DOCUMENT 009113 - ADDENDA

1.1 PROJECT INFORMATION

A. Project Name: Westside Park – Pond Improvements.

B. Owner: City of Yankton.

C. Landscape Architect: Stockwell Engineers, Inc.

D. Landscape Architect Project Number: 21289.

E. Date of Addendum: April 8, 2022.

1.2 NOTICE TO BIDDERS

A. This Addendum is issued to all registered plan holders pursuant to the Instructions to Bidders and Conditions of the Contract. This Addendum serves to clarify, revise, and supersede information in the Project Manual, Drawings, and previously issued Addenda. Portions of the Addendum affecting the Contract Documents will be incorporated into the Contract by enumeration of the Addendum in the Owner/Contractor Agreement.

B. The Bidder shall acknowledge receipt of this Addendum in the appropriate space on the Bid Form.

C. The date for receipt of bids is unchanged by this Addendum, at same time and location.

1.3 ATTACHMENTS

A. This Addendum includes the following attached Documents and Specification Sections:

1. Section 316216 – Steel Helical Piles, dated April 8, 2022, (new).

    a. Add section with Helical pile requirements.

B. This Addendum includes the following attached Sheets:

1. Civil Sheet C-300, dated April 8, 2022, reissued.

    a. Added note addressing artisan well.

2. Structural Sheet S-201, dated April 8, 2022, reissued.

    a. Added alternate foundation option of helical piers instead of steel pipe pile.

3. Structural Sheet S-202, dated April 8, 2022, reissued.

    a. Added alternate foundation option of helical piers instead of steel pipe pile.

4. Structural Sheet S-300, dated April 8, 2022, reissued.

    a. Added alternate foundation option of helical piers instead of steel pipe pile.

5. Structural Sheet S-301, dated April 8, 2022, reissued.

    a. Added alternate foundation option of helical piers instead of steel pipe pile.

6. Structural Sheet S-302, dated April 8, 2022, new.

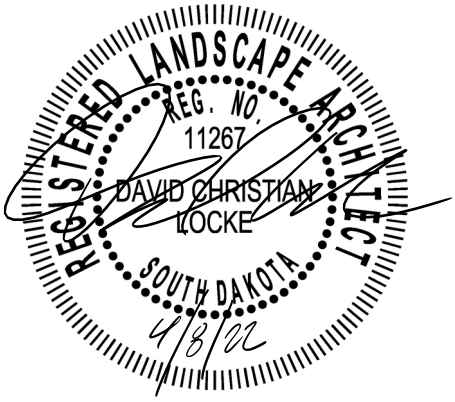
    a. Added sheet with Helical pier requirements and loading information.

1.4 SUBSTITUTIONS AND PRODUCT OPTIONS

A. The following material or equipment furnished by the manufacturers listed may be substituted as equal, providing that each item, material and piece of equipment conforms to the design and requirements of the Drawings and Project Manual.

SECTION	ITEM	MANUFACTURER
12	Prefabricated Continental Express Bridge	TrueNorth Steel Wheeler

END OF DOCUMENT 009113



SECTION 316216 - STEEL HELICAL PILES

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes the furnishing of all designs, materials, tools, equipment, labor and supervision, and installation techniques necessary to install Helical Piles as detailed on the drawings, including connection details.

1.3 PREINSTALLATION MEETINGS

A. Pre-installation Conference: Conduct conference at Project site.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: Submit drawings showing fabrication and installation details for piles, including details of helix plates, splices, and pile caps.
   1. Indicate welds by standard AWS symbols, distinguishing between shop and field welds, and show size, length, and type of each weld.
   2. Indicate methods of corrosion protection.
   3. Submit structural analysis data signed and sealed by a qualified professional engineer responsible for their preparation and registered in the State of this project.

C. Calibration Reports: Submit copies of calibration reports for each torque indicator or torque motor, and all load test equipment to be used on the project. The calibration tests shall have been performed within forty five (45) working days of the date submitted. Helical Pile installation and testing shall not proceed until the Owner has received the calibration reports. These calibration reports shall include, but are not limited to, the following information:
   1. Name of project and Contractor
   2. Name of testing agency
   3. Identification (serial number) of device calibrated
   4. Description of calibrated testing equipment
   5. Date of calibration
   6. Calibration data

D. Installation Records: Submit copies of Helical Pile installation records within 24 hours after each installation is completed. Formal copies shall be submitted on a weekly basis. These installation records shall include, but are not limited to, the following information.
   1. Name of project and Contractor
   2. Name of Contractor's supervisor during installation
   3. Date and time of installation
   4. Name and model of installation equipment
   5. Type of torque indicator used

6. Location of Helical Pile by assigned identification number
7. Actual Helical Pile type and configuration - including lead section (number and size of helix plates), number and type of extension sections
8. Helical Pile installation duration and observations
9. Total length of installed Helical Pile
10. Cut-off elevation
11. Inclination of Helical Pile
12. Installation torque at one-foot intervals for the final 10 feet
13. Comments pertaining to interruptions, obstructions, or other relevant information
14. Rated load capacities

1.5 INFORMATION SUBMITTALS

A. Welding certificates.

B. Mill Test Reports: For steel pipes and steel plate, signed by manufacturer.

C. Pile-Installation Equipment Data: Include type, make, and torque rating.

D. Pile-Driving Records: Submit within three days of driving each pile.

E. Certified Piles Survey: Submit within seven days of pile driving completion.

F. Field quality-control reports.

G. Preconstruction Photographs: Photographs or video of existing conditions of adjacent construction. Submit before the Work begins.

1.6 QUALITY ASSURANCE

A. Helical Pile Contractor Qualifications: The contractor shall be experienced in performing design and construction of helical piles, and shall furnish all materials, labor, and supervision to perform the work. The Contractor shall be trained and certified by the manufacturer of the helical piles in the proper methods of design and installation of helical piles. The Contractor shall provide names of on-site personnel involved with the work. At a minimum, these personnel shall include foreman, machine operator, and project engineer/manager.

B. Testing Agency Qualifications: Qualified according to ASTM E 329 for the testing indicated.

C. Welding Qualifications: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."

1.7 DESIGN CRITERIA

A. Helical Piles shall be designed to meet the specified loads and acceptance criteria as shown on the drawings. The calculations and drawings required from the Contractor shall be submitted to the Owner for review and acceptance.

B. The overall length and installed torque of a Helical Pile shall be specified such that the required in-soil capacity is developed by end-bearing on the helix plate(s) in an appropriate strata(s).

1.8 DELIVERY, STORAGE, AND HANDLING

A. Deliver piles to Project site in such quantities and at such times to ensure continuity of installation. Handle and store piles at Project site to prevent buckling or physical damage.
   1. Painted Piles: Protect finish and touch up paint damage before driving piles.

1.9 FIELD CONDITIONS

A. Protect structures, underground utilities, and other construction from damage caused by pile driving.

B. Site Information: A geotechnical report has been prepared for this Project and is included elsewhere in the Project Manual for information only.

C. Preconstruction Photographs: Inventory and record the condition of adjacent structures, underground utilities, and other construction. Document conditions that might be misconstrued as damage caused by pile driving. Comply with Section 013233 "Photographic Documentation."

PART 2 PRODUCTS

2.1 STEEL SHAFT

A. The central steel shaft, consisting of lead sections, helical extensions, and plain extensions, shall be RS (Round Shaft).
   1. The size and material strength of the shaft shall be as required to support the loads as indicated on the structural drawings.

2.2 HELIX PLATES

A. Plates shall be hot rolled carbon steel sheet, strip, or plate formed on matching metal dies to true helical shape and uniform pitch. Bearing plate material shall be as required to support the loads as indicated on the structural drawings.

2.3 BOLTS

A. The size, quantity, and type of bolts used to connect the central steel shaft sections together shall be as required to support the loads as indicated on the structural drawings.

2.4 CORROSION PROTECTION

A. Galvanization: All material shall be hot-dipped galvanized in accordance with ASTM A153 after fabrication.

2.5 FABRICATION

A. Fabricate and assemble piles in shop to greatest extent possible.

B. Pile-Length Markings: Mark each pile with horizontal lines at 12-inch intervals; label the distance from pile tip at 60-inch intervals. Maintain markings on piles until driven.

PART 3 EXECUTION

3.1 EXAMINATION

A. Site Conditions: Do not start pile operations until earthwork fills have been completed or excavations have reached an elevation of 6 to 12 inches above bottom of footing or pile cap.

3.2 INSTALLATION EQUIPMENT

A. Helical Piles shall be installed with high torque, low RPM torque motors, which allow the helical screw plates to advance with minimal soil disturbance.

B. Equipment shall be rotary type, hydraulic power driven torque motor with clockwise and counter- clockwise rotation capabilities. The torque motor shall be capable of continuous adjustment to revolutions per minute (RPM's) during installation. The torque motor shall have torque capacity 15% greater than the torsional strength rating of the central steel shaft to be installed.

C. Equipment shall be capable of applying adequate down pressure and torque simultaneously to suit project soil conditions and load requirements. The equipment shall be capable of continuous position adjustment to maintain proper Helical Pile alignment.

D. A torque indicator shall be used during Helical Pile installation. The torque indicator can be an integral part of the installation equipment or externally mounted in-line with the installation tooling. The torque indicator shall:
   1. Be capable of providing continuous measurement of applied torque throughout the installation.
   2. Be capable of torque measurements in increments of at least 500 ft-lb
   3. Be calibrated prior to pre-production testing or start of work. Torque indicators which are an integral part of the installation equipment, shall be calibrated on-site. Torque indicators which are mounted in-line with the installation tooling, shall be calibrated either on-site or at an appropriately equipped test facility. Indicators that measure torque as a function of hydraulic pressure shall be calibrated at normal operating temperatures.
   4. Be re-calibrated, if in the opinion of the Owner and/or Contractor reasonable doubt exists as to the accuracy of the torque measurements.

3.3 PILE INSTALLATION

A. The Helical Pile installation technique shall be such that it is consistent with the geotechnical, logistical, environmental, and load carrying conditions of the project.

B. The lead section shall be positioned at the location as shown on the working drawings. Battered Helical Piles can be positioned perpendicular to the ground to assist in initial advancement into the soil before the required batter angle shall be established.

C. The Helical Pile sections shall be engaged and advanced into the soil in a smooth, continuous manner at a rate of rotation of 5 to 20 RPM's. Extension sections shall be provided to obtain the required minimum overall length and installation torque as shown on the working drawings. Connect sections together using coupling bolt(s) and nut torqued to 40 ft-lb.

D. Sufficient down pressure shall be applied to uniformly advance the Helical Pile sections approximately 3 inches per revolution. The rate of rotation and magnitude of down pressure shall be adjusted for different soil conditions and depths.

E. Termination Criteria
   1. The torque as measured during the installation shall not exceed the torsional strength rating of the central steel shaft.
   2. The minimum installation torque and minimum overall length criteria as shown on the working drawings shall be satisfied prior to terminating the Helical Pile installation.
   3. If the torsional strength rating of the central steel shaft and/or installation equipment has been reached prior to achieving the minimum overall length required, the Contractor shall have the following options:
      a. Terminate the installation at the depth obtained subject to the review and acceptance of the Owner, or:
      b. Remove the existing Helical Pile and install a new one with fewer and/or smaller diameter helix plates. The new helix configuration shall be subject to review and acceptance of the Owner. If re-installing in the same location, the top-most helix of the new Helical Pile shall be terminated at least (3) three feet beyond the terminating depth of the original Helical Pile.
   4. Do not re-use Type RS Helical Pile shaft material after the coupling bolt holes have been noticeably elongated during a previous installation.
   5. If the minimum installation torque as shown on the working drawings is not achieved at the minimum overall length, and there is no maximum length constraint, the Contractor shall have the following options:
      a. Install the Helical Pile deeper using additional extension sections, or:
      b. Remove the existing Helical Pile and install a new one with additional and/or larger diameter helix plates. The new helix configuration shall be subject to review and acceptance of the Owner. If re-installing in the same location, the top-most helix of the new Helical Pile shall be terminated at least (3) three feet beyond the terminating depth of the original Helical Pile.
      c. De-rate the load capacity of the Helical Pile and install additional Helical Pile(s). The de-rate capacity and additional Helical Pile location shall be subject to the review and acceptance of the Owner.
   6. If the Helical Pile is refused or deflected by a subsurface obstruction, the installation shall be terminated and the pile removed. The obstruction shall be removed, if feasible, and the Helical Pile re-installed. If the obstruction can't be removed, the Helical Pile shall be installed at an adjacent location, subject to review and acceptance of the Owner.
   7. If the torsional strength rating of the central steel shaft and/or installation equipment has been reached prior to proper positioning of the last plain extension section relative to the final elevation, the Contractor may remove the last plain extension and replace it with a shorter length extension. If it is not feasible to remove the last plain extension, the Contractor may cut said extension shaft to the correct elevation. The Contractor shall not reverse (back-out) the Helical Pile to facilitate extension removal.
   8. The average torque for the last three feet of penetration shall be used as the basis of comparison with the minimum installation torque as shown on the working drawings. The average torque shall be defined as the average of the last three readings recorded at one-foot intervals.

3.4 ALLOWABLE TOLERANCES

A. Centerline of Helical Piles shall not be more than 3 inches from indicated plan location.

B. Helical Pile plumbness shall be within 2° of design alignment.

C. Top elevation of Helical Pile shall be within+ l inch to -2 inches of the design vertical elevation.

3.5 FIELD QUALITY CONTROL

A. Special Inspections and testing: Owner will engage a qualified special inspector to perform the following special inspections:
   1. Helical pile installation.
   2. Welding

B. Tests and Inspections:
   1. Weld Testing: In addition to visual inspection, welds shall be tested and inspected according to AWS D1.1/D1.1M and inspection procedures listed below, at testing agency's option. Correct deficiencies in Work that test reports and inspections indicate do not comply with the Contract Documents.
      a. Liquid Penetrant Inspection: ASTM E 165.
      b. Magnetic Particle Inspection: ASTM E 709; perfo1med on root pass and on finished weld. Cracks or zones of incomplete fusion or penetration are not accepted.
      c. Radiographic Inspection: ASTM E 94, minimum quality level "2-2T."
      d. Ultrasonic Inspection: ASTM E 164.

C. Prepare test and inspection reports.

3.06 DISPOSAL

A. Remove withdrawn piles and cutoff sections of piles from site, and legally dispose of them off Owner's property.

END OF SECTION

REMOVE ASPHALT 18" WIDE ALONG REMOVED CURB.

REMOVE CONCRETE CURB, GUTTER AND TAPER.

REMOVE CONCRETE SIDEWALK.

OUTLET IS AN ARTISAN WELL. DIVERSION OF NATURALLY FLOWING WATER MAY BE REQUIRED THROUGHOUT THE PROJECT DEPENDING ON GROUNDWATER LEVELS & RAIN EVENTS.

PROTECT OUTLET.

REMOVE BRIDGE, INCLUDING ALL SUPPORTS AND ABUTMENTS.

REMOVE CONCRETE SIDEWALK TO NEAREST CONTROL JOINT WHERE PRACTICAL.

RELOCATE LIGHT POLE. SEE ELECTRICAL PLANS.

PROTECT EXISTING TREE AND MONUMENT.

REMOVE AND SALVAGE RIPRAP FOR RESET.

REMOVE SEGMENTAL BLOCK RETAINING WALL.

CLEAR & GRUB TREE & STUMP.

REMOVE BENCH AND SALVAGE TO OWNER.

REMOVE AND REPLACE CONCRETE SIDEWALK AS NECESSARY FOR ELECTRICAL CONNECTION. SEE ELECTRICAL PLANS. MATCH EXISTING PAVEMENT DEPTHS.

REMOVE BENCH AND SALVAGE TO OWNER.

REMOVE CONCRETE PAD.

PROTECT EXISTING OUTLET STRUCTURE.

REMOVE OUTLET STRUCTURE.

22.07'
4.02'
8.58'
8.22'
123.93'
81.60'
7.77'

SUMMIT ST

W 5TH ST

0 12.5 25 50

GENERAL NOTES

PRIOR TO ANY EXCAVATION AT THE SITE, CONTRACTOR SHALL EXAMINE ANY APPLICABLE DRAWINGS AVAILABLE FROM THE OWNER AND/OR THE LANDSCAPE ARCHITECT, AND CONSULT WITH THE OWNER'S PERSONNEL AND UTILITY COMPANIES REPRESENTATIVES TO DETERMINE POSSIBLE UTILITY LOCATIONS AND DEPTHS. NO COMPENSATION WILL BE ALLOWED FOR DAMAGE RESULTING FROM FAILURE TO COMPLY WITH THIS REQUIREMENT. REPORT TO OWNER'S REPRESENTATIVE ANY DAMAGE TO EXISTING UTILITIES PRIOR TO REPAIR. CALL SOUTH DAKOTA ONE CALL: 811 (IN-STATE) OR (800)781-7474 (OUTSIDE OF SOUTH DAKOTA).

THE CONTRACTOR SHALL VERIFY THE LOCATION AND PROTECT ALL UTILITIES AND STRUCTURES. DAMAGE TO UTILITIES AND STRUCTURES SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER OF THE UTILITIES.

FIELD VERIFY EXISTING GRADES AND LOCATIONS OF EXISTING UTILITIES, CONDUIT, LINES, POLES, TREES, PAVING, BUILDING, AND OTHER SITE STRUCTURES PRIOR TO DEMOLITION OR CONSTRUCTION AND IMMEDIATELY INFORM THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES.

PRIOR TO START, COORDINATE AND SCHEDULE ENGINEER TO MARK REMOVAL LIMITS.

INSTALL EROSION CONTROL DEVICES PRIOR TO START.

CONTACT THE LANDSCAPE ARCHITECT PRIOR TO REMOVING ANY PLANT MATERIAL NOT INDICATED TO BE PROTECTED OR REMOVED.

PROTECT ALL ITEMS WITHIN CONTRACT LIMITS NOT INDICATED TO BE REMOVED. NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES.

CONTRACTOR SHALL SAW CUT ALL ASPHALT OR CONCRETE TO BE REMOVED TO THE NEAREST CONTROL JOINT WHERE PRACTICAL.

KILL AND REMOVE ALL EXISTING VEGETATION NOTED ON THE PLANS PRIOR TO ALL GRADING ACTIVITIES.

REMOVE AND STOCKPILE ALL TOPSOIL FROM AREAS TO BE PAVED.

LEGEND

- REMOVE CONCRETE SIDEWALK
- REMOVE CONCRETE CURB & GUTTER
- REMOVE STRUCTURE
- REMOVE & SALVAGE FOR RESET RIPRAP
- CLEAR & GRUB TREE, STUMP, AND/OR BUSH
- TREE PROTECTION FENCING
- SITE DISTURBANCE LIMITS
- CENTERLINE
- PROPERTY LINE
- CONTOUR LINE
- NATURAL GAS
- UNDERGROUND TELEPHONE
- STEAM LINE
- UNDERGROUND POWER
- OVERHEAD POWER
- UNDERGROUND CABLE TV
- OVERHEAD CABLE TV
- SANITARY SEWER
- STORM SEWER
- WATER MAIN
- CURB AND GUTTER
- POWER POLE
- LIGHT POLE
- GUY WIRE
- WATER VALVE
- GAS VALVE
- MANHOLE
- FIRE HYDRANT
- TRAFFIC SIGNAL
- EXISTING SPOT ELEVATION
- BENCHMARK
- IRON PIN FOUND
- FENCE, BARBED WIRE
- FENCE, CHAIN LINK

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City of Yankton SOUTH DAKOTA Ideas Flow Here

WESTSIDE PARK
POND IMPROVEMENTS
YANKTON, SOUTH DAKOTA
SEI PROJECT #: 21289

REGISTERED LANDSCAPE ARCHITECT REG. NO. 1129 DAVID CHRISTIAN LOCKE SOUTH DAKOTA

PLOT DATE 4/8/2022 4:25 PM

ADD #1

EXISTING CONDITIONS & REMOVALS

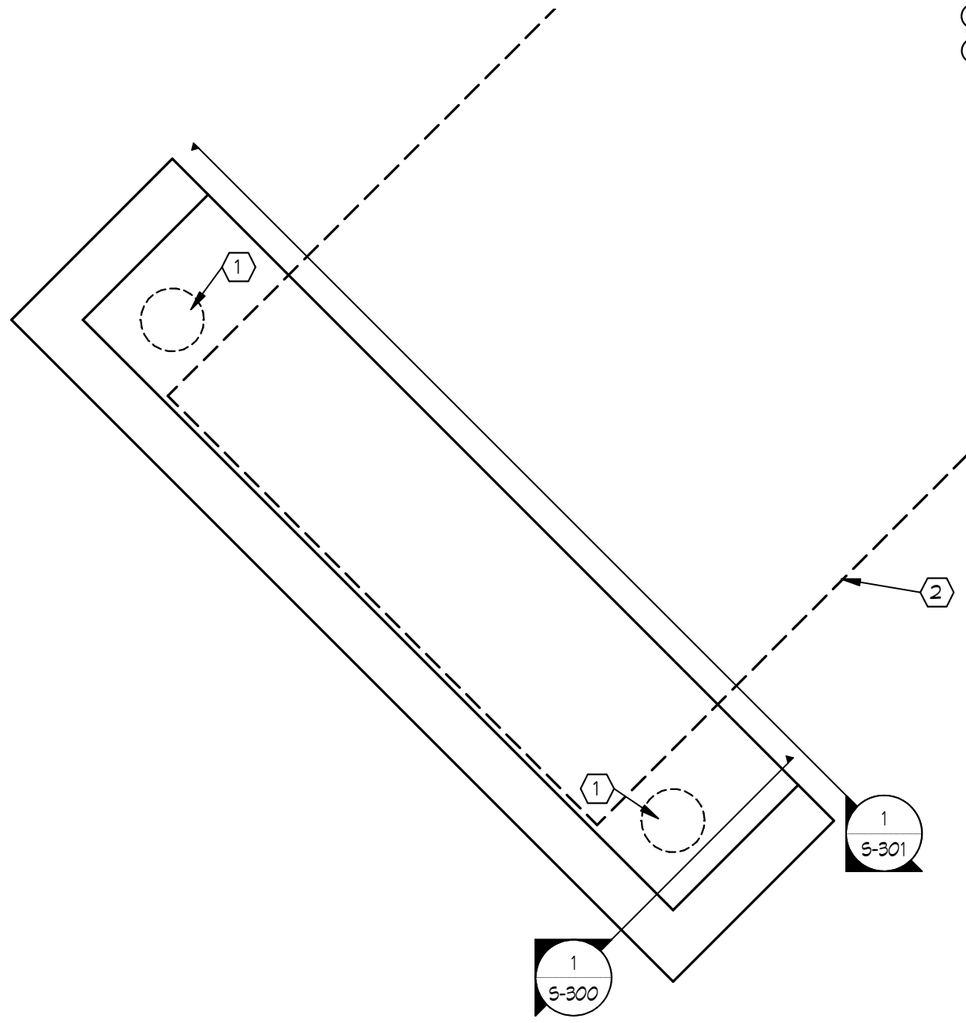
C-300

SHEET NOTES:

1. GENERAL CONTRACTOR TO VERIFY ALL DIMENSIONS AND ELEVATIONS.
2. VERIFY SLOPE GRADE, ELEVATION AND EXTERIOR CONC W/ CIVIL PLANS.
3. ALTERNATE FOUNDATION OPTION TO BE HELICAL PIER ANCHORS. SEE SHEET S-302 FOR LOADING INFORMATION. HELICAL PIERS TO BE DESIGNED BY REGISTERED PROFESSIONAL ENGINEER. SHOP DRAWINGS AND CALCULATIONS TO BE SUBMITTED AS PART OF DELEGATED DESIGN SUBMITTAL.

KEY NOTES:

1. 10.75 0x0.375" WALL THICKNESS STEEL PIPE PILE. STEEL PIPE TO BE CAPPED AND MEET SPECIFICATION ASTM A572 GRADE 50 KSI OR ASTM A252/A1011/1018 GRADE 50 KSI.
2. PEDESTRIAN BRIDGE BY OTHERS. GC TO COORDINATE DIMENSIONS, ELEVATIONS AND CONNECTIONS.



1 / S-201 ENLARGED BRIDGE ABUTMENT

1/2" = 1'-0"

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WESTSIDE PARK
POND IMPROVEMENTS
YANKTON, SOUTH DAKOTA
SEI PROJECT #: 21289

REGISTERED PROFESSIONAL ENGINEER
REG NO.
7895
BRITT B.
HAROLDSON
SOUTH DAKOTA
04/08/2022

HEYER ENGINEERING
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123.0008.2022

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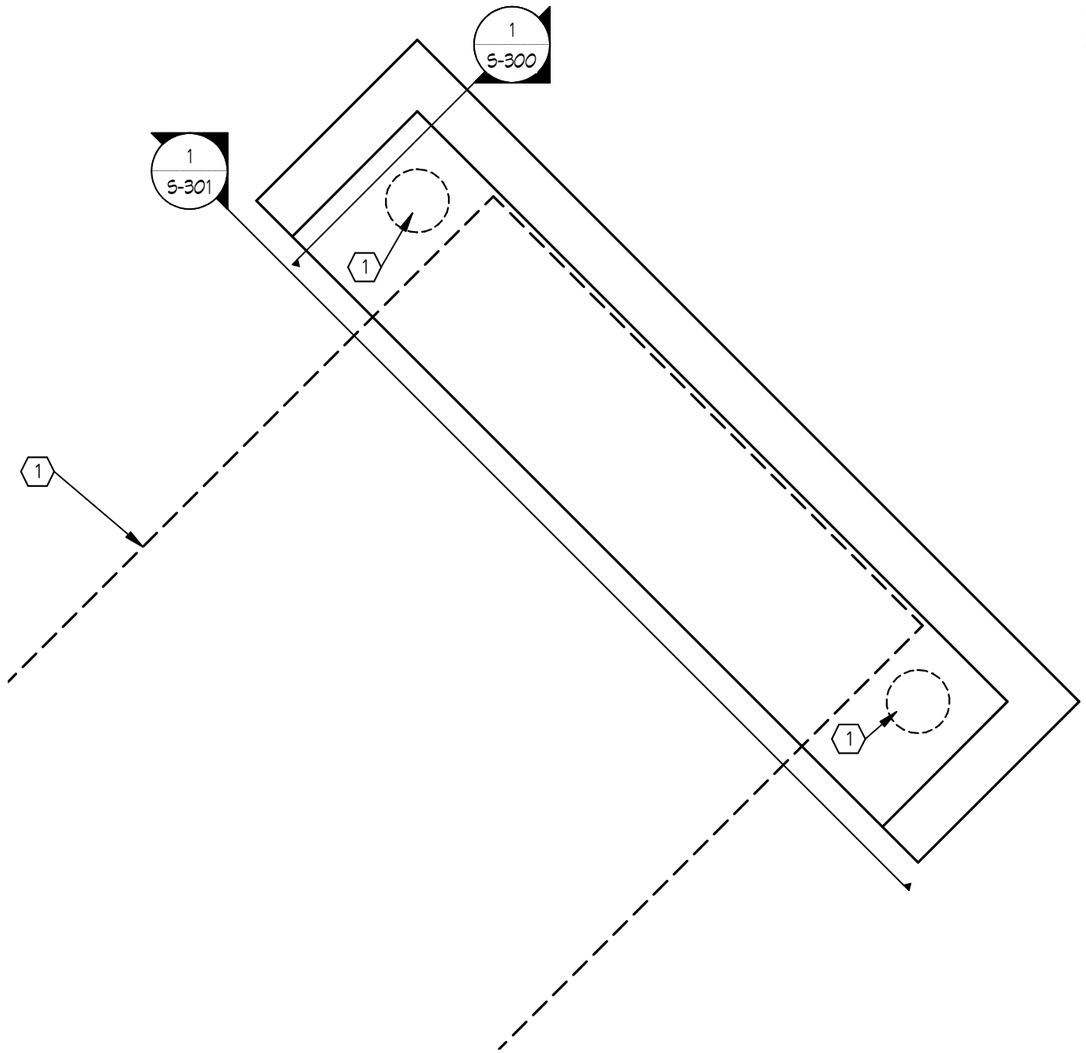
ENLARGED BRIDGE ABUTMENT

S-201



1 / S-202 ENLARGED BRIDGE ABUTMENT

1/2" = 1'-0"

SHEET NOTES:

1. GENERAL CONTRACTOR TO VERIFY ALL DIMENSIONS AND ELEVATIONS.
2. VERIFY SLOPE GRADE, ELEVATION AND EXTERIOR CONC W/ CIVIL PLANS.
3. ALTERNATE FOUNDATION OPTION TO BE HELICAL PIER ANCHORS. SEE SHEET S-302 FOR LOADING INFORMATION. HELICAL PIERS TO BE DESIGNED BY REGISTERED PROFESSIONAL ENGINEER. SHOP DRAWINGS AND CALCULATIONS TO BE SUBMITTED AS PART OF DELEGATED DESIGN SUBMITTAL.

1

KEY NOTES:

1. 10.75 0x0.375" WALL THICKNESS STEEL PIPE PILE. STEEL PIPE TO BE CAPPED AND MEET SPECIFICATION ASTM A572 GRADE 50 KSI OR ASTM A1011/1018 GRADE 50 KSI.
2. PEDESTRIAN BRIDGE BY OTHERS. GC TO COORDINATE DIMENSIONS, ELEVATIONS AND CONNECTIONS.

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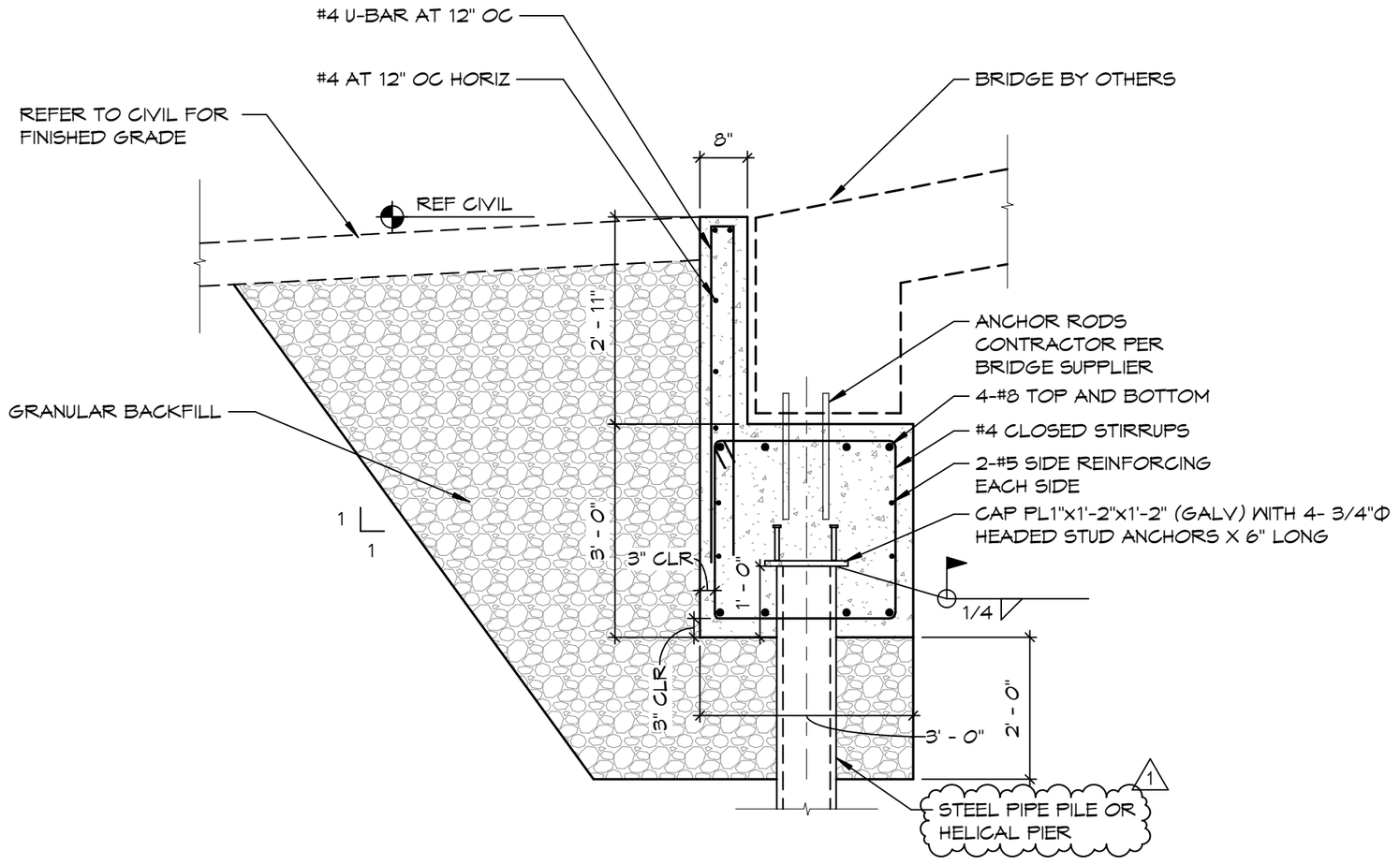
ENLARGED BRIDGE ABUTMENT

S-202

NOTES:

1. GC TO COORDINATE PEDESTRIAN BRIDGE ANCHOR BOLTS AND CONNECTION.



1 / S-300 CONCRETE PILE CAP AT STEEL PILE

1/2" = 1'-0"

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SOUTH DAKOTA
04/08/2022

PLOT DATE 4/7/2022 11:51:17 AM

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DETAILS

S-300

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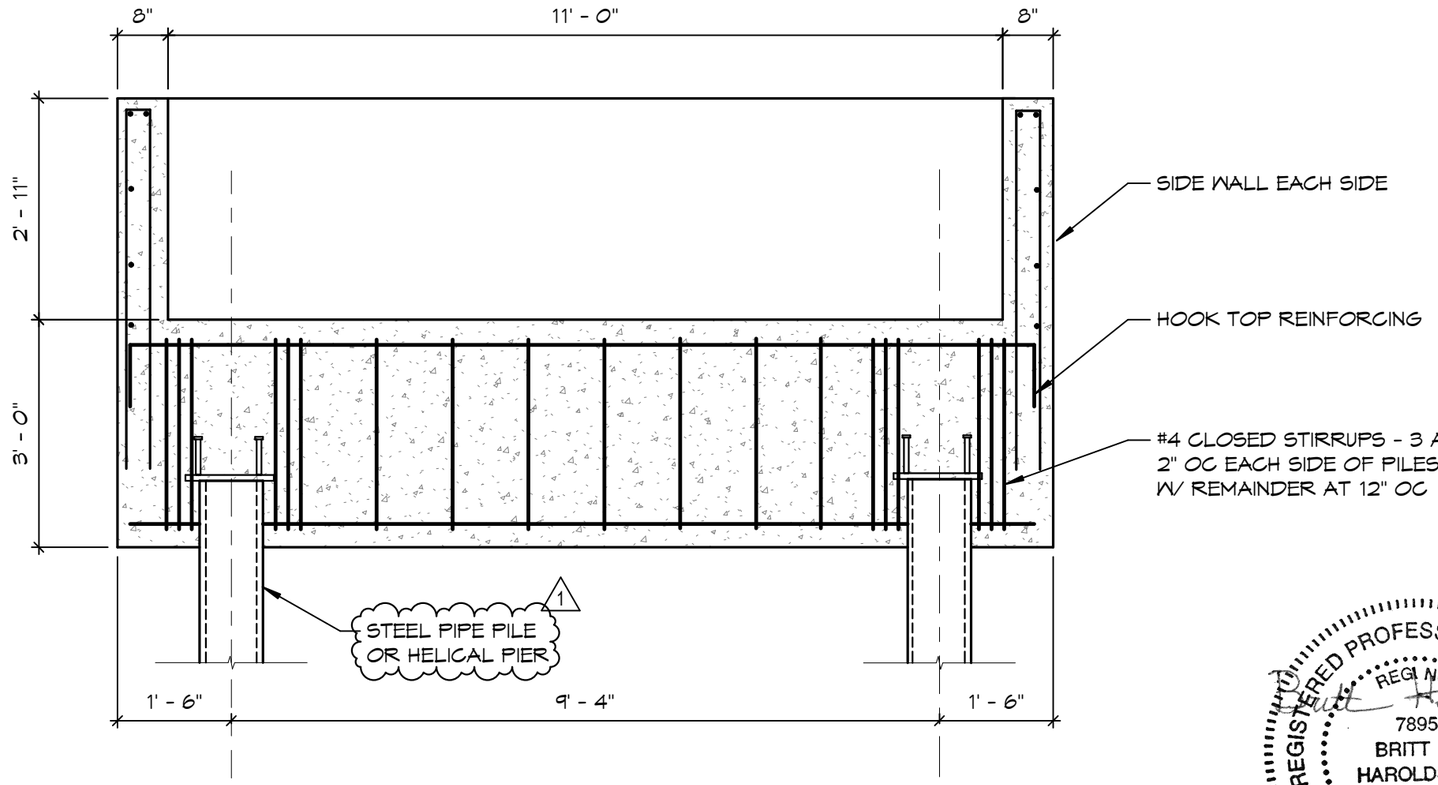
123.0008.2022

NOTES:

1. NOT ALL REINFORCING IS SHOWN FOR CLARITY.



1 / S-301 CONCRETE PILE CAP AT STEEL PILE

1/2" = 1'-0"

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City of Yankton SOUTH DAKOTA Takes You Here

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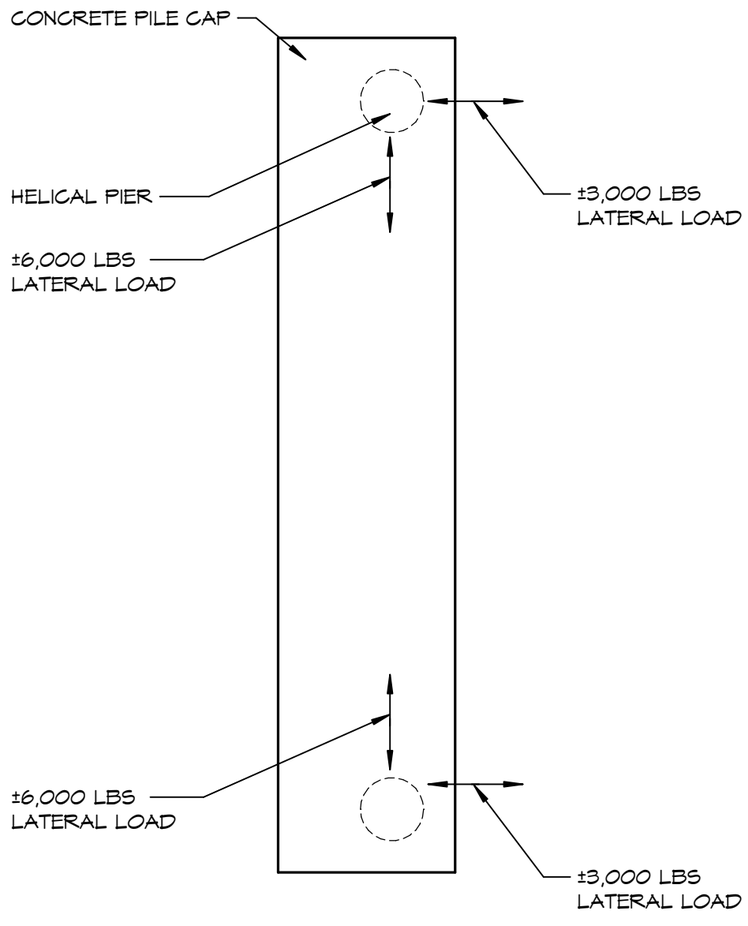
DETAILS

S-301



1 PLAN VIEW - HELICAL PIER LOADING PLAN

1/2" = 1'-0"

1

HELICAL PIER NOTES:

1. HELICAL PIERS TO BE DESIGNED FOR 60,000 LB VERTICAL DOWNWARD LOAD.
2. HELICAL PIERS TO BE DESIGNED FOR 7,000 LBS OF UPLIFT.
3. HELICAL PIERS TO BE DESIGNED FOR LATERAL LOADS SHOWN IN DETAIL. ALL LOADS SHOWN ARE SERVICE LEVEL.
4. MAXIMUM ALLOWABLE SETTLEMENT EQUALS 1/2".
5. IF ADDITIONAL PIERS ARE REQUIRED FOR LOADING CONTACT EOR FOR LOAD DISTRUBUTION.
6. ALL HELICAL PILES TO BE COMPRISED OF CIRCULAR PIPE SECTIONS.
7. ALL HELICAL PIPE CAP/BRG PLATES TO BE EQUIVALENT TO DRIVEN PILE DETAIL.
8. FINAL HELICAL PILE DESIGN TO BE BY HELICAL PILE SUPPLIER, SUPPLIER SHALL SUBMIT DRAWINGS SHOWING PILE LAYOUT/SPACING, PILE DIAMETER, HELIX # & SPACING, APPROX PILE DEPTH AND SHALL SUBMIT CALCULATIONS SIGNED BY AN ENGINEER LICENSED IN SOUTH DAKOTA.
9. CONTRACTOR SHALL COMPLETE A PRE-PRODUCITON LOAD TEST ON 1 HELICAL PILE TO VERIFY ABOVE NOTED COMPRESSION, TENSION, AND SETTLEMENT REQUIREMENTS.

REGISTERED PROFESSIONAL ENGINEER
REG. NO.
7895
BRITT B.
HAROLDSON
SOUTH DAKOTA
04/08/2022

HEYER ENGINEERING
STRUCTURAL CONSULTANT
436 E 8th Street
Sioux Falls, SD 57103
(P)605.370.6139
www.heyerengineering.com
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STOCKWELL
STOCKWELL ENGINEERS, INC.
801 N. PHILLIPS AVE., SUITE 100
SIOUX FALLS, SD 57104
PH: 605.338.6668
FAX: 605.338.8750

City of Yankton SOUTH DAKOTA Takes Flight Here

WESTSIDE PARK
POND IMPROVEMENTS
YANKTON, SOUTH DAKOTA
SEI PROJECT #: 21289

PLOT DATE 4/7/2022 2:40:16 PM

ADD #1

HELICAL PIERS

S-302