DOCUMENT 00 00 11
ADDENDUM NO. 1
Thursday April 2, 2015

Water Reclamation Facility Secondary Digester Cover Replacement in the City of Sioux Falls, South Dakota

Bid Request No. 15-1064
SEH No. SIOUX 127715

From: Short Elliott Hendrickson Inc.
3535 Vadnais Center Drive
Saint Paul, MN  55110-5196

To: Document Holders

DOCUMENT HOLDERS on the above-named project are hereby notified that this document shall be appended to, take precedence over and become part of the original bidding documents for this work. Bids submitted for the construction of this work shall conform to this document.

This addendum consists of 20 page(s) including attached Pre-Bid Conference Meeting Minutes, Pre-Bid Conference Sign-in sheet, Appendix C: OTI Fixed Cover Shop Drawing Submittal – Not Reviewed, and Drawing Sheet(s) P-9, P-10, and S-4.

General
1. Pre-Bid Conference Meeting Minutes with questions, responses, and sign in sheet attached.
2. The attached OTI shop drawing submittal dated March 13, 2015 is currently being reviewed and is provided as general information to the contractor regarding the city furnished cover. The contractor is responsible for confirming final cover submittal information and contacting OTI regarding installation and other related items.

Changes to Specifications:
3. Section 01 12 16 Work Sequence, page 01 12 16 - 2, REVISE subparagraph 3.02.C.3.a FROM “2 day notice” TO “7 day notice”.
4. Section 09 97 20 Coating Systems for Industrial Facilities, page 09 97 20 - 8, ADD subparagraph 2.06.H.2 to read as follows “100 percent Holiday testing shall be completed for the interior of the fixed radial beam digester cover including all appurtenances and the exterior face of the cover side sheet. Contractor shall provide high voltage Holiday testing equipment for the coatings inspection.”
5. Section 09 97 20 Coating Systems for Industrial Facilities, page 09 97 20 - 10, REVISE Coating Schedule System C4 Surface Prep FROM “P14” TO “P13”.
6. Section 46 71 11 Fixed Radial Beam Digester Cover, page 46 71 11 - 4, ADD Paragraph 3.02.J to read “Install cover in accordance with OTI instructions and Section 05 10 00”.
7. Section 46 73 19 Digester Appurtenances, page 46 73 19-3, REVISE subparagraph 2.03.E.1 to read “1. 8-inch diameter.”

Changes to Drawings:
8. Sheet G1 Cover Sheet, Index of Sheets ADD “P11 MISCELLANEOUS DETAILS” to Index and REVISE Sheet I2 title to read “P & ID SECONDARY DIGESTER”.
9. Sheet P1, Keynotes 1 and 11, DELETE “PATCH ROOF INSULATION AND MEMBRANE TO PROVIDE WEATHERPROOF ASSEMBLY” and REPLACE with “ROOF INSULATION AND MEMBRANE PATCHING TO BE COMPLETED BY ROOFING CONTRACTOR HIRED BY OWNER”.
10. Sheet P9, REPLACE P9 with the attached revised P9 sheet
11. Sheet P10, REPLACE P10 with the attached revised P10 sheet
12. Sheet S2, Detail A/S2, REPLACE note reading “RIGID EQUIPMENT BASE SEE C/P10” with the following:

“RIGID EQUIPMENT BASE – ANCHOR DESIGN BY EQUIPMENT MANUFACTURER – SEE SECTION 43 00 00 FOR ADDITIONAL BASE LEVELING AND MOUNTING REQUIREMENTS”

13. Sheet S3, Detail 3/S3:

CORRECTION Vane Detail: Vanes are shown with a counter clockwise orientation. This is not correct. Correct orientation is clockwise as shown on P5 and P6.

MODIFY note reading "1/2" W.S. SHELL, 22" OD" as follows “1/2” W.S. SHELL, 22” OD – LINING AND COATING TO MATCH THAT SPECIFIED FOR THE ATTACHED 18” DS PIPING”.

14. Sheet S4, REPLACE S4 with the attached revised S4 sheet.

15. Sheet E4, Detail 2/E4, FIT-1245 REVISE connection to existing PLC enclosure FROM “1”-1 PR16S” TO “1”-2 PR16S”.

Note: Receipt of this Addendum No. 1 (dated Thursday April 2, 2015) shall be acknowledged on the PROPOSAL FORM. Failure to do so may subject Bidder to disqualification.

END OF ADDENDUM
I. Please Sign In – See Attendance List
   The purpose of the meeting is to introduce the project and also provide an opportunity to view the site. General questions will be entertained but detailed design questions should be submitted in writing to the Engineer and will be answered by addendum.

   *SEE ATTACHED SIGN IN SHEET

II. Introductions - Project Personnel
    City of Sioux Falls – Lance Weatherly
    Sioux Falls WRF – Jeff Warkenthien
    Sioux Falls WRF – Mark Hierholzer
    SEH – John Friel
    HR Green – Bill Peters

III. Bid Date/Time
    The bid time and date is set for 2:00 p.m. Thursday, April 9, 2015.

IV. Permits
    A. A Building permit is required AND WILL BE PROVIDED AT NO COST.
    B. Contractor to secure other permits that may apply.

V. Construction Schedule (Instructions to Bidders)

    The bidder will substantially complete all base bid work and awarded bid alternates for intended use, except installation of the new sludge mixing pump by the substantial completion date of November 1, 2015. Bidder further agrees to pay as liquidated damages the amount specified in the City of Sioux Falls’ current edition of the General Conditions for Public Improvements, Section 8.9, for each working day thereafter all base bid work and awarded bid alternates, except installation of the new sludge mixing pump remains uncompleted beyond the substantial completion date.

    All remaining work not required to be completed by the substantial completion date including installation of the new sludge mixing pump and punchlist items will be completed and ready for final payment by the final completion date of December 18, 2015. Bidder further agrees to pay
$250 per day as liquidated damages for each working day all remaining work is uncompleted beyond the final completion date.

CITY FURNISHED COVER DELIVERY – The City furnished cover is anticipated for delivery to Sioux Falls WRF on or before July 18, 2015

IT WAS NOTED THAT THE PROCUREMENT OF THE COVER BY THE CITY INCLUDED $2,000 PER DAY LIQUIDATED DAMAGES FOR DELIVERY OF COVER BEYOND THE CONTRACT DATED OF JULY 18, 2015.

VI. Project Review

Summary of Work (Section 01 11 00, Para. 1.02):

A. Description of the Base Bid Project:
   1. Removal of one (1) anaerobic digester 65-foot diameter floating gas holder cover and installation of a new 65-foot diameter steel radial beam fixed cover. New digester covered procured by Owner.
   2. Coatings including steel digester cover and concrete digester walls down to an elevation of 1337.67’.
   3. Removal of existing gas piping and safety equipment and replacement with new gas piping and safety equipment.
   4. Contractor to remove and properly dispose of existing digester cover, cover appurtenances, concrete ballast blocks, gas piping, gas safety equipment, and other related items.
   5. Contractor to coordinate and sequence installation and provide temporary connections as needed to minimize disruption to operation of digester gas system while removing and reinstalling cover and gas equipment.
   6. Concrete core drilling for pipe penetrations through floor and wall for gas piping.
   7. Related electrical and instrumentation work associated with above.

B. Description of Alternate Bid Items
   1. Alternate No. 1 Bid - Digester Mixing System
      a. Furnishing of a new mixing pump and piping for a digester mixing system.
      b. Remove and properly dispose of existing pump base and piping to accommodate new mixing system.
      c. Concrete core drilling for pipe penetrations through digester wall.
      d. Related electrical and instrumentation work associated with above.
   2. Alternate No. 2 Bid - Additional Digester Coating
      a. Contractor to coat concrete digester walls from elevation 1337.67’ down to elevation 1320.00’.

VII. Coordination

Work Sequence (Section 01 12 16):

3.01 GENERAL

A. Construct Work in phases to allow for Owner’s continuous occupancy as required for treatment, storage, and disposal of biosolids and collection, treatment, storage, and use of biogas.
B. Under any emergency condition, modification and connections are to be pursued on a 24-hour per day basis and 7 days per week.

C. Determine type and extent of temporary facilities the Project requires to maintain continuous operation.

D. Provide all temporary connections, parallel temporary lines, temporary power, temporary bulkheads, temporary equipment, and temporary operations necessary to perform Work and maintain continuous treatment operation.

E. Submit a detailed Phasing Schedule in accordance with Section 01 32 16 and Section 01 33 00. Schedule to include:
   1. Construction dates for each component of Work identified in each phase.
   2. Description of Work sequence.
   3. Description of interaction with existing plant facilities.
   4. Temporary pumping, piping, and utility services to maintain operability for facility.

F. Review existing facility with Owner to become familiar with potentially difficult items that must remain in service. No Work procedures will be permitted that require shutting down of any portion of existing facility, except as authorized by Engineer.

IT WAS NOTED THE CITY DOES NOT ALLOW THE USE OF NICOTINE PRODUCTS ON CITY PROPERTY.

THE CONTRACTOR WILL NEED TO OBTAIN ID BADGES FROM THE CITY.

3.02 SEQUENCING REQUIREMENTS

A. Building Permit
   1. Contractor shall obtain a building permit prior to starting construction activities. Owner waives building permit fees.
   2. Contractor shall be responsible for coordinating inspections with the Building Inspector required by the permit.

   IT WAS NOTED THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL INSPECTIONS, IE. ELECTRICAL, PLUMBING, ETC. THAT MAY BE NEEDED.

B. Owner will be responsible for initial draining of Secondary Digester
   1. Provide 14 day notice to Owner that Secondary Digester draining is required.

   IT WAS NOTED OWNER WILL COMPLETELY DRAIN AND EMPTY CONTENTS OF DIGESTER TANK TO ALLOW CONTRACTOR TO CLEAN WALLS FOR INSPECTION.

   2. Allow Owner 7 days for Secondary Digester draining prior to Contractor gaining access for cleaning.
   3. Contractor shall be responsible for cleaning tank to allow Owner inspection of the digester walls.
   4. If the Secondary Digester requires draining after the Secondary Digester has been placed into service, Owner shall be compensated by Contractor.

   CONTRACTOR RESPONSIBLE FOR DEBRIS, SAND BLAST SAND, OTHER REMOVALS RELATED TO WALL AND COVER PREPARATION FOR COATINGS.
C. Owner Inspection:
   1. After the Secondary Digester has been cleaned, allow two consecutive working days for inspection by the Engineer. This inspection will occur after the existing floating cover and all associated appurtenances have been demolished and removed. During the Engineer’s inspection, Contractor’s work on the interior of the digester shall cease and the digester shall be free of dust and excessive noise. The Contractor shall provide the Engineer with lighting, ladders, etc., adequate to perform the inspection.

   CONTRACTOR SHALL PROVIDE GAS MONITORING AND APPROPRIATE SAFETY EQUIPMENT NEEDED AS THE SECONDARY DIGESTER IS A CONFINED SPACE.

   CONTRACTOR IS TO PROVIDE HIGH VOLTAGE TESTER FOR HOLIDAY TESTING. 100% OF THE NEW STEEL COVER INTERIOR INCLUDING ALL APPURTENANCES AND THE EXTERIOR FACE OF THE SIDE SHEET IS TO BE HOLIDAY TESTED.

   2. The Engineer’s inspection will serve to determine the necessity of additional repairs to the digester resulting from deterioration and to develop details and specifications needed to perform the repairs. Repairs deemed by the Owner to be necessary will be incorporated into the Work by change order in accordance with Division 0 and Division 1.

   3. Owner will hire the services of an independent NACE Certified Coatings Inspector to inspect the digester tank coatings, digester cover coatings, and piping and supports coatings within the digester
   a. Prior to any application of coatings, a pre-application meeting shall be held with Owner, Engineer, Inspector, Contractor, Coatings Applicator, and Coatings Manufacturer.
   b. Contractor shall give a 2 day notice in writing to Owner and Engineer prior to initial application of coatings to inspect substrate preparation. Inspector shall give approval that preparation of substrate is acceptable prior to coatings application. If corrections are deemed necessary, contractor shall repair substrate until inspector deems the substrate is adequate.

      IT WAS NOTED THAT THE ABOVE 2 DAY NOTICE WILL BE REVISED BY ADDENDUM TO 7 DAY NOTICE.

   c. At the start and finish of every coat, contractor shall notify Owner and Engineer. After each coat has been applied, contractor shall allow one day for inspection. Inspector shall give approval of coating prior to application of subsequent coats. If repairs are deemed necessary, contractor shall make all repairs and receive approval by Inspector prior to proceeding with subsequent coat.
   d. Contractor shall provide the Inspector with lighting, ladders, etc., adequate to perform the inspection.

D. Construction of the Secondary Digester cover shall follow the sequencing requirements provided in Section 46 73 19.
   1. Owner will evacuate biogas from 10-inch digester gas pipe in Pit Level of digester building prior to removing Secondary Digester biogas pipe from service. Contractor shall immediately cap pipe once the gas has been evacuated. Provide 7 day notice to Engineer and Owner prior to work.
   2. Prior to filling tank with water for testing, coatings shall be allowed to cure according to manufacturer’s recommendations.
   3. All concrete shall be allowed to cure at least 28 days prior to coating.

E. Do not commence with demolition of existing facility without consent of Owner
IT WAS NOTED CONTRACTOR IS TO PROTECT EXISTING TANKAGE, ETC. WHICH INCLUDES PROTECTING THE FLOOR AND PIPING OF THE SECONDARY DIGESTER TANK DURING DEMOLITION AND CONSTRUCTION.

VIII. Testing
   A. Contractor is responsible for hiring an independent testing laboratory to perform tests called for in specification, except as otherwise noted.
   
   B. Owner will hire an independent testing laboratory to perform special inspections and tests called for on Contract Drawing S1, except as otherwise noted.

IX. Instructions to Bidders & City of Sioux Falls current edition of General Conditions
    Bidder to review General Conditions along with Instruction to Bidders.

X. Proposal Form – (Instruction to Bidders)
   Base Bid (two items) - Lump sum Removal & replacement of the Secondary Digester Cover and related improvements & Sales Tax for the City furnished fixed cover
   Alternate No.1 Bid - Digester Mixing System
   Alternate No.2 Bid – Additional Digester Coating

XI. Additional Forms to be submitted with Bid Form
    Required Bid security in the form of Bid Bond

XII. Addenda – Addendum No. 1
    Addendum No. 1 will be issued this week and will contain a copy of the OTI shop drawing of the Secondary Digester Cover which is in review. Additional addendums may be issued. Contractors are encouraged to submit all questions this week.

XIII. Contractor Questions

   QUESTION 1: WILL THE NEW COVER SHOP DRAWING SUBMITTAL BE PROVIDED?
   RESPONSE: INFORMATION FROM THE OTI COVER SUBMITTAL WILL BE PROVIDED BY ADDENDUM. THE CONTRACTOR IS ENCOURAGED TO CONTACT OIT- JEFF WIGHT DIRECTLY REGARDING THE NEW COVER.

   QUESTION 2: IS THERE INFORMATION ABOUT THE EXISTING SECONDARY FLOATING COVER?
   RESPONSE: INFORMATION ABOUT THE EXISTING COVER IS PROVIDED IN THE APPENDIX

   QUESTION 3: IF ADDITIONAL WORK IS NEEDED BASED ON THE TANK INSPECTION WILL THE SCHEDULE BE EXTEND?
RESPONSE: IF ADDITIONAL WORK ON THE EXISTING TANK IS NEEDED THE SCHEDULE AND A POSSIBLE EXTENSION WILL BE REVIEWED.

QUESTION 4: DOES THE EXISTING TANK HAVE A COATING, IE. COAL TAR?
RESPONSE: THE EXISTING INTERIOR OF THE SECONDARY DIGESTER TANK IS UN-COATED.

QUESTION 5: ARE WELDING CERTIFICATES TO BE PROVIDED?
RESPONSE: YES, WELDING CERTIFICATES ARE TO BE PROVIDED, WELDING INSPECTIONS ARE TO BE PROVIDED BY CONTRACTOR AS NOTED IN SPECIFICATIONS AND STRUCTURAL SHEET S1.

QUESTION 6: WHEN CAN THE CONTRACTOR START DEMOLITION AND CONSTRUCTION?
RESPONSE: AS NOTED CONTRACTOR IS REQUIRED TO NOTIFY OWNER PRIOR TO ANY DEMOLITION. CONTRACTOR IS TO CONFIRM DELIVERY DATE OF COVER PRIOR TO STARTING DEMOLITION. CONTRACTOR MAY PROCEED WITH DEMOLITION JUNE 1, 2015 CONTINGENT UPON CONFIRMATION OF DELIVERY SCHEDULE OF COVER

XIV. Project Area Tour

A Tour of the project area followed to give a general overview of the project

ATTACHMENTS:
1. Sheet P-1 Cover Removal Plan
2. Sheet P-5, P-6, P-7, P-8 Ground Floor, Pit Floor, & Sections
PRE-BID CONFERENCE SIGN IN SHEET
Kennedy/Jenks Consultants

Re: Water Reclamation Facility - Heat Exchanger Replacement Project
Sioux Falls, SD

Project Mgr.: John Friel, PE

BID REQUEST: 15-1064

Date of Meeting: March 31, 2015

Time of Meeting: 11:00 am

Location of Meeting: WRF – Admin Bldg

Please Print

Name: Pat McKnight
Representing: AR Contracting LLC
Address: 75930 47th St.

Colma CA 94012

Telephone: 650-534-3506
EMAIL: pat.arcontracting@hotmail.com

Name: Bill Peters
Representing: HR Green
Address: __________________________

Telephone: 605-212-5382
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Name: David Rubin
Representing: KHC Construction
Address: 703 Ontario Rd

Marshall MN 56258

Telephone: 507-552-6708
EMAIL: khc.construction@wet

Name: Lance Weatherly
Representing: City of Sioux Falls
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Sioux Falls SD

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Name: Jeff Warkenthien
Representing: City of Sioux Falls
Address: __________________________

Telephone: 940-0395
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Sioux Falls SD

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<table>
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<th>Address</th>
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<tr>
<td>Mark Hierholzer</td>
<td>Water Rec</td>
<td>4500 N Sycamore Av, Sioux Falls</td>
<td>605-347-8193</td>
<td><a href="mailto:m.hierholzer@siouxfalls.org">m.hierholzer@siouxfalls.org</a></td>
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<tr>
<td>John Friel</td>
<td>SBF</td>
<td></td>
<td>651-490-2140</td>
<td><a href="mailto:j.friel@sehinc.com">j.friel@sehinc.com</a></td>
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Appendix C

OTI Fixed Cover Shop Drawing Submittal – Not Reviewed

Note: Shop drawing does not incorporate review comments. See plans for appurtenance locations.
OTI provides the documents described below for your review and approval.

Water Reclamation Facility
Sioux Falls, SD
OTI Job No. 1508-10
(1) Model 65FX Fixed Cover

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APPROVAL CODES:
FA: FOR APPROVAL          RFA: REVISED FOR APPROVAL          RF: REVISED AS FINAL
F: FINAL                   FIO: FOR INFORMATION ONLY
Please note the following comments concerning this submittal:

1. **IMPORTANT**
   Provided that there is sufficient room adjacent to the digester tank, covers are typically considered by contractors to be easier to assemble and paint outside the tank and lifted into the tank as a whole. Therefore, OTI has assumed that this cover will be assembled outside the tank. Since OTI prepares the steel differently depending on which assembly procedure is used, it is imperative that OTI be informed prior to steel detailing if this assumption is incorrect.

2. The tank survey data provided indicates that the tank has a minimum diameter of about 64.68'. Because this is quite a bit less than the design diameter of 65', OTI has increased the design annular gap between the tank wall and the outside of the cover side skirt from a typical 2" to 3". This change will result in an actual minimum gap of about 1".

3. The drawings provided to OTI do not show the thickness of the existing tank wall. OTI has scaled the drawings to determine that it is about 12" thick. Based on this, OTI has placed the support anchor bolts 6" from the inside of the tank wall. The actual tank wall thickness needs to be provided to OTI before the cover can be detailed.
Specifier’s comments:

1 Input data

Anchor type and diameter: HIT-RE 500-SD + HAS-R 304/316 3/4
Effective embedment depth: \( h_{\text{eff,up}} = 3.661 \text{ in.} \) (\( h_{\text{eff,init}} = 15.000 \text{ in.} \))
Material: ASTM F 593
Evaluation Service Report: ESR-2322
Issued I Valid: 1/1/2014 | 4/1/2014
Proof: design method ACI 318 / AC308
Stand-off installation: without clamping (anchor); restraint level (anchor plate): 2.00; \( e_b = 1.000 \text{ in.} \); \( t = 0.500 \text{ in.} \)
Hilti Grout: CB-G MG (50), multipurpose, \( f_{\text{GROUT}} = 6962 \text{ psi} \)
Anchor plate: \( l_x \times l_y = 6.000 \text{ in.} \times 13.500 \text{ in.} \times 0.500 \text{ in.} \); (Recommended plate thickness: not calculated)
Profile: W shape (AISC); \( (L \times W \times T \times FT) = 5.000 \text{ in.} \times 8.250 \text{ in.} \times 3.750 \text{ in.} \times 0.250 \text{ in.} \)
Base material: uncracked concrete, 4000, \( f'_{\text{c}} = 4000 \text{ psi} \); \( h = 300.000 \text{ in.} \), Temp. short/long: 32/32 °F
Installation: hammer drilled hole, installation condition: dry
Reinforcement: tension: condition B, shear: condition B; no supplemental splitting reinforcement present
edge reinforcement: none or \(<\text{ No. 4 bar} \)
Seismic loads (cat. C, D, E, or F) no

Geometry [in.] & Loading [lb, in.lb]
2 Proof I Utilization (Governing Cases)

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3 Warnings

- Please consider all details and hints/warnings given in the detailed report!

Fastening meets the design criteria!

4 Remarks; Your Cooperation Duties

- Any and all information and data contained in the Software concern solely the use of Hilti products and are based on the principles, formulas and security regulations in accordance with Hilti’s technical directions and operating, mounting and assembly instructions, etc., that must be strictly complied with by the user. All figures contained therein are average figures, and therefore use-specific tests are to be conducted prior to using the relevant Hilti product. The results of the calculations carried out by means of the Software are based essentially on the data you put in. Therefore, you bear the sole responsibility for the absence of errors, the completeness and the relevance of the data to be put in by you. Moreover, you bear sole responsibility for having the results of the calculation checked and cleared by an expert, particularly with regard to compliance with applicable norms and permits, prior to using them for your specific facility. The Software serves only as an aid to interpret norms and permits without any guarantee as to the absence of errors, the correctness and the relevance of the results or suitability for a specific application.

- You must take all necessary and reasonable steps to prevent or limit damage caused by the Software. In particular, you must arrange for the regular backup of programs and data and, if applicable, carry out the updates of the Software offered by Hilti on a regular basis. If you do not use the AutoUpdate function of the Software, you must ensure that you are using the current and thus up-to-date version of the Software in each case by carrying out manual updates via the Hilti Website. Hilti will not be liable for consequences, such as the recovery of lost or damaged data or programs, arising from a culpable breach of duty by you.
EXISTING CONCRETE FLOOR (VERIFY THICKNESS)
- 1/2" MINIMUM - 1" MAXIMUM

CORE DRILLED HOLE
VERIFY PIPE SIZE

NON-SHRINK GROUT

ADJUSTABLE CLEVIS HANGER (SIZED FOR PIPE) EQUAL TO ANVIL FIGURE 260 - GALVANIZED

1"Ø HANGER ROD - EQUAL TO ANVIL FIGURE 140 - GALVANIZED

STEEL LUG PLATE EQUAL TO ANVIL FIGURE 47 - SIZED FOR ASSOCIATED ROD DIAMETER - GALVANIZED

SIMPSON STRONG BOLT 2 - HDG 5/8"Ø x 5 1/8" WITH 4 1/2" EFFECTIVE EMBEDMENT - TYPICAL OF 4 STEEL CLEVIS EQUAL TO ANVIL FIGURE 299 - GALVANIZED

8" MIN. 1/4" VENT HOLE

1/2" x 10" x 10" 316L STAINLESS STEEL BASE PLATE
GROUT OR DRYPACK - 3/4" MINIMUM, 2" MAXIMUM

(4) 5/8"Ø 316 SS ADHESIVE SIMPSON AT-XP ANCHORS WITH LOCK WASHERS - DOUBLE NUTTED AT SLAB - MINIMUM 5" EMBEDMENT

SEE NOTE 1

1/2" x 10" x 10" 316L STAINLESS STEEL BASE PLATE
GROUT OR DRYPACK - 3/4" MINIMUM, 2" MAXIMUM

(4) 5/8"Ø 316 SS SIMPSON AT-XP ADHESIVE ANCHORS WITH LOCK WASHERS - DOUBLE NUTTED AT SLAB - MINIMUM 5" EMBEDMENT

FLOOR

1/2" Ø 316 STAINLESS STEEL BOLT, NUT AND WASHER

3/8" THICK x 2" WIDE 316L SS PIPE STRAP

3/8" THICK x 8" WIDE 316L SS PIPE STRAP

6" SCHEDULE 40 316L STAINLESS STEEL PIPE STANCHION
1" TYPICAL

1/4" DIAMETER VENT HOLE

6" SCHEDULE 80 316L STAINLESS STEEL PIPE STANCHION - PAINT TO MATCH PIPE
1" TYPICAL

8" MIN. 1/4" VENT HOLE

SEE NOTE 1

9" MIN.
3/8" PLATE - BEVEL EDGES FOR WELD

EXISTING CONCRETE DIGESTER WALL

EXISTING 2" RIGID INSULATION

EXISTING 4" FACEBRICK

3/16" FILL WITH NON-SHRINK GROUT

EXISTING VERTICAL GUIDE

PLAN

PLAN

EXISTING VERTICAL WALL EXTENSION CAST-IN CONCRETE WALL

CUT OFF AND GRIND FLUSH WITH TOP OF DIGESTER WALL

REMOVE VERTICAL GUIDE AND ANY APPURTENANCES ABOVE WALL

3/8" PLATE - BEVEL EDGES FOR WELD AND WELD TO EXISTING VERTICAL GUIDE AROUND ENTIRE PERIMETER OF PLATE

FILL WITH NON-SHRINK GROUT

EXISTING 12" THICK POURED CONCRETE DIGESTER WALL

EXISTING 2" RIGID INSULATION

EXISTING 4" FACEBRICK

NOTE:
SECONDARY DIGESTER - THE EXISTING COVER VERTICAL GUIDES SHALL BE ABRASIVE BLAST CLEANED PER SSPC-SP10/NACE 2, NEAR WHITE BLAST CLEANING. THERE SHALL BE AN EVEN TRANSITION WHERE THE EXISTING DIGESTER COVER VERTICAL GUIDE MEETS FLUSH TO THE CONCRETE ON THE INTERIOR OF THE TANK.