

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT NH0016(79)67	SHEET C1	TOTAL SHEETS C52
PLOT DATE: 11-12-15			

SECTION C - TRAFFIC CONTROL PLANS



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END NH 0016(79)67

Mt. Rushmore Rd.
Station 103+76.67

END GRADING NH 0016(79)67

Mt. Rushmore Rd.
Station 88+01.30

EXCEPTION

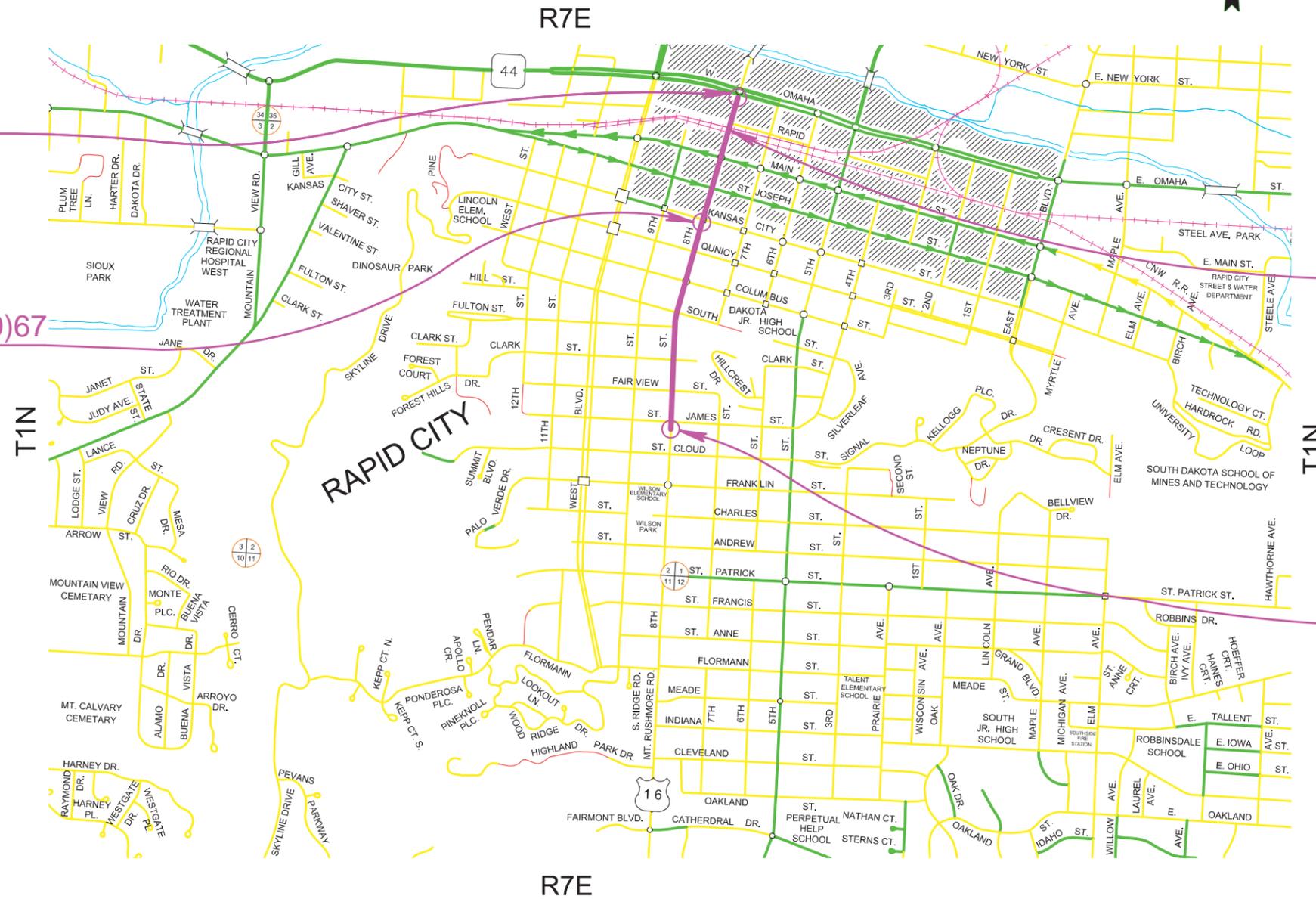
Station 99+85.55 to
Station 101+84.57



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BEGIN NH 0016(79)67

Mt. Rushmore Rd.
Station 62+50.00



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SECTION C ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
634E0010	Flagging	12,000.0	Hour
634E0020	Pilot Car	100.0	Hour
634E0110	Traffic Control Signs	2,519	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0130	Traffic Control Supervisor	50.0	Day
634E0285	Type 3 Barricade, 8' Double Sided	68	Each
634E0330	Temporary Raised Pavement Markers	7,000	Ft
634E0380	Tubular Marker	285	Each
634E0420	Type C Advance Warning Arrow Board	4	Each
634E0560	Remove Pavement Marking, 4" or Equivalent	3,000	Ft
634E0640	Temporary Pavement Marking	88,000	Ft
634E0915	Short Term Temporary Traffic Control Signal	1	Site
634E1002	Detour Signing	170.0	SqFt
634E1020	Temporary Business Signing	1,263.0	SqFt
634E1215	Contractor Furnished Portable Changeable Message Sign	3	Each
634E1255	Contractor Furnished Speed Monitoring Radar Trailer	2	Each
634E2000	Longitudinal Pedestrian Barricade	1,000	Ft
634E2050	Temporary Sidewalk	4,000	SqFt
900E1080	Orange Plastic Safety Fence	2,500	Ft

TRAFFIC CONTROL – GENERAL NOTES

- The intent of the plan sequence of operations is to have the least amount of impact on the traveling public and adjacent businesses. Requests to deviate from the sequence of operations shall be submitted in writing to the Engineer for review. Approval of an alternate sequence of operations will only be allowed when the proposed changes meet with the Department's intent for traffic control and sequencing of the work. Contractor proposed deviation(s) to the sequence shall be submitted for review a minimum of two weeks prior to the Preconstruction meeting or potential implementation date.
- All construction phasing for the City of Rapid City utility project 13-2139, PCN X03L shall coincide with construction phasing for this project.
- The Contractor shall be aware of the City of Rapid City project on 9th Street scheduled to occur at the same time as this project. The Contractor shall coordinate with the 9th Street project Contractor.
- Traffic control shall at all times be maintained in accordance with applicable MUTCD Standards, Section 634 of the Specifications and these plans.
- All taper lengths shall be according to the standard plates in these plans and the MUTCD. Taper lengths shall be laid out and verified by the Engineer prior to installation.

- The Rapid City Region Traffic Engineer and City of Rapid City Traffic Divisions shall be contacted 1 week prior to any signal phase changes within the project limits as the traffic signal timings may need to be adjusted.
- The speed limit on Mt. Rushmore Road shall be 25 mph when lane closures are in place.
- Except for material deliveries, traffic on Mt. Rushmore Road shall not be stopped for any period of time unless approved by the Engineer.
- Traffic shall be maintained in 11 ft. minimum lane widths. If conditions warrant, lane width may be reduced to no less than 10 ft. with the Engineer's approval.
- The Contractor shall be required to have a person available 24 hours/day, 7 days/week to maintain traffic control devices. The name and cellular telephone number of this individual shall be given to the Engineer at the preconstruction meeting.
- The Contractor or designated traffic control subcontractor shall make night inspections at the initial set up of traffic control and every week thereafter to ensure the adequacy, legibility and reflectivity of each sign and device. A written summary of each inspection shall be given to the Engineer within 24 hours after completion of the inspection. The cost for the nighttime inspection work shall be incidental to the contract lump sum price for "Traffic Control, Miscellaneous."
- As pertaining to covering or removing non-applicable traffic control devices, a period of inactivity is defined as 1 day.
- The bottom of all 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 mounted on fixed location supports during the time of initial installation, except portable sign supports will be allowed where surfacing prohibits installation.
- Driveways, streets, and roadways that enter the project shall be delineated such that they are clearly visible during all hours. Freestanding, reflective traffic control barrels shall be used. Cost for this delineation shall be incidental to the contract lump sum price for "Traffic Control, Miscellaneous."
- The Contractor shall keep the portion of the project being used by public traffic in a condition that will adequately and safely accommodate traffic. A power broom meeting the City of Rapid City Air Quality Standards (a pickup type street sweeper with sufficient water), will be required to clean all loose debris off of paved surfacing.
- At no time during construction shall a vertical drop-off of greater than 16" be left overnight adjacent to the traveled way. The Contractor may utilize embankment material or existing gravel cushion to ensure a 16" vertical drop-off is not exceeded. Vertical drop-offs greater than 16" shall be shouldered to a 3:1 minimum slope. No separate payment will be made for constructing these slopes.
- Grading operations shall be conducted such that access to individual business entrances shall be maintained throughout the duration of the project. Entrances shall be graded simultaneously with roadway embankment and excavations. Accesses may be closed temporarily if the Contractor makes arrangements in writing with the business owner 7 days prior to the scheduled closure and receives approval from the Engineer.
- It may be necessary to temporarily omit curb and gutter and provide temporary gravel ramps to maintain streets and approaches. All costs to perform ½ width construction on approaches and streets shall be include in the various associated contract bid items.
- Parking of equipment during non-working hours shall be in locations that do not hinder the visibility of accesses to adjacent businesses. 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.
- All truck hauling shall be restricted to the State Highway System. Empty trucks may use the following City streets to turn around: St. James St., 7th St. and Fairview St. Any other proposed use of City streets shall be submitted to and approved by the Engineer prior to using City streets.
- Hauling material to and from the project site shall be conducted in a safe manner by utilizing flaggers and appropriate traffic control devices to control traffic on Mt. Rushmore Road.
- Construction equipment and materials shall not be unloaded from lanes open to traffic.
- Permanent traffic control items shall be installed prior to opening the completed roadway to traffic.
- When installing storm pipes near active traffic lanes, the Contractor shall backfill excavations as soon as possible to mitigate drop-off hazards. No open excavations shall be left unattended or unprotected.

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SEQUENCE OF OPERATIONS**PHASE 1**

Southbound Lanes of Mt. Rushmore Road from Sta. 62+50 (St. James Street) to Sta. 88+00 (Kansas City Street). See traffic control plan sheets for Phase 1.

1. Install span wire traffic signal system at Kansas City Street intersection.
2. Install traffic control for head-to-head traffic in northbound lanes from Sta. 62+00 to Sta. 90+00 with left turn lanes at Kansas City Street, including temporary pedestrian access routes.
3. Install traffic control for side street closures as determined by Contractor's schedule.
4. Install erosion control measures. Perimeter controls shall be in place prior to starting demolition and/or earthmoving operations.
5. Remove traffic signals at Columbus Street.
6. Remove existing surfacing.
7. Install sanitary sewer from Kansas City Street Alley to St. James Street, including side streets and stubs to centerline of roadway. Complete all temporary connections, caps, abandonments, testing and all other work necessary to provide a useable system and maintain existing system until final abandonment. See City of Rapid City plans.
8. Install water from Columbus Street to St. James Street, including side streets and stubs to centerline of roadway. Complete all temporary connections, caps, abandonments, testing and all other work necessary to provide a useable system and maintain existing system until final abandonment. See City of Rapid City plans.
9. Install storm sewer from Kansas City Street to St. James Street, including side streets and stubs to centerline of roadway. Complete all temporary connections, caps, abandonments, testing and all other work necessary to provide a useable system and maintain existing system until final abandonment.
10. Grade and pave mainline and side street PCC pavement, curb and gutter, approaches and driveway pavement. At a minimum, mainline pavement shall include two thru lanes and southbound left turn lanes and adjacent curb and gutter. Contractor may pave additional lanes if work space permits.
11. Pave asphalt tie-ins at south end of project, temporary median between Sta. 64+00 to Sta. 67+00, side streets and driveways.
12. Install street lighting and signals.

13. Install temporary pavement markings and permanent signage, as appropriate.
14. Complete landscaping in boulevard areas of mainline and side streets, including sidewalks, colored concrete and turf.

PHASE 2

Northbound Lanes of Mt. Rushmore Road from Sta. 62+50 (St. James Street) to Sta. 88+00 (Kansas City Street). See traffic control plan sheets for Phase 2.

1. Adjust span wire traffic signal heads at Kansas City Street intersection.
2. Install traffic control for head-to-head traffic in southbound lanes from Sta. 62+00 to Sta. 90+00, including temporary pedestrian access routes.
2. Install traffic control for side street closures as determined by Contractor's schedule.
3. Install erosion control measures. Perimeter controls shall be in place prior to starting demolition and/or earthmoving operations.
4. Remove existing surfacing.
5. Install sanitary sewer from Kansas City Street Alley to St. James Street, including side streets and stubs to centerline of roadway. Complete all temporary connections, caps, abandonments, testing and all other work necessary to provide a useable system and maintain existing system until final abandonment. See City of Rapid City plans.
6. Install water from Kansas City Street to St. James Street, including side streets and stubs to centerline of roadway. Complete all temporary connections, caps, abandonments, testing and all other work necessary to provide a useable system and maintain existing system until final abandonment. See City of Rapid City plans.
7. Install storm sewer from Kansas City Street to St. James Street, including side streets and stubs to centerline of roadway. Complete all temporary connections, caps, abandonments, testing and all other work necessary to provide a useable system and maintain existing system until final abandonment.
8. Construct retaining walls.
9. Grade and pave mainline and side street PCC pavement, curb and gutter, approaches and driveway pavement. At a minimum, mainline pavement shall include two thru lanes and northbound left turn lanes and adjacent curb and gutter. Contractor may pave additional lanes if work space permits.
10. Pave asphalt tie-ins at south end of project, temporary median between Sta. 64+00 to Sta. 67+00, side streets and driveways.

11. Install street lighting and signals. Signals must be operational prior to starting Phase 3.
12. Install permanent pavement markings and permanent signage, as appropriate.
13. Complete landscaping in boulevard areas of mainline and side streets, including sidewalks, colored concrete and turf.
14. Remove span wire traffic signal system at Kansas City Street and make necessary repairs to surfacing.

PHASE 3

Median area of Mt. Rushmore Road from Sta. 68+00 (Fairview Street) to Sta. 84+00 (Quincy Street). See traffic control plan sheets for Phase 3. Some work in Phase 3 may occur simultaneously with Phases 1 and 2.

1. Install traffic control to move all traffic to outside lanes from Sta. 62+00 to Sta. 90+00.
2. Complete remaining landscaping work in median areas. See City of Rapid City plans.
3. Install all remaining permanent pavement markings and signage.



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SAWING IN EXISTING PAVEMENT

During those portions of the project when traffic is carried on the existing pavement and adjacent surfacing is removed, the edge of the existing pavement shall be defined by a full depth saw cut. All costs associated with completion of full-depth saw cuts shall be incidental to the contract unit price per square yard for "Remove Concrete Pavement" or "Remove Asphalt Concrete Pavement."

MAINTENANCE PATCHING - MAINTENANCE OF MAINLINE SURFACE ON MT. RUSHMORE ROAD.

The Contractor shall be required to maintain the surface with asphalt patching, at the Engineer's discretion. The Contractor shall perform this work for the entire length and duration of the project. The Contractor shall complete patching operations between 8:00 PM and 6:00 AM, and within 24 hours notification of an area needing patching. The Contractor's plan shall be submitted to the Engineer prior to patching operations.

The material used for Maintenance Patching shall conform to Section 324 of the Specifications and the plan notes shown in Section F of these plans. Estimated quantity of Maintenance Patching is included in Section F of these plans.

All costs for labor, equipment and materials for pavement removals and patching to maintain the mainline surface for the length and duration of the project shall be incidental to the contract unit price per ton for "Maintenance Patching."

The cost for installing and maintaining traffic control devices, and flagging hours shall be paid for by the corresponding bid items.

MAINTENANCE OF SOLID WASTE DISPOSAL SERVICE

The streets and alleys within the project limits are used for pickup and removal of solid waste from the properties adjacent to and near the project. The Contractor shall provide notification of the work to all affected properties on Mt. Rushmore Road and coordinate with Guy Krugjohn, City Solid Waste Division (Phone 355-3496) or Solid Waste Collection Contractors to assure alternative location for weekly solid waste pickup are provided as needed. If necessary, the Contractor shall transport or convey disposal containers (including containers for recyclable materials) to the alternative location and return them to the usual collection location on the property following collection on designated solid waste pickup days. All costs associated with the Maintenance of Solid Waste Disposal Service shall be incidental to the contract lump sum price for "Traffic Control, Miscellaneous."

SNOW REMOVAL ON PEDESTRIAN PATH

The Contractor shall be responsible for snow removal on all existing, temporary and new pedestrian paths within the work zones of each phase of work until all work within each phase is complete. Snow removal shall be in accordance with City of Rapid City Ordinance #12.20.070. All costs associated with Snow Removal on Pedestrian Path shall be incidental to the contract lump sum price for "Traffic Control, Miscellaneous."

MAINTENANCE OF BUSINESS ACCESS

The Contractor shall be responsible for maintaining vehicular and pedestrian access to all businesses throughout the duration of the project. The Contractor shall coordinate with property owners to meet their requirements for access to their facilities. Alternate access locations (i.e., from side street or ally) shall be appropriately signed.

Accesses shall be a minimum of 16 to 18 feet wide with 10-foot radius on both sides. At locations where pedestrian crossings are adjacent to business accesses, the minimum width shall be increased to include a 4 foot wide pedestrian path and barricades to protect pedestrians from the traffic.

Salvaged asphalt millings shall be used as temporary material for maintaining accesses. The temporary material shall consist of 4 inches minimum thickness with top surface constructed to tie into existing and new adjacent surfaces. The material shall be compacted to the satisfaction of the Engineer. Grades of accesses shall allow normal vehicular movement.

Cost of furnishing, hauling, placing, compacting, maintaining, removing and disposing of temporary material for accesses shall be incidental to the contract lump sum price for "Traffic Control, Miscellaneous."

MAINTENANCE OF INTERSECTING STREET ACCESS

A maximum of two consecutive side streets and intersecting roads, which are connected to a parallel street network, may be closed simultaneously for utility installation and grading work.

During paving operations, a maximum of three consecutive side streets and intersecting roads, which are connected to a parallel street network, may be closed simultaneously with the intent that no more than every other side street would remain closed the following day. Side streets shall be reopened with temporary gravel crossings. See Section F for detail of Temporary Gravel Crossing. Estimated quantity of Temporary Gravel Crossings is included in Section F.

Any street open to vehicular traffic shall have a compacted, gravel or asphalt millings surface. The street access shall be a minimum of 22 feet wide with 15-foot radius on both sides. When side streets are open to vehicular traffic, the Contractor shall maintain an accompanying pedestrian crossing.

Time restrictions for closures shall apply per the Special Provision for Contract Time.

TEMPORARY SURFACING

It is anticipated that temporary traffic control crossovers will be necessary to allow work to proceed in a continuous sequence. The Contractor shall use temporary surfacing to construct temporary traffic control crossovers at locations approved by the Engineer. See details of temporary crossovers included in these plans.

The Contractor shall have the option to install Asphalt Concrete Composite or Class M6 Concrete at a minimum thickness of 4" as temporary surfacing.

When Class M6 Concrete is used as temporary surfacing, the concrete shall achieve a minimum compressive strength of 3000 psi before opening the roadway to traffic. If M6 Concrete is used as temporary surfacing, it shall be measured and paid for at the contract unit price per square foot for "Temporary Surfacing."

Asphalt Concrete Composite shall be installed in two 2" lifts.

The material beneath the temporary surfacing shall consist of 10" of Gravel Cushion paid at the contract unit price per Ton.

All labor, equipment, and materials necessary to install temporary surfacing including the maintenance and repair of the areas, and removal of the temporary surfacing prior to placement of the permanent surfacing shall be included in the contract unit price per square foot for "Temporary Surfacing." Estimated quantity of Temporary Surfacing is included in Section F.

TEMPORARY PEDESTRIAN ACCESS ROUTE

A Temporary Pedestrian Access Route (TPAR) shall be provided when crosswalks, sidewalks, or other pedestrian facilities are blocked, closed, or relocated. A TPAR may consist of a combination of existing and/or temporary pedestrian facilities. The TPAR shall be kept free of any obstructions and hazards, such as holes, debris, mud, snow, construction equipment, traffic control signing, stored materials, etc.

The Contractor shall notify the Engineer at least 72 hours prior to start of any construction operation that will necessitate a change in pedestrian access. Pedestrian traffic signal displays controlling a crosswalk that is closed shall be covered or removed.

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ORANGE PLASTIC SAFETY FENCE

The Contractor shall install orange plastic safety fence around all unattended excavations or as directed by the Engineer to prevent accidental or unauthorized entry into these areas. See Special Traffic Control Detail, Safety Fence, for typical installation.

The Contractor shall maintain and make repairs to the fence until it is removed or as directed by the Engineer.

All costs associated with furnishing, installing, maintaining, repairing, removing and replacing the safety fence shall be paid for at the contract unit price per foot for "Orange Plastic Safety Fence."

TEMPORARY PEDESTRIAN SIDEWALK

Temporary Pedestrian Sidewalk shall be a smooth, continuous, non-slip, hard surface. There should be no curbs or abrupt changes in grade or terrain that could cause tripping or be a barrier to wheelchair use.

Temporary Pedestrian Sidewalk shall have a minimum width of 48", with 60" recommended. The Contractor shall try to provide boulevard sidewalk whenever possible for Temporary Pedestrian Sidewalk that is 48" in width. Temporary Pedestrian Sidewalk less than 60" wide shall provide for a 60"x60" passing space at intervals not to exceed 200 ft. Temporary Pedestrian Sidewalk shall have a maximum cross slope of 2%. The maximum grade shall be 5% where the Temporary Pedestrian Sidewalk does not follow the grade of the road.

Permanent sidewalks shall be complete before the Contractor moves into the next phase of construction.

All costs associated with installing and maintaining Temporary Pedestrian Sidewalk, including all materials, gravel, labor, and incidental work, shall be included in the contract unit price per square foot for "Temporary Sidewalk."

LONGITUDINAL PEDESTRIAN BARRICADE

Longitudinal Pedestrian Barricades should not be used to provide positive protection for pedestrians.

Barricade rail supports may not project into pedestrian routes more than 4 inches from the face of the barricade. To prevent any tripping hazard to pedestrians, ballast shall be located behind or internal to the device.

When Longitudinal Pedestrian Barricades are combined in a series, the maximum gap between devices that do not interlock shall be one inch. Joints between devices that do interlock shall be closed and flush to prevent canes or small wheels from being trapped and to facilitate safe hand trailing. When used as a sidewalk closure mechanism, Longitudinal Pedestrian Barricade must run the entire width of the sidewalk. Longitudinal Pedestrian Barricade should provide a color contrasting pattern. Black should not be used to color any base on a device. The devices should comply with the general color and stripe pattern requirements of Section 6F.68 of the MUTCD.

Longitudinal Pedestrian Barricade shall have continuous bottom and top surfaces. A gap height or opening from the walkway surface up to a maximum of 2 inches is allowed for drainage purposes. The top edge of the bottom portion shall be a minimum of 8 inches above the walkway. The top of the top portion shall be between 34 and 38 inches above the walkway. The top surface shall be smooth to allow safe hand trailing. Both upper and lower surfaces shall share a common vertical plane.

Longitudinal pedestrian barricades shall be Safety Wall™ by Plastic Safety Systems, Inc. (www.plasticsafety.com); ADAcade Detectable Edge Barricade by Three D TrafficWORKS (www.trafficwks.com) or approved equal.

All costs shall be incidental to the contract unit price per foot for "Longitudinal Pedestrian Barricade."

PEDESTRIAN CROSSINGS

Pedestrian crossings are an important part of the Temporary Pedestrian Access Route. At a minimum, the crossing locations shall coincide with side streets open to vehicular traffic. Temporary pedestrian sidewalk may be utilized to connect pedestrian crossings to other temporary pedestrian access routes. The Contractor shall maintain a hard surfaced pedestrian crossing across Mt. Rushmore Road at locations indicated in these plans and as directed by the Engineer.

Pedestrian Crossing signs (W11-2 with appropriate supplemental plaques) shall be installed per MUTCD Figure 2C-12 and as directed by the Engineer. Sign color shall be fluorescent yellow-green.

Signing will be paid for at the contract unit price per square foot for "Traffic Control Signs."

FLAGS

Flags shall be placed on traffic control signs as directed by the Engineer. Flags shall be 16 inch square or larger and shall be orange or fluorescent red-orange in color.

TEMPORARY PAVEMENT MARKING

Temporary Pavement Marking paint shall be used as directed by the Engineer.

Temporary Pavement Marking paint shall be used for marking lane lines including turn lanes, lane closure tapers and lane shift tapers on existing and temporary pavement as detailed in the traffic control sheets and standard plates.

Temporary Pavement Marking paint may be used on new pavement sections prior to installation of permanent pavement markings. In such cases, the Temporary Pavement Marking paint shall be laid out and applied per the permanent pavement marking layout so that the paint will be removed during the pavement grooving operation for permanent pavement markings.

Temporary Pavement Marking paint shall be used in the event permanent pavement markings cannot be installed due to seasonal limitations. In this case, the Temporary Pavement Marking paint shall be laid out and applied per the permanent pavement marking layout so that the paint will be removed during the pavement grooving operation for permanent pavement markings. If the Temporary Pavement Marking paint requires re-application during the seasonal limitation period, payment will be made for the re-application.

The Estimate of Quantities includes approximately 8,000 LF of Temporary Pavement Marking as detailed in the traffic control sheets and standard plates and approximately 80,000 LF of Temporary Pavement Marking for three complete applications of permanent pavement markings as detailed in Section M.

Any temporary pavement marking arrows that are needed will be paid for as 250 feet of Temporary Pavement Marking. All other temporary striping, including stop bars, will be measured as an equivalent of 4" Temporary Pavement Marking and will be paid for at the contract unit price per foot for "Temporary Pavement Marking."

PAVEMENT MARKING REMOVAL

Removal of pavement marking shall be completed by:

- Sandblasting, soda blasting, water blasting, or burning on existing PCC Pavement.
- A method satisfactory to the Engineer on asphalt concrete surfacing.
- Sandblasting or water blasting on new PCC Pavement. Care shall be taken not to damage the surface of any permanent pavement during pavement marking removal.

Removal of pavement markings shall be accomplished where traffic crosses existing pavement marking lines for various construction phases and where pavement markings may cause motorist confusion.

Removal of pavement markings shall be paid for at the contract unit price per foot for "Remove Pavement Marking, 4" or Equivalent." Removal of existing and temporary ARROWS and ONLYs shall be paid for at the contract unit price per foot under the same item at the rate of 250 feet per each. Removal process shall be performed in a square shape on the surface in these areas to obscure the original arrow or message.



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TUBULAR MARKERS

Tubular markers shall be securely attached to the roadway surface. The method of attachment shall be resistant to the effects of weather and capable of retaining the tubular marker in position under traffic during the interval of time it is required to function. For two-way traffic installations on Mt. Rushmore Road, tubular markers shall be placed every 25' for centerline delineation except 10' spacing shall be used at intersections/turn lanes, as directed by the Engineer. White tubular markers shall be installed where turn lanes are provided as shown on the traffic control sheets. For informational purposes only, it is estimated that 270 orange tubular markers and 15 white tubular markers will be needed for this project.

Payment shall be full compensation for furnishing, installing, maintaining, replacing, and removing the tubular markers as required by the Engineer. Tubular markers will be paid at the contract unit price per each for "Tubular Marker."

TEMPORARY RAISED PAVEMENT MARKERS (RPM's)

Temporary raised pavement markers (RPM's) shall be used for marking lane lines including turn lanes, lane closure tapers and lane shift tapers on new concrete sections of roadway and existing pavement to remain as detailed in the traffic control sheets and standard plates. The markers shall be installed at 5-foot spacing and will be paid for at the contract unit price per foot per 4" line for both Yellow and White markers.

Raised pavement markers shall be attached to the roadway surface with a flexible non-permanent bituminous adhesive capable of being removed from the roadway surface or with an adhesive approved by the Engineer.

The Contractor shall pick up all raised pavement markers from the roadway when not in use.

The contract unit price per foot for "Temporary Raised Pavement Markers" will be full compensation for all costs associated to furnish, install, maintain (including replacement as required by the Engineer at no added cost to the Department), and remove all markers.



TRAFFIC CONTROL SUPERVISOR

The Contractor shall designate an individual, other than the superintendent, to be the Traffic Control Supervisor. The Traffic Control Supervisor shall be certified as a worksite traffic supervisor by the American Traffic Safety Services Association (ATSSA) and shall have a current flagger certification card. A copy of the Traffic Control Supervisor's certifications shall be provided to the Engineer at the preconstruction conference. The Traffic Control Supervisor shall directly supervise the project flaggers, coordinate all traffic control operations, including those of subcontractors, and revise traffic control plans when significant changes are required to the traffic control.

The Traffic Control Supervisor (TCS) shall be on the project for all significant changes to traffic patterns, detour setups or major changes to lane closure.

The TCS shall not act as a flagger except in an emergency or in relief for short periods of no more than 15 minutes over a 60 minute period.

The basis of payment for "Traffic Control Supervisor" will be by the Day. One day will be charged for services when the TCS is required to be on the project for more than 4 hours. One half day will be charged for 30 minutes to 4 hours. No payment will be made when the TCS is on the project for less than 30 minutes. It is estimated that the TCS will be required to be on the project for 1 to 2 days per week during times of active construction.

SHORT TERM TEMPORARY TRAFFIC SIGNAL SYSTEM

The Contractor shall install a temporary traffic signal system at the following intersection:

1. Mt. Rushmore Road and Kansas City Street.
 - Protected/permitted left turn arrow for NB & SB Mt. Rushmore Road and applicable through movements.

This system will be needed for phases 1 & 2 of work. The system shall be able to span up to 120'. Work shall include but is not limited to:

- Furnishing and installation of temporary steel or wood poles, span wires, conduit, conductor, signal heads, luminaires, pedestrian signal heads and pedestal poles, countdown timers, controller, cabinet and miscellaneous hardware for temporary signal system. Existing signal controller and signals on Kansas City Street may be used as part of the temporary signal system.
- The temporary signal system shall be designed in accordance with the latest edition of the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals and the design shall be checked.
- The temporary signal system shall be designed for a 90 mph wind gust.
- The Contractor shall submit design calculations (stamped by a SD Registered Professional Engineer) and shop drawings a minimum of 30 days prior to erection of the temporary span wire and signals.
- All traffic signals shall be equipped with tunnel visors and backplates. Backplates and tunnel visors shall have a dull black finish.
- A tether line shall secure the bottom of the signals. The Traffic Signal System shall meet all requirements of the MUTCD.
- Signals supported from span wires shall be a minimum of 17' -9" and a maximum of 18' -9" above the final surfacing.
- Signal heads shall meet or exceed all current ITE standards for Vehicle Traffic Control Signal Heads. The Traffic Signal System shall meet all requirements of the MUTCD.

- Signals shall be aimed such that all the signals for each approach shall be continuously visible for 325 feet. Signals shall be moveable along the span wire to align with traffic.
- The Controller shall have an operating range from -40 to +120 Deg F.
- The temporary traffic signal units shall operate from 1 controller. The controller shall be capable of operating pre-timed, actuated or by manual control. The controller shall also have the ability to dwell in all red. The failure mode of the system shall be an all red flash.
- The entire system shall be tamper and water-resistant.
- One temporary luminaire shall be affixed to each temporary support. The luminaire shall be 400 Watt and shall be turned on automatically, either by a timer or a photocell, during hours of darkness.
- In the event of failure of the Temporary Traffic Signal System, the Contractor shall furnish necessary flaggers to safely control traffic until the Temporary Traffic Signal System is operable. The cost of flaggers, signing and lighting shall be incidental to the contract unit price per site for "Short Term Temporary Traffic Signal System."
- The Contractor shall have a qualified individual responsible for setup and maintenance of the Temporary Traffic Signal System. This person shall have received training on installation, setup and maintenance of the Temporary Traffic Signal System.
- Cooperation with local and State traffic engineering personnel for signal timing will be required. State traffic engineering personnel will provide signal timing. The Contractor shall implement the signal-timing program and provide routine review to verify signal operation functions as intended.
- Reflectorization of all support systems of the Temporary Traffic Signal System shall be maintained at all times.
- Provide pedestrian signalization where existing pedestrian crossings exist.

Establishing a source of power for the Short Term Temporary Traffic Signal System shall be the responsibility of the Contractor. The Contractor shall coordinate with the utility company to determine what components and installations are necessary to provide a fully operational power source. The Contractor shall be responsible for all costs associated with providing the power source.

The Contractor shall be required to install the proper number of signal heads needed for each phase of the project. The signal heads and signal timing plans shall be adjusted for each construction phase. Conceptual layouts are included in these plans. However, the Contractor's proposed vehicular traffic signal head configuration and signal timing plans shall be approved by the Engineer prior to installation of the system.

The Short Term Temporary Traffic Signal System shall remain the property of the Contractor upon completion of the project.

The Contractor shall be responsible for locating all existing utilities and determining the final installation location of the temporary poles. Necessary removal limits of existing surface features shall be marked by the Contractor and approved by the Engineer. Removal and replacement of existing surface features shall be measured and paid under appropriate contract bid items.

All costs associated with designing, furnishing, supplying power, installing, maintaining, furnishing and installing luminaires, moving signal heads between phases, bagging signal heads and removing all of the above items associated with the SHORT TERM TEMPORARY TRAFFIC SIGNAL SYSTEM shall be incidental to the contract unit price per site for "Short Term Temporary Traffic Signal System."

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SPALL REPAIRS

Temporary traffic control for spall repair work, as indicated in Section F, shall be provided through single lane closures per Std Plates.

Spall repair work shall be sequenced to coincide with Phase 1 and Phase 2 traffic control setups and per the requirements of the Special Provision for Contract Time.

WIDTH RESTRICTION SIGNS

The width restriction signing shall be installed as shown in Section C of the plans. The Contractor shall stake the sign locations. Sign installation shall not begin until the Project Engineer has reviewed and approved the sign locations. The Contractor shall install the width restriction signing such that it does not interfere with sight distance or block the view of existing signing. The Contractor shall be responsible for determining the appropriate size, number and lengths of posts necessary for each sign to comply with Standard Plate No. 634.85. Upon completion of the project, the Contractor shall remove the width restriction signs.

Payment for furnishing, installing, maintaining and removing the signs and hardware shall be incidental to the contract unit price per square foot for "Detour Signing."

BUSINESS ACCESS HIGHWAY SIGNS

The business access highway signing shall be installed as shown in Section C of the plans. The Contractor shall stake the sign locations. Sign installation shall not begin until the Project Engineer has reviewed and approved the sign locations. The Contractor shall install the business access highway signing such that it does not interfere with sight distance or block the view of existing signing. The Contractor shall be responsible for determining the appropriate size, number and lengths of posts necessary for each sign to comply with Standard Plate No. 634.85. Upon completion of the project, the Contractor shall remove the business access highway signs.

Payment for furnishing, installing, maintaining and removing the signs and hardware shall be incidental to the contract unit price per square foot for "Temporary Business Signing."

BUSINESS ACCESS SIGNING

The Contractor shall provide business access signing during construction. The Engineer and Contractor shall coordinate with businesses to determine sign legend and placement within the project limits. Business access signs shall be placed where they will be visible while travelling in both directions along the roadway.

All costs for the Contractor's coordination efforts and activities shall be incidental to the contract lump sum price for "Traffic Control, Miscellaneous".

All costs for furnishing, installing, maintaining, relocating, and removal of business access signing and supports shall be paid for by the contract unit price per square foot for "Temporary Business Signing."

See Special Sign Detail for typical business access sign blank.

Below is a list of the current businesses along Mt. Rushmore Road that will encounter lane closures near their business access points.

Northbound Mt. Rushmore Road (East side of Mt. Rushmore Road)

- Boyd's Wine & Spirits
- Lecy Chiropractic
- Farmers Insurance
- French Cleaners
- Joker's Casino
- Check 'n Go
- Hong Kong Ruby Massage
- The Medicine Shoppe
- Black Hills Health & Wellness Center
- Chiropractic Clinic
- Whillock Dental Arts
- Black Hills Beauty Shop
- Barker Wilson Law Firm
- Studio 605 Tattoo
- Thimble Cottage Quilt Shop
- Black Hills Community Bank
- Independent Optical
- Emmanuel Episcopal Church
- Radiology Associates
- First Christian Church
- Unkenholz Family Dental
- Pennington Title Company

Southbound Mt. Rushmore Road (West side of Mt. Rushmore Road)

- YMCA
- Phillips 66 / Bob's Service Center
- Ketel Thorstenson, LLP
- First American Title
- Boulevard Dental
- Julius & Simpson, LLP
- Dialysis Management Group, LLC
- Herrmann Insurance Agency
- APRIA Healthcare
- Schwietert Chiropractic Clinic
- Benusis Dental
- Rex Briggs Counseling
- Elizabeth M. Frederick Law Office
- Black Hills Reporting
- Kenneth E. Orrock
- Black Hills Patrol
- The Rolling Cupcake
- Anything's Possible Catering
- Black Hills Bagels
- Smart Brothers' Computers
- Leo Thomas Salon
- L.T.S. Luxury Limousines
- Modern Woodmen
- Posh Salon & Spa
- EZ Money
- Papa John's Pizza
- Arbeiter, Badiuk & Associates
- Black Hills Mediation & Law
- Rushmore Family Chiropractic
- Willy's Saw Shop
- South Dakota Real Estate Company
- Roofs by Aspen
- Northern Hills Tobacco & Supplies
- Fancies Flowers & Gifts
- Black Hills Dental Laboratory
- Noah's Ark Animal Hospital
- Jovy's Hair Salon
- Bargain Printing
- OMNI Home Financing
- LaBelle Vie Massage & Skin Care
- Body Therapy by Erin



FOR BIDDING PURPOSES ONLY

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REV 12-02-05 JR/V

CONTRACTOR FURNISHED PORTABLE CHANGEABLE MESSAGE SIGN

The Contractor shall furnish 3 portable changeable message signs to be used for the duration of the project. Message signs shall be installed to inform the traveling public of when construction will begin for each phase, changes that impact traffic, and as directed by the Engineer. The changeable message signs shall be furnished, programmed and maintained for the entire project duration.

Proposed locations for the changeable message signs shown on the Portable Changeable Message Sign Layout plan sheets are provided for informational purposes only. The Engineer shall approve the locations and messages to be programmed into the message signs. The message signs shall be clearly visible from a minimum of 900 feet and shall be solar powered or wired directly to a power source. Diesel and gas powered message signs will not be allowed.

The portable message signs will be paid for at the contract unit price per each for "Contractor Furnished Portable Changeable Message Sign." Payment will be full compensation for furnishing, maintaining, and relocating as many times as required by the Engineer and the Contractor's operations.

CONTRACTOR FURNISHED SPEED MONITORING RADAR TRAILER

The Contractor shall provide 2 speed trailers to monitor traffic speeds through the project area and on designated detour routes as directed by the Engineer.

The radar speed feedback sign assembly shall be located a minimum of 300 feet inside the speed zone achieving a 300 feet minimum distance from the speed limit sign. The radar speed feedback sign assembly shall include a speed limit sign mounted in conjunction with the radar speed feedback display. The speed display shall not flash either vehicle speeds exceeding the speed limit or any other messages. The radar speed feedback sign assembly shall be solar powered or wired directly to a power source. Diesel and gas powered radar speed feedback sign assemblies will not be allowed.

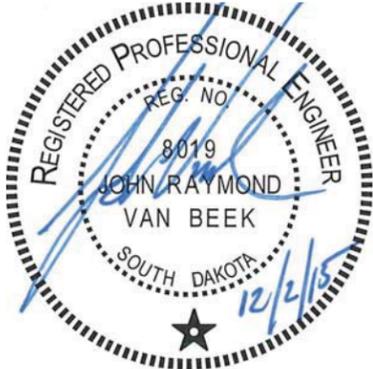
All costs associated with furnishing, maintaining, transporting, relocating if necessary, and removing the speed trailers shall be included in the contract unit price per each for "Contractor Furnished Speed Monitoring Radar Trailer."

CONTRACTOR FURNISHED SPECIAL BUSINESS ACCESS

Due to special considerations, limited available parking spaces near businesses in the project work area, and times when TPAR paths are affected by work immediately in front of businesses, the Contractor shall provide shuttle rides to persons wishing to access these businesses during their normal operating hours. The Contractor shall coordinate with an established public or private transit provider capable of loading and carrying a wheelchair bound person inside the vehicle and provide rides to businesses within the project limits for all persons. The Contractor shall designate an off-site parking/pickup area. Shuttle information, including parking/pickup area and phone number for shuttle, shall be made available to the Department contracted Public Information Specialist for communication to the public.

All cost associated with coordinating with a transit provider with stated capabilities shall be included in the contract lump sum price for "Traffic Control, Miscellaneous."

All costs associated with providing shuttle rides will be paid for at the contract unit price per hour for "Pilot Car." A minimum of 0.5 hours will be paid for a single ride. Multiple back-to-back rides will be measured to the nearest 0.5 hours.



INVENTORY OF TRAFFIC CONTROL DEVICES

Number is based on the estimated maximum totals of all phases which could occur simultaneously.

TOTAL PROJECT

SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
G20-2	END ROAD WORK	15	36" x 18"	5	75
R1-1	STOP	7	30" x 30"	6	36
R2-1	SPEED LIMIT 25	4	24" x 30"	5	20
R2-6aP	FINES DOUBLE (plaque)	4	24" x 18"	3	12
R3-7L	LEFT LANE MUST TURN LEFT	2	30" x 30"	6	12
R4-7c	(Narrow) KEEP RIGHT (symbol)	17	18" x 30"	4	68
R9-9	SIDEWALK CLOSED	16	24" x 12"	2	32
R9-11	SIDEWALK CLOSED AHEAD with ARROW (L or R) CROSS HERE	2	24" x 18"	3	6
R9-11a	SIDEWALK CLOSED w/ ARROW (L or R) CROSS HERE	6	24" x 12"	2	12
R10-6	STOP HERE ON RED	1	24" x 36"	6	6
R11-2	ROAD CLOSED	14	48" x 30"	10	140
R11-4	ROAD CLOSED TO THRU TRAFFIC	7	60" x 30"	13	91
W1-3	REVERSE TURN (L or R)	4	48" x 48"	16	64
W4-2	LEFT or RIGHT LANE ENDS (symbol)	2	48" x 48"	16	32
W6-3	TWO WAY TRAFFIC (symbol)	2	48" x 48"	16	32
W11-2	PEDESTRIAN (symbol)	8	36" x 36"	9	72
W13-1P	ADVISORY SPEED (plaque)	4	30" x 30"	6	24
W16-7P	DOWNWARD DIAGONAL ARROW (plaque)	8	24" x 12"	2	16
W20-1	ROAD WORK AHEAD	15	48" x 48"	16	240
W20-5	LEFT or RIGHT LANE CLOSED AHEAD	3	48" x 48"	16	48
W20-7	FLAGGER (symbol)	2	48" x 48"	16	32
SPECIAL	ADVANCED INTERSECTION LANE CONTROL	2	30" x 36"	8	16
TRAFFIC CONTROL SIGNS SQFT					1086

TOTAL PROJECT

SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
SPECIAL	BUSINESS ACCESS SIGN	126	36" x 36"	9	1134
SPECIAL	BUSINESS ACCESS HIGHWAY SIGN	3	114" x 54"	43	129
TEMPORARY BUSINESS SIGNING SQFT					1263

TOTAL PROJECT

SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
SPECIAL	WIDTH RESTRICTION __ FT WIDE __ MILES AHEAD	2	78" x 108"	59	118
SPECIAL	WIDTH RESTRICTION __ FT WIDE __ MILES AHEAD	1	78" x 96"	52	52
DETOUR SIGNING SQFT					170

TOTAL PROJECT

ITEM DESCRIPTION	QUANTITY
Type 3 Barricade, 8' Double Sided	68 Each



The following tables provide estimated inventories for each individual phase of the project:

FIXED LOCATION SIGNS

SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W20-1	ROAD WORK AHEAD	15	48" x 48"	16	240
G20-2	END ROAD WORK	15	36" x 18"	5	75
TRAFFIC CONTROL SIGNS SQFT					315

PHASE 1

SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R1-1	STOP	6	30" x 30"	6	36
R2-1	SPEED LIMIT 25	4	24" x 30"	5	20
R2-6aP	FINES DOUBLE (plaque)	4	24" x 18"	3	12
R3-7L	LEFT LANE MUST TURN LEFT	2	30" x 30"	6	12
R4-7c	(Narrow) KEEP RIGHT (symbol)	17	18" x 30"	4	68
R10-6	STOP HERE ON RED	1	24" x 36"	6	6
R11-2	ROAD CLOSED	14	48" x 30"	10	140
R11-4	ROAD CLOSED TO THRU TRAFFIC	7	60" x 30"	13	91
W1-3	REVERSE TURN (L or R)	4	48" x 48"	16	64
W4-2	LEFT or RIGHT LANE ENDS (symbol)	2	48" x 48"	16	32
W6-3	TWO WAY TRAFFIC (symbol)	2	48" x 48"	16	32
W13-1P	ADVISORY SPEED (plaque)	4	30" x 30"	6	24
W20-5	LEFT or RIGHT LANE CLOSED AHEAD	3	48" x 48"	16	48
W20-7	FLAGGER (symbol)	2	48" x 48"	16	32
SPECIAL	ADVANCED INTERSECTION LANE CONTROL	2	30" x 36"	8	16
TRAFFIC CONTROL SIGNS SQFT					633

PHASE 2

SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R1-1	STOP	7	30" x 30"	6	42
R2-1	SPEED LIMIT 25	4	24" x 30"	5	20
R2-6aP	FINES DOUBLE (plaque)	4	24" x 18"	3	12
R4-7c	(Narrow) KEEP RIGHT (symbol)	15	18" x 30"	4	60
R11-2	ROAD CLOSED	12	48" x 30"	10	120
R11-4	ROAD CLOSED TO THRU TRAFFIC	6	60" x 30"	13	78
W1-3	REVERSE TURN (L or R)	3	48" x 48"	16	48
W4-2	LEFT or RIGHT LANE ENDS (symbol)	2	48" x 48"	16	32
W6-3	TWO WAY TRAFFIC (symbol)	2	48" x 48"	16	32
W13-1P	ADVISORY SPEED (plaque)	3	30" x 30"	6	18
W20-5	LEFT or RIGHT LANE CLOSED AHEAD	3	48" x 48"	16	48
W20-7	FLAGGER (symbol)	2	48" x 48"	16	32
TRAFFIC CONTROL SIGNS SQFT					542

PHASE 3

SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R2-1	SPEED LIMIT 25	4	24" x 30"	5	20
R2-6aP	FINES DOUBLE (plaque)	4	24" x 18"	3	12
W4-2	LEFT or RIGHT LANE ENDS (symbol)	2	48" x 48"	16	32
W20-5	LEFT or RIGHT LANE CLOSED AHEAD	3	48" x 48"	16	48
TRAFFIC CONTROL SIGNS SQFT					112

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT NH0016(79)67	SHEET C10	TOTAL SHEETS C52
PLOTTING DATE: 11-12-15			

CONSTRUCTION SEQUENCE

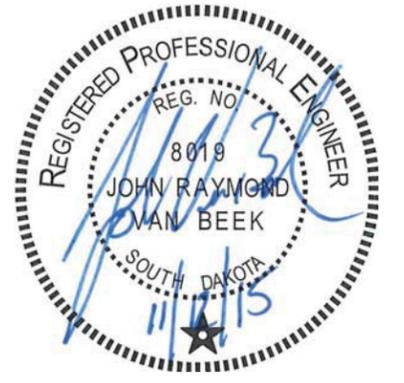
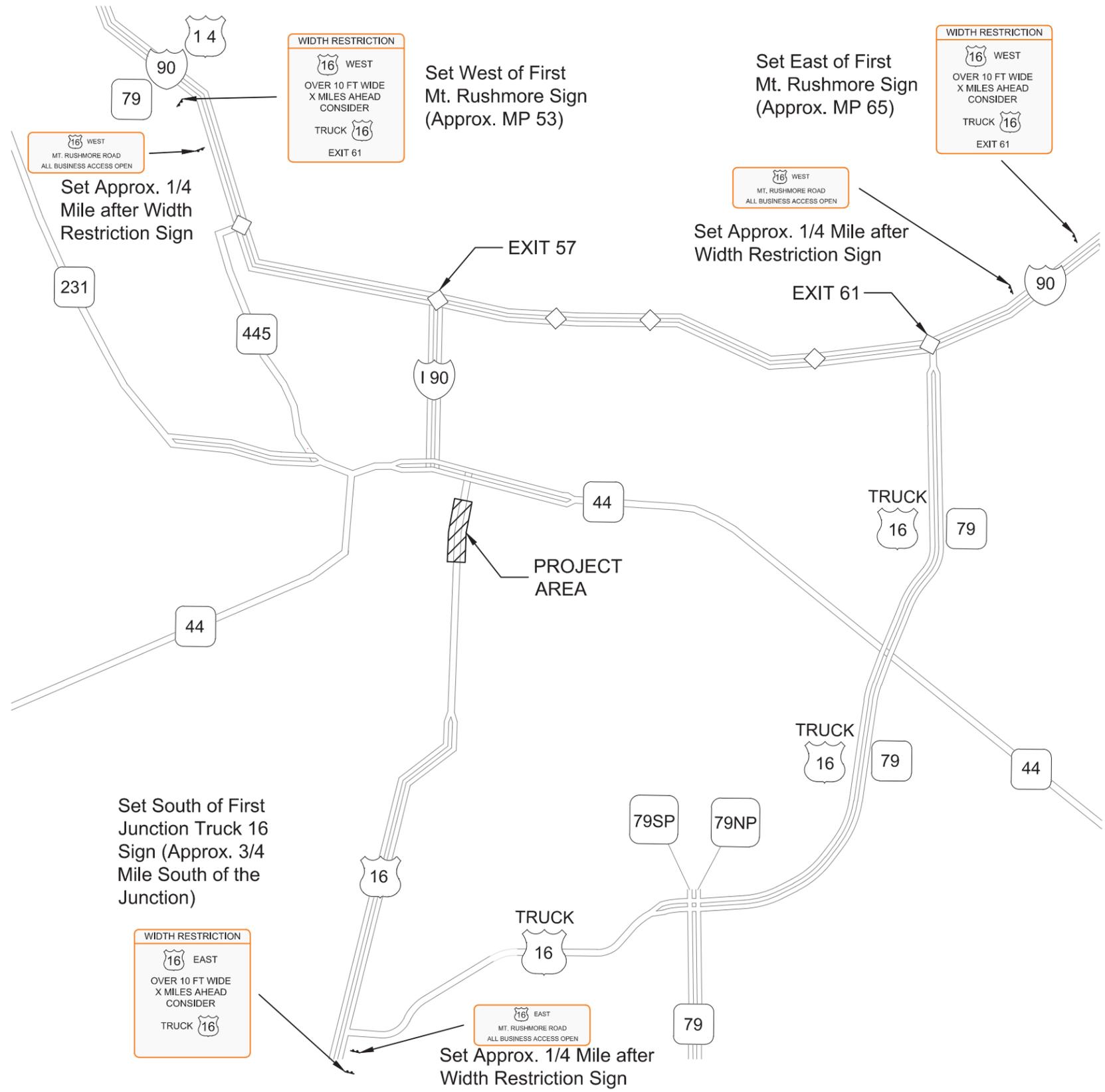
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STATE OF SOUTH DAKOTA	PROJECT NH0016(79)67	SHEET C12	TOTAL SHEETS C52
PLOTING DATE: 11-12-15			

TRAFFIC CONTROL - OVERWIDTH SIGNING LAYOUT



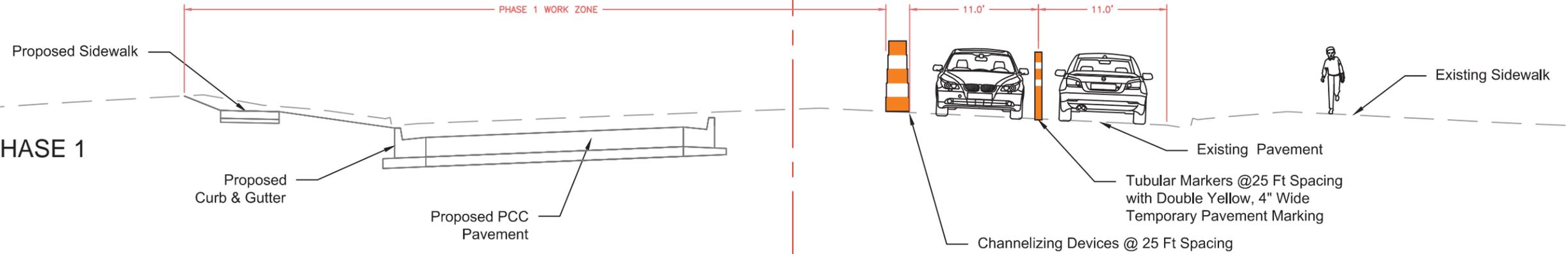
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FOR BIDDING PURPOSES ONLY

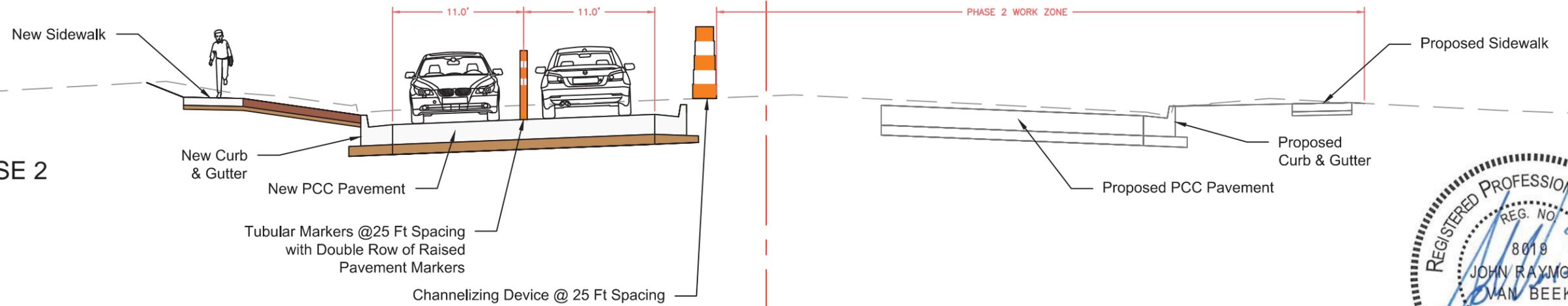
STATE OF SOUTH DAKOTA	PROJECT NH0016(79)67	SHEET C13	TOTAL SHEETS C52
PLOTTING DATE: 11-12-15			

TYPICAL TEMPORARY TRAFFIC CONTROL CROSS SECTIONS

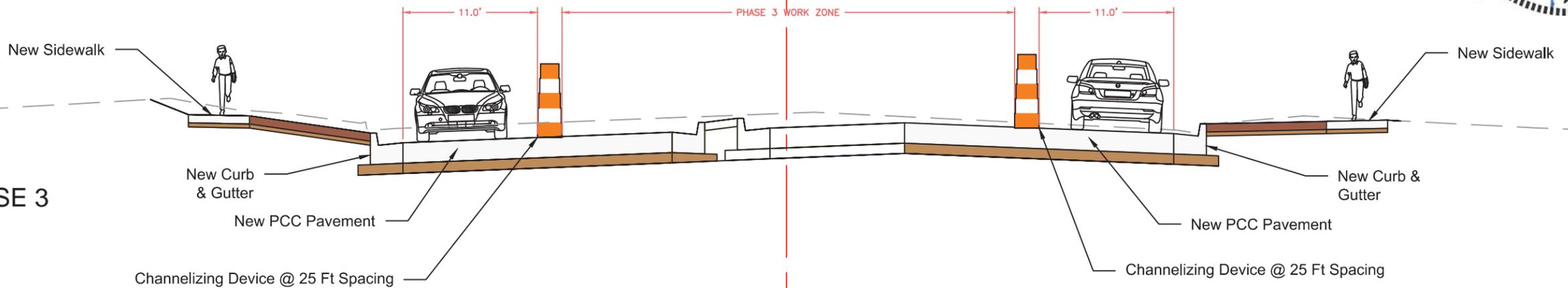
PHASE 1



PHASE 2



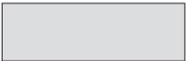
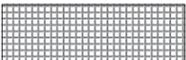
PHASE 3



TRAFFIC CONTROL LAYOUT - Phase 1 FOR BIDDING PURPOSES ONLY

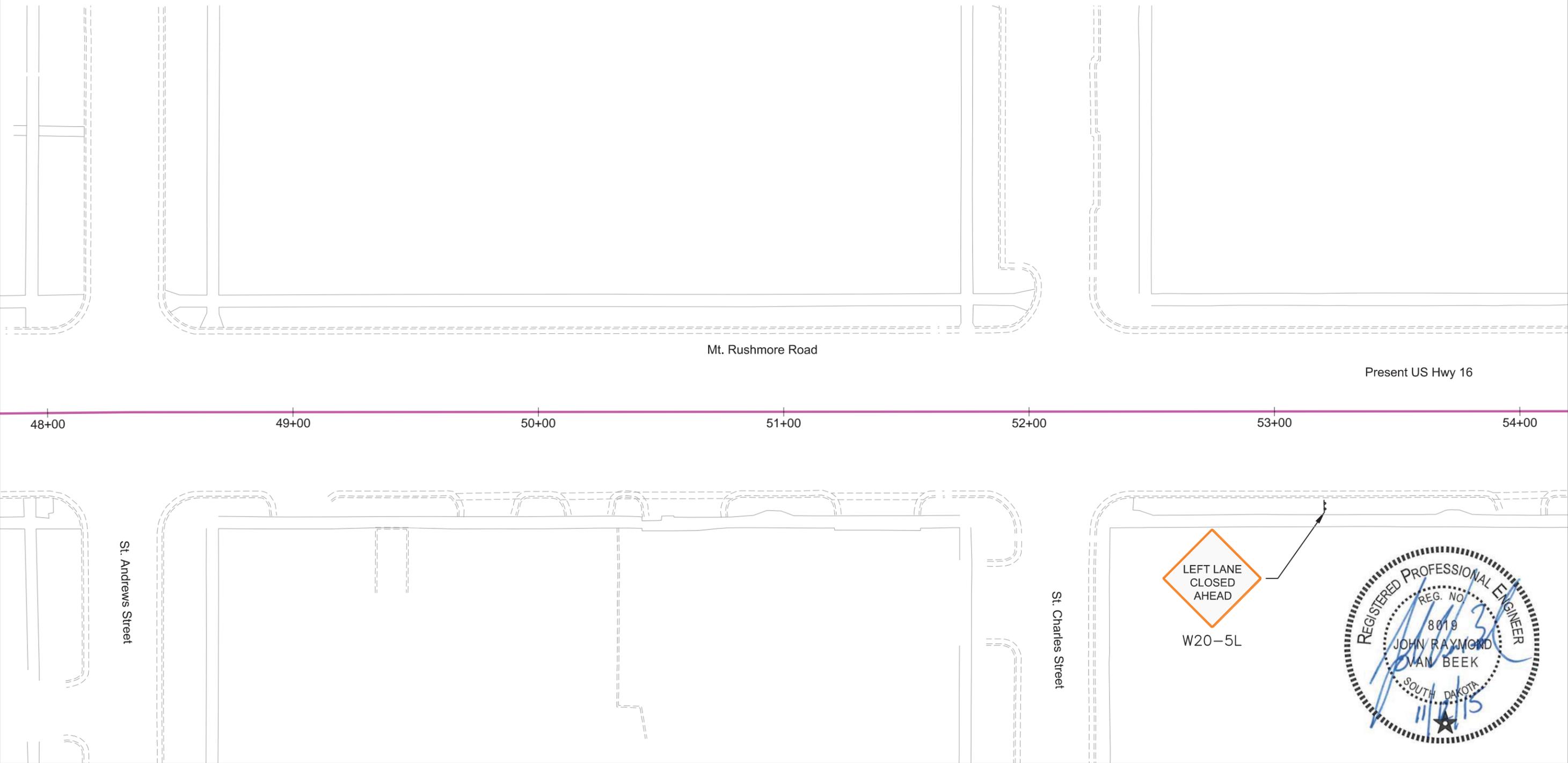
STATE OF SOUTH DAKOTA	PROJECT NH0016(79)67	SHEET C14	TOTAL SHEETS C52
PLOTTING DATE: 11-12-15			

Legend

-  Sign (Mounted to Tubular Marker)
-  Fixed Location Sign
-  Type 3 Barricade
-  Tubular Marker
-  Channellizing Device (Barrel/42" Grabber Cone)
-  Driving Lane
-  Temporary Pedestrian Access Route (TPAR)
-  Work Zone
-  Temporary Surfacing
-  Temporary Access

Notes

1. Transitions and Tapers Shall Utilize Barrels and RPMs.
2. Sign Spacing, Barrel Spacing and Taper Lengths Shall be per Standard Plates.
3. Arrows Shown to Represent Traffic Flow (Not Temporary Striping).
4. See Maintenance of Intersecting Street Access Notes.



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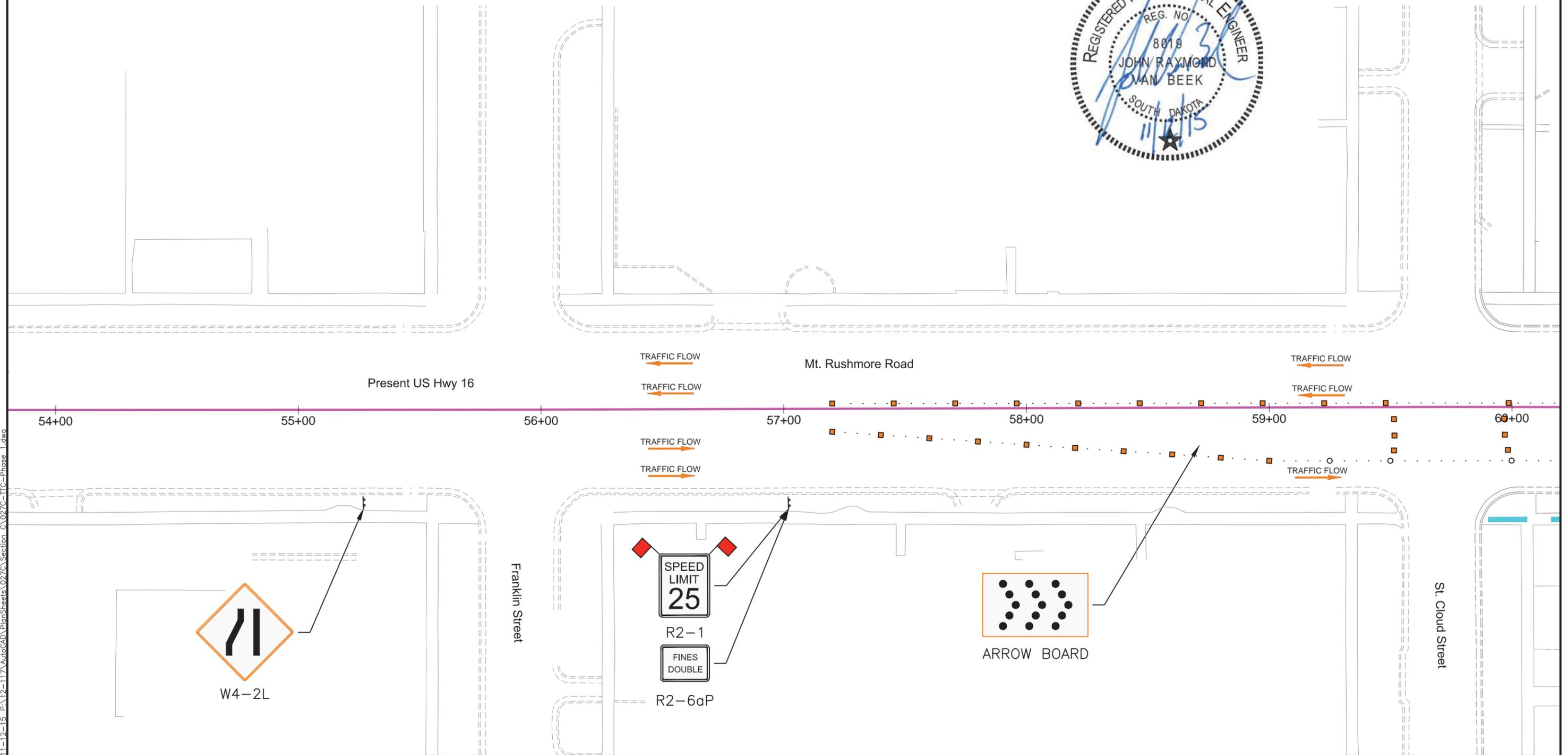
TRAFFIC CONTROL LAYOUT - Phase 1 FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT NH0016(79)67	SHEET C15	TOTAL SHEETS C52
PLOTING DATE: 11-12-15			

Legend

- Sign (Mounted to Tubular Marker)
- Fixed Location Sign
- Type 3 Barricade
- Tubular Marker
- Channellizing Device (Barrel/42" Grabber Cone)
- Driving Lane
- Temporary Pedestrian Access Route (TPAR)
- Work Zone
- Temporary Surfacing
- Temporary Access

- Notes**
1. Transitions and Tapers Shall Utilize Barrels and RPMs.
 2. Sign Spacing, Barrel Spacing and Taper Lengths Shall be per Standard Plates.
 3. Arrows Shown to Represent Traffic Flow (Not Temporary Striping).
 4. See Maintenance of Intersecting Street Access Notes.



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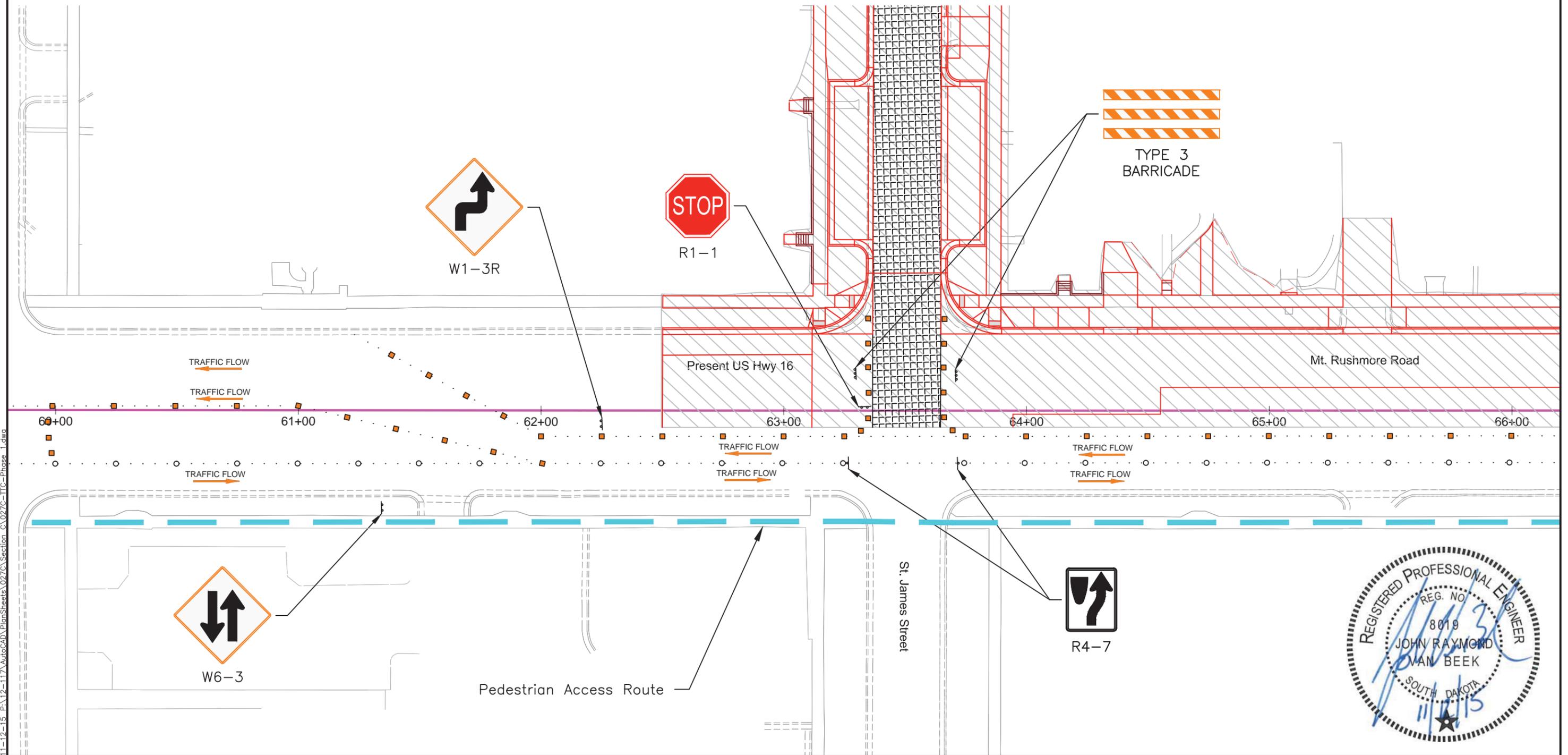
TRAFFIC CONTROL LAYOUT - Phase 1 FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT NH0016(79)67	SHEET C16	TOTAL SHEETS C52
PLOT DATE: 11-12-15			

Legend

- Sign (Mounted to Tubular Marker)
- Fixed Location Sign
- Type 3 Barricade
- Tubular Marker
- Channellizing Device (Barrel/42" Grabber Cone)
- Driving Lane
- Temporary Pedestrian Access Route (TPAR)
- Work Zone
- Temporary Surfacing
- Temporary Access

- Notes**
1. Transitions and Tapers Shall Utilize Barrels and RPMs.
 2. Sign Spacing, Barrel Spacing and Taper Lengths Shall be per Standard Plates.
 3. Arrows Shown to Represent Traffic Flow (Not Temporary Striping).
 4. See Maintenance of Intersecting Street Access Notes.



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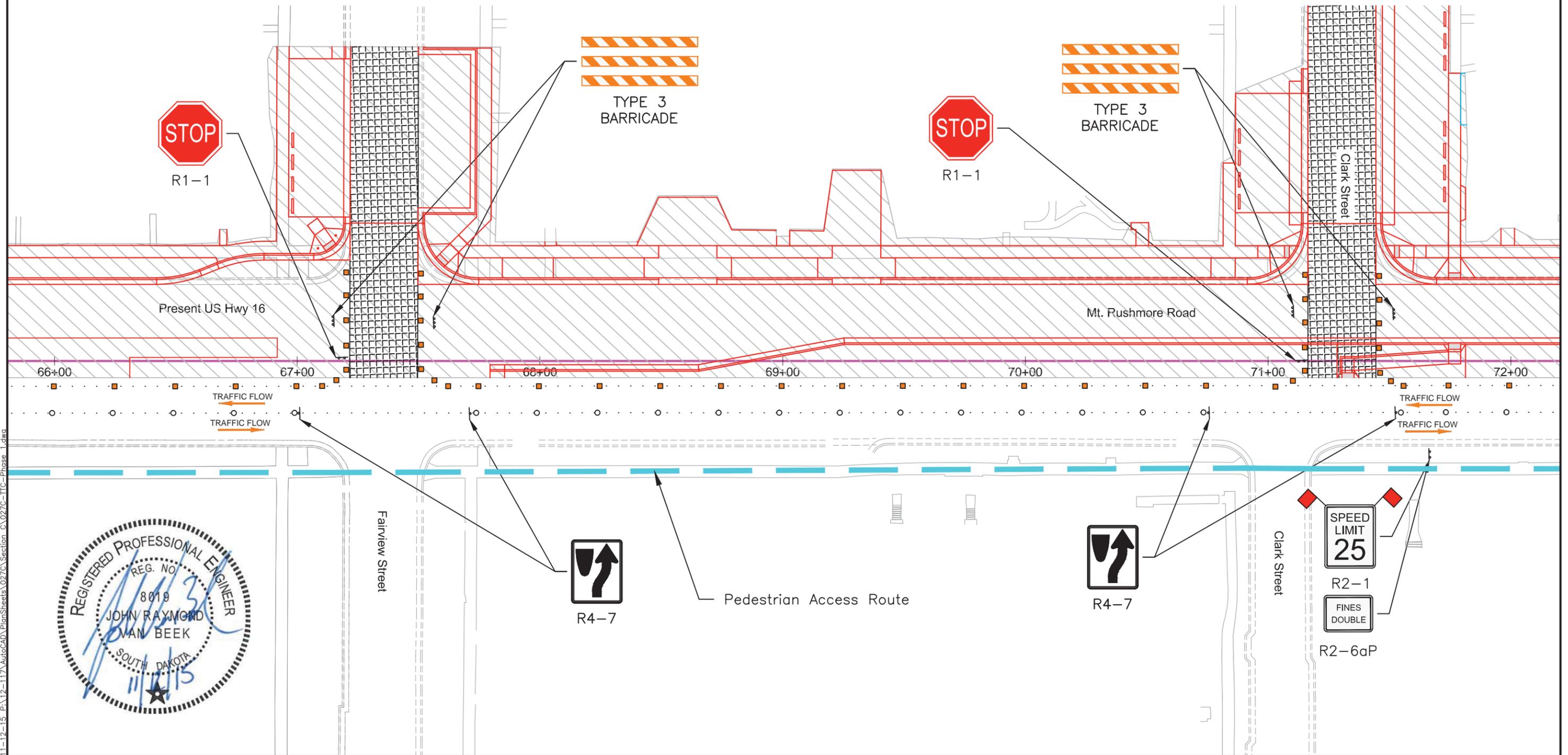
TRAFFIC CONTROL LAYOUT - Phase 1 **FOR BIDDING PURPOSES ONLY**

STATE OF SOUTH DAKOTA	PROJECT NH0016(79)67	SHEET C17	TOTAL SHEETS C52
PLOTING DATE: 11-12-15			



- Legend**
- Sign (Mounted to Tubular Marker)
 - Fixed Location Sign
 - Type 3 Barricade
 - Tubular Marker
 - Channelling Device (Barrel/42" Grabber Cone)
 - Driving Lane
 - Temporary Pedestrian Access Route (TPAR)
 - Work Zone
 - Temporary Surfacing
 - Temporary Access

- Notes**
1. Transitions and Tapers Shall Utilize Barrels and RPMs.
 2. Sign Spacing, Barrel Spacing and Taper Lengths Shall be per Standard Plates.
 3. Arrows Shown to Represent Traffic Flow (Not Temporary Striping).
 4. See Maintenance of Intersecting Street Access Notes.

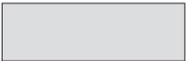


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TRAFFIC CONTROL LAYOUT - Phase 1 FOR BIDDING PURPOSES ONLY

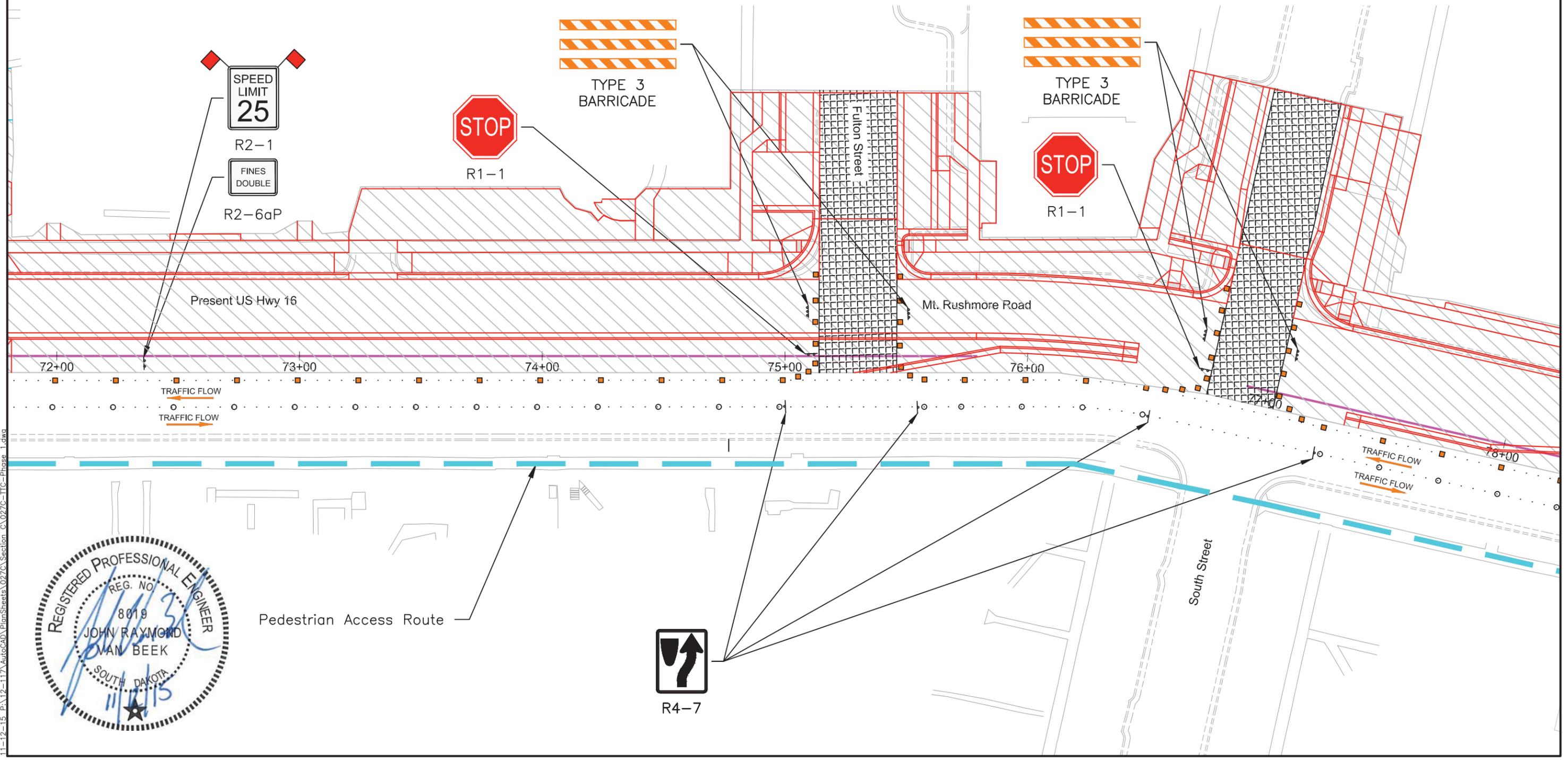
STATE OF SOUTH DAKOTA	PROJECT NH0016(79)67	SHEET C18	TOTAL SHEETS C52
PLOT DATE: 11-12-15			

Legend

-  Sign (Mounted to Tubular Marker)
-  Fixed Location Sign
-  Type 3 Barricade
-  Tubular Marker
-  Channelling Device (Barrel/42" Grabber Cone)
-  Driving Lane
-  Temporary Pedestrian Access Route (TPAR)
-  Work Zone
-  Temporary Surfacing
-  Temporary Access

Notes

1. Transitions and Tapers Shall Utilize Barrels and RPMs.
2. Sign Spacing, Barrel Spacing and Taper Lengths Shall be per Standard Plates.
3. Arrows Shown to Represent Traffic Flow (Not Temporary Striping).
4. See Maintenance of Intersecting Street Access Notes.



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TRAFFIC CONTROL LAYOUT - Phase 1 FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT NH0016(79)67	SHEET C19	TOTAL SHEETS C52
PLOTING DATE: 11-12-15			

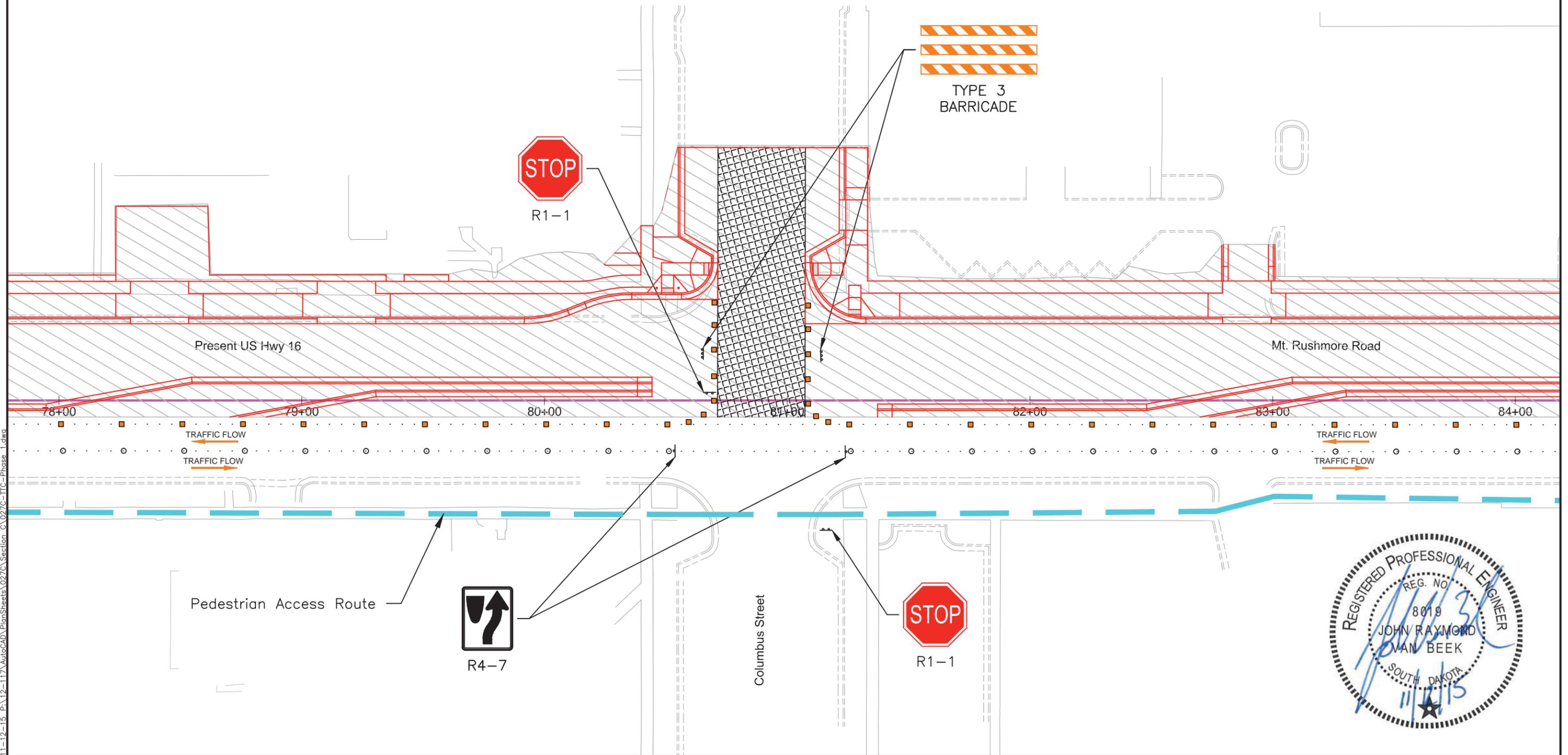


Legend

- Sign (Mounted to Tubular Marker)
- Fixed Location Sign
- Type 3 Barricade
- Tubular Marker
- Channellizing Device (Barrel/42" Grabber Cone)
- Driving Lane
- Temporary Pedestrian Access Route (TPAR)
- Work Zone
- Temporary Surfacing
- Temporary Access

Notes

1. Transitions and Tapers Shall Utilize Barrels and RPMs.
2. Sign Spacing, Barrel Spacing and Taper Lengths Shall be per Standard Plates.
3. Arrows Shown to Represent Traffic Flow (Not Temporary Striping).
4. See Maintenance of Intersecting Street Access Notes.



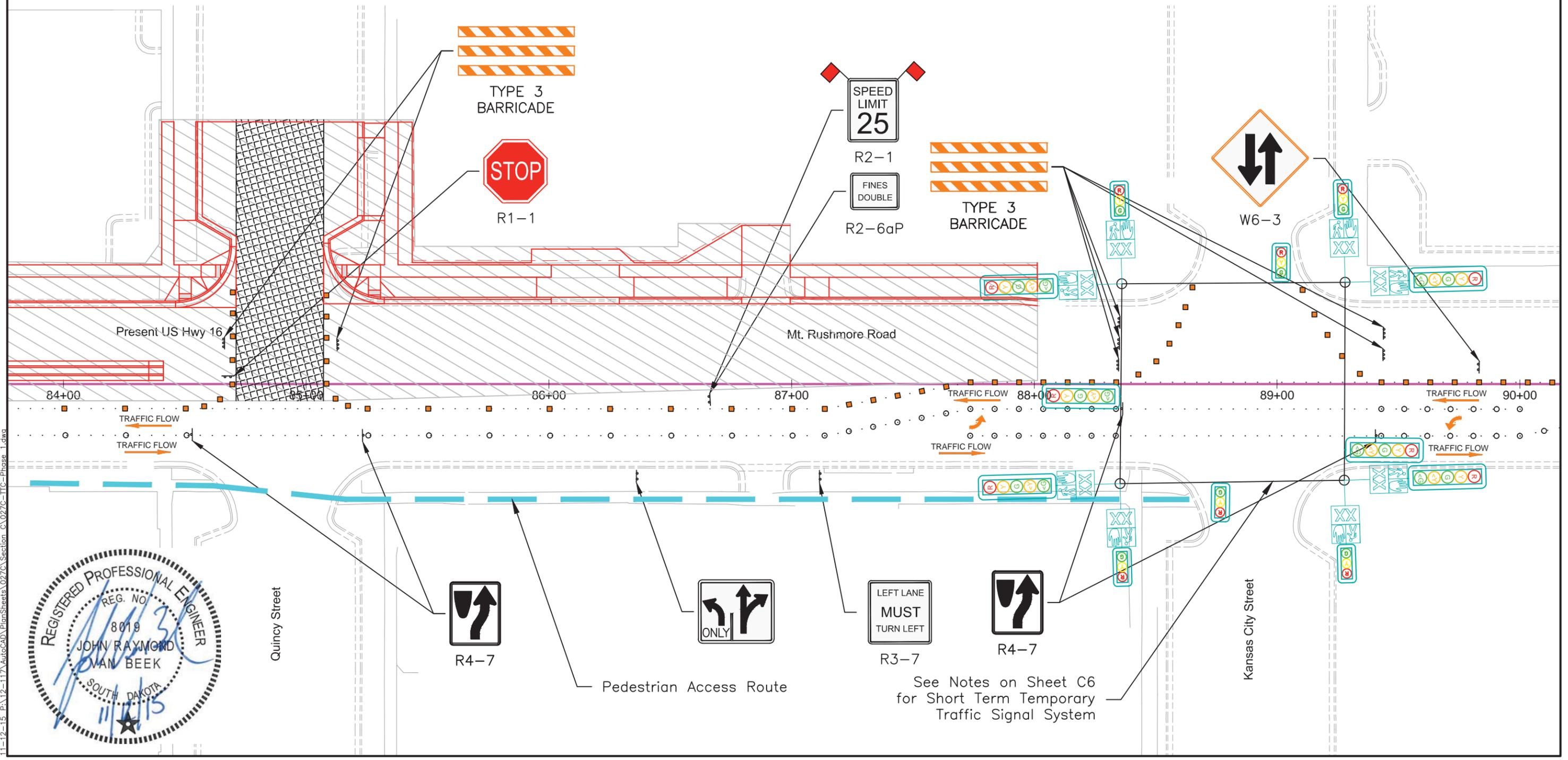
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TRAFFIC CONTROL LAYOUT - Phase 1 FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT NH0016(79)67	SHEET C20	TOTAL SHEETS C52
PLOTING DATE: 11-12-15			

- Legend**
- Sign (Mounted to Tubular Marker)
 - Fixed Location Sign
 - Type 3 Barricade
 - Tubular Marker
 - Channellizing Device (Barrel/42" Grabber Cone)
 - Driving Lane
 - Temporary Pedestrian Access Route (TPAR)
 - Work Zone
 - Temporary Surfacing
 - Temporary Access

- Notes**
1. Transitions and Tapers Shall Utilize Barrels and RPMs.
 2. Sign Spacing, Barrel Spacing and Taper Lengths Shall be per Standard Plates.
 3. Arrows Shown to Represent Traffic Flow (Not Temporary Striping).
 4. See Maintenance of Intersecting Street Access Notes.



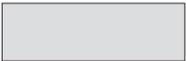
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See Notes on Sheet C6 for Short Term Temporary Traffic Signal System

TRAFFIC CONTROL LAYOUT - Phase 1 FOR BIDDING PURPOSES ONLY

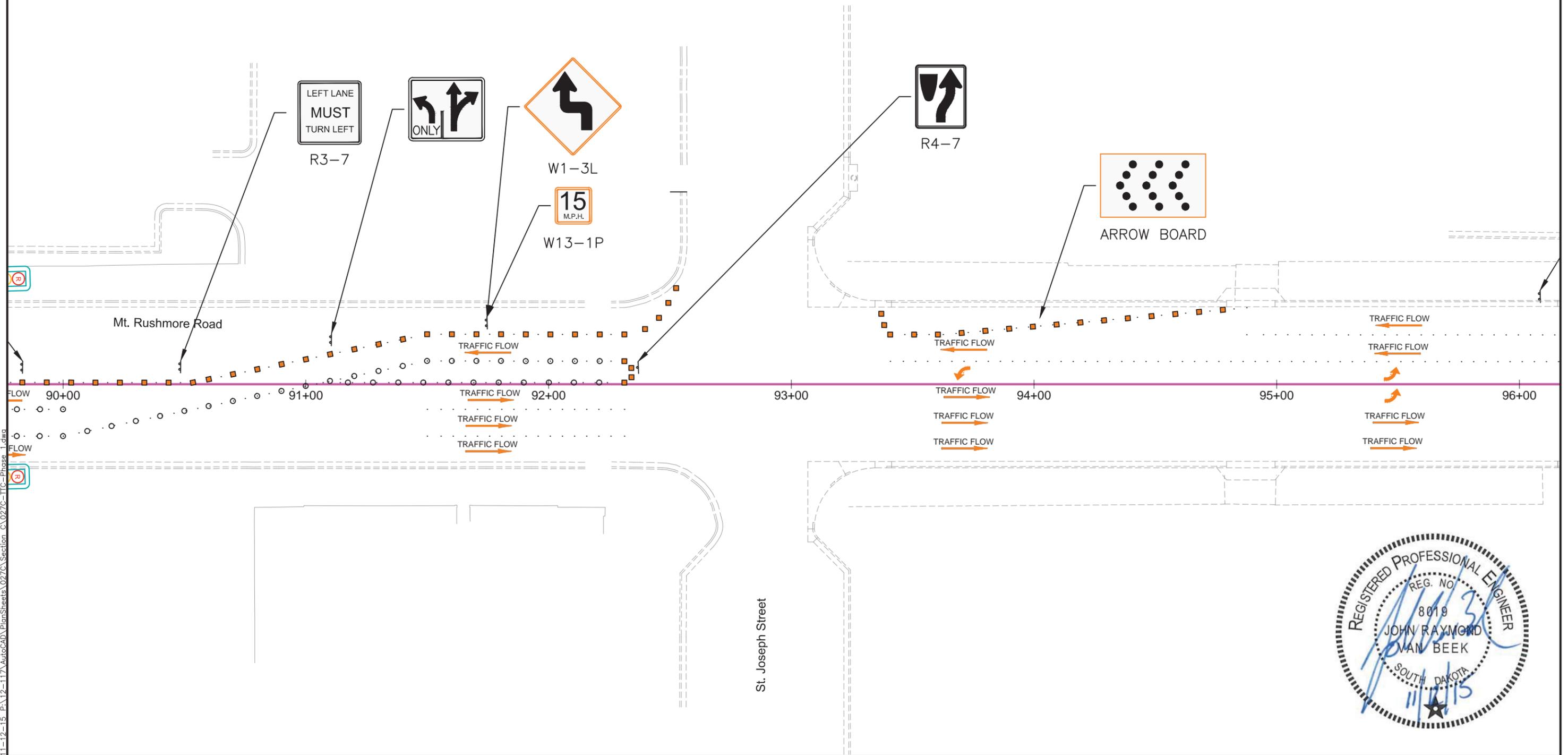
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH0016(79)67	C21	C52
PLOTING DATE: 11-12-15			

Legend

-  Sign (Mounted to Tubular Marker)
-  Fixed Location Sign
-  Type 3 Barricade
-  Tubular Marker
-  Channellizing Device (Barrel/42" Grabber Cone)
-  Driving Lane
-  Temporary Pedestrian Access Route (TPAR)
-  Work Zone
-  Temporary Surfacing
-  Temporary Access

Notes

1. Transitions and Tapers Shall Utilize Barrels and RPMs.
2. Sign Spacing, Barrel Spacing and Taper Lengths Shall be per Standard Plates.
3. Arrows Shown to Represent Traffic Flow (Not Temporary Striping).
4. See Maintenance of Intersecting Street Access Notes.



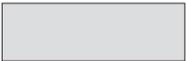
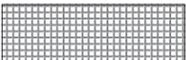
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TRAFFIC CONTROL LAYOUT - Phase 1 FOR BIDDING PURPOSES ONLY

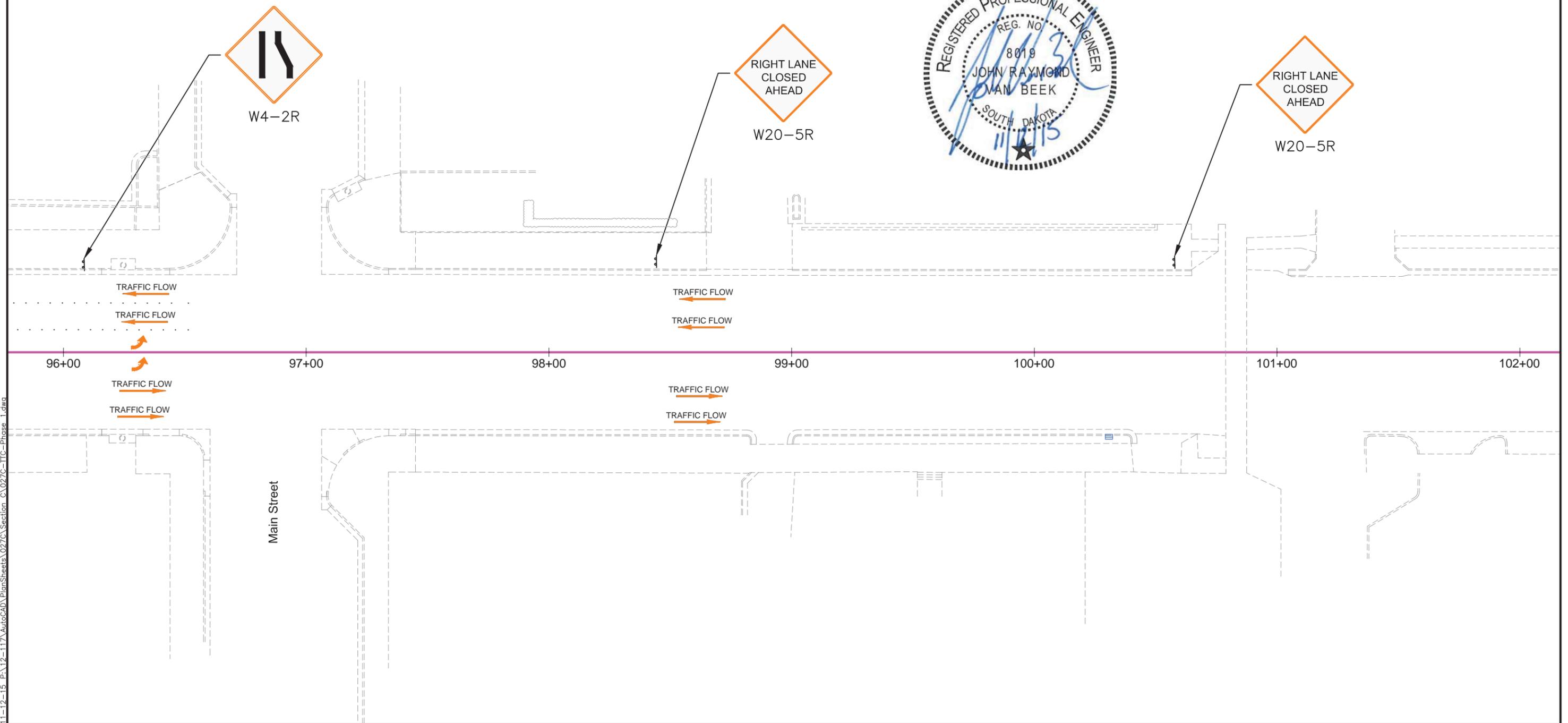
STATE OF SOUTH DAKOTA	PROJECT NH0016(79)67	SHEET C22	TOTAL SHEETS C52
PLOTING DATE: 11-12-15			

Legend

-  Sign (Mounted to Tubular Marker)
-  Fixed Location Sign
-  Type 3 Barricade
-  Tubular Marker
-  Channelling Device (Barrel/42" Grabber Cone)
-  Driving Lane
-  Temporary Pedestrian Access Route (TPAR)
-  Work Zone
-  Temporary Surfacing
-  Temporary Access

Notes

1. Transitions and Tapers Shall Utilize Barrels and RPMs.
2. Sign Spacing, Barrel Spacing and Taper Lengths Shall be per Standard Plates.
3. Arrows Shown to Represent Traffic Flow (Not Temporary Striping).
4. See Maintenance of Intersecting Street Access Notes.

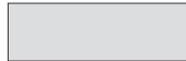
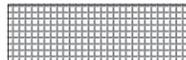


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TRAFFIC CONTROL LAYOUT - Phase 2 FOR BIDDING PURPOSES ONLY

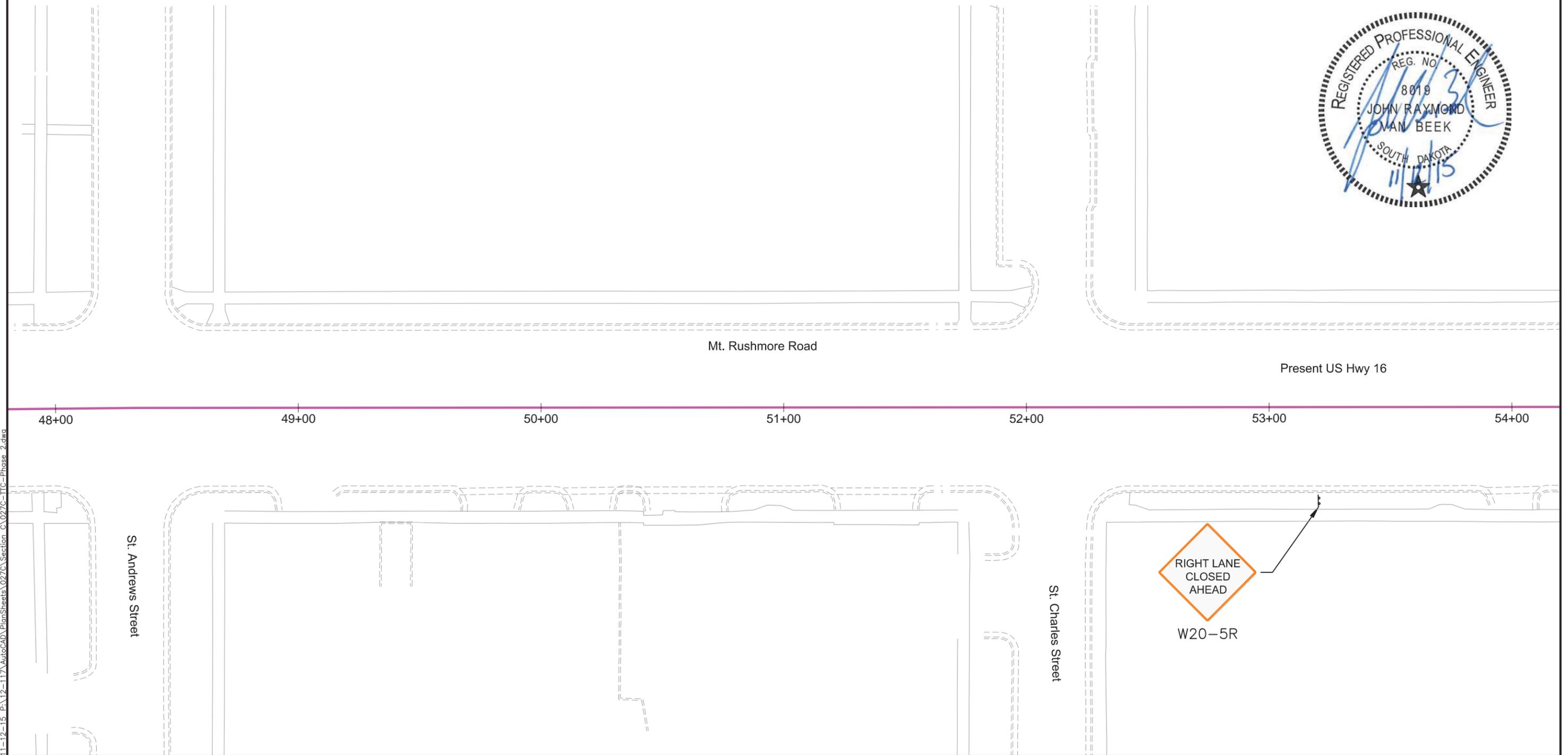
STATE OF SOUTH DAKOTA	PROJECT NH0016(79)67	SHEET C23	TOTAL SHEETS C52
PLOTING DATE: 11-12-15			

Legend

-  Sign (Mounted to Tubular Marker)
-  Fixed Location Sign
-  Type III Barricade
-  Tubular Marker
-  Channellizing Device (Barrel/42" Grabber Cone)
-  Driving Lane
-  Temporary Pedestrian Access Route (TPAR)
-  Work Zone
-  Temporary Surfacing
-  Temporary Access

Notes

1. Transitions and Tapers Shall Utilize Barrels and RPMs.
2. Sign Spacing, Barrel Spacing and Taper Lengths Shall be per Standard Plates.
3. Arrows Shown to Represent Traffic Flow (Not Temporary Striping).
4. See Maintenance of Intersecting Street Access Notes.

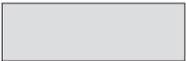
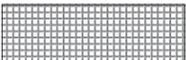


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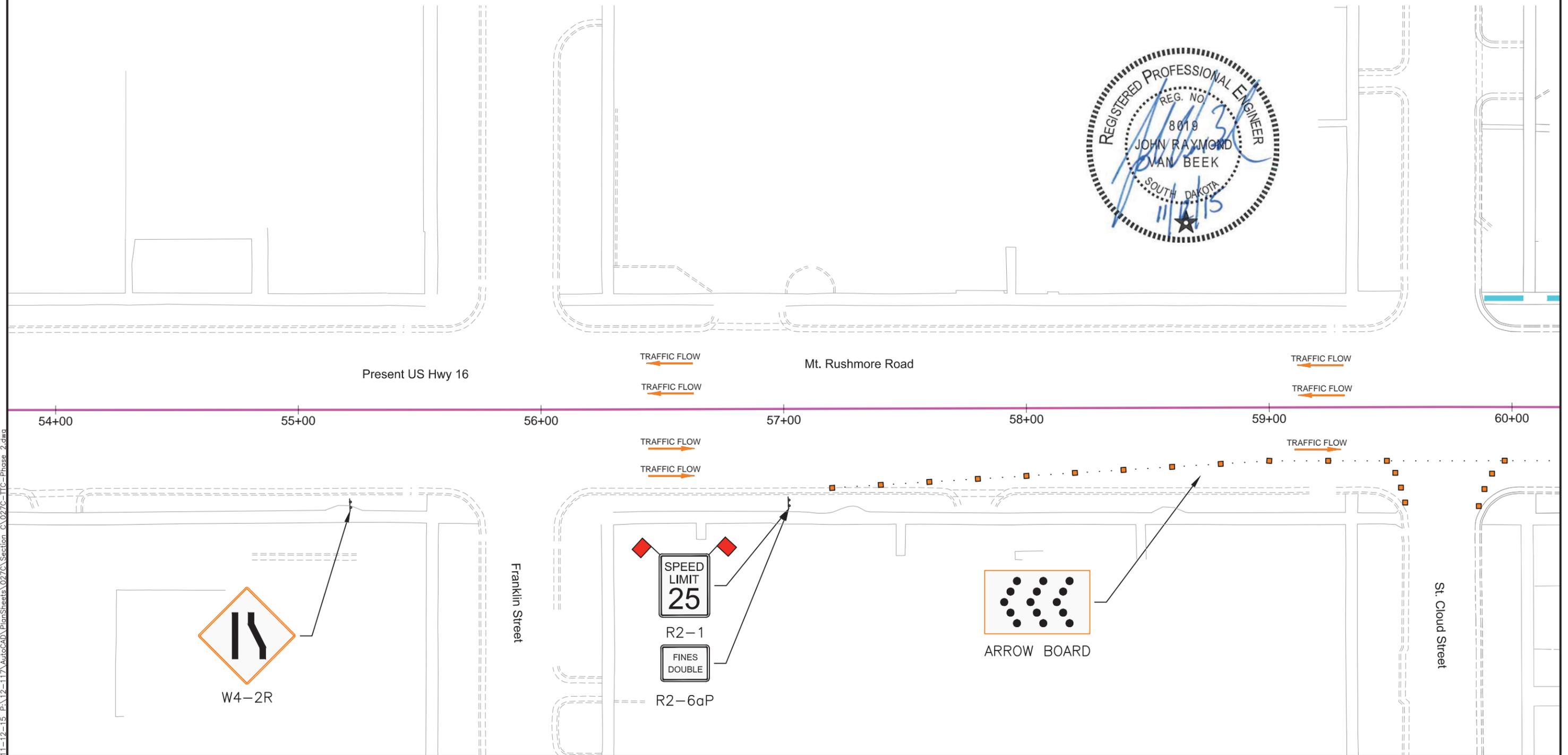
TRAFFIC CONTROL LAYOUT - Phase 2 FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT NH0016(79)67	SHEET C24	TOTAL SHEETS C52
PLOTING DATE: 11-12-15			

Legend

-  Sign (Mounted to Tubular Marker)
-  Fixed Location Sign
-  Type III Barricade
-  Tubular Marker
-  Channellizing Device (Barrel/42" Grabber Cone)
-  Driving Lane
-  Temporary Pedestrian Access Route (TPAR)
-  Work Zone
-  Temporary Surfacing
-  Temporary Access

- Notes**
1. Transitions and Tapers Shall Utilize Barrels and RPMs.
 2. Sign Spacing, Barrel Spacing and Taper Lengths Shall be per Standard Plates.
 3. Arrows Shown to Represent Traffic Flow (Not Temporary Striping).
 4. See Maintenance of Intersecting Street Access Notes.



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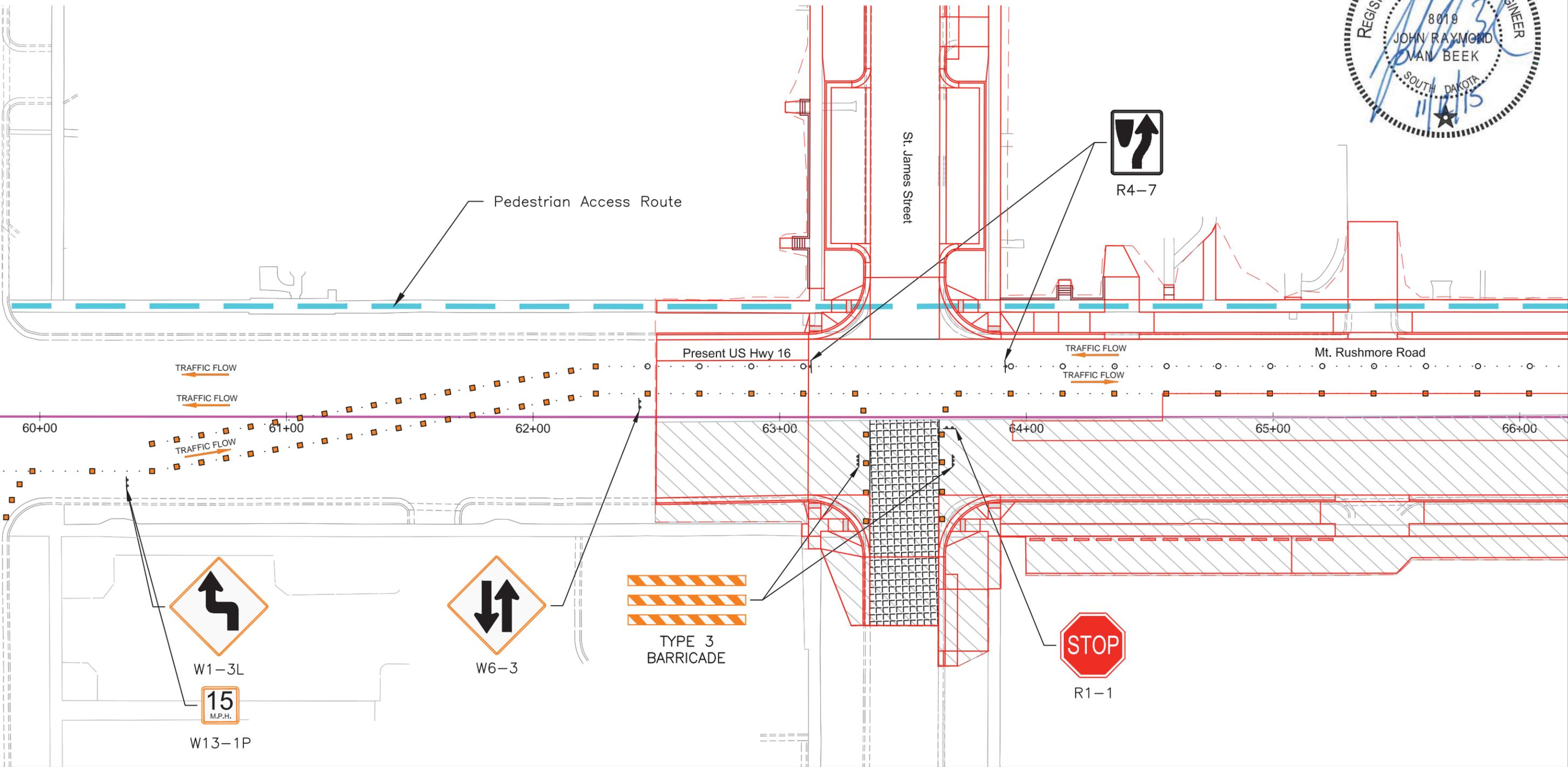
TRAFFIC CONTROL LAYOUT - Phase 2 FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT NH0016(79)67	SHEET C25	TOTAL SHEETS C52
PLOTING DATE: 11-12-15			

Legend

- Sign (Mounted to Tubular Marker)
- Fixed Location Sign
- Type III Barricade
- Tubular Marker
- Channellizing Device (Barrel/42" Grabber Cone)
- Driving Lane
- Temporary Pedestrian Access Route (TPAR)
- Work Zone
- Temporary Surfacing
- Temporary Access

- Notes**
1. Transitions and Tapers Shall Utilize Barrels and RPMs.
 2. Sign Spacing, Barrel Spacing and Taper Lengths Shall be per Standard Plates.
 3. Arrows Shown to Represent Traffic Flow (Not Temporary Striping).
 4. See Maintenance of Intersecting Street Access Notes.



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TRAFFIC CONTROL LAYOUT - Phase 2 FOR BIDDING PURPOSES ONLY

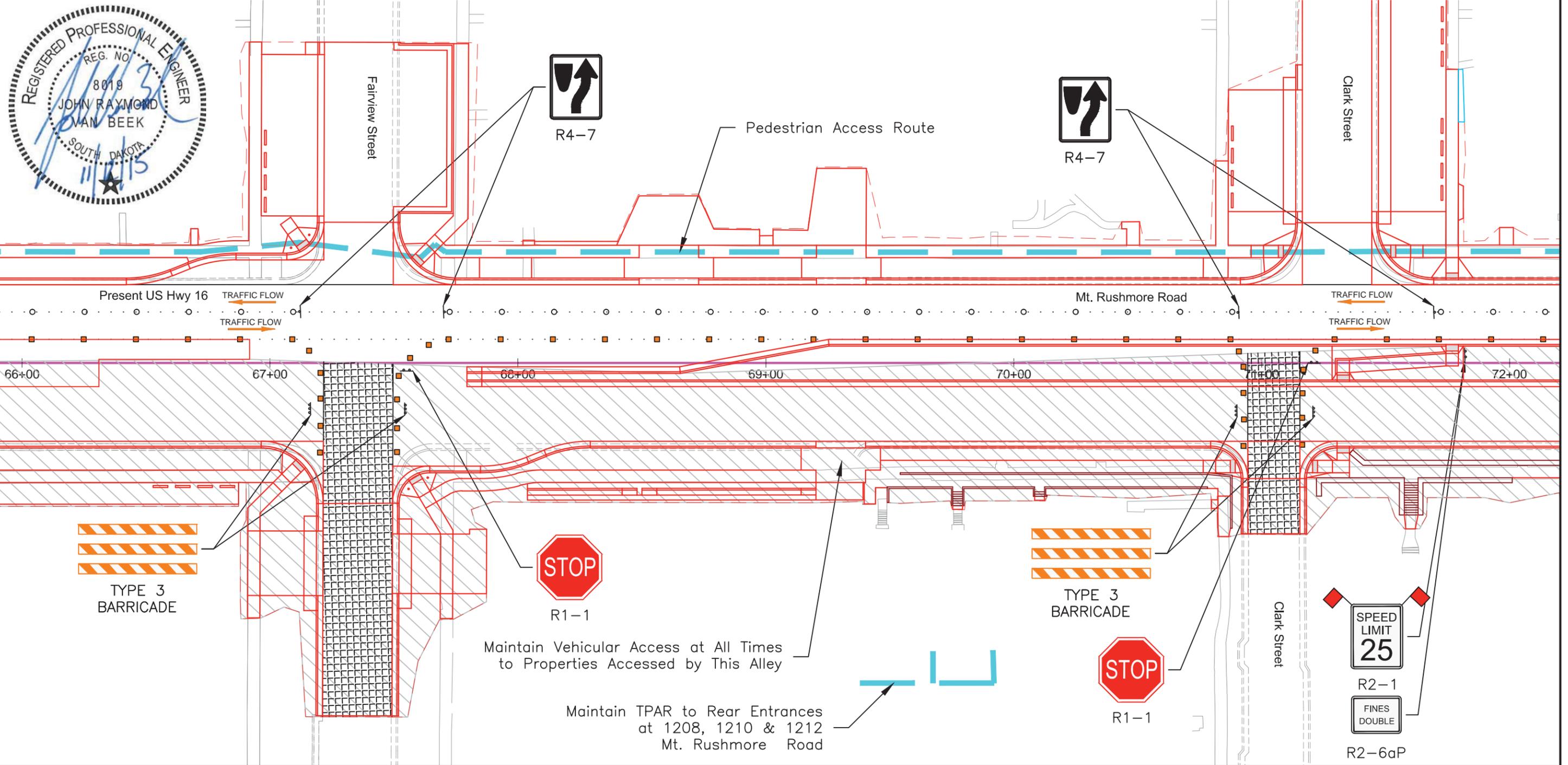
STATE OF SOUTH DAKOTA	PROJECT NH0016(79)67	SHEET C26	TOTAL SHEETS C52
PLOT DATE: 11-12-15			

Legend

- Sign (Mounted to Tubular Marker)
- Fixed Location Sign
- Type III Barricade
- Tubular Marker
- Channellizing Device (Barrel/42" Grabber Cone)
- Driving Lane
- Temporary Pedestrian Access Route (TPAR)
- Work Zone
- Temporary Surfacing
- Temporary Access

Notes

1. Transitions and Tapers Shall Utilize Barrels and RPMs.
2. Sign Spacing, Barrel Spacing and Taper Lengths Shall be per Standard Plates.
3. Arrows Shown to Represent Traffic Flow (Not Temporary Striping).
4. See Maintenance of Intersecting Street Access Notes.

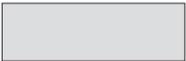


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TRAFFIC CONTROL LAYOUT - Phase 2 FOR BIDDING PURPOSES ONLY

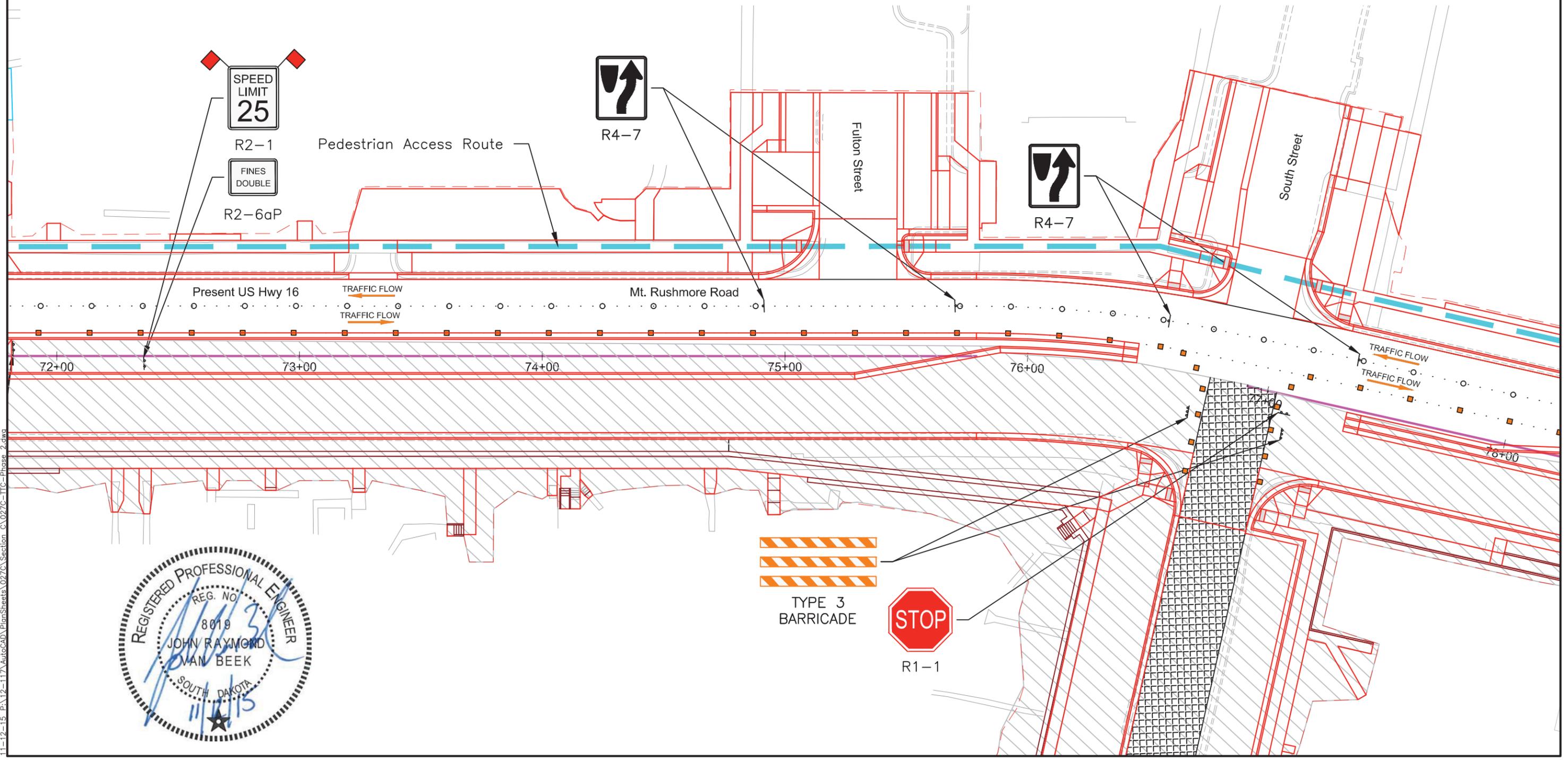
STATE OF SOUTH DAKOTA	PROJECT NH0016(79)67	SHEET C27	TOTAL SHEETS C52
PLOTING DATE: 11-12-15			

Legend

-  Sign (Mounted to Tubular Marker)
-  Fixed Location Sign
-  Type III Barricade
-  Tubular Marker
-  Channellizing Device (Barrel/42" Grabber Cone)
-  Driving Lane
-  Temporary Pedestrian Access Route (TPAR)
-  Work Zone
-  Temporary Surfacing
-  Temporary Access

Notes

1. Transitions and Tapers Shall Utilize Barrels and RPMs.
2. Sign Spacing, Barrel Spacing and Taper Lengths Shall be per Standard Plates.
3. Arrows Shown to Represent Traffic Flow (Not Temporary Striping).
4. See Maintenance of Intersecting Street Access Notes.



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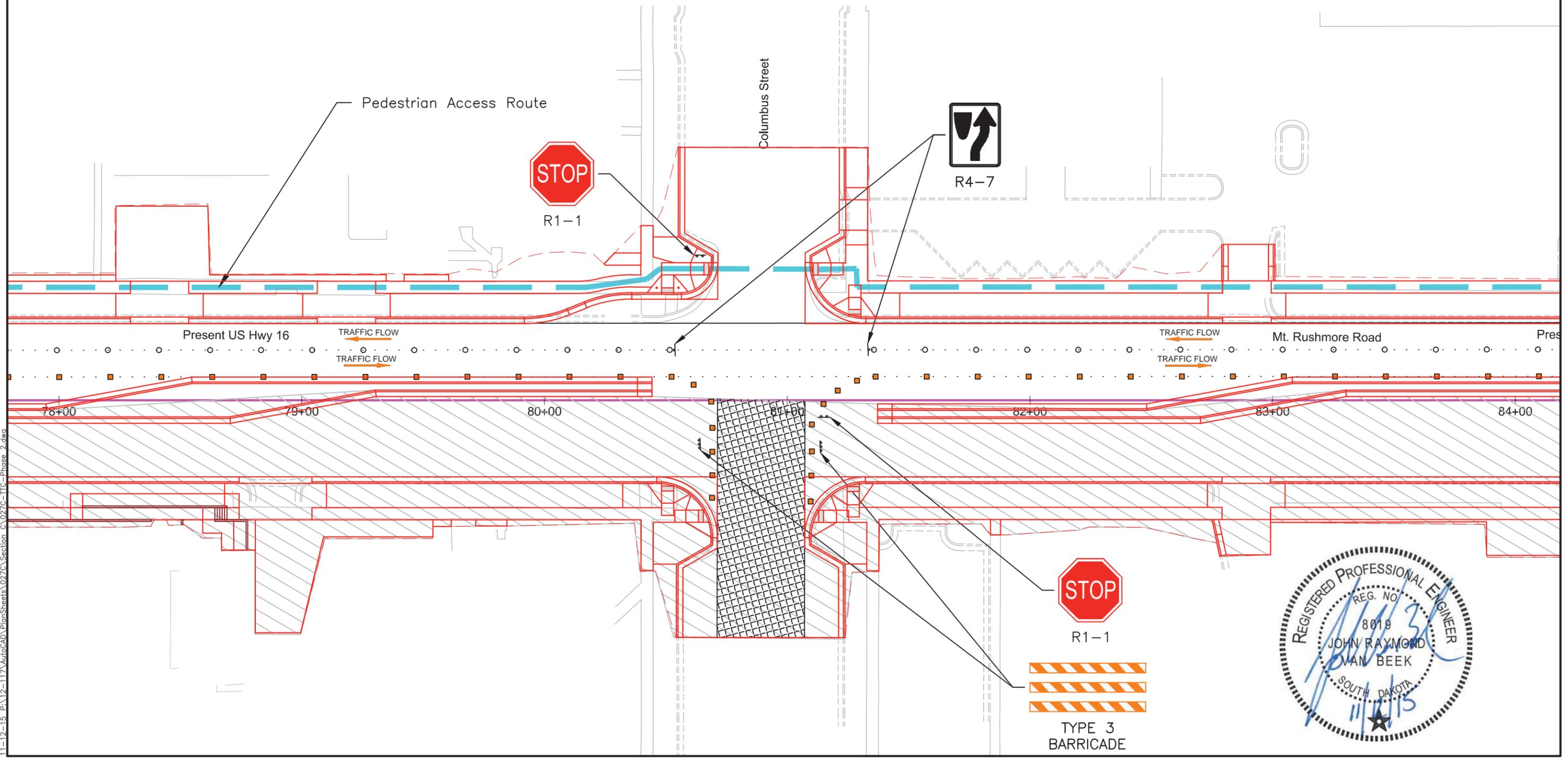
TRAFFIC CONTROL LAYOUT - Phase 2 FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT NH0016(79)67	SHEET C28	TOTAL SHEETS C52
PLOTING DATE: 11-12-15			



- Legend**
- Sign (Mounted to Tubular Marker)
 - Fixed Location Sign
 - Type III Barricade
 - Tubular Marker
 - Channellizing Device (Barrel/42" Grabber Cone)
 - Driving Lane
 - Temporary Pedestrian Access Route (TPAR)
 - Work Zone
 - Temporary Surfacing
 - Temporary Access

- Notes**
1. Transitions and Tapers Shall Utilize Barrels and RPMs.
 2. Sign Spacing, Barrel Spacing and Taper Lengths Shall be per Standard Plates.
 3. Arrows Shown to Represent Traffic Flow (Not Temporary Striping).
 4. See Maintenance of Intersecting Street Access Notes.



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TRAFFIC CONTROL LAYOUT - Phase 2 FOR BIDDING PURPOSES ONLY

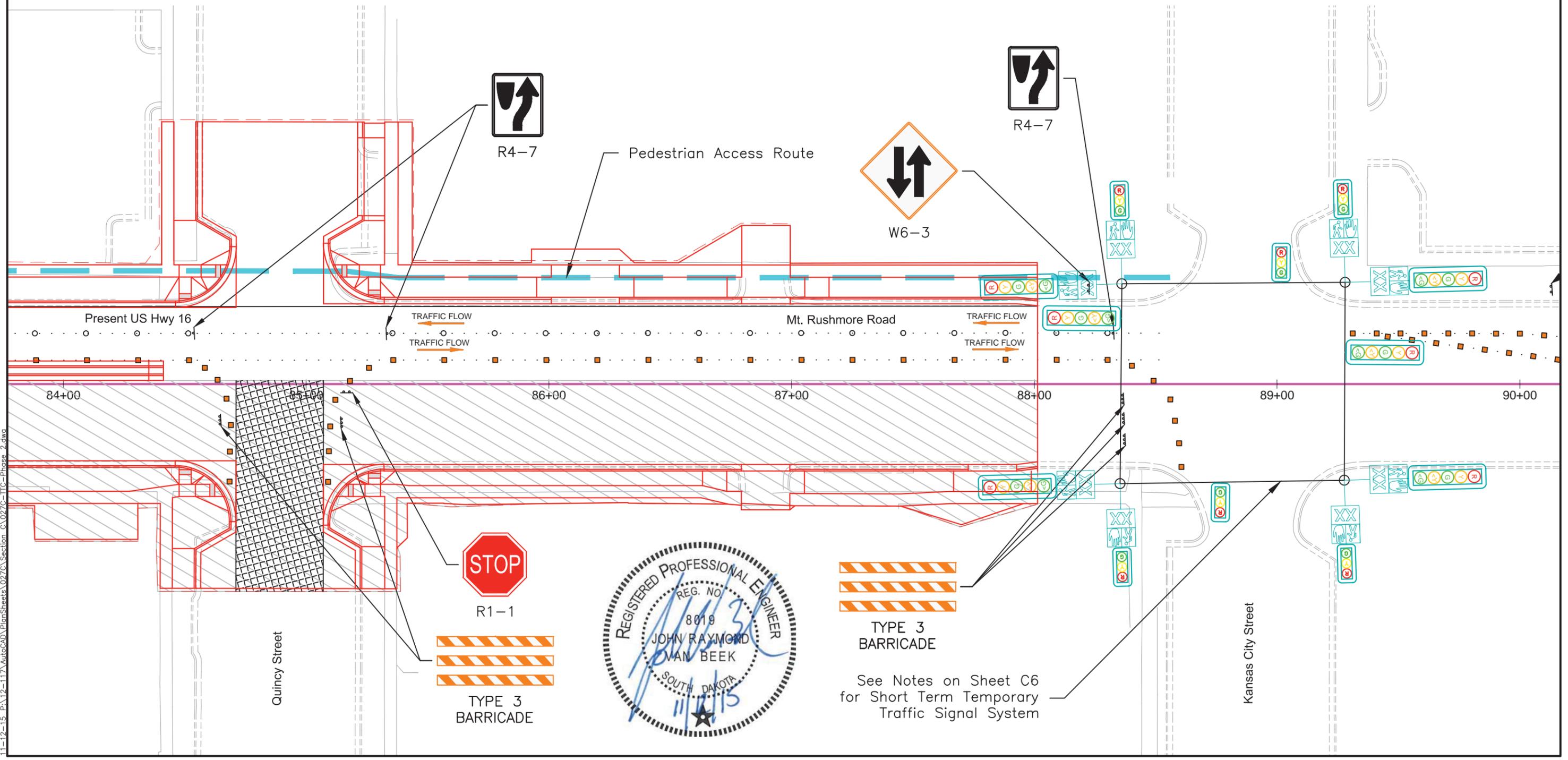
STATE OF SOUTH DAKOTA	PROJECT NH0016(79)67	SHEET C29	TOTAL SHEETS C52
PLOTING DATE: 11-12-15			

Legend

- Sign (Mounted to Tubular Marker)
- Fixed Location Sign
- Type III Barricade
- Tubular Marker
- Channellizing Device (Barrel/42" Grabber Cone)
- Driving Lane
- Temporary Pedestrian Access Route (TPAR)
- Work Zone
- Temporary Surfacing
- Temporary Access

Notes

1. Transitions and Tapers Shall Utilize Barrels and RPMs.
2. Sign Spacing, Barrel Spacing and Taper Lengths Shall be per Standard Plates.
3. Arrows Shown to Represent Traffic Flow (Not Temporary Striping).
4. See Maintenance of Intersecting Street Access Notes.



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TRAFFIC CONTROL LAYOUT - Phase 2 FOR BIDDING PURPOSES ONLY

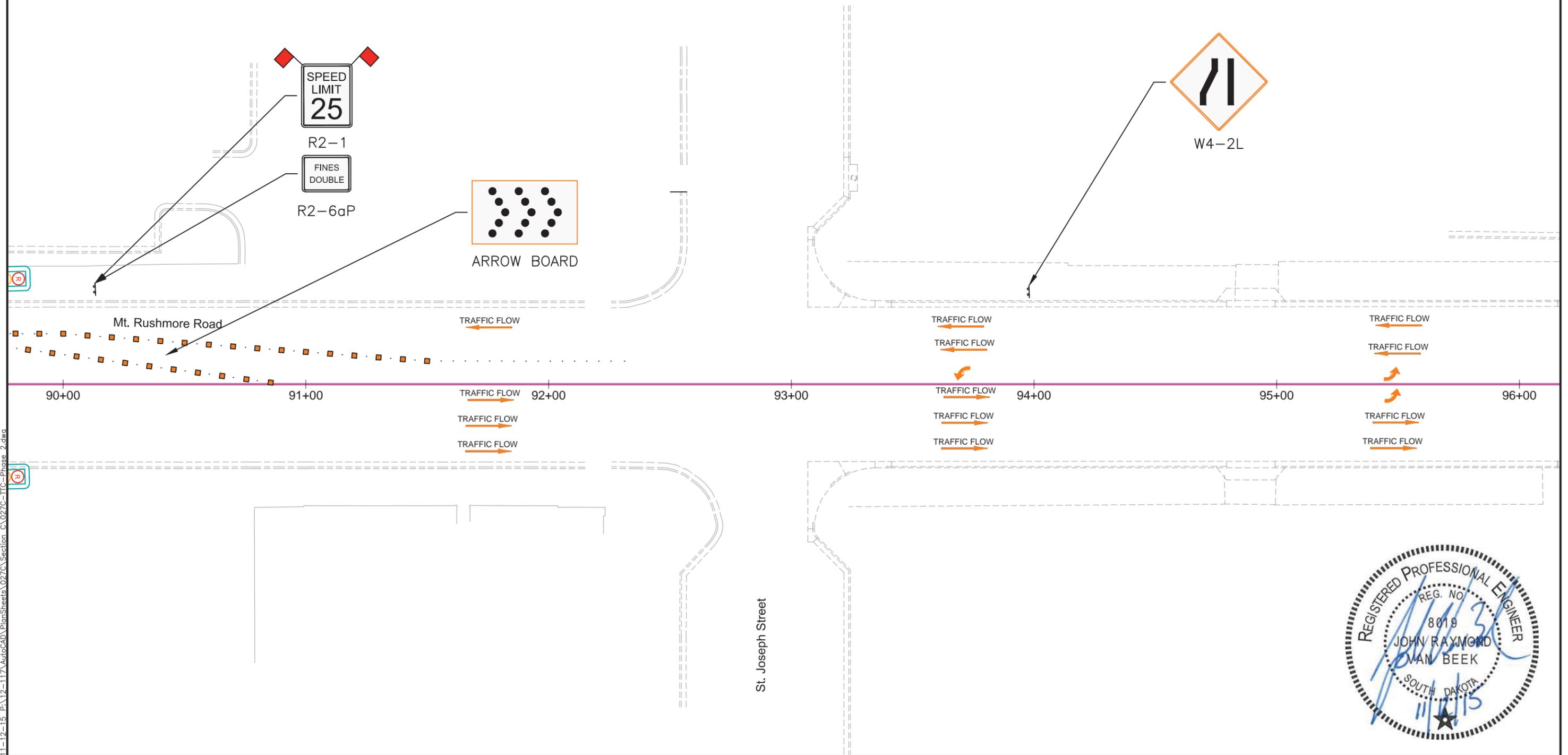
STATE OF SOUTH DAKOTA	PROJECT NH0016(79)67	SHEET C30	TOTAL SHEETS C52
PLOT DATE: 11-12-15			

Legend

- Sign (Mounted to Tubular Marker)
- Fixed Location Sign
- Type III Barricade
- Tubular Marker
- Channelling Device (Barrel/42" Grabber Cone)
- Driving Lane
- Temporary Pedestrian Access Route (TPAR)
- Work Zone
- Temporary Surfacing
- Temporary Access

Notes

1. Transitions and Tapers Shall Utilize Barrels and RPMs.
2. Sign Spacing, Barrel Spacing and Taper Lengths Shall be per Standard Plates.
3. Arrows Shown to Represent Traffic Flow (Not Temporary Striping).
4. See Maintenance of Intersecting Street Access Notes.

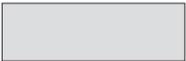
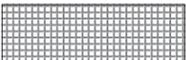


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TRAFFIC CONTROL LAYOUT - Phase 2 FOR BIDDING PURPOSES ONLY

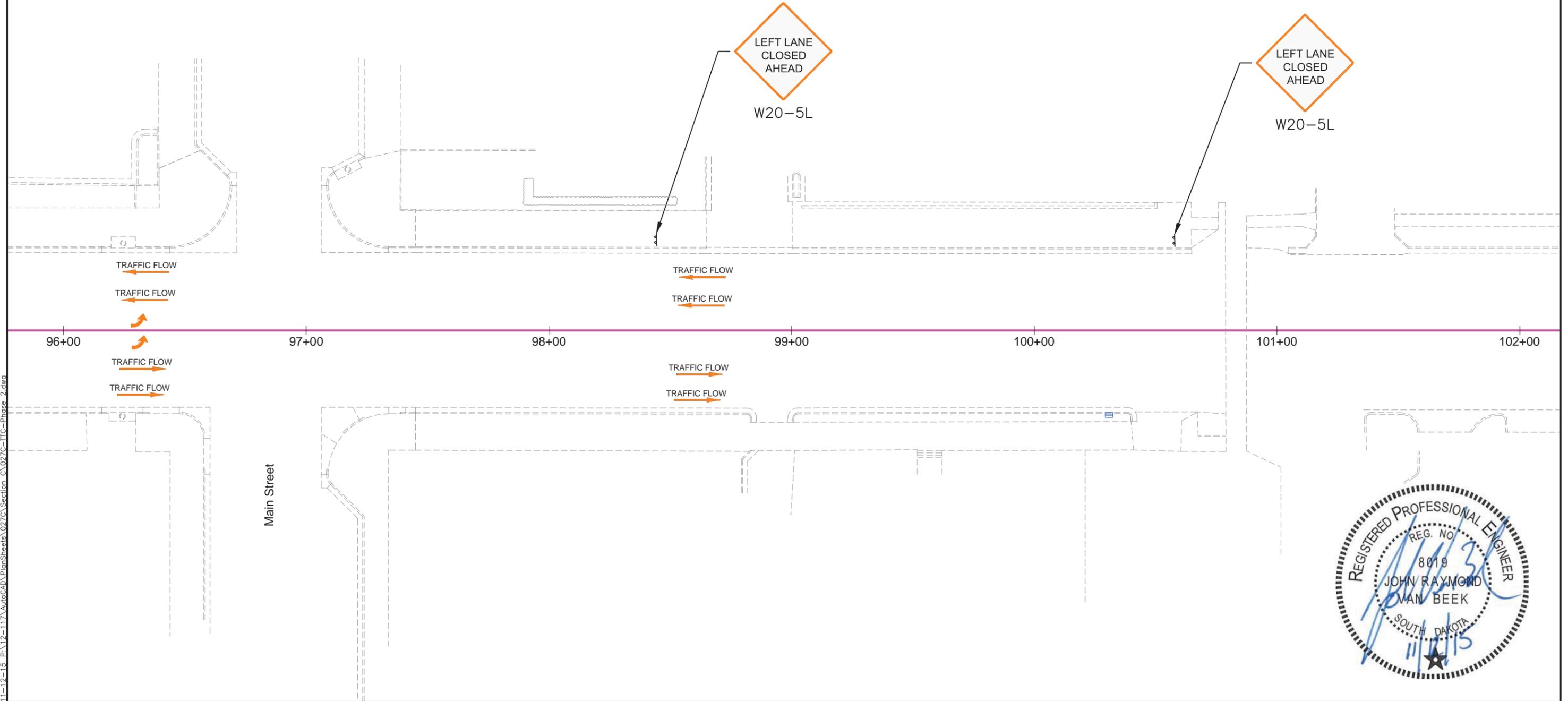
STATE OF SOUTH DAKOTA	PROJECT NH0016(79)67	SHEET C31	TOTAL SHEETS C52
PLOT DATE: 11-12-15			

Legend

-  Sign (Mounted to Tubular Marker)
-  Fixed Location Sign
-  Type III Barricade
-  Tubular Marker
-  Channellizing Device (Barrel/42" Grabber Cone)
-  Driving Lane
-  Temporary Pedestrian Access Route (TPAR)
-  Work Zone
-  Temporary Surfacing
-  Temporary Access

Notes

1. Transitions and Tapers Shall Utilize Barrels and RPMs.
2. Sign Spacing, Barrel Spacing and Taper Lengths Shall be per Standard Plates.
3. Arrows Shown to Represent Traffic Flow (Not Temporary Striping).
4. See Maintenance of Intersecting Street Access Notes.

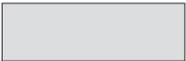
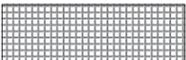


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TRAFFIC CONTROL LAYOUT - Phase 3 FOR BIDDING PURPOSES ONLY

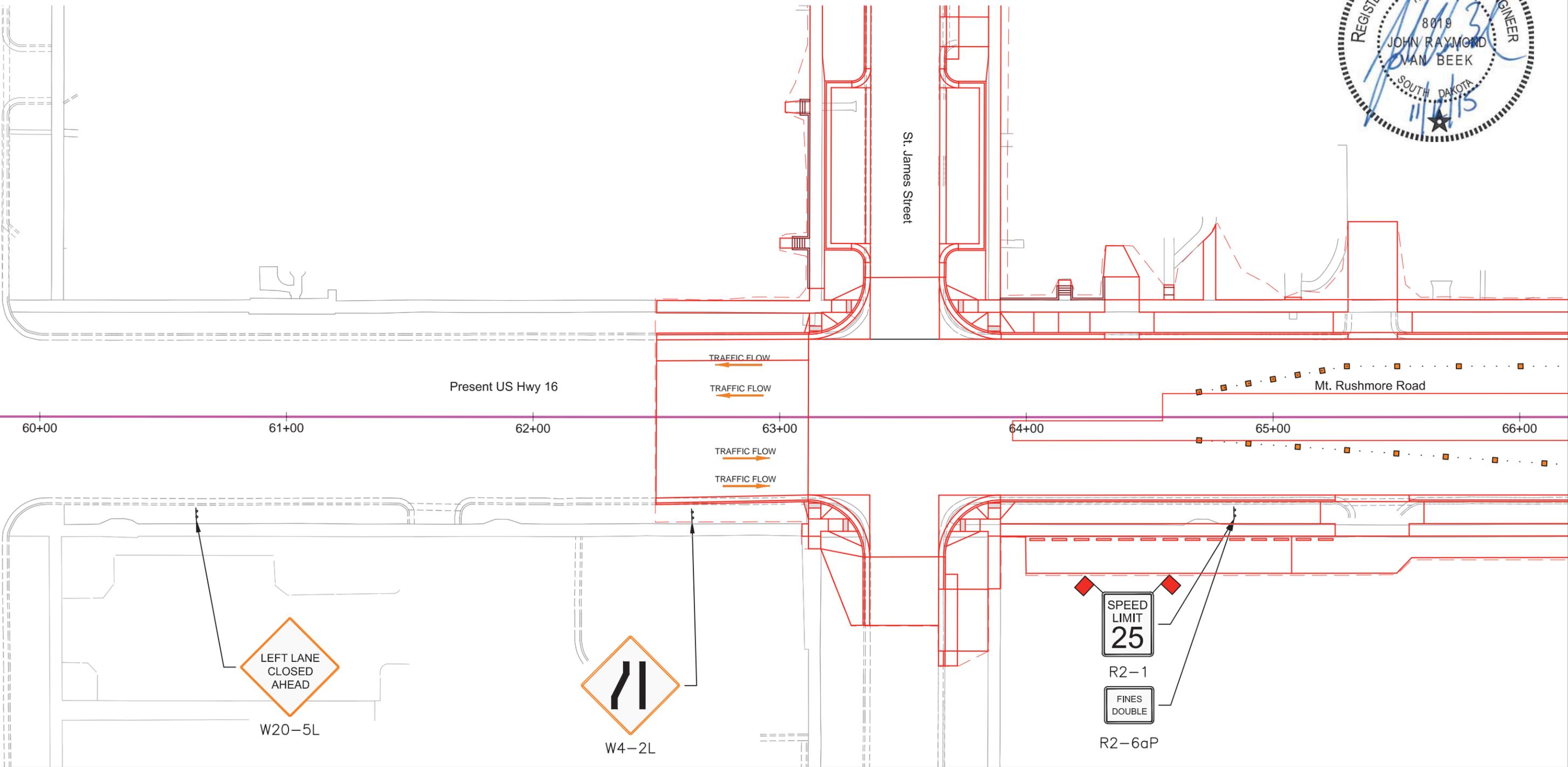
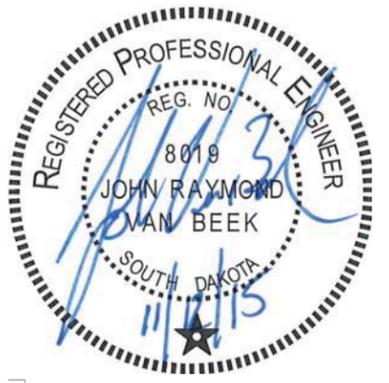
STATE OF SOUTH DAKOTA	PROJECT NH0016(79)67	SHEET C32	TOTAL SHEETS C52
PLOT DATE: 11-12-15			

Legend

-  Sign (Mounted to Tubular Marker)
-  Fixed Location Sign
-  Type 3 Barricade
-  Tubular Marker
-  Channellizing Device (Barrel/42" Grabber Cone)
-  Driving Lane
-  Temporary Pedestrian Access Route (TPAR)
-  Work Zone
-  Temporary Surfacing
-  Temporary Access

Notes

1. Transitions and Tapers Shall Utilize Barrels and RPMs.
2. Sign Spacing, Barrel Spacing and Taper Lengths Shall be per Standard Plates.
3. Arrows Shown to Represent Traffic Flow (Not Temporary Striping).
4. See Maintenance of Intersecting Street Access Notes.



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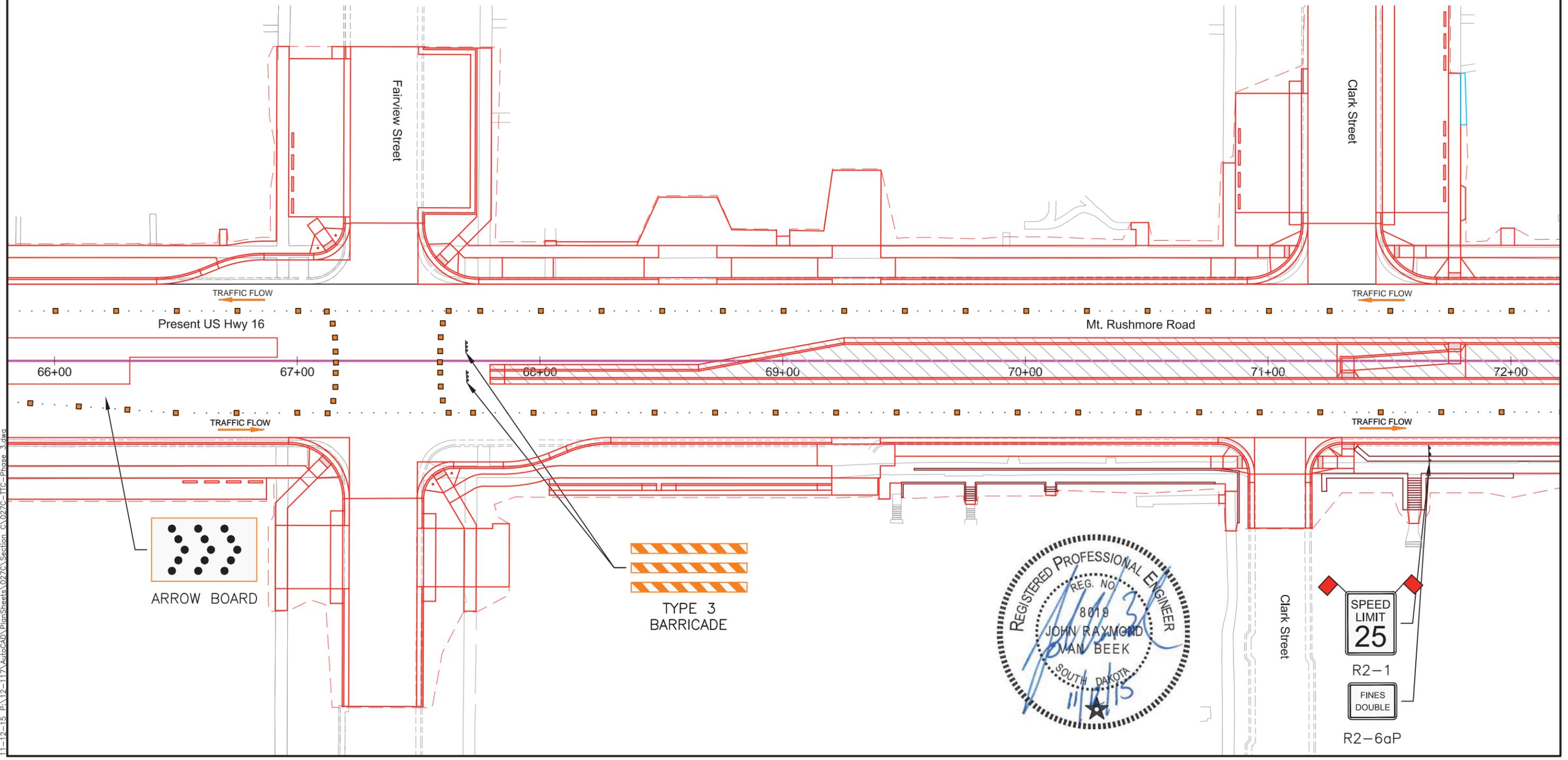
TRAFFIC CONTROL LAYOUT - Phase 3 FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT NH0016(79)67	SHEET C33	TOTAL SHEETS C52
PLOT DATE: 11-12-15			



- Legend**
- Sign (Mounted to Tubular Marker)
 - Fixed Location Sign
 - Type 3 Barricade
 - Tubular Marker
 - Channellizing Device (Barrel/42" Grabber Cone)
 - Driving Lane
 - Temporary Pedestrian Access Route (TPAR)
 - Work Zone
 - Temporary Surfacing
 - Temporary Access

- Notes**
1. Transitions and Tapers Shall Utilize Barrels and RPMs.
 2. Sign Spacing, Barrel Spacing and Taper Lengths Shall be per Standard Plates.
 3. Arrows Shown to Represent Traffic Flow (Not Temporary Striping).
 4. See Maintenance of Intersecting Street Access Notes.

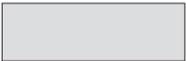
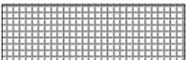


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TRAFFIC CONTROL LAYOUT - Phase 3 FOR BIDDING PURPOSES ONLY

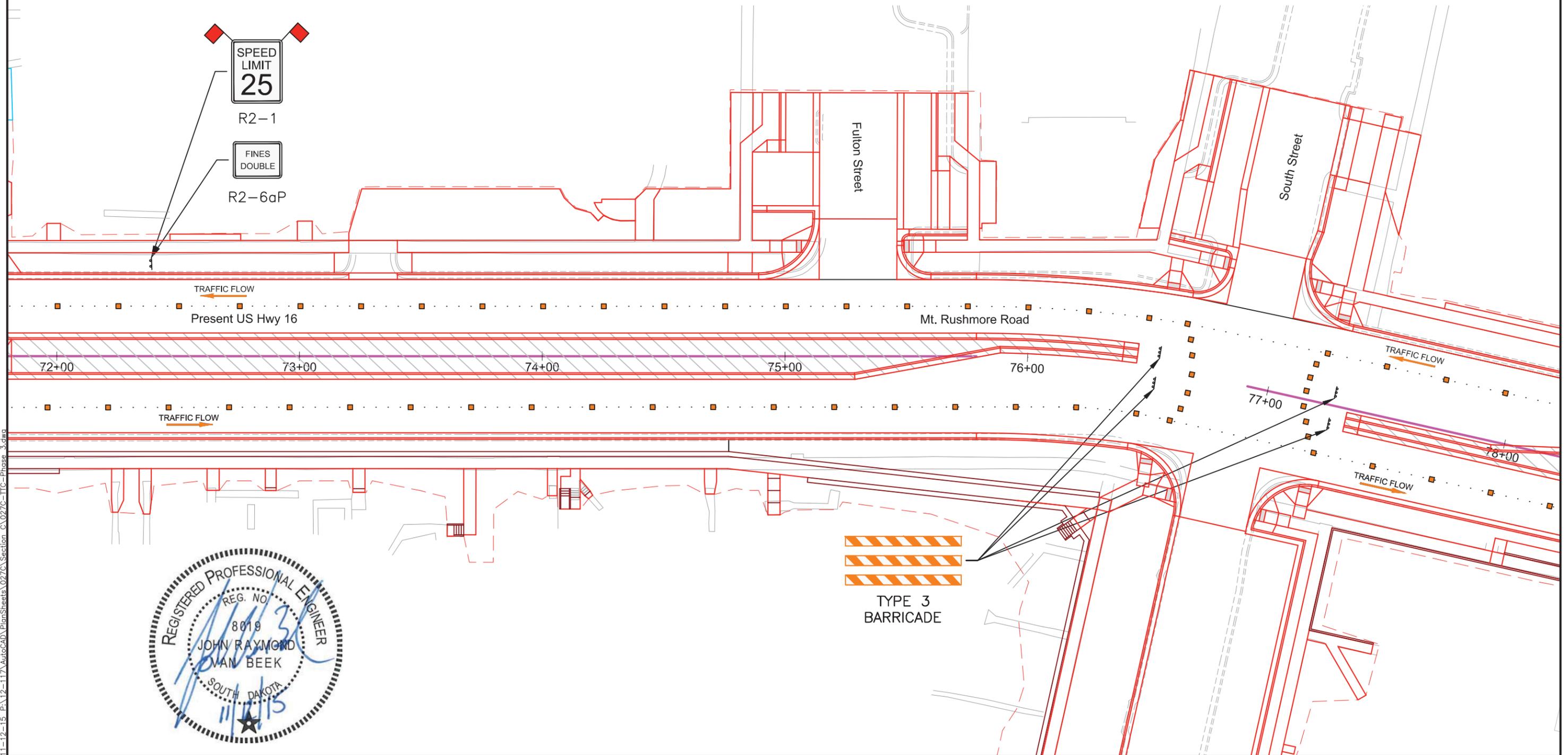
STATE OF SOUTH DAKOTA	PROJECT NH0016(79)67	SHEET C34	TOTAL SHEETS C52
PLOTING DATE: 11-12-15			

Legend

-  Sign (Mounted to Tubular Marker)
-  Fixed Location Sign
-  Type 3 Barricade
-  Tubular Marker
-  Channellizing Device (Barrel/42" Grabber Cone)
-  Driving Lane
-  Temporary Pedestrian Access Route (TPAR)
-  Work Zone
-  Temporary Surfacing
-  Temporary Access

Notes

1. Transitions and Tapers Shall Utilize Barrels and RPMs.
2. Sign Spacing, Barrel Spacing and Taper Lengths Shall be per Standard Plates.
3. Arrows Shown to Represent Traffic Flow (Not Temporary Striping).
4. See Maintenance of Intersecting Street Access Notes.



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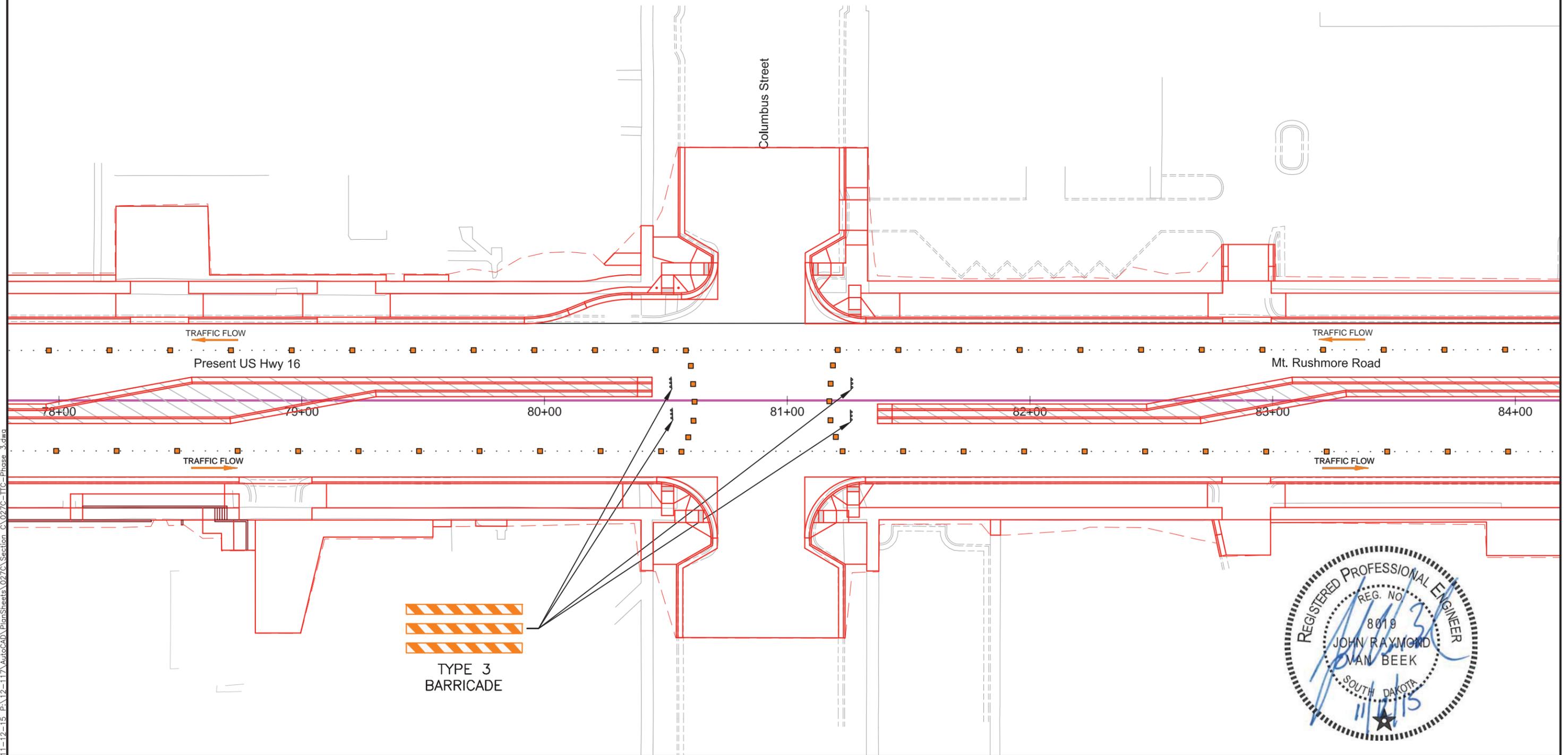
TRAFFIC CONTROL LAYOUT - Phase 3 FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT NH0016(79)67	SHEET C35	TOTAL SHEETS C52
PLOT DATE: 11-12-15			



- Legend**
- Sign (Mounted to Tubular Marker)
 - Fixed Location Sign
 - Type 3 Barricade
 - Tubular Marker
 - Channellizing Device (Barrel/42" Grabber Cone)
 - Driving Lane
 - Temporary Pedestrian Access Route (TPAR)
 - Work Zone
 - Temporary Surfacing
 - Temporary Access

- Notes**
1. Transitions and Tapers Shall Utilize Barrels and RPMs.
 2. Sign Spacing, Barrel Spacing and Taper Lengths Shall be per Standard Plates.
 3. Arrows Shown to Represent Traffic Flow (Not Temporary Striping).
 4. See Maintenance of Intersecting Street Access Notes.

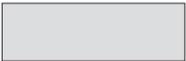


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TRAFFIC CONTROL LAYOUT - Phase 3 FOR BIDDING PURPOSES ONLY

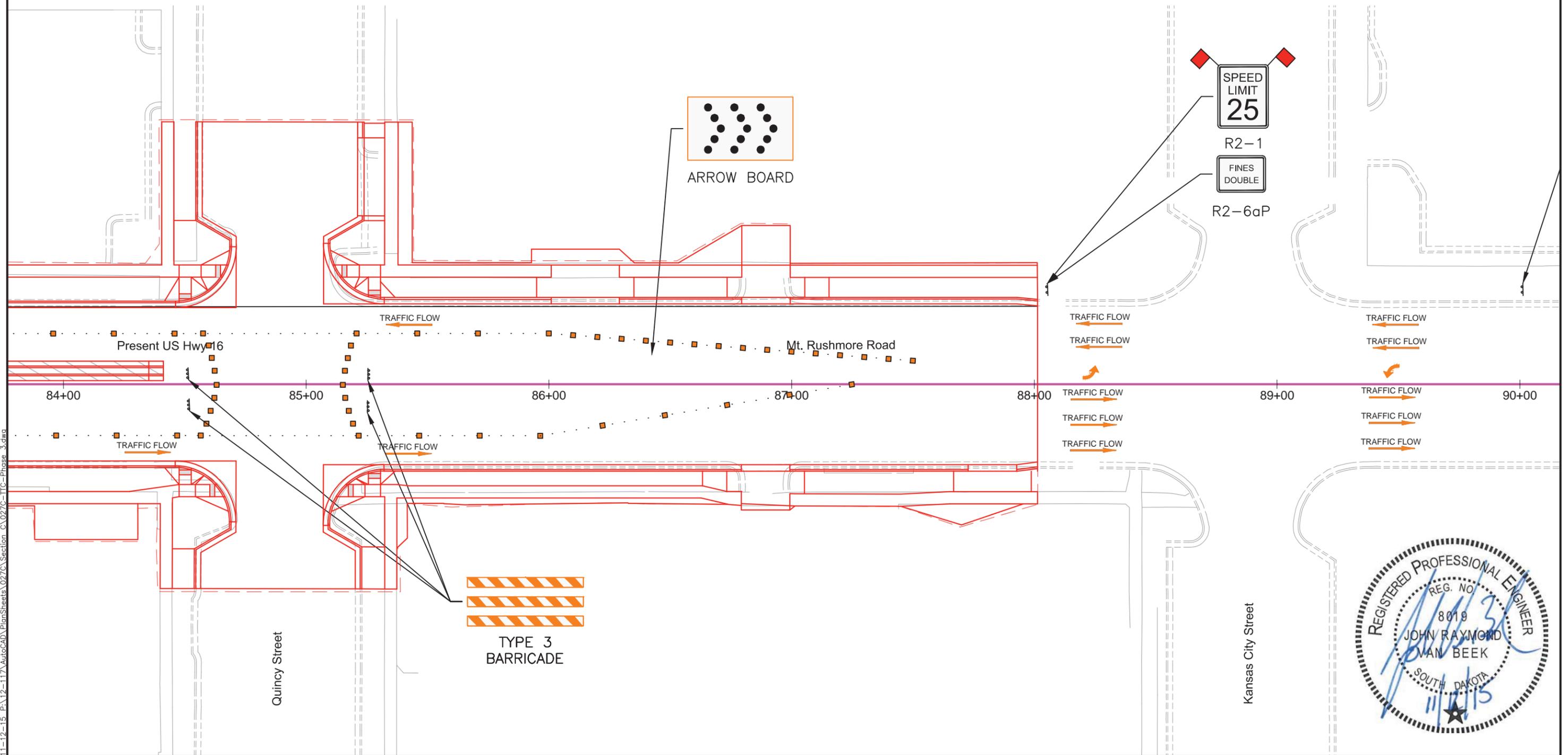
STATE OF SOUTH DAKOTA	PROJECT NH0016(79)67	SHEET C36	TOTAL SHEETS C52
PLOTING DATE: 11-12-15			

Legend

-  Sign (Mounted to Tubular Marker)
-  Fixed Location Sign
-  Type 3 Barricade
-  Tubular Marker
-  Channelling Device (Barrel/42" Grabber Cone)
-  Driving Lane
-  Temporary Pedestrian Access Route (TPAR)
-  Work Zone
-  Temporary Surfacing
-  Temporary Access

Notes

1. Transitions and Tapers Shall Utilize Barrels and RPMs.
2. Sign Spacing, Barrel Spacing and Taper Lengths Shall be per Standard Plates.
3. Arrows Shown to Represent Traffic Flow (Not Temporary Striping).
4. See Maintenance of Intersecting Street Access Notes.

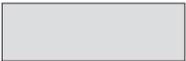


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TRAFFIC CONTROL LAYOUT - Phase 3 FOR BIDDING PURPOSES ONLY

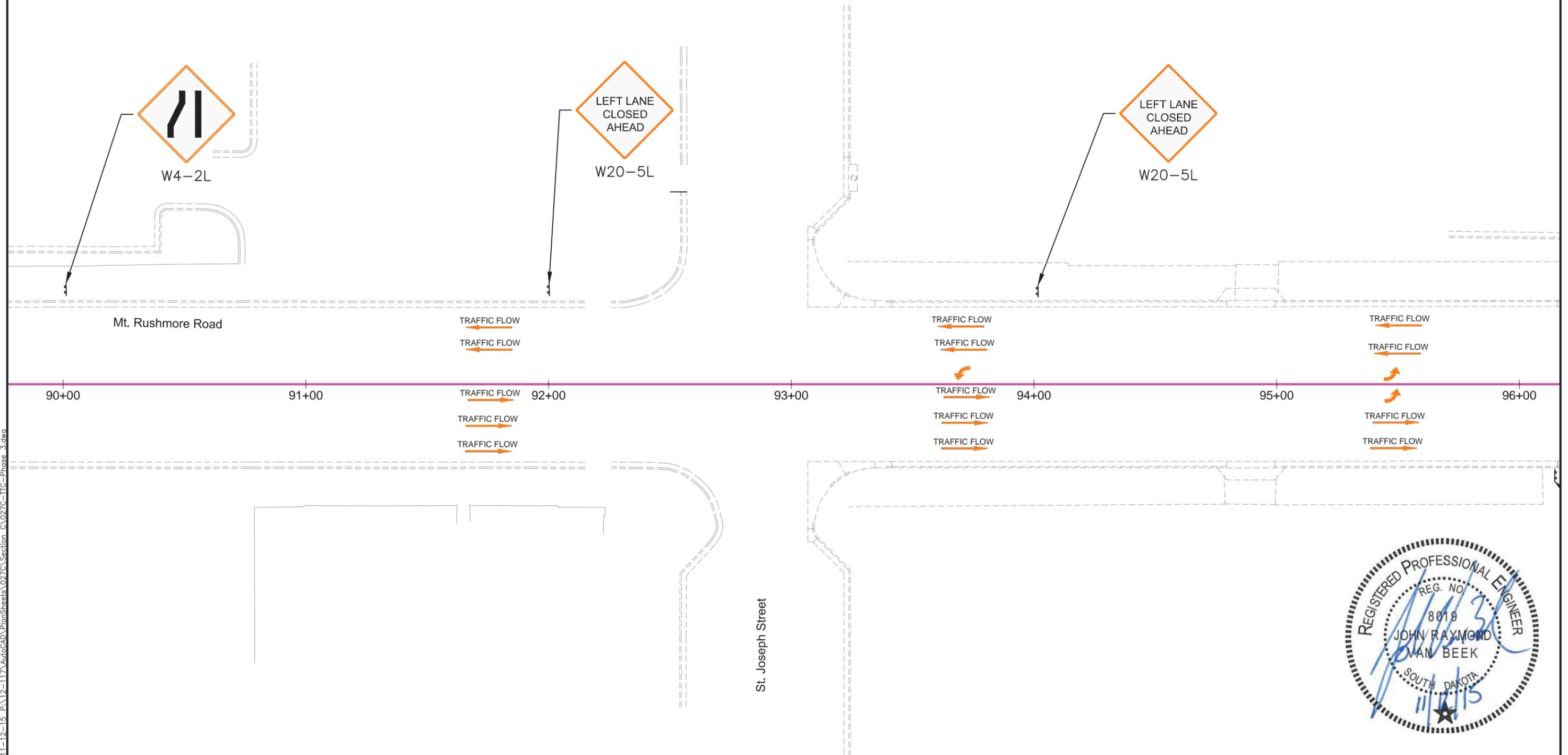
STATE OF SOUTH DAKOTA	PROJECT NH0016(79)67	SHEET C37	TOTAL SHEETS C52
PLOTTING DATE: 11-12-15			

Legend

-  Sign (Mounted to Tubular Marker)
-  Fixed Location Sign
-  Type 3 Barricade
-  Tubular Marker
-  Channellizing Device (Barrel/42" Grabber Cone)
-  Driving Lane
-  Temporary Pedestrian Access Route (TPAR)
-  Work Zone
-  Temporary Surfacing
-  Temporary Access

Notes

1. Transitions and Tapers Shall Utilize Barrels and RPMs.
2. Sign Spacing, Barrel Spacing and Taper Lengths Shall be per Standard Plates.
3. Arrows Shown to Represent Traffic Flow (Not Temporary Striping).
4. See Maintenance of Intersecting Street Access Notes.



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SPECIAL SIGN DETAIL

SIGN DETAIL
NOT TO SCALE

BORDER
R=2.75"
TH=0.5"

Panel Style: guide_con_general_services.ssi
Dimensions are in inches.tenths

SIGN NUMBER	Multiple Business Access
WIDTH x HGHT.	3'-0" x 3'-0"
BORDER WIDTH	0.5"
CORNER RADIUS	2.75"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective COLOR: Blue
LEGEND/BORDER	TYPE: Reflective COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
AR_Type A	270	13.3	2.3	6	9.4

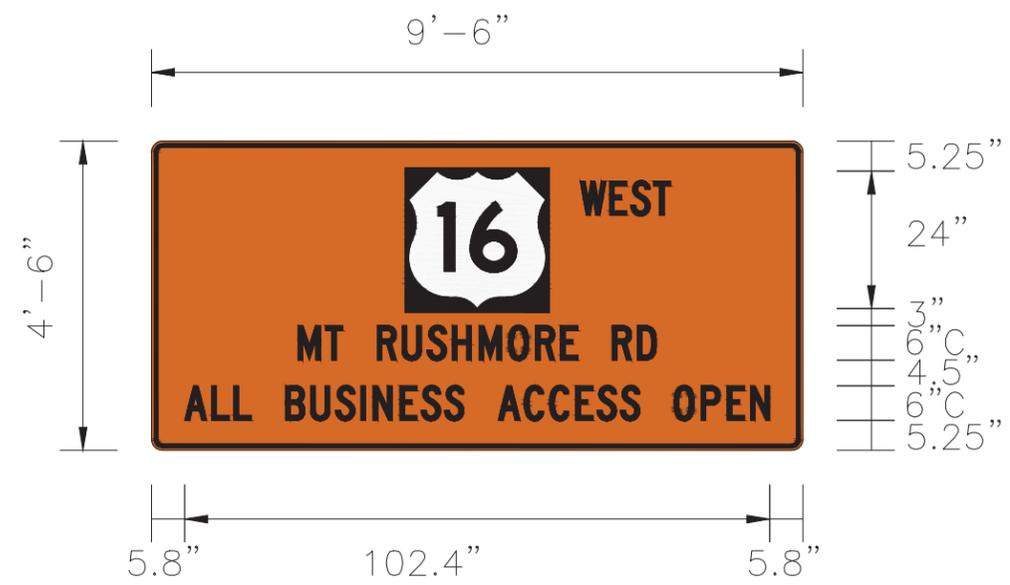
LETTER POSITIONS (X)													LENGTH	SERIES/SIZE				
T	y	P	i	c	a	l											C 2000	
10.8	13	16	18.6	19.8	22	24.6											14.4	4/3
B	u	s	i	n	e	s	s											C 2000
9.3	12.1	14.7	16.8	18.1	20.7	23.1	25										17.4	4/3
A	c	c	e	s	s													C 2000
11.2	14.1	16.5	18.8	21.2	23.1												13.6	4/3
Letter locations are panel edge to lower left corner																		

* Sign Height May be 18", 24" or 36" Based on Number of Business Names on Sign.



FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT NH0016(79)67	SHEET C41	TOTAL SHEETS C52
PLOTING DATE: 11-12-15			



SIGN NUMBER	name
WIDTH x HGHT.	9'-6" x 4'-6"
BORDER WIDTH	0.63"
CORNER RADIUS	0"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Orange
LEGEND/BORDER	TYPE: Reflective
	COLOR: Black/Black

SYMBOL	ROT	X	Y	WID	HT
M1_4	0	39.9	23	24	24

BORDER
R=1.5"
TH=0.63"
IN=0.47"

Panel Style: construction_guide.ssi
M.U.T.C.D.: 2009 Edition

Letter locations are panel edge to lower left corner

Panel Style: construction_guide.ssi
Dimensions are in inches.tenths

LETTER POSITIONS (X)

																				LENGTH	SERIES/SIZE					
W	E	S	T																		15.9	C 2000				
69.9	75	78.8	82.7																		6					
M	T		R	U	S	H	M	O	R	E		R	O	A	D						71.6	C 2000				
16.1	20.9	23.9	29.9	34.3	38.7	43.1	47.8	52.9	57.7	62	65.1	71.1	75.4	79.6	84.3						6					
A	L	L		B	U	S	I	N	E	S	S		A	C	C	E	S	S		O	P	E	N	102.4	C 2000	
5.8	10.5	14.4	17.5	23.5	27.8	32.2	36.6	38.8	43.4	47.2	51.3	54.7	60.7	65.2	69.7	74.2	78	82.1	85.4	91.4	96.2	100.7	104.8	6		

11-12-15 P:\12-117-AutoCAD\PlanSheets\0270\Section_C\0270-SPECIAL_SIGN_DETAIL.ssd

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT NH0016(79)67	SHEET C42	TOTAL SHEETS C52
PLOTING DATE: 11-12-15			



SIGN NUMBER	name
WIDTH x HGHT.	9'-6" x 4'-6"
BORDER WIDTH	0.63"
CORNER RADIUS	0"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Orange
LEGEND/BORDER	TYPE: Reflective
	COLOR: Black/Black

SYMBOL	ROT	X	Y	WID	HT
M1_4	0	45	24.8	24	24

Panel Style: construction_guide.ssi
Dimensions are in inches.tenths

BORDER
R=1.5"
TH=0.63"
IN=0.47"

Panel Style: construction_guide.ssi
M.U.T.C.D.: 2009 Edition

Letter locations are panel edge to lower left corner

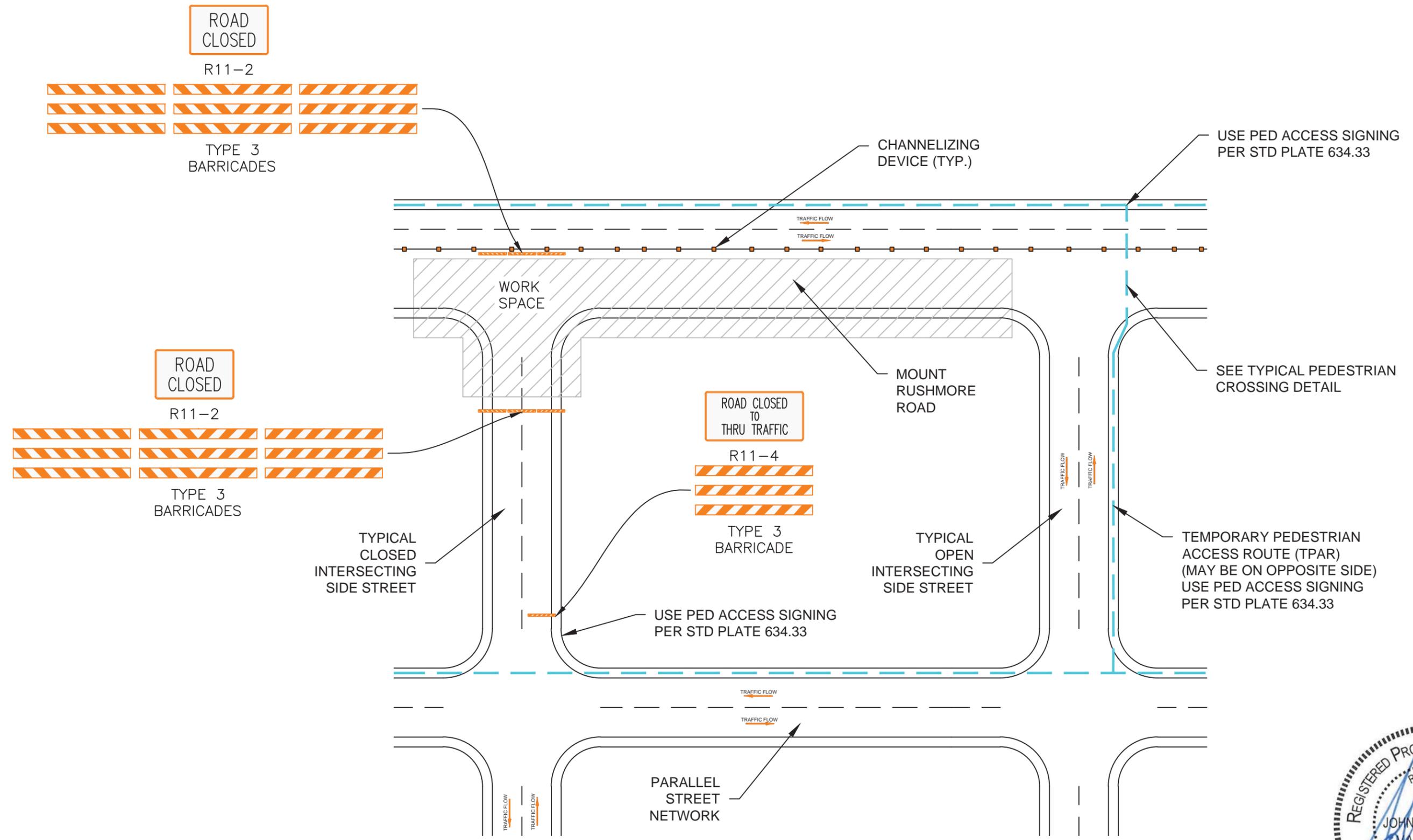
LETTER POSITIONS (X)

LETTER POSITIONS (X)																				LENGTH	SERIES/SIZE					
E	A	S	T																		14.8	C 2000 6				
75	78.4	82.8	86.7																		62.8	C 2000 6				
M	T		R	U	S	H	M	O	R	E		R	D								102.4	C 2000 6				
25.6	30.4	33.5	39.5	43.9	48.2	52.6	57.3	62.5	67.2	71.6	74.6	80.6	85													
A	L	L		B	U	S	I	N	E	S	S		A	C	C	E	S	S		O	P	E	N			
5.8	10.5	14.4	17.5	23.5	27.8	32.2	36.6	38.8	43.4	47.2	51.3	54.7	60.7	65.2	69.7	74.2	78	82.1	85.4	91.4	96.2	100.7	104.8			

11-12-15 P:\12-117\AutoCAD\PlanSheets\0270\Section_C\0270-SPECIAL_SIGN_DETAILS.dwg

SPECIAL TRAFFIC CONTROL DETAILS FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT NH0016(79)67	SHEET C43	TOTAL SHEETS C52
PLOTING DATE: 11-12-15			



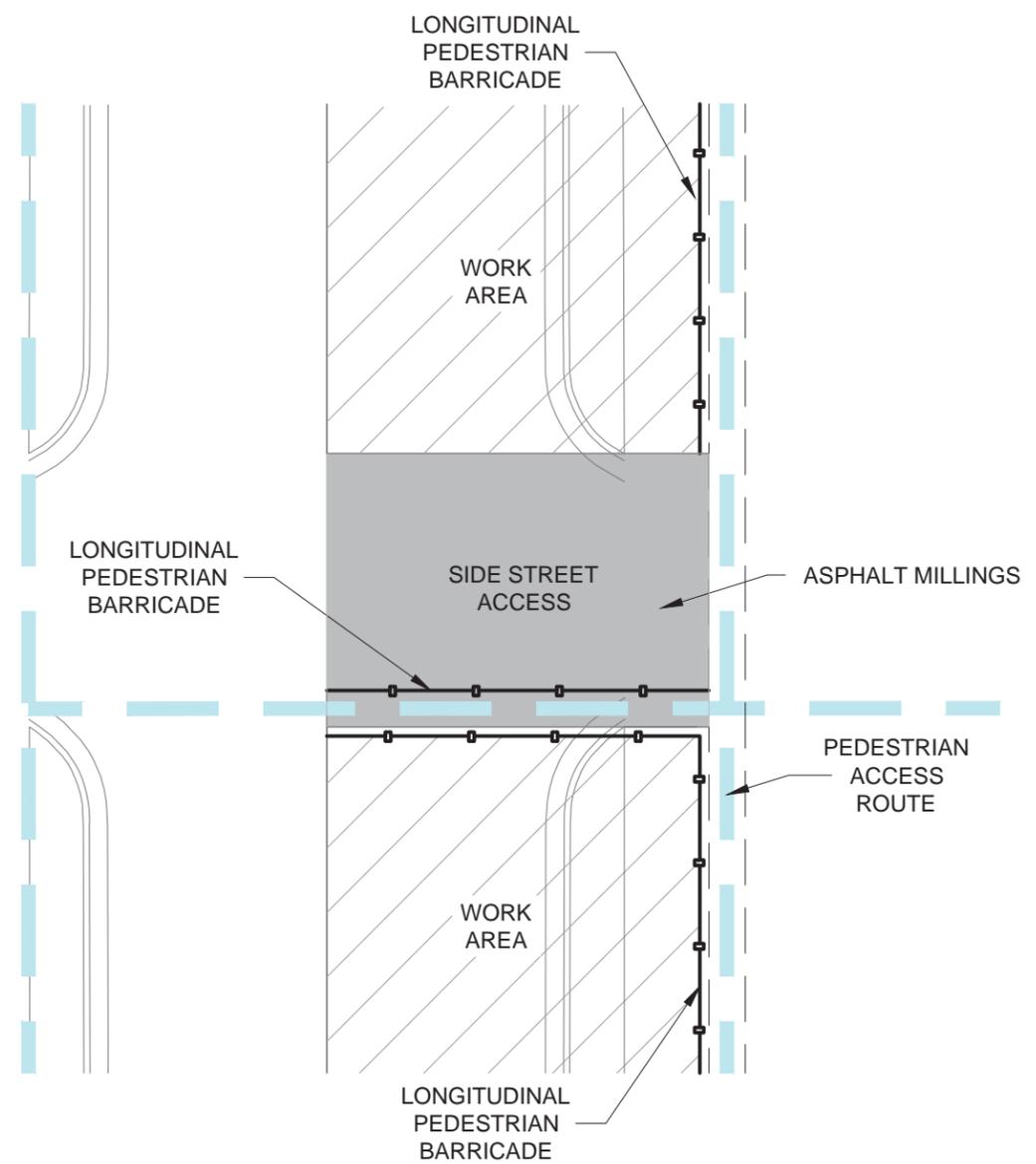
TYPICAL INTERSECTING SIDE STREET CLOSURE DETAIL
N.T.S.



11-12-15 P:\12-117\AutoCAD\PlanSheets\0270\Section_C\0270-Side_Street_Closure_Detail.dwg

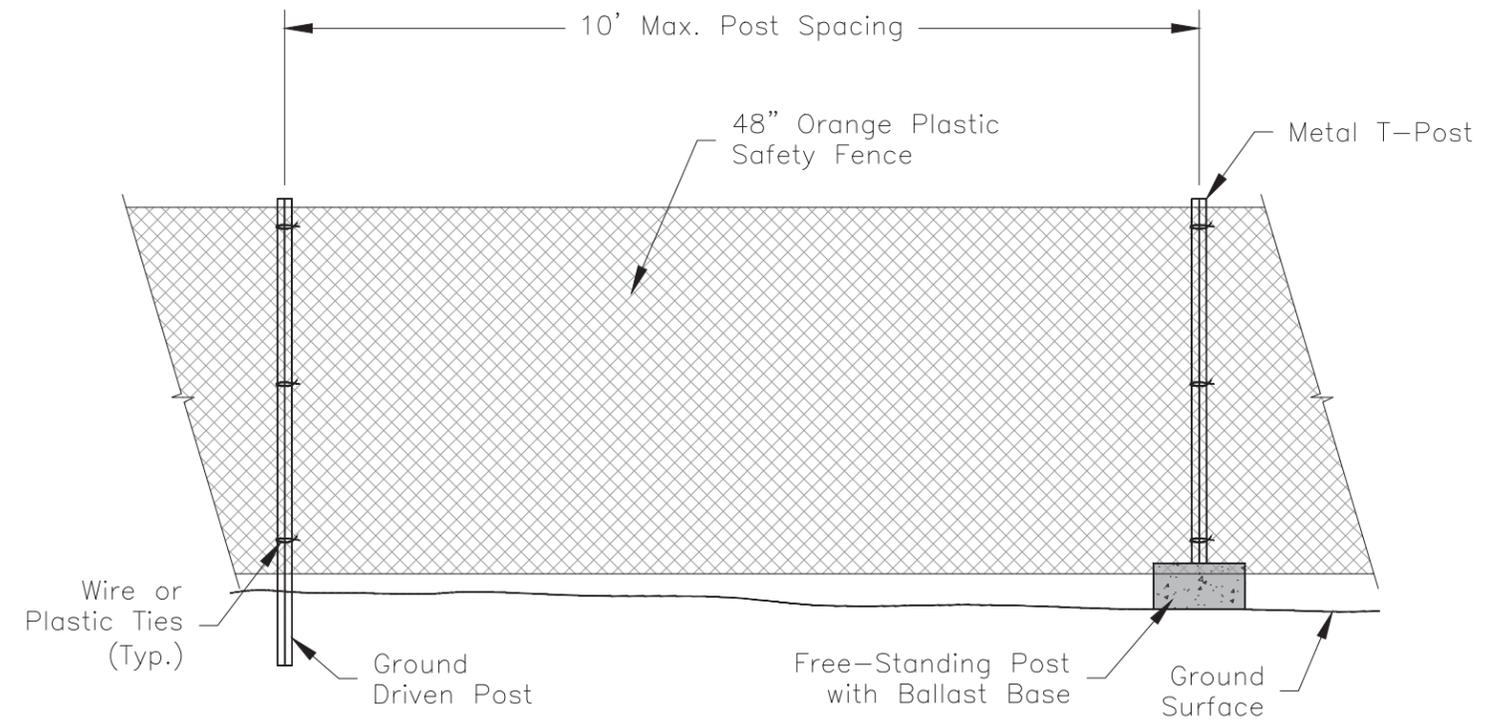
SPECIAL TRAFFIC CONTROL DETAILS FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT NH0016(79)67	SHEET C44	TOTAL SHEETS C52
PLOTTING DATE: 11-12-15			



TYPICAL PEDESTRIAN CROSSING
N.T.S.

* SEE TYPICAL INTERSECTING SIDE STREET CLOSURE DETAIL AND STD PLATES FOR ADDITIONAL INFORMATION ON PEDESTRIAN ACCESS ROUTES.



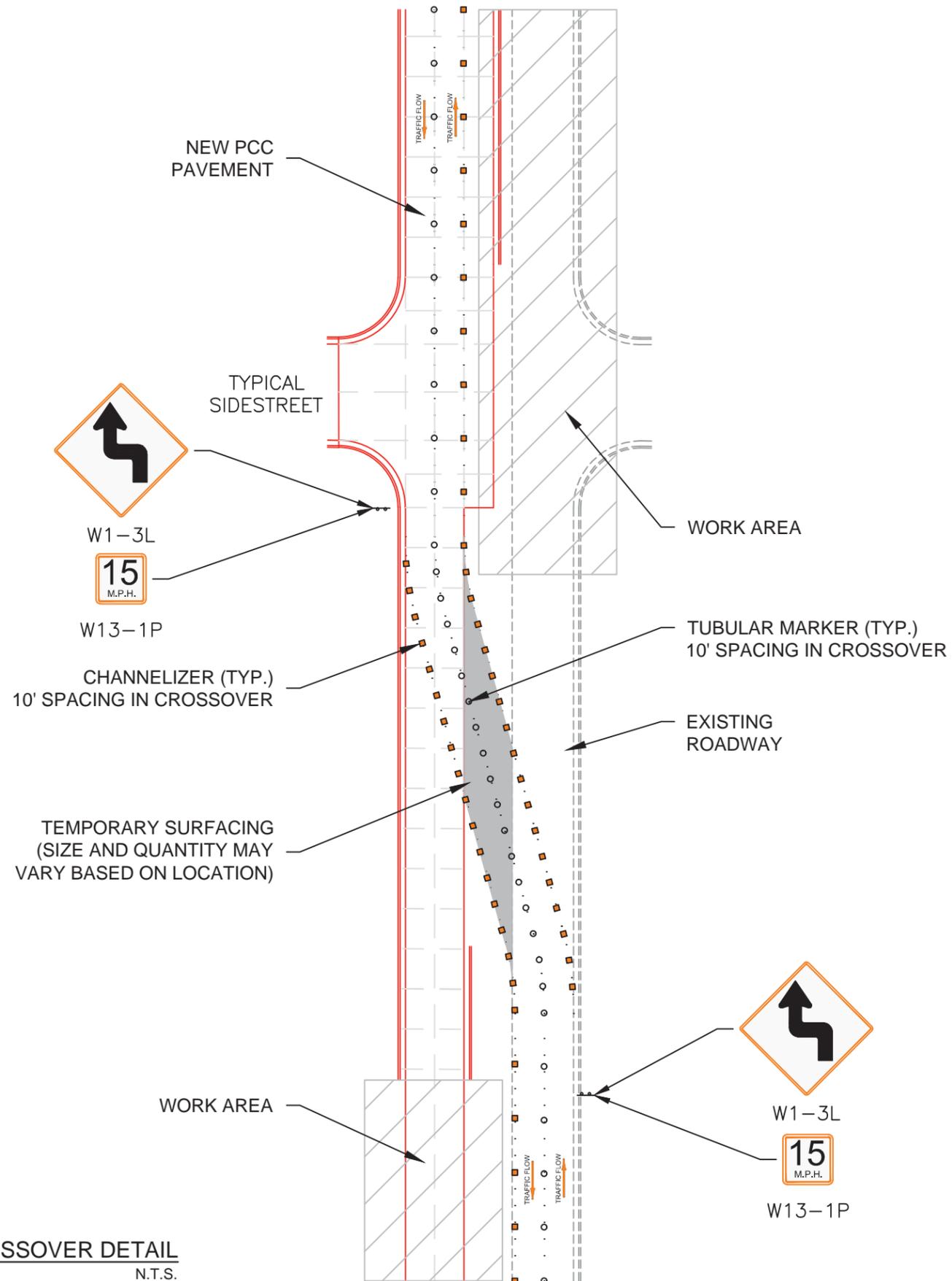
SAFETY FENCE DETAIL
N.T.S.

11-12-15 P:\12-15 P\12-117\AutoCAD\PlanSheets\027C\Section_C\027C-SPECIAL_PED_DETAILS.dwg

SPECIAL TRAFFIC CONTROL DETAILS

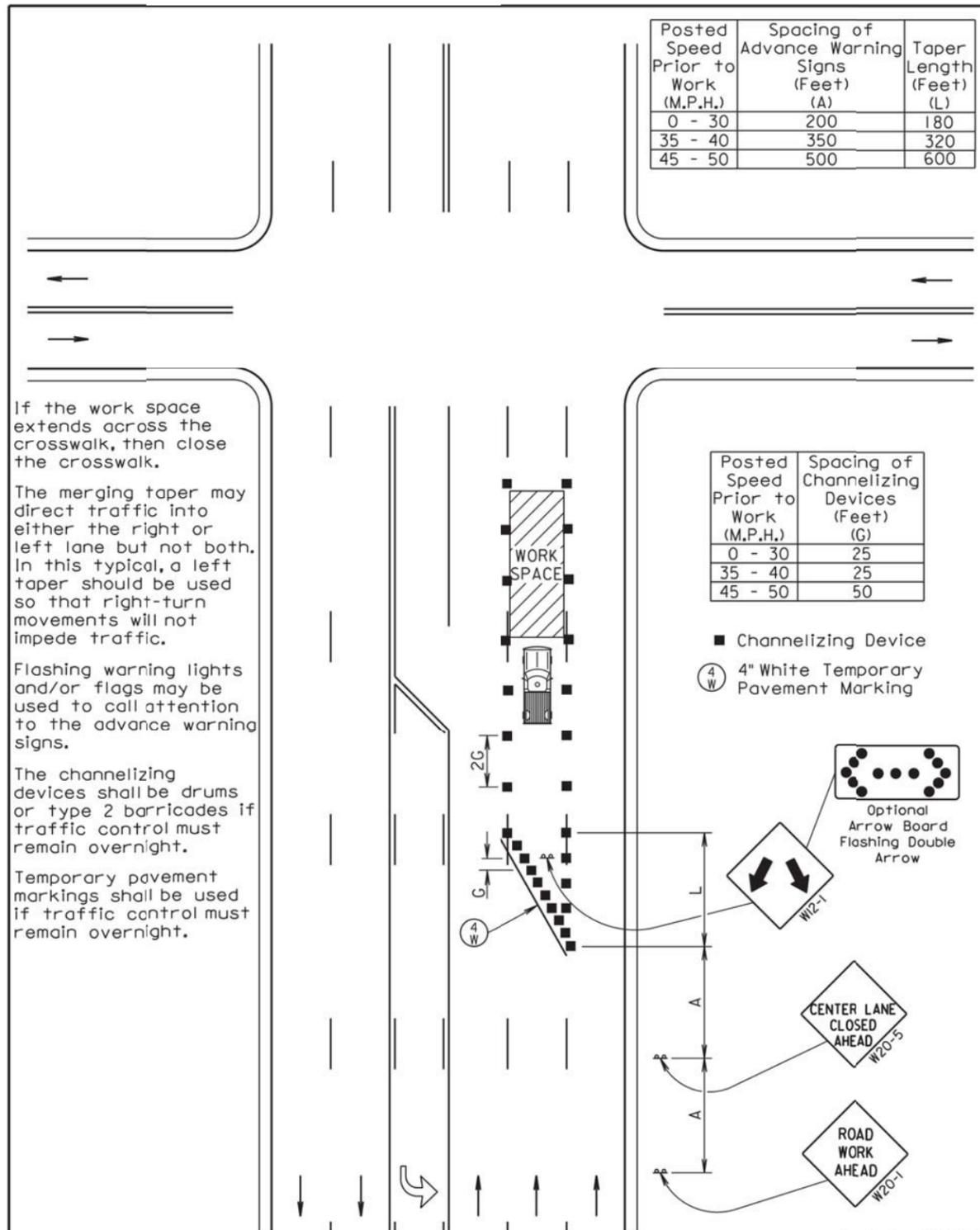
FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT NH0016(79)67	SHEET C45	TOTAL SHEETS C52
PLOTING DATE: 11-12-15			

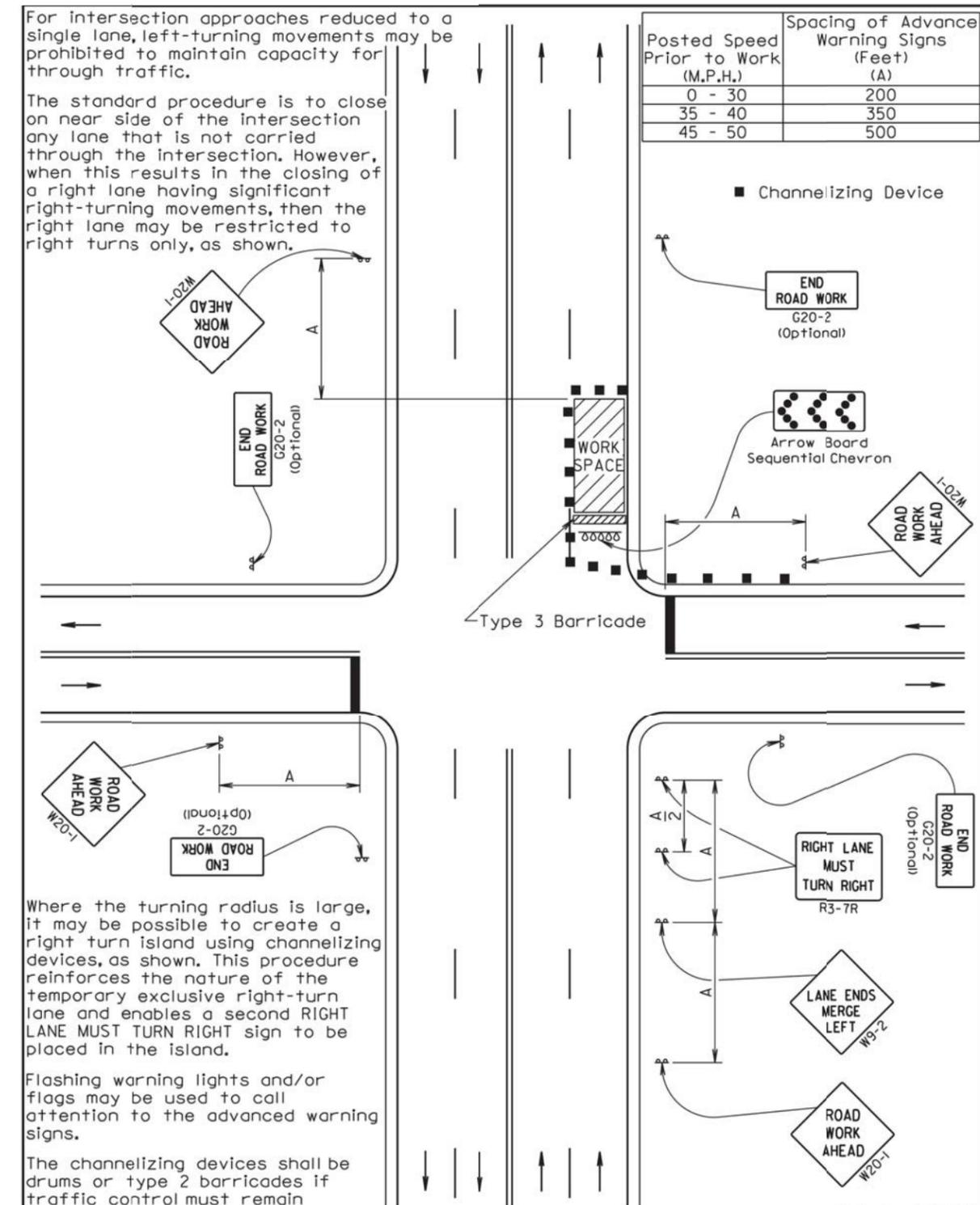


TYPICAL INTERIM CROSSOVER DETAIL
N.T.S.

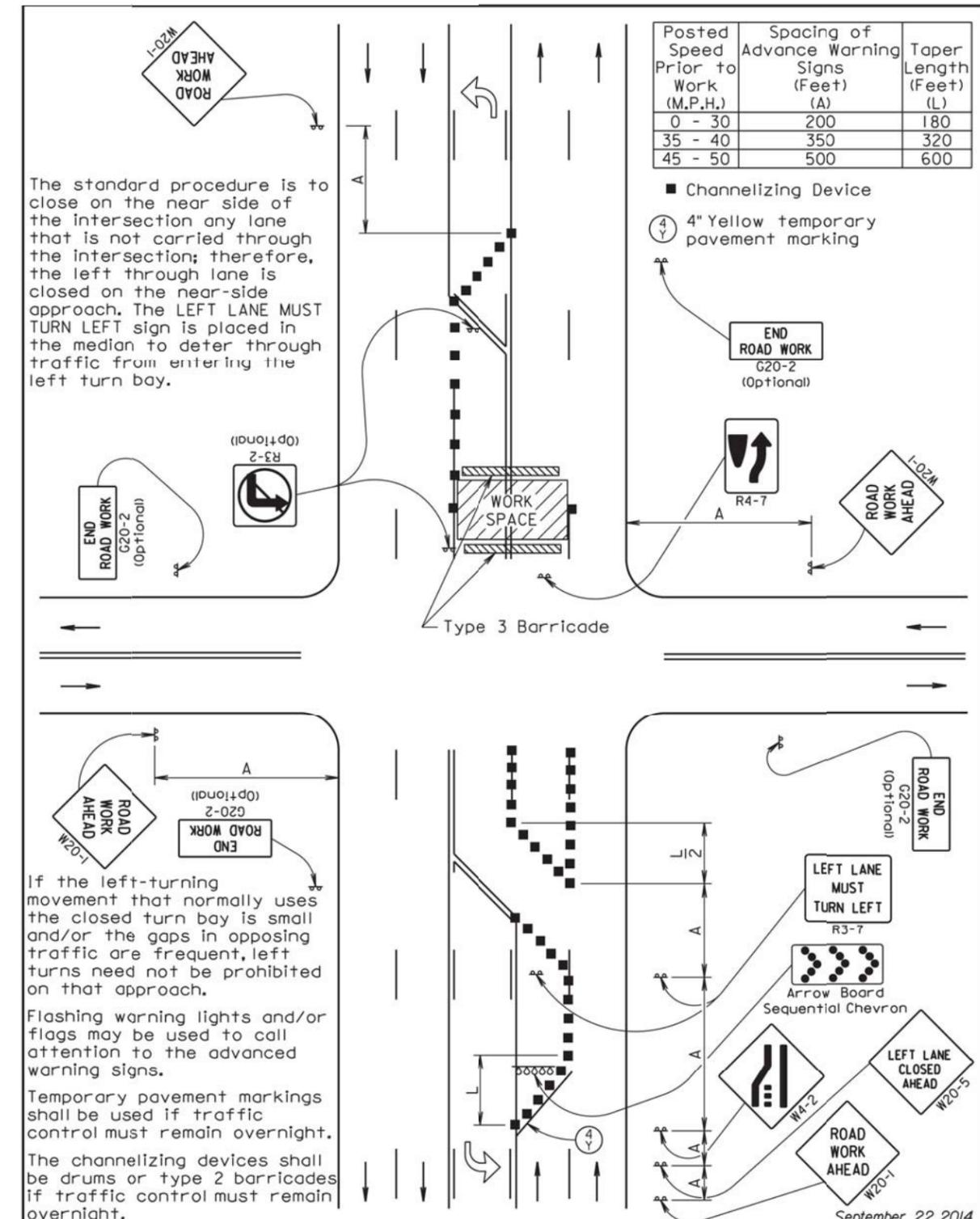
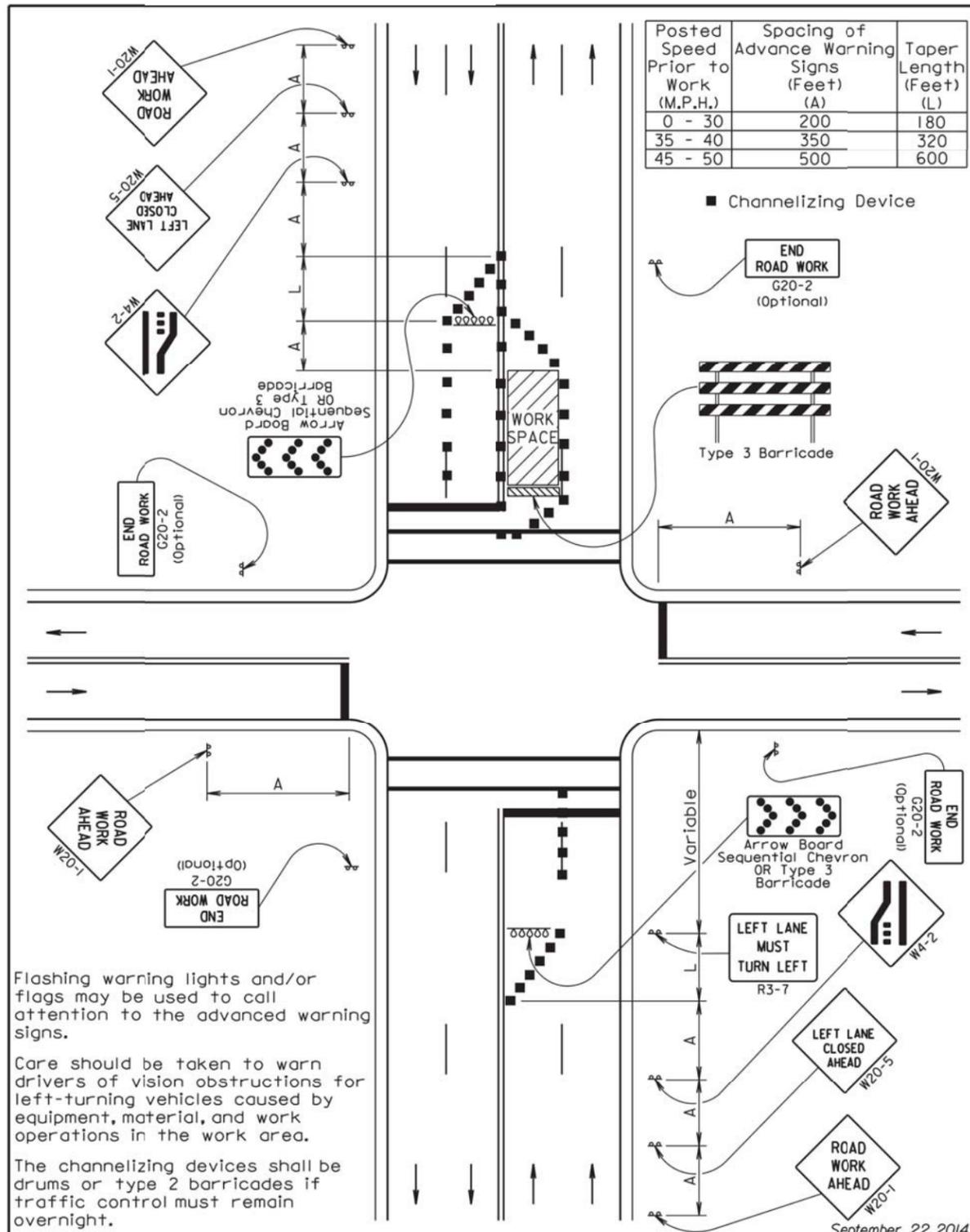


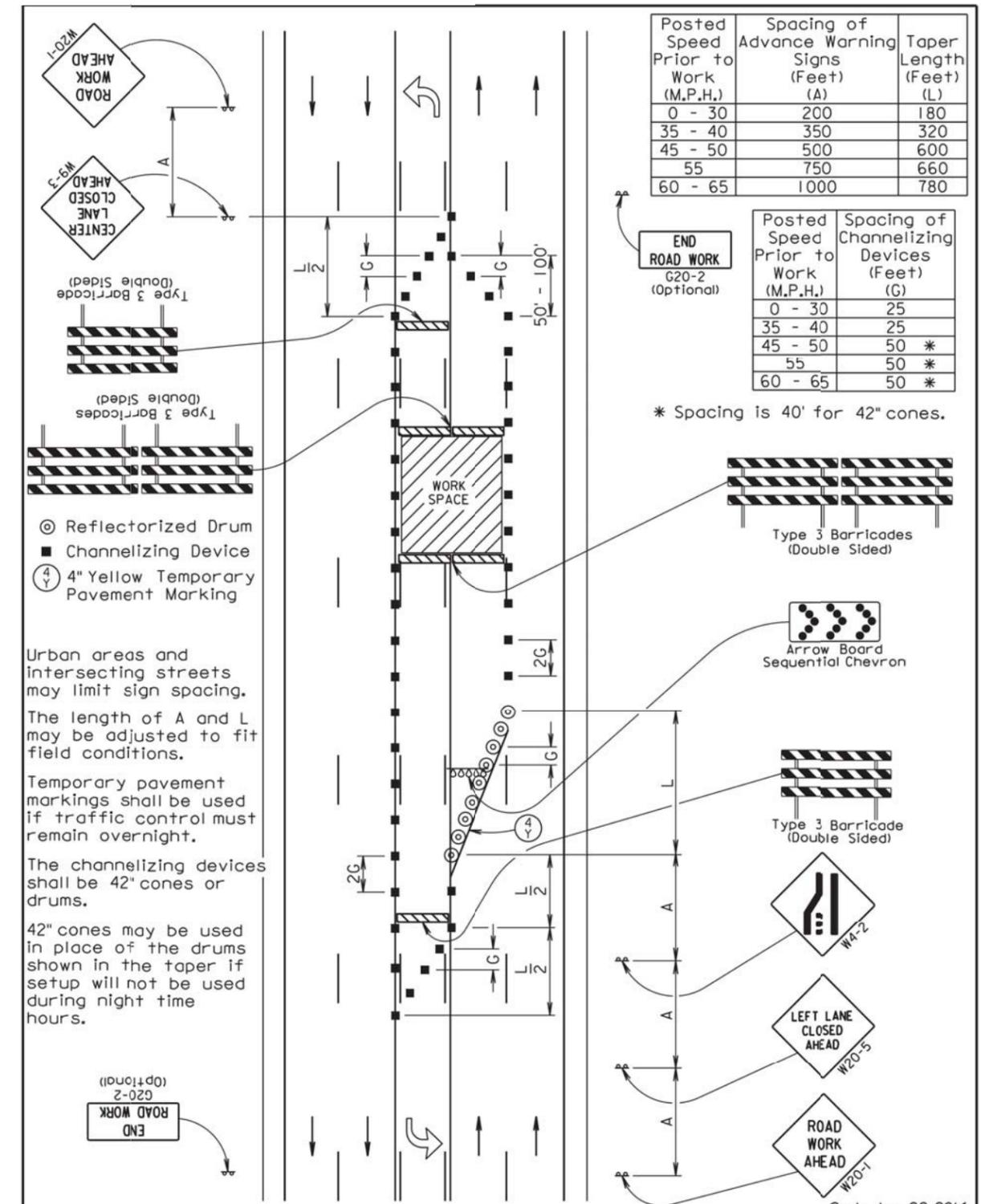
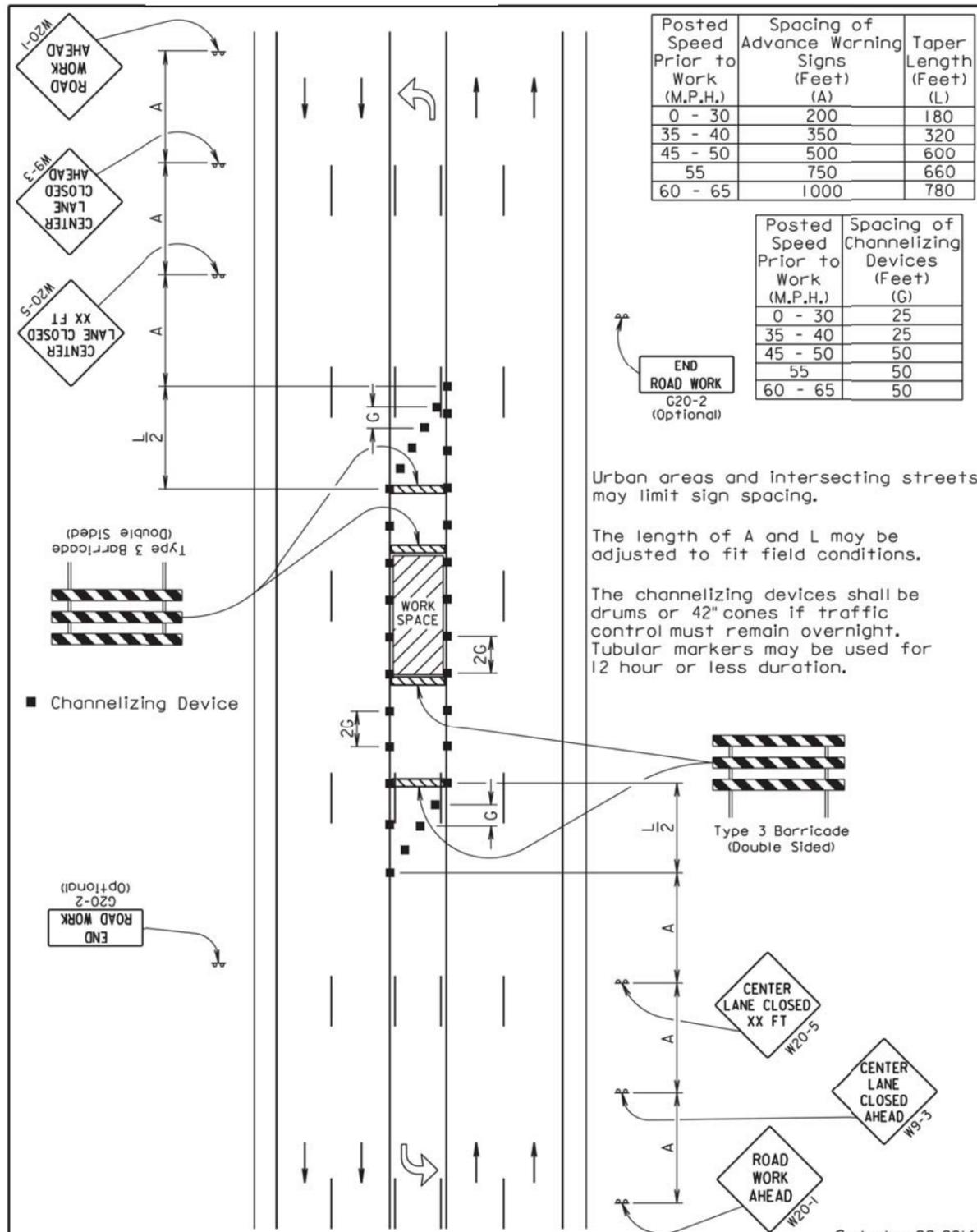


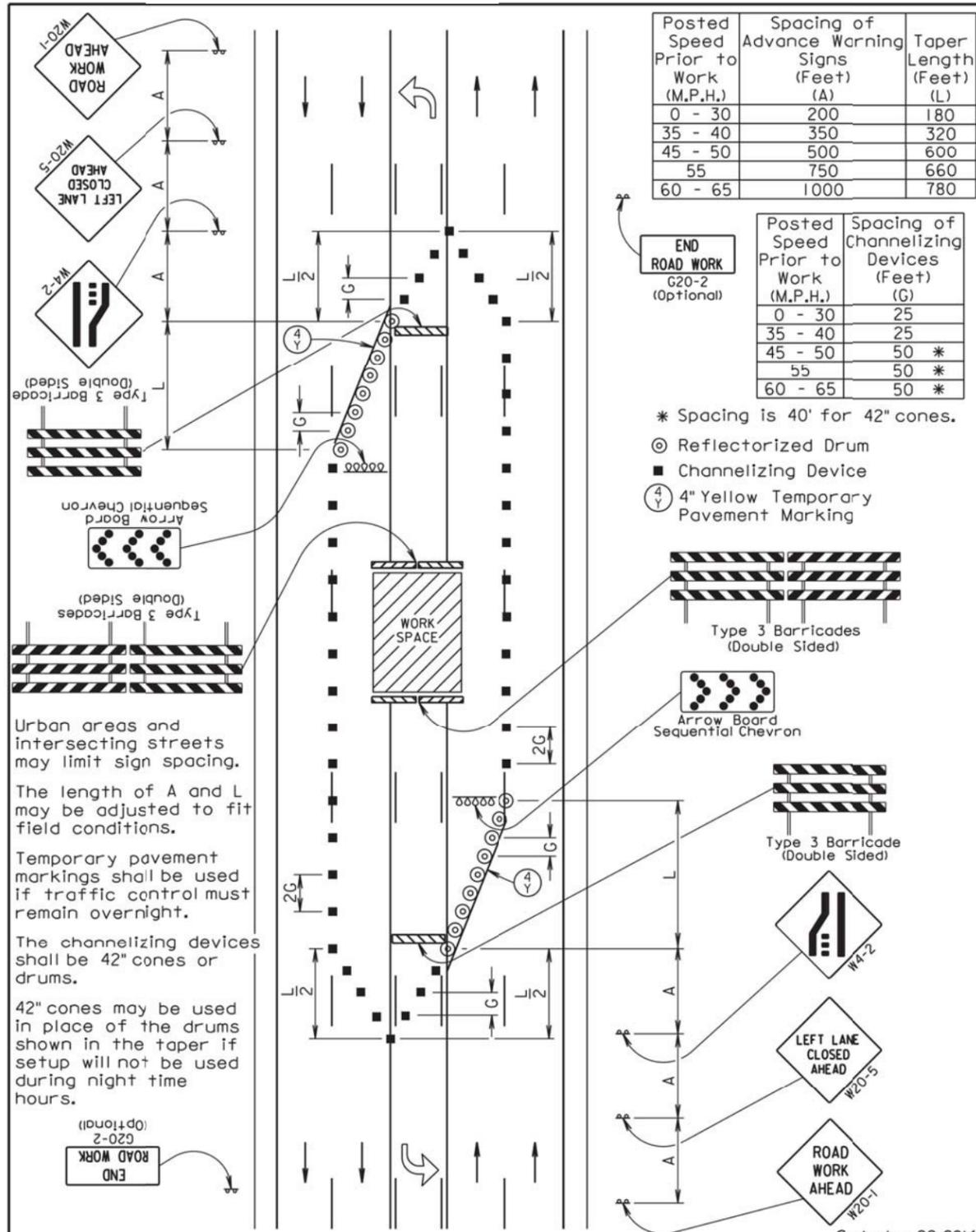
September 22, 2014



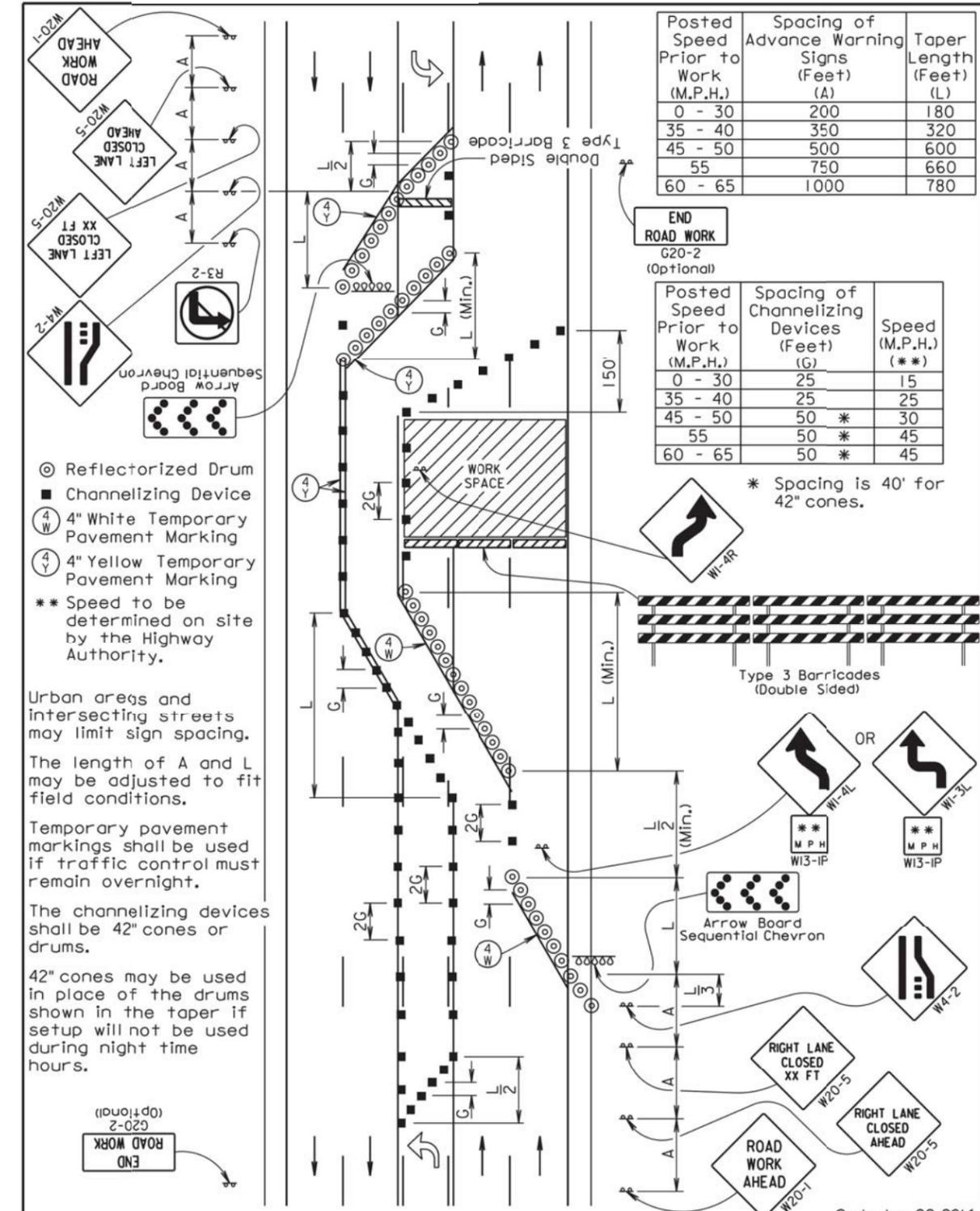
September 22, 2014



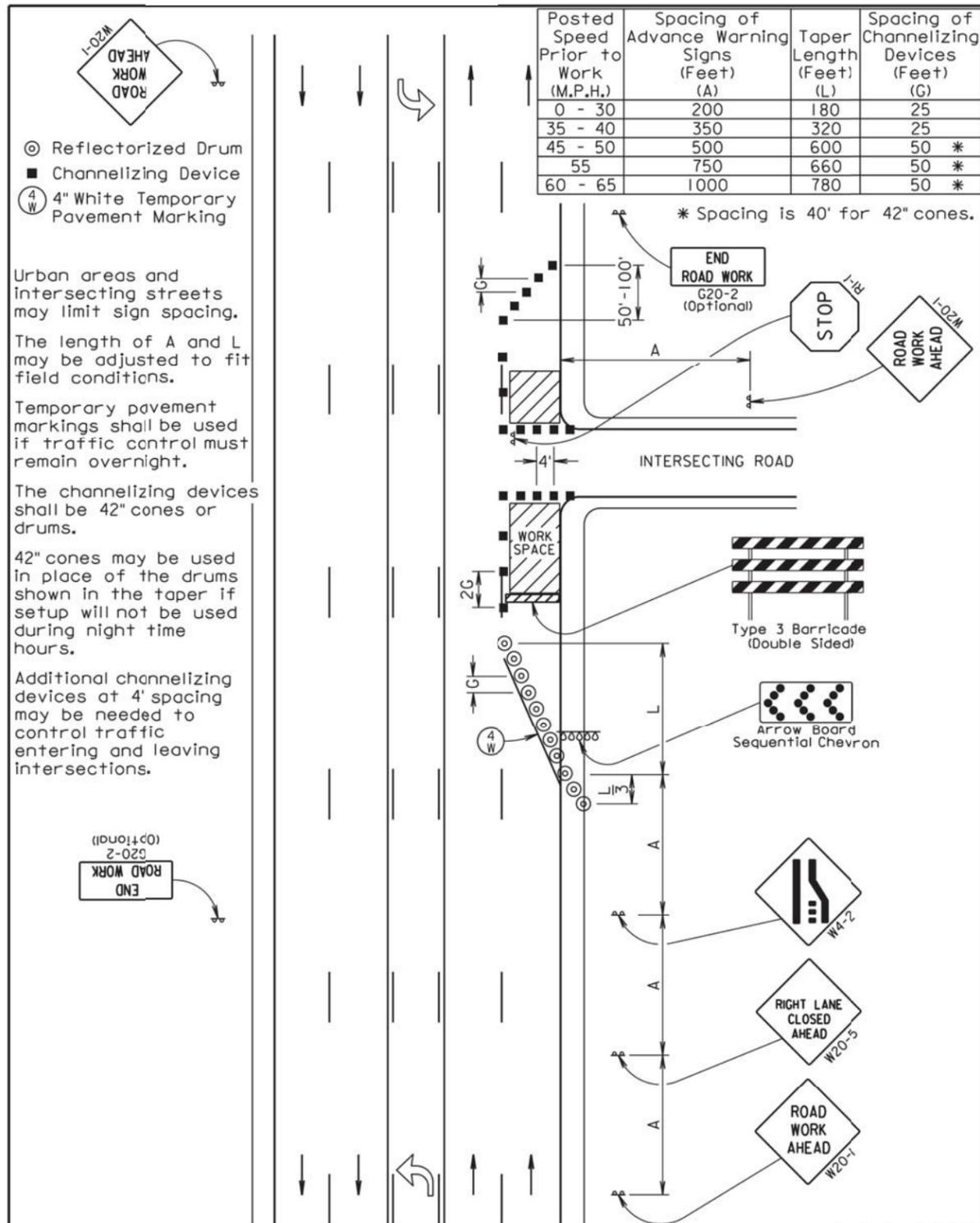


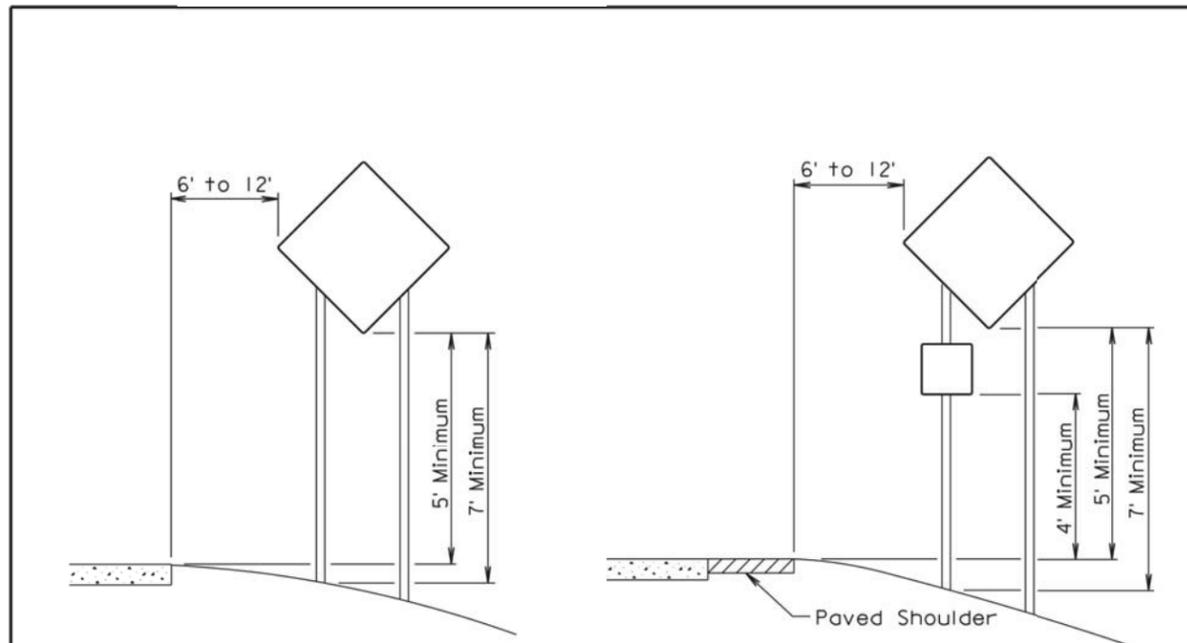


September 22, 2014



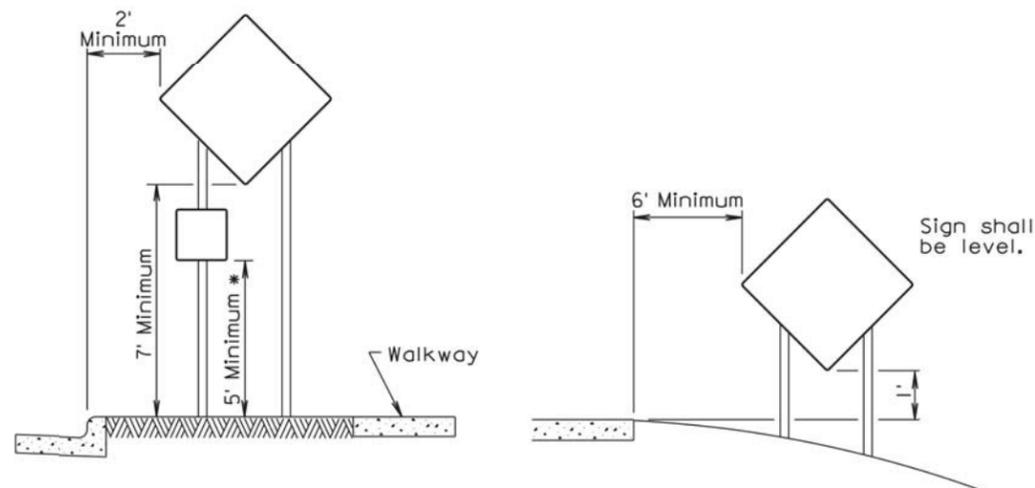
September 22, 2014





RURAL DISTRICT

RURAL DISTRICT WITH SUPPLEMENTAL PLATE



URBAN DISTRICT

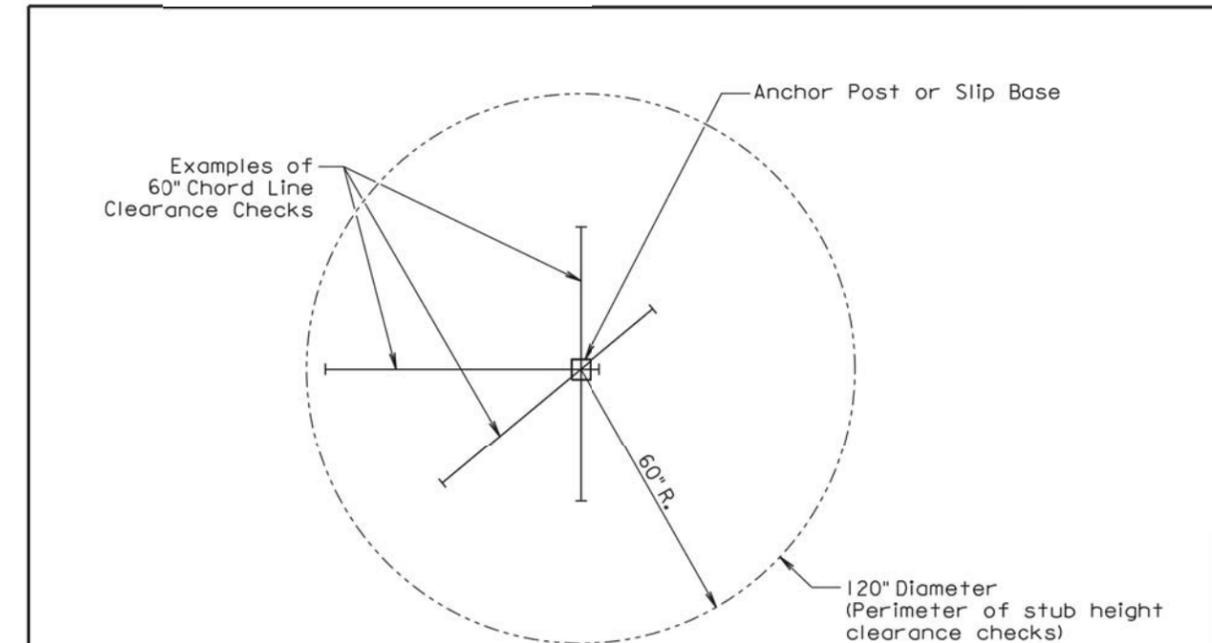
RURAL DISTRICT 3 DAY MAXIMUM

* 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.

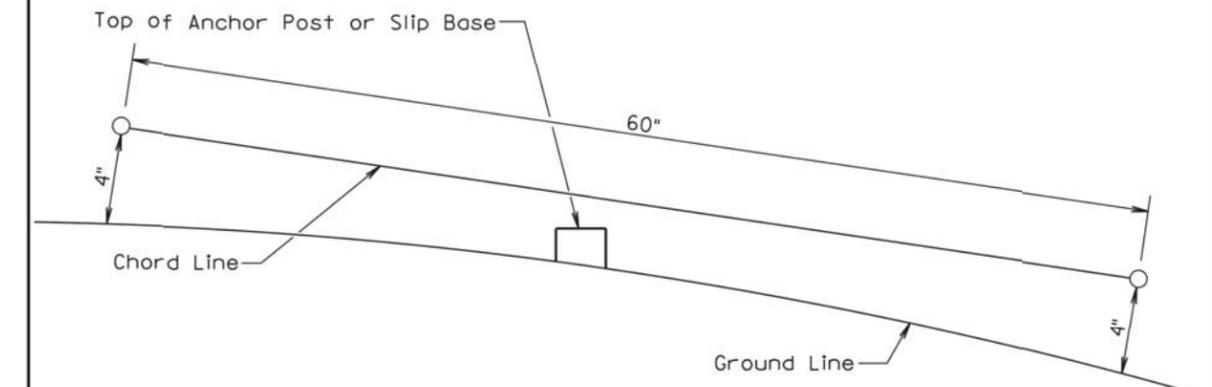
(Not applicable to regulatory signs)

September 22, 2014

Published Date: 3rd Qtr. 2015	S D D O T	CRASHWORTHY SIGN SUPPORTS (Typical Construction Signing)	PLATE NUMBER 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: 3rd Qtr. 2015	S D D O T	BREAKAWAY SUPPORT STUB CLEARANCE	PLATE NUMBER 634.99
			Sheet 1 of 1