CITY OF GRAND ISLAND

Working Together for a Better Tomorrow. Today.

BID SPECIFICATION PACKAGE

for

BURDICK STATION DEMOLITION 2022

C 128940

Bid Opening Date/Time

Thursday, July 7, 2022 at 2:00 p.m.
City of Grand Island, City Hall
100 East 1st Street, P.O. Box 1968
Grand Island, NE 68802-1968

Contact Information

Lynn Mayhew, Assistant Utilities Director-Production
City of Grand Island – Utilities Department
Platte Generating Station
308/385-5496

Date issued: June 17, 2022

ADVERTISEMENT TO BIDDERS
FOR
BURDICK STATION DEMOLITION 2022
FOR
CITY OF GRAND ISLAND, NEBRASKA

Sealed bids for Burdick Station Demolition 2022 will be received at the office of the City Clerk, 100 E. First Street, P.O. Box 1968, Grand Island, Nebraska 68802 until **Thursday, July 7, 2022 at 2:00 p.m. local time,** FOB the City of Grand Island-Burdick Station, freight prepaid. Bids will be publicly opened at this time in the Grand Island City Hall City Clerk's Office located on 1st floor of City Hall. **Submit an original and three copies if submitting by mail.** Bid package and any Addendas are also available on-line at www.grand-island.com under Business-Bids and Request for Proposals-Bid Calendar under the bid opening date. Bidding documents, plans and specifications for use in preparing bids may be downloaded from the QuestCDN website www.QuestCDN.com for a fee. Submitting through QuestCDN requires one original document of the bid and bid bond to be uploaded. **Bids received after the specified time will not be considered**.

The successful bidder will be required to comply with fair labor standards as required by Nebraska R.R.S.73-102 and comply with Nebraska R.R.S. 48-657 pertaining to contributions to the Unemployment Compensation Fund of the State of Nebraska. Successful bidder shall maintain a drug free workplace policy. Every public contractor and his, her or its subcontractors who are awarded a contract by the City for the physical performance of services within the State of Nebraska shall register with and use a federal immigration verification system to determine the work eligibility status of new employees physically performing services within the State of Nebraska.

Each bidder shall submit with the bid a certified check, a cashiers check, or bid bond payable to the City of Grand Island in an amount no less than five percent (5%) of the bid price which shall guarantee good faith on the part of the bidder and the entering into a contract within fifteen (15) days at the bid price if accepted by the City. **Your certified check, cashiers check or bid bond must be submitted in a separate envelope attached to the outside of the envelope containing the bid. Each envelope must be clearly marked indicating its contents. Failure to submit the necessary qualifying information and correct number of copies in clearly marked and separate envelopes will result in your bid not being opened or considered.** Only surety companies authorized to do business in the State of Nebraska may issue bid bonds.

Bids will be evaluated by the Purchaser based on price, schedule, quality, adherence to schedule, plan and specifications, economy and efficiency of operation, experience and reputation of the bidder, ability, capacity, and skill of the bidder to perform contract required and adaptability of the particular items to the specific use intended.

The Purchaser reserves the right to reject any or all bids, to waive irregularities therein, and to accept whichever bid that may be in the best interest of the City, at its sole discretion.

No bidder may withdraw his/her bid for a period of thirty (30) days after date of bid opening.

RaNae Edwards, City Clerk

Advertised

(All bids must be submitted on this form)

BURDICK STATION DEMOLITION 2022
BID DATA FORM

CITY OF GRAND ISLAND
GRAND ISLAND, NE

The undersigned Bidder, having examined all specifications and other bidding documents, and all addenda thereto, and being acquainted with and fully understanding all conditions relative to the specified materials and equipment, hereby proposes to provide dismantling of the steam plant facilities consisting of Burdick Generating Station Units 1, 2, and 3 and all support facilities within the specified demolition boundary including mobilization, demolition, and restoration of site work in accordance with the applicable laws as defined throughout the technical specification, FOB the City of Grand Island-Burdick Station, 100 East Bischeld, Grand Island, NE, freight prepaid, at the following price:

ITEM DESCRIPTION	EXTENDED COST
Base Bid:	
Materials	$ _____
Labor	$ _____
Applicable Sales tax*	$ _____
Total Base Bid	**$ _____**
Estimated Salvage Value (Actual Value will be used for contract)	**$ _____**

☐ **Bidder must complete the accompanying GIUD Burdick Power Station Bid Sheet and Options Unit Price Services sheet and submit with the Bid Data Form. (Instructions below)**

*** If bidder fails to include sales tax in their bid price or takes exception to including sales tax in their bid price, the City will add a 7.5% figure to the bid price for evaluation purposes; however, the City will only pay actual sales tax due. Grand Island Utilities is NOT tax exempt.**

☐ **Exceptions Noted -** Bidder acknowledges there are *Exceptions* and/or *Clarifications* noted to the above bid, and those exceptions are fully explained on a separate sheet, clearly marked, and included with the Bid.

_____
Bidder Company Name Date

_____
Company Address City State Zip

_____
Print Name of Person Completing Bid Signature

Email:_____ Telephone No._____

State of Nebraska Contractor license number: _____

☐ By checking this box, Bidder acknowledges the specified completion date of the project is **July 1, 2023.**

☐ By checking this box, Bidder acknowledges that Addenda Number(s) _____ were received and considered in Bid preparation.

According to Nebraska Sales and Use Tax Requirements, Section 1-017, Contractors, check which option you have selected to file with the Nebraska Department of Revenue:

Nebraska law provides a sales and use tax exemption on contractor labor charges for the construction, repair, or annexation of any structure used for the generation, transmission, or distribution of electricity. Separately stated contractor labor would be exempt, all materials are taxable according to the contractor's option.

Option 1 (Section 1-017.05)_____ Option 2 (Section 1-017.06)_____ Option 3 (Section 1-017.07)_____

If the Nebraska sales and use tax election is not filed or noted above, the contractor will be treated as a retailer under Option 1 for sales and use tax purposes.

Note: If Bidder supplies individual unit pricing information as supplemental pricing to the base material and labor cost above, said individual pricing is proprietary information and should not be released under a public records request. The total base bid is not considered proprietary information and will be released pursuant to City Procurement Code.

****

GIUD Burdick Power Station Bid Form Instructions

1. Bidders are required to fill in all lines of Bid Price Sheet.
2. Total Price equals the sum of Lines 1-13.
3. Salvage Value – For Owner's informational purposes only. Salvage value must be included in the Proposal Total above. No separate payment or adjustments will be made to the Contract value for salvage.
4. Bidder shall provide all required option pricing.
5. Option pricing will be used for additional and deductive work quantities.

GIUD Burdick Power Station Bid Sheet

Item	Bid Item Description	Bid Item Definition (notes)	UOM	Price ($)
1	Mobilization	Includes all costs for mobilization to the site of equipment, field office personnel, and other startup costs. Total cost of all mobilization items not to exceed 2 percent of the Total Project Cost	Lump Sum	$
2	Contract Deliverables, Submittals, and Permits	Includes all costs to develop, submit, and obtain approval of contract deliverables and submittals throughout the project and issuance of permits required prior to starting work.	Lump Sum	$
3	Site Preparation and Maintenance	Includes all costs for protection of existing site features to remain, preparing the site and providing temporary items including fencing, roads, traffic barriers/signs, office trailers, laydown/staging/parking areas, and site security. Also includes costs to implement requirements for all permits necessary to complete the work, including, but not limited to wildlife mitigation, demolition permits, dust control and stormwater control.	Lump Sum	$
4	Hazardous Materials Abatement	Includes all labor, material, testing, monitoring, permitting, and disposal costs for completing PCB, Lead or other Hazardous Material abatement and disposal activities for Burdick Power Station Demolition.	Lump Sum	$
5	Boiler Structure, Turbine Building, Stacks, FO Pump house and Natural Gas metering stations and sheds and - Duct Banks, Piping and Foundations - Above and Below Grade	Includes all costs for demolition, transportation, disposal and recycling of below grade foundations, footings, duct banks, caissons, piping, and co-located above and below grade features identified within the boundaries of the demolition scope of work. Includes costs for backfill of excavated areas. Includes costs for onsite processing of concrete and scrap steel for disposal or recycle.	Lump Sum	$
6	Turbine Building and Burdick Water Pump Building	Include all costs associated with modifications to the existing Burdick Pump Building structure as required. Including protection of Unit 1 common wall and existing foundations, preparation of pump building structure for facia and facia modifications.	Lump Sum	$
7	Turbine Building Tornado Tunnel	Includes all costs for demolition, transportation, disposal and recycling of below grade foundations, footings, duct bank cables, piping, and co-located above and below grade features identified within the boundaries of the tunnel. Includes costs for backfill of excavated areas and installation of new concrete wall outside of Substation G perimeter fence. Includes costs for onsite processing of concrete for disposal.		$
8	Below Grade Water and Gas Pipes	Includes all costs for excavating, breaching and backfilling Circulating Water Supply & Discharge Lines cutting and capping sewer, city and well water piping and natural gas supply pipe to plant.	Lump Sum	$
9	Tank Farm (above and below grade) tanks, piping, equipment and foundations	Includes all costs for demolition, transportation, disposal and recycling of above and below grade foundations, footings, duct banks, caissons, piping and co-located below grade features identified within the tank farm area. Includes costs for backfill of excavated areas and 2,700 CY of remediated soil. Includes costs for onsite processing of concrete for disposal off site.	Lump Sum	$
10	Final Site Grading, Sodding, and Seeding	Includes the final grading, final soil cover, sodding, seeding, and mulching areas in all Zones.	Lump Sum	$
11	Final As-Built Survey	Includes all costs for as-built survey by a registered Nebraska Professional Surveyor and Mapper of major aboveground and underground features left in place, roads, fences, processed concrete reuse areas, site markers, drainage features, drainage pipes, manholes, stormwater ponds (including below the water surface), stormwater discharge structures, swales, ditches, and site topography.	Lump Sum	$
12	Final cleanup, closeout documentation, and demobilization	Includes all costs for completion of any punch list items, removal of all excess construction materials, trash, debris, vehicles, equipment, and all other work items brought onsite by the Contractor for completion of the work.	Lump Sum	$
13	Performance and Payment Bonds		Lump Sum	$
Total Bid Price - (Includes all costs to complete the above items of work and the value of any salvage - Enter this Total on the Bid Form Page 1) (Bid price will be evaluated on this amount)				**$**
Salvage Value - (For Owner's informational purposes only. Salvage value must be included in the Proposal Total above. No separate payment or adjustments will be made to the contract value for salvage.)				**$**

GIUD Burdick Power Station Bid Sheet

Options Unit Price Services (these services may be required on an 'as requested' basis.)

Item	Bid Item Description	Bid Item Definition (notes)	UOM	Price ($)
14	Non-Hazardous Soil Excavation and Loading	includes all labor, equipment, fuel, and materials	Ton	$
15	Non-Hazardous Soil Excavation and Loading	includes all labor, equipment, fuel, and materials	CY	$
	Hazardous Soil Excavation and Loading	includes all labor, equipment, fuel, and materials	Ton	$
	Hazardous Soil Excavation and Loading	includes all labor, equipment, fuel, and materials	CY	$
16	Transport and Dispose of non-hazardous bulk soil	Unit rate for transportation and disposal	Ton	$
17	Transport and Dispose of non-hazardous bulk material	Unit rate for transportation and disposal	Ton	$
18	Transport and Dispose of soil classified as hazardous waste for metals, solvents, or petroleum compounds	Unit rate for transportation and disposal	Ton	$
19	Imported Earth fill	per Specification Section 402379.70.3000 Table 1	CY	$
20	Imported Aggregate fill	per Specification Section 402379.70.3000 Table 2	Ton	$
21	Excavator with Operator	per Hour for Owner-directed soil sampling or exploratory excavation	Hour	$
22	Soft Dig	per Hour for Owner-directed underground conflict identification using 2-man crew and soil vacuum truck	Hour	$
23	Survey Field Crew	per Hour if required per Owner direction not already included in as-built survey above	Hour	$
24	Lead & PCB Disposal	Unit rate for transportation and disposal	Specify Units	$
25	Lead & PCB Removal	Shift Rate (8-hours) for Lead and PCB Removal for 2-man crew, including the supervisor. Includes all labor, equipment, materials, and PPE.	8-hour shift	$

CHECKLIST FOR BID SUBMISSION

FOR

BURDICK STATION DEMOLITION 2022

Bids must be received by the City Clerk before *2:00 p.m. on Thursday, July 7, 2022*. The following items must be completed for your bid to be considered.

- ❑ Submittal of bid documents:
  - ❑ **Option 1 – Mailing**: A signed original and three (3) copies of the bidding documents. Failure to submit the correct number of copies may result in your bid not being considered.
    - ❑ Note: Your certified check, cashiers check or bid bond should be clearly marked in a separate envelope attached to the signed original bid.
  - ❑ **Option 2 – QuestCDN (online)**: Purchase the bid specification through QuestCDN at their $30.00 fee. Upload the signed original of the Bid Data Form, along with any supporting material required to meet the bid specification through QuestCDN. (Please, no zip files). Upload your bid bond online separately through QuestCDN. *Bidders using Certified check or Cashiers' Check must mail said check to the office of the City Clerk to be received no later than the scheduled bid opening date and time, and clearly marked with the project name.*
- ❑ Bidders must complete and sign the Bid Data Form provided in these Documents. All blank spaces must be filled in. Bidders shall acknowledge receipt of any Addenda information on the Bid Data Form.
- ❑ Bid workbook (GIUD Burdick Power Station Bid Sheets). A list of these areas shall be submitted with the bid.
- ❑ A proposed construction/test schedule.
- ❑ A reference list of at least three (3) projects of similar scope and complexity.
- ❑ A summary of the experience of the Supervisor that will be in charge of the project on-site.
- ❑ List of Subcontractor Form (if any)
- ❑ Firm lump sum pricing; firm unit pricing in case adjustments are necessary, and breakout of sales tax pricing.
- ❑ Exceptions to the specification or Owner's Contract Document.
- ❑ Selection of Nebraska Sales Tax Option. If the Nebraska sales and use tax election is not filed or noted above, the Contractor will be treated as a retailed under Option 1 for sales and use tax purposes. Grand Island Utilities is not tax exempt.
- ❑ A copy of your OSHA compliant Confined Space Procedure, Respiratory Protection Procedure and Trenching safety procedure, if available.
- ❑ Construction and Demolition Debris Disposal (if applicable)
- ❑ Completed Schedule of Values
- ❑ Acknowledgment of Addenda Number(s) _____.

Please check off each item as completed to ensure compliance. If you have any questions, please feel free to contact our office prior to the bid opening date/time.

INSTRUCTIONS TO BIDDERS

1. GENERAL INFORMATION.

   The following instructions outline the procedure for preparing and submitting Bids. Bidders must fulfill all requirements as specified in these Documents.

2. TYPE OF BID.

   Bidders shall be required to submit prices for all items listed in the Bid Data Form.

3. PREPARATION OF BIDS.

   Bidders shall use only the Bid Data Form provided in these Documents. All blank spaces in the Bid Data Form must be filled in, preferably in BLACK ink, in both words and figures where required. No changes to the wording or content of the forms is permitted. Written amounts shall govern in case of discrepancy between the amounts stated in writing and the amounts stated in figures.

   Prices stated shall be f.o.b. with freight and full insurance paid by Bidder, to the job site located in Grand Island, Nebraska.

   The Bidder shall acknowledge receipt of all Addenda in the Bid Data Form. Bids received without acknowledgement or without the Addendum enclosed will be considered informal.

   Individual unit pricing as listed on the Bid Data Form or supplied as supplemental information may be deemed proprietary information and not be released under a public records request. The total amount of the bid is not considered proprietary information and will be released pursuant to City Procurement Code.

4. SUBMISSION OF BIDS.

   All Bids must be submitted intact with the correct number of copies no later than the time prescribed, at the place, and in the manner set forth in the ADVERTISEMENT FOR BIDS. Bids must be made on the Bid Data Form provided herein. Each Bid mailed must be submitted intact in a sealed envelope, so marked as to indicate its contents without being opened, and delivered in person or addressed and mailed in conformance with the instructions in the ADVERTISEMENT FOR BIDS.

5. BID SECURITY.

   Bids must be accompanied by cash, a certified check, or cashier's check drawn on a bank which is insured by the Federal Deposit Insurance Corporation, or a bid bond issued by a Surety authorized to issue such bonds in the state where the Work is located, in the amount of 5 percent of the bid amount payable to OWNER. This bid security shall be given as a guarantee that the Bidder will not withdraw their Bid for a period of thirty (30) days after bid opening, and that if awarded the Contract, the successful Bidder will execute the attached Contract and furnish a properly executed Performance Bond and Payment Bond, each in the full amount of the Contract price, within the time specified.

   The Attorney-in-Fact that executes this bond on behalf of the Surety must attach a notarized copy of his/her power of attorney as evidence of his/her authority to bind the Surety on the date of execution of the bond. Where State Statue requires, certification by a resident agent shall also be provided.

6. RETURN OF BID SECURITY.

Within fifteen (15) days after the award of the Contract, the OWNER will return the bid securities to all Bidders whose Bids are not to be further considered in awarding the Contract. All other retained bid securities will be held until the Contract has been finally executed, after which all bid securities, other than Bidders' bonds and guarantees which have been fortified, will be returned to the respective Bidders whose Bids they accompanied.

7. BASIS OF AWARD.

The award will be made by the OWNER on the basis of the Bid from the lowest responsive, responsible Bidder which, in the OWNER's sole and absolute judgment will best serve the interest of the OWNER. All Bids will be considered on the following basis:

- Delivery time
- Bid price
- Cost of installation
- Suitability to project requirements
- Conformance with the terms of the Bid Documents
- Responsibility and qualification of Bidder

The OWNER reserves the right to reject all Bids, or any Bid not in conformance with the intent of the Bid Documents, and to waive any informalities and irregularities in said Bids.

8. EXECUTION OF CONTRACT.

The successful Bidder shall, within fifteen (15) days after receiving notice of award, sign and deliver to the OWNER the Contract hereto attached together with the acceptable bonds as required in these Bid Documents. Within fifteen (15) days after receiving the signed Contract with acceptable bond(s) from the successful Bidder, the OWNER's authorized agent will sign the Contract. Signature by both parties constitutes execution of the Contract.

9. PERFORMANCE AND PAYMENT BONDS.

The successful Bidder shall file with the OWNER Performance and Payment Bonds in the full amount (100 percent) of the Contract price, as security for the faithful performance of the Contract and the payment of all persons supplying labor and materials for the Work under this Contract, and to cover all guarantees against defective workmanship or materials, or both, for a period of one (1) year after the date of final acceptance of the Work by the OWNER. The Surety furnishing these bonds shall have a record of service satisfactory to the OWNER, be authorized to do business in the State where the OWNER's project is located and shall be named on the current list of approved Surety Companies, acceptable on Federal bonds as published by the Audit Staff, Bureau of Accounts, U.S. Treasury Department.

The Attorney-in-Fact (Resident Agent) who executes these bonds on behalf of the Surety must attach a notarized copy of his/her power-of-attorney as evidence of his/her authority to bind the Surety on the date of execution of the bond.

10. TIME OF COMPLETION.

The time of completion of the Work to be performed under this Contract is the essence of the Contract. The time allowed for the completion of the Work is stated in the Bid Data Form.

11. GRATUITIES AND KICKBACKS.

City Code states that it is unethical for any person to offer, give, or agree to give any City employee or former City employee, or for any City employee or former City employee to solicit, demand, accept, or agree to accept from another person, a gratuity or an offer of employment in connection with any decision, approval, disapproval, recommendation, or preparation of any part of a program requirement or a purchase request, influencing the content of any specification or procurement standard, rendering of advice, investigation, auditing, or in any other advisory capacity in any proceeding or application, request for ruling, determination, claim or controversy, or other particular matter, pertaining to any program requirement or a contract or subcontract, or to any solicitation or proposal therefor. It shall be unethical for any payment, gratuity, or offer of employment to be made by or on behalf of a subcontractor under a contract to the prime contractor or higher tier subcontractor or any person associated therewith, as an inducement for the award of a subcontract or order.

12. FISCAL YEAR.

The City of Grand Island, Nebraska operates on a fiscal year beginning October 1st and ending on the following September 30th. It is understood and agreed that any portion of this agreement which will be performed in a future fiscal year is contingent upon the City Council adopting budget statements and appropriations sufficient to fund such performance.

Contract #
Issued:

CONTRACT AGREEMENT

THIS AGREEMENT made and entered into by and between **[SUCCESSFUL BIDDER]**, hereinafter called the Contractor, and the **CITY OF GRAND ISLAND, NEBRASKA**, hereinafter called the City.

WITNESSETH:

THAT, WHEREAS, in accordance with law, the City has caused contract documents to be prepared and an advertisement calling for bids to be published for *BURDICK STATION DEMOLITION 2022;* and

WHEREAS, the City, in the manner prescribed by law, has publicly opened, examined, and canvassed the bids submitted, and has determined the aforesaid Contractor to be the lowest responsive and responsible bidder, and has duly awarded to said Contractor a contract therefore, for the sum or sums named in the Contractor's bid, a copy thereof being attached to and made a part of this Contract;

NOW, THEREFORE, in consideration of the compensation to be paid to the Contractor and of the mutual agreements herein contained, the parties have agreed and hereby agree, the City for itself and its successors, and the Contractor for itself, himself/herself, or themselves, and its, his/her, or their successors, as follows:

ARTICLE I. That the following documents shall comprise the Contract, and shall together be referred to as the "Agreement" or the "Contract Documents";

1. This Contract Agreement.
2. City of Grand Island's Specification for this project.
3. [NAME OF SUCCESSFUL BIDDER] bid signed and dated [DATE OF BID].

In the event of any conflict between the terms of the Contract Documents, the provisions of the document first listed shall prevail.

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ARTICLE II. That the Contractor shall (a) furnish all tools, equipment, superintendence, transportation, and other construction materials, services and facilities; (b) furnish, as agent for the City, all materials, supplies and equipment specified and required to be incorporated in and form a permanent part of the completed work; (c) provide and perform all necessary labor; and (d) in a good substantial and workmanlike manner and in accordance with the requirements, stipulations, provisions, and conditions of the Contract documents as listed in the attached General Specifications, said documents forming the Contract and being as fully a part thereof as if repeated verbatim herein, perform, execute, construct and complete all work included in and covered by the City's official award of this Contract to the said Contractor, such award being based on the acceptance by the City of the Contractor's bid;

ARTICLE III. That the City shall pay to the Contractor for the performance of the work embraced in this Contract and the Contractor will accept as full compensation therefore the sum (subject to adjustment as provided by the Contract) of **[DOLLAR AMOUNT] ($00.00)** for all services, materials, and work covered by and included in the Contract award and designated in the foregoing Article II; payments thereof to be made in cash or its equivalent in the manner provided in the General Specifications.

The total cost of the Contract includes:

Base Bid: Materials	$	.00
Sales Tax on Materials/Equipment:	$	.00
Sales Tax on Labor:	$	.00
Total	$	.00

Contractor Tax Option: ____

The City of Grand Island, Nebraska operates on a fiscal year beginning October 1st and ending on the following September 30th. It is understood and agreed that any portion of this agreement which will be performed in a future fiscal year is contingent upon the City Council adopting budget statements and appropriations sufficient to fund such performance.

ARTICLE IV. The Contractor hereby agrees to act as agent for the City in purchasing materials and supplies for the City for this project. The City shall be obligated to the vendor of the materials and supplies for the purchase price, but the Contractor shall handle all payments hereunder on behalf of the City. The vendor shall make demand or claim for payment of the purchase price from the City by submitting an invoice to the Contractor. Title to all materials and supplies purchased hereunder shall vest in the City directly from the vendor. Regardless of the method of payment, title shall vest immediately in the City. The Contractor shall not acquire title to any materials and supplies incorporated into the project. All invoices shall bear the Contractor's name as agent for the City. This paragraph will apply only to these materials and supplies actually incorporated into and becoming a part of the finished product of the BURDICK STATION DEMOLITION 2022.

ARTICLE V. That the Contractor shall start work as soon as possible after the Contract is signed and the required bonds and insurance are approved, and that the Contractor shall deliver the equipment, tools, supplies, and materials F.O.B. City of Grand Island plant site, Burdick Station, and complete the work on or before ***July 1, 2023.***

ARTICLE VI. The Contractor agrees to comply with all applicable State fair labor standards in the execution of this Contract as required by Section 73-102, R.R.S. 1943. The Contractor further agrees to comply with the provisions of Section 48-657, R.R.S. 1943, pertaining to contributions to the Unemployment Compensation Fund of the State of Nebraska. During the performance of this Contract, the Contractor and all subcontractors agree not to discriminate in hiring or any other employment practice on the basis, of race, color, religion, sex, national origin, age or disability. The Contractor agrees to comply with all applicable Local, State and Federal rules and regulations. The Contractor agrees to maintain a drug-free workplace policy and will provide a copy of the policy to the City upon request. Every public contractor and his, her or its subcontractors who are awarded a contract by the City for the physical performance of services within the State of Nebraska shall register with and use a federal immigration verification system to determine the work eligibility status of new employees physically performing services within the State of Nebraska.

DRAFT

ARTICLE VII. Gratuities and kickbacks: City Code states that it is unethical for any person to offer, give, or agree to give any City employee or former City employee, or for any City employee or former City employee to solicit, demand, accept, or agree to accept from another person, a gratuity or an offer of employment in connection with any decision, approval, disapproval, recommendation, or preparation of any part of a program requirement or a purchase request, influencing the content of any specification or procurement standard, rendering of advice, investigation, auditing, or in any other advisory capacity in any proceeding or application, request for ruling, determination, claim or controversy, or other particular matter,

pertaining to any program requirement or a contract or subcontract, or to any solicitation or proposal therefor. It shall be unethical for any payment, gratuity, or offer of employment to be made by or on behalf of a subcontractor under a contract to the prime contractor or higher tier subcontractor or any person associated therewith, as an inducement for the award of a subcontract or order.

[SUCCESSFUL BIDDER]

By_____ Date _____

Title_____

CITY OF GRAND ISLAND, NEBRASKA

By_____ Date _____
Mayor

Attest:_____
City Clerk

The Contract is in due form according to law and hereby approved.

DRAFT

_____ Date _____
Attorney for the City

CITY OF GRAND ISLAND

Working Together for a Better Tomorrow, Today.

REQUEST FOR BIDS - GENERAL SPECIFICATIONS

The Bid shall be in accordance with the following and with all attached BID DATA and BLACK & VEATCH TECHNICAL SPECIFICATIONS.

All prices are to be furnished and installed FOB, Grand Island, Nebraska. **All prices shall be firm, and shall include all sales and use taxes as lawfully assessed under laws and regulations of the State of Nebraska.** * If bidder fails to include sales tax in their bid price or takes exception to including sales tax in their bid price, the City will add a 7.5% figure to the bid price for evaluation purposes; however, the City will only pay actual sales tax due. Grand Island Utilities is not tax exempt.

Mailed bids shall include the following on the **outside** of the mailing envelope: **"Burdick Station Demolition 2022".** All bids submitted by mail must include **an original and three copies** of the bid. The bid specification and on-line bidding forms are also available at http://www.grand-island.com/business/bids-and-request-for-proposals/bid-calendar under the bid opening date and "Click here for bid document link" through QuestCDN for a small fee. If submitting through QuestCDN, **one** original document of the bid and bid bond is required to be uploaded. No verbal bids will be considered. All sealed bids are due no later than **Thursday**, **July 7, 2022 at 2:00 p.m. local time**. to:

Mailing Address: City Clerk
City Hall
P. O. Box 1968
Grand Island, NE 68802-1968

Street Address: City Clerk
City Hall
100 E. First Street
Grand Island, NE 68801

Bids will be opened at this time in the City Hall City Clerk's Office located on 1st floor of City Hall. Any bid received after the specified date will not be considered.

Bids will be evaluated by the Purchaser based on price, schedule, quality, adherence to schedule, plan and specifications, economy and efficiency of operation, experience and reputation of the bidder, ability, capacity, and skill of the bidder to perform contract required and adaptability of the particular items to the specific use intended.

The successful bidder will be required to comply with fair labor standards as required by Nebraska R.R.S.73-102 and comply with Nebraska R.R.S. 48-657 pertaining to contributions to the Unemployment Compensation Fund of the State of Nebraska. Contractor shall maintain a drug free workplace policy. Every public contractor and his, her or its subcontractors who are awarded a contract by the City for the physical performance of services within the State of Nebraska shall register with and use a federal immigration verification system to determine the work eligibility status of new employees physically performing services within the State of Nebraska.

The equipment and materials must be new, the latest make or model, unless otherwise specified. Prior to approving the invoice for payment, the City reserves the right to thoroughly inspect and test the equipment to confirm compliance with specifications. Any equipment or material which does not meet the City's requirements will be returned at vendor's expense for correction. The invoice will be paid after approval at the next regularly scheduled City Council meeting and occurring after departmental approval of invoice; the City Council typically meets the second and fourth Tuesday of each month. Invoices must be received well in advance of Council date to allow evaluation and processing time.

Each bidder shall submit with the bid a certified check, a cashier's check, or bid bond payable to the City of Grand Island in an amount no less than five percent (5%) of the bid price which shall guarantee good faith on the part of the Bidder and the entering into a contract within fifteen (15) days at the bid price if accepted by the City. **Your certified check, cashier's check or bid bond must be submitted in a separate envelope attached to the outside of the envelope containing the bid. Each envelope must be clearly marked indicating its contents. Failure to submit the necessary qualifying information and correct number of copies in clearly marked and separate envelopes will result in your bid not being opened or considered.** Only surety companies authorized to do business in the State of Nebraska may issue bid bonds.

Successful bidder shall comply with the City's insurance requirements; performance and payment bonds are required for this project as outlined in the Instructions to Bidders. All bids shall be valid for at least thirty (30) working days after the bid deadline for evaluation purposes.

Any exceptions the bidder wishes to take regarding the Owner's Specification or Draft Contract Documents must be submitted with bid, and noted on the Bid Data Form.

The Contractor shall cooperate with the Owner's representatives and other contractors on site in maintaining individual work areas, laydown and staging areas, break areas and parking areas to minimize interference with one another's work efforts. The Contractor shall be capable of fully performing the work without the assistance of City personnel. A reference list of projects of similar scope and complexity shall be provided with the bid. A summary of the experience of the Superintendent proposed for the project shall be provided with the bid.

Time is of the essence in the evaluation of bids and execution of contract documents for the execution of the work. Work to commence on August 1, 2022, or as soon as Insurance, Performance and Payment bonds are received by this office, the Contract is executed, and is to be completed by July 1, 2023. Submittal of bids that include terms and conditions unacceptable to the Owner, or that lack the information and clarity required by these specifications may be subject to rejection at the sole discretion of the Owner.

All bidders are welcome to visit the Burdick Station site prior to bidding to familiarize themselves with site conditions affecting the work. The Burdick Station is located at 100 East Bischeld, Grand Island, Nebraska.

All bids must be on the bid form and must be signed and dated to be accepted. If exceptions and/or clarifications are noted to the bid, those exceptions must be fully explained on a separate sheet, clearly marked, and included with the Bid. Any changes that are found made to the original bid specification, other than Owner generated Addendums, would result in your bid not being considered. Please contact Lynn Mayhew at 308-385-5495, for questions concerning this specification.

CITY OF GRAND ISLAND
BURDICK GENERATING STATION
GRAND ISLAND, NE

DEMOLITION
TECHNICAL SPECIFICATION

402379.70.3000

Issued for Bid

May 23, 2022

REVISION 2

BLACK & VEATCH
OVERLAND PARK, KS

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01100 – Scope of Work

The C.W. Burdick Generating Station is located Grand Island, Nebraska. The power plant consists of three 1950's-70's vintage natural gas/fuel oil-fired steam units identified for demolition as specified herein. The site also includes three General Electric combustion turbine (CT) units that are currently in service. These combustion turbine units and supporting equipment will remain in service throughout and following the steam plant demolition. This project consists of the dismantling of the Steam Plant Facilities which consist of Burdick Generating Station Units 1, 2, and 3 and all support facilities within the specified demolition boundary.

01100.1 Technical Scope of Work

This section covers the general description, scope of the work, and supplementary requirements for services included under the Contract. This section shall not be construed to be an itemized listing of each element of work required. The Contractor shall be responsible for demolition of facilities, conforming in all respects to the details and requirements of the Contract Documents. Omission of details of work necessary to carry out the intent of the Contract shall not relieve the Contractor from performing the omitted work.

The Contractor shall perform the Demolition Work complete in accordance with the applicable laws, ordinances, commercial documents, specifications, drawings, bill of quantities, and other Contract Documents, except as specifically excluded.

The Contractor shall coordinate his actions and cooperate with other contractors, the Owner, and the Engineer in the best interest of the project.

Work performed under these specifications shall be done in accordance with the codes and standards listed in each section. Unless otherwise specified, the applicable edition and addenda of codes or standards shall be the jurisdictionally approved edition and addenda. If a code or standard is not jurisdictionally mandated, then the current edition and addenda in effect at the date of the Contract shall apply.

In the event of technical conflicts, errors, or discrepancies, the detailed technical specifications, including this Section 01100 and all higher numbered sections, take precedence over Section 21000, Technical Supplemental Specifications.

All Work shall be produced in accordance with the current laws, ordinances, regulations, codes, standards, and rules applicable to Professional Engineers practicing in the state of Nebraska. If required by the applicable current laws, ordinances, regulations, codes, standards and rules, the Contractor design documents (calculations, drawings, specifications, statements of special inspections, certificates of compliance, and other relevant documents) shall be certified and sealed by an engineer licensed to practice in the state of Nebraska and shall be submitted to the Owner.

01100.1.1 Components of the Work

The scope of work specified herein includes the materials, labor and services required to perform the mobilization, demolition, and restoration of site work as described herein.

1. The scope of removal activities contained herein including all attached reference drawings are intended to assist the Contractor in evaluating and determining the full extent of the efforts required for the satisfactory completion and final acceptance by the Owner. It is not intended to be exhaustive or complete in every detail. The Contractor shall visit the jobsite and become familiar with the plant facility, available drawings and the various conditions affecting the dismantlement of the facility.

2. Prior to dismantlement the Owner will have done their best effort to remove gasses and recoverable liquids from the facility equipment, pipes tanks and basins. The Contractor shall be responsible for removal of remaining slag or refractory from boilers, liquid or fuel oil residuals trapped in pipe low points and tanks.

3. Inspection of the underground #6 FO piping at the pit and the 6” diameter piping shows there is approximately 1” of oil remaining from the pit located inside of the oil pump house to the FO tanks. The Contractor will be responsible to remove and dispose of the oil.

4. The Contractor shall furnish all materials, supplies, management resources, labor, and services (including engineering, storm water and environmental plan preparation, environmental abatement and remediation), demolition clean-up, supervision, tools, cranes, equipment, temporary buildings, scaffolding, transportation, removal of demolished equipment and materials, consumables, fuel, incidental items, and supplies for accomplishing the dismantling activities. The dismantling activities shall be accomplished without disturbing or damaging adjacent facilities, utilities or equipment, and structures that are to be preserved.

5. Contractor shall demolish and remove all equipment in units 1, 2, & 3 which will include but is not limited to boilers, air heaters, fans, ductwork, stacks, feed water heaters, steam turbines and generators, motor control centers, switchgear and other electrical equipment, monorails, hoists, bridge cranes, superstructures, pumps, piping, equipment, tanks, associated foundations, instruments, controls, monitoring devices, tubing, conduit, fire water pumps, all buildings including siding, windows, roofing, interior partitions, lockers, and restrooms, removal of elevators including hydraulic cylinders. Contractor will be responsible for the removal of all remaining spare parts, cabinets, furniture etc. that has not been removed by the Owner.

6. Owner has removed all known asbestos contained materials (ACM) associated with the demolition of the power plant with the exception of window mastic and two tanks that have a tightly adhering tar with ACM, these will be removed by the Contractor during demolition. There may be an occurrence where there may be ACM present at the Work Location. The Company shall notify the GIUD Contract Administrator immediately upon discovery of asbestos. The Company shall not disturb or remove known or discovered ACM unless directed by the GIUD Representative. The Owner shall be responsible for identifying, abating and disposal of all identified ACM.

7. Contractor will take all precautions and follow local, state and federal regulations for lead abatement and personnel protection during demolition, handling and disposal of material containing lead based paints.

8. Attachment A – Plant Hazardous Materials Identification Surveys are provided for information only.

9. The Contractor shall be responsible for Lead and PCB abatement on structures and facilities within the boundaries of the demolition project as identified in the Plant Hazardous Materials Identification Surveys. The transformer oil has been tested to not contain PCB. If Lead, or PCBs are found that are not listed in the Plant Hazardous Materials Identification Surveys the Company shall notify the GIUD Contract Administrator immediately upon discovery of Lead or PCB’s. The Company shall not disturb or remove known or discovered Lead or PCB’s unless directed by the GIUD Representative. The Contractor shall be responsible for the removal of identified Lead or PCB’s after a quantity and cost estimate has been approved by the Owner and Engineer. Contractor shall provide unit prices with their bid for complete removal and disposal of lead or PCB’s.

10. Contractor shall prepare a Storm Water Pollution Prevention Plan (SWPPP) for review and approval by Owner to ensure compliance with the in accordance with local, state and federal law.

11. Contractor shall prepare a Storm Water Pollution Prevention Plan (SWPPP) sealed by a State of Nebraska Professional Engineer for review and approval by Owner to ensure compliance with the state of Nebraska and local county permits and erosion and control plan.

12. If the contractor has an oil storage capacity greater than 1,320 U.S. gallons onsite, they will be bound to EPA 40 CFR part 112 SPILL PREVENTION, CONTROL, AND COUNTERMEASURE (SPCC) REGULATION. A formal SPCC plan is not required to be summited for owner review, if the amount is less than 1,320 gallons. The Burdick Generating Station will require a spill prevention and countermeasures in the contractors ESH plan for all oils, cleaners and fuels, regardless of the quantity.

13. Contractor shall perform any dewatering that is required. Contractor shall develop and submit their dewatering plan for approval by Owner before obtaining a dewatering permit. Contractor shall submit the dewatering permit to the Owner for review. Contractor shall not exceed the Burdick Generating Station permitted NPDES outfall limits. The Burdick Generating Station NPDES permit will be provided upon request.

14. Contractor shall water wash interior of three chimneys prior to demolition. Contractor will collect, test for hazardous materials and properly dispose of wash water.

15. Contractor shall perform final cleaning of all systems, components, and piping as required for demolition. Contractor will be responsible for containing and recovering any oil and/or oily waste that may remain in plant facility piping, equipment, or instruments. Contractor shall provide all required cleaning materials and waste receptacles.

16. The Contractor shall bear full responsibility including, but not limited to, payment and liability for the transportation, use, recycling, and disposal of any Hazardous Materials under the Company's control during the performance of the Work. Disposal or recycling of Hazardous Materials shall only be performed at GIUD approved facilities. The Company shall provide GIUD with appropriate documentation showing proper disposal or recycling of its Hazardous Materials. The Company shall notify the Contract Administrator in writing of the type, quantity and disposal or recycling method of any hazardous material used during the performance of the Work. The Company shall be solely responsible for the use and disposal or recycling of any such materials. The Company shall submit cleanup procedures to the GIUD Representative for review and written approval prior to the use of the hazardous material. In the event that a hazardous material escapes into the environment, the Company shall immediately notify the GIUD Contract Administrator in writing of the occurrence and the actions taken. In the event that the Company encounters hazardous materials in the course of construction, the Company shall immediately notify the GIUD Contract Administrator verbally, with a written notification to follow.

17. Contractor shall remove residual liquids, sludge, and other fuel oil residuals, pump-out levels of tanks and clean tanks to the extent required to allow demolition and disposal of scrap materials.

18. Contractor shall coordinate with the Owner’s waste inspector for all abatement and waste segregation requirements.

19. Contractor shall provide removal, proper characterization (including any tests that may be required), management, transportation, recycling, and/or disposal of all demolition materials.

20. Contractor shall design, supply, erect, and remove from the jobsite any temporary scaffolding, bracing, and guying required to perform the demolition activities.

21. Owner has cut and capped the 36” circulator discharge piping located just south of the water pump station, noted on Technical Reference drawing S-181631-Gen-C1.2 sheet 4.

22. Underground supply and discharge circulator pipe will be abandoned. Circulator piping connected to the condenser shall be capped at the condenser basement floor. Circulator piping exiting under the basement floor will be abandoned in place; no back fill of the pipes is required.

23. Owner has cut and capped the fire water and city water connections pipe to isolated from the main building, Technical Reference drawing S-181631-Gen-C1.2 sheet 1.2 sheet 4.

24. The City Water chlorination feed building shall stay in place, Technical Reference, Image 9860.

25. Contractor shall manage all sumps and sump pumps until they are no longer needed.

26. Contractor shall remove all scrap material and debris from the jobsite and transport to Owner-approved disposal site. Contractor shall remove the materials from the jobsite as soon as practical. Only truck access is available for disposal and scrap removal.

27. Units 1, 2 & 3 steam unit foundations including the basement walls shall be removed down to the top of the basement concrete mat which is at an approximate EL 33’-0” for Units 1 & 2 and EL 29’-0” for Unit 3. Furnish and install structural fill up to 18 inches below finished grade in accordance with Section 02220 – Earthwork. Furnish and install 12 inches of low permeability fill over demolished area in accordance with Section 02220 – Earthwork. Furnish and install 6 inches of top soil on top of the low permeability fill in accordance with Section 02371 – Seeding and Erosion Control.

28. For the Administration Building and all other foundations and slabs remove all concrete foundations in their entirety. No slabs or foundations shall be left where there may be a hollow area underneath the foundation or slab. Install structural fill up to 12 inches below finished grade in accordance with Section 02220 – Earthwork. Install 6 inches of top soil on top of the structural fill in accordance with Section 02371 – Seeding and Erosion Control.

29. Below grade piping shall be capped on the ends and abandoned in place as noted on drawing, unless noted otherwise.

30. Concrete foundations, concrete sidewalk from administration building to Bischeld Street sidewalk and concrete slabs covering manholes and the manholes located in the lawn on the southside of the turbine building shall be removed and backfilled with structural backfill. Unit # 2 GSU concrete foundation, steel electrical conduits and cables adjacent to Unit 2 GSU foundation shall be removed to 24” below grade.

31. Manholes located to the northeast of the turbine building shall be isolated from the turbine building drains and plugged at the manhole. Manhole’s MH-1 & MH-2 shown on Technical Attachments drawing 36 -1 (66-5P-PP1) shall be removed. Piping between MH1 to MH2 shall be abandoned. The piping exiting MH-2 to MH-3 shall be plugged near MH-2.

32. Contractor to remove abandoned acid storage tank foundations on eastside of turbine building.

33. One Natural gas pipe to Units 1, 2 & 3 gas metering stations - isolate and capped at designated termination point as shown on drawing. The Contractor will be required to coordinate with the Owner and gas supply company to perform pipeline shutdown, isolation and purge before capping pipe. Contractor shall provide its line breaking procedure for owner review, prior to making any line breaks on pipes or electrical conduits.

34. Contractor shall cut and cap the existing supply side natural gas supply pipe as indicated on the Reference Drawings. Contractor shall furnish and install cap matching the existing piping material, size, and pressure class. The interior of the piping shall be thoroughly cleaned after

cutting. All welding shall be per B31.1. Contractor shall utilize tungsten inert gas (TIG) root pass for each weld to ensure pipe cleanliness. Clean assembly shall be maintained to minimize foreign matter. All welds shall receive 100 percent visual examination. In addition, all pipeline welds for underground piping shall be 100% radiography inspected prior to coating the weld seams. Pipe coating repair will be in accordance to Technical Document 13S1, Coating System. Nondestructive visual weld examinations and 100% RT of all underground piping welds shall be performed in accordance with ASME B31.1. All welds shall be fully exposed until visual examination and radiography of each weld, leak testing, pressure testing, and cleaning has been successfully completed and accepted. After alterations to existing coated piping have been made, the damaged coating shall be repaired by Contractor. All welds and sharp edges shall be finished smooth, and all weld spatters shall be removed. The metal shall be prepared, and the coating system applied in strict accordance with the instructions and recommendations of the coating manufacturer. Coating shall be suitable for underground piping applications in dry soil conditions. Pipe weld areas may then be placed in the trench and backfilled.

35. Gas Metering Station 1, 2 & 3 building and slab shall be removed. Piping inside of the buildings shall be removed 24” below slab level and capped. Piping outside of the building shall be removed and cut back 24” below grade, capped and abandoned as shown on drawing.

36. Remove except as noted #6 fuel oil (FO) piping underground and above ground in tank farm area as shown on drawing. Soil around the old underground pipe shall be tested by the Contractor. Contaminated soil shall be remediated to state and local regulations by the Contractor as required.

37. Three fuel oil tanks #3, 4, & 5 are to be removed, Tanks #1 &#2 will remain. Fuel oil tanks/piping/pumps and support piers, pump foundations are to be removed. Soil around the old pump foundations and above ground pipeline shall be tested by the Contractor, Contaminated soil shall be remediated to state and local regulations by the Contractor as required.

38. Fuel Oil metering buildings and slabs shall be removed. Piping inside of the buildings shall be removed to 24” below slab level and capped if noted to be abandoned in place. Piping outside of the building shall be removed. Underground fuel oil piping outside of the building boundary shall be removed as part of FO piping removal.

39. Fuel Oil #6 Tank Farm retention berm around tanks #3, 4, & 5 shall be removed, leveled, and restored to grade in accordance with site grading and seeding plans.

40. The Contractor shall provide an “All In” unit price for contaminated soil remediation. The unit price shall include but not be limited to; excavation, transportation to owner approved disposal site, disposal fees, replacement back fill and compacting to specifications. The contractor shall include in their bid a minimum of 2,700 cubic yards of remediated soil. The Contractor’s unit price will be used for addition or subtraction of soil remediation quantities.

41. Remove #2 FO emergency generator day tank adjacent to Unit 3 chimney, northside boiler building.

42. Existing ground grid shall stay intact and not be damaged during demolition. Contractor shall test ground grid integrity before and after demo work in accordance with IEEE std 81 (IEEE guide for measuring earth resistivity, ground impedance and Earth surface potentials of a grounding system).

43. Contractor will remove Unit #3 step up and normal supply transformers. Remove all oil and recycle.

44. Contractor shall obtain all local, state, federal, or other permits required to complete work.

45. The existing Burdick Pumping Station shall not be demolished. Modifications to the existing structure that are required are shown on the drawings included in Section 01100.3. There is a common wall between the Burdick Pumping Station and Unit 1. As such some of the existing Unit 1 column foundations must remain in order to support the common wall. Modifications to the existing Unit 1 foundations are shown on the drawings included in Section 01100.3.
46. Owner has isolated by cut and cap City water supply pipes to main turbine building basement Technical Reference drawing S-181631-Gen-C1.2.
47. Owner has isolated by cut and cap two City sewer pipes to main building as shown on Technical Reference drawing 36-1 Plot Plan.
48. Demolish existing concrete tunnel from steam units to switchyard and install a water-tight caste-in-place reinforced concrete wall just outside of Substation G perimeter fence, Technical Attachment 402379-DS-001.pdf. New concrete wall rebar shall be drilled and adhesive anchored into existing concrete. A hydrophilic water stop shall be installed in accordance with manufacturer's recommendations. Existing concrete surface to which the new concrete is placed shall be roughened to 1/4-inch amplitude and a concrete bonding adhesive shall be applied in accordance with manufacturer's recommendations.
49. The concrete parking lot located to the south east of the front of the turbine building shall stay in place and not be damaged.
50. Furnish and install 6 inches of topsoil over demolished areas, prepare soil, furnish and install seed, fertilizer and mulch in accordance with Section 02371 – Seeding and Erosion Control. Seeding locations are shown on Technical Attachment, 402379-DS-0002-SEEDING COLOR. Ground areas around Substation G will be covered with limestone in accordance with these specifications.

Contractor understands that the work will be performed in an operating power plant. Work shall be performed in required sequence coordinated with plant operations to minimize operational impact.

Where provision of specific equipment, materials and services are specified herein, the Contractor shall provide the equipment, materials and services as specified unless otherwise noted or approved by the Owner.

Where the term "Contractor" is used herein, it shall refer to the Prime Contractor and/or the Prime Contractor's sub and/or the Prime Contractor's Contractor(s). Where the term "Owner" is used herein, it shall refer to the Owner (City of Grand Island) and the Owner's representative(s).

In the event of technical conflicts, errors, or discrepancies, the detailed technical specifications, including this Section 01100 and all higher numbered sections, take precedence over Section 01400, Technical Supplemental Specifications.

01100.1.2 On-Site Representatives

Black & Veatch will have one professional on-site for the full duration of the demolition activities.

01100.1.3 Required Meetings

Weekly coordination meetings will be required by the Owner.

01100.1.4 Work Scope with Division of Responsibility

The Division of Responsibility Matrix defining the Contractor's scope of supply and the Owner's scope of supply is included in the following table and supplements responsibility definition provided throughout the Contract Documents.

Work Scope			
Item	**Description**	**Contractor**	**Owner**
General			
1.	Provide Labor Demolition equipment Demolition materials Incidentals Hardware Consumables including fuel gas (natural gas, oxygen, nitrogen, hydrogen, argon, etc.), cutting tips, electrode tips, cartridges, welding rods, solvent cements and other consumables used in demolition of the work Solvents and cleaning materials Quality control/quality assurance inspection and testing, and related services Management, supervision, and administration required for the work	X	
2.	Provide miscellaneous materials and services as required to perform the work	X	
3.	Comply with local noise ordinance and acceptable working hours.	X	
4.	Purge Natural Gas pipe for isolation and cap	X	
5.	Development of detailed work plans with QA/QC hold points, site orientation and higher risk demolition plan training as noted in Section 01100.2.1	X	
Execution of the Work			
6.	Obtain all required permits for demolition activities	X	
7.	Removal of Asbestos Contained Material		X
8.	Removal of Lead and PCB's as specified and indicated in the Hazardous Material Survey Report.	X	
9.	Contaminated soil removal or remediation	X	
10.	Verify existing conditions which affect the work	X	
11.	Verify the location of existing utilities	X	
12.	Provide surveying and layout work utilizing Owner provided control points	X	
13.	Provide all special tools or lifting beams and lugs for removing equipment and materials	X	
14.	Supply, install and remove all temporary bracing, rigging, attachments, and supports	X	

Work Scope			
Item	**Description**	**Contractor**	**Owner**
15.	Repair damaged facilities outside the demolition area to the satisfaction of the Owner	X	
16.	Dispose of all waste material	X	
Site Services			
17.	Provide all temporary electrical power distribution, construction lighting, and other utilities required for demolition from Contractor-furnished power connection	X	
18.	Provide and maintain construction access roads and heavy haul roads	X	
19.	Construct aggregate surfaced laydown, craft parking and office trailer areas	X	
20.	Provide construction site office and warehousing including furnishings, supplies, telephone service and equipment	X	
21.	Supply and install temporary fencing as needed for site work	X	
22.	Provide and maintain security of Contractor work area and facilities	X	
23.	Provide site services and general conditions for employees including chemical toilets, handwash stations, drinking water, ice, and personal protective equipment	X	
24.	Remove temporary installations at the end of the project or when directed by the Owner	X	
Management, Supervision, and Administration			
25.	Provide documentation as required by the Contract Documents	X	
26.	Submit a detailed demolition schedule and manpower curves by craft covering all demolition activities and update monthly until completion of demolition	X	

Work Scope			
Item	**Description**	**Contractor**	**Owner**
27.	Submit monthly progress reports on the actual progress achieved which includes the following: Project Manager's Statement summarizing the status and condition of the work Project schedules outlining in detail progress to date and expected completion dates for the various major items of the work Description of any anticipated variance from the project schedule, together with an assessment of the impact of such variance, and a statement of the proposed corrective action Status of major materials (commodity curves) and labor progress for Contractor and his subcontractors Status of manpower onsite by craft and manpower available to support demolition activities	X	
28.	Notify appropriate authorities having jurisdiction as required for compliance with laws, regulations, and permits		X
29.	Ensure compliance with laws, regulations, and permits applicable to the project	X	
30.	Coordinate with inspectors and/or testing agencies engaged by the Owner and provide assistance as required to ensure work is conducted in proper sequence and proceeds in a harmonious fashion	X	
31.	Provide Certification of Compliance with specifications and tests	X	
32.	Document as-built information for all remaining structures clearly marked on the Owner’s drawings and provided to Owner when work is complete	X	
Razing and Alterations (Section 02221)			
33.	Raze and alter existing above ground structures: buildings, concrete, foundations, equipment, piping, ductwork, framing, framed structures, fencing, storage tanks, and all other components as indicated on the drawings and in Section 02221 Razing and Alterations	X	
34.	Raze and alter existing underground structures: foundations, roads, drainage structures, wells, septic tanks, and below ground storage tanks as indicated on the drawings and in Section 02221 Razing and Alterations	X	

Work Scope			
Item	**Description**	**Contractor**	**Owner**
35.	Raze and alter existing utilities: overhead telecommunication and power lines, underground utilities such as power, gas, water, underground process lines and electrical services as indicated on the drawings and in Section 02221 Razing and Alterations	X	
36.	Obtain any and all haul permits, burn permits, well abandonment permits or other required permits and pay all associated fees including inspection and tipping fees	X	
37.	Dispose of razed materials by hauling offsite to an approved disposal area or dispose of razed materials onsite as directed by the Owner	X	
Seeding and Erosion Control (Section 02371)			
38.	Regularly inspect erosion and sediment control and SWPPP measures as required by permit	X	
39.	Maintain and repair erosion and sediment control and SWPPP measures for the duration of this Contract	X	
40.	Provide dust control for all work areas and daily street sweeping when haul trucks leave and enter the site	X	
41.	Remove erosion and sediment control measures at conclusion of project	X	
42.	Placement of topsoil	X	
43.	Furnish and deliver seed, fertilizer, mulch, and other materials	X	
44.	Prepare the soil surface, fertilize, seed, compact, mulch, and water	X	
45.	Maintain and protect until accepted	X	
46.	Field inspect seeding and sodding installation		X
Earthwork (Section 02220)			
47.	Conduct preconstruction Proctor compaction testing on structural fill material.	X	
48.	Provide and maintain detours around work areas for site traffic	X	
49.	Preserve and protect from damage existing trees, landscape, wetlands, slopes and habitat as indicated on drawings, specifications or permits	X	
50.	Acquire adequate borrow material from an Owner acceptable offsite source and haul fill material to the site	X	
51.	Place and compact backfill	X	
52.	Obtain any and all haul permits, burn permits or other required permits and pay all associated fees including inspection and tipping fees	X	

Work Scope			
Item	**Description**	**Contractor**	**Owner**
53.	Dispose of surplus earth and materials not suitable for the work by hauling offsite to an approved disposal area	X	
54.	Repair backfill that settles or erodes before the final acceptance of work	X	
55.	Finish grade to Owner approved Contractor site grading plan. Grading plan shall be contoured to maintain existing storm drainage with no areas of ponding or standing water 1 hour after a heavy rain.	X	
56.	Conduct field sampling and testing	X	
57.	Field inspect earthwork and trenching installation		X
58.	Perform GIS Surveying during demolition work		X

01100.2 Scope of Work Clarifications

01100.2.1 General

Contractor shall visit the site and thoroughly inform himself of all conditions, available drawings and factors which would affect the execution and completion of such Work, including, but not limited to consideration of conditions that may affect cost, progress, performance, or furnishing of the Work.

Select Drawings listed in 01100.3 Technical Attachments and 01100.4 Reference Drawings, will be the only drawing provided to the Contractor. All other drawings and equipment manuals will be made available at the plant site during demolition for information only. The Owner and Engineer do not claim the available documents are complete.

Following Notice to Proceed, Contractor shall submit a detailed schedule and modified Demolition Plan (submitted with bid) in sufficient detail to breakdown construction activities into the following key categories: mobilization, asbestos removal, identification and isolation of separation points, major component demolition, scrap processing and removal, site remediation and demobilization.

The Demolition Plan that is provided with the cost proposal shall be expanded into a detailed written work plan post-award, with either diagrams or specific execution steps that are clearly noted on applicable drawings. The project baseline schedule shall outline and correspond with the activities detailed in the Demolition Plan. The proposal shall include a one-page project schedule listing start and end dates for each significant activity and area. Upon award, this schedule shall be resourced loaded and expanded to include additional activities with predecessor and successor relationships.

Pioneering and very high-risk demolition approaches, which require the extensive removal of structural members that substantially compromises the structure while workers are inside or adjacent to the structure during final preparations, are strictly prohibited.

Include in the technical proposal Demolition Plan the weight of each excavator and the weight and type of each attachment (e.g., sheer steel attachment, concrete breaker attachment, concrete processer attachment, etc.). Note if the attachment will be utilized on the excavator's second or third member. If a high-reach excavator is being utilized, provide the reach and weight of the excavator and the weight and type of each of the proposed demolition attachments. If a crane is being utilized, provide the capacity of the crane, and note where it will be located during any lifts that exceed 50% of the crane’s capacity. List all other equipment that will be utilized on the project. E.g., Loaders, Skid steers, Dump Trucks, etc. Include type of equipment and its operating weight. High reach excavator demolition and crane dismantlement is considered higher risk demolition activities.

The post award Demolition Plan shall include owner Quality Control "witness-and-hold" points as appropriate for layout and inspection. Appropriate witness-and-hold points shall be made for all

underground utility capping, and prior to the removal of support columns, lateral cross supports, and any other structural bracing when workers are in or nearby the compromised structure.

The project orientation shall be developed to include power point slides and competency test for the owner and its representatives to review. This training shall include a list and location of emergency services, muster areas in the event of a site emergency, truck route, worker parking, PPE, site entrance and exit, etc. The project orientation shall review the ESH plan and other key project and site requirements for all parties working onsite, including truck drivers and vendors if they leave the cab of their vehicles. Higher risk demolition training shall be provided just before these activities occur. This training shall address the key steps required to safely perform higher risk activities. Each of the key resources for higher risk activities shall be named. The qualifications for these key resources shall also be provided in the technical proposal and the demolition work plan.

Contractor shall review with Owner either by conference call or e-mail report on a weekly basis the project status and schedule. The weekly report shall include the following:

Current status of the job progress

Detailed Look-Ahead Schedule (requirements listed below)

Current and projected manpower

Status of scrap and debris material by type and weight removed.

Changes in the Work

Safety and Quality Control issues

Problem areas or concerns

The weekly schedule update shall include:

Report of all planned work that is to be accomplished during the current week and the next two weeks in support of, and in accordance with, Contractor's detailed schedule

Personnel and resource loading

Report of the planned and actual progress of the previous week

Report of critical activities that are identified to be completed by others, the delay of which would prevent Contractor from starting and completing its planned work activities in accordance with the detailed refurbishment schedule

Report of material removed from site segregated by material type and weight. Material type being trash and debris, scrap material by category (steel, copper, stainless steel, major equipment) by weight in US pounds. Certified copies of empty and full weight measurement of all disposal and scrap transport vehicles and trailers shall be included in weekly report.

Project Close-Out Requirements:

The National Demolition Association (NDA) Project Close-Out Check List with all supporting documentation shall also be provided to the owner upon completion of the project. Red line as left (i.e., as built) drawing shall be provided upon completion clearing showing where foundations and utilities remain and the location and depth of all capped and terminated underground utilities.

01100.2.2 Safety, Health, and Accident Prevention

Contractor shall take all precautions to protect the safety of its employees and others on the site. Work safety requirements shall comply with OSHA and Owner’s site safety regulations. The Contractor shall

provide a full time Onsite “Competent Person” for the duration of the project. This “Competent Person” detailed resume shall be provided in the technical proposal.

*OSHA and ANSI provide the following definition for the "Competent Person."

An OSHA "Competent Person" is defined as "one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has the authorization to take prompt corrective measures to eliminate them" [29 CFR 1926.32(f)].

By ANSI - 2.27 - An individual designated by the employer to be responsible for the immediate supervision, implementation, and monitoring of the employers managed fall protection program who, through training and knowledge, is capable of identifying, evaluating, and addressing existing and potential fall hazards, and who has the employer's authority to take prompt, corrective action with regards to such hazards.

ANSI 10.6 and 29CFR 1926.850 Subpart T Demolition standards shall be strictly adhered to, including, and not limited to the lead, asbestos, silica standard, and nuisance dust. The contractor's "Competent Person" and Owner's Demolition Expert shall be onsite during the final days of preparing and executing higher-risk demolition approaches. Thirty days advance notice shall be provided and scheduled with the owner's Demolition Expert for all high-risk demolition approaches/methods.

01100.2.3 Codes, Standards and Regulations

Contractor shall insure adherence to all codes, standards, and regulations whether local, state, or national, as applicable to safety, structural soundness, good engineering practices, and construction requirements. Codes shall include, but not be limited to, the National Board Inspection Code and the ASME Boiler and Pressure Vessel Code. All materials utilized in fulfillment of the requirements of these specifications shall meet, or be better than, the minimum standards of ASME, ASTM, ANSI, NBIC and other codes and referred to herein.

The current edition and addenda in effect at the date of Contract award shall apply. In case of conflict among codes and standards, the more stringent requirement shall govern to the extent of such difference.

Contractors shall be active members of the National Demolition Association (NDA).

01100.2.4 Quality Assurance

Contractor shall be required to submit within two (2) weeks following contract execution a written draft of the Demolition Plan (DP) for Owner’s review. Owner will review the draft DP and will return comments within 10 business days. Comments shall be resolved by Contractor to Owner’s satisfaction and a final DP shall be issued by Contractor prior to commencing the Work. Any changes in the DP during the course of the Contract shall be reviewed by Owner and issued in approved revisions. Each revision shall be documented in a revision log. The DP shall contain the following as a minimum:

Mobilization
Site Equipment list
Lead Abatement procedures
Asbestos Abatement plan
Fuel Oil contaminated soil removal and remediation
Plant utilities separation
Scrape metal processing & removal
Debris processing & removal
Drainage and storm water runoff during construction
Final Restoration
Nonconformance reporting and Corrections Procedure
Proposed Quality Supervisor’s resume
Site Staffing Plan on a monthly basis

It is the intent of these specifications that Contractor shall provide sufficient supervision to maintain continuous surveillance of QA/QC in the Work area and actively inspecting work in progress.

The Supervisor shall be knowledgeable of all aspects of the work covered in this specification. Prior to the start of the Work. All pertinent documents and paperwork shall be ready prior to the beginning of work.

The Supervisor(s) shall each be responsible to maintain presence in the Work area, and to provide for the continuous inspection and monitoring of craft and subcontractors' workmanship on his assigned shift. The presence of Owner's inspection personnel shall in no way diminish the scope and responsibilities of the Contractor.

Quality records shall be provided. Quality records shall be legible, appropriately completed, and sufficiently detailed to permit traceability to the item or activity involved.

01100.3 Technical Attachments

The technical attachments for this project are as listed below.

Drawing No. or Other Designation	Electronic File Name	Rev. No.	Title
			Hazardous Material Survey Report
402379-DS-0001	402379-DS-0001 Rev A	A	Burdick Pumping Station – Architectural – Roof Plan Modifications
402379-DS-0002	402379-DS-0002	A	Burdick Pumping Station – Demo Key Plan
402379-DS-0003	402379-DS-0003-	0	Burdick Pumping Station – Demo Key Plan
402379-DS-0005	402379-DS-0005	A	Burdick Pumping Station – Demo Key Plan
319-ST-7	3-21	2	Structural Steel Elevations & Details
319-SS-1	6-2	0	Slab Reinforcing Plan Sections and Details
319-SS-2	6-3	0	Anchor Bolt Location Plan and Details
J-6	15-1	---	Water
66-5P-PP-1	36-1	---	Plot Plan
J-4	15-4 Fuel Oil – Gas Lines		Fuel Oil Lines - Gas Lines
S-181631-Gen-C1.0	C0.1.2		Burdick Cooling Water System Modifications WORKING
402379-DS-0007	402379-DS-0007-		SEEDING PLAN
13S1	13S1		Coating System

01100.4 Reference Drawings

The reference drawings for this project are as listed below.

Drawing No. or Other Designation	Electronic File Name	Rev. No.	Title
60-8W-PP1	26-1	----	C.W. Burdick Pumping Station Plot Plan
60-8W-B2	26-2	----	C.W. Burdick Pumping Station Architectural Plans & Details
60-8W-B3	26-3	----	C.W. Burdick Pumping Station Architectural Elevations & Details
60-8W-B4	26-4	----	C.W. Burdick Pumping Station Architectural Elevations & Details
60-8W-B5	26-5	----	C.W. Burdick Pumping Station Structural Plans & Details
60-8W-P2	26-15	----	C.W. Burdick Pumping Station & Platte River Pumping Station Building Lighting & Grounding
60-8W-P7	26-16	----	Pump Room
60-8W-P8	26-17	----	Pump Room
60-8W-P9	26-18	----	Piping
60-8W-WI4	26-19	----	Pump Room Wiring and Details
F-312	15–16	----	Fire Line Relocation Project
319-CW-1	23-1	1	Plan & Elevation, East Circulating Water Supply, Circulating Water Discharge, Building Sewer
319-AR-10	4-11	Sht 11	Railroad Bay - Exterior Wall Details
319-EWS-3	4-31	0	Substation Tunnel & Foundation Details
319-SS-3	6-4	0	Substructure Wall Sections and Details
66-5P-P10		Sht 13	Plan Turbine Area Basement Piping
66-5P-P5	36-8	Sht 8	Flow Diagram - City, Bearing & Circulating Water, C.W. Air Removal, Chemical Feed & Diesel Engine
66-5P-AR -4	36-3	Sht 3	Unit 3 Longitudinal Elevation
IMG_9860.JPG	IMG_9860.JPG		Photo City Chlorination Building
Hazardous Material Test Results	Burdick Station Lead Report 10222019.pdf		Burdick Station Lead Report 10222019.pdf
Hazardous Material Test Results	Burdick PCB Results Unit 3 - 19I1043_1 Contest_Final 09 30 19 0848.pdf		Burdick PCB Results Unit 3 - 19I1043_1 Contest_Final 09 30 19 0848.pdf

Drawing No. or Other Designation	Electronic File Name	Rev. No.	Title
Hazardous Material Test Results	Bockmann Inc Asbestos Survey SKM_C554e19102215220.pdf		Bockmann Inc Asbestos Survey SKM_C554e19102215220.pdf
Hazardous Material Test Results	PCB-03-20190918_102442.jpg		PCB-03-20190918_102442.jpg
Hazardous Material Test Results	PCB-02-20190918_102127.jpg		PCB-02-20190918_102127.jpg
Hazardous Material Test Results	PCB-01-20190918_101802.jpg		PCB-01-20190918_101802.jpg

01100.7 Schedule of Technical Submittals

Item No.	Reference Doc./Sec.	Submittal Items	Submittal Dates			
			Calendar		Event	Due Date
	01100	**General**				
1.	01100.1.1	Storm Water Pollution Prevention Plan (SWPPP)	45	After	Effective Date of this Contract	
2.	01100.1.1	Welding Procedure Specifications (WPS) with applicable Procedure Qualification Records (PQR)	7	Before	Beginning work	
3.	01100.1.1	Natural Gas pipe purge procedure	7	Before	Beginning work	
4.	01100.2.1	Construction, Inspection and Testing Schedule and Status Report	14	After	Effective Date of this Contract With Monthly Updates	
5.	01100.2.4	Demolition Plan	14	After	Effective Date of this Contract	
6.	01100.1.1	Para 12. SPCC (If applicable)				
7.	01100.2.1	Site SOW training and orientation				
8.	01100.2.1	Certified "AS-BUILT" Drawing Markups	45	After	Substantial Completion	
9.	01100.2.1	Quality Manual, Controlled Copy	30	After	Effective Date of this Contract	
10.	01100.1.1	Para 33. Line Breaking Procedure				
11.	01100.2.1	Notification of Inspection/Test	7	Before	Test/ Inspection	
12.	01100.2.2	Provide confined space permitting and rescue plan.	7	Before	Beginning work	
	02220	**Earthwork**				
13.	02220	Compaction Test Results	7	After	Test	
	02221	**Razing and Alterations**				
14.	02221	Methods used to raze or alter facility	7	Before	Beginning work	

21000 - Technical Supplemental Specifications

This section contains technical supplemental specifications that provide additional requirements applicable to the work.

Q500 Technical Data Submittals

This section, in conjunction with the Schedule of Submittals, stipulates the requirements for technical data that Contractor shall submit for Owner's review.

Q500.1 Submittal Requirements

Technical data shall be submitted in electronic format. Hard copy prints of the electronic files shall also be submitted, as specified below.

Q500.2 Compliance Reports

Reports shall be submitted that record the tests performed. Reports shall be submitted for each piece of equipment.

Q500.2.1 Reports Submittal

Reports shall be submitted electronically in Adobe Portable Document Format (PDF).

Q500.2.2 Submittal Reviews

Contractor's schedule shall allow a minimum of two weeks for processing and review of submittals by Owner.

Owner, upon receipt of submittals, shall review and return same to Contractor, marked "No Exceptions Noted," "Exceptions Noted," "Received for Distribution," "Returned for Corrections," "Release for Record," "Void," or "Superseded." The timing of Contractor's submittals and Owner's review shall be in accordance with the Completion Dates for same as set forth in the Contract. The submittal of any submittal document by Contractor to Owner under this Contract will be certification by Contractor that the information set forth therein is accurate in all material respects.

Q500.2.2.1 No Exceptions Noted (NE) or Received for Distribution (RD). Upon receipt of a submittal marked "No Exceptions Noted" or "Received for Distribution", Contractor may proceed with its Work to the extent of and in accordance with the submittal. Contractor shall not resubmit unless the drawing or document is revised, in which case it shall be resubmitted as a new document revision in accordance with Q500.2.2.7.

Q500.2.2.2 Exceptions Noted (EN). Upon receipt of a submittal marked "Exceptions Noted" and if Contractor concurs with Owner's comments, Contractor shall incorporate same and may proceed with its Work to the extent of and in accordance with the annotated submittal. Contractor shall submit to Owner within seven calendar days a revision to the original submittal in which Owner's comments has been incorporated. If Contractor determines that it cannot incorporate Owner's comments without prejudice to Contractor's warranty or other obligations under this Contract, Contractor shall so advise Owner in writing within seven calendar days of its receipt of Owner's comments, stating the reasons therefore. Contractor may proceed with its Work to the extent of and in accordance with the annotated submittal only upon Owner and Contractor resolving Owner's comments.

Q500.2.2.3 Returned for Corrections (RC). Upon receipt of a submittal marked "Returned for Corrections," Contractor shall immediately take all necessary action to revise its submittal in accordance with Owner's comments and shall resubmit to Owner for review the corrected original submittal, voiding previous information and adding new documents if required. In no event shall Contractor proceed with the affected Work until its revised submittals have been returned to Contractor marked "No Exceptions Noted" or "Exceptions Noted" by Owner.

Q500.2.2.4 Release for Record (RR). Receipt of a submittal marked “Release for Record” indicates that there are no specific objections to the document. Work may proceed. Certain project information required by the Owner's document management system may have been added electronically to the drawing and provided to Contractor for the record. Contractor shall not resubmit the drawing or document unless revisions to the submittal are required. If revisions are required, Contractor shall incorporate Owner's information and resubmit as a new revision. Owner's project-specific information shall be added if future revisions and submittals are made.

Q500.2.2.5 Void (VO) or Superseded (SS). Receipt of a submittal marked “Void” or “Superseded” does not require any action by Contractor. “Void” indicates that the submittal is no longer applicable to the project and is not being replaced by other drawings or data. “Superseded” indicates that different drawings or data have replaced the previously submitted drawings and data; this status does not pertain to revisions of the same drawings and data.

Q500.2.2.6 Hold (HO). A submittal may be given a status of "Hold" by the Owner, or the Contractor may have "Holds" on the submittal.

For a Hold status designated by the Owner, the Contractor shall not proceed with the work that is designated on "Hold" except as specifically directed by the Owner. Additional information required for the Contractor to release the "Hold" will be transmitted from the Owner later.

The Contractor shall provide information to the Owner about the cause for any "Holds" designated on the submittal and immediately take all action necessary to resolve the "Holds".

Q500.2.2.7 Resubmittals. If during or subsequent to the completion of the submittal process, Contractor makes further changes to the equipment and materials shown on submittals that have been reviewed by Owner, the changes shall be clearly marked on the submittal by Contractor and the submittal process shall be repeated. Any resubmittal of information shall clearly identify the revisions by footnote or by a form of back-circle, with revision block update, as appropriate.

Q500.2.2.8 Owner’s Review. Owner's review of submittals will cover only general conformity of the data to the Specifications. Owner's review does not include a thorough review of all dimensions, quantities, and details of the equipment, materials or the accuracy of the information submitted. Review and comment by Owner of Contractor's submittals shall not relieve Contractor of its sole responsibility to meet the Completion Dates requirement of this Contract and to supply Goods that conform to the requirements of this Contract.

02220 - Earthwork

02220.1 General

02220.1.1 Scope of Work
Scope of Work shall include completing earthwork and shall include other services as specified under these technical specifications and Section 01100 – Scope of Work.

02220.1.2 Items Furnished by Others and Interfaces
Items furnished by others and not in this Scope of Work shall be as indicated in Section 01100.2.5.

02220.1.3 Performance and Design Requirements
Performance and design requirements for earthwork are indicated in Article 02220.3.

02220.1.4 Codes and Standards
Work performed under these specifications shall be done in accordance with the following codes and standards. Unless otherwise specified, the applicable governing edition and addenda to be used for all references to codes or standards specified herein shall be interpreted to be the jurisdictionally approved edition and addenda. If a code or standard is not jurisdictionally mandated, then the current edition and addenda in effect at the date of this document shall apply. These references shall govern the work except where they conflict with the Owner's specifications. In case of conflict, the latter shall govern to the extent of such difference:

Work	In Accordance With
Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)	ASTM D2487
Standard Practice for Description and Identification of Soils (Visual-Manual Procedure)	ASTM D2488

02220.1.5 Materials
The following materials shall be used:

General	
Component	**Material**
None	

02220.1.6 Approved Manufacturers of Components
For the following components, only the listed manufacturers are recognized as maintaining the level of quality of workmanship required by these specifications. If the Contractor wants to propose a non-listed manufacturer that in considered to provide an equivalent level of quality, this manufacturer must be identified and supporting testimony provided. Acceptance of the manufacturer as a substitute is at the discretion of the Owner:

Component	Manufacturer
Nuclear Surface Moisture-Density Gauge	Troxler Model 3430, 3440, 3450, 3451
Nuclear Surface Moisture-Density Gauge	Campbell Pacific Nuclear (CPN) Model MC-3 and MC-1

02220.1.7 Test Requirements

The following testing shall be conducted in accordance with the specified source. Material, compaction, and testing requirements are found in Table 1.

This testing is to be considered part of the defined Scope of Work, and all associated costs are the responsibility of the Contractor unless specifically identified as Owner-conducted. If identified as Owner-conducted, costs for the initial test will be the responsibility of the Owner. However, the Contractor is responsible for all costs associated with correcting deficiencies and retesting in the event of a test failure.

Tests	In Accordance With	Conducted By
Standard Test Method for Particle Size Analysis of Soils	ASTM D422	Contractor
Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method	ASTM D1556	Contractor
Standard Test Methods for Laboratory Compaction characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft^3)	ASTM D1557 (Modified Proctor)	Contractor
Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method	ASTM D2167	Contractor
Standard Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)	ASTM D6938	Contractor
Standard Test Methods for Maximum Index Density and Unit Weight of Soils Using a Vibratory Table	ASTM D4253	Contractor
Standard Test Methods for Minimum Index Density and Unit Weight of Soils and Calculation of Relative Density	ASTM D4254	Contractor
Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils	ASTM D4318	Contractor
Standard Test Method for Field Water Content	ASTM D3017	Contractor

02220.1.8 Technical Attachments

Technical attachments relevant to the work under this section are listed in Section 01100.

02220.1.9 Technical Supplemental Specifications

Technical supplemental specifications that are applicable to the work covered under this technical specification section are identified and included in Section 21000.

02220.2 Not Used

02220.3 Execution

02220.3.1 General

This article covers general earthwork; removal and disposal of debris; excavation; the handling, storage, transportation, and disposal of excavated material; sheeting, shoring, and protection work; preparation of subgrades; dewatering; protection of adjacent construction; backfill; construction of fills and embankments; surfacing and grading; and other appurtenant work.

All excavations, sheeting, shoring, and temporary excavation support shall be performed in accordance with OSHA 29CFR Part 1926, Subpart P, "Excavations."

02220.3.2 Sheeting and Shoring

The stability of previously constructed structures and facilities shall not be impaired or endangered by excavation work. Previously constructed structures and facilities include both structures and facilities existing when this construction began and structures and facilities already provided under these specifications.

Adequate sheeting and shoring shall be provided to protect and maintain the stability of previously constructed structures and facilities and the sides of excavations until they are backfilled. Sheeting, bracing, and shoring shall be designed and built to withstand all loads and restrain all settlement caused by earth movement or pressure, and shall maintain the shape of the excavation.

02220.3.3 Removal of Water

Adequate dewatering equipment shall be provided to remove and dispose of all surface and ground water entering excavations and other parts of the work. Each excavation shall be kept dry. Control of ground water shall be accomplished in a manner that will preserve the strength of the foundation soils, will not cause instability of the excavation slopes, and will not result in damage to existing structures. Where necessary to these purposes, the water level shall be lowered in advance of excavation, utilizing wells, well points, or similar methods. The water level as measured in piezometers shall be maintained continuously about 1 foot below the prevailing excavation level, or it shall be lowered to within about 1 foot of impermeable strata. Open pumping with sumps and ditches, if it results in boils, loss of fines, softening of the ground, or instability of slopes, will not be permitted. Wells and well points shall be installed with suitable screens and filters so that continuous pumping of fines does not occur. Dewatering shall continue until the construction is no longer affected by ground or surface water. The dewatering system shall only pump water that is clear and free of fines, with a sand content less than 10 ppm. The discharge shall be arranged so that samples can be collected. The turbidity of discharge samples shall be less than 29NTU.

Surface water shall be diverted to the extent possible to prevent entrance into excavations.

Pipe or conduit used for drainage purposes shall be kept clean and free of sediment. Temporary drainage piping that is not a part of the permanent construction shall be removed at the completion of the work.

When the work is completed, all parts of the permanent plant drainage system used for water disposal that have been damaged by dewatering operations shall be repaired. Dewatering work shall not overload the plant drainage system. Dewatering discharge shall be routed to the site stormwater ponds. Temporary detention ponds shall be used for dewatering discharge until the stormwater ponds are constructed.

The Owner shall determine the appropriate discharge location(s) based on permit requirements, discussions with the Engineer, and plant requirements.

Header systems may be laid on top of the ground provided they do not obstruct plant operations, construction activity, or traffic. Groundwater systems shall operate continuously, if necessary, to maintain the specified water level.

Proposed dewatering systems shall be submitted to the Owner for review.

02220.3.4 Blasting

Blasting or other use of explosives for excavation will not be permitted.

All rock which cannot be handled, crushed, processed, and compacted as earth shall be kept separate from other excavated materials and shall not be mixed with backfill or embankment materials except as specified or directed.

02220.3.5 Classification of Excavated Materials

Classification of excavated materials shall be made as follows:

> Rock. Rock shall be defined as limestone, hard shale, sandstone, siltstone, flint, granite, quartzite, slate, or similar material in masses more than 1/2 cubic yard in volume, or in ledges 4 inches or more in thickness that require percussive methods for excavation.
>
> Soil-like rock formations present on the site, such as lignite and clay shale, shall not be considered as rock. Boulders less than 1/2 cubic yard in volume shall not be considered as rock.
>
> Earth. All material not classified as rock.

Boulders over 12 inches in diameter shall be kept separate from other excavated materials. Disposal of boulders shall be as directed by the Owner.

Rock that cannot be handled and compacted as earth shall be kept separate from other excavated materials and shall not be mixed with backfill, fill, or embankment materials.

Soil identification shall be in accordance with ASTM D2487, Table 1, Soil Classification Chart. Identification and classification shall be based upon visual examination and simple manual tests performed by qualified personnel in accordance with ASTM D2488.

02220.3.6 Freezing Weather Restrictions

Backfill and fill shall not be placed during freezing weather unless acceptable to the Owner. Earth material shall not be placed on frozen surfaces, and frozen materials, snow, or ice shall not be placed in any fill or backfill.

02220.3.7 Preservation of Trees

Trees shall be preserved and protected as much as possible. Unless specifically authorized by the Owner, trees shall be removed only from areas within the construction limits. Removal of additional trees may be permitted by the Owner when necessary for the effective execution of the work.

Trees left standing shall be protected from permanent damage. Construction equipment and vehicles shall be parked outside the dripline of trees designated to remain. Trimming of standing trees shall be as directed by the Owner.

02220.3.8 Maintenance of Traffic

Contractor shall conduct his work with as little interference as possible with the work of other contractors. Whenever it is necessary to cross, obstruct, or close roads, driveways, parking areas, and walks, the Contractor shall provide and maintain suitable and safe bridges, detours, or other temporary expedients at his own expense.

02220.3.9 Unauthorized Excavation

Material excavated below the bottom of concrete structures to be supported on the subgrade shall be replaced with concrete placed monolithically with the concrete above. Rock fill or lean concrete may be

used, if acceptable to the Owner. Material excavated below structures supported on piles or piers shall be replaced with crushed rock or gravel. The crushed rock or gravel shall be compacted to a density equal to or greater than the density of the adjacent undisturbed soil.

02220.3.10 Testing

Field and laboratory testing required to determine compliance with the compaction requirements shall be performed by an independent testing laboratory acceptable to the Owner and provided by the Contractor, as well as any labor necessary to support the testing process.

Field sampling and testing shall be performed by NICET Level II Construction Materials Testing technicians or a NICET Level II Construction Materials Testing technician employed by an independent testing company

Field samples shall be taken at locations selected by the Contractor. If, in the opinion of the Owner, additional field control tests are necessary such tests shall be made. Field density tests shall be taken so as to represent the average density over the depth of the layer.

The terms "maximum density" and "optimum moisture content" shall be as defined in ASTM D1557.

Relative density for compacted crushed rock materials shall be determined in accordance with ASTM D4253 and D4254. The term "relative density" shall be as defined in ASTM D4254.

A copy of each test result shall be furnished to the Owner. Testing requirements are provided in Table 1.

02220.3.11 Site Preparation

Subgrades for permanent construction, including subgrades for fills and embankments, shall be stripped of concrete, asphalt, conduit, pipes and demolition or construction debris.

All combustible and other wastes materials shall be removed from the construction areas. Disposal shall be as specified in Section 02231, Clearing and Grubbing.

Clean soil or gravel may be stockpiled for later reuse. Material containing particles (concrete or rock) greater than 3 inches in dimension shall be wasted at a location designated by Owner.

02220.3.12 Not Used

02220.3.13 Fills and Embankments

Fills and embankments shall be constructed to lines and grades indicated on the drawings.

02220.3.13.1 Materials. To the maximum extent available, earth materials obtained from excavations shall be used for the construction of fills and embankments. If additional material is necessary, it shall be obtained from borrow pits. The fill or embankment subgrade shall be scarified, leveled, and rolled. The surface materials of the subgrade shall be compacted and well bonded to the previous layers of fill. All material deposited in fills and embankments shall be earth only and shall be free from rocks or stones larger than allowed by Table 1, brush, stumps, logs, roots, debris, and organic or other objectionable materials. Material deposited in piles or windrows by excavating and hauling equipment shall be spread and leveled prior to compaction.

Fill and embankment material obtained from offsite sources shall be free of contamination. Free of contamination shall be defined as the soil concentration being equal to or lower than the Tier 2 Risk-Based levels for the lesser of either the Residential Scenario Soil direct exposure or Migration to Groundwater Pathways as provided in the Nebraska Voluntary Cleanup Program (VCP) Remediation Goals (RGs).

Each layer shall be thoroughly compacted. If the material fails to meet the density specified, compaction methods shall be modified to attain the specified density. The failed layer shall be re-compacted until the layer meets the specification requirements.

02220.3.13.2 Subgrade Preparation. The subgrade shall be leveled and compacted in accordance with Table 1. The subgrade surface shall be well bonded to the previous layers of fill.

02220.3.13.3 Placement and Compaction. Fill and embankment materials shall be placed in approximately horizontal layers. Material deposited in piles or windrows shall be spread and leveled before compaction.

Water shall be added to meet the moisture content required in Table 1 and worked into each layer using harrow, disk, blade, or other acceptable equipment to provide uniform moisture content. If the material fails to meet the specified density in Table 1, compaction methods shall be altered.

02220.3.13.4 Borrow Areas. Material necessary to complete fills and embankments shall be excavated from borrow areas and hauled to the fill or embankment site. Borrow material will not be available on the Owner's property and shall be furnished from an Owner acceptable source.

02220.3.14 Structure Excavation

Excavation for structures shall be completed to the designated lines and elevations. Machine excavation shall be controlled to prevent undercutting the subgrade elevations indicated on the drawings.

Excavated materials that meet the specified requirements may be used for the fills, embankments, and backfills.

Vertical faces of excavations shall not be undercut to provide for extended footings.

02220.3.15 Structure Subgrades

Subgrades for structures shall be firm, dense, free from mud, thoroughly compacted to the specified density in Table 1, and sufficiently stable to remain firm and intact.

Structure subgrades that cannot achieve the required density shall be over-excavated and replaced with structural fill.

Subgrades that are otherwise solid, but become mucky on top due to construction operations, shall be stabilized by reinforcing them with one or more layers of crushed rock or gravel unless otherwise noted on the drawings.

The finished elevation of stabilized structure subgrades shall not be above the subgrade elevations indicated on the drawings.

02220.3.16 Structural Fill

Structural fill is placed beneath roads and structures. Structural fill shall be mechanically compacted. Compaction of structural fill by inundation with water will not be permitted. Structural fill requirements are provided in Table 1. All new backfill under demolished areas shall be considered structural fill. Structural fill shall be brought up to 18 inches below finished grade.

Structural fill material shall be composed of earth only and recycled concrete from the demolition site sized in accordance to Table 1 to the extent possible, shall be void of wood, grass, roots, stones, trash, or other debris. No tamped, rolled, or otherwise mechanically compacted backfill shall be deposited or compacted in water.

All structural fill material shall consist of loose earth having a moisture content required in Table 1 to obtain the specified density (Table 1) of the compacted soil. Moisture content shall be distributed

uniformly. Water added for correction of moisture content shall be distributed uniformly prior to compaction. Granular material shall be wet, not just damp, when compacted.

02220.3.17 Low Permeability Fill

Low permeability fill shall be placed on top of the structural fill to prevent seepage of surface water into the granular structural fill. Low permeability fill shall be deposited in approximately horizontal layers and shall be mechanically compacted in accordance with Table 1. Compaction of low permeability fill by inundation with water will not be permitted. Thickness of low permeability fill shall be 12 inches.

Low permeability fill material shall be composed of earth only and, to the extent possible, shall be void of wood, grass, roots, broken concrete, stones, trash, or other debris. No tamped, rolled, or otherwise mechanically compacted backfill shall be deposited or compacted in water.

All low permeability fill material shall consist of loose earth having a moisture content required in Table 1 to obtain the specified density (Table 1) of the compacted soil. Moisture content shall be distributed uniformly. Water added for correction of moisture content shall be distributed uniformly prior to compaction.

02220.3.18 Not Used

02220.3.19 Not Used.

02220.3.20 Not Used

02220.3.21 Not Used

02220.3.22 Maintenance and Restoration of Fills, Embankments, and Backfills

Fills, embankments, and backfills that settle or erode before final acceptance of the work, and pavement, structures, and other facilities damaged by such settlement or erosion shall be repaired. The settled or eroded areas shall be filled, compacted, and graded to conform to the elevation indicated on the drawings or to the elevation of the adjacent ground surface. Damaged facilities shall be repaired in a manner acceptable to the Owner.

Earth slopes of the roads and railroads constructed under these specifications shall be maintained to the lines and grades indicated on the drawings until the final acceptance of the work.

02220.3.23 Final Grading

After all construction work has been completed, all ground surface areas disturbed by construction activities shall be graded. The grading shall be finished to the matching contours and elevations of the original, undisturbed ground surface. The final grading shall provide smooth uniform surfaces and effective drainage of the ground areas.

02220.3.24 Disposal of Materials

Surplus earth and materials not suitable for the work shall be Owner disposed of offsite by the Contractor. Disposal shall be in accordance with all federal, state, and local requirements.

Table 1

Materials, Compaction, and Testing Requirements

Material	Plasticity Require-ments	Gradation Require-ments	Maximum Density	Maximum Density Test Frequency	Required Field Density	Field Density Test	Field Density Test Frequency	Required Field Water Content	Field Water Content Test	Required Lift Thickness	Remarks
Structure subgrade	LL < 40 PI < 15	3 inch maximum;	ASTM D1557, Method C	1 initial test; further tests as directed	95% Max. Dry Density	ASTM D2922 (10% of tests to be ASTM D1556)	One test per 200 sy, or as required. Min one per foundation for foundations over 10 sy	-2% to +2% of optimum water content	ASTM D3017 (10% of tests to be ASTM D1556)	8 in. depth	-
Structural fill (Fills beneath structures)	**Non-plastic**	**3 inch maximum; ≤5 percent minus No. 200 (75 µm)**	ASTM D1557, Method C	3 initial tests, further tests as directed	95% Max. Dry Density	ASTM D6938; ASTM D1556	One test per 200 cy, or as required	-2% to +2% of optimum water content	ASTM D6938; ASTM D1556	8 inches thick lift prior to compaction (loose lift)	
Low Permeability Fill	Cohesive material (Soil Classifi-cation SC or CL as indicated in ASTM D2487, Table 1	3 inch max greater than or equal to 85 percent minus No. 200	ASTM D1557, Method C	2 initial tests; further tests as directed	95% Max. Dry Density	ASTM D6938; ASTM D1556	One test for each groundwater barrier	-2% to +3% of optimum water content	ASTM D6938; ASTM D1556	8 inches max	

ASTM C33 = Standard Specification for Concrete Aggregates.
ASTM D698 = Standard Test Methods for Laboratory Compaction Characteristics of Soil using Standard Effort (12,400 ft-lb/ft³).
ASTM D1556 = Standard Test Method for Density and Unit Weight of Soil in Place by the Sand Cone Method.
ASTM D1557 = Standard Test Methods for Laboratory Compaction Characteristics of Soil using Modified Effort (56,000 ft-lb/ft³)
ASTM D2167 = Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber-Balloon Method.
ASTM D2922 = Standard Test Method for Density of Soil and Soil Aggregate in Place by Nuclear Methods (Shallow Depth).
ASTM D3017 = Standard Test Method for Water Content for Soil and Rock in place by Nuclear Methods (Shallow Depth).

ASTM D4253 = Standard Test Methods for Maximum Index Density and Unit Weight of Soils using a Vibratory Table.
ASTM D4254 = Standard Test Methods for Minimum Index Density and Unit Weight of Soils and Calculation of Relative Density.

02221 - Razing and Alterations

02221.1 General

02221.1.1 Scope of Work
Scope of work shall include furnishing materials, labor, incidentals, equipment and other services to perform razing and alteration work identified in this technical specification and Section 01100 – Scope of Work.

02221.1.2 Technical Attachments
Technical attachments relevant to the work under this section are listed in Section 01100.

02221.1.3 Technical Supplemental Specifications
Technical supplemental specifications that are applicable to the work covered under this technical specification section are identified and included in Section 21000.

02221.2 Not Used

02221.3 Execution

02221.3.1 General
This article covers razing, removal, and alterations of existing structures and facilities within the limits indicated.

Except as otherwise indicated or specified, the repair of surfaces remaining after material and equipment are removed will not be required.

02221.3.1.1 Conditions of Structures. The drawings indicate the approximate locations of existing structures and equipment. The full extent and nature of the work shall be determined by a thorough inspection of the site.

The Engineer does not guarantee this data. The inspection shall take place during the bidding period. Dimensions shall be verified, and discrepancies shall be reported to the Engineer.

The Contractor will maintain conditions existing at the time of inspection as long as it is practicable. However, the Contractor may remove some equipment before razing activities commence.

02221.3.1.2 Protection. Existing utilities shall be protected, and service shall not be interrupted except when authorized by the Owner.

Existing structures, utilities, and equipment that are designated to remain in place shall be protected from damage. All damaged structures and equipment shall be promptly repaired. Special attention shall be directed to the safety and protection of plant operating personnel and construction personnel engaged on the premises.

Dust shall be controlled during material removal operations by water spray, vacuum cleaners, or other methods acceptable to the Owner.

In areas where welding or flame cutting is performed, fire protection shall be provided. Areas shall be dust free before flame cutting begins. Flame resistant blankets shall be provided to protect combustible materials and finished surfaces. Dry chemical fire extinguishers shall be provided in these areas, and workmen shall be trained in their use.

02221.3.2 Razing

Razing methods shall be in accordance with all codes, ordinances, and requirements of the governing authority and shall assure the safety of persons, equipment, and existing structures.

Materials and equipment designated to be salvaged for reuse or turned over to the Owner for future use shall be removed without damage as reasonably as can be performed.

02221.3.2.1 Existing Structures and Foundations. The Contractor shall raze and dispose of all structures within the limits of construction designated on the drawings or by the Owner. Combustible materials shall not be allowed to be burned onsite disposal will be as directed by the Owner. Non-combustible materials shall be disposed as specified herein. Disposal shall be in accordance with all applicable governmental regulations.

Unless otherwise indicated by the Engineer, foundations designated to be razed shall be completely removed. The space shall be backfilled and compacted in accordance with Section 02220 - Earthwork.

02221.3.2.2 Existing Fencing. Designated sections of existing fencing shall be removed or relocated as required. This work shall include the complete removal of posts and concrete, rails, wires, fence fabric and other appurtenances. Postholes shall be filled with earth and compacted in accordance with Section 02220 - Earthwork.

Fencing removal shall be performed as directed by the Owner or as indicated on the drawings. Work shall be scheduled and coordinated to maintain plant security.

Temporary openings required in existing fencing shall be closed at the end of each working day. Temporary closure methods shall be acceptable to the Owner.

Fence components shall be neatly segregated and concrete shall be removed from the posts to the greatest extent possible. Existing fabric, barbed wire and posts shall be stockpiled or disposed of as directed by the Owner. Concrete rubble shall be disposed of as directed by the Owner.

Removed fencing shall be reinstalled after completion of the construction operations as directed by the Owner. Damaged components shall be repaired or replaced before fencing is reinstalled.

02221.3.2.3 Existing Wells. **Not Used**

02221.3.2.4 Not Used

02221.3.2.5 Existing Roads. Existing roads that are within the Facility's property limits may be used as construction roads. Note: There is a tunnel that runs under the road from Sub H to Phelps control building. No heavy equipment is to be driven over tunnel. Heavy equipment and trucks are to use the east gate entrance. Traffic on public roads shall not be diverted and public roads shall not be razed until the Contractor obtains permission from the authority having jurisdiction.

For existing roads that are indicated to be removed, all subgrade materials shall be broken up to a depth of 12 inches, graded, and compacted. All concrete or asphalt pavement materials shall be disposed of as indicated herein.

All culverts and other existing structures shall be removed and disposed.

02221.3.2.6 Miscellaneous Underground Facilities. **Not Used**

02221.3.2.7 Existing Utilities. Overhead utilities such as telecommunication and power lines will be removed, relocated, or abandoned by their owners as indicated on the drawings. Abandoned overhead utilities indicated on the drawings shall be removed from the Owner's property and disposed of in an acceptable manner.

Abandoned underground utilities indicated on the drawings for removal and that interfere with the work shall be removed. These utilities shall be removed from the Owner's property and disposed of in an acceptable manner.

02221.3.3 Alterations

02221.3.3.1 Concrete Modifications. Concrete removal shall be planned and executed according to the plan. Vibration, dust, and rubble shall be kept to a minimum. Sections of concrete designated to be removed shall have the outline of the section scored on the exposed surfaces with a concrete or masonry saw. The cut depth shall be as great as practicable without cutting reinforcing steel and shall be about 1 inch. Score lines shall be straight and parallel or perpendicular to the major axis of the structure, unless otherwise designated by or acceptable to the Engineer.

After the scores have been made, the concrete shall be removed in the largest pieces possible in a manner that will prevent damage to the remaining structures and facilities. Reinforcing steel designated to remain shall be exposed and cleaned to provide a bonding surface. This reinforcing steel shall not be heated. Bending shall be limited and performed to minimize the effect on the strength and ductility. Reinforcing that is damaged, to the extent that its strength is impaired, shall be replaced with dowels or corrected as directed by the Engineer.

Existing concrete surfaces that will be in contact with new concrete shall be rough and clean. Surface mortar shall be removed to expose the aggregate, and all loose particles and foreign substances shall be removed. Immediately prior to placing new concrete, the existing concrete surfaces shall be coated with epoxy bonding compound. The bonding compound shall be applied in accordance with the manufacturer's instructions. Temperature limitations shall be observed.

Exposed broken and irregular surfaces of remaining concrete shall be finished to match comparable adjacent exposed concrete surfaces. These surfaces shall be ground and filled with mortar or covered with a mortar cap. Before the mortar fill or cap is applied, the existing surface shall be coated with epoxy bonding compound.

Holes for sleeves in hardened concrete shall be made with a core drill. Sleeves shall be grouted in place with setting cement.

Razed concrete and other debris shall be removed from the site.

02221.3.3.2 Masonry Modifications. The removal of masonry shall be planned and executed to allow work to proceed without delay and with a minimum of vibration, dust, and rubble.

Removed masonry materials shall be disposed. Use of salvaged masonry materials in lieu of new masonry units will not be permitted except as directed by the Engineer.

During removal operations, mortar deposited on steel designated to remain in place shall be removed. Existing anchors welded or otherwise secured to steel shall be removed. Remaining weld metal shall be ground flush with surrounding surfaces. Steel shall be left in a clean, paintable condition.

Masonry work shall match the surrounding existing masonry surfaces to the maximum extent practicable. New brickwork shall be keyed into existing brickwork. Brickwork shall be saw cut where indicated.

02221.3.3.3 Structural and Miscellaneous Metal Modifications. Razed metal materials shall be reused only if indicated on the drawings or as specified. Materials not designated or specified to be reused shall be disposed.

Steel framing designated to be removed shall be disconnected and removed without impairing the stability of the remaining structure and without damaging the remaining members and connections. To

the extent practicable, steel framing shall be removed by the disassembling of bolted or riveted connections. Connection rivets shall be drilled or otherwise removed without damage to holes designated to be reused. Flame cutting of rivets in holes designated to be reused will not be acceptable.

Cutting or welding shall not be performed until adequate fire control provisions have been made.

Cuts shall be neatly made and ground smooth. Weld metal remaining on existing steel after modifications shall be ground flush with the remaining surfaces.

02221.3.4 Salvage and Rubbish

Except for materials or equipment designated to be retained, all razed materials, debris, and rubbish shall be promptly removed from the site and disposed of in accordance with all applicable governmental regulations.

02221.3.5 Cleanup

At the completion of razing work, the entire razed area shall be cleaned of all debris and rubbish. Interior areas shall be cleaned of settled dust, mortar, plaster, and contaminants.

Razing and Alterations Specification Sheet

Name	
The facilities and materials listed below shall be razed up to the limits indicated on the drawings. These include, but are not limited to, the following:	
Unit 1 Boiler and Turbine Building	
Unit 2 Boiler and Turbine Building	
Unit 3 Boiler and Turbine Building	
Unit 1, 2 & 3 Chimneys (3)	
Administration Building, Maintenance shop	
# 6 Fuel Oil Unloading and Fuel Forwarding Pump Houses	
Fuel Oil Tanks and piping and support structures	
Above ground natural gas piping, metering stations and building structures	
Excavations of existing structures shall be filled with compacted earth	to match the existing contours
Existing roads shall be	worked into the subgrade to match the surrounding contours

02371 - Seeding and Erosion Control

02371.1 General

02371.1.1 Scope of Work
Scope of work shall include furnishing materials, labor, incidentals and equipment required to perform erosion control work, in accordance with applicable laws, ordinances and this specification and Section 01100 – Scope of Work.

02371.1.2 Technical Attachments
Technical attachments relevant to the work under this section are listed in Section 01100.

02371.1.3 Supplemental Specifications
Technical supplemental specifications that are applicable to the work covered under this technical specification section are included in Section 01400.

02371.1.4 Additional Requirements
Additional requirements for the seeding and erosion control work are indicated herein:

Seeding method	Drill seeding, and/or Broadcast seeding, and/or Hydroseeding
Seed mixture	As indicated in Article 02371.2.5
Seed application rate	As indicated in Article 02371.2.5
Fertilizer	Soil testing is required to determine the proper fertilizer proportions and application rate.
Mulch method	Blown straw and/or Hydromulch
Mulch application rate	Straw mulch : 2.5 tons/acre (minimum) and prairie hay mulch : 2.0 tons/acre (minimum)
Erosion control blankets	Straw mats or Excelsior mats or Jute mats
Water Supply Responsibility	Contractor
Guarantee period	1 year
Top Soil Thickness	Minimum of 6 inches

02371.2 Products

02371.2.1 General
All seeding and erosion control work shall be performed by a contractor who is experienced and regularly engaged in the type of work specified and whose work is acceptable to the Owner. The work shall be performed using acceptable equipment manufactured expressly for its intended purpose.

The Contractor shall not start seeding and erosion protection or preparatory work until authorized by the Owner.

Materials for seeding and soil erosion protection include topsoil, lime, and fertilizer, seed, mulch, tackifiers and erosion control blankets.

02371.2.2 Topsoil
Topsoil imported to the site shall be fertile, friable, natural loam containing a liberal amount of humus and shall be capable of sustaining plant growth. Topsoil shall be free of subsoil and shall be reasonably free of stone, lumps, clods of hard earth, plants or their roots, stalks, and other extraneous matter.

02371.2.3 Lime
Agricultural limestone or agricultural hydrated lime shall be applied prior to or during soil preparation only if it shown to be required by soil testing. Liquid lime may be used with hydraulic applications.

02371.2.4 Commercial Fertilizer
Fertilizer shall be a commercial mixture. The percentage of nitrogen, phosphorus and potassium in the fertilizer and the application rate shall be as specified herein. Additional nutrients shall be added to account for any deficiencies in the soil condition. Fertilizer shall be uniform in composition, free flowing, and suitable for application with acceptable equipment.

02371.2.5 Seed
All seed shall meet the requirements of the seed laws of the State of Nebraska and the requirements of the following specifications and be U.S. Department of Agriculture certified.

Seed mixture shall be fresh, clean, new crop seed. Grass shall be of the previous year's crop and in no case shall the weed seed content exceed 1 percent by weight. The seed shall be furnished and delivered in new, cleaned, sealed, and properly labeled containers unless written exception is granted. Seed that has become wet, moldy, or otherwise damaged will not be acceptable.

A manufacturer's Certificate of Compliance shall be received with each shipment of each type of seed. The certificates shall include the guaranteed percentages of purity, weed content, and germination of the seed, and also the net weight and date of shipment.

Permanent seed mix shall be composed of the following:

Species	Loading Rate (PLS)
K-31 Fescue	10 lbs/1000 sq ft

Loading rates are based on Percent Pure Live Seed (PLS). The pure live seed percentage is calculated by multiplying percent purity by percent germination. To determine the amount of bulk seed needed, divide the PLS Loading Rate required above by the Percent of Pure Live Seed.

$$\text{Bulk seed needed (lbs/1000 sq ft)} = \frac{\text{Loading Rate}}{(\%\text{Purity} \times \%\text{Germination})/10{,}000}$$

Seeding and fertilizing shall not be done during periods of such severe drought, high winds, or excessive moisture, as determined by the Project Field Manager, that satisfactory results are not likely to be obtained.

Seed shall be applied at the rate for the mixture stipulated above.

02371.2.6 Mulch
Mulching materials shall conform to the following requirements.

02371.2.6.1 Vegetative Mulch. Vegetative mulch shall consist of straw or hay free from rot or mold and shall be in a good state of preservation when used. Vegetative mulch shall be primarily long, heavy stemmed material delivered in dry bales and shall be kept dry until applied. Vegetative mulch shall be as free as practicable from weed seed and other deleterious substances.

02371.2.6.2 Wood Cellulose or Paper Fiber Mulch. Wood cellulose or paper fiber mulch, for use with the hydraulic application of grass seed and fertilizer, shall consist of specially prepared wood cellulose or paper fiber, processed to contain no germination prohibiting factors, and dyed an appropriate color to facilitate visual metering of application of the materials. Mulch shall be manufactured so that after addition and agitation in slurry tanks with fertilizers, grass seeds, water, and any other acceptable additives, the fibers in the material will become uniformly suspended to form a homogenous slurry. Mulch shall be of such a consistency that when hydraulically sprayed on the ground, the material will form a blotter-like ground cover impregnated uniformly with grass seed, which, after application, will allow the absorption of moisture and allow water to reach the underlying soil.

02371.2.7 Tackifiers

Organic and polyacrylamide polymer tackifiers may be added to the slurry mixture when hydraulic applications of grass seed or mulch are used. Selection of a tackifier shall be based on the slope conditions at the site, the type of mulch and the mulch application rate. Slurry mixtures that include tackifiers and paper fiber mulch shall be designed to prevent the formation of a “paper mache” crust over the seeded area. Organic or polyacrylamide tackifiers may also be used with straw and hay mulches.

02371.2.8 Erosion Control Blankets

Erosion blankets shall conform to the following requirements.

02371.2.8.1 Straw Mats. Straw mat material shall be machine produced with the straws interlocking to form a continuous web. Straw shall be well preserved and free of mold or rot. The web of fibers shall be distributed uniformly throughout the mat, resulting in a mat of uniform thickness and density. Mats shall be covered on one side with photodegradable netting, which shall not exceed a mesh size of 1 1/2 inches by 1 1/2 inches. Mats shall be furnished in rolls 90 inches wide with a length of not less than 120 feet. The dry weight shall be approximately 0.50 pound per square yard.

Mats shall be smolder resistant. The smolder resistant treatment shall be non-leaching and shall be non-injurious to vegetation, animals, and humans.

Mats shall be held in place with "U" shaped staples made from No. 11 gauge or heavier bare wire. The wire shall be bent in the center to form a "U" 1-1/2 to 2 inches wide. The staples shall be 10 inches long for sandy soil and 6 inches long for other soils.

02371.2.8.2 Excelsior Mats. Excelsior mat material shall be machine produced with the excelsior fibers interlocking to form a continuous web. A minimum of 80 percent of the fibers shall be at least 8 inches long. The web of fibers shall be distributed uniformly throughout the mat, resulting in a mat of uniform thickness and density. Mats shall be covered on one side with a photodegradable netting which shall not exceed a mesh size of 3 inches by 3 inches. Mats shall be furnished in rolls 90 inches wide with a length of not less than 120 feet. The dry weight shall be approximately 0.85 pound per square yard.

Mats shall be smolder resistant. The smolder resistant treatment shall be non-leaching and shall be non-injurious to vegetation, animals, and humans.

Mats shall not be held in place with "U" shaped staples or other metallic objects. Other means to secure the excelsior mats in place which is acceptable to the Owner shall be utilized.

02371.2.8.3 Jute Mesh. Jute mesh shall be a uniform, open, plain weave of new and unused smolder resistant non-leaching single jute yarn. The yarn shall be loosely twisted and shall be reasonably uniform in diameter. Jute mesh shall be furnished in 48 inch wide rolls at least 150 feet long with a weight of at least 0.9 pound per square yard. There shall be a minimum of 76 warp ends per 48 inch width with approximately 41 woof ends per linear yard.

Mats shall not be held in place with "U" shaped staples or other metallic objects. Other means to secure the jute mesh in place which is acceptable to the Owner shall be utilized.

02371.3 Execution

02371.3.1 Preparation of Soil

The area to be planted shall be thoroughly tilled to a depth of at least 3 inches by disking, harrowing, or other acceptable methods until the soil is well pulverized. After completion of the tilling operation, the surface shall be cleared of all stones, stumps, or other objects larger than 1-1/2 inches in thickness or diameter, and of roots, wire, grade stakes, and other objects that might be a hindrance to maintenance operations. Any undisturbed areas with a satisfactory cover of native grasses shall be left uncultivated and unplanted.

Topsoil shall be spread over the entire area to be planted before the beginning of soil preparation.

Lime shall be added to the soil in amounts required to raise pH to a level acceptable for planting.

02371.3.2 Fertilizing

Commercial fertilizer of the type specified shall be distributed uniformly over the entire planting area. The fertilizer shall be applied with a fertilizer drill before the beginning of the mulching operation as a part of the soil preparation, or if a seed drill with a fertilizer attachment is used, fertilizer may be applied with the seeding operation following the mulching.

If seed is to be applied by hydraulic application, the fertilizer may be mixed with the seed and mulch and applied as a slurry as specified in the article titled Wood Cellulose or Paper Fiber Mulch.

02371.3.3 Seeding

Seed shall be applied uniformly at rates specified herein.

Drills shall deliver seeds uniformly in each drill furrow so that seeds are covered not to exceed 1/2 inch deep. When drilling seed, provisions shall be made by markers or other acceptable means to assure that successive planted strips will overlap or be separated by a space not greater than the space between rows planted by the equipment being used. If inspection during planting operations, or after there is a show of green, indicates that strips wider than the space between planted rows have been left or other areas skipped, additional seed shall be planted in such areas. On slopes too steep for the practical operation of power drawn equipment, grass seed shall be broadcast uniformly by hand methods and raked into the surface or by hydraulic seeding.

Hydraulic application of seeds shall be in accordance with recommendations of the seed supplier and the manufacturer or the hydraulic application equipment.

02371.3.4 Compacting

Immediately after drill or broadcast seeding operations have been completed, the entire area shall be compacted by means of a cultipacker, roller, or other acceptable equipment.

02371.3.5 Mulching

Mulching shall be performed within 24 hours after seeding, but shall not be done during windy or rainy weather. If the seedbed has become crusty, eroded, or disturbed by the Contractor's operations before mulching, the Contractor shall rework the soil and reseed in these areas. Mulching shall be started at the windward side of relatively flat areas or at the upper part of steep slopes and shall continue uniformly until each area is covered.

02371.3.5.1 Vegetative Mulch. Alternate methods of placing vegetative mulching follow.

Baled straw or hay shall be broken up and loosened sufficiently before being fed into the blower hopper to avoid the placing of matted or unbroken clumps. The use of wet straw or hay is prohibited.

The mulch and tackifier shall be placed with conventional mechanical equipment, which will distribute the mulch uniformly by blowing it onto the area. The equipment shall be provided with jet nozzles spaced in

the muzzle of the blower, through which the tackifier is ejected simultaneously with the mulch, coating the mulch uniformly. Small areas may be mulched by hand by spreading the mulch in a loose, fluffy condition and sprayed with the tackifier over the surface of the mulch.

Vegetative mulching material without tackifier may also be used provided that it is disked or punched into the soil so it is partially covered. Several passes may be required, if a straight disk is used, in order to mix the mulching material with the topsoil sufficiently to ensure protection from erosion by either wind or water. The mulch tilling operation shall be performed parallel to the ground contours.

Under some circumstances, it may become desirable to apply straw or hay mulch and anchor it into the soil on steep slopes to prevent erosion as soon as construction of the slopes is completed as determined by the Owner.

02371.3.5.2 Wood Cellulose or Paper Fiber Mulch. Wood cellulose or paper fiber mulch, for use with the hydraulic application of grass seed and fertilizer, shall be applied uniformly. The fiber mulch, fertilizer, and seed mixture shall be mixed with water to form a slurry to be applied under pressure. Hydraulic equipment used for the application of the slurry shall have a built-in agitation system. The slurry distribution lines shall be large enough to prevent stoppage and shall be equipped with a set of hydraulic spray nozzles that will provide even distribution of the slurry on the slopes to be mulched.

02371.3.6 Erosion Control Blankets

Mats shall be placed over the specified areas within 24 hours after seeding.

Mats shall be rolled loosely over the required areas. Lifting and stretching of the material will not be permitted. Mats may be placed parallel with the direction of the flow of water.

The edges of excelsior mats shall be tightly butted together.

The edges of jute mat strips shall be overlapped a minimum of 3 inches with the lap joints made in the direction of water flow wherever practicable.

02371.3.7 Watering

Watering will be required to promote the establishment of healthy turf. Areas that have been seeded shall be watered such that water will penetrate into the soil.
Additional applications of water will be required until the grass is well established after planting.

The Contractor shall furnish all pipes, pumps, hoses, sprinklers, and other materials necessary to apply water.

02371.3.8 Maintenance and Protection

The Contractor shall maintain all planted areas until final acceptance of the work. Any portions of the areas of planting which fail to show a fairly uniform stand of grass that is expected to fill in within one growing season by natural spreading shall be replanted as before, except commercial fertilizer shall be applied at one-half the original rate.

Care shall be taken to avoid overwatering on the sloped areas to prevent erosion. Any areas that have become eroded shall be regraded and replanted. Topsoil shall be added if required.

02371.3.9 Guarantee

The Contractor shall guarantee all work and materials for a period specified herein after completion of the erosion control work. During the guarantee period, turf that dies shall be replaced by and at the expense of the Contractor. Replacement made under the Contractor's guarantee shall be covered by a like guarantee for the same period of time as the original guarantee after completion of the replacement.

02731 - Aggregate Surfacing

02731.1 General

02371.1.1 Scope of Work
Scope of work shall include furnishing materials, labor, incidentals and equipment required to perform erosion control work, in accordance with applicable laws, ordinances and this specification and Section 01100 – Scope of Work.

02371.1.2 Technical Attachments
Technical attachments relevant to the work under this section are listed in Section 01100.

02371.1.3 Supplemental Specifications
Technical supplemental specifications that are applicable to the work covered under this technical specification section are included in Section 01400.

02731.1.1 Scope of Work
Scope of work shall include the materials and construction for aggregate Substation G and this specification and Section 01100 – Scope of Work.

02731.1.2 Items Furnished by Others and Interfaces
Items furnished by others and not in this Scope of Work shall be as indicated in Section 01100.2.5.

02731.1.3 Performance and Design Requirements
Performance and design requirements for aggregate surfacing are indicated in Article 02731.1.5.

02731.1.4 Codes and Standards
Work performed under these specifications shall be done in accordance with the following codes and standards. Unless otherwise specified, the applicable governing edition and addenda to be used for all references to codes or standards specified herein shall be interpreted to be the jurisdictionally approved edition and addenda. If a code or standard is not jurisdictionally mandated, then the current edition and addenda in effect at the date of this document shall apply. These references shall govern the work except where they conflict with the Engineer's specifications. In case of conflict, the latter shall govern to the extent of such difference:

Work	In Accordance With
None	

02731.1.5 Materials
The following materials shall be used:

Substation/Switchyard Area Surfacing (ASTM C33 Size #67)	
Component	**Material**
Aggregate surfacing material	Washed granite
Dust palliative	Calcium Chloride
Weed eradicator	Allied Chemical "UROX" or "URAB" DuPont "Hyvar-X" or "Hyvar-XL" US Borax "Ureabor"
US Standard Sieve Size (square):	Master Range % Passing:

Substation/Switchyard Area Surfacing (ASTM C33 Size #67)	
Component	**Material**
1 inch	100
3/4 inch	90 – 100
3/8 inch	20 – 55
No. 4	0 – 10
No. 8	0 – 5
Aggregate Thickness	Minimum of 6 inches

02731.1.6 Not Used

02731.1.7 Test Requirements
The following testing shall be conducted in accordance with the specified source.

This testing is to be considered part of the defined Scope of Work, and all associated costs are the responsibility of the Subcontractor unless specifically identified as a Bid Option or Purchaser-conducted. Tests identified as an option are to be priced separately. If identified as Purchaser-conducted, costs for the initial test will be the responsibility of the Purchaser. However, the Subcontractor is responsible for all costs associated with correcting deficiencies and retesting in the event of a test failure:

Tests	In Accordance With	Conducted By
Maximum dry density and optimum moisture content	ASTM D698 or ASTM D1557	Contractor
Los Angeles abrasion	ASTM C131	Contractor
Sodium sulfate or magnesium sulfate soundness	ASTM C88	Contractor
In-place density by nuclear methods (shallow)	ASTM D2922	Contractor
Aggregate sampling	ASTM D75	Contractor
Sieve analysis of fine and coarse aggregates	ASTM C136	Contractor
California Bearing Ratio of laboratory-compacted soils	ASTM D1883	Contractor
Sand equivalent value	ASTM D2419	Contractor
Liquid limit, plastic limit, and plasticity index	ASTM D4318	Contractor

02731.1.8 Technical Attachments
Technical attachments relevant to the work under this section are listed in Section 01100.

02731.1.9 Supplemental Specifications
Technical supplemental specifications that are applicable to the work covered under this technical specification section are identified and included in Section 21000.

02731.2 Products

02731.2.1 General
This article covers materials for aggregate surfacing. Work shall include furnishing all material, equipment, and labor necessary for installing and testing aggregate surfacing as specified herein and as required in Article 02731.1.5.

02731.2.2 Source
The sources of materials shall be acceptable to the Engineer. Except as modified herein, materials shall conform to the requirements of the governing standards. Delivery tickets for all materials delivered to the site shall be submitted to the Site QA Manager at the end of each day during the progress of the work.

02731.2.3 Aggregate Surfacing Material
The gradation for the aggregate base course and surface course shall be as indicated in Article 02731.1.5. Aggregate surfaced areas constructed under these specifications shall be maintained until final acceptance of the work.

The abrasion loss shall be no more than 40 percent when subjected to 500 revolutions in a Los Angeles abrasion machine.

That fraction passing the 3/4 inch sieve and retained on the No. 4 sieve shall have a loss not greater than 15 percent by weighted average at five cycles of a sodium sulfate or magnesium sulfate soundness test. The specific gravity shall not be less than 2.54. That fraction of the material passing the 3/4 inch sieve and retained on the No. 4 sieve shall contain less than 20 percent by weight of flat and elongated particles. The materials shall consist of angular particles with not less than 90 percent of particle count having two or more fractured surfaces.

A minimum wet resistivity of **3,000** ohm-m is required for all aggregate surfacing.

02731.3 Execution
A job mix formula shall be established by the Contractor and shall be acceptable to the Engineer prior to the start of work. This mix shall not be changed without prior authorization from the Engineer.

02731.3.1 Protection of Subgrade
Ditches and drains along the subgrade shall be maintained to provide effective drainage. When ruts are formed that are 2 inches or more in depth and are unacceptable to the Owner, the subgrade shall be brought to grade, reshaped, and recompacted. In no case shall aggregate surfacing be placed on a muddy subgrade. Storage or stockpiling of materials on the subgrade will not be permitted.

02731.3.2 Subgrade Preparation
Immediately prior to surfacing, the subgrade shall be shaped to the grade and cross section indicated on the drawings. The top 12 inches of the subgrade shall be compacted to 95 percent of the maximum dry density, ASTM D1557, Method C. During compaction, the subgrade shall be at minus 2 to plus 2 percent of the optimum moisture content.
This operation shall include any scarifying, reshaping, and wetting required to obtain the specified compaction. Soft, organic, and other unacceptable material shall be removed from the subgrade and replaced with material meeting the requirements of Section 02220 - Earthwork.

Any deviation of the subgrade surface in excess of 1 inch, as indicated by a 16 foot straightedge or template cut to typical section, shall be corrected by loosening, adding or removing material, reshaping, and recompacting. The subgrade elevation shall be within plus or minus 0.1 foot of the specified elevation shown on the drawings.

02731.3.3 Application
Aggregate shall be placed on the subgrade in layers of uniform thickness not exceeding 0.1 foot in compacted depth. The aggregates for each course shall be handled and spread in a manner that will

prevent segregation of sizes. A greater layer thickness may be considered if it can be clearly demonstrated that the desired compaction can be obtained for the entire layer thickness.

Each layer shall be cleaned of loose and foreign matter before the subsequent layer is placed. Water content of the material shall be maintained during placement. Moisture content shall be maintained at +2 to -2 percent of optimum.

Top surface of the compacted aggregate base course shall be finished by blading or with automated equipment especially designed for the purpose and rolled with a steel-wheeled roller. The addition of thin layers of fine materials to the top of the base course to meet the grade will not be acceptable. Instead, scarify the top surface, add material, and recompact.

Surfaces of the completed aggregate base shall not deviate more than 0.1 foot when tested with a 0.1 foot straightedge. The completed compacted thickness of any course shall not be greater than minus 0.1 foot of indicated thickness, and the average thickness shall not be less than the design thickness indicated. The top surface elevation shall be within plus or minus 0.1 foot of the specified elevation shown on the drawings.

02731.3.4 Dust Palliative

A dust palliative in accordance with Article 02731.1.5 shall be applied to the roads, parking areas, and other areas indicated on the drawings.

If a slow curing or medium curing asphalt is used, it shall be applied at a rate not to exceed 0.5 gallon per square yard. Emulsified asphalt shall be diluted with at least 5 parts of water by volume.

02731.3.5 Sampling and Testing

All field and laboratory sampling and testing shall be provided by an independent testing laboratory retained by the Contractor. The laboratory shall be acceptable to the Engineer and Site Construction Manager.

Samples of the in-place compacted aggregate shall be taken at random, in accordance with the requirements of ASTM D75. A minimum of two samples of compacted in-place aggregate shall be taken. Sieve analysis shall be made from all samples. The fine aggregate sand equivalent value shall be not lower than 35, or the material passing the No. 40 sieve size shall have a liquid limit less than 25 or a plasticity index less than 4. The laboratory compacted California Bearing Ratio of the material shall not be less than 100 after soaking for 4 days. The test specimens shall be compacted at optimum moisture content.

One copy of the test results shall be provided to the Site QA Manager, who will retain the copy at the site. One copy of the test results shall be provided to the Engineer, if required.

02731.3.7 Weed Eradicator

After subgrade preparation and prior to applying the final aggregate layer, the area designated as aggregate surfaced on the drawings shall be treated with a weed eradicator.

Weed eradicator shall be applied in strict accordance with the manufacturer's instructions.

This material shall not be applied when wind conditions may cause drifting to areas not specified to be treated.

CITY OF GRAND ISLAND

Working Together for a Better Tomorrow, Today.

REQUEST FOR BIDS - SITE CONDITIONS

BURDICK STATION DEMOLITION 2022

Site Visit: Bidders shall visit the site in order to inform themselves of the conditions under which the work is to be performed, concerning the site of the work, available drawings, the nature of the existing facilities, the obstacles which may be encountered, the sequence of the work, and all other relevant matters concerning the work to be performed.

No extra compensation shall be allowed by reason of the failure of such bidder to fully inform themselves of said site conditions prior to the bidding. The Contractor shall employ, so far as possible, such methods and means in the carrying out of their work as will not cause any interruption or interference with the City's operations and any other contractors.

A site visit may be arranged by contacting Lynn Mayhew at (308) 385-5494 or lmayhew@giud.com.

Burdick Generating Station is located at 100 East Bischeld, Grand Island, Nebraska.

Date of Site Visit_____

Person/Company visiting site: _____

Grand Island Utilities Project Manager_____

MINIMUM INSURANCE REQUIREMENTS
CITY OF GRAND ISLAND, NEBRASKA

The successful bidder shall obtain insurance from companies authorized to do business in Nebraska of such types and in such amounts as may be necessary to protect the Bidder and the interests of the City against hazards or risks of loss as hereinafter specified. This insurance shall cover all aspects of the Bidder's operations and completed operations. Failure to maintain adequate coverage shall not relieve Bidder of any contractual responsibility or obligation. Minimum insurance coverage shall be the amounts stated herein or the amounts required by applicable law, whichever are greater.

1. WORKERS COMPENSATION AND EMPLOYER'S LIABILITY

This insurance shall protect the Bidder against all claims under applicable State workers compensation laws. This insurance shall provide coverage in every state in which work for this project might be conducted. The liability limits shall not be less than the following:

Workers Compensation	Statutory Limits
Employers Liability	$100,000 each accident
	$100,000 each employee
	$500,000 policy limit

2. BUSINESS AUTOMOBILE LIABILITY

This insurance shall be written in comprehensive form and shall protect the Bidder, Bidder's employees, or subcontractors from claims due to the ownership, maintenance, or use of a motor vehicle. The liability limits shall not be less than the following:

Bodily Injury & Property Damage	$ 500,000 Combined Single Limit

3. COMPREHENSIVE GENERAL LIABILITY

The comprehensive general liability coverage shall contain no exclusion relative to explosion, collapse, or underground property. The liability limits shall not be less than the following:

Bodily Injury & Property Damage	$ 500,000 each occurrence
	$1,000,000 aggregate

4. UMBRELLA LIABILITY INSURANCE

This insurance shall protect the Bidder against claims in excess of the limits provided under employer's liability, comprehensive automobile liability, and commercial general liability policies. The umbrella policy shall follow the form of the primary insurance, including the application of the primary limits. The liability limits shall not be less than the following:

Bodily Injury & Property Damage	$1,000,000 each occurrence
	$1,000,000 general aggregate

5. ADDITIONAL REQUIREMENTS

The City may require insurance covering a Bidder or subcontractor more or less than the standard requirements set forth herein depending upon the character and extent of the work to be performed by such Bidder or subcontractor.

Insurance as herein required shall be maintained in force until the City releases the Bidder of all obligations under the Contract.

The Bidder shall provide and carry any additional insurance as may be required by special provisions of these specifications.

6. CERTIFICATE OF INSURANCE

Satisfactory certificates of insurance shall be filed with the City prior to starting any work on this Contract**. The certificates shall show the City as an additional insured on all coverage except Workers Compensation. The certificate shall state that thirty (30) days written notice shall be given to the City before any policy is cancelled (strike the "endeavor to" wording often shown on certificate forms). If the Bidder cannot have the "endeavor to" language stricken, the Bidder may elect to provide a new certificate of insurance every thirty (30) days during the contract. Bidder shall immediately notify the City if there is any reduction of coverage because of revised limits or claims paid which affect the aggregate of any policy.**