ADDENDUM NO. 1

December 20, 2024

FOR

Beach 2025 Street and Utility Project

FOR

CITY OF BEACH

This Addendum No. 1 forms a part of the Contract Documents and modifies the original Bidding Documents as noted within this Addendum. All provisions of the Contract Documents not in conflict with this Addendum shall remain in full force. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This addendum consists of two (2) pages and eleven (11) attachments.

CHANGES TO DIVISION 00 – PROCUREMENT AND CONTRACT REQUIREMENTS

- 1. SECTION C-111 ADVERTISEMENT FOR BIDS FOR CONSTRUCTION CONTRACT
 - a. Page 3; **DELETE** Bidders are required to comply with Bipartisan Infrastructure Law (BIL) signage requirements.
- 2. <u>SECTION C-410 BID FORM FOR CONSTRUCTION CONTRACT</u>
 - a. Page 2; **REVISE** Bid item 14 Street Crowning quantity from 15,636 s.y. to 14,414 s.y.
- 3. <u>SECTION C-801 FUNDING AGENCY REQUIREMENTS</u>
 - a. Page 39 Signage Requirements; **DELETE** Entirety of Page 39.

CHANGES TO DIVISION 01 – GENERAL REQUIREMENTS

- 4. <u>SECTION 01 15 00 SPECIAL PROVISIONS</u>
 - Page 01 15 00 3; DELETE "All surface restoration done as part of the project to Central Ave and Mainstreet shall be done with recycled asphalt pavement (RAP)" from note K.1.
 - b. Page 01 15 00 3; **ADD** "For all surface restoration done as part of the project to only Central Ave and Main Street, the Contractor has the option to utilize

Beach 2025 Street and Utility Improvements



recycled asphalt pavement (RAP). RAP can be produced from a source of the contractor's choosing but must meet standard specifications." To note K.1.

c. Page 01 15 00 – 3; ADD "STREET CROWNING 1. Asphalt for crowning application shall comply with section 32 12 16 – Asphalt Paving 2. Streets shall be crowned as shown in plans.".

CHANGES TO DIVISION 32 – EXTERIOR IMPROVEMENTS:

- 1. <u>SECTION 32 12 16 ASPHALT PAVING</u>
 - a. Page 32 12 16 2; **DELETE** FAA 41 **REPLACE** FAA 43
 - b. Page 32 12 16 7-9; **ADD** Section 3.08-B through 3.08-O.

CHANGES TO DRAWINGS

- 1. SHEET G2 GENERAL NOTES
 - a. ADD RECYCLED PAVEMENT (RAP) general note
 - b. ADD STREET CROWNING general note
- 2. <u>SHEET C14 5TH AVENUE SE 3RD STREET SE TO 120' N OF 2ND STREET SE</u>
 - a. **ADD** General note "FULL ROAD RECONSTRUCTION SHALL TAKE PLACE ON 5TH AVE SE FROM 3RD ST SE TO MAIN ST. REFER TO SHEET C36."
- 3. <u>SHEET C15 5TH AVENUE SE 120' N OF 2ND ST SE TO 150' N OF 1ST ST SE</u>
 - a. **ADD** General note "FULL ROAD RECONSTRUCTION SHALL TAKE PLACE ON 5TH AVE SE FROM 3RD ST SE TO MAIN ST. REFER TO SHEET C36."
- 4. <u>SHEET C16 5th AVENUE SE 150' N OF 1ST STREET SE TO MAIN STREET</u>
 - a. **ADD** General note "FULL ROAD RECONSTRUCTION SHALL TAKE PLACE ON 5TH AVE SE FROM 3RD ST SE TO MAIN ST. REFER TO SHEET C36."
- 5. SHEET C35 DETAILS
 - a. DELETE <u>"6" TYPE A3 AGGREGATE</u> from detail 1/C35 "OPEN CUT ROAD ASPHALT (RESIDENTAIL STREETS) REPLACE with "8" TYPE A3 AGGREGATE".
- 6. SHEET C36 DETAILS
 - a. **DELETE** Base bid and alternate bid notes from detail 1/C36.
 - b. ADD General note "FULL ROAD RECONSTRUCTION SHALL TAKE PLACE ON 5TH AVE SE FROM 3RD ST SE TO MAIN ST. REFER TO SHEET C14-C16." To detail 1/C36.
- 7. SHEET C39 DETAILS
 - a. ADD Detail 1/C39 STREET CROWNING MAP
 - b. ADD Detail 2/C39 STREET CROWNING SECTION

END OF ADDENDUM NO. 1 (SEE ATTACHMENTS)

Beach 2025 Street and Utility Improvements

Attachments

Beach 2025 Street and Utility ImprovementssProject No. P05066-2022-001

ADVERTISEMENT FOR BIDS

City of Beach Beach, ND 2025 Street & Utility Project

General Notice

City of Beach (Owner) is requesting Bids for the construction of the following Project:

Beach 2025 Street & Utility Project AE2S Project No. P05066-2022-001

Bids for the construction of the Project will be received at the **Beach City Hall** located at **153 East Main Street, PO Box 278, Beach, ND 58621** until **Wednesday, January 15, 2025 at 12:00 PM Mountain Time**. At that time the Bids received will be **publicly** opened and read.

Bids being mailed or delivered prior to January 15, 2025 can be sent to:

City of Beach Attn: Kim Gaugler, City Auditor 153 Main Street Beach, ND 58621 -or-

Bids shall be uploaded to: QuestCDN vBid System. Bids will be read aloud via in person and via Teams conferencing:

Video and Audio Link: https://teams.microsoft.com/l/meetupjoin/19%3ameeting_ZmU2ODEyY2QtZjkwMC00NWEzLWI4MWYtYWRhZjdmNjlhZTJh%40th read.v2/0?context=%7b%22Tid%22%3a%22b32addb5-f43d-4c2a-8383dd63422a2655%22%2c%22Oid%22%3a%2285212bd4-63ee-4238-a8ed-2a26fedc95d8%22%7d Meeting ID: 279 917 404 834 Passcode: LE5fy8

Audio Only:

Phone Number: 1 701-566-0964 Meeting ID: 695 894 260#

The Project includes the following Work:

Contract No. 1 – General Construction: Work generally consists of bonding, mobilization, erosion control, remove and replace approximately 9,700 linear feet of 8-inch PVC watermain and associated service lines and curb stops, remove and replace all lead service lines in the project area remove and replace select areas of curb and gutter within the project area, repaving 5th Ave SE from 3rd Street SE to Main Street. Repaving will consist of approximately 13,300 square yards of asphalt pavement; 13,440 square yards of aggregate base; 2,815 square feet of concrete valley gutter; 4,855 square feet of concrete sidewalk; 2.642 linear feet of concrete curb and gutter; 167 water service connections, 10 being lead lines; and other components such as seeding, signing, site restorations, and incidental trench dewatering are also included.

Bids are requested for the following Contract: Contract No. 1 – General Construction

Obtaining the Bidding Documents

Information and Bidding Documents for the Project can be found at the following designated website:

www.Questcdn.com Project # 9415845

Bidding Documents may be downloaded from the designated website. Prospective Bidders are urged to register with the designated website as a plan holder, even if Bidding Documents are obtained from a plan room or source other than the designated website in either electronic or paper format. The designated website will be updated periodically with addenda, lists of registered plan holders, reports, and other information relevant to submitting a Bid for the Project. All official notifications, addenda, and other Bidding Documents will be offered only through the designated website. Neither Owner nor Engineer will be responsible for Bidding Documents, including addenda, if any, obtained from sources other than the designated website.

Information and Bidding Documents for the Project can also be found at the issuing Office for the Bidding Documents:

Advanced Engineering and Environmental Services, LLC (AE2S) 1815 Schafer St., Suite 301 Bismarck, ND 58501

Prospective Bidders may obtain or examine the Bidding Documents at the Issuing Office on Monday through Friday between the hours of 8:00 AM to 5:00 PM Central Standard Time (CST), and may obtain copies of the Bidding Documents from the Issuing Office as described below. Partial sets of Bidding Documents will not be available from the Issuing Office. Neither Owner nor Engineer will be responsible for full or partial sets of Bidding Documents, including addenda, if any, obtained from sources other than the Issuing Office.

Copies of the Bidding Documents may be obtained from the Issuing Office or designated websites by paying a non-refundable deposit of \$50 for each set.

Instructions to Bidders.

For all further requirements regarding bid submittal, qualifications, procedures, and contract award, refer to the Instructions to Bidders that are included in the Bidding Documents.

Bidders on this work will be required to comply with American Iron and Steel requirements of the Consolidated Appropriations Act, 2014. The requirements for bidders and contractors under this regulation are explained in the specifications.

Bidders are required to comply with Davis-Bacon prevailing wage requirements

Bidders on this work will be required to comply with Title 40 CFT Part 33- Participation by Disadvantaged Business Enterprises in the United States Environmental Protection Agency Programs. The requirements for bidders and contractors under this regulation concern utilization of Minority Business Enterprises (MBE), Women's Business Enterprises (WBE), and Small Business Enterprises (SBE) and are explained in the specifications.

The goal for MBE is 2% of the total dollar value of the project. The goal for WBE is 3% of the total dollar value of the project. To demonstrate a good faith effort to comply, bidders must include the MBE/WBE subcontractor solicitation form in the bid package.

Bidders on this work will be required to comply with the President's Executive Order No. 11246, as amended. The requirements for bidders and contractors under this order are explained in the specifications.

Bidders are also required to comply with Build America, Buy America Act requirements.

This Advertisement is issued by:

Owner: City of BeachBy:Kim GauglerTitle:City AuditorDate:December 12, 2024

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BID FORM FOR CONSTRUCTION CONTRACT

The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 1—OWNER AND BIDDER

1.01 This Bid is submitted to:

City of Beach 153 Main Street, PO Box 278 Beach, ND 58621

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2—ATTACHMENTS TO THIS BID

- 2.01 The following documents are submitted with and made a condition of this Bid:
 - A. In one opaque and sealed envelope labeled as described in Article 14 of C-200
 - 1. Completed Bid Form (EJCDC D-410, 2018)
 - 2. Bidder Qualifications Statement (EJCDC C-451, 2018)
 - 3. MBE/WBE Subcontractor Solicitation Information; and
 - 4. SRF Certification Regarding Debarment, Suspension, and Other Responsibility Matters.
 - B. In second opaque and sealed envelope labeled as described in Article 14 of C-200
 - 1. Required Bid security;
 - 2. North Dakota State Contractor's License or Certificate of Renewal.

ARTICLE 3—BASIS OF BID—LUMP SUM BID AND UNIT PRICES

- 3.01 Unit Price Bids
 - A. Bidder will perform the following Work at the indicated unit prices

UNIT PRICE BID

CONTRACT NO. 1 – GENERAL CONSTRUCTION

2 3 4	Bonding and Insurance Mobilization Erosion Control	1	l.s.	
3 4		1		
4	Erosion Control		l.s.	
		1	l.s.	
-	Traffic Control	1	l.s.	
5	Temporary Water Service	1	l.s.	
6	Reclaim and Salvage Bituminous Pavement	15062	s.y.	
7	Remove and Dispose Concrete Curb and Gutter	2600	l.f.	
8 Remove and Dispose Concrete Sidewalk 4825 s.f.				
9	Remove and Dispose Concrete Driveway	1653	s.f.	
10	Remove and Dispose Concrete Valley Gutter	3051	s.f.	
11	1 Remove and Salvage 4" of Topsoil		s.y.	
12Remove and Salvage 6" of Gravel533s.f.				
13 Bituminous Pavement (4.5") 13299 s.y.				
14	Street Crowning	14414	s.y.	
15	8" Street Base (Type A3, Class 5 Aggregate)	13439	s.y.	
16	Concrete Curb and Gutter	2642	l.f.	
17	4" Concrete Sidewalk	4855	s.f.	
18	6" Concrete Driveway	2024	s.f.	
19	6" Concrete Valley Gutter	2815	s.f.	

20	4" Top Soil	2185	s.y.
21	Hydroseeding and Maintenance	2185	s.y.
22	6" Gravel (parking lot/driveway restoration)	533	s.f.
23	6" Asphalt Millings	2234	s.y.
24	2" PVC Water Main (C-900 DR-25)	158	I.f.
25	4" PVC Water Main (C-900 DR-25)	163	l.f.
26	6" PVC Water Main (C-900 DR-25)	218	I.f.
27	8" PVC Water Main (C-900 DR-25)	9712	I.f.
28	1" Water Service with Curb Stop (Open Cut)	157	ea.
29	1" Water Service with Meter Pit	1	ea.
30	1" Water Service (Lead Line)	10	ea.
31	8" DI MJ Tee	9	ea.
32	8"x6" DI MJ Tee	18	ea.
33	8"x4" DI MJ Tee	2	ea.
34	8"x2" DI MJ Tee	1	ea.
35	8"x6" DI MJ Reducer	3	ea.
36	8"x4" DI MJ Reducer	1	ea.
37	8" DI MJ 90 Bend	8	ea.
38	8" DI MJ 45 Bend	1	ea.
39	8"x8" DI Cross	5	ea.
40	8"x4" DI Cross	1	ea.
41	8" DI MJ Gate Valve and Box	35	ea.
42	6" DI MJ Gate Valve and Box	14	ea.
43	4" DI MJ Gate Valve and Box	1	ea.

44	Fire Hydrant	11	ea.	
45	Connect to Existing Water Main	23	ea.	

- B. Bidder acknowledges that:
 - 1. each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and
 - 2. estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Work will be based on actual quantities, determined as provided in the Contract Documents.
- 3.02 Total Bid Price (Lump Sum and Unit Prices)

ARTICLE 4—DELETED

ARTICLE 5—DELETED

ARTICLE 6—TIME OF COMPLETION

- 6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.
- 6.02 Deleted
- 6.03 Deleted
- 6.04 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7—BIDDER'S ACKNOWLEDGEMENTS: ACCEPTANCE PERIOD, INSTRUCTIONS, AND RECEIPT OF ADDENDA

- 7.01 Bid Acceptance Period
 - A. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.
- 7.02 Instructions to Bidders
 - A. Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security.
- 7.03 Receipt of Addenda
 - A. Bidder hereby acknowledges receipt of the following Addenda: [Add rows as needed. Bidder is to complete table.]

Addendum Number	Addendum Date

ARTICLE 8—BIDDER'S REPRESENTATIONS AND CERTIFICATIONS

- 8.01 **Bidder's Representations**
 - A. In submitting this Bid, Bidder represents the following:
 - 1. Bidder has examined and carefully studied the Bidding Documents, including Addenda.
 - 2. Bidder has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 - 3. Bidder is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.
 - 4. Bidder has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, if any, with respect to the Technical Data in such reports and drawings.
 - 5. Bidder has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.
 - 6. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, if selected as Contractor; and (c) Bidder's (Contractor's) safety precautions and programs.
 - 7. Based on the information and observations referred to in the preceding paragraph, Bidder agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
 - 8. Bidder 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 Bidding Documents.
 - 9. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
 - 10. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

11. The submission of this Bid constitutes an incontrovertible representation by Bidder that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

8.02 Bidder's Certifications

- A. The Bidder certifies the following:
 - 1. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation.
 - 2. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid.
 - 3. Bidder has not solicited or induced any individual or entity to refrain from bidding.
 - 4. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 8.02.A:
 - a. Corrupt practice means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process.
 - b. Fraudulent practice means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition.
 - c. Collusive practice means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels.
 - d. Coercive practice means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

BIDDER hereby submits this Bid as set forth above:

Bidder:

	(typed or printed name of organization)
By:	
	(individual's signature)
Name:	(typed or printed)
Title:	
	(typed or printed)
Date:	
	(typed or printed)
lf Bidder is	a corporation, a partnership, or a joint venture, attach evidence of authority to sign.
Attest:	
	(individual's signature)
Name:	(typed or printed)
Title:	
intici	(typed or printed)
Date:	
	(typed or printed)
Address f	or giving notices:
Bidder's (Contact:
Name:	
	(typed or printed)
Title:	
.	(typed or printed)
Phone:	
Email:	
Address:	
Bidder's (Contractor License No.: (if applicable)

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SECTION 01 15 00 SPECIAL PROVISIONS

The following Special Provisions shall be incorporated into the Work:

- A. WORK SEQUENCE
- B. UNIFLANGE RESTRICTION
 - 1. Uniflanges are not permitted for installation on piping exceeding internal pressures of 40 psi.

C. UTILITY LOCATION AND PROTECTION

- 1. The approximate location of known existing underground utility lines and trenches are shown on the plans. Other unknown utilities may exist. The General Contractor shall be responsible for coordinating with all utility companies for location of buried utilities prior to excavation. All costs associated with the measures necessary for location and protection of all utilities during construction shall be considered incidental to the contract. All damage to utilities resulting from construction activities shall be the sole responsibility of the Contractor performing the Work and be repaired at such Contractor's expense.
- 2. All bracing for light/utility poles, telephone lines, gas lines, etc. required during open excavations shall be coordinated by and the responsibility of the General Contractor. All costs of equipment, vehicles, personnel, or private service shall be incidental to the cost of the project.

D. DUST CONTROL

- 1. Contractor shall take all measures necessary to control dust within the project limits. Contractor shall keep all haul roads/streets and all streets adjacent to the project clean and free of dirt and debris. These streets will be subject to dust control measures as requested by Engineer or Owner during construction.
- 2. Streets that are disturbed by construction and have a temporary gravel surface shall have dust controlled and frequencies of water application shall be conveyed by the Engineer or Owner. Contractor is responsible for the application of all dust control measures, incidental to the contract. Owner will supply the water.
- 3. Payment shall be incidental to the contract.

E. DEWATERING

1. The Contractor shall provide and maintain adequate dewatering equipment to remove and dispose of all water entering excavations and trenches at no additional cost to Owner. Excavations and trenches shall be maintained dry during sub-grade preparation and continually thereafter until the structure is built or the pipe is installed (to the extent that no damage from hydrostatic pressure, flotation, or other detrimental effects will result).

- 2. All excavations or trenches below groundwater elevation shall be dewatered by lowering the water surface 12 inches below the bottom of the excavation. Surface water shall be diverted or otherwise prevented from entering excavations or trenches.
- 3. The Contractor shall obtain all dewatering permits to remove and dispose of water at no additional cost to Owner. The permits shall be obtained prior to the start of construction. Pumping to dewater is subject to the Water Appropriations Act.
- 4. All costs associated with dewatering shall be incidental to the Contract.

F. EROSION CONTROL

1. Erosion control is mandated on all construction projects by the North Dakota Department of Health under the National Pollutant Discharge Elimination System (NPDES.) The CONTRACTOR will be required to enter into NPDES storm water permit coverage with the OWNER for the project. A Storm Water Pollution Prevention Plan (SWPPP) shall be submitted by the Contractor. Erosion control measures shall be established by the Contractor at the beginning of construction and maintained during the entire project. Areas that are subject to severe erosion and off-site areas vulnerable to damage from erosion and/or sedimentation are to receive additional erosion control measures that may not be shown on the SWPPP. Failure to implement the controls and practices will result in violation of the Environmental Protection Act and Clean Water Act and is grounds for penalties. Contractor is responsible for all penalties for violations. Contractor shall be responsible for maintenance of erosion and sediment resulting from construction from the project. All land-disturbing activities shall be coordinated and conducted so as to minimize the size of the area to be exposed at any one time and to minimize the time of exposure. All land-disturbing activities shall also be coordinated and conducted so as to minimize off-site sedimentation damage. Contractor shall be responsible for periodically cleaning out and disposing of all sediment. Contractor shall also be responsible for cleaning out and disposing of all sediment at the completion of the project. Additional on-site protection may be needed so that sediment is not permitted to leave the project confines due to unforeseen conditions or accidents. The contractor is responsible for removing the temporary erosion and sediment control devices and verifying the cleaning out of all storm drainage structures, including flumes, pipes, and ditches once final stabilization has occurred. Contractor shall maintain temporary erosion control devices until permanent facilities are constructed and final stabilization has occurred. All erosion control measures shall be incidental to the other bid items.

G. TREE PROTECTION, REMOVAL AND REINSTALL, OR REPLACEMENT

- 1. The General Contractor is responsible for protection and care of trees within the construction limits of the Project unless otherwise indicated on the drawings. Trees identified for protection but damaged or killed as a direct result of construction activities will be replaced. Replacement of damaged trees must be of equal quality, size, and type of tree removed and grubbed during construction. If removal and reinstallation is allowed, the Contractor shall be responsible for the following provisions:
 - a. Contractor is responsible for finding a holding area for temporary planting.

- b. After planting at temporary holding area, work loose soil into area between the hole and tree plug to fill all air cavities. Contractor is responsible for watering and maintaining health of tree.
- c. Add 3-inch layer organic mulch to surface of root ball.
- d. Repeat procedure when transplanting tree to original site. Owner has final decision for location of permanent placement.
- e. Contractor is responsible for the health of the trees. Trees that die during temporary or permanent transplanting shall be replaced with equal quality, size, and type of tree at Contractor's expense.
- H. PROJECT WORK
 - 1. Other projects are anticipated to be under construction concurrently with this project. Contractor shall coordinate the Work of this Project with the City, Staff, Engineer, and other Contractors, as applicable, so as not to impede or otherwise unreasonably interfere with the Work of other projects.

I. TEMPORARY WATER SERVICE CONNECTIONS

- 1. The contractor shall maintain water services to all residents at all times except for short periods when making the new connection. The contractor shall notify the residents 24 hours in advance when water service will be disconnected. The contractor must provide for continuous water service to adjacent property. Any method used must have the approval of the engineer. If the contractor elects to set up a temporary water supply, polyethylene pipe or another pipe approved by the engineer must be used. Rubberized garden hose may not be used. The size of the existing service lines is unknown. The new service lines shall be 1-inch diameter at a minimum or as noted on plans. All connections and fittings required to connect the new service lines to the existing service lines shall be considered incidental. The contractor shall be responsible to locate the water service line from the existing curb stop to the location of the tap on the existing watermain.
- J. LEAD SERVICE LINE REPLACEMENT
 - 1. All lead service lines indicated in the plans and specifications shall be replaced up to the existing meter within the house. Contractor shall give the home owner a 1 week notice and shall receive permission to enter into the house prior to commencing work.

K. CENTRAL AVE AND MAIN STREET SURFACE RESTORATION

- For all surface restoration done as part of the project to only Central Ave and Main Street, the Contractor has the option to utilize recycled asphalt pavement (RAP). RAP can be produced from a source of the contractor's choosing but must meet standard specifications.
- 2. RAP design specification shall comply with NDDOT Specifications, latest edition at a rate between 35 percent of the mix, by weight.

L. STREET CROWNING

- 1. Asphalt for crowning application shall comply with section 32 12 16 Asphalt Paving.
- 2. Streets shall be crowned as shown in plans. Refer to sheet C39.

END OF SECTION

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SECTION 32 12 16 ASPHALT PAVING

PART 1 GENERAL

- 1.01 SECTION INCLUDES
 - A. Aggregate base course.
- 1.02 RELATED REQUIREMENTS
 - A. Section 31 22 00 Grading: Preparation of site for paving and base.
 - B. Section 31 23 23.23 Backfilling: Compacted subgrade for paving.
 - C. Section 32 11 23 Aggregate Base Courses: Aggregate base course.
- 1.03 REFERENCE STANDARDS
 - A. AI MS-2 Asphalt Mix Design Methods; 2015.
- 1.04 PERFORMANCE REQUIREMENTS
 - A. Paving: Designed for H20 classification.
- 1.05 SUBMITTALS
 - A. See Section 01 33 00 for submittal procedures.
 - B. Product Data: Furnish properties data on aggregates, asphalt cement, bituminous mixtures, ashpalt binder, and other materials required for the mix in accordance with Sections 01 33 00 and 01 45 00 at least 7 days prior to beginning paving operations. Engineer must approve job mix formula prior to its use on Project.
- 1.06 QUALITY ASSURANCE
 - A. Perform Work in accordance with North Dakota Department of Transportation (NDDOT) standard..
 - B. Mixing Pland and Mixing Plant Operations: Conform to North Dakota Department of Transportation Standard Specification for Road and Bridge Construction, latest edition and The Asphalt Institute (TAI) MS-3 Asphalt Plant Manual.
 - C. Obtain materials from same source throughout.
 - D. Paved surfaces shall be warranted against any materials and/or worksmanship defection for a period of 12 months from placement.
 - E. The mix design and development of the Job Mix Formula shall be generated by a laboratory accredited by the AASHTO Materials Reference Laboratory (AMRL) at the contractor's expense.
 - F. For tack coat, ensure a sufficient bond between the surface being paved over and the overlying asphaltic course being placed.

- G. Conform to applicable code for paving work on public property.
- H. Allow minimum of 1 month between completion of crack sealing and paving operation to allow seal to cure. The crack sealing should be accomplished with a recessed configuration if paving is to proceed in the same season.
- I. Dispose of all waste material or reject material by approved methods.
- J. Conform to the Manufactureer's Material Safety Data Sheet (MSDS) for storage and handling of emulsion products.
- 1.07 FIELD CONDITIONS
 - A. Do not place asphalt when ambient air or base surface temperature is less than 40 degrees F (4 degrees C), or surface is wet or frozen.
 - B. No work shall be permitted in the spring until the frost has disappeared and the subgrade is stable so as to support the equipment without rutting, shoving, pumping, or other displacement.
 - C. Do not spray asphalt tack coat if weather conditions call for rain before the emulsion can cure.

PART 2 PRODUCTS

- 2.01 MATERIALS
 - A. Asphalt Cement: Shall be performance grade asphalt cement meeting the requirements of AASHTO MP1 and as shown on the plans. The asphalt used in the mix shall be FAA 43. The oil used in the asphalt mix shall be PG 58-28
 - B. Aggregate for Mix: Shall be in accordance with Section 430.03.B of the NDDOT Standard Specifications for Road and Bridge Construction, latest edition.
- 2.02 TACK COAT
 - A. SS1H or CSS1H Emulsion meeting the appropriate requirements of ASTM for the specific grade of emulsion. Non-tracking tack products may also be used as approved by the Engineer.
 - B. Storage and handling of the emulsion should be performed in accordance with MS-19.
 - 1. Aggregate for Base Course: In accordance with State of ______ Highways standards.

2.03 ASPHALT PAVING MIXES AND MIX DESIGN

A. Contractor shall develop the Superpave FAA 43 asphalt mixutre in accordance with Section 430 of the NDDOT Standard Specification for Road and Bridge Construction, latest edition, to meet the requirements of this Specification. Prior to the production of any Superpave asphalt mixutre, submit the proposed mix design with supporting test data indicating compliance with all Superpave mix design criteria. The Contractor shall utilize an AMRL accredited testing firm for the development of the mix design, testing for the performance of the asphalt cement, gradation of the aggregate mix, and requirements of the L.A. Abrasion. The Engineer shall approve the Job Mix Formula submitted by the Contractor.

- B. Traffic Levels: The type of bituminous mixture for this project shall be designed based on the traffic level of less than one (1) Million Equivalent Single Axle Loads (ESALs)
- C. Layer Thickness: The lift thickness should be three times the nominal maximum size of the aggregate.
 - 1. Asphalt Base Course: 3.0 to 6 percent of asphalt cement by weight in mixture in accordance with AI MS-2.

PART 3 EXECUTION

- 3.01 EXAMINATION
 - A. Verify that compacted subgrade is dry and ready to support paving and imposed loads.
 - B. Verify gradients and elevations of base are correct.
- 3.02 AGGREGATE BASE COURSE
 - A. Place and compact aggregate base course.
- 3.03 PREPARATION TACK COAT
 - A. Apply tack coat in accordance with manufacturer's instructions.
 - B. Apply tack coat on asphalt or concrete surfaces over subgrade surface at uniform rate of 0.10 gallons per square yared of undiluted asphalt..
 - C. All vertical faces shall have 2 application of tack coat prior to paving. This includes, but is not llimited to, curb and gutter faces and all longitudinal bituminous seams.
 - D. Coat surfaces of manhole frames with oil to prevent bond with asphalt pavement. Do not tack coat these surfaces.
 - E. All conventional asphalt emulsions shall be diluted with water at a 50:50 ratio and applied at twice the recommended application rate. Polymer modified and non-tracking emulsions shall not be diluted. Dilution of the emulsion product should be performed at the emulsion terminal or in a tank at the asphalt plant. Emulsions should not be diluted in the distributor at the project site.
 - F. Do not allow asphalt emulsion to freeze.

3.04 PLACING ASPHALT PAVEMENT

A. All mixtures shall be spread and finished with a self-propelled, bituminous paver, to the requred grade and cross section, leaving the mixutre uniformily dense,

smooth, and free from irregularities.

- B. The speed of the bituminous paver shall be controlled to palce the mixture uniformly and continously without tearing or gouging. The speed shall not exceed the Manufacturer's recommendation, and shall be coordinated with the output of the plant to provide for a smooth, continous operation, minimizing starting and stopping.
- C. Compact pavement by rolling to specified density as follows:
 - 1. Compaction shall consist of initial or breakdown rolling, intermediate rolling, and final or finish rolling with rollers meeting all requirements of NDDOT Standards Specifications Section 151.01.
 - 2. Breakdown rolling shall consist of one or more complete coverages with a vibratory steel wheel roller or a rubber tired roller.
 - 3. Breakdown rolling shall be followed by intermediate rolling with either a rubber tired roller or a vibrarory steel wheel roller and shall be continued until the surace is tightly bound and shows no displacement under the roller.
 - 4. Intermediate rolling shall be completed before the mat temperature falls below 185 degrees F.
 - 5. Final rolling shall be performed with a static wheel roller and shall continue until roller marks are eliminated. Contractor may be required to modify rolling sequence to best suit the construction conditions.
 - 6. Do not displace or extrude pavement from position. Hand compact in area inaccessible to rolling equipment.
- D. Uniformly blend pavement surface into elevations at curbs, valve box castings, and other critical points of contact. Place pavement so that the pavement is 3/8 inches higher than the edge of the structure after the pavement has been compacted.
- E. Do not allow drainage to be impeded or casting covers to become difficult to remove.
- F. All transverse and longitudinal joints, high or low areas, and surface irregularities, shall be leveled, filled, or raked prior to compaction. Any loose material dropped on previously compacted lanes shall be removed immediately.
- G. Ensure joints made during paving operations are straight, clean, vertical, and free of broken or loose material. Joints shall be tacked and constructed with adequate bond on abutting surfaces. Construction joints in successive courses shall be placed so that joints do not fall on the same vertical plane.
- H. The sequence of rolling operations and the selection of type and number of rollers shall be commensurate with the production, and shall be adequate to obtain the specified density before the mat temperate falls below 185 degrees F.
- I. Install all bituminous pavement 3.5-inches and greated in thickness in a minimum of two lifts. Maximum thickness of a base course lift shall be 3.0-inches.

- J. Ensure surface of comleted asphalt pavement is true to lines, profiles, and elevations indicated and matches existing grade.
- K. The surfaces of previously placed layers shall be swept and a tack coat applied before spreading the next layer.
- L. The overall thickness shown on the Drawings shall be the minimum finished, inplace, compacted thickness of bituminous pavement.
- M. Protect newly paved surfaces from traffic and mechanical damage until surface has cooled to 140 degrees F.
- N. Any low or high defective areas shall be corrected immediately at the contractor's expense. Corrective work shall include patching, cutting out the surface and replace with fresh, bituminous mixture, or by milling the surface.
- O. Clean up paving area.
- P. Ensure manhole covers are clean of asphalt material and tack coat and returned to the condition they were prior to asphalt paving activities.

3.05 TACK APPLICATION EQUIPMENT

- A. Tack distributor shall be designed, equipped, and operated so that tack material is applied at the specified rate per square yard with uniform pressure over the required application.
- B. The distributor shall be equipped with an onboard computer that determines the realtionship between the distributor travel speed and pump speed to ensure a consisten application rate.
- C. An accurate calibrated thermometer with a range covering the specified application termperature for tack material shall be mounted at approximately center height of the tank with the stem extending into the tack material.
- D. The distributor shall have a full circulating system with a spray bar, adjustable laterally and vertically. The spray bar shall be maintained at a constant height above the pavement under variable load conditions.
- E. The distributor shall have full circulation spray bars with lateral and vertical adjustments.
- F. Ensure that all nozzles are of the same size, type, and angle to ensure uniform application of emulsion.
- G. The distributor shall be checked and calibrated. A certificate of the calibration shall be posted in the driver's compartment stating that the distributing system is in good working condition and when used with the charts and instructions furnished by the manufacturer will give the required results. The certificate shall bear the date of the calibration and signature of the calibrating agency.

- H. Use pumps with proper clearances for handling to avoid binding and seizing. Avoid repeated pump cycling or frequent pumping.
- I. Do not mix different classes, grades, or types of emulsified asphalt in storage tanks, transports or distributors. Make sure tanks are clean before changing to another class, grade or type.
- J. Pump from the bottom of tank.
- K. Do not overheat asphalt emulsion.

3.06 APPLICATION OF TACK COAT

- A. Maintain proper distributor spray bar height and spray nozzle angle for proper coverage.
- B. Maintain proper distributor speed.
- C. Sweep and clean surfaces to be tack coated prior to application. Provide motorized brooms with a positive means of controlling vertical pressure and with the capability to clean the road surface prior to spraying the bituminous material.
- D. Do not apply more tack coating than can be covered by hte same day's operation. Perform operations only during daylight hours and not during foggy weather.
- E. Do not apply tack coating or fog seal when ambient air temperature is consistentaly below 40 degrees F or when surface is wet.
- F. Do not over-spread tack coating. if "fat spots" develop, spread out excess emulsion by pneumatic tire rolling before placing pavement.
- G. Apply tack coat as directed in Section 401 of the North Dakota Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition and NAPA's Best Practices for Emulsion Tack Coats. Hand spray wands and crack-sealing buckets are not acceptable method of applying tack coat emulsion except on the vertical face of an adjoining lift of pavement.
- H. Apply bituminous tack coat to existing bituminous pavement and to the surface of each lift or course constructed, other than the final course. Apply in a uniform rate with no missed areas permitted.
- I. The bituminous tack coat shall be applied at a uniform rate of not less than:
 - 1. 0.10 gallons per square yard, or undiluted asphalt emulsion (as supplied from the emulsion terminal); application rate shall be adjusted if necessary to attain bond between courses.
 - 2. 0.20 gallons per square yard, for diluted asphalt emulsion (with water added at the terminal or plant emulsion tank).
- J. The temperature of emulsion shall be between 70 and 160 degrees F at the time of application.

- K. Apply immediately prior to the placement of the next bituminous course or lift. Do not allow public traffic on tack coated areas. The tack coat shall be applied in a manner that offers the least inconvenience to traveling public.
- L. Apply the tack coat on the same day as the proposed surfacing is to be performed. Where emulsified asphalt is specified, dilute one part of water to one part of emulsion and apply the mixture at two times the undiluted rate of application. Allow water to evaporate completely before beginning paving operations. At request of Contractor, Engineer may approve a change in the dilution ratio of the water-emulsion mixture. Sampling and Testing of the emulsion product shall be done at the discretion of the Engineer.
- M. Demonstrate a uniform application of asphalt emulsion producing 100 percent coverage of the surface after curing, as approved by the Engineer. Stop operations if the application demonstration does not meet the coverage requirements.
- N. Contractor shall continuously check Tack Coat application rates to make necessary changes to those rates in order to make sure that the diluted emulsion absorbs into the pavement. Contractor to perform a yield check at the beginning of each project. Engineer may require additional yield checks if the application rate is questioned.
- O. Do not allow traffic on the tacked surface until after the bituminous material has set and will not pick up on vehicle tires.

3.07 TOLERANCES

- A. Flatness: Maximum variation of 3/16 inch measured with 10 foot (3 m) straight edge.
- B. Compacted Thickness: Within 1/4 inch (6 mm) of specified or indicated thickness.
- C. Variation from True Elevation: Within 1/2 inch (12 mm).
- D. Transverse slope of surface course shall not vary from the slope shown on plans.
- E. Asphalt cement content within 0.5 percent of approved mix design as determined by asphalt ignition testing.

3.08 FIELD QUALITY CONTROL

- A. See Section 01 45 00 Quality Control, for general requirements for quality control.
- B. Perform field and laboratory testing by an independent testing laboratory appointed and paid for by the Contractor.
- C. At the start of mix production, samples of all aggregate stockpiles shall be randomly collected for each aggregate used in the production mixture. The production aggregates shall be tested for the consesus properties and gradations

presented in Section 2.01 and shall conform to the JMF tolerances. Any change in aggregate source will not be allowed without written notification of the Engineer and the submittal of a new JMF.

- D. Notify testing laboratory to perform density tests when testing is to be performed during construction.
- E. If, during progress of Work, tests indicate that compacted materials do not meet specified requirements, remove defective Work, replace, and retest. Contractor to bear all costs associated with defective pavement Work.

Daily Production	Lot Determination
TON	Lots
270-545	1
546-910	2
911-1,455	3
1,456-3,275	4
3,276-4,545	5
4,546	6

F. Pavement Density Determination:

- G. The Engineer may require additional density lots be established to isolate area affected by factors that may affect the normal compaction perations:
 - 1. Obtain two cores in each lot. Core samples will be taken from random locations selected by the Engineer
- H. Density determination shall be made by the end of the next working day after placement and compaction or as directed by the Engineer. If multiple layers are placed in a single day, cores shall be sawn and separated for each layer by sawing, tested, and reported by the end of next working day unless directed otherwise by the Engineer.
- I. The Contractor shall cut pavement samples from the completed work with power equipment and restore the surface by the end of the next working day with new, well compacted mixture without additional compensation.
- J. Cores shall be cut using 4-inch minimum inner diameter coring device. All samples shall be marked with the lot number and core number.
- K. Determination of the bulk specific gravity (G_{mb}) of the cores shall be in accordance with AASHTO T-166.
- L. The percent density of each lot shall be expressed as a percent of maximum specific gravity (G_{mm}) based on individual lot. Percent density can be obtained by dividing the average G_{mb} for the lot by the G_{mm} multiplied by 100.
 - 1. The G_{mm} value used to calculate the percentage density for the lot shall be the average value obtained from the theoretical maximum specific

gravity results from the production tests taken during that day of paving. If only one or two G_{mm} values were obtained that day, moving average value (at that test point) shall be used. If three or more G_{mm} values are obtained that day, average of those tests alone shall be used.

- M. The density requirements are listed below:
 - 1. Wear Course at least 92 percent.
 - 2. Non-Wear Course at least 92 percent.
- N. Perform gradation analysis of aggregate once per day as construction progresses or as required by Engineer.
- O. Perform voids in mineral aggregate (VMA) analysis in accordance with NDDOT specifications; minimum frequency of one test per day as construction progresses.
- 3.09 SCHEDULE
 - A. Bituminous Pavement: Locations as shown on the Plan Drawings. Minimum compacted thickness as shown on Typical Pavement Sections.

END OF SECTION

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CONSTRUCTION NOTES

REMOVAL NOTES

THESE NOTES ARE NOT ALL-INCLUSIVE. ALL WORK MUST COMPLY WITH CONSTRUCTION SPECIFICATIONS.

GENERAL NOTES

- THESE NOTES APPLY TO THE ENTIRE PLAN SET EXCEPT AS INDICATED OTHERWISE. CONTRACTOR ULD NOTE THAT ADDITIONAL CONSTRUCTION NOTES AND REQUIREMENTS ARE INCLUDED ON INDIVIDUAL DRAWINGS AND IN THE SPECIFICATIONS
- THIS PLAN SET HAS A LEGEND WITH A LIST OF GENERAL ABBREVIATIONS, SYMBOLS, AND MATERIALS LISTED ON IT. SOME SYMBOLS, MATERIALS, AND ABBREVIATIONS MAY NOT BE UTILIZED ON THIS SPECIFIC PROJECT
- 3. ALL CONTOURS, ELEVATIONS, AND COORDINATES FOR THE PROJECT ARE BASED ON NAD83 STATE PLANE COORDINATE SYSTEM, NORTH DAKOTA SOUTH ZONE AND NAVD-88.
- THE AERIAL PHOTOGRAPHY SHOWN ON THE CONSTRUCTION PLAN SHEETS WAS COLLECTED IN 2017 BY WSN. THEREFORE, ACTUAL FIELD CONDITIONS MAY VARY FROM THOSE DISPLAYED IN THE CONSTRUCTION PLANS
- 5. ALL PAVEMENT REMOVAL AND RESTORATION QUANTITIES LISTED IN THE PLANS REFER TO THE BASE BID ONLY, REFER TO ALTERNATIVE BID TAB FOR LIST OF QUANTITIES FOR FULL STREET WIDTH REPLACEMENT
- 6. ITEMS NOT INCLUDED IN THE BID FORM AS A PAY ITEM BUT INCLUDED ELSEWHERE IN THE PLANS SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER AND SHALL BE CONSIDERED INCIDENTAL ITEMS, ENGINEER SHALL REVIEW AND VERIFY ACTUAL PAID QUANTITIES IN THE FIELD.
- 7. CONTRACTOR SHALL PROVIDE A ONE (1) WEEK NOTICE TO ENGINEER, OWNER, AND PROPERTY OWNERS PRIOR TO BEGINNING ANY CONSTRUCTION.
- COLOR IS USED ON THESE PLANS TO DESIGNATE VARIOUS SYMBOLS AND QUANTITIES. CONTRACTOR MUST ENSURE THAT PERSONNEL WORKING ON THIS PROJECT ARE IN POSSESSION OF COLORED PLANS ONLY
- 9. MISCELLANEOUS ITEMS SUCH AS MAILBOXES, ROAD SIGNS, FENCES, LIGHT AND POWER POLES, AND CULVERTS, UNLESS SPECIFICALLY CALLED OUT, SHALL BE PROTECTED OR REMOVED AND REPLACED BY THE CONTRACTOR INCIDENTAL TO THE CONTRACT.
- 10. CONTRACTOR SHALL LIMIT CONSTRUCTION WORK TO THE AREA BOUNDED BY THE PUBLIC SIDEWALKS, PROPERTY LINES CONSTRUCTION LIMITS OR R O W. LINI ESS APPROVED BY ENGINEER. IN NO CASE SHALL MATERIALS OR EQUIPMENT BE PLACED ON THE PUBLIC SIDEWALK OR ON PRIVATE PROPERTY, UNLESS WRITTEN AUTHORIZATION IS PROVIDED IN ADVANCE BY AN APPROPRIATE ENTITY. CONTRACTOR SHALL LIMIT CONSTRUCTION TO ONE AREA (PER CONSTRUCTION CREW) OF THE PROJECT UNLESS OTHERWISE APPROVED BY THE ENGINEER, ANY DAMAGE FROM CONSTRUCTION ACTIVITIES OUTSIDE OF THE CONSTRUCTION LIMITS OR R.O.W. SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE
- 11. MANHOLE CASTINGS AND VALVE COVERS SHALL BE COVERED AND PROTECTED DURING PAVING AND SEAL COAT OPERATIONS FROM MATERIALS THAT MAY ADHERE TO THE CASTING SURFACE. ALL MANHOLE CASTINGS AND GATE VALVE BOXES SHALL BE ADJUSTED TO FINAL GRADE AND CLEANED OF ANY FOREIGN MATERIAL, INCIDENTAL TO CONTRACT
- 12. THE OWNER WILL INITIALLY FURNISH AND SET CONSTRUCTION STAKES AND MARKS FOR PIPELINI ALIGNMENT AND PROJECT CONTROL. THESE STAKES AND MARKS WILL BE SET ONLY AT THE ONSET OF THE PROJECT AND SHALL CONSTITUTE THE FIELD CONTROL FOR THE CONTRACTOR'S USE IN ESTABLISHING ALL NECESSARY CONTROL TO PERFORM THE WORK. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL STAKES AND MARKS. THE OWNER AND ENGINEER ARE NOT RESPONSIBLE FOR STAKES AND MARKS DESTROYED OR DISTURBED. THE CONTRACTOR SHALL HIRE THE ENGINEER/SURVEYOR AND PAY TO RESET ANY DESTROYED OR DISTURBED STAKES AND MARKS AT ENGINEER'S CURRENT HOURLY AND REIMBURSABLE FEES. BEFORE THE SURVEY CREW LEAVES THE SITE, THE CONTRACTOR SHALL DETERMINE THE MEANING OF ALL STAKES, MEASUREMENTS, AND MARKS.
- 13. CONTRACTOR SHALL BE RESPONSIBLE FOR DRAINAGE AND EROSION CONTROL DURING CONSTRUCTION AND AT PROJECT COMPLETION. AN EROSION CONTROL PLAN WILL BE PREPARED AND SUBMITTED BY THE CONTRACTOR TO THE NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY AND ENGINEER PER SPECIAL PROVISIONS BEFORE COMMENCEMENT OF WORK
- 14. CONTRACTOR TO PROVIDE AND MAINTAIN ADEQUATE DEWATERING EQUIPMENT TO REMOVE AND DISPOSE OF ANY SURFACE AND GROUNDWATER ENTERING THE TRENCH. ALL COSTS ASSOCIATED WITH CONTRACTOR SELECTED DEWATERING METHODS SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- 15. ALL BOLTS AND ANCHOR BOLTS INSTALLED THROUGHOUT THE PROJECT SHALL BE STAINLESS STEEL UNLESS OTHERWISE NOTED IN THE DRAWINGS AND SPECIFICATION
- 16. ONLY THOSE ROADS DESIGNATED AS TRUCK ROUTES CAN BE USED FOR THIS PROJECT. UNLESS OTHER ARRANCEMENTS ARE MADE AND APPROVED BY THE ENGINEER AND LOCAL GOVERNING AGENCY. LOAD LIMITS ARE ONLY MAXIMUM LIMITS AND DO NOT REPRESENT THE LOAD CARRYING CAPACITY OF THE HA THE HAUL ROAD. DAMAGE TO ANY ROAD (HAUL ROAD OR OTHERWISE) CAUSED BY THE CONTRACTOR SHALL BE INCIDENTAL AND REPAIRED TO PRECONSTRUCTION CONDITION AT THE CONTRACTORS EXPENSE REGARDLESS OF LOAD LIMITS PROVIDED. CONTRACTOR MUST MEET WITH INSPECTORS FROM GOVERNING AUTHORITY FOR PRE AND POST CONSTRUCTION INSPECTIONS.
- 17. THE CONTRACTOR SHALL PROVIDE AND INSTALL DETECTOR TAPE ON ALL SANITARY SEWER GRAVITY MAIN AND TRACER WIRE AND DETECTOR TAPE ON ALL WATER MAINS AND SANITARY SEWER FORCE MAINS. MATERIALS AND INSTALLATION SHALL BE PER SPECIFICATIONS.
- 18. CONTRACTOR SHALL SALVAGE EXISTING TOPSOIL TO FULL DEPTH OR A MAXIMUM OF 8 INCHES FROM THE ENTIRE AREA TO BE DISTURBED AND WHERE EXCAVATED MATERIAL IS STOCKPILED (EXCLUDING TOPSOIL STOCKPILES). TOPSOIL SHALL BE FREE FROM VEGETATION. FOR REPLACEMENT DURING RESTORATION. THE TOPSOIL SHALL BE STRIPPED AND STOCKPILED PRIOR TO PIPELINE EXCAVATION PERFORMED BY BACKHOE. ANY CONTAMINATED TOPSOIL SHALL BE REPLACED AT CONTRACTOR'S EXPENSE.
- 19. CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOLLOWING MINIMUM TESTING PRIOR TO PLACEMENT OF ALL MATERIALS REQUIRING COMPACTION CONTROL A MINIMUM OF ONE POINT PROCTOR FOR EACH TYPE OF MATERIALS REQUIRING COMPACTION CONTROL A MINIMUM OF ONE 5 POINT PROCTOR FOR EACH ENGINEER'S REFERENCE AND IDENTIFICATION. THIS REQUIREMENT WILL APPLY TO "COMMON EXCAVATION YPE A" AND PIPE BACKFILL MATERIAL. THE COST OF TESTING WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE BID PRICE FOR RESPECTIVE ITEMS.

WATER REQUIRED FOR COMPACTION PURPOSES SHALL NOT BE MEASURED OR PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE PRICE OF THE ITEM BEING PLACED

TRAFFIC NOTES:

- CONTRACTOR WILL GIVE THE ENGINEER & MINIMUM OF SEVEN (7) DAYS NOTICE PRIOR TO PLACING AFFIC CONTROL SIGNS FOR UNDERGROUND CONSTRUCTION, PAVEMENT REPLACEMENT, AND STREETSCAPE CONSTRUCTION
- 2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INFORM RESIDENTS AND BUSINESS OWNERS TO MOVE VEHICLES AND OF NO PARKING CONDITIONS TO ACCOMMODATE CONSTRUCTION ACTIVITIES A MINIMUM OF 48 HOURS IN ADVANCE. CONTRACTOR'S RESPONSIBILITY TO MAINTAIN ACCESS AT ALL TIMES. CONTRACTOR SHALL MINIMIZE DISRUPTION OF TRAFFIC ON STREETS AND SIDEWALKS DURING THE ENTIRE ONSTRUCTION PERIOD
- 3 CONTRACTOR SHALL FOLLOW THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS AND GUIDES FOR TRAFFIC CONTROL FOR STREET AND HIGHWAY CONSTRUCTION

- CONTRACTOR SHALL SAW CUT FULL DEPTH ALL CURB AND GUTTER, SIDEWALK, AND PAVEMENT PRIOR TO . IN FRONT OF ALL RECESSED PORTIONS OF BUILDINGS, CONCRETE SHALL BE REMOVED WITHIN BUILDING ENTRANCES BY MEANS OF FULL-DEPTH SAW CUT. ALL WORK INCIDENTAL TO CONTRACT.
- THE OWNER RESERVES THE RIGHT TO INSPECT AND RETAIN ANY REMOVED VALVES. HYDRANTS STREETLIGHT POLES AND BASES, TRAFFIC SIGNS AND POSTS, MANHOLE FRAMES, CATCH BASIN FRAMES SOIL MATERIALS, OR OTHER SALVAGEABLE MATERIAL AND SHALL BE RELOCATED TO A DESIGNATED SITE AS APPROVED BY THE OWNER. EXCESS EXCAVATED MATERIAL INCLUDING SUBGRADE, PIPE, STUMPS ROOTS, ASPHALT AND CONCRETE PAVEMENT, SIDEWALK, CURB AND GUTTER, AND ANY OTHER ITEMS CITY DOES NOT WISH TO SALVAGE SHALL BECOME CONTRACTOR'S PROPERTY AND SHALL BE REMOVED FROM THE SITE AND DISPOSED OF PROPERLY, INCIDENTAL TO THE CONTRACT.
- ALL PATCH AREAS SHALL BE SAW-CUT TO PRODUCE A VERTICAL EDGE. EDGE SHALL BE TACK COATED IMMEDIATELY BEFORE PAVING.
- ALL PIPELINES AND SERVICE LEADS THAT WILL BE REPLACED SHALL BE REMOVED TO THE GREATEST EXTENT POSSIBLE WHEN NEW PIPING IS TO BE INSTALLED IN THE SAME ALIGNMENT OR TRENCH PROXIMITY AS EXISTING PIPE. CONTRACTOR SHALL PLUG OPEN ENDS OF ABANDONED PIPES WITH GROUT WHEN IT IS NOT PRACTICAL TO REMOVE ABANDONED PIPE. ALL PIPE TO BE ABANDONED IN PLACE SHALL BE APPROVED BY THE ENGINEER. REMOVAL AND DISPOSAL OR PLUGGING OF ABANDONED PIPE SHALL BE INCIDENTAL TO PIPELINE INSTALLATION.
- ALL MANHOLES THAT WILL BE REPLACED SHALL BE REMOVED TO THE GREATEST EXTENT POSSIBLE WHEN NEW MANHOLES, INLETS, AND PIPING IS TO BE INSTALLED IN THE SAME LOCATION/ALIGNMENT OR TRENCH PROXIMITY AS EXISTING PIPE.

UTILITY NOTES:

- THE APPROXIMATE LOCATION OF KNOWN EXISTING UNDERGROUND UTILITIES ARE SHOWN ON THE PLANS. OTHER UNKNOWN UTILITIES MAY EXIST. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND SHALL BE RESPONSIBLE FOR PROTECTING ALL LITILITIES OR REPAIRING ANY DAMAGE WHICH OCCURS BECAUSE OF THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL EXISTING UTILITIES INCIDENTAL TO CONTRACT. NOT ALL OVERHEAD UTILITIES ARE SHOWN ON THE PLANS.
- THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION, ELEVATION, SIZE, AND MATERIAL OF THE EXISTING UNDERGROUND PIPING AT THE POINTS OF CONNECTION. APPROVED TRANSITIONS SHALL BE USED TO MAKE ALL CONNECTIONS. PRECISE LOCATION AND ARRANGEMENT OF CONNECTIONS OF NEW PIPELINES. WITH EXISTING PIPELINES ARE TO BE FIELD VERIFIED. PROVIDE FITTINGS, ADAPTERS, SOLID SLEEVE CLOSURES, HARNESSED MECHANICAL COUPLINGS, AND ROTATE FITTINGS, AND DEFLECT JOINTS (WI MANUFACTURER'S SPECIFICATIONS) AS REQUIRED TO MAKE CONNECTIONS. PROVIDE TEMPORARY PLUG WITH FACTORY OUTLET SIZED AS REQUIRED FOR CONTRACTOR'S TESTING AND DISINFECTION WORK FORE MAKING CONNECTION. ANY DIFFERENT FITTINGS NECESSARY TO MAKE ALL CONNECTIONS SHALL BE INCIDENTAL
- CONTRACTOR SHALL CALL THE NORTH DAKOTA ONE CALL (1-800-795-0555) TO LOCATE UNDERGROUND FACILITIES PRIOR TO ANY EXCAVATION. ONE-CALL DOES NOT GUARANTEE LOCATION OF UTILITIES. ADDITIONAL UNMARKED UTILITIES MAY BE PRESENT WITHIN THE PROJECT AREA
- 4. UTILITY APPURTENANCES SHALL BE ADJUSTED AND/OR REMOVED BY RESPECTIVE UTILITY COMPANIES. UTILITY COMPANIES SHALL BE CONTACTED BY CONTRACTOR TO COORDINATE ADJUSTMENTS
- THE PROTECTION, TEMPORARY SUPPORT, ADJUSTMENT, OR REQUIRED RELOCATION OF ANY UTILITIES AND STRUCTURES (UNDERGROUND, SURFACE, OR OVERHEAD) IS TO BE COORDINATED WITH THE CONTRACTOR AND THE OWNER OF EACH UTILITY BEFORE CONSTRUCTION/INSTALLATION IS STARTED. CONTRACTOR IS RESPONSIBLE FOR ALL RELATED COSTS.
- WHERE EXISTING UTILITY WIRES (TELEPHONE, ELECTRIC, FIBER OPTIC) ARE LOCATED ADJACENT TO OR 6. ABOVE THE PROPOSED WORK, CONTRACTOR SHALL TEMPORARILY SUPPORT EXISTING WIRES AND INSTALL PIPING UNDER EXISTING WIRES. ANY DECISION TO HAVE THE EXISTING UTILITIES RELOCATE WIRES WILL BE AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL HAVE THE UTILITY COMPANY PROVIDE AN ON-SITE REPRESENTATIVE TO INSPECT THE EXCAVATION AND TEMPORARY SUPPORT OF THE EXISTING UTILITY WIRES TO ENSURE THEY CONCUR WITH THE METHOD USED FOR TEMPORARY SUPPORT. THE CONTRACTOR IS RESPONSIBLE FOR COMPLETION OF WORK AS INDICATED AND MEETING ALL UTILITY REQUIREMENTS TO ENSURE A FINAL INSTALLATION THAT BENEFITS BOTH THE CITY AND THE UTILITY COMPANY

PROTECTION NOTES:

- DURING CONSTRUCTION PROVIDE BARRIERS AROUND EXCAVATIONS AS NECESSARY TO PROTECT THE PUBLIC. CONTRACTOR TO LIMIT LENGTH OF OPEN TRENCH TO 100 FEET MAXIMUM. NO OPEN TRENCH SHALL BE LEFT UNATTENDED. ALL TRENCHES TO BE BACKFILLED AND PROTECTED PRIOR TO THE END OF EACH WORKDAY. COSTS FOR THESE MEASURES SHALL BE INCIDENTAL TO THE CONTRACT
- UNDERGROUND SPRINKLER SYSTEMS AND LANDSCAPING FEATURES SHALL BE PROTECTED BY CONTRACTOR ANY DAMAGED COMPONENTS SHALL BE REPARED OR REPLACED AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL CONTACT PROPERTY OWNER PRIOR TO REMOVING ANY SPRINKLER OR LANDSCAPING ITEMS AND COORDINATE TEMPORARY INTERRUPTIONS AND FINAL INSPECTIONS OF REPAIRED/REPLACED
- 3. CONTRACTOR MUST RE-ESTABLISH ANY DISTURBED PROPERTY PINS OR CONTROL POINTS WITH SERVICES OF REGISTERED LAND SURVEYOR (RLS) REGISTERED IN NORTH DAKOTA. CONTRACTOR MUST SUBMIT CERTIFICATE OF SURVEY FOR EACH PROPERTY WITH RE-ESTABLISHED PROPERTY PINS. THE COST FOR RLS SERVICES SHALL BE INCIDENTAL.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING OSHA STANDARDS FOR EXCAVATION AND TRENCHING
- 5 CONTRACTOR SHALL CLEAN STREETS DRIVEWAYS INTERSECTIONS FTC AFFECTED BY CONSTRUCTION CONTRACTOR SHALL REPAIR AND CLEAN PAVEMENTS TO THE CONDITION THEY WERE IN PRIOR TO THE START OF CONSTRUCTION AND PRIOR TO REOPENING LANE PORTIONS TO TRAFFIC BEFORE PAYMENT FOR RESTORATION BID ITEMS WILL BE PAID.
- 6. CONTRACTOR TO PROVIDE CONCRETE TRUCK WASH OUT AREA AT SITE EXIT. CLEAN UP AND REMOVE WASH OUT DEBRIS FROM THE SITE ON A WEEKLY BASIS
- CONTRACTOR SHALL TAKE MEASURES TO PROTECT EXISTING ASPHALT AND CONCRETE SURFACES NO SCHEDULED FOR REPLACEMENT FROM DAMAGE. ANY DAMAGE SHALL BE REPLACED OR REPAIRED AT THE CONTRACTORS EXPENSE
- 8. CONTRACTOR SHALL NOT DISTURB, DAMAGE, OR REMOVE ANY EXISTING TREES OR BUSHES. NOTIFY THE ENGINEER PRIOR TO REMOVAL OF ANY TREES.

RECYCLED ASPHALT PAVEMENT (RAP)

- FOR ALL SURFACE RESTORATION DONE AS PART OF THE PROJECT TO ONLY CENTRAL AVE AND MAIN STREET, THE CONTRACTOR HAS THE OPTION TO UTILIZE RECYCLED ASPHALT PAVEMENT (RAP). RAP CAN BE PRODUCED FROM A SOURCE OF THE CONTRACTOR'S CHOOSING BUT MUST MEET STANDARD SPECIFICATIONS
- RAP DESIGN SPECIFICIATONS SHALL COMPLY WITH NDDOT SPECIFICATIONS, LATEST EDITION, AT A RATE 2 BETWEEN 35 PERCENT OF THE MIX. BY WEIGHT

STREET CROWNING

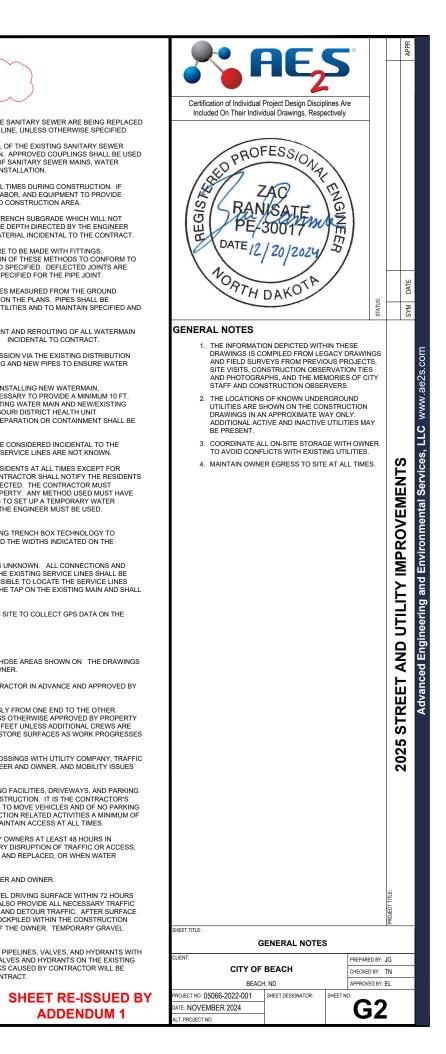
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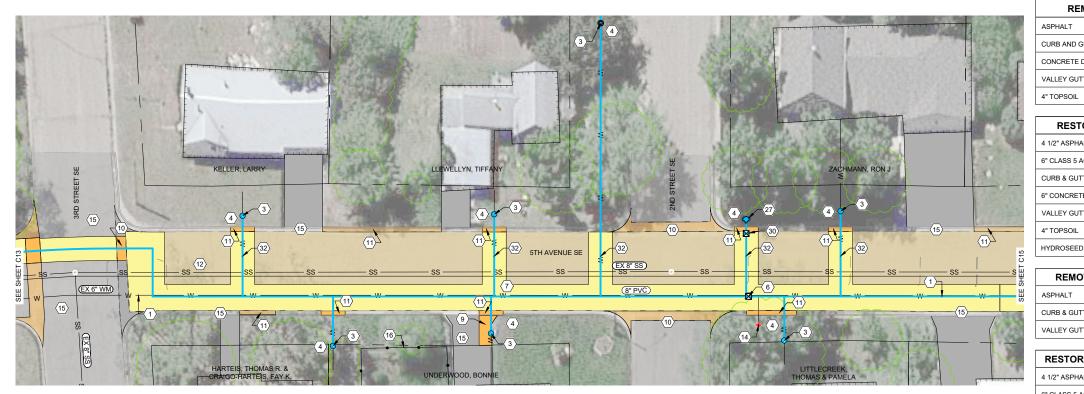
1. STREETS SHALL BE CROWNED AS SHOWN ON SHEET C39. PIPELINE INSTALLATION NOTES:

- ALL EXISTING SANITARY SERVICES THAT ARE CONNECTED TO THE SANITARY SEWER ARE BEING REPLACED ROM THE NEW SANITARY SEWER MAIN TO 2' BEYOND THE CURB LINE, UNLESS OTHERWISE SPECIFIEI
- 2 CONTRACTOR SHALL VERIEV THE LOCATION, SIZE, AND MATERIAL OF THE EXISTING SANITARY SEWER MAINS, WATERMAINS AND LEADS AT THE POINTS OF CONNECTION. APPROVED COUPLINGS SHALL BE USED TO MAKE CONNECTIONS AFTER VERIFICATION. RECONNECTION OF SANITARY SEWER MAINS, WATER MAINS, AND SERVICE LEADS SHALL BE INCIDENTAL TO PIPELINE INSTALLATION
- 3. CONTRACTOR SHALL MAINTAIN SANITARY SEWER SERVICE AT ALL TIMES DURING CONSTRUCTION. IF REQUIRED, THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR, AND EQUIPMENT TO PROVIDE TEMPORARY BYPASS PUMPING AND ASSOCIATED PIPING AROUND CONSTRUCTION AREA
- 4. WHEN SOFT OR UNSTABLE MATERIAL IS ENCOUNTERED AT THE TRENCH SUBGRADE WHICH WILL NOT UNIFORMLY SUPPORT THE PIPE. EXCAVATE THE MATERIAL TO THE DEPTH DIRECTED BY THE ENGINEER AND BACKFILL TO TRENCH BOTTOM ELEVATION WITH TYPE A1 MATERIAL INCIDENTAL TO THE CONTRACT
- 5. WATERMAIN DEFLECTIONS FROM A STRAIGHT LINE OR GRADE ARE TO BE MADE WITH FITTINGS DEFLECTED JOINTS, SHORTER PIPE SECTIONS, OR A COMBINATION OF THESE METHODS TO CONFORM TO THE ALIGNMENT AND PROFILE INDICATED ON THE DRAWINGS AND SPECIFIED. DEFLECTED JOINTS ARE NOT TO EXCEED THE MANUFACTURER RECOMMENDED VALUES SPECIFIED FOR THE PIPE JOINT.
- 6. WATERMAIN MINIMUM DEPTH OF COVER SHALL BE 7 FEET 6 INCHES MEASURED FROM THE GROUND SURFACE TO THE TOP OF THE PIPE UNLESS OTHERWISE SHOWN ON THE PLANS. PIPES SHALL BE LOWERED, AS REQUIRED, TO AVOID CONFLICTS WITH EXISTING UTILITIES AND TO MAINTAIN SPECIFIED AND REQUIRED SEPARATIONS
- 7. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR, REPLACEMENT AND REROUTING OF ALL WATERMAIN SERVICE LINES DAMAGED DURING PIPELINE CONSTRUCTION.
- WATER SERVICE SHALL NOT BE INTERRUPTED. WATER TRANSMISSION VIA THE EXISTING DISTRIBUTION SYSTEM IS CRITICAL AND CONTRACTOR SHALL PROTECT EXISTING AND NEW PIPES TO ENSURE WATER QUANTITY AND QUALITY IS IN NO WAY DISRUPTED.
- 9. IF CONTRACTOR EXPOSES SANITARY SEWER MAIN PIPES WHILE INSTALLING NEW WATERMAIN CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS NECESSARY TO PROVIDE A MINIMUM 10 FT. HORIZONTAL OR 1.5 VERTICAL SEPARATION BETWEEN NEW/EXISTING WATER MAIN AND NEW/EXISTING SANITARY PIPE. CONTRACTOR SHALL COMPLY WITH UPPER MISSOURI DISTRICT HEALTH UNIT REGULATIONS (10 STATE STANDARDS). ALL COSTS TO ASSURE SEPARATION OR CONTAINMENT SHALL BE INCIDENTAL TO THE CONTRACT.
- 10. LOCATING EXISTING WATER AND SEWER SERVICE LINES SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT EXACT LOCATION OF EXISTING WATER AND SEWER SERVICE LINES ARE NOT KNOWN
- 11. THE CONTRACTOR SHALL MAINTAIN WATER SERVICES TO ALL RESIDENTS AT ALL TIMES EXCEPT FOR SHORT PERIODS WHEN MAKING THE NEW CONNECTION. THE CONTRACTOR SHALL NOTIFY THE RESIDENTS 24 HOURS IN ADVANCE WHEN WATER SERVICE VIOLATED BLIDSCONNECTED. THE CONTRACTOR MUST PROVIDE FOR CONTINUOUS WATER SERVICE TO ADJACENT PROPERTY. ANY METHOD USED MUST HAVE THE APPROVAL OF THE ENGINEER. IF THE CONTRACTOR ELECTS TO SET UP A TEMPORARY WATER SUPPLY, POLYETHYLENE PIPE OR ANOTHER PIPE APPROVED BY THE ENGINEER MUST BE USED RUBBERIZED GARDEN HOSE MAY NOT BE USED.
- 12. CONTRACTOR SHALL USE ANY MEANS AT HIS DISPOSAL, INCLUDING TRENCH BOX TECHNOLOGY TO ENSURE SERVICE PIPE TOP OF TRENCH WIDTH DOES NOT EXCEED THE WIDTHS INDICATED ON THE
- 13. THE SIZE OF THE EXISTING WATER AND SEWER SERVICE LINES IS UNKNOWN. ALL CONNECTIONS AND TITINGS REQUIRED TO CONNECT THE NEW SERVICE LINES TO THE EXISTING SERVICE LINES SHALL BE CONSIDERED INCIDENTAL. THE CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE THE SERVICE LINES FROM THE EXISTING CONNECTION POINT TO THE LOCATION OF THE TAP ON THE EXISTING MAIN AND SHALL ALSO BE CONSIDERED INCIDENTAL
- 14. CONTRACTOR SHALL ALLOW THE OWNER'S REPRESENTATIVE ON SITE TO COLLECT GPS DATA ON THE INSTALLED UTILITIES AND APPURTENANCES.

COORDINATION NOTES

- CONTRACTOR WILL BE REQUIRED TO LIMIT STAGING AREAS TO THOSE AREAS SHOWN ON THE DRAWINGS OR AS DETERMINED IN THE FIELD BY THE ENGINEER AND THE OWNER.
- DESIGNATED HAUL ROUTES SHALL BE REQUESTED BY THE CONTRACTOR IN ADVANCE AND APPROVED BY THE ENGINEER AND THE OWNER
- 3 CONSTRUCTION ON A CITY BLOCK SHALL PROCEED CONTINUOUSLY FROM ONE END TO THE OTHER TRAFFIC SHALL BE MAINTAINED INTO PROPERTY ENTRIES, UNLESS OTHERWISE APPROVED BY PROPERTY OWNER. THE MAXIMUM LENGTH OF OPEN TRENCH SHALL BE 100 FEET UNLESS ADDITIONAL CREWS ARE PROVIDED FOR SEPARATE LOCATIONS. CONTRACTOR SHALL RESTORE SURFACES AS WORK PROGRESSES. AND NOT WAIT UNTIL THE END OF THE PROJECT.
- 4. CONTRACTOR SHALL COORDINATE THE SUPPORT OF UTILITY CROSSINGS WITH UTILITY COMPANY, TRAFFIC CONTROL, AND PEDESTRIAN CROSSING ISSUES WITH THE ENGINEER AND OWNER, AND MOBILITY ISSUES VITH OTHER CONSTRUCTION SITES IN THE AREA.
- 5 CONTRACTOR SHALL MAINTAIN CONTINUOUS ACCESS TO EXISTING FACILITIES, DRIVEWAYS, AND PARKING LOTS AFFECTED BY CONSTRUCTION FOR THE DURATION OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INFORM RESIDENTS AND BUSINESS OWNERS TO MOVE VEHICLES AND OF NO PARKING CONDITIONS TO ACCOMMODATE CONSTRUCTION AND CONSTRUCTION RELATED ACTIVITIES A MINIMUM OF 48 HOURS IN ADVANCE. CONTRACTORS'S RESPONSIBILITY TO MAINTAIN ACCESS AT ALL TIMES.
- 6. CONTRACTOR SHALL NOTIFY ENGINEER, OWNER, AND PROPERTY OWNERS AT LEAST 48 HOURS IN ADVANCE (EXCLUDING WEEKENDS AND HOLIDAYS) OF TEMPORARY DISRUPTION OF TRAFFIC OR ACCESS. WHEN SECTIONS OF SIDEWALK AND/OR ROAD WILL BE REMOVED AND REPLACED, OR WHEN WATER SERVICE WILL BE DISRUPTED.
- 7. COORDINATE STORAGE AND STOCKPILE SITES WITH THE ENGINEER AND OWNER
- 8. CONTRACTOR SHALL PROVIDE A TEMPORARY 4" (MINIMUM) GRAVEL DRIVING SURFACE WITHIN 72 HOURS OF CLOSING ROADWAY. IN ADDITION, THE CONTRACTOR SHALL ALSO PROVIDE ALL NECESSARY TRAFFIC CONTROL AND SIGNAGE AS REQUIRED TO CLOSE THE ROADWAY AND DEFOUR TRAFFIC. AFTER SURFACE RESTORATION IS COMPLETE, TEMPORARY GRAVEL SHALL BE STOCKPILED WITHIN THE CONSTRUCTION LIMITS. THE SALVAGED GRAVEL WILL BECOME THE PROPERTY OF THE OWNER. TEMPORARY GRAVEL SHALL BE CONSIDERED INCIDENTAL TO CONTRACT
- CONTRACTOR SHALL COORDINATE THE OPERATION OF EXISTING PIPELINES, VALVES, AND HYDRANTS WITH CITY PERSONNEL. GREAT CARE MUST BE USED IN OPERATING VALVES AND HYDRANTS ON THE EXISTING WATER SYSTEM (DUE TO AGE AND CONDITION). ANY MAIN BREAKS CAUSED BY CONTRACTOR WILL BE CORRECTED AND PAID FOR BY CONTRACTOR INCIDENTAL TO CONTRACT





	WATERMAIN INSTALLATION				
SIZE	START STATION	END STATION	LENGTH		
8"	164+00.00 - 11.57' L	164+47.03 - 11.55' L	48 LF		
8"	164+47.03 - 11.55' L	164+47.03 - 8.49' R	20 LF		
8"	164+47.03 - 8.49' R	168+00.00 - 8.45' R	353 LF		
6"	166+94.31 - 8.46' R	166+94.31 - 23.73' L	32 LF		

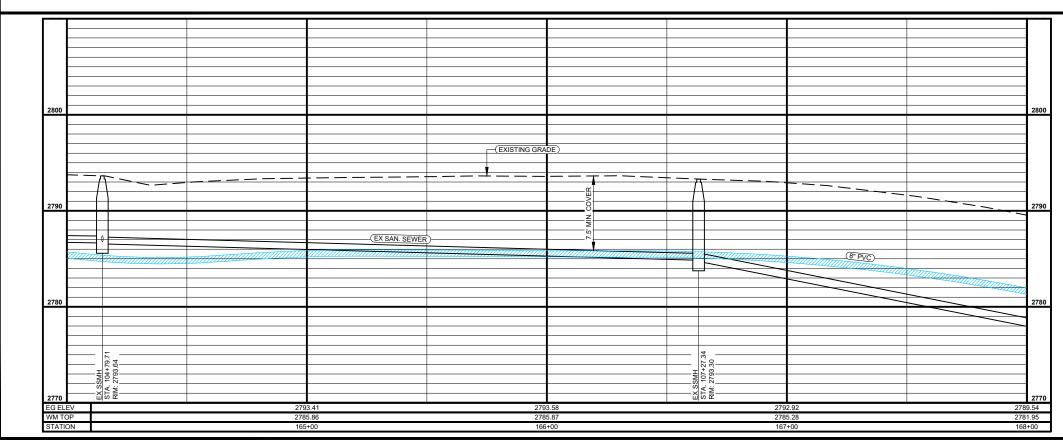
	WAT	ER SERVICE IN	ISTALLATION		WATERMAIN
	START STATION	END STATION	DESCRIPTION	LENGTH	STRUCTUR
	164+84.50 - 8.48' R	164+84.50 - 25.11' L	1.0" WM SERVICE	34 LF	8" 90° BEND
	165+22.21 - 8.48' R	165+22.21 - 29.08' R	1.0" WM SERVICE	21 LF	8" 90° BEND
	165+88.04 - 8.47' R	165+88.04 - 23.89' R	1.0" WM SERVICE	15 LF	8" X 6" TEE
	165+89.34 - 8.47' R	165+89.33 - 25.77' L	1.0" WM SERVICE	34 LF	
	166+33.62 - 8.47' R	166+33.71 - 125.45' L	1.0" WM SERVICE	133 LF	6" GATE VALVE 8
	167+10.20 - 8.46' R	167+10.20 - 26.81' R	1.0" WM SERVICE	18 LF	6" HYDRAN
	167+33.66 - 8.46' R	167+33.65 - 21.05' L	1.0" WM SERVICE	36 LF	8" GATE VALVE 8

ΓΙΟΝ		WATERMAIN STRUCTURE INSTALLATION			
TION LENGTH		STRUCTURE	STATION		
RVICE	34 LF	8" 90° BEND	164+47.03 - 11.55' L		
RVICE	21 LF	8" 90° BEND	164+47.03 - 8.49' R		
RVICE	15 LF	8" X 6" TEE	166+94.31 - 8.46' R		
RVICE	34 LF				
RVICE	133 LF	6" GATE VALVE & BOX	166+94.31 - 17.73' L		
RVICE	18 LF	6" HYDRANT	166+94.31 - 23.73' L		
RVICE	36 LF	8" GATE VALVE & BOX	166+95.32 - 8.46' R		

_	
	REMO
	ASPHALT
	CURB & GU
	VALLEY GU
	RESTOR

4 1/2" ASPH 6" CLASS 5 CURB & GU

VALLEY GU



REMOVAL QUANTITIES		
ALT.	639 SY	
AND GUTTER	81 LF	
RETE DRIVEWAY	69 SF	
Y GUTTER	40 SF	
SOIL	108 SY	

RESTORATION QUANTITIES

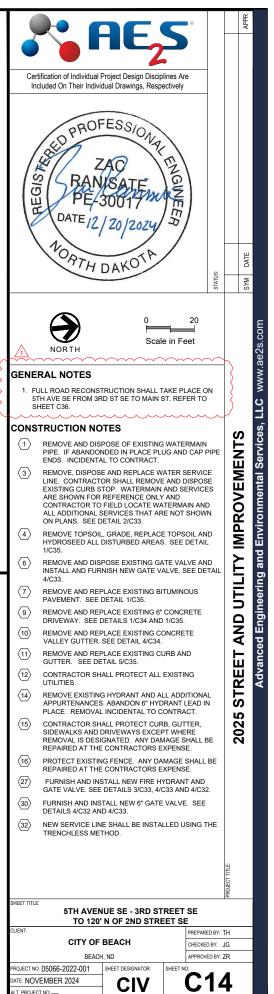
ALT	639 SY
AGGREGATE BASE	639 SY
ITER	81 LF
E DRIVEWAY	69 SF
ITER	40 SF
	108 SY
)	108 SY

OVAL QUANTITIES-CITY

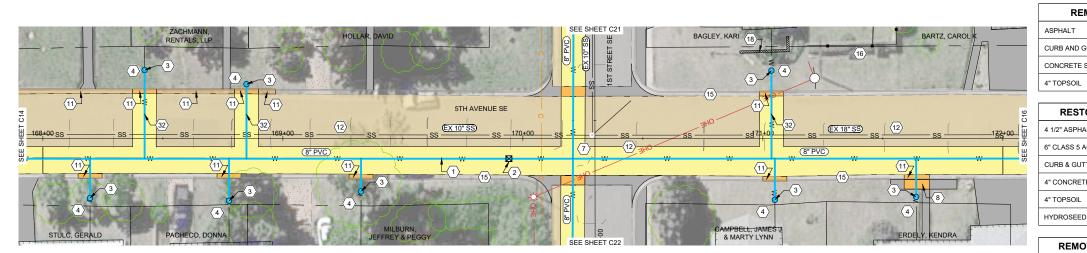
	727 SY	
ITER	76 LF	
TTER	363 SF	

RATION QUANTITIES-CITY

		11
ALT	727 SY	Q
AGGREGATE BASE	727 SY	
TTER	76 LF	
TTER	363 SF	



SHEET RE-ISSUED BY **ADDENDUM 1**



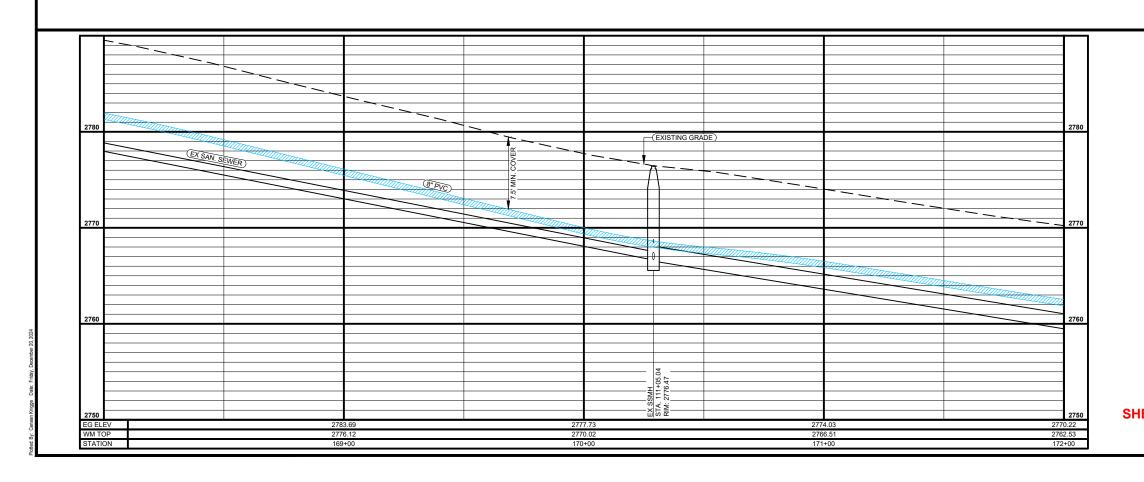
WATERMAIN INSTALLATION			
SIZE	START STATION	END STATION	LENGTH
8"	168+00.00 - 8.45' R	172+00.00 - 8.38' R	400 LF

WATER SERVICE INSTALLATION			
START STATION	END STATION	DESCRIPTION	LENGTH
168+19.67 - 8.45' R	168+19.67 - 24.85' R	1.0" WM SERVICE	16 LF
168+42.38 - 8.14' R	168+42.42 - 28.50' L	1.0" WM SERVICE	37 LF
168+77.59 - 8.44' R	168+77.59 - 25.96' R	1.0" WM SERVICE	18 LF
168+84.85 - 8.44' R	168+84.85 - 22.60' L	1.0" WM SERVICE	31 LF
169+32.58 - 8.44' R	169+32.58 - 22.08' R	1.0" WM SERVICE	14 LF
171+03.58 - 8.40' R	171+03.57 - 28.28' L	1.0" WM SERVICE	37 LF
171+05.00 - 8.40' R	171+05.00 - 25.53' R	1.0" WM SERVICE	17 LF
171+63.87 - 8.39' R	171+63.87 - 24.38' R	1.0" WM SERVICE	16 LF

WATERMAIN STRUCTURE INSTALLATION	
STRUCTURE	STATION
8" GATE VALVE & BOX	169+94.19 - 8.43' R
8" CROSS	170+20.86 - 8.43' R

ASPHALT
CURB & GU

4 1/2" ASPHA 6" CLASS 5 A CURB & GUT



MOVAL QUANTITIES	
	615 SY
GUTTER	80 LF
SIDEWALK	42 SF
	100 SY

RESTORATION QUANTITIES

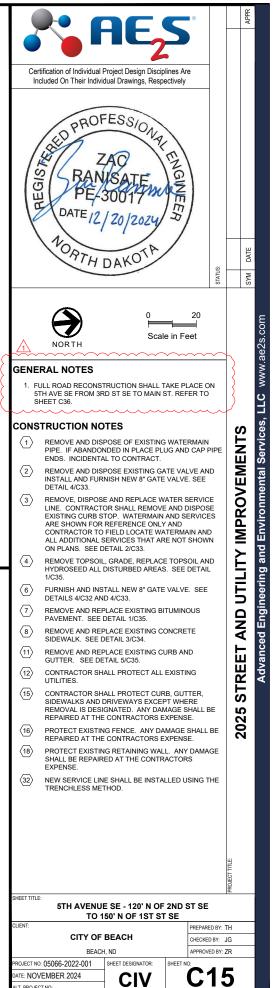
ALT	615 SY	
AGGREGATE BASE	615 SY	
TER	80 LF	
E SIDEWALK	42 SF	
	100 SY	
)	100 SY	

REMOVAL QUANTITIES-CITY

	860 SY
TER	77 LF

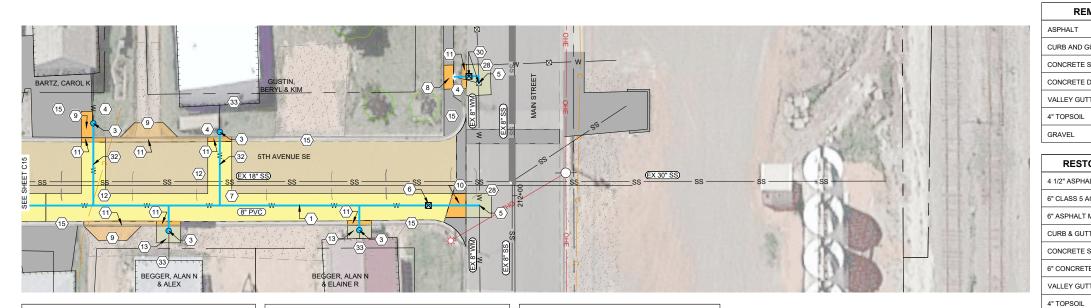
RESTORATION QUANTITIES-CITY

ALT	860 SY	
AGGREGATE BASE	860 SY	
ITER	77 LF	



SHEET RE-ISSUED BY **ADDENDUM 1**

T PROJECT NO ---



	WATERMAIN STRUCTURE INSTALLATION				
NGTH	STRUCTURE	STATION			
34 LF	8" GATE VALVE & BOX	173+59.40 - 8.33' R			
11 LF	8" TEE CONNECT TO EX.	173+80.68 - 8.32' R			
31 LF	8" X 6" TEE	173+80.27 - 45.58' L			
10 LF	6" GATE VALVE & BOX	173+76.28 - 45.44' L			

WATERMAIN INSTALLATION					WAT	ER SERVICE IN	ISTALLATION	
SIZE	START STATION	END STATION	LENGTH	Ì	START STATION	END STATION	DESCRIPTION	LENG
8"	172+00.00 - 8.38' R	173+80.68 - 8.32' R	181 LF		172+19.79 - 8.37' R	172+19.78 - 25.90' L	1.0" WM SERVICE	34 L
8"	173+80.37 - 42.61' L	173+80.27 - 45.58' L	3 LF		172+51.19 - 8.36' R	172+51.19 - 18.90' R	1.0" WM SERVICE	11 L
6"	173+80.27 - 45.58' L	173+70.26 - 45.23' L	10 LF		172+72.48 - 8.35' R	172+72.48 - 22.28' L	1.0" WM SERVICE	31 L
	173100.27 - 43.00 E	173170.20 - 43.23 E	TOLF		173+30.61 - 8.34' R	173+30.62 - 18.64' R	1.0" WM SERVICE	10 L

2770					
		EXISTING GRADE)			
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	OAN. SEWER)	8" PVC			
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WM TO		758.83			
STATIO			74+00	175+00	

REMOVAL QUANTITIES					
ALT	288 SY				
AND GUTTER	50 LF				
RETE SIDEWALK	41 SF				
RETE DRIVEWAY	51 SF				
EY GUTTER	70 SF				
PSOIL	18 SY				
EL	125 SF				

RESTORATION QUANTITIES

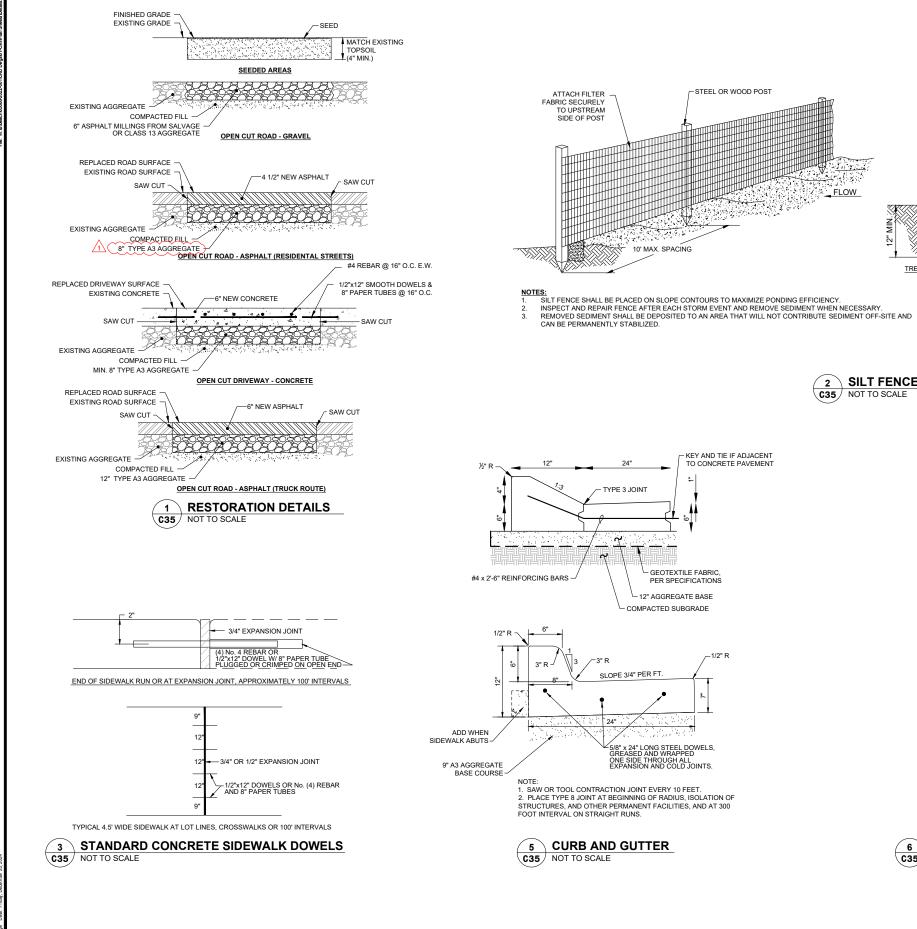
4 1/2" ASPHALT	261 SY
6" CLASS 5 AGGREGATE BASE	261 SY
6" ASPHALT MILLINGS	237 SF
CURB & GUTTER	50 LF
CONCRETE SIDEWALK	41 SF
6" CONCRETE DRIVEWAY	51 SF
VALLEY GUTTER	70 SF
4" TOPSOIL	18 SY
HYDROSEED	18 SY
GRAVEL	125 SF

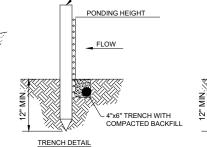
REMOVAL QUANTITIES-CITY					
ASPHALT	363 SY				
CURB & GUTTER	73 LF				

RESTORATION QUANTITIES-CITY					
4 1/2" ASPHALT	363 SY				
6" CLASS 5 AGGREGATE BASE	363 SY				
CURB & GUTTER	73 LF				
CONCRETE DRIVEWAY	216 SF				

SHEET RE-ISSUED BY **ADDENDUM 1**

				8			APPR	
	ification of Individual F							
BEGICE	DATE 12	ESSION 94 AC ISATE 3001-MU 20/2024 DAKOTA	ENGINEER		STATUS:		M DATE	
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GENE	RAL NOTES		~~~~	~~~	\sim	\mathbf{z}		/w.ae
5T	JLL ROAD RECONST TH AVE SE FROM 3R HEET C36.				N			ices, LLC www.ae2s.com
CONS	TRUCTION NO	TES		<u> </u>		U	n	es, I
$\langle 1 \rangle$	REMOVE AND DISP PIPE. IF ABANDON	NDED IN PLACE PL			PIPE	Ě	Ż	
3	CONTRACTOR TO ALL ADDITIONAL S	E AND REPLACE W OR SHALL REMOVE TOP. WATERMAIN REFERENCE ONLY FIELD LOCATE WA SERVICES THAT AR	E AND D AND SE AND TERMA	ISPOS RVICE IN ANE	E S	DOVEME		onmental Serv
$\langle 4 \rangle$	ON PLANS. SEE DETAIL 2/C33. REMOVE TOPSOIL, GRADE, REPLACE TOPSOIL AND HYDROSEED ALL DISTURBED AREAS. SEE DETAIL 1/C35.							d Envii
5	FURNISH AND INS APPURTENANCES EXISTING WATER	NECESSARY TO C		т то		Ě	5	ng and
6	REMOVE AND DISP INSTALL AND FUR DETAIL 4/C33.	POSE EXISTING GA			D	F	5	ineeri
$\langle 7 \rangle$	REMOVE AND REP PAVEMENT. SEE [TUMINO	US			ב	Eng
8	REMOVE AND REP SIDEWALK. SEE D		ONCRET	E		< +	τ	Jced
(9)	REMOVE AND REP DRIVEWAY. SEE D			ETE				dvar
(10)	REMOVE AND REP VALLEY GUTTER.		ONCRET	E				◄
	REMOVE AND REP GUTTER. SEE DE	TAIL 5/C35.					0	
(12)	CONTRACTOR SH					000		
(13)		ALL PROTECT CUR DRIVEWAYS EXCEP GNATED. ANY DAM	B, GUT T WHEI MAGE SI	TER, RE HALL E	ε			
<u>28</u>	REMOVE AND DISP PAVEMENT. FURN	POSE EXISTING BI		US	LT			
30	MILLINGS SURFACE. SEE DETAIL 1/C35. REMOVE AND DISPOSE EXISTING GATE VALVE AND FURNISH AND INSTALL NEW 6" GATE VALVE. SEE DETAILS 4/C32 AND 4/C33.							
32	NEW SERVICE LIN TRENCHLESS MET	E SHALL BE INSTA	LLED US	SING T	ΗE	A1		
33	PROTECT EXISTIN BE REPAIRED AT 1	G BUILDING. ANY			LL	PROJECT TITLE:		
SHEET TITLE:	5TH AVENUE S	E - 150' N OF 15 O MAIN STREET		EET	SE	<u>a.</u>		
CLIENT:	CITY OF	BEACH	-		DBY:	IG		
PROJECT NO	BEACH 05066-2022-001	I, ND SHEET DESIGNATOR:	SHEET NO		=0 BY: 2	<u>~</u> K		
DATE: NOV ALT. PROJEC	EMBER 2024	CIV		'تا	16	Ś		





STEEL OR WOOD POST 36" HIGH MAX.

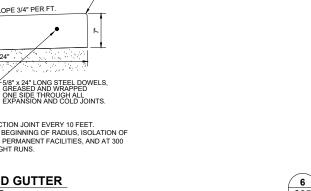
- KEY AND TIE IF ADJACENT

TO CONCRETE PAVEMENT

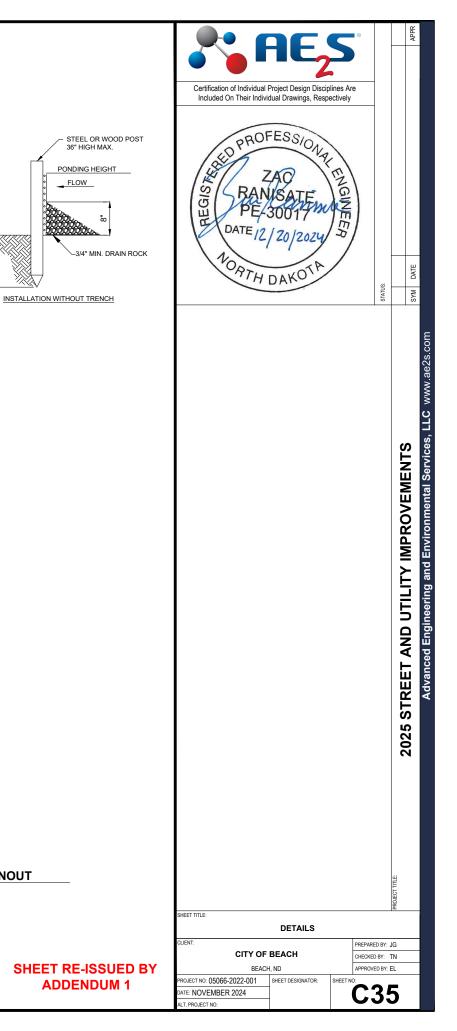
-STEEL OR WOOD POST

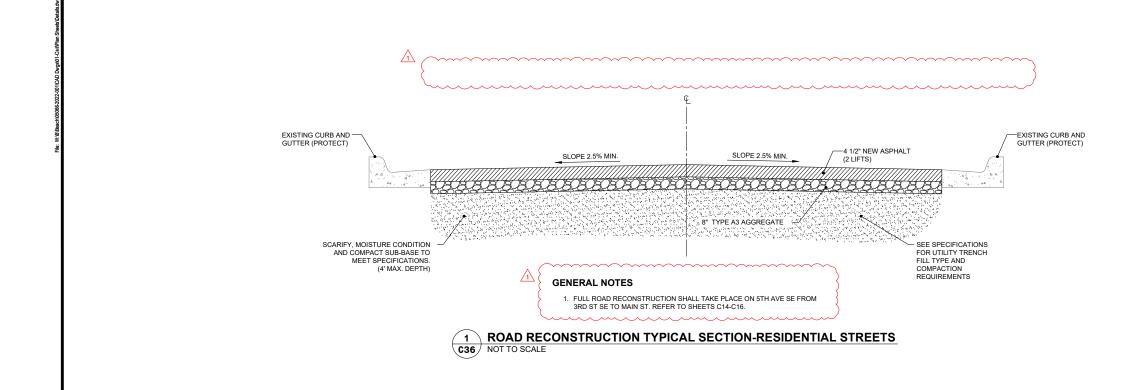


FLOW



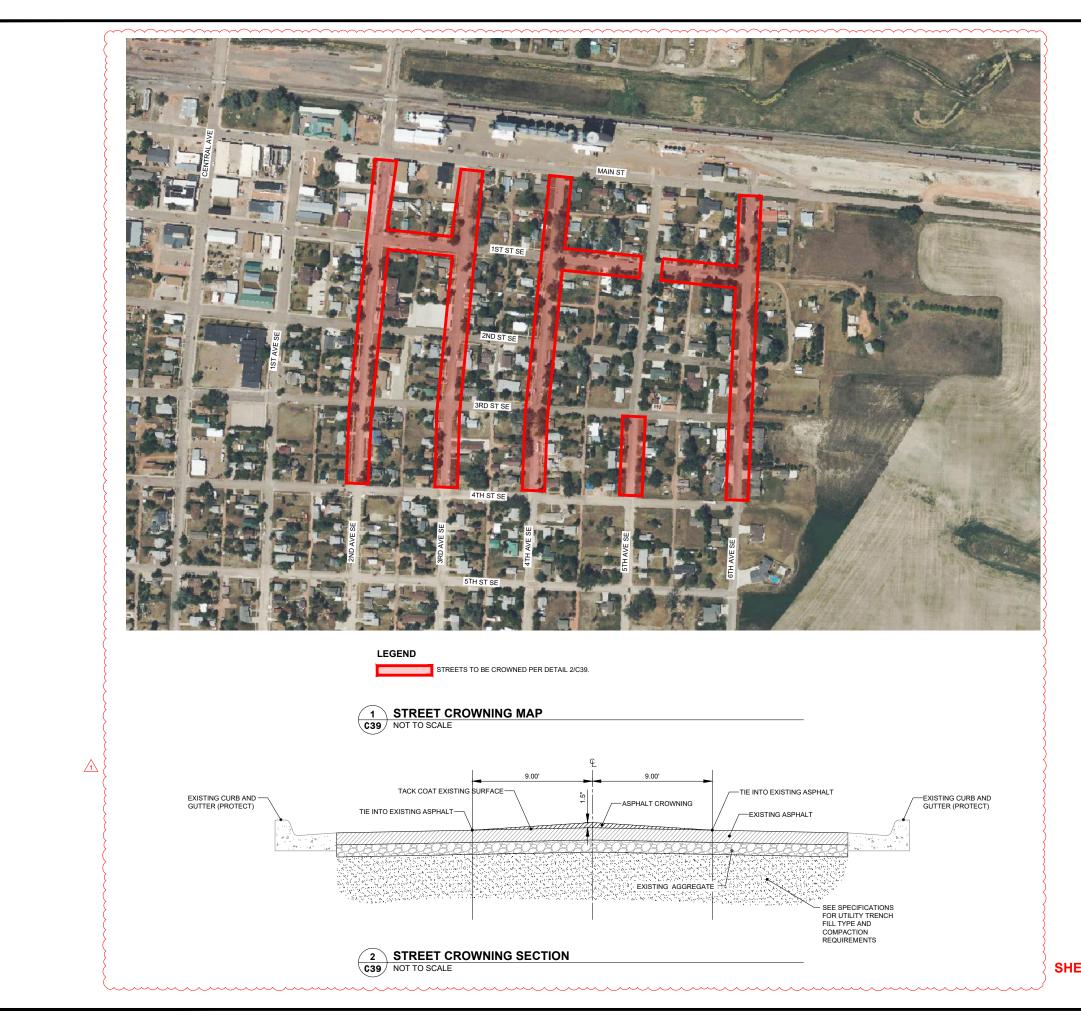
6 SANITARY SEWER CLEANOUT





	DATE 12	La Drawings, Response	octivoly		APPR	
	NORTH	DAKOTA		STATUS:	2025 STREET AND UTILITY IMPROVEMENTS	Advanced Engineering and Environmental Services, LLC www.ae2s.com
	Sheet Title: Client: CITY OF	DETAILS		ED BY: JO D BY: Th	6	
BY	BEACH PROJECT NO: 05066-2022-001 DATE: NOVEMBER 2024 ALT. PROJECT NO:			ED BY: EL	-	

SHEET RE-ISSUED ADDENDUM 1



	DATE 12		ectively	straus	SYM DATE APPR	
					2025 ST	Advanced Engineering and Environmental Services, LLC www.ae2s.com
RV	SHEET TITLE: CLENT: CIENT BEACH		CHECKE	ED BY: JG D BY: TN ED BY: EL		
BY	BEACH PROJECT NO: 05066-2022-001 DATE: NOVEMBER 2024 ALT. PROJECT NO:	I, ND SHEET DESIGNATOR:	SHEET NO:	ED BY: EL)	

SHEET RE-ISSUED BY ADDENDUM 1