SECTION C: TRAFFIC CONTROL PLANS

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C1	C85

Plotting Date: 5/15/2025

INDEX OF SHEETS

END EM 0292(88)73
Station 106+06.35
located 1103.12 feet south and
1959.66 feet west of the northeast
corner of Section 18 -Township 100 North -
Range 50 West of the 5th P.M.
MRM (029 N) 75.17+0.032

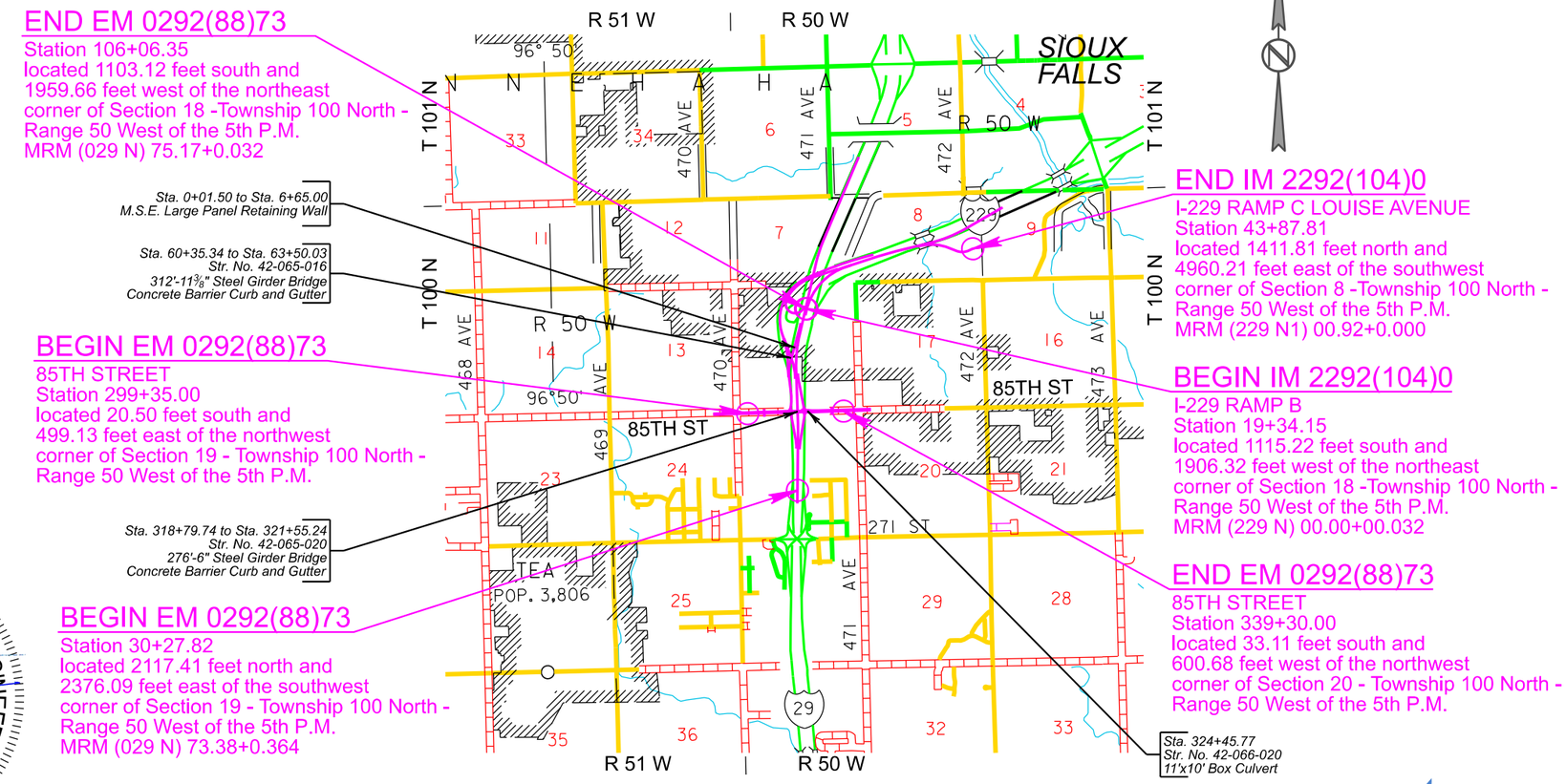
Sta. 0+01.50 to Sta. 6+65.00
M.S.E. Large Panel Retaining Wall

Sta. 60+35.34 to Sta. 63+50.03
Str. No. 42-065-016
312'-11⅜" Steel Girder Bridge
Concrete Barrier Curb and Gutter

BEGIN EM 0292(88)73
85TH STREET
Station 299+35.00
located 20.50 feet south and
499.13 feet east of the northwest
corner of Section 19 - Township 100 North -
Range 50 West of the 5th P.M.

Sta. 318+79.74 to Sta. 321+55.24
Str. No. 42-065-020
276'-6" Steel Girder Bridge
Concrete Barrier Curb and Gutter

BEGIN EM 0292(88)73
Station 30+27.82
located 2117.41 feet north and
2376.09 feet east of the southwest
corner of Section 19 - Township 100 North -
Range 50 West of the 5th P.M.
MRM (029 N) 73.38+0.364



END IM 2292(104)0
I-229 RAMP C LOUISE AVENUE
Station 43+87.81
located 1411.81 feet north and
4960.21 feet east of the southwest
corner of Section 8 -Township 100 North -
Range 50 West of the 5th P.M.
MRM (229 N1) 00.92+0.000

BEGIN IM 2292(104)0
I-229 RAMP B
Station 19+34.15
located 1115.22 feet south and
1906.32 feet west of the northeast
corner of Section 18 -Township 100 North -
Range 50 West of the 5th P.M.
MRM (229 N) 00.00+00.032

END EM 0292(88)73
85TH STREET
Station 339+30.00
located 33.11 feet south and
600.68 feet west of the northwest
corner of Section 20 - Township 100 North -
Range 50 West of the 5th P.M.

Sta. 324+45.77
Str. No. 42-066-020
11'x10' Box Culvert

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15735
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

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Plotted From - ngjersvik File - ...\titlec.dgn

FOR BIDDING PURPOSES ONLY

SECTION C ESTIMATE OF QUANTITIES – PCN 06JQ

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
634E0010	Flagging	100.0	Hour
634E0110	Traffic Control Signs	1,184.7	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0135	Traffic Control Supervisor	Lump Sum	LS
634E0275	Type 3 Barricade	20	Each
634E0330	Temporary Raised Pavement Markers	10,000	Ft
634E0420	Type C Advance Warning Arrow Board	4	Each
634E0525	Linear Delineation System Panel, Barrier Mounted	344	Each
634E0560	Remove Pavement Marking, 4" or Equivalent	6,985	Ft
634E0640	Temporary Pavement Marking	19,395	Ft
634E0700	Traffic Control Movable Concrete Barrier	250	Each
634E0702	Contractor Supplied Traffic Control Movable Concrete Barrier	344	Each
634E0705	Remove and Reset Traffic Control Movable Concrete Barrier	96	Each
634E0750	Temporary Concrete Barrier End Protection	4	Each
634E0755	Remove and Reset Temporary Concrete Barrier End Protection	3	Each
634E0760	Temporary Concrete Barrier End Protection Module Set or Repair Kit	4	Each
634E1002	Detour and Restriction Signing	477.6	SqFt
634E1150	Opposing Traffic Lane Divider	35	Each
634E1160	Replace Opposing Traffic Lane Divider	5	Each
634E1215	Contractor Furnished Portable Changeable Message Sign	7	Each
634E1235	Queue Detection System	18.0	Mth
634E1245	Maintenance of Queue Detection System	20	Hour
634E1255	Contractor Furnished Speed Monitoring Radar Trailer	2	Each
634E1260	Truck/Trailer Mounted Attenuator	1	Each
635E5600	Surveillance Camera	1	Each

SECTION C ESTIMATE OF QUANTITIES – PCN 07D0

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
634E0010	Flagging	20.0	Hour
634E0110	Traffic Control Signs	258.5	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0135	Traffic Control Supervisor	Lump Sum	LS
634E0275	Type 3 Barricade	7	Each
634E0420	Type C Advance Warning Arrow Board	1	Each
634E0560	Remove Pavement Marking, 4" or Equivalent	6,820	Ft
634E0640	Temporary Pavement Marking	12,133	Ft
634E0702	Contractor Supplied Traffic Control Movable Concrete Barrier	234	Each
634E0705	Remove and Reset Traffic Control Movable Concrete Barrier	388	Each
634E0750	Temporary Concrete Barrier End Protection	2	Each
634E0760	Temporary Concrete Barrier End Protection Module Set or Repair Kit	1	Each
634E1215	Contractor Furnished Portable Changeable Message Sign	2	Each
634E1245	Maintenance of Queue Detection System	20	Hour
634E1260	Truck/Trailer Mounted Attenuator	1	Each

SPECIAL PROVISIONS

The following special provisions are attached to the project specifications and will be reviewed by the Contractor for furnishing and installing the proposed traffic equipment:

- Special Provision for Traffic Control Supervisor.

SEQUENCE OF OPERATIONS

Contractor requests to deviate from the sequence of operations will 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. An alternate sequence will be submitted for review a minimum of one week prior to potential implementation.

General

- Lewis and Clark Watermain is located along the south side of 85th Street will require extra care with equipment operations above the water main. Coordinate with Lewis and Clark prior to grading operations.
- Crane placement for 85th street bridge work must be located north of the bridge.
- I-29 traffic to remain in place during construction, maintain 2 lanes minimum for I-29 during daytime hours. Lane/Shoulder closures will be allowed for work adjacent to existing lanes.
- Overnight lane closures of I-29 with traffic crossed over two-way, on the opposite lanes will be allowed for bridge or MSE wall work requiring cranes. Complete overhead sign bridge work while traffic is crossed over to the opposite side.
- Access to 47012 85th Street shall be maintained until June 1, 2026.
- Access to 47006 85th Street shall be maintained at all times during the entire construction of the project.

Grading

- Most grading work is built off of traffic and may be reordered or worked concurrently as needed.
- Focus should be on installation of EPS Foam fill material for Ramps B and C and paving of ramp gore areas while weather is accommodating.
- Grading work for Ramp Gores or additional lane must be paved prior to winter or delayed until the next spring.
- Certain amount of grading for Phase 2 will be required to properly construct the watermain in Phase 1.

Phase 1A

- Install City of Sioux Falls watermain Project.
- Begin Grading East side of 85th Street.
- Install EPS Foam fill material over L&C watermain along Ramp B
- Grade Ramps A and B, gore area grading for Ramp A to be completed with grading for the additional lane along I-29 and I-229
- Construct 85th St. bridge bent.

Phase 1B

- Begin Grading west side of 85th Street.
- Install EPS Foam fill material over L&C watermain along Ramp C
- Install MSE wall along Ramp D
- Grade Ramps C, D, and Ramp D connector, including work along I-29 and I-229 Ramp C.

Phase 1C

- Pave Ramp D and Ramp D connector gore areas and moment slab in front of MSE wall.
- Pave Ramp B and C gore areas.

Paving

- Most work off of traffic can be completed out of sequence. Ramp B and east side EB 85th must be open prior to work beginning on I-229 Ramp C Louise Ave.
- Complete all work requiring overnight crossover of NB traffic prior to shifting to SB crossover, including work on existing ramps.

Phase 2A

- Contractor may use nighttime closure of NB I-29 lanes using crossover with two-way traffic on SB I-29 Lanes for this phase and NB I-229 Detour.
- Pave Ramp B, Ramp F, and eastbound lanes of 85th Street.
- Ramp B to eastbound 85th movement must open to traffic prior to beginning work on Louise Ave Ramp C.
- Begin 85th Street bridge construction on east half of bridge for setting of bridge girders and other work requiring crane.
- Construct Sign Bridges for NB I-29.

Phase 2B

- Contractor may use nighttime closure of NB I-29 lanes using crossover with two-way traffic on SB I-29 Lanes for this phase and NB I-229 Detour, and Louise Ave Detour.
- Grade Ramp A gore and auxiliary lane along I-29 through to I-229 .
- Complete all work on Louise Ramp C
- Pave remainder of the east side of 85th Street.
- Pave Ramps A E and F.
- Begin constructing Sign Bridges along I-229.
- Pave additional lane along I-29 I-229 and I -229 Ramp B.

Phase 2C

- Contractor may use nighttime closure of SB I-29 lanes using crossover with two-way traffic on NB I-29 Lanes for this phase. Utilize Shoulder and/or single lane closures for daytime operations.
- Begin Bridge construction on West Side of 85th Street Bridge for setting of bridge girders and other work requiring crane use.
- Construct Ramp D Bridge.
- Pave West side of 85th , Ramp C, Ramp D, and Ramp D Connector. Finish constructing Sign Bridges for along I-229 and I-229 Ramps.
- Pour bridge deck and complete construction of 85th Street bridge.
- Construct Sign Bridges for SB I-29.

REGISTERED PROFESSIONAL ENGINEER
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SOUTH DAKOTA
8-18-2025

FOR BIDDING PURPOSES ONLY

GENERAL TRAFFIC CONTROL

Existing guide, route, informational logo, regulatory, and warning signs will be temporarily reset and maintained during construction. Removing, relocating, covering, salvaging, and resetting of existing traffic control devices, including delineation, will be the responsibility of the Contractor. Cost for this work will be incidental to the contract unit prices for the various items unless otherwise specified in the plans. Any delineators and signs damaged or lost will be replaced by the Contractor at no cost to the State.

All temporary traffic control sign locations will be set in the field by the Contractor and verified by the Engineer prior to installation.

All temporary speed limit signs will have a minimum mounting height of 5 feet in rural locations, even when mounted on portable supports.

If there is a discrepancy between the traffic control plans, standard plates, and the MUTCD, whichever is more stringent will be used, as determined by the Engineer.

Unless otherwise stated in these plans, work will not be allowed during hours of darkness, other than work for construction of bridges.

Fixed location signing placed more than 4 calendar days prior to the start of construction will be covered or laid down until the time of construction. The covers must be approved by the Engineer prior to installation. The cost of materials, labor, and equipment necessary to complete this work will be incidental to other contract items. No separate payment will be made.

All fixed location signs, sign posts, and breakaway bases will be removed within 7 calendar days following pavement marking.

All haul trucks will be equipped with an additional flashing amber light that is visible from the backside of the haul truck. The costs for the flashing amber lights will be incidental to the various related contract items.

At no time will a vertical drop-off of greater than 3 inches be left overnight adjacent to the traveled way. The Contractor will utilize embankment material to ensure a 3-inch vertical drop-off is not exceeded. The slope of the embankment material will not be steeper than a 4:1 within 30 feet of the traveled way.

Traffic will be maintained on the driving lanes. Use of the shoulder as a driving lane will not be permitted. Any damage to the shoulder due to rerouted traffic or Contractor's equipment will be repaired at no expense to the Department.

The Contractor will notify businesses/homeowners a minimum of two weeks prior to construction to inform them of upcoming construction and again a minimum of 48 hours prior to any blocked access to make appropriate arrangements.

A mobile work operation will be allowed provided the rumble strip or rumble stripe grooving, flush sealing, and pavement marking can be completed satisfactorily by a continuously moving work operation. A mobile work operation will require approval by the Engineer.

If inappropriate or conflicting pavement markings exist, the markings will be removed and replaced with applicable temporary pavement markings when the work duration is more than 3 days. When the work duration is less than 3 days, the channelizing devices in the area where the pavement markings conflict will be placed at one-half of the normal channelizing device spacing. Pavement marking removals will be incidental to the contract unit price per foot for "Remove Pavement Marking, 4" or equivalent". Temporary pavement marking will be paid for at the contract unit price per mile/foot for "Temporary Pavement Marking". The additional channelizing devices will be incidental to the contract lump sum price for "Traffic Control, Miscellaneous".

A Type 3 Barricade will be installed at the end of a lane closure taper as detailed in these plans. Additional Type 3 Barricades will be installed facing traffic within the closed lane at a spacing of ¼ mile.

Construction vehicles will exit or enter the construction work zone at locations identified by the Engineer. At no time will construction vehicles utilize the maintenance crossovers or the Interstate median to exit or enter Interstate traffic.

On Interstate projects with more than one construction site, slow moving equipment that operates at a speed less than 40 MPH may mobilize between sites if the equipment travels on the shoulder. The slow-moving equipment will also display a flashing amber light and a slow-moving sign.

COORDINATION MEETINGS

Approximately one week prior to construction, the Department will hold a public preconstruction meeting. The Contractor will be required to attend, present their schedule, provide contact information, and to answer any questions about sequencing or maintaining access.

The Contractor will also conduct coordination meetings with he subcontractors, utilities, the Engineer, and the public. These meetings will be held weekly at a location on or near the project. The contractor will determine the time and location and as approved by the Engineer.

Landowners, business owners, and the general public will be invited to the first half of the meeting. The Contractor will give a brief summary of the project schedule and will answer any questions. The public will then be dismissed, and the contractors can discuss construction coordination and other issues as needed.

All costs to conduct the coordination meetings and to participate in the preconstruction meeting will be incidental to the contract lump sum price for Traffic Control Supervisor.

FIRE DEPARTMENT CONTACT

Contact Mark Bukovich, Division Chief, regarding project meetings, street closures and construction updates. Email: mark.bukovich@siouxfalls.gov or phone (605) 367-8089.

LANE CLOSURES

The length of lane closures for structure work on interstate should be limited to one structure or 1 mile. Structures will be done separately unless they are within 2 miles of another structure.

Interstate lane closures will be removed when work will not be occurring for a period of 3 or more calendar days. Activities that do not involve workers being present, such as curing time for concrete, constitute work. Lane closures will not be set up on a Friday if no work will be occurring on Saturday or Sunday. In these cases, the lane closure will be installed on Monday.

DETOUR SIGNING

The Contractor will furnish and install the detour signs as shown in these plans. Prior to installing the signs, the Contractor will mark the sign locations and review them with the Engineer. Detour signs will be installed on fixed location, ground mounted, breakaway supports. It will be the responsibility of the Contractor to maintain and reinstall these signs during the project as required by the construction progress. Upon completion of the project, the Contractor will remove the detour signs.

All costs for furnishing the signs, posts, and mounting hardware, and for installing, maintaining, covering, and removing the detour signs will be incidental to the contract unit price per square foot for "Detour and Restriction Signing".

WORK ZONE SPEED REDUCTION

The Department is required to obtain a speed reduction resolution prior to the installation of any SPEED LIMIT (R2-1) signs shown on standard plate 634.63 or as shown in the plans. To provide adequate time for the resolution to be enacted, the Contractor will inform the Engineer a minimum of 3 weeks prior to the scheduled installation of any work zone speed reduction signs on the project. The information provided by the Contractor will include the anticipated date of sign installation, the newly reduced speed limit, the location of the work zone, and the anticipated completion date of work requiring the speed reduction.

SURVEILLANCE CAMERA

The traffic surveillance camera will be furnished and installed by the Contractor. Installation location to be determined in the field with approval by SDDOT. This camera is for construction observation purposes, and includes one remove and reset.

The traffic surveillance camera will be an AXIS Q6315-LE PTZ Dome Network Camera 60Hz model as manufactured AXIS Communications or approved equal. The camera will be outdoor-ready. The Camera will be pre-equipped from the manufacturer with the following:

- Pole mounting kit AXIS T91L61 or approved equal
- A power supply
- An outdoor rated power strip
- A lightning suppression device
- An outdoor rated CAT6e cable
- 64 MB SD Card
- All other required cables, connectors and jumpers to make a fully functional surveillance camera system

REGISTERED PROFESSIONAL ENGINEER
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SOUTH DAKOTA
7-23-2025

The Contractor will mount the camera so that the mounting bracket is on the wood pole as high as possible. Pole to be incidental to the cost of the camera.

All costs to furnish and install the traffic surveillance camera will be included in the contract unit price per each for "Surveillance Camera".

The CAT-5 cable (or 6 SM fiber optic cable for cable runs greater than 300 feet from cabinet to camera) for the traffic surveillance camera will be installed from the controller cabinet to the camera without splices. The cable will be rated for outdoor use and installed according to the manufacturer's recommendations. All costs for the CAT-5 and 6 SM fiber optic cable will be included in the contract unit price per each for "Surveillance Camera".

FOR BIDDING PURPOSES ONLY

TEMPORARY PAVEMENT MARKING

Temporary flexible vertical markers (tabs) may be used as detailed in the specifications.

In the absence of a signed lane closure or pilot car operation, FLAGGER (W20-7) symbol signs and flaggers, or a shadow vehicle with rotating yellow lights or strobe lights will be positioned on the shoulder in advance of workers for both directions of traffic during the installation and removal of the temporary flexible vertical markers (tabs). The traffic control device used will be moved intermittently to provide proper warning of the work operation. A ROAD WORK AHEAD (W20-1) sign, a WORKER (W21-1) symbol sign or a BE PREPARED TO STOP (W3-4) sign will be mounted on the rear of the shadow vehicle. The method of traffic control used by the Contractor for this work must be approved by the Engineer.

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.

TEMPORARY RAISED PAVEMENT MARKERS

Temporary raised pavement markers will be used for marking edge lines, lane lines, and centerlines. Temporary raised pavement markers will be used on all new permanent surfacing sections of roadway and on existing surfacing where temporary marking locations are different than existing marking locations, unless noted or as directed by the Engineer.

Temporary raised pavement markers will 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.

All costs to furnish, install, replace if necessary, and remove the markers will be incidental to the contract unit price per foot for “Temporary Raised Pavement Markers”.

CONTRACTOR FURNISHED SPEED MONITORING RADAR TRAILER

The Contractor will provide 2 radar speed feedback trailers to monitor traffic speeds on designated routes at locations specified in the field by the Engineer.

The radar speed feedback sign assembly will include a speed limit sign mounted in conjunction with the radar speed feedback display. The speed display will not flash vehicle speeds exceeding the speed limit or any other messages.

All costs associated with furnishing, maintaining, transporting, relocating if necessary, and removing the radar speed feedback trailers from locations specified by the Engineer will be incidental to the contract unit price per each for “Contractor Furnished Speed Monitoring Radar Trailer”.

CONTRACTOR FURNISHED PORTABLE CHANGEABLE MESSAGE SIGN

The Contractor will program the portable change message signs near the project work limits at locations as determined by the Project Engineer with the following messages for use during normal traffic flow.

REDUCE SPEED TWO-WAY TRAFFIC	or	ROAD WORK AHEAD EXPECT DELAYS

During peak times when traffic queues exist or during incident management:

SLOW TRAFFIC AHEAD BE PREPARED TO STOP	or	CRASH AHEAD BE PREPARED TO STOP

One week prior to starting work affecting the traveling public, portable changeable message signs (PCMS) will be installed to notify drivers of the upcoming construction. The Contractor will program the portable changeable message signs with the following message:

ROAD WORK BEGINS (DATE)
85 TH STREET

The Engineer may approve alternate messages to fit project conditions. Signs will not be stored long term on the shoulders of the roadway.

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8-18-2025

INCIDENTS

An incident is an emergency road user occurrence, a natural disaster, or other unplanned event that affects or impedes the normal flow of traffic such as a crash, hazardous materials spill, or other event.

The Contractor will set up a meeting prior to start of work to plan and coordinate responses to an incident. The Contractor will invite the Department of Transportation, the South Dakota Highway Patrol, the Lincoln County Sheriff and local emergency response entities to the meeting.

The Contractor will assist to maintain traffic as required by these plan notes and as agreed to at that meeting.

Emergency vehicle access through the project will be considered and discussed at the meeting.

The Contractor may be required to modify messages on portable changeable message signs or relocate portable changeable message signs, and to provide flaggers to direct or detour traffic. The Contractor should be prepared to relocate advance warning signs if determined to be necessary for a major traffic incident lasting more than two hours. Fixed location ground mounted signs may be covered and additional portable signs provided.

No additional payment will be made for the modification of portable changeable message sign messages or the relocation of portable changeable message signs. Cost for the relocation of an advance warning sign due to an incident will be 50% of the designated sign rate. Flaggers will be paid for at the contract unit price per hour for “Flagging”.

PRESS RELEASE ANNOUNCEMENTS

The SDDOT will prepare a press release to be released 5 days prior to any phase change or any other major change that affects traffic flow. The SDDOT will be responsible to keep law enforcement, emergency services, and the traveling public notified of changes in project access. The Contractor will provide the Engineer with pertinent information 7 days prior to any phase change or any other major change that affects traffic flow.

LIGHTING FOR NIGHTTIME WORK

Flagger stations, working construction equipment and active workspaces will be lighted between sunset and sunrise. Non-glare light sources will be provided.

Light levels are as defined in Section 2.9.2 of NCHRP 476.

Light in conformance with Level I will be provided at the active workspaces.

Light in conformance with Level II will be provided at the locations of working construction equipment.

Light in conformance with Level III is to be provided where labor intensive work is being completed such as during hand work, pavement sawing, project inspection, materials testing, and flagging.

Acceptable light sources will be Contractor furnished stand-alone lights or vehicle/equipment mounted lights. Stand-alone units will be marked with a minimum of two reflectorized drums on an approaching traffic side.

Cost for this lighting will be included in the contract lump sum price for “Traffic Control, Miscellaneous”.

HIGHWAY WORKERS GIVE ‘EM A BRAKE SIGNS

One fixed location ground mounted HIGHWAY WORKERS GIVE ‘EM A BRAKE sign will be installed 2000 feet in advance of the ROAD WORK NEXT XX MILES signs for northbound and southbound directions of travel. The signs will be mounted to the right of the roadway, a minimum of 16 feet from the edge of the shoulder to the inside edge of the sign.

The Contractor will furnish a sign design detail for the HIGHWAY WORKERS GIVE ‘EM A BRAKE sign for Engineer review and approval.

COORDINATION BETWEEN CONTRACTORS

A separate contract for Project PH 0022(443) – PCN 08Q8, not tied to this project will be for median cable barrier installation along I-29 from Exit 71 (273rd Street) to north of Exit 79 (W 12th Street).

A separate contract will be awarded for drainage pond grading adjacent to this project. The pond grading work will be tied directly to the storm sewer outlets from 85th Street.

A separate contract for PCN 09L5 (2026), not tied to this project will be for sign bridge installation at I-29 SBL Sta. 40+00 Lt. The sign bridge project will remove the existing cantilever sign support at I-29 SBL Sta. 41+76 Lt.

The Contractor will schedule work so as not to interfere with or hinder the progress of the work performed by the other Contractors. Conflicting traffic control devices may need to be temporarily adjusted or removed as directed by the Engineer and at no additional cost to the contract.

FOR BIDDING PURPOSES ONLY

TRUCK/TRAILER MOUNTED ATTENUATOR

The Contractor will furnish truck or trailer mounted attenuator(s) to be used for the duration of the project. Truck or trailer mounted attenuators (TMAs) will meet the crashworthy requirements of NCHRP 350 or MASH Test Level 3. TMAs will be used and maintained in accordance with the manufacturers' recommendations.

The TMAs should be utilized on the project where workers and/or equipment are working next to the centerline of the roadway with live traffic in the adjacent lane, or as directed by the Engineer. The TMAs will be removed from the roadway at the end of each working day. The TMAs will remain the property of the Contractor at the end of the project.

The TMAs will be paid for at the contract unit price per each for Truck/Trailer Mounted Attenuator. Payment will be full compensation for furnishing, maintaining, relocating and removing as many times as required by the Engineer and the Contractor's operations.

In the event a TMA is hit while in service, the manufacturer will assess the TMA and make a recommendation as to whether it can be repaired or needs to be replaced. The Department will reimburse the Contractor for repairs as documented by invoices or pay for another TMA to be deployed to the project as needed.

TRAFFIC CONTROL MOVABLE CONCRETE BARRIERS & CONTRACTOR FURNISHED TRAFFIC CONTROL MOVEABLE CONCRETE BARRIER

Up to 250 Concrete barriers will be provided by the State and are available for pickup from either the SDDOT Maintenance Yard located at the NW quadrant of the intersection of W. 69th Street and Solberg Avenue, Sioux Falls, or the SDDOT Main Yard located at 5316 W 60th Street N, Sioux Falls. The barriers will be hauled back to the original SDDOT yard when they are no longer needed on the project, and for winter storage.

The remaining 234 barriers for PCN 07DQ and 344 barriers for 06JQ needed will be Contractor furnished.

Barriers to be adjusted or moved will be disconnected from adjacent barriers to minimize damage to connecting pins. Pins damaged by the Contractor will be replaced at no cost to the Department.

Concrete barrier sections will be placed as depicted in the plans to comply with clear zone requirements and as required by the Engineer. The barriers will be pinned and bolted together as directed by the Engineer.

All costs associated with picking the barriers up from the SDDOT Maintenance Yard or Main Yard, transporting, setting, connecting, and hauling them back to the SDDOT Maintenance Yard or Main Yard will be incidental to the contract unit price per each for "Traffic Control Movable Concrete Barrier".

After the initial placement, the concrete barriers may need to be adjusted. Adjustment of the barriers, where they do not need to be loaded on a truck for transport, will be incidental to the contract unit price per each for Traffic Control Movable Concrete Barrier. All costs associated with removing, loading, unloading, and resetting of the barriers at a new site, will be incidental to the contract unit price per each for Remove and Reset Traffic Control Movable Concrete Barrier. No additional payment will be made for barriers that are not immediately reset at a new location on the project and stored on-site until they are either reset on the project or returned to the SDDOT as indicated in these plans.

TABLE OF TRAFFIC CONTROL MOVABLE CONCRETE BARRIERS

PCN 06JQ

Station	Stage	Quantity (Each)
I-29 Sta 35+00 to 51+26	1C	132
I-29 Sta 29+89 to 53+00	1C	187
I-229 Ramp C Sta 22+28 to 31+00	1C	70
I-29 Sta 89+73 to 101+25	1B & 1C	95
I-29 Sta 61+40 to 64+51	2A 2B 2C	50
I-29 Sta 154+22 to 159+86	2B & 2C	46
Payment Quantity		484
Remove and Reset Payment Quantity		96

PCN 07D0

Station	Stage	Quantity (Each)
I-29 Sta 74+28 to I-229 Sta 187+66	2B	732
Payment Quantity		344
Remove and Reset Payment Quantity(From 06JQ)		388

TEMPORARY CONCRETE BARRIER END PROTECTION

6 Crash attenuators meeting the requirements of NCHRP 350 or MASH TL-3 will be provided and installed by the Contractor. Attachment of the attenuators to the concrete barriers will be by approved methods.

All costs associated with furnishing, transporting, initial setup, connecting, maintaining, and removing the crash attenuators will be incidental to the contract unit price per each for Temporary Concrete Barrier End Protection.

All costs associated with moving and resetting crash attenuators to accommodate traffic flows after initial set-up will be paid for at the contract unit price per each for Remove & Reset Temporary Concrete Barrier End Protection. All costs associated with removing from initial placement and resetting at a new location will be incidental to the contract unit price per each. No additional payment will be made for crash attenuators that are not immediately reset at a new location on the project and stored on-site until they are either reset or removed from the project as determined by the Engineer. No additional payment will be made for minor adjustments.

The Contractor will have replacement hardware available so that in the event the crash attenuator is hit and made unusable, the crash attenuator can be made functional within 24 hours. The cost of replacement will be incidental to the contract unit price per each for Temporary Concrete Barrier Module Set or Repair Kit. No payment will be made for the Temporary Concrete Barrier Module Set or Repair Kit if no repairs are necessary. Upon completion of the project, crash attenuators will remain the property of the Contractor.

TABLE OF TEMPORARY CONCRETE BARRIER END PROTECTION

PCN 07D0

Station	Unidirectional/ Bidirectional	Quantity (Each)
Phase 2B		
73+20	Unidirectional	1
178+26	Unidirectional	1
	Payment Quantity	2

TABLE OF TEMPORARY CONCRETE BARRIER END PROTECTION

PCN 06JQ

Station	Unidirectional/ Bidirectional	Quantity (Each)
Phase 1B & 1C		
35+00	Unidirectional	1
53+00	Unidirectional	1
31+00	Unidirectional	1
101+25	Unidirectional	1
Phase 2A		
61+40	Bidirectional	2
64+53	Bidirectional	1
Phase 2B & 2C		
61+39	Bidirectional	1
64+53	Bidirectional	2
124+38	Bidirectional	1
	Payment Quantity	4
	Remove and Replace	1

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BARRIER MOUNTED LINEAR DELINEATION SYSTEM PANELS

A linear delineation system (LDS) panel will be attached to each barrier section. The color will be the same as the nearest pavement marking, white along outside edge lines or yellow for the left side on one way traffic sections. The LDS will be 34 inches long and 6 inches in height and be constructed of aluminum formed into a shape to provide retroreflective properties across a wide range of angles. It will be sheeted with sheeting meeting the requirements of ASTM D4956 Type XI. The panels will be evenly spaced, with the top of the panel 4 inches below the top of the barrier. Installation will be as per the manufacturer's recommendations. This will allow for easy removal for replacement of damaged panels or to replace with an alternate color. The Contractor will furnish and install one panel along each side of the barrier if any panels are missing from the barriers. Replacement of damaged linear delineation system panels will be furnished and replaced by the Contractor. All costs associated with furnishing, installing, and replacing, if needed, will be incidental to the contract unit price per each for Linear Delineation System Panel, Barrier Mounted.

All LDS panels will remain attached to the barrier sections and will become the property of the State of South Dakota upon completion of the project.

The Contractor will verify the number of LDS panels that will need to be installed or replaced on the Traffic Control Movable Concrete Barriers. The contract amount of LDS panels is an estimate and the full contract amount may not be needed.

Maintaining the linear delineation system, including moving LDS panels from one side of the barrier to the other side of the barrier to match the applicable color of the nearest pavement marking will be incidental to the contract lump sum price for Traffic Control, Miscellaneous.

FOR BIDDING PURPOSES ONLY

QUEUE DETECTION SYSTEM

The Contractor will furnish and install a queue detection system. This system will be capable of detecting slowed and stopped traffic within all detection zones. The changeable message signs (CMS) will be placed halfway between interstate exits in each zone. CMS locations may need to be adjusted pending traffic movement within zones. The system will already have been installed in zones 6 & 7 as part of PCNs 05HN and 000S. The Contractor will coordinate with those projects for messaging needs in those zones.

Requirements for all zones:

- Capable of detecting mainline queues anywhere within a detection zone and displaying warning messages within the affected detection zone and one zone preceding the detection zone.
- Capable of detecting mainline queues exceeding ¾ the length of a queue detection zone and displaying messages two zones preceding the detection zone.
- Capable of detecting queues on the exit ramp within 200 ft of the exit gore and displaying messages within the affected detection zone and one zone preceding the detection zone.

The system will display the following messages depending on the traffic conditions detected:

NB Zone 1:
During times of free-flowing traffic on mainline the CMS will be blank when not required for end of queue detection or incident management.

During times of moderate congestion and slow speeds (30mph to 40mph) CMS boards in zone 1 and 2 will display:

SLOWED TRAFFIC AHEAD	AND	REDUCE SPEED

During times of major congestion, very slow speeds, or stopped traffic conditions (below 30mph) CMS boards in zones 1 and 2 will display:

STOPPED TRAFFIC AHEAD	AND	CONSIDER ALT ROUTE

If the end of queue exceeds ¾ the length of zone 1, the same messages above will be displayed in zone 3 in addition to zones 1 and 2.

During times of congestion, very slow ramp speeds, or stopped traffic conditions (below 30mph) on the ramp within 200 feet of the exit gore at I-229, the CMS boards in zones 1 and 2 will display:

RAMP DELAY AT I-229	AND	CONSIDER ALT ROUTE

CMS messages warning drivers about slow or stopped traffic on mainline will be given priority over exit ramp conditions.

During Louise Ramp closure CMS boards in zones 1, 2, and 3 will display:

LOUISE AVE CLOSED	AND	USE 85 TH STREET EXIT

NB Zone 2

During times of free-flowing traffic on mainline the CMS will be blank when not required for end of queue detection or incident management.

During times of moderate congestion and slow speeds (30mph to 40mph) CMS boards in zones 2 and 3 will display:

SLOWED TRAFFIC AHEAD	AND	REDUCE SPEED

During times of major congestion, very slow speeds, or stopped traffic conditions (below 30mph) CMS boards in zones 2 and 3 will display:

STOPPED TRAFFIC AHEAD	AND	BE PREPARED TO STOP

During times of ramp congestion, very slow ramp speeds, or stopped traffic conditions (below 30mph) within 200 feet of the exit gore in zone 2, the CMS boards in zones 2 and 3 will display:

STOPPED RAMP TRAFFIC	AND	BE PREPARED TO STOP

CMS messages about ramp conditions within zone 2 will be given priority over messages relative to slowed traffic from Zone 1.

CMS messages warning drivers about stopped traffic on mainline in zone 2 will be given priority over exit ramp conditions and zone 1 slowed traffic conditions.

Prior to Overnight two-way traffic CMS boards in zones 1, 2, and 3 will display:

I-29 LANE CLOSURE TONIGHT	AND	BEGIN XX PM TO XX AM

During Overnight two-way traffic CMS boards in zones 2 and 3 will display:

I-29 LANE CLOSURE AHEAD	AND	TWO-WAY TRAFFIC

NB Zone 3

During times of free-flowing traffic on mainline the CMS will be blank when not required for end of queue detection or incident management.

During times of moderate congestion and slow speeds (30mph to 40mph) CMS boards in zones 3 and 4 will display:

SLOWED TRAFFIC AHEAD	AND	REDUCE SPEED

During times of major congestion, very slow speeds, or stopped traffic conditions (below 30mph) CMS boards in zones 3 and 4 will display:

STOPPED TRAFFIC AHEAD	AND	BE PREPARED TO STOP

During times of ramp congestion, very slow ramp speeds, or stopped traffic conditions (below 30mph) within 200 feet of the exit gore in zone 3, the CMS boards in zone 3 and 4 will display:

STOPPED RAMP TRAFFIC	AND	BE PREPARED TO STOP

CMS messages about ramp conditions within zone 3 will be given priority over messages relative to slowed traffic from zones 1 and 2.

CMS messages warning drivers about stopped traffic on mainline in zone 3 will be given priority over exit ramp conditions and zones 2 and 3 slowed traffic conditions.

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QUEUE DETECTION SYSTEM (CONTINUED)

SB Zone 1:

During times of free-flowing traffic on mainline the CMS will be blank when not required for end of queue detection or incident management.

During times of moderate congestion and slow speeds (30mph to 40mph) CMS boards in zone 1 and 4 will display:

SLOWED TRAFFIC AHEAD AND REDUCE SPEED

During times of major congestion, very slow speeds, or stopped traffic conditions (below 30mph) CMS boards in zones 1 and 4 will display:

STOPPED TRAFFIC AHEAD AND CONSIDER ALT ROUTE

If the end of queue exceeds ¾ the length of zone 1, the same messages above will be displayed in zone 5 in addition to zones 1 and 4.

During times of congestion, very slow ramp speeds, or stopped traffic conditions (below 30mph) on the ramp within 200 feet of the exit gore at I-229, the CMS boards in zones 1 and 4 will display:

RAMP DELAY AT I-229 AND CONSIDER ALT ROUTE

CMS messages warning drivers about slow or stopped traffic on mainline will be given priority over exit ramp conditions.

SB Zone 4

During times of free-flowing traffic on mainline the CMS will be blank when not required for end of queue detection or incident management.

During times of moderate congestion and slow speeds (30mph to 40mph) CMS boards in zones 4 and 5 will display:

SLOWED TRAFFIC AHEAD AND REDUCE SPEED

During times of major congestion, very slow speeds, or stopped traffic conditions (below 30mph) CMS boards in zones 4 and 5 will display:

STOPPED TRAFFIC AHEAD AND BE PREPARED TO STOP

During times of ramp congestion, very slow ramp speeds, or stopped traffic conditions (below 30mph) within 200 feet of the exit gore in zone 4, the CMS boards in zones 4 and 5 will display:

STOPPED RAMP TRAFFIC AND BE PREPARED TO STOP

CMS messages warning drivers about slow or stopped traffic on mainline will be given priority over exit ramp conditions.

Prior to Overnight two-way traffic CMS boards in zones 1, 4, and 5 will display:

I-29 LANE CLOSURE TONIGHT AND BEGIN XX PM TO XX AM

During Overnight two-way traffic CMS boards in zones 4 and 5 will display:

I-29 LANE CLOSURE AHEAD AND TWO-WAY TRAFFIC

SB Zone 5

During times of free-flowing traffic on mainline the CMS will be blank when not required for end of queue detection or incident management.

During times of moderate congestion and slow speeds (30mph to 40mph) CMS boards in zones 5 will display:

SLOWED TRAFFIC AHEAD AND REDUCE SPEED

During times of major congestion, very slow speeds, or stopped traffic conditions (below 30mph) CMS boards in zones 5 will display:

STOPPED TRAFFIC AHEAD AND BE PREPARED TO STOP

During times of ramp congestion, very slow ramp speeds, or stopped traffic conditions (below 30mph) within 200 feet of the exit gore in zone 5, the CMS boards in zone 5 will display:

STOPPED RAMP TRAFFIC AND BE PREPARED TO STOP

CMS messages about ramp conditions within zone 5 shall be given priority over messages relative to slowed traffic from zones 1 and 4.

CMS messages warning drivers about stopped traffic on mainline in zone 5 shall be given priority over exit ramp conditions in zone 5 and slowed traffic in zone 5.

During Louise Ramp closure CMS boards in zones 5, will display:

LOUISE AVE CLOSED AND USE 41ST STREET EXIT

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WB Zone 6

During times of free-flowing traffic on mainline the CMS will be blank when not required for end of queue detection or incident management.

During times of moderate congestion and slow speeds (30mph to 40mph) CMS boards in zones 6 and 7 will display:

SLOWED TRAFFIC AHEAD AND REDUCE SPEED

During times of major congestion, very slow speeds, or stopped traffic conditions (below 30mph) CMS boards in zones 6 and 7 will display:

STOPPED TRAFFIC AHEAD AND BE PREPARED TO STOP

During times of congestion, very slow ramp speeds, or stopped traffic conditions (below 30mph) on the ramp within 200 feet of the exit gore at I-29, the CMS boards in zones 6 and 7 will display:

RAMP DELAY AT I-29 AND CONSIDER ALT ROUTE

CMS messages warning drivers about slow or stopped traffic on mainline will be given priority over exit ramp conditions.

Prior to Overnight two-way traffic CMS boards in zones 1, 6, and 7 will display:

I-29 LANE CLOSURE TONIGHT AND BEGIN XX PM TO XX AM

During Overnight two-way traffic CMS boards in zones 6 and 7 will display:

I-29 LANE CLOSURE AHEAD AND FOLLOW SIGNS

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WB Zone 7

During times of free-flowing traffic on mainline the CMS will be blank when not required for end of queue detection or incident management.

During times of moderate congestion and slow speeds (30mph to 40mph) CMS boards in zone 7 will display:

SLOWED TRAFFIC AHEAD AND REDUCE SPEED

During times of major congestion, very slow speeds, or stopped traffic conditions (below 30mph) CMS board in zone 7 will display:

STOPPED TRAFFIC AHEAD AND BE PREPARED TO STOP

During times of congestion, very slow ramp speeds, or stopped traffic conditions (below 30mph) on the ramp within 200 feet of the exit in zone 7, the CMS board in zone 7 will display:

STOPPED RAMP TRAFFIC AND BE PREPARED TO STOP

CMS messages about ramp conditions within zone 7 shall be given priority over messages relative to slowed traffic from zones 1 and 6.

CMS messages warning drivers about stopped traffic on mainline in zone 7 shall be given priority over exit ramp conditions in zone 1 and 6 and slowed traffic in zone 6.

FOR BIDDING PURPOSES ONLY

QUEUE DETECTION SYSTEM – OPERATION AND MAINTENANCE

When road work begins on the project, the Contractor shall be responsible for the operation (to include initial and daily system setup and programming) and the continued maintenance (to include adjustment and replacement of any parts or materials or appurtenances when necessary) required of the queue warning system. The Contractor's operation and maintenance responsibility will end upon the Engineer's acceptance of the work on the project. It is anticipated the use of the system may cease during peak winter months during periods of no work. The operation and maintenance work is the act of keeping the systems operating to warn traffic as intended.

Queue detection warning operation or maintenance work is required to be performed by the Contractor when project conditions dictate, lane closures change, the flow of I-229 mainline or interchange ramp traffic is impeded, a potential risk to the public exists or when equipment breaks down or malfunctions. The more serious situations require a high priority response and are to be reacted to as quickly as circumstances allow.

The Contractor should plan for sufficient staff for operation, maintenance, adjustment, materials, and replacement of the queue warning system, including the digital speed limit signs as necessary. The individual(s) responsible for installation, operations and maintenance of the queue warning system shall be experienced, knowledgeable, and Trained with respect to installation, setup, operation, and maintenance of the queue warning system.

Relocation of sensors, CMS signs, and digital speed limit signs should be expected as part of the work involved in maintaining the queue detection system.

In the event of failure, the Contractor shall furnish necessary advance flaggers to safely control or warn traffic until the queue warning system is operational. The Contractor shall furnish the flaggers within one hour of initial awareness of the queue warning system failure.

The Contractor will be expected to secure changeable message signs and digital speed limit signs in the proper positions.

All changeable message signs and digital speed limit signs shall be marked by a minimum of two reflectorized drums.

The queue warning system including changeable message signs and other electronic materials are to operate 24 hours per day 7 days per week. The equipment shall be powered by utility provided power, solar power, battery power, or generator.

Solar powered battery units shall have a no-charge-life of not less than 30 days. No-charge-life is the number of consecutive days that the system can continue to properly function (normal dimming and full output during varying lighting conditions for the display legend) starting with a full battery charge and with no additional charge provided by the solar cells.

The system shall detect exit ramp queues and mainline queues separately. The system shall be capable of detecting slowed and stopped traffic one mile in advance of the work zone and warn drivers of traffic congestion for three consecutive interchanges prior to the work zone.

The detectors shall be capable of detecting traffic speeds in 5 MPH increments, calculating average and 85th percentile speeds over a specified period of time, and relaying information to warning systems for preset thresholds.

The system is expected to detect end of queue and once detected, provide adequate notification and warning. As the end of queue continues to back up, the notification and warning shall be extended.

All costs associated with furnishing and the initial installation and operation, including all equipment such as changeable message signs, detection, and all miscellaneous parts and materials shall be incidental to the contract unit price per month for Queue Detection System.

Costs for the daily operation, adjustment, relocation, replacement, providing technical support, and maintenance (labor, materials and equipment) of the queue warning system shall be incidental to the contract unit price per hour for Maintenance of Queue Warning System.

QUEUE DETECTION SYSTEM – DIGITAL SPEED LIMIT SIGN ASSEMBLY

The digital speed limit (DSL) sign (portable changeable speed sign) assemblies will operate continuously 24 hours a day, 7 days a week. The system will collect and store speed limit data and be archived into a database with time and date stamps which will be available for future documentation. Components of the DSL Sign Assemblies will comply with the MUTCD. The DSL sign assemblies will be installed halfway between interstate exits in each zone.

The DSL Sign Assembly will consist of the following components: Signs, Mounting, Power Supply, and Controls.

Signs
The DSL Sign Assembly will include one 48"x60" Speed Limit (R2-1) sign with a two-digit numerical digital Light Emitting Diode (LED) display legend. The color of the digital display legend portion of the R2-1 sign will be a white legend on a black background. The minimum pixels per character (numeral) on the digital display legend of the R2-1 sign will be 5' wide by 7' high. Each character (numeral) will be a minimum of 18" high.

The digital display legend portion of the R2-1 sign will automatically adjust brightness under varying light conditions to maintain legibility for a distance of at least 1,000 feet. Speed limit values shown on the digital display legend will continuously display without animation. The digital display legend of the R2-1 sign will be wired so that it can be blanked out or changed between the original posted speed and the approved reduced speed limit(s) (and between a minimum of two reduced speed limits) while using a hand control hard wired to the DSL Sign Assembly and wireless remote.

Sign mounting will be such that the bottom of the R2-1 sign will be a minimum of 5' above the roadway. The sign sheeting for the R2-1 sign will meet the requirements of ASTM D4956 Type IV.

Mounting
Each DSL Sign Assembly will be trailer mounted. No portion of the trailer or attachments will physically or visually block any portion of the sign assembly from road users approaching the sign. The mounting method will be suitably stable to prevent movement due to high winds or passage of large vehicles.

Contractor will be to transport the DSL Sign Assembly and appurtenances adequately and legally as well as to support them properly during operation. The trailer will be equipped with devices to level and stabilize.

Controls
Each DSL Sign Assembly will be secured/locked so that unauthorized users cannot tamper with the power supply and hand controls.

The DSL Sign Assembly will have an on/off power switch that controls the power supply to the digital display legend portion of the Speed Limit sign. The DSL Sign Assembly will include a hand control hard wired to the unit capable of changing the numerals on (and blanking out) the legend on the digital display legend portion of the R2-1 Speed Limit sign. The DSL Speed Assembly will be able to be changed remotely (wireless hand-held remote).

All costs for the DSL (portable changeable speeds signs), as discussed above, including all furnishing, installation, operation, and maintenance, all equipment and all miscellaneous parts and materials will be incidental to the contract unit price per month for "Queue Detection System".

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I-29 Crossover Traffic

During the installation of the bridge girders for 85th Street the Contractor is allowed to crossover traffic on I-29. Refer to Section E for bridge work. Refer to standard plate 634.66 for the crossover traffic details.

The I-29 crossover traffic will be completed as follows:

- Utilize the existing crossover south of 95th, and 49th Street Overpass median crossovers as shown in the plans.
- Refer to the Special Provision for Contract Time for time provisions regarding the I-29 crossover traffic.
- During the SB or NB lane crossovers, the SDDOT will determine which I -29 ramps to have the Contractor close.
- Opposing Traffic Lane Dividers will be used in assisting to separate the opposing traffic on a two-lane two-way roadway.
- Raised Pavement Markers and 42” cones to separate traffic may be installed prior to the times listed in the Special Provision for Contract Time and may remain in place until no longer needed with the use of lane closure, provided the ramps remain open and 2 two lanes can be maintained on I-29 in each direction.
- Opposing traffic will be crossed over to the inside lane while existing I -29 traffic is maintained in the outside lanes.
- It is expected the nighttime crossover centerline and shoulder delineation will require constant monitoring and maintenance while in use. The contractor will provide personnel to maintain the traffic control devices on the project at all times while traffic is two-way on I-29. All costs associated with providing personnel and equipment necessary to maintain the traffic control devices will be incidental to the contract lump sum price for “Maintenance of Traffic”.

Due to the I -29 two-way Traffic being installed for a limited time as discussed in the Special Provision for Contract time:

- The I-29 Existing Yellow shoulder/lane Striping will note be overlaid with 4” White Pavement marking paint throughout the length of the two-way traffic.
- 42” tall retro reflectorized cones will be installed along the lane edges throughout the length of the two-way traffic. The cones will be installed at 50-foot intervals 2’ laterally from the edge of the driving lane.
- Two rows of 4” yellow raised pavement markers at 5’ intervals will be installed for the center line of the two-way traffic. These raised pavement markers may remain in place during the day until the two-way traffic is no longer required. Except for being removed at the I-29 ramp locations as determined by the SDDOT.

I-29 Opposing Traffic Lane Dividers

Opposing Traffic Lane Dividers will be used to separate opposing traffic for two-lane two-way traffic operations.

Description and Materials

The Opposing Traffic Lane Divider (W6-4) sign will be an upright, retroreflective fluorescent orange-colored sign placed on a flexible support and sized at least 12 inches by 18 inches high. The overall height of the unit will be 36 inches. The retroreflective sheeting on the panel will meet or exceed ASTM D4956 Type IV.

The support will have sufficient stiffness to remain ridged in windy conditions but will also be designed to recover automatically to a vertical position if struck by a vehicle.

The Opposing Traffic Lane Divider will be attached to a portable base that provides proper ballast to remain in place during normal traffic and weather conditions.

The opposing Traffic Lane Dividers will need to be able to be deployed for nightly two-lane-two-way traffic operations and be removed for normal traffic operations during the day.

Construction Methods:

The Contractor will install opposing Traffic Lane Dividers at 400-foot intervals. In conjunction with the Opposing Traffic Lane Dividers, the Contractor will install 42” tall retro reflectorized cones at 50-foot intervals.

Method of Measurement:

This work will be measured for payment by the number of opposing traffic lane dividers furnished, installed, and accepted on the project. Devices relocated to a different location in accordance with the plans will not be measured.

Basis of Payment:

Payment for supplying, installing and maintaining the Opposing Traffic lane Dividers will be incidental to the contract unit bid price per each for Opposing Traffic Lane Divider and will include all materials, equipment, tools, labor and work incidental to furnishing, installing, maintaining and removal.

Any Opposing Traffic Lane Dividers that become damaged beyond use on the project will be promptly removed and replaced by the Contractor. Payment for removing and replacing the damaged unit and installing the new Opposing Traffic Lane Divider will be made at the contract unit bid item price per each for “Replace Opposing Traffic Lane Divider”.

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TABLE FOR TRAFFIC CONTROL (SqFt)

Sign Description	Sign Code	Width (in)	Height (in)	Sign Quantity (SqFt)	Year 1 Phase 1A		Year 1 Phase 1B		Year 1 Phase 1C		Year 1 Phase 1C Winter		Year 2 Phase 2A		Year 2 Phase 2B		Year 2 Phase 2C		Field Determined Signs		Payment Quantity	
					No. of Signs	Total SqFt	No. of Signs	Total SqFt	No. of Signs	Total SqFt	No. of Signs	Total SqFt	No. of Signs	Total SqFt	No. of Signs	Total SqFt	No. of Signs	Total SqFt	No. of Signs	Total SqFt	No. of Signs	Total SqFt
EM 0292(88)73 - PCN 06JQ																						
ROAD WORK AHEAD	W20-1 (AHD)	48	48	16.0	6	96.0	6	96.0	8	128.0	6	96.0	4	64.0	6	96.0	6	96.0			8	128.0
RIGHT LANE CLOSED (w/distance)	W20-5R	48	48	16.0					4	64.0											4	64.0
ROAD CLOSED	R11-2	48	30	10.0	2	20.0	2	20.0	2	20.0	2	20.0	3	30.0	3	30.0	3	30.0			3	30.0
REVERSE CURVE	W1-4	36	30	7.5	2	15.0	3	22.5	7	52.5			4	30.0	4	30.0	4	30.0			7	52.5
TWO WAY TRAFFIC	W6-3	48	48	16.0									4	64.0	4	64.0	4	64.0			4	64.0
DO NOT PASS	R4-1	48	36	12.0									4	48.0	4	48.0	4	48.0			4	48.0
SPEED LIMIT (55 MPH)	R2-1 (55)	48	36	12.0									2	24.0	2	24.0	2	24.0	1	12.0	3	36.0
SPEED LIMIT (65 MPH)	R2-1 (65)	48	36	12.0									2	24.0	2	24.0	2	24.0			2	24.0
DO NOT ENTER	R5-1	36	36	9.0									2	18.0	2	18.0	2	18.0			2	18.0
WRONG WAY	R5-1a	42	30	8.8															4	35.2	4	35.2
END ROAD WORK	G20-2	48	24	8.0	4	32.0	4	32.0	4	32.0	4	32.0	4	32.0	4	32.0	4	32.0			4	32.0
ROAD WORK NEXT XX MILES	G20-1	48	24	8.0									4	32.0	6	48.0	6	48.0			6	48.0
SHOULDER WORK	W21-5	48	48	16.0	2	32.0	2	32.0													2	32.0
LANE ENDS	W4-2	48	48	16.0					8	128.0			4	64.0	6	96.0	6	96.0			8	128.0
ADVISORY SPEED (PLAQUE)	W13-1P	24	24	4.0									4	16.0	4	16.0	4	16.0			4	16.0
(2) LEFT LANES CLOSED (w/distance)	W20-5aL	48	48	16.0											2	32.0	2	32.0			2	32.0
FINES DOUBLE (Plaque)	R2-6aP	36	24	6.0									4	24.0	4	24.0	4	24.0			4	24.0
REDUCED SPEED LIMIT AHEAD	W3-5	48	48	16.0									4	64.0	4	64.0	4	64.0			4	64.0
TWO WAY TRAFFIC	W6-3	48	48	16.0									2	32.0	2	32.0	2	32.0			2	32.0
NEXT XX MILES (Plaque)	W7-3aP	36	30	7.5									4	30.0	4	30.0	4	30.0			4	30.0
KEEP RIGHT	R4-7	36	24	6.0									1	6.0	1	6.0	1	6.0			1	6.0
HIGHWAY WORKERS GIVE 'EM A BREAK	SPECIAL	60	30	12.5															2	25.0	2	25.0
EXIT	E5-1	60	48	20.0																		
BE PREPARED TO STOP	W3-4	48	48	16.0															2	32.0	2	32.0
FLAGGER SYMBOL	W20-7	48	48	16.0															2	32.0	2	32.0
RIGHT SHOULDER CLOSED	W21-5aR	48	48	16.0			2	32.0	4	64.0											4	64.0
RIGHT SHOULDER CLOSED (w/distance)	W21-5bR	48	48	16.0			2	32.0	4	64.0											4	64.0
ONE-DIRECTION LARGE ARROW	W1-6	48	36	12.0									2	24.0	2	24.0	2	24.0			2	24.0
																					PCN 06JQ Total	**1,184.7**

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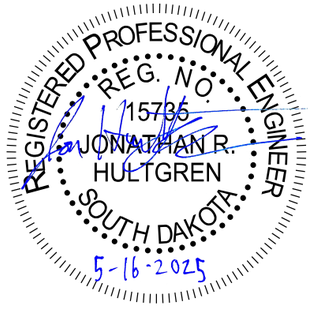
TABLE FOR TRAFFIC CONTROL (SqFt)

Sign Description	Sign Code	Width (in)	Height (in)	Sign Quantity (SqFt)	Year 1 Phase 1A		Year 1 Phase 1B		Year 1 Phase 1C		Year 1 Phase 1C Winter		Year 2 Phase 2A		Year 2 Phase 2B		Year 2 Phase 2C		Field Determined Signs		Payment Quantity	
					No. of Signs	Total SqFt	No. of Signs	Total SqFt	No. of Signs	Total SqFt	No. of Signs	Total SqFt	No. of Signs	Total SqFt	No. of Signs	Total SqFt	No. of Signs	Total SqFt	No. of Signs	Total SqFt	No. of Signs	Total SqFt
IM 2292(104)0 - PCN 07D0																						
ROAD WORK AHEAD	W20-1 (AHD)	48	48	16.0	2	32.0	2	32.0	2	32.0	2	32.0	2	32.0	2	32.0	2	32.0			2	32.0
RIGHT LANE CLOSED (w/distance)	W20-5R	48	48	16.0											2	32.0					2	32.0
ROAD CLOSED	R11-2	48	30	10.0											2	20.0					2	20.0
REVERSE CURVE	W1-4	36	30	7.5											2	15.0	4	30.0			4	30.0
TWO WAY TRAFFIC	W6-3	48	48	16.0											2	32.0	4	64.0			4	64.0
DO NOT PASS	R4-1	48	36	12.0																		
SPEED LIMIT (55 MPH)	R2-1 (55)	48	36	12.0																		
DO NOT ENTER	R5-1	36	36	9.0																		
WRONG WAY	R5-1a	42	30	8.8																		
NORTH	M3-1	36	18	4.5																		
SOUTH	M3-3	36	18	4.5																		
END ROAD WORK	G20-2	48	24	8.0	2	16.0	2	16.0	2	16.0	2	16.0	2	6.0	2	16.0	2	16.0			2	16.0
ROAD WORK NEXT XX MILES	G20-1	48	24	8.0																		
SHOULDER WORK	W21-5	48	48	16.0									2	32.0	2	32.0					2	32.0
LANE ENDS	W4-2	48	48	16.0																		
ADVISORY SPEED (PLAQUE)	W13-1P	24	24	4.0																		
(2) LEFT LANES CLOSED (w/distance)	W20-5aL	48	48	16.0																		
FINES DOUBLE (Plaque)	R2-6aP	36	24	6.0																		
REDUCED SPEED LIMIT AHEAD	W3-5	48	48	16.0																		
TWO WAY TRAFFIC	W6-3	48	48	16.0																		
NEXT XX MILES (Plaque)	W7-3aP	36	30	7.5																		
KEEP RIGHT	R4-7	36	24	6.0																		
HIGHWAY WORKERS GIVE 'EM A BREAK	SPECIAL	60	30	12.5															1	12.5	1	12.5
EXIT	E5-1	60	48	20.0											1	20.0	1	20.0			1	20.0
PCN 07D0 Total																					**258.5**	



OTHER TRAFFIC CONTROL QUANTITIES (PCN 06JQ)										
Item	**Unit**	**Phase 1A**	**Phase 1B**	**Phase 1C**	**Phase 1 Winter**	**Phase 2A**	**Phase 2B**	**Phase 2C**	**Field Determined**	**Payment Quantity**
EM 0292(88)73 - PCN 06JQ										
Type C Advance Warning Arrow Board	Each	1	2	4			2	2		**4**
Linear Delineation System Panel, Barrier Mounted	Each			344		0	0	0		**344**
Remove Pavement Marking, 4" or Equivalent	Ft		6,350						635	**6,985**
Contractor Supplied Traffic Control Movable Concrete Barrier	Each			344						**344**
Temporary Concrete Barrier End Protection	Each			4		3	4			**4**
Remove and Reset Traffic Control Moveable Concrete Barrier	Each					50	46			**96**
Remove and Reset Temporary Concrete Barrier End Protection	Each						1		2	**3**
Temporary Concrete Barrier End Protection Module Set or Repair Kit	Each								4	**4**
Contractor Furnished Portable Changeable Message Sign	Each	5	5	5	5	5	5	5	2	**7**
Maintenance of Queue Detection System	Hour								20	
Flagging	Hour								100	

TYPE 3 BARRICADES, 8' DOUBLE SIDED (PCN 06JQ)									
Description	**Unit**	**PHASE**							
		1A	**1B**	**1C**	**1C Winter**	**2A**	**2B**	**2C**	**Payment Quantity**
Lane Closure	Each			4					
Shoulder Closure	Each	1	2						
Ramp Closure	Each						2		
Road Closure	Each	6	6	6	5	15	18	12	
Field Determined	Each	3	2					3	
	Total :	**10**	**10**	**10**	**5**	**15**	**20**	**15**	**20**

TEMPORARY PAVEMENT MARKINGS (PCN 06JQ)									
Phase	**Location**	634E0640							633E0040
		Continuous (White)	Continuous (Yellow)	10' Skip (White)	10' Skip (Yellow)	2' Skip (White)	2' Skip (Yellow)	24" Stop Bar	Arrow (White)
		(Ft)	(Ft)	(Ft)	(Ft)	(Ft)	(Ft)	(Ft)	(Each)
1A									
1B	I-29 SB Lane Shift for Ramp D Gore and Wall	4,235	2,115						
1C	Shoulder Closure for 85th St. Ramp B & C , Ramp D Connector Gores	6,930							
1C Winter									
2A	Median Crossovers	765	685						
2B	Median Crossovers & Ramp A Gore to I-29 Aux Lane	1,090	560						
2C	Median Crossovers	645	600						
Field Determined		1,370	400						
	Total :	**15,035**	**4,360**						

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OTHER TRAFFIC CONTROL QUANTITIES (PCN 07D0)										
Item	**Unit**	**Phase 1A**	**Phase 1B**	**Phase 1C**	**Phase 1C Winter**	**Phase 2A**	**Phase 2B**	**Phase 2C**	**Field Determined**	**Payment Quantity**
IM 2292(104)0 - PCN 07D0										
Remove Pavement Marking, 4" or Equivalent	Ft						6,200		620	**6,820**
Contractor Supplied Traffic Control Movable Concrete Barrier	Each						234			**234**
Remove and Reset Traffic Control Moveable Concrete Barrier							388			**388**
Temporary Concrete Barrier End Protection	Each						2			**2**
Temporary Concrete Barrier End Protection Module Set or Repair Kit	Each						1	1		**1**
Contractor Furnished Portable Changeable Message Sign	Each					2	2	2		**2**
Maintenance of Queue Detection System	Hour								10	
Flagging	Hour								20	

TYPE 3 BARRICADES, 8' DOUBLE SIDED (PCN 07D0)									
Description	**Unit**	**PHASE**							
		1A	**1B**	**1C**	**1C Winter**	**2A**	**2B**	**2C**	**Payment Quantity**
Lane Closure	Each								
Shoulder Closure	Each						2		
Ramp Closure	Each						3		
Road Closure	Each								
Field Determined	Each						2		
	Total :						**7**		**7**

TEMPORARY PAVEMENT MARKINGS (PCN 07D0)									
Phase	**Location**	634E0640							633E0040
		Continuous (White)	Continuous (Yellow)	10' Skip (White)	10' Skip (Yellow)	2' Skip (White)	2' Skip (Yellow)	24" Stop Bar	Arrow (White)
		(Ft)	(Ft)	(Ft)	(Ft)	(Ft)	(Ft)	(Ft)	(Each)
1A									
1B									
1C									
1C Winter									
2A									
2B	I-229 Aux Lane	8,800	2,230						
2C									
Field Determined		880	223						
	Total :	**9,680**	**2,453**						

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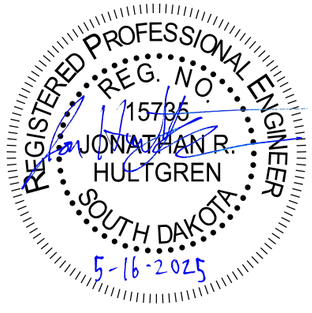
TABLE FOR TRAFFIC CONTROL DETOUR SIGNING (SqFt) (PCN 06JQ)

Sign Description	Sign Code	Width (in)	Height (in)	Sign Quantity (SqFt)	Northbound Detour		Southbound Detour		Louise Detour		Payment Quantity	
					No. of Signs	Total (SqFt)	No. of Signs	Total (SqFt)	No. of Signs	Total (SqFt)	No. of Signs	Total (SqFt)
EM 0292(88)73 - PCN 06JQ												
Interstate Route, 2 digits	M1-1.2	36	36	9.0			6	54.0			6	54.0
Interstate Route, 3 digits	M1-1.3	45	36	11.3	6	67.8	5	56.5			6	67.8
NORTH	M3-1	36	18	4.5	6	27.0	5	22.5			6	27.0
SOUTH	M3-3	36	18	4.5			6	27.0			6	27.0
DETOUR	M4-8	48	36	12.0	5	60.0	8	96.0	6	72.0	8	96.0
90° Direction Arrow	M6-1	30	21	4.4	2	8.8	4	17.6	3	13.2	4	17.6
45° Direction Arrow	M6-2	30	21	4.4	2	8.8	4	17.6	2	8.8	4	17.6
0° Direction Arrow	M6-3	30	21	4.4	1	4.4			1	4.4	1	4.4
END DETOUR	M4-8a	24	18	3.0	1	3.0	3	9.0	2	6.0	3	9.0
(SPECIAL SIGNING MESSAGE) Louise Ave - Highway	SPECIAL	66	18	8.3					8	66.4	8	66.4
(SPECIAL SIGNING MESSAGE) Louise Ave - City Roads	SPECIAL	48	12	4.0					8	32.0	8	32.0
Hospital	D9-2	30	30	6.3					4	25.2	4	25.2
90° Direction Arrow, Hospital	M6-1	30	21	4.4					3	13.2	3	13.2
45° Direction Arrow, Hospital	M6-2	30	21	4.4					1	4.4	1	4.4
ROAD WORK NEXT XX MILES	G20-1	48	24	8.0	2	16.0	2	16.0	2	16.0	2	16.0
											Total	**477.6**



FOR BIDDING PURPOSES ONLY

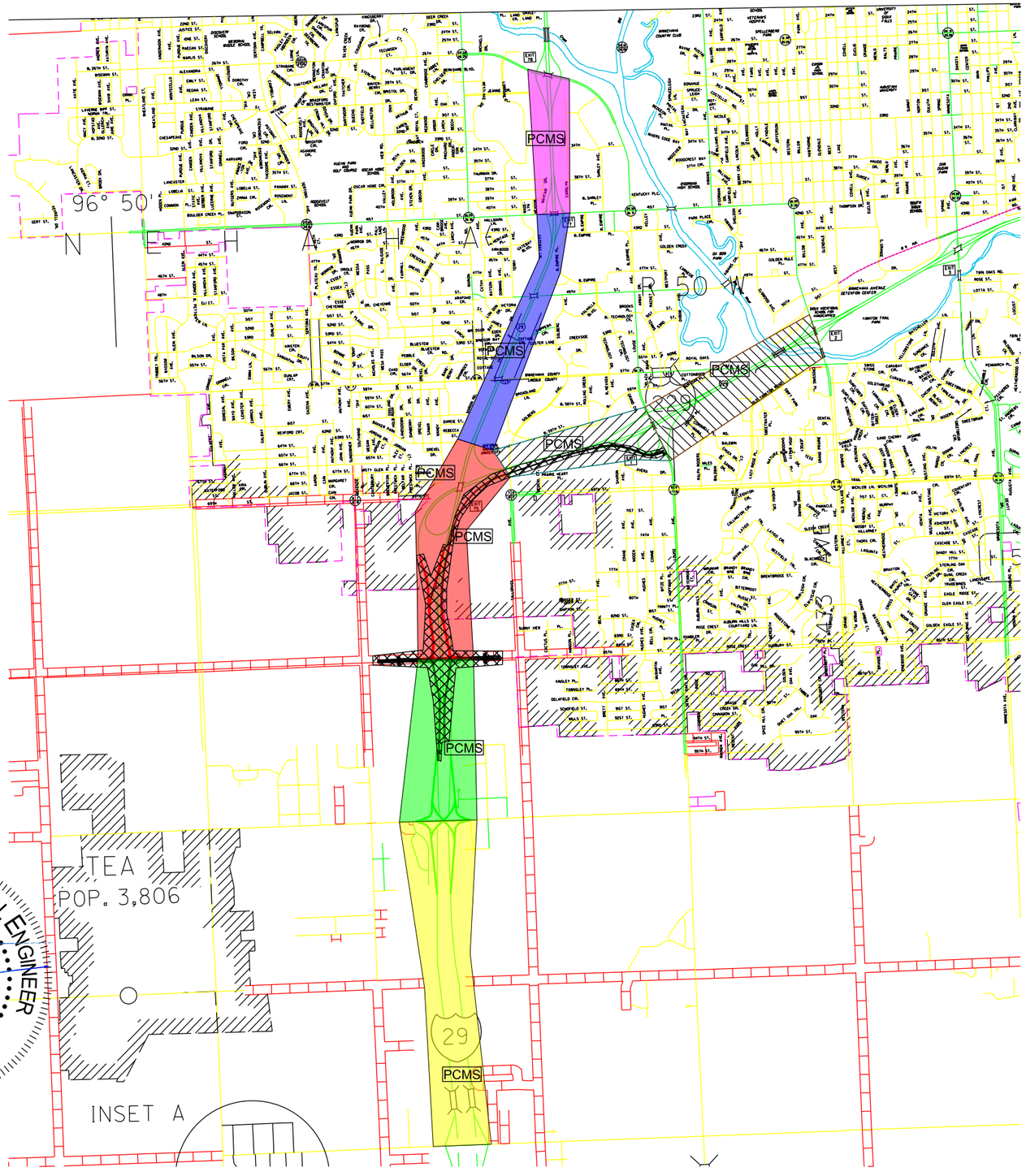
SD DOT	PROJECT	SHEET	TOTAL SHEETS
Plotting Date: 5/15/2025	EM 0292(88)73 IM 2292(104)0	C16	C85

MOBILE QUEUE DETECTION ZONE LAYOUT

LEGEND

- ZONE 1
  273rd ST TO 271st ST
- ZONE 2
  271st ST TO 85TH ST
- ZONE 3
  85th ST to I-29/I-229 Interchange
- ZONE 4
  I-29/I-229 Interchange to 41st St
- ZONE 5
  41st St to 26th St / Louise Ave
- ZONE 6*
  I-29/I-229 Interchange Louise Ave
- ZONE 7*
  Louise Ave to S Weston Ave
- WORK AREA

*NOTE: Message boards installed as part of 05HN and 000S projects, coordinate messaging as needed.



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5-16-2025

NORTHBOUND CROSS OVER & DETOUR

FOR BIDDING PURPOSES ONLY

SD DOT

PROJECT	SHEET	TOTAL SHEETS
EM 0292(88)73 IM 2292(104)0	C17	C85

Plotting Date: 5/15/2025

Cross over and detour layout for use during nighttime closures only.
Return traffic to normal operations during daytime hours.

Nighttime closures to be used for crane operation for overhead bridge work, MSE walls, and work directly adjacent to the roadway.

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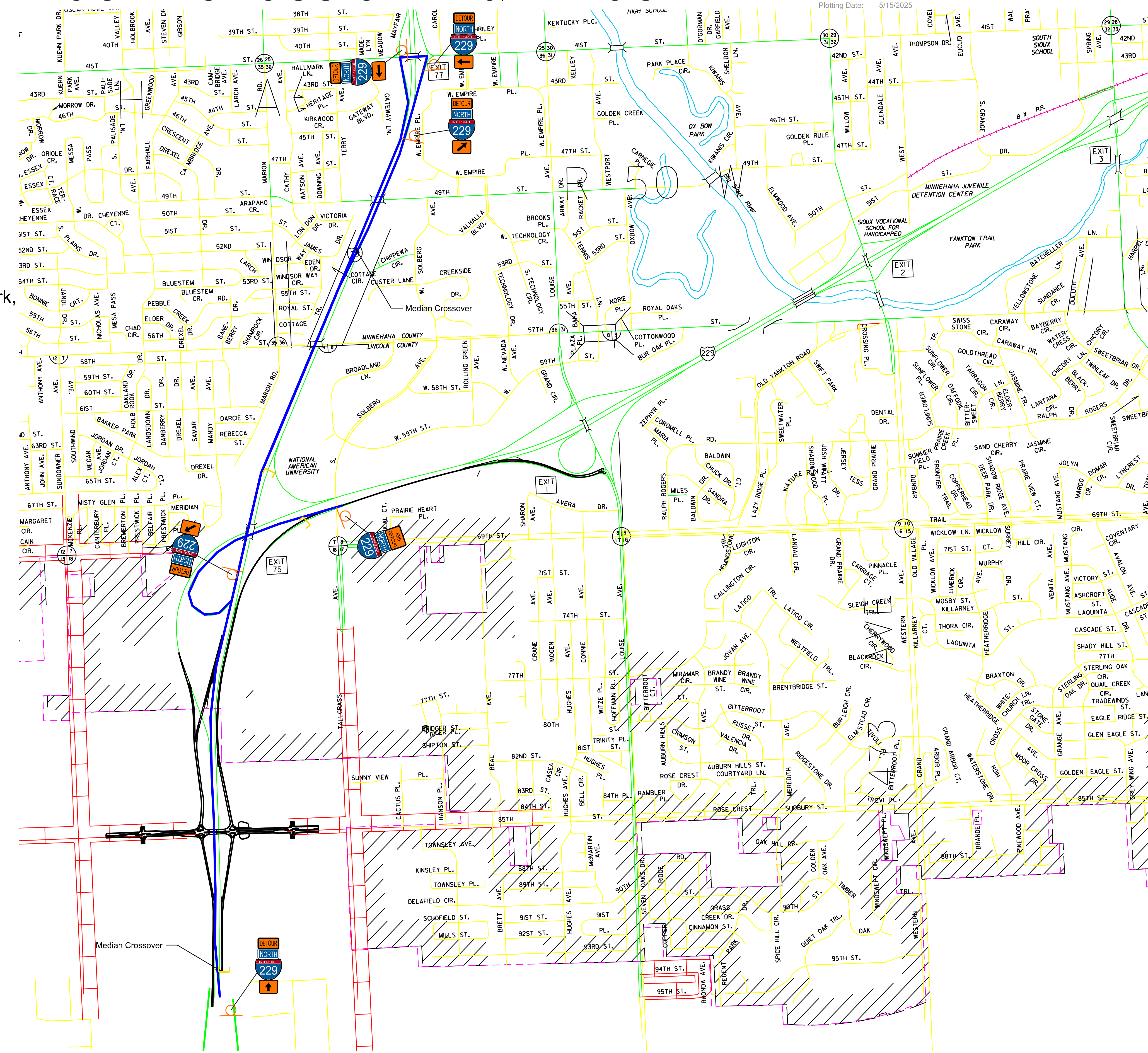
5-16-2025



LEGEND

KEY	ITEM
(magenta line) / (blue line) / (purple line)	I-29 DETOUR ROUTE I-229 DETOUR ROUTE LOUISE AVE DETOUR ROUTE
(single post symbol)	SINGLE POST - SIGN LOCATION / ORIENTATION
(double post symbol)	DOUBLE POST - SIGN LOCATION / ORIENTATION
(yellow bracket)	ROAD CLOSURE LOCATION

SOUTHBOUND DETOUR

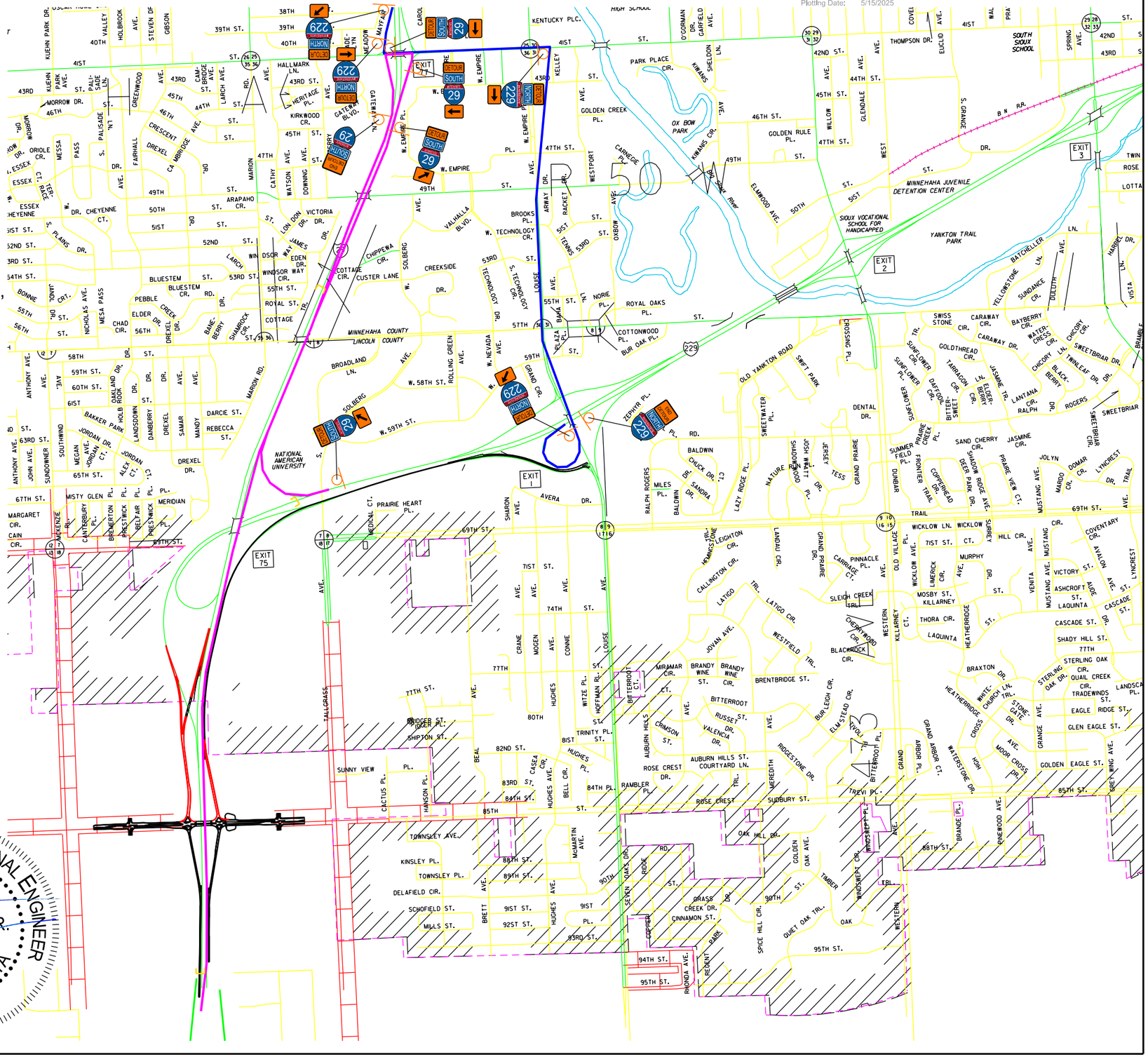
FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
Plotting Date: 5/15/2025	EM 0292(88)73 IM 2292(104)0	C18	C85

Cross over and detour layout for use during nighttime closures only.
Return traffic to normal operations during daytime hours.

Nighttime closures to be used for crane operation for overhead bridge work, MSE walls, and work directly adjacent to the roadway.

I-229 SB to I-29 SB detour to be used for both 85th Street Bridge work and Ramp D bridge work with or without traffic crossover on I-29.



LEGEND

KEY	ITEM
	I-29 DETOUR ROUTE I-229 DETOUR ROUTE LOUISE AVE DETOUR ROUTE
	SINGLE POST - SIGN LOCATION / ORIENTATION
	DOUBLE POST - SIGN LOCATION / ORIENTATION
	ROAD CLOSURE LOCATION

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SOUTH DAKOTA
5-16-2025

LOUISE AVENUE DETOUR

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C19	C85

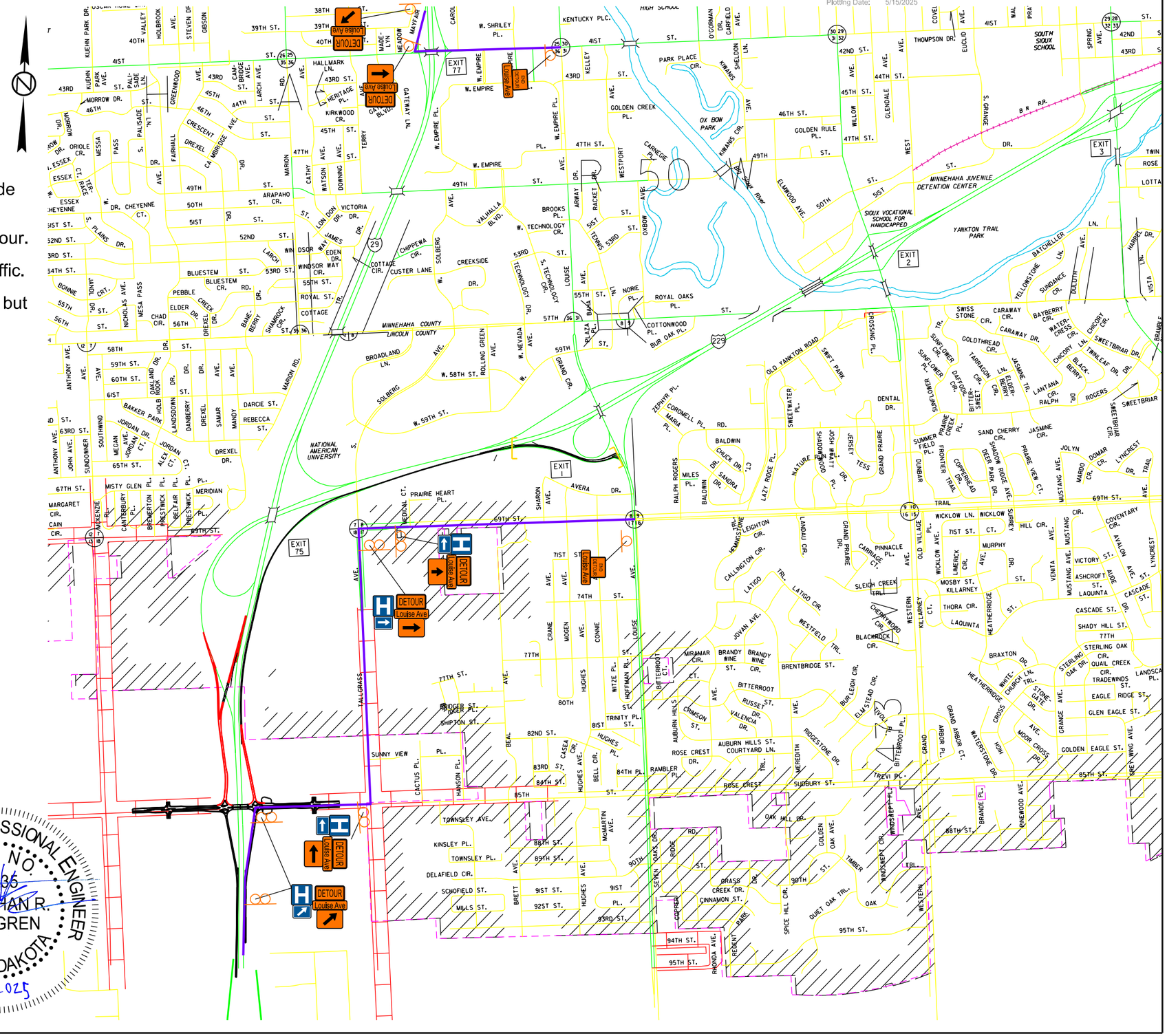
Plotting Date: 5/15/2025

Detour layout for use during closure of Louise Ave Ramp to provide access to Avera Heart Hospital on 69th Street.

Only eastbound 85th Street needs to be open to traffic to begin detour.

This will be a full time detour until Louise Ave Ramp reopens to traffic.

May run concurently with SB I-29 nighttime crossover and detours but cover other detour route signs during daytime hours.



LEGEND

KEY	ITEM
	I-29 DETOUR ROUTE I-229 DETOUR ROUTE LOUISE AVE DETOUR ROUTE
	SINGLE POST - SIGN LOCATION / ORIENTATION
	DOUBLE POST - SIGN LOCATION / ORIENTATION
[	ROAD CLOSURE LOCATION

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SOUTH DAKOTA
5-16-2025

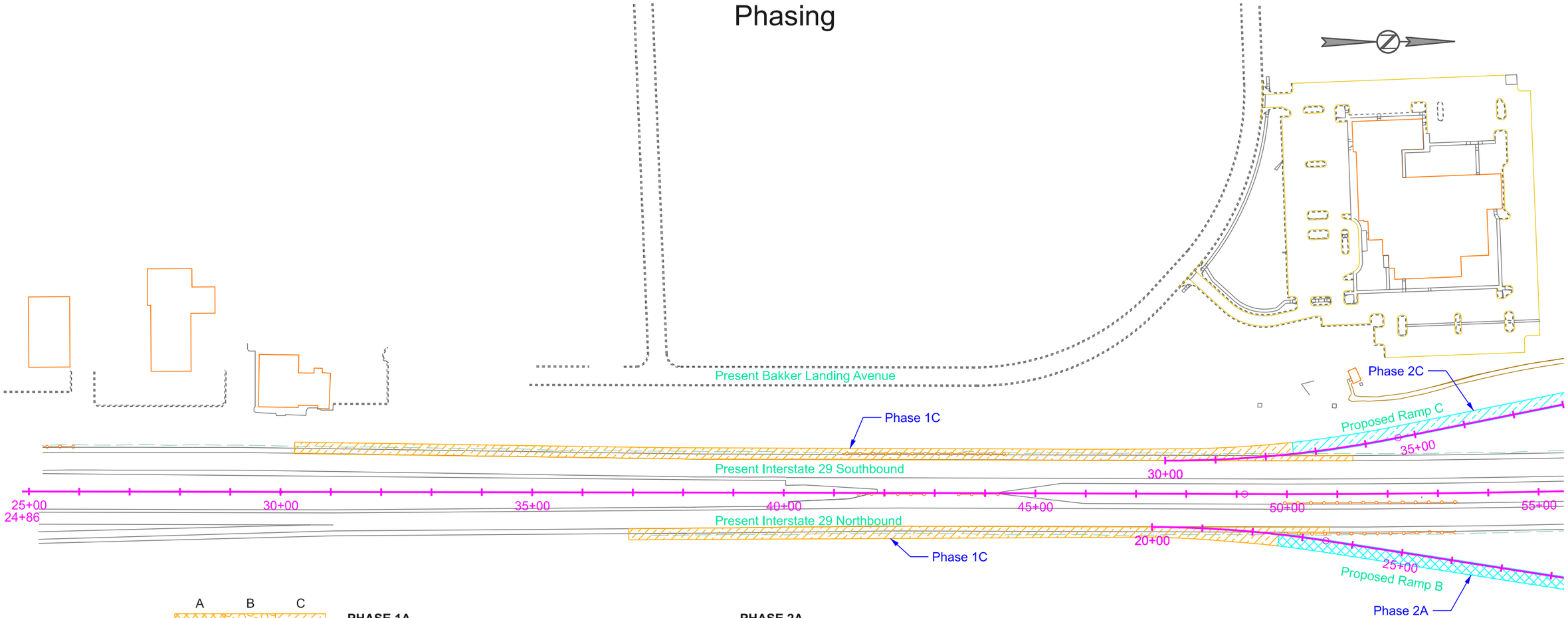
SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C20	C85

Plotting Date: 5/15/2025

SEQUENCE OF OPERATIONS

FOR BIDDING PURPOSES ONLY

Phasing



	A	B	C
Work Area Phase 1			
Work Area Phase 2			

PHASE 1A
- Maintain 2 Lanes of Traffic on NB I-29 and SB I-29
- Complete City of Sioux Falls Watermain Project
- Grading:
  - Install Geofoam over L&C Watermain along Ramp B
  - 85th Street: Complete Full Width East of I-29
  - Ramp A: Complete Full Width Except I-29 Gore
  - Ramp B: Complete Full Width
- Construct:
  - 85th Street Bridge Bent No. 2 & Abut. No. 3
  - 85th Street Pedestrian Underpass

PHASE 1B
- Maintain 2 Lanes of Traffic on NB I-29 and SB I-29
- Grading:
  - Install Geofoam over L&C Watermain along Ramp C
  - 85th Street: Complete Full Width West of I-29
  - Ramps C, D & D Conn: Complete Full Width
- Construct:
  - Ramp D: Construct MSE Wall
  - 85th Street Bridge: Construct Abut. No. 1

PHASE 1C
- Maintain 2 Lanes of Traffic on NB I-29 and SB I-29
- Surfacing:
  - Ramps B, C & D: Complete I-29 Gore Surfacing
  - Ramp D Conn: Complete I-229 Ramp C Gore Surfacing
- Construct Moment Slab & Barrier in front of Ramp D MSE Wall

PHASE 2A
- Shift I-29 NB Traffic to I-29 SB Lanes
- Construct:
  - 85th Street: Eastbound Lanes Surfacing East of I-29
  - 85th Street Bridge: Construct East Half
  - Ramps B & F: Complete Full Width Surfacing
  - NB I-29: Construct Sign Bridges

PHASE 2B
- Maintain Shifted NB I-29 Traffic on I-29 SB lanes
- Grading:
  - NB I-29: Ramp A Gore
  - NB I-29 to NB I-229 Ramp C Louise: Complete Full Width Auxiliary Lane Grading/Maintain 2 Lanes of Traffic
- Construct:
  - 85th Street: Westbound Lanes Surfacing East of I-29
  - Ramps A, E & F: Complete Full Width Surfacing
  - NB I-29 to NB I-229 Ramp C Louise: Complete Full Width Auxiliary Lane Surfacing/Maintain 2 Lanes of Traffic
  - Construct I-229 Sign Bridges
  - I-229 Ramp C Louise: Complete Full Width Grading & Surfacing

PHASE 2C
- Shift I-29 SB Traffic to I-29 NB Lanes
- Construct:
  - 85th Street: Complete Full Width Surfacing West of I-29
  - 85th Street Bridge: Construct West Half
  - Ramp D Bridge
  - Ramps C, D & D Conn: Complete Full Width Surfacing

REGISTERED PROFESSIONAL ENGINEER
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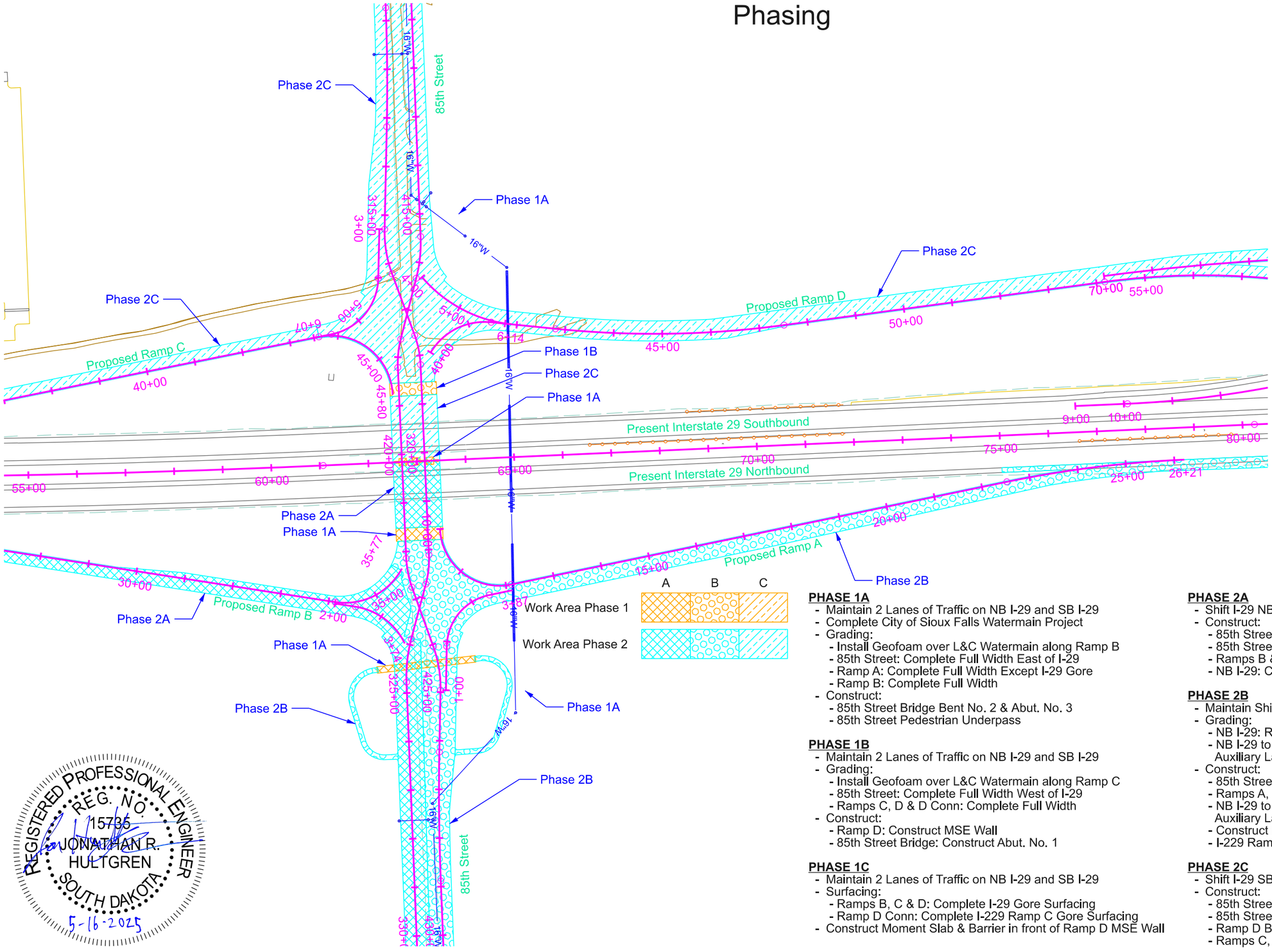
SOUTH DAKOTA
5-16-2025

SEQUENCE OF OPERATIONS

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
Plotting Date: 5/15/2025	EM 0292(88)73 IM 2292(104)0	C21	C85

Phasing



PHASE 1A
- Maintain 2 Lanes of Traffic on NB I-29 and SB I-29
- Complete City of Sioux Falls Watermain Project
- Grading:
  - Install Geofoam over L&C Watermain along Ramp B
  - 85th Street: Complete Full Width East of I-29
  - Ramp A: Complete Full Width Except I-29 Gore
  - Ramp B: Complete Full Width
- Construct:
  - 85th Street Bridge Bent No. 2 & Abut. No. 3
  - 85th Street Pedestrian Underpass

PHASE 1B
- Maintain 2 Lanes of Traffic on NB I-29 and SB I-29
- Grading:
  - Install Geofoam over L&C Watermain along Ramp C
  - 85th Street: Complete Full Width West of I-29
  - Ramps C, D & D Conn: Complete Full Width
- Construct:
  - Ramp D: Construct MSE Wall
  - 85th Street Bridge: Construct Abut. No. 1

PHASE 1C
- Maintain 2 Lanes of Traffic on NB I-29 and SB I-29
- Surfacing:
  - Ramps B, C & D: Complete I-29 Gore Surfacing
  - Ramp D Conn: Complete I-229 Ramp C Gore Surfacing
- Construct Moment Slab & Barrier in front of Ramp D MSE Wall

PHASE 2A
- Shift I-29 NB Traffic to I-29 SB Lanes
- Construct:
  - 85th Street: Eastbound Lanes Surfacing East of I-29
  - 85th Street Bridge: Construct East Half
  - Ramps B & F: Complete Full Width Surfacing
  - NB I-29: Construct Sign Bridges

PHASE 2B
- Maintain Shifted NB I-29 Traffic on I-29 SB lanes
- Grading:
  - NB I-29: Ramp A Gore
  - NB I-29 to NB I-229 Ramp C Louise: Complete Full Width Auxiliary Lane Grading/Maintain 2 Lanes of Traffic
- Construct:
  - 85th Street: Westbound Lanes Surfacing East of I-29
  - Ramps A, E & F: Complete Full Width Surfacing
  - NB I-29 to NB I-229 Ramp C Louise: Complete Full Width Auxiliary Lane Surfacing/Maintain 2 Lanes of Traffic
  - Construct I-229 Sign Bridges
  - I-229 Ramp C Louise: Complete Full Width Grading & Surfacing

PHASE 2C
- Shift I-29 SB Traffic to I-29 NB Lanes
- Construct:
  - 85th Street: Complete Full Width Surfacing West of I-29
  - 85th Street Bridge: Construct West Half
  - Ramp D Bridge
  - Ramps C, D & D Conn: Complete Full Width Surfacing

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5-16-2025

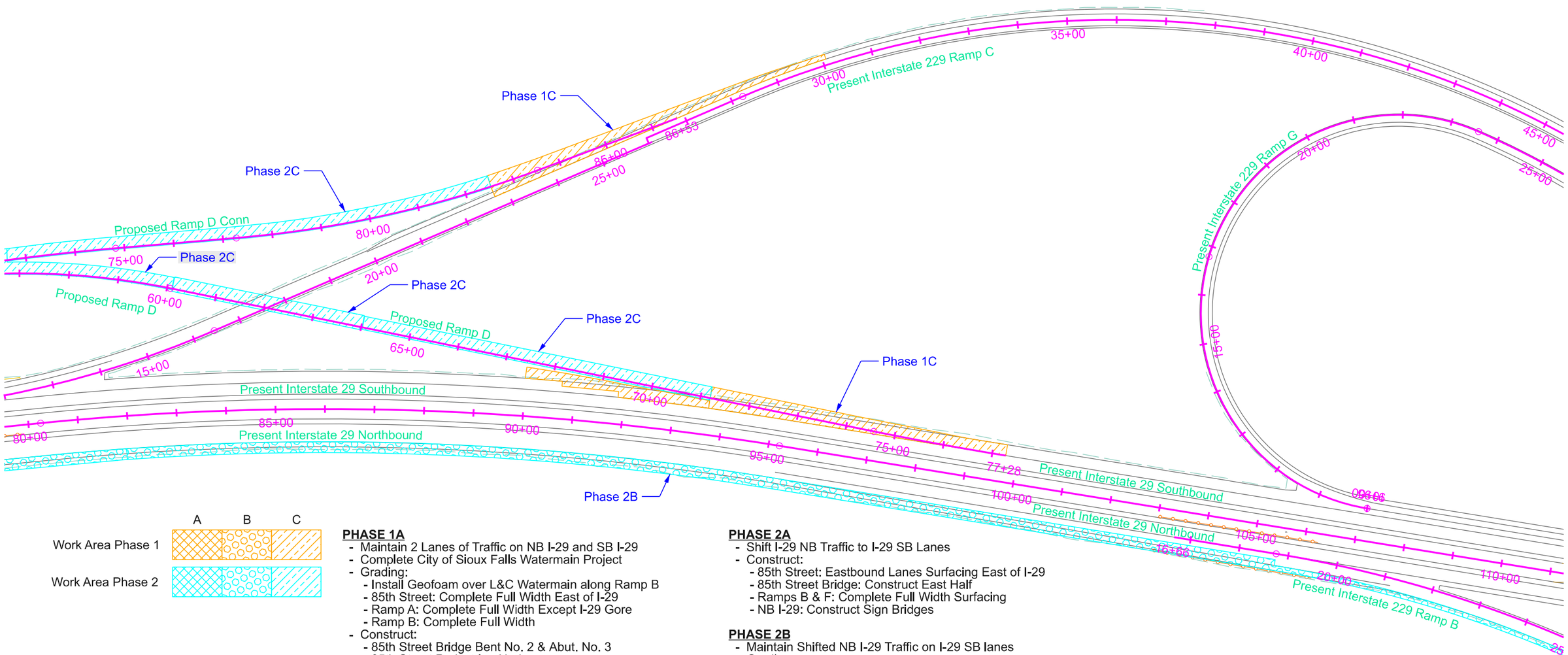
SEQUENCE OF OPERATIONS

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C22	C85

Plotting Date: 5/15/2025

Phasing



PHASE 1A
- Maintain 2 Lanes of Traffic on NB I-29 and SB I-29
- Complete City of Sioux Falls Watermain Project
- Grading:
  - Install Geofoam over L&C Watermain along Ramp B
  - 85th Street: Complete Full Width East of I-29
  - Ramp A: Complete Full Width Except I-29 Gore
  - Ramp B: Complete Full Width
- Construct:
  - 85th Street Bridge Bent No. 2 & Abut. No. 3
  - 85th Street Pedestrian Underpass

PHASE 1B
- Maintain 2 Lanes of Traffic on NB I-29 and SB I-29
- Grading:
  - Install Geofoam over L&C Watermain along Ramp C
  - 85th Street: Complete Full Width West of I-29
  - Ramps C, D & D Conn: Complete Full Width
- Construct:
  - Ramp D: Construct MSE Wall
  - 85th Street Bridge: Construct Abut. No. 1

PHASE 1C
- Maintain 2 Lanes of Traffic on NB I-29 and SB I-29
- Surfacing:
  - Ramps B, C & D: Complete I-29 Gore Surfacing
  - Ramp D Conn: Complete I-229 Ramp C Gore Surfacing
- Construct Moment Slab & Barrier in front of Ramp D MSE Wall

PHASE 2A
- Shift I-29 NB Traffic to I-29 SB Lanes
- Construct:
  - 85th Street: Eastbound Lanes Surfacing East of I-29
  - 85th Street Bridge: Construct East Half
  - Ramps B & F: Complete Full Width Surfacing
  - NB I-29: Construct Sign Bridges

PHASE 2B
- Maintain Shifted NB I-29 Traffic on I-29 SB lanes
- Grading:
  - NB I-29: Ramp A Gore
  - NB I-29 to NB I-229 Ramp C Louise: Complete Full Width Auxiliary Lane Grading/Maintain 2 Lanes of Traffic
- Construct:
  - 85th Street: Westbound Lanes Surfacing East of I-29
  - Ramps A, E & F: Complete Full Width Surfacing
  - NB I-29 to NB I-229 Ramp C Louise: Complete Full Width Auxiliary Lane Surfacing/Maintain 2 Lanes of Traffic
  - Construct I-229 Sign Bridges
  - I-229 Ramp C Louise: Complete Full Width Grading & Surfacing

PHASE 2C
- Shift I-29 SB Traffic to I-29 NB Lanes
- Construct:
  - 85th Street: Complete Full Width Surfacing West of I-29
  - 85th Street Bridge: Construct West Half
  - Ramp D Bridge
  - Ramps C, D & D Conn: Complete Full Width Surfacing

REGISTERED PROFESSIONAL ENGINEER
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SOUTH DAKOTA
5-16-2025

SEQUENCE OF OPERATIONS

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C23	C85

Plotting Date: 5/15/2025

Phasing

PHASE 1A
- Maintain 2 Lanes of Traffic on NB I-29 and SB I-29
- Complete City of Sioux Falls Watermain Project
- Grading:
  - Install Geofoam over L&C Watermain along Ramp B
  - 85th Street: Complete Full Width East of I-29
  - Ramp A: Complete Full Width Except I-29 Gore
  - Ramp B: Complete Full Width
- Construct:
  - 85th Street Bridge Bent No. 2 & Abut. No. 3
  - 85th Street Pedestrian Underpass

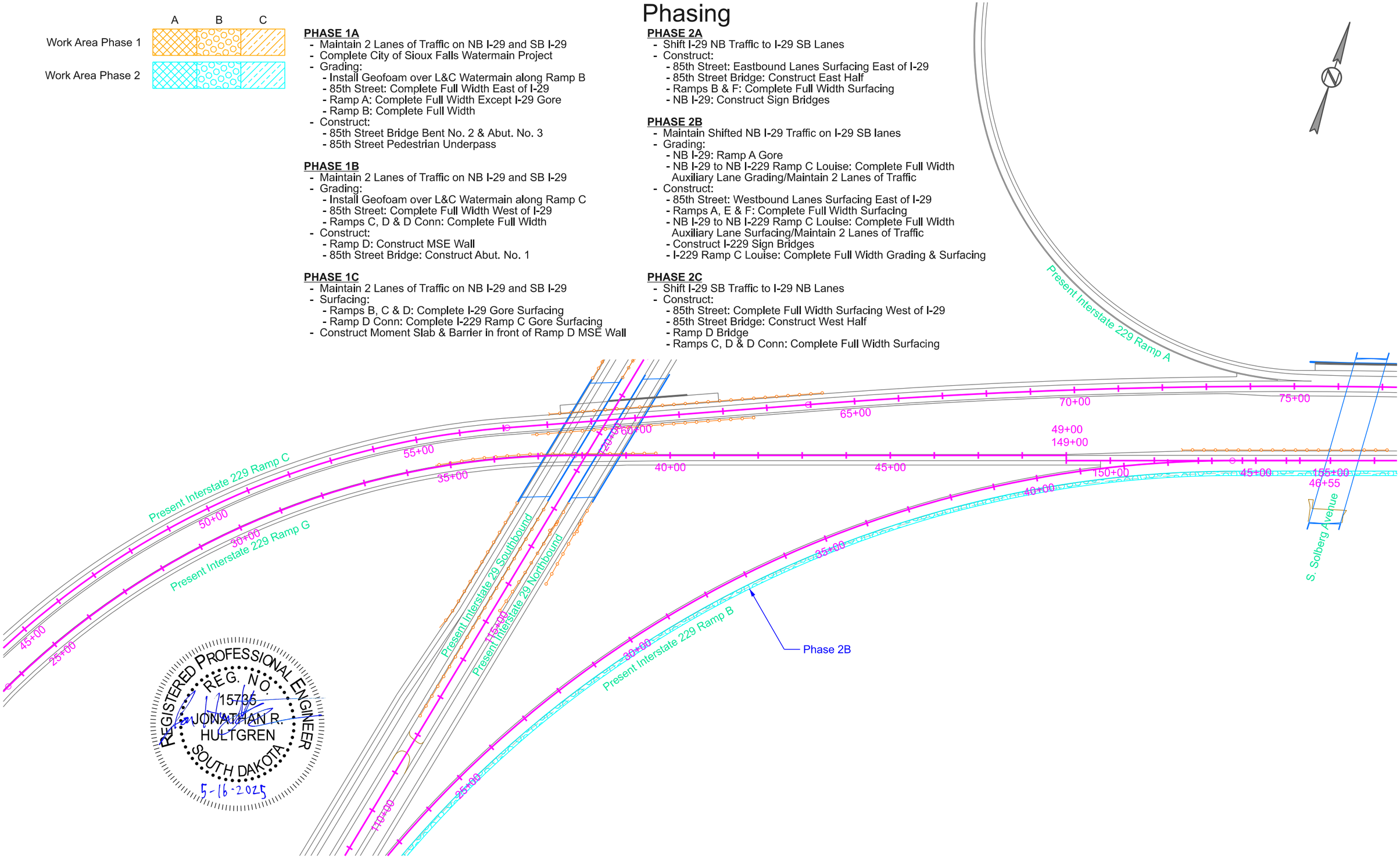
PHASE 1B
- Maintain 2 Lanes of Traffic on NB I-29 and SB I-29
- Grading:
  - Install Geofoam over L&C Watermain along Ramp C
  - 85th Street: Complete Full Width West of I-29
  - Ramps C, D & D Conn: Complete Full Width
- Construct:
  - Ramp D: Construct MSE Wall
  - 85th Street Bridge: Construct Abut. No. 1

PHASE 1C
- Maintain 2 Lanes of Traffic on NB I-29 and SB I-29
- Surfacing:
  - Ramps B, C & D: Complete I-29 Gore Surfacing
  - Ramp D Conn: Complete I-229 Ramp C Gore Surfacing
- Construct Moment Slab & Barrier in front of Ramp D MSE Wall

PHASE 2A
- Shift I-29 NB Traffic to I-29 SB Lanes
- Construct:
  - 85th Street: Eastbound Lanes Surfacing East of I-29
  - 85th Street Bridge: Construct East Half
  - Ramps B & F: Complete Full Width Surfacing
  - NB I-29: Construct Sign Bridges

PHASE 2B
- Maintain Shifted NB I-29 Traffic on I-29 SB lanes
- Grading:
  - NB I-29: Ramp A Gore
  - NB I-29 to NB I-229 Ramp C Louise: Complete Full Width Auxiliary Lane Grading/Maintain 2 Lanes of Traffic
- Construct:
  - 85th Street: Westbound Lanes Surfacing East of I-29
  - Ramps A, E & F: Complete Full Width Surfacing
  - NB I-29 to NB I-229 Ramp C Louise: Complete Full Width Auxiliary Lane Surfacing/Maintain 2 Lanes of Traffic
  - Construct I-229 Sign Bridges
  - I-229 Ramp C Louise: Complete Full Width Grading & Surfacing

PHASE 2C
- Shift I-29 SB Traffic to I-29 NB Lanes
- Construct:
  - 85th Street: Complete Full Width Surfacing West of I-29
  - 85th Street Bridge: Construct West Half
  - Ramp D Bridge
  - Ramps C, D & D Conn: Complete Full Width Surfacing



REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15735
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

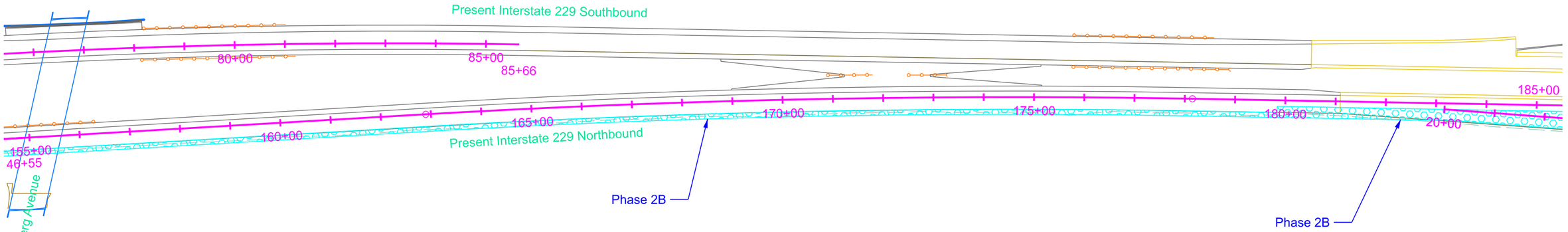
SEQUENCE OF OPERATIONS

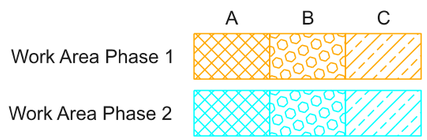
Phasing

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C24	C85

Plotting Date: 5/15/2025





PHASE 1A
- Maintain 2 Lanes of Traffic on NB I-29 and SB I-29
- Complete City of Sioux Falls Watermain Project
- Grading:
  - Install Geofoam over L&C Watermain along Ramp B
  - 85th Street: Complete Full Width East of I-29
  - Ramp A: Complete Full Width Except I-29 Gore
  - Ramp B: Complete Full Width
- Construct:
  - 85th Street Bridge Bent No. 2 & Abut. No. 3
  - 85th Street Pedestrian Underpass

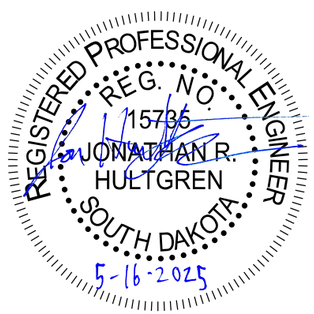
PHASE 1B
- Maintain 2 Lanes of Traffic on NB I-29 and SB I-29
- Grading:
  - Install Geofoam over L&C Watermain along Ramp C
  - 85th Street: Complete Full Width West of I-29
  - Ramps C, D & D Conn: Complete Full Width
- Construct:
  - Ramp D: Construct MSE Wall
  - 85th Street Bridge: Construct Abut. No. 1

PHASE 1C
- Maintain 2 Lanes of Traffic on NB I-29 and SB I-29
- Surfacing:
  - Ramps B, C & D: Complete I-29 Gore Surfacing
  - Ramp D Conn: Complete I-229 Ramp C Gore Surfacing
- Construct Moment Slab & Barrier in front of Ramp D MSE Wall

PHASE 2A
- Shift I-29 NB Traffic to I-29 SB Lanes
- Construct:
  - 85th Street: Eastbound Lanes Surfacing East of I-29
  - 85th Street Bridge: Construct East Half
  - Ramps B & F: Complete Full Width Surfacing
  - NB I-29: Construct Sign Bridges

PHASE 2B
- Maintain Shifted NB I-29 Traffic on I-29 SB lanes
- Grading:
  - NB I-29: Ramp A Gore
  - NB I-29 to NB I-229 Ramp C Louise: Complete Full Width Auxiliary Lane Grading/Maintain 2 Lanes of Traffic
- Construct:
  - 85th Street: Westbound Lanes Surfacing East of I-29
  - Ramps A, E & F: Complete Full Width Surfacing
  - NB I-29 to NB I-229 Ramp C Louise: Complete Full Width Auxiliary Lane Surfacing/Maintain 2 Lanes of Traffic
  - Construct I-229 Sign Bridges
  - I-229 Ramp C Louise: Complete Full Width Grading & Surfacing

PHASE 2C
- Shift I-29 SB Traffic to I-29 NB Lanes
- Construct:
  - 85th Street: Complete Full Width Surfacing West of I-29
  - 85th Street Bridge: Construct West Half
  - Ramp D Bridge
  - Ramps C, D & D Conn: Complete Full Width Surfacing



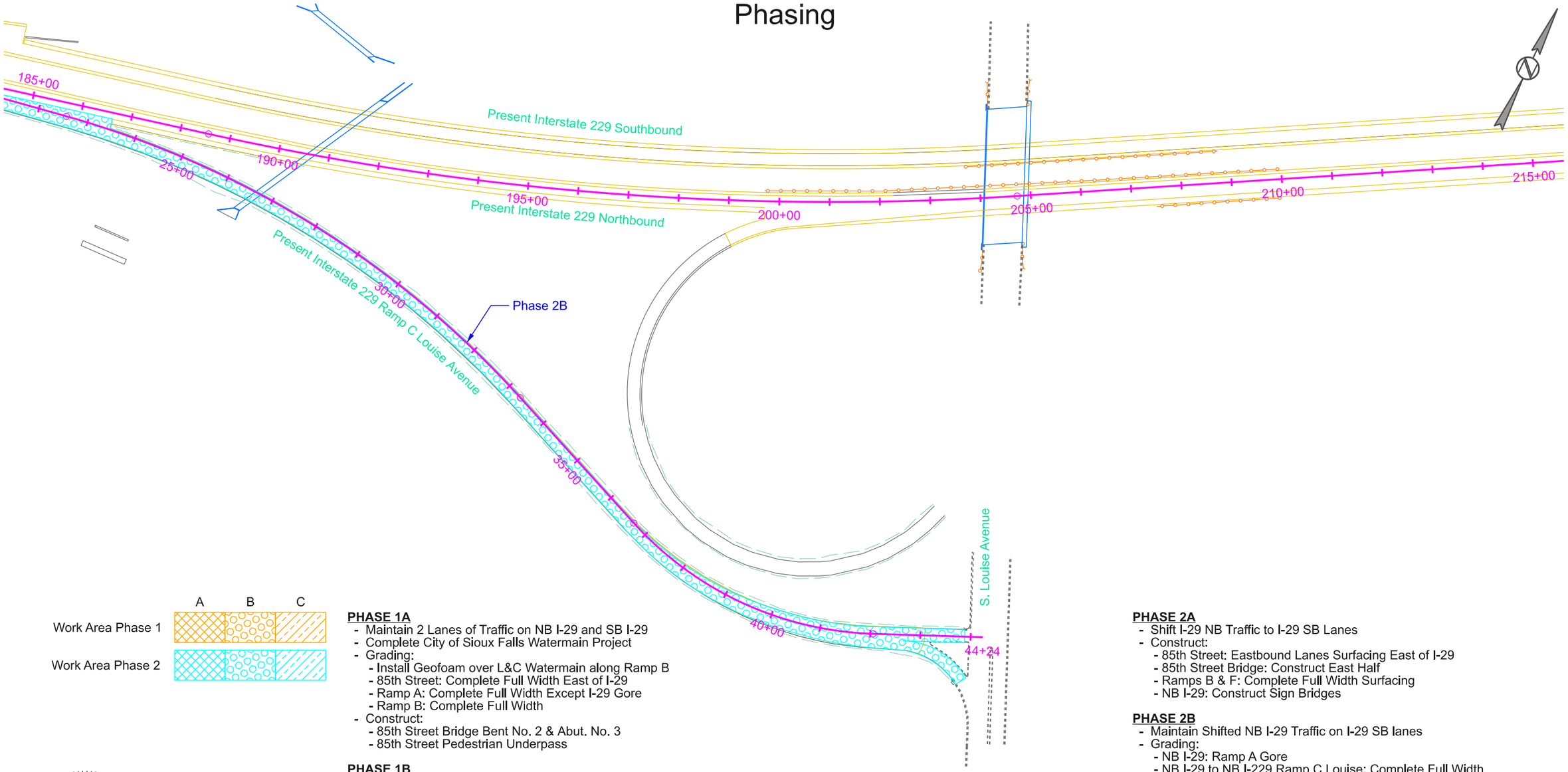
SEQUENCE OF OPERATIONS

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C25	C85

Plotting Date: 5/15/2025

Phasing



PHASE 1A
- Maintain 2 Lanes of Traffic on NB I-29 and SB I-29
- Complete City of Sioux Falls Watermain Project
- Grading:
  - Install Geofoam over L&C Watermain along Ramp B
  - 85th Street: Complete Full Width East of I-29
  - Ramp A: Complete Full Width Except I-29 Gore
  - Ramp B: Complete Full Width
- Construct:
  - 85th Street Bridge Bent No. 2 & Abut. No. 3
  - 85th Street Pedestrian Underpass

PHASE 1B
- Maintain 2 Lanes of Traffic on NB I-29 and SB I-29
- Grading:
  - Install Geofoam over L&C Watermain along Ramp C
  - 85th Street: Complete Full Width West of I-29
  - Ramps C, D & D Conn: Complete Full Width
- Construct:
  - Ramp D: Construct MSE Wall
  - 85th Street Bridge: Construct Abut. No. 1

PHASE 1C
- Maintain 2 Lanes of Traffic on NB I-29 and SB I-29
- Surfacing:
  - Ramps B, C & D: Complete I-29 Gore Surfacing
  - Ramp D Conn: Complete I-229 Ramp C Gore Surfacing
- Construct Moment Slab & Barrier in front of Ramp D MSE Wall

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15735
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

PHASE 2A
- Shift I-29 NB Traffic to I-29 SB Lanes
- Construct:
  - 85th Street: Eastbound Lanes Surfacing East of I-29
  - 85th Street Bridge: Construct East Half
  - Ramps B & F: Complete Full Width Surfacing
  - NB I-29: Construct Sign Bridges

PHASE 2B
- Maintain Shifted NB I-29 Traffic on I-29 SB lanes
- Grading:
  - NB I-29: Ramp A Gore
  - NB I-29 to NB I-229 Ramp C Louise: Complete Full Width Auxiliary Lane Grading/Maintain 2 Lanes of Traffic
- Construct:
  - 85th Street: Westbound Lanes Surfacing East of I-29
  - Ramps A, E & F: Complete Full Width Surfacing
  - NB I-29 to NB I-229 Ramp C Louise: Complete Full Width Auxiliary Lane Surfacing/Maintain 2 Lanes of Traffic
  - Construct I-229 Sign Bridges
  - I-229 Ramp C Louise: Complete Full Width Grading & Surfacing

PHASE 2C
- Shift I-29 SB Traffic to I-29 NB Lanes
- Construct:
  - 85th Street: Complete Full Width Surfacing West of I-29
  - 85th Street Bridge: Construct West Half
  - Ramp D Bridge
  - Ramps C, D & D Conn: Complete Full Width Surfacing

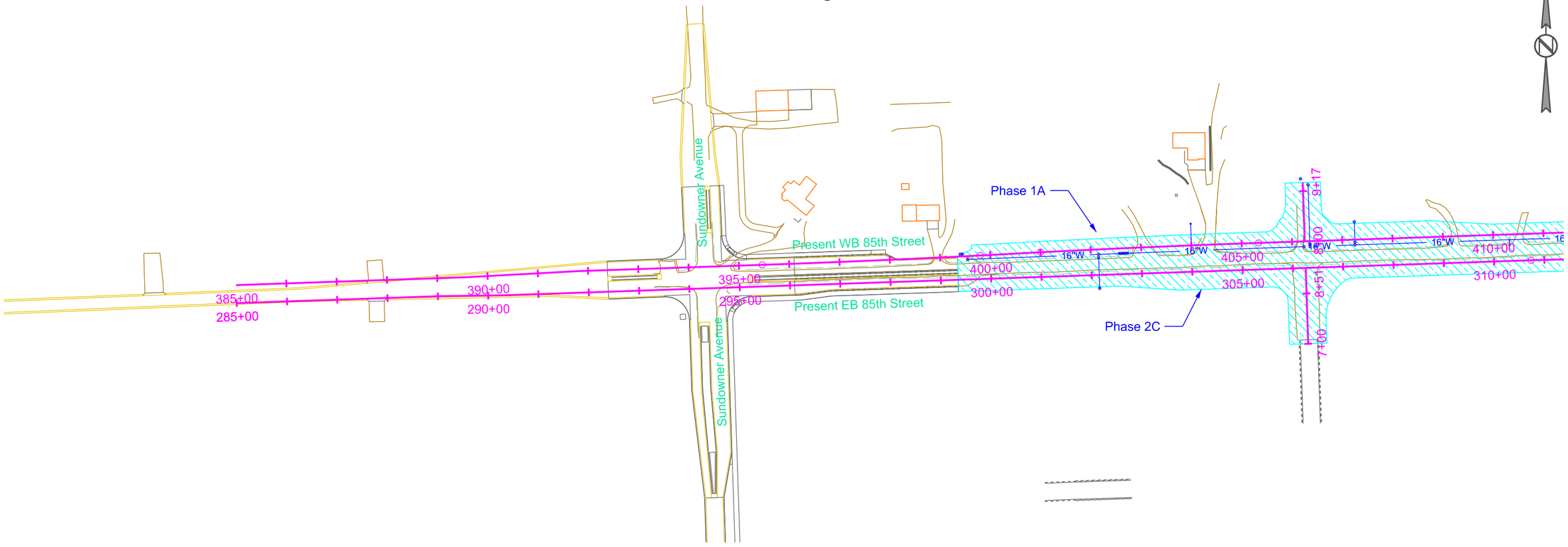
SEQUENCE OF OPERATIONS

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C26	C85

Plotting Date: 5/15/2025

Phasing



A B C

Work Area Phase 1

Work Area Phase 2

PHASE 1A
- Maintain 2 Lanes of Traffic on NB I-29 and SB I-29
- Complete City of Sioux Falls Watermain Project
- Grading:
  - Install Geofoam over L&C Watermain along Ramp B
  - 85th Street: Complete Full Width East of I-29
  - Ramp A: Complete Full Width Except I-29 Gore
  - Ramp B: Complete Full Width
- Construct:
  - 85th Street Bridge Bent No. 2 & Abut. No. 3
  - 85th Street Pedestrian Underpass

PHASE 1B
- Maintain 2 Lanes of Traffic on NB I-29 and SB I-29
- Grading:
  - Install Geofoam over L&C Watermain along Ramp C
  - 85th Street: Complete Full Width West of I-29
  - Ramps C, D & D Conn: Complete Full Width
- Construct:
  - Ramp D: Construct MSE Wall
  - 85th Street Bridge: Construct Abut. No. 1

PHASE 1C
- Maintain 2 Lanes of Traffic on NB I-29 and SB I-29
- Surfacing:
  - Ramps B, C & D: Complete I-29 Gore Surfacing
  - Ramp D Conn: Complete I-229 Ramp C Gore Surfacing
- Construct Moment Slab & Barrier in front of Ramp D MSE Wall

PHASE 2A
- Shift I-29 NB Traffic to I-29 SB Lanes
- Construct:
  - 85th Street: Eastbound Lanes Surfacing East of I-29
  - 85th Street Bridge: Construct East Half
  - Ramps B & F: Complete Full Width Surfacing
  - NB I-29: Construct Sign Bridges

PHASE 2B
- Maintain Shifted NB I-29 Traffic on I-29 SB lanes
- Grading:
  - NB I-29: Ramp A Gore
  - NB I-29 to NB I-229 Ramp C Louise: Complete Full Width Auxiliary Lane Grading/Maintain 2 Lanes of Traffic
- Construct:
  - 85th Street: Westbound Lanes Surfacing East of I-29
  - Ramps A, E & F: Complete Full Width Surfacing
  - NB I-29 to NB I-229 Ramp C Louise: Complete Full Width Auxiliary Lane Surfacing/Maintain 2 Lanes of Traffic
  - Construct I-229 Sign Bridges
  - I-229 Ramp C Louise: Complete Full Width Grading & Surfacing

PHASE 2C
- Shift I-29 SB Traffic to I-29 NB Lanes
- Construct:
  - 85th Street: Complete Full Width Surfacing West of I-29
  - 85th Street Bridge: Construct West Half
  - Ramp D Bridge
  - Ramps C, D & D Conn: Complete Full Width Surfacing

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15735
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

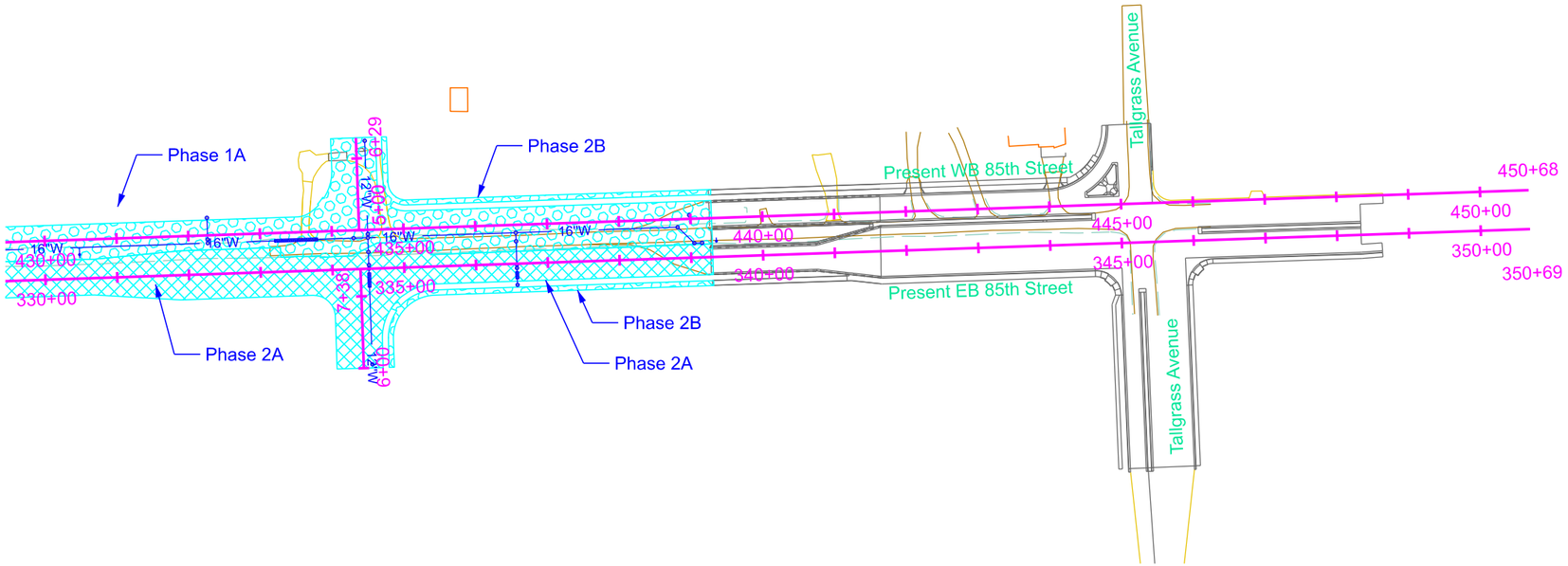
SEQUENCE OF OPERATIONS

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C27	C85

Plotting Date: 5/15/2025

Phasing



A B C

Work Area Phase 1

Work Area Phase 2

PHASE 1A
- Maintain 2 Lanes of Traffic on NB I-29 and SB I-29
- Complete City of Sioux Falls Watermain Project
- Grading:
  - Install Geofoam over L&C Watermain along Ramp B
  - 85th Street: Complete Full Width East of I-29
  - Ramp A: Complete Full Width Except I-29 Gore
  - Ramp B: Complete Full Width
- Construct:
  - 85th Street Bridge Bent No. 2 & Abut. No. 3
  - 85th Street Pedestrian Underpass

PHASE 1B
- Maintain 2 Lanes of Traffic on NB I-29 and SB I-29
- Grading:
  - Install Geofoam over L&C Watermain along Ramp C
  - 85th Street: Complete Full Width West of I-29
  - Ramps C, D & D Conn: Complete Full Width
- Construct:
  - Ramp D: Construct MSE Wall
  - 85th Street Bridge: Construct Abut. No. 1

PHASE 1C
- Maintain 2 Lanes of Traffic on NB I-29 and SB I-29
- Surfacing:
  - Ramps B, C & D: Complete I-29 Gore Surfacing
  - Ramp D Conn: Complete I-229 Ramp C Gore Surfacing
- Construct Moment Slab & Barrier in front of Ramp D MSE Wall

PHASE 2A
- Shift I-29 NB Traffic to I-29 SB Lanes
- Construct:
  - 85th Street: Eastbound Lanes Surfacing East of I-29
  - 85th Street Bridge: Construct East Half
  - Ramps B & F: Complete Full Width Surfacing
  - NB I-29: Construct Sign Bridges

PHASE 2B
- Maintain Shifted NB I-29 Traffic on I-29 SB lanes
- Grading:
  - NB I-29: Ramp A Gore
  - NB I-29 to NB I-229 Ramp C Louise: Complete Full Width Auxiliary Lane Grading/Maintain 2 Lanes of Traffic
- Construct:
  - 85th Street: Westbound Lanes Surfacing East of I-29
  - Ramps A, E & F: Complete Full Width Surfacing
  - NB I-29 to NB I-229 Ramp C Louise: Complete Full Width Auxiliary Lane Surfacing/Maintain 2 Lanes of Traffic
  - Construct I-229 Sign Bridges
  - I-229 Ramp C Louise: Complete Full Width Grading & Surfacing

PHASE 2C
- Shift I-29 SB Traffic to I-29 NB Lanes
- Construct:
  - 85th Street: Complete Full Width Surfacing West of I-29
  - 85th Street Bridge: Construct West Half
  - Ramp D Bridge
  - Ramps C, D & D Conn: Complete Full Width Surfacing

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15735
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

TRAFFIC CONTROL
Phase 1 Signing - 85th St.

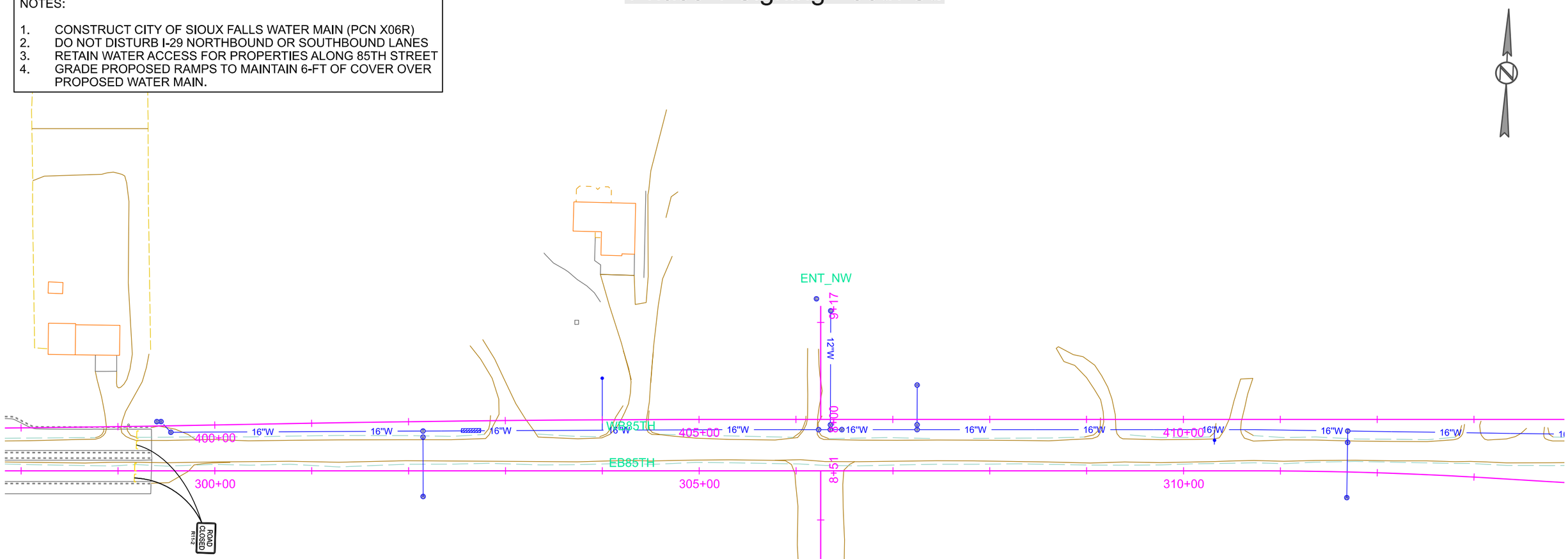
FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C28	C85

Plotting Date: 5/16/2025

NOTES:

1. CONSTRUCT CITY OF SIOUX FALLS WATER MAIN (PCN X06R)
2. DO NOT DISTURB I-29 NORTHBOUND OR SOUTHBOUND LANES
3. RETAIN WATER ACCESS FOR PROPERTIES ALONG 85TH STREET
4. GRADE PROPOSED RAMPS TO MAINTAIN 6-FT OF COVER OVER PROPOSED WATER MAIN.



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15735
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

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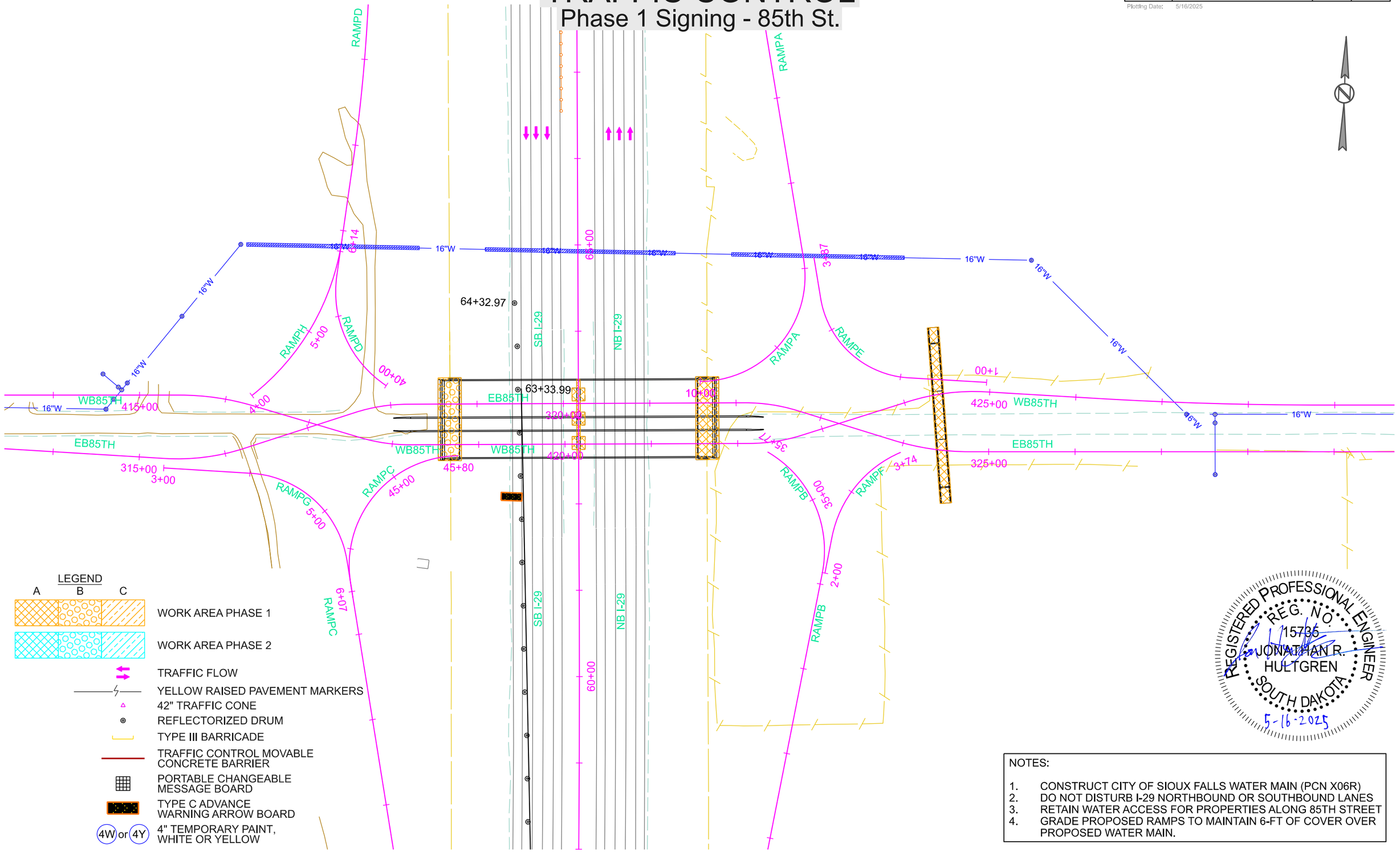
TRAFFIC CONTROL

Phase 1 Signing - 85th St.

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C29	C85

Plotting Date: 5/16/2025



REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15735
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

NOTES:

1. CONSTRUCT CITY OF SIOUX FALLS WATER MAIN (PCN X06R)
2. DO NOT DISTURB I-29 NORTHBOUND OR SOUTHBOUND LANES
3. RETAIN WATER ACCESS FOR PROPERTIES ALONG 85TH STREET
4. GRADE PROPOSED RAMPS TO MAINTAIN 6-FT OF COVER OVER PROPOSED WATER MAIN.

NOTES:

1. CONSTRUCT CITY OF SIOUX FALLS WATER MAIN (PCN X06R)
2. DO NOT DISTURB I-29 NORTHBOUND OR SOUTHBOUND LANES
3. RETAIN WATER ACCESS FOR PROPERTIES ALONG 85TH STREET
4. GRADE PROPOSED RAMPS TO MAINTAIN 6-FT OF COVER OVER PROPOSED WATER MAIN.

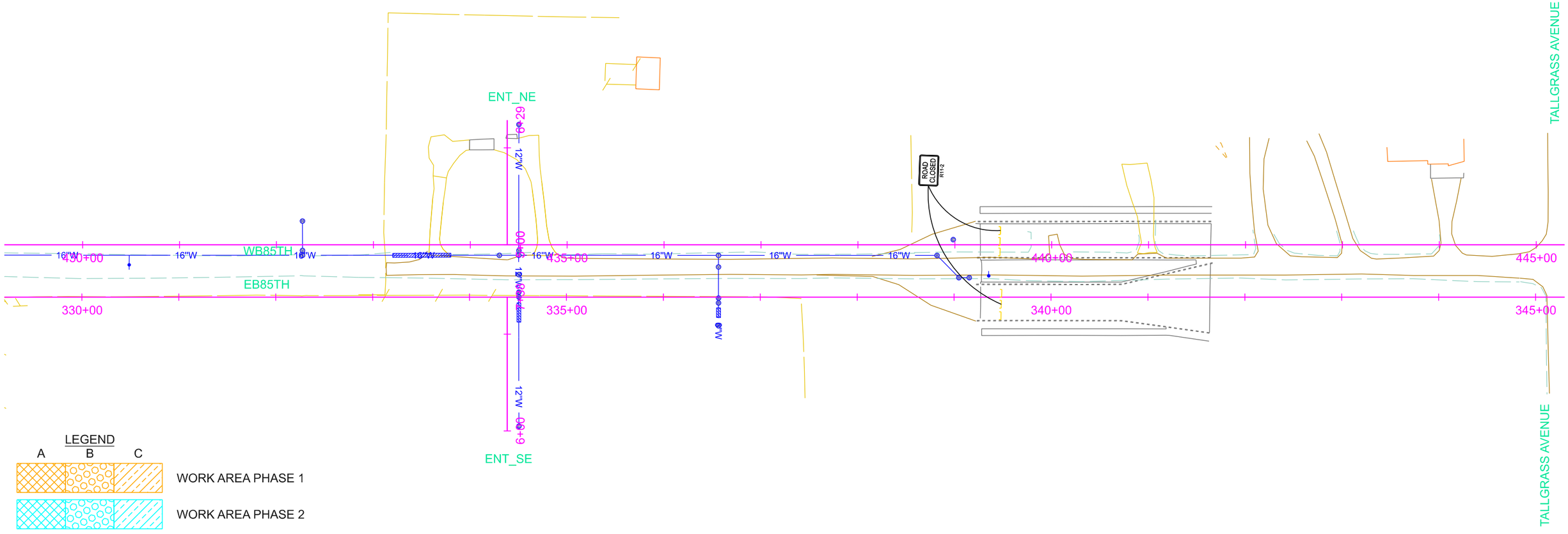
TRAFFIC CONTROL

Phase 1 Signing - 85th St.

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C30	C85

Plotting Date: 5/16/2025



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- 4W or 4Y — 4" TEMPORARY PAINT, WHITE OR YELLOW

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15736
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

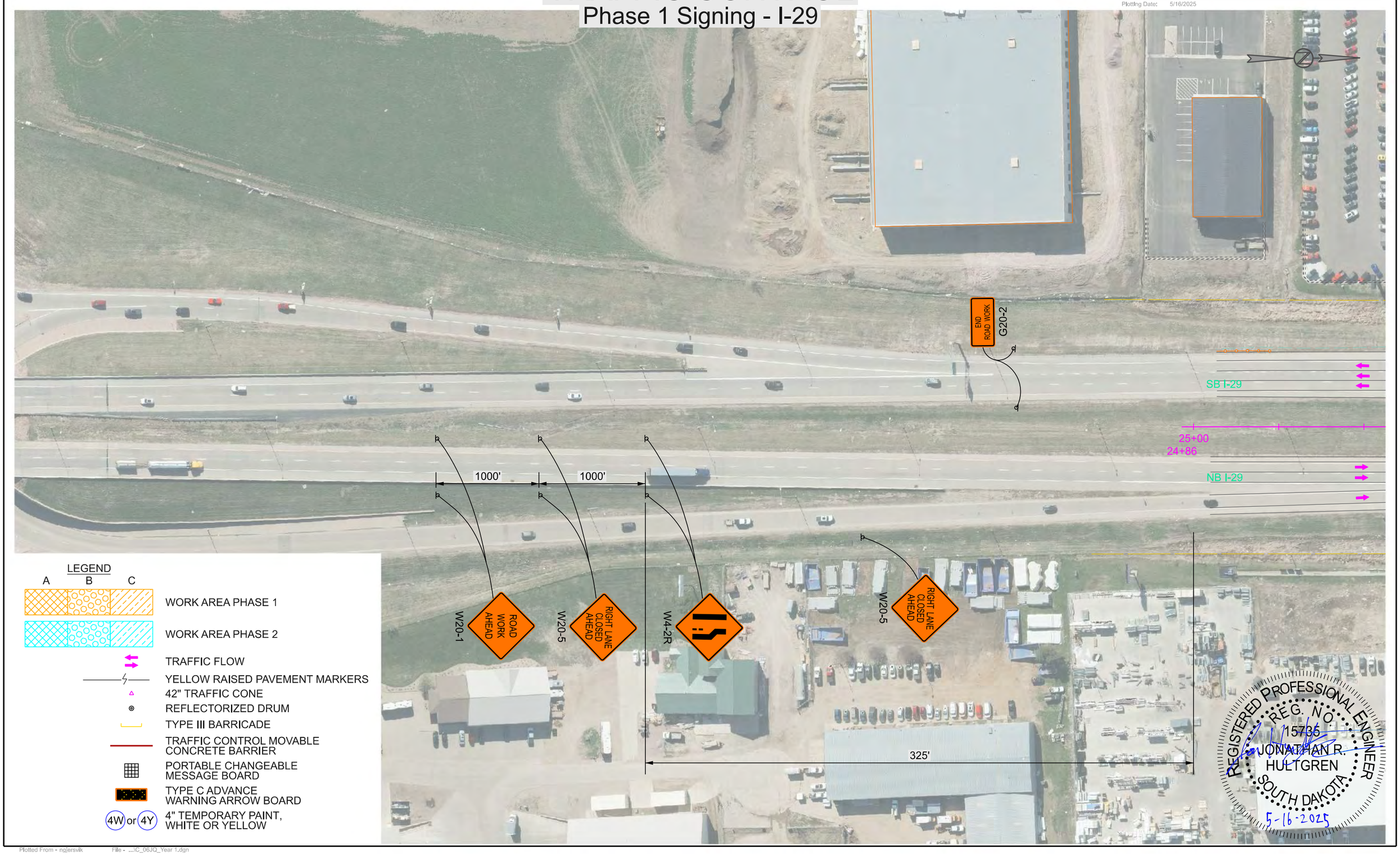
TRAFFIC CONTROL

Phase 1 Signing - I-29

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C31	C85

Plotting Date: 5/16/2025



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- 4W or 4Y — 4" TEMPORARY PAINT, WHITE OR YELLOW

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15736
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

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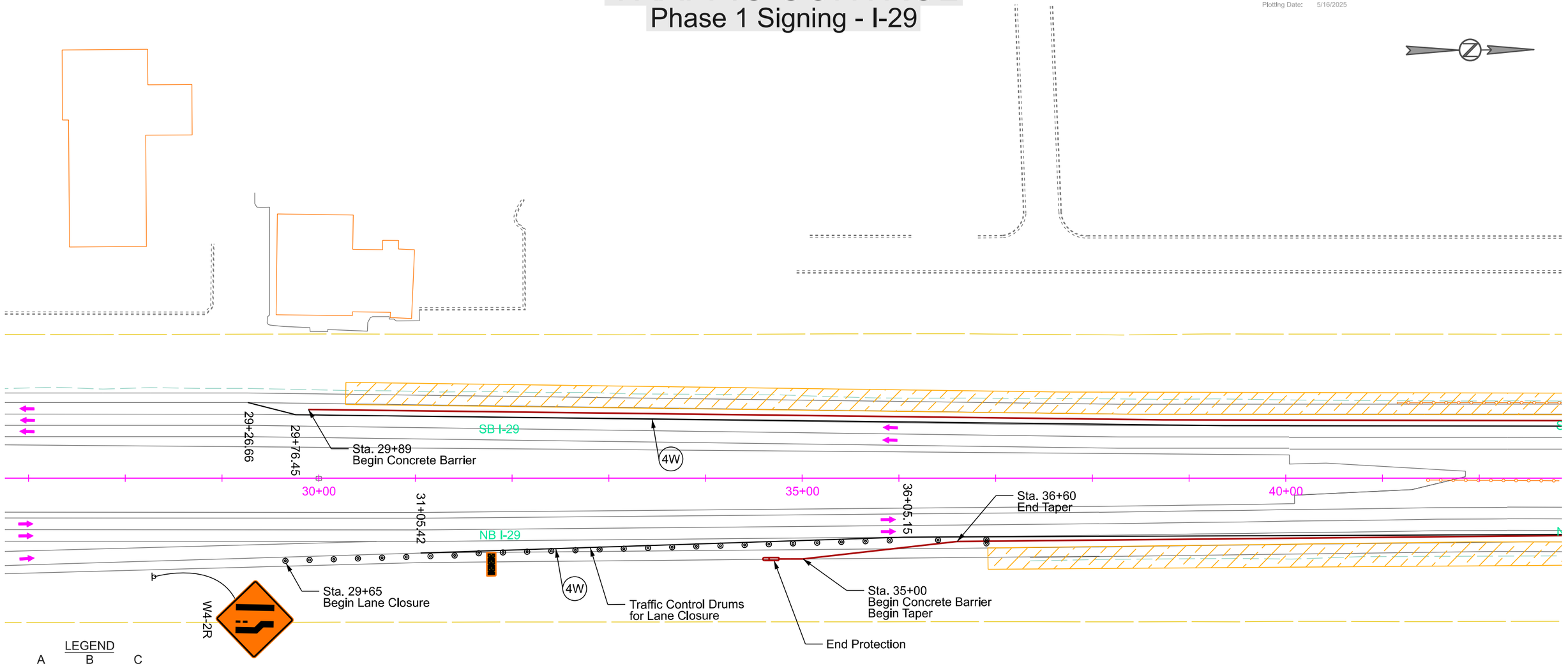
TRAFFIC CONTROL

Phase 1 Signing - I-29

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C32	C85

Plotting Date: 5/16/2025



LEGEND

A B C

WORK AREA PHASE 1

WORK AREA PHASE 2

TRAFFIC FLOW

YELLOW RAISED PAVEMENT MARKERS

42" TRAFFIC CONE

REFLECTORIZED DRUM

TYPE III BARRICADE

TRAFFIC CONTROL MOVABLE CONCRETE BARRIER

PORTABLE CHANGEABLE MESSAGE BOARD

TYPE C ADVANCE WARNING ARROW BOARD

(4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15735
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

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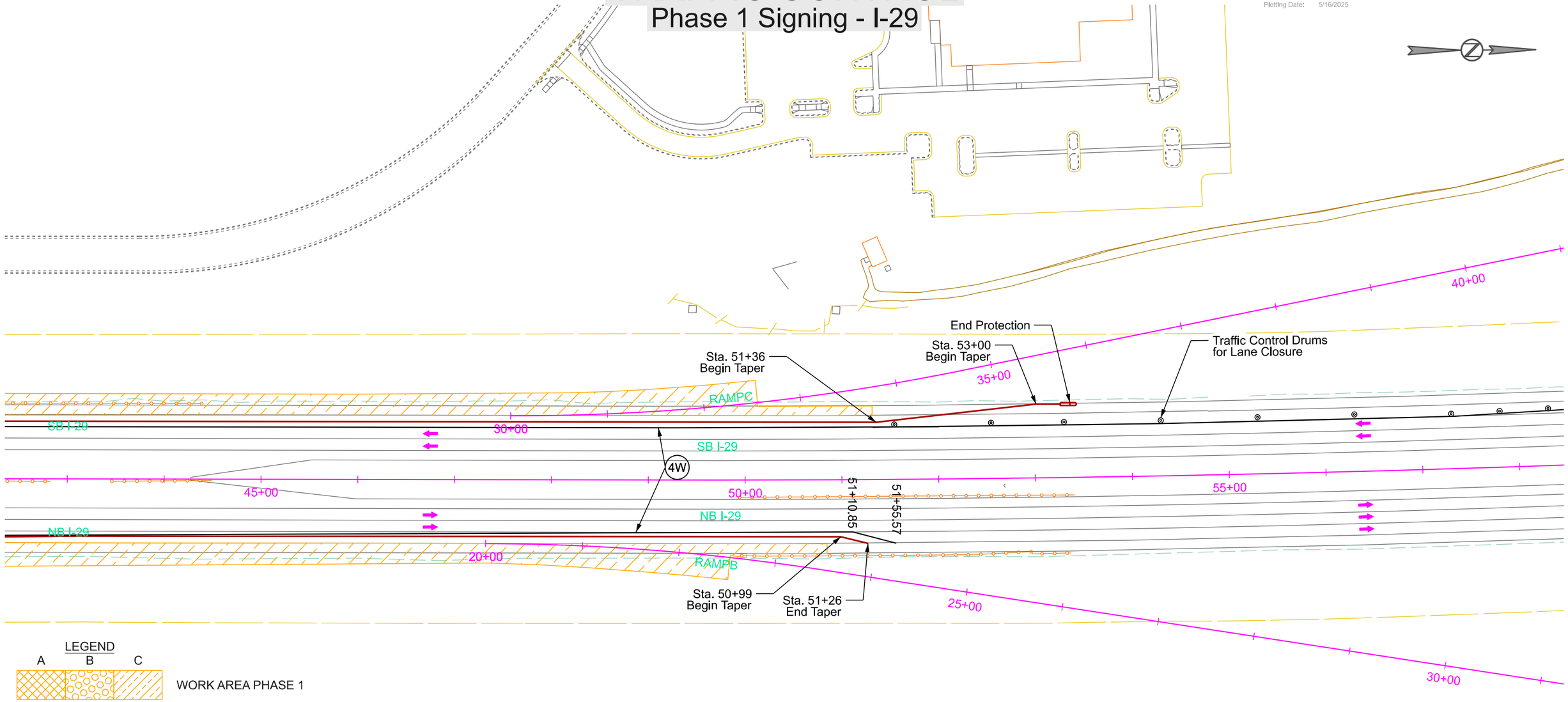
TRAFFIC CONTROL

Phase 1 Signing - I-29

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C33	C85

Plotting Date: 5/16/2025



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15736
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

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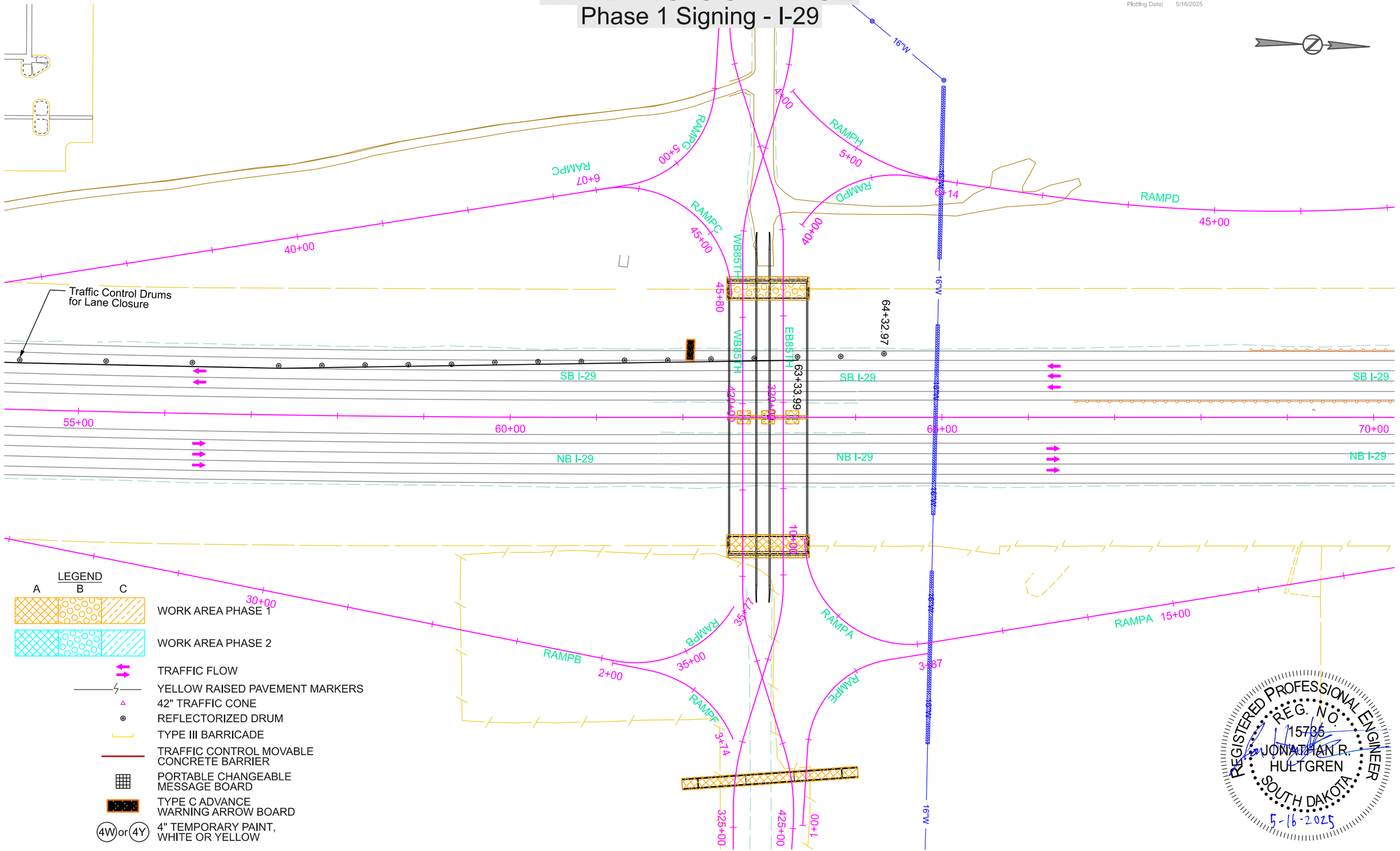
TRAFFIC CONTROL

Phase 1 Signing - I-29

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C34	C85

Plotting Date: 5/16/2025



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

REGISTERED PROFESSIONAL ENGINEER
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SOUTH DAKOTA
5-16-2025

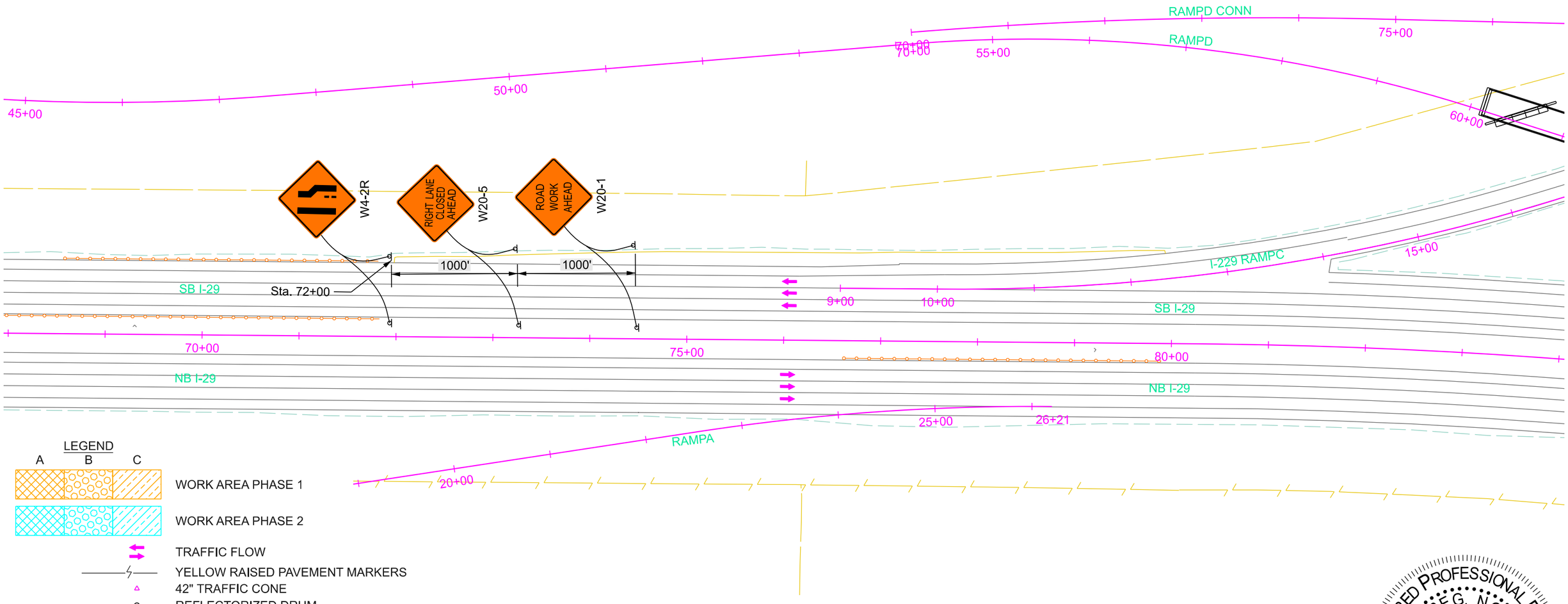
TRAFFIC CONTROL

Phase 1 Signing - I-29

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C35	C85

Plotting Date: 5/16/2025



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15736
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

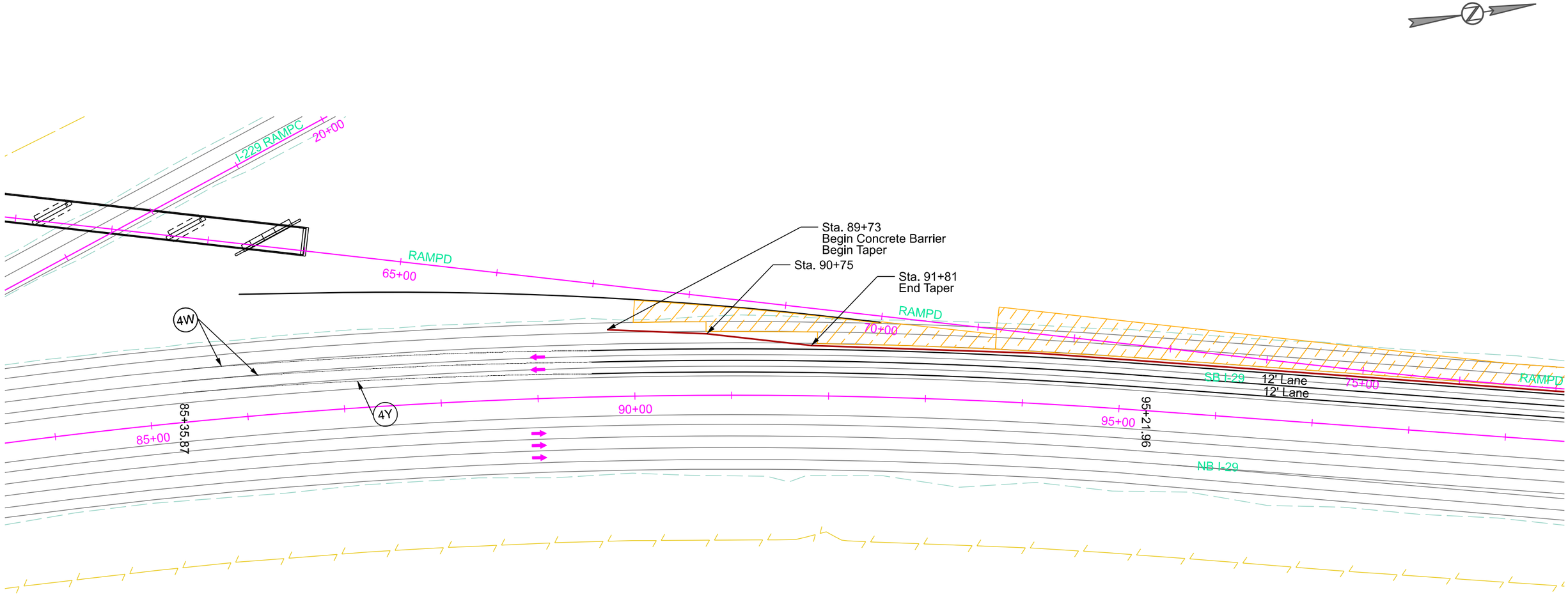
TRAFFIC CONTROL

Phase 1 Signing - I-29

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C36	C85

Plotting Date: 5/16/2025



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

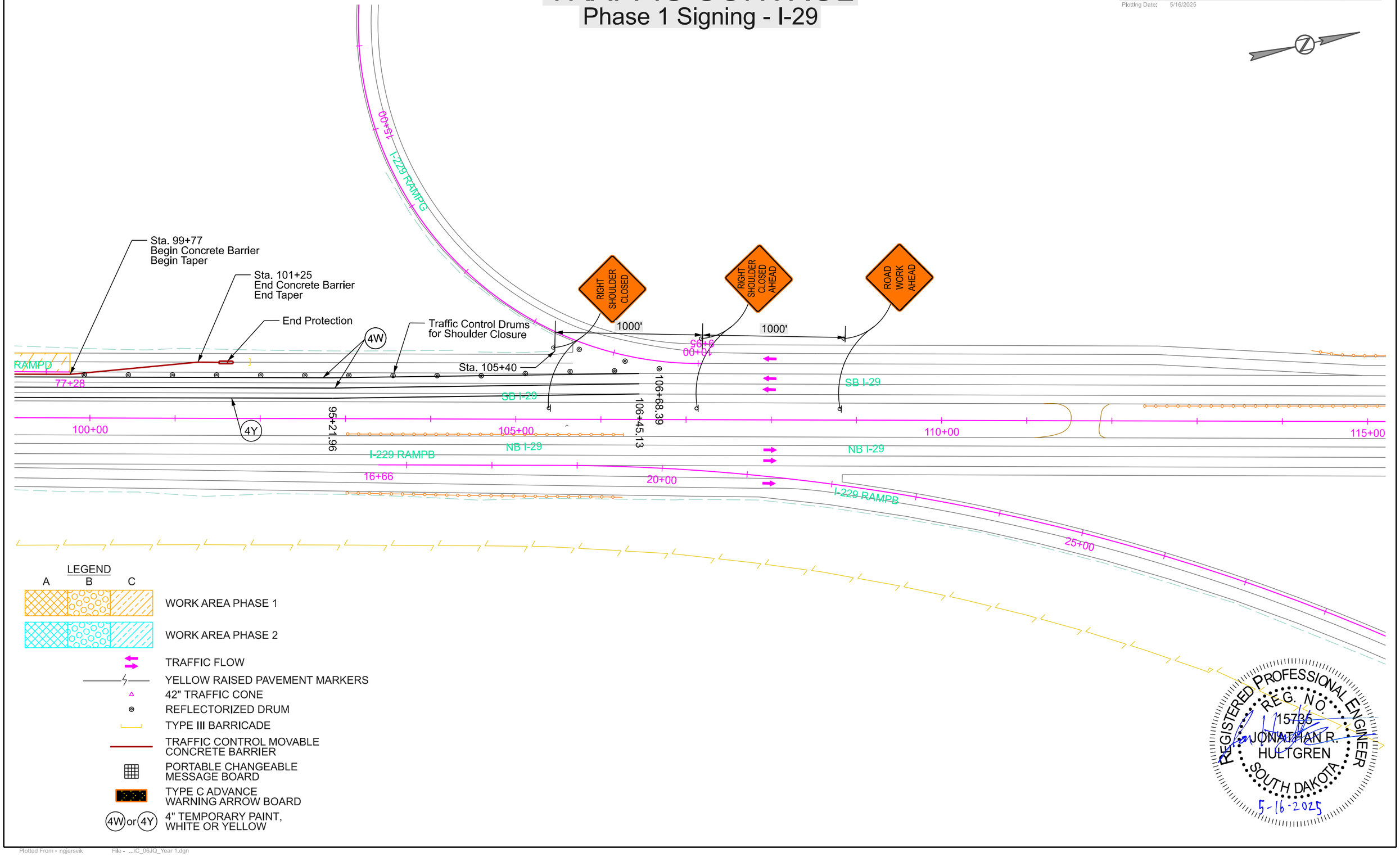
REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15735
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

TRAFFIC CONTROL

Phase 1 Signing - I-29

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
Plotting Date: 5/16/2025	EM 0292(88)73 IM 2292(104)0	C37	C85



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- 4W or 4Y — 4" TEMPORARY PAINT, WHITE OR YELLOW

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15736
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

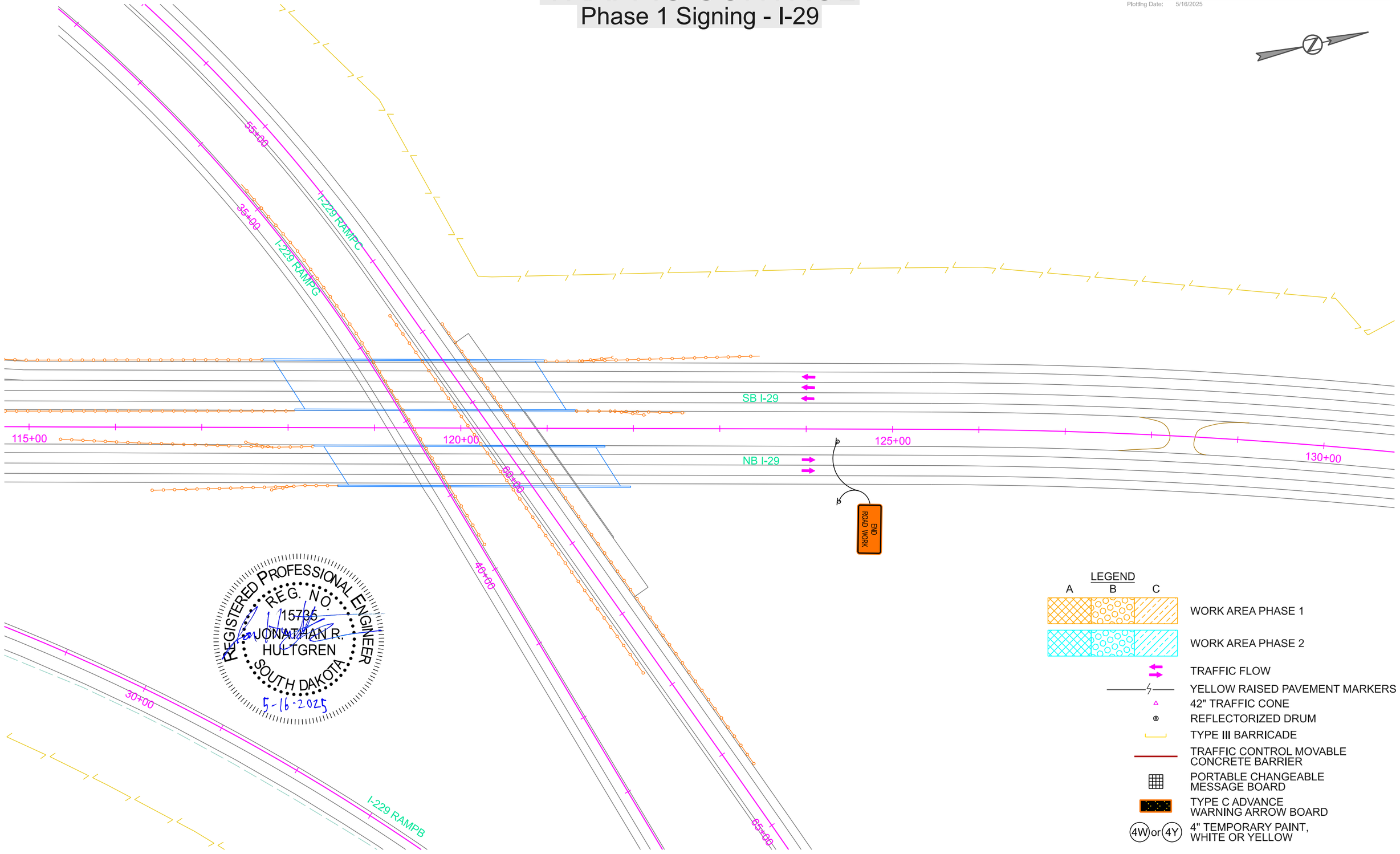
TRAFFIC CONTROL

Phase 1 Signing - I-29

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C38	C85

Plotting Date: 5/16/2025



REGISTERED PROFESSIONAL ENGINEER
REG. NO.
15735
JONATHAN R.
HULTGREN
SOUTH DAKOTA
5-16-2025

LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

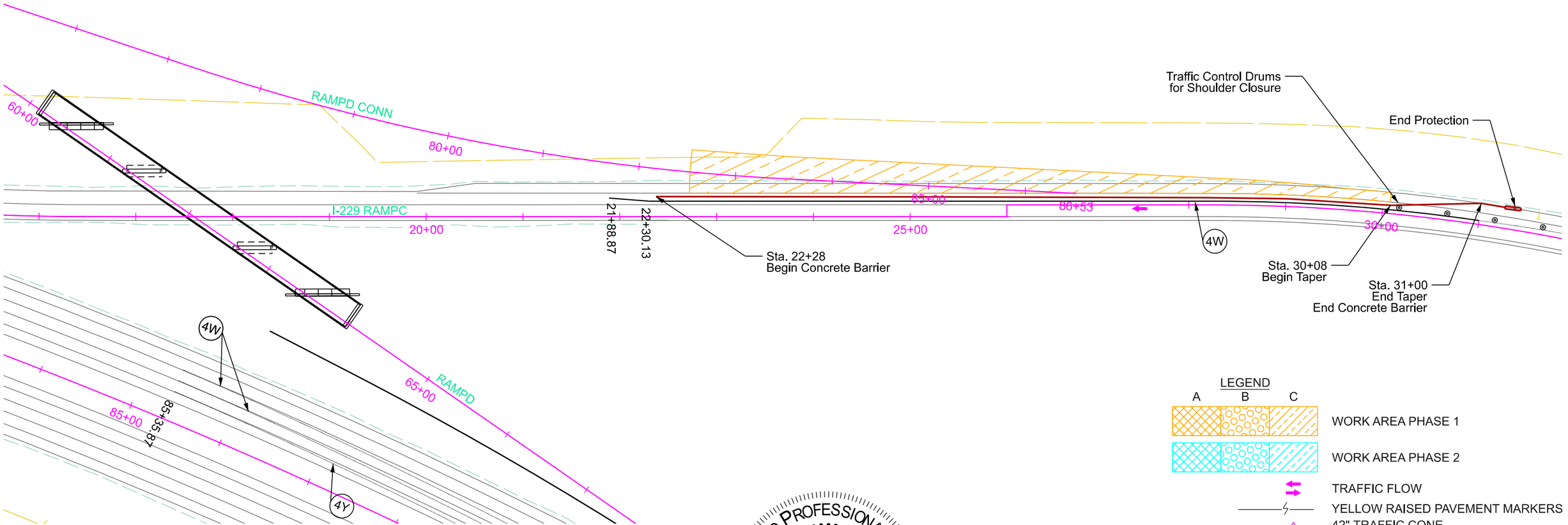
TRAFFIC CONTROL

Phase 1 Signing - I-229 RAMPC

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C39	C85

Plotting Date: 5/16/2025



REGISTERED PROFESSIONAL ENGINEER
REG. NO.
15736
JONATHAN R.
HULTGREN
SOUTH DAKOTA
5-16-2025

LEGEND

A	B	C	
			WORK AREA PHASE 1
			WORK AREA PHASE 2
			TRAFFIC FLOW
			YELLOW RAISED PAVEMENT MARKERS
			42" TRAFFIC CONE
			REFLECTORIZED DRUM
			TYPE III BARRICADE
			TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
			PORTABLE CHANGEABLE MESSAGE BOARD
			TYPE C ADVANCE WARNING ARROW BOARD
			(4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

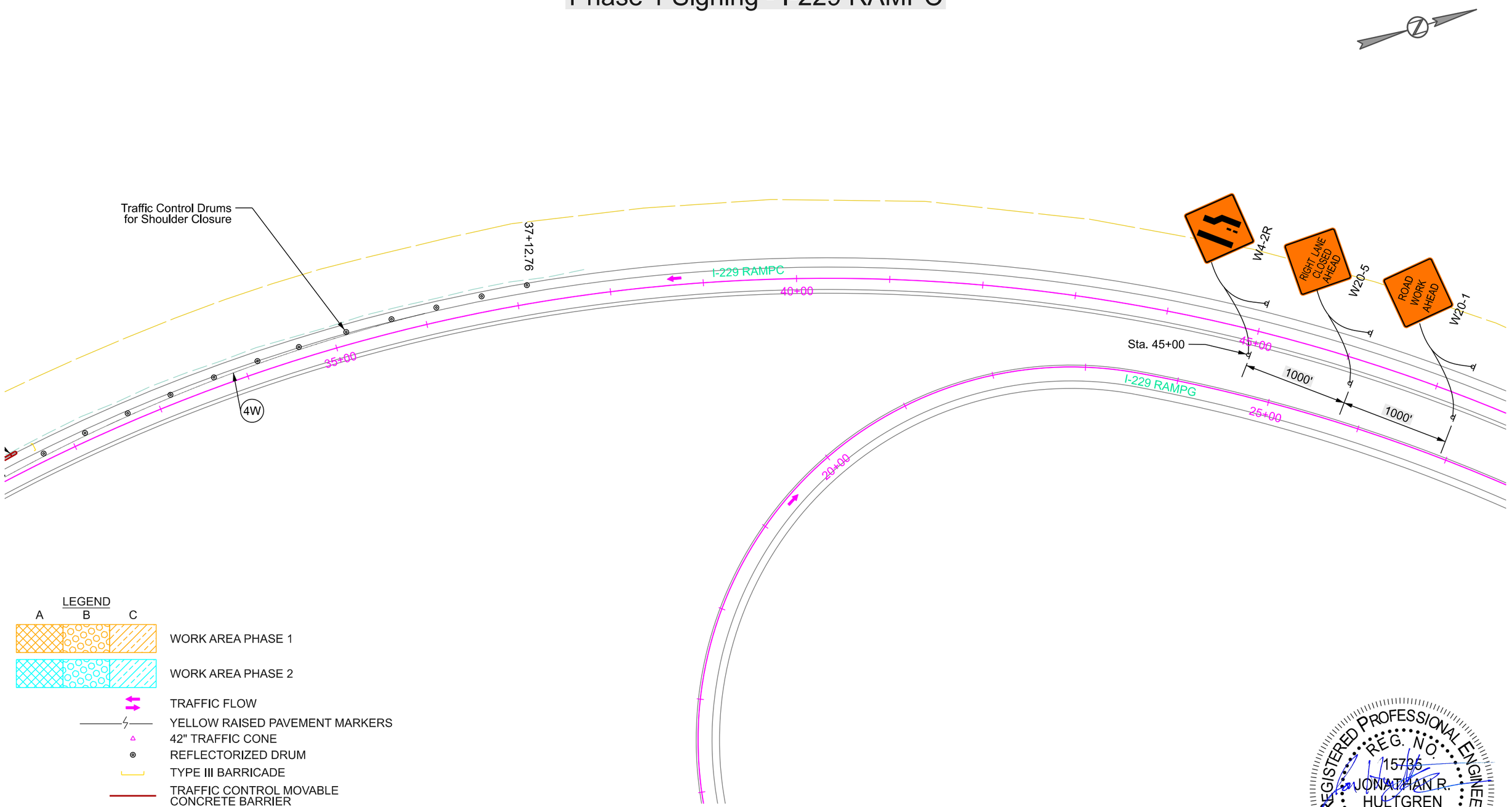
TRAFFIC CONTROL

Phase 1 Signing - I-229 RAMPC

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C40	C85

Plotting Date: 5/16/2025



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- 4W or 4Y — 4" TEMPORARY PAINT, WHITE OR YELLOW

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15795
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

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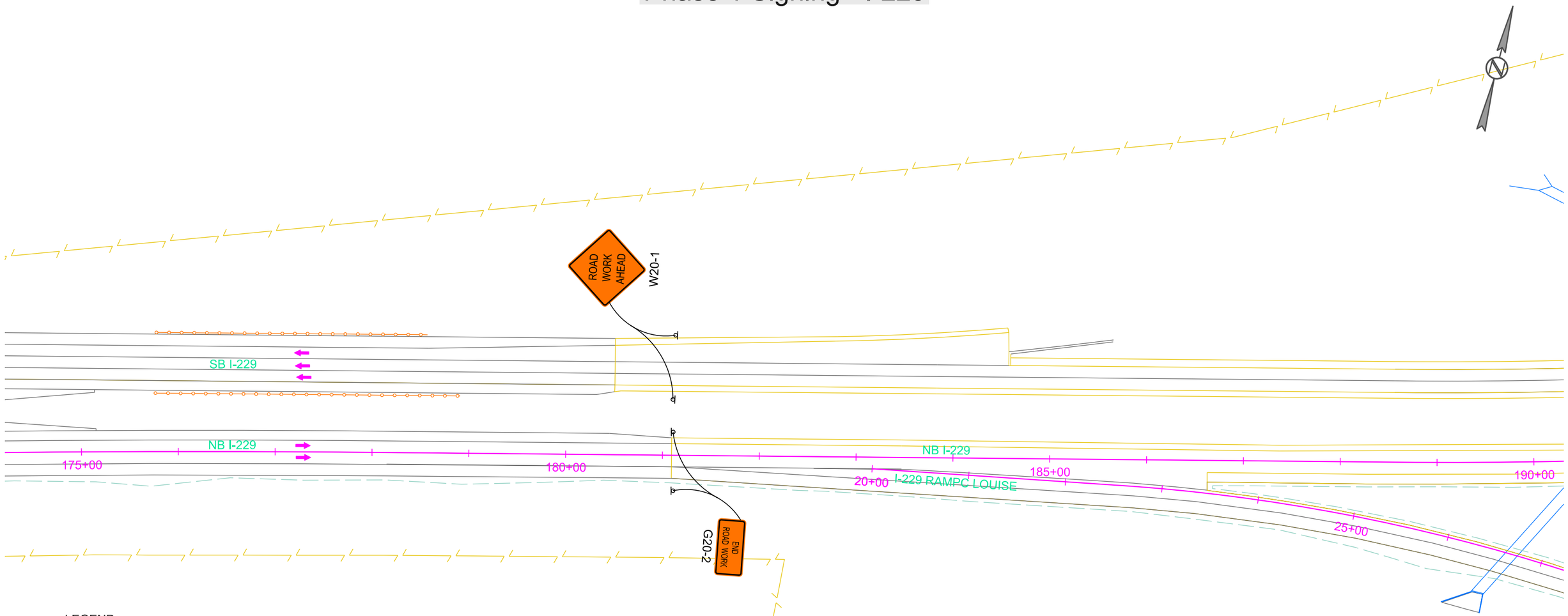
TRAFFIC CONTROL
Phase 1 Signing - I-229

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C41	C85

Plotting Date: 5/16/2025



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15736
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

Plotted From - ngjersvik File - ...\C_06JQ_Year 1.dgn

TRAFFIC CONTROL

Phase 2A Signing - I-29

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C42	C85

Plotted Date: 5/16/2025

LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- 4W or 4Y — 4" TEMPORARY PAINT, WHITE OR YELLOW

SB I-29

NB I-29

Sta. 20+96
Begin Lane CLosure

25+00
24+86

500'

1300 | 2600' | 1300' | 500' | 1000' | 500'

DISTANCES NOT TO SCALE

404'

500'

ROAD WORK NEXT 2 MILES G20-1

ROAD WORK AHEAD W20-1

LEFT LANE CLOSED AHEAD W20-5L

ROAD WORK AHEAD W20-1

LEFT LANE CLOSED 1/2 MILE W20-5L

W4-2L

FINES DOUBLE R2-6aP

SPEED LIMIT 55 R2-1

FINES DOUBLE R2-6aP

SPEED LIMIT 55 W3-5

RIGHT LANE CLOSED AHEAD

SPEED LIMIT 65 R2-1

END ROAD WORK G20-2

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15736
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

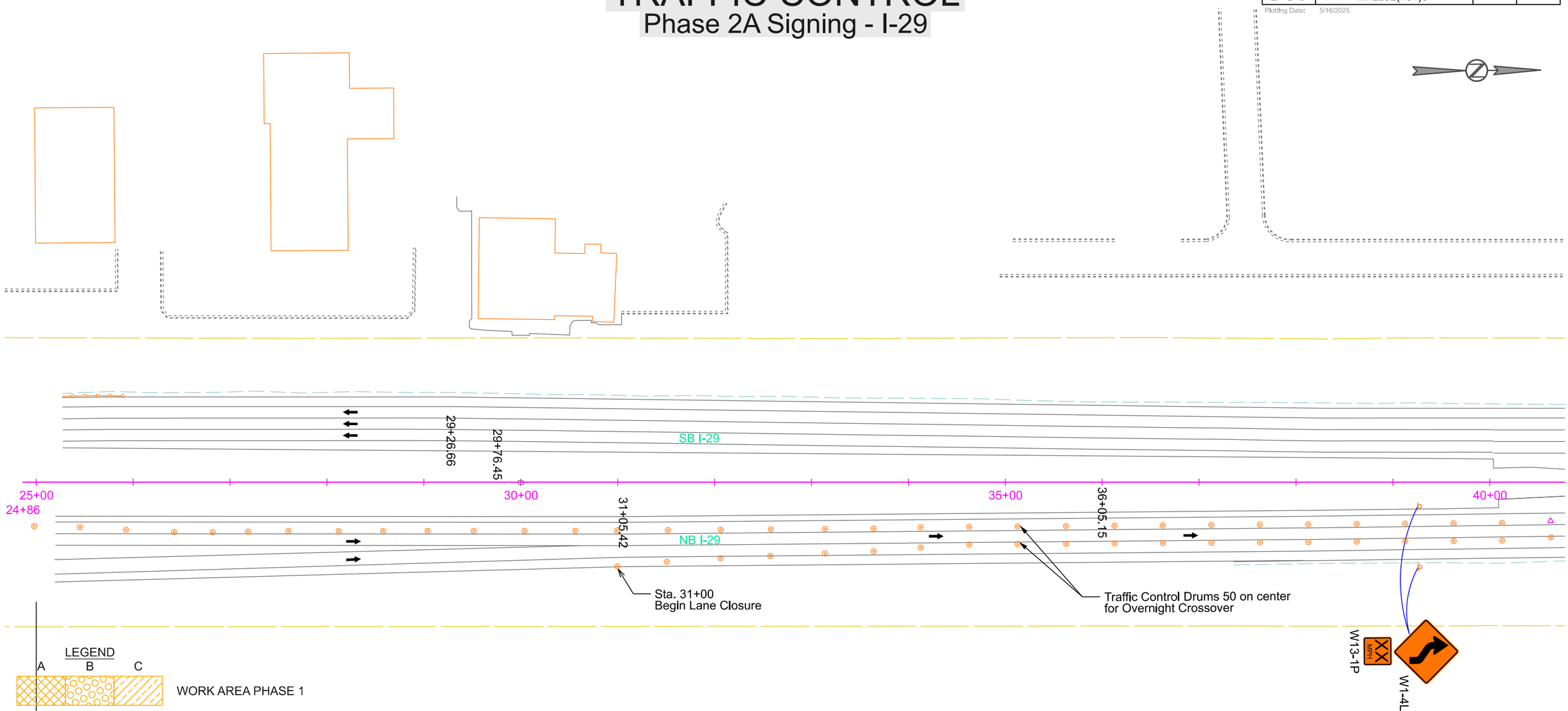
TRAFFIC CONTROL

Phase 2A Signing - I-29

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C43	C85

Plotting Date: 5/16/2025



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15735
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

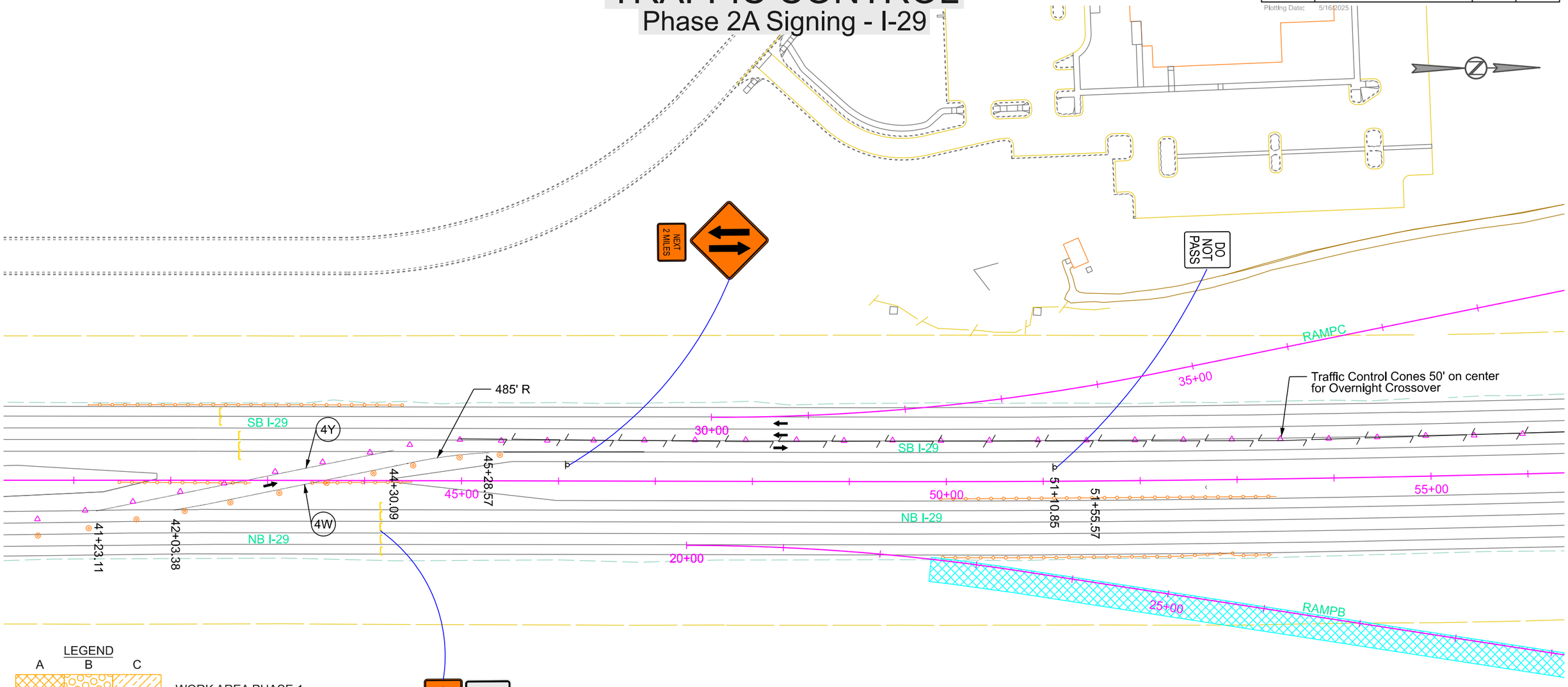
TRAFFIC CONTROL

Phase 2A Signing - I-29

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C44	C85

Plotting Date: 5/16/2025



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15735
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

Plotted From - ngjersvik File - ...\C_06JQ_Year 2 - Phase 2A.dgn

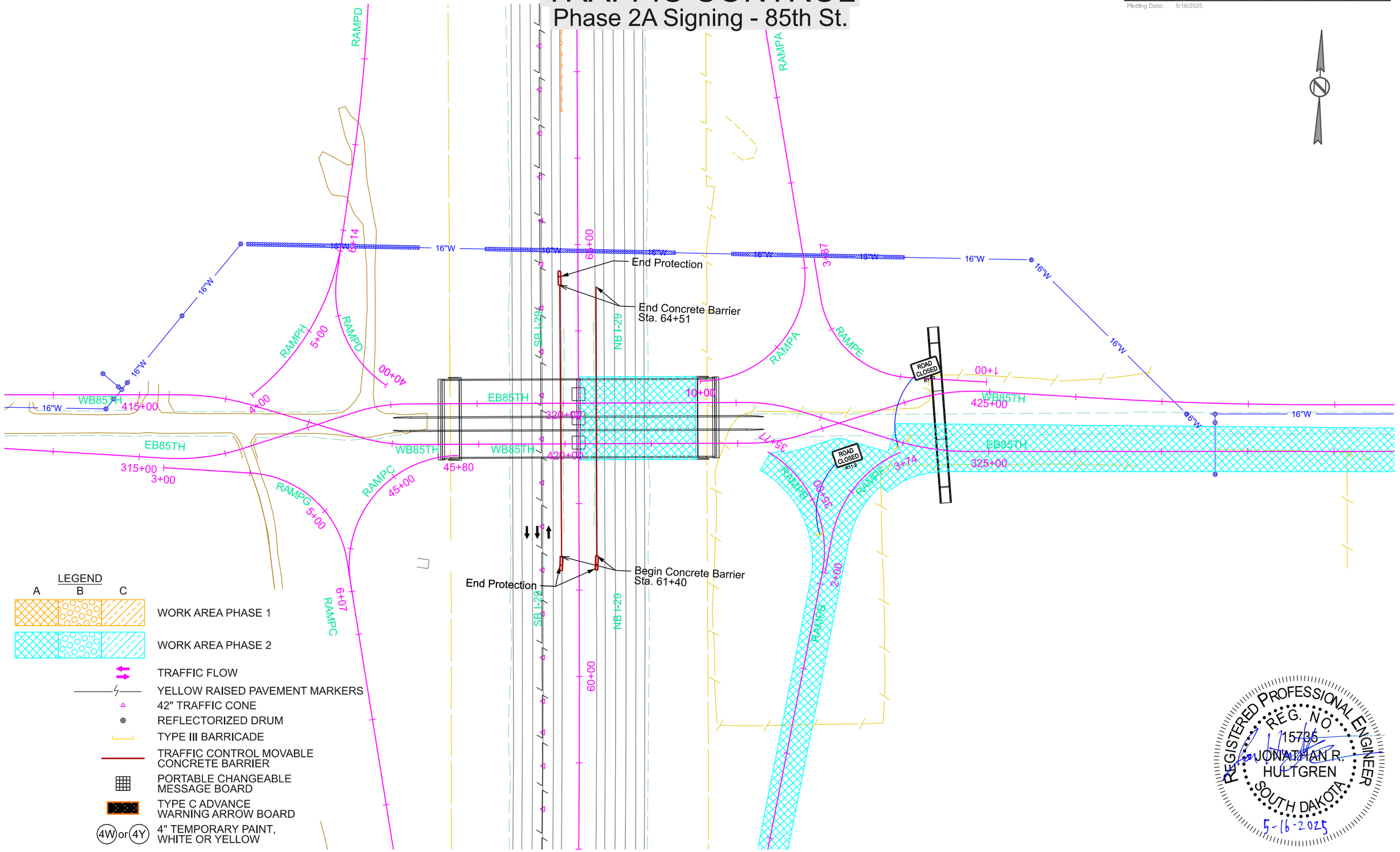
TRAFFIC CONTROL

Phase 2A Signing - 85th St.

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C45	C85

Plotting Date: 5/16/2025



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15735
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

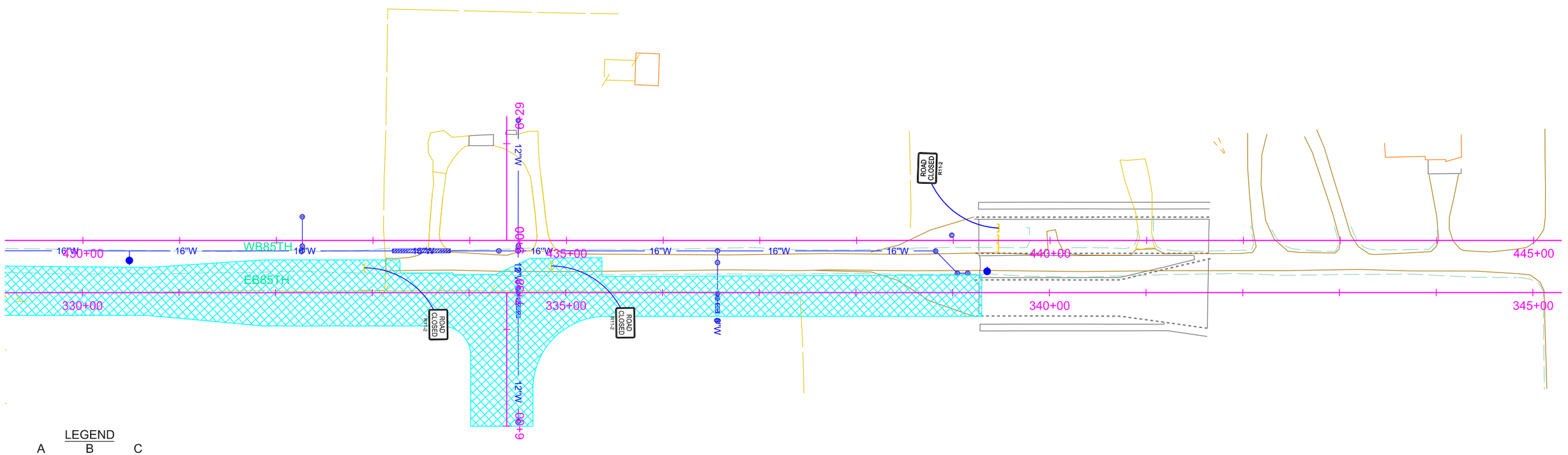
TRAFFIC CONTROL

Phase 2A Signing - 85th St.

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C46	C85

Plotting Date: 5/16/2025



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15735
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

TRAFFIC CONTROL

Phase 2A Signing - I-29

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C47	C85

Plotting Date: 5/16/2025

LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

Traffic Control Cones 50' on center for Overnight Crossover

SB I-29

NB I-29

25+00

30+00

35+00

40+00

55+00

60+00

65+00

115+00

120+00

125+00

I-229 RAMP

I-229 RAMP

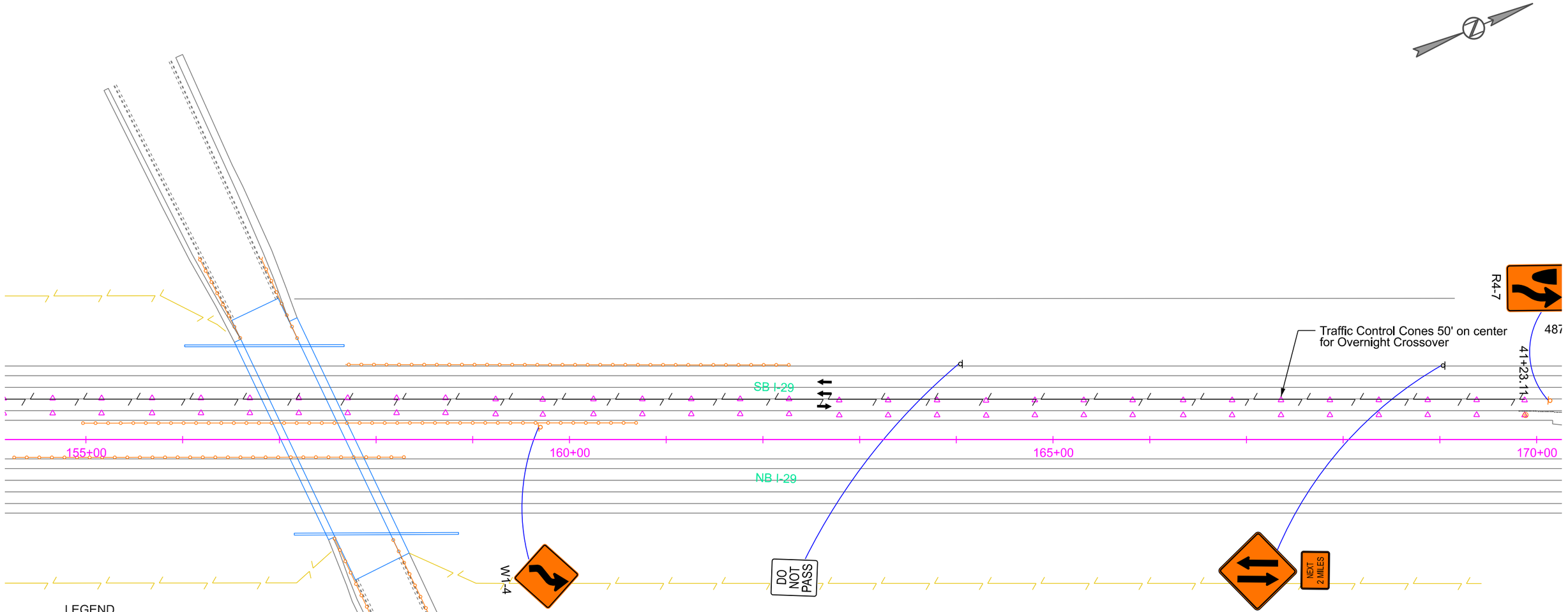
REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15735
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

TRAFFIC CONTROL
Phase 2A Signing - I-29

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C48	C85

Plotting Date: 5/16/2025



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15735
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

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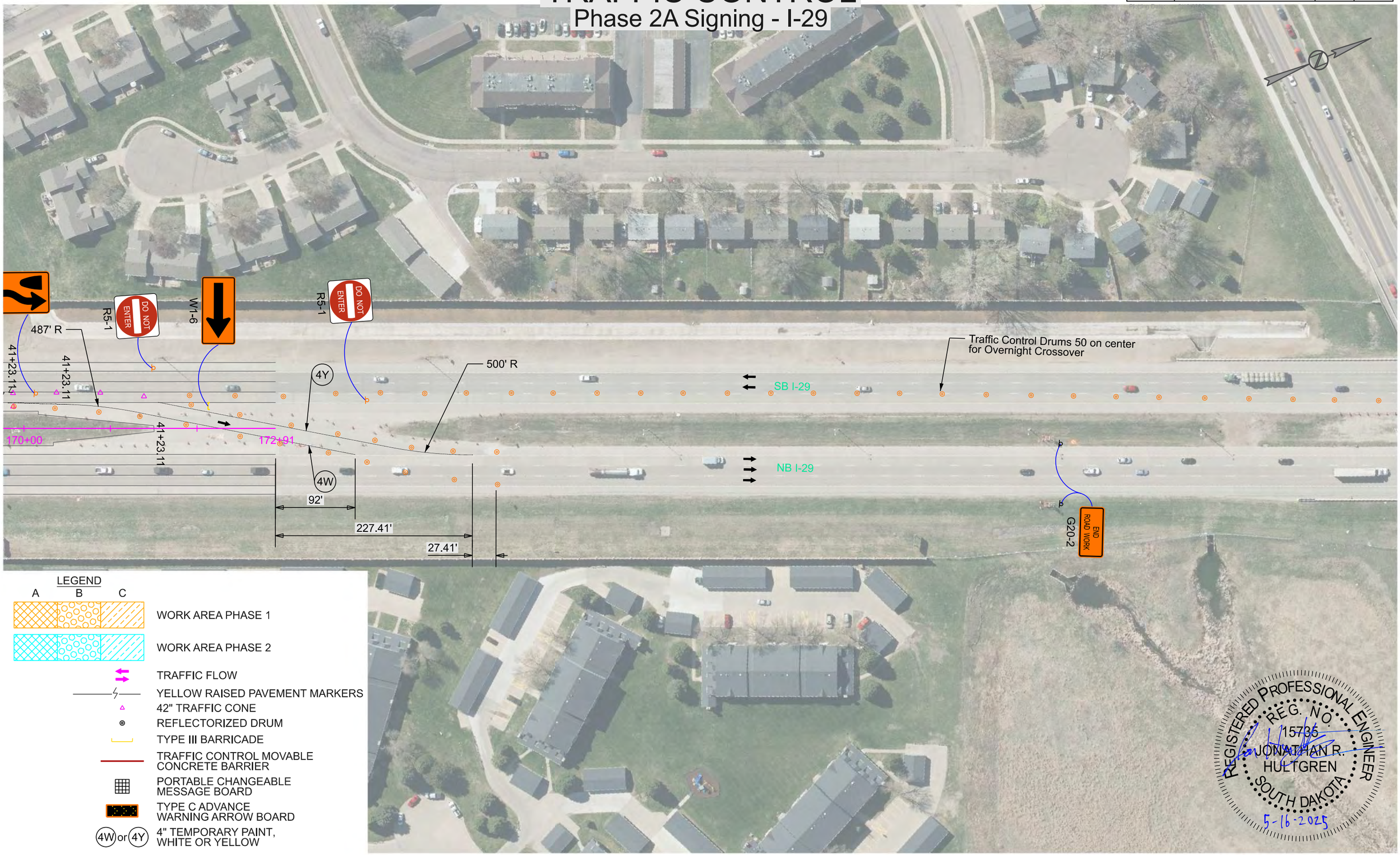
TRAFFIC CONTROL

Phase 2A Signing - I-29

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C49	C85



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- 4W or 4Y — 4" TEMPORARY PAINT, WHITE OR YELLOW

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15736
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

TRAFFIC CONTROL

Phase 2A Signing - I-29

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
Printing Date: 5/16/2025	EM 0292(88)73 IM 2292(104)0	C50	C85

LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15736
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

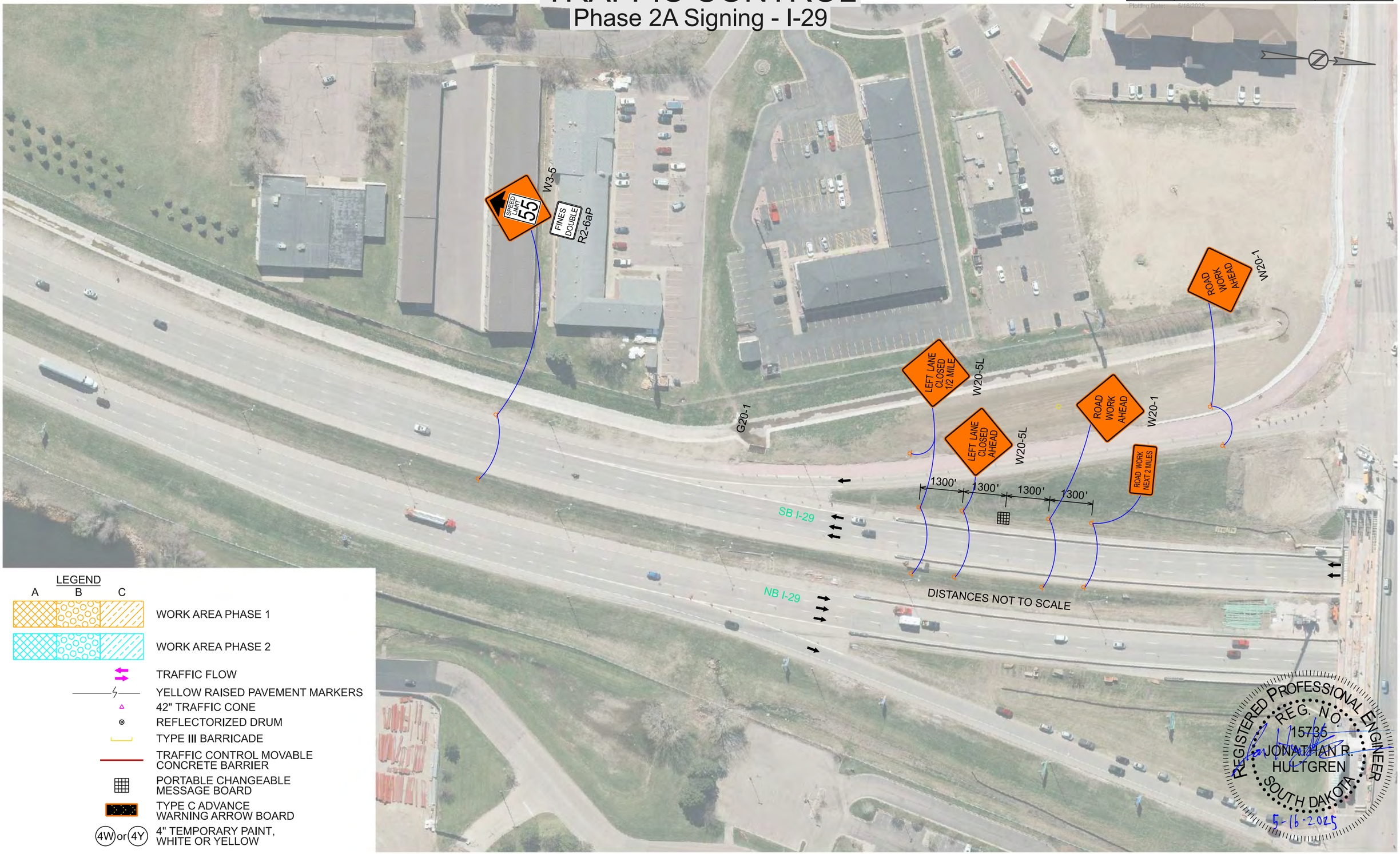
TRAFFIC CONTROL

FOR BIDDING PURPOSES ONLY

Phase 2A Signing - I-29

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C51	C85

Plotting Date: 5/16/2025



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15736
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

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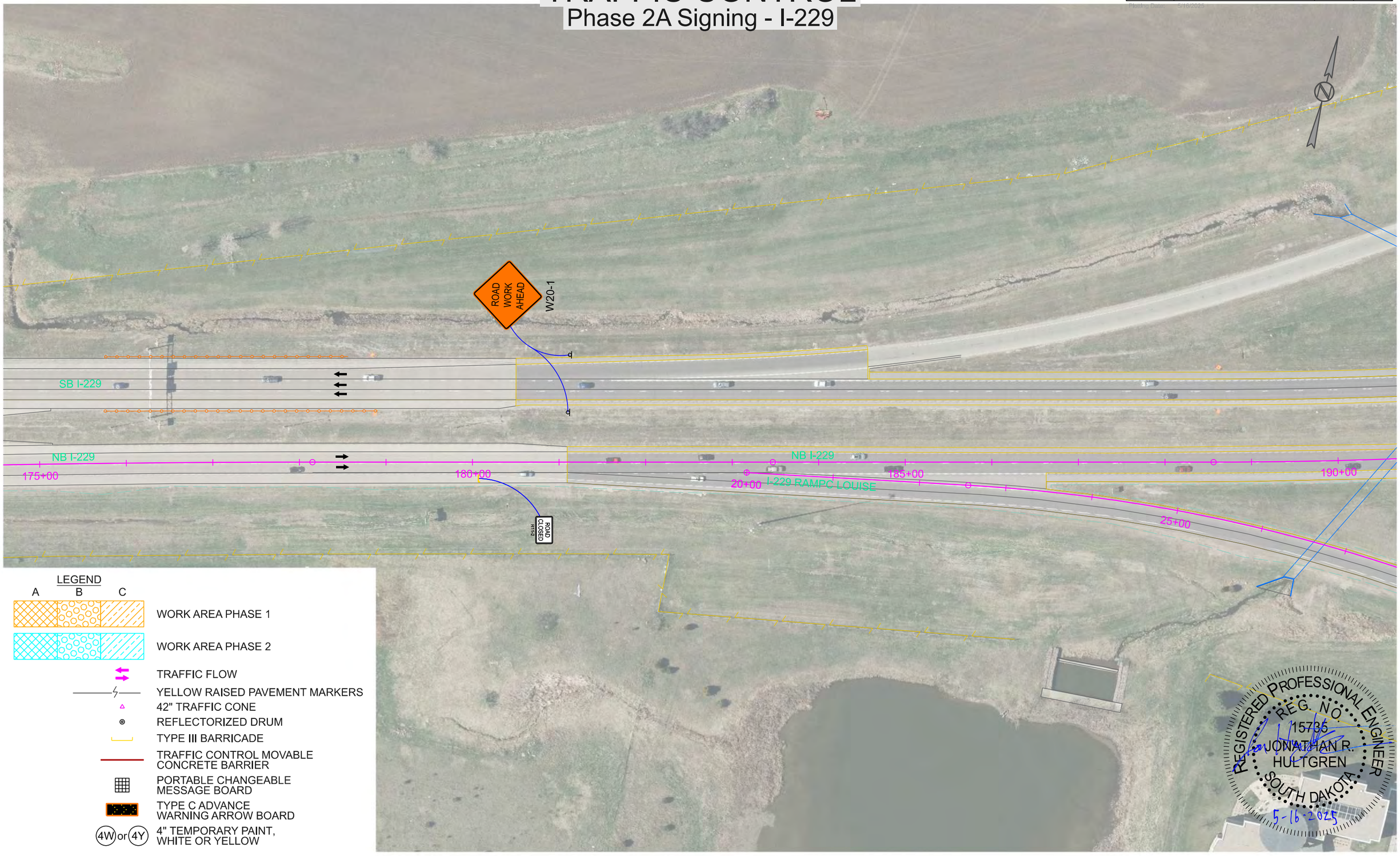
TRAFFIC CONTROL

Phase 2A Signing - I-229

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C52	C85

Plotting Date: 5/16/2025



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

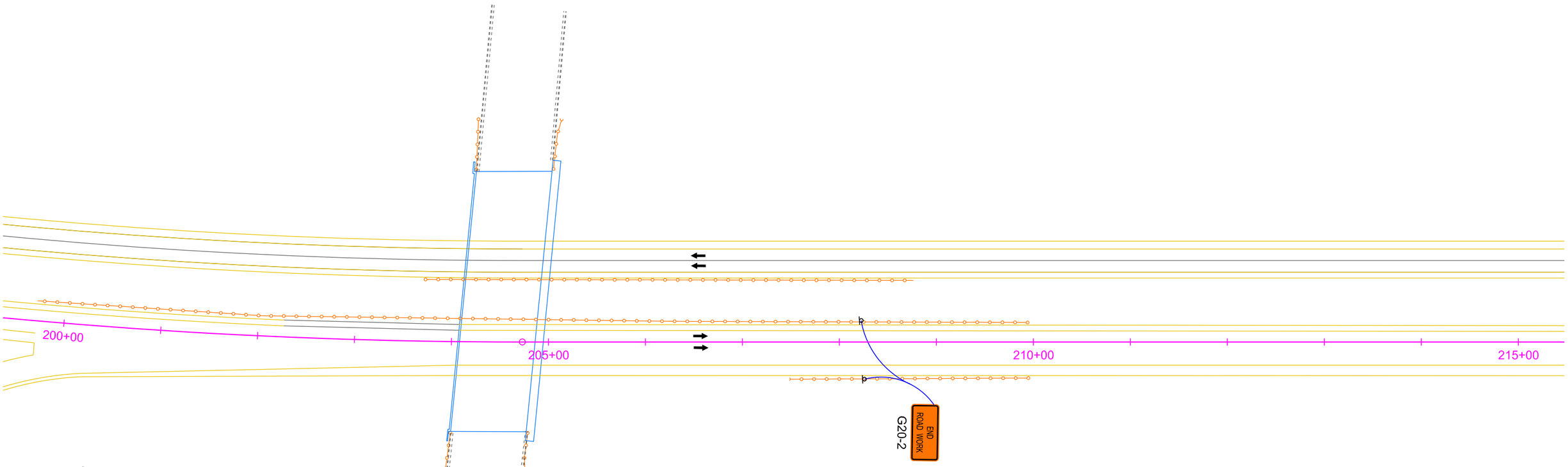
REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15736
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

TRAFFIC CONTROL
Phase 2A Signing - I-229

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C53	C85

Plotting Date: 5/16/2025



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15736
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

TRAFFIC CONTROL

Phase 2B Signing - I-29

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C54	C85

Plotted Date: 5/16/2025

LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15736
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

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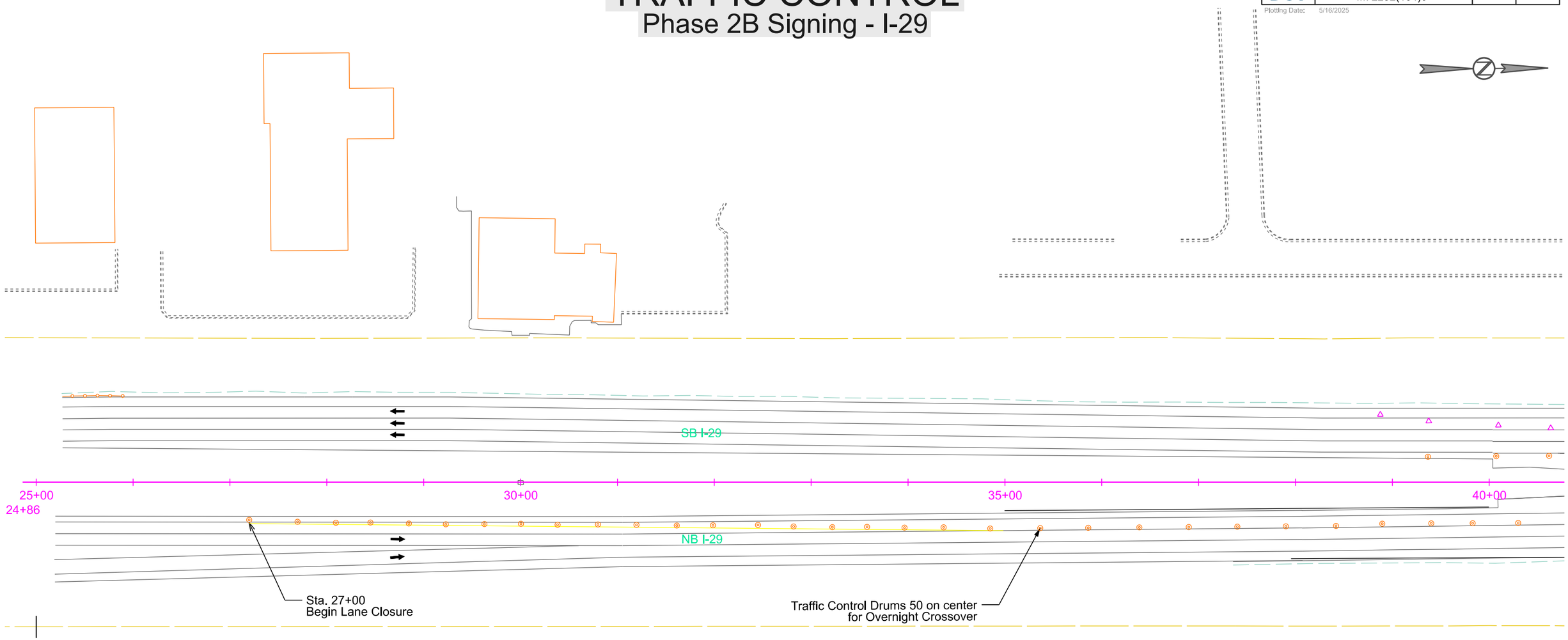
TRAFFIC CONTROL

Phase 2B Signing - I-29

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C55	C85

Plotting Date: 5/16/2025



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15736
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

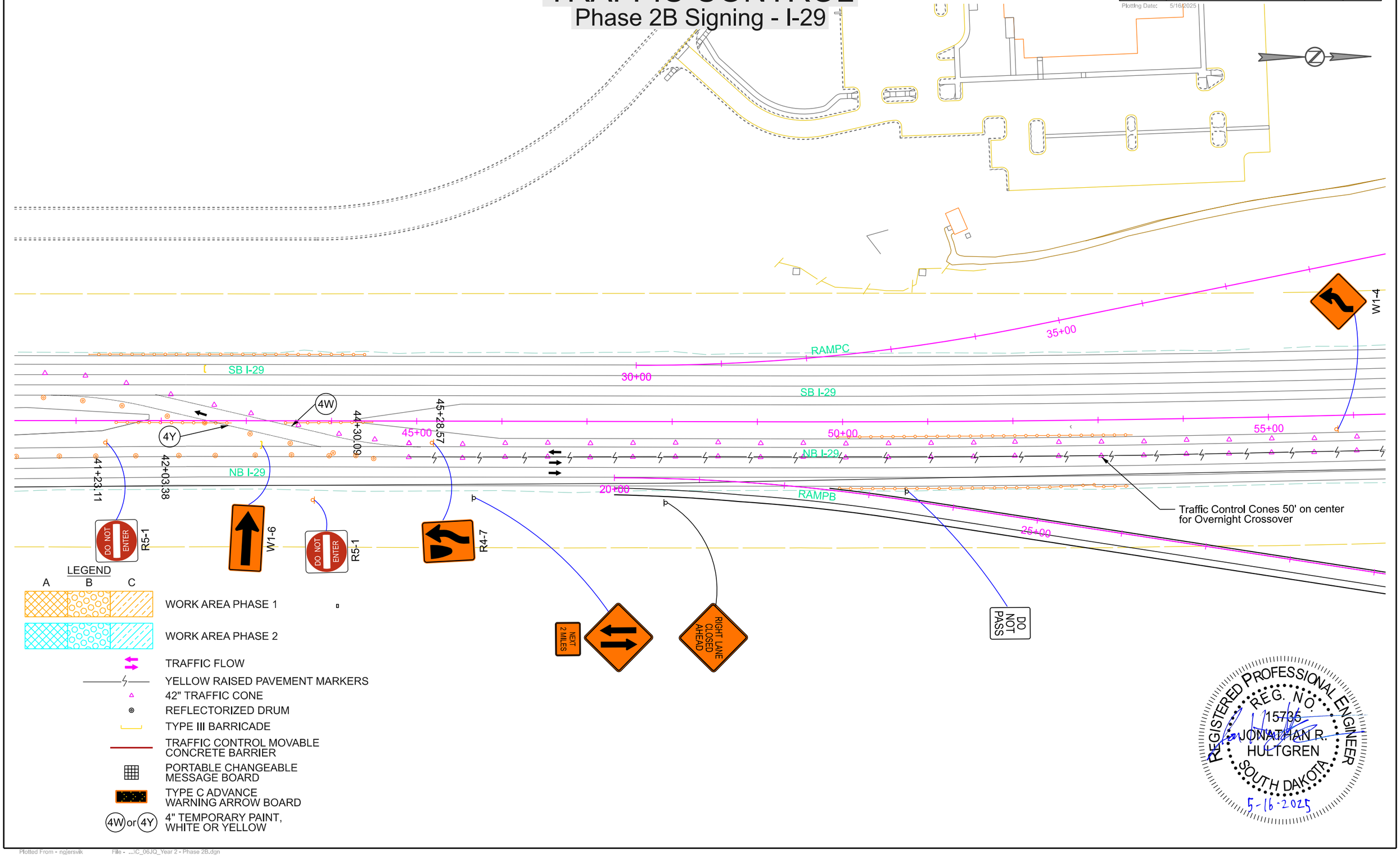
TRAFFIC CONTROL

Phase 2B Signing - I-29

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C56	C85

Plotting Date: 5/16/2025



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15786
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

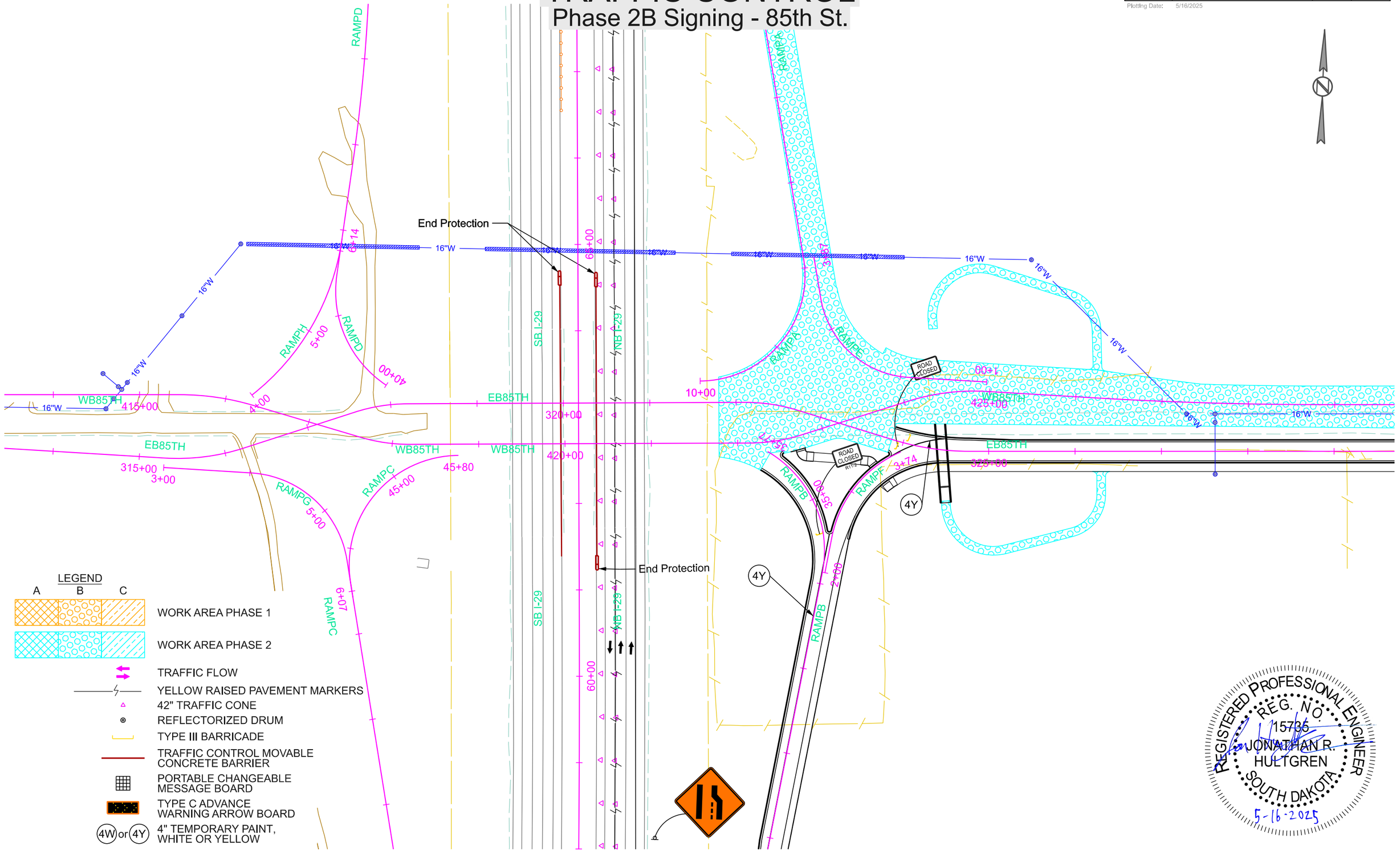
Plotted From - ngjersvik File - ...\C_06JQ_Year 2 - Phase 2B.dgn

TRAFFIC CONTROL

Phase 2B Signing - 85th St.

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
Plotting Date: 5/16/2025	EM 0292(88)73 IM 2292(104)0	C57	C85



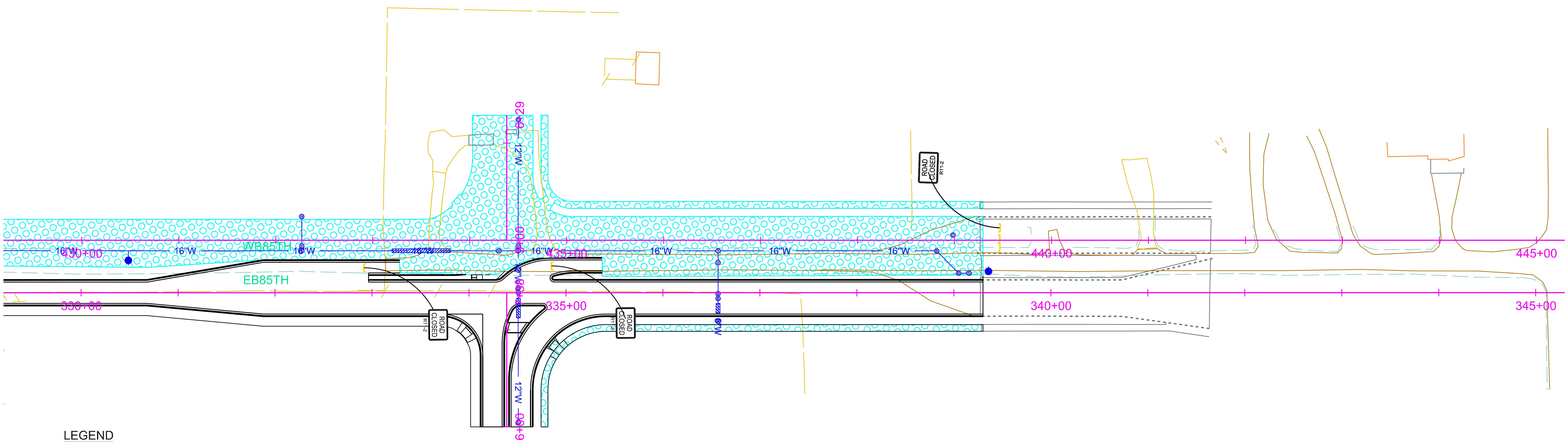
REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15736
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

TRAFFIC CONTROL
Phase 2B Signing - 85th St.

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C58	C85

Plotting Date: 5/16/2025



LEGEND

A	B	C	
			WORK AREA PHASE 1
			WORK AREA PHASE 2

- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15735
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

TRAFFIC CONTROL

Phase 2B Signing - I-29

FOR BIDDING PURPOSES ONLY

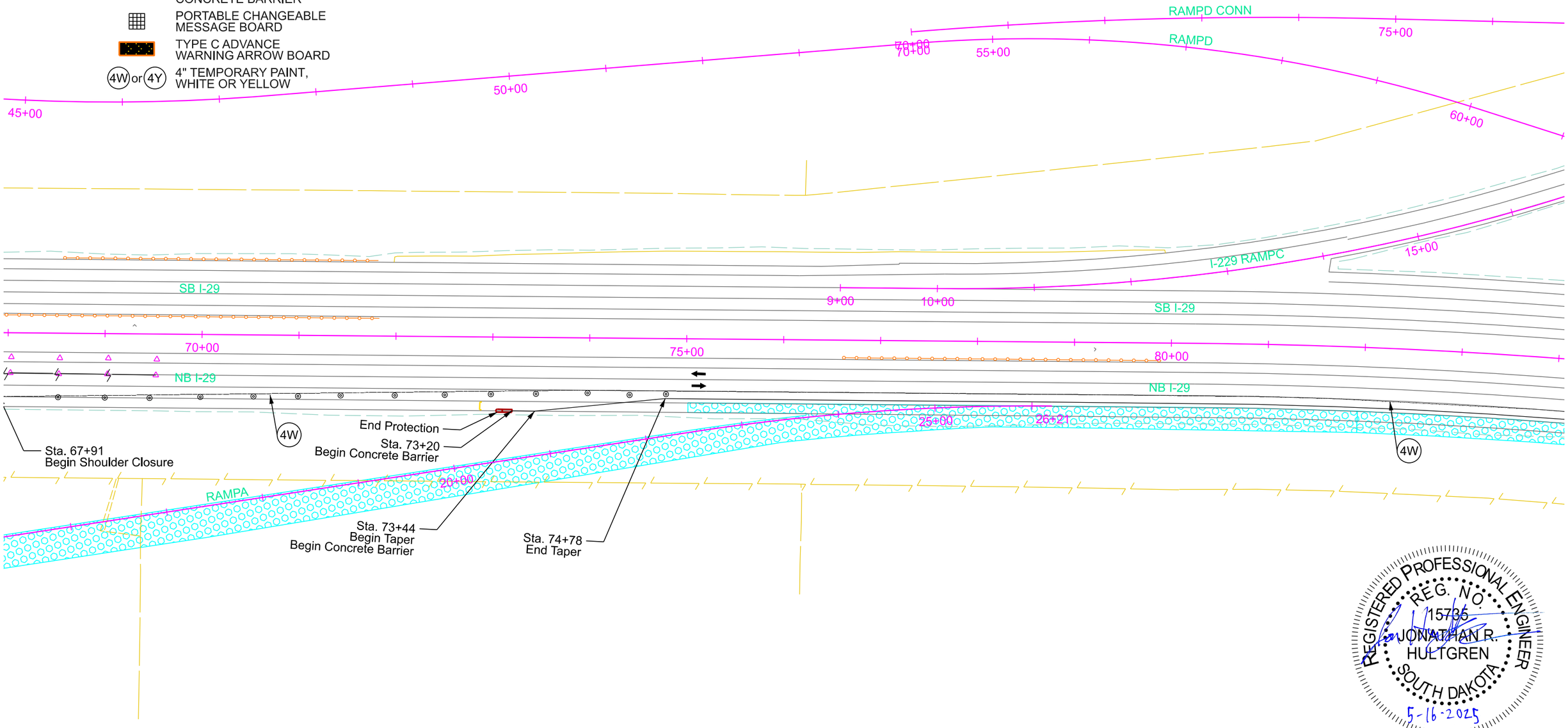
SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C59	C85

Plotting Date: 5/16/2025

LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- 4W or 4Y — 4" TEMPORARY PAINT, WHITE OR YELLOW



REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15735
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

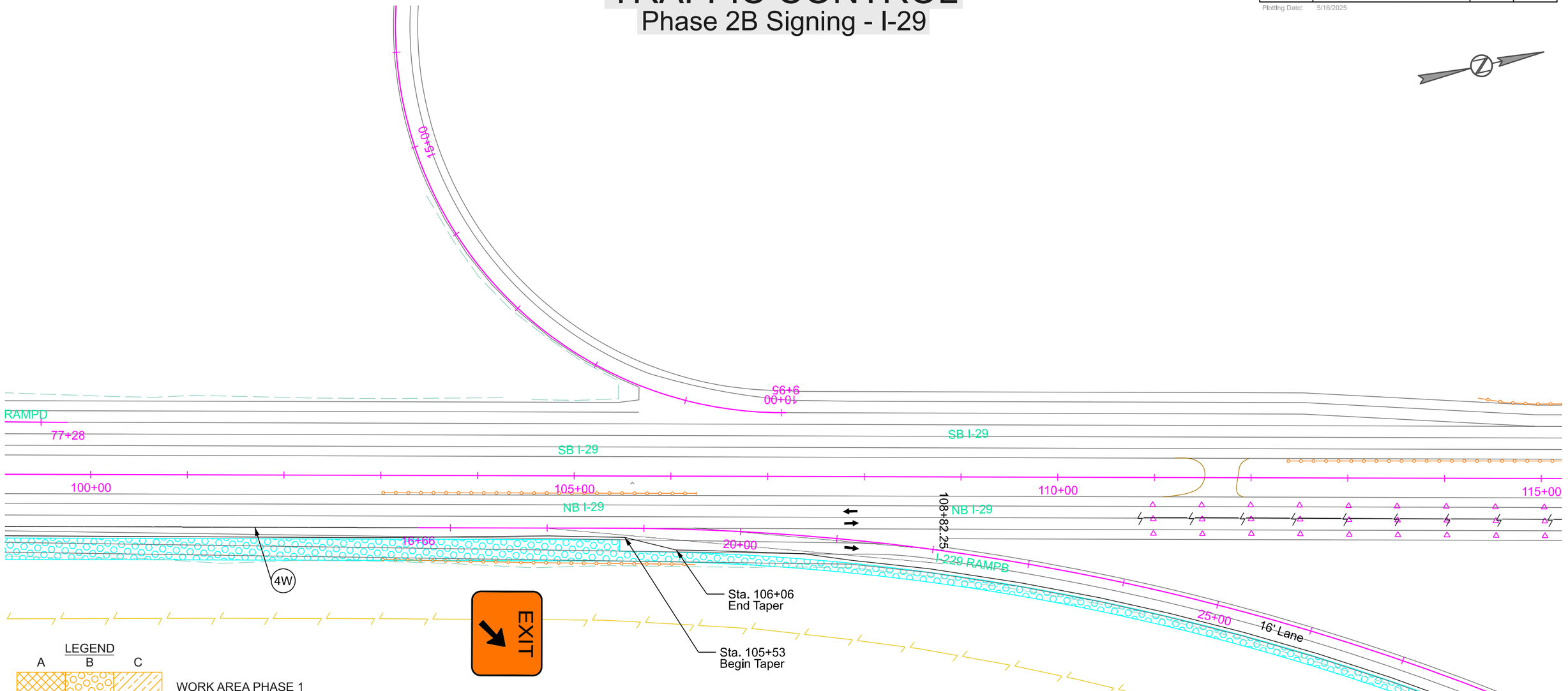
TRAFFIC CONTROL

Phase 2B Signing - I-29

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C60	C85

Plotting Date: 5/16/2025



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

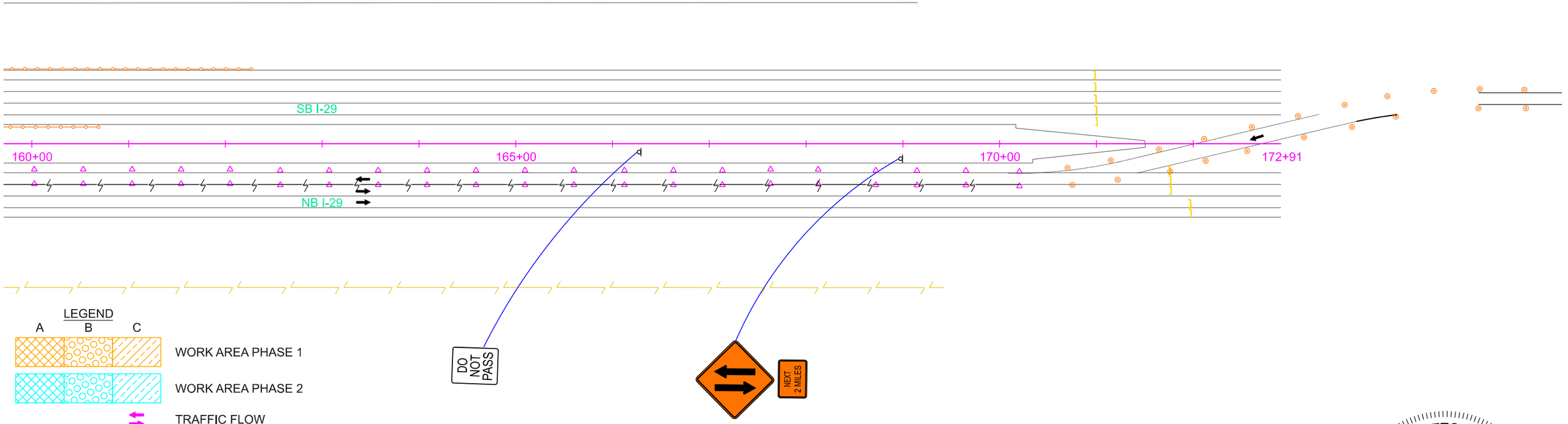
REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15736
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

TRAFFIC CONTROL
Phase 2B Signing - I-29

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C61	C85

Plotting Date: 5/16/2025



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15735
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

TRAFFIC CONTROL

Phase 2B Signing - I-29

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C62	C85

Plotting Date: 5/16/2025

LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15736
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

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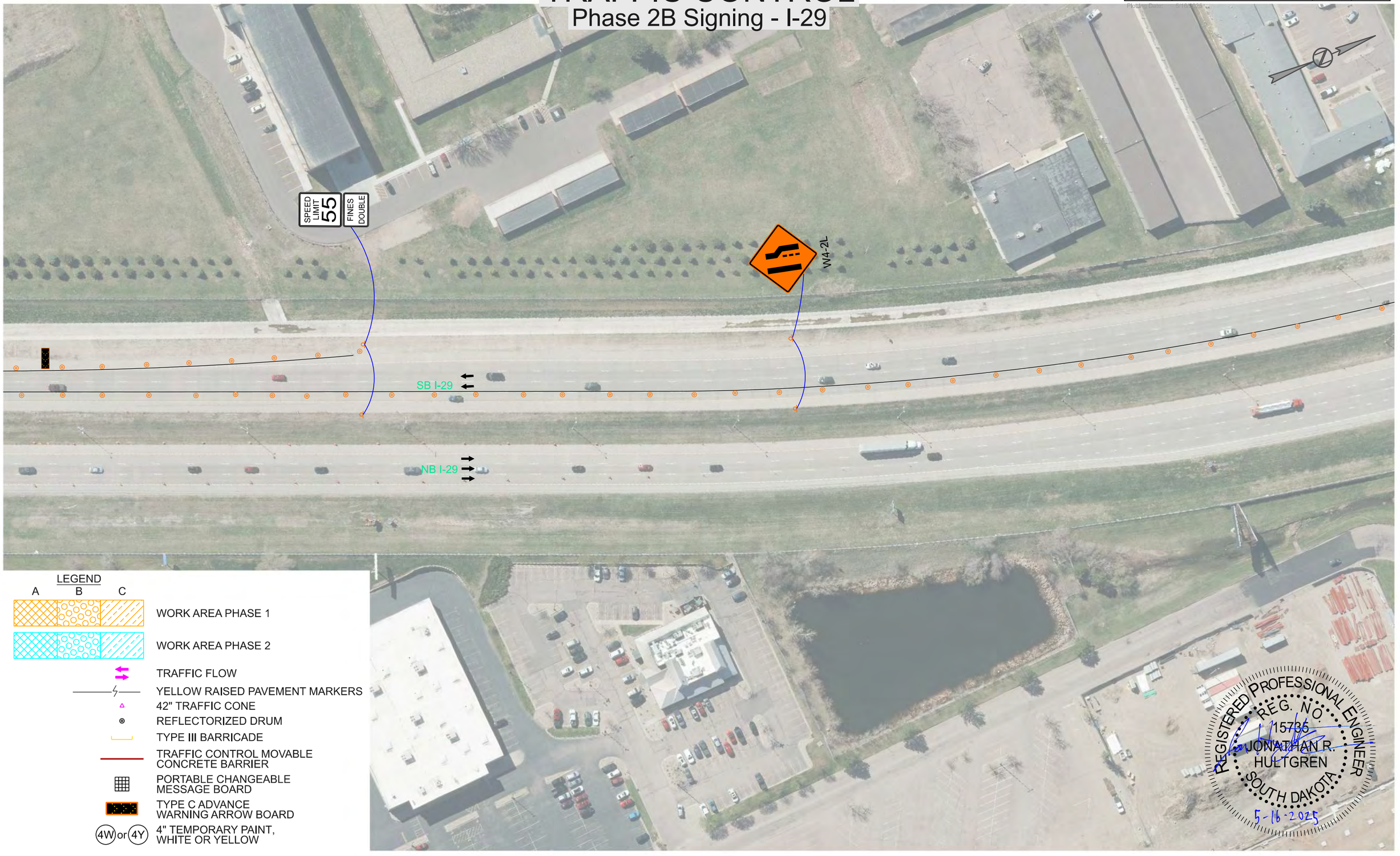
TRAFFIC CONTROL

Phase 2B Signing - I-29

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C63	C85

Plotted Date: 5/16/2025



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15736
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

Plotted From - ngjersvik File - ...\C_06JQ_Year 2 - Phase 2B.dgn

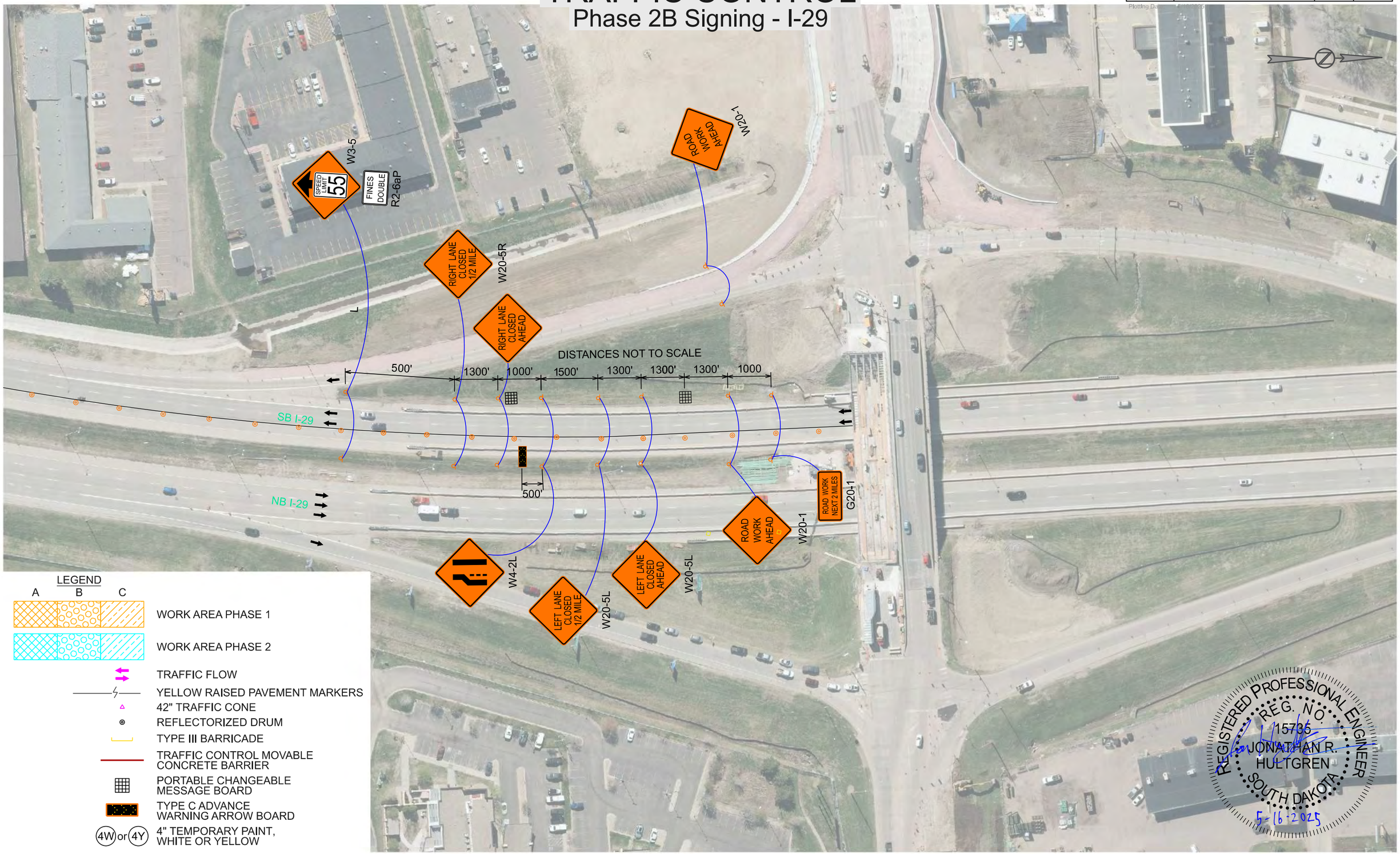
TRAFFIC CONTROL

Phase 2B Signing - I-29

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C64	C85

Plotting Date: [illegible]



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15736
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

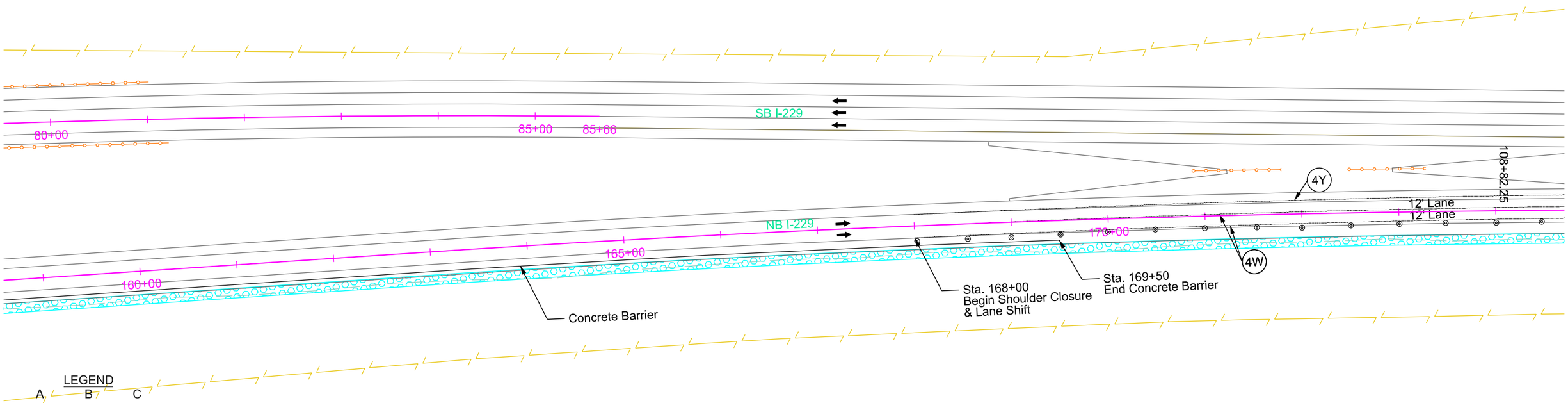
Plotted From - ngjersvik File - ...\C_06JQ_Year 2 - Phase 2B.dgn

TRAFFIC CONTROL
Phase 2B Signing - I-229

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C65	C85

Plotting Date: 5/16/2025



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

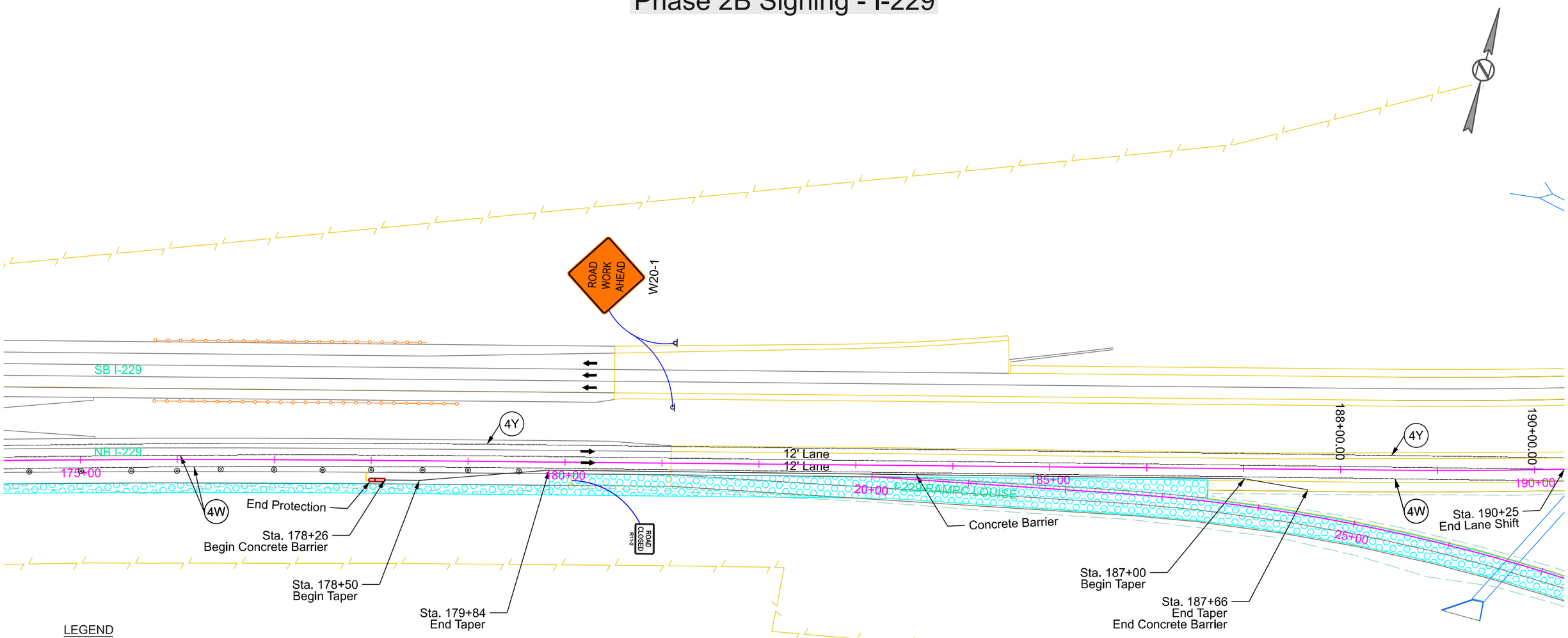
REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15735
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

TRAFFIC CONTROL
Phase 2B Signing - I-229

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C66	C85

Plotting Date: 5/16/2025



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15736
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

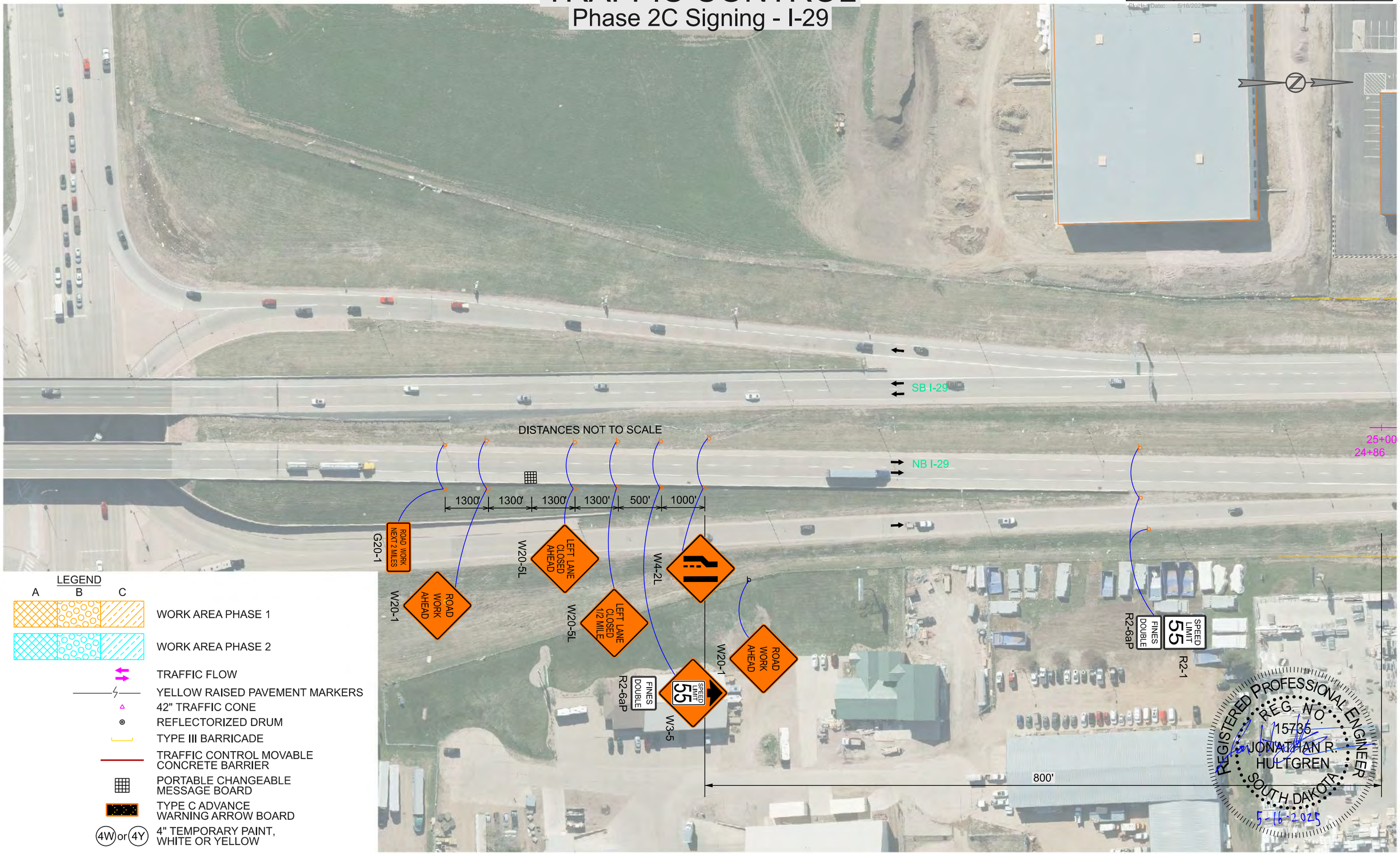
TRAFFIC CONTROL

Phase 2C Signing - I-29

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C67	C85

Plotted Date: 5/16/2025



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- 4W or 4Y — 4" TEMPORARY PAINT, WHITE OR YELLOW

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15736
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

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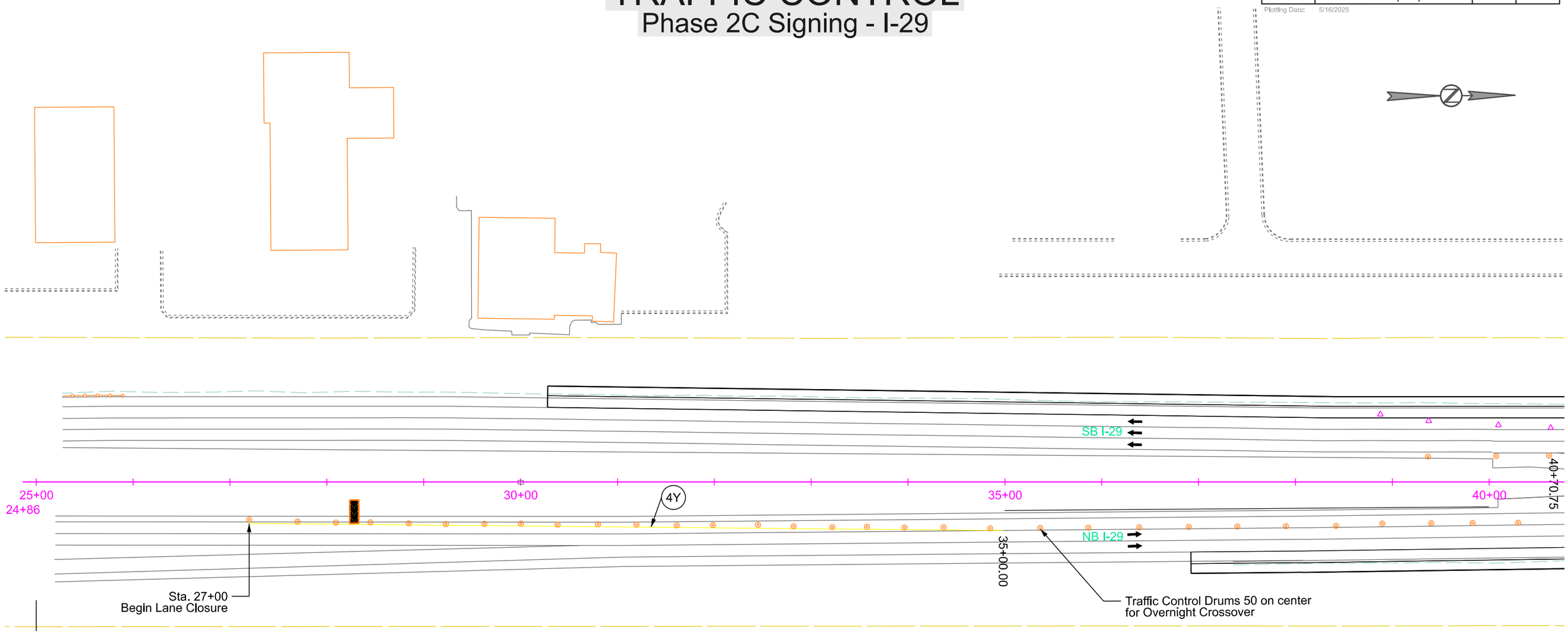
TRAFFIC CONTROL

Phase 2C Signing - I-29

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C68	C85

Plotting Date: 5/16/2025



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15786
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

Plotted From - ngjersvik File - ...\C_06JQ_Year 2 - Phase 2C.dgn

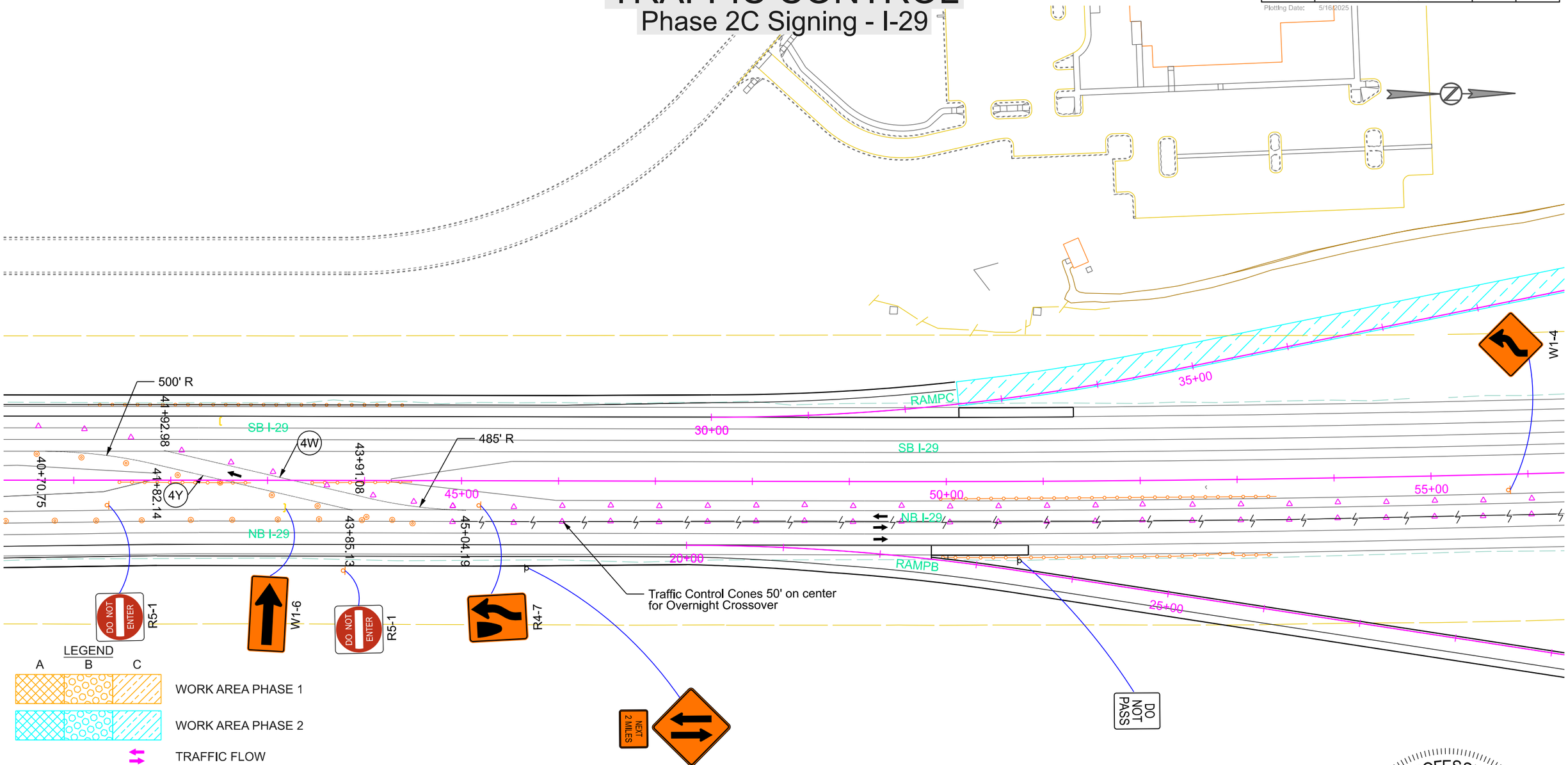
TRAFFIC CONTROL

Phase 2C Signing - I-29

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C69	C85

Plotting Date: 5/16/2025



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- 4W or 4Y — 4" TEMPORARY PAINT, WHITE OR YELLOW

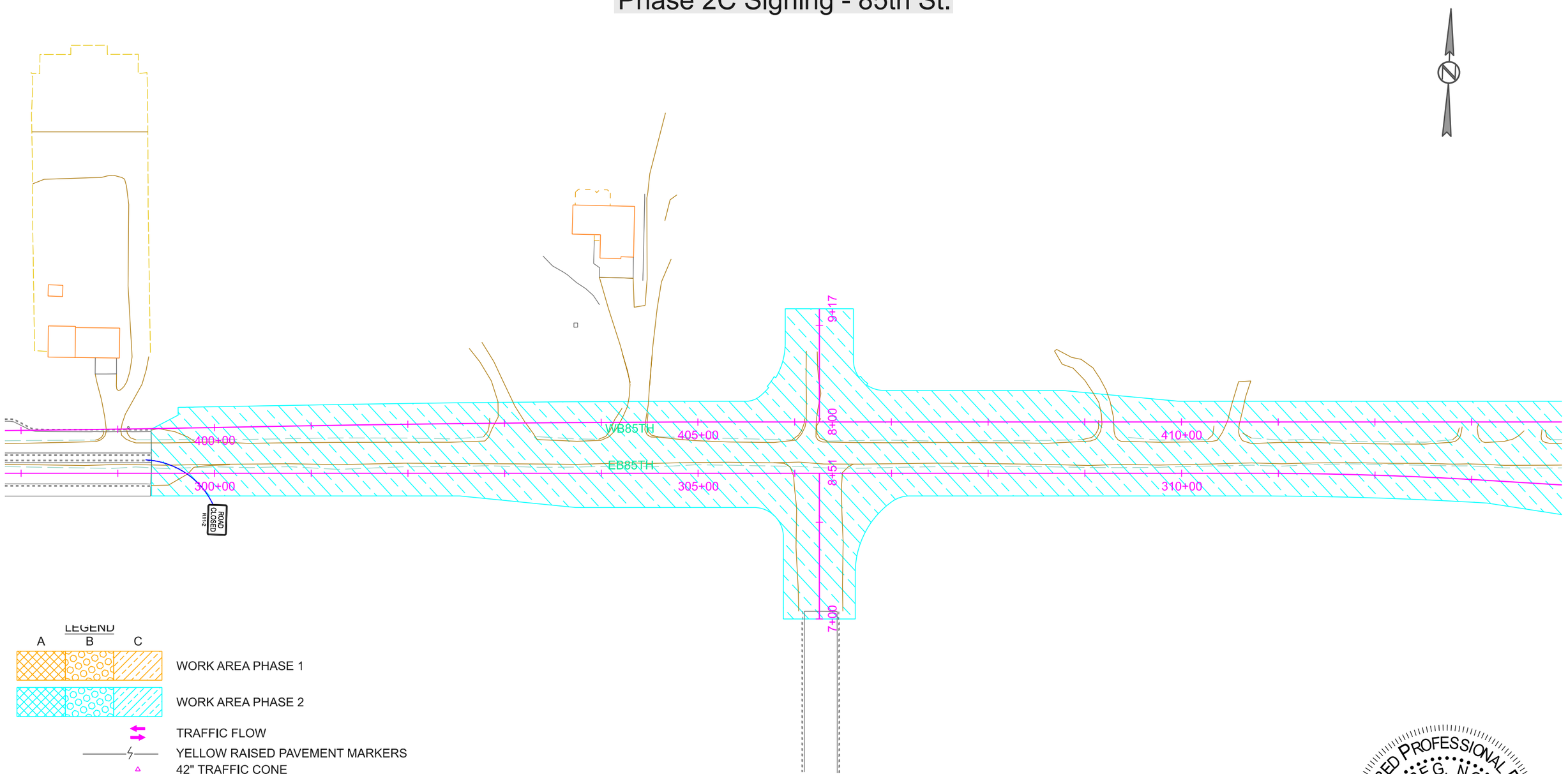
REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15736
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

TRAFFIC CONTROL
Phase 2C Signing - 85th St.

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C70	C85

Plotting Date: 5/16/2025



LEGEND

A	B	C	
			WORK AREA PHASE 1
			WORK AREA PHASE 2
			TRAFFIC FLOW
			YELLOW RAISED PAVEMENT MARKERS
			42" TRAFFIC CONE
			REFLECTORIZED DRUM
			TYPE III BARRICADE
			TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
			PORTABLE CHANGEABLE MESSAGE BOARD
			TYPE C ADVANCE WARNING ARROW BOARD
			4W or 4Y — 4" TEMPORARY PAINT, WHITE OR YELLOW

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15736
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

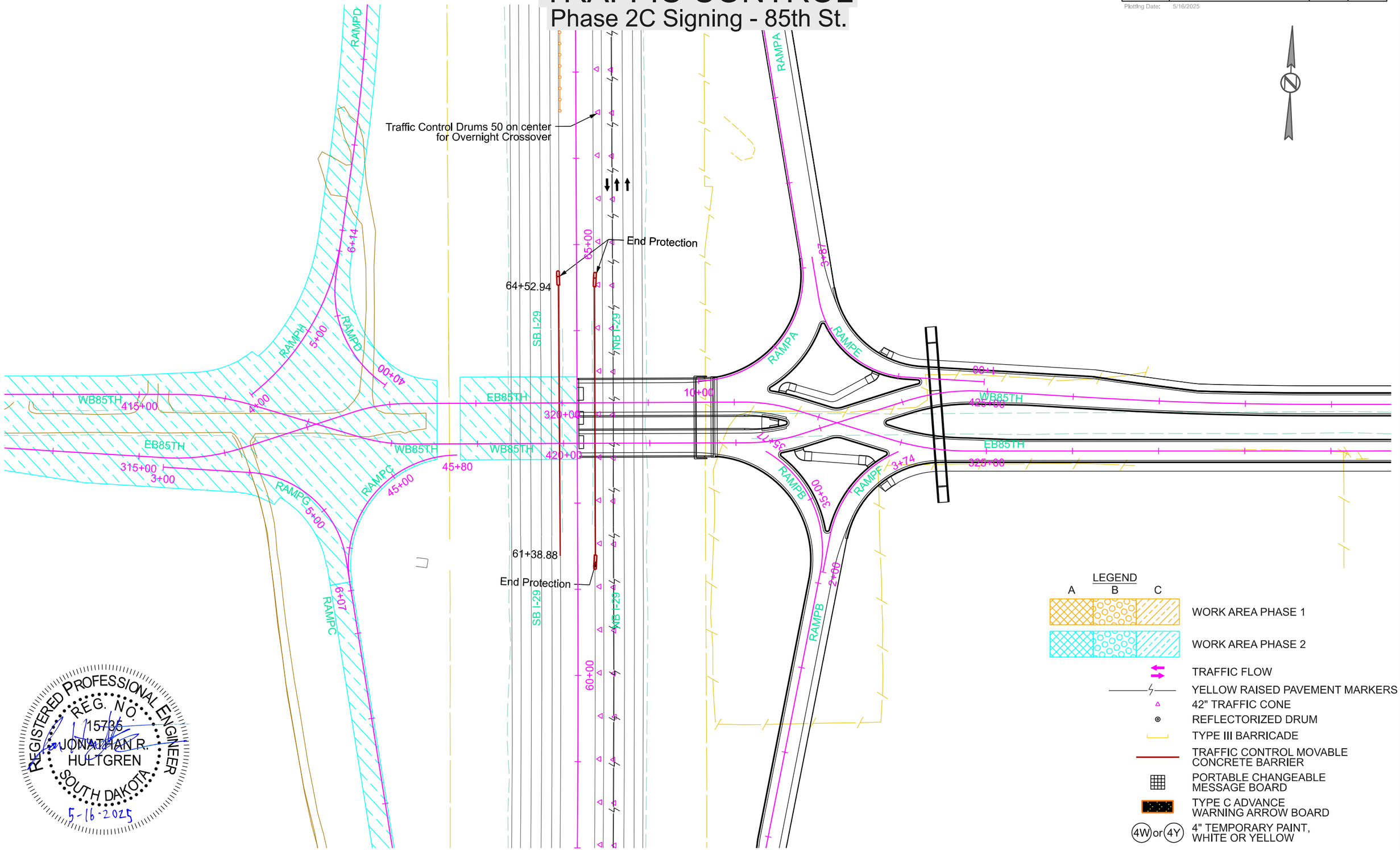
Plotted From - ngjersvik File - ...\C_06JQ_Year 2 - Phase 2C.dgn

TRAFFIC CONTROL

Phase 2C Signing - 85th St.

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
Plotting Date: 5/16/2025	EM 0292(88)73 IM 2292(104)0	C71	C85



REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15735
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

LEGEND

A	B	C	
			WORK AREA PHASE 1
			WORK AREA PHASE 2
			TRAFFIC FLOW
			YELLOW RAISED PAVEMENT MARKERS
			42" TRAFFIC CONE
			REFLECTORIZED DRUM
			TYPE III BARRICADE
			TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
			PORTABLE CHANGEABLE MESSAGE BOARD
			TYPE C ADVANCE WARNING ARROW BOARD
			(4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

TRAFFIC CONTROL

Phase 2C Signing - I-29

FOR BIDDING PURPOSES ONLY

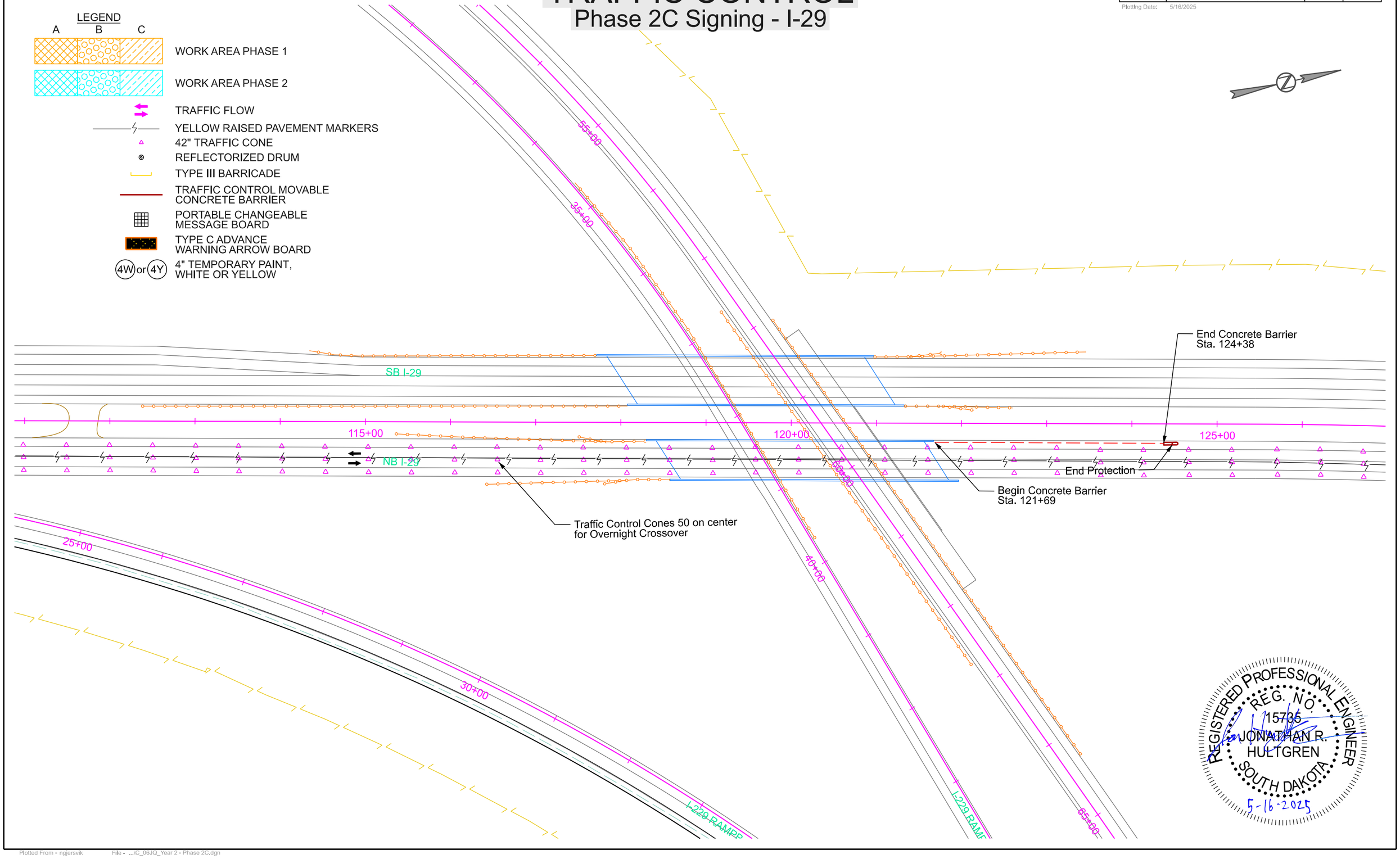
SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C72	C85

Plotting Date: 5/16/2025

LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW



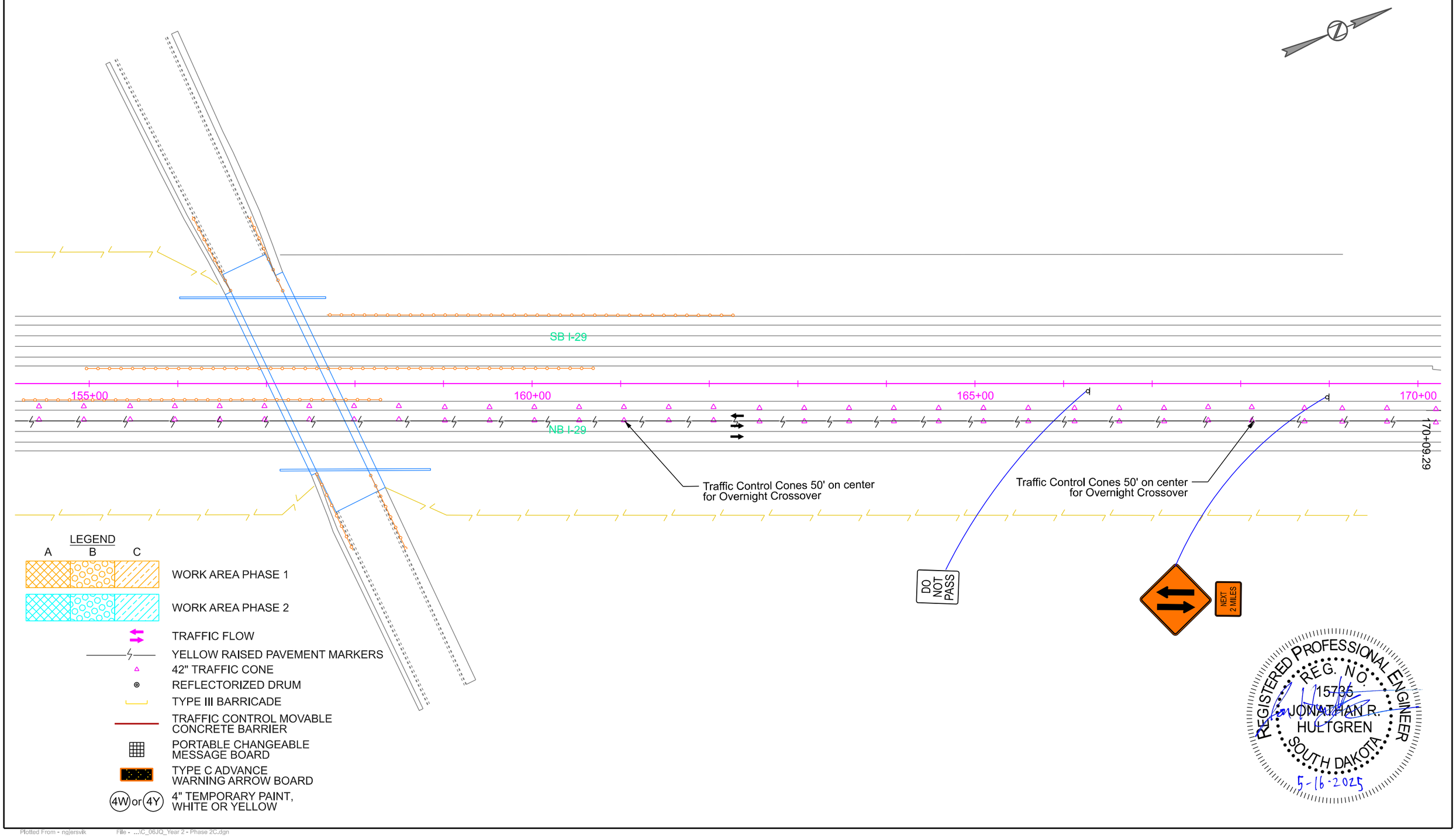
REGISTERED PROFESSIONAL ENGINEER
REG. NO.
15786
JONATHAN R.
HULTGREN
SOUTH DAKOTA
5-16-2025

TRAFFIC CONTROL
Phase 2C Signing - I-29

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C73	C85

Plotting Date: 5/16/2025



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

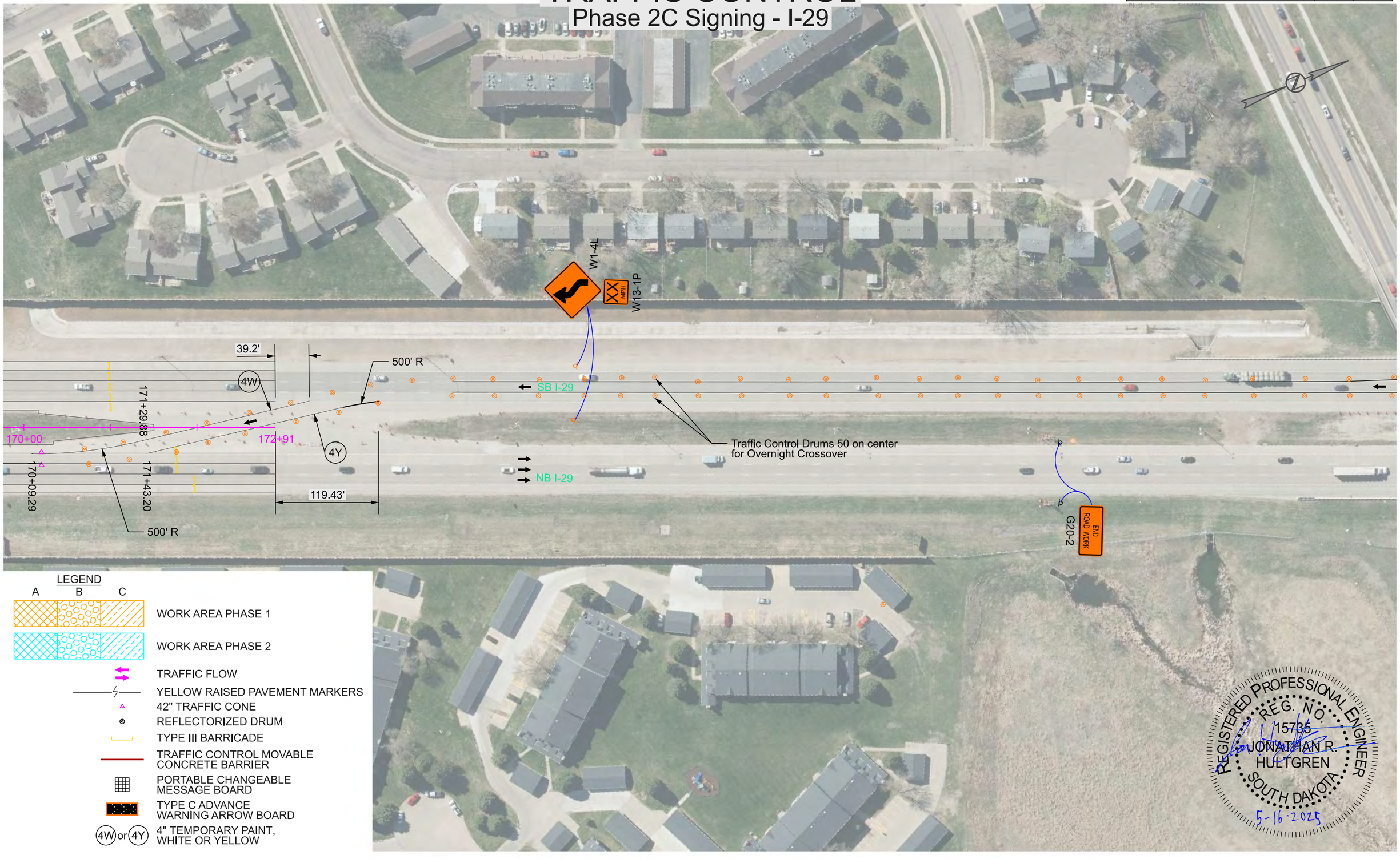
REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15736
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

TRAFFIC CONTROL

Phase 2C Signing - I-29

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C74	C85



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- 4W or 4Y — 4" TEMPORARY PAINT, WHITE OR YELLOW

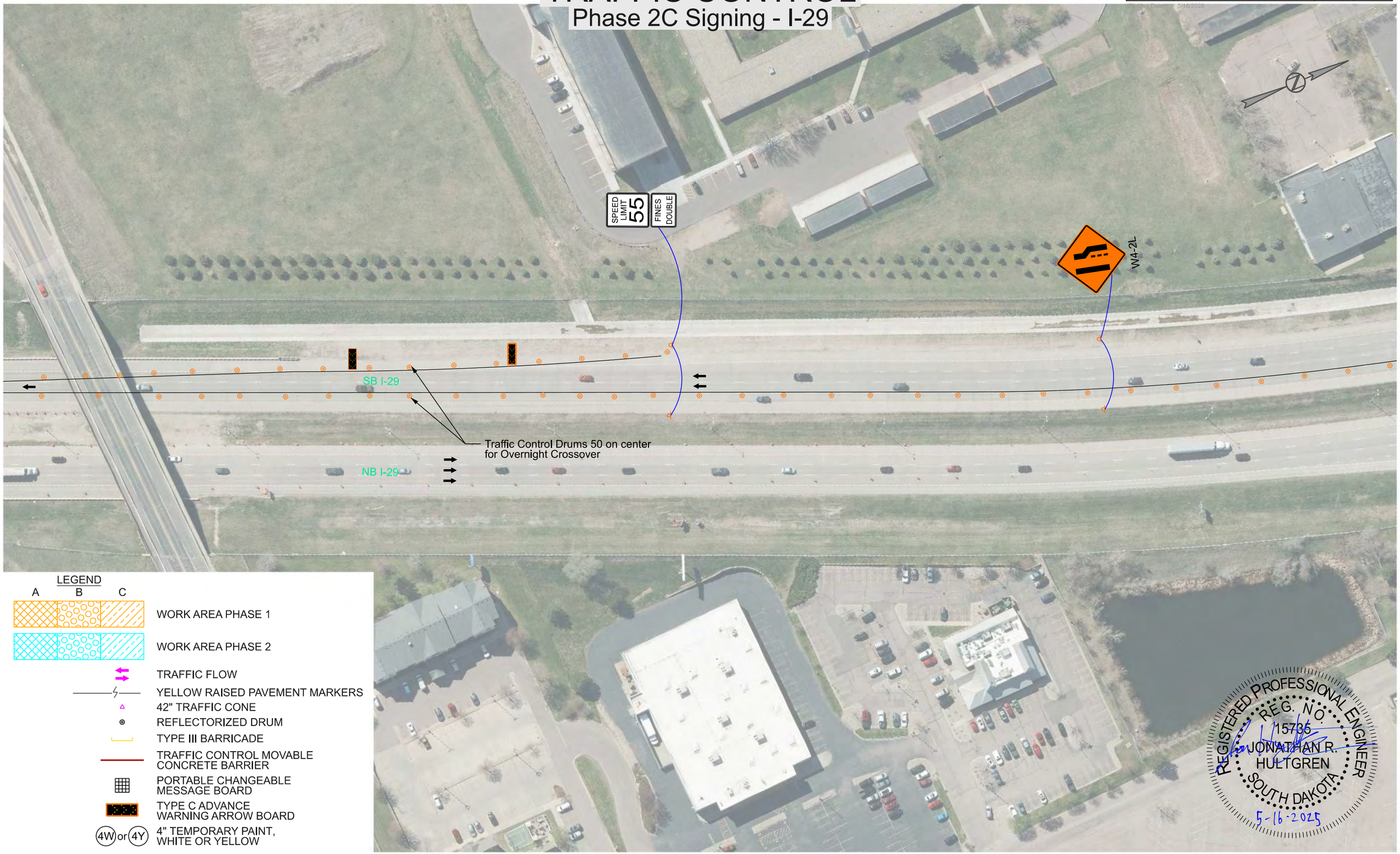
REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15736
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

TRAFFIC CONTROL

Phase 2C Signing - I-29

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
Printing Date: 5/16/2025	EM 0292(88)73 IM 2292(104)0	C75	C85



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15786
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

Plotted From - ngjersvik File - ...\C_06JQ_Year 2 - Phase 2C.dgn

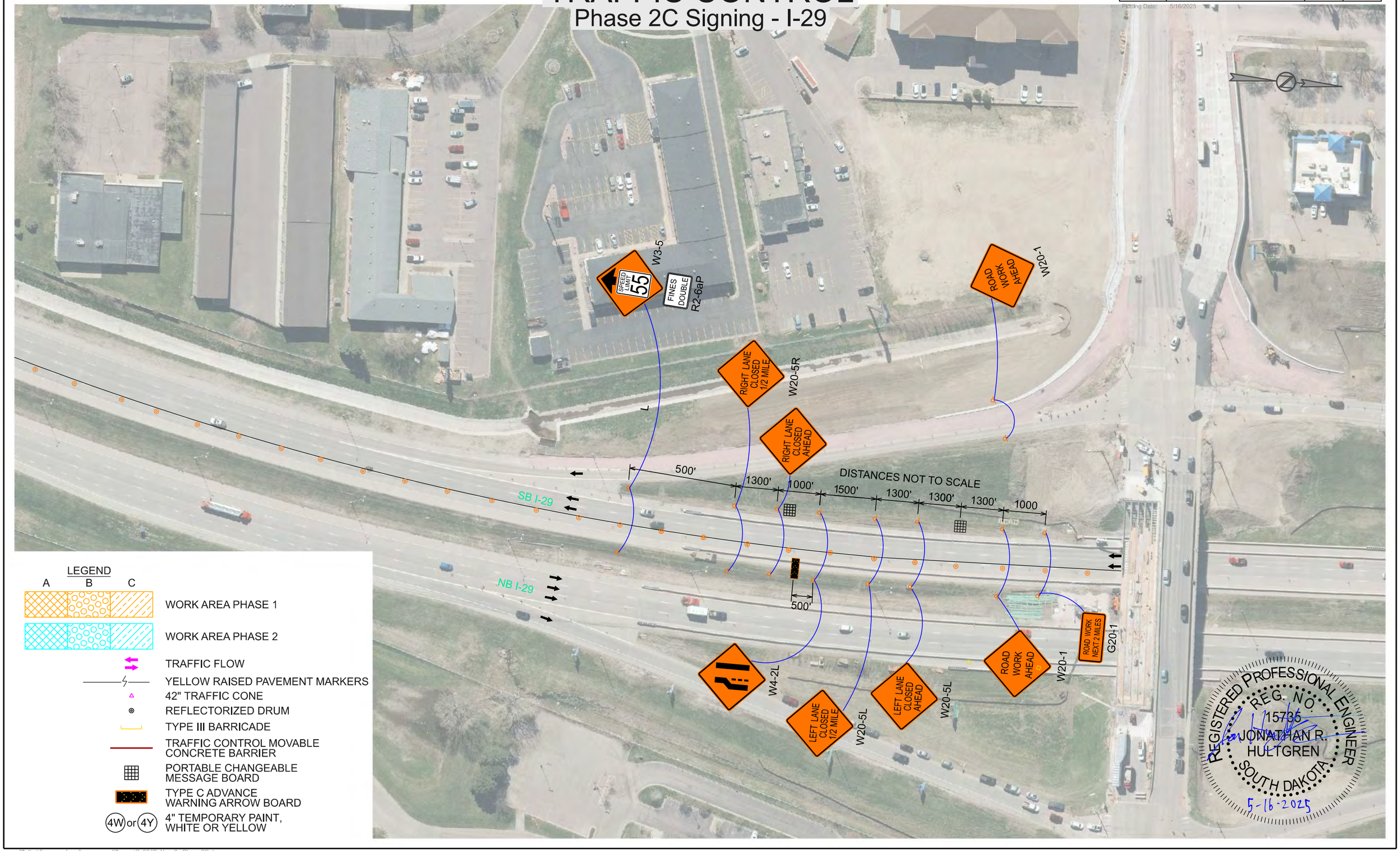
TRAFFIC CONTROL

Phase 2C Signing - I-29

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C76	C85

Plotting Date: 5/16/2025



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

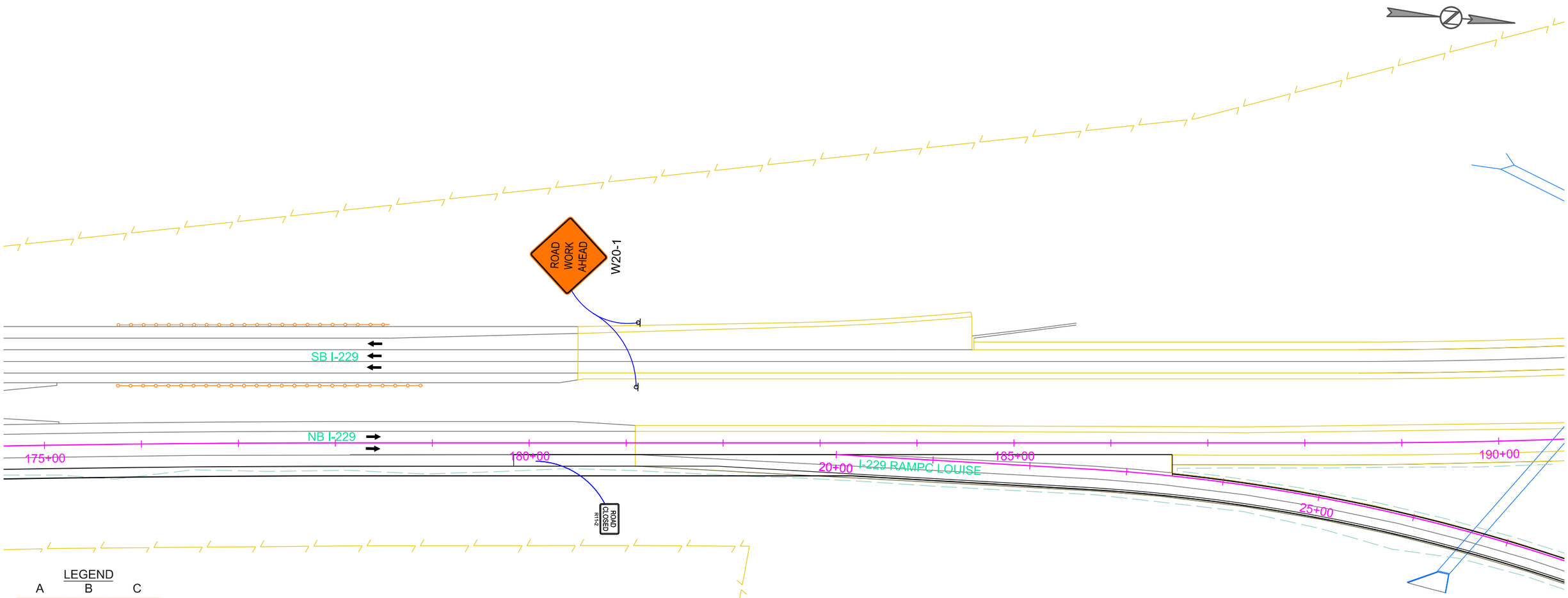
REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15736
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

TRAFFIC CONTROL
Phase 2C Signing - I-229

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C77	C85

Plotting Date: 5/16/2025



LEGEND

A B C

- WORK AREA PHASE 1
- WORK AREA PHASE 2
- TRAFFIC FLOW
- YELLOW RAISED PAVEMENT MARKERS
- 42" TRAFFIC CONE
- REFLECTORIZED DRUM
- TYPE III BARRICADE
- TRAFFIC CONTROL MOVABLE CONCRETE BARRIER
- PORTABLE CHANGEABLE MESSAGE BOARD
- TYPE C ADVANCE WARNING ARROW BOARD
- (4W) or (4Y) 4" TEMPORARY PAINT, WHITE OR YELLOW

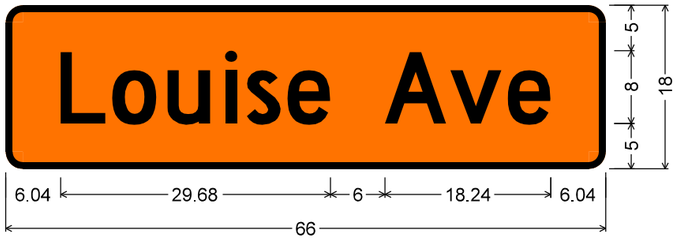
REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15736
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025

SIGN DETAILS

FOR BIDDING PURPOSES ONLY

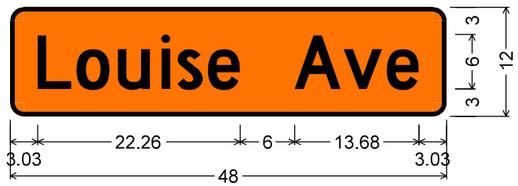
SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C78	C85

Plotting Date: 5/15/2025



D3-1(2)_VARx18;
Background Type : Type IV High Intensity;
Border Type : Type IV High Intensity;
1.88" Radius, 0.75" Border, Black on, Orange;
"Louise", D 2K; "Ave", D 2K;
Table of letter and object lefts

L	o	u	i	s	e	A	v	e
6.04	11.72	17.80	24.12	26.52	31.00	41.72	48.92	55.24

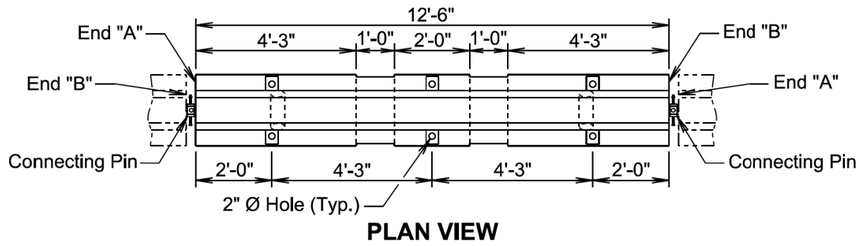


Background Type : Type IV High Intensity;
Border Type : Type IV High Intensity;
1.50" Radius, 0.50" Border, Black on, Orange;
"Louise Ave", D 2K;
Table of letter and object lefts

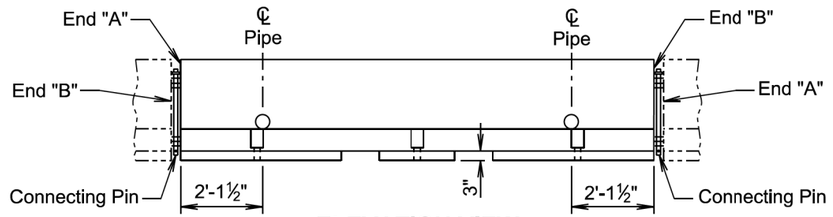
L	o	u	i	s	e
3.03	7.29	11.85	16.59	18.39	21.75

A	v	e
31.29	36.69	41.43

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15735
JONATHAN R. HULTGREN
SOUTH DAKOTA
5-16-2025



PLAN VIEW



ELEVATION VIEW

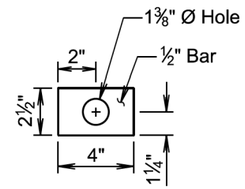
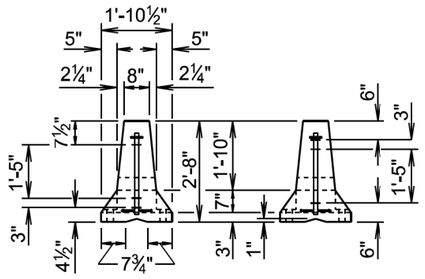
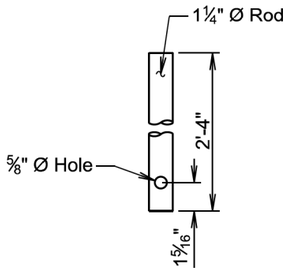


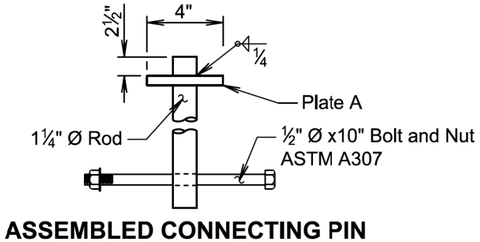
PLATE A



VIEW END A **VIEW END B**



CONNECTING PIN DETAIL



ASSEMBLED CONNECTING PIN

September 14, 2018

Published Date: 2026	SDDOT	*TRAFFIC CONTROL MOVABLE CONCRETE BARRIERS (F SHAPE INTERIOR SECTION)*	*PLATE NUMBER* 628.01 *Sheet 1 of 2*

GENERAL NOTES:

The detailed drawings are for illustrative purpose and depicts the current version of the F shape concrete barrier. If new movable concrete barriers are requested on a project, they will be constructed according to the F shape movable concrete barrier details on standard plate 628.10.

Each movable concrete barrier section weighs 5030 ± pounds.

Each movable concrete barrier section is detailed to provide end "A" to end "B" connection by insertion of a pin through steel loops.

The Jersey shape or any version of the F shape traffic control movable concrete barriers may be used on a project, however, only the same type or version will be used for each run of barriers.

Movable concrete barrier sections will be placed to provide uniform bearing of the sections with the paved surface as approved by the Engineer.

Movable concrete barrier sections will never be moved or lifted using the end loops.

Movable concrete barrier sections that have been damaged will not be used. Barrier sections are considered damaged if the loops are end welded onto existing damaged loops, loops are fractured, or there is exposed rebar from fractured concrete.

All cost for transporting the barriers from the specified location to the project site, installing, and returning the barriers to the specified location will be incidental to the contract unit price per each for "Traffic Control Movable Concrete Barrier".

If the concrete barriers need to be moved and reset on the project, requiring the barriers to be transported by truck, all cost for removing, transporting, and resetting the barriers will be incidental to the contract unit price per each for "Remove and Reset Traffic Control Movable Concrete Barrier". All cost for small shifts in alignment of the barriers, not requiring the barriers to be transported by truck, will be incidental to various contract items.

September 14, 2018

Published Date: 2026	SDDOT	*TRAFFIC CONTROL MOVABLE CONCRETE BARRIERS (F SHAPE INTERIOR SECTION)*	*PLATE NUMBER* 628.01 *Sheet 2 of 2*

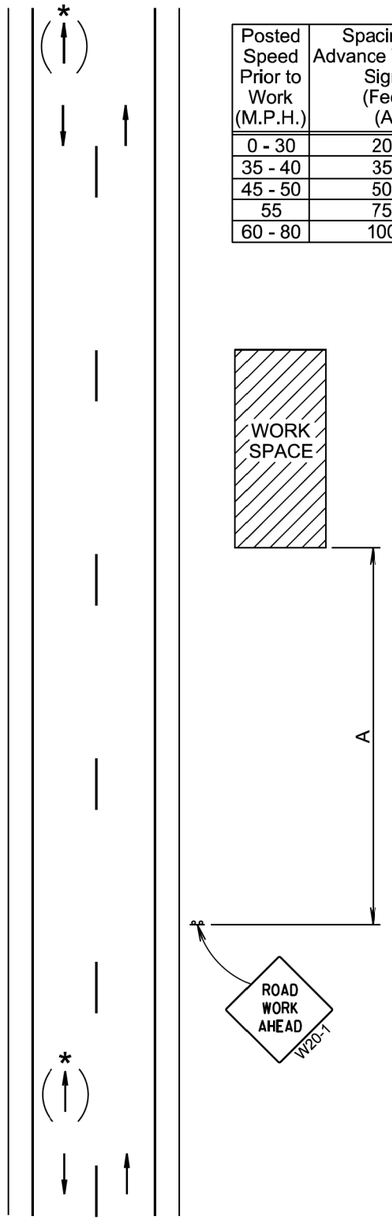
The signs illustrated are not required if the work space is behind a barrier, more than 2 feet behind the curb, or 15 feet or more from the edge of any roadway.

The signs illustrated will be used where there are distracting situations; such as: vehicles parked on shoulder, vehicles accessing the work site via the highway, and equipment traveling on or crossing the roadway to perform work operations.

The ROAD WORK AHEAD sign may be replaced with other appropriate signs, such as the SHOULDER WORK sign. The SHOULDER WORK sign may be used for work adjacent to the shoulder.

* If the work space is on a divided highway, an advance warning sign should also be placed on the left side of the directional roadway.

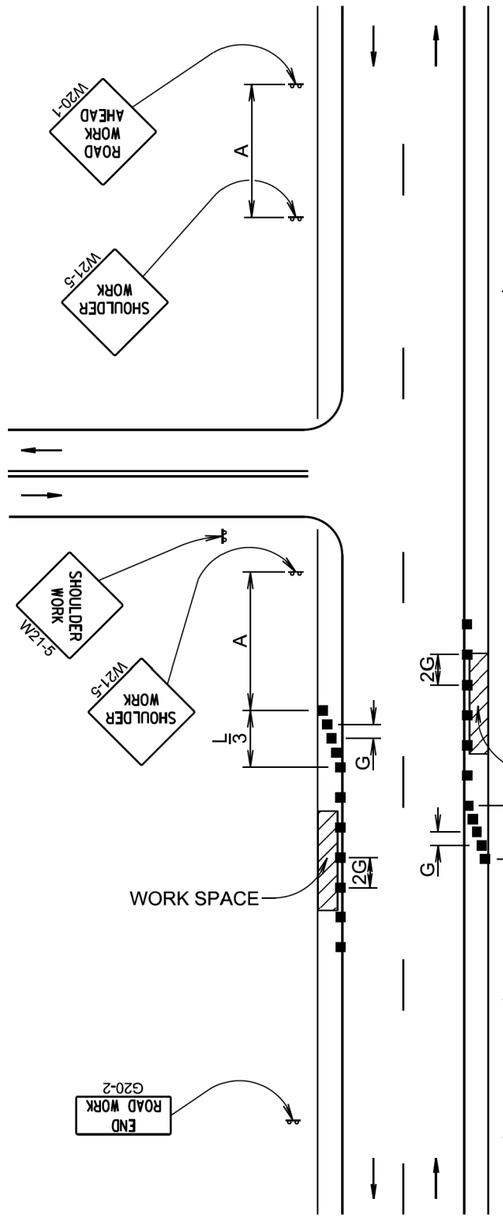
For short term, short duration, or mobile operations, all signs and channelizing devices may be eliminated if a vehicle with an activated flashing or revolving yellow light is used.



Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)
0 - 30	200
35 - 40	350
45 - 50	500
55	750
60 - 80	1000

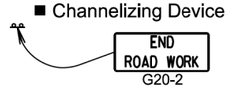
January 22, 2021

Published Date: 2026	SDDOT	WORK BEYOND THE SHOULDER	PLATE NUMBER 634.01
			Sheet 1 of 1



Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)	Taper Length (Feet) (L)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	200	180	25
35 - 40	350	320	25
45	500	600	25
50	500	600	50
55	750	660	50
60 - 65	1000	780	50

■ Channelizing Device



The channelizing devices will be drums or 42" cones if traffic control must remain overnight.

For short duration operations (1 hour or less) all channelizing devices may be eliminated if a vehicle with an activated flashing or revolving yellow light is used.

Worker signs (W21-1 or W21-1a) may be used instead of SHOULDER WORK signs.

A SHOULDER WORK sign should be placed on the left side of a divided or one-way roadway only if the left shoulder is affected.

The SHOULDER WORK sign on an intersecting roadway is not required if drivers emerging from that roadway will encounter another advance warning sign before they reach a work activity area.

January 22, 2021

Published Date: 2026	SDDOT	WORK ON SHOULDERS	PLATE NUMBER 634.03
			Sheet 1 of 1

* Messages on signs will vary depending on the operation being conducted.

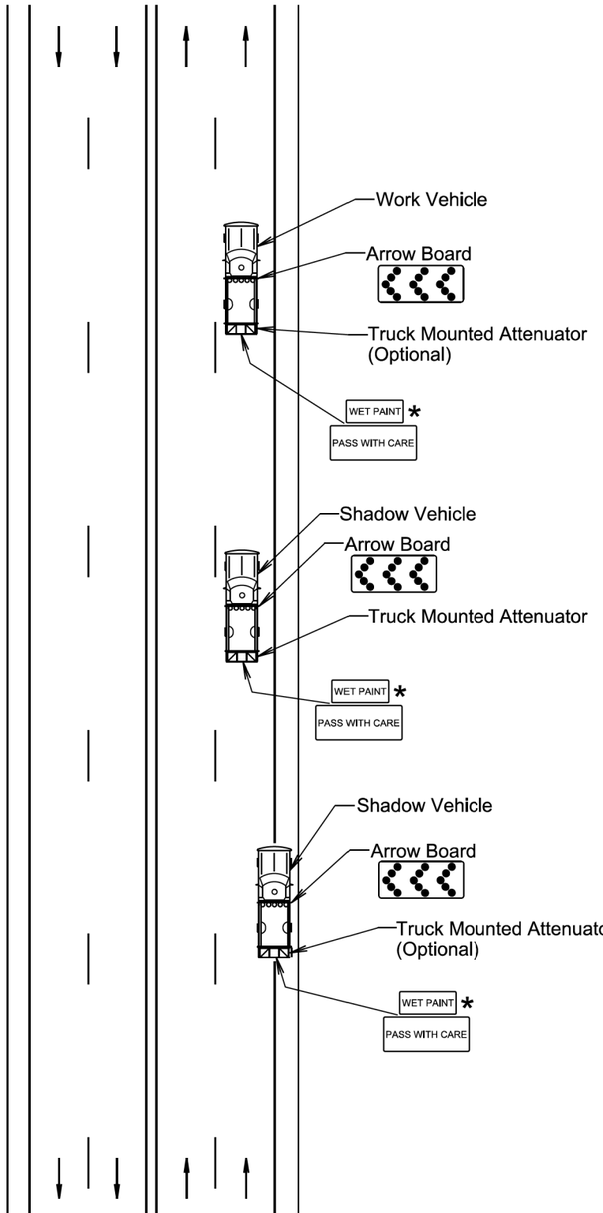
Vehicle-mounted signs will be mounted in a manner such that they are not obscured by equipment or supplies. Sign legends on vehicle-mounted signs will be covered or turned from view when work is not in progress.

Shadow and Work vehicles will display high-intensity rotating, flashing, oscillating, or strobe lights, flags, signs, or arrow boards.

Vehicle hazard warning signals will not be used instead of the vehicle's high-intensity rotating, flashing, oscillating, or strobe lights.

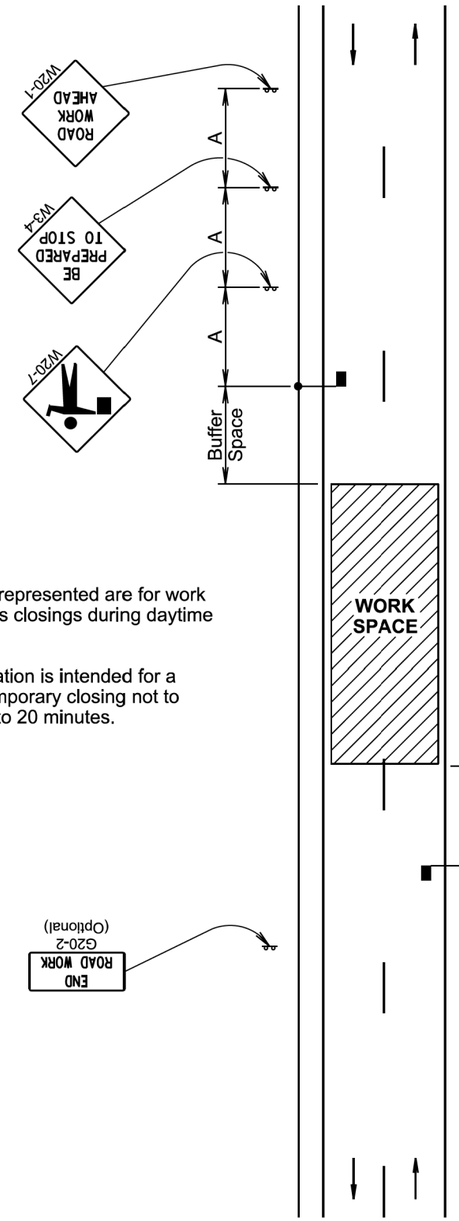
Arrow boards will, as a minimum, be Type B, with a size of 60" x 30".

All costs associated with the traffic control for mobile operation including signs, arrow boards and equipment will be incidental to the contract lump sum price for "Traffic Control, Miscellaneous".



January 22, 2021

Published Date: 2026	SDDOT	MOBILE OPERATIONS ON MULTI-LANE HIGHWAYS	PLATE NUMBER 634.08
			Sheet 1 of 1



Conditions represented are for work that requires closings during daytime hours only.

This application is intended for a planned temporary closing not to exceed 15 to 20 minutes.

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

Flagger

END ROAD WORK G20-2 (Optional)

Posted Speed Prior to Work (M.P.H.)	Length of Longitudinal Buffer Space (Feet)
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645

Buffer space dependent on work site limitations.

January 22, 2021

Published Date: 2026	SDDOT	TEMPORARY ROAD WORK	PLATE NUMBER 634.30
			Sheet 1 of 1

FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C82	C85

Plotting Date: 7/1/2025 Revised Date: 06/16/2025
Initials: JJB

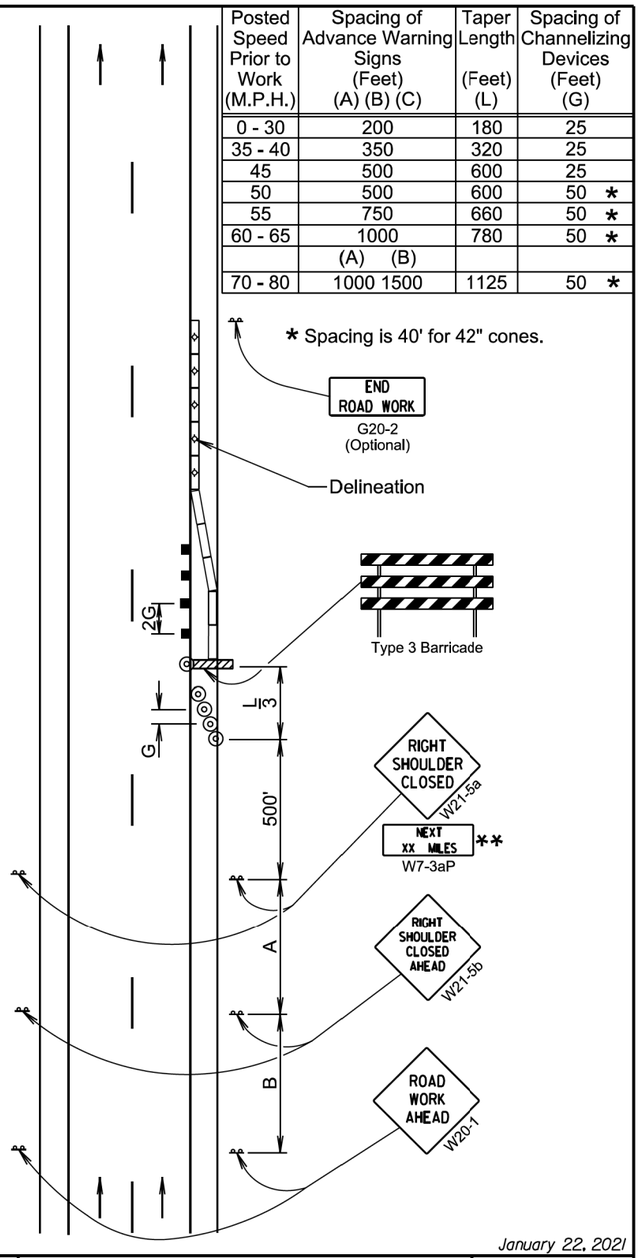
◎ Reflectorized Drum
■ Channelizing Device
▭ Movable Concrete Barrier
** For distances ½ mile or greater.

42" cones may be used in place of the drums shown in the taper if setup will not be used during night time hours.

This standard plate shows one method which may be used to close a shoulder of a roadway for a long term project. The Engineer will determine if the use of barriers is required. If barriers are required, the layout details will be included elsewhere in the plans.

Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A) (B) (C)	Taper Length (Feet) (L)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	200	180	25
35 - 40	350	320	25
45	500	600	25
50	500	600	50 *
55	750	660	50 *
60 - 65	1000	780	50 *
	(A) (B)		
70 - 80	1000 1500	1125	50 *

* Spacing is 40' for 42" cones.



January 22, 2021

Published Date: 2026

SDDOT

SHOULDER CLOSED

PLATE NUMBER 634.61

Sheet 1 of 1

◎ Reflectorized Drum
■ Channelizing Device
(4W) 4" White Temporary Pavement Marking

The movable concrete barrier layout is shown elsewhere in the plans.

The moveable concrete barrier will not be placed along the merging taper. The lane will first be closed using channelizing devices and pavement markings.

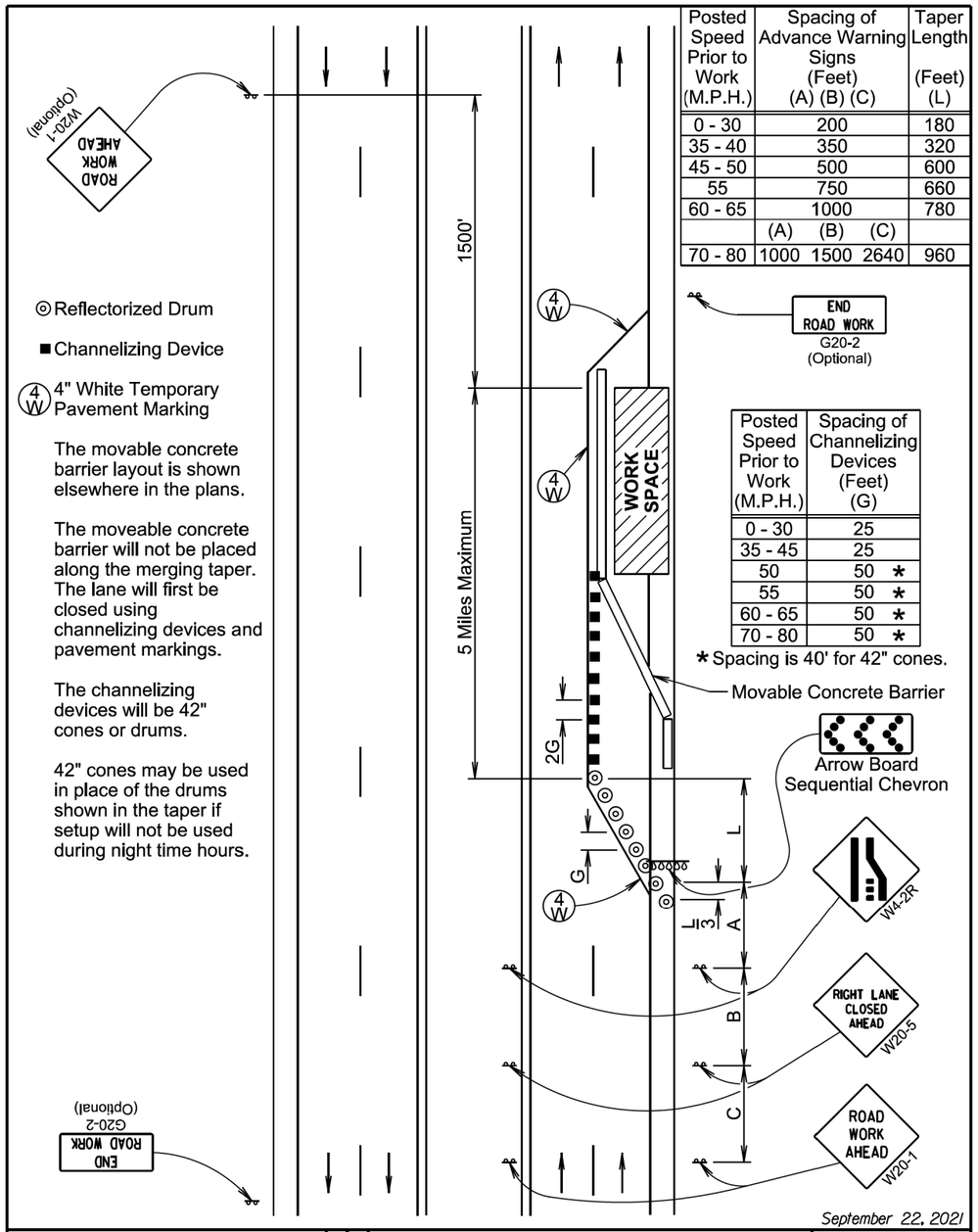
The channelizing devices will be 42" cones or drums.

42" cones may be used in place of the drums shown in the taper if setup will not be used during night time hours.

Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A) (B) (C)	Taper Length (Feet) (L)
0 - 30	200	180
35 - 40	350	320
45 - 50	500	600
55	750	660
60 - 65	1000	780
	(A) (B) (C)	
70 - 80	1000 1500 2640	960

Posted Speed Prior to Work (M.P.H.)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	25
35 - 45	25
50	50 *
55	50 *
60 - 65	50 *
70 - 80	50 *

* Spacing is 40' for 42" cones.



September 22, 2021

Published Date: 2026

SDDOT

LANE CLOSURE WITH BARRIER

PLATE NUMBER 634.65

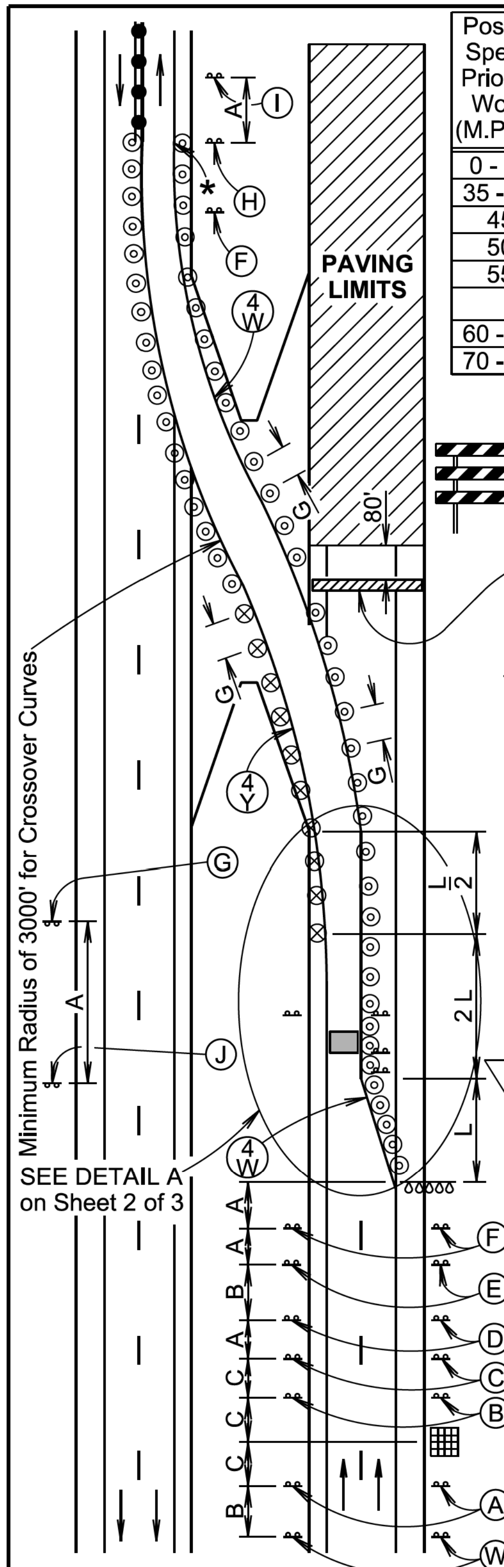
Sheet 1 of 1

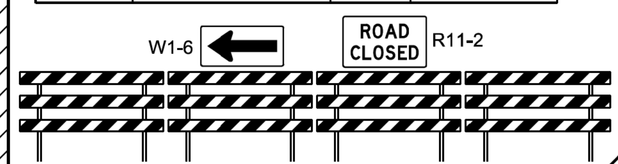
FOR BIDDING PURPOSES ONLY

PROJECT	SHEET	TOTAL SHEETS
EM 0292(88)73 IM 2292(104)0	C83	C85

Plotting Date: 7/1/2025 Revised Date: 06/16/2025 Initials: JJB

Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A) (B) (C)	Taper Length (Feet) (L)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	200	180	25
35 - 40	350	320	25
45	500	600	25
50	500	600	50
55	500	660	50
	(A) (B) (C)		
60 - 65	500 1000 1300	780	50
70 - 80	500 1000 1300	1125	50





FULL ROADWAY CLOSURE

⊚ Reflectorized Drum

⊗ 42" Cone

Type C Advance Warning Arrow Board

(4W) 4" White Temporary Raised Pavement Markers

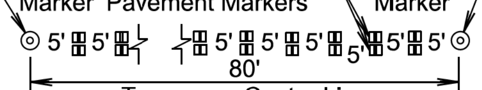
(4Y) 4" Yellow Temporary Raised Pavement Markers

Portable Changeable Message Sign

Direction of Traffic

Temporary Center Line (See Below)

Install Tubular Markers at a spacing of 80', and two lines of 4" Yellow Temporary Raised Pavement Markers at 5' spacing to make a Double Solid Yellow Line as shown.

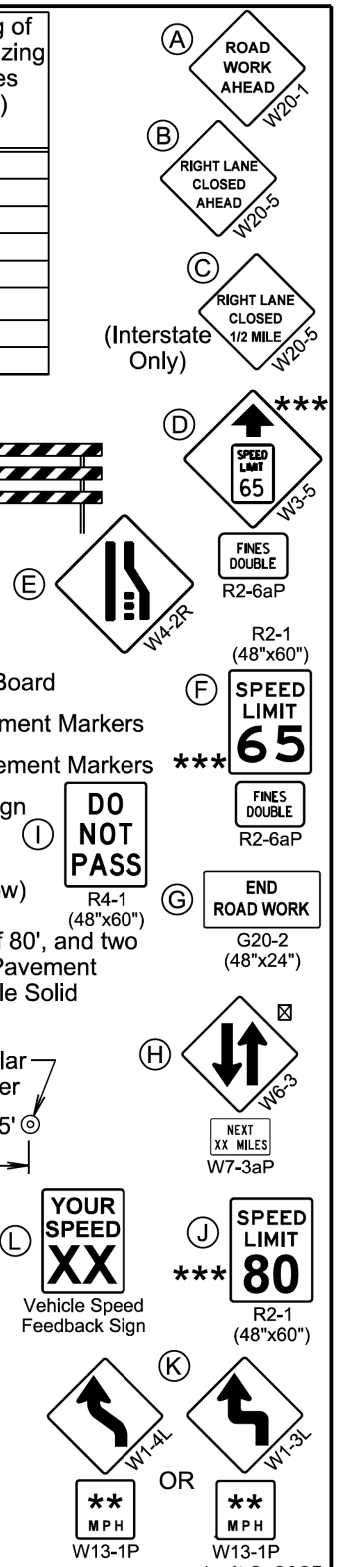


⊠ Every 2 miles

* End of curve

** Need and safe speed to be determined at site. Use W1-3 REVERSE TURN sign for speeds of 30 M.P.H. or less.

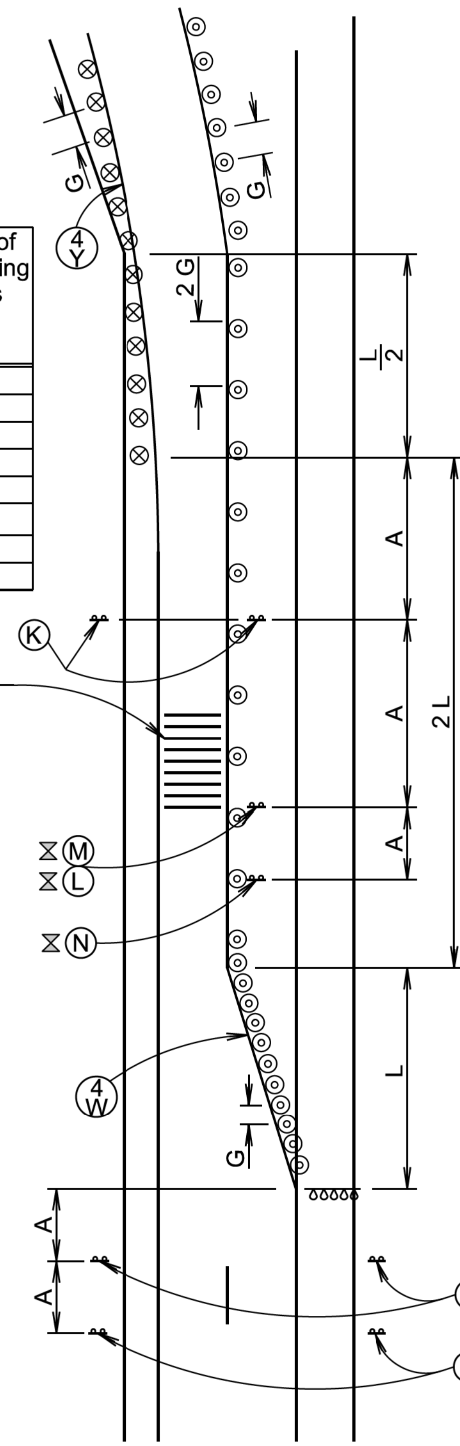
*** Or other speed as applicable.

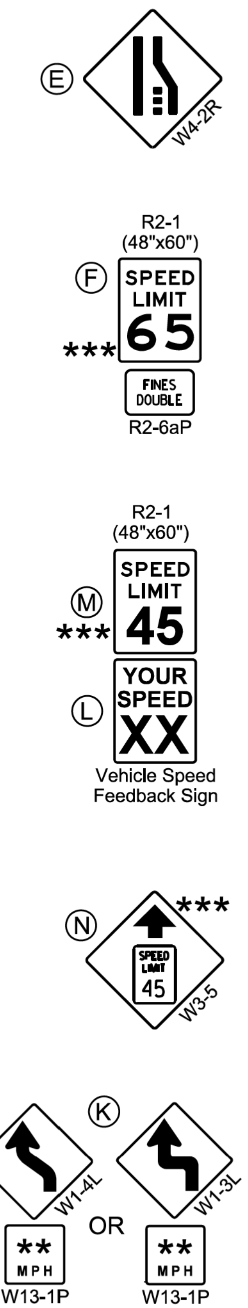


April 8, 2025

Published Date: 2026 | SDDOT | MEDIAN CROSSOVER ON DIVIDED HIGHWAY | PLATE NUMBER 634.66 | Sheet 1 of 3

Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A) (B) (C)	Taper Length (Feet) (L)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	200	180	25
35 - 40	350	320	25
45	500	600	25
50	500	600	50
55	500	660	50
	(A) (B) (C)		
60 - 65	500 1000 1300	780	50
70 - 80	500 1000 1300	1125	50





** Need and safe speed to be determined at site. Use W1-3 REVERSE TURN sign for speeds of 30 M.P.H. or less.

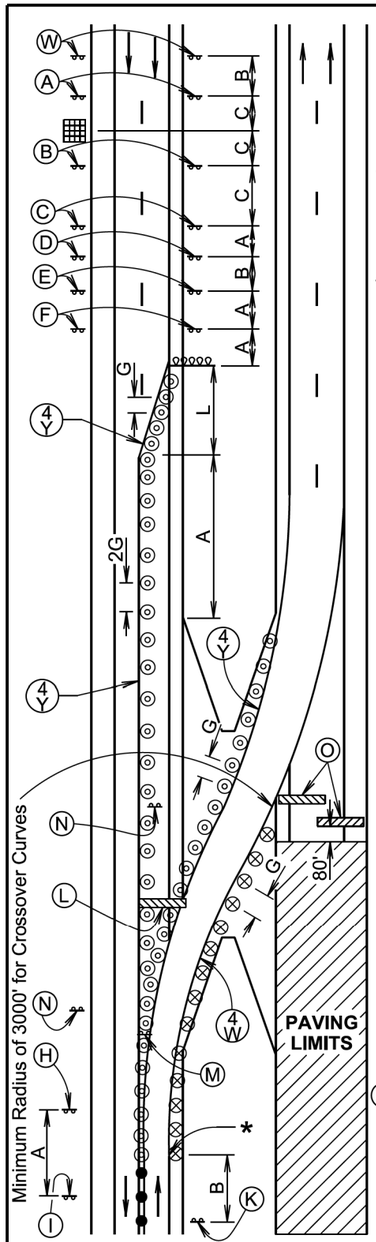
*** Or other speed as applicable.

⧖ Only to be used when paving immediately adjacent to crossover.

DETAIL A

April 8, 2025

Published Date: 2026 | SDDOT | MEDIAN CROSSOVER ON DIVIDED HIGHWAY | PLATE NUMBER 634.66 | Sheet 2 of 3



⊙ Relectorized Drum

⊗ 42" Cone

Type C Advance Warning Arrow Board

(4 W) 4" White Temporary Raised Pavement Markers

(4 Y) 4" Yellow Temporary Raised Pavement Markers

Portable Changeable Message Sign

Direction of Traffic

Temporary Center Line (See Below)

Install Tubular Markers at a spacing of 80', and two lines of 4" Yellow Temporary Raised Pavement Markers at 5' spacing to make a Double Solid Yellow Line as shown.

Tubular Marker — Temporary Raised Pavement Markers — Tubular Marker

5' 5' 5' 5' 5' 5' 5' 5' 5' 5' 5' 5' 5'

80'

Temporary Center Line

⊠ Every 2 miles

* End of curve

** Need and safe speed to be determined at site. Use W1-3 REVERSE TURN sign for speeds of 30 M.P.H. or less.

*** Or other speed as applicable.

Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A) (B) (C)	Taper Length (Feet) (L)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	200	180	25
35 - 40	350	320	25
45	500	600	25
50	500	600	50
55	500	660	50
	(A) (B) (C)		
60 - 65	500 1000 1300	780	50
70 - 80	500 1000 1300	1125	50

(A) ROAD WORK AHEAD W20-1

(B) LEFT LANE CLOSED AHEAD W20-5

(C) LEFT LANE CLOSED 1/2 MILE W20-5 (Interstate Only)

(D) *** SPEED LIMIT 65 W3-5 — FINES DOUBLE R2-6aP

(E) W4-2L

(F) *** R2-1 (48"x60") SPEED LIMIT 65 — FINES DOUBLE R2-6aP

(G) END ROAD WORK G20-2 (48"x24")

(H) ☒ W6-3 NEXT XX MILES W7-3aP

(I) DO NOT PASS R4-1 (48"x60")

(J) *** SPEED LIMIT 80 R2-1 (48"x60")

(K) W1-4R ** MPH W13-1P OR W1-3R ** MPH W13-1P

(L) W1-6

(M) Yellow Flashing Beacon R4-7

(N) DO NOT ENTER R5-1 (36"x36")

(O) (W) ROAD WORK NEXT XX MILES G20-1

April 8, 2025

Published Date: 2026	SDDOT	MEDIAN CROSSOVER ON DIVIDED HIGHWAY	PLATE NUMBER 634.66
			Sheet 3 of 3

Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A) (B) (C)	Taper Length (Feet) (L)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	200	180	25
35 - 40	350	320	25
45	500	600	25
50	500	600	50 *
55	750	660	50 *
60 - 65	1000	780	50 *
	(A) (B) (C)		
70 - 80	1000 1500 2640	960	50 *

* Spacing is 40' for 42" cones.

** Need and safe speed to be determined on site by the Engineer.

Ordinarily, the preferred position for the second arrow board is in the closed exterior lane at the upstream end of the second merging taper. However, the second arrow board should be placed in the closed interior lane at the downstream end of the second merging taper in the following situations:

When a shadow vehicle is used in the interior closed lane and the second arrow board is mounted on a shadow vehicle.

If alignment or other conditions create any confusion as to which lane is closed by the second arrow board.

When the first arrow board is placed in the closed exterior lane at the downstream end of the first merging taper (the alternative position when the shoulder is narrow).

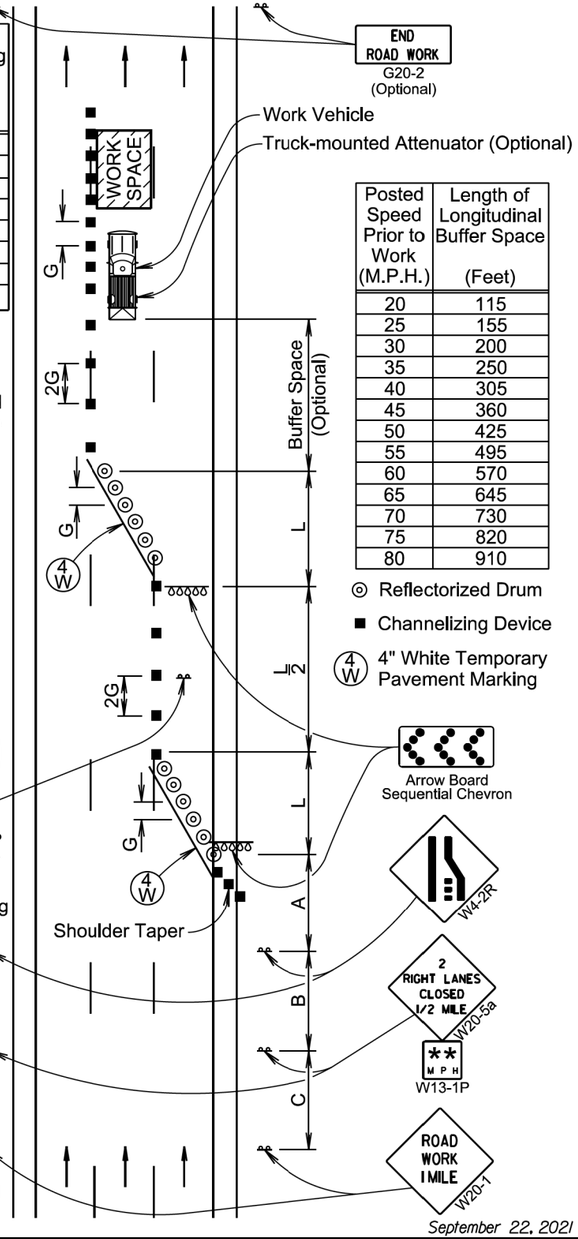
W4-2R

This procedure also applies when work is being performed in the lanes adjacent to the median on a divided highway. Under these conditions, 2 LEFT LANE CLOSED signs and the corresponding LANE ENDS symbol sign will be used.

Temporary pavement markings will be used if traffic control must remain overnight.

The channelizing devices will be 42" cones or drums.

42" cones may be used in place of the drums shown in the taper if the setup will not be used during night time hours.



Posted Speed Prior to Work (M.P.H.)	Length of Longitudinal Buffer Space (Feet)
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645
70	730
75	820
80	910

⊙ Reflectorized Drum

■ Channelizing Device

(4 W) 4" White Temporary Pavement Marking

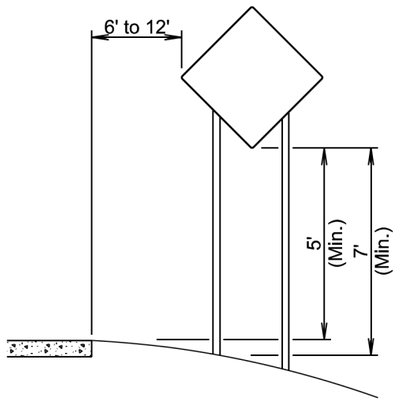
September 22, 2021

Published Date: 2026	SDDOT	DOUBLE LANE CLOSURE	PLATE NUMBER 634.80
			Sheet 1 of 1

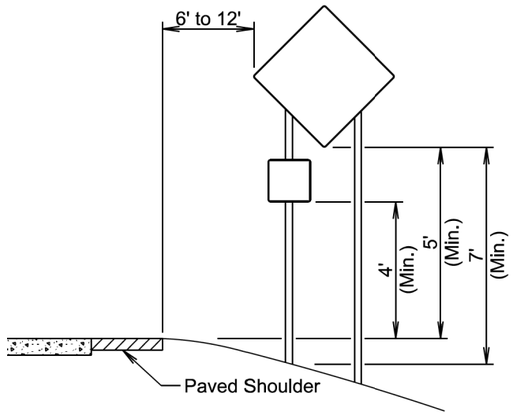
FOR BIDDING PURPOSES ONLY

SD DOT	PROJECT	SHEET	TOTAL SHEETS
	EM 0292(88)73 IM 2292(104)0	C85	C85

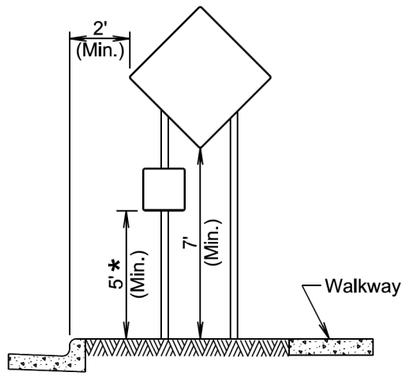
Plotting Date: 7/1/2025 Revised Date: 06/16/2025
Initials: JJB



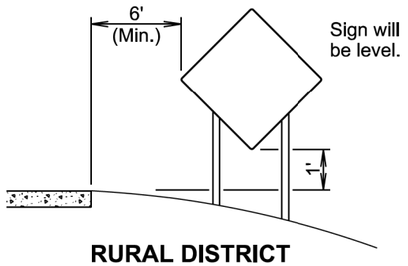
RURAL DISTRICT



RURAL DISTRICT WITH SUPPLEMENTAL PLATE



URBAN DISTRICT

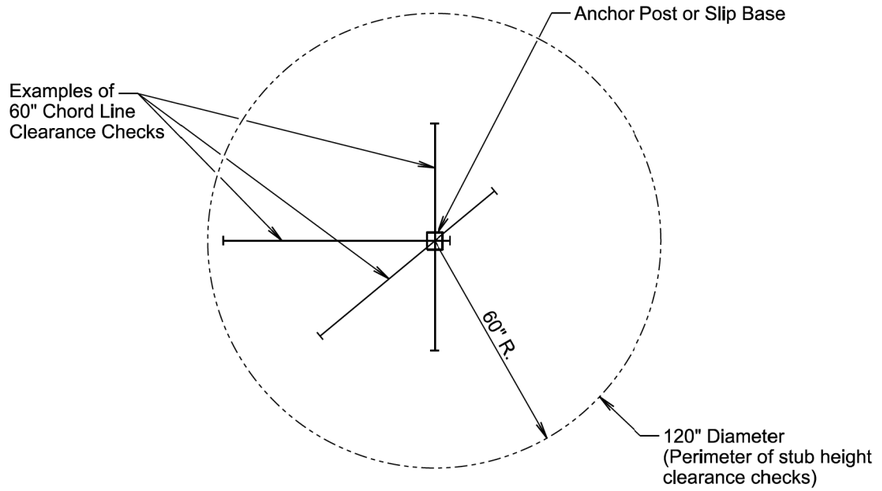


RURAL DISTRICT
3 DAY MAXIMUM
(Not applicable to regulatory signs)

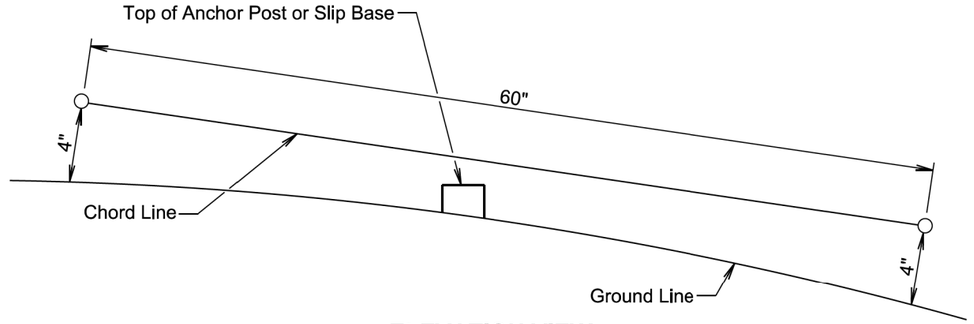
* If the bottom of supplemental plate is mounted lower than 7 feet above a pedestrian walkway, the supplemental plate should not project more than 4" into the pedestrian facility.

January 22, 2021

Published Date: 2026	SDDOT	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 WILL 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 will 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.

January 22, 2021

Published Date: 2026	SDDOT	BREAKAWAY SUPPORT STUB CLEARANCE	PLATE NUMBER 634.99
			Sheet 1 of 1