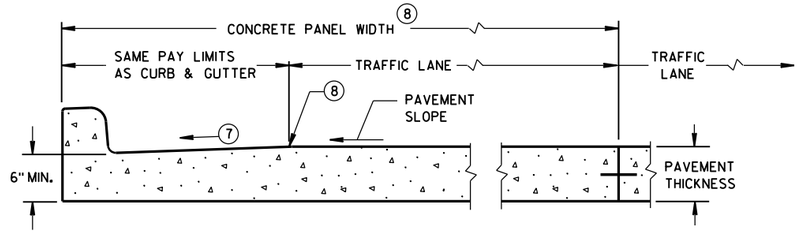
(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

(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.

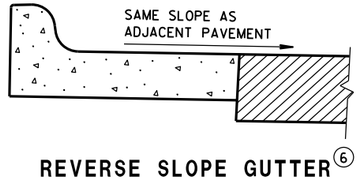
### PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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




PARTIAL SECTION OF PAVEMENT *
WITH INTEGRAL CURB & GUTTER

* BIKE LANE IS NOT SHOWN.




REVERSE SLOPE GUTTER (6)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

CONCRETE CURB & GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

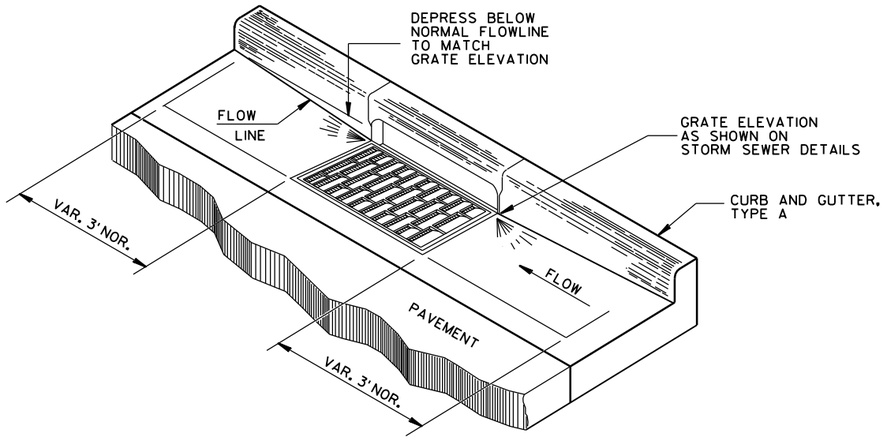


6

S.D.D. 8 D 1-20a

6

S.D.D. 8 D 1-20a




## DETAIL OF CURB AND GUTTER AT INLETS

(TYPE H INLET COVER SHOWN)

## GENERAL NOTES

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

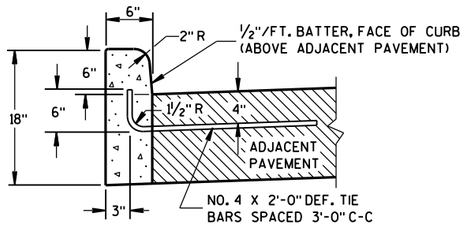
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

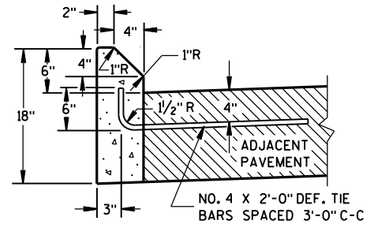
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

(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 8D18 AND SDD 8D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

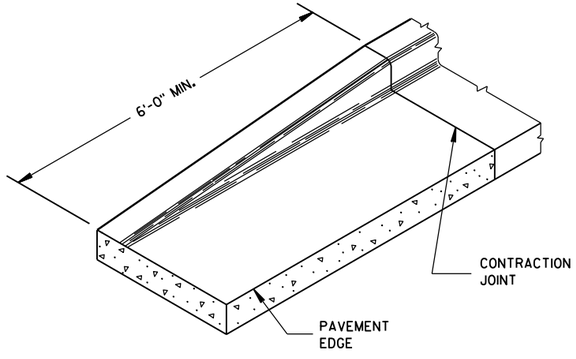



TYPES A(1) & D

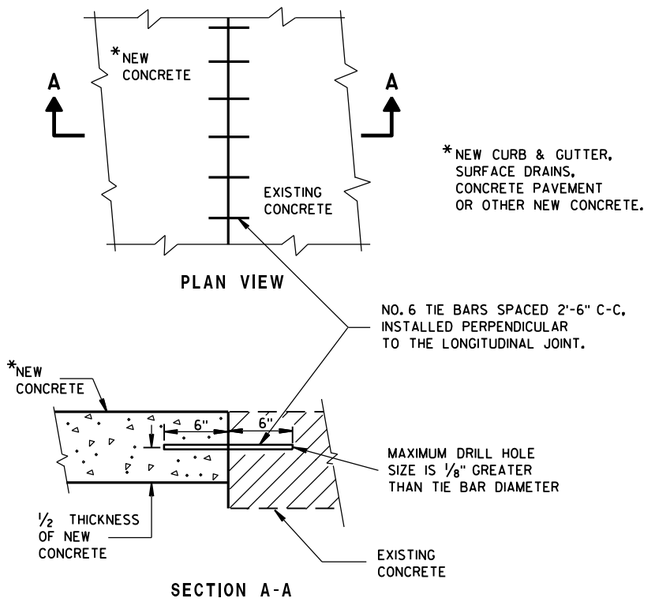



TYPES G(1) & J

## CONCRETE CURB



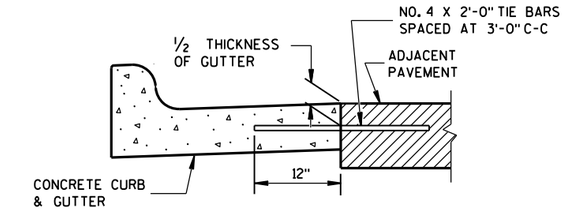

## END SECTION CURB & GUTTER



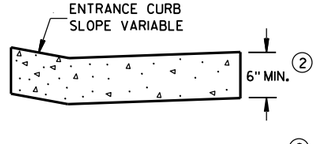

PLAN VIEW

SECTION A-A

## TIE BARS DRILLED INTO EXISTING PAVEMENT




## TYPICAL TIE BAR LOCATION (1)




## DRIVEWAY ENTRANCE CURB (9)

(WHEN DIRECTED BY THE ENGINEER)

## CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

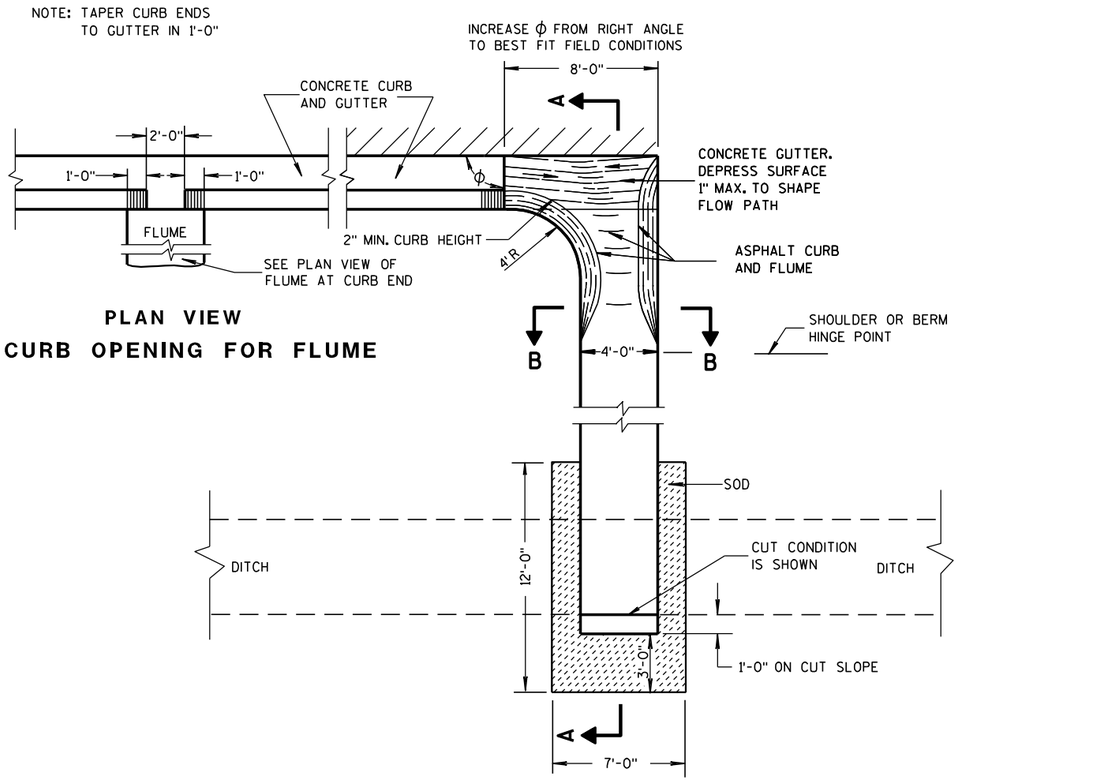
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2017 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS 225 ENT
UNIT SUPERVISOR
FHWA

6

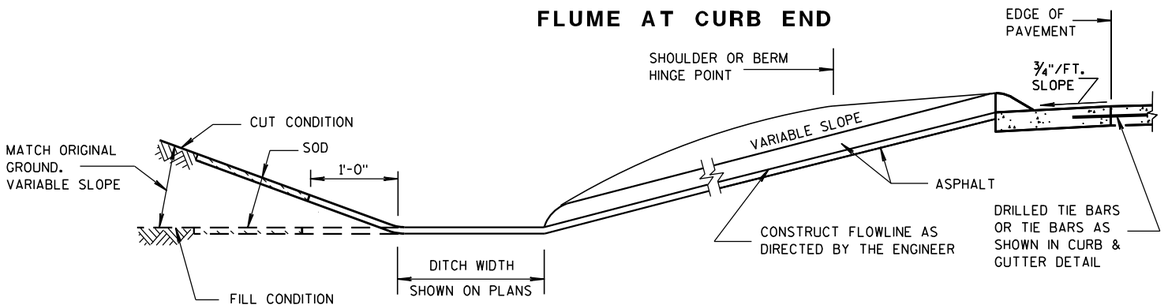
S.D.D. 8 D 1-20b

## ASPHALTIC FLUME

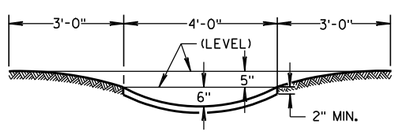



PLAN VIEW
CURB OPENING FOR FLUME

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.

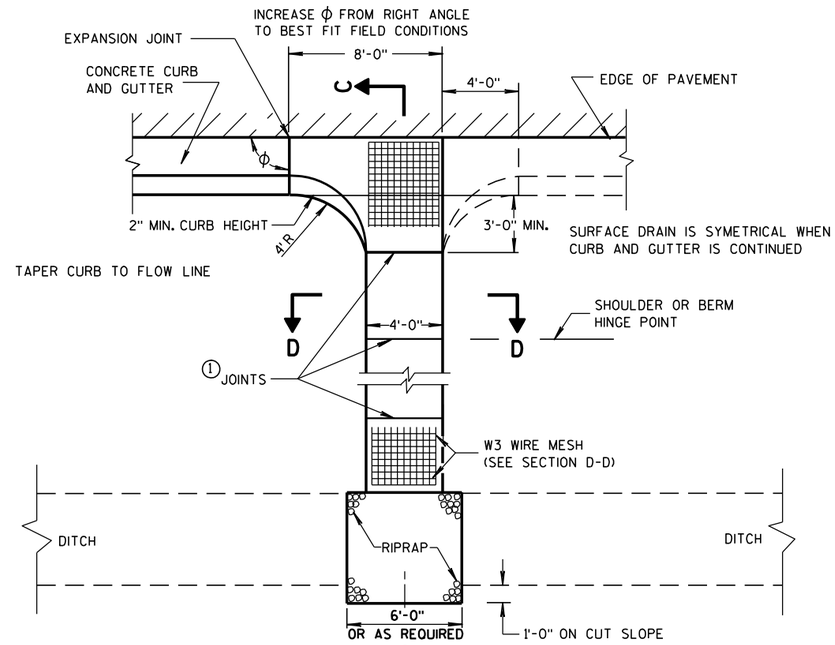
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

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.

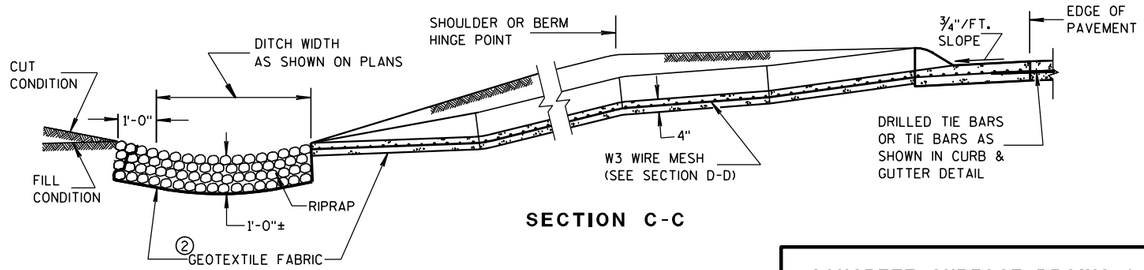
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

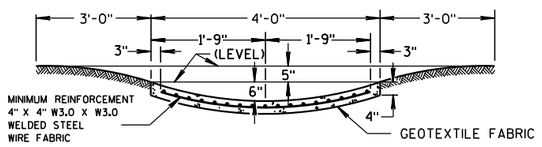
## ③ CONCRETE SURFACE DRAIN




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. [illegible]
ROADWAY STANDARDS ENGINEER
FHWA

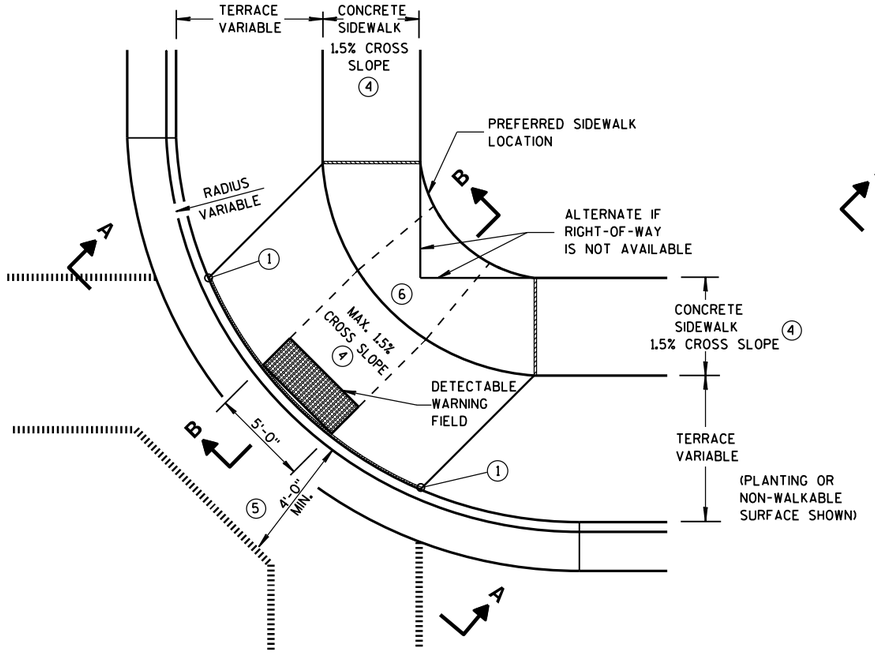


6

S.D.D. 8 D 4-5

6

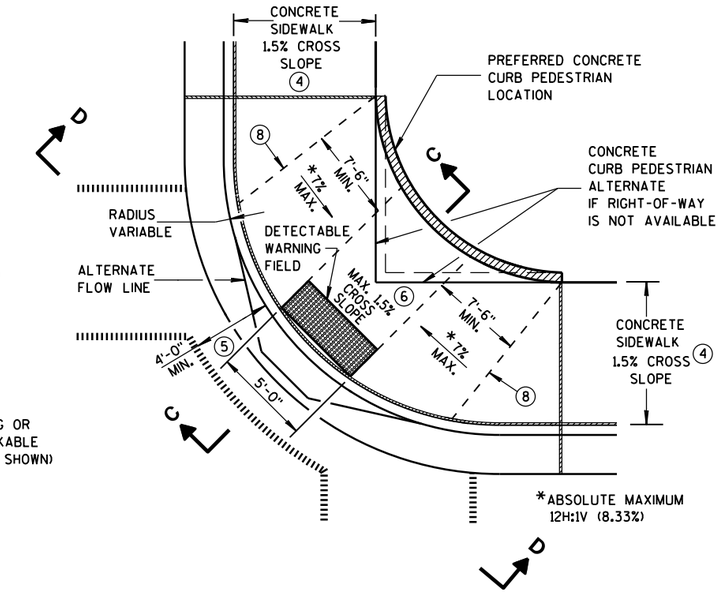
S.D.D. 8 D 4-5




PLAN VIEW

## TYPE 1 RAMP

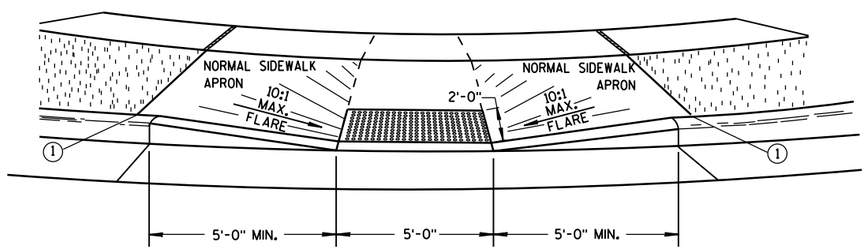
(CENTER OF CORNER RADIUS)




PLAN VIEW

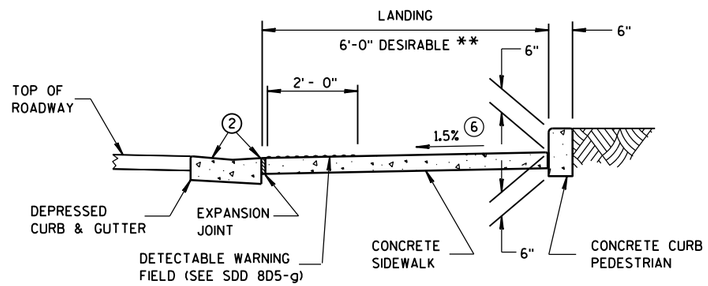
## TYPE 1-A RAMP

(NO TERRACE)

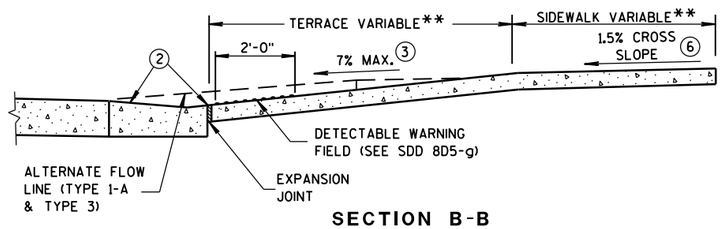



VIEW A-A

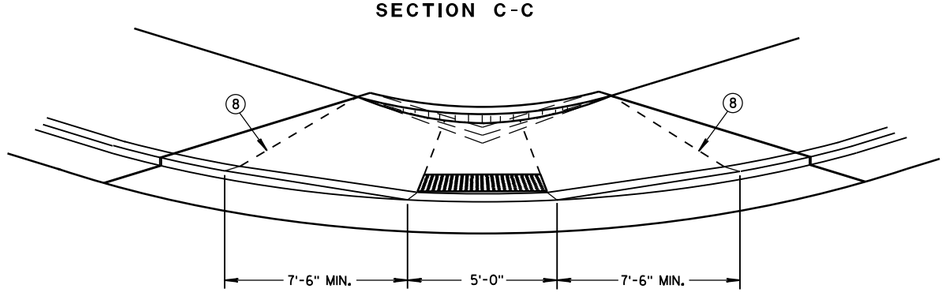
** WIDTH SHOWN ELSEWHERE IN THE PLANS




SECTION C-C




SECTION B-B




VIEW D-D

## 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 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 LINEAL 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.

(1) 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.

(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) ABSOLUTE MAXIMUM 12H:1V (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.

(5) 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.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

### LEGEND

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

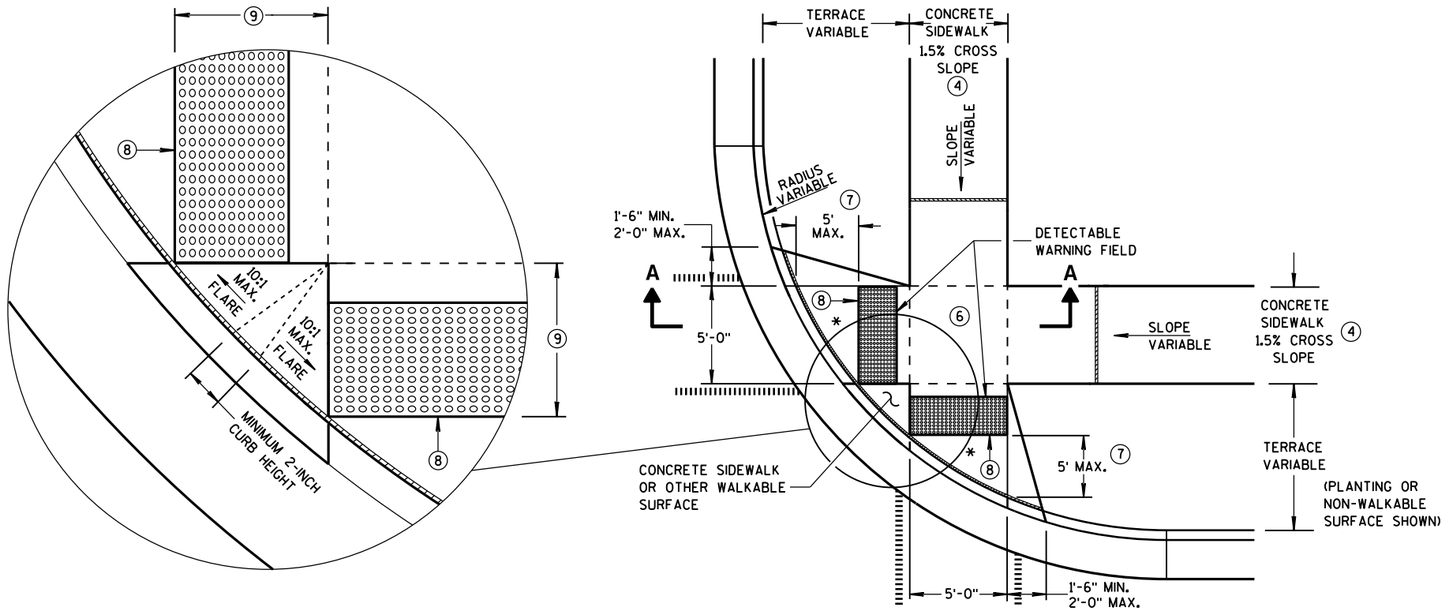
## CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI



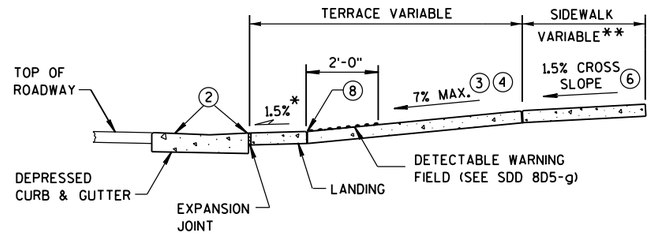

6


S.D.D. 8 D 5-19a



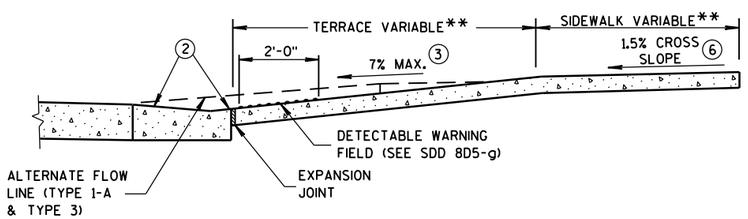

**PLAN VIEW**
# TYPE 2 RAMP
(ON LINE WITH SIDEWALK)

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




**SECTION A-A**

** WIDTH SHOWN ELSEWHERE IN THE PLANS




**SECTION B-B**

## GENERAL NOTES

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

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 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) ABSOLUTE MAXIMUM 12H:1V (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 X 5 FEET.

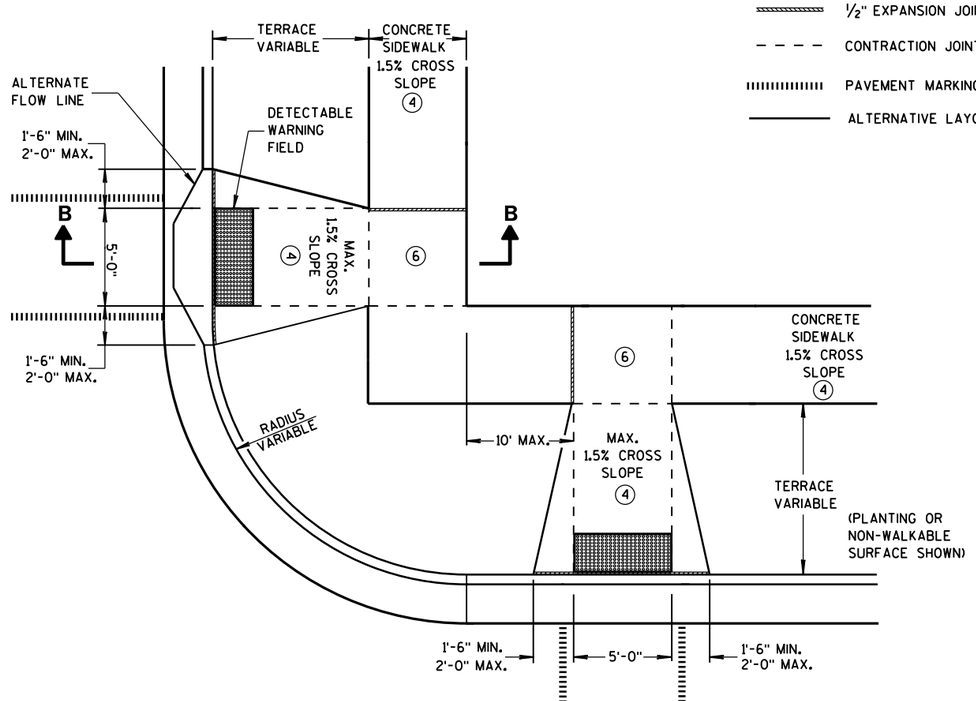
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(9) WHEN THIS 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

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT




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

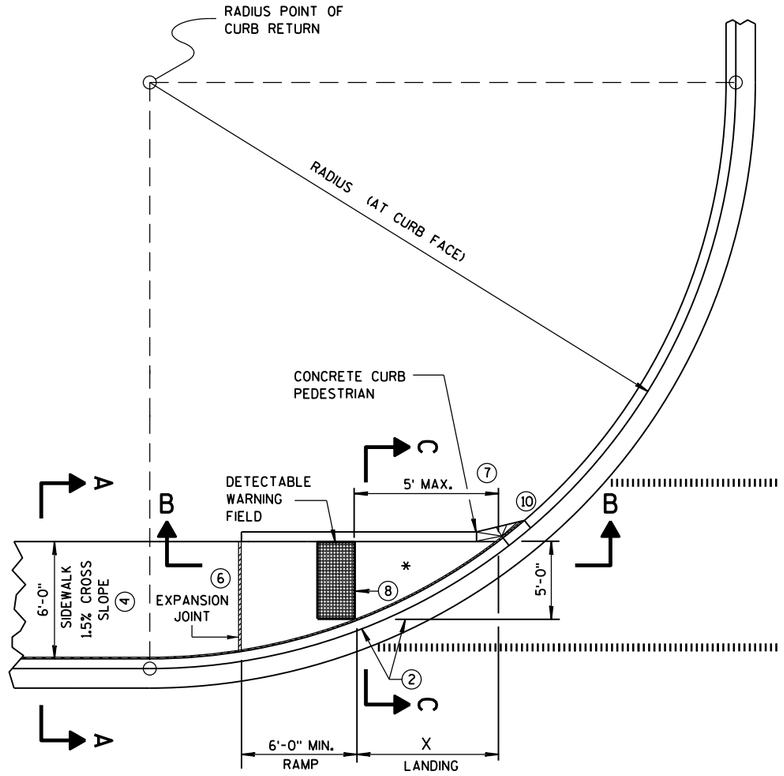
**CURB RAMPS TYPES 2 AND 3**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO




6

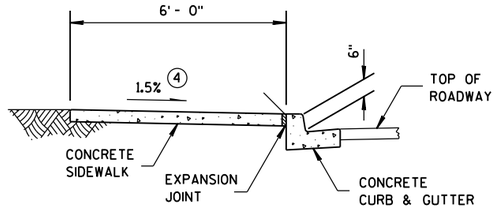
S.D.D. 8 D 5-19b




## CURB RAMP TYPE 4A
### PLAN VIEW

| RADIUS (AT CURB FACE) | X |
|---|---|
| 10 FEET | 4'-7" |
| 15 FEET | 6'-5½" |

INTERMEDIATE RADII CAN BE INTERPOLATED




SECTION A-A FOR TYPE 4A

## GENERAL NOTES

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

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 ¼-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) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

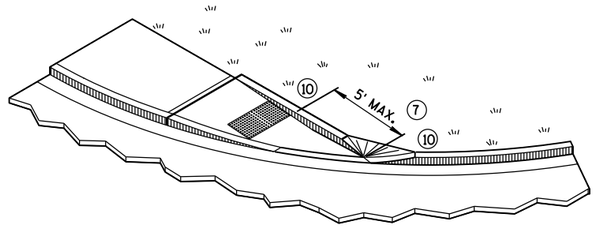
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

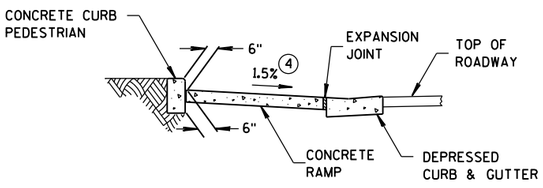
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

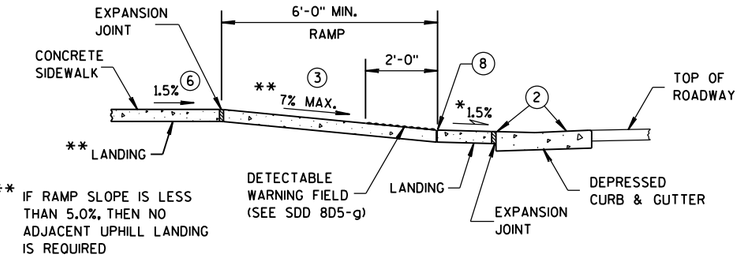



ISOMETRIC VIEW FOR TYPE 4A



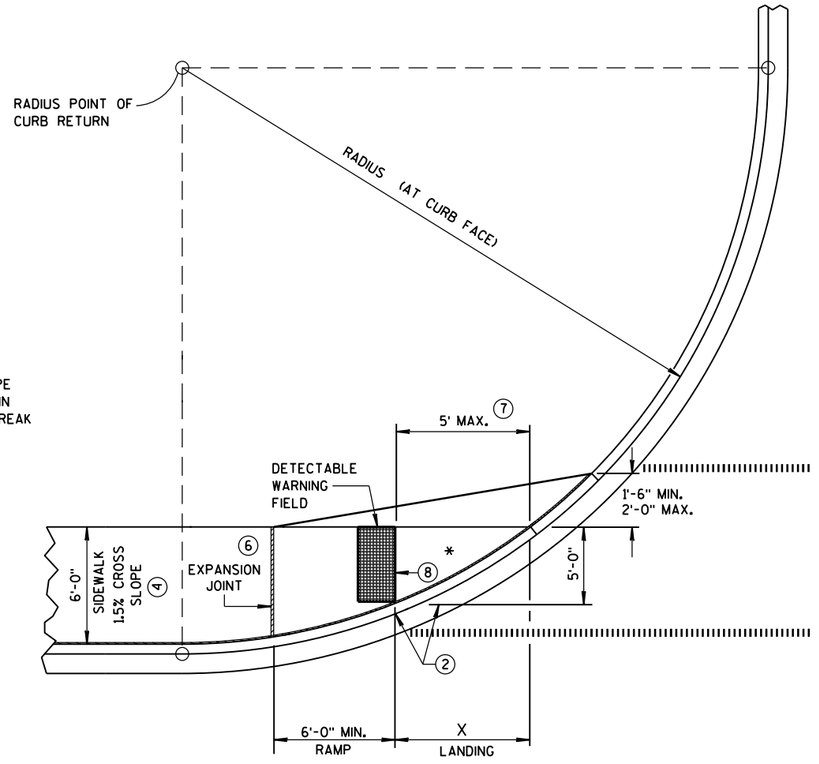

SECTION C-C FOR TYPE 4A

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

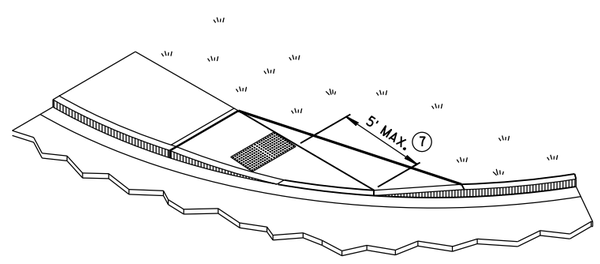



** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

SECTION B-B FOR TYPE 4A




## CURB RAMP TYPE 4A1
### PLAN VIEW




ISOMETRIC VIEW FOR TYPE 4A1

### LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

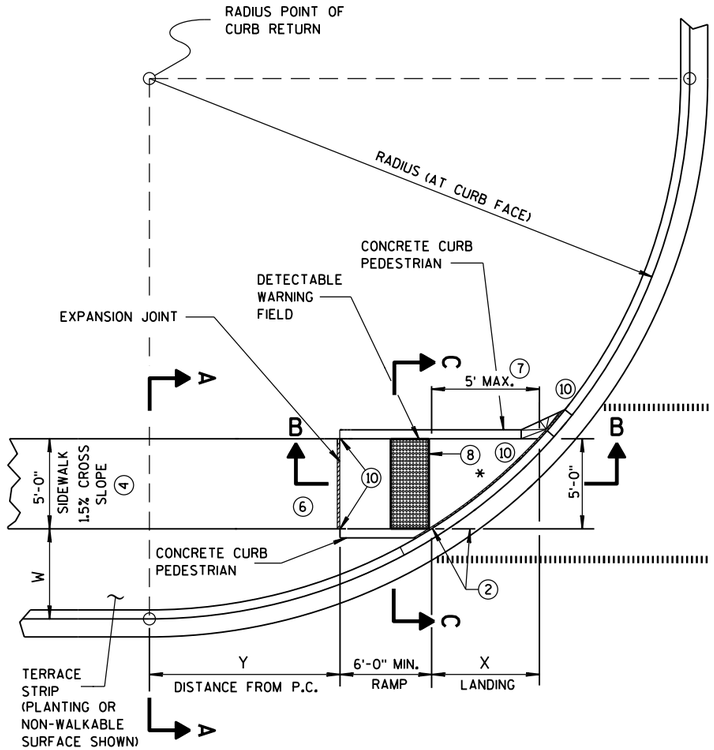


6

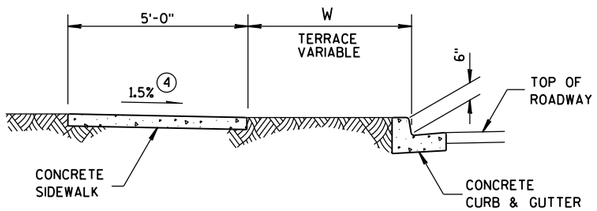
S.D.D. 8 D 5-19c

6

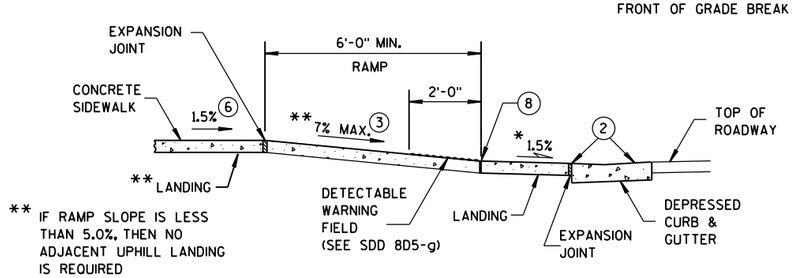
S.D.D. 8 D 5-19c




## CURB RAMP TYPE 4B
### PLAN VIEW




### SECTION A-A FOR TYPE 4B



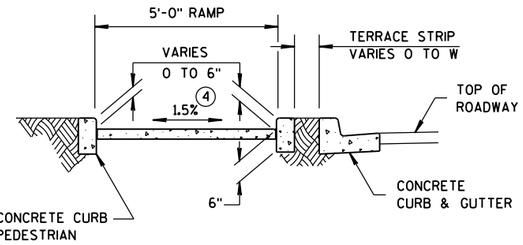

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

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

### SECTION B-B FOR TYPE 4B

| RADIUS (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'-10¼" | 0'-5" | 2'-1" | 1'-4½" | 1'-5" | 2'-1" | 0'-10" | 2'-7½" | 0'-3¼" | 3'-0¼" | | | | | | |
| 15 FEET | 4'-6¾" | 2'-1¾" | 3'-9" | 3'-5¼" | 3'-1¼" | 4'-6" | 2'-6¾" | 5'-4½" | 2'-1" | 6'-1" | 1'-8" | 6'-8½" | 1'-3¼" | 7'-2½" | 0'-10¾" | 7'-7¼" |
| 20 FEET | 5'-9¾" | 3'-6½" | 4'-11½" | 5'-1¾" | 4'-3¼" | 6'-5½" | 3'-8¾" | 7'-7" | 3'-3" | 8'-6½" | 2'-10" | 9'-4½" | 2'-5½" | 10'-1¼" | 2'-1¼" | 10'-9" |
| 30 FEET | | | 6'-9¼" | 7'-11¼" | 6'-0¼" | 9'-8" | 5'-5" | 11'-1¾" | 4'-10¾" | 12'-5¾" | 4'-5½" | 13'-7¾" | 4'-0¾" | 14'-8½" | 3'-8½" | 15'-8¼" |
| 40 FEET | | | | | | | | | 6'-1¾" | 15'-8½" | 5'-8" | 17'-2" | 5'-3" | 18'-5¾" | 4'-10¾" | 19'-8¼" |
| 50 FEET | | | | | | | | | | | | | | | 5'-10¼" | 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

## GENERAL NOTES

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

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 ¼-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) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

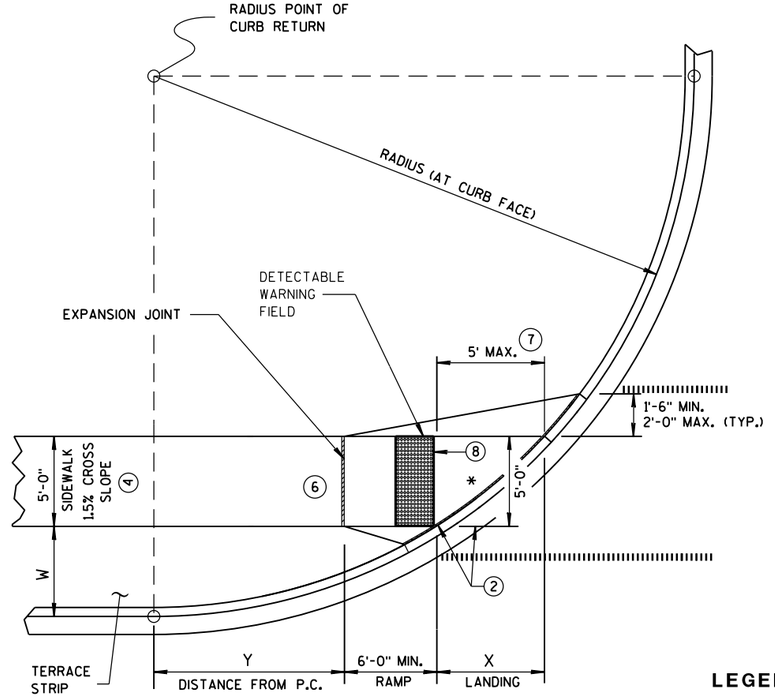
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

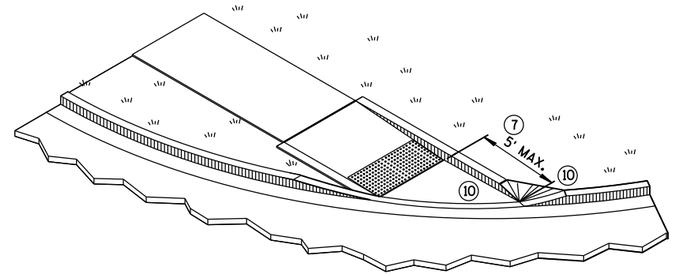
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

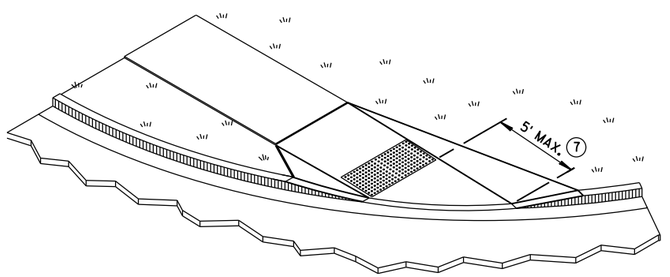
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.




## CURB RAMP TYPE 4B1
### PLAN VIEW




### ISOMETRIC VIEW FOR TYPE 4B




### ISOMETRIC VIEW FOR TYPE 4B1

### LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

PAVEMENT MARKING CROSSWALK (WHITE)

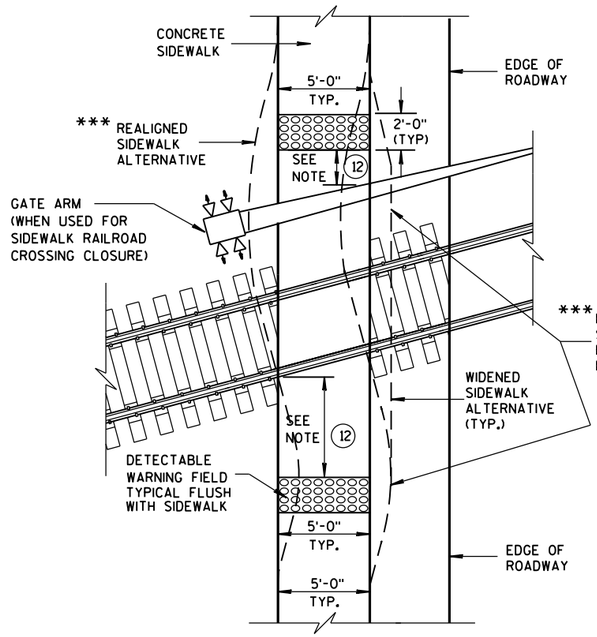
**CURB RAMPS TYPE 4B AND 4B1**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR



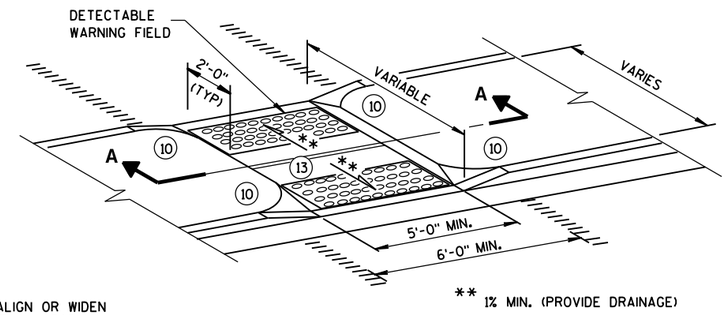

6


S.D.D. 8 D 5-19d




**TYPE 8**
**DETECTABLE WARNINGS AT RAILROAD CROSSING**

*** DETAILS TO BE DETERMINED BY DESIGNER




** 1% MIN. (PROVIDE DRAINAGE)

**MEDIAN ISLAND**
**NON-ELEVATED PEDESTRIAN CROSSING**
**TYPE 5**

## GENERAL NOTES

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

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.

(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) ABSOLUTE MAXIMUM 12H:1V (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.

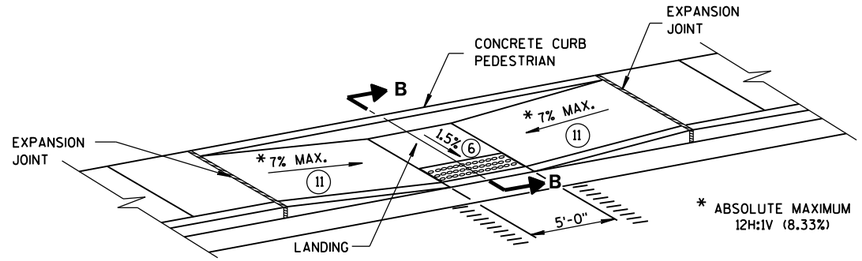
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

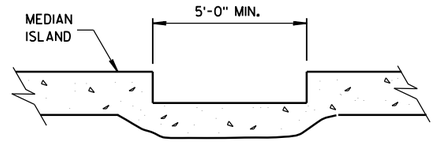
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(12) 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.

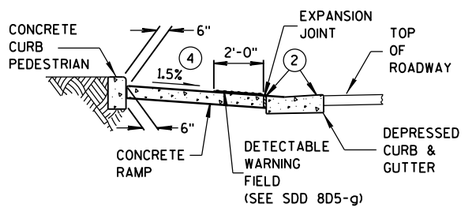
(13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STREET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2-FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.



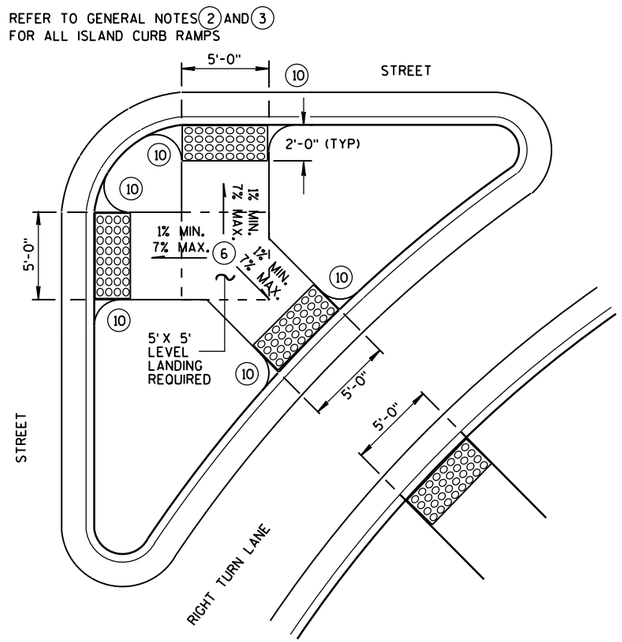

**MID-BLOCK CROSSING**
**TYPE 7A**



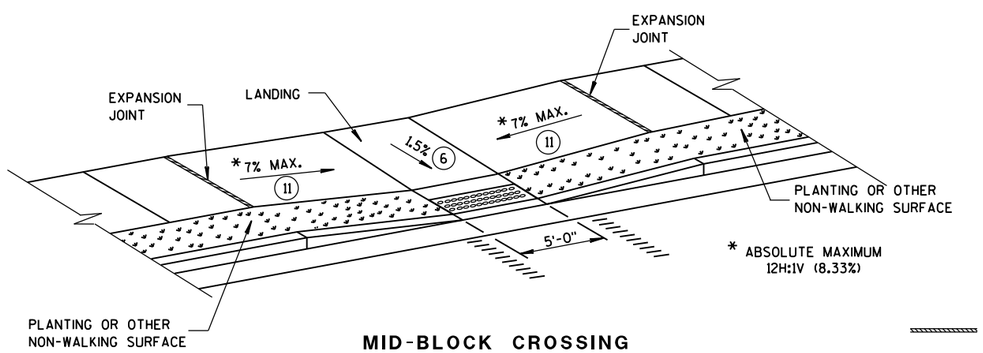

**SECTION A-A**




**SECTION B-B**




**TYPE 6**
**DETECTABLE WARNING AT ISLANDS**




**MID-BLOCK CROSSING**
**TYPE 7B**

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

**LEGEND**

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

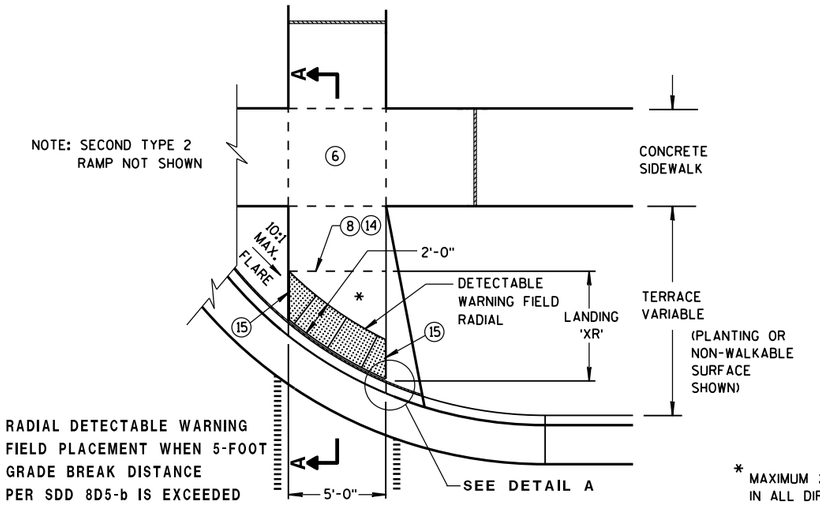
**CURB RAMPS**
**TYPES 5, 6, 7A, 7B & 8**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR




6

S.D.D. 8 D 5-19e
S.D.D. 8 D 5-19e

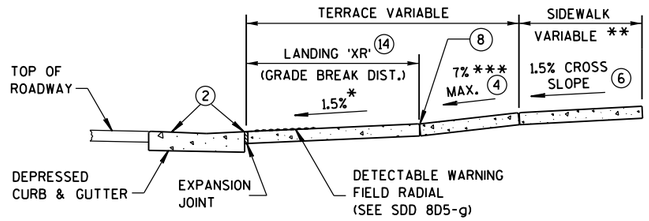



## TYPE 2 RAMP
### PLAN VIEW
### (GRADE BREAK DISTANCE GREATER THAN 5 FEET)
(ON LINE WITH SIDEWALK)

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

## LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)




** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** ABSOLUTE MAXIMUM 12H:1V (8.33%)

## SECTION A-A

## GENERAL NOTES

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

DETECTABLE WARNING FIELDS (DWFs) 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 ¼-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) ABSOLUTE MAXIMUM 12H:1V (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 X 5 FEET.

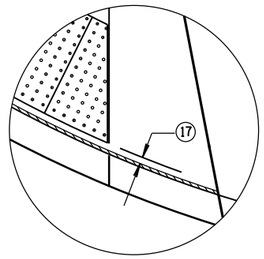
(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION 'XR') REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

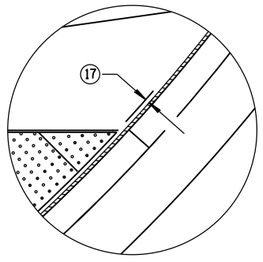
(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

(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.

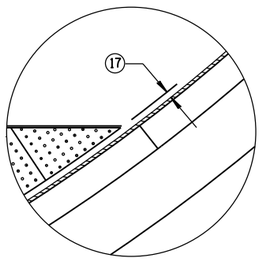
(17) A MAXIMUM 3-INCH CONCRETE BORDER WIDTH IS ALLOWABLE IN FRONT OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.



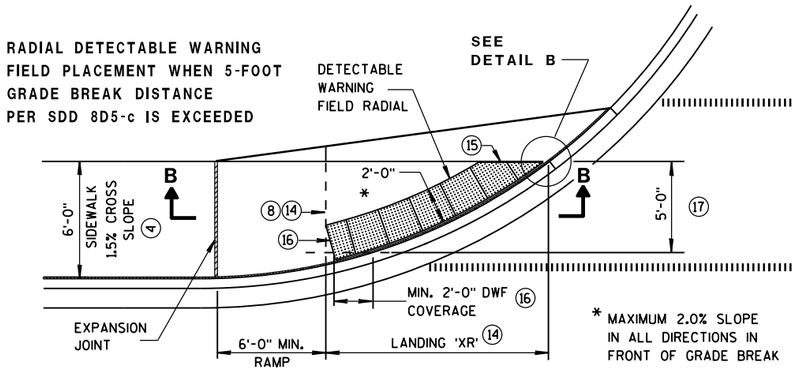

## DETAIL A




## DETAIL C

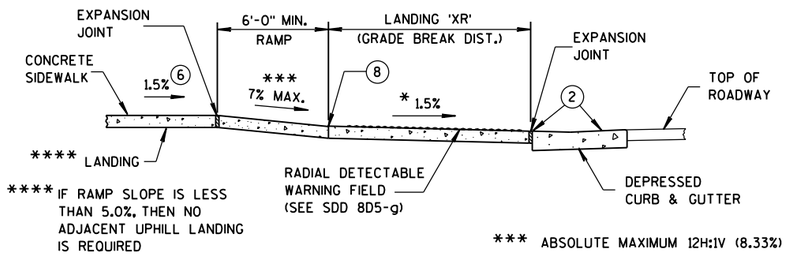



## DETAIL B




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

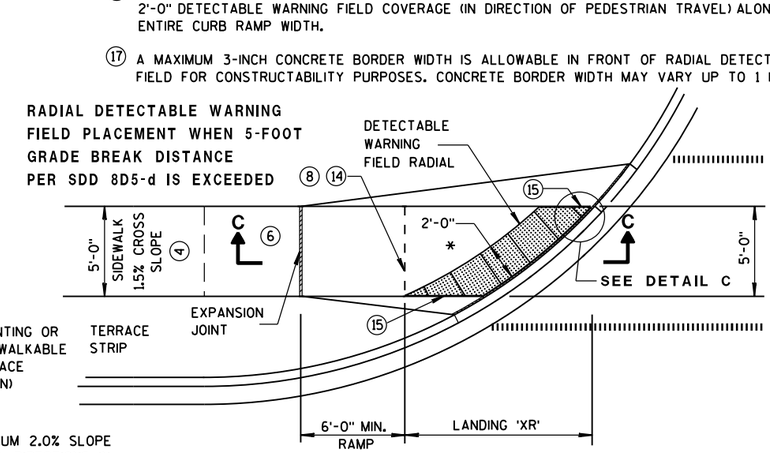
## CURB RAMP TYPE 4A1
### PLAN VIEW
### (GRADE BREAK DISTANCE GREATER THAN 5 FEET)




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

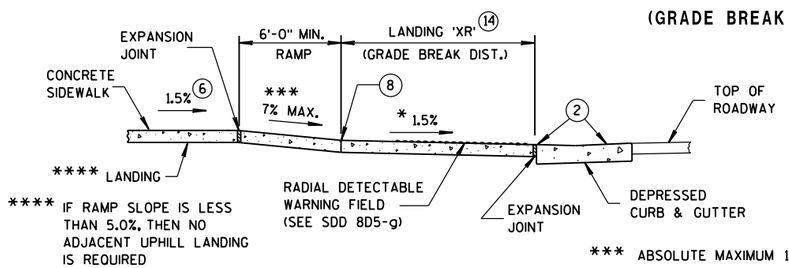
*** ABSOLUTE MAXIMUM 12H:1V (8.33%)

## SECTION B-B FOR TYPE 4A1




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

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




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

*** ABSOLUTE MAXIMUM 12H:1V (8.33%)

## SECTION C-C FOR TYPE 4B1

**CURB RAMPS**
**RADIAL DETECTABLE WARNING FIELD APPLICATIONS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

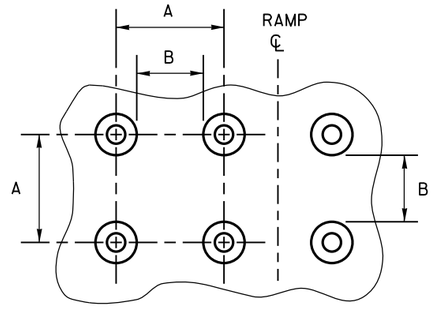



6

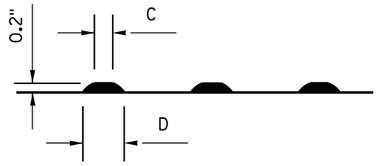

S.D.D. 8 D 5-19f

| | 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

## GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, 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 FIELD ARE PROHIBITED.

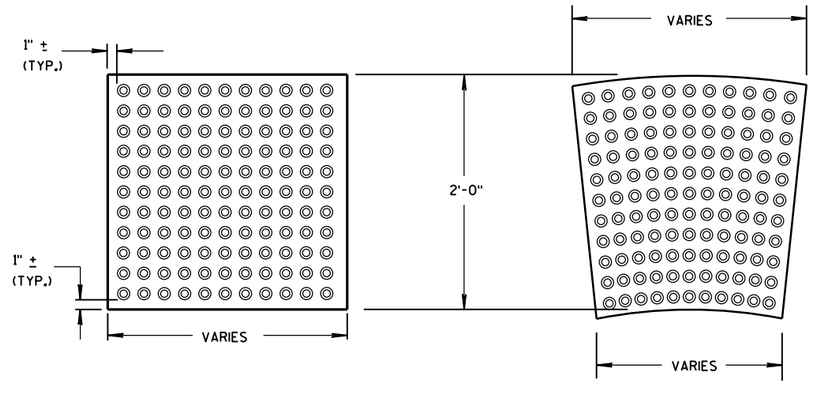
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

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 WEDGES IN COMBINATION WITH SQUARE PANELS 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.

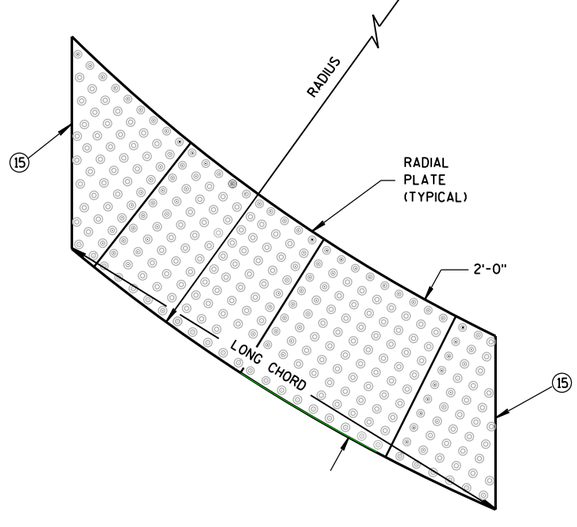



RECTANGULAR PLATES

RADIAL PLATES

### DETECTABLE WARNING FIELDS (TYPICAL)

PLAN VIEW




### RADIAL DETECTABLE WARNING FIELD ATTRIBUTES

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERV
ENT
FHWA

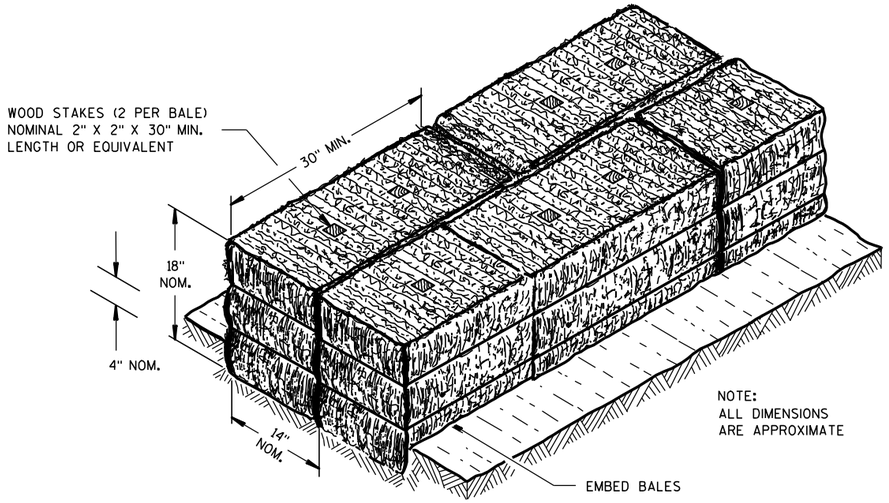


6

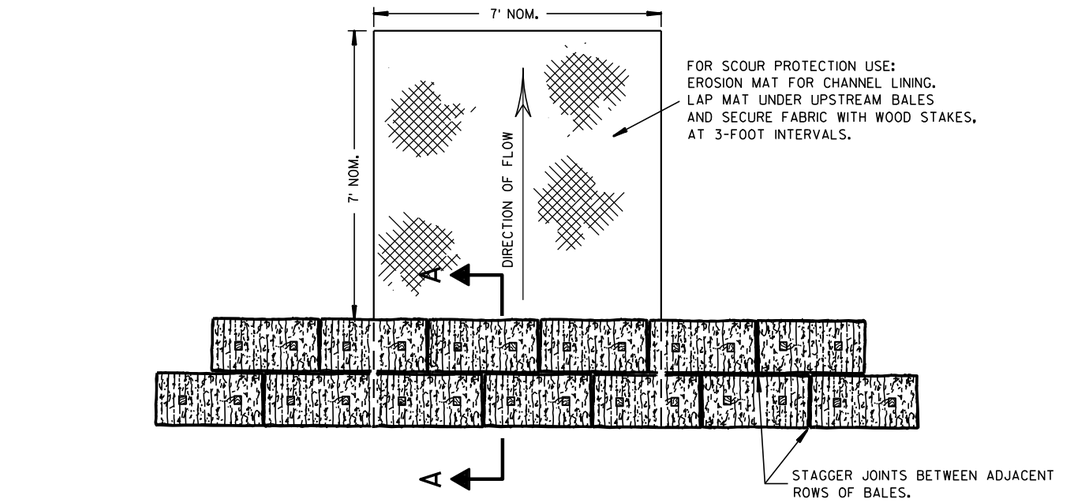
S.D.D. 8 D 5-19g

6

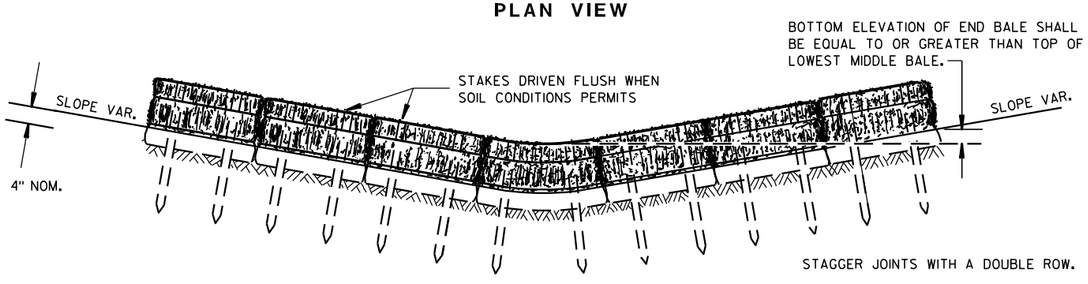
S.D.D. 8 D 5-19g




**SECTION A-A**




**PLAN VIEW**



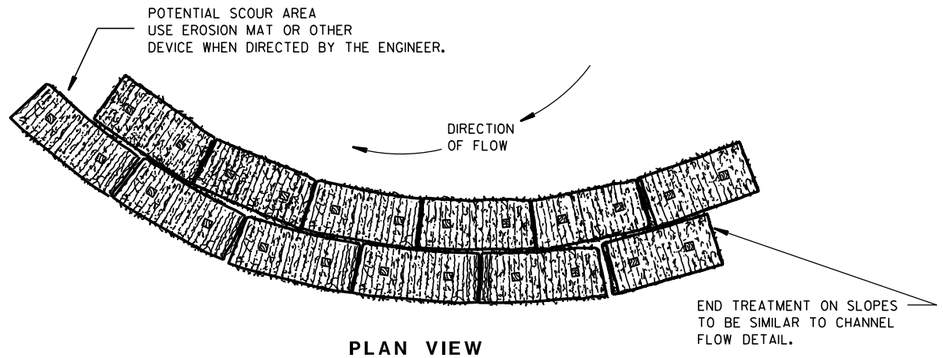

**FRONT ELEVATION**

## TEMPORARY DITCH CHECK USING EROSION BALES (1)

## GENERAL NOTES

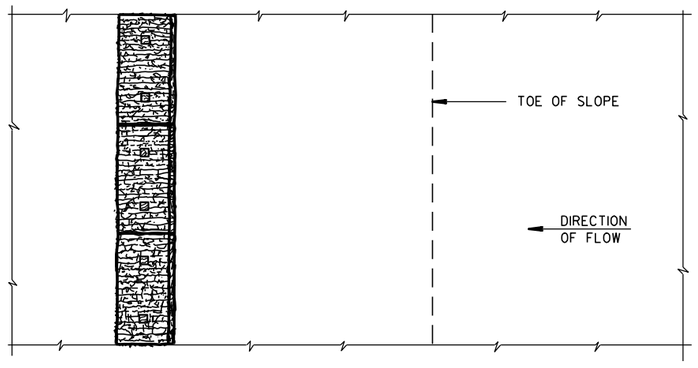
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

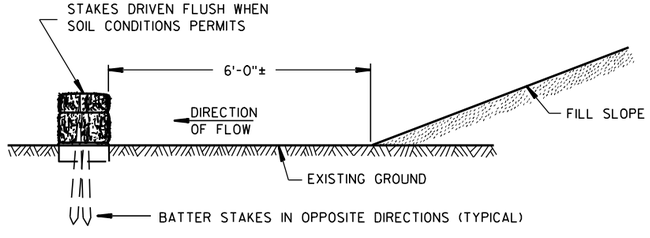



**PLAN VIEW**

WHEN ALTERING THE DIRECTION OF FLOW




**PLAN VIEW**




**FRONT ELEVATION**

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

## EROSION BALES FOR SHEET FLOW

## TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

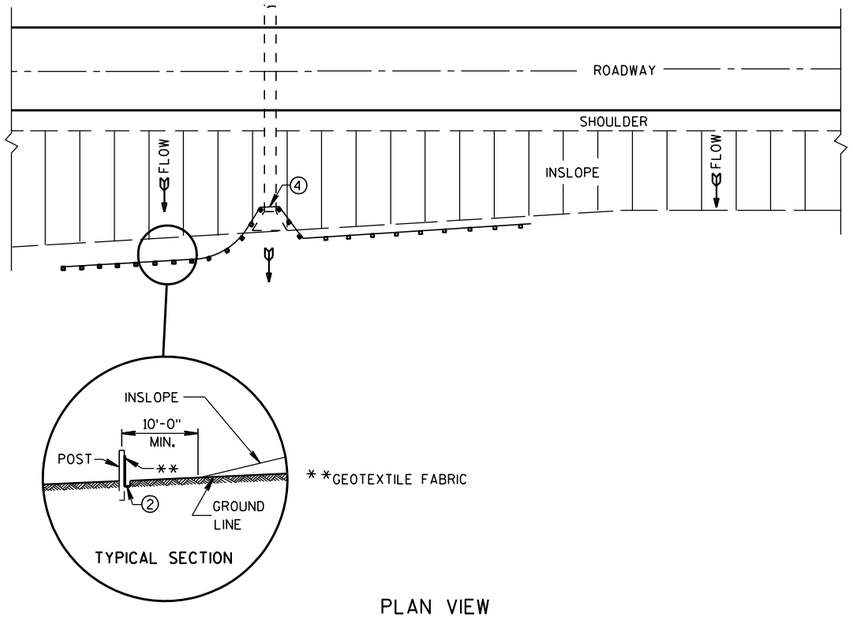


6

S.D.D. 8 E 8-3

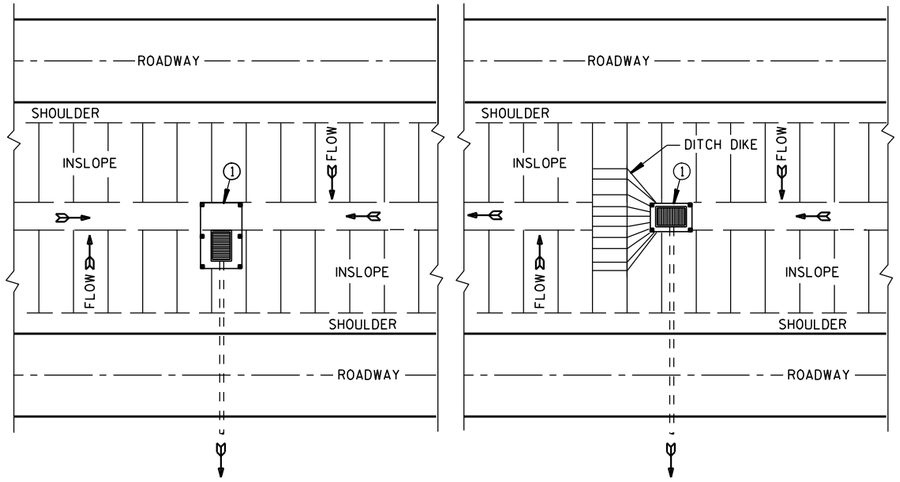
6

S.D.D. 8 E 8-3




PLAN VIEW

## TYPICAL APPLICATION OF SILT FENCE



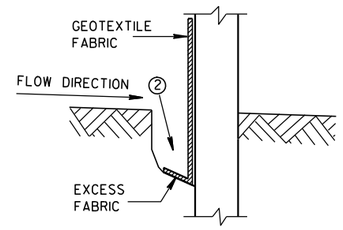

PLAN VIEW

## SILT FENCE AT MEDIAN SURFACE DRAINS

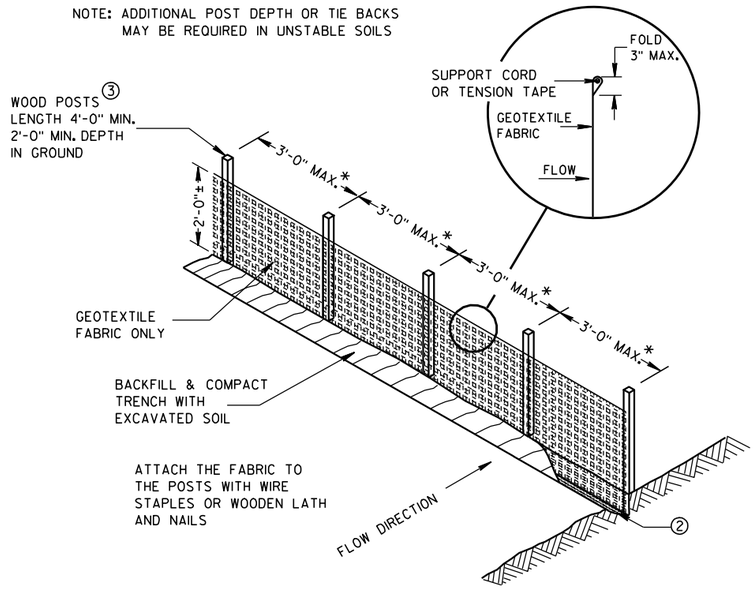
## GENERAL NOTES

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

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

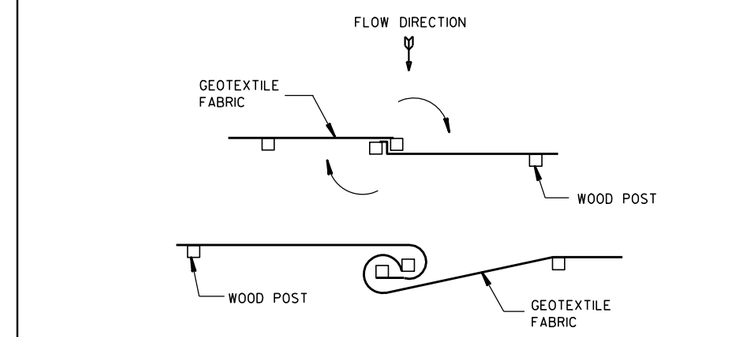



## TRENCH DETAIL

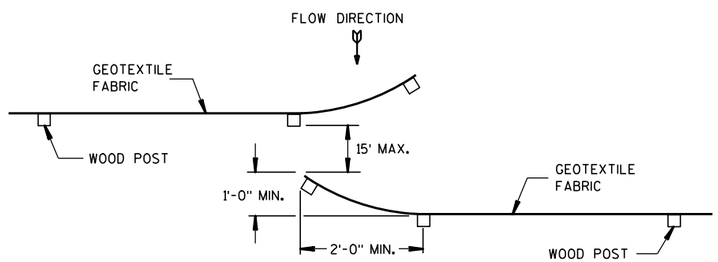



*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

## SILT FENCE

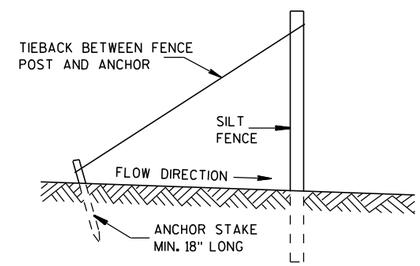



TWIST METHOD




HOOK METHOD

## JOINING TWO LENGTHS OF SILT FENCE 5




## SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

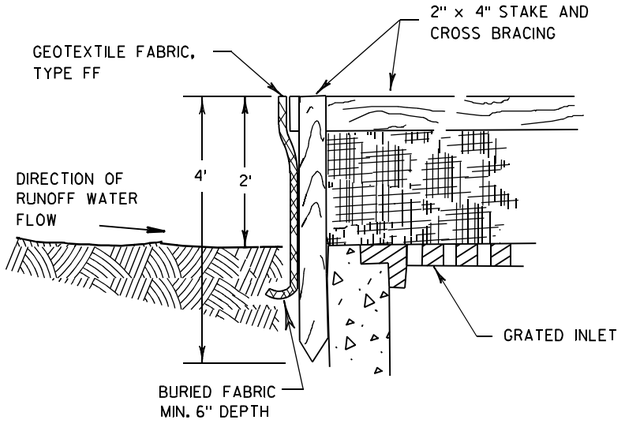


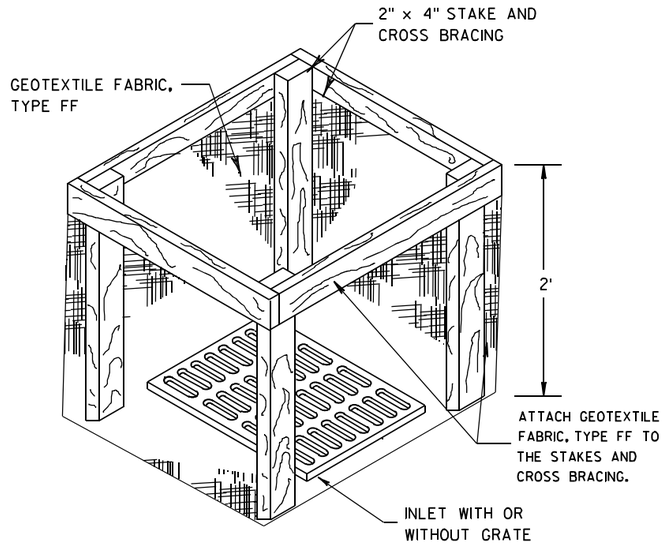
6

S.D.D. 8 E 9-6

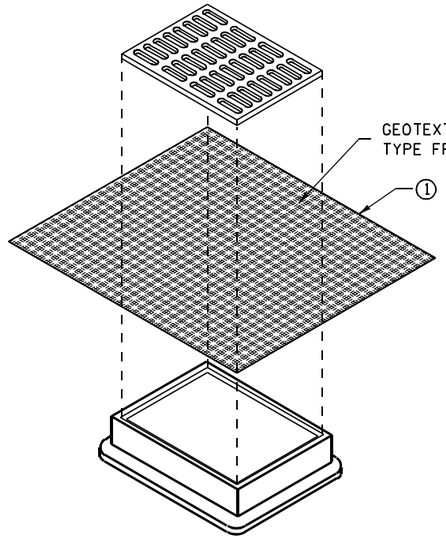
6

S.D.D. 8 E 9-6



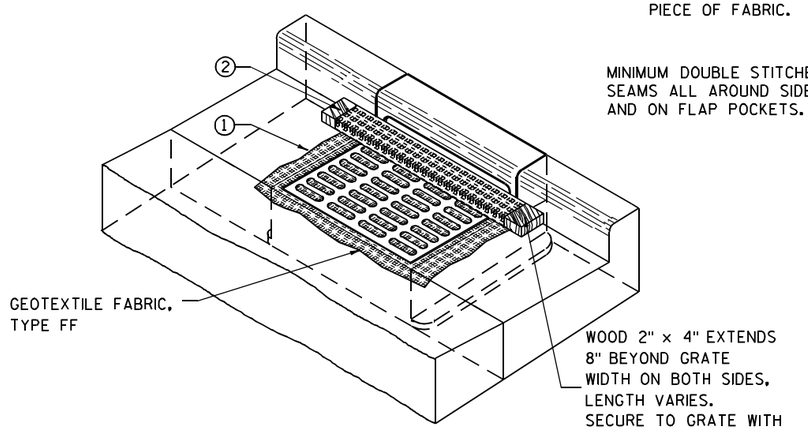




## INLET PROTECTION, TYPE A

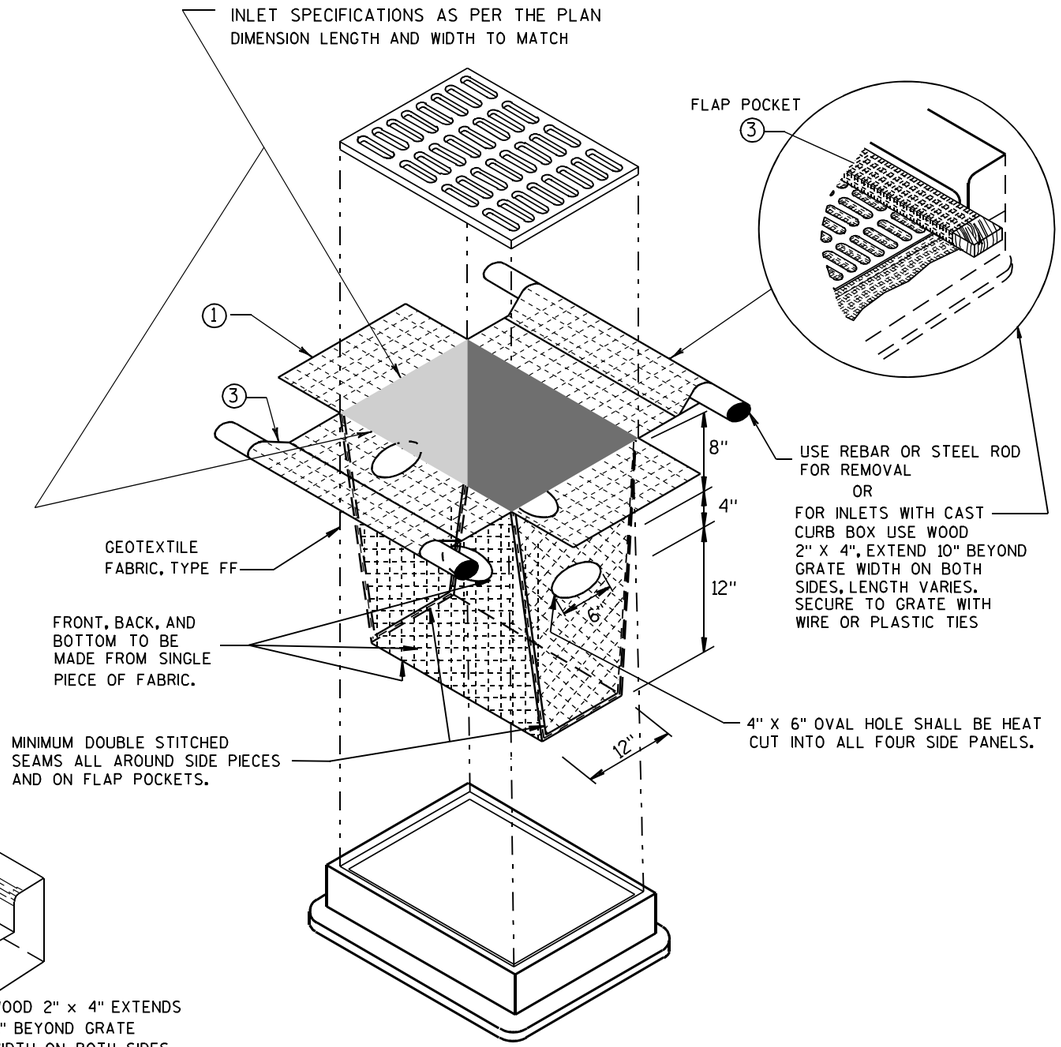



## INLET PROTECTION, TYPE B
## (WITHOUT CURB BOX)

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




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




## INLET PROTECTION, TYPE D

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

## GENERAL NOTES

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

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

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

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

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

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

## INSTALLATION NOTES

### TYPE B & C

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

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

### TYPE D

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

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

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

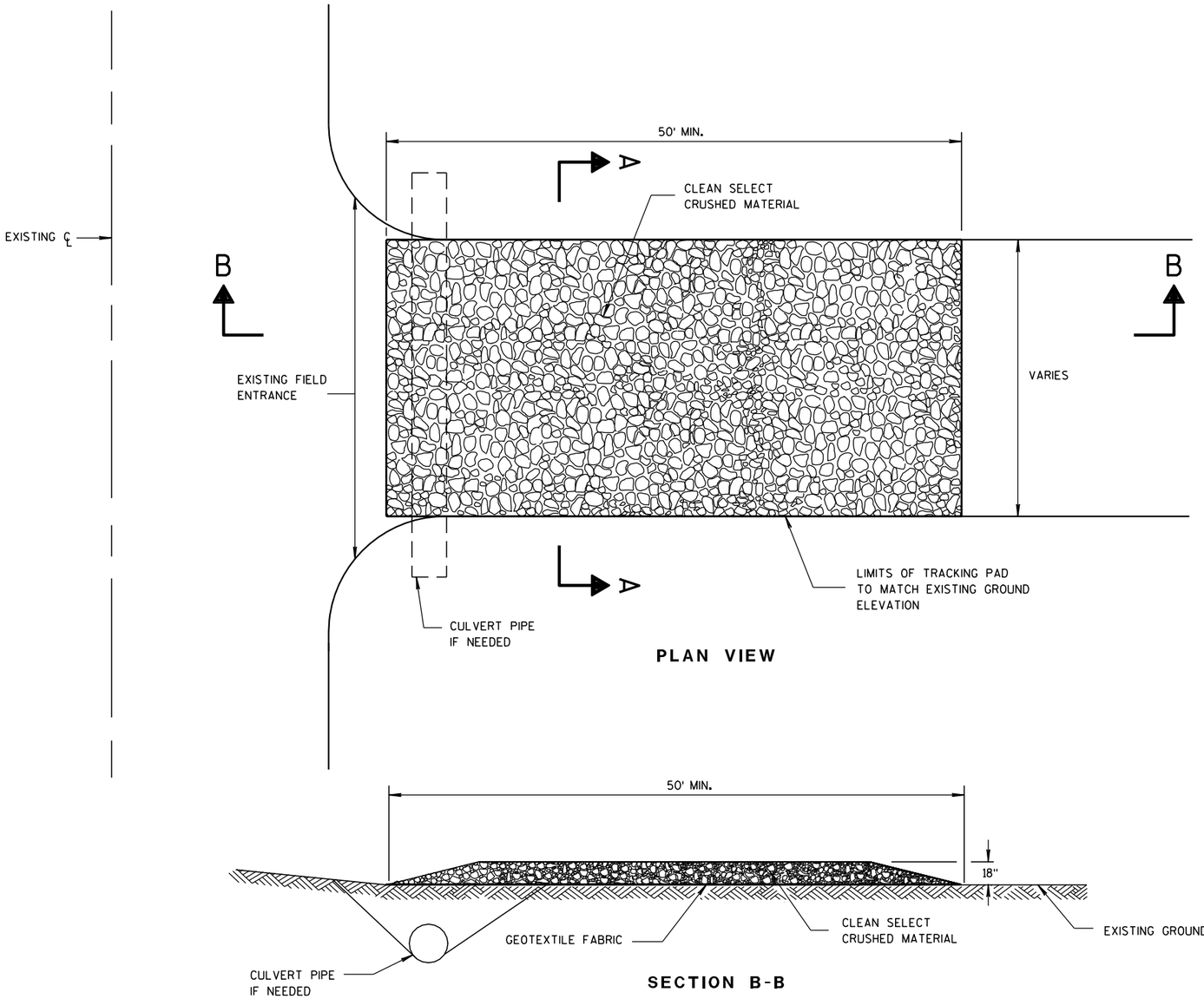


6

S.D.D. 8 E 10-2

6

S.D.D. 8 E 10-2




PLAN VIEW




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.

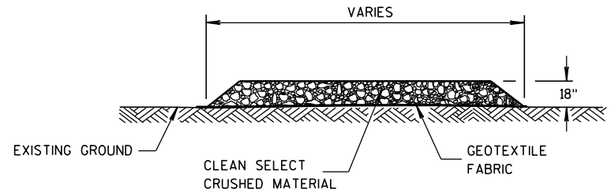
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

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

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/24/2011 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS ENGINEER
237
ENT
FHWA

6

S.D.D. 8 E 14-1

6

S.D.D. 8 E 14-1

## METAL APRON ENDWALLS

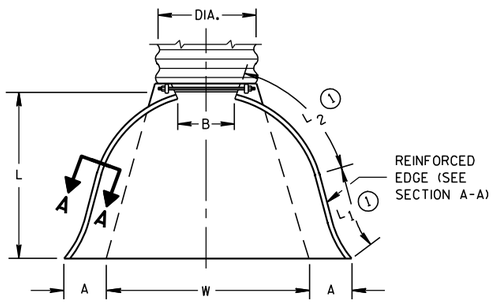
| PIPE DIA. (IN.) | MIN. THICK. (Inches) STEEL | MIN. THICK. (Inches) ALUM. | DIMENSIONS (Inches) A (±1") | B (MAX.) | H (±1") | L (±1 1/2") | L1 ① | L2 ① | W (±2") | APPROX. SLOPE | BODY |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | .064 | .060 | 6 | 6 | 6 | 21 | 12 | 17 1/2 | 24 | 2 1/2 to 1 | 1 Pc. |
| 15 | .064 | .060 | 7 | 8 | 6 | 26 | 14 | 21 3/4 | 30 | 2 1/2 to 1 | 1 Pc. |
| 18 | .064 | .060 | 8 | 10 | 6 | 31 | 15 | 28 1/4 | 36 | 2 1/2 to 1 | 1 Pc. |
| 21 | .064 | .060 | 9 | 12 | 6 | 36 | 18 | 29 5/8 | 42 | 2 1/2 to 1 | 1 Pc. |
| 24 | .064 | .075 | 10 | 13 | 6 | 41 | 18 | 37 1/4 | 48 | 2 1/2 to 1 | 1 Pc. |
| 30 | .079 | .075 | 12 | 16 | 8 | 51 | 18 | 52 1/4 | 60 | 2 1/2 to 1 | 1 Pc. |
| 36 | .079 | .105 | 14 | 19 | 9 | 60 | 24 | 59 3/4 | 72 | 2 1/2 to 1 | 2 Pc. |
| 42 | .109 | .105 | 16 | 22 | 11 | 69 | 24 | 75 5/8 | 84 | 2 1/2 to 1 | 2 Pc. |
| 48 | .109 | .105 | 18 | 27 | 12 | 78 | 24 | 81 | 90 | 2 1/4 to 1 | 3 Pc. |
| 54 | .109 | .105 | 18 | 30 | 12 | 84 | 30 | 85 1/2 | 102 | 2 1/4 to 1 | 3 Pc. |
| 60 | .109× | .105× | 18 | 33 | 12 | 87 | — | — | 114 | 2 to 1 | 3 Pc. |
| 66 | .109× | .105× | 18 | 36 | 12 | 87 | — | — | 120 | 2 to 1 | 3 Pc. |
| 72 | .109× | .105× | 18 | 39 | 12 | 87 | — | — | 126 | 2 to 1 | 3 Pc. |
| 78 | .109× | .105× | 18 | 42 | 12 | 87 | — | — | 132 | 1 1/2 to 1 | 3 Pc. |
| 84 | .109× | .105× | 18 | 45 | 12 | 87 | — | — | 138 | 1 1/2 to 1 | 3 Pc. |
| 90 | .109× | .105× | 18 | 37 | 12 | 87 | — | — | 144 | 1 1/2 to 1 | 3 Pc. |
| 96 | .109× | .105× | 18 | 35 | 12 | 87 | — | — | 150 | 1 1/2 to 1 | 3 Pc. |

× EXCEPT CENTER PANEL SEE GENERAL NOTES

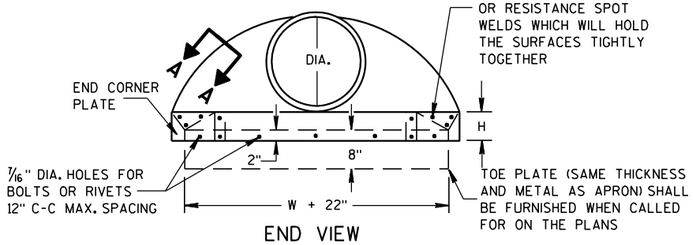
## REINFORCED CONCRETE APRON ENDWALLS

| PIPE DIA. (IN.) | DIMENSIONS (Inches) T | A | B | C | D | E | G | APPROX. SLOPE |
|---|---|---|---|---|---|---|---|---|
| 12 | 2 | 4 | 24 | 48 7/8 | 72 1/8 | 24 | 2 | 3 to 1 |
| 15 | 2 1/4 | 6 | 27 | 46 | 73 | 30 | 2 1/4 | 3 to 1 |
| 18 | 2 1/2 | 9 | 27 | 46 | 73 | 36 | 2 1/2 | 3 to 1 |
| 21 | 2 3/4 | 9 | 36 | 37 1/2 | 73 1/2 | 42 | 2 3/4 | 3 to 1 |
| 24 | 3 | 9 1/2 | 43 1/2 | 30 | 73 1/2 | 48 | 3 | 3 to 1 |
| 27 | 3 1/4 | 10 1/2 | 49 1/2 | 24 | 73 1/2 | 54 | 3 1/4 | 3 to 1 |
| 30 | 3 1/2 | 12 | 54 | 19 3/4 | 73 1/2 | 60 | 3 1/2 | 3 to 1 |
| 36 | 4 | 15 | 63 | 34 3/4 | 97 3/4 | 72 | 4 | 3 to 1 |
| 42 | 4 1/2 | 21 | 63 | 35 | 98 | 78 | 4 1/2 | 3 to 1 |
| 48 | 5 | 24 | 72 | 26 | 98 | 84 | 5 | 3 to 1 |
| 54 | 5 1/2 | 27 | 65 | * 33 1/4 - ** 35 | * 98 1/4 - ** 100 | 90 | 5 1/2 | 2 2/5 to 1 |
| 60 | 6 | * 30 - ** 35 | 60 | 39 | 99 | 96 | 5 | 2 to 1 |
| 66 | 6 1/2 | * 24 - ** 30 | * 72 - ** 78 | * 21 - ** 27 | 99 | 102 | 5 1/2 | 2 to 1 |
| 72 | 7 | * 24 - ** 36 | 78 | 21 | 99 | 108 | 6 | 2 to 1 |
| 78 | 7 1/2 | * 24 - ** 36 | 78 | 21 | 99 | 114 | 6 1/2 | 2 to 1 |
| 84 | 8 | 36 | 90 1/2 | 21 | 111 1/2 | 120 | 6 1/2 | 1 1/2 to 1 |
| 90 | 8 1/2 | 41 | 87 1/2 | 24 | 111 1/2 | 132 | 6 1/2 | 1 1/2 to 1 |

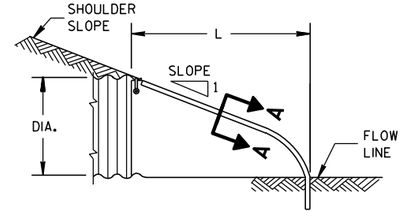
*MINIMUM
**MAXIMUM




PLAN VIEW

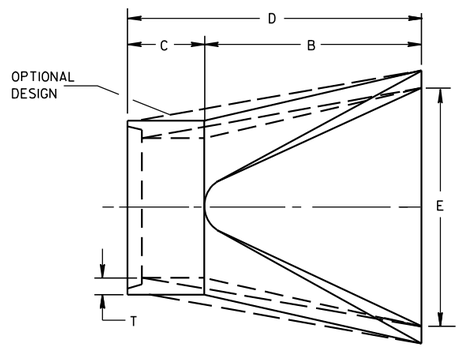



END VIEW

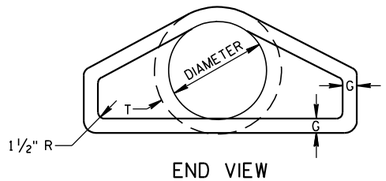



SIDE ELEVATION

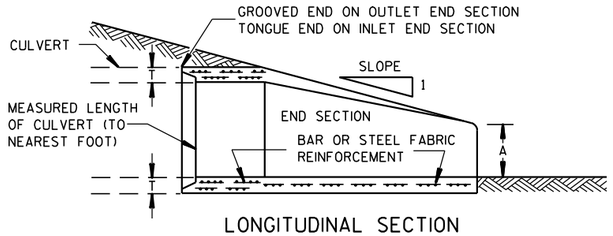
## METAL ENDWALLS




PLAN

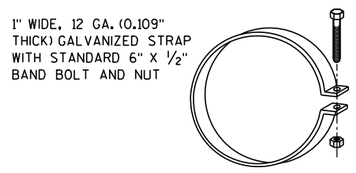



END VIEW



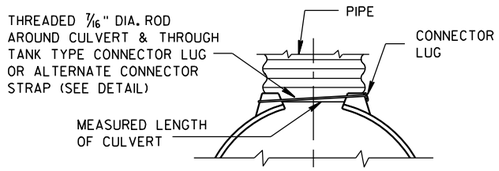

LONGITUDINAL SECTION

## CONCRETE ENDWALLS

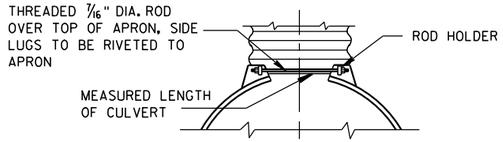



ALTERNATE FOR TYPE 1 CONNECTION

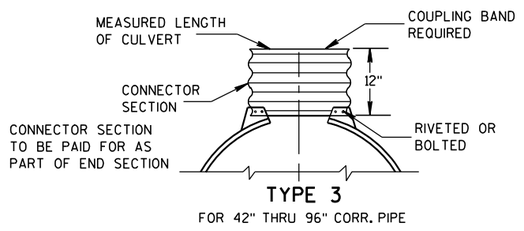
## END SECTION CONNECTOR STRAP



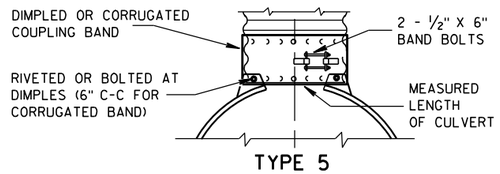

TYPE 1
FOR 12" THRU 24" CORR. PIPE




TYPE 2
FOR 30" THRU 96" CORR. PIPE




TYPE 3
FOR 42" THRU 96" CORR. PIPE




TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

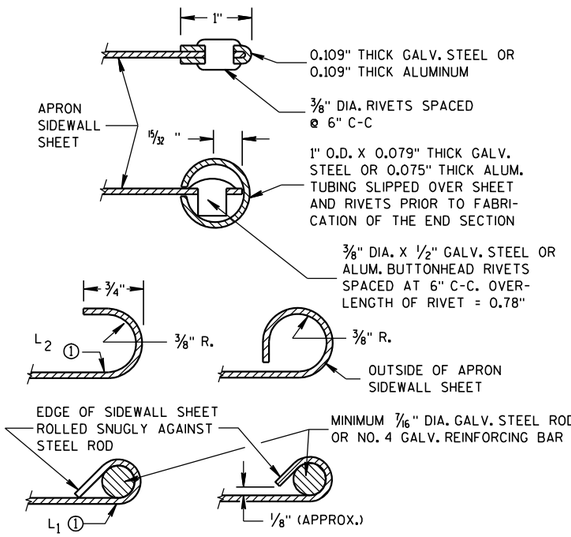
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

## CONNECTION DETAILS




## SECTION A-A

## GENERAL NOTES

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

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

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

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

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

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

# APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

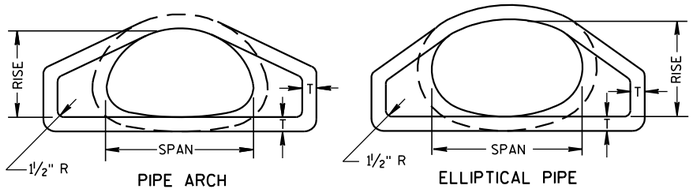
APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOP 238 NEER
FHWA

6

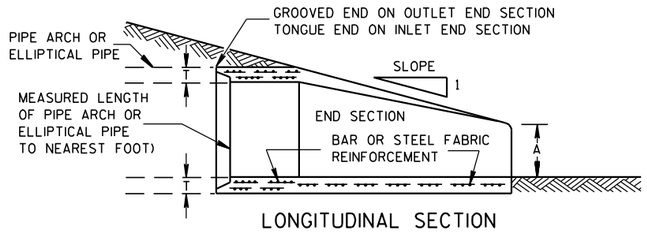
S.D.D. 8 F 1-11

6

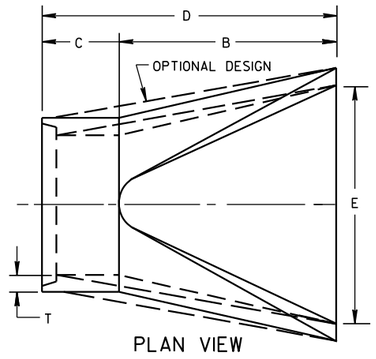
S.D.D. 8 F 1-11




END VIEW

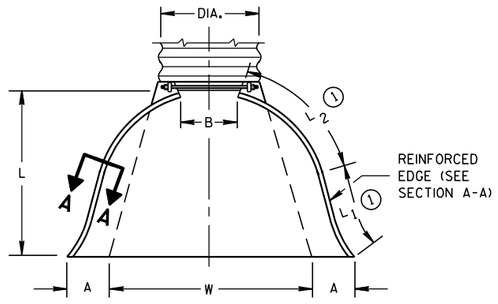



LONGITUDINAL SECTION

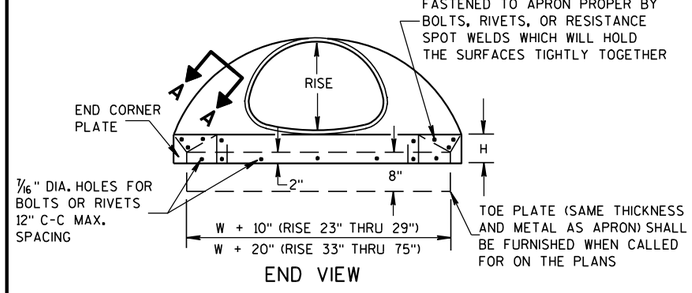



PLAN VIEW

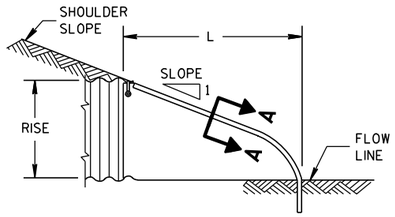
# CONCRETE ENDWALLS




PLAN VIEW

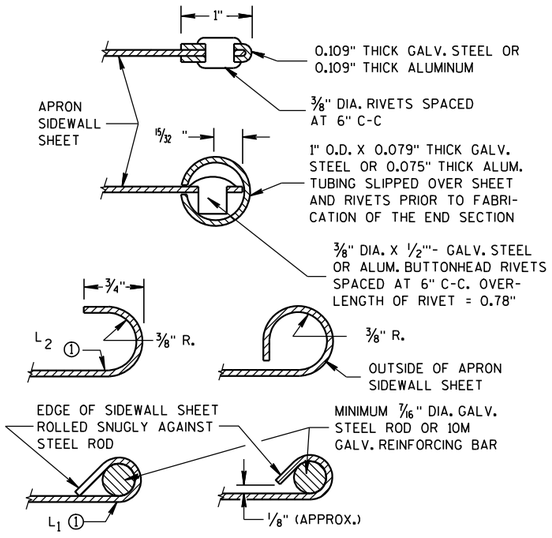



END VIEW




SIDE ELEVATION

# METAL ENDWALLS




SECTION A-A

## 2- 2/3" X 1/2" CORRUGATIONS

| EQUIV. DIA. (Inches) | (Inches) SPAN | (Inches) RISE | MIN. THICK. (Inches) STEEL | MIN. THICK. (Inches) ALUM. | DIMENSIONS (Inches) A (±1") | B (MAX.) | H (±1") | L (±1 1/2") | L1 ① | L2 ① | W (±2") | APPROX. SLOPE | BODY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 45⅜ | 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. DIA. (Inches) | (Inches) SPAN | (Inches) RISE | MIN. THICK. (Inches) STEEL | MIN. THICK. (Inches) ALUM. | DIMENSIONS (Inches) A (±1") | B (MAX.) | H (±1") | L (±1 1/2") | L1 ① | L2 ① | W (±2") | APPROX. SLOPE | BODY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 48 | 53 | 41 | .109 | .105 | 18 | 26 | 12 | 63 | 24 | 72¾ | 90 | 2½ to 1 | 2 Pc. |
| 54 | 60 | 46 | .109 | .105 | 18 | 30 | 12 | 70 | 30 | 82¼ | 102 | 2 to 1 | 2 Pc. |
| 60 | 66 | 51 | .109* | .105* | 18 | 33 | 12 | 77 | — | — | 114 | 1½ to 1 | 3 Pc. |
| 66 | 73 | 55 | .109* | .105* | 18 | 36 | 12 | 77 | — | — | 126 | 1½ 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 | 1½ to 1 | 3 Pc. |
| 84 | 95 | 67 | .109* | .105* | 22 | 34 | 12 | 77 | — | — | 162 | 1½ to 1 | 3 Pc. |
| 90 | 103 | 71 | .109* | .105* | 22 | 38 | 12 | 77 | — | — | 174 | 1½ to 1 | 3 Pc. |
| 96 | 112 | 75 | .109* | .105* | 24 | 40 | 12 | 77 | — | — | 174 | 1½ to 1 | 3 Pc. |

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

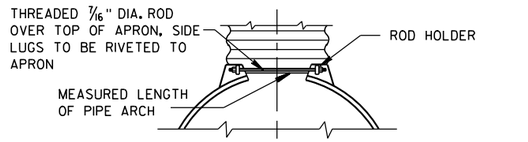
## REINFORCED CONCRETE PIPE ARCH

| EQUIV. DIA. (Inches) | DIMENSIONS (Inches) ** SPAN | ** RISE | T | A | B | C | D | E | APPROX. SLOPE |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 11⅛ | 60 | 36 | 96 | 72 | 3 to 1 |
| 42 | 51 | 31 | 4½ | 15 13/16 | 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

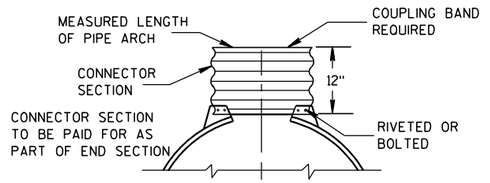
| EQUIV. DIA. (Inches) | DIMENSIONS (Inches) ** SPAN | ** RISE | T | A | B | C | D | E | APPROX. SLOPE |
|---|---|---|---|---|---|---|---|---|---|
| 24 | 30 | 19 | 3¼ | 8½ | 39 | 33 | 72 | 48 | 3 to 1 |
| 30 | 38 | 24 | 3¾ | 9½ | 54 | 18 | 72 | 60 | 3 to 1 |
| 36 | 45 | 29 | 4½ | 11⅛ | 60 | 24 | 84 | 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



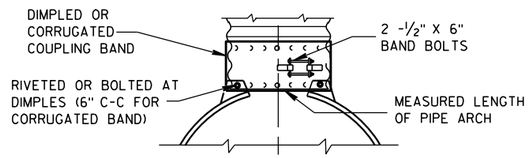

TYPE 2

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

# 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

/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

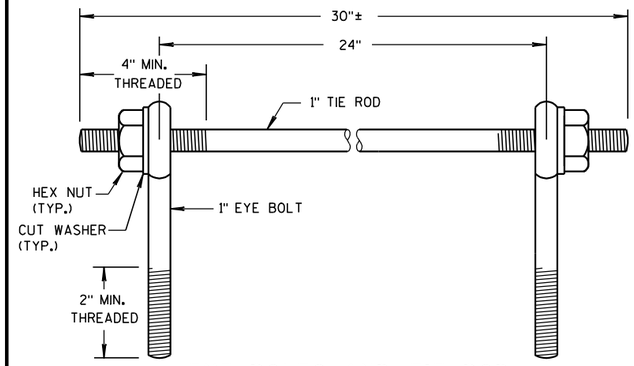


6

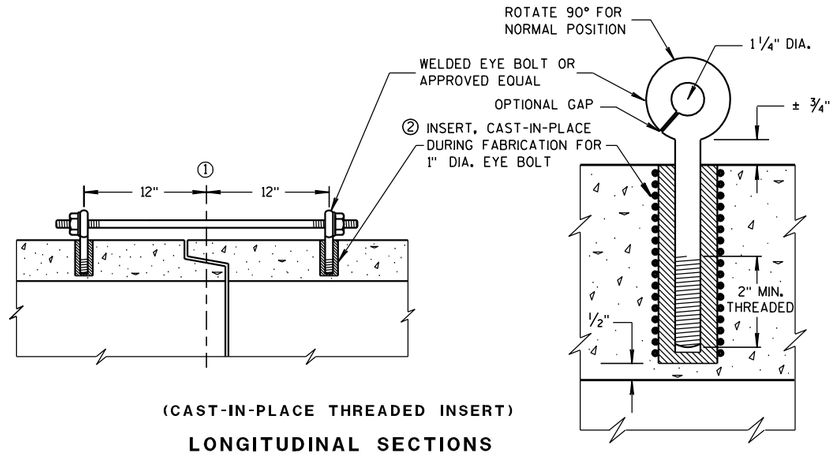
S.D.D. 8 F 2-1

6

S.D.D. 8 F 2-1




EYE BOLTS AND TIE ROD




(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

## GENERAL NOTES

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

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

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

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

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

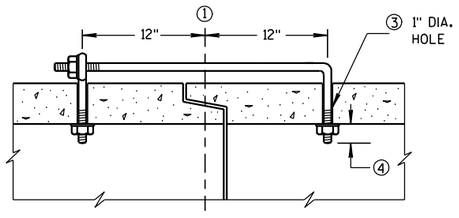
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

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

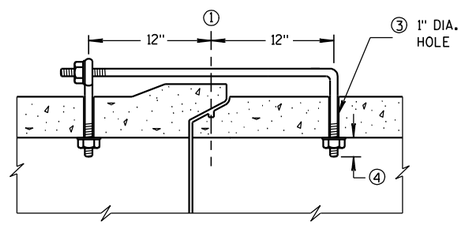
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

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




(TONGUE & GROOVE PIPE)

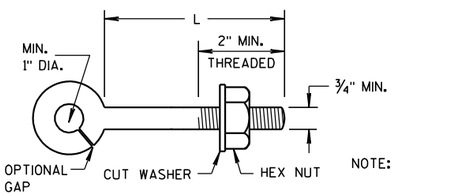



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

**EYE BOLT DIMENSION TABLE**

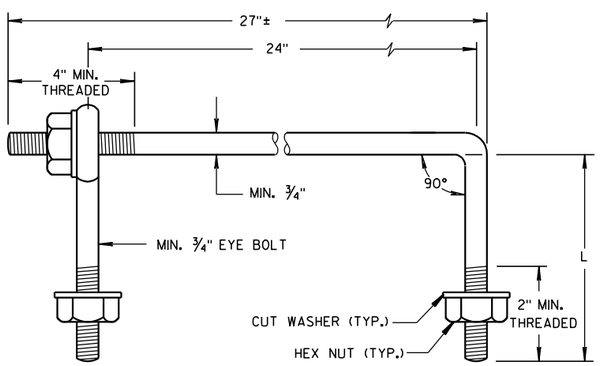
| PIPE SIZE | L = LENGTH | |
|---|---|---|
| | TONGUE & GROOVE PIPE | MODIFIED BELL PIPE |
| 18" TO 24" | 4 1/2" | 6 1/4" |
| 30" | 5" | 7" |
| 36" | 5 1/2" | 7" |
| 42" | 6" | |
| 48" | 6 1/2" | |
| 60" | 7 1/2" | |
| 66" | 8" | |




NOTE:

EYE BOLT

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




EYE BOLT AND TIE ROD

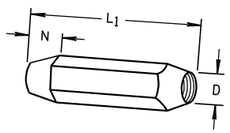
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

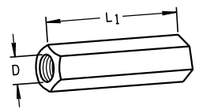
**ADJUSTABLE TIE ROD TABLE**

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

DIMENSIONS SHOWN ARE IN INCHES



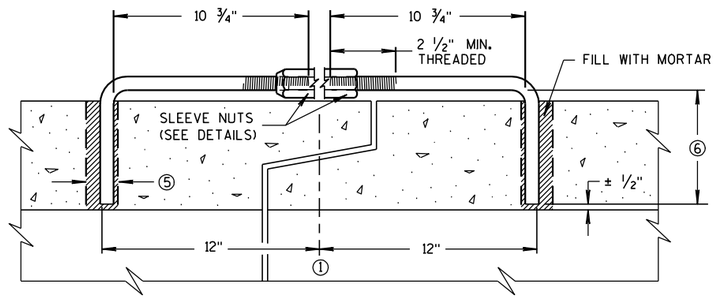

TAPERED




PLAIN

RIGHT AND LEFT THREADS

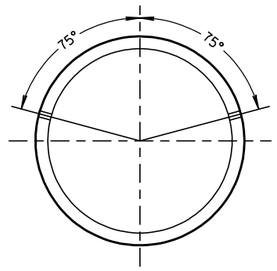
SLEEVE NUTS




LONGITUDINAL SECTION

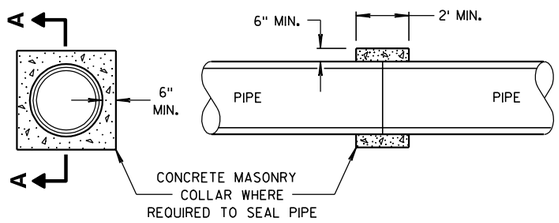
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

# ADJUSTABLE TIE ROD (ALTERNATE NO. 3)




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

TRANSVERSE SECTION




SECTION A-A

# CONCRETE COLLAR DETAIL

**JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

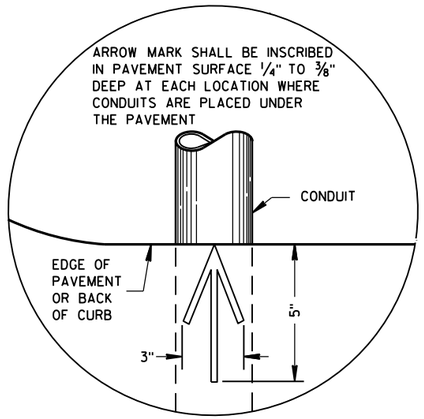
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
240 — MENT
FHWA

6

S.D.D. 8 F 4-7

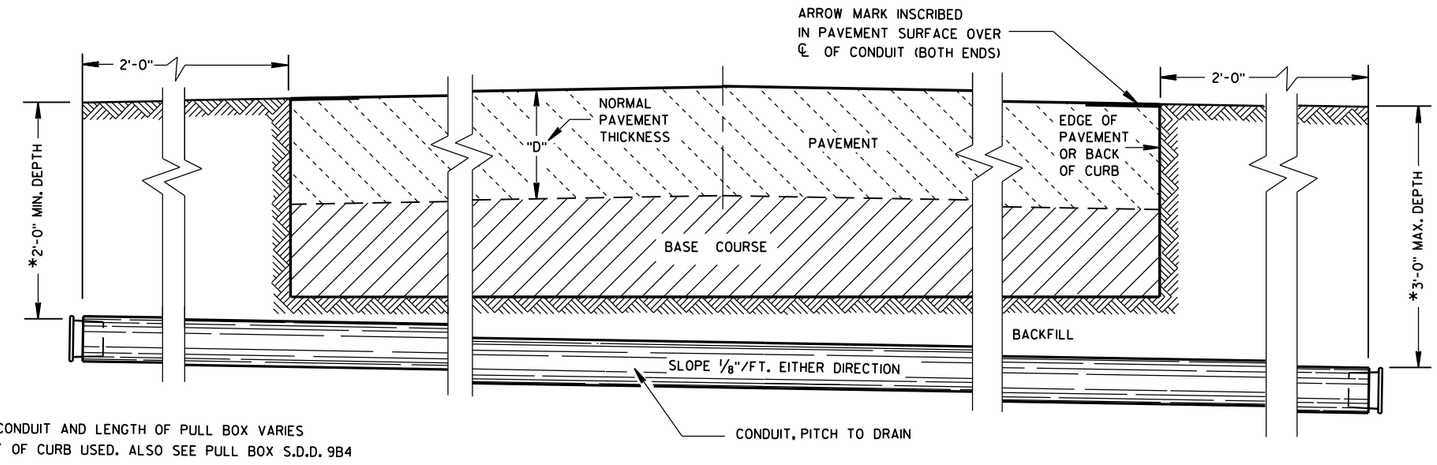
6

S.D.D. 8 F 4-7




**PLAN VIEW**

## ARROW MARK




*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

**SIDE ELEVATION**

## DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

## GENERAL NOTES

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

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.

# CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA



6

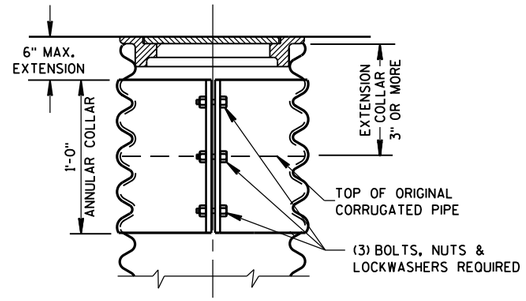
S.D.D. 9 B 2-10

## TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

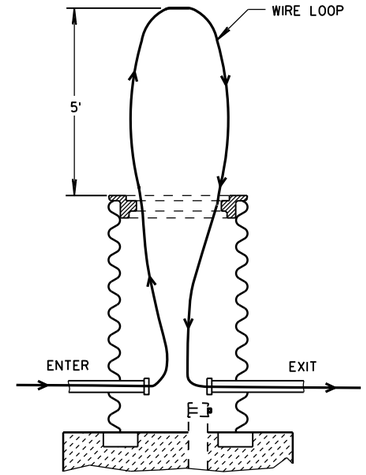
| DIMENSION IN INCHES | | CORRUGATED STEEL PIPE | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| PIPE DIAMETER (INSIDE) | A | 12 | 12 | 12 | 18 | 18 | 18 | 24 | 24 | 24 |
| PIPE LENGTH ** | B | 24 | 30 | 36 | 24 | 30 | 36 | 36 | 42 | 48 |
| WALL THICKNESS | C | 0.064 | 0.064 | 0.064 | 0.064 | 0.064 | 0.064 | 0.064 | 0.064 | 0.064 |
| COVER | D | 10 1/4 | 10 1/4 | 10 1/4 | 16 1/4 | 16 1/4 | 16 1/4 | 22 1/4 | 22 1/4 | 22 1/4 |
| FRAME | E | 14 1/2 | 14 1/2 | 14 1/2 | 20 1/2 | 20 1/2 | 20 1/2 | 26 1/2 | 26 1/2 | 26 1/2 |
| FRAME | F | 8 1/2 | 8 1/2 | 8 1/2 | 14 1/2 | 14 1/2 | 14 1/2 | 20 1/2 | 20 1/2 | 20 1/2 |
| FRAME | G | 11 1/2 | 11 1/2 | 11 1/2 | 17 1/2 | 17 1/2 | 17 1/2 | 23 1/2 | 23 1/2 | 23 1/2 |
| WEIGHT IN POUNDS * | | | | | | | | | | |
| FRAME AND COVER | | 60 | 60 | 60 | 110 | 110 | 110 | 155 | 155 | 155 |

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

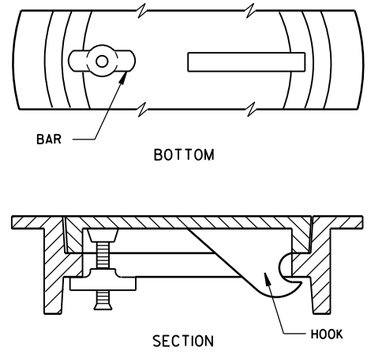
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.




CORRUGATED PIPE EXTENDER

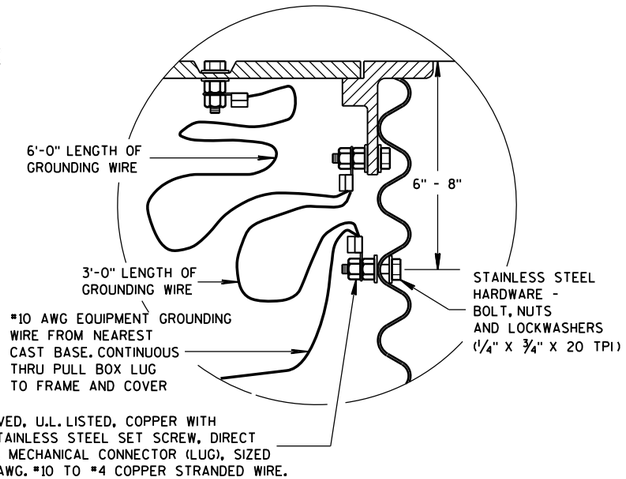



MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX

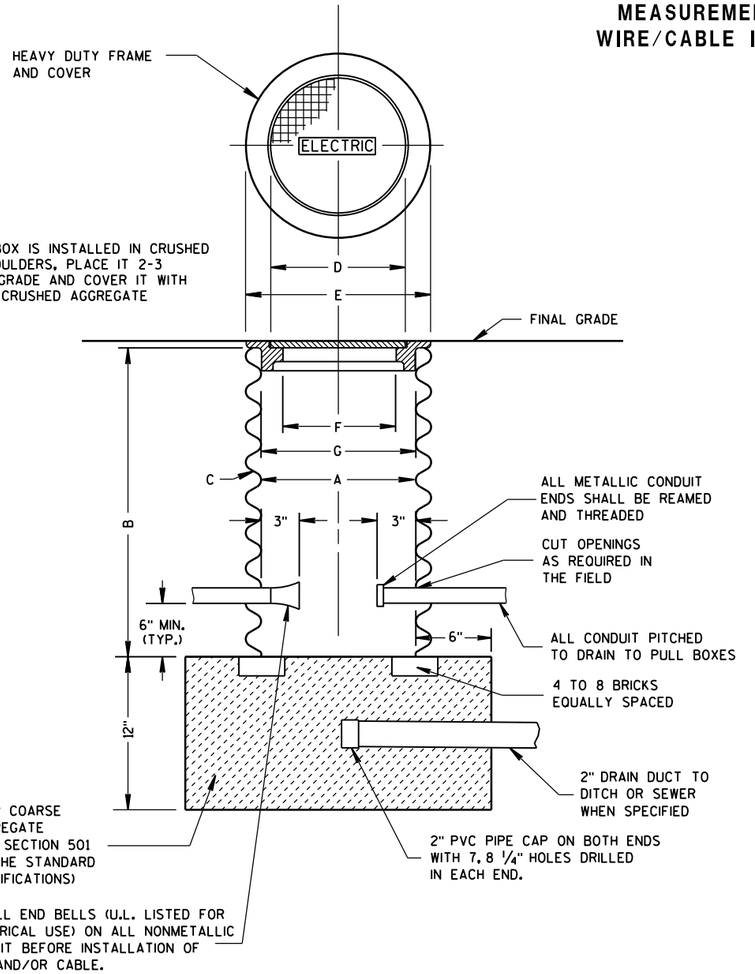



ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE




EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES




PULL BOX

## GENERAL NOTES

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

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

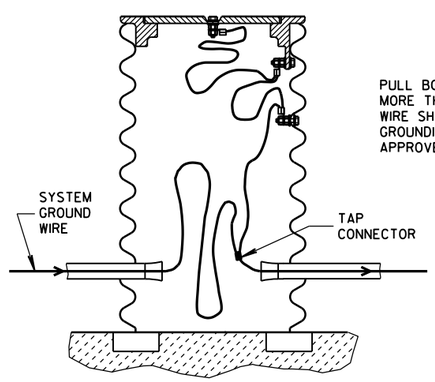
ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.




PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

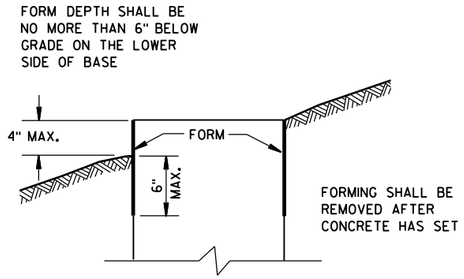
PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL
242
FHWA

6

S.D.D. 9 B 4-11




## FORMING DETAIL

| QUANTITY REQUIREMENTS | CONCRETE BASE TYPE | | |
|---|---|---|---|
| | 1 | 2 | 5 & 6 |
| APPROX. CUBIC YARDS OF CONCRETE | 0.40 | 0.57 | 0.40 |
| LBS. OF HOOP BAR STEEL | NONE | 23 | 16 |
| LBS. OF VERTICAL BAR STEEL | NONE | 60 | 18 |

## GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

## GENERAL NOTES (CONTINUED)

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 1, TYPE 2, TYPE 5, AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(3) (4) 1" DIA. X 5'-0" ANCHOR RODS.

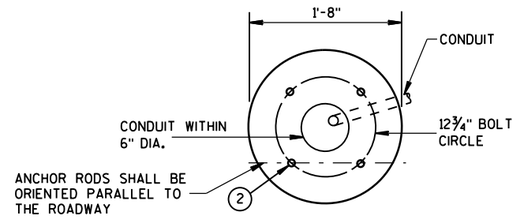
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

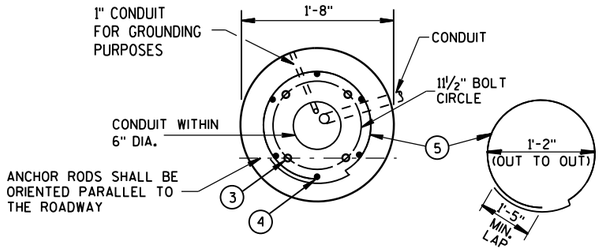
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

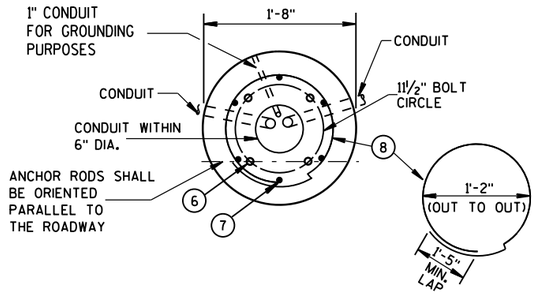
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

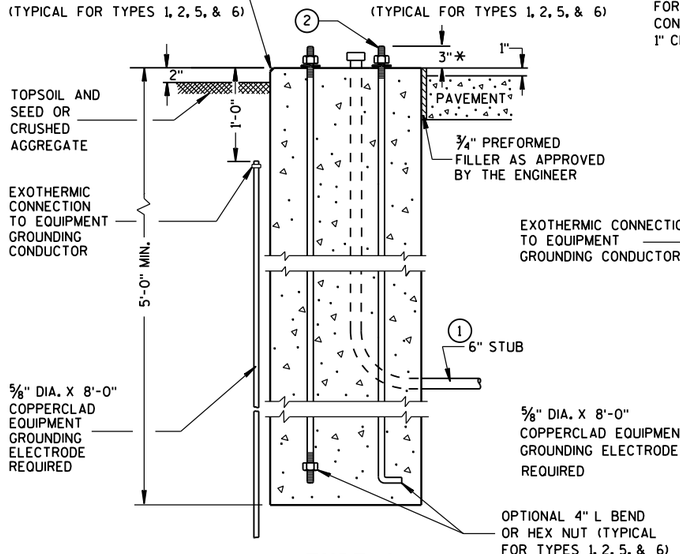


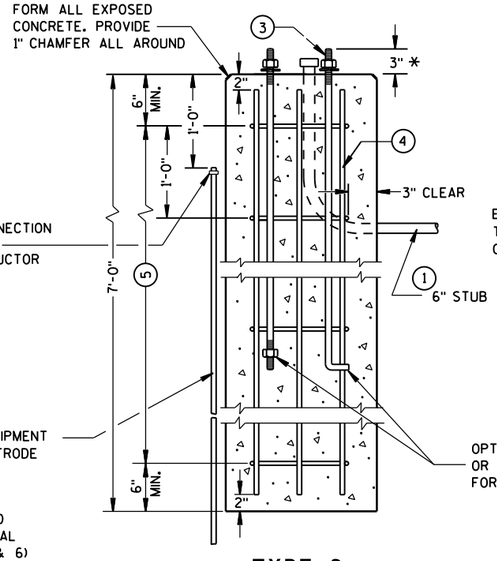




### HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5, & 6)

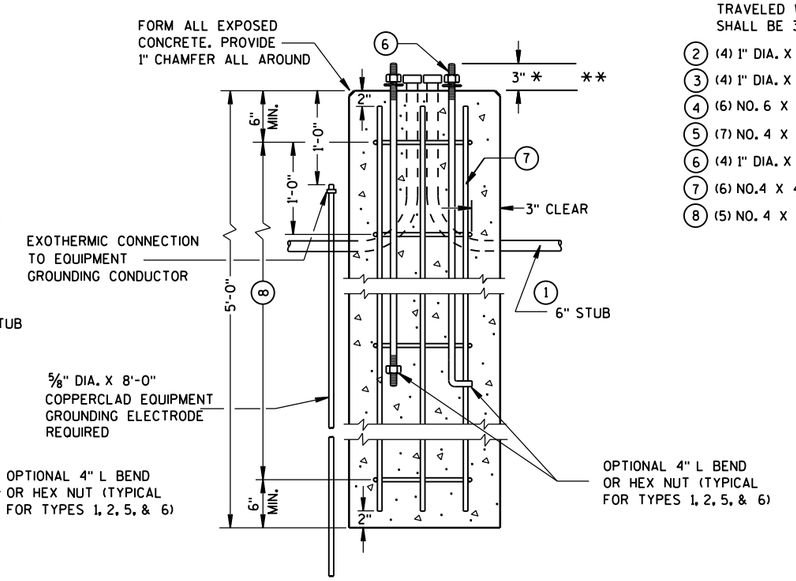
### HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5, & 6)




TYPE 1




TYPE 2




TYPE 5 & 6

## CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

**CONCRETE BASES, TYPES 1, 2, 5, & 6**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL

FHWA




6


S.D.D. 9 C 2-7

## GENERAL NOTES

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

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

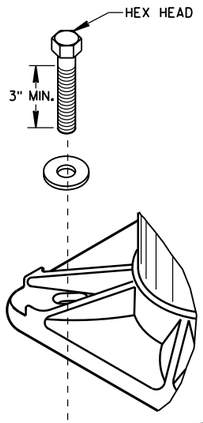
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

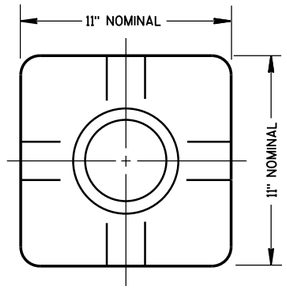
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

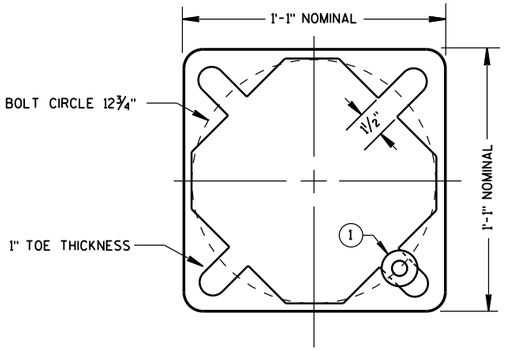
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

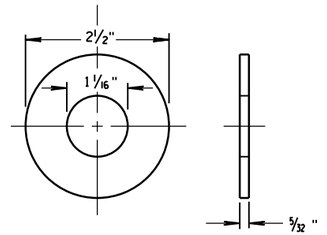



TOP VIEW
(PEDESTAL BASE)

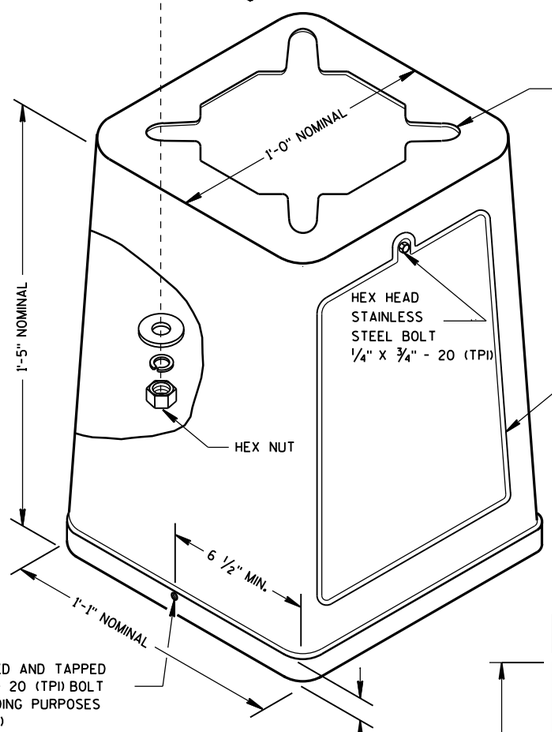



BOTTOM VIEW
(PEDESTAL BASE)

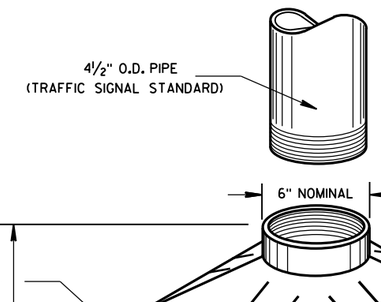


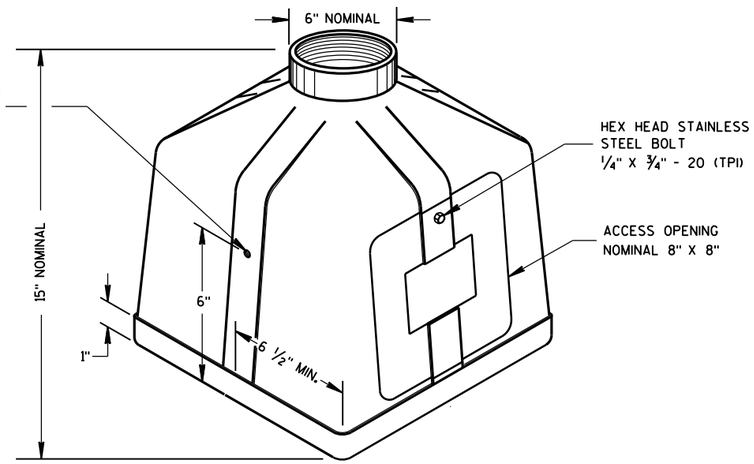

ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

**PEDESTAL BASE WASHER** (1)



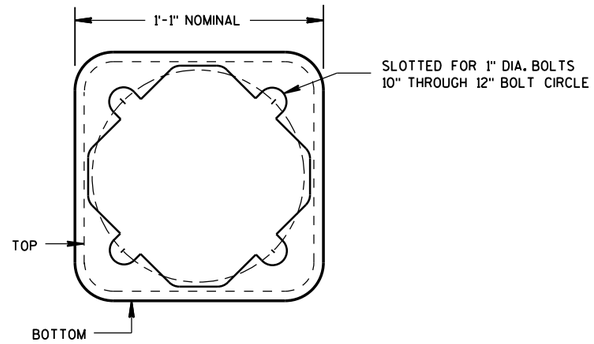

ISOMETRIC VIEW



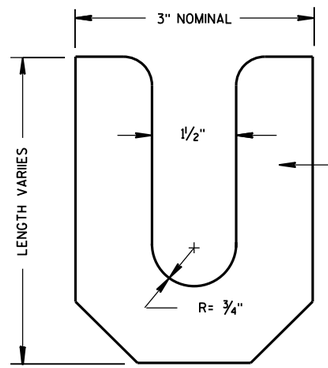




ISOMETRIC VIEW

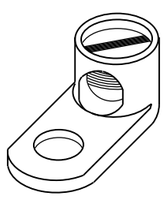
**PEDESTAL BASE**




BOTTOM VIEW
(TRANSFORMER BASE)




LEVELING SHIM



**TYPICAL MECHANICAL CONNECTOR LUG**

TO BE FURNISHED WITH EACH BASE

## TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES

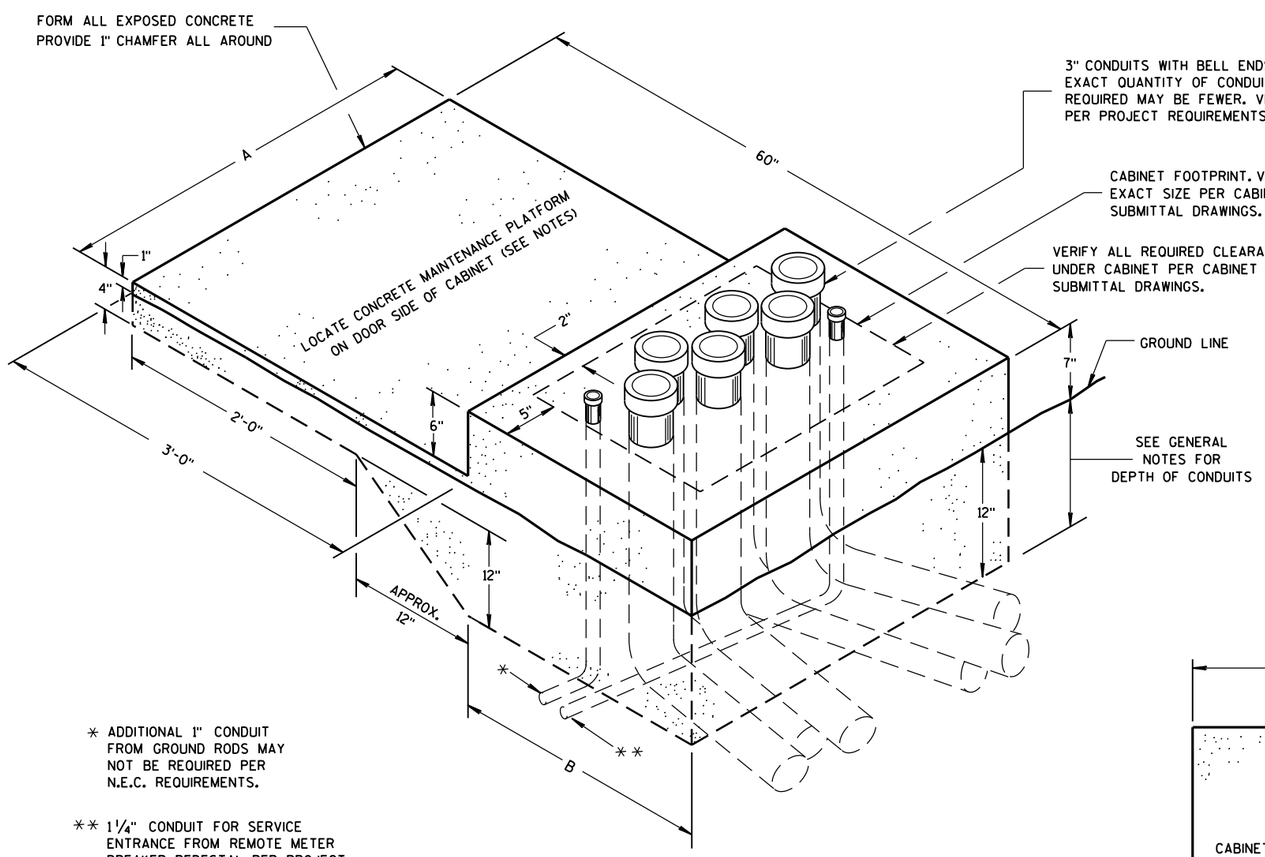
**TRANSFORMER/PEDESTAL BASES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA




6
S.D.D. 9 C 3-4




* ADDITIONAL 1" CONDUIT FROM GROUND RODS MAY NOT BE REQUIRED PER N.E.C. REQUIREMENTS.

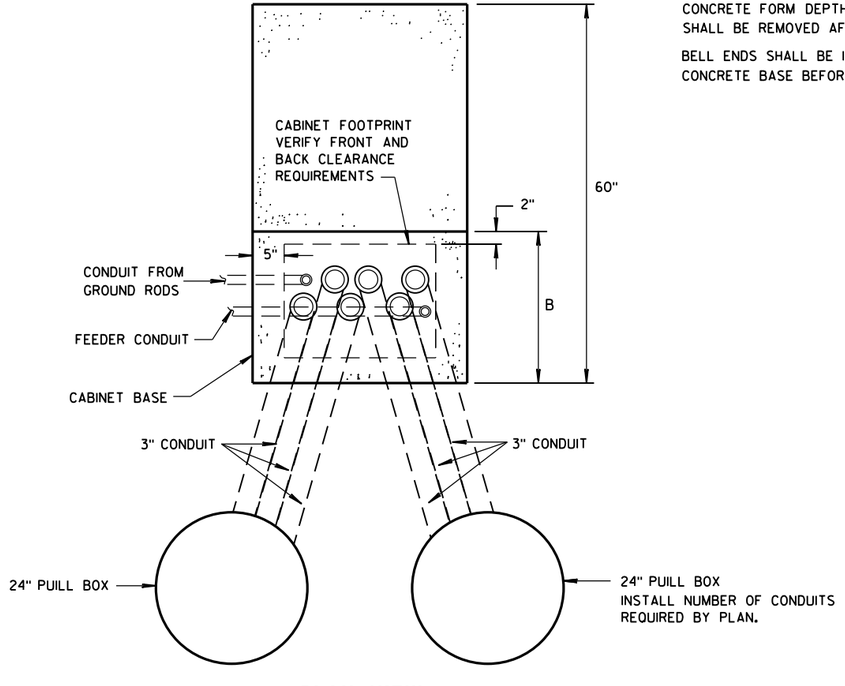
** 1¼" CONDUIT FOR SERVICE ENTRANCE FROM REMOTE METER BREAKER PEDESTAL PER PROJECT REQUIREMENTS. VERIFY LOCATION OF CONDUIT DEPENDENT UPON LOCATION OF INCOMING FEEDER AND FOR EASE OF CONNECTION TO LOAD CENTER.

**ISOMETRIC VIEW**

## CONCRETE CONTROL CABINET BASE, TYPE L

( C.Y. CONCRETE = APPROX. 0.4 )

| CONCRETE BASE TYPE | CABINET WIDTH | DIMENSIONS | | MAXIMUM 3" CONDUITS |
|---|---|---|---|---|
| | | A | B | |
| L24 | 24" | 34" | 24" | 4 |
| L30 | 30" | 40" | 24" | 6 |




**PLAN VIEW**

## CONCRETE CONTROL CABINET BASE, TYPE L

## GENERAL NOTES

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

INSTALL FOUR STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS TO ANCHOR THE CABINET BASES. THE ANCHORS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND BE LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NONMETALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONDUIT EXITING THE CONCRETE BASE SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

**CONCRETE CONTROL CABINET BASE, TYPE L**

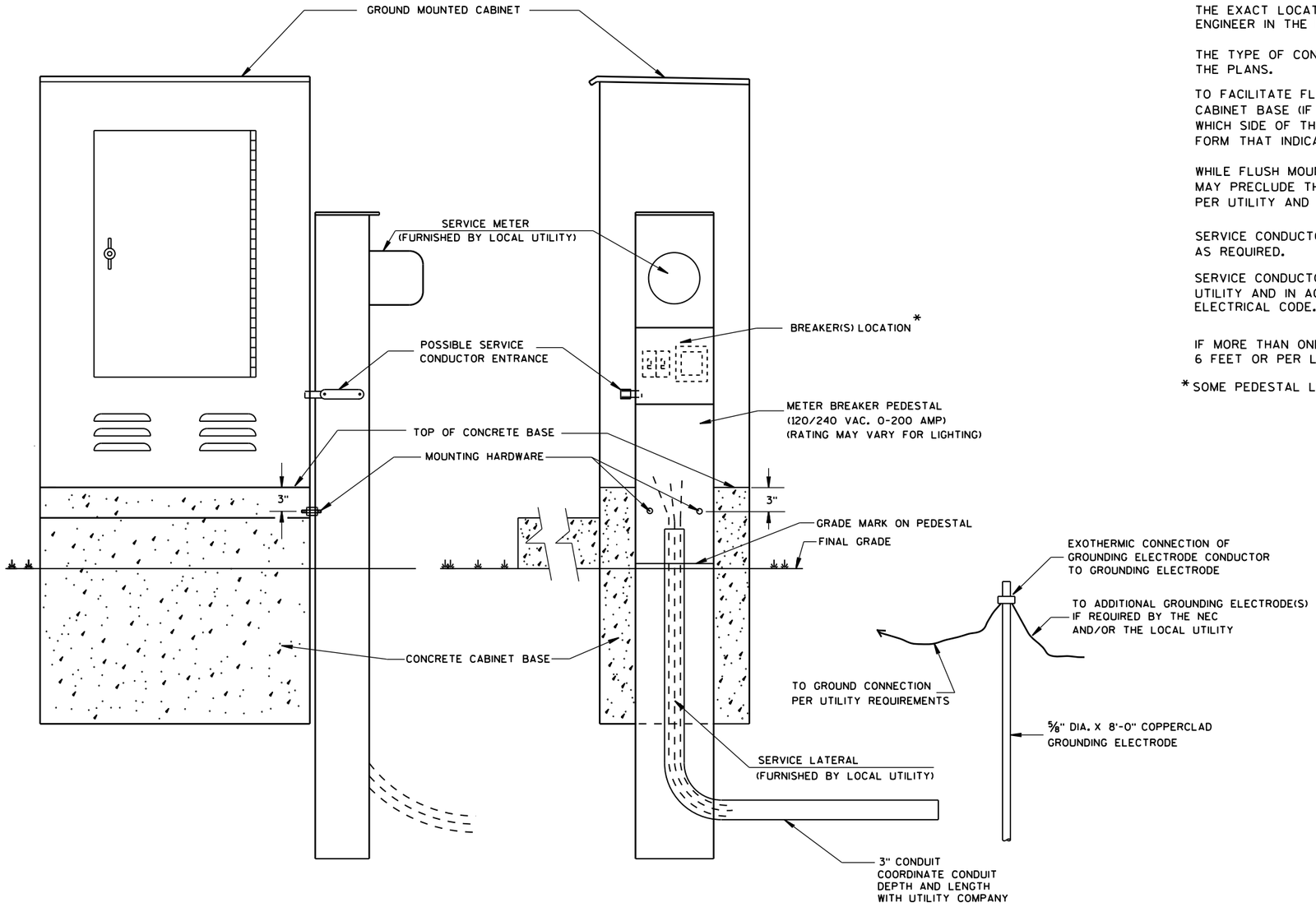
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Nov. 2014 — DATE
/S/ Thomas Gonring — STATE LIGHTING ENGINE
FHWA




6

S.D.D. 9 C 14-2




**TYPICAL CABINET SERVICE INSTALLATION**

## GENERAL NOTES

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

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE. CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH. THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

**CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA




6
S.D.D. 9 D 1-5

## GENERAL NOTES

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

ALL INTERNAL ELECTRICAL COMPONENTS WILL BE PRE-WIRED BY THE CABINET FABRICATOR.

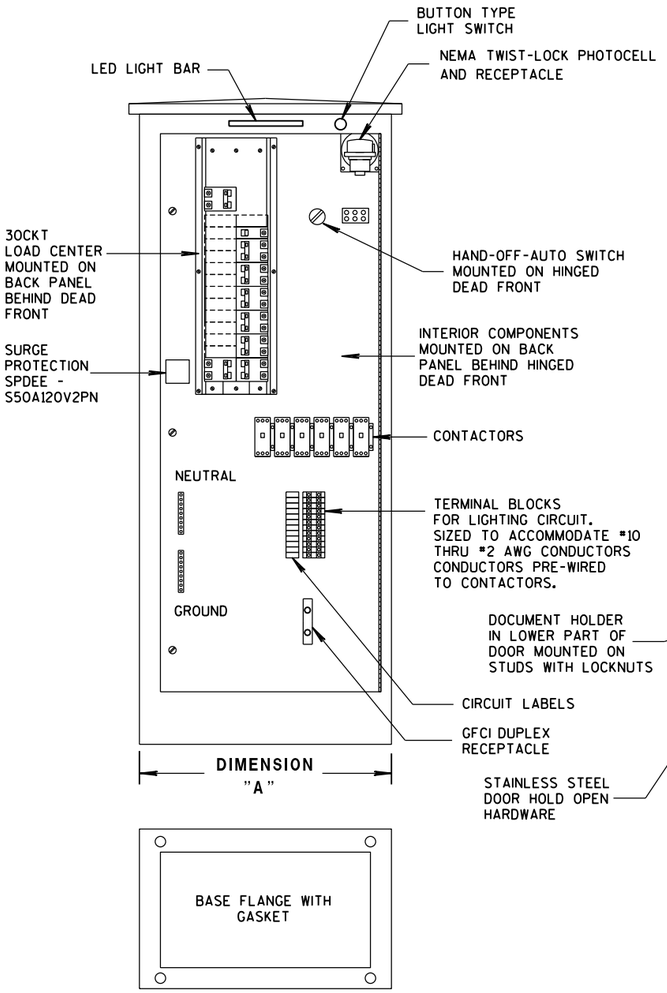
ALL CONDUIT ENTRIES SHALL BE SEALED WITH AN APPROPRIATE DUCT SEALING COMPOUND.

ORIENT PHOTOCELL AWAY FROM AMBIENT LIGHT SOURCES AND ONCOMING TRAFFIC HEADLIGHTS.

THE CONTRACTOR SHALL TOUCH UP ANY DAMAGE TO THE ANODIZED FINISH CAUSED BY THE INSTALLATION PROCESS. COLOR MATCH PAINT SHALL BE USED.

A COMPLETE LIGHTING OR ELECTRICAL PLAN SHALL BE SECURELY PLACED IN THE DOCUMENT HOLDER ATTACHED TO THE DOOR.

### FRONT INTERIOR ELEVATION




### SIDE VIEW

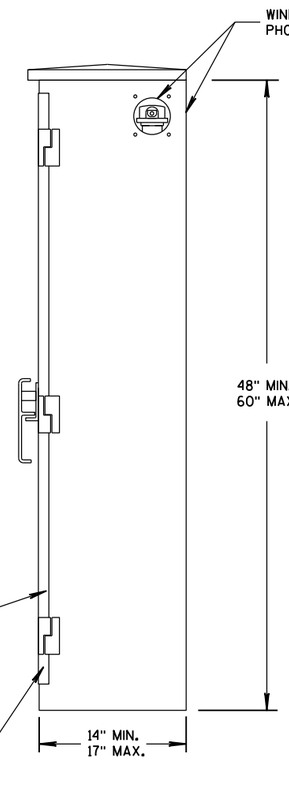
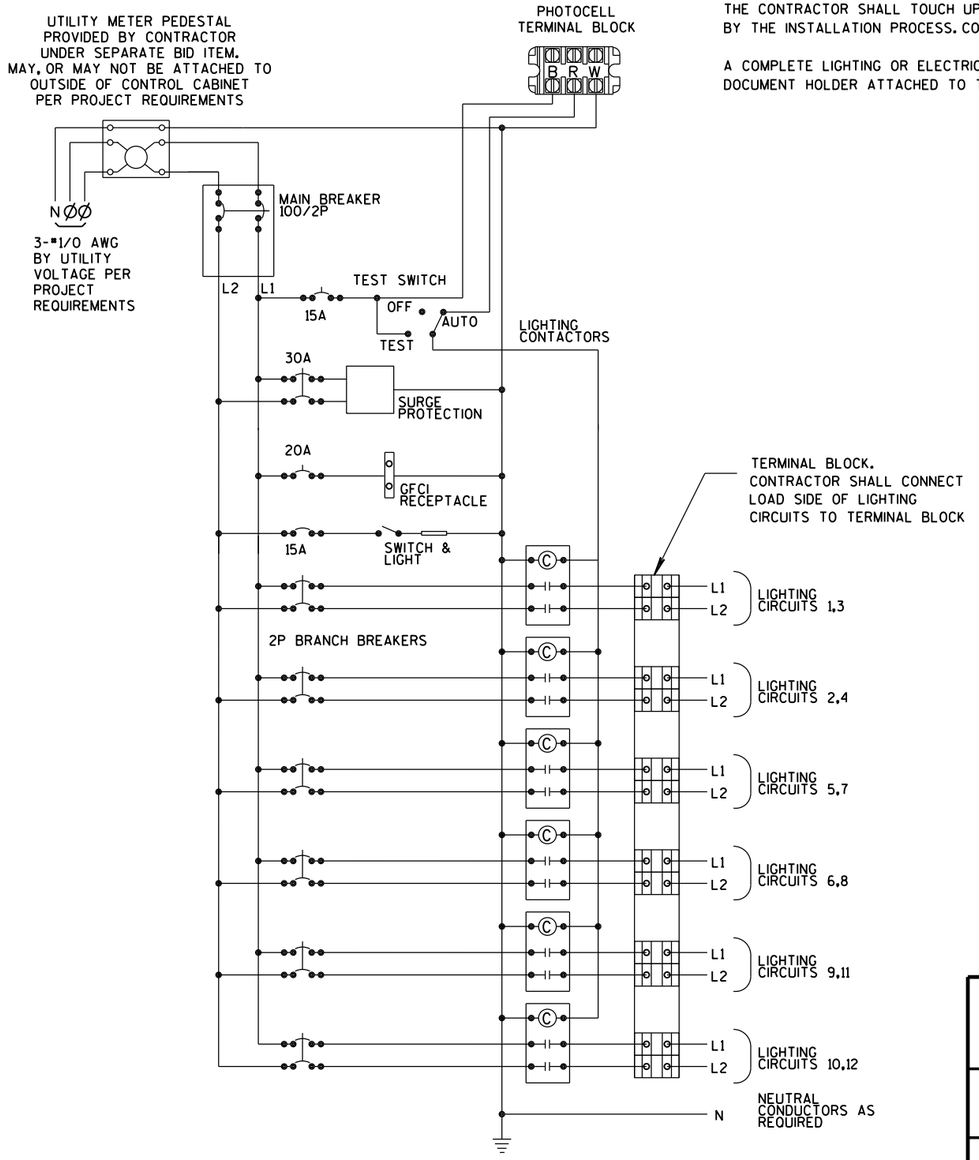



TABLE OF DIMENSIONS (INCHES)

| CONCRETE BASE TYPE | CABINET WIDTH | DIMENSION "A" |
|---|---|---|
| L24 | 24" | 24" |
| L30 | 30" | 30" |

LIGHTING CONTROL CABINET




CONTROL CABINET SCHEMATIC

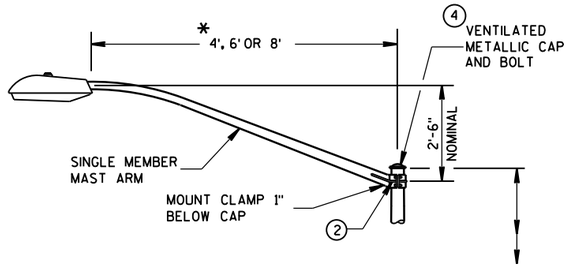
# LIGHTING CONTROL CABINET 120/240 VOLT

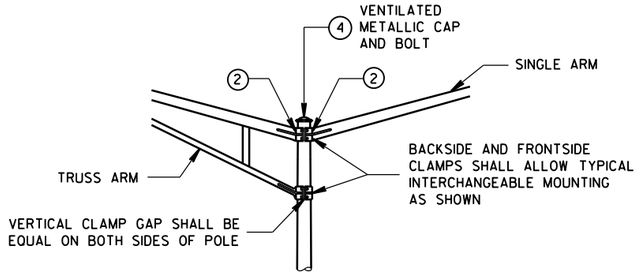
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Thomas Gonring — STATE LIGHTING ENGINEER
247
FHWA
NYS.

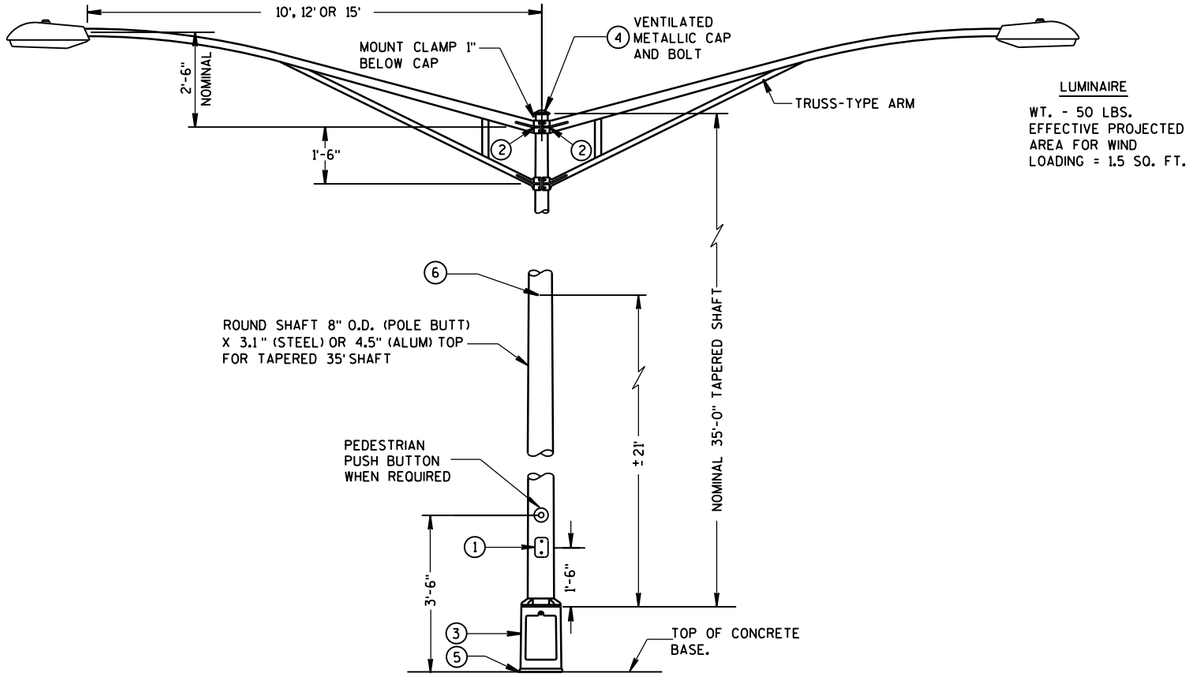

6
S.D.D. 9 D 4-2

* RISE FOR 4' ARM SHALL BE 2'-0".




**INTERCHANGEABLE MOUNTING DETAIL**




**TYPE 6 POLE MOUNTING CONFIGURATION**

**(MAXIMUM LOAD)**

**LIGHTING ONLY**

## GENERAL NOTES

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

ALL TYPE 6 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE EITHER GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 6 ALUMINUM POLES, SHALL BE CONSTRUCTED OF 6063-T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

THE TYPE 6 ALUMINUM POLES SHALL HAVE MINIMUM WALL THICKNESS OF 0.219".

TYPE 6 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" x 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.

(2) GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.

(3) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(4) FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(5) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

(6) INTERNAL DUMBBELL-TYPE VIBRATION DAMPER.

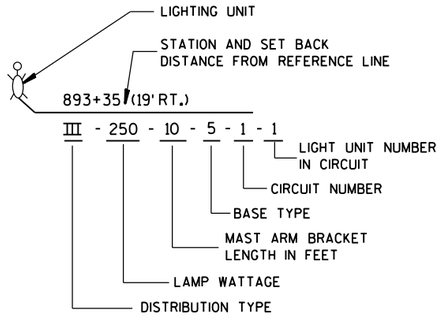
**POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 6 (35 FEET)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

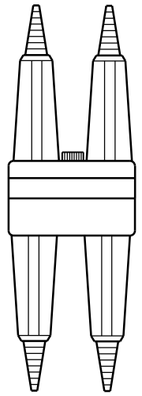



6

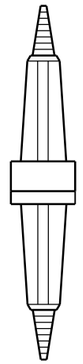
S.D.D. 9 E 1-14e



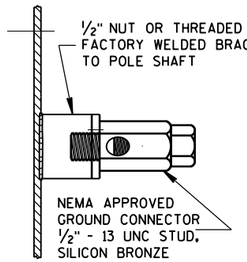

## LIGHTING UNIT CODE
(TYPICAL)

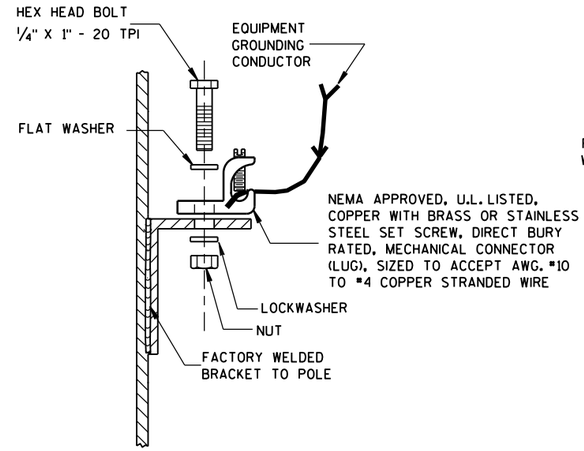


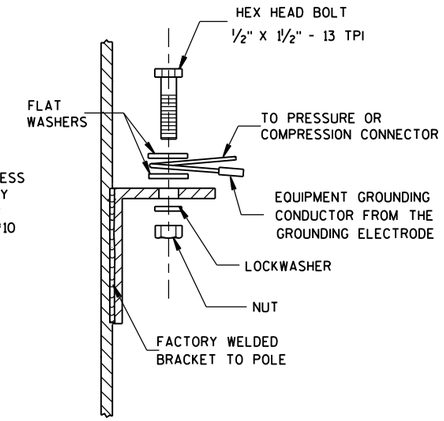
## DETAIL "A"
BREAKAWY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



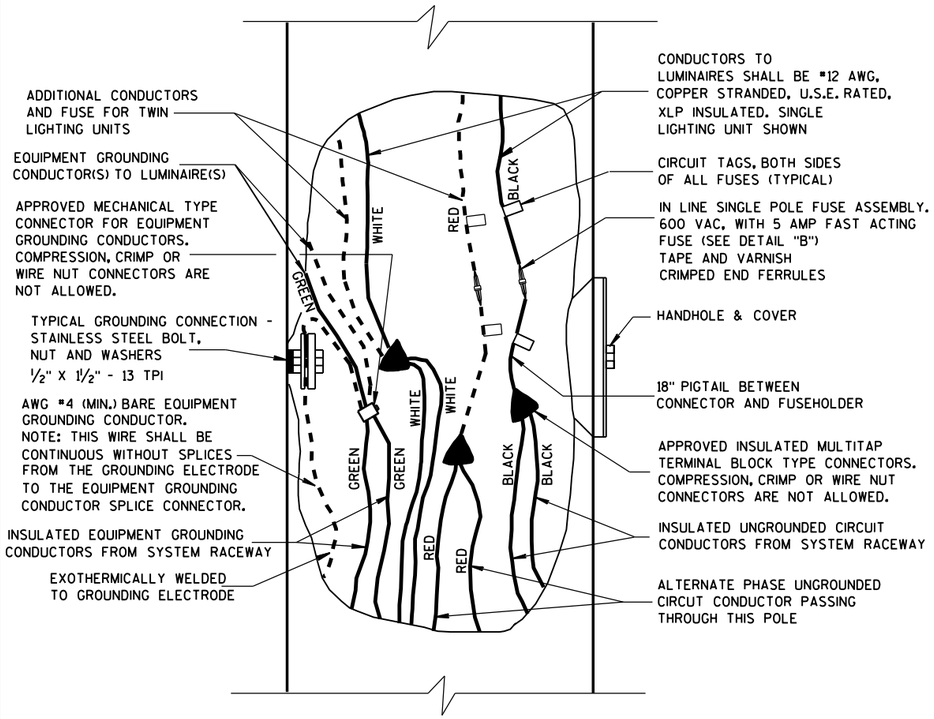
## DETAIL "B"
BREAKAWY SINGLE POLE WITH WATERPROOF INSULATING BOOT



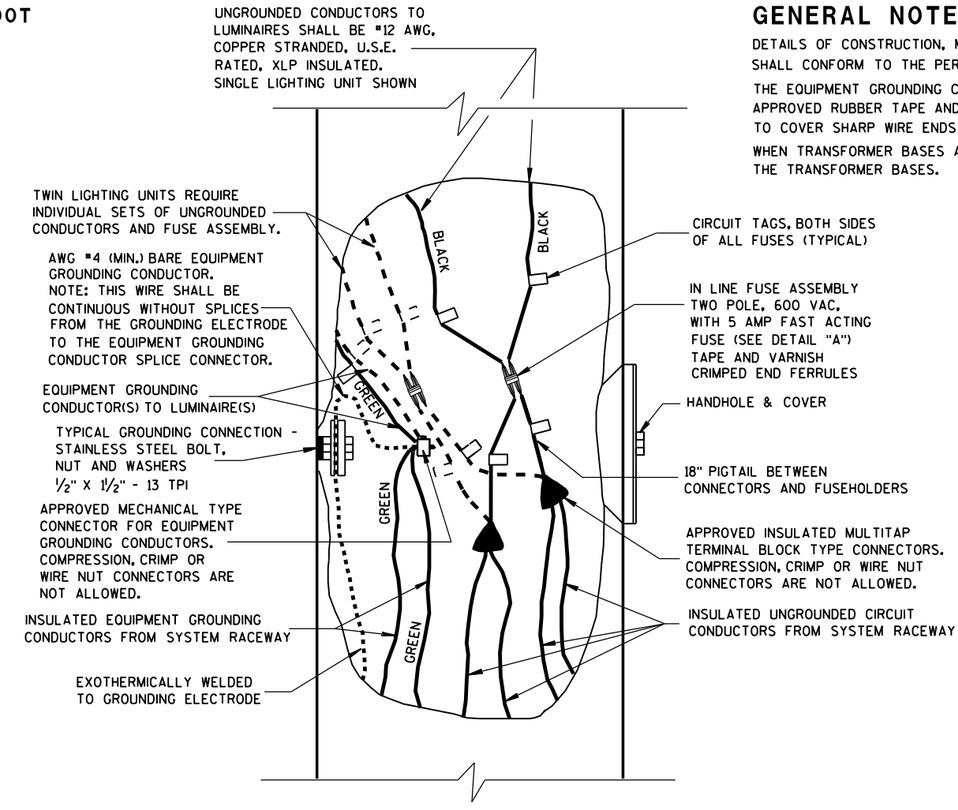




## TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL




## 3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTOR) WITH GROUNDED CONDUCTOR AND WITH EQUIPMENT GROUNDING CONDUCTOR




## 2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

## GENERAL NOTES

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

THE EQUIPMENT GROUNDING CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND THEN 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

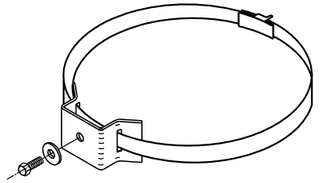
# NON-FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

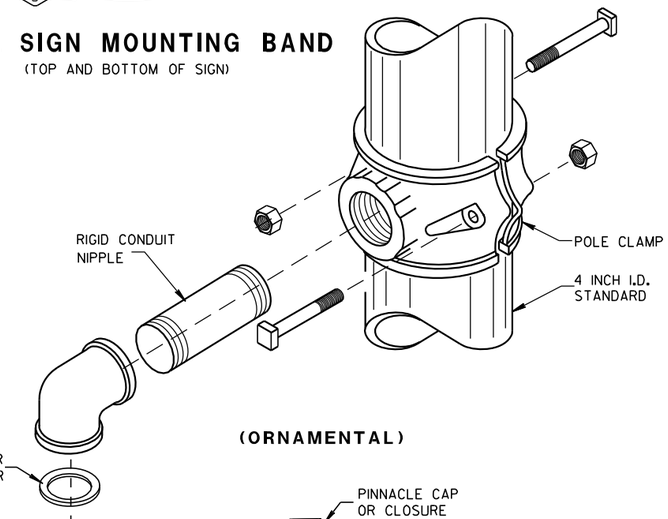
APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA



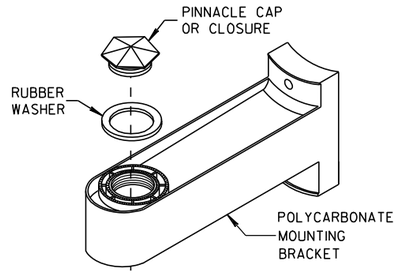

6
S.D.D. 9 E 3-5



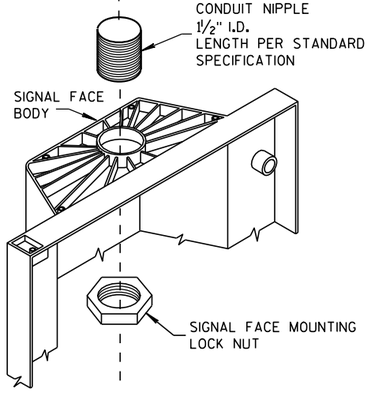
## TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



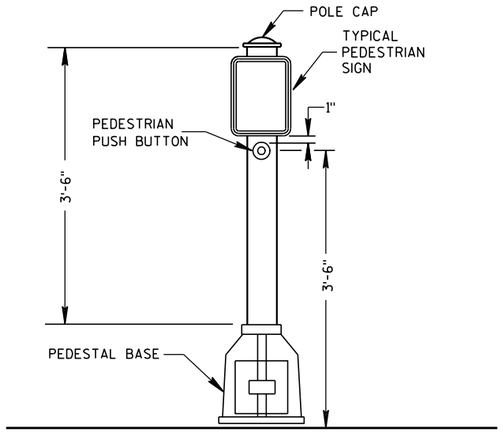

(ORNAMENTAL)




(BANDED)




## SIGNAL FACE MOUNTING DETAILS




## PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING

## GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

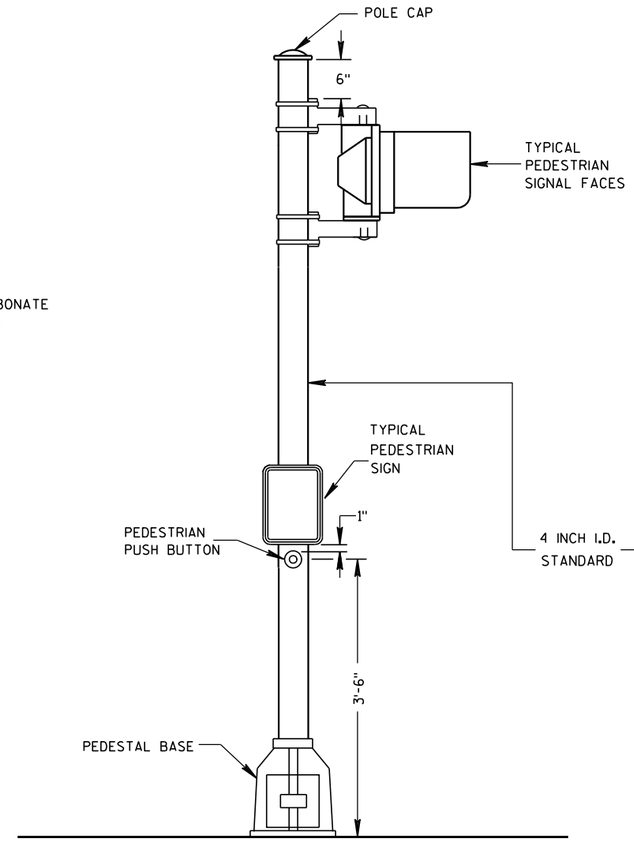
POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

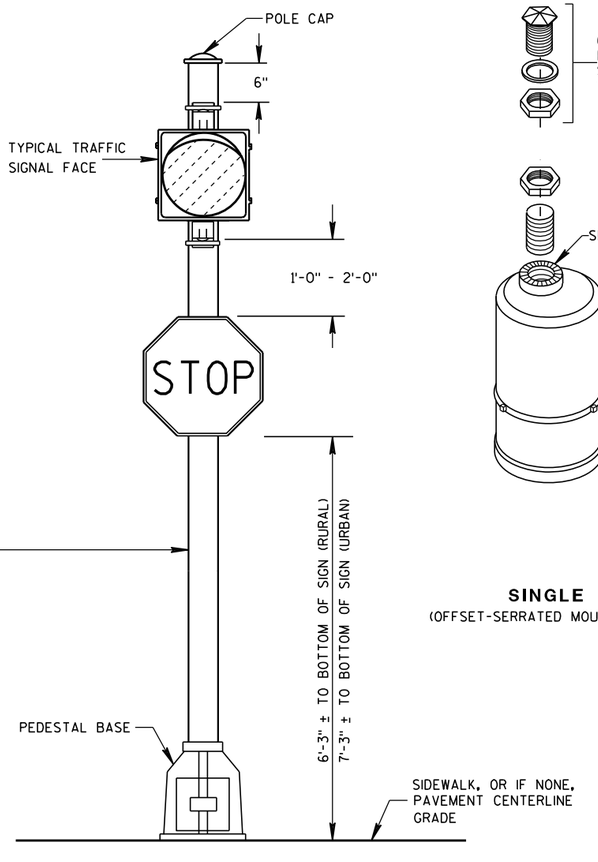
MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE DISTRICT TRAFFIC ENGINEER).

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

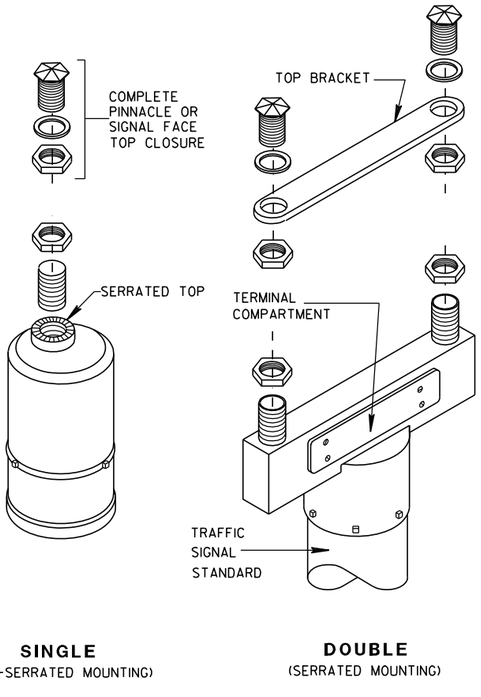
FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.




## PEDESTRIAN FACE STANDARD-10 FT.
(WALK-DON'T WALK)




## STANDARD FLASHER.
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED




**SINGLE**
(OFFSET-SERRATED MOUNTING)

**DOUBLE**
(SERRATED MOUNTING)

## SLIPFITTERS

## TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/11/10
DATE

/S/ John Corbin
STATE ELECTRICAL ENGI

250

HWYS

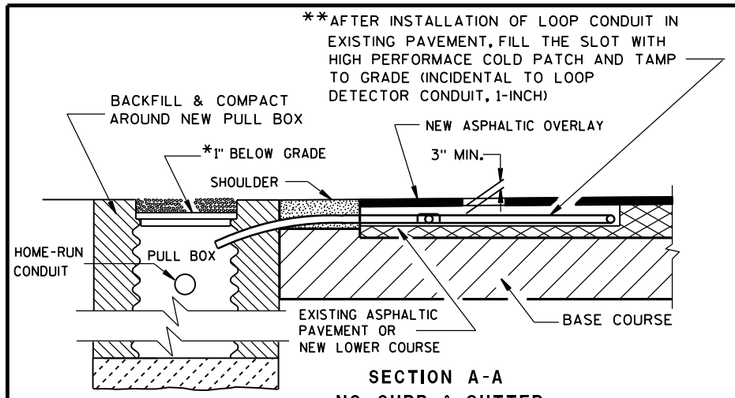
FHWA

6

S.D.D. 9 E 7-5

6

S.D.D. 9 E 7-5

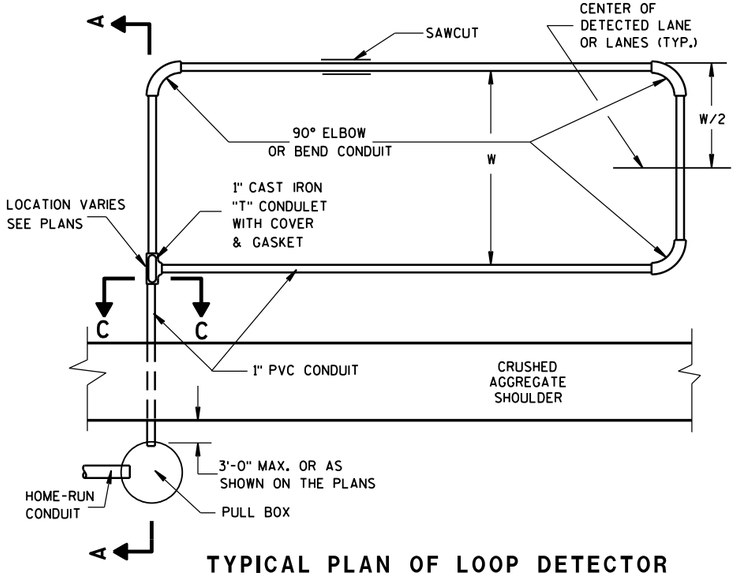



**SECTION A-A**

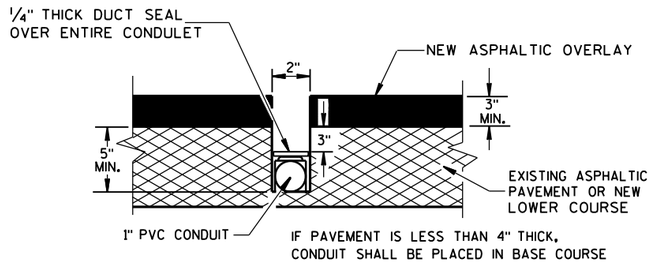
**NO CURB & GUTTER**

## LOOP DETECTOR INSTALLATION DETAIL

*RECESS PULL BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.




## TYPICAL PLAN OF LOOP DETECTOR




**SIDE VIEW**

**SECTION C-C**

## LOOP DETECTOR SLOT DETAIL

## GENERAL NOTES

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

LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

BEFORE PLACING THE 1 INCH CONDUIT IN THE CLEANED OUT SLOT, PLACE SOME OF THE TAR OR EPOXY SEALANT IN THE SLOT TO A DEPTH OF APPROXIMATELY ½ INCH. IF THE CONDUIT MUST BE PLACED IN THE BASE COURSE, DO NOT PLACE THE TAR OR EPOXY SEALANT IN THE SLOT.

ONCE THE 2" LOOP SLOT HAS BEEN CHIPPED OUT, THE LOOP INSTALLATION SHALL BE COMPLETED PRIOR TO OPENING THE LANE(S) TO TRAFFIC.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

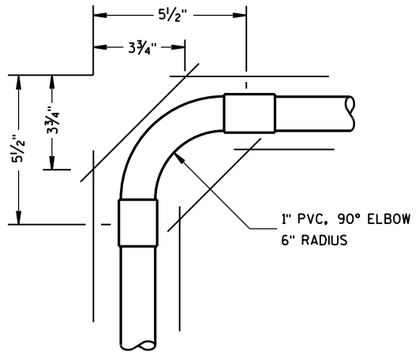
THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL BOXES AT THE SIDE OF THE ROAD.

THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL BOX, AND BE INSTALLED IN ONE, NON-SPLICED, CONTINUOUS LENGTH.

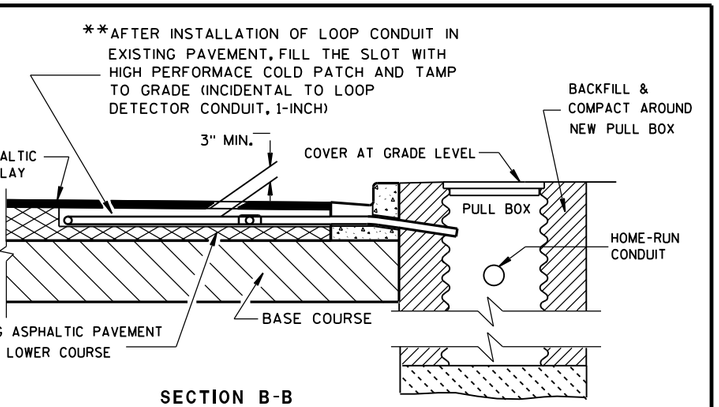
** AFTER THE HIGH PERFORMANCE COLD PATCH HAS BEEN TAMPED, SEAL THE SLOT/HIGH PERFORMANCE COLD PATCH/ PAVEMENT OPENING WITH HOT POURED ELASTIC TYPE MATERIAL CONFORMING TO THE REQUIREMENTS OF THE "SPECIFICATION FOR JOINT SEALANTS, HOT POURED, FOR CONCRETE AND ASPHALT PAVEMENTS, ASTM DESIGNATION: D3405".

IN THE EVENT HIGH PERFORMANCE COLD PATCH IS NOT AVAILABLE, AND FLEXIBLE TYPE EPOXY IS USED AS A LOOP SLOT FILLER, THE 2 INCH SLOT SHALL BE TOTALLY CLEAN AND DRY BEFORE ITS INSTALLATION. EPOXY USE SHALL BE APPROVED BY THE DISTRICT TRAFFIC ENGINEER AND THE FURNISHED EPOXY SHALL BE INSTALLED AFTER WRITTEN APPROVAL BY THE PROJECT ENGINEER.




**TOP VIEW**

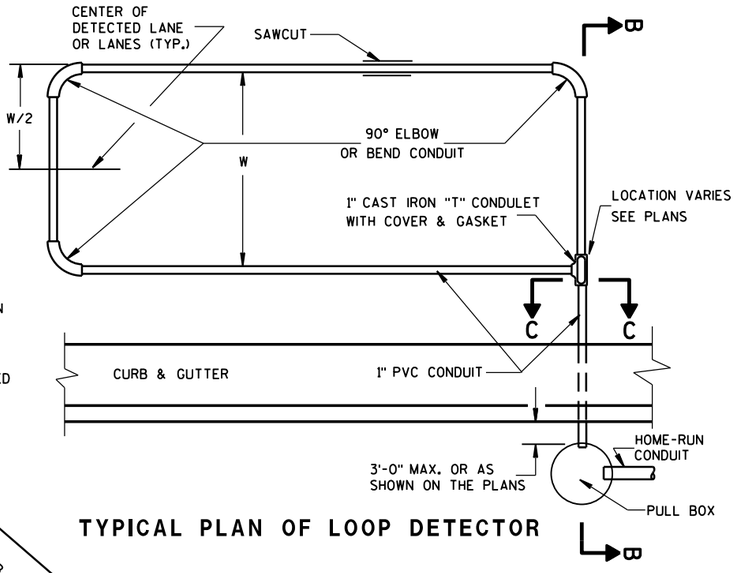
## CORNER SAW SLOT DETAIL



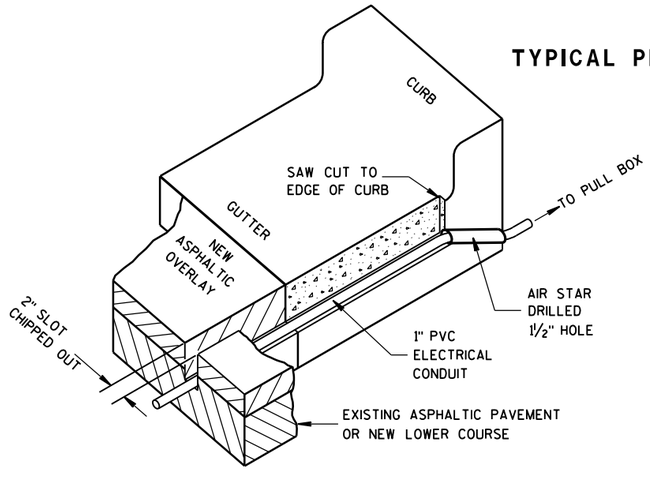

**SECTION B-B**

**CURB & GUTTER**

## LOOP DETECTOR INSTALLATION DETAIL




## TYPICAL PLAN OF LOOP DETECTOR




**ISOMETRIC VIEW**

## TYPICAL SAW CUT DETAIL FOR LEAD-IN CONDUIT

**LOOP DETECTOR INSTALLED IN EXISTING OR NEW ASPHALTIC PAVEMENT WITH NEW ASPHALTIC OVERLAY**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

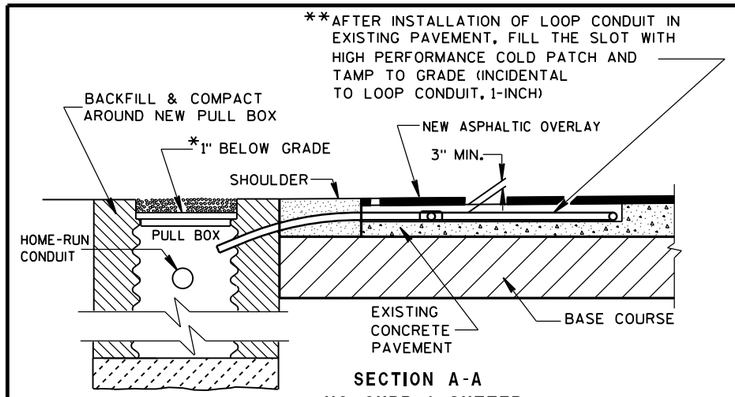


6

S.D.D. 9 F 10-4

6

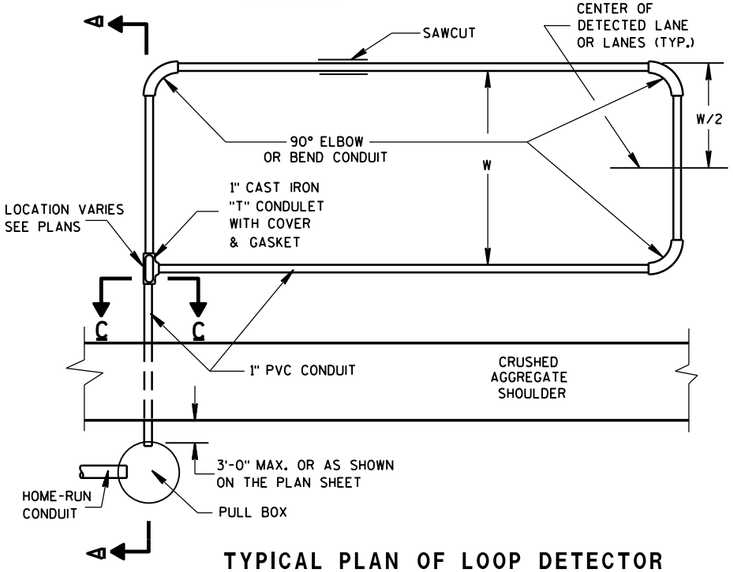
S.D.D. 9 F 10-4



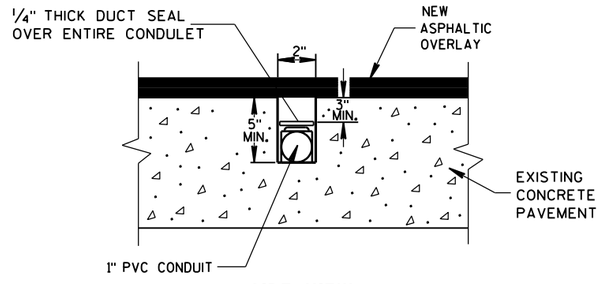

**SECTION A-A**
**NO CURB & GUTTER**

## LOOP DETECTOR INSTALLATION DETAIL

*RECESS PULL BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

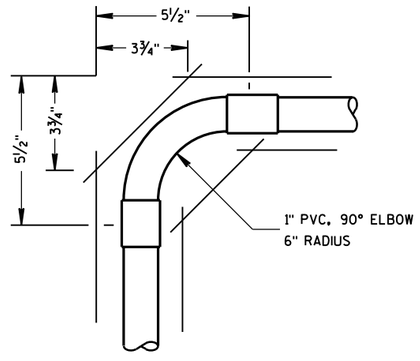



## TYPICAL PLAN OF LOOP DETECTOR




**SIDE VIEW**
**SECTION C-C**

## LOOP DETECTOR SLOT DETAIL




**TOP VIEW**

## CORNER SAW SLOT DETAIL

## GENERAL NOTES

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

LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

IN THE EVENT EPOXY IS USED AS A LOOP SLOT FILLER, THE SLOT SHALL BE TOTALLY CLEAN AND DRY BEFORE ITS INSTALLATION.

BEFORE PLACING THE 1 INCH CONDUIT IN THE CLEANED OUT SLOT, PLACE SOME OF THE TAR OR EPOXY SEALANT IN THE SLOT TO A DEPTH OF APPROXIMATELY 1/2 INCH.

ONCE THE 2" LOOP SLOT HAS BEEN CHIPPED OUT, THE LOOP INSTALLATION SHALL BE COMPLETED PRIOR TO OPENING THE LANE(S) TO TRAFFIC.

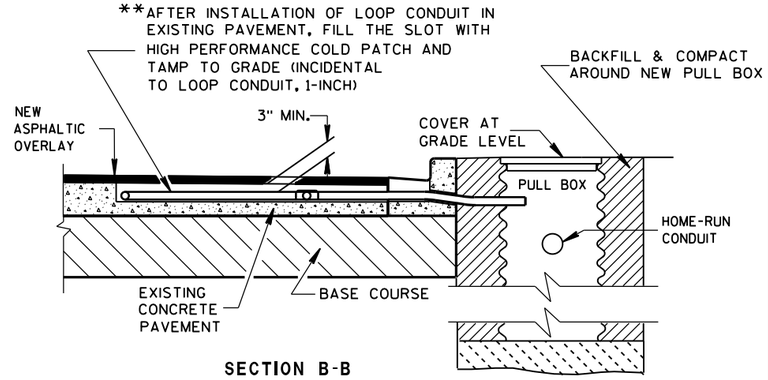
LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL BOXES AT THE SIDE OF THE ROAD.

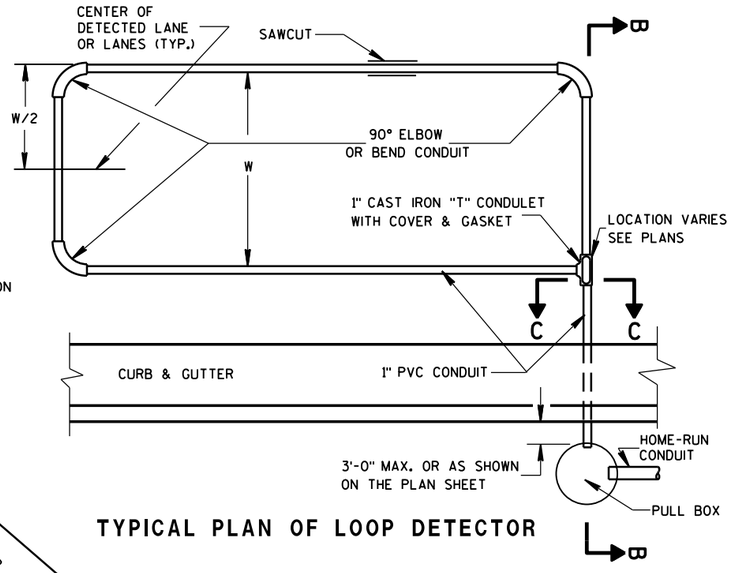
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL BOX, THROUGH THE LOOP CONDUIT BACK TO THE ROADSIDE PULL BOX, AND BE INSTALLED IN ONE, NON-SPLICED, CONTINUOUS LENGTH.

** AFTER THE HIGH PERFORMANCE COLD PATCH HAS BEEN TAMPED, SEAL THE SLOT/HIGH PERFORMANCE COLD PATCH/ PAVEMENT OPENING WITH HOT POURED ELASTIC TYPE MATERIAL CONFORMING TO THE REQUIREMENTS OF THE "SPECIFICATION FOR JOINT SEALANTS, HOT POURED, FOR CONCRETE AND ASPHALT PAVEMENTS, ASTM DESIGNATION: D3405".

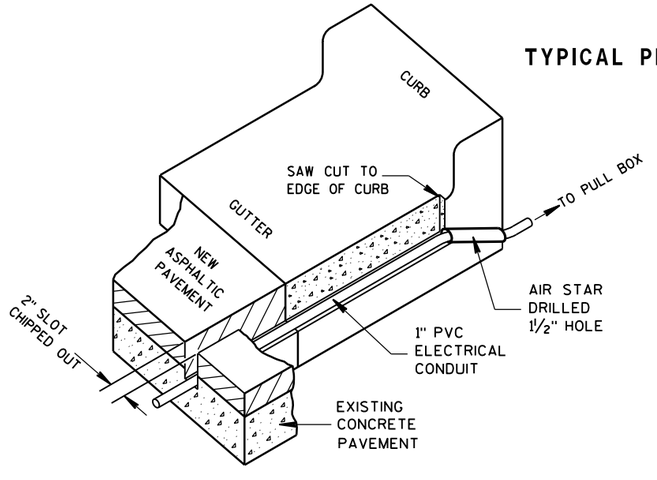



**SECTION B-B**
**CURB & GUTTER**

## LOOP DETECTOR INSTALLATION DETAIL




## TYPICAL PLAN OF LOOP DETECTOR




**ISOMETRIC VIEW**

## TYPICAL SAW CUT DETAIL FOR LEAD-IN CONDUIT

**LOOP DETECTOR INSTALLED IN EXISTING CONCRETE PAVEMENT WITH NEW ASPHALTIC OVERLAY**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

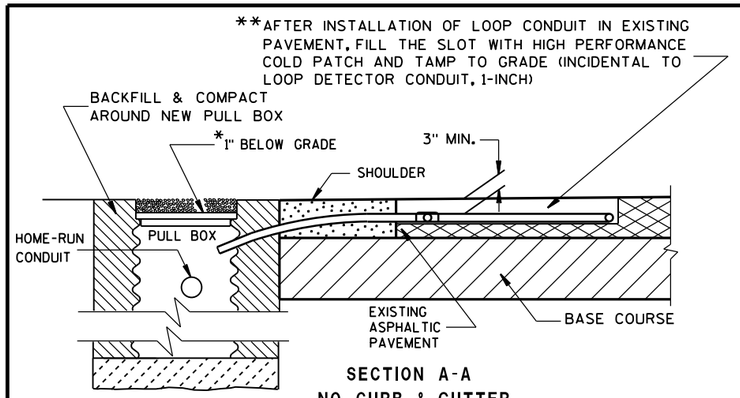
APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL 252
FHWA

6

S.D.D. 9 F 11-4

6

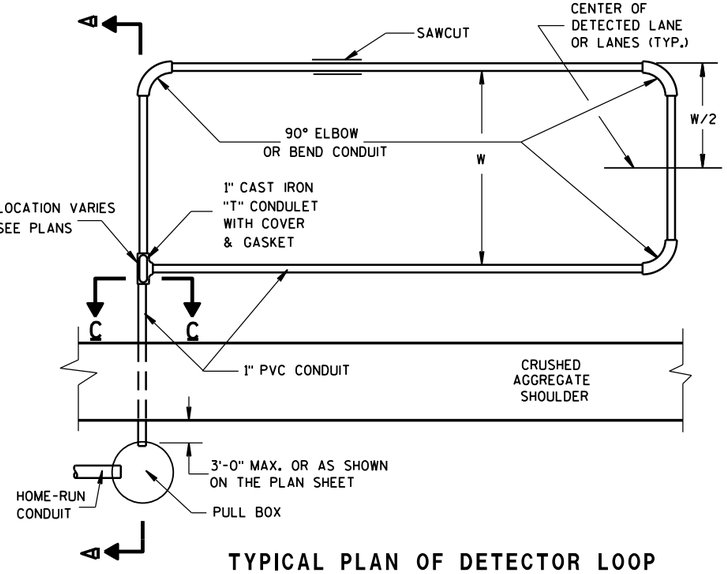
S.D.D. 9 F 11-4



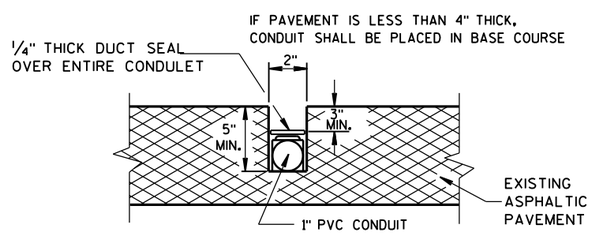

SECTION A-A
NO CURB & GUTTER

## TYPICAL PLAN OF LOOP DETECTOR

*RECESS PULL BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.




## TYPICAL PLAN OF DETECTOR LOOP




SIDE VIEW
SECTION C-C

## LOOP DETECTOR SLOT DETAIL

## GENERAL NOTES

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

LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISITANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL BOXES AT THE SIDE OF THE ROAD.

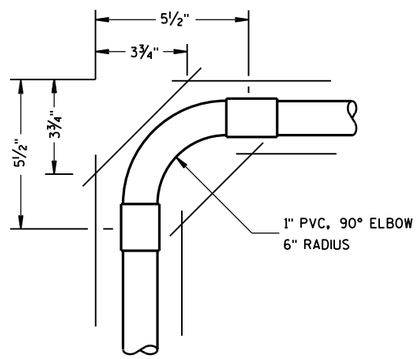
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL BOX, AND BE INSTALLED IN ONE, NON-SPLICED, CONTINUOUS LENGTH.

IN THE EVENT THAT THE EXISTING PAVEMENT IS MORE THAN 5 INCHES THICK, AND THEREFORE , THE 1 INCH CONDUIT DOES NOT REQUIRE INSTALLATION BELOW THE PAVEMENT INTO THE BASE COURSE, PLACE SOME OF THE TAR OR EPOXY SEALANT IN THE SLOT TO A DEPTH OF APPROXIMATELY 1/2 INCH BEFORE INSTALLATION OF THE CONDUIT. IF THE CONDUIT MUST BE PLACED IN THE BASE COURSE, DO NOT PLACE THE TAR OR EPOXY SEALANT IN THE SLOT.

ONCE THE 2" LOOP SLOT HAS BEEN CHIPPED OUT, THE LOOP INSTALLATION SHALL BE COMPLETED PRIOR TO OPENING THE LANE(S) TO TRAFFIC.

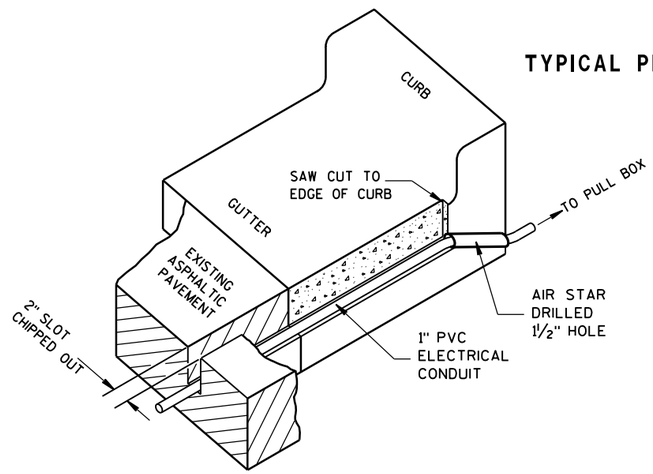
** AFTER THE HIGH PERFORMANCE COLD PATCH HAS BEEN TAMPED, SEAL THE SLOT/HIGH PERFORMANCE COLD PATCH/ PAVEMENT OPENING WITH HOT POURED ELASTIC TYPE MATERIAL CONFORMING TO THE REQUIREMENTS OF THE "SPECIFICATION FOR JOINT SEALANTS, HOT POURED, FOR CONCRETE AND ASPHALT PAVEMENTS, ASTM DESIGNATION: D3405".

IN THE EVENT HIGH PERFORMANCE COLD PATCH IS NOT AVAILABLE, AND FLEXIBLE TYPE EPOXY IS USED AS A LOOP SLOT FILLER, THE 2 INCH SLOT SHALL BE TOTALLY CLEAN AND DRY BEFORE ITS INSTALLATION. EPOXY USE SHALL BE APPROVED BY THE DISTRICT TRAFFIC ENGINEER AND THE FURNISHED EPOXY SHALL BE INSTALLED AFTER WRITTEN APPROVAL BY THE PROJECT ENGINEER.



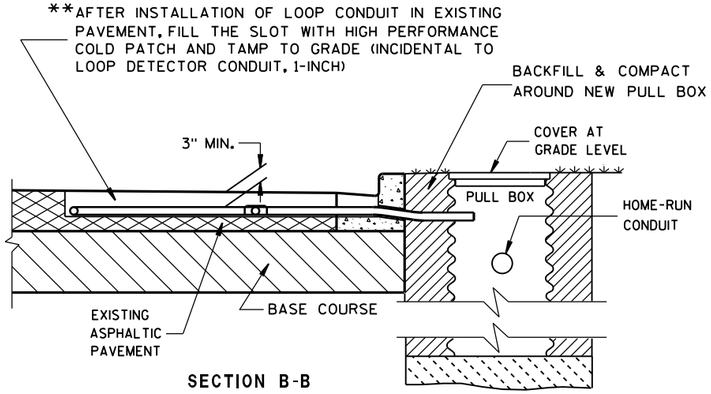

TOP VIEW

## CORNER SAW SLOT DETAIL



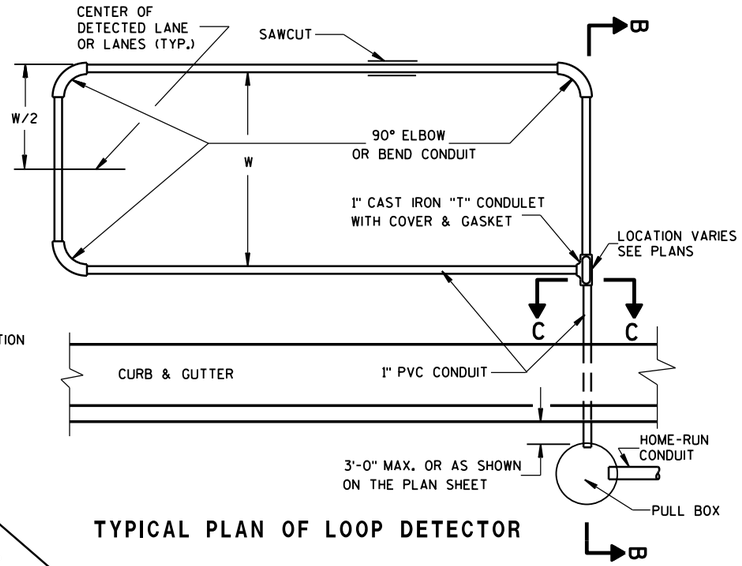

ISOMETRIC VIEW

## TYPICAL SAW CUT DETAIL FOR LEAD-IN CONDUIT




SECTION B-B
CURB & GUTTER

## LOOP DETECTOR INSTALLATION DETAIL




## TYPICAL PLAN OF LOOP DETECTOR

**LOOP DETECTOR INSTALLED IN EXISTING ASPHALTIC PAVEMENT**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

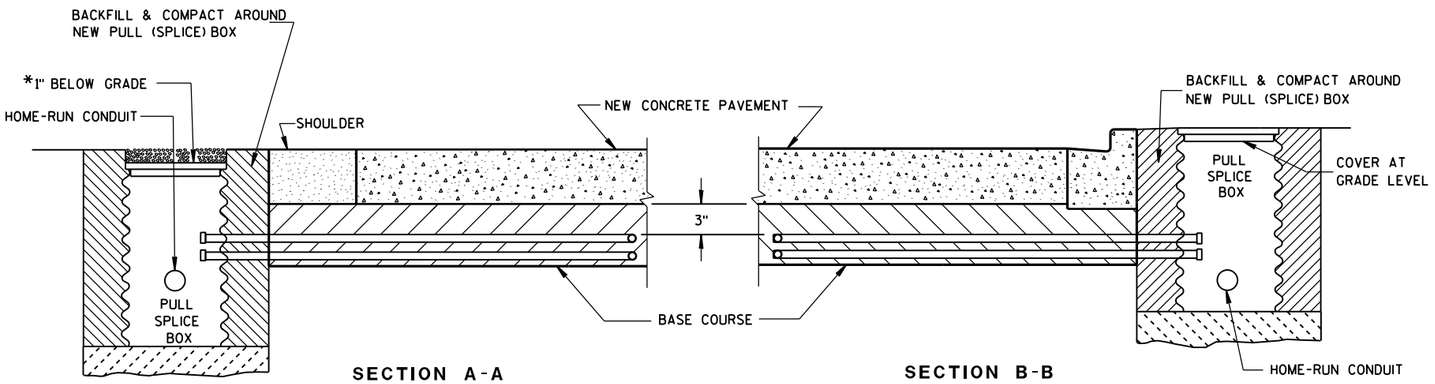


6

S.D.D. 9 F 13-4

6

S.D.D. 9 F 13-4




**SECTION A-A**
**NO CURB & GUTTER**

**SECTION B-B**
**CURB & GUTTER**

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

## LOOP DETECTOR INSTALLATION DETAIL

## GENERAL NOTES

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

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

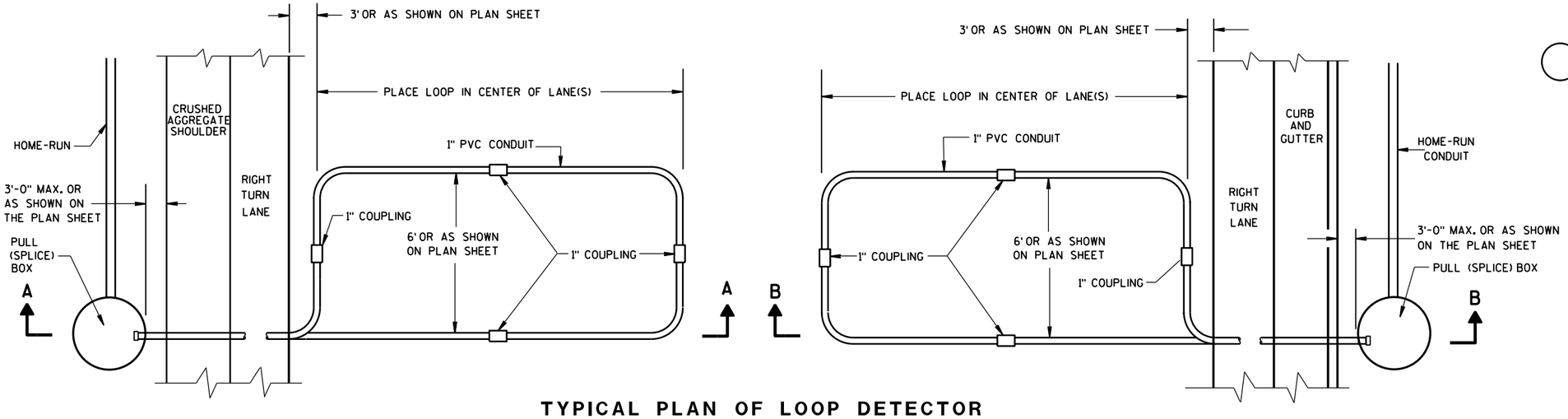
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

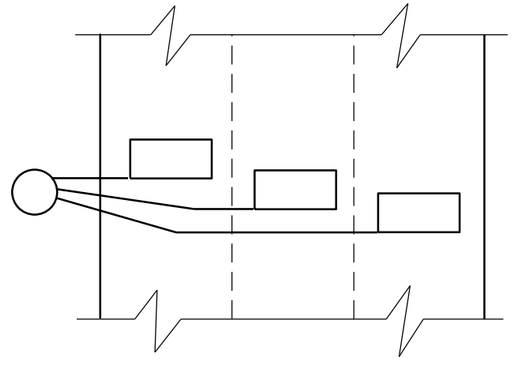
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICED CONTINUOUS LENGTH.

PROTECTION OF THE CONDUITS IN THE BASE COURSE SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.




## TYPICAL PLAN OF LOOP DETECTOR WITH 24" PULL (SPLICE) BOX



## MULTI-LANE INSTALLATION

**LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL 254
FHWA

6

S.D.D. 9 F 15-4b

6

S.D.D. 9 F 15-4b

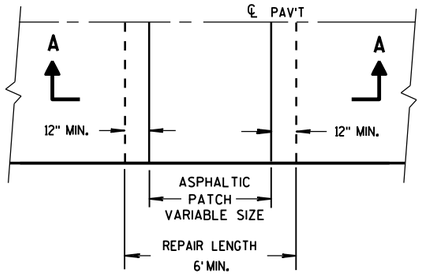
## GENERAL NOTES

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

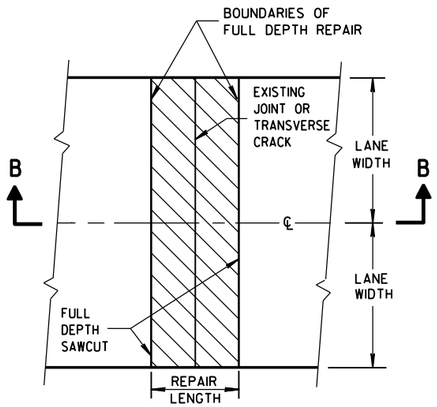
PROVIDE 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK.

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

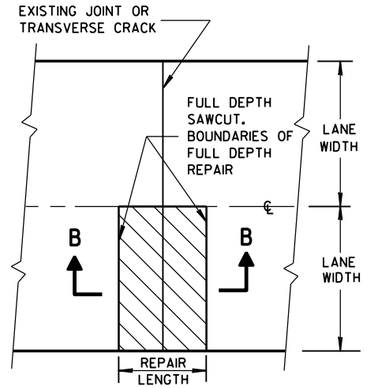
(1) DOWEL BARS MIGHT NOT EXIST.




PLAN VIEW

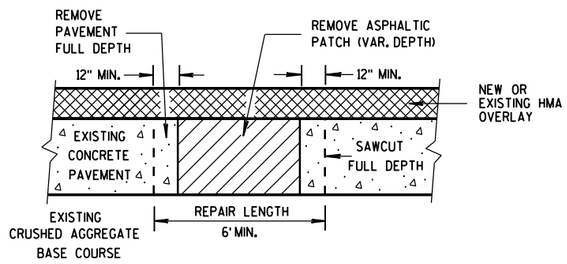



PLAN VIEW
(DOUBLE LANE REPAIR)



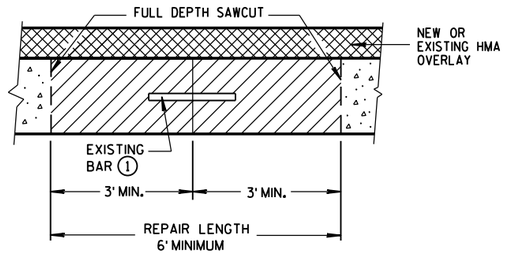

PLAN VIEW
(SINGLE LANE REPAIR)

## FULL DEPTH CONCRETE PAVEMENT REMOVAL




SECTION A-A

### HMA PATCH REMOVAL




SECTION B-B

### CONCRETE REMOVAL

BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

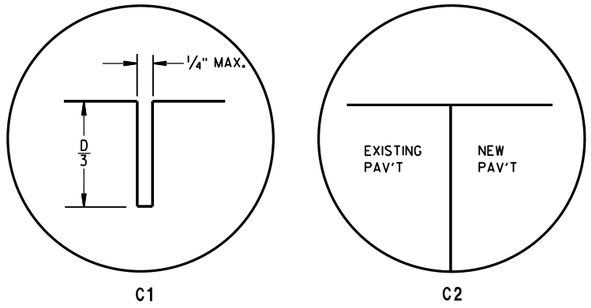


6

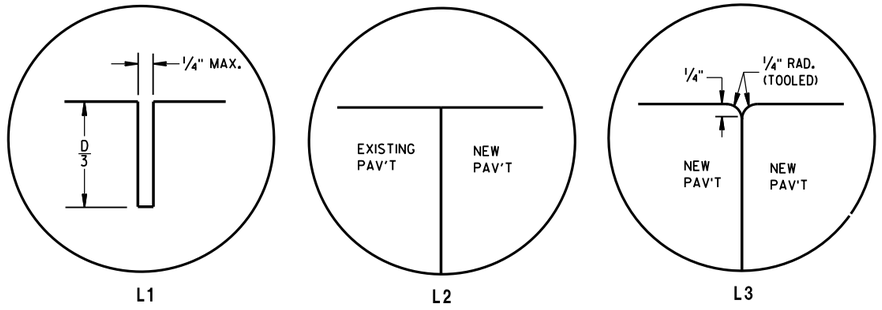
S.D.D. 13 C 14-6a

6

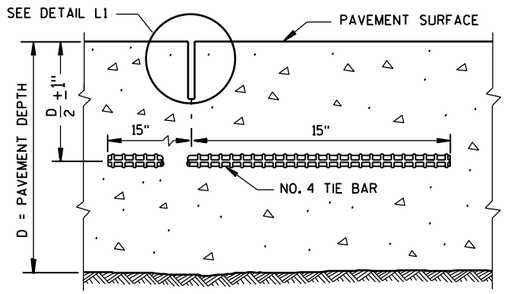
S.D.D. 13 C 14-6a




## TRANSVERSE JOINTS

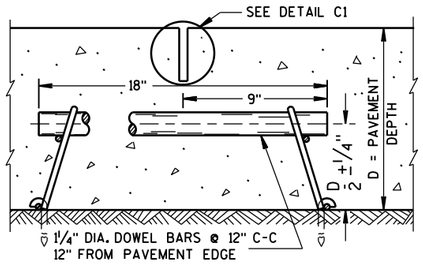



## LONGITUDINAL JOINTS




SECTION C-C

## SAWED LONGITUDINAL JOINT




SECTION F-F

## CONTRACTION JOINT

## GENERAL NOTES

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

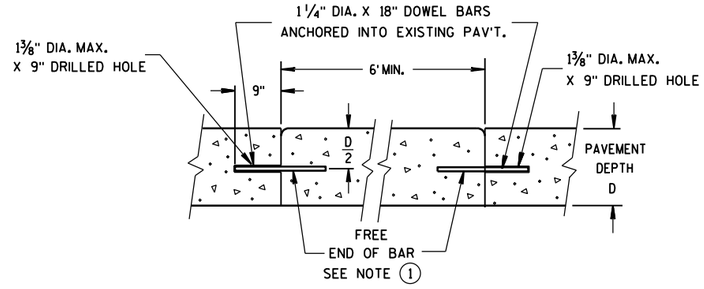
CONCRETE BASE PATCHES OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

DO NOT SEAL OR FILL JOINTS.

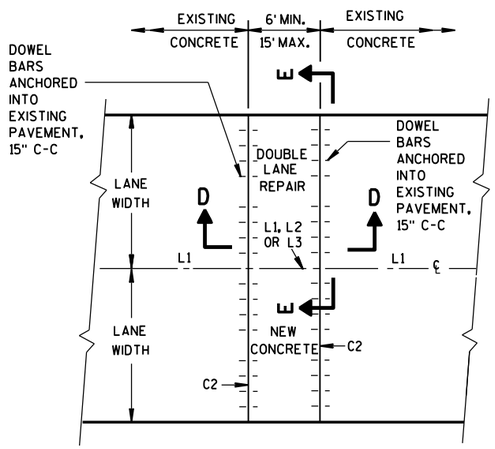
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

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

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

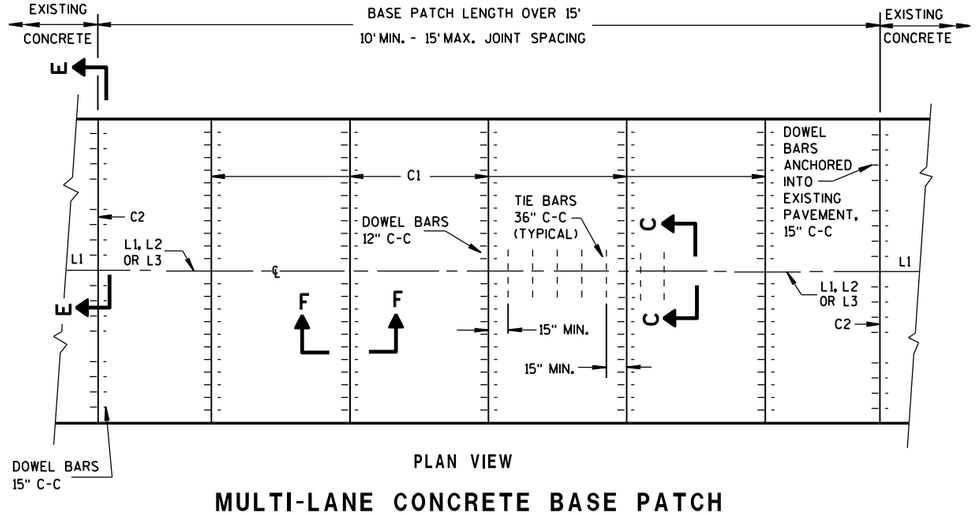



SECTION D-D



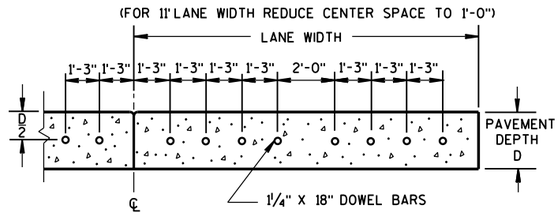

PLAN VIEW

## MULTI-LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH




PLAN VIEW

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




SECTION E-E

## SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT

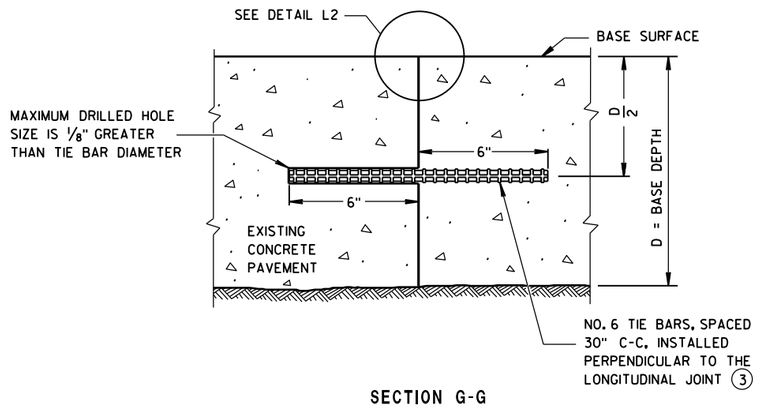
BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI




6


S.D.D. 13 C 14-6b




SECTION G-G

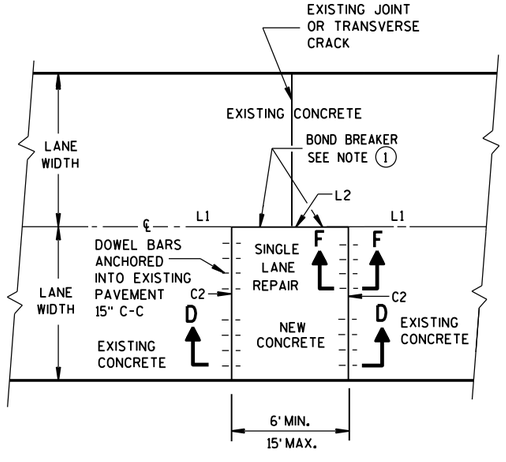
## TIE BARS ANCHORED INTO EXISTING PAVEMENT

## GENERAL NOTES

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

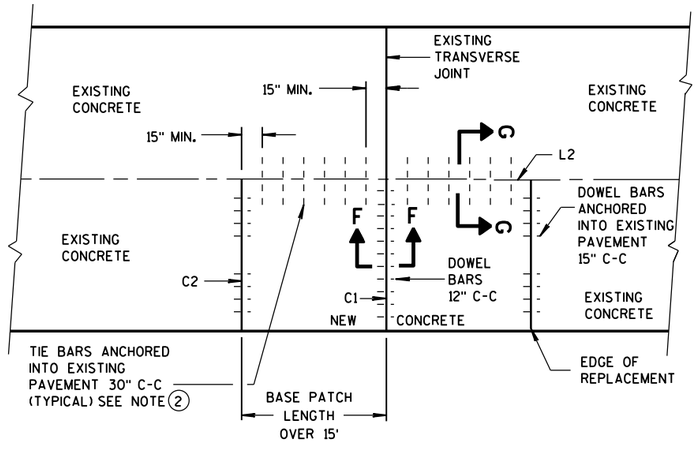
(2) WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, DRILLED TIE BARS MAY BE INSTALLED ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES IN A HOLE OF SUCH A DIAMETER AS TO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

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




PLAN VIEW

## SINGLE LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH




PLAN VIEW

## SINGLE LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH

## BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

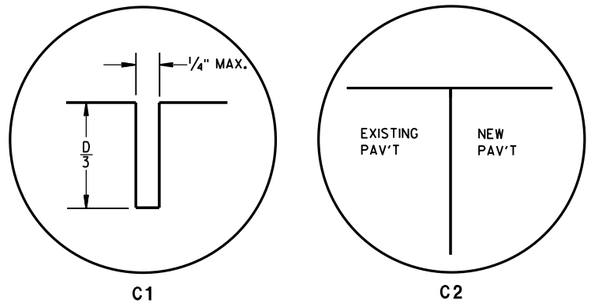
APPROVED
Sept., 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPER
257
FHWA

6

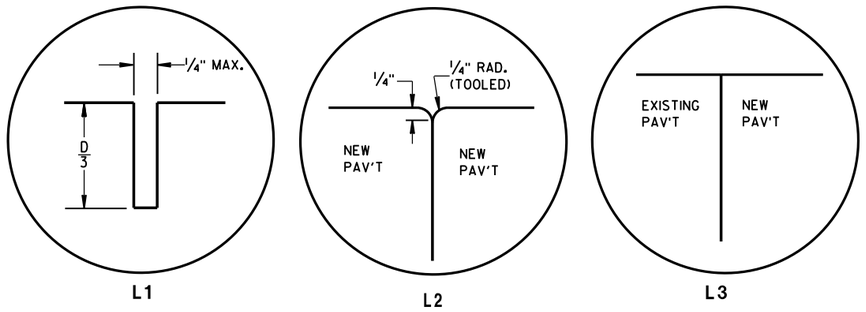
S.D.D. 13 C 14-6c

6

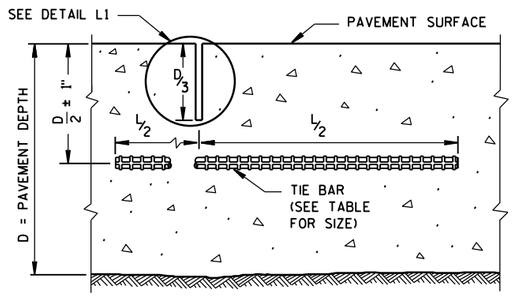
S.D.D. 13 C 14-6c




## TRANSVERSE JOINTS

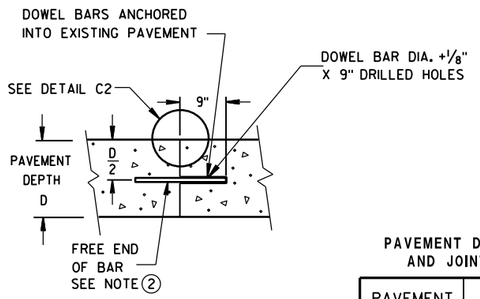



## LONGITUDINAL JOINTS




SECTION C-C

## SAWED JOINT




SECTION D-D

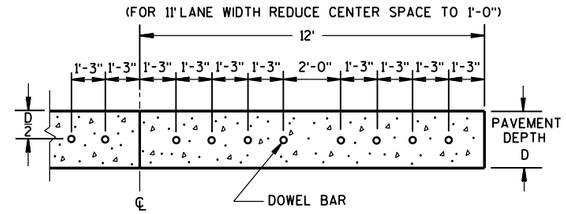
## GENERAL NOTES

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

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

(1) INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

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




SECTION E-E

## SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

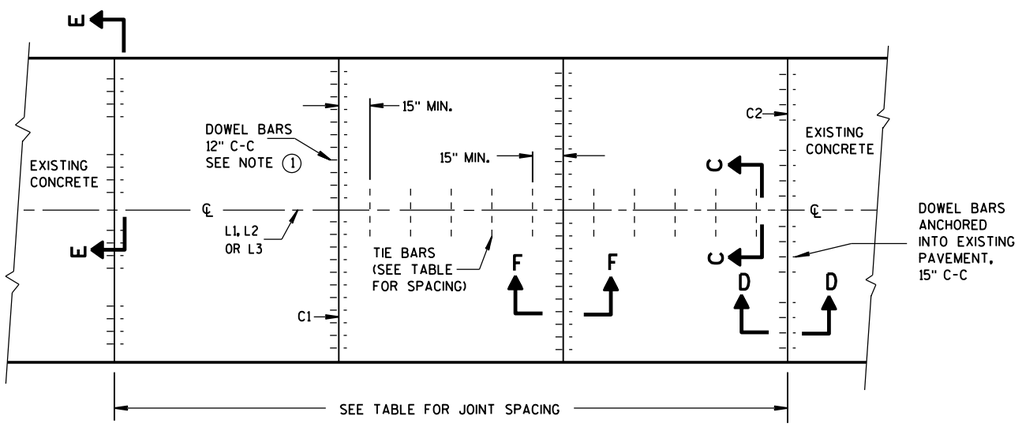
| PAVEMENT DEPTH (D) | DOWEL BAR DIAMETER | CONTRACTION JOINT SPACING |
|---|---|---|
| 5½", 6, 6 ½" | NONE | 12' |
| 7, 7 ½" | 1" | 14' |
| 8, 8 ½" | 1 ¼" | 15' |
| 9, 9 ½" | 1 ¼" | 15' |
| 10" & ABOVE | 1 ½" | 15' |

## TIE BAR TABLE

| PAVEMENT DEPTH (D) | TIE BAR SIZE | TIE BAR LENGTH (L) | MAX. TIE BAR SPACING |
|---|---|---|---|
| < 10 ½" | NO. 4 | 30" | 36" |
| ≥ 10 ½" | NO. 5 | 36" | 36" |
| | NO. 4 * | 30" | 24" ** |

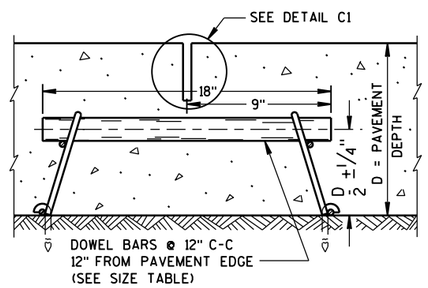
* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.




PLAN VIEW

## CONCRETE BASE CONTRACTION JOINT LOCATIONS




SECTION F-F

## CONTRACTION JOINT

CONCRETE BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO



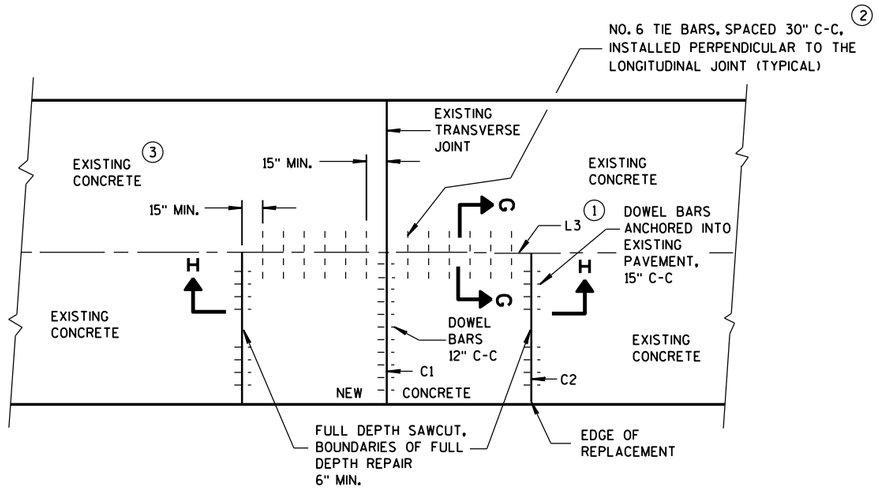

6
S.D.D. 13 C 15-6a

## GENERAL NOTES

(1) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) AT THE LONGITUDINAL JOINT IN LIEU OF TIE BARS FOR SINGLE LANE CONCRETE BASE REPAIRS UP TO 15 FEET IN LENGTH.

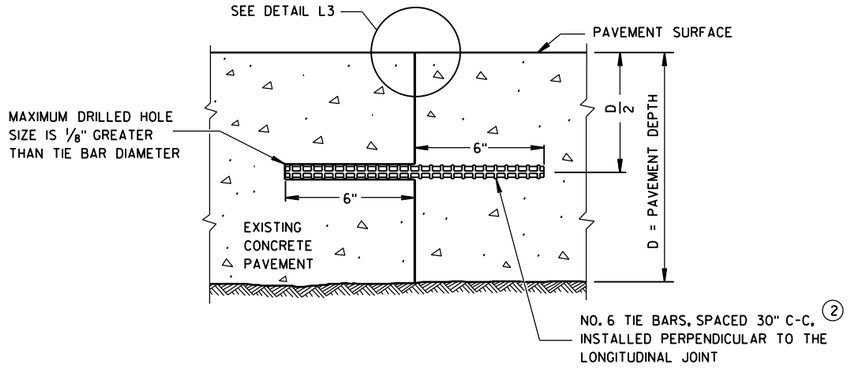
(2) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(3) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.



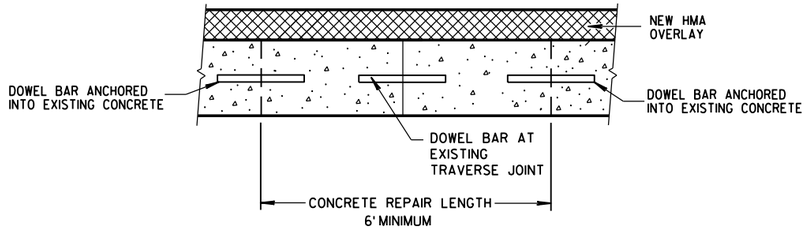

PLAN VIEW

### SINGLE LANE CONCRETE BASE REPAIR




SECTION G-G

### TIE BARS ANCHORED INTO EXISTING PAVEMENT




SECTION H-H

CONCRETE BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPEI
FHWA

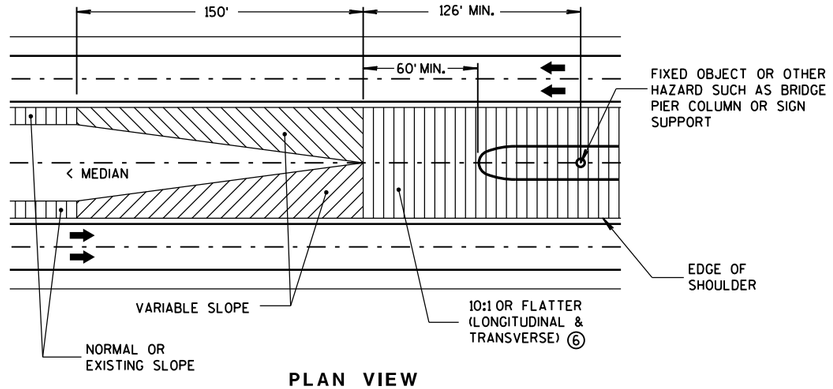


6

S.D.D. 13 C 15-6b

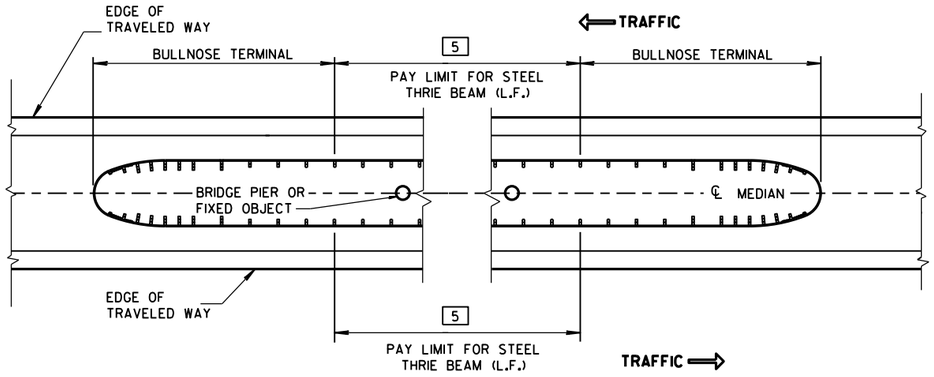
6

S.D.D. 13 C 15-6b

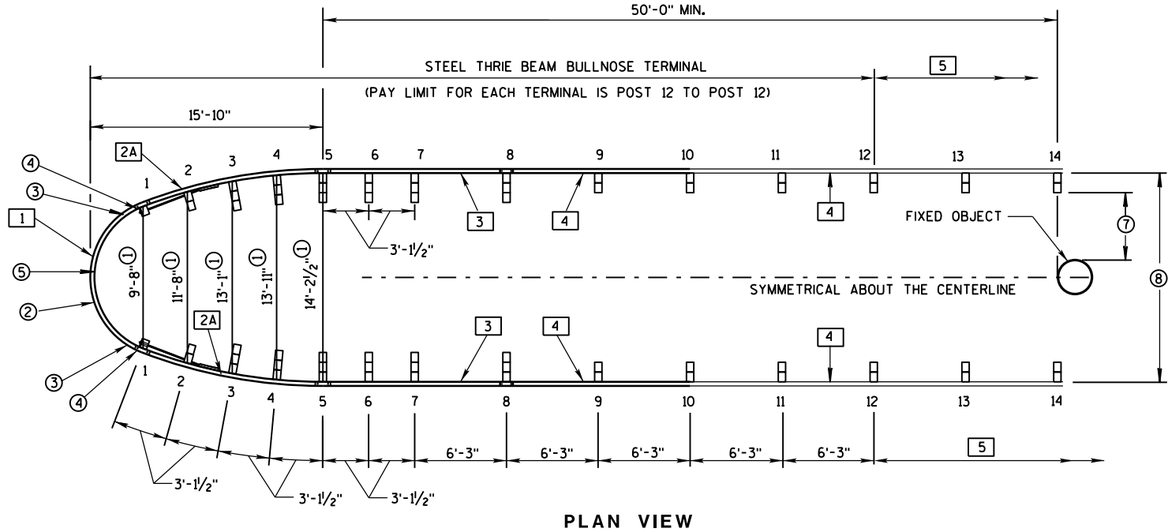



PLAN VIEW

## GRADING AT BULLNOSE
(ALL INSTALLATIONS)

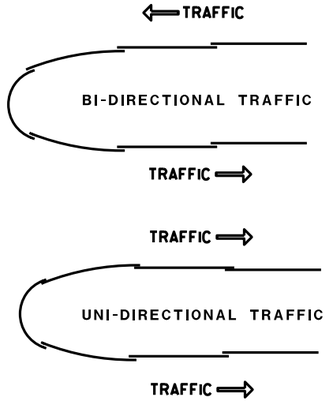



## MEDIAN HAZARD PROTECTION PAY LIMITS




PLAN VIEW

## TYPICAL BULLNOSE LAYOUT




## LAPPING DETAIL
(ALL INSTALLATIONS)

## GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.

PUNCHING, DRILLING, CUTTING OR WELDING IS NOT PERMITTED ON ANY GALVANIZED THRIE BEAM ACCESSORY OR TERMINAL ACCESSORY.

OTHER ANCHOR CABLE ASSEMBLIES HAVING 40,000 LBS. MIN. BREAKING STRENGTH MAY BE USED.

FOR POSTS 2 THROUGH 14, IF POST CANNOT BE INSTALLED AT SPECIFIED LOCATION 1 EXTRA STANDARD WOOD BLOCK MAY BE ADDED.

THE USE OF STEEL POSTS ON THE BULLNOSE IS NOT ALLOWED.

BOLTS AND ALL NECESSARY HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.

ALL THRIE BEAM SHALL BE 12-GAUGE.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½" AND 12" DIAMETER AROUND POST. SEE SDD 14B15 OR SDD 14B42 FOR MORE INFORMATION.

[1] SLOTTED THRIE BEAM RAIL NO. 1. ( POST 1 TO POST 1 )

[2A] SLOTTED THRIE BEAM RAIL NO. 2A. ( POST 1 TO POST 5 )

[3] SLOTTED THRIE BEAM RAIL NO. 3. ( POST 5 TO POST 8 )

[4] UNBENT STANDARD THRIE-BEAM RAIL NO.4. ( POST 8 TO POST 10 & POST 10 TO POST 12 )

[5] BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.

① DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST OR BLOCK.

② U-BOLT CABLE CLIPS (3 PER CABLE) SPACED OUT ON NOSE, TO HOLD CABLE TO BACKSIDE OF THE RAIL.

③ NOSE CABLE W/SWAGGED END BUTTONS.

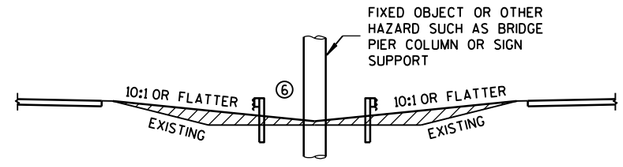
④ NOSE CABLE ANCHOR PLATE (BACKSIDE OF SPLICE).

⑤ THE SLACK IN THE NOSE CABLES SHALL BE EVENLY DISTRIBUTED BETWEEN THE CABLE CLIP FASTENERS AND POST NO. 1 ON EITHER SIDE OF THE NOSE.

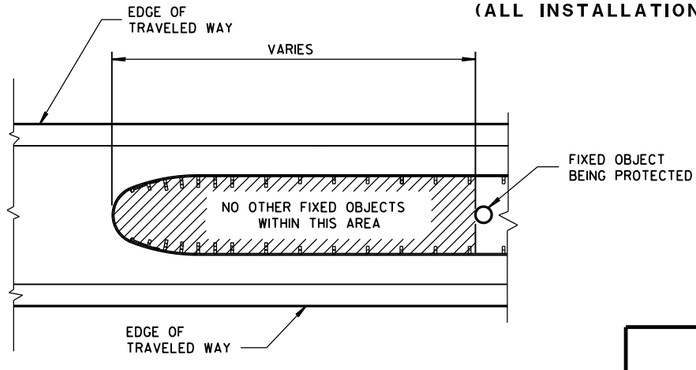
⑥ PROVIDE SUITABLE DRAINAGE WHEN MEDIAN GRADING IMPEDES NORMAL FLOW.

⑦ 2'-6" MINIMUM LATERAL DISTANCE BETWEEN BACK OF POST AND FACE OF FIXED OBJECT.

⑧ MAXIMUM WIDTH OF SYSTEM IS 14'-2½" MEASURED FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.




## MEDIAN GRADING SECTION
(ALL INSTALLATIONS)



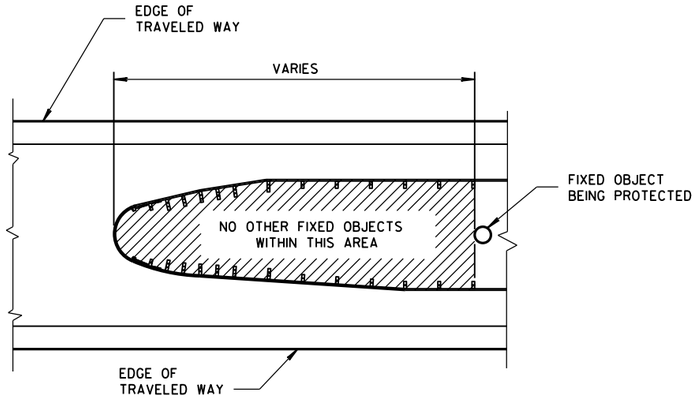

## HAZARD FREE AREA INSIDE BULLNOSE

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO




6
S.D.D. 14 B 26-3a




## HAZARD FREE
## AREA INSIDE BULLNOSE

## GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.

FOR POSTS 2 THROUGH 14, IF POST CANNOT BE INSTALLED AT SPECIFIED LOCATION 1 EXTRA STANDARD WOOD BLOCK MAY BE ADDED.

[1] SLOTTED THRIE BEAM RAIL NO. 1. ( POST 1 TO POST 1 )

[2A] SLOTTED THRIE BEAM RAIL NO. 2A, ( POST 1 TO POST 5 )

[2B] SLOTTED THRIE BEAM RAIL NO. 2B, ( POST 1 TO POST 5 )

[3] SLOTTED THRIE BEAM RAIL NO. 3. ( POST 5 TO POST 8 )

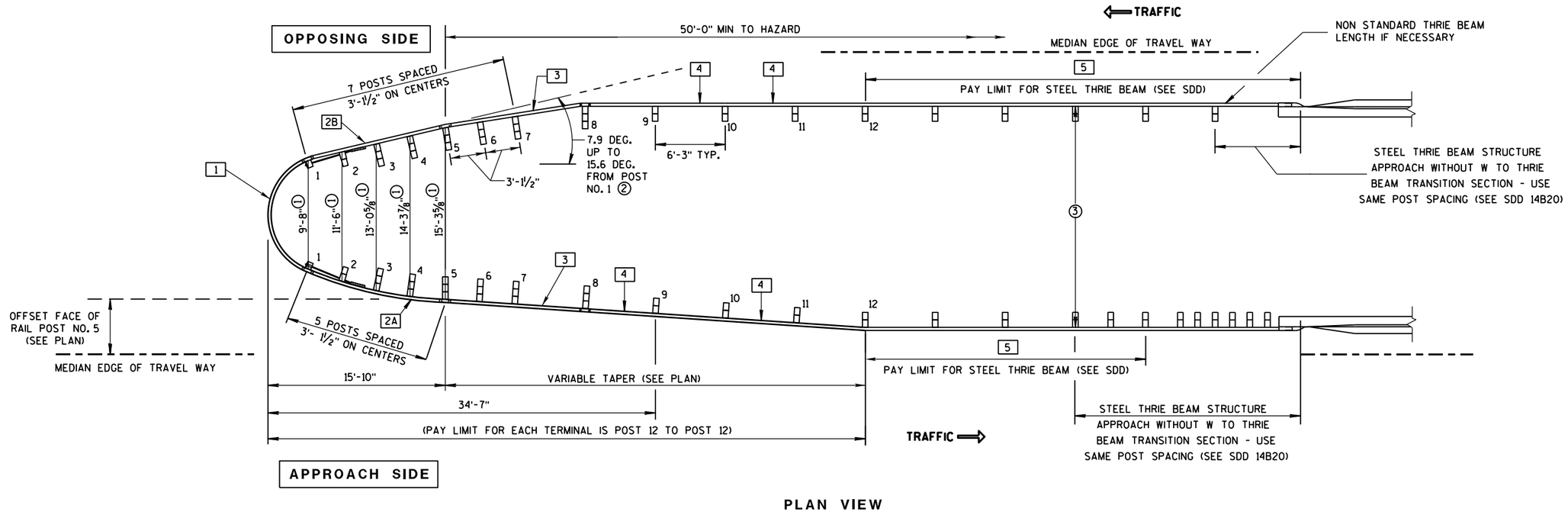
[4] UNBENT STANDARD THRIE-BEAM RAIL NO. 4, ( POST 8 TO POST 10 & POST 10 TO POST 12 )

[5] BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.

① DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST.

② TAPER BEGINNING AT POST NO. 1 MUST CONTINUE TO POST NO. 5. PAST POST NO. 5 TAPER MAY END OR BE EXTENDED UP TO 15.6 DEGREES TO FIT VARIABLE MEDIAN WIDTHS. (SEE PLAN)

③ FOR MEDIANS WIDER THAN 14'-2½" MEASURED FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.




PLAN VIEW

## WIDENED BULLNOSE DESIGN

( INSTALLATION AT TWIN BRIDGES WITH BI-DIRECTIONAL TRAFFIC SHOWN )

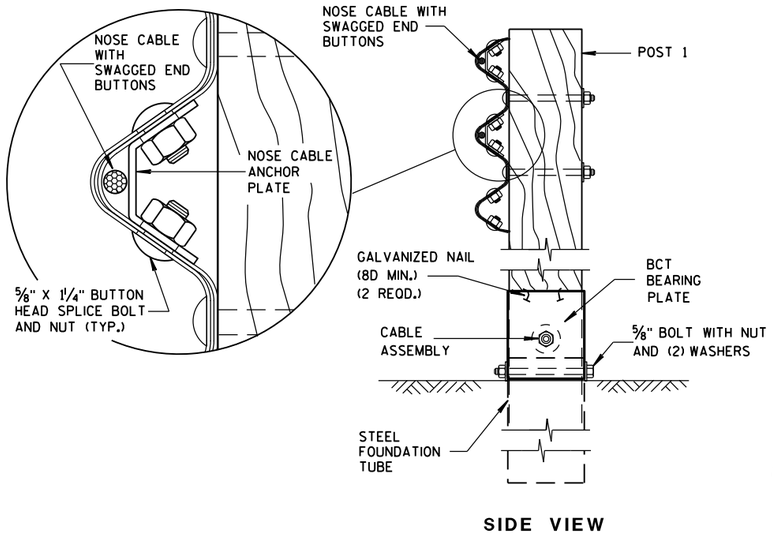
STEEL THRIE BEAM
BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI



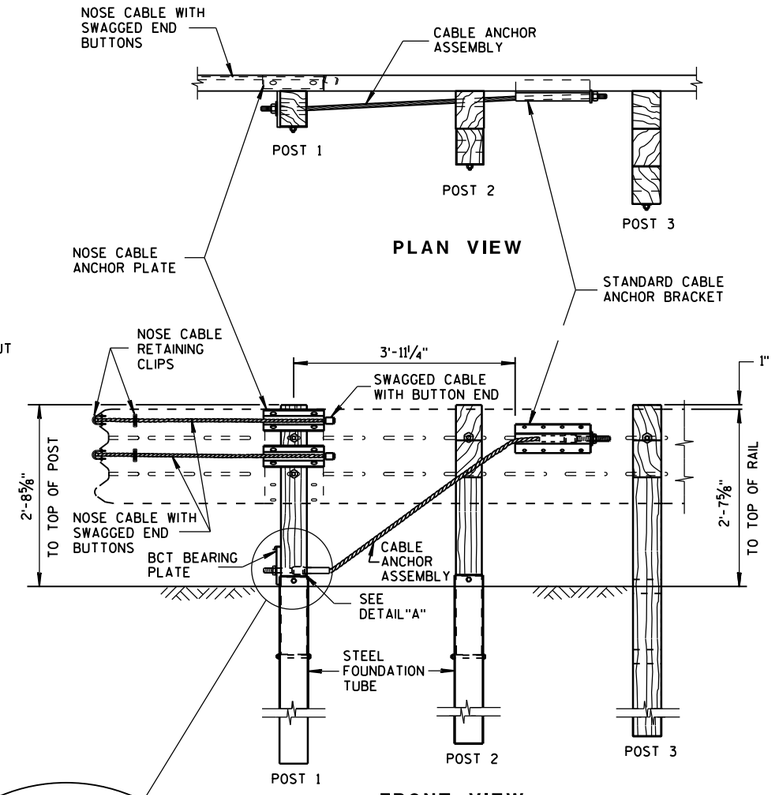

6

S.D.D. 14 B 26-3b




SIDE VIEW

## NOSE CABLE ASSEMBLY AT POST NO. 1

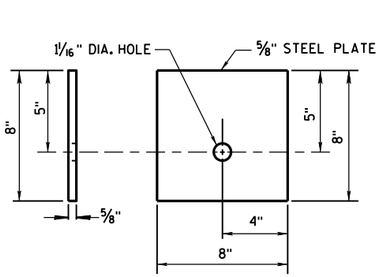



PLAN VIEW

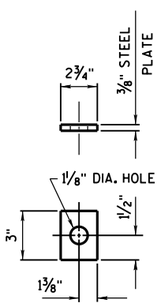



FRONT VIEW

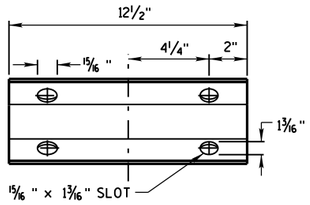
## NOSE CABLE ANCHOR AND STANDARD BRACKET ASSEMBLY



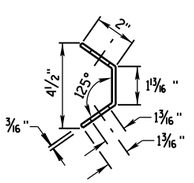

BCT BEARING PLATE




CABLE END PLATE



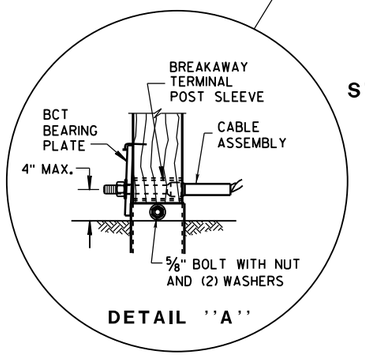

ELEVATION VIEW



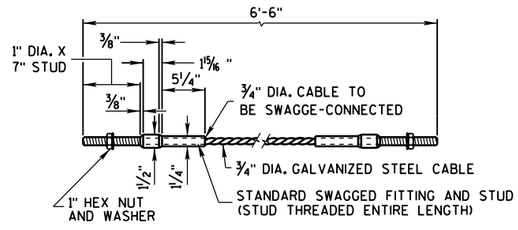

END VIEW

## NOSE CABLE ANCHOR PLATE

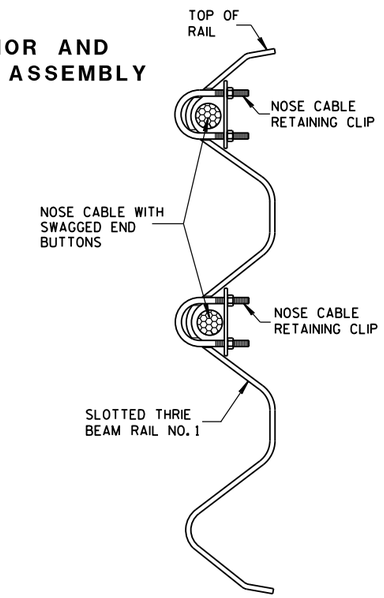
NOTE: 12 1/2" x 5 13/16" x 3/16" STEEL PLATE (A306)




DETAIL ''A''



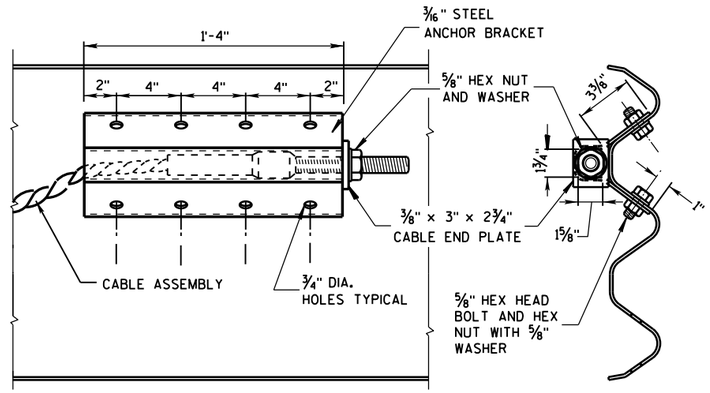

## DETAILS OF CABLE ANCHOR ASSEMBLY




## PLACEMENT OF NOSE CABLE RETAINING CLIP

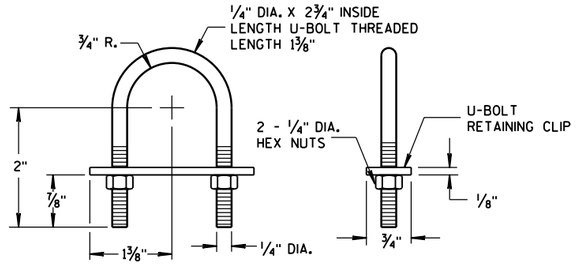
## GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.

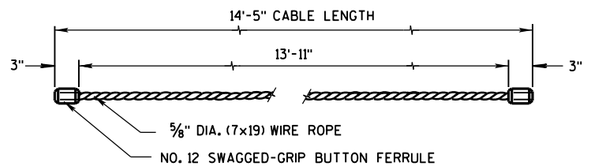



FRONT VIEW END VIEW

## DETAILS OF CABLE ANCHOR BRACKET




## NOSE CABLE RETAINING CLIP




## NOSE CABLE WITH SWAGGED END BUTTONS

TO PULL OFF SWAGGED GRIP BUTTON FERRULE FROM WIRE ROPE REQUIRES A FORCE EQUAL TO 98% OF THE WIRE ROPE'S BREAKING STRENGHT.

STEEL THRIE BEAM BULLNOSE TERMINAL

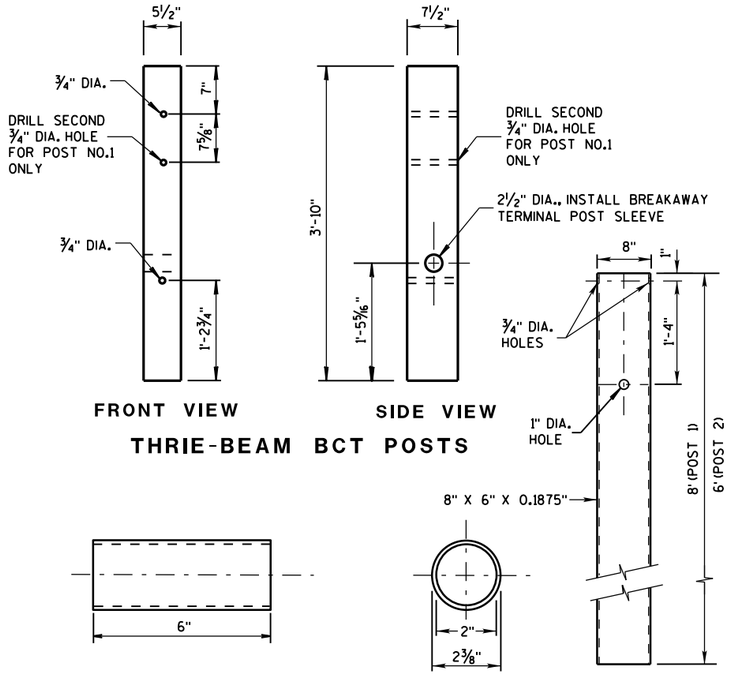
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI





6

S.D.D. 14 B 26-3c

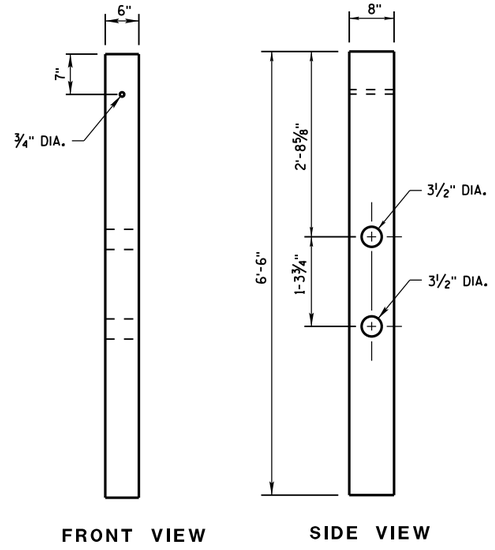



FRONT VIEW SIDE VIEW

**THRIE-BEAM BCT POSTS**

**BREAKAWAY TERMINAL POST SLEEVE**

**STEEL FOUNDATION TUBE**

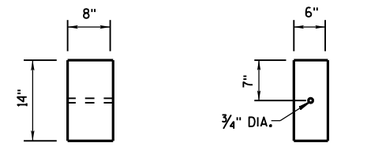



FRONT VIEW SIDE VIEW

**THRIE-BEAM CRT WOOD POSTS**

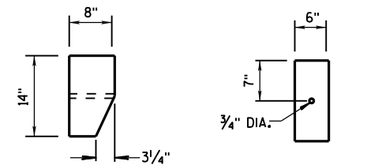
## GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.



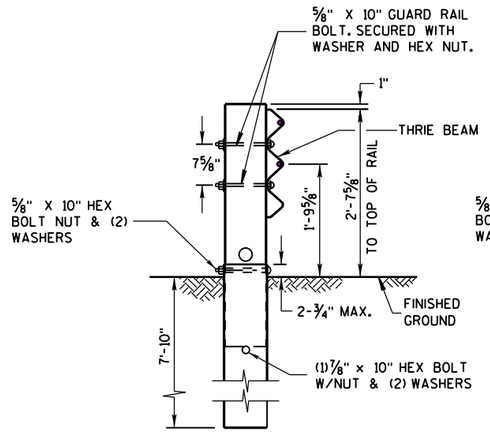

SIDE VIEW FRONT VIEW

**STANDARD WOOD BLOCK**



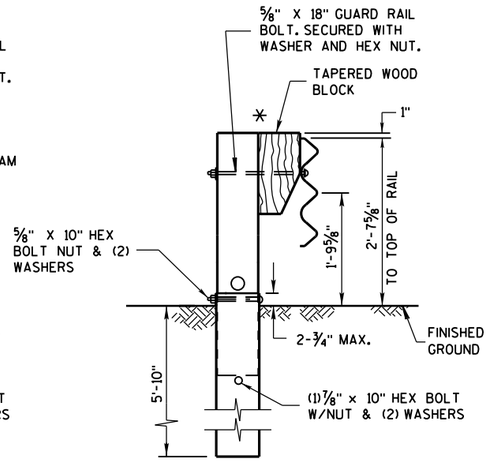

SIDE VIEW FRONT VIEW

**TAPERED WOOD BLOCK**



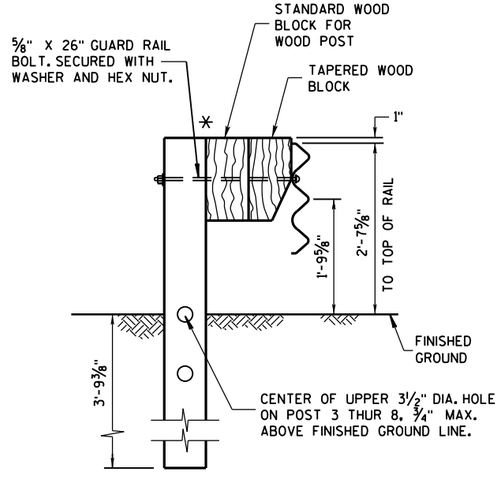

**THRIE-BEAM BCT POST**
**(WITH 8'-0" FOUNDATION TUBE)**

POST NO. 1



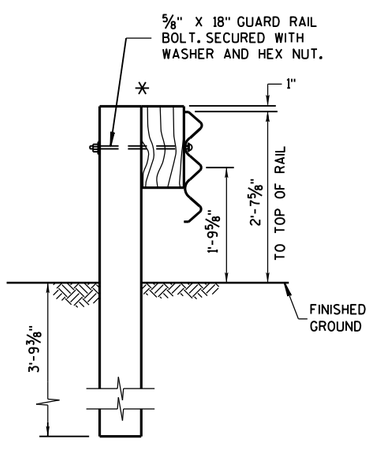

**THRIE-BEAM BCT POST**
**(WITH 6'-0" FOUNDATION TUBE AND 1'-2" TAPERED BLOCK)**

POST NO. 2




**THRIE-BEAM CRT POST**
**(6'-6" LONG POST WITH 1'-2" BLOCK AND 1'-2" TAPERED BLOCK)**

POST NO. 3,4,5,6,7, & 8




**THRIE-BEAM POST**
**(6'-6" LONG POST WITH 1'-2" BLOCK)**

POST NO. 9,10,11,& 12

(ALSO USE FOR STEEL THRIE BEAM BEYOND POST 12)

* IF NEEDED DUE TO AN UNDERGROUND OBSTACLE ADD 1 ADDITIONAL STANDARD BLOCKOUT TO POST.

**STEEL THRIE BEAM BULLNOSE TERMINAL**

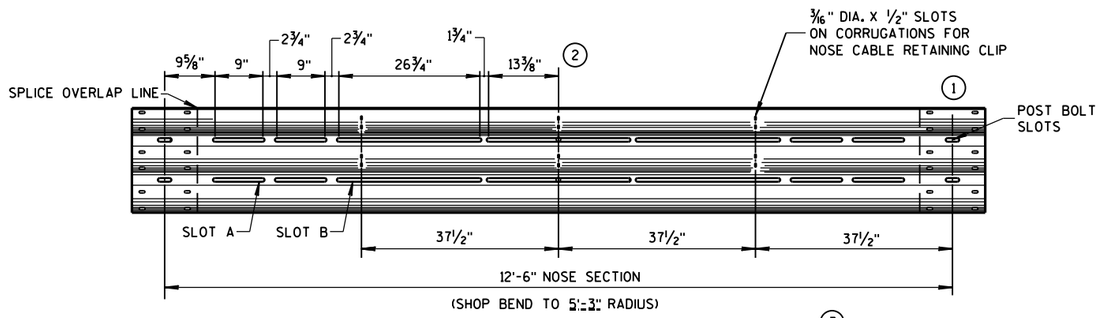
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 263

6

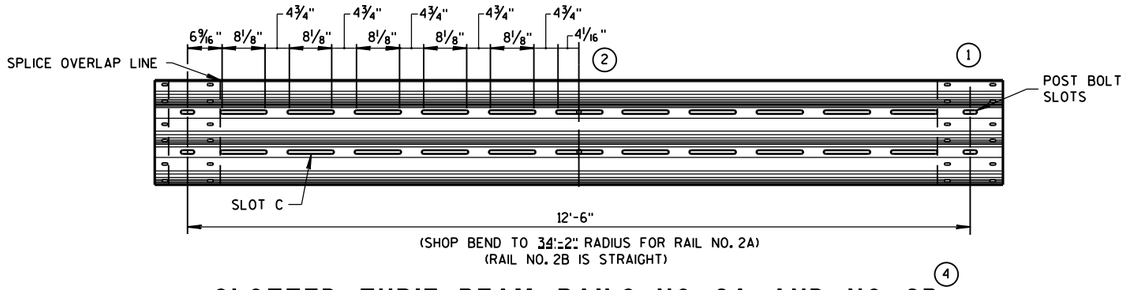
S.D.D. 14 B 26-3d

6

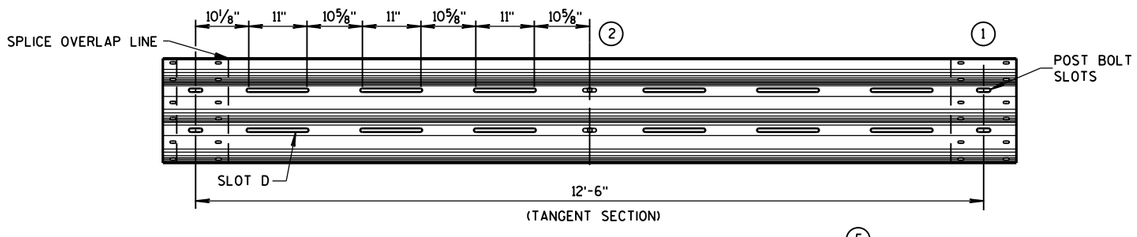
S.D.D. 14 B 26-3d



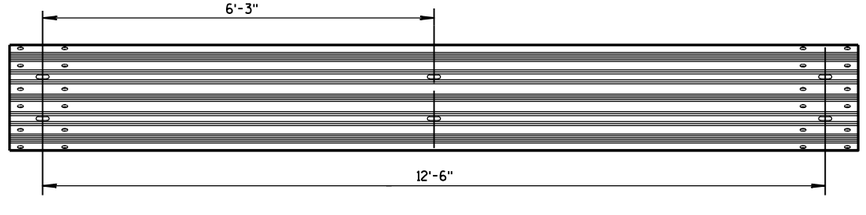

## SLOTTED THRIE BEAM RAIL NO. 1 (3)




## SLOTTED THRIE BEAM RAILS NO. 2A AND NO. 2B (4)




## SLOTTED THRIE BEAM RAIL NO. 3 (5)




## UNBENT STANDARD THRIE BEAM RAIL NO. 4 AND NO. 5

## GENERAL NOTES

SEE STANADRD DETAIL DRAWINGS 14 B 26a-e.

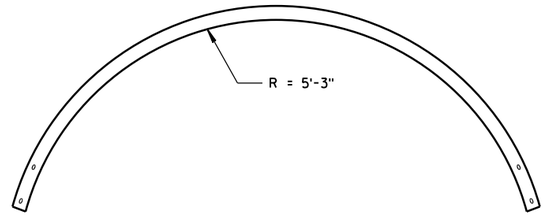
(1) SLOTTED THRIE BEAM RAIL DIMENSIONS SHOWN ARE BEFORE BENDING TO THE RADIUS SHOWN.

(2) SLOT SIZE AND SPACING SYMMETRIC.

(3) SLOTTED THRIE BEAM RAIL NO. 1, 12'-6", SHOP BEND TO R=5'-3".

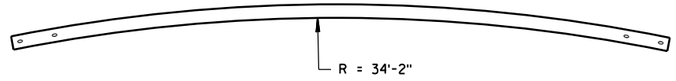
(4) SLOTTED THRIE BEAM RAIL NO. 2A, 12'-6", SHOP BEND TO R=34'-2".
SLOTTED THRIE BEAM RAIL NO. 2B, 12'-6", RAIL IS STRAIGHT.

(5) SLOTTED THRIE BEAM RAIL NO. 3, 12'-6", TANGENT.



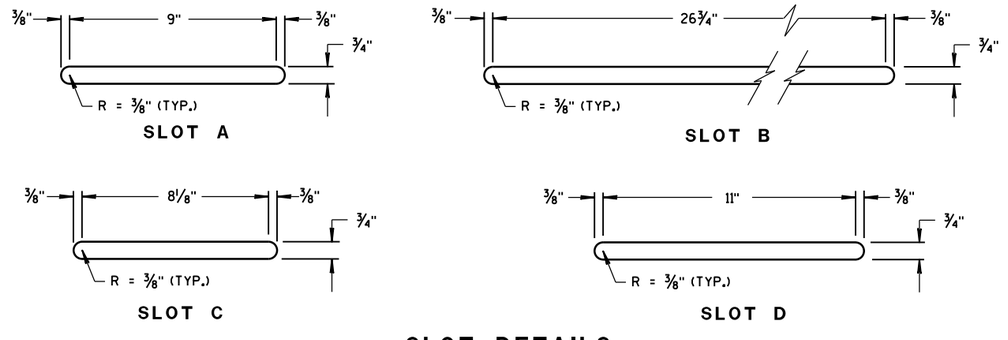

PLAN VIEW

## SLOTTED THRIE BEAM RAIL NO. 1




PLAN VIEW

## SLOTTED THRIE BEAM RAIL NO. 2A




## SLOT DETAILS

STEEL THRIE BEAM
BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



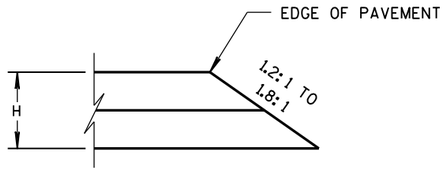
NT

6

S.D.D. 14 B 26-3e

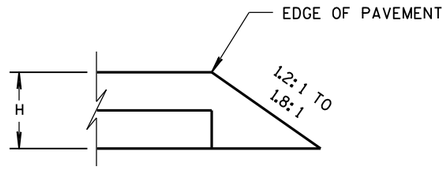
6

S.D.D. 14 B 26-3e



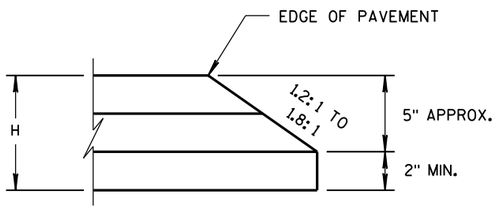

CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



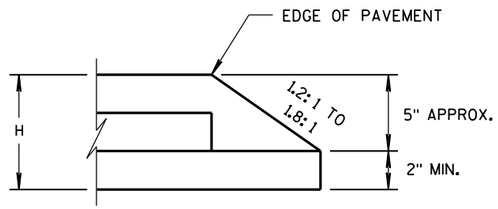

CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS




CONSTRUCTED WITH FINAL TWO LAYERS

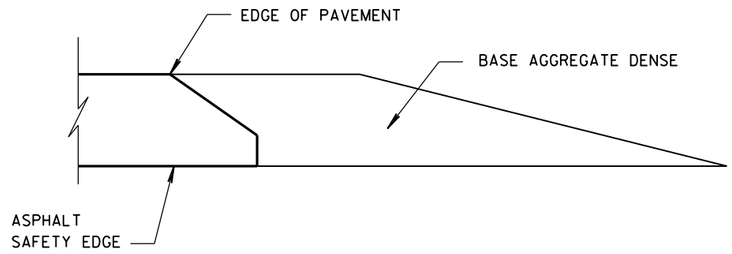
FOR H GREATER THAN 5"




CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

## HMA PAVEMENT AND HMA OVERLAYS




## FINISHED SHOULDER AGGREGATE PLACEMENT

6

6

S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

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

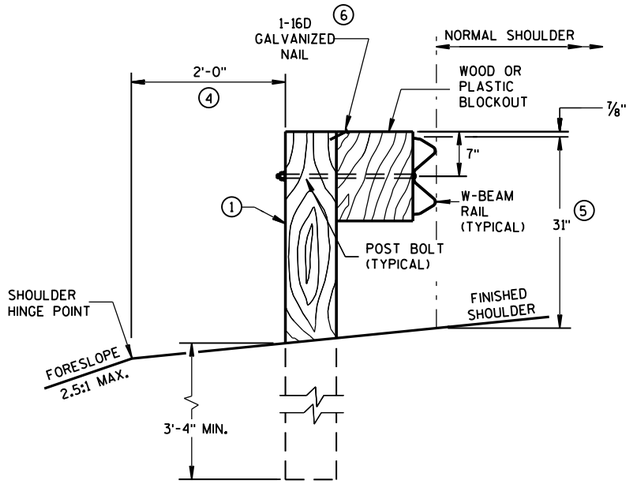
(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½ INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

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

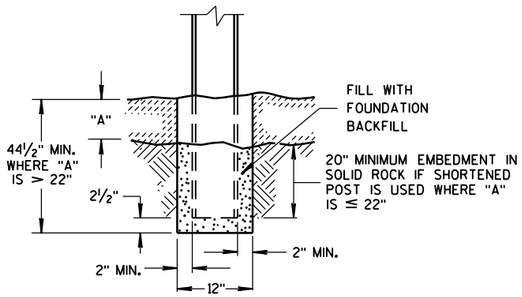
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

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



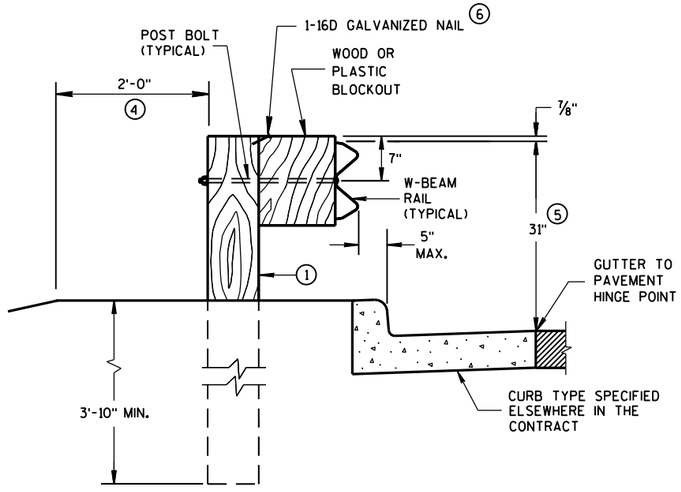

END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



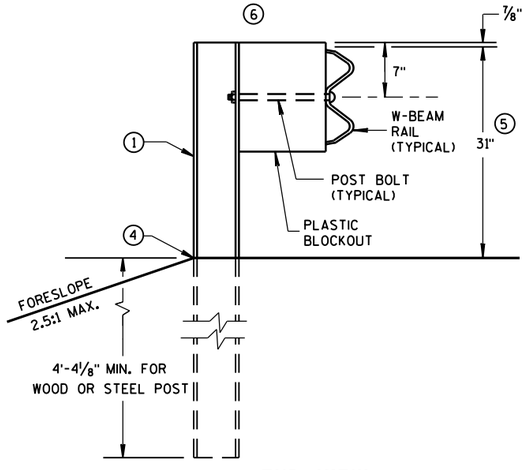

END VIEW

SETTING STEEL OR WOOD POST IN ROCK (3)



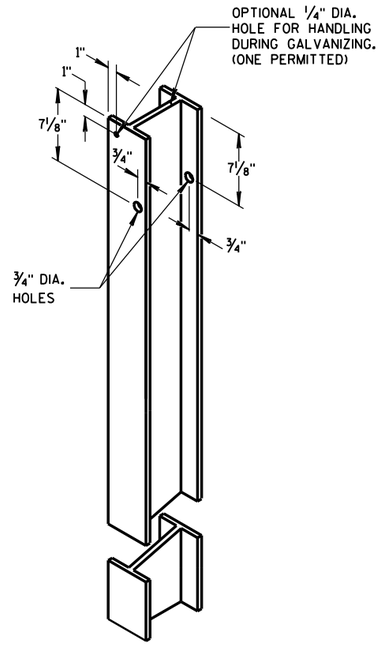

END VIEW

LOCATED ALONG A CURBED ROADWAY

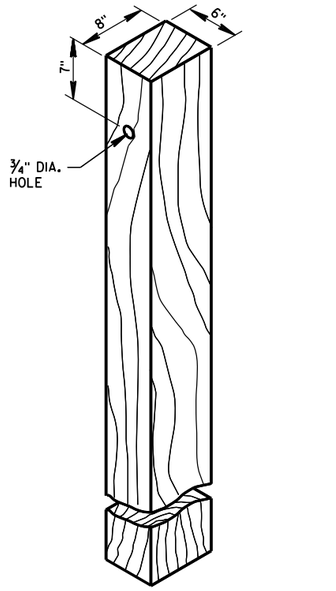



END VIEW

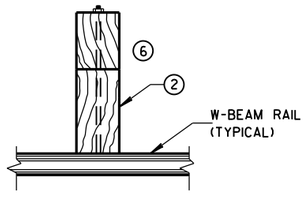
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



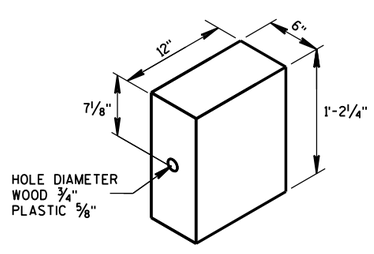

STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) (1)



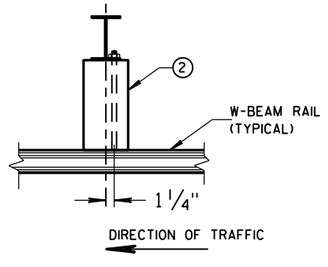

WOOD POST
(6" X 8") NOMINAL (1)




PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM




WOOD OR
PLASTIC BLOCKOUT (2)




PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

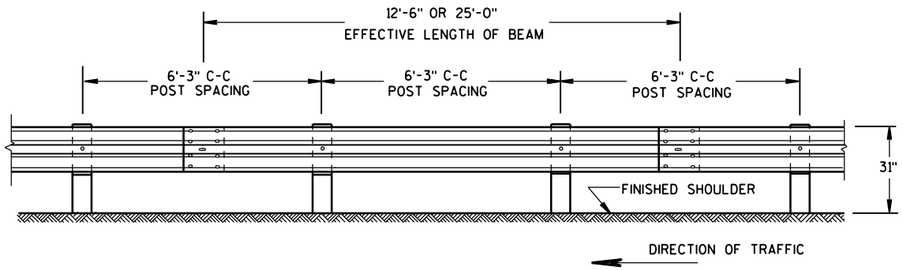
MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI



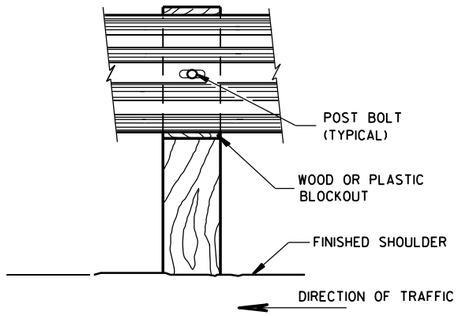


6
S.D.D. 14 B 42-5a




FRONT VIEW

## POST SPACING STANDARD INSTALLATION




FRONT VIEW AT WOOD POST

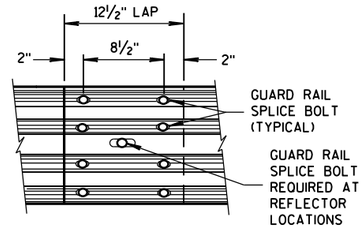
## GENERAL NOTES

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

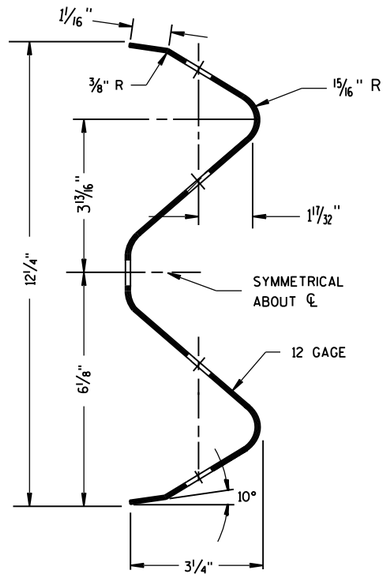
(11) 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 5/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

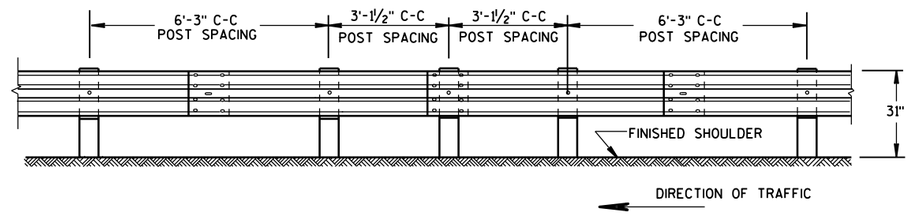
GUARD RAIL SPLICE BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.




FRONT VIEW
MID-SPAN BEAM SPLICE

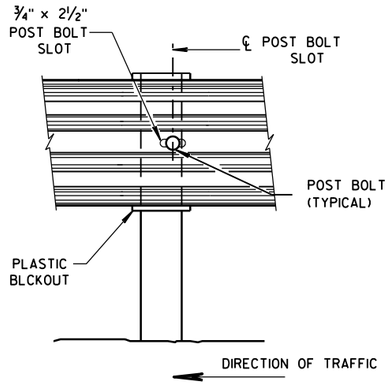



SECTION THRU W-BEAM RAIL

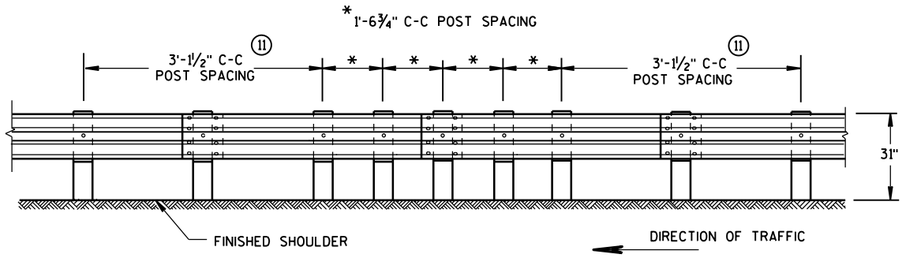



FRONT VIEW

## HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)

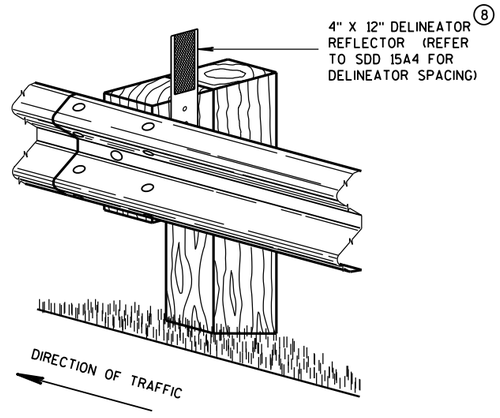



FRONT VIEW AT STEEL POST




FRONT VIEW

## QUARTER POST SPACING (QS)




## ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

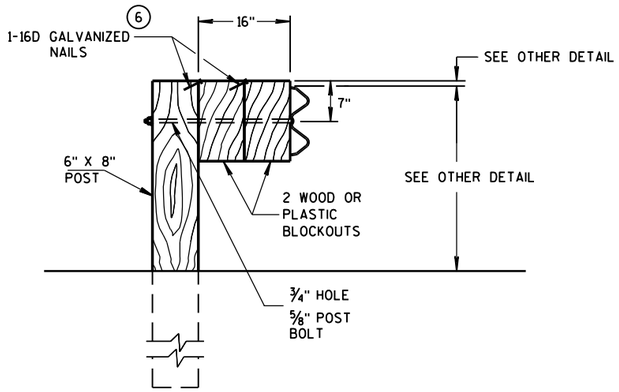
MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR



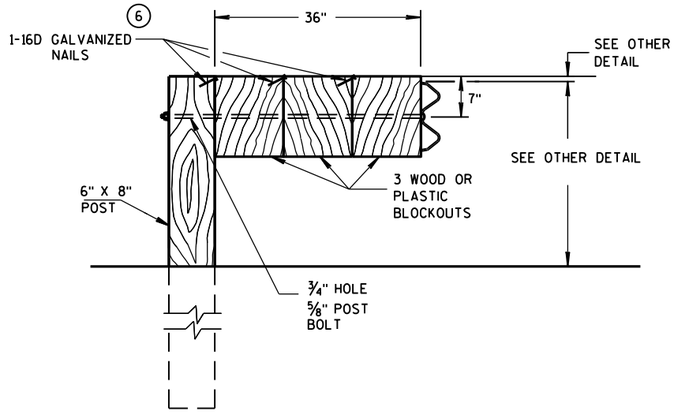

6


S.D.D. 14 B 42-5b




## DETAIL FOR 16" BLOCKOUT DEPTH

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

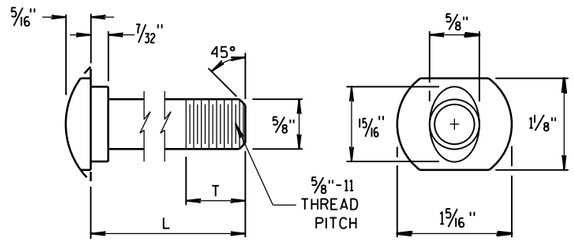



## DETAIL FOR 36" BLOCKOUT DEPTH

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

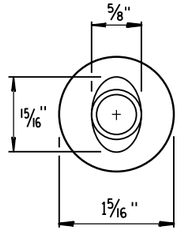
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 1/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

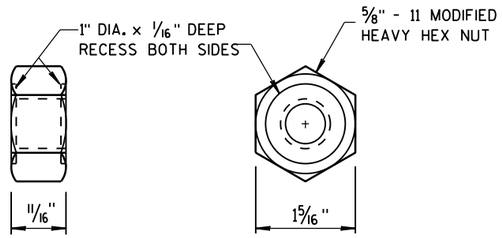



### POST BOLT TABLE

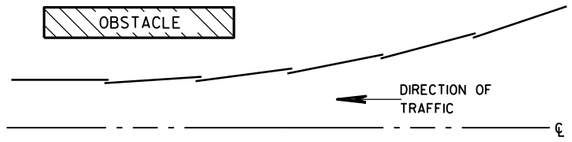
| L | T (MIN.) |
|---|---|
| 1¼" | 1⅛" |
| 2" | 1¾" |
| 10" | 4" |
| 14" | 4 1/16" |
| 18" | 4" |
| 21" | 4 1/16" |
| 25" | 4" |




ALTERNATE BOLT HEAD

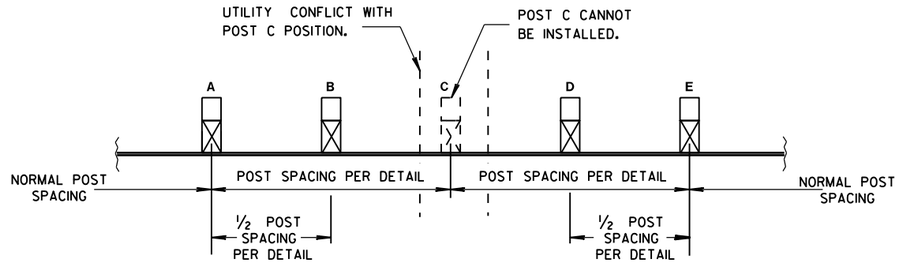



## POST BOLT, SPLICE BOLT AND RECESS NUT

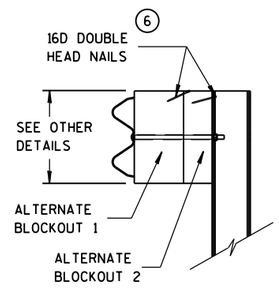



PLAN VIEW

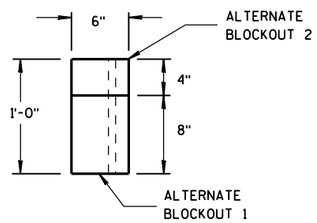
## BEAM LAPPING DETAIL




## POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION




SIDE VIEW




TOP VIEW

## ALTERNATE WOOD BLOCKOUT DETAIL

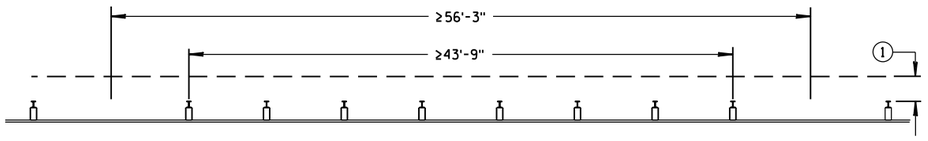
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

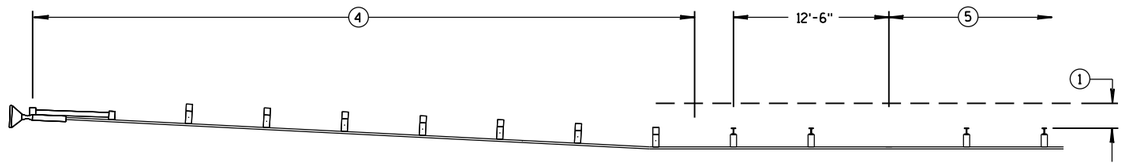



6

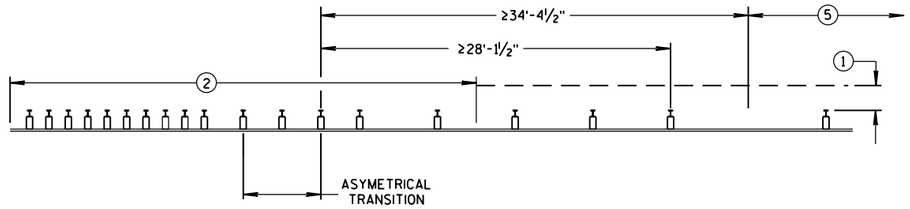
S.D.D. 14 B 42-5c



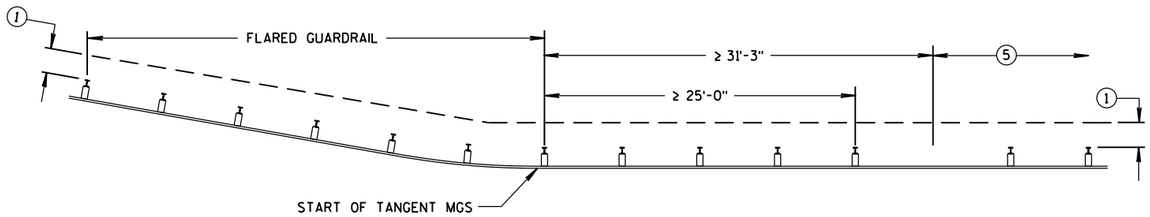

MISSING POST IN NORMAL BEAM GUARD RUN



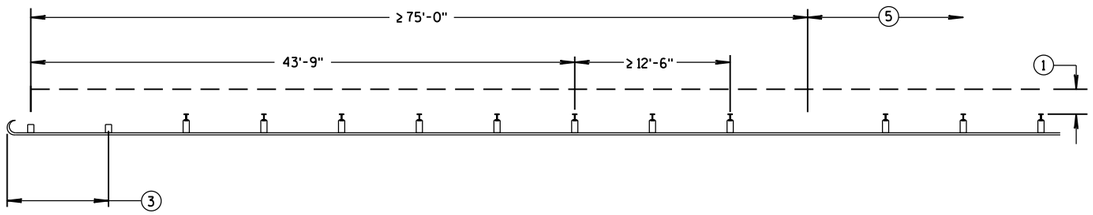

MISSING POST IN NORMAL BEAM GUARD RUN NEAR EAT



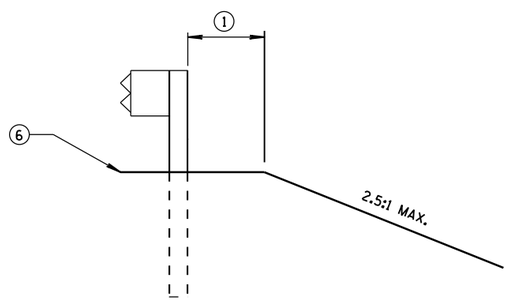

MISSING POST NEAR APPROACH THRIE BEAM TRANSITION




MISSING POST IN NORMAL BEAM GUARD RUN
NEAR FLARED BEAM GUARD




MISSING POST IN NORMAL BEAM GUARD RUN
NEAR TYPE 2 TERMINAL




CROSS SECTION VIEW

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

**MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR



6

S.D.D. 14 B 42-5d

6

S.D.D. 14 B 42-5d

## GENERAL NOTES

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

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

(C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

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

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

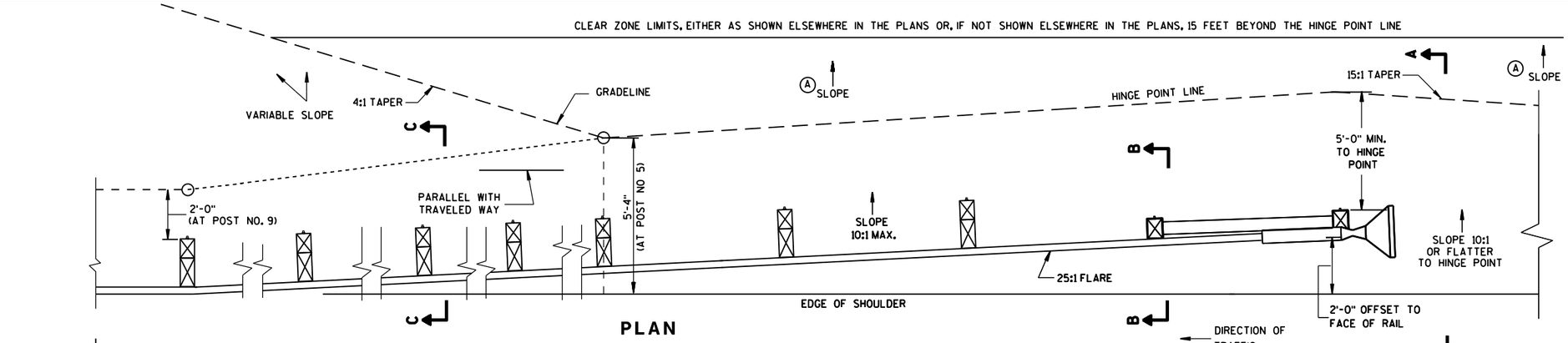
SEE SDD 14B42 FOR MORE INFORMATION.

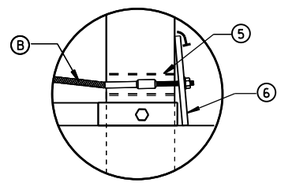
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

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

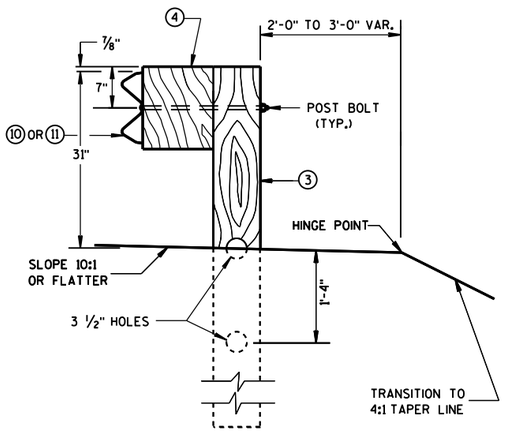
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE.

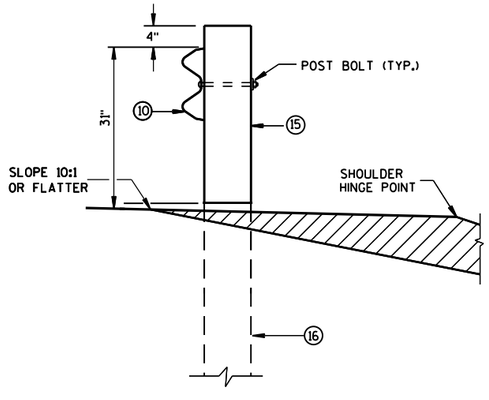


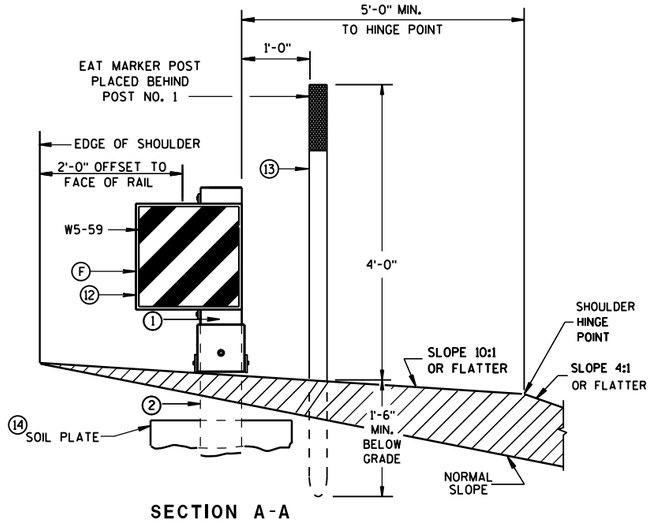

DETAIL "A"



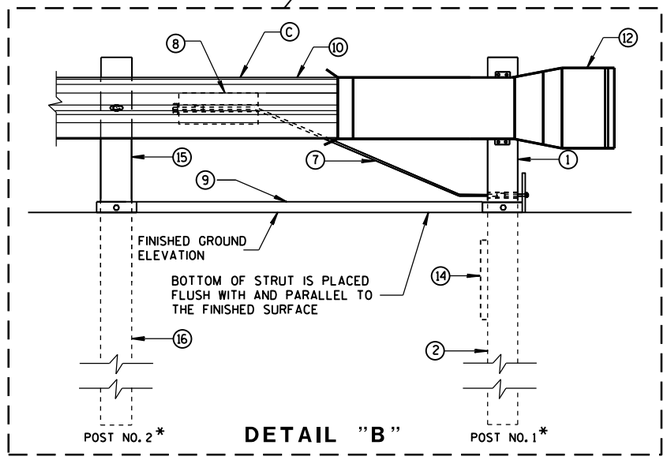

SECTION C-C
TYPICAL AT POST NOS. 3-9




SECTION B-B
TYPICAL AT POST NO. 2*




SECTION A-A
TYPICAL AT POST NO. 1*



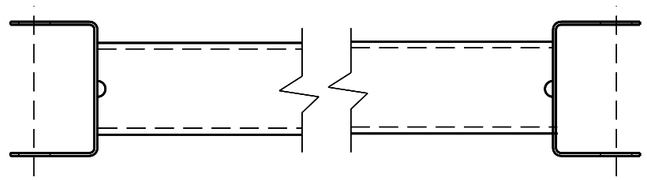

DETAIL "B"

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

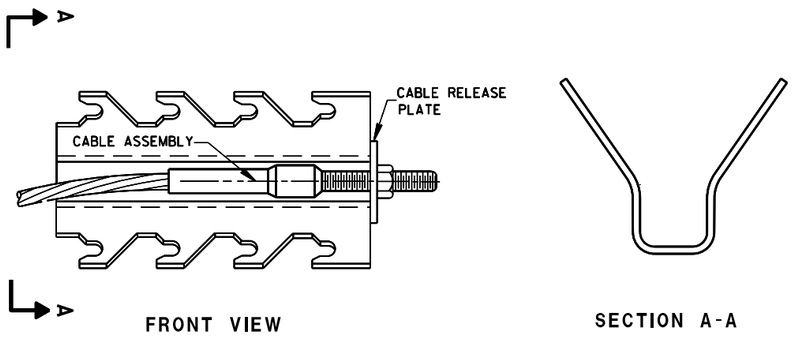
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO




6
S.D.D. 14 B 44-3a



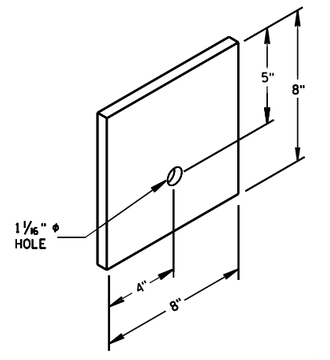
GENERIC GROUND STRUT (9) (H)




GENERIC ANCHOR CABLE BOX (8) (H)

## BILL OF MATERIALS

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




BEARING PLATE (6)

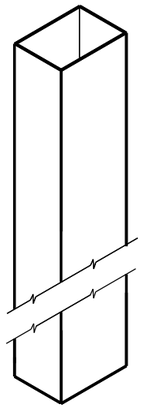
MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

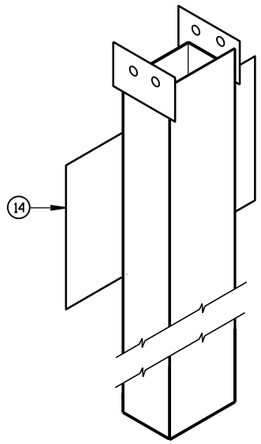



6

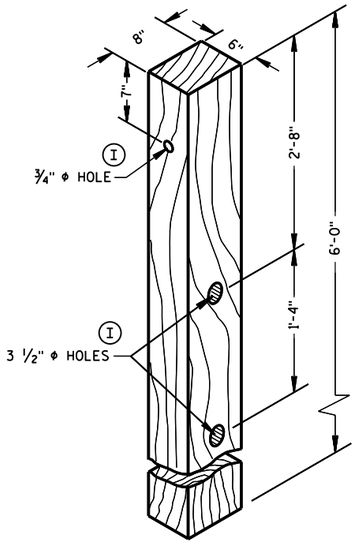

S.D.D. 14 B 44-3b



UPPER POST NO. 1 (1)

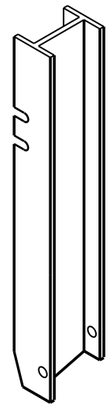



LOWER POST NO. 1 (2)

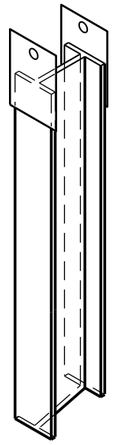



POSTS NUMBER 3-9

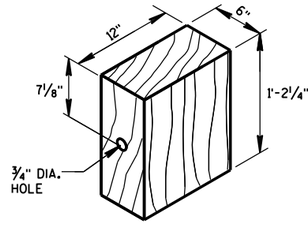
WOOD CRT POST (3)



UPPER POST NO. 2 (15)

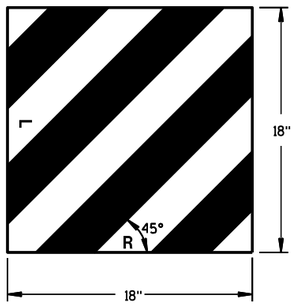


LOWER POST NO. 2 (16)



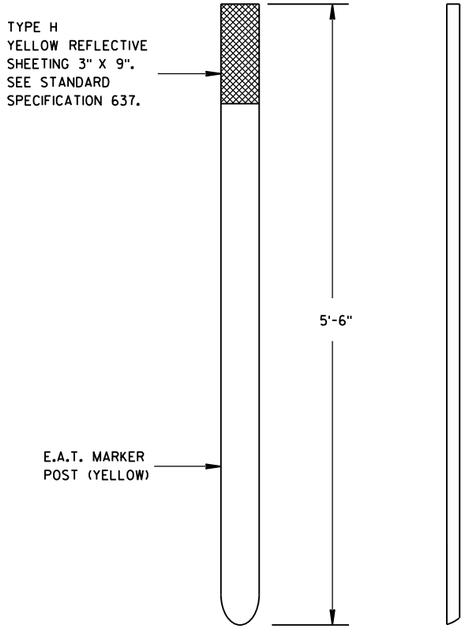

WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



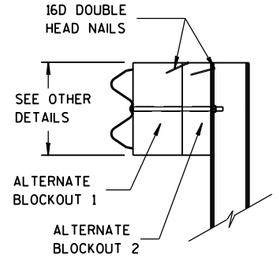

W5-59

REFLECTIVE SHEETING DETAIL (H)

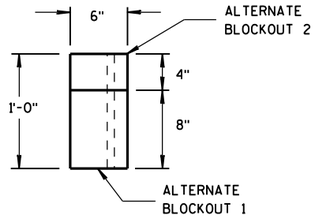



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)




SIDE VIEW




TOP VIEW

ALTERNATE WOOD
BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS
UNIT SUPERVISOR

FHWA

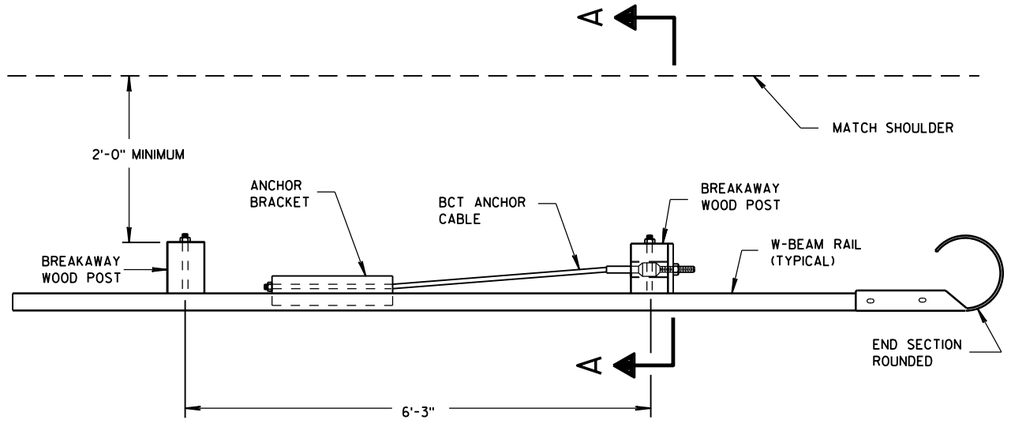


6

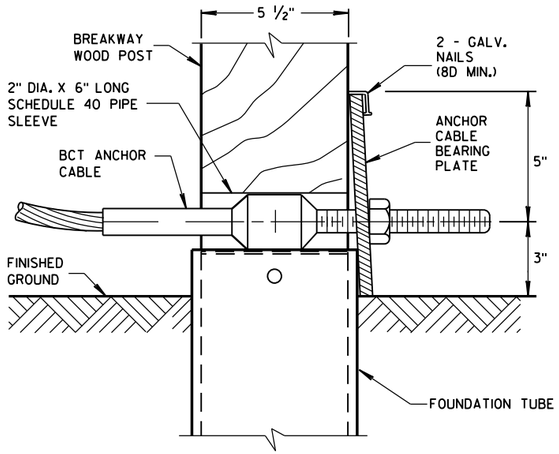
S.D.D. 14 B 44-3c

6

S.D.D. 14 B 44-3c




PLAN VIEW




## DETAIL A

POST NO. 1
GROUNG STRUT NOT SHOWN FOR CLARITY.

## GENERAL NOTES

SEE SDD 14 B 42 FOR MORE INFORMATION.

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

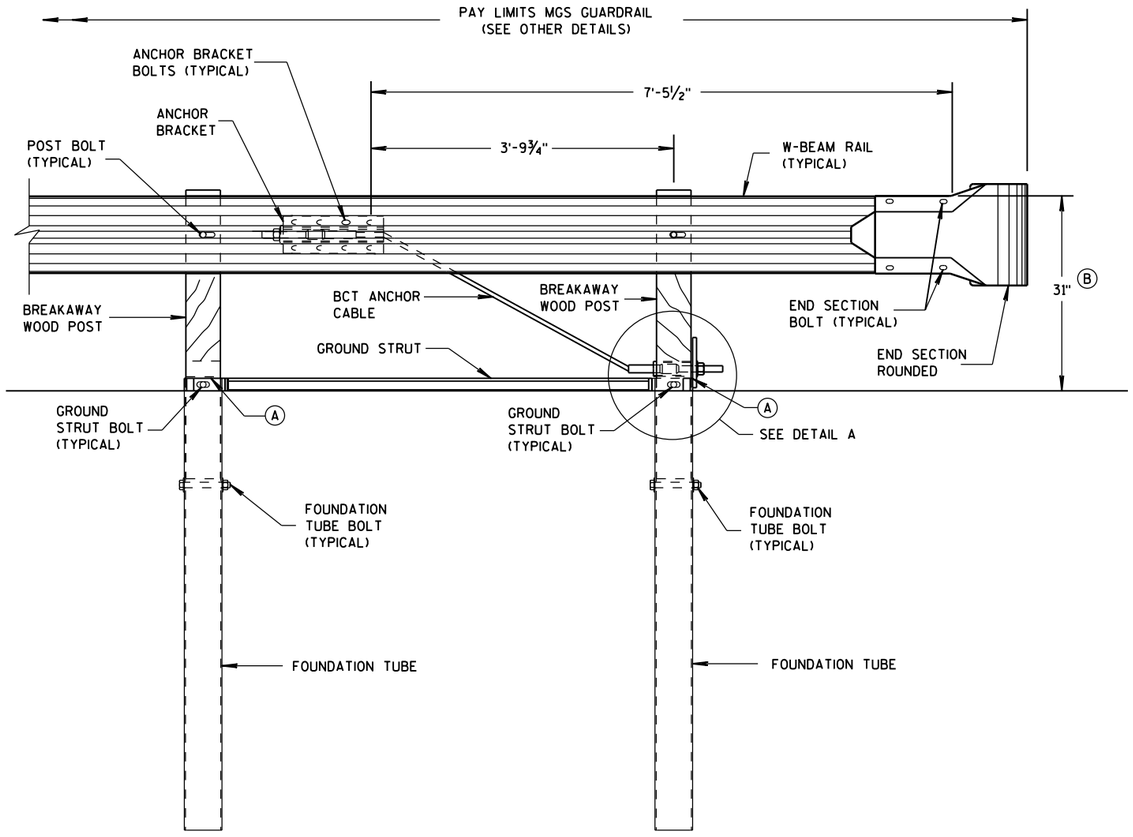
FOUNDATION TUBE BOLTS ARE ⅞" DIAMETER ASTM A307 HEX HEAD BOLT. FOUNDATION TUBE BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅞" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

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

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

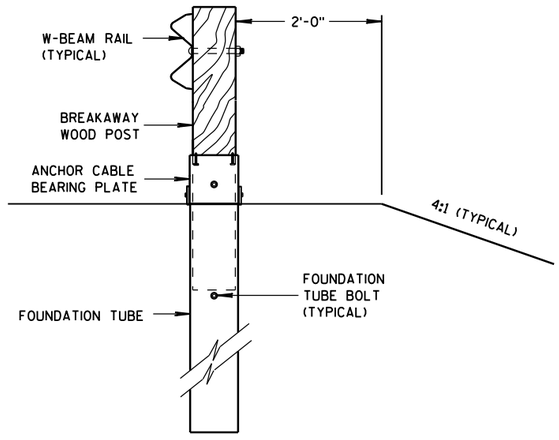
(A) TOP OF FOUNDATION TUBE SHALL BE NO MORE THAN 3" ABOVE FINISHED GROUND.

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

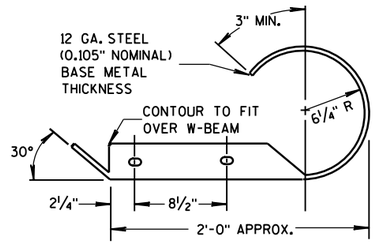



FRONT VIEW

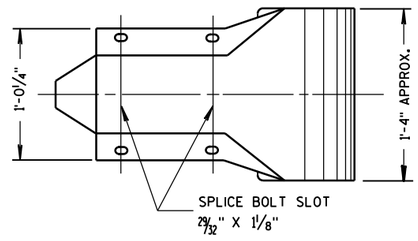
## END RAIL DETAIL




SECTION A-A




PLAN VIEW




FRONT VIEW

## W BEAM END SECTION ROUNDED

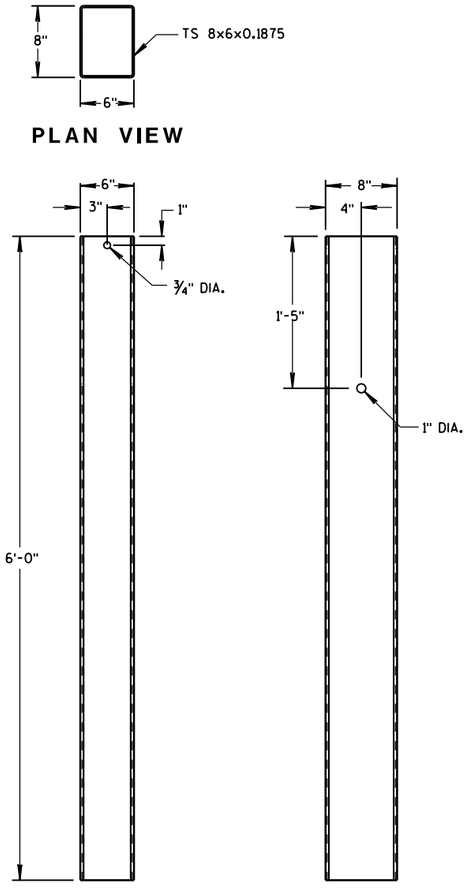
MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

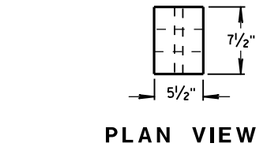


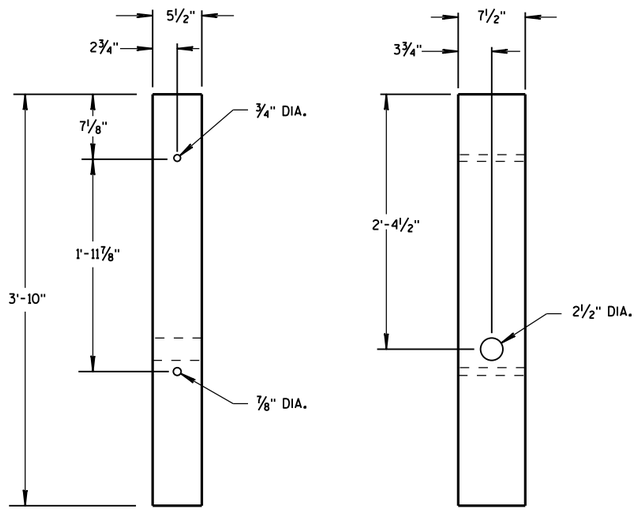


6
S.D.D. 14 B 47-2a




FOUNDATION TUBE

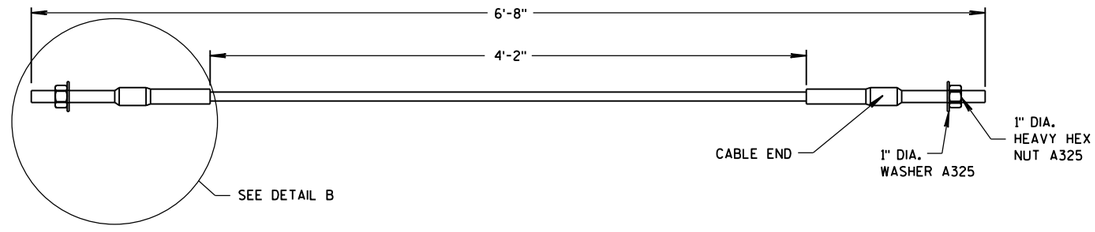


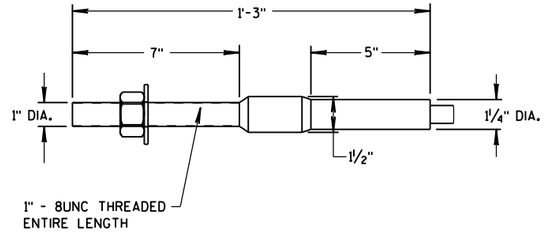

BREAKAWAY WOOD POST

## GENERAL NOTES

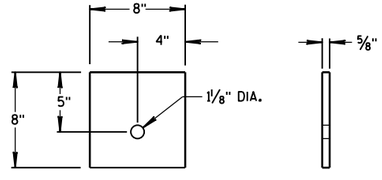
BCT ANCHOR CABLE IS A ¾" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED. END FITTING SHALL BE MACHINED FROM HOT-ROLLED CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORDING TO ASTM A123. TREADED STUD SHALL CONFORM TO ASTM A325 OR SAE GRADE 5.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




BCT ANCHOR CABLE




DETAIL B




ANCHOR CABLE
BEARING PLATE

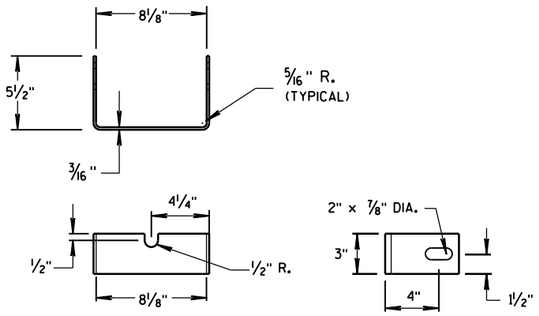
MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

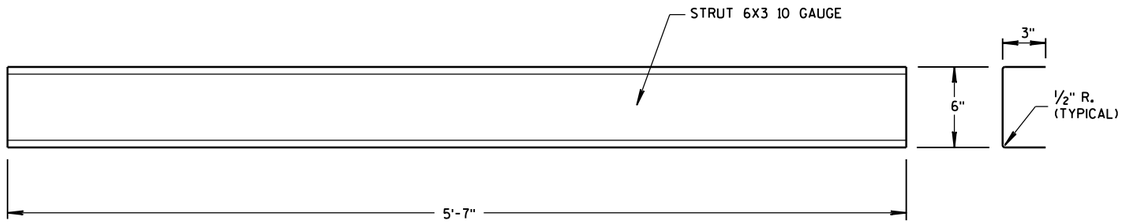



6

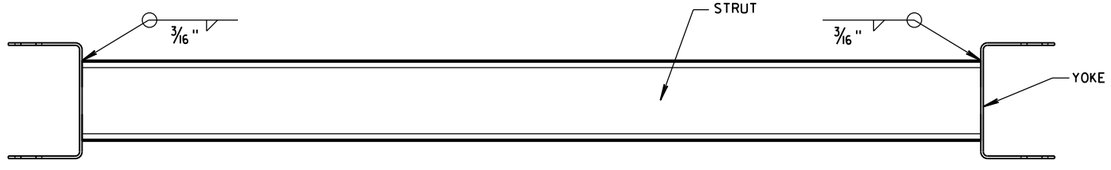

S.D.D. 14 B 47-2b



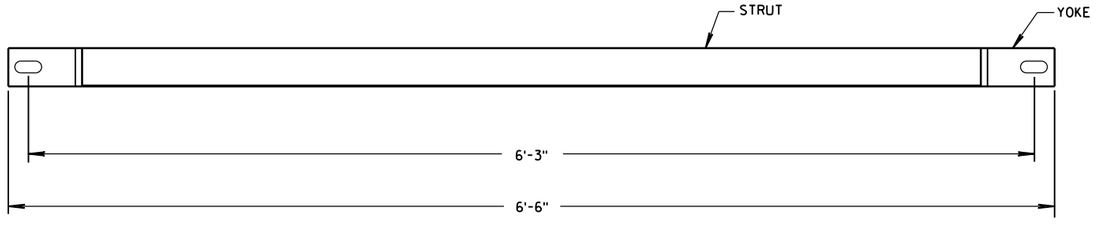

## YOKE DETAIL




## STRUT DETAIL

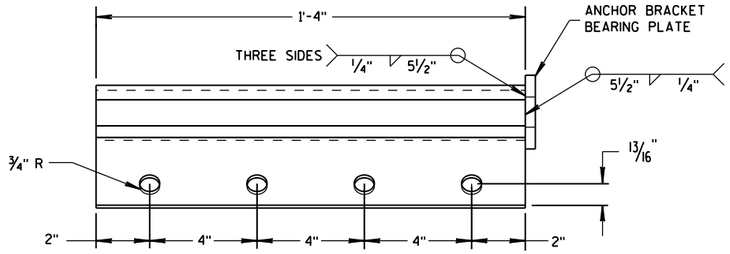


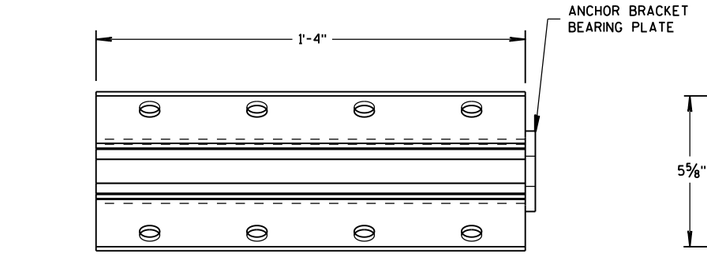

PLAN VIEW

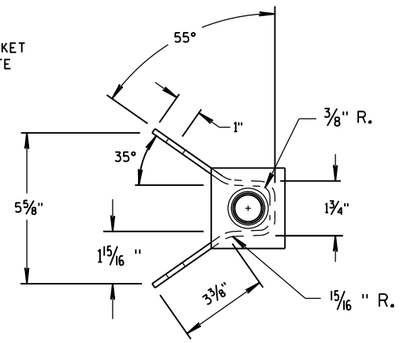



FRONT VIEW

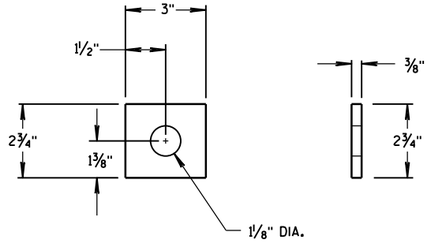
## GROUND STRUT DETAIL




## ANCHOR BRACKET




## ANCHOR BRACKET BEARING PLATE

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

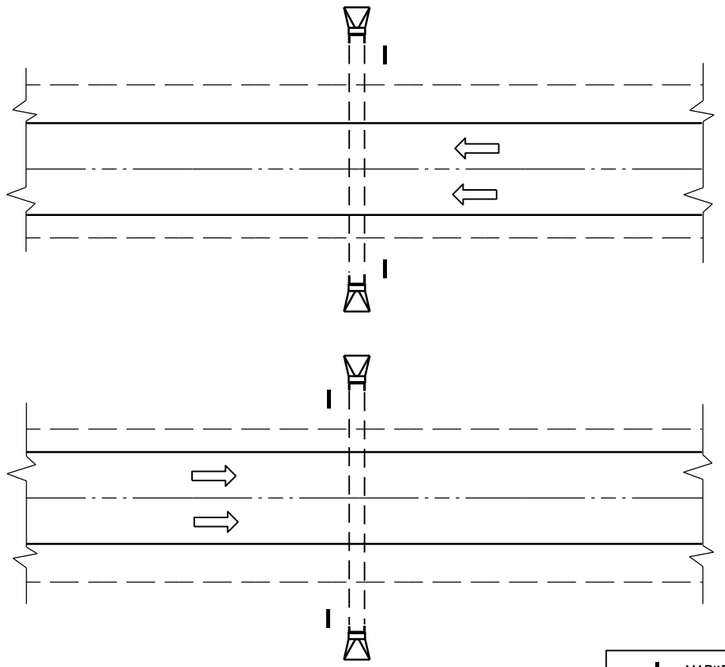
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



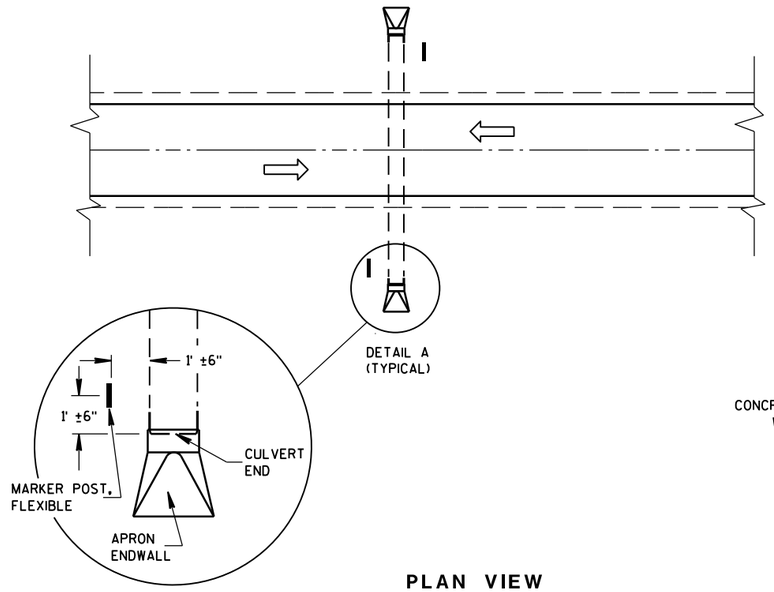

6


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



PLAN VIEW

**DIVIDED HIGHWAY**




**DETAIL A**
(TYPICAL)

PLAN VIEW

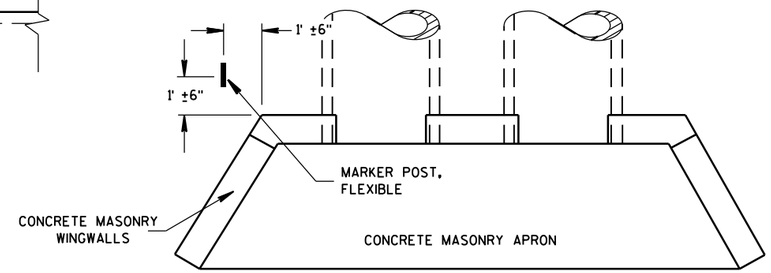
**UNDIVIDED HIGHWAY**

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

## GENERAL NOTES

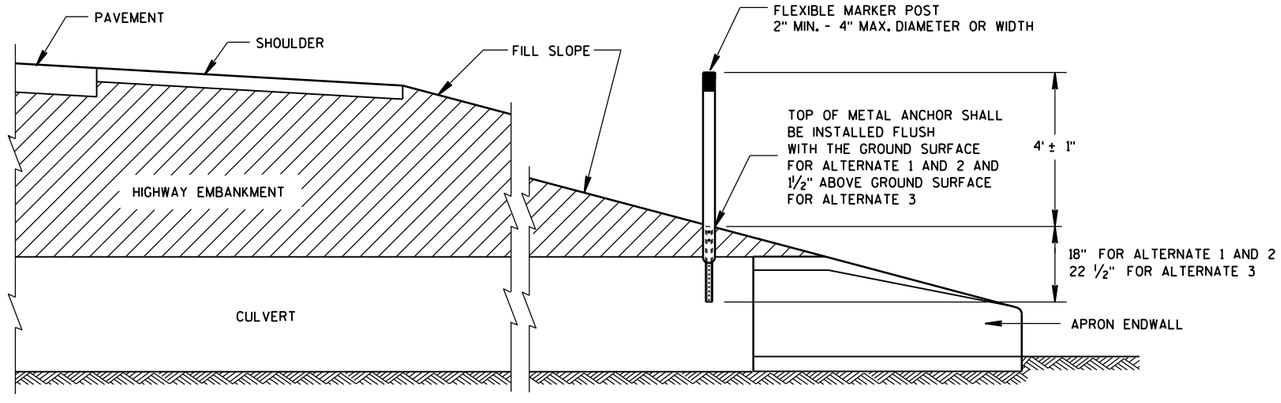
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.




PLAN VIEW

**CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH**

## FLEXIBLE MARKER POST LOCATION




CROSS SECTION

**FLEXIBLE MARKER POST**

**FLEXIBLE MARKER POST FOR CULVERT END**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

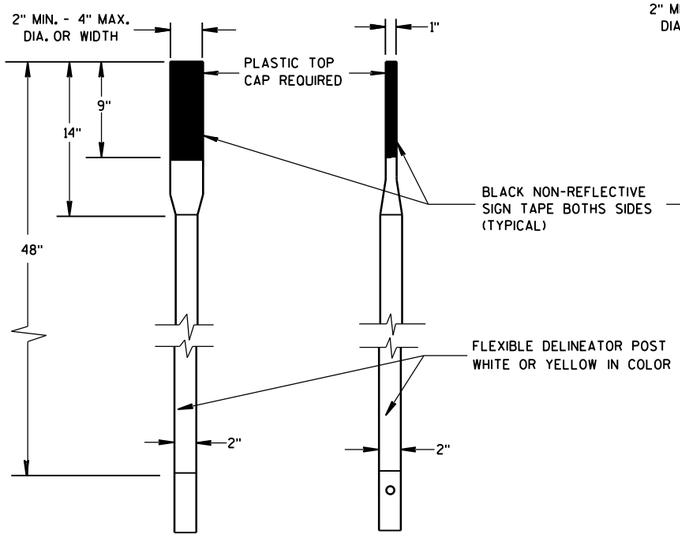


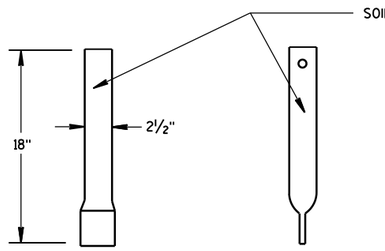
6

S.D.D. 15 A 3-2a

6

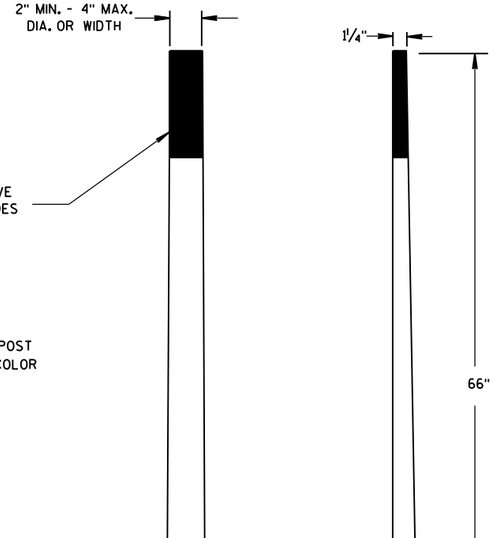
S.D.D. 15 A 3-2a



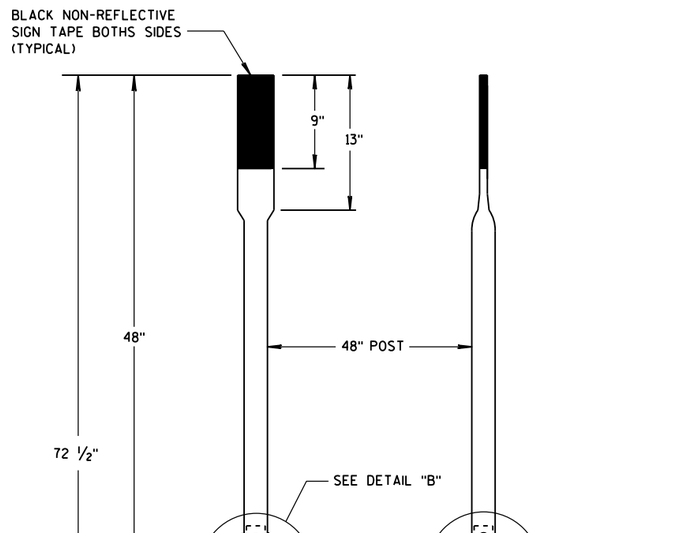

FRONT VIEW SIDE VIEW

ALTERNATE 1




FRONT VIEW SIDE VIEW

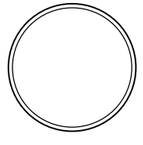
ALTERNATE 2



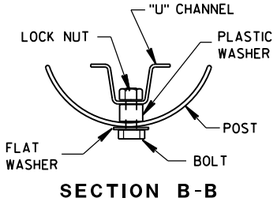

FRONT VIEW SIDE VIEW

ALTERNATE 3

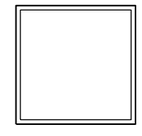
## FLEXIBLE MARKER POSTS



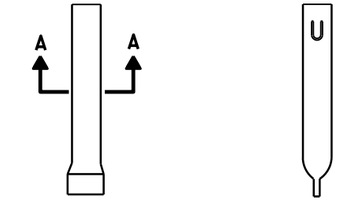
SECTION A-A




SECTION B-B

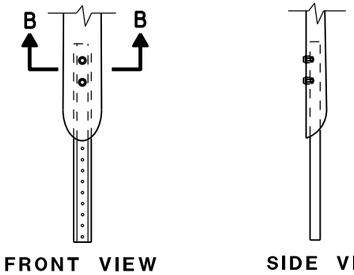


SECTION C-C



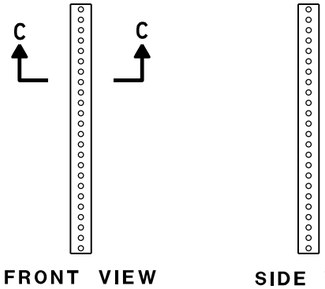

FRONT VIEW SIDE VIEW

ALTERNATE 1




FRONT VIEW SIDE VIEW

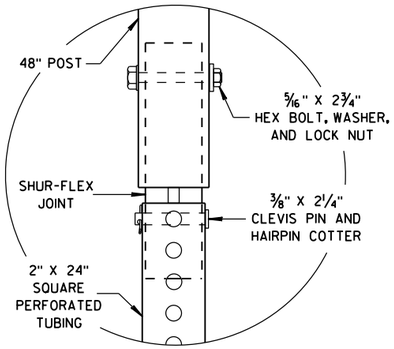
ALTERNATE 2



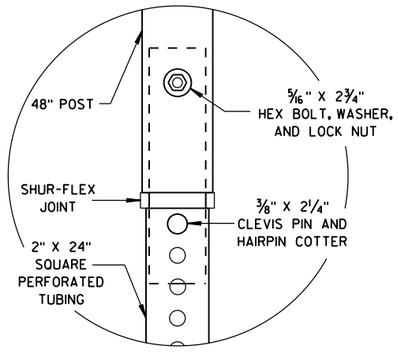

FRONT VIEW SIDE VIEW

ALTERNATE 3

## FLEXIBLE MARKER POST ANCHORS




DETAIL B




DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

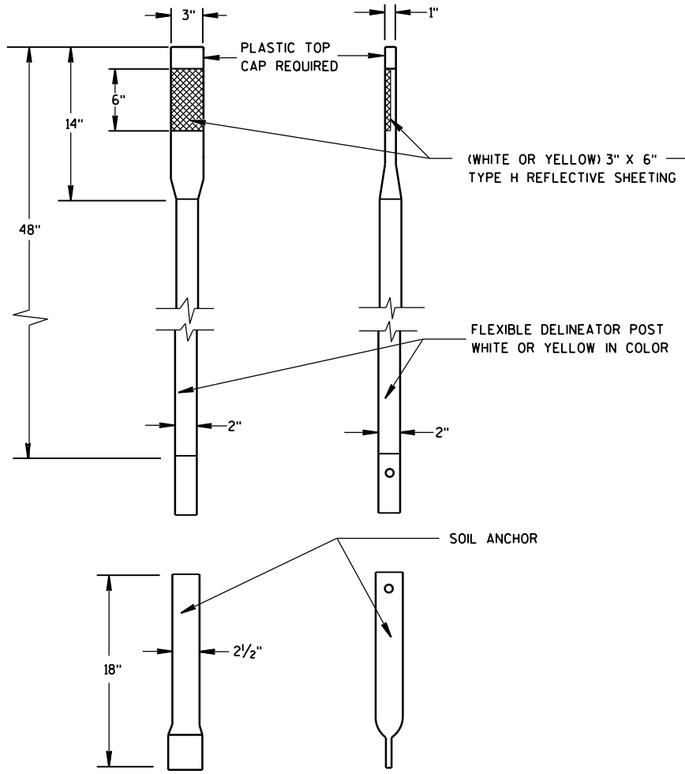
APPROVED
10/1/2012
DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER
277
IGN
FHWA

6

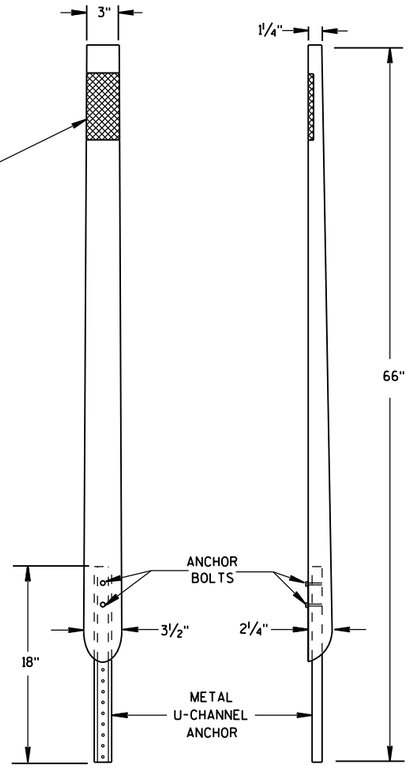
S.D.D. 15 A 3-2b

6

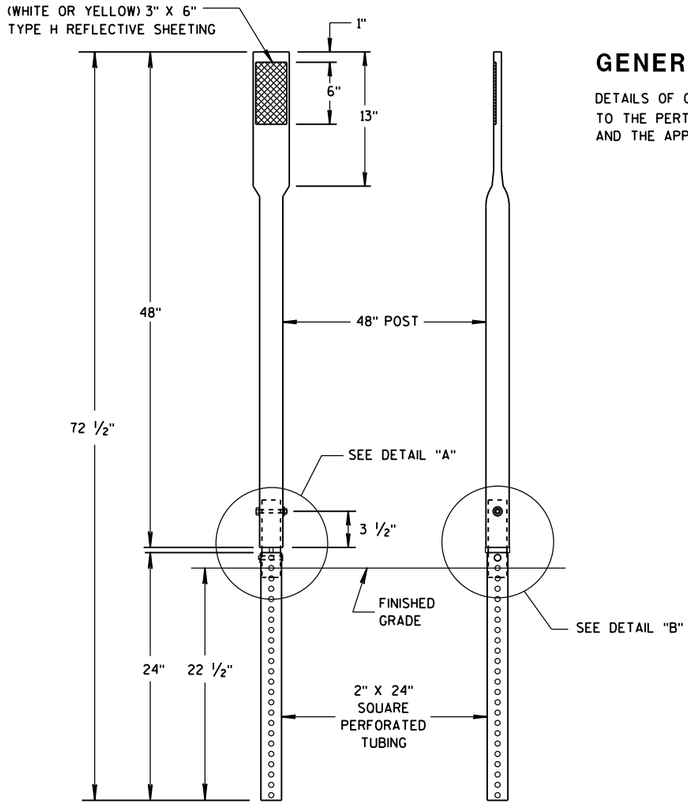
S.D.D. 15 A 3-2b




ALTERNATE 1



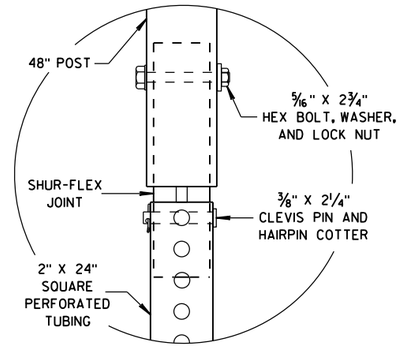

ALTERNATE 2
FLEXIBLE DELINEATOR POSTS



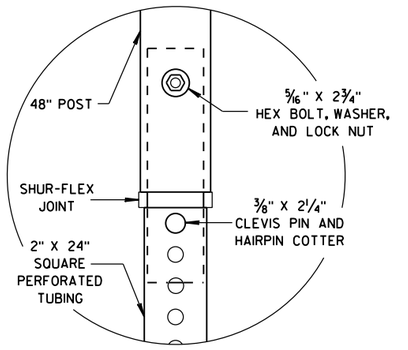

ALTERNATE 3

## GENERAL NOTES

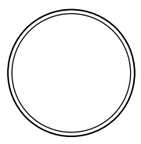
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDATRD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



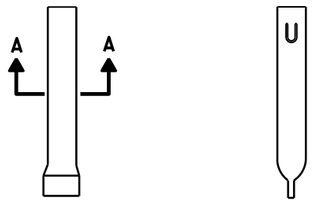

DETAIL A



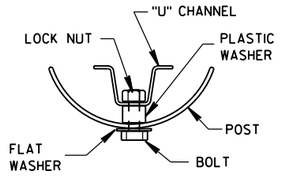

DETAIL B



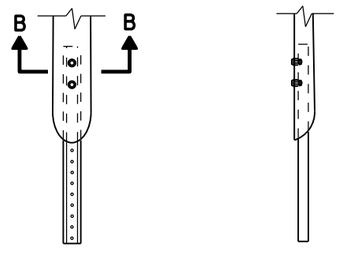
SECTION A-A



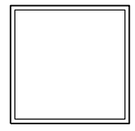

ALTERNATE 1



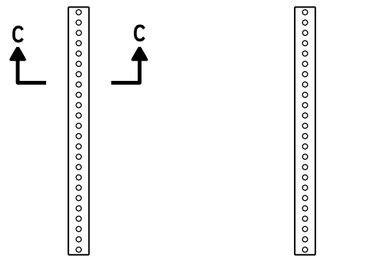

SECTION B-B




ALTERNATE 2
FLEXIBLE MARKER POST ANCHORS



SECTION C-C




ALTERNATE 3

### REFLECTOR SPACING TABLE

| REFLECTOR SPACING | LOCATION |
|---|---|
| *100' C-C | RAMPS |
| 400' C-C | MAINLINE |

*START AT BEGINNING OF RAMP TAPER AND END AT END OF RAMP TAPER

**FLEXIBLE DELINEATOR POST**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Andrew Heidtke — STATE SIGNING AND MARKING ENGINEER
FHWA

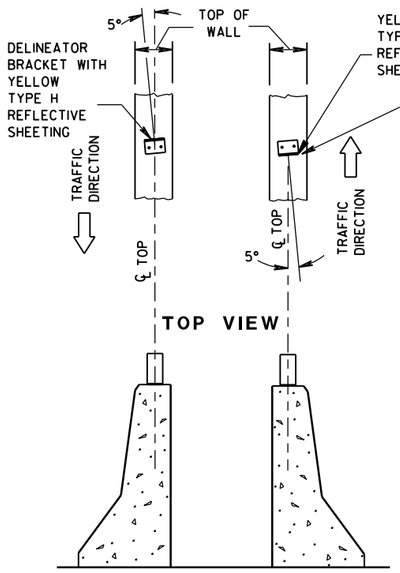


6

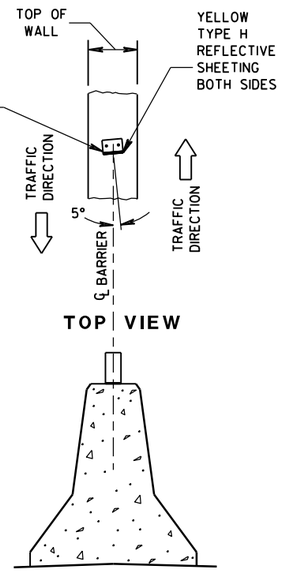
S.D.D. 15 A 4-3a

6

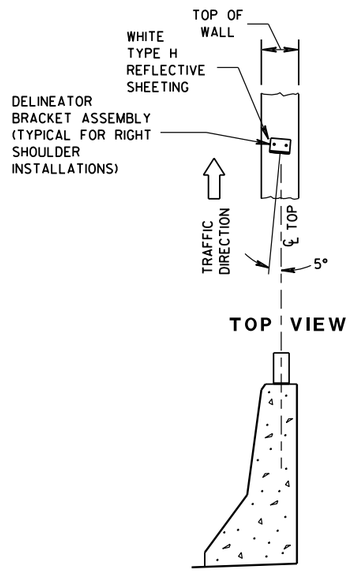
S.D.D. 15 A 4-3a




DOUBLE BARRIERS IN MEDIAN

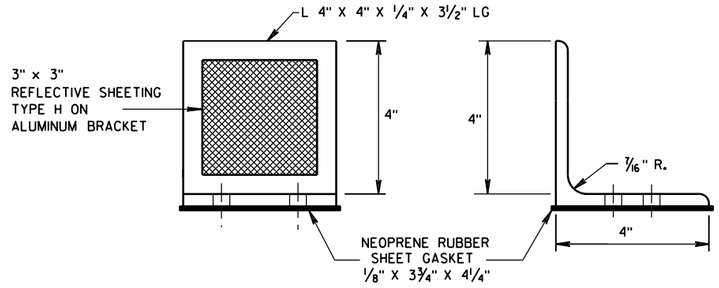



MEDIAN BARRIER

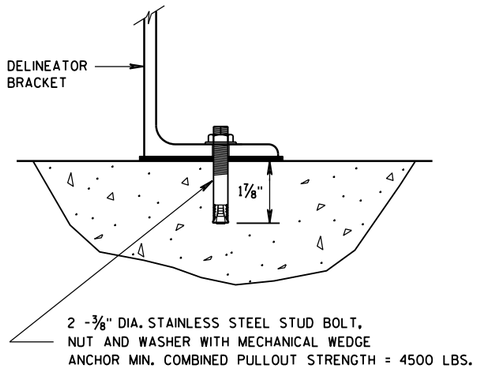



BARRIER LOCATED
TO RT. OF TRAFFIC FLOW

LOCATION AND AIMING DETAILS FOR DELINEATOR BRACKETS MOUNTED ON CONCRETE BARRIERS




DELINEATOR BRACKET




DELINEATOR BRACKET
MOUNTING DETAIL

REFLECTOR SPACING TABLE

| REFLECTOR SPACING | MINIMUM NUMBER OF REFLECTORS |
|---|---|
| 100' C-C | 3 |

DELINEATOR BRACKET
WITH REFLECTIVE SHEETING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

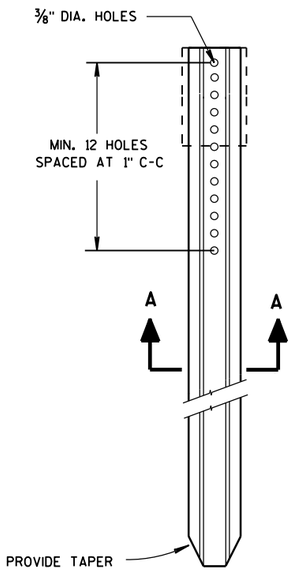
APPROVED
June 2017
DATE
/S/ Matthew R. Rauch
STATE SIGNING AND MAI 279 GINEER
FHWA

6

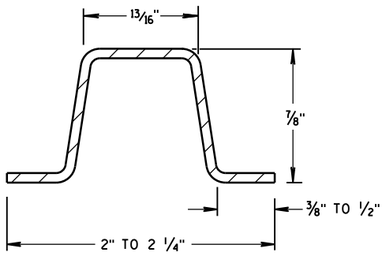
S.D.D. 15 A 4-3b

6

S.D.D. 15 A 4-3b

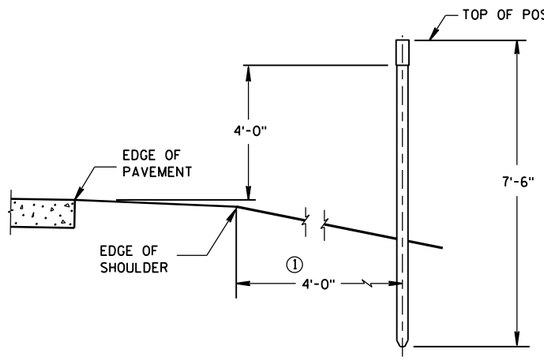


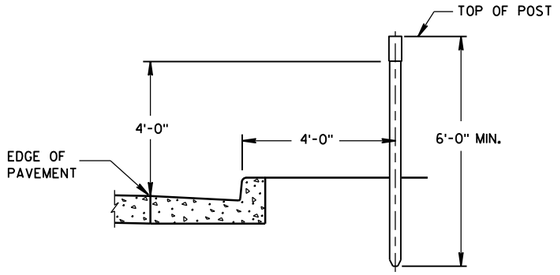

**DELINEATOR POST**




**SECTION A-A**

WEIGHT 1.12 LBS PER FT. ± 0.1 LB.




**TYPICAL INSTALLATIONS OF DELINEATOR POSTS**

## GENERAL NOTES

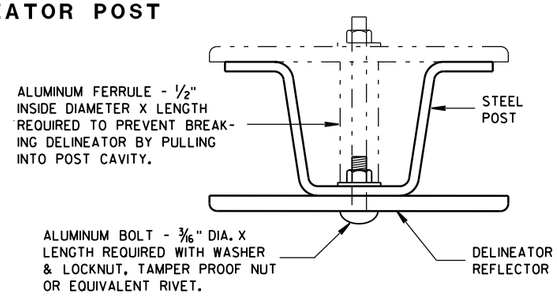
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

① DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.

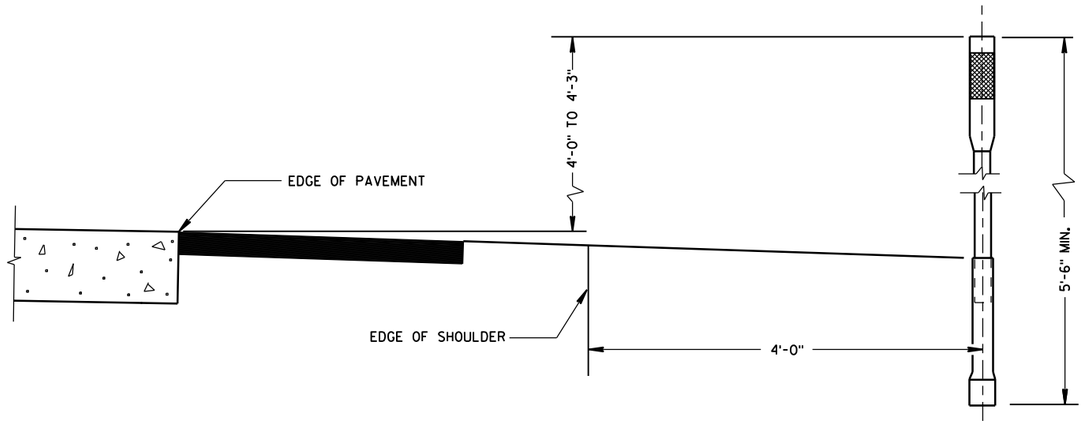
## REFLECTOR SPACING TABLE

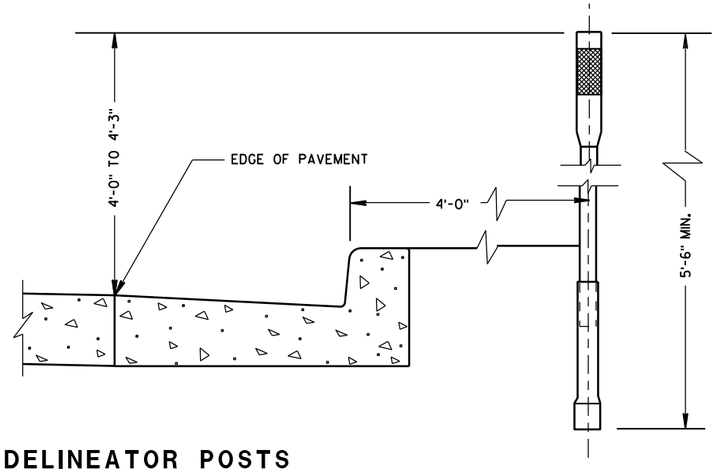
| REFLECTOR SPACING | LOCATION |
|---|---|
| 400' | MAINLINE |
| 100' | RAMPS * |

* START AT BEGINNING OF RAMP TAPER AND END AT END OF RAMP TAPER.




**MOUNTING DETAIL FOR DELINEATOR REFLECTOR**




**TYPICAL INSTALLATIONS OF FLEXIBLE DELINEATOR POSTS**

**DELINEATOR POST WITH REFLECTIVE SHEETING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA



6

S.D.D. 15 A 4-3c

6

S.D.D. 15 A 4-3c

## GENERAL NOTES

PANEL THICKNESS SHALL BE A MINIMUM OF 0.08 INCHES.

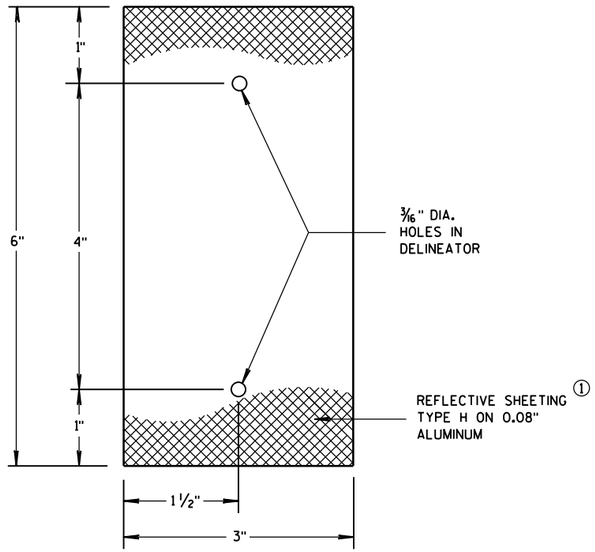
PLASTIC BASE MATERIAL SHALL BE WHITE, UV STABILIZED, FLAME TREATED TO THE MANUFACTURER SPECIFICATIONS AND BE ABLE TO WITHSTAND SUB FREEZING TEMPERATURES WITHOUT BREAKING.

① FURNISH TYPE H SHEETING FROM THE APPPROVED PRODUCTS LIST.

② FURNISH DELINEATOR REFLECTOR FOR GUARDRAIL FROM THE APPPROVED PRODUCTS LIST.

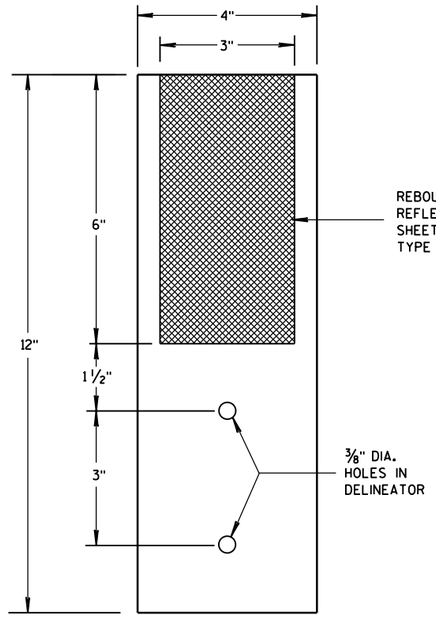
### REFLECTOR SPACING TABLE

| REFLECTOR SPACING | MINIMUM NUMBER OF REFLECTORS |
|---|---|
| 100' C-C | 3 |




3"x 6" DELINEATOR REFLECTOR

(FOR STEEL POSTS)




4"x 12" DELINEATOR REFLECTOR

(FOR GUARDRAIL) ②

DELINEATOR
WITH REFLECTIVE SHEETING

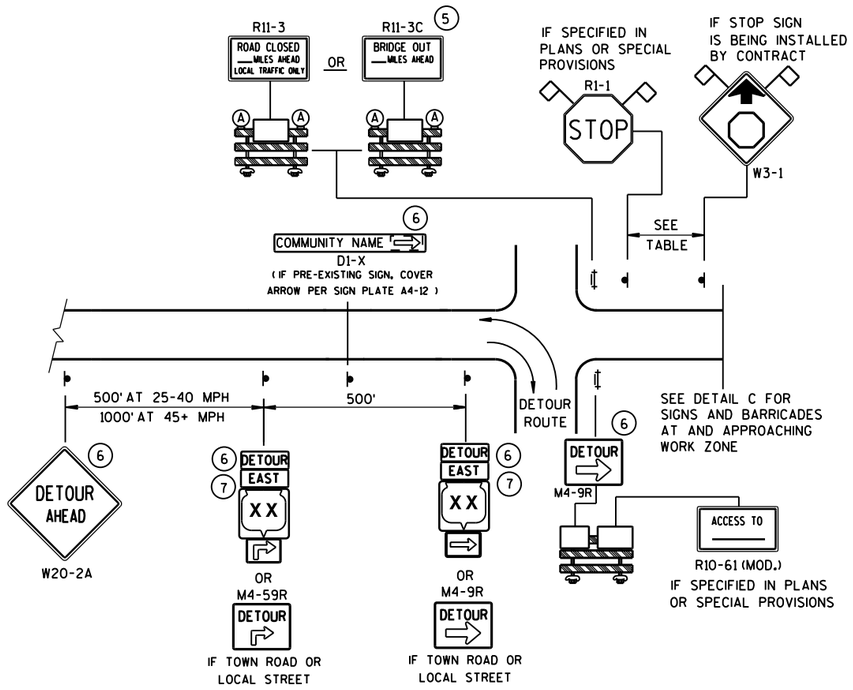
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch
STATE SIGNING AND MAR[illegible] ENGINEER
FHWA



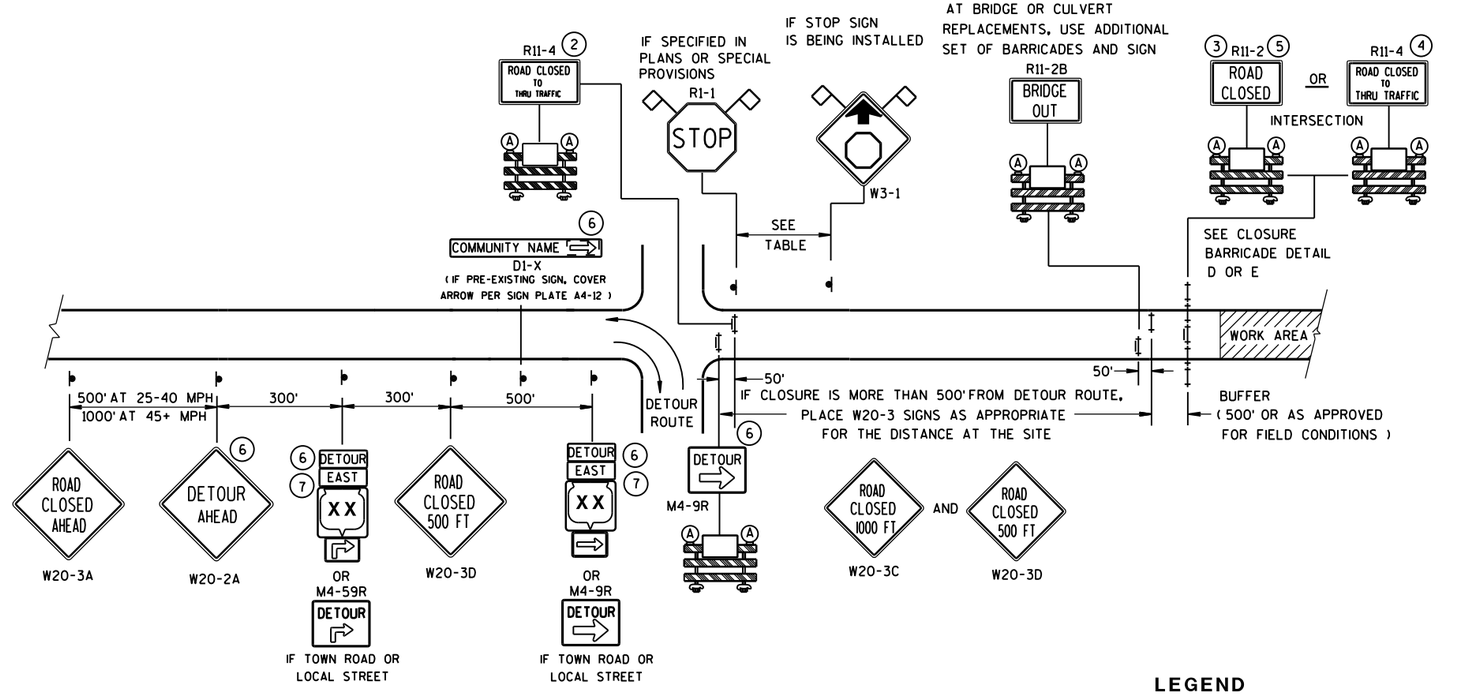

6

S.D.D. 15 A 4-3d



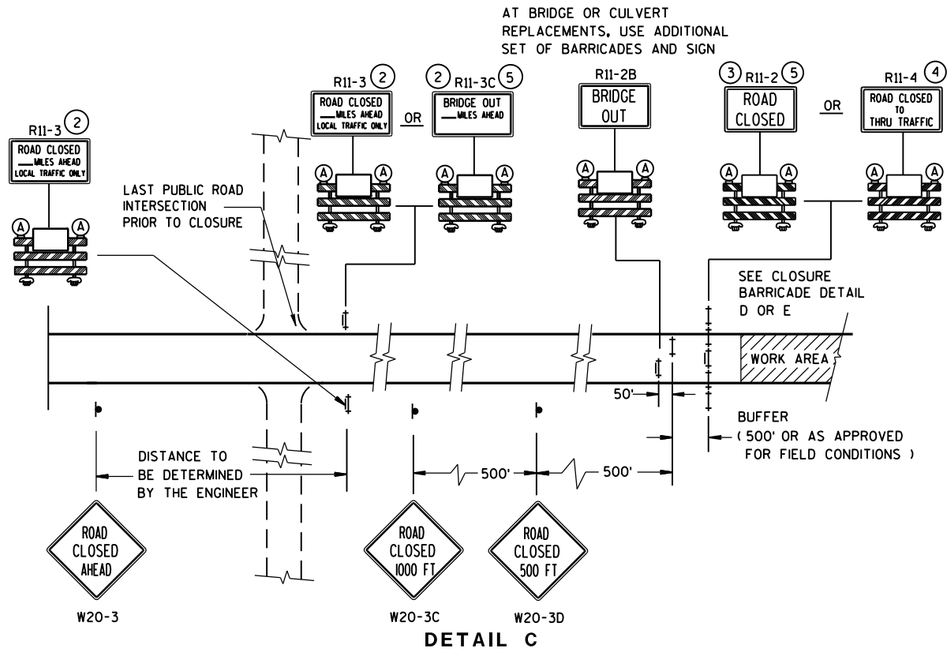

## DETAIL A
## MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE ( 1000 FEET IF URBAN )




## DETAIL B
## MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE ( 1000 FEET IF URBAN )




## DETAIL C
## MAINLINE CLOSURE, NO POSTED DETOUR

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

### LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

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

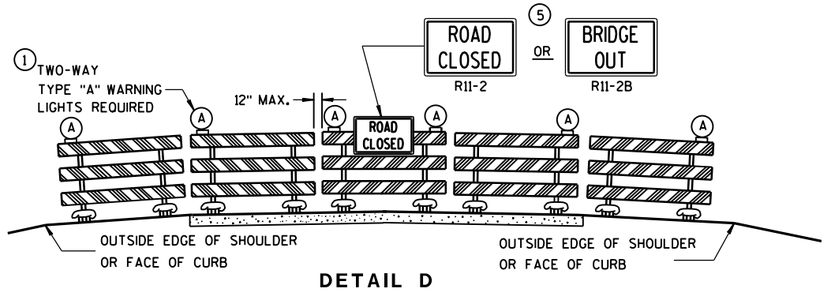
**BARRICADES AND SIGNS FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA



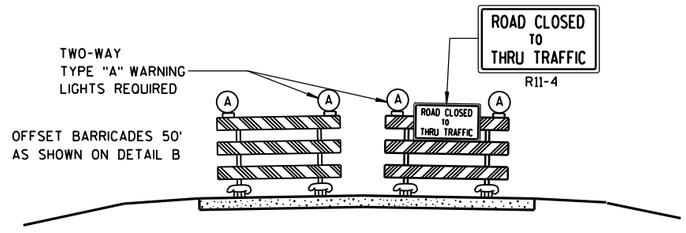
S.D.D. 15 C 2-6a




**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 BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE 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, 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". (30" X 15" 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.)
- M05-1 AND M06-1 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 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 LANE 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 MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO SAFETY ENGI — FIC

FHWA




6


S.D.D. 15 C 2-6b

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

## GENERAL NOTES

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

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

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

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

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

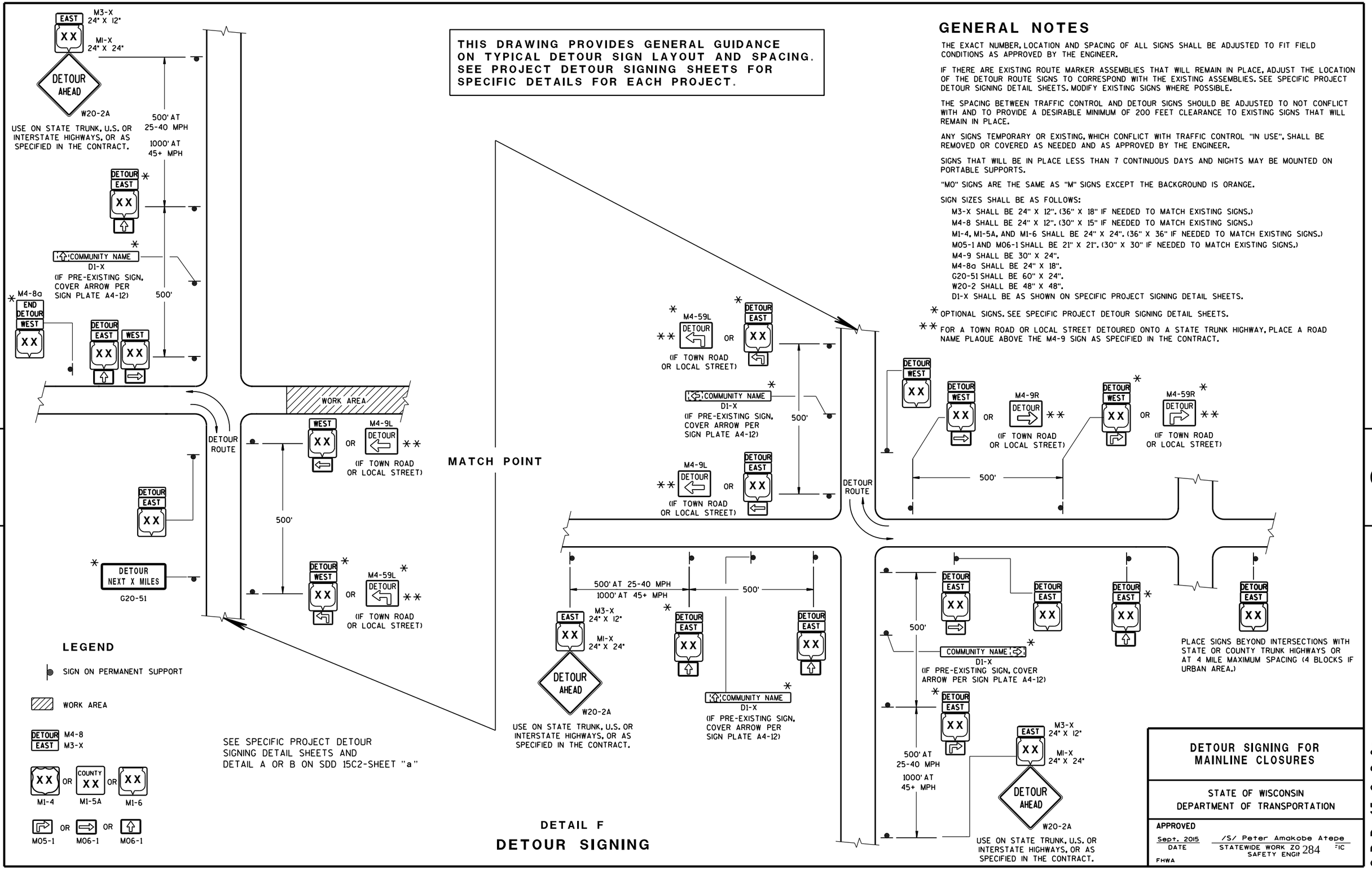
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" 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.)
- M4-9 SHALL BE 30" X 24".
- M4-8a SHALL BE 24" X 18".
- G20-51 SHALL BE 60" X 24".
- W20-2 SHALL BE 48" X 48".
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.




### LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR EAST — M4-8 / M3-X
- XX OR COUNTY XX OR XX — M1-4 / M1-5A / M1-6
- MO5-1 OR MO6-1 OR MO6-1

SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD 15C2-SHEET "a"

**DETAIL F**

**DETOUR SIGNING**

**DETOUR SIGNING FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

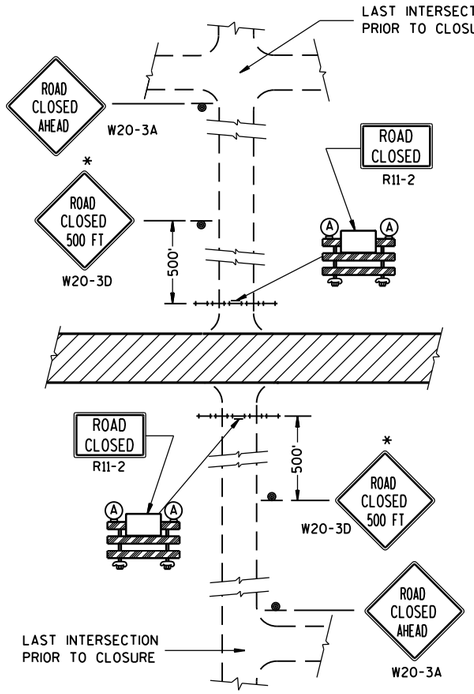
Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO... SAFETY ENGI...

FHWA

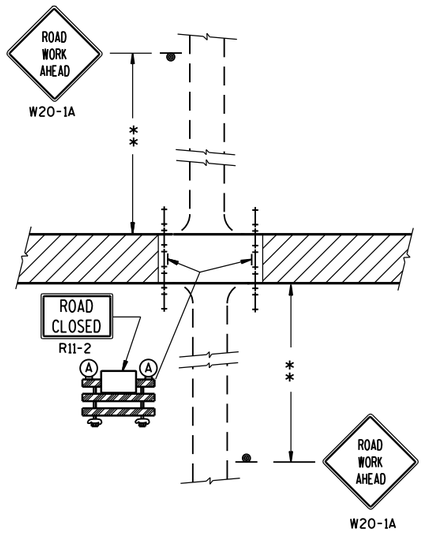



6
S.D.D. 15 C 2-6c



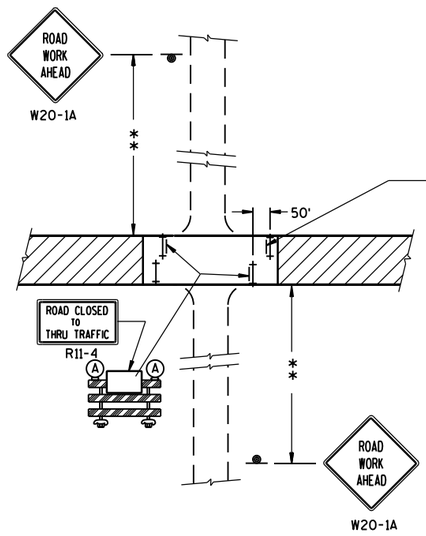

**DETAIL 1**

(NO ACCESS TO PROJECT)



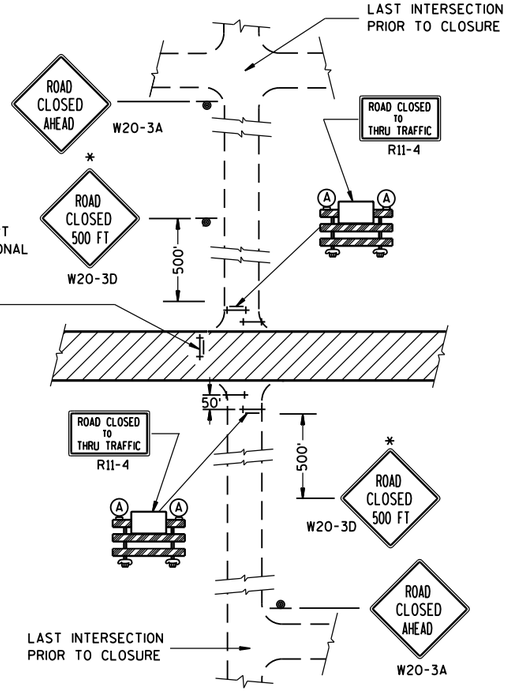

**DETAIL 2**

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




**DETAIL 3**

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS).




**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 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 RE-ESTABLISHED.

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 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 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

## LEGEND

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

**BARRICADES AND SIGNS FOR SIDEROAD CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO... SAFETY ENGI... — FHWA

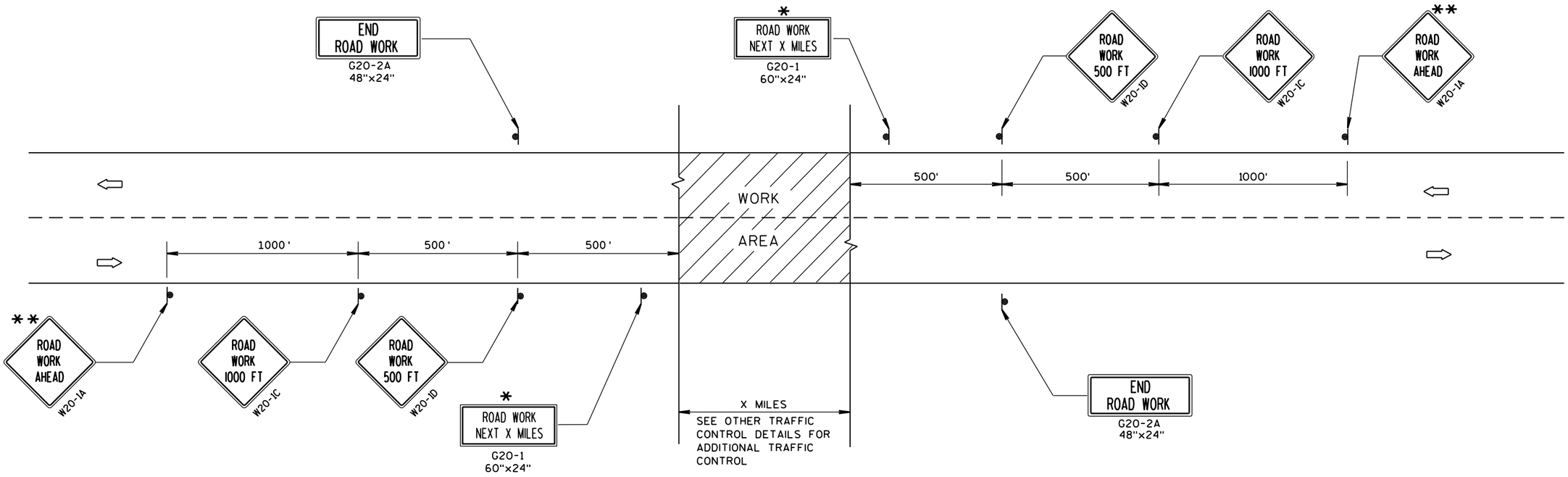


6

S.D.D. 15 C 3-3

6

S.D.D. 15 C 3-3




# TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

## GENERAL NOTES

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

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

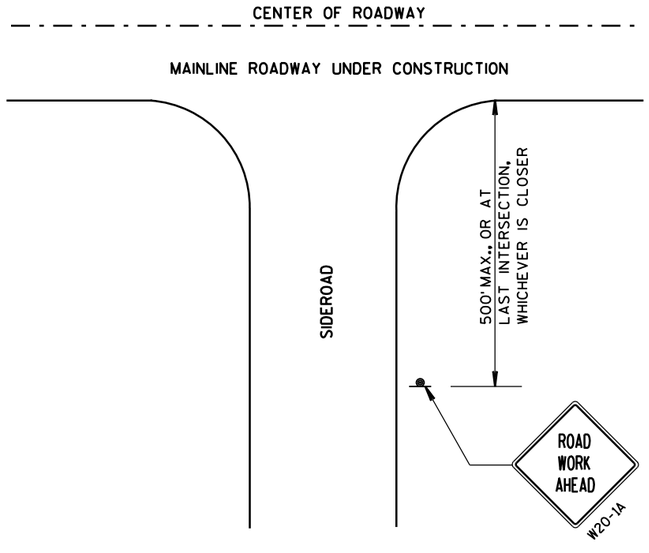
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

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




## LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER
FHWA



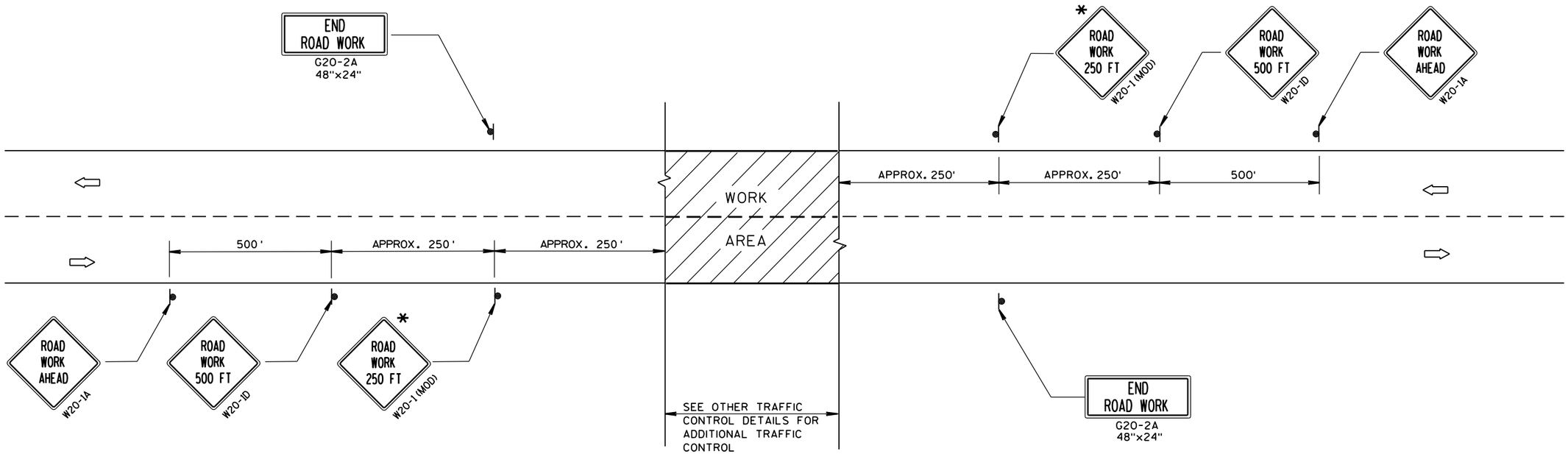
6

S.D.D. 15 C 4-3

6

S.D.D. 15 C 4-3

# TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL




## GENERAL NOTES

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

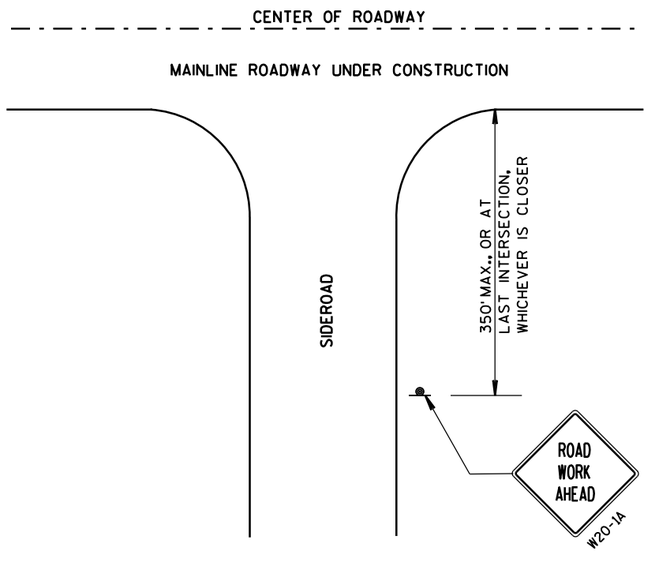
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

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

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




### LEGEND

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

**TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER
FHWA



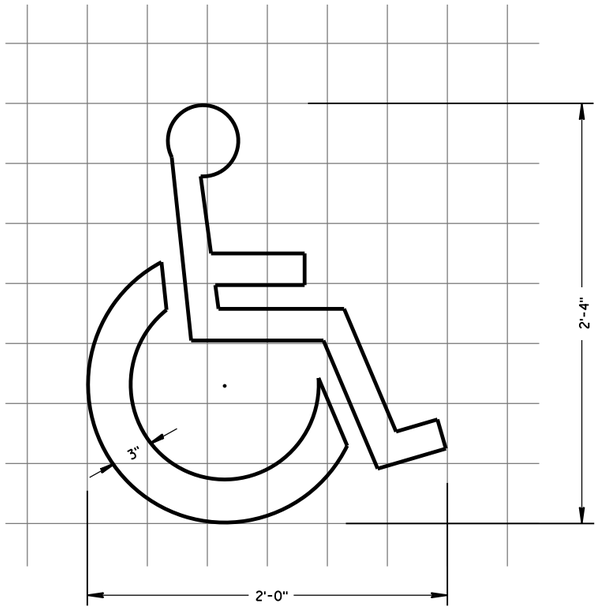


6

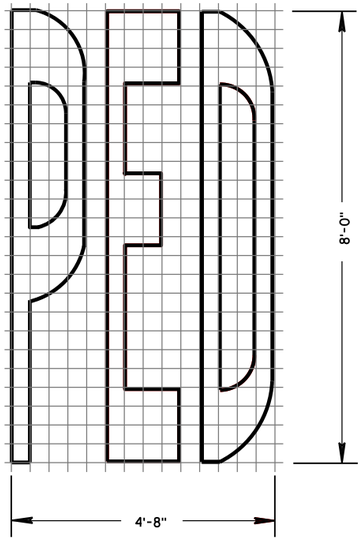
S.D.D. 15 C 5-3

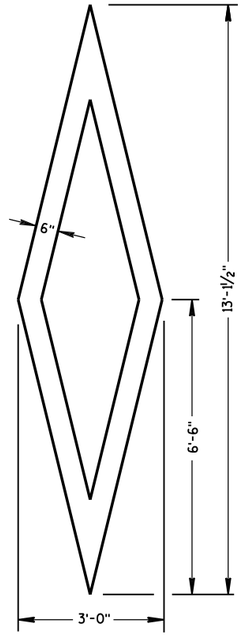
## GENERAL NOTES

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




HANDICAP SYMBOL




PREFERENTIAL LANE SYMBOL

6

6

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

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

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

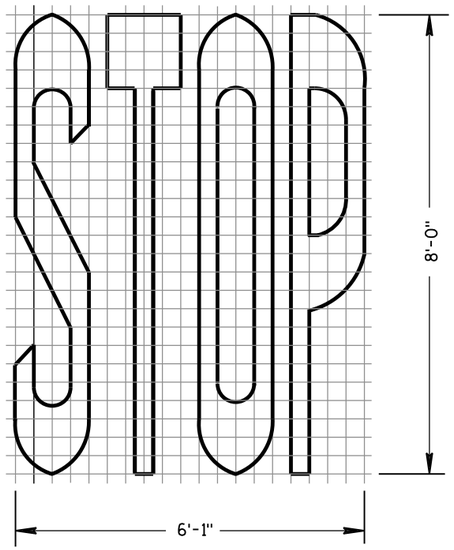
June 2017 — DATE

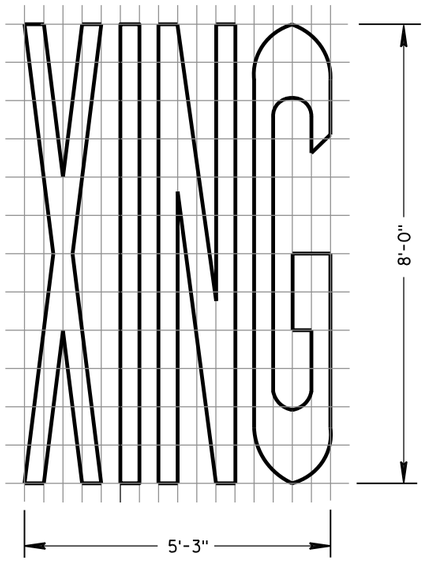
/S/ Matthew R. Rauch — STATE SIGNING AND MARK EER

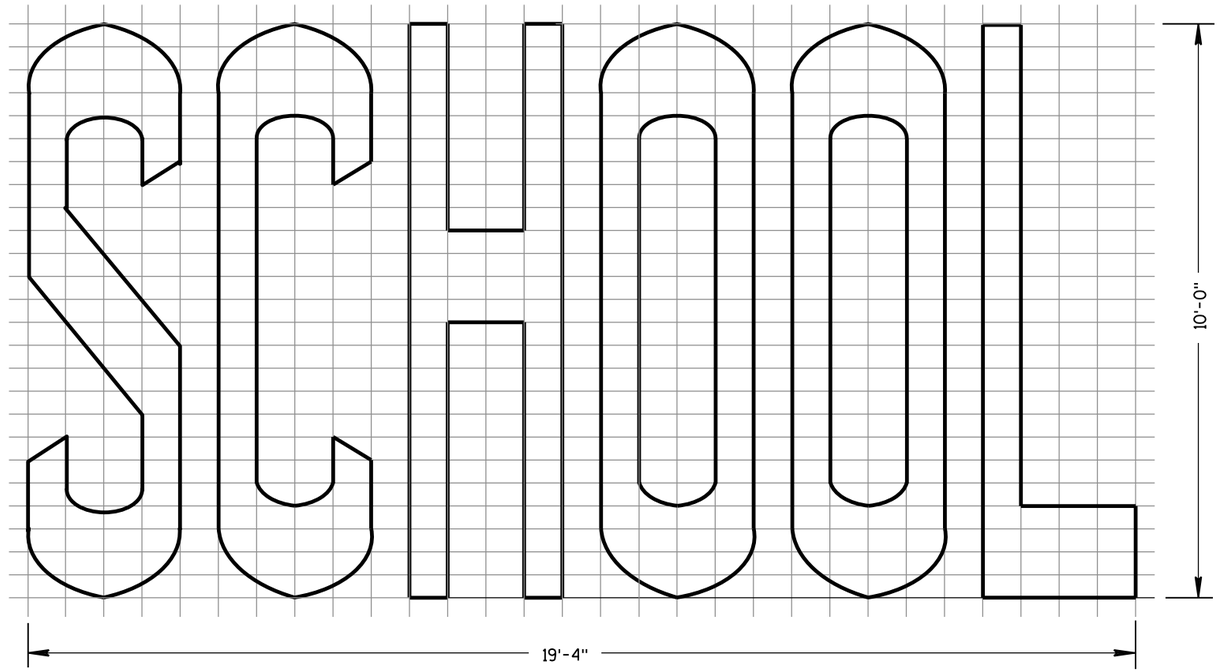
FHWA

## GENERAL NOTES

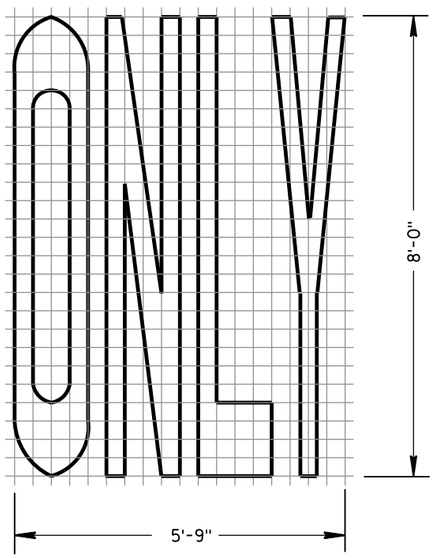
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

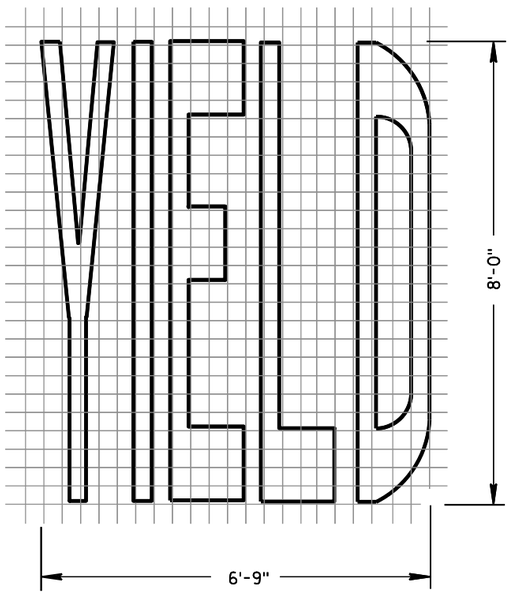


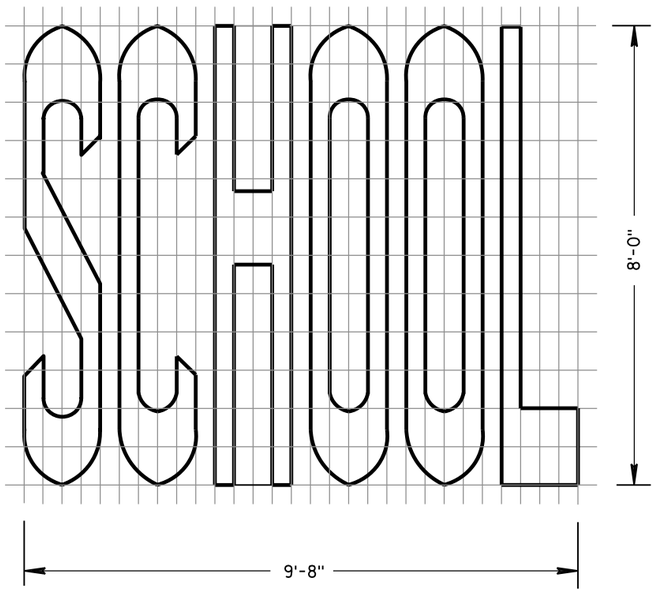




**TWO-LANE**




**SINGLE-LANE**

**PAVEMENT MARKING WORDS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

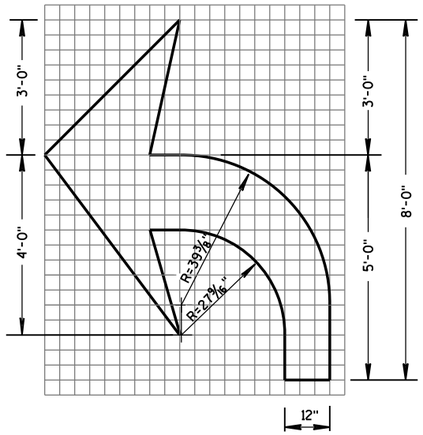


6

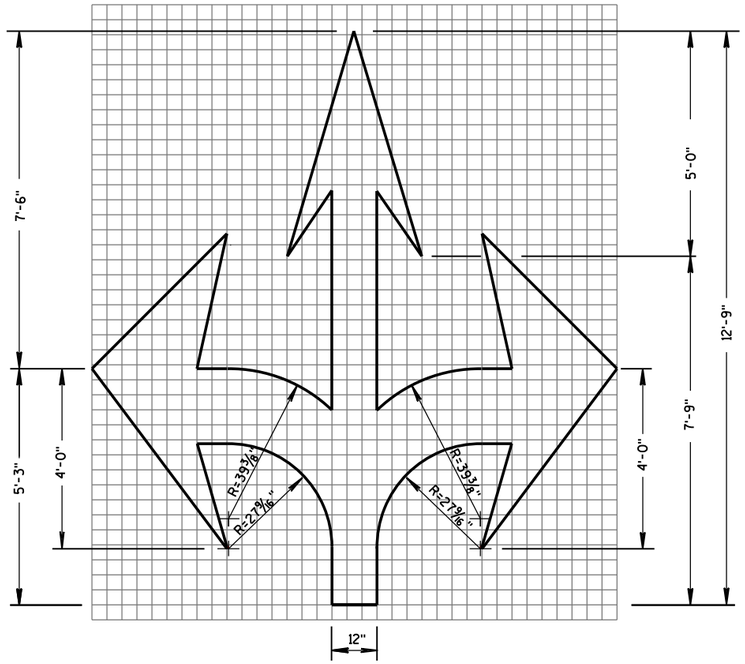
S.D.D. 15 C 7-14b

## GENERAL NOTES

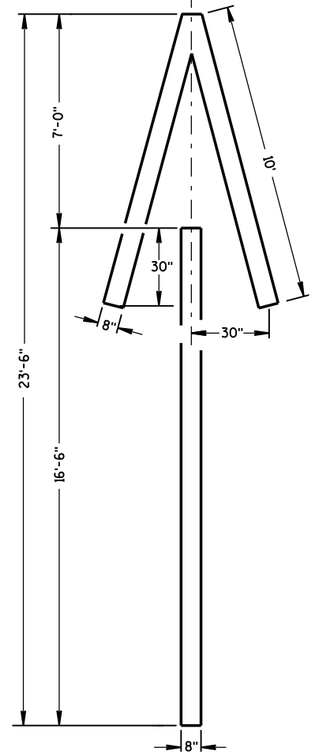
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



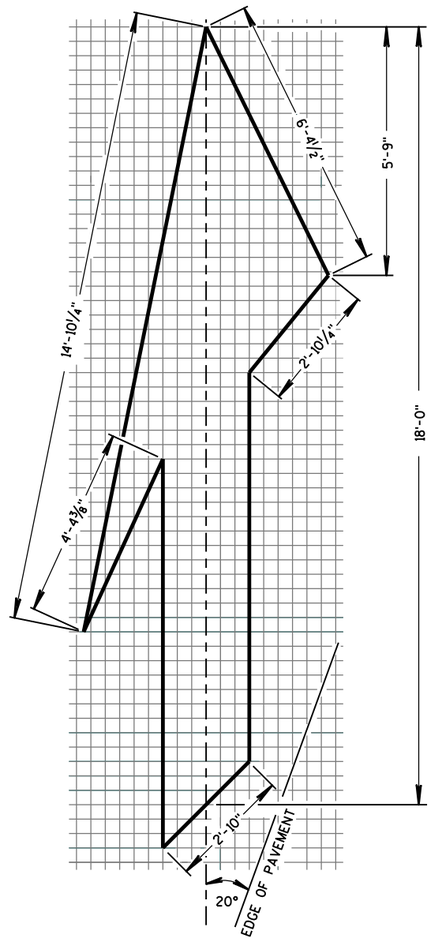

TYPE 2



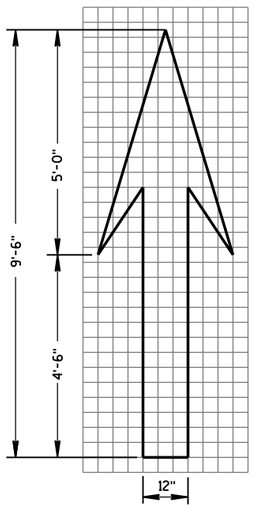

TYPE 6



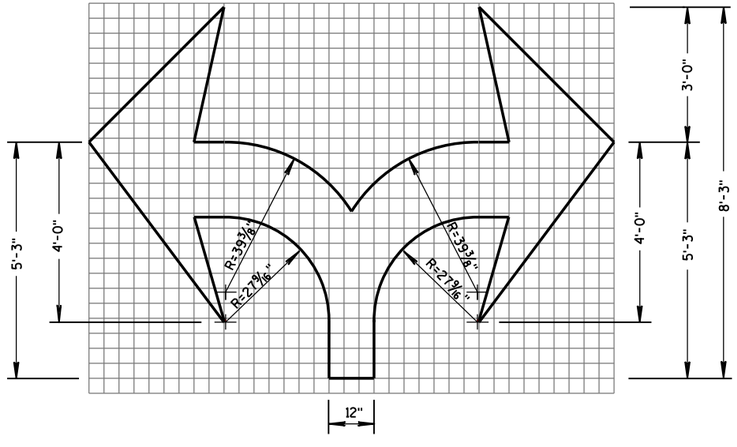

TYPE 4



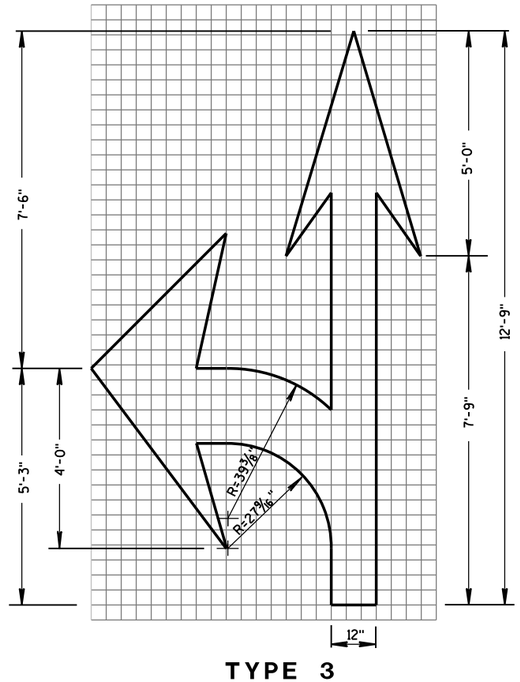

TYPE 5 LANE DROP ARROW




TYPE 1




TYPE 7




TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA



6

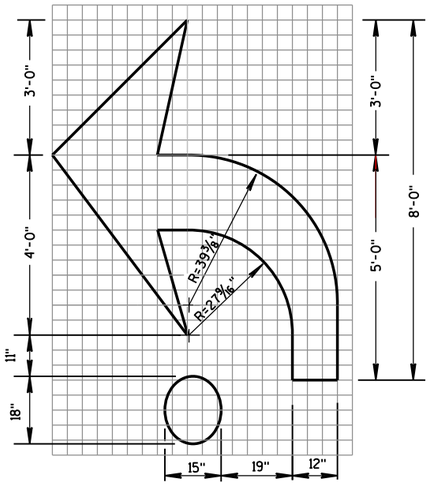
S.D.D. 15 C 7-14c

6

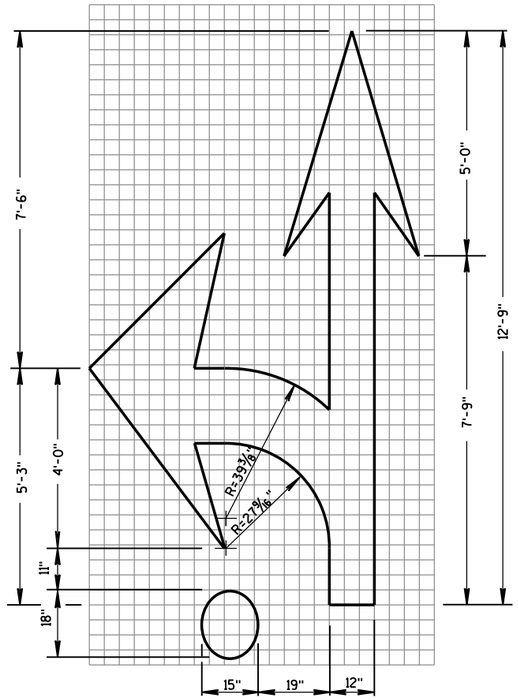
S.D.D. 15 C 7-14c

## GENERAL NOTES

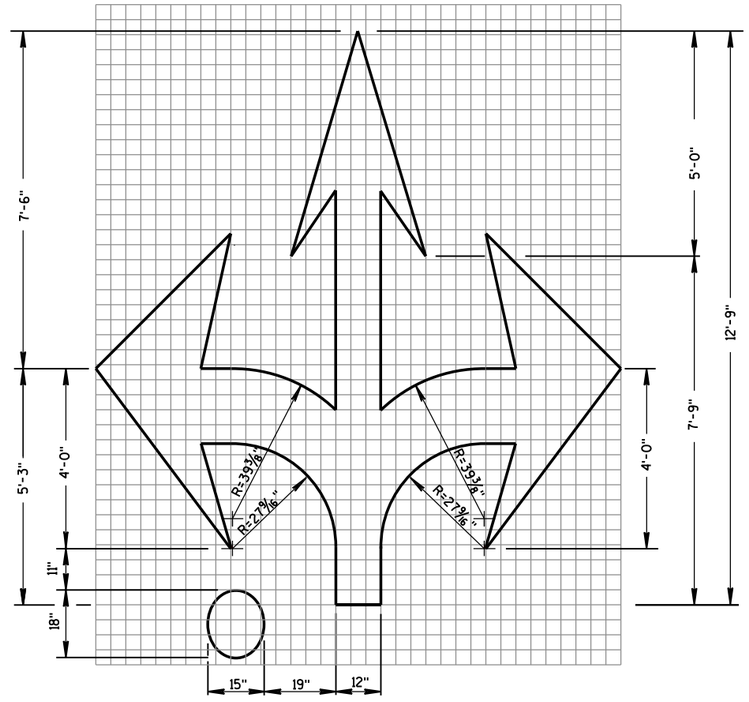
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



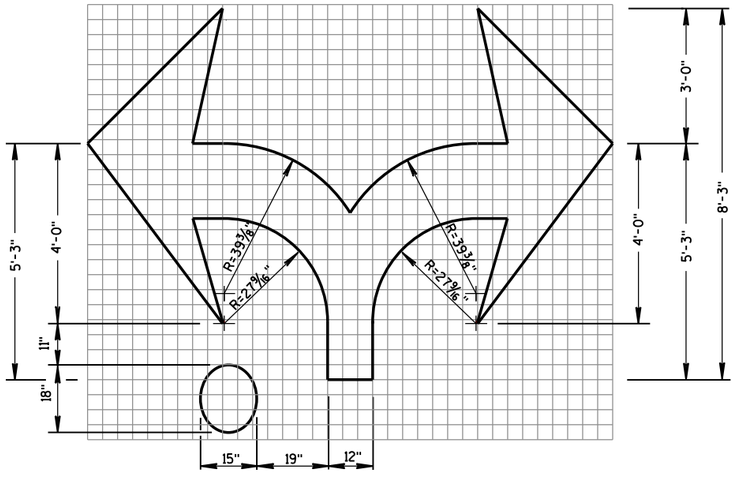

TYPE 2R




TYPE 3R




TYPE 6R




TYPE 7R

# ROUNDABOUT ARROWS

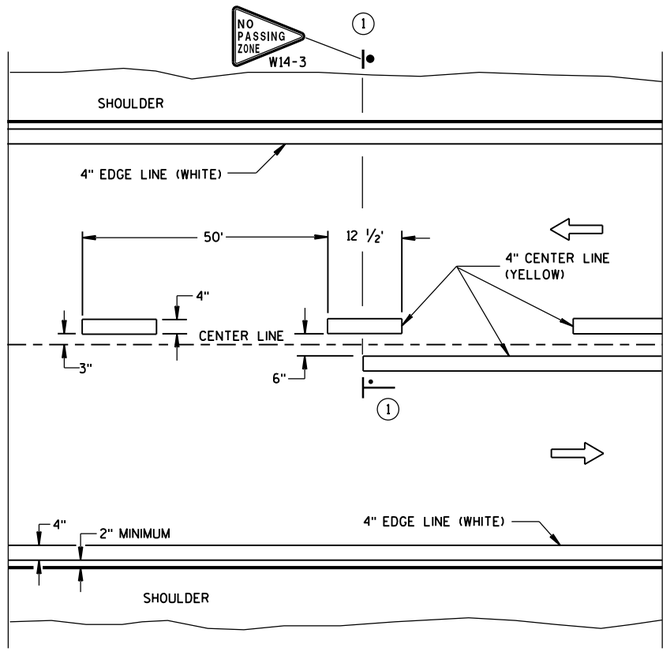
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA

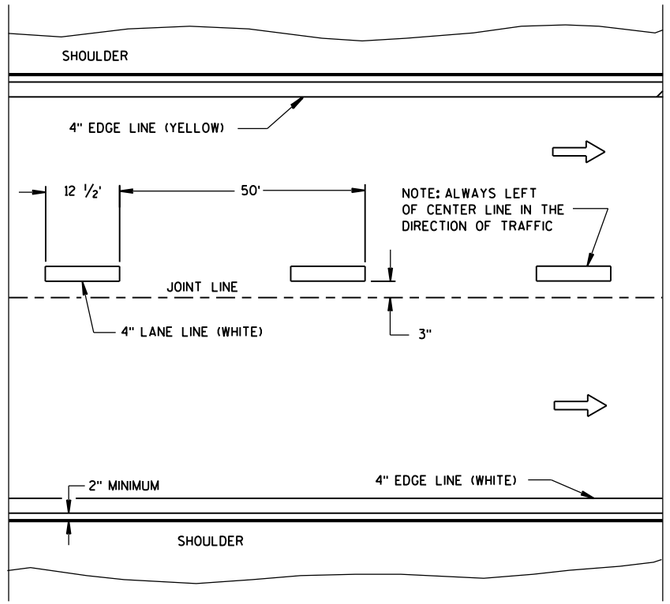



6

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




TWO WAY TRAFFIC




ONE WAY TRAFFIC

## PERMANENT PAVEMENT MARKING

## GENERAL NOTES

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

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

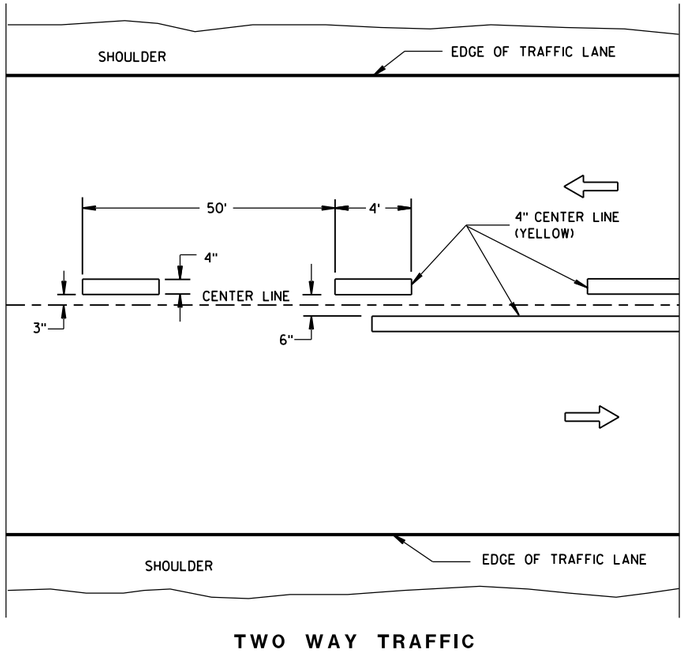
## NOTE

ARROW SYMBOL ( ⇨ ) SHOWS DIRECTION OF TRAVEL

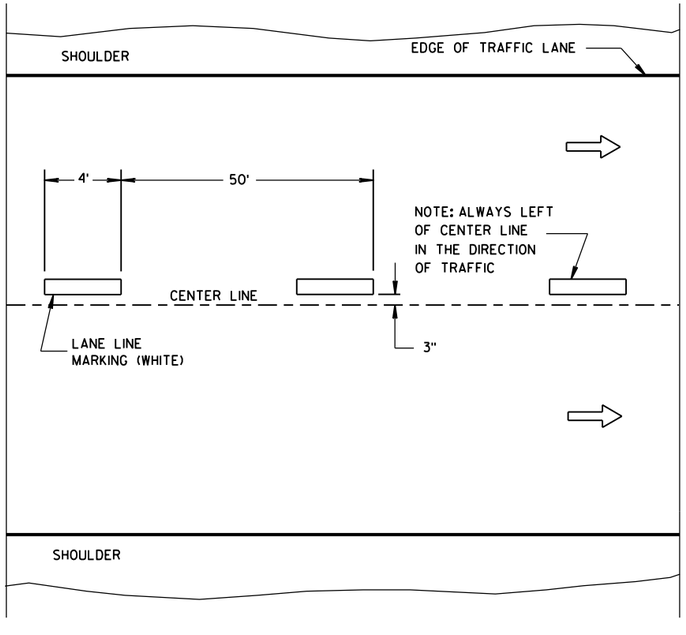
## LEGEND

"T" MARKING

POST MOUNTED SIGN




TWO WAY TRAFFIC




ONE WAY TRAFFIC

## TEMPORARY PAVEMENT MARKING

**LONGITUDINAL MARKING (MAINLINE)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA

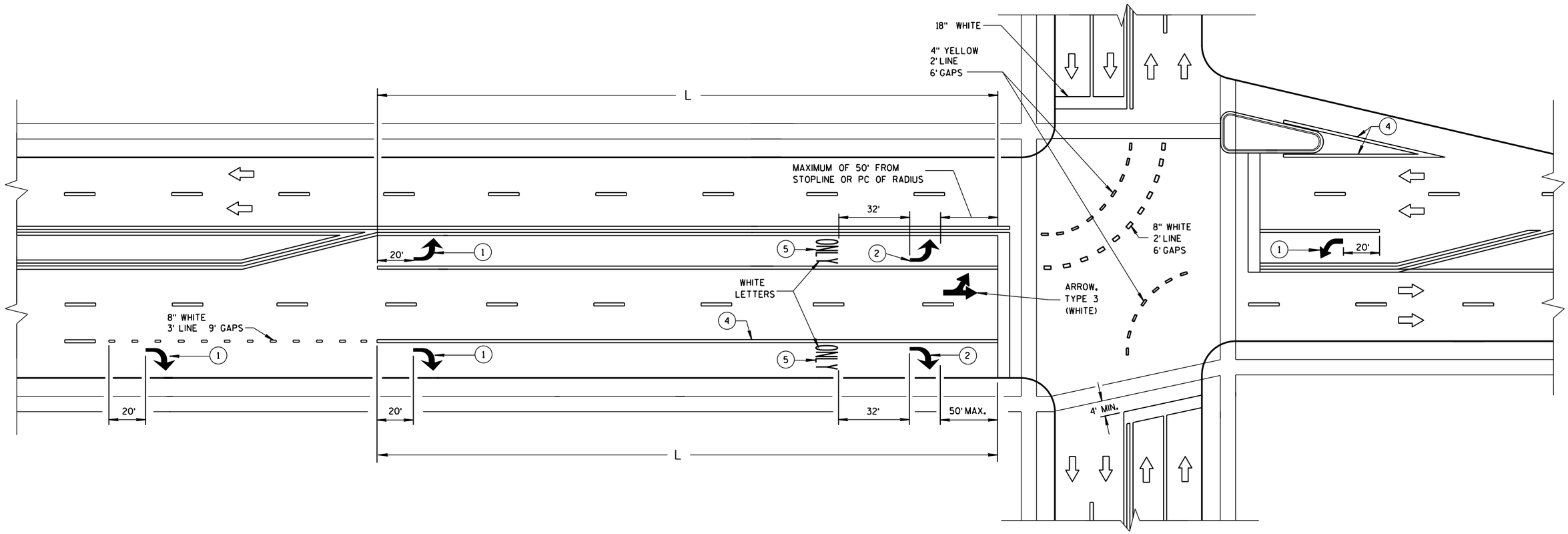


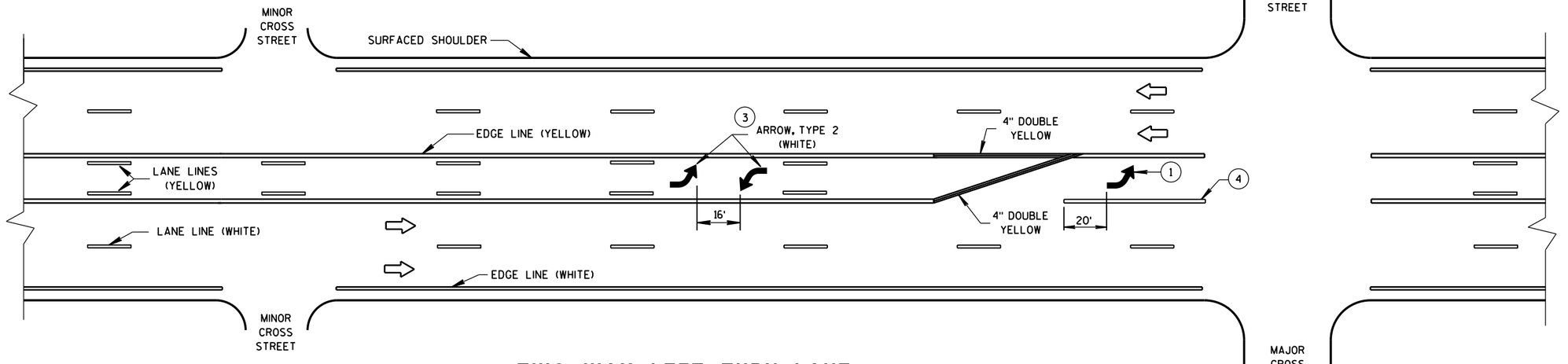
6

S.D.D. 15 C 8-18a

6

S.D.D. 15 C 8-18a




## GENERAL NOTES

(1) REQUIRED ARROW, TYPE 2 (WHITE).

(2) REQUIRED ARROW, TYPE 2 (WHITE) WHEN L IS GREATER THAN 78 FEET AND LESS THAN OR EQUAL TO 166 FEET.

(3) A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.

(4) 8" WHITE

(5) REQUIRED WORD ONLY WHEN L IS GREATER THAN 166 FEET.

NOTE:
ARROW SYMBOL ( ⇨ )
SHOWS DIRECTION OF TRAVEL

L = LENGTH OF TURN BAY

# TWO WAY LEFT TURN LANE

PAVEMENT MARKING
(TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO





6

S.D.D. 15 C 8-18b

## LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

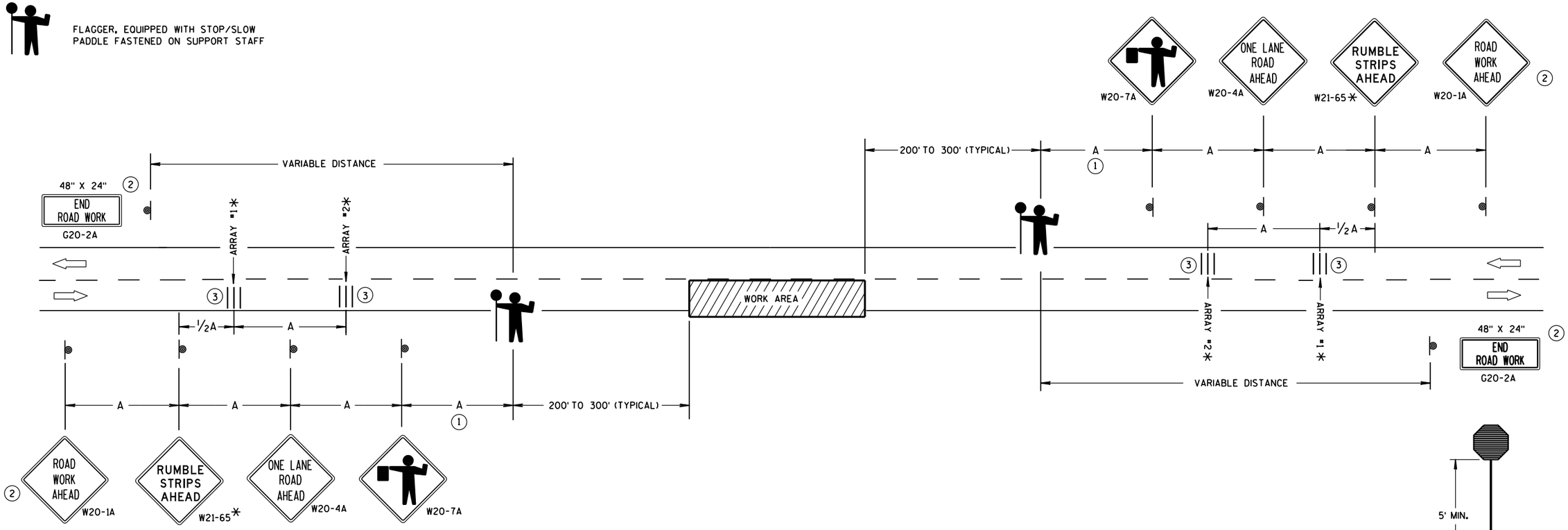
WORK AREA

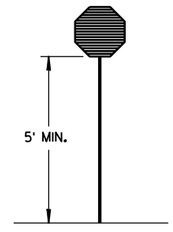
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

## SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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

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




STOP/SLOW PADDLE ON SUPPORT STAFF

# TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

## GENERAL NOTES

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

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

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

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

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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

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

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

(1) FOR A MOVING WORK OPERATION, SIGNING AND TEMPORARY RUMBLE STRIPS (IF USED) SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3,500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

(3) EACH TEMPORARY RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

**TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

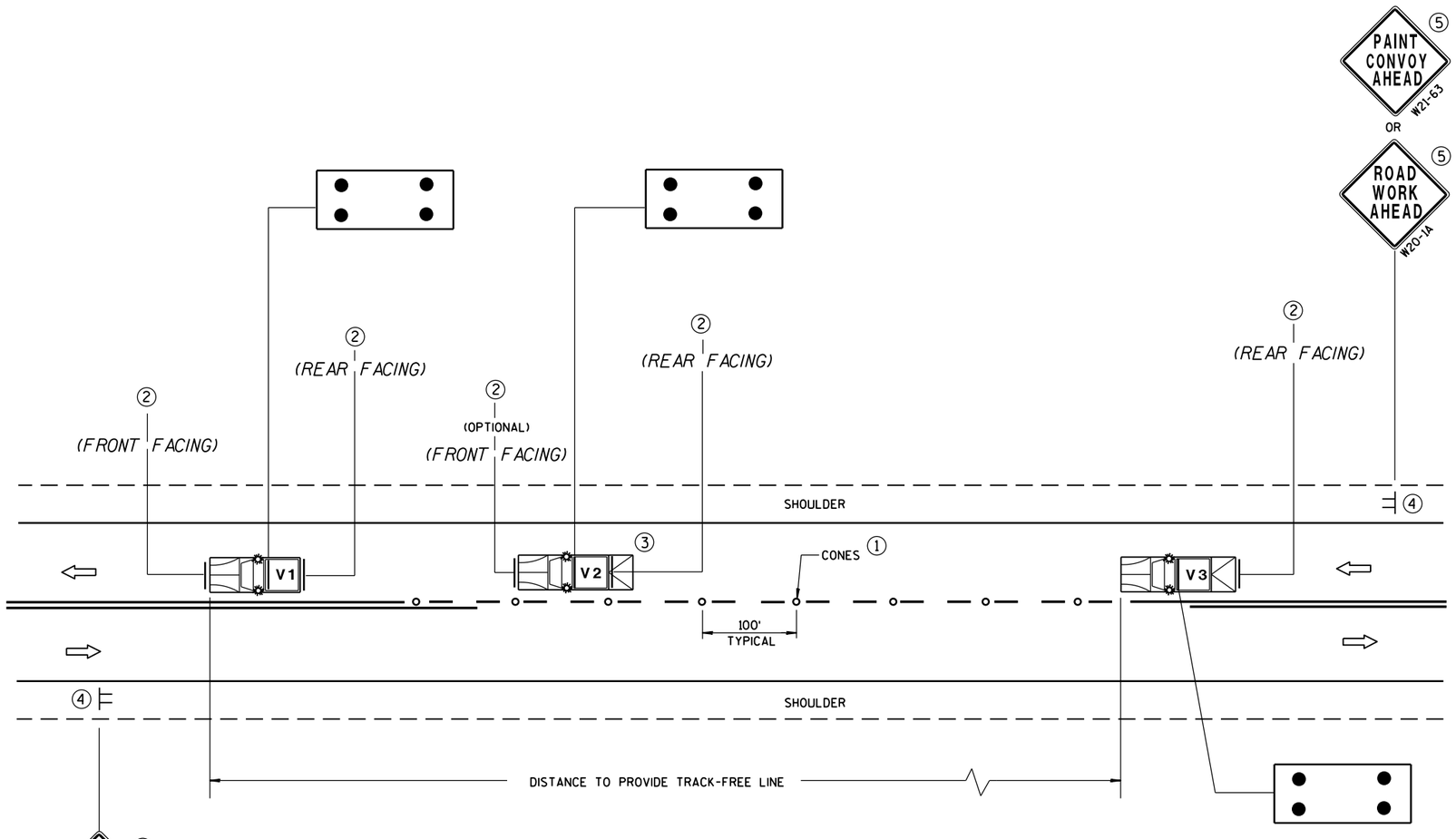


6

S.D.D. 15 C 12-6

6

S.D.D. 15 C 12-6




# MOVING PAVEMENT MARKING OPERATIONS
# TWO-LANE TWO-WAY ROADWAY

## GENERAL NOTES

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

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

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

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

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

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

THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.

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

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

(2) USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

(3) OPTIONAL TRUCK-MOUNTED ATTENUATOR.

(4) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

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

### LEGEND

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

**MOVING PAVEMENT MARKING OPERATION**
**TWO-LANE TWO-WAY ROADWAY**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZON SAFETY ENGINE
FHWA

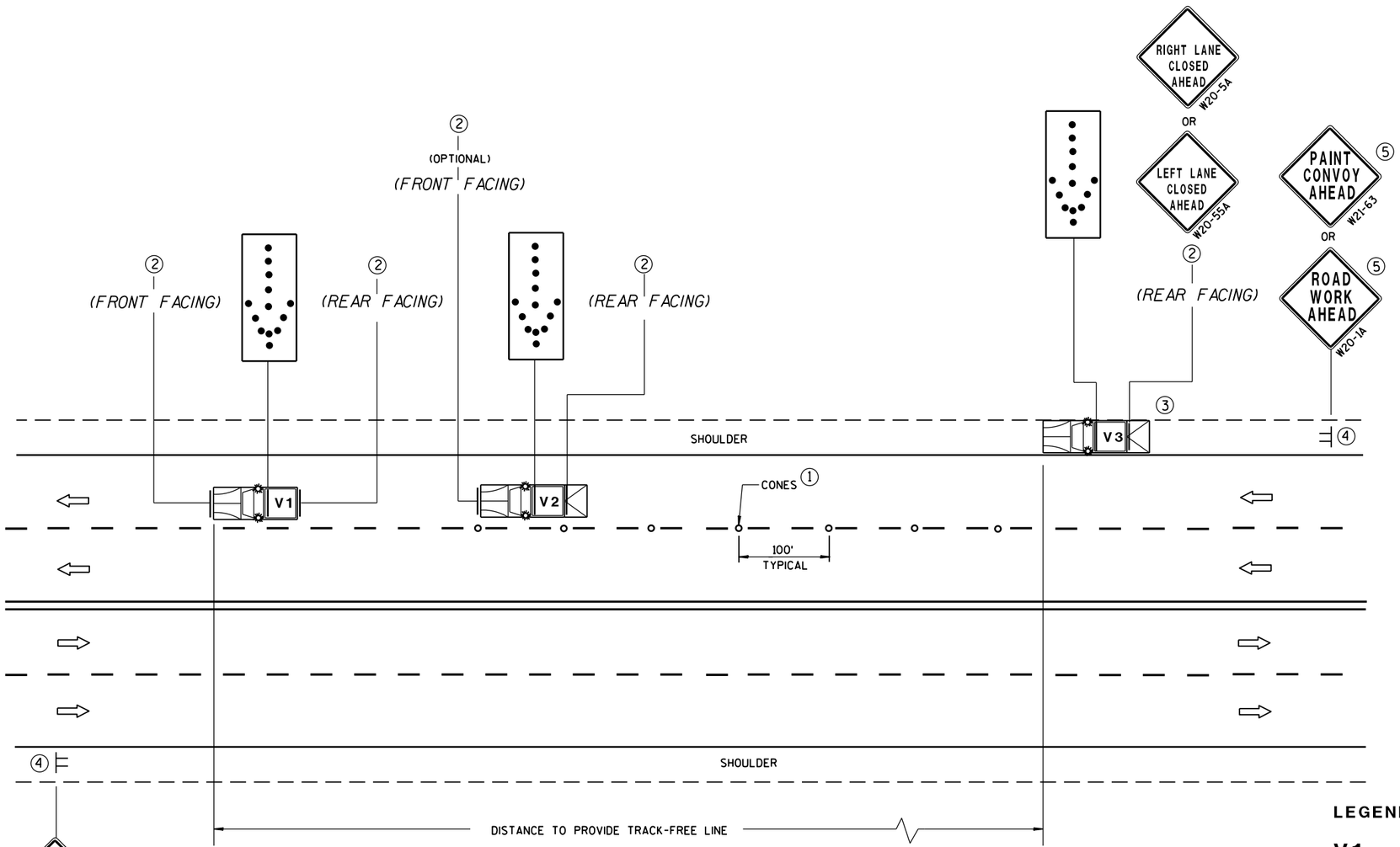


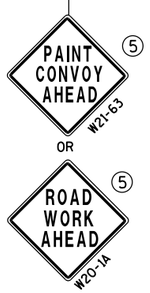
6

S.D.D. 15 C 19-4a

6

S.D.D. 15 C 19-4a




## MOVING PAVEMENT MARKING OPERATIONS
## MULTI-LANE UNDIVIDED ROADWAY

## GENERAL NOTES

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

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

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

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

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

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

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

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

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

FOR EDGELINE MARKING OR IF CONES ARE NOT USED, POSITION THE REARMOST SHADOW VEHICLE ON THE SHOULDER AS SHOWN IN THE MUTCD IF THE SHOULDER HAS ADEQUATE WIDTH.

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

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

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

(2) USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

(3) OPTIONAL TRUCK-MOUNTED ATTENUATOR.

(4) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

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

### LEGEND

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

MOVING PAVEMENT MARKING OPERATION
MULTI-LANE UNDIVIDED ROADWAY

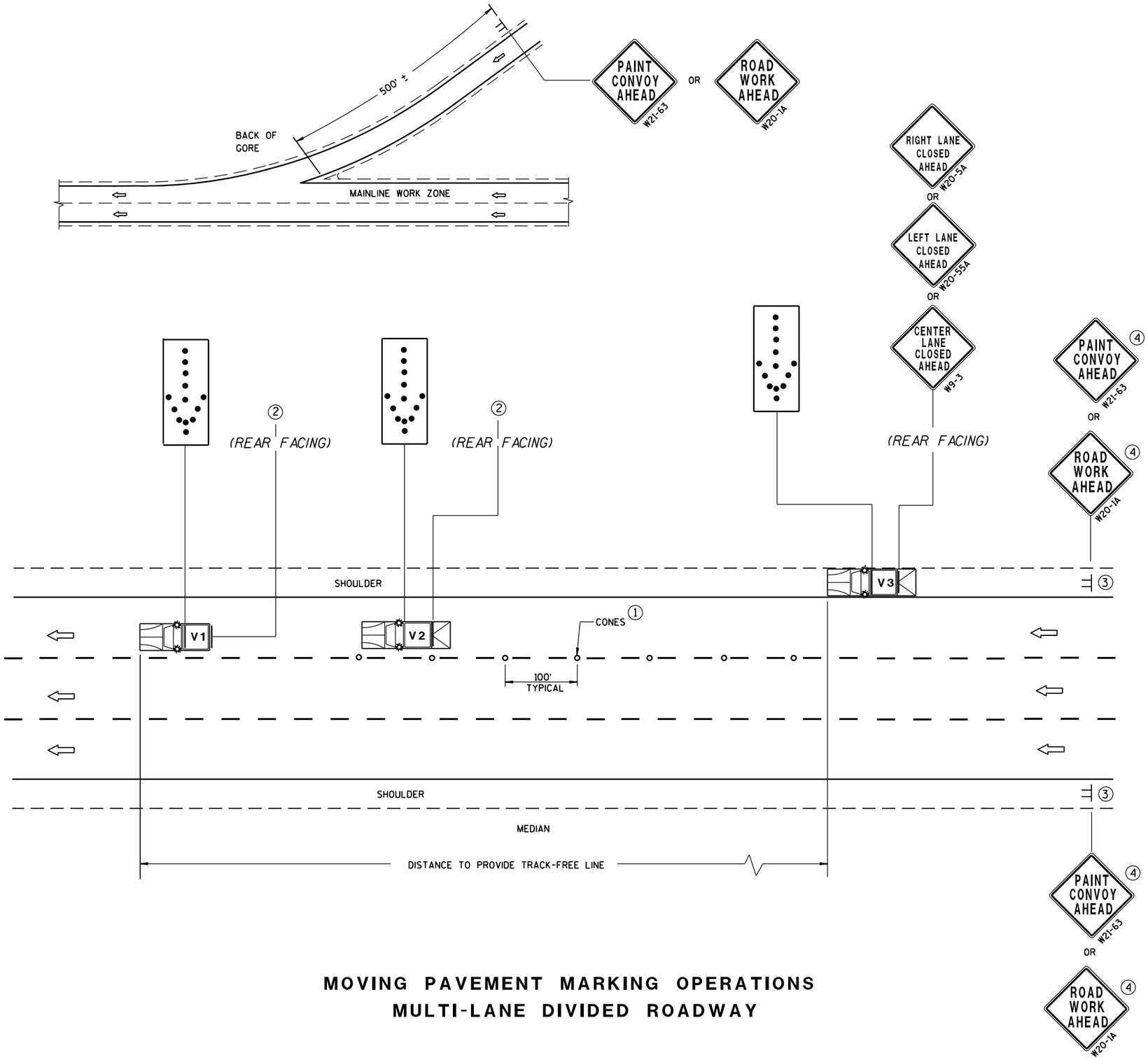
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZON SAFETY ENGINE
FHWA



6

S.D.D. 15 C 19-4b




## MOVING PAVEMENT MARKING OPERATIONS
## MULTI-LANE DIVIDED ROADWAY

## GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

(2) USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

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

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

### LEGEND

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

**MOVING PAVEMENT MARKING OPERATION**
**MULTI-LANE DIVIDED ROADWAY**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZON SAFETY ENGINI
FHWA



6

S.D.D. 15 C 19-4c

6

S.D.D. 15 C 19-4c

## GENERAL NOTES

SIGNING AND MARKING IS SHOWN AS TYPICAL PLACEMENT. FIELD CONDITIONS MAY DICTATE CHANGES IN SIGNING AND MARKING PLACEMENT.

**A** DISTANCE DEPENDENT ON SPEED (SEE TABLE)

(1) USED ONLY WHEN APPROVED BY REGION TRAFFIC ENGINEER.

### SYMBOLS

* SIGNS MAY BE OMITTED IF SPACE DOES NOT PERMIT

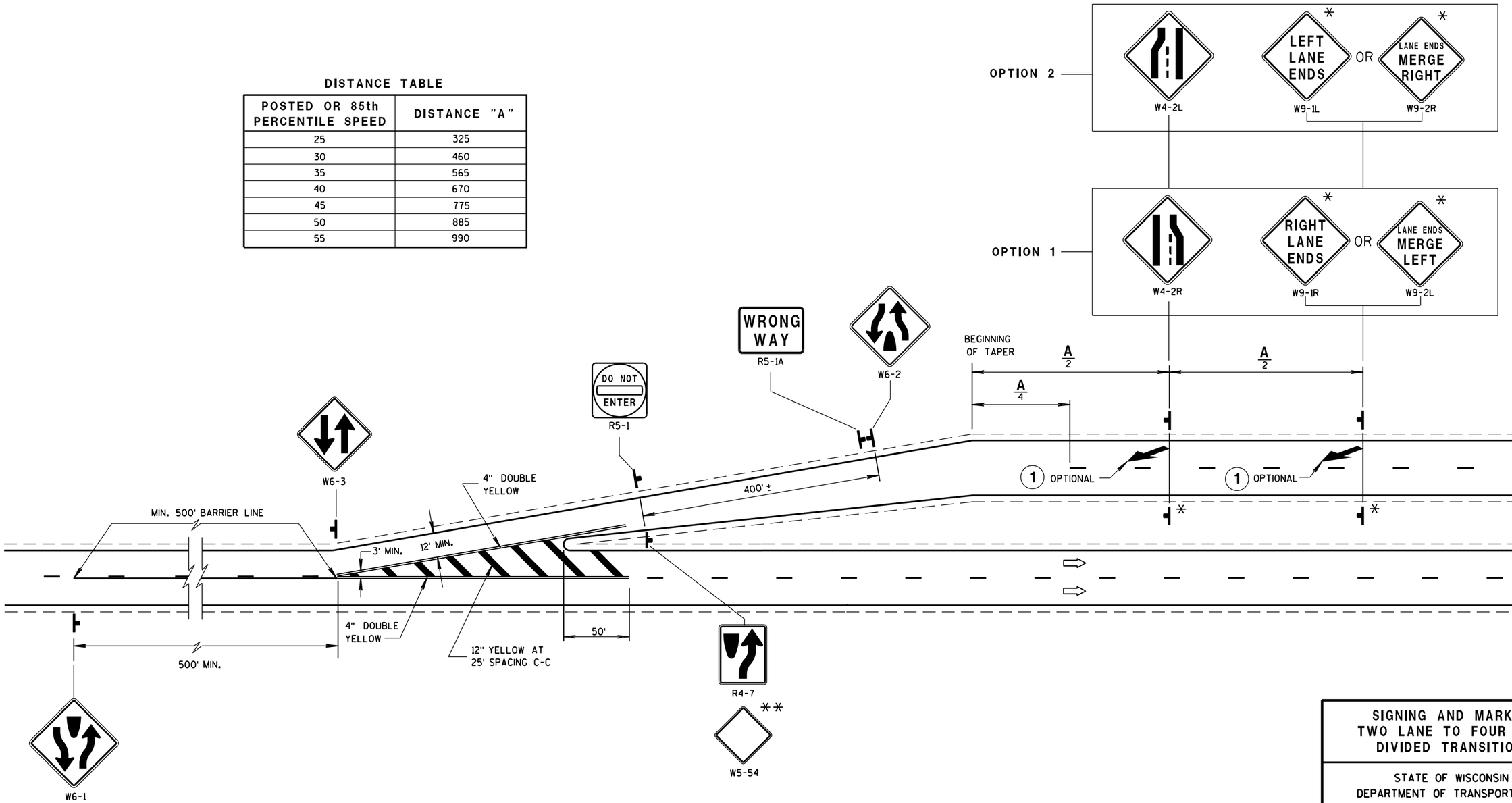
** IF POSTED SPEED 45 MPH OR GREATER, PLACE W5-54 SIGN UNDER R4-7 SIGN. MOUNT W5-54 SIGN AT 4' MOUNTING HEIGHT (TOP OF ROADWAY TO BOTTOM OF SIGN)

POST MOUNTED SIGN

DIRECTION OF TRAFFIC FLOW

### DISTANCE TABLE

| POSTED OR 85th PERCENTILE SPEED | DISTANCE "A" |
|---|---|
| 25 | 325 |
| 30 | 460 |
| 35 | 565 |
| 40 | 670 |
| 45 | 775 |
| 50 | 885 |
| 55 | 990 |




**SIGNING AND MARKING**
**TWO LANE TO FOUR LANE**
**DIVIDED TRANSITIONS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA




6

S.D.D. 15 C 21-8

## GENERAL NOTES

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR ROD STICK OUT ABOVE TOP OF CONCRETE FOOTING BASE PER FABRICATION DRAWING.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

SIGN SUPPORTS SHALL BE LOCATED NORMAL TO ROADWAY.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

BAR CAGE TO BE ASSEMBLED USING TIE WIRES ONLY, NO WELDING.

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACK FILLING AROUND THE BASE. ANY REQUIRED BACKFILL SHALL BE WELL COMPACTED IN LAYERS OF 1 FOOT OR LESS. COMPACTION SHALL BE BY MECHANICAL MEANS. CARE SHALL BE TAKEN SO NO DAMAGE OCCURS TO THE CONCRETE BASE DURING COMPACTION.

EXCAVATION OF MATERIALS NOT OCCUPIED BY CONCRETE SHALL BE MINIMIZED TO REDUCE DISTURBANCE OF THE SURROUNDING SOILS.

THE BOTTOM OF THE DRILLED HOLE SHALL BE FIRM AND THOROUGHLY CLEANED SO NO LOOSE OR COMPRESSIBLE MATERIALS ARE PRESENT AT THE TIME OF THE CONCRETE PLACEMENT.

IF THE DRILLED HOLE CONTAINS STANDING WATER, THE CONCRETE SHALL BE PLACED USING A TREMIE TO DISPLACE THE WATER.

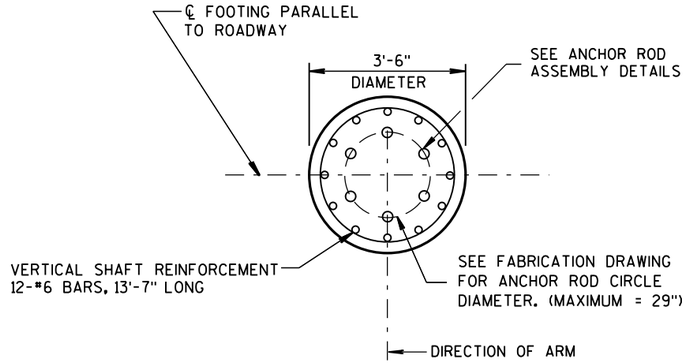
THE REINFORCEMENT AND ANCHOR RODS SHALL BE ADEQUATELY SUPPORTED IN THE PROPER POSITIONS SO NO MOVEMENT OCCURS DURING CONCRETE PLACEMENT.

FORM ALL EXPOSED CONCRETE CORNERS WITH ¾" CHAMFER ALL AROUND. TOP OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

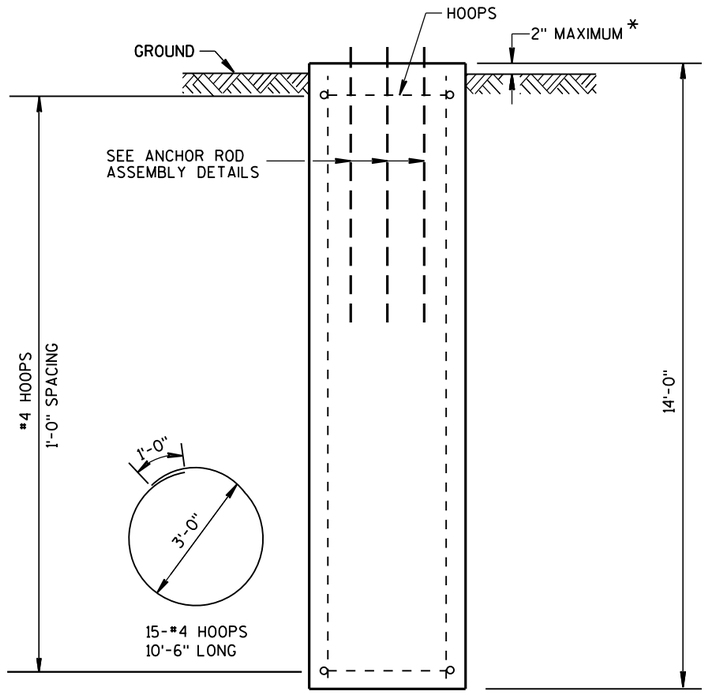
ANY DAMAGE TO THE CONCRETE BASE AND ANCHOR RODS DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED AT THE ENGINEER'S DIRECTION, AT THE EXPENSE OF THE CONTRACTOR.

| | |
|---|---|
| CONCRETE MASONRY | fc=3,500 p.s.i. |
| HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60 | fy=60,000 p.s.i. |
| ANCHOR RODS, ASTM F1554, GRADE 55 | fy=55,000 p.s.i. |
| ASTM A563A HEAVY HEX NUTS, AND ASTM F436 WASHERS. | |
| PLATES, ASTM A709, GRADE 36 | fy=36,000 p.s.i. |

THIS FOOTING HAS BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 20 DEGREES (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 350 PSF (COHESIVE SOILS).

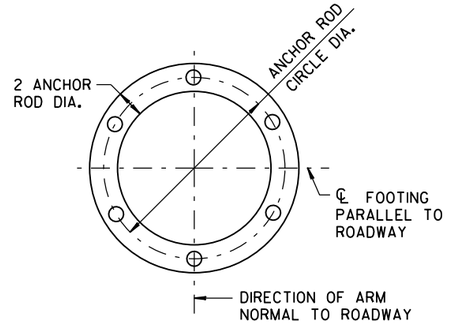



**PLAN VIEW**

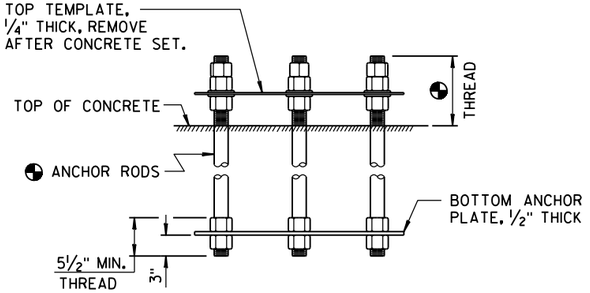



**ELEVATION VIEW**

* FOR OVERHEAD SIGN SUPPORTS THAT ARE INSTALLED ADJACENT TO SIDEWALKS, THE TOP OF THE BASE SHALL BE POURED FLUSH WITH THE GROUND.




## TOP TEMPLATE AND BOTTOM ANCHOR PLATE




## ANCHOR ROD ASSEMBLY DETAILS

⊕ MINIMUM OF 6 ANCHOR RODS, EXACT NUMBER, SIZE, DIMENSION AND ORIENTATION AS SHOWN ON FABRICATION DRAWING.

CONCRETE - 5.0 C.Y. PER FOOTING
H.S. REINFORCEMENT - 350 LBS. PER FOOTING

**42" DIAMETER CANTILEVER OVERHEAD SIGN SUPPORT BASE**

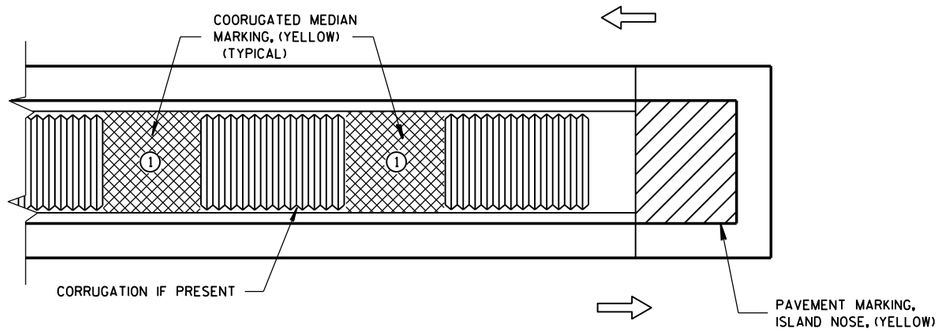
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
/S/ Vu Thao — WIND LOADED STR PROGRAM LEA
FHWA

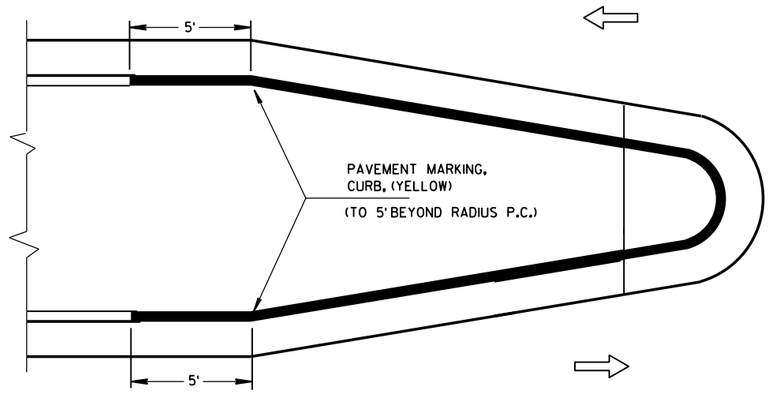



6

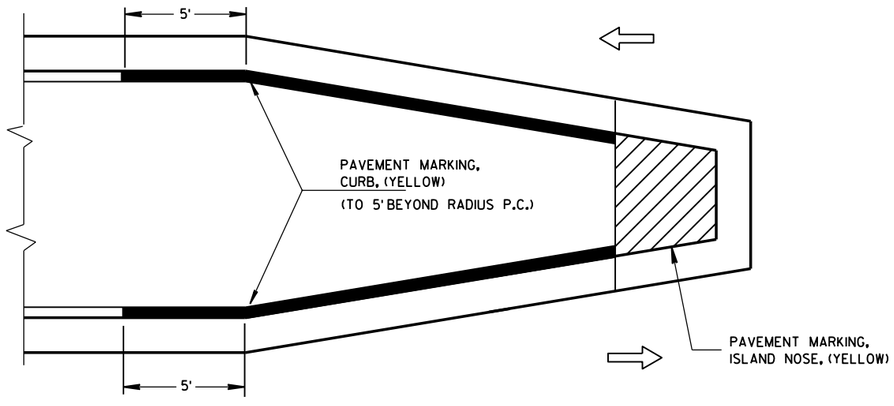
S.D.D. 15 C 25-4




MEDIAN ISLAND WITH SQUARE BLUNT NOSE




MEDIAN ISLAND WITH ROUND BLUNT NOSE




MEDIAN ISLAND WITH SLOPED NOSE

## TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

## GENERAL NOTES

(1) WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

ISLAND NOSE MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL

PAVEMENT MARKING
(ISLANDS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017
DATE

/S/ Matthew Rauch
STATE SIGNING AND MARK 300 ENGINEER

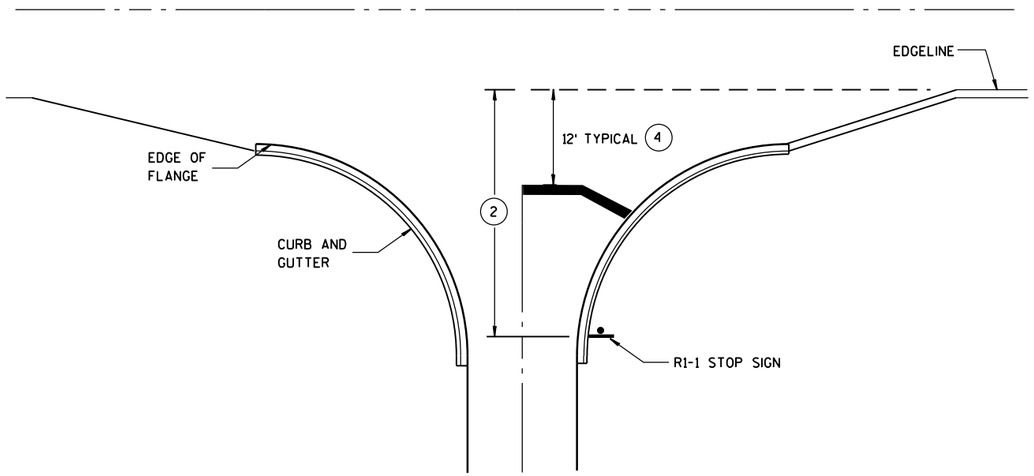
FHWA

6

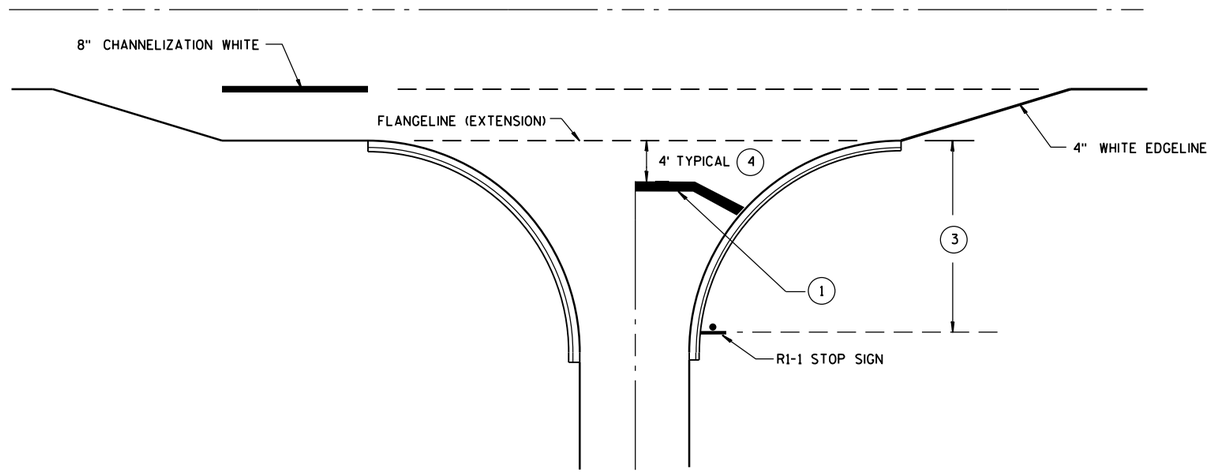
S.D.D. 15 C 27-2b

6

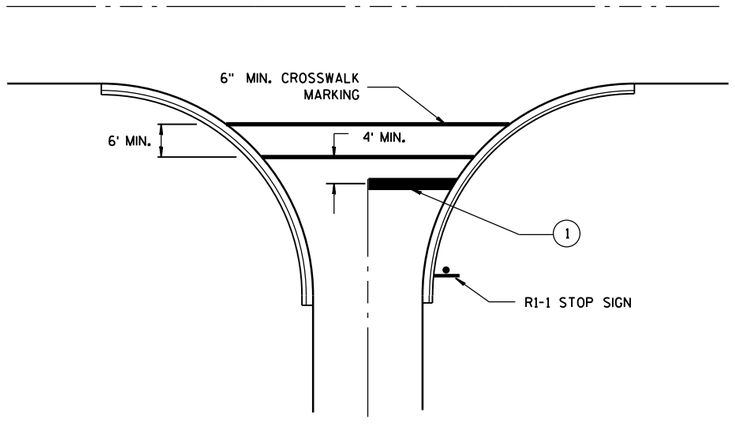
S.D.D. 15 C 27-2b



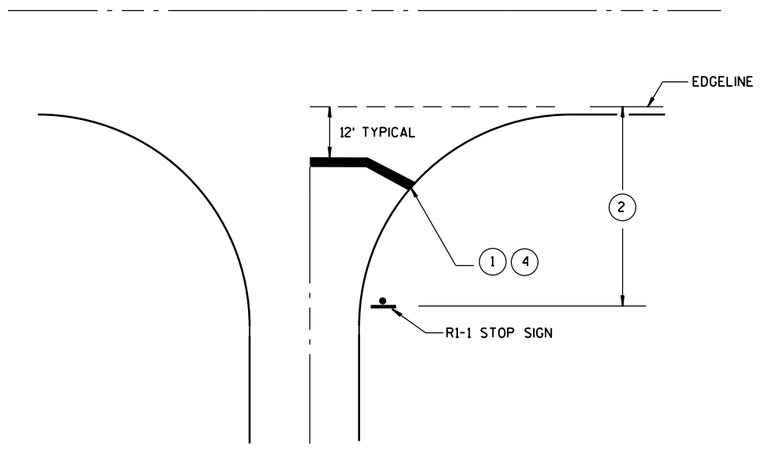

**TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER**




**TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE**




**TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING**




**TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER**

## GENERAL NOTES

1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.
3. IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
4. MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES. (NO CLOSER THAN 4 FEET).

**STOP LINE AND CROSSWALK PAVEMENT MARKING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

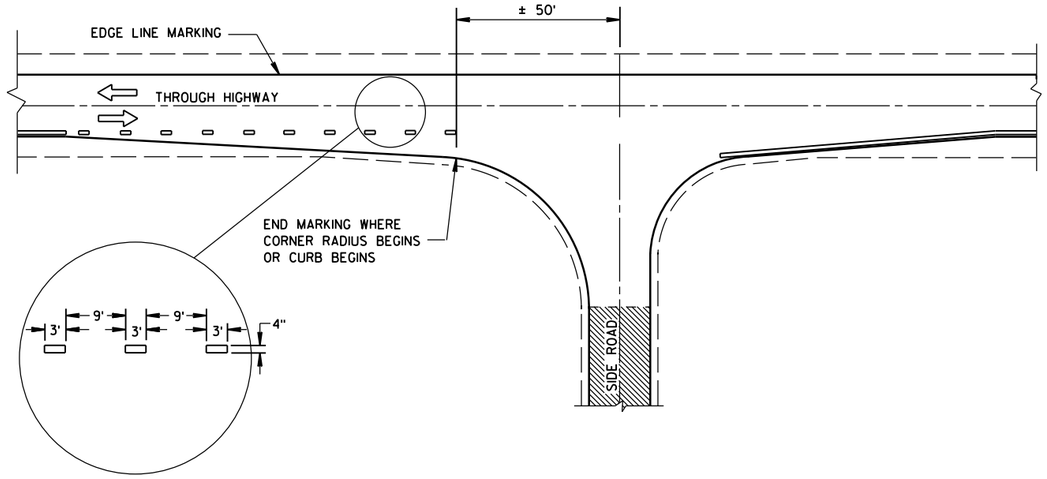
4-18-2016
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAR 301 NEER

FHWA


6

S.D.D. 15 C 33-2




## MINOR INTERSECTION WITHOUT CURBS

## GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.

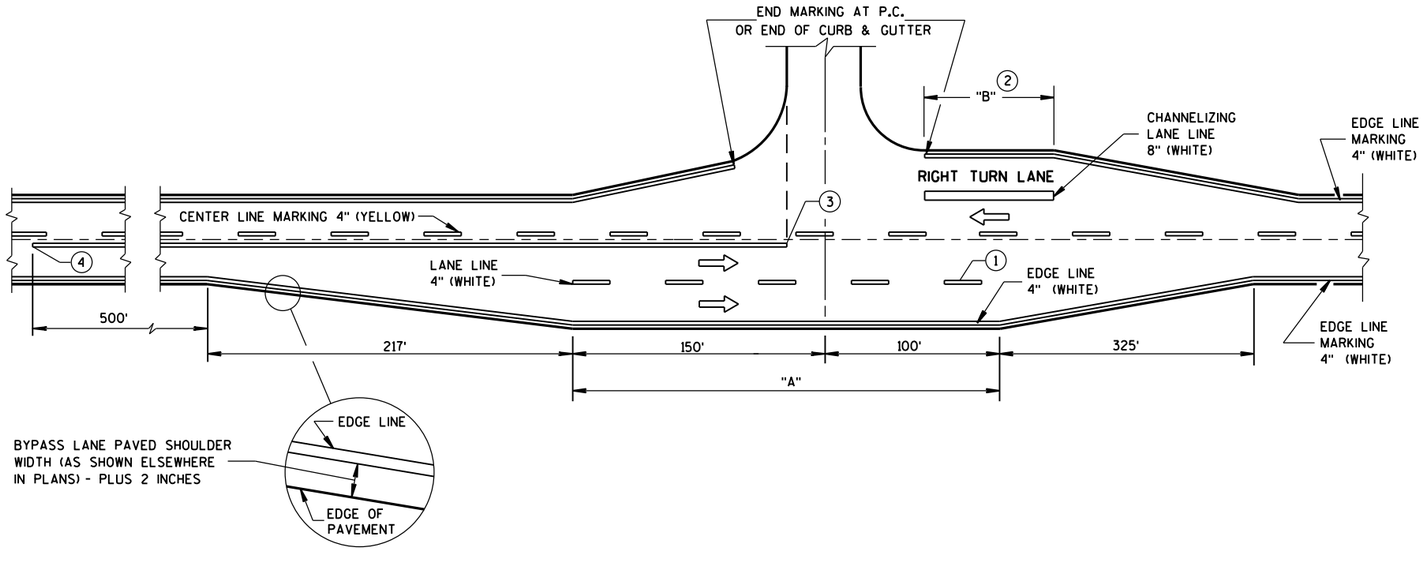
(1) WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.

(2) WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.

(3) BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.

(4) BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

ARROW SYMBOL ( ⇨ ) SHOWS DIRECTION OF TRAVEL




## MAJOR INTERSECTIONS

### (INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)

PAVEMENT MARKING
(INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

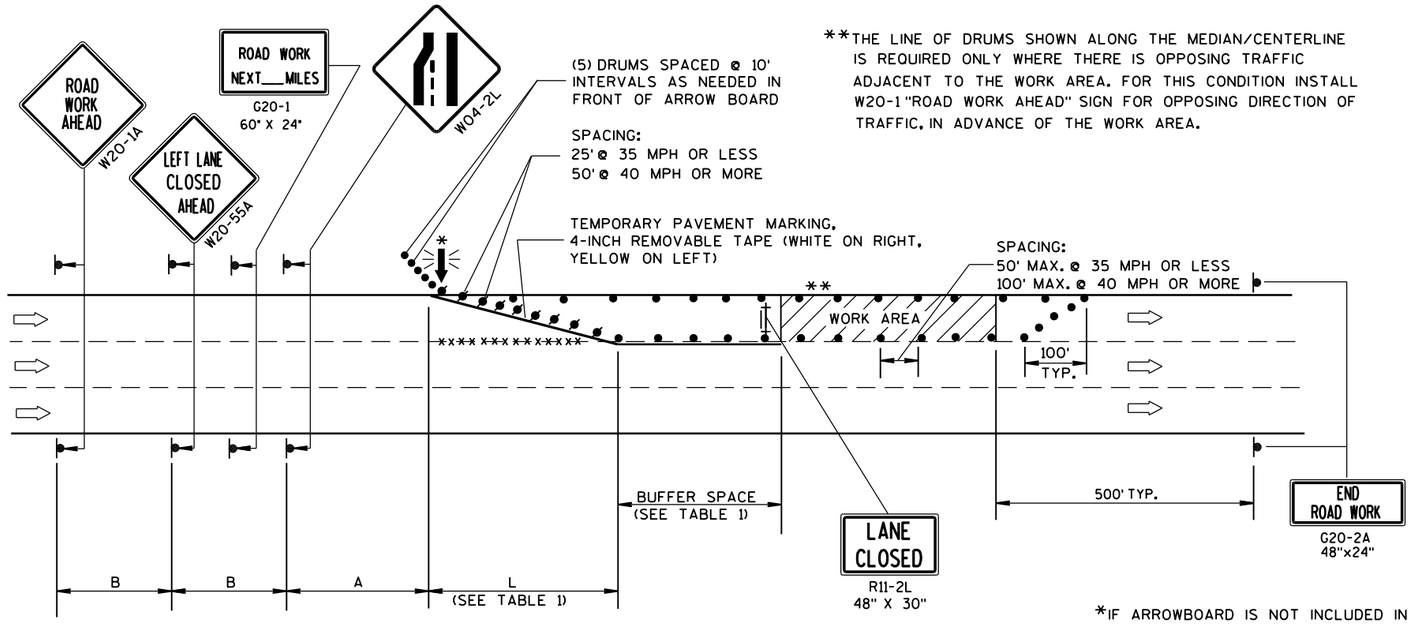






6

S.D.D. 15 C 35-1a




**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

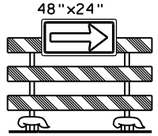


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

| S | L | BUFFER SPACE |
|---|---|---|
| 25 | 125' | 55' |
| 30 | 180' | 85' |
| 35 | 245' | 120' |
| 40 | 320' | 170' |
| 45 | 540' | 220' |
| 50 | 600' | 280' |
| 55 | 660' | 335' |

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

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

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

## LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

## GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

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

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

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

BARRICADES IN A CLOSED LANE 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.

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

# TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
FHWA

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER

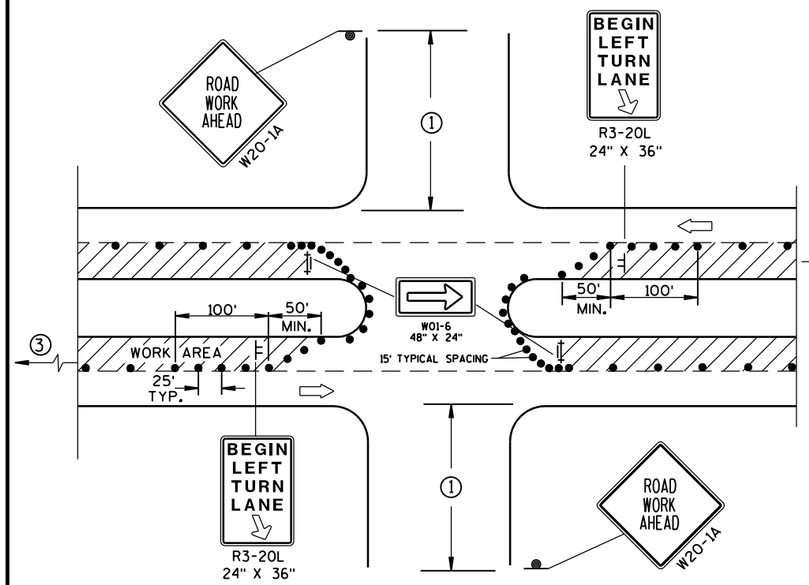


6

S.D.D. 15 D 20-4

6

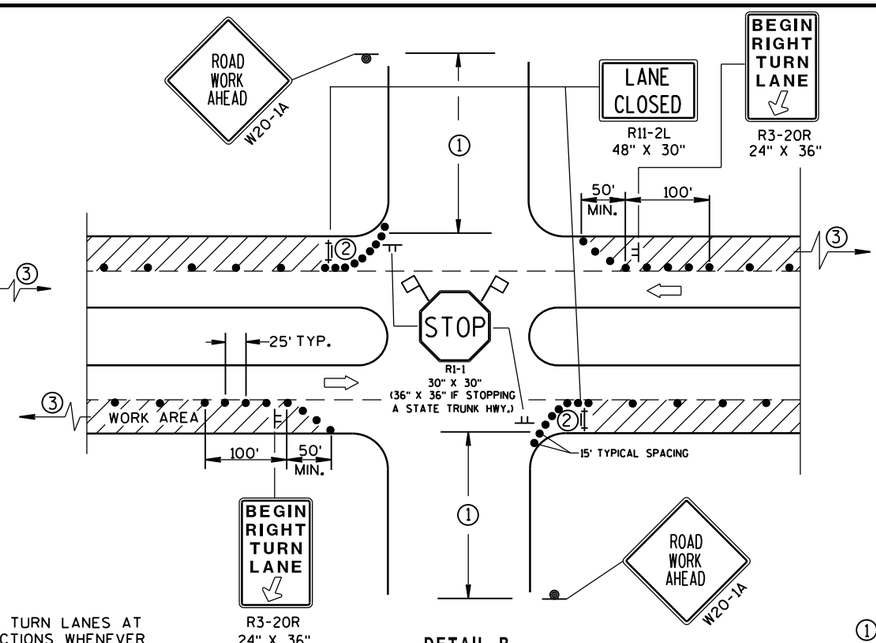
S.D.D. 15 D 20-4




DETAIL A

## FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.




DETAIL B

## FOR RIGHT LANE CLOSURE AT INTERSECTION

## GENERAL NOTES

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

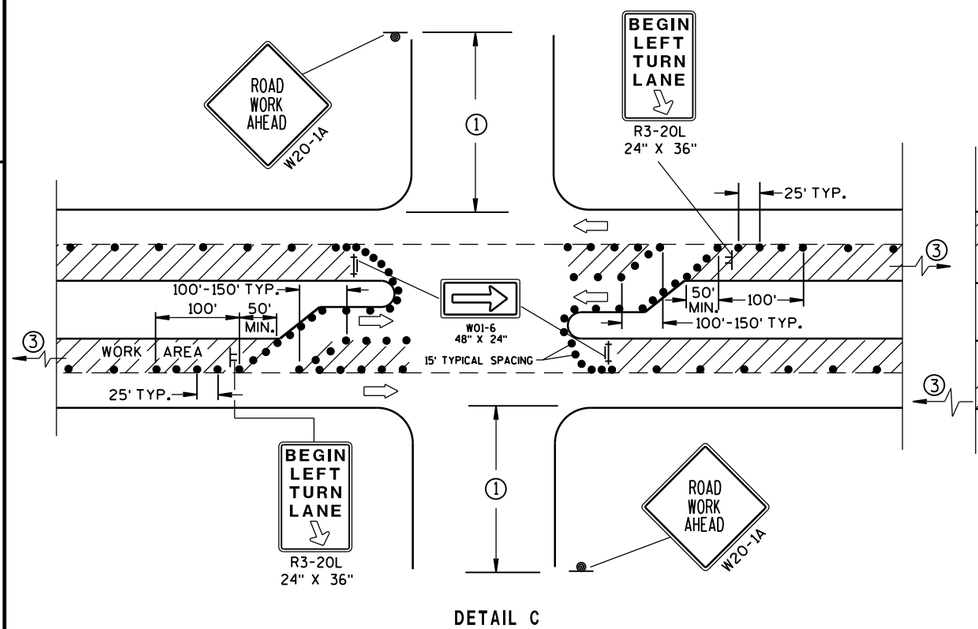
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE 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.

① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.

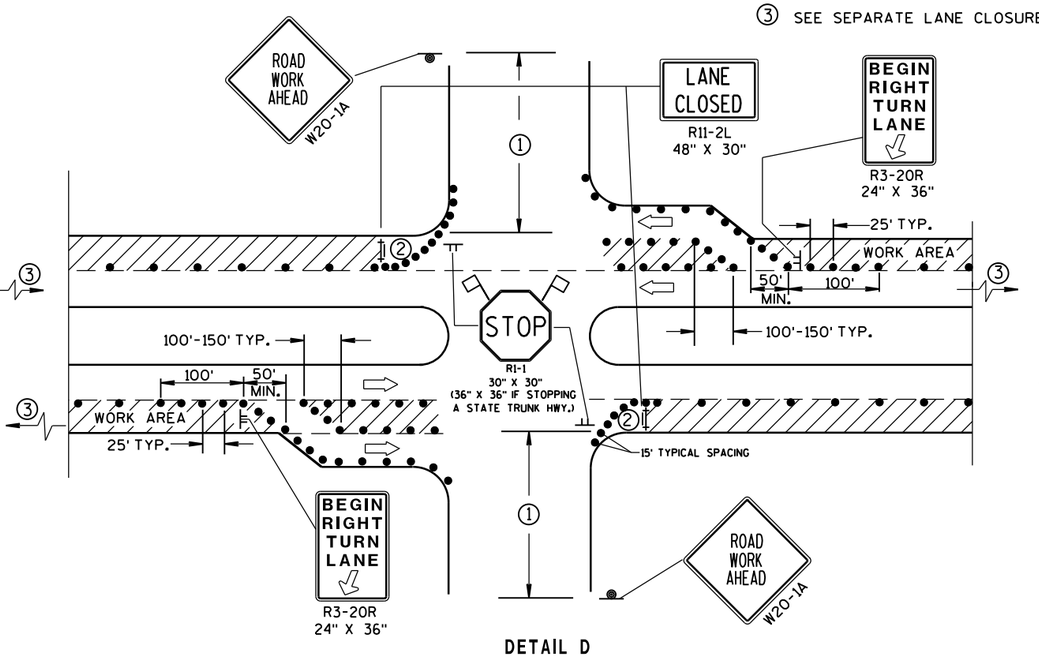
② ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.




DETAIL C

## FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)




DETAIL D

## FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

## LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT (5' MIN. MOUNTING HEIGHT)
- TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., (ORANGE)
- WORK AREA

**TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
/S/ Peter Anakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA



6

S.D.D. 15 D 21-4

6

S.D.D. 15 D 21-4

## LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

## GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

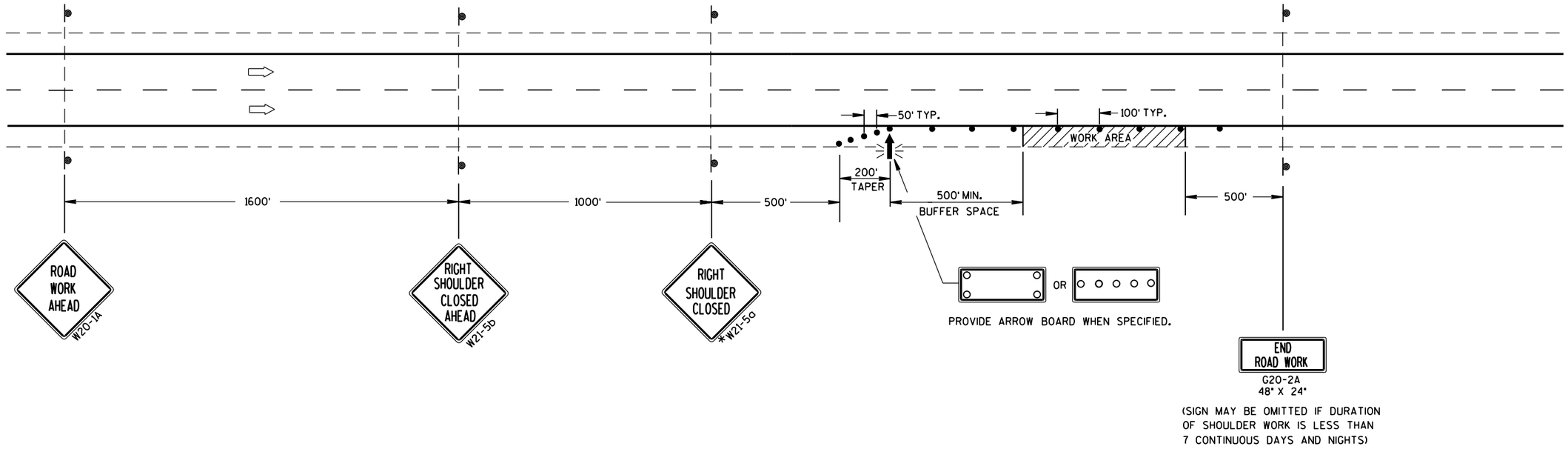
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.




# TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2016 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]

FHWA




6


S.D.D. 15 D 27-3

## GENERAL NOTES

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

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

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

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

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

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

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

## TABLE A

| S \ W | SHOULDER TAPER LENGTH (FEET) 4 | 6 | 8 | 10 | BUFFER SPACE (FEET) |
|---|---|---|---|---|---|
| 30 | 20 | 30 | 40 | 50 | 200 |
| 35 | 30 | 45 | 55 | 70 | 250 |
| 40 | 40 | 55 | 75 | 90 | 305 |
| 45 | 60 | 90 | 120 | 150 | 360 |
| 50 | 70 | 100 | 135 | 170 | 425 |
| 55 | 75 | 110 | 150 | 185 | 495 |

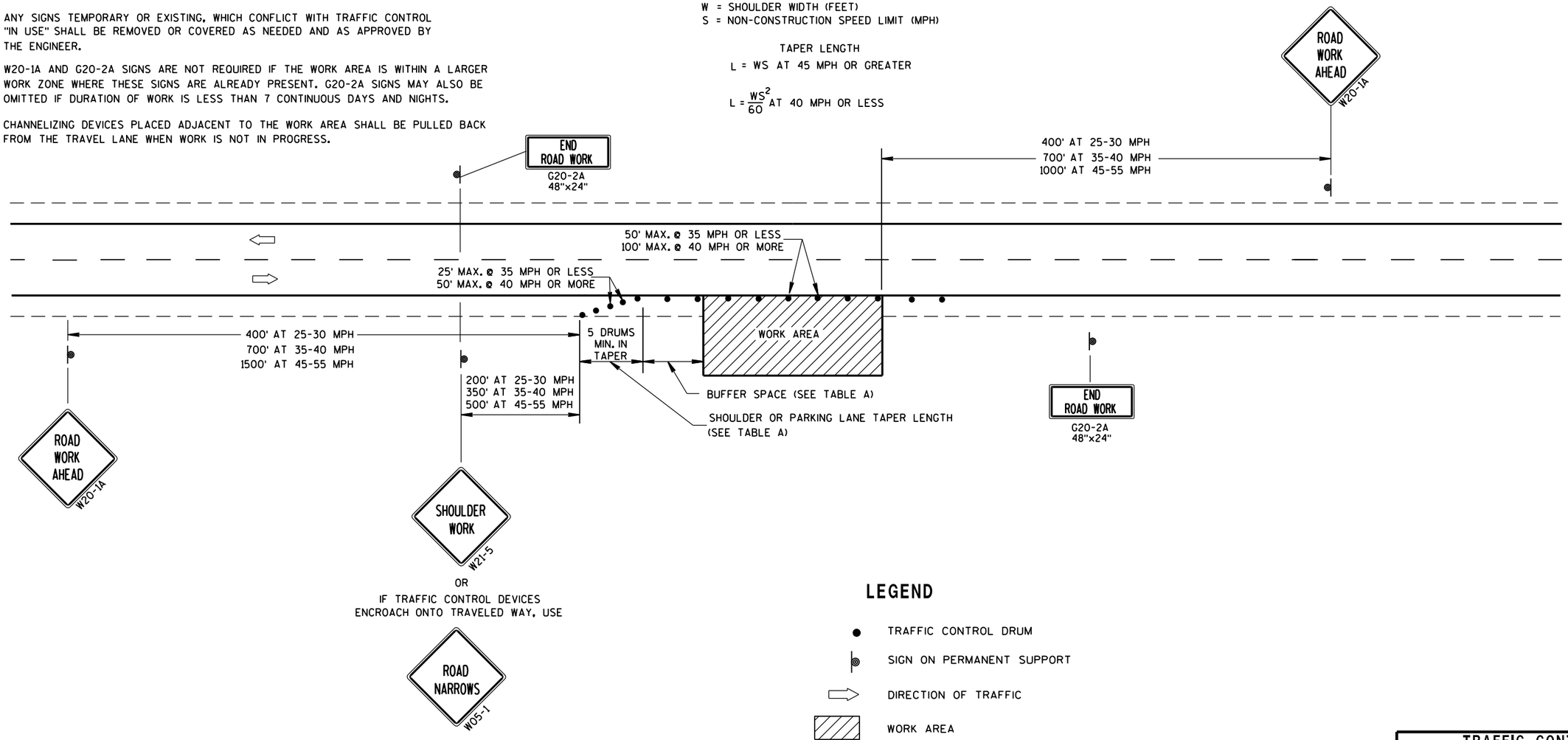
W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH

L = WS AT 45 MPH OR GREATER

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

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




## LEGEND

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

**TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

July 14, 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO SAFETY ENGI FIC

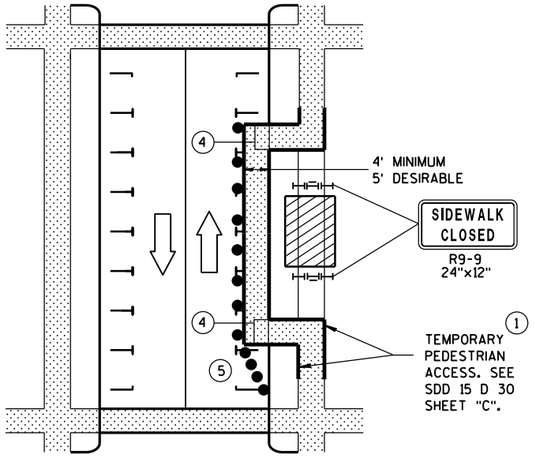
FHWA




6

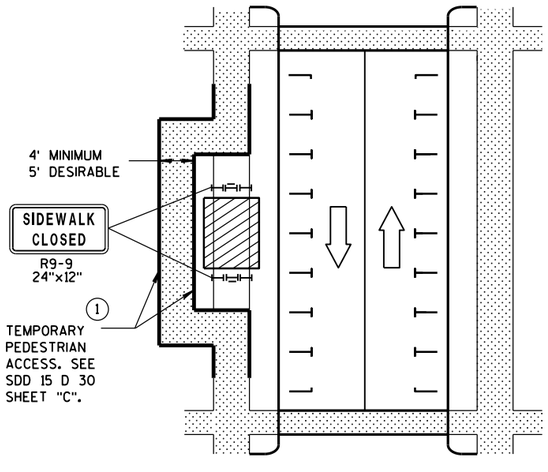

S.D.D. 15 D 28-3

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

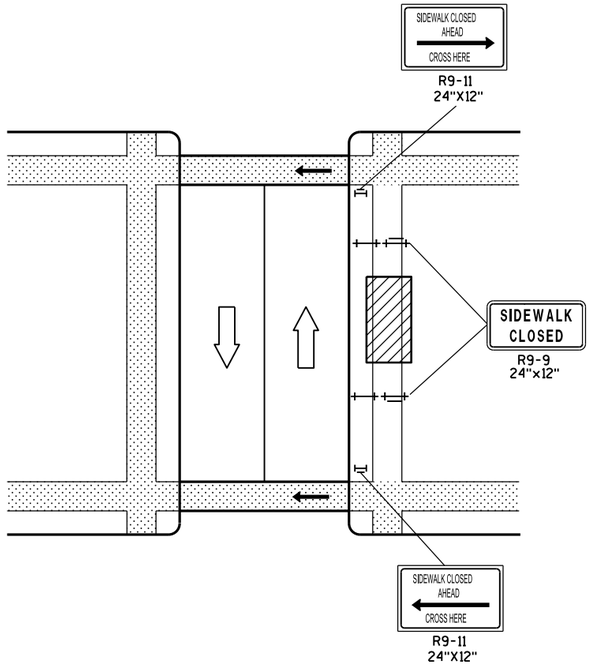



## MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

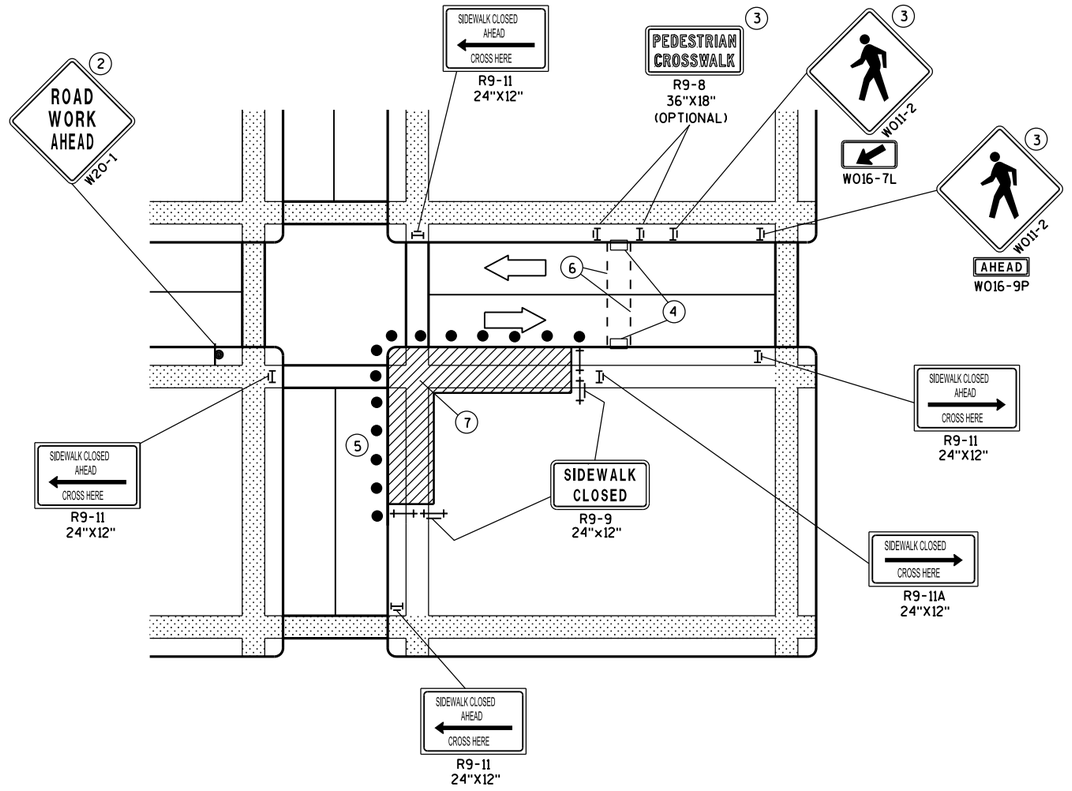
NOTE: LAYOUT SAME AS ABOVE.




## SIDEWALK DIVERSION




## MID-BLOCK SIDEWALK CLOSURE




## CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

## GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK, AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

FOR NIGHTTIME CLOSURE USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

(1) IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE.

(2) "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.

(3) IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND W011-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.

(4) TEMPORARY CURB RAMPS. SEE SDD 15 D 30 SHEET "B".

(5) DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.

(6) TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.

(7) LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

### LEGEND

- SIGN ON PERMANENT SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- DIRECTION OF TRAFFIC
- TRAFFIC CONTOL DRUM

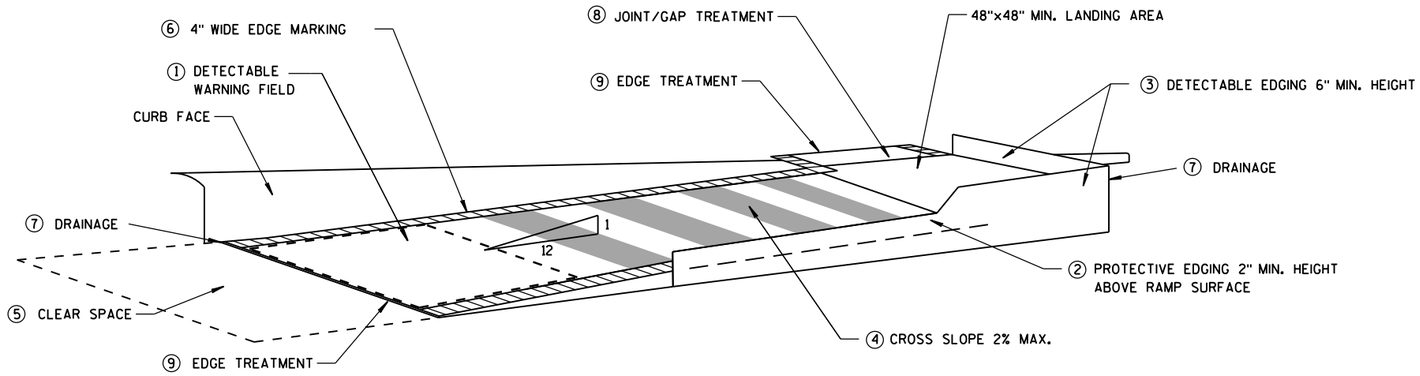
**TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR




6


S.D.D. 15 D 30-3a




## TEMPORARY CURB RAMP PARALLEL TO CURB

## GENERAL NOTES

NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

① CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 8D5 SHEET "E".

② PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

③ DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

④ CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

⑤ CLEAR SPACE OF 48"X48" MIN. SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

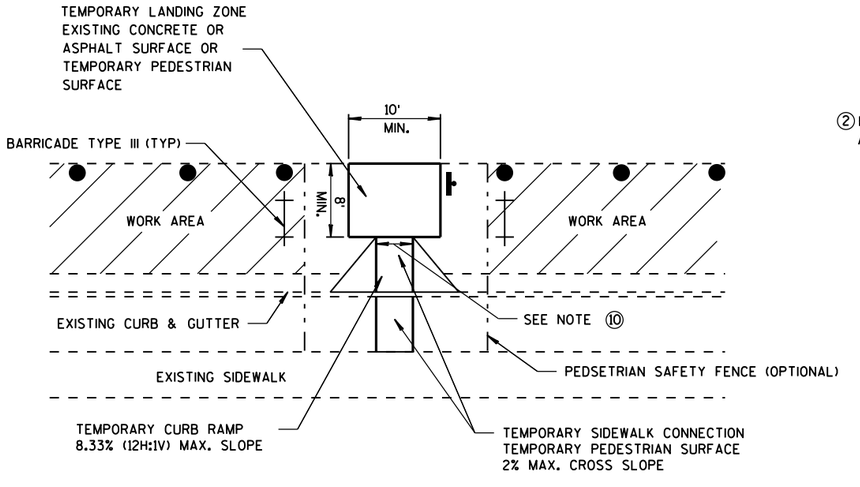
⑥ THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.

⑦ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

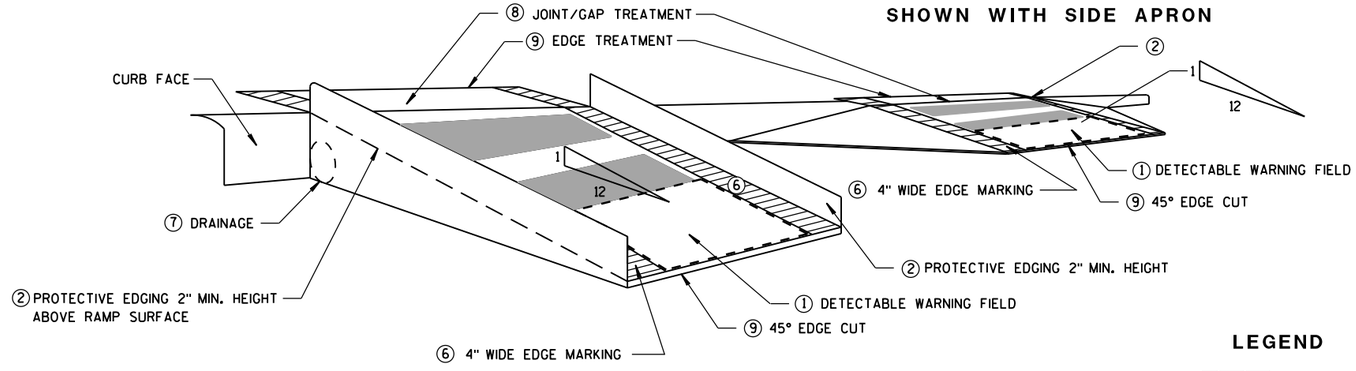
⑧ LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

⑨ CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHALL BE VERTICAL UP TO 1/4" HIGH, AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".

⑩ 5' WIDE MIN. WITH PEDSETRIAN SAFETY FENCE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY FENCE.




## TEMPORARY BUS STOP PAD




SHOWN WITH PROTECTIVE EDGE




## TEMPORARY CURB RAMP PERPENDICULAR TO CURB

### LEGEND

WORK AREA

TYPE III BARRICADE

TRAFFIC CONTOL DRUM

**TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2016
DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO SAFETY ENGI IC

FHWA

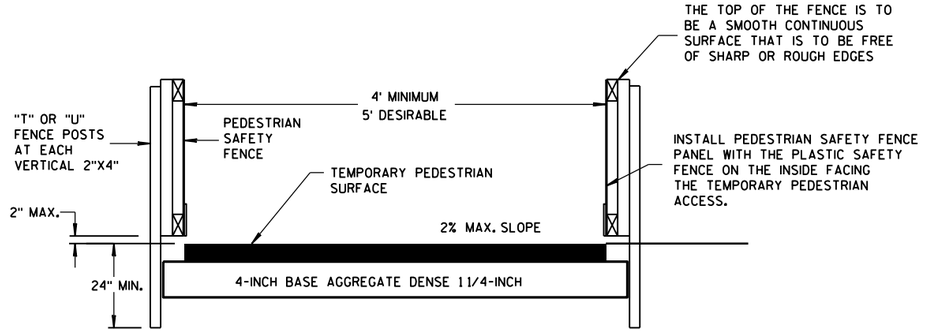


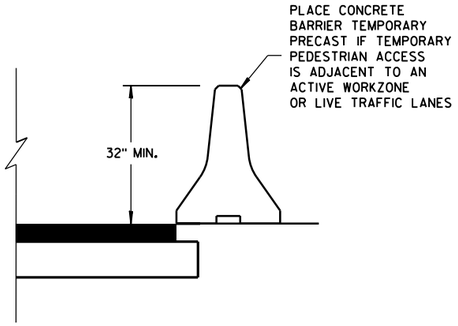
6

S.D.D. 15 D 30-3b

6

S.D.D. 15 D 30-3b

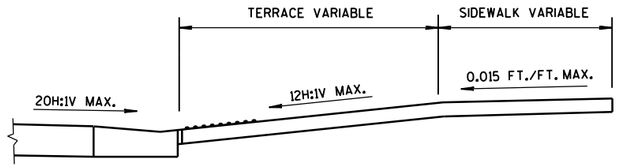


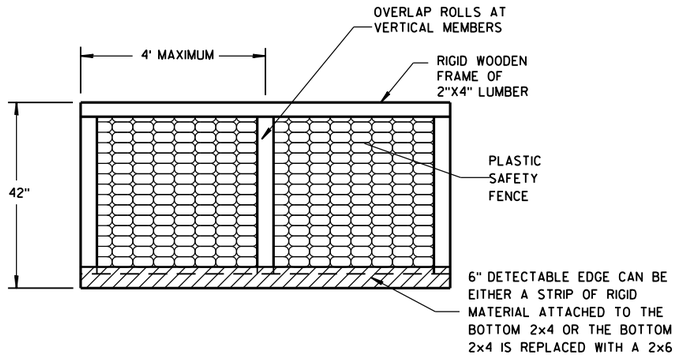

## TEMPORARY PEDESTRIAN ACCESS

## GENERAL NOTES

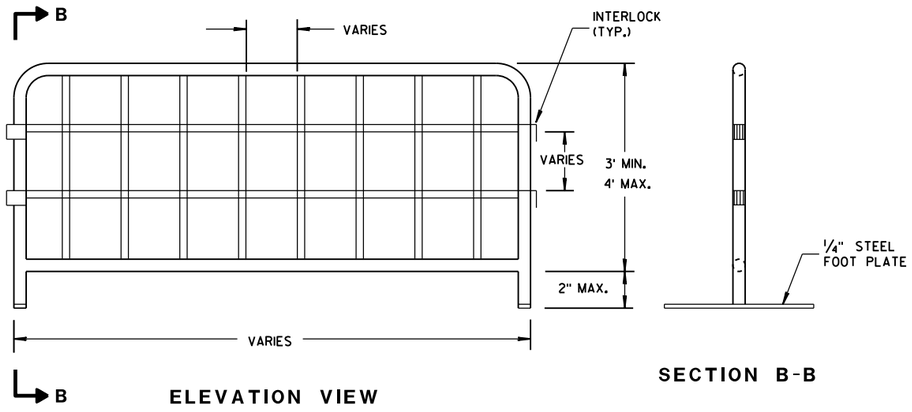
(1) INTERCHANGEABLE WITH THE PEDESTRIAN SAFETY FENCE.




## SECTION A-A



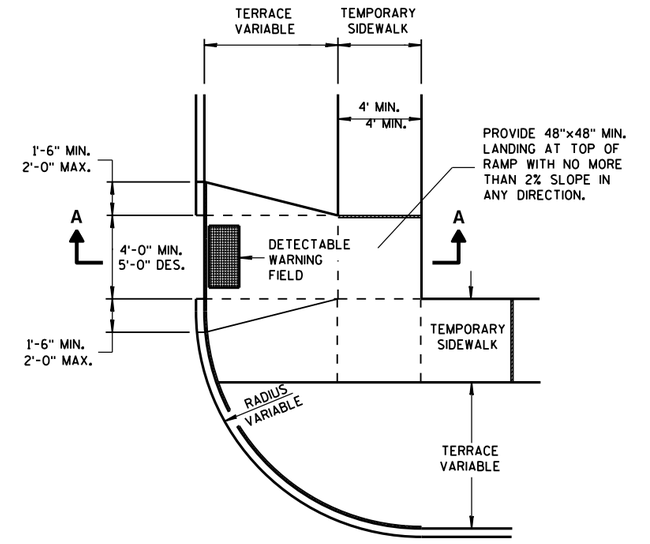

## PEDESTRIAN SAFETY FENCE




## ELEVATION VIEW

## SECTION B-B

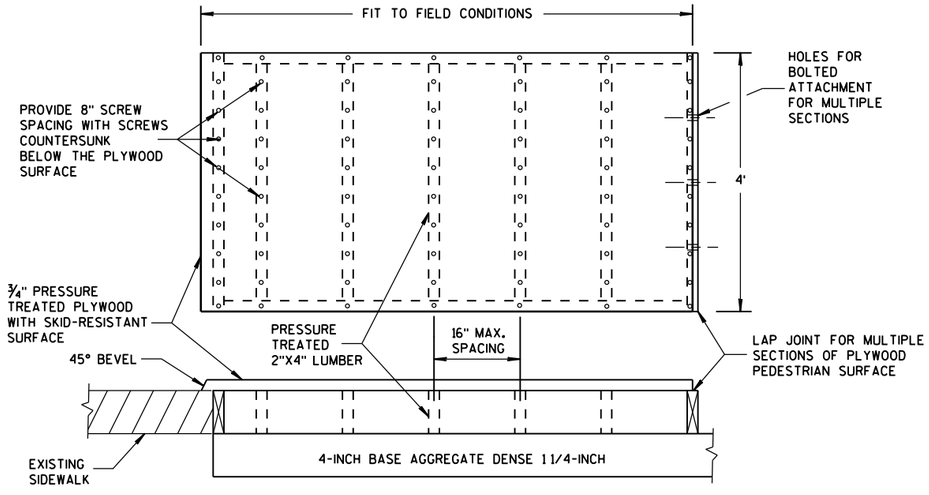
## TEMPORARY PEDESTRIAN STEEL BARRICADE (1)



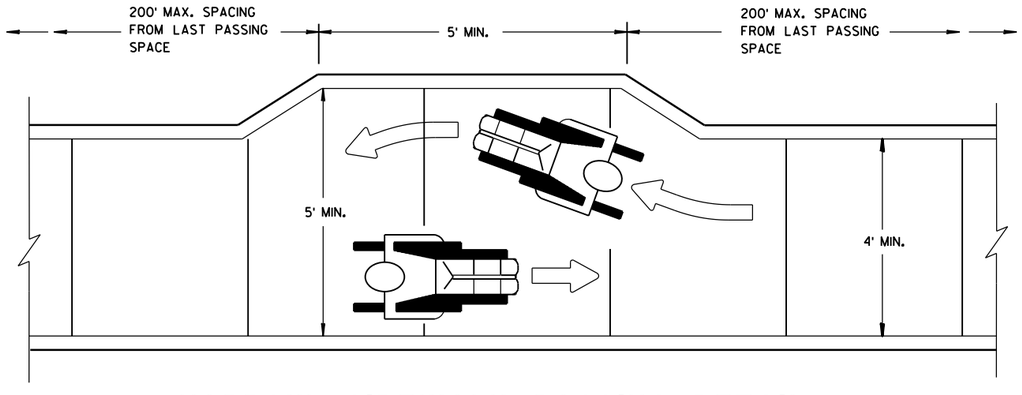

## PLAN VIEW

## TEMPORARY TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)




## TEMPORARY PEDESTRIAN SURFACE PLYWOOD




## NARROW SIDEWALK PASSING DETAIL

## TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016
DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZON IC
SAFETY ENGIN
FHWA

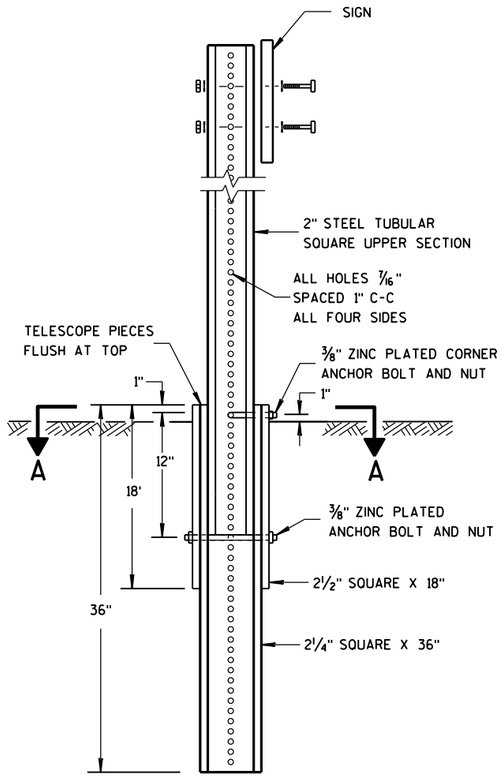


6

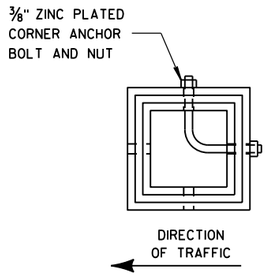
S.D.D. 15 D 30-3c

6

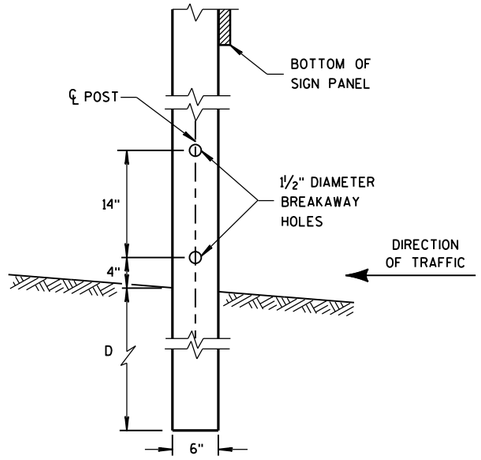
S.D.D. 15 D 30-3c




## DETAIL OF TUBULAR STEEL SIGN POST




## SECTION A-A



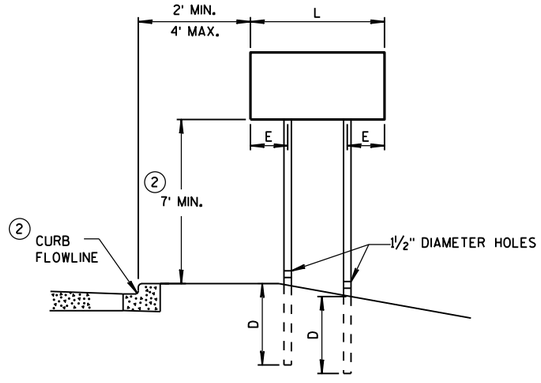

## 4"x6" WOOD POST MODIFICATION

## GENERAL NOTES

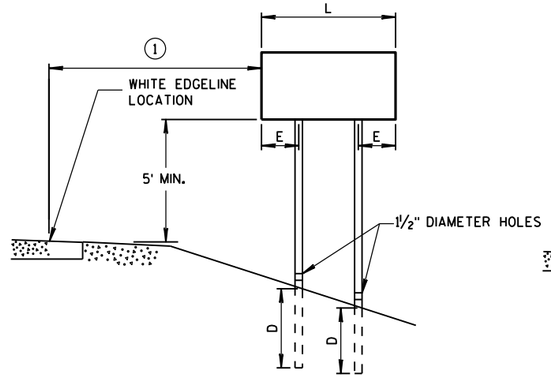
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

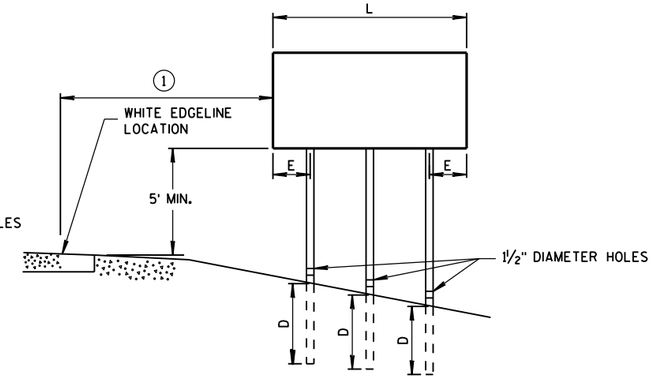
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.




## URBAN AREA




## RURAL AREA

## POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

**TUBULAR STEEL POSTS**

| AREA OF SIGN INSTALLATION (SQ. FT.) | NUMBER OF REQUIRED TUBULAR STEEL POSTS |
|---|---|
| 9 OR LESS | 1 |
| GREATER THAN 9 LESS THAN OR EQUAL TO 18 | 2 |
| GREATER THAN 18 LESS THAN OR EQUAL TO 27 | 3 |

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

**WOOD POST EMBEDMENT DEPTH**

| AREA OF SIGN INSTALLATION (SQ. FT.) | D (MIN) |
|---|---|
| 20 OR LESS | 4' |
| GREATER THAN 20 | 5' |

**4" X 6" WOOD POST**

| POST SPACING REQUIREMENTS | | NUMBER OF WOOD POSTS REQUIRED |
|---|---|---|
| L | E | |
| 48" OR LESS AND LESS THAN 20 SQ. FT. | - | 1 |
| LESS THAN 60" | 12" | 2 |
| 60" TO 120" | L/5 | 2 |
| GREATER THAN 120" LESS THAN 168" | 12" | 3 |
| 168" AND GREATER | 12" | 4 |

SEE NOTE (3)

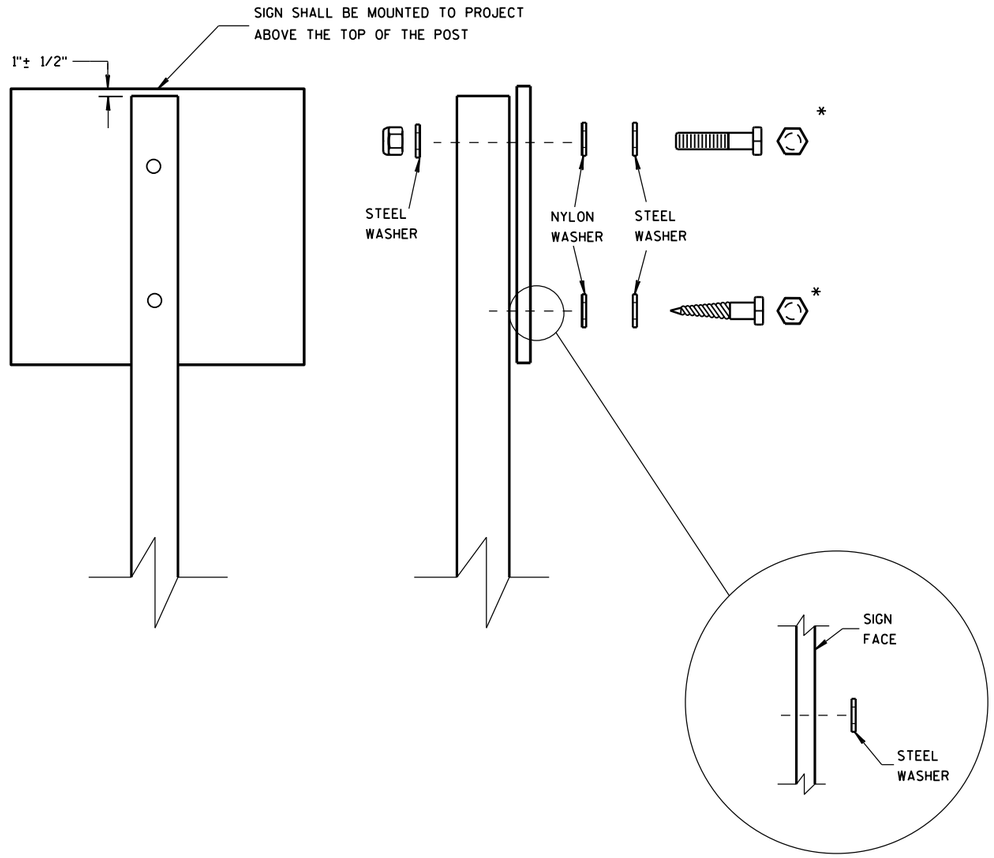
TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI





6
S.D.D. 15 D 38-2a




WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3

B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 5/16" X 6-1/2" OR 7" LENGTH W/ NUTS

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

6

S.D.D. 15 D 38-2b

S.D.D. 15 D 38-2b

# ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

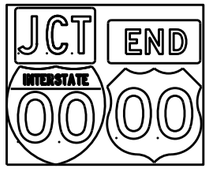
June 2017
DATE

/S/ Andrew Heldtke
WORK ZONE ENG

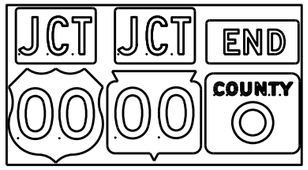
FHWA

## TYPICAL ASSEMBLIES

J1-1

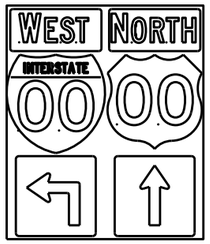


J1-2

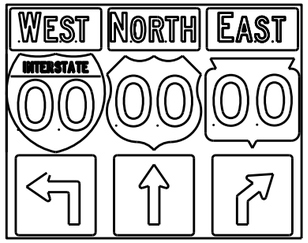


J1-3

J2-1



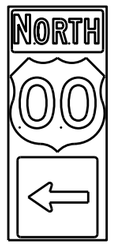
J2-2



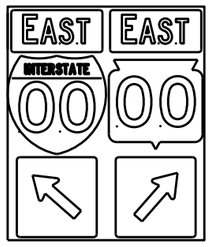
J2-3

JV

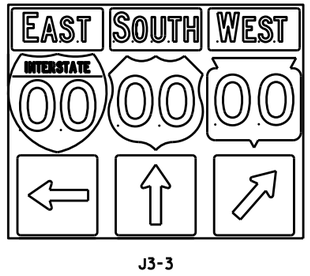
( Typical Vertical J-Assembly
See Note 10 and 11 )



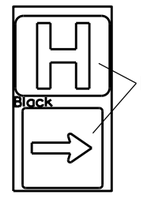
J3-1



J3-2

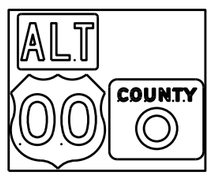


J3-3

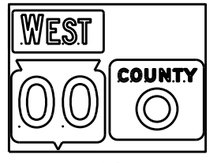


JH-1

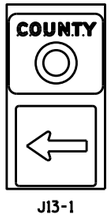
J4-1



J4-2



J4-2



J13-1

J12-1

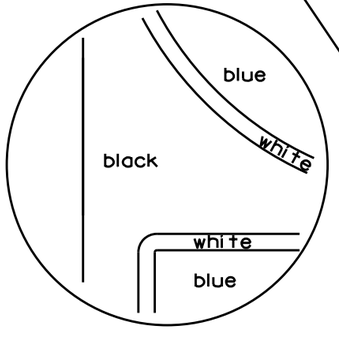
J32-1

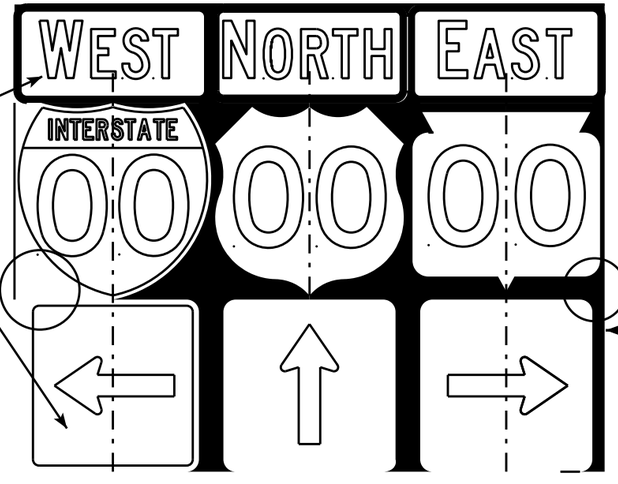
J33-1

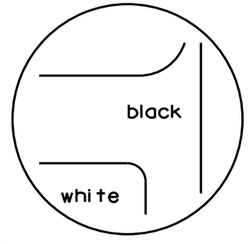
J23-1

J22-1

blue background
with interstate




black background

### NOTES

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

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

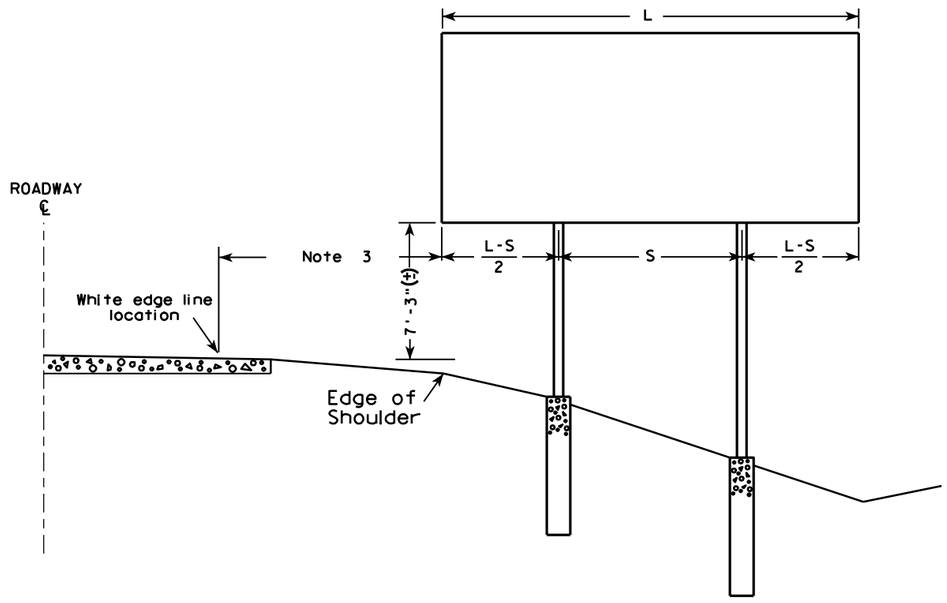
DATE 2/06/14 PL... A2-1S.8

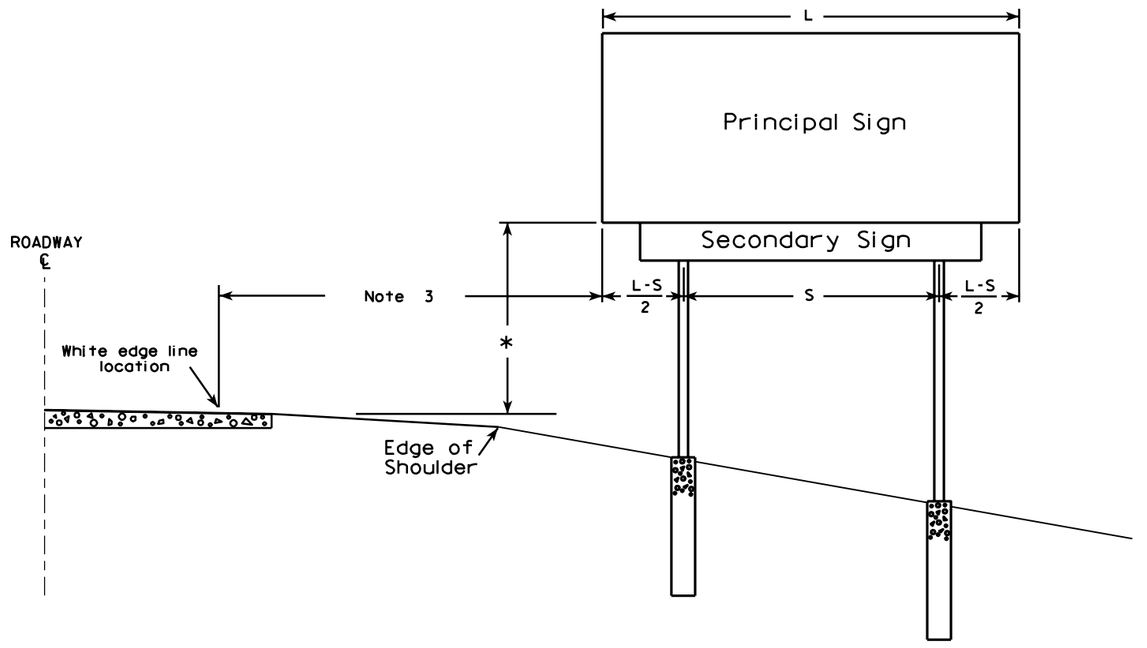
PROJECT NO: | SHEET NO: E



FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :

WISDOT/CADDS SHEET 42




## GENERAL NOTES

1. For a 2 post installation, S equals 3L/5, but shall not be less than 9 ft.
2. For a 3 post installation, S equals 5L/7, but shall not be less than 18 ft., and the space between any two posts shall not be less than 9 ft.
3. Unless noted in the plan, the sign offset distance shall be a minimum of 17'-6", desirable 30'-0".
4. The (±) tolerance shown on this sheet is 3 in.
5. The vertical sign height clearance detailed is measured from the bottom of the sign to the near edge of pavement.
6. Post lengths shown in the miscellaneous quantities are estimated lengths. The contractor shall verify post lengths at the time of final grading.
7. Refer to the Traffic Guidelines Manual for further guidance on minimum vertical clearance requirements.

* Clearance is 8'-3"(±) when the secondary sign is 3 ft. or less in height. For secondary signs larger than 3 ft., the clearance to the bottom of the secondary sign shall be 5'-3"(±).

7

7

# TYPICAL INSTALLATION OF TYPE I SIGNS

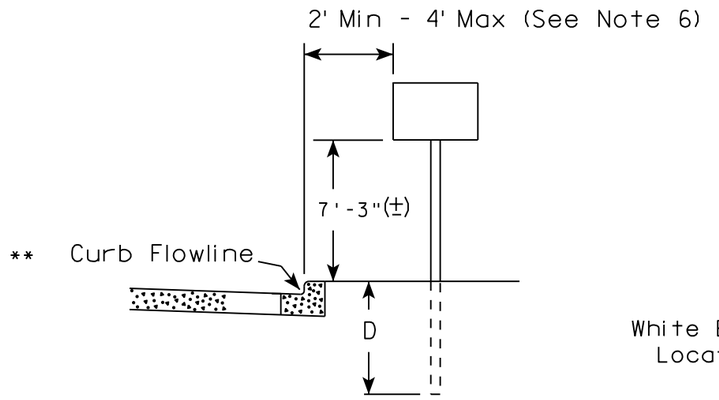
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

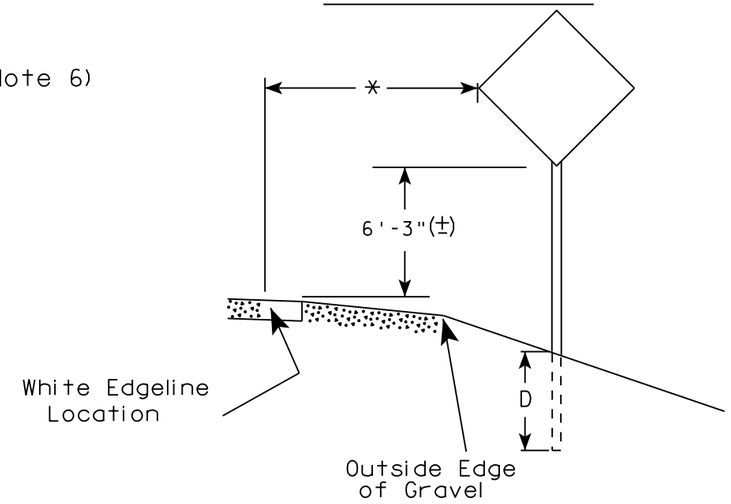
DATE 4/02/08 PLATE NO. A4-1.9

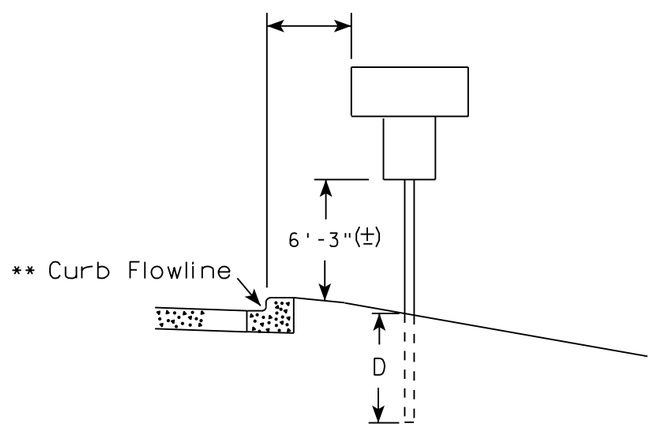
| PROJECT NO: | | | | SHEET NO: 313 | E |
|---|---|---|---|---|---|

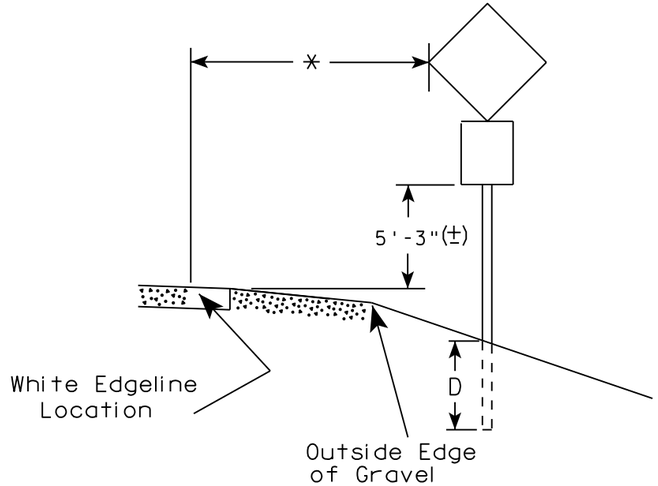
## URBAN AREA




## RURAL AREA (See Note 2)




** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

### POST EMBEDMENT DEPTH

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

### GENERAL NOTES

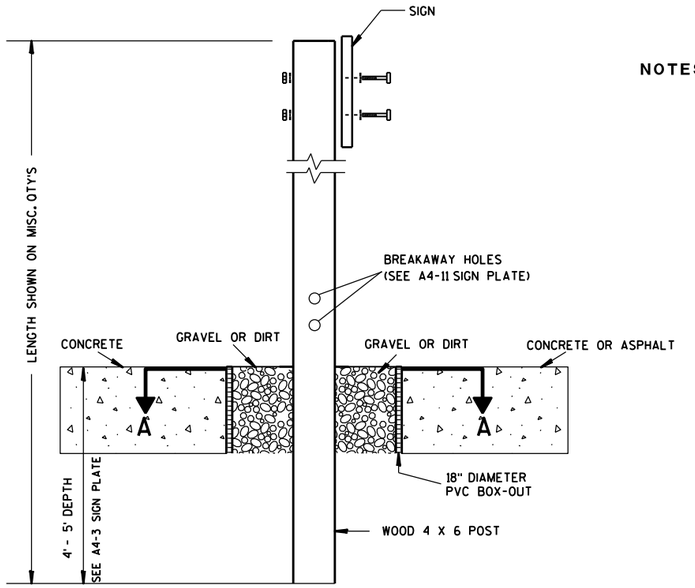
1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. J-Assemblies are considered to be one sign for mounting height.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

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

*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
for State Traffic Engineer

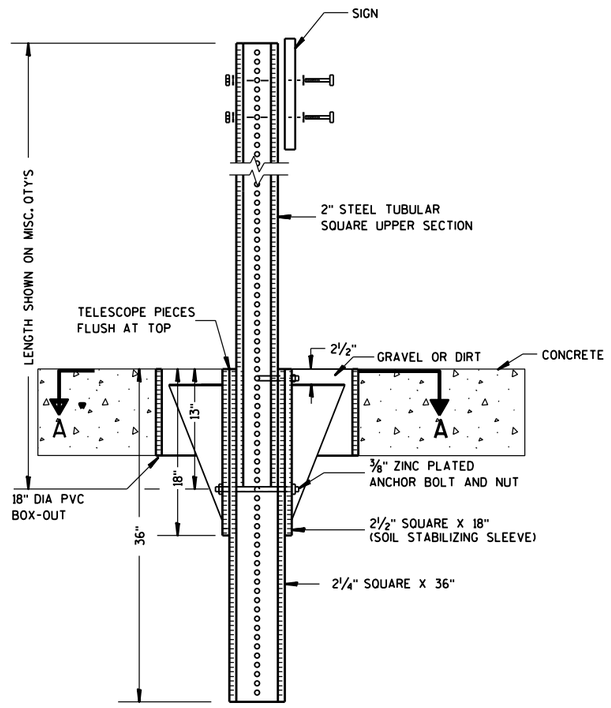
DATE 8/21/17 PLATE NO. A4-3.21




**ELEVATION VIEW**

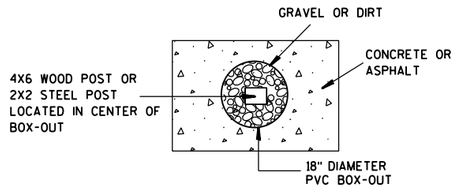
**DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT**

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.




**ELEVATION VIEW**

**DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT**




**PLAN VIEW**

**FOR NEW CONCRETE/ASPHALT INSTALLATIONS**

# SIGN POST BOX-OUTS A4-3B

*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
for State Traffic Engineer

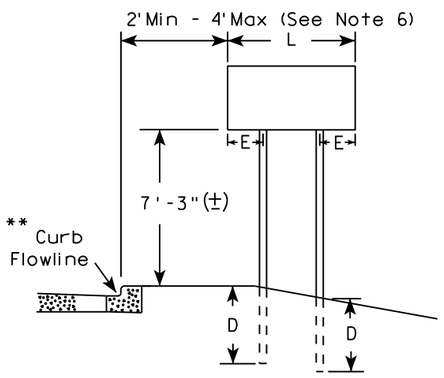
DATE 1/27/14 PLATE NO. A4-3B.1

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

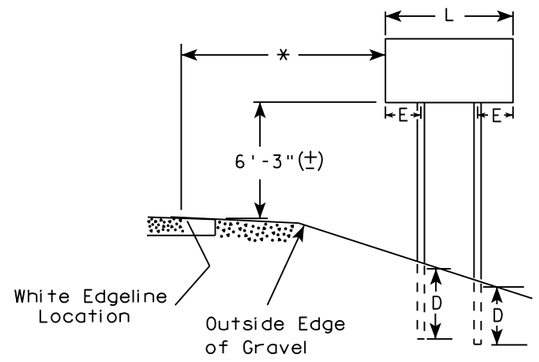


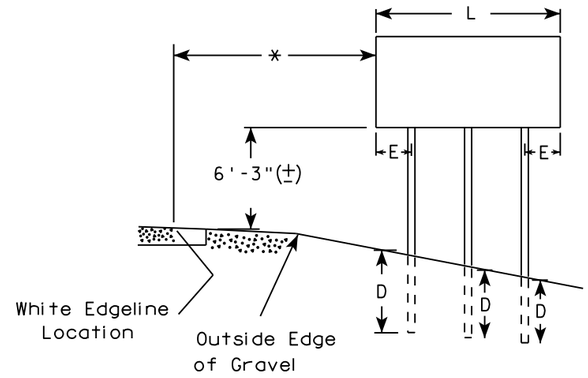
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

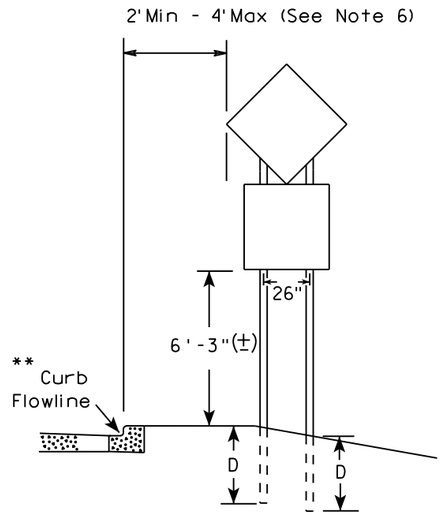
URBAN AREA



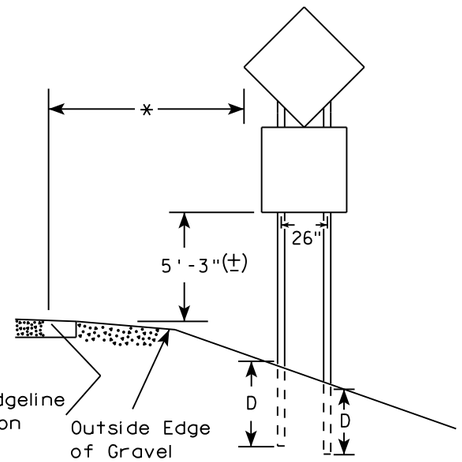

RURAL AREA (See Note 3)




48" DIAMOND WARNING SIGN




48" DIAMOND WARNING SIGN

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

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

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

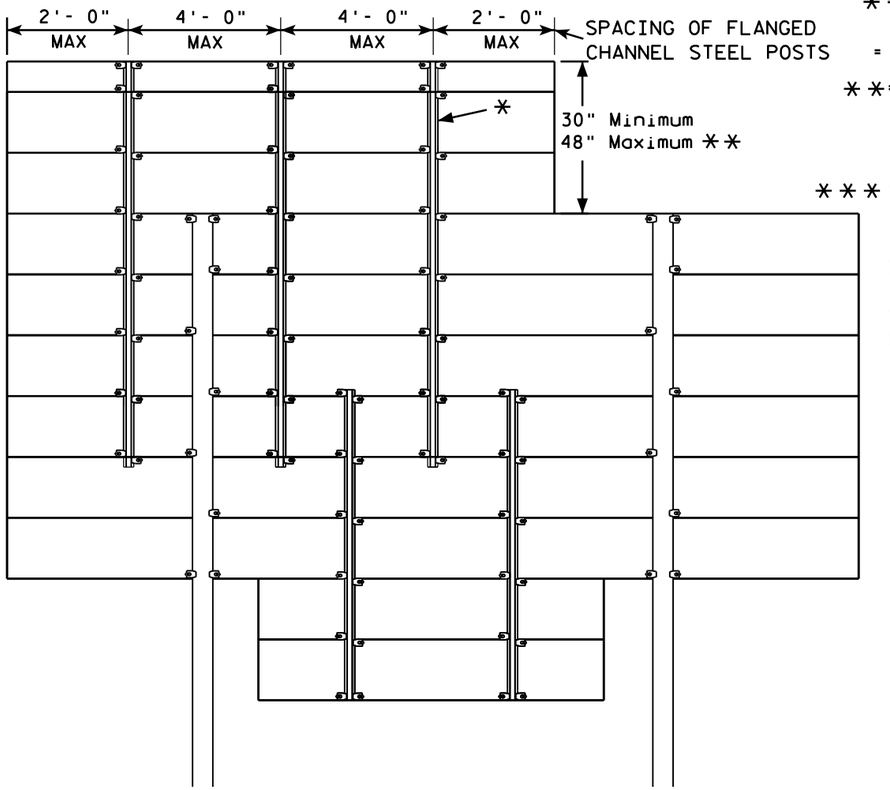
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

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

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 316 | E |
|---|---|---|---|---|---|

# GROUND MOUNTED SIGN

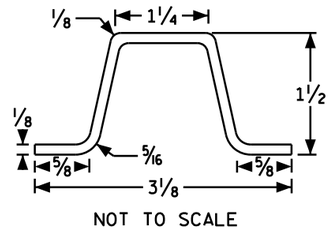



*=2.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

**=FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

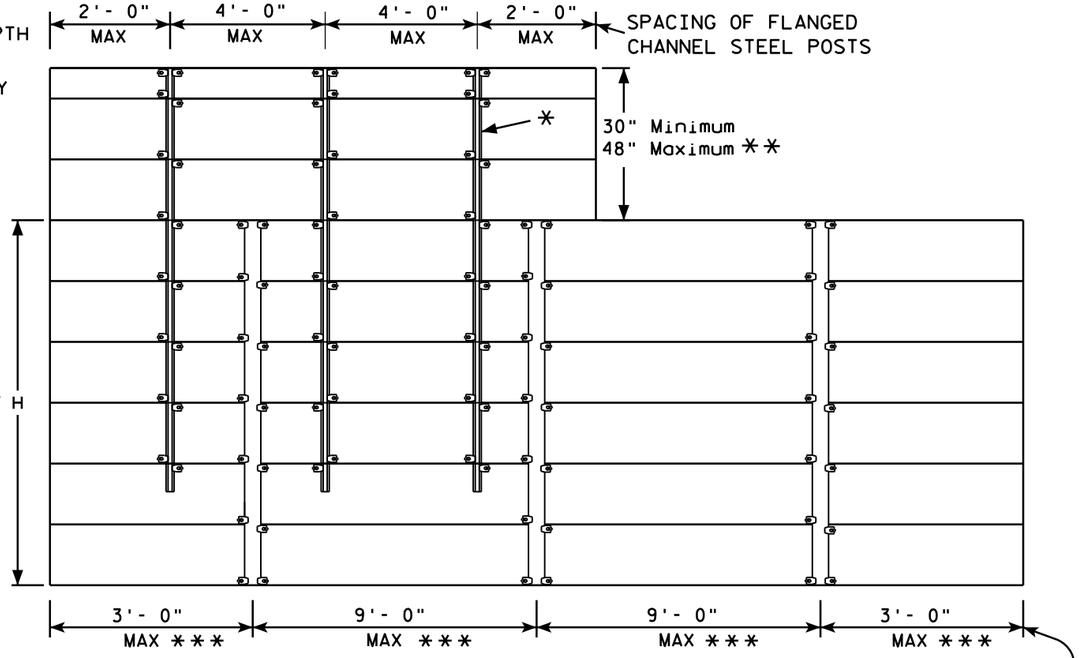
*** THESE SPACING DISTANCES SHALL ONLY BE USED WHEN THE MAIN SIGN HAS A MAXIMUM HEIGHT (DIMENSION H) OF 16 FT OR LESS. FOR SIGNS WITH A HEIGHT OF GREATER THAN 16 FT, STRUCTURAL CALCULATIONS SHALL BE PERFORMED.

## FLANGE CHANNEL DETAIL




NOT TO SCALE

# SIGN BRIDGE MOUNTED SIGN




## GENERAL NOTES

1. Flanged channel steel posts shall conform to size and material above, and shall be considered as incidental to other items in the contract.
2. Number of Flanged channel steel supports varies with length of panel and shall be spaced as shown:

   PANEL LENGTH 8'-0" OR LESS = 2 CHANNELS
   PANEL LENGTH 9'- 0" - 12'- 0" = 3 CHANNELS
   PANEL LENGTH 13'- 0" OR MORE = 4 CHANNELS

   If the flanged channel steel posts can not be horizontally spaced as shown, they can be moved so as to securely hold the sign.
3. The EXIT NUMBER PANEL shall normally be positioned above the guide sign aligned with the right edge of the guide sign. If the guide sign indicates a left exit, the EXIT NUMBER PANEL shall be aligned with the left edge of the guide sign.
4. If the bolt holes in the top panel (EXIT NUMBER), or sub panel (NEXT EXIT) line up with holes in main sign panel, stitch bolts shall be used in addition to the channels.
5. Provide post clips for each sign as shown. (Please note the differences between a ground mounted versus Sign bridge mounted sign as far as number of clips required on the main supports or beams)
6. Structural steel sign supports shall extend to the top of the main signs, as shown on the above details.

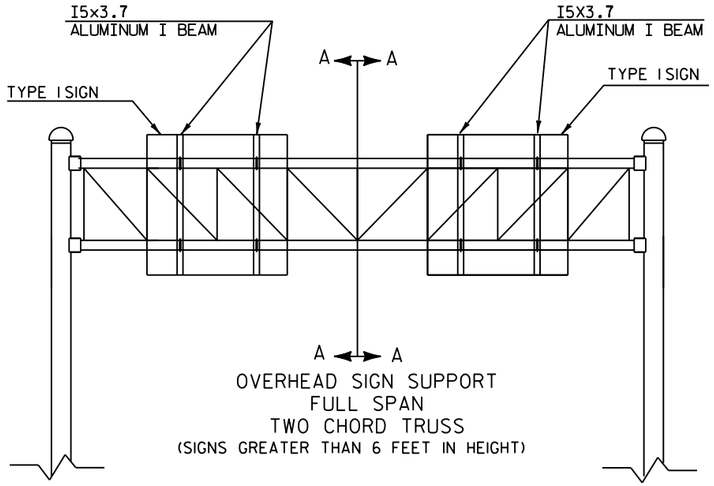
ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

WISCONSIN DEPT OF TRANSPORTATION

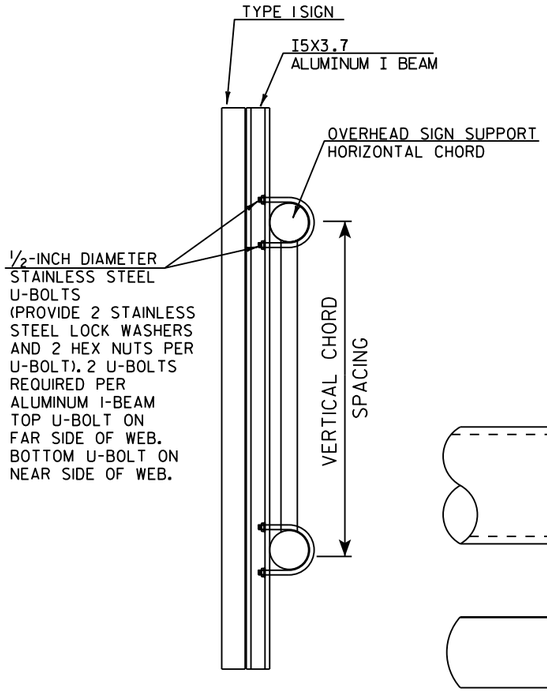
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 12/05/13 PLAT 317 A4-6.12

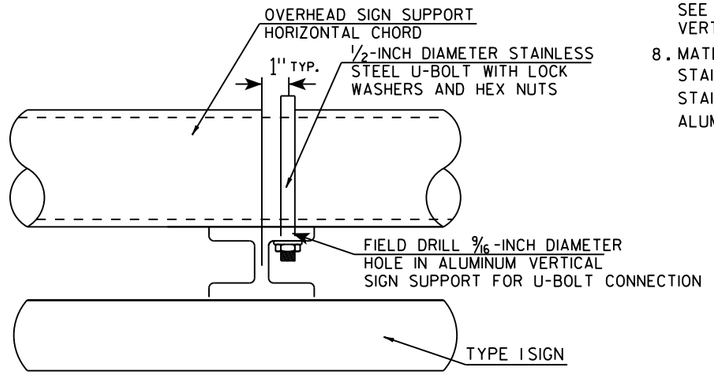
PROJECT NO: | SHEET NO: E




OVERHEAD SIGN SUPPORT
FULL SPAN
TWO CHORD TRUSS
(SIGNS GREATER THAN 6 FEET IN HEIGHT)



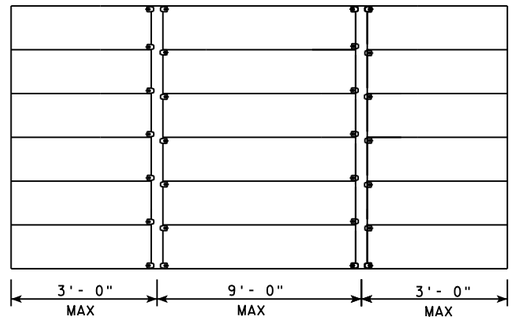

CUT SECTION A-A



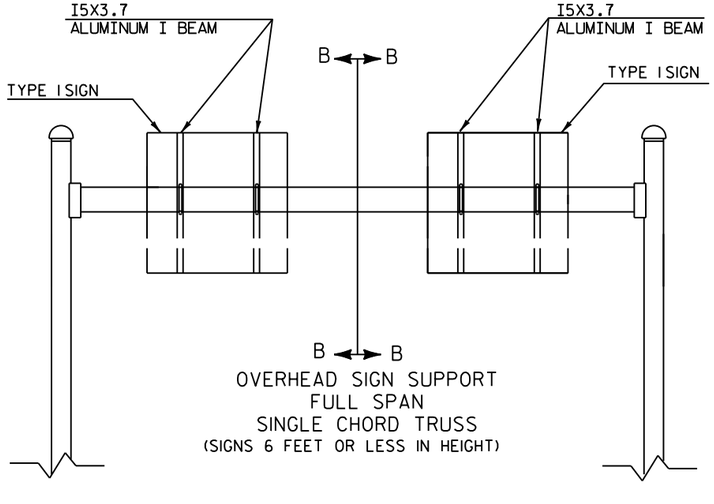

TYPICAL SIGN CONNECTION FOR
TWO CHORD TRUSS
PLAN VIEW

GENERAL NOTES

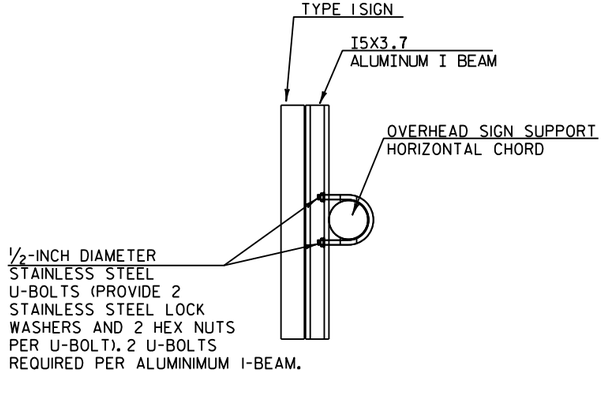
1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE CLIPS ON EVERY EXTRUDED PANEL JOINT PER SIGN PLATE A4-6.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE CHORDS OF THE OVERHEAD SIGN STRUCTURE.
5. DIAMETER OF U-BOLTS SHALL BE AS SHOWN.
6. THE LENGTH OF THE ALUMINUM VERTICAL SIGN SUPPORT BEAMS SHALL BE THE SAME AS THE HEIGHT OF THE SIGN THEY ARE SUPPORTING. BEAM LENGTHS MAY BE LONGER FOR PROPER ATTACHMENT TO CHORDS.
7. MINIMUM NUMBER OF BRACKETS PER SIGN IS TWO. SEE DETAIL BELOW FOR SPACING OF ALUMINUM VERTICAL SIGN SUPPORTS
8. MATERIAL NOTES:
   STAINLESS STEEL U-BOLTS AND LOCKWASHERS ASTM 304.
   STAINLESS STEEL HEX NUTS ASTM A276.
   ALUMINUM I-BEAMS ARE 6061-T6.



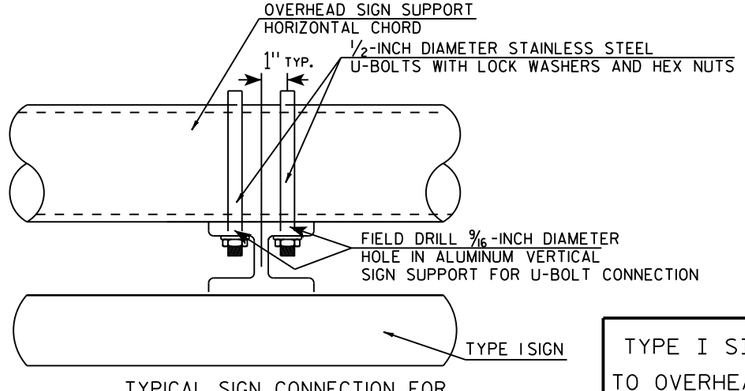

SPACING OF I5X3.7 ALUMINUM
VERTICAL SIGN SUPPORT




OVERHEAD SIGN SUPPORT
FULL SPAN
SINGLE CHORD TRUSS
(SIGNS 6 FEET OR LESS IN HEIGHT)




CUT SECTION B-B




TYPICAL SIGN CONNECTION FOR
SINGLE CHORD TRUSS
PLAN VIEW

TYPE I SIGN CONNECTION
TO OVERHEAD SIGN SUPPORT

*WISCONSIN DEPT OF TRANSPORTATION*

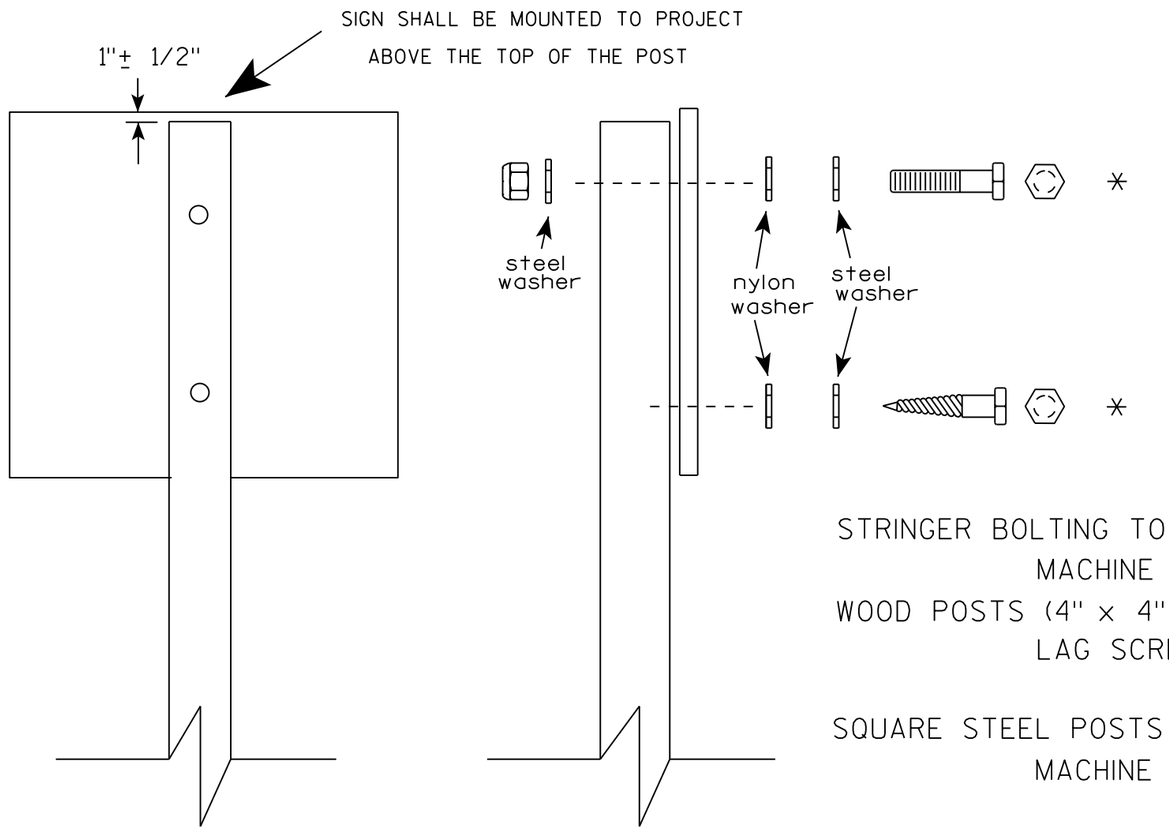
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/15 PLATE NO. A4-7,4



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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A47.DGN PLOT DATE : 01-DEC-2015 17:42 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 38.916838:1.000000




Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

# ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

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



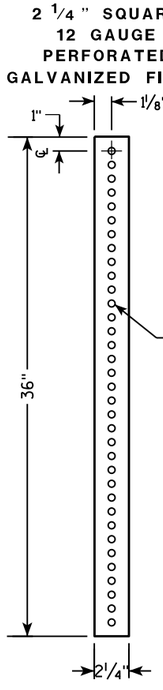
PROJECT NO: SHEET NO: E



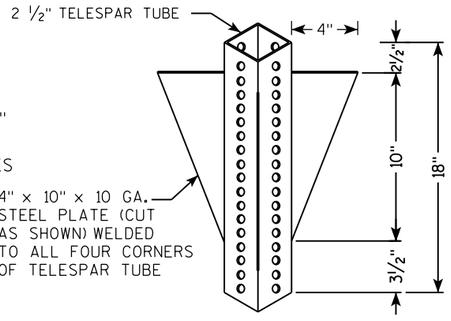
FILE NAME : C:\CADfiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 11-AUG-2016 11:35 PLOT BY : $$ plotuser $$

## TELESCOPIC TUBING ANCHORS
## TWO PIECE SYSTEM

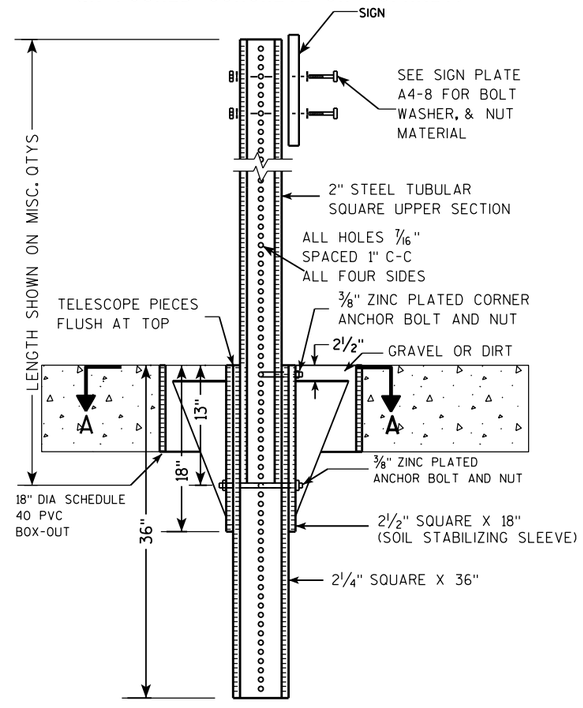
**2 1/4 " SQUARE**
**12 GAUGE**
**PERFORATED**
**GALVANIZED FINISH**



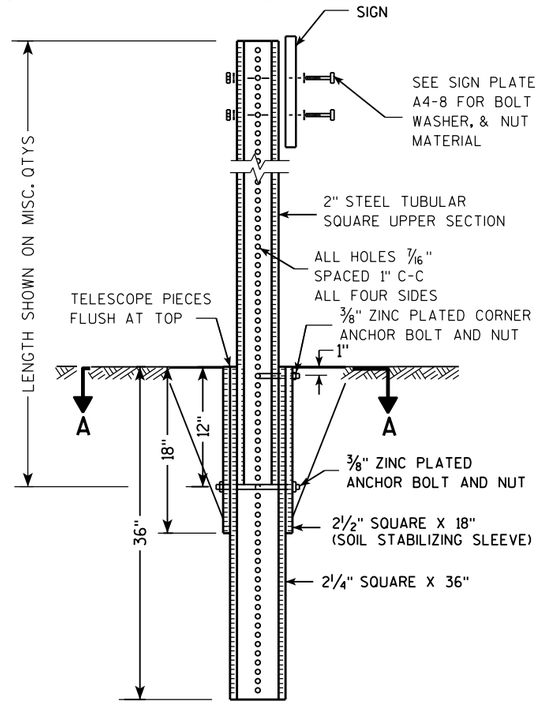

**2 1/2 " SQUARE**
**12 GAUGE**
**OMNI-DIRECTIONAL**
**PERFORATED**
**SOIL STABILIZING SLEEVE**
**GALVANIZED FINISH**

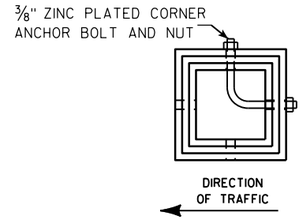



## DETAIL OF TUBULAR STEEL SIGN POST
**(IN POURED CONCRETE OR ASPHALT)**




## DETAIL OF TUBULAR STEEL SIGN POST
**(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)**




**SECTION A-A**

| Area of Sign Installation (Sq. Ft.) | Number of Required Posts |
|---|---|
| 9 or less | 1 |
| Greater than 9 less than or equal to 18 | 2 |
| Greater than 18 less than or equal to 27 | 3 |

**Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).**

TUBULAR STEEL
SIGN POST
A4-9

*WISCONSIN DEPT OF TRANSPORTATION*

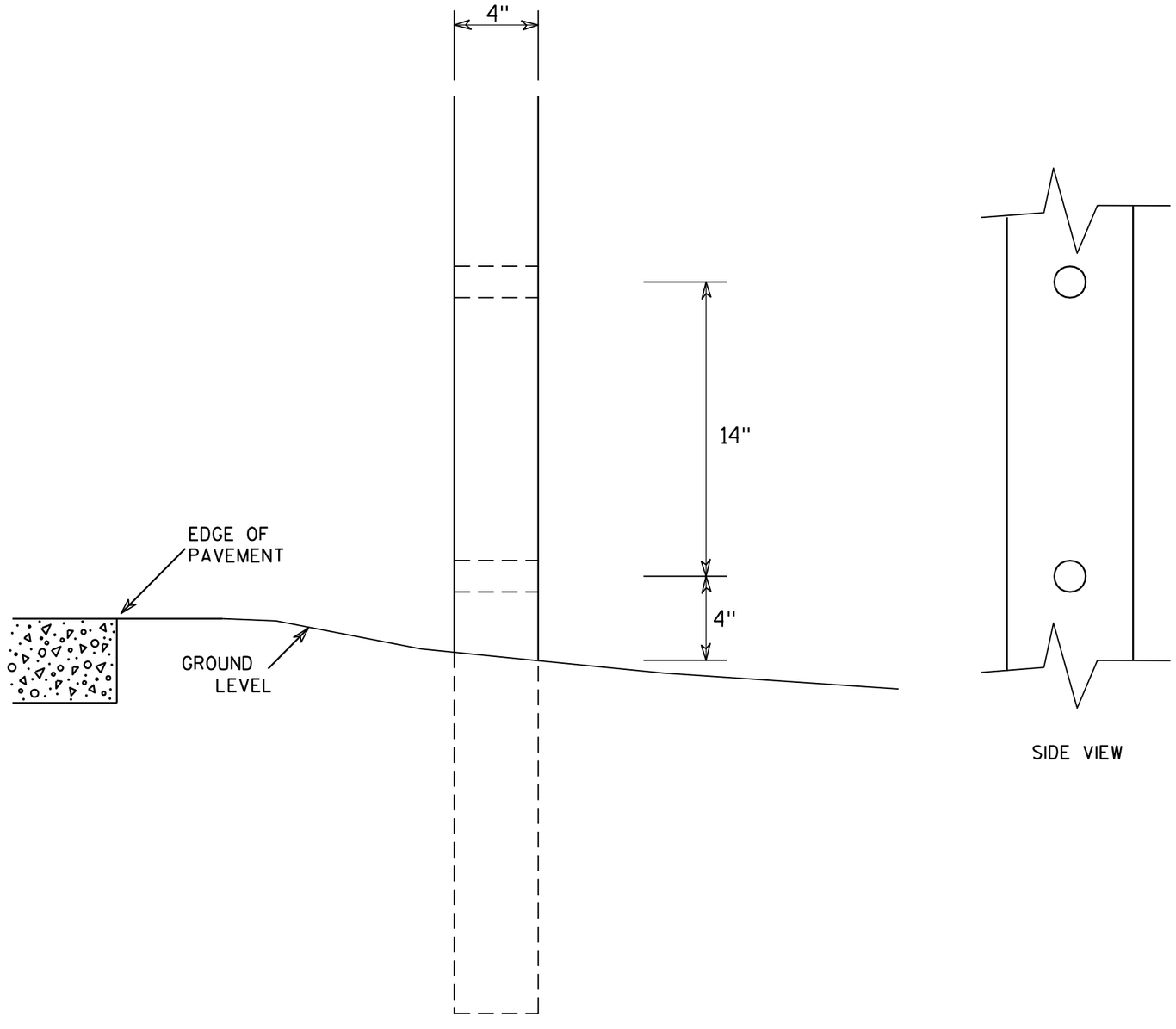
APPROVED Matthew R Rauch
*for* State Traffic Engineer

DATE 2/05/15 PLATE 320 A4-9.9

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

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000

WISDOT/CADDS SHEET 42






SIDE VIEW

GENERAL NOTES

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

7

7

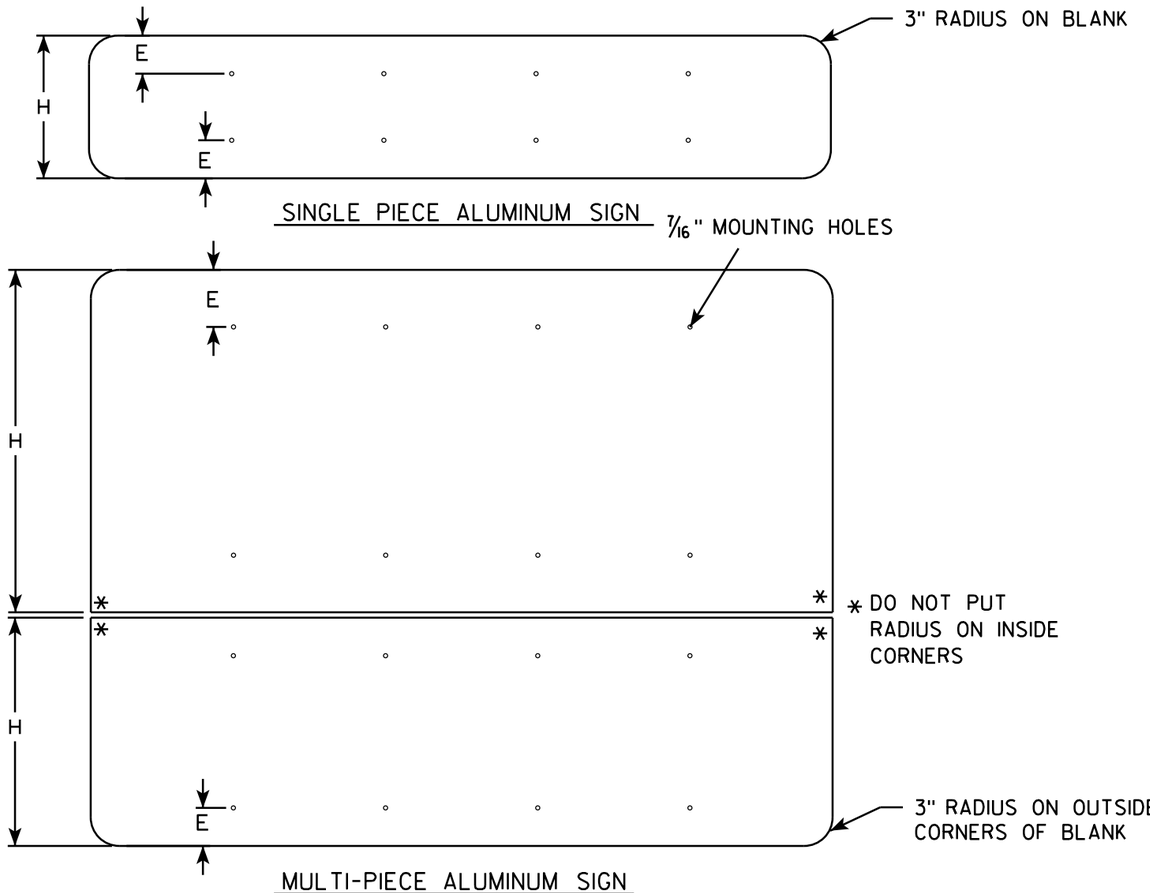
# 4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

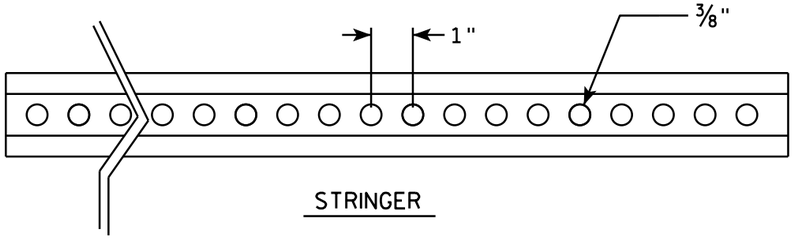
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 321 | E |
|---|---|---|---|---|---|

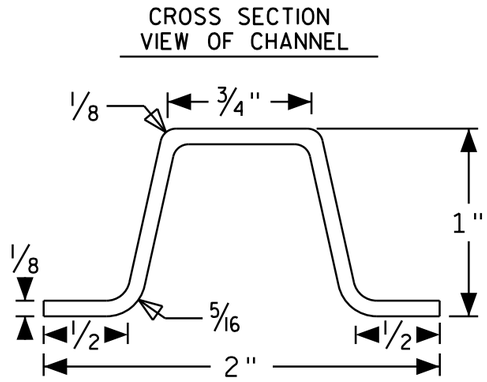


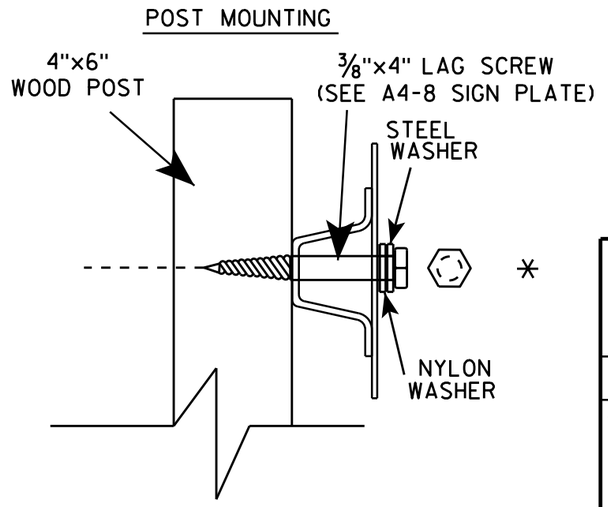

# GENERAL NOTES

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

| SIGN WIDTH | STRINGER WIDTH | POSTS | HOLE SPACING | MOUNTING HOLES |
|---|---|---|---|---|
| 78" | 72" | 2 | 16" | 15" 31" 47" 63" |
| 84" | 72" | 2 | 17" | 16½" 33½" 50½" 67½" |
| 90" | 72" | 2 | 18" | 18" 36" 54" 72" |
| 96" | 90" | 2 | 19" | 19½" 38½" 57½" 76½" |
| 102" | 90" | 2 | 20" | 21" 41" 61" 81" |
| 108" | 90" | 2 | 21" | 22½" 43½" 64½" 85½" |
| 114" | 108" | 3 | 15" | 12" 27" 42" 57" 72" 87" 102" |
| 120" | 108" | 3 | 16" | 12" 28" 44" 60" 76" 92" 108" |
| 126" | 108" | 3 | 17" | 12" 29" 46" 63" 80" 97" 114" |
| 132" | 126" | 3 | 18" | 12" 30" 48" 66" 84" 102" 120" |
| 138" | 126" | 3 | 19" | 12" 31" 50" 69" 88" 107" 126" |
| 144" | 126" | 3 | 20" | 12" 32" 52" 72" 92" 112" 132" |




## SIGN STRINGER MOUNTING REQUIREMENTS

*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch

for State Traffic Engineer

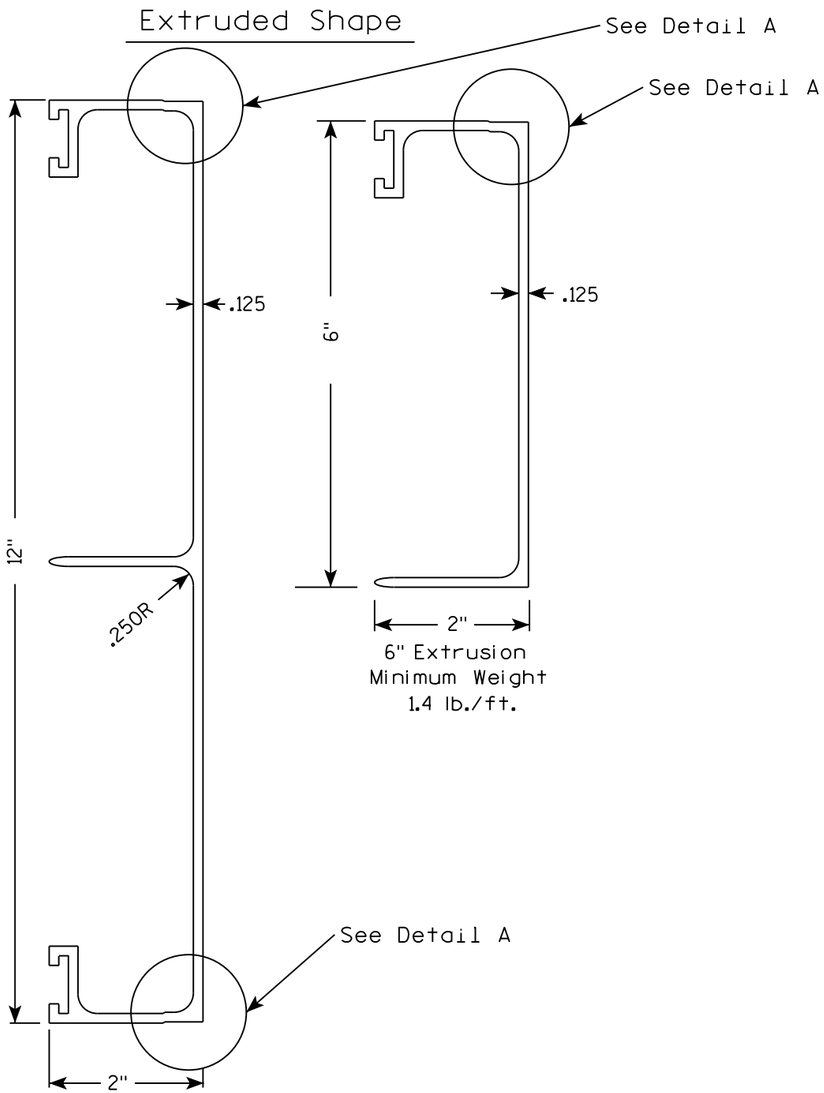
DATE 4/26/16 PLATE NO A4-18.1

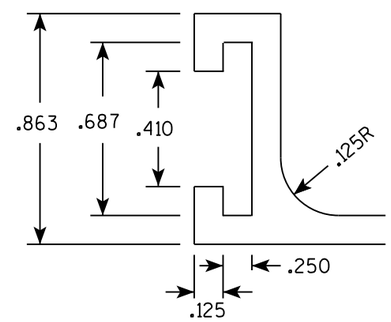
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: | E |
|---|---|---|---|---|---|

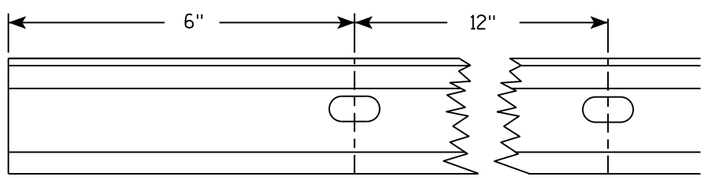


FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A418.dgn PLOT DATE : 27-APR-2016 13:56 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 41.805205:1.000000 WISDOT/CADDS SHEET 42

## Extruded Shape



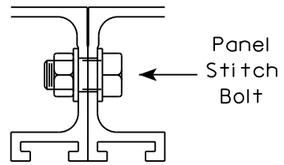

Punch 7/16" x 7/8" oval holes beginning 6" in from end of extrusion 12" CC on both edges of 6" and 12" panels.

## Hardware

### STITCH BOLT, WASHER & NUT

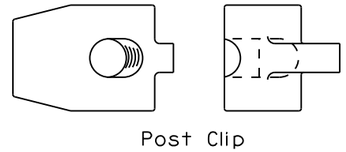
The hardware includes:

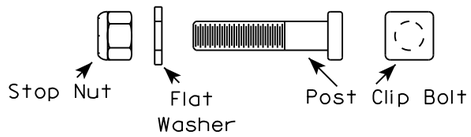
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy




### POST CLIP, POST CLIP BOLT, WASHER & NUT

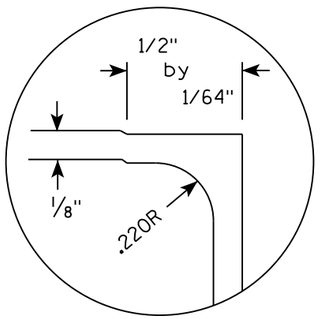
Post Clip shall be Alum. Alloy 356-T6
Post Clip Bolt shall be Stainless Steel.
Flat washer shall be 3/8" X .091, Stainless Steel.
Stop nut shall be stainless steel.




### NOTES

1. The contractor may select any brand of extrusion that conforms to the illustrations or meets with the approval of the engineer, but all extrusions used on this contract shall be of the same brand.
2. Panel Stitch Bolts shall be used to assemble adjacent panels. Maximum stitch bolt spacing shall be 24" C-C, and a minimum of 4 bolts shall be used to connect any two extrusions.
3. Post Clips shall be used to attach the sign panel to the sign support.
4. Edge wrapping of sign sheeting required on all extrusions joints shown in Detail A.




DETAIL A (EDGE WRAP JOINT)

ALUMINUM EXTRUSIONS FOR TYPE I SIGNS

*WISCONSIN DEPT OF TRANSPORTATION*

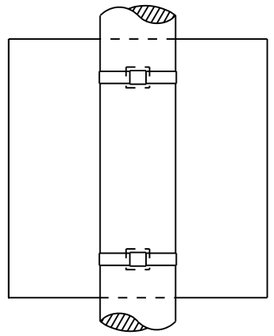
APPROVED Matthew R Rauch
for State Traffic Engineer

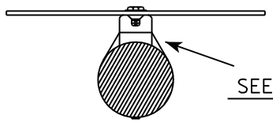
DATE 11/30/16 PLATE NO. A5-2.10

| PROJECT NO: | | | | SHEET NO: 323 | E |
|---|---|---|---|---|---|

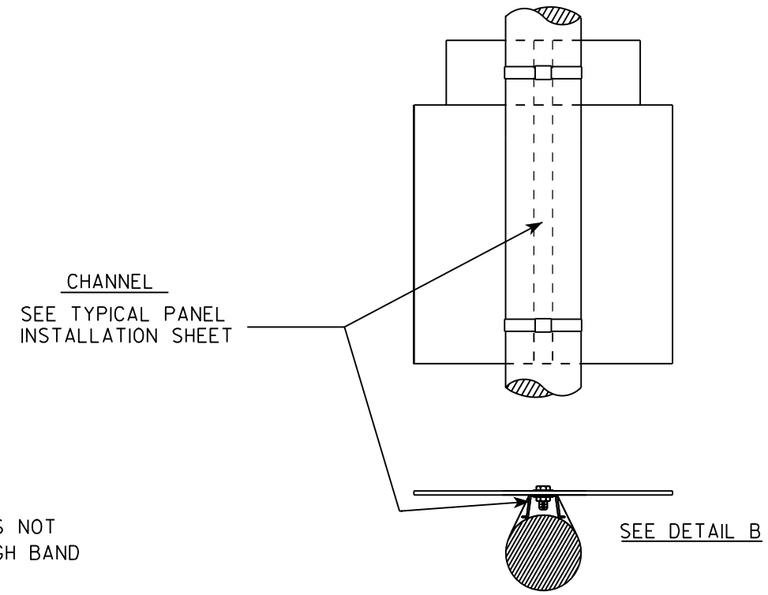
# BANDING

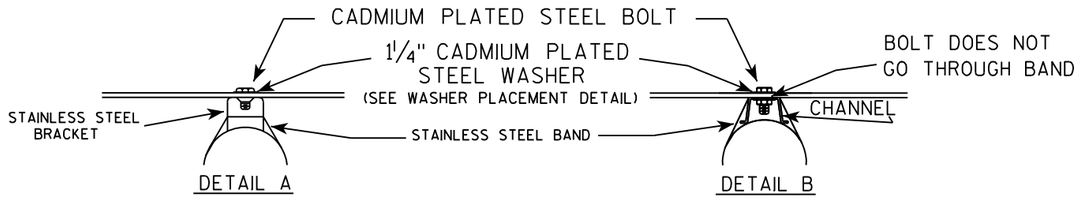
SINGLE SIGN



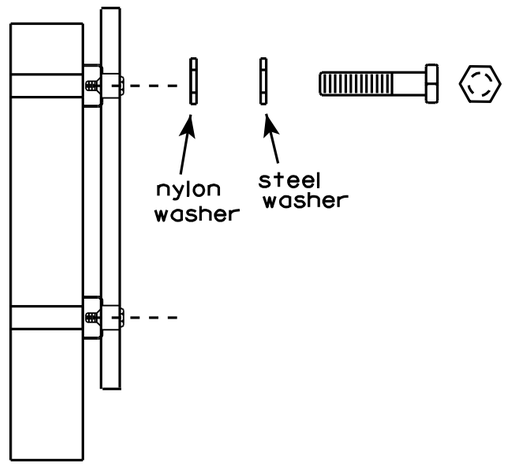



"J" ASSEMBLY




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.

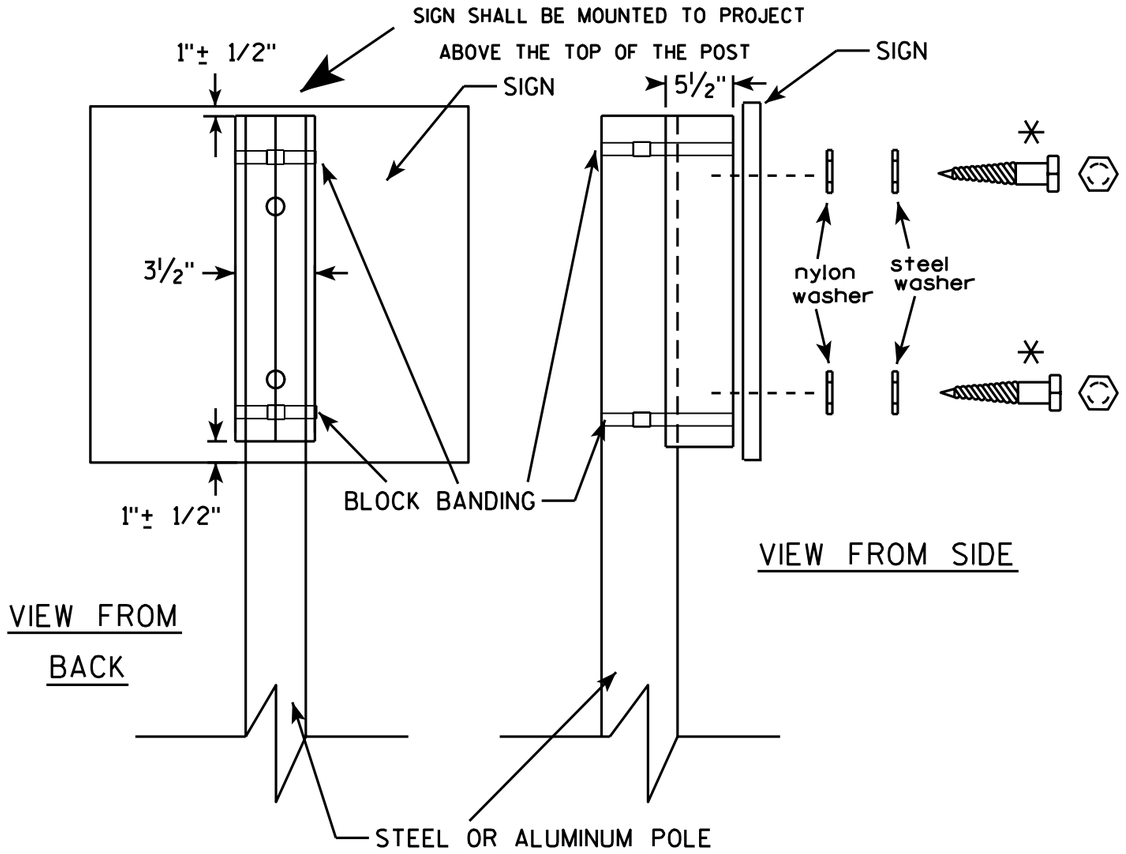
STANDARD SIGN
SIGN BANDING DETAILS

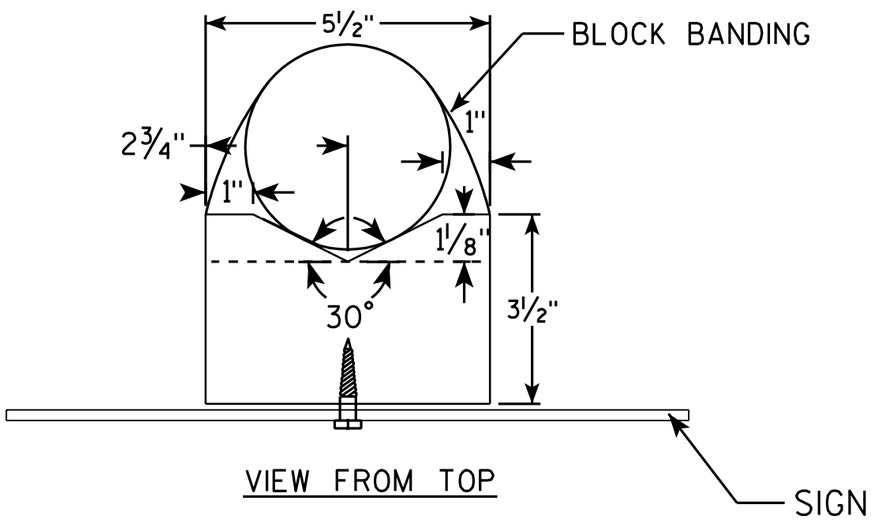
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 324 | E |
|---|---|---|---|---|---|




## GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

# BLOCK BANDING DETAIL ( V-BLOCK OPTION )

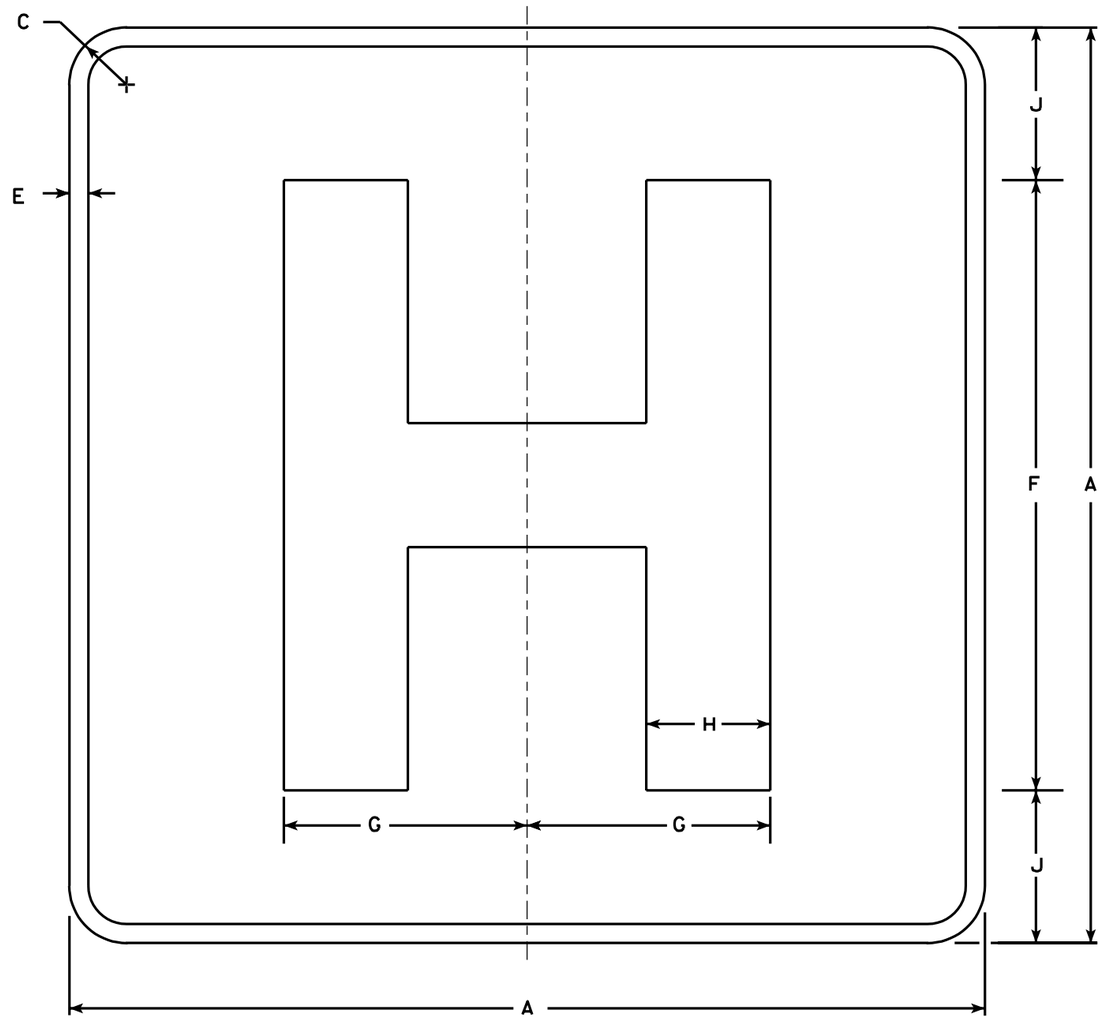
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 325 E




D9-2

NOTES

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

Metric equivalent for this sign is:

| SIZE | |
|---|---|
| 1 | 450 mmX 450 mm |
| 2 | 600 mmX 600 mm |
| 3 | 900 mmX 900 mm |
| 4 | X |
| 5 | X |

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 18 | | 1 1/8 | | 1/2 | 12 | 4 3/4 | 2 3/8 | | 3 | | | | | | | | | | | | | | | | | 4.0 |
| 2 | 24 | | 1 1/2 | | 1/2 | 16 | 6 3/8 | 3 1/4 | | 4 | | | | | | | | | | | | | | | | | 4.0 |
| 3 | 36 | | 2 1/4 | | 3/4 | 24 | 9 1/2 | 4 7/8 | | 6 | | | | | | | | | | | | | | | | | 9.0 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

STANDARD SIGN
D9-2

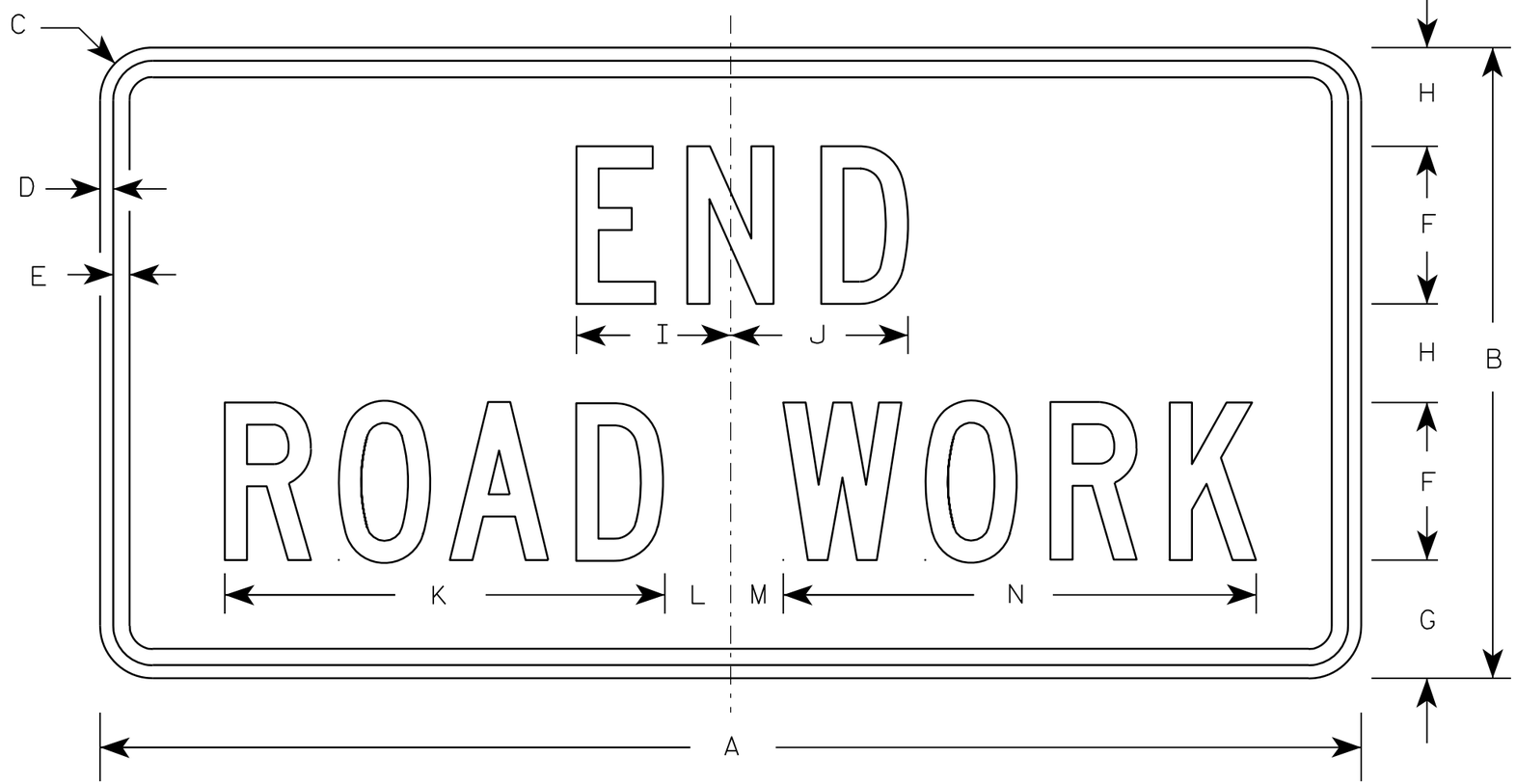
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spong
for State Traffic Engineer

DATE 1/15/02 PLATE NO. D9-2.4

PROJECT NO:

SHEET NO: 326 E




G20-2A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

| SIZE | |
|---|---|
| 1 | 900 mm X 450 mm |
| 2 | 1200 mm X 600 mm |
| 3 | 1200 mm X 600 mm |
| 4 | 1200 mm X 600 mm |
| 5 | 1200 mm X 600 mm |

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. | Area m2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 4 | 3 3/4 | 2 1/2 | 4 1/8 | 4 1/8 | 11 1/8 | 2 | 1 | 12 1/8 | | | | | | | | | | | | | 4.5 | 0.41 |
| 2 | 48 | 24 | 1 1/2 | 1/2 | 5/8 | 6 | 4 1/2 | 3 3/4 | 5 7/8 | 6 3/4 | 16 3/4 | 2 1/2 | 1 3/4 | 18 1/2 | | | | | | | | | | | | | 8.0 | 0.72 |
| 3 | 48 | 24 | 1 1/2 | 1/2 | 5/8 | 6 | 4 1/2 | 3 3/4 | 5 7/8 | 6 3/4 | 16 3/4 | 2 1/2 | 1 3/4 | 18 1/2 | | | | | | | | | | | | | 8.0 | 0.72 |
| 4 | 48 | 24 | 1 1/2 | 1/2 | 5/8 | 6 | 4 1/2 | 3 3/4 | 5 7/8 | 6 3/4 | 16 3/4 | 2 1/2 | 1 3/4 | 18 1/2 | | | | | | | | | | | | | 8.0 | 0.72 |
| 5 | 48 | 24 | 1 1/2 | 1/2 | 5/8 | 6 | 4 1/2 | 3 3/4 | 5 7/8 | 6 3/4 | 16 3/4 | 2 1/2 | 1 3/4 | 18 1/2 | | | | | | | | | | | | | 8.0 | 0.72 |

STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 327 | E |
|---|---|---|---|---|---|

NOTES

1. Sign is Type II- Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - E
4. Material shall be .040 aluminmum

G20-60

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 108 | 24 | | | | 12 | 6 | 14 7/8 | 78 1/4 | | | | | | | | | | | | | | | | | | 18.0 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

STANDARD SIGN
G20-60

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/13/15 PLATE NO G20-60.1



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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\G2060.DGN PLOT DATE : 13-MAY-2015 08:46 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 20.431338:1.000000
WISDOT/CADDS SHEET 42


7

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - E

G20-61

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 120 | 30 | 6 | | 2 | 12 | 9 | 21 | 78 1/4 | 20 3/4 | | | | | | | | | | | | | | | | | 25.0 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

STANDARD SIGN
G20-61

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/07/15 PLATE NO G20-61.1

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

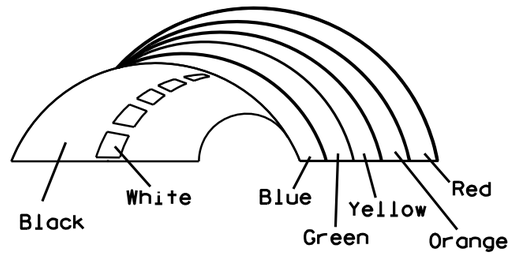


FILE NAME : C:\CAEFiles\Projects\tr_stdplate\G2061.DGN PLOT DATE : 07-MAY-2015 13:47 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 20.431338:1.000000 WISDOT/CADDS SHEET 42

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - (See Note 5)
3. Message Series - (See Note 6)
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Border - Blue
   Line 1 - Red
   Line 2 - Black
   Line 3-5 - Blue
6. Line 1 - Dutch 8011L
   Line 2 - Series E
   Line 3-5 - Series C
7. Contractor shall provide and install a new post bracket in accordance with the I55-56B sign detail.

Background Colors of Symbol*




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

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 30 | 36 | 1 1/2 | 1/2 | 5/8 | 3 | 2 | 3 1/2 | 2 7/8 | 1 | 8 | 2 1/8 | 11 1/4 | 11 1/8 | 9 3/8 | 1 1/4 | | 3/4 | 12 5/8 | 7 1/2 | | | | | | | 7.5 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

STANDARD SIGN
I55-56

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

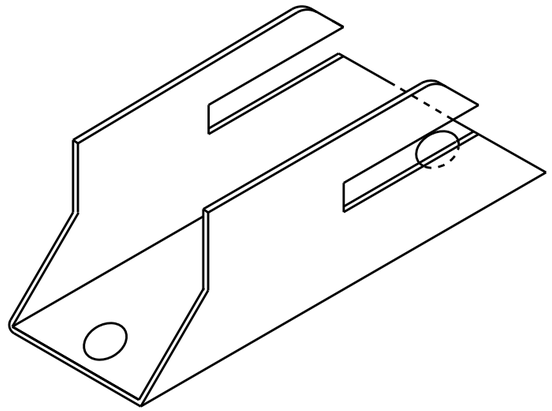
DATE 4/27/11 PLATE NO. 155-56.3

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 330 |
|---|---|---|---|---|

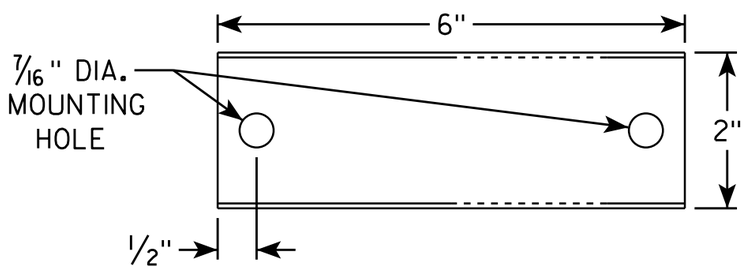
## NOTES

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

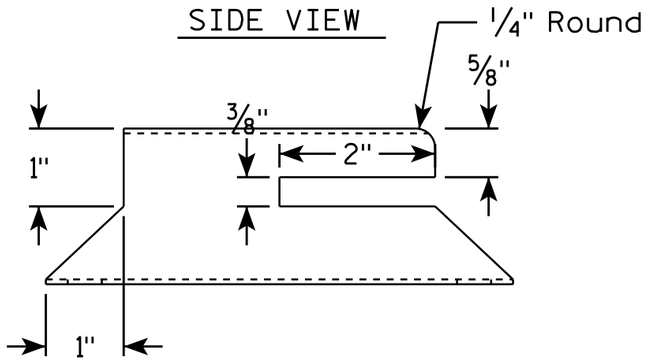
## ISOMETRIC VIEW



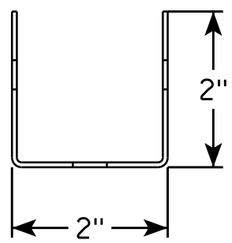
## TOP VIEW



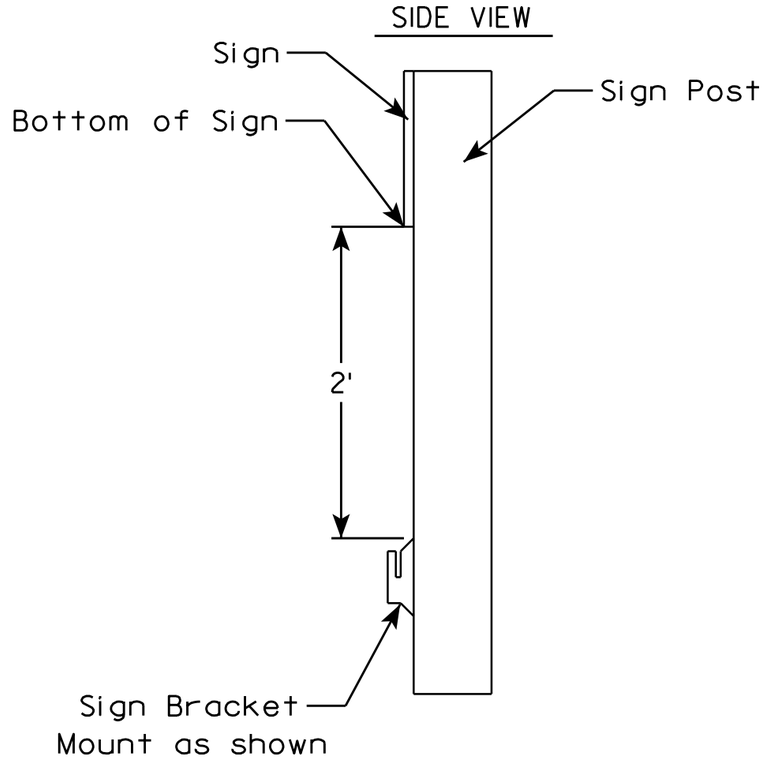

## SIDE VIEW




## END VIEW




## SIDE VIEW




ROLLUP SIGN BRACKET
I55-56B

WISCONSIN DEPT OF TRANSPORTATION

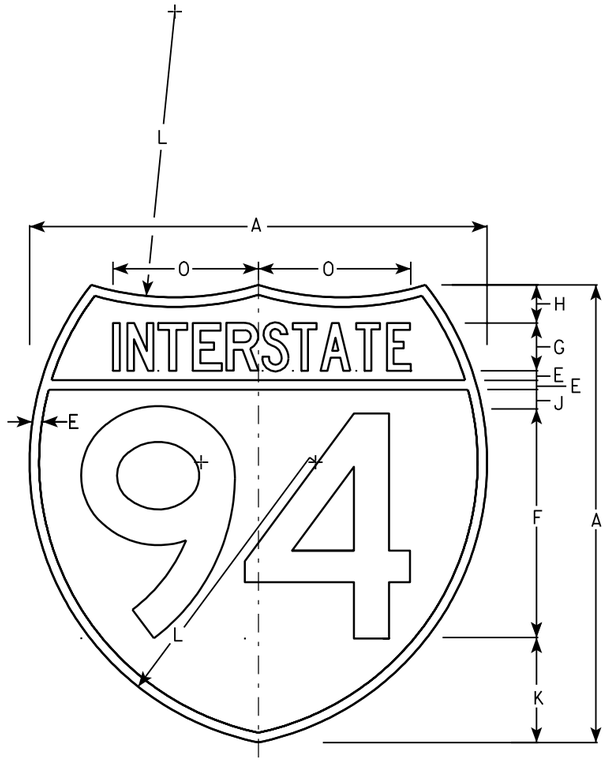
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/26/16 PLATE I55-56B.2

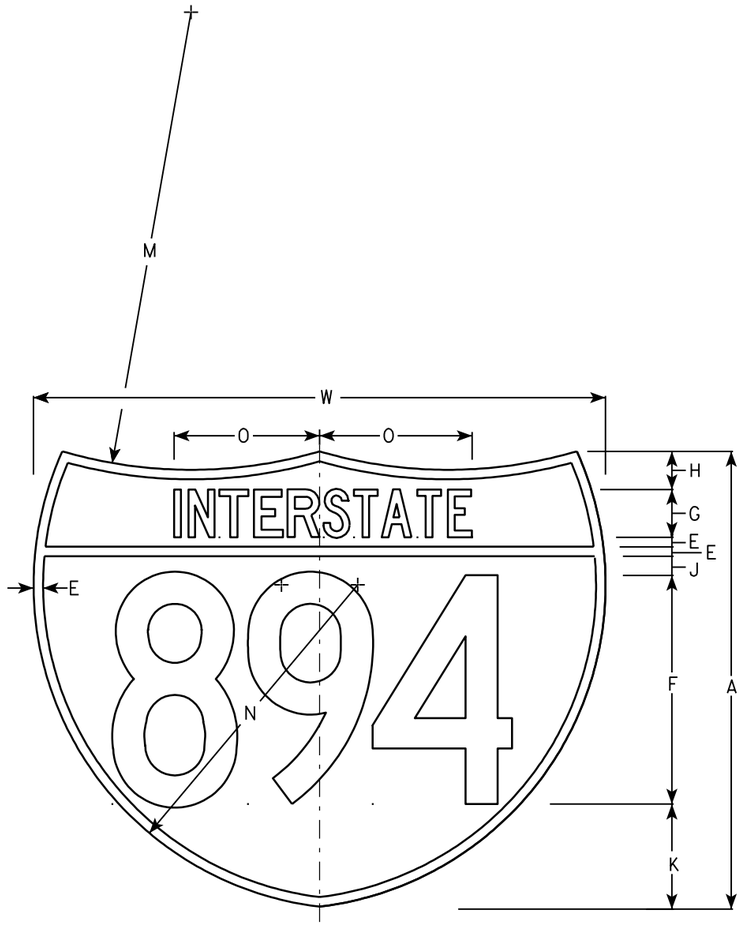
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: | E |
|---|---|---|---|---|---|



FILE NAME : C:\CAEfiles\Projects\tr_stdplate\I5556B.DGN PLOT DATE : 26-APR-2016 17:29 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 1.945842:1.000000
WISDOT/CADDS SHEET 42




M1-1




M1-1A

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Red - Bottom Blue (See Note 6)
   Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C
6. Permanent Signs
   Message - Type H Reflective
   Detour or other temporary signs
   Background - Reflective
   Message - Reflective

Metric equivalent for these signs are:

| SIZE | M1-1 | SIZE | M1-1A |
|---|---|---|---|
| 1 | | | |
| 2 | 600 mm X 600 mm | 2 | 600 mm X 750 mm |
| 3 | 900 mm X 900 mm | 3 | 900 mm X 1125 mm |
| 4 | 900 mm X 900 mm | 4 | 900 mm X 1125 mm |
| 5 | 900 mm X 900 mm | 5 | 900 mm X 1125 mm |

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | M1-1 Area sq. ft. | M1-1A Area sq. ft. | M1-1 Area m2 | M1-1A Area m2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 24 | | | | 1/2 | 12 | 2 1/2 | 2 | | 1 | 5 1/2 | 15 | 24 | 17 | 7 7/8 | | | | | | | | 30 | | | 3.13 | 3.91 | .36 | .46 |
| 3 | 36 | | | | 3/4 | 18 | 3 3/4 | 3 | | 1 1/2 | 8 1/4 | 22 1/2 | 36 | 25 1/2 | 11 3/4 | | | | | | | | 45 | | | 7.03 | 8.79 | .81 | 1.05 |
| 4 | 36 | | | | 3/4 | 18 | 3 3/4 | 3 | | 1 1/2 | 8 1/4 | 22 1/2 | 36 | 25 1/2 | 11 3/4 | | | | | | | | 45 | | | 7.03 | 8.79 | .81 | 1.05 |
| 5 | 36 | | | | 3/4 | 18 | 3 3/4 | 3 | | 1 1/2 | 8 1/4 | 22 1/2 | 36 | 25 1/2 | 11 3/4 | | | | | | | | 45 | | | 7.03 | 8.79 | .81 | 1.05 |

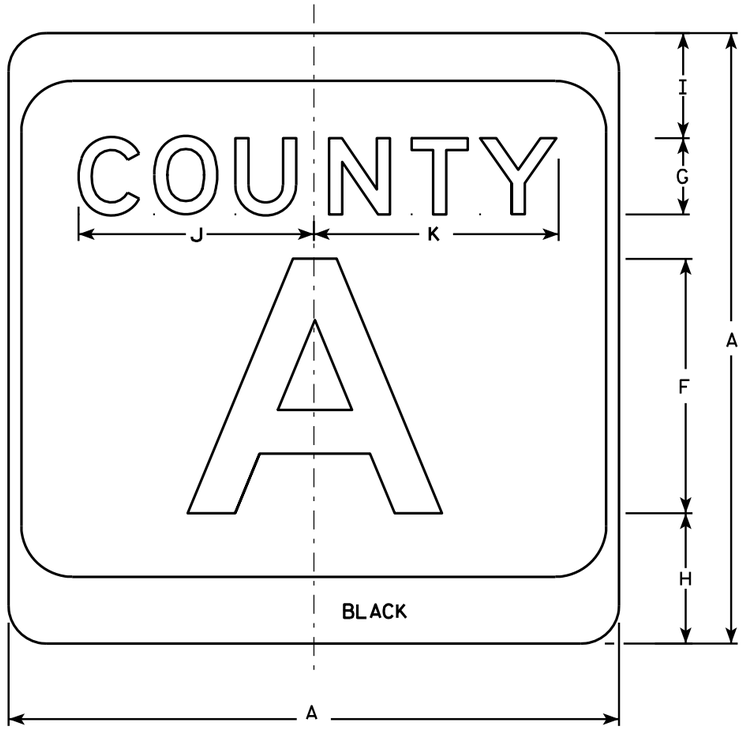
INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

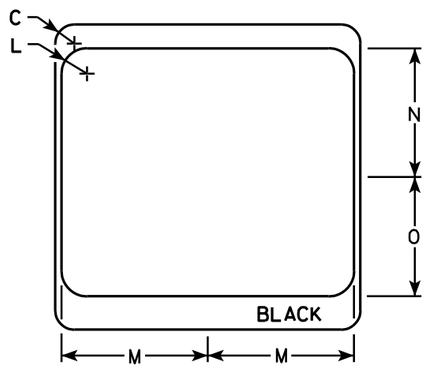
APPROVED Matthew R Rauch
for State Traffic Engineer

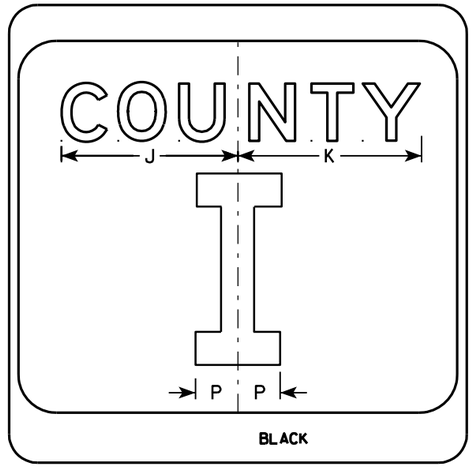
DATE 08/23/05 PLATE NO. M1-1.8

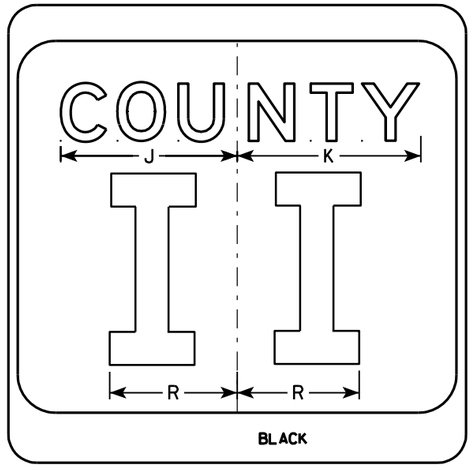
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 332 | E |
|---|---|---|---|---|---|




M1-5A




NOTES

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

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 24 | | 1 1/2 | | | 10 | 3 | 5 1/8 | 4 1/8 | 9 1/4 | 9 5/8 | 2 | 11 1/2 | 10 1/8 | 9 3/8 | 2 1/4 | | 6 5/8 | | | | | | | | | 4.0 |
| 3 | 36 | | 2 1/4 | | | 16 | 4 | 7 5/8 | 5 5/8 | 12 1/4 | 12 7/8 | 3 | 17 1/8 | 15 1/4 | 14 | 3 3/8 | | 10 | | | | | | | | | 9.0 |
| 4 | 36 | | 2 1/4 | | | 16 | 4 | 7 5/8 | 5 5/8 | 12 1/4 | 12 7/8 | 3 | 17 1/8 | 15 1/4 | 14 | 3 3/8 | | 10 | | | | | | | | | 9.0 |
| 5 | 36 | | 2 1/4 | | | 16 | 4 | 7 5/8 | 5 5/8 | 12 1/4 | 12 7/8 | 3 | 17 1/8 | 15 1/4 | 14 | 3 3/8 | | 10 | | | | | | | | | 9.0 |

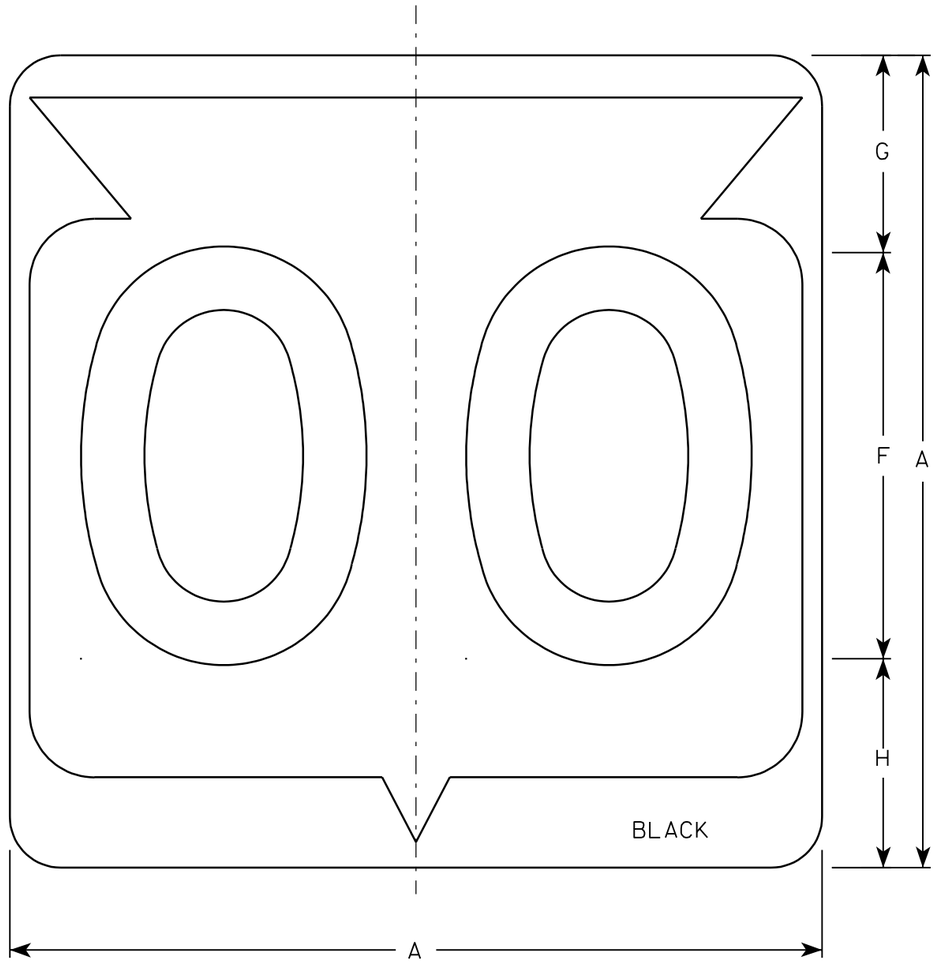
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

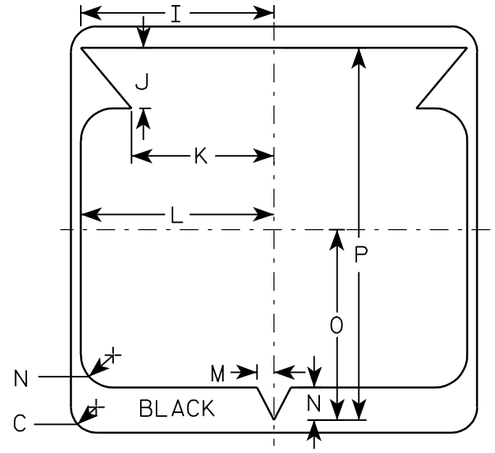
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 333 | E |
|---|---|---|---|---|---|




M1-6

## NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate Series numerals and adjust spacing as per plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective




Metric equivalent for this sign is:

| SIZE | |
|---|---|
| 1 | |
| 2 | 600 mm X 600 mm |
| 3 | 900 mm X 900 mm |
| 4 | 900 mm X 900 mm |
| 5 | 900 mm X 900 mm |

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. | Area m2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 24 | | 1 1/2 | | | 12 | 5 1/2 | 6 1/2 | 10 1/4 | 2 1/2 | 8 7/8 | 11 1/2 | 1 | 1 7/8 | 11 1/4 | 21 7/8 | | | | | | | | | | | 4.0 | .36 |
| 3 | 36 | | 2 1/4 | | | 18 | 8 3/4 | 9 1/4 | 15 3/8 | 5 3/8 | 12 5/8 | 17 1/8 | 1 1/2 | 2 7/8 | 16 7/8 | 33 | | | | | | | | | | | 9.0 | .81 |
| 4 | 36 | | 2 1/4 | | | 18 | 8 3/4 | 9 1/4 | 15 3/8 | 5 3/8 | 12 5/8 | 17 1/8 | 1 1/2 | 2 7/8 | 16 7/8 | 33 | | | | | | | | | | | 9.0 | .81 |
| 5 | 36 | | 2 1/4 | | | 18 | 8 3/4 | 9 1/4 | 15 3/8 | 5 3/8 | 12 5/8 | 17 1/8 | 1 1/2 | 2 7/8 | 16 7/8 | 33 | | | | | | | | | | | 9.0 | .81 |

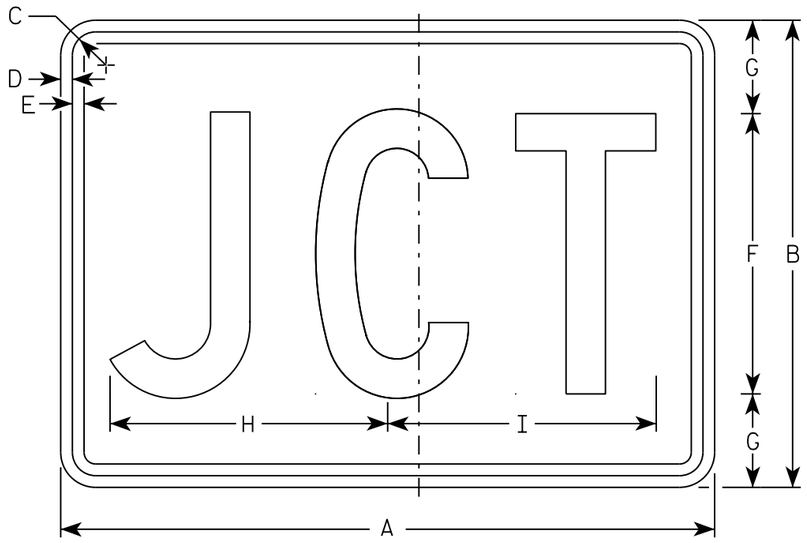
# STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

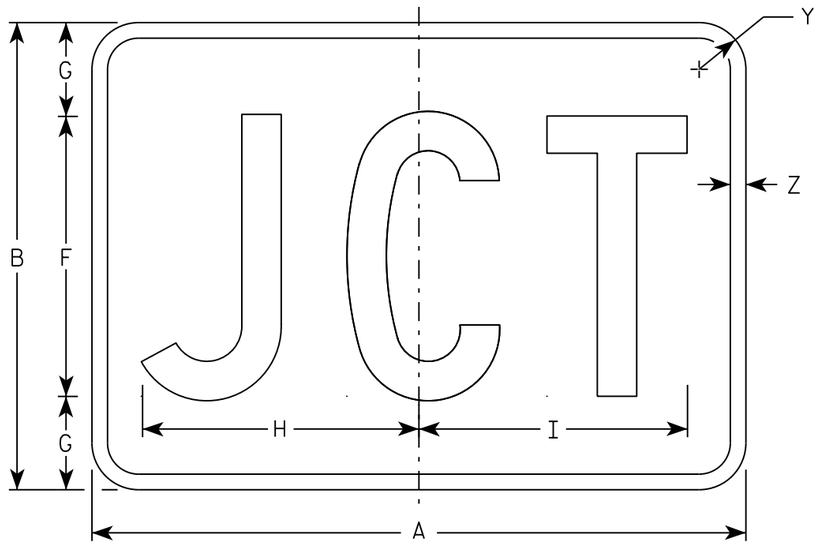
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 334 | E |
|---|---|---|---|---|---|




M2-1
MM2-1
MP2-1




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

NOTES

1. Sign is Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M2-1 Background - White
   Message - Black
   MB2-1 Background - Blue
   Message - White
   MK2-1 Background - Green
   Message - White
   MM2-1 Background - White
   Message - Green
   MN2-1 Background - Brown
   Message - White
   MP2-1 Background - White
   Message - Blue
   MR2-1 Background - Brown
   Message - Yellow

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 21 | 15 | 1 1/8 | 3/8 | 3/8 | 9 | 3 | 8 7/8 | 8 5/8 | | | | | | | | | | | | | | | | 1 1/2 | 1/2 | 2.20 |
| 3 | 30 | 21 | 1 1/8 | 3/8 | 3/8 | 13 | 4 | 12 7/8 | 12 3/8 | | | | | | | | | | | | | | | | 1 1/2 | 1/2 | 4.40 |
| 4 | 30 | 21 | 1 1/8 | 3/8 | 3/8 | 13 | 4 | 12 7/8 | 12 3/8 | | | | | | | | | | | | | | | | 1 1/2 | 1/2 | 4.40 |
| 5 | 30 | 21 | 1 1/8 | 3/8 | 3/8 | 13 | 4 | 12 7/8 | 12 3/8 | | | | | | | | | | | | | | | | 1 1/2 | 1/2 | 4.40 |

STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

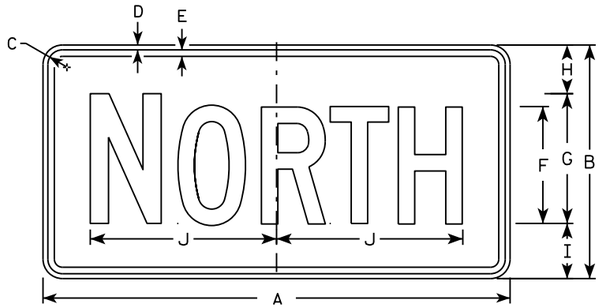
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 335 12-1.12

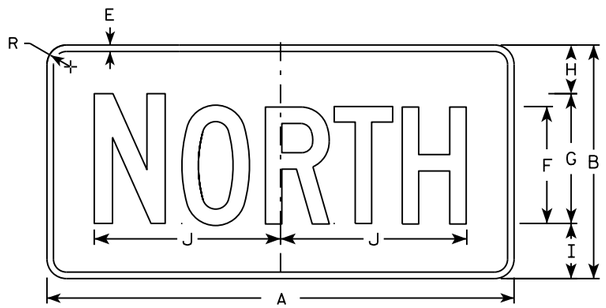
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: | E |
|---|---|---|---|---|---|



FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M21.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.864603:1.000000



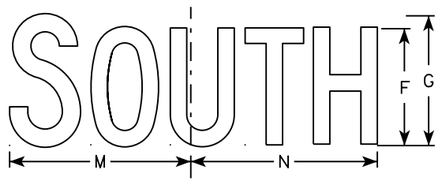

M3-1
MM3-1
MP3-1



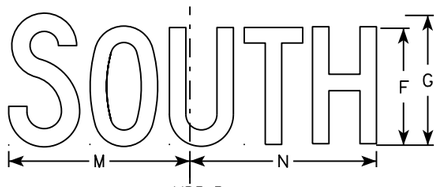

MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

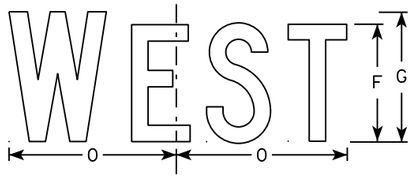
MB3-2
MK3-2
MN3-2



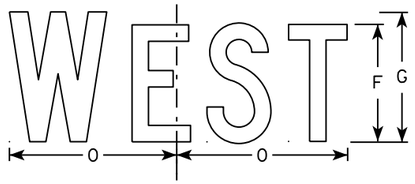

M3-3
MM3-3
MP3-3




MB3-3
MK3-3
MN3-3




M3-4
MM3-4
MP3-4




MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 24 | 12 | 1 1/8 | 3/8 | 3/8 | 6 | 7 | 2 1/4 | 2 3/4 | 10 1/4 | 7 7/8 | 8 3/8 | 10 1/4 | 9 3/4 | 8 3/4 | | | 1 1/2 | | | | | | | | | 2.00 |
| 3 | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 9 | 10 | 3 3/4 | 4 1/4 | 14 3/8 | 12 | 12 1/8 | 14 | 14 1/8 | 13 | | | 1 1/2 | | | | | | | | | 4.5 |
| 4 | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 9 | 10 | 3 3/4 | 4 1/4 | 14 3/8 | 12 | 12 1/8 | 14 | 14 1/8 | 13 | | | 1 1/2 | | | | | | | | | 4.5 |
| 5 | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 9 | 10 | 3 3/4 | 4 1/4 | 14 3/8 | 12 | 12 1/8 | 14 | 14 1/8 | 13 | | | 1 1/2 | | | | | | | | | 4.5 |

STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

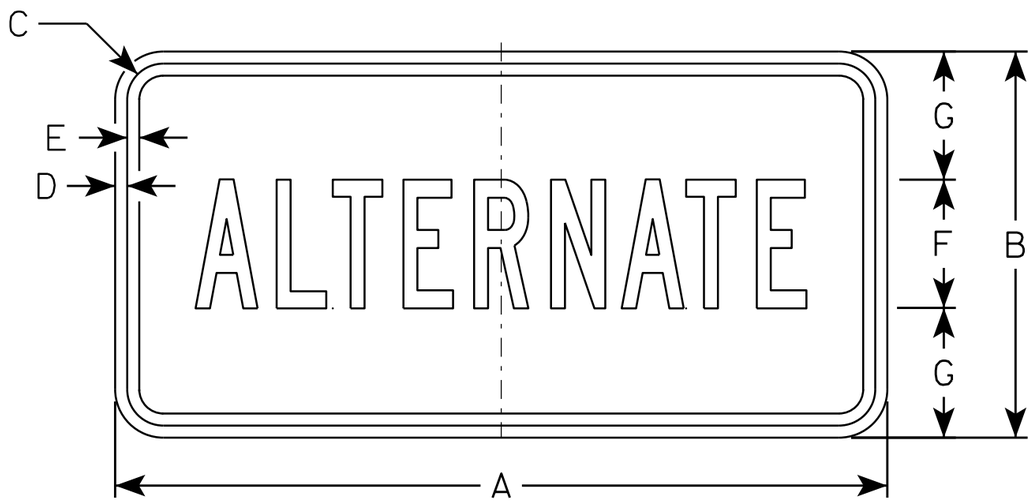
DATE 10/15/15 PLATE NO M3-1.14



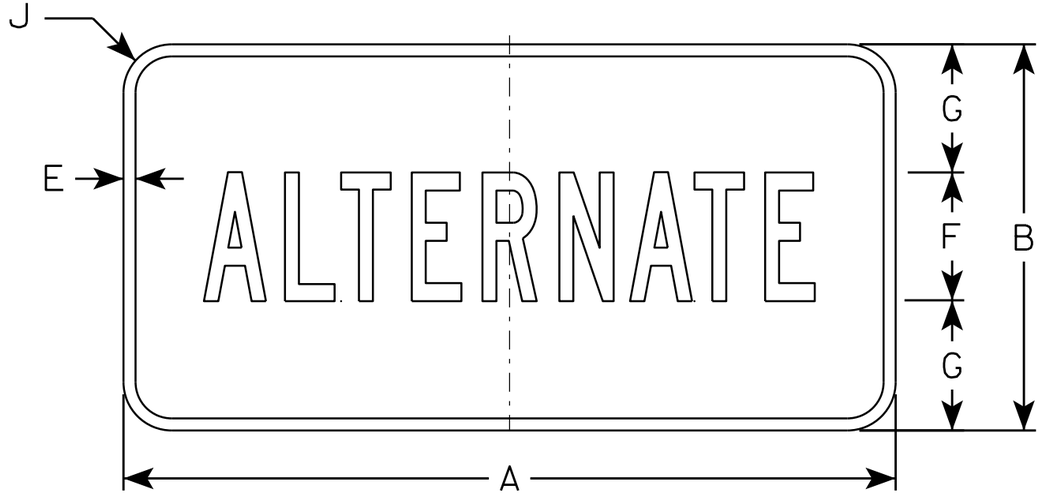
PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000

7




M4-1
M04-1




MB4-1

NOTES

1. Sign is Type II - Type H except as Shown
2. Color:
   Background - See Note 5
   Message - See note 5
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-1 Background - White
   Message - Black

   MB4-1 Background - Blue
   Message - White

   M04-1 Background - Orange - Type F
   Message - Black

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 24 | 12 | 1 1/8 | 3/8 | 3/8 | 4 | 4 | 9 3/4 | 9 1/2 | 1 1/2 | | | | | | | | | | | | | | | | | 2.00 |
| 3 | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 7 | 5 1/2 | 16 3/8 | 16 1/2 | 1 1/2 | | | | | | | | | | | | | | | | | 4.5 |
| 4 | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 7 | 5 1/2 | 16 3/8 | 16 1/2 | 1 1/2 | | | | | | | | | | | | | | | | | 4.5 |
| 5 | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 7 | 5 1/2 | 16 3/8 | 16 1/2 | 1 1/2 | | | | | | | | | | | | | | | | | 4.5 |

STANDARD SIGN
M4-1

WISCONSIN DEPT OF TRANSPORTATION

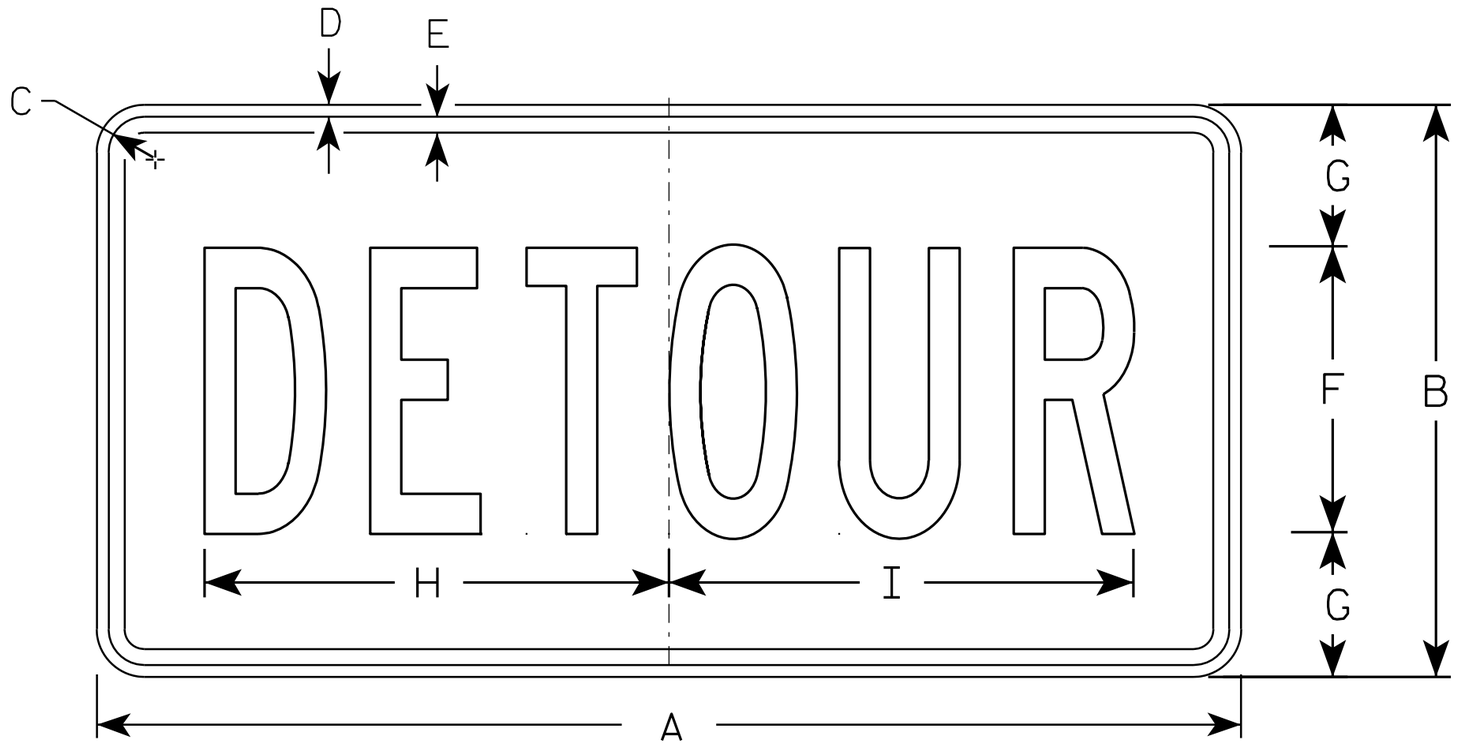
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/30/14 PLATE 14-1.8



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

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M41.DGN PLOT DATE : 30-JUN-2014 15:38 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 4.708937:1.000000 WISDOT/CADDS SHEET 42




M4-8

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 24 | 12 | 1 1/8 | 3/8 | 3/8 | 6 | 3 | 10 | 10 1/4 | | | | | | | | | | | | | | | | | | 2.0 |
| 3 | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 9 | 4 1/2 | 14 5/8 | 14 1/2 | | | | | | | | | | | | | | | | | | 4.5 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

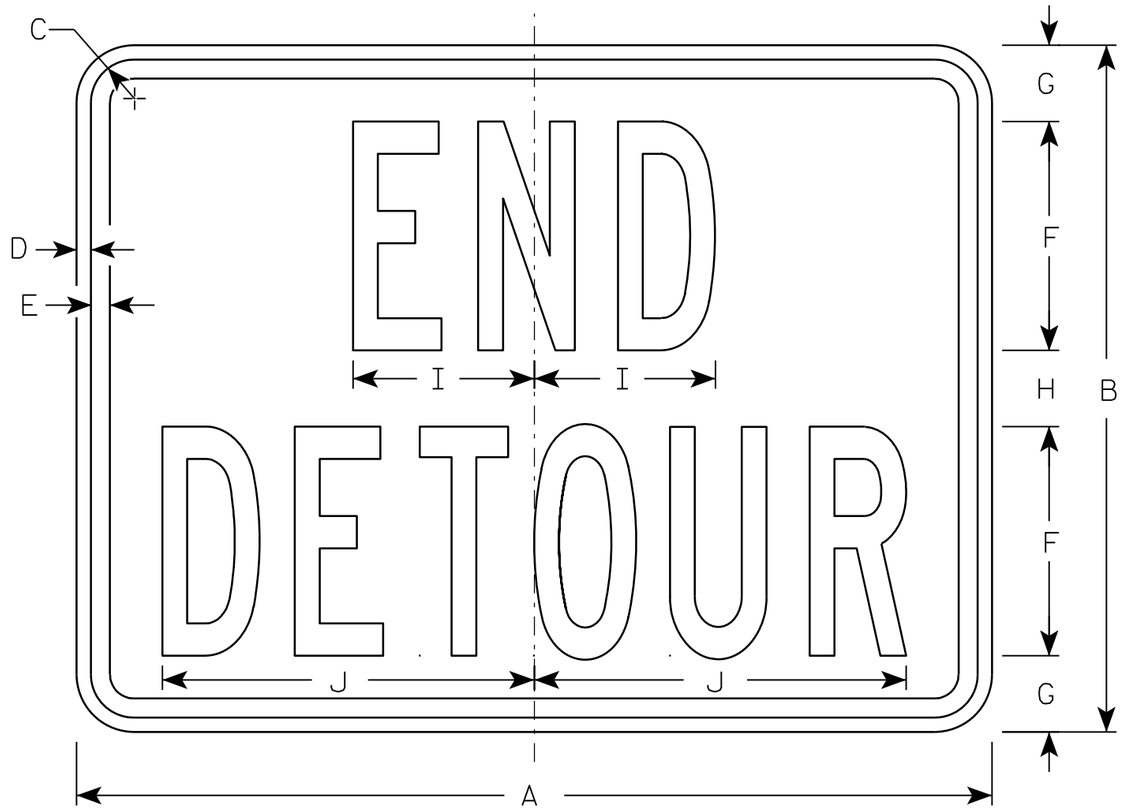
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 338 | E |
|---|---|---|---|---|---|




M4-8A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 24 | 18 | 1 1/8 | 3/8 | 1/2 | 6 | 2 | 2 | 4 3/4 | 9 3/4 | | | | | | | | | | | | | | | | | 3.0 |
| 3 | 30 | 24 | 1 1/8 | 3/8 | 1/2 | 8 | 2 1/2 | 3 | 6 3/4 | 13 | | | | | | | | | | | | | | | | | 5.0 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

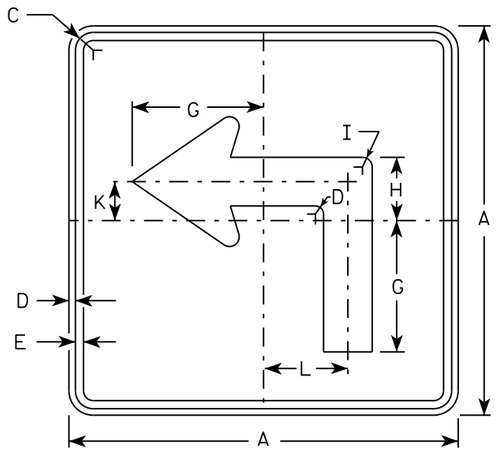
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

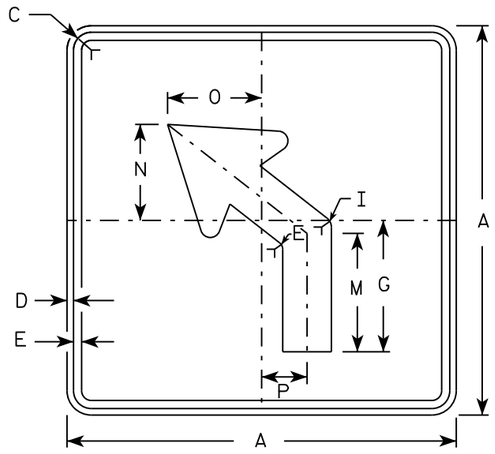
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2

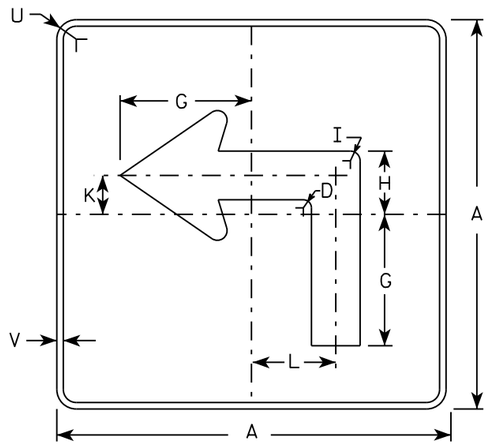
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 339 | E |
|---|---|---|---|---|---|



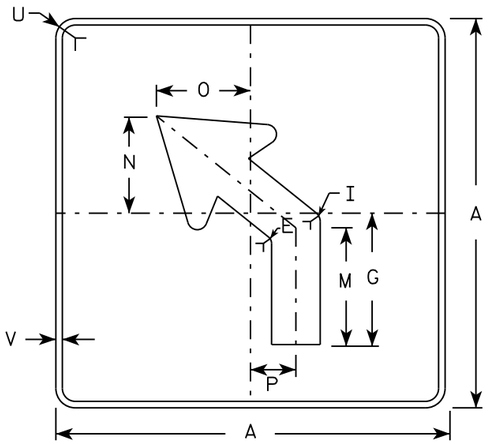

M5-1L
MM5-1L
MO5-1L
MP5-1L



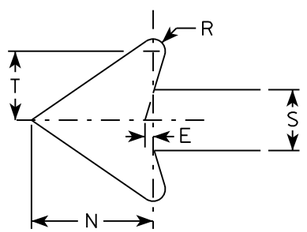

M5-2L
MM5-2L
MO5-2L
MP5-2L




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




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




NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 21 | | 1 1/8 | 3/8 | 3/8 | | 7 | 3 3/8 | 5/8 | | 2 1/8 | 4 1/2 | 6 3/8 | 5 1/4 | 5 | 2 1/2 | | 1/2 | 2 5/8 | 3 | 1 1/2 | 1/2 | | | | | 3.06 |
| 3 | 30 | | 1 3/8 | 1/2 | 5/8 | | 10 1/8 | 4 7/8 | 7/8 | | 3 | 6 1/2 | 9 1/8 | 7 1/2 | 7 1/4 | 3 1/2 | | 3/4 | 3 3/4 | 4 1/4 | 1 7/8 | 1/2 | | | | | 6.25 |
| 4 | 30 | | 1 3/8 | 1/2 | 5/8 | | 10 1/8 | 4 7/8 | 7/8 | | 3 | 6 1/2 | 9 1/8 | 7 1/2 | 7 1/4 | 3 1/2 | | 3/4 | 3 3/4 | 4 1/4 | 1 7/8 | 1/2 | | | | | 6.25 |
| 5 | 30 | | 1 3/8 | 1/2 | 5/8 | | 10 1/8 | 4 7/8 | 7/8 | | 3 | 6 1/2 | 9 1/8 | 7 1/2 | 7 1/4 | 3 1/2 | | 3/4 | 3 3/4 | 4 1/4 | 1 7/8 | 1/2 | | | | | 6.25 |

STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

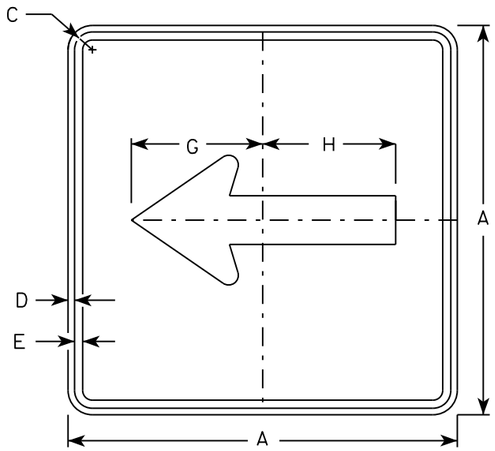
APPROVED Matthew R Rauch
for State Traffic Engineer

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

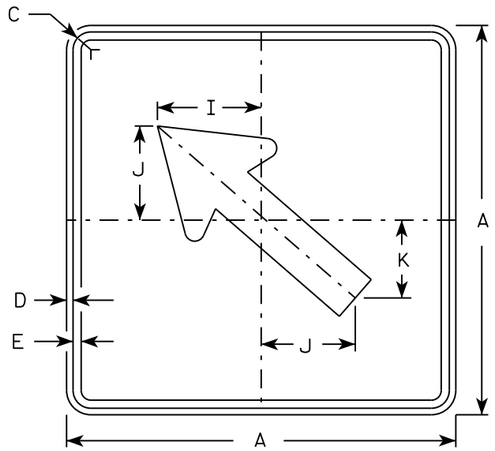


PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



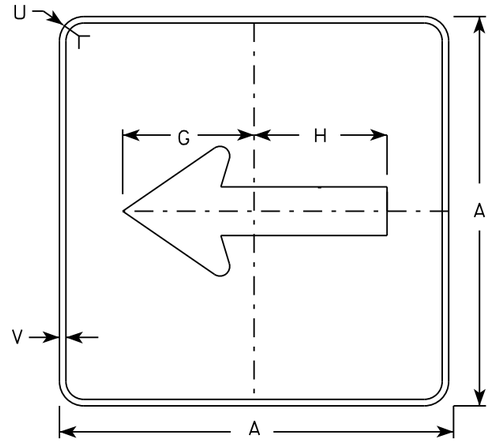

M6-1
MM6-1
MO6-1
MP6-1



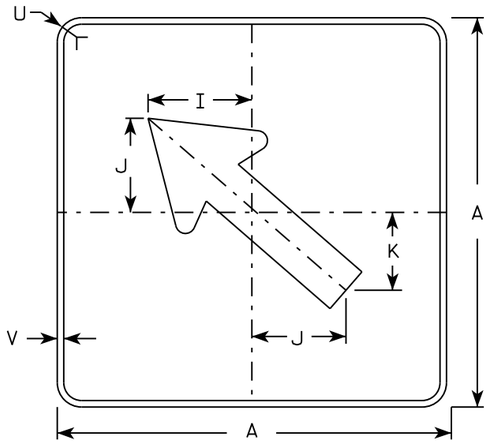

M6-2
MM6-2
MO6-2
MP6-2

NOTES

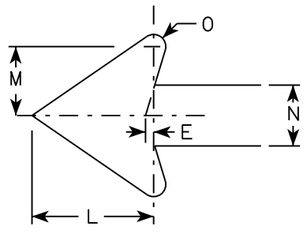
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow




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




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




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

STANDARD SIGN
M6-1 & M6-2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

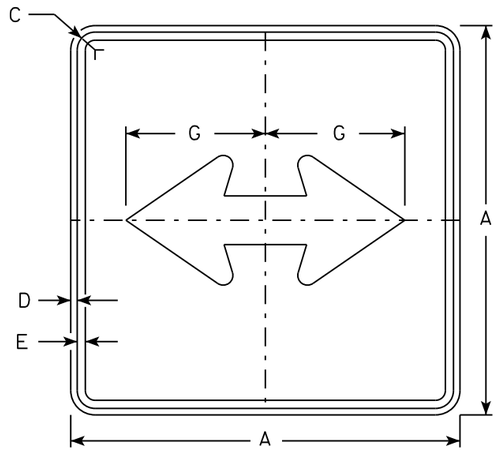
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 341 M6-1.15

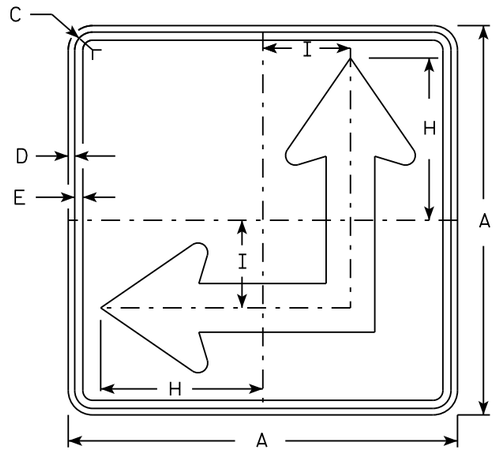
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: | E |
|---|---|---|---|---|---|



FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



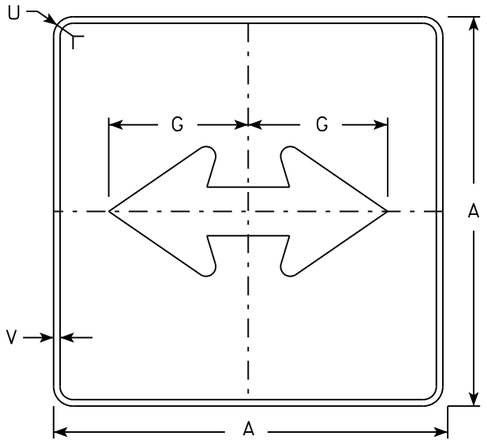

M6-4
MM6-4
MO6-4
MP6-4



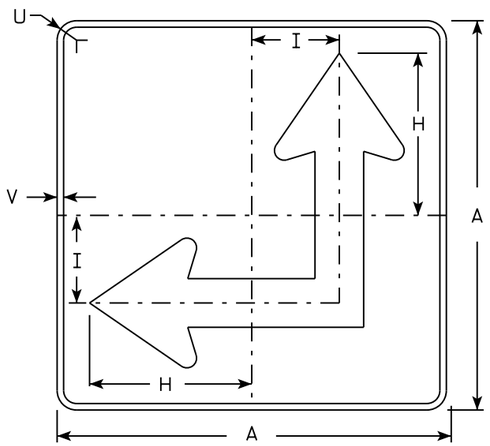

M6-6
MM6-6
MO6-6
MP6-6

NOTES

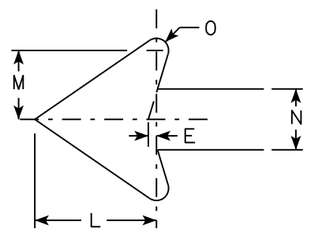
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See Note 4
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-4 and M6-6 Background - White
   Message - Black
   MB6-4 and MB6-6 Background - Blue
   Message - White
   MK6-4 and MK6-6 Background - Green
   Message - White
   MM6-4 and MM6-6 Background - White
   Message - Green
   MN6-4 and MN6-6 Background - Brown
   Message - White
   MO6-4 and MO6-6 Background - Orange - Type F Reflective
   Message - Black
   MP6-4 and MP6-6 Background - White
   Message - Blue
   MR6-4 and MR6-6 Background - Brown
   Message - Yellow
5. M6-6R same as M6-6L except arrow points ahead and right.




MB6-4
MK6-4
MN6-4
MR6-4




MB6-6
MK6-6
MN6-6
MR6-6




| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 21 | | 1 1/8 | 3/8 | 3/8 | | 7 1/2 | 8 3/4 | 4 1/4 | | | 5 1/4 | 3 | 2 5/8 | 1/2 | | | | | | 1 1/2 | 1/2 | | | | | 3.06 |
| 3 | 30 | | 1 3/8 | 1/2 | 5/8 | | 10 3/4 | 12 1/2 | 6 3/4 | | | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 | | | | | | 1 7/8 | 1/2 | | | | | 6.25 |
| 4 | 30 | | 1 3/8 | 1/2 | 5/8 | | 10 3/4 | 12 1/2 | 6 3/4 | | | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 | | | | | | 1 7/8 | 1/2 | | | | | 6.25 |
| 5 | 30 | | 1 3/8 | 1/2 | 5/8 | | 10 3/4 | 12 1/2 | 6 3/4 | | | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 | | | | | | 1 7/8 | 1/2 | | | | | 6.25 |

STANDARD SIGN
M6-4 & M6-6
SERIES

WISCONSIN DEPT OF TRANSPORTATION

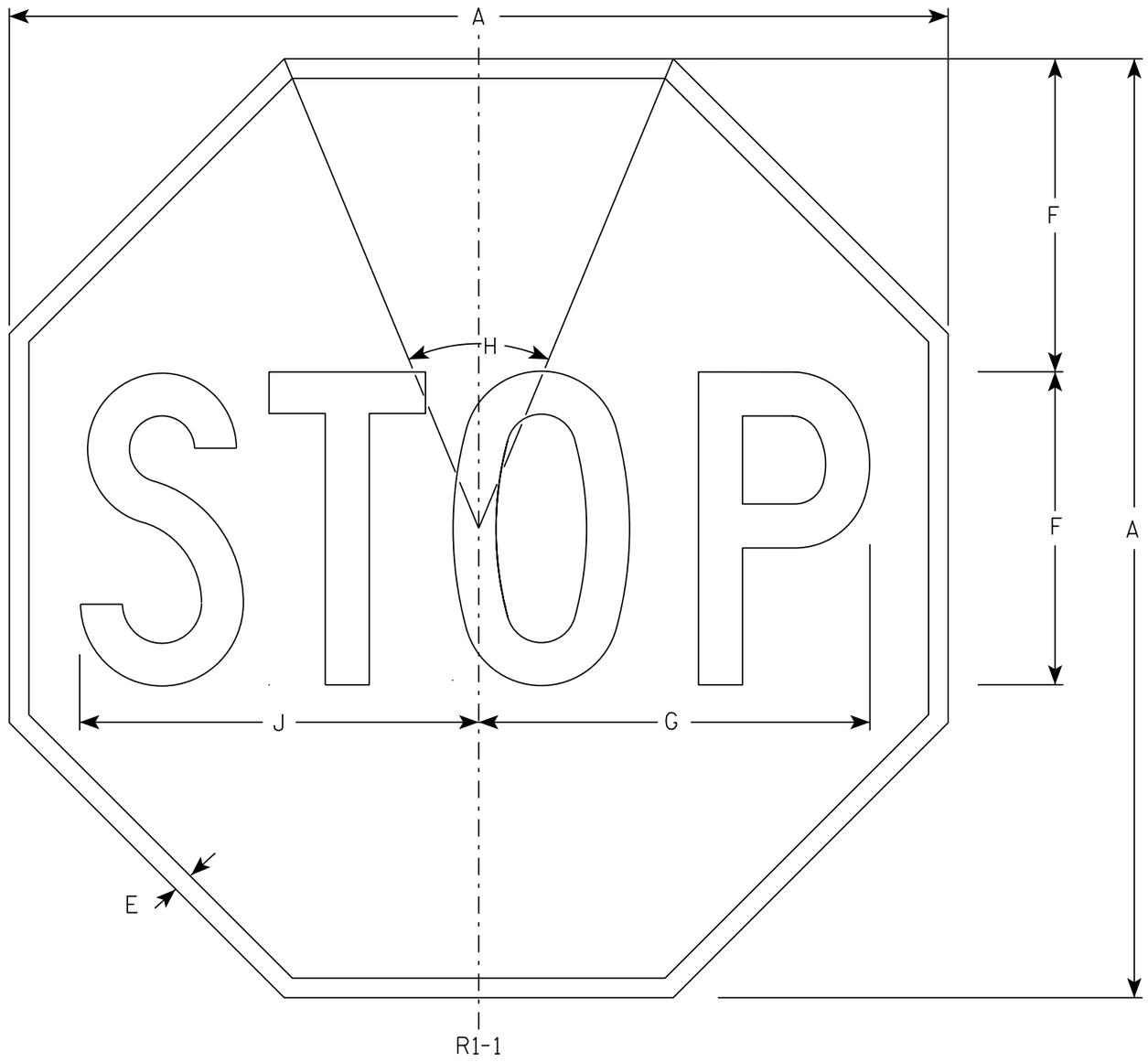
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 10/15/15 PLATE 342 M6-4.10

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



FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M64.DGN PLOT DATE : 01-DEC-2015 17:58 PLOT BY : $$ platuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000




NOTES

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

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 30 | | | | 5/8 | 10 | 12 1/2 | 45° | | 12 3/4 | | | | | | | | | | | | | | | | | 5.18 |
| 2S | 30 | | | | 5/8 | 10 | 12 1/2 | 45° | | 12 3/4 | | | | | | | | | | | | | | | | | 5.18 |
| 2M | 36 | | | | 3/4 | 12 | 15 | 45° | | 15 3/8 | | | | | | | | | | | | | | | | | 7.46 |
| 3 | 36 | | | | 3/4 | 12 | 15 | 45° | | 15 3/8 | | | | | | | | | | | | | | | | | 7.46 |
| 4 | 48 | | | | 1 | 16 | 20 | 45° | | 20 1/2 | | | | | | | | | | | | | | | | | 13.25 |
| 5 | 48 | | | | 1 | 16 | 20 | 45° | | 20 1/2 | | | | | | | | | | | | | | | | | 13.25 |
| 6 | 18 | | | | 3/8 | 6 | 7 3/4 | 45° | | 7 3/4 | | | | | | | | | | | | | | | | | 1.86 |
| 7 | 12 | | | | 1/4 | 4 | 5 | 45° | | 5 1/8 | | | | | | | | | | | | | | | | | 0.78 |

STANDARD SIGN

R1-1

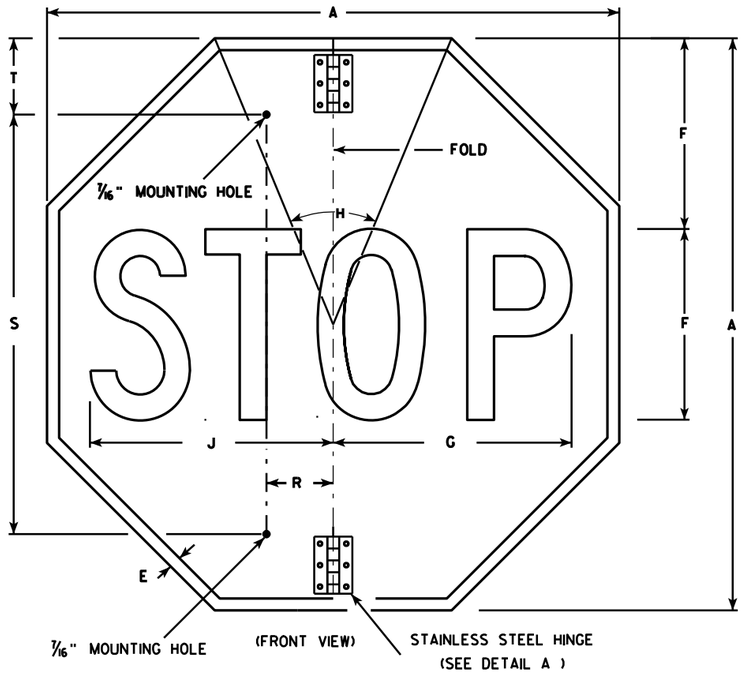
WISCONSIN DEPT OF TRANSPORTATION

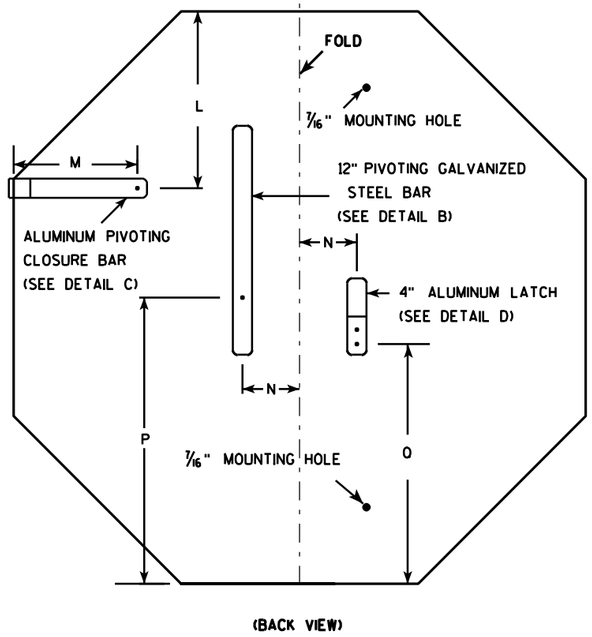
APPROVED Matthew R Rauch

for State Traffic Engineer

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

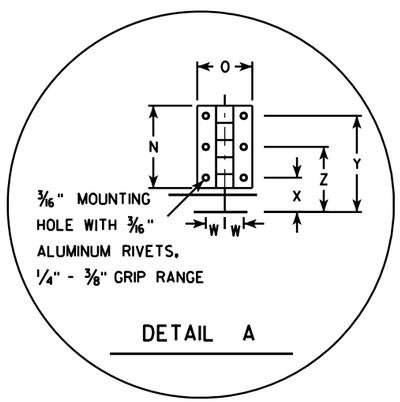
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 343 | E |
|---|---|---|---|---|---|



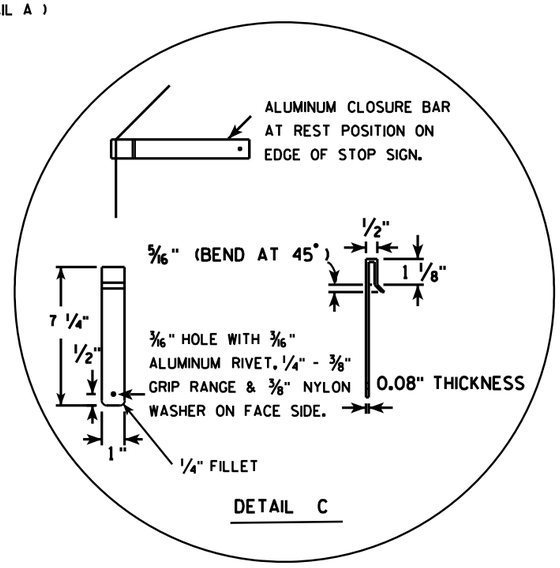




## NOTES

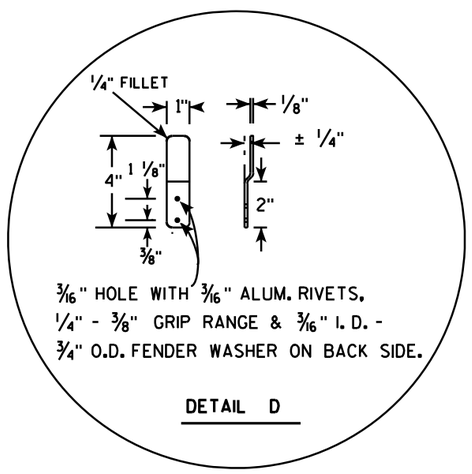
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.



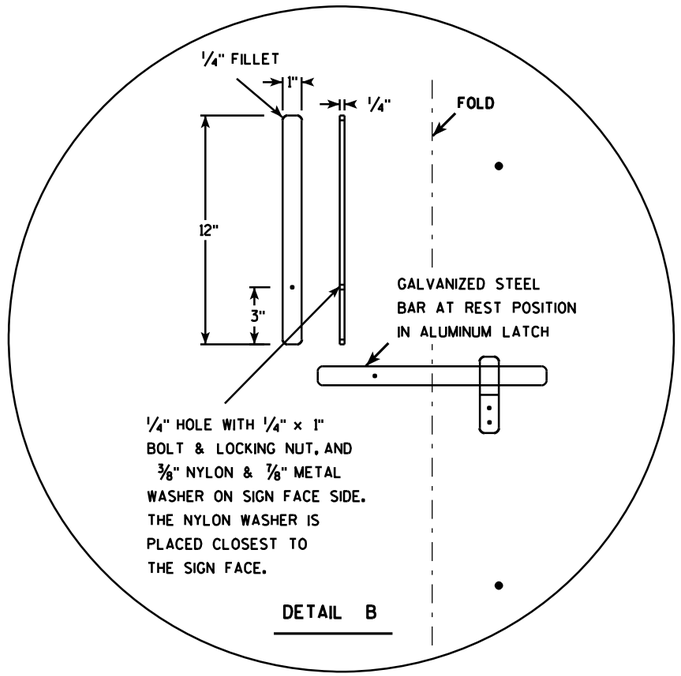

DETAIL A




DETAIL C




DETAIL D




DETAIL B

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | O | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | | | | 5/8 | 10 | 12 1/2 | 45 | | 12 3/4 | | 9 1/4 | 6 1/2 | 3 | 2 | 15 | 12 3/8 | 2 1/2 | 22 | 5 | | | 11/16 | 1 1/4 | 3 1/2 | 2 3/8 | 5.18 |
| 2M | 36 | | | | 3/4 | 12 | 15 | 45 | | 15 3/8 | | 11 | 6 1/2 | 3 | 2 | 18 | 15 3/8 | 2 1/2 | 26 | 5 | | | 11/16 | 1 1/4 | 3 1/2 | 2 3/8 | 7.46 |
| 3 | 36 | | | | 3/4 | 12 | 15 | 45 | | 15 3/8 | | 11 | 6 1/2 | 3 | 2 | 18 | 15 3/8 | 2 1/2 | 26 | 5 | | | 11/16 | 1 1/4 | 3 1/2 | 2 3/8 | 7.46 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

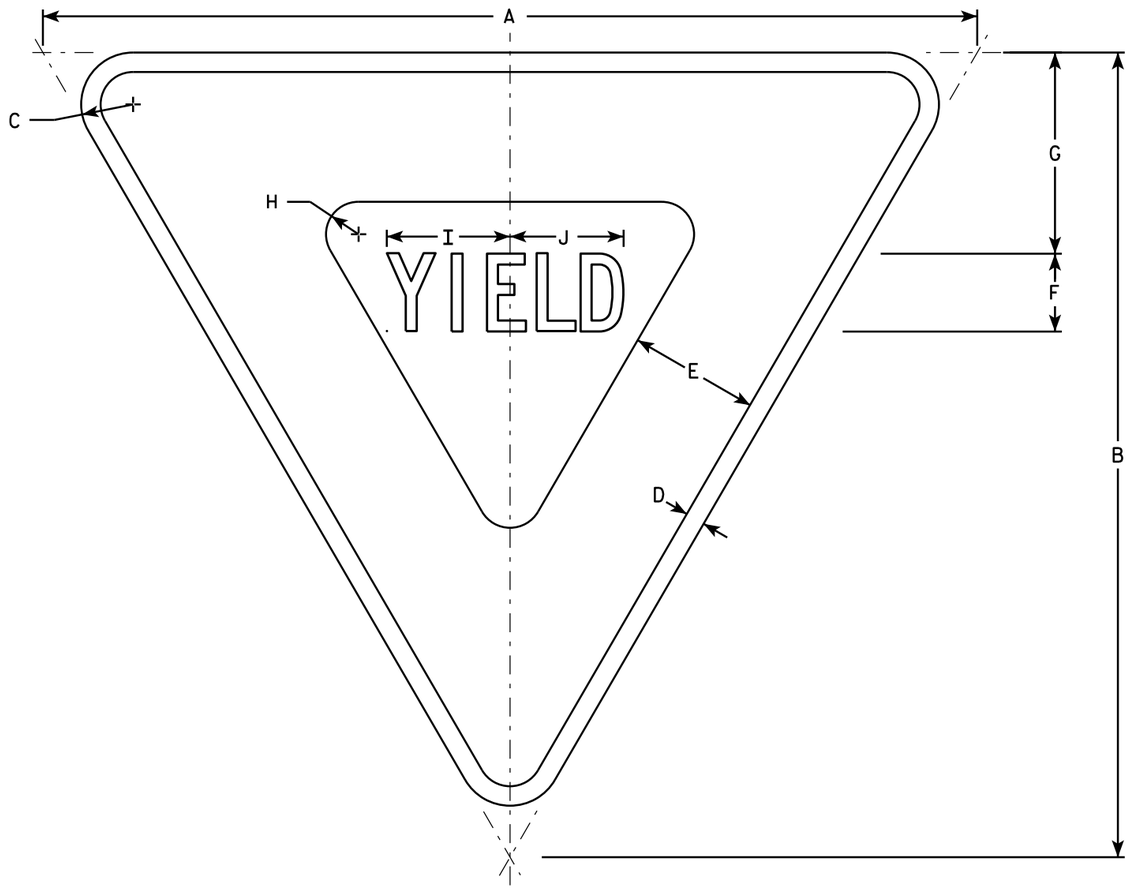
# STANDARD SIGN
# R1-1F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 344 | E |
|---|---|---|---|---|---|




R1-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 30 | 26 | 1 1/2 | 5/8 | 4 | 2 1/2 | 6 3/8 | 7/8 | 4 | 3 5/8 | | | | | | | | | | | | | | | | | 2.71 |
| 2S | 36 | 31 | 2 | 3/4 | 5 | 3 | 7 3/4 | 1 1/4 | 4 3/4 | 4 3/8 | | | | | | | | | | | | | | | | | 3.88 |
| 2M | 48 | 42 | 3 | 1 | 6 | 4 | 9 3/4 | 2 | 6 1/4 | 5 7/8 | | | | | | | | | | | | | | | | | 7.00 |
| 3 | 48 | 42 | 3 | 1 | 6 | 4 | 9 3/4 | 2 | 6 1/4 | 5 7/8 | | | | | | | | | | | | | | | | | 7.00 |
| 4 | 48 | 42 | 3 | 1 | 6 | 4 | 9 3/4 | 2 | 6 1/4 | 5 7/8 | | | | | | | | | | | | | | | | | 7.00 |
| 5 | 60 | 52 | 3 | 1 1/2 | 8 | 5 | 13 | 2 1/2 | 7 7/8 | 7 1/4 | | | | | | | | | | | | | | | | | 10.83 |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | 18 | 15 1/2 | 1 | 3/8 | 2 1/2 | 1 1/2 | 3 7/8 | 5/8 | 2 3/8 | 2 1/4 | | | | | | | | | | | | | | | | | 0.97 |

STANDARD SIGN
R1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

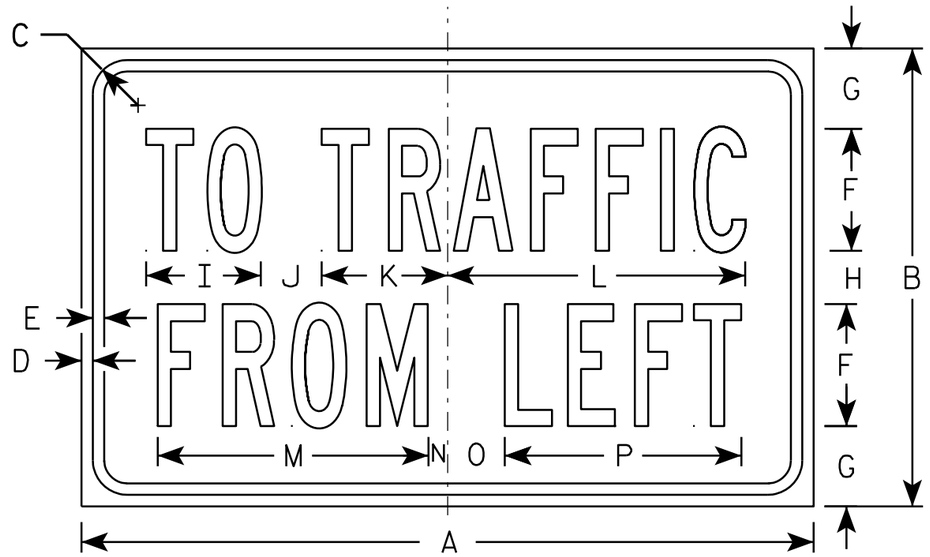
DATE 10/13/14 PLATE R1-2.12

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



FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R12.DGN PLOT DATE : 13-OCT-2014 15:12 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000

WISDOT/CADDS SHEET 42




R1-54

NOTES

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

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 24 | 15 | 1 1/8 | 3/8 | 3/8 | 4 | 2 5/8 | 1 3/4 | 3 3/4 | 2 | 4 1/8 | 9 3/4 | 8 7/8 | 5/8 | 1 7/8 | 7 3/4 | | | | | | | | | | | 2.5 |
| 2M | 24 | 15 | 1 1/8 | 3/8 | 3/8 | 4 | 2 5/8 | 1 3/4 | 3 3/4 | 2 | 4 1/8 | 9 3/4 | 8 7/8 | 5/8 | 1 7/8 | 7 3/4 | | | | | | | | | | | 2.5 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

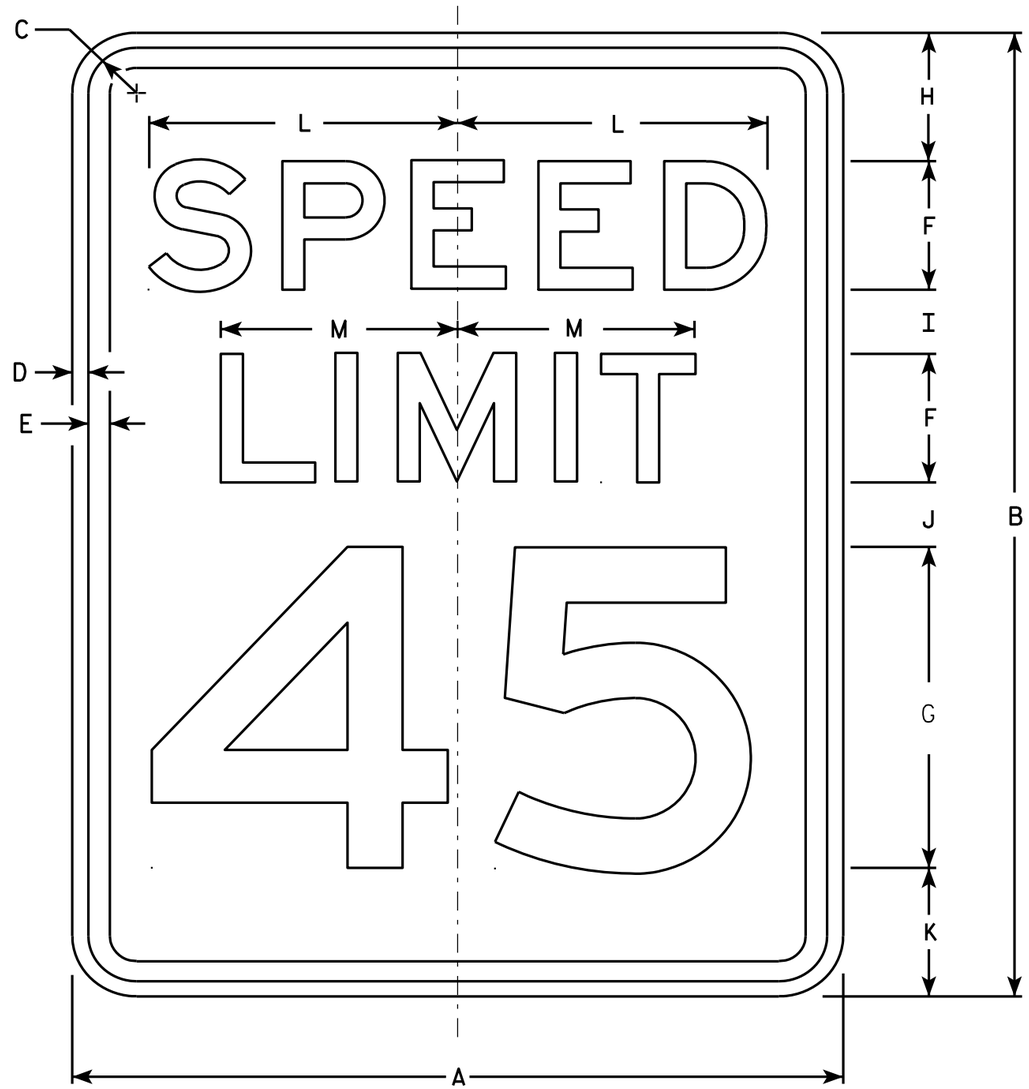
STANDARD SIGN
R1-54

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-54.2

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 346 | E |
|---|---|---|---|---|---|




R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 18 | 24 | 1 1/8 | 3/8 | 1/2 | 3 | 8 | 3 | 2 | 2 | 3 | 7 1/4 | 5 1/2 | | | | | | | | | | | | | | 3.0 |
| 2S | 24 | 30 | 1 1/8 | 3/8 | 1/2 | 4 | 10 | 3 | 2 1/4 | 3 3/8 | 3 3/8 | 9 5/8 | 7 3/8 | | | | | | | | | | | | | | 5.0 |
| 2M | 30 | 36 | 1 3/8 | 1/2 | 5/8 | 5 | 12 | 5 | 2 1/2 | 2 1/2 | 4 | 12 | 9 1/4 | | | | | | | | | | | | | | 7.5 |
| 3 | 36 | 48 | 1 3/8 | 1/2 | 5/8 | 6 | 14 | 6 | 5 | 5 | 6 | 14 3/8 | 11 | | | | | | | | | | | | | | 12.0 |
| 4 | 36 | 48 | 1 3/8 | 1/2 | 5/8 | 6 | 14 | 6 | 5 | 5 | 6 | 14 3/8 | 11 | | | | | | | | | | | | | | 12.0 |
| 5 | 48 | 60 | 2 1/4 | 3/4 | 1 | 8 | 20 | 6 | 4 1/2 | 6 3/4 | 6 3/4 | 19 1/4 | 14 5/8 | | | | | | | | | | | | | | 20.0 |

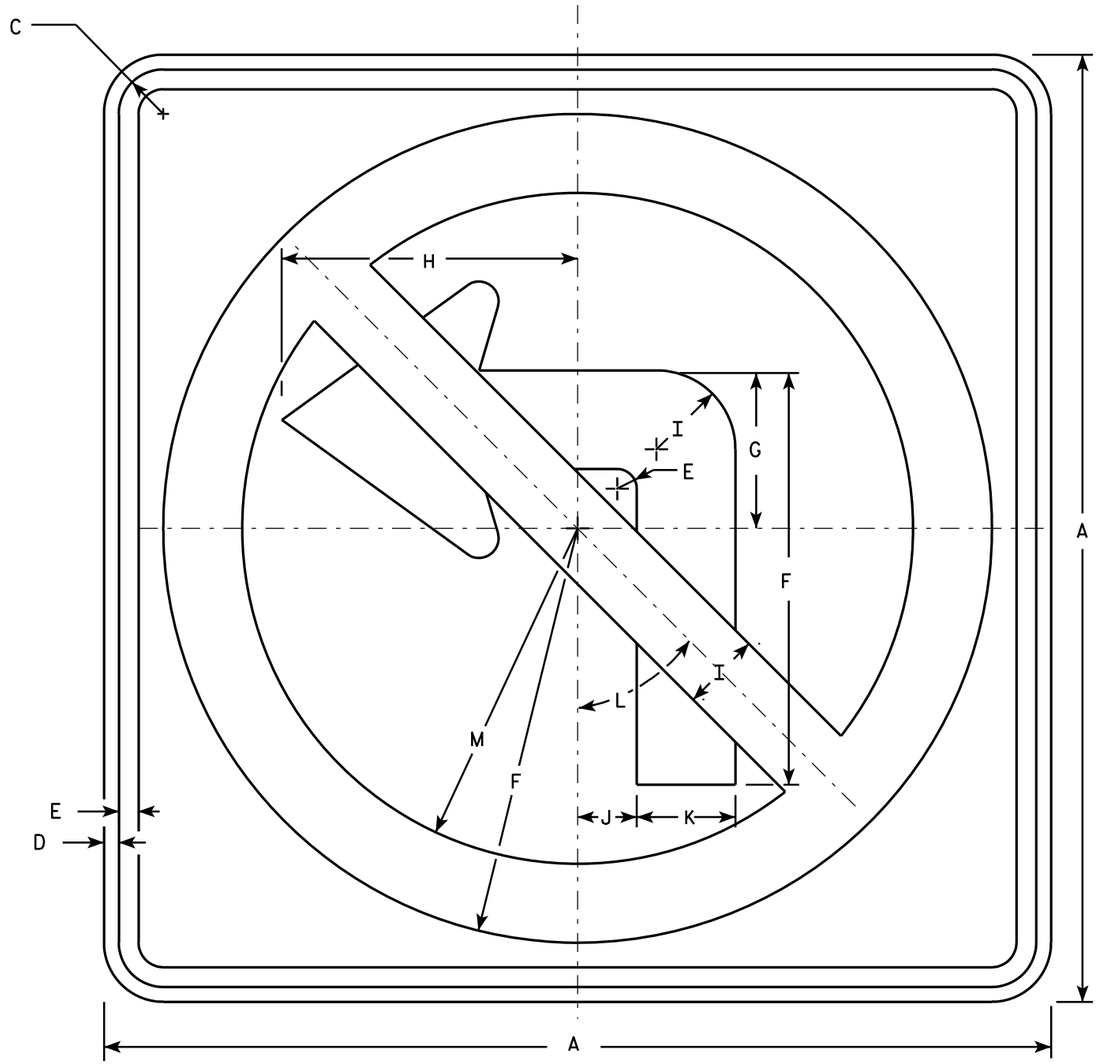
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

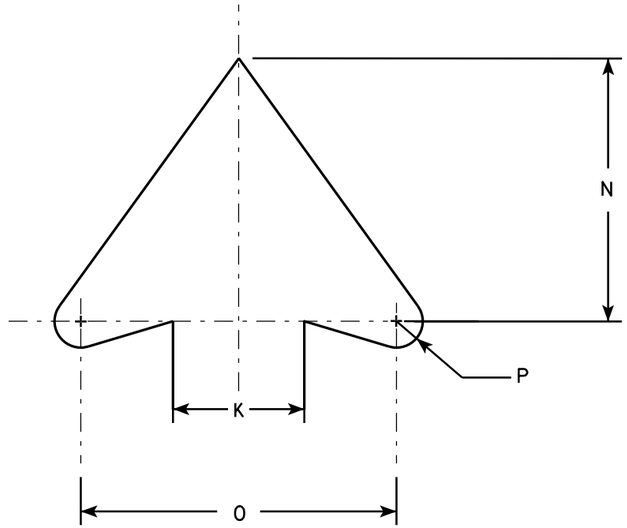
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 347 | E |
|---|---|---|---|---|---|




R3-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 24 | | 1 1/8 | 3/8 | 1/2 | 10 1/2 | 4 | 7 1/2 | 2 | 1 1/2 | 2 1/2 | 45° | 8 1/2 | 5 | 6 | 1/2 | | | | | | | | | | | 4.0 |
| 2S | 24 | | 1 1/8 | 3/8 | 1/2 | 10 1/2 | 4 | 7 1/2 | 2 | 1 1/2 | 2 1/2 | 45° | 8 1/2 | 5 | 6 | 1/2 | | | | | | | | | | | 4.0 |
| 2M | 36 | | 1 5/8 | 5/8 | 3/4 | 15 3/4 | 6 | 11 1/4 | 3 | 2 1/4 | 3 3/4 | 45° | 12 3/4 | 7 1/2 | 9 | 3/4 | | | | | | | | | | | 9.0 |
| 3 | 36 | | 1 5/8 | 5/8 | 3/4 | 15 3/4 | 6 | 11 1/4 | 3 | 2 1/4 | 3 3/4 | 45° | 12 3/4 | 7 1/2 | 9 | 3/4 | | | | | | | | | | | 9.0 |
| 4 | 36 | | 1 5/8 | 5/8 | 3/4 | 15 3/4 | 6 | 11 1/4 | 3 | 2 1/4 | 3 3/4 | 45° | 12 3/4 | 7 1/2 | 9 | 3/4 | | | | | | | | | | | 9.0 |
| 5 | 48 | | 2 1/4 | 3/4 | 1 | 21 | 8 | 15 | 4 | 3 | 5 | 45° | 17 | 10 | 12 | 1 | | | | | | | | | | | 16.0 |

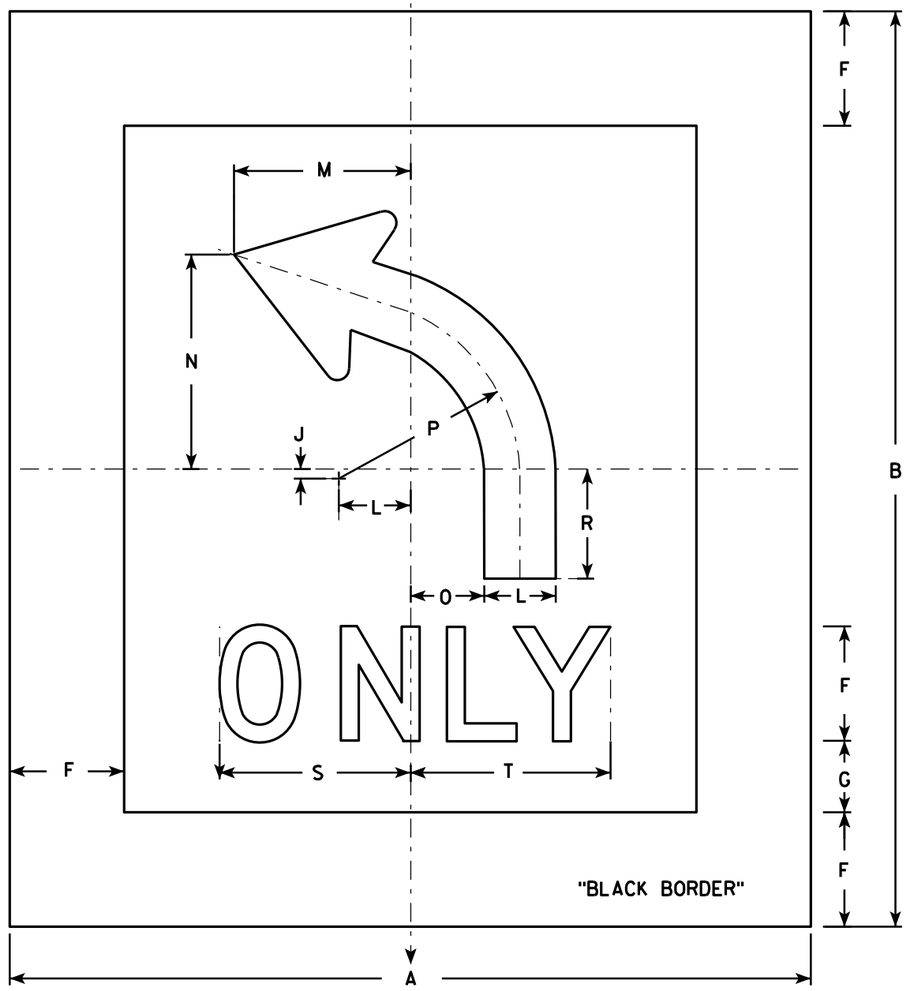
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

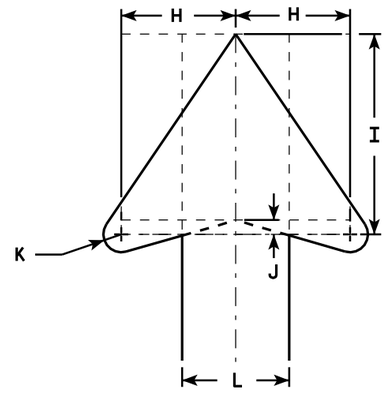
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 348 | E |
|---|---|---|---|---|---|




R3-5L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood. When base material is metal, the corners shall be rounded.
5. R3-5R is the same as R3-5L except curved portion of arrow points right.
6. The 6" border is non-reflective black.




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 42 | 48 | | | | 6 | 3 3/4 | 4 | 7 | 1/2 | 5/8 | 3 3/4 | 9 1/4 | 11 1/4 | 3 7/8 | 9 1/2 | | 5 3/4 | 10 | 10 1/2 | | | | | | | 1.26 |
| 2M | 42 | 48 | | | | 6 | 3 3/4 | 4 | 7 | 1/2 | 5/8 | 3 3/4 | 9 1/4 | 11 1/4 | 3 7/8 | 9 1/2 | | 5 3/4 | 10 | 10 1/2 | | | | | | | 1.26 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

STANDARD SIGN
R3-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/24/11 PLATE NO. R3-5.6

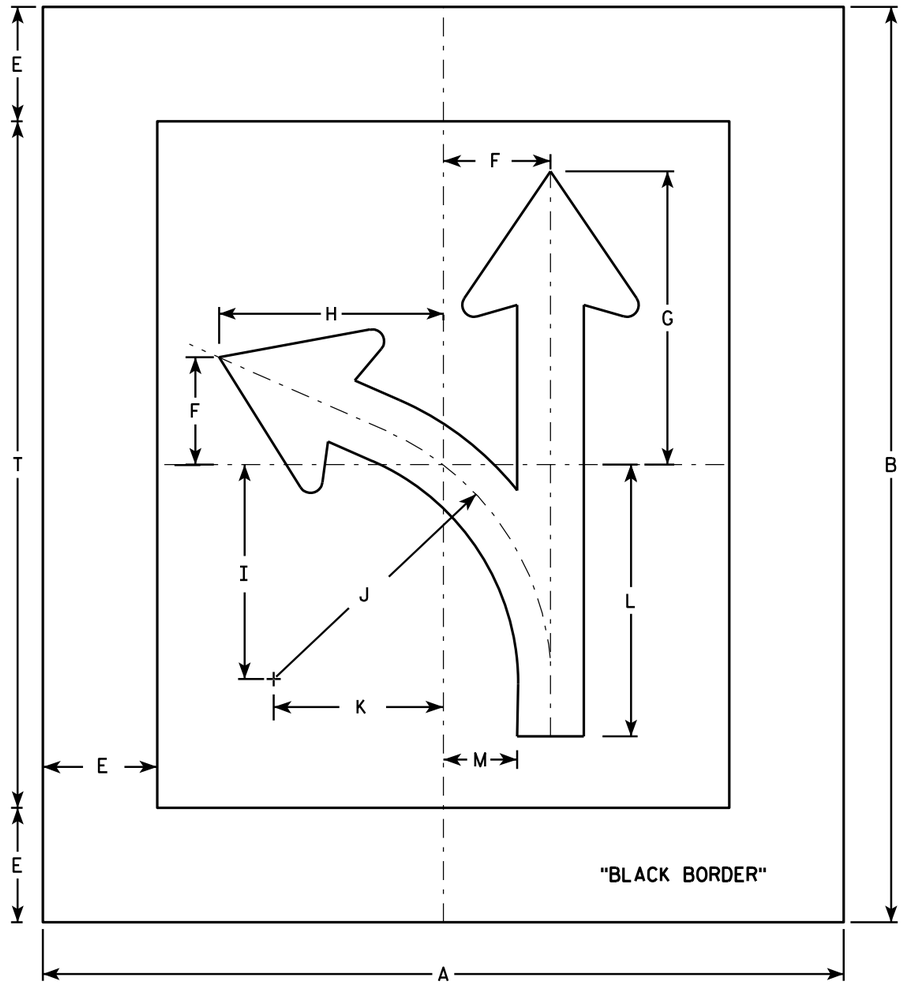
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 349 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R35.DGN PLOT DATE : 24-FEB-2011 14:53 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 7.945391:1.000000

WISDOT/CADDS SHEET 42

7

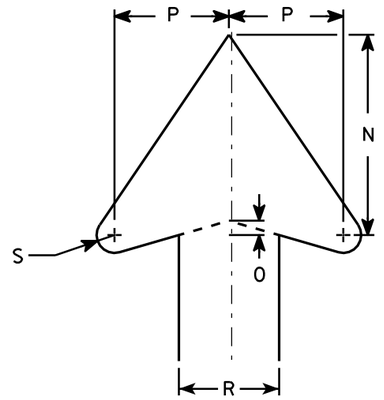
7




R3-6L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base material is plywood. When base material is metal, the corners shall be rounded.
4. R3-6R is the same as R3-6L except curved portion of arrow points right.
5. The 6" border is non-reflective black.




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 42 | 48 | | | 6 | 5 5/8 | 15 3/8 | 11 3/4 | 11 1/4 | 14 1/2 | 8 7/8 | 14 1/4 | 3 7/8 | 7 | 1/2 | 4 | | 3 1/2 | 5/8 | 36 | | | | | | | 14.0 |
| 2M | 42 | 48 | | | 6 | 5 5/8 | 15 3/8 | 11 3/4 | 11 1/4 | 14 1/2 | 8 7/8 | 14 1/4 | 3 7/8 | 7 | 1/2 | 4 | | 3 1/2 | 5/8 | 36 | | | | | | | 14.0 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

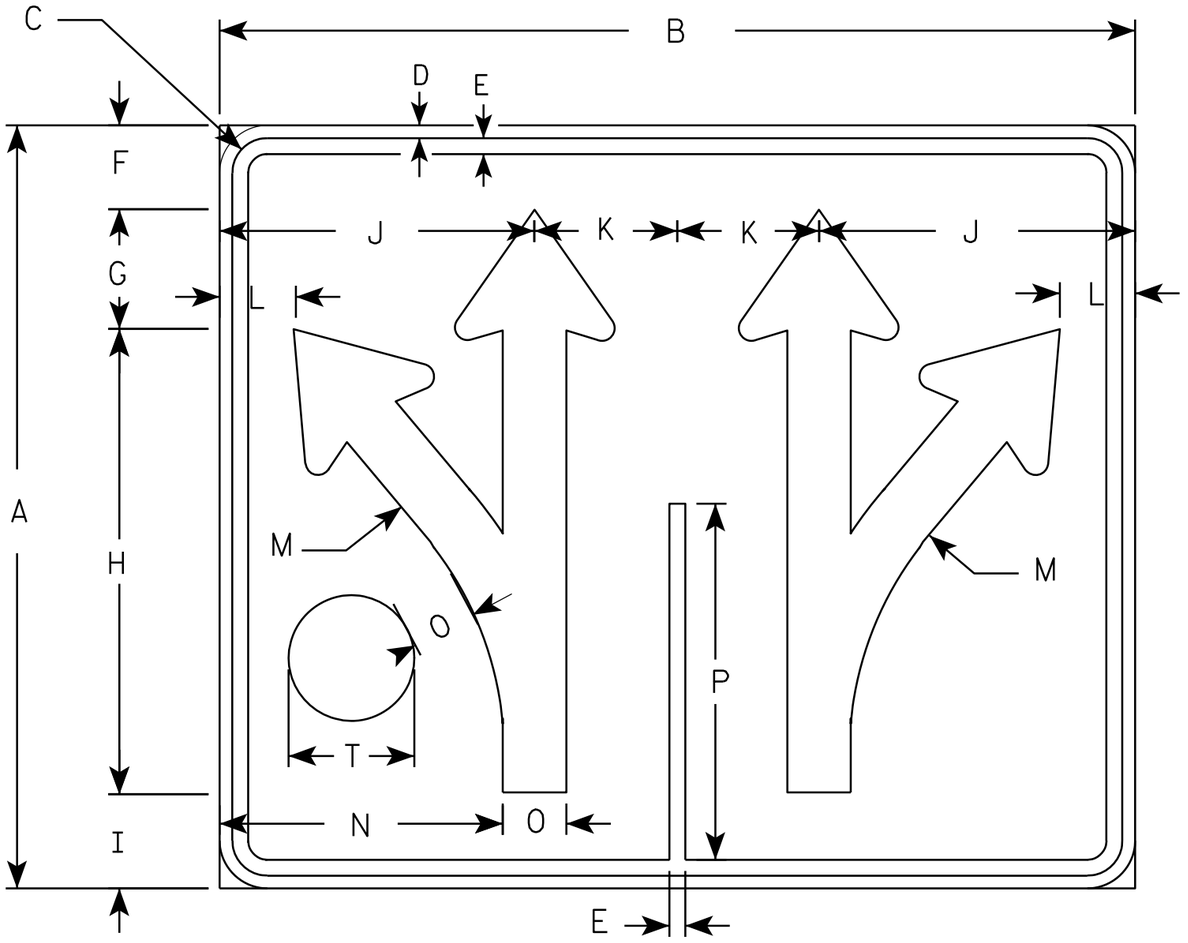
# STANDARD SIGN
# R3-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/17/2011 PLATE NO. R3-6.5

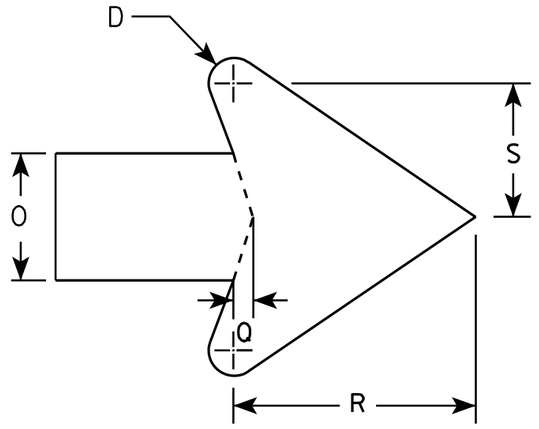
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 350 | E




R3-8CC

NOTES

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




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | 36 | 1 3/8 | 1/2 | 5/8 | 3 1/4 | 4 3/4 | 18 1/4 | 3 3/4 | 12 3/8 | 5 5/8 | 3 | 13 1/4 | 11 1/8 | 2 1/2 | 14 | 3/8 | 4 3/4 | 2 5/8 | 5 | | | | | | | 7.5 |
| 2M | 30 | 36 | 1 3/8 | 1/2 | 5/8 | 3 1/4 | 4 3/4 | 18 1/4 | 3 3/4 | 12 3/8 | 5 5/8 | 3 | 13 1/4 | 11 1/8 | 2 1/2 | 14 | 3/8 | 4 3/4 | 2 5/8 | 5 | | | | | | | 7.5 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |

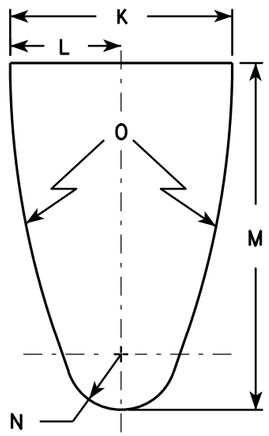
STANDARD SIGN
R3-8CC

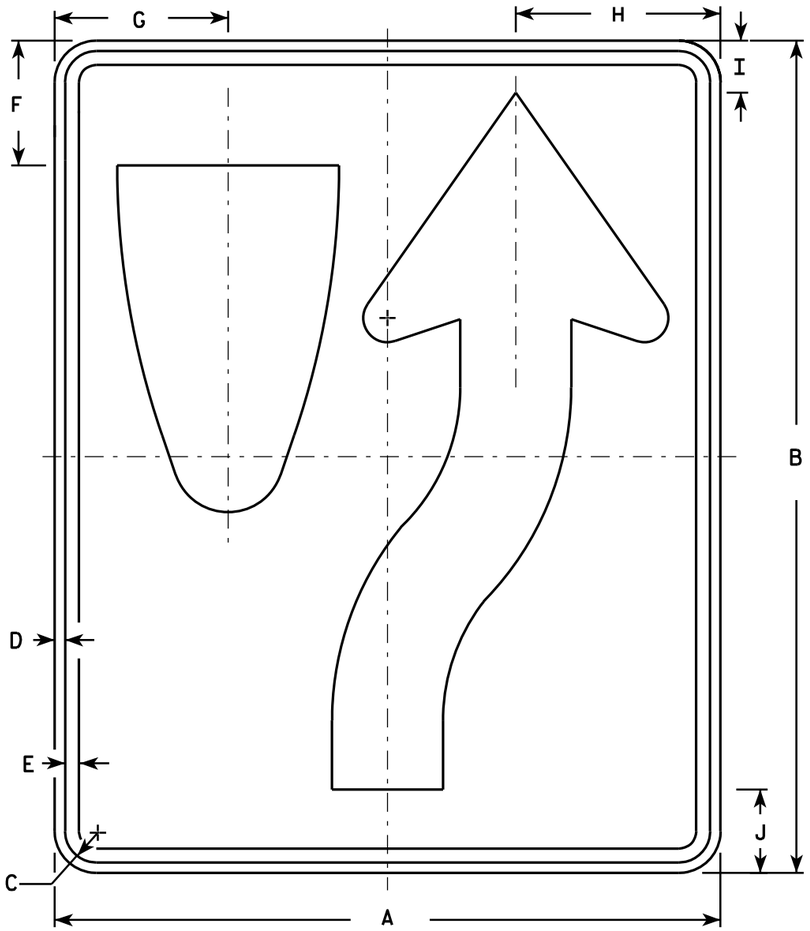
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-8CC.2

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 351 | E |
|---|---|---|---|---|---|

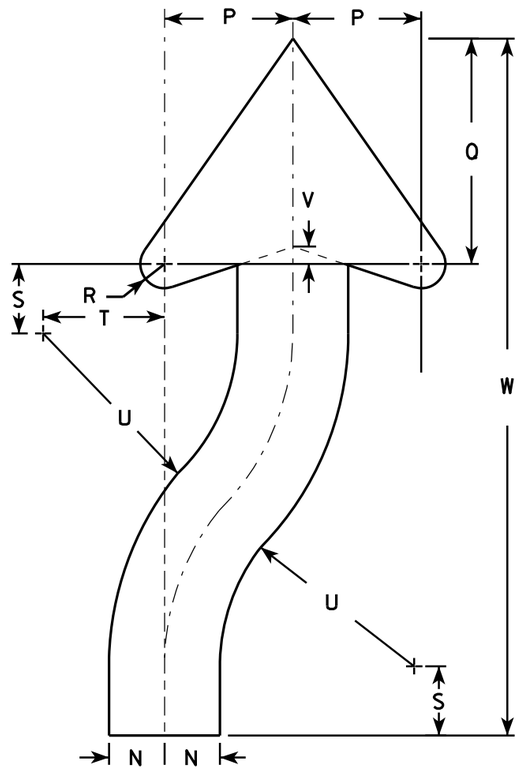



R4-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend is reversed.




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 18 | 24 | 1 1/8 | 3/8 | 1/2 | 3 3/8 | 4 3/4 | 5 1/2 | 1 3/8 | 2 1/4 | 6 | 3 | 9 3/8 | 1 1/2 | 22 1/2 | 3 1/2 | 6 1/8 | 5/8 | 1 7/8 | 3 1/4 | 6 3/4 | 1/2 | 20 3/8 | | | | 3.0 |
| 2S | 24 | 30 | 1 1/8 | 3/8 | 1/2 | 4 1/2 | 6 1/4 | 7 3/8 | 1 7/8 | 3 | 8 | 4 | 12 1/2 | 2 | 30 | 4 5/8 | 8 1/8 | 7/8 | 2 1/2 | 4 3/8 | 9 | 5/8 | 25 1/8 | | | | 5.0 |
| 2M | 24 | 30 | 1 1/8 | 3/8 | 1/2 | 4 1/2 | 6 1/4 | 7 3/8 | 1 7/8 | 3 | 8 | 4 | 12 1/2 | 2 | 30 | 4 5/8 | 8 1/8 | 7/8 | 2 1/2 | 4 3/8 | 9 | 5/8 | 25 1/8 | | | | 5.0 |
| 3 | 36 | 48 | 1 3/4 | 1/2 | 5/8 | 6 3/4 | 9 3/8 | 11 1/8 | 2 7/8 | 4 1/2 | 12 | 6 | 18 3/4 | 3 | 45 | 6 7/8 | 12 1/4 | 1 1/4 | 3 3/4 | 6 5/8 | 13 1/2 | 1 | 40 3/4 | | | | 12.0 |
| 4 | 36 | 48 | 1 3/4 | 1/2 | 5/8 | 6 3/4 | 9 3/8 | 11 1/8 | 2 7/8 | 4 1/2 | 12 | 6 | 18 3/4 | 3 | 45 | 6 7/8 | 12 1/4 | 1 1/4 | 3 3/4 | 6 5/8 | 13 1/2 | 1 | 40 3/4 | | | | 12.0 |
| 5 | 48 | 60 | 2 1/4 | 3/4 | 1 | 9 | 12 1/2 | 14 3/4 | 3 3/4 | 6 | 16 | 8 | 25 | 4 | 60 | 9 1/4 | 16 1/4 | 1 5/8 | 5 | 8 3/4 | 18 | 1 1/4 | 50 1/4 | | | | 20.0 |

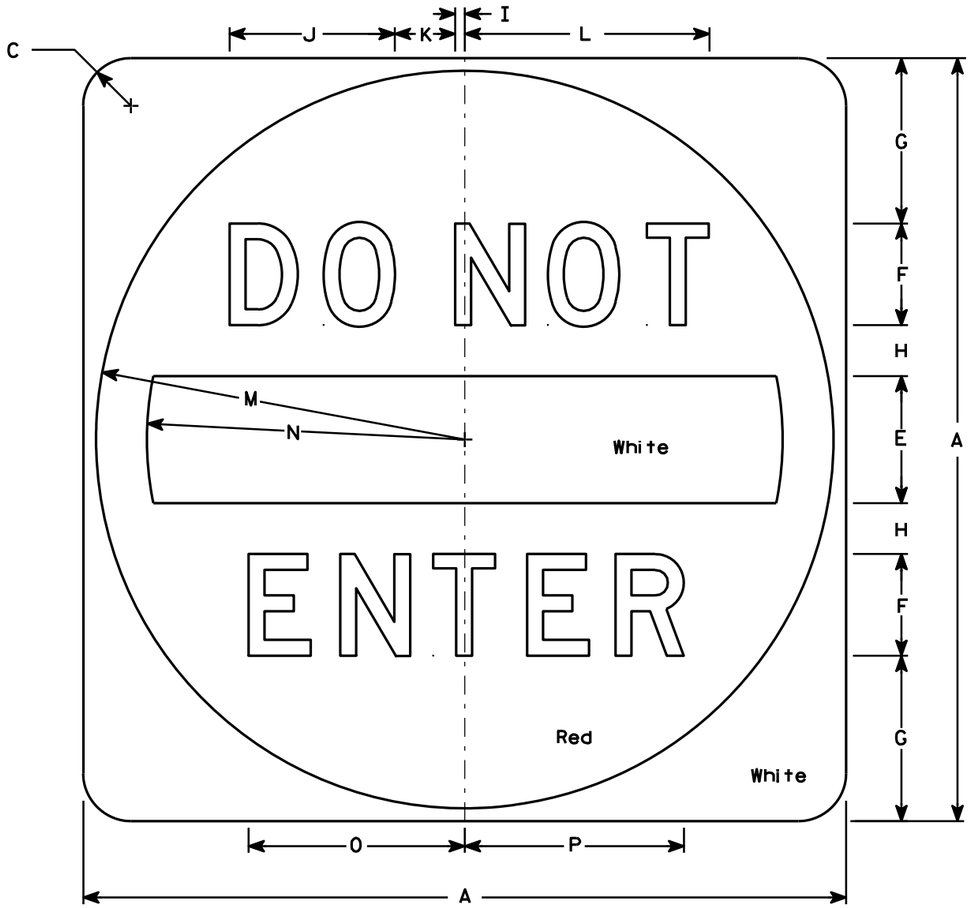
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 352 | E |
|---|---|---|---|---|---|




R5-1

## NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See detail
   Message - White - Type H Reflective
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but when base material is metal, the cornors shall be rounded.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | | 1 7/8 | | 5 | 4 | 6 1/2 | 2 | 3/8 | 6 1/2 | 2 3/8 | 9 5/8 | 14 1/2 | 12 1/2 | 8 1/2 | 8 5/8 | | | | | | | | | | | 6.26 |
| 2M | 36 | | 2 1/4 | | 6 | 5 | 7 1/2 | 2 1/2 | 1/2 | 8 1/8 | 3 | 12 1/8 | 17 1/2 | 15 | 10 5/8 | 10 3/4 | | | | | | | | | | | 9.0 |
| 3 | 36 | | 2 1/4 | | 6 | 5 | 7 1/2 | 2 1/2 | 1/2 | 8 1/8 | 3 | 12 1/8 | 17 1/2 | 15 | 10 5/8 | 10 3/4 | | | | | | | | | | | 9.0 |
| 4 | 36 | | 2 1/4 | | 6 | 5 | 7 1/2 | 2 1/2 | 1/2 | 8 1/8 | 3 | 12 1/8 | 17 1/2 | 15 | 10 5/8 | 10 3/4 | | | | | | | | | | | 9.0 |
| 5 | 48 | | 3 | | 8 | 6 | 11 | 3 | 5/8 | 9 3/4 | 3 5/8 | 14 1/2 | 23 1/2 | 20 | 12 3/4 | 12 7/8 | | | | | | | | | | | 16.0 |

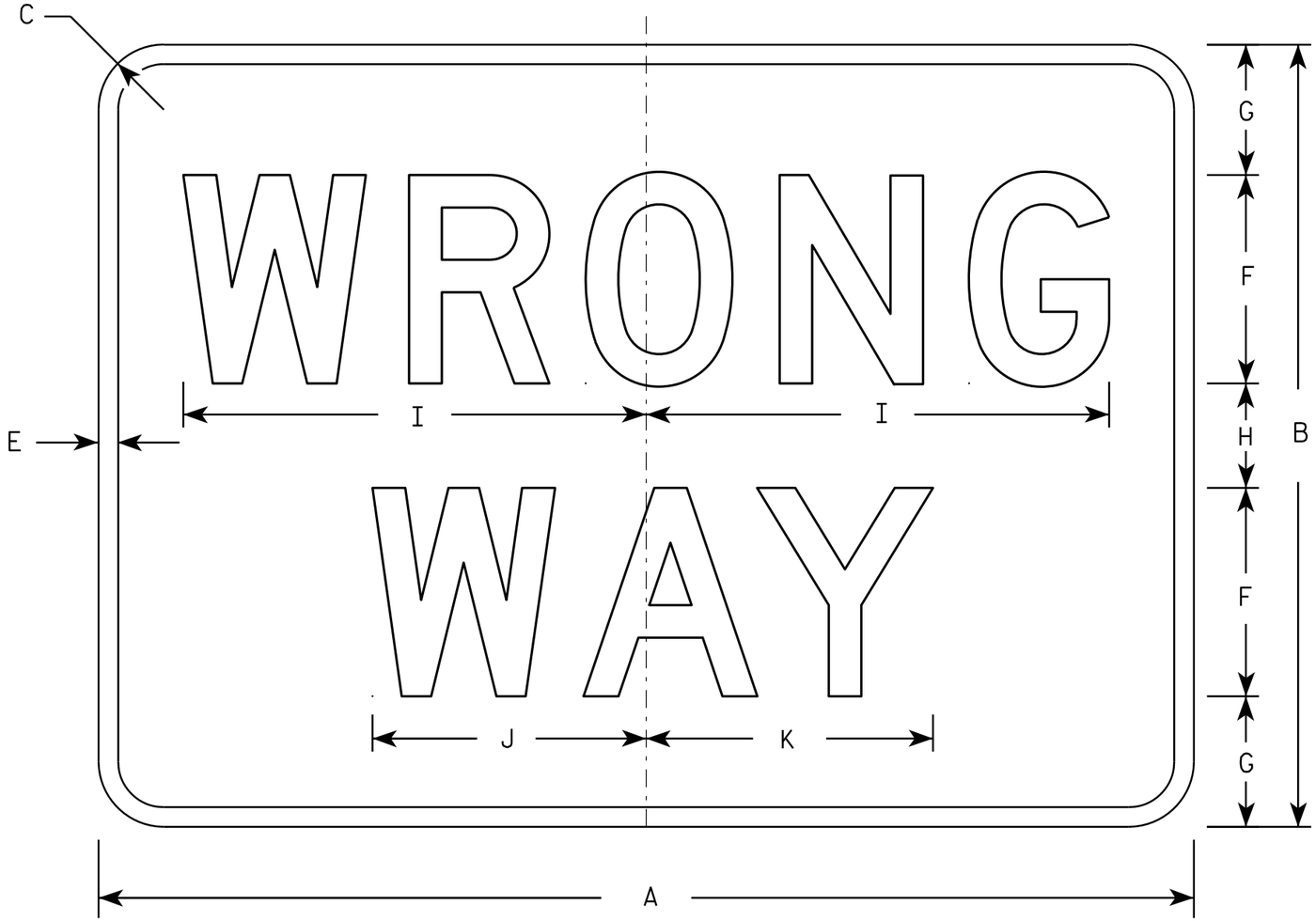
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1.15

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 353 | E




R5-1A

NOTES

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

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 30 | 18 | 1 1/2 | | 1/2 | 5 | 3 | 2 | 11 | 6 1/2 | 6 7/8 | | | | | | | | | | | | | | | | 3.75 |
| 2S | 36 | 24 | 2 | | 5/8 | 6 | 4 1/2 | 3 | 13 1/4 | 7 7/8 | 8 1/4 | | | | | | | | | | | | | | | | 6.00 |
| 2M | 42 | 30 | 2 1/2 | | 3/4 | 8 | 5 | 4 | 17 3/4 | 10 1/2 | 11 | | | | | | | | | | | | | | | | 8.75 |
| 3 | 42 | 30 | 2 1/2 | | 3/4 | 8 | 5 | 4 | 17 3/4 | 10 1/2 | 11 | | | | | | | | | | | | | | | | 8.75 |
| 4 | 42 | 30 | 2 1/2 | | 3/4 | 8 | 5 | 4 | 17 3/4 | 10 1/2 | 11 | | | | | | | | | | | | | | | | 8.75 |
| 5 | 42 | 30 | 2 1/2 | | 3/4 | 8 | 5 | 4 | 17 3/4 | 10 1/2 | 11 | | | | | | | | | | | | | | | | 8.75 |

STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 354 | E

R5-57

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - Lines 1, 2, and 5 are Series C.
   Lines 3 and 4 are Series B.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

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

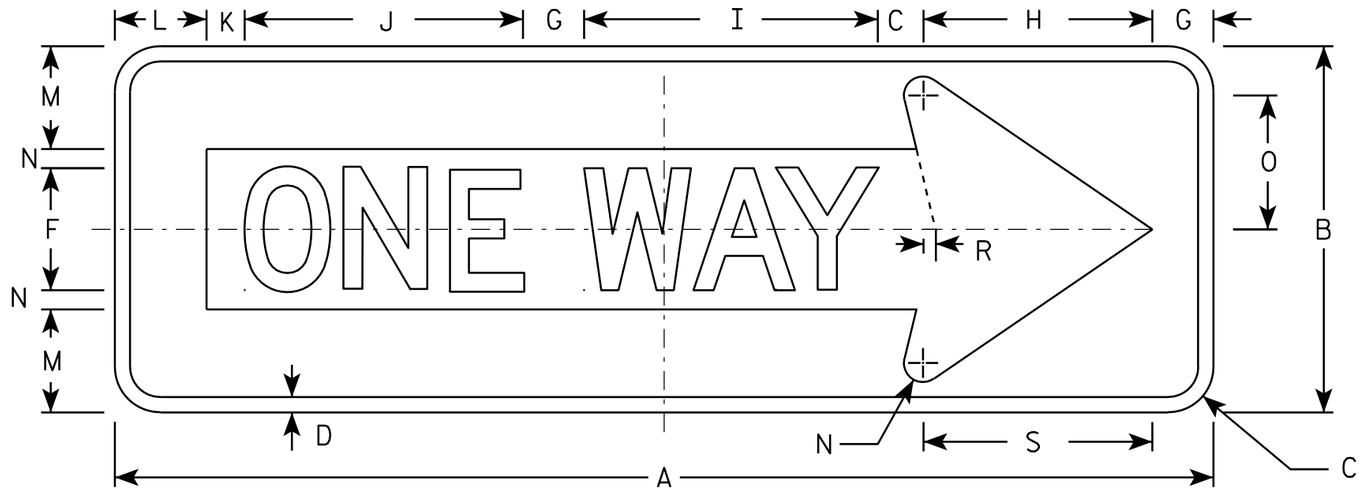
STANDARD SIGN
R5-57

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-57.10

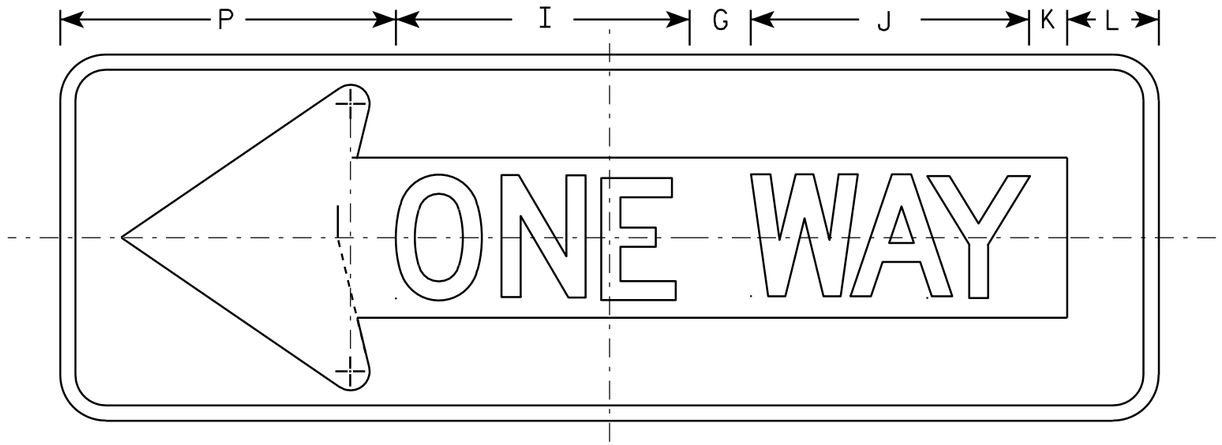
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 355 | E




R6-1R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - BLACK
   Message - BLACK LEGEND & WHITE ARROW & BORDER
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.




R6-1L

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 36 | 12 | 1 ½ | ½ | | 4 | 2 | 7 ½ | 9 ⅝ | 9 ⅛ | 1 ¼ | 3 | 3 ⅜ | ⅝ | 4 ⅜ | 11 | | ⅜ | 7 ½ | | | | | | | | 3.0 |
| 2M | 54 | 18 | 2 ¼ | ¾ | | 6 | 3 | 11 ¼ | 14 ½ | 13 ⅝ | 1 ⅞ | 4 ½ | 5 | 1 | 6 ½ | 16 ½ | | ⅝ | 11 ¼ | | | | | | | | 6.75 |
| 3 | 54 | 18 | 2 ¼ | ¾ | | 6 | 3 | 11 ¼ | 14 ½ | 13 ⅝ | 1 ⅞ | 4 ½ | 5 | 1 | 6 ½ | 16 ½ | | ⅝ | 11 ¼ | | | | | | | | 6.75 |
| 4 | 54 | 18 | 2 ¼ | ¾ | | 6 | 3 | 11 ¼ | 14 ½ | 13 ⅝ | 1 ⅞ | 4 ½ | 5 | 1 | 6 ½ | 16 ½ | | ⅝ | 11 ¼ | | | | | | | | 6.75 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

STANDARD SIGN
R6-1 L & R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

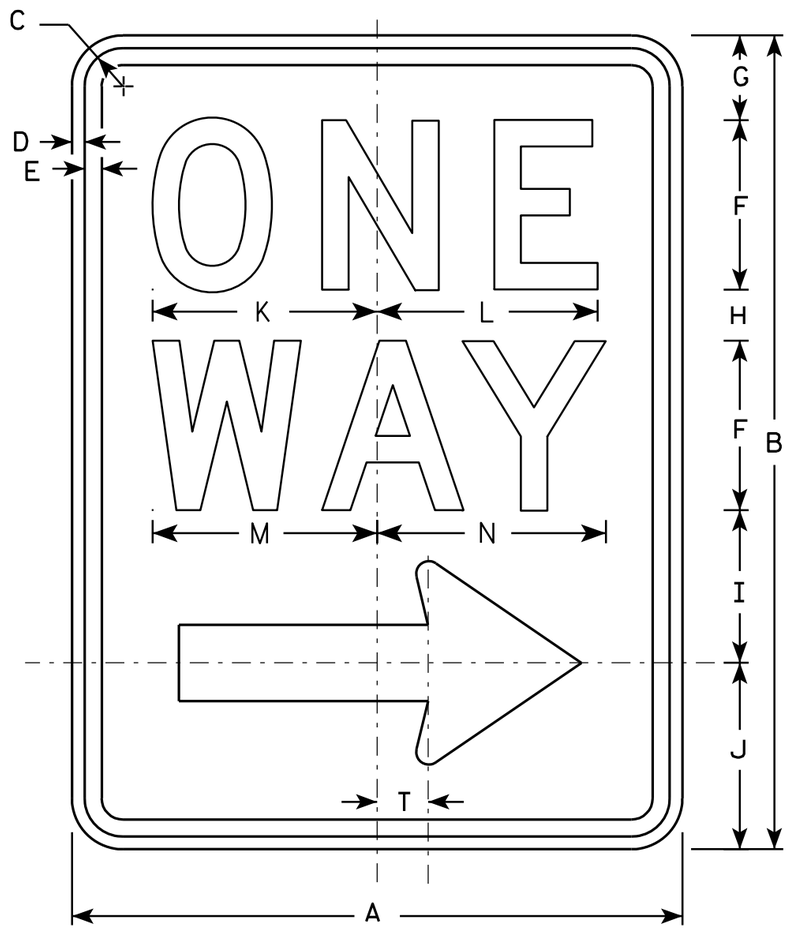
DATE 12/17/10 PLATE NO. R6-1.2

PROJECT NO:

SHEET NO: 356 E

7

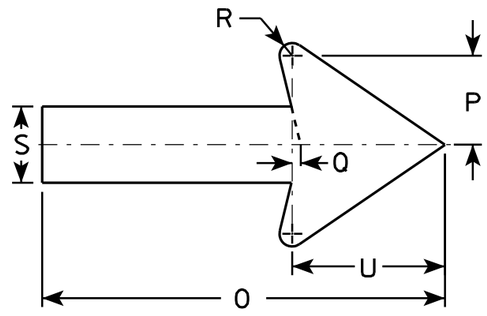
7




R6-2R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R6-2L same as R6-2R except arrow points to the left.




| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | O | R | S | T | U | V | W | X | Y | Z |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 18 | 24 | 1 1/8 | 3/8 | 1/2 | 5 | 2 1/2 | 1 1/2 | 4 1/2 | 5 1/2 | 6 5/8 | 6 1/2 | 6 5/8 | 6 3/4 | 11 7/8 | 2 5/8 | 1/4 | 3/8 | 2 1/4 | 1 1/2 | 4 1/2 | | | | | |
| 2S | 24 | 30 | 1 1/8 | 3/8 | 1/2 | 6 | 3 | 2 1/2 | 5 1/2 | 7 | 8 1/8 | 8 1/8 | 8 1/2 | 8 5/8 | 16 | 3 1/2 | 3/8 | 1/2 | 3 | 2 | 6 | | | | | |
| 2M | 30 | 36 | 1 3/8 | 1/2 | 5/8 | 8 | 2 1/2 | 2 5/8 | 6 7/8 | 8 | 10 1/2 | 10 1/2 | 11 1/4 | 11 1/4 | 20 | 4 3/8 | 1/2 | 5/8 | 3 3/4 | 2 1/2 | 7 1/2 | | | | | |
| 3 | 36 | 48 | 1 7/8 | 1/2 | 5/8 | 10 | 5 1/4 | 3 1/4 | 9 | 10 1/2 | 12 3/4 | 12 3/4 | 13 1/4 | 13 1/2 | 24 | 5 5/8 | 1/2 | 3/4 | 4 3/4 | 3 | 9 | | | | | |
| 4 | 36 | 48 | 1 7/8 | 1/2 | 5/8 | 10 | 5 1/4 | 3 1/4 | 9 | 10 1/2 | 12 3/4 | 12 3/4 | 13 1/4 | 13 1/2 | 24 | 5 5/8 | 1/2 | 3/4 | 4 3/4 | 3 | 9 | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | |

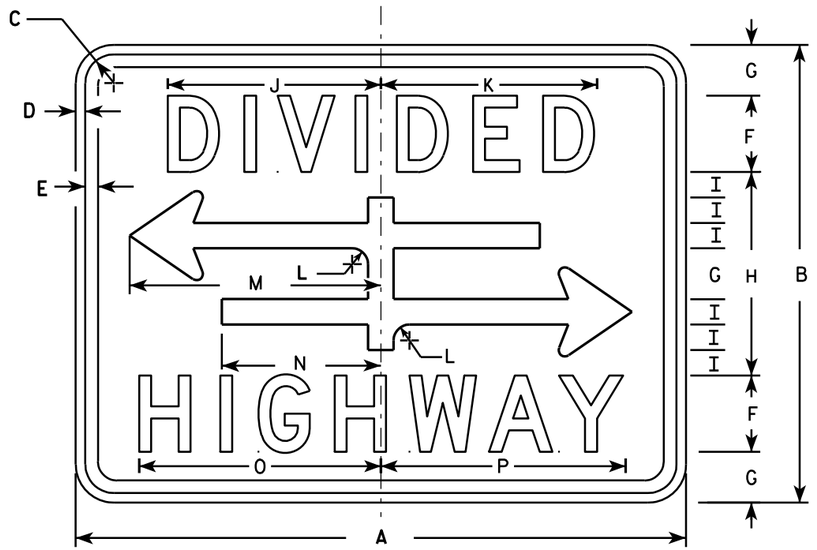
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

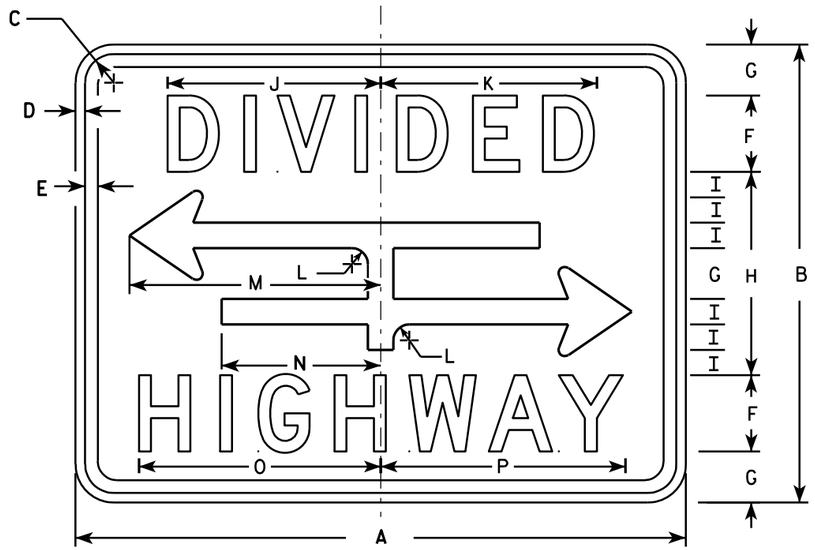
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 357 | E |
|---|---|---|---|---|---|



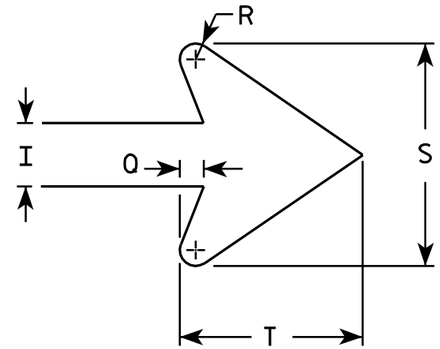

R6-3

## NOTES

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




R6-3A




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 24 | 18 | 1 1/8 | 3/8 | 3/8 | 3 | 2 | 8 | 1 | 8 3/8 | 8 1/2 | 5/8 | 9 7/8 | 6 1/4 | 9 1/2 | 9 5/8 | 3/8 | 1/4 | 3 1/2 | 2 3/4 | | | | | | | 3.0 |
| 2S | 30 | 24 | 1 1/8 | 3/8 | 1/2 | 4 | 2 5/8 | 10 3/4 | 1 3/8 | 10 1/2 | 10 5/8 | 7/8 | 12 1/2 | 7 7/8 | 12 1/4 | 12 3/8 | 1/2 | 3/8 | 4 5/8 | 3 5/8 | | | | | | | 5.0 |
| 2M | 30 | 24 | 1 1/8 | 3/8 | 1/2 | 4 | 2 5/8 | 10 3/4 | 1 3/8 | 10 1/2 | 10 5/8 | 7/8 | 12 1/2 | 7 7/8 | 12 1/4 | 12 3/8 | 1/2 | 3/8 | 4 5/8 | 3 5/8 | | | | | | | 5.0 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

STANDARD SIGN
R6-3 & R6-3A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

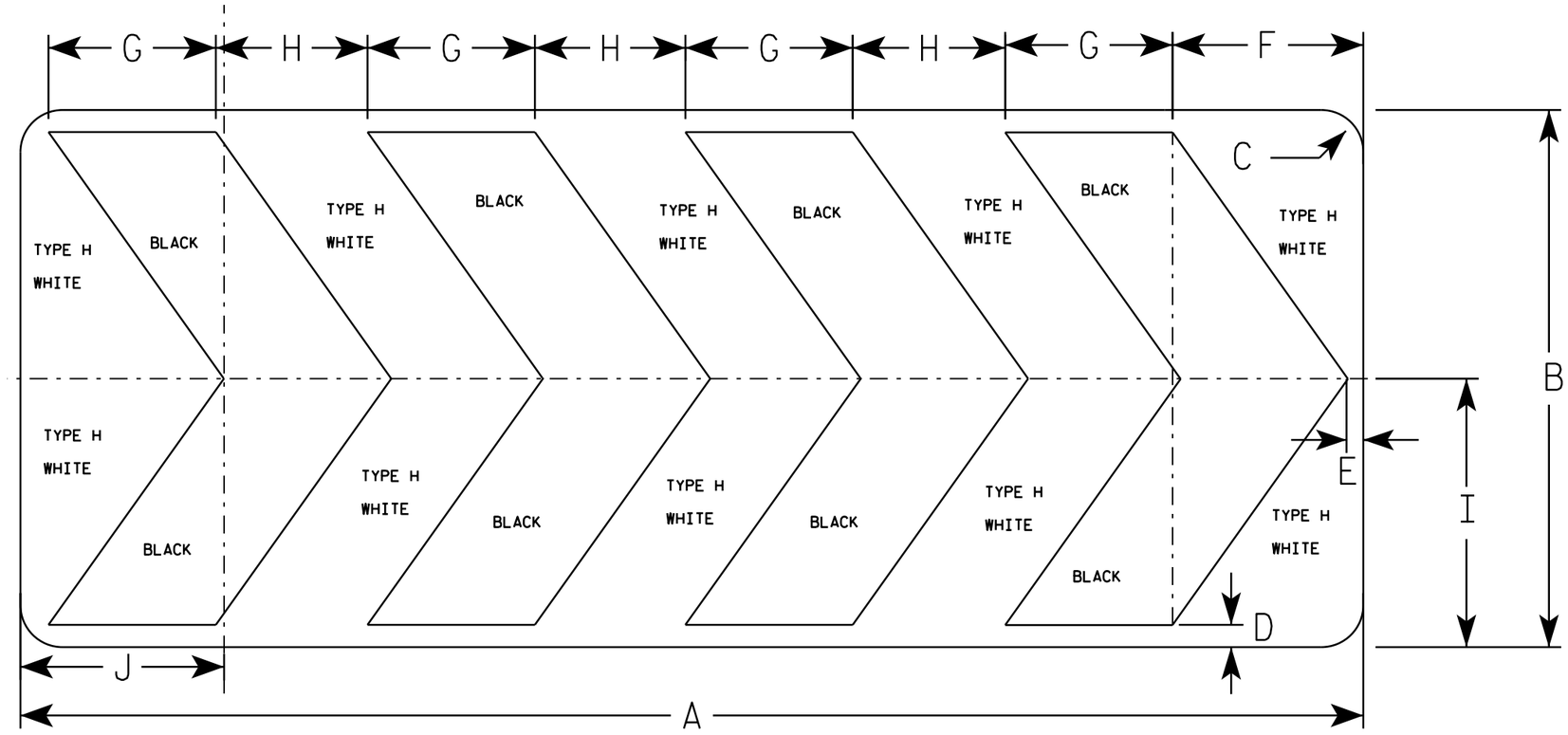
DATE 3/31/2011 PLATE NO. R6-3.5

PROJECT NO:

SHEET NO: 358 E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - WHITE
   Message - BLACK
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.




R6-4B

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 60 | 24 | 1 7/8 | 1 | 3/4 | 8 1/2 | 7 1/2 | 6 3/4 | 12 | 9 1/8 | | | | | | | | | | | | | | | | | 10.0 |
| 2M | 60 | 24 | 1 7/8 | 1 | 3/4 | 8 1/2 | 7 1/2 | 6 3/4 | 12 | 9 1/8 | | | | | | | | | | | | | | | | | 10.0 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

STANDARD SIGN
R6-4B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

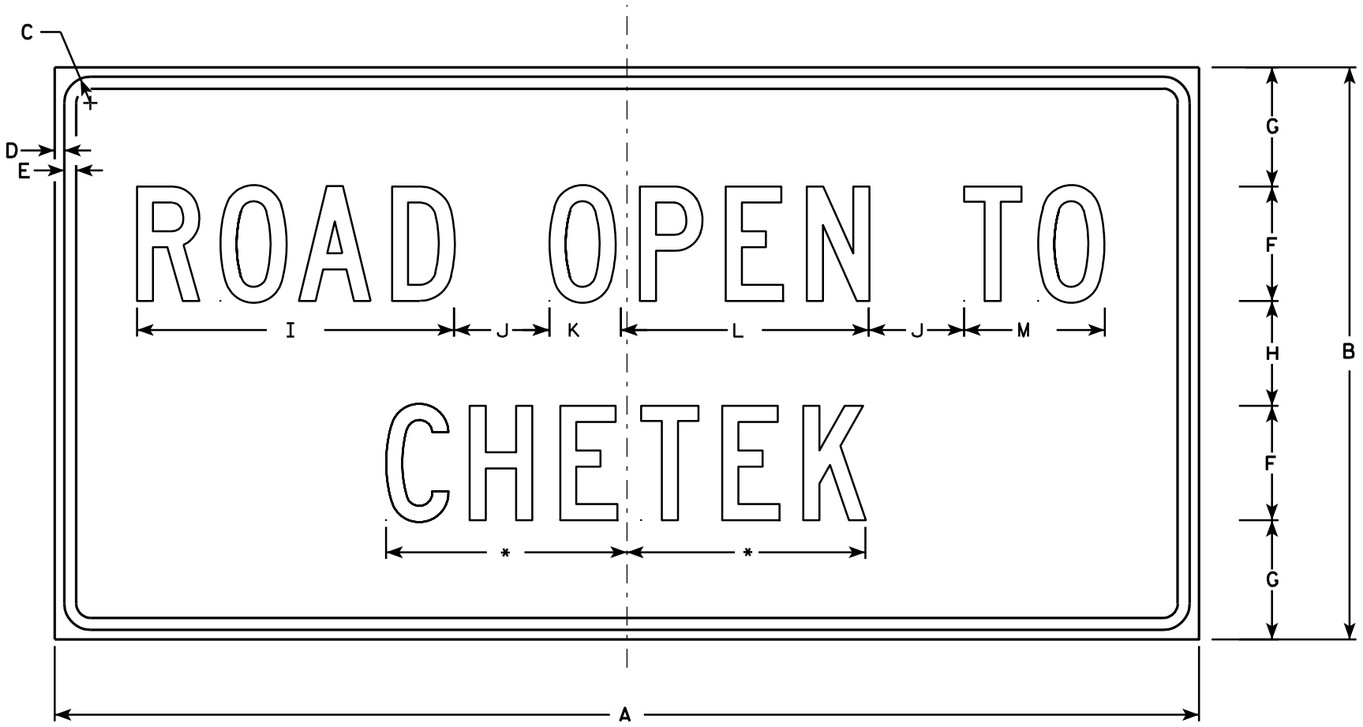
DATE 8/21/14 PLATE NO. R6-4.3

PROJECT NO: SHEET NO: E



FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R64B.DGN PLOT DATE : 21-AUG-2014 15:01 PLOT BY : mscsja

WISDOT/CADDS SHEET 42




R10-61

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate message and optically balance.

*See note 5

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 36 | 24 | 1 3/8 | 1/2 | 5/8 | 4 | 5 1/2 | 5 | 10 3/4 | 2 | 2 1/8 | 8 3/8 | 4 5/8 | | | | | | | | | | | | | | 6.0 |
| 2S | 60 | 30 | 1 3/8 | 1/2 | 5/8 | 6 | 6 1/4 | 5 1/2 | 16 5/8 | 5 | 3 3/4 | 13 | 7 3/8 | | | | | | | | | | | | | | 12.5 |
| 2M | 60 | 30 | 1 3/8 | 1/2 | 5/8 | 6 | 6 1/4 | 5 1/2 | 16 5/8 | 5 | 3 3/4 | 13 | 7 3/8 | | | | | | | | | | | | | | 12.5 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

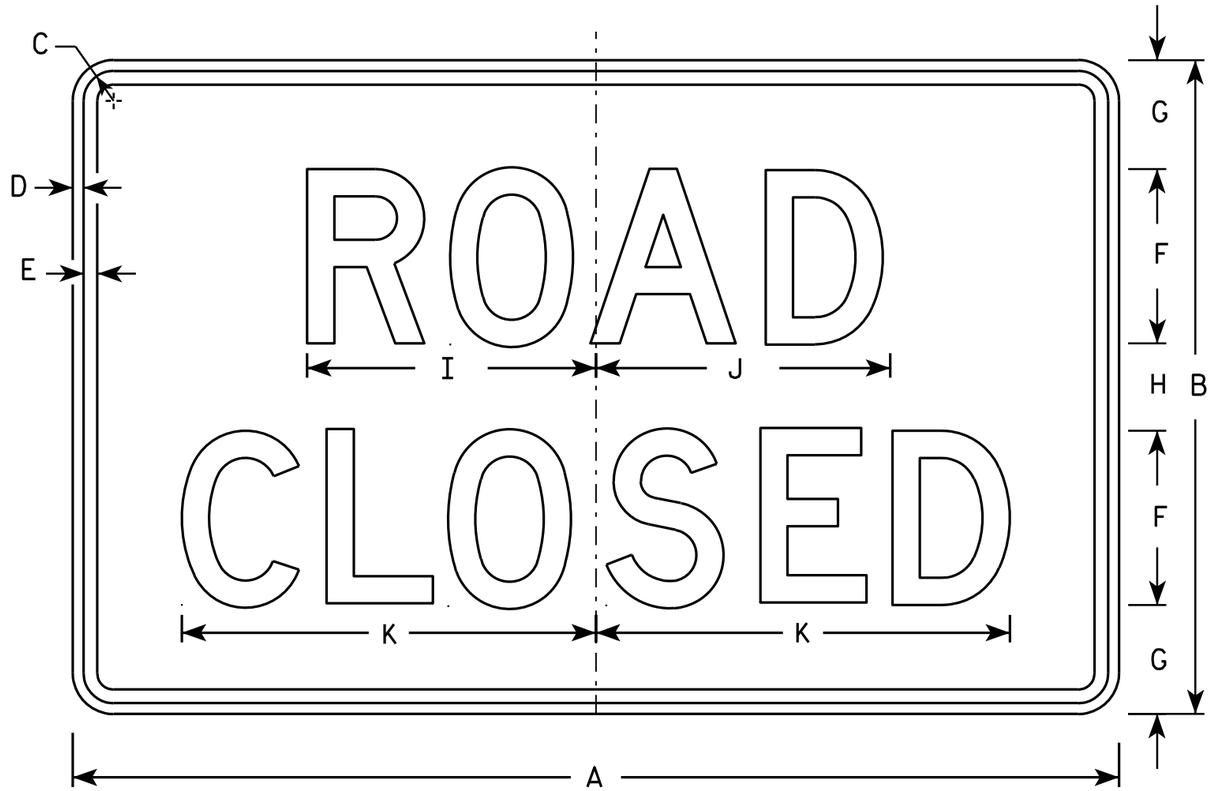
STANDARD SIGN
R10-61

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/4/11 PLATE NO. R10-61.5

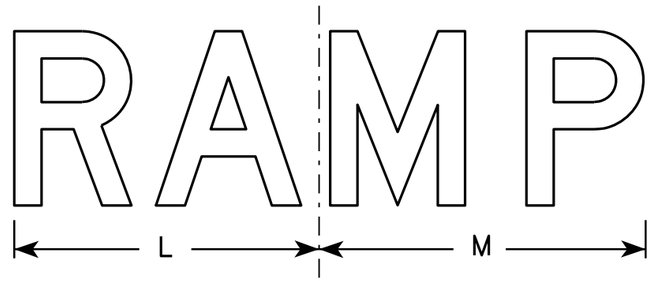
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 360 | E |
|---|---|---|---|---|---|



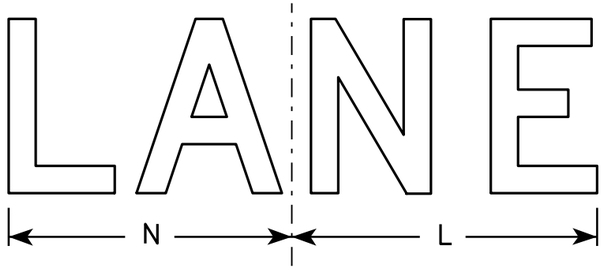

R11-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.




R11-2R




R11-2L

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 48 | 30 | 1 3/8 | 1/2 | 5/8 | 8 | 5 | 4 | 13 1/4 | 13 1/2 | 19 | 14 | 15 | 13 | | | | | | | | | | | | | 10.0 |
| 2M | 48 | 30 | 1 3/8 | 1/2 | 5/8 | 8 | 5 | 4 | 13 1/4 | 13 1/2 | 19 | 14 | 15 | 13 | | | | | | | | | | | | | 10.0 |
| 3 | 48 | 30 | 1 3/8 | 1/2 | 5/8 | 8 | 5 | 4 | 13 1/4 | 13 1/2 | 19 | 14 | 15 | 13 | | | | | | | | | | | | | 10.0 |
| 4 | 48 | 30 | 1 3/8 | 1/2 | 5/8 | 8 | 5 | 4 | 13 1/4 | 13 1/2 | 19 | 14 | 15 | 13 | | | | | | | | | | | | | 10.0 |
| 5 | 48 | 30 | 1 3/8 | 1/2 | 5/8 | 8 | 5 | 4 | 13 1/4 | 13 1/2 | 19 | 14 | 15 | 13 | | | | | | | | | | | | | 10.0 |

STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

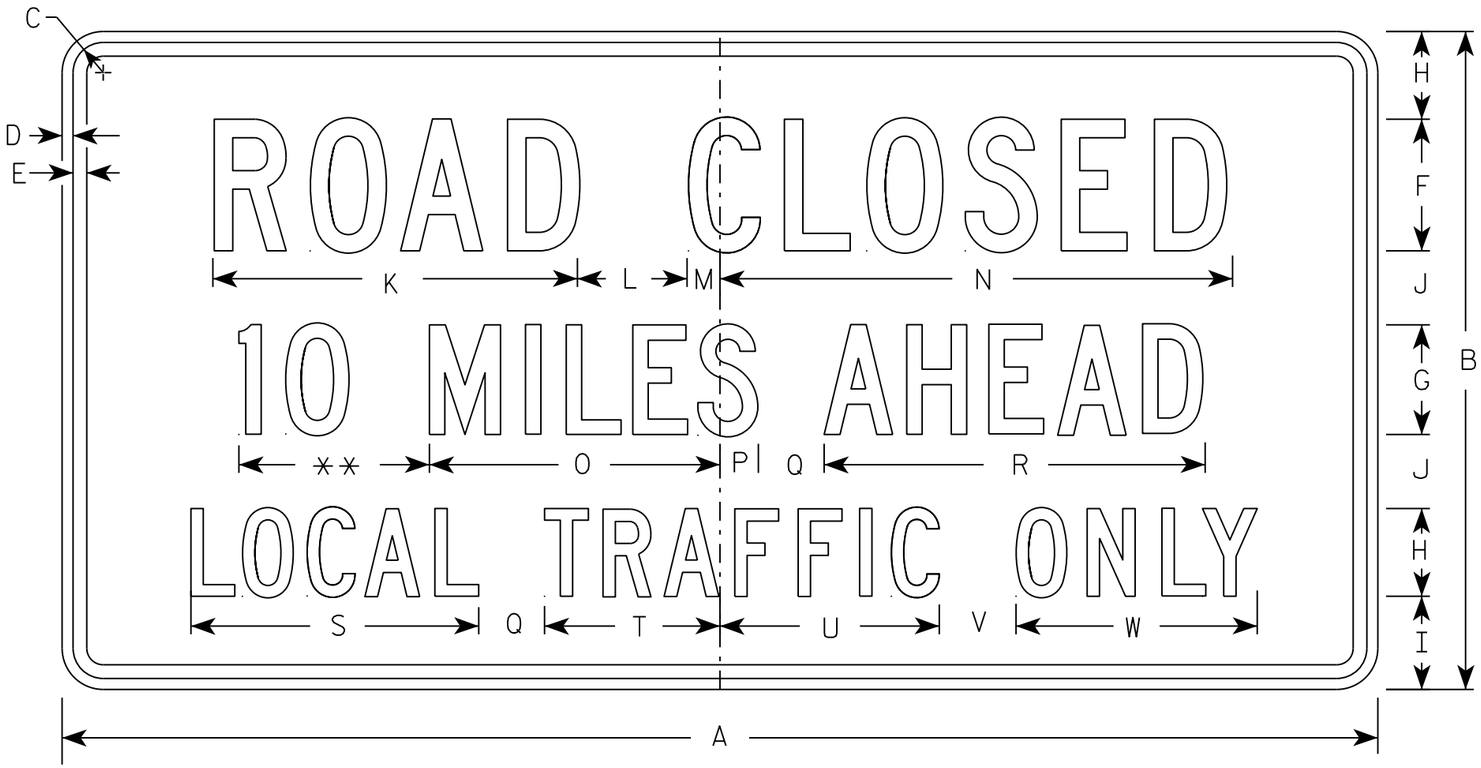
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 361 | E

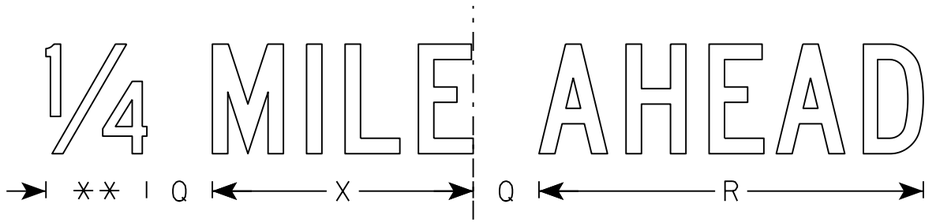
NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   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.
5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.




R11-3

** See Note 5




| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 36 | 18 | 1 3/8 | 1/2 | 5/8 | 4 | 3 | 2 1/2 | 2 | 2 | 11 1/8 | 3 | 1 1/8 | 15 1/4 | 8 | 1 1/2 | 2 | 10 3/4 | 8 3/8 | 4 3/4 | 6 1/2 | 2 | 6 3/4 | 7 1/8 | | | 4.5 |
| 2S | 60 | 30 | 1 3/8 | 1/2 | 5/8 | 6 | 5 | 4 | 4 1/4 | 3 3/8 | 16 5/8 | 5 | 1 1/2 | 23 | 13 1/4 | 1 3/4 | 3 | 17 3/8 | 13 1/8 | 8 | 10 | 3 1/2 | 11 | 11 7/8 | | | 12.5 |
| 2M | 60 | 30 | 1 3/8 | 1/2 | 5/8 | 6 | 5 | 4 | 4 1/4 | 3 3/8 | 16 5/8 | 5 | 1 1/2 | 23 | 13 1/4 | 1 3/4 | 3 | 17 3/8 | 13 1/8 | 8 | 10 | 3 1/2 | 11 | 11 7/8 | | | 12.5 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

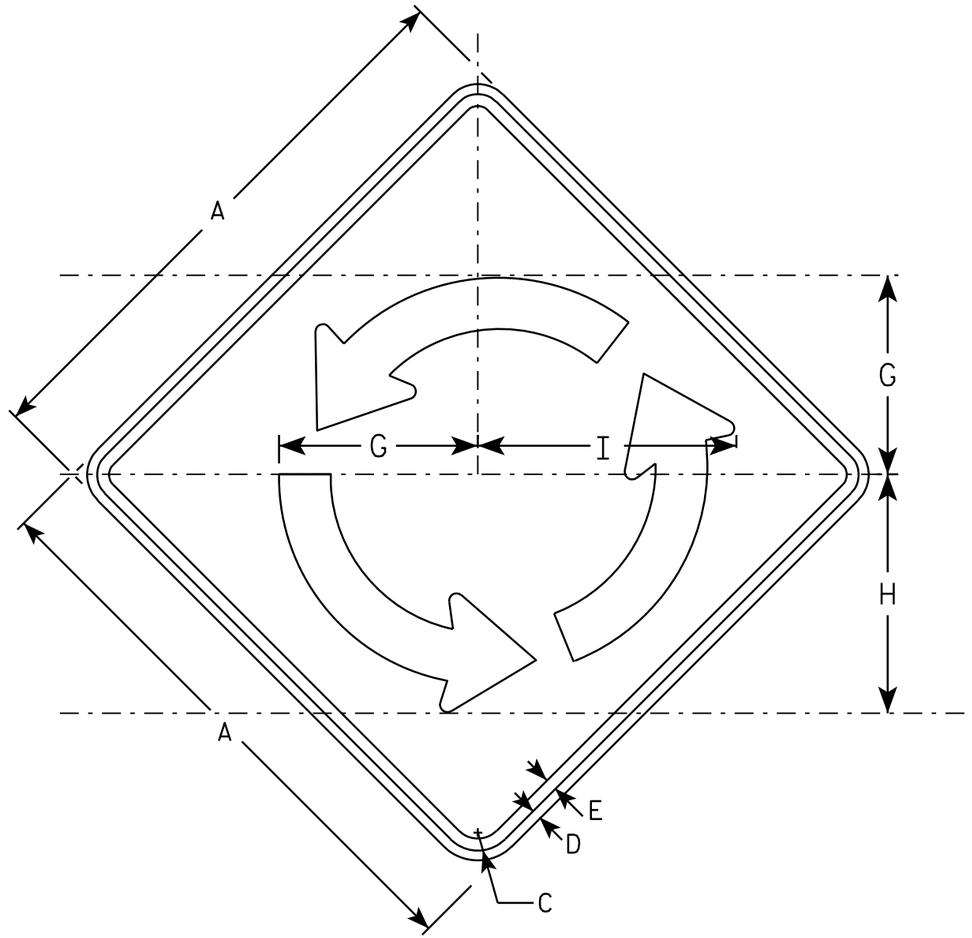
STANDARD SIGN
R11-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/15/17 PLATE NO. R11-3.8

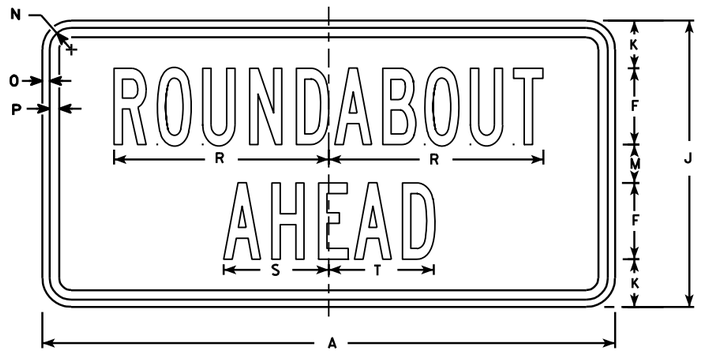
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 362 | E |
|---|---|---|---|---|---|




W2-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW
   Message - BLACK
3. Message Series - B
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.




W2-6P

| 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 | W2-6 Area sq. ft. | W2-6P Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | | 1 3/8 | 1/2 | 5/8 | 4 | 10 3/8 | 12 1/2 | 13 1/2 | 15 | 2 1/2 | | 2 | 1 1/8 | 3/8 | 1/2 | | 11 1/4 | 5 1/2 | 5 1/2 | | | | | 6.25 | 3.12 |
| 2M | 30 | | 1 3/8 | 1/2 | 5/8 | 4 | 10 3/8 | 12 1/2 | 13 1/2 | 15 | 2 1/2 | | 2 | 1 1/8 | 3/8 | 1/2 | | 11 1/4 | 5 1/2 | 5 1/2 | | | | | 6.25 | 3.12 |
| 3 | 36 | | 1 5/8 | 5/8 | 3/4 | 5 | 12 1/2 | 15 | 16 1/4 | 18 | 2 5/8 | | 2 3/4 | 1 1/8 | 3/8 | 1/2 | | 14 | 7 | 6 3/4 | | | | | 9.00 | 4.50 |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | 6 | 16 5/8 | 20 | 16 1/4 | 24 | 4 3/8 | | 3 5/8 | 1 3/8 | 1/2 | 5/8 | | 17 | 8 1/4 | 8 1/4 | | | | | 16.0 | 8.0 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | |

STANDARD SIGN
W2-6

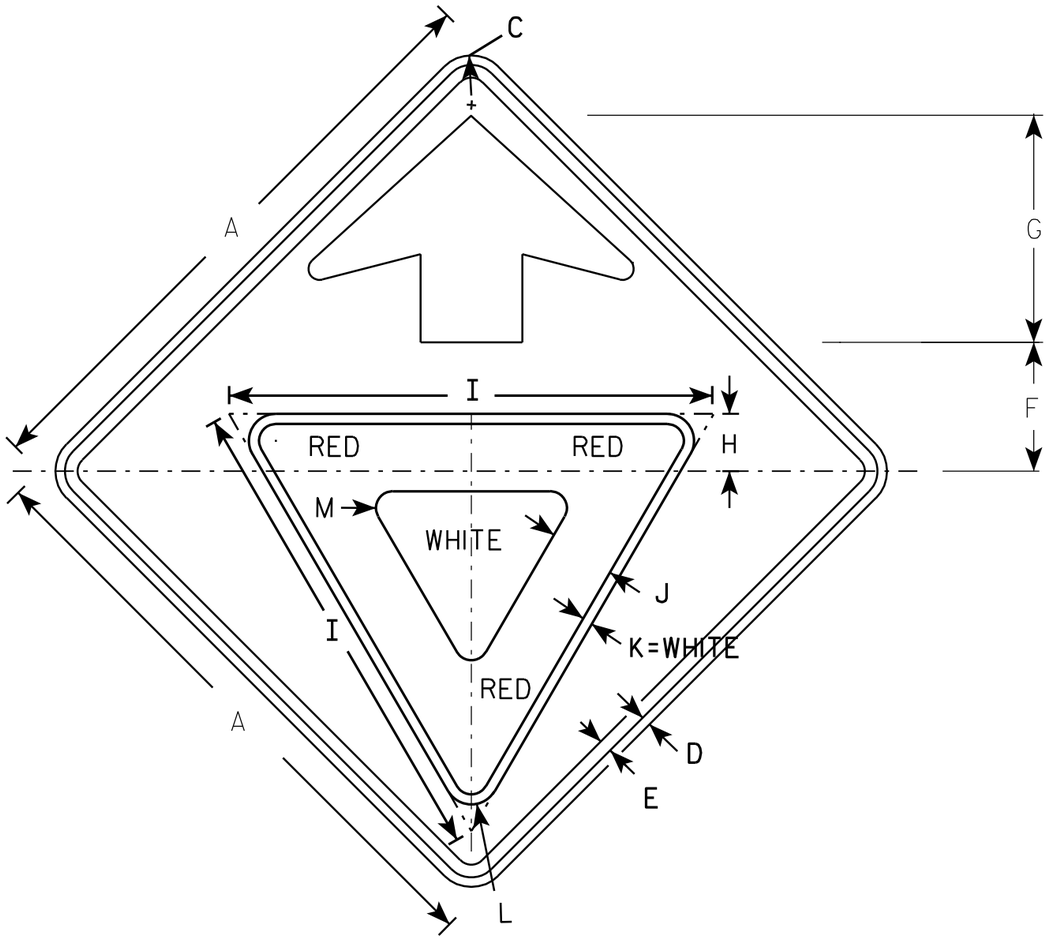
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/29/12 PLATE NO. W2-6.5

PROJECT NO:

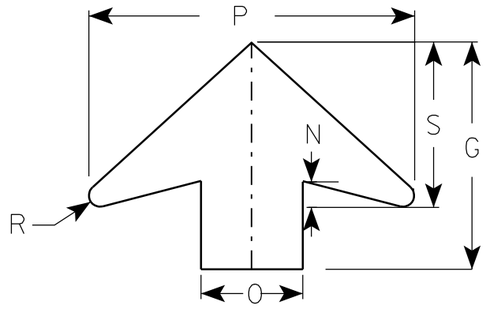
SHEET NO: 363 E




W3-2

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW
   Arrow & Border - BLACK
   Yield Symbol - WHITE BORDER ON RED BACKGROUND




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 30 | | 1 3/8 | 1/2 | 5/8 | 6 1/4 | 11 1/4 | 3 | 25 | 3 3/8 | 1/2 | 1 3/8 | 7/8 | 1 1/4 | 5 | 16 | | 1/2 | 8 | | | | | | | | 6.25 |
| 2S | 36 | | 1 5/8 | 5/8 | 3/4 | 7 1/2 | 13 1/2 | 3 3/8 | 28 | 3 3/4 | 5/8 | 1 1/2 | 1 | 1 5/8 | 6 | 19 1/4 | | 5/8 | 9 3/4 | | | | | | | | 9.0 |
| 2M | 36 | | 1 5/8 | 5/8 | 3/4 | 7 1/2 | 13 1/2 | 3 3/8 | 28 | 3 3/4 | 5/8 | 1 1/2 | 1 | 1 5/8 | 6 | 19 1/4 | | 5/8 | 9 3/4 | | | | | | | | 9.0 |
| 3 | 36 | | 1 5/8 | 5/8 | 3/4 | 7 1/2 | 13 1/2 | 3 3/8 | 28 | 3 3/4 | 5/8 | 1 1/2 | 1 | 1 5/8 | 6 | 19 1/4 | | 5/8 | 9 3/4 | | | | | | | | 9.0 |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | 10 | 17 7/8 | 4 1/2 | 38 | 5 | 3/4 | 2 1/8 | 1 3/8 | 2 | 8 | 25 5/8 | | 7/8 | 13 | | | | | | | | 16.0 |
| 5 | 48 | | 2 1/4 | 3/4 | 1 | 10 | 17 7/8 | 4 1/2 | 38 | 5 | 3/4 | 2 1/8 | 1 3/8 | 2 | 8 | 25 5/8 | | 7/8 | 13 | | | | | | | | 16.0 |

STANDARD SIGN
W3-2

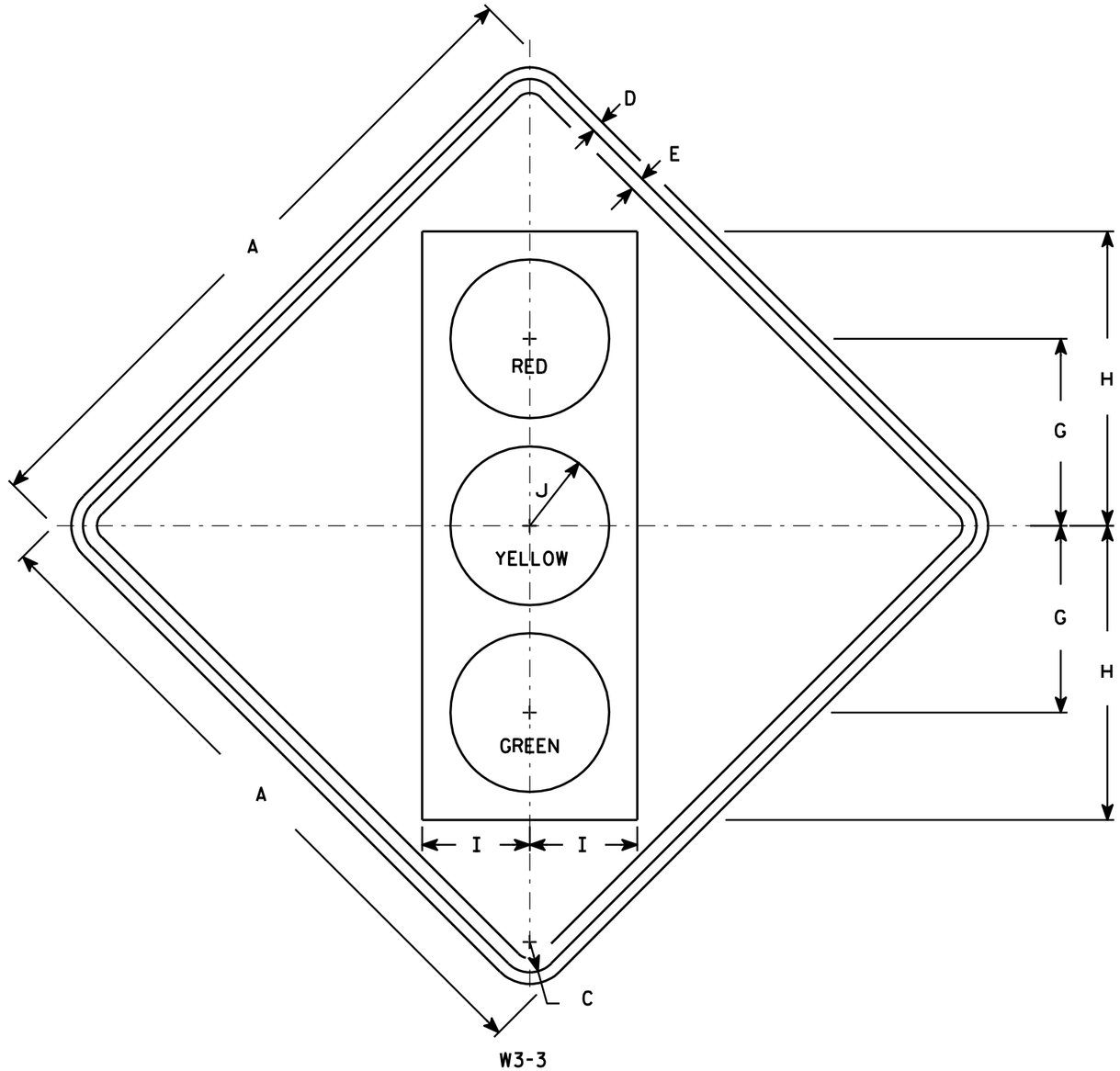
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-2..9

PROJECT NO:

SHEET NO: 364 E




NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Symbol and border are non-reflective black.
   Top circle - Type H Reflectorized Red
   Center circle - Same as background
   Bottom circle - Type H Reflectorized Green

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 30 | | 1 3/8 | 1/2 | 5/8 | | 8 3/4 | 13 3/4 | 5 | 3 3/4 | | | | | | | | | | | | | | | | | 6.25 |
| 2S | 36 | | 1 5/8 | 5/8 | 3/4 | | 10 | 15 3/4 | 5 3/4 | 4 1/4 | | | | | | | | | | | | | | | | | 9.0 |
| 2M | 36 | | 1 5/8 | 5/8 | 3/4 | | 10 | 15 3/4 | 5 3/4 | 4 1/4 | | | | | | | | | | | | | | | | | 9.0 |
| 3 | 36 | | 1 5/8 | 5/8 | 3/4 | | 10 | 15 3/4 | 5 3/4 | 4 1/4 | | | | | | | | | | | | | | | | | 9.0 |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | | 12 1/2 | 20 | 7 1/2 | 5 | | | | | | | | | | | | | | | | | 16.0 |
| 5 | 48 | | 2 1/4 | 3/4 | 1 | | 12 1/2 | 20 | 7 1/2 | 5 | | | | | | | | | | | | | | | | | 16.0 |

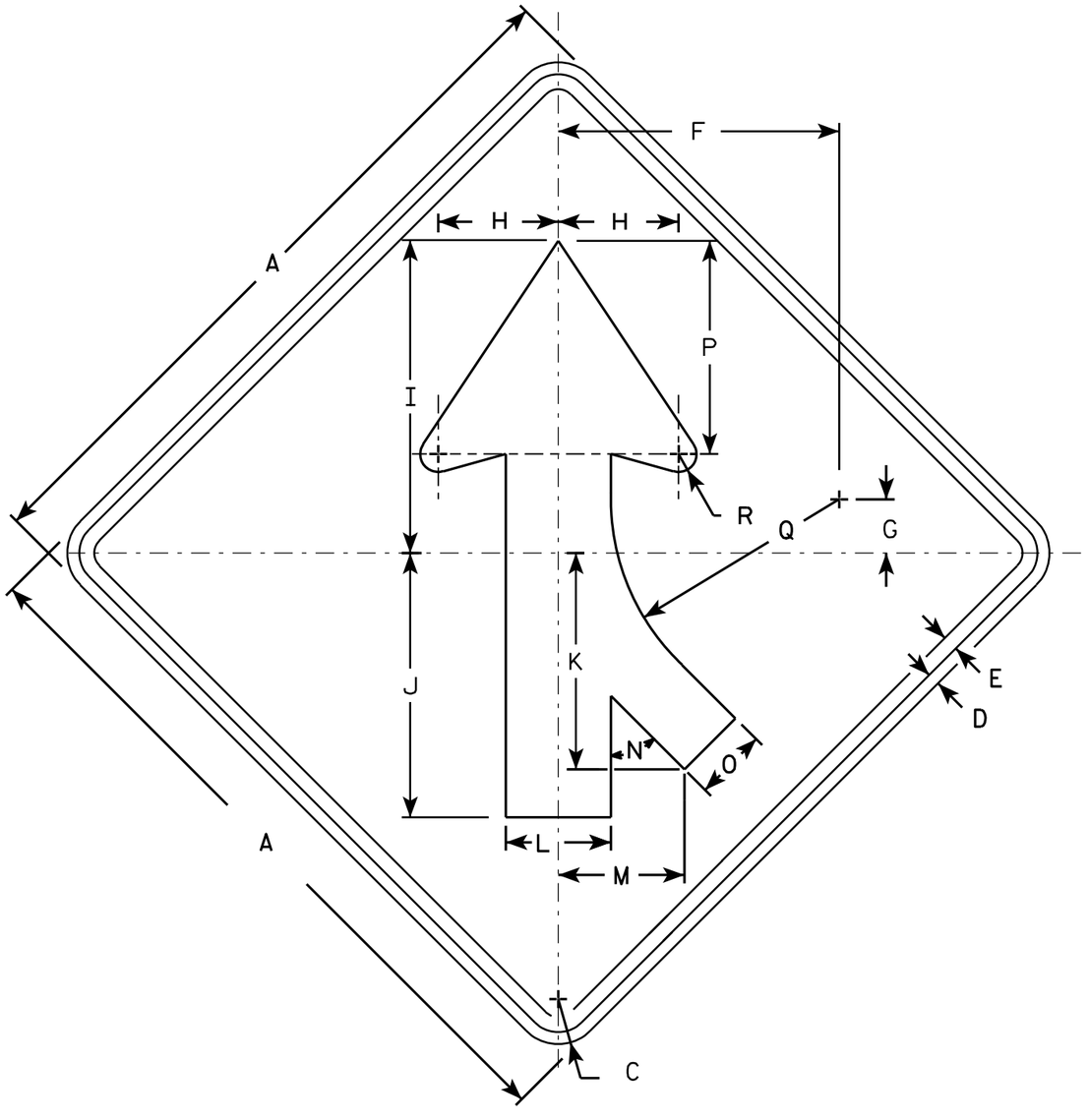
STANDARD SIGN
W3-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-3.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 365 | E




W4-1 R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-1L is the same as W4-1R except the arrow is reversed along the vertical centerline.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 30 | | 1 3/8 | 1/2 | 5/8 | 11 5/8 | 2 1/2 | 5 | 13 | 11 | 9 | 4 3/8 | 5 1/4 | 45° | 3 | 8 7/8 | 9 1/2 | 3/4 | | | | | | | | | 6.25 |
| 2S | 36 | | 1 5/8 | 5/8 | 3/4 | 14 | 2 3/4 | 6 | 15 3/4 | 13 1/4 | 10 1/4 | 5 1/4 | 6 3/8 | 45° | 3 5/8 | 10 5/8 | 11 3/8 | 7/8 | | | | | | | | | 9.0 |
| 2M | 36 | | 1 5/8 | 5/8 | 3/4 | 14 | 2 3/4 | 6 | 15 3/4 | 13 1/4 | 10 1/4 | 5 1/4 | 6 3/8 | 45° | 3 5/8 | 10 5/8 | 11 3/8 | 7/8 | | | | | | | | | 9.0 |
| 3 | 36 | | 1 5/8 | 5/8 | 3/4 | 14 | 2 3/4 | 6 | 15 3/4 | 13 1/4 | 10 1/4 | 5 1/4 | 6 3/8 | 45° | 3 5/8 | 10 5/8 | 11 3/8 | 7/8 | | | | | | | | | 9.0 |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | 18 3/4 | 3 5/8 | 8 | 20 1/2 | 17 1/2 | 14 3/8 | 7 | 8 3/8 | 45° | 4 3/4 | 14 1/4 | 15 1/4 | 1 1/4 | | | | | | | | | 16.0 |
| 5 | 48 | | 2 1/4 | 3/4 | 1 | 18 3/4 | 3 5/8 | 8 | 20 1/2 | 17 1/2 | 14 3/8 | 7 | 8 3/8 | 45° | 4 3/4 | 14 1/4 | 15 1/4 | 1 1/4 | | | | | | | | | 16.0 |

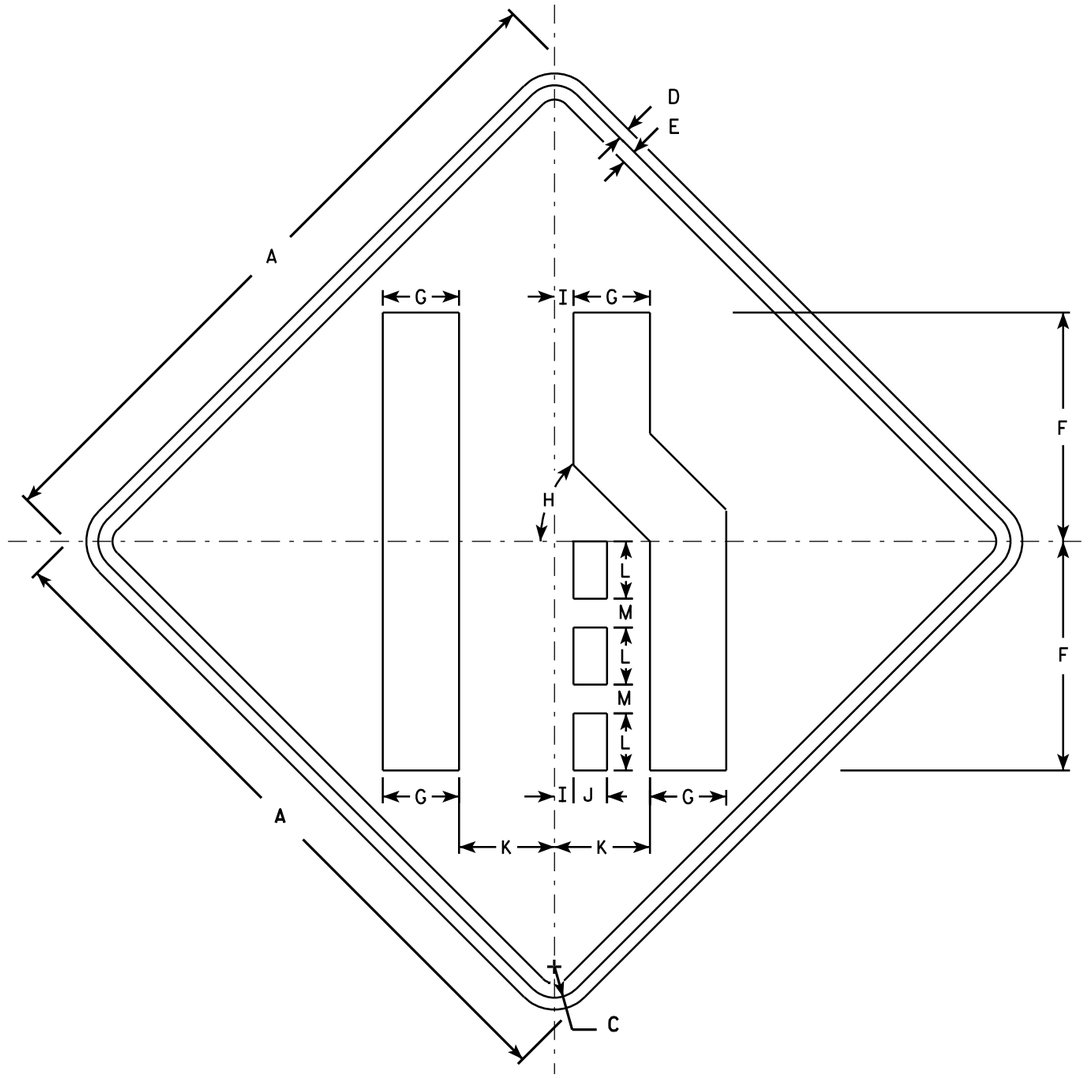
STANDARD SIGN
W4-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rausch for State Traffic Engineer

DATE 03/12/13 PLATE NO. W4-1.14

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 366 | E |
|---|---|---|---|---|---|




W4-2R

## NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-2L is the same as W4-2R except the symbol is reversed along the vertical centerline.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 30 | | 1 3/8 | 1/2 | 5/8 | 10 | 3 3/8 | 45° | 7/8 | 1 1/2 | 4 1/4 | 2 1/2 | 1 1/4 | | | | | | | | | | | | | | 6.25 |
| 2S | 36 | | 1 5/8 | 5/8 | 3/4 | 12 | 4 | 45° | 1 | 1 3/4 | 5 | 3 | 1 1/2 | | | | | | | | | | | | | | 9.0 |
| 2M | 36 | | 1 5/8 | 5/8 | 3/4 | 12 | 4 | 45° | 1 | 1 3/4 | 5 | 3 | 1 1/2 | | | | | | | | | | | | | | 9.0 |
| 3 | 36 | | 1 5/8 | 5/8 | 3/4 | 12 | 4 | 45° | 1 | 1 3/4 | 5 | 3 | 1 1/2 | | | | | | | | | | | | | | 9.0 |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | 16 | 5 3/8 | 45° | 1 1/4 | 2 3/8 | 6 3/4 | 4 | 2 | | | | | | | | | | | | | | 16.0 |
| 5 | 48 | | 2 1/4 | 3/4 | 1 | 16 | 5 3/8 | 45° | 1 1/4 | 2 3/8 | 6 3/4 | 4 | 2 | | | | | | | | | | | | | | 16.0 |

STANDARD SIGN
W4-2

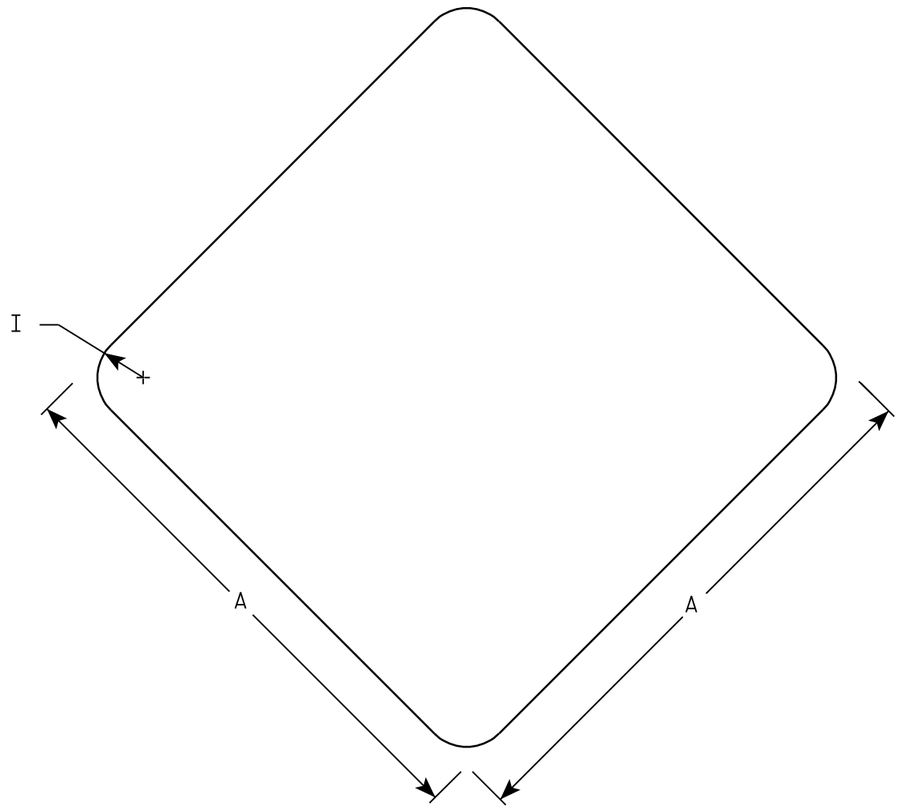
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/12/13 PLATE NO. W4-2.14

PROJECT NO:

SHEET NO: 367 E




W5-54

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
3. Corners may be square or rounded when base material is plywood. When base material is metal the corners shall be rounded.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 12 | | | | | | | | 1 | | | | | | | | | | | | | | | | | | 1.0 |
| 2S | 18 | | | | | | | | 1 ½ | | | | | | | | | | | | | | | | | | 2.25 |
| 2M | 18 | | | | | | | | 1 ½ | | | | | | | | | | | | | | | | | | 2.25 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

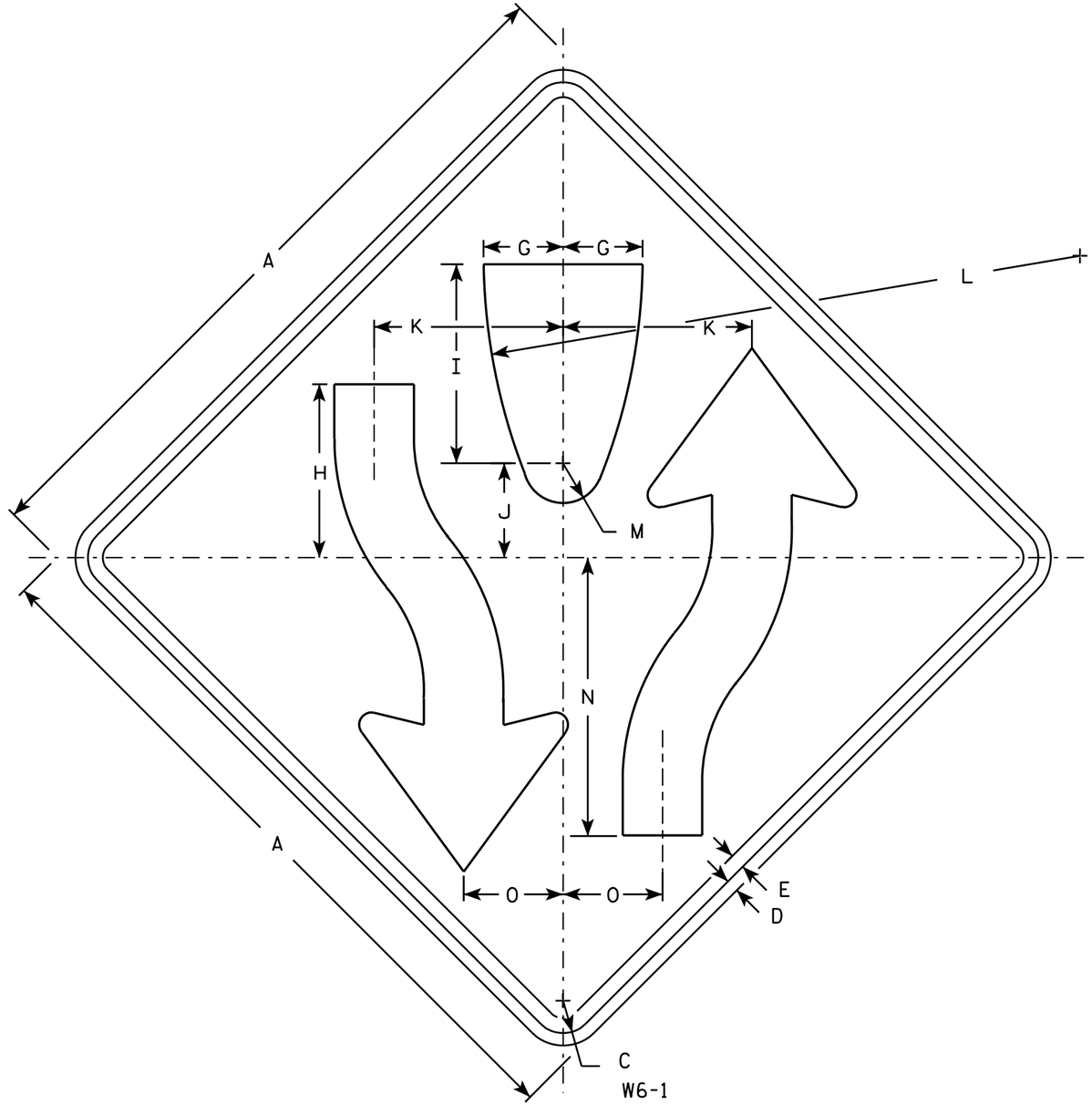
STANDARD SIGN
W5-54

*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
*for* State Traffic Engineer

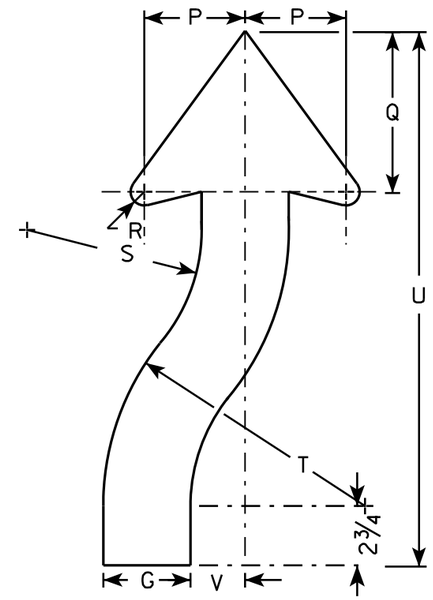
DATE 11/3/10 PLATE NO. W5-54.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 368 | E




NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W6-2 same as W6-1 but is rotated 180° when mounted.




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 30 | | 1 3/8 | 1/2 | 5/8 | | 3 1/4 | 8 | 8 1/4 | 4 1/8 | 7 7/8 | 25 | 1 3/4 | 11 5/8 | 4 1/8 | 3 7/8 | 6 3/4 | 5/8 | 6 5/8 | 9 7/8 | 21 5/8 | 2 | | | | | 6.25 |
| 2S | 36 | | 1 5/8 | 5/8 | 3/4 | | 4 | 8 3/4 | 10 | 4 3/4 | 9 1/2 | 30 | 2 | 14 | 5 | 4 5/8 | 7 3/8 | 7/8 | 8 | 12 | 24 1/2 | 2 1/2 | | | | | 9.0 |
| 2M | 36 | | 1 5/8 | 5/8 | 3/4 | | 4 | 8 3/4 | 10 | 4 3/4 | 9 1/2 | 30 | 2 | 14 | 5 | 4 5/8 | 7 3/8 | 7/8 | 8 | 12 | 24 1/2 | 2 1/2 | | | | | 9.0 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | | 5 3/8 | 11 5/8 | 13 3/8 | 6 3/8 | 12 5/8 | 40 | 2 5/8 | 18 5/8 | 6 5/8 | 6 1/4 | 9 7/8 | 1 1/4 | 10 5/8 | 16 | 32 5/8 | 3 3/8 | | | | | 16.0 |
| 5 | 48 | | 2 1/4 | 3/4 | 1 | | 5 3/8 | 11 5/8 | 13 3/8 | 6 3/8 | 12 5/8 | 40 | 2 5/8 | 18 5/8 | 6 5/8 | 6 1/4 | 9 7/8 | 1 1/4 | 10 5/8 | 16 | 32 5/8 | 3 3/8 | | | | | 16.0 |

# STANDARD SIGN
## W6-1 & W6-2

WISCONSIN DEPT OF TRANSPORTATION

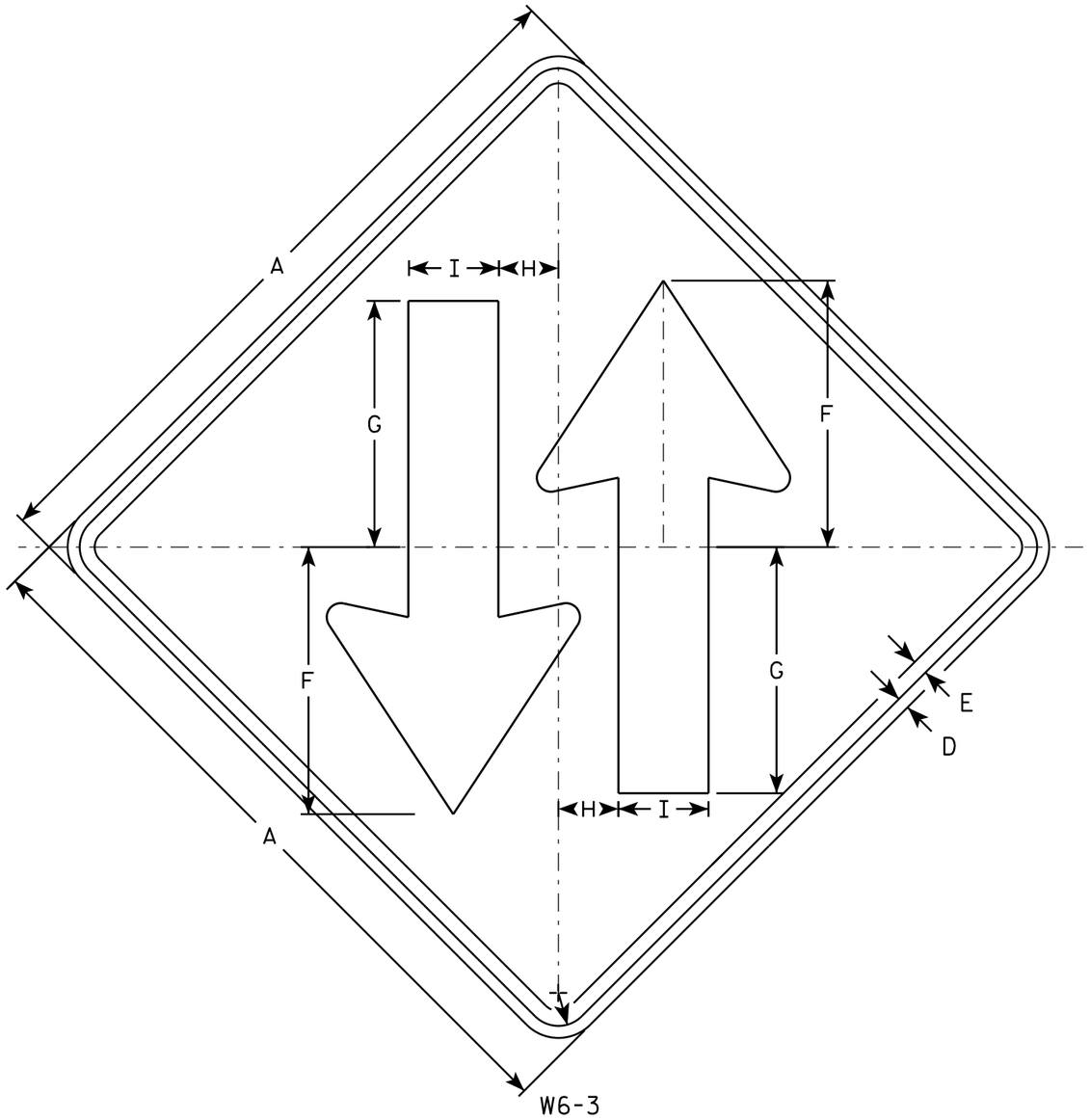
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W6-1.14

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 369 | E |
|---|---|---|---|---|---|


7

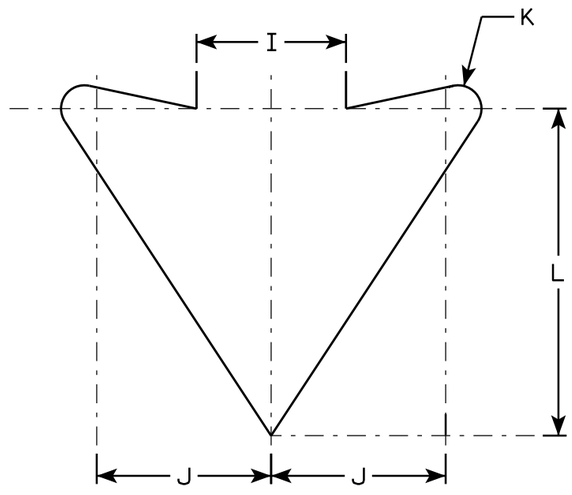
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W61.DGN PLOT DATE : 12-MAR-2013 14:02 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.946657:1.000000
WISDOT/CADDS SHEET 42




W6-3

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 30 | | 1 3/8 | 1/2 | 5/8 | 11 1/8 | 10 1/4 | 2 1/2 | 3 3/4 | 4 3/8 | 5/8 | 8 1/4 | | | | | | | | | | | | | | | 6.25 |
| 2S | 36 | | 1 5/8 | 5/8 | 3/4 | 13 3/8 | 12 1/4 | 3 | 4 1/2 | 5 1/4 | 3/4 | 9 7/8 | | | | | | | | | | | | | | | 9.0 |
| 2M | 36 | | 1 5/8 | 5/8 | 3/4 | 13 3/8 | 12 1/4 | 3 | 4 1/2 | 5 1/4 | 3/4 | 9 7/8 | | | | | | | | | | | | | | | 9.0 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | 17 3/4 | 16 3/8 | 4 | 6 | 7 | 1 | 13 1/8 | | | | | | | | | | | | | | | 16.0 |
| 5 | 48 | | 2 1/4 | 3/4 | 1 | 17 3/4 | 16 3/8 | 4 | 6 | 7 | 1 | 13 1/8 | | | | | | | | | | | | | | | 16.0 |

STANDARD SIGN
W6-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

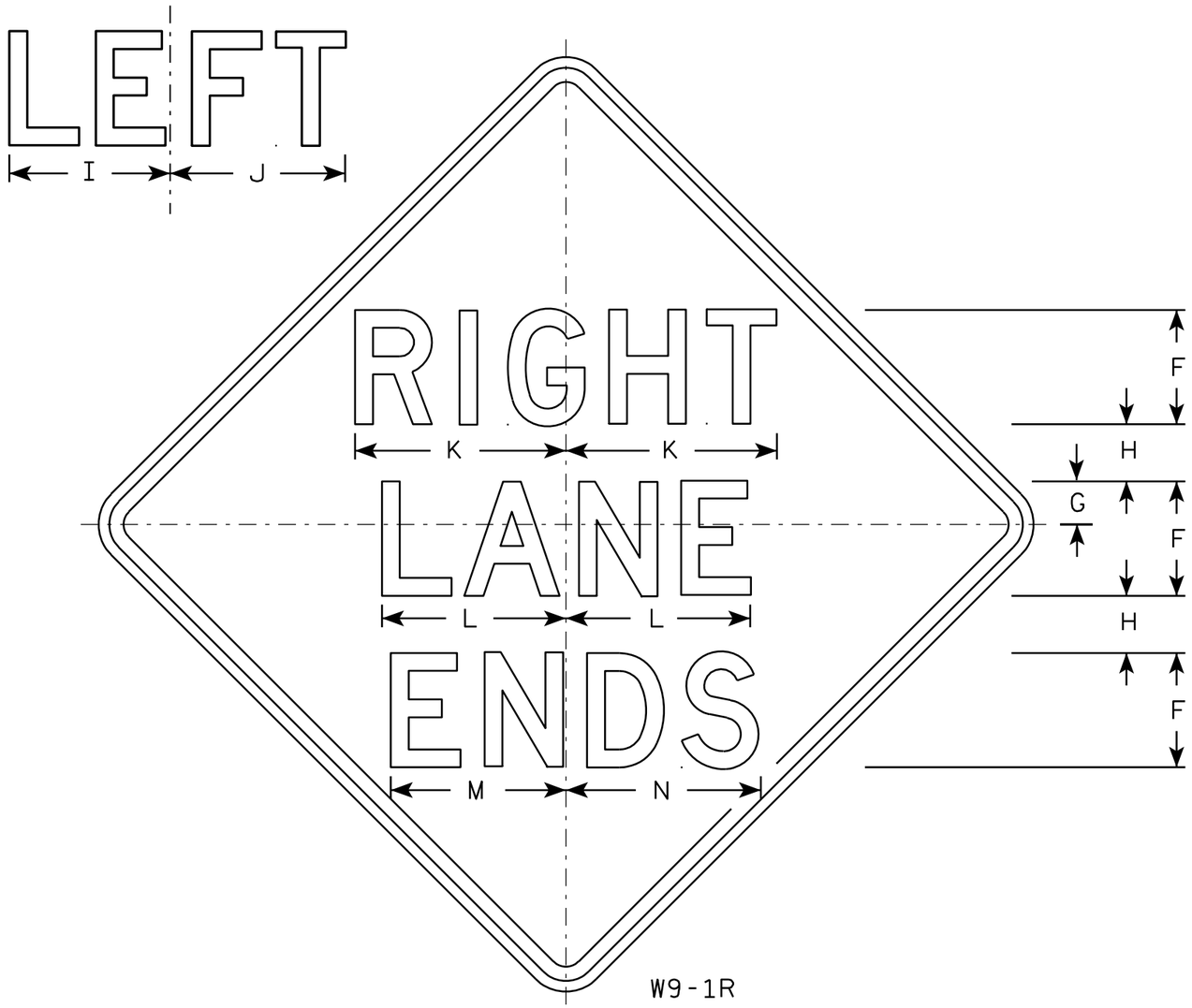
DATE 3/10/16 PLATE W6-3.11



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



FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W63.DGN PLOT DATE : 10-MAR-2016 14:01 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.080757:1.000000
WISDOT/CADDS SHEET 42




W9-1R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. W9-1L same as W9-1R except the word Left replaces Right.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 30 | | 1 3/8 | 1/2 | 5/8 | 5 | 1 1/2 | 2 1/2 | 7 1/8 | 7 5/8 | 9 1/4 | 8 1/8 | 7 5/8 | 8 5/8 | | | | | | | | | | | | | 6.25 |
| 2S | 36 | | 1 5/8 | 5/8 | 3/4 | 6 | 2 | 3 | 8 1/2 | 9 1/8 | 11 | 9 3/4 | 9 | 10 3/8 | | | | | | | | | | | | | 9.0 |
| 2M | 36 | | 1 5/8 | 5/8 | 3/4 | 6 | 2 | 3 | 8 1/2 | 9 1/8 | 11 | 9 3/4 | 9 | 10 3/8 | | | | | | | | | | | | | 9.0 |
| 3 | 36 | | 1 5/8 | 5/8 | 3/4 | 6 | 2 | 3 | 8 1/2 | 9 1/8 | 11 | 9 3/4 | 9 | 10 3/8 | | | | | | | | | | | | | 9.0 |
| 4 | 36 | | 1 5/8 | 5/8 | 3/4 | 6 | 2 | 3 | 8 1/2 | 9 1/8 | 11 | 9 3/4 | 9 | 10 3/8 | | | | | | | | | | | | | 9.0 |
| 5 | 48 | | 2 1/4 | 3/4 | 1 | 8 | 3 | 4 | 11 1/4 | 12 1/4 | 14 3/4 | 12 7/8 | 12 1/4 | 13 5/8 | | | | | | | | | | | | | 16.0 |

STANDARD SIGN
W9-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 03/18/13 PLATE NO. W9-1.8

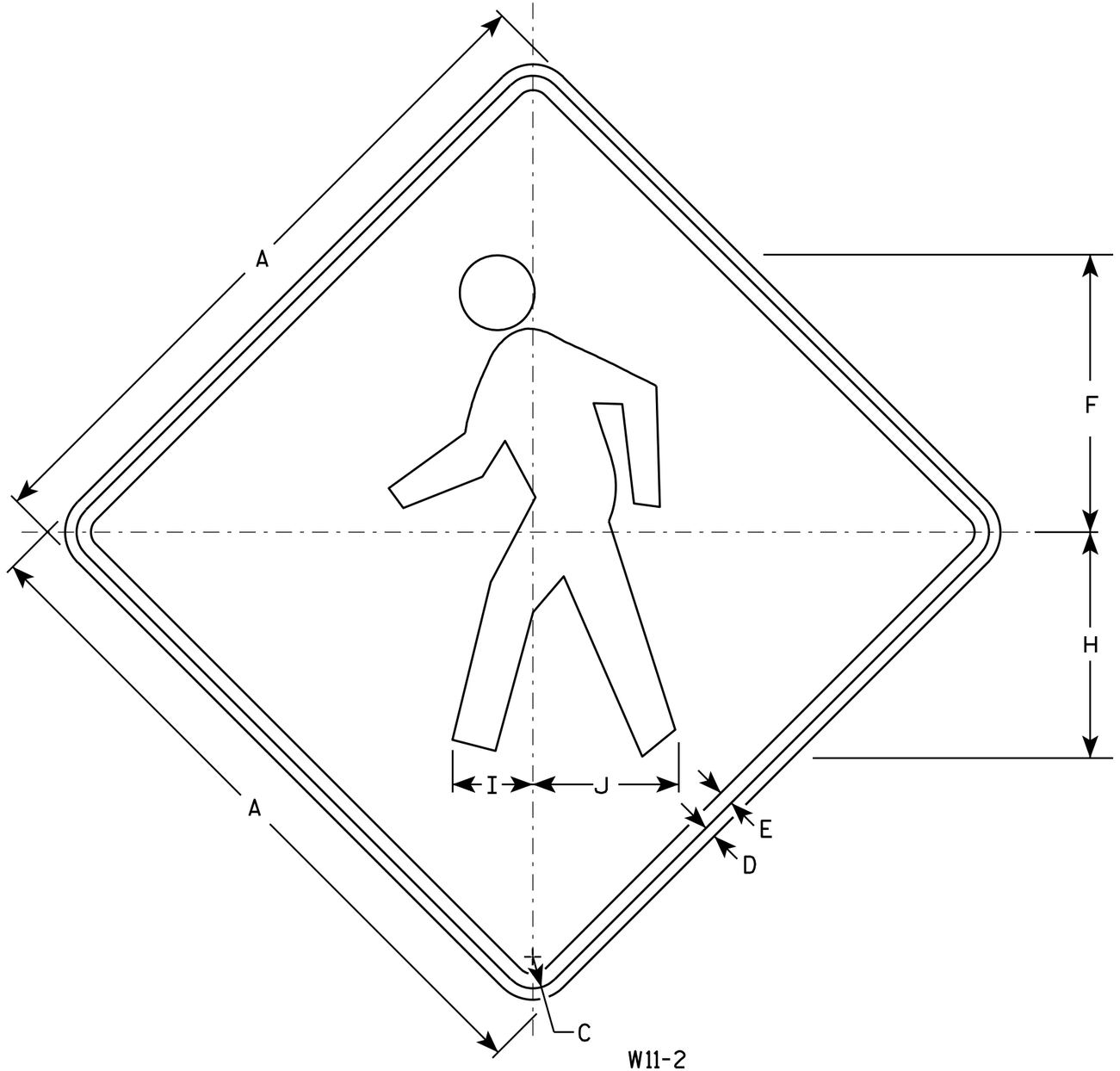
PROJECT NO:

SHEET NO: 371 E



FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W91.DGN PLOT DATE : 18-MAR-2013 11:42 PLOT BY : mscsja

WISDOT/CADDS SHEET 42




W11-2

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 24 | | 1 1/8 | 3/8 | 1/2 | 9 3/4 | | 7 7/8 | 2 7/8 | 5 1/8 | | | | | | | | | | | | | | | | | 4.0 |
| 2S | 30 | | 1 3/8 | 1/2 | 5/8 | 12 1/8 | | 9 7/8 | 3 1/2 | 6 3/8 | | | | | | | | | | | | | | | | | 6.25 |
| 2M | 36 | | 1 5/8 | 5/8 | 3/4 | 14 1/2 | | 11 7/8 | 4 1/4 | 7 5/8 | | | | | | | | | | | | | | | | | 9.0 |
| 3 | 36 | | 1 5/8 | 5/8 | 3/4 | 14 1/2 | | 11 7/8 | 4 1/4 | 7 5/8 | | | | | | | | | | | | | | | | | 9.0 |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | 19 3/8 | | 15 3/4 | 5 5/8 | 10 1/4 | | | | | | | | | | | | | | | | | 16.0 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

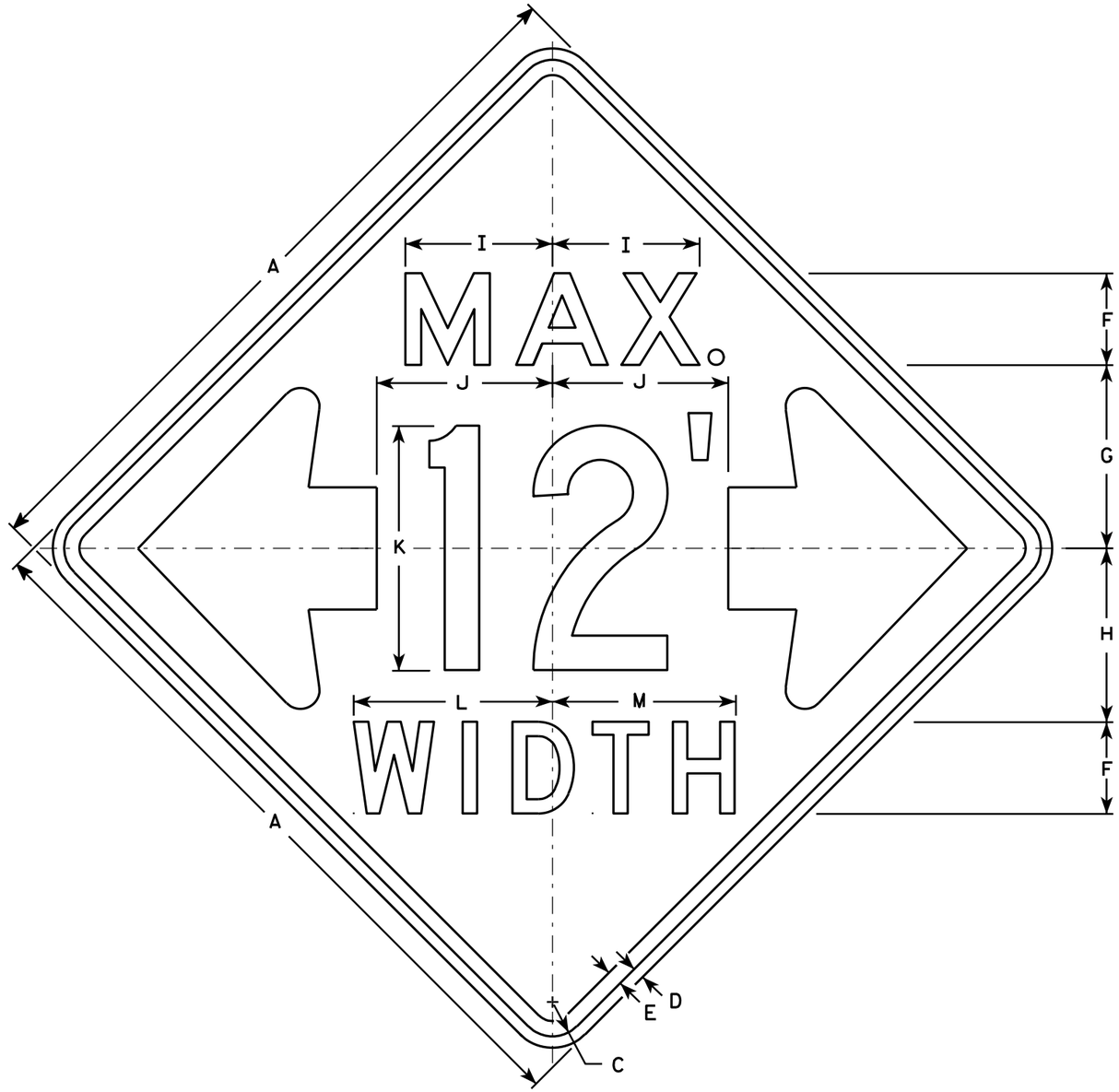
# STANDARD SIGN
# W11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

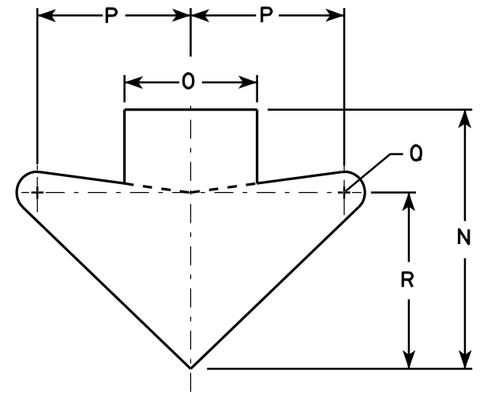
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 372 | E |
|---|---|---|---|---|---|




W12-52

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The top line is series E, the numerals are series C, and the bottom line is series D.
6. Substitute appropriate numerals and adjust spacing as required.




ARROW DETAIL

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

STANDARD SIGN
W12-52

WISCONSIN DEPT OF TRANSPORTATION

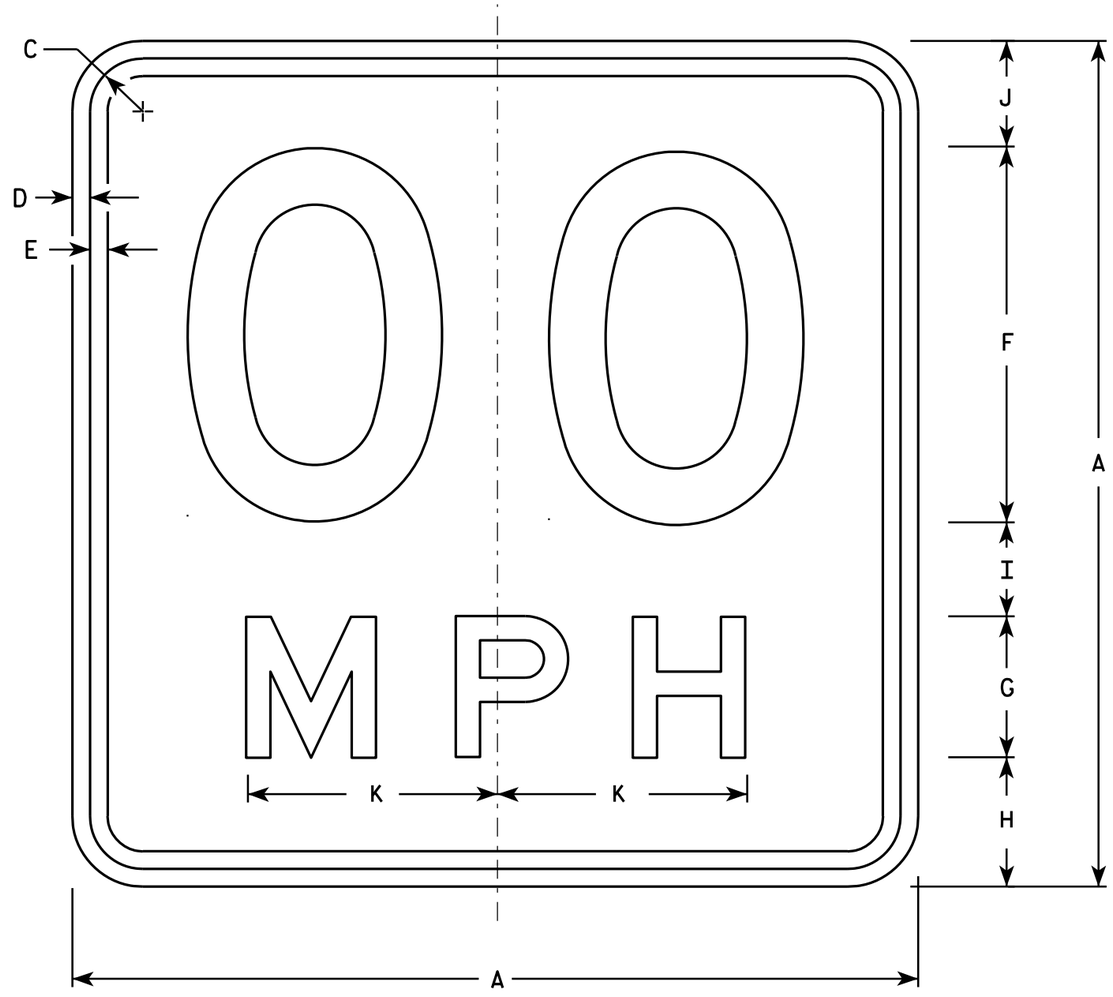
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/11 PLATE NO. W12-52.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 373 | E


7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W1252.DGN PLOT DATE : 16-MAR-2011 14:45 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.137199:1.000000
WISDOT/CADDS SHEET 42




W13-1

* For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
   Line 2 is Series E

| | SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 18 | | 1 1/8 | 3/8 | 3/8 | 8 | 3 | 2 3/4 | 2 | 2 1/4 | 5 3/8 | | | | | | | | | | | | | | | | 2.25 |
| * | 2S | 18 | | 1 1/8 | 3/8 | 3/8 | 8 | 3 | 2 3/4 | 2 | 2 1/4 | 5 3/8 | | | | | | | | | | | | | | | | 2.25 |
| * | 2M | 18 | | 1 1/8 | 3/8 | 3/8 | 8 | 3 | 2 3/4 | 2 | 2 1/4 | 5 3/8 | | | | | | | | | | | | | | | | 2.25 |
| | 3 | 24 | | 1 1/8 | 3/8 | 1/2 | 10 | 4 | 4 | 2 3/4 | 3 1/4 | 6 5/8 | | | | | | | | | | | | | | | | 4.00 |
| | 4 | 36 | | 1 5/8 | 5/8 | 3/4 | 16 | 6 | 5 1/2 | 4 | 4 1/2 | 10 5/8 | | | | | | | | | | | | | | | | 9.00 |
| | 5 | 36 | | 1 5/8 | 5/8 | 3/4 | 16 | 6 | 5 1/2 | 4 | 4 1/2 | 10 5/8 | | | | | | | | | | | | | | | | 9.00 |

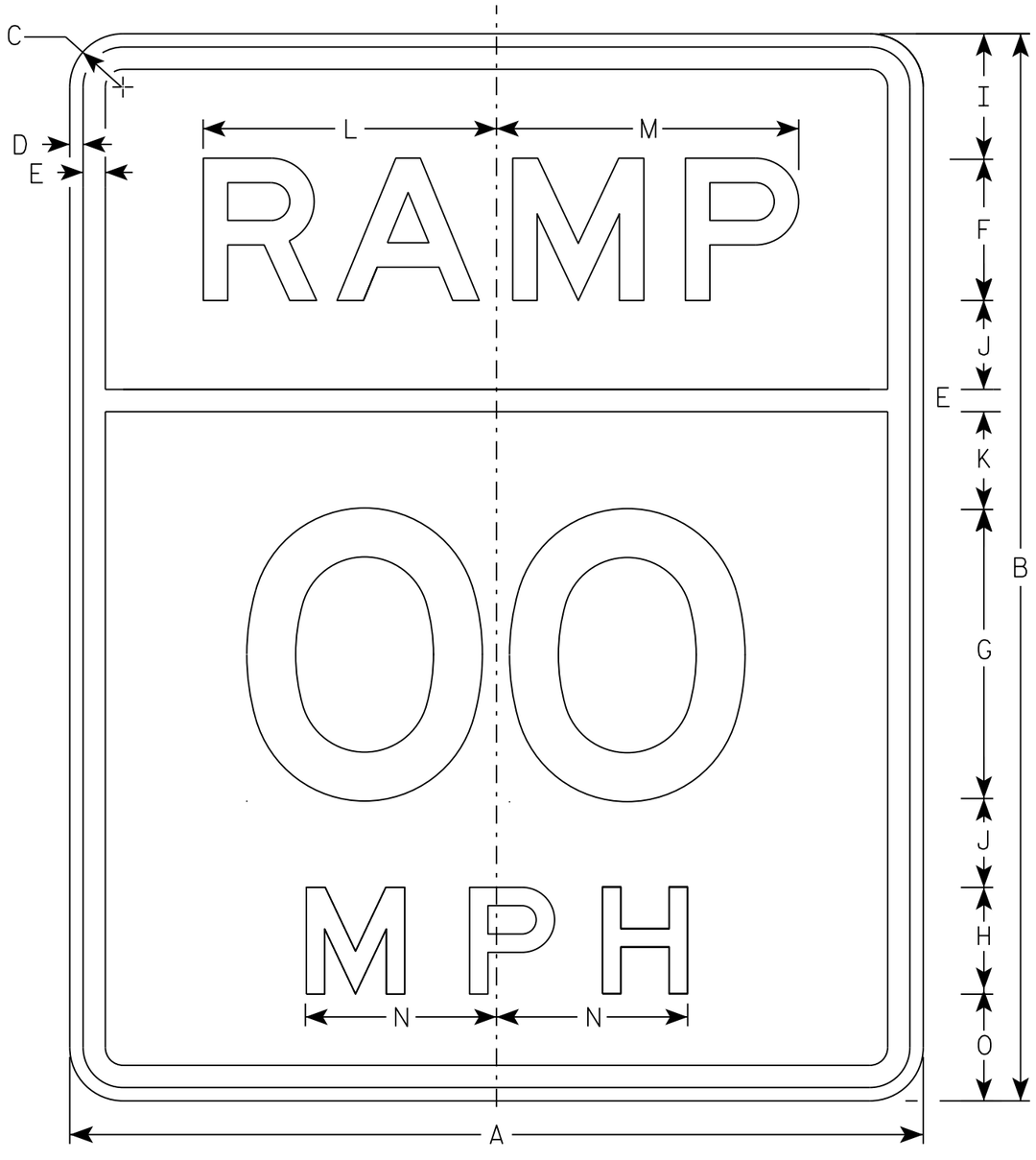
STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 374 | E




W13-3

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - E
4. Substitute appropriate numerals and optically space about centerline to achieve proper balance.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 24 | 30 | 1 1/8 | 3/8 | 5/8 | 4 | 8 | 3 | 3 1/2 | 2 1/2 | 2 7/8 | 8 1/4 | 8 1/2 | 5 3/8 | 3 | | | | | | | | | | | | 5.0 |
| 2S | 24 | 30 | 1 1/8 | 3/8 | 5/8 | 4 | 8 | 3 | 3 1/2 | 2 1/2 | 2 7/8 | 8 1/4 | 8 1/2 | 5 3/8 | 3 | | | | | | | | | | | | 5.0 |
| 2M | 24 | 30 | 1 1/8 | 3/8 | 5/8 | 4 | 8 | 3 | 3 1/2 | 2 1/2 | 2 7/8 | 8 1/4 | 8 1/2 | 5 3/8 | 3 | | | | | | | | | | | | 5.0 |
| 3 | 36 | 48 | 1 5/8 | 5/8 | 7/8 | 6 | 12 | 4 | 6 | 4 1/8 | 5 1/8 | 13 1/2 | 13 5/8 | 7 1/8 | 6 | | | | | | | | | | | | 12.0 |
| 4 | 36 | 48 | 1 5/8 | 5/8 | 7/8 | 6 | 12 | 4 | 6 | 4 1/8 | 5 1/8 | 13 1/2 | 13 5/8 | 7 1/8 | 6 | | | | | | | | | | | | 12.0 |
| 5 | 48 | 60 | 2 1/4 | 3/4 | 1 1/4 | 8 | 16 | 6 | 7 | 5 | 5 3/4 | 16 1/2 | 17 | 10 5/8 | 6 | | | | | | | | | | | | 20.0 |

STANDARD SIGN
W13-3

WISCONSIN DEPT OF TRANSPORTATION

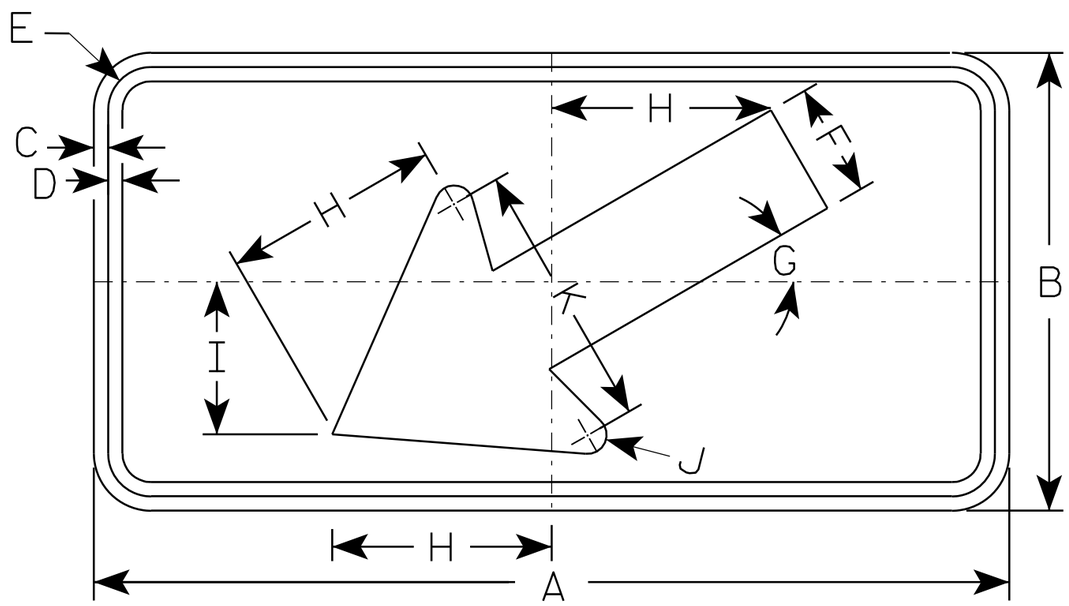
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/1/16 PLATE NO 13-3.10

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



FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W133.DGN PLOT DATE : 01-AUG-2016 09:57 PLOT BY : $$ platuser $$ PLOT NAME : PLOT SCALE : 4.086268:1.000000




W16-7L

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W16-7R is the same as W16-L except the arrow is reversed along the vertical centerline.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 24 | 12 | 3/8 | 3/8 | 1 1/8 | 3 | 30° | 5 3/4 | 4 | 1/2 | 7 | | | | | | | | | | | | | | | | 2.0 |
| 2M | 30 | 18 | 3/8 | 1/2 | 1 1/8 | 4 1/2 | 30° | 8 1/2 | 6 | 5/8 | 10 1/4 | | | | | | | | | | | | | | | | 3.75 |
| 3 | 30 | 18 | 3/8 | 1/2 | 1 1/8 | 4 1/2 | 30° | 8 1/2 | 6 | 5/8 | 10 1/4 | | | | | | | | | | | | | | | | 3.75 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | 8 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | 8 |

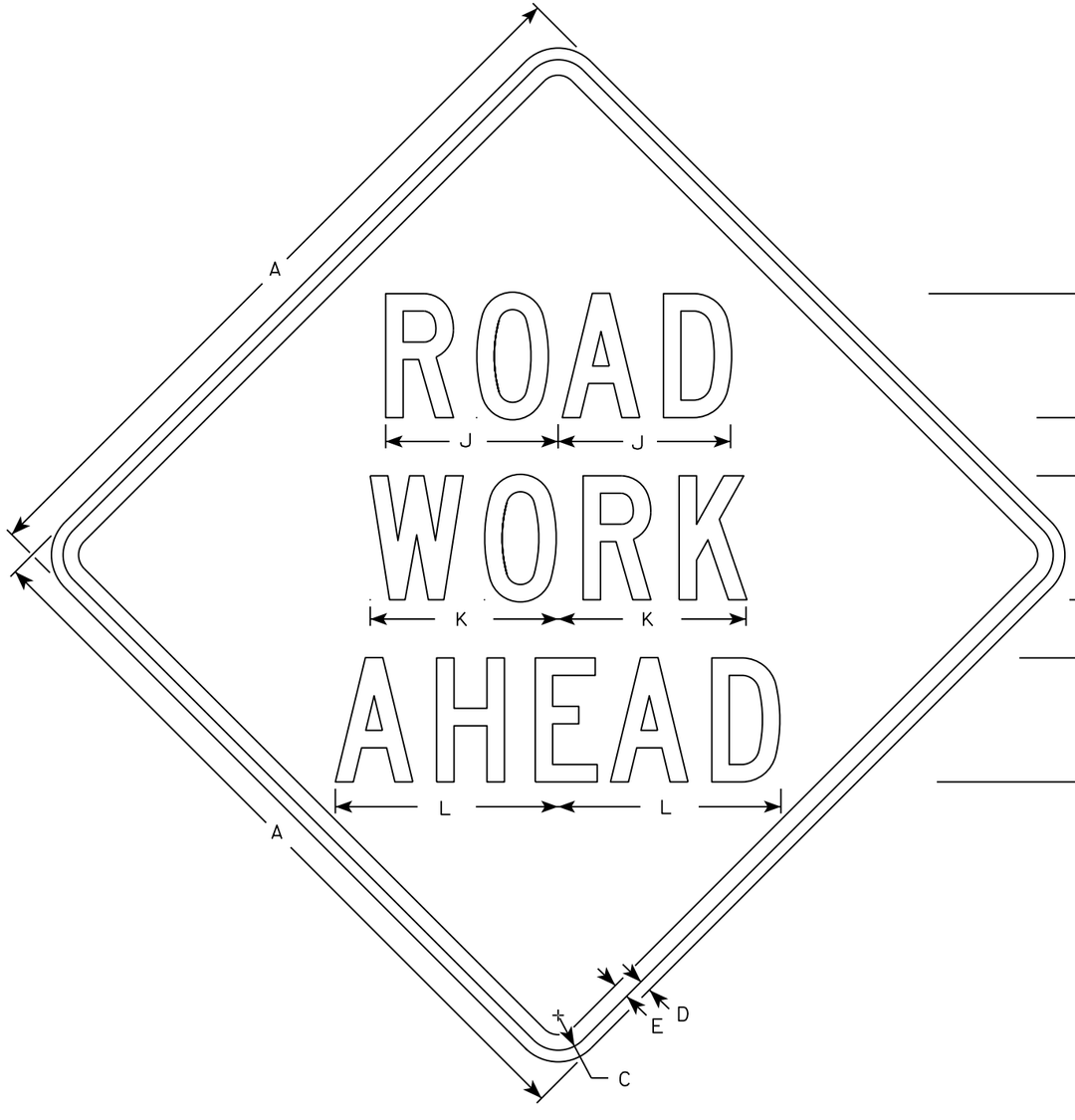
STANDARD SIGN
W16-7

WISCONSIN DEPT OF TRANSPORTATION

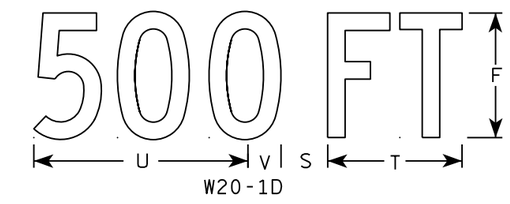
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/02/10 PLATE NO. W16-7.5

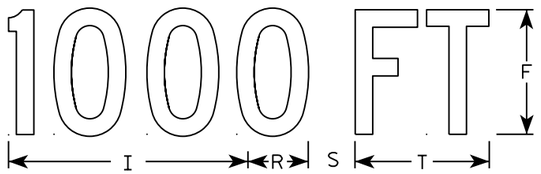
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 376 | E |
|---|---|---|---|---|---|



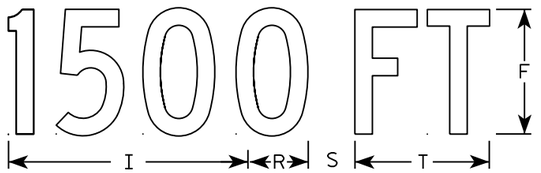

W20-1A




W20-1D

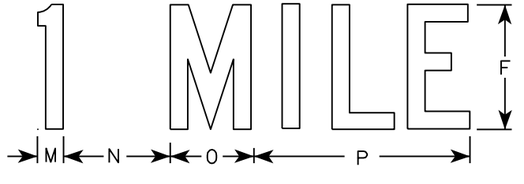



W20-1C

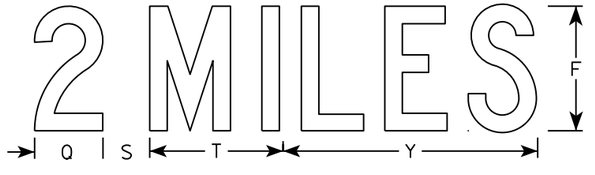



W20-1B

W20-1G




W20-1F




W20-1E

NOTES

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

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

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10

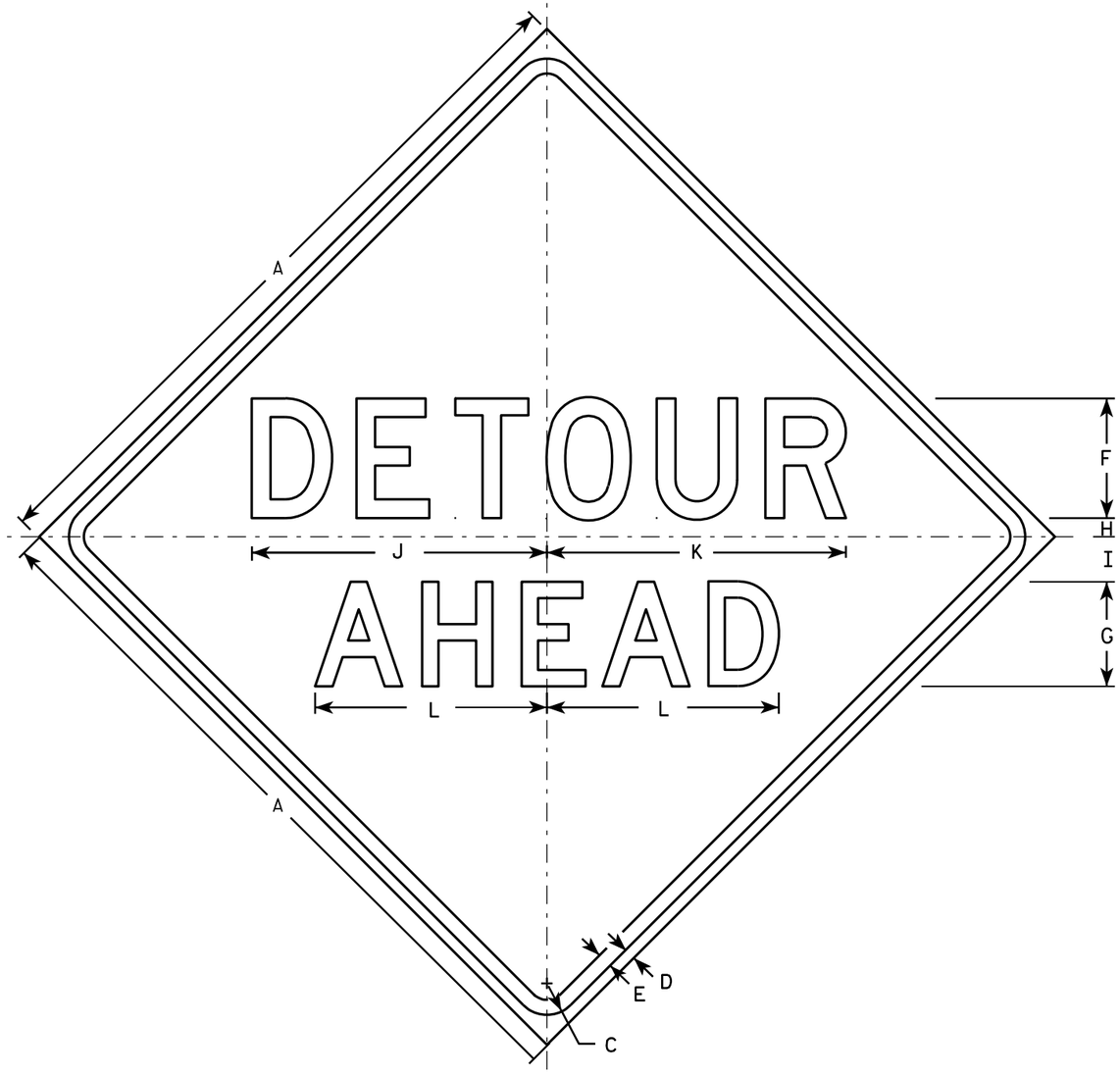


PROJECT NO:

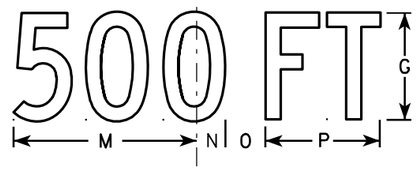
SHEET NO: E



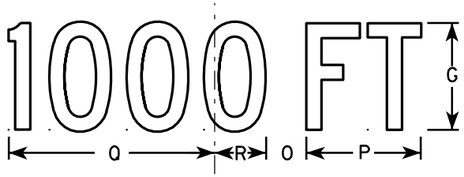
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 01-DEC-2015 18:24 PLOT BY : $$ plotuser $$



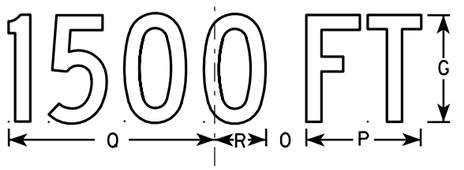

W20-2A



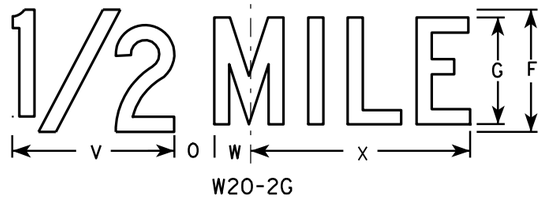

W20-2D




W20-2C




W20-2B




W20-2G

W20-2F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series D.
   Line 2 is Series D for AHEAD and Series C for all other distances.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | O | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 36 | | 1 5/8 | 5/8 | 3/4 | 6 | 5 | 1 | 2 1/4 | 14 3/4 | 15 | 11 5/8 | 9 | 1 3/8 | 1 7/8 | 5 5/8 | 10 1/8 | 2 1/2 | 1 1/8 | 4 1/2 | 3 1/2 | 8 | 1 3/4 | 10 3/4 | | | 9.0 |
| 2S | 48 | | 2 1/4 | 3/4 | 1 | 8 | 7 | 1 1/4 | 3 | 19 3/4 | 20 | 15 1/2 | 12 | 1 7/8 | 2 5/8 | 7 1/2 | 13 1/2 | 3 3/8 | 1 1/2 | 6 | 4 5/8 | 10 5/8 | 2 3/8 | 14 3/8 | | | 16.0 |
| 2M | 48 | | 2 1/4 | 3/4 | 1 | 8 | 7 | 1 1/4 | 3 | 19 3/4 | 20 | 15 1/2 | 12 | 1 7/8 | 2 5/8 | 7 1/2 | 13 1/2 | 3 3/8 | 1 1/2 | 6 | 4 5/8 | 10 5/8 | 2 3/8 | 14 3/8 | | | 16.0 |
| 3 | 48 | | 2 1/4 | 3/4 | 1 | 8 | 7 | 1 1/4 | 3 | 19 3/4 | 20 | 15 1/2 | 12 | 1 7/8 | 2 5/8 | 7 1/2 | 13 1/2 | 3 3/8 | 1 1/2 | 6 | 4 5/8 | 10 5/8 | 2 3/8 | 14 3/8 | | | 16.0 |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | 8 | 7 | 1 1/4 | 3 | 19 3/4 | 20 | 15 1/2 | 12 | 1 7/8 | 2 5/8 | 7 1/2 | 13 1/2 | 3 3/8 | 1 1/2 | 6 | 4 5/8 | 10 5/8 | 2 3/8 | 14 3/8 | | | 16.0 |
| 5 | 48 | | 2 1/4 | 3/4 | 1 | 8 | 7 | 1 1/4 | 3 | 19 3/4 | 20 | 15 1/2 | 12 | 1 7/8 | 2 5/8 | 7 1/2 | 13 1/2 | 3 3/8 | 1 1/2 | 6 | 4 5/8 | 10 5/8 | 2 3/8 | 14 3/8 | | | 16.0 |

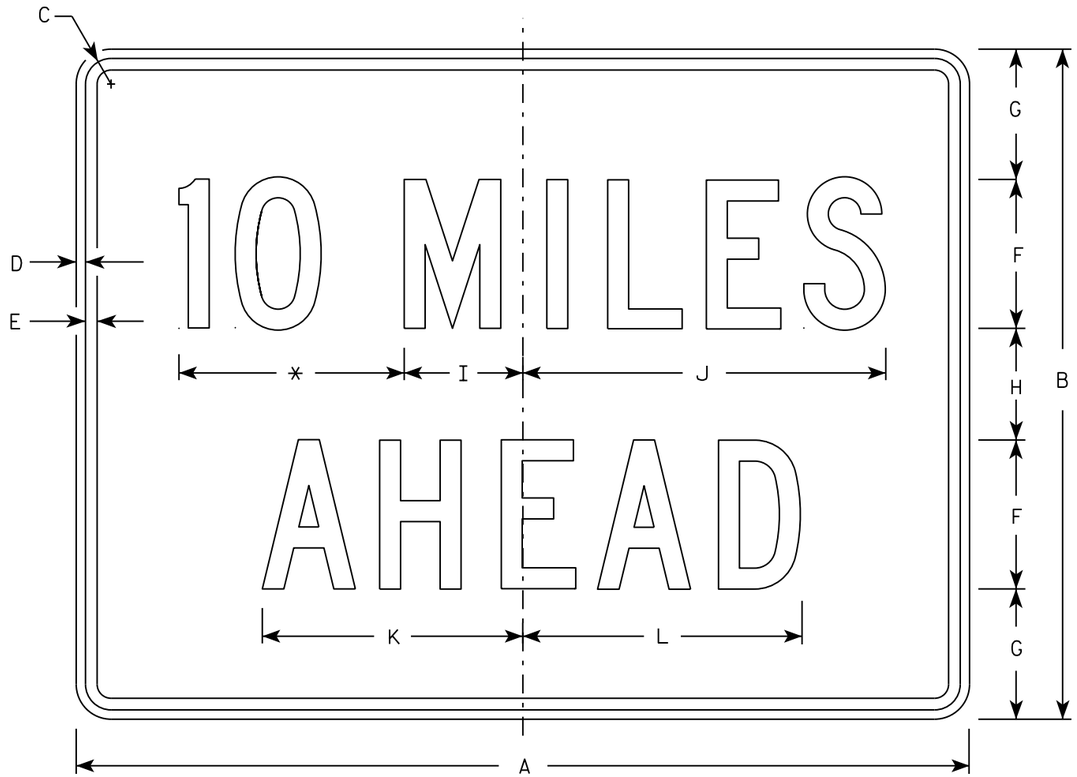
STANDARD SIGN
W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION

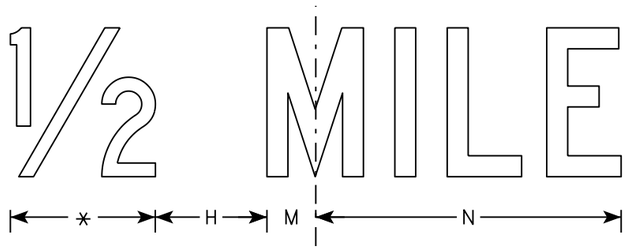
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 378 | E




W057-52




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.
5. Substitute appropriate numerals to the nearest quarter mile and optically adjust spacing to achieve proper balance.

* See note 5

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 36 | 24 | 1 1/8 | 3/8 | 1/2 | 6 | 4 1/2 | 3 | 4 3/4 | 14 5/8 | 10 5/8 | 11 3/8 | 2 | 12 | | | | | | | | | | | | | 6.0 |
| 2S | 48 | 36 | 1 3/8 | 1/2 | 5/8 | 8 | 7 | 6 | 6 3/8 | 19 1/2 | 14 | 15 | 2 3/4 | 16 3/8 | | | | | | | | | | | | | 12.0 |
| 2M | 48 | 36 | 1 3/8 | 1/2 | 5/8 | 8 | 7 | 6 | 6 3/8 | 19 1/2 | 14 | 15 | 2 3/4 | 16 3/8 | | | | | | | | | | | | | 12.0 |
| 3 | 48 | 36 | 1 3/8 | 1/2 | 5/8 | 8 | 7 | 6 | 6 3/8 | 19 1/2 | 14 | 15 | 2 3/4 | 16 3/8 | | | | | | | | | | | | | 12.0 |
| 4 | 48 | 36 | 1 3/8 | 1/2 | 5/8 | 8 | 7 | 6 | 6 3/8 | 19 1/2 | 14 | 15 | 2 3/4 | 16 3/8 | | | | | | | | | | | | | 12.0 |
| 5 | 48 | 36 | 1 3/8 | 1/2 | 5/8 | 8 | 7 | 6 | 6 3/8 | 19 1/2 | 14 | 15 | 2 3/4 | 16 3/8 | | | | | | | | | | | | | 12.0 |

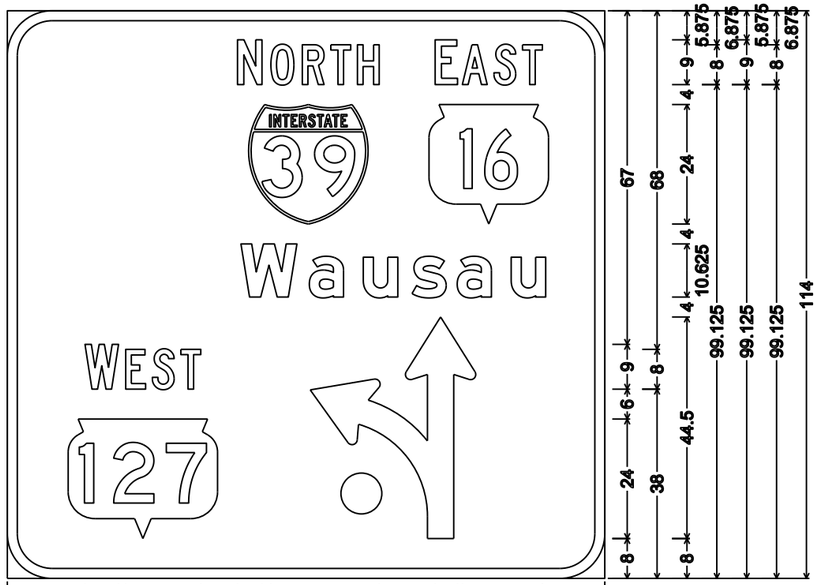
STANDARD SIGN
W057-52

WISCONSIN DEPT OF TRANSPORTATION

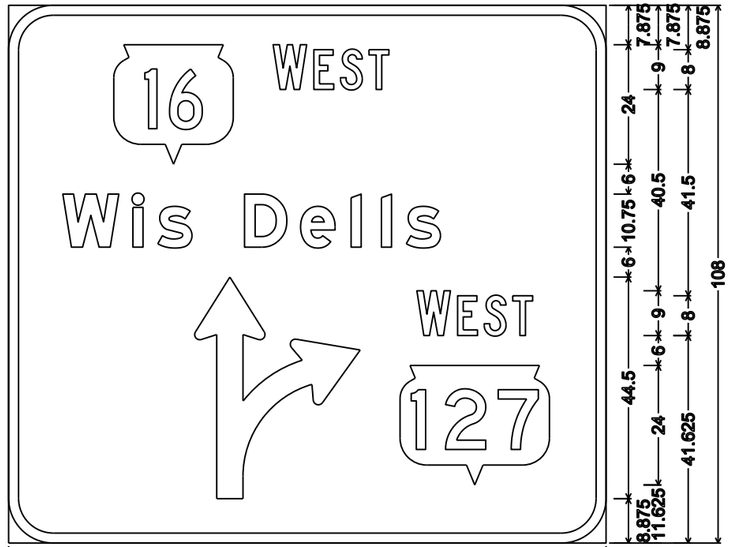
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/17 PLATE NO. W057-52.2

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 379 | E |
|---|---|---|---|---|---|



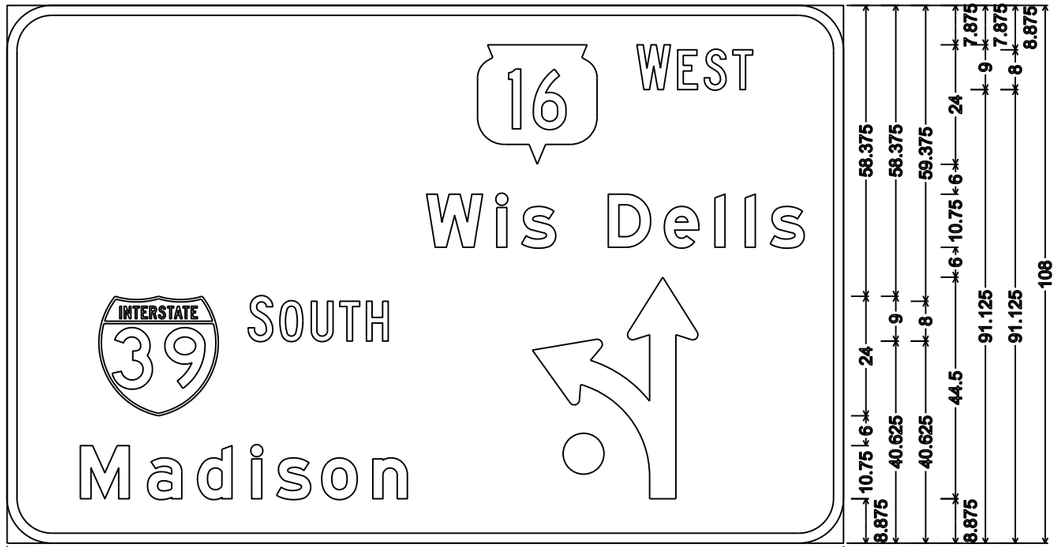

E6-52; 9.000" Radius, 2.000" Border
"WEST" C; "NORTH" C; "EAST" C; "Wausau" E Mod



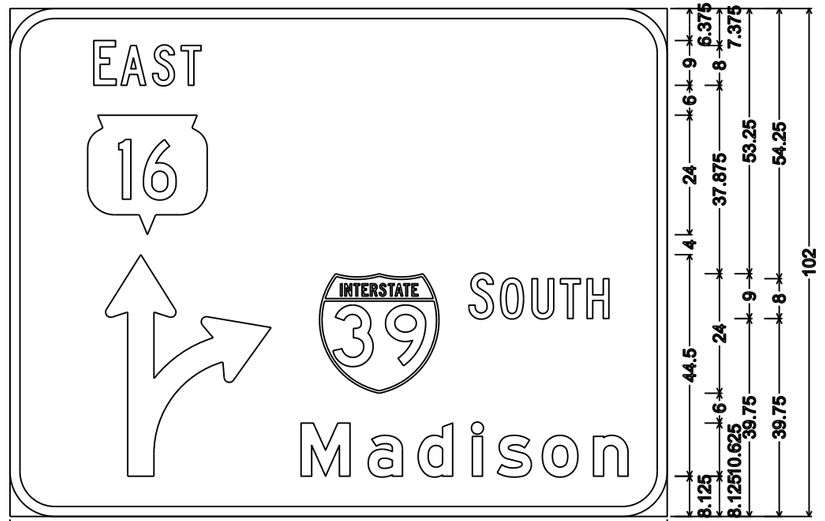

E6-53; 9.000" Radius, 2.000" Border,
"WEST" C; "Wis Dells" E Mod; "WEST" C

NOTES

1. All Signs are Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except as noted




E6-52; 9.000" Radius, 2.000" Border,
"SOUTH" C; "Madison" E Mod; "WEST" C; "Wis Dells" E Mod




E6-53; 9.000" Radius, 2.000" Border,
"EAST" C; "SOUTH" C; "Madison" E Mod

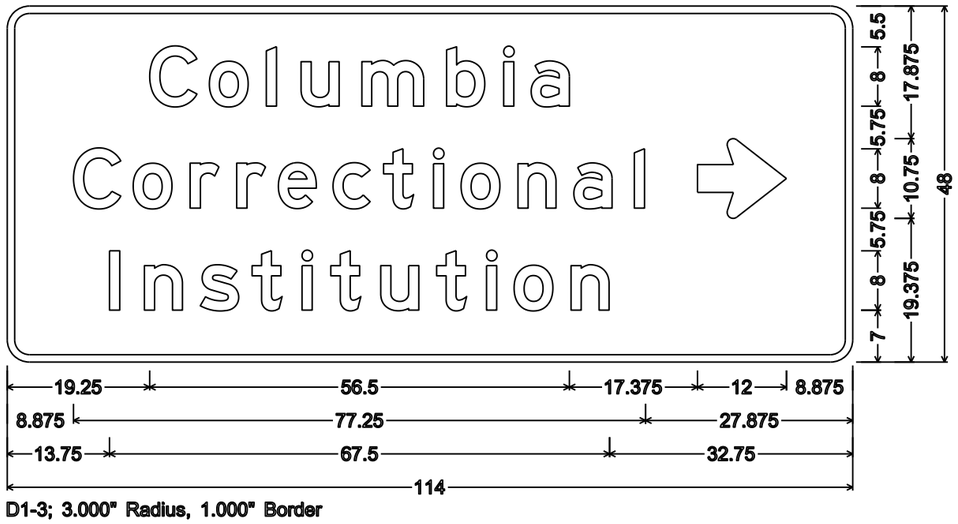
7

7

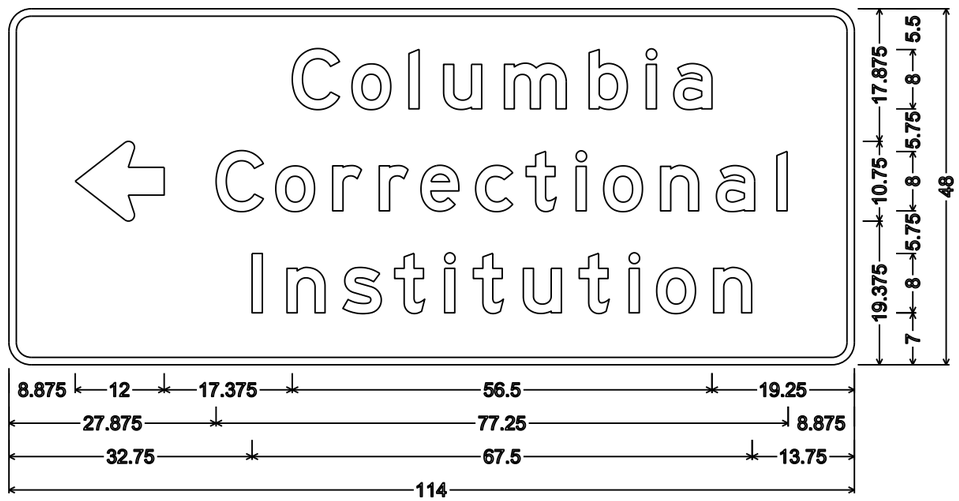
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PERMANENT SIGNING | SHEET NO: 380 | E |
|---|---|---|---|---|---|

NOTES

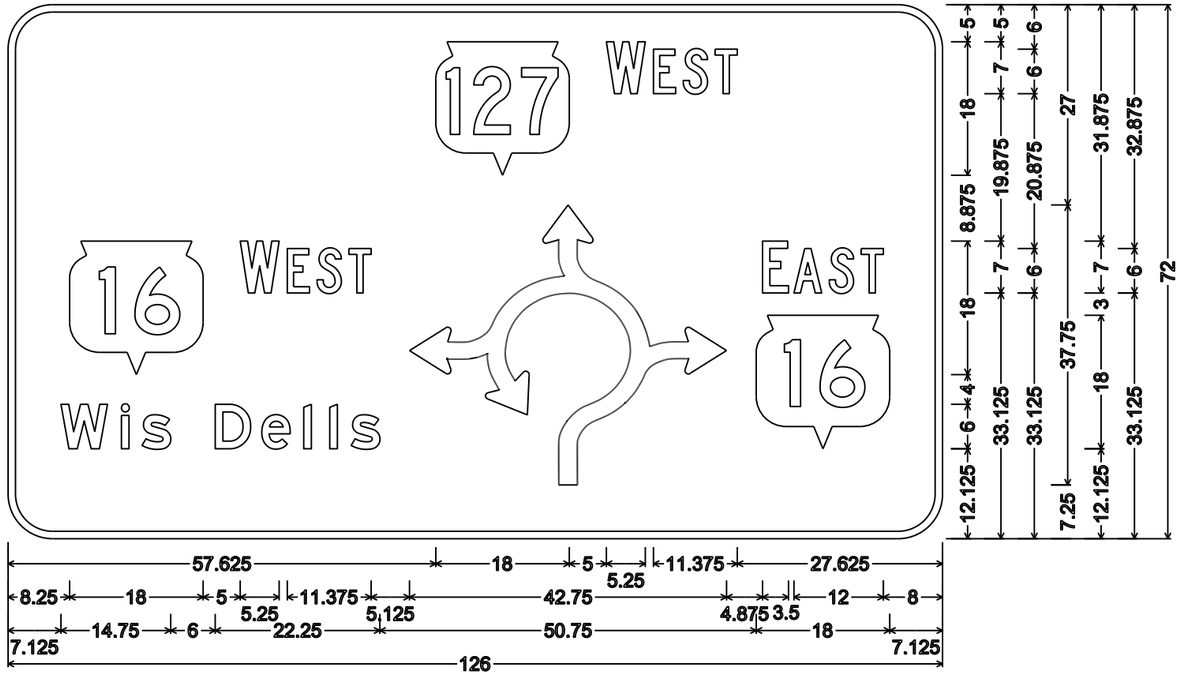
1. All Signs are Type II - Type H Reflective
2. Color:
   Background - Green except as noted
   Message - White
3. Message Series - E except as noted



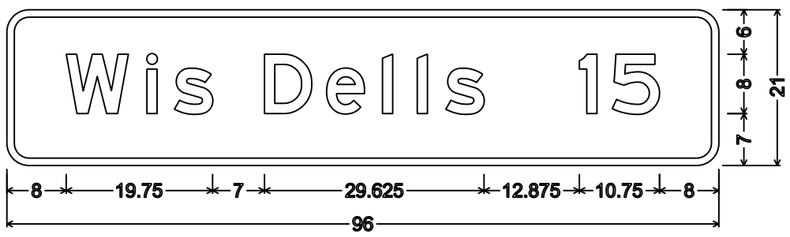

D1-3; 3.000" Radius, 1.000" Border




D1-3; 3.000" Radius, 1.000" Border




6.000" Radius, 1.000" Border,
"WEST" C; "WEST" C; "EAST" C

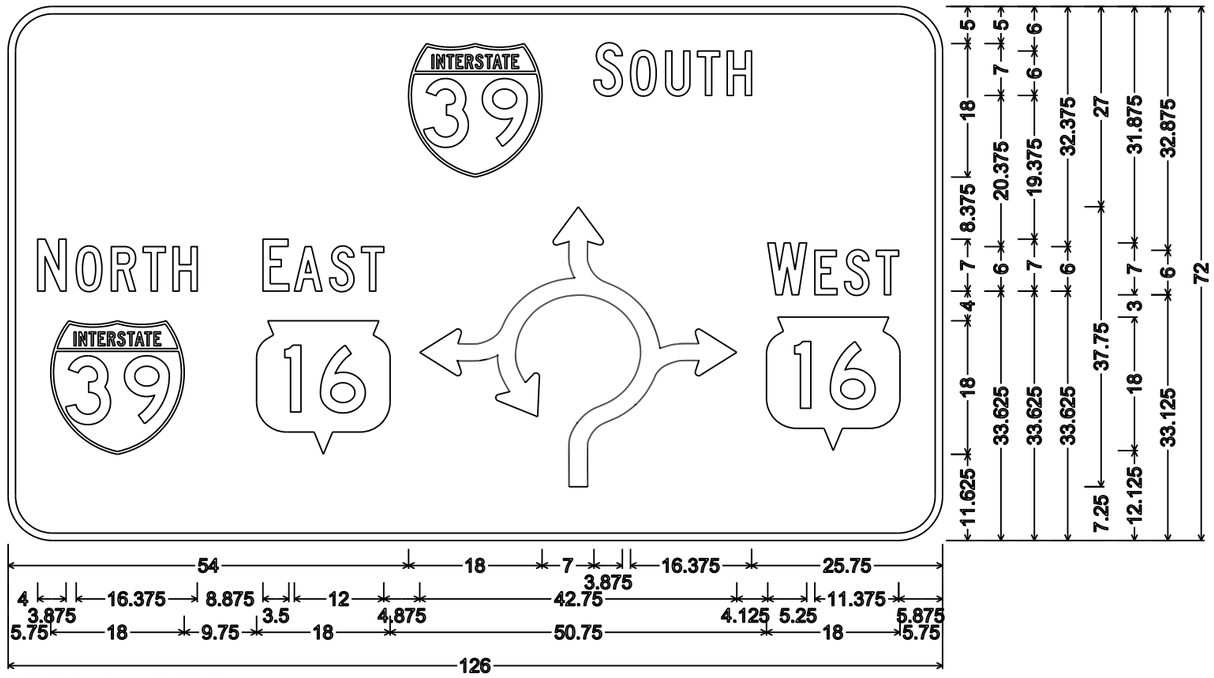



D2-1; 3.000" Radius, 1.000" Border

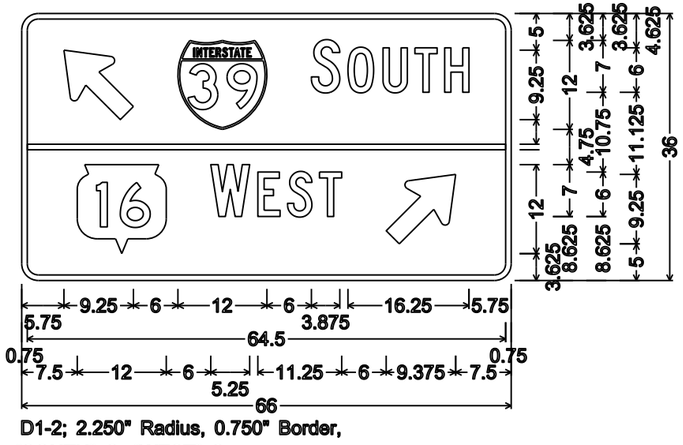
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | PERMANENT SIGNING | SHEET NO: 381 | E |
|---|---|---|---|---|---|

NOTES

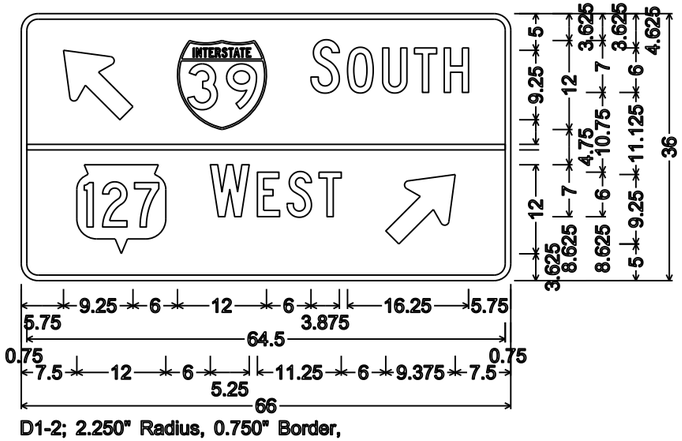
1. All Signs are Type II - Type H Reflective
2. Color:
   Background - Green except as noted
   Message - White
3. Message Series - E except as noted



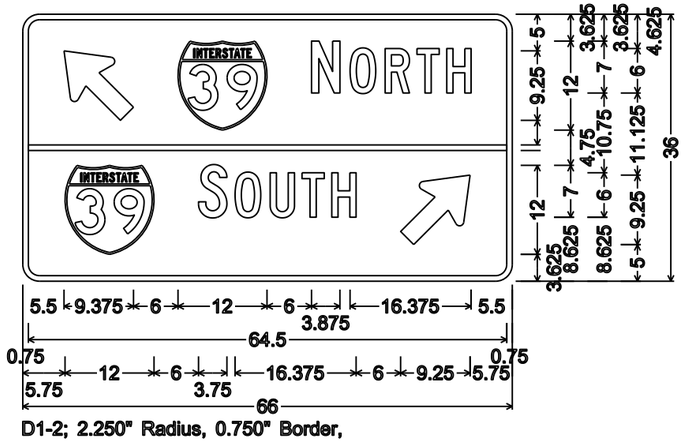

6.000" Radius, 1.000" Border,
"SOUTH" C; "NORTH" C; "EAST" C; "WEST" C



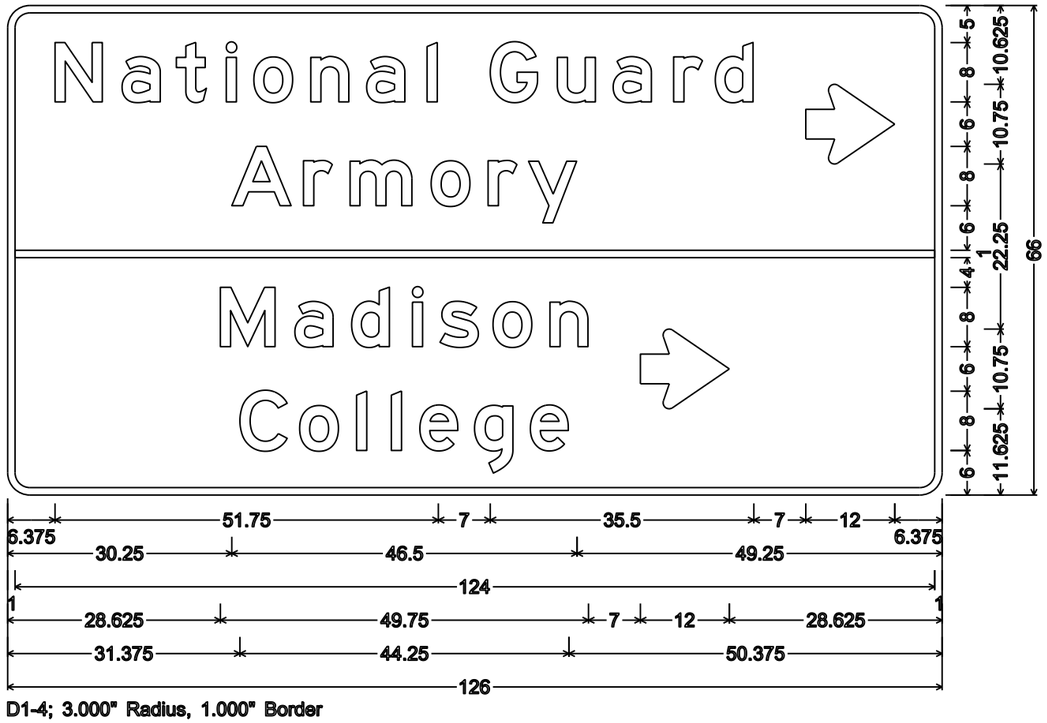

D1-2; 2.250" Radius, 0.750" Border,
"SOUTH" C; "WEST" C



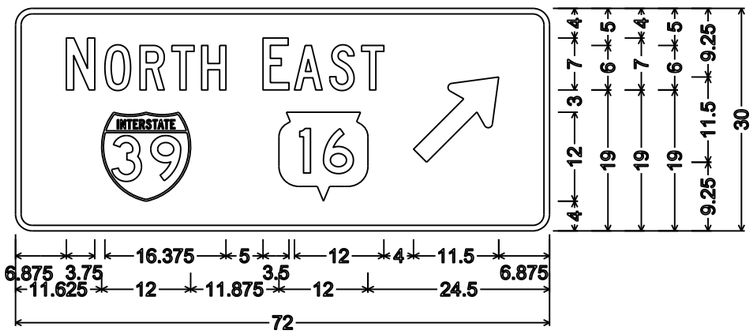

D1-2; 2.250" Radius, 0.750" Border,
"SOUTH" C; "WEST" C




D1-2; 2.250" Radius, 0.750" Border,
"NORTH" C; "SOUTH" C



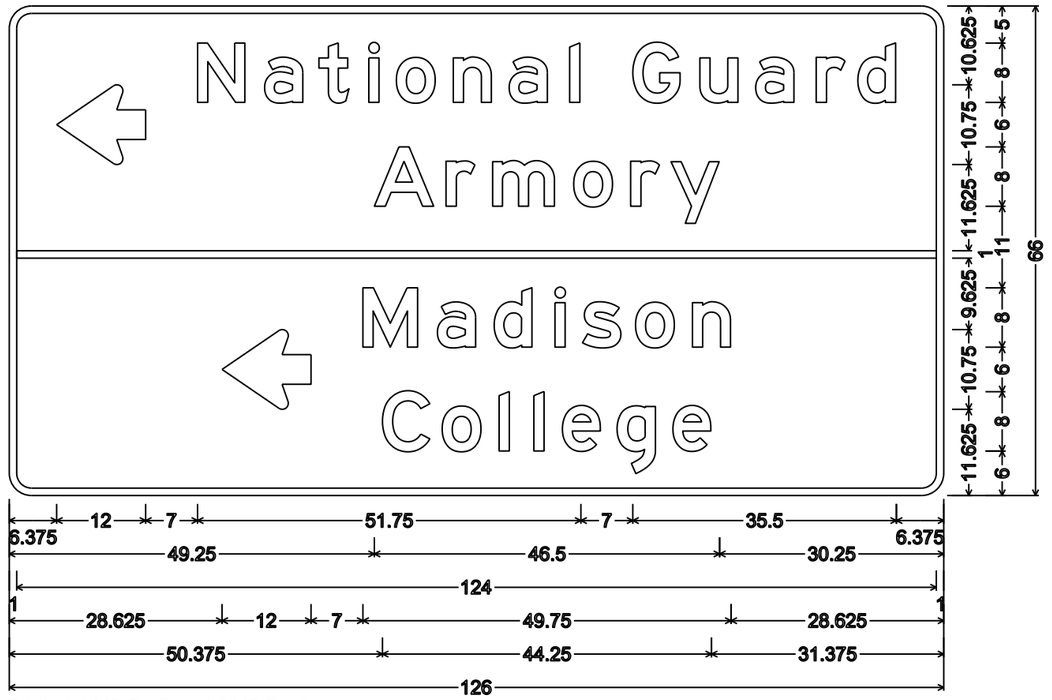

D1-4; 3.000" Radius, 1.000" Border



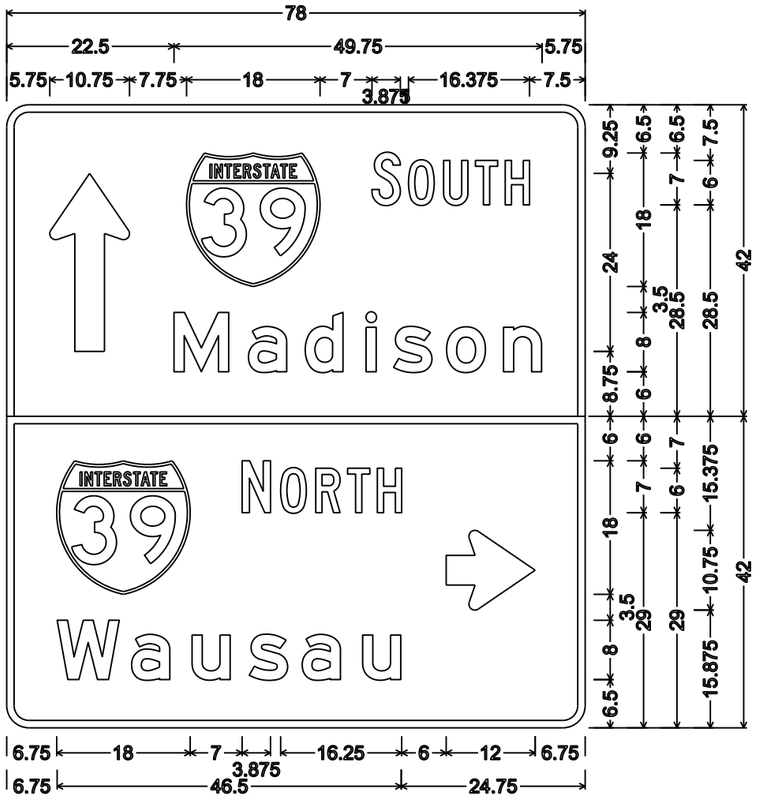

D1-2; 2.250" Radius, 0.750" Border,
"NORTH" C; "EAST" C

NOTES

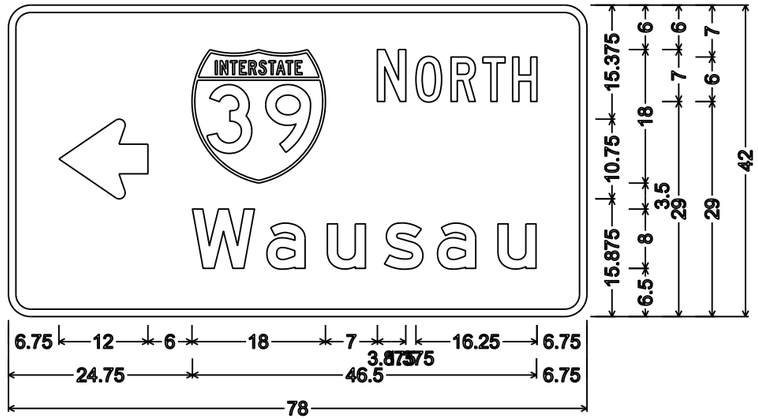
1. All Signs are Type II - Type H Reflective
2. Color:
   Background - Green except as noted
   Message - White
3. Message Series - E except as noted




D1-4; 3.000" Radius, 1.000" Border



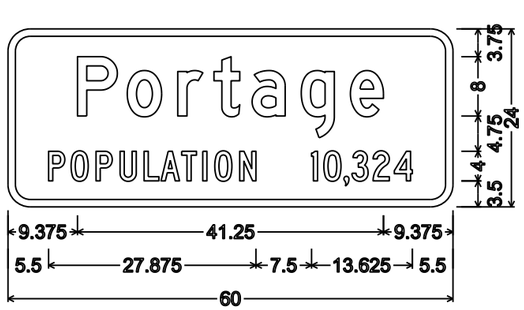

D1-70; 3.000" Radius, 1.000" Border,
"SOUTH" C; "NORTH" C



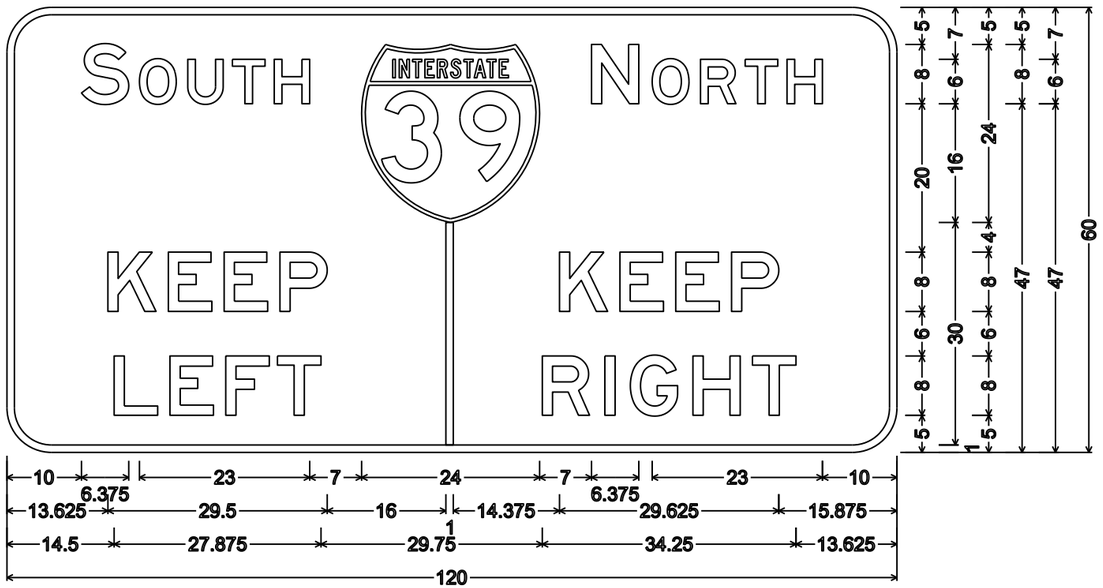

D1-70; 3.000" Radius, 1.000" Border,
"NORTH" C

NOTES

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




I2-3;
3.000" Radius, 1.000" Border,
"Portage" D; "POPULATION" C; "10,324" C




D1-72; 6.000" Radius, 1.000" Border

7

7

**REB**

| STATION | REAL STATION | DISTANCE | AREA (SF) CUT | AREA (SF) FILL | INCREMENTAL VOL (CY) (UNADJUSTED) CUT NOTE 1 | INCREMENTAL VOL (CY) (UNADJUSTED) FILL NOTE 3 | CUMULATIVE VOL (CY) CUT 1.00 NOTE 1 | CUMULATIVE VOL (CY) EXPANDED FILL 1.20 | MASS ORDINATE NOTE 8 |
|---|---|---|---|---|---|---|---|---|---|
| 731+20.5(1) | 73120.5 | 0.0 | 49.9 | 15.0 | 0 | 0 | 0 | 0 | 0 |
| 731+50(1) | 73150.0 | 29.5 | 50.2 | 16.4 | 55 | 17 | 55 | 21 | 34 |
| 731+61.69(1) | 73161.7 | 11.7 | 50.6 | 16.6 | 22 | 7 | 77 | 29 | 47 |
| 731+74.86(1) | 73174.9 | 13.2 | 50.9 | 17.7 | 25 | 8 | 101 | 39 | 62 |
| 732+00(1) | 73200.0 | 25.1 | 57.7 | 21.7 | 51 | 18 | 152 | 61 | 91 |
| 732+50(1) | 73250.0 | 50.0 | 95.1 | 15.9 | 141 | 35 | 293 | 103 | 190 |
| 732+65(1) | 73265.0 | 15.0 | 88.2 | 15.9 | 51 | 9 | 344 | 114 | 231 |
| 732+90.22(1) | 73290.2 | 25.2 | 48.6 | 12.7 | 64 | 13 | 408 | 130 | 278 |
| 733+00(1) | 73300.0 | 9.8 | 44.0 | 11.8 | 17 | 4 | 425 | 135 | 290 |
| 733+15(1) | 73315.0 | 15.0 | 43.1 | 9.9 | 24 | 6 | 449 | 142 | 307 |
| 733+50(1) | 73350.0 | 35.0 | 46.2 | 3.4 | 58 | 9 | 507 | 153 | 354 |
| 733+65(1) | 73365.0 | 15.0 | 50.7 | 6.8 | 27 | 3 | 534 | 156 | 378 |
| 734+00(1) | 73400.0 | 35.0 | 70.6 | 8.2 | 79 | 10 | 612 | 168 | 445 |
| 734+04.38(1) | 73404.4 | 4.4 | 73.4 | 8.3 | 12 | 1 | 624 | 169 | 455 |
| 734+34.94(1) | 73434.9 | 30.6 | 91.3 | 8.8 | 93 | 10 | 717 | 181 | 537 |
| 734+50(1) | 73450.0 | 15.1 | 103.3 | 7.4 | 54 | 5 | 772 | 186 | 585 |
| 734+82.69(1) | 73482.7 | 32.7 | 114.8 | 4.8 | 132 | 7 | 904 | 195 | 709 |
| 735+00(1) | 73500.0 | 17.3 | 116.1 | 8.3 | 74 | 4 | 978 | 200 | 778 |
| 735+50(1) | 73550.0 | 50.0 | 160.9 | 4.0 | 257 | 11 | 1234 | 214 | 1020 |
| 736+00(1) | 73600.0 | 50.0 | 186.4 | 8.3 | 322 | 11 | 1556 | 228 | 1328 |
| 736+50(1) | 73650.0 | 50.0 | 171.3 | 21.1 | 331 | 27 | 1887 | 260 | 1627 |
| 736+63.55(1) | 73663.6 | 13.6 | 141.4 | 26.4 | 78 | 12 | 1965 | 275 | 1691 |
| 736+63.65(1) | 73663.7 | 0.1 | 2.1 | 0.0 | 0 | 0 | 1966 | 275 | 1691 |
| 738+47.4(2) | 73878.6 | 214.9 | 0.0 | 2.0 | 9 | 8 | 1974 | 284 | 1690 |
| 738+47.5(2) | 73878.7 | 0.1 | 31.4 | 163.3 | 0 | 0 | 1974 | 285 | 1690 |
| 738+50(2) | 73881.2 | 2.5 | 29.0 | 167.0 | 3 | 15 | 1977 | 303 | 1674 |
| 739+00(2) | 73931.2 | 50.0 | 3.0 | 111.4 | 30 | 258 | 2007 | 612 | 1394 |
| 739+50(2) | 73981.2 | 50.0 | 18.3 | 24.9 | 20 | 126 | 2026 | 764 | 1263 |
| 740+00(2) | 74031.2 | 50.0 | 39.2 | 2.4 | 53 | 25 | 2080 | 794 | 1286 |
| 740+35.35(2) | 74066.5 | 35.4 | 54.0 | 0.2 | 61 | 2 | 2141 | 796 | 1344 |
| 740+50(2) | 74081.2 | 14.6 | 53.8 | 0.5 | 29 | 0 | 2170 | 796 | 1373 |
| 741+00(2) | 74131.2 | 50.0 | 60.8 | 2.1 | 106 | 2 | 2276 | 799 | 1477 |
| 741+50(2) | 74181.2 | 50.0 | 60.3 | 5.5 | 112 | 7 | 2388 | 808 | 1580 |
| 741+73.43(2) | 74204.6 | 23.4 | 66.4 | 21.6 | 55 | 12 | 2443 | 822 | 1621 |
| 741+74.91(2) | 74206.1 | 1.5 | 67.5 | 17.9 | 4 | 1 | 2447 | 823 | 1624 |
| 742+00(2) | 74231.2 | 25.1 | 73.4 | 1.1 | 65 | 9 | 2512 | 833 | 1679 |
| **COLUMN TOTALS** | | | | | **2,512** | **695** | | | |

**EB 742 TO 746**

| STATION | REAL STATION | DISTANCE | AREA (SF) CUT | AREA (SF) FILL | INCREMENTAL VOL (CY) (UNADJUSTED) CUT NOTE 1 | INCREMENTAL VOL (CY) (UNADJUSTED) FILL NOTE 3 | CUMULATIVE VOL (CY) CUT 1.00 NOTE 1 | CUMULATIVE VOL (CY) EXPANDED FILL 1.20 | MASS ORDINATE NOTE 8 |
|---|---|---|---|---|---|---|---|---|---|
| 742+50 | 74250.0 | 0.0 | 11.8 | 2.5 | 0 | 0 | 0 | 0 | 0 |
| 743+00 | 74300.0 | 50.0 | 13.9 | 1.1 | 24 | 3 | 24 | 4 | 20 |
| 743+50 | 74350.0 | 50.0 | 13.2 | 1.3 | 25 | 2 | 49 | 7 | 42 |
| 744+00 | 74400.0 | 50.0 | 15.9 | 0.8 | 27 | 2 | 76 | 9 | 67 |
| 744+25 | 74425.0 | 25.0 | 18.7 | 2.0 | 16 | 1 | 92 | 11 | 81 |
| 744+50 | 74450.0 | 25.0 | 16.1 | 3.5 | 16 | 3 | 108 | 14 | 94 |
| 744+75.23 | 74475.2 | 25.2 | 13.9 | 6.1 | 14 | 4 | 122 | 19 | 103 |
| 745+00 | 74500.0 | 24.8 | 9.8 | 10.8 | 11 | 8 | 133 | 28 | 105 |
| 745+50 | 74550.0 | 50.0 | 11.5 | 8.8 | 20 | 18 | 153 | 50 | 102 |
| 745+94.02 | 74594.0 | 44.0 | 8.1 | 3.9 | 16 | 10 | 169 | 63 | 106 |
| 746+00 | 74600.0 | 6.0 | 7.7 | 3.8 | 2 | 1 | 170 | 64 | 107 |
| 746+25 | 74625.0 | 25.0 | 8.9 | 4.7 | 8 | 4 | 178 | 68 | 110 |
| **COLUMN TOTALS** | | | | | **178** | **57** | | | |

**EB 751 TO 760**

| STATION | REAL STATION | DISTANCE | AREA (SF) CUT | AREA (SF) FILL | INCREMENTAL VOL (CY) (UNADJUSTED) CUT NOTE 1 | INCREMENTAL VOL (CY) (UNADJUSTED) FILL NOTE 3 | CUMULATIVE VOL (CY) CUT 1.00 NOTE 1 | CUMULATIVE VOL (CY) EXPANDED FILL 1.20 | MASS ORDINATE NOTE 8 |
|---|---|---|---|---|---|---|---|---|---|
| 751+48.22 | 75148.2 | 0.0 | 0.0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| 751+50 | 75150.0 | 1.8 | 0.0 | 31.0 | 0 | 1 | 0 | 1 | -1 |
| 752+00 | 75200.0 | 50.0 | 4.0 | 9.0 | 4 | 37 | 4 | 46 | -42 |
| 752+50 | 75250.0 | 50.0 | 8.0 | 8.6 | 11 | 16 | 15 | 65 | -50 |
| 753+00 | 75300.0 | 50.0 | 8.1 | 9.0 | 15 | 16 | 30 | 85 | -55 |
| 753+50 | 75350.0 | 50.0 | 5.0 | 6.5 | 12 | 14 | 42 | 102 | -60 |
| 754+00 | 75400.0 | 50.0 | 9.2 | 18.0 | 13 | 23 | 55 | 129 | -74 |
| 754+50 | 75450.0 | 50.0 | 1.3 | 16.9 | 10 | 32 | 65 | 168 | -103 |
| 755+00 | 75500.0 | 50.0 | 0.0 | 25.0 | 1 | 39 | 66 | 215 | -148 |
| 755+50 | 75550.0 | 50.0 | 4.2 | 18.3 | 4 | 40 | 70 | 263 | -193 |
| 756+00 | 75600.0 | 50.0 | 2.5 | 12.9 | 6 | 29 | 76 | 297 | -221 |
| 756+50 | 75650.0 | 50.0 | 4.3 | 8.7 | 6 | 20 | 82 | 321 | -239 |
| 757+00 | 75700.0 | 50.0 | 5.2 | 3.3 | 9 | 11 | 91 | 335 | -244 |
| 757+50 | 75750.0 | 50.0 | 6.5 | 0.0 | 11 | 3 | 102 | 338 | -236 |
| 758+00 | 75800.0 | 50.0 | 8.1 | 0.0 | 14 | 0 | 116 | 338 | -223 |
| 758+50 | 75850.0 | 50.0 | 9.7 | 0.0 | 17 | 0 | 132 | 338 | -206 |
| 759+00 | 75900.0 | 50.0 | 9.1 | 0.0 | 17 | 0 | 150 | 338 | -189 |
| 759+50 | 75950.0 | 50.0 | 8.4 | 0.0 | 16 | 0 | 166 | 338 | -173 |
| 759+85.25 | 75985.3 | 35.3 | 6.4 | 0.0 | 10 | 0 | 175 | 338 | -163 |
| 760+00 | 76000.0 | 14.7 | 5.7 | 0.0 | 3 | 0 | 179 | 338 | -160 |
| **COLUMN TOTALS** | | | | | **179** | **282** | | | |

Notes:

| | |
|---|---|
| 1 - Cut | Cut includes Salvaged/Unusable Pavement material |

**NEB 760 TO 765**

| STATION | REAL STATION | DISTANCE | AREA (SF) CUT | AREA (SF) FILL | INCREMENTAL VOL (CY) (UNADJUSTED) CUT NOTE 1 | INCREMENTAL VOL (CY) (UNADJUSTED) FILL NOTE 3 | CUMULATIVE VOL (CY) CUT 1.00 NOTE 1 | CUMULATIVE VOL (CY) EXPANDED FILL 1.20 | MASS ORDINATE NOTE 8 |
|---|---|---|---|---|---|---|---|---|---|
| 760+12.58 | 76012.6 | 0.0 | 5.0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| 760+50 | 76050.0 | 37.4 | 4.6 | 0.0 | 7 | 0 | 7 | 0 | 7 |
| 761+00 | 76100.0 | 50.0 | 4.4 | 0.0 | 8 | 0 | 15 | 0 | 15 |
| 761+04.73 | 76104.7 | 4.7 | 4.7 | 0.0 | 1 | 0 | 16 | 0 | 16 |
| 761+29.87 | 76129.9 | 25.1 | 5.4 | 0.0 | 5 | 0 | 21 | 0 | 21 |
| 761+50 | 76150.0 | 20.1 | 4.5 | 0.0 | 4 | 0 | 24 | 0 | 24 |
| 761+55 | 76155.0 | 5.0 | 4.1 | 0.0 | 1 | 0 | 25 | 0 | 25 |
| 761+81.94 | 76181.9 | 26.9 | 3.5 | 0.0 | 4 | 0 | 29 | 0 | 29 |
| 762+00 | 76200.0 | 18.1 | 3.4 | 0.0 | 2 | 0 | 31 | 0 | 31 |
| 762+26.55 | 76226.6 | 26.6 | 4.2 | 0.0 | 4 | 0 | 35 | 0 | 35 |
| 762+50 | 76250.0 | 23.4 | 3.6 | 0.0 | 3 | 0 | 38 | 0 | 38 |
| 762+94.98 | 76295.0 | 45.0 | 3.2 | 0.0 | 6 | 0 | 44 | 0 | 44 |
| 763+00 | 76300.0 | 5.0 | 3.2 | 0.0 | 1 | 0 | 44 | 0 | 44 |
| 763+50 | 76350.0 | 50.0 | 1.8 | 0.8 | 5 | 1 | 49 | 1 | 48 |
| 763+80.02 | 76380.0 | 30.0 | 1.5 | 2.3 | 2 | 2 | 51 | 3 | 48 |
| 764+00 | 76400.0 | 20.0 | 0.9 | 3.5 | 1 | 2 | 52 | 6 | 46 |
| 764+25.03 | 76425.0 | 25.0 | 0.6 | 4.6 | 1 | 4 | 53 | 10 | 42 |
| 764+50 | 76450.0 | 25.0 | 1.3 | 4.8 | 1 | 4 | 53 | 16 | 38 |
| 765+00 | 76500.0 | 50.0 | 2.2 | 4.1 | 3 | 8 | 57 | 26 | 31 |
| **COLUMN TOTALS** | | | | | **57** | **21** | | | |

**EB 767 TO 778**

| STATION | REAL STATION | DISTANCE | AREA (SF) CUT | AREA (SF) FILL | INCREMENTAL VOL (CY) (UNADJUSTED) CUT NOTE 1 | INCREMENTAL VOL (CY) (UNADJUSTED) FILL NOTE 3 | CUMULATIVE VOL (CY) CUT 1.00 NOTE 1 | CUMULATIVE VOL (CY) EXPANDED FILL 1.20 | MASS ORDINATE NOTE 8 |
|---|---|---|---|---|---|---|---|---|---|
| 767+00 | 76700.0 | 0.0 | 0.0 | 1.2 | 0 | 0 | 0 | 0 | 0 |
| 767+50 | 76750.0 | 50.0 | 0.0 | 6.7 | 0 | 7 | 0 | 9 | -9 |
| 768+00 | 76800.0 | 50.0 | 0.0 | 14.3 | 0 | 19 | 0 | 32 | -32 |
| 768+50 | 76850.0 | 50.0 | 0.0 | 20.1 | 0 | 32 | 0 | 70 | -70 |
| 769+00 | 76900.0 | 50.0 | 0.0 | 21.9 | 0 | 39 | 0 | 117 | -117 |
| 769+50 | 76950.0 | 50.0 | 0.0 | 18.7 | 0 | 38 | 0 | 162 | -162 |
| 770+00 | 77000.0 | 50.0 | 0.0 | 20.1 | 0 | 36 | 0 | 205 | -205 |
| 770+50 | 77050.0 | 50.0 | 0.2 | 18.2 | 0 | 36 | 0 | 248 | -248 |
| 771+00 | 77100.0 | 50.0 | 4.8 | 0.0 | 5 | 17 | 5 | 268 | -263 |
| 771+50 | 77150.0 | 50.0 | 0.0 | 0.0 | 4 | 0 | 9 | 268 | -259 |
| 772+00 | 77200.0 | 50.0 | 1.8 | 41.0 | 2 | 38 | 11 | 314 | -303 |
| 772+50 | 77250.0 | 50.0 | 2.5 | 23.5 | 4 | 60 | 15 | 385 | -371 |
| 773+00 | 77300.0 | 50.0 | 3.6 | 11.3 | 6 | 32 | 21 | 424 | -404 |
| 773+50 | 77350.0 | 50.0 | 3.6 | 4.2 | 7 | 14 | 27 | 441 | -414 |
| 774+00 | 77400.0 | 50.0 | 2.9 | 25.6 | 6 | 28 | 33 | 474 | -441 |
| 774+50 | 77450.0 | 50.0 | 0.0 | 0.0 | 3 | 24 | 36 | 503 | -467 |
| 775+00 | 77500.0 | 50.0 | 0.0 | 0.0 | 0 | 0 | 36 | 503 | -467 |
| 775+50 | 77550.0 | 50.0 | 0.0 | 0.0 | 0 | 0 | 36 | 503 | -467 |
| 776+00 | 77600.0 | 50.0 | 0.0 | 0.0 | 0 | 0 | 36 | 503 | -467 |
| 776+50 | 77650.0 | 50.0 | 0.0 | 0.0 | 0 | 0 | 36 | 503 | -467 |
| 777+00 | 77700.0 | 50.0 | 0.0 | 0.0 | 0 | 0 | 36 | 503 | -467 |
| 777+50 | 77750.0 | 50.0 | 0.0 | 0.0 | 0 | 0 | 36 | 503 | -467 |
| 778+00 | 77800.0 | 50.0 | 0.0 | 0.0 | 0 | 0 | 36 | 503 | -467 |
| **COLUMN TOTALS** | | | | | **36** | **419** | | | |

| Notes: | |
|---|---|
| 1 - Cut | Cut includes Salvaged/Unusable Pavement material |

9

9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | COMPUTER EARTHWORK DATA | SHEET 386 | E |
|---|---|---|---|---|---|

FILE NAME : 11610274-090101-ew.ppt PLOT DATE: 10/20/2017 11:16 AM PLOT BY : gaajs PLOT SCALE : 1:1

**RAMP A**

| STATION | REAL STATION | DISTANCE | AREA (SF) CUT | AREA (SF) FILL | INCREMENTAL VOL (CY) (UNADJUSTED) CUT NOTE 1 | INCREMENTAL VOL (CY) (UNADJUSTED) FILL NOTE 3 | CUMULATIVE VOL (CY) CUT 1.00 NOTE 1 | CUMULATIVE VOL (CY) EXPANDED FILL 1.20 | MASS ORDINATE NOTE 8 |
|---|---|---|---|---|---|---|---|---|---|
| 47+36.72 | 4736.7 | 0.0 | 0.0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| 47+50 | 4750.0 | 13.3 | 48.5 | 0.0 | 12 | 0 | 12 | 0 | 12 |
| 48+00 | 4800.0 | 50.0 | 68.3 | 0.5 | 108 | 0 | 120 | 1 | 120 |
| 48+50 | 4850.0 | 50.0 | 78.5 | 13.7 | 136 | 13 | 256 | 16 | 240 |
| 49+00 | 4900.0 | 50.0 | 39.7 | 36.8 | 109 | 47 | 365 | 72 | 293 |
| 49+50 | 4950.0 | 50.0 | 59.6 | 16.4 | 92 | 49 | 457 | 132 | 326 |
| 50+00 | 5000.0 | 50.0 | 96.2 | 47.8 | 144 | 59 | 602 | 203 | 399 |
| 50+00 | 5000.0 | 0.0 | 96.1 | 47.8 | 0 | 0 | 602 | 203 | 399 |
| **COLUMN TOTALS** | | | | | **602** | **169** | | | |

**RAMP B**

| STATION | REAL STATION | DISTANCE | AREA (SF) CUT | AREA (SF) FILL | INCREMENTAL VOL (CY) (UNADJUSTED) CUT NOTE 1 | INCREMENTAL VOL (CY) (UNADJUSTED) FILL NOTE 3 | CUMULATIVE VOL (CY) CUT 1.00 NOTE 1 | CUMULATIVE VOL (CY) EXPANDED FILL 1.20 | MASS ORDINATE NOTE 8 |
|---|---|---|---|---|---|---|---|---|---|
| 57+58.78 | 5758.8 | 0.0 | 35.0 | 18.7 | 0 | 0 | 0 | 0 | 0 |
| 58+00 | 5800.0 | 41.2 | 33.4 | 26.4 | 52 | 34 | 52 | 41 | 11 |
| 58+50 | 5850.0 | 50.0 | 56.9 | 22.8 | 84 | 46 | 136 | 96 | 40 |
| 59+00 | 5900.0 | 50.0 | 104.4 | 11.4 | 149 | 32 | 285 | 134 | 151 |
| 59+50 | 5950.0 | 50.0 | 126.5 | 29.3 | 214 | 38 | 499 | 179 | 320 |
| 60+00 | 6000.0 | 50.0 | 47.5 | 136.6 | 161 | 154 | 660 | 364 | 297 |
| **COLUMN TOTALS** | | | | | **660** | **303** | | | |

**RWB**

| STATION | REAL STATION | DISTANCE | AREA (SF) CUT | AREA (SF) FILL | INCREMENTAL VOL (CY) (UNADJUSTED) CUT NOTE 1 | INCREMENTAL VOL (CY) (UNADJUSTED) FILL NOTE 3 | CUMULATIVE VOL (CY) CUT 1.00 NOTE 1 | CUMULATIVE VOL (CY) EXPANDED FILL 1.20 | MASS ORDINATE NOTE 8 |
|---|---|---|---|---|---|---|---|---|---|
| 732+43.5(1) | 73243.5 | 0.0 | 50.7 | 9.9 | 0 | 0 | 0 | 0 | 0 |
| 732+50(1) | 73250.0 | 6.5 | 49.6 | 10.4 | 12 | 2 | 12 | 3 | 9 |
| 733+00(1) | 73300.0 | 50.0 | 53.1 | 7.3 | 95 | 16 | 107 | 23 | 85 |
| 733+50(1) | 73350.0 | 50.0 | 56.8 | 5.9 | 102 | 12 | 209 | 37 | 172 |
| 734+00(1) | 73400.0 | 50.0 | 84.9 | 0.9 | 131 | 6 | 340 | 45 | 295 |
| 734+50(1) | 73450.0 | 50.0 | 117.9 | 0.1 | 188 | 1 | 528 | 46 | 482 |
| 735+00(1) | 73500.0 | 50.0 | 172.5 | 0.0 | 269 | 0 | 797 | 46 | 750 |
| 735+50(1) | 73550.0 | 50.0 | 171.2 | 0.0 | 318 | 0 | 1115 | 46 | 1069 |
| 735+86(1) | 73586.0 | 36.0 | 126.6 | 1.0 | 199 | 1 | 1313 | 47 | 1266 |
| 736+00(1) | 73600.0 | 14.0 | 97.5 | 9.8 | 58 | 3 | 1371 | 50 | 1321 |
| 736+50(1) | 73650.0 | 50.0 | 46.0 | 107.3 | 133 | 108 | 1504 | 180 | 1324 |
| 736+95.9(1) | 73695.9 | 45.9 | 15.4 | 166.1 | 52 | 232 | 1556 | 459 | 1097 |
| 736+96(1) | 73696.0 | 0.1 | 0.0 | 0.7 | 0 | 0 | 1557 | 460 | 1097 |
| 738+79.43(2) | 73917.9 | 221.9 | 0.0 | 1.2 | 0 | 8 | 1557 | 469 | 1087 |
| 738+79.53(2) | 73918.0 | 0.1 | 0.5 | 47.0 | 0 | 0 | 1557 | 469 | 1087 |
| 739+00(2) | 73938.5 | 20.5 | 3.2 | 77.0 | 1 | 47 | 1558 | 526 | 1032 |
| 739+50(2) | 73988.5 | 50.0 | 8.1 | 77.8 | 10 | 143 | 1568 | 698 | 871 |
| 740+00(2) | 74038.5 | 50.0 | 15.5 | 56.6 | 22 | 125 | 1590 | 847 | 743 |
| 740+50(2) | 74088.5 | 50.0 | 22.8 | 23.9 | 35 | 75 | 1626 | 937 | 689 |
| 740+60.39(2) | 74098.9 | 10.4 | 24.6 | 15.1 | 9 | 7 | 1635 | 946 | 689 |
| 741+00(2) | 74138.5 | 39.6 | 43.7 | 5.6 | 50 | 15 | 1685 | 964 | 721 |
| 741+50(2) | 74188.5 | 50.0 | 52.4 | 5.6 | 89 | 10 | 1774 | 976 | 798 |
| 741+95.38(2) | 74233.8 | 45.4 | 59.0 | 2.5 | 94 | 7 | 1867 | 984 | 883 |
| 742+00(2) | 74238.5 | 4.6 | 63.7 | 0.0 | 10 | 0 | 1878 | 985 | 893 |
| 742+50(2) | 74288.5 | 50.0 | 79.9 | 0.9 | 133 | 1 | 2011 | 986 | 1025 |
| 742+65.89(2) | 74304.4 | 15.9 | 81.5 | 0.1 | 47 | 0 | 2058 | 986 | 1072 |
| 743+00(2) | 74338.5 | 34.1 | 75.2 | 0.0 | 99 | 0 | 2157 | 986 | 1171 |
| 743+50(2) | 74388.5 | 50.0 | 78.0 | 0.0 | 142 | 0 | 2299 | 986 | 1313 |
| 744+00(2) | 74438.5 | 50.0 | 71.8 | 0.0 | 139 | 0 | 2438 | 986 | 1452 |
| 744+50(2) | 74488.5 | 50.0 | 73.5 | 0.0 | 135 | 0 | 2572 | 986 | 1586 |
| 745+00(2) | 74538.5 | 50.0 | 70.5 | 0.0 | 133 | 0 | 2706 | 986 | 1720 |
| 745+26.83(2) | 74565.3 | 26.8 | 28.5 | 3.3 | 49 | 2 | 2755 | 988 | 1767 |
| 745+50(2) | 74588.5 | 23.2 | 26.5 | 7.2 | 24 | 4 | 2778 | 993 | 1785 |
| 746+00(2) | 74638.5 | 50.0 | 30.0 | 7.4 | 52 | 13 | 2831 | 1010 | 1821 |
| **COLUMN TOTALS** | | | | | **2,831** | **841** | | | |

Notes:

| | |
|---|---|
| 1 - Cut | Cut includes Salvaged/Unusable Pavement material |

**NB**

| STATION | REAL STATION | DISTANCE | AREA (SF) CUT | AREA (SF) FILL | INCREMENTAL VOL (CY) (UNADJUSTED) CUT NOTE 1 | INCREMENTAL VOL (CY) (UNADJUSTED) FILL NOTE 3 | CUMULATIVE VOL (CY) CUT 1.00 NOTE 1 | CUMULATIVE VOL (CY) EXPANDED FILL 1.20 | MASS ORDINATE NOTE 8 |
|---|---|---|---|---|---|---|---|---|---|
| 80+00 | 8000.0 | 0.0 | 0.0 | 109.2 | 0 | 0 | 0 | 0 | 0 |
| 80+50 | 8050.0 | 50.0 | 0.0 | 131.5 | 0 | 223 | 0 | 267 | -267 |
| 81+00 | 8100.0 | 50.0 | 0.0 | 99.2 | 0 | 214 | 0 | 524 | -524 |
| 81+50 | 8150.0 | 50.0 | 8.5 | 8.0 | 8 | 99 | 8 | 643 | -635 |
| 82+00 | 8200.0 | 50.0 | 23.8 | 0.4 | 30 | 8 | 38 | 652 | -614 |
| 82+50 | 8250.0 | 50.0 | 34.9 | 0.0 | 54 | 0 | 92 | 653 | -561 |
| 82+95.07 | 8295.1 | 45.1 | 39.5 | 0.0 | 62 | 0 | 154 | 653 | -498 |
| 82+95.34 | 8295.3 | 0.3 | 71.7 | 0.1 | 1 | 0 | 155 | 653 | -498 |
| 83+00 | 8300.0 | 4.7 | 71.3 | 0.3 | 12 | 0 | 167 | 653 | -486 |
| 83+50 | 8350.0 | 50.0 | 64.0 | 0.3 | 125 | 1 | 292 | 653 | -361 |
| 84+00 | 8400.0 | 50.0 | 70.5 | 0.3 | 125 | 0 | 417 | 654 | -237 |
| **COLUMN TOTALS** | | | | | **417** | **545** | | | |

**SB**

| STATION | REAL STATION | DISTANCE | AREA (SF) CUT | AREA (SF) FILL | INCREMENTAL VOL (CY) (UNADJUSTED) CUT NOTE 1 | INCREMENTAL VOL (CY) (UNADJUSTED) FILL NOTE 3 | CUMULATIVE VOL (CY) CUT 1.00 NOTE 1 | CUMULATIVE VOL (CY) EXPANDED FILL 1.20 | MASS ORDINATE NOTE 8 |
|---|---|---|---|---|---|---|---|---|---|
| 80+08.46 | 8008.5 | 0.0 | 32.0 | 12.2 | 0 | 0 | 0 | 0 | 0 |
| 80+50 | 8050.0 | 41.5 | 57.6 | 8.5 | 69 | 16 | 69 | 19 | 50 |
| 81+00 | 8100.0 | 50.0 | 60.1 | 3.2 | 109 | 11 | 178 | 32 | 146 |
| 81+50 | 8150.0 | 50.0 | 52.1 | 4.3 | 104 | 7 | 282 | 40 | 241 |
| 82+00 | 8200.0 | 50.0 | 68.0 | 0.0 | 111 | 4 | 393 | 45 | 348 |
| 82+50 | 8250.0 | 50.0 | 41.2 | 0.0 | 101 | 0 | 494 | 45 | 449 |
| 82+95.07 | 8295.1 | 45.1 | 34.7 | 0.1 | 63 | 0 | 557 | 45 | 512 |
| **COLUMN TOTALS** | | | | | **557** | **38** | | | |

**RAB**

| STATION | REAL STATION | DISTANCE | AREA (SF) CUT | AREA (SF) FILL | INCREMENTAL VOL (CY) (UNADJUSTED) CUT NOTE 1 | INCREMENTAL VOL (CY) (UNADJUSTED) FILL NOTE 3 | CUMULATIVE VOL (CY) CUT 1.00 NOTE 1 | CUMULATIVE VOL (CY) EXPANDED FILL 1.20 | MASS ORDINATE NOTE 8 |
|---|---|---|---|---|---|---|---|---|---|
| 10+00 | 1000.0 | 0.0 | 16.1 | 91.3 | 0 | 0 | 0 | 0 | 0 |
| 10+25 | 1025.0 | 25.0 | 4.4 | 101.3 | 10 | 89 | 10 | 107 | -97 |
| 10+50 | 1050.0 | 25.0 | 21.6 | 93.8 | 12 | 90 | 22 | 215 | -194 |
| 10+75 | 1075.0 | 25.0 | 7.2 | 95.9 | 13 | 88 | 35 | 321 | -286 |
| 11+00 | 1100.0 | 25.0 | 0.2 | 132.7 | 3 | 106 | 38 | 448 | -410 |
| 11+25 | 1125.0 | 25.0 | 0.3 | 133.6 | 0 | 123 | 39 | 596 | -557 |
| 11+50 | 1150.0 | 25.0 | 0.2 | 124.2 | 0 | 119 | 39 | 739 | -700 |
| 11+75 | 1175.0 | 25.0 | 0.0 | 162.7 | 0 | 133 | 39 | 898 | -860 |
| 12+00 | 1200.0 | 25.0 | 0.0 | 125.8 | 0 | 134 | 39 | 1059 | -1020 |
| 12+25 | 1225.0 | 25.0 | 2.5 | 114.4 | 1 | 111 | 40 | 1192 | -1152 |
| 12+50 | 1250.0 | 25.0 | 4.4 | 114.7 | 3 | 106 | 43 | 1319 | -1276 |
| 12+75 | 1275.0 | 25.0 | 3.2 | 102.6 | 4 | 101 | 47 | 1440 | -1393 |
| 13+00 | 1300.0 | 25.0 | 11.7 | 96.1 | 7 | 92 | 54 | 1551 | -1497 |
| 13+25 | 1325.0 | 25.0 | 16.5 | 94.3 | 13 | 88 | 67 | 1656 | -1590 |
| 13+50 | 1350.0 | 25.0 | 23.9 | 93.4 | 19 | 87 | 85 | 1761 | -1675 |
| 13+75 | 1375.0 | 25.0 | 31.6 | 94.7 | 26 | 87 | 111 | 1865 | -1754 |
| 14+00 | 1400.0 | 25.0 | 21.6 | 95.2 | 25 | 88 | 136 | 1971 | -1835 |
| 14+25 | 1425.0 | 25.0 | 26.9 | 93.1 | 22 | 87 | 158 | 2075 | -1917 |
| 14+50 | 1450.0 | 25.0 | 19.0 | 91.1 | 21 | 85 | 179 | 2178 | -1998 |
| 14+52.38 | 1452.4 | 2.4 | 16.1 | 91.3 | 2 | 8 | 181 | 2187 | -2006 |
| **COLUMN TOTALS** | | | | | **181** | **1,823** | | | |

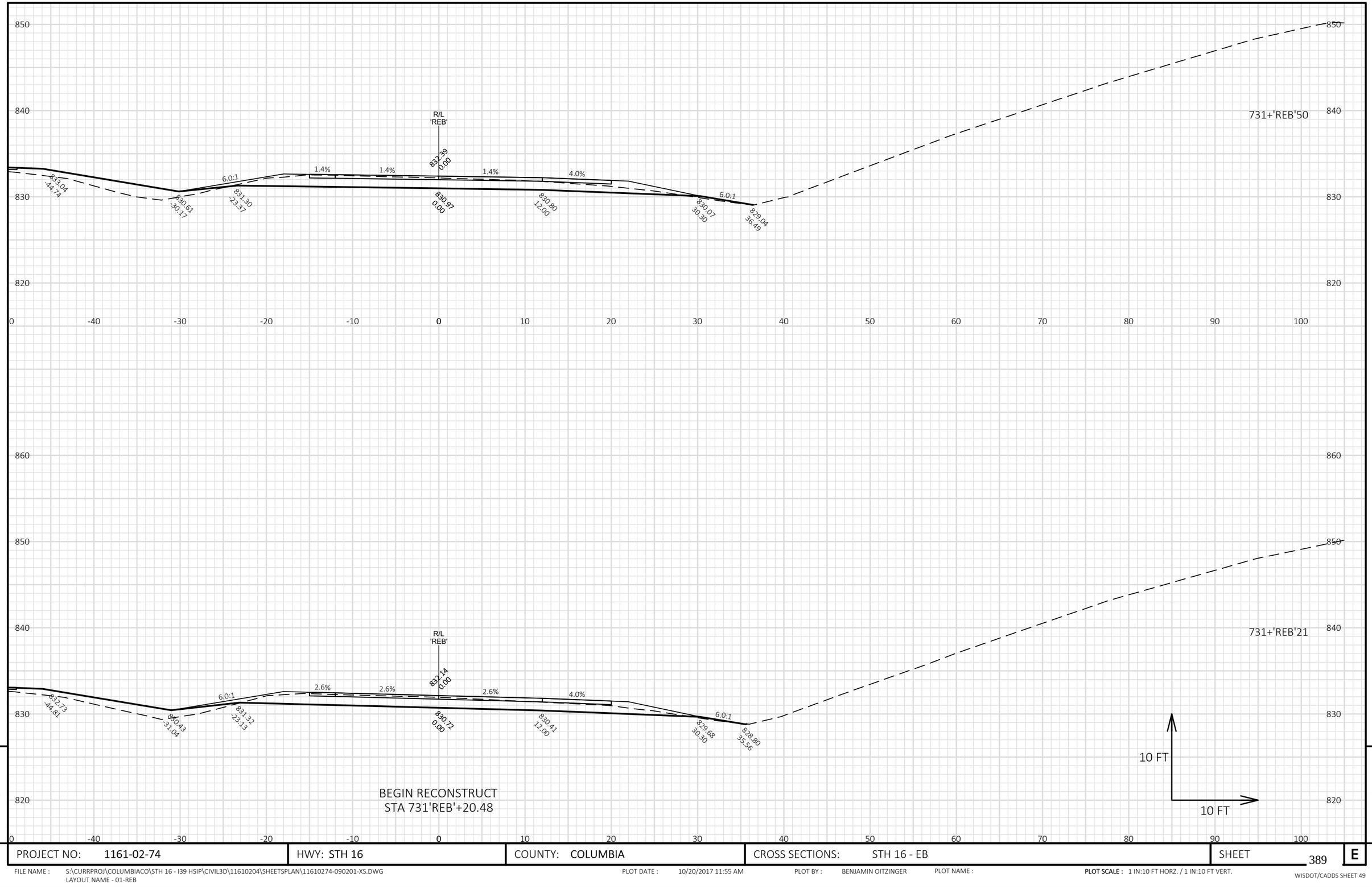
| Notes: | |
|---|---|
| 1 - Cut | Cut includes Salvaged/Unusable Pavement material |

9

9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | COMPUTER EARTHWORK DATA | SHEET 388 | E |
|---|---|---|---|---|---|

FILE NAME : 11610274-090101-ew.ppt PLOT DATE: 10/20/2017 11:16 AM PLOT BY : gaajs PLOT SCALE : 1:1

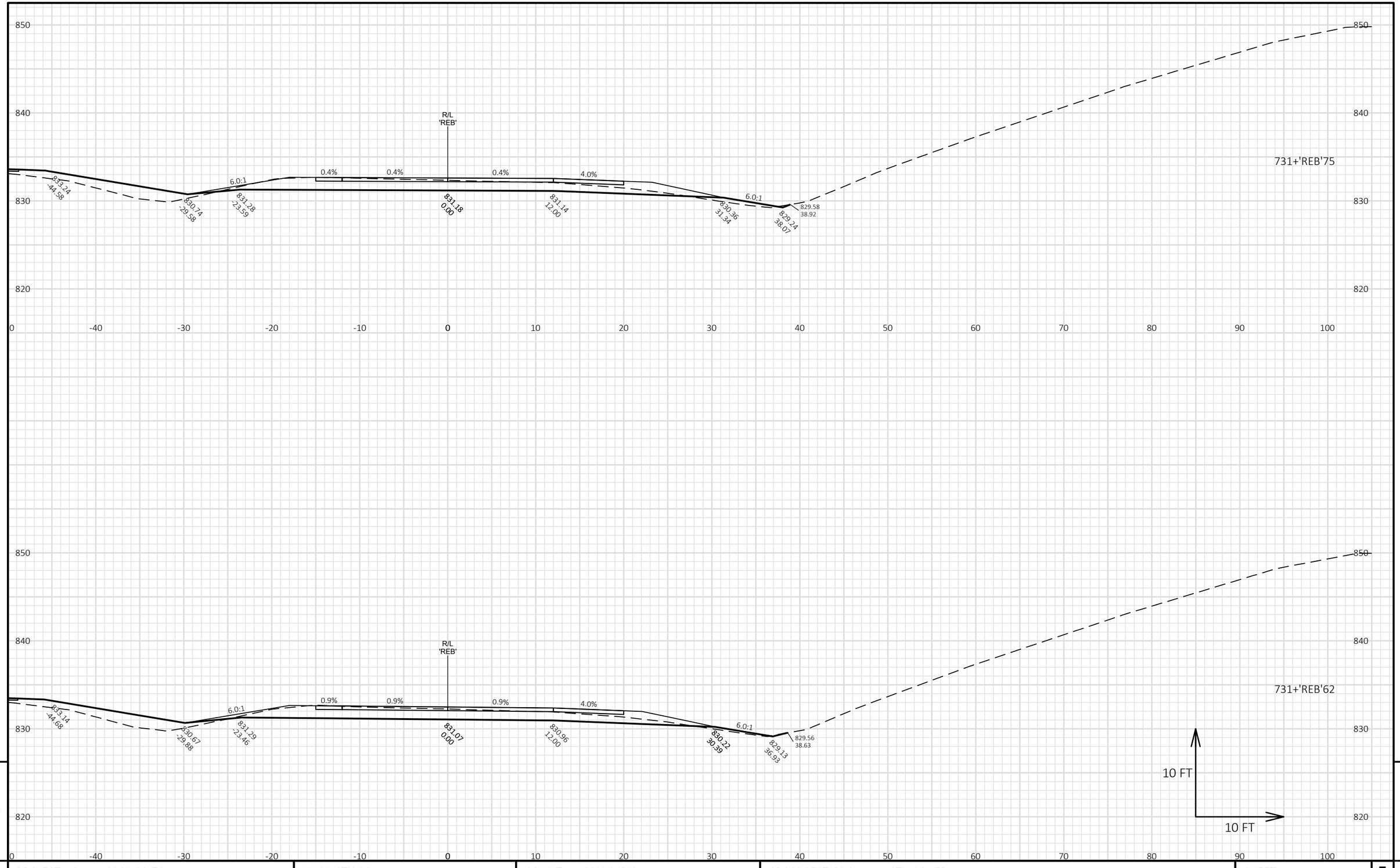



| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 389 E |
|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 01-REB

PLOT DATE : 10/20/2017 11:55 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49







9

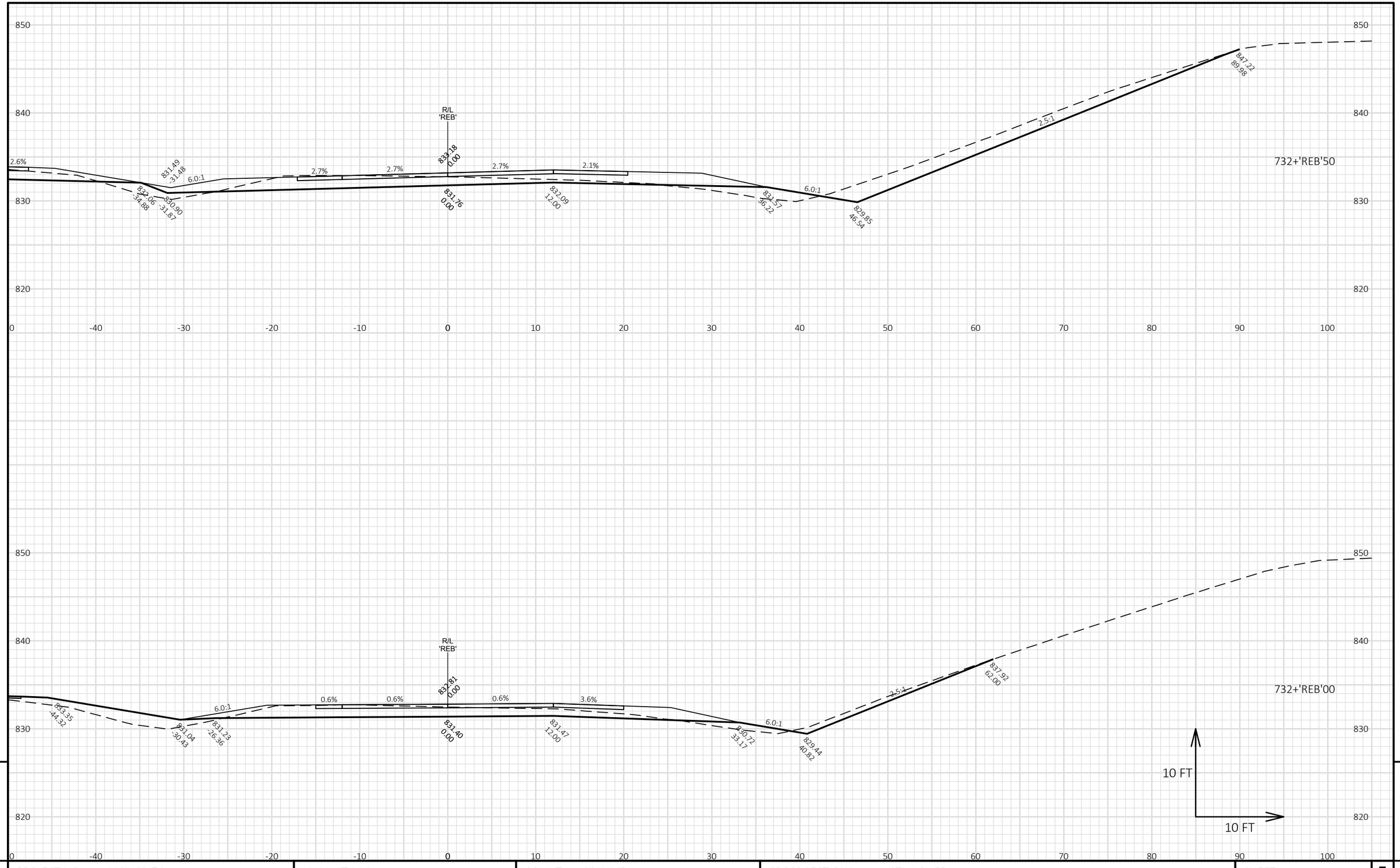
9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 390 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 02-REB

PLOT DATE : 10/20/2017 11:55 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




9

9

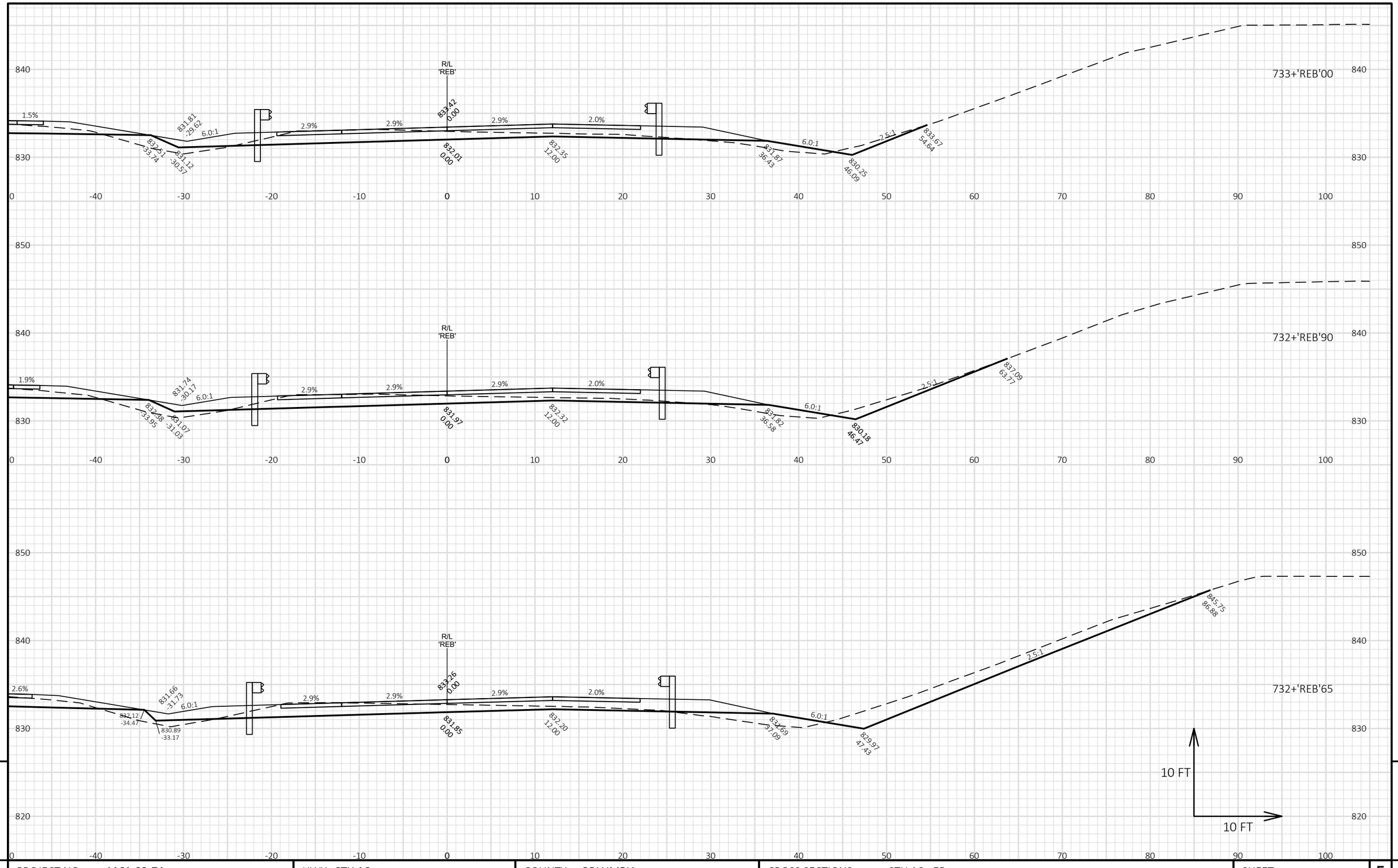
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 391 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 03-REB

PLOT DATE : 10/20/2017 11:55 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9

9

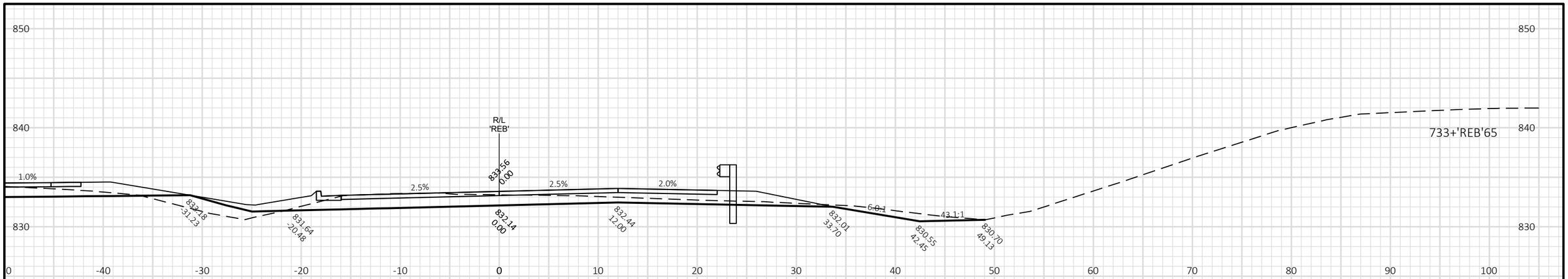
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 392 | E |
|---|---|---|---|---|---|

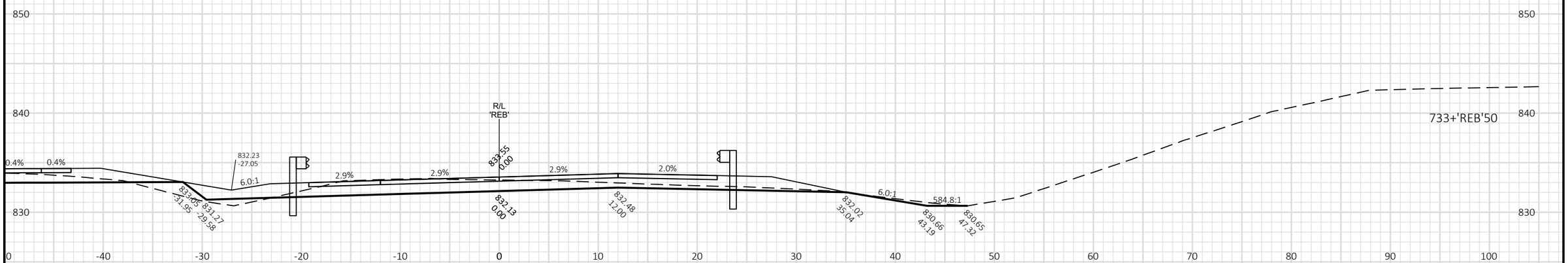
FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 04-REB

PLOT DATE : 10/20/2017 11:56 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

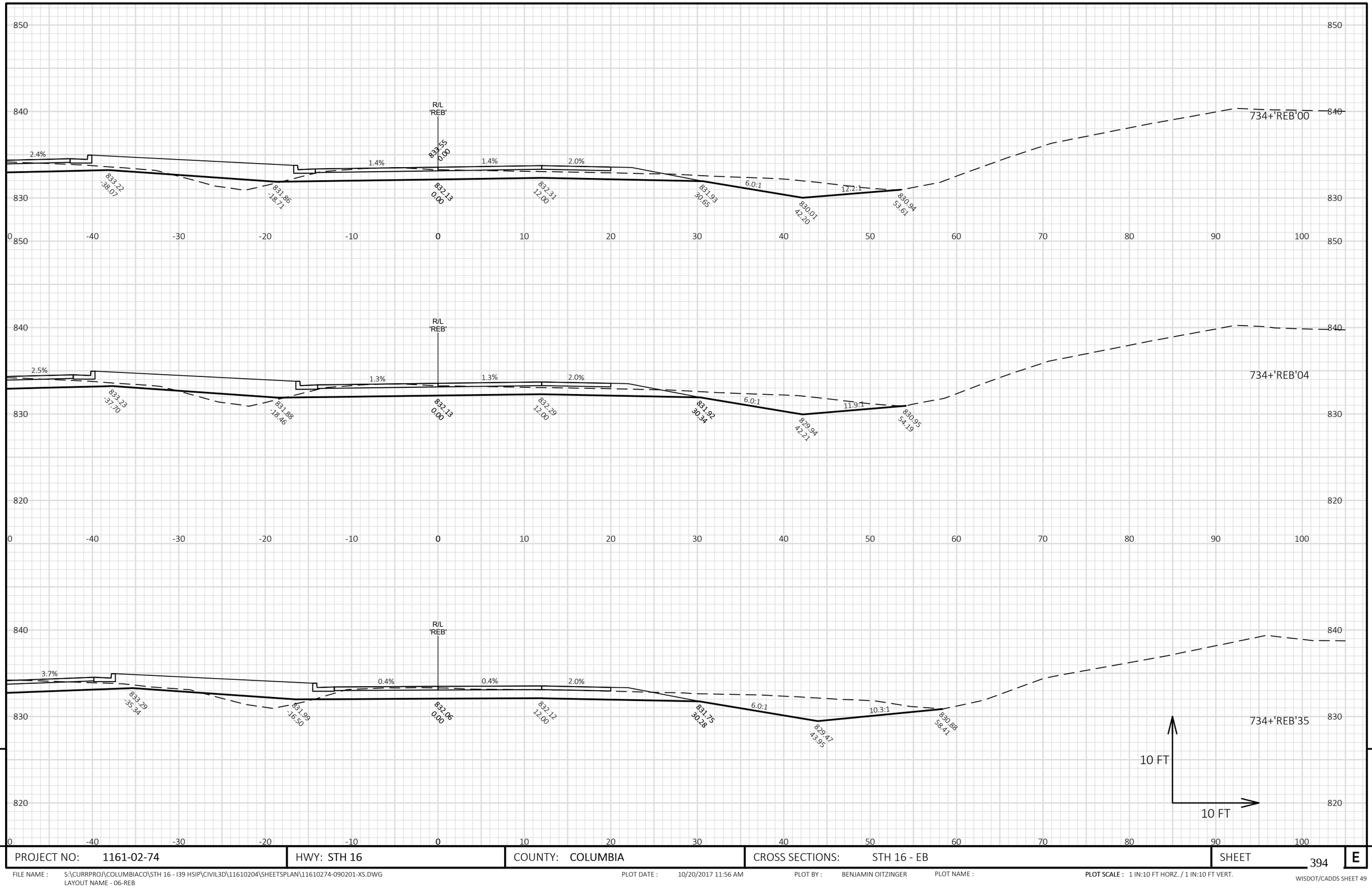
9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 393 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 05-REB

PLOT DATE : 10/20/2017 11:56 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

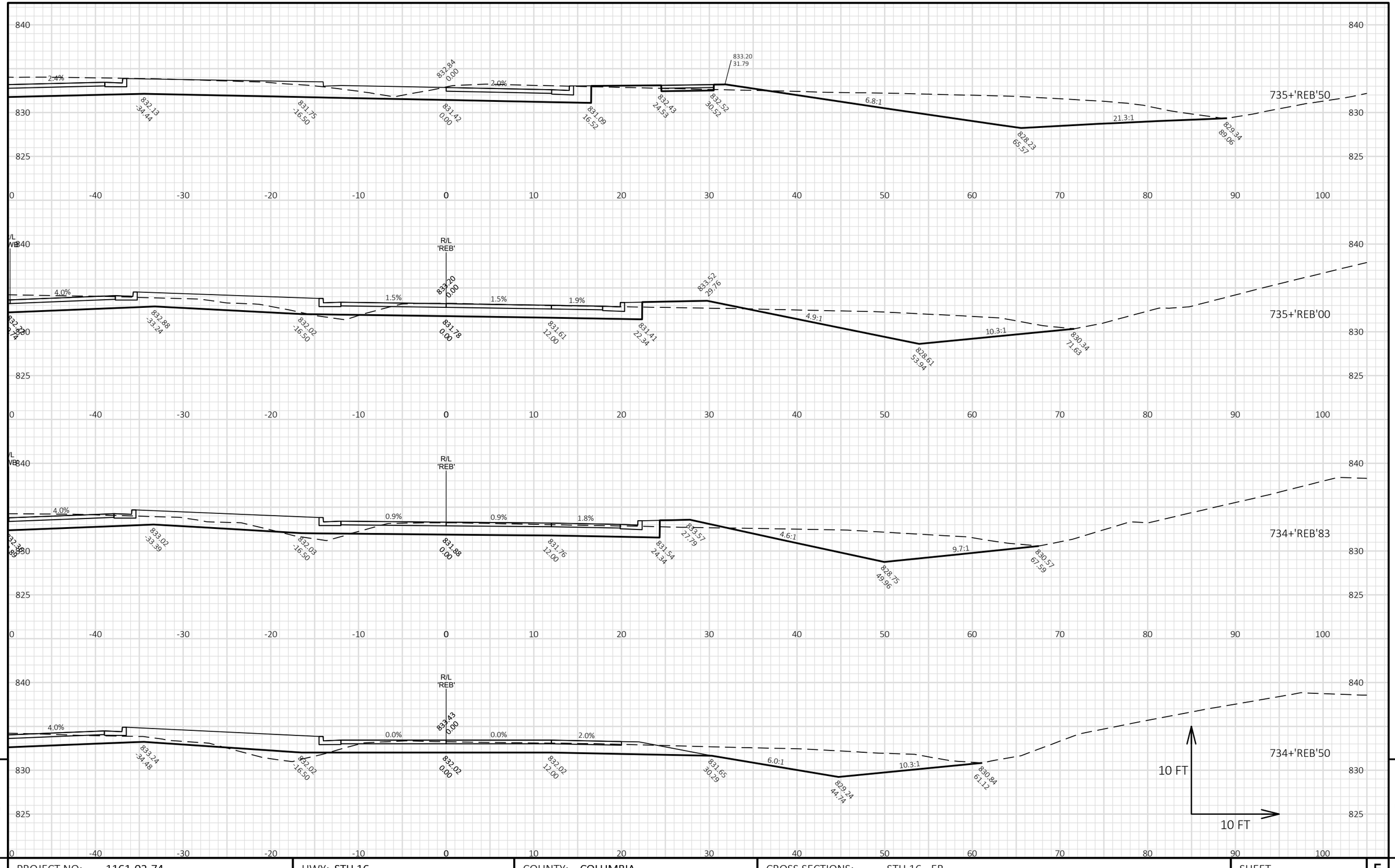



| | | | | | |
|---|---|---|---|---|---|
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 394 | E |

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 06-REB

PLOT DATE : 10/20/2017 11:56 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

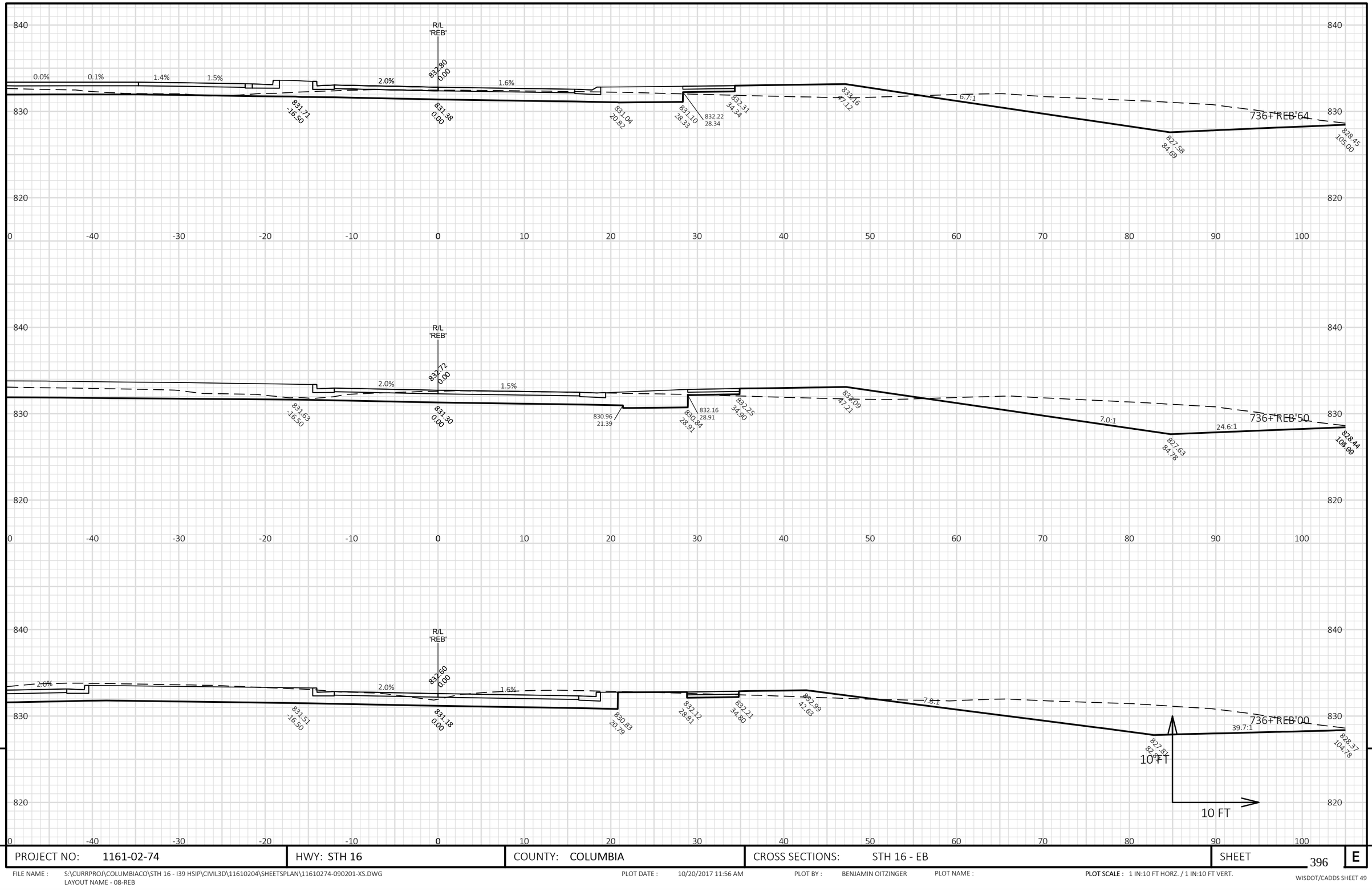



| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 395 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 07-REB

PLOT DATE : 10/20/2017 11:56 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




9

9

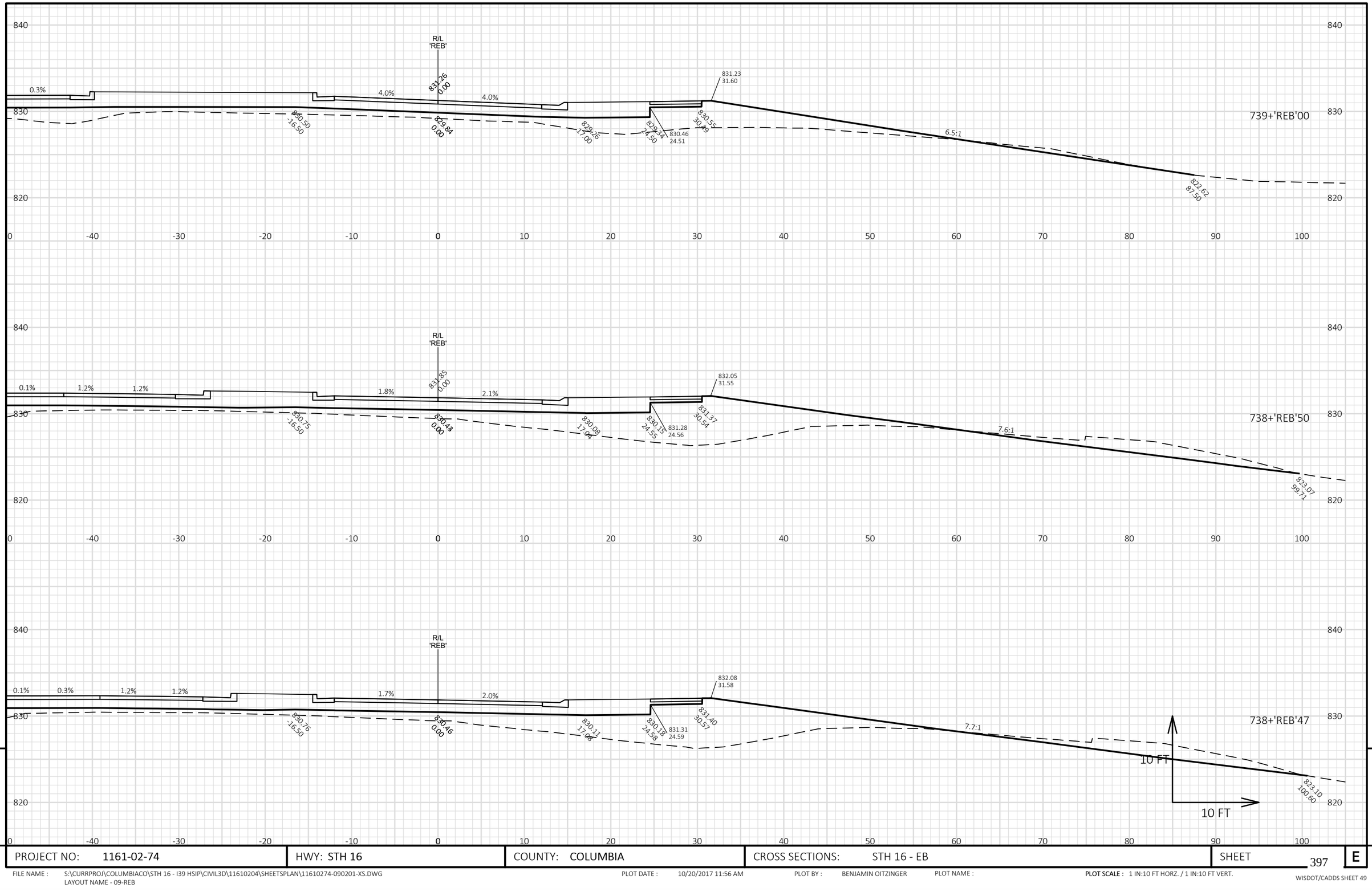
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 396 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 08-REB

PLOT DATE : 10/20/2017 11:56 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 397 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 09-REB

PLOT DATE : 10/20/2017 11:56 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

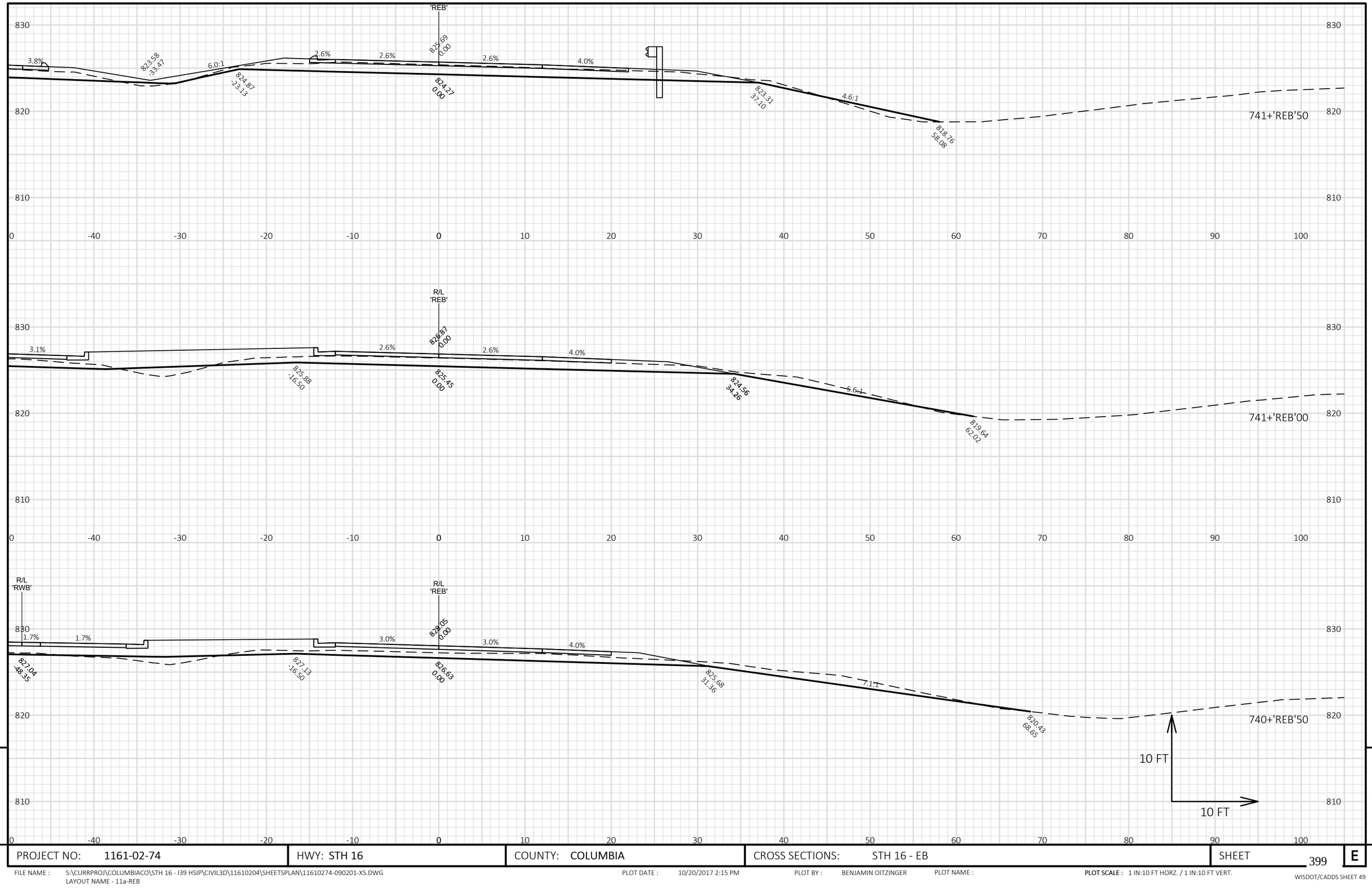
WISDOT/CADDS SHEET 49

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 398 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 10-REB

PLOT DATE : 10/20/2017 2:14 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




| | | | | |
|---|---|---|---|---|
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 399 E |

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 11a-REB

PLOT DATE : 10/20/2017 2:15 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

END RECONSTRUCT
STA 742'REB'+00




9

9

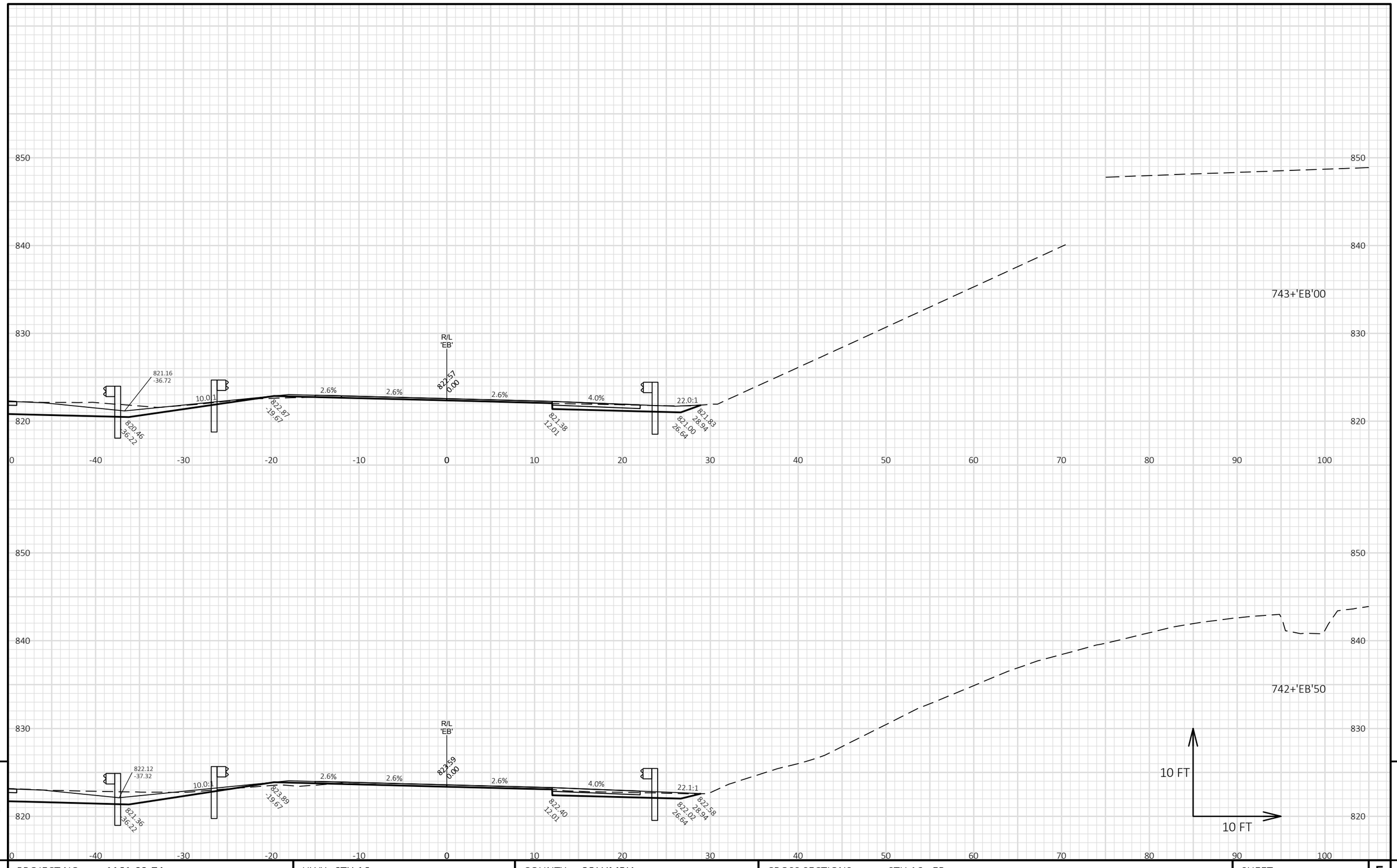
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 400 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 11b-REB

PLOT DATE : 10/20/2017 2:15 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9

9

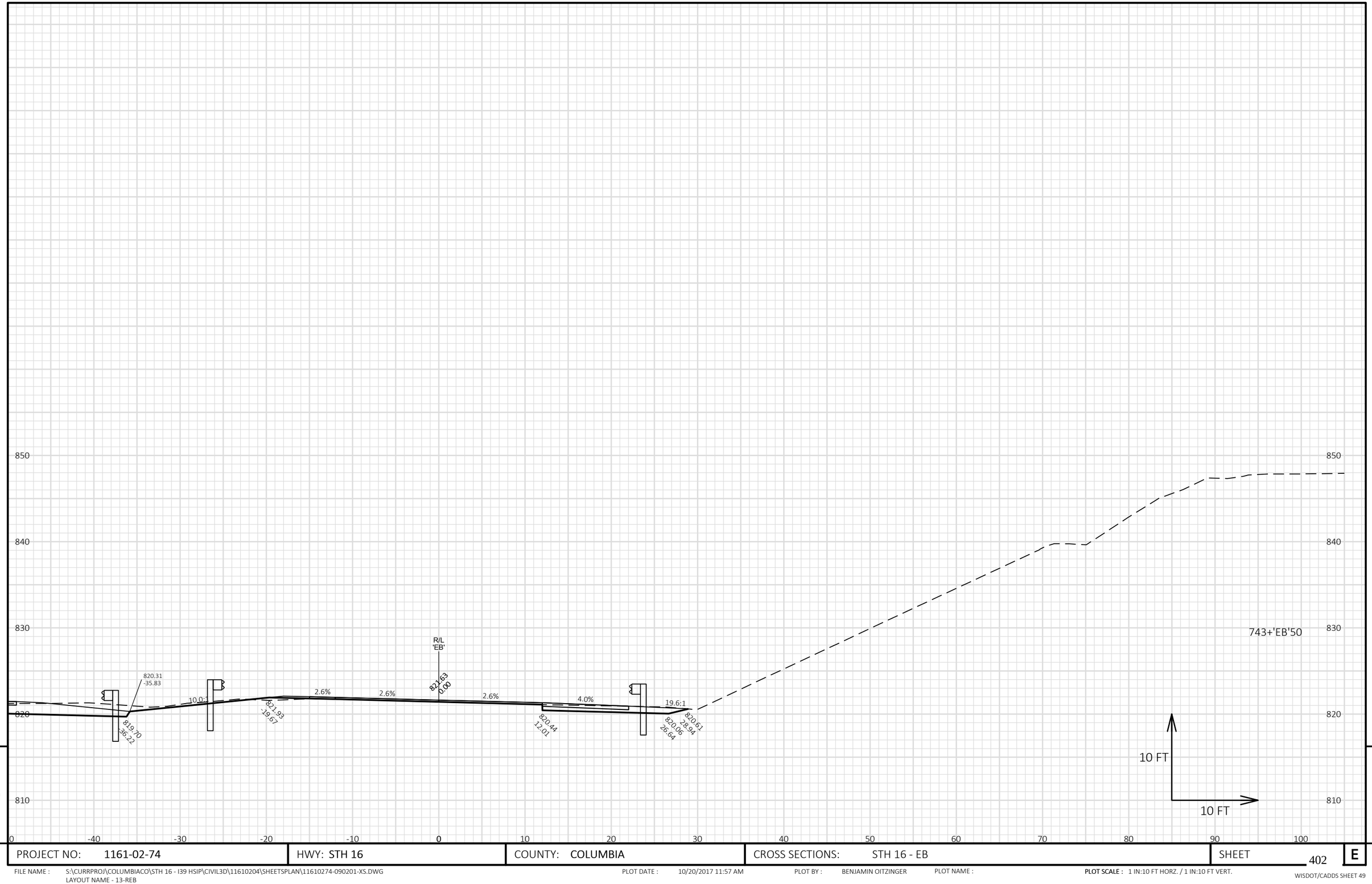
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 401 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 12-REB

PLOT DATE : 10/20/2017 11:57 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49

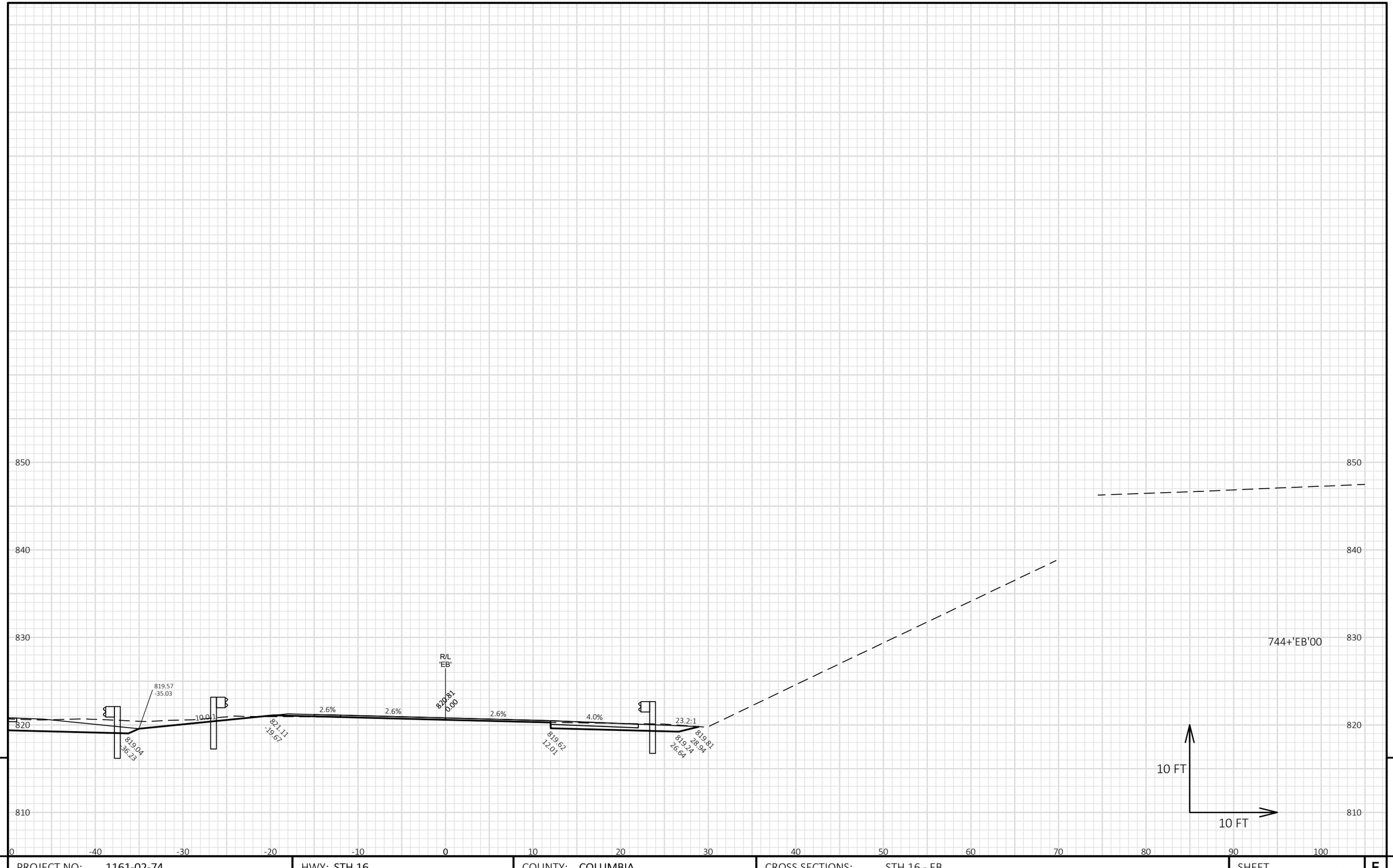



| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 402 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 13-REB

PLOT DATE : 10/20/2017 11:57 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




9

9

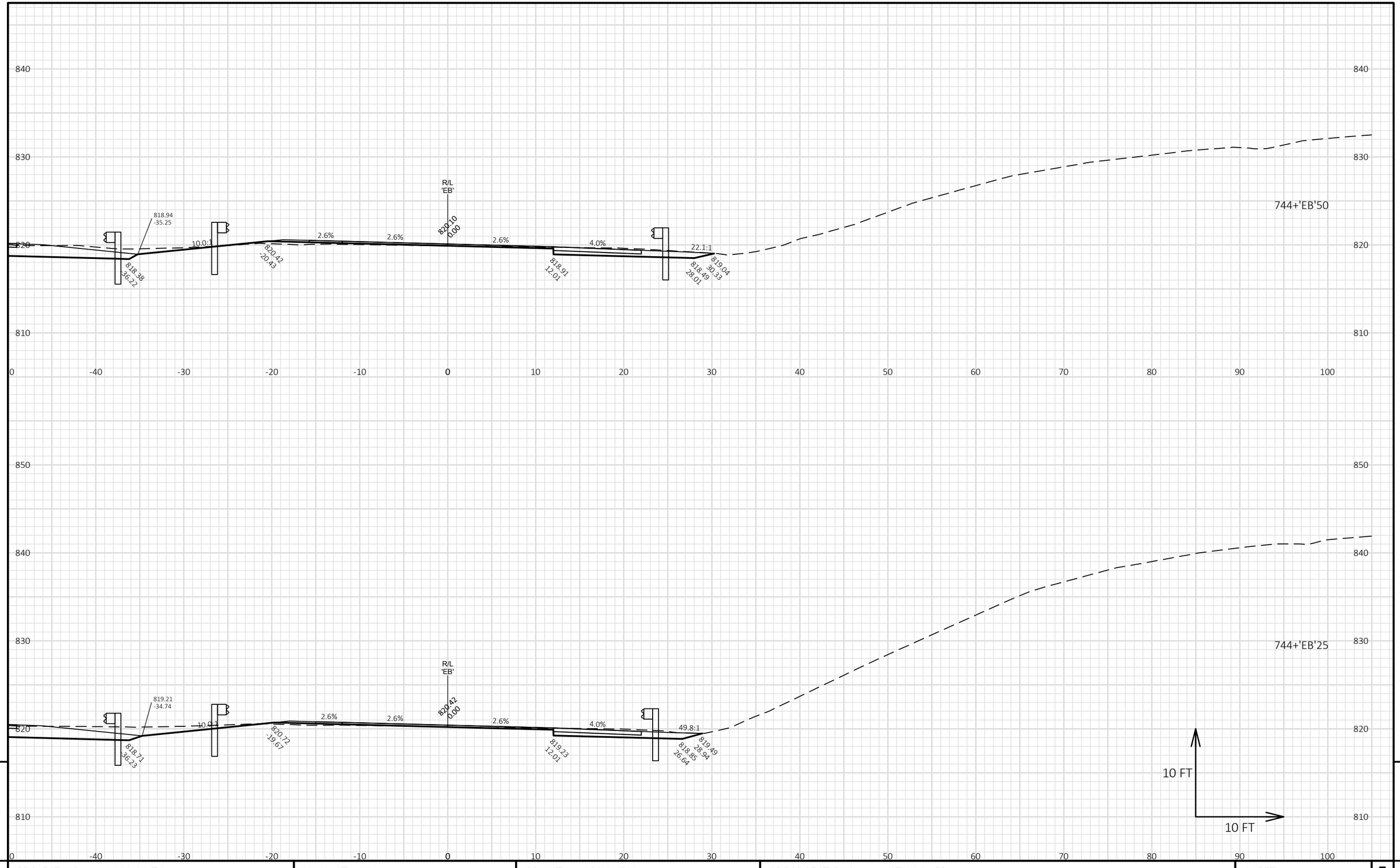
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 403 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 14-REB

PLOT DATE : 10/20/2017 11:57 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9

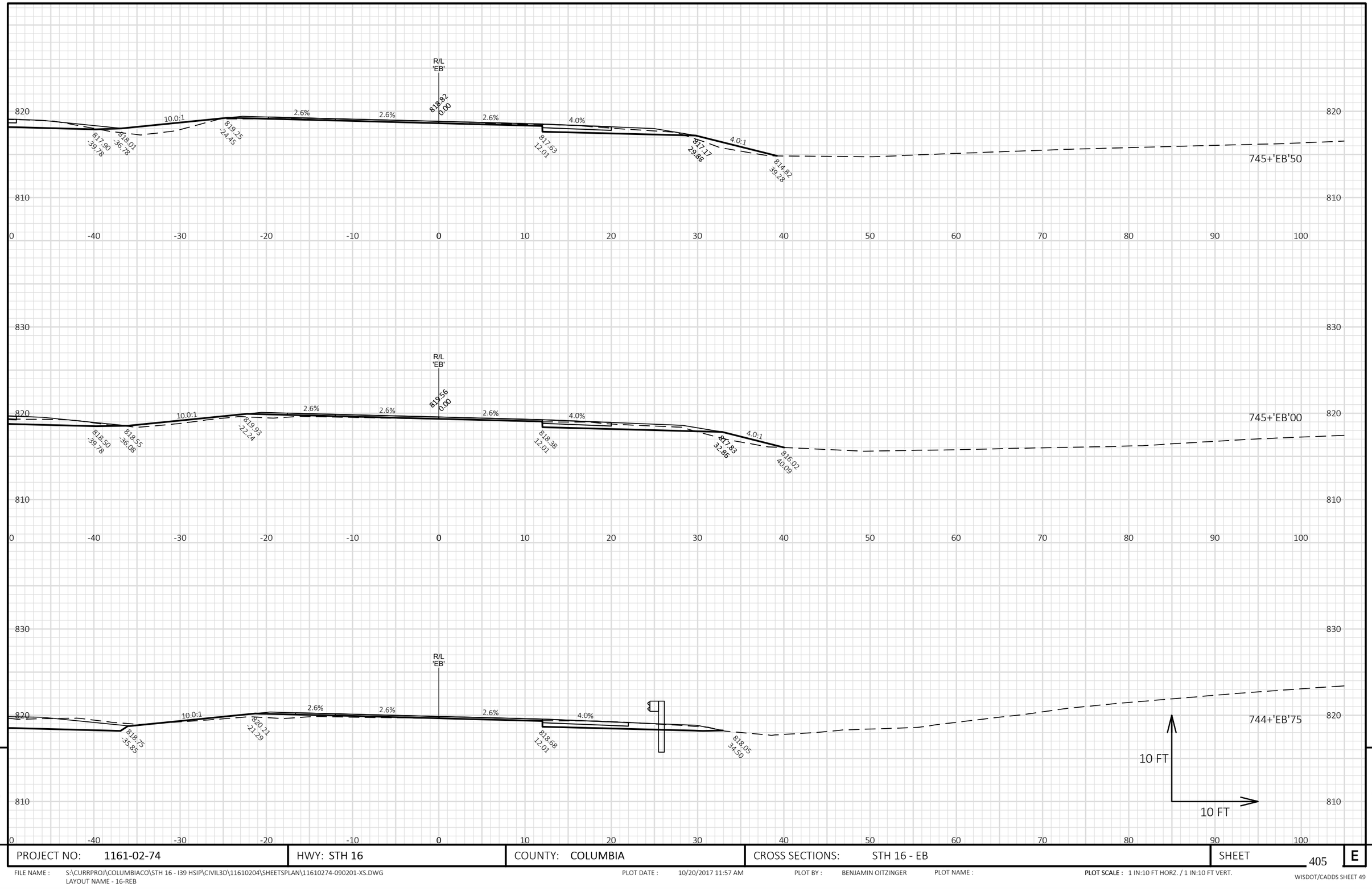
9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 404 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 15-REB

PLOT DATE : 10/20/2017 11:57 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

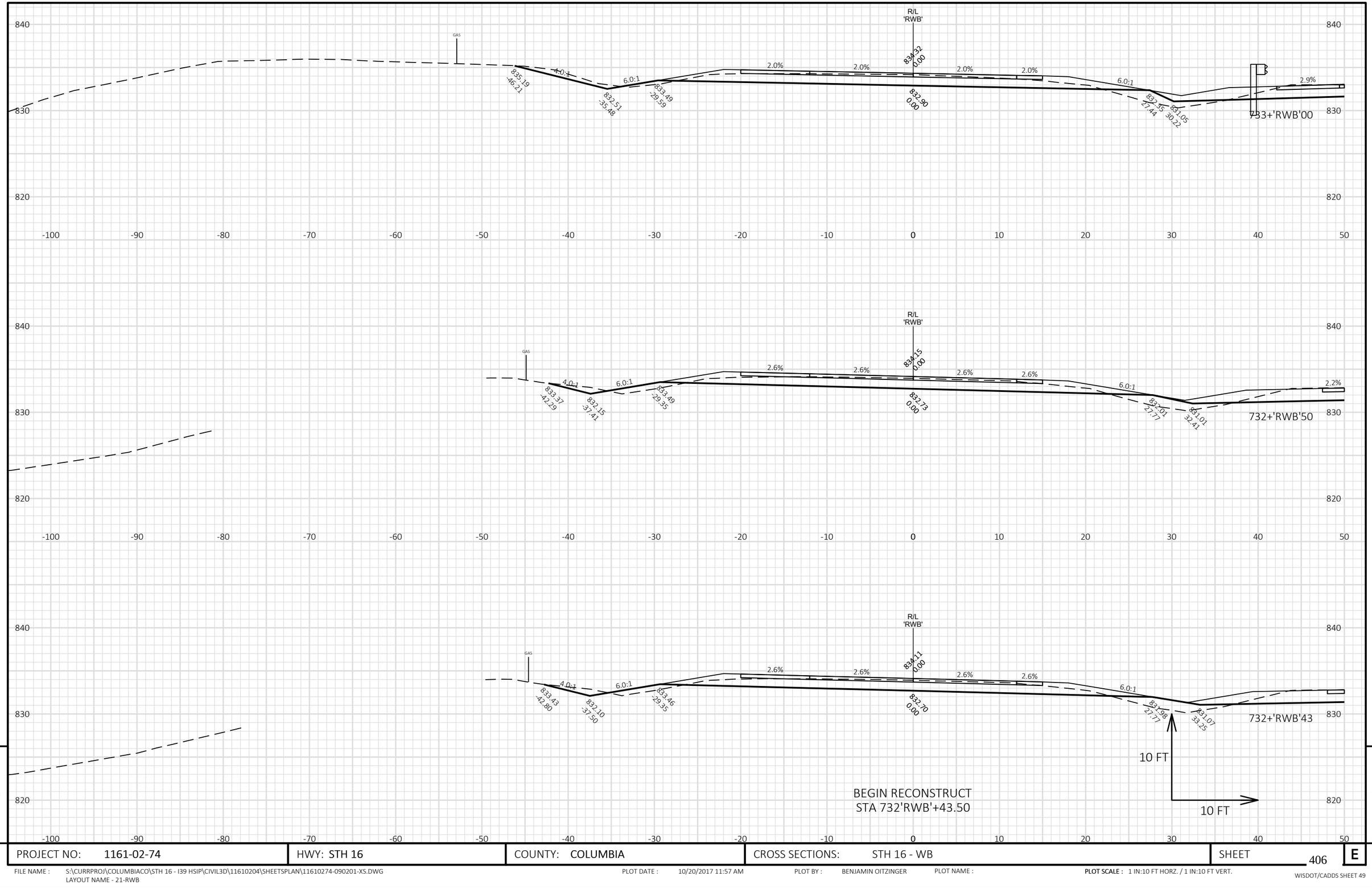



| | | | | |
|---|---|---|---|---|
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 405 E |

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 16-REB

PLOT DATE : 10/20/2017 11:57 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




9

9

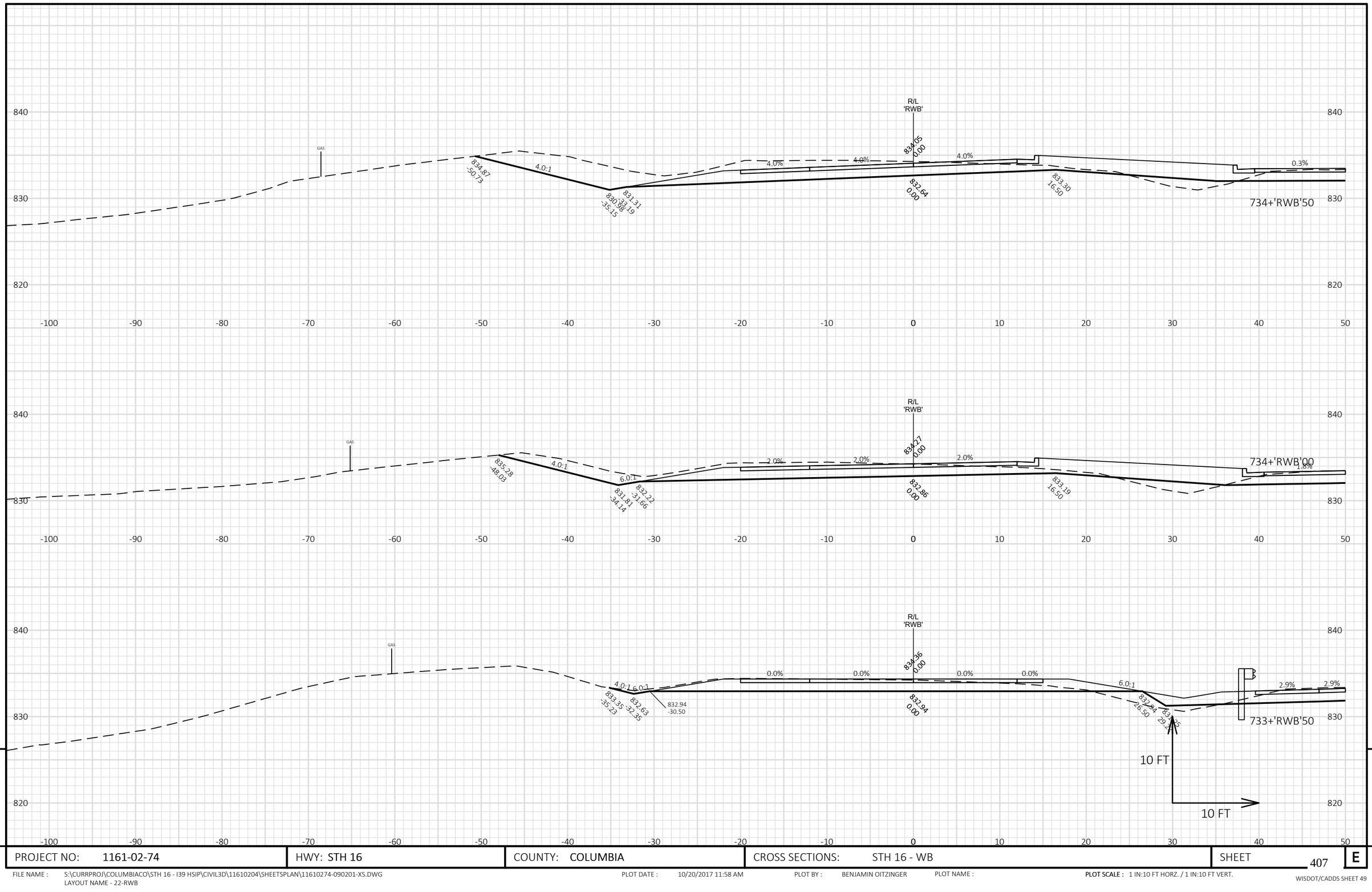
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - WB | SHEET 406 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 21-RWB

PLOT DATE : 10/20/2017 11:57 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9

9

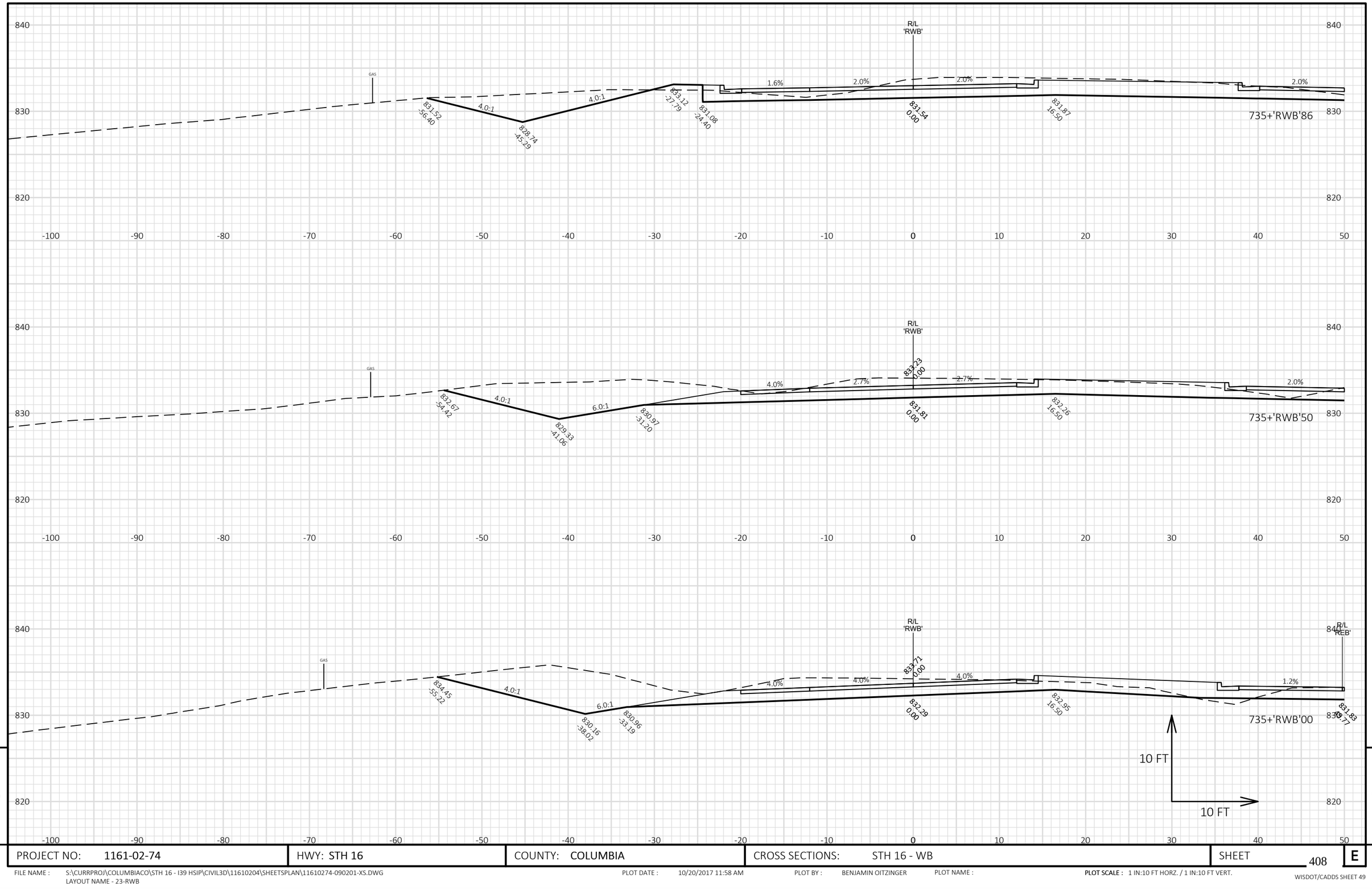
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - WB | SHEET 407 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 22-RWB

PLOT DATE : 10/20/2017 11:58 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9

9

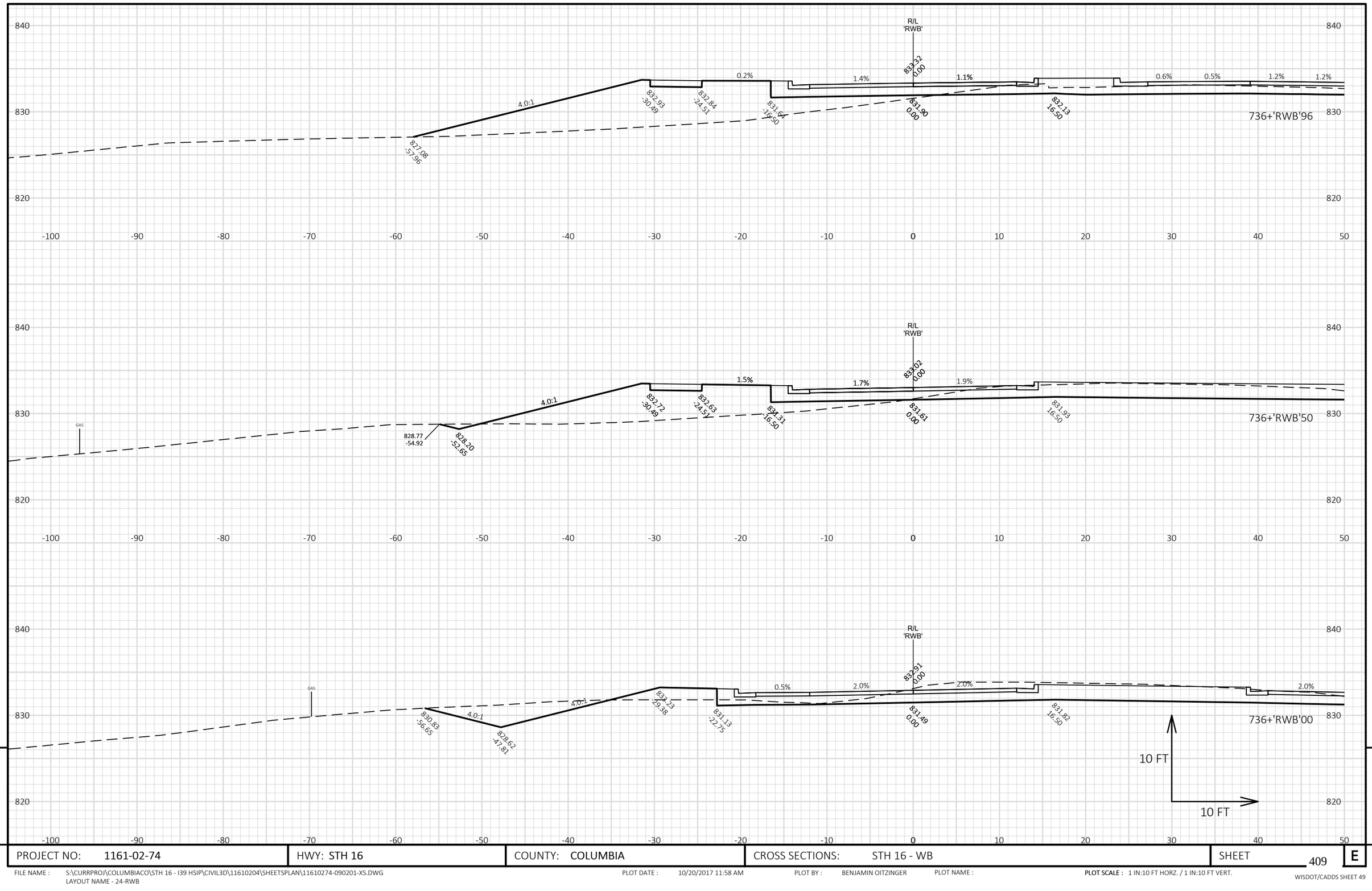
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - WB | SHEET 408 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 23-RWB

PLOT DATE : 10/20/2017 11:58 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49



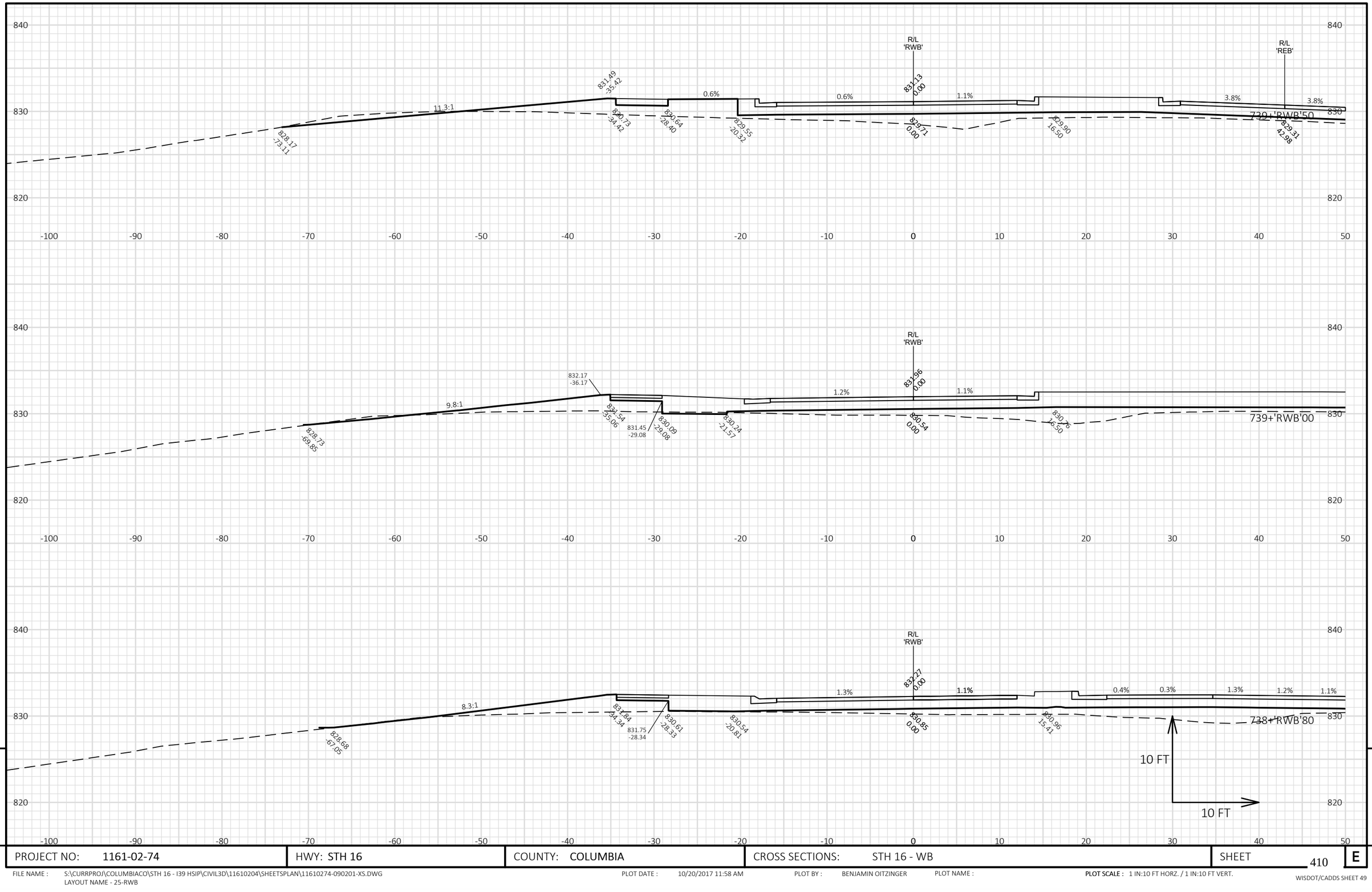

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - WB | SHEET 409 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 24-RWB

PLOT DATE : 10/20/2017 11:58 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9

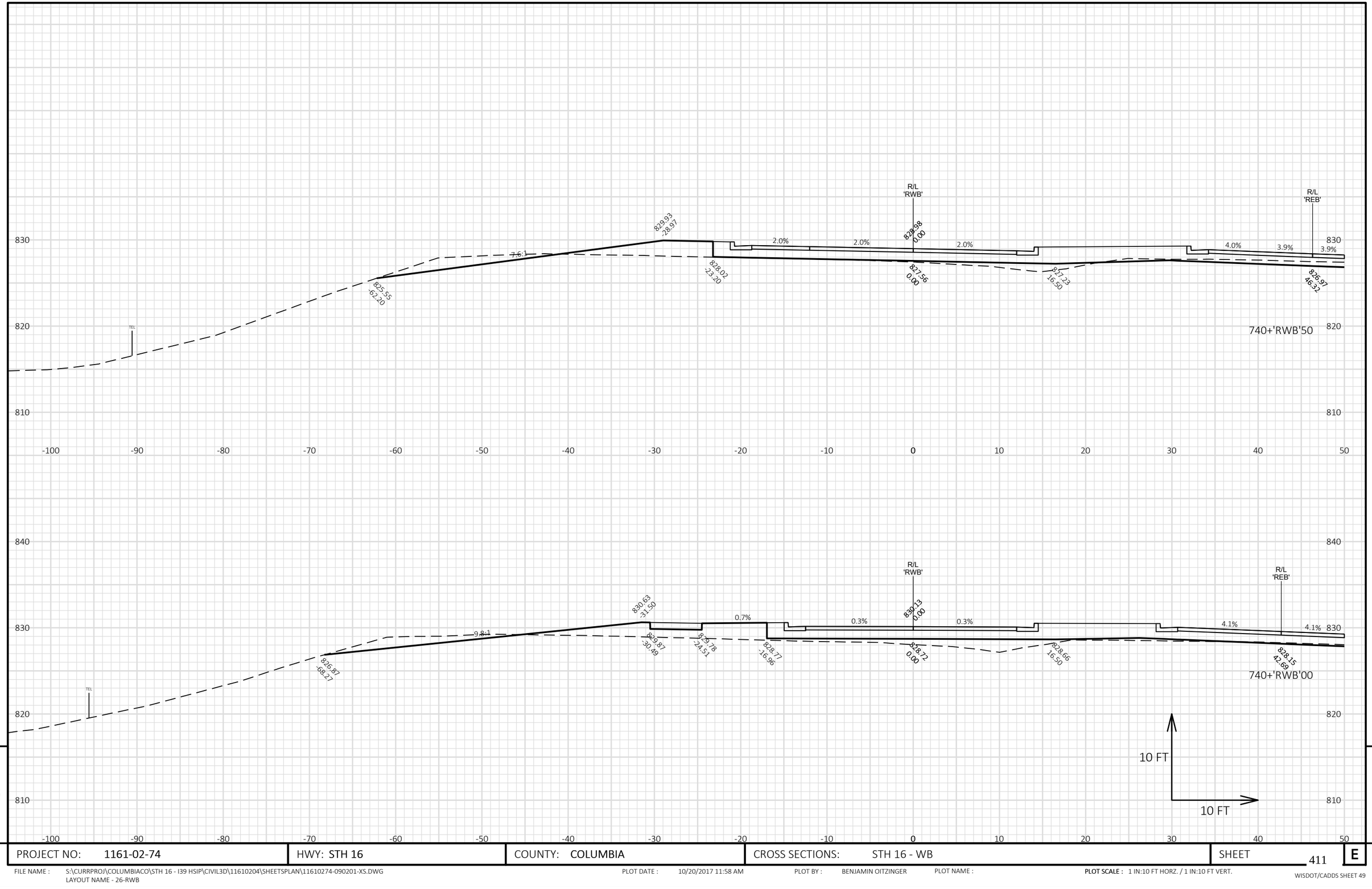
9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - WB | SHEET 410 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 25-RWB

PLOT DATE : 10/20/2017 11:58 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




9

9

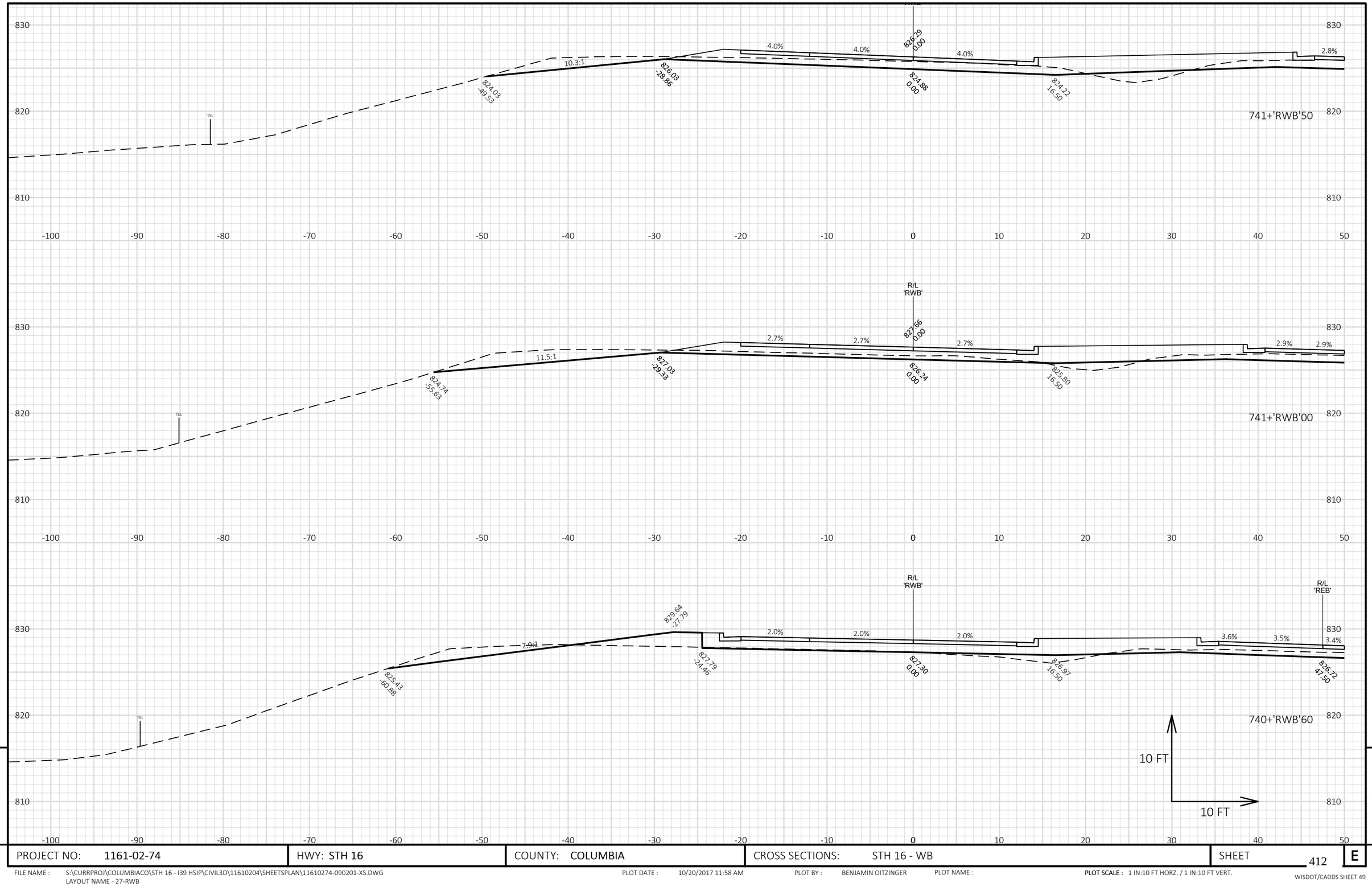
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - WB | SHEET 411 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 26-RWB

PLOT DATE : 10/20/2017 11:58 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9

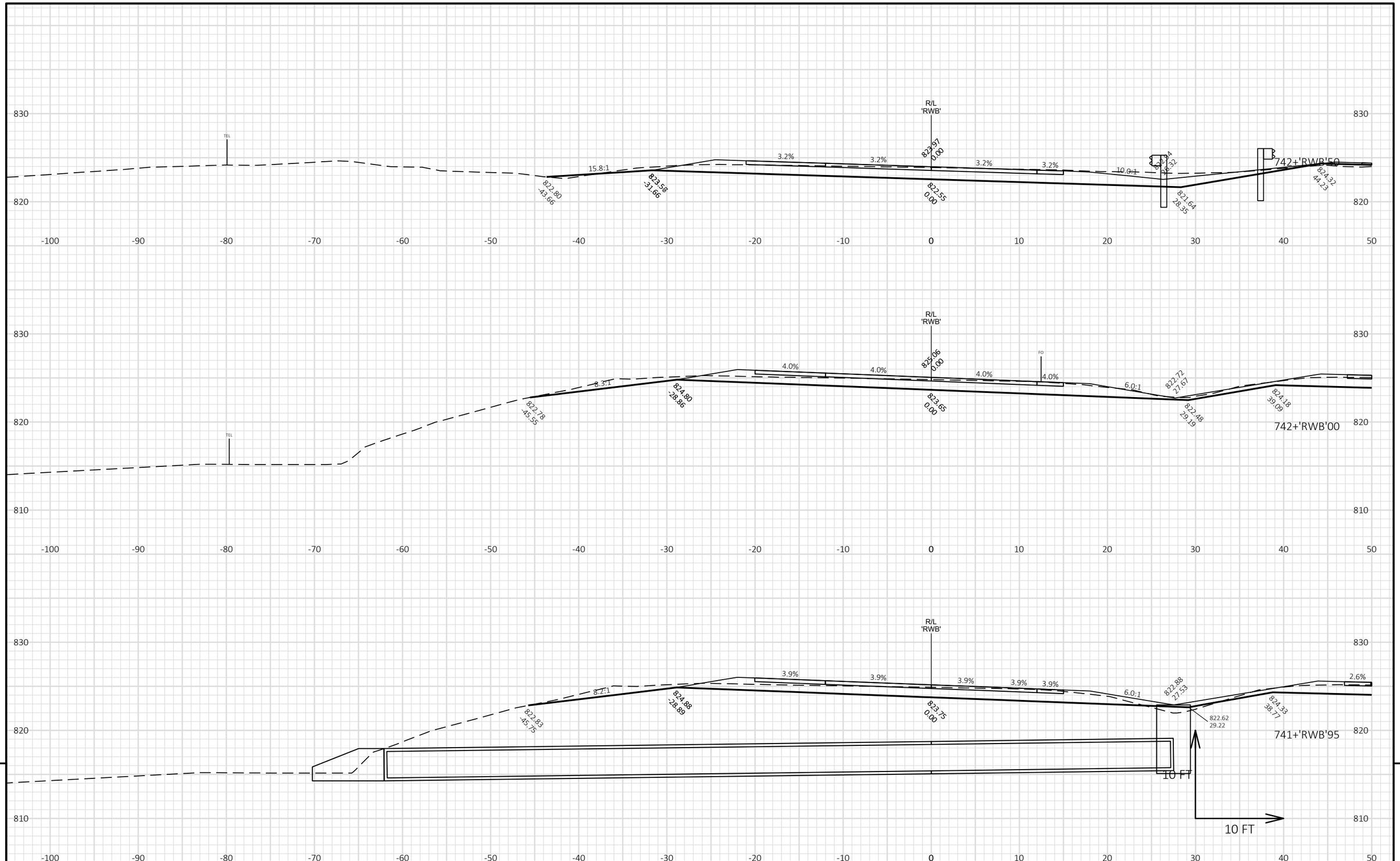
9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - WB | SHEET 412 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 27-RWB

PLOT DATE : 10/20/2017 11:58 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



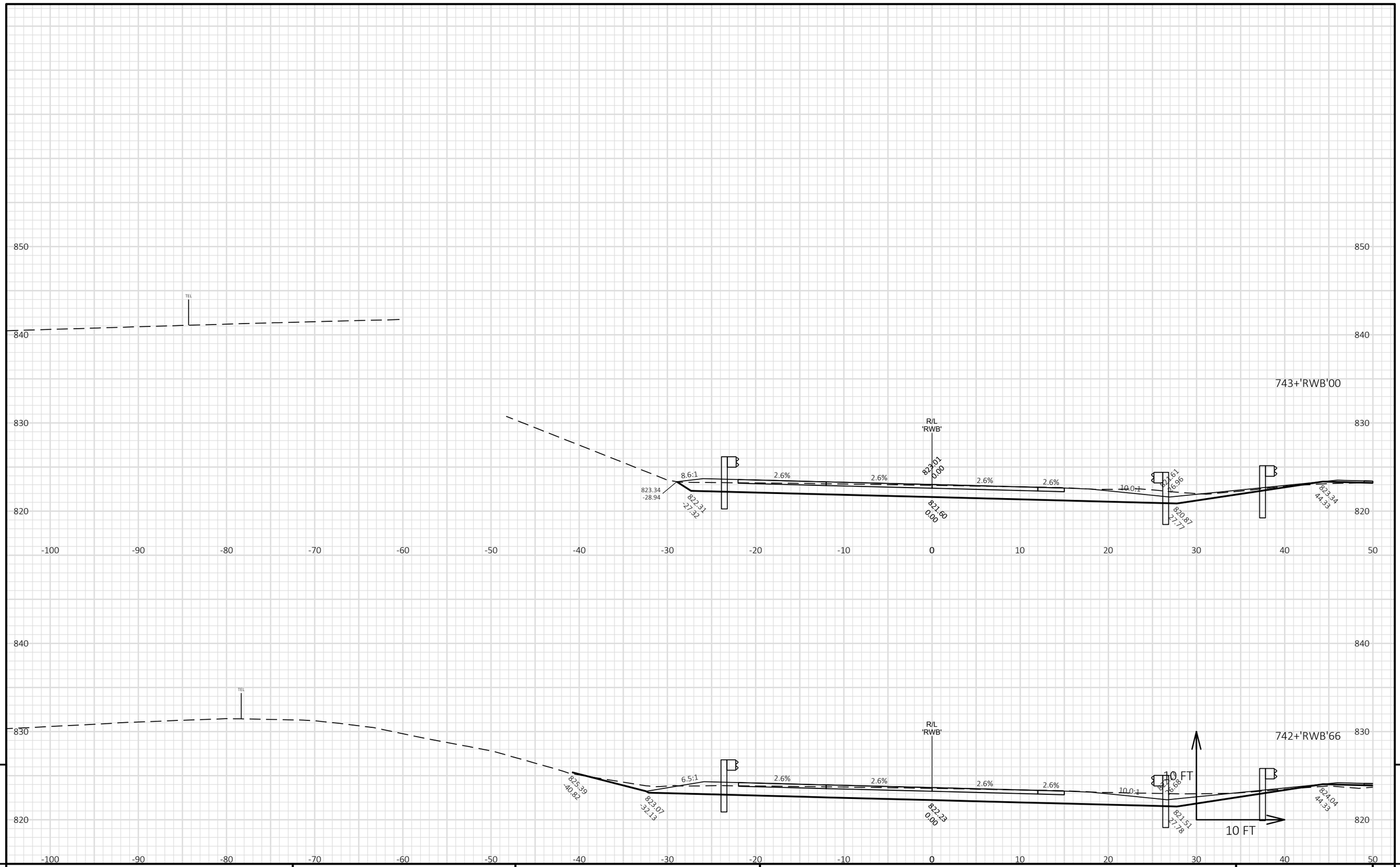

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - WB | SHEET 413 E |
|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 28-RWB

PLOT DATE : 10/20/2017 11:58 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

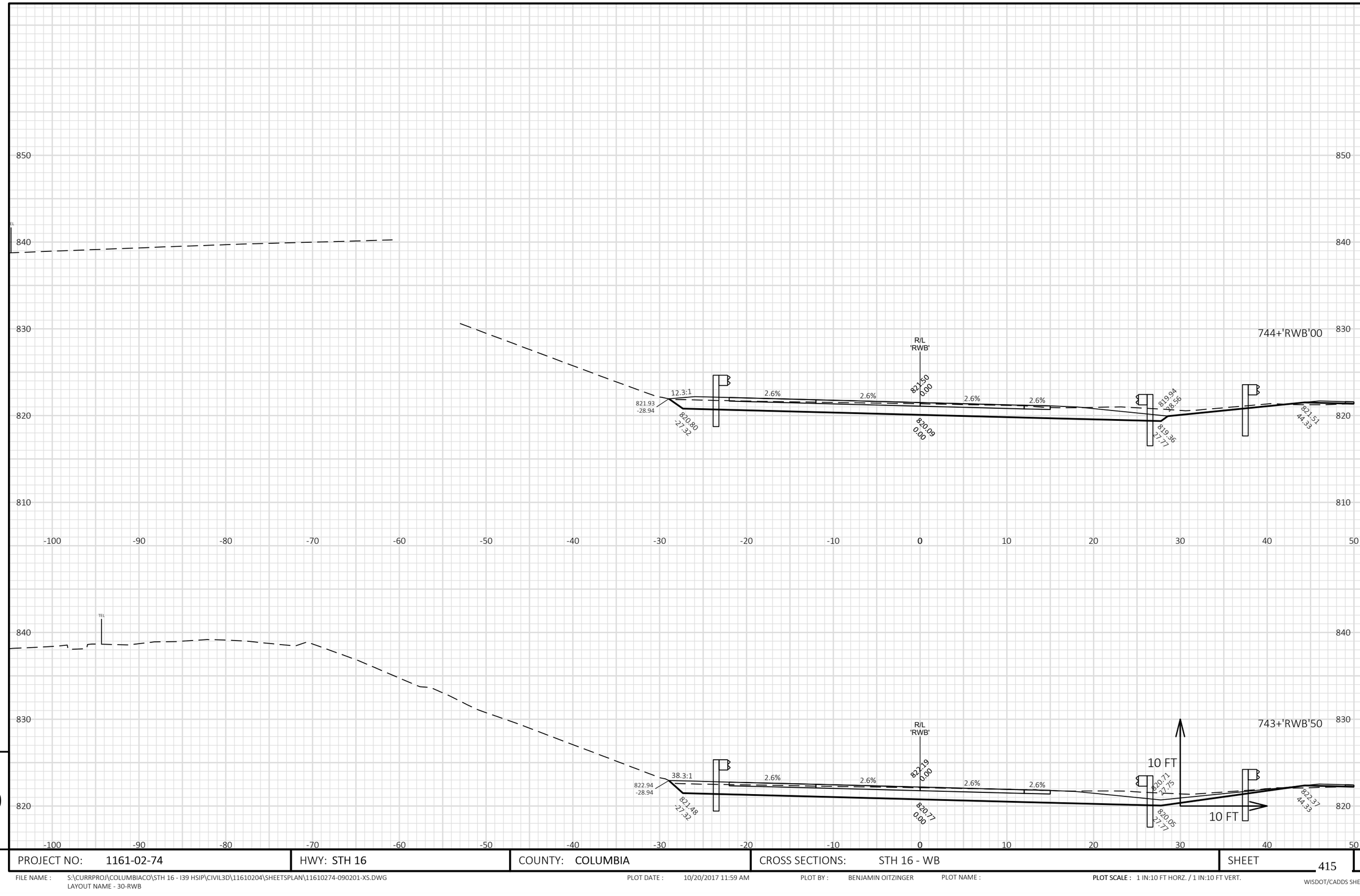
**PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - WB | SHEET 414 | E |
|---|---|---|---|---|---|




9

9

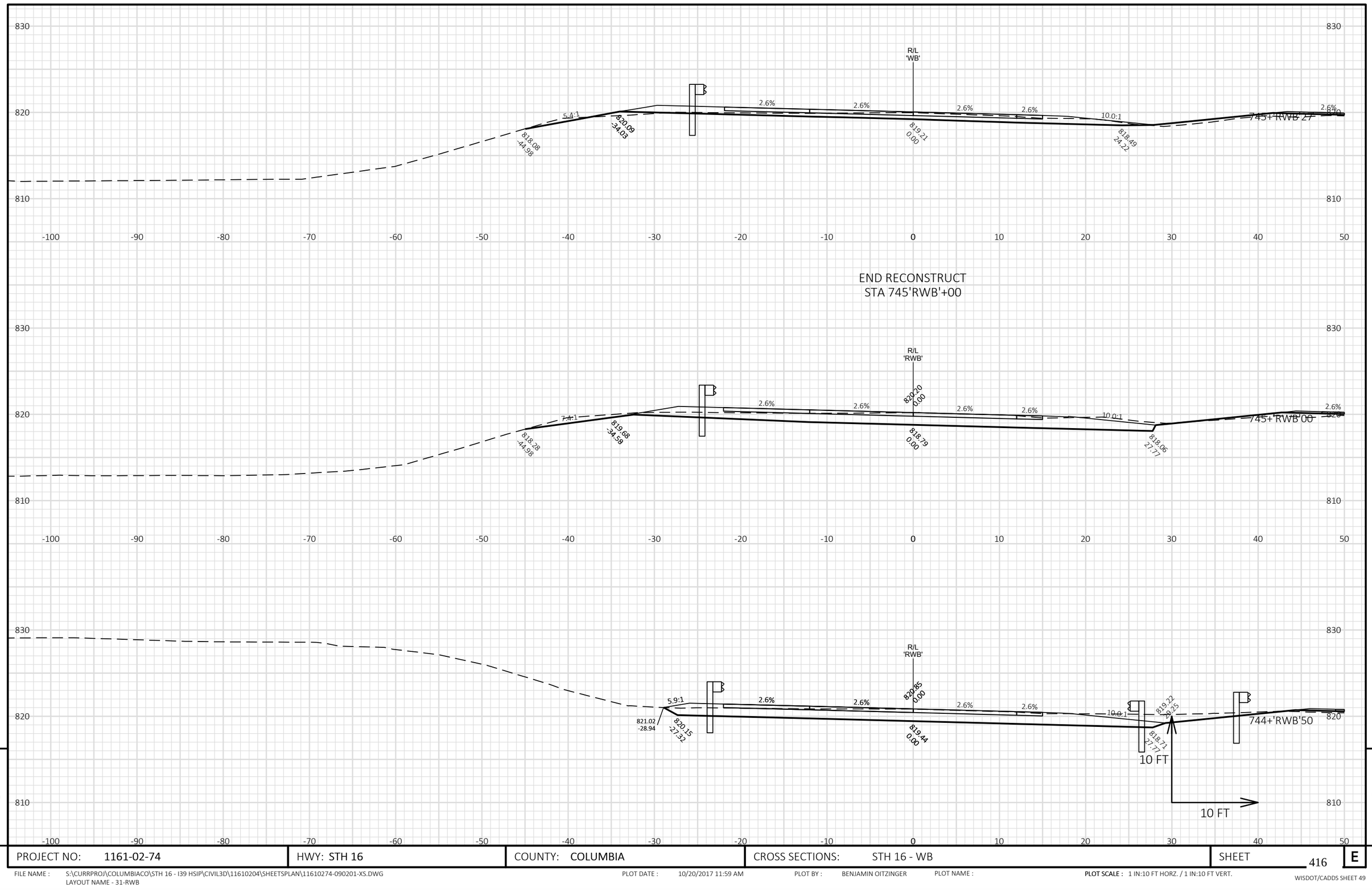
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - WB | SHEET 415 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 30-RWB

PLOT DATE : 10/20/2017 11:59 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9

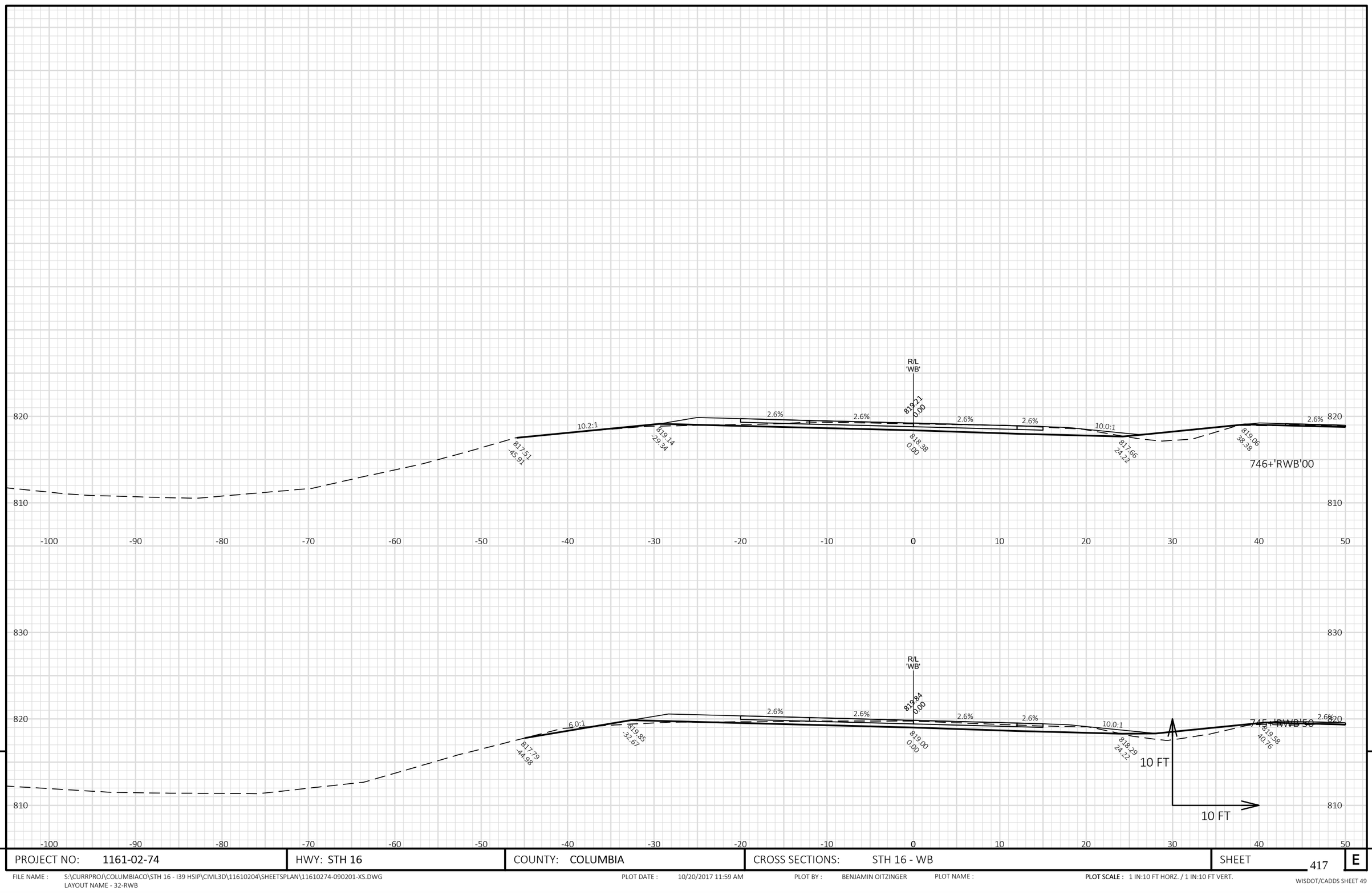
9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - WB | SHEET 416 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 31-RWB

PLOT DATE : 10/20/2017 11:59 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

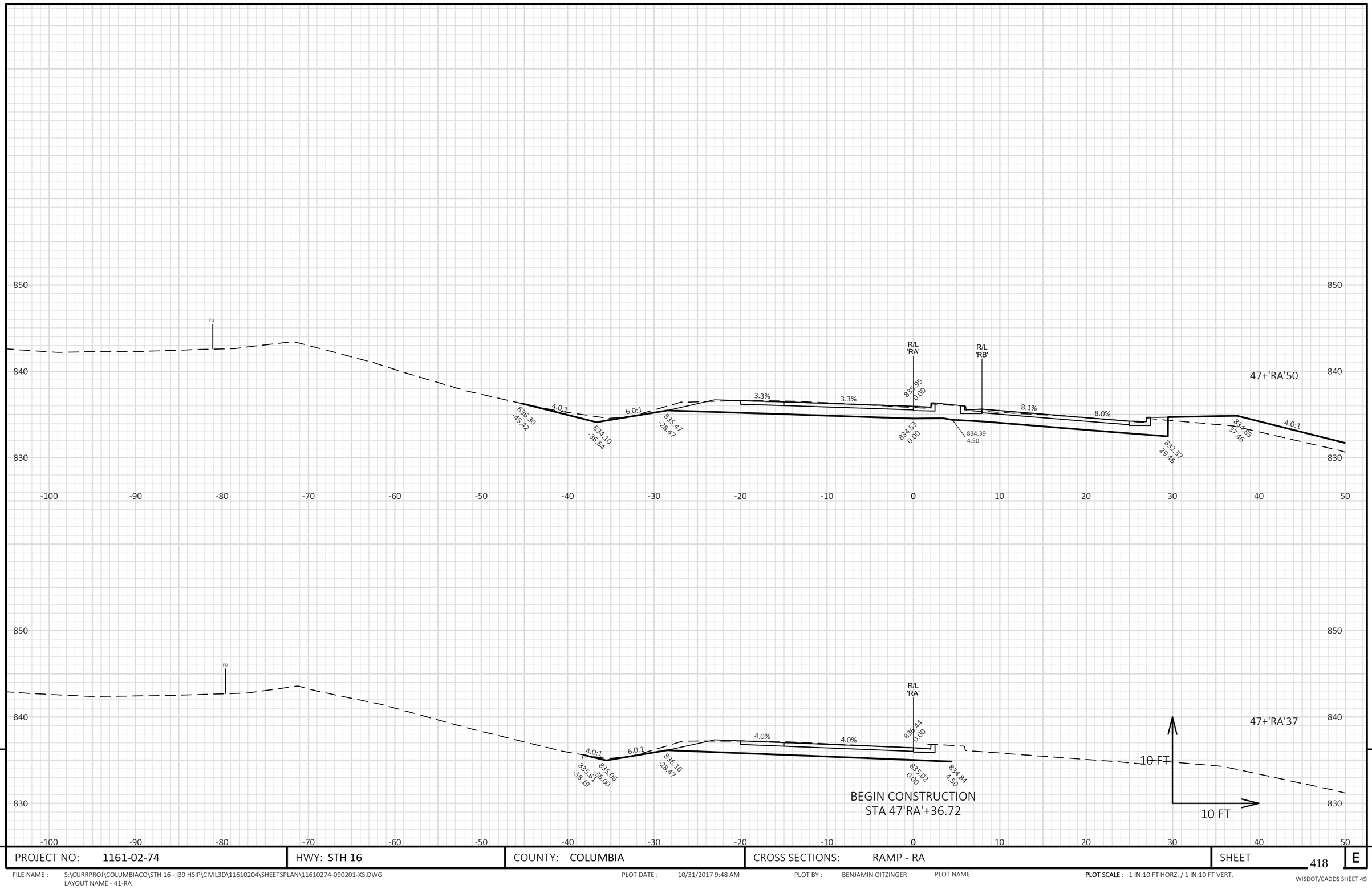



| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - WB | SHEET 417 E |
|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 32-RWB

PLOT DATE : 10/20/2017 11:59 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



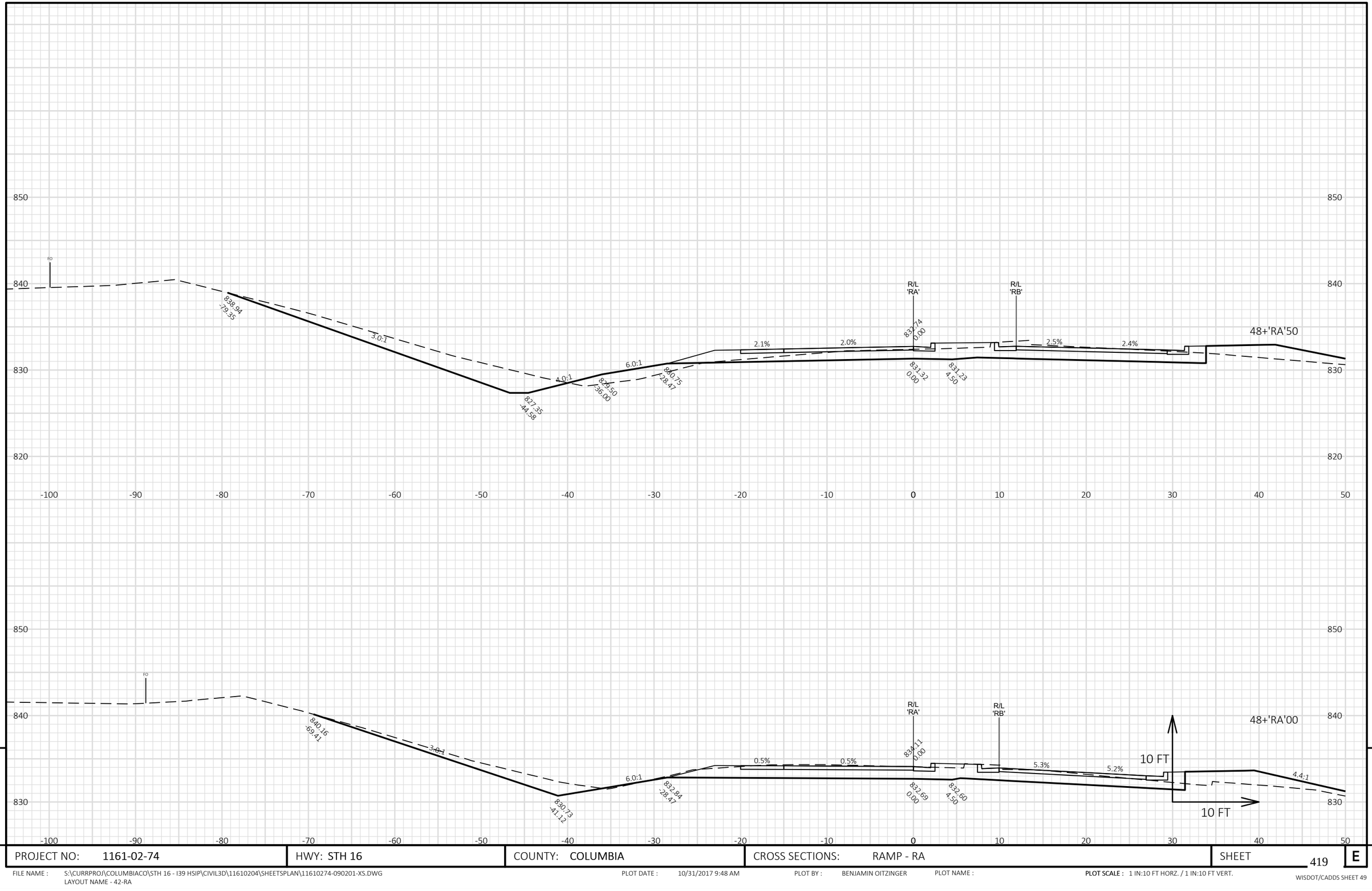

9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: RAMP - RA | SHEET 418 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 41-RA

PLOT DATE : 10/31/2017 9:48 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




9

9

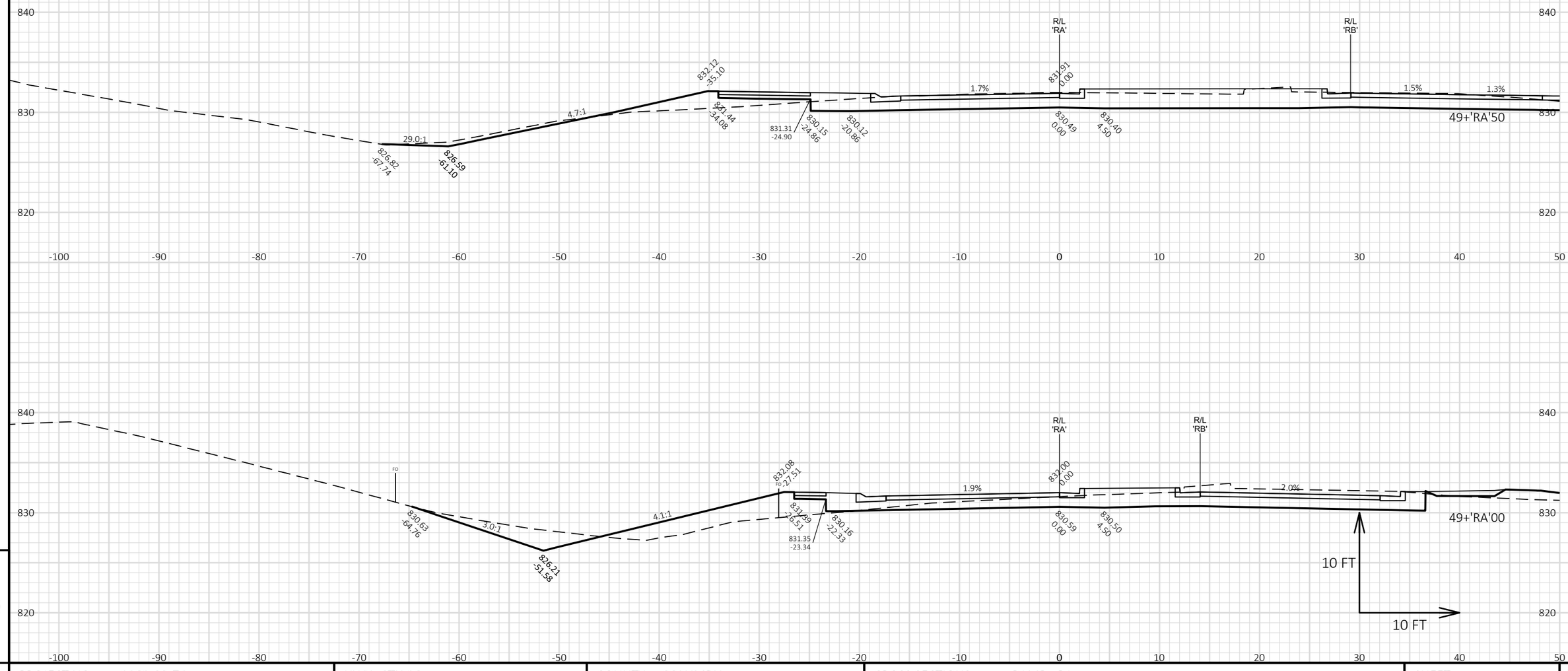
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: RAMP - RA | SHEET 419 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 42-RA

PLOT DATE : 10/31/2017 9:48 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9

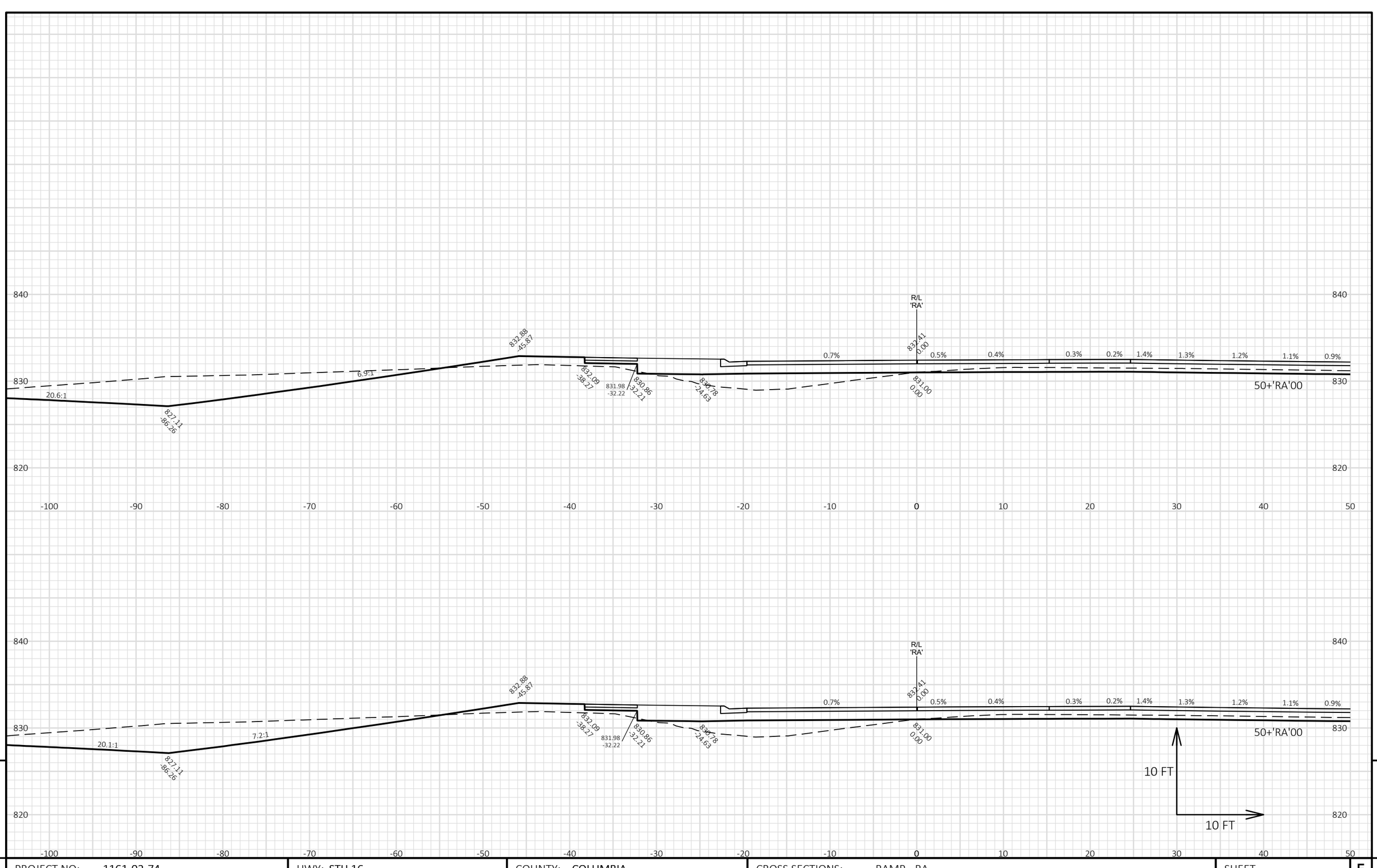
9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: RAMP - RA | SHEET 420 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 43-RA

PLOT DATE : 10/31/2017 9:48 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

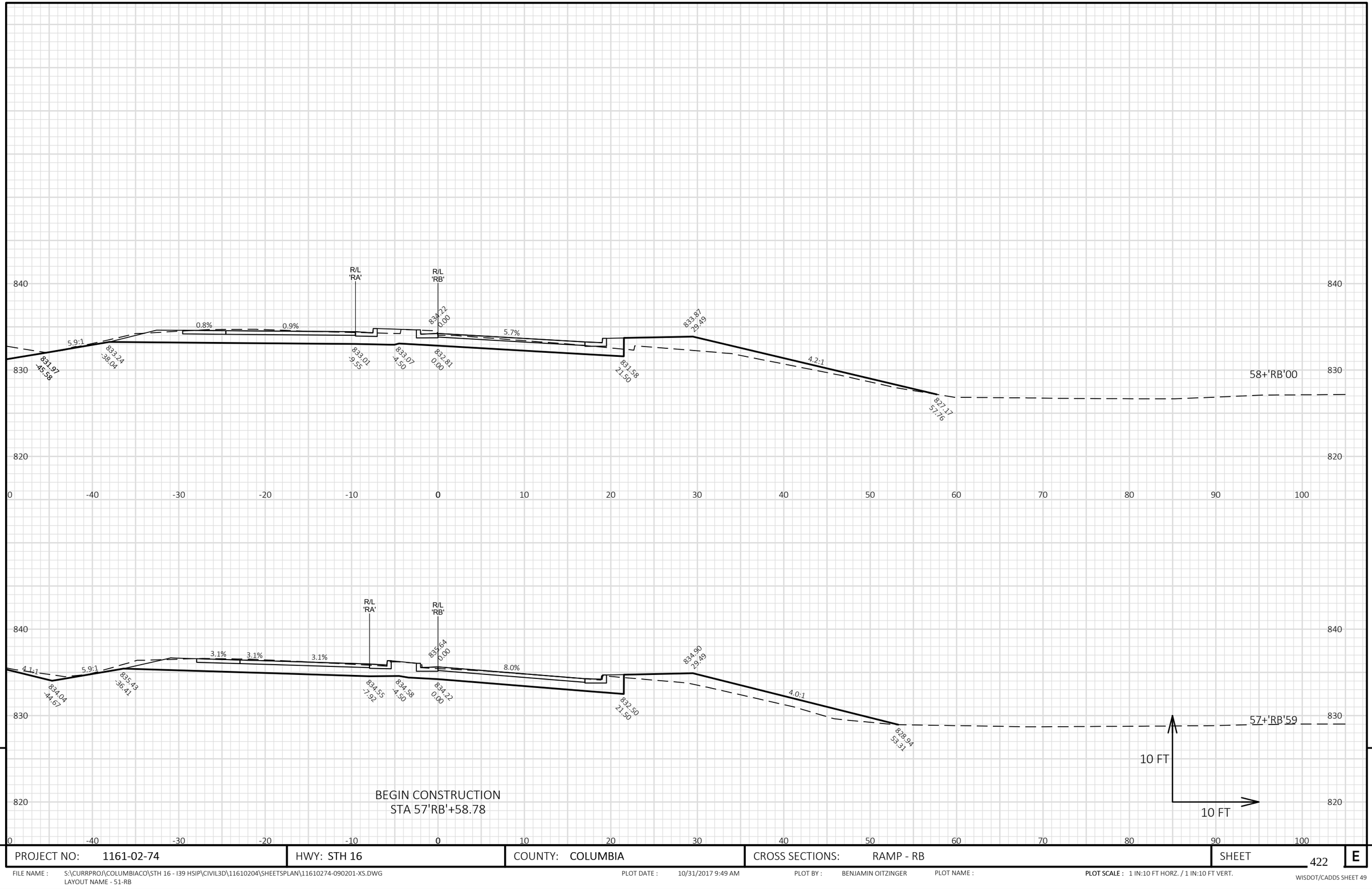



| | | | | | |
|---|---|---|---|---|---|
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: RAMP - RA | SHEET 421 | E |

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 44-RA

PLOT DATE : 10/31/2017 9:49 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




9

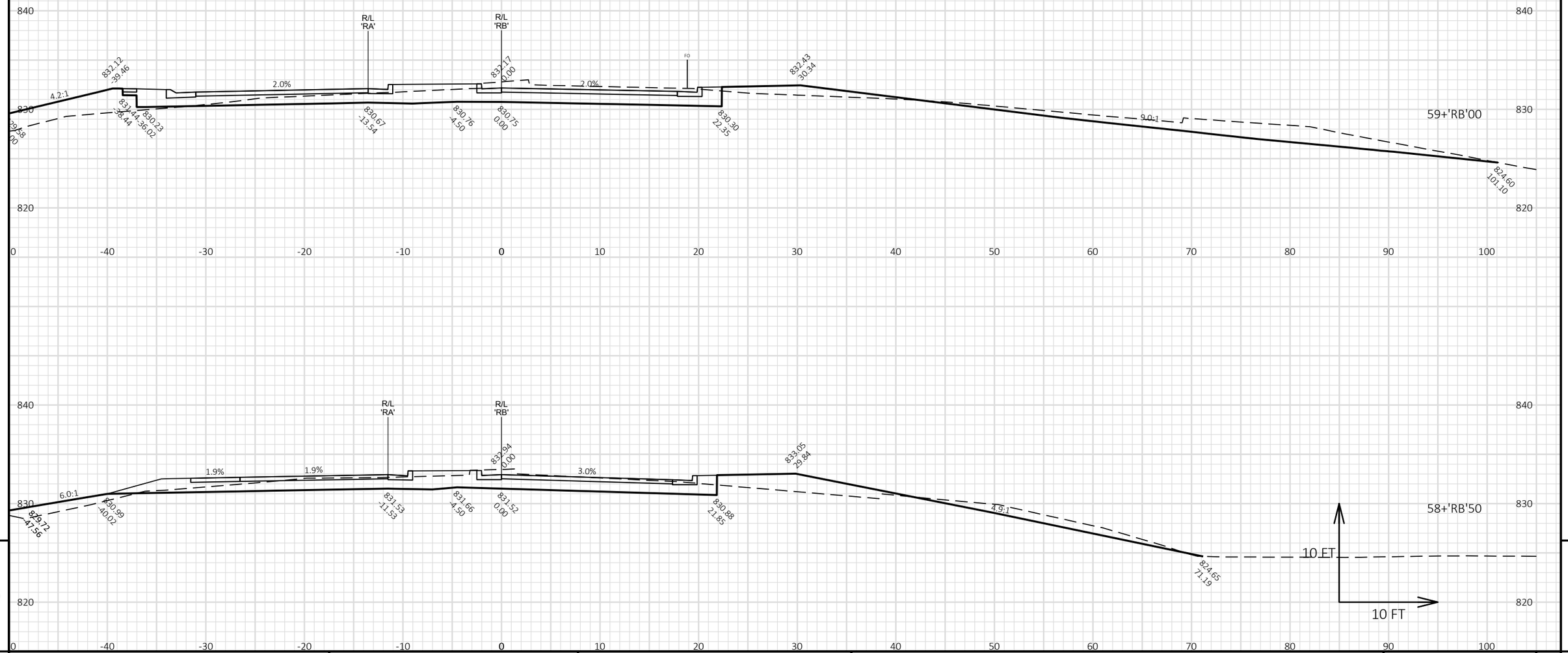
9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: RAMP - RB | SHEET 422 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 51-RB

PLOT DATE : 10/31/2017 9:49 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

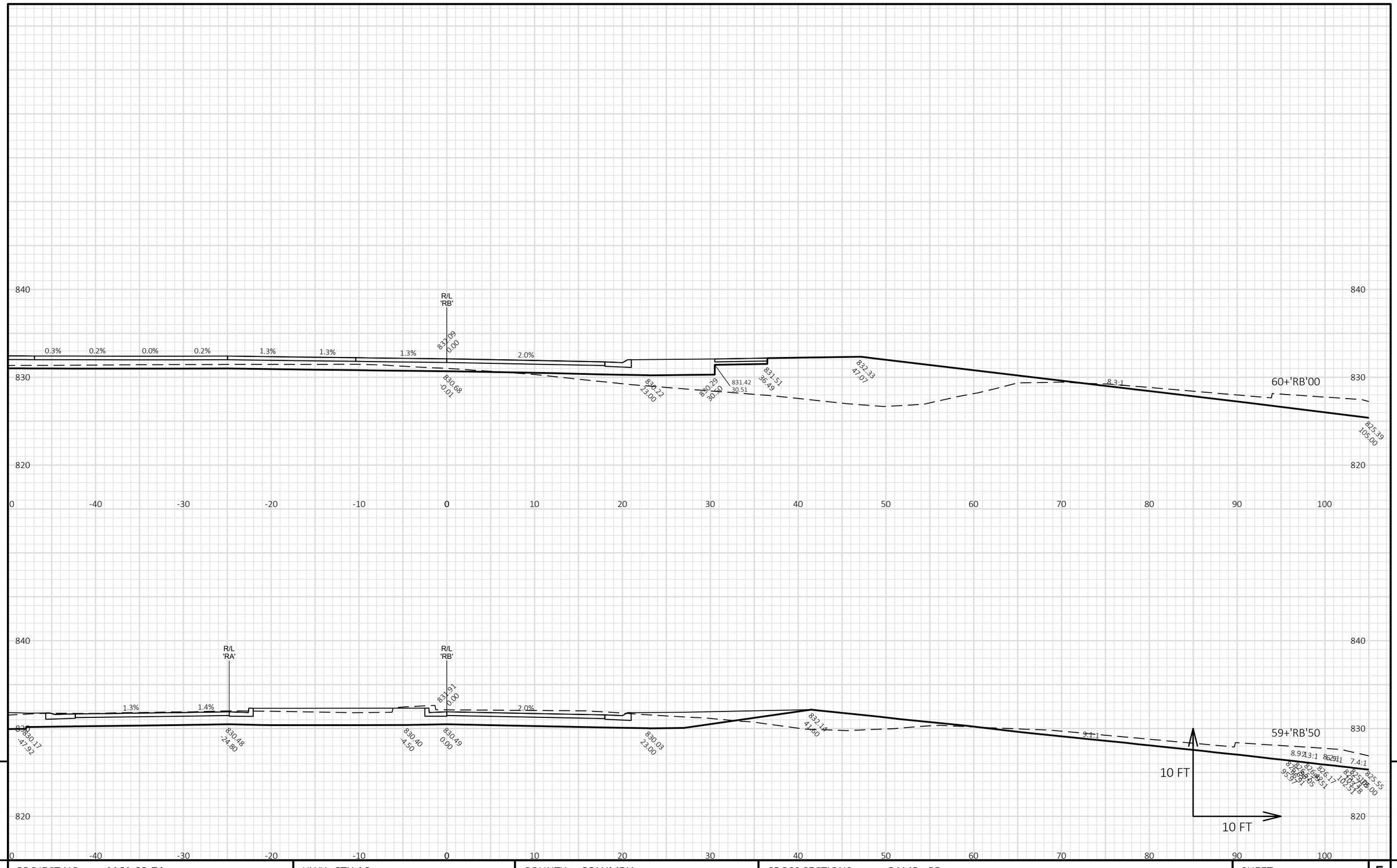



| | | | | |
|---|---|---|---|---|
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: RAMP - RB | SHEET 423 E |

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 52-RB

PLOT DATE : 10/31/2017 9:49 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




9

9

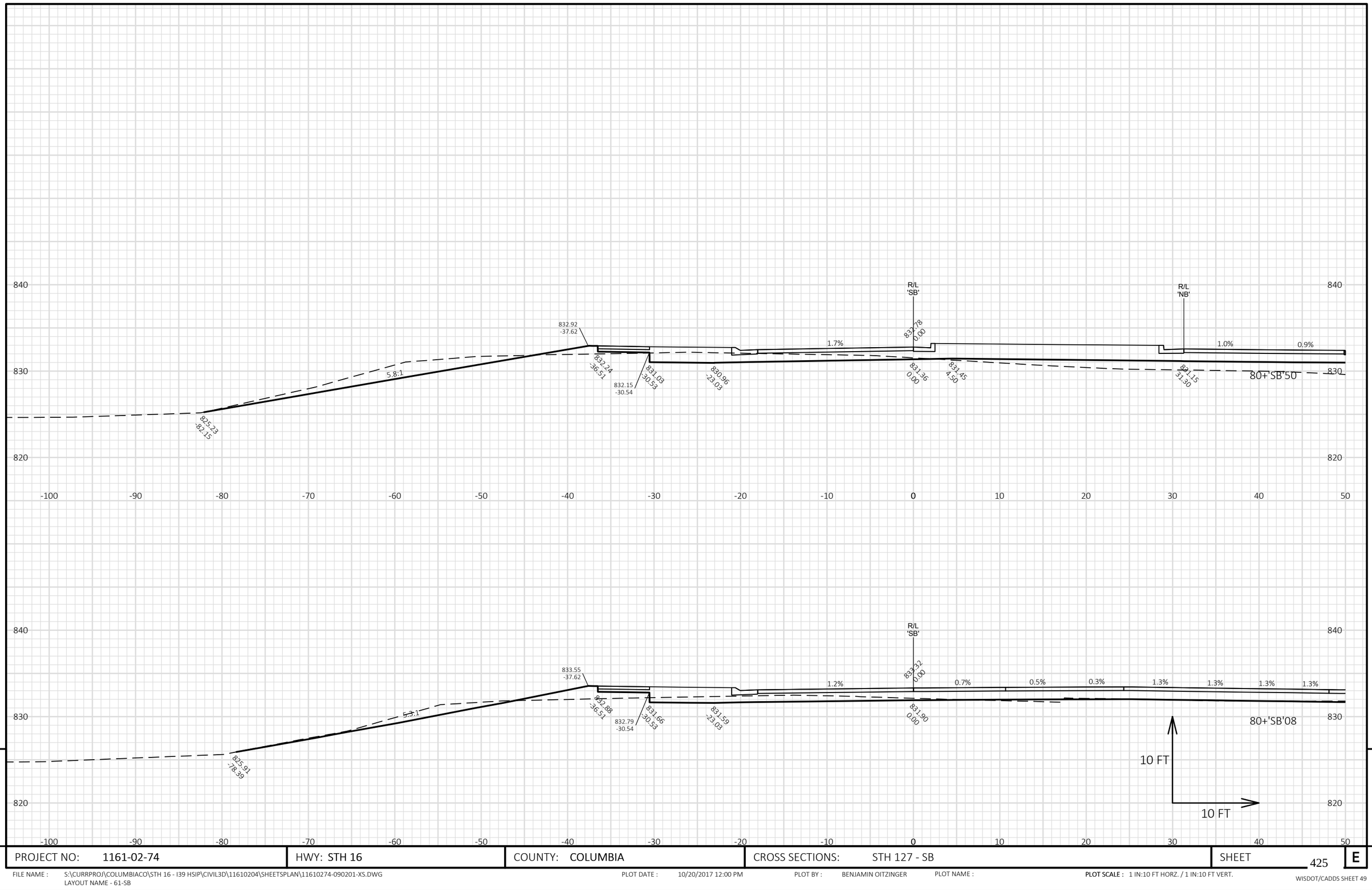
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: RAMP - RB | SHEET 424 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 53-RB

PLOT DATE : 10/31/2017 9:49 AM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9

9

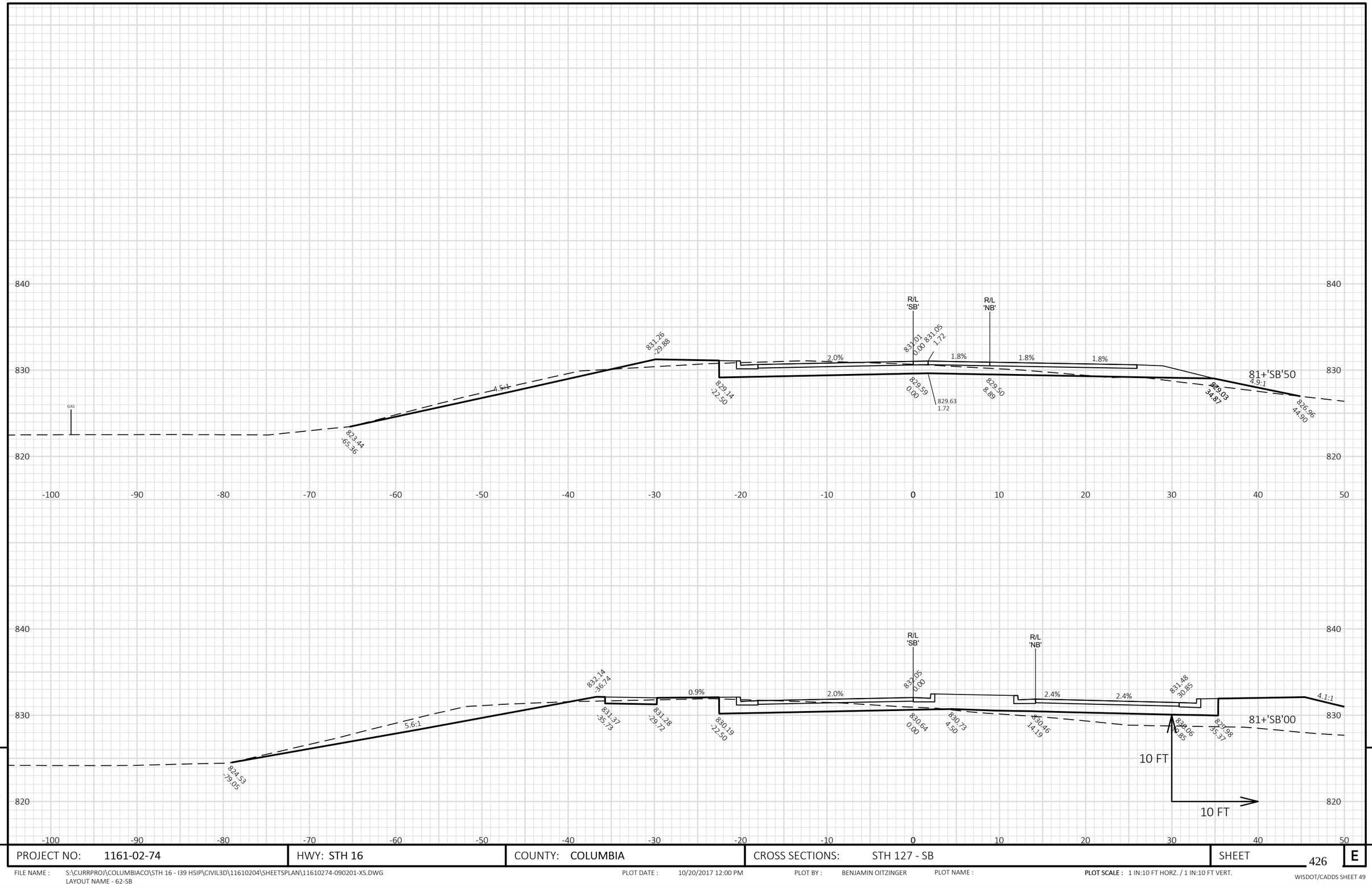
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 127 - SB | SHEET 425 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 61-SB

PLOT DATE : 10/20/2017 12:00 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9

9

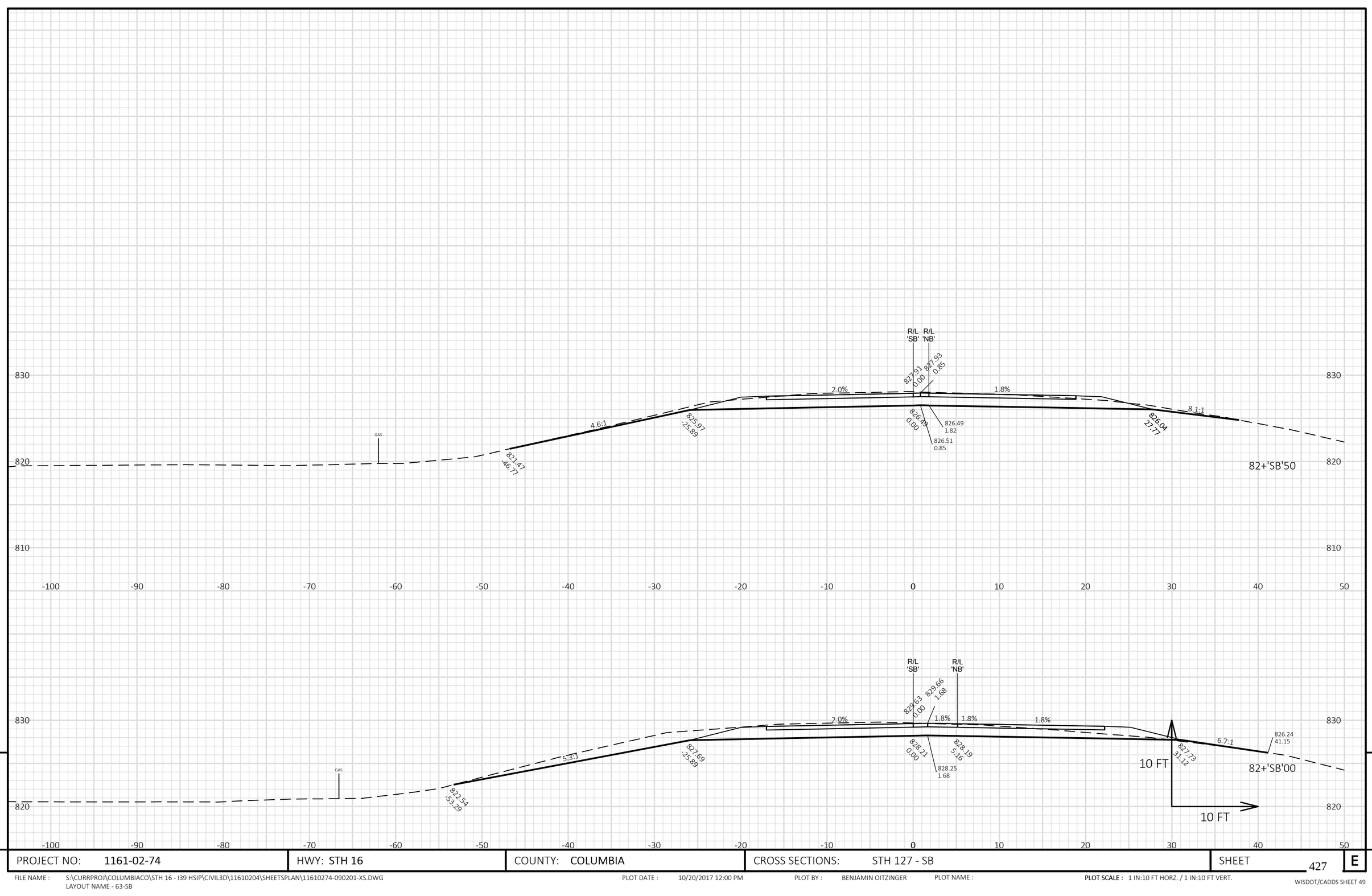
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 127 - SB | SHEET 426 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 62-SB

PLOT DATE : 10/20/2017 12:00 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49



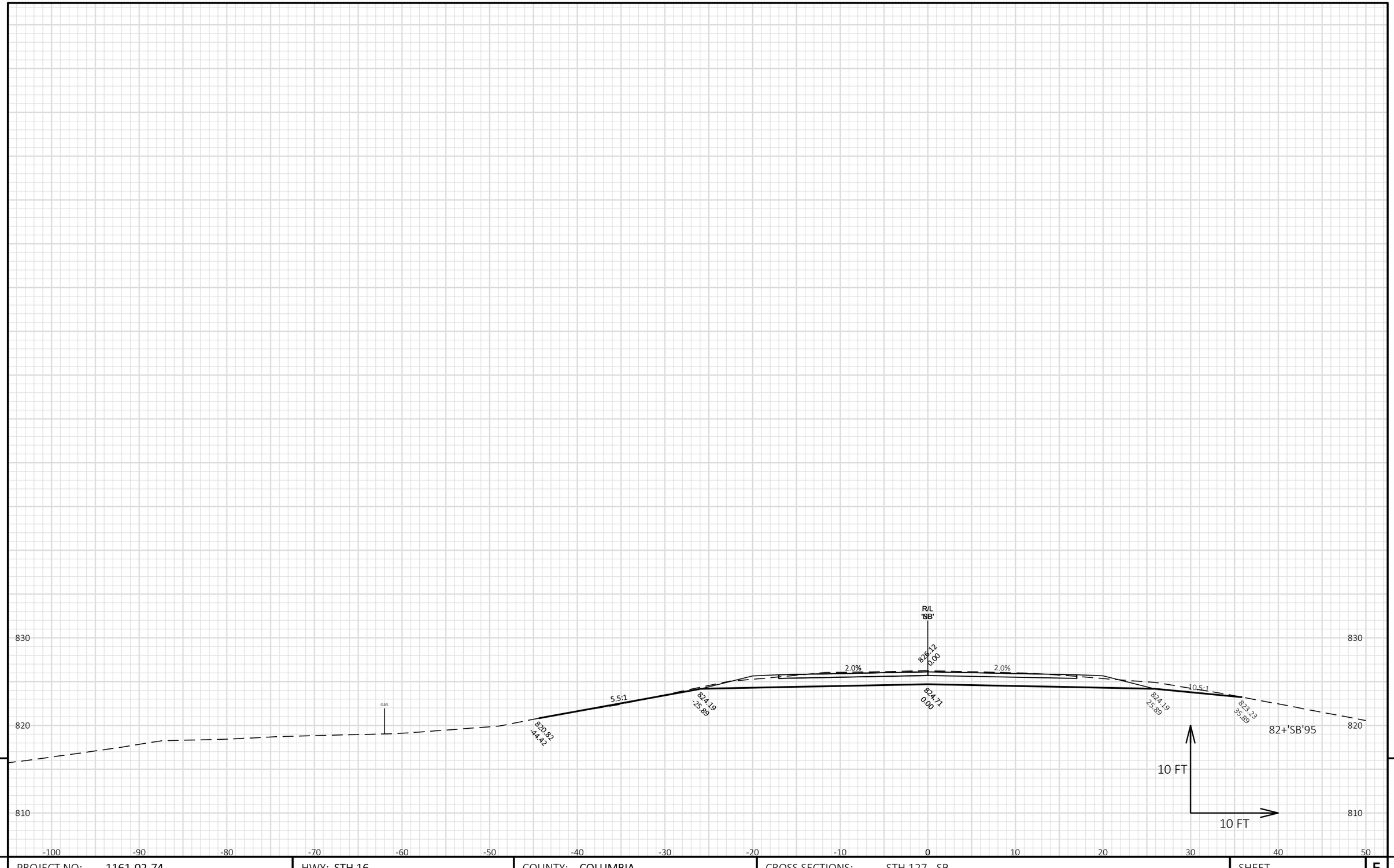

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 127 - SB | SHEET 427 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 63-SB

PLOT DATE : 10/20/2017 12:00 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9

9

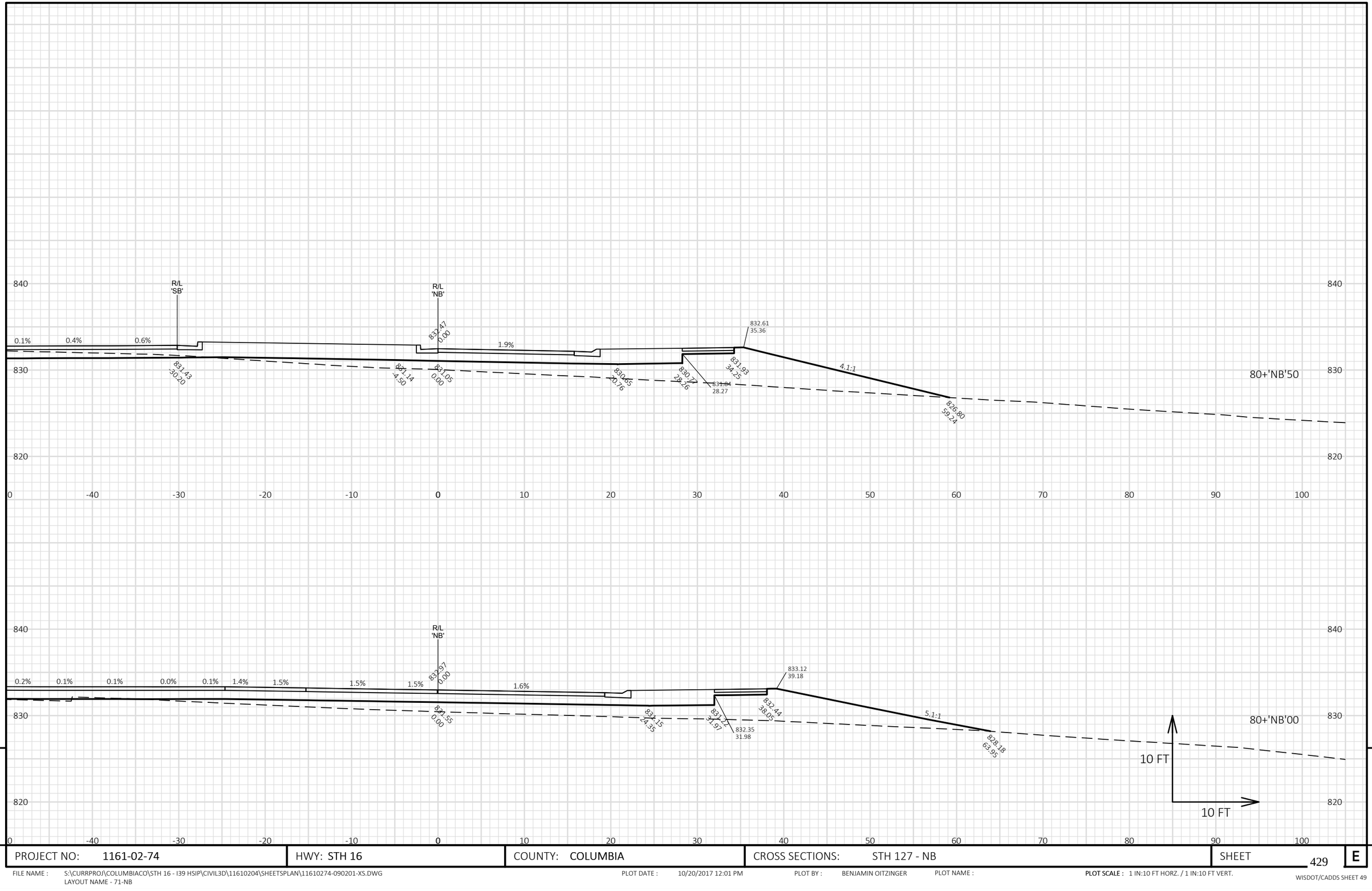
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 127 - SB | SHEET 428 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 64-SB

PLOT DATE : 10/20/2017 12:01 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9

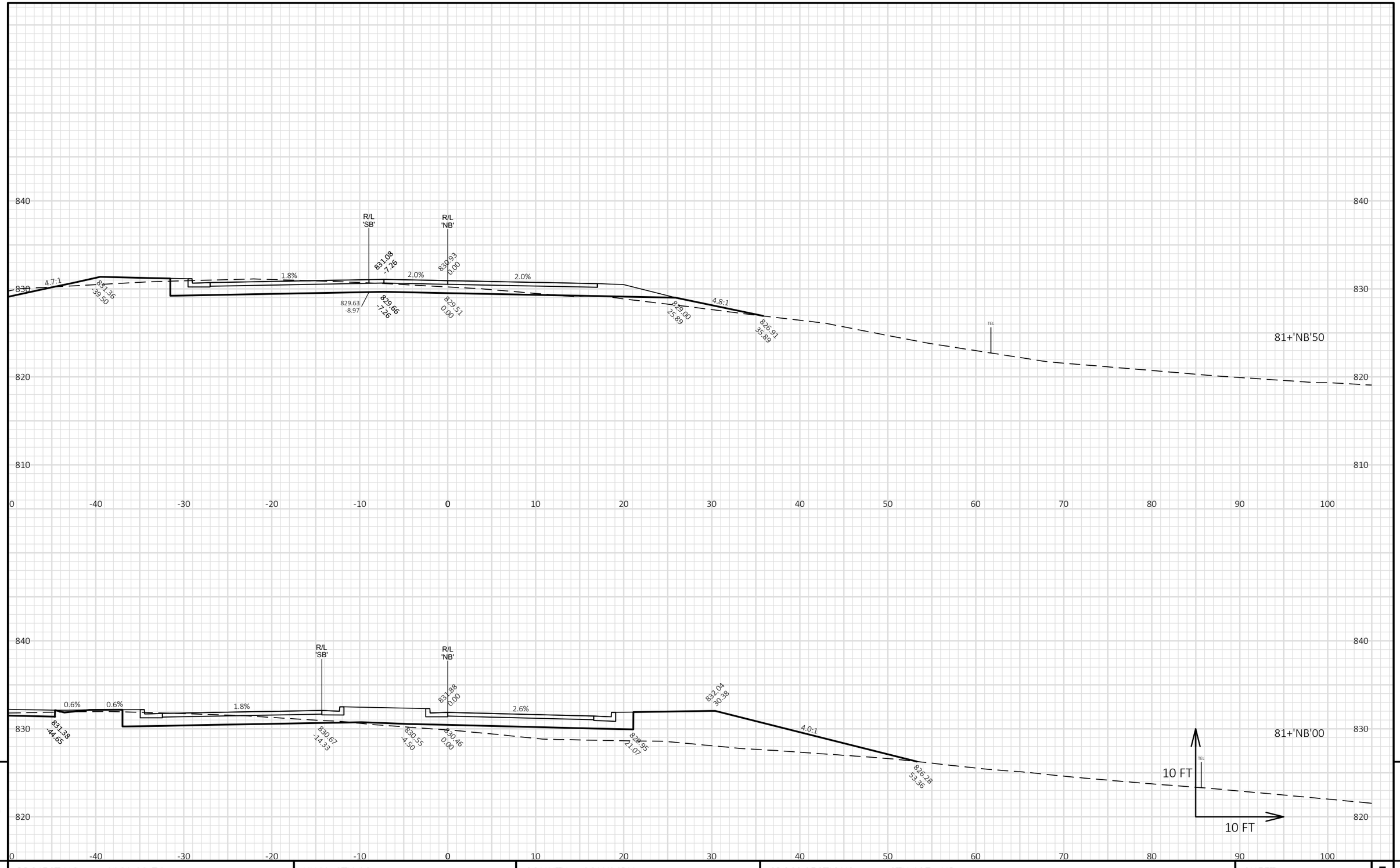
9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 127 - NB | SHEET 429 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 71-NB

PLOT DATE : 10/20/2017 12:01 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




9

9

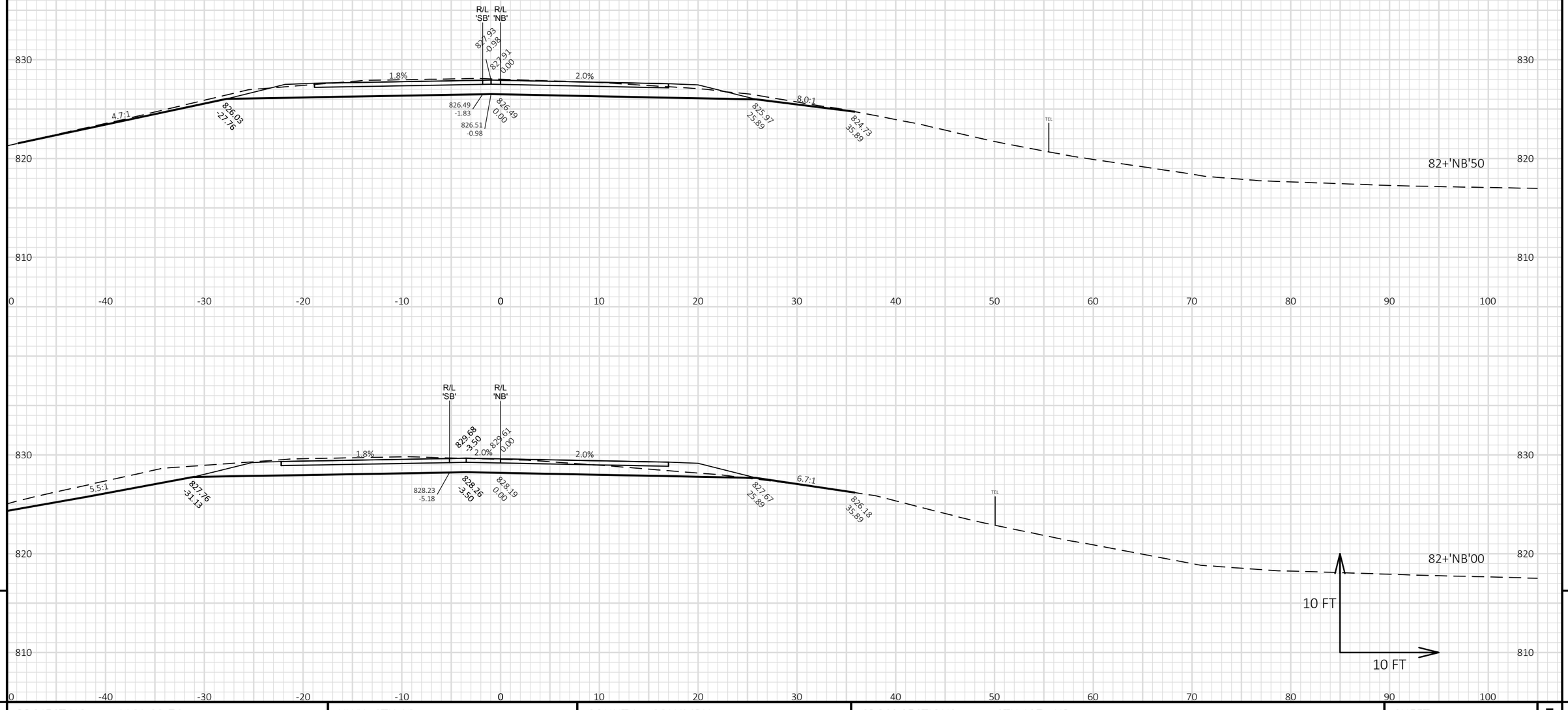
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 127 - NB | SHEET 430 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 72-NB

PLOT DATE : 10/20/2017 12:01 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9

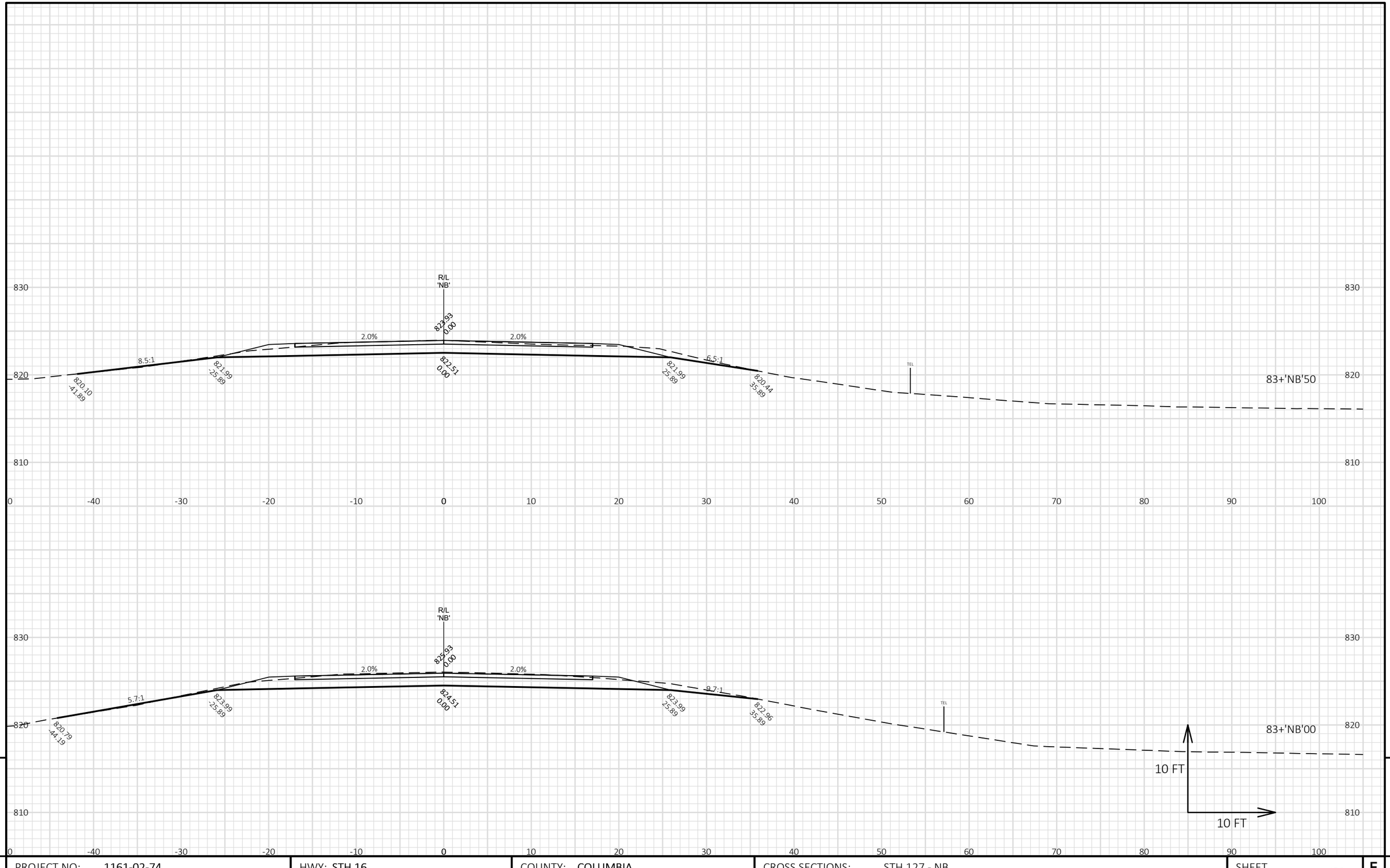
9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 127 - NB | SHEET 431 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 73-NB

PLOT DATE : 10/20/2017 12:01 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




9

9

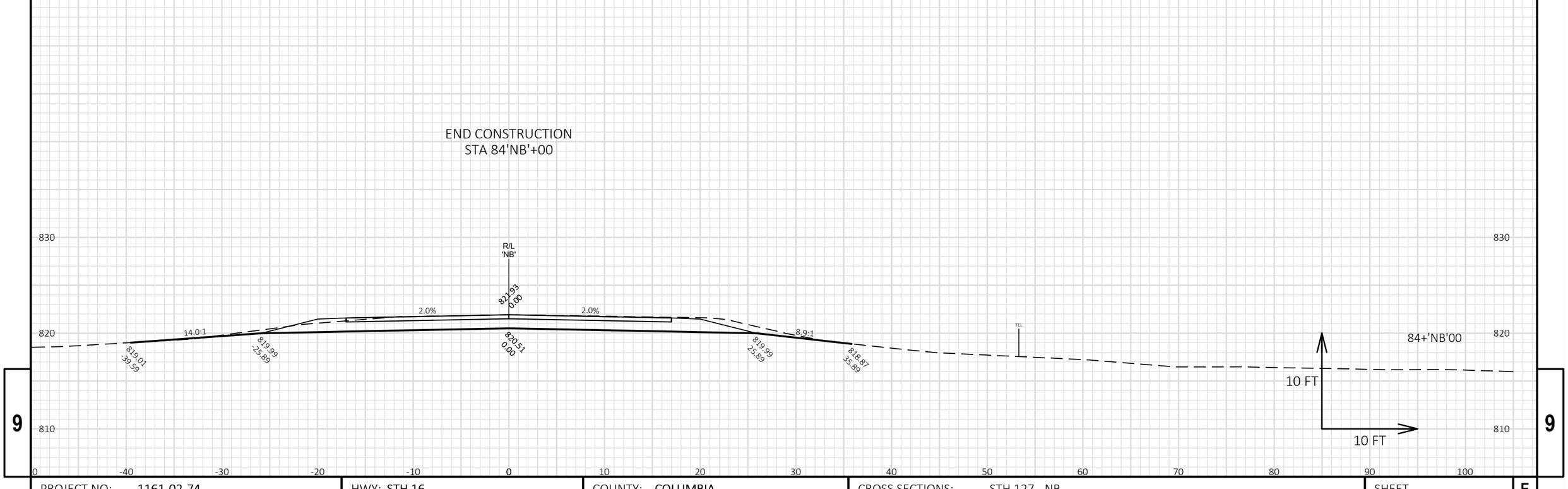
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 127 - NB | SHEET 432 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 74-NB

PLOT DATE : 10/20/2017 12:01 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

END CONSTRUCTION
STA 84'NB'+00

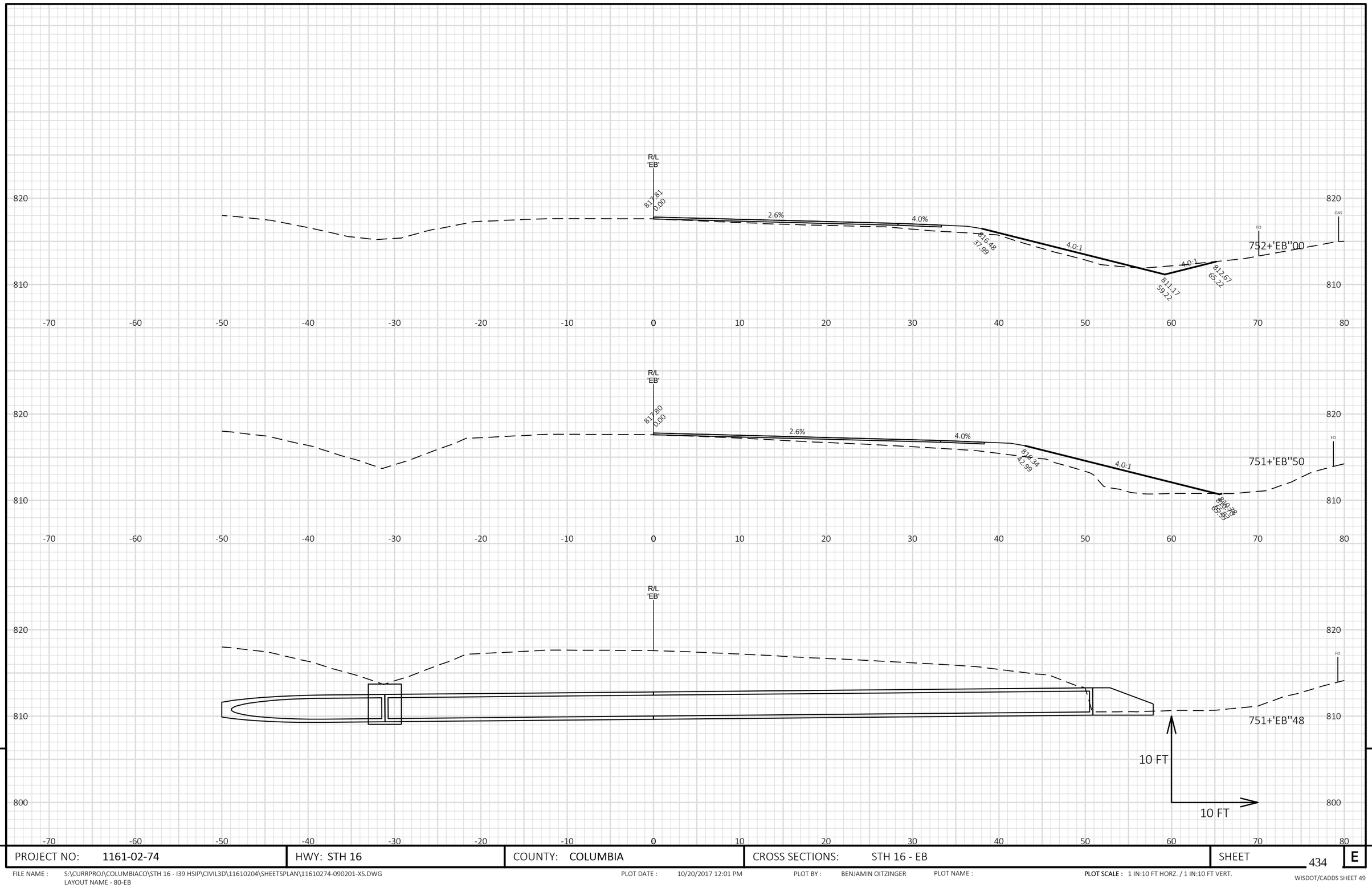



| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 127 - NB | SHEET 433 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 75-NB

PLOT DATE : 10/20/2017 12:01 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




9

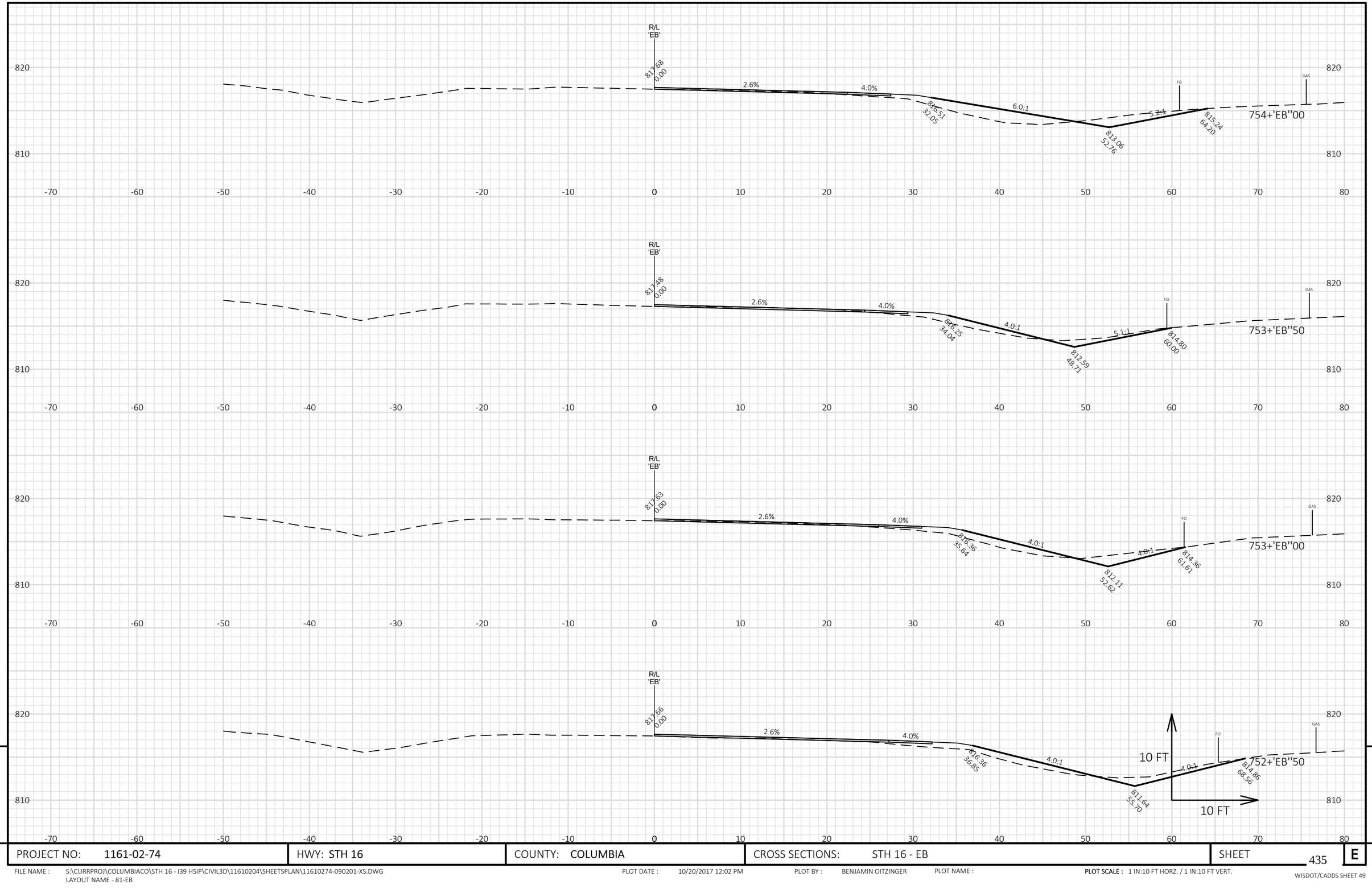
9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 434 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 80-EB

PLOT DATE : 10/20/2017 12:01 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




9

9

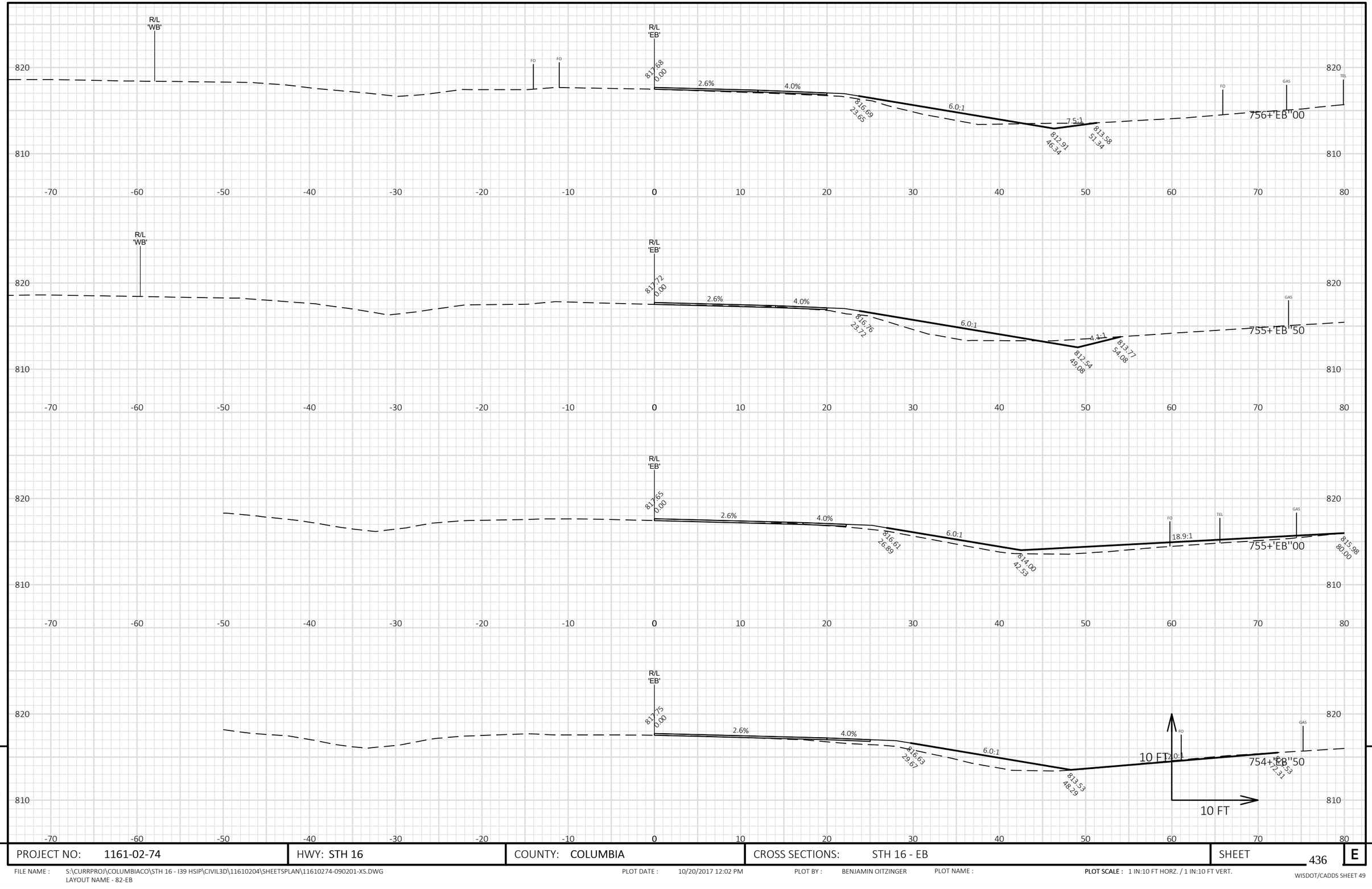
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 435 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 81-EB

PLOT DATE : 10/20/2017 12:02 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9

9

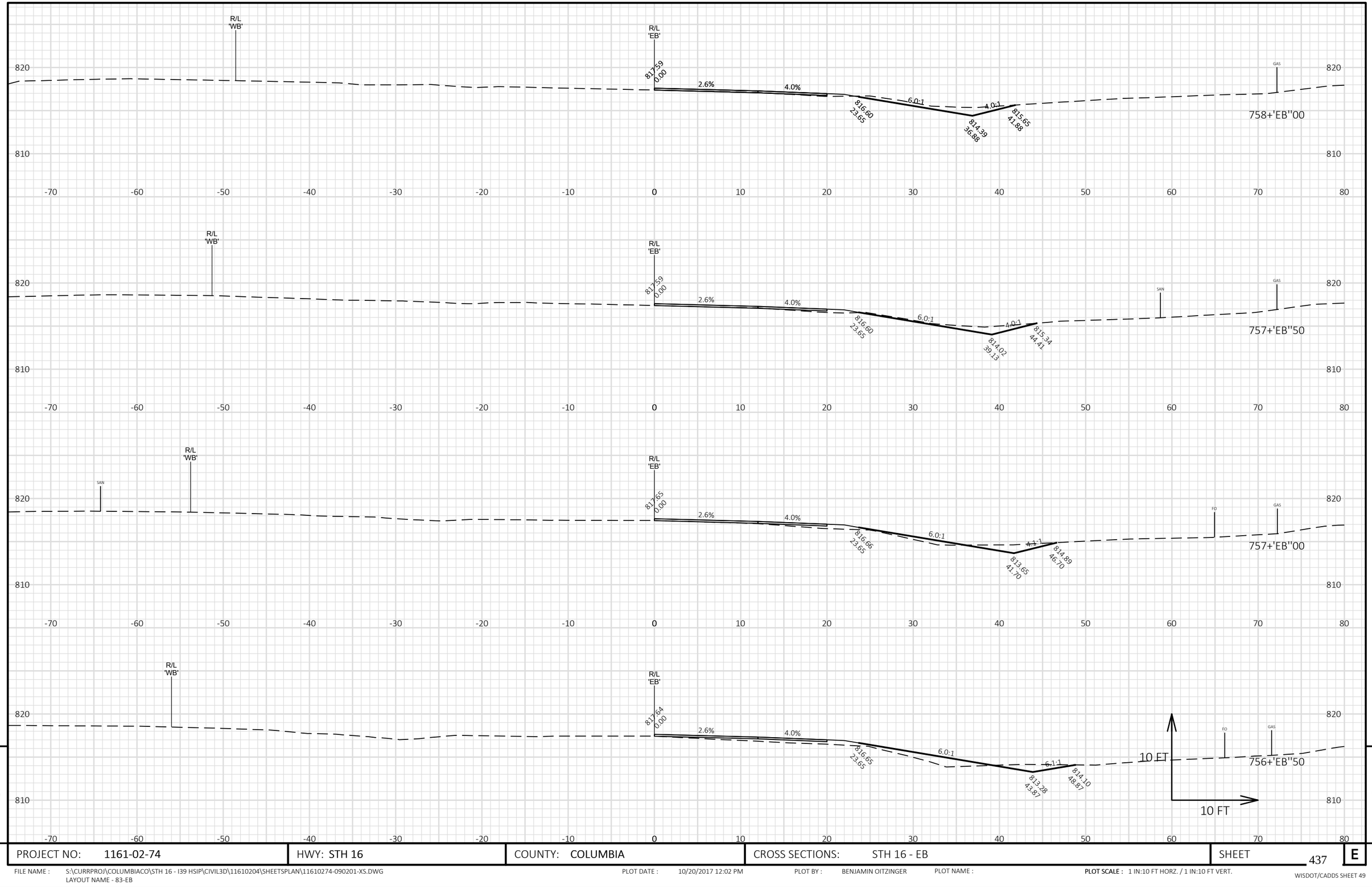
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 436 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 82-EB

PLOT DATE : 10/20/2017 12:02 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9

9

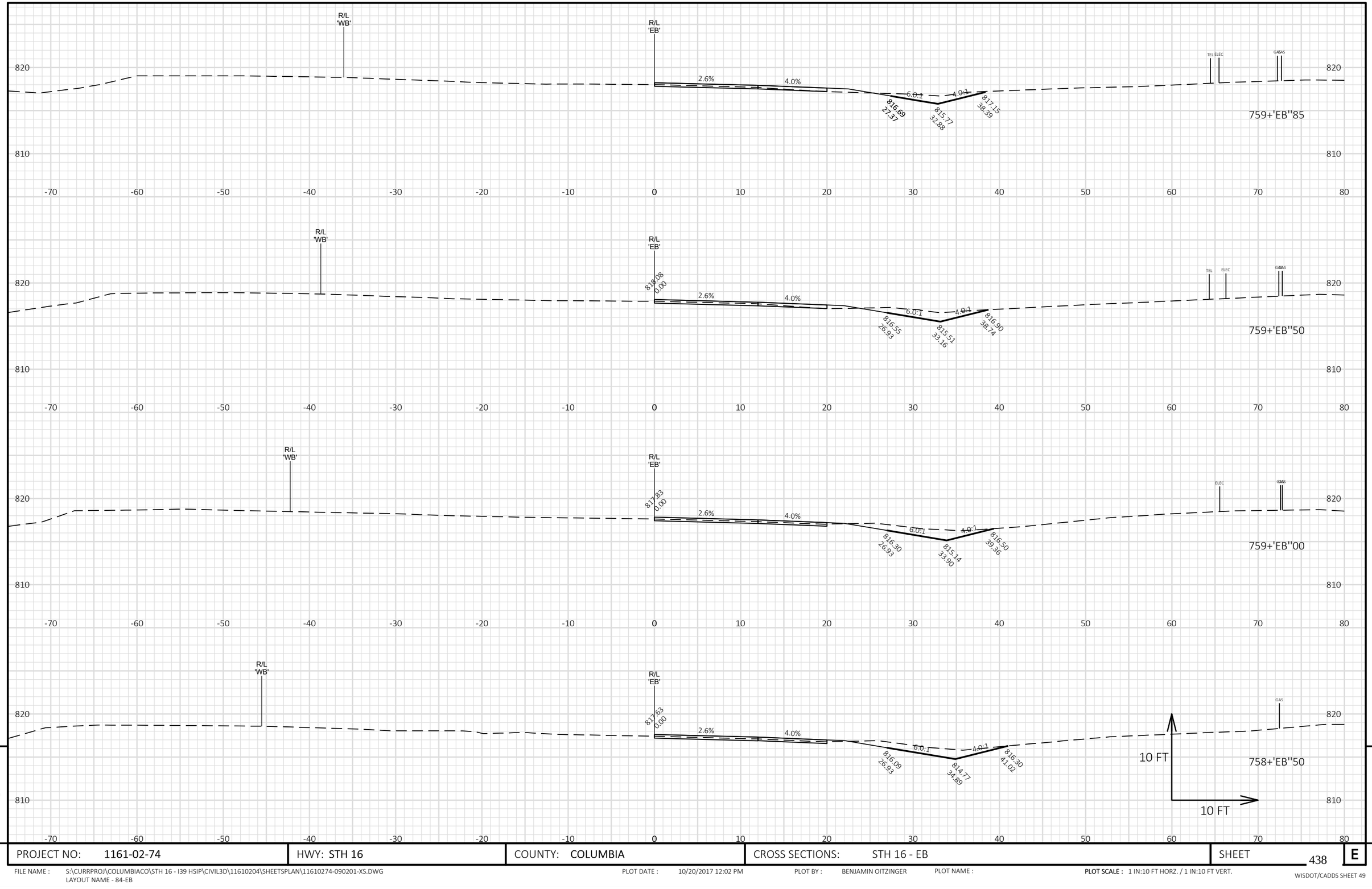
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 437 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 83-EB

PLOT DATE : 10/20/2017 12:02 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9

9

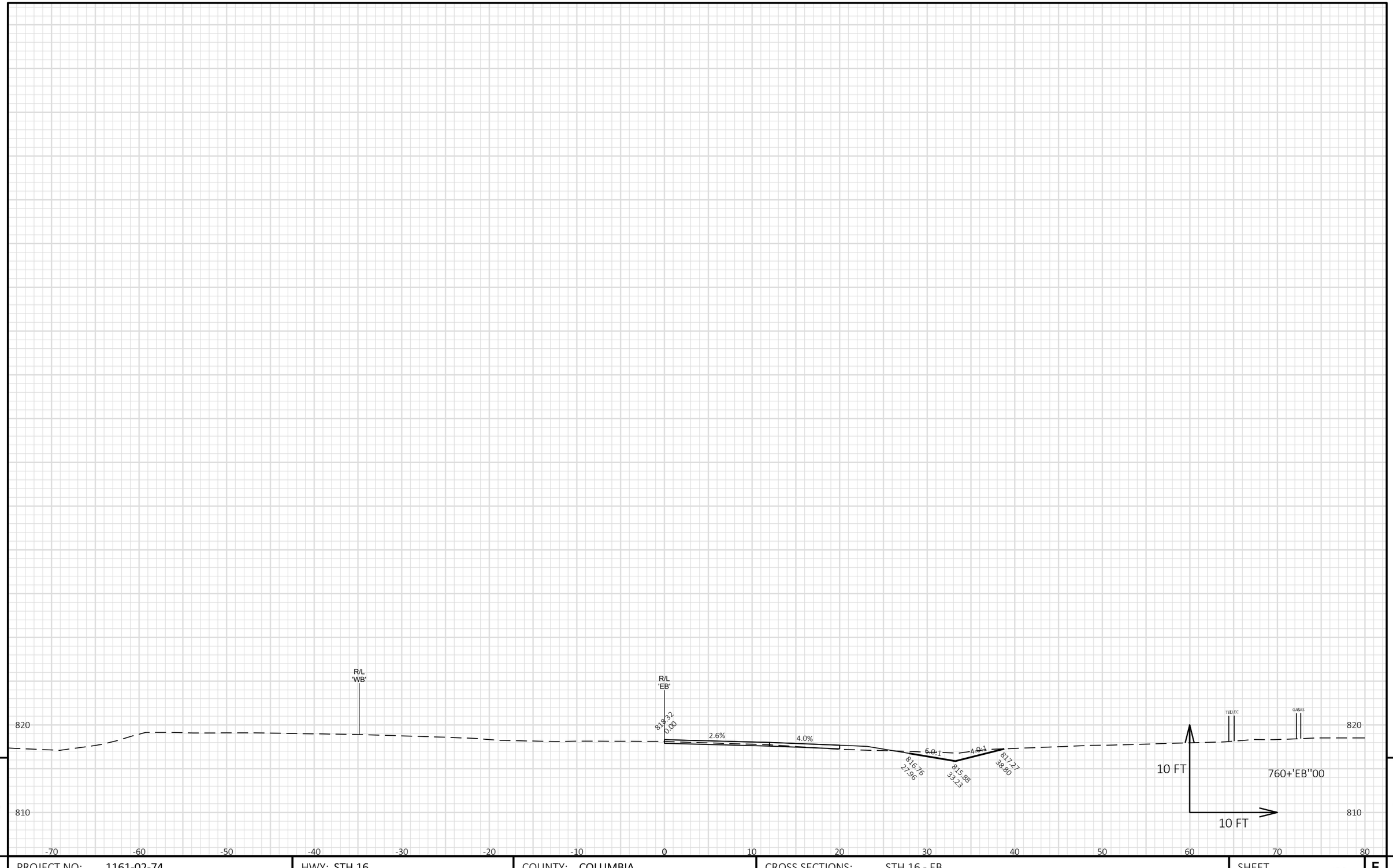
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 438 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 84-EB

PLOT DATE : 10/20/2017 12:02 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9

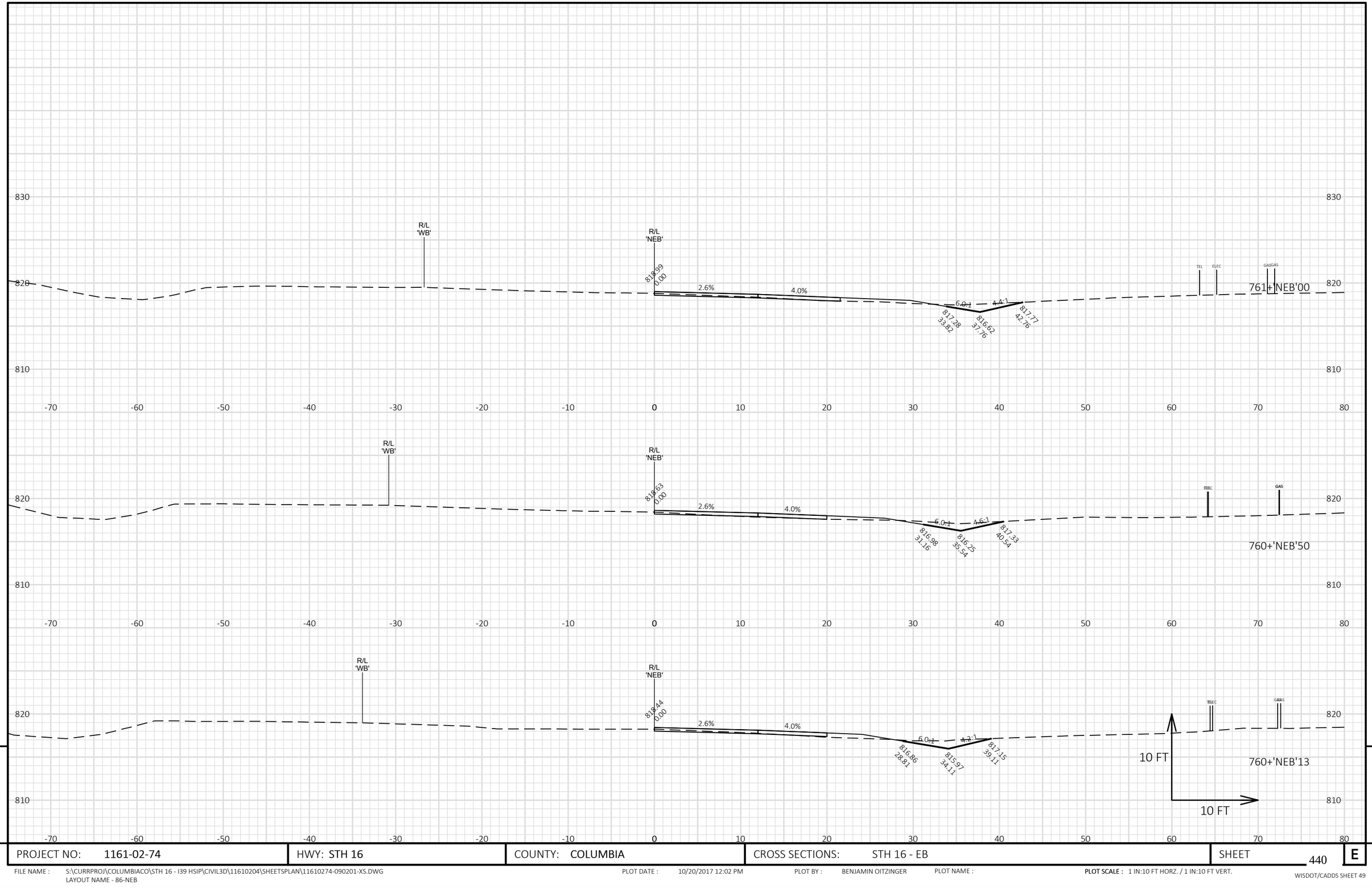
9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 439 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 85-EB

PLOT DATE : 10/20/2017 12:02 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




9

9

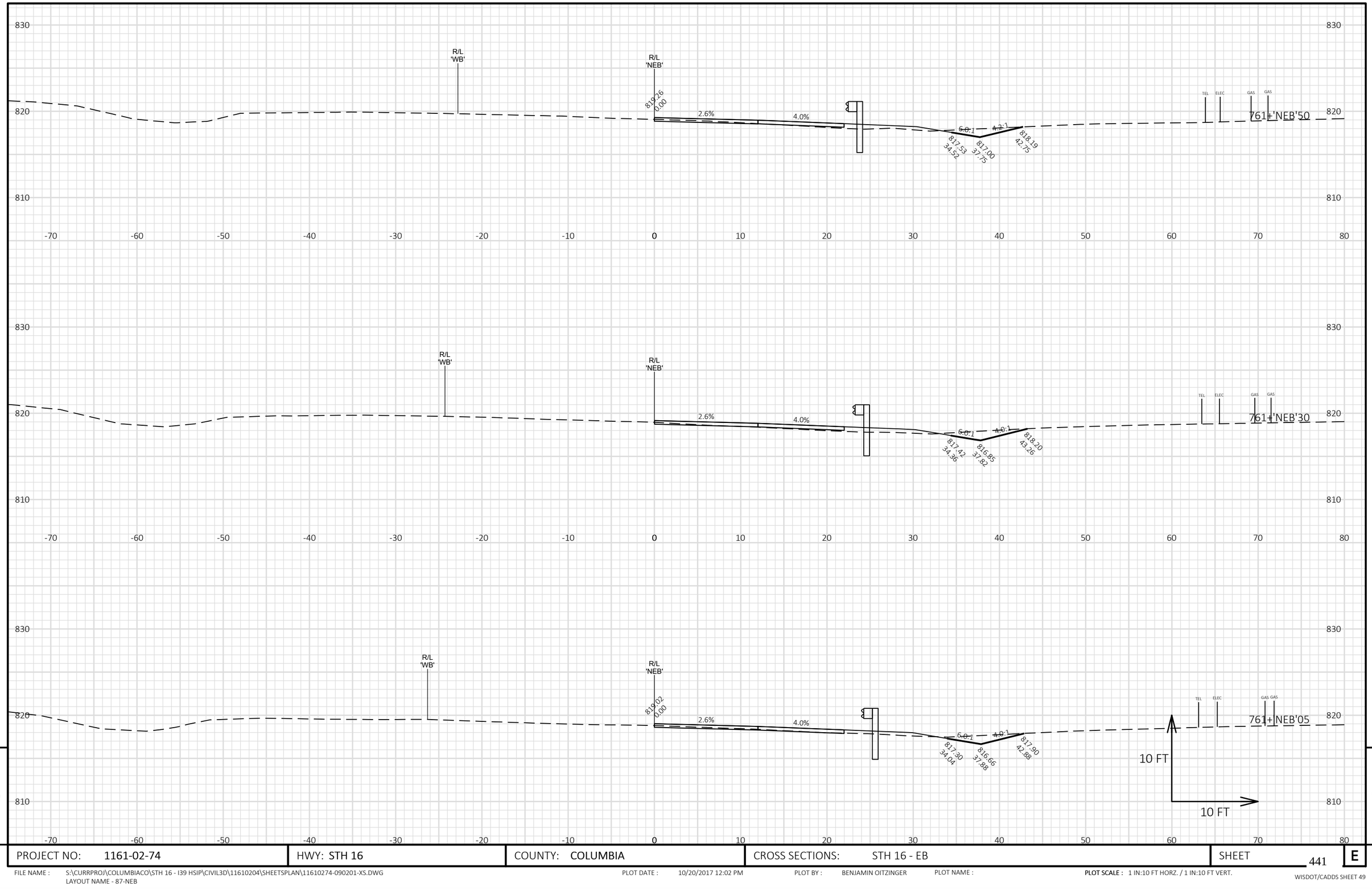
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 440 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 86-NEB

PLOT DATE : 10/20/2017 12:02 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9

9

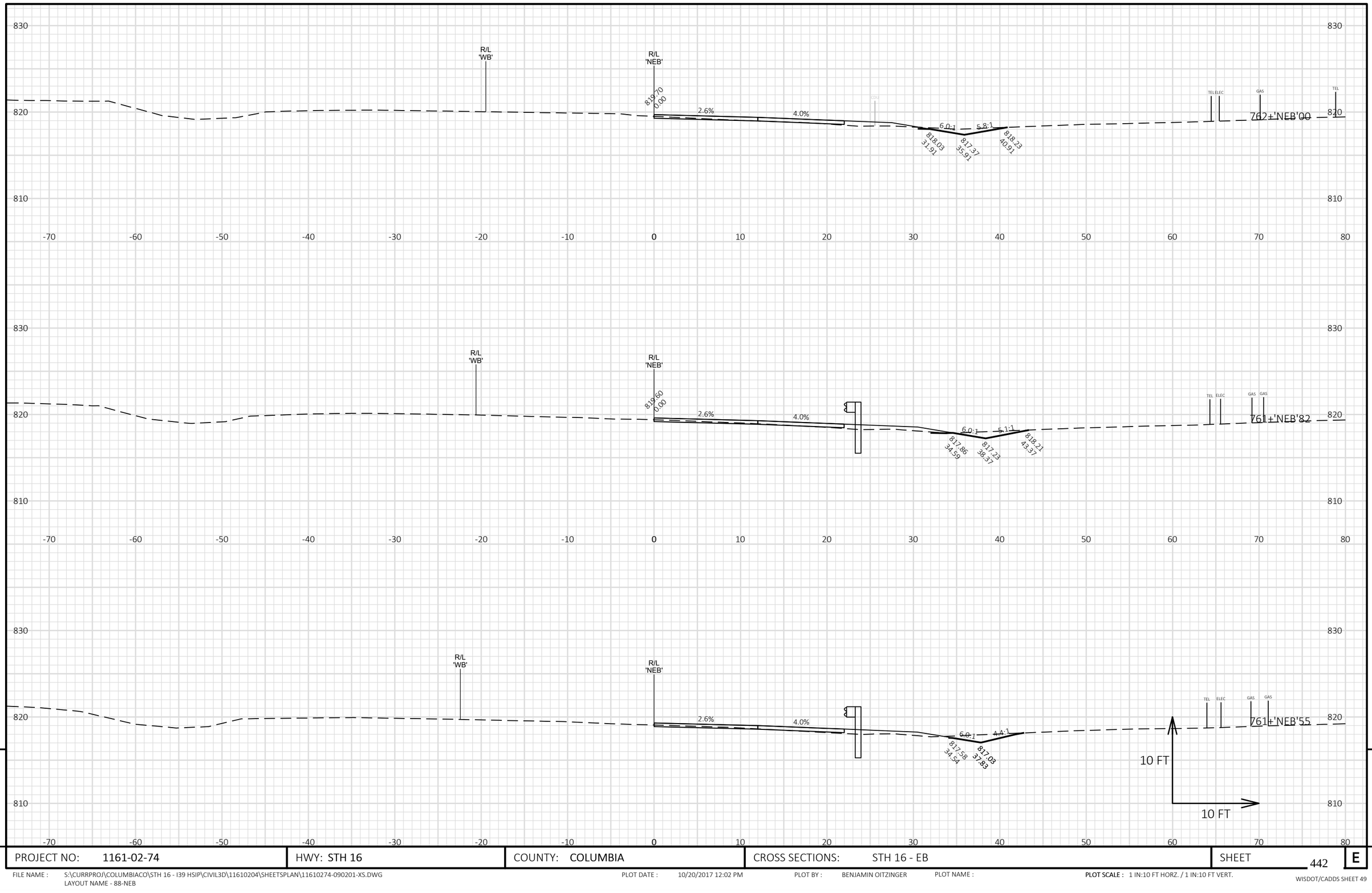
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 441 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 87-NEB

PLOT DATE : 10/20/2017 12:02 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9

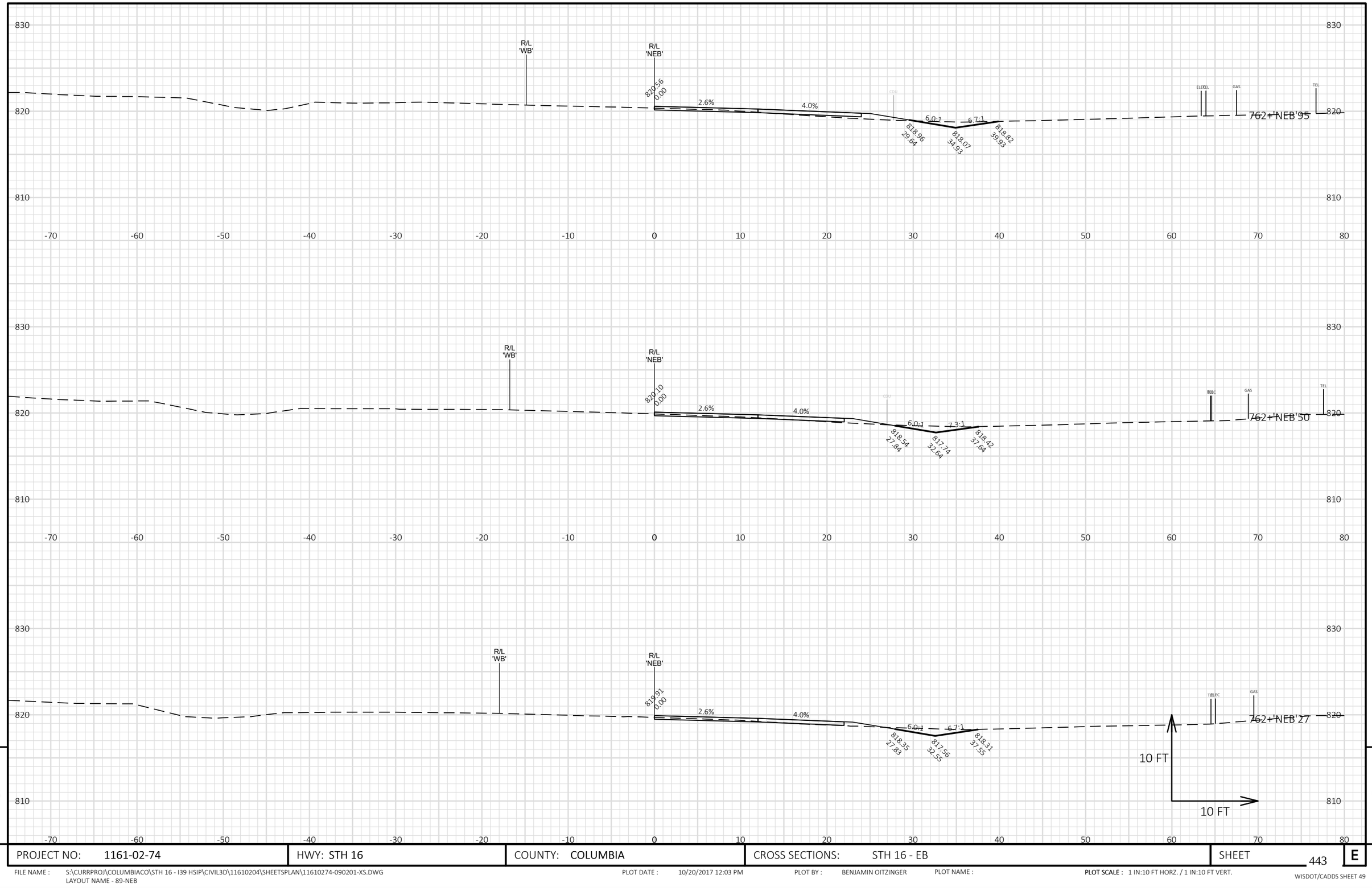
9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 442 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 88-NEB

PLOT DATE : 10/20/2017 12:02 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




9

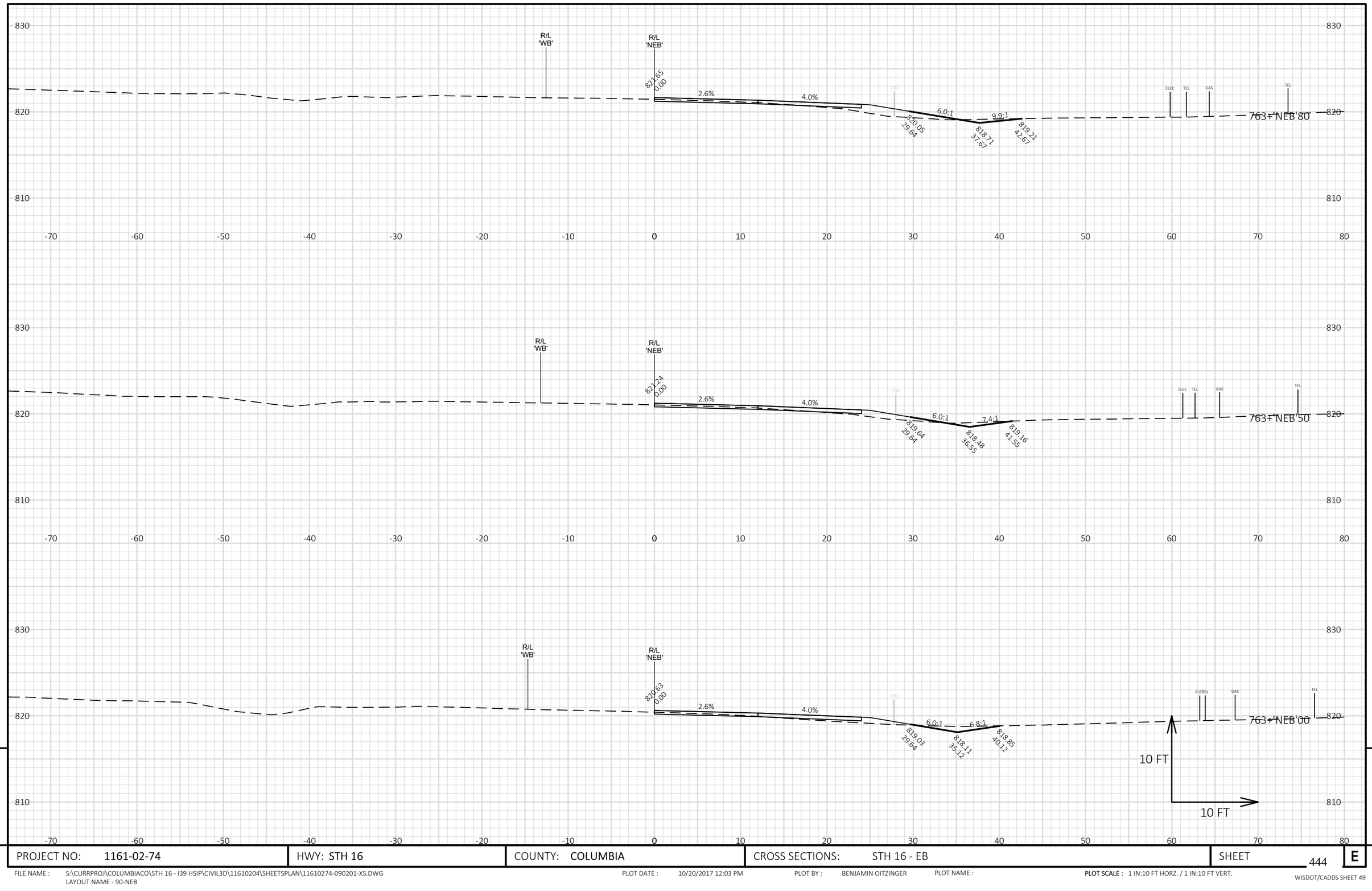
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 443 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 89-NEB

PLOT DATE : 10/20/2017 12:03 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9

9

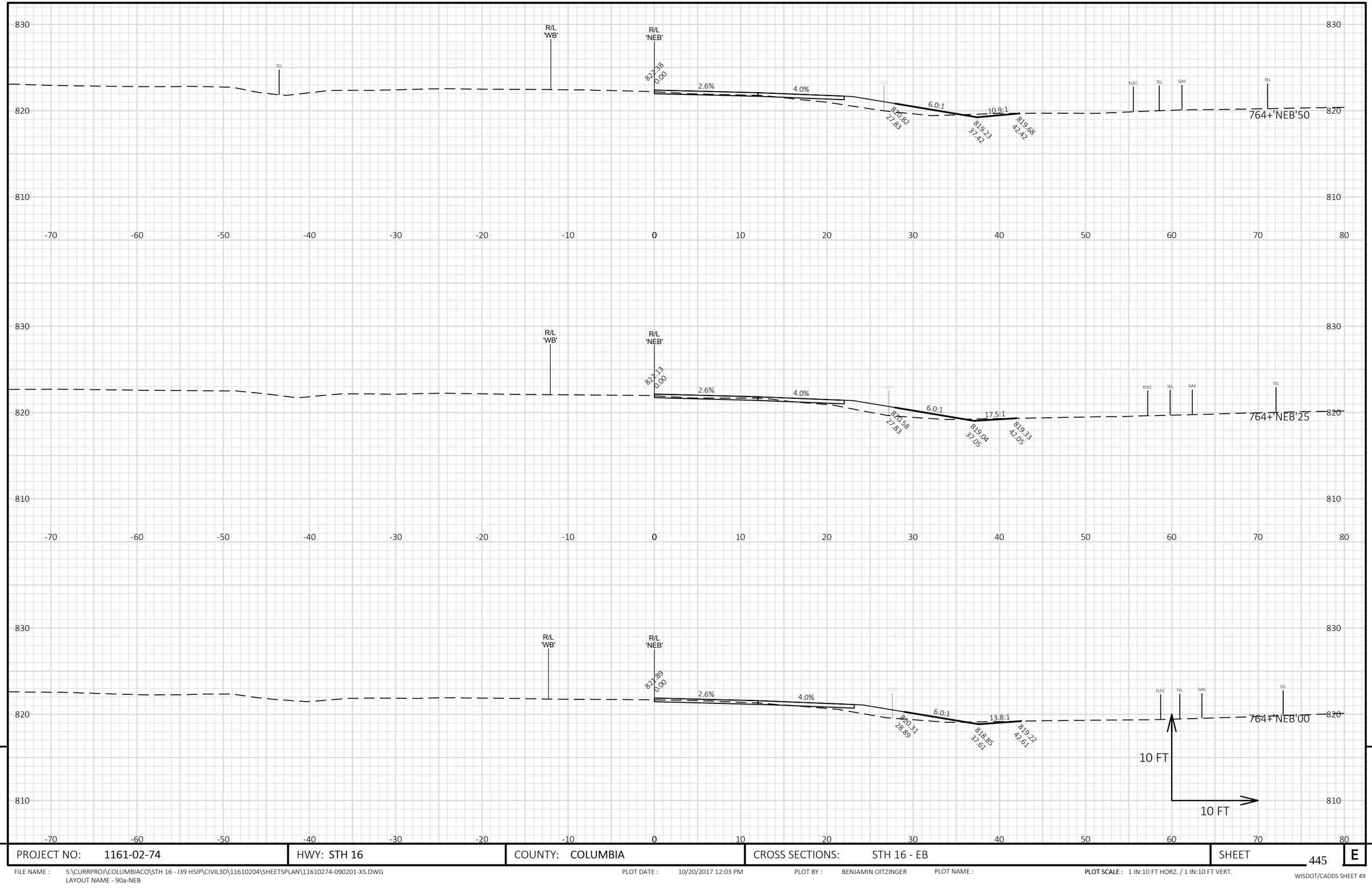
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 444 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 90-NEB

PLOT DATE : 10/20/2017 12:03 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9

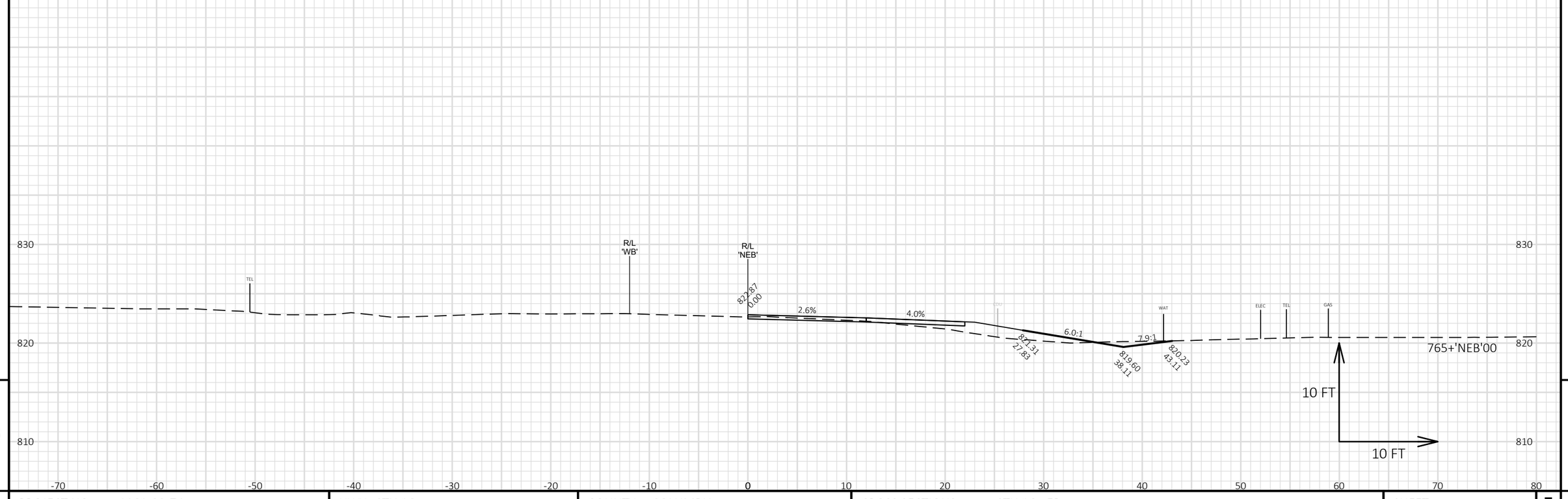
9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 445 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 90a-NEB

PLOT DATE : 10/20/2017 12:03 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




9

9

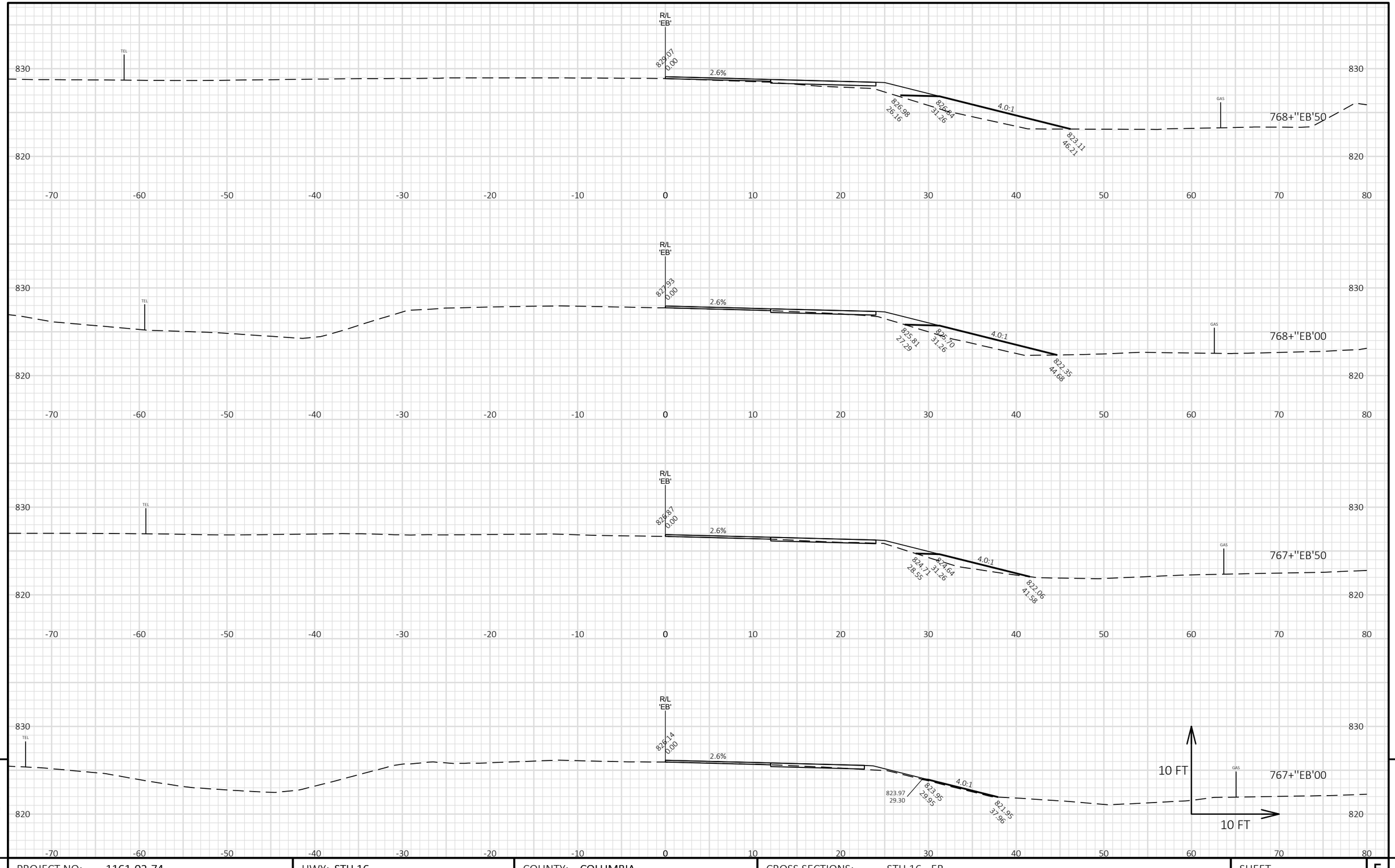
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 446 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 90b-NEB

PLOT DATE : 10/20/2017 12:03 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9

9

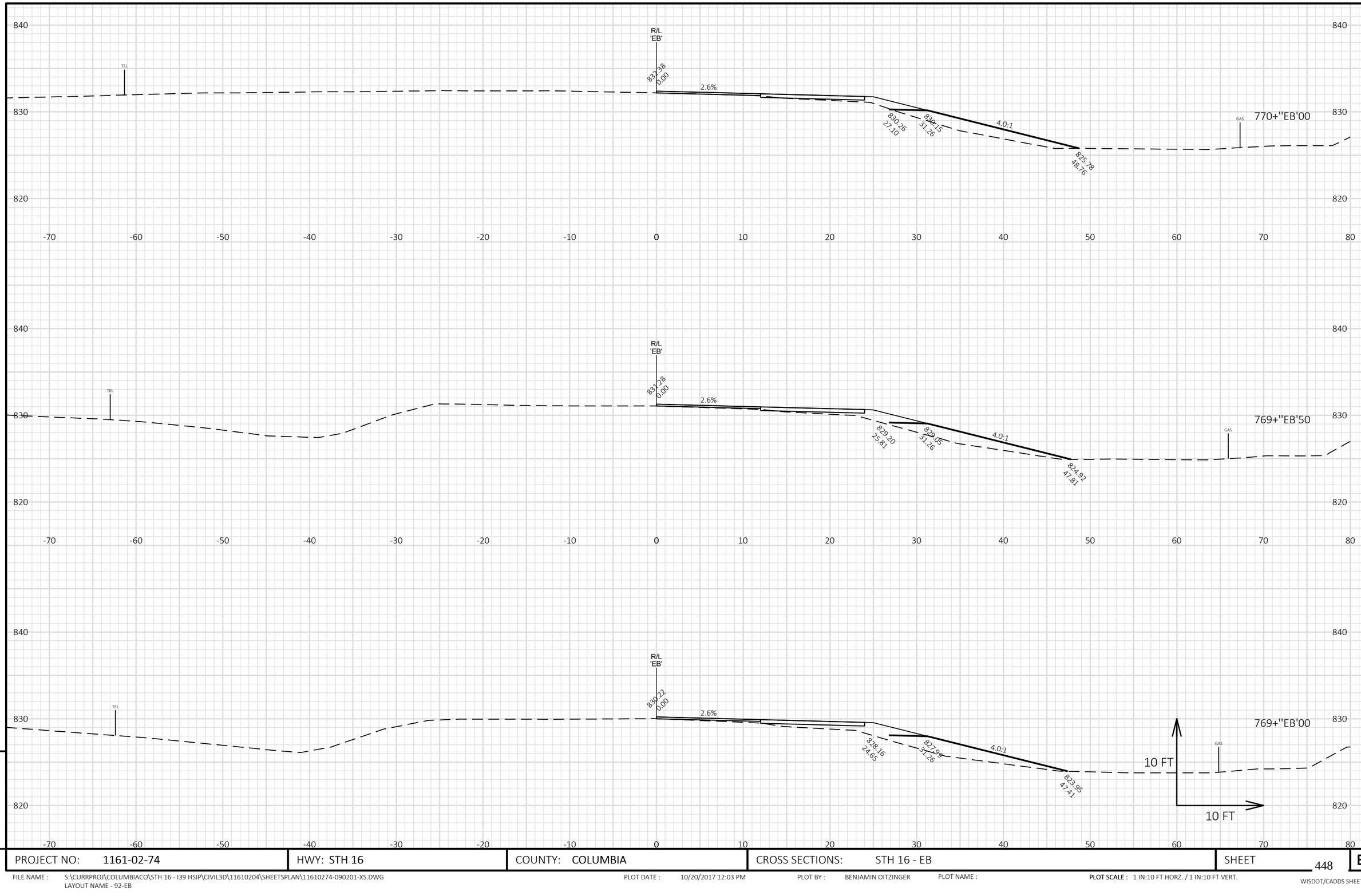
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 447 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 91-EB

PLOT DATE : 10/20/2017 12:03 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9

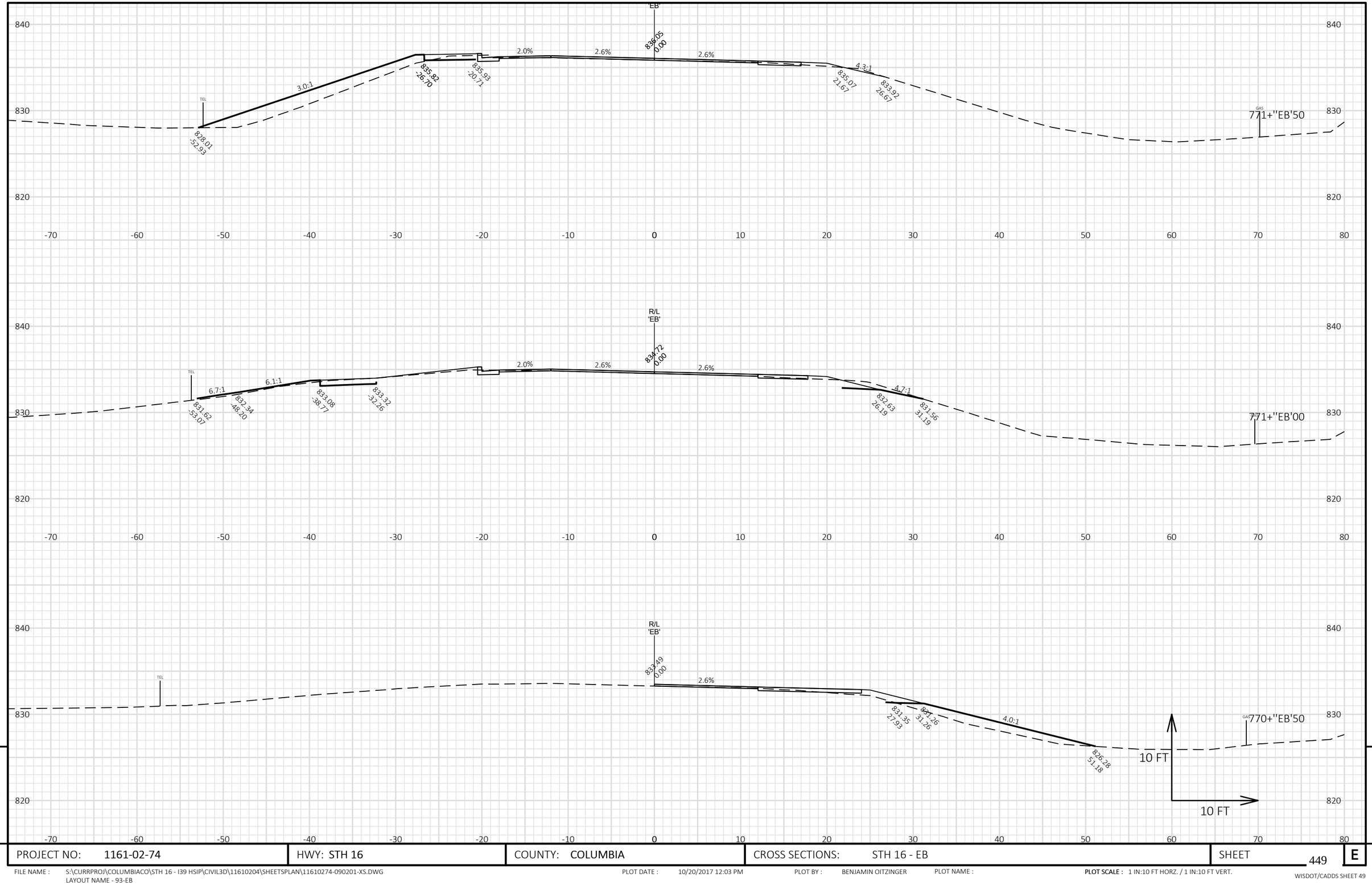
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 448 | E |
|---|---|---|---|---|---|

9

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 92-EB

PLOT DATE : 10/20/2017 12:03 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




9

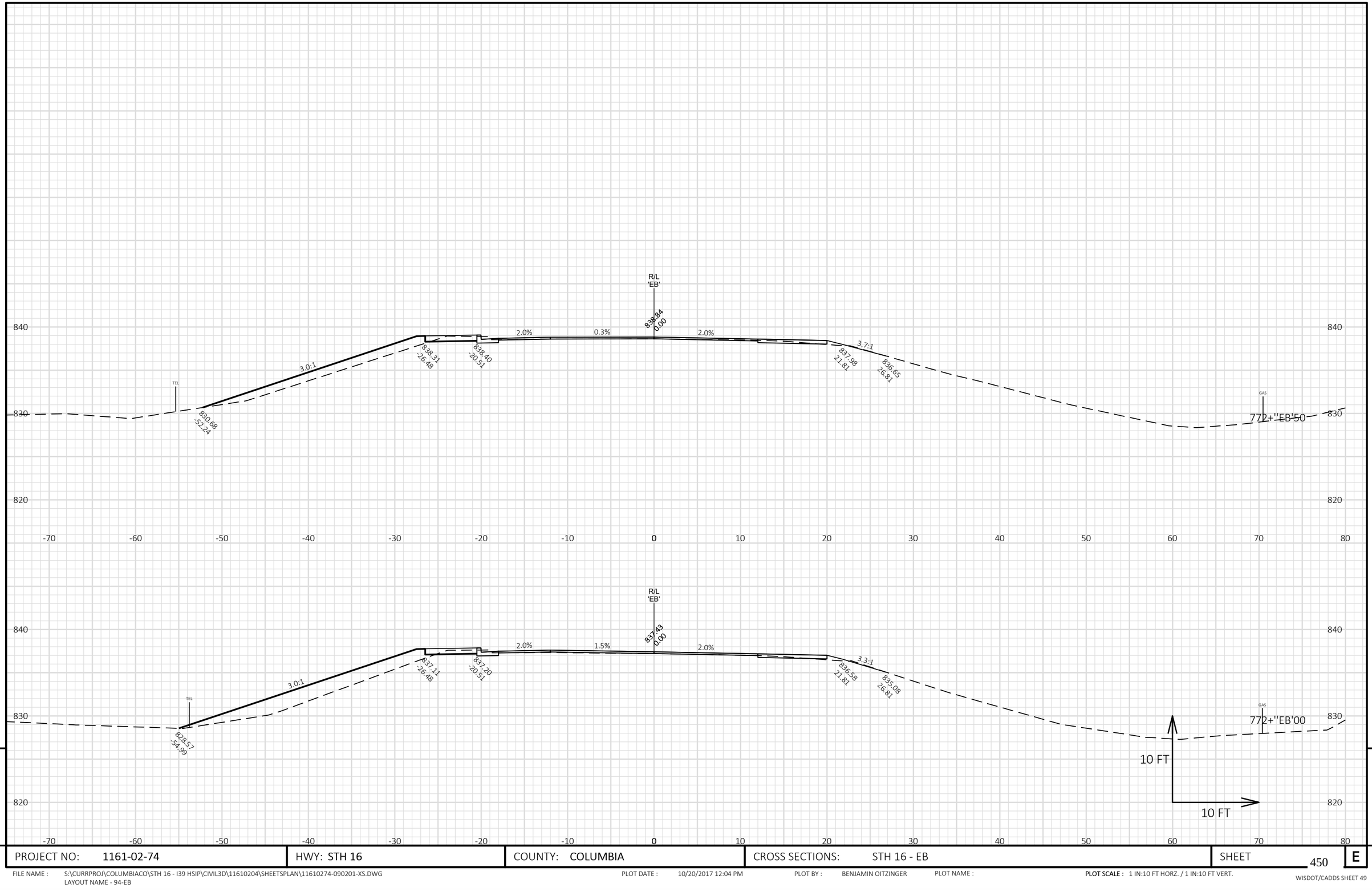
9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 449 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 93-EB

PLOT DATE : 10/20/2017 12:03 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




9

9

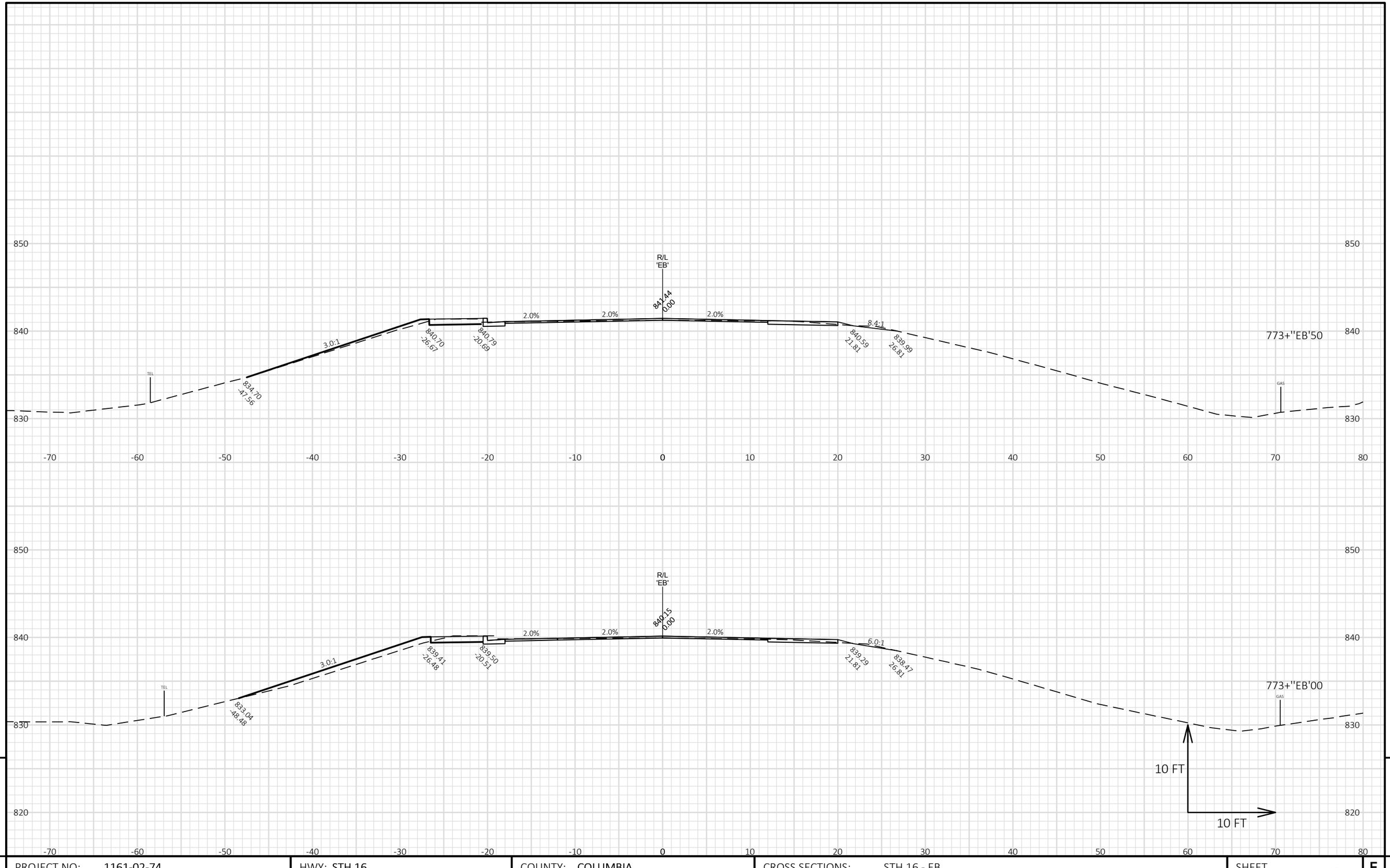
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 450 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 94-EB

PLOT DATE : 10/20/2017 12:04 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9

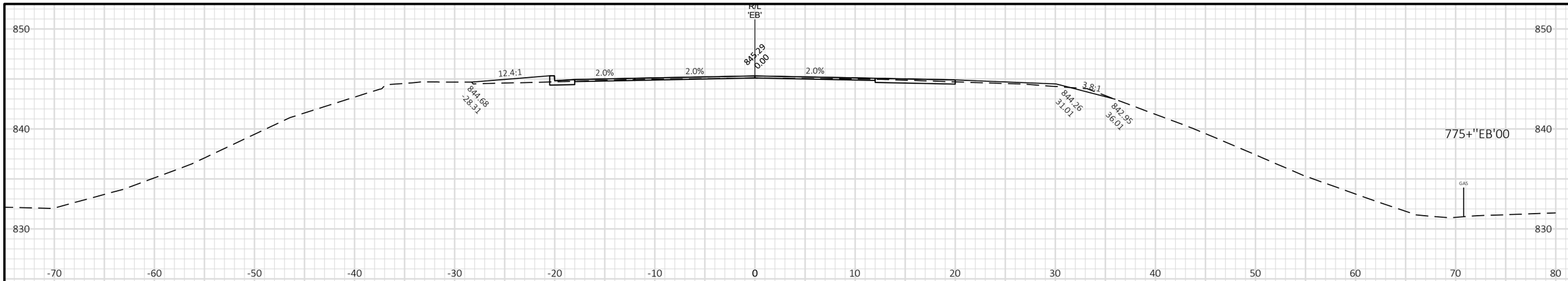
9

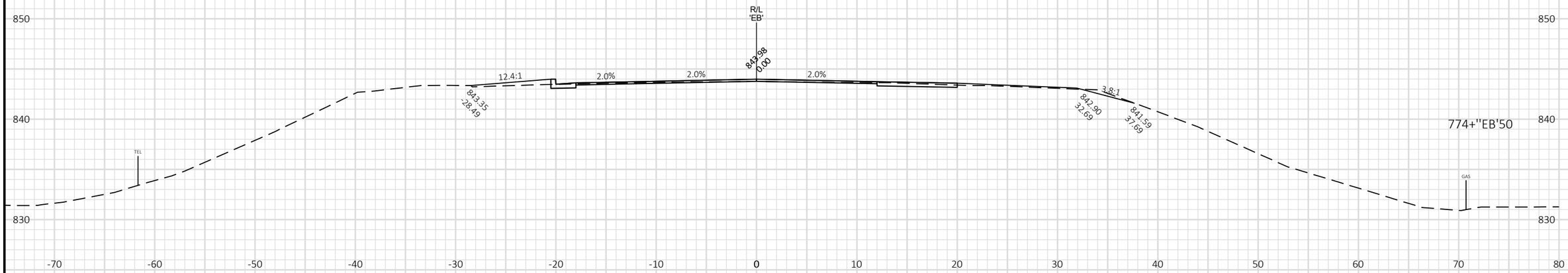
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 451 | E |
|---|---|---|---|---|---|

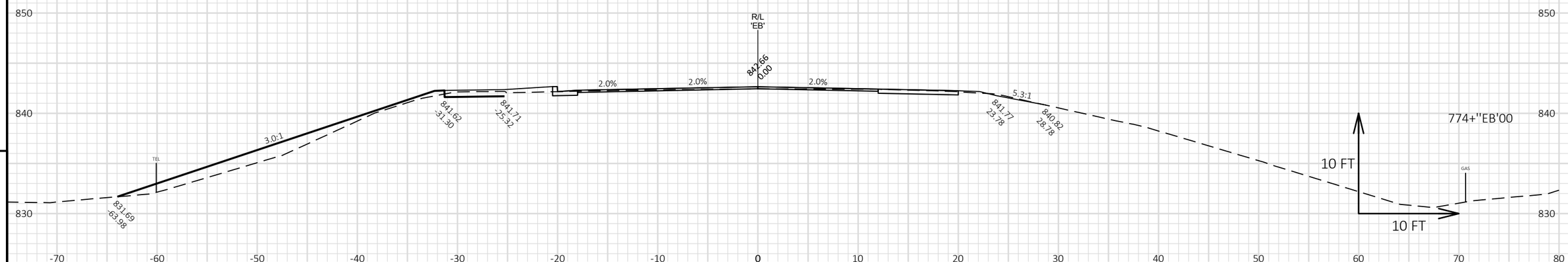
FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 95-EB

PLOT DATE : 10/20/2017 12:04 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




9

9

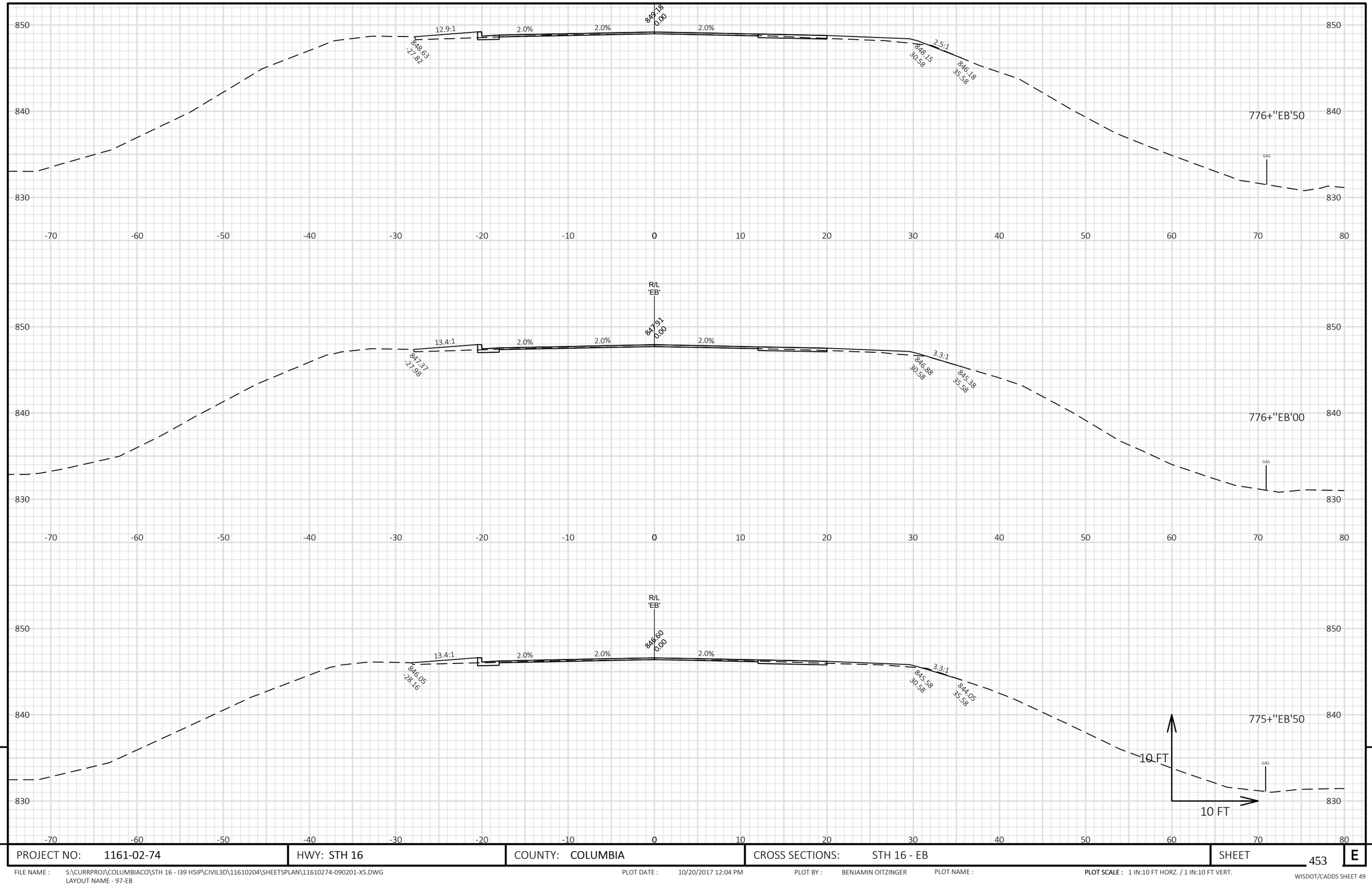
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 452 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 96-EB

PLOT DATE : 10/20/2017 12:04 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9

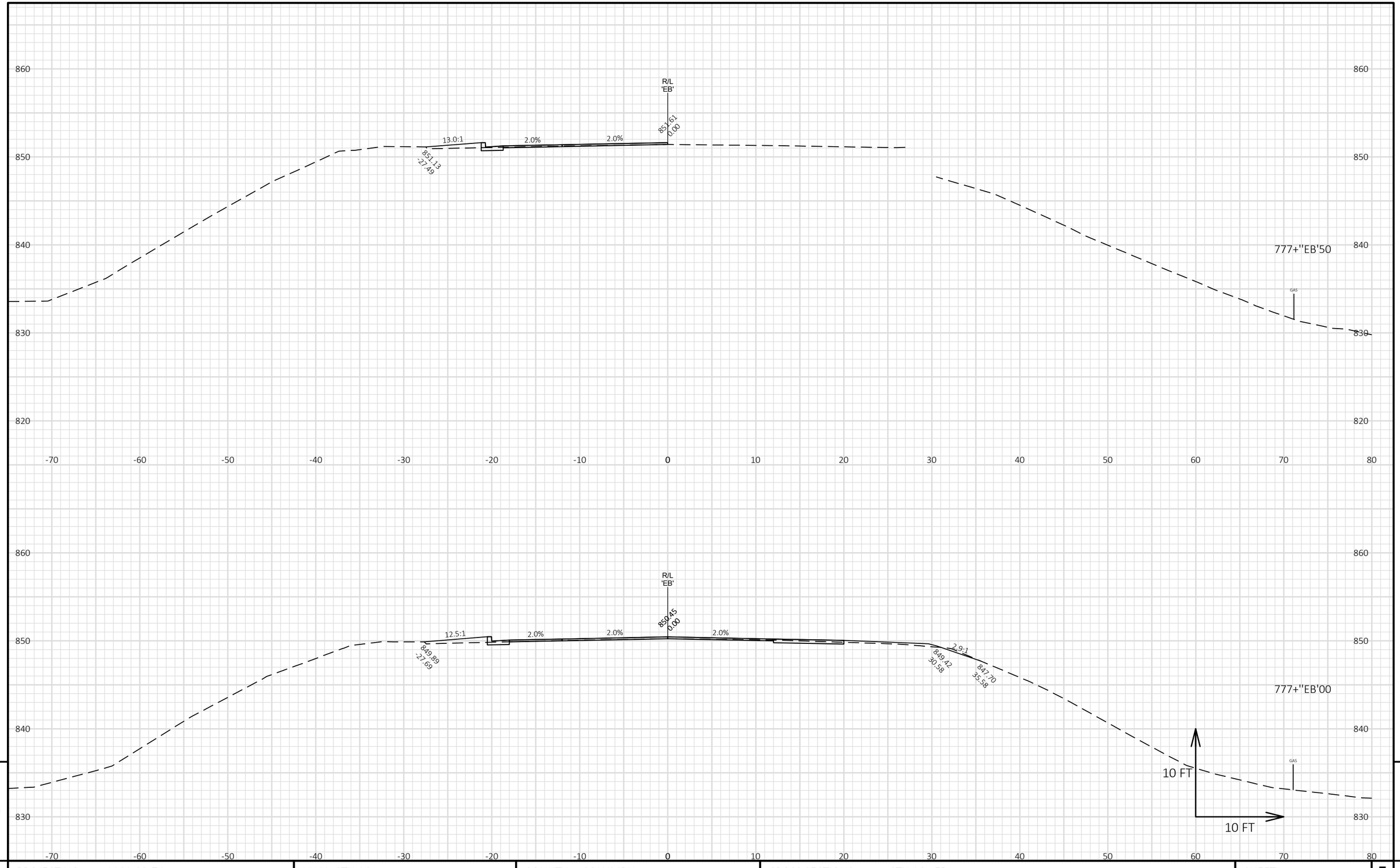
9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 453 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 97-EB

PLOT DATE : 10/20/2017 12:04 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




9

9

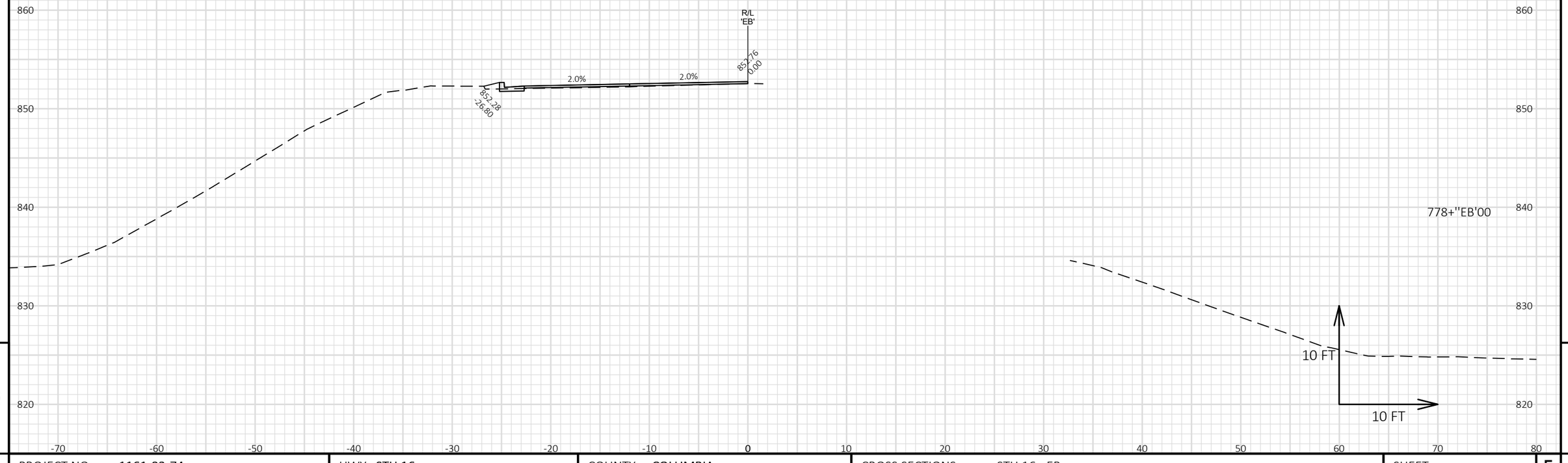
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 454 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 98-EB

PLOT DATE : 10/20/2017 12:04 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9

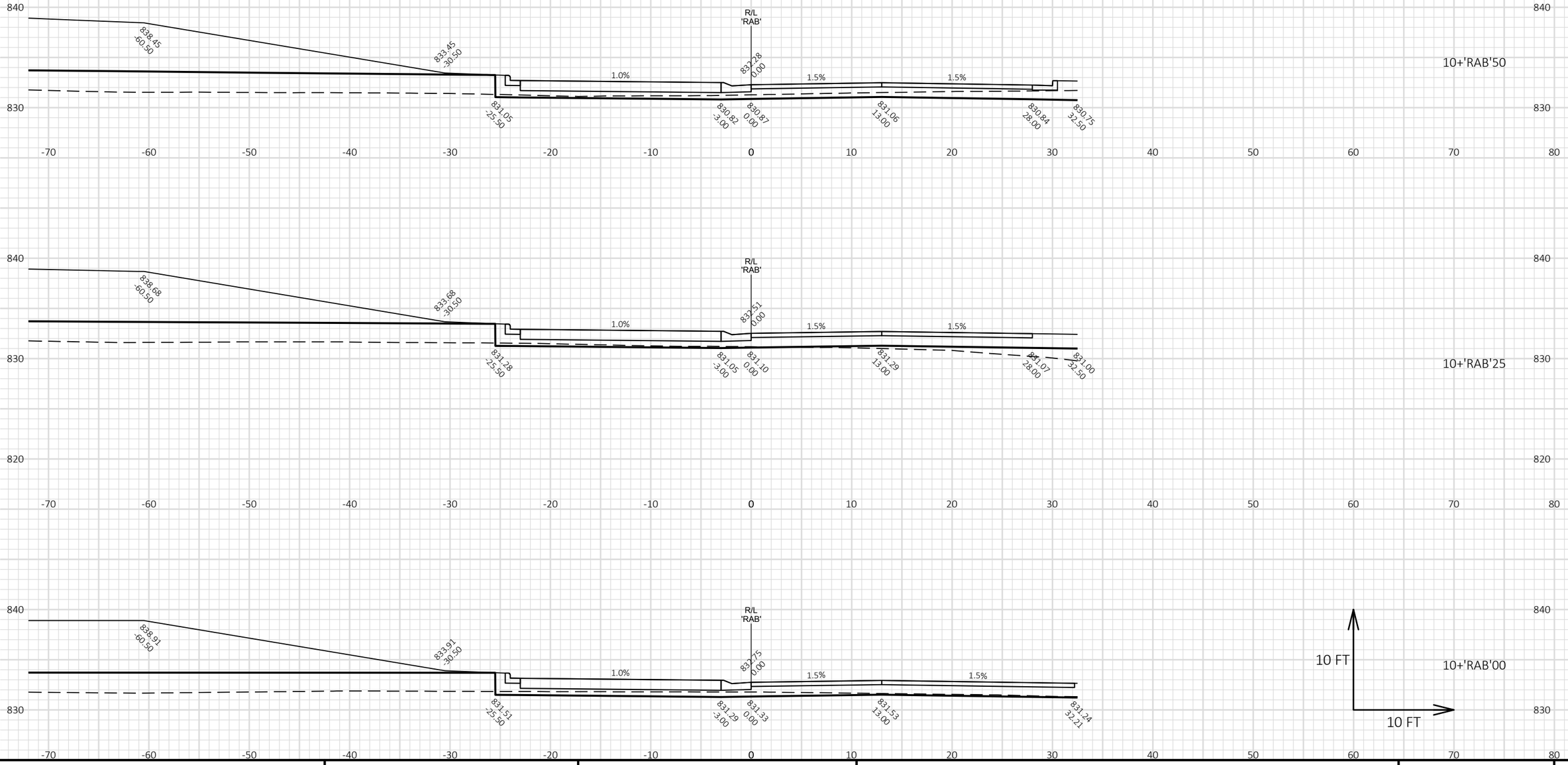
9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - EB | SHEET 455 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 99-EB

PLOT DATE : 10/20/2017 12:04 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




9

9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - RAB | SHEET 456 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 100-RAB

PLOT DATE : 10/20/2017 12:04 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

9

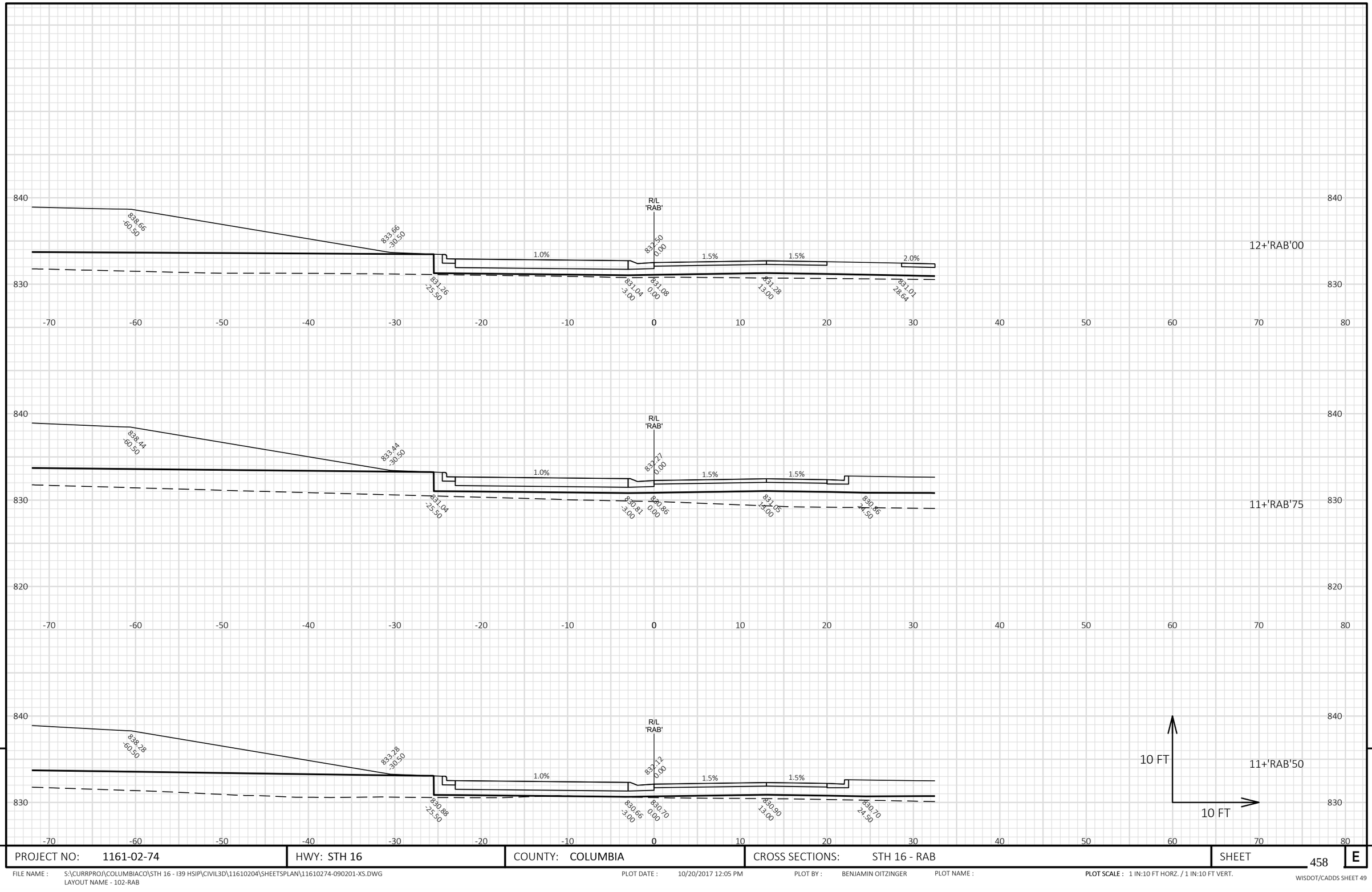
9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - RAB | SHEET 457 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 101-RAB

PLOT DATE : 10/20/2017 12:04 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




9

9

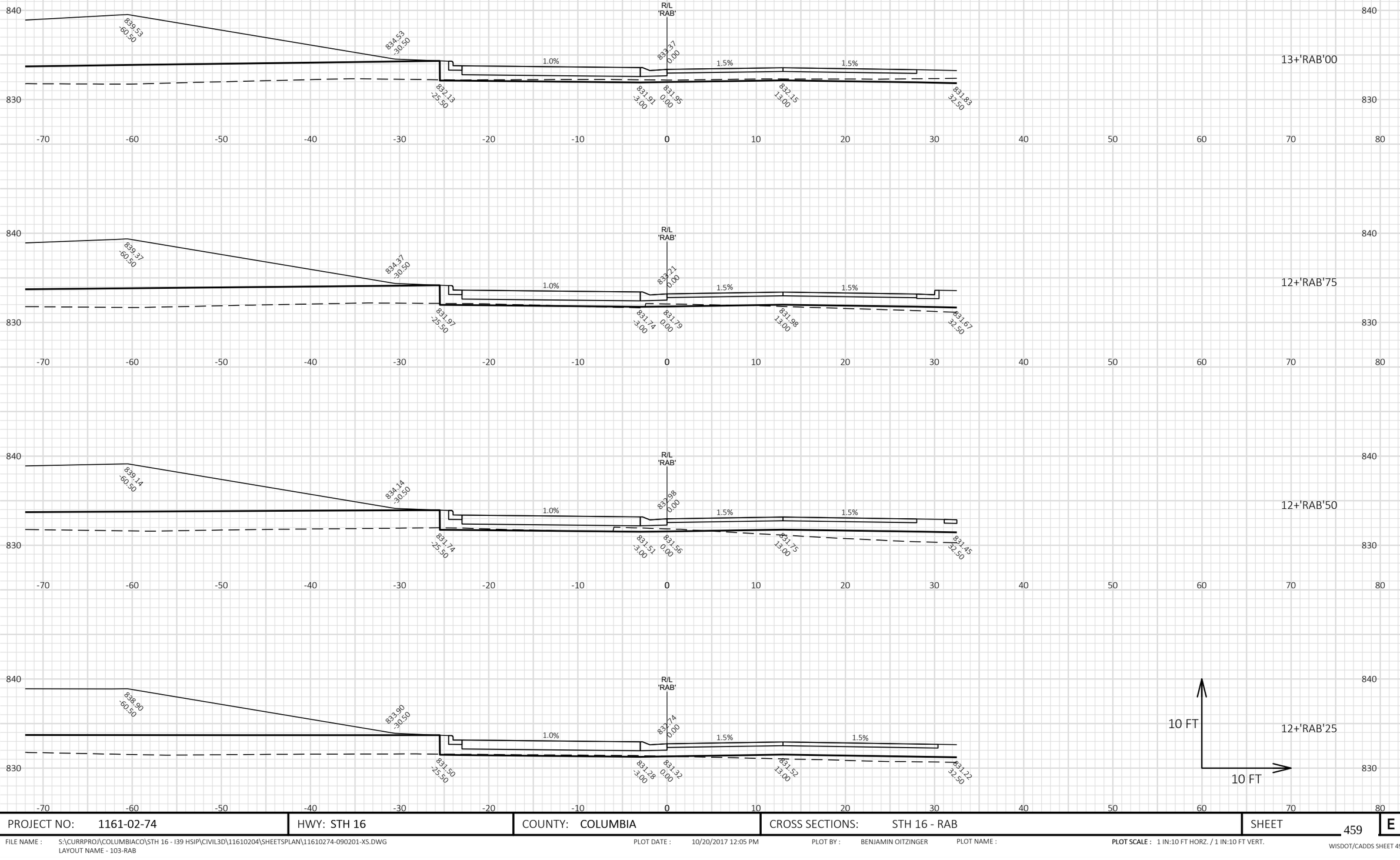
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - RAB | SHEET 458 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 102-RAB

PLOT DATE : 10/20/2017 12:05 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49



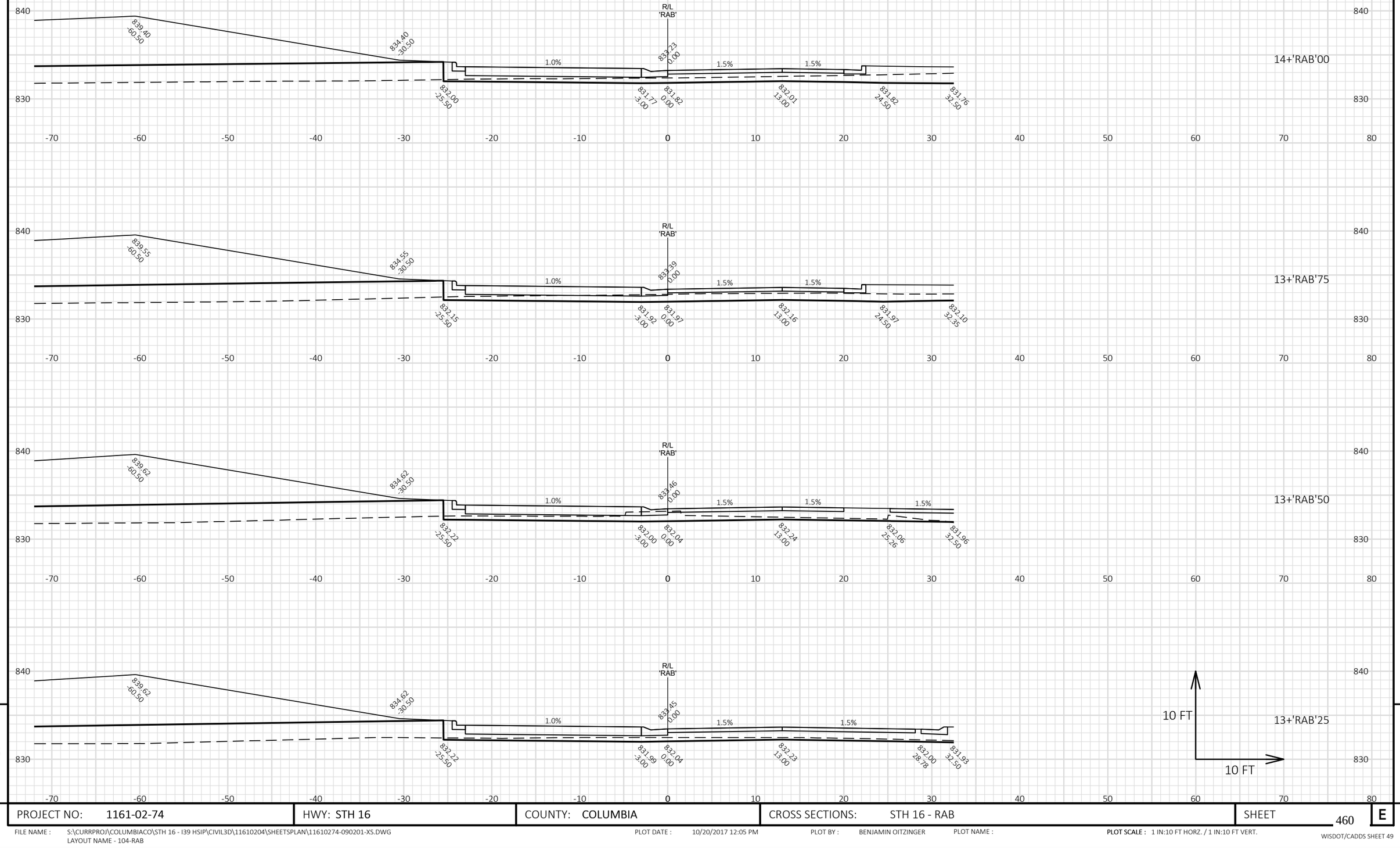

9

9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - RAB | SHEET 459 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 103-RAB

PLOT DATE : 10/20/2017 12:05 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.




9

9

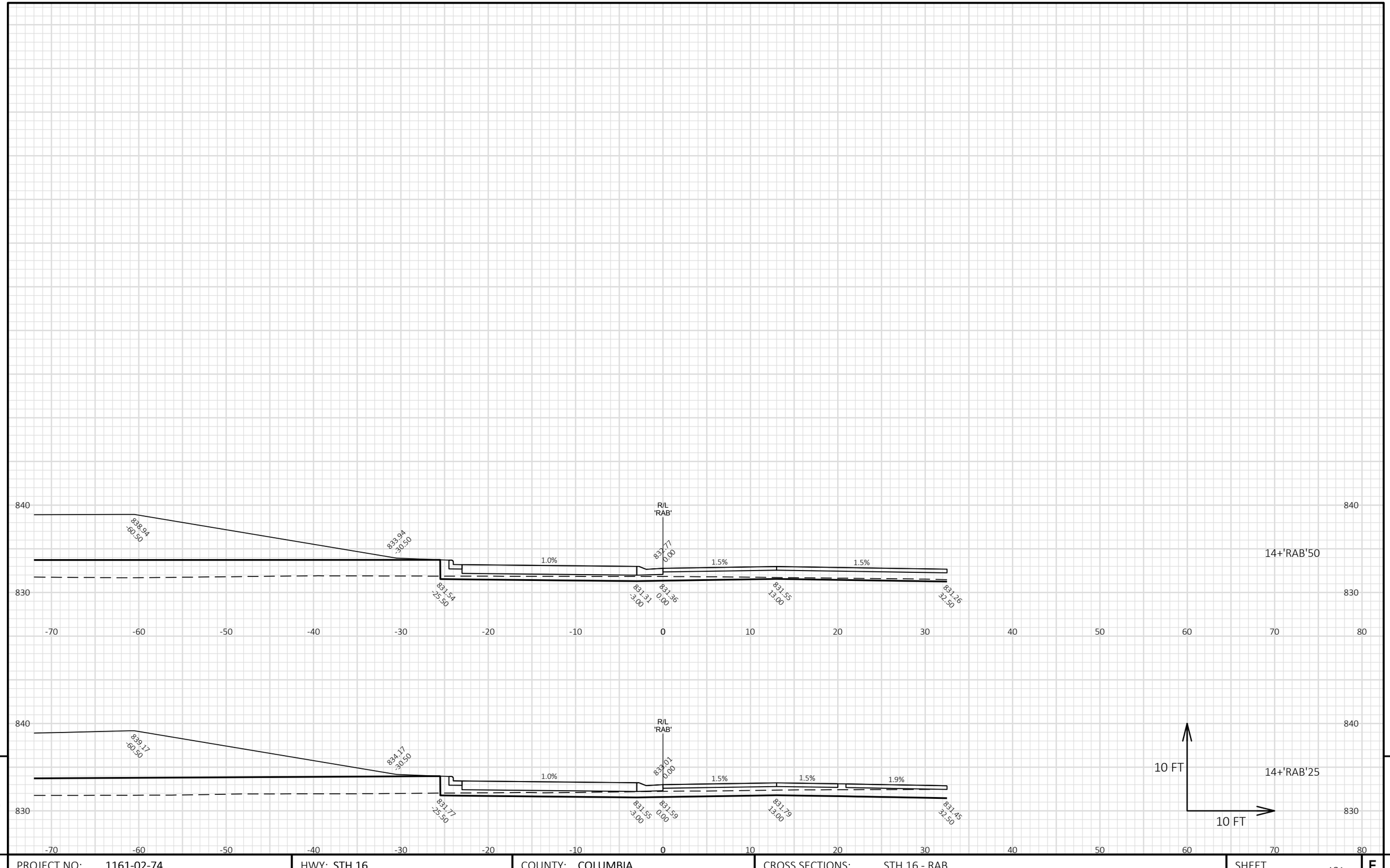
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - RAB | SHEET 460 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 104-RAB

PLOT DATE : 10/20/2017 12:05 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9

9

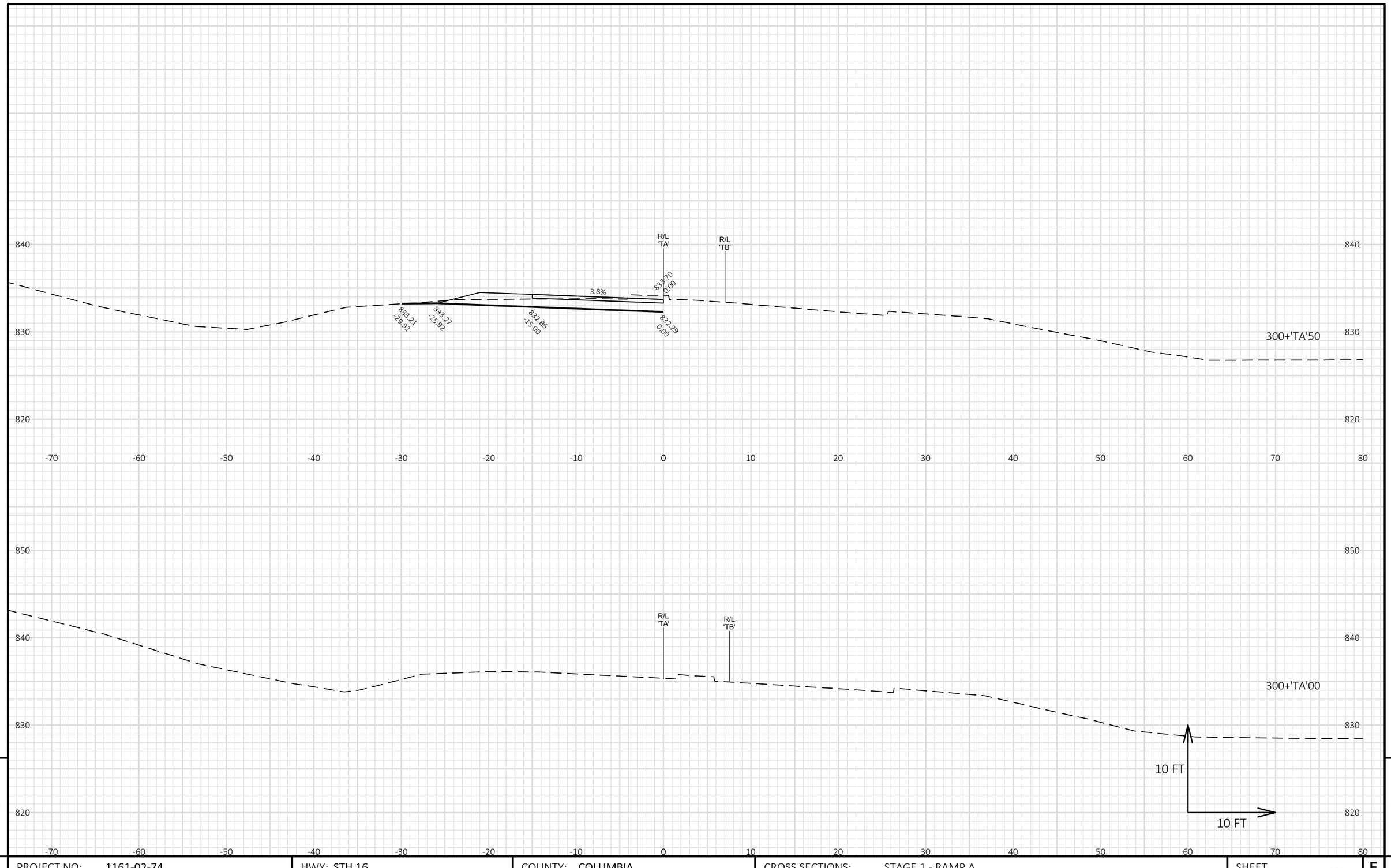
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STH 16 - RAB | SHEET 461 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090201-XS.DWG
LAYOUT NAME - 105-RAB

PLOT DATE : 10/20/2017 12:05 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9

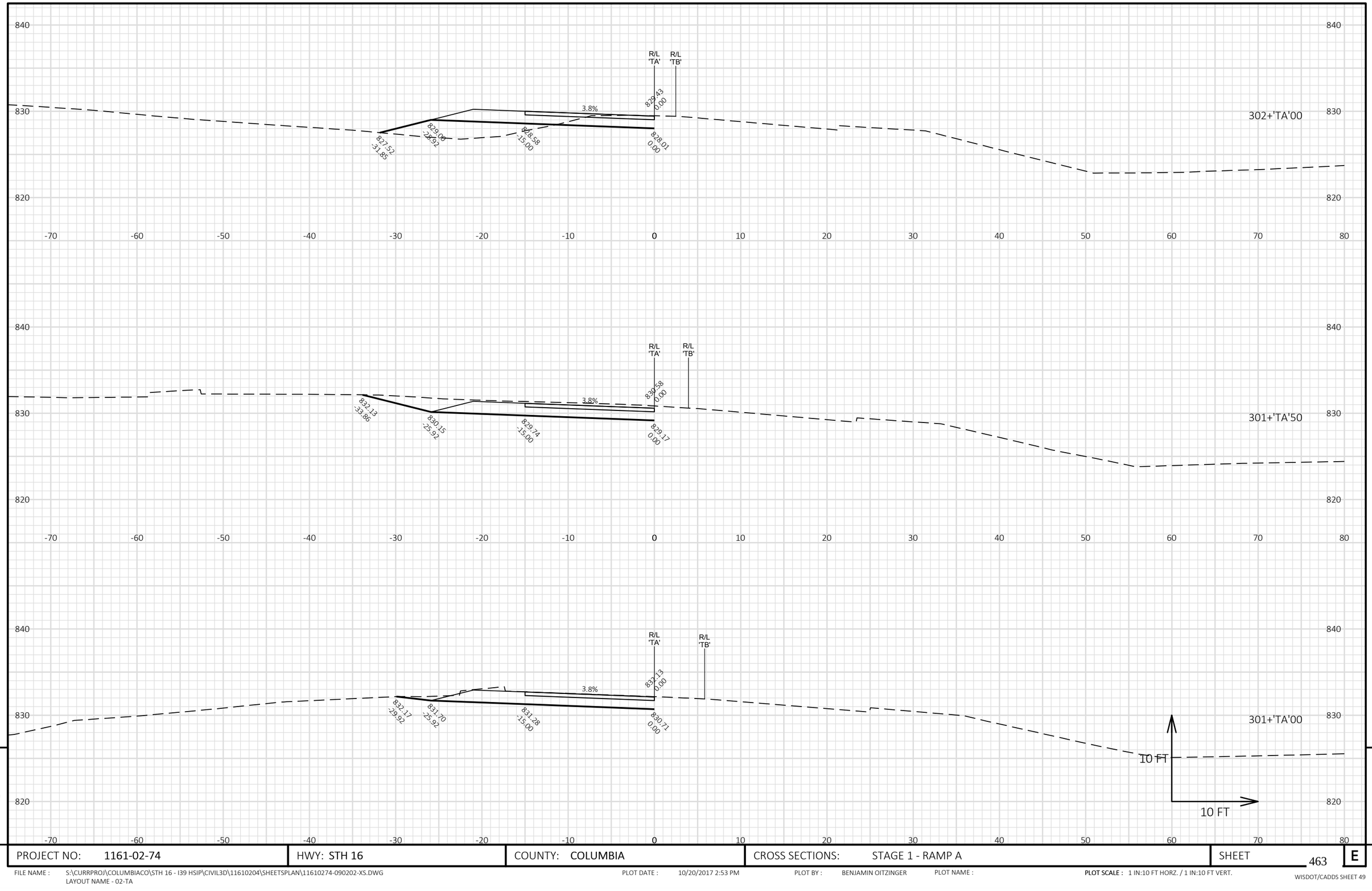
9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STAGE 1 - RAMP A | SHEET 462 E |
|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090202-XS.DWG
LAYOUT NAME - 01-TA

PLOT DATE : 10/20/2017 2:53 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STAGE 1 - RAMP A | SHEET 463 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090202-XS.DWG
LAYOUT NAME - 02-TA

PLOT DATE : 10/20/2017 2:53 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

840
830
820
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80

R/L
'TA'

303+'TA'50

840
830
820
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80

R/L
'TA'

828.66
0.00

2.9%

5.0%

829.48
-43.45

828.37
-39.04

828.05
-27.97

827.24
0.00

826.39
17.09

825.75
29.88

825.21
33.88

303+'TA'00

840
830
820
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80

R/R/L
'TA'B'

828.75
0.00

3.8%

827.33
-34.79

828.51
-30.04

824.10
19.12

827.37
0.00

302+'TA'50

10 FT

10 FT

9

9

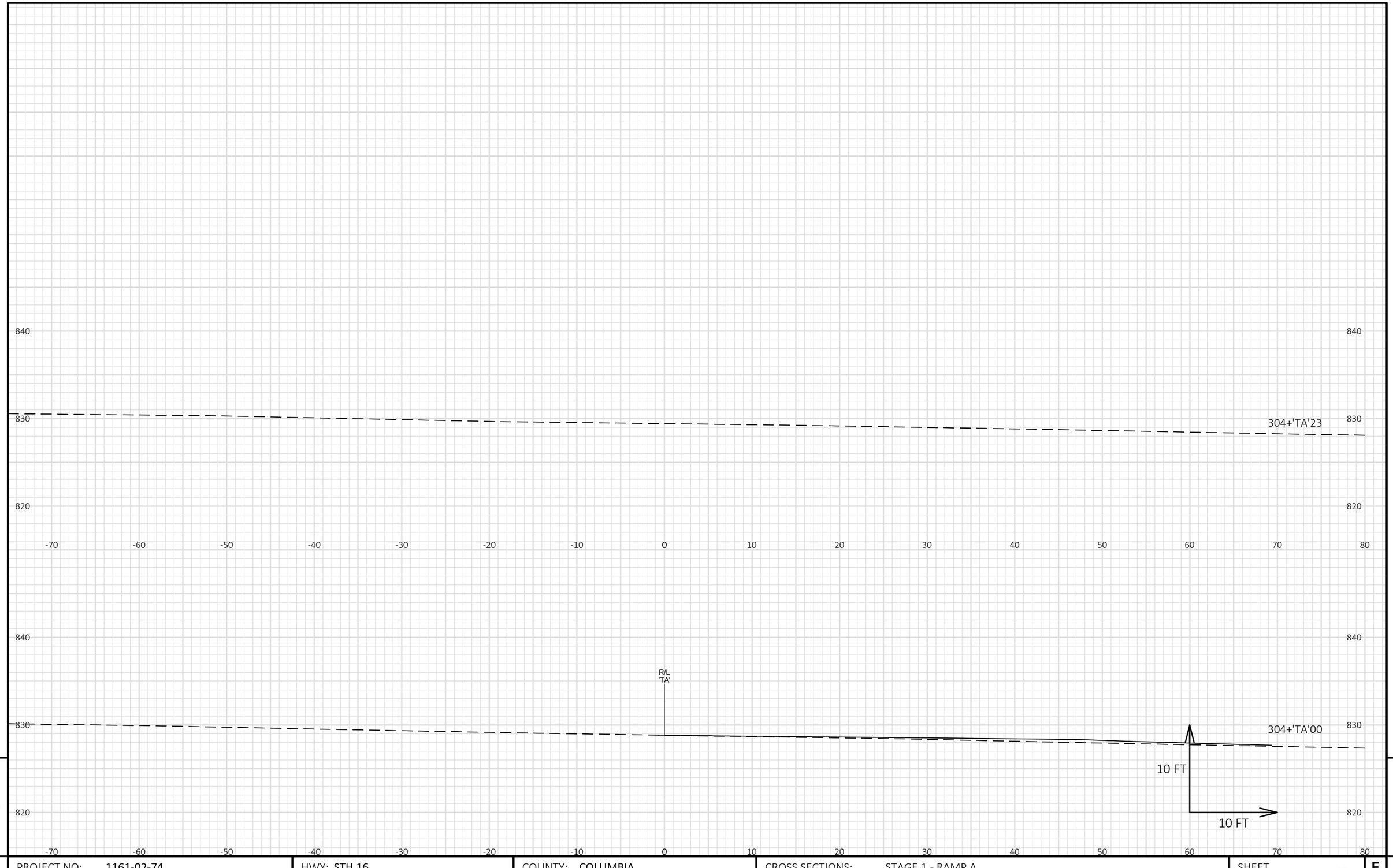
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STAGE 1 - RAMP A | SHEET 464 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090202-XS.DWG
LAYOUT NAME - 03-TA

PLOT DATE : 10/20/2017 2:53 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9

9

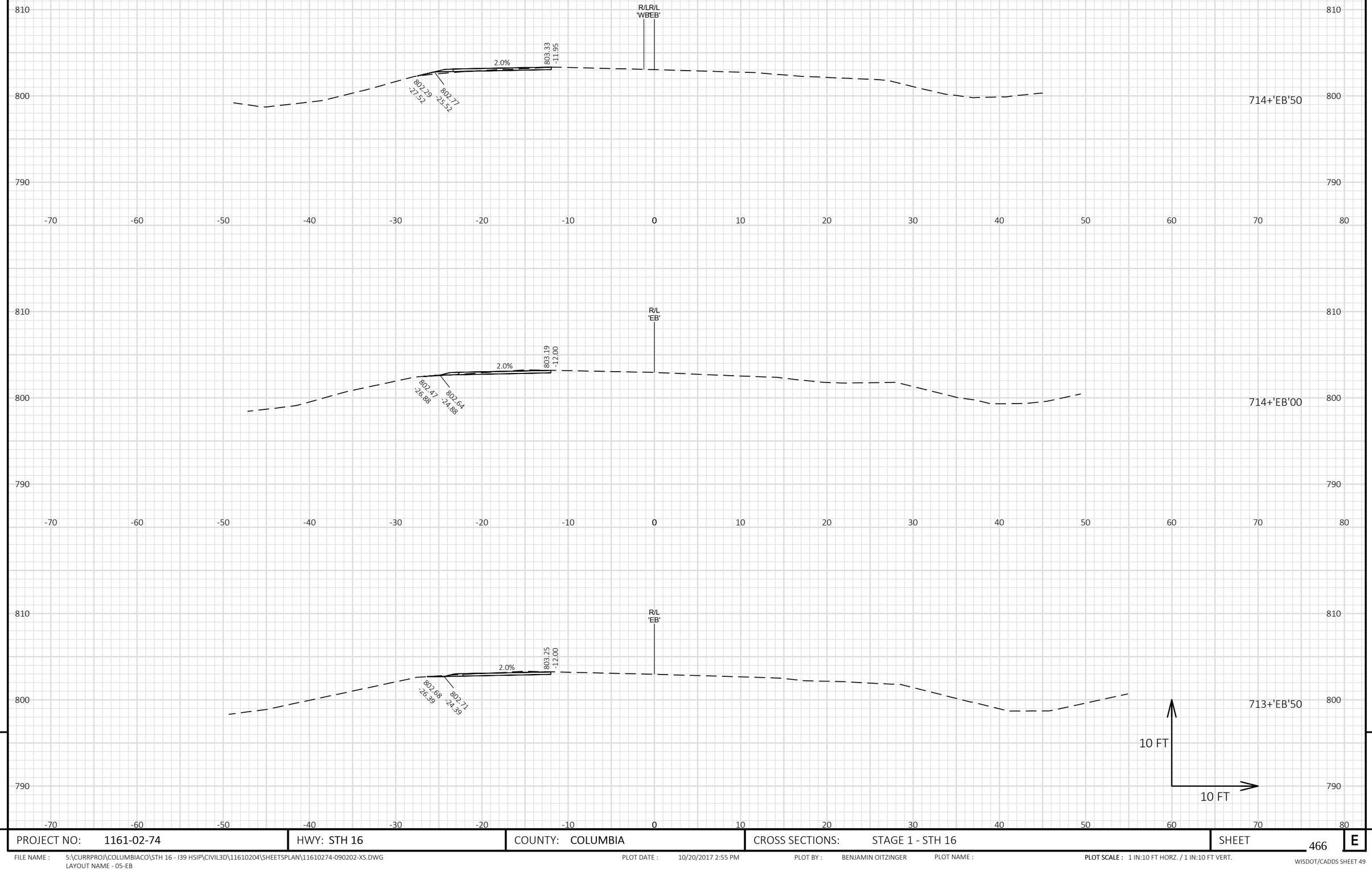
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STAGE 1 - RAMP A | SHEET 465 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090202-XS.DWG
LAYOUT NAME - 04-TA

PLOT DATE : 10/20/2017 2:53 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9

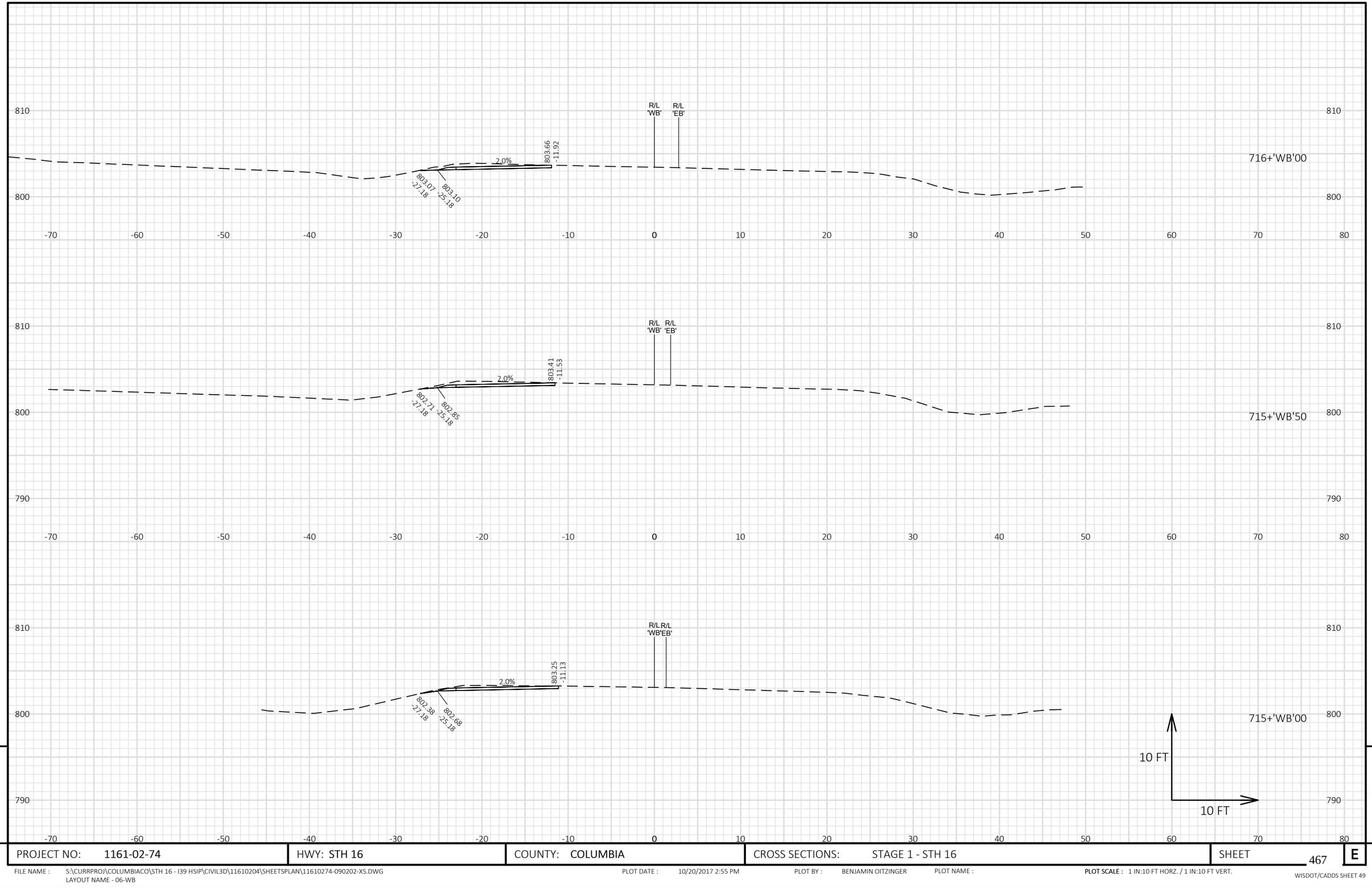
9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STAGE 1 - STH 16 | SHEET 466 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090202-XS.DWG
LAYOUT NAME - 05-EB

PLOT DATE : 10/20/2017 2:55 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



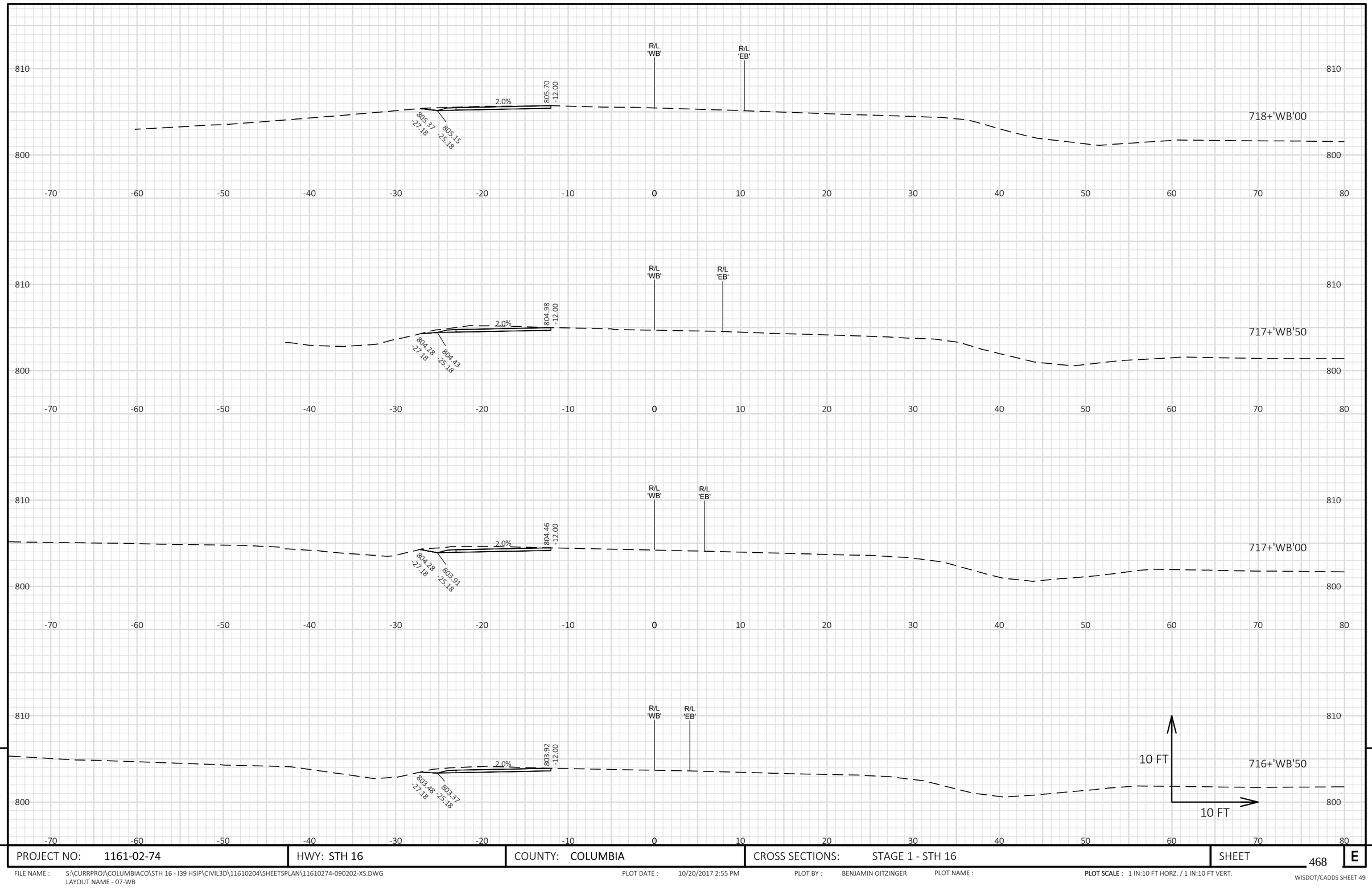

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STAGE 1 - STH 16 | SHEET 467 E |
|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090202-XS.DWG
LAYOUT NAME - 06-WB

PLOT DATE : 10/20/2017 2:55 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9

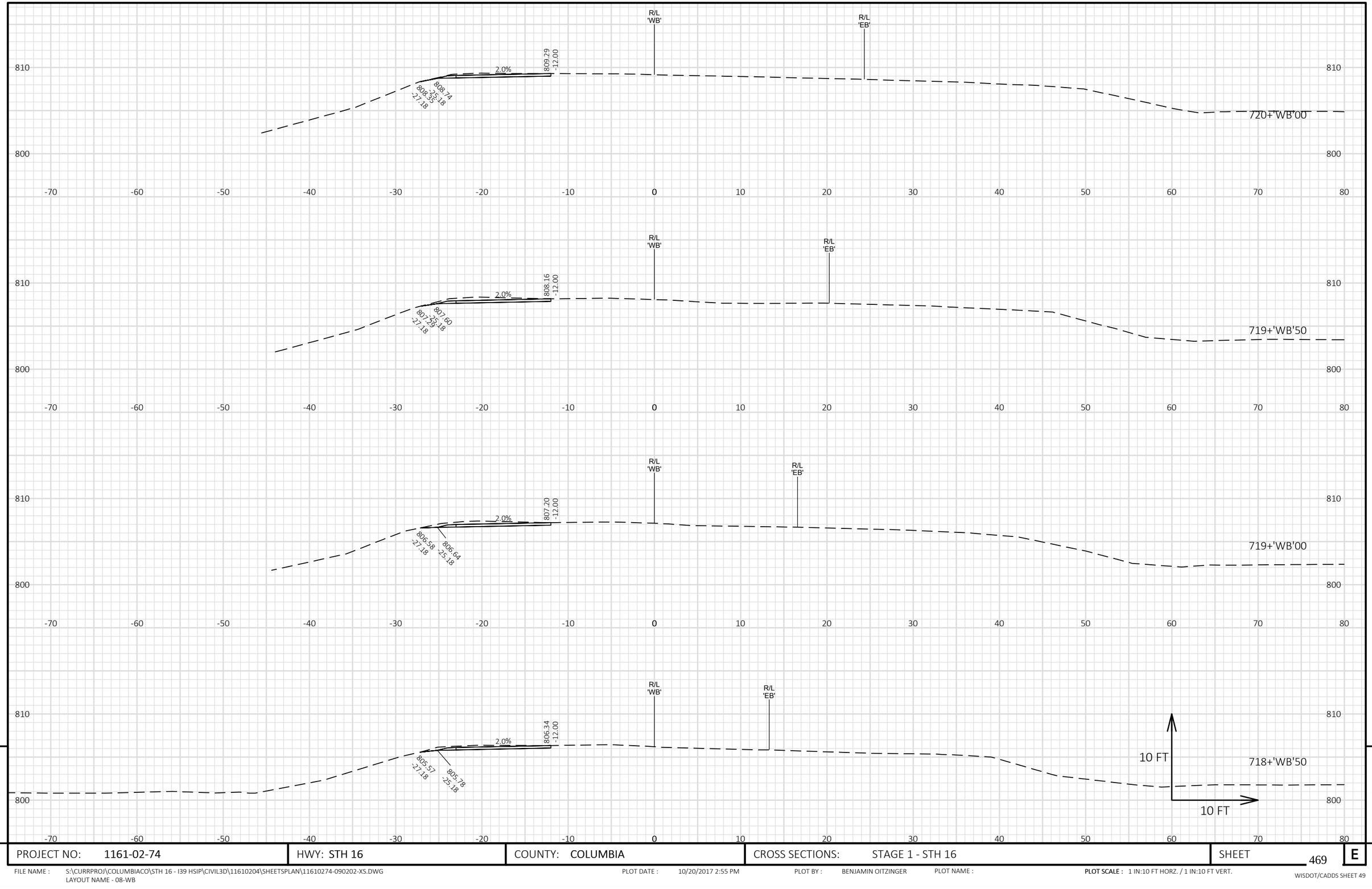
9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STAGE 1 - STH 16 | SHEET 468 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090202-XS.DWG
LAYOUT NAME - 07-WB

PLOT DATE : 10/20/2017 2:55 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




9

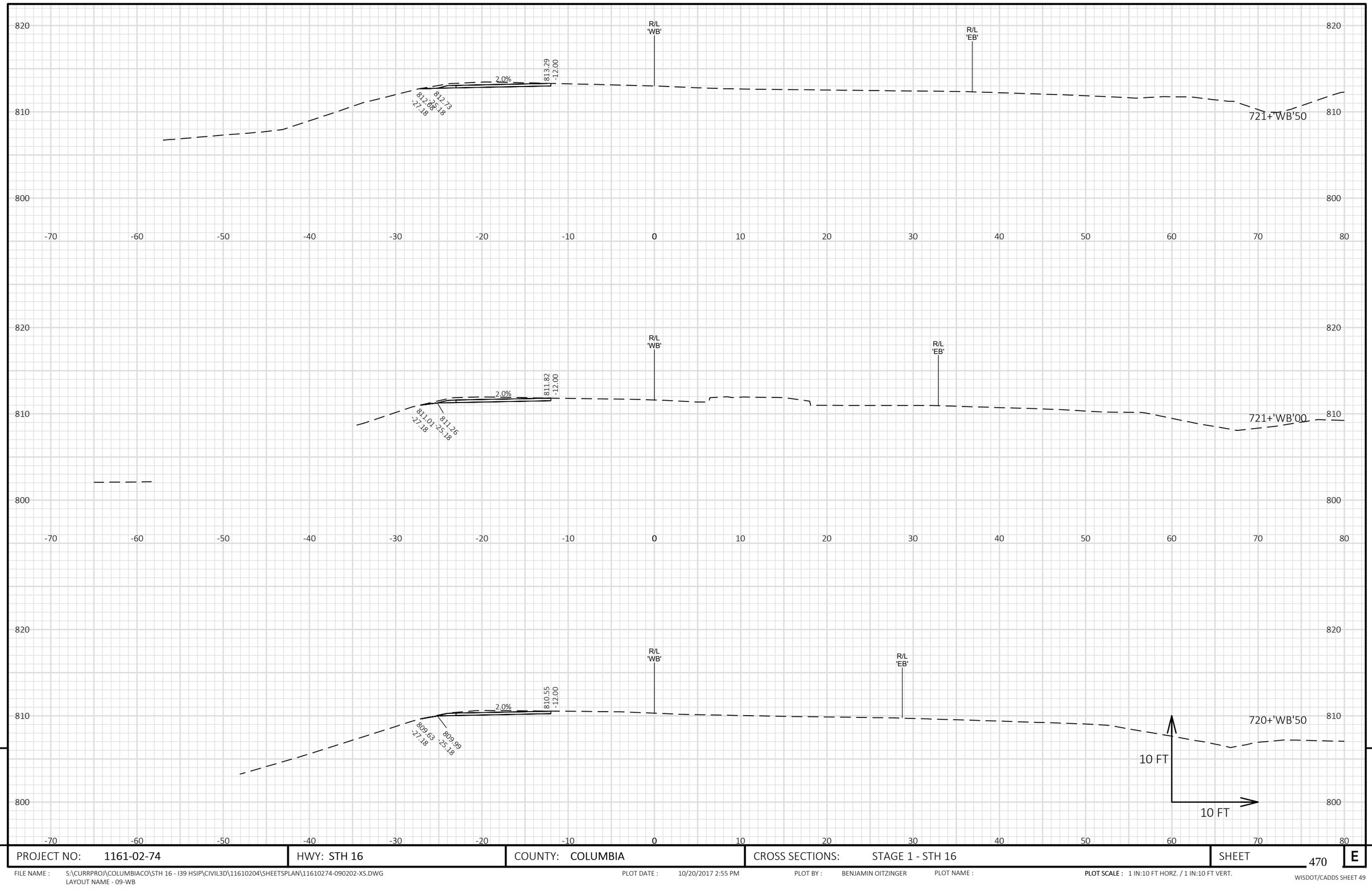
9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STAGE 1 - STH 16 | SHEET 469 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090202-XS.DWG
LAYOUT NAME - 08-WB

PLOT DATE : 10/20/2017 2:55 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




9

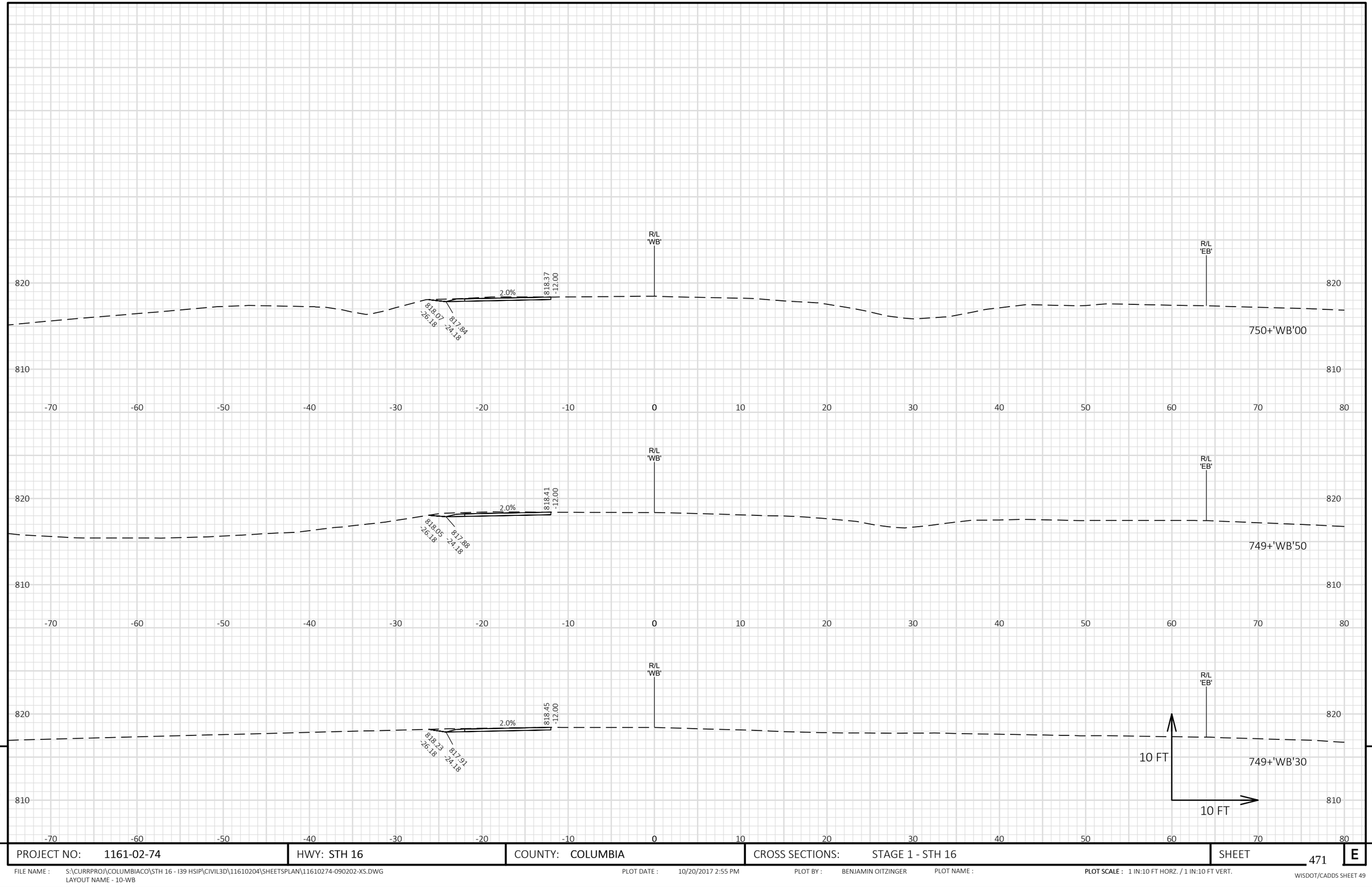
9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STAGE 1 - STH 16 | SHEET 470 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090202-XS.DWG
LAYOUT NAME - 09-WB

PLOT DATE : 10/20/2017 2:55 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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




9

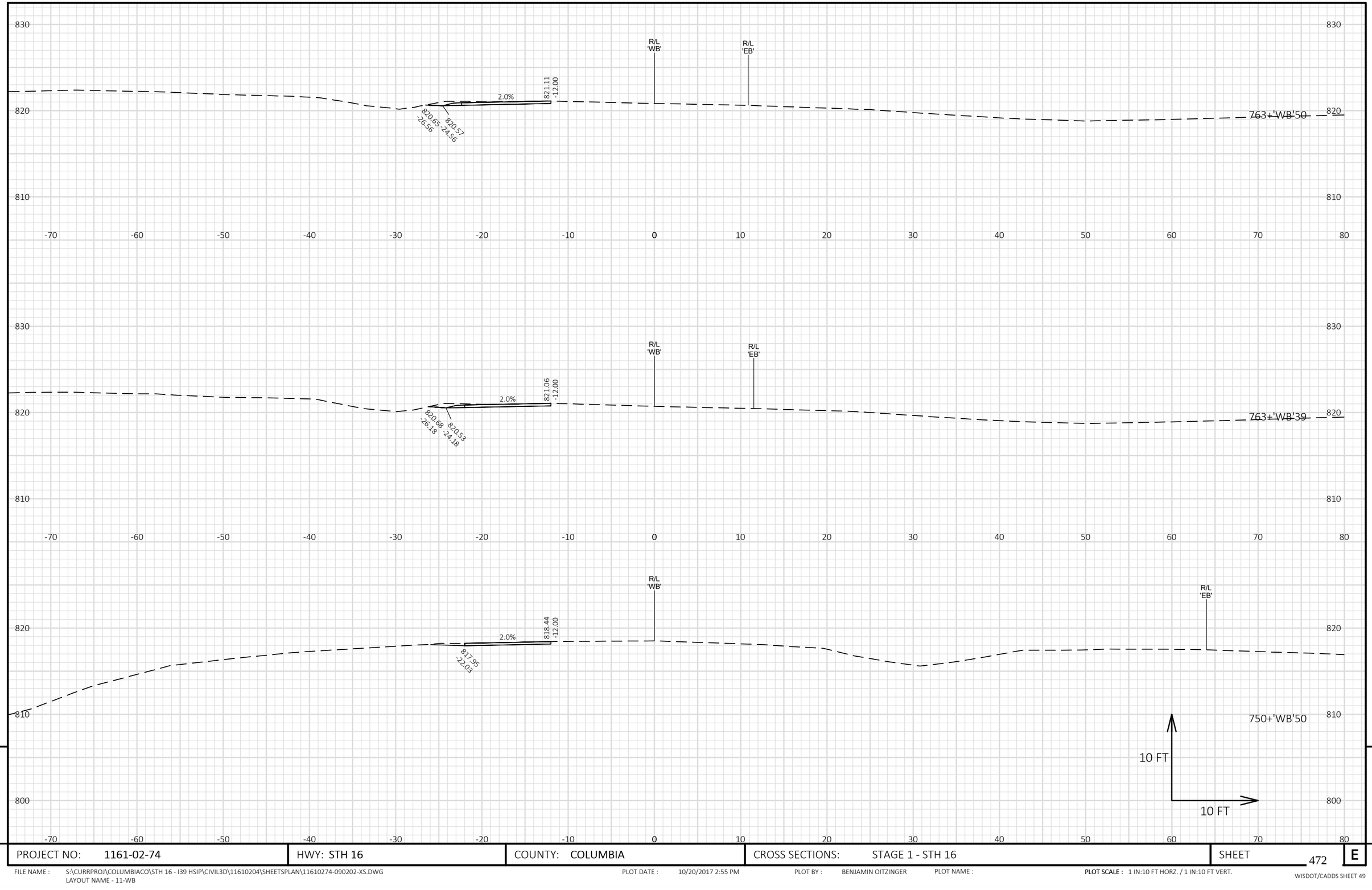
9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STAGE 1 - STH 16 | SHEET 471 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090202-XS.DWG
LAYOUT NAME - 10-WB

PLOT DATE : 10/20/2017 2:55 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



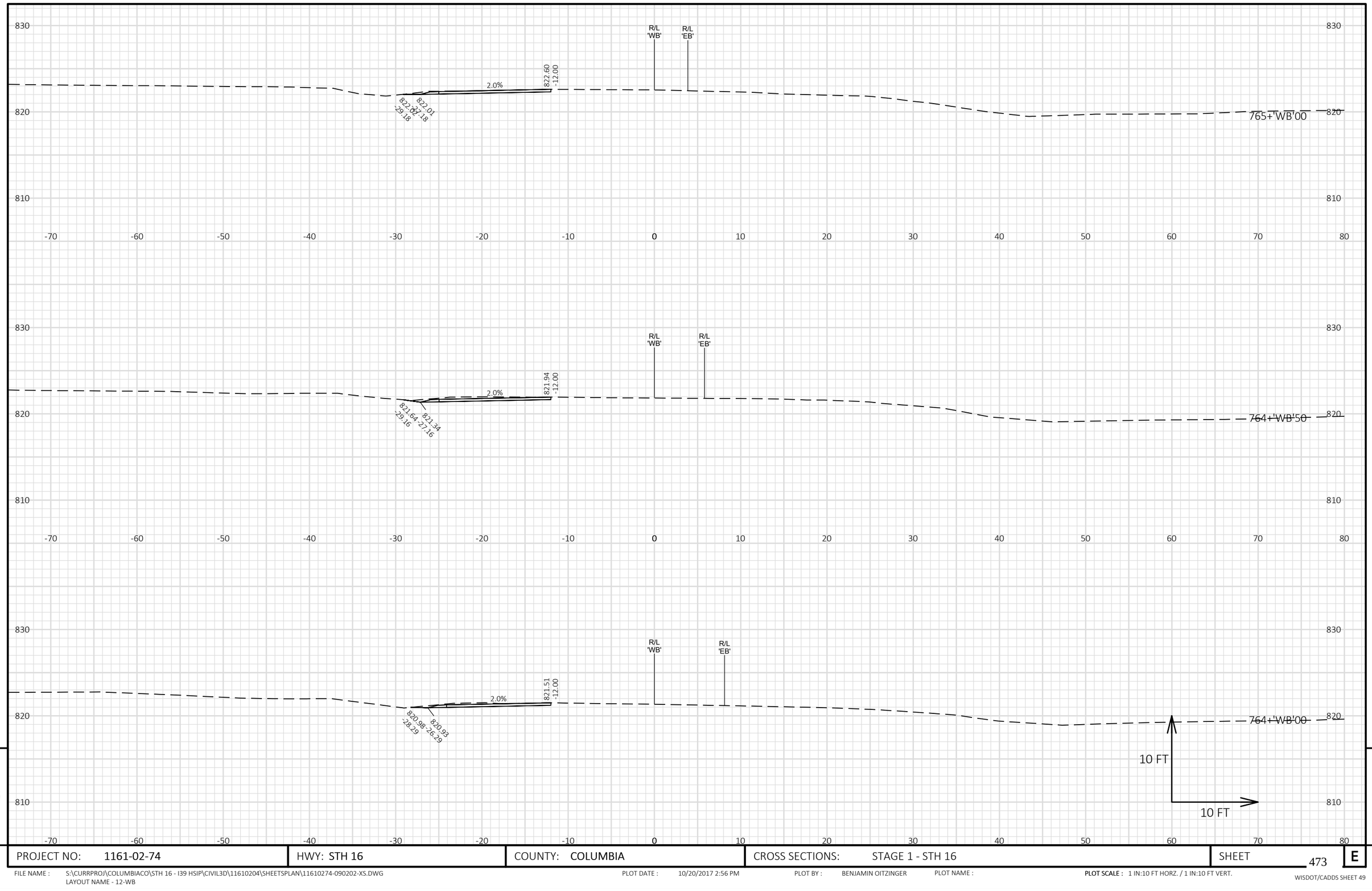

9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STAGE 1 - STH 16 | SHEET 472 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090202-XS.DWG
LAYOUT NAME - 11-WB

PLOT DATE : 10/20/2017 2:55 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




9

9

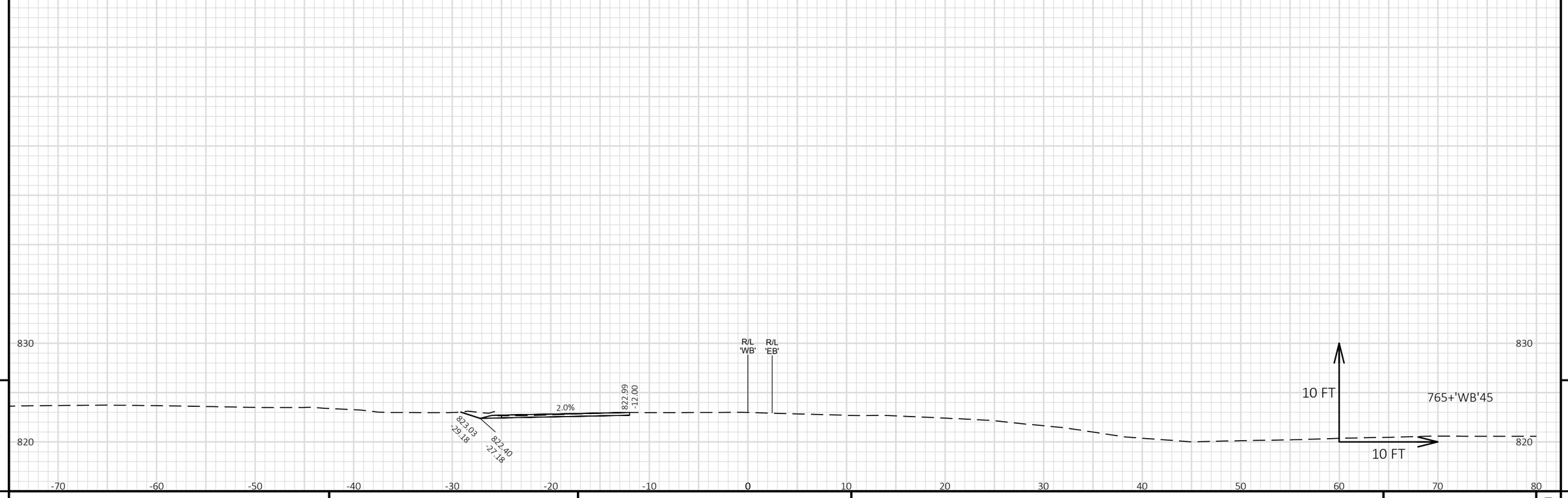
| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STAGE 1 - STH 16 | SHEET 473 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090202-XS.DWG
LAYOUT NAME - 12-WB

PLOT DATE : 10/20/2017 2:56 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME :

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

WISDOT/CADDS SHEET 49




9 9

| PROJECT NO: 1161-02-74 | HWY: STH 16 | COUNTY: COLUMBIA | CROSS SECTIONS: STAGE 1 - STH 16 | SHEET 474 | E |
|---|---|---|---|---|---|

FILE NAME : S:\CURRPROJ\COLUMBIACO\STH 16 - I39 HSIP\CIVIL3D\11610204\SHEETSPLAN\11610274-090202-XS.DWG
LAYOUT NAME - 13-WB

PLOT DATE : 10/20/2017 2:56 PM PLOT BY : BENJAMIN OITZINGER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

Notes

**Wisconsin Department of Transportation**

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov