

**Public Works Committee Meeting
Tuesday, December 1, 2020 5:00 PM
Crete Library/Community Center
1515 Forest Ave.
Crete, NE 68333**

1. Open Meeting

- In accordance with Nebraska law, a copy of the Open Meetings Act can be found in the back of the Council Chambers.
- Items listed on the agenda may be considered in any order.

2. Roll Call

- Attendance of members will be recorded to determine the presence of a quorum for official actions.

3. Items of Business

- The Committee may discuss or limit discussion on, hear testimony in favor of or in opposition to, or take action to provide a recommendation to the City Council on any matter presented under this title.
 - A. Review and provide a recommendation to the City Council on approving the scope of work, costs, and funding for sidewalk and step improvements by City Hall, along Hickory Ave, and in the downtown area.
 - B. Review substation feasibility study and consider adjusting electric rates.
 - C. Provide a recommendation to the City Council on adopting Resolution 2020-31: No Parking on the south side of 12th Street between Norman Avenue and the alley between Norman and Oak Avenues.

4. Officers' Reports

- Reports may be given by the Mayor, Officers, Departments, or Councilmembers concerning the current operations of the City.
- No action can be taken on matters presented under this title except to answer any questions or to refer the matter for further action.

5. Adjournment

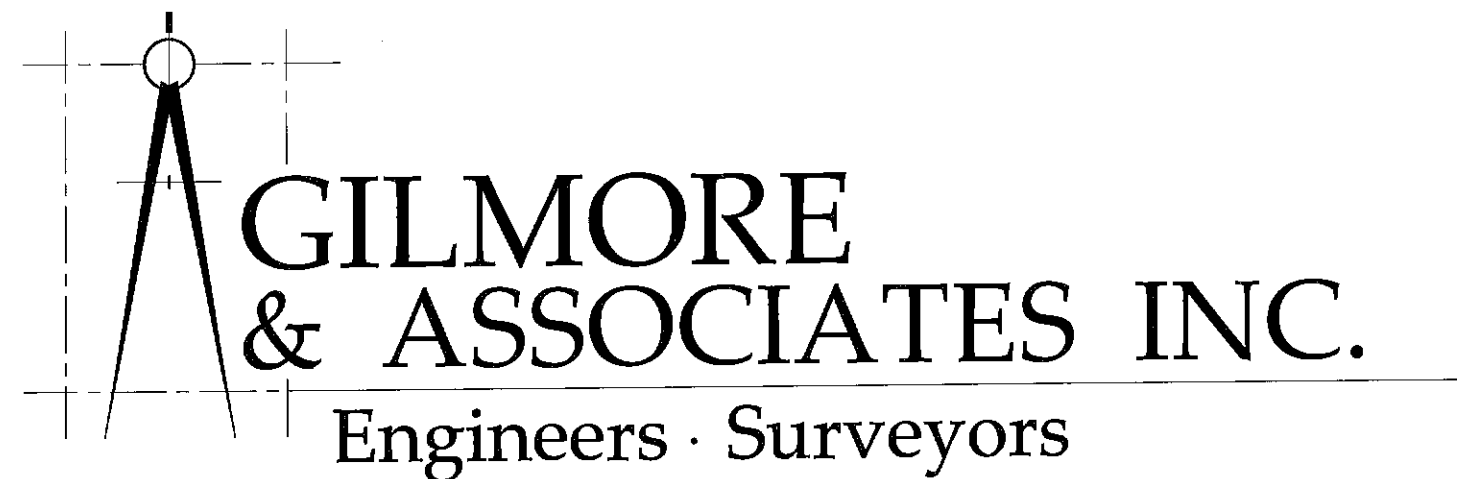
Disclaimers & Notices

- The Council may enter into closed session to discuss any matter on this agenda when it is determined that a closed session is clearly necessary for the protection of the public interest or the prevention of needless injury to the reputation of an individual (if such individual has not requested a public meeting) or as otherwise allowed by law. Any closed session shall be limited to the subject matter for which the closed session was called. If the motion to close passes, then immediately prior to the closed session the Mayor shall restate on the record the limitation of the subject matter of the closed session.
- The City of Crete assures that no person shall on the grounds of race, color, national origin, age, disability, handicap or sex, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity of the City receiving Federal financial assistance. To report discrimination, contact the City Clerk's office.
- The complete agenda with attachments is available at www.crete.ne.gov.

SIDEWALK IMPROVEMENTS PROJECTS 1, 2, & 3

CRETE, NEBRASKA

2021



BIDDING DOCUMENTS NOTE:

Complete sets of Bidding Documents as issued by Gilmore and Associates, Inc., and the issuing office, must be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or omissions resulting from the use of incomplete sets of Bidding Documents.

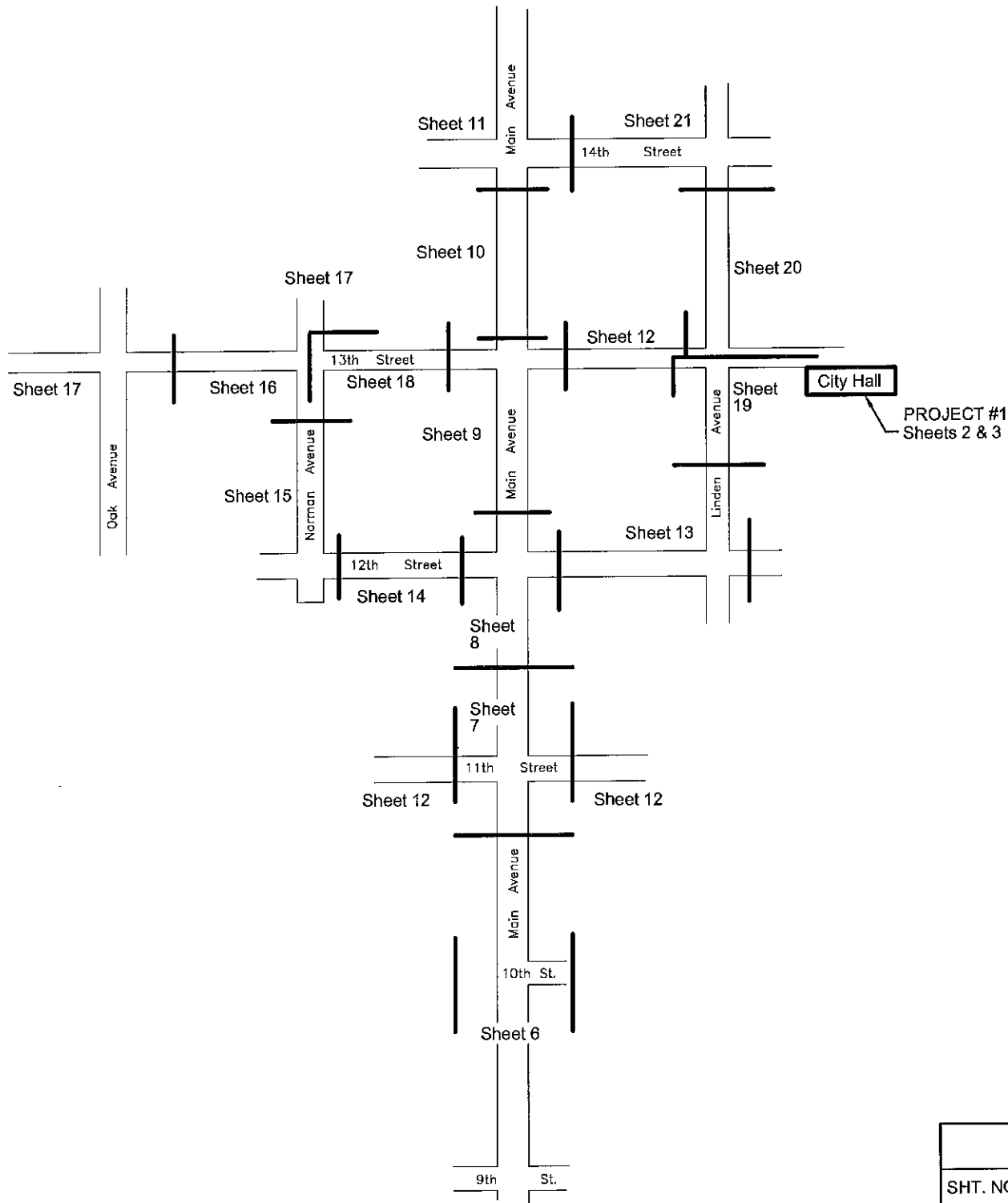


ENGINEER'S CERTIFICATE

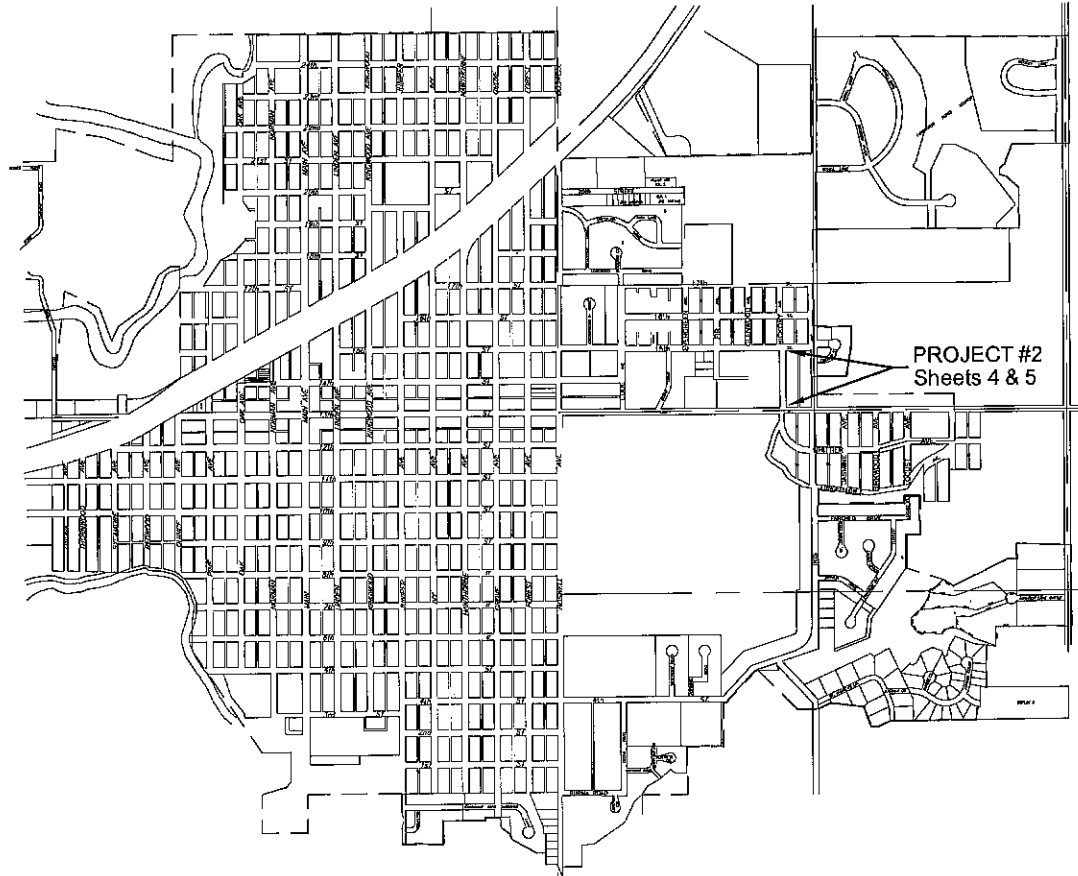
I, Keith L. Gilmore, hereby certify that this document was prepared by me or under my direct supervision, and that I am a duly registered professional engineer under the laws of the State of Nebraska.

Keith L. Gilmore
Keith L. Gilmore, Nebr. P.E. No. E-5721

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SHEET LAYOUT PROJECTS #1 & #3



SHEET LAYOUT PROJECT #2

SHEET INDEX	
SHT. NO.	SHEET NAME
1	INDEX SHEET
2	CITY HALL STEP REMOVAL PLAN
3	CITY HALL STEP REPLACEMENT AND DETAILS
4	HICKORY STREET SIDEWALK PLAN
5	HICKORY STREET SIDEWALK DETAILS
6 - 21	CONCRETE REPLACEMENT PLAN

Benchmark Disclaimer

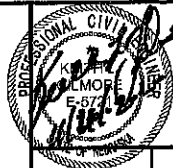
A minimum of two benchmarks have been provided for the sole use of client and are not intended or represented to be suitable for use by any third party. The elevations established as benchmarks are vulnerable to change from the date such elevations were established due to a variety of reasons including, but not limited to, alteration of the physical structure the benchmarks are established upon, vandalism, swelling or subsidence of supporting soils, physical tampering, and construction or vehicular traffic on or adjacent to the benchmark. Gilmore & Associates, Inc., assumes no liability or responsibility for damages by client or any third party resulting from the misinterpretation, misidentification, or alteration of the benchmark elevations provided herein. Before utilizing any benchmark elevation noted herein, at all times the benchmark elevations must be verified and compared with each other as well as with elevations established for other permanent or semi-permanent structures noted, if any, to determine if any misinterpretation, misidentification, or alteration of the benchmark elevations has occurred. The standard of care utilized for professional surveying services in establishment of benchmark elevations is the care and skill ordinarily used by members of the surveyor's profession under similar circumstances at the same time and in the same locality.

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GENERAL NOTES

- The location of all aerial and underground utility facilities are approximate or may not be indicated on these drawings. Underground utilities whether shown or not, will be located and marked by the Utilities at the request of the Contractor. No excavation will be performed until all such underground utility facilities have been located and identified to the satisfaction of all parties. Contractor shall use extreme care to avoid any possibility of damage to the utility facility. It shall be the responsibility of the Contractor to protect all existing utilities, pavement, and other improvements not designated for removal or abandonment. Any damage to existing utilities and/or paved streets not designated for removal caused by construction operations shall be repaired at the Contractor's expense. In all cases, with no exception the Contractor before beginning construction, shall locate, uncover, and determine the horizontal and vertical location of all existing underground facilities which may potentially conflict with the work. Before proceeding with any digging the Contractor shall confirm that a conflict does not exist and the underground work may be performed as shown on the drawings. If the Contractor determines that a conflict does exist, the Contractor shall immediately notify the Engineer who will make the final determination for resolving the conflict. The Contractor will receive no additional compensation for any delays or work resulting from a conflict that has not been thoroughly investigated prior to proceeding with the work. The Contractor may request additional compensation for any additional work performed to directly resolve the conflict as directed in writing by the Engineer.
- Contractor shall call for utility location (1-800-331-5666) 48 hours prior to digging.
- The Contractor shall adjust to grade all manholes and water valve boxes. Contractor shall keep existing sewer and water appurtenances free of all debris and operable during construction.
- Contractor shall furnish and maintain all necessary barricades, warning signs, lights, and flag persons as necessary for no additional compensation.
- Contractor shall protect by whatever means are required, all signs, mail boxes, fences, driveways, structures, sidewalks, streets, utility poles, bushes, trees, sprinkler systems, etc., which are not designated for removal or are located outside of the project limits. Any damage or destruction caused by the Contractor shall be repaired or replaced at a minimum to the original condition, as determined by the Engineer, at the Contractor's expense.
- Contractor shall provide positive drainage at all times within the project and construction areas.
- Contractor shall provide and maintain temporary erosion control devices in conformance with the SWPPP permit or as directed by the Engineer.
- Temporary erosion control devices shown on the detail drawings are a minimum. Storm water erosion and sediment control shall conform to NDEE NPDES permit requirements. BMP structures shall be placed and maintained as required to meet permit guidelines.
- Contractor is responsible for all traffic and pedestrian control including, but not limited to, signage, barricades, construction fencing, warning lights, and related items. All materials and procedures shall be in conformance with the NDOT Standard Materials list, and Manual of Uniform Traffic Control Devices.
- All concrete material removed shall be hauled and stockpiled at Owner's designated site.
- All work required to be performed in order to construct the Project, which is not specifically designated as a Bid item, is considered incidental work. Costs shall be included in a bid item determined by the Contractor.



Diggers Hotline of Nebraska 1-800-331-5666

Phone (402) 344-2807
Fax (402) 344-2840
Box 535 2570 33rd Ave.
Culverton, Nebraska 68424-0535



STREET IMPROVEMENTS PROJECTS 1, 2, & 3

CRETE, NEBRASKA

INDEX SHEET

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DATE 11/5/2020
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PROJ. 226.340
F.B. _____
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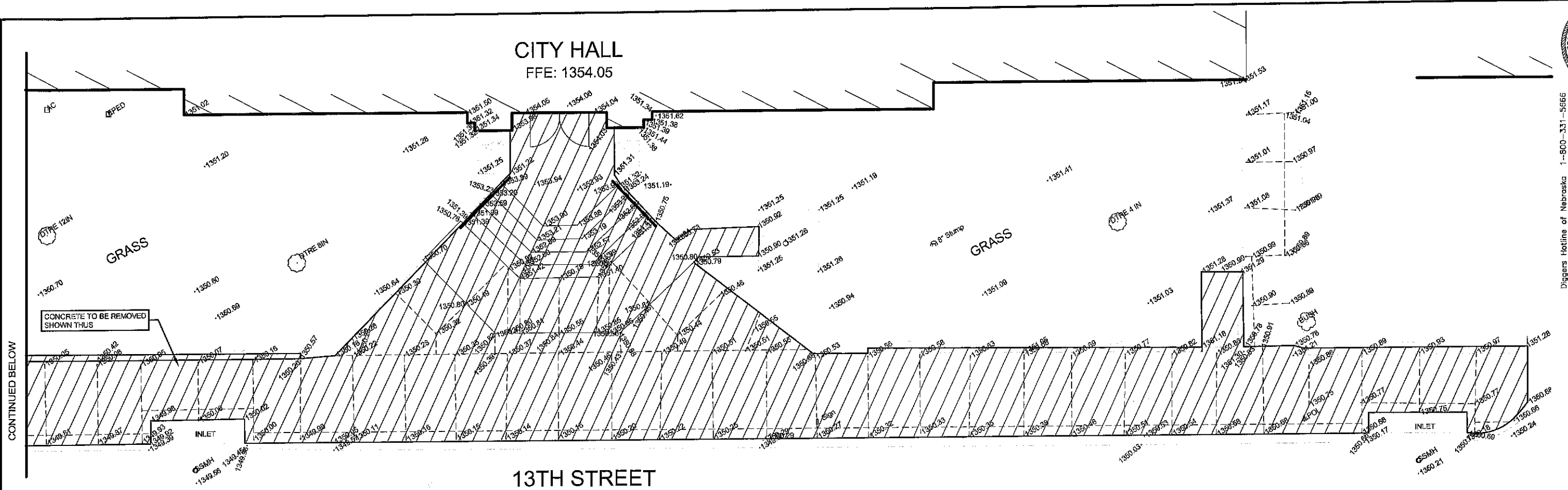
Box 565 2670 33rd Ave.
Columbus, Nebraska 68602-0565



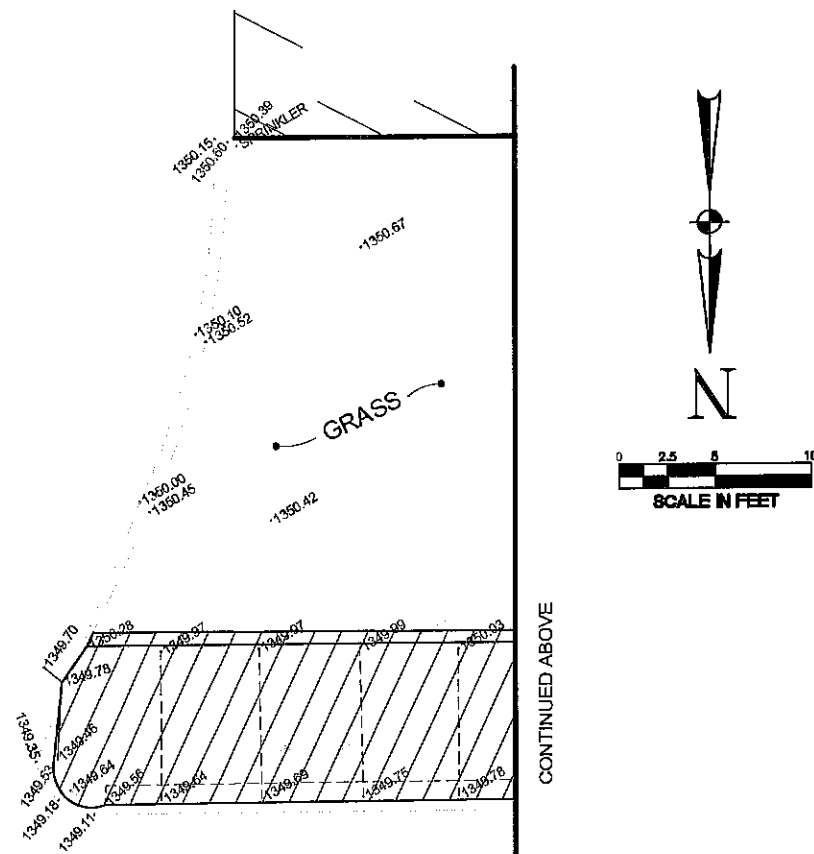
**GILMORE
& ASSOCIATES INC.**
Engineers · Surveyors

SIDEWALK IMPROVEMENTS PROJECT #1
CRETE, NEBRASKA
CITY HALL STEPS REMOVAL PLAN

DRAWN BY RTK
 DATE 1/20/2020
 SCALE AS SHOWN
 PROJ. 226.340
 F.B. -
 SHEET
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REMOVALS PLAN



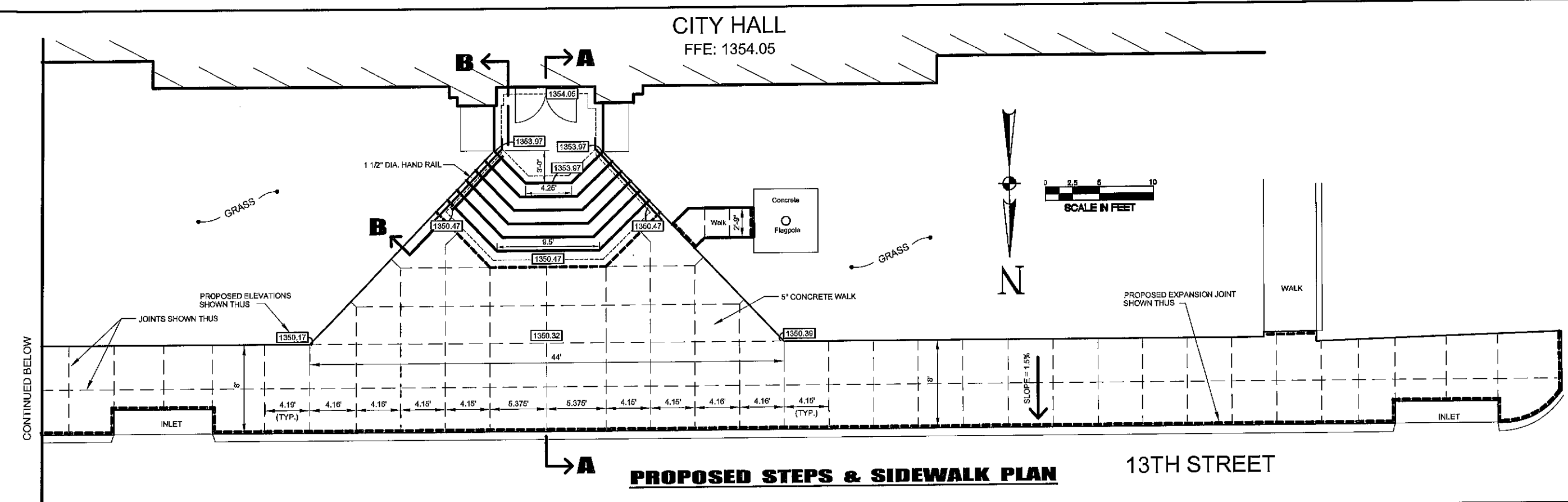
PROJECT #1 - CITY HALL STEPS AND WALKS

1. REMOVE EXISTING REINFORCED CONCRETE STEPS, HANDRAILS AND FOUNDATION.
2. PROTECT EXISTING CONCRETE BLOCK STRUCTURES DURING STEP REMOVAL.
3. EXISTING CURB TO REMAIN.
4. EXPANSION JOINT BETWEEN STEPS AND WALK.

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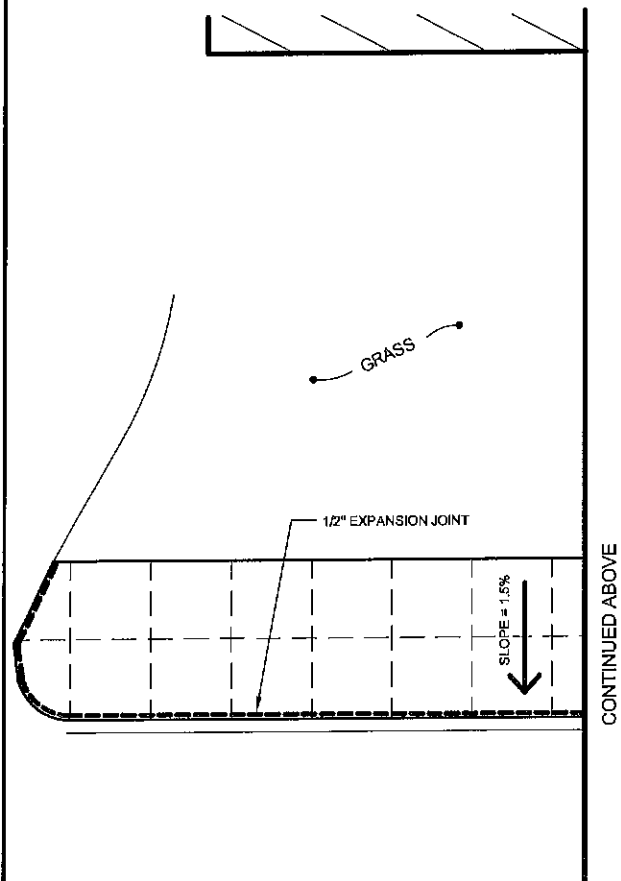
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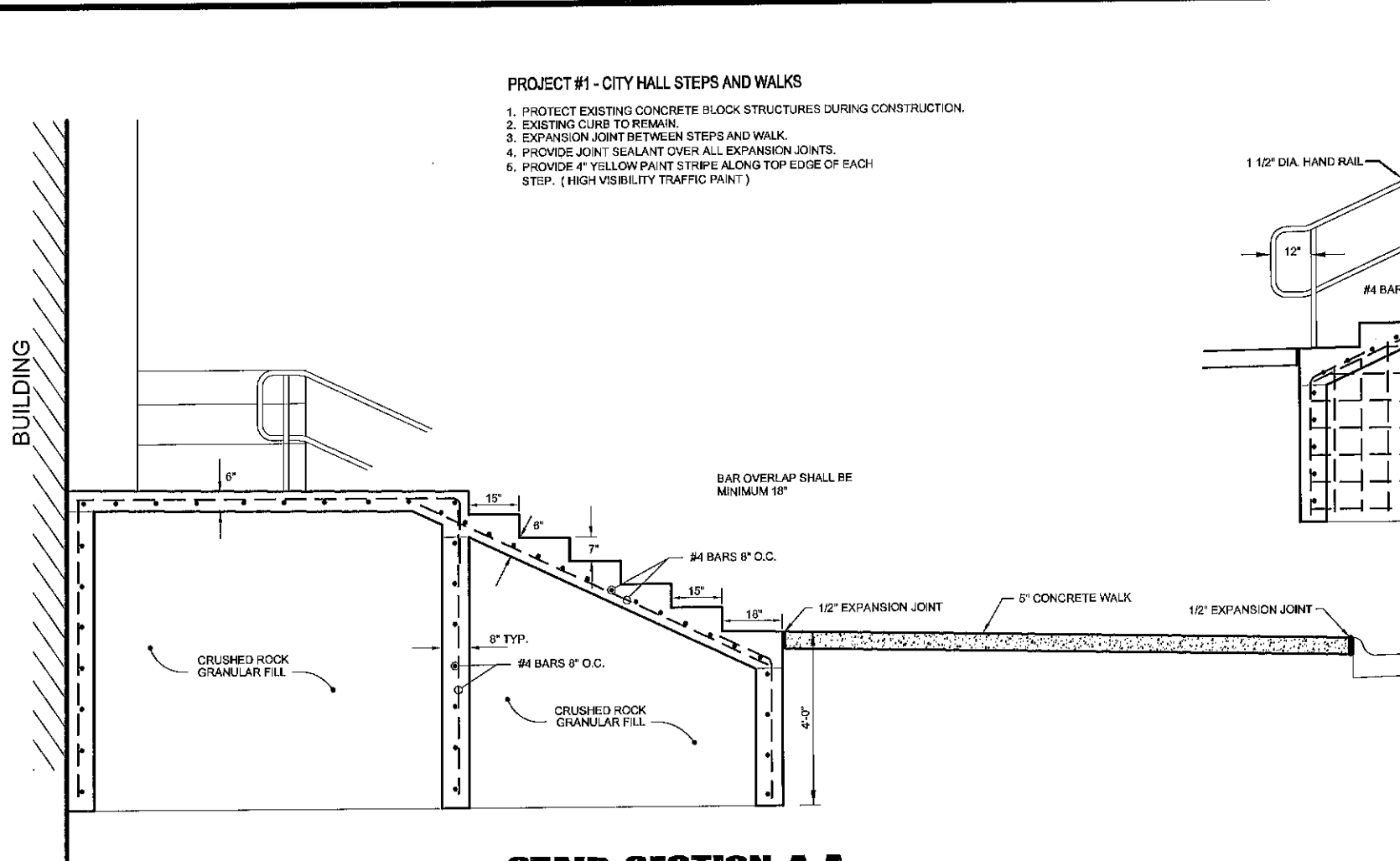


PROPOSED STEPS & SIDEWALK PLAN

13TH STREET

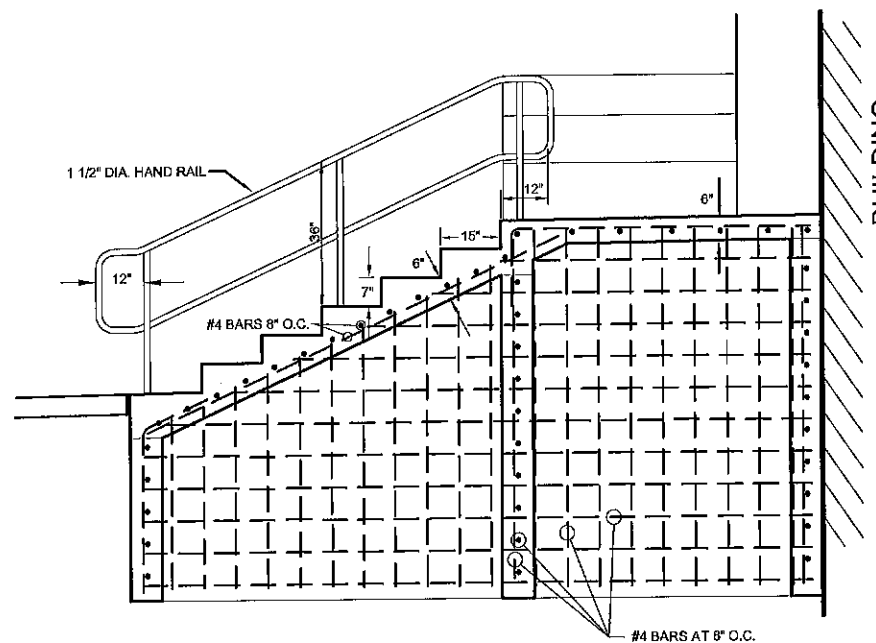


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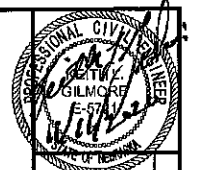
STAIR SECTION A-A

SCALE: 1/2" = 1'-0"



STAIR SECTION B-B

SCALE: 1/2" = 1'-0"

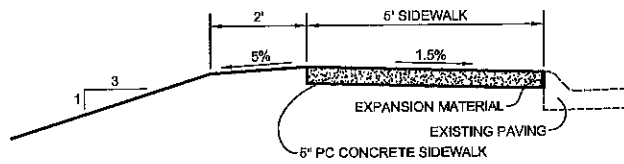


Diggers Hotline of Nebraska 1-800-331-5666

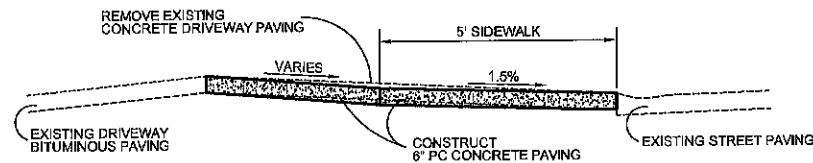
GILMORE & ASSOCIATES INC.
Engineers - Surveyors

SIDEWALK IMPROVEMENTS PROJECT #1
CRETE, NEBRASKA
CITY HALL STEPS REPLACEMENT & DETAILS

DRN BY: RTK
DATE: 1/20/2020
SCALE: AS SHOWN
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SECTION A-A
NO SCALE

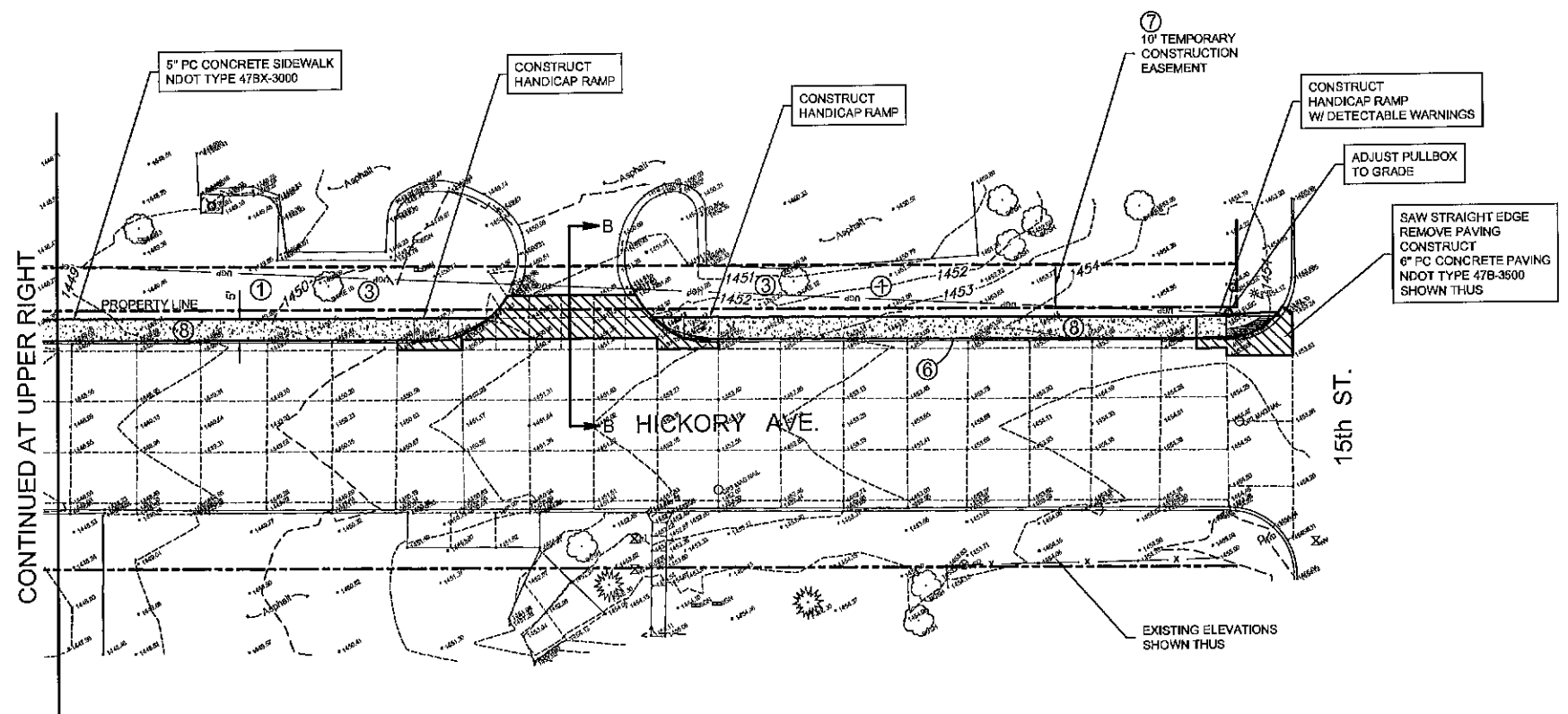
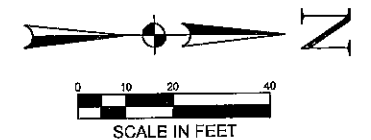
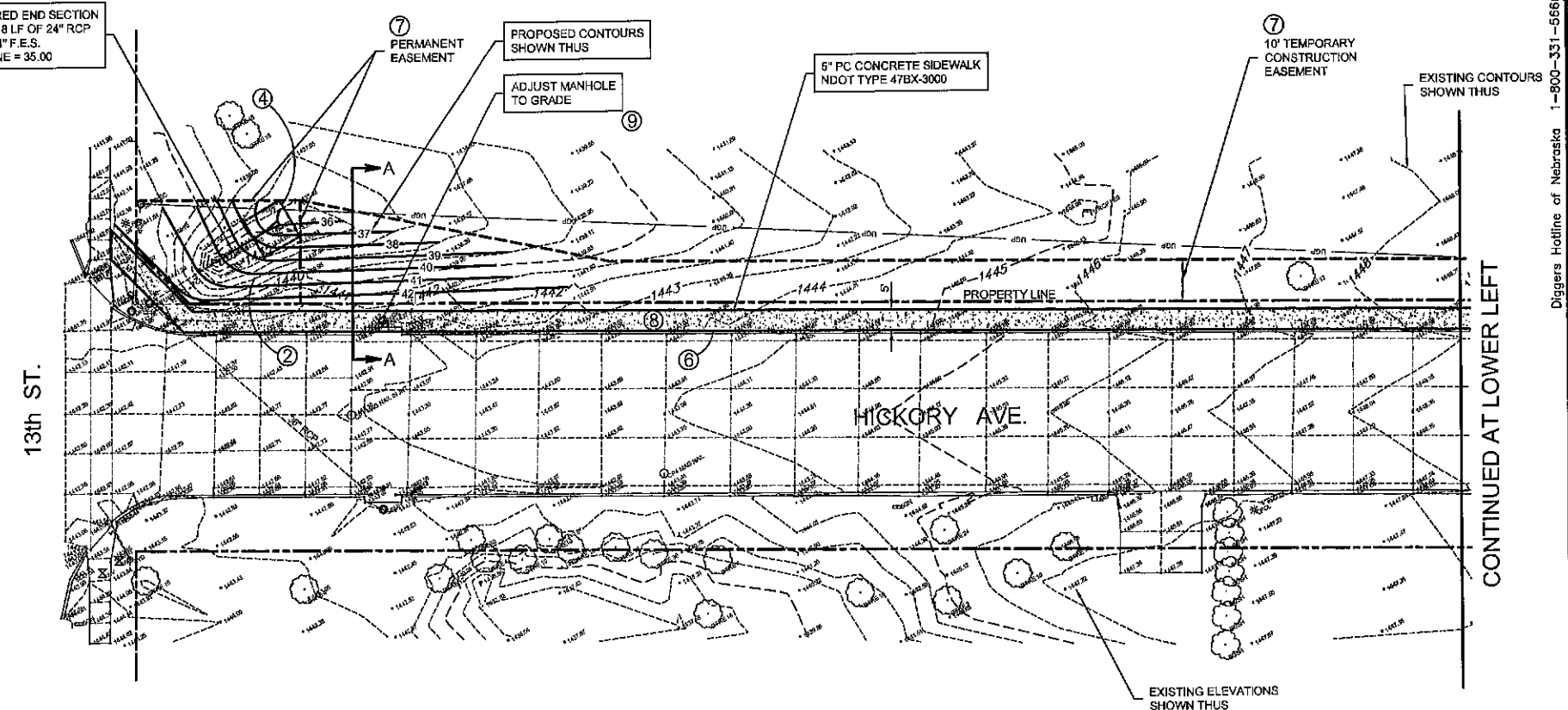


SECTION B-B
NO SCALE

PROJECT #2 KEY NOTES

- ① CONTRACTOR TO VERIFY UNDERGROUND IRRIGATION SYSTEM LOCATIONS AND PROTECT DURING CONSTRUCTION. ANY DAMAGE TO UNDERGROUND IRRIGATION SYSTEM TO BE REPAIRED AND PAID BY CONTRACTOR.
- ② ALL GRASSED AREAS DISTURBED BY CONSTRUCTION SHALL BE SODDED.
- ③ CONTRACTOR SHALL PROTECT EXISTING LANDSCAPING AND RESTORE TO ORIGINAL CONDITION.
- ④ PROVIDE SILT FENCING BMP.
- ⑤ EXISTING STORM SEWER TO BE EXTENDED.
- ⑥ PROVIDE EXPANSION JOINT AT BACK OF CURB.
- ⑦ CONTRACTOR TO OBTAIN COPIES OF EASEMENTS FROM OWNER PRIOR TO COMMENCING WORK.
- ⑧ TYPICAL CONSTRUCTION JOINT SPACING OF 5' WALK IS 5'.
- ⑨ MANHOLE TO BE ADJUSTED TO GRADE USING CRETEX PRO-RING. ALTERNATIVE METHODS FOR MANHOLE ADJUSTMENT MUST BE APPROVED BY THE ENGINEER.

⑤ REMOVE FLARED END SECTION
CONSTRUCT 18 LF OF 24" RCP
RE-INSTALL 24" F.E.S.
F.E.S. FLOWLINE = 35.00

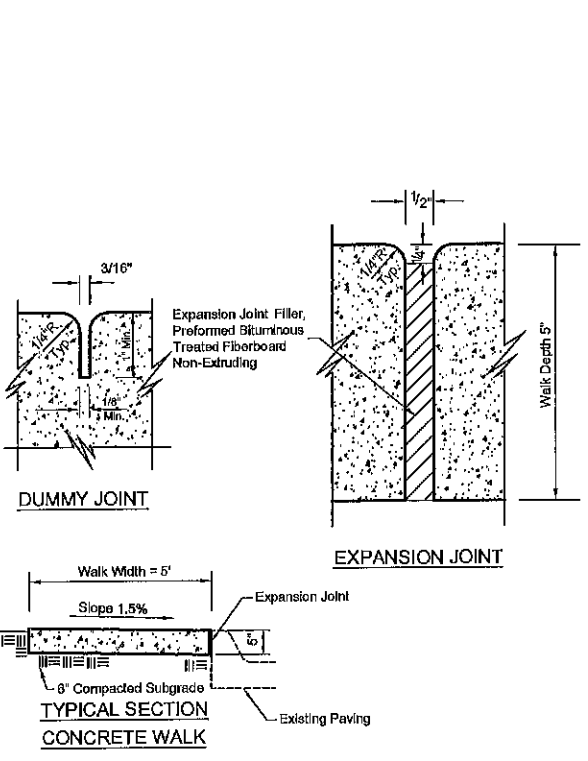
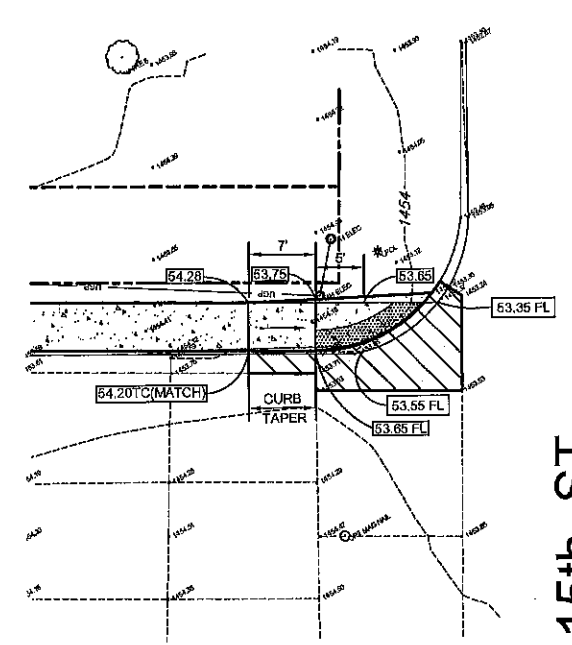
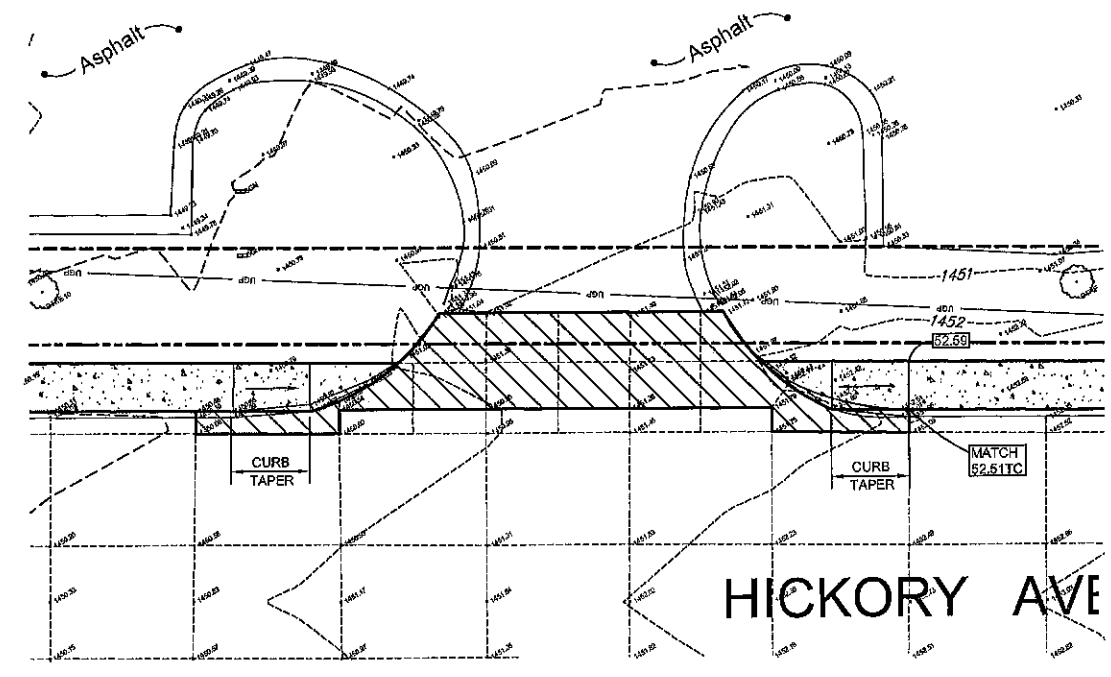
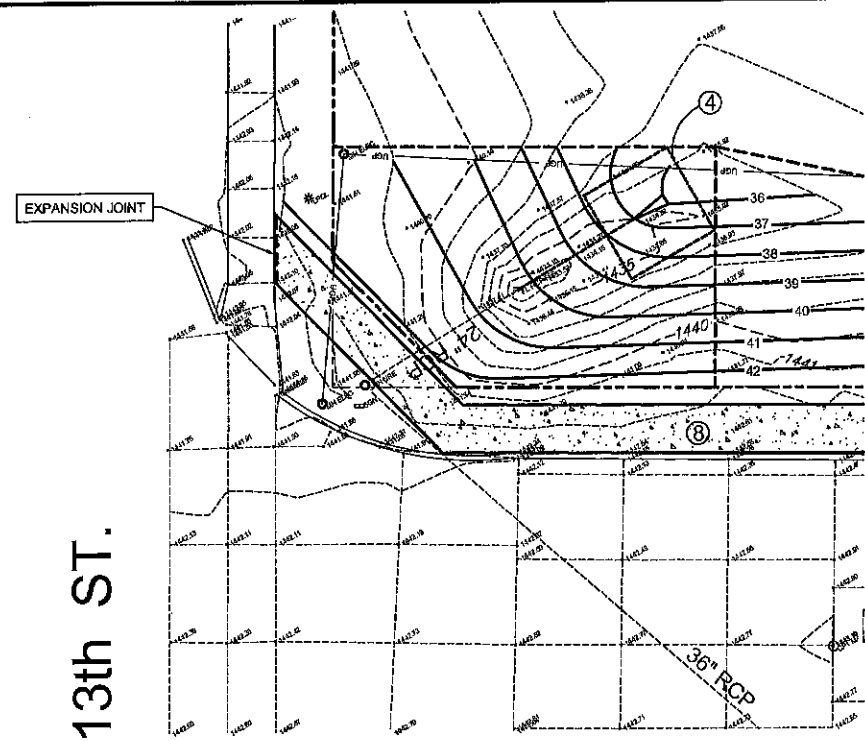


Diggers Hotline of Nebraska 1-800-331-5565
Phone (402) 584-2807
Fax (402) 584-2800
Gilmore & Associates Inc.
Engineers - Surveyors

GILMORE & ASSOCIATES INC.
Engineers - Surveyors

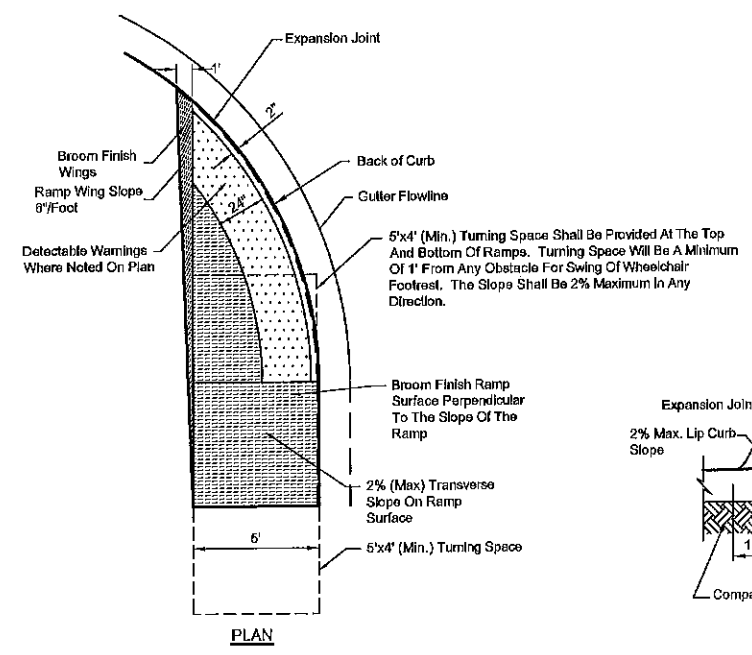
SIDEWALK IMPROVEMENTS PROJECT #2
CRETE, NEBRASKA
HICKORY ST. SIDEWALK PLAN

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DATE 11/11/2020
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PROJ. 226.340
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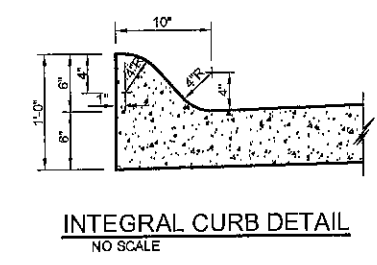
NOTE:
Whenever A Concrete Walk Abuts A Structure Such As Another Walk, Curb, Sloop, Storm Drain Inlet, Or Manhole, An Expansion Joint Shall Be Installed Between The Walk And The Structure.

TYPICAL SIDEWALK DETAIL
NO SCALE

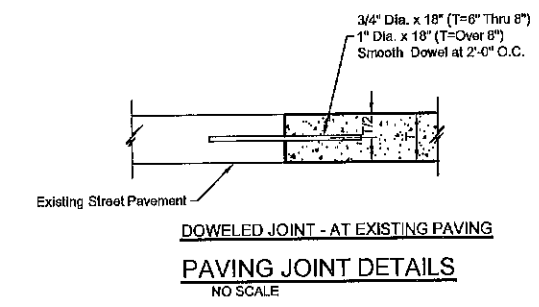


Locations As Shown On The Plans. Construction Shall Be Considered Incidental Work And Included In The Sidewalk Paving Bid Item.

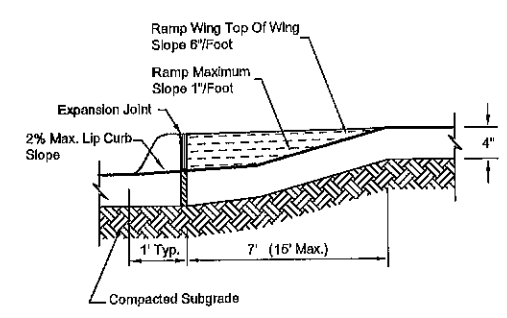
HANDICAPPED RAMP
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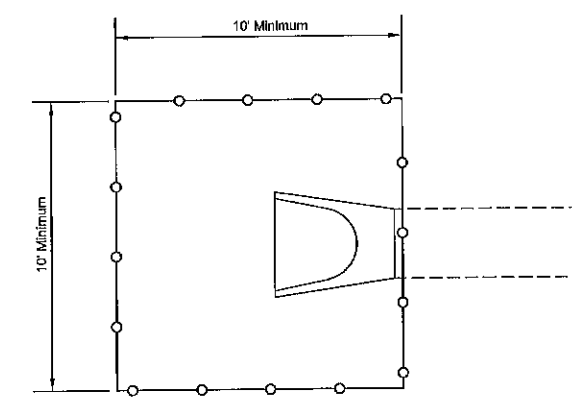
INTEGRAL CURB DETAIL
NO SCALE



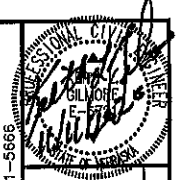
PAVING JOINT DETAILS
NO SCALE



CROSS SECTION



SILT FENCE AT DRAINAGE STRUCTURE
NO SCALE



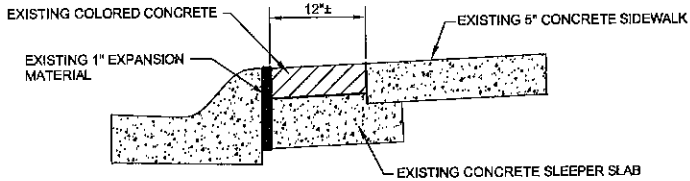
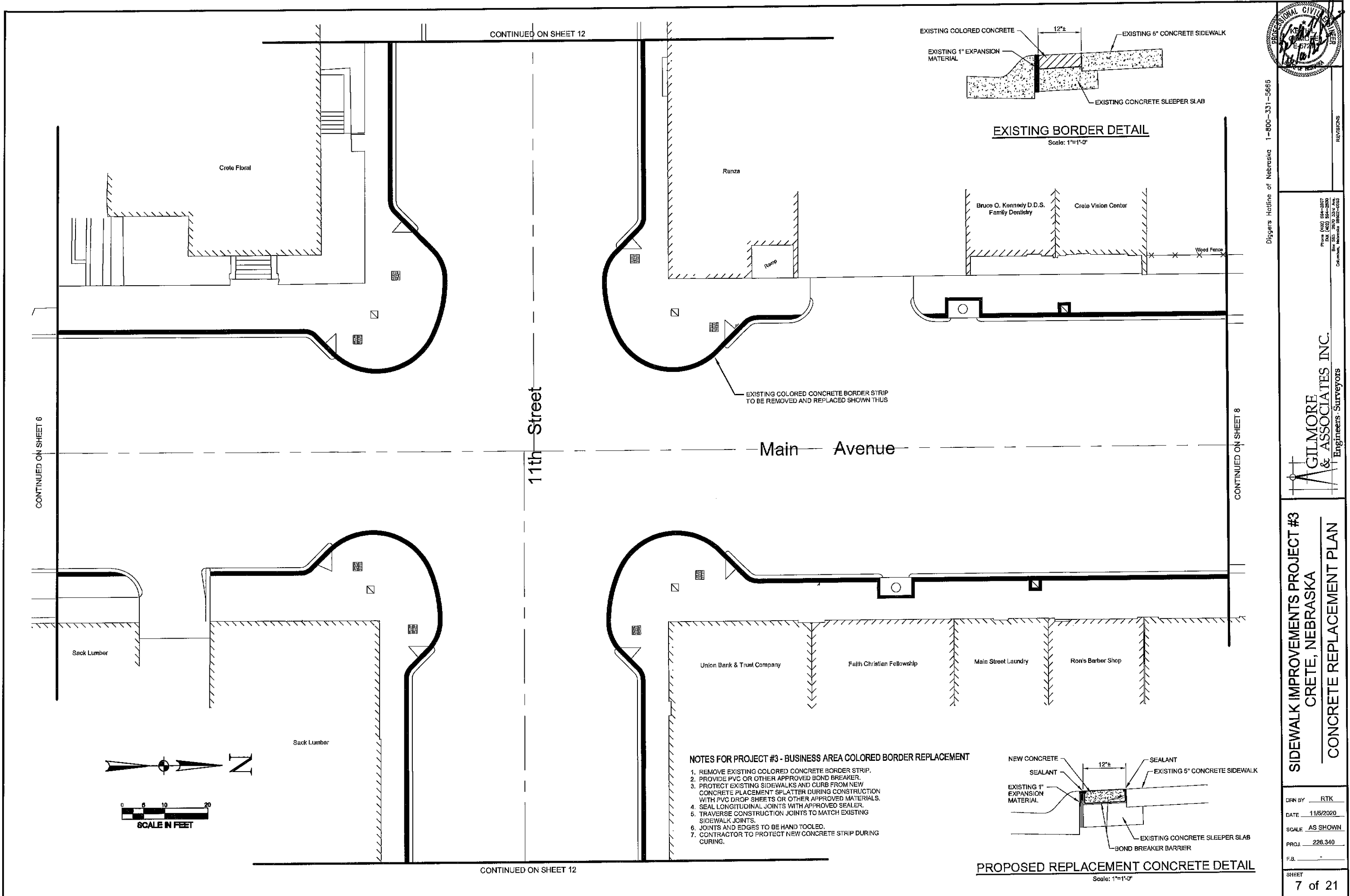
Diggers Hotline of Nebraska 1-800-331-5666

GILMORE & ASSOCIATES INC.
Engineers - Surveyors

SIDEWALK IMPROVEMENTS PROJECT #2
CRETE, NEBRASKA
HICKORY ST. SIDEWALK DETAILS

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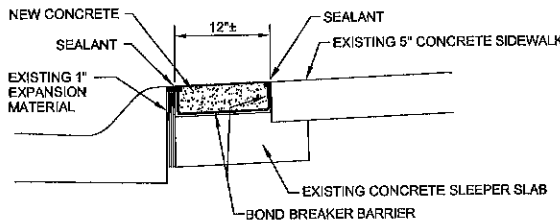


EXISTING BORDER DETAIL

Scale: 1"=1'-0"

NOTES FOR PROJECT #3 - BUSINESS AREA COLORED BORDER REPLACEMENT

1. REMOVE EXISTING COLORED CONCRETE BORDER STRIP.
2. PROVIDE PVC OR OTHER APPROVED BOND BREAKER.
3. PROTECT EXISTING SIDEWALKS AND CURB FROM NEW CONCRETE PLACEMENT SPLATTER DURING CONSTRUCTION WITH PVC DROP SHEETS OR OTHER APPROVED MATERIALS.
4. SEAL LONGITUDINAL JOINTS WITH APPROVED SEALER.
5. TRAVERSE CONSTRUCTION JOINTS TO MATCH EXISTING SIDEWALK JOINTS.
6. JOINTS AND EDGES TO BE HAND TOOLED.
7. CONTRACTOR TO PROTECT NEW CONCRETE STRIP DURING CURING.



PROPOSED REPLACEMENT CONCRETE DETAIL

Scale: 1"=1'-0"

PROFESSIONAL CIVIL ENGINEER
KYLE J. GILMORE
E 6726
STATE OF NEBRASKA

Diggers Hotline of Nebraska 1-800-331-5665

REVISIONS

Phone (402) 554-3077
Fax (402) 554-3040
Cell (402) 331-4555
Columbus, Nebraska 68602-4555

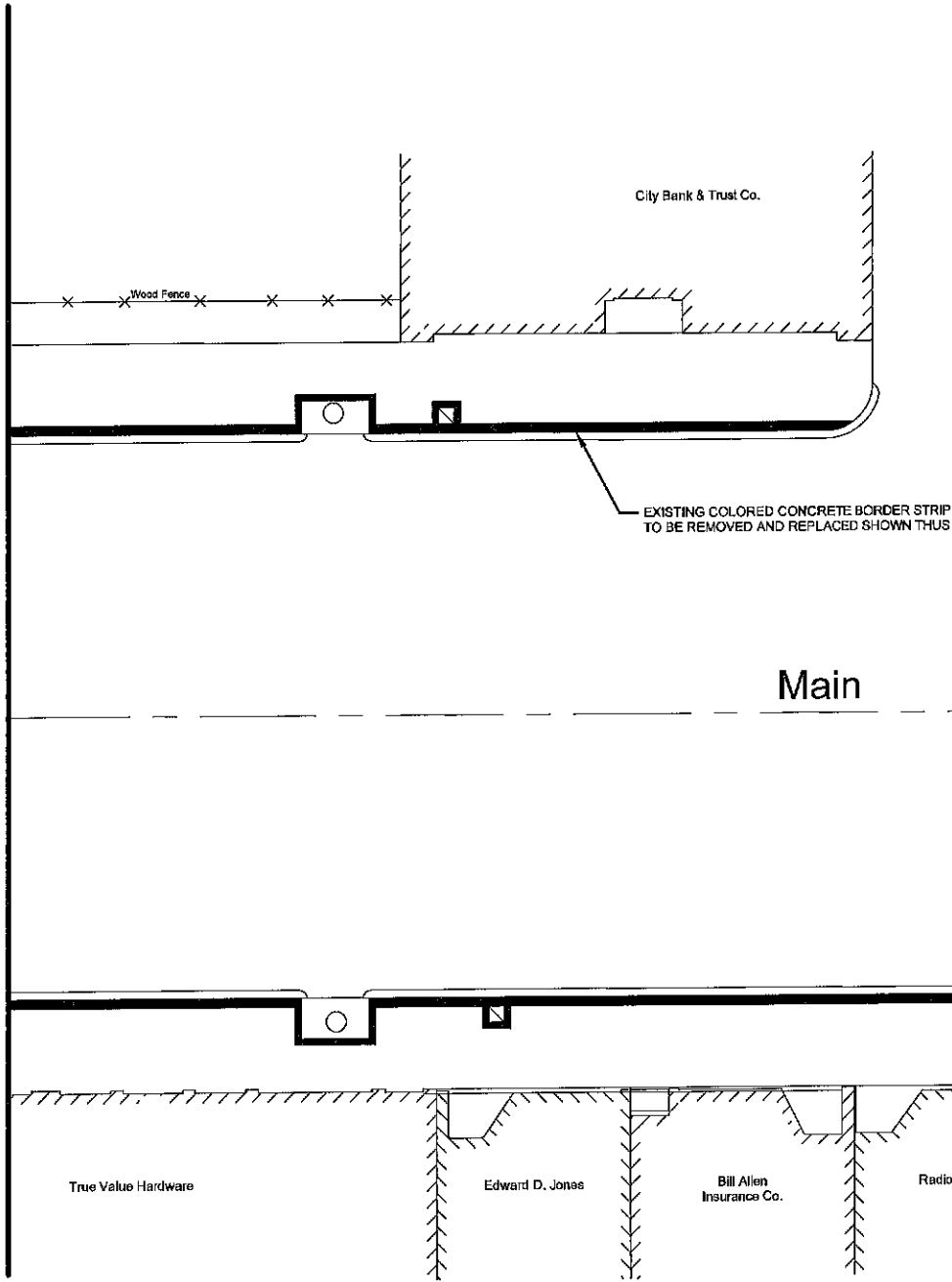
GILMORE & ASSOCIATES INC.
Engineers - Surveyors

SIDEWALK IMPROVEMENTS PROJECT #3
CRETE, NEBRASKA
CONCRETE REPLACEMENT PLAN

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NOTES FOR PROJECT #3 - BUSINESS AREA COLORED BORDER REPLACEMENT

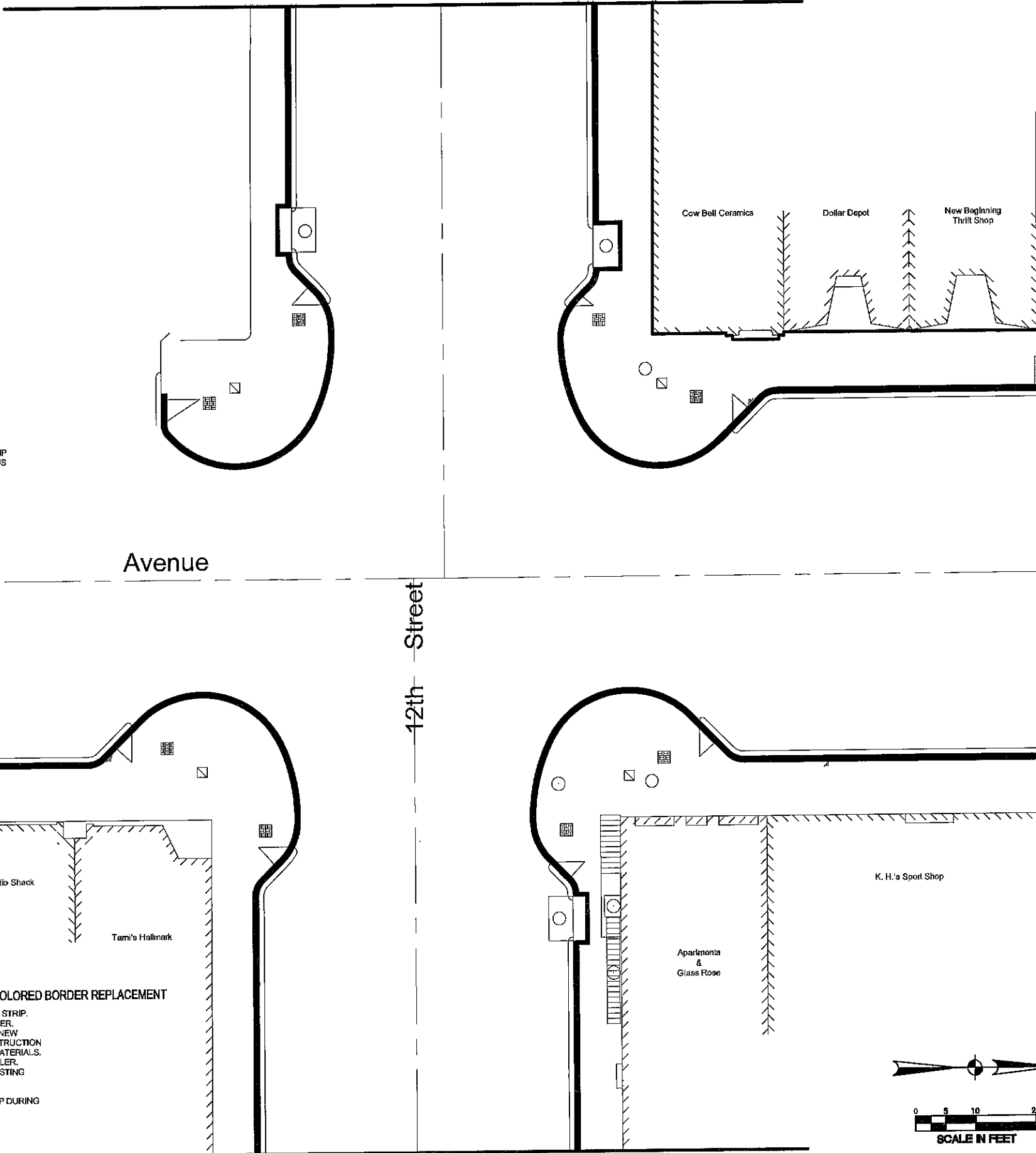
1. REMOVE EXISTING COLORED CONCRETE BORDER STRIP.
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3. PROTECT EXISTING SIDEWALKS AND CURB FROM NEW CONCRETE PLACEMENT SPLATTER DURING CONSTRUCTION WITH PVC DROP SHEETS OR OTHER APPROVED MATERIALS.
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Main Avenue

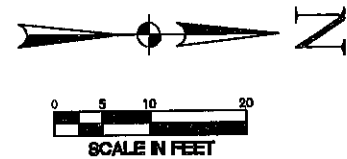
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12th Street

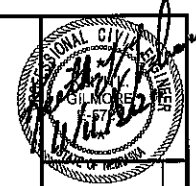
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GILMORE & ASSOCIATES INC.
Engineers - Surveyors

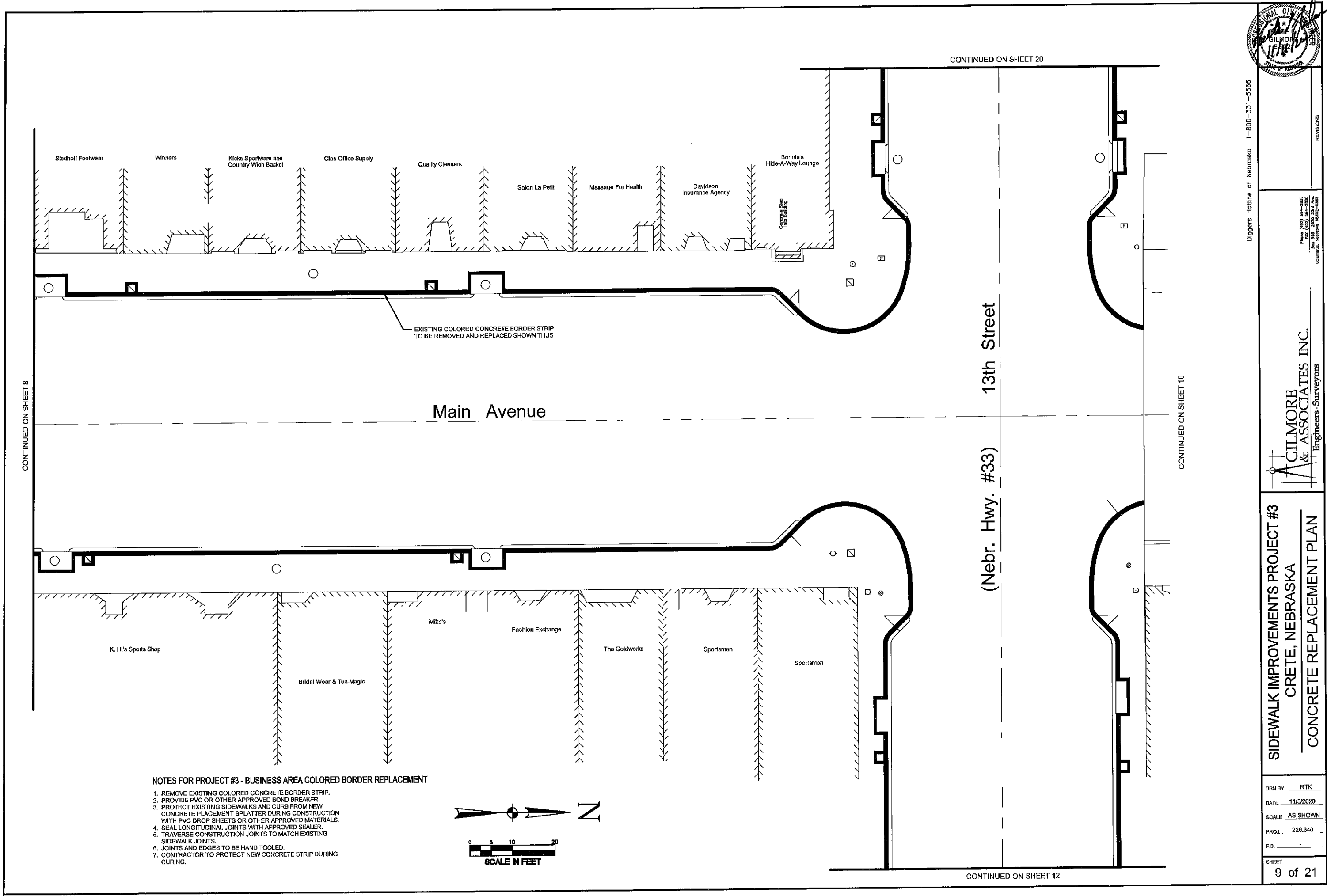
SIDEWALK IMPROVEMENTS PROJECT #3
CRETE, NEBRASKA
CONCRETE REPLACEMENT PLAN

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REVISIONS

Phone (402) 544-2877
Fax (402) 544-2870
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Nebraska

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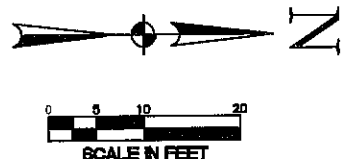
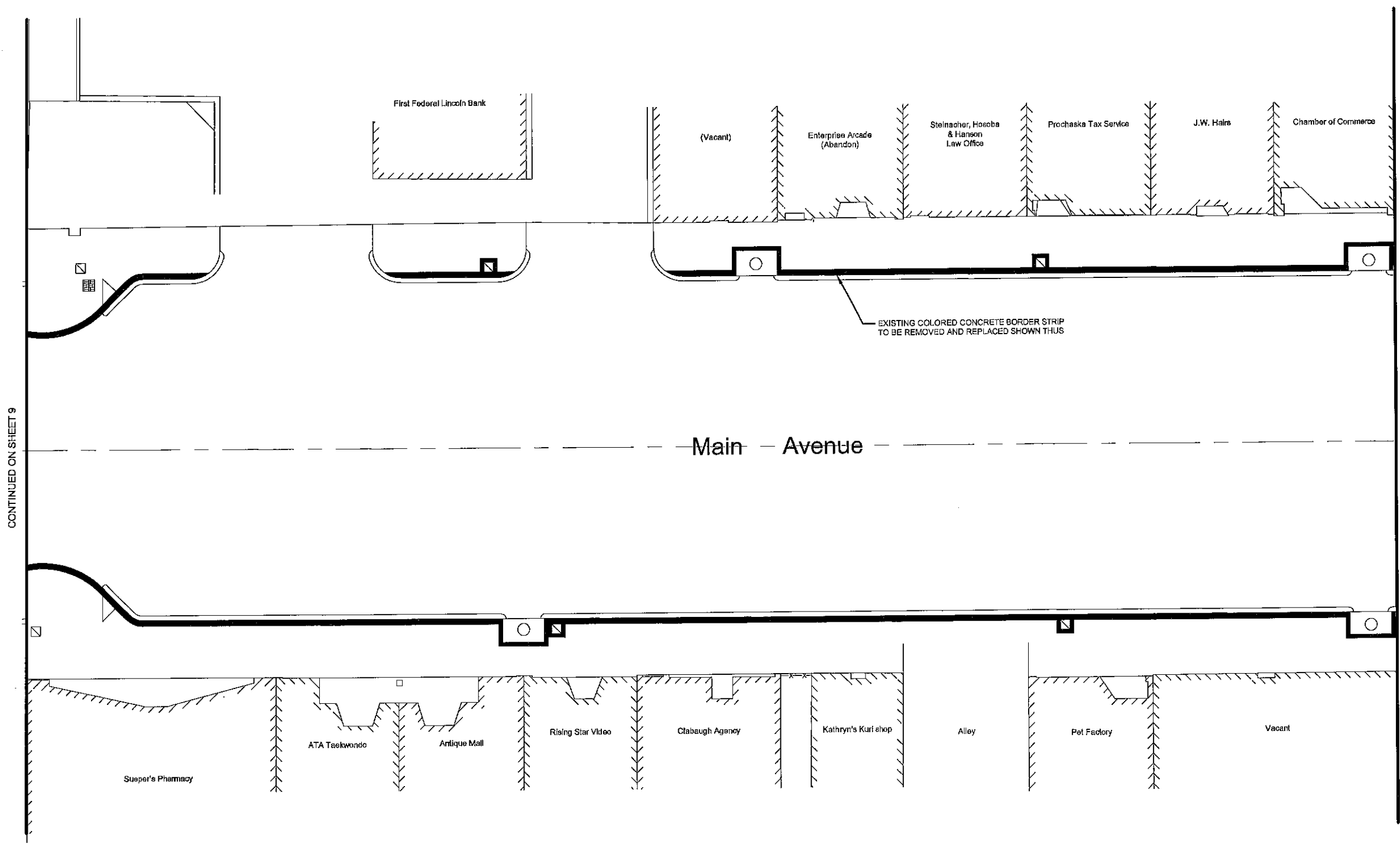
Phone (402) 864-2807
Fax (402) 864-2808
Cell (402) 334-3444
Downtown, Nebraska 68102-5352

GILMORE & ASSOCIATES INC.
Engineers - Surveyors

SIDEWALK IMPROVEMENTS PROJECT #3
CRETE, NEBRASKA
CONCRETE REPLACEMENT PLAN

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- NOTES FOR PROJECT #3 - BUSINESS AREA COLORED BORDER REPLACEMENT
1. REMOVE EXISTING COLORED CONCRETE BORDER STRIP.
 2. PROVIDE PVC OR OTHER APPROVED BOND BREAKER.
 3. PROTECT EXISTING SIDEWALKS AND CURB FROM NEW CONCRETE PLACEMENT SPLATTER DURING CONSTRUCTION WITH PVC DROP SHEETS OR OTHER APPROVED MATERIALS.
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 7. CONTRACTOR TO PROTECT NEW CONCRETE STRIP DURING CURING.

Diggers Hotline of Nebraska 1-800-331-5665

GILMORE & ASSOCIATES INC.
Engineers-Surveyors

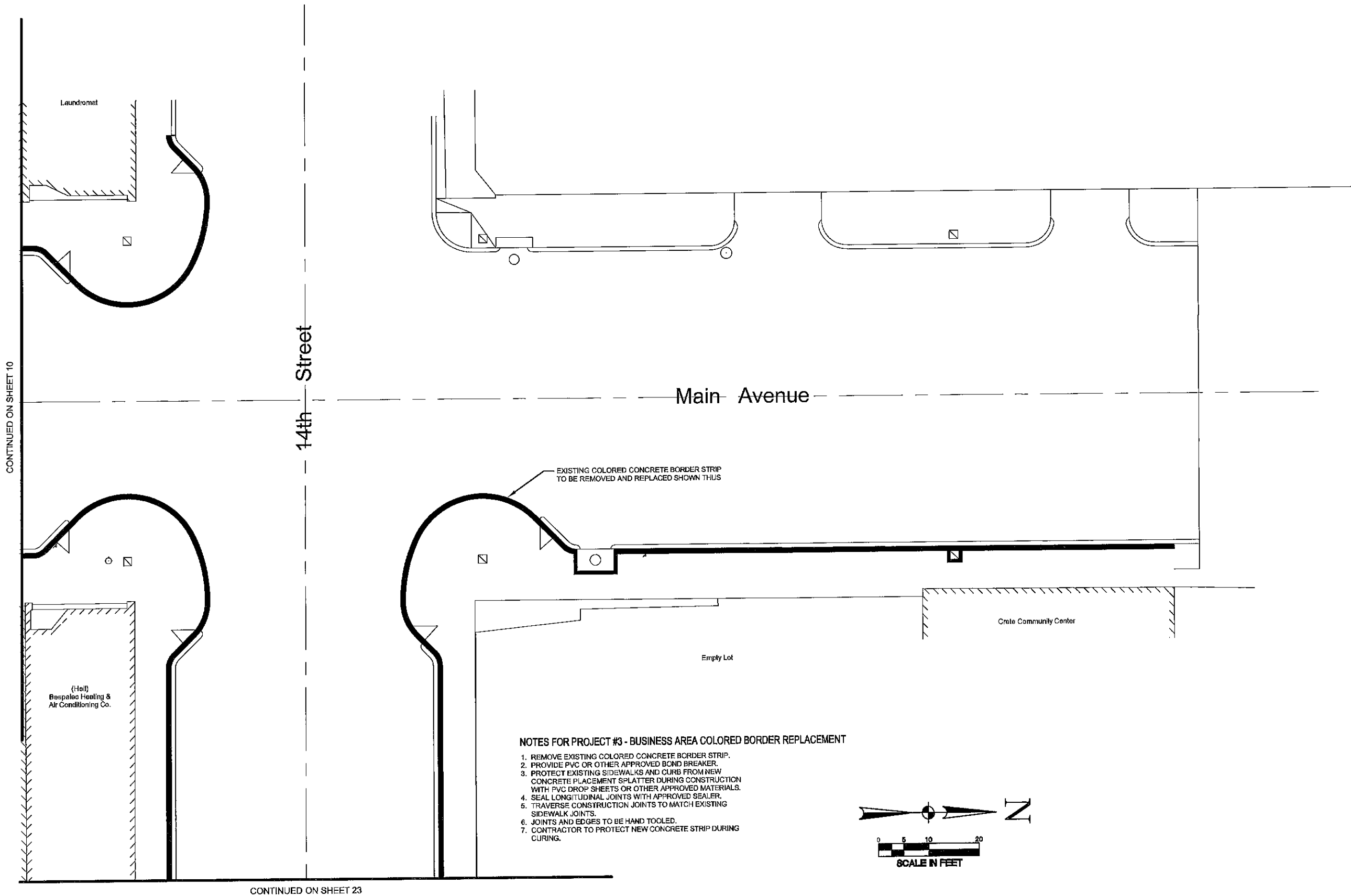
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CRETE, NEBRASKA
CONCRETE REPLACEMENT PLAN

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REVISIONS

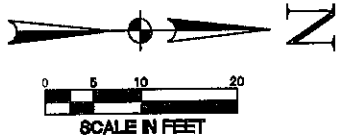
Phone (402) 944-2807
Fax (402) 944-2800
1400 S. 17th Avenue, Suite 100
Columbia, Nebraska 68202-1336

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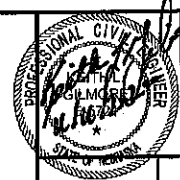


NOTES FOR PROJECT #3 - BUSINESS AREA COLORED BORDER REPLACEMENT

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5. TRAVERSE CONSTRUCTION JOINTS TO MATCH EXISTING SIDEWALK JOINTS.
6. JOINTS AND EDGES TO BE HAND TOOLED.
7. CONTRACTOR TO PROTECT NEW CONCRETE STRIP DURING CURING.



Diggers Hotline of Nebraska 1-800-331-5665



SIDEWALK IMPROVEMENTS PROJECT #3
CRETE, NEBRASKA
CONCRETE REPLACEMENT PLAN

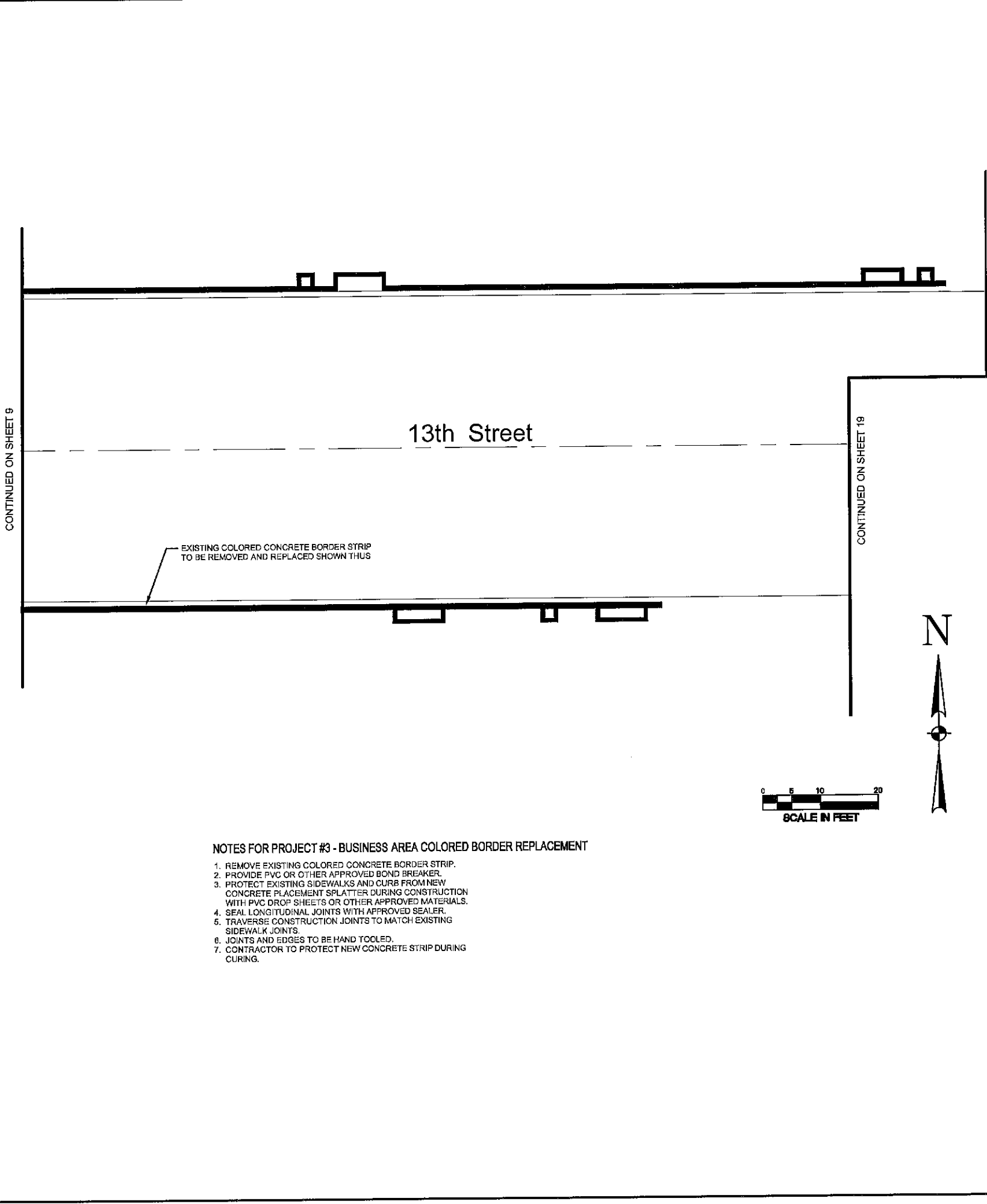
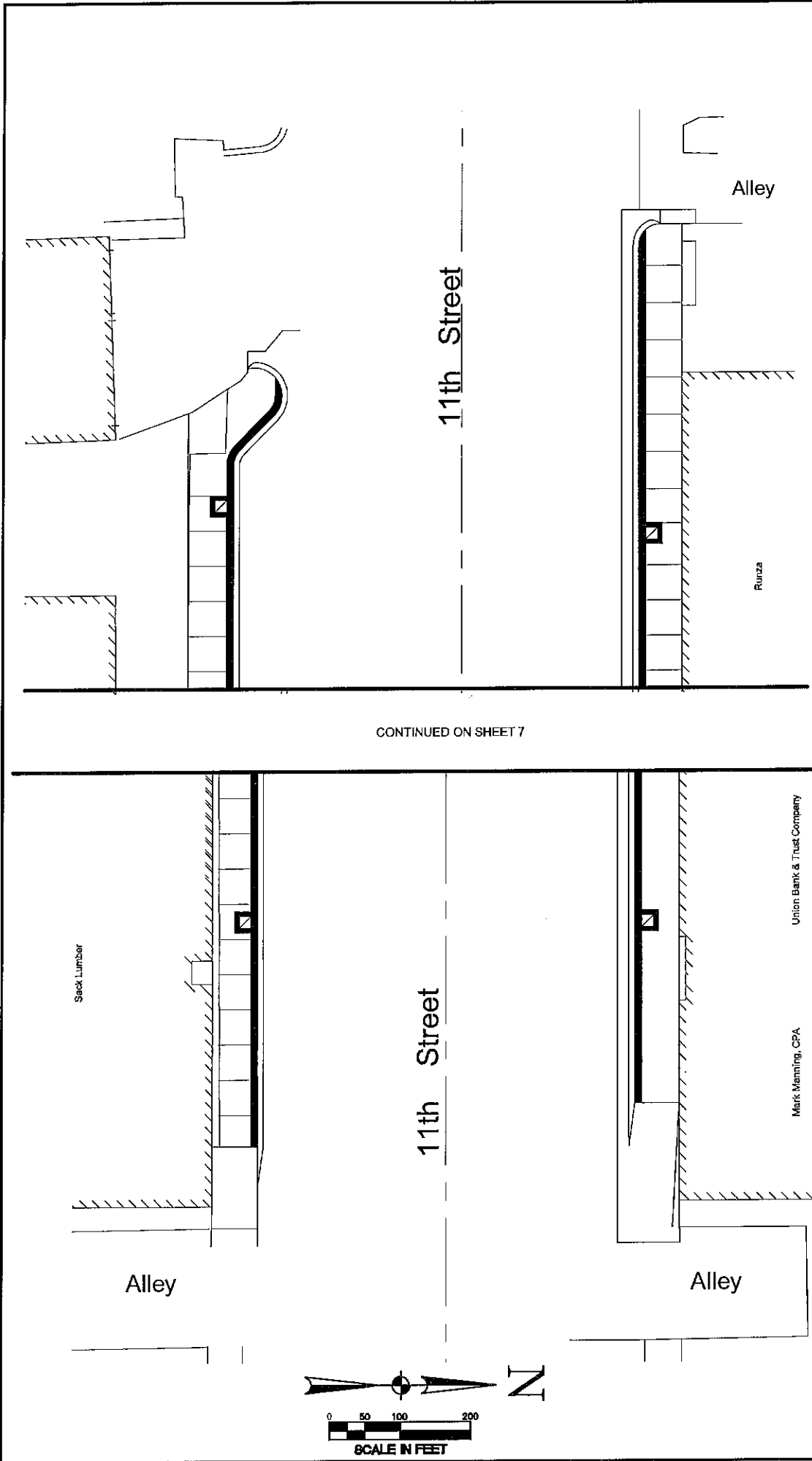
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F.B. -
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GILMORE
& ASSOCIATES INC.
Engineers-Surveyors

Phone (402) 544-2807
Fax (402) 544-2800
1000 S. 10th Street
Columbus, Nebraska 68601-2800

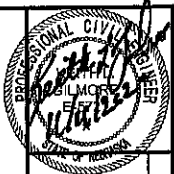
REVISIONS

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REVISIONS

Phone: (402) 554-2807
Fax: (402) 554-2800
Bar: 554-2807
Civil Engineer
Council: 10000-0000

GILMORE & ASSOCIATES INC.
Engineers - Surveyors

SIDEWALK IMPROVEMENTS PROJECT #3
CRETE, NEBRASKA
CONCRETE REPLACEMENT PLAN

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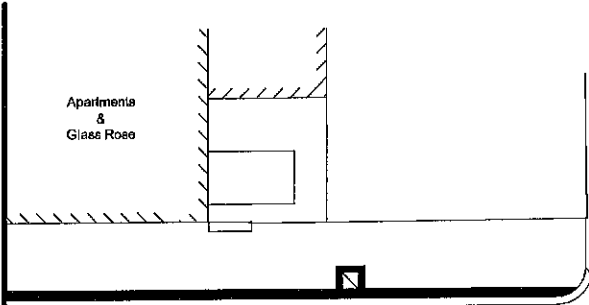
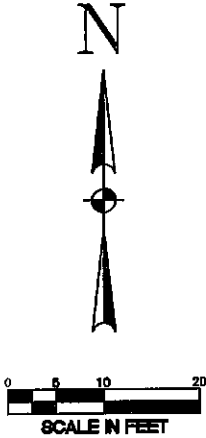
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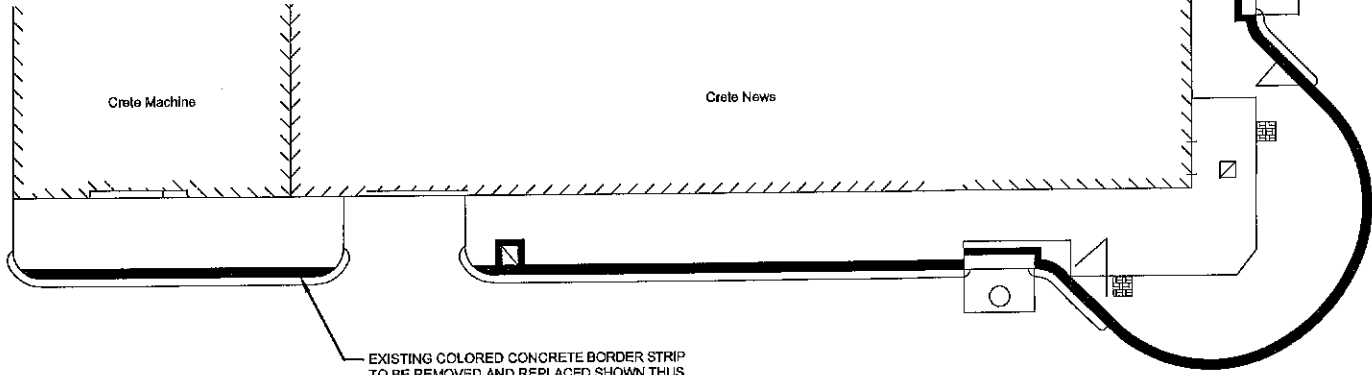
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Apartmentia & Glass Rose

Alley

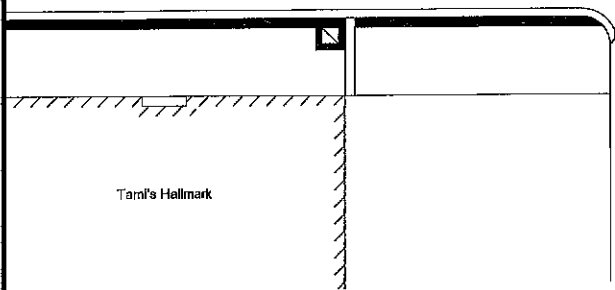


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Crete Machine

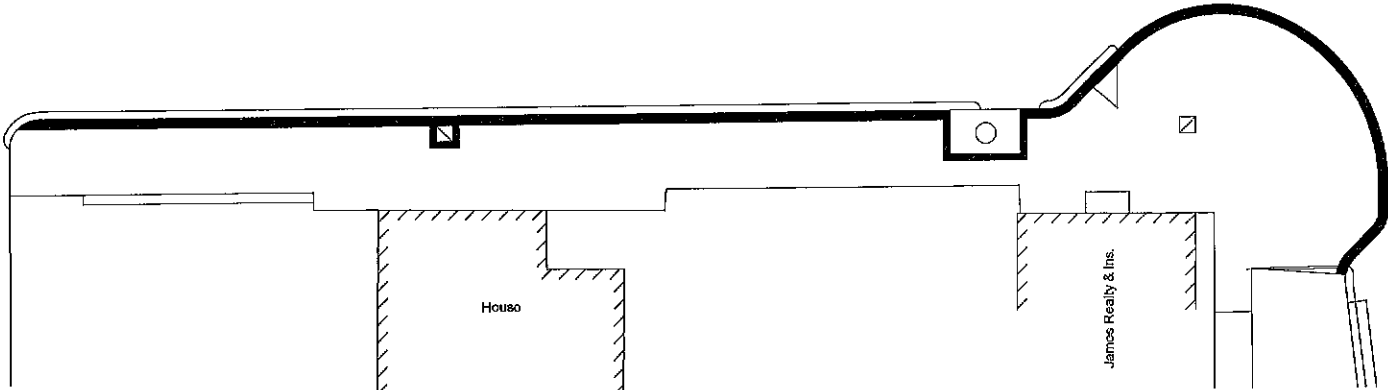
Crete News

Crete News



Tardi's Hallmark

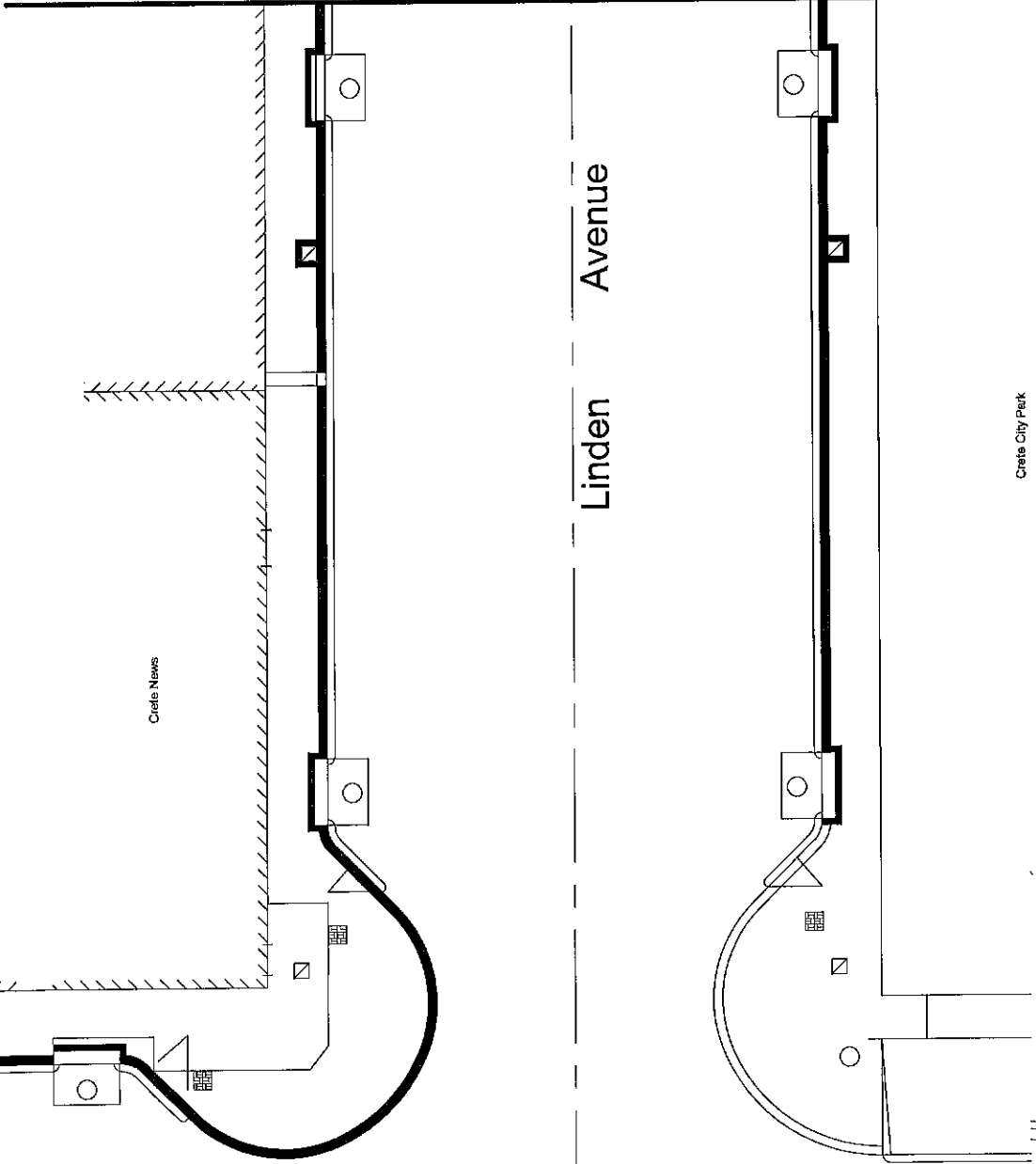
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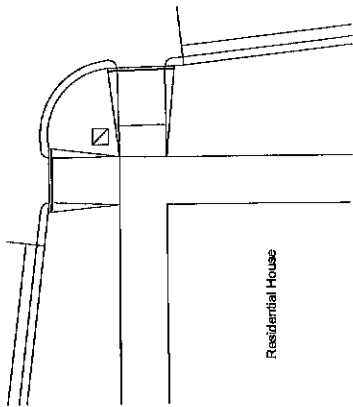
Houso

James Realty & Ins.

12th Street



Linden Avenue



Residential House

Crete City Park
Diggers Hotline of Nebraska 1-800-331-5666

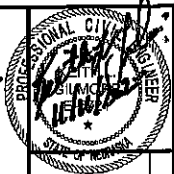
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CRETE, NEBRASKA
CONCRETE REPLACEMENT PLAN

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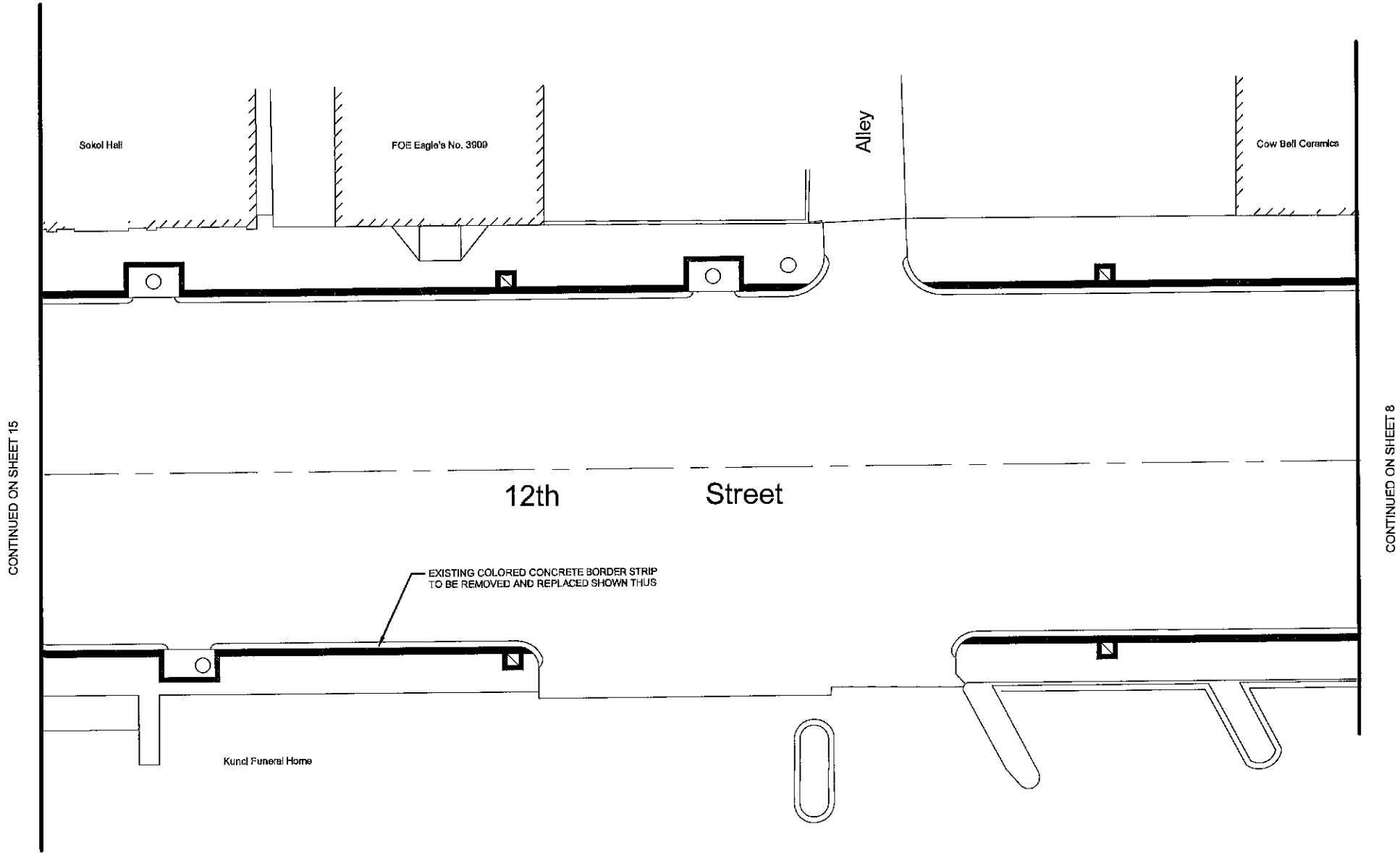
GILMORE & ASSOCIATES INC.
Engineers, Surveyors

Phone (402) 344-2877
Fax (402) 344-2877
New York 10001, 3rd Ave.
Columbus, Nebraska 68602-1365

REVISIONS

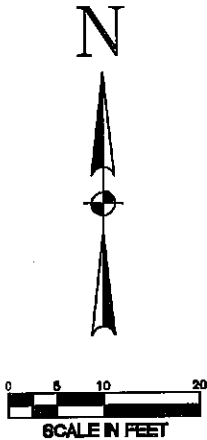


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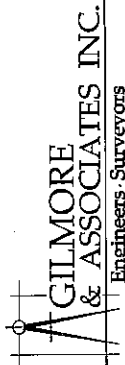


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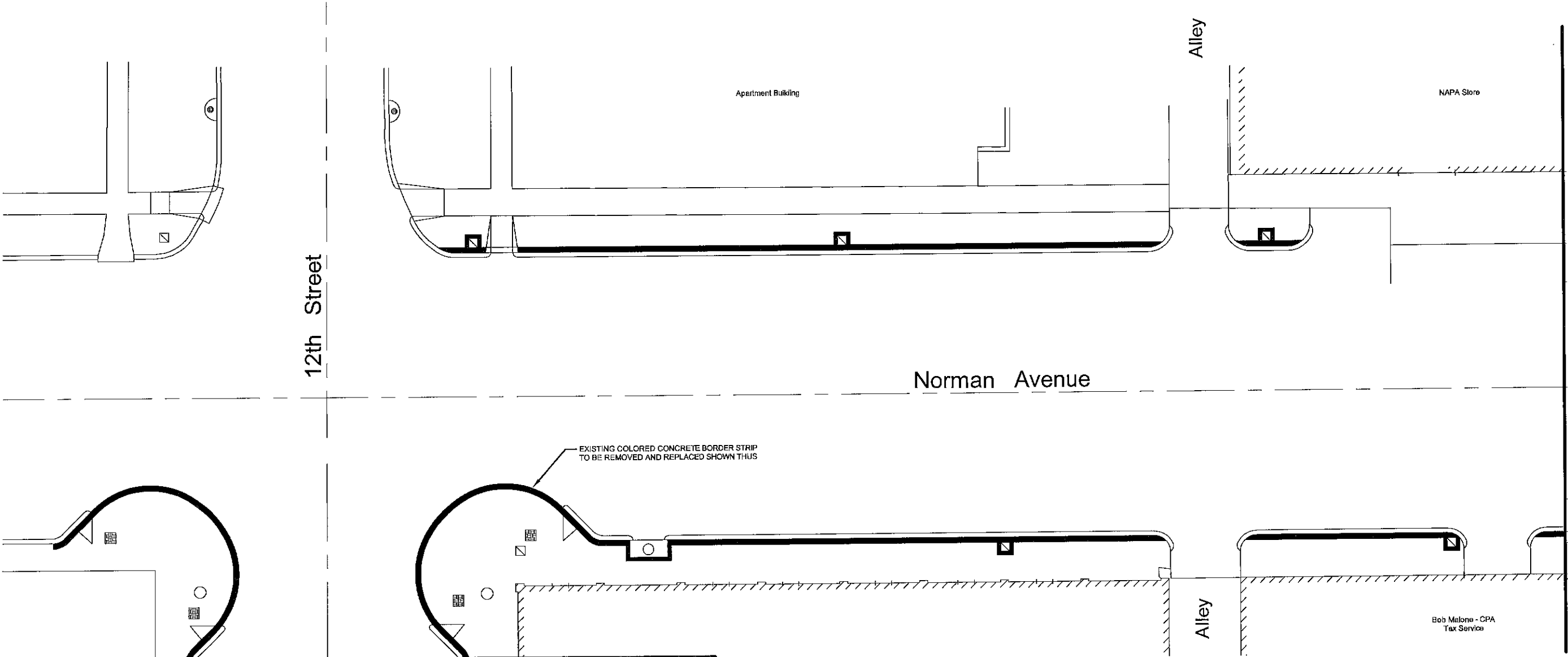
SIDEWALK IMPROVEMENTS PROJECT #3
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CONCRETE REPLACEMENT PLAN

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REVISIONS

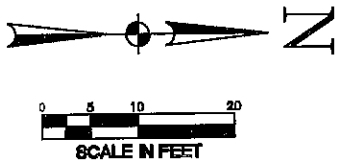
Phone (402) 554-2500
Fax (402) 554-2500
Box 558 2570 33rd Ave.
Chadron, Nebraska 69327-0558

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NOTES FOR PROJECT #3 - BUSINESS AREA COLORED BORDER REPLACEMENT

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GILMORE & ASSOCIATES INC.

Engineers - Surveyors

SIDEWALK IMPROVEMENTS PROJECT #3

CRETE, NEBRASKA

CONCRETE REPLACEMENT PLAN

1-800-331-5566

Diggers Hotline of Nebraska

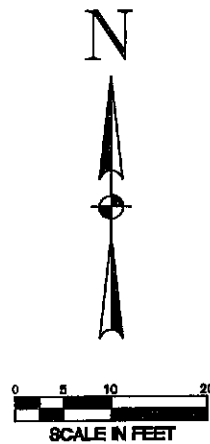
Phone (402) 564-2807

Fax (402) 564-2800

Cell 565 2570 3347

Calumet, Nebraska 68001-0000

NEBRASKA



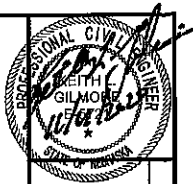
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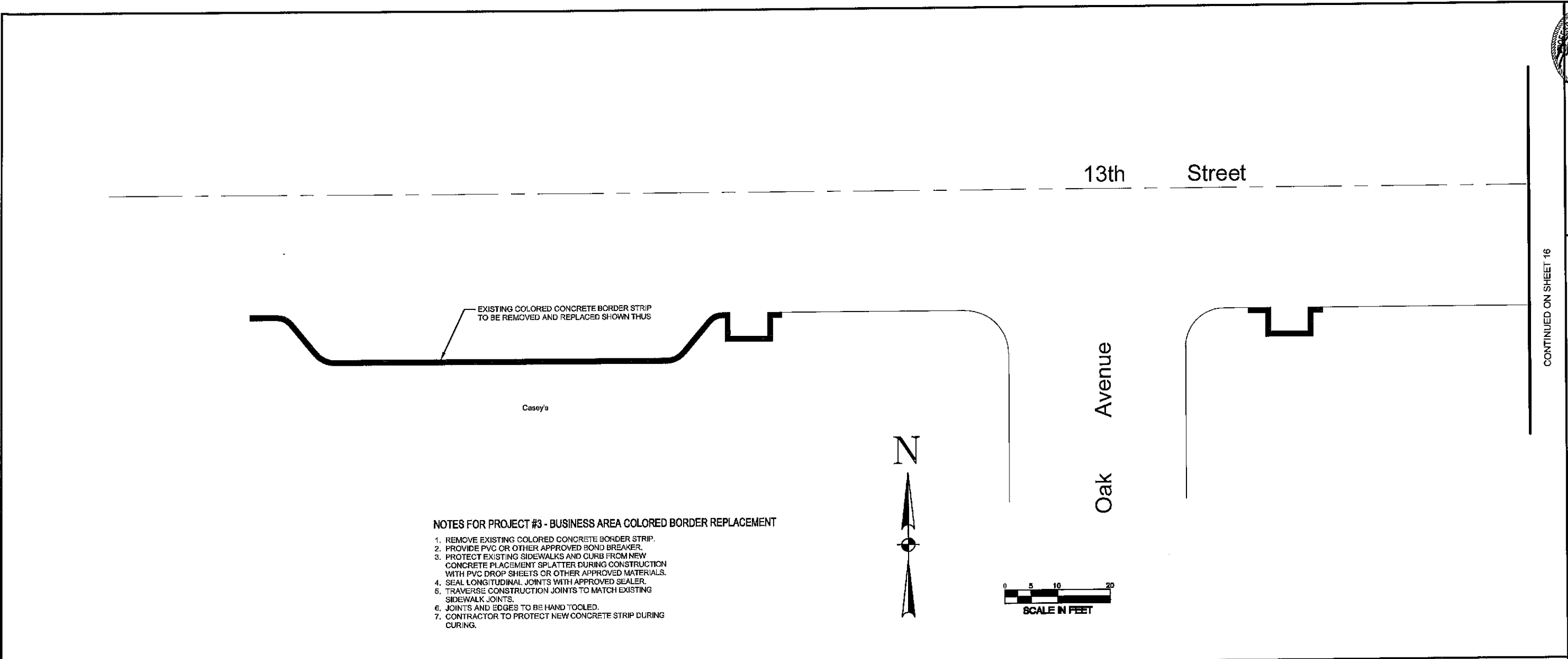
Phone (402) 554-2507
FAX (402) 554-2500
Box 565 2670 33rd Ave.
Columbus, Nebraska 68602-0565

**GILMORE
& ASSOCIATES INC.**
Engineers-Surveyors

STREET IMPROVEMENTS PROJECT #3
CRETE, NEBRASKA
CONCRETE REPLACEMENT PLAN

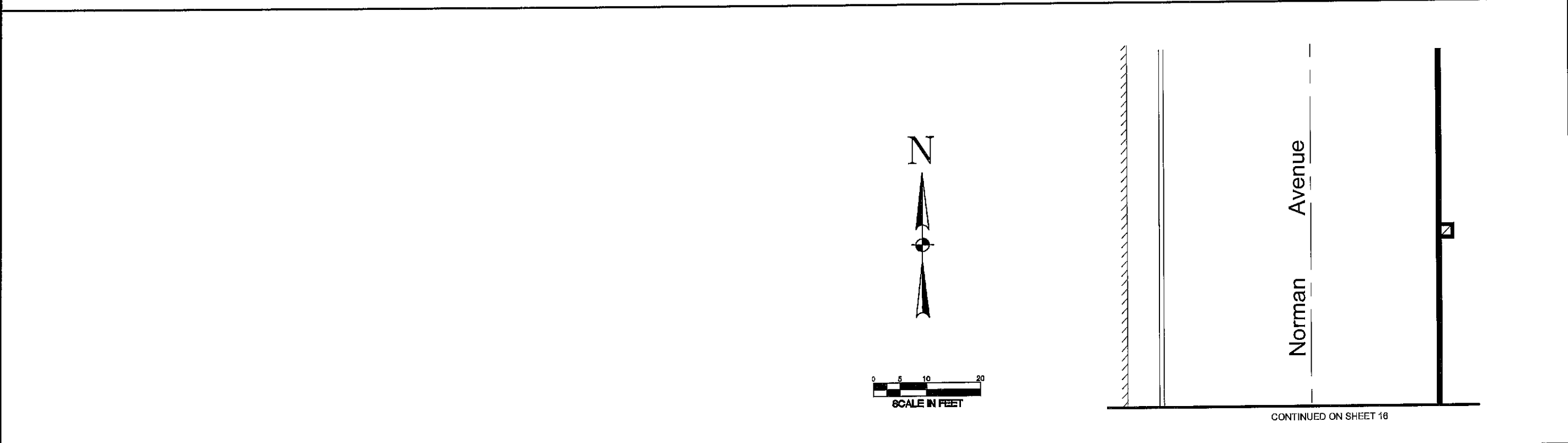
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NOTES FOR PROJECT #3 - BUSINESS AREA COLORED BORDER REPLACEMENT

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REVISIONS

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Fax (402) 554-2500
1000 S. 17th Street
Lincoln, Nebraska 68502-4495

GILMORE & ASSOCIATES INC.
Engineers - Surveyors

STREET IMPROVEMENTS PROJECT #3
CRETE, NEBRASKA
CONCRETE REPLACEMENT PLAN

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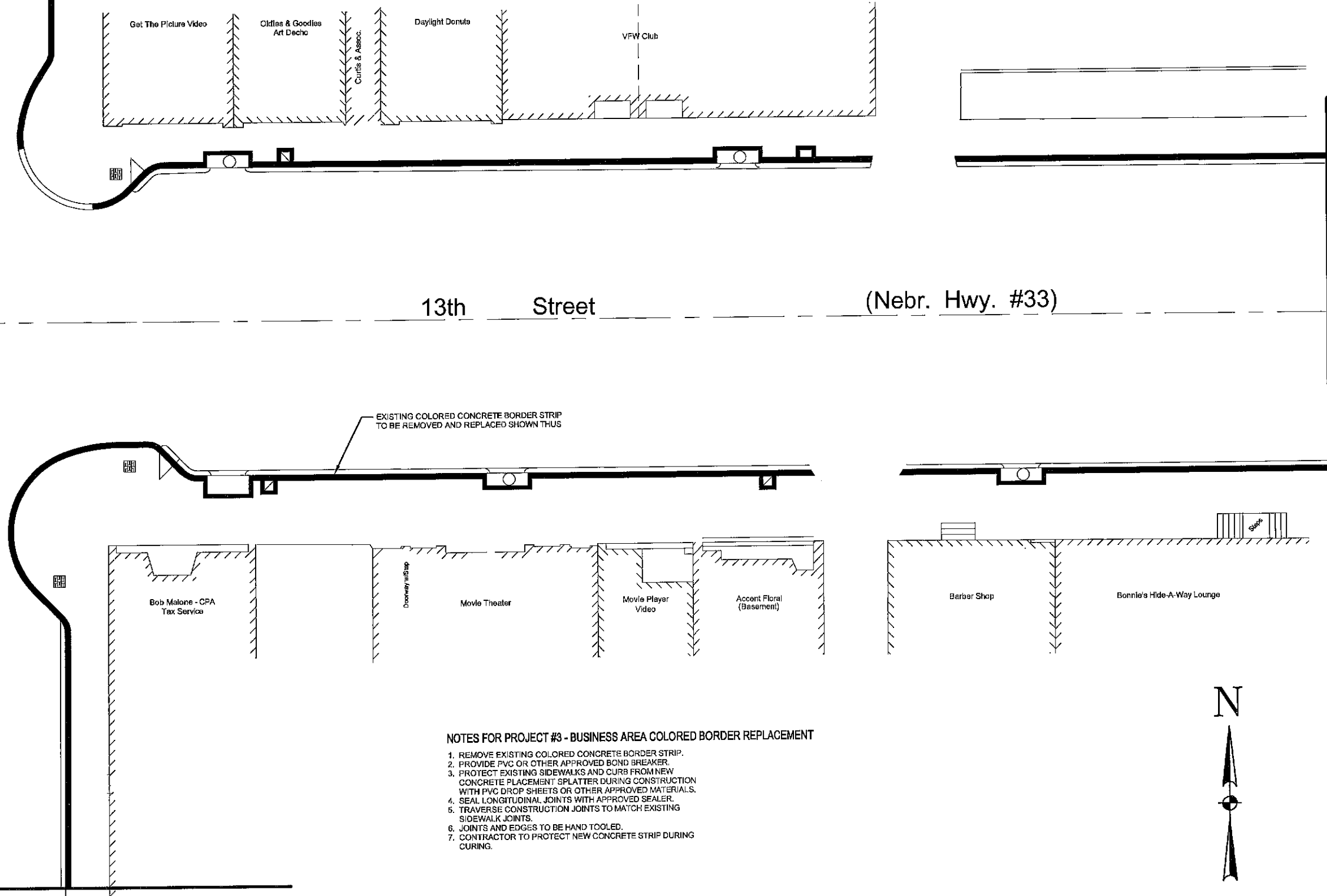
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Norman Avenue

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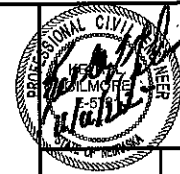


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SIDEWALK IMPROVEMENTS PROJECT #3 CRETE, NEBRASKA CONCRETE REPLACEMENT PLAN

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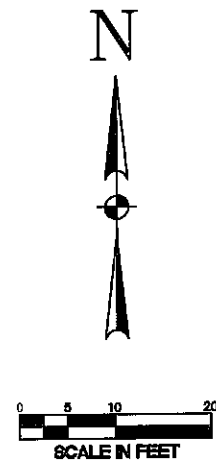
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GILMORE & ASSOCIATES INC.
Engineers-Surveyors
Phone (402) 944-2807
Fax (402) 944-2800
1801 S. 28th Ave.
Lincoln, Nebraska 68503

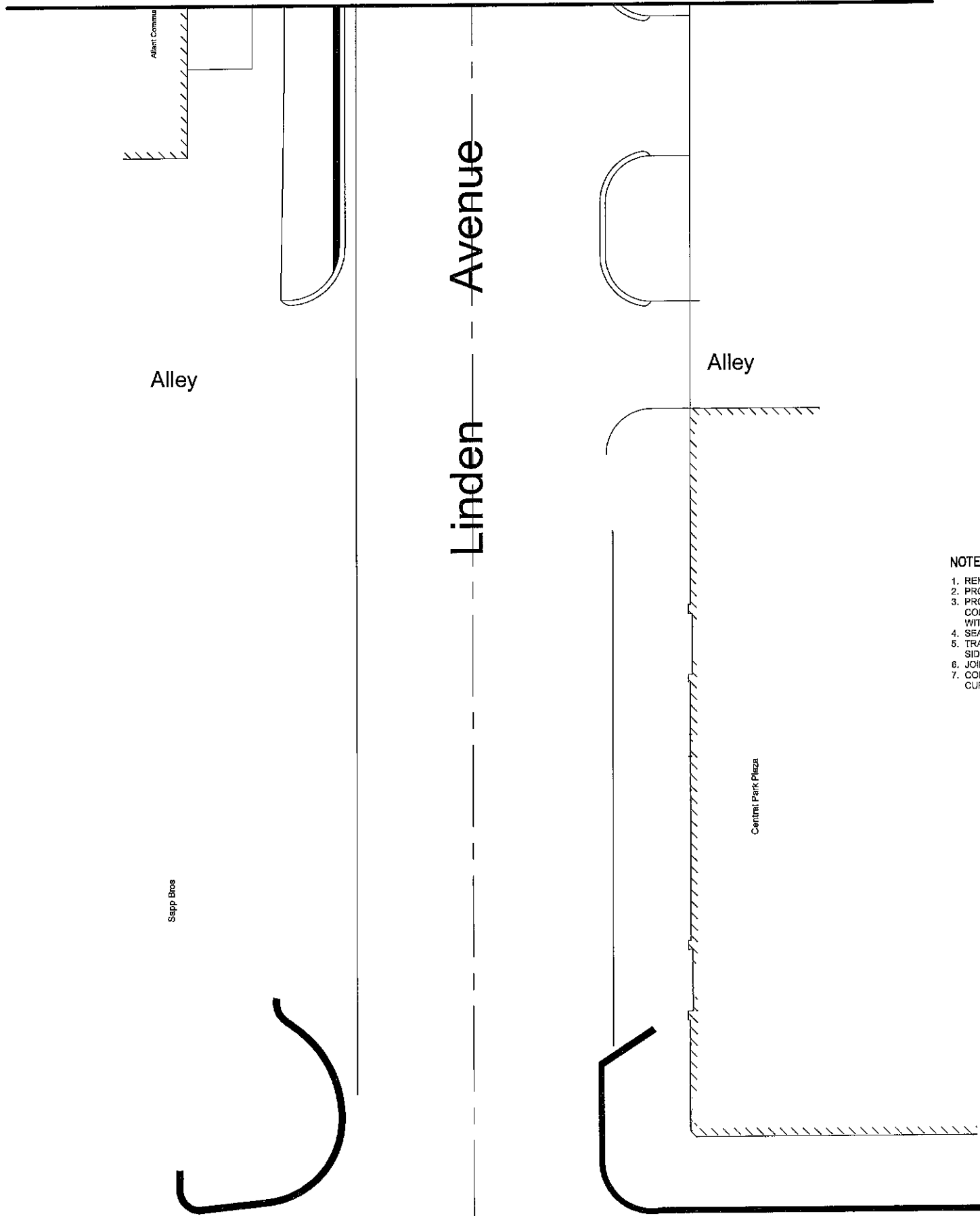
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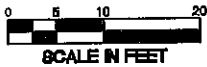
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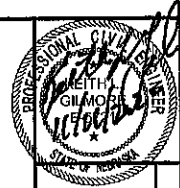
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EXISTING COLORED CONCRETE BORDER STRIP
TO BE REMOVED AND REPLACED SHOWN THUS



Diggers Hotline of Nebraska 1-800-331-5655



SIDEWALK IMPROVEMENTS PROJECT #3
CRETE, NEBRASKA
CONCRETE REPLACEMENT PLAN

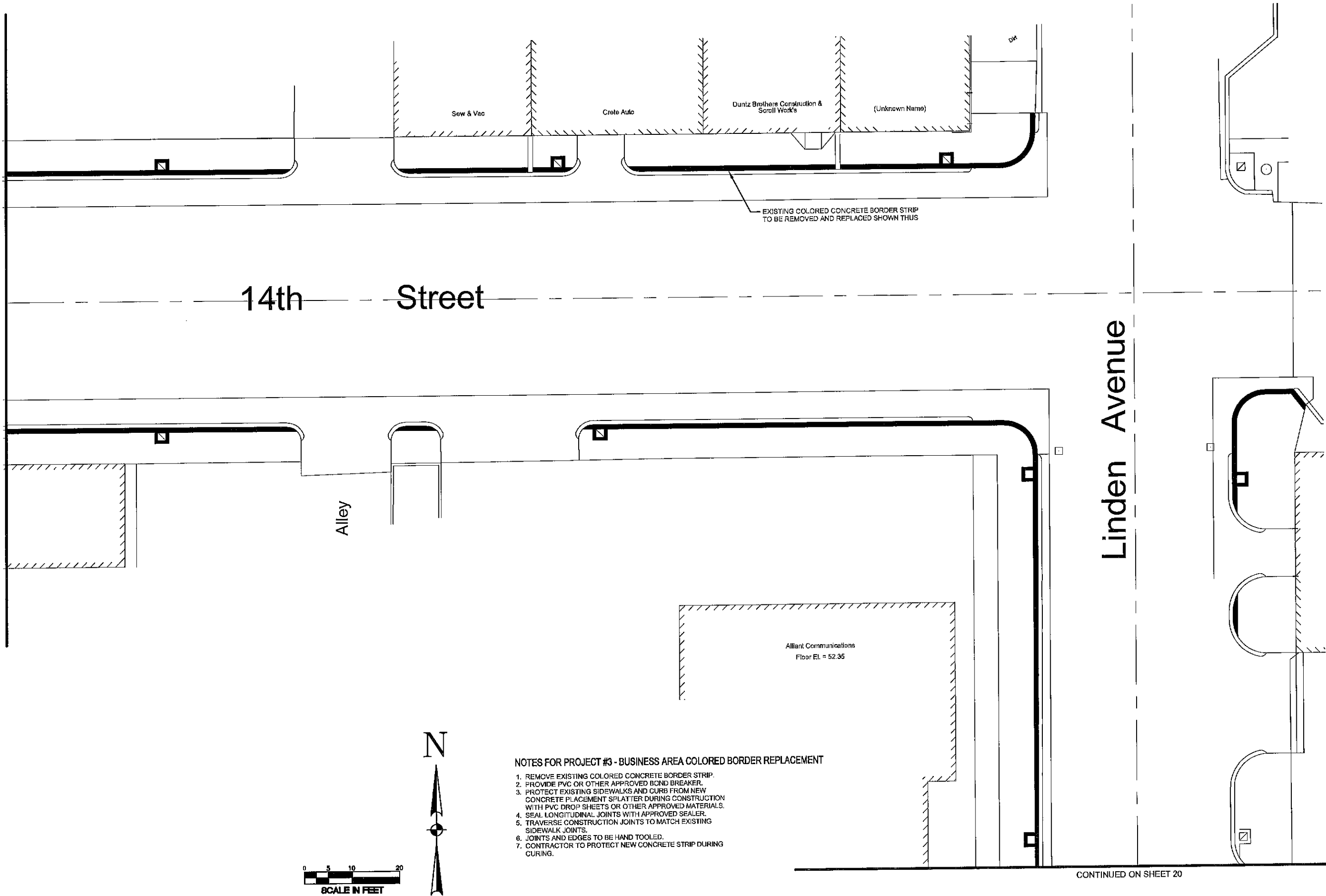
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REVISIONS

Phone (402) 544-2207
Fax (402) 544-2200
www.gilmoreinc.com
Columbus, Nebraska 68601-0001

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NOTES FOR PROJECT #3 - BUSINESS AREA COLORED BORDER REPLACEMENT

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Diggers Hotline of Nebraska 1-800-331-5666



SIDEWALK IMPROVEMENTS PROJECT #3

CRETE, NEBRASKA

CONCRETE REPLACEMENT PLAN

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GILMORE
& ASSOCIATES INC.
Engineers-Surveyors

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Fax (402) 554-2802
1000 S. 17th Street, Suite 200
Columbia, Nebraska 68202-4235

REVISIONS

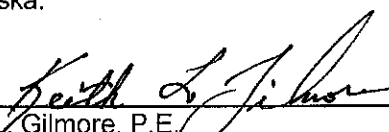
**CRETE SIDEWALK IMPROVEMENTS
CRETE, NEBRASKA**

2021



226.340

I hereby certify that these Drawings and Project Manual were prepared by me, or under my direct supervision, and that I am a duly registered Professional Engineer under the laws of the State of Nebraska.



Keith L. Gilmore, P.E.
GILMORE & ASSOCIATES, INC.

TABLE OF CONTENTS

ADVERTISEMENT FOR BIDS

INSTRUCTIONS TO BIDDERS FOR CONSTRUCTION CONTRACTS

BID

NOTICE OF AWARD

AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR CONSTRUCTION CONTRACT
(STIPULATED PRICE)

PERFORMANCE BOND

PAYMENT BOND

NOTICE TO PROCEED

CONTRACTOR'S APPLICATION FOR PAYMENT

CHANGE ORDER

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

SUPPLEMENTARY CONDITIONS

ARTICLE 3: GENERAL REQUIREMENTS

ARTICLE 4: REMOVALS, EARTHWORK, AND SOD

ARTICLE 5: P.C. CONCRETE CONSTRUCTION

ARTICLE 6: ALUMINUM HANDRAILS

ADVERTISEMENT FOR BIDS

The City of Crete will receive Bids for the construction of Crete Sidewalk Improvements 2021 until ____:____ a.m., _____, 20____ at the City Office, 243 East 13th St., Crete, Nebraska, 68333. At that time, all bids will be opened and publicly read aloud.

The construction work contemplated in this project includes the following principal features:

PROJECT 1 - CITY OFFICE STEPS AND SIDEWALK

Remove Existing Steps and Landing		JOB
Remove Existing Walk	190	Sq. Yds.
Construct 5" PC Concrete Walk, NDOT Type 47BD-4000	190	Sq. Yds.
Construct Concrete Steps and Landing, NDOT Type 47BD-4000		JOB
Furnish and Install Hand Rails		JOB
Final Grading, Backfill, and Cleanup		JOB

SUBSTITUTION NO. 1-A

Substitute NDOT Type 47BX-3500 for concrete walk construction in place of NDOT Type 47BD-4000.

SUBSTITUTION NO. 1-B

Substitute NDOT Type 47BX-3500 for concrete steps and landing in place of NDOT Type 47BD-4000.

PROJECT 2 - HICKORY AVENUE SIDEWALK

Remove Existing Concrete	67	Sq. Yds.
Construct 5" PC Concrete Walk, NDOT Type 47BD-4000	318	Sq. Yds.
Construct 6" PC Concrete Paving/Drive, NDOT Type 47B-3500	64	Sq. Yds.
Relocate Existing 24" RCP Flared End Section	1	Each
24" RCP Class III Storm Sewer	18	L.F.
Fill Dirt	120	Cu. Yds.
Sod and Fertilizing	3610	Sq. Ft.
Adjust Manhole to Grade	1	Each
Adjust Pull Box to Grade	1	Each
FES Silt Protector	1	Each
Final Grading, Backfill, and Cleanup		JOB

SUBSTITUTION NO. 2-A

Substitute NDOT Type 47BX-3500 for concrete walk construction in place of NDOT Type 47BD-4000.

PROJECT 3 - BUSINESS AREA COLORED CONCRETE BORDER REPLACEMENT

Remove Existing Colored Concrete Border	8440	L.F.
Construct Concrete Border Fill, NDOT Type 47BD-4000	8440	L.F.
Remove Existing Concrete Paving/Curb and Gutter	10	Sq. Yds.
Construct 9" PC Concrete Paving/Curb and Gutter, NDOT Type 47B-3500	10	Sq. Yds.

SUBSTITUTION NO. 3-A

Substitute NDOT Type 47BX-3500 for concrete border in place of NDOT Type 47BD-4000.

The Bid shall be an aggregate bid on all Work to be performed, broken down in such a manner as will accurately reflect unit prices for estimated quantities set out herein. Details of construction, materials to be used, and methods of installation for this Project are given in the Drawings and Project Manual. A Contract will be awarded to the low, responsive, responsible Bidder, whose Bid is most advantageous to the Owner, based on the aggregate bid for the Work, construction time schedule, begin and end construction dates, materials, and past performance on contracts with the Owner.

One contract will be awarded for the projects.

Bidding Documents, including Drawings and Project Manual, are on file at City Office, 243 East 13th St., Crete, Nebraska. These documents may be downloaded in electronic portable document format (pdf) for bidding purposes from QuestCDN, at www.questcdn.com, Project #7407564 for \$15.00. No refund will be issued to the Successful Bidder(s).

Complete sets of Bidding Documents as issued by QuestCDN and/or the Issuing Office must be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents or Bidding Documents obtained from any source other than QuestCDN or the Issuing Office.

Each Bid shall be accompanied in a separate sealed envelope by a certified check drawn on a solvent bank in the State of Nebraska, or Bid Bond in an amount not less than five percent of the total Bid, and shall be made payable to the City of Crete, Nebraska, as security that the Bidder to whom the Contract will be awarded will enter into a Contract to build the improvements in accordance with this notice, and give bond in the sum as hereinafter provided for construction of the improvements. Checks and bonds accompanying Bids not accepted shall be returned to the Bidder in accordance with the terms contained in the Instructions to Bidders.

No Bids shall be withdrawn after the opening of Bids without consent of the City of Crete, Nebraska, for a period of 45 days after the scheduled time of opening Bids.

The Successful Bidder will be required to furnish satisfactory Performance and Payment Bonds in the sum of the full amount of the Contract. Said bonds, to be executed by a responsible corporate surety, shall guarantee: the faithful performance of the Contract; the terms and conditions therein contained; and payment for all labor and materials used in connection with the Work.

The City of Crete, Nebraska, reserves the right to reject any and all bids and to waive any technicalities in bidding.

Dated at Crete, Nebraska, this ____ day of _____ 2020, by order of the Mayor and City Council of Crete, Nebraska.

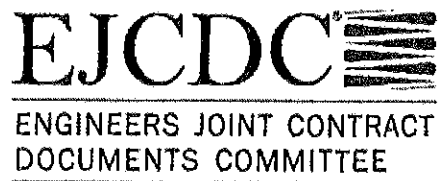
CITY OF CRETE, NEBRASKA

Dave Bauer, Mayor

NOTE: This EJCDC Document has been modified as indicated herein. A ~~strikethrough~~ indicates that language has been deleted from this EJCDC Document. An underline indicates that the language has been added to this EJCDC Document.

INSTRUCTIONS TO BIDDERS FOR CONSTRUCTION CONTRACTS

Prepared by



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INSTRUCTIONS TO BIDDERS

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ARTICLE 1 – DEFINED TERMS

1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:

- A. *Issuing Office* – The office from which the Bidding Documents are to be issued and where the bidding procedures are to be administered – Gilmore & Associates, Inc.

ARTICLE 2 – COPIES OF BIDDING DOCUMENTS

- 2.01 Complete sets of the Bidding Documents may be obtained from QuestCDN and/or the Issuing Office in the number and format, and at the cost stated in the Advertisement or Invitation to bid.
- 2.02 Complete sets of Bidding Documents as issued by QuestCDN and/or the Issuing Office shall be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents or Bidding Documents obtained from any other source other than QuestCDN or the Issuing Office.
- 2.03 Owner and Engineer, in making copies of Bidding Documents available on the above terms, do so only for the purpose of obtaining Bids for the Work and do not authorize or confer a license or grant for any other use.

ARTICLE 3 – QUALIFICATIONS OF BIDDERS

- 3.01 To demonstrate Bidder's qualifications to perform the Work, after submitting its Bid and within 7 days of Owner's request, Bidder shall submit (a) written evidence establishing its qualifications such as financial data, previous experience, and present commitments, and (b) the following additional information as may be called for elsewhere in the Bidding Documents:
- A. Evidence of Bidder's authority to do business in the state where the Project is located or covenant to obtain such qualification prior to award of the Contract.
- B. Bidder's state or other contractor license number, if applicable.
- C. Subcontractor and Supplier qualification information; coordinate with provisions of Article 12 of these Instructions, "Subcontractors, Suppliers, and Others."
- D. Other required information regarding qualifications
- 3.02 A Bidder's failure to submit required qualification information within the times indicated may disqualify Bidder from receiving an award of the Contract.
- 3.03 No requirement in this Article 3 to submit information will prejudice the right of Owner to seek additional pertinent information regarding Bidder's qualifications.
- 3.04 Bidder is advised to carefully review those portions of the Bid Form requiring Bidder's representations and certifications.

ARTICLE 4 – SITE AND OTHER AREAS; EXISTING SITE CONDITIONS; EXAMINATION OF SITE; OWNER'S SAFETY PROGRAM; OTHER WORK AT THE SITE

4.01 *Site and Other Areas*

- A. The Site is identified in the Bidding Documents. By definition, the Site includes rights-of-way, easements, and other lands furnished by Owner for the use of the Contractor. Any additional lands required for temporary construction facilities, construction equipment, or storage of materials and equipment, and any access needed for such additional lands, are to be obtained and paid for by Contractor.

4.02 *Existing Site Conditions*

~~A. Subsurface and Physical Conditions; Hazardous Environmental Conditions~~

~~1. The Supplementary Conditions identify:~~

- ~~a. Those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site.~~
- ~~b. Those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).~~
- ~~c. Reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site.~~
- ~~d. Technical Data contained in such reports and drawings.~~

- ~~2. Owner will make copies of reports and drawings referenced above available to any Bidder on request. These reports and drawings are not part of the Contract Documents, but the Technical Data contained therein upon whose accuracy Bidder is entitled to rely, as provided in the General Conditions, has been identified and established in the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any Technical Data or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.~~

- ~~3. If the Supplementary Conditions do not identify Technical Data, the default definition of Technical Data set forth in Article 1 of the General Conditions will apply.~~

- ~~4. Geotechnical Baseline Report: The Bidding Documents contain a Geotechnical Baseline Report (GBR). The GBR describes certain select subsurface conditions that are anticipated to be encountered by Contractor during construction in specified locations ("Baseline Conditions"). The GBR is a Contract Document.~~

~~The Baseline Conditions in the GBR are intended to reduce uncertainty and the degree of contingency in submitted Bids. However, Bidders cannot rely solely on the Baseline Conditions. Bids should be based on a comprehensive approach that includes an independent review and analysis of the GBR, all other Contract Documents, Technical Data, other available information, and observable surface conditions. Not all potential subsurface conditions are baselined.~~

Nothing in the Bidding Documents GBR is intended to relieve Bidders of the responsibility to make their own determinations regarding construction costs, bidding strategies, and Bid prices, nor of the responsibility to select and be responsible for the means, methods, techniques, sequences, and procedures of construction, and for safety precautions and programs incident thereto.

- B. Underground Facilities: Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or adjacent to the Site are set forth in the Contract Documents and are based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities, ~~including Owner, or others, and Owner and Engineer do not assume responsibility for the accuracy of completeness thereof unless it is expressly provided otherwise in the Supplementary Conditions.~~
- C. Adequacy of Data: Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions, and Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated subsurface or physical conditions appear in Paragraphs 5.03, 5.04, and 5.05 of the General Conditions. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to a Hazardous Environmental Condition at the Site, if any, and possible changes in the Contract Documents due to any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in the Drawings or Specifications Project Manual or identified in the Contract Documents to be within the scope of the Work, appear in Paragraph 5.06 of the General Conditions.

4.03 *Site Visit and Testing by Bidders*

- A. Bidder shall conduct the required Site visit during normal working hours, and shall not disturb any ongoing operations at the Site.
- B. Bidder is not required to conduct ~~any subsurface testing, or~~ exhaustive investigations of Site conditions.
- C. On request, and to the extent Owner has control over the Site, and schedule permitting, the Owner will provide Bidder access to the Site to conduct such additional examinations, investigations, explorations, tests, and studies as Bidder deems necessary for preparing and submitting a successful Bid. Owner will not have any obligation to grant such access if doing so is not practical because of existing operations, security or safety concerns, or restraints on Owner's authority regarding the Site.
- D. Bidder shall comply with all applicable Laws and Regulations regarding excavation and location of utilities, obtain all permits, and comply with all terms and conditions established by Owner or by property owners or other entities controlling the Site with respect to schedule, access, existing operations, security, liability insurance, and applicable safety programs.
- E. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies.

4.04 *Owner's Safety Program*

- A. Site visits and work at the Site may be governed by an Owner safety program. As the General Conditions indicate, if an Owner safety program exists, it will be noted in the Supplementary Conditions.

4.05 *Other Work at the Site*

- A. Reference is made to Article 8 of the Supplementary Conditions for the identification of the general nature of other work of which Owner is aware (if any) that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) and relates to the Work contemplated by these Bidding Documents. If Owner is party to a written contract for such other work, then on request, Owner will provide to each Bidder access to

examine such contracts (other than portions thereof related to price and other confidential matters), if any.

ARTICLE 5 – BIDDER’S REPRESENTATIONS

5.01 It is the responsibility of each Bidder before submitting a Bid to:

- A. examine and carefully study the Bidding Documents, and any data and reference items identified in the Bidding Documents;
- B. visit the Site, conduct a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfy itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;
- C. become familiar with and satisfy itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work;
- ~~D. carefully study all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings;~~
- E. consider 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 Site-related reports and drawings identified in the Bidding Documents,~~ with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder’s safety precautions and programs;
- F. agree, based on the information and observations referred to in the preceding paragraph, that at the time of submitting its Bid no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price(s) bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents;
- G. become aware of the general nature of the work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents;
- H. promptly give Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Engineer is acceptable to Bidder;
- I. determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work; and
- J. agree that the submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents and applying any specific means, methods, techniques, sequences, and procedures of construction that may be shown or indicated or expressly required by the Bidding Documents, that Bidder has given Engineer written notice

of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bidding Documents and the written resolutions thereof by Engineer are acceptable to Bidder, and that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.

ARTICLE 6 – PRE-BID CONFERENCE

- 6.01 ~~A pre-Bid conference will be held at the time and location stated in the invitation or advertisement to bid. Representatives of Owner and Engineer will be present to discuss the Project. Bidders are encouraged to attend and participate in the conference. Engineer will transmit to all prospective Bidders of record such Addenda as Engineer considers necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective.~~

ARTICLE 7 – INTERPRETATIONS AND ADDENDA

- 7.01 All questions about the meaning or intent of the Bidding Documents are to be submitted to Engineer in writing. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda delivered to all parties recorded as having received the Bidding Documents. Questions received less than ~~seven~~ ten days prior to the date for opening of Bids may not be answered. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
- 7.02 Addenda may be issued to clarify, correct, supplement, or change the Bidding Documents.

ARTICLE 8 – BID SECURITY

- 8.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of five percent of Bidder's ~~maximum~~ Total Base Bid price (~~determined by adding the base bid and all alternates~~) and in the form of a certified check, bank money order, or a Bid bond (~~on the form included in the Bidding Documents~~) issued by a surety meeting the requirements of Paragraphs 6.01 and 6.02 of the General Conditions.
- 8.02 The Bid security of the apparent Successful Bidder will be retained until Owner awards the contract to such Bidder, and such Bidder has executed the Contract Documents, furnished the required contract security, and met the other conditions of the Notice of Award, whereupon the Bid security will be released. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within 15 days after the Notice of Award, Owner may consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited. Such forfeiture shall be Owner's exclusive remedy if Bidder defaults.
- 8.03 The Bid security of other Bidders that Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of seven days after the Effective Date of the Contract or 45 days after the Bid opening, whereupon Bid security furnished by such Bidders will be released.
- 8.04 Bid security of other Bidders that Owner believes do not have a reasonable chance of receiving the award will be released within seven days after the Bid opening.

ARTICLE 9 – CONTRACT TIMES

- 9.01 Bidder shall set forth in the Bid the time by which Bidder shall achieve Substantial Completion, subject to the restrictions established in Paragraph 14.04 of these Instructions. The Owner will take Bidder's time commitment regarding Substantial Completion into consideration during the evaluation of Bids, and it will be necessary for the apparent Successful Bidder to satisfy Owner that it will be able to achieve Substantial Completion within the time such Bidder has designated in the Bid. The Successful Bidder's time commitments will be entered into the Agreement (or incorporated in the Agreement by reference to the specific terms of the Bid).

ARTICLE 10 – LIQUIDATED DAMAGES

- 10.01 Provisions for liquidated damages, if any, for failure to timely attain a Milestone, Substantial Completion, or completion of the Work in readiness for final payment, are set forth in the Agreement.

ARTICLE 11 – SUBSTITUTE AND “OR-EQUAL” ITEMS

- 11.01 The Contract for the Work, as awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents, and those “or-equal” or substitute materials and equipment subsequently approved by Engineer prior to the submittal of Bids and identified by Addendum. No item of material or equipment will be considered by Engineer as an “or-equal” or substitute unless written request for approval has been submitted by Bidder or Supplier and has been received by Engineer at least 15 days prior to the date for receipt of Bids. Each such request shall comply with the requirements of Paragraphs 7.04 and 7.05 of the General Conditions and shall include the name of the material or equipment for which application for “or-equal” status is being submitted and a complete description of the proposed item including drawings, cuts, performance and test data, and any other information necessary or required by Engineer for an evaluation. A statement setting forth any changes in other materials, equipment, or work that incorporation of the proposed item would require shall be included. The burden of proof of the merit of the proposed item is upon Bidder or Supplier. Engineer's decision of approval or disapproval of a proposed item will be final. If Engineer approves any such proposed item, such approval will be set forth in an Addendum issued to all prospective Bidders. Bidders shall not rely upon approvals made in any other manner. If in the Engineer's sole discretion an item of material or equipment proposed by Bidder or Supplier does not qualify as an “or-equal” item, it will be considered a proposed substitute item and application for acceptance will not be considered by Engineer until such application is submitted by Contractor after the Effective Date of the Agreement

Whenever it is indicated in the Contract Documents that a substitute or “or-equal” item of material or equipment may be furnished or used by Contractor if acceptable to Engineer, application for such acceptance may also be considered by the Engineer after the Effective Date of the Agreement. The procedure for submission of any such application for substitute or “or-equal” items by the Contractor after the Effective Date of the Agreement and consideration by Engineer is set forth in SC-7.04 and SC 7.05 of the Supplementary Conditions.

- 11.02 All prices that Bidder sets forth in its Bid shall be based on the presumption that the Contractor will furnish the materials and equipment specified or described in the Bidding Documents, as supplemented by Addenda. Any assumptions regarding the possibility of post-Bid approvals of “or-equal” or substitution requests are made at Bidder's sole risk.

ARTICLE 12 – SUBCONTRACTORS, SUPPLIERS, AND OTHERS

- 12.01 A Bidder shall be prepared to retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of the Work if required by the Bidding Documents (most commonly in the Specifications) to do so. If a prospective Bidder objects to retaining any such Subcontractor, Supplier, or other individual or entity, and the concern is not relieved by an Addendum, then the prospective Bidder should refrain from submitting a Bid.
- 12.02 Subsequent to the submittal of the Bid, Owner may not require the Successful Bidder or Contractor to retain any Subcontractor, Supplier, or other individual or entity against which Contractor has reasonable objection.
- 12.03 The apparent Successful Bidder, and any other Bidder so requested, shall within five days after Bid opening, submit to Owner a list of the Subcontractors, individuals, entities, or Suppliers proposed for the ~~following portions of the Work~~:
- If requested by Owner, such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, or other individual or entity. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual, or entity, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit an acceptable substitute, in which case apparent Successful Bidder shall submit a substitute, Bidder's Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution, and Owner may consider such price adjustment in evaluating Bids and making the Contract award.
- 12.04 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, or other individuals or entities. Declining to make requested substitutions will constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which Owner or Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to subsequent revocation of such acceptance as provided in Paragraph 7.06 of the General Conditions.

ARTICLE 13 – PREPARATION OF BID

- 13.01 The Bid Form is included with the Bidding Documents.
- A. All blanks on the Bid Form shall be completed in ink and the Bid Form signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid price shall be indicated for each section, Bid item, alternate, adjustment unit price item, and unit price item listed therein.
- B. If the Bid Form expressly indicates that submitting pricing on a specific alternate item is optional, and Bidder elects to not furnish pricing for such optional alternate item, then Bidder may enter the words "No Bid" or "Not Applicable."
- 13.02 A Bid by a corporation shall be executed in the corporate name by a corporate officer (whose title must appear under the signature), accompanied by evidence of authority to sign. The corporate address and state of incorporation shall be shown.
- 13.03 A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The partnership's address for receiving notices shall be shown.

- 13.04 A Bid by a limited liability company shall be executed in the name of the firm by a member or other authorized person and accompanied by evidence of authority to sign. The state of formation of the firm and the firm's address for receiving notices shall be shown.
- 13.05 A Bid by an individual shall show the Bidder's name and address for receiving notices.
- 13.06 A Bid by a joint venture shall be executed by an authorized representative of each joint venturer in the manner indicated on the Bid Form. The joint venture's address for receiving notices shall be shown.
- 13.07 All names shall be printed in ink below the signatures.
- 13.08 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.
- 13.09 Postal and e-mail addresses and telephone number for communications regarding the Bid shall be shown.
- 13.10 The Bid shall contain evidence of Bidder's authority and qualification to do business in the state where the Project is located, or Bidder shall covenant in writing to obtain such authority and qualification prior to award of the Contract and attach such covenant to the Bid. Bidder's state contractor license number, if any, shall also be shown on the Bid Form.

ARTICLE 14 – BASIS OF BID

14.01 ~~Lump Sum~~

~~A. Bidders shall submit a Bid on a lump sum basis as set forth in the Bid Form.~~

14.02 *Unit Price*

- A. Bidders shall submit a Bid on a unit price basis for each item of Work listed in the unit price section of the Bid Form.
- B. The "Bid Price" (sometimes referred to as the extended price) for each unit price Bid item will be the product of the "Estimated Quantity" (which Owner or its representative has set forth in the Bid Form) for the item and the corresponding "Bid Unit Price" offered by the Bidder. The total of all unit price Bid items will be the sum of these "Bid Prices"; such total will be used by Owner for Bid comparison purposes. The final quantities and Contract Price will be determined in accordance with Paragraph 13.03 of the General Conditions.
- C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

14.03 *Allowances*

~~A. For cash allowances the Bid price shall include such amounts as the Bidder deems proper for Contractor's overhead, costs, profit, and other expenses on account of cash allowances, if any, named in the Contract Documents, in accordance with Paragraph 13.02.B of the General Conditions.~~

14.04 ~~Price Plus Time Bids~~

~~A. The Owner will consider the time of Substantial Completion commitment made by the Bidder in the comparison of Bids.~~

- ~~B. Bidder shall designate the number of days required to achieve Substantial Completion of the Work and enter that number in the Bid Form as the total number of calendar days to substantially complete the Work.~~
- ~~C. The total number of calendar days for Substantial Completion designated by Bidder shall be less than or equal to a maximum of [] , but not less than the minimum of [] . If Bidder purports to designate a time for Substantial Completion that is less than the allowed minimum, or greater than the allowed maximum, Owner will reject the Bid as nonresponsive.~~
- ~~D. The Agreement as executed will contain the Substantial Completion time designated in Successful Bidder's Bid, and the Contractor will be assessed liquidated damages at the rate stated in the Agreement for failure to attain Substantial Completion within that time.~~
- ~~E. [Bidder shall also designate the time in which it will achieve Milestones, and achieve readiness for final payment. Such time commitments shall be consistent with the "Time of Substantial Completion" to which Bidder commits. The Agreement as executed will contain, as binding Contract Times, Successful Bidder's time commitments regarding Milestones, as applicable, and readiness for final payment.]~~

ARTICLE 15 – SUBMITTAL OF BID

- 15.01 ~~With each copy of the Bidding Documents, a Bidder is furnished one separate unbound copy of the Bid Form, and, if required, the Bid Bond Form. The unbound copy of the Bid Form is to be completed and submitted with the Bid security and the other documents required to be submitted under the terms of Article 7 of the Bid Form.~~
- 15.02 A Bid shall be received no later than the date and time prescribed and at the place indicated in the Advertisement or Invitation to Bid and shall be enclosed in a plainly marked package with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), the name and address of Bidder, and shall be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate package plainly marked on the outside with the notation "BID ENCLOSED." A mailed Bid shall be addressed to City of Crete, 243 East 13th Street, Crete, NE 68333.
- 15.03 Bids received after the date and time prescribed for the opening of bids, or not submitted at the correct location or in the designated manner, will not be accepted and will be returned to the Bidder unopened.

ARTICLE 16 – MODIFICATION AND WITHDRAWAL OF BID

- 16.01 A Bid may be withdrawn by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids. Upon receipt of such notice, the unopened Bid will be returned to the Bidder.
- 16.02 If a Bidder wishes to modify its Bid prior to Bid opening, Bidder must withdraw its initial Bid in the manner specified in Paragraph 16.01 and submit a new Bid prior to the date and time for the opening of Bids.
- 16.03 If within 24 hours after Bids are opened any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid,

and the Bid security will be returned. Thereafter, if the Work is rebid, that Bidder will be disqualified from further bidding on the Work.

ARTICLE 17 – OPENING OF BIDS

- 17.01 Bids will be opened at the time and place indicated in the Advertisement or Invitation to Bid and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

ARTICLE 18 – BIDS TO REMAIN SUBJECT TO ACCEPTANCE

- 18.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

ARTICLE 19 – EVALUATION OF BIDS AND AWARD OF CONTRACT

- 19.01 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner will reject the Bid of any Bidder that Owner finds, after reasonable inquiry and evaluation, to not be responsible or the Bidder is unqualified or if doubtful financial ability or fails to meet any other pertinent standard or criteria established by Owner. Owner may also reject the Bid of any Bidder that fails to provide any certifications or documentation required by the Bidding Documents to be submitted prior to award of the Contract. If Bidder purports to add terms or conditions to its Bid, takes exception to any provision of the Bidding Documents, or attempts to alter the contents of the Contract Documents for purposes of the Bid, then the Owner will reject the Bid as nonresponsive; provided that Owner also reserves the right to waive all minor informalities not involving price, time, or changes in the Work.
- 19.02 If Owner awards the contract for the Work, such award shall be to the responsible Bidder submitting the lowest responsive Bid.
- 19.03 Evaluation of Bids
- A. In evaluating Bids, Owner will consider whether or not the Bids comply with the prescribed requirements, and such alternates, additions, substitutions, unit prices, dates of substantial completion and final completion, construction start date, and other data, as may be requested in the Bid Form or prior to the Notice of Award. Discrepancies in the Bid between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies in the Bid between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies in the Bid between words and figures will be resolved in favor of the words.
 - B. For the determination of the apparent low Bidder when unit price bids are submitted, Bids will be compared on the basis of the total of the products of the estimated quantity of each item and unit price Bid for that item, together with any lump sum items.
 - ~~C. Bid prices will be compared after adjusting for differences in time of Substantial Completion (total number of calendar days to substantially complete the Work) designated by Bidders. The adjusting amount will be determined at the rate set forth in the Agreement for liquidated damages for failing to achieve Substantial Completion, or such other amount that Owner has designated in the Bid Form.~~

- ~~1. The method for calculating the lowest bid for comparison will be the summation of the Bid price shown in the Bid Form plus the product of the Bidder specified time of Substantial Completion (in calendar days) times the rate for liquidated damages (in dollars per day).~~
 - ~~2. This procedure is only used to determine the lowest bid for comparison and contractor selection purposes. The Contract Price for compensation and payment purposes remains the Bid price shown in the Bid Form.~~
- 19.04 In evaluating whether a Bidder is responsible, Owner will consider the qualifications of the Bidder and may consider the qualifications and experience of Subcontractors and Suppliers proposed for those portions of the Work for which the identity of Subcontractors and Suppliers must be submitted as provided in the Bidding Documents.
- 19.05 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders and any proposed Subcontractors, individuals, entities, or Suppliers proposed for those portions of the Work in accordance with the Contract Documents.

ARTICLE 20 – BONDS AND INSURANCE

- 20.01 Article 6 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner's requirements as to performance and payment bonds and insurance. When the Successful Bidder delivers the Agreement (executed by Successful Bidder) to Owner, it shall be accompanied by required bonds and insurance documentation.

ARTICLE 21 – SIGNING OF AGREEMENT

- 21.01 When Owner issues a Notice of Award to the Successful Bidder, it shall be accompanied by the unexecuted counterparts of the Agreement along with the other Contract Documents as identified in the Agreement. Within 15 days thereafter, Successful Bidder shall execute and deliver the required number of counterparts of the Agreement (and any bonds and insurance documentation required to be delivered by the Contract Documents) to Owner. Within ten days thereafter, Owner shall deliver one fully executed counterpart of the Agreement to Successful Bidder, together with printed and ~~electronic~~ copies of the Contract Documents as stated in Paragraph 2.02 of the General Conditions and as may be modified in the Supplementary Conditions.

ARTICLE 22 – SALES AND USE TAXES

- 22.01 Owner may be exempt from Nebraska State Sales and Use Taxes on materials and equipment to be incorporated in the Work. ~~{Exemption No. []}~~ Refer to Paragraph SC-7.09 of the Supplementary Conditions for additional information. The Contractor shall verify that the Project is exempt with the Nebraska Department of Revenue and include in his bid prices sales tax on any materials equipment, and labor not considered to be exempt.

ARTICLE 23 – CONTRACTS TO BE ASSIGNED

THIS BID IS BEING SUBMITTED TO:

Honorable Mayor and City Council
City of Crete
243 East 13th Street
Crete, NE 68333

PROJECT IDENTIFICATION: Crete Sidewalk Improvements 2021
Crete, Nebraska

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 and furnish all Work as specified or indicated in the Bidding Documents for the Bid Price and within the Bid Time indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

Bidder accepts all of the terms and conditions of the Advertisement for Bids and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 45 days after the day of Bid opening. Bidder will sign and deliver the required number of counterparts of the Agreement with the Bonds and other documents required by the Bidding Requirements within 15 days after the date of Owner's Notice of Award.

In submitting this Bid, Bidder represents, as more fully set forth in the Agreement, that:

- (a) Bidder has examined and carefully studied the Bidding Documents and the following Addenda, receipt of all which is hereby acknowledged: (List Addenda by Addenda Number and Date)

- (b) Bidder has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, performance, and furnishing of the Work.
- (c) Bidder 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) Bidder has carefully studied all 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 or contiguous to the Site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in Article 5.03.A of the Standard General Conditions. Bidder acknowledges that such reports and drawings are not Contract Documents and may not be complete for Bidder's purposes. Bidder acknowledges that Owner and Engineer do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Bidding Documents with respect to Underground Facilities at or contiguous to the Site. Bidder has obtained and carefully studied (or assumes responsibility for having done so) all such additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site or otherwise 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 Bidder and safety precautions and programs incident thereto. Bidder does not consider that any additional examinations, investigations, explorations, tests, studies, or data are

necessary for the determination of this Bid for performance and furnishing of the Work in accordance with the times, price, and other terms and conditions of the Bidding Documents.

- (e) Bidder is aware of the general nature of Work to be performed by Owner and others at the Site that relates to Work for which this Bid is submitted as indicated in the Bidding Documents.
- (f) Bidder has correlated the information known to Bidder, information and observations obtained from visits to the Site, reports, and drawings identified in the Bidding Documents and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents.
- (g) Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents and the written resolution thereof by Engineer is acceptable to Bidder, and the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work for which this Bid is submitted.
- (h) This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm, or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization, or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any person, firm, or corporation to refrain from bidding; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over Owner.

Bidder will complete the Work in accordance with the Contract Documents for the following prices. The Work shall be bid complete in place. Bids shall include sales tax and all other applicable taxes and fees on items not exempt from sales tax.

BID SCHEDULE

PROJECT 1 - CITY OFFICE STEPS AND SIDEWALK

Item No.	Description	Estimated Quantity	Unit Price	Total Price
1.	Remove Existing Steps and Landing	JOB	<u>\$ LUMP SUM</u>	<u>\$</u>
2.	Remove Existing Walk	190 Sq. Yds.	<u></u>	<u></u>
3.	Construct 5" PC Concrete Walk, NDOT Type 47BD-4000	190 Sq. Yds.	<u></u>	<u></u>
4.	Construct Concrete Steps and Landing, NDOT Type 47BD-4000	JOB	<u>LUMP SUM</u>	<u></u>
5.	Furnish and Install Hand Rails	JOB	<u>LUMP SUM</u>	<u></u>
6.	Final Grading, Backfill, and Cleanup	JOB	<u>LUMP SUM</u>	<u></u>

TOTAL BASE BID, PROJECT 1 - CITY OFFICE STEPS AND SIDEWALK, Item Nos. 1 through 6, inclusive:

DOLLARS (\$))

SUBSTITUTION NO. 1-A

Substitute NDOT Type 47BX-3500 for concrete walk construction in place of NDOT Type 47BD-4000, ADD or DEDUCT (circle one), per Sq. Yds.

DOLLARS (\$))

Type of Mix Proposed: _____

SUBSTITUTION NO. 1-B

Substitute NDOT Type 47BX-3500 for concrete steps and landing construction in place of NDOT Type 47BD-4000, ADD or DEDUCT (circle one), LUMP SUM.

_____ DOLLARS (\$) _____)

Type of Mix Proposed: _____

PROJECT 2 - HICKORY AVENUE SIDEWALK

Item No.	Description	Estimated Quantity	Unit Price	Total Price
1.	Remove Existing Concrete	67 Sq. Yds.	\$ _____	\$ _____
2.	Construct 5" PC Concrete Walk, NDOT Type 47BD-4000	318 Sq. Yds.	_____	_____
3.	Construct 6" PC Concrete Paving/Drive, NDOT Type 47B-3500	64 Sq. Yds.	_____	_____
4.	Relocate Existing 24" RCP Flared End Section	1 Each	_____	_____
5.	24" RCP Class III Storm Sewer	18 L.F.	_____	_____
6.	Fill Dirt	120 Cu. Yds.	_____	_____
7.	Sod and Fertilizing	3610 Sq. Ft.	_____	_____
8.	Adjust Manhole to Grade	1 Each	_____	_____
9.	Adjust Pull Box to Grade	1 Each	_____	_____
10.	FES Silt Protector	1 Each	_____	_____
11.	Final Grading, Backfill, and Cleanup	JOB	LUMP SUM	_____

TOTAL BASE BID, PROJECT 2 - HICKORY AVENUE SIDEWALK, Item Nos. 1 through 11, inclusive:

_____ DOLLARS (\$) _____)

SUBSTITUTION NO. 2-A

Substitute NDOT Type 47BX-3500 for concrete walk construction in place of NDOT Type 47BD-4000, ADD or DEDUCT (circle one), per Sq. Yds.

_____ DOLLARS (\$) _____)

Type of Mix Proposed: _____

PROJECT 3 - BUSINESS AREA COLORED CONCRETE BORDER REPLACEMENT

Item No.	Description	Estimated Quantity	Unit Price	Total Price
1.	Remove Existing Colored Concrete Border	8440 L.F.	\$ _____	\$ _____
2.	Construct Concrete Border Fill, NDOT Type 47BD-4000	8440 L.F.	_____	_____
3.	Remove Existing Concrete Paving/Curb and Gutter	10 Sq. Yds.	_____	_____
4.	Construct 9" PC Concrete Paving/Curb and Gutter, NDOT Type 47B-3500	10 Sq. Yds.	_____	_____

TOTAL BASE BID, PROJECT 3 - BUSINESS AREA COLORED CONCRETE BORDER REPLACEMENT, Item Nos. 1 through 4, inclusive:

DOLLARS (\$) _____)

SUBSTITUTION NO. 3-A

Substitute NDOT Type 47BX-3500 for concrete border in place of NDOT Type 47BD-4000, ADD or DEDUCT (circle one), per L.F.

DOLLARS (\$) _____)

Type of Mix Proposed: _____

GRAND TOTAL BASE BID, PROJECT 1, PROJECT 2, AND PROJECT 3, inclusive:

DOLLARS (\$) _____)

The Bid shall be an aggregate bid on all Work to be performed, broken down in such a manner as will accurately reflect unit prices for estimated quantities set out herein. Details of construction, materials to be used, and methods of installation for this Project are given in the Project Manual. Bidder acknowledges that quantities are not guaranteed and final payment will be based on actual quantities determined as provided in the Contract Documents.

Complete sets of Bidding Documents as issued by QuestCDN and/or the Issuing Office must be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents or Bidding Documents obtained from any source other than QuestCDN or the Issuing Office.

The Bidder shall thoroughly examine the construction site, soil conditions, contract documents, addenda, scope, and intent of the Work prior to preparing his Bid for items listed in the Bid Schedule as "Lump Sum" or "Job". Failure of the Bidder to accurately estimate the quantity of materials or suitability of his construction means to perform the Work required in the Contract Documents shall not be a basis for additional payments for any item listed in the Bid Schedule as "Lump Sum" or "Job" and no additional compensation shall be made. Cost of all materials and work necessary for, or incidental to, the construction of the Project as shown on the Drawings or described in the Project Manual, and not specifically listed in the Bid Schedule, shall be incorporated by the Bidder in the "Lump Sum" or "Job" items of the Bid Schedule as he deems appropriate. Complete compensation will be considered as included in the payment for the "Lump Sum" or "Job" items of the Bid Schedule.

Bidder accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work within the times specified in the Agreement.

Bidder agrees that the Work will be substantially completed and ready for final payment in accordance with Article 15.06 of the Standard General Conditions on or before the date indicated in the Agreement. The total base bid, in combination with any alternates, substitutions, or additions, if any, accepted and awarded by Owner shall be the basis for establishing the amount of the Performance Bond and Payment Bond on this Contract. The total base bid is based on the quantities shown in the Bid and is subject to additions or reductions according to the actual construction quantities and measurements of finished construction, as determined by the Engineer, upon completion of construction.

The undersigned hereby agrees, if awarded the Contract, to furnish a Performance Bond in an amount equal to 100 percent of the Contract sum as security for the faithful performance of the Contract (including guarantee provisions) and also a Labor and Materials Payment Bond in an amount not less than 100 percent of the Contract sum as security for the payment of all persons performing labor on the Project under the Contract, and furnishing materials in connection with this Contract.

The undersigned also agrees to furnish the required bonds and insurance certificates, and to execute the Contract within 15 days from and after the acceptance of this Bid, and further agrees to begin and complete all Work under the Contract within the time limit set forth in the Agreement.

Accompanying this Bid, as a guaranty that the undersigned will execute the Contract and furnish satisfactory bonds and insurance certificates, in accordance with the terms and requirements of the Contract Documents, is a bid security of the type specified in the Instructions to Bidders, made payable to the City of Crete, Nebraska, in the amount of \$_____.

It is hereby agreed that, in case of failure of the undersigned either to execute the Contract, or to furnish bonds or insurance certificates, which are satisfactory to the Owner, within 15 days after issuance of Notice of Award, the amount of this Bid guaranty shall be forfeited to the City of Crete, Nebraska, as liquidated damages arising out of the failure of the undersigned to complete the above-stated. It is understood that, in case the undersigned is not awarded the Work, the Bid guaranty will be returned, as provided in the Bidding Documents.

The Owner reserves the right to award the Contract to the lowest, responsive, responsible Bidder, based on the sum of the total aggregate bid for the Work to be performed, start date, completion date, materials, substitutions, and past performance on contracts with the Owner.

If awarded the Contract, our surety will be _____ of _____.

Bidders shall comply with Fair Labor Standards, as defined in Section 73-104-R.S., Nebraska Statutes, in pursuit of all business related to this Project, including execution of the Contract on this Work for which Bids are being submitted.

The undersigned has carefully checked the above Bid quantities against the Project Manual before preparing this Bid, and accepts the said quantities and amounts as correctly listing the complete Work to be done in accordance with the Project Manual.

The Bidder shall state below his intended starting date, date of Substantial Completion, and date of final Completion of all Work as specified in the Agreement. Dates of substantial and final completion as indicated by the Bidder in this Bid will be incorporated into the Agreement.

Bidder's intended start date is _____

Bidder agrees that the Work will be Substantially Complete on or before

Bidder agrees that the Work will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before

The Owner reserves the right to reject any and all Bids and to waive any technicalities or informalities in bidding.

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

NOTE: Bidders shall not add any conditions or qualifying statements to this Bid as otherwise the Bid may be declared irregular as not being responsive to the Advertisement for Bids.

This Bid is submitted by:

If Bidder is:

An Individual

Name (typed or printed): _____

By: _____
(Individual's Signature)

Doing Business as: _____

A Partnership

Partnership Name: _____

By: _____
(Signature of general partner – attach evidence of authority to sign)

Name of above signature (typed or printed): _____

A Corporation

Corporation Name: _____ (SEAL)

State of Incorporation: _____

Type (General Business, Professional, Service, Limited Liability): _____

By : _____
(Signature – attach evidence of authority to sign)

Name of above signature (typed or printed): _____

Title: _____
(CORPORATE SEAL)

Attest _____

A Joint Venture

Name of Joint Venture: _____

First Joint Venturer Name: _____ (SEAL)

By: _____
(Signature of first joint venture partner – attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Second Joint Venturer Name: _____

By: _____
(Signature of second joint venture partner – attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

(Each joint venturer must sign. The manner of signing for each individual, partnership, and corporation that is a party to the joint venture should be in the manner indicated above.)

Bidders Business Address: _____

Telephone: _____ Fax No.: _____

Email Address: _____

SUBMITTED ON _____, 2021.

State Contractor's License No. _____. (If applicable)

NOTICE OF AWARD

Date of Issuance:

Owner:	City of Crete, Nebraska	Owner's Contract No.:	N/A
Engineer:	Gilmore & Associates, Inc.	Engineer's Project No.:	226.340
Project:	Crete Sidewalk Improvements 2021 - Crete, Nebraska	Contract Name:	Crete Sidewalk Improvements 2021 - Crete, Nebraska

Bidder:

Bidder's Address:

TO BIDDER:

You are notified that Owner has accepted your Bid dated _____, 2021 for the above Contract, and that you are the Successful Bidder and are awarded a Contract for:

Crete Sidewalk Improvements 2021
Crete, Nebraska

The Contract Price of the awarded Contract is: \$_____ and _____ Dollars (_____).

3 unexecuted counterparts of the Agreement accompany this Notice of Award, and 3 copies of the Contract Documents accompanies this Notice of Award, or has been transmitted or made available to Bidder electronically.

3 a set of the Drawings will be delivered separately from the other Contract Documents.

You must comply with the following conditions precedent within 15 days of the date of this Notice of Award:

1. Deliver to Owner 3 counterparts of the Agreement, fully executed by Bidder.
2. Deliver with the executed Agreement(s) the Contract security [e.g., performance and payment bonds] and insurance documentation as specified in the Instructions to Bidders and General Conditions, Articles 2 and 6.
3. Other conditions precedent (if any):

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within ten days after you comply with the above conditions, Owner will return to you one fully executed counterpart of the Agreement, together with any additional copies of the Contract Documents as indicated in Paragraph 2.02 of the General Conditions.

Owner: CITY OF CRETE, NEBRASKA

Authorized Signature

By:

Title: Mayor

Copy: Engineer

NOTE: This EJCDC Document has been modified as indicated herein: A ~~strike-out~~ indicates that language has been deleted from this EJCDC Document. An underline indicates that the language has been added to this EJCDC Document.

**AGREEMENT
BETWEEN OWNER AND CONTRACTOR FOR
CONSTRUCTION CONTRACT (STIPULATED PRICE)**

Prepared by



Issued and Published Jointly by



Endorsed by



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National Society of Professional Engineers
1420 King Street, Alexandria, VA 22314-2794
(703) 684-2882
www.nspe.org

American Council of Engineering Companies
1015 15th Street N.W., Washington, DC 20005
(202) 347-7474
www.acec.org

American Society of Civil Engineers
1801 Alexander Bell Drive, Reston, VA 20191-4400
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THIS AGREEMENT is by and between The City of Crete, Nebraska ("Owner") and _____ ("Contractor").

- ~~1. Milestone 1 [event & date/days]~~
- ~~2. Milestone 2 [event & date/days]~~
- ~~3. Milestone 3 [event & date/days]~~

4.03 Liquidated Damages

- A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed ~~and Milestones not achieved~~ within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with the Contract. 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):
1. Substantial Completion: Contractor shall pay Owner \$1,500 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Work is substantially complete.
 2. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner \$500 for each day that expires after such time until the Work is completed and ready for final payment.
 3. Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive and will not be imposed concurrently.
 - ~~4. Milestones: Contractor shall pay Owner \$[REDACTED] for each day that expires after the time (as duly adjusted pursuant to the Contract) specified above for achievement of Milestone 1, until Milestone 1 is achieved.~~
- ~~B. Bonus: Contractor and Owner further recognize the Owner will realize financial and other benefits if the Work is completed prior to the time specified for Substantial Completion. Accordingly, Owner and Contractor agree that as a bonus for early completion, Owner shall pay Contractor \$[REDACTED] for each day prior to the time specified in Paragraph 4.02 for Substantial Completion (as duly adjusted pursuant to the Contract) that the Work is substantially complete. The maximum value of the bonus shall be limited to \$[REDACTED].~~

4.04 Special Damages

- A. In addition to the amount provided for liquidated damages, Contractor shall reimburse Owner (1) for any fines or penalties imposed on Owner as a direct result of the Contractor's failure to attain Substantial Completion according to the Contract Times, and (2) for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 4.02 for Substantial Completion (as duly adjusted pursuant to the Contract), until the Work is substantially complete.
- B. After Contractor achieves Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times, Contractor shall reimburse Owner for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 4.02 for Work to be completed and ready for final payment (as duly adjusted pursuant to the Contract), until the Work is completed and ready for final payment.

ARTICLE 5 – CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follow, subject to adjustment under the Contract:

A. ~~For all Work other than Unit Price Work, a lump sum of: \$~~ ~~_____~~

~~All specific cash allowances are included in the above price in accordance with Paragraph 13.02 of the General Conditions.~~

B. ~~For all Unit Price Work, an amount equal to the sum of the extended prices (established for each separately identified item of Unit Price Work by multiplying the unit price times the actual quantity of that item):~~

Unit Price Work					
Item No.	Description	Unit	Estimated Quantity	Unit Price	Extended Price
Total of all Extended Prices for Unit Price Work (subject to final adjustment based on actual quantities)					\$

~~The extended prices for Unit Price Work set forth as of the Effective Date of the Contract are based on estimated quantities. As provided in Paragraph 13.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer.~~

C. ~~Total of Lump Sum Amount and Unit Price Work (subject to final Unit Price adjustment)~~
~~\$~~ ~~_____~~

D. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

ARTICLE 6 – PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.02 *Progress Payments; Retainage*

A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the first day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price

Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.

1. Prior to Substantial Completion, progress payments will be made in an amount equal to 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, including but not limited to liquidated damages, in accordance with the Contract. The amount of retainage on pay requests to be withheld shall be in accordance with the Construction Prompt Payment Act.
 - a. 90 percent of Work completed (with the balance being retainage). If the Work has been 50 percent completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage; and
 - b. 90 percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).
- B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 100 percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less 125 percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.

6.03 *Final Payment*

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, as provided in said Paragraph 15.06.

ARTICLE 7 – INTEREST

~~7.01 All amounts not paid when due shall bear interest at the rate of percent per annum.~~

ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS

- 8.01 In order to induce Owner to enter into this Contract, Contractor makes the following representations:
 - A. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.
 - B. Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, groundwater, and Site conditions that may affect cost, progress, and performance 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, and performance of the Work.
 - D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities), if any,

that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

- E. Contractor has correlated, obtained, and carefully studies (or assumes the 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; considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) 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; and (3) Contractor's safety precautions and programs.
- F. Based on the information and observations referred to in the preceding paragraph, Contractor 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.
- 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 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, through issued addendum or addenda is acceptable to Contractor. When said conflicts, errors, ambiguities, or discrepancies have not been resolved by Engineer because of insufficient time or otherwise, Contractor has included in the Bid the better quality of work, or compliance with the more stringent requirement resulting in a greater cost; and said greater cost is included in the contract price.
- I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- J. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

ARTICLE 9 – CONTRACT DOCUMENTS

9.01 *Contents*

- A. The Contract Documents consist of the following:
 - 1. This Agreement (pages 1 to 10, inclusive).
 - 2. Performance bond (pages 1 to 3, inclusive).
 - 3. Payment bond (pages 1 to 3, inclusive).
 - 4. Other bonds.

- a. ____ (pages ____ to ____, inclusive).
5. General Conditions (pages 1 to 65, inclusive).
6. Supplementary Conditions (pages 1 to 8, inclusive).
7. Specifications as listed in the table of contents of the Project Manual.
8. Drawings (not attached but incorporated by reference) consisting of a cover sheet and sheets numbered 1 through 21, inclusive with each sheet bearing the following general title: Sidewalk Improvements Projects 1, 2, & 3 - Crete, Nebraska
9. Addenda (numbers ____ to ____, inclusive).
10. Exhibits to this Agreement (enumerated as follows):
 - a. Contractor's Bid (pages 1 to 7, inclusive).
 - b. Documentation submitted by Contractor prior to Notice of Award (pages 1 to 1, inclusive).
1. Bonding Insurance Requirements
11. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
 - a. Notice to Proceed (pages 1 to 1, inclusive).
 - b. Work Change Directives.
 - c. Change Orders.
 - d. Field Orders.
- B. The documents listed in Paragraph 9.01.A 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 the General Conditions.

ARTICLE 10 – MISCELLANEOUS

10.01 Terms

- A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

10.02 Assignment of Contract

- A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is 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 *Contractor's Certifications*

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 - 3. "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; and
 - 4. "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.

10.06 *Other Provisions*

- A. Owner stipulates that if the General Conditions that are made a part of this Contract are based on EJCDC® C-700, Standard General Conditions for the Construction Contract, published by the Engineers Joint Contract Documents Committee®, and if Owner is the party that has furnished said General Conditions, then Owner has plainly shown all modifications to the standard wording of such published document to the Contractor, through a process such as highlighting or "track changes" (redline/strikeout), or in the Supplementary Conditions.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on _____, 2021 (which is the Effective Date of the Contract).

OWNER: CITY OF CRETE

CONTRACTOR:

By: _____

By: _____

Title: Mayor _____

Title: _____

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

Attest: _____

Attest: _____

Title: _____

Title: _____

Address for giving notices:

Address for giving notices:

243 East 13th Street _____

Crete, NE 68333 _____

License No.: _____
(where applicable)

(If Owner is a corporation, attach evidence of authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)

NOTE TO USER: Use in those states or other jurisdictions where applicable or required.

PERFORMANCE BOND

CONTRACTOR *(name and address):*

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

OWNER *(name and address):*

City of Crete
243 East 13th Street
Crete, NE 68333

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount: \$

Description *(name and location)*: Crete Sidewalk Improvements 2021
Crete, Nebraska

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 *(seal)*

Surety's Name and Corporate Seal *(seal)*

By: _____
Signature

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

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

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:

PAYMENT BOND

CONTRACTOR *(name and address):*

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

OWNER *(name and address):*

City of Crete
243 East 13th Street
Crete, NE 68333

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount: \$

Description *(name and location):* Crete Sidewalk Improvements 2021
Crete, Nebraska

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

Contractor's Name and Corporate Seal *(seal)*

Surety's Name and Corporate Seal *(seal)*

By: _____
Signature

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

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

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:

NOTICE TO PROCEED

Owner:	City of Crete, Nebraska	Owner's Contract No.:	N/A
Contractor:		Contractor's Project No.:	
Engineer:	Gilmore & Associates, Inc.	Engineer's Project No.:	226.340
Project:	Crete Sidewalk Improvements 2021 - Crete, Nebraska	Contract Name:	Crete Sidewalk Improvements 2021 - Crete, Nebraska
		Effective Date of Contract:	

TO CONTRACTOR:

Owner hereby notifies Contractor that the Contract Times under the above Contract will commence to run on _____, 2021. *see Paragraph 4.01 of the General Conditions*

On that date, Contractor shall start performing its obligations under the Contract Documents. No Work shall be done at the Site prior to such date. In accordance with the Agreement, the date of Substantial Completion is _____, 2021, and the date of readiness for final payment is _____, 2021 ~~or [the number of days to achieve Substantial Completion is _____, and the number of days to achieve readiness for final payment is _____].~~

Before starting any Work at the Site, Contractor must comply with the following:

Paragraph 2.01.B of the General Conditions provides that the Contractor must deliver (with copies to Engineer and other identified additional insureds and loss payees) certificates of insurance which you are required to purchase and maintain in accordance with the Contract Documents.

[Note any access limitations, security procedures, or other restrictions]

Owner: CITY OF CRETE, NEBRASKA

Authorized Signature

By:

Title: Mayor

Date Issued:

Copy: Engineer

Contractor's Application for Payment No.

Application Period:		Application Date:	
To City of Crete, Nebraska (Owner):	From (Contractor):	Via (Engineer): Gilmore & Associates, Inc.	
Project: Crete Sidewalk Replacement 2021	Contract: Crete Sidewalk Replacement 2021		
Owner's Contract No.: N/A	Contractor's Project No.:	Engineer's Project No.: 226.340	

**Application For Payment
Change Order Summary**

Number	Additions	Deductions
TOTALS		
NET CHANGE BY CHANGE ORDERS		

1. ORIGINAL CONTRACT PRICE.....	\$	_____
2. Net change by Change Orders.....	\$	_____
3. Current Contract Price (Line 1 ± 2).....	\$	_____
4. TOTAL COMPLETED AND STORED TO DATE (Column F total on Progress Estimates).....	\$	_____
5. RETAINAGE:		
a. X _____ Work Completed.....	\$	_____
b. X _____ Stored Material.....	\$	_____
c. Total Retainage (Line 5.a + Line 5.b).....	\$	_____
6. AMOUNT ELIGIBLE TO DATE (Line 4 - Line 5.c).....	\$	_____
7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application)	\$	_____
8. AMOUNT DUE THIS APPLICATION.....	\$	_____
9. BALANCE TO FINISH, PLUS RETAINAGE (Column G total on Progress Estimates + Line 5.c above).....	\$	_____

Contractor's Certification

The undersigned Contractor certifies, to the best of its knowledge, the following:

(1) All previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with the Work covered by prior Applications for Payment;

(2) Title to all Work, materials and equipment incorporated in said Work, or otherwise listed in or covered by this Application for Payment, will pass to Owner at time of payment free and clear of all Liens, security interests, and encumbrances (except such as are covered by a bond acceptable to Owner indemnifying Owner against any such Liens, security interest, or encumbrances); and

(3) All the Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

Contractor Signature

By:	Date:
-----	-------

Payment of: \$ _____
(Line 8 or other - attach explanation of the other amount)

is recommended by: _____
(Engineer) (Date)

Payment of: \$ _____
(Line 8 or other - attach explanation of the other amount)

is approved by: _____
(Owner) (Date)

Approved by: _____
Funding or Financing Entity (if applicable) (Date)

Progress Estimate - Unit Price Work

Contractor's Application

For (Contract):						Crete Sidewalk Replacement 2021 Crete, Nebraska						Application Number:	
Application Period:												Application Date:	
A						B	C	D	E	F			
Item		Contract Information				Estimated Quantity Installed	Value of Work Installed to Date	Materials Presently Stored (not in C)	Total Completed and Stored to Date (D + E)	% (F / B)	Balance to Finish (B - F)		
Bid Item No.	Description	Item Quantity	Units	Unit Price	Total Value of Item (\$)								
PROJECT 1 - CITY OFFICE STEPS AND SIDEWALK													
1.	Remove Existing Steps and Landing		JOB										
2.	Remove Existing Walk	190 Sq. Yds.											
3.	Construct 5" PC Concrete Walk, NDOT Type 47BD-4000	190 Sq. Yds.											
4.	Construct Concrete Steps and Landing, NDOT Type 47BD-4000		JOB										
5.	Furnish and Install Hand Rails		JOB										
6.	Remove Brick Manhole		JOB										
7.	Final Grading, Backfill, and Cleanup		JOB										
TOTAL BASE BID, PROJECT 1 - CITY OFFICE STEPS AND SIDEWALK, Item Nos. 1 through 7, inclusive:													
PROJECT 2 - HICKORY AVENUE SIDEWALK													
1.	Remove Existing Concrete	67 Sq. Yds.											
2.	Construct 5" PC Concrete Walk, NDOT Type 47BD-4000	318 Sq. Yds.											
3.	Construct 6" PC Concrete Paving/Drive, NDOT Type 47B-3500	64 Sq. Yds.											
4.	Relocate Existing 24" RCP Flared End Section	1 Each											
5.	24" RCP Class III Storm Sewer	18 L.F.											
6.	Fill Dirt	120 Cu. Yds.											
7.	Sod and Fertilizing	3610 Sq. Ft.											
8.	Adjust Manhole to Grade	1 Each											
9.	Adjust Pull Box to Grade	1 Each											
10.	FES Silt Protector	1 Each											
11.	Final Grading, Backfill, and Cleanup		JOB										
TOTAL BASE BID, PROJECT 2 - HICKORY AVENUE SIDEWALK, Item Nos. 1 through 11, inclusive:													
PROJECT 3 - BUSINESS AREA COLORED CONCRETE BORDER REPLACEMENT													
1.	Remove Existing Colored Concrete Border	8440 L.F.											
2.	Construct Concrete Border Fill, NDOT Type 47BD-4000	8440 L.F.											
3.	Remove Existing Concrete Paving/Curb and Gutter	10 Sq. Yds.											
4.	Construct 9" PC Concrete Paving/Curb and Gutter, NDOT Type 47B-3500	10 Sq. Yds.											
TOTAL BASE BID, PROJECT 3 - BUSINESS AREA COLORED CONCRETE BORDER REPLACEMENT, Item Nos. 1 through 4, inclusive:													
GRAND TOTAL BASE BID, PROJECT 1, PROJECT 2, AND PROJECT 3, inclusive:													

Change Order No. _____

Date of Issuance:	Effective Date:
Owner: City of Crete, Nebraska	Owner's Contract No.: N/A
Contractor:	Contractor's Project No.:
Engineer: Gilmore & Associates, Inc.	Engineer's Project No.: 226.340
Project: Crete Sidewalk Improvements 2021 - Crete, Nebraska	Contract Name: Crete Sidewalk Improvements 2021 - Crete, Nebraska

The Contract is modified as follows upon execution of this Change Order:

Description:

Attachments:

CHANGE IN CONTRACT PRICE	CHANGE IN CONTRACT TIMES
Original Contract Price: \$ _____	Original Contract Times: Substantial Completion: _____ Ready for Final Payment: _____ days or dates
[Increase] [Decrease] from previously approved Change Orders No. ____ to No. ____: \$ _____	[Increase] [Decrease] from previously approved Change Orders No. ____ to No. ____: Substantial Completion: _____ Ready for Final Payment: _____ days
Contract Price prior to this Change Order: \$ _____	Contract Times prior to this Change Order: Substantial Completion: _____ Ready for Final Payment: _____ days or dates
[Increase] [Decrease] of this Change Order: \$ _____	[Increase] [Decrease] of this Change Order: Substantial Completion: _____ Ready for Final Payment: _____ days or dates
Contract Price incorporating this Change Order: \$ _____	Contract Times with all approved Change Orders: Substantial Completion: _____ Ready for Final Payment: _____ days or dates

RECOMMENDED: GILMORE &
ASSOCIATES, INC.

ACCEPTED: CITY OF CRETE,
NEBRASKA

ACCEPTED:

By: _____ Engineer (if required)	By: _____ Owner (Authorized Signature)	By: _____ Contractor (Authorized Signature)
Title: _____	Title: _____	Title: _____
Date: _____	Date: _____	Date: _____

Approved by Funding Agency (if applicable)

By: _____ Date: _____
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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by



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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 consider 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.

SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract, EJCDC C-700 (2013 Edition) and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof.

The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added thereto.

SC-1.01.A.28 *Owner*

At the end of Paragraph 1.01.A.28 add the following paragraph:

Whenever the word "Owner" appears in the Contract Documents, it shall actually refer to the City of Crete, Nebraska. The Owner shall, in conjunction with the Engineer, be the final arbiter in all controversies concerning the fulfillment of this Contract. No changes in any of the details of the Drawings and Specifications shall be made without the approval of the Owner. No extras will be allowed that are not agreed to in writing. The Owner will approve final acceptance of the Work and payment to the Contractor.

SC-1.02.E *Furnish, Install, Perform, Provide*

Add the following new paragraph immediately after Paragraph 1.02.E.4:

5. The word "supply," when used in connection with services, materials, or equipment, shall mean to furnish and install and incorporate in the Work said services, materials, or equipment, including all necessary labor, materials, equipment, and everything necessary to perform the Work indicated, unless specifically limited in the context.

ARTICLE 2 – PRELIMINARY MATTERS

SC-2.02.A *Copies of Documents*

Delete Paragraph 2.02.A in its entirety and insert the following in its place:

- A. Engineer shall furnish to Contractor up to one printed or hard copy of the Contract Documents (including one fully executed counterpart of the Agreement). Additional copies will be furnished upon request at the cost of reproduction.

SC-2.05.A *Initial Acceptance of Schedules*

Modify the first sentence of Paragraph 2.05.A by adding the following words to the beginning of the sentence:

If requested by the Owner or Engineer,

ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

SC-3.01 *Intent*

Add the following new paragraphs immediately after Paragraph 3.01.E:

- F. The Specifications may vary in form, format, and style. Some articles and sections of the specifications may be written in varying degrees of streamlined or declarative style and some articles and sections may be relatively narrative by comparison. Omissions of such words and phrases as “the Contractor shall”, “in conformity with”, “as shown”, or “as specified” are intentional in streamlined articles or sections. Omitted words and phrases shall be supplied by reference. Similar types of provisions may appear in various parts of an article or section within a part depending on the format of the article or section. The Contractor shall not take advantage of any variation of form, format, or style in making claims for extra Work.
- G. The cross referencing of specification articles or sections within each article or section of the Specifications is provided as an aid and convenience to the Contractor. The Contractor shall not rely on the cross referencing provided and shall be responsible to coordinate the entire Work under the Contract Documents and provide a complete Project whether or not the cross referencing is provided in each section or article or whether or not the cross referencing is complete.

ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK

SC-4.01.A *Commencement of Contract Times; Notice to Proceed*

Add the following sentence at the end of Paragraph 4.01.A:

The Owner reserves the right to terminate the Contract at no cost to Owner at any time prior to issuance of Notice to Proceed.

SC-4.03.A *Reference Points*

Delete paragraph 4.03.A in its entirety and replace it with the following:

Add the following new paragraphs immediately after Paragraph 4.03A:

The Contractor shall furnish all staking for the project, at their own expense.

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

SC-5.01 *Availability of Lands*

Add the following new paragraph immediately after Paragraph 5.01.C:

- D. The Contractor shall not enter private property, if any, within the Project limits for construction purposes until he has received official notification from the Owner that the necessary, temporary, or permanent easements have been obtained for the property in question. The Contractor shall hold and save the Owner and Engineer free and harmless from liability of any nature or kind arising from any use, trespass, or damage occasioned by his operation on premises of a third person, except where permanent facilities are shown on the Drawings or specified. All such areas so disturbed by the construction operation shall be restored by the Contractor to a condition equivalent to that existing prior to use by the Contractor.

- | | | |
|----|---|-------------|
| a. | General Aggregate (except Products—Completed Operations | \$2,000,000 |
| b. | Products—Completed Operations Aggregate | \$1,000,000 |
| c. | Personal and Advertising Injury (Per person/Organization) | \$1,000,000 |
| d. | Each Occurrence (Bodily Injury and Property Damage) | \$1,000,000 |

3. Automobile Liability under Paragraph 6.03.D of the General Conditions:
 - a. Bodily Injury:

Each Person	\$1,000,000
Each Accident	\$1,000,000
 - b. Property Damage:

Each Accident	\$1,000,000
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4. Umbrella or Excess Liability under Paragraph 6.03.E of the General Conditions:
 - a. Excess Liability

General Aggregate	\$2,000,000
Each Occurrence	\$2,000,000
5. Contractors Pollution Liability Insurance coverage required by Paragraph 6.03.F of the General Conditions:
 - a. General Aggregate \$1,000,000
 - b. Each Occurrence (Bodily Injury and Property Damage) \$1,000,000
5. With respect to all insurance required by Paragraph 6.03, Contractor agrees to waive all rights of subrogation against Owner, Engineer, and each additional insured identified in the Supplementary Conditions.
6. Following is a list of other individuals or entities to be included on policies as additional insureds:

Owner:	City of Crete, Nebraska
Engineer:	Gilmore & Associates, Inc.

SC-6.05 *Property Insurance*

SC-6.05.A Delete Paragraph 6.05.A in its entirety and insert the following in its place:

- A. Contractor shall purchase and maintain property insurance upon the Work at the site in the amount of the full replacement cost thereof. Contractor shall be responsible for any deductible or self-insured retention. This insurance shall:
 1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and the officers, directors, partners, employees, agents and other consultants and subcontractors of any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or loss payee;
 2. be written on a Builder's Risk "all-risk" policy form that shall at least include insurance for physical loss and 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, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, and such other perils or causes of loss as may be specifically required by these Supplementary Conditions.
 3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
 4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work,

provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;

5. allow for partial utilization of the Work by Owner;
6. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other loss payee; and
7. comply with the requirements of Paragraph 6.05.B of the General Conditions.

Add the following paragraph after paragraph 6.05.F:

- G. Owner shall not be responsible for purchasing and maintaining any property insurance to protect the interests of Contractor, subcontractors, or others in the Work. Unless otherwise agreed to in writing between Owner and Contractor, and until final completion of the work and acceptance of the Work in accordance with paragraph 15.03 of the General Conditions, all risk of loss with no right of recovery against the Owner, Engineer, Engineer's consultants (and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any them) will be borne by Contractor, subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage, each may purchase it and maintain it at the purchaser's own expense.

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

SC-7.04 "Or-Equals"

SC-7.04.A.1 Delete Paragraph 7.04.A.1 in its entirety and insert the following in its place:

1. If in Engineer's sole discretion an item of material or equipment proposed by Bidder or Supplier at least 15 days prior to the date for receipt of Bids or by Contractor after the Effective Date of the Agreement, is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an "or-equal" item in which case, review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items.

For the purposes of this Article 7.04.A.1, 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: (i) it is at least equal in quality, durability, appearance, strength, and design characteristics; (ii) it will reliably perform at least equally well the function imposed by the design concept of the completed Project as a functioning whole; (iii) has a proven record of performance and availability of responsive service, and;
- b. Contractor certifies that: (i) there is no increase in cost to the Owner or increase in Contract times; and (ii) it will conform substantially, even with deviations, to the detailed requirements of the item named in the Contract Documents.

SC-7.04.B Delete Paragraph 7.04.B in its entirety and insert the following in its place:

- E. *Contractor's, Bidder's, or Supplier's Expense:* Contractor, Bidder, or Supplier shall provide all data in support of any proposed "or-equal" item at Contractor's, Bidder's, or Supplier's expense.

SC-7.05 ***Substitutes***

SC-7.05.A At the end of paragraph 7.05.A and before paragraph 7.05.A.1, add the following paragraph:

If in Engineer's sole discretion an item of material or equipment proposed by Bidder or Supplier at least 15 days prior to the date for receipt of Bids or by Contractor after the Effective Date of the Agreement does not qualify as an "or-equal" item under 7.04 of the General Conditions, it will be considered a proposed substitute item.

SC-7.05.E Delete Paragraph 7.05.E in its entirety and insert the following in its place:

- E. *Contractor's, Bidder's, or Supplier's Expense:* Contractor, Bidder, or Supplier shall provide all data in support of any proposed substitute item at Contractor's, Bidder's, or Supplier's expense.

SC-7.08 ***Permits***

Delete the first sentence of Paragraph 7.08 in its entirety and insert the following in its place:

Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits and licenses, including any fines or penalties assessed against Owner as a result of Contractor's failure to obtain the same or follow conditions contained therein.

SC-7.09 ***Taxes***

SC-7.09.A Add the following new paragraph immediately after Paragraph 7.09.A:

- B. The Project may be exempt from Nebraska State Sales and Use Taxes on materials and equipment to be incorporated in the Work. The Contractor shall include in his Bid prices sales tax on any materials, equipment, and labor considered not exempt. The Owner will furnish the Successful Contractor with a Purchasing Agent Appointment and Exempt Sale Certificate form for those items considered to be exempt from the state sales and use tax. Said taxes shall not be included in the Contract price for any materials or equipment to be incorporated into the Work that are tax exempt. It shall be the responsibility of the Contractor to verify with the Nebraska Department of Revenue those items considered to be exempt

SC-7.10 ***Laws and Regulations***

Add the following new section immediately after Paragraph 7.10.C:

- D. "LB 403 Contract Provisions - NEW EMPLOYEE WORK ELIGIBILITY STATUS:

The Contractor is required and hereby agrees to use a federal immigration verification system to determine the work eligibility status of new employees physically performing services within the State of Nebraska. A federal immigration verification system means the electronic verification of the work authorization program authorized by the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, 8 U.S.C. 1324a, known as the E-Verify Program, or an equivalent federal program designated by the United States Department of Homeland Security or other federal agency authorized to verify the work eligibility status of a newly hired employee.

If the Contractor is an individual or sole proprietorship, the following applies:

1. The Contractor must complete the United States Citizenship Attestation Form, available on the Department of Administrative Services website at www.das.state.ne.us.
2. If the Contractor indicates on such attestation form that he or she is a qualified alien, the Contractor agrees to provide the US Citizenship and Immigration Services documentation required to verify the Contractor's lawful presence in the United States using the Systematic Alien Verification for Entitlements (SAVE) Program.
3. The Contractor understands and agrees that lawful presence in the United States is required and the Contractor may be disqualified or the Contract terminated if such lawful presence cannot be verified as required by Neb. Rev. Stat. §4-108."

SC-7.16.D *Engineer's Review*

SC-7.17.D.3 Add the following new paragraphs immediately after Paragraph 7.16.D.8:

9. Shop Drawings and Sample submittals not conforming to the requirements of Paragraphs 7.16.A, 7.16.B, and 7.16.C shall be returned to Contractor without action for resubmittal and the resulting delay shall be entirely the responsibility of the Contractor.
10. Engineer's review and approval of Shop Drawing and Sample submittals shall not:
 - a. relieve the Contractor of the responsibility for any error in details, dimensions, or other information that may exist in such submittals;
 - b. constitute a blanket approval of dimensions, quantities, or details of the materials or equipment shown;
 - c. approve variations from additional details or instructions previously furnished by Engineer to Contractor;
 - d. shall not relieve the Contractor of the full responsibility of meeting all of the requirements of the Contract Documents.

ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION

SC-10.02 *Visits to Site*

SC-10.02.B Add the following new paragraph immediately after Paragraph 10.02.B:

- C. A special request by the Contractor to the Engineer for a visit to the Project Site shall be made at least 48 hours in advance.

Failure of the Contractor to have a representative who is in responsible charge of the Project, or who has been designated as the Contractor's representative, present at the construction site to accompany the Engineer in the visit will result in the issuance of a statement to the Contractor for the Engineer's time and expenses, based on the Engineer's current Schedule of Rates and Charges. The payment of these engineering charges will be due and payable within 30 days, and must be paid before subsequent progress estimates will be allowed.

SC-10.04 *Rejecting Defective Work*

SC-10.04.A Add the following paragraph immediately after Paragraph 10.04.A

- B. The acceptance, at any time, of materials or equipment by or on behalf of Owner shall not be a bar to future rejection if they are subsequently found to be defective, inferior in quality or uniformity to material or equipment specified, or are not as represented to Engineer or Owner.

ARTICLE 11 – AMMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK**SC-11.07 *Execution of Change Orders***

SC-11.07.B Delete paragraph 11.07.B in its entirety.

ARTICLE 14 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK**SC -14.02 *Tests, Inspections, and Approvals***

SC-14.02.D Add the following new paragraph immediately after Paragraph 14.02.D.5

6. Contractor shall coordinate the services of the testing laboratories to perform all inspections, tests, or approvals required by the Contract Documents.

ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION: CORRECTION PERIOD**SC-15.01.B *Applications for Payment***

SC-15.01.B.1 Modify the first sentence of Paragraph 15.01.B.1 by striking out the words “At least 20 days” and replacing them with the words “At least 10 days”

SC-15.01.C *Review of Applications*

SC-15.01.C.1 Modify the first sentence of Paragraph 15.01.C.1 by striking out the words “Engineer will, within 10 days” and replacing them with the words “Engineer will, within 7 days”

SC-15.01.D *Payment Becomes Due*

SC-15.01.D.1 Delete Paragraph 15.01.D.1 in its entirety and insert the following in its place:

1. Thirty days after approval of the Application for Payment by Owner, the amount recommended by Engineer, will (subject to the provisions of Paragraph 15.01.E) become due, and when due will be paid by Owner to Contractor.

ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION**SC-16.02 *Owner May Terminate for Cause***

SC-16.02.A.1 Modify Paragraph 16.02.A.1 by deleting the word “persistent”

ARTICLE 3
GENERAL REQUIREMENTS
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ARTICLE 3

GENERAL REQUIREMENTS

3.0 - PROJECT DESCRIPTION

This Project is located in Crete, Nebraska, as shown on the Drawings.

Drawings and Project Manual were prepared by Gilmore & Associates, Inc., Consulting Engineers of Columbus, Nebraska for the City of Crete, Nebraska, who is the Owner of the Project.

The work is comprised of three projects under one construction contract. The Owner may wish to separate the projects and/or award only those projects which are within available funding. The projects are described as follows:

Project 1 – Remove and replace the steps and walks in front of the City Offices. Work shall also include the installation of hand rails on the new steps.

Project 2 – Construct new 5 foot wide sidewalk along the west side of Hickory Avenue from 13th Street to 15th Street.

Project 3 – Replace the colored concrete border strip along the back of curb in the Business District with new concrete.

The City of Crete will reserve the right to award one or more of the projects for construction based on available funding. The City may also separate the projects for award based on the bids received in the best interests of the City.

3.1 - RIGHT OF ENTRY

Representatives of the Owner and the Engineer shall have access to the Work wherever it is in preparation or progress. The Contractor shall provide proper facilities for such access and inspection.

3.2 - EXISTING UTILITIES/SPRINKLER SYSTEMS

The Contractor shall determine the actual location of all existing utilities prior to starting any work that may cause damage to such utilities or underground sprinkler lines and fixtures. The Contractor shall indemnify and hold harmless the Owner, Engineer, and their agents and employees from and against all claims, damages, losses, and expenses, including attorneys' fees, arising as a result of damage to existing utilities, including sprinkler systems caused, in whole or in part, by the Contractor or any Subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder.

Any information concerning underground utilities and sprinklers shown on the Drawings is intended to be merely an aid to the Contractor. The accuracy of information furnished with respect to underground utilities/sprinkler systems is not guaranteed, and the Contractor must independently verify any such information in accordance with the previous paragraph of these General Requirements.

The Contractor shall notify all utility companies who may have installations in the area where the Work is to be performed and solicit their aid in locating utilities, including, but not limited to, water, gas or other fuel, electrical, and telephone installations. All utilities encountered must be kept in operation by the Contractor, and must be protected and/or repaired if damaged. The Contractor shall have the responsibility of negotiating with each utility having lines, wires, or other appurtenances in the construction area, an agreement which establishes the responsibilities for the repair of any utility damaged by the Contractor. Such agreements shall establish under what conditions the cost of the repair will be the Contractor's responsibility and under what conditions the cost will be the utility's responsibility.

3.3 - PROTECTION OF PROPERTY

The following provisions shall not limit the generality of other requirements in these Contract Documents.

The Contractor shall do all things necessary or expedient to properly protect underground sprinkler systems, existing trees, shrubs, concrete retaining walls, streets, power lines and other utilities, and any and all property of others from damage. In the event that any such property is damaged during the course of construction of the Project, the Contractor shall restore, or make arrangements to have restored, any and all of such damaged property immediately to as good a state as before such damage occurred. All costs associated with the repair or restoration of any damaged property shall be the responsibility of the Contractor, unless prior arrangements or agreements have been made in accordance with Article 3.2, Existing Utilities. All fences, which are necessarily opened or moved during the construction of the Project, shall be replaced in as good condition as they were found. The Contractor shall be responsible for all loss of, or damage to, property, whether on or off the right-of-way, caused by the construction of the Project.

The Project, from the commencement of Work to acceptance or termination by the Owner, shall be under the charge and control of the Contractor. During such period of control by the Contractor, all risks in connection with the construction of the Project and the materials to be used therein shall be borne by the Contractor. The Contractor shall make good and fully repair all injuries and damages to the Project or any portion thereof under the control of the Contractor, by reason of any act of God, or other casualty or cause, whether or not the same shall have occurred by reasons of the Contractor's negligence.

3.4 - OBSERVATION AND TESTING

All Work performed and all material and equipment furnished by the Contractor shall strictly conform to the Contract Documents. Competent labor, mechanics, and tradesmen shall be used on all Work.

The acceptance at any time of the materials by or in behalf of the Owner shall not bar the Owner from future rejection if they are subsequently found to be defective or inferior in quality or uniformity to the material specified.

Whenever any material shall be rejected by the Engineer or Owner, such material shall be removed at once from the line of Work at the Contractor's expense, and shall not be brought back. Work rejected by the Engineer or Owner shall be replaced with approved Work at the expense of the Contractor.

The Engineer shall have the right to observe and witness routine testing of all Work and materials covered by the Specifications. He shall have the right to approve the manner in which special or requested tests are conducted.

The Contractor shall be required to perform all of the testing required by the Contract Documents and to furnish material certificates for quality assurance on all materials furnished, as specified in the Contract Documents.

The Contractor shall be required to pay for all tests and other related documents and information required to be performed or submitted by the Contract Documents. The number of tests for each of the several parts of the Work shall be as stated in the Contract Documents. Results of all tests and material certificates shall be submitted to the Engineer on a timely basis. The Contractor shall also be responsible for the cost of any retesting by coring of hardened concrete required because of failure of original tests. No separate payment will be made to the Contractor for such testing, as such costs shall be considered subsidiary to Work for which payment is made. All tests required to be performed by the Specifications shall be performed by an approved independent testing laboratory, and the costs thereof shall be paid by the Contractor unless otherwise specifically stated in the Project Manual.

The Contractor shall furnish, at his own expense, such materials and facilities as the Engineer may reasonably require for the purpose of project observation. This shall not include the expense of the

Engineer's representative. Work rejected by the Engineer shall be replaced with approved Work at the expense of the Contractor.

Any inspection, tests, or approval of waiver of test shall not in any way relieve the Contractor of full responsibility for furnishing apparatus, equipment, and all materials meeting the guaranteed performance and requirements of the Contract.

The Contractor shall obtain a testing laboratory and pay for soil investigation and tests, including soil proctors and density tests, to demonstrate compliance with the specification requirements. In order to verify compaction requirements of the backfill for sidewalk and step construction, the Contractor shall obtain a testing laboratory and pay for the furnishing of at least one proctor curve for the Project. Proctor curves shall be furnished for the soil profiles encountered on the Project and borrow sites. Contractor shall hire a soils laboratory approved by the Engineer, to perform all in-place compaction tests, in accordance with the following schedule:

Sidewalks Subgrade	1 per 500 Sq. Ft., or less
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Compaction test locations shall vary in horizontal reference to the Project centerline. Testing depths and locations shall be noted on the reports. The Contractor shall have the materials testing laboratory establish the optimum moisture content, range, and maximum dry density before beginning any tests for compaction. The contact name, telephone number, cellular phone number, and address of the testing laboratory and copies of all information shall be provided to the Engineer. The proctors and all in-place compaction tests shall be signed by a professional Engineer of the State of Nebraska prior to submittal. All costs associated with materials testing, as specified in this Project Manual, shall be the responsibility of the Contractor. In addition, the costs associated with all of the required submittal data and information shall also be the responsibility of the Contractor.

The Contractor shall give the Engineer 24 hours' notice before any segment is ready for testing so that the Engineer or his representative may be present to observe and select the test location. Approval of pay requests are subject to receipt of all testing information; thus, the Contractor shall coordinate his work accordingly.

3.5 - TIME OF COMPLETION AND LIQUIDATED DAMAGES

The Owner would like to have the Work completed in the spring and summer of the 2021 construction season. Any project started shall be completed, including final grading, backfill, and cleanup prior to September 1, 2021.

Construction time will be figured in calendar days rather than working days. The Contractor shall state, on the Bid, his anticipated starting date and the anticipated completion date for construction of the Work. The Contractor shall note that his anticipated starting and completion dates, as stated in the Bid, will be given consideration in both the award of this Contract and the issuance of the Notice to Proceed. The award shall be made to the responsible Bidder(s) whose Bid is the most advantageous to the Owner, price and other factors considered. A Notice to Proceed will be issued based on the time of completion as indicated by the Contractor on his Bid.

The Contract time may be extended by the Owner in an amount equal to the time lost due to delays beyond the control of the Contractor, if he makes a claim, therefore, in accordance with the Standard General Conditions. Such delays shall include fire, flood, labor strikes, epidemics, or acts of God. No extension of time will be given for abnormal weather conditions, other than as specifically designated in the preceding sentence, or for subsoil conditions, unless requested in writing by the Contractor and agreed to by the Owner.

The parties hereby agree that damages occasioned the Owner by the Contractor's failure to complete the Work within the Contract time are difficult to measure. Therefore, failure of the Contractor to complete all Work under this Contract, as required herein above, shall result in the Contractor paying the Owner the following amounts per calendar day as agreed-upon liquidated damages accrued by the Owner as a result of not having 100 percent use of the facilities, and for administrative costs, professional services, and other overheads:

Upon Substantial Completion	\$750
Professional Engineering Services (Basic)	<u>\$750</u>
Total Liquidated Damages per Calendar Day	<u>\$1,500</u>

Said payment of liquidated damages at the daily rate stated above shall continue until all Work is satisfactorily completed, as specified, and so determined by the Engineer. The Owner shall have the right to collect the above-described liquidated damages by deducting said amounts from funds payable to the Contractor, or by such other means as are available. In addition to the above liquidated damages for delay in performance, the Owner reserves all rights and remedies he may have against the Contractor for breach of Contract.

Basic professional engineering services include, but are not limited to, random construction observation, restaking, material testing, system testing, progress review meetings, and preparation of pay request forms.

3.6 - APPLICABLE CODES, REGULATIONS, AND WORKMANSHIP

All Work shall conform to the requirements of all national, state, and local laws, ordinances, building codes, or other regulations that are in effect at the place of Work. Workmanship shall be of the best known to the trades. No makeshifts will be permitted anywhere in the Work. Whenever any Work is rejected by the Engineer, such rejected Work shall be removed at once from the Project and shall be replaced with Work conforming to the requirements of the Contract Documents.

3.7 - STORAGE OF MATERIALS AND EQUIPMENT

Limited storage space for materials and equipment will be available at the Site. The Contractor shall store materials and equipment in a manner which will preserve quality and fitness. Storage areas shall be subject to approval of the Owner and Engineer.

3.8 - CONSTRUCTION FACILITIES BY CONTRACTOR

The Contractor shall provide and maintain suitable sanitary facilities for construction personnel for duration of Work, and remove upon completion of Work. The Contractor shall provide fence, barricades, and/or watchmen to prevent access of unauthorized persons to the Site where Work is in progress. The Contractor shall remove all construction facilities upon completion of Work, and clean up areas disturbed by construction to a machine finish.

3.9 - SAFETY REQUIREMENTS

The Contractor shall be solely and exclusively responsible for providing temporary ladders, guard rails, shoring, bracing, dewatering, if required, warning signs, night lights, and other safeguards desirable or required, and shall comply with all federal, state, and municipal safety requirements. The Contractor shall be responsible for protecting the Work and stored materials until completion and acceptance of the Work by the Owner. It shall be the sole and exclusive responsibility of the Contractor to provide a safe place to work for all laborers, mechanics, and other persons employed on, or in connection with, the Project, and nothing in these Contract Documents shall be construed to give any of such responsibility to the Owner or the Engineer.

The Contractor shall, in accordance with the above and at his own expense, erect suitable barriers around all excavations, obstructions, or dangerous areas, and shall place and maintain sufficient lighting during the night for this purpose on or near the Work. The Contractor will, at all times, until its completion and final acceptance, protect his Work, apparatus, and material from accidental or other damage and shall make good any damages thus occurring at his own expense.

The Contractor will be held solely responsible for the safety, proper construction, and perfection of the entire Work, until the same has been finally accepted and paid for by the Owner. The Contractor shall be solely responsible for conducting his Work in compliance with the latest requirements of the "Occupational Safety and Health Act," the Nebraska State Department of Labor and Safety, and requirements of such other agencies that have jurisdiction over such operations. The Engineer shall

not be responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work. He shall not be responsible for the Contractor's failure to carry out the Work in accordance with the requirements of the Contract.

3.10 - SHOP DRAWINGS

Shop drawings shall be submitted in sufficient number of copies to provide the Engineer with three copies and as many extra copies as may be desired by the Contractor, his Subcontractors, and/or suppliers. In no case shall the number of copies submitted be less than five. Each submittal shall include a letter of transmittal, the form of which shall be provided for reproduction by the Contractor. Each transmittal shall be numbered consecutively in the space provided for "Transmittal No." This number will form a serial number for identifying each submittal. If initial submittal, indicate by checkmark; if resubmittal, indicate by inserting number of the previous submission of the same item. Where shop drawings consist of special drawings prepared by the Contractor, his Subcontractor, or suppliers, one reproducible paper sepiia copy, and one print thereof may be submitted to the Engineer in lieu of the several copies specified above. The Contractor shall furnish additional copies of final corrected shop drawings upon request.

Shop drawings submittals shall include, but not be limited to:

Paving mix designs, aggregates, admixtures, certifications, curing and related items;
Handrails, ADA detectable panels.

3.11 - MODIFIED DRAWINGS

The Contractor shall maintain, at the construction Site, one complete set of Drawings suitably marked to show all deviations from the original set of Drawings and other information, as specified. Supplementary sketches shall be included, if necessary, to clearly indicate all Work as constructed. All Work shall be clearly shown and the modified Drawings shall be satisfactory to the Engineer in order to ensure that adequate information is indicated to show the actual construction. One complete set of the modified Drawings shall be furnished to the Engineer, prior to submittal of the final Application for Payment. Failure of the Contractor to maintain an up-to-date set of modified Drawings on the Project Site shall be reason to withhold payments. All underground lines shall be referenced to surface landmarks so the exact location can be determined from the record drawings.

3.12 - INCIDENTAL WORK

All items and Work necessary to construct the Project in accordance with the Contract Documents, not called out on the Bid, such as, but not limited to, removal and replacement of street signs, mail boxes, fences, steel and concrete posts, and gravel resurfacing are considered incidental to the Contract price; unless noted or shown as a bid item and the Contractor shall adjust his Bid accordingly.

3.13 - MOBILIZATION

This Work shall consist of preparatory work and operations, including, but not limited to, those necessary for the movement of personnel, equipment, supplies, and incidentals to the Project Site; and for all other work and operations which must be performed or costs incurred before beginning Work at the Project Site.

The Contractor must include all costs that he/she expects to incur for all movements of his/her equipment and personnel. Additional payments will not be made should the Contractor elect to move his/her equipment and/or crew to another Project Site before the Contracted Work is complete or if the Contractor fails to adequately assess the actual cost of mobilization for the Contracted Work.

3.14 - FUNCTION OF COMPLETED PROJECT

The intent of the Contract Documents is to provide a Project that is complete without additional Work being performed thereon. It will be the Contractor's obligation to provide such a Project and to complete all grading, backfilling, raking, repairs, and associated work prior to the final acceptance.

3.15 - ONE-YEAR CORRECTION PERIOD

If, after approval of final payment, and prior to the expiration of one year after the date of substantial completion, or such longer period of time as may be prescribed by law or by the terms of any applicable special guarantee required by the Contract Documents, any Work is found to be defective, the Contractor will promptly, without cost to the Owner and in accordance with the Owner's written instructions, either correct such defective Work, or if any Work has been rejected by the Owner, remove it from the Site and replace it with non-defective Work.

It shall be the duty of the Contractor to notify the Owner, in writing, within 30 days prior to the expiration of the one-year period to make the final observation of the Work. Unless the Contractor shall furnish such notices, the obligation to maintain the Work shall continue in force until such notices have been furnished, the Work observed, and any required corrections made.

3.16 - ELEVENTH-MONTH OBSERVATION

It shall be the duty of the Contractor to notify the Owner and Engineer, in writing, of the expiration of 11 months from the date of completion or final acceptance of the Project, in order that an observation of the Work can be conducted.

At the time of the 11th-month observation, if there is any Work found to be defective, the Contractor will promptly, without cost to the Owner and with the Owner's written instructions, either correct such deficient Work; or if any Work has been rejected by the Owner, remove it from the Site and replace it with non-deficient Work.

Unless the Contractor shall furnish such notices, the obligation to conduct this observation shall continue, in force, until such notices have been furnished, the Work observed, and required corrections made.

3.17 - COORDINATION WITH OTHER CONTRACTORS

The progress of the Work may be affected by coordination of other Work being performed by the Owner or other Contractor in this Project area or adjacent to this Project area, and the Contractor shall investigate such a possibility and make allowances therefore. Should the Contractor sustain any damage through any act or omission of any other Contractor having a contract with the Owner, the Contractor shall have no claim against the Owner for such damage, but shall have a right of action against the other Contractor to recover the damages sustained by reason of the acts or omissions of such Contractor.

If, through acts of neglect on the part of the Contractor, any other Contractor or any Subcontractor shall suffer loss or damage on their Work, the Contractor agrees to settle with such other Contractor or Subcontractor by agreement or arbitration, if such other Contractor or Subcontractor will so settle. If such other Contractor or Subcontractor sues the Owner and/or Engineer on account of any damage alleged to have been so sustained, the Owner and/or Engineer shall notify the Contractor, who shall defend and hold harmless the Owner and the Engineer at such proceedings, at the Contractor's expense. If any judgment against the Owner and/or Engineer arises therefrom, the Contractor shall pay or satisfy it, including all attorneys' fees and court costs which may accrue against the Owner and/or the Engineer.

3.18 - PROJECT SCHEDULING

It will be the responsibility of the Contractor(s) of this Project to coordinate construction schedules.

3.19 - AWARD OF CONTRACT

The Contractor shall note that the Owner reserves the right to award the contract to the Bidder(s) whose Bid is the most advantageous to the Owner, based on the total aggregate bid for the Work, start date, completion date, length of construction time, materials, and past performance on contracts with the Owner.

The Owner reserves the right to award any combination of bids, alternates, substitutions, and/or additions, if any.

3.20 - VEHICLE AND PEDESTRIAN CONTROL/HIGHWAY

The Contractor is responsible for providing barricades, signs, and lights for vehicle and pedestrian control for the project site. The contractor will also be required to comply with the NDOT requirements for signing and barricades for work adjacent to the Highway right-of-way.

3.21 - ACCESS TO BUSINESS DURING CONSTRUCTION

Contractor shall note that Project 3 is within the Business District. Contractor shall maintain access to businesses during construction by providing temporary walks with wood and plywood as needed.

The Contractor will work with the businesses to minimize the loss of access as much as possible during the construction. The Contractor will coordinate with the business owners so that deliveries and customer patronage can continue during the construction.

3.22 - SWPPP/BMP

A SWPPP is not required for the project since it is less than 1 acre in size. However, the Contractor shall still use BMP's to prevent sediments and construction materials from entering the storm sewer system.

The Contractor shall use silt fencing and other approved methods contained in the SWPPP to prevent sediments from entering the storm sewer system. The use of gutter buddies or other approved materials will be required on inlets downstream from the construction to prevent sediment from entering the storm sewer system.

Inlets and open storm sewer pipes shall be protected from sediment intrusion during construction until the project has been completed.

3.23 - CLEANUP

At the completion of the Project, the Contractor shall remove all debris resulting from his construction Work on the Project, including the removal of all concrete, excess dirt, and other materials, leaving the Project Site in the same or better condition than existed prior to construction.

ARTICLE 4
REMOVALS, EARTHWORK, AND SOD
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ARTICLE 4

REMOVALS, EARTHWORK, AND SOD

4.0 - GENERAL

These Specifications are intended to cover the erosion and sediment control, NPDES Construction Site Permit applications, SWPPP, excavation, embankment/fill, general clearing and grubbing, seed/sod, and related work as shown on the Drawings. Additional earthwork requirements are stated in other articles of this Project Manual. The Contractor shall furnish all labor, tools, material, and equipment to perform the Work specified in this article.

All Specifications included in this Project Manual shall govern, except where special notations have been made on the Drawings or in the General Requirements, which shall have precedence, since these construction Specifications are general in nature and will not cover special structures or unusual conditions.

4.1 - NPDES CONSTRUCTION SITE GENERAL PERMIT

An NPDES and SWPPP is not required for this project since the area disturbed is less than 1.0 acre. The CONTRACTOR is required to use Best Management Practices (BMP) to prevent sediment and construction debris from entering the storm sewer system. The CONTRACTOR will use silt fencing at the entrances of any exposed storm sewer pipes in the fill and seeding areas to prevent sediment from entering the storm sewer system. The CONTRACTOR will also use gutter buddies or other approved devices to protect storm inlets from sediment intrusion during construction.

4.2 - CLEARING AND GRUBBING

4.2.1 - Scope

The Work shall consist of the clearing and grubbing of designated areas by removal and disposal of trees, snags, logs, stumps, shrubs, large rocks, and rubbish.

4.2.2 - Removal

All trees, snags, logs, brush, stumps, shrubs, large rocks, and rubbish shall be removed from within the construction limits of the Project area. Unless otherwise specified, all stumps, roots, and root clusters having a diameter of one-inch or larger shall be grubbed out.

4.2.3 - Disposal

Unless otherwise specified, all materials removed from the cleared and grubbed areas shall be disposed of at a state-approved disposal facility or other approved site. Stumps shall be removed and properly disposed of by the Contractor.

4.2.4 - Measurement and Payment

For items of Work for which specific lump sum prices are established in the Contract, payment for clearing, final grading and backfill, and grubbing, will be made at the Contract lump sum prices. Such payment shall constitute full compensation for all labor, equipment, tools, and all other items necessary and incidental to completion of the Work.

Compensation for any item of Work described in the Contract but not listed in the Bid Schedule will be considered incidental to the construction of the Project.

4.2.5 - Items of Work and Construction Details

Items of Work to be performed in conformance with this Specification and the construction details therefore are:

- a. This item shall consist of the clearing and grading of the construction area or areas as indicated on the Drawings.
- b. Any indications on the Drawings of the number or size of trees, bushes, and stumps to be removed are estimates only.

The Contractor shall not be allowed any additional compensation for removing more or larger trees than may be indicated on the Drawings. The Contractor shall make his own determination as to the extent of tree removal, clearing, and final grading required within the Project limits in preparing his lump sum bids for clearing and final grading and backfill.

- c. All trees and residue as indicated on the Drawings shall be removed and disposed of prior to the construction of the earthwork.
- d. The preferred method of disposal of trees and residue shall consist of placement in a state approved tree disposal area of a landfill. Disposal by burning will be approved when other means are not possible, and only when in compliance with state or local fire and air pollution laws and regulations.

4.3 - STRIPPING AND TOPSOIL USAGE

4.3.1 - Scope

The Work shall consist of stripping the top one foot of topsoil from all vegetative areas that are set to receive compacted fill. The material that is stripped shall be stockpiled, and will be allowed to be used in the back slopes and other areas not to receive paving or utility work. Objectionable or unsuitable materials which are encountered during the excavation shall be removed from the Project Site.

4.3.2 - Proof-rolling

Following the stripping of the topsoil, all areas which are set to receive paving or utility construction shall be proof-rolled. Any soft or unstable areas shall be overexcavated and recompacted. Refer to Article 8.2 for further paving subgrade requirements

4.4 - EARTHEN EXCAVATION AND EMBANKMENT/FILL

The Contractor shall construct all excavation and embankment/fill shown on the Drawings in accordance with the Specifications. The Contractor shall make any auxiliary investigations of the Site soil and groundwater conditions necessary to accomplish the excavation and embankment/fill, and the means and construction methods necessary to accomplish this Work.

It shall be the Contractor's responsibility to compute and verify the quantity of material to be excavated, hauled, transported, and placed for embankment/fill or stockpiling as required for the Project and as shown on the Drawings, and incorporate the cost of said Work in his Bid for the respective Bid item. No additional payment will be made for more or less material handled, nor for Site or saturated soil conditions that may or may not hamper the Contractor's means or methods of excavation and embankment/fill.

Earthen material for use in the paving subgrade and other fill areas shall be obtained from a Contractor located and tested borrow site(s). The Contractor shall be responsible for all testing of the borrow site(s). Embankments/fills shall be constructed with non-frozen materials. Fill shall not be placed in sub-freezing temperatures without the expressed approval of the geotechnical engineer. All loose frozen material shall be removed from the site each day before any additional fill is placed on the site.

Excess excavation is the property of the Owner and shall be stockpiled at a city site as directed by the owner. Provide compaction testing of placed fill for every 1000 Sq. Ft. per 12-inch lift.

4.4.1 - Placing of Embankment/Fill

The earthen embankment/fill shall be placed in six-inch lifts and compacted in accordance with the paving subgrade requirements in the Specifications.

The Contractor will be required to complete all testing as called out in Article 8.2.2 of this Project Manual. It shall be noted that the Engineer will require the tests to be completed at various depths and locations throughout the Project.

4.5 - WATER FOR EMBANKMENT/FILL

The addition of water may or may not be required to obtain compaction. Water shall be provided by the Contractor. The Contractor must coordinate with the owner any use of city owned and operated water systems and water prior to any usage, and pay any costs for water to the city.

4.6 - AIR QUALITY AND DUST POLLUTION CONTROL

Dust control and air quality at the property boundary shall meet all federal, state, and local guidelines. The Contractor shall water down the Site to reduce dust, which may cause health or other safety concerns. The Contractor shall be responsible for providing the dust control when needed or at the Engineer's request.

4.7 - ENVIRONMENTAL PROTECTION AND CONTROLS

The Contractor shall minimize the pollution of air, water, or land; and shall control noise, the disposal of solid waste materials, and protection of deposits of historical or archaeological interest.

The Contractor shall plan and execute earthwork in a manner to minimize duration of exposure of unprotected soils. Erosion and sediment control shall be placed as necessary from rough grading to final paving and landscaping or longer as required. Construction entrances shall be properly rocked to reduce tracking of sediment onto public or private roadways.

Dust control shall include reasonable measures, such as frequent road cleaning, application of water, or application of chemical dust suppressants, to prevent particulate matter from becoming airborne so that it remains visible beyond the limits of construction. The Engineer/Owner will determine the effectiveness of the dust control program and may request the Contractor to provide additional measures at no additional cost to the Owner.

4.8 - SOD

All grassed areas disturbed by construction shall be re-sodded. Sod shall be a blue grass or other approved mixture by the City.

Areas to receive sod shall be loosened and the final grade set two-inches below walks and drives.

Fertilizer for new sod shall be 18-18-18 mixture or as recommended by the supplier.

Sod including fertilizer shall be paid for on a square foot basis as show on the bid.

ARTICLE 5

P.C. CONCRETE CONSTRUCTION, NDOT 47BD-4000

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ARTICLE 5

P.C. CONCRETE WALK/STEP CONSTRUCTION, NDOT 47BD-4000 - (SLAG)

5.0 - DESCRIPTION OF THE WORK

The Work covered by this section of the Project Manual consists of furnishing all labor, equipment, materials, and performing all operations in connection with the excavations, grading, preparation of subgrade, and construction of air-entrained Portland Cement concrete in strict accordance with this section of the Specifications and the applicable Drawings.

5.1 - EXCAVATION AND EMBANKMENT

Excavation and embankment of every description, and of whatever substance encountered within the limits of this Project, shall be performed to the lines and grades indicated on the Drawings, or as directed by the Owner/Engineer. Except as otherwise permitted by the Engineer, all excavated areas shall be excavated in such a manner as would afford adequate drainage. No excavation material shall be considered to be property of the Contractor.

5.2 - SUBGRADE

The bottom of the excavation for the walk shall be known as the subgrade and shall conform to the lines, grade, and cross section shown on the Drawings for Projects 1 and 2. Project 3 concrete shall be placed on existing concrete with a bond breaker material installed.

All soft and yielding material, and other portions of the subgrade which will not compact readily when rolled or tamped, shall be removed as directed and replaced with suitable materials placed and compacted as specified herein.

The subgrade shall have uniform density and be compacted at, or slightly above, the optimum moisture content. The subgrade shall be thoroughly compacted with suitable equipment. The subgrade shall be finished in an acceptable condition at least one day in advance of the walk construction.

Concrete shall not be placed upon a soft, spongy or frozen subgrade, or other subgrade, the stability of which is, in the opinion of the Engineer, unsuitable for the placement of concrete.

The subgrade shall be in a moist condition at the time any concrete is placed. It shall be thoroughly wetted a sufficient time in advance of the placing of the concrete to insure that there will be no puddles or pockets of mud when the concrete is placed, but shall not be allowed to dry out before the concrete is placed.

Immediately prior to the placing of concrete, the subgrade shall be tested for conformity with the cross section shown on the Drawings, by means of an approved template riding on the side forms, if available. If necessary, material shall be removed or added, as required, to bring all portions of the subgrade to the correct elevations. It shall then be thoroughly compacted and again tested with the template. Concrete shall not be placed on any portion of the subgrade which has not been tested for correct elevation. The subgrade should also be cleared of any loose material which may have fallen upon it.

5.2.1 - Subgrade Compaction Requirements

a. Sidewalks

The walk subgrade for cohesive soils with more than 10 percent passing the No. 200 sieve shall be compacted to a minimum of 95 percent, and not to exceed a maximum of 98 percent, of the maximum dry density of the standard proctor prior to the placement of any concrete. The maximum dry density and optimum moisture content of the subgrade shall be in accordance with ASTM D698, and in place density tests shall be in accordance with ASTM D2167, D2922, or D4564.

Non-cohesive soils with less than 10 percent passing the No. 200 sieve shall be compacted by an approved method to at least 90 percent relative density. The compaction standard to be utilized to determine the relative density is ASTM D4253 and D4254.

Crushed aggregate and earthen mixture shall be compacted to 95 percent of the maximum dry density of the standard proctor or 90 percent of relative density of the mixture as determined by ASTM D2049.

The Contractor shall adjust the moisture content of the subgrade to not more than three percent above, or three percent below, the optimum moisture content.

b. Fill and Side Slopes

The fill and side slopes shall be compacted to 90 percent maximum dry density for cohesive soils and 70 percent relative density for non-cohesive soils.

5.2.2 - Testing

The Contractor shall obtain a testing laboratory and pay for soil investigation and tests, including soil proctors and density tests, to demonstrate compliance with the specification requirements. In order to verify compaction requirements of the backfill for sanitary sewer and water trenches, and paving subgrade construction, the Contractor shall obtain a testing laboratory and pay for the furnishing of at least one proctor curve for the Project. Proctor curves shall be furnished for the soil profiles encountered on the Project and borrow sites. Contractor shall hire a soils laboratory approved by the Engineer, to perform all in-place compaction tests, in accordance with the following schedule:

Sidewalk	1 per 500-sq. ft., or portion thereof
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Compaction test locations shall vary in horizontal reference to the Project centerline. Testing locations shall be noted on the reports. The Contractor shall have the materials testing laboratory established the optimum moisture content, range, and maximum dry density before beginning any tests for compaction. The contact name, telephone number, cellular phone number, and address of the testing laboratory and copies of all information shall be provided to the Engineer. The proctors and all in-place compaction tests shall be signed by a professional Engineer of the State of Nebraska prior to submittal. All costs associated with materials testing, as specified in this Project Manual, shall be the responsibility of the Contractor. In addition, the costs associated with all of the required submittal data and information shall also be the responsibility of the Contractor.

The Contractor shall give the Engineer 24 hours notice before any segment is ready for testing so that the Engineer or his representative may be present to observe and select the test location. Approval of pay requests are subject to receipt of all testing information; thus, the Contractor shall coordinate his work accordingly.

Any inspection, tests, or approval of waiver of test shall not in any way relieve the Contractor of full responsibility for furnishing apparatus, equipment, and all materials meeting the guaranteed performance and requirements of the Contract.

5.2.3 – Finished Grade

After the subgrade has passed the density requirements, the Contractor shall trim the subgrade to the correct elevations and cross section as shown on the Drawings.

5.2.4 - Protection of Subgrade

The finished subgrade shall be maintained in a smooth and compacted condition until the concrete has been placed.

5.3 - GRADING

5.3.1 - Overexcavation

The Contractor shall overexcavate, scarify, mix, and recompact a minimum of 8-inches below the bottom of the finished slab elevation.

This Work is considered incidental and shall be included in the appropriate paving Bid item.

5.3.2 - Final Grading

Contractor shall grade and backfill behind the walk in a neat workmanlike manner. All excess concrete and debris shall be removed from the excavation before backfilling. Material used for backfilling shall be suitable for seeding and shall not contain broken concrete, organic material, etc.

The Contractor shall not move heavy equipment on the new concrete within one week of placement without permission of the Owner/Engineer.

Traffic signs, street signs, and other obstructions removed during construction shall be replaced as part of the final grading.

5.4 - MATERIALS

5.4.1 - Concrete

Concrete shall be composed of Portland Cement, aggregates, and water, and conform to the NDOT Standard Specifications for Highway Construction, 2017 Edition, Section 1002. Air entrainment shall be provided by the addition of an air-entraining agent to Portland Cement. These materials shall be furnished only from sources of supply approved by the Engineer before shipments are started. The basis for approval of such sources shall be the ability to produce materials of the quality and in the quantity required.

5.4.2 - Portland Cement

Portland cement shall conform to the requirements for Cement Type 1 or Cement Type I or Cement Type II in accordance with ASTM C150, Specification for Portland Cement including Table 2 (Maximum Equivalent Alkalies requirements only) and Table 3. When using Portland cement Type I or Type II it shall be combined with either Type "F" fly ash conforming to ASTM C618, Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete, unless otherwise pre-approved in writing by the Engineer or with Ground Granulated Blast Furnace Slag conforming to ASTM C989 Standard Specification for Slag Cement for Use in Concrete and Mortars. The maximum fly ash replacement shall be twenty-five percent (25%). The maximum slag cement replacement shall be forty percent (40%).

Blended hydraulic cements, Type IP or Type IS, shall conform to the requirements in accordance with ASTM C595, Standard Specification for Blended Hydraulic Cements. Type IP cement shall have a maximum Type "F" fly ash replacement of twenty-five percent (25%). Type IS cement shall have a maximum slag cement replacement of forty percent (40%).

All cements to be used in the City of Crete shall be on the Nebraska Department of Transportation (NDOT) Qualified Product List.

5.4.3 - Air-Entraining Agent

Air-entraining admixtures shall conform to the requirements of ASTM C260 and NDOT Standard Specifications for Highway Construction, 2017 Edition, Section 1007.

5.4.4 - Aggregates

All aggregates shall meet the NDOT Standard Specifications for Highway Construction, 2017 Edition, Section 1033. Gradation limits of final aggregate, Class B, shall meet Table 1033.02A; and coarse

aggregate, Class E, shall meet Table 1033.03A. Aggregates with adversely reactive constituents shall not be used.

The aggregate (both fine and coarse) shall be handled so that its moisture content and gradation is reasonably uniform and does not change appreciably from batch to batch or hour to hour.

No aggregates shall be used which have become mixed with foreign material while in storage. Frozen aggregates, or aggregates containing frozen lumps, shall be thawed before use.

5.4.5 - Water

Water used in mixing or curing concrete shall be clean and free from injurious amounts of oil, acids, salt, alkali, organic materials, or other substances harmful to concrete. Water for concrete shall meet NDOT Standard Specifications for Highway Construction, 2017 Edition, Section 1005. Water from public supplies, or which is suitable for drinking, is satisfactory.

5.4.6 - Reinforcing Steel

Reinforcing steel, if specified, shall be deformed Grade 60 billet steel and conform to the NDOT Standard Specifications for Highway Construction, 2017 Edition, Section 1020, and the latest ASTM Designations as follows:

Bars and rods	ASTM Designation A615
Steel wire fabric	ASTM Designation A185

5.4.7 - Approval of Concrete Mixes

Prior to construction, the Contractor shall submit and have tested by a reputable testing laboratory all materials proposed to be used under these Specifications. Results of the tests shall be submitted to the Engineer prior to placement. No material shall be used until it has been approved by the Engineer in writing. The Contractor shall acquire from the testing laboratory its recommended job mix and aggregate gradation curve, based on materials submitted, and submit them to the Engineer for approval prior to construction. The costs of these tests and job mix designs shall be borne by the Contractor. The Contractor shall furnish the Engineer with the ready-mix plant and aggregate source prior to construction.

Approval of pay requests are subject to receipt of this testing information.

5.5 - JOINTS

All joints shall be constructed and spaced as shown on the Drawings. Details of joints are included in the Drawings.

5.5.1 - Expansion Joints

Expansion joints for sidewalks shall be non-extruding, preformed joint fillers similar to Soneborn, Sonoflex F, foam expansion joint filler, or approved equal. Closed cell polyethylene foam backer rods may be utilized in sidewalk joint construction.

The top 1/2 inch shall be filled with sealing compound. Expansion joints shall be placed at locations noted on the Drawings. Expansion joints are considered incidental Work and shall be included in the appropriate paving Bid item.

5.5.2 - Contraction Joints or Construction Joints

Joints shall be either sawed or hand-tooled and cut using a straight edge and trowel while the concrete is still plastic. Joints shall be cut to a depth of 1/4 of the slab thickness and rounded and smoothed with a joint tool or edger. Joints that result in premature and uncontrolled cracking shall be revised immediately by adjusting the time interval between the placing of the concrete and the cutting of the joints. The street longitudinal and transverse joints shall be filled with sealing compound.

5.5.3 - Joint Sealing Compound

Sealing material for filling and leveling of all sidewalk expansion joints shall be Sika Corporation, Sikaflex-1C, self leveling, polyurethane elastomeric sealant, or approved equal. The sealant shall meet ASTM C920. The sealant shall dry in a concrete color, or as approved by the Owner and Engineer.

5.5.4 - Metal Supports

Metal chairs used to support tie bars or reinforcing bars shall be channel shaped, pressed out of sheet steel of not less than 12-gauge (U.S. STD.) metal, and conforming to details shown on the Drawings. Metal assembly used to support dowel bars shall be so constructed and of such strength that the bars shall be held in true alignment and plane at all times. Brick or concrete pieces will not be allowed as substitutes of metal supports.

5.5.5 - Materials for Curing Concrete

Curing compound shall be W.R. Meadows, Inc., Sealtight 1650 curing compound, or approved equal. The compound shall meet NDOT Standard Specifications for Highway Construction, 2017 Edition, Section 1010, ASTM C309, and AASHTO M 148. The Contractor shall use extreme care in placing of curing compound around buildings, signs, etc., and shall remove all excess curing from such locations.

5.6 - MIXING AND PLACING

5.6.1 - Batching

Measurement and batching of cement and aggregates shall be by weight on scales accurate to within one-half of one percent. One sack of cement shall be considered to weigh 94 pounds net. Bulk cement and cement from fractional sacks shall be weighed.

5.6.2 - Proportioning Concrete

Proportions of cement, water, and aggregates shall conform to the standard proportions for pavement concrete of the Nebraska Department of Transportation 47BD-4000.

All concrete shall be air-entrained and the volume of air in the freshly mixed concrete shall be obtained by using an air-entraining admixture. For a method of measuring air content see Section 5.6.10. Air-entrained concrete shall have a total air content of 6 to 8-1/2 percent by volume of the plastic concreting, including natural entrained air found in Portland Cement.

a. 47BD-4000

The minimum cement and fly ash content shall not be less than six sacks (94 pounds per sack) per cubic yard of concrete. The maximum fly ash content shall be 98 pounds. The maximum size aggregate shall not exceed 1/4 of the slab thickness. The percent coarse aggregate to total aggregate shall be 30 percent, plus or minus 3 percent. The maximum water/cementitious ratio shall be 0.42. The Contractor is responsible to adjust the water/cementitious ratio so that the concrete supplied achieves the required compression strength without exceeding the maximum water/cementitious ratio. Compressive strengths shall be a minimum of 2800 psi at 7 days and 4000 psi at 28 days.

b. 47B-3500

The minimum cement and fly ash content shall not be less than six sacks (94 pounds per sack) per cubic yard of concrete. The maximum fly ash content shall be 98 pounds. The maximum size aggregate shall not exceed 1/4 of the slab thickness. The percent coarse aggregate to total aggregate shall be 30 percent, plus or minus 3 percent. The maximum water/cementitious ratio shall be 0.45. The Contractor is responsible to adjust the water/cementitious ratio so that the concrete supplied achieves the required compression

strength without exceeding the maximum water/cementitious ratio. Compressive strengths shall be a minimum of 2450 psi at 7 days and 3500 psi at 28 days.

c. BX-3000

Sidewalk concrete shall be NDOT Type BX-3000 P.C. concrete, and air-entrained by addition of an agent. Concrete shall be in accordance with NDOT Standard Specifications for Highway Construction, 2017 Edition. Portland Cement shall be in accordance with Section 1002, Portland Cement Section 1004, Water for Concrete Section 1005, Concrete Aggregate Section 1033, Fly Ash Section 1008, and Admixtures Section 1007 of the NDOT Standard Specifications for Highway Construction, 2017 Edition. The maximum water/cementitious ratio shall be 0.45, six-sack (94 pounds per sack), air content between 6 and 8.5 percent by volume, and slump between 1 and 3 inches. Compressive strengths shall be a minimum of 2,100 psi at 7 days and 3,000 psi at 28 days.

5.6.3 - Compression Tests

Compression test specimens shall be made in the field, as required by the Engineer and in accordance with ASTM Designation C31 and cured in accordance with AASHTO T 23. When tested in accordance with ASTM C39 and AASHTO T 22.

There shall be a minimum of three cylinders taken each day that concrete is placed up to 500 square yards in which an additional three cylinders shall be taken for each additional 500 square yards placed. Cylinders shall be taken on the first load and be clearly marked as to location and Project. Cylinders shall be made in accordance with ACI and NDOT Specifications. One cylinder shall be broken at 7 days, the second at 28 days, and the third as a spare for retest.

All compression tests shall indicate location of pavement poured for this section utilizing street names and stationing on the Drawings. All compression test results shall be signed by a professional Engineer of the State of Nebraska.

Approval of pay requests is subject to receipt and acceptance of all testing information. Tests shall be paid for by the Contractor.

5.6.4 - Consistency

The slump of the concrete shall be from one to three inches. The consistency shall be measured as described in the current ASTM Standard Method of Slump Test for Consistency of Portland Cement Concrete (Designation C143), or the method of test for ball penetration for Portland Cement Concrete, ASTM Designation 360.

5.6.5 - Workability

Concrete shall at all times be of such consistency that it can be worked into corners and angles of the forms and around joints, dowels, and tie bars by the construction methods used, without excessive spading, segregation, or undue water or laitance on the surface.

5.6.6 - Job-Mixed Concrete

Job-mixed concrete shall be mixed in a drum mixer, which shall conform to the concrete paving mixer standards of the Mixer Manufacturers Bureau of the Associated General Contractors of America. The mixer shall be capable of combining the aggregates, cement, and water into a thoroughly mixed and uniform mass within the specified time, and of discharging the material without segregation. The entire contents of the drum shall be discharged before recharging. The volume of the mixed materials per batch shall not exceed the manufacturer's guaranteed capacity (110 percent of rated capacity) of the mixer. The mixer shall be equipped with an automatic dispensing device, which will inject the required amount of air-entraining admixture into each batch of concrete.

5.6.7 - Time of Mixing

The mixing of each batch shall continue for not less than one minute after all materials, except water, are in the mixer. All mixing water shall be introduced in the drum before 1/4 of the mixing time has elapsed.

The mixer shall rotate at the rate recommended by its manufacturer. The mixer shall be provided with a batch timing device which shall be subject to inspection and adjustment by the Engineer at any time.

5.6.8 - Ready-Mixed Concrete

Ready-mixed concrete shall be mixed and transported in accordance with the current ASTM Specification for Ready-Mixed Concrete (Designation C94). Any concrete which is not plastic and workable without adding water when it reaches the subgrade shall be rejected.

5.6.9 - Remixing

Concrete or mortar that has stiffened but not set may be used after mixing, if it is plastic enough to be compacted in the forms. Water must not be added at time of remixing.

5.6.10 - Measuring of Air Content

The air content of freshly mixed air-entrained concrete shall be checked at least three times daily. Concrete with air contents above or below the amount specified in Section 5.6.2 shall be corrected by adjustments in the mix design or quantities of air-entraining admixture being used.

The air content shall be measured in accordance with NDOT T121 or T152 and ASTM C231 or ASTM C173.

5.7 - FORMS AND EQUIPMENT

5.7.1 - Forms

Forms shall be made of metal or wood and shall have a depth equal to, or greater than, the prescribed edge thickness of the pavement slab. The minimum length of each section of form used shall be 10 feet. Each section of form shall be straight, clean, and free from bends or warps. The maximum deviation of the top surface of any section shall not exceed 1/8 inch, or the inside face not more than 1/4 inch from a straight line. The method of connection between sections shall be such that the joint thus formed shall be free from movement in any direction. Forms shall be of such cross section and strength and so secured as to resist the pressure of the concrete when placed, and the impact and vibration of any equipment which they support, without springing or settlement.

Each 10-foot length of form shall have at least 3 form braces and pin sockets, which shall be spaced at intervals of not more than 5 feet, having the end brace and socket not more than 6 inches from the end of the form, and shall have an adequate locking device. Approved flexible forms shall be used for construction where the radius is 150 feet or less.

5.7.2 - Setting Forms

The subgrade under the forms shall be compacted and cut to grade so that the form, when set, will be uniformly supported for its entire length at the specified elevation. Forms shall be jointed neatly and in such a manner that the joints are free from play or movement in any direction. Forms shall be set, as herein specified, for at least one day's construction ahead of the actual placing of the concrete. The supply of forms shall be sufficient to permit their remaining in place for at least 12 hours after the concrete has been placed. All forms shall be cleaned and oiled each time they are used.

5.7.3 - Grade and Alignment

The concrete shall be mixed in quantities required for immediate use and shall be deposited on the subgrade to the required depth and width. The concrete shall be placed as uniformly as possible in order to minimize the amount of additional spreading necessary.

While being placed, the concrete shall be spaded or vibrated and compacted with suitable tools so that the formation of voids or honeycomb pockets is prevented. The concrete shall be especially well spaded or vibrated and tamped against the forms and along all joints.

No concrete shall be placed around manholes or other structures until they have been brought to the required grade and alignment.

5.7.4 - Cold Weather Concreting

Except by specific written authorization, concreting shall cease when the descending air temperature in the shade and away from artificial heat falls below 45 degrees F. It shall not be resumed until the ascending air temperature in the shade and away from artificial heat rises to 40 degrees F and with a favorable weather forecast.

5.8 - CONSOLIDATING AND FINISHING

The pavement shall be struck off and consolidated with hand finishing methods with a bull float, edging tools, and broom finish. If requested by the Engineer, the Contractor shall construct a minimum of three two-foot by two-foot concrete test panels with different finishes for the Owner to determine the type of desired finish. The test panel and finishing is considered incidental work and shall be located at an approved Site.

5.8.1 - Final Surface Finish

The final surface of the concrete and curb shall have a uniform broom finish. The Engineer may require changes in the final finishing procedure, as required, to produce the desired final surface texture.

5.9 - CURING

Concrete shall be cured by protecting it against loss of moisture, rapid temperature change, and from rain, flowing water, and mechanical injury for a period of not less than five days from the beginning of the curing operation. Moist curing, waterproof papers, white polyethylene sheeting, liquid membrane compounds, or a combination thereof, may be used for curing.

Immediately after the finishing operations have been completed, the entire surface shall be covered by the curing medium, which is applicable to local conditions and approved by the Engineer. The edge of the concrete slabs exposed by the removal of forms shall be protected immediately to provide these surfaces with continuous curing treatment equal to the method selected for curing the slab surface and to prevent injury to pavement edges.

The use of a covering material which contains or becomes contaminated with sugar in any form, tannic acid, or any other substances considered detrimental to Portland Cement will not be permitted.

The initial curing medium shall be effective and shall be applied so as to prevent checking, cracking, and the appearance of dry spots in the surface of the concrete. The Contractor shall have the equipment needed for adequate curing at hand and ready to install before actual concrete placement begins. In all cases in which the curing medium requires the use of water, the curing shall have a prior right to all water supply. Failure to provide sufficient cover material of the type selected, failure to maintain saturation for the entire curing period in the moist-curing methods, lack of water to adequately care for both curing and other requirements, or other failures to comply with requirements shall be cause for immediate suspension of concreting operations.

5.9.1 - Moist Curing

Moist curing shall be accomplished by covering of burlap, cotton mats, or other approved fabric mat used singly or in combination.

Curing mats shall be thoroughly wet when applied and kept continuously wet and in intimate contact with the pavement surface for the duration of the moist curing period. Other fabric mats shall conform in design and shall provide a curing medium at least equal to cotton mats. Cotton mats, other fabric mats, and burlap strips shall be furnished in the widths or lengths, after shrinkage, required to cover the entire width and edges of the pavement lane. Mats or burlaps shall be lapped at joints between adjacent sheets to prevent drying of this location. Moist curing, when used as initial curing, shall be continued for not less than 24 hours.

5.9.2 - Liquid Membrane Curing Compound

Pigmented liquid, non-bituminous membrane curing compound shall meet the Specifications under Section 5.5.5. The curing compound must be applied to cover the surface completely and uniformly at a rate which will achieve the performance requirement specified in AASHTO Specifications M 148, Type 2. The minimum rate of coverage shall be one gallon for 20 square yards. This method of curing shall be applied immediately behind final finishing operation, or after the initial curing, when a combination of methods is used. Failure to provide complete and uniform coverage at the required rate will be cause for discontinuance of this method of curing and the substitution of one of the other approved methods. The compound shall be kept agitated to prevent the pigment from settling. Special care shall be taken to apply the curing compound to the pavement edges immediately after the forms have been removed. Curing compound shall not be allowed to enter or cover any sawed joint. Should this occur, the joint shall be resawed to remove all traces of the compound.

5.10 - HANDICAP RAMPS

All handicap ramps shall meet the latest requirements of the Americans with Disabilities Act and local ordinances. Handicap ramps shall be constructed at the locations and to the detail shown on the Drawings. Ramp width shall be as noted on the Drawings and shall not be less than four feet. Longitudinal slope shall not be steeper than 1 vertical to 12 horizontal, as noted on the Drawings or designated by the Engineer. The drop curb for handicap ramps shall be one-quarter inch per 12 inches or two percent maximum.

The concrete portion of the ramp and wings, as noted on the respective detail, shall be non-slip finished by doming or brooming as noted on the detail. Domes shall be 0.2 inch by 0.9 inch, and 2.35 inches apart, as shown on the detail. A non-uniform and unsightly dome and tining finish, as determined by the Engineer, is grounds for removal and replacement.

Domes shall be two-foot wide by width of ramp, brick red colored, precast vitrified epoxy polymer, precast foundry, stamped colored concrete, or pre-cast concrete. Polymer insert shall be ultraviolet stabilized coating, red detectable truncated dome unit similar to Armor-Tile specifications, section 09310. Armor-Tile is manufactured by Engineered Plastics, Inc., with URL: www.armor-tile.com.

Handicap ramp construction shall be included in the appropriate sidewalk paving Bid item.

5.11 - METHOD OF PAYMENT

The Contractor shall note that the units for removal of all paving are in square yards. The paving removal Bid item shall include all remaining surfaces such as concrete, asphalt, brick, and any combination thereof.

Method of payment for concrete sidewalks, drives and paving, is in square yards. Expansion joints, construction joints, sealant, curing, and subgrade shall be incidental and included in the concrete Bid item.

Steps shall be paid on a lump sum basis. Handrails shall be paid on a lump sum basis.

ARTICLE 6
ALUMINUM HANDRAILS
INDEX

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ARTICLE 6
ALUMINUM HANDRAILS

6.0 – GENERAL

6.0.1 – Summary

- a. Section Includes: Aluminum handrail.

6.0.2 – Definitions

- a. Railings: Guards, handrails, and similar devices used for protection of occupants at open-sided floor areas and for pedestrian guidance and support, visual separation, or wall protection.

6.0.3 – References

- a. ANSI/CABO A117.1 – American national Standard for Building and Facilities ; Providing Accessible and Usable Building and Facilities ; Council of American Building Officials.
- b. ASTM B 221 – Standard Specification for Aluminum and Aluminum – Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes.
- c. ASTM E 935 – Standard Test Methods for Performance of Permanent Metal Railing Systems and Rails for Building.
- d. ASTM E 985 – Specification for Permanent Metal Railing and Rails for Buildings.
- e. ASNI Z 07.1 – Glazing Material used in Building Safety Performance Specifications and method of test.
- f. ASTM E 894 – Anchorage of Permanent Metal Railing Systems and Rails for buildings.
- g. Section 1607.7 of 2018 International Building Code (IBC)
- h. AAMA – 2604-13 Voluntary, Performance Requirements and test procedures for high performance organic coatings on aluminum extrusions and panels.
- i. Americans with Disabilities Act Accessibility Guidelines (ADA).
- j. American Society for Testing and Materials (ASTM) E 935 - Standard Test Method for Performance of Permanent Metal Railing Systems and Rails for Buildings.
- k. American Society for Testing and Materials (ASTM) E 985 - Standard Specification for Permanent Metal Railing Systems and Rails for Buildings.
- l. AAMA – 2604-13 Voluntary, Performance Requirements and test procedures for high performance organic coatings on aluminum extrusions and panels.

6.0.4 – Performance Requirements

- a. Structural Requirements:

1. Hand Rail® systems performance meets or exceeds design loading specified in Chapter 16 of the IBC, Section R301 of IRC, and UBC Chapter 16.
 - b. Structural Performance: Comply with performance requirements specified, as determined by testing of manufacturer's aluminum railings representing those indicated for this Project without failure due to defective manufacture, fabrication, installation, or other defects in construction.
 - c. Structural Requirements: Engineer aluminum railings to withstand live and dead loads according to authorities having jurisdiction, applicable local building codes, and information indicated within limits and under conditions indicated, without material failure or permanent deformation of structural members.
1. Handrails:
 - a. Uniform Load: 50 lbf/lin ft applied in any direction.
 - b. Concentrated Load: 200 lbf applied in any direction.
 2. Load Assumption: Loads need not be assumed to act concurrently.

6.0.5 – Submittals

- a. Product Data: Manufacturer's technical literature for each product specified.
 1. Include preparation instructions and recommendations.
 2. Include storage and handling requirements and recommendations.
 3. Include manufacturer's installation instructions.
- b. Shop Drawings: Include plans, elevations, sections, and attachment details.
- c. Samples for Initial Selection: For products involving selection of color, texture, or design, including mechanical finishes.
- d. Samples for Verification: For each type of exposed finish required.
 1. 8" samples lineals.

6.0.6 – Quality Assurance

- a. Installer Qualifications: All products listed in this section should be installed by a single installer with a minimum of five years demonstrated experience in installing products of the same type and scope as specified.

6.1 – PRODUCTS

6.1.1 – Materials

- a. Aluminum Components:
 1. General: Provide aluminum free from pitting, seam marks, roller marks, stains, discolorations, and other imperfections where exposed to view on finished units.
 2. Aluminum: Alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated, and with not less than strength and

durability properties of alloy and temper designated below for each aluminum form required.

- a. Extruded Bar and Tube: ASTM B 221 (ASTM B 221 M), alloy 6063-T5/T52
- b. Extruded Structural Pipe and Tube: ASTM B 429, alloy 6063-T832.
- c. Plate and Sheet: ASTM B 209 (ASTM B 209M), alloy 6061-T6.
- d. Die and Hand Forgings: ASTM B247 (ASTM B 247 M), alloy 6061-T6.
- e. Castings: ASTM B 26/B 26M, alloy A356-T6.

b. Physical dimensions of aluminum railing components:

- 1. [As indicated on the Drawings].
- 2. Height: 36"
- 3. Rails: Circular shaped 1-1/2" in diameter.

6.1.2 – Finishes

a. Appearance of Finished Work:

- 1. Variations in appearance of abutting or adjacent units are acceptable if they are within one-half of the range of approved samples. Noticeable variations in the same unit are not acceptable.
- 2. Variations in appearance of other components are acceptable if they are within the range of approved samples and are assembled or installed to minimize contrast.

b. Finish Coating: Prepare, pre-treat, and apply coating to exposed aluminum surfaces to comply with manufacturer's written instructions.

- 1. Material: AAMA 2604 - Polyester powder coating, 3 mil average film thickness.
- 2. Colors: Satin Black.

6.2 – EXECUTION

6.2.1 – Installation, General

- a. Install Hand Rail in locations shown in compliance with manufacturer's written instructions. During installation, aluminum components shall be carefully handled and stored to avoid contact with abrasive surfaces. Install components in sequence as recommended by railing manufacturer.

6.2.2 – Cleaning

- a. Remove all traces of dirt and soiled areas.
- b. Clean by washing thoroughly with clean water and soap, rinsing with clean water, and wiping dry.

6.2.3 – Protection

- a. Protect railings from damage during construction period with temporary protective coverings. Remove protective coverings at time of Substantial Completion.
- b. Restore finishes damaged during installation and construction period so no evidence remains of correction work. Return items that cannot be refinished in the field.



From: [Tom Ourada](#)
To: [Judi Meyer](#); [Kyle Manley](#)
Subject: FW: Crete Walks
Date: Monday, November 30, 2020 10:50:03 AM

Tom Ourada | City Administrator
City of Crete | 243 East 13th Street | Crete, NE | 68333
Office: 402 826-4312 | Cell: 402 826-9758



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From: Keith Gilmore, Gilmore & Associates, Inc. <keithg@gilmore-engineering.com>
Sent: Friday, November 20, 2020 11:41 AM
To: Tom Ourada <tom.ourada@crete.ne.gov>
Subject: Crete Walks

Tom,

The breakdown for the sidewalk costs are as follows:

Project 1 (City office steps and walk) - \$50,000 There could be some savings if the City has someone onsite to observe the removal of the existing steps. If there is a good foundation beneath the steps, it would be possible to reuse the foundation and tie the new reinforcing steel to the existing reinforcing steel. If this is possible without damaging the foundation, we could negotiate the costs down.

Project 2 (Hickory Avenue) - \$50,000.

Project 3 (Business area border replacement) \$150,000.

The cost that I received for making the logo template is estimated at \$2750. I don't have the exact measurement of the existing logo square, but if it is a separate section that can be removed without damaging the surrounding concrete the cost would be around \$350 - \$400 per logo. I am assuming a 4x4 area for the logo.

Keith L. Gilmore, P.E.
GILMORE & ASSOCIATES, INC.
Engineers · Surveyors
P.O. Box 565
2670 33rd Avenue
Columbus, NE 68601

Phone: (402) 564-2807
Fax: (402) 564-2800
G&A #226.340

From: [Tom Ourada](#)
To: [Judi Meyer](#); [Kyle Manley](#)
Subject: FW: Preliminary Numbers
Date: Monday, November 30, 2020 10:53:03 AM
Attachments: [image001.png](#)
[SKM_C300i20112415550.pdf](#)

Tom Ourada | City Administrator
City of Crete | 243 East 13th Street | Crete, NE | 68333
Office: 402 826-4312 | Cell: 402 826-9758



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From: Keene, Scott <Scott.Keene@psc.com>
Sent: Tuesday, November 24, 2020 3:16 PM
To: Tom Ourada <tom.ourada@crete.ne.gov>; Jerry Wilcox <jerry.wilcox@crete.ne.gov>
Subject: Preliminary Numbers

Tom and Jerry – Attached please find the preliminary debt service analysis that we discussed for the electric substation project. Mike agrees that it could be done as a COPs financing. I have attached the analysis for the following four options using conservative, generic interest rates that are not specific to the credit of the City:

- 1) \$1.5 million contribution to project with 20 year repayment: \$98,140 average annual payment
- 2) \$1.5 million contribution to project with 15 year repayment: \$119,400 average annual payment
- 3) \$2.8 million contribution to project with 20 year repayment: \$181,700 average annual payment
- 4) \$2.8 million contribution to project with 15 year repayment: \$221,400 average annual payment.

I hope that this helps get the conversation started with the Council and again, I am happy to come to a meeting to help present this information. Thanks guys, and Happy Thanksgiving to both of you.

Scott

Scott Keene
Managing Director | Public Finance

Piper Sandler & Co.
2900 South 70th Street, Suite 310, Lincoln, NE 68506

Direct: 402-325-1199 and Cell: 402-440-7734

Scott.Keene@psc.com

As of September 28, 2020, I have a new office location and phone number. Please note as shown above.

PiperSandler.com

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CITY OF CRETE, NEBRASKA

CERTIFICATES OF PARTICIPATION, SERIES 2021
20 YEAR AMORTIZATION OF \$1.5 MILLION PROJECT
CONSERVATIVE GENERIC INTEREST RATES - 11/20/20

Sources & Uses

Dated 04/01/2021 | Delivered 04/01/2021

Sources Of Funds

Par Amount of Bonds	\$1,540,000.00
Total Sources	\$1,540,000.00

Uses Of Funds

Deposit to Project Construction Fund	1,500,000.00
Costs of Issuance	22,000.00
Total Underwriter's Discount (1.000%)	15,400.00
Rounding Amount	2,600.00
Total Uses	\$1,540,000.00

CITY OF CRETE, NEBRASKA**CERTIFICATES OF PARTICIPATION, SERIES 2021****20 YEAR AMORTIZATION OF \$1.5 MILLION PROJECT****CONSERVATIVE GENERIC INTEREST RATES - 11/20/20****Debt Service Schedule**

Date	Principal	Coupon	Interest	Total P+I	Fiscal Total
04/01/2021	-	-	-	-	-
10/01/2021	-	-	16,027.50	16,027.50	-
04/01/2022	65,000.00	1.000%	16,027.50	81,027.50	97,055.00
10/01/2022	-	-	15,702.50	15,702.50	-
04/01/2023	65,000.00	1.050%	15,702.50	80,702.50	96,405.00
10/01/2023	-	-	15,361.25	15,361.25	-
04/01/2024	65,000.00	1.100%	15,361.25	80,361.25	95,722.50
10/01/2024	-	-	15,003.75	15,003.75	-
04/01/2025	70,000.00	1.150%	15,003.75	85,003.75	100,007.50
10/01/2025	-	-	14,601.25	14,601.25	-
04/01/2026	70,000.00	1.200%	14,601.25	84,601.25	99,202.50
10/01/2026	-	-	14,181.25	14,181.25	-
04/01/2027	70,000.00	1.300%	14,181.25	84,181.25	98,362.50
10/01/2027	-	-	13,726.25	13,726.25	-
04/01/2028	70,000.00	1.450%	13,726.25	83,726.25	97,452.50
10/01/2028	-	-	13,218.75	13,218.75	-
04/01/2029	70,000.00	1.600%	13,218.75	83,218.75	96,437.50
10/01/2029	-	-	12,658.75	12,658.75	-
04/01/2030	75,000.00	1.750%	12,658.75	87,658.75	100,317.50
10/01/2030	-	-	12,002.50	12,002.50	-
04/01/2031	75,000.00	1.900%	12,002.50	87,002.50	99,005.00
10/01/2031	-	-	11,290.00	11,290.00	-
04/01/2032	75,000.00	2.000%	11,290.00	86,290.00	97,580.00
10/01/2032	-	-	10,540.00	10,540.00	-
04/01/2033	75,000.00	2.150%	10,540.00	85,540.00	96,080.00
10/01/2033	-	-	9,733.75	9,733.75	-
04/01/2034	80,000.00	2.300%	9,733.75	89,733.75	99,467.50
10/01/2034	-	-	8,813.75	8,813.75	-
04/01/2035	80,000.00	2.450%	8,813.75	88,813.75	97,627.50
10/01/2035	-	-	7,833.75	7,833.75	-
04/01/2036	85,000.00	2.550%	7,833.75	92,833.75	100,667.50
10/01/2036	-	-	6,750.00	6,750.00	-
04/01/2037	85,000.00	3.000%	6,750.00	91,750.00	98,500.00
10/01/2037	-	-	5,475.00	5,475.00	-
04/01/2038	85,000.00	3.000%	5,475.00	90,475.00	95,950.00
10/01/2038	-	-	4,200.00	4,200.00	-
04/01/2039	90,000.00	3.000%	4,200.00	94,200.00	98,400.00
10/01/2039	-	-	2,850.00	2,850.00	-
04/01/2040	95,000.00	3.000%	2,850.00	97,850.00	100,700.00
10/01/2040	-	-	1,425.00	1,425.00	-
04/01/2041	95,000.00	3.000%	1,425.00	96,425.00	97,850.00
Total	\$1,540,000.00	-	\$422,790.00	\$1,962,790.00	-

Yield Statistics

Bond Year Dollars	\$17,205.00
Average Life	11.172 Years
Average Coupon	2.4573670%
Net Interest Cost (NIC)	2.5468759%
True Interest Cost (TIC)	2.5297824%
Bond Yield for Arbitrage Purposes	2.4243285%
All Inclusive Cost (AIC)	2.6830614%

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Net Interest Cost	2.4573670%
Weighted Average Maturity	11.172 Years

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CITY OF CRETE, NEBRASKA

CERTIFICATES OF PARTICIPATION, SERIES 2021
15 YEAR AMORTIZATION OF \$1.5 MILLION PROJECT
CONSERVATIVE GENERIC INTEREST RATES - 11/20/20

Sources & Uses

Dated 04/01/2021 | Delivered 04/01/2021

Sources Of Funds

Par Amount of Bonds	\$1,540,000.00
Total Sources	\$1,540,000.00

Uses Of Funds

Deposit to Project Construction Fund	1,500,000.00
Costs of Issuance	22,000.00
Total Underwriter's Discount (1.000%)	15,400.00
Rounding Amount	2,600.00
Total Uses	\$1,540,000.00

CITY OF CRETE, NEBRASKA**CERTIFICATES OF PARTICIPATION, SERIES 2021****15 YEAR AMORTIZATION OF \$1.5 MILLION PROJECT****CONSERVATIVE GENERIC INTEREST RATES - 11/20/20****Debt Service Schedule**

Date	Principal	Coupon	Interest	Total P+I	Fiscal Total
04/01/2021	-	-	-	-	-
10/01/2021	-	-	13,076.25	13,076.25	-
04/01/2022	95,000.00	1.000%	13,076.25	108,076.25	121,152.50
10/01/2022	-	-	12,601.25	12,601.25	-
04/01/2023	95,000.00	1.050%	12,601.25	107,601.25	120,202.50
10/01/2023	-	-	12,102.50	12,102.50	-
04/01/2024	95,000.00	1.100%	12,102.50	107,102.50	119,205.00
10/01/2024	-	-	11,580.00	11,580.00	-
04/01/2025	95,000.00	1.150%	11,580.00	106,580.00	118,160.00
10/01/2025	-	-	11,033.75	11,033.75	-
04/01/2026	95,000.00	1.200%	11,033.75	106,033.75	117,067.50
10/01/2026	-	-	10,463.75	10,463.75	-
04/01/2027	100,000.00	1.300%	10,463.75	110,463.75	120,927.50
10/01/2027	-	-	9,813.75	9,813.75	-
04/01/2028	100,000.00	1.450%	9,813.75	109,813.75	119,627.50
10/01/2028	-	-	9,088.75	9,088.75	-
04/01/2029	100,000.00	1.600%	9,088.75	109,088.75	118,177.50
10/01/2029	-	-	8,288.75	8,288.75	-
04/01/2030	105,000.00	1.750%	8,288.75	113,288.75	121,577.50
10/01/2030	-	-	7,370.00	7,370.00	-
04/01/2031	105,000.00	1.900%	7,370.00	112,370.00	119,740.00
10/01/2031	-	-	6,372.50	6,372.50	-
04/01/2032	105,000.00	2.000%	6,372.50	111,372.50	117,745.00
10/01/2032	-	-	5,322.50	5,322.50	-
04/01/2033	110,000.00	2.150%	5,322.50	115,322.50	120,645.00
10/01/2033	-	-	4,140.00	4,140.00	-
04/01/2034	110,000.00	2.300%	4,140.00	114,140.00	118,280.00
10/01/2034	-	-	2,875.00	2,875.00	-
04/01/2035	115,000.00	2.450%	2,875.00	117,875.00	120,750.00
10/01/2035	-	-	1,466.25	1,466.25	-
04/01/2036	115,000.00	2.550%	1,466.25	116,466.25	117,932.50
Total	\$1,540,000.00	-	\$251,190.00	\$1,791,190.00	-

Yield Statistics

Bond Year Dollars	\$12,760.00
Average Life	8.286 Years
Average Coupon	1.9685737%
Net Interest Cost (NIC)	2.0892633%
True Interest Cost (TIC)	2.0867087%
Bond Yield for Arbitrage Purposes	1.9527850%
All Inclusive Cost (AIC)	2.2813331%

IRS Form 8038

Net Interest Cost	1.9685737%
Weighted Average Maturity	8.286 Years

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CITY OF CRETE, NEBRASKA

CERTIFICATES OF PARTICIPATION, SERIES 2021
20 YEAR AMORTIZATION OF \$2.8 MILLION PROJECT
CONSERVATIVE GENERIC INTEREST RATES - 11/20/20

Sources & Uses

Dated 04/01/2021 | Delivered 04/01/2021

Sources Of Funds

Par Amount of Bonds	\$2,855,000.00
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Total Sources	\$2,855,000.00
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Uses Of Funds

Deposit to Project Construction Fund	2,800,000.00
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Total Underwriter's Discount (1.000%)	28,550.00
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Costs of Issuance	22,000.00
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Rounding Amount	4,450.00
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Total Uses	\$2,855,000.00
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CITY OF CRETE, NEBRASKA**CERTIFICATES OF PARTICIPATION, SERIES 2021****20 YEAR AMORTIZATION OF \$2.8 MILLION PROJECT****CONSERVATIVE GENERIC INTEREST RATES - 11/20/20****Debt Service Schedule**

Date	Principal	Coupon	Interest	Total P+I	Fiscal Total
04/01/2021	-	-	-	-	-
10/01/2021	-	-	29,613.75	29,613.75	-
04/01/2022	125,000.00	1.000%	29,613.75	154,613.75	184,227.50
10/01/2022	-	-	28,988.75	28,988.75	-
04/01/2023	125,000.00	1.050%	28,988.75	153,988.75	182,977.50
10/01/2023	-	-	28,332.50	28,332.50	-
04/01/2024	125,000.00	1.100%	28,332.50	153,332.50	181,665.00
10/01/2024	-	-	27,645.00	27,645.00	-
04/01/2025	125,000.00	1.150%	27,645.00	152,645.00	180,290.00
10/01/2025	-	-	26,926.25	26,926.25	-
04/01/2026	130,000.00	1.200%	26,926.25	156,926.25	183,852.50
10/01/2026	-	-	26,146.25	26,146.25	-
04/01/2027	130,000.00	1.300%	26,146.25	156,146.25	182,292.50
10/01/2027	-	-	25,301.25	25,301.25	-
04/01/2028	130,000.00	1.450%	25,301.25	155,301.25	180,602.50
10/01/2028	-	-	24,358.75	24,358.75	-
04/01/2029	135,000.00	1.600%	24,358.75	159,358.75	183,717.50
10/01/2029	-	-	23,278.75	23,278.75	-
04/01/2030	135,000.00	1.750%	23,278.75	158,278.75	181,557.50
10/01/2030	-	-	22,097.50	22,097.50	-
04/01/2031	135,000.00	1.900%	22,097.50	157,097.50	179,195.00
10/01/2031	-	-	20,815.00	20,815.00	-
04/01/2032	140,000.00	2.000%	20,815.00	160,815.00	181,630.00
10/01/2032	-	-	19,415.00	19,415.00	-
04/01/2033	145,000.00	2.150%	19,415.00	164,415.00	183,830.00
10/01/2033	-	-	17,856.25	17,856.25	-
04/01/2034	145,000.00	2.300%	17,856.25	162,856.25	180,712.50
10/01/2034	-	-	16,188.75	16,188.75	-
04/01/2035	150,000.00	2.450%	16,188.75	166,188.75	182,377.50
10/01/2035	-	-	14,351.25	14,351.25	-
04/01/2036	155,000.00	2.550%	14,351.25	169,351.25	183,702.50
10/01/2036	-	-	12,375.00	12,375.00	-
04/01/2037	155,000.00	3.000%	12,375.00	167,375.00	179,750.00
10/01/2037	-	-	10,050.00	10,050.00	-
04/01/2038	160,000.00	3.000%	10,050.00	170,050.00	180,100.00
10/01/2038	-	-	7,650.00	7,650.00	-
04/01/2039	165,000.00	3.000%	7,650.00	172,650.00	180,300.00
10/01/2039	-	-	5,175.00	5,175.00	-
04/01/2040	170,000.00	3.000%	5,175.00	175,175.00	180,350.00
10/01/2040	-	-	2,625.00	2,625.00	-
04/01/2041	175,000.00	3.000%	2,625.00	177,625.00	180,250.00
Total	\$2,855,000.00	-	\$778,380.00	\$3,633,380.00	-

Yield Statistics

Bond Year Dollars	\$31,725.00
Average Life	11.112 Years
Average Coupon	2.4535225%
Net Interest Cost (NIC)	2.5435146%
True Interest Cost (TIC)	2.5263687%
Bond Yield for Arbitrage Purposes	2.4204154%
All Inclusive Cost (AIC)	2.6090502%

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Net Interest Cost	2.4535225%
Weighted Average Maturity	11.112 Years

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CITY OF CRETE, NEBRASKA

CERTIFICATES OF PARTICIPATION, SERIES 2021

15 YEAR AMORTIZATION OF \$2.8 MILLION PROJECT

CONSERVATIVE GENERIC INTEREST RATES - 11/20/20

Sources & Uses

Dated 04/01/2021 | Delivered 04/01/2021

Sources Of Funds

Par Amount of Bonds	\$2,855,000.00
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Total Sources	\$2,855,000.00
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Uses Of Funds

Deposit to Project Construction Fund	2,800,000.00
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Total Underwriter's Discount (1.000%)	28,550.00
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Costs of Issuance	22,000.00
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Rounding Amount	4,450.00
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Total Uses	\$2,855,000.00
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CITY OF CRETE, NEBRASKA**CERTIFICATES OF PARTICIPATION, SERIES 2021****15 YEAR AMORTIZATION OF \$2.8 MILLION PROJECT****CONSERVATIVE GENERIC INTEREST RATES - 11/20/20****Debt Service Schedule**

Date	Principal	Coupon	Interest	Total P+I	Fiscal Total
04/01/2021	-	-	-	-	-
10/01/2021	-	-	24,238.75	24,238.75	-
04/01/2022	175,000.00	1.000%	24,238.75	199,238.75	223,477.50
10/01/2022	-	-	23,363.75	23,363.75	-
04/01/2023	175,000.00	1.050%	23,363.75	198,363.75	221,727.50
10/01/2023	-	-	22,445.00	22,445.00	-
04/01/2024	175,000.00	1.100%	22,445.00	197,445.00	219,890.00
10/01/2024	-	-	21,482.50	21,482.50	-
04/01/2025	180,000.00	1.150%	21,482.50	201,482.50	222,965.00
10/01/2025	-	-	20,447.50	20,447.50	-
04/01/2026	180,000.00	1.200%	20,447.50	200,447.50	220,895.00
10/01/2026	-	-	19,367.50	19,367.50	-
04/01/2027	180,000.00	1.300%	19,367.50	199,367.50	218,735.00
10/01/2027	-	-	18,197.50	18,197.50	-
04/01/2028	185,000.00	1.450%	18,197.50	203,197.50	221,395.00
10/01/2028	-	-	16,856.25	16,856.25	-
04/01/2029	190,000.00	1.600%	16,856.25	206,856.25	223,712.50
10/01/2029	-	-	15,336.25	15,336.25	-
04/01/2030	190,000.00	1.750%	15,336.25	205,336.25	220,672.50
10/01/2030	-	-	13,673.75	13,673.75	-
04/01/2031	195,000.00	1.900%	13,673.75	208,673.75	222,347.50
10/01/2031	-	-	11,821.25	11,821.25	-
04/01/2032	200,000.00	2.000%	11,821.25	211,821.25	223,642.50
10/01/2032	-	-	9,821.25	9,821.25	-
04/01/2033	200,000.00	2.150%	9,821.25	209,821.25	219,642.50
10/01/2033	-	-	7,671.25	7,671.25	-
04/01/2034	205,000.00	2.300%	7,671.25	212,671.25	220,342.50
10/01/2034	-	-	5,313.75	5,313.75	-
04/01/2035	210,000.00	2.450%	5,313.75	215,313.75	220,627.50
10/01/2035	-	-	2,741.25	2,741.25	-
04/01/2036	215,000.00	2.550%	2,741.25	217,741.25	220,482.50
Total	\$2,855,000.00	-	\$465,555.00	\$3,320,555.00	-

Yield Statistics

Bond Year Dollars	\$23,655.00
Average Life	8.285 Years
Average Coupon	1.9681040%
Net Interest Cost (NIC)	2.0887973%
True Interest Cost (TIC)	2.0862274%
Bond Yield for Arbitrage Purposes	1.9523078%
All Inclusive Cost (AIC)	2.1907147%

IRS Form 8038

Net Interest Cost	1.9681040%
Weighted Average Maturity	8.285 Years

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August 17, 2020

City of Crete
243 E 13th Street
PO Box 86
Crete, NE 68333

Attn: Tom Ourada, Administrator/Director of Public Works

RE: Crete, Nebraska
Crete 2020 Substation Feasibility Study
JEO Project No. 201368.00

Dear Tom:

JEO Consulting Group, Inc. is pleased to submit this letter proposal for engineering services to provide a Substation Feasibility Study to consider adding a 10 MVA transformer to the existing Braden substation or add a new substation to the City electrical infrastructure. This is to establish an optimum location to add a transformer, confirm MVA capacity size and quantity of branch feeders for improved reliability of normal and back-up redundancy operations. The study would include a review of three (3) site locations with determination of the best site location, develop preliminary site plan and one-line diagram of connections and provide an all-inclusive opinion of cost for each location option. A summary of results will be provided in technical memorandum format.

Project Background:

The City has an approximate population of 7,300 with a summer peak demand of approximately 23.0 MW. The primary loads of the City are residential, small/large commercial, industrial and public facilities.

The City is currently connected to the statewide grid with two 34.5 kV sub-transmission lines. The City owns and maintains a 6.2 MW power plant, two (2) substations with 13.8/7.97 kV distribution system and two (2) substations with 4.16/2.4 kV distribution. The distribution system has been continuously upgraded and appears to be in good condition.

Sub-Transmission

The City of Crete, NE is currently operating with a 34.5 kV “delta” sub-transmission line that serves the Mill and Braden downtown substations, Breaker 304. A second 34.5 kV “delta” sub-transmission line serves the Beyer substation, Breaker 322. The two sub-transmission lines are connected with a normal open for redundancy. The standard size of sub-transmission conductor is #477 ACSR.

4.16/2.4 kV Substations and Distribution

The Mill substation has a distribution voltage of 4.16/2.4 kV “wye” with two 3.75 MVA transformers, each transformer feeds a service bay in a metalclad switchgear. The metalclad switchgear also provides two sources of power to a grain handling facility. The Braden substation has a 7.5 MVA transformer with a distribution voltage 4.16/2.4 kV ‘wye’ that has one feeder extending to the Mill substation which is utilized as a backup and a second feeder that serves the downtown area.

13.8/7.96 kV Substations and Distribution

The downtown Braden substation has a 10.0 MVA transformer with a distribution voltage 13.8/7.97 kV 'wye' Generator No. 7 breaker and five (5) distribution feeder breakers. An additional breaker was installed in 2016 for the downtown 4.16/2.4 kV 'wye' distribution system to be upgraded and converted to 13.8/7.97 kV 'wye'. The Beyer substation has two (2) 10.0 MVA transformers with a distribution voltage 13.8/7.97 kV 'wye' and five (5) distribution feeder breakers. Three (3) feeders (north, east and south feeders) are capable of being back fed from either substation.

Existing Power Plant

The City currently has one (1) 6.2 MW diesel generator that is connected to the Braden substation.

Project Purpose:

The City desires to add a 10 MVA transformer to the existing Braden substation or add a new substation.

Optional site locations of additional transformer capacity:

1. Existing downtown Braden substation.
2. Three (3) locations, north and east part of the City of service territory.

The goals of the project are to:

1. Provide engineering analysis of existing Braden substation and three (3) additional locations of a substation for installation of a 10 MVA transformer and proposed connections to existing distribution circuits. The final location is to allow the City the most opportune location to allow for improved normal operations and additional back-up redundancy.
2. Provide all-inclusive opinion of cost established from vendors, contactors and past projects with a cost vs benefit of results for locations considered.
3. Develop a technical memorandum summarizing the conclusions and recommendations for use by the City in making future capital improvement decisions. The City council is anticipated to complete a risk assessment to determine comfort level of proposed locations.

Scope of Services:

Task 1 – Collect data: This task begins by first developing an understanding of the City's electrical distribution infrastructure. Provide a preliminary meeting with city staff to discuss options, gain more insight and determine site options. Discussion will also be included to determine if any areas with poor reliability need to be reviewed in more detail. For the two (2) substations, one-line diagrams of the existing electrical distribution connections will be reviewed. Proposed locations for a transformer will be evaluated with respect to size, location and accessibility. A field observation will allow for each location to be reviewed for all necessary requirements to connect the sub-transmission and distribution to the electric system. The City has provided peak demand data for each of the substations and branch circuits. Detailed design plans of the existing Braden and Beyer Substations have also been provided.

Task 2 – Determine KVA transformer size and quantity of distribution circuits: This task will utilize peak demand and branch feeder loading data to consider connection options during normal operation and back-up redundancy for each substation location. For each option, a simple substation one-line and highlighted distribution map with proposed branch circuits will be used for an analysis of loading and connections. This would allow for identifying any discrepancies of the existing system and options to improve results.

Task 3 – Develop site plan: This task will conceptually layout a proposed substation site plan for each location to be considered. Google earth and data collected in Task 1 will be used to determine size, location and accessibility to allow for an adequate footprint to be established.

Task 4 – Develop one-line diagram: For each location, to assist with developing the opinion of cost, a proposed one-line diagram will be developed with connections to the sub-transmission and distribution systems. This will quantize the necessary switchgear, breakers, protective devices and switching requirements of the location.

Task 5 – Opinion of Cost: For each location a high-level opinion of cost will be developed. The cost will be all inclusive and allow for the site development, fencing, ground grid, building modifications and electrical infrastructure with connections to the sub-transmission and distribution system. Vendors, contractors and previous JEO projects will be used as the basis of costs.

Task 6 – Determine optimum location: For each location, the space availability, sub-transmission connection, connections to the distribution system and opinion of cost will all have differences. A cost vs benefit comparison with a list of advantages/disadvantages will provided for each. This task allows for each of these items to be scaled or weighted and a total of all criteria can be used to assist with determining the optimum location. Other non-economic factors like improved reliability, safety and ease of operation will also be reviewed to ensure optimum location is justified.

Task 7 – Report Findings: This task would include a follow up meeting with city staff to review the conclusions and recommendations of the analysis. After completion of the follow up meeting, a technical memorandum would be prepared in a summary format suitable for use by the City in making future capital improvement decisions. If desired, a presentation to the Council would be prepared in conjunction with a regularly scheduled meeting.

Estimated Schedule:

The following schedule is proposed for this Feasibility Study, subject to approval with City Council.

August 2020 - City provide data and maps required to complete study.

August 2020 - JEO to provide a preliminary meeting to discuss options, gain more insight and determine site options.

September 2020 - Compile data, verify maps, complete onsite investigation to verify maps, review optional locations and meet with utility personnel. Complete site plan development, one-lines, opinion of cost and determine optimum location.

September 2020 – Review results of preliminary study with City.

October 1, 2020 - Final report completed and available to present to City Council, if necessary.

Proposed Fee:

The cost to provide the above-mentioned services would be a lump sum fee of \$15,000. This fee includes JEO's billable time and overhead expenses including telephone calls, copying, postage, travel and meals that are included in our hourly rates and fees. Any additional services beyond the Scope of Service will be provided on a billable time basis in accordance with our standard Hourly Rate Schedule, with prior approval only.

Exclusions:

Development of computer simulated load flow analysis results for each option is not included. After the study is complete, if it is determined that voltage drop issues could be justified, we can confirm results of the final desired option, if necessary.

JEO is pleased to be able to assist you with this Feasibility Study, as this will help provide the planning necessary to establish an improved infrastructure of your community, for the future. If the above Project Description and Scope of Services meet with your approval, please return one signed copy of this letter to our Norfolk Office and retain the original for your records. I look forward to working with you.

If you have any further questions or comments, please do not hesitate to call.

Respectfully submitted,

A handwritten signature in blue ink that reads "David R. Peterson".

David R. Peterson, PE
Sr. Electrical Engineer

DRP:skw
Enclosure

PROPOSAL ACCEPTED:

By _____

Title _____

Date _____

RESOLUTION NO. 2020-31

A RESOLUTION OF THE CITY OF CRETE, NEBRASKA RESTRICTING PARKING ON THE SOUTH SIDE OF WEST TWELFTH STREET BETWEEN NORMAN AVENUE AND THE ALLEY BETWEEN NORMAN AND OAK AVENUES.

WHEREAS, Twelfth Street is a main route connecting the downtown area to the surrounding neighborhoods;

WHEREAS, the presence of apartment buildings on the north side of West Twelfth Street between Norman and Oak Avenues and the close proximity to downtown businesses creates traffic congestion and safety issues along Twelfth Street; and,

WHEREAS, the City Council has determined it is in the public's best interest to restrict parking on the south side of West Twelfth Street between Norman Avenue and the alley between Norman and Oak Avenues.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF CRETE, NEBRASKA:

Section 1. That parking be prohibited on the south side of West Twelfth Street between Norman Avenue and the alley between Norman and Oak Avenues.

PASSED AND ADOPTED this 1st day of December 2020.

Mayor

ATTEST:

City Clerk