Date: 03/21/2018
RFB No: 2018-003, 2018-004 & 2018-005
Commodity: Waco Metropolitan Area Regional Sewerage System (WMARSS) – Transfer Lift Station Project: Packages 1, 2 & 3
Purchasing Agent: Mr. Jody Copp

Closing Time: Thursday, March 29, 2018
Opening Time: Thursday, March 29, 2018

RFB Opening Location: Operations Center, Purchasing Services Office, 1415 N. 4th St., Waco, TX 76707

Addendum No: 8

The above-mentioned RFB invitation has been changed in the following manner. **Sign and return addendum to the Purchasing Office by the closing time and date with your RFB response.** Returning this page signed by your authorized agent will serve to acknowledge this change. All other requirements of the invitation remain unchanged. If you have any questions, please call or stop by the Purchasing Office at the above address.

1. **See Appendix 1.**

Firm:

Address

Signature of Person Authorized to Sign Bid:

Signor's Name and Title (print or type):

E-mail Address:

Date: Telephone: Fax:
LOCKWOOD, ANDREWS & NEWMAN, INC.
8911 N. Capital of Texas Highway, Building 2, Suite 2300
Austin, Texas 78759
Phone: (512) 338-4212
Fax: (512) 338-4942

TO: Prospective Bidders

This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject Bidder to disqualification.

MISCELLANEOUS

1. A report has been made available for reference by download on the City of Waco Current Advertised Bid Opportunities website (http://www.waco-texas.com/bids.asp):

PLANS

2. Revise plan sets as follows:
   a. Package 1: N/A
   b. Package 2:
      i. Replace sheet G002 with revised G002 provided in Attachment 2.
      ii. Replace sheet C107 with revised C107 provided in Attachment 2.
      iii. Replace sheet C207 with revised C207 provided in Attachment 2.
      iv. Replace sheet C307 with revised C307 provided in Attachment 2.
      v. Replace sheet D101 with revised D101 provided in Attachment 2.
      vi. Replace sheet D104 with revised D104 provided in Attachment 2.
      vii. Replace sheet D502 with revised D502 provided in Attachment 2.
   c. Package 3: N/A

SPECIFICATIONS

3. Revise specifications as follows (revisions in bold)
   a. All packages:
      i. Section 01655.1.1.C:
         “Contractor shall provide all materials, labor, tools, equipment, fuel, electricity, water, filters, chemicals, and other expendables required to facilitate equipment start-up and full system plant operation demonstration, in accordance with manufacturer recommendations and as specified herein. Owner will pay direct costs of water and electrical utilities metered in Owner’s name once established and including testing and start-up activities. Contractor will attempt to maximize efficiency of utility and expendable consumption in general. Contractor may use non-potable water for testing and start-up activities. Contractor may obtain non-potable water from the City of Waco Central Wastewater Treatment Plant at no cost to Contractor. Owner does not guarantee supply or availability of non-potable water. Contractor
shall bear all cost associated with transportation and utilization of non-potable water for testing and start-up.”

b. Package 1:
   i. Supplementary Conditions, SC 4.02.A; Amend with the following text:
   ii. Section 03310.1.03.B:
      “Carrier pipe – 66-in. fiberglass reinforced polymer mortal welded steel pipe (FRPM) as defined in Section 02666.”

c. Package 2:
   i. Section 14630.2.1.A:
      “…

<table>
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</table>

…”

   ii. Section 15814.2.01.A:
      “Fiberglass reinforced plastic ductwork: One of the following or equal:
      1. Bondstrand.
      2. Fibercast.
      3. Spunstrand.
      5. Daniel Company”

d. Package 3:
   i. Section 02431.3.4.C:
      “Remove temporary bulkheads installed for grouting. Permanent bulkheads to remain in place.”
   ii. Section 02517:
      1. Revise 02517.3.8.B:
         “Test annular grout material, equipment, and procedures in accordance with approved submittal. Contractor shall confirm that grout totally fills annular space Perform test on first 200 feet of wastewater line to be backfilled. When grout does not totally fill annular space or other problems occur, correct defects in first test section and adjust method or mix and rerun test on next 200 feet. Repeat procedure as necessary.”
      2. Revise 02517.3.8.J:
         “Remove temporary bulkheads unless constructed of masonry. Permanent bulkheads to remain in place.”
   iii. Section 15139:
      1. Eliminate 15139.2.10.F.
      2. Revise 15139.2.10.G:
         “FG, Sewage Combination Air/Vacuum Valve (Force Main Pump Station Discharge).
         1. …
         … gate sheet of valve.
         5. Valves shall be ARI D-26 NS STST APCO Series 440-SCAV sewage
Waco Metropolitan Area Regional Sewerage System
Transfer Lift Station and Force Main Project
Packages 1-3

combination air/vacuum valve, GA figure 930, Cal-Val Series 36-WW or
approved substitution.”

ATTACHMENTS

1. Responses to questions.
2. Revised Package 2 plan sheets.

END OF SECTION
Attachment 1: Responses to questions.
<table>
<thead>
<tr>
<th>ID</th>
<th>QUESTION</th>
<th>PACKAGE</th>
<th>RESPONSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>88</td>
<td>Where can the average/peak/and wet weather flow rates be found for the</td>
<td>2</td>
<td>See response to question 109.</td>
</tr>
<tr>
<td></td>
<td>lines requiring bypass/diversion pumping?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>89</td>
<td>Reference the boring plan C.100 and the boring logs. The borings taken</td>
<td>2</td>
<td>Refer to Geotechnical Investigation - Revision 2 (W16-004R2; Langerman</td>
</tr>
<tr>
<td></td>
<td>at the lift station are shown to be in the same general area around the</td>
<td></td>
<td>Foster Engineering, 3/8/2017) and associated note to bidders (Item 1)</td>
</tr>
<tr>
<td></td>
<td>lift station as shown on sheet C.100 and the area is relatively flat</td>
<td></td>
<td>released via Addendum 07.</td>
</tr>
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<td></td>
<td>which was verified by a site visit. However, looking at boring logs</td>
<td></td>
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<td></td>
<td>bore #28 states the ground elevation is 395 and bore #29 states an</td>
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<td>elevation of 387. Looking at the site plan the existing elevations</td>
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<td>show these boring elevations to be @ 382.50 this is 4.5’ difference</td>
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<td></td>
<td>from bore #28 and 12.5’ difference for bore #29. On page 2 of the report</td>
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<td>it states that borings 28-30 elevations were taken from Google Earth.</td>
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<td>The elevation difference is seems too large for even Google Earth.</td>
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<td>Please advise.</td>
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<td>90</td>
<td>Sheet C.106 shows the site to be heavily wooded which was verified by a</td>
<td>2</td>
<td>Refer to revised sheet included with this addendum.</td>
</tr>
<tr>
<td></td>
<td>site visit. Notes on sheet G-002 state not to remove any trees 10 inch</td>
<td></td>
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<td></td>
<td>and larger without prior approval. Some of the trees are very large</td>
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<td></td>
<td>and conflict with the construction process. Please provide a clearing</td>
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<td>plan.</td>
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</tr>
<tr>
<td>91</td>
<td>Will the drain channel shown on sheet C.303 need to be bypass pumped</td>
<td>2</td>
<td>No. it is expected that a low-flow gravity bypass be constructed to</td>
</tr>
<tr>
<td></td>
<td>while we are removing the syphon and installing the channel repair</td>
<td></td>
<td>handle excess stormwater as needed.</td>
</tr>
<tr>
<td></td>
<td>concrete or can it be shut off?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>94</td>
<td>Specification section 01110-3.E states that the selected construction</td>
<td>2</td>
<td>Refer to City of Waco Code of Ordinances Article VII - Sec.16-202.2:</td>
</tr>
<tr>
<td></td>
<td>equipment shall not exceed the PWL level established by the City but</td>
<td></td>
<td>&quot;Nonresidential property: Eighty-five (85) dB(A) during either daytime</td>
</tr>
<tr>
<td></td>
<td>also, not be objectionable to the owner’s representative. What is the</td>
<td></td>
<td>or nighttime hours.&quot;</td>
</tr>
<tr>
<td></td>
<td>City ordinances regarding noise level on a construction project? What</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>level of noise or vibration is objectionable to the owner’s</td>
<td></td>
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<td></td>
<td>representative? Please advise.</td>
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<td>ID</td>
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</tr>
<tr>
<td>95</td>
<td>Plan sheet G-002, “General Mechanical Notes” # 22 &amp; 23 regarding stainless steel materials and stainless materials for pipe supports. For example, detail 4 on sheet D-505 calls out the pipe strap as “SS.” Is this 316 or 316L? For further clarity to these two notes and because of costs, please confirm which pipe supports at all structures are to be 316 and which are to be 316L. We assume those identified as galvanized in typical details, such as the adjustable type shall match what is called for on the specific detail.</td>
<td>2</td>
<td>316 or 316L are acceptable. All pipe supports shall be constructed of type 316 or 316L stainless steel unless specifically noted otherwise per General Mechanical Note 23 (G002). 316L shall be used in installations requiring welding.</td>
</tr>
<tr>
<td>96</td>
<td>Sheet D-502, detail 5 refers us to detail 1 on D-506. Detail 1 on D-506 is for stop logs, not a pipe support. Please confirm which detail is to be used.</td>
<td>2</td>
<td>Refer to revised sheet included with this addendum.</td>
</tr>
<tr>
<td>97</td>
<td>Sheet D-301, refers us to detail 1 on D-505 for the lift station riser pipe supports. Detail 1 on D-505 is for adjustable type supports. Assume these riser pipe supports are not adjustable type? Assume they are 316 SS also?</td>
<td>2</td>
<td>Reference is correct. Fixed stanchion design is also acceptable. Stanchions shall be of stainless steel (316/316L) in wet well. Use 316L for welded components. Sheets will be revised in conformed set.</td>
</tr>
<tr>
<td>98</td>
<td>Sheet S-001, Geotechnical Report Notes mentions three different date for different geotechnical reports. We only have the one dated 12/22/2016. Will the other reports be issued via addendum?</td>
<td>2</td>
<td>See response to question 90.</td>
</tr>
<tr>
<td>100</td>
<td>Plan sheet C-100, please verify limits and details for the proposed temporary construction road.</td>
<td>2</td>
<td>Scope associated with temporary construction road under Package 1 contract.</td>
</tr>
<tr>
<td>101</td>
<td>Sheet C-204, has “Vertical Pipes” typed upside down. I assume these are existing?</td>
<td>2</td>
<td>Yes, they exist. The contractor will remove these when reworking the channel.</td>
</tr>
<tr>
<td>102</td>
<td>Sheet C-107, index states “Waco Barrow Site” but the actual plan states “Overall Site Plan.” Please verify information for the Waco Barrow site if found on this sheet C-107.</td>
<td>2</td>
<td>Sheet C-107 should be titled “Overall Location Plan” Sheet C-107 is reissued as a part of this addenda. The index will be corrected when conformed.</td>
</tr>
<tr>
<td>103</td>
<td>Division 2 does not have a specification for the chain link fencing and gate. Please provide a specification, particularly for the gate as no materials are identified on sheet C-307.</td>
<td>2</td>
<td>Sheet C-307 has been revised and is reissued as a part of this addenda.</td>
</tr>
<tr>
<td>ID</td>
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<td>RESPONSE</td>
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<tr>
<td>104</td>
<td>Sheet E-100 states “Gate Operator &amp; Key Card Reader Provided by Vendor” Does the City have another contract with another company to provide this? If not, please provide a specification for the gate operator and key card. Regarding the key card, if the city has an approved security system contractor, please identify or consider an allowance on the bid form.</td>
<td>2</td>
<td>Scope associated with gate operator and key card reader provided under Package 2 contract. Gate operator by gate manufacturer. Stanley Security is approved key card security subcontractor.</td>
</tr>
<tr>
<td>105</td>
<td>Bid Form, item # 11, states to submit the form for the pumps indicated in specification 11319 with our bid. Due to the nature of this type of bidding, can we submit this form within 30 minutes after the bids are to be submitted?</td>
<td>2</td>
<td>Request for extension to deadline not approved. Bidders may submit multiple data sheets with bid.</td>
</tr>
<tr>
<td>106</td>
<td>Also, it states to include the VFD’s with this item. Is the intent for the pump supplier to provide the VFD’s or the electrical contractor? 11319-1.1-C states the pump/motor manufacturer will be required to verify if the VFD’s are acceptable for their pump which will make it difficult to submit form 11319A at bid time without going through a verification process between our electrical contractor and pump manufacturer.</td>
<td>2</td>
<td>Pump supplier is not required to supply VFD.</td>
</tr>
<tr>
<td>107</td>
<td>Where is the inlet siphon box located?</td>
<td>2</td>
<td>Refer to Package 1 plan set. Inlet Siphon Box is located on north side of Brazos River.</td>
</tr>
<tr>
<td>108</td>
<td>Sheet M-103, the Siphon Inlet Slab is existing, correct? It is bolded on this sheet so we want to make sure.</td>
<td>2</td>
<td>Refer to General Note 1 on M103. Refer to Package 1 plan set for extent of work under Package 1 contract associated with construction of the Inlet Siphon Box odor control.</td>
</tr>
<tr>
<td>109</td>
<td>Sheet C-106. What flow rates do we need to bypass? We need to know minimum and maximum to appropriately size bypass operations.</td>
<td>2</td>
<td>Dry weather minimum flow 10-15 MGD Dry weather maximum flow 60 MGD Wet weather maximum flow 75 MGD</td>
</tr>
<tr>
<td>110</td>
<td>How many pumps are going to be needed?</td>
<td>2</td>
<td>Contractor to determine.</td>
</tr>
<tr>
<td>111</td>
<td>Does the Owner have more specific requirements, such as a minimum number of stand-by pumps, metering, auto dialers, etc?</td>
<td>2</td>
<td>Manned 24/7; Full TCEQ compliance; 100% Standby</td>
</tr>
<tr>
<td>112</td>
<td>Also, can more specifics be provided, such as what needs to plugged and where, distances to bypass, etc.?</td>
<td>2</td>
<td>Pump as shown, 60-inch into 48-inch at manholes</td>
</tr>
<tr>
<td>ID</td>
<td>QUESTION</td>
<td>PACKAGE</td>
<td>RESPONSE</td>
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</tr>
<tr>
<td>113</td>
<td>Assume pumps will be diesel operated, are there any noise restrictions?</td>
<td>2</td>
<td>See response to question 93.</td>
</tr>
<tr>
<td>114</td>
<td>Sheet C-206/207, where package 2 connects to the offsite forcemain contractor, do we need a plain end, flange, coupling or plug here? Similar question for the 84” pipe on sheet C.201 where we connect to the offsite contractor.</td>
<td>2</td>
<td>Refer to Section 15071 for allowable joint design by pipe material.</td>
</tr>
<tr>
<td>115</td>
<td>Sheet S-001, verify that the Owner’s testing lab will be doing the “Special Inspection” listed on this sheet.</td>
<td>2</td>
<td>Confirmed.</td>
</tr>
<tr>
<td>116</td>
<td>Spec. 14630-2.1-A has the crane span at 75’ but the drawings S-105 indicates 80’. Please also verify the hook reach dimension as the specs. appear to indicate 69’ while drawing indicates 58’.</td>
<td>2</td>
<td>Refer to addendum body for revisions to contract documents.</td>
</tr>
<tr>
<td>117</td>
<td>Sheet S-300, section C, please verify the dimensions listed for the wall pour sections listed on the right hand side of this section view.</td>
<td>2</td>
<td>On Section C, sheet S-300, the dimensions to the pour joints in the wall (shown on the right-hand side) are as follows: 12'-0&quot; from EL 341.67 to the first joint; Then, 12'-0” from first joint to second joint; Finally, 21'-4” from second joint to bottom of slab-on-grade. These dimensions add up to 46'-4&quot; total (including 1'-0&quot; dimension for slab-on-grade thickness), which is the difference from EL 388.00 to EL 341.67 as indicated in Section C.</td>
</tr>
<tr>
<td>118</td>
<td>Sheet S-300, what material shall the steel plate with studs on the shoe be constructed of?</td>
<td>2</td>
<td>05120, paragraph 2.01, plates and other shapes are defined as A36. In 05190, paragraph 2.02E, the H4Ls are described and identified.</td>
</tr>
<tr>
<td>119</td>
<td>Spec. 11319-2.4-E, we are to provide pump lifting accessories which will be used with the bridge crane. The bridge crane is an alternate bid item. Do we still provide this same lifting accessory if the bridge crane alternate is not taken?</td>
<td>2</td>
<td>Yes.</td>
</tr>
<tr>
<td>ID</td>
<td>QUESTION</td>
<td>PACKAGE</td>
<td>RESPONSE</td>
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<tr>
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</tr>
<tr>
<td>120</td>
<td>Sheet D-304, junction area plan indicates the use of PCCP. Sheet C-206 identifies restrained joint FRP all the way to the connection to the offsite line work. Please confirm is PCCP is required at any point on this project.</td>
<td>2</td>
<td>Refer to revised sheet included with addendum.</td>
</tr>
<tr>
<td>121</td>
<td>Please confirm what is acceptable for transitions from ductile to fiberglass (Flowtite/Hobas) pipe. I assume a ductile iron flange to a fiberglass flange will be acceptable?</td>
<td>2</td>
<td>Transitions shall be flanged unless otherwise noted.</td>
</tr>
<tr>
<td>122</td>
<td>Sheet D-506, please verify material requirements for the ladders in the flowmeter vaults. Please also verify acceptable manufacturers for the round fiberglass access hatches on these vaults.</td>
<td>2</td>
<td>Ladders per Section 05500.2.02.F.2.</td>
</tr>
<tr>
<td>123</td>
<td>Sheet D-505 and D-507 have two different details for adjustable type pipe supports. Which shall govern?</td>
<td>2</td>
<td>Adjustable pipe supports per 1/D505. Adjustable duct supports per H147/D507.</td>
</tr>
<tr>
<td>124</td>
<td>Is concrete thrust blocking required on all the restrained large diameter fiberglass influent sewer and effluent forcemain at fittings?</td>
<td>2</td>
<td>Thrust blocking not required on large diameter influent sewer. Thrust blocking not allowed on buried forcemain. Refer to Section 15071.2.5.D for allowable restraint designs.</td>
</tr>
<tr>
<td>125</td>
<td>Please consider a 1 week postponement of the bid date.</td>
<td>2</td>
<td>Not approved.</td>
</tr>
<tr>
<td>126</td>
<td>Are standard valves (D26 STST) sufficient or do you require non-slam (D26 STST NS) valves at any or all locations? If so, can you please tell me how many should be standard and how many should be non-slam?</td>
<td>3</td>
<td>Refer to Addendum body for revisions to contract text. Refer to response to Question 57 provided in Addendum 7 regarding CAV specification for installation at Lift Station.</td>
</tr>
<tr>
<td>127</td>
<td>Is the temporary Cofferdam for open cutting the Brazos River shown on sheet C.107 and C.108 required to be installed to an elevation of 362’? The average water depth is shown to be 351’ so the temporary coffer dam is shown to be much higher than the average water height.</td>
<td>1</td>
<td>Plan depiction of cofferdam height is conceptual and suggested by Engineer. Refer to Conceptual Cofferdam Design Report (LAN, August 2016) amended to Project Manual in this Addendum.</td>
</tr>
<tr>
<td>128</td>
<td>Package 1 - Specification Section 03310-1.03.B Defines Carrier Pipe as 66-in welded steel pipe (FRPM) as defined in Section 02666. Please confirm that the carrier pipe is FRPM and not welded steel pipe.</td>
<td>1</td>
<td>Confirmed. Refer to Addendum body for revisions to contract text.</td>
</tr>
<tr>
<td>ID</td>
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<tr>
<td>129</td>
<td>Package 1 &amp; 3 - Specification 02517-3.8.B requires a 200LF test for annular grout placement. With the distance slightly exceeding 500LF for the longest tunnel section, it is requested that annular grout test of 200LF be omitted as a requirement. Please consider the omission for Package 3 under Specification Section 02431 3.4.B.4.</td>
<td>1,3</td>
<td>Note that Section 02517 only applies to Package 3. Refer to Addendum body for revisions to contract text.</td>
</tr>
<tr>
<td>130</td>
<td>Package 3 - Specification Section 02431-3.4.C states that all temporary bulkheads installed for grouting are to be removed. It is requested that intermediate temporary bulkheads be allowed to be left in place to control the lifts of grout placement due to the design grade.</td>
<td>3</td>
<td>Refer to Addendum body for revisions to contract text.</td>
</tr>
<tr>
<td>131</td>
<td>Package 3 - Please provide details and requirements for 54” FRP Carrier Grout Ports within tunnel sections if elected to be used by the contractor.</td>
<td>3</td>
<td>Question unclear. Provide additional detail of reference in contract documents.</td>
</tr>
</tbody>
</table>
Attachment 2: Revised Package 2 plan sheets.
16. THE CONTRACTOR SHALL CALL THE TEXAS ONE-CALL SYSTEM.

15. IF EXCAVATED MATERIAL IS NOT ACCEPTABLE TO THE ENGINEER FOR
   BACKFILL, AND FINAL BACKFILL MATERIAL.

14. CONTRACTOR SHALL SHAPE EMBEDMENT MATERIAL TO
   CONSTRUCTION SEQUENCING:

   9. ALL TRENCH SAFETY AND TRENCH SHORING SHALL BE THE
      CONTRACTOR'S RESPONSIBILITY.

   3. ALL TRAFFIC CONTROL DEVICES ARE TO BE IN ACCORDANCE WITH THE
      SPECIFICATIONS.

   1. THE CONTRACTOR WILL RETAIN THE SERVICES OF A GEOTECHNICAL
      ENGINEER WITH A MATERIALS TESTING LABORATORY TO PERFORM
      IMMEDIATE AND LATTERLY PRIOR WRITTEN APPROVAL OF THE OWNER.

   2. CONTRACTOR SHALL PROVIDE ALL THE FITTINGS SHOWN ON THE DRAWINGS
      EXCEPT AS SPECIFIED BY OWNER DURING THE CONSTRUCTION PHASE.

   1. THE OWNER WILL RETAIN THE SERVICES OF A GEOTECHNICAL
      ENGINEER TO DETERMINE SAFETY INSURANCE.

   16. POWER ROOF VENTILATORS AND ROOF HOODS SHALL BE PROVIDED WITH 1/2" MESH STAINLESS STEEL BIRD-SCREEN OVER ALL OPENINGS, UNLESS NOTED OTHERWISE.

   15. CONTRACTOR SHALL ACCEPT AND USE FIELD PLANTED SEED IN ACCORDANCE WITH
   THE SPECIFICATIONS.

   14. ALL HANGERS, BRACKETS, SUPPORTS OR BRACES FOR DUCTWORK ARE
   SPECIFICALLY NOTED OTHERWISE.

   13. PIPE AND DUCT SIZES INDICATED ON THE MECHANICAL AND CIVIL DRAWINGS
   ARE SHOWN ON THE MECHANICAL DRAWINGS. INSTRUMENTS SHOWN ON
   THE DRAWINGS AND ADDITIONAL PIPE SUPPORTS AS REQUIRED PER
   ASSOCIATED DETAILS AND MANUFACTURER'S REQUIREMENTS.

   12. PIPE SIZE INDICATIONS ARE CLEAR DIMENSIONS INSIDE THE DUCT OR CIVIL OPENING.

   11. NOT ALL THE ITEMS ARE SHOWN IN PLANS, SECTIONS, DETAILS, SCHEMATICS,
       AND P&ID DRAWINGS.

   10. OVERALL PHYSICAL SIZE OF THE EQUIPMENT SELECTED BY THE
   CONTRACTOR IS RESPONSIBLE TO MONITOR THE PLAN AS THE WORK PROGRESSES
   AND SUBMIT MODIFICATIONS FOR APPROVAL AS NEEDED.

   9. ALL RELATED DOCUMENTATION WILL BE MADE AVAILABLE TO THE INSPECTOR ON A
   DAILY BASIS.

   8. NOT ALL THE ITEMS ARE SHOWN IN PLANS, SECTIONS, DETAILS, SCHEMATICS,
       AND P&ID DRAWINGS. THE CONTRACTOR SHALL PROVIDE ALL
       REQUIRED DRAWINGS AND ADDITIONAL PIPE SUPPORTS AS NEEDED PER
       ASSOCIATED DETAILS AND MANUFACTURER'S REQUIREMENTS.

   7. PIPE AND DUCT LAYOUTS ARE SHOWN ON THE MECHANICAL AND CIVIL DRAWINGS.

   6. THE CONTRACTOR SHALL PROVIDE ALL THE PIPE SUPPORTS SHOWN ON THE
   DRAWINGS AND ADDITIONAL PIPE SUPPORTS AS REQUIRED PER
   ASSOCIATED DETAILS AND MANUFACTURER'S REQUIREMENTS.

   5. SPECIFICATIONS, ISOMETRICS, AND P&ID DRAWINGS. THE CONTRACTOR SHALL
   PROVIDE ALL THE FITTINGS SHOWN ON THE DRAWINGS EXCEPT AS SPECIFIED BY
   OWNER DURING THE CONSTRUCTION PHASE.

   4. THE CONTRACTOR SHALL PROVIDE ALL THE FITTINGS SHOWN ON THE DRAWINGS
   EXCEPT AS SPECIFIED BY OWNER DURING THE CONSTRUCTION PHASE.

   3. PIPE AND DUCT LAYOUTS ARE SHOWN ON THE MECHANICAL AND CIVIL DRAWINGS.

   2. CONTRACTOR SHALL PROVIDE ALL THE FITTINGS SHOWN ON THE DRAWINGS
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      ENGINEER WITH A MATERIALS TESTING LABORATORY TO PERFORM
      IMMEDIATE AND LATTERLY PRIOR WRITTEN APPROVAL OF THE OWNER.

   16. THE CONTRACTOR SHALL CALL THE TEXAS ONE-CALL SYSTEM.

   15. IF EXCAVATED MATERIAL IS NOT ACCEPTABLE TO THE ENGINEER FOR
   BACKFILL, AND FINAL BACKFILL MATERIAL.

   14. CONTRACTOR SHALL SHAPE EMBEDMENT MATERIAL TO
   CONSTRUCTION SEQUENCING:

   9. ALL TRENCH SAFETY AND TRENCH SHORING SHALL BE THE
      CONTRACTOR'S RESPONSIBILITY.

   3. ALL TRAFFIC CONTROL DEVICES ARE TO BE IN ACCORDANCE WITH THE
      SPECIFICATIONS.

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1. STOP LOG ACCESS COVER DIMENSIONING DETAIL

2. VALVE ACCESS WALKWAY DIMENSIONING DETAIL

3. ODOR CONTROL INFLUENT PIPE SECTION

4. ODOR CONTROL PIPE DETAIL FACING WEST

5. TRANSITION FLANGE DETAIL

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WMARSS Transfer Lift Station

Lockwood, Andrews & Newnam, Inc.

10811 Capital of Texas Hwy., Bldg. 2, Suite 2300
Austin, TX 78759
Tel 512-338-4212
www.lan-inc.com

Project No. 150-107-333 D-502
Date: March 24, 2017

LIFT STATION DETAILS (2 of 2)

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