

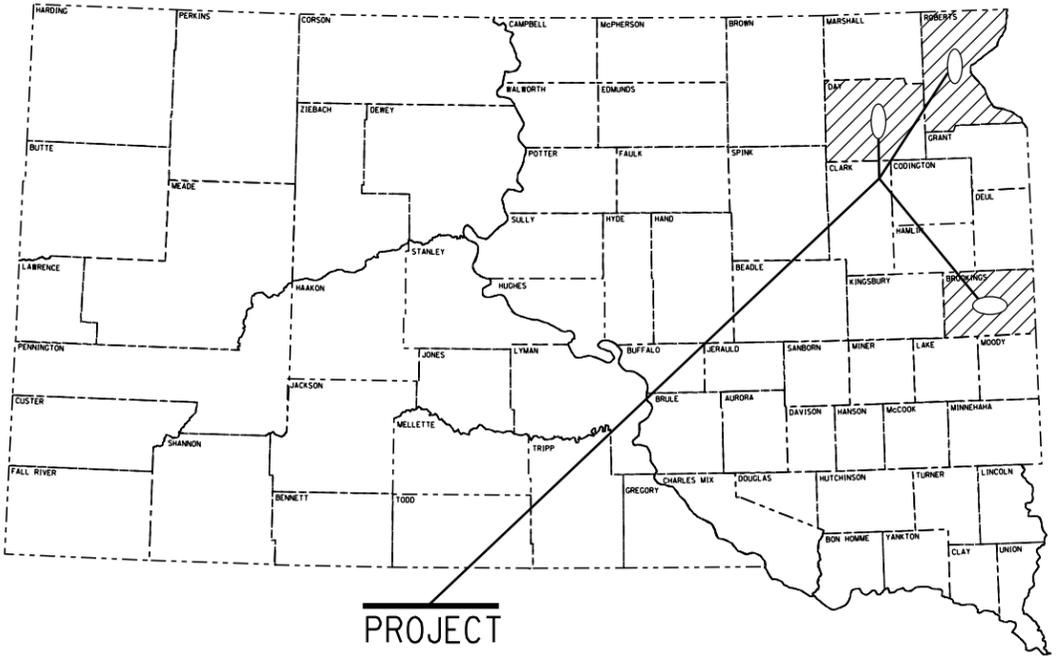
Due to a software update, the bid item file for this project will not be available until no later than the close of business on April 16, 2015.

PLOT SCALE - 1:8000

PLOTTED FROM -

PLOT NAME -

FILE - ... \PLANS\02MP\_TITLE\_SHEET.DGN



STATE OF SOUTH DAKOTA  
 DEPARTMENT OF TRANSPORTATION  
 PLANS FOR PROPOSED

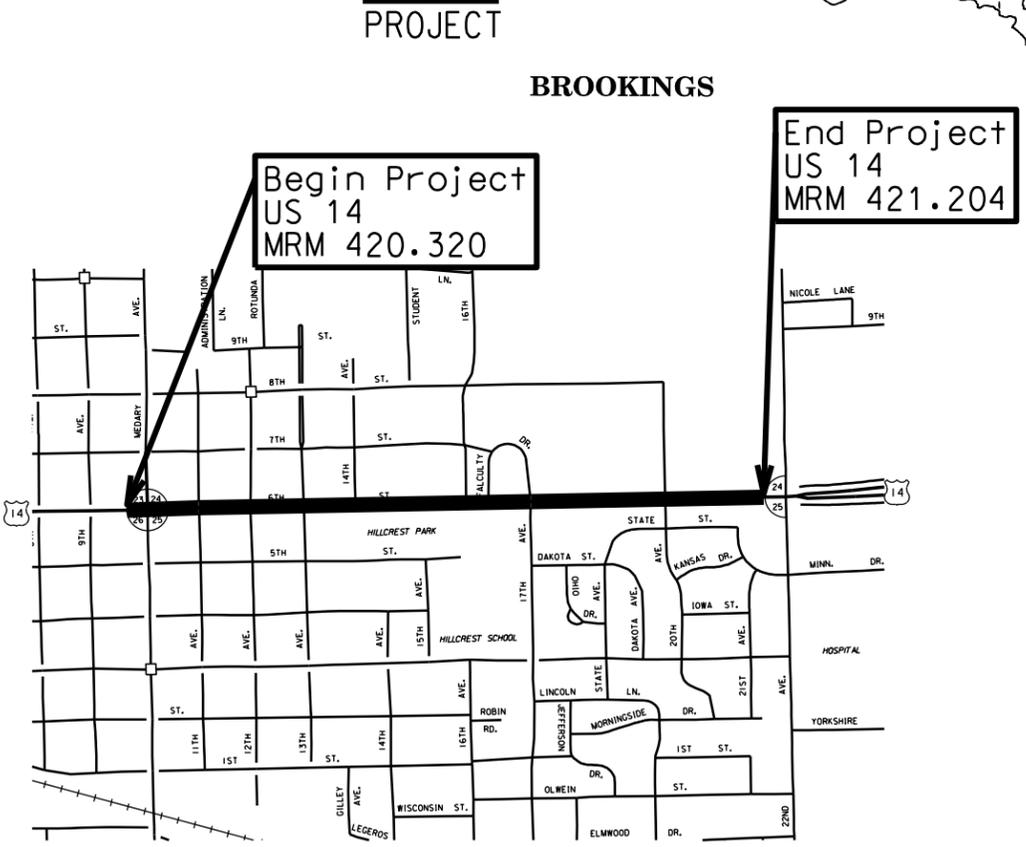
|                           |             |           |              |
|---------------------------|-------------|-----------|--------------|
| STATE OF SOUTH DAKOTA     | PROJECT     | SHEET NO. | TOTAL SHEETS |
|                           | PH 0010(86) | 1         | 30           |
| Plotting Date: 03/02/2015 |             |           |              |
| Revised 3/02/2015 DLM     |             |           |              |

**PROJECT PH 0010(86)**  
**US HWY 14, S.D. HWY 25 &**  
**BROOKINGS, DAY &**  
**ROBERTS COUNTIES**

INDEX OF SHEETS

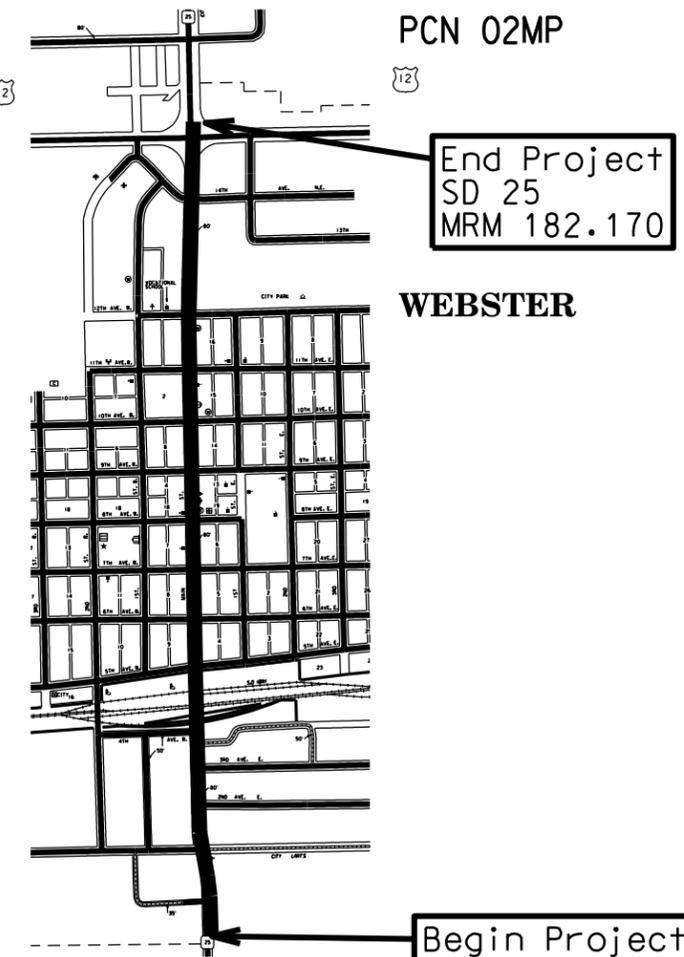
|               |  |
|---------------|--|
| Sheet 1:      | Title Sheet and Layout Map                           |
| Sheet 2:      | Estimate of Quantities and Environmental Commitments |
| Sheet 3:      | Informational Breakdown of Quantities                |
| Sheet 4:      | Plan Notes   |
| Sheets 5-9:   | Traffic Control                                      |
| Sheets 10-17: | Brookings Pavement Marking Layouts                   |
| Sheets 18-28: | Webster Pavement Marking Layouts                     |
| Sheet 29:     | Pavement Marking Detail                              |
| Sheet 30:     | Standard Plates                                      |

COLD APPLIED PLASTIC PAVEMENT MARKINGS & DURABLE PAVEMENT MARKINGS



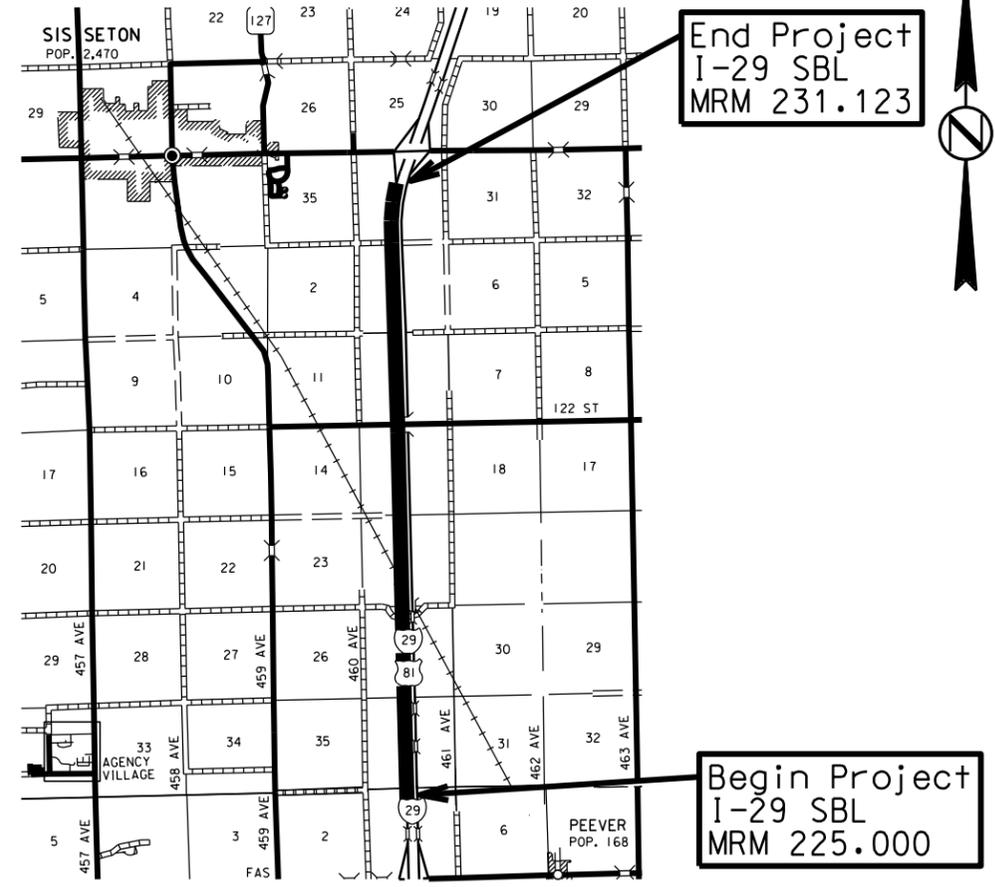
Begin Project  
 US 14  
 MRM 420.320

End Project  
 US 14  
 MRM 421.204



End Project  
 SD 25  
 MRM 182.170

Begin Project  
 SD 25  
 MRM 181.016



End Project  
 I-29 SBL  
 MRM 231.123

Begin Project  
 I-29 SBL  
 MRM 225.000

DESIGN DESIGNATION US 14 Brookings

|            |        |
|------------|--------|
| ADT (2014) | 14795  |
| ADT (2034) | 18730  |
| DHV        | 58.0   |
| D          | 50%    |
| T DHV      | 4.2%   |
| T ADT      | 16.3%  |
| V          | 35 MPH |

|                      |            |             |
|----------------------|------------|-------------|
| GROSS LENGTH         | 4,191 FEET | 0.884 MILES |
| LENGTH OF EXCEPTIONS | 0 FEET     | 0 MILES     |
| NET LENGTH           | 4,191 FEET | 0.884 MILES |

DESIGN DESIGNATION SD 25 Webster

|            |        |
|------------|--------|
| ADT (2014) | 2940   |
| ADT (2034) | 3995   |
| DHV        | 205    |
| D          | 51%    |
| T DHV      | 7.0    |
| T ADT      | 11.0%  |
| V          | 35 MPH |

|                      |            |             |
|----------------------|------------|-------------|
| GROSS LENGTH         | 5,565 FEET | 1.054 MILES |
| LENGTH OF EXCEPTIONS | 0 FEET     | 0 MILES     |
| NET LENGTH           | 5,565 FEET | 1.054 MILES |

DESIGN DESIGNATION I29 SB

|            |        |
|------------|--------|
| ADT (2014) | 2275   |
| ADT (2034) | 2962   |
| DHV        | 310    |
| D          | 51%    |
| T DHV      | 13.6   |
| T ADT      | 12.8%  |
| V          | 75 MPH |

|                      |            |            |
|----------------------|------------|------------|
| GROSS LENGTH         | 32366 FEET | 6.13 MILES |
| LENGTH OF EXCEPTIONS | 0 FEET     | 0 MILES    |
| NET LENGTH           | 32366 FEET | 6.13 MILES |

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# ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

|                             |             |              |                 |
|-----------------------------|-------------|--------------|-----------------|
| STATE OF<br>SOUTH<br>DAKOTA | PROJECT     | SHEET<br>NO. | TOTAL<br>SHEETS |
|                             | PH 0010(86) | 2            | 30              |

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## ESTIMATE OF QUANTITIES

| Bid Item Number | Item   | Quantity | Unit |
|-----------------|--|----------|------|
| 009E0010        | Mobilization   | Lump Sum | LS   |
| 633E0010        | Cold Applied Plastic Pavement Marking, 4"                | 39,010   | Ft   |
| 633E0030        | Cold Applied Plastic Pavement Marking, 24"               | 2,410    | Ft   |
| 633E0040        | Cold Applied Plastic Pavement Marking, Arrow             | 44       | Each |
| 633E0055        | Cold Applied Plastic Pavement Marking, Railroad Crossing | 2        | Each |
| 633E3000        | Durable Pavement Marking, 4" White                       | 40,460   | Ft   |
| 633E3005        | Durable Pavement Marking, 4" Yellow                      | 32,370   | Ft   |
| 633E5050        | Surface Preparation for Pavement Marking                 | 126,300  | Ft   |
| 633E5052        | Surface Preparation for Pavement Marking                 | 46       | Each |
| 634E0010        | Flagging   | 100      | Hour |
| 634E0100        | Traffic Control  | 864      | Unit |
| 634E0120        | Traffic Control, Miscellaneous                           | Lump Sum | LS   |
| 634E0420        | Type C Advance Warning Arrow Panel                       | 1        | Each |
| 998E0100        | Railroad Protective Insurance                            | Lump Sum | LS   |

## SPECIFICATIONS

Standard Specifications for Roads & Bridges, 2004 Edition and Required Provisions, Supplemental Specifications and Special Provisions as included in the Proposal.

## ENVIRONMENTAL COMMITMENTS

An Environmental Commitment is a measure that SDDOT commits to implement in order to avoid, minimize, and/or mitigate a real or potential environmental impact. Environmental commitments to various agencies and the public have been made to secure approval of this project. An agency mentioned below with permitting authority can influence a project if perceived environmental impacts have not been adequately addressed. Unless otherwise designated, the Contractor's primary contact regarding matters associated with these commitments will be the Project Engineer. These environmental commitments are not subject to change without prior written approval from the SDDOT Environmental Office. The environmental commitments associated with this project are as follows:

### COMMITMENT E: STORM WATER

Construction activities constitute less than 1 acre of disturbance.

#### Action Taken/Required:

At a minimum and regardless of project size, appropriate erosion and sediment control measures must be installed to control the discharge of pollutants from the construction site.

### COMMITMENT H: WASTE DISPOSAL SITE

The Contractor shall furnish a site(s) for the disposal of construction and/or demolition debris generated by this project.

#### Action Taken/Required:

Construction and/or demolition debris may not be disposed of within the State ROW.

The waste disposal site(s) shall be managed and reclaimed in accordance with the following from the General Permit for Highway, Road, and Railway Construction/Demolition Debris Disposal Under the South Dakota Waste Management Program issued by the Department of Environment and Natural Resources.

The waste disposal site(s) shall not be located in a wetland, within 200 feet of surface water, or in an area that adversely affects wildlife, recreation, aesthetic value of an area, or any threatened or endangered species, as approved by the Project Engineer.

If the waste disposal site(s) is located such that it is within view of any ROW, the following additional requirements shall apply:

- Construction and/or demolition debris consisting of concrete, asphalt concrete, or other similar materials shall be buried in a trench completely separate from wood debris. The final cover over the construction and/or demolition debris shall consist of a minimum of 1 foot of soil capable of supporting vegetation. Waste disposal sites provided outside of the State ROW shall be seeded in accordance with Natural Resources Conservation Service recommendations. The seeding recommendations may be obtained through the appropriate County NRCS Office. The Contractor shall control the access to waste disposal sites not within the State ROW through the use of fences, gates, and placement of a sign or signs at the entrance to the site stating "No Dumping Allowed".

- Concrete and asphalt concrete debris may be stockpiled within view of the ROW for a period of time not to exceed the duration of the project. Prior to project completion, the waste shall be removed from view of the ROW or buried and the waste disposal site reclaimed as noted above.

The above requirements will not apply to waste disposal sites that are covered by an individual solid waste permit as specified in SDCL 34A-6-58, SDCL 34A-6-1.13, and ARSD 74:27:10:06.

Failure to comply with the requirements stated above may result in civil penalties in accordance with South Dakota Solid Waste Law, SDCL 34A-6-1.31.

All costs associated with furnishing waste disposal site(s), disposing of waste, maintaining control of access (fence, gates, and signs), and reclamation of the waste disposal site(s) shall be incidental to the various contract items.

### COMMITMENT I: HISTORICAL PRESERVATION OFFICE CLEARANCES

The SDDOT has obtained concurrence with the State Historical Preservation Office (SHPO or THPO) for all work included within the project limits and all designated option borrow sites provided within the plans.

#### Action Taken/Required:

All earth disturbing activities not designated within the plans require review of cultural resources impacts. This work includes, but is not limited to: staging areas, borrow sites, waste disposal sites, and all material processing sites.

The Contractor shall arrange and pay for a cultural resource survey and/or records search. The Contractor has the option to contact the state Archaeological Research Center (ARC) at 605-394-1936 or another qualified archaeologist, to obtain either a records search or a cultural resources survey. A record search might be sufficient for review; however, a cultural resources survey may need to be conducted by a qualified archaeologist.

The Contractor shall provide ARC with the following: a topographical map or aerial view on which the site is clearly outlined, site dimensions, project number, and PCN. If applicable, provide evidence that the site has been previously disturbed by farming, mining, or construction activities with a landowner statement that artifacts have not been found on the site.

The Contractor shall submit the records search or cultural resources survey report and if the location of the site is within the current geographical or historic boundaries of any South Dakota reservation to SDDOT Environmental Engineer, 700 East Broadway Avenue, Pierre, SD 57501-2586 (605-773-3180). SDDOT will submit the information to the appropriate SHPO/THPO. Allow **30 Days** from the date this information is submitted to the Environmental Engineer for SHPO/THPO review.

If evidence for cultural resources is uncovered during project construction activities, then such activities shall cease and the Project Engineer shall be immediately notified. The Project Engineer will contact the SDDOT Environmental Engineer in order to determine an appropriate course of action.

SHPO/THPO review does not relieve the Contractor of the responsibility for obtaining any additional permits and clearances for staging areas, borrow sites, waste disposal sites, or material processing sites that affect wetlands, threatened and endangered species, or waterways. The Contractor shall provide the required permits and clearances to the Project Engineer at the preconstruction meeting.

|                             |             |              |                 |
|-----------------------------|-------------|--------------|-----------------|
| STATE OF<br>SOUTH<br>DAKOTA | PROJECT     | SHEET<br>NO. | TOTAL<br>SHEETS |
|                             | PH 0010(86) | 3            | 30              |

Revised 3/02/2015 DLM

## Table of Quantities

(For Information Only)

| Item   | US14     | SD25     | I-29     | Total    | Units |
|--|----------|----------|----------|----------|-------|
| Mobilization   | Lump Sum | Lump Sum | Lump Sum | Lump Sum | LS    |
| Cold Applied Plastic Pavement Marking, 4" White          | 4,625    | 12,200   |          | 16,825   | Ft    |
| Cold Applied Plastic Pavement Marking, 4" Yellow         | 10,285   | 11,900   |          | 22,185   | Ft    |
| Cold Applied Plastic Pavement Marking, 24" White         | 2,410    |          |          | 2,410    | Ft    |
| Cold Applied Plastic Pavement Marking, Arrow Left        | 38       |          |          | 38       | Each  |
| Cold Applied Plastic Pavement Marking, Arrow Right       | 6        |          |          | 6        | Each  |
| Cold Applied Plastic Pavement Marking, Railroad Crossing |          | 2        |          | 2        | Each  |
| Durable Pavement Marking, 4" Yellow                      |          |          | 32,370   | 32,370   | Ft    |
| Durable Pavement Marking, 4" White                       |          |          | 40,460   | 40,460   | Ft    |
| Surface Preparation for Pavement Marking                 | 29,370   | 24,100   | 72,830   | 126,300  | Ft    |
| Surface Preparation for Pavement Marking                 | 44       | 2        |          | 46       | Each  |
| Railroad Protective Insurance                            |          | Lumpsum  |          | Lumpsum  | LS    |
| Flagging   | 50       | 50       |          | 100      | HR    |
| Traffic Control  | 306      | 238      | 320      | 864      | Unit  |
| Traffic Control, Miscellaneous                           | Lump Sum | Lump Sum | Lump Sum | Lump Sum | LS    |
| Type C Advance Warning Arrow Panel                       | 1        |          |          | 1        | Each  |

|                             |             |              |                 |
|-----------------------------|-------------|--------------|-----------------|
| STATE OF<br>SOUTH<br>DAKOTA | PROJECT     | SHEET<br>NO. | TOTAL<br>SHEETS |
|                             | PH 0010(86) | 4            | 30              |

**WORK DESCRIPTION**

The project consists of three sections:

Section 1 – US14 -Brookings (MRM 420.320 – 421.204). Work shall include surface preparation and applying cold applied plastic pavement markings.

Section 2 – SD25 Webster (MRM 181.016 – 182.170). Work shall include surface preparation and applying cold applied plastic pavement markings.

Section 3– I-29 Roberts County southbound (MRM 225.0 – 231.13). Work shall include surface preparation, and applying durable pavement marking on edge lines and mainline skip lines.

**DURABLE PAVEMENT MARKING**

Durable Pavement Marking shall meet the requirements of the Special Provisions.

Durable Pavement Markings shall be installed to match existing markings.

**COLD APPLIED PLASTIC PAVEMENT MARKING**

The cold applied plastic pavement marking material shall be as defined in Section 983 of the Specifications.

**SURFACE PREPARATION**

The existing pavement marking grooves shall be cleaned. The cleaning of the grooves shall result in the existing marking being scuffed, braded and removed to allow proper adhesion of the new durable pavement marking as per manufacturer's recommendations to comply with any warranties. Cleaning of the existing pavement marking grooves shall not add any additional depth to the existing grooves.

Removal of existing durable markings on bridge decks shall be by sandblasting.

Surface preparation, removal and cleaning work shall be conducted in such a manner as to control and minimize airborne dust and similar debris that may become a hazard to motor vehicle operation or nuisance to property owners.

All cost associated with removal of the existing 4" and 24" pavement marking and cleaning of the existing pavement marking grooves shall be incidental to the contract unit price per foot for "Surface Preparation for Pavement Marking". Measurement for Surface Preparation for Pavement Marking per foot shall be measured as 4" equivalent.

All cost associated with removal of the existing arrow and railroad crossing pavement marking and cleaning of the existing pavement marking grooves shall be incidental to the contract unit price per each for "Surface Preparation for Pavement Marking".

**GENERAL MAINTENANCE OF TRAFFIC**

Work will be allowed only during daylight hours.

Traffic control during the work shall be a minimum of a mobile work operation. The Contractor may use lane closures to complete the work should conditions dictate.

Vehicles used for mobile work operations should be equipped with highly visible devices such as high-intensity rotating, flashing, oscillating, or strobe lights.

For mobile operation a lead vehicle is optional if the striper operates in its own lane or is on a multi-lane highway. The shadow vehicle shall be used at all times. The shadow vehicle shall operate in the same lane as the striper. The shadow vehicle shall display a sign with the legend "WET PAINT AHEAD" and an arrow panel.

Cost of equipment and traffic control devices on equipment, including arrow panels and signs, shall be incidental to the contract lump sum price for Traffic Control, Miscellaneous.

During surface preparation or pavement marking operations on Interstate, the Contractor may close a lane of traffic for no more than 3 miles. The Engineer must approve of the lane closure lengths after consideration of interchange spacing and traffic volumes.

Removing, relocating, covering, salvaging and resetting of existing traffic control devices, including delineation, shall be the responsibility of the Contractor. Cost for this work shall be incidental to the contract unit prices for the various items unless otherwise specified in the plans. Any delineators and signs damaged or lost shall be replaced by the Contractor at no cost to the State.

Storage of vehicles and equipment shall be outside the clear zone and as near as possible to the right-of-way line. Contractor's employees should mobilize at a location off the right-of-way and arrive at the work sites in a minimum number of vehicles necessary to perform the work.

The Contractor's equipment will be required to enter and leave the project only at interchanges. Crossing of the median will not be allowed.

Indiscriminate driving and parking of vehicles within the right-of-way will not be permitted. Any damage to the vegetation, surfacing, embankment, delineators and existing signs resulting from such indiscriminate use shall be repaired and/or restored by the Contractor, at no expense to the State, and to the satisfaction of the Engineer.

The bottom of signs on portable or temporary supports shall not be less than seven feet above the pavement in urban areas and one foot above the pavement in rural areas. Portable sign supports may be used as long as the duration is less than 3 days. If the duration is more than 3 days the signs shall be on fixed location, ground mounted, breakaway supports.

The Contractor shall provide documentation that all breakaway sign supports comply with FHWA NCHRP Report 350 or MASH crash-worthy requirements. The Contractor shall provide installation details at the preconstruction meeting for all breakaway sign support assemblies.

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Sufficient quantities and units for Traffic Control have been included to sign for one work area for each highway segment. If the Contractor elects to use additional lane closures, the cost for additional traffic control devices or equipment shall be incidental to the contract unit price per Unit for Traffic Control.

**TEMPORARY PAVEMENT MARKING**

Temporary pavement markings shall be as per the Specifications.

Prior to nightfall tabs will be required to mark centerline on segments of roadway where existing centerline markings have been removed and new markings have not been installed.

Furnishing and installing tabs or tape for temporary pavement markings shall be at no cost to the state.

Revised 3/02/2015 DLM

## ITEMIZED LIST FOR TRAFFIC CONTROL

### US14

| SIGN CODE          | DESCRIPTION                      | NUMBER | SIGN SIZE | UNITS PER SIGN | UNITS      |
|--------------------|----------------------------------|--------|-----------|----------------|------------|
| W4-2               | LEFT or RIGHT LANE ENDS (symbol) | 1      | 48" x 48" | 34             | 34         |
| W9-3               | CENTER LANE CLOSED AHEAD         | 2      | 48" x 48" | 34             | 68         |
| W20-1              | ROAD WORK AHEAD                  | 2      | 48" x 48" | 34             | 68         |
| W20-5              | LEFT or RIGHT LANE CLOSED AHEAD  | 1      | 48" x 48" | 34             | 34         |
| W20-7              | FLAGGER (symbol)                 | 2      | 48" x 48" | 34             | 68         |
| G20-2              | END ROAD WORK                    | 2      | 36" x 18" | 17             | 34         |
| <b>TOTAL UNITS</b> |                                  |        |           |                | <b>306</b> |

### SD25

| SIGN CODE          | DESCRIPTION         | NUMBER | SIGN SIZE | UNITS PER SIGN | UNITS      |
|--------------------|---------------------|--------|-----------|----------------|------------|
| W20-1              | ROAD WORK AHEAD     | 2      | 48" x 48" | 34             | 68         |
| W20-4              | ONE LANE ROAD AHEAD | 2      | 48" x 48" | 34             | 68         |
| W20-7              | FLAGGER (symbol)    | 2      | 48" x 48" | 34             | 68         |
| G20-2              | END ROAD WORK       | 2      | 36" x 18" | 17             | 34         |
| <b>TOTAL UNITS</b> |                     |        |           |                | <b>238</b> |

### I-29

| SIGN CODE          | DESCRIPTION                      | NUMBER | SIGN SIZE | UNITS PER SIGN | UNITS      |
|--------------------|----------------------------------|--------|-----------|----------------|------------|
| W4-2               | LEFT or RIGHT LANE ENDS (symbol) | 2      | 48" x 48" | 34             | 68         |
| W20-1              | ROAD WORK AHEAD                  | 2      | 48" x 48" | 34             | 68         |
| W20-5              | LEFT or RIGHT LANE CLOSED AHEAD  | 4      | 48" x 48" | 34             | 136        |
| G20-2              | END ROAD WORK                    | 2      | 48" x 24" | 24             | 48         |
| <b>TOTAL UNITS</b> |                                  |        |           |                | <b>320</b> |

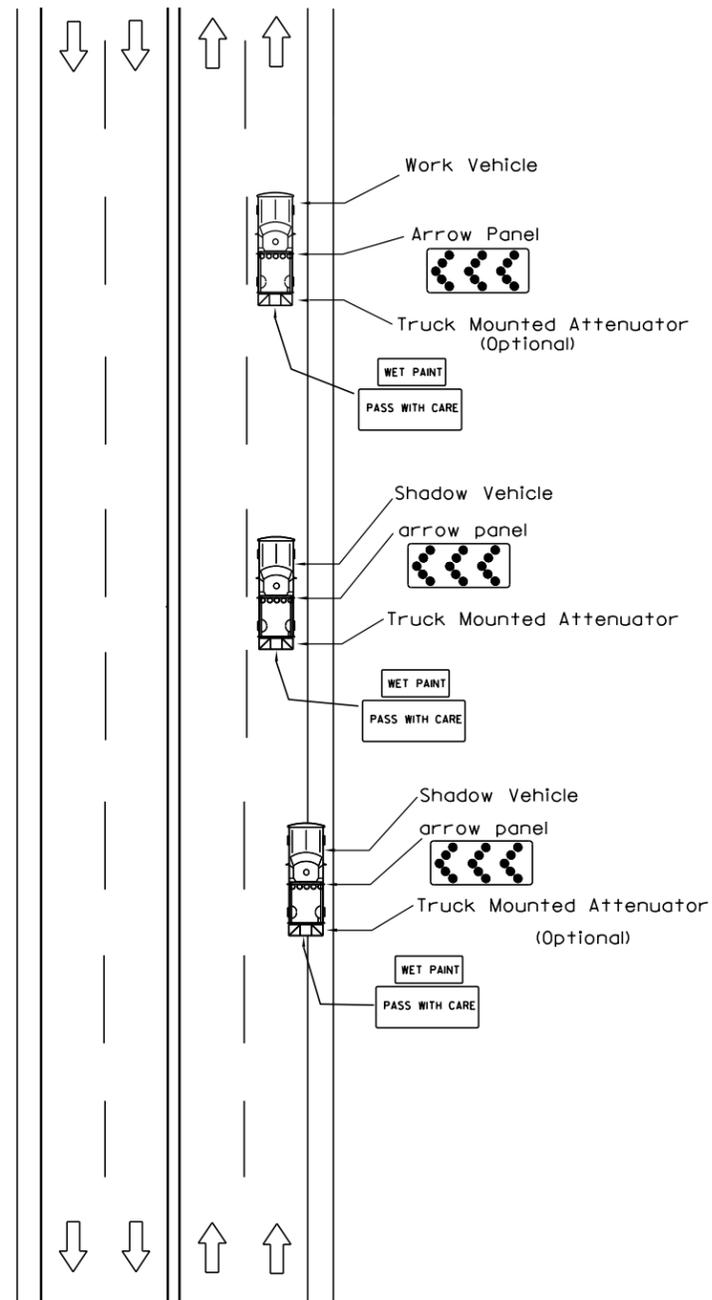
If a sign is required on a project and not listed in the above inventory, the units per sign will be determined as follows:

Signs 36" x 36" will be measured at 27 units each and signs 48" x 48" will be measured at 34 units each, otherwise:

If a sign measures less than 25" high and 25" wide the units per sign will be computed as sign size (sq ft) x 3.

If a sign measures between 23H" and 37H" the units per sign will be computed as sign size (sq ft) x 1.2 +15.

## MOBILE OPERATIONS ON FOUR-LANE DIVIDED ROAD (TYPICAL PAINT APPLICATION)



### Notes for Mobile Operations on Two-lane Road (Typical)

**Standard:**

1. Vehicle-mounted signs shall be mounted in a manner such that they are not obscured by equipment or supplies. Sign legends on vehicle-mounted signs shall be covered or turned from view when work is not in progress.
2. Shadow and work vehicles shall display high-intensity rotating, flashing, oscillating or strobe lights, signs or arrow panels.
3. Arrow panels shall, as a minimum, be Type B, with a size of 60" x 30".
4. Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity rotating, flashing, oscillating, or strobe lights.

**Guidance:**

5. The spacing between the work vehicle and the shadow vehicle and between each shadow vehicle should be minimized to deter road users from driving in between.
6. Work should normally be accomplished during off-peak hours.
7. The shadow vehicles should also be equipped with two high-intensity flashing lights mounted on the rear, adjacent to the sign.

**Option:**

8. A truck-mounted attenuator may be used on the work vehicle and the shadow vehicle.

**Support:**

9. Shadow vehicles are used to warn motor vehicle traffic of the operation ahead.

**GUIDES FOR TRAFFIC CONTROL DEVICES  
MOBILE OPERATIONS ON 4-LANE DIVIDED**

Plotting Date: 02/27/2015

| Posted Speed Prior to Work (M.P.H.) | Spacing of Advance Warning Signs (Feet) (A) | Spacing of Channelizing Devices (Feet) (G) |
|-------------------------------------|---|--|
| 0 - 30                              | 200   | 25   |
| 35 - 40                             | 350   | 25   |
| 45 - 50                             | 500   | 50   |
| 55                                  | 750   | 50   |
| 60 - 65                             | 1000  | 50   |

- Flagger
- Channelizing Device

For low-volume traffic situations with short work zones on straight roadways where the flagger is visible to road users approaching from both directions, a single flagger may be used.

The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short duration operations (1 hour or less).

For tack and/or flush seal operations, when flaggers are not being used, the FRESH OIL sign (W21-2) shall be displayed in advance of the liquid asphalt areas.

Flashing warning lights and/or flags may be used to call attention to the advance warning signs.

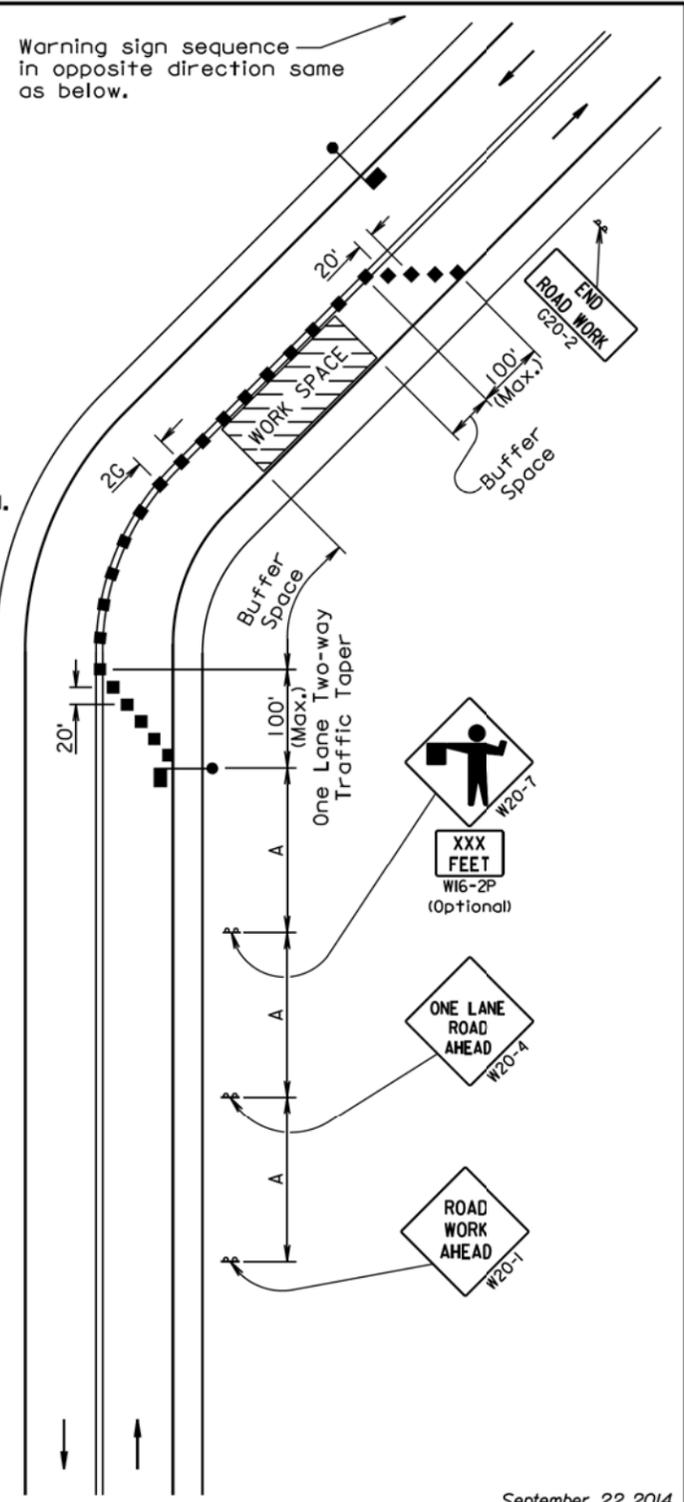
The channelizing devices shall be drums or 42" cones.

Channelizing devices are not required along the centerline adjacent to work area when pilot cars are utilized for escorting traffic through the work area.

Channelizing devices and flaggers shall be used at intersecting roads to control intersecting road traffic as required.

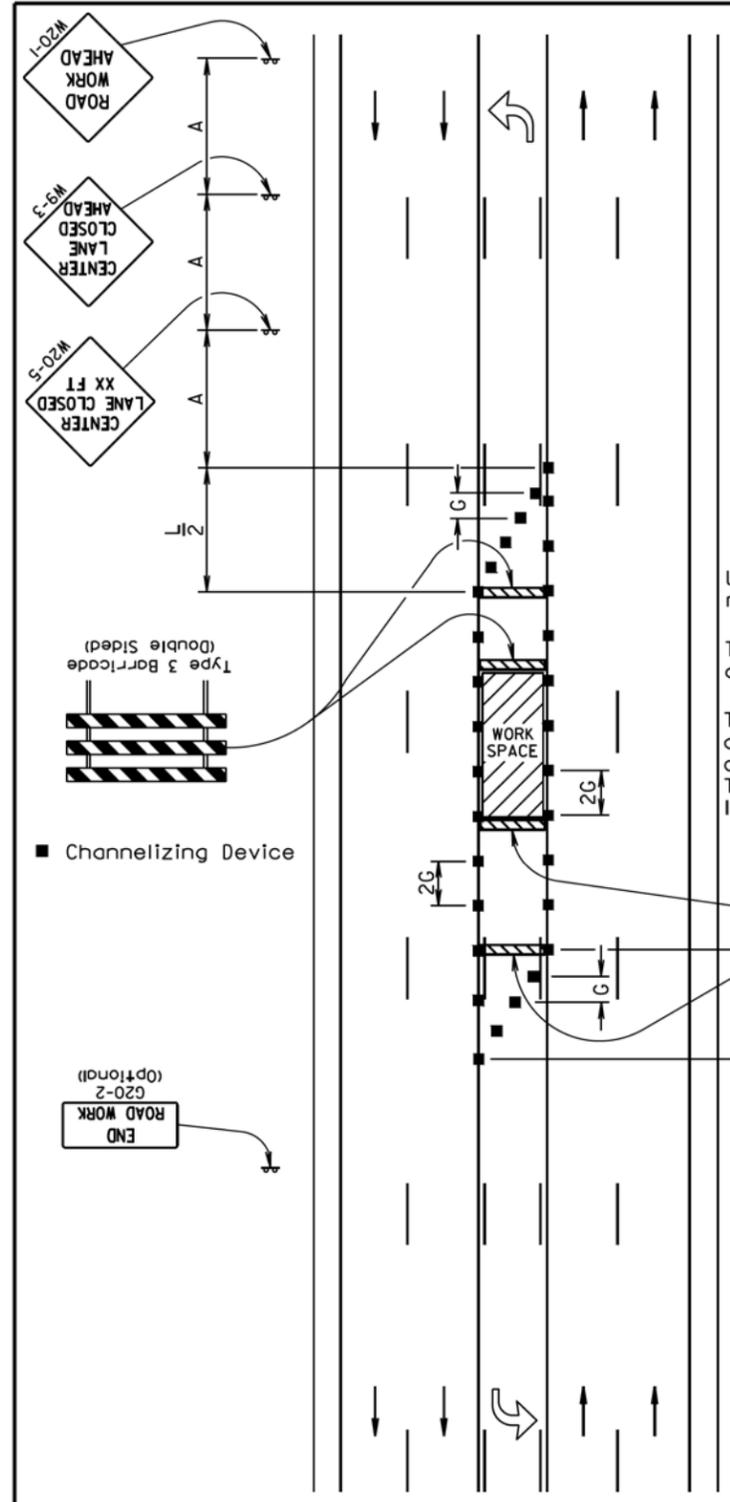
The buffer space should be extended so that the two-way traffic taper is placed before a horizontal or vertical curve to provide adequate sight distance for the flagger and queue of stopped vehicles.

The length of A may be adjusted to fit field conditions.



September 22, 2014

|                                  |  |                               |
|----------------------------------|--|-------------------------------|
| <b>S<br/>D<br/>D<br/>O<br/>T</b> | <b>GUIDES FOR TRAFFIC CONTROL DEVICES<br/>LANE CLOSURE WITH FLAGGER PROVIDED</b> | PLATE NUMBER<br><b>634.23</b> |
|                                  | Published Date: 1st Qtr. 2015  | Sheet 1 of 1                  |



September 22, 2014

|                                  |  |                               |
|----------------------------------|--|-------------------------------|
| <b>S<br/>D<br/>D<br/>O<br/>T</b> | <b>GUIDES FOR TRAFFIC CONTROL DEVICES<br/>5-LANE, CENTER LANE CLOSED</b> | PLATE NUMBER<br><b>634.55</b> |
|                                  | Published Date: 1st Qtr. 2015  | Sheet 1 of 1                  |

| Posted Speed Prior to Work (M.P.H.) | Spacing of Advance Warning Signs (Feet) (A) | Taper Length (Feet) (L) |
|-------------------------------------|---|-------------------------|
| 0 - 30                              | 200   | 180                     |
| 35 - 40                             | 350   | 320                     |
| 45 - 50                             | 500   | 600                     |
| 55                                  | 750   | 660                     |
| 60 - 65                             | 1000  | 780                     |

| Posted Speed Prior to Work (M.P.H.) | Spacing of Channelizing Devices (Feet) (G) |
|-------------------------------------|--|
| 0 - 30                              | 25   |
| 35 - 40                             | 25   |
| 45 - 50                             | 50   |
| 55                                  | 50   |
| 60 - 65                             | 50   |

Urban areas and intersecting streets may limit sign spacing.

The length of A and L may be adjusted to fit field conditions.

The channelizing devices shall be drums or 42" cones if traffic control must remain overnight. Tubular markers may be used for 12 hour or less duration.

PLOT SCALE - 1:200

PLOTTED FROM - TRAB17879

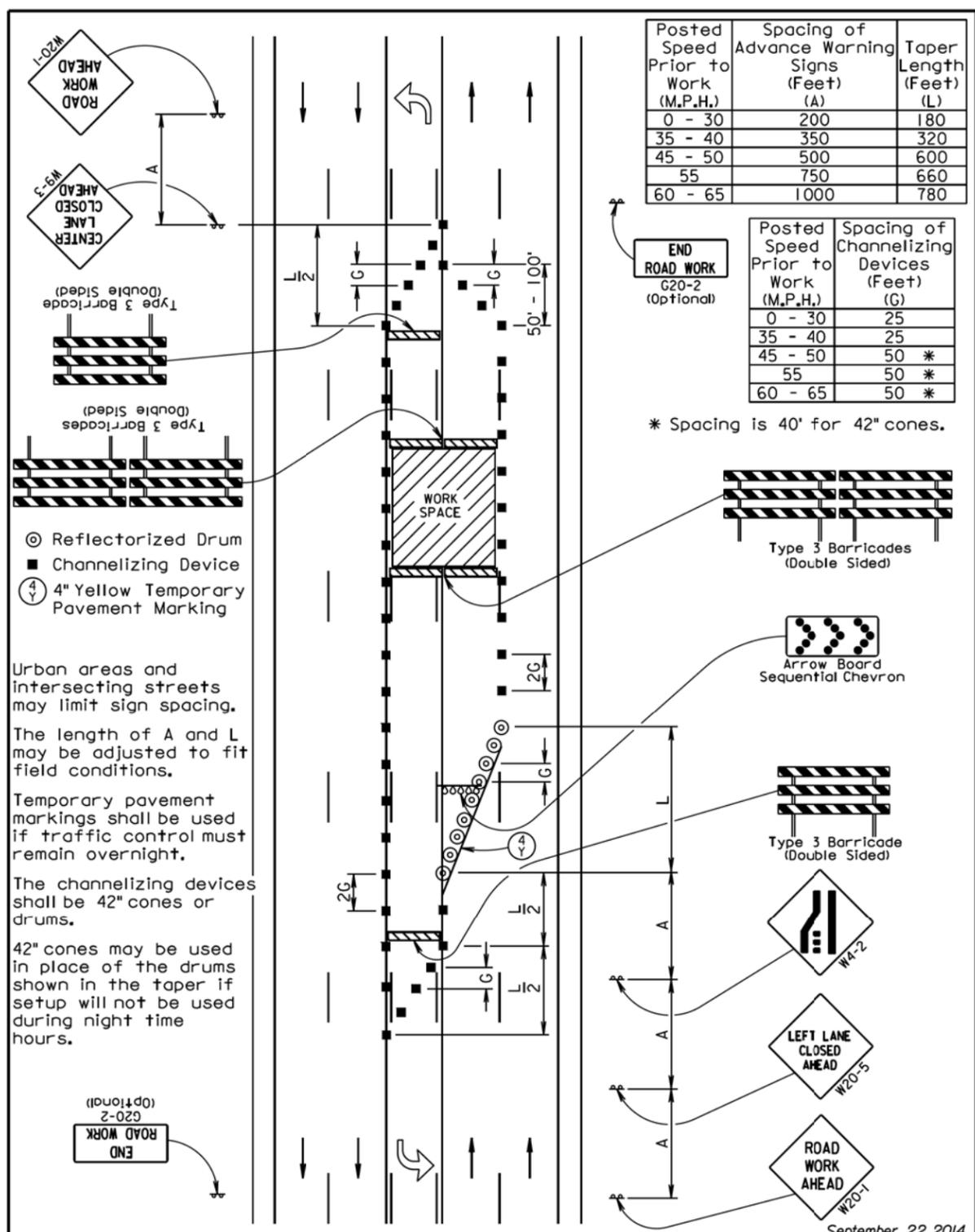
PLOT NAME - 2

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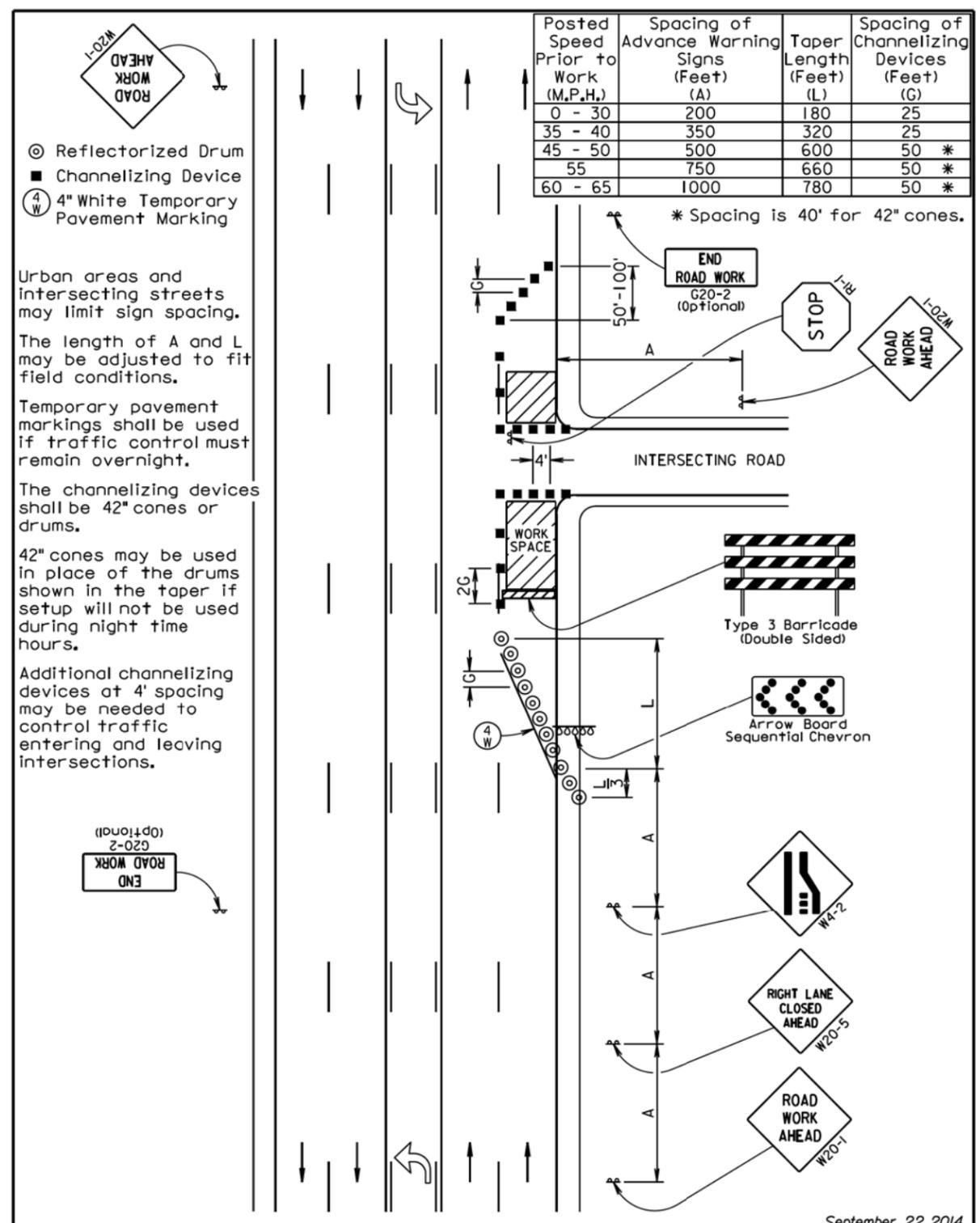
Plotting Date: 02/27/2015

PLOT SCALE - 1:200

PLOT NAME - 3



September 22, 2014  
**SDDOT**  
**GUIDES FOR TRAFFIC CONTROL DEVICES**  
**5-LANE, INSIDE 2 LANES CLOSED**  
 PLATE NUMBER 634.56  
 Sheet 1 of 1  
 Published Date: 1st Qtr. 2015



September 22, 2014  
**SDDOT**  
**GUIDES FOR TRAFFIC CONTROL DEVICES**  
**5-LANE, OUTSIDE LANE CLOSED**  
 PLATE NUMBER 634.60  
 Sheet 1 of 1  
 Published Date: 1st Qtr. 2015

PLOTTED FROM - TRAB17879

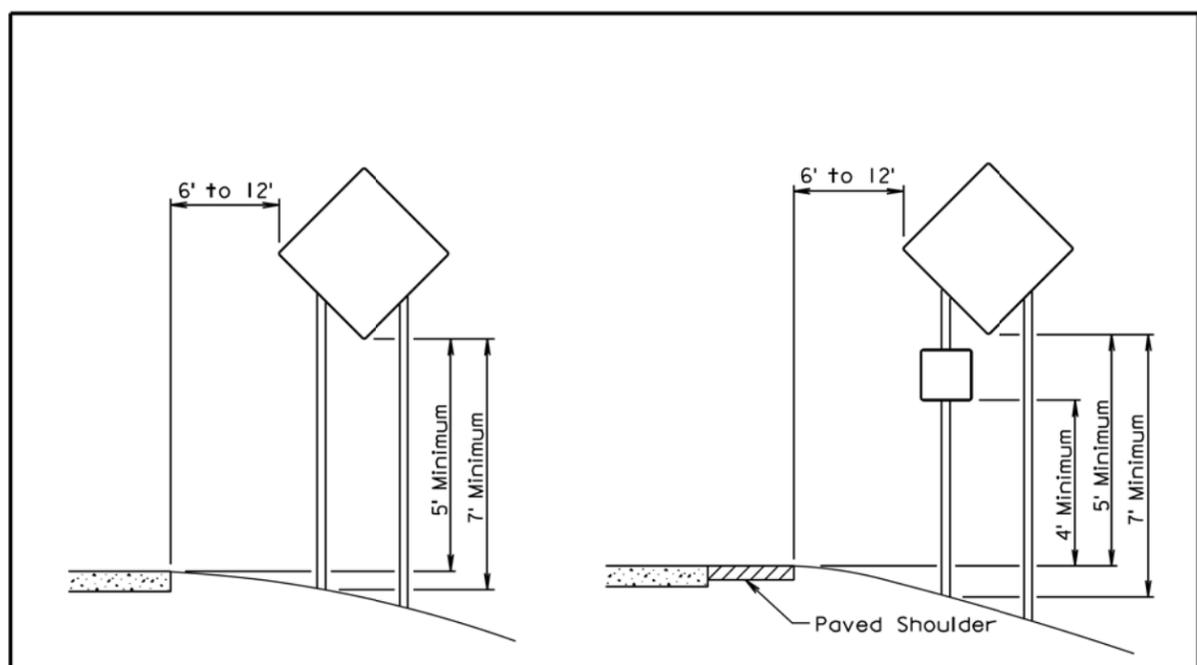
FILE - ... \634.55 & 634.60.DGN

Plotting Date: 02/27/2015

PLOT SCALE - 1:200

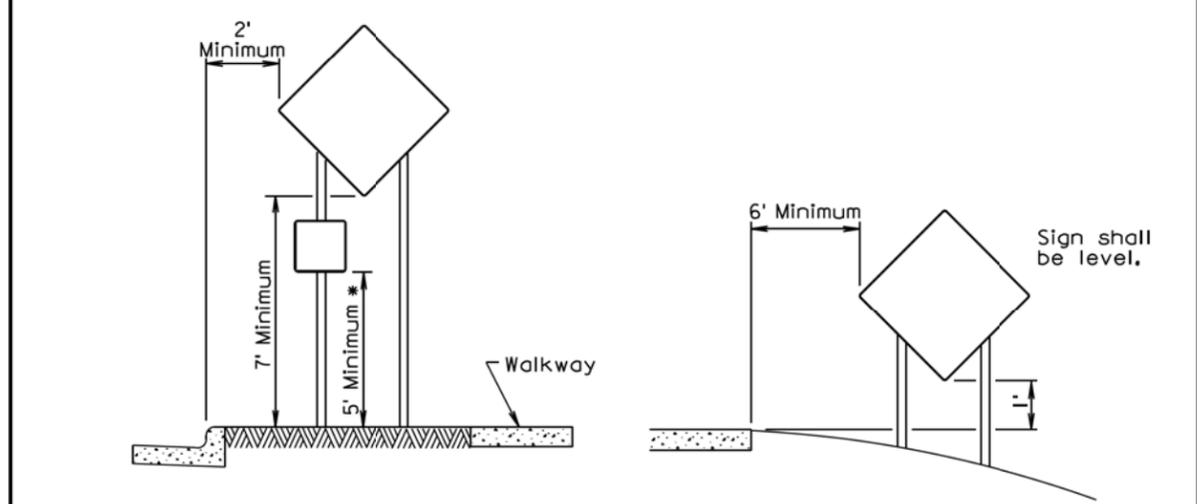
PLOT NAME - 4

FILE - ... \634.85 & 634.99.DGN



RURAL DISTRICT

RURAL DISTRICT WITH SUPPLEMENTAL PLATE



URBAN DISTRICT

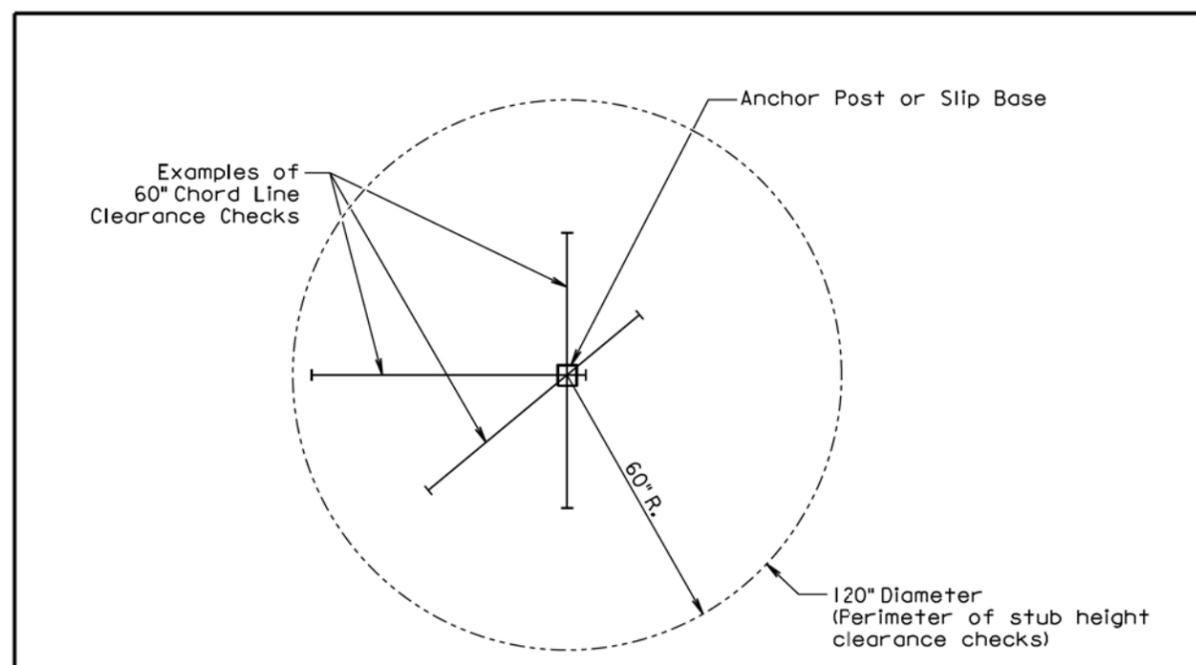
RURAL DISTRICT 3 DAY MAXIMUM

\* If the bottom of supplemental plate is mounted lower than 7 feet above a pedestrian walkway, the supplemental plate should not project more than 4" into the pedestrian facility.

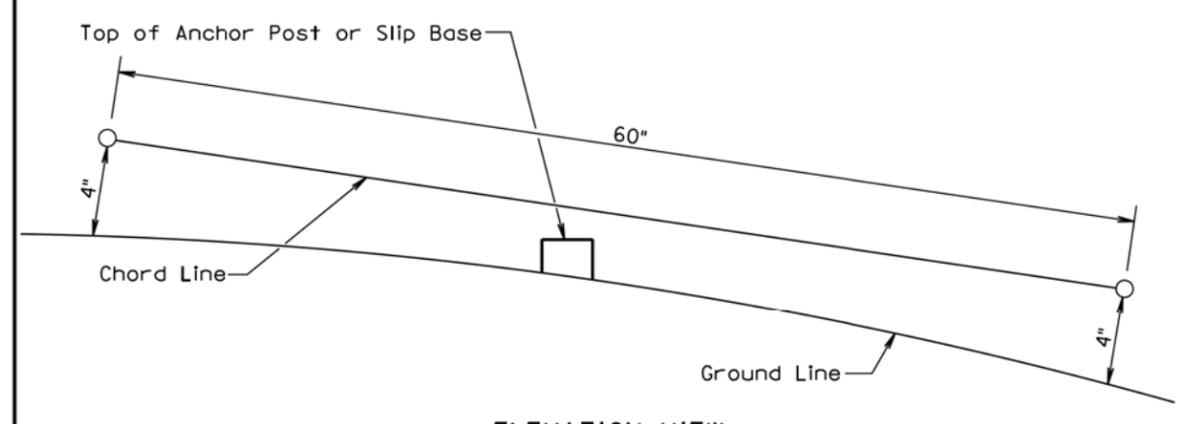
(Not applicable to regulatory signs)

September 22, 2014

|                               |                       |   |                        |
|-------------------------------|-----------------------|---|------------------------|
| Published Date: 1st Qtr. 2015 | S<br>D<br>D<br>O<br>T | CRASHWORTHY SIGN SUPPORTS<br>(Typical Construction Signing) | PLATE NUMBER<br>634.85 |
|                               |                       |   | Sheet 1 of 1           |



PLAN VIEW  
(Examples of stub height clearance checks)



ELEVATION VIEW

GENERAL NOTES:

The top of anchor posts and slip bases SHALL NOT extend above a 60" chord line within a 120" diameter circle around the post with ends 4" above the ground.

At locations where there is curb and gutter adjacent to the breakaway sign support, the stub height shall be a maximum of 4" above the ground line at the localized area adjacent to the breakaway support stub.

The 4" stub height clearance is not necessary for U-channel lap splices where the support is designed to yield (bend) at the base.

July 1, 2005

|                               |                       |                                  |                        |
|-------------------------------|-----------------------|----------------------------------|------------------------|
| Published Date: 1st Qtr. 2015 | S<br>D<br>D<br>O<br>T | BREAKAWAY SUPPORT STUB CLEARANCE | PLATE NUMBER<br>634.99 |
|                               |                       |                                  | Sheet 1 of 1           |

# PAVEMENT MARKING LAYOUT

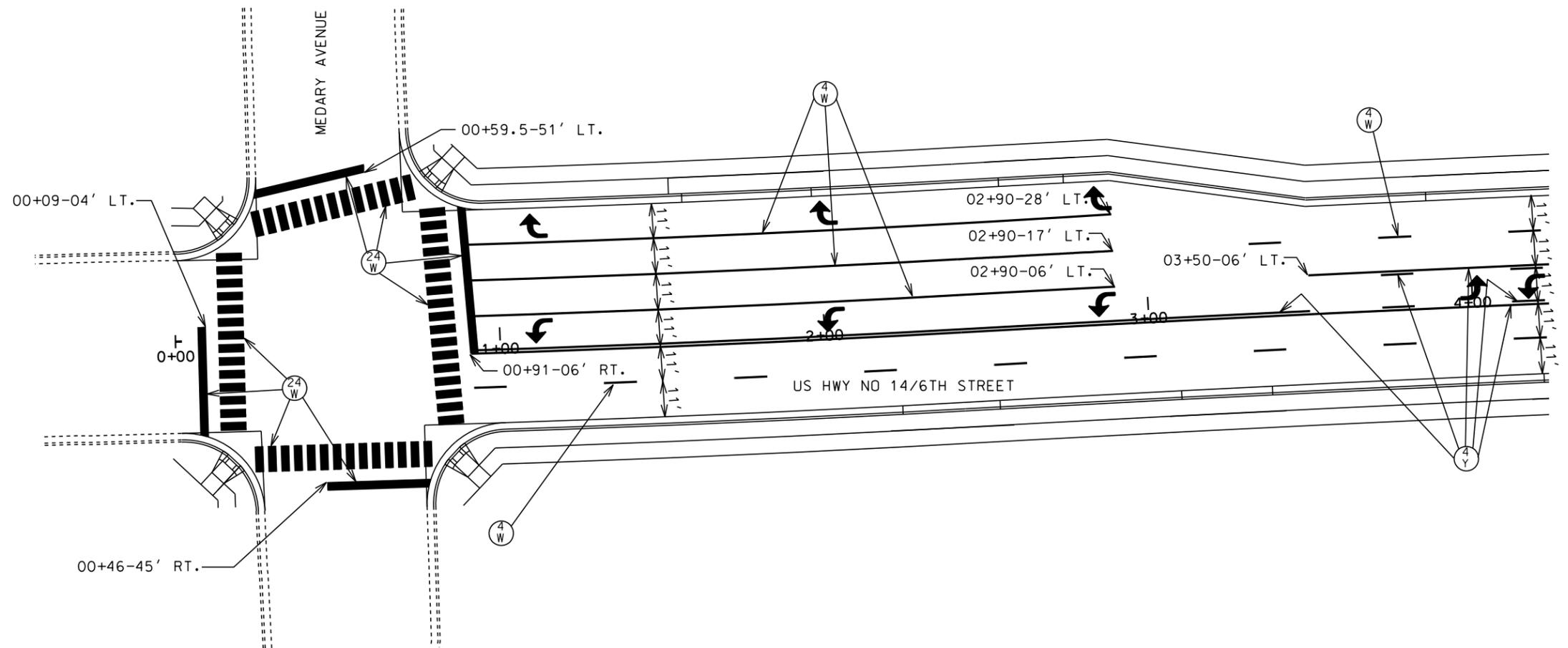
US HWY NO 14/6TH STREET  
BROOKINGS

|                             |             |              |                 |
|-----------------------------|-------------|--------------|-----------------|
| STATE OF<br>SOUTH<br>DAKOTA | PROJECT     | SHEET<br>NO. | TOTAL<br>SHEETS |
|                             | PH 0010(86) | 10           | 30              |

## ESTIMATE OF QUANTITIES

| KEY    | ITEM   |
|--------|--|
| (4 W)  | COLD APPLIED PLASTIC PVMT MARKING, 4" WHITE  |
| (4 Y)  | COLD APPLIED PLASTIC PVMT MARKING, 4" YELLOW |
| (24 W) | COLD APPLIED PLASTIC PVMT MARKING, 24" WHITE |
| ↩      | COLD APPLIED PLASTIC PVMT MARKING, ARROW     |

SCALE  
1" = 40'

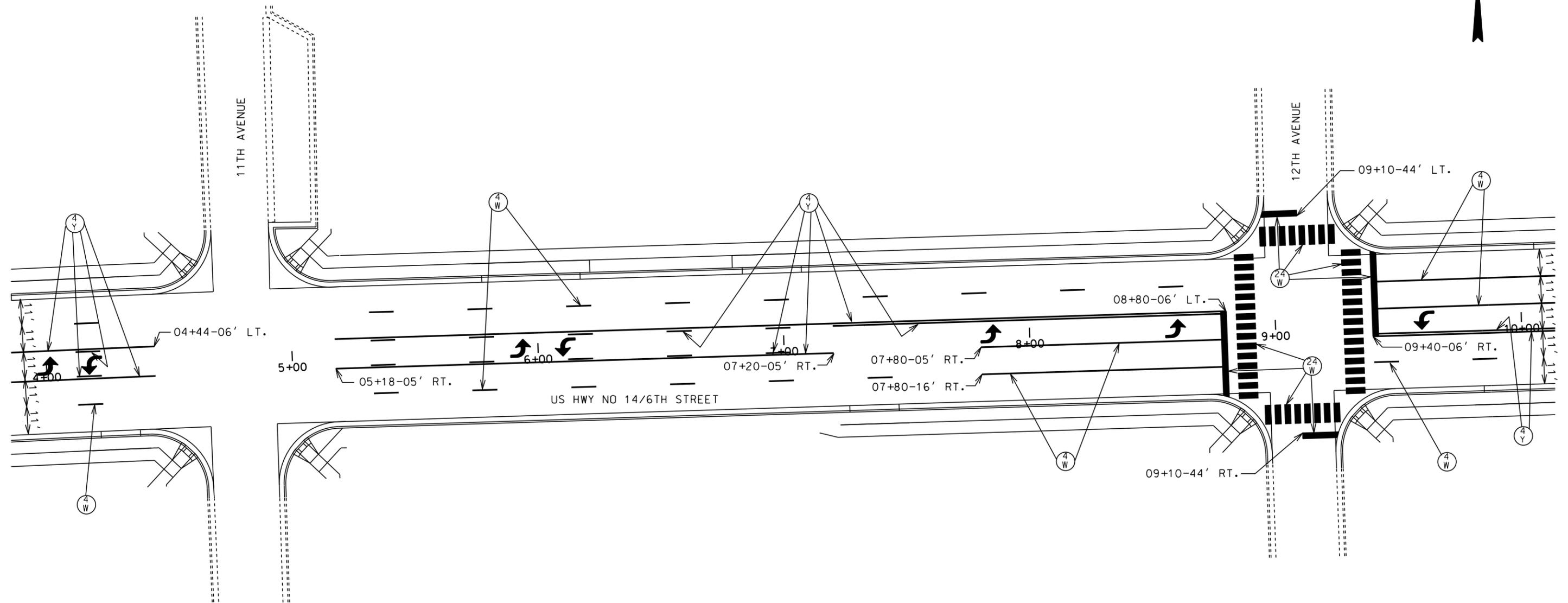


# PAVEMENT MARKING LAYOUT

US HWY NO 14/6TH STREET  
BROOKINGS

|                             |             |              |                 |
|-----------------------------|-------------|--------------|-----------------|
| STATE OF<br>SOUTH<br>DAKOTA | PROJECT     | SHEET<br>NO. | TOTAL<br>SHEETS |
|                             | PH 0010(86) | 11           | 30              |

SCALE  
1" = 40'

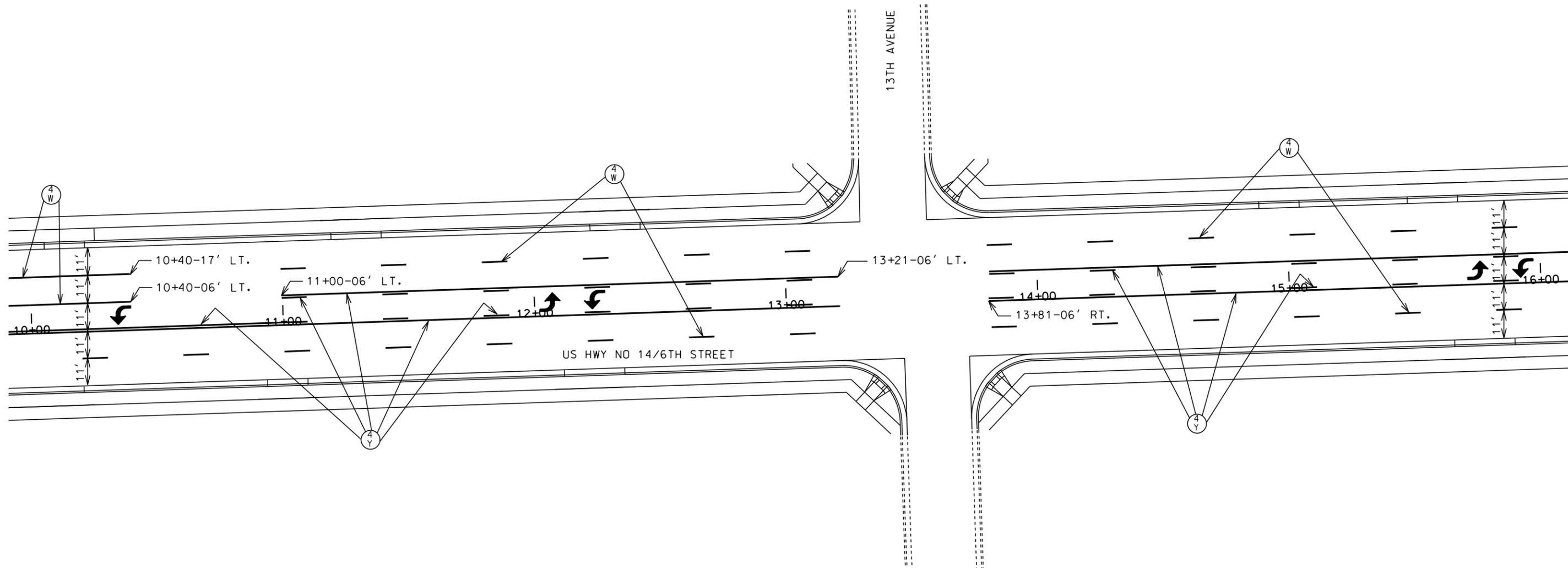


# PAVEMENT MARKING LAYOUT

US HWY NO 14/6TH STREET  
BROOKINGS

| STATE OF SOUTH DAKOTA | PROJECT     | SHEET NO. | TOTAL SHEETS |
|-----------------------|-------------|-----------|--------------|
|                       | PH 0010(86) | 12        | 30           |

SCALE  
1" = 40'

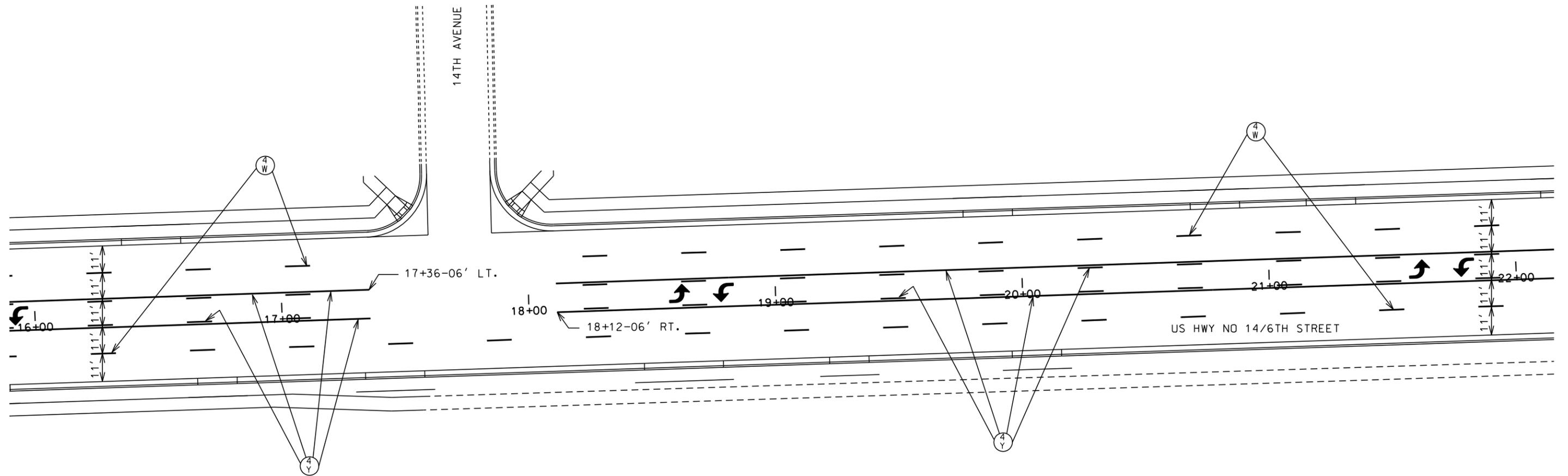


# PAVEMENT MARKING LAYOUT

US HWY NO 14/6TH STREET  
BROOKINGS

|                             |             |              |                 |
|-----------------------------|-------------|--------------|-----------------|
| STATE OF<br>SOUTH<br>DAKOTA | PROJECT     | SHEET<br>NO. | TOTAL<br>SHEETS |
|                             | PH 0010(86) | 13           | 30              |

SCALE  
1" = 40'

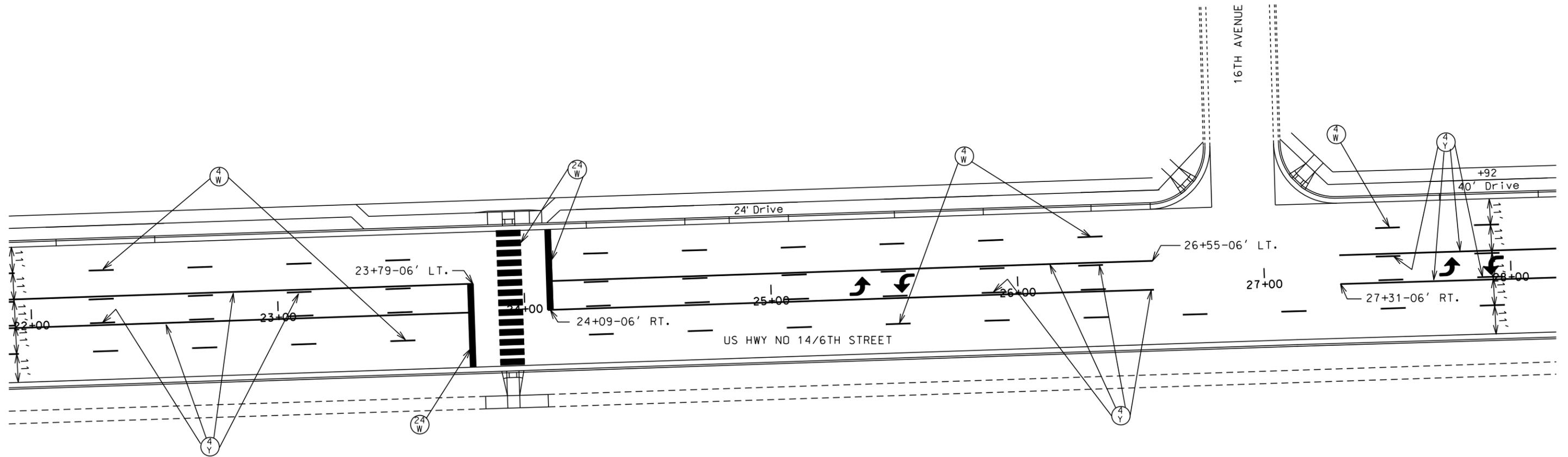


# PAVEMENT MARKING LAYOUT

US HWY NO 14/6TH STREET  
BROOKINGS

| STATE OF SOUTH DAKOTA | PROJECT     | SHEET NO. | TOTAL SHEETS |
|-----------------------|-------------|-----------|--------------|
|                       | PH 0010(86) | 14        | 30           |

SCALE  
1" = 40'

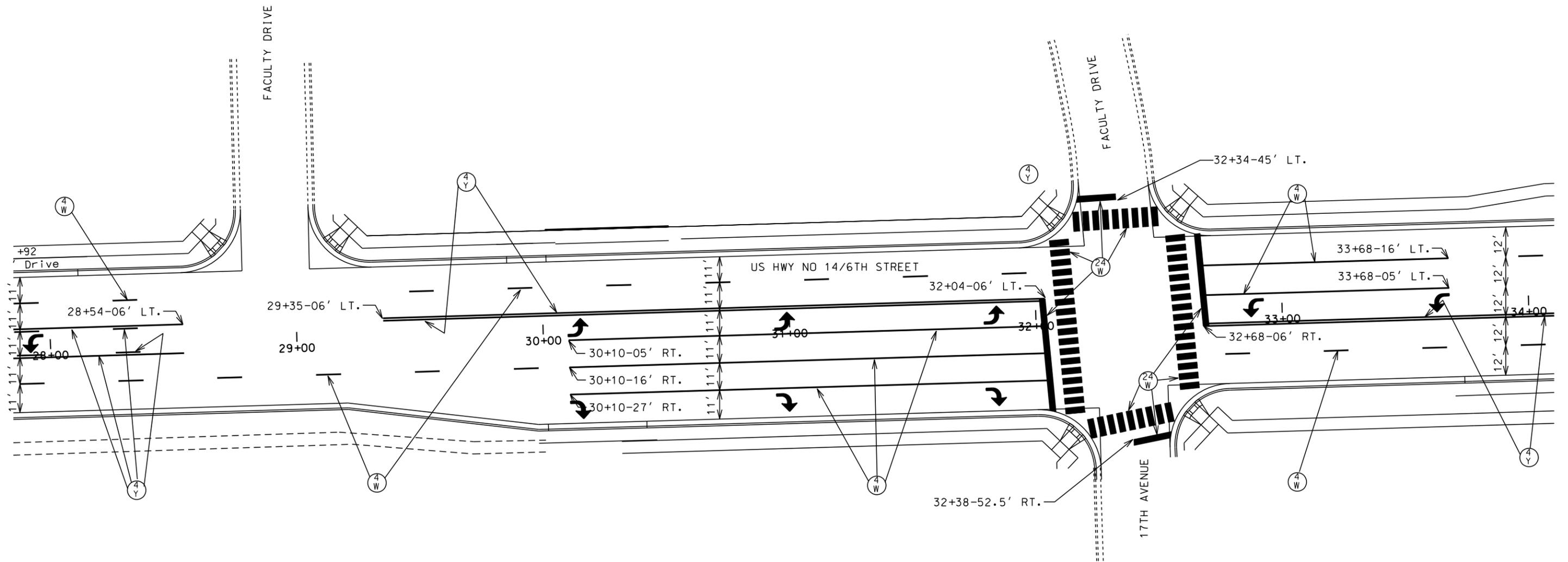


# PAVEMENT MARKING LAYOUT

US HWY NO 14/6TH STREET  
BROOKINGS

|                             |             |              |                 |
|-----------------------------|-------------|--------------|-----------------|
| STATE OF<br>SOUTH<br>DAKOTA | PROJECT     | SHEET<br>NO. | TOTAL<br>SHEETS |
|                             | PH 0010(86) | 15           | 30              |

SCALE  
1" = 40'

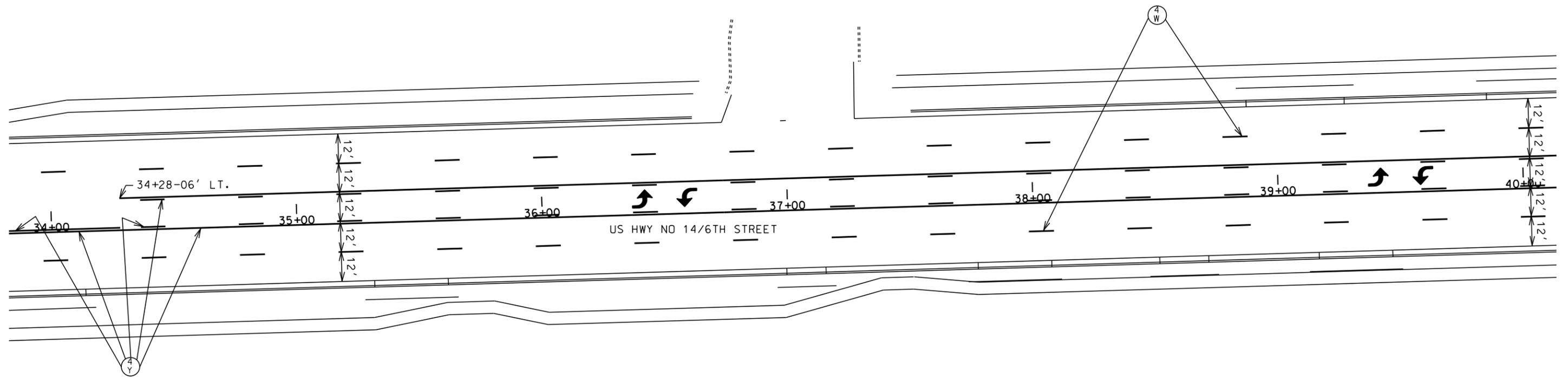


# PAVEMENT MARKING LAYOUT

US HWY NO 14/6TH STREET  
BROOKINGS

|                             |             |              |                 |
|-----------------------------|-------------|--------------|-----------------|
| STATE OF<br>SOUTH<br>DAKOTA | PROJECT     | SHEET<br>NO. | TOTAL<br>SHEETS |
|                             | PH 0010(86) | 16           | 30              |

SCALE  
1" = 40'

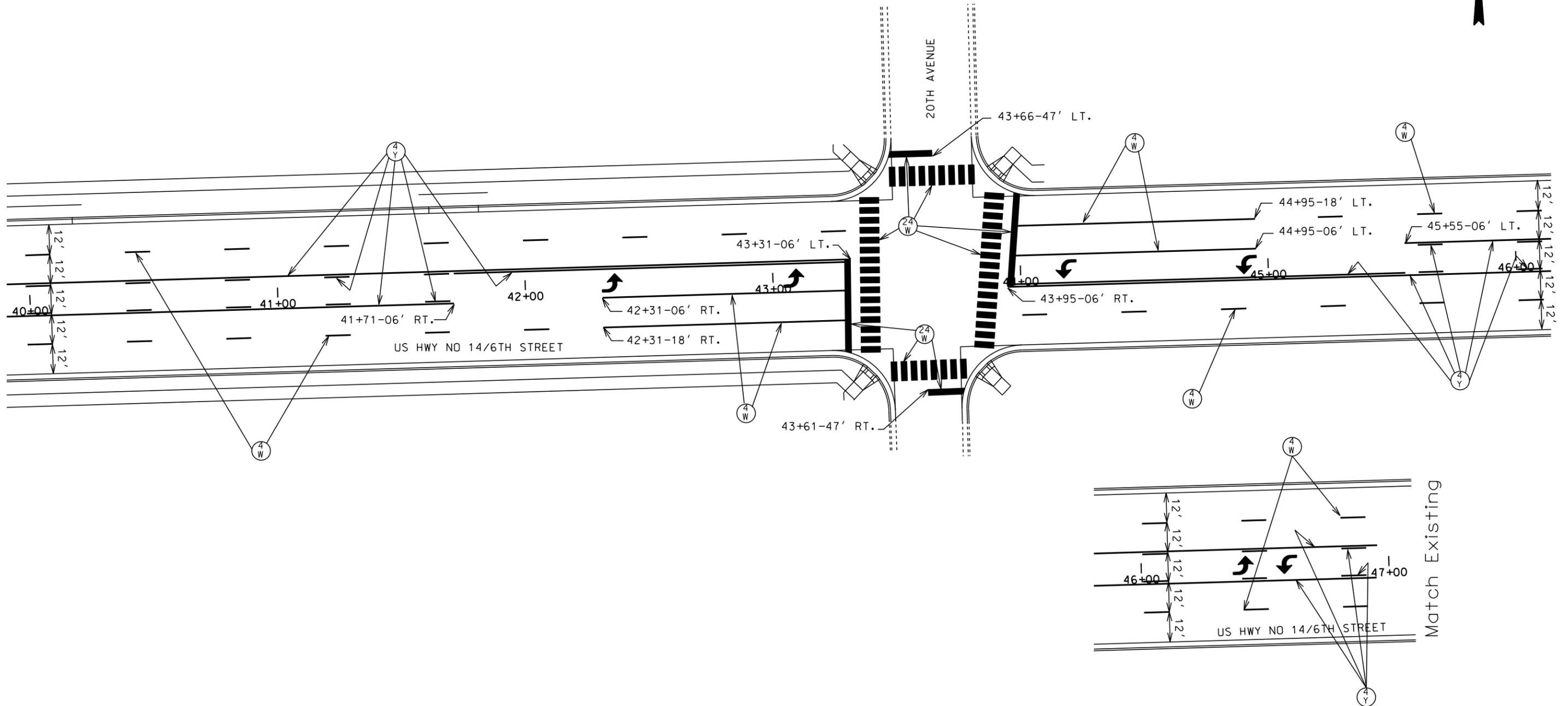


# PAVEMENT MARKING LAYOUT

US HWY NO 14/6TH STREET  
BROOKINGS

|                             |             |              |                 |
|-----------------------------|-------------|--------------|-----------------|
| STATE OF<br>SOUTH<br>DAKOTA | PROJECT     | SHEET<br>NO. | TOTAL<br>SHEETS |
|                             | PH 0010(86) | 17           | 30              |

SCALE  
1" = 40'



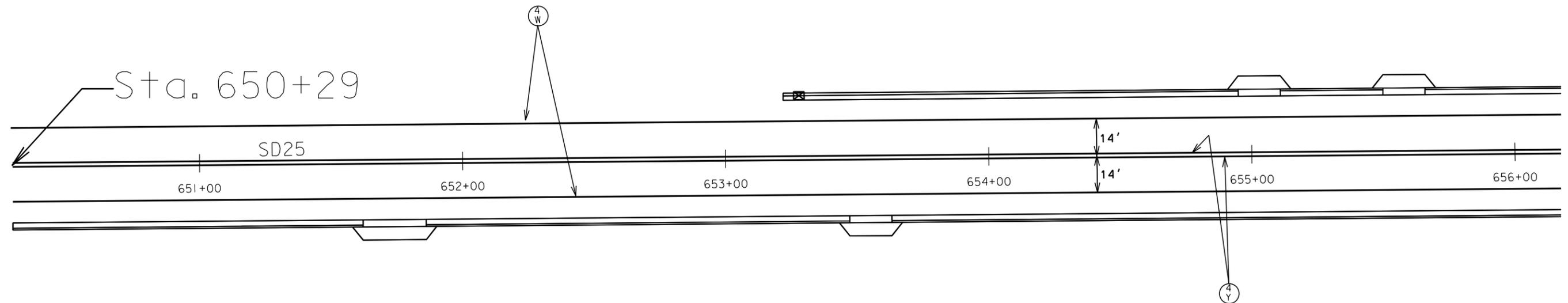
# PAVEMENT MARKING LAYOUT

STATE HWY NO 25/MAIN STREET  
WEBSTER



SCALE  
1" = 40'

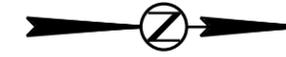
| ESTIMATE OF QUANTITIES |  |
|------------------------|--|
| KEY                    | ITEM   |
| (4)<br>W               | COLD APPLIED PLASTIC PVMT MARKING, 4"<br>WHITE           |
| (4)<br>Y               | COLD APPLIED PLASTIC PVMT MARKING, 4"<br>YELLOW          |
| (24)<br>W              | COLD APPLIED PLASTIC PVMT MARKING, 24"<br>WHITE          |
| (24)<br>W              | COLD APPLIED PLASTIC PVMT MARKING, 24"<br>WHITE EXISTING |
|                        | COLD APPLIED PLASTIC PVMT MARKING, RAILROAD CROSSING     |



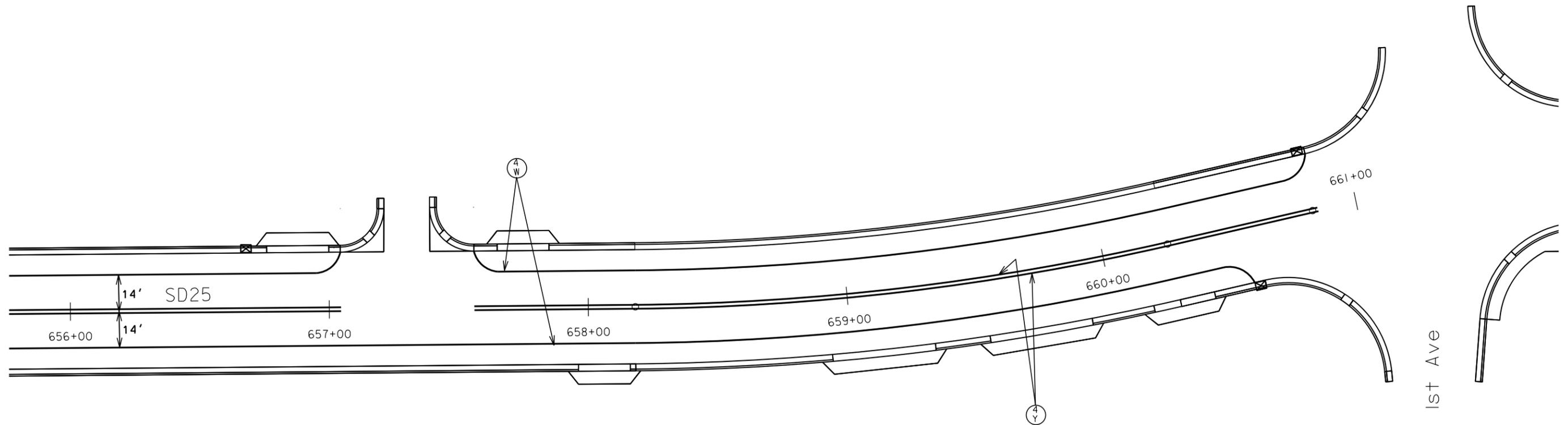
|                             |             |              |                 |
|-----------------------------|-------------|--------------|-----------------|
| STATE OF<br>SOUTH<br>DAKOTA | PROJECT     | SHEET<br>NO. | TOTAL<br>SHEETS |
|                             | PH 0010(86) | 19           | 30              |
| Plotting Date: 02/27/2015   |             |              |                 |

# PAVEMENT MARKING LAYOUT

STATE HWY NO 25/MAIN STREET  
WEBSTER



SCALE  
1" = 40'



PLOT SCALE - 1:40

PLOTTED FROM - TRAB17879

PLOT NAME - 11

FILE - ... \PRJ\BROK02MP\PLANS\656PM.DGN

|                             |             |              |                 |
|-----------------------------|-------------|--------------|-----------------|
| STATE OF<br>SOUTH<br>DAKOTA | PROJECT     | SHEET<br>NO. | TOTAL<br>SHEETS |
|                             | PH 0010(86) | 20           | 30              |
| Plotting Date: 02/27/2015   |             |              |                 |

# PAVEMENT MARKING LAYOUT

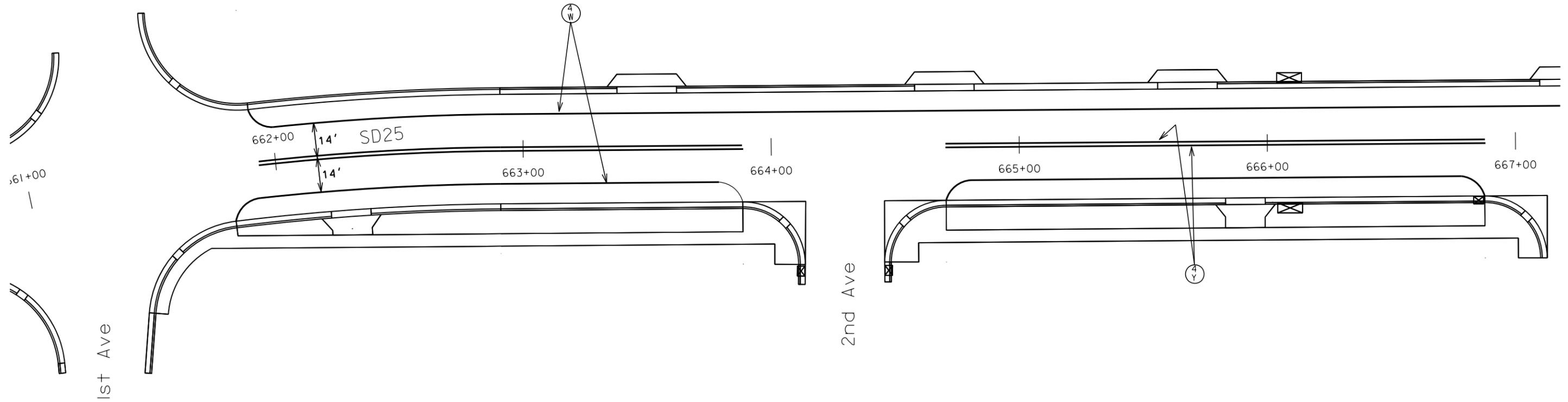
STATE HWY NO 25/MAIN STREET  
WEBSTER



SCALE  
1" = 40'

PLOT SCALE - 1:40

PLOT NAME - 12



PLOTTED FROM - TRAB17879

FILE - ... \PRJ\BROK02MP\PLANS\661PM.DGN

|                             |             |              |                 |
|-----------------------------|-------------|--------------|-----------------|
| STATE OF<br>SOUTH<br>DAKOTA | PROJECT     | SHEET<br>NO. | TOTAL<br>SHEETS |
|                             | PH 0010(86) | 21           | 30              |
| Plotting Date: 02/27/2015   |             |              |                 |

# PAVEMENT MARKING LAYOUT

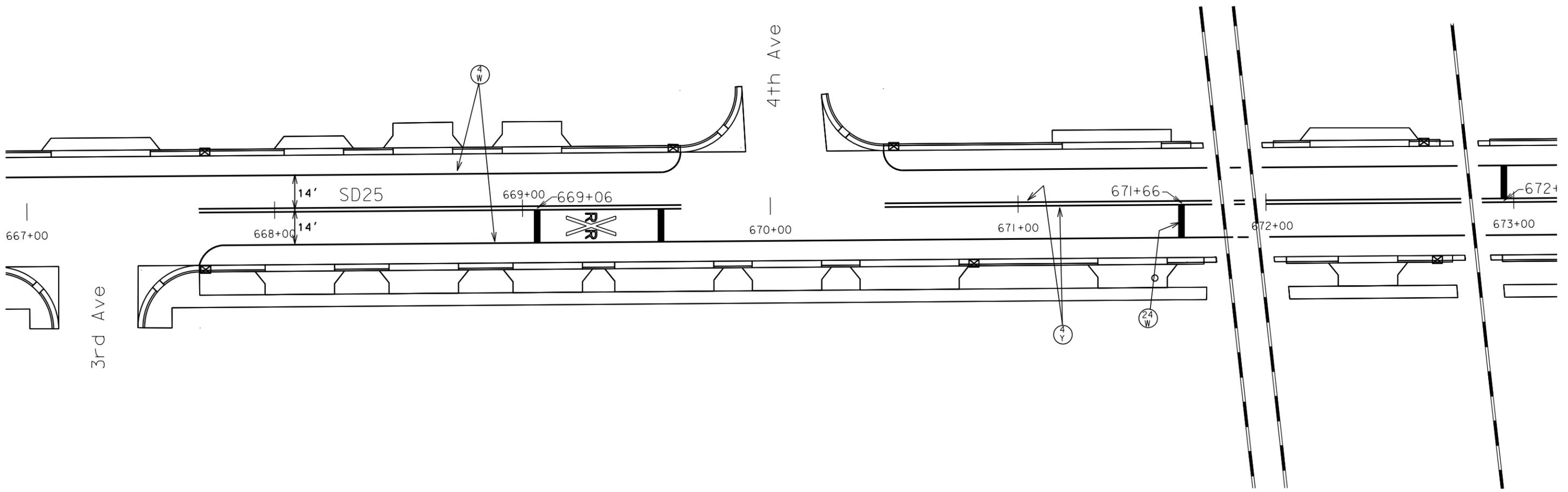
STATE HWY NO 25/MAIN STREET  
WEBSTER



SCALE  
1" = 40'

PLOT SCALE - 1:40

PLOT NAME - 13



PLOTTED FROM - TRAB17879

FILE - ... \PRJ\BROK02MP\PLANS\667PM.DGN

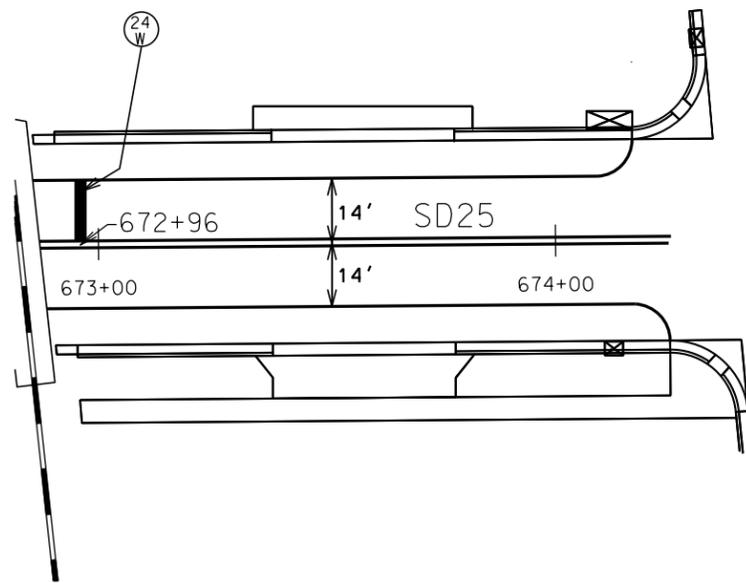
|                             |             |              |                 |
|-----------------------------|-------------|--------------|-----------------|
| STATE OF<br>SOUTH<br>DAKOTA | PROJECT     | SHEET<br>NO. | TOTAL<br>SHEETS |
|                             | PH 0010(86) | 22           | 30              |
| Plotting Date: 02/27/2015   |             |              |                 |

# PAVEMENT MARKING LAYOUT

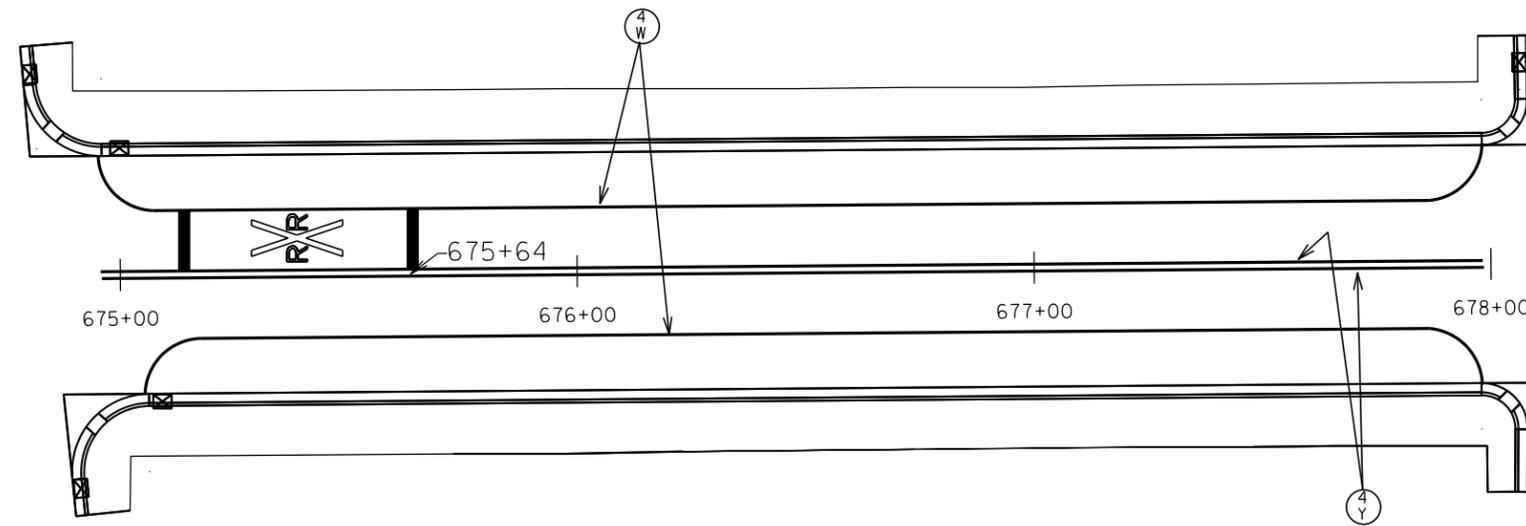
STATE HWY NO 25/MAIN STREET  
WEBSTER



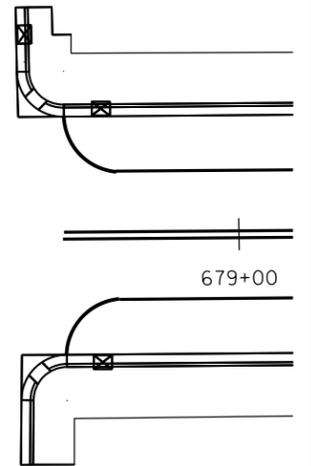
SCALE  
1" = 40'



5th Ave



6th Ave



PLOT SCALE - 1:40

PLOTTED FROM - TRAB17879

PLOT NAME - 14

FILE - ... \PRJ\BROK02MP\PLANS\673PM.DGN

|                             |             |              |                 |
|-----------------------------|-------------|--------------|-----------------|
| STATE OF<br>SOUTH<br>DAKOTA | PROJECT     | SHEET<br>NO. | TOTAL<br>SHEETS |
|                             | PH 00109860 | 23           | 30              |
| Plotting Date: 02/27/2015   |             |              |                 |

# PAVEMENT MARKING LAYOUT

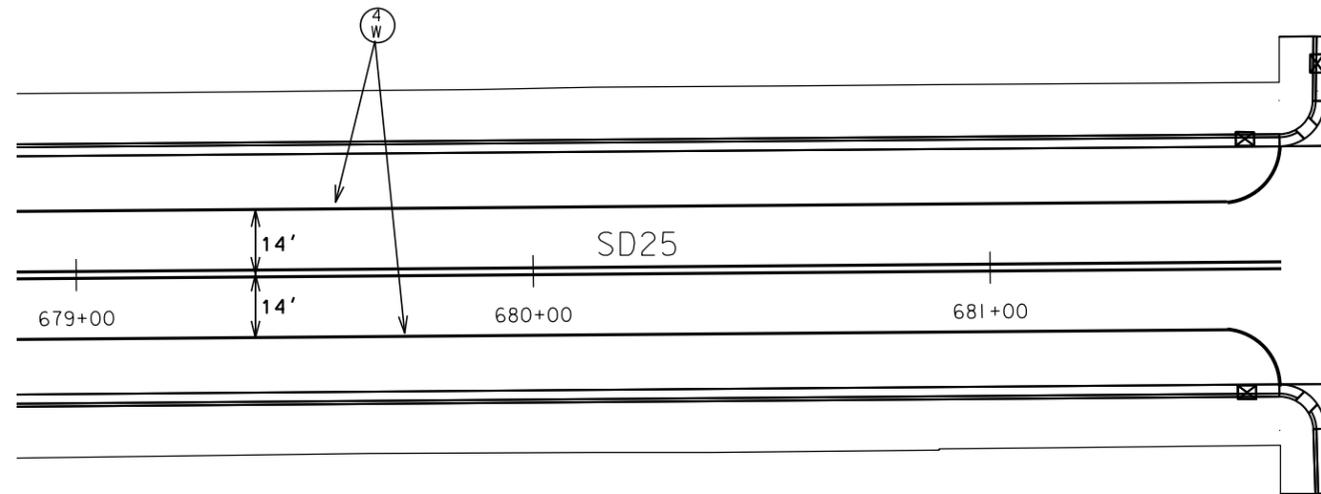
STATE HWY NO 25/MAIN STREET  
WEBSTER

PLOT SCALE - 1"=40'

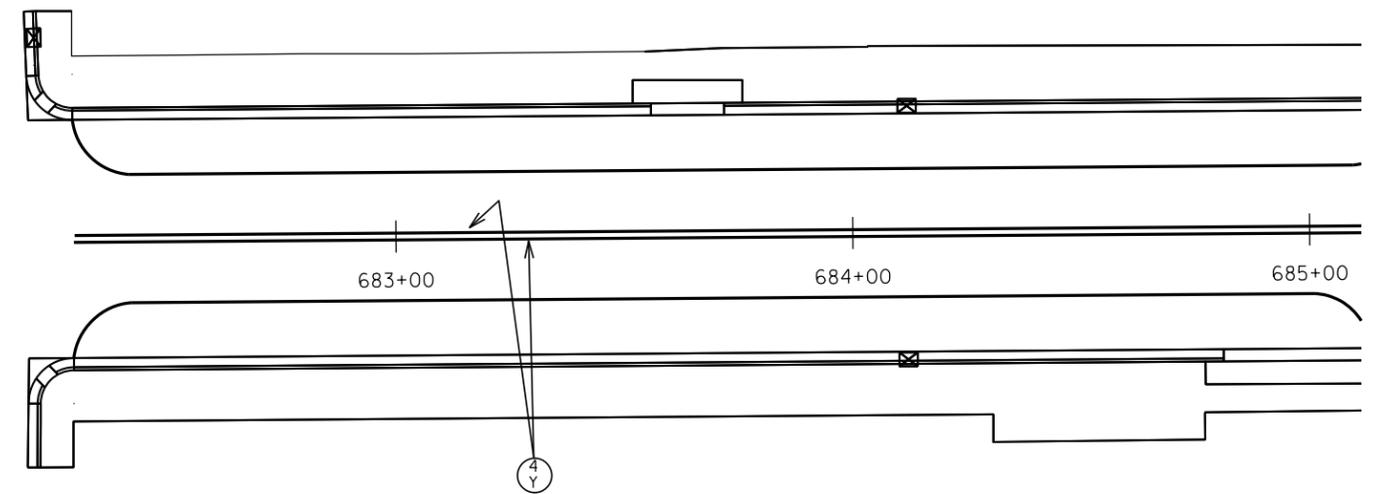
PLOT NAME - 15



SCALE  
1" = 40'



o|  
682+00  
th Ave



PLOTTED FROM - TRAB17879

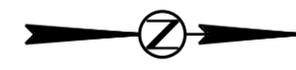
FILE - ... \PRJ\BROK02MP\PLANS\679PM.DGN

|                             |             |              |                 |
|-----------------------------|-------------|--------------|-----------------|
| STATE OF<br>SOUTH<br>DAKOTA | PROJECT     | SHEET<br>NO. | TOTAL<br>SHEETS |
|                             | PH 0010(86) | 24           | 30              |
| Plotting Date: 02/27/2015   |             |              |                 |

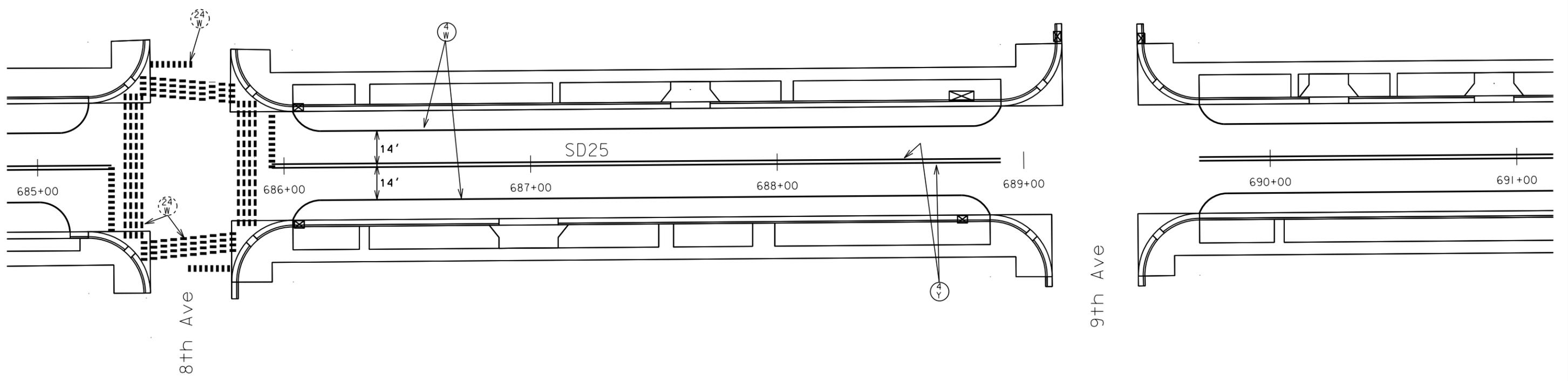
# PAVEMENT MARKING LAYOUT

STATE HWY NO 25/MAIN STREET  
WEBSTER

PLOT SCALE - 1:40



SCALE  
1" = 40'



PLOTTED FROM - TRAB17879

PLOT NAME - 16

FILE - ... \PRJ\BROK02MP\PLANS\685PM.DGN

|                             |             |              |                 |
|-----------------------------|-------------|--------------|-----------------|
| STATE OF<br>SOUTH<br>DAKOTA | PROJECT     | SHEET<br>NO. | TOTAL<br>SHEETS |
|                             | PH 0010(86) | 25           | 30              |
| Plotting Date: 02/27/2015   |             |              |                 |

# PAVEMENT MARKING LAYOUT

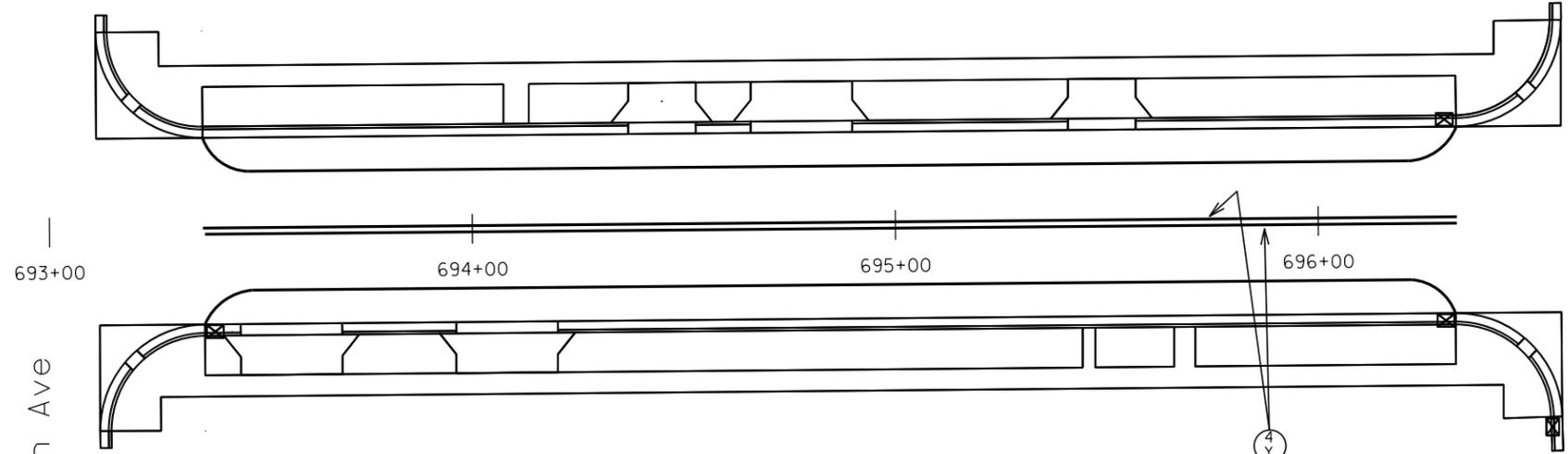
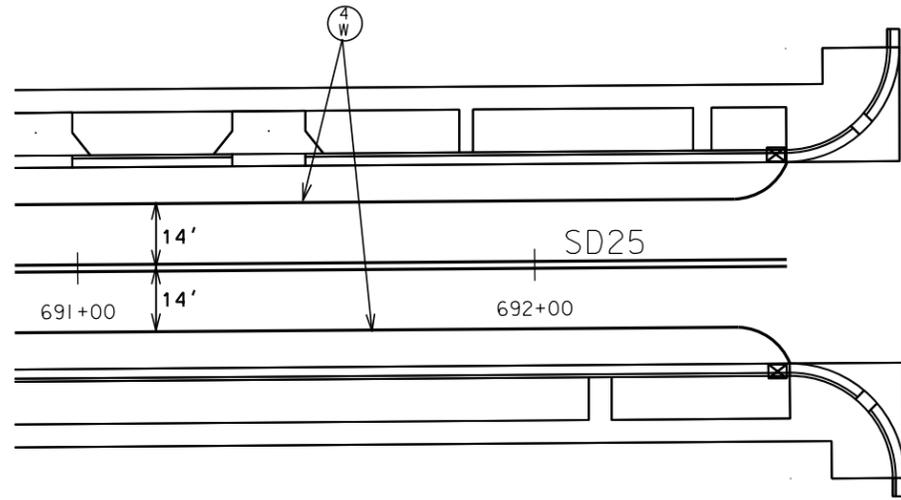
STATE HWY NO 25/MAIN STREET  
WEBSTER



SCALE  
1" = 40'

PLOT SCALE - 1:40

PLOT NAME - 17



PLOTTED FROM - TRAB17879

FILE - ... \PRJ\BROK02MP\PLANS\691PM.DGN

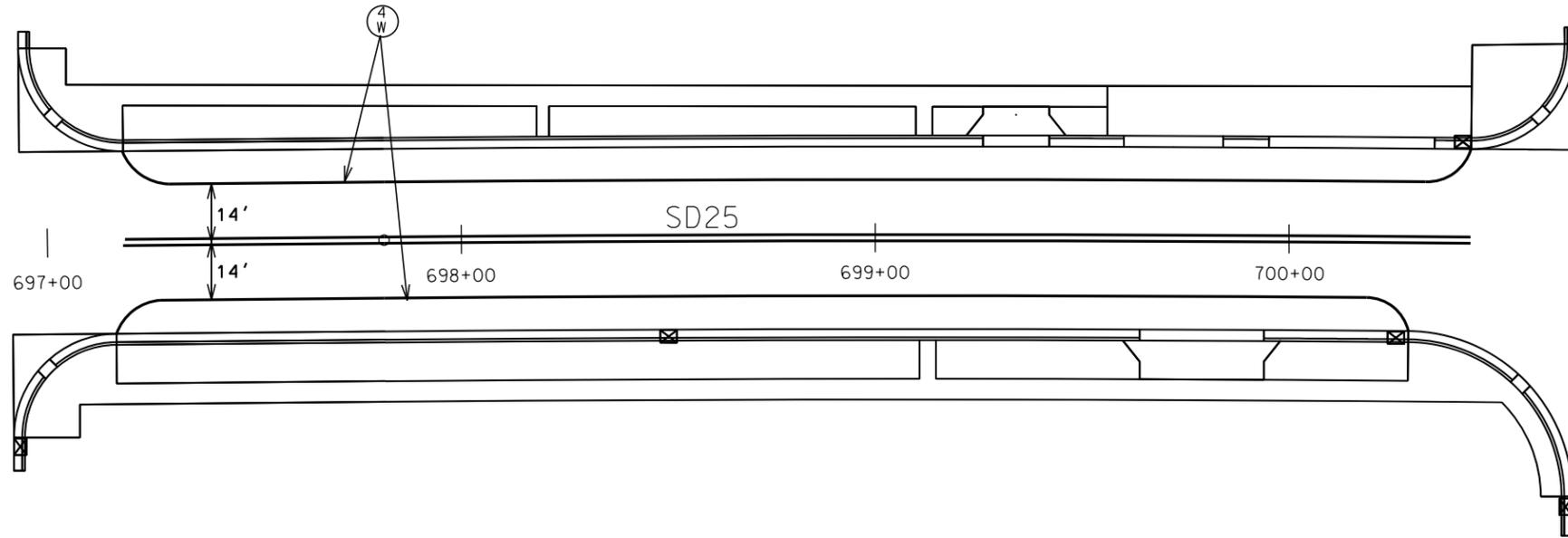
|                             |             |              |                 |
|-----------------------------|-------------|--------------|-----------------|
| STATE OF<br>SOUTH<br>DAKOTA | PROJECT     | SHEET<br>NO. | TOTAL<br>SHEETS |
|                             | PH 0010(86) | 26           | 30              |
| Plotting Date: 02/27/2015   |             |              |                 |

# PAVEMENT MARKING LAYOUT

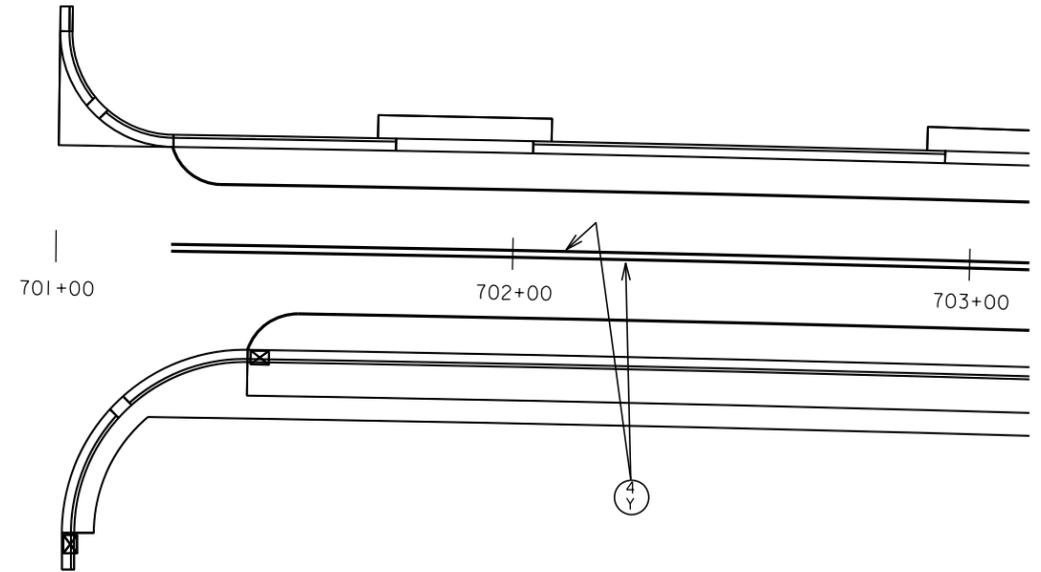
STATE HWY NO 25/MAIN STREET  
WEBSTER



SCALE  
1" = 40'



12th Ave



PLOT SCALE - 1:40

PLOTTED FROM - TRAB17879

PLOT NAME - 18

FILE - ... \PRJ\BROK02MP\PLANS\697PM.DGN

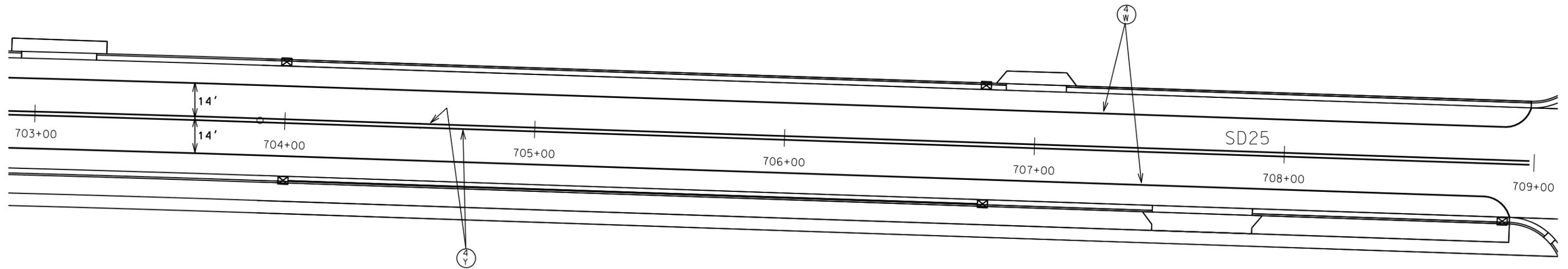
|                             |              |              |                 |
|-----------------------------|--------------|--------------|-----------------|
| STATE OF<br>SOUTH<br>DAKOTA | PROJECT      | SHEET<br>NO. | TOTAL<br>SHEETS |
|                             | PH0010( 86 ) | 27           | 30              |
| Plotting Date: 02/27/2015   |              |              |                 |

# PAVEMENT MARKING LAYOUT

STATE HWY NO 25/MAIN STREET  
WEBSTER



SCALE  
1" = 40'



PLOT SCALE - 1"=40'

PLOTTED FROM - TRAB17879

PLOT NAME - 19

FILE - ... \PRJ\BROK02\MP\PLANS\703PM.DGN

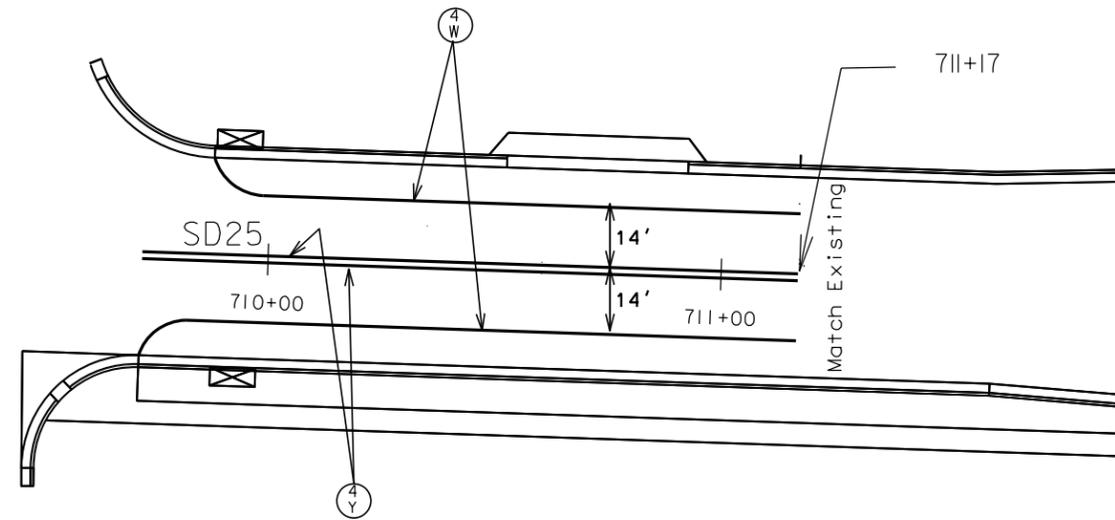
# PAVEMENT MARKING LAYOUT

STATE HWY NO 25/MAIN STREET  
WEBSTER

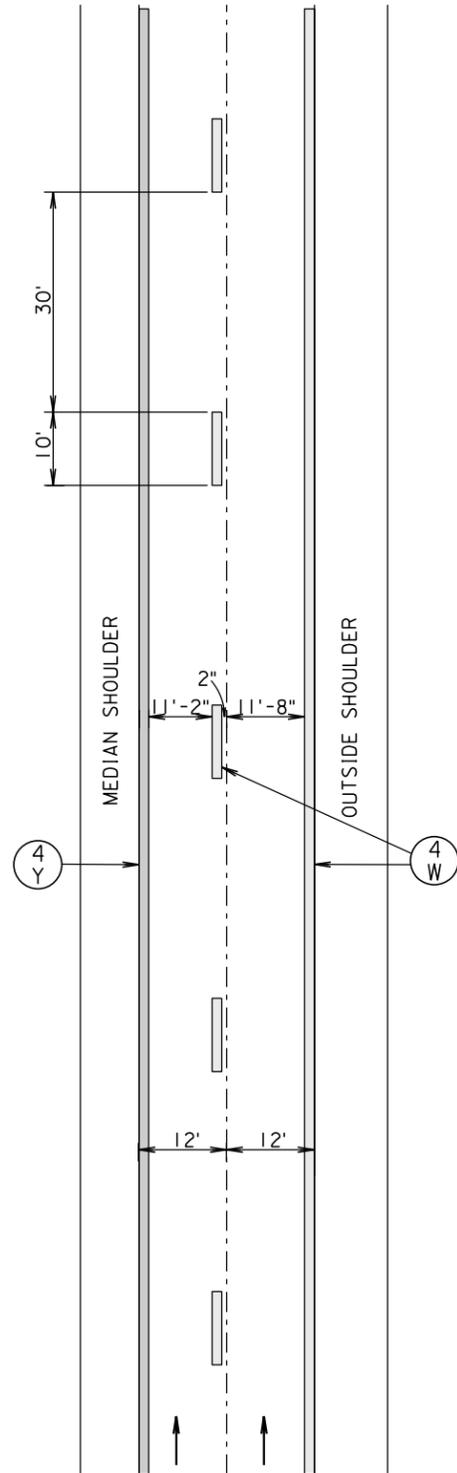
|                             |             |              |                 |
|-----------------------------|-------------|--------------|-----------------|
| STATE OF<br>SOUTH<br>DAKOTA | PROJECT     | SHEET<br>NO. | TOTAL<br>SHEETS |
|                             | PH 0010(86) | 28           | 30              |



SCALE  
1" = 40'



**DIVIDED ROADWAY  
(ONE DIRECTION SHOWN)**



| KEY      | ITEM      |
|----------|-----------|
| (4)<br>W | 4" White  |
| (4)<br>Y | 4" Yellow |

FURNISHING AND APPLYING DURABLE PAVEMENT MARKING

1. The typical pavement markings as shown on the following sheet shall be applied throughout the entire length of the I-29 southbound segment.
2. Traffic Control shall be incidental to the cost of application. The striper and advance or trailing warning vehicle shall be equipped with flashing amber lights or advance warning arrow panel.

