

This document contains the Plans and Specifications for

**MILL & BITUMINOUS OVERLAY & SHOULDER PREPARATION
COUNTY ROADS 1 & 16
RICHLAND COUNTY, NORTH DAKOTA
ER25-00-044**

The Plans and Specifications are contained in pages 3 - 188 and are set up to print two-sided (duplex) on 8½" x 11" paper.

The Plans are contained in pages 189 - 232 and are set up to print single-sided on 11" x 17" paper.

If your printer has the option to choose the paper source by PDF page size, you may select it and the complete document will print single-sided to the correct sizes all at once. The page scaling option should be set to "none".

Up to date planholders lists can be found at www.questcdn.com and the Quest project number for this project is 9648639.

SUBMITTED BID MUST CONTAIN THE FOLLOWING INFORMATION:

All bids will be submitted via QuestCDN On-Line Bidding only. Mailed or hand delivered bids will NOT be opened or considered:

- a) The work covered by the bid as described in Advertisement for Bid
- b) The name of the person, firm or corporation submitting the bid
- c) The date and hour of the bid opening
- d) Acknowledgement of each Addendum

This form is being provided for contractor convenience and is not meant to supersede the plans and specifications. Bidding requirements listed in the project specifications

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**PROJECT MANUAL
MILL AND BITUMINOUS OVERLAY AND
SHOULDER PREPARATION
CP-0001(025) COUNTY ROAD 1
CP-0016(025) COUNTY ROAD 16
RICHLAND COUNTY, NORTH DAKOTA
APRIL 2025
ER25-00-044**

I, Damon K. DeVillers, hereby certify that these Plans and Specifications were prepared by me or under my direct supervision. I further certify that I am a Registered Professional Engineer under the Laws of the State of North Dakota.



Damon K. DeVillers, P.E.

Date 4/28/2025



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**MILL AND BITUMINOUS OVERLAY
AND SHOULDER PREPARATION
COUNTY ROADS 1 & 16
RICHLAND COUNTY, NORTH DAKOTA
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**MILL AND BITUMINOUS OVERLAY
AND SHOULDER PREPARATION
COUNTY ROADS 1 & 16
RICHLAND COUNTY, NORTH DAKOTA
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ADVERTISEMENT AND INVITATION

Notice is hereby given that sealed bids will be received for County Roads 1 and 16 Mill and Bituminous Overlay and Shoulder Preparation Project for Richland County, located in Richland County, North Dakota. Bids will be received On-Line ONLY through QuestCDN vBid. Bids will be received by 1:00 PM (CDT) on May 13, 2025. Mailed or hand delivered bids will NOT be opened or considered. Please submit your bid for this project by the following:

1. Submitted through QuestCDN Online Bidding.

All bids submitted will be opened and read aloud via video conference at 1:00 PM (CDT) on May 13, 2025. A link to attend the live video conference bid opening will be sent to all QuestCDN Plan Holders for this project https://teams.microsoft.com/l/meetup-join/19%3ameeting_NWY5ZWZmOTMtOTNiMi00ODBiLTlhODEtZWQ5NzJkMGYwZjU4%40thread.v2/0?context=%7B%22Tid%22%3A%229d23d2a4-f51c-40f3-b5a0-a71abe26c14a%22%2C%22Oid%22%3A%227000e803-dd55-4046-983a-6eba9e27a6e4%22%2C%22IsBroadcastMeeting%22%3Atrue%2C%22role%22%3A%22a%22%7D&btype=a&role=a.

Digital copies of the Bidding Documents are available at www.interstateeng.com or www.questcdn.com for a download fee of \$37.00 and a QuestCDN On-Line Bid fee of \$42.00 to all actual project bidders. These documents may be downloaded by selecting this project from the "Bid Documents" tab and by entering Quest Project Number 9648639 on the "Search Projects" page. For assistance and free membership registration, contact QuestCDN at (952) 233-1632 or info@questcdn.com. Paper copies of the Bidding Documents may be obtained from Interstate Engineering, Inc. located at 1999 4th Street North, Wahpeton, ND 58075, phone (701) 642-5521, for a fee of \$150.00 per set. The bidding and contract documents may also be examined at the Richland County Courthouse located at 418 2nd Ave North, Wahpeton, North Dakota, 58075. Any technical questions may be directed to Damon DeVillers at 701-642-5521 or damon.devillers@interstateeng.com.

The project consists of the following approximate quantities:

- 2.7 Miles Shoulder Preparation
- 18,054 Gallons Tack Coat and Fog Seal
- 450 Ton Aggregate Base Course CL 5
- 2,200 TON Shoulder Aggregate
- 86,855 Square Yard Milling Pavement Surface
- 12,050 TON RAP – Superpave FAA 43
- 603 TON PG 58S-28 Asphalt Cement
- 69,605 LF Latex 4" & 6" Pvmnt Marking Line

Traffic Control and all miscellaneous work necessary therefor and incidental thereto.

Each bid will be submitted on the basis of a cash payment for work. Bids submitted via QuestCDN On-Line Bid Only and shall be designated that the bid is for **"County Road CP-0001(025), CP-0016(025) Richland County Roads 1 and 16 Mill and Bituminous Overlay and Shoulder Preparation, Richland County, North Dakota."** The bid shall be accompanied by a Bidder's Bond in a separate envelope in the amount of five percent (5%) of the full amount

of the bid, executed by the Bidder as Principal and by a Surety Company authorized to do business in North Dakota. If the Principal's bid is accepted by the OWNER and the contract awarded, the principal, within ten (10) days after the Notice of Award, will be required to execute and effect a contract in accordance with the terms of the principal's bid and any requirements and conditions of the Owner.

A Contractor's Bond, as required by Section 48-01.2-10 of the North Dakota Century Code, shall be included with the executed Contract Documents. The Bid Security shall be as required in Section 48-01.2-05 of the North Dakota Century Code.

All bidders must be licensed for the highest amount of their bids, as required by Section 43-07-07 of the North Dakota Century Code and a copy of the license or certificate of renewal thereof issued shall be enclosed in the required bid bond envelope.

No bid will be read or considered which does not fully comply with the above provisions as to Bond and Licenses, and any deficient bid submitted will not be accepted and opened.

The OWNER retains the right to reject any or all of the bids submitted and to waive any informality in any bid and to hold all bids for a period not to exceed thirty (30) days from said date of opening and to hold the three low bids and bid securities for a period not to exceed sixty (60) days from said date of bid opening.

The work is to commence upon a date to be specified by the OWNER, notice of which will be given to the successful bidder ten (10) days in advance of the start of construction. **The Contractor will be required to commence construction and substantially complete all of the work for the project by September 14, 2025.**

By order of the OWNER

Richland County Board of Commissioners

Sandy Fossum

Richland County Auditor

Richland County, North Dakota

Dated this 15th day of April 2025

Published April 19, 26, May 3, 2025.

PART 1 GENERAL

00.1.01 BIDS

- A. ELECTRONIC BIDS ONLY submitted through QuestCDN will be received by the OWNER as specified in the Advertisement for performing work as set forth in the Drawings and Project Manual. Mailed or hand delivered bids will not be opened or considered.
- B. At the time and place indicated, the bids will be publicly opened and read.

00.1.02 FORM

- A. Each proposal shall be made on a form prepared by the ENGINEER and included as one of the Contract Documents and shall be submitted via QuestCDN Online Bidding.
- B. Proposals must be filled in, in ink or typewritten.
- C. No alterations or interlineations will be permitted, unless made before submission and initialed and dated.
- D. Each electronic proposal shall be on the form prepared by the ENGINEER in QuestCDN and shall be included in the submittal on QuestCDN.
- E. SECTION 00 41 05 QuestCDN On-Line Bid Form shall be completed by the Bidder, signed by the Bidder, and submitted as one of the documents required for QuestCDN On-Line Bidding.

00.1.03 DISCREPANCIES

In case of a difference between the extended price and the unit price of the proposal, the unit price shall govern.

00.1.04 PROPOSAL GUARANTEE

- A. All bids are to be submitted on the basis of cash payment for the work and are to be enclosed in a sealed envelope addressed to the undersigned Authorized Representative accompanied by a bidder's bond in a separate outside envelope for a sum equal to five (5) percent of the full amount of the bid, executed by the bidder as Principal and by a Surety Company authorized to do business in this state, conditioned that if the Principal's bid be accepted and the contract awarded to them, they will, within ten days after Notice of Award, execute and effect a contract in accordance with the terms of their bid and a contractor's bond.
- B. Bid security shall be as required in Section 48 01.2-05 of the North Dakota Century Code as amended.
- C. All bidders must be licensed for the highest amount of their bids, as required by Section 43-07-07 of the North Dakota Century Code.
- D. No bid will be read or considered which does not fully comply with the above provisions as to bonds and licenses, and any deficient bid submitted will be resealed and returned to the bidder immediately.
- E. As soon as the bid prices have been compared, the OWNER will return the bid securities of all except the three (3) lowest responsible bidders.
- F. When the Contract is executed by the successful bidder and OWNER, the bid securities of the two remaining unsuccessful bidders will be returned.
- G. The bond of the successful bidder will be retained until the Agreement and Surety Bond have been executed and approved, after which it will be returned.

00.1.05 CONTRACT AND BOND

- A. The party to whom the Contract is awarded will be required to execute the Agreement and a Performance Payment Bond within ten (10) calendar days from the date when the written "Notice of Award" is mailed to the Bidder at the address given by them.
- B. If any Bidder to whom a contract is awarded fails or refuses to enter into such Agreement when requested to do so, the bond accompanying their bid shall be retained by the OWNER as liquidated damages for such failure.
- C. The bond shall be delivered to the OWNER and shall be credited by the OWNER to the fund from which the consideration for such work is payable.
- D. The sufficiency of any bond filed by a bidder shall be determined by the governing body at the time it considers the bids.

00.1.06 PERFORMANCE AND PAYMENT BOND

- A. A Performance and Payment Bond in the amount of one hundred percent (100%) of the Contract price with a Corporate Surety approved by the OWNER and the ENGINEER will be required for the faithful performance of the Contract, and the bidder shall state in the proposal the name and address of the Surety or Sureties who will sign this bond in case the Contract is awarded to them.
- B. The Contract Bond shall be as required by Section 48-01.2-10 of the North Dakota Century Code as amended.
- C. A maintenance guarantee for the repair of all damages due to improper materials or workmanship for a period of one year after the acceptance of the work by the OWNER will also be required.

00.1.07 AWARD OR REJECTION

- A. The Contract will be awarded to the lowest and/or best qualified responsible Bidder complying with these instructions and with the Advertisement.
- B. The OWNER reserves the right to reject any or all Proposals or to waive any formality or technicality in any Proposal.
- C. The OWNER reserves the right to hold all bids and bid securities for a period not to exceed thirty (30) days and to hold the three low bids and bid securities for a period not to exceed sixty (60) days, from the date of the bid opening.

00.1.08 CONTRACTOR QUALIFICATIONS

- A. Before the award of the Contract, any bidder may be required to furnish evidence, satisfactory to the OWNER and to the ENGINEER, of the necessary facilities, ability and pecuniary resources to fulfill the conditions of the said Contract.
- B. Before contracts are executed by the OWNER, the Contractor will furnish the OWNER'S ENGINEER with a list of Subcontractors for his review, so as to conform to **SECTION 00 72 00 GENERAL CONDITIONS** of this Project Manual.

00.1.09 MODIFICATIONS

- A. Alternate proposals will not be considered unless called for.
- B. Oral proposals or modifications will not be considered.

00.1.10 EXAMINATION OF DOCUMENTS AND SITE VISIT

- A. Before submitting a Proposal, Bidders shall carefully examine the Drawings, read the Project Manual, and the other Contract Documents, shall visit the site of work, and shall fully inform themselves as to all existing conditions and limitations.
- B. The Contractor shall accept such conditions and limitations as the same are eventually found to exist, and to waive all claims for extra compensation arising from unforeseen difficulties, except as may be expressly provided for in the Project Manual.
- C. Professions of ignorance regarding the work may in no way serve to nullify the provisions of the contract or Project Manual.

00.1.11 DOCUMENT TRACKING

- A. Bid Documents can be obtained by downloading an electronic file or purchasing a hard copy paper set of the documents as noted in the Advertisement and Invitation.
- B. The name of each purchase of downloads and hard copies will be recorded by the respective service provider who shall furnish a listing to the Engineer.
- C. Bids will be accepted only from the original purchasers or from another qualified Bidder to whom such a set has been transferred by the original purchaser, provided that in the event of such transfer the ENGINEER shall receive from the original purchasers, at least five (5) days prior to the scheduled bid opening, written notice of such transfer, together with the name of the party to whom the transfer has been made.

00.1.12 OWNER INFORMATION OBLIGATION

- A. The Construction Agreement and the detailed Project Manual contain the provisions required for the construction of the project.
- B. No information obtained from any officer, agent, or employee of the OWNER on any such matters shall in any way affect the risk or obligations assumed by the Contractor or relieve them from fulfilling any of the conditions of the Contract, except to the extent provided in Subpart 00.1.13 of this section of this Project Manual.

00.1.13 INTERPRETATIONS OF DOCUMENTS

- A. If any person contemplating submitting a Proposal is in doubt as to the true meaning of any part of the Drawings, Project Manual, or other Contract Documents, or finds discrepancies in or omissions from the Drawings or Project Manual, they may submit to the ENGINEER a written request for an interpretation or correction thereof.
- B. The person submitting the request will be responsible for its prompt delivery.
- C. Any interpretation or correction of the documents will be made only by Addendum duly issued.
 - 1. Notice of the Addendum will be e-mailed to the address provided by plan holders that obtained digital copies of the documents.
 - a. Said plan holders are required to download the Addendum.
 - 2. Hard copies of the Addendum will be sent to plan holders that purchased a paper copy of the documents.
- D. Neither the OWNER nor the ENGINEER will be responsible for any other explanations or interpretations of the Contract Documents.

00.1.14 UNACCEPTABLE BIDS

- A. Bids which are incomplete, unbalanced, conditioned or obscure or which contain additions not called for, erasures, alterations or irregularities of any kind, or which do not comply with the Instructions for Bidders may be rejected at the option of the OWNER.
- B. If the OWNER so elects, proposals may be issued for projects in combination and/or separately, so that bids may be submitted either on the combinations or on separate units of the combinations.
- C. The OWNER reserves the right to make awards on combination bids or separate bids to the best advantage of the OWNER.
- D. Proposals will not be considered if the Bidder adds any provisions reserving the right to accept or reject an award or enter into a Contract pursuant to an award.

00.1.15 BID SUBMITTAL CONDITIONS

- A. All bids must be completed in the QuestCDN vBid and disclosed the following information:
 - 1. The work covered by the bid.
 - 2. The name of the person, firm or corporation submitting the bid.
 - 3. A copy of the license or certificate of renewal thereof issued shall be uploaded in QuestCDN.
 - 4. Acknowledgement of each Addendum.
 - 5. A Bid Bond for the project meeting the contract specifications shall be uploaded in QuestCDN.
 - 6. A signed copy of Section 00 41 05 QuestCDN On-Line Bid form shall be uploaded in QuestCDN.
- B. No contract will be awarded to any contractor unless they are the holder of a license in the class within which the value of the project shall fall.
 - 1. A contractor must be the holder of a license at least ten (10) days prior to the date set for receiving bids to be a qualified bidder.
- C. Proposals shall be delivered by the time and to the place stipulated in the Advertisement for Bids.
 - 1. It is the sole responsibility of the Bidder to see that their proposal is received in proper time.

**MILL & BITUMINOUS OVERLAY
COUNTY ROADS 1 & 16
RICHLAND COUNTY, NORTH DAKOTA**

**DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS
SECTION 00 21 00 – INSTRUCTION TO BIDDER
PROJECT No. ER5-00-044**

2. Any proposal received after the scheduled closing time for receipt of proposals shall be returned to the Bidder unopened.

00.1.16 WITHDRAWAL

- A. A bidder may withdraw any proposal they have submitted at any time prior to the hour set for the opening of the bids, provided the request for withdrawal is signed in a manner identical to the proposal being withdrawn.
- B. No withdrawal or modification will be permitted after the hour designated for the opening of the bids.

00.1.17 ADDENDA

- A. Any addenda issued during the time of bidding or forming a part of the Contract Documents loaned to the bidder for the preparation of their proposal, shall be covered in the proposal and shall be made a part of the Contract.
- B. Receipt of each Addendum shall be acknowledged in the proposal.

00.1.18 MORE THAN ONE PROPOSAL

- A. No person, firm or corporation shall be allowed to make, file or to be interested in more than one proposal for the same work, unless alternate proposals are called for.
- B. A person, firm, or corporation who has submitted a sub proposal to a bidder, or who has quoted prices on materials to a bidder, is not hereby disqualified from submitting a sub proposal or quoting prices to other bidders.

00.1.19 NORTH DAKOTA STATE TAX CLEARANCE

The successful Contractor shall file with the OWNER prior to award of the Contracts a current statement of income tax clearance from the North Dakota Tax Department in accordance with Section 43-07-11.1 North Dakota Century Code as amended.

00.1.20 GENERAL CONDITIONS

SECTION 00 72 00 GENERAL CONDITIONS as bound herewith, are hereby made a part of the Contract Documents.

00.1.21 ESTIMATE QUANTITIES

Approval of quantities that will be the basis for payment estimates, both monthly and final, will be made by the ENGINEER.

00.1.22 CONFERENCES

- A. The Contractor will be notified by the ENGINEER of any conferences that require their attendance.
- B. A date and time for said conferences will be set by the ENGINEER.

00.1.23 GOVERNMENT REQUIREMENTS

- A. The Contractor shall comply with all "Government Requirements" as found in **SECTION 00 73 73 STATUTORY REQUIREMENTS** of this Project Manual, if applicable, contained herein.

Dated this 15th day of April, 2025

RICHLAND COUNTY, NORTH DAKOTA
OWNER

BY

TITLE

PART 2 PRODUCTS (NOT USED)

PART 3 CONSTRUCTION REQUIREMENTS (NOT USED)

END OF SECTION

PART 1 GENERAL

00.1.01 PROPOSAL

A. In compliance with your Advertisement and subject to all the conditions thereof, the undersigned

hereby proposes to furnish and do everything required by the Contracts to which this refers for the construction of all structures listed at the unit prices shown for each bid item on the following Bid Schedule.

1. The Bid Schedule attached lists the various divisions of construction contemplated in the Drawings and Project Manual, together with an estimate of the units of each.

B. With these units as the basis, the bidder will extend such item, using the cost they insert in the unit column.

1. Any total cost found inconsistent with the unit cost when the bids are examined will be deemed in error and corrected to agree with the unit cost, which shall be considered correct.

00.1.02 PROJECT

A. This project consists of the following:

SECTION 1 – CP-0001(025) Richland County Road 1 mill and overlay and shoulder preparation. This project includes milling, shoulder preparation, hot bituminous pavement overlay, pavement markings and incidentals.

SECTION 2 – CP-0016(025) Richland County Road 16 mill and overlay. This project includes milling, hot bituminous pavement overlay, pavement markings and incidentals.

00.1.03 EXAMINATION OF DOCUMENTS AND SITE VISIT

The undersigned has examined the location of the proposed work, the Drawings, Project Manual and other Contract Documents and is familiar with the local conditions and limitations at the place where the work is to be performed.

00.1.04 ADDENDA

The Receipt of Addenda's _____ through _____ is hereby acknowledged.

00.1.05 BASIS OF PROPOSAL

All various phases of work enumerated in the Detailed Project Manual with their individual jobs and overhead, whether specifically mentioned, included by implication or appurtenant thereto, are to be performed by the Contractor under one of the items listed in the bid schedule, irrespective of whether it is named in said list, and that the OWNER may specify any number or combination of units that the Engineer may deem necessary for the construction of the Project.

00.1.06 TAXES

- A. Along with subpart 01.1.05 of this section of the Project Manual the undersigned agrees that the prices in this Contractor's Proposal include provisions for the payment of all monies which will be payable by the Bidder or the OWNER in connection with the construction of Project on account of taxes imposed by any taxing authority upon the sale, purchase or use of materials, supplies or equipment to be incorporated in the Project.
- B. The Bidder agrees to pay all such taxes and to furnish the appropriate taxing authorities all required information and reports pertaining thereto.

00.1.07 COLLUSION

The undersigned bidder does hereby declare and stipulate that this proposal is made in good faith, without collusion or connection with any other person or persons bidding for the same work, and that it is made in pursuance of and subject to all the terms and conditions of the Information for Bidders, the Construction Agreement, the Detailed Project Manual, and the Drawings pertaining to the work to be done, all of which have been examined by the undersigned.

00.1.08 PROPOSAL GUARANTEE

Accompanying this Proposal is a Bidder's Bond payable to the OWNER in the amount of five percent (5%) of this

MILL & BITUMINOUS OVERLAY
COUNTY ROADS 1 & 16
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DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS
SECTION 00 41 00 – BID FORMS
PROJECT No. ER25-00-044

bid, in accordance with the provisions of subpart 00.1.04 of **SECTION 00 21 00 INSTRUCTIONS TO BIDDERS** of this Project Manual.

00.1.09 PERFORMANCE AND PAYMENT BOND

- A. As shown in Subpart 00.1.06 of **SECTION 00 21 00 INSTRUCTIONS TO BIDDERS** of this Project Manual, the undersigned bidder agrees to execute the Agreement and a Performance and Payment Bond for the amount of the total of this bid within ten (10) calendar days from the date when the written notice of the award of the Contract is delivered to them at the address given on this proposal.
- B. The name and address of the corporate surety with which the Bidder proposes to furnish the specified Performance and Payment Bond is as follows:

00.1.10 CONTRACTOR'S LICENSE

The undersigned hereby warrants it possesses Contractor's License Class _____ No. _____ for the State of _____, in which the project is located and said license expires on _____, 20____.

00.1.11 CONTRACT TIME

- A. Applicable contract completion dates and liquidated damage amounts shall be as provided in Article 4 of **SECTION 00 52 00 AGREEMENT FORMS**
1. This is as provided in subpart 15.03 of **SECTION 00 72 00 GENERAL CONDITIONS** of this Project Manual. Liquidated Damage value is taken from Table 108-02 Daily Charges for Liquidated Damages from the North Dakota Department of Transportation's Standard Specifications for Road and Bridge Construction, 2024 Edition.

00.1.12 OWNER'S RIGHTS RESERVED

The undersigned understands that the OWNER reserves the right to reject any or all Proposals or to waive any formality or technicality in any Proposal in the interest of the OWNER.

00.1.13 PAYMENT

- A. This bid is submitted on the basis of cash payment for work.
- B. Payment for work performed will be in accordance with the Bid Schedule, subject to changes as provided for in the Construction Contract.

00.1.14 GOVERNMENTAL REQUIREMENTS

The Contractor agrees to conform to the Governmental Requirements in **SECTION 00 73 73 STATUTORY REQUIREMENTS** of this Project Manual.

BIDDER'S PROPOSAL

- A. Schedule of Rates

L & M = Labor and Materials LS = Lump Sum

BASE BID – SECTION 1 – CP-0001(25) Richland County 1

ITEM No.	DESCRIPTION	UNITS	EST. QUAN.	UNIT PRICE L&M	EXTENDED PRICE L&M
1	Contract Bond	LS	1	\$	\$
2	Shoulder Preparation	MILE	2.68	\$	\$
3	Seeding – Class 1	SY	3,924	\$	\$
4	Hydraulic Mulching	SY	3,924	\$	\$
5	Shoulder Aggregate (Milled Material)	TON	2,082	\$	\$

**MILL & BITUMINOUS OVERLAY
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6	Aggregate Base Course CL 5	TON	255	\$	\$
7	Tack Coat	GAL	4,007	\$	\$
8	Fog Seal	GAL	4,007	\$	\$
9	Milling Pavement Surface	SY	40,067	\$	\$
10	RAP – Superpave FAA 43	TON	5,191	\$	\$
11	PG58S-28 Asphalt Cement (5%)	TON	260	\$	\$
12	Mobilization	LS	1	\$	\$
13	Flagging	MHR	108	\$	\$
14	Traffic Control Signs	UNIT	626	\$	\$
15	Type III Barricade	EA	4	\$	\$
16	Pilot Car	MHR	54	\$	\$
17	Bituminous Laboratory	LS	1	\$	\$
18	Contractors Laboratory	LS	1	\$	\$
19	PVMT MK 4IN Yellow Line	LF	8,134	\$	\$
20	PVMT MK 6IN White Line	LF	28,282	\$	\$

TOTAL BASE BID SECTION 1 AMOUNT \$

BASE BID – SECTION 2 – CP-0016(025) Richland County Road 16

L & M – labor & Materials

LS = Lump Sum

ITEM No.	DESCRIPTION	UNITS	EST. QUAN.	UNIT PRICE L&M	EXTENDED PRICE L&M
1	Contract Bond	LS	1	\$	\$
2	Shoulder Preparation	MILE	0	\$	\$
3	Seeding – Class 1	SY	0	\$	\$
4	Hydraulic Mulching	SY	0	\$	\$
5	Shoulder Aggregate (Milled Material)	TON	0	\$	\$
6	Aggregate Base Course CL 5	TON	205	\$	\$
7	Tack Coat	GAL	4,330	\$	\$
8	Fog Seal	GAL	4,330	\$	\$
9	Milling Pavement Surface	SY	43,294	\$	\$
10	RAP – Superpave FAA 43	TON	5,618	\$	\$
11	PG58S-28 Asphalt Cement (5%)	TON	281	\$	\$
12	Mobilization	LS	1	\$	\$
13	Flagging	MHR	120	\$	\$
14	Traffic Control Signs	UNIT	626	\$	\$
15	Type III Barricade	EA	4	\$	\$
16	Pilot Car	MHR	60	\$	\$
17	Bituminous Laboratory	LS	0	\$	\$
18	Contractors Laboratory	LS	0	\$	\$
19	PVMT MK 4IN Yellow Line	LF	4,724	\$	\$
20	PVMT MK 6IN White Line	LF	31,680	\$	\$

TOTAL BASE BID SECTION 2 AMOUNT \$

MILL & BITUMINOUS OVERLAY
COUNTY ROADS 1 & 16
RICHLAND COUNTY, NORTH DAKOTA

DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS
SECTION 00 41 00 – BID FORMS
PROJECT No. ER25-00-044

A. One contract will be awarded based on the low responsive, responsible bid for those SECTION or SECTIONS as accepted (with or without any or all alternates or modifications) by the Owner. **Only one contract will be awarded.**

00.1.15 MODIFICATIONS OF BASE BID

A. If the Contractor is allowed to use _____
(Name Alternate Material)
for _____ deduct \$ _____
(System Component)
Add \$ _____ from base bid _____

B. If the Contractor is allowed to use _____
(Name Alternate Material)
for _____ deduct \$ _____
(System Component)
Add \$ _____ from base bid _____

Contractor shall fill in amount for all bid item numbers for base bid, allowances and every alternate shown on the bid form.

THE OWNER RESERVES THE RIGHT TO REJECT ANY AND ALL BIDS OR TO WAIVE ANY FORMALITY OR TECHNICALITY IN ANY BID.

00.1.16 THE ABOVE PROPOSAL IS HEREBY RESPECTFULLY SUBMITTED BY:

(Contractor)

(By) _____
(Title)

(Business Address) _____
(City) _____ (State)

(Date) _____
(Telephone Number)

ATTEST: _____
(SEAL)

Corporate Secretary

- A. The Proposal must be signed with the full name of the Bidder.
1. In the case of a partnership, the Proposal must be signed in the firm name of each partner.
 2. In the case of a corporation, the Proposal must be signed in the corporate name by a duly authorized officer and the corporate seal affixed and attested by the Secretary of the corporation.

ACKNOWLEDGEMENT OF LIQUIDATED DAMAGES

DEFINITIONS:

When used in the Acknowledgement of Liquidated Damages, the following definitions shall apply:

MILL & BITUMINOUS OVERLAY
COUNTY ROADS 1 & 16
RICHLAND COUNTY, NORTH DAKOTA

DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS
SECTION 00 41 00 – BID FORMS
PROJECT No. ER25-00-044

Contractor: _____

Owner: _____

CONTRACTOR acknowledges and agrees that the public improvement contract, which is the subject of this submitted bid contains a liquidated damages clause.

CONTRACTOR acknowledges and agrees that because the project involves the construction of public improvements, said liquidated damages clause is necessary.

Applicable contract completion dates and liquidated damage amounts shall be as provided in Article 4 of **SECTION 00 52 00 AGREEMENT FORMS**.

CONTRACTOR acknowledges and agrees that the OWNER is damaged for each calendar day past the contract's substantial completion date that this project is not substantially completed.

CONTRACTOR further acknowledges and agrees that the OWNER is damaged for each calendar day past the contract's final completion date that this project is not finally completed.

Substantial completion shall be considered to be attained once the OWNER has beneficial use of the facility unencumbered by construction work other than punch list items AND the work is completed to where a certificate of occupancy can be attained.

Final completion shall be considered to be attained upon completion of all punch list items being addressed to the satisfaction of the OWNER AND all close-out documents, complete and correct, have been received by the OWNER.

Should the CONTRACTOR fail to attain substantial completion by the date specified for final completion the liquidated damages will remain at the amount specified for substantial completion until substantial completion is attained. Once substantial completion is attained the liquidated damages will be reduced to the amount specified for final completion after the substantial completion date until final completion is attained.

(CONTRACTOR) acknowledges and agrees that because this is a public improvement project, it is extremely difficult to calculate the OWNER's actual damages for delay in completing the project, but that these mutually agreed upon figure(s) for liquidated damages for substantial and final completion, are the best approximation possible, are reasonable, and are not a penalty. These mutually agreed upon liquidated damages amounts have been specifically taken into account in arriving at the dollar amount of CONTRACTOR's submitted bid. These liquidated damages amounts shall be included in the public improvement project contract and CONTRACTOR acknowledges and agrees to be bound by these amounts should CONTRACTOR be awarded the public improvement contract.

These mutually agreed upon amounts may be deducted from money due or to become due CONTRACTOR should CONTRACTOR be awarded the public improvement contract and should CONTRACTOR fail to complete the work substantially and finally within the times specified in this contract.

By: _____

(CONTRACTOR)

Its: _____

END OF SECTION

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PART 1 GENERAL**00.1.01 PROPOSAL**

A. In compliance with your Advertisement and subject to all the conditions thereof, the undersigned

hereby proposes to furnish and do everything required by the Contracts to which this refers for the construction of all structures listed at the unit prices shown for each bid item on the QuestCDN On-Line Bidding.

1. The On-Line Bid Form lists the various divisions of construction contemplated in the Drawings and Project Manual, together with an estimate of the units of each.
2. **SECTION 00 41 05 QUESTCDN ON-LINE BID FORM** shall be filled out and signed by the Contractor and shall be submitted with the Electronic Bid.

B. With these units as the basis, the bidder will enter the unit cost, and the extension will be calculated automatically based upon number of units on the On-Line Bid Form.

00.1.02 PROJECT

A. This project consists of the following:

SECTION 1 – CP-0001(025) Richland County Road 1 mill and overlay and shoulder preparation. This project includes milling, shoulder preparation, hot bituminous pavement overlay, pavement markings and incidentals.

SECTION 2 – CP-0016(025) Richland County Road 16 mill and overlay. This project includes milling, hot bituminous pavement overlay, pavement markings and incidentals.

00.1.03 EXAMINATION OF DOCUMENTS AND SITE VISIT

The undersigned has examined the location of the proposed work, the Drawings, Project Manual and other Contract Documents and is familiar with the local conditions and limitations at the place where the work is to be performed.

00.1.04 ADDENDA

The Receipt of Addenda's _____ through _____ is hereby acknowledged.

00.1.05 BASIS OF PROPOSAL

All various phases of work enumerated in the Detailed Project Manual with their individual jobs and overhead, whether specifically mentioned, included by implication or appurtenant thereto, are to be performed by the Contractor under one of the items listed in the bid schedule, irrespective of whether it is named in said list, and that the OWNER may specify any number or combination of units that the Engineer may deem necessary for the construction of the Project.

00.1.06 TAXES

A. Along with subpart 01.1.05 of this section of the Project Manual the undersigned agrees that the prices in this Contractor's Proposal include provisions for the payment of all monies which will be payable by the Bidder or the OWNER in connection with the construction of Project on account of taxes imposed by any taxing authority upon the sale, purchase or use of materials, supplies or equipment to be incorporated in the Project.

B. The Bidder agrees to pay all such taxes and to furnish the appropriate taxing authorities all required information and reports pertaining thereto.

00.1.07 COLLUSION

The undersigned bidder does hereby declare and stipulate that this proposal is made in good faith, without collusion or connection with any other person or persons bidding for the same work, and that it is made in pursuance of and subject to all the terms and conditions of the Information for Bidders, the Construction Agreement, the Detailed Project Manual, and the Drawings pertaining to the work to be done, all of which have been examined by the undersigned.

00.1.08 PROPOSAL GUARANTEE

Accompanying this Proposal is a Bidder's Bond payable to the OWNER in the amount of five percent (5%) of this bid, in accordance with the provisions of subpart 00.1.04 of **SECTION 00 21 00 INSTRUCTIONS TO BIDDERS** of this Project Manual.

00.1.09 PERFORMANCE AND PAYMENT BOND

- A. As shown in Subpart 00.1.06 of **SECTION 00 21 00 INSTRUCTIONS TO BIDDERS** of this Project Manual, the undersigned bidder agrees to execute the Agreement and a Performance and Payment Bond for the amount of the total of this bid within ten (10) calendar days from the date when the written notice of the award of the Contract is delivered to them at the address given on this proposal.
- B. The name and address of the corporate surety with which the Bidder proposes to furnish the specified Performance and Payment Bond is as follows:

00.1.10 CONTRACTOR'S LICENSE

The undersigned hereby warrants it possesses Contractor's License Class _____ No. _____ for the State of _____, in which the project is located and said license expires on _____, 20____.

00.1.11 CONTRACT TIME

- A. Applicable contract completion dates and liquidated damage amounts shall be as provided in Article 4 of **SECTION 00 52 00 AGREEMENT FORMS**
1. This is as provided in subpart 15.03 of **SECTION 00 72 00 GENERAL CONDITIONS** of this Project Manual. Liquidated Damage value is taken from Table 108-02 Daily Charges for Liquidated Damages from the North Dakota Department of Transportation's Standard Specifications for Road and Bridge Construction, 2024 Edition.

00.1.12 OWNER'S RIGHTS RESERVED

The undersigned understands that the OWNER reserves the right to reject any or all Proposals or to waive any formality or technicality in any Proposal in the interest of the OWNER.

00.1.13 PAYMENT

- A. This bid is submitted on the basis of cash payment for work.
- B. Payment for work performed will be in accordance with the Bid Schedule, subject to changes as provided for in the Construction Contract.

00.1.14 GOVERNMENTAL REQUIREMENTS

The Contractor agrees to conform to the Governmental Requirements in **SECTION 00 73 73 STATUTORY REQUIREMENTS** of this Project Manual.

One contract can be awarded based on the low responsive, responsible bids as accepted by the Owner.

00.1.15 MODIFICATIONS OF BASE BID

- A. If the Contractor is allowed to use _____
(Name Alternate Material)
for _____ deduct \$ _____
(System Component)
- Add \$ _____ from base bid _____

**MILL & BITUMINOUS OVERLAY
COUNTY ROADS 1 & 16
RICHLAND COUNTY, NORTH DAKOTA**

**DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS
SECTION 00 41 05 – QUESTCDN ON-LINE BID FORMS
PROJECT No. ER25-00-044**

B. If the Contractor is allowed to use _____
(Name Alternate Material)
for _____ deduct \$ _____
(System Component)
Add \$ _____ from base bid _____

Contractor shall fill in amount for all bid item numbers for base bid, allowances and every alternate shown on the bid form.

One contract can be awarded based on the lowest cost combination of bids on the Base Bid and the Add alternates selected by the Owner.

THE OWNER RESERVES THE RIGHT TO REJECT ANY AND ALL BIDS OR TO WAIVE ANY FORMALITY OR TECHNICALITY IN ANY BID.

00.1.16 THE ABOVE PROPOSAL IS HEREBY RESPECTFULLY SUBMITTED BY:

(Contractor)

(By) _____
(Title)

(Business Address) _____
(City) _____ (State)

(Date) _____
(Telephone Number)

(SEAL)

ATTEST:

Corporate Secretary

A. The Proposal must be signed with the full name of the Bidder.

1. In the case of a partnership, the Proposal must be signed in the firm name of each partner.
2. In the case of a corporation, the Proposal must be signed in the corporate name by a duly authorized officer and the corporate seal affixed and attested by the Secretary of the corporation.

00.1.17 ACKNOWLEDGEMENT OF LIQUIDATED DAMAGES

DEFINITIONS:

When used in the Acknowledgement of Liquidated Damages, the following definitions shall apply:

Contractor: _____

Owner: _____

This Acknowledgement dated this ____ day of _____ day of _____ 20__ by CONTRACTOR wherein CONTRACTOR acknowledges and agrees that the public improvement contract, which is the subject of this submitted bid contains a liquidated damages clause.

CONTRACTOR acknowledges and agrees that because the project involves the construction of public improvements, said liquidated damages clause is necessary.

**MILL & BITUMINOUS OVERLAY
COUNTY ROADS 1 & 16
RICHLAND COUNTY, NORTH DAKOTA**

**DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS
SECTION 00 41 05 – QUESTCDN ON-LINE BID FORMS
PROJECT No. ER25-00-044**

Applicable contract completion dates and liquidated damage amounts shall be as provided in Article 4 of **SECTION 00 52 00 AGREEMENT FORMS.**

CONTRACTOR acknowledges and agrees that the OWNER is damaged for each calendar day past the contract's substantial completion date that this project is not substantially completed.

CONTRACTOR further acknowledges and agrees that the OWNER is damaged for each calendar day past the contract's final completion date that this project is not finally completed.

Substantial completion shall be considered to be attained once the OWNER has beneficial use of the facility unencumbered by construction work other than punch list items AND the work is completed to where a certificate of occupancy can be attained.

Final completion shall be considered to be attained upon completion of all punch list items being addressed to the satisfaction of the OWNER AND all close-out documents, complete and correct, have been received by the OWNER.

Should the CONTRACTOR fail to attain substantial completion by the date specified for final completion the liquidated damages will remain at the amount specified for substantial completion until substantial completion is attained. Once substantial completion is attained the liquidated damages will be reduced to the amount specified for final completion after the substantial completion date until final completion is attained.

(CONTRACTOR) acknowledges and agrees that because this is a public improvement project, it is extremely difficult to calculate the OWNER's actual damages for delay in completing the project, but that these mutually agreed upon figure(s) for liquidated damages for substantial and final completion, are the best approximation possible, are reasonable, and are not a penalty. These mutually agreed upon liquidated damages amounts have been specifically taken into account in arriving at the dollar amount of CONTRACTOR's submitted bid. These liquidated damages amounts shall be included in the public improvement project contract and CONTRACTOR acknowledges and agrees to be bound by these amounts should CONTRACTOR be awarded the public improvement contract.

These mutually agreed upon amounts may be deducted from money due or to become due CONTRACTOR should CONTRACTOR be awarded the public improvement contract and should CONTRACTOR fail to complete the work substantially and finally within the times specified in this contract.

By: _____
(CONTRACTOR)

Its: _____

END OF SECTION

MILL & BITUMINOUS OVERLAY
COUNTY ROADS 1 & 16
RICHLAND COUNTY, NORTH DAKOTA

DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENT
SECTION 00 43 13 – BID SECURITY FORM
PROJECT No. ER25-00-044

PART 1 GENERAL

00.1.01 DESCRIPTION

The EJCDC C-430 Bid Bond (Penal Sum Form) (2 Pages) as included herein shall be used to provide the required bid security and shall be submitted with each bid in accordance with the provisions of **SECTION 00 21 00 INSTRUCTIONS TO BIDDERS**.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

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BID BOND

Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.

BIDDER (Name and Address):

SURETY (Name, and Address of Principal Place of Business):

OWNER (Name and Address):

BID

Bid Due Date:

Description (*Project Name— Include Location*):

BOND

Bond Number:

Date:

Penal sum		\$
	(Words)	(Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.

BIDDER

SURETY

 Bidder's Name and Corporate Seal

By: _____ By: _____
Signature Signature (Attach Power of Attorney)

Print Name _____

Print Name _____

Title

Title

Attest: _____ Attest: _____
Signature Signature

Title

Title

Note: Addresses are to be used for giving any required notice.

Provide execution by any additional parties, such as joint venturers, if necessary.



1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.
2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
3. This obligation shall be null and void if:
 - 3.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
 - 3.2 All Bids are rejected by Owner, or
 - 3.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from the Bid due date without Surety's written consent.
6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after the Bid due date.
7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

MILL & BITUMINOUS OVERLAY
 RICHLAND COUNTY ROADS 1 & 16
 RICHLAND COUNTY, NORTH DAKOTA

DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS
 SECTION 00 51 00 – NOTICE OF AWARD
 PROJECT No. ER25-00-044

NOTICE OF AWARD

TO: _____

Description of Work: Construction of _____

_____ for the
 _____. The OWNER represented by the undersigned has considered the Proposal submitted by you for the above-described work in response to its "ADVERTISEMENT AND INVITATION" dated _____ and "INSTRUCTIONS TO BIDDERS". It appearing that it is to the best interest of said OWNER to accept your proposal in the amount of _____ DOLLARS (\$ _____), you are hereby notified that YOUR Proposal has been accepted for _____. You are required by the "INSTRUCTIONS TO BIDDERS" to execute the agreement with the undersigned OWNER and to furnish the required Contractor's Performance and Payment Bond, and Certificates of Insurance within fifteen (15) days from the date of the mailing of this Notice to you.

If you fail to execute said agreement and to furnish said bonds and certificates of insurance within fifteen (15) days from the date of mailing of this Notice, you will forfeit your Bid Security, if any, and said OWNER will be entitled to consider all your rights arising out of the OWNER's acceptance of your proposal as abandoned and to award the work covered by your Proposal to another, or to readvertise the work or otherwise dispose thereof as the OWNER may see fit.

Dated this ____ day of _____, ____.

OWNER: _____

(SEAL)

BY: _____

ATTEST:

TITLE: _____

ACCEPTANCE OF NOTICE

Receipt of the above Notice of Award is

hereby acknowledged this _____ day

of _____, 20____.

By: _____

Title: _____

END OF SECTION

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**MILL & BITUMINOUS OVERLAY
COUNTY ROADS 1 & 16
RICHLAND COUNTY, NORTH DAKOTA**

**DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS
SECTION 00 52 00 – AGREEMENT FORMS
PROJECT No. ER25-00-044**

THIS AGREEMENT is dated as of the _____ day of _____ in the year 20__ by and between: _____, hereinafter called OWNER, and _____ hereinafter called CONTRACTOR, OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:

ARTICLE 1 WORK

CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. The work is generally described as follows:

Mill, Bituminous Overlay and Shoulder Preparation for County Roads 1 & 16, Richland County, North Dakota.

ARTICLE 2 THE PROJECT

The project for which the Work under the Contract Documents may be the whole or on a part is generally described as follows:

SECTION 1 – CP-0001(025) Richland County Road 1 mill and overlay and shoulder preparation. This project includes milling, shoulder preparation, hot bituminous pavement overlay, pavement markings and incidentals.

SECTION 2 – CP-0016(025) Richland County Road 16 mill and overlay. This project includes milling, hot bituminous pavement overlay, pavement markings and incidentals.

ARTICLE 3 ENGINEER

3.01 The project has been designed by:

Interstate Engineering, Inc.
1999 4th Street North, Suite A
PO Box 667
Wahpeton, North Dakota 58075-0667

Who is hereinafter called ENGINEER and who is to act as OWNER's Representative, assume all duties and responsibilities and have rights and authority assigned to ENGINEER in the Contract Documents in connection with completion of the work in accordance with the Contract Documents.

ARTICLE 4 CONTRACT TIMES

4.01 Time of the Essence

A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 Dates to Achieve Substantial Completion and Final Payment

A. Work described in Article 1 shall be substantially complete as follows:

1. All construction schedules shall be substantially complete and ready for Owner use and final inspection by September 14, 2025.

B. Work shall begin when the Contract Time commences to run as provided in **SECTION 00 72 00 GENERAL CONDITIONS** of this Project Manual.

4.03 Liquidated Damages

A. CONTRACTOR and OWNER recognize that time is of the essence of this Agreement and that OWNER will suffer financial loss if the Work is not completed within the times specified in paragraph 4.02 above, plus any extensions thereof allowed in accordance with **SECTION 00 72 00 GENERAL CONDITIONS** of this Project Manual. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by OWNER if the Work is not completed on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty), CONTRACTOR shall pay OWNER \$2,300.00 for each day that expires after the time

specified in paragraph 4.02 for Substantial Completion until the Work is substantially complete. Based on estimate and NDDOT Chart.

ARTICLE 5 CONTRACT PRICE

5.01 OWNER shall pay CONTRACTOR for completion of the Work in accordance with the Contract Documents an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the quantity of that item that is constructed and accepted. Unit prices are those listed in the Unit Price Schedule of the Bid Form attached as Exhibit A to this Agreement. Estimated quantities used for bidding purposes are not guaranteed. Payment will be for actual quantities as determined by Engineer in accordance with SECTION 00 72 00 GENERAL CONDITIONS of this Project Manual.

ARTICLE 6 PAYMENT PROCEDURES

6.01 Submittal and Processing of Payments

A. CONTRACTOR shall submit Applications for Payment in accordance with **SECTION 00 72 00 GENERAL CONDITIONS** of this Project Manual. Applications for Payment will be processed by ENGINEER as provided in **SECTION 00 72 00 GENERAL CONDITIONS** of this Project Manual or other portions of the Contract Documents.

6.02 Progress Payments; Retainage

A. OWNER shall make progress payments in accordance with **SECTION 00 72 00 GENERAL CONDITIONS** of this Project Manual on account of the Contract Price on the basis of CONTRACTOR's Applications for Payment as recommended by the ENGINEER, once each month during construction as provided below. All progress payments will be on the basis of progress of Work Measured by the number of units of each bid item completed times the bid unit price in the Unit Price Schedule of the Bid Form for that item.

1. Prior to Substantial Completion, progress payments will be made equal to the sum of the unit price items less the percentage indicated below, but, in each case, less the aggregate of payments previously made and less such amounts as ENGINEER may determine or OWNER may withhold, in accordance with **SECTION 00 72 00 GENERAL CONDITIONS** of this Project Manual:

a. The OWNER shall retain 10% of the amount of each payment until 50% of the work has been completed. At 50% completion, retainage shall be reduced to 5% of the amount of each payment until final completion and acceptance of all work covered by the Contract Documents.

b. Retainage will be 10% of materials and equipment not incorporated in the Work (but delivered, suitably stored and accompanied by documentation satisfactory to OWNER as provided in **SECTION 00 72 00 GENERAL CONDITIONS** of this Project Manual).

2. Upon Substantial Completion and at the OWNER's discretion, the amount of retainage may be further reduced if requested by the CONTRACTOR.

6.03 Final Payment

A. Upon final completion and acceptance of the Work in accordance with **SECTION 00 72 00 GENERAL CONDITIONS** of this Project Manual, OWNER shall pay the remainder of the Contract Price as recommended by ENGINEER as provided in said **SECTION 00 72 00 GENERAL CONDITIONS** of this Project Manual.

ARTICLE 7 INTEREST

7.01 All moneys not paid when due as provided in SECTION 00 72 00 GENERAL CONDITIONS of this Project Manual shall bear interest at the maximum rate allowed by law at the place of the Project.

ARTICLE 8 CONTRACTORS REPRESENTATIONS

8.01 In order to induce OWNER to enter into this Agreement, CONTRACTOR makes the following representations:

A. CONTRACTOR has examined and carefully studied the Contract Documents (including all Addenda) listed in Article 9 and the other related data identified in the Bidding Documents.

- B. CONTRACTOR has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance or furnishing of the Work.
- C. CONTRACTOR is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, performance, and furnishing of the Work.
- D. CONTRACTOR has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities), if any, which have been identified in the Supplementary Conditions as provided in **SECTION 00 72 00 GENERAL CONDITIONS** of this Project Manual and (2) reports and drawings of a Hazardous Environmental Condition, if any, at the Site which has been identified in the Special Provisions as provided in **SECTION 00 72 00 GENERAL CONDITIONS** of this Project Manual. CONTRACTOR acknowledges that such reports and drawings are not Contract Documents and may not be complete for CONTRACTOR's purposes. CONTRACTOR acknowledges that OWNER and ENGINEER do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Contract Documents with respect to Underground Facilities at or contiguous to the site.
- E. CONTRACTOR has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, performance, or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by CONTRACTOR, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Contract Documents to be employed by the CONTRACTOR, and safety precautions and programs incident thereto.
- F. CONTRACTOR does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the performance and furnishing of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
- G. CONTRACTOR is aware of the general nature of work to be performed by OWNER and others at the Site that relates to the Work as indicated in the Contract Documents.
- H. CONTRACTOR has correlated the information known to CONTRACTOR, information and observations obtained from visits to the Site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.
- I. CONTRACTOR has given ENGINEER written notice of all conflicts, errors, ambiguities, or discrepancies that CONTRACTOR has discovered in the Contract Documents, and the written resolution thereof by ENGINEER is acceptable to CONTRACTOR.
- J. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

ARTICLE 9 CONTRACT DOCUMENTS

9.01 Contents

- A. The Contract Documents consist of the following:
 - 1. This Agreement.
 - 2. Performance Bond.
 - 3. Payment Bond.
 - 4. Other Bonds.
 - 5. General Conditions.
 - 6. Supplementary Conditions.
 - 7. Specifications as listed in the Table of Contents of the Project Manual.
 - 8. Drawings consisting of a cover sheet and sheets numbered 1 through 44, inclusive, with each sheet

bearing the following general title: **MILLING BITUMINOUS OVERLAY AND SHOULDER PREPARATION OF COUNTY ROADS 1 AND 16 IN RICHLAND, NORTH DAKOTA** (Note: Drawings are not attached hereto).

9. Addenda (numbers ____ to ____, inclusive).
10. Exhibits to this Agreement (enumerated as follows):
 - a. Notice of Award.
 - b. CONTRACTOR's Bid Form.
 - c. Documentation submitted by CONTRACTOR prior to Notice of Award.
11. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
 - a. Written Amendments.
 - b. Work Change Directives.
 - c. Change Orders
- B. The documents listed in **SECTION 00 72 00 GENERAL CONDITIONS** of this Project Manual are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 9.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in **SECTION 00 72 00 GENERAL CONDITIONS** of this Project Manual.

ARTICLE 10 MISCELLANEOUS

10.01 Terms

- A. Terms used in this Agreement which are defined in Article 1 of the General Conditions will have the meanings indicated in the General Conditions.

10.02 Assignment of Contract

- A. No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically, but without limitation, moneys that may come due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 Successors and Assigns

- A. OWNER and CONTRACTOR each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.04 Severability

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon OWNER and CONTRACTOR, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.05 Errors and Omissions

- A. The Contract Documents listed in Article 9 of this Agreement are intended to complimentary and to describe and provide a complete work. The CONTRACTOR will not take advantage of an apparent error or omission in the Drawings and Project Manual. If the CONTRACTOR discovers such an error or omission, he will

immediately notify the ENGINEER. The ENGINEER will then make such corrections and interpretation as may be deemed necessary for fulfilling the intent of the Contract Documents.

IN WITNESS WHEREOF, OWNER and CONTRACTOR have signed **FIVE (5)** copies of this Agreement. **TWO (2)** counterpart(s) have been delivered to OWNER, **TWO (2)** to CONTRACTOR, and **ONE (1)** to ENGINEER. All portions of the Contract Documents have been signed or identified by OWNER and CONTRACTOR or by ENGINEER on their behalf.

This Agreement will be effective on the date shown on _____, 20____. (Which is the effective Date of the Agreement).

OWNER:

CONTRACTOR:

By: _____
(Signature)

By: _____
(Signature)

Attest: _____
(Signature)

Attest: _____
(Signature)

Address for giving notices:

Address for giving notices:

Phone: _____

Phone: _____

Facsimile: _____

Facsimile: _____

[CORPORATE SEAL]

[CORPORATE SEAL]

North Dakota Contractors’ Registration #

Agent for service of process:

(If OWNER is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of OWNER-CONTRACTOR Agreement.)

(If CONTRACTOR is a corporation or a partnership, attach evidence of authority to sign.)

Owner’s Designated Representative:
Name: _____

Contractor’s Designated Representative:
Name: _____

Title: _____

Title: _____

Address for giving notices:

Address for giving notices:

Phone: _____

Phone: _____

Facsimile: _____

Facsimile: _____

END OF SECTION

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MILL & BITUMINOUS OVERLAY
COUNTY ROADS 1 & 16
RICHLAND COUNTY, NORTH DAKOTA

DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS
SECTION 00 54 00 – AGREEMENT FORM SUPPLEMENTS
PROJECT No. ER25-00-044

PART 1 GENERAL

00.1.01 ADDITIONAL DOCUMENTS OF THE CONTRACT

- A. The documents listed below shall be furnished to the Owner upon award of the Contract.
- B. These documents shall become a part of the Contract Agreement between the Owner and Contractor.
 - 1. Acknowledgment of Principal
 - 2. Power of Attorney
 - 3. Liability Insurance
 - 4. Current Workmen's Compensation Certificate of Premium Paid
 - 5. Contractor's Certificate of North Dakota Income and Sales Tax Clearance

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

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MILL & BITUMINOUS OVERLAY
COUNTY ROADS 1 & 16
RICHLAND COUNTY, NORTH DAKOTA

DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS
SECTION 00 55 00 – NOTICE TO PROCEED
PROJECT No. ER25-00-044

NOTICE TO PROCEED

TO: _____

DATE: _____

PROJECT: _____

You are hereby notified to commence WORK in accordance with the Agreement dated _____, 20____, on or before _____, 20____, and you are to complete the WORK within XXX consecutive calendar days thereafter. The date of completion of all WORK is therefore _____.

OWNER

By: _____

Title: _____

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE TO

PROCEED is hereby acknowledged

this the _ day of _____, 20____

By _____

Title _____

END OF SECTION

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MILL & BITUMINOUS OVERLAY
COUNTY ROADS 1 & 16
RICHLAND COUNTY, NORTH DAKOTA

DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS
SECTION 00 61 13 – PERFORMANCE AND PAYMENT BOND FORMS
PROJECT No. ER25-00-044

PART 1 GENERAL

- A. Performance Bond shall be provided on EJCDC C-610 Performance Bond Form as included herein (3 Pages).
- B. Payment Bond shall be provided on EJCDC C-615 Payment Bond Form as included herein (3 Pages).

PART 2 PRODUCTS (NOT USED)

PART 3 CONSTRUCTION REQUIREMENTS (NOT USED)

END OF SECTION

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PERFORMANCE BOND

CONTRACTOR *(name and address):*

SURETY *(name and address of principal place of business):*

OWNER *(name and address):*

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location):*

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract):*

Amount:

Modifications to this Bond Form: ☐ None ☐ See Paragraph 16

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Contractor's Name and Corporate Seal

Surety's Name and Corporate Seal

By: _____
Signature

By: _____
Signature *(attach power of attorney)*

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after:

3.1 The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

3.2 The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

3.3 The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be

secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

7.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

7.2 additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and

7.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.

10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

11. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

14. Definitions

14.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages

to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

14.2 Construction Contract: The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

14.3 Contractor Default: Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

14.4 Owner Default: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

14.5 Contract Documents: All the documents that comprise the agreement between the Owner and Contractor.

15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

16. Modifications to this Bond are as follows:

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PAYMENT BOND

CONTRACTOR *(name and address)*:

SURETY *(name and address of principal place of business)*:

OWNER *(name and address)*:

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location)*:

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract)*:

Amount:

Modifications to this Bond Form: ☐ None ☐ See Paragraph 18

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

(seal)

Contractor's Name and Corporate Seal

By: _____

Signature

Print Name

Title

Attest: _____

Signature

Title

(seal)

Surety's Name and Corporate Seal

By: _____

Signature *(attach power of attorney)*

Print Name

Title

Attest: _____

Signature

Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond shall arise after the following:
 - 5.1 Claimants who do not have a direct contract with the Contractor,
 - 5.1.1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
 - 5.1.2 have sent a Claim to the Surety (at the address described in Paragraph 13).
 - 5.2 Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
 - 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
 - 7.2 Pay or arrange for payment of any undisputed amounts.
 - 7.3 The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.
8. The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.
9. Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

12. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
13. Notice and Claims to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.
14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.
15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

16. Definitions

16.1 **Claim:** A written statement by the Claimant including at a minimum:

1. The name of the Claimant;
2. The name of the person for whom the labor was done, or materials or equipment furnished;
3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
4. A brief description of the labor, materials, or equipment furnished;
5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
7. The total amount of previous payments received by the Claimant; and

8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.

16.2 **Claimant:** An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

16.3 **Construction Contract:** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

16.4 **Owner Default:** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

16.5 **Contract Documents:** All the documents that comprise the agreement between the Owner and Contractor.

17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

18. Modifications to this Bond are as follows:

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MILL & BITUMINOUS OVERLAY
COUNTY ROADS 1 & 16
RICHLAND COUNTY, NORTH DAKOTA

DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS
SECTION 00 72 00- GENERAL CONDITIONS
PROJECT No. ER25-00-044

PART 1 GENERAL

00.1.01 DESCRIPTION

- A. The General Condition of this Contract shall be the **EJCDC C-700 STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT** as included in and are a part of this section of the Project Manual.
- B. References to “STANDARD GENERAL CONDITIONS” OR “GENERAL CONDITIONS” made in other sections of this Project Manual shall mean the **EJCDC C-700 STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT** as included herein.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

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This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by



Issued and Published Jointly by



Endorsed by



These General Conditions have been prepared for use with the Agreement Between Owner and Contractor for Construction Contract (EJCDC® C-520, Stipulated Sum, or C-525, Cost-Plus, 2013 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other.

To prepare supplementary conditions that are coordinated with the General Conditions, use EJCDC's Guide to the Preparation of Supplementary Conditions (EJCDC® C-800, 2013 Edition). The full EJCDC Construction series of documents is discussed in the Commentary on the 2013 EJCDC Construction Documents (EJCDC® C-001, 2013 Edition).

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ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.
 3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 5. *Bidder*—An individual or entity that submits a Bid to Owner.
 6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.
 7. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
 8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.
 9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.
 10. *Claim*—(a) A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein: seeking an adjustment of Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract; or (b) a demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal; or seeking resolution of a contractual issue that Engineer has declined to address. A demand for money or services by a third party is not a Claim.
 11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), hazardous waste, and any substance, product, waste, or other material of any nature

whatsoever that is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. ("CERCLA"); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§5101 et seq.; (c) the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. ("RCRA"); (d) the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; (e) the Clean Water Act, 33 U.S.C. §§1251 et seq.; (f) the Clean Air Act, 42 U.S.C. §§7401 et seq.; or (g) any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.

12. *Contract*—The entire and integrated written contract between the Owner and Contractor concerning the Work.
13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents. .
15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
17. *Cost of the Work*—See Paragraph 13.01 for definition.
18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
20. *Engineer*—The individual or entity named as such in the Agreement.
21. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
22. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated in the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, does not establish a Hazardous Environmental Condition.
23. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
24. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
25. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date or by a time prior to Substantial Completion of all the Work.
26. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.
27. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the

Contract Times will commence to run and on which Contractor shall start to perform the Work.

28. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
29. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor’s plan to accomplish the Work within the Contract Times.
30. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.
31. *Project Manual*—The written documents prepared for, or made available for, procuring and constructing the Work, including but not limited to the Bidding Documents or other construction procurement documents, geotechnical and existing conditions information, the Agreement, bond forms, General Conditions, Supplementary Conditions, and Specifications. The contents of the Project Manual may be bound in one or more volumes.
32. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative or “RPR” includes any assistants or field staff of Resident Project Representative.
33. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
34. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer’s review of the submittals and the performance of related construction activities.
35. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor’s Applications for Payment.
36. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.
37. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands furnished by Owner which are designated for the use of Contractor.
38. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
39. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.
40. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms

“substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.

41. *Successful Bidder*—The Bidder whose Bid the Owner accepts, and to which the Owner makes an award of contract, subject to stated conditions.
42. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.
43. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.
44. *Technical Data*—Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (a) subsurface conditions at the Site, or physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) or (b) Hazardous Environmental Conditions at the Site. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then the data contained in boring logs, recorded measurements of subsurface water levels, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical or environmental report prepared for the Project and made available to Contractor are hereby defined as Technical Data with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06.
45. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including but not limited to those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, fiber optic transmissions, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
46. *Unit Price Work*—Work to be paid for on the basis of unit prices.
47. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.
48. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 Terminology

- A. The words and terms discussed in the following paragraphs are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *Intent of Certain Terms or Adjectives*:
 1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for

compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.

C. *Day:*

1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.

D. *Defective:*

1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. does not conform to the Contract Documents; or
 - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - c. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or 15.04).

E. *Furnish, Install, Perform, Provide:*

1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.

- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

- A. *Bonds:* When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. *Evidence of Contractor’s Insurance:* When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract), the

certificates and other evidence of insurance required to be provided by Contractor in accordance with Article 6.

- C. *Evidence of Owner's Insurance:* After receipt of the executed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or otherwise), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully executed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.
- B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 *Before Starting Construction*

- A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Contract (or as otherwise specifically required by the Contract Documents), Contractor shall submit to Engineer for timely review:
 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;
 2. a preliminary Schedule of Submittals; and
 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Initial Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.03.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.

1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.

2.06 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may transmit, and shall accept, Project-related correspondence, text, data, documents, drawings, information, and graphics, including but not limited to Shop Drawings and other submittals, in electronic media or digital format, either directly, or through access to a secure Project website.
- B. If the Contract does not establish protocols for electronic or digital transmittals, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. When transmitting items in electronic media or digital format, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the items, or from those established in applicable transmittal protocols.

ARTICLE 3 – DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic or digital versions of the Contract Documents (including any printed copies derived from such electronic or digital versions) and the printed record version, the printed record version shall govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.

3.02 *Reference Standards*

- A. Standards Specifications, Codes, Laws and Regulations
 1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
 2. No provision of any such standard specification, manual, reference standard, or code, or any

instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies:*

1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.
2. *Contractor's Review of Contract Documents:* If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies:*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:
 - a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Requirements of the Contract Documents*

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the

acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work thereunder.

- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.
- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly give written notice to Owner and Contractor that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

- A. Contractor and its Subcontractors and Suppliers shall not:
 - 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or
 - 2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Contract, whichever date is earlier.

4.02 *Starting the Work*

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to such date.

4.03 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written

approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.
 - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.
 - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 11.
- B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Times and Contract Price. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
 - 1. severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 - 2. abnormal weather conditions;
 - 3. acts or failures to act of utility owners (other than those performing other work at or adjacent to the Site by arrangement with the Owner, as contemplated in Article 8); and
 - 4. acts of war or terrorism.
- D. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5.

- E. Paragraph 8.03 governs delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.
- F. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor.
- G. Contractor must submit any Change Proposal seeking an adjustment in Contract Price or Contract Times under this paragraph within 30 days of the commencement of the delaying, disrupting, or interfering event.

ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.
- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas:*

- 1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
- 2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.12, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or at law; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs)

arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

- B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.
- C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
- D. *Loading of Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.03 *Subsurface and Physical Conditions*

- A. *Reports and Drawings:* The Supplementary Conditions identify:
 - 1. those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site;
 - 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities); and
 - 3. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:
 - 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
 - 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
 - 3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

5.04 *Differing Subsurface or Physical Conditions*

- A. *Notice by Contractor:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site either:

1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate; or
2. is of such a nature as to require a change in the Drawings or Specifications; or
3. differs materially from that shown or indicated in the Contract Documents; or
4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

- B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine the necessity of Owner's obtaining additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A above; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
- D. *Possible Price and Times Adjustments:*
 1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, or both, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. such condition must fall within any one or more of the categories described in Paragraph 5.04.A;
 - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,
 - c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
 2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
 - a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission

- of a Bid or becoming bound under a negotiated contract, or otherwise; or
 - b. the existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
 - c. Contractor failed to give the written notice as required by Paragraph 5.04.A.
3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
 4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

5.05 *Underground Facilities*

- A. *Contractor's Responsibilities:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or adjacent to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:
 1. Owner and Engineer do not warrant or guarantee the accuracy or completeness of any such information or data provided by others; and
 2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents as being at the Site;
 - c. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
 - d. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer.
- C. *Engineer's Review:* Engineer will promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the Underground Facility in question; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and advise Owner in writing of Engineer's

findings, conclusions, and recommendations. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question, addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- E. *Possible Price and Times Adjustments:*
1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, or both, to the extent that any existing Underground Facility at the Site that was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the existence or actual location of the Underground Facility in question;
 - b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;
 - c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times; and
 - d. Contractor gave the notice required in Paragraph 5.05.B.
 2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
 3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.

5.06 *Hazardous Environmental Conditions at Site*

- A. *Reports and Drawings:* The Supplementary Conditions identify:
1. those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
 2. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
1. the completeness of such reports and drawings for Contractor's purposes, including, but not

- limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
 3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
 - D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
 - E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.
 - F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
 - G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off.
 - H. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.
 - I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless

Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

- J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6 – BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of all of Contractor's obligations under the Contract. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the Supplementary Conditions, or other specific provisions of the Contract. Contractor shall also furnish such other bonds as are required by the Supplementary Conditions or other specific provisions of the Contract.
- B. All bonds shall be in the form prescribed by the Contract except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (as amended and supplemented) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.
- C. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds in the required amounts.
- D. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or its right to do business is terminated in any state or jurisdiction where any part of the Project is located, or the surety ceases to meet the requirements above, then Contractor shall promptly notify

Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the bond and surety requirements above.

- E. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.
- F. Upon request, Owner shall provide a copy of the payment bond to any Subcontractor, Supplier, or other person or entity claiming to have furnished labor or materials used in the performance of the Work.

6.02 *Insurance—General Provisions*

- A. Owner and Contractor shall obtain and maintain insurance as required in this Article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- C. Contractor shall deliver to Owner, with copies to each named insured and additional insured (as identified in this Article, in the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Contractor has obtained and is maintaining the policies, coverages, and endorsements required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.
- D. Owner shall deliver to Contractor, with copies to each named insured and additional insured (as identified in this Article, the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Owner has obtained and is maintaining the policies, coverages, and endorsements required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.
- E. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, shall not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
- F. If either party does not purchase or maintain all of the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
- G. If Contractor has failed to obtain and maintain required insurance, Owner may exclude the Contractor from the Site, impose an appropriate set-off against payment, and exercise Owner's termination rights under Article 16.
- H. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect to obtain equivalent insurance to protect such other party's interests at

the expense of the party who was required to provide such coverage, and the Contract Price shall be adjusted accordingly.

- I. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests.
- J. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner and other individuals and entities in the Contract.

6.03 *Contractor's Insurance*

- A. *Workers' Compensation*: Contractor shall purchase and maintain workers' compensation and employer's liability insurance for:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts.
 - 2. United States Longshoreman and Harbor Workers' Compensation Act and Jones Act coverage (if applicable).
 - 3. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees (by stop-gap endorsement in monopolist worker's compensation states).
 - 4. Foreign voluntary worker compensation (if applicable).
- B. *Commercial General Liability—Claims Covered*: Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against:
 - 1. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees.
 - 2. claims for damages insured by reasonably available personal injury liability coverage.
 - 3. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.
- C. *Commercial General Liability—Form and Content*: Contractor's commercial liability policy shall be written on a 1996 (or later) ISO commercial general liability form (occurrence form) and include the following coverages and endorsements:
 - 1. Products and completed operations coverage:
 - a. Such insurance shall be maintained for three years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
 - 2. Blanket contractual liability coverage, to the extent permitted by law, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.
 - 3. Broad form property damage coverage.
 - 4. Severability of interest.
 - 5. Underground, explosion, and collapse coverage.
 - 6. Personal injury coverage.

7. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together); or CG 20 10 07 04 and CG 20 37 07 04 (together); or their equivalent.
 8. For design professional additional insureds, ISO Endorsement CG 20 32 07 04, "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.
- D. *Automobile liability*: Contractor shall purchase and maintain automobile liability insurance against claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy shall be written on an occurrence basis.
- E. *Umbrella or excess liability*: Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer's liability, commercial general liability, and automobile liability insurance described in the paragraphs above. Subject to industry-standard exclusions, the coverage afforded shall follow form as to each and every one of the underlying policies.
- F. *Contractor's pollution liability insurance*: Contractor shall purchase and maintain a policy covering third-party injury and property damage claims, including clean-up costs, as a result of pollution conditions arising from Contractor's operations and completed operations. This insurance shall be maintained for no less than three years after final completion.
- G. *Additional insureds*: The Contractor's commercial general liability, automobile liability, umbrella or excess, and pollution liability policies shall include and list as additional insureds Owner and Engineer, and any individuals or entities identified in the Supplementary Conditions; include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds; and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis. Contractor shall obtain all necessary endorsements to support these requirements.
- H. *Contractor's professional liability insurance*: If Contractor will provide or furnish professional services under this Contract, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance shall provide protection against claims arising out of performance of professional design or related services, and caused by a negligent error, omission, or act for which the insured party is legally liable. It shall be maintained throughout the duration of the Contract and for a minimum of two years after Substantial Completion. If such professional design services are performed by a Subcontractor, and not by Contractor itself, then the requirements of this paragraph may be satisfied through the purchasing and maintenance of such insurance by such Subcontractor.
- I. *General provisions*: The policies of insurance required by this Paragraph 6.03 shall:
1. include at least the specific coverages provided in this Article.
 2. be written for not less than the limits of liability provided in this Article and in the Supplementary Conditions, or required by Laws or Regulations, whichever is greater.
 3. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least 10 days prior written notice has been given to Contractor. Within three days of receipt of any such written notice, Contractor shall provide a copy of the notice to Owner, Engineer, and each other insured under the policy.
 4. remain in effect at least until final payment (and longer if expressly required in this Article) and

at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract Documents.

5. be appropriate for the Work being performed and provide protection from claims that may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable.
- J. The coverage requirements for specific policies of insurance must be met by such policies, and not by reference to excess or umbrella insurance provided in other policies.

6.04 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 6.03, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.
- B. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.

6.05 *Property Insurance*

- A. **Builder's Risk:** Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the full insurable replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:
 1. include the Owner and Contractor as named insureds, and all Subcontractors, and any individuals or entities required by the Supplementary Conditions to be insured under such builder's risk policy, as insureds or named insureds. For purposes of the remainder of this Paragraph 6.05, Paragraphs 6.06 and 6.07, and any corresponding Supplementary Conditions, the parties required to be insured shall collectively be referred to as "insureds."
 2. be written on a builder's risk "all risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire; lightning; windstorm; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; flood; collapse; explosion; debris removal; demolition occasioned by enforcement of Laws and Regulations; water damage (other than that caused by flood); and such other perils or causes of loss as may be specifically required by the Supplementary Conditions. If insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; or flood, are not commercially available under builder's risk policies, by endorsement or otherwise, such insurance may be provided through other insurance policies acceptable to Owner and Contractor.
 3. cover, as insured property, at least the following: (a) the Work and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work, including Owner-furnished or assigned property; (b) spare parts inventory required within the scope of the Contract; and (c) temporary works which are not intended to form part

of the permanent constructed Work but which are intended to provide working access to the Site, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures.

4. cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects).
 5. extend to cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier).
 6. extend to cover damage or loss to insured property while in transit.
 7. allow for partial occupation or use of the Work by Owner, such that those portions of the Work that are not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
 8. allow for the waiver of the insurer's subrogation rights, as set forth below.
 9. provide primary coverage for all losses and damages caused by the perils or causes of loss covered.
 10. not include a co-insurance clause.
 11. include an exception for ensuing losses from physical damage or loss with respect to any defective workmanship, design, or materials exclusions.
 12. include performance/hot testing and start-up.
 13. be maintained in effect, subject to the provisions herein regarding Substantial Completion and partial occupancy or use of the Work by Owner, until the Work is complete.
- B. *Notice of Cancellation or Change:* All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 6.05 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured.
- C. *Deductibles:* The purchaser of any required builder's risk or property insurance shall pay for costs not covered because of the application of a policy deductible.
- D. *Partial Occupancy or Use by Owner:* If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide notice of such occupancy or use to the builder's risk insurer. The builder's risk insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy; rather, those portions of the Work that are occupied or used by Owner may come off the builder's risk policy, while those portions of the Work not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
- E. *Additional Insurance:* If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.05, it may do so at Contractor's expense.
- F. *Insurance of Other Property:* If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, such as tools, construction equipment, or other personal property owned by Contractor, a Subcontractor, or an employee of Contractor or a

Subcontractor, then the entity or individual owning such property item will be responsible for deciding whether to insure it, and if so in what amount.

6.06 *Waiver of Rights*

- A. All policies purchased in accordance with Paragraph 6.05, expressly including the builder's risk policy, shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all Subcontractors, all individuals or entities identified in the Supplementary Conditions as insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for:
 - 1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
 - 2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 6.06.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them.
- D. Contractor shall be responsible for assuring that the agreement under which a Subcontractor performs a portion of the Work contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by builder's risk insurance and any other property insurance applicable to the Work.

6.07 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of insurance required by Paragraph 6.05 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.

- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.05 shall distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the money so received applied on account thereof, and the Work and the cost thereof covered by Change Order, if needed.

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

7.01 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.03 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

7.04 “Or Equals”

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or “or equal” item is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment, or items from other proposed suppliers under the circumstances described below.
1. If Engineer in its sole discretion determines that an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer shall deem it an “or equal” item. For the purposes of this paragraph, a proposed item of material or equipment will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that:
 - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
 - 3) it has a proven record of performance and availability of responsive service; and
 - 4) it is not objectionable to Owner.
 - b. Contractor certifies that, if approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.
- B. *Contractor’s Expense*: Contractor shall provide all data in support of any proposed “or equal” item at Contractor’s expense.
- C. *Engineer’s Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each “or-equal” request. Engineer may require Contractor to furnish additional data about the proposed “or-equal” item. Engineer will be the sole judge of acceptability. No “or-equal” item will be ordered, furnished, installed, or utilized until Engineer’s review is complete and Engineer determines that the proposed item is an “or-equal”, which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.
- D. *Effect of Engineer’s Determination*: Neither approval nor denial of an “or-equal” request shall result in any change in Contract Price. The Engineer’s denial of an “or-equal” request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents.
- E. *Treatment as a Substitution Request*: If Engineer determines that an item of material or equipment proposed by Contractor does not qualify as an “or-equal” item, Contractor may request that Engineer considered the proposed item as a substitute pursuant to Paragraph 7.05.

7.05 Substitutes

- A. Unless the specification or description of an item of material or equipment required to be furnished

under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment under the circumstances described below. To the extent possible such requests shall be made before commencement of related construction at the Site.

1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of material or equipment from anyone other than Contractor.
 2. The requirements for review by Engineer will be as set forth in Paragraph 7.05.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.
 3. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
 - a. shall certify that the proposed substitute item will:
 - 1) perform adequately the functions and achieve the results called for by the general design,
 - 2) be similar in substance to that specified, and
 - 3) be suited to the same use as that specified.
 - b. will state:
 - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times,
 - 2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
 - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
 - c. will identify:
 - 1) all variations of the proposed substitute item from that specified, and
 - 2) available engineering, sales, maintenance, repair, and replacement services.
 - d. shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
- C. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special

performance guarantee or other surety with respect to any substitute.

- D. *Reimbursement of Engineer's Cost:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- E. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
- F. *Effect of Engineer's Determination:* If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.05.D, by timely submittal of a Change Proposal.

7.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner.
- B. Contractor shall retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable, during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within five days.
- E. Owner may require the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors, Suppliers, or other individuals or entities for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor, Supplier, or other individual or entity so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity.
- F. If Owner requires the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, or both, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of the right of Owner to the completion of the

Work in accordance with the Contract Documents.

- H. On a monthly basis Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions.
- J. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors, Suppliers, and all other individuals or entities performing or furnishing any of the Work.
- K. Contractor shall restrict all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed herein.
- L. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- M. All Work performed for Contractor by a Subcontractor or Supplier shall be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer.
- N. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by the particular Subcontractor or Supplier.
- O. Nothing in the Contract Documents:
 - 1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier, or other individual or entity; nor
 - 2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

7.07 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.
- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the

Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.

- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

7.08 *Permits*

- A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work

7.09 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

7.10 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It shall not be Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Owner or Contractor may give notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.11 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

7.12 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
 - 1. all persons on the Site or who may be affected by the Work;
 - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify Owner; the owners of adjacent property, Underground Facilities, and other utilities; and other contractors and utility owners performing work at or adjacent to the Site, when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
- C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
- D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- E. All damage, injury, or loss to any property referred to in Paragraph 7.12.A.2 or 7.12.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- F. Contractor's duties and responsibilities for safety and protection shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 15.06.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).
- G. Contractor's duties and responsibilities for safety and protection shall resume whenever Contractor

or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.13 *Safety Representative*

- A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

7.14 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

7.16 *Shop Drawings, Samples, and Other Submittals*

A. *Shop Drawing and Sample Submittal Requirements:*

1. Before submitting a Shop Drawing or Sample, Contractor shall have:
 - a. reviewed and coordinated the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
 - c. determined and verified the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that submittal, and that Contractor approves the submittal.
3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be set forth in a written communication separate from the Shop Drawings or Sample submittal; and, in addition, in the case of Shop Drawings by a specific notation made on each Shop Drawing submitted to Engineer for review and approval of each such variation.

- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals. Each submittal will be identified as Engineer may require.

1. *Shop Drawings:*
 - a. Contractor shall submit the number of copies required in the Specifications.
 - b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.D.
2. *Samples:*
 - a. Contractor shall submit the number of Samples required in the Specifications.
 - b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 7.16.D.
3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.
- C. *Other Submittals:* Contractor shall submit other submittals to Engineer in accordance with the accepted Schedule of Submittals, and pursuant to the applicable terms of the Specifications.
- D. *Engineer's Review:*
 1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
 2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs incident thereto.
 3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
 4. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order.
 5. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 7.16.A and B.
 6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, shall not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
 7. Neither Engineer's receipt, review, acceptance or approval of a Shop Drawing, Sample, or other submittal shall result in such item becoming a Contract Document.
 8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.D.4.

E. *Resubmittal Procedures:*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.
2. Contractor shall furnish required submittals with sufficient information and accuracy to obtain required approval of an item with no more than three submittals. Engineer will record Engineer's time for reviewing a fourth or subsequent submittal of a Shop Drawings, sample, or other item requiring approval, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges.
3. If Contractor requests a change of a previously approved submittal item, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

7.17 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
 1. observations by Engineer;
 2. recommendation by Engineer or payment by Owner of any progress or final payment;
 3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
 4. use or occupancy of the Work or any part thereof by Owner;
 5. any review and approval of a Shop Drawing or Sample submittal;
 6. the issuance of a notice of acceptability by Engineer;
 7. any inspection, test, or approval by others; or
 8. any correction of defective Work by Owner.
- D. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract shall govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.
- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- C. The indemnification obligations of Contractor under Paragraph 7.18.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
 - 1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
 - 2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

7.19 *Delegation of Professional Design Services*

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable Laws and Regulations.
- B. If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.
- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, or approvals performed by such design professionals, provided Owner and

Engineer have specified to Contractor all performance and design criteria that such services must satisfy.

- D. Pursuant to this paragraph, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 7.16.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria specified by Owner or Engineer.

ARTICLE 8 – OTHER WORK AT THE SITE

8.01 *Other Work*

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any utility work at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford each other contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.
- D. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 8, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

8.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:
 - 1. the identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
 - 2. an itemization of the specific matters to be covered by such authority and responsibility; and
 - 3. the extent of such authority and responsibilities.

- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.03 *Legal Relationships*

- A. If, in the course of performing other work at or adjacent to the Site for Owner, the Owner's employees, any other contractor working for Owner, or any utility owner for whom the Owner is responsible causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment shall take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract. When applicable, any such equitable adjustment in Contract Price shall be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due to Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this paragraph.
- C. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due to Contractor.
- D. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

ARTICLE 9 – OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

9.02 *Replacement of Engineer*

- A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents shall be that of the former Engineer.

9.03 *Furnish Data*

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

9.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

9.05 *Lands and Easements; Reports, Tests, and Drawings*

- A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.
- B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.
- C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 *Change Orders*

- A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

9.08 *Inspections, Tests, and Approvals*

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *Limitations on Owner's Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

9.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *Evidence of Financial Arrangements*

- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.
- B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract.

10.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.08. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Project Representative*

- A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 10.08. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent, or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

10.04 *Rejecting Defective Work*

- A. Engineer has the authority to reject Work in accordance with Article 14.

10.05 *Shop Drawings, Change Orders and Payments*

- A. Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, are set forth in Paragraph 7.16.
- B. Engineer's authority, and limitations thereof, as to design calculations and design drawings

submitted in response to a delegation of professional design services, if any, are set forth in Paragraph 7.19.

- C. Engineer's authority as to Change Orders is set forth in Article 11.
- D. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.06 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

10.07 *Decisions on Requirements of Contract Documents and Acceptability of Work*

- A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.08 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.
- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 15.06.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 10.08 shall also apply to the Resident Project Representative, if any.

10.09 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs (if any) of which Engineer has been informed.

ARTICLE 11 – AMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK

11.01 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.

1. *Change Orders:*

- a. If an amendment or supplement to the Contract Documents includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. A Change Order also may be used to establish amendments and supplements of the Contract Documents that do not affect the Contract Price or Contract Times.
- b. Owner and Contractor may amend those terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, without the recommendation of the Engineer. Such an amendment shall be set forth in a Change Order.

2. *Work Change Directives:* A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.04 regarding change of Contract Price. Contractor must submit any Change Proposal seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 30 days after the completion of the Work set out in the Work Change Directive. Owner must submit any Claim seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 60 days after issuance of the Work Change Directive.

3. *Field Orders:* Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.02 *Owner-Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Such changes shall be supported by Engineer's recommendation, to the extent the change involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters. Such changes may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work shall be performed under the applicable conditions of the Contract Documents. Nothing in this paragraph shall obligate Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.03 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract

Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.

11.04 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment of Contract Price shall comply with the provisions of Article 12.
- B. An adjustment in the Contract Price will be determined as follows:
 1. where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03); or
 2. where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.04.C.2); or
 3. where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.04.C).
- C. *Contractor's Fee*: When applicable, the Contractor's fee for overhead and profit shall be determined as follows:
 1. a mutually acceptable fixed fee; or
 2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. for costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 13.01.B.3, the Contractor's fee shall be five percent;
 - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.04.C.2.a and 11.04.C.2.b is that the Contractor's fee shall be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.A.1 and 13.01.A.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of five percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted work the maximum total fee to be paid by Owner shall be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the work;
 - d. no fee shall be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
 - e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
 - f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with

Paragraphs 11.04.C.2.a through 11.04.C.2.e, inclusive.

11.05 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment in the Contract Times shall comply with the provisions of Article 12.
- B. An adjustment of the Contract Times shall be subject to the limitations set forth in Paragraph 4.05, concerning delays in Contractor's progress.

11.06 *Change Proposals*

- A. Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; appeal an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; contest a set-off against payment due; or seek other relief under the Contract. The Change Proposal shall specify any proposed change in Contract Times or Contract Price, or both, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents.
 - 1. *Procedures:* Contractor shall submit each Change Proposal to Engineer promptly (but in no event later than 30 days) after the start of the event giving rise thereto, or after such initial decision. The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal. The supporting data shall be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event. Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal.
 - 2. *Engineer's Action:* Engineer will review each Change Proposal and, within 30 days after receipt of the Contractor's supporting data, either deny the Change Proposal in whole, approve it in whole, or deny it in part and approve it in part. Such actions shall be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.
 - 3. *Binding Decision:* Engineer's decision will be final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- B. *Resolution of Certain Change Proposals:* If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice shall be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.

11.07 *Execution of Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders covering:
 - 1. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;

2. changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
 3. changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.02, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters; and
 4. changes in the Contract Price or Contract Times, or other changes, which embody the substance of any final and binding results under Paragraph 11.06, or Article 12.
- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of this Paragraph 11.07, it shall be deemed to be of full force and effect, as if fully executed.

11.08 *Notification to Surety*

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

ARTICLE 12 – CLAIMS

12.01 *Claims*

- A. *Claims Process:* The following disputes between Owner and Contractor shall be submitted to the Claims process set forth in this Article:
1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
 2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents; and
 3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters.
- B. *Submittal of Claim:* The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim shall rest with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, or both, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.
- C. *Review and Resolution:* The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim shall be stated in writing and submitted to the other party, with a copy to Engineer.
- D. *Mediation:*

1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate shall stay the Claim submittal and response process.
 2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process shall resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process shall resume as of the date of the conclusion of the mediation, as determined by the mediator.
 3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action shall be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim shall be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.
- G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim shall be incorporated in a Change Order to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

13.01 *Cost of the Work*

- A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or
 2. To determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. *Costs Included*: Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 13.01.C, and shall include only the following items:
1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be

limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - c. Rentals of all construction equipment and machinery, and the parts thereof, whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
 - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
 - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
 - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 6.05), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts

any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.

- g. The cost of utilities, fuel, and sanitary facilities at the Site.
- h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.

C. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

- 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.
- 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
- 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
- 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
- 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. *Contractor's Fee:* When the Work as a whole is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 11.04.C.

E. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

13.02 Allowances

A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

B. *Cash Allowances:* Contractor agrees that:

- 1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all

applicable taxes; and

2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.
- C. *Contingency Allowance*: Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

13.03 *Unit Price Work*

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of the following paragraph.
- E. Within 30 days of Engineer's written decision under the preceding paragraph, Contractor may submit a Change Proposal, or Owner may file a Claim, seeking an adjustment in the Contract Price if:
 1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement;
 2. there is no corresponding adjustment with respect to any other item of Work; and
 3. Contractor believes that it is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price, and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 14 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

14.01 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

14.02 *Tests, Inspections, and Approvals*

- A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work shall be governed by the provisions of Paragraph 14.05.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:
 - 1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
 - 2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
 - 3. by manufacturers of equipment furnished under the Contract Documents;
 - 4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
 - 5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests shall be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.
- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering shall be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

- A. *Contractor's Obligation:* It is Contractor's obligation to assure that the Work is not defective.
- B. *Engineer's Authority:* Engineer has the authority to determine whether Work is defective, and to reject defective Work.
- C. *Notice of Defects:* Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- D. *Correction, or Removal and Replacement:* Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed,

or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.

- E. *Preservation of Warranties*: When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- F. *Costs and Damages*: In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs, losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work shall be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

- A. Engineer has the authority to require additional inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.
- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.
- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.
 - 1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
 - 2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the

parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

14.07 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, then Owner may, after seven days written notice to Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.
- C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

15.01 *Progress Payments*

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *Applications for Payments:*
 - 1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of

the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens, and evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

C. Review of Applications:

1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
 - a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
 - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or
 - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:

- a. to supervise, direct, or control the Work, or
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
 - d. to make any examination to ascertain how or for what purposes Contractor has used the money paid on account of the Contract Price, or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.
6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
- a. the Work is defective, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or
 - e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. *Payment Becomes Due:*

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

E. *Reductions in Payment by Owner:*

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
 - a. claims have been made against Owner on account of Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages on account of Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;
 - b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
 - c. Contractor has failed to provide and maintain required bonds or insurance;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
 - e. Owner has incurred extra charges or engineering costs related to submittal reviews,

- evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
 - f. the Work is defective, requiring correction or replacement;
 - g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - h. the Contract Price has been reduced by Change Orders;
 - i. an event that would constitute a default by Contractor and therefore justify a termination for cause has occurred;
 - j. liquidated damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
 - k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
 - l. there are other items entitling Owner to a set off against the amount recommended.
2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed shall be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.
 3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 15.01.C.1 and subject to interest as provided in the Agreement.

15.02 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than seven days after the time of payment by Owner.

15.03 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which shall fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes

that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.

- D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.
- E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.
- F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

15.04 *Partial Use or Occupancy*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
 - 1. At any time, Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through E for that part of the Work.
 - 2. At any time, Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
 - 3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
 - 4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.05 regarding builder's risk or other property insurance.

15.05 *Final Inspection*

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 *Final Payment*

A. *Application for Payment:*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.11), and other documents, Contractor may make application for final payment.
2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents;
 - b. consent of the surety, if any, to final payment;
 - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.
 - d. a list of all disputes that Contractor believes are unsettled; and
 - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

B. *Engineer's Review of Application and Acceptance:*

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the Application for Payment to Owner for payment. Such recommendation shall account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to the provisions of Paragraph 15.07. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing

the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

- C. *Completion of Work*: The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment.
- D. *Payment Becomes Due*: Thirty days after the presentation to Owner of the final Application for Payment and accompanying documentation, the amount recommended by Engineer (less any further sum Owner is entitled to set off against Engineer's recommendation, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions above with respect to progress payments) will become due and shall be paid by Owner to Contractor.

15.07 *Waiver of Claims*

- A. The making of final payment will not constitute a waiver by Owner of claims or rights against Contractor. Owner expressly reserves claims and rights arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 15.05, from Contractor's failure to comply with the Contract Documents or the terms of any special guarantees specified therein, from outstanding Claims by Owner, or from Contractor's continuing obligations under the Contract Documents.
- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted or appealed under the provisions of Article 17.

15.08 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents, or by any specific provision of the Contract Documents), any Work is found to be defective, or if the repair of any damages to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas used by Contractor as permitted by Laws and Regulations, is found to be defective, then Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. correct the defective repairs to the Site or such other adjacent areas;
 - 2. correct such defective Work;
 - 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
 - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others).
- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.

- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- E. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION

16.01 *Owner May Suspend Work*

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension. Any Change Proposal seeking such adjustments shall be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:
 - 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule);
 - 2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
 - 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
 - 4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) ten days written notice that Owner is considering a declaration that Contractor is in default and termination of the contract, Owner may proceed to:
 - 1. declare Contractor to be in default, and give Contractor (and any surety) notice that the Contract is terminated; and
 - 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within seven days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals)

sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

- F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
- G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond shall govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 *Owner May Terminate For Convenience*

- A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
 - 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 - 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and
 - 3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid on account of loss of anticipated overhead, profits, or revenue, or other economic loss arising out of or resulting from such termination.

16.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17 – FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

- A. *Disputes Subject to Final Resolution:* The following disputed matters are subject to final resolution under the provisions of this Article:
1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full; and
 2. Disputes between Owner and Contractor concerning the Work or obligations under the Contract Documents, and arising after final payment has been made.
- B. *Final Resolution of Disputes:* For any dispute subject to resolution under this Article, Owner or Contractor may:
1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions; or
 2. agree with the other party to submit the dispute to another dispute resolution process; or
 3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

ARTICLE 18 – MISCELLANEOUS

18.01 *Giving Notice*

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:
1. delivered in person, by a commercial courier service or otherwise, to the individual or to a member of the firm or to an officer of the corporation for which it is intended; or
 2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the sender of the notice.

18.02 *Computation of Times*

- A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

18.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 *Limitation of Damages*

- A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any

claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

- A. A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

18.07 *Controlling Law*

- A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

PART 1 GENERAL

00.1.01 DESCRIPTION

- A. These Supplementary Conditions amend or supplement the provisions of **SECTION 00 72 00 GENERAL CONDITIONS** of this Project Manual.
1. All provisions of the general conditions that are not amended or supplemented by the provisions of this or other sections of the Project Manual shall remain in full force and effect.
- B. **SECTION 00 72 00 GENERAL CONDITIONS** includes the EJCDC General Conditions, C-700, 2013 and references herein to Articles, Paragraphs or other subdivisions of text shall be construed to indicate Articles, Paragraphs or other Subdivisions of said EJCDC General Conditions.
- C. The terms used in these Supplementary Conditions have the meanings stated in **SECTION 00 72 00 GENERAL CONDITIONS**.
1. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof.
- D. The address system used in these Supplementary Conditions is the same as the address system used in **SECTION 00 72 00 GENERAL CONDITIONS**, with the prefix "SC" added thereto.
- E. This document is a MODIFIED version of EJCDC® C-800, Copyright © 2013 by the National Society of Professional Engineers, American Society of Civil Engineers, and American Council of Engineering Companies, or is based in part on excerpts from EJCDC documents.
1. Those portions of the text that originated in published EJCDC documents remain subject to the copyright.

00.1.02 RELATED WORK SPECIFIED ELSEWHERE

The following items of related work are specified and included in other sections of this Project Manual:

SECTION 00 72 00	GENERAL CONDITIONS
SECTION 00 73 16	INSURANCE REQUIREMENTS
SECTION 01 11 00	SUMMARY OF WORK
SECTION 01 33 00	SUBMITTAL PROCEDURES

00.1.03 ARTICLE 2 – PRELIMINARY MATTERS

- A. *SC-2.02 Copies of Documents*
1. SC-2.02.A Delete the first sentence of Paragraph 2.02.A in its entirety and insert the following in its place:
 - A. Owner shall furnish to Contractor 1 printed copies of the Contract Documents (including one fully executed counterpart of the Agreement). Unless requested by Contractor and authorized by the Owner in writing, the documents will not be conforming documents reflecting all changes by Addenda nor amendments negotiated prior to the effective date of the Contract.

00.1.04 ARTICLE 4 COMMENCEMENT AND PROGRSS OF THE WORK

- A. *SC-4.01 Commencement of Contract Times; Notice to Proceed*
1. Delete Paragraph 4.01A of the General Conditions and insert the following in its place:
 - A. Following the execution of the Contract by the Owner and the Contractor, written Notice to Proceed with the Work shall be given by the Owner to the Contractor. The Contract Time will commence to run on the day indicated in the Notice to Proceed.

00.1.05 ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

- A. *SC-5.01 Availability of Lands*
1. Add the following new paragraph immediately after Paragraph 5.01C:

- D. If it is necessary or desirable that the Contractor use land outside of the Owner's easement or right-of-way, the Contractor shall obtain consent from the property Owner and any tenant of the land. The Contractor shall not enter for materials delivery or occupy for any other purpose with workers, tools, equipment, construction materials, or with materials excavated from the site, any private property outside the designated construction easement boundaries or right-of-way without written permission from the property Owner and tenant. Copies of any written agreements shall be provided to the Owner before Contractor enters or otherwise occupies any off-site property.

A. *SC-5.04 Differing Subsurface or Physical Conditions*

1. Add the following at the end of Paragraph 5.04 A of the General Conditions:

Contractor to notify Owner and Engineer in writing about differing subsurface or physical conditions within 15 days of discovery and before disturbing the subsurface as stated above. No claim for an adjustment in the contract price or contract times (or Milestones) will be valid for differing subsurface or physical conditions if procedures in this paragraph 5.04 are not followed.

- 1) None of the contents of such drawings is Technical Data on whose accuracy Contractor may rely.
2. Delete Paragraphs 5.06.A and 5.06.B in their entirety and insert the following:
- A. No reports or drawings related to Hazardous Environmental Conditions at the Site are known to Owner.
- B. Not Used.

00.1.06 ARTICLE 6 – BONDS AND INSURANCE

A. *SC-6.03 Contractor's Insurance*

1. Add the following new paragraph immediately after Paragraph 6.03J:

K. Contractor shall provide insurance as specified in **SECTION 00 73 16 INSURANCE REQUIREMENTS** of this Project Manual. Conflicts between the provisions of **SECTION 00 72 00 GENERAL REQUIREMENTS** and **SECTION 00 73 16 INSURANCE REQUIREMENTS** shall be resolved in favor of **SECTION 00 73 16 INSURANCE REQUIREMENTS**

00.1.07 ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

A. *SC-7.02 Labor; Working Hours*

1. Add the following new subparagraphs immediately after Paragraph 7.02B:

1. Regular working hours will be 7 am – 7 pm.
2. Owner's legal holidays are per NDDOT Specification.

2. Amend the first and second sentences of Paragraph 7.02B to state:

"...all Work at the Site shall be performed during regular working hours, Monday through Saturday. Contractor will not perform Work on a Sunday or any legal holiday."

B. *SC-7.12 Safety and Protection*

1. Insert the following after Paragraph 7.12G:

H. It is expressly understood by the parties to this Agreement that the CONTRACTOR is solely responsible for initiating, maintaining, and supervising safety precautions and programs in connection with the Work. The right of the OWNER and ENGINEER to observe or otherwise review the Work and operations shall not relieve the CONTRACTOR from any of his covenants and obligations hereunder. CONTRACTOR shall incorporate all safety requirements into his construction progress and work schedules including preconstruction and scheduled monthly safety meetings, posted safety rules, tailgate meetings, and site inspections by safety and other inspectors employed by the CONTRACTOR.

- I. The CONTRACTOR shall be responsible for and shall take necessary precautions and provide all

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material and equipment to protect, shore, brace, support and maintain all underground pipes, conduits, drains, sewers, water mains, gas mains, cables, etc., and other underground construction uncovered in the proximity, or otherwise affected by the construction work performed by him. All pavement, surfacing, driveways, curbs, walks, buildings, grass areas, trees, utility poles, or guy wires damaged by the CONTRACTOR'S operations in the performance of this work shall be repaired and/or replaced to the satisfaction of the OWNER, ENGINEER, and effected property OWNER at the CONTRACTOR'S expense.

- J. The CONTRACTOR shall also be responsible for all damage to streets, roads, highways, shoulders, ditches, embankments, culverts, bridges, or other public or private property or facility, regardless of location or character, which may be caused by moving, hauling, or otherwise transporting equipment, materials, or men to and from the work or any part of site thereof, whether by him or his Subcontractors.
- K. The CONTRACTOR shall make satisfactory and acceptable arrangements with OWNER of, or the agency or authority having jurisdiction over, the damaged property or facility concerning its repair or replacement or payment of costs incurred in connection with said damage.
- L. The CONTRACTOR shall conduct his work so as to interfere as little as possible with public travel, whether vehicular or pedestrian. Whenever it is necessary to cross, obstruct, or close roads, driveways, and walks, whether public or private, the CONTRACTOR shall obtain approval from the governing party and shall, at his own expense, provide and maintain suitable and safe bridges, detours, and other temporary expedients for the accommodation of public and private drives before interfering with them. The provisions for temporary expedients will not be required when the CONTRACTOR has obtained permission from the OWNER and tenant of the private property, or from the authority having jurisdiction over public property involved, to obstruct traffic at the designated point.
- M. Safety provisions must be entirely adequate and meet with City or State and Federal regulations to protect the public on these streets and roads.

C. SC-7.18 Indemnification

1. Add a new paragraph after Paragraph 7.18A

- 1. While Owner and Engineer may have the right under this Contract to observe or otherwise review the work, progress, and operations of the Contractor, it is expressly understood and agreed that such observation shall not relieve the Contractor from any of its covenants and obligations hereunder.

00.1.08 ARTICLE 9 – OWNER'S RESPONSIBILITIES

A. SC-9.13 Owner's Representative

- 1. Add the following new paragraph immediately after Paragraph 9.12 of the General Conditions:

9.13 Owner's Site Representative

Owner will furnish an "Owner's Site Representative" to represent Owner at the Site and assist Owner in observing the progress and quality of the Work. The Owner's Site Representative is not Engineer's consultant, agent, or employee. Owner's Site Representative will be *Jesse Sedler*. The authority and responsibilities of Owner's Site Representative follow: *Liaison between Engineer and County*.

00.1.09 ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION

A. SC-10.03 Project Representative

- 1. Add the following new paragraphs immediately after Paragraph 10.03A:

- B. The Resident Project Representative (RPR) will be Engineer's representative at the Site, will act as directed by and under the supervision of Engineer, and will confer with Engineer regarding RPR's actions.

- 1. General: RPR's dealings in matters pertaining to the Work in general shall be with Engineer

- and Contractor. RPR's dealings with Subcontractors shall only be through or with the full knowledge and approval of Contractor. RPR shall generally communicate with Owner only with the knowledge of and under the direction of Engineer.
2. Schedules: Review the progress schedule, schedule of Shop Drawing and Sample submittals, and Schedule of Values prepared by Contractor and consult with Engineer concerning acceptability.
 3. Conferences and Meetings: Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences, and other Project-related meetings, and prepare and circulate copies of minutes thereof.
 4. Liaison:
 - a. Serve as Engineer's liaison with Contractor. Working principally through Contractor's authorized representative or designee, assist in providing information regarding the provisions and intent of the Contract Documents.
 - b. Assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's On-Site operations.
 - c. Assist in obtaining from Owner additional details or information, when required for proper execution of the Work.
 5. Interpretation of Contract Documents: Report to Engineer when clarifications and interpretations of the Contract Documents are needed and transmit to Contractor clarifications and interpretations as issued by Engineer.
 6. Shop Drawings and Samples:
 - a. Record date of receipt of Samples and Contractor-approved Shop Drawings.
 - b. Receive Samples which are furnished at the Site by Contractor, and notify Engineer of availability of Samples for examination.
 - c. Advise Engineer and Contractor of the commencement of any portion of the Work requiring a Shop Drawing or Sample submittal for which RPR believes that the submittal has not been approved by Engineer.
 7. Modifications: Consider and evaluate Contractor's suggestions for modifications in Drawings or Project Manual and report such suggestions, together with RPR's recommendations, if any, to Engineer. Transmit to Contractor in writing decisions as issued by Engineer.
 8. Review of Work and Rejection of Defective Work:
 - a. Conduct On-Site observations of Contractor's work in progress to assist Engineer in determining if the Work is in general proceeding in accordance with the Contract Documents.
 - b. Report to Engineer whenever RPR believes that any part of Contractor's work in progress is defective, will not produce a completed Project that conforms generally to the Contract Documents, or will imperil the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise Engineer of that part of work in progress that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.
 9. Inspections, Tests, and System Start-ups:
 - a. Verify that tests, equipment, and systems start-ups and operating and maintenance training are conducted in the presence of appropriate Owner's personnel, and that Contractor maintains adequate records thereof.

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- b. Observe, record, and report to Engineer appropriate details relative to the test procedures and systems start-ups.
- 10. Records:
 - a. Prepare a daily report or keep a diary or log book, recording Contractor's hours on the Site, Subcontractors present at the Site, weather conditions, data relative to questions of Change Orders, Field Orders, Work Change Directives, or changed conditions, Site visitors, deliveries of equipment or materials, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to Engineer.
 - b. Record names, addresses, fax numbers, e-mail addresses, web site locations, and telephone numbers of all Contractors, Subcontractors, and major Suppliers of materials and equipment.
 - c. Maintain records for use in preparing Project documentation.
- 11. Reports:
 - a. Furnish to Engineer periodic reports as required of progress of the Work and of Contractor's compliance with the Progress Schedule and schedule of Shop Drawing and Sample submittals.
 - b. Draft and recommend to Engineer proposed Change Orders, Work Change Directives, and Field Orders. Obtain backup material from Contractor.
 - c. Immediately notify Engineer of the occurrence of any Site accidents, emergencies, acts of God endangering the Work, force majeure or delay events, damage to property by fire or other causes, or the discovery of any Constituent of Concern or Hazardous Environmental Condition.
- 12. Payment Requests: Review applications for payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to Engineer, noting particularly the relationship of the payment requested to the Schedule of Values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.
- 13. Certificates, Operation and Maintenance Manuals: During the course of the Work, verify that materials and equipment certificates, operation and maintenance manuals and other data required by the Contract Documents to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have these documents delivered to Engineer for review and forwarding to Owner prior to payment for that part of the Work.
- 14. Completion:
 - a. Participate in Engineer's visits to the Site to determine Substantial Completion, assist in the determination of Substantial Completion and the preparation of a punch list of items to be completed or corrected.
 - b. Participate in Engineer's final visit to the Site to determine completion of the Work, in the company of Owner and Contractor, and prepare a final punch list of items to be completed and deficiencies to be remedied.
 - c. Observe whether all items on the final list have been completed or corrected and make recommendations to Engineer concerning acceptance and issuance of the notice of acceptability of the work.
- C. The RPR shall not:
 - 1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).
 - 2. Exceed limitations of Engineer's authority as set forth in the Contract Documents.

3. Undertake any of the responsibilities of Contractor, Subcontractors, or Suppliers.
4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of Contractor's work.
5. Advise on, issue directions regarding, or assume control over security or safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.
6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.
7. Accept Shop Drawing or Sample submittals from anyone other than Contractor.
8. Authorize Owner to occupy the Project in whole or in part.

00.1.10 ARTICLE 11 – AMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK

A. SC-11.07 *Execution of Change Orders*

1. Delete Paragraph 11.07B in its entirety and add the following in its place:
 - B. Change orders shall be processed and executed in accordance with the provisions of **SECTION 01 26 00 CONTRACT MODIFICATION PROCEDURES** of the Project Manual.

00.1.11 ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

A. SC-13.01 *Cost of the Work*

1. Delete Paragraph 13.01B5c in its entirety and insert the following in its place:
 - c. Construction Equipment and Machinery:
 - 1) Rentals of all construction equipment and machinery, and the parts thereof, in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
 - 2) Costs for equipment and machinery owned by Contractor will be paid at a rate shown for such equipment in the Rental Rate Blue Book for Construction Equipment. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs. Costs will include the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of any such equipment or machinery, or parts thereof, shall cease to accrue when the use thereof is no longer necessary for the changed Work. Equipment or machinery with a value of less than \$1,000 will be considered small tools.

B. SC- 13.03 *Unit Price Work*

1. Delete Paragraph 13.03E in its entirety and insert the following in its place:
 - E. The unit price of an item of Unit Price Work shall be subject to reevaluation and adjustment under the following conditions:
 1. if the extended price of a particular item of Unit Price Work amounts to 10 percent or more of the Contract Price (based on estimated quantities at the time of Contract formation) and the variation in the quantity of that particular item of Unit Price Work actually furnished or performed by Contractor differs by more than 25 percent from the estimated quantity of such item indicated in the Agreement; and
 2. if there is no corresponding adjustment with respect to any other item of Work; and
 3. if Contractor believes that Contractor has incurred additional expense as a result thereof,

Contractor may submit a Change Proposal, or if Owner believes that the quantity variation entitles Owner to an adjustment in the unit price, Owner may make a Claim, seeking an adjustment in the Contract Price.

00.1.12 **ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD**

A. *SC-15.03 Substantial Completion*

1. Add the following new subparagraph to Paragraph 15.03B:

1. If some or all of the Work has been determined not to be at a point of Substantial Completion and will require re-inspection or re-testing by Engineer, the cost of such re-inspection or re-testing, including the cost of time, travel and living expenses, shall be paid by Contractor to Owner. If Contractor does not pay, or the parties are unable to agree as to the amount owed, then Owner may impose a reasonable set-off against payments due under Article 15.

00.1.13 **ARTICLE 18 – MISCELLANEOUS**

A. *SC-18.01 Giving Notice*

1. Delete Paragraph 18.01 A.2 in its entirety and insert the following in its place:

2. Delivered at or sent by registered or certified mail, postage prepaid, to the place designated in the Agreement. Either party may change his address at any time by an instrument in writing delivered to Engineer and to other party.

PART 2 **PRODUCTS (NOT USED)**

PART 3 **CONSTRUCTION REQUIREMENTS (NOT USED)**

END OF SECTION

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PART 1 GENERAL**00.1.01 DESCRIPTION**

- A. This section of the Project Manual includes the requirements for insurance to be purchased and maintained by the Contractor and Subcontractors working on the Project.
- B. The provisions of this **SECTION 00 73 16 INSURANCE REQUIREMENTS** shall govern over the provisions of **SECTION 00 72 00 GENERAL REQUIREMENTS** where conflicts between the two sections occur.

00.1.02 RELATED WORK SPECIFIED ELSEWHERE

The following items of related work are specified and included in other sections of this Project Manual:

SECTION 00 72 00 GENERAL CONDITIONS
SECTION 01 33 00 SUBMITTAL PROCEDURES

00.1.03 MAINTENANCE OF INSURANCE

- A. Contractor and subcontractors shall purchase and maintain insurance in accordance with **SECTION 00 72 00 GENERAL CONDITIONS** and the provisions of this section of the Project Manual
- B. All required insurance shall remain in effect until expiration of the Contractor's warranty period unless noted otherwise in this section
- C. The limits of liability for the insurance required by **SECTION 00 72 00 GENERAL CONDITIONS** shall provide coverage for not less than the amounts specified in this section or greater where required by Laws and Regulations.

00.1.04 WORKERS' COMPENSATION

- A. Workers' Compensation, and related coverages for claims under Workers' Compensation, disability benefits and other similar benefits in accordance with the provisions **SECTION 00 72 00 GENERAL CONDITIONS** of this Project Manual shall be provided with coverage limits no less than:

1. State:	<u>Statutory</u>
2. Employer's Liability:	
a. Bodily injury, each accident	\$ <u>1,000,000.00</u>
b. Bodily injury by disease, each employee	\$ <u>1,000,000.00</u>
c. Bodily injury/disease aggregate	\$ <u>1,000,000.00</u>

00.1.05 COMMERCIAL GENERAL LIABILITY

- A. Contractor's Commercial General Liability coverage in accordance with the provisions of **SECTION 00 72 00 GENERAL CONDITIONS** of this Project Manual shall be provided with limits no less than:

1. General Aggregate	\$ <u>2,000,000.00</u>
2. Products - Completed Operations Aggregate	\$ <u>2,000,000.00</u>
a. Contractor shall continue to purchase and maintain the products-completed operations liability insurance coverage for a minimum of (120) months after the date of the final completion.	
b. All terms and conditions of coverage shall be maintained during this completed operations period, including the required coverage limits and the requirement to provide Owner and Engineer with coverage as an additional insured for completed operations.	
3. Personal and Advertising Injury	\$ <u>2,000,000.00</u>
4. Each Occurrence (Bodily Injury and Property Damage)	\$ <u>2,000,000.00</u>

00.1.06 AUTOMOBILE LIABILITY

- A. Automobile Liability coverage in accordance with the provisions of **SECTION 00 72 00 GENERAL CONDITIONS** of this Project Manual shall be provided with limits no less than.

1. Bodily Injury:	
a. Each person	\$ <u>1,000,000.00</u>

b. Each accident	\$ 1,000,000.00
2. Combined Single Limit of	\$ 1,000,000.00

00.1.07 EXCESS OR UMBRELLA LIABILITY

- A. Excess or Umbrella Liability coverage in accordance with the provisions of **SECTION 00 72 00 GENERAL REQUIREMENTS** of this Project Manual with limits no less than.
- | | |
|----------------------|-----------------|
| 1. Per Occurrence | \$ 3,000,000.00 |
| 2. General Aggregate | \$ 3,000,000.00 |
- B. This coverage shall include an endorsement stating that an additional insured on the underlying policy does not constitute a change in underlying coverage for purposes of the change in underlying coverage provision of the umbrella or Excess coverage policy.
- C. Excess or Umbrella liability policies that include an “insured versus - insured” or similar endorsement shall have the wording to read “named insured - versus - named insured”

00.1.08 CONTRACTOR’S POLLUTION LIABILITY

The Contractor shall, at its sole expense, purchase and maintain insurance as outlined below.

- A. Contractors Pollution Liability (CPL) or an equivalent coverage extension within the General Liability policy. This policy shall provide coverage for:
- The CPL insurance shall insure all of the services the contractor and subcontractors provide in the normal course of operations as required for this project.
 - Partial operations coverage is unacceptable.
 - Bodily injury, sickness, disease, sustained by any person, including death.
 - Property damage includes physical injury to or destruction of tangible property including the resulting loss of use thereof; clean-up costs, and the loss of use of tangible property that has not been physically injured or destroyed including diminution of value and Natural Resources damages.
 - Defense costs including costs, charges and expenses incurred in the investigation, adjustment or defense of claims.
 - Contractual liability coverage, e.g. coverage for liability assumed by the named insured under a written contract or agreement.
 - The full scope of the named insureds and their subcontractors’ operations as described within the scope of work for this contract.
 - The policy shall provide coverage for claims arising from owned and non-owned disposal sites utilized in the performance of this contract.
 - This coverage can be provided on either claims made or occurrence-based policy form.
 - The policy must insure contractual liability, be Primary and Non-Contributory and name disposal site owner(s) as an Additional Insured.
 - The policy must waive subrogation for the additional insured.
 - The insured pollutants shall specifically include fungus, mold, bacteria and viruses.
- B. The policy may not contain separate restrictions for:
- Insured versus insured actions.
 - Completed operations in any coverage part of the policy for either the insured or the additional insured certificate holder.
 - Damage to property that cannot be used or is less useful because of the operations of the insured.
 - Work performed by subcontractors.

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**DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS
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PROJECT No. ER25-00-044**

5. Chinese or other contaminated drywall.
 6. Habitational construction
 7. Property damage to the work
 8. Impaired property
 9. Lead, asbestos or silica related losses.
 - a. Limitations for lead and asbestos abatement should be separately disclosed and the endorsement attached to the certificate of insurance.
- C. Completed Operations coverage shall be maintained through the purchase of renewal policies to protect the insured and additional insured for at least 10 years after the property owner accepts the project or this contract is terminated.
1. The purchase of an extended discovery period or an extended reporting period on the Claims Made policy or the purchase of occurrence-based Contractors Environmental Insurance will not be sufficient to meet the terms of this provision.
 2. The purchase of a completed operations coverage endorsement under a claims made or occurrence based policy form will be acceptable if insurance is not continuously renewed.
- D. Minimum Limits of Insurance for the Contractor
1. Each Occurrence \$ 1,000,000.00
 2. General Aggregate \$ 2,000,000.00
- ☒ If box is checked, Contractor is not required to provide Contractor's Pollution Liability insurance under this Contract

00.1.09 CONTRACTOR'S PROFESSIONAL LIABILITY

For Bid Package A which requires that the CONTRACTOR retain the services of a professional engineer for the design of the metal building system and design of the building foundation the CONTRACTOR shall purchase and maintain Professional Liability insurance with the following minimum limits of coverage:

1. Each Claim \$ 3,000,000.00
2. Annual Aggregate \$ 3,000,000.00

00.1.10 BUILDER'S RISK INSURANCE

- A. CONTRACTOR shall purchase and maintain ALL Risk type Builder's Risk Insurance as required by **SECTION 00 72 00 GENERAL REQUIREMENTS** of this Project Manual.
- B. CONTRACTOR shall be responsible for payment of all deductibles for each loss.
1. Maintain deductible amount shall be \$25,000.00 unless approved otherwise by the OWNER.

00.1.11 ADDITIONAL INSURED

The following table defines those policies which must have the named parties shown as additional insured.

Coverage	ADDITIONAL INSURED		
	Owner	Engineer	Subcontractor
Worker's Compensation and Employer's Liability	N/A	N/A	N/A
Commercial General Liability	Yes	Yes	No
Automobile Liability	Yes	Yes	No
Excess or Umbrella Liability	Yes	Yes	No
Contractor's Pollution Liability	Disposal Site Owner	No	No
Builder's Risk Insurance	N/A	N/A	N/A
Railroad Protective Insurance	N/A	N/A	N/A

N/A = Not Applicable

00.1.12 SUBROGATION

CONTRACTOR and subcontractors shall waive subrogation to the OWNER and ENGINEER and their insurers.

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00.1.13 ADDITIONAL INSURANCE REQUIREMENTS

- A. Any and all deductibles or other forms of retention are the responsibility of the CONTRACTOR.
- B. All deductibles or other forms of retention are subject to the approval of OWNER.
- C. CONTRACTOR will disclose to the OWNER in writing the amounts of any deductibles or self-insured retentions on the insurance required under this contract.

PART 2 PRODUCTS (NOT USED)

PART 3 CONSTRUCTION REQUIREMENTS (NOT USED)

END OF SECTION

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PART 1 GENERAL

00.1.01 EMPLOYMENT PREFERENCE IN CONTRACT

- A. The Contractor must give preference to the employment of bona fide North Dakota residents, with preference given first to honorably discharged disabled veterans and veterans of the armed forces of United States, who are deemed to be qualified in the performance of said work.
- B. Such preference shall not apply to engineering, superintendence, management, office or clerical work.
- C. No contract shall be let to any person, firm, association, cooperative, corporation or limited liability company refusing to execute an agreement containing the aforementioned provisions.
- D. This preference in employment is mandated by Section 43-07-20 of the NDCC.

PART 2 PRODUCTS (NOT USED)

PART 3 CONSTRUCTION REQUIREMENTS (NOT USED)

END OF SECTION

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PART 1 GENERAL

00.1.01 GOVERNMENT AGENCY GENERAL TERMS AND CONDITIONS

- A. The following provisions supplement of the provisions of **SECTION 00 72 00 GENERAL CONDITIONS**.
- B. The provisions of this section shall govern over the provisions of other sections this Project Manual.
1. **Affirmative Action.** Contractor will take affirmative action in complying with all Federal and State requirements concerning fair employment and employment of the handicapped and concerning the treatment of all employees without regard to race, color, religion, sex, national origin or physical handicap.
 2. **Applicable Law and Venue.** This solicitation is governed by and construed in accordance with the laws of the State of North Dakota. Any action to enforce this contract must be brought in the District Court of Burleigh County, North Dakota.
 3. **Award.** Award will be made to the responsible bidder with the lowest priced bid that is responsive to the Project Manual and all other requirements stated in the bidding documents.
 4. **Assignments and Subcontracts.** Contractor may not assign or otherwise transfer or delegate any right or duty without the State's express written consent. However, Contractor may enter into subcontracts provided that any such subcontract acknowledges the binding nature of this contract and incorporates this contract, including any attachments. Contractor is solely responsible for the performance of any subcontractor. Contractor shall not have the authority to contract for or incur obligations on behalf of the State.
 5. **Binding Contract.** The acceptance of a bid response in writing by the State constitutes a contract between the bidder and the State. Written acceptance from the State will be in the form of a purchase order, notification of award, or contract. Any oral agreement or arrangement by a bidder with a State employee or Purchasing Agency or Entity will have no force or effect unless reduced to writing.
 6. **Compliance with Laws.** Contractor must, in performance of work under this contract, fully comply with all applicable federal, state, or local laws, rules and regulations, including Title VI of the Civil Rights Act of 1964. Any subletting or subcontracting by Contractor subjects subcontractors to the same provision.
 7. **Compliance with Public Records Law.** Contractor understands that, except for disclosures prohibited under North Dakota open records laws related to confidentiality, N.D.C.C. § 44-04-18, State must disclose to the public upon request any records it receives from Contractor. Contractor further understands that any records, which are obtained or generated by the contractor under this solicitation, except for records that are confidential under N.D.C.C. § 44-04-18, may, under certain circumstances, be open to the public upon request under the North Dakota open records law. Contractor agrees to contact State immediately upon receiving a request for information under the open records law and to comply with State's instructions on how to respond to the request. Bid responses are exempt records until the time and date of the bid opening.
 8. **Confidentiality.** Contractor agrees not to use or disclose any information that is confidential or exempt from mandatory public disclosure which it receives from State under this agreement except as necessary to carry out the purposes of this agreement or as authorized in advance by State. State agrees not to disclose any information it receives from Contractor, which Contractor has previously identified as confidential, and which State determines, in its sole discretion, is protected from mandatory public disclosure under a specific exception to the North Dakota open records law, N.D.C.C. chapter 44-04. The duty of State and Contractor to maintain confidentiality of information under this section continues beyond the term of this agreement, or any extensions or renewals of it.
 9. **Contract Amendment.** After a binding contract has been entered into, no changes (i.e. substitution of product or a price adjustment) may be made, unless prior written approval has been obtained from State.
 10. **Independent Entity.** Contractor shall perform as an independent entity under this agreement. Contractor, its employees, agents or representatives are not employees of State for all purposes, including the application of the Social Security Act, the Fair Labor Standards Act, the Federal

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Insurance Contribution Act, the Federal Unemployment Act, the North Dakota Unemployment Compensation Law and the North Dakota Workers' Compensation Act. No part of this agreement may be construed to represent the creation of an employer/employee relationship between State and Contractor. Contractor will retain sole and absolute discretion in the judgment of the manner and means of carrying out the Contractor's activities and responsibilities under this agreement.

11. Contractor Assurances. In connection with furnishing supplies or performing work under this agreement, persons who contract with or receive funds to provide services to State are obligated and agree to comply with all local, state, and federal laws, regulations, and executive orders related to the performance of this agreement including the following: Fair Labor Standards Act, Equal Pay Act of 1963, Titles VI and VII of the Civil Rights Act of 1964, the Age Discrimination in Employment Act of 1967, the North Dakota Human Rights Act, the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970, the Drug Abuse Prevention Treatment and Rehabilitation Act of 1970, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, the Drug-Free Workplace Act of 1988, the Americans with Disability Act of 1990, Alcohol, Drug Abuse and Mental Health Administration Reorganization Act of 1992 and the Pro-Children Act of 1994.
 - a. By signing an agreement Contractor certifies that neither Contractor, Subcontractor, nor their principals, are presently debarred, declared ineligible, or voluntarily excluded from participation in transactions with the State or Federal Government by any Department or Agency of the State or Federal Government.
 - b. Contractor must be an approved vendor with the Office of Management and Budget within the State of North Dakota as required by N.D.C.C. § 54-44.4-09.
12. Nonperformance. Failure by Contractor to perform the terms of this agreement constitutes a breach of contract and will result in the immediate termination of the agreement. If there is a termination for breach by Contractor, State may retain, as liquidated damages, any payment to be made under this agreement which remains unpaid at the time of the breach and may also recover from Contractor those amounts already paid for individual items of work which are incomplete at the time of the breach.
 - a. If a breach by Contractor renders the agreement impossible of performance by Contractor and is caused by circumstances beyond the control of Contractor, and through no fault of Contractor, the agreement will be terminated. In the event of a breach by Contractor in such circumstances, State may set off, against any liability or obligations owed to Contractor under this agreement or otherwise, any amounts paid for individual items of work which are incomplete at the time of the breach. If the agreement is terminated as a result of a breach by Contractor, which is beyond the control of Contractor, State is not entitled to liquidated damages.
 - b. State shall give written notice of the termination to Contractor specifying the effective date of the termination.
13. Collateral Contracts. If any inconsistency exists between this agreement and other provisions of collateral contractual agreements which are made a part of this agreement by reference or otherwise, the provisions of this agreement control.
14. Attorney Fees. If a lawsuit is filed by State to obtain performance due under this agreement, and State is the prevailing party, Contractor shall pay State's reasonable attorney fees and costs in connection with the lawsuit except when prohibited by N.D.C.C. § 28-26-04.
15. Alternative Dispute Resolution – Jury Trial. State does not agree to binding arbitration, mediation, or any other form of mandatory alternative dispute resolution. The parties may enforce their rights and remedies in judicial proceedings. State does not waive any right to a jury trial.
16. Access To Books And Records. State, the federal government, and their duly authorized representatives shall have access to the books, documents, papers, and records of Contractor which are pertinent to the services provided under this agreement for the purpose of making an audit, examination, or making excerpts and transcripts. This documentation must be available for a period of three (3) years from the date of submission of the final expenditures report
17. Conduct. Contractor shall at all times conduct their work so as to insure the least possible obstruction

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to traffic and inconvenience to the general public and the occupants of buildings, and to insure the protection of persons and property. No road or street shall be closed to the public except with the permission of the proper authorities. Fire hydrants on or adjacent to the work site shall be kept accessible for fire-fighting equipment at all times.

18. Protection. Contractor shall take all necessary precautions to protect the work area to avoid unnecessary noise, confusion, dust or dirt, and protect the health and safety of occupants of buildings and surrounding work areas. Debris shall be removed from work areas on a daily basis. When equipment and other items must be removed during the performance of the work, it shall be the Contractor's responsibility to check with appropriate State personnel to obtain the required approval before moving any equipment and/or other items.
19. Damage. Contractor shall be responsible for any damage by his company during the course of completing his work to any building or structure and shall repair to match existing materials or surfaces to the satisfaction of the State's representative. Contractor shall at his own expense replace any materials damaged to an extent that they cannot be restored to their original condition. Contractor shall be responsible and liable for injury to any life or property during the course of their work.
20. Work Product, Equipment and Materials. All work product, equipment or materials created or purchased under this agreement belong to the State and must be delivered to State at State's request upon termination of this agreement. Contractor agrees that all materials prepared under this agreement are "works for hire" within the meaning of copyright laws of the United States and assigns to the State all rights and interests Contractor may have in the materials it prepares under this agreement, including any right to derivative use of the material. Contractor shall execute all necessary documents to enable the State to protect its right under this section. Use of work product or materials for purposes other than the scope of this agreement must be approved by the State.
21. Notice. Any notice or other communication required or permitted to be given pursuant to this agreement may be personally served on either party by the party giving such notice, or may be served by certified mail, return receipt requested, addressed to the executive office of the party upon whom service is made.
22. Termination for Lack of Funding or Authority. This contract shall become null and void, in total or in part, should the Legislature of the State of North Dakota fail to appropriate funds for any or all agencies, which are committed to the terms of this contract. Any such contract termination shall be at no cost to the State.
23. Termination of Contract
 - a. Termination without Cause. This contract may be terminated by mutual consent of both parties, or by either party upon 30 days' written notice.
 - b. Termination for Lack of Funding or Authority. The State may terminate this contract effective upon delivery of written notice to the contractor, or on any later date stated in the notice, under any of the following conditions:
 - i. If funding from federal, state, or other sources is not obtained and continued at levels sufficient to allow for purchase of the services or supplies in the indicated quantities or term. The contract may be modified by agreement of the parties in writing to accommodate a reduction in funds.
 - ii. If federal or state laws or rules are modified or interpreted in a way that the services are no longer allowable or appropriate for purchase under this contract or are no longer eligible for the funding proposed for payments authorized by this contract.
 - iii. If any license, permit or certificate required by law or rule, or by the terms of this contract, is for any reason denied, revoked, suspended or not renewed.Termination of this contract under this subsection is without prejudice to any obligations or liabilities of either party already accrued prior to termination.
 - c. Termination for Cause. The State by written notice of default to the contractor may terminate the whole or any part of this contract:

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- i. If the contractor fails to provide services required by this contract within the time specified or any extension agreed to by the State; or
- ii. If the contractor fails to perform any of the other provisions of this contract, or so fails to pursue the work as to endanger performance of this contract in accordance with its terms.
- iii. The rights and remedies of the State provided in the above clause related to defaults by the contractor are not exclusive and are in addition to any other rights and remedies provided by law or under this contract.
- iv. Termination, Deliveries. If the contract is terminated for any reason, the contractor is responsible for delivery of all commodities and services ordered prior to the termination, unless those orders had been canceled by the Purchasing Agency or Entity

24. Indemnification. Contractor agrees to defend, indemnify, and hold harmless the state of North Dakota, its agencies, officers and employees (State), from and against claims based on the vicarious liability of the State or its agents, but not against claims based on the State's contributory negligence, comparative and/or contributory negligence or fault, sole negligence, or intentional misconduct. This obligation to defend, indemnify, and hold harmless does not extend to professional liability claims arising from professional errors and omissions. The legal defense provided by Contractor to the State under this provision must be free of any conflicts of interest, even if retention of separate legal counsel for the State is necessary. Contractor also agrees to defend, indemnify, and hold the State harmless for all costs, expenses and attorneys' fees incurred if the State prevails in an action against Contractor in establishing and litigating the indemnification coverage provided herein. This obligation shall continue after the termination of this agreement.

25. Insurance

- a. Contractor shall secure and keep in force during the term of this agreement and Contractor shall require all subcontractors, prior to commencement of an agreement between Contractor and the subcontractor, to secure and keep in force during the term of this agreement, from insurance companies, government self-insurance pools or government self-retention funds, authorized to do business in North Dakota, the following insurance coverages:
 - i. Commercial general liability, including premises or operations, contractual, and products or completed operations coverages (if applicable), with minimum liability limits of \$250,000 per person and \$1,000,000 per occurrence.
 - ii. Automobile liability, including Owned (if any), Hired, and Non-Owned automobiles, with minimum liability limits of \$250,000 per person and \$1,000,000 per occurrence.
 - iii. Workers compensation coverage meeting all statutory requirements. The policy shall provide coverage for all states of operation that apply to the performance of this contract.
- b. The insurance coverages listed above must meet the following additional requirements:
 - i. Any deductible or self-insured retention amount or other similar obligation under the policies shall be the sole responsibility of the Contractor.
 - ii. This insurance may be in policy or policies of insurance, primary and excess, including the so-called umbrella or catastrophe form and must be placed with insurers rated "A-" or better by A.M. Best Company, Inc., provided any excess policy follows form for coverage. Less than an "A-" rating must be approved by the State. The policies shall be in form and terms approved by the State.
 - iii. The duty to defend, indemnify, and hold harmless the State under this agreement shall not be limited by the insurance required in this agreement.
 - iv. The state of North Dakota and its agencies, officers, and employees (State) shall be endorsed on the commercial general liability policy, including any excess policies (to the extent applicable), as additional insured. The State shall have all the benefits, rights and coverages of an additional insured under these policies.

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- v. The insurance required in this agreement, through a policy or endorsement, shall include:
 - a) a “Waiver of Subrogation” waiving any right to recovery the insurance company may have against the State.
 - b) a provision that the policy and endorsements may not be canceled or modified without thirty days’ prior written notice to the undersigned State representative.
 - c) a provision that any attorney who represents the State under this policy must first qualify as and be appointed by the North Dakota Attorney General as a Special Assistant Attorney General as required under North Dakota Century Code section 54-12-08.
 - d) a provision that Contractor’s insurance coverage shall be primary (i.e. pay first) as respects any insurance, self-insurance or self-retention maintained by the State and that any insurance, self-insurance or self-retention maintained by the State shall be in excess of the Contractor’s insurance and shall not contribute with it.
 - e) cross liability/severability of interest for all policies and endorsements.
 - f) the legal defense provided to the State under the policy and any endorsements must be free of any conflicts of interest, even if retention of separate legal counsel for the State is necessary.
 - g) the insolvency or bankruptcy of the insured Contractor shall not release the insurer from payment under the policy, even when such insolvency or bankruptcy prevents the insured Contractor from meeting the retention limit under the policy.
- vi. The Contractor shall furnish a certificate of insurance to the undersigned State representative prior to commencement of this agreement. All endorsements shall be provided as soon as practicable.
- vii. Failure to provide insurance as required in this agreement is a material breach of contract entitling the State to terminate this agreement immediately.

PART 2 PRODUCTS (NOT USED)

PART 3 CONSTRUCTION REQUIREMENTS (NOT USED)

END OF SECTION

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SECTION 00 91 00 – PRECONTRACT REVISIONS
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PART 1 GENERAL

This section is reserved for insertion of pre-contract modifications. These would include addenda and attachments, and approved suppliers where prior approval was required, and any attachments that are provided with the addenda.

A list of items requiring prior approval is provided in **SECTION 00 26 00 PROCUREMENT SUBSTITUTION PROCEDURES**.

PART 2 PRODUCTS (NOT USED)

PART 3 CONSTRUCTION REQUIREMENTS (NOT USED)

END OF SECTION

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PART 1 GENERAL

01.1.01 DESCRIPTION

A. The work to be performed under this contract consists of the construction of:

SECTION 1 – CP-0001(025) Richland County Road 1 mill and overlay and shoulder preparation. This project includes milling, shoulder preparation, hot bituminous pavement overlay, pavement markings and incidentals.

SECTION 2 – CP-0016(025) Richland County Road 16 mill and overlay. This project includes milling, hot bituminous pavement overlay, pavement markings and incidentals.

01.1.02 INTENT OF THE CONTRACT

A. The intent of the Contract is to provide for construction and completion of the Project in every detail as described in the Drawings and Project Manual.

1. It is also intended and will be expected that the work be prosecuted diligently and pressed vigorously to early completion, with due regard being given to public interests, as well as to the obligations and rights of all other parties concerned.
2. By the terms of the Contract, the Contractor assumes full responsibility for performance of the work and agrees to furnish all labor, materials, equipment, tools, supplies, transportation, operator training and other incidentals necessary or convenient for successful completion of the Project. All work shall be turned over to the Owner in a complete and undamaged state.

B. Realizing that it would not be practical to fully describe every detail or to make specific allowances for all probable exceptions and contingencies, it is intended that the Owner's Representative have sufficient executive authority to administer the Contract with discretion, within its general scope, so as to rule out apparent discrepancies, fulfill intentions, and allow for the exigencies of construction, on the basis of engineering judgment, giving careful consideration to all matters encumbering successful performance and completion of the Project.

C. The apparent silence of the Drawings and Project Manual as to any detail, or the apparent omission of a detailed description concerning any point, shall be regarded as meaning that only the best general practice is to prevail, and that materials and workmanship shall be first quality. Conversely, failure to itemize every allowable exception or condition does not mean that the governing provisions will be enforced equally under all conditions or on all parts of the work, as might be implied, it being understood that the Owner's Representative will decide all discretionary matters as they arise.

D. It is the Contractor's responsibility to locate sources for all materials specified herein and as necessary to complete the work. The Contractor shall bear all costs associated with the acquisition, transportation, preparation, fabrication and installation or erection of all materials or items necessary to complete the work.

01.1.03 TYPE OF CONTRACT

The work under this Contract is to be unit price work in accordance with **SECTION 00 72 00 GENERAL CONDITIONS**.

01.1.04 RELATED SECTIONS

The following related sections are specified and included in other sections of this Project Manual:

SECTION 00 21 00	INSTRUCTIONS TO BIDDERS
SECTION 00 72 00	GENERAL CONDITIONS
SECTION 01 21 00	ALLOWANCES

01.1.05 WORK BY OTHERS

A. Construction Observation and Surveying will be performed by Interstate Engineering, Inc.

B. Testing Laboratory Services

1. Testing shall be performed by the Engineer, unless specified otherwise.
2. The Contractor shall provide sufficient materials for testing purposes as required, the cost of which shall be included in the price bid for the work being tested.
3. Compensation

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- a. The costs for preparing mix designs and job mix formulas will not be eligible for reimbursement regardless of whether or not a pay item for Laboratory Testing Services is provided in the Bidder's Proposal.
- b. The costs for re-testing work for which previous tests have failed shall be borne by the Contractor regardless of whether or not a pay item for laboratory testing services is provided in the Bidder's Proposal.
- c. Inspections and tests required by codes or ordinances, or by a plan approval authority, and made by a legally constituted authority, shall be the responsibility of and shall be paid for by the Contractor, unless otherwise provided in the contract Documents.
4. Contractor's Quality Control Testing: Inspection or testing performed exclusively for the Contractor's convenience or quality control shall be the responsibility of the Contractor. Such testing shall not be eligible for reimbursement regardless of whether or not a pay item for Laboratory Testing Services is provided in the Bidder's Proposal.
5. Qualifications of Laboratory Personnel: Laboratory personnel involved in field and laboratory testing for concrete shall be certified to conduct the tests specified herein by the American Concrete Institute or the State Department of Transportation.

01.1.06 WORK SEQUENCE

- A. The work shall be performed in a manner and sequence that allows property owner access at all times during construction.
- B. The work shall be performed in a manner and sequence that minimizes the length of time necessary for the performance of the work.
- C. All work shall be completed by Final Completion Date of October 25, 2025.

01.1.07 USE OF THE SITE

- A. The Contractor shall confine all operations to areas shown on the Drawings or specified herein.
 1. The Contractor shall not encumber any area of the site with materials or equipment.
 2. The Owner shall approve the use of temporary, on-site, storage areas.
- B. The Contractor shall be responsible for maintaining security at the site during the entire period of construction, including fencing the site perimeter at the end of each day, where appropriate.
- C. All driveways and alleys shall be opened to traffic as soon as practical.
 1. Where the work will block dead end streets, alley or driveways, the Contractor shall advise all property owners affected by the work prior to blocking access to or from the street or alley

01.1.08 CONSTRUCTION STAKES, LINES AND GRADES

- A. Layout Staking Services: The Owner shall provide construction layout staking services.
 1. The Contractor shall coordinate construction staking with their work.
 2. At least (2) working days' notice shall be given to the Owner before staking is required.
- B. Restaking: The Owner shall provide construction staking at no cost to the Contractor with the exception of restaking which becomes necessary due to the Contractor's negligence or carelessness.
 1. The cost of restaking shall be charged to the Contractor on an hourly basis plus materials.

01.1.09 MATERIALS

- A. Unless otherwise stated, the Contractor shall be allowed to furnish only those materials listed in the construction documents.
- B. All materials furnished for the work shall be new.

PART 2 MATERIALS (NOT USED)

PART 3 CONSTRUCTION REQUIREMENTS (NOT USED)

END OF SECTION

PART 1 GENERAL**01.1.01 DESCRIPTION**

This section describes the method of measurement and the basis of payment for the items included in the **BIDDER'S PROPOSAL**.

01.1.02 GENERAL

- A. Realizing that it is not practical to list each item of work to be included in each of the pay items shown in the **BIDDER'S PROPOSAL**, Bidder's shall have the discretion of assigning the costs of the work to specific bid items provided in the **BIDDER'S PROPOSAL**.
- B. The descriptions of the work included for each of the pay items is provided for Bidder convenience.
- C. The total amount bid for the work being equal to the sum of the bid items including alternates selected by the OWNER but not including allowances shall be considered full compensation for providing all equipment, labor, materials and tools necessary to complete the project as shown on the Drawings and specified herein.

01.1.03 PLAN QUANTITY

- A. Plan Quantity, (P) in the Bid Form indicates items for which the estimated quantity shown is designated as a Plan Quantity, by inclusion of "(P)" after the estimated quantity.
 - 1. The estimated quantity shown is based on the dimensions shown on the Drawings.
 - 2. No measurement will be made for items designated as Plan Quantity unless substantial changes to the plan shown details and dimensions shown on the Drawings are made by the OWNER or ENGINEER.
 - 3. Where substantial changes are made by the OWNER or ENGINEER the basis of payment will be the measured quantity of the completed work.
 - a. The units of measure shall be the units shown on the Bid Form.
 - b. The unit price bid shall be applied to measured quantities.

01.1.04 METHOD OF MEASUREMENT

- A. Lump Sum: The term "lump sum" when used as a unit of measurement shall mean complete payment for that item of work as shown on the Drawings and specified herein.
- B. Length: All items that are measured by the linear measurement will be measured parallel to the axis of item being measured.
- C. Individual Unit or Each: When a complete item or unit is specified as the unit of measurement the unit will be measured by physical count and will include all necessary accessories and appurtenances.
- D. Area: Dimensions for area will be made parallel to the plane of the work that is being measured.

01.1.05 BASIS OF PAYMENT

- A. Scope of Payment: The phrase "complete in place" when used in this Project Manual means completion of the bid item or units in accordance with the Drawings and as specified herein including the furnishing of all equipment, labor, materials and tools necessary to complete the work.
- B. The prices bid shall be considered full compensation for any work essential for the completion of the bid item, whether or not the specific material or operation is indicated on the Drawings or specified herein.
- C. Base Bid

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ITEM No. 1 CONTRACT BOND

UNITS	LUMP SUM
ITEM INCLUDES	1. Contract Bond 2. Furnishing all labor and incidentals to complete the work as specified.
REMARKS	Contract Bond shall be paid for at the lump sum price or the paid invoice amount, whichever is less. If the contract lump sum price is greater than the paid invoice amount, the difference will be paid on the final estimate.

ITEM No. 2 SHOULDER PREPARATION

UNITS	MILE
ITEM INCLUDES	1. Blading 2. Manufacturing Blade Attachment 3. Furnishing all Materials, Equipment, Labor, and Incidentals to Complete the Work as Specified
REMARKS	Shoulder Preparation shall be measured by the mile including both sides by the Engineer in the field, complete in place and accepted by the Engineer.

ITEM No. 3 SEEDING CLASS I

UNITS	SQUARE YARD
ITEM INCLUDES	1. Site Preparation 2. Seed 3. Installation 4. Watering as required per the specifications 5. Furnishing all Materials, Equipment, Labor, and Incidentals to Complete the Work as Specified.
REMARKS	Seed class I shall be the type specified. Seeding shall be paid for at the square yard when installed, complete in place and accepted by the Engineer.

ITEM No. 4 HYDRAULIC MULCH

UNITS	SQUARE YARD
ITEM INCLUDES	1. Hydraulic Mulch Material 2. Installation 3. Furnishing all Materials, Equipment, Labor, and Incidentals to Complete the Work as Specified.
REMARKS	Hydraulic Mulch shall be paid for at the plan quantity when installed, complete in place and accepted by the Engineer. The Contractor shall install hydro mulch as seeding is completed.

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ITEM No. 5 AGGREGATE SHOULDERING IN PLACE

UNITS	LINEAL FOOT
ITEM INCLUDES	<ol style="list-style-type: none"> 1. Aggregate Surface Course Material 2. Hauling 3. Placing 4. Grading 5. Compacting 6. Furnishing all Materials, Equipment, Labor, and Incidentals to Complete the Work as Specified.
REMARKS	Aggregate shouldering in place shall be measured by the lineal foot of material placed, complete in place and accepted by the Engineer.

ITEM No. 6 AGGREGATE BASE COURSE CL 5

UNITS	TON
ITEM INCLUDES	<ol style="list-style-type: none"> 1. Aggregate Base Course 2. Hauling 3. Placing 4. Compacting 5. Furnishing all Materials, Equipment, Labor, and Incidentals to Complete the Work as Specified.
REMARKS	Aggregate shall be measured by the tonnage based on truck scale weights provided by the Contractor, complete in place and accepted by the Engineer.

ITEM No. 7 TACK COAT

UNITS	GALLON
ITEM INCLUDES	<ol style="list-style-type: none"> 1. Bituminous material 2. Hauling 3. Sweeping 4. Placing 5. Furnishing all Materials, Equipment, Labor, and Incidentals to Complete the Work as Specified
REMARKS	Emulsified asphalt shall be measured based in the Contractors manifest, complete in place and accepted by the Engineer.

ITEM No. 8 FOG SEAL

UNITS	GALLON
ITEM INCLUDES	<ol style="list-style-type: none"> 1. Bituminous material 2. Sweeping 3. Placing 4. Furnishing all Materials, Equipment, Labor, and Incidentals to Complete the Work as Specified.
REMARKS	The actual area of pavement fog sealed shall be measured by the Engineer in the field, complete in place and accepted by the Engineer.

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ITEM No. 9 MILLING PAVEMENT SURFACE

UNITS	SQUARE YARD
ITEM INCLUDES	<ol style="list-style-type: none"> 1. Milling 2. Milled tapers 3. Transition wedges where required 4. Hauling milled material 5. Stockpiling milled material at a location within City limits 6. Furnishing all Materials, Equipment, Labor, and Incidentals to Complete the Work as Specified.
REMARKS	Milling pavement surface shall be measured by the Engineer in the field, complete in place and accepted by the Engineer.

ITEM No. 10 RAP - SUPERPAVE FAA 43

UNITS	TON
ITEM INCLUDES	<ol style="list-style-type: none"> 1. RAP - FAA43 Bituminous Mix 2. Hauling 3. Placing 4. Scale 5. Compacting 6. Cleanup/Sweeping 7. Furnishing all Materials, Equipment, Labor, and Incidentals to Complete the Work as Specified.
REMARKS	RAP-Superpave FAA43 shall be measured by the tonnage of bituminous mix based on truck scale weights or batch weight tickets provided by the Contractor, complete in place and accepted by the Engineer.

ITEM No. 11 PG 58-28 ASPHALT CEMENT

UNITS	TON
ITEM INCLUDES	<ol style="list-style-type: none"> 1. PG 58-28 Asphalt Cement 2. Furnishing all Materials, Equipment, Labor, and Incidentals to Complete the Work as Specified.
REMARKS	Asphalt cement shall be measured based on the Contractors daily cutoff report.

ITEM No. 12 MOBILIZATION

UNITS	LUMP SUM
ITEM INCLUDES	<ol style="list-style-type: none"> 1. All costs to prepare and move personnel, equipment, and materials to the project.
REMARKS	Mobilization will be paid for by the lump sum according to the North Dakota Standard Specifications for Road and Bridge Construction 2024 Edition.

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ITEM No. 13 FLAGGING

UNITS	MAN HOUR
ITEM INCLUDES	1. Flagger 2. Stop/Slow Paddle 3. Furnishing all Materials, Equipment, Labor, and Incidentals to Complete the Work as Specified.
REMARKS	Flagging shall be paid by the man hour based on flagging time sheet provided by the Contractor and verified by the Engineer.

ITEM No. 14 TRAFFIC CONTROL SIGNS

UNITS	UNIT
ITEM INCLUDES	1. Installation 2. Traffic control supervisor as required 3. Maintenance 4. Removal at project finish 5. Furnishing all Materials, Equipment, Labor, and Incidentals to Complete the Work as Specified
REMARKS	Traffic control signs shall be paid for by the unit installed, complete in place and accepted by the Engineer.

ITEM No. 15 TYPE III BARRICADE

UNITS	EACH
ITEM INCLUDES	1. Installation 2. Maintenance 3. Traffic control supervisor as required 4. Removal at project finish 5. Furnishing all Materials, Equipment, Labor, and Incidentals to Complete the Work as Specified
REMARKS	Barricades shall be paid for by each and field verified by Engineer.

ITEM No. 16 PILOT CAR

UNITS	MAN HOUR
ITEM INCLUDES	1. Pilot car vehicle 2. Operator 3. Furnishing all Materials, Equipment, Labor, and Incidentals to Complete the Work as Specified.
REMARKS	Pilot car shall be paid by the man hour based on pilot car time sheet provided by the Contractor and verified by the Engineer.

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ITEM No. 17 BITUMINOUS LABORATORY

UNITS	LUMP SUM
ITEM INCLUDES	1. Furnishing and placing bituminous laboratory 2. Furnishing all Materials, Equipment, Labor, and Incidentals to Complete the Work as Specified.
REMARKS	Laboratory to be furnished shall conform to Section 706.02 A of the NDDOT Standard Specifications for Road and Bridge Construction. Equipment to be furnished shall conform to Section 706.02 C of the NDDOT Standard Specifications for Road and Bridge Construction, complete in place and accepted by the Engineer.

ITEM No. 18 CONTRACTOR'S LABORATORY

UNITS	EACH
ITEM INCLUDES	1. All testing to be performed during the project 2. All preliminary testing required 3. Furnishing all Materials, Equipment, Labor, and Incidentals to Complete the Work as Specified.
REMARKS	Paid as verified in field by Engineer.

ITEM No. 19, 20 PAVEMENT MARKING

UNITS	LINEAL FOOT
ITEM INCLUDES	1. Sweeping 2. Paint 3. Installation 4. Furnishing all Materials, Equipment, Labor, and Incidentals to Complete the Work as Specified
REMARKS	Pavement marking shall be paid for at the lump sum contract price.

PART 2 PRODUCTS (NOT USED)

PART 3 CONSTRUCTION REQUIREMENTS (NOT USED)

END OF SECTION

PART 1 GENERAL**01.1.01 GENERAL**

This section of the Project Manual describes the procedures for making modifications to the contract.

01.1.02 PROJECT MODIFICATIONS

- A. Project Modifications: The Owner's Representative will issue a description of proposed changes in the Work that may or may not require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Project Manual.
- B. There are three categories of Project Modifications: Supplemental Instruction, Proposal Request or Construction Change Directive:
 - 1. Supplemental Instruction: The Owner's Representative will issue supplemental instructions authorizing Minor Changes in the Work, not involving adjustment to the Contract Sum or the Contract Time.
 - 2. Proposal Requests: Proposal Requests issued by the Owner's Representative are for information only. The Contractor shall not consider them to be instructions either to stop work in progress or to execute the proposed change.
 - a. Within the time frame noted in the request but in no case more than fourteen (14) calendar days after receipt of Proposal Request, the Contractor shall submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
 - b. The quotation shall include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - c. The quotation shall indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - d. Upon approval of the proposal request a Change Order will be prepared.
 - 3. Construction Change Directive: Construction Change Directives instruct the Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
 - a. Construction Change Directives contain a complete description of changes in the Work.
 - b. Construction Change Directives designate the methods to be followed to determine changes in the Contract Sum or the Contract Time.

01.1.03 CHANGE ORDER PROCEDURES

- A. Upon the Owner's approval of a Proposal Request, or completion of documentation of a Construction Change Directive, the Owner's Representative will issue a Change Order for signatures of Owner and Contractor on the form attached hereto at the end of this section
- B. Documentation: The Contractor shall maintain detailed records on a time and material basis of work required by a Construction Change Directive.
 - 1. After completion of change, the Contractor shall submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 PRODUCTS (NOT USED)**PART 3 CONSTRUCTION REQUIREMENTS (NOT USED)**

END OF SECTION

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CHANGE ORDER

Change Order

Date:

NAME OF PROJECT:

OWNER:

CONTRACTOR:

The following changes are hereby made to the CONTRACT DOCUMENTS:

DESCRIPTION:

Change in CONTRACT PRICE:

Original CONTRACT PRICE: \$ _____

The CONTRACT PRICE due to this CHANGE ORDER will be **DECREASED/INCREASED** by \$ _____

CONTRACT PRICE including previous CHANGE ORDER is: \$ _____

The new CONTRACT PRICE including this CHANGE ORDER will be: \$ _____

Change to CONTRACT TIME:

The CONTRACT NUMBER OF WORKING DAYS is **DECREASED/INCREASED** by _____
WORKING DAYS

Requested by:

_____ Date

Recommended by:

_____ Date

Approved by:

_____ Date

The following items are to be [ADDED/DELETED] [to/from] the CONTRACT

ITEM

DEDUCT/ADD _____

ITEM

ADD/DELETE _____

NET CHANGE: _____

END OF SECTION

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PART 1 GENERAL

01.1.01 GENERAL

This section of the Project Manual includes the procedures for preparing and submitting payment requests, also referred to as progressive estimates.

01.1.02 RELATED WORK SPECIFIED ELSEWHERE

The following items of related work are specified and included in other sections of this Project Manual:

SECTION 00 72 00	GENERAL CONDITIONS
SECTION 01 26 00	CONTRACT MODIFICATION PROCEDURES
SECTION 01 77 00	CLOSEOUT PROCEDURES

01.1.03 PAYMENT APPLICATION TIMES

- A. Progress payments will be submitted at a frequency of not less than 28 days.
 - 1. The application for payment must be submitted to the Owner's Representative at least ten (10) calendar days prior to the Owner's meeting at which the Contractor desires the application to be considered.
 - 2. The Owner has regularly scheduled meetings each month.
 - 3. The dates for submitting Progress Payment Application will be established during the Pre-construction Conference.
- B. The period covered by each Application for Payment starts on the day following the end of the preceding period and ends on the day of the application.

01.1.04 PAYMENT APPLICATION FORMS

Payment applications shall be made on forms provided by the Contractor, the format of which shall be approved by the Owner's Representative.

01.1.05 INITIAL APPLICATION FOR PAYMENT

Submittals that must precede or coincide with submittal of first Application for Payment include the following:

- A. List of subcontractors.
- B. Contractor's Construction Schedule.
- C. List of Contractor's staff assignments.
- D. Copies of authorizations, permits and licenses from authorities having jurisdiction for performance of the Work.
- E. Certificates of insurance and insurance policies.
- F. Performance bond and payment bond.
- G. Data needed by Owner to acquire insurance.

The submittals noted above shall be submitted at the Preconstruction Conference.

01.1.06 APPLICATION PREPARATION

- A. Complete every entry on form. Execute by a person authorized to sign legal documents on behalf of Contractor.
 - 1. Applications for final payment shall be notarized.
- B. Owner's Representative will return incomplete applications without action.
- C. Each Application for Payment shall be consistent with previous applications and payments as certified by Owner's Representative and paid for by Owner.
- D. Applications for payment shall conform to and include the following:

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1. Entries shall match data on the Bidder's proposal, schedule of values and Contractor's Construction Schedule.
 - a. Use updated schedules if revisions were made.
 2. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
- E. Submit 3 signed original copies of each Application for Payment to Owner's Representative by a method ensuring receipt.

01.1.07 PROMPT PAYMENT OF SUBCONTRACTORS

- A. Contractor must pay any subcontractor within ten (10) days of receiving of payment from the OWNER.
1. The contractor shall pay interest in the amount of 1½ % per month or any part of the month to the subcontractor on any undisputed amount not paid on time.
 2. The minimum monthly interest penalty for an unpaid balance of \$100 or more is \$10, for a balance of less than \$100 the contractor shall pay the actual penalty due to the subcontractor.

01.1.08 FINAL PAYMENT APPLICATION

- A. Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
1. Evidence of completion of Project closeout requirements.
 2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 3. Contractor's Affidavit of Payment of Debts and Claims.
 4. Consent of Surety to Final Payment.
 5. See **SECTION 00 65 00 CLOSEOUT FORMS** and **SECTION 01 77 00 CLOSEOUT PROCEDURES** for more information.

PART 2 PRODUCTS (NOT USED)

PART 3 CONSTRUCTION REQUIREMENTS (NOT USED)

END OF SECTION

PART 1 GENERAL**01.1.01 DESCRIPTION**

This section of the Project Manual includes the coordination of the work with subcontractor, Owner and affected property and utility owners.

01.1.02 PROTECTION AND RELOCATION OF UTILITIES**A. Notice to Utilities**

1. The Contractor shall notify public and private utility companies and municipalities as to those of their properties (such as pole lines, conduits, gas pipes, water pipes, sewers and tile lines) located within the project site that must be removed or relocated to complete the Project.
2. The notice will specify the locations to which their properties are to be relocated.
3. No warranty is made or implied by the Owner that the utility owners will remove or relocate their properties prior to commencement of construction operations or in sufficient time or manner to prevent interference with the Contractor's operations.
4. Contractor shall give notice to the owners of all known utilities at least 48 hours (excluding Saturdays, Sundays and Holidays) before starting any operations affecting those properties.
5. If during the course of their operations, the Contractor discovers utility property whose existence was not known, Contractor shall immediately notify the utility company and the Owner's Representative.
6. **North Dakota One-Call: 1-800-795-0555.**

01.1.03 WORKING NEAR UTILITIES

- A. When the Contractor works near electrical power lines, the Contractor may make arrangements with the power company, at no expense to the Owner, to:
1. Temporarily shut off the power or utility.
 2. Temporarily insulate the line(s).
 3. By-pass the power or utility from the work area, or
 4. Make other arrangements necessary for a safe workplace.
- B. No warranty is made as to whether the utility will temporarily shut off power or insulate its line(s), or as to the fee charged for preparing a safe work area for the Contractor.
- C. Construction operations adjacent to utility property shall not commence until arrangements satisfactory to the utility owner have been made by the Contractor for the protection of the utility's property and continuation of service.
1. Should any of the Contractor's equipment come in contact with or damage utility property in any way, even though there may be no apparent evidence of breakage or harm, the Contractor shall promptly notify the proper authorities.
 2. The Contractor shall also cooperate with them in determining damage and restoring interrupted services as may be needed.
 3. Where contact is made with a utility, operations should be suspended immediately.
 4. The Contractor shall vacate the site until the utility owner determines that it is safe to resume operations.
- D. The Contractor shall employ special equipment or construction methods and hand labor if necessary to accomplish the work as planned adjacent to utility properties without damage thereto.
- E. At no time shall the Contractor interfere with any persons engaged in protecting or moving utility property or in the operation of the utility.

01.1.04 LOCATIONS OF UTILITIES

- A. The approximate locations of underground telephone cables, power cables, gas lines, cable television, water mains and sewer mains as maintained and marked by public utilities are shown on the Drawings.
- B. No attempt has been made to include information regarding service lines or private underground utilities beyond the responsibility of public utilities.
- C. The Contractor shall locate and protect all underground utilities in or near the work whether they are private or public and regardless of whether or not they are shown on the Drawings.
- D. It is understood and agreed that the Contractor has considered in their bid all of the permanent and temporary utility appurtenances including public and private utilities which are not shown on the Drawings.
- E. No additional compensation will be allowed for any delays, inconveniences, or damages sustained by the Contractor due to any interference from those utility appurtenances or the operations of moving them.
- F. Contractor shall assume full responsibility for reimbursing the utility owners for any damages caused by their operations to utility properties whose existence and approximate locations were made known to them before the damage was done.
- G. The Contractor shall be responsible for providing buried utility locations for areas on the site which are beyond the responsibility of utility owners.
- H. The utility lines beyond the area of responsibility of the utility owners may include but are not necessarily limited to the following:
 - 1. Site specific electrical distribution lines
 - 2. Site specific control wiring
 - 3. Site specific water, sewer and process lines
 - 4. Site specific natural gas lines
- I. Nothing in this Project Manual shall make the Contractor liable for damage to utility property located below the ground surface, in the absence of negligence, if the owner of the property, after reasonable notice from the Contractor, fails to advise the Contractor of its location and approximate depth below the ground surface.

01.1.05 CONTRACTOR COORDINATION

- A. The Contractor shall furnish to the Owner's Representative a list of the field superintendent, foreman and those responsible for the 24-hour maintenance of traffic control devices and emergency contact person(s).
- B. This list shall include the following data:
 - 1. Name of the individual.
 - 2. Title
 - 3. Phone numbers.
 - a. In case of the persons responsible for emergencies and the maintenance of the traffic control devices these numbers must include one at which said persons can be reached 24 hours a day, 7 days a week, including Saturdays, Sundays and Holidays.

01.1.06 CONTRACTOR ADMINISTRATION

- A. The Contractor shall inspect all materials delivered to the site to determine their suitability to be incorporated into the work and conformance with the Drawings and Project Manual.
- B. The Contractor shall inspect the installation of all materials to determine conformance with the Drawings and Project Manual.
- C. The Contractor shall have the job superintendent on-site at all times work is being performed by work forces of the Contractor or subcontractors.

01.1.07 MEETINGS

- A. Meetings will be scheduled by the Owner's Representative during project construction as deemed necessary.

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1. The Contractor or a responsible representative who can bind the Contractor to a decision shall attend the meetings.
- B. The following meetings shall be attended by a representative of the Contractor, Owner's Representative, and Owner
1. Pre-construction meeting
 2. Weekly Progress meetings
 - a. Progress meetings are to be held on-site unless noted
 3. Final walk-through meeting for substantial completion and final completion.
- C. Notice of meetings to be attended by the Contractor, Owner and Owner's Representative shall be sent to those required to attend and copies to interested parties such as governmental and funding agencies.
1. The Owner's Representative shall be responsible for the sending of proper notice of meetings and the preparation and distribution of meeting minutes.
 2. Attendees of the meeting shall be responsible for the review of meeting minutes for completeness and correctness.
 3. Comments shall be forwarded to the person that prepared the minutes.
- D. Sections of the Project Manual require coordination meetings between the Contractor and the trades people performing the specified work.
1. The Contractor shall be responsible for sending notification of said meetings to the Owner's Representative and subcontractors involved with the particular work item.
 2. Owner's Representative is not required to attend these meetings unless specifically requested by the Contractor.
 3. Contractor shall be responsible for preparation and distribution of meeting minutes.

PART 2 MATERIALS (NOT USED)

PART 3 CONSTRUCTION REQUIREMENTS (NOT USED)

END OF SECTION

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PART 1 GENERAL

01.1.01 SUMMARY

This Section includes administrative and procedural requirements for submittals required for performance of the work, including the following:

- A. Contractor's construction schedule.
- B. Submittal schedule.
- C. Shop drawings.
- D. Product data.
- E. Samples.
- F. Quality assurance submittals.
- G. Quality control testing data to verify compliance with requirements for materials for trench back fill
- H. Administrative Submittals
 - 1. Refer to **SECTION 00 72 00 GENERAL CONDITIONS**, other **DIVISION 00** and **DIVISION 01** Sections, and other Contract Documents for requirements for administrative submittals.
 - 2. Such submittals include, but are not limited to, the following:
 - a. List of subcontractors.
 - b. Monthly cash flow requirements.
 - c. Schedule of values.
 - d. Application and Certificate for Payment.
 - e. Record drawings.
 - f. Responses to Proposal Requests.
 - g. Warranties.
- I. Failure to meet Submittal requirements to the satisfaction of the Owner's Representative will constitute unsatisfactory performance of the work in accordance with the Contract Documents.
 - 1. The Owner's Representative may recommend to the Owner that all or a portion of payments requested during the corresponding pay period be withheld until these requirements are met.

01.1.02 RELATED WORK SPECIFIED ELSEWHERE

The following items of related work are specified and included in other sections of this Project Manual:

SECTION 00 26 00	PROCUREMENT SUBSTITUTION PROCEDURES
SECTION 00 72 00	GENERAL CONDITIONS

01.1.03 DEFINITIONS

- A. Shop drawings are drawings, diagrams, schedules and other data specially prepared for the work by the contractor or subcontractor, sub-subcontractor, manufacturer, supplier or distributor to illustrate some portion of the work.
- B. Product data are illustrations standard schedules, performance charts, instructions, brochures diagrams and other information furnished by the contractor to illustrate materials or equipment for some portion of the work.
- C. Samples are physical examples that illustrate materials, colors, equipment or workmanship and establish standards by which the work will be judged.
- D. Coordination drawings show the relationship and integration of different construction elements that require careful coordination during fabrication or installation to fit in the space provided or to function as intended.

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- E. Manufacturer's Instructions include delivery, storage, handling, assembly, installation, adjustment, start-up, operation, maintenance, and finishing as applicable.
- F. Field samples are full-size physical examples erected on-site to illustrate finishes, coatings, or finish materials. Field samples are used to establish the standard by which the work will be judged.
- G. Mockups are full-size assemblies for review of construction, coordination, testing, or operation; they are not samples.

01.1.04 SUBMITTAL PROCEDURES

- A. The Contractor shall coordinate preparation and processing of submittals with performance of construction activities.
- B. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.
 - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 - 2. Coordinate transmittal of different types of submittals for related elements of the work so processing will not be delayed by the need to review submittals concurrently for coordination.
 - a. The Owner's Representative reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received.
 - 3. To avoid the need to delay installation as a result of the time required to process submittals, allow sufficient time for submittal review, including time for re-submittals.
- C. The Contractor shall place a permanent label or title block on each submittal for identification. Including the name of the entity that prepared each submittal on the label or title block.
 - 1. Assign a reference number to each submittal and re-submittal.
 - 2. Provide a space approximately 4 by 5 inches on the label or beside the title block on Shop Drawings to record the Contractor's review and approval markings and the action taken by the Contractor.
 - 3. Include the following information on the label for processing and recording action taken.
 - a. Project name
 - b. Date
 - c. Name and address of the Owner's Representative
 - d. Name and address of the Contractor
 - e. Name and address of the subcontractor
 - f. Name and address of the supplier
 - g. Name of the manufacturer
 - h. Number and title of appropriate Specification Section
 - i. Drawing number and detail references, as appropriate
 - 4. Each submittal must be stamped by the Contractor indicating that the submittal was reviewed for conformance with the Contract Documents.
 - 5. The Owner's Representative will not accept nor review submittals that have not been signed and stamped by the Contractor.
- D. Package each submittal appropriately for transmittal and handling.
 - 1. Transmit each submittal from the Contractor to the Owner's Representative.
 - 2. The Owner's Representative will not accept submittals received from sources other than the Contractor and will return same to the sender.

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3. On the transmittal, record relevant information and requests for Owner's Representative action.
4. On the form, or separate sheet, record deviations from Contract Document requirements, including variations, limitations and justification.
5. Include Contractor's certification that information complies with Contract Document requirement.

01.1.05 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. The Contractor shall prepare and submit to the Owner's Representative prior to submission of the first Application and Certificate for Payment, a construction schedule of the work activities from the Notice to Proceed until Substantial Completion.
 1. The work activities comprising the schedule shall be of sufficient detail to assure adequate planning and execution of the work and such that in the judgment of the Owner's Representative, it provides an appropriate basis for monitoring and evaluation of the progress of the work.
 2. A work activity is defined as an activity that requires substantial time and resources (manpower, equipment and/or material) to complete and must be performed before the contract is considered complete.
 3. The schedule shall indicate the sequence of work activities.
 4. Each activity shall be identified with a description, start date, completion date and duration. It shall include, but not be limited to the following items, as appropriate to this contract:
 - a. Shop drawing review by the Owner's Representative
 - b. Material and Equipment
 - i. Order
 - ii. Manufacture
 - iii. Delivery
 - iv. Installation
 - v. Check out
 - c. Performance tests and supervisory service activities
 - d. Excavation and grading
 - e. Concrete placement sequence
 - f. Construction of various facilities
 - g. Construction of various segments of utilities
 - h. Subcontractor's items of work
 - i. Allowance for inclement weather
 - j. Contract interfaces, date of Substantial Completion
 - k. Interfacing and sequencing with existing facilities and utilities
 - l. Sequencing of major construction activities
 - m. Milestones and completion dates
- B. Following response to the initial submittal, the Contractor shall print and distribute copies of the revised construction schedule to the Owner's Representative, Owner, Subcontractors, and other parties required to comply with scheduled dates.
 1. Post copies in the field office.
 2. When revisions are made, distribute to the same parties and post in the same locations.

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3. Delete parties from distribution when they have completed their assigned portion of the work and are no longer involved in construction activities.
- C. Revise the schedule after each meeting, event, or activity where revisions have been recognized or made. Issue the updated schedule concurrently with the report of each meeting.
- D. Prepare and submit to the Owner's Representative within 10 days after substantial completion a detailed construction schedule for outstanding work and punch list items.

01.1.06 SUBMITTAL SCHEDULE

- A. The Contractor shall submit initial submittal schedule in accordance with the **SECTION 00 72 00 GENERAL CONDITIONS** of the Contract and as follows:
 1. Coordinate submittal schedule with the subcontractors, Schedule of Values, and the list of products as well as the Contractor's Construction Schedule.
 2. Prepare the schedule in chronological order and provide the following information:
 - a. Scheduled date for the first submittal
 - b. Related Section number
 - c. Submittal category (Shop Drawings, Product Data, of Samples)
 - d. Name of the subcontractor
 - e. Description of the part of the work covered
 - f. Scheduled date for the Owner's Representative's final release
- B. Following response to the initial submittal schedule, the Contractor shall print and distribute copies of the revised submittal schedule to the Owner's Representative, Owner, subcontractors, and other parties required to comply with submittal dates indicated.
 1. Copies shall be posted in the field office.
 2. When revisions are made, the Contractor shall distribute to the same parties and post in the same locations.
 3. Delete parties from distribution when they have completed their assigned portion of the work and are no longer involved in construction activities.
- C. Revise the schedule after each meeting or activity where revisions have been recognized or made. Issue the updated schedule concurrently with the report of each meeting.

01.1.07 SHOP DRAWINGS

Shop drawings shall be submitted in accordance with the General Conditions and the following:

- A. The Contractor shall submit six (6) copies of shop drawings and/or manufacturer's literature as specified herein prior to commencing the fabrication manufacturer or installation of items to be incorporated in the work.
 1. Shop drawings shall present all diagrams, illustrations, performance data, manufacturer's literature, setting diagrams, patterns, templates, schedules and similar drawings and any other data necessary to demonstrate conformance with this Project Manual.
 2. Certifications where required by this Project Manual shall be included with shop drawing submittals.
- B. The Contractor shall review each shop drawing before submitting it to the Owner's Representative to determine that it is acceptable in terms of means, methods, techniques, sequences, and operation of construction, safety precautions and programs incidental thereto, all of which are the Contractor's responsibility.
 1. The Contractor shall call to the Owner's Representative's attention any shop drawing or detail thereon which varies from what the Project Manual has called for.

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2. Shop drawings that are submitted by the Contractor, but not required by the Project Manual, shall be returned to the Contractor and shall not be reviewed.
- C. Shop drawings which are reviewed by the Owner's Representative shall be stamped with the Owner's Representative's review action stamp prior to being returned to the Contractor.
 1. The Owner's Representative's review shall consist of checking only for conformance with the design concept of the project and compliance with the information given in the Contract Documents.
 2. The Contractor is responsible for dimensions to be confirmed and correlated at the job site for information that pertains solely to the fabrication processes of the techniques of construction and for coordination of the work of all trades.
- D. Do not use shop drawings without an appropriate final stamp indicating action taken.
- E. Items requiring shop drawing submittal are listed in **SCHEDULE 01 33 00 – A** at the end of this Section.

01.1.08 PRODUCT DATA

- A. The Contractor shall collect product data into a single submittal for each element of construction or system.
- B. Product data includes printed information, such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams, and performance curves.
- C. Mark each copy to show actual product to be provided.
 1. Where printed Product Data includes information on several products that are not required, mark copies to indicate the applicable information.
 2. Include the following information:
 - a. Manufacturer's printed recommendations.
 - b. Compliance with trade association standards.
 - c. Compliance with recognized testing agency standards.
 - d. Application of testing agency labels and seals.
 - e. Notation of dimensions verified by field measurement.
 - f. Notation of coordination requirements.
- D. The Contractor shall not submit Product Data until they have confirmed compliance with requirements of the Contract Documents.
- E. Submit four copies of each required submittal.
 1. The Owner's Representative will retain two copies, will forward one to the Owner, and will return one to the Contractor marked with action taken and corrections or modifications required.
 2. Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the reviewed submittal.
- F. Furnish copies of reviewed submittal to installers, subcontractors, suppliers, manufactures, fabricators, and other required for performance of construction activities.
 1. Show distribution on transmittal forms. Maintain one copy at the project site for reference.
 2. Do not proceed with installation until a copy of Product Data is in the Installer's possession.
 3. Do not permit use of unmarked copies of Product Data in connection with construction.
- G. Items requiring product data submittal are listed in **SCHEDULE 01 33 00 – A** at the end of this Section.

01.1.09 SAMPLES

- A. Submit full-size, fully fabricated samples cured and finished as specified and physically identical with the material or product proposed.

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- B. Samples include partial sections of manufactured or fabricated components, cuts or containers of materials, color range sets, and swatches showing color, texture, and pattern.
- C. Mount or display samples in the manner to facilitate review of qualities indicated.
 - 1. Include the following:
 - a. Specification section number and reference.
 - b. Generic description of the sample.
 - c. Sample source.
 - d. Product name or name of the manufacturer.
 - e. Compliance with recognized standards.
 - f. Availability and deliver time.
 - 2. Submit samples for review of size, kind, color, pattern, and texture.
 - a. Where variation in color, pattern, texture, or other characteristic is inherent in the material or product represented, submit at least three multiple units that show approximate limits of the variations.
 - b. Refer to other specification sections for requirements for samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation, and similar construction characteristics.
 - c. Refer to other sections for samples to be returned to the Contractor for incorporation in the special requests regarding disposition of sample submittals.
 - d. Samples not incorporated into the work, or otherwise designated as the Owner's property, are the property of the Contractor and shall be removed from the site prior to Substantial Completion.
- D. Except for samples illustrating assembly details, workmanship, fabrication techniques, connections, operation, and similar characteristics, submit three samples for review.
 - 1. The Owner's Representative will return one sample marked with the action taken.
- E. Prepare and distribute additional samples to subcontractors, manufactures, fabricators, suppliers, installers, and others as required for performance of the work.
 - 1. Show distribution on transmittal forms.
 - 2. Maintain reviewed samples at the project site for quality comparisons throughout the course of construction.
- F. Comply with submittal requirements to the fullest extent possible and Process transmittal forms to provide a record of activity.
- G. Items requiring sample submittal are listed in **SCHEDULE 01 33 00 – A** at the end of this Section.

01.1.10 QUALITY ASSURANCE SUBMITTALS

- A. The Contractor shall submit quality-control data, including design data, certifications, manufacturer's instructions, manufacturer's field reports, and other quality-control submittals as required under other sections of this Project Manual.
- B. Certifications: Where other sections of this Project Manual require certification that a product, material, or installation complies with specified requirements, submit a notarized certification from the manufacturer certifying compliance with specified requirements.
 - 1. Signature: Certification shall be signed by an officer of the manufacturer or other individual authorized to sign documents on behalf of the company.
- C. Inspection and Test Reports: Submit as required by other sections of this Project Manual.
- D. Items requiring quality assurance submittals are listed in **SCHEDULE 01 33 00 – A** at the end of this Section.

01.1.11 OWNER'S REPRESENTATIVE'S ACTION

- A. Except for submittals for the record or information, where action and return is required, the Owner's Representative will review each submittal, mark to indicate action taken, and return promptly.
- B. The Owner's Representative will stamp each submittal with a uniform action stamp.
- C. The Owner's Representative will mark the stamp appropriately to indicate the action taken, as follows:
 - 1. "No Exceptions Taken" The work covered by the submittal may proceed provided it complies with requirements of the Contract Documents.
 - 2. "Make Corrections Noted" The work covered by the submittal may proceed provided it complies with notations and corrections on the submittal and requirements of the Contract Documents.
 - 3. "Revise and Resubmit" Do not proceed with work covered by the submittal. Revise and resubmit without delay. Do not use, or allow others to use, submittals marked "Revise and Resubmit" at the Project Site or elsewhere where work is in progress.
 - 4. "Not Acc.(eatable)" Do not proceed with work covered by the submittal. Resubmit without delay. Do not use, or allow others to use, submittals marked "Not Acc." at the Project Site or elsewhere the work is in progress.
- D. The Owner's Representative will return unsolicited submittals to the sender without action.

01.1.12 OPERATION AND MAINTENANCE DATA

- A. The Contractor shall submit six (6) Operation and Maintenance Manuals to the Owner's Representative prior to start-up of any equipment for which said manual are to be provided.
- B. These manuals shall be received by the Owner's Representative seven (7) days before the first scheduled day of operator training, if required.
- C. The Contractor shall review each O & M Manual before submitting it to the Owner's Representative to ascertain that it is acceptable in terms of providing sufficient information and data to the Owner to instruct the Owner as to how to properly and safely operate and maintain the equipment to minimize operation and maintenance costs and down time.
- D. The manuals shall include:
 - 1. Factory catalog cuts on all mechanical equipment installed indicating specific model number and detailed parts lists.
 - 2. Shop drawings on all installed equipment bearing the Owner's Representative's stamp of acceptance.
 - 3. Specific handwritten instructions on start-up, operation, maintenance, adjustment, trouble shooting and shutdown.
 - 4. Maintenance schedules which describe daily, weekly, monthly, semi-annual, and annual maintenance work required for each component of the equipment.
- E. The Contractor shall submit the bound copies of the Operation and Maintenance Manual (O & M) Manuals to the Owner's Representative for review and acceptance.
- F. Upon acceptance, the manuals will be given to the Owner by the Owner's Representative.
- G. Items for which O & M Manuals are to be submitted are listed in **SCHEDULE 01 33 00 - B** at the end of this section.

PART 2 PRODUCTS (NOT USED)

PART 3 CONSTRUCTION REQUIREMENTS (NOT USED)

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SCHEDULE 01 33 00 – A
ITEMS REQUIRING SHOP DRAWING, PRODUCT DATA,
SAMPLE OR QUALITY ASSURANCE SUBMITTALS

DESCRIPTION
Bituminous Mix Design
Pavement Markings
Aggregate Sample Testing
Bituminous Testing

This schedule is provided for convenience. The Shop Drawings and O&M Manuals are required per individual sections of this Project Manual.

END OF SECTION

PART 1 GENERAL

01.1.01 DESCRIPTION OF THE WORK

- A. This section of the Project Manual includes reference to regulatory requirements that affect the project.
- B. All federal, state, and local regulatory requirements shall be complied with by the Contractor.

01.1.02 REQUIRED PERMITS, APPROVALS AND LICENSES

- A. The Contractor shall obtain all necessary local and/or state permits for the work including but not necessarily limited to the NDPDES.
- B. The Contractor shall be responsible for the payment of all permit and application fees the cost of which shall be included in the price bid for which the permit or application is required.
- C. An application packet with all related and subsequent requirements may be required from the North Dakota Department of Health website www.deq.nd.gov/WQ.
- D. The contractor shall complete a NOI & SWPP Plan for the project and provide the completed packet to the Engineer for review. The Engineer shall secure the Owners signature and submit the NOI.
- E. The Contractor shall be responsible for maintaining the SWPP and complying with all conditions of the permit. All costs associated with the permit and SWPP shall be included in the erosion control bid items of the project.
- F. NDDOT SP 3(14) shall be incorporated as part of these specifications and the Contractor shall comply with all provisions of the SP. All references to “NDDOT” or “Department” shall mean “OWNER” as described in this project manual.

01.1.03 PROTECTION OF AIR QUALITY

- A. Do not burn trash on construction site.
- B. If temporary heating devices are necessary for protection of work, they shall not cause air pollution.

01.1.04 DUST CONTROL

- A. Provide and maintain temporary site roadways, Owner's existing roads, and public roads used during construction operations in clean, dust free condition.
- B. Comply with local environmental regulations for dust control and directions of Owner. If Contractor's dust control measures are considered inadequate by Owner, Owner will require Contractor to take additional dust control measures.

01.1.05 ON-SITE HEALTH AND SAFETY REQUIREMENTS

- A. General
 - 1. Contractor is responsible for implementation and enforcement of safe Work practices including, but no limited to trenching; materials handling; operation of equipment; and safety of public during progress of Work.
 - 2. Payment
 - a. Included in Bid: cost for Work performed in OSHA Level of protection deemed necessary by the Contractor and any protection required due to means, methods and materials utilized by the Contractor.
 - b. Work specified in this section shall be included as part of the cost for the work for which protection is required.
- B. Quality Assurance
 - 1. Regulatory Requirements
 - a. Contractor shall plan for and ensure personnel comply with basic provisions of OSHA Safety and Health Standards (29 CFR 1910) and General Construction Standards (29 CFR 1926) as

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appropriate.

- b. Contractor shall comply with applicable laws and regulations of any public body having jurisdiction for safety of persons or property.

C. Operations and Equipment Safety

1. Contractor is responsible for initiating, maintaining, and supervision of safety precautions and programs in connection with Work.
 - a. Contractor shall take necessary precautions for safety of employees on Project site and other persons and organizations who may be affected by Project.
2. Contractor's duties and responsibilities for safety in connection with Work shall continue until such time as Work is complete and Owner has issued notice to Contractor that Work is complete.

D. Health & Safety

1. Contractor is responsible for implementation and enforcement of health and safety requirements and shall take necessary precautions and provide protection for following.
 - a. Personnel working on or visiting Project site, irrespective of employer.
 - b. Work and materials or equipment to be incorporated in Work area on or offsite.
 - c. Other property at or adjacent to Project site.
 - d. Public exposed to job related operations or potential release of toxic or hazardous materials.

01.1.06 UNDERGROUND UTILITIES

Contractors, subcontractors, and any firm or individual intending to do work on this contract shall contact all utility firms in the affected area of construction a minimum (2) days prior to beginning construction so that affected utilities will be located and marked.

PART 2 PRODUCTS (NOT USED)

PART 3 CONSTRUCTION REQUIREMENTS (NOT USED)

END OF SECTION

PART 1 GENERAL

01.1.01 SUMMARY

- A. The Contractor is responsible for quality control and quality assurance of their work and the work of their subcontractors.
- B. Testing and inspecting services are required to verify compliance with requirements specified or indicated.
 - 1. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
 - 2. Specified tests, inspections, and related actions do not limit Contractor's quality-control procedures that facilitate compliance with the Contract Document requirements.
 - 3. Requirements for Contractor to provide quality-control services required by the Owner's Representative or authorities having jurisdiction are not limited by provisions of this Section.

01.1.02 SUBMITTALS

- A. Prepare and submit certified written reports that include the following:
 - 1. Date of issue.
 - 2. Project title and number.
 - 3. Name, address, and telephone number of testing agency.
 - 4. Dates and locations of samples and tests or inspections.
 - 5. Names of individuals making tests and inspections.
 - 6. Description of the Work and test and inspection method.
 - 7. Identification of product and Specification Section.
 - 8. Complete test or inspection data.
 - 9. Test and inspection results and an interpretation of test results.
 - 10. Ambient conditions at time of sample taking and testing and inspecting.
 - 11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
 - 12. Name and signature of laboratory inspector.
 - 13. Recommendations on re-testing and re-inspecting.
- B. For Owner's records, submit copies of
 - 1. Permits
 - 2. Licenses
 - 3. Certifications
 - 4. Inspection reports
 - 5. Releases
 - 6. Jurisdictional settlements
 - 7. Notices
 - 8. Receipts for fee payments
 - 9. Judgments
 - 10. Correspondence

11. Records

12. Similar documents, established for compliance with standards and regulations bearing on performance of the Work to the Owner's Representative.

01.1.03 QUALITY CONTROL

- A. The Contractor shall provide the quality-control services specified and required within specific Specification Sections.
1. Engage a qualified testing agency to perform these quality-control services.
 2. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
 3. Submit a certified written report, in duplicate, of each quality-control service.
 4. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
 5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- B. Owner will engage a testing agency to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner.
1. Testing agency will notify Owner's Representative and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
 2. Testing agency will submit a certified written report of each test, inspection, and similar quality-control service to Owner's Representative with copy to Contractor and to authorities having jurisdiction.
 3. Testing agency will submit a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
 4. Testing agency will interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.
 5. Testing agency will retest and reinspect corrected work, the cost of which shall be borne by the Contractor.
- C. Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that revised or replaced Work that failed to comply with requirements established by the Contract Documents.
- D. Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested.
1. Notify agency sufficiently in advance of operations to permit assignment of personnel.
 2. Provide the following:
 - a. Access to the Work.
 - b. Incidental labor and facilities necessary to facilitate tests and inspections.
 - c. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
 - d. Facilities for storage and field-curing of test samples.
 - e. Delivery of samples to testing agencies.
 - f. Preliminary design mix proposed for use for material mixes that require control by testing agency.
 - g. Security and protection for samples and for testing and inspecting equipment at Project site.
- E. Coordinate sequence of activities to accommodate required quality assurance and quality-control services

with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.

1. Schedule times for tests, inspections, obtaining samples, and similar activities.

PART 2 PRODUCTS (NOT USED)

PART 3 CONSTRUCTION REQUIREMENTS

01.3.01 REPAIR AND PROTECTION

- A. On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
 1. Provide materials and comply with installation requirements specified in other Sections of this Project Manual.
 2. Restore patched areas and extend restoration into adjoining areas in a manner that eliminates evidence of patching.
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION

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PART 1 GENERAL

This section of the Project Manual describes the temporary facilities to be provided by the Contractor as necessary to complete the work as specified herein and shown on the Drawings.

01.1.01 USE CHARGES

- A. The cost or use charges for temporary facilities shall be considered indicated in the cost for other items of the work and no additional compensation will be made therefore.
- B. Other entities shall be allowed to use temporary services and facilities without cost, including, but not limited to, testing and inspecting agencies and personnel of authorities having jurisdiction over the work.

01.1.02 PROJECT CONDITIONS

- A. The following conditions apply to use of temporary services and facilities by all parties engaged in the Work:
 - 1. Temporary services and facilities shall be kept clean and neat.
 - 2. Temporary services and facilities shall be relocated as required by progress of the Work.
- B. Facilities shall be located where they will serve Project adequately and result in minimum interference with performance of the Work.
 - 1. Coordinate location(s) with the Owner's Representative.
 - 2. Relocate and modify facilities as required.

01.1.03 SUPPORT FACILITIES INSTALLATION

Field offices (where required), storage sheds, sanitary facilities, and other temporary construction and support facilities shall be located for easy access and security.

01.1.04 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Environmental Protection: The Contractor shall provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
- B. Security Enclosure and Lockup: The Contractor shall install substantial temporary enclosure around partially completed areas of construction.
 - 1. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security.
- C. Temporary security measures such as fences shall be provided by the Contractor where the construction requires removal or relocation of existing security improvements.

01.1.05 TRAFFIC CONTROL

- A. The Contractor shall be responsible for traffic control on the Project, and shall furnish, erect and maintain all necessary traffic control devices required to provide safe movement of vehicular traffic through the Project, in accordance with Drawings and the following.
 - 1. The Contractor shall also be responsible for protection of pedestrian traffic during construction.
- B. Prior to the start of any construction operations that necessitate traffic control signing that is the Contractor's or Subcontractor's responsibility, the Contractor shall make available for inspection (24 hours prior to installation) all traffic control devices to be furnished and used by the Contractor in order to insure conformance with the Manual on Uniform Traffic Control Devices for Streets and Highways.
- C. The Contractor shall modify his proposed traffic control devices as deemed necessary by the Owner's Representative.
- D. Traffic control devices include, but are not limited to barricades, warning signs, lane marking, trailers, flashers, cones and drums as required, and sufficient barricade weights to maintain barricade stability.
- E. No hand-lettered signs will be approved for installation.

01.1.06 WORK INCLUDED

The Contractor shall provide temporary services addressed in this section and maintain same until final completion of project.

PART 2 PRODUCTS (NOT USED)

PART 3 CONSTRUCTION REQUIREMENTS

01.3.01 TRAFFIC CONTROL

A. Daily Inspections

1. The Contractor shall provide surveillance at least once every 24 hours of the traffic control devices to ensure that they are properly placed and in good condition.
2. The Contractor shall immediately repair or replace any traffic control device that is damaged, moved, stolen, or destroyed.
3. Traffic control devices shall be maintained in such a manner that the cleanliness, reflectorization and position is acceptable to the Owner's Representative.
4. The Contractor shall submit to the Owner's Representative a checklist certifying that the daily inspection of the traffic control devices has been taken.
5. The checklist shall be in a form approved by the Owner's Representative.

B. Contact Persons: The names, addresses and telephone numbers (not long distance) of at least two local individuals who will be available during non-working hours to maintain or replace traffic control devices shall be furnished to the Owner's Representative. These individuals shall have some knowledge of the maintenance and the proper placement of traffic control signs and devices.

C. Failure to Maintain: If at any time, the Contractor fails to adequately maintain any of the traffic control devices, the Owner may proceed to perform the maintenance and deduct the cost thereof from any monies due or coming due the Contractor.

D. Flag Persons

1. The Contractor shall provide flaggers when, in the opinion of the Owner's Representative, their operations may constitute a hazard to traffic.
2. The use of flaggers shall be as directed by the Owner's Representative and the cost of which shall be included in the price bid for the work that requires traffic control, and no direct compensation will be made therefore.
3. Qualified flag persons shall be provided by the Contractor in conformance with provisions set forth in Chapter 6E of the Manual on Uniform Traffic Control Devices and as modified herein:
 - a. Flag persons, while on duty shall wear a fluorescent orange hard hat and vest.
 - b. The vest shall be reflectorized if worn at night.
 - c. Flag persons shall be fully clothed when on duty (shirt or blouse, slacks or trousers and sturdy shoes).
4. Flag persons shall use an approved "stop-slow" paddle or standard when directing traffic.

E. Access Maintenance: The Contractor shall maintain access to all abutting properties, especially for emergency vehicles, and minimize inconvenience to abutting property owners.

1. Providing access maintenance shall be included in the price bid for work affecting access and no additional compensation will be made, therefore.

F. Dust Control: The Contractor shall be responsible for all necessary dust control on streets under construction and any boulevards.

1. Dust control, in the form of street cleaning and other measures, shall also be provided on adjacent streets or highways where tracking has deposited soil and mud on the road surface.

**MILL & BITUMINOUS OVERLAY
COUNTY ROADS 1 & 16
RICHLAND COUNTY, NORTH DAKOTA**

**DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 52 00 – CONSTRUCTION FACILITIES
PROJECT No. ER25-00-044**

2. Providing Dust Control shall be included in the price bid for the work that requires dust control, and no additional compensation will be made, therefore.
- G. Protection of Pedestrians: The Contractor shall be responsible for the protection of pedestrian and bicycle traffic on sidewalks and bike paths and at intersections by providing a temporary gravel surface after the sidewalk designated for removal has been removed.
1. Providing protection for pedestrians as specified herein shall be included in the price bid for the work that requires the protection of pedestrians, and no additional compensation will be made, therefore.
 2. The contractor shall install and maintain flashing lamps on all advance warning signs.

END OF SECTION

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MILL & BITUMINOUS OVERLAY
COUNTY ROADS 1 & 16
RICHLAND COUNTY, NORTH DAKOTA

DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 71 13 – MOBILIZATION
PROJECT No. ER25-00-044

PART 1 GENERAL

31.1.01 DESCRIPTION

This section of the Project Manual includes mobilization of equipment, materials and personnel to the work site.

31.1.02 RELATED WORK SPECIFIED ELSEWHERE

The following items of related work are specified and included in other sections of these Specifications:

SECTION 01 11 00 SUMMARY OF WORK
SECTION 01 33 00 SUBMITTAL PROCEDURES

31.1.03 REFERENCE SPECIFICATIONS

- A. The work under this section shall be performed in accordance with the provisions of the North Dakota Department of Transportation's *Standard Specifications for Road and Bridge Construction*, 2024 Edition **SECTION 702** unless otherwise noted.
- B. The referenced section and appurtenant sections thereto of the North Dakota Department of Transportation's *Standard Specifications for Road and Bridge Construction* shall be considered as a part of this Project Manual.
- C. Provisions of the North Dakota Department of Transportation's *Standard Specifications for Road and Bridge Construction* are subject to modification by the provisions of this Project Manual.

PART 2 PRODUCTS (NOT USED)

PART 3 CONSTRUCTION REQUIREMENTS (NOT USED)

END OF SECTION

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PART 1 GENERAL

01.1.01 DESCRIPTION OF THE WORK

This section of the Project Manual includes the submittals and procedures which must be completed before Final Payment can be considered by the Owner.

01.1.02 RELATED WORK

See **SECTION 01 29 00 PAYMENT PROCEDURES** for requirements for Applications for Payment for Substantial and Final Completion.

01.1.03 SUBSTANTIAL COMPLETION

- A. Before requesting a review for determining date of Substantial Completion, the Contractor shall complete the following:
1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
 2. Complete final clean up requirements.
 3. Touch up and otherwise repair and restore damaged portions of the work to eliminate visual defects.
- B. The Contractor shall submit a written request for review for Substantial Completion.
1. Upon receipt of request, the Owner's Representative, the Owner and the Contractor's Representative will proceed with the review.
 2. The Owner's Representative will prepare a deficiency list of items found to be incomplete or incorrect and will prepare the Certificate of Substantial Completion.
 3. The Contractor shall request a subsequent review when the Work identified in previous reviews as incomplete is completed or corrected.
 4. Results of completed reviews will form the basis of requirements for Final Completion.

01.1.04 FINAL COMPLETION

- A. Before requesting final review for determining date of Final Completion, the Contractor shall complete the following:
1. Submit a final application for payment according to **SECTION 01 29 00 PAYMENT PROCEDURES**.
 2. Submit a certified copy of the Owner's Representative's Substantial Completion review list of items to be completed or corrected (punch list), endorsed and dated by Owner's Representative.
 - a. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 3. Submit a written request for final review for acceptance.
 - a. Upon receipt of request, the Owner's Representative, the Owner, agents of the respective funding agencies and the Contractor will either proceed with the review or the Owner's Representative will notify the Contractor of unfulfilled requirements.
 4. The Owner's Representative will prepare a final Certificate for Payment after the review or will notify Contractor of any remaining deficiencies.

PART 2 PRODUCTS (NOT USED)

PART 3 CONSTRUCTION REQUIREMENTS

01.3.01 FINAL CLEAN UP

- A. Provide final clean up.
1. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and anti-pollution regulations.

**MILL & BITUMINOUS OVERLAY
COUNTY ROADS 1 & 16
RICHLAND COUNTY, NORTH DAKOTA**

**DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 77 00 – CLOSEOUT PROCEDURES
PROJECT No. ER25-00-044**

- B. Employ experienced workers or professional cleaners for final clean up.
1. The Contractor shall complete the following clean-up operations before requesting review for certification of Final Completion:
 - a. Clean Project site, and all areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - b. Remove all construction debris and surplus materials from the site.
 - c. Restore turf areas in staging areas and all areas disturbed by the construction.
 - d. Remove all traffic control devices.
 - e. Sweep paved areas broom clean.
 - f. Remove petrochemical spills, stains, and other foreign deposits.
 - g. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
 - h. Remove tools, construction equipment, machinery, and surplus material from the site.
 - i. Remove debris from limited access spaces, including equipment vaults, manholes, and similar spaces.
- C. Comply with safety standards for cleaning.
1. Do not burn waste materials.
 2. Do not bury debris or excess materials on Owner's property.
 3. Do not discharge volatile, harmful, or dangerous materials into drainage systems.
 4. Remove waste materials from Project site and dispose of lawfully.

01.3.02 PROJECT RECORD DOCUMENTS

Record drawings shall be maintained by the Contractor and comply with the following:

- A. The Contractor shall submit one set of marked-up Record Prints to the Owner's Representative at the conclusion of construction.
- B. The Contractor shall maintain one set of prints of the Contract Drawings and Shop Drawings.
1. The Contractor shall mark record prints to show the actual installation where installation varies from that shown on the Drawings.
 - a. The mark ups should be made by the individual or entity that obtained the record data, whether the individual or entity is the installer, subcontractor, or similar entity.
 - b. Give particular attention to information on concealed elements that will be difficult to identify or measure and record after completion of the work.
 - c. Record data as soon as possible after obtaining it. Record and check the markup before enclosing concealed installations.
 - d. Record locations of underground pipes, fittings, corporation stops, and valves.
 2. The Contractor shall mark the Contract Drawings or Shop Drawings, whichever is most capable of showing actual physical conditions, completely and accurately.
 - a. If Shop Drawings are marked, the cross-reference on the Contract Drawings shall be shown.
 3. The Contractor shall mark record sets with erasable, red-colored pencil.
 - a. The use other colors to distinguish between changes for different categories of the Work at same location is permissible.
 4. The Contractor shall note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.

**MILL & BITUMINOUS OVERLAY
COUNTY ROADS 1 & 16
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**DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 77 00 – CLOSEOUT PROCEDURES
PROJECT No. ER25-00-044**

- C. The Contractor shall maintain one copy of each submittal during the construction period for Project Record Document purposes.
 - 1. The Contractor shall post changes and modifications to Project Record Documents as they occur.

END OF SECTION

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**MILL AND BITUMINOUS OVERLAY
AND SHOULDER PREPARATION
COUNTY ROADS 1 & 16
RICHLAND COUNTY, NORTH DAKOTA
SPECIAL CONDITIONS
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SPECIAL CONDITIONS

SPECIAL CONDITIIONS

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SPECIAL CONDITIONS

SC-1

The North Dakota Department of Transportation "Specification for Road and Bridge Construction", 2024 Edition and the Supplemental Specifications included shall govern for this project except where its requirements conflict with the requirements of the plans or these specifications. In all cases of conflict, the Specifications and Plans shall govern.

The "General Provisions" section of the NDDOT Specifications for Road and Bridge Construction shall be superseded by these Specifications unless specific sections are referenced in the Specifications. The following shall be made to North Dakota Department of Transportation Standard Specifications for Road and Bridge Construction:

- A. "Engineer" shall be Interstate Engineering, Inc.
- B. "Director" shall be the Richland County Engineer.

SC-2 WARRANTY

The Contractor shall guarantee workmanship and materials for a period of time of one (1) year after final acceptance by the Richland County Commission.

SC-3 PLAN DIMENSIONS

Depths shown on the typical sections for pavement sections are approximate. Plan quantity per mile will be placed uniformly except where otherwise directed by the Engineer.

SC-4 TRAFFIC CONTROL

Traffic Control layouts have been provided in the plans as a guide. The Contractor shall be responsible for ensuring the safety of the traveling public through means of barricades, signs, delineator drums, and other appropriate traffic control devices. Traffic control signs and devices will be required to be moved multiple times during the course of construction.

All costs associated with supplying, installing, relocating, and maintaining all traffic control signs and devices shall be included in the price bid for "Traffic Control Signs."

SC-5 MAINTAINING ACCESS

The Contractor shall be responsible for providing continuous access to all residential dwellings and business establishments along and adjacent to this project whenever possible.

The Contractor shall be responsible for coordinating and communicating with adjacent landowners and residents regarding access control at the site initially, and whenever changes occur.

All costs associated with the coordination, labor, materials, installation, and maintenance of the proposed approved access control plan shall be included in the price bid for "Construction Traffic Control."

SC-5 LABORATORIES

The Contractor's Laboratory and Bituminous Laboratory in Section 1 Bid shall be used for all Sections awarded. No additional payment shall be made for its use in Section 2, work if accepted and awarded.

SC-6 SEEDING

Class One Seed mixture shall be in accordance with table 251-01, Section 251.03 of Standard Specifications and the seedbed shall be prepared following Section 251.04 of standard Specifications.

100% of the seed shall be sown prior to hydraulic mulching.

Contractor shall seed and mulch 10' off Roads edges that are under construction along private driveways and lawns that intersect County Road 1.

Seeding shall be paid for by actual field measurements of the placement areas contained within the 10' shoulder preparation area. Any areas disturbed outside these limits as a result of construction activities shall be seeded and will not be included in measurement for payment

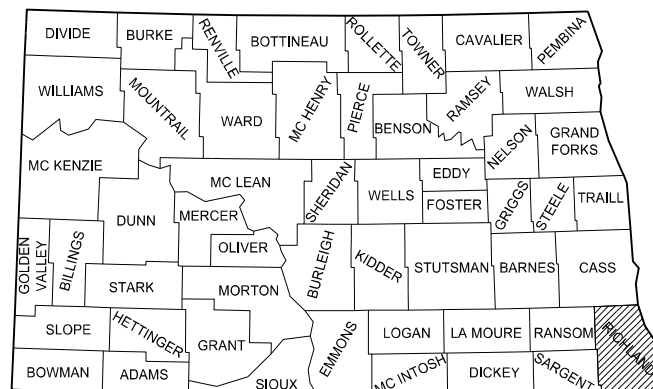
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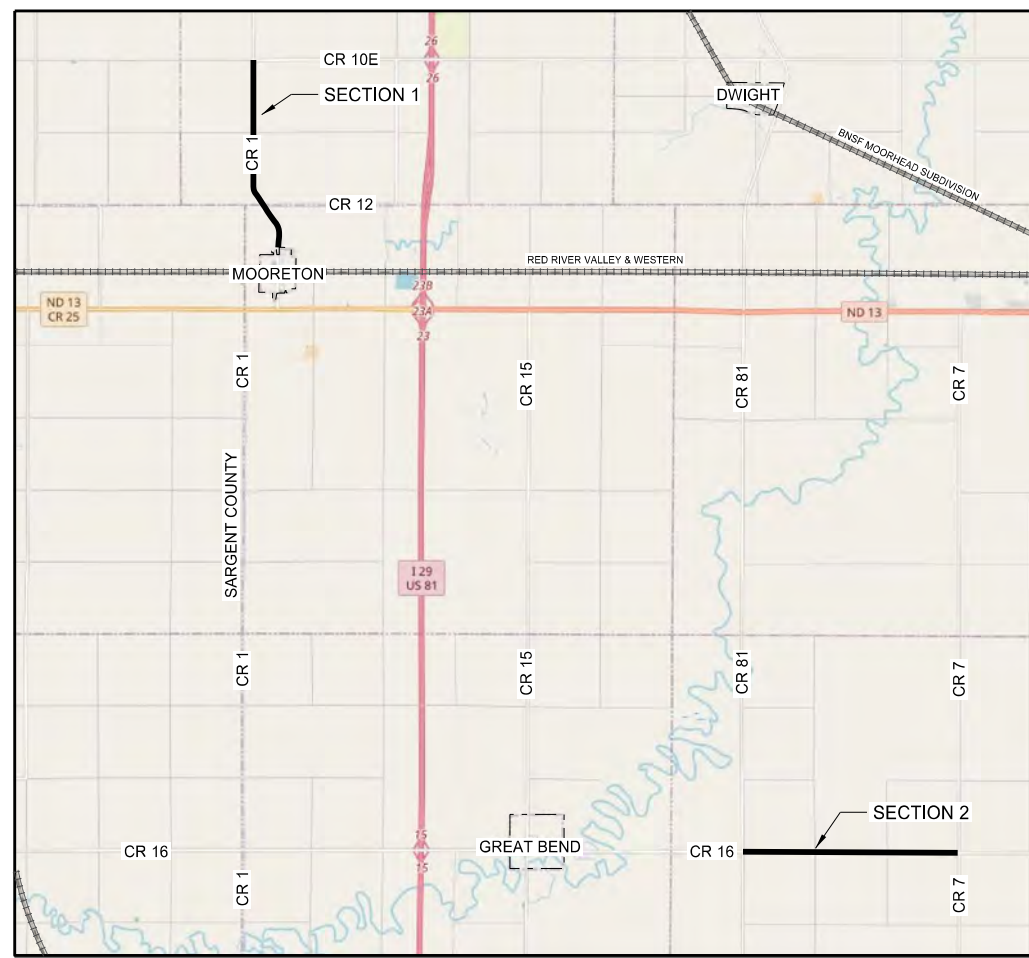
CONSTRUCTION PLANS FOR D COUNTY BITUMINOUS MILL & OVERLAY & SHOULDER PREPARATION

SECTION 1 - SHOULDER PREPARATION AND MILL & OVERLAY OF CR1 CP-0001(025)
SECTION 2 - MILL & OVERLAY OF CR 16 CP-0016(025)

PREPARED FOR
RICHLAND COUNTY HIGHWAY DEPARTMENT
RICHLAND COUNTY, NORTH DAKOTA



STATE COUNTY MAP



LOCATION MAP
NOT TO SCALE

LOCAL APPROVAL:
4/28/2025

BY: Jesse J. Sedler
RICHLAND COUNTY, NORTH DAKOTA
COUNTY ENGINEER



APPROVED :
4/28/2025

BY: Walter DeVries
INTERSTATE ENGINEERING, INC.
PROJECT ENGINEER



COUNTY OFFICIALS		
ENGINEER: JESSE SEDLER		ROAD SUPERINTENDENT: DONNIE WITT
AUDITOR: SANDY FOSSUM		
COMMISSION: TIM CAMPBELL	COMMISSION: ROLLIE EHLERT	COMMISSION: TERRY GOERGER
COMMISSION: NATHAN BERSETH	COMMISSION: PERRY MILLER	

REVISION NO.	DATE	BY	DESCRIPTION



Interstate Engineering
1999 4th Street N., Suite A
PO Box 667
Wahpeton, ND 58075
(701) 642.5521
www.interstateeng.com

SECTION

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G 7	ESTIMATED QUANTITIES
D 1	DETAILS
TS 1-2	TYPICAL SECTIONS
WZ 1-4	WORK ZONE TRAFFIC CONTROL
HR 1	HAUL ROAD RESTRICTIONS

LIST OF STANDARD DRAWINGS

STANDARD NO.	DESCRIPTION
D101-1, 2, 3 & 4	NDDOT ABBREVIATIONS
D101-10	NDDOT UTILITY COMPANY AND ORGANIZATION ABBREVIATIONS
D101-20 & 21	LINE STYLES
D101-30, 31 ,32, & 33	SYMBOLS
D-704-2	TRAFFIC CONTROL FOR CORING OF HOT BITUMINOUS PAVEMENT
D-704-7	BREAKAWAY SYSTEMS FOR CONSTRUCTION ZONE SIGNS – PERFORATED TUBE
D-704-8	BREAKAWAY SYSTEMS FOR CONSTRUCTION ZONE SIGNS – U-CHANNEL POST
D-704-9	CONSTRUCTION SIGN DETAILS – TERMINAL AND GUIDE SIGNS
D-704-10	CONSTRUCTION SIGN DETAILS – REGULATORY SIGNS
D-704-11	CONSTRUCTION SIGN DETAILS – WARNING SIGNS
D-704-13	BARRICADE AND CHANNELIZING DEVICE DETAILS
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D-704-15	ROAD CLOSURE LAYOUTS
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D-704-26	MISCELLANEOUS SIGN LAYOUTS
D-704-27	MOBILE OPERATION (PAVEMENT MARKING)
D-704-50	PORTABLE SIGN SUPPORT ASSEMBLY
D-706-1	BITUMINOUS LABORATORY
D-762-4	PAVEMENT MARKINGS



REV NO	DATE	BY	DESCRIPTION

RICHLAND COUNTY BITUM MILL & OVERLAY & SHOULDER PREPARATION

RICHLAND COUNTY HIGHWAY DEPARTMENT

RICHLAND COUNTY, NORTH DAKOTA

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DRAWN BY: _____ RO _____ DO _____

SURVEYED BY: _____ TA _____

CHECKED BY: _____

PROJECT NO.: ER280044

DATE: APRIL 2025

Interstate Engineering

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Wahpeton, ND 58075

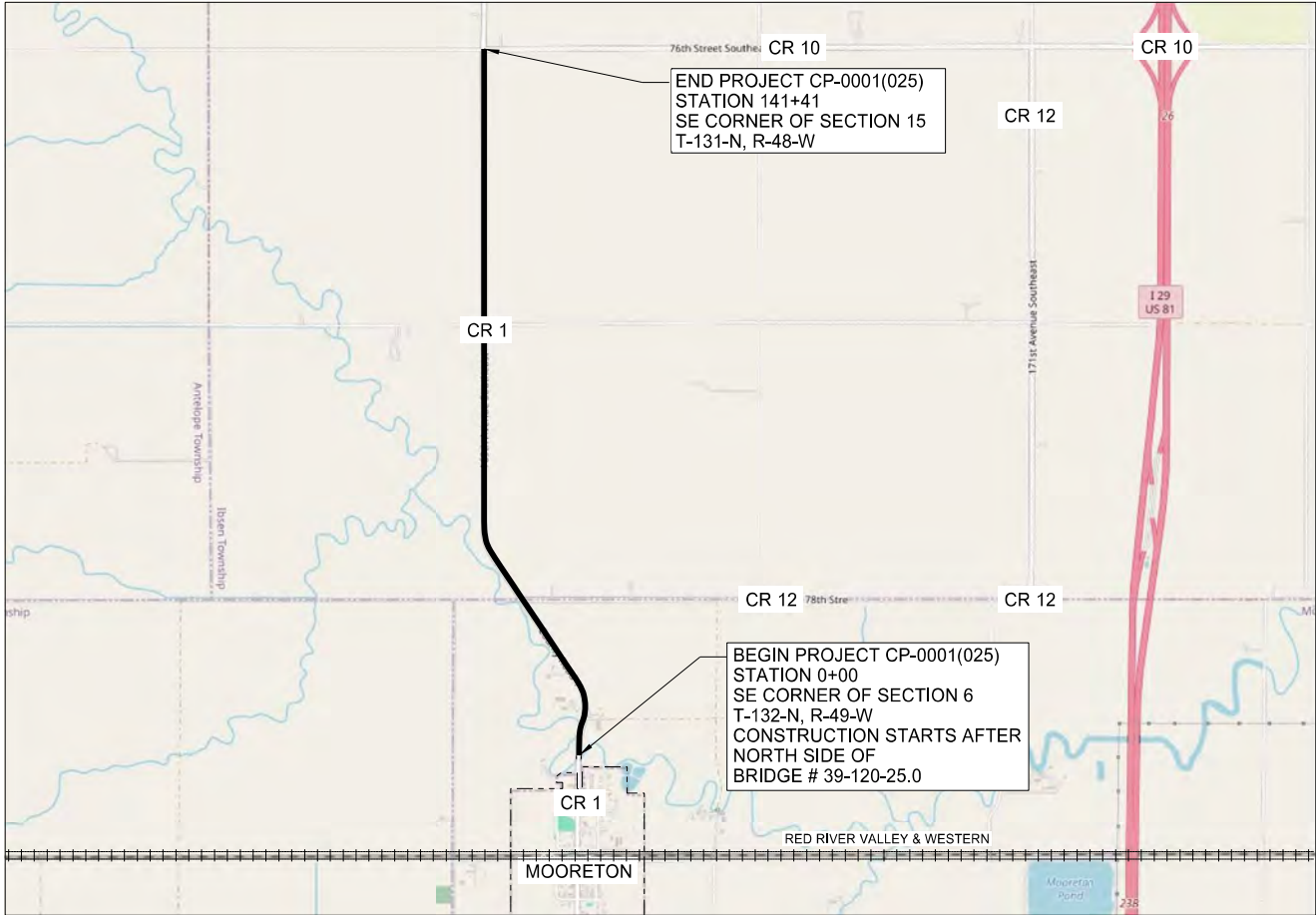
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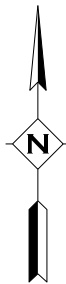
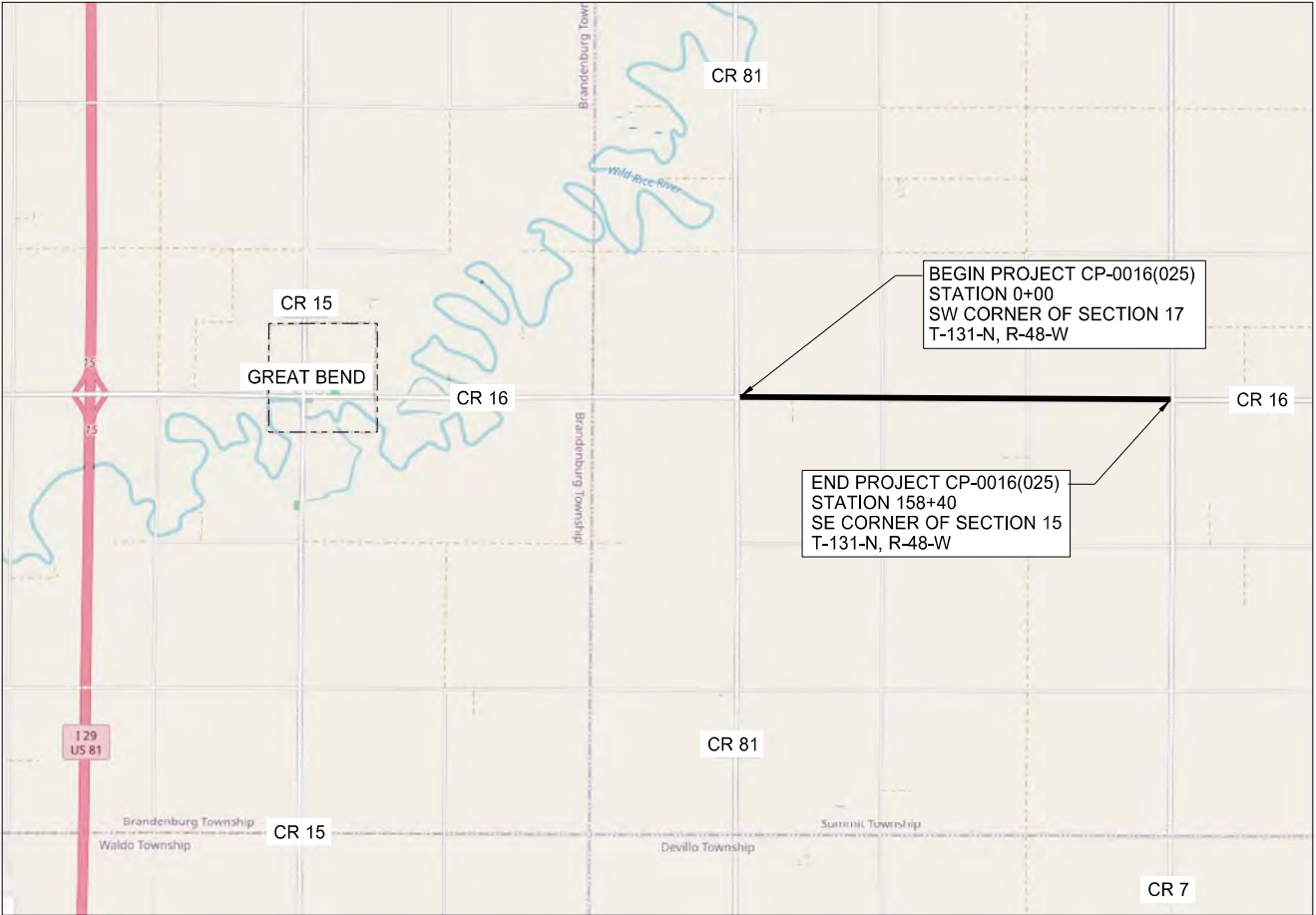
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SECTION 1



SECTION 2



REV	NO	DATE	BY	DESCRIPTION

RICHLAND COUNTY BITUM MILL & OVERLAY & SHOULDER PREPARATION RICHLAND COUNTY HIGHWAY DEPARTMENT RICHLAND COUNTY, NORTH DAKOTA			
SCOPE OF WORK			
DRAWN BY: RO	SURVEYED BY: DO	DESIGNED BY: TA	PROJECT NO: ER250044
CHECKED BY: DO			DATE: APRIL 2025

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DIMENSIONS: Thickness shown on the typical sections for surfacing are to be used uniformly throughout the project unless otherwise authorized by the Engineer. Plan tonnages provided by the basis of estimate contain an additional 10% allowance for areas that vary from the typical section. It is intended that following the completion of the leveling course the Engineer will decide on an appropriate wear course thickness, that will uniformly distribute the remaining plan quantity throughout the project.

SEQUENCE OF WORK: Milling and shoulder preparation operations shall be complete prior to paving operations beginning. Contractor shall keep all operations within sufficient distance of each other to allow a 20-minute maximum wait time for the general public traveling through the construction project.

STAGING: The Richland County Pit in Hankinson is not available for use on this project. The Contractor shall be responsible for obtaining pit and staging areas for this project. No extra payment shall be made for these sites.

1. Richland County Highway Department has a stockpile of Bituminous Millings located at their Hankinson North Dakota County Pit Site on the West side of Lake Elsie.
2. The contractor may use the county millings if they run out of millings from the project milling but are not required to and may also use their own millings if they run out of milling from project milling.
3. The contractor will be responsible for any and all costs for loading, hauling, and crushing the County stockpile millings if they so choose to use them.
4. All costs shall be included in the price for the bid item “Super Pave FAA 43”.

105-P01 UTILITIES: No utility relocations or adjustments are planned. All utilities on the project need to be protected and remain in existing location.

105-P02 PAVEMENT SWEEPING: Sweep paved areas that were used by construction traffic before opening these areas to public traffic.

230-P01 SHOULDER PREPARATION:

1. “Shoulder Preparation” shall be performed on County Road 1 utilizing a “shoulder wedge” and shall be installed in accordance with the plan notes.
2. The bid item for “Shoulder Preparation” shall include the removal of vegetation, topsoil, broken asphalt, and soil to create a wedge along the existing roadway shoulder.
 - Shoulder Preparation shall be completed prior to paving operations. If the contractor chooses to do so, the shoulder preparation may be completed prior to milling operations, however, any areas found needing additional aggregate or removal of aggregate upon completion of milling operations shall be rectified at no cost to the owner.
 - The shoulder wedge shall be backfilled with millings obtained from the project and recompactd.
 - The contractor shall run a shouldering disk over the shoulder preparation area 2 times in order to help break up the topsoil.
3. After the roadway has been paved, the removed topsoil shall be replaced along the pavement edges. The topsoil shall be worked so it is free of lumps and clods, including any dragging or disking that is necessary. Any broken asphalt shall be removed. “the contractor shall run a shouldering disk over the area to receive shoulder preparation 2 times before the topsoil is bladed off the gravel added.”
 - The Contractor shall use a shouldering disk to pull the topsoil back up the paved slough.
 - The shouldering disk shall be run over the material a minimum of 2 times.
 - The Contractor shall also run a drag section over the topsoil after it has been replaced to level it out.
 - “The contractor shall use a Harley Rake in front of houses and farmsteads to level off the topsoil.”

- “The area in front of farmsteads shall be seeded with a lawn mixture and Hydro Mulched.”

All costs associated with Shoulder Wedge placing, disking, dragging of replaced shoulder material, and broken asphalt removal shall be included in the price bid for “Shoulder Preparation.”

4. Payment for “Shoulder Preparation” shall be per mile, where one mile includes both sides of the roadway.

SEEDING

1. Contractor Shall apply class one seeding according to Section 251 of the NDDOT standard specifications.
2. Class One Seed mixture shall be in accordance with table 251-01, Section 251.03 of Standard Specifications and the seedbed shall be prepared following Section 251.04 of Standard Specifications.
3. 100% of the seed shall be sown prior to hydraulic mulching.
4. Contractor shall seed and mulch 10’ off of Roads edges, that are under construction, along private driveways and Lawns that intersect County Road 1.
5. Seeding will be paid by actual field measurement of the placement areas contained within the 10’ shoulder preparation area. Any areas disturbed outside these limits as a result of construction activities shall be seeded and will not be included in measurement for payment.

MULCHING

1. The contractor shall apply Hydraulic Mulch in accordance with section 253 of the NDDOT standard specifications.
2. The contractor shall apply hydraulic mulch to a distance of 10’ off of the road under construction’s edge, along private driveways and lawns that intersect County Roads 1.
3. Hydraulic Mulching will be paid by actual field measurements of the placement areas contained within the 10’ shoulder preparation area. Any areas hydraulic mulched outside these limits as a result of construction activities shall be hydraulic mulched and will not be included in measurement for payment.

AGGREGATE BASE COURSE CL5:

1. All costs associated with preparing the area behind approaches, hauling, placing, and compacting the material shall be included in the price bid for “Aggregate Base Course CL5.”



REV NO	DATE	BY	DESCRIPTION

RICHLAND COUNTY BITUM MILL & OVERLAY & SHOULDER PREPARATION

RICHLAND COUNTY HIGHWAY DEPARTMENT

RICHLAND COUNTY, NORTH DAKOTA

NOTES

DRAWN BY: RO

CHECKED BY: DD

SURVEYED BY: TA

DESIGNED BY: TA

PROJECT NO: ER250044

DATE: APRIL 2025

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302-P02 SHOULDER AGGREGATE:

- 1. Shoulder aggregate shall consist of millings generated from milling operations on this project.
- 2. Shoulder aggregate shall be compacted in accordance with Section 302.04 of the Standard Specifications.
- 3. All costs associated with hauling, placing, and compacting the material shall be included in the price bid for "Shoulder Aggregate".

401-P01 FOG SEAL: Apply fog seal with the following requirements:

- 1. Apply fog seal to the entire roadway including sloughs at a rate of 0.10 gal/SY (Oil only).
- 2. The dilution of the fog seal is 50% water and 50% CSS-1H. Dilution shall be done by supplier.
- 3. The fog coat shall be placed after the final rolling of the final lift of pavement while the bituminous pavement is still warm.

411-P01 MILLING PAVEMENT SURFACE:

- 1. Payment for milling shall be by the square yard based on the actual top width (estimated at 24). Sloughs, where present, will not be measured for payment, but shall be included in the bid item "milling pavement surface."
- 2. The proposed milling depth on all sections is 1" at Centerline. Depth of milling shall vary dependent on field conditions to produce a uniform 2% roadway cross slope.
- 3. Milled tapers will be required to produce transitions to and from existing roadways, and railroad tracks. No additional measurement or payment shall be provided for this work, as it shall be considered included in the price bid for "Milling Pavement Surface."
- 4. Temporary asphalt wedges shall be installed at all milled tapers to produce a smooth transition until paving operations take place. Millings generated from the project shall be considered acceptable material to create the temporary asphalt wedge. No additional measurement or payment shall be provided for this work, as it shall be considered included in the price bid for "Milling Pavement Surface."

430-P01 HOT BITUMINOUS PAVEMENT:

- 1. Asphalt millings generated from milling operations on this project shall be used as shouldering material on County Roads 1 to produce Recycled Asphalt Pavement (estimated 2,213 tons at 20%) for this project.
- 2. It is estimated that there will be approximately 4,673 tons of millings generated on this project.
- 3. Contractor to provide additional material required to produce the Recycled Asphalt pavement for this project.

430-P02 HOT BITUMINOUS PAVEMENT: The hot bituminous pavement on County Road 1, shall be placed in two lifts consisting of a 0.75" base course and 1.25" wear course. All lifts shall be placed with a paver. All lifts shall be compacted in accordance with section 430.041.3 (Ordinary Compaction).

The hot bituminous pavement on County Road 16, shall be placed in two lifts consisting of a 0.75" paver level and a 1.25" wear course. All lifts shall be placed with a paver. This lift shall be compacted in accordance with section 430.041.3 (Ordinary Compaction).

430-P03 The Contractor shall pave all approaches ahead of the mainline paving operation by utilizing an additional paver, an "approach paver", eliminating the usage "bumping out" of the mainline paver's screed.

704-P01 TEMPORARY TRAFFIC CONTROL: Traffic control for the milling, bituminous paving, and shouldering operations shall consist of flagging and pilot cars. Traffic Control Devices shall comply with the following Standard Drawings:

- 1. Standard D-704-15, layout A: For temporary roadway closure during paving operations.
- 2. Standard D-704-20, layout G: For construction signing during paving operations. Signs G20-1b-60, G20-55-96, and I2-5-96 will not be required. Signs R2-1-48 and R2-1a-24 are to be moved as the work area moves through the construction zone and should be placed a minimum of '500 ft' in advance of flagging signs.
- 3. Standard D-704-22, layouts K and L: For trucks hauling material.
- 4. Standard D-704-26, layouts CC, EE, and GG: For paving operations.
- 5. Standard D704-7, 8, 9, 10, 11, 12, 13, 14 and 24 are applicable. The required traffic control signs and devices are included in the "Traffic Control Devices List' and will be measured and paid at the Contract Unit Price for each device. Additional devices required to accommodate the Contractor's operation shall be the Contractor's responsibly.
- 6. NO CENTER STRIPE signs shall be installed according to Standard Drawings D-704-20.

704-P02 TRAFFIC CONTROL: The traffic control devices shall comply to Standard Drawings:

D-704-7, 8, 9, 10, 11, 12, 13, 14 and 50
D-704-15: Layout Type A for a temporary one lane closure with pilot car during paving operations.
D-704-20: Layout Type G as the basis of the Construction Signing Sheet
D-704-22: Layout K and L for construction trucks hauling material
D-704-26: Layout Type Y, BB, CC, EE, FF and GG for paving operations
D-704-27: Pavement markings

706-P01 LABORATORIES:

- 1. The Contractor's and Bituminous Laboratories included in Section 1 shall be used on all accepted sections of this project.
- 2. Payment for contractor's Laboratory and Bituminous Laboratory shall only be paid for under Section 1, regardless of how many sections are accepted by the owners.

762-P01 PAVEMENT MARKINGS:

- 1. "Latex Pavement MK 4" line" shall be utilized for all centerline marking and shall be yellow in color.
- 2. "Latex Pavement MK 6" line" shall be utilized for all edge line making and shall be white in color.
- 3. "Latex Pavement MK 24" line" shall be utilized for all stop bars and shall be white in color.



REV	DATE	BY	DESCRIPTION

RICHLAND COUNTY BITUM MLL & OVERLAY & SHOULDER PREPARATION		PROJECT NO: ER250044	
RICHLAND COUNTY HIGHWAY DEPARTMENT		DATE: APRIL 2025	
RICHLAND COUNTY, NORTH DAKOTA		DESIGNED BY: TA	
NOTES		SURVEYED BY: RO	
		DRAWN BY: DD	
		CHECKED BY: DD	

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SECTION
G
5
SHEET NO.

BASIS OF ESTIMATE

BASE BID

CR 1

RAP Superpave FAA 43 Wear Course 2.0' sloughs
110lbs/sy/inch @ 1.25" depth, 24' width, + 10%^{Note 1} = 1,154 Tons/Mile

RAP Superpave FAA 43 Leveling Course
110lbs/sy/inch @ 0.75" depth, 24' width + 10%^{Note 1} = 639 Tons/Mile

CR 16

RAP Superpave FAA 43 Wear Course 1.50' sloughs
110lbs/sy/inch @ 1.25" depth, 24' width + 10%^{Note 1} = 1,132 Tons/Mile

RAP Superpave FAA 43 Leveling Course
110lbs/sy/inch @ 0.75" depth, 24' width + 10%^{Note 1} = 639 Tons/Mile

PG 58S-28 – Added Oil
5.0% of RAP Superpave FAA43
(Assuming 1.3% oil in RAP)

Approaches	CR 1	CR 16	HBP (tons)	PG58S-28 (tons)	Class 5 (tons)
Section Line Drives	6	8	30	1.90	15
Private Drives	5	5	15	0.95	10
Field Drives	5	7	10	0.63	5
Tack Coat - SS1H, CSS1h or MS-1 (2 Applications)				0.05 gal/SY (Oil Only)	
Fog Coat – SS1H, CSS1H, or MS-1 (1 Application)				0.10 gal/SY (Oil Only)	
Flagging				40 MHr/Mile	
Pilot Car				20 MHr/Mile	

Note 1: Extra quantity included for slope correction and slough variability.

PAVEMENT MARKING PAINTED LINE:

4" Yellow Centerline 10' Stripe, 30' Skip = 1320 LF/Mile + NPZ
6" White Edgeline= 10,560 LF/Mile

MAINLINE SUPERPAVE FAA 43 TONS PER LIFT			
LOCATION	LENGTH (MILES)	DEPTH OF LIFT (INCHES)	SUPERPAVE FAA 43 QTY (TONS)
COUNTY ROAD 1 MAINLINE LEVELING LIFT	2.68	0.75	1,712
COUNTY ROAD 1 MAINLINE WEAR COURSE	2.68	1.25	3,093
COUNTY ROAD 16 MAINLINE LEVELING COURSE	3	0.75	1,917
COUNTY ROAD 16 MAINLINE WEAR COURSE	3	1.25	3,396

MILLINGS						
COUNTY ROAD 1						
STA	TO	STA	LENGTH (FT)	WIDTH (FT)	SLOUGHS	DEPTH (IN)
0+00		141+41	14,141	24'	1.50'	1"
COUNTY ROAD 16						
STA	TO	STA	LENGTH (FT)	WIDTH (FT)	SLOUGHS	DEPTH (IN)
0+00		158+40	15,840	24'	1.50'	1"
			TONNAGE @ 110/SY/IN			
			2,204			



REV	NO	DATE	BY	DESCRIPTION

RICHLAND COUNTY BITUM MILL & OVERLAY & SHOULDER PREPARATION

RICHLAND COUNTY HIGHWAY DEPARTMENT

RICHLAND COUNTY, NORTH DAKOTA

BASIS OF ESTIMATE

DRAWN BY: RO

SURVEYED BY: DD

DESIGNED BY: TA

PROJECT NO: ER250044

DATE: APRIL 2025

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SECTION

G

6

SHEET NO.

SECTION ONE - COUNTY ROAD 1			
ITEM NO.	ITEM DESCRIPTION	UNIT	NO. OF UNITS
1	CONTRACT BOND	LS	1
2	SHOULDER PREPARATION	MILE	2.68
3	SEEDING - CLASS 1	SY	3,924
4	HYDRAULIC MULCHING	SY	3,924
5	SHOULDER AGGREGATE (MILLED MATERIAL)	TON	2,082
6	AGGREGATE BASE COURSE CL 5	TON	255
7	TACK COAT	GAL	4,007
8	FOG SEAL	GAL	4,007
9	MILLING PAVEMENT SURFACE	SY	40,067
10	RAP - SUPERPAVE FAA 43	TON	5,191
11	PG58S-28 ASPHALT CEMENT (5%)	TON	260
12	MOBILIZATION	LS	1
13	FLAGGING	MHR	108
14	TRAFFIC CONTROL SIGNS	UNIT	626
15	TYPE III BARRICADE	EA	4
16	PILOT CAR	MHR	54
17	BITUMINOUS LABORATORY	LS	1
18	CONTRACTORS LABORATORY	LS	1
19	PVMT MK 4IN YELLOW LINE	LF	8,134
20	PVMT MK 6IN WHITE LINE	LF	28,282

SECTION TWO - COUNTY ROAD 16			
ITEM NO.	ITEM DESCRIPTION	UNIT	NO. OF UNITS
1	CONTRACT BOND	LS	1
2	SHOULDER PREPARATION	MILE	0
3	SEEDING - CLASS 1	SY	0
4	HYDRAULIC MULCHING	SY	0
5	SHOULDER AGGREGATE (MILLED MATERIAL)	TON	0
6	AGGREGATE BASE COURSE CL 5	TON	205
7	TACK COAT	GAL	4,330
8	FOG SEAL	GAL	4,330
9	MILLING PAVEMENT SURFACE	SY	43,294
10	RAP - SUPERPAVE FAA 43	TON	5,618
11	PG58S-28 ASPHALT CEMENT (5%)	TON	281
12	MOBILIZATION	LS	1
13	FLAGGING	MHR	120
14	TRAFFIC CONTROL SIGNS	UNIT	626
15	TYPE III BARRICADE	EA	4
16	PILOT CAR	MHR	60
17	BITUMINOUS LABORATORY	LS	0
18	CONTRACTORS LABORATORY	LS	0
19	PVMT MK 4IN YELLOW LINE	LF	4,724
20	PVMT MK 6IN WHITE LINE	LF	31,680



REV NO	DATE	BY	DESCRIPTION

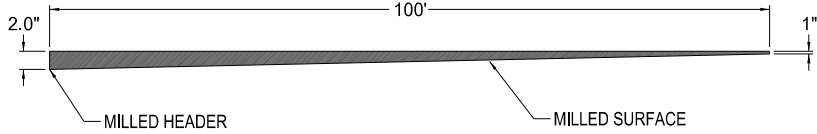
RICHLAND COUNTY BITUM MILL & OVERLAY & SHOULDER PREPERATION		RICHLAND COUNTY HIGHWAY DEPARTMENT	
RICHLAND COUNTY, NORTH DAKOTA		ESTIMATED QUANTITIES	
DRAWN BY: _____	RO	SURVEYED BY: _____	PROJECT NO: ER250044
CHECKED BY: _____	DD	DESIGNED BY: _____	DATE: APRIL 2025

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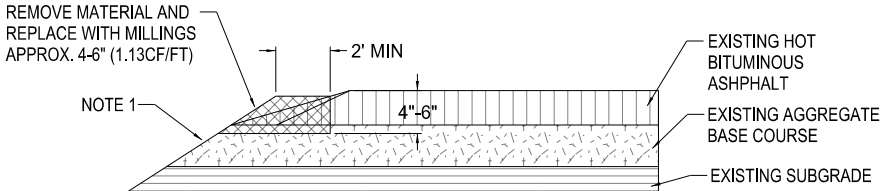
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SECTION
G
7
SHEET NO.

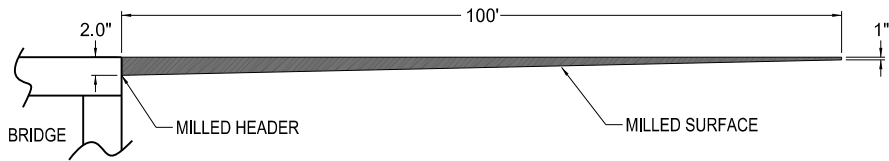


MILLED PAVING TRANSITION
NOT TO SCALE

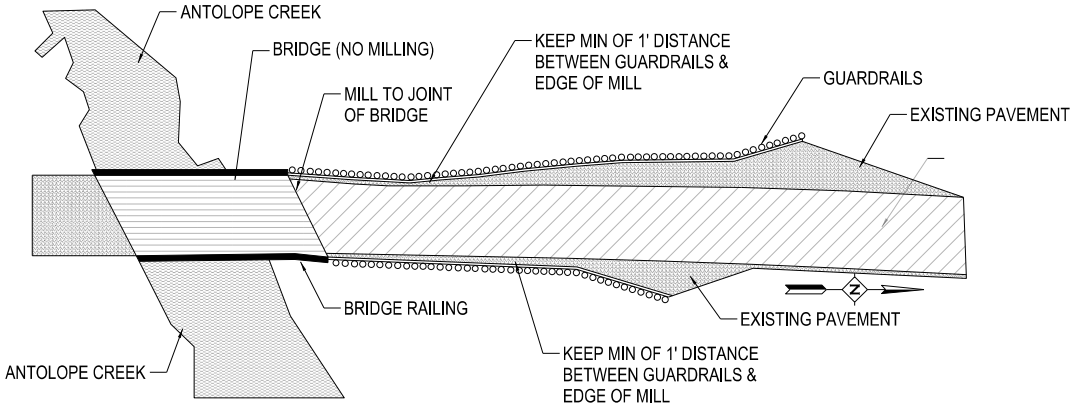


NOTES:
1. PULL REMOVED MATERIALS BACK UP ON SLOPE. LEVEL OUT TO A 4:1 SLOPE. CONTRACTOR TO USE SHOULDER DISK AND DRAG SECTION TO BREAK UP ALL CHUNKS, CLODS AND SOD. THE SHOULDER INSLOPE SHALL BE SMOOTH AND LEVEL WHEN THE WORK IS COMPLETED.

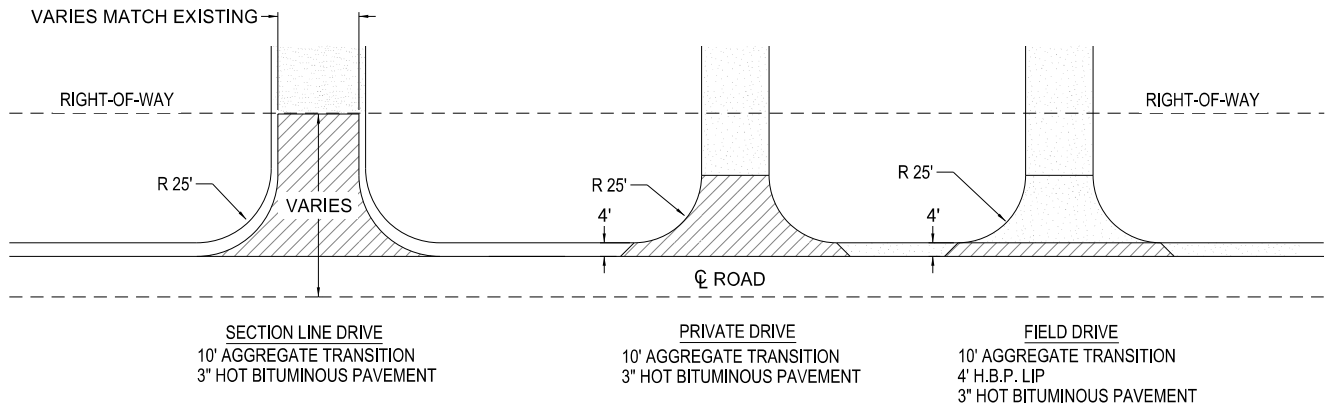
SHOULDER PREPARATION WEDGE DETAIL
NOT TO SCALE



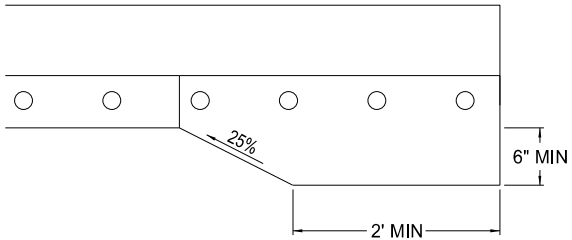
MILLED PAVING TRANSITION AT BRIDGE END
NOT TO SCALE



BRIDGE MILL LAYOUT
NOT TO SCALE



TYPICAL APPROACH SURFACING
NOT TO SCALE



SHOULDER PREPARATION BLADE DETAIL
NOT TO SCALE



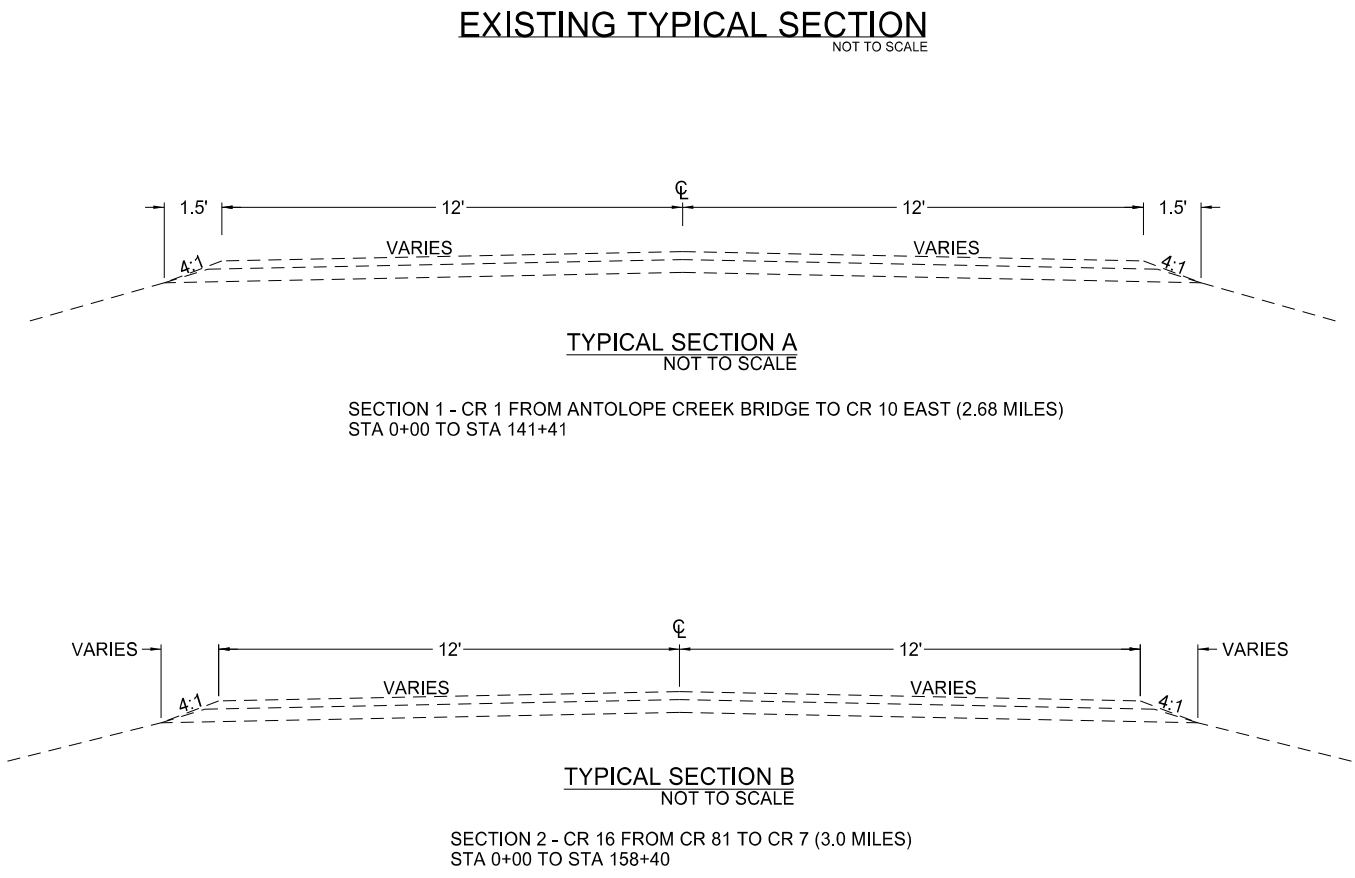
REV	NO	DATE	BY	DESCRIPTION

RICHLAND COUNTY BITUM MILL & OVERLAY & SHOULDER PREPARATION			
RICHLAND COUNTY HIGHWAY DEPARTMENT			
RICHLAND COUNTY, NORTH DAKOTA			
DETAILS			
DRAWN BY:	RO	SURVEYED BY:	ER2500044
CHECKED BY:	DD	DESIGNED BY:	TA
PROJECT NO:		DATE:	
		APRIL, 2025	

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SECTION
D
SHEET NO.
1



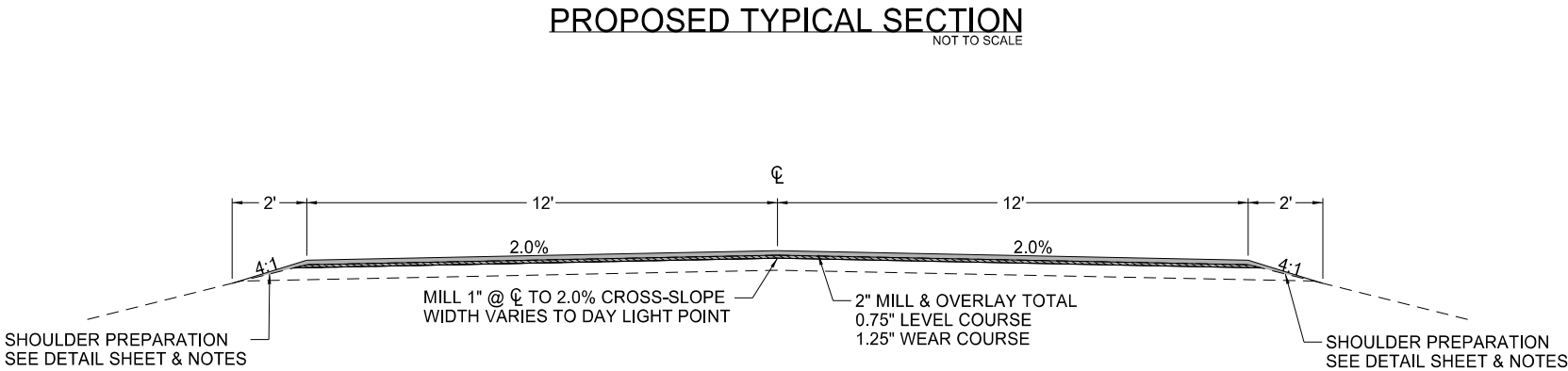
REV NO	DATE	BY	DESCRIPTION

RICHLAND COUNTY BITUM MILL & OVERLAY & SHOULDER PREPARATION RICHLAND COUNTY HIGHWAY DEPARTMENT RICHLAND COUNTY, NORTH DAKOTA			
TYPICAL SECTIONS			
DRAWN BY: RO DD		SURVEYED BY: TA	
CHECKED BY:		PROJECT NO: ER250044 DATE: APRIL 2025	

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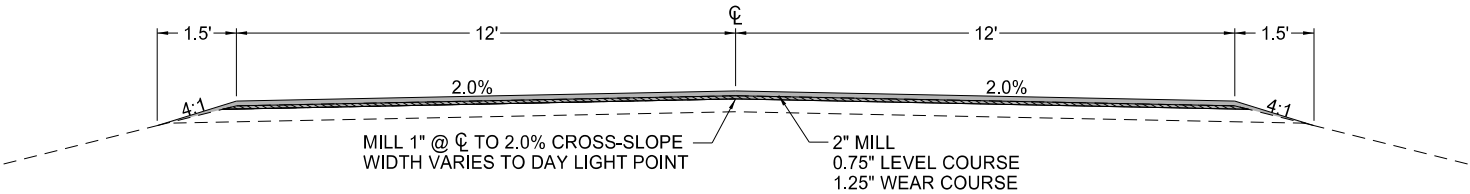
SECTION TS
1 SHEET NO.



PROPOSED TYPICAL SECTION A

NOT TO SCALE

SECTION 1 - CR 1 FROM ANTOLPOPE CREEK BRIDGE TO CR 10 EAST (2.68 MILES)
STA 0+00 TO STA 141+41



PROPOSED TYPICAL SECTION B

NOT TO SCALE

SECTION 2 - CR 16 FROM CR 81 TO CR 7 (3.0 MILES)
STA 0+00 TO STA 158+40

NOTE:
SEED AND HYDRO MULCH 10' OFF OF THE ROADS
EDGES ALONG PRIVATE DRIVEWAYS AND LAWNS
THAT INTERSECT COUNTY ROAD 1.



REV NO	DATE	BY	DESCRIPTION

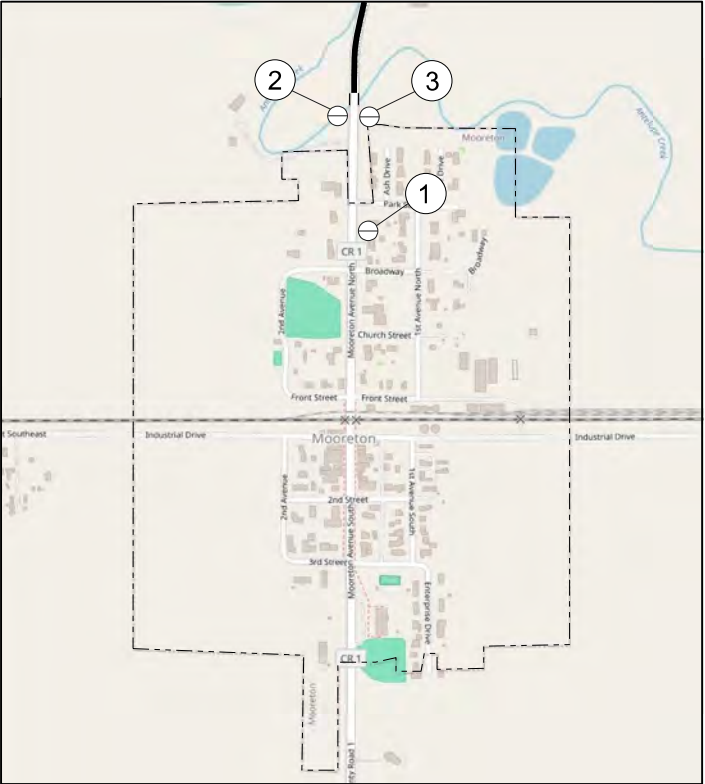
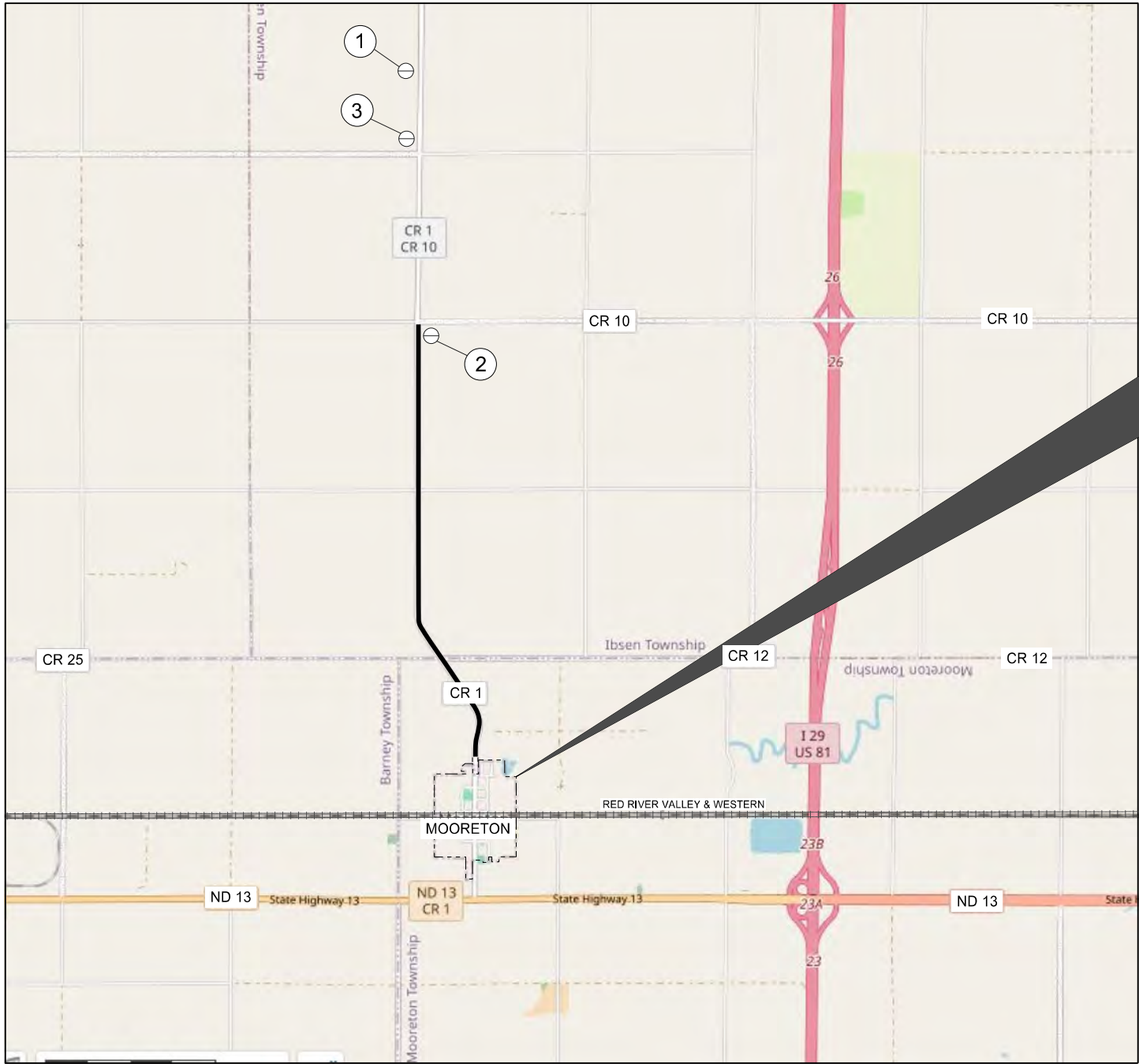
RICHLAND COUNTY BITUM MILL & OVERLAY & SHOULDER PREPARATION			
RICHLAND COUNTY HIGHWAY DEPARTMENT			
RICHLAND COUNTY, NORTH DAKOTA			
TYPICAL SECTIONS			
DRAWN BY: _____	RO _____	SURVEYED BY: _____	PROJECT NO.: ER250004
CHECKED BY: _____	DD _____	DESIGNED BY: _____	DATE: APRIL 2025

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SECTION
TS
2
SHEET NO.



- 1 W20-1-48 "ROAD WORK AHEAD"
SKID MOUNTED
- 2 G20-2-48 "END ROAD WORK"
SKID MOUNTED BARRICADE
- 3 G20-1-60 "ROAD WORK NEXT ___ MILES"
SKID MOUNTED BARRICADE
- 4 G20-52a-72 "ROAD WORK NEXT ___ MILES"
RT OR LT ARROWS SKID MOUNTED



REV NO	DATE	BY	DESCRIPTION

RICHLAND COUNTY BITUM MILL & OVERLAY & SHOULDER PREPARATION			
RICHLAND COUNTY HIGHWAY DEPARTMENT			
RICHLAND COUNTY, NORTH DAKOTA			
WORK ZONE TRAFFIC CONTROL			
DRAWN BY:	RO	SURVEYED BY:	PROJECT NO: ER2500044
CHECKED BY:	DD	DESIGNED BY:	DATE: APRIL 2025

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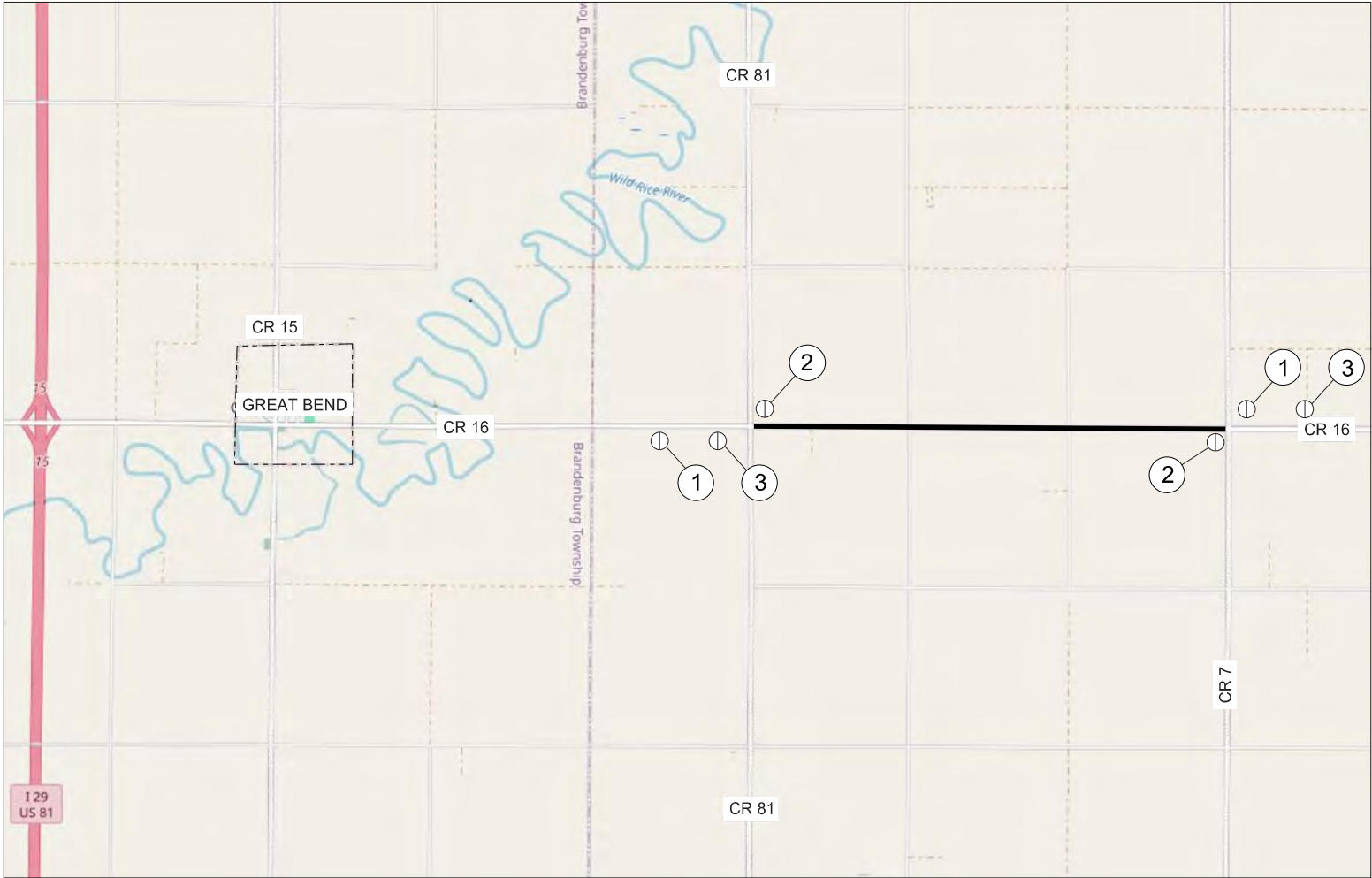
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SECTION
WZ
SHEET NO.
1

[illegible]

Damon K. DeVillers
REGISTERED
PROFESSIONAL
P.E. 3523
4/28/2025
ENGINEER
NORTH DAKOTA



- 1 W20-1-48 "ROAD WORK AHEAD" SKID MOUNTED
- 2 G20-2-48 "END ROAD WORK" SKID MOUNTED BARRICADE
- 3 G20 1-60 "ROAD WORK NEXT__MILES" SKID MOUNTED BARRICADE





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RICHLAND COUNTY BITUM MILL & OVERLAY & SHOULDER PREPARATION
RICHLAND COUNTY HIGHWAY DEPARTMENT
RICHLAND COUNTY, NORTH DAKOTA

WORK ZONE TRAFFIC CONTROL

DRAWN BY: RO DD SURVEYED BY: TA PROJECT NO: ER200044

CHECKED BY: DD DESIGNED BY: TA DATE: APRIL 2025

REV	NO	DATE	BY	DESCRIPTION


SECTION

WZ

3

SHEET NO.

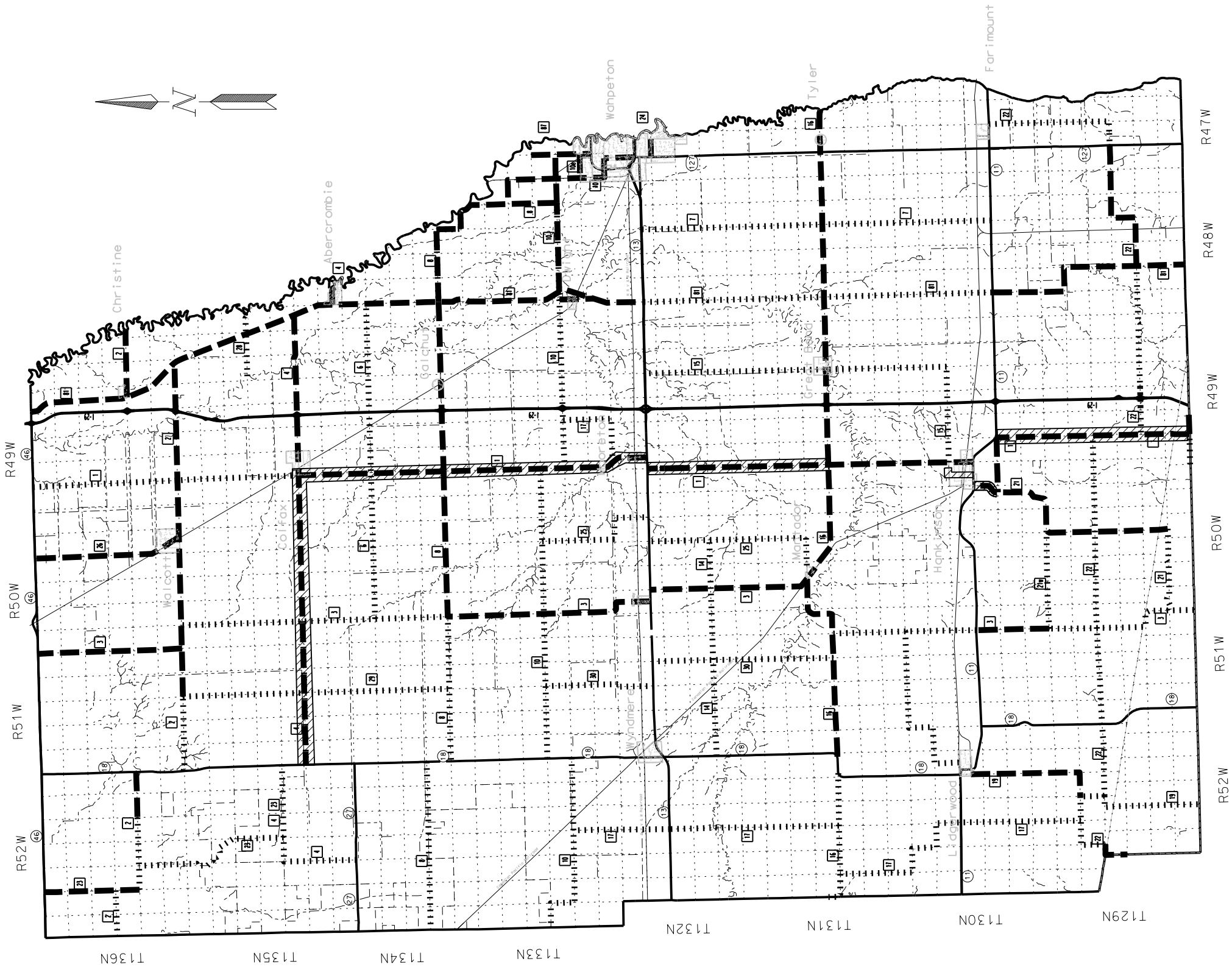
A circular professional engineer seal for the State of North Dakota. The outer ring contains the text "Damon K. DeVillers" at the top and "NORTH DAKOTA" at the bottom. The inner circle contains the text "REGISTERED PROFESSIONAL ENGINEER" around the perimeter. In the center, the license number "P.E. 3523" is printed. A handwritten signature "Damon K. DeVillers" is written across the center. A blue digital stamp "8/28/2025" is placed over the bottom portion of the seal.

[illegible][illegible]

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RICHLAND COUNTY BITUM MILL & OVERLAY & SHOULDER PREPARATION RICHLAND COUNTY HIGHWAY DEPARTMENT RICHLAND COUNTY, NORTH DAKOTA			
WORK ZONE TRAFFIC CONTROL			
DRAWN BY: _____	RO _____	SURVEYED BY: _____	PROJECT NO.: ER2500044
CHECKED BY: _____	DD _____	DESIGNED BY: TA _____	DATE: APRIL, 2025



- STATE HIGHWAYS
- PAVED COUNTY ROADS
- GRAVEL COUNTY ROADS
- NO HAUL ROADS





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RICHLAND COUNTY HIGHWAY DEPARTMENT
RICHLAND COUNTY, NORTH DAKOTA

HAUL ROAD RESTRICTION

DRAWN BY: RO

DDESIGNED BY: TA

SURVEYED BY: ER250044

DATE: APRIL 2025

REV NO	DATE	BY	DESCRIPTION

NDDOT ABBREVIATIONS

D-101-1

Ⓢ This is a special text character used in the labeling of existing features. It indicates a feature that has an unknown characteristic, potentially based on: lack of description, location accuracy or purpose.

Abn abandoned
Abut abutment
Adj adjusted
Aggr aggregate
Ahd ahead
ARV air release valve
Align alignment
Al alley
Alt alternate
Alum aluminum
ADA Americans with Disabilities Act
& and
Appr approach
Approx approximate
ACP asbestos cement pipe
Asph asphalt
AC asphalt cement
Assmd assumed
@ at
Atten attenuation
ATR automatic traffic recorder
Ave Avenue
Avg average
ADT average daily traffic

Bk back
BF back face
Balc balcony
B Wire barbed wire
Barr barricade
Btry battery
BI beehive inlet
Beg begin
BG below grade
BM bench mark
Bkwy bikeway
Bit bituminous
Blk block
BH bore hole
Bot bottom
Blvd Boulevard
Bndry boundary
Brkwy breakaway
Br bridge
Bldg building
Bus. business
BV butterfly valve
Byp bypass

C Gdrl cable guardrail
Calc calculate
CIP cast iron pipe
CB catch basin
CRS cationic rapid setting
C Gd cattle guard
C To C center to center
CL or ☐ centerline
Ch chain
Chnlk chain-link
Ch Blk channel block
Ch Ch channel change
Chk check
Chsld chiseled
Cir circle
Cl class
Clnt clean-out
Clr clear
Cl&gr clearing & grubbing
Comb. combination
Coml commercial
Compr compression
CADD computer aided drafting & design
Conc concrete
CECB concrete erosion control blanket
Cond conductor
Const construction
Cont continuous
CSB continuous split barrel sample
Contr contraction
Contr contractor
CP control point
Coord coordinate
Cor corner
Corr corrected
CAES corrugated aluminum end section
CAP corrugated aluminum pipe
CMES corrugated metal end section
CMP corrugated metal pipe
CPVCP corrugated poly-vinyl chloride pipe
CSes corrugated steel end section
CSFES corrugated steel flared end section
CSP corrugated steel pipe
CSTES corrugated steel traversable end section
Co County
Crse course
Ct Court
Xarm cross arm
Xbuck cross buck
Xsec cross sections
Xing crossing
Xrd crossroad
Crm crown

Culv culvert
C&G curb & gutter
CI curb inlet
CR curb ramp
C cut

Dd Ld dead load
Defl deflection
Defm deformed
DInt delineate
DIntr delineator
Depr depression
Desc description
Det detail
DWP detectable warning panel
Dtr detour
Dia or ø diameter
Dir direction
Dist distance
DM disturbed material
DB ditch block
DG ditch grade
Dbl double
Dn down
Dwg drawing
Dr drive
Drwy driveway
DI drop inlet
D dry density

Ea each
Esmt easement
E East
EB Eastbound
Elast elastomeric
EL electric locker
E Mtr electric meter
Elec electric/al
EDM electronic distance meter
Elev or El elevation
Ellipt elliptical
Emb embankment
Emuls emulsion/emulsified
ES end section
Engr engineer
ESS environmental sensor station
Eq equal
Evgr evergreen
Exc excavation
Exst existing
Exp expansion
Expy Expressway
E external of curve
Extru extruded

FOS factor of safety
Fed Federal
FP feed point
Fn fence
Fn P fence post
FO fiber optic
FD field drive
F fill
FAA fine aggregate angularity
FH fire hydrant
Fl flange
Flrd flared
FES flared end section
F Bcn flashing beacon
FA flight auger sample
FL flow line
Ftg footing
FM force main
Fnd found
Fdn foundation
Frac fractional
Frwy freeway
Frt front
FF front face
F Disp fuel dispenser
FFP fuel filler pipes
FLS fuel leak sensor
Furn furnish/ed

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
07-01-14	
REVISIONS	
DATE	CHANGE
04-23-18 09-20-18 12-10-20 08-16-22	General Revisions General Revisions General Revisions General Revisions



08/16/22

NDDOT ABBREVIATIONS

D-101-2

Galv	galvanized	Ln	lane	Obsc	obscure(d)	Qty	quantity
Gar	garage	Lg	large	Ocpd	occupied	Qtr	quarter
Gs L	gas line	Lat	latitude	Ocpy	occupy		
G Reg	gas line regulator	Lt	left	O/s	offset		
GMV	gas main valve	Lens	lenses	OC	on center	Rad or R	radius
G Mtr	gas meter	Lvl	level	C	one dimensional consolidation	RR	railroad
GSV	gas service valve	Lvng	leveling	OC	organic content	Rlwy	railway
GVP	gas vent pipe	Lht	light	Orig	original	Rsd	raised
GV	gate valve	LP	light pole	O To O	out to out	RC	rapid curing
Ga	gauge	Ltg	lighting	OD	outside diameter	Rec	record
Gov	government	Liq	liquid	OH	overhead	Rcy	recycle
Grd	graded/grade	LL	liquid limit			RAP	recycled asphalt pavement
Grnd	ground	Loc	location			RPCC	recycled portland cement concrete
GWM	ground water monitor	Long.	longitude	PMT	pad mounted transformer	Ref	reference
Gdrl	guardrail	Lp	loop	Pg	pages	R Mkr	reference marker
Gtr	gutter	LD	loop detector	Pntd	painted	RM	reference monument
		Lum	luminaire	Pr	pair	RP	reference point
				Pnl	panel	Refl	reflectorized
				Pk	park	RCB	reinforced concrete box
H Plg	H piling			PSD	passing sight distance	RCES	reinforced concrete end section
Hdwl	headwall	Mb	mailbox	Pvmt	pavement	RCFES	reinforced concrete flared end section
Ht	height	ML	main line	Ped	pedestal	RCP	reinforced concrete pipe
Hel	helical	MH	manhole	Ped	pedestrian	RCPS	reinforced concrete pipe sewer
HDPE	high density polyethylene	Mkd	marked	PPP	pedestrian pushbutton post	RCTES	reinforced concrete traversable end section
HM	high mast	Mkr	marker	Pen.	penetration	Reinf	reinforcement
HP	high pressure	Mkg	marking	Perf	perforated	Res	reservation
HPS	high pressure sodium	MA	mast arm	Per.	perimeter	Res	residence
HTCG	high tension cable guardrail	Matl	material	Perm	permanent	Ret	retaining
Hwy	highway	Max	maximum	PL	pipeline	Rev	reverse
Hor	horizontal	MC	meander corner	Pl	place	Rt	right
HBP	hot bituminous pavement	Meas	measure	P&P	plan & profile	R/W	right of way
HMA	hot mix asphalt	Mdn	median	PL	plastic limit	Riv	river
Hyd	hydrant	MD	median drain	Pl or \overline{P}	plate	Rd	road
Ph	hydrogen ion content	MC	medium curing	Pt	point	Rdbd	road bed
		MGS	Midwest Guardrail System	PE	polyethylene	Rdwy	roadway
		MM	mile marker	PVC	polyvinyl chloride	RWIS	roadway weather information system
Id	identification	MP	mile post	PCC	Portland Cement concrete	Rk	rock
Incl	inclinometer tube	Min	minimum	PP	power pole	Rt	route
IMH	inlet manhole	Misc	miscellaneous	Preempt	preemption		
ID	inside diameter	Mon	monument	Prefab	prefabricated		
Inst	instrument	Mnd	mound	Prfmd or Pref	preformed		
Intchg	interchange	Mtbl	mountable	Prep	preperation		
Intmdt	intermediate	Mtd	mounted	Press.	pressure		
Intscn	intersection	Mtg	mounting	PRV	pressure relief valve		
Inv	invert	Mk	muck	Prestr	prestressed		
IP	iron pipe			Pvt	private		
				PD	private drive		
				Prod.	production/produce		
				Prog	programmed		
				Prop.	property		
				Prop Ln	property line		
				Ppsd	proposed		
				PB	pull box		
Jt	joint	Neop	neoprene				
Jct	junction	Ntwk	network				
		N	North				
		NE	North East				
		NW	North West				
		NB	Northbound				
		No. or #	number				


NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
07-01-14	
REVISIONS	
DATE	CHANGE
09-03-15	General Revisions
04-23-18	General Revisions
12-18-20	General Revisions
08-16-22	General Revisions



NDDOT ABBREVIATIONS

D-101-3

Salv	salvage(d)	Tel	telephone
San	sanitary sewer line	Tel B	Telephone Booth
Sec	section	Tel P	telephone pole
SL	section line	Tv	television
Sep	separation	Temp	temperature
Seq	sequence	Temp	temporary
Serv	service	TBM	temporary bench mark
Sht	sheet	T	thinwall tube sample
Shtng	sheeting	Ts	topsoil
Shldr	shoulder	Traf	traffic
Sw or Sdwk	sidewalk	TSCB	traffic signal control box
SD	sight distance	Tr	trail
SN	sign number	Transf	transformer
Sig	signal	Trans	transition
Sgl	single	TT	transmission tower
SRCP	slotted reinforced concrete pipe	TES	traversable end section
SC	slow curing	Trans	transverse
SS	slow setting	Trtd	treated
Sm	small	Trmt	treatment
S	South	Qc	triaxial compression
SE	South East	TERO	tribal employment rights ordinance
SW	South West	Tpl	triple
SB	Southbound	Typ	typical
Sp	spaces		
Spcl	special	Qu	unconfined compressive strength
SA	special assembly	Ugrnd	underground
SP	special provisions	Util	utility
G	specific gravity		
Spk	spike		
SB	split barrel sample		
SH	sprinkler head	VG	valley gutter
SV	sprinkler valve	Vap	vapor
Sq	square	Vert	vertical
Stk	stake	VCP	vitrified clay pipe
Std	standard	Vol	volume
N	standard penetration test	VSFS	vehicle speed feedback sign
Std Specs	standard specifications		
Stm L	steam line	Wkwy	walkway
SEC	steel encased concrete	W	water content
SMA	stone matrix asphalt	WGV	water gate valve
SSD	stopping sight distance	WL	water line
SD	storm drain	WM	water main
St	street	WMV	water main valve
SPP	structural plate pipe	W Mtr	water meter
SPPA	structural plate pipe arch	WSV	water service valve
Str	structure	WW	water well
Subd	subdivision	Wrng	wearing
Sub	subgrade	WIM	weigh in motion
Sub Prep	subgrade preperation	W	west
Ss	subsoil	WB	westbound
SS	supplement specification	Wrng	wiring
Supp	supplemental	W/	with
Surf	surfacing	W/o	without
Surv	survey	WC	witness corner
Sym	symmetrical		

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION		
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NDDOT ABBREVIATIONS

D-101-4

MEASUREMENTS

ac	acres
A	ampere
Bd Ft	board feet
Cd	candela
cm	centimeter
C	coulomb
CF	cubic feet
m3	cubic meter
m3/s	cubic meters per second
CY	cubic yard
CY/mi	cubic yards per mile
D or Deg	degree
F	Fahrenheit
F	farad
ft	feet/foot
Gal	gallon
G	giga
Ha	hectare
H	henry
Hz	hertz
hr	hour(s)
in	inch
J	joule
K	kelvin
kN	kilo newton
kPa	kilo pascal
kg	kilogram
kg/m3	kilogram per cubic meter
km	kilometer
K	Kip(s)
LF	linear foot
L	litre
Lm	lumen
L sum	lump sum
Lx	lux
M Hr	man hour
M	mega
m	meter
m/s	meters per second
mi	mile
mL	milliliter
mm	millimeter
mm/hr	millimeters per hour
n	nano
N	newton
Pa	pascal
lb	pounds
sec	seconds
S	siemens
SF	square feet
km2	square kilometer
m2	square meter
SY	square yard
Sta Yd	station yards
SI	Systems International

T	tesla
T/mi	tons per mile
V	volt
W	watt
Wb	weber

SURVEY DESCRIPTIONS

Az	azimuth
Bs	backsight
Brg	bearing
BP Cap	blue plastic cap
BS	both sides
BC	brass cap
CS	curve to spiral
Eq	equation
E	external of curve
FS	far side
FB	field book
Fs	foresight
Geod	geodetic
GIS	Geographical Information System
GPS	Global Positioning System
HI	height of instrument
IM	iron monument
I Pn	iron pin
LS	Land Surveyor (licensed)
LSIT	Land Surveyor In Training
L	length of curve
LC	long chord
LB	level book
Mer	meridian
M	mid ordinate of curve
NGS	National Geodetic Survey
NS	near side
Obsn	observation
Off Loc	office location
OP Cap	orange plastic cap
PK	Parker-Kalon nail
P Cap	plastic cap
PP Cap	pink plastic cap
PCC	point of compound curve
PC	point of curve
PI	point of intersection
PRC	point of reverse curvature
PT	point of tangent
POC	point on curve
POT	point on tangent
RTP	random traverse point
Rge	range
RP Cap	red plastic cap
SC	spiral to curve
ST	spiral to tangent
Sta	station
SE	superelevation
Tan	tangent
T	tangent (semi)
TS	tangent to spiral
Twp	township
TB	transit book
TP	traverse point
TP	turning point
USC&G	US Coast & Geodetic Survey
USGS	US Geologic Survey
VC	vertical curve
WGS	World Geodetic System
YP Cap	yellow plastic cap
Z	zenith

SOIL TYPES

Cl	clay
Cl F	clay fill
Cl Hvy	clay heavy
Cl Lm	clay loam
Co S	coal slack
C Gr	coarse gravel
CS	coarse sand
FS	fine sand
Gr	gravel
Lig Co	lignite coal
Lig Sl	lignite slack
Lm	loam
Rk	rock
Sd	sand
Sdy Cl	sandy clay
Sdy Cl Lm	sandy clay loam
Sdy Fl	sandy fill
Sdy Lm	sandy loam
Sc	scoria
Sh	shale
Si Cl	silt clay
Si Cl Lm	silty clay loam
Si Lm	silty loam

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NDDOT UTILITY COMPANY AND ORGANIZATION ABBREVIATIONS

D-101-10

702COM
ACCENT
AGASSIZ WU
AGC
ALL PL
ALL SEAS WU
AMOCO PI
AMRDA HESS
AT&T
B PAW
BAKER ELEC
BASIN ELEC
BEK TEL
BELLE PL
BLM
BNSF
BOEING
BRNS RWD
BURK-DIV ELEC
BURL WU
CABLE ONE
CABLE SERV
CAP ELEC
CASS CO ELEC
CASS RWU
CAV ELEC
CBLCOM
CENEX PL
CENT PL WATER DIST
CENT PWR ELEC
CENTURYLINK
COE
CONS TEL
CONT RES
CPR
D O E
DAK CARR
DAK CENT TEL
DAK RWD
DGC
DICKY R NET
DICKY RWU
DICKY TEL
DNRR
DOME PL
DVELEC
DVMW
ENBRDG
ENVENTIS
EQUINOR
FALK MNG
FHWA
G FKS-TRL WD
GETTY TRD & TRAN
GLDN W ELEC
GRGS CO TEL
GTR RAMSEY WD

702 Communications
Accent Communications
Agassiz Water Users Incorporated
Associated General Contractors of America
Alliance Pipeline
All Seasons Water Users Association
Amoco Pipeline Company
Amerada Hess Corporation
AT&T Corporation
Bear Paw Energy Incorporated
Baker Electric
Basin Electric Cooperative Incorporated
Bek Communications Cooperative
Belle Fourche Pipeline Company
Bureau of Land Management
Burlington Northern Santa Fe Railway
Boeing
Barnes Rural Water District
Burke-Divide Electric Cooperative
Burleigh Water Users
Cable One
Cable Services
Capital Electric Cooperative Incorporat
Cass County Electric Cooperative
Cass Rural Water Users Incorporated
Cavalier Rural Electric Cooperative
Cablecom Of Fargo
Cenex Pipeline
Central Pipe Line Water District
Central Power Electric Cooperative
CenturyLink
Corps of Engineers
Consolidated Telephone
Continental Resource Inc
Canadian Pacific Railway
Department Of Energy
Dakota Carrier Network
Dakota Central Telephone
Dakota Rural Water District
Dakota Gasification Company
Dickey Rural Networks
Dickey Rural Water Users Association
Dickey Telephone
Dakota Northern Railroad
Dome Pipeline Company
Dakota Valley Electric Cooperative
Dakota, Missouri Valley & Western
Enbridge Pipelines Incorporated
Enventis Telephone
Equinor Pipeline
Falkirk Mining Company
Federal Highway Administration
Grand Forks-traill Water District
Getty Trading & Transportation
Golden West Electric Cooperative
Griggs County Telephone
Greater Ramsey Water District

GT PLNS NAT GAS
HALS TEL
IDEA1
INT-COMM TEL
KANEB PL
KEM ELEC
KOCH GATH SYS
LKHD PL
LNGDN RWU
LWR YELL R ELEC
MCKNZ CON
MCKNZ ELEC
MCKNZ WRD
MCLEOD
MCLN ELEC
MCLN-SHRDN R WAT
MDU
MIDCO
MIDSTATE TEL
MINOT CABLE
MINOT TEL
MISS VALL COMM
MISS W W S
MNKOTA PWR
MOR-GRAN-SOU ELEC
MOUNT-WILLI ELEC
MRE LBTY TEL
MUNICIPAL
MUNICIPAL
N CENT ELEC
N VALL W DIST
ND PKS & REC
ND TEL
NDDOT
NDSU SOIL SCI DEPT
NEMONT TEL
NODAK R ELEC
NOON FRMS TEL
NPR
NSP
NTH PRAIR RW
NTHN BRDR PL
NTHN PLNS ELEC
NTHWSTRN REF
NW COMM
NWRWD
ONEOK
OSHA
OTTR TL PWR
PAAP
P L E M
POLAR COM
PVT ELEC
QWEST
R&T W SUPPLY

Great Plains Natural Gas Company
Halstad Telephone Company
Idea1
Inter-Community Telephone Company
Kaneb Pipeline Company
Kem Electric Cooperative Incorporated
Koch Gathering Systems Incorporated
Lakehead Pipeline Company
Langdon Rural Water Users Incorporated
Lower Yellowstone Rural Electric
McKenzie Consolidated Telcom
McKenzie Electric Cooperative
McKenzie County Water Resource District
McLeod USA
McLean Electric Cooperative
McLean-Sheridan Rural Water
Montana-dakota Utilities
MidContinent Communications
Midstate Telephone Company
Minot Cable Television
Minot Telephone Company
Missouri Valley Communications
Missouri West Water System
Minnkota Power
Mor-gran-sou Electric Cooperative
Mountrail-williams Electric Cooperative
Moore & Liberty Telephone
City Water And Sewer
City Of '.....'
North Central Electric Cooperative
North Valley Water District
North Dakota Parks And Recreation
North Dakota Telephone Company
North Dakota Department of Transportation
NDSU Soil Science Department
Nemont Telephone
Nodak Rural Electric Cooperative
Noonan Farmers Telephone Company
Northern Plains Railroad
Northern States Power
Northern Prairie Rural Water Association
Northern Border Pipeline
Northern Plains Electric Cooperative Incorporated
Northwestern Refinery Company
Northwest Communication Cooperation
Northwest Rural Water District
Oneok gas
Occupational Safety and Health Administration
Otter Tail Power Company
Plains All American Pipeline
Prairielands Energy Marketing
Polar Communications
Private Electric
Qwest Communications
R & T Water Supply Association

RED RIV COMM
RESVTN TEL
ROBRTS TEL
R-RIDER ELEC
RRVW
S CENT REG WD
S E W U
SCOTT CABLE
SHERDN ELEC
SHEYN VLY ELEC
SKYTECH
SLOPE ELEC
SOURIS RIV TELCOM
ST WAT COMM
STATE LN WATER
STER ENG
STUT RWU
SW PL PRJ
T M C
TCI
TESORO GHG PLNS PL
TRI-CNTY WU
TRL CO RWU
UNTD TEL
UPPR SOUR WUA
US SPRINT
USAF MSL CABLE
USFWS
USW COMM
VRNDRY ELEC
W RIV TEL
WAPA
WAWSA
WEB
WILLI RWA
WILSTN BAS PL
WLSH RWD
WOLVRTN TEL
XLENER
YSVR

Red River Rural Communications
Reservation Telephone
Roberts Company Telephone
Roughrider Electric Cooperative
Red River Valley & Western Railroad
South Central Regional Water District
South East Water Users Incorporated
Scott Cable Television Dickinson
Sheridan Electric Cooperative
Sheyenne Valley Electric Cooperative
Skyland Technologies Incorporated
Slope Electric Cooperative Incorporated
Souris River Telecommunications
State Water Commission
State Line Water Cooperative
Sterling Energy
Stutsman Rural Water Users
Southwest Pipeline Project
Turtle Mountain Communications
TCI of North Dakota
Tesoro High Plains Pipeline
Tri-County Water Users Incorporated
Traill County Rural Water Users
United Telephone
Upper Souris Water Users Association
U.S. Sprint
U.S.A.F. Missile Cable
US Fish and Wildlife Service
U.S. West Communications
Verendrye Electric Cooperative
West River Telephone Incorporated
Western Area Power Administration
Western Area Water Supply Authority
W. E. B. Water Development Association
Williams Rural Water Association
Williston Basin Interstate Pipeline Company
Walsh Water Rural Water District
Wolverton Telephone
Xcel Energy
Yellowstone Valley Railroad

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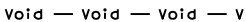
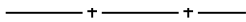
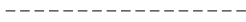
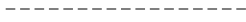


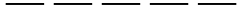


















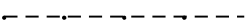
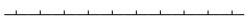


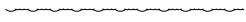
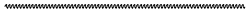
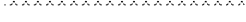

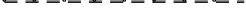





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LINE STYLES



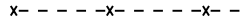


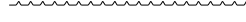


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Existing Topography









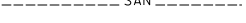













	Existing Ground Void
	Existing Cemetary Boundary
	Existing Box Culvert Bridge
	Existing Concrete Surface
	Existing Drainage Structure
	Existing Gravel Surface
	Existing Riprap
	Existing Dirt Surface
	Existing Asphalt Surface
	Existing Tie Point Line
	Existing Railroad Centerline
	Existing Guardrail Cable
	Existing Guardrail Metal
	Existing Edge of Water
	Existing Fence
	Existing Railroad
	Existing Field Line
	Exst Flow
	Existing Curb
	Existing Valley Gutter
	Existing Driveway Gutter
	Existing Curb and Gutter
	Existing Mountable Curb and Gutter

	Existing 3-Cable w Posts
	Site Boundary
	Existing Berm, Dike, Pit, or Earth Dam
	Existing Ditch Block
	Existing Tree Boundary
	Existing Brush or Shrub Boundary
	Existing Retaining Wall
	Existing Planter or Wall
	Existing W-Beam Guardrail with Posts
	Existing Railroad Switch
	Gravel Pit - Borrow Area
	Existing Wet Area-Vegetation Break
	Existing High Tension Cable Guardrail
	Existing High Tension Cable Guardrail with Posts

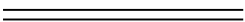


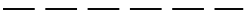
Proposed Topography

	3-Cable w Posts
	Flow
	Fence
	Remove Line
	Wall
	Retaining Wall (Plan View)
	W-Beam w Posts
	High Tension Cable Guardrail with Posts

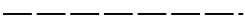
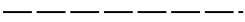





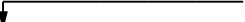

Existing Utilities

	Existing Electrical
	Existing Fiber Optic Line
	Existing TV Fiber Optic
	Existing Gas Pipe
	Existing Overhead Utility Line
	Existing Power
	Existing Fuel Pipeline
	Existing Undefined Above Ground Pipe Line
	Existing Sanitary Sewer
	Existing Sanitary Force Main
	Existing Storm Drain
	Existing Storm Drain Force Main
	Existing Culvert
	Existing Telephone Line
	Existing TV Line
	Existing Water or Steam Line
	Existing Under Drain
	Existing Slotted Drain
	Existing Conduit
	Existing Conductor
	Existing Down Guy Wire Down Guy
	Existing Underground Vault or Lift Station




Proposed Utilities


	24 Inch Pipe
	Reinforced Concrete Pipe
	Under Drain
	Edge Drain

Traffic Utilities

	Conductor
	Fiber Optic
	Existing Loop Detector
	Existing Double Micro Loop Detector
	Micro Loop Detector Double
	Existing Micro Loop Detector
	Micro Loop Detector
	Signal Head with Mast Arm
	Existing Signal Head with Mast Arm

Sign Structures

	Existing Overhead Sign Structure
	Existing Overhead Sign Structure Cantilever
	Overhead Sign Structure Cantilever

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LINE STYLES

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Right Of Way

	Easement
	Existing Easement
	Right of Way
	Existing Right of Way
	Existing Right of Way Railroad
	Existing Right of Way Not State Owned
	Existing Government Lot Line
	Existing Adjacent Block Lines
	Existing Adjacent Lot Lines
	Existing Adjacent Property Line
	Existing Adjacent Subdivision Lines
	Sight Distance Triangle Line
	Dimension Leader

Boundary Control

	Existing City Corporate Limits or Reservation Boundary
	Existing State or International Line
	Existing Township
	Existing County
	Existing Section Line
	Existing Quarter Section Line
	Existing Sixteenth Section Line
	Existing Centerline
	Tangent Line

Cross Sections and Typicals

	Existing Ground
	Existing Topsoil (Cross Section View)
	Existing Ground Void (Not Surveyed)
	Existing Concrete
	Existing Aggregate (Cross Section View)
	Existing Curb and Gutter (Cross Section View)
	Existing Asphalt (Cross Section View)
	Existing Reinforcement Rebar

Geotechnical

	Geotextile Fabric Type D
	Geogrid
	Geotextile Fabric Type R
	Geotextile Fabric Type R1
	Geotextile Fabric Type RR
	Geotextile Fabric Type S
	Subgrade Reinforcement
	Failure Line

Countours

	Depression Contours
	Supplemental Contour

Profile

	Subgrade, Subcut or Ditch Grade
	Topsoil Profile

Striping

	Centerline Pavement Marking
	Barrier with Centerline Pavement Marking
	Barrier Pavement Marking
	Stripe 4 IN Dotted Extension White
	Stripe 8 IN Dotted Extension White
	Stripe 8 IN Lane Drop

Pavement Joints

	Doweled Joint
	Tie Bar 30 Inch 4 Foot Center to Center
	Tie Bar 18 Inch 3 Foot Center to Center
	Tie Bar at Random Spacing

Bridge Details

	Small Hidden Object
	Large Hidden Object
	Phantom Object
	Existing Conditions Object
	Centerline Main
	Centerline Secondary
	Excavation Limits
	Proposed Ground
	Sheet Piling

Erosion Control

	Limits of Const Transition Line
	Bale Check
	Rock Check
	Floating Silt Curtain
	Silt Fence
	Excavation Limits
	Fiber Rolls

Environmental

	Wetland Mitigation
	Existing Wetland Easement USFWS
	Existing Wetland Jurisdictional
	Existing Wetland
	Tree Row

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SYMBOLS

D-101-30


 North Arrow (Half Scale)


 Alignment Data Point

 Alignment Monument


 Spot Elevation

 Existing Miscellaneous Spot

 Existing Access Control Arrow

 Existing Benchmark

 Reset USGS Marker

 Iron Monument Found

 Iron Pin R/W Monument

 Property Corner

 Iron Pin Reference Monument


   Right of Way Marker (Exst, Ppsd, Reset)

 Existing Federal Reference Corner


    Existing Section Corner (Full, Quarter, Sixteenth, Meander)


 Existing Witness Corner


   Existing Control Point (CP, GPS-RTK, TRI)


 Existing Traverse PI Aerial Panel


 Existing Reference Marker Point NGS


 Existing EFB Misc

 Existing Bush or Shrub


 Existing Large Evergreen Tree

 Existing Small Evergreen Tree


 Existing Large Tree

 Existing Small Tree

 Existing Tree Trunk

 Cairn or Stone Circle


 Existing Artifact


 Existing Satellite Dish


 Existing Weather Station

 Existing Windmill or Tower


 Reinforced Pavement


 Continuous Split Barrel Sample

 Flight Auger Sample

 Split Barrel Sample

 Thinwall Tube Sample

 Standard Penetration Test

 Inclinometer Tube

 Excavation Unit

 Existing Ground Water Well Bore Hole





































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SYMBOLS

D-101-31

	Flexible Delineator		Highway Sign (Exst, Ppsd)
	Flexible Delineator Type A (Exst, Ppsd)		Mile Post Type A (Exst-Ppsd-Reset)
	Flexible Delineator Type B (Exst, Ppsd)		Mile Post Type B (Exst, Ppsd)
	Flexible Delineator Type C (Exst, Ppsd)		Mile Post Type C (Exst, Ppsd)
	Flexible Delineator Type D (Exst, Ppsd)		Object Marker Type I (Exst, Ppsd)
	Flexible Delineator Type E (Exst, Ppsd)		Object Marker Type II (Exst, Ppsd)
	Delineator Type A (Exst, Ppsd, Diamond Grade-Reset)		Object Marker Type III (Exst, Ppsd)
	Delineator Type B (Exst, Ppsd, Diamond Grade-Reset)		Existing Reference Marker
	Delineator Type C (Exst, Ppsd, Diamond Grade)		Road Closure Gate 18 Ft (Exst, Ppsd)
	Delineator Type D (Exst, Ppsd, Diamond Grade)		Road Closure Gate 28 Ft (Exst, Ppsd)
	Delineator Type E (Exst, Ppsd, Diamond Grade)		Road Closure Gate 40 Ft (Exst, Ppsd)
	Barricade (Type I, Type II, Type III)		Existing Railroad Battery Box
	Arrow Panel (Caution Mode, Double Direction, Left Directional, Right Directional, Sequencing, Truck Mounted)		Existing RR Profile Spot
	Attenuation Device		Existing Railroad Crossbuck
	Truck Mounted Attenuator		Existing Railroad Frog
	Delineator Drums		Existing Mailbox (Private, Federal)
	Flagger		
	Tubular Marker		
	Traffic Cone		
	Back to Back Vertical Panel Sign		

















































































NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
07-01-14	
REVISIONS	
DATE	CHANGE
12-18-20	General Revisions




12 18 2020

SYMBOLS


D-101-32

	Existing Luminaire			High Mast Light Standard 3 Luminaire (Exst, Ppsd)		Existing Traffic Signal Standard			
	Luminaire LED			High Mast Light Standard 4 Luminaire (Exst, Ppsd)				Pull Box (Exst-Ppsd-Undefined)	
	Existing Light Standard Luminaire			High Mast Light Standard 5 Luminaire (Exst, Ppsd)				Intelligent Transportation Pull Box (Exst, Ppsd)	
	Relocate Light Standard			High Mast Light Standard 6 Luminaire (Exst, Ppsd)				Transformer (Exst, Ppsd)	
	Light Standard Light LED Luminaire			High Mast Light Standard 7 Luminaire (Exst, Ppsd)				Power Pole (Exst-Ppsd-with Transformer)	
	Light Standard 35 Watt High Pressure Sodium Vapor Luminaire			High Mast Light Standard 8 Luminaire (Exst, Ppsd)				Wood Pole (Exst, Ppsd)	
	Light Standard 50 Watt High Pressure Sodium Vapor Luminaire			High Mast Light Standard 9 Luminaire (Exst, Ppsd)				Pedestrian Push Button Post (Exst, Ppsd)	
	Light Standard 70 Watt High Pressure Sodium Vapor Luminaire			High Mast Light Standard 10 Luminaire (Exst, Ppsd)				Existing Pole	
	Light Standard 100 Watt High Pressure Sodium Vapor Luminaire			Overhead Sign Structure Load Center (Exst, Ppsd)				Existing Telephone Pole	
	Light Standard 150 Watt High Pressure Sodium Vapor Luminaire			Traffic Signal Controller (Exst, Ppsd)				Existing Post	
	Light Standard 200 Watt High Pressure Sodium Vapor Luminaire			Pad Mounted Traffic Signal Controller (Exst, Ppsd)					Connection Conductor (Ground, Neutral, Phase 1, Phase 2)
	Light Standard 250 Watt High Pressure Sodium Vapor Luminaire			Flashing Beacon (Exst, Ppsd)					
	Light Standard 310 Watt High Pressure Sodium Vapor Luminaire			Concrete Foundation (Exst, Ppsd)					
	Light Standard 400 Watt High Pressure Sodium Vapor Luminaire			Pipe Mounted Flasher (Exst, Ppsd)					
	Light Standard 700 Watt High Pressure Sodium Vapor Luminaire			Pad Mounted Feed Point (Exst, Ppsd)					
	Light Standard 1000 Watt High Pressure Sodium Vapor Luminaire			Pipe Mounted Feed Point with Pad (Exst, Ppsd)					
	Emergency Vehicle Detector			Pole Mounted Feed Point (Exst, Ppsd)					
	Video Detection Camera			Junction Box (Exst, Ppsd)					
				Existing Pedestrian Head with Number					
				Existing Signal Head					
				Pole Mounted Head					
				Existing Lighting Standard Pole					

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
07-01-14	
REVISIONS	
DATE	CHANGE
12-18-20	General Revisions



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REVISIONS	
DATE	CHANGE
12-18-20	General Revisions



12 18 2020

SYMBOLS

D-101-33

			Existing Manhole (Electrical, Gas, Telephone)		Cap or Stub Exst Gas, Exst Sanitary, Exst Storm Drain, Ppsd Storm Drain, Exst Water
			Water Manhole (Exst, Exst with Valve)		Existing Pedestal Electrical, Telephone, Fiber Optic Telephone, TV, Fiber Optic TV, Undefined
			Sanitary Sewer Manhole (Exst, Ppsd, Exst with Valve)		Existing Pipe Vent Gas, Fuel, Sanitary, Storm Drain, Water, Undefined
			Sanitary Force Main Manhole (Exst, Ppsd, Exst with Valve)		Valve Exst Gas, Exst Water, Ppsd Water, Exst Undefined
			Storm Drain Manhole (Exst, Ppsd, Exst with Inlet, Ppsd with Inlet)		Pump Sanitary, Storm Drain, Exst Water
			Force Main Storm Drain Manhole (Exst, Exst with Valve)		Corrugated Metal End Section (18, 24, 30, 36, 42, 48, 54, 60 Inch)
			Manhole (Ppsd, Ppsd 48 Inch, Exst Undefined)		Reinforced Concrete End Section (18, 24, 30, 36, 42, 48, 54, 60 Inch)
			Existing Water Appurtenance		Existing Utility Marker
			Sprinkler Head (Exst, Ppsd)		Existing Meter
			Fire Hydrant (Exst, Ppsd)		Existing Fuel Dispensers
			Cleanout (Exst Sanitary, Underdrain)		Existing Fuel Filler Pipes
			Existing Catch Basin Inlet (Round, Square)		Existing Fuel Leak Sensors
			Existing Curb Inlet (Round, Square)		
			Existing Slotted Reinforced Concrete Pipe		
			Catch Basin (Riser 30 Inch, Beehive, Type A)		
			Inlet Mountable Curb (Type A, Type B)		
			Inlet Saddle Base (Type 1, Type 2)		
			Inlet Special (Catch Basin, Type 1, Type A)		
			Inlet (Tee, Type 1, Type 2, Type 2 Double)		
			Median Drain		
			Headwall (Exst, Ppsd, Ppsd Single with Vegetation Barrier, Ppsd Double with Vegetation Barrier)		

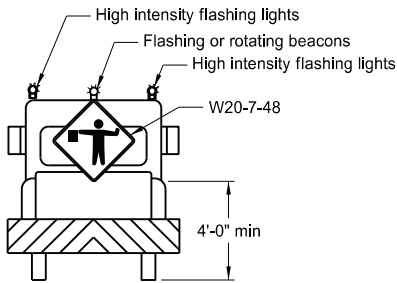
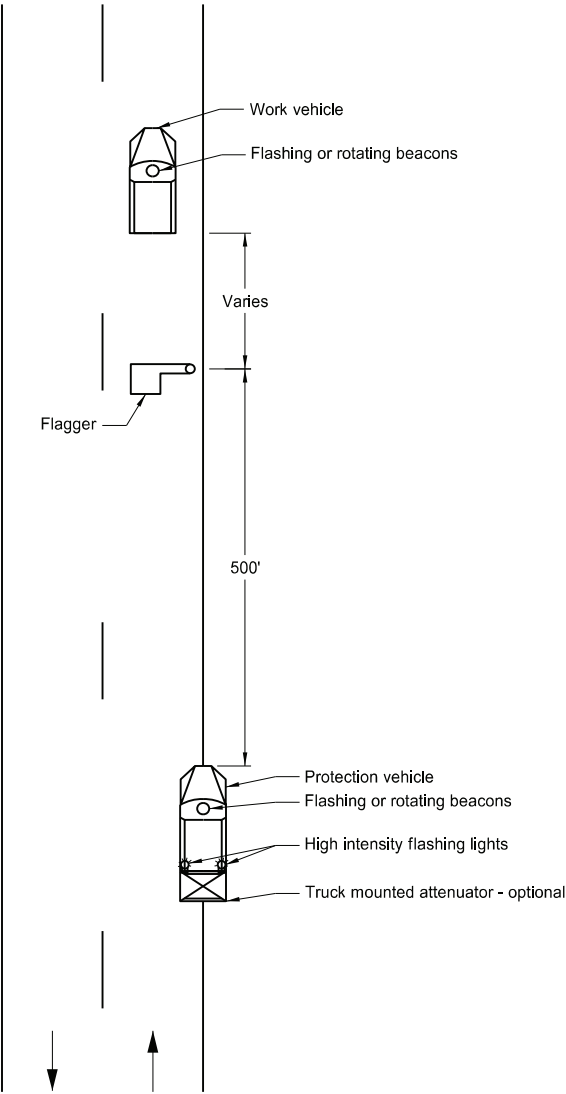
NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
07-01-14	
REVISIONS	
DATE	CHANGE
12-18-20	General Revisions Sheet added - Continued from D-101-32

Kirk J Hoff
REGISTERED
PROFESSIONAL
PE-4683
ENGINEER
NORTH DAKOTA
12 18 2020

TRAFFIC CONTROL FOR CORING OF HOT BITUMINOUS PAVEMENT

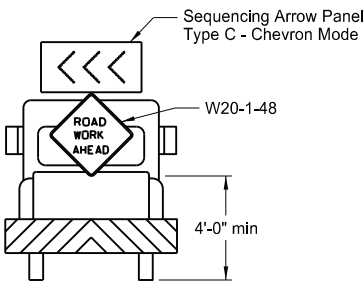
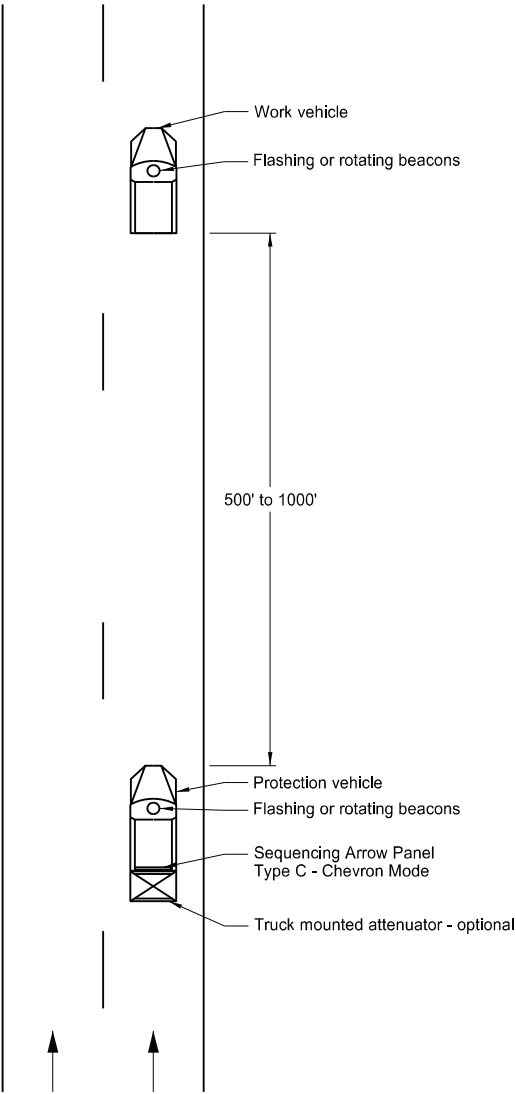
D-704-2

Two Lane, Two Way Roadways



Typical Protection Vehicle

Multilane Roadways

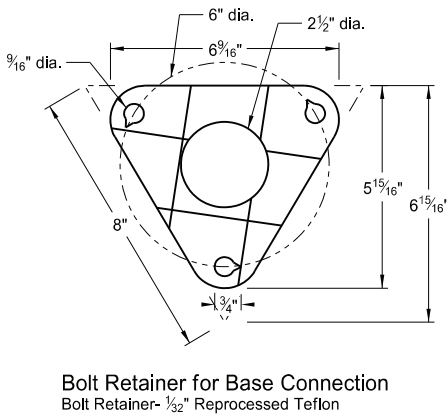


Typical Protection Vehicle

- Notes:
1. Display a 360 degree rotating, flashing, oscillating or strobe light on the working vehicle.
 2. Display a 360 degree rotating, flashing, oscillating or strobe light on the shadow vehicle. Operate a sequencing arrow panel Type C in chevron mode on the shadow vehicle for Multilane Roadway.
 3. Use these layouts during daylight hours and in areas of good visibility only.
 4. Use flagger to protect the work area and warn oncoming traffic for two lane, two way roadway.

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
9-25-12	
REVISIONS	
DATE	CHANGE
9-27-17	Updated to active voice
10-03-19	New Design Engr PE Stamp
8-01-24	Electronic Stamp/Signature

08/01/24



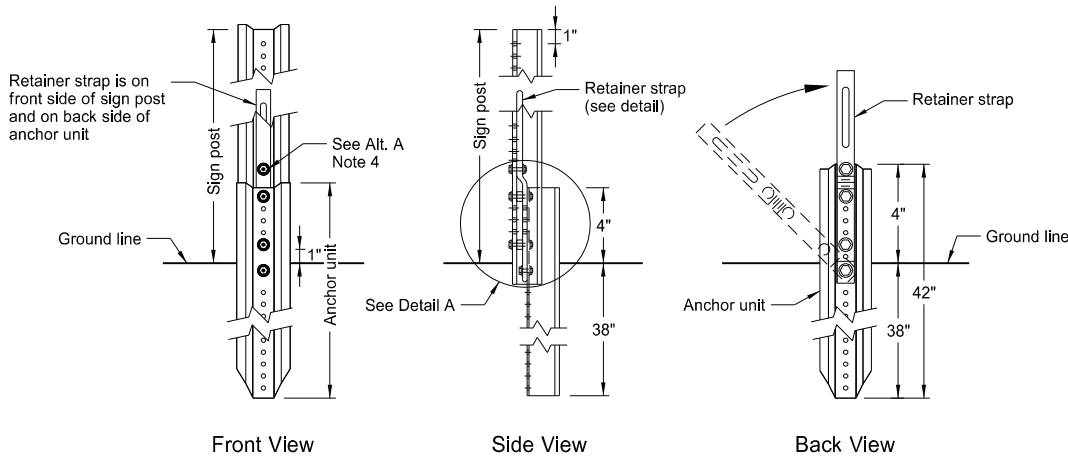
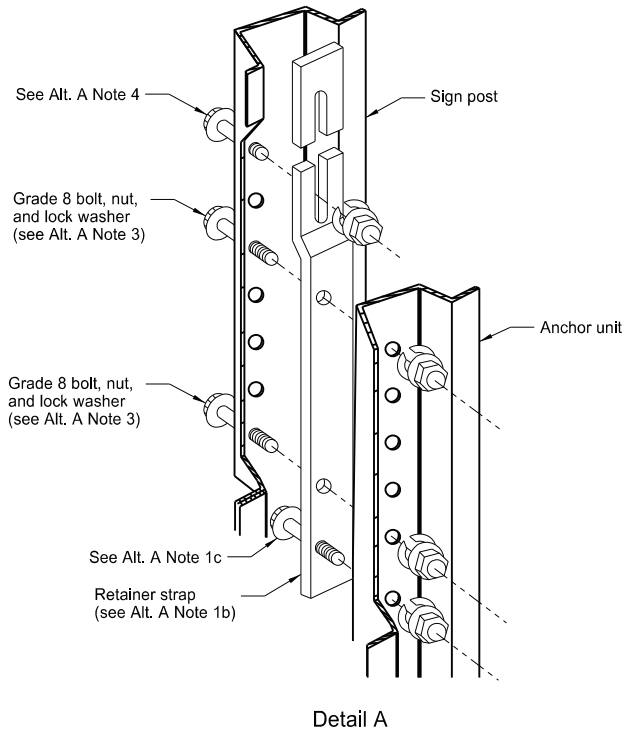
08/01/24



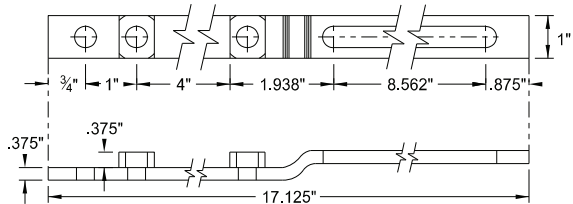
BREAKAWAY SYSTEMS FOR CONSTRUCTION ZONE SIGNS

D-704-8

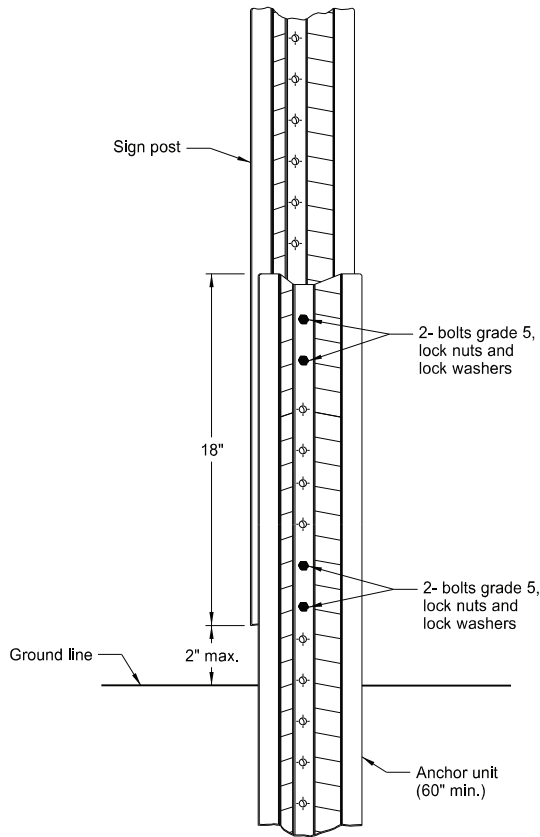
U-Channel Post



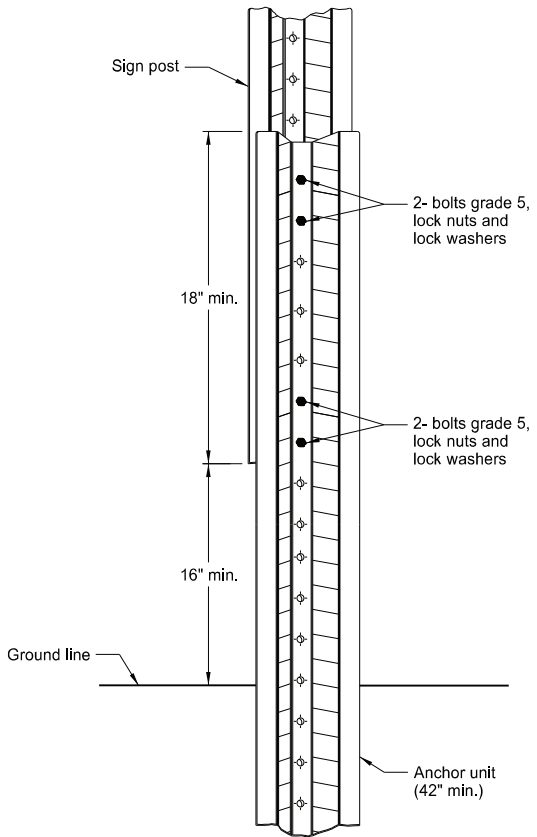
Breakaway U-Channel Detail
Alternate A
Install a maximum of 2 posts within 7'.



Retainer Strap Detail



Breakaway U-Channel Splice Detail
Alternate B
(2.5 and 3 lb/ft)
Install a maximum of 3 posts within 7'.



Breakaway U-Channel Splice Detail
Alternate C
(2.5 and 3 lb/ft)
Install a maximum of 3 posts within 7'.

Alternate A Steps of Installation:

- a) Drive anchor unit to within 12" of ground level.
b) Establish proper assembly by lining up bottom hole of retainer strap with 6th hole from the top of the anchor unit.
c) Assemble strap to back of anchor unit using 5/16"x2" bolt, lock washer and nut.
d) Rotate strap 90° to left.
- a) Drive anchor unit to 4" above ground.
b) Rotate strap to vertical position.
- a) Place 5/16"x2" bolt, lock washer and nut in bottom of sign post to facilitate alignment of sign post with proper hole in anchor unit.
b) Alternately tighten two connector bolts.
- Complete assembly by tightening 5/16"x2" bolt (this fastens sign post to retainer strap).
- Properly nest base post, strap, and sign post. Proper nesting occurs when all flat surfaces of the base post, strap, and sign post at the bolts have full contact across the entire width.

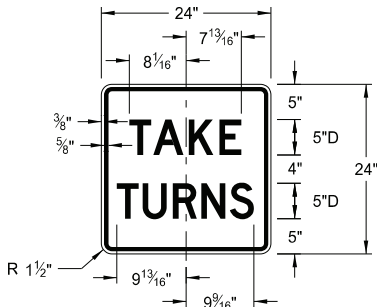
NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
2-28-14	
REVISIONS	
DATE	CHANGE
9-27-17	Updated to active voice
10-03-19	New Design Engr PE Stamp
8-01-24	Electronic Stamp/Signature



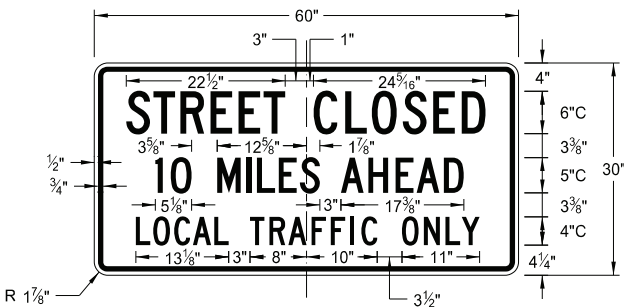
08/01/24

CONSTRUCTION SIGN DETAILS
REGULATORY SIGNS

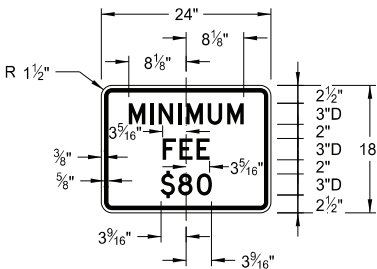
D-704-10



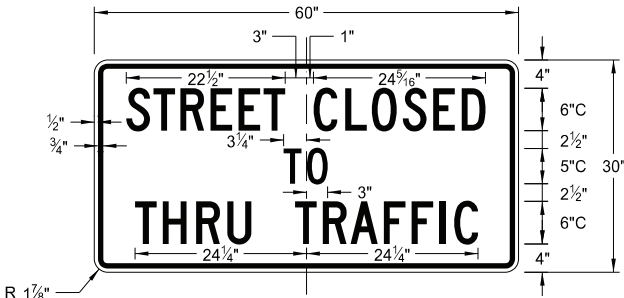
R1-50P-24
Legend: black (non-refl)
Background: white



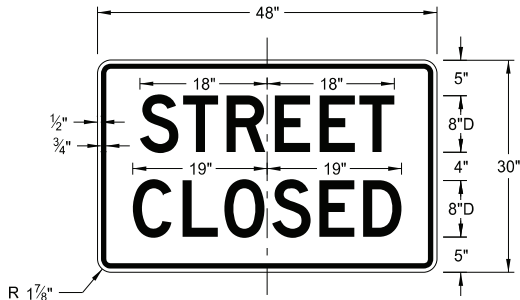
R11-3c-60
Legend: black (non-refl)
Background: white



R2-1aP-24
Legend: black (non-refl)
Background: white



R11-4a-60
Legend: black (non-refl)
Background: white



R11-2a-48
Legend: black (non-refl)
Background: white

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
8-13-13	
REVISIONS	
DATE	CHANGE
8-17-17	Revised sign number
10-03-19	New Design Engineer PE Stamp
8-01-24	Electronic Stamp/Signature



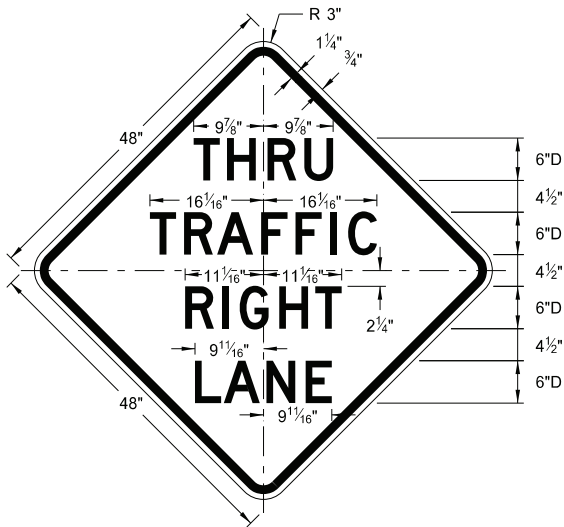
08/01/24

CONSTRUCTION SIGN DETAILS
WARNING SIGNS

D-704-11

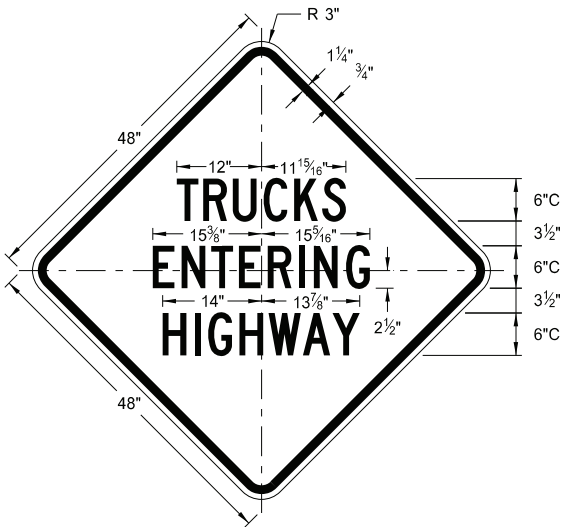
WORD	LETTER SPACING
AHEAD	Standard
200 FT	Standard
350 FT	Standard
500 FT	Standard
1000 FT	Reduce 40%
1500 FT	Reduce 40%
½ MILE	Reduce 50%
1 MILE	Standard

* DISTANCE MESSAGES



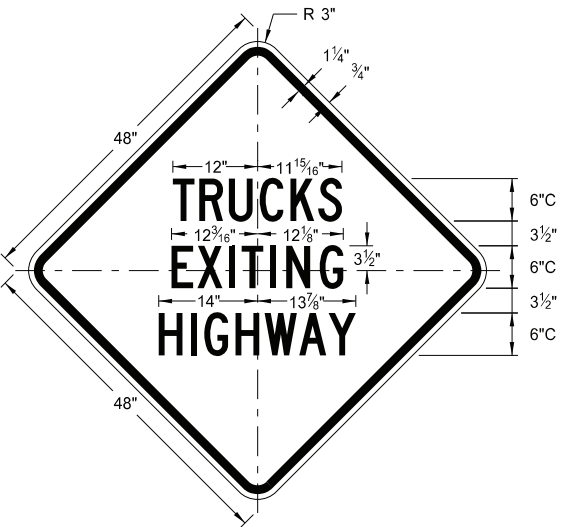
W5-8-48

Legend: black (non-refl)
Background: orange



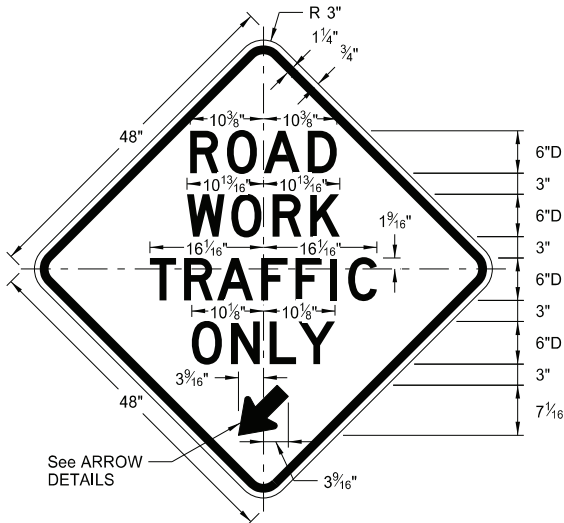
W8-53-48

Legend: black (non-refl)
Background: orange



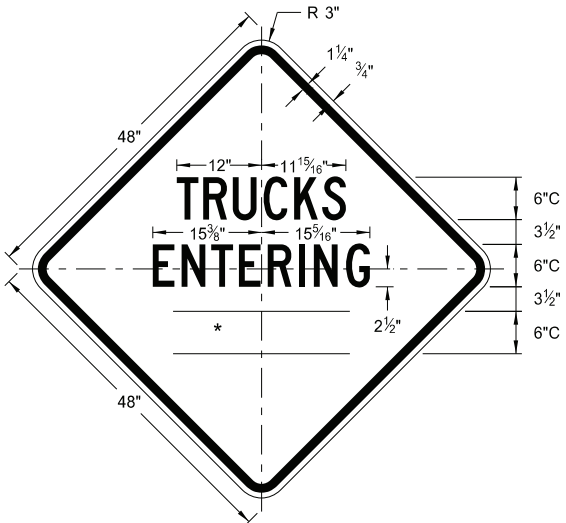
W8-56-48

Legend: black (non-refl)
Background: orange



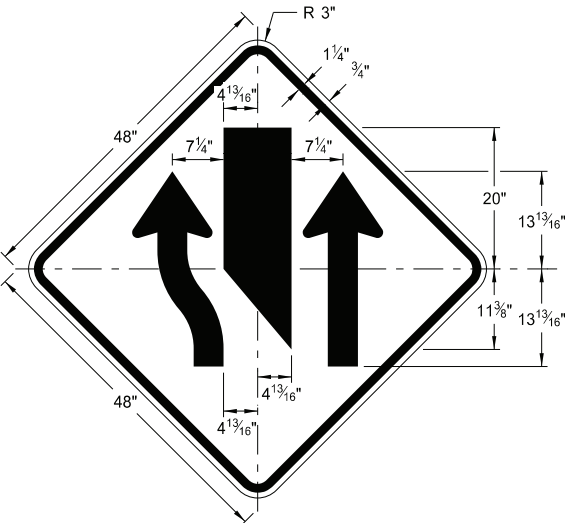
W5-9-48

Legend: black (non-refl)
Background: orange



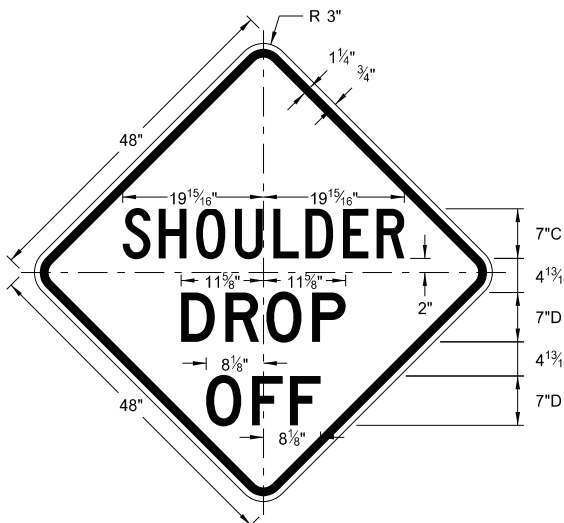
W8-54-48

Legend: black (non-refl)
Background: orange



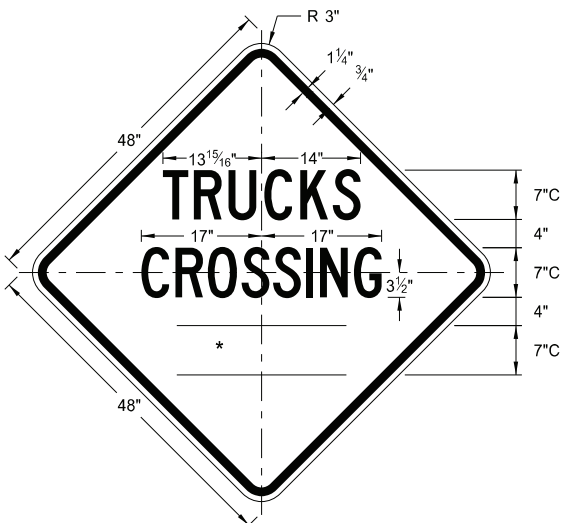
W9-3a-48

Legend: black (non-refl)
Background: orange



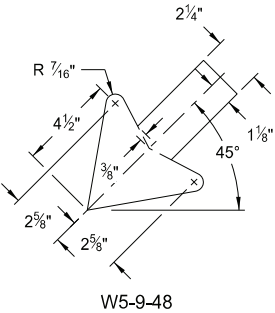
W8-9a-48

Legend: black (non-refl)
Background: orange

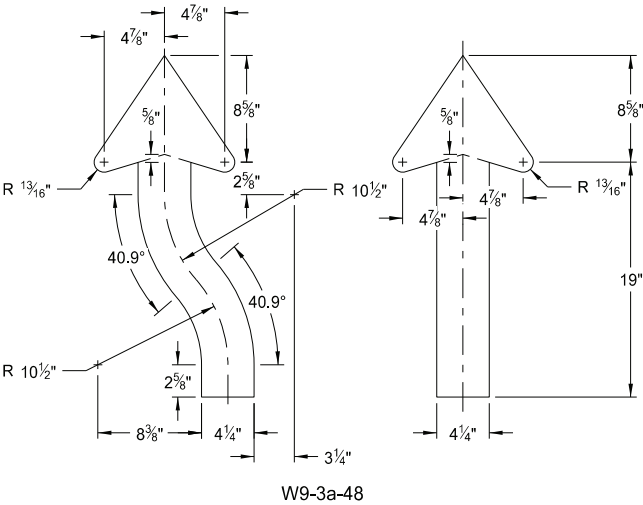


W8-55-48

Legend: black (non-refl)
Background: orange



W5-9-48



W9-3a-48

ARROW DETAILS

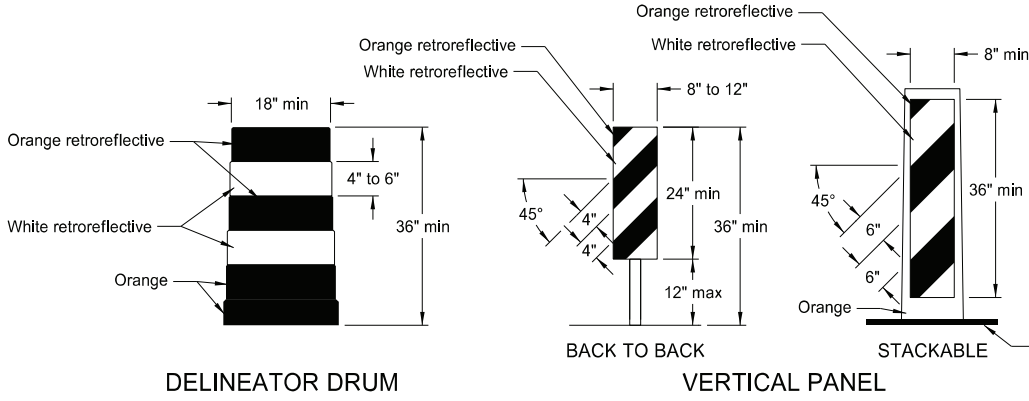
NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
8-13-13	
REVISIONS	
DATE	CHANGE
8-17-17	Updated sign number
5-31-18	Revised sign and arrow details
10-03-19	New Design Engineer PE Stamp
8-01-24	Electronic Stamp/Signature



08/01/24

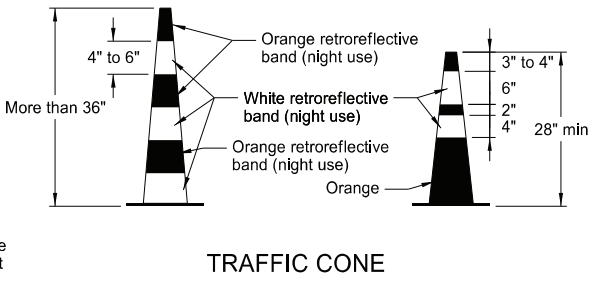
BARRICADE AND CHANNELIZING DEVICE DETAILS

D-704-13

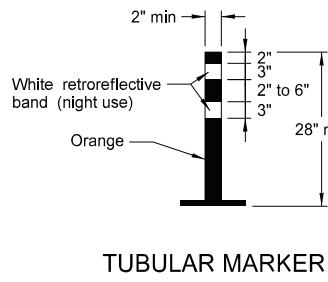


Provide horizontal, circumferential, alternating orange and white retroreflective stripes 4" to 6" wide for drum markings. Use a minimum of two orange and two white stripes with the top stripe being orange for each drum. Do not exceed 3" nonretroreflectORIZED spaces between the horizontal orange and white stripes. Avoid placement of stripes on drum ribs or indentations. Use closed top drums that will not allow collection of debris. Do not place ballast on the top of drum.

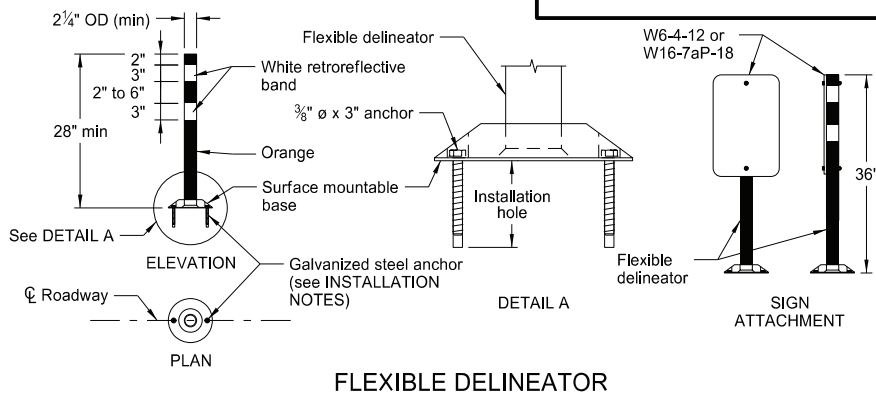
Provide alternating orange and white retroreflective stripes, sloping downward in direction vehicular traffic is to pass. Place retroreflective sheeting on both sides of panel with a minimum of 270 square inches of retroreflective area facing vehicular traffic. Where the height of the retroreflective material on the vertical panel is 36 inches or more, use a stripe width of 6 inches.



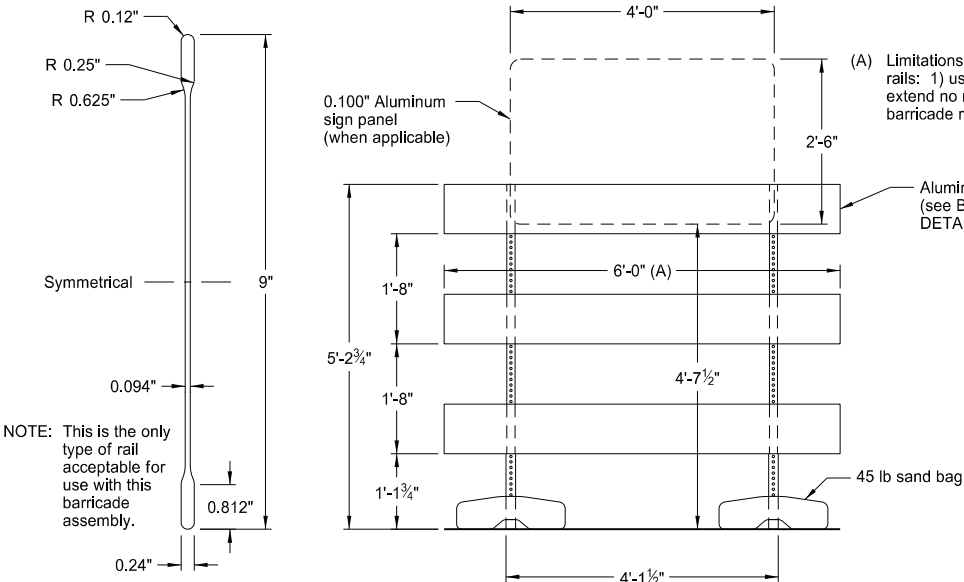
Provide retroreflectORIZATION of cones more than 36" in height by alternating orange and white retroreflective stripes. Use a minimum of two orange and two white stripes for each cone with the top stripe being orange. Use maximum 3" nonretroreflectORIZED space between the orange and white stripes.



Provide retroreflectORIZATION of tubular markers more than 42" in height by alternating four 4" to 6" wide orange and white stripes with the top stripe being orange.



- INSTALLATION NOTES:
1. Drill installation holes to diameter and depth required by manufacturer's specifications.
 2. For removal, remove anchors and fill installation hole with an epoxy designed to bond to pavement surface.
 3. In lieu of bolted down base, use an 8" x 8" butyl pad or hot melt butyl. Remove butyl as close as possible to pavement surface.

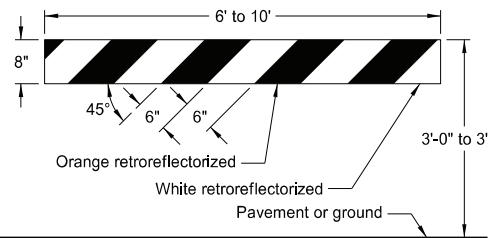


BARRICADE BLADE DETAIL

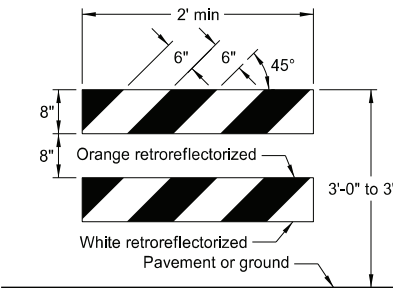
ELEVATION VIEW

BARRICADE ASSEMBLY DETAIL
(Aluminum Barricade Rails)

NOTE: For barricade markings use alternating orange and white retroreflective stripes, sloping downward in the direction traffic is to pass. Place retroreflective sheeting on both sides of the rails with a minimum of 270 square inches of visible retroreflective area facing vehicular traffic. When the barricade length is less than 36", use a rail stripe width of 4".

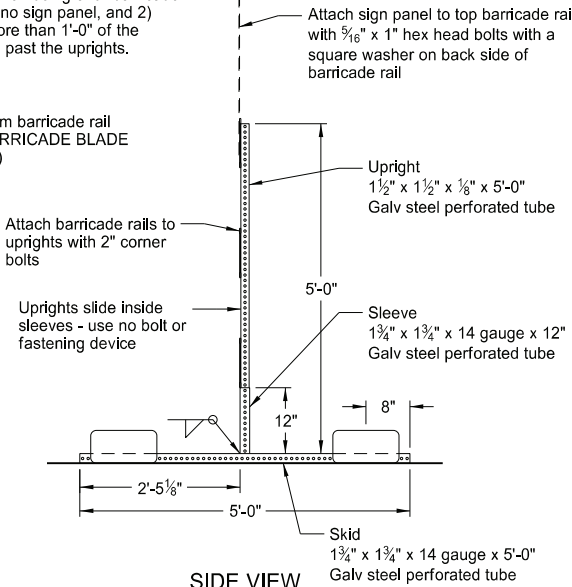


TYPE I BARRICADE

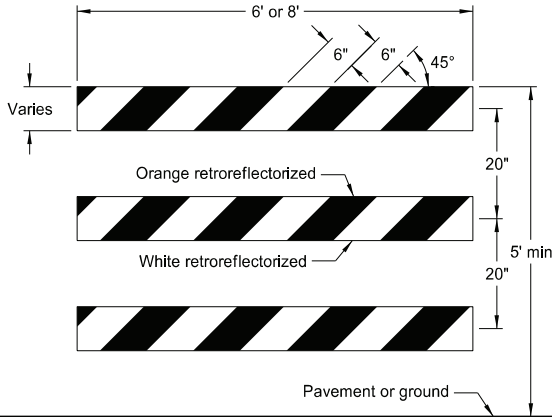


TYPE II BARRICADE

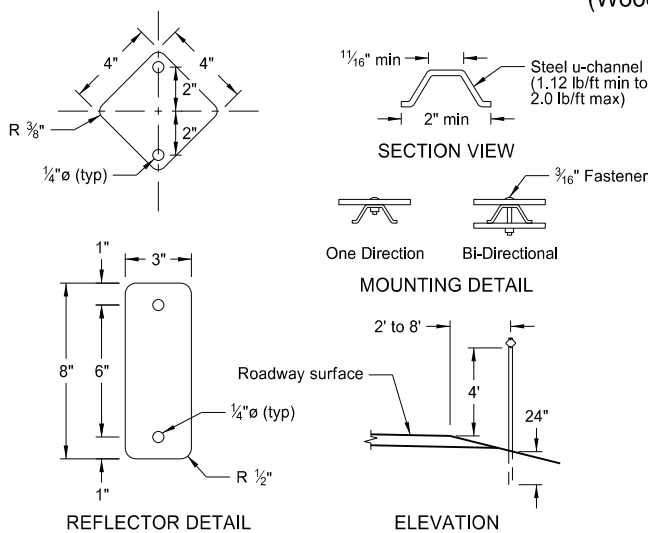
BARRICADE RAIL DETAILS



SIDE VIEW



TYPE III BARRICADE



DELINEATORS

BARRICADE ASSEMBLY DETAIL
(Wood or Plastic Rails)

MINIMUM BALLAST
(For each side of barricade support)

Without Sign	4 - 25 lb sandbags
With Sign	6 - 25 lb sandbags

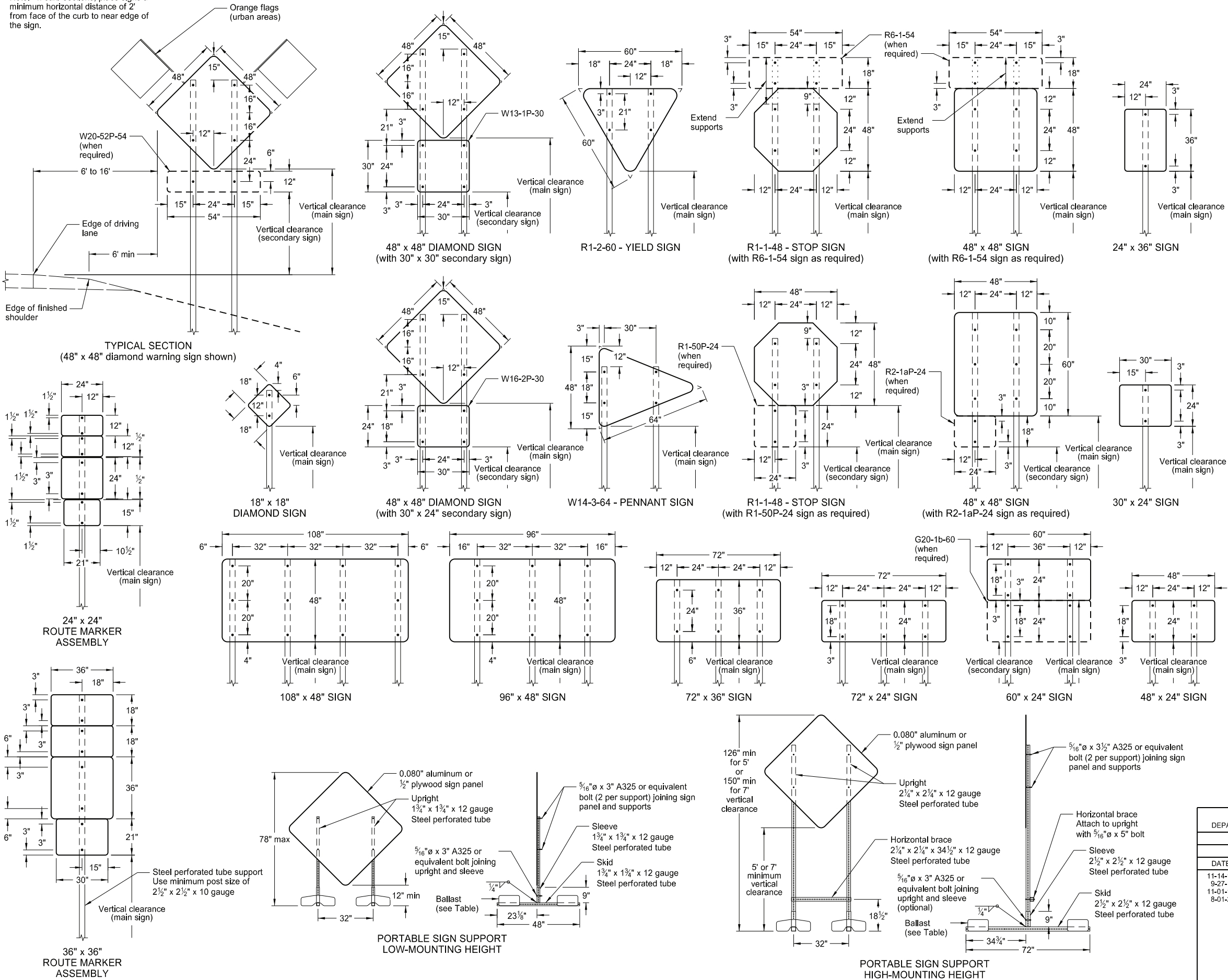
Note: Number of sandbags based on a wind speed of 55 MPH. Sandbags assumed to be placed at or near the ends of the skids.

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
10-3-13	
REVISIONS	
DATE	CHANGE
9-27-17	Updated to active voice
11-01-19	Revised details for Flexible Delineator
8-01-24	Electronic Stamp/Signature



CONSTRUCTION SIGN PUNCHING AND MOUNTING DETAILS

Note: In curb sections, place signs a minimum horizontal distance of 2' from face of the curb to near edge of the sign.



NOTES:

- 1. Sign Supports: Galvanize or paint supports. Minimum post sizes are 2.5 lb/ft u-channel or 2" x 2" x 12 gauge steel perforated tube, except where noted. When installing signs on u-channel, minimum post size for assemblies containing a secondary sign is 3.0 lb/ft. Post sizes based on a wind speed of 55 MPH.

Place signs over 50 square feet on 2½" x 2½" perforated tube supports as a minimum.

Do not attach guy wires to sign supports. Attach wind beams behind sign panels when used with u-posts.
- 2. Sign Panels: Provide sign panels made of 0.100" aluminum, ½" plywood, or other approved material, except where noted. Punch all holes round for ⅜" bolts.
- 3. Alternate Messages: Install and remove alternate message signs on reflectorized plate (without borders) as required. (i.e. "Left" and "Right" message on lane closure sign)
- 4. Route Marker Auxiliary Signs: Provide route marker auxiliary signs, such as the cardinal direction and directional arrows, with a background and legend that match the route marker they are used with:

Interstate - white legend on blue background
Interstate Business Loop - white legend on green background
US and State - black legend on white background
County - yellow legend on blue background

- 5. Vertical Clearance: Install signs with a vertical clearance of 5'-0" (see TYPICAL SECTION.) In areas where parking or pedestrian movements are likely or the view of the sign may be obstructed, install signs with a vertical clearance of 7'-0" from the top of the curb or from the near edge of the driving lane in absence of a curb.

The vertical clearance to secondary signs is 1'-0" less than the vertical clearance stated above.

Provide a minimum clearance of 7'-0" from the ground at the post for signs with an area exceeding 50 square feet.

- 6. Portable Signs: Provide portable signs that meet the vertical clearance stated above when it is necessary to place signs within the pavement surface.

Use of low-mounting height (minimum 12" vertical clearance) portable signs for 5 days or less, is allowed as long as the view of the sign is not obstructed. Time delays caused by unforeseen circumstances, such as equipment breakdown, rain, subgrade failures, etc., will not accrue towards the 5 day period. Use of R9-8 through R9-11a series, W1-6 through W1-8 series, M4-10, and E5-1 is allowed for longer than 5 days.

Restrict signs mounted on portable sign supports shown in the LOW-MOUNTING HEIGHT and HIGH-MOUNTING HEIGHT details to a maximum surface area of 16 square feet.

MINIMUM BALLAST
(For each side of sign support base)

Sign Panel Mounting Height (ft)	Number of 25 lb sandbags for 4' x 4' sign panel
1'	6
5'	8
7'	10

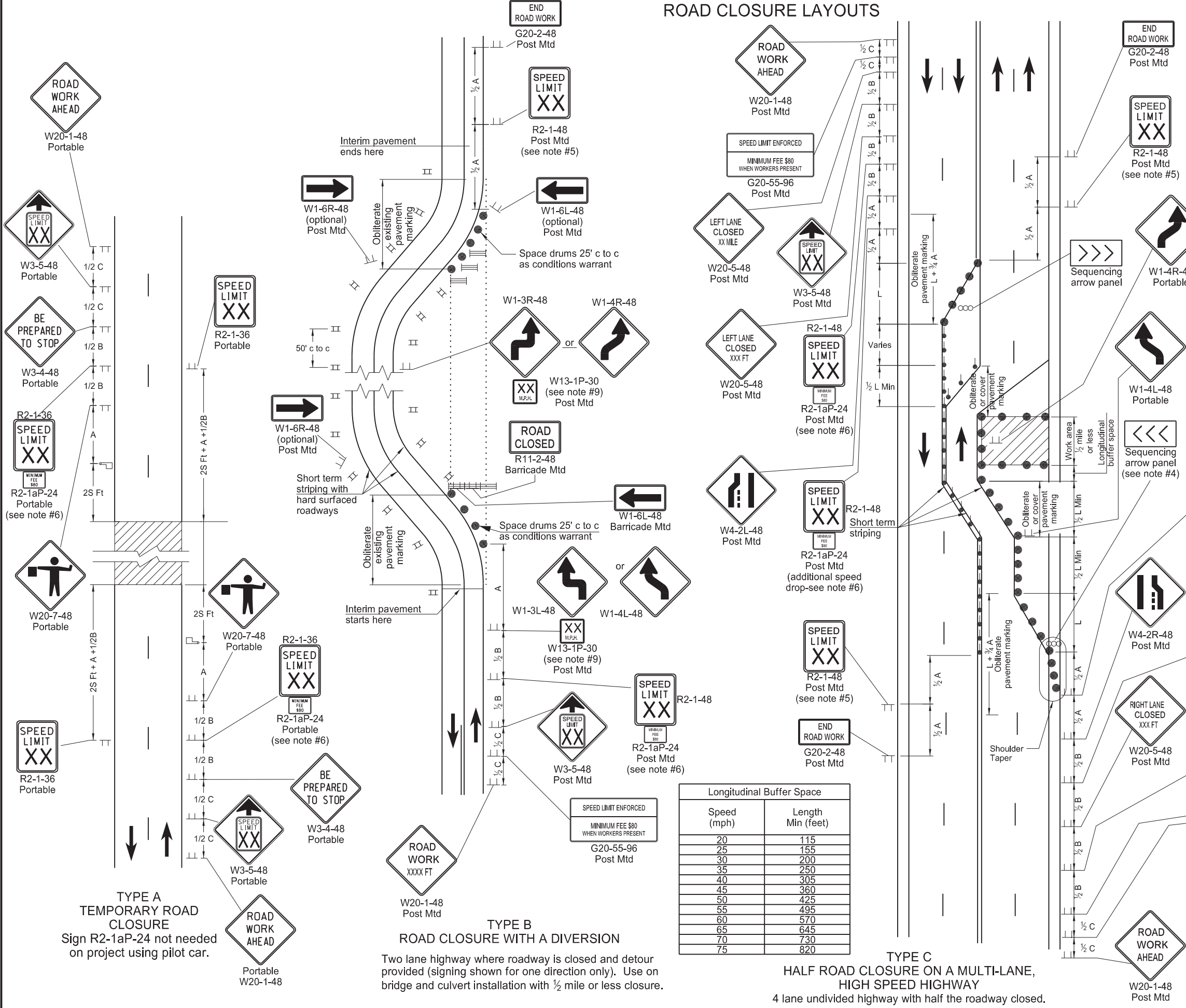
Note: The number of sandbags are based on a wind speed of 55 MPH. Place sandbags at or near the ends of sklds.

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
10-4-13	
REVISIONS	
DATE	CHANGE
11-14-13	Revised Note 6
9-27-17	Updated to active voice
11-01-19	Revised 60"x24" sign detail
8-01-24	Electronic Stamp/Signature



08/01/24

ROAD CLOSURE LAYOUTS



- Notes:
- 1. Variables
 - S = Numerical value of speed limit or 85th percentile.
 - W = The width of taper in feet.
 - L = Minimum length of taper, $S \times W$ for freeways, expressways, and other roads with speeds of 45 mph or greater, or $W \times S^2/60$ for urban, residential, and other streets with speeds of 40 mph or less.
 - 2. Place barricades on moveable assemblies and signs on portable assemblies when located on roadway.
 - 3. Place delineator drums, barricades or cones for tapering traffic at dimension "S" and for tangents space at 2 times dimension "S".
 - 4. Place Sequencing Arrow Panels at the beginning of the taper when possible. Where shoulder width does not provide sufficient room, move the panel closer to the work area and place on roadway surface. See Shoulder Closure Standard Drawing.
 - Use Type A on roadways with slow moving traffic speeds and low volume (25 mph or less and 750 ADT or less).
 - Use Type B on roadways with moderate traffic speeds and volumes (40 mph or less and 5000 ADT or less).
 - Use Type C on roadways with high traffic speeds and volumes (over 40 mph or over 5000 ADT).
 - 5. Re-establish speed. Determine exact speed limit in the field, dependent on location and conditions.
 - 6. Determine the reduced speed limit based on the in-place speed limit before construction. Where speed reductions exceed 30 mph, install a second speed limit sign with the desired speed reduction (not to exceed 30 mph.) Place the second speed limit sign at 1/2 B.
 - 7. Install flags on warning signs in urban areas when signs are not portable. Mount 24 inch square flags perpendicular to the edges of the sign, and at such a distance above the edge that the flag does not touch the sign when limp.
 - 8. Cover existing speed limit signs within reduced speed zones.
 - 9. Where necessary, engineer will determine safe speed.
 - 10. As an option, use portable sign supports in lieu of post mounted signs in accordance with NDDOT Standard Drawing D-704-14.
 - 11. Sign G20-55-96 is not required if this layout is part of other traffic control that contains this sign, or the work is less than 15 days.
 - 12. Recommend using 40 mph speed limit in vicinity of workers, unless location and conditions dictate otherwise.

ADVANCE WARNING SIGN SPACING				
Road Type	Distance Between Signs Min. (ft)			
	A	B	C	
Urban - Low Speed (30 mph or less)	150	150	150	
Urban - Low Speed (over 30 to 40 mph)	280	280	280	
Urban - High Speed (over 40 mph to 50 mph)	360	360	360	
Rural - High Speed (over 50 mph to 65 mph)	720	720	720	
Urban Expressway and Freeway (55 mph to 60 mph)	850	1350	2200	
Rural Expressway and Freeway (70 mph to 75 mph)	1000	1500	2640	
Interstate/4-Lane Divided (Maintenance and Surveying)	750	1000	1500	

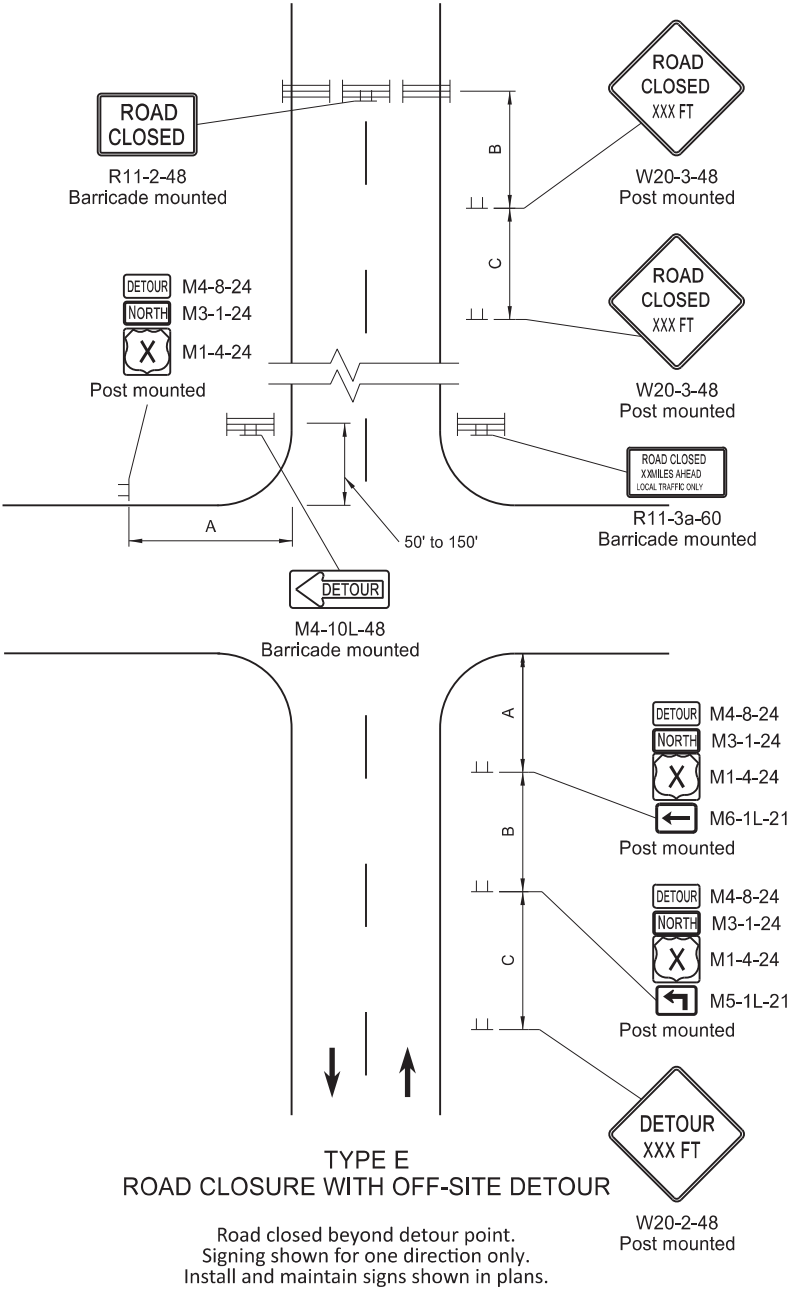
KEY			
	Type III barricade		Work area
	Sign		Flagger
	Delineator drum		Sequencing arrow panel
	Tubular markers		Vertical panels back to back

Longitudinal Buffer Space	
Speed (mph)	Length Min (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

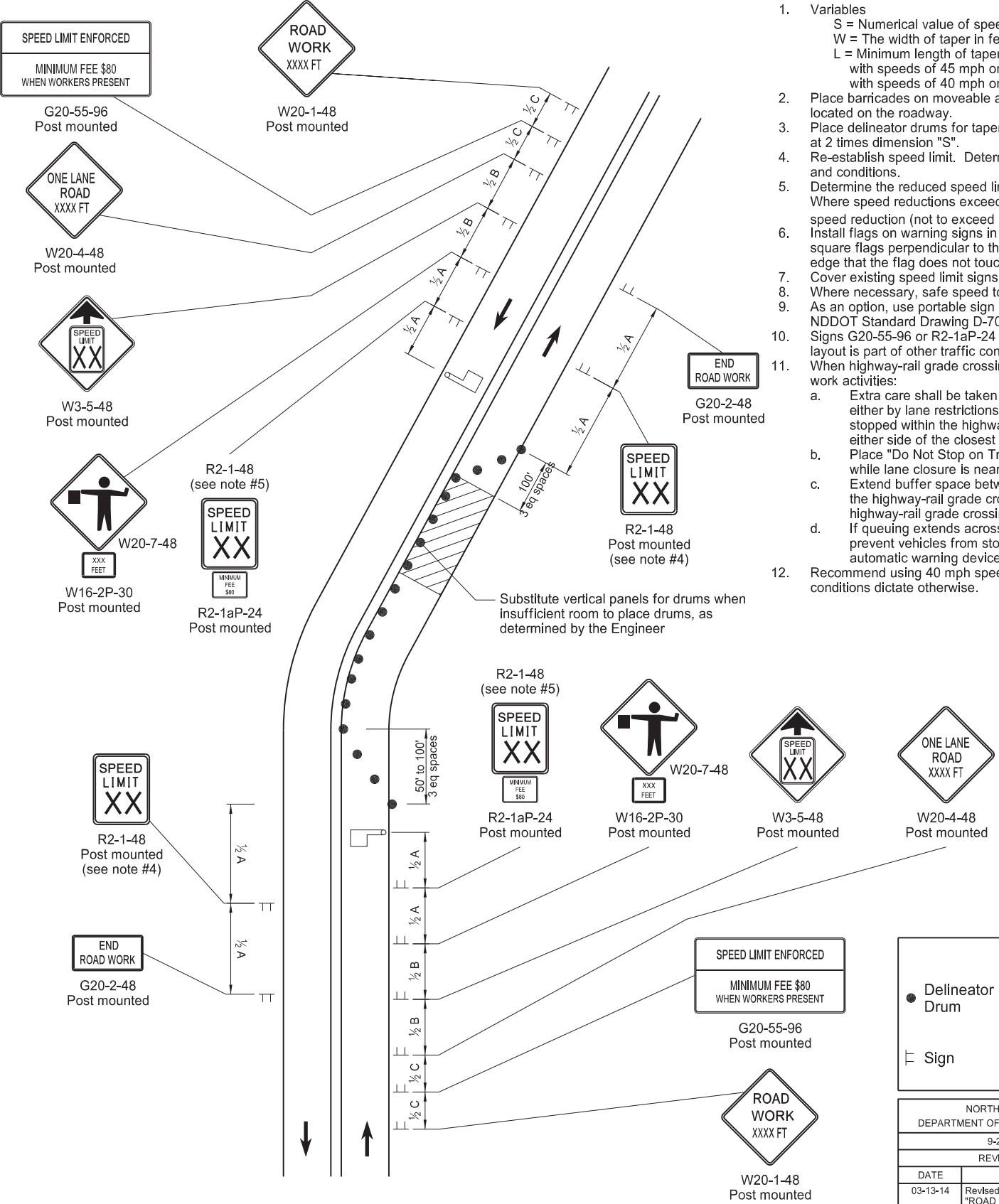
NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
9-27-13	
REVISIONS	
DATE	CHANGE
08-17-17	Updated Notes & Spd Limit signs
11-01-19	Sign, Notes, & Pmnt Mk updates
12-08-21	Switched order of Road Work Ahead and Spd Limit Enforced & added Dollars At Work
11-29-22	Removed Dollars At Work



11/29/22



ROAD CLOSURE AND LANE CLOSURE ON A TWO WAY ROAD LAYOUTS



TYPE F
LANE CLOSURE ON A TWO LANE ROAD USING FLAGGERS

Two lane highway with one lane closed.
Flagger at point visible to approaching traffic.

- Notes:
- Variables
S = Numerical value of speed limit or 85th percentile.
W = The width of taper in feet
L = Minimum length of taper in feet. S x W for freeways, expressways, and roads with speeds of 45 mph or greater, or W x S²/60 for urban, residential, and streets with speeds of 40 mph or less.
 - Place barricades on moveable assemblies and signs on portable assemblies when located on the roadway.
 - Place delineator drums for tapering traffic at 3 equal spaces and for tangents space them at 2 times dimension "S".
 - Re-establish speed limit. Determine exact speed limit in the field, dependent on location and conditions.
 - Determine the reduced speed limit based on the in place speed limit before construction. Where speed reductions exceed 30 mph, install a second speed limit sign with the desired speed reduction (not to exceed 30 mph.) Place second speed limit sign at 1/2B.
 - Install flags on warning signs in urban areas when signs are not portable. Mount 24 inch square flags perpendicular to the edges of the sign, and at such a distance above the edge that the flag does not touch the sign when limp.
 - Cover existing speed limit signs within a reduced speed zone.
 - Where necessary, safe speed to be determined by the Engineer.
 - As an option, use portable sign supports in lieu of post mounted signs in accordance with NDDOT Standard Drawing D-704-14.
 - Signs G20-55-96 or R2-1aP-24 are not required when pilot car operation is used, if this layout is part of other traffic control that contains this sign, or if work is less than 15 days. When highway-rail grade crossings exist either within or in the vicinity of the roadway work activities:
 - Extra care shall be taken to minimize the probability of conditions being created, either by lane restrictions, flagging or other operations, where vehicles might be stopped within the highway-rail grade crossing (considered as being 15 feet on either side of the closest and farthest rail.)
 - Place "Do Not Stop on Tracks" sign (R8-8-24) near cross buck in each direction while lane closure is near tracks.
 - Extend buffer space between work zone and lane closure transition upstream of the highway-rail grade crossing to prevent flagging queue from extending across highway-rail grade crossing.
 - If queuing extends across highway-rail crossing, provide flagger at crossing to prevent vehicles from stopping within the crossing (even when automatic warning devices are in place.)
 - Recommend using 40 mph speed limit in vicinity of workers, unless location and conditions dictate otherwise.

ADVANCE WARNING SIGN SPACING			
Road Type	Distance Between Signs Min. (ft)		
	A	B	C
Urban - Low Speed (30 mph or less)	150	150	150
Urban - Low Speed (over 30 to 40mph)	280	280	280
Urban - High Speed (over 40 mph to 50 mph)	360	360	360
Rural - High Speed (over 50 mph to 65 mph)	720	720	720
Urban Expressway and Freeway (55 mph to 60 mph)	850	1350	2200
Rural Expressway and Freeway (70 mph to 75 mph)	1000	1500	2640
Interstate/4-Lane Divided (Maintenance and Surveying)	750	1000	1500

KEY

● Delineator Drum

▬ Sign

▬ Type III Barricade

▨ Work/Hazard Area

⌵ Flagger

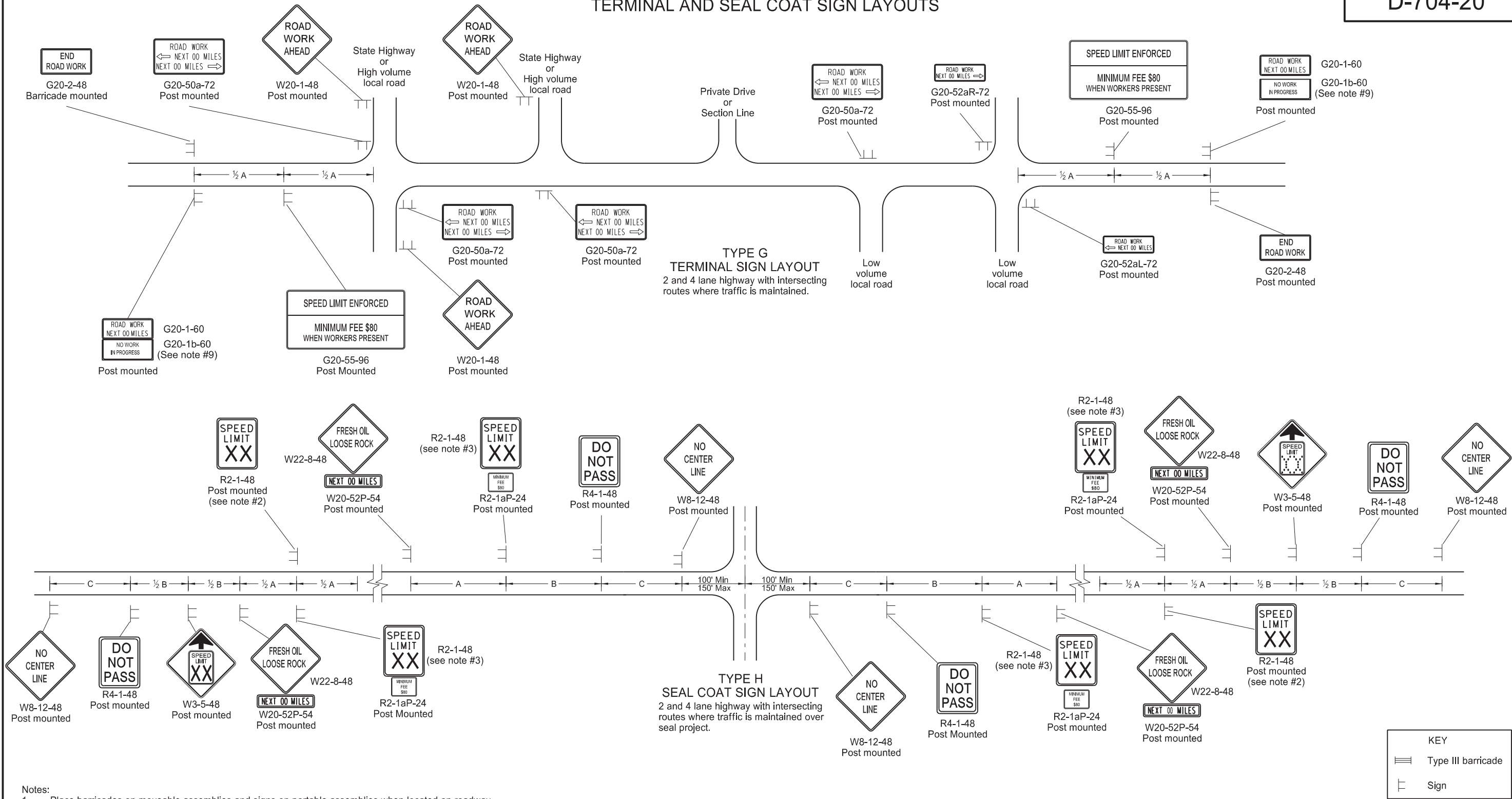
NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
9-27-13	
REVISIONS	
DATE	CHANGE
03-13-14	Revised Sign Cell "ROAD WORK XXX FT"
08-17-17	Update notes & sign numbers
11-01-19	Revised signs, sign #s, & notes
12-08-21	Switched order of Road Work XXX and Spd Limit Enforced & added Dollars At Work
11-29-22	Removed Dollars At Work



11/29/22

TERMINAL AND SEAL COAT SIGN LAYOUTS

D-704-20



Notes:

- Place barricades on moveable assemblies and signs on portable assemblies when located on roadway.
- Determine the exact speed limit in the field, based on location and conditions.
- Determine the reduced speed limit based on the in place speed limit before construction. Where speed limit reductions exceed 30 MPH, install a second speed limit sign with the desired speed reduction (not to exceed 30 MPH.) Place the second speed limit sign at $\frac{1}{2}$ B.
- Install flags on warning signs in urban areas when signs are not portable. Mount 24 inch square flags perpendicular to the edges of the sign, and at such a distance above the edge that the flag does not touch the sign when limp.
- Cover existing speed limit signs within a reduced speed zone.
- On seal coat projects, place signs R2-1-48, R2-1aP-24, R4-1-48, W22-8-48 and W20-52P-54 after all important intersections and at five mile intervals. Place sign W8-12-48 after all important intersections and at 2 mile intervals until short term center line pavement marking is placed.
- As an option, use portable sign supports in lieu of post mounted signs in accordance with the NDDOT Standard Drawing D-704-14.
- Cover or remove speed limit signs from layout Type H when loose aggregate is removed.
- Install sign G20-1b-60 when work is suspended for winter.
- Use other traffic control layouts in immediate work areas. Place sign R2-1aP-24 below speed limit signs in reduced speed limit work areas.
- Sign G20-55-96 is not required if this layout is part of other traffic control that contains this sign, or the work is less than 15 days.
- Recommend using 40 mph speed limit in vicinity of workers, unless location and conditions dictate otherwise.

ADVANCE WARNING SIGN SPACING			
Road Type	Distance Between Signs		
	Min. (ft)		
Urban - Low Speed (30 mph or less)	150	150	150
Urban - Low Speed (over 30 to 40 mph)	280	280	280
Urban - High Speed (over 40 mph to 50 mph)	360	360	360
Rural - High Speed (over 50 mph to 65 mph)	720	720	720
Urban Expressway and Freeway (55 mph to 60 mph)	850	1350	2200
Rural Expressway and Freeway (70 mph to 75 mph)	1000	1500	2640
Interstate/4-Lane Divided (Maintenance and Surveying)	750	1000	1500

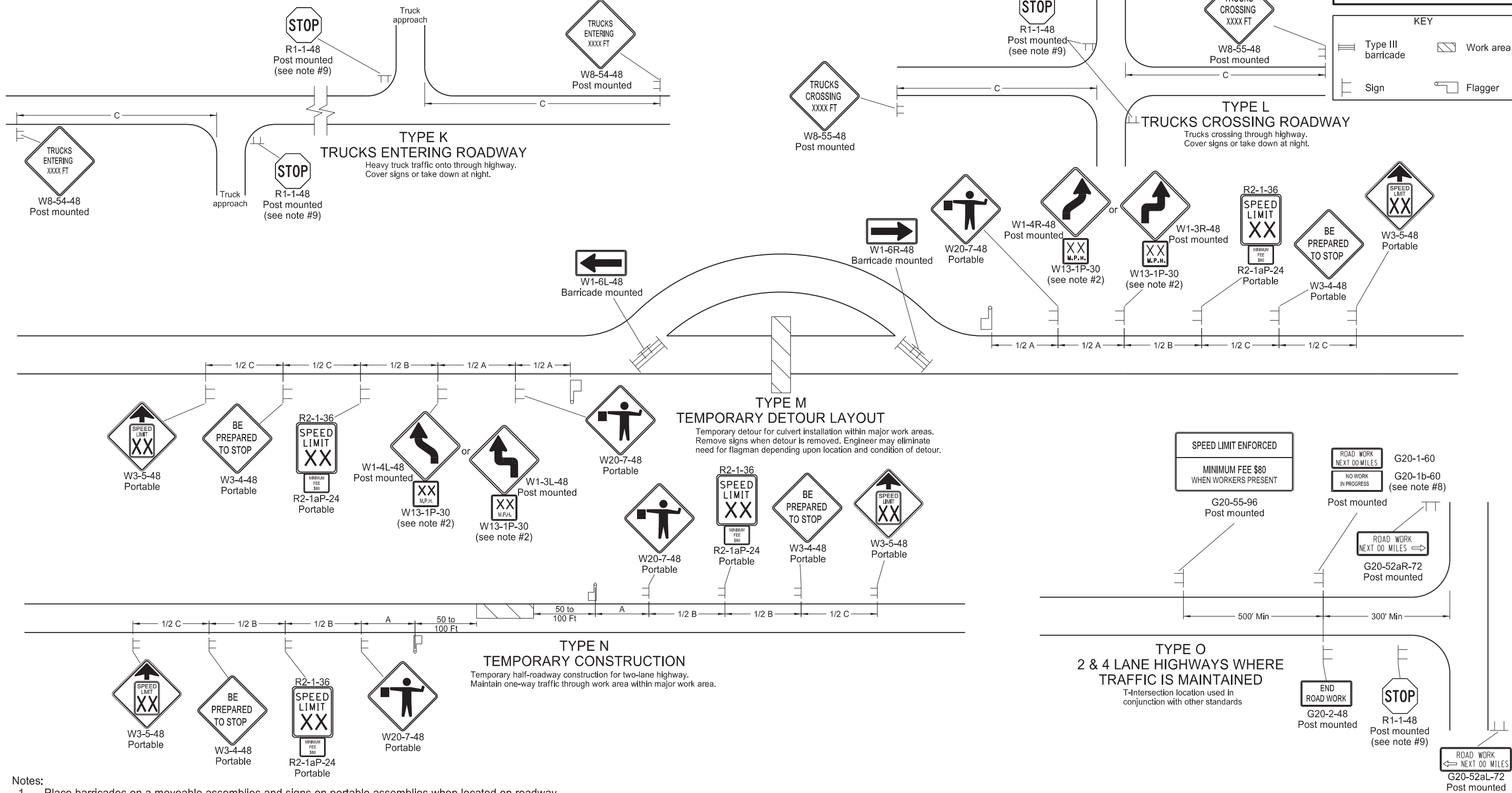
NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
9-27-13	
REVISIONS	
DATE	CHANGE
08-17-17	Updated notes & sign numbers
11-01-19	Updated note & sign
12-08-21	Switched order of Road Work and Spd Limit Enforced & added Dollars At Work
11-29-22	Removed Dollars At Work



11/29/22

CONSTRUCTION TRUCK AND TEMPORARY DETOUR LAYOUTS

D-704-22



Notes:

1. Place barricades on a moveable assemblies and signs on portable assemblies when located on roadway.
2. Where necessary, safe speed to be determined by the Engineer.
3. Determine the reduced speed limit based on the in-place speed limit before construction. Where speed reductions exceed 30 mph, install a second speed limit sign with the desired speed reduction (not to exceed 30 mph.) Place the second speed limit sign at ½ B.
4. Install flags on warning signs in urban areas when signs are not portable. Mount 24 inch square flags perpendicular to the edges of the sign, and at such a distance above the edge that the flag does not touch the sign when limp.
5. Cover existing speed limit signs within a reduced speed zone.
6. Covered (when approved by engineer) or obliterated pavement marking measured as Obliteration of Pavement Marking.
7. As an option, use portable sign supports in lieu of post mounted signs in accordance with NDDOT Standard Drawing D-704-14.
8. Install sign G20-1b-60 when work is suspended for winter.
9. If existing stop sign is in place, a 48" stop sign is not required.
10. Sign G20-55-96 is not required if layout is part of other traffic control that contains this sign, or if work is less than 15 days.
11. Recommend using 40 mph speed limit in vicinity of workers, unless location and conditions dictate otherwise.

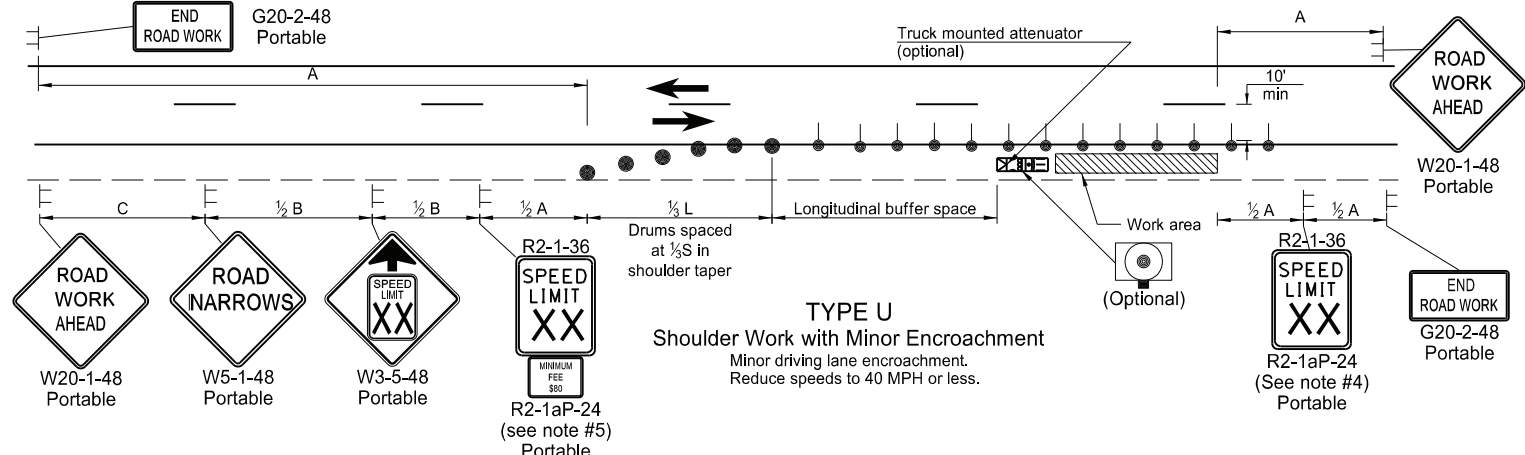
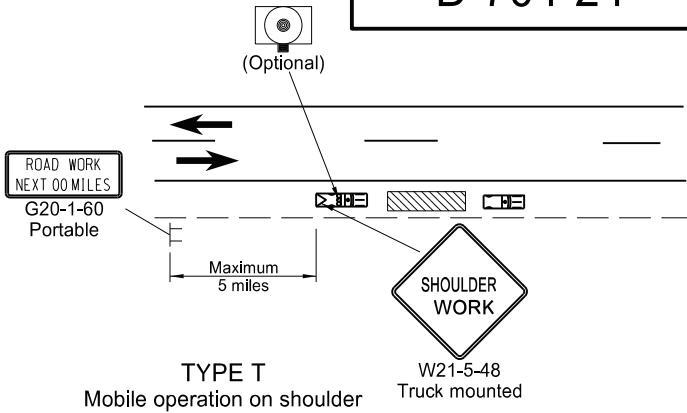
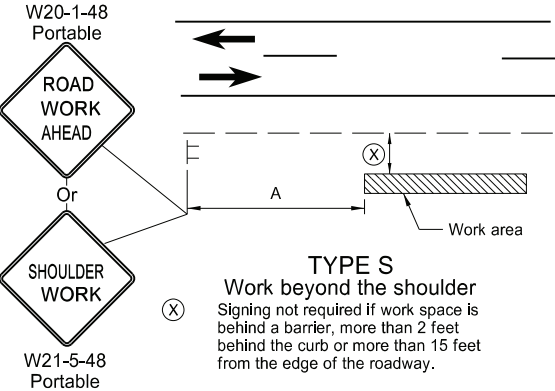
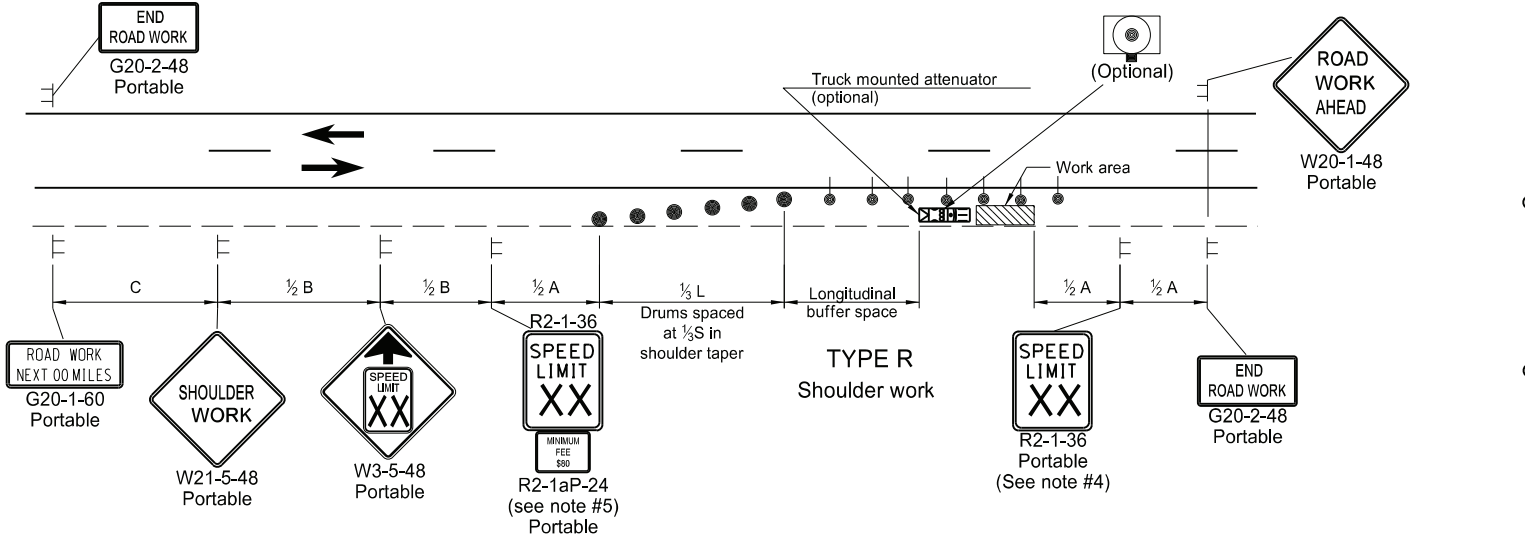
ADVANCE WARNING SIGN SPACING			
Road Type	Distance Between Signs Min. (ft)		
	A	B	C
Urban - Low Speed (30 mph or less)	150	150	150
Urban - Low Speed (over 30 to 40mph)	280	280	280
Urban - High Speed (over 40 mph to 50 mph)	360	360	360
Rural - High Speed (over 50 mph to 65 mph)	720	720	720
Urban Expressway and Freeway (55 mph to 60 mph)	850	1350	2200
Rural Expressway and Freeway (70 mph to 75 mph)	1000	1500	2640
Interstate/4-Lane Divided (Maintenance and Surveying)	750	1000	1500

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
9-27-13	
REVISIONS	
DATE	CHANGE
08-17-17	Update notes & sign numbers
11-01-19	Revised sign numbers & note
12-09-21	Added Speed Limit Enforced and Dollars At Work signs
11-29-22	Removed Dollars At Work

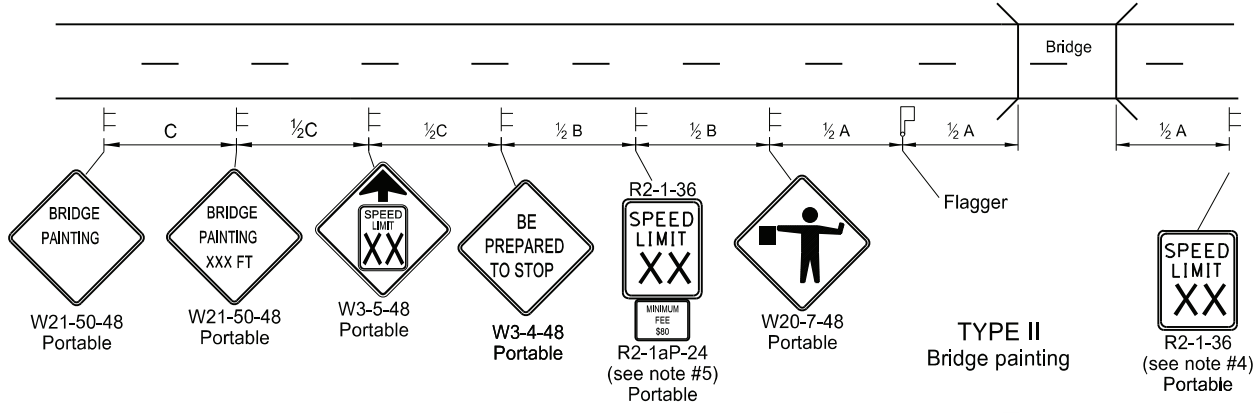
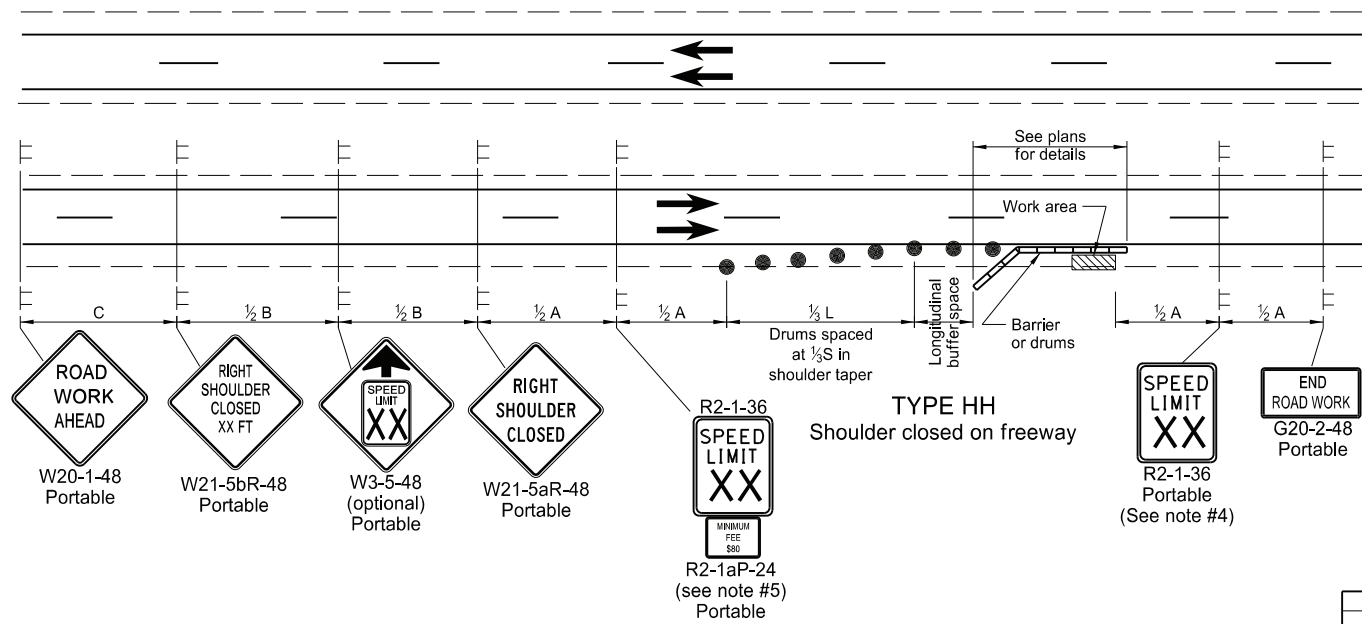
11/29/22

SHOULDER CLOSURES AND BRIDGE PAINTING LAYOUTS

D-704-24



- Notes
- Variables
 - S = Numerical value of speed limit or 85th percentile.
 - W = The width of the taper in feet.
 - L = Minimum length of taper, $S \times W$ for freeways, expressways, and all other roads with speeds of 45 mph or greater, or $W \times S^2/60$ for urban, residential, and other streets with speeds of 40 mph or less.
 - Space delineator drums for tapering traffic at dimension "S". Space delineator drums or tubular markers for tangents at 2 times "S".
 - Sequencing Arrow Panels
 - Use Type A on roadways with slow moving traffic speeds and low volume (25 mph or less and 750 ADT or less).
 - Use Type B on roadways with moderate traffic speeds and volumes (40 mph or less and 5000 ADT or less).
 - Use Type C on roadways with high traffic speeds and volumes (over 40 mph or over 5000 ADT).
 - Re-establish speed limit. Determine exact speed limit in the field, dependent on location and conditions.
 - Determine the reduced speed limit based on the in-place speed limit before construction. Where speed reductions exceed 30 MPH, install a second speed limit sign with the desired speed reduction (not to exceed 30 mph.) Place the second speed limit sign at 1/2 B.
 - Install flags on warning signs in urban areas when signs are not portable. Mount 24 inch square flags perpendicular to the edges of the sign, and at such a distance above the edge that the flag does not touch the sign when limp.
 - Cover existing speed limit signs within a reduced speed zone.
 - As an option, use portable sign supports in lieu of post mounted signs in accordance with NDDOT Standard Drawing D-704-14.
 - Recommend 40 mph speed limit in vicinity of workers, unless location and conditions dictate otherwise.



KEY

- Sign
- Delineator Drum
- Sequencing Arrow Panel (Caution Mode)
- Work area
- Tubular Marker

ADVANCE WARNING SIGN SPACING			
Road Type	Distance Between Signs		
	A	B	C
Urban - Low Speed (30 mph or less)	150	150	150
Urban - Low Speed (over 30 to 40 mph)	280	280	280
Urban - High Speed (over 40 mph to 50 mph)	360	360	360
Rural - High Speed (over 50 mph to 65 mph)	720	720	720
Urban Expressway and Freeway (55 mph to 60 mph)	850	1350	2200
Rural Expressway and Freeway (70 mph to 75 mph)	1000	1500	2640
Interstate/4-Lane Divided (Maintenance and Surveying)	750	1000	1500

Longitudinal Buffer Space	
Speed (mph)	Length Min (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

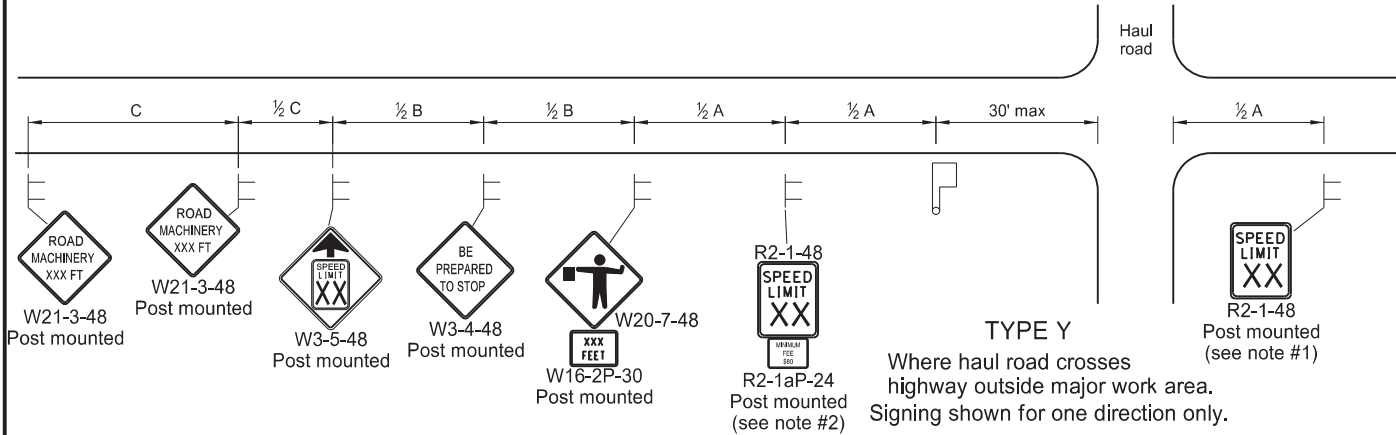
NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
9-27-13	
REVISIONS	
DATE	CHANGE
8-17-17	Updated notes & revised signs
11-01-19	Revised drum spacing & signs nos.
8-01-24	Electronic Stamp/Signature



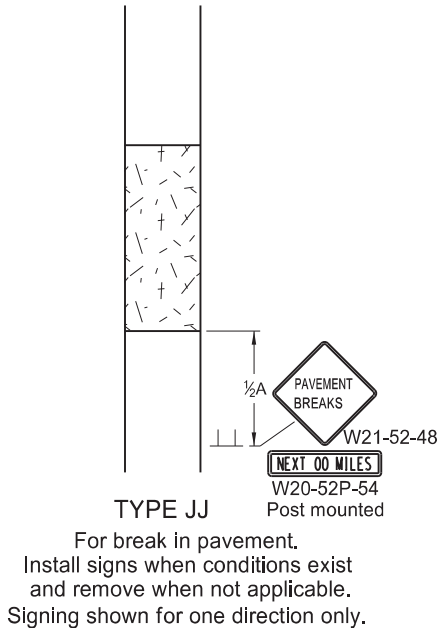
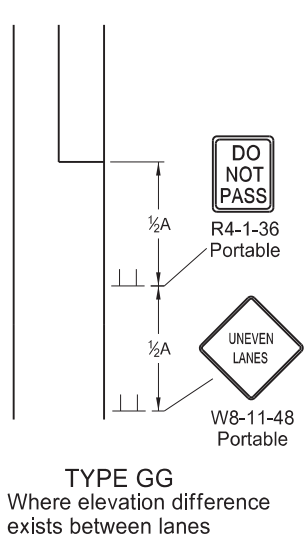
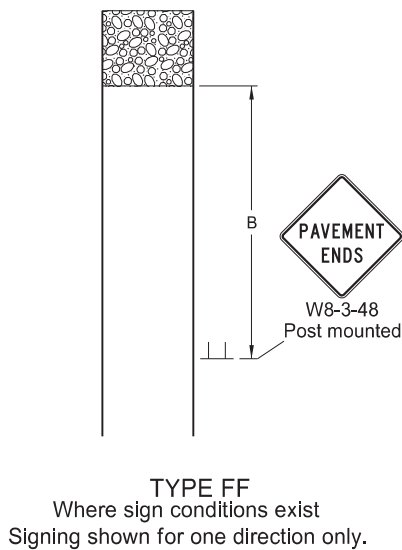
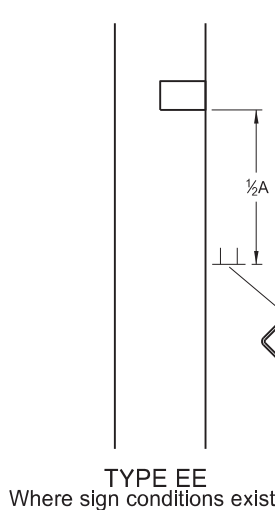
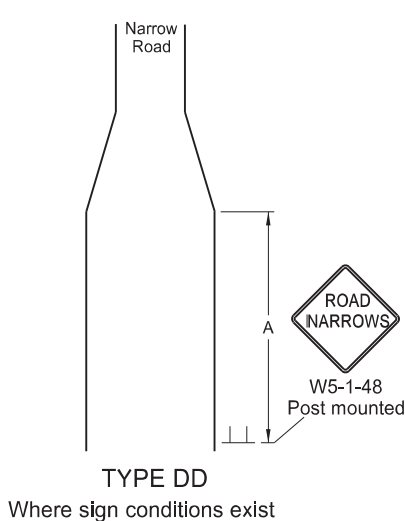
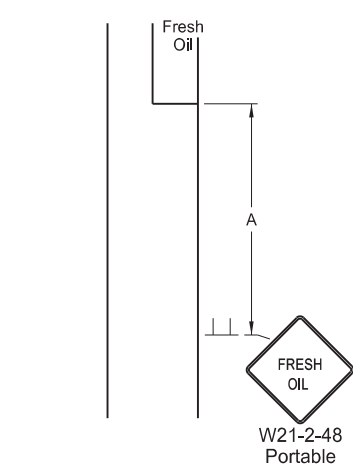
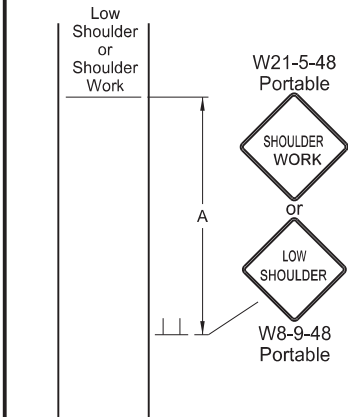
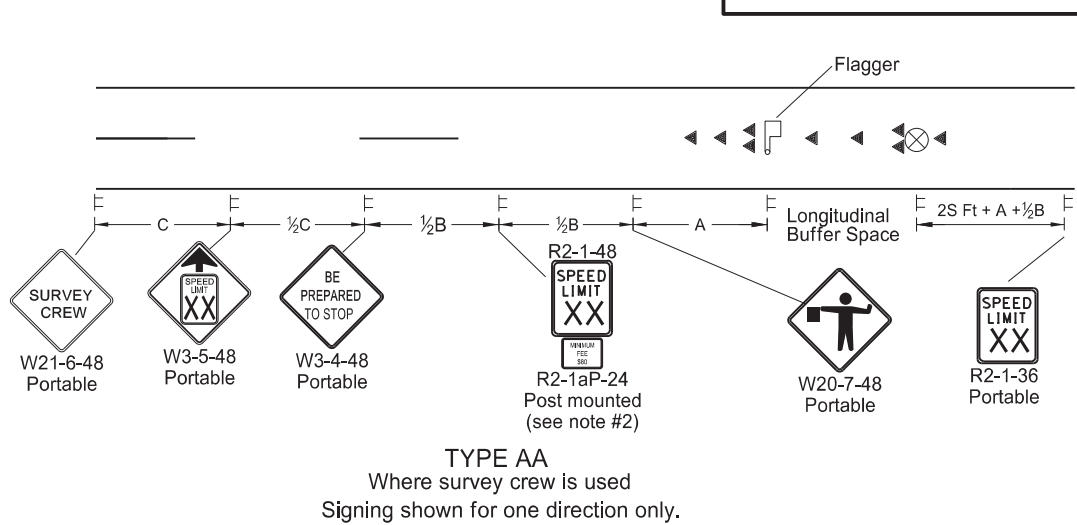
08/01/24

MISCELLANEOUS SIGN LAYOUTS

D-704-26



TYPE Z
Where speed zone is needed
Signing shown for one direction only.



KEY

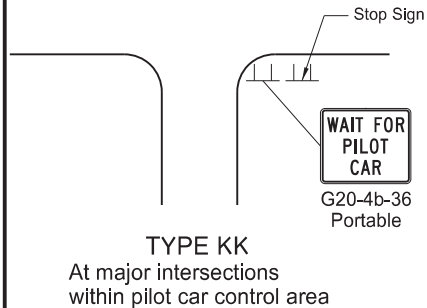
Flagger

Sign

Cones

Survey Equipment

S = Numerical value of speed limit or 85th percentile.



- Notes
- Re-establish speed limit. Determine exact speed limit in the field, dependent on location and conditions.
 - Determine reduced speed limit based on in-place speed limit before construction. Where speed reductions exceed 30 mph, install a second speed limit sign with the desired speed reduction (not to exceed 30 mph.) Place the second speed limit sign at 1/2 B.
 - Install flags on warning signs in urban areas when signs are not portable. Mount 24 inch square flags perpendicular to the edges of the sign, and at such a distance above the edge that the flag does not touch the sign when limp.
 - Cover existing speed limit signs within reduced speed zones.
 - As an option, use portable sign supports in lieu of post mounted signs in accordance with NDDOT Standard Drawing D-704-14.
 - Sign G20-55-96 is not required if this standard is part of other traffic control layouts, or work is less than 15 days.
 - When pilot car operation is used, place sign G20-4b-36 "Wait For Pilot Car" at major intersections within pilot car control area.
 - Recommend 40 mph speed limit in vicinity of workers, unless location and conditions dictate otherwise.
 - Layouts shown for one direction only.

ADVANCE WARNING SIGN SPACING			
Road Type	Distance Between Signs Min. (ft)		
	A	B	C
Urban - Low Speed (30 mph or less)	150	150	150
Urban - Low Speed (over 30 to 40 mph)	280	280	280
Urban - High Speed (over 40 mph to 50 mph)	360	360	360
Rural - High Speed (over 50 mph to 65 mph)	720	720	720
Urban Expressway and Freeway (55 mph to 60 mph)	850	1350	2200
Rural Expressway and Freeway (70 mph to 75 mph)	1000	1500	2640
Interstate/4-Lane Divided (Maintenance and Surveying)	750	1000	1500

Longitudinal Buffer Space	
*Speed (mph)	Length Min (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

* Posted speed, off-peak 85th percentile speed prior to work starting, or the anticipated operating speed in mph.

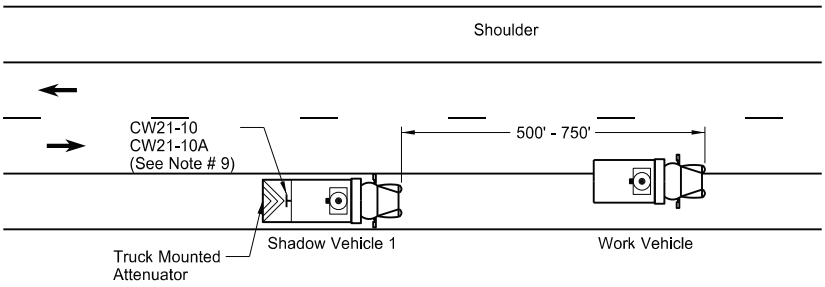
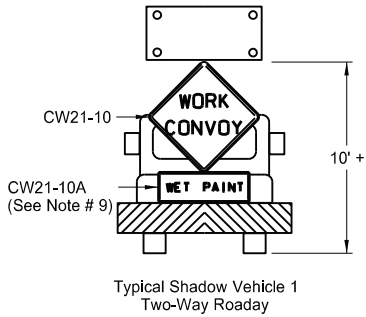
NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
9-27-13	
REVISIONS	
DATE	CHANGE
8-17-17	Added speed limit signs. Updated notes & sign numbers.
11-01-19	Revised note 5 & sign numbers.
2-23-23	Revised distance & removed signs.



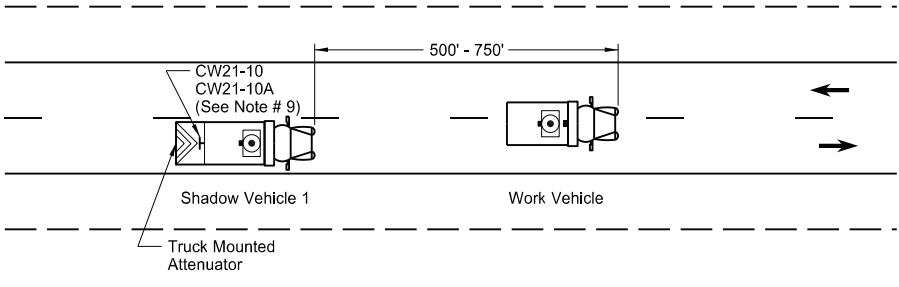
02/23/23

MOBILE OPERATION
(PAVEMENT MARKING)

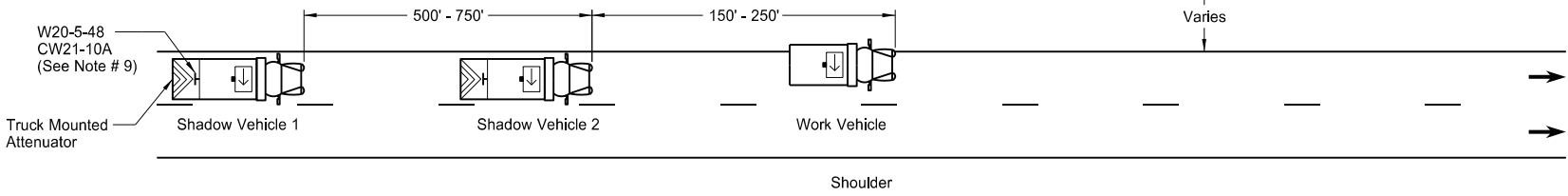
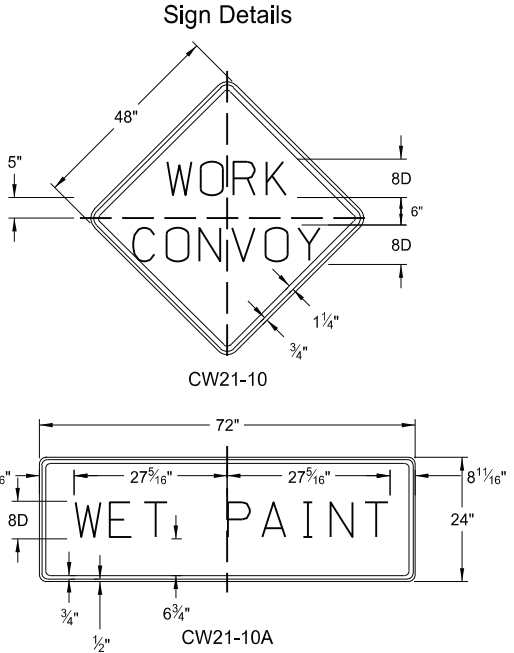
D-704-27



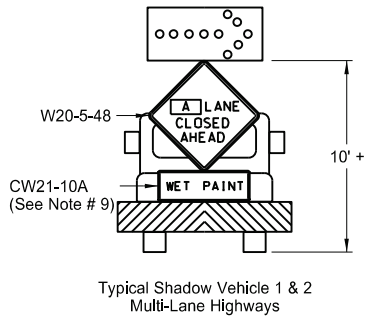
Two-Way Roadway with Paved Shoulders



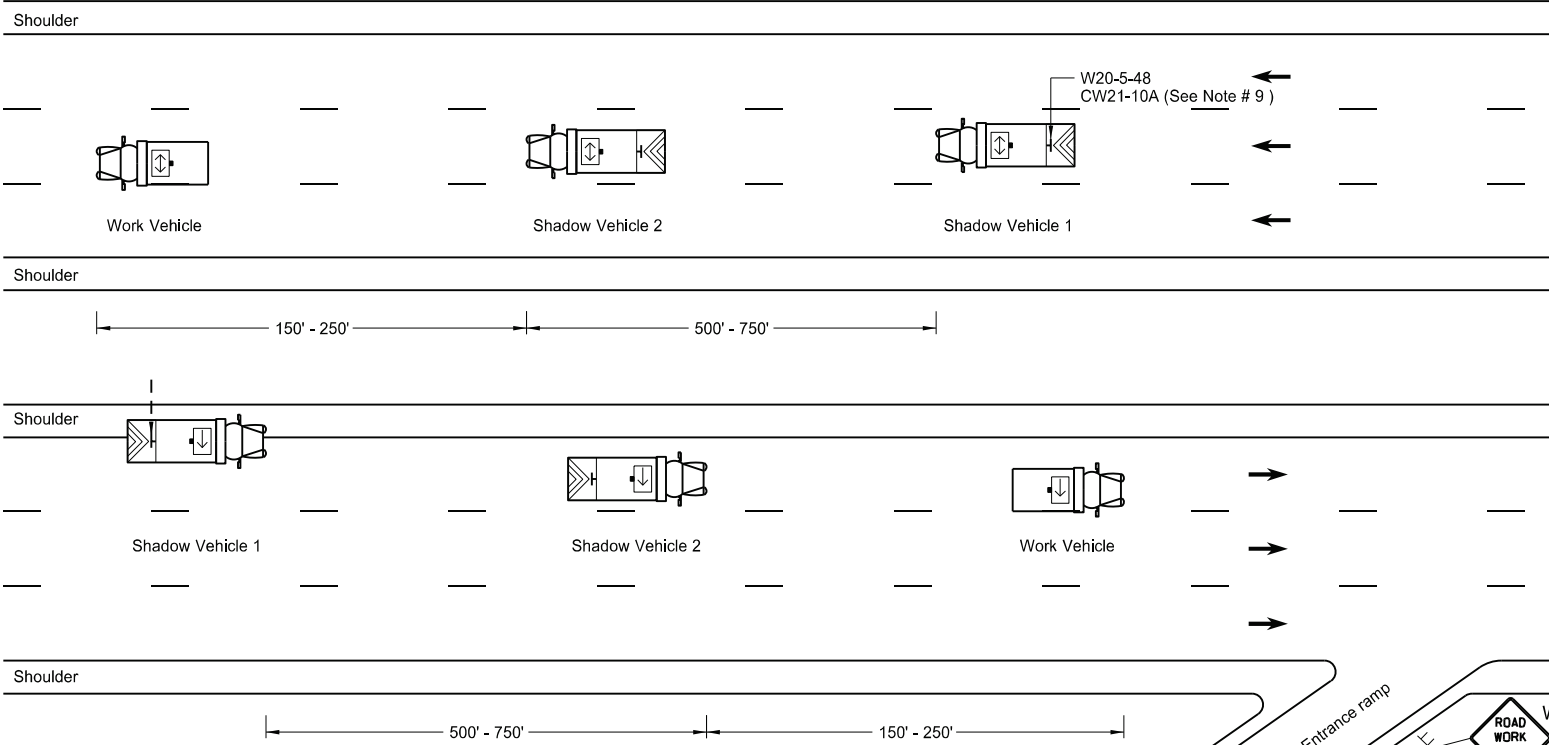
Two-Way Roadway without Paved Shoulders



Undivided Multi-Lane Roadway

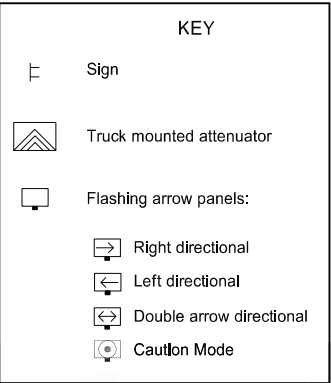


A = ☐ Left ☐ Right ☐ Center

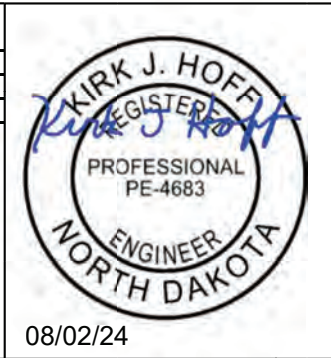


Divided Multi-Lane Highway

- Notes
1. Use additional vehicles you choose to be in the convoy with truck mounted attenuators, at your own expense.
 2. Display yellow rotating beacons or strobe lights on shadow and work vehicles, unless otherwise stated in the plans.
 3. Use Type B or Type C flashing arrow panels controlled from inside the vehicle.
 4. Provide each vehicle with two-way electronic communication capability.
 5. Move shadow vehicle 1 first to shadow other convoy vehicles when convoy changes lane.
 6. Vary vehicle spacing between shadow vehicle 1 and shadow vehicle 2 based on sight distance restrictions. Motorists approaching the work convoy need to see trail vehicle in time to slow down and/or change lanes as they approach shadow vehicle.
 7. Sign Colors
Letters = Black
Border = Black
Background = Orange
 8. As an option, use shadow vehicle 2 the paint tender vehicle.
 9. Use sign CW21-10A only during painting operation.
 10. Pull over work and shadow vehicles periodically to allow motor vehicle traffic to pass on two lane - two way roadways.

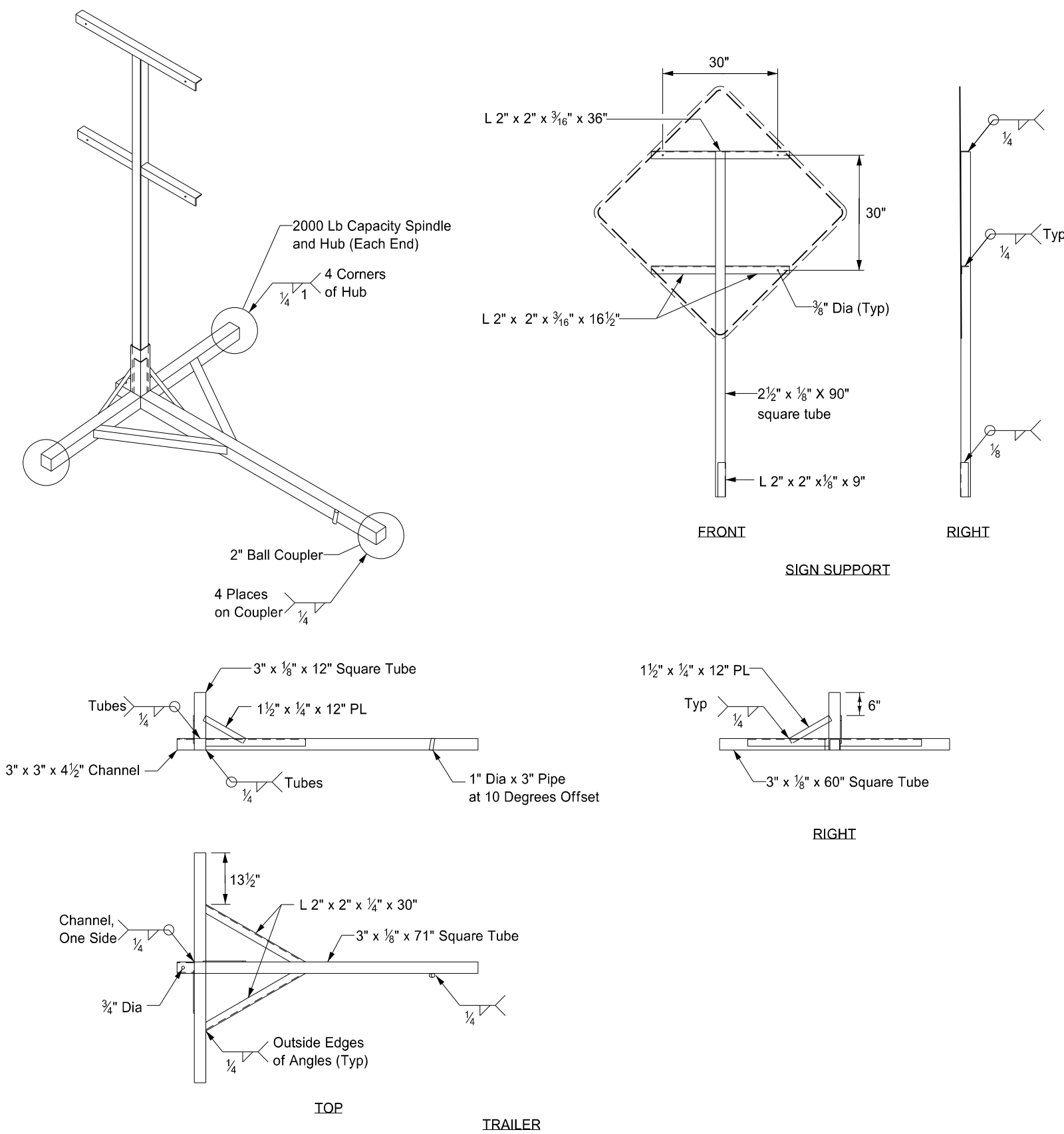


NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
9-27-13	
REVISIONS	
DATE	CHANGE
6-18-14	Removed shadow vehicle 2 on two lane roadways
9-27-17	Updated to active voice
11-08-19	Changed Standard Heading
6-02-24	Electronic Stamp/Signature.



PORTABLE SIGN SUPPORT ASSEMBLY

D-704-50



- Notes:
- 1. Maximum 250 pound weight of assembly.
 - 2. Use a 14" wheel and tire.
 - 3. Use no automotive and equipment axle assemblies for trailer-mounted sign supports.
 - 4. Other NCHRP 350 or MASH crash tested assemblies are acceptable.

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
11-23-10	
REVISIONS	
DATE	CHANGE
12/02/2020	Updated Note to active voice.

KIRK J. HOFF

REGISTERED

PROFESSIONAL

PE-4683

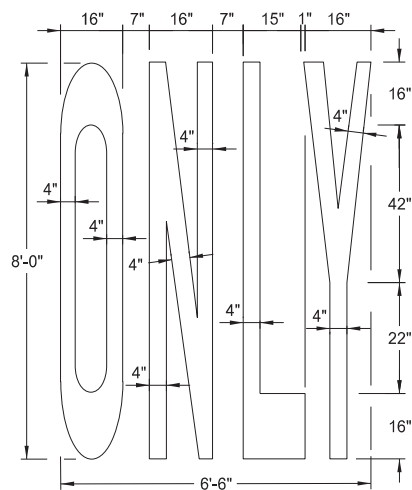
ENGINEER

NORTH DAKOTA

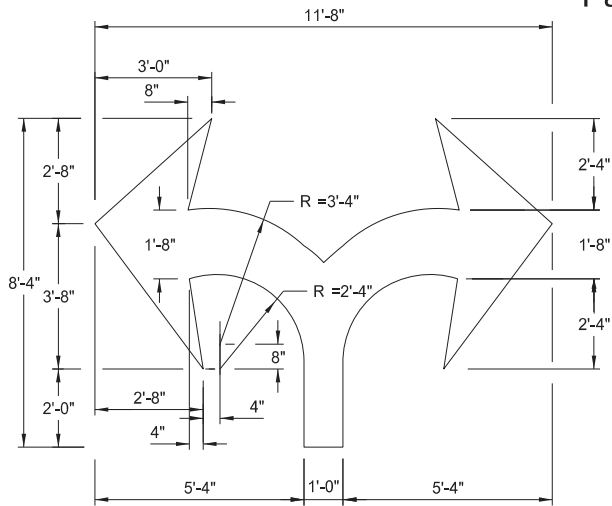
12 02 2020

Pavement Marking Message Details

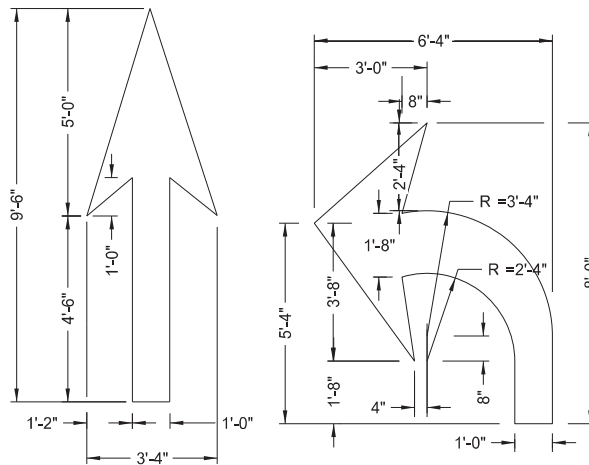
D-762-1



22 S. F.

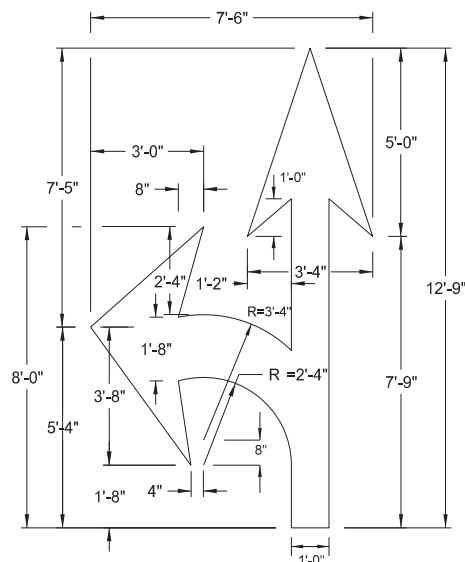


29 S. F.

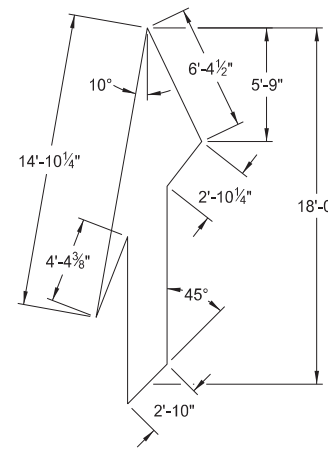


12 S. F.

16 S. F.



27 S. F.

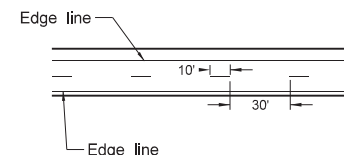


41 S. F.

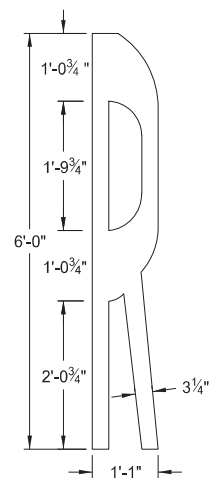
Note: Rotate merge arrow
20° from edge of roadway.

Speed Limit	Chevron Width	Chevron Spacing 45° to Traffic
0-25 mph	8"	5'
30-40 mph	8"	15'
45 mph and above	12"	25'

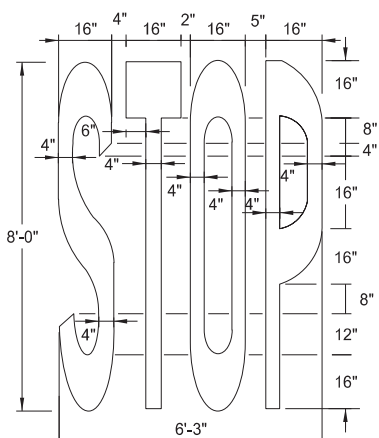
Chevron Crosshatching Table



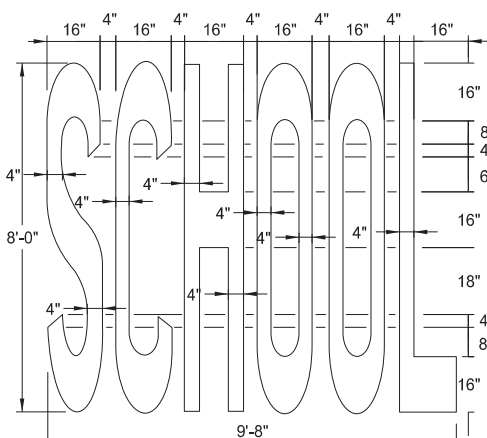
Centerline Pavement Marking Skip Spacing Detail



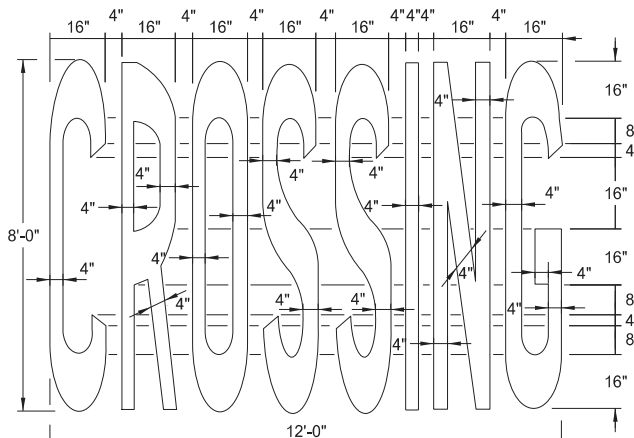
4 S. F.



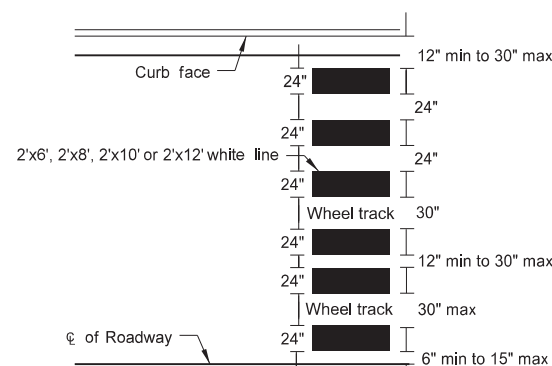
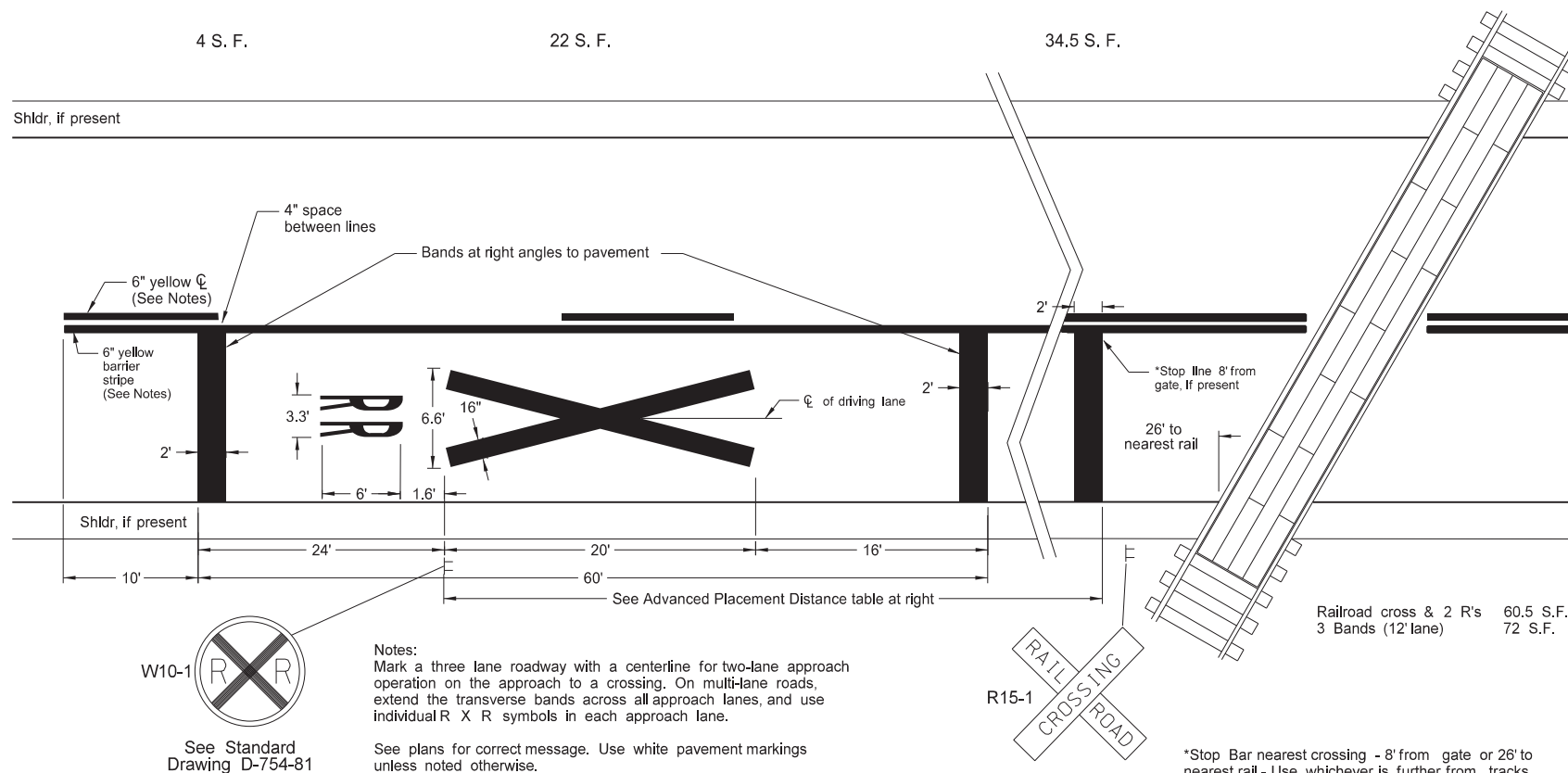
22 S. F.



34.5 S. F.



46 S. F.



Continental Crosswalk Detail

- NOTES:
1. Normal width line - 6 inches wide for freeways, expressways, and ramps; 6 inches for all other roadways with speed limits > 40 mph,
 2. Use 4 or 6 inch wide pavement marking for all other roadways with speed limits ≤ 40 mph.

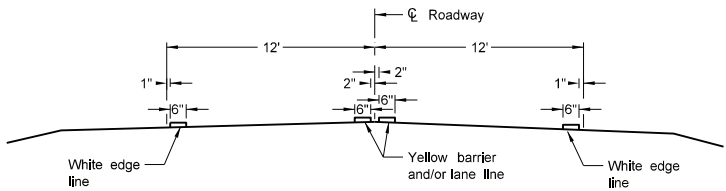
Advance Placement Distance for Railroad Warning Signs	
Posted or 85th Percentile Speed	Advance Distance
20 mph	min. 100 ft
25 mph	min. 100 ft
30 mph	min. 100 ft
35 mph	min. 100 ft
40 mph	125 ft
45 mph	175 ft
50 mph	250 ft
55 mph	325 ft
60 mph	400 ft
65 mph	475 ft
70 mph	550 ft

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
12-6-11	
REVISIONS	
DATE	CHANGE
10-17-17	Updated to active voice.
08-27-19	New Design Engineer PE Stamp.
01-28-2020	Revised min Stop Bar distance to
11-26-2023	Revised pavement marking widths.

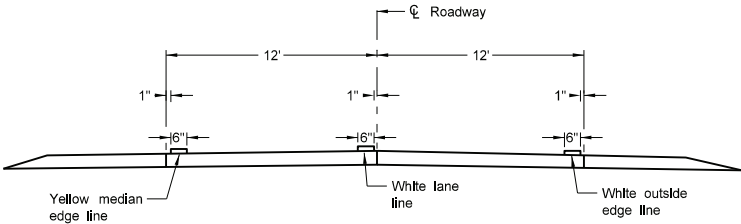


PAVEMENT MARKING

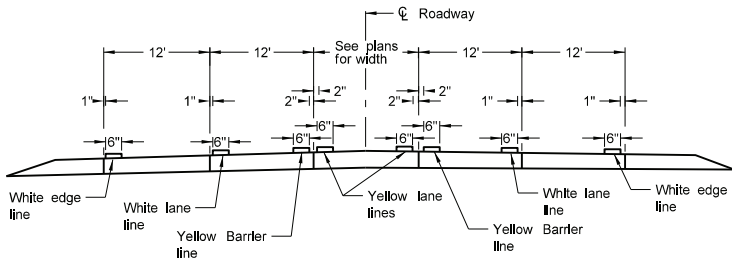
D-762-4



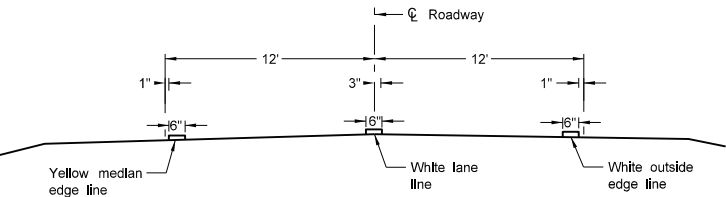
Two Lane Two Way
RURAL ROADWAY



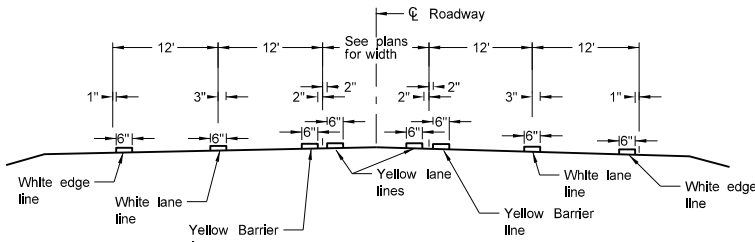
Two Lane Roadway
INTERSTATE HIGHWAY
Concrete Section



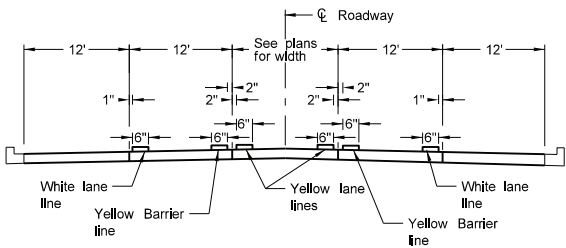
RURAL FIVE LANE ROADWAY
Concrete Section



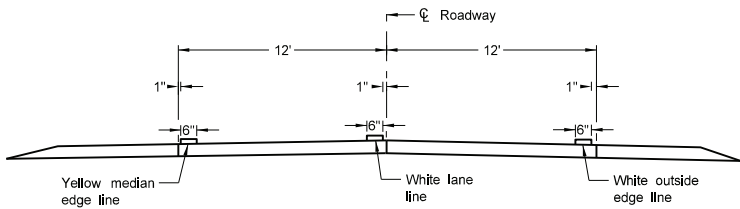
Two Lane Divided
Rural Roadway
PRIMARY HIGHWAY
Asphalt Section



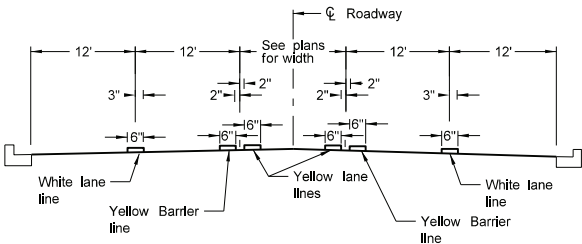
RURAL FIVE LANE ROADWAY
Asphalt Section



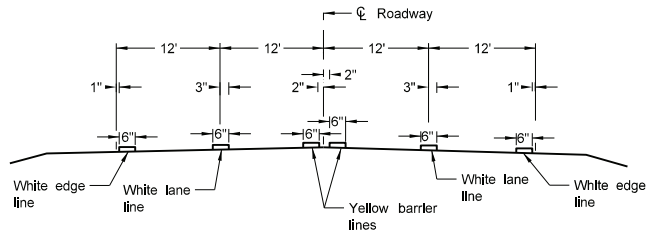
URBAN FIVE LANE SECTION
Concrete Section



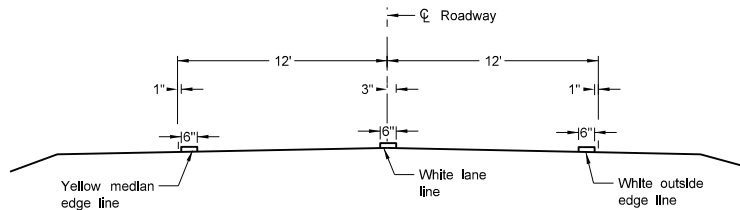
Two Lane Divided
Rural Roadway
PRIMARY HIGHWAY
Concrete Section



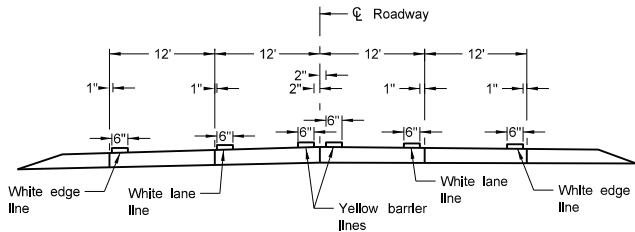
URBAN FIVE LANE SECTION
Asphalt Section



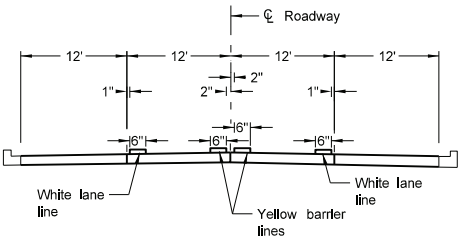
RURAL FOUR LANE ROADWAY
Asphalt Section



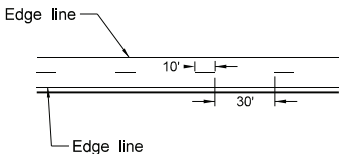
Two Lane Roadway
INTERSTATE HIGHWAY
Asphalt Section



RURAL FOUR LANE ROADWAY
Concrete Section



URBAN FOUR LANE SECTION
Concrete Section



CENTERLINE PAVEMENT MARKING SKIP SPACING DETAIL

NOTES:

1. Continue edge lines through private drives and field drives. Break edge lines for intersections.

For section lines, county roads, and street approaches, stripe the radii and edge lines of the paved surface within the right of way except where curb and gutter is present.

2. Normal width line - 6 inches wide for freeways, expressways, and ramps; 6 inches for all other roadways with speed limits > 40 mph.

3. Use 4 or 6 inch wide pavement marking for all other roadways with speed limits < 40 mph.

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
12-1-10	
REVISIONS	
DATE	CHANGE
10-17-17	Updated to active voice.
08-27-19	New Design Engineer PE Stamp.
11-22-23	Revised pavement marking widths.
07-09-24	Modified Note 1.

