Carrier Bridge Pump Station

Metropolitan Sewerage District of Buncombe County
Asheville, North Carolina

**ADDENDUM NO. 1**

June 5, 2025

TO: All Official Plan Holders

This Addendum is part of the Bidding Documents and the Contract Documents and modifies the original Bidding Documents dated April 2025 as indicated below. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification for award of the associated Contract.

This Addendum consists of 4 pages and the attachments, if any, listed on the last page.

## CHANGES TO PRIOR ADDENDA

None.

## CHANGES TO INTRODUCTORY INFORMATION

1.1. ADD Section 02 41 00 DEMOLITION to the Table of Contents.

## CHANGES TO BIDDING REQUIREMENTS

None.

## CHANGES TO CONTRACTING REQUIREMENTS

None.

## CHANGES TO SPECIFICATIONS

1.2. Specification 00 73 01, ADD the following Supplementary Condition to Article 7.03.

"SC-7.03 Delete the last sentence of Paragraph 7.03C in its entirety."

1.3. Specification 00 73 01, ADD the following Supplementary Condition to Article 7.03.

"SC-7.03 Add the following new subparagraphs immediately after Paragraph 7.03C:

1. Regular working hours will be 7:30 AM to 4:30 PM
2. Owner's legal holidays are New Years Day, Martin Luther King, Jr. Day, Good Friday, Memorial Day, Juneteenth, Independence Day, Labor Day, Thanksgiving, Friday after Thanksgiving, Christmas Eve, Christmas, and Day after Christmas "

1.4. Specification 00 73 01, ADD the following Supplementary Condition to Article 7.03.

"SC-7.03 Add the following new subparagraph immediately after Paragraph SC-7.03.D:

1. For purposes of administering the forgoing requirement, additional overtime costs are defined as $180/hour“

1.1. Specification 00 52 13, DELETE Article 4.06 in its entirety. Renumber subsequent articles as appropriate.

1.2. Specification 00 21 13, Article 4.01, REPLACE with the following:

“A mandatory pre-bid conference will be held at the time and location indicated in the Advertisement or invitation to bid. Representatives of Owner and Engineer will be present to discuss the Project. Bids will not be accepted from Bidders who do not attend the conference. It is each Bidder’s responsibility to sign in at the pre-bid conference to verify its participation. Bidders must sign in using the name of the organization that will be submitting a Bid. A list of Bidders that attended the pre-bid conference and are, on that basis alone, eligible to submit a Bid for this Project, will be issued in an Addendum.”

1.3. Specification 00 21 13, Article 7.03, REPLACE with the following:

“Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda delivered to all Bidding Documents holders registered with the Issuing Office. Questions received after 2 PM local time on Monday, June 9, 2025, may not be answered.”

1.4. DELETE Section 00 41 13 BID FORM in its entirety and replace with the version attached to this Addendum.

1.5. ADD the attached Section 02 41 00 DEMOLITION to the Specifications.

1.6. Specification Section 40 05 00, Par. 3.10.C DELETE PVC and Ductile Iron as material options. All 36” force main pipe shall be 42” HDPE, DR17.

1.7. Specification Section 40 72 00, REPLACE Par. 2.2.A with the following:

“Radar Level Sensor and Transmitter”

1.8. Specification Section 40 72 00, REPLACE Par. 2.2.A.1.a with the following:

“Siemens LR120.”

1.9. Specification Section 40 72 00, DELETE Par. 2.2.B in its entirety.

1.10. Specification 40 61 96, Appendix A, Par. A.3.E.3.b.2, REPLACE a) and b) with the following:

“While flow is increasing

(1) 0 – 9 MGD: 1 FT (EL. 1948.25, 1 pump running)

(2) 9 – 19 MGD: 2 FT (EL. 1949.25, 1 – 2 pumps running)

(3) 19 – 27 MGD: 3 FT (EL. 1950.25, 2 pumps running)

(4) 27 – 35 MGD: 4 FT (EL. 1951.25, 3 pumps running)

(5) 35 – 45 MGD: 5 FT (EL. 1952.25, future)

(6) 45 – 50 MGD: 6 FT (EL. 1953.25, future)

a) While flow is decreasing

(1) 45 - 40 MGD: 5.5 FT (EL. 1952.75, future)

(2) 40 – 30 MGD: 4.5 FT (EL. 1951.75, 3 pumps running)

(3) 30 – 24 MGD: 3.5 FT (EL. 1950.75, 2 – 3 pumps running)

(4) 24 – 19 MGD: 2.5 FT (EL. 1949.75, 2 pumps running)

(5) 19 – 9 MGD: 2.0 FT (EL. 1949.25, 1 – 2 pumps running)

(6) 9 – 0 MGD: 1.0 FT (EL. 1948.25, 1 pump running)"

1.11. Specification 46 21 13, Par. 2.2.A, REPLACE 9 and 10 with the following:

"9) Downstream Water Depth at Avg. Flow: 2 FT

10) Downstream Water Depth at Peak Flow: 6 FT"

1.12. Specification 46 21 13, Par. 2.2.A.8, REPLACE "8 FT" with "7 FT".

1.13. Specification 46 21 13, Par. 3.2.B, DELETE this paragraph in its entirety and renumber subsequent paragraphs appropriately.

1.14. Specification 44 31 16, Par. 3.4.B.6, REPLACE A with the following:

"If the natural odor load is near non-detection levels, then the Owner reserves the right to augment the gas stream with Hydrogen sulfide to meet a loading of 2 ppm to confirm system performance. The owner would be responsible for the supply, security, application of H2S gas."

## CHANGES TO DRAWINGS

1.15. Sheet 01C304, REVISE keynote 5 to state: "Remove 42" plug or cap. Install required transition piece and/or coupling to connect into existing 42" HDPE, IPS, DR17."

1.16. Sheet 97Y601:

a. Influent flow split chamber level transmitters LE/LIT-1000A and LE/LIT-1000B: Change from ultrasonic type to radar type level transmitters.

b. Influent screen no.1 level transmitter LE-1001A,B/ LIT-1001: Change from ultrasonic type to radar type level transmitter.

c. Add one (1) float-tilt type level switch to be mounted in screen influent channel no.1 upstream of screen no.1. Float to be supplied by screen vendor and to be connected to control panel LCP-1001.

d. Influent screen no.2 level transmitter LE-1002A,B/ LIT-1002: Change from ultrasonic type to radar type level transmitter.

e. Add one (1) float-tilt type level switch to be mounted in screen influent channel no.2 upstream of screen no.2. Float to be supplied by screen vendor and to be connected to control panel LCP-1002.

1.17. Sheet 97Y602:

a. Wet well no. 1 level transmitters LE/LT-1010A and LE/LT-1010B: Change from submersible type to radar type level transmitters.

b. Wet well no. 2 level transmitters LE/LT-1020A and LE/LT-1020B: Change from submersible type to radar type level transmitters.

1.18. Sheet 97Y603:

a. Delete Detail 3 – Ultrasonic Level Sensor Mounting Detail

b. Delete Detail 5 – Wet Well Submersible Level Instrument Installation

1.19. Sheet 01C102-C:

a. ADD the following "PUMP STATION DEMOLITION NOTES:" to the Drawing:

1. REMOVE ALL PIPE, RAILING, STAIRS, EQUIPMENT, DOORS, DUCT WORK, DUCT BANK, CONDUIT, ELECTRICAL PANELS, CONTROL PANELS, WIRE, AND ANY OTHER BUILDING OR PUMP STATION APPURTENANCES FROM THE PUMP STATION PRIOR TO DEMOLITION OF THE STRUCTURE.
2. DEMOLISH THE ENTIRE PUMP STATION STRUCTURE TO A LEVEL 3-FEET BELOW EXISTING GRADE. FILL THE REMAINING STUCTURE AND RESTORE THE SITE PER SECTION 02 41 00.
3. ALL PIPE, CONDUIT, OR DUCT PENETRATIONS IN THE REMAINING PORTION OF THE STRUCTURE SHALL BE GROUT FILLED.
4. IF GRANULAR FILL MATERIAL IS UTILIZED FOR ABANDONMEN OF THE STRUCTURE IN LIEU OF FLOWABLE FILL, DRILL HOLES THROUGH THE BOTTOM HOLES OF A SUFFICIENT SIZE AND DENSITY TO ALLOW GROUND WATER TO FLOW THROUGH THE STRUCTURE.

## CLARIFICATIONS

Questions posed by prospective bidders and the Owner/Engineer's responses are included in the attached Question Log.

## ATTACHMENTS

The items listed below and bound following this document's "End of Addendum" designation, are part of this Addendum.

00 41 13 BID FORM
02 41 00 DEMOLITION
CITI SCOPE PROPOSAL C25058R2
Existing Pump Station Record Drawings
Pre-Bid Meeting Notes
Question Log

**END OF ADDENDUM NO. 1**

# BID FORM

FOR CONSTRUCTION CONTRACT

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

**ARTICLE 1—OWNER AND BIDDER**

1.01 This Bid is submitted to: Metropolitan Sewerage District of Buncombe County.

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

**ARTICLE 2—ATTACHMENTS TO THIS BID**

2.01 The following documents are submitted with and made a condition of this Bid:

A. Required Bid security;

B. Power of Attorney;

C. List of Proposed Subcontractors;

D. List of Proposed Suppliers;

E. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such authority within the time for acceptance of Bids;

F. Contractor's license number as evidence of Bidder's State Contractor's License or a covenant by Bidder to obtain said license within the time for acceptance of Bids;

G. Required Bidder Qualification Statement with supporting data;

H. Minority Business Enterprise (MBE) form(s);

I. Non-Collusion Affidavit; and

J. Certification of receipt of Addenda written on Contractor's letterhead.

**ARTICLE 3—BASIS OF BID—LUMP SUM BID AND UNIT PRICES**

3.01 *Lump Sum Bids*

A. Bidder will complete the Work in accordance with the Contract Documents for the following lump sum (stipulated) price(s):

1. Lump Sum Price (Base Bid and Alternates)

| | |
|---|---|
| Lump Sum Bid Price for Base Bid | $ |
| **Alternate A – Submersible Wastewater Pump Manufacturer** | |
| Flygt - Add | $ |
| KSB - Add | $ |
| **Alternate B – Gravity Sewer Alignment** | |
| All Gravity Sewer on Drawing 01C302 - Add | $ |
| All Gravity Sewer on Drawing 01C302A - Add | $ |

2. The Bidder, as part of the procedure for submissions of Bids on the Project, submits the listed additional project costs for the alternatives listed. Bidder must write in the additional cost that would be added to their Base Bid if Owner selects the alternative. For the alternatives included in the Base Bid, write in $0. The Owner reserves the right to consider the alternative costs in determining the lowest responsible bidder.

B. All specified cash allowance(s) are included in the price(s) set forth below, and have been computed in accordance with Paragraph 13.02 of the General Conditions.

| | |
|---|---|
| Lump Sum for Cash Allowance 1 - Pre-Negotiated Scope and Fee for System Integration – CITI, LLC. | $ 642,850 |
| Total for all Lump Sum for Cash Allowances | $ 642,850 |

3.02 *Allowance Definitions*

| Item | Description | Definition |
|---|---|---|
| 1 | Pre-Negotiated Allowance for System Integration – CITI, LLC. | Cost for all System Integration as described in the attached proposal (CITI, LLC). CITI has been pre-selected by the Owner to provide this service. CITI's scope and fee, terms and conditions are included as an attachment to this bid form and shall be included with the submitted bid forms by Contractor. The proposal does not include taxes. |

3.03 *Additive Alternate Definitions*

| Item | Description | Definition |
|---|---|---|
| A | Submersible Wastewater Pump Manufacturer | Total cost addition to provide the listed pump manufacturer in lieu of the manufacturer included in the Base Bid. This includes all costs associated with modification (if any) required to the structure, pipe layouts, wiring, accessories, and appurtenances. |
| B | Gravity Sewer Alignment | Total cost addition to install gravity sewer as shown on the listed Drawing Sheet in lieu of the alignment included in the Base Bid. This includes any and all costs associated with the alignment, including excavation, fill, trenching, tunneling, pipe, manholes, appurtenances, labor, general conditions and any other costs required for a complete and functional installation as indicated. Price should include the corresponding Milestone described in the Agreement. |

**ARTICLE 4—TIME OF COMPLETION**

4.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of days indicated in the Agreement.

4.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

**ARTICLE 5—BIDDER'S ACKNOWLEDGEMENTS: ACCEPTANCE PERIOD, INSTRUCTIONS, AND RECEIPT OF ADDENDA**

5.01 *Bid Acceptance Period*

A. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

5.02 *Instructions to Bidders*

A. Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security.

5.03 *Receipt of Addenda*

A. Bidder hereby acknowledges receipt of the following Addenda:

| Addendum Number | Addendum Date |
|---|---|
| | |
| | |
| | |
| | |
| | |

**ARTICLE 6—BIDDER'S REPRESENTATIONS AND CERTIFICATIONS**

6.01 *Bidder's Representations*

A. In submitting this Bid, Bidder represents the following:

1. Bidder has examined and carefully studied the Bidding Documents, including Addenda.
2. Bidder has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
3. Bidder is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.
4. Bidder has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, with respect to the Technical Data in such reports and drawings.
5. Bidder has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.
6. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, if selected as Contractor; and (c) Bidder's (Contractor's) safety precautions and programs.
7. Based on the information and observations referred to in the preceding paragraph, Bidder agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
8. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.

9. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.

10. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

11. The submission of this Bid constitutes an incontrovertible representation by Bidder that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

6.02 *Bidder's Certifications*

A. The Bidder certifies the following:

1. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation.

2. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid.

3. Bidder has not solicited or induced any individual or entity to refrain from bidding.

4. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 8.02.A:

a. Corrupt practice means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process.

b. Fraudulent practice means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition.

c. Collusive practice means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels.

d. Coercive practice means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

**ARTICLE 7—ACCEPTABLE MANUFACTURER'S LIST**

7.01 Major equipment items: In connection with major items of equipment to be furnished and installed in this Project, Bidder expressly agrees to the following provisions:

A. That the Bid stated above includes furnishing and installing of major equipment furnished by the Supplier which Bidder has indicated by circling in the table below. For items with additive alternates, indicate which Supplier is included within the Base Bid.

B. That the installed price of the equipment includes the cost (if any) of changes in the structure, buildings, piping, wiring, accessories, etc., necessary to accommodate the particular equipment proposed.

| SPECIFICATION SECTION | EQUIPMENT | MANUFACTURER/SUPPLIER |
|---|---|---|
| 26 29 23 | Variable Frequency Drive(s) | • Allen Bradley |
| 26 32 13.13 | Diesel-Engine-Driven Generator(s) | • Blue Star<br>• MTU |
| 26 36 00 | Transfer Switch(es) | • Automatic Switch Company<br>• Russelectric<br>• Zenith Products |
| 43 25 13 | Submersible Sewage Pump(s) | • Flygt<br>• KSB |
| 44 31 16 | Odor Control Equipment | • Daniel Mechanical<br>• ECS<br>• PureAir |
| 46 21 13 | Traveling Rake Screens | • Headworks USA<br>• Huber Technologies<br>• SAVECO |

**ARTICLE 8—SCHEDULE OF SUBCONTRACTORS**

8.01 The Bidder as part of the procedure for submission of Bids on the Project, submits the following list of Major Subcontractors to be used in performance of the work. Bidder must write in the name of one, and only one, Subcontractor for major work items listed below or the bid could be deemed non-responsive. If self-performing, indicate as such. No changes shall be made after the Bid opening without sufficient justification and preapproval from the owner.

| SUBCONTRACTOR NAME AND ADDRESS | DESCRIPTION OF WORK/MATERIALS |
|---|---|
| | Design of Retaining Wall |
| | Design of Excavation Support System |
| | Design of Pipe Support Systems |
| | Rock Blasting and Monitoring |

| | |
|---|---|
| | Electrical |
| | Force Main Pipe Installation |
| | Gravity Sewer Pipe Installation |
| | Trenchless Casing Pipe or Liner Plates Installation |
| | CIPP Sewer Pipe Rehabilitation |
| | Manhole Rehabilitation |
| **Others (provide for all additional Subcontractors performing 10% or greater of total project)** | |
| | Trade: |
| | Trade: |
| | Trade: |

| | |
|---|---|
| | Trade: |

BIDDER hereby submits this Bid as set forth above:

Bidder:

_____

*(typed or printed name of organization)*

By: _____

*(individual's signature)*

Name: _____

*(typed or printed)*

Title: _____

*(typed or printed)*

Date: _____

*(typed or printed)*

*If Bidder is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.*

Attest: _____

*(individual's signature)*

Name: _____

*(typed or printed)*

Title: _____

*(typed or printed)*

Date: _____

*(typed or printed)*

Bidder's Address for giving notices:

_____

_____

Bidder's Contact Person:

Name: _____

*(typed or printed)*

Title: _____

*(typed or printed)*

Phone: _____

Email: _____

Address:

_____

_____

_____

Bidder's Contractor License No.: (if applicable) _____

# SECTION 02 41 00
DEMOLITION

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. General provisions applicable to all demolition and removals.
   2. Civil/site demolition and removals.
   3. Architectural and structural demolition and removals.
   4. Mechanical demolition and removals
   5. Electrical demolition and removals.
   6. Disposal of demolition debris, materials, and equipment.

B. Related Requirements: Include, but are not necessarily limited to:
   1. Section 03 31 30 - Concrete Materials and Proportioning.
   2. Section 31 10 00 - Site Clearing.
   3. Section 31 23 05 - Excavation and Fill.

### 1.2 REFERENCES

A. Reference Standards: Standards referenced in this section include, but are not necessarily limited to, the following:
   1. National Fire Protection Association (NFPA):
      a. 241 - Safeguarding Construction, Alteration, and Demolition Operations.

### 1.3 ADMINISTRATIVE REQUIREMENTS

A. Coordination:
   1. Review procedures under this and other Sections and coordinate the Work that will be performed with, or before, demolition and removals.

### 1.4 QUALITY ASSURANCE

A. Regulatory Requirements:
   1. Comply with requirements of authorities having jurisdiction and relevant permits, if any, required and obtained for demolition Work.
   2.

B. Qualifications:
   1. Electrical Removals: Entity and personnel performing electrical removals shall be electrician(s) legally qualified to perform electrical construction and electrical work in the jurisdiction where the Site is located.
   2. Plumbing Removals: Entity and personnel performing plumbing removals shall be plumber(s) legally qualified to perform plumbing construction and plumbing work in the jurisdiction where the Site is located.

### 1.5 SUBMITTALS

A. Informational Submittals: Submit the following:
   1. Procedure Submittals:
      a. Demolition and Removal Plan: Not less than ten days prior to starting demolition Work, submit acceptable plan for demolition and removal Work, including:
         1) Plan for coordinating shut-offs, capping, temporary services, and continuing utility services.
         2) General indication of intended approach for performing demolition Work, including how proposed demolition will affect Owner and others, including owners and occupants of properties at and adjacent to the Site and the public.

3) Disposal and recycling facilities proposed, including facility owner, facility name, location, and processes. Include copy of appropriate permits and licenses, and compliance status.
4) Planned demolition operating sequences, relative to their effect on Owner and others, including owners and occupants of properties at and adjacent to the Site and the public.
5) Detailed schedule of demolition Work in accordance with the Progress Schedule accepted by Engineer.
6) Copy of demolition permit (when required) obtained from authorities having jurisdiction.
7)

b. Engineer's review, comments upon, and acceptance of Contractor's procedure Submittals for demolition are only for the limited purposes indicated in the Contract Documents. Engineer's review, comments upon, action, or inaction concerning such Submittals, shall not, in any way, reduce or mitigate Contractor's sole responsibility for construction means, methods, techniques, procedures, and sequences, or associated safety and protection measures.

2.
3. Notification of Intended Demolition Start: Submit in accordance with Paragraph 3.1.B of this Section.
4. Field Quality Control Test Results:
   a. Results of megger-testing of existing motors that will remain Owner's property.
5. Qualifications Statements:
   a. Name and qualifications of entity performing electrical removals, including copy of licenses required by authorities having jurisdiction.
   b. Name and qualifications of entity performing plumbing removals.

### 1.6 FIELD CONDITIONS

A. Existing Conditions:
   1. Owner and Engineer make no representation of condition or structural integrity of areas to be demolished or where removals are required by the Contract Documents.

## PART 2 - PRODUCTS - (NOT USED)

## PART 3 - EXECUTION

### 3.1 PREPARATION

A. Notification:
   1. Not less than 48 hours prior to commencing demolition or removal, advise Engineer in writing of planned start of demolition Work. Do not start removals when either Owner or Engineer furnishes reasonable objection in a timely manner.
   2. Where demolition or removal has potential to affect adjacent properties, occupants, streets, or other public thoroughfare, transportation facilities, utilities, water courses, or any combination thereof, furnish required notices to owners and occupants of properties, buildings, and structures that may be affected by the demolition or removal.
   3. In accordance with Laws and Regulations, and applicable permits, furnish to authorities having jurisdiction, including emergency services as necessary, appropriate notices of planned demolition and removals.
   4. Submit to Engineer copies of notices furnished to adjacent property owners, occupants, and authorities having jurisdiction.

B. Protection of In-Place Conditions:
   1. Perform demolition and removal Work in manner that prevents damage and injury to property, structures, occupants, the public, and facilities. Do not interfere with use of, and

free and safe access to and from, buildings, structures, and properties, unless allowed by the Contract Documents or otherwise allowed in writing by Owner.

2. Closing or obstructing roads, drives, sidewalks, and passageways adjacent to the Work is not allowed unless indicated otherwise in the Contract Documents. Perform the Work with minimum interference to vehicular and pedestrian traffic.
3. Provide temporary partitions between demolition work areas and (a) areas that will be occupied during demolition and removals, and (b) areas accessible to the public or visitors. Temporary partitions shall be sturdy, braced plywood in good condition, of dimensions sufficient to adequately screen demolition work from view of occupants, public, and visitors. Maintain temporary partitions in place until demolition and removal Work in the subject area is complete or until other work requires removal of temporary partitions.
4. Provide appropriate temporary barriers, lighting, sidewalk sheds, and other necessary protection.
5. Repair damage to facilities not subject to demolition or removal when such damage results from Contractor's action or inaction.

C. Existing Utilities: In addition to requirements of the General Conditions, as may be modified by the Supplementary Conditions, Section 01 71 33 - Protection of the Work and Property, and other Division 01 Specifications, perform the following:
1. Should unforeseen, unknown, or incorrectly shown or indicated Underground Facilities be encountered, Contractor responsibilities shall be in accordance with the General Conditions, as may be modified by the Supplementary Conditions. Cooperate with utility owners in keeping adjacent services and facilities in operation.
2. Sanitary Sewerage: Before proceeding with demolition, locate and cap all sewer lines and service laterals discharging from the building or structure being demolished.
3. Storm Water Sewerage: Existing storm water system shall remain in place until demolition of existing building or structure is complete. Upon completing demolition, cut and cap storm sewerage at locations shown on the Drawings. Remove existing storm water piping and related structures between points of cutting, and backfill, restore to grade, and stabilize the area over the removed facilities in accordance with the Contract Documents.
4. Water Piping and Related Facilities: Before proceeding with demolition, locate and cap all potable and non-potable waterlines and service laterals serving the building or structure being demolished. Ensure compliance with Laws and Regulations regarding water quality.
5. Other Utilities: Before proceeding with demolition, locate and cap as required all other utilities, such as fuel and gas; compressed air; heating, ventilating, and air conditioning; electric; and communications; and service laterals serving the building or structure being demolished.
6. Coordinate with utility owners relative to demolition and removal Work. Where utility owner requires that only the associated utility owner modify, disconnect, cap, or any combination thereof, its associated utility service, pay the utility owner for performing such modification, disconnection, capping, or other necessary work.
7. Shutdown of utility services shall be coordinated by Contractor, assisted by Owner as required relative to contacting utility owners.

D. Remediation:
1.
2. If unanticipated Hazardous Environmental Condition is believed to be encountered during demolition and removals, comply with requirements of the General Conditions, as may be modified by the Supplementary Conditions.

## 3.2 DEMOLITION - GENERAL

A. General, Common Requirements for Demolition and Removal Work:
1. Contractor shall provide all labor, materials, construction equipment and machinery, tools, services (including professional services when necessary), and incidentals as shown, specified and required for demolition, removals, and disposal Work.
2. The Work under this Section includes, but is not necessarily limited to:

a. Demolition and removal of existing materials and equipment as shown or indicated in the Contract Documents. The Work includes demolition of structural concrete, foundations, walls, doors, windows, structural steel, metals, roofs, masonry, attachments, appurtenances, piping, electrical and mechanical systems and equipment, pavement, curbs, sidewalks, gutters, fencing, and similar existing materials, equipment, and items.

b.

3. Demolition and removals indicated in other Sections shall comply with requirements of this Section.
4. Perform demolition Work as shown or indicated on the Drawings and as indicated elsewhere in the Contract Documents.
5. Pay for transporting and, as applicable, disposing of materials and equipment resulting from demolition and removals Work.
6. Locate construction equipment used for demolition Work and remove demolished materials and equipment to avoid imposing excessive loading on supporting and adjacent walls, floors, framing, facilities, and Underground Facilities.
7. Comply with Section 01 73 29 - Cutting and Patching, and NFPA 241.

B. Pollution Controls:
1. Do not use water when water may create hazardous or objectionable conditions such as icing, flooding, or pollution.
2. Clean adjacent structures, facilities, properties, and improvements of dust, dirt, and debris caused by demolition Work, in accordance with the General Conditions and Section 01 74 00 - Cleaning.

C. Explosives:
1. Explosives are not allowed at the Site. Do not use explosives for demolition and removal Work.

D. Building or Structure Demolition and Removals:
1. Unless otherwise acceptable to Engineer, proceed with demolition from top of building or structure to the ground. Complete demolition Work above each floor or tier before disturbing supporting members of lower levels.
2. Demolish concrete and masonry in small sections.
3. Remove structural framing members and lower to ground using hoists, cranes, or other suitable methods. Do not throw or drop to the ground.
4. Break up and remove foundations, mats, and slabs-on-grade unless otherwise shown or indicated as remaining in place.
5. Temporary Bracing and Supports:
   a. Provide temporary bracing and supports sufficient to maintain safety, stability, and resist all loads to which the structure may be subject during demolition and removals, until entirety is permanently removed or permanently stabilized.
   b. Temporary bracing and supports shall be sufficient for associated dead load, live load, transient loading, and dynamic loads such as wind, seismic, and other loads to which the temporary bracing or support may be subject.
   c. Where appropriate, retain a professional structural engineer, complying with applicable requirements for Contractor-retained design professionals in Section 01 71 23 – Field Engineering, to design temporary bracing and supports.

E. Salvage and Ownership:
1. The following applies to materials and equipment to remain Owner's property:
   a. Contractor shall carefully remove and appropriately handle materials and equipment to remain Owner's property in manner avoids damaging and invalidating warranties in effect for such items. Brace motors attached to flexible mountings until reinstallation or delivery to Owner's storage location. Fully remedy to pre-construction condition or replace items damaged during removal, handling, or storage by Contractor.
   b. Remove, as functional units, together with all appurtenances required for operation.

c. Clean and tag for storage, items to remain Owner's property, and maintain comprehensive, detailed listing of such items. Update such listing when items are relocated.
d. Protect from damage.
e. Deliver to designated storage location at the Site, or other site, indicated in the Contract Documents, at place designated by Engineer or Owner.

2. Preparation of Owner's existing equipment for storage:
a. Where appropriate, identify each component with markings or tags to indicate its position in the assembly and the assembly of which it is part.
b. Place small parts in appropriate, durable boxes and clearly mark contents on the outside of box or container.
c. Remove oil from oil-lubricated bearings and gear boxes and replace with storage oil.
d. Provide grease for grease-lubricated bearings.
e. Replace breather plugs with solid plugs.
f. Megger-test motor windings: Attach report of the test results to the associated motor and submit copy to Engineer.
g. Attach unit to suitable crate bottom.
h. Enclose unit in polyethylene film and seal all seams and the film to the base of the unit with tape.
i. Construct crate of wood slats around top and sides of unit.
j. Attach permanent instruction tag to outside of crate stating: "This unit has been prepared for storage. Replace oil, vent plugs, and lubricant in accordance with manufacturer's instructions before start-up."

F. Finishing of Surfaces Exposed by Removals: Unless otherwise shown or indicated in the Contract Documents, surfaces of walls, floors, ceilings, and other areas exposed by removals, and that will remain as finished surfaces, shall be repaired and re-finished with materials that match existing adjacent surface, or as otherwise approved by Engineer.

## 3.3 STRUCTURAL REMOVALS

A. Remove structures to lines and grades shown or indicated, unless otherwise directed by Engineer. Where limits are not shown or indicated, limits shall be four inches outside item to be installed. Removals beyond limits shown or indicated shall be at Contractor's risk and expense and such excess removals shall be reconstructed to satisfaction of Engineer without additional cost to Owner.

B. Recycling and Reuse of Demolition Materials:
1. All concrete, brick, tile, masonry, roofing materials, reinforcing steel, structural metals, miscellaneous metals, plaster, wire mesh, and other items contained in, or upon, building or structure to be demolished, shall be removed, transported, and disposed of away from the Site, unless otherwise approved by Engineer.
2. Do not use demolished materials as fill or backfill adjacent to buildings and structures, in pipeline trenches, or as subbase under buildings, structures, or pavement.

C. After removing concrete and masonry walls or portions thereof, mats, slabs, and similar construction that ties in to the Work or to existing construction, neatly repair the junction point to leave exposed only finished edges and finished surfaces.

D. Where parts of existing structures are to remain in service following demolition:
1. Where parts of existing structures are to remain in service following demolition, remove the portions shown or indicated for removal, repair damage, and leave the building or structure in proper condition for the intended use.
2. Remove concrete and masonry to the lines shown or indicated by sawing, drilling, chipping, and other suitable methods. Leave the resulting surfaces true and even, with sharp, straight corners, resulting in neat joints with new construction and be satisfactory for the purpose intended.

3. Do not damage reinforcing bars beyond the area of concrete and masonry removal. Do not saw-cut beyond the area to be removed.
4. Reinforcing bars that are exposed at surfaces of removed concrete and masonry that will not be covered with new concrete or masonry shall be removed to 1.5 inches below the final surface. Repair resulting hole, with repair mortar (for concrete), or grout (for masonry), so that filled hole is flush with adjacent surface.
5. Where existing reinforcing bars are shown or indicated to extend into new construction, remove existing concrete so that reinforcing bars are clean and undamaged.

E. Removal of Anchorages and Protruding Metals:
1. Where equipment or material anchored to concrete or masonry are removed, and anchors are not to be re-used, and where existing metals (and to be removed) protrude from concrete, remove anchors and other metal to not less than 1.5 inches beneath surface of concrete or masonry member. Repair resulting hole, with repair mortar (for concrete), or grout (for masonry), so that filled hole is flush with adjacent surface.
2. At Contractor's option, when anchor is stainless steel, anchor may be cut flush with surface of concrete or masonry, when so approved by Engineer.

F. Jambs, sills and heads of windows, passageways, doors, or other openings (as applicable) cut-in to the Work or to existing construction, shall be dressed with masonry, concrete, or metal to provide smooth, finished appearance.

G. Where anchoring materials, including bolts, nuts, hangers, welds, and reinforcing steel, are required to attach the Work to existing construction, provide such materials under this Section, unless specified elsewhere in the Contract Documents.

## 3.4 MECHANICAL REMOVALS

A. Mechanical demolition and removal Work includes dismantling and removing existing:
1. Piping systems and ductwork systems.
2. Mechanical equipment and appurtenances.
3. Mechanical elements of instrumentation and control systems, such as sensors and transmitters and similar items.
4. Mechanical removals include cutting and capping as required, except that cutting of existing piping and ductwork to make connections is included under Section 01 73 29 - Cutting and Patching; Section 01 14 16 - Coordination with Owner's Operations; and Division 22 - Plumbing, Division 23 - Heating, Ventilating, and Air Conditioning, Division 40 - Process Interconnections, and others as applicable.
5. Mechanical removals as required in this Section apply to systems exposed to view, hidden from view, and Underground Facilities. Mechanical removals may require working in spaces that are OSHA-classified as confined spaces.

B. Life-Safety Systems:
1. Retain existing life-safety systems, including but not limited to fire suppression systems, in place for as long as possible prior to performing associated demolition and removals.
2. Where demolishing buildings or structures equipped with life-safety systems, remove or deactivate life-safety systems only in the area where active demolition operations are in progress.

C. Demolition and Removals of Piping, Ductwork, and Similar Items:
1. Scope:
a. Safely and properly purge piping and tanks (as applicable) of chemicals, fuel, solids, liquids, and gases (as applicable) and make safe for removal and capping. Discharge contents of existing piping appropriately while avoiding damaging property; restricting access to or use of property; and creating unsafe, unsanitary, nuisances, and noisome conditions.
b. To the extent shown or indicated, remove existing piping conveying water (potable and non-potable), waste and vent, fuel (liquids and gases), heating fluids (such as water-

glycol solutions), chemicals, solids and slurries, sludge, wastewater, other fluids, and process gases, and other piping.
   c. Remove piping to the nearest structurally sound (or "solid") piping support, and provide caps on ends of remaining piping.
   d. Where piping to be demolished passes through existing walls to remain, cut off and cap pipe on each side of wall.
2. Caps, Closures, Blind Flanges, and Plugs – General (All Piping and Ducts):
   a. Provide closure pieces, such as blind flanges and caps, where shown, indicated, or necessary to complete the Work.
   b. Where used in this Section, the term "cap" means the appropriate type of closure for piping or ductwork being closed, including caps, blind flanges, and other closures.
   c. Caps shall be compatible with the piping or ductwork on which the cap is installed, fluid-tight and gastight, and appropriate for the fluid or gas conveyed in the pipe or duct.
   d. Unless otherwise shown or indicated, caps shall be mechanically fastened, fused, or welded to pipe or duct. Plug piping with means other than specified in this Section only when expressly shown or indicated in the Contract Documents or when allowed, in writing, by Engineer.
3. Underground Facilities:
   a. When Underground Facilities are altered or removed, properly cut and cap piping left in place, unless otherwise shown or indicated.
4. Waste and Vent Piping; Ductwork:
   a. Remove waste and vent piping, and ductwork to extent shown and cap as required.
   b. Where demolished vent piping, stacks, and ductwork passes through existing roofing, patch the roof with same or similar materials as existing, and fully compatible with existing roofing materials. Completed patch shall be watertight and comply with roofing manufacturer's written recommendations, and warranty requirements (when existing warranty remains in effect).
5. Potable Water Piping; Plumbing; Fire Suppression Piping and Systems; Heating Piping:
   a. Modifications to potable water piping, fire suppression systems, plumbing piping (other than soil, waste, and vent piping), and heating system piping, shall comply with Laws and Regulations.
   b. All portions of potable water systems that have been modified or opened shall be hydrostatically tested and disinfected in accordance with the Contract Documents, and Laws and Regulations. Hydrostatically test other, normally-pressurized, plumbing and fire suppression piping and heating piping systems that convey fluid. Field-test piping conveying air or gas in accordance with the Contract Documents prior to returning such systems to service.

D. Equipment Demolition and Removals:
1. To the extent shown or indicated and to the extent necessary for the Work, remove existing mechanical equipment, including (but not limited to):
   a. Facility equipment, such as food service equipment, laundry equipment, dumbwaiters, and similar facility items.
   b. Conveying equipment such as elevators, escalators, and similar general-use conveying systems.
   c. Fire suppression and plumbing equipment.
   d. Heating, ventilating, and air conditioning equipment.
   e. Standby power generators.
   f. Security systems equipment.
   g. Transportation-related equipment.
   h. Flow control gates and valves.
   i. Hoisting equipment.
   j. Bulk materials conveying equipment.
   k. Process heating and cooling equipment.

l. Blowers, compressors, air filters, air dryers, and similar equipment.
m. Pumps.
n. Tanks.
o. Process equipment, including purification equipment, pollution control and solid waste equipment, and treatment process equipment.
p. Turbines.
q. Appurtenances (including motors, drive systems, controls, cooling water and seal water systems) as shown, indicated, and necessary for completing the Work.

2. Where necessary, disassemble equipment to avoid imposing excessive loading on supporting walls, floors, framing, facilities, and Underground Facilities. Disassemble equipment as necessary for access through, and egress from, buildings and structures. Disassembly and removal shall comply with Laws and Regulations. Provide means to remove equipment from buildings and structures.
3. Remove control panels, operator stations, and instrumentation associated with equipment being removed, unless shown or indicated otherwise.
4. Tanks and Equipment Containing Process Liquids, Gases, Solids, or a combination thereof:
   a. Purge contents in accordance with Paragraph 3.4.C of this Section and other applicable requirements of the Contract Documents.
   b. When removing generators, remove associated fuel storage tanks unless otherwise indicated to remain.
   c. Where contents of tank or equipment item may pose a potential hazard, such as hydrocarbon fuels or chemicals, properly dispose of contents and tanks in accordance with Laws and Regulations and the Contract Documents.
   d. Where tank or equipment contains wastewater or liquid sludge, and the Site is a wastewater treatment facility, transport and dispose of stored contents onsite at location acceptable to Owner and facility manager (if other than Owner) unless otherwise indicated in the Contract Documents. If Site is other than a wastewater treatment facility, dispose of contents appropriately in accordance with Laws and Regulations.
   e. Where tank or equipment contains solid or slurry-type material, remove, handle, and transport the contents and appropriately dispose of the materials offsite in accordance with Laws and Regulations, unless otherwise indicated in the Contract Documents.
5. Remove equipment supports as applicable, anchorages, base, grout, and piping. Remove anchorage systems in accordance with the "Structural Removals" Article in this Section.
6. Remove small-diameter piping back to header unless otherwise indicated.
7. Remove access platforms, ladders, and stairs related to equipment being removed, unless otherwise shown or indicated.
8. Instrumentation and Control Systems Removal:
   a. Remove instrumentation and controls equipment in accordance with this Section's requirements for mechanical removals and electrical removals.
9. Reuse and Sale of Removed Equipment:
   a. Entities indicated below may be interested in acquiring removed equipment:
      1) D.H. Griffin Companies.
      2) EcReCon.
      3) Federal Equipment Company.
      4) Phoenix Equipment Corporation.
   b. Comply with this Section's "Disposal of Demolition Debris" Article for restrictions on sales of removed items.

## 3.5 ELECTRICAL REMOVALS

A. Electrical Demolition Work Includes Performing the Following Activities and Removing Existing Electrical Items as follows:
   1. Disconnecting cabling from motors, electrical sources, control panels, control stations, instrumentation and control items, and similar devices and equipment.
   2. Conduits, raceways, cable trays, hangers and supports, cabling, and related items.
   3. Switches, panelboards, control stations, and similar items.

4. Transformers, distribution switchboards, control panels, motors, starters, variable speed controllers, and similar items.
5. Lighting fixtures and related items.
6. Utility poles, site lighting standards, and overhead cabling.
7. Appurtenances and miscellaneous electrical equipment, as shown, specified, or required.

B. Electrical Removals – General:
1. Comply with Laws and Regulations, including applicable electrical construction codes.
2. Lock Out and Tagging:
   a. Contractor shall lock out and tag circuit breakers and switches operated by Owner or facility manager (if other than Owner), and shall verify that affected cabling are de-energized to ground potential before commencing electrical removals Work.
   b. Upon completion of electrical removals Work, remove locks and tags and promptly advise Resident Project Representative (RPR) or Engineer and Owner that existing facilities are available for use.
3. Remove existing electrical equipment, fixtures, and systems while avoiding damaging items required to remain. Unless shutdown is expressly allowed in Section 01 14 16 - Coordination with Owner's Operations, keep existing electrical systems in operation. Maintain integrity of grounding systems.
4. Disconnect and remove motors, control panels, and other electrical items where shown or indicated.
5. Store removed motors, microprocessors and electronics, and other electrical items to be reused in accordance with its manufacturer's recommendations and requirements of the Contract Documents.

C. Motor Control Centers and Switchgear:
1. Remove or modify motor control centers and switchgear as shown or indicated.
2. Modified openings shall be cut square and dressed smooth to dimensions required for installation of equipment.

D. Removal of Cabling, Conduits, Raceways and Similar Items:
1. Verify the function of each cable before disconnecting and removing.
2. Remove cabling, conduits, hangers and supports, and similar items back to the power source or control panel, unless otherwise shown or indicated.
3. Remove cabling, conduits, and similar items where shown or indicated for removal. Abandoned conduits concealed in floors, ceiling slabs, or in walls shall be cut flush with the slab or wall (as applicable) at point of entrance, suitably capped, and the area repaired in a flush, smooth manner acceptable to Engineer.
4. Disassemble and remove exposed conduits, junction boxes, other electrical appurtenances, and their supports.
5. Repair all areas of the Work to prevent rusting on exposed surfaces.
6. Underground Electric Demolition and Removal:
   a. Conduits in Underground Facilities not scheduled for reuse shall be suitably capped watertight where each enters building or structure to remain.
   b. Where shown or indicated, remove direct-burial cabling. Openings in buildings or structures for entrance of direct-burial cabling shall be patched with repair mortar or other material approved by Engineer for such purpose, and shall be watertight.

E. Electrical Service Entrances and Outdoor, Overhead Electrical Utilities:
1. Remove existing poles and overhead cabling as shown or indicated. Where acceptable to Owner and Engineer, such facilities and items may be secured and abandoned in-place, although Owner and Engineer are under no obligation to authorize abandonment in lieu of removal.
2. Completely remove from the Site poles not owned by electric utility, including site lighting standards and appurtenances, shown or indicated for removal.
3. Existing substation(s) and poles owned by electric utility will be removed by the electric utility.

4. Make necessary arrangements with electric utility owner for removal of utility owner's transformers and metering equipment after new electrical system has been installed and energized.

F. Lighting fixtures, wall switches, receptacles, starters, and other miscellaneous electrical equipment, not designated as remaining as Owner's property, shall be removed and properly disposed off-Site as required in accordance with Laws and Regulations.

## 3.6 DEMOLITION OF SITE IMPROVEMENTS

A. Pavement, Sidewalks, Curbs, and Gutters:
   1. Demolition of asphalt or concrete pavement, sidewalks, curbs, and gutters, as applicable, shall terminate at cut edges. Edges shall be linear and have a vertical cut face.
   2. To cut pavement, sidewalks, curbs, and gutters, use machinery or tools that provide a smooth-cut edge, appropriate for the required result. Where cut edges are not smooth and vertical, appropriately repair cut edge to remain, or provide new cut (in accordance with the Contract Documents) through sound material not less than six inches from original cut, providing smooth, even appearance.

B. Fencing, Guardrails, and Bollards:
   1. Remove to the limits shown or indicated on the Drawings.
   2. Completely remove below-grade posts and concrete.

C. Manholes, Vaults, Chambers, and Handholes:
   1. Remove to the limits shown or indicated on the Drawings.
   2. If not shown or indicated on the Drawings, remove to not less than three feet below finished grade indicated on the Drawings.
   3. Where a portion of manhole, vault, handhole, or similar structure remains in-place, backfill portion of item that will remain with material as indicated in the "Underground Facilities Other than Manholes, Vaults, Chambers, and Handholes" provision, below, of this Article.

D. Underground Facilities Other than Manholes, Vaults, Chambers, and Handholes:
   1. Remove to the extent shown or indicated on the Drawings.
   2. Unless otherwise shown or indicated, cap ends of piping to remain in place in accordance with the "Mechanical Removals" Article of this Section.
   3. Completely fill, with flowable fill (controlled low-strength material), the following Underground Facilities that will be abandoned in-place:
      a. Portions of manholes, vaults, handholes, and similar items that will remain in-place. At Contractor's option, such structures to remain may be filled with granular structural fill.
      b. Buried piping 12 inches in diameter and larger.
      c. .
   4. Provide flowable fill in accordance with Section 03 31 30 - Concrete Materials and Proportioning and Section 31 23 05 - Excavation and Fill. Where other material is allowed for backfilling Underground Facilities, provide such material in accordance with Section 31 23 05 - Excavation and Fill.

E. Landscaping: Comply with Section 31 10 00 - Site Clearing.

F. Other Site Improvements: When the Contract Documents require removal of other site improvements not addressed above, comply with Contract requirements for removal of buildings or structures.

## 3.7 DISPOSAL OF DEMOLITION DEBRIS

A. Disposal – General:
   1. Promptly remove from the Site all debris, waste, rubbish, material, and equipment resulting from demolition and removal Work. Promptly upon completion of demolition and removal Work, remove from the Site construction equipment used in demolition Work.
   2. Do not sell at, or adjacent to, the Site demolition materials or removed equipment and items. If materials, equipment or debris will be sold by Contractor, remove the items from the Site

and adjacent areas, and perform the sale or transaction elsewhere, in accordance with Laws and Regulations.

3. Cleaning and Removal of Debris: Comply with the General Conditions, Supplementary Conditions, and Section 01 74 00 - Cleaning.

B. Transportation and Disposal:
   1. Non-Hazardous Materials, Equipment, and Debris: Properly transport and dispose of non-hazardous demolition materials, equipment, and debris at appropriate landfill or other suitable location, in accordance with Laws and Regulations. Non-hazardous material does not contain Constituents of Concern such as (but not limited to) asbestos, PCBs, petroleum, hazardous waste, radioactive material, or other material designated as hazardous in Laws or Regulations.
   2. Hazardous Materials, Equipment, and Debris: When handling and disposal of items containing Constituents of Concern is included in the Work, properly transport and dispose of such items in accordance with the Contract Documents and Laws and Regulations.

C. Submit to Engineer information required in this Section on proposed facilities where demolition materials, equipment, and debris will be recycled. Upon request, Engineer or Owner, shall be allowed to visit recycling facilities to verify adequacy and compliance status. During such visits, recycling facility operator shall cooperate and assist Engineer and Owner.

**END OF SECTION**

4030 Yancey Road, Charlotte, NC 28217
P.O. Box 33758, Charlotte, NC 28233
PHONE 704.969.2484 FAX 704.969.2480



# CITI SCOPE PROPOSAL C25058R2

Date: June 18, 2025

To: Bidding Contractors

Project: Metropolitan Sewerage District of Buncombe County
Carrier Bridge Pump Station

Reference: Instrumentation and Controls – Issued for Bids Design Documents
Specification Sections 40 61 13 thru 40 91 10

CITI Inc, an equipment supplier, offers to furnish the following described materials and services as our scope Systems Integrator under Division 40, in accordance with the attached "Conditions of Sale" and other provisions that are referenced herein.

## CITI Scope Summary

**Materials**

| Qty | | Description |
|---|---|---|
| 1 | | Pump Station PLC (PLC-1000): new PLC panel with NEMA 12 freestanding enclosure |
| 1 | | Network Rack: new network panel per the requirements of specification section 40 62 16 |
| 1 | | Intrinsically Safe Barrier (ISB-1000): new ISB panel with NEMA 12 wall/rack mount enclosure |
| 1 | | Local Alarm Panel (LAP-1000): new local alarm panel with NEMA 12 wall/rack mount enclosure |
| 9 | | Local alarm stations (LAS-xxxxA, xxxxC) including alarm beacon and horn and remote push button station |
| 3 | | Local alarm stations (LAS-xxxxB) including alarm beacon and horn |
| 4 | | Local alarm stations (LAS-xxxD) including alarm beacon |
| 3 | | Level Instrument Termination Panel: New termination panel with NEMA 4X wall/rack mount enclosure for the following applications: |

| Panel No. | Service Description |
|---|---|
| TP-1010 | Level Instrument Termination Panel No.1 |
| TP-1020 | Level Instrument Termination Panel No.2 |
| TP-1030 | Level Instrument Termination Panel No.3 |

| | | |
|---|---|---|
| 1 | | Magnetic flow meter per specification section 40 71 00-2.2 each including flanged end flow tube, two grounding rings, remote rack/wall mount signal converter and tube to converter interconnect cables for the following applications: |

| Tag No. | Service Description | Flow Tube Size |
|---|---|---|
| FE/FIT-1010 | Station Effluent Flow | 30-inch |

| | | |
|---|---|---|
| 6 | | Radar level meter, each including level sensor with 1-inch MNPT mounting connection, integral sensor cable, and remote rack/wall mount transmitter for the following applications: |

| Tag No. | Service Description |
|---|---|
| LE/LIT-1000A | Influent Channel Level |
| LE/LIT-1000B | Influent Channel Level |
| LE/LIT-1010A | Wet Well No.1 Level - Primary |
| LE/LIT-1010B | Wet Well No.1 Level - Secondary |
| LE/LIT-1020A | Wet Well No.2 Level - Primary |
| LE/LIT-1020B | Wet Well No.2 Level - Secondary |

Note: Radar sensors LEs-1000A, 1000B, 1010A, 1010B, 1020A and 1020B require intrinsically safe barriers. Prior to connection to their corresponding transmitters, these sensors must be terminated in the ISB-1000 panel.

**Materials**

| Qty | | Description |
|---|---|---|
| 6 | | Float-tilt type level switch per specification section 40 72 00 2.3, each with integral cable for the following applications:<br>Tag / Service Description<br>LSH-1001 / Influent Channel Level High<br>LSH-1010 / Wet Well No.1 Level High<br>LSL-1010 / Wet Well No.1 Level Low<br>LSH-1020 / Wet Well No.2 Level High<br>LSL-1020 / Wet Well No.2 Level Low<br>LSH-1000 / Dry Pit Sump Level High |
| 1 | | Pressure transmitter/seal assembly per specification section 40 73 00-2.2 each including a gauge pressure transmitter, snubber, 1-inch threaded isolation ring and 1-inch FNPT process connection for the following applications:<br>Tag No. / Service Description<br>PIT-1000 / Station Discharge Pressure |
| 4 | | Pressure switch/gauge/seal assembly per specification sections 40 73 00-2.3 and 40 73 00-2.4, each including a pressure switch, pressure gauge, snubber, 1-inch threaded isolation ring and 1-inch FNPT process connection for the following applications:<br>Tag No. / Service Description<br>PI/PSH-1010 / Pump 1010 Discharge Pressure – High<br>PI/PSH-1020 / Pump 1020 Discharge Pressure – High<br>PI/PSH-1030 / Pump 1030 Discharge Pressure – High<br>PI/PSH-1040 / Pump 1040 Discharge Pressure – High |
| 4 | | Gas monitoring system per specification section 40 91 10-2.2, including wall/rack mount transmitters, with integral or remote mounted sensor as applicable, sensor to transmitter interconnect cable if applicable, for the following applications:<br>Tag No. / Service Description<br>AE/AIT-0102A / Screenings Room Gas Monitor - CH4 Sensor<br>AE/AIT-0102B / Screenings Room Gas Monitor - H2S Sensor<br>AE/AIT-0103A / Odor Control Room Gas Monitor - CH4 Sensor<br>AE/AIT-0103B / Odor Control Room Gas Monitor - H2S Sensor |
| 1 | | Gas monitoring system calibration equipment per specification paragraph 40 91 10-2.2 |
| 1 | | Network maintenance materials per specification section 40 62 16-2.8 |
| 1 | | PLC maintenance materials per specification section 40 63 43-2.8 |
| 1 | | Panel maintenance materials per specification section 40 67 00-2.4 |
| 1 | | Lot of field instrument 120VAC power supply surge protection for new instrument transmitters in this scope |
| 1 | | Lot of field instrument analog signal surge protection for new instrument transmitters in this scope |
| 1 | | Lot of stainless-steel nameplates for instruments in this scope |
| 1 | | O & M data manuals for panels and instruments provided in this scope. |

| **Services** | | |
|---|---|---|
| **Qty** | | **Description** |
| 1 | | Process Control System submittals per specification sections 40 61 13 and 40 61 21<br>• Submittal for control panels, network hardware, and communications equipment in this scope<br>• Submittal for field instrumentation in this scope<br>• Control panel I/O interconnect wiring details for all panels in this scope<br>• HMI graphic screens<br>• I/O List<br>• Process control system testing submittal<br>• Training plans submittal<br>• Operation and Maintenance manuals for equipment in this scope<br>• Final documentation for PLC and SCADA programming applications in electronic format |
| 1 | | PLC, OIT and SCADA application software programming per the process control descriptions in specification section 40 61 96 |
| 1 | | PLC Control System testing per specification sections 40 63 43 and 40 67 00 |
| 1 | | PLC Control System training per specification sections 01 79 23, 40 63 43 and 40 68 63 |
| 1 | | HMI Configuration review meetings per specification section 40 68 63 |
| 1 | | Project management and services for:<br>• Coordination meetings attendance<br>• Checkout and startup planning meeting assistance<br>• Training scheduling conference assistance<br>• Coordination with other equipment vendor suppliers for SCADA integration |
| 1 | | On-call PLC controls technical support for 1-year after startup per specification section 40 63 43-3.8 |

**CITI Pricing Summary**

| | | |
|---|---|---|
| *Pricing for CITI scope of materials and services* | *Materials Subtotal =* | *$399,954* |
| | *Services Subtotal =* | *$242,896* |
| | *Total excluding taxes =* | *$642,850* |

**CITI Clarifications:**

1. The scope of this proposal excludes all of the following regardless of the specification responsibility statements:
   - Intrusion alarm switches;
   - Instruments listed in the Schedule of Instrumentation for Process System in specification section appendix 40 70 06A and P&ID drawings shown as existing or being provided as part of a vendor package;
   - Equipment mounting racks and stands, sensor support brackets, instrument and panel sunshades, support anchors and hardware, flange fitting accessory kits, pipe taps, isolation valves, sample pumps, sample piping, impulse piping, grounding wire and rods, stilling wells, etc. as may be required or shown on the contract drawings, unless specifically listed in CITI Inc's materials scope;
   - Fiber optic cable and Cat6 Ethernet cable;
   - Field wiring materials, power disconnect switches, conduits, junction boxes, and pull boxes;
   - Surge protection for field components and instruments supplied by others;
   - Nametags for field components and instruments supplied by others;
   - Materials not specifically listed in CITI Inc's scope;
   - Building or work permits;
   - Project photographic documentation;
   - Harmonic analysis and measurement of harmonic voltage and current;
   - Configuration of the Verizon Wireless Private Network (VWPN). We will coordinate with MSD to add the new cellular modem to their existing VWPN;
   - Cable ISP modem;
   - Security cameras equipment including cameras, video recorder and POE switch;
   - Demolition or relocation of existing instrumentation and controls equipment;
   - Onsite supervision of equipment installation;
   - Installation of panels and field process components/instruments, field wiring and network cabling;
   - Field wiring terminations of power and control wiring at panels, field instruments, and process components;
   - Field terminations of fiber and copper communications network cabling;
   - PLC programming and OIS programming of panels supplied by others;
   - Power monitor configuration;
   - Video recording of training sessions;
   - Component inspections and startup for field process components/instruments and panels supplied by others;
   - Services not specifically listed in CITI Inc's scope.
2. PLC program development and SCADA software licenses, including communication drivers, will not be provided; MSD already owns all necessary licenses for the maintenance of the hardware and software provided as part of this scope.
3. Network equipment will be configured in accordance with the current telemetry system, no additional network appliances will be provided under this scope of work, but may be added at additional cost if required by the Owner.
4. Gas monitor sensors sampling pump will be supplied for the Screenings Room sensors only. Sampling pumps for the Odor Control Room is not required, but can be added at an additional cost if deemed necessary by the application.

5. All instruments and panels furnished under the scope of this proposal will be provided with the manufacturers' standard finish.
6. CITI Inc will provide our control panel drawing with field wiring interconnect details for all I/O points. ISA loop drawing will not be provided.
7. Unless otherwise noted in our proposal, CITI Inc will be providing all manufacturer's services under this scope.
8. Materials will be released for manufacture and shipment to the job site upon receipt of the approved submittal and your authorization. After your authorization to release, you must accept deliveries when equipment is available. You must assume custody upon delivery and provide suitable facilities in accordance with the specifications for on-site storage until materials are installed and powered. CITI Inc's hardware submittals will be available within 12-16 weeks after receipt of an executed order. Materials should be fully deliverable within 20-24 weeks after approved submittals and in accordance with an agreed upon schedule that will be based on product availability and supply chain constraints. Delivery schedules are non-binding, and CITI Inc maintains the right to partial deliveries as materials become available. If the delivery of materials is delayed as a result of manufacturer supply chain issues or other factors beyond our control, CITI Inc shall not be liable for any additional costs or damages associated with such delays.
9. After your completion of equipment installation and field wiring terminations, CITI Inc will begin the field services for commissioning our panels and field instruments. You will need to have qualified staff present during this testing to assist in verifying that each external connection to the equipment is correctly wired and to operate the interconnected field process equipment and panels furnished by others.
10. All materials are warranted for 18 months after delivery, 12 months after completion of their respective acceptance testing, or 12 months after the original project completion date, whichever occurs first. We will be responsible for shipping and repair costs for non-conforming or defective items during the warranty period. You will be responsible for removal, return shipment, receipt, and re-installation of any equipment items which you originally installed.
11. CITI Inc's insurance coverage is: general liability - $1,000,000/$2,000,000; auto liability - $1,000,000; excess liability - $1,000,000; and workers compensation - $1,000,000. If any additional coverage or endorsements are required, the charges for additions to CITI Inc's policy will be charged to you as an extra expense at actual cost times a multiplier of 1.15.
12. CITI Inc will retain all rights to Intellectual Property developed under this project and will grant the end user non-transferable rights to its use and modification. A copy of CITI Inc's privacy statement is available at www.CITI-INC.com.
13. This proposal is valid for 60 days. However, due to potential cost increases resulting from newly imposed import tariffs affecting our vendor suppliers, CITI Inc. reserves the right to adjust selling prices accordingly before receiving an executed purchase order and authorization for the release of materials for manufacturing and delivery. Shipping terms are FOB factory, with freight costs allowed. Unless otherwise specified in this proposal, all shipments will be directed to the designated project site.
14. Payment terms for this project are net 30 days, contingent upon approved credit, after the date of each invoice. Payment to CITI Inc shall not be dependent on your receipt of payment from any third parties. Materials that are delivered or approved for storage in CITI Inc's facility will be billed complete at the time of delivery/storage in accordance with a pre-submitted schedule of values. Services will be billed based on the percentage completed against this schedule of values.
15. CITI Inc will accept retainage being withheld from progress payments due to CITI if the Owner is applying retainage against the prime contract. Five percent retainage may be withheld until CITI Inc's work is 50% complete by approved billings, after which 0% may be withheld. Partial and full retainage releases must be made within the earlier of: seven days

of Owner's payment of retainage to you; or 60 days from the completion of CITI Inc's scope of work.

16. CITI Inc will not provide any materials or services for this project prior receipt of an executed purchase order.
17. CITI Inc will accept a purchase order for this scope of supply subject to these clarifications and the attached CITI Inc "Conditions of Sale". A subcontract will not be accepted. The order will need to incorporate this proposal or specifically include within its body the listing of materials, services, and clarifications from this proposal so as to define CITI Inc's scope of supply and terms. Flow down clauses will not be accepted. All terms of CITI Inc's agreement must be specifically listed in the order. Assignment of order is subject to CITI Inc's written consent.
18. CITI Inc will apply taxes to all invoices for labor and materials as applicable. If a tax exemption is being claimed, all relevant exemption forms must be provided to CITI at the time the purchase order is issued. A completed NCDOR E-589CI Affidavit of Capital Improvement is needed if the work is to be taxed as a real property contract with respect a capital improvement to real property.

If you have any questions about this scope of supply, please call us. Thank you for your consideration.

**CITI Inc.**

Camilo Castaño
Chief Estimator

Attachment: CITI Inc Conditions of Sale

# CITI, INC CONDITIONS OF SALE

1. **GENERAL**: Sales by CITI, INC, (herein CITI) are made solely under the conditions expressly set forth herein. Any proposed changes or exceptions to these conditions, or additional terms and conditions, included or referenced in Purchaser's order or acceptance of this offer, are hereby rejected by CITI, and shall be of no force or effect upon CITI unless expressly accepted in writing by CITI.

This Contract shall bind and inure to the benefit of Purchaser and CITI, as well as their respective successors and assigns; however, neither party may assign this Contract without prior written consent of the other.

Neither party shall be deemed to have waived its rights by failing to enforce any particular provision of this Contract.

If a court invalidates any portion of this Contract, the rest of this Contract shall remain valid and be construed as if not containing the invalidated provision.

North Carolina law shall govern the rights and obligations of the parties.
Either party may pursue any legal means available to resolve disputes or claims arising out of or relating to this Contract. Both parties agree to the jurisdiction for resolution of disputes under this order as Mecklenburg County, North Carolina. Each party shall be responsible for their own legal fees in any matter related to this agreement.

2. **CREDIT APPROVAL**: If at any time information available on Purchaser's financial condition or credit history, in CITI's judgment, does not justify the terms of payment specified herein, CITI may require full or partial payment in advance, or an acceptable form of payment guarantee such as a bank letter of credit, or other modifications to the terms of payment.

3. **PROPRIETARY INFORMATION**: All information, data, drawings, instruction and operation manuals furnished by CITI with this Contract are proprietary to CITI, submitted in strict confidence, and are to be used by Purchaser solely for the purposes of this Contract, and shall not be reproduced, transmitted, disclosed or used in any other manner without CITI's written authorization.

4. **RISK OF LOSS**: Risk of loss or damage to the Products, or any part thereof, shall pass to Purchaser at the f.o.b. ship point stated herein.

5. **EXCUSABLE DELAY**: CITI shall not be liable for failure to perform or for delay in performance due to fire, flood, or any other act of God; strike or other labor difficulty, including the bankruptcy of any suppliers to CITI, act of any civil or military authority or of Purchaser; riot; embargo; delay in or shortage of transportation facilities; or any other delay beyond CITI's reasonable control. In the event CITI's performance is delayed by any such cause, CITI's schedule for performance shall be extended accordingly. If Purchaser's actions delay CITI's performance, Purchaser shall pay CITI any additional costs incurred by CITI resulting from such delay. If Purchaser delays shipment of Products, or any part thereof, in addition to paying CITI for additional costs incurred, Purchaser shall also pay for the Products or the parts on the date CITI is prepared to make shipment.

6. **TAXES AND LICENSES**: The Purchase Price does not include any licenses or State or local taxes of any kind applicable to the sale, use or delivery of the Products or services covered under this Contract. Purchaser shall pay direct or reimburse CITI for any such license fees or taxes that CITI or CITI's subcontractors or suppliers are required to pay. CITI will apply taxes to all invoices for labor and materials as applicable to the State where the work is sold. If a tax exemption is being claimed, all relevant exemption forms must be provided to CITI at the time of execution of this Contract.

7. **INSPECTION BY PURCHASER**: Purchaser may inspect the Products at Purchaser's expense at the point of manufacture, provided that such inspection is arranged and conducted so as not to unreasonably interfere with CITI's or the manufacturer's operations. Purchaser's inspection of the Products and release for shipment shall constitute Purchaser's acceptance of the Products as conforming to the requirements of this Contract.

8. **WARRANTY**: CITI warrants the Products from defects in material and workmanship for a period of one (1) year from date the Products are initially placed in operation, or eighteen (18) months from date the Products are shipped, whichever occurs first, provided that the Products are stored, installed, maintained and operated in accordance to the manufacturers recommendations and are protected from harm or damage including but not limited to fire, water, physical damage, exposure to inclement weather, extreme temperatures, and not subjected to misuse, neglect or accident. Upon prompt written notice of and determination that such defect is covered under the foregoing warranty, CITI's responsibility is limited to correction of the defect by, at CITI's option, repair or replacement of the defective part or parts, f.o.b. factory. CITI will not accept responsibility for incidental or consequential damages. Unless stated elsewhere herein, CITI provides no warranty of product performance or process results. The foregoing warranties are exclusive and in lieu of all other warranties of any kind, including any implied warranty of merchantability or fitness for a particular purpose.

Any products repaired or replaced under this warranty will be warranted for the remainder of the original warranty period. CITI shall have no responsibility for the condition of primed or finish painted surfaces after the Products leave their point of manufacture.

Field touch-up of shop primed or painted surfaces is normal and shall be at Purchaser's expense. Any touch-up or repainting required to shop primed or painted surfaces, for reasons other than improper or incorrect application in the shop, shall be Purchaser's responsibility.

Purchaser shall be responsible for unpacking and inspecting all shipped Products and noting any damage on the shipper's bill of lading. Any damage must be reported to CITI within 48 hours of receipt of shipment by Purchaser.

9. **PAYMENT TERMS.** CITI's payment terms are Net 30 days from date of CITI invoice. If Purchaser is late in paying the Purchase Price or any partial payment due under this Contract, or otherwise breaches this Contract, CITI shall be entitled to interest at 1½% per month on the overdue amount, and on its damages, calculated from the date of default in payment or other breach, plus court costs, reasonable attorneys' fees and other expenses incurred in any effort to collect.

No retainage on the equipment, products, services, or any part thereof, is allowed unless prior approved by CITI. Full retainage release must be made within the earlier of: seven days after purchaser receives payment of retainage, 60 days from the completion of CITI's scope of work, or 180 days after delivery, whichever occurs first.

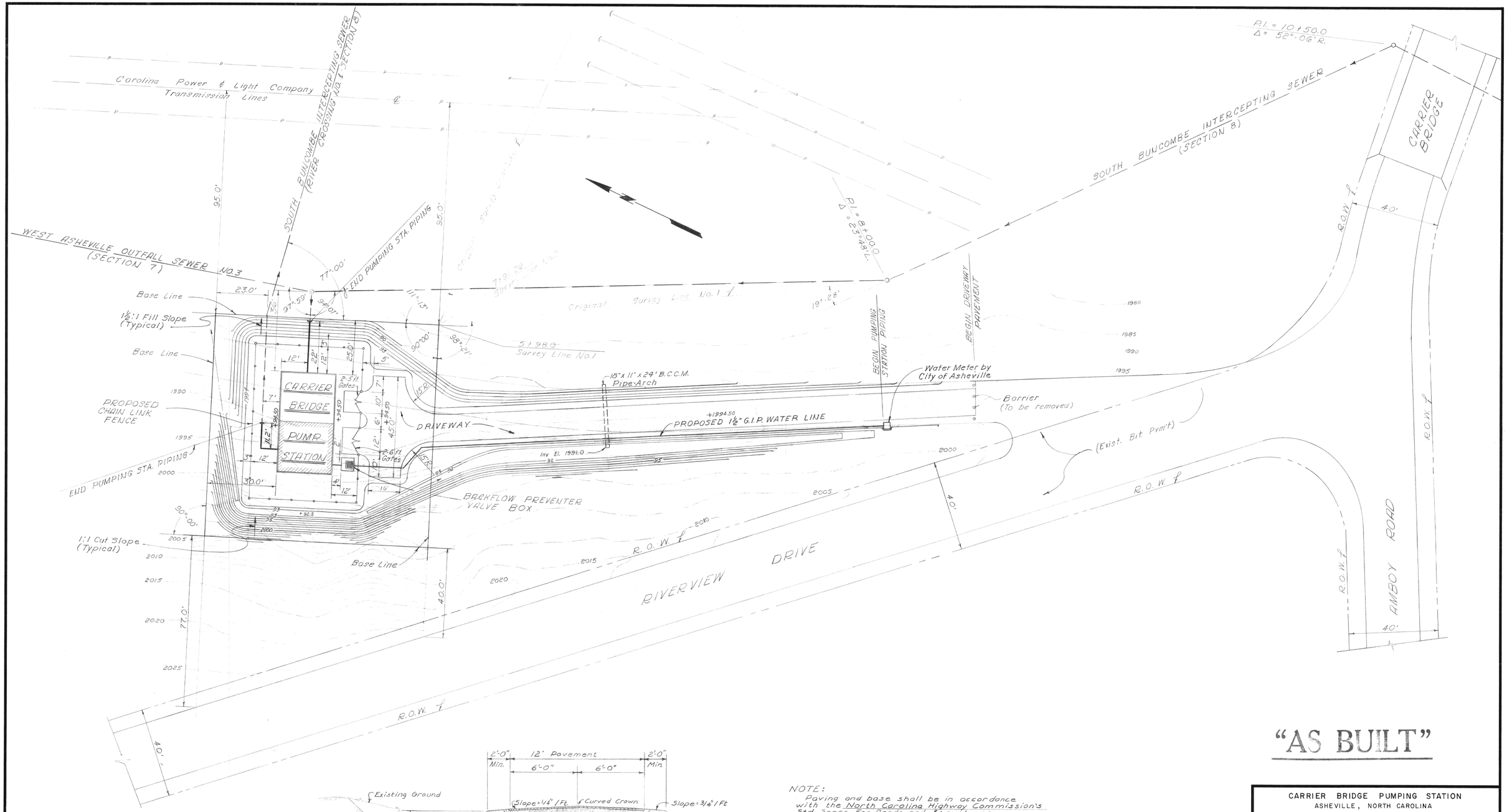
10. **BACKCHARGES**: CITI shall not be liable for any charges incurred by Purchaser for work, repairs, replacements or alterations to the Products, without CITI's prior written authorization, and any adverse consequences resulting from such unauthorized work shall be Purchaser's full responsibility.

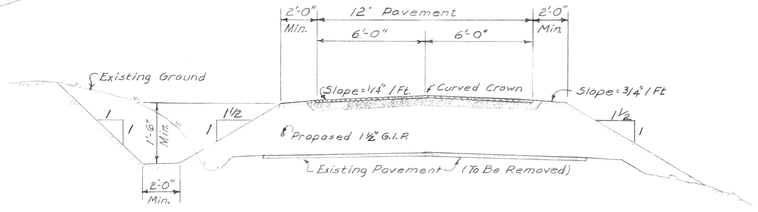
11. **LIMITATION OF LIABILITY:** CITI shall not be liable to purchaser for any special, indirect, incidental or consequential damages arising from CITI's obligations under this contract, whether such damages are based upon breach of contract, breach of warranty, tort, strict liability or otherwise. In any event, CITI's liability to purchaser shall not exceed the purchase price of the products or parts of the products on which such liability is based.

12. **CANCELLATION BY PURCHASER**: If Purchaser cancels this Contract or refuses to accept delivery of the Products, Purchaser shall be liable to CITI for reasonable cancellation charges, including loss of anticipated profits, administrative costs, commissions to sales representatives, costs incurred by CITI for all work performed or in process up to the time of cancellation or refusal to accept delivery, cancellation charges from CITI's suppliers or subcontractors, and any other expenses incurred by CITI in connection with Purchaser's cancellation or refusal to accept delivery.

13. **DEFAULT BY PURCHASER**: Without incurring any liability or waiving any claim for damages CITI may have against Purchaser, CITI may refuse to make or delay making delivery, and/or withhold any service, and/or ship C.O.D., and/or apply payments to open balances at CITI discretion, if:

(a) Purchaser breaches this or any contract with CITI, or; (b) CITI fails to receive payment within 30 days from date of invoice, or; (c) CITI becomes aware of facts which, in its judgment, render Purchaser's financial condition unsatisfactory or cast doubt on Purchaser's willingness or ability to pay for the Products and/or services, or; (d) Purchaser engages in or consents to liquidation, commission of any act of insolvency, appointment of a receiver of assets or assignment for the benefit of creditors, or if Purchaser becomes the subject of any bankruptcy or insolvency proceeding.




TYPICAL DRIVEWAY SECTION
Scale: 1/4" = 1'-0"

NOTE:
Paving and base shall be in accordance with the North Carolina Highway Commission's Std. Specs. For Roads and Structures.
6" Coarse Aggregate Base Course, Sections 401-1.2 & 51
Class A Bituminous Surface Treatment, Section 100
Prime - 0.30 to 0.35 Gal. Per Sq. Yd.
Mat - 0.40 to 0.47 Gal. Per Sq. Yd.
Seal - 0.42 to 0.50 Gal. Per Sq. Yd.
Cover Aggregate -
Mat - 45 to 50 lbs Per Sq. Yd.
Seal - 30 to 32 lbs Per Sq. Yd.
Culvert Pipe shall be galvanized, fully bituminous coated, 14 gage corrugated metal.

"AS BUILT"

| NO. | DATE | DESCRIPTION | CHKD. | APPR. |
|---|---|---|---|---|
| | | REVISIONS | | |
| 1 | 2/21/67 | Redrawn | J.L.L. | J.L.L. |

SULLIVAN, LONG & HAGERTY
GENERAL CONTRACTOR
P. O. Box 2030
BIRMINGHAM, ALA. 35201

GRID # P9638 PROJECT # 1966005
ASH. INT. SEW CARRIER BRIDGE P.S. SEC. 14 & 15 # 378
FILE LOCATION-P9638 REV-

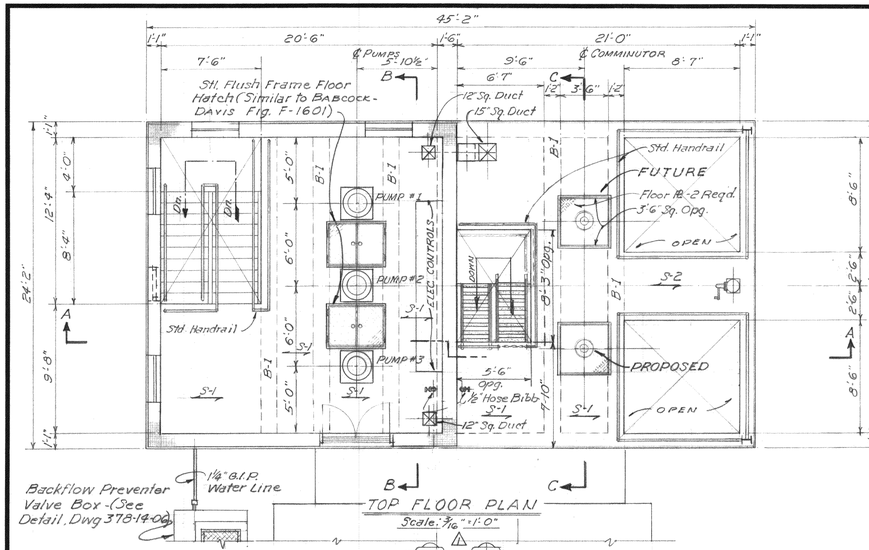
FWPCA PROJECT NO. WPC-NC-172
ENGINEER'S PROJECT NO. 378

CARRIER BRIDGE PUMPING STATION
ASHEVILLE, NORTH CAROLINA

# GENERAL LAYOUT

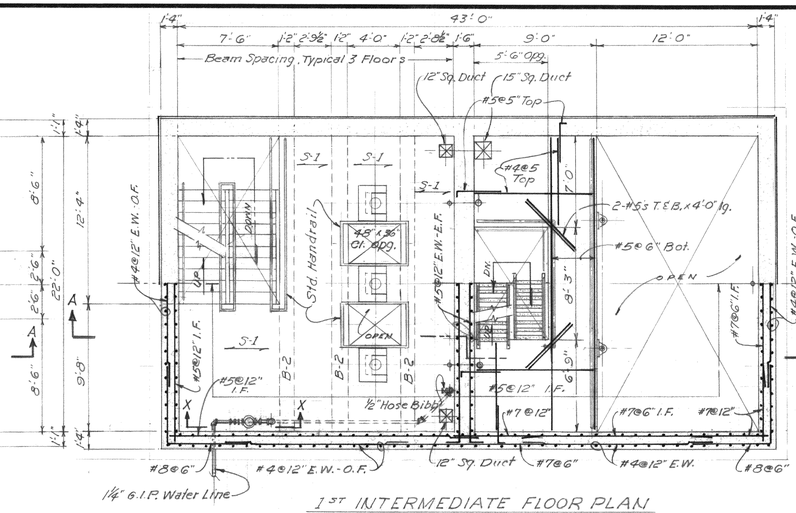
HARRY HENDON AND ASSOCIATES, INC.
ENGINEERS
BIRMINGHAM, ALABAMA ORLANDO, FLORIDA

| | | |
|---|---|---|
| DRAWN T.B.W. | SCALE 1" = 20' | SHEET 1 OF 1 SHEETS |
| CHECKED J.L.L. | APPROVED J. L. Lucas | 378-14-03 |
| DATE FEB. 21, 1967 | | |



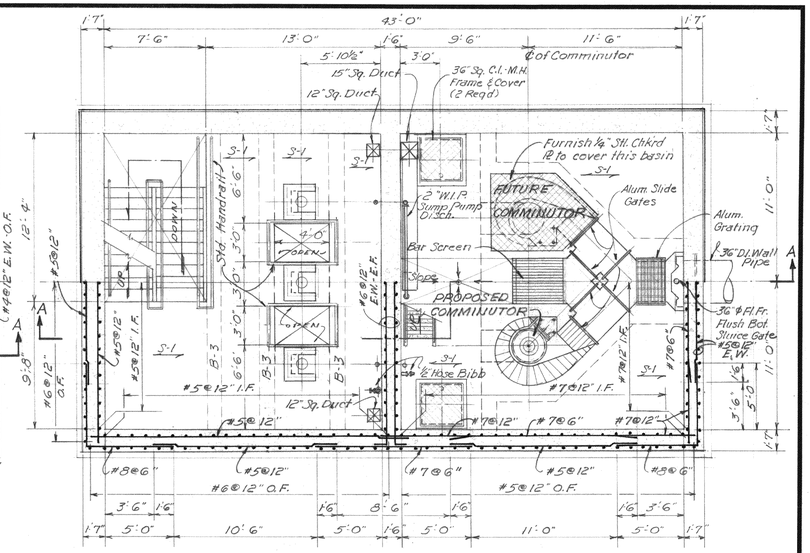

TOP FLOOR PLAN

Scale: 3/16" = 1'-0"



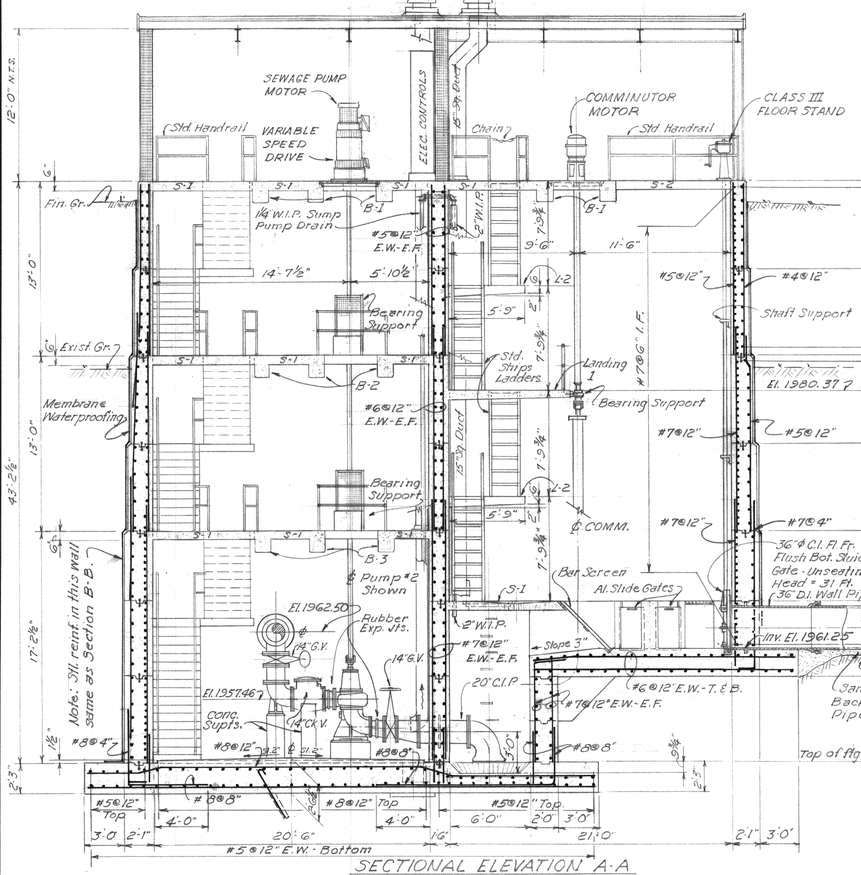

1ST INTERMEDIATE FLOOR PLAN

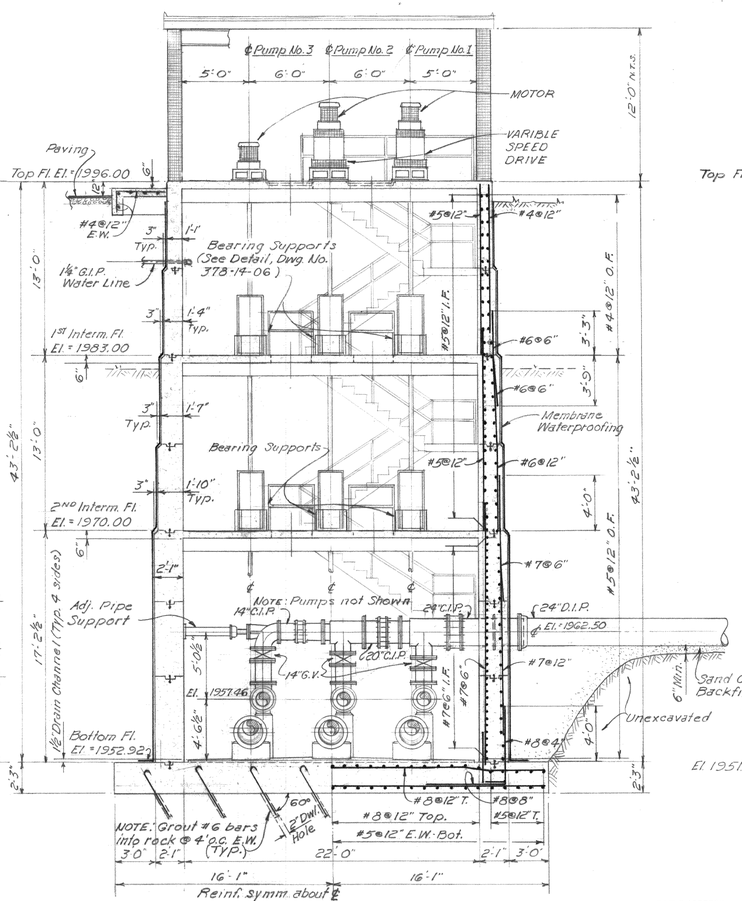
Scale: 3/16" = 1'-0"

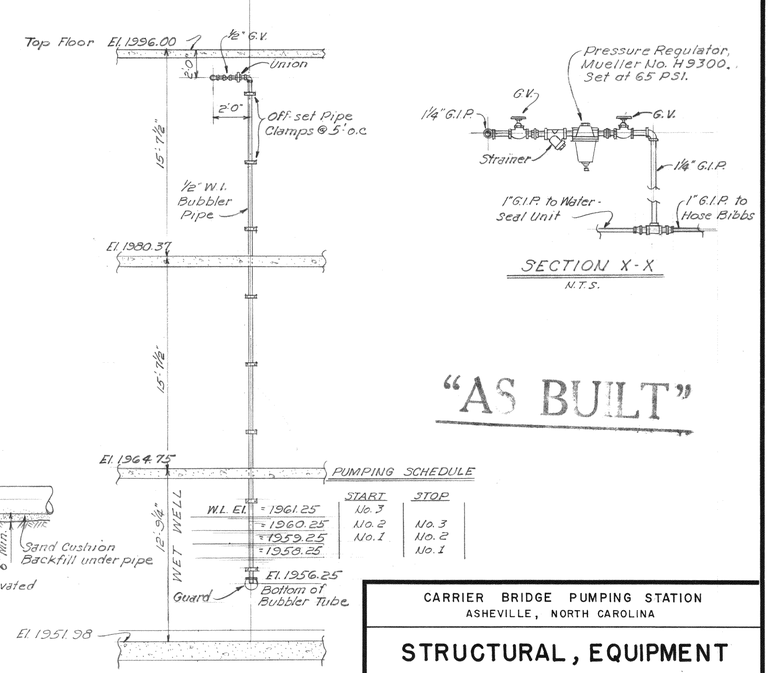



2ND INTERMEDIATE FLOOR PLAN

Scale: 3/16" = 1'-0"




"AS BUILT"

| NO. | DATE | DESCRIPTION | CHKD. | APPR. |
|---|---|---|---|---|
| 1 | 9-3-67 | RELOCATED ELEC. CONTROLS, WINDOWS & SHUTTERS | J.L.L. | |

REVISIONS

GRID # P9638 PROJECT # 1966005
ASH. INT. SEW CARRIER BRIDGE P.S. SEC. 14 & 15
# 378
FILE LOCATION-P9638 REV-

W.P.C.A. PROJECT NO. WPC-NC-172
ENGINEER'S PROJECT NO. 378

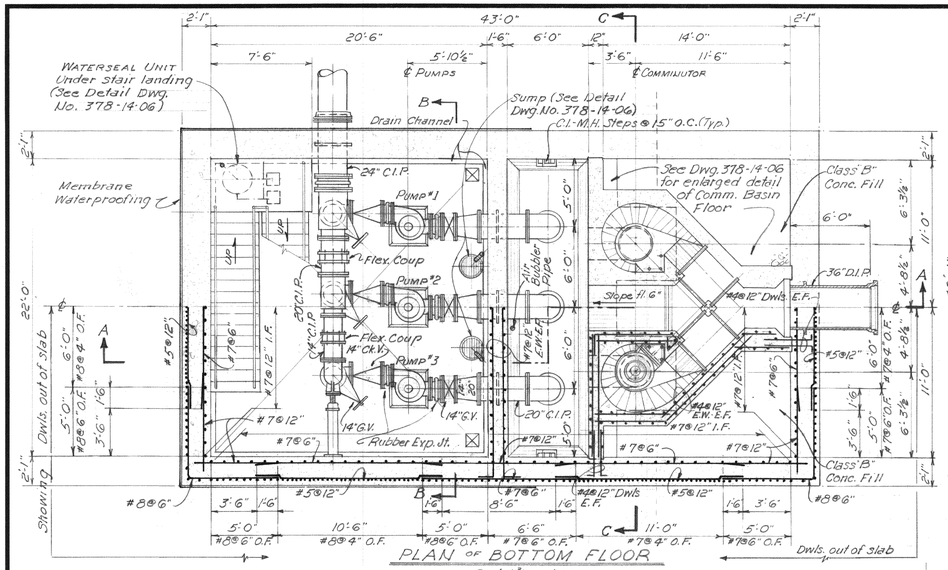
CARRIER BRIDGE PUMPING STATION
ASHEVILLE, NORTH CAROLINA

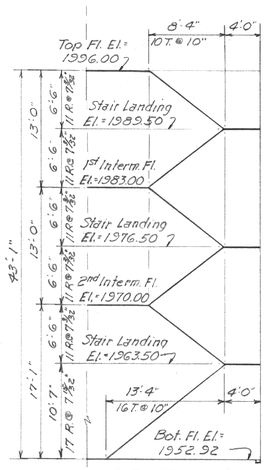
# STRUCTURAL, EQUIPMENT AND PIPING DETAILS

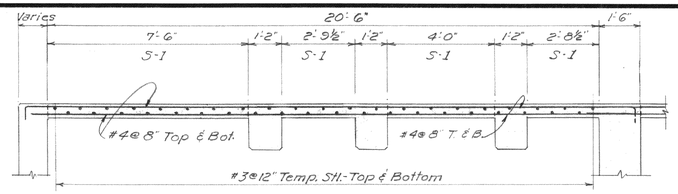

HARRY HENDON AND ASSOCIATES, INC.
ENGINEERS
BIRMINGHAM, ALABAMA — ORLANDO, FLORIDA

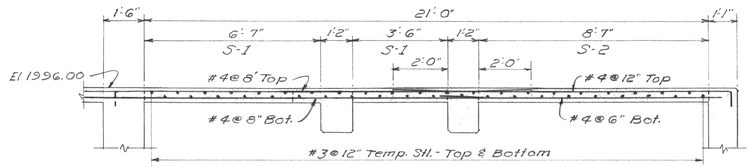

| | | |
|---|---|---|
| DRAWN V.W.C. | SCALE 3/16" = 1'-0" | SHEET 1 OF 3 SHEETS |
| CHECKED J.L.L. | APPROVED | 378-14-04 |
| DATE JULY, 1966 | | |

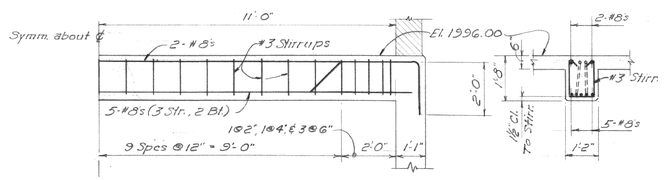
Dietzgen N. O. 197M "Durawill"

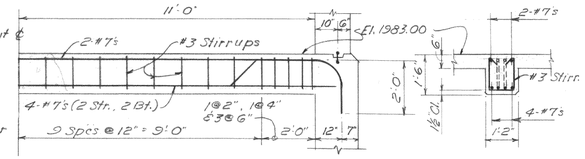


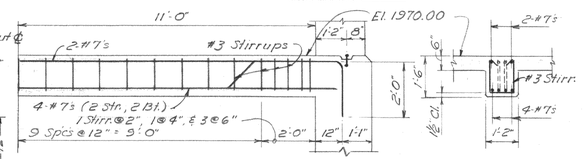



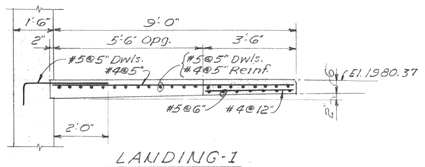



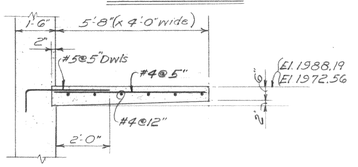



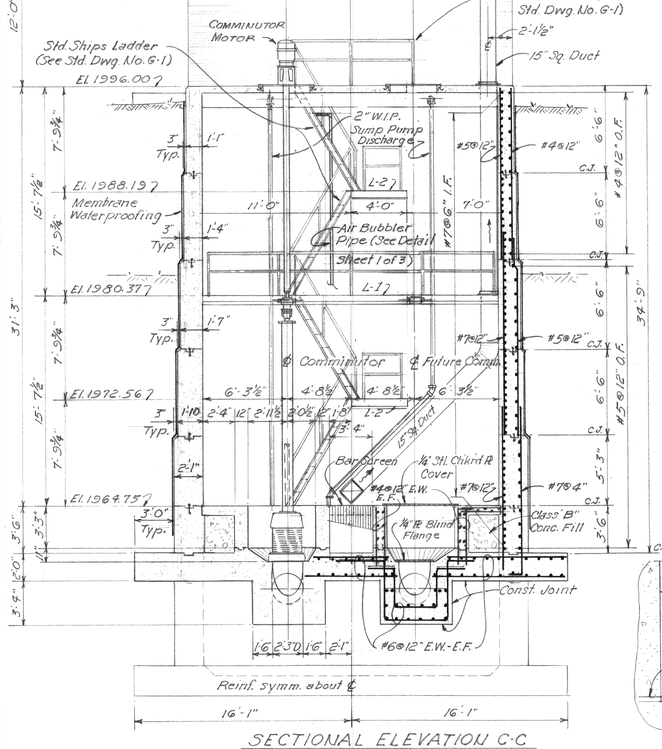







TYPICAL REINF. SLABS, BEAMS, & LANDINGS
Scale: 3/8" = 1'-0"

GRID # P9638 PROJECT # 1966005
ASH. INT. SEW CARRIER BRIDGE P.S. SEC. 14 & 15
# 378
FILE LOCATION-P9638 REV-

"AS BUILT"

| NO. | DATE | DESCRIPTION | CHKD. | APPR. |
|---|---|---|---|---|
| | | REVISIONS | | |

SULLIVAN, LONG & HAGERTY
GENERAL CONTRACTOR
P. O. BOX 2510
BIRMINGHAM, ALA. 35201

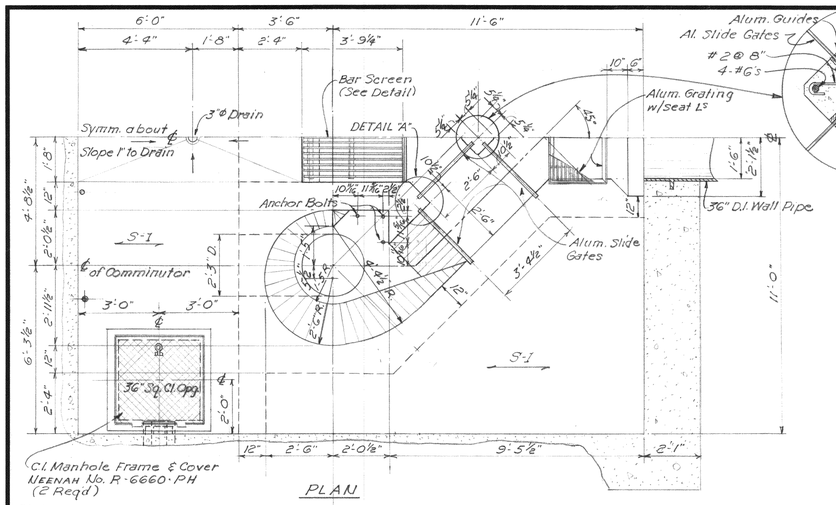
FWPCA PROJECT NO. (P) WPRD-172
ENGINEER'S PROJECT NO. 378

CARRIER BRIDGE PUMPING STATION
ASHEVILLE, NORTH CAROLINA

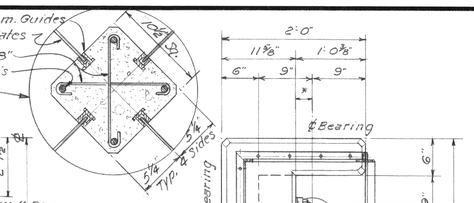
# STRUCTURAL, EQUIPMENT AND PIPING DETAILS

HARRY HENDON AND ASSOCIATES, INC.
ENGINEERS
BIRMINGHAM, ALABAMA — ORLANDO, FLORIDA

| | | |
|---|---|---|
| DRAWN V.W.C. | SCALE AS SHOWN | SHEET 2 OF 3 SHEETS |
| CHECKED J.L.L. | APPROVED | 378-14-05 |
| DATE JULY, 1966 | | |




PLAN

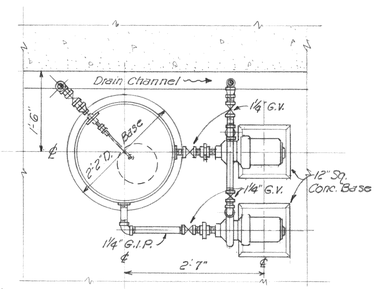




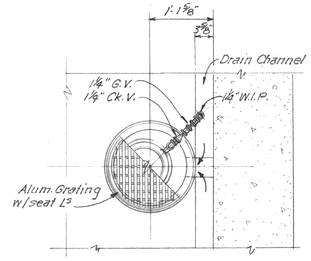


PLAN

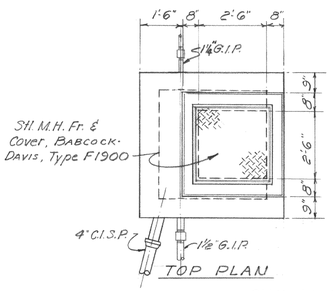
NOTE; * These dimensions to be furnished later.



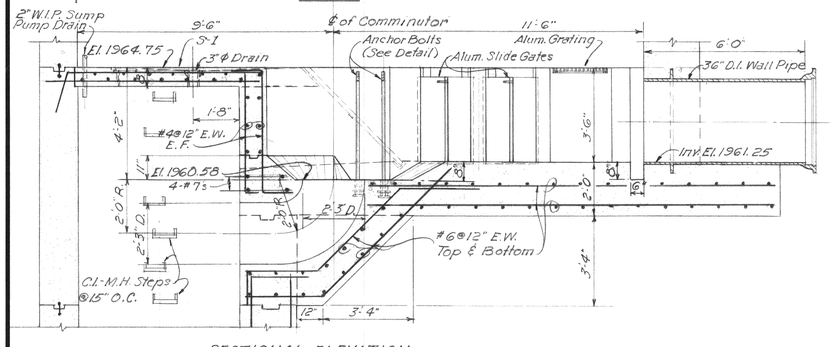

PLAN




PLAN



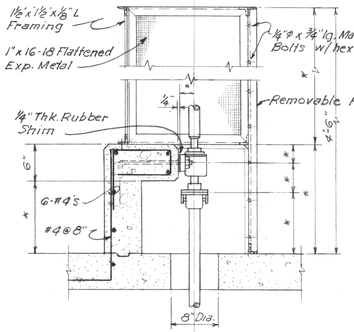

TOP PLAN




SECTIONAL ELEVATION

COMMINUTOR BASIN DETAIL

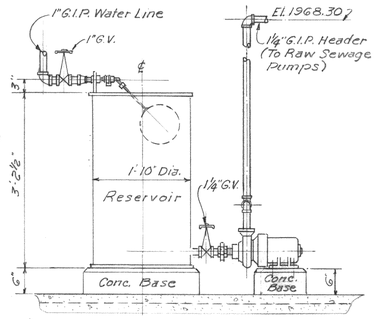
Scale: ⅜"=1'-0"




SECTIONAL ELEVATION

BEARING SUPPORT DETAIL

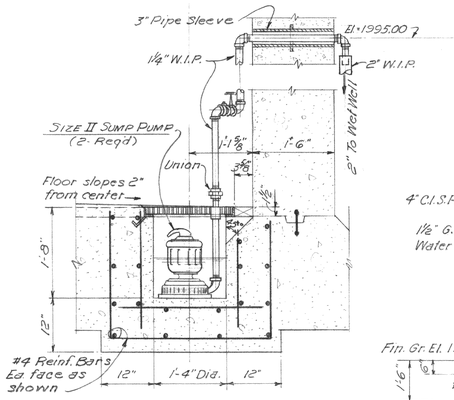
Scale: 1"=1'-0"




ELEVATION

WATERSEAL PUMP & RESERVOIR

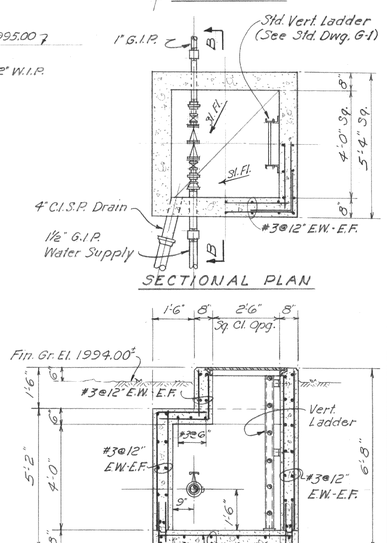
Scale: ¾"=1'-0"



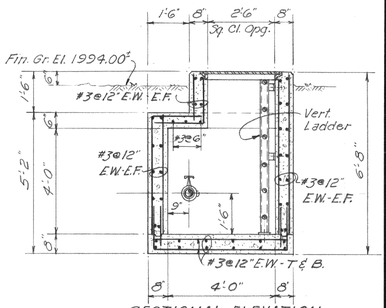

ELEVATION

SUMP PUMP DETAIL

Scale: ¾"=1'-0"



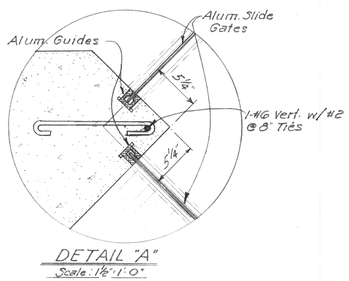

SECTIONAL PLAN




SECTIONAL ELEVATION

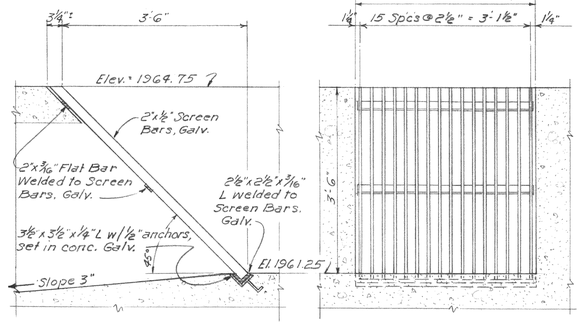
BACKFLOW PREVENTER VALVE BOX

Scale: ⅜"=1'-0"



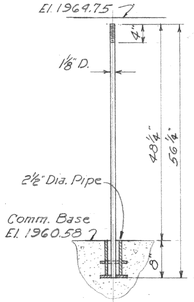

DETAIL "A"

Scale: 1½"=1'-0"




BAR SCREEN DETAIL

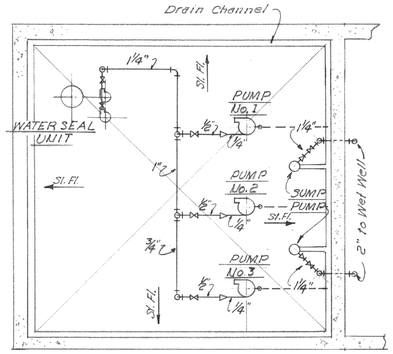
Scale: ¾"=1'-0"



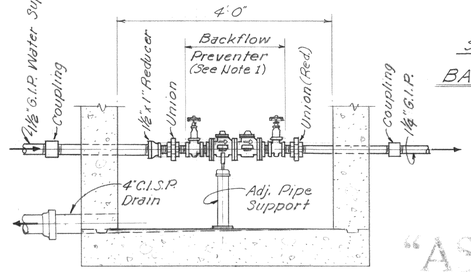

COMM. BASIN A.B. DETAIL

Scale: ¾"=1'-0"

(6 Reqd)

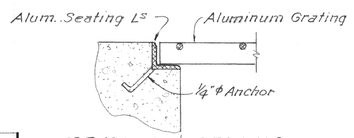



WATERSEAL & DRAIN PIPING SCHEMATIC




SECTION B-B

Scale: ¾"=1'-0"




GRATING & SEATING ANGLE DETAIL

Scale: 3"=1'-0"

"AS BUILT"

NOTES:
1. Backflow preventer shall be the reduced pressure type. Body shall be bronze suitable for operating pressure of 250 PSI. Backflow preventer shall be manufactured by Hershey-Sparling Meter Co., or approved equal.

| NO. | DATE | DESCRIPTION | CHKD. | APPR. |
|---|---|---|---|---|
| | | | | |

REVISIONS

SULLIVAN, LONG & HAGERTY
GENERAL CONTRACTOR
P. O. BOX 2004
BIRMINGHAM, ALA. 35201

GRID # P9638 PROJECT # 1966005
ASH. INT. SEW CARRIER BRIDGE P.S. SEC. 14 & 15
# 378
FILE LOCATION-P9638 REV-

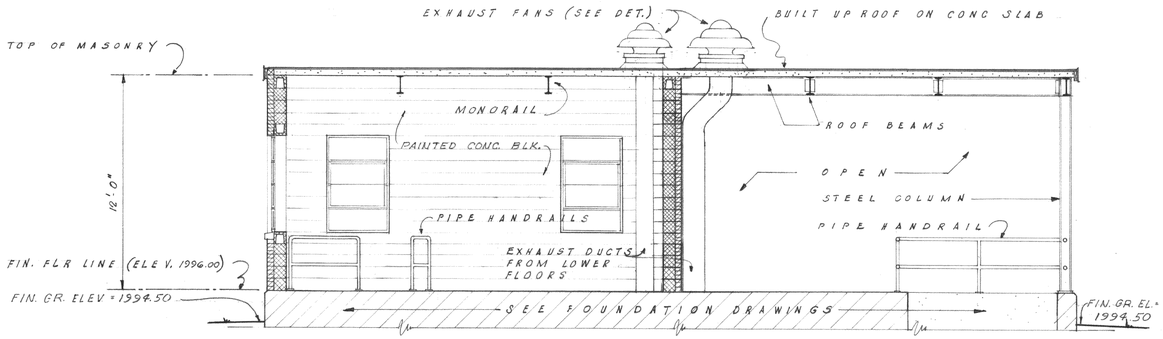
FWPCA PROJECT NO. WPC-NC-172
ENGINEER'S PROJECT NO. 378

CARRIER BRIDGE PUMPING STATION
ASHEVILLE, NORTH CAROLINA

# STRUCTURAL, EQUIPMENT AND PIPING DETAILS

HARRY HENDON AND ASSOCIATES, INC.
ENGINEERS
BIRMINGHAM, ALABAMA ORLANDO, FLORIDA

| | | |
|---|---|---|
| DRAWN V.W.G. | SCALE AS SHOWN | SHEET 3 OF 3 SHEETS |
| CHECKED J.L.L. | APPROVED | 378-14-06 |
| DATE JULY, 1966 | | |

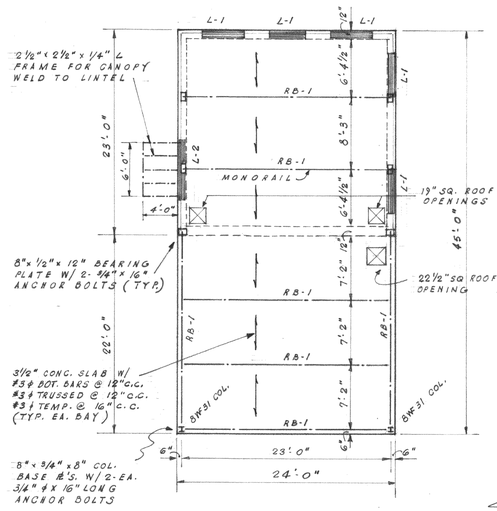



## LONGITUDINAL SECTION • A • A •

SCALE 1/4" = 1'-0"

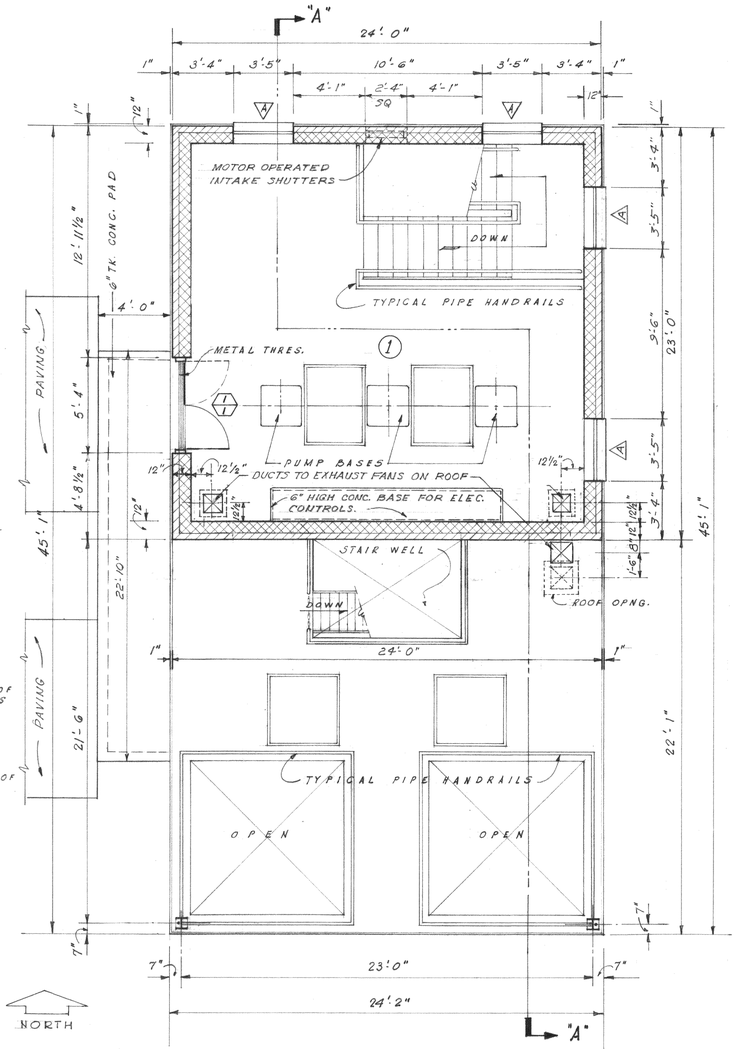
| LINTEL | |
|---|---|
| MARK | DESCRIPTION |
| L-1 | CONC. FILLED "U" BLOCK W/ 2 #5 ϕ RODS ϕ 3½" x 3½" x 5/16" L |
| L-2 | 8 [ 11.5 W/ ⅛" x 11" PLATE WELDED TO BOTTOM (SEE SECT. @ CANOPY) |
| | |
| | |

| BEAM SCHEDULE | |
|---|---|
| MARK | DESCRIPTION |
| RB-1 | 12 I 31.8 |
| | |
| | |
| | |




## STRUCTURAL PLAN

SCALE 1/8" = 1'-0"



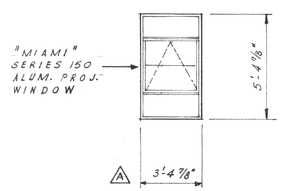

## FLOOR PLAN

SCALE 1/4" = 1'-0"

| INTERIOR • FINISH • SCHEDULE | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| AREA NO. | MATERIALS | | | CEILING HEIGHT | PAINTING | | | REMARKS |
| | FLOOR | WALLS | CEILING | | WALLS | CEILING | DOORS & TRIM | |
| 1 | CONC. W/ HARDENER | CONC. BLOCK | CONC. | 12'-0" | ENAMEL | ENAMEL | ENAMEL | |
| | | | | | | | | |

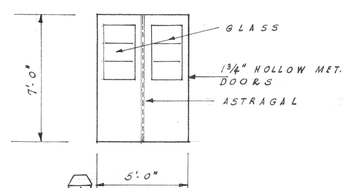
## LEGEND

- BRICK
- CONC. BLOCK
- CONCRETE
- OPENING NO.
- DOOR TYPE NO.
- WINDOW TYPE NO.
- AREA NO.
- SECTION NO. / SHEET WHERE DRAWN




## WINDOW SCHEDULE

SCALE 1/4" = 1'-0"




## DOOR SCHEDULE

SCALE 1/4" = 1'-0"

"AS BUILT"

| NO. | DATE | DESCRIPTION | CHKD. | APPR. |
|---|---|---|---|---|
| 1 | 7-5-67 | RELOCATED ELEC. CONTROLS, WINDOWS, AND SHUTTERS | J.L.L. | |

REVISIONS

GRID # P9638 PROJECT # 1966005
ASH. INT. SEW CARRIER BRIDGE P.S. SEC. 14 & 15
# 378
FILE LOCATION-P9638 REV-

SULLIVAN, LONG & HAGERTY
GENERAL CONTRACTORS
P. O. BOX 2050
BIRMINGHAM, ALA. 35201

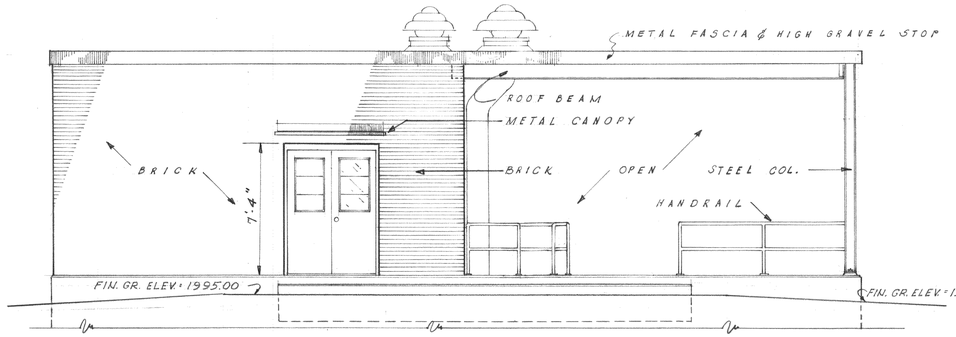
FWPCA PROJECT NO. WPC-NC-172
ENGINEER'S PROJECT NO. 378

CARRIER BRIDGE PUMPING STATION
ASHEVILLE, NORTH CAROLINA

# BUILDINGS

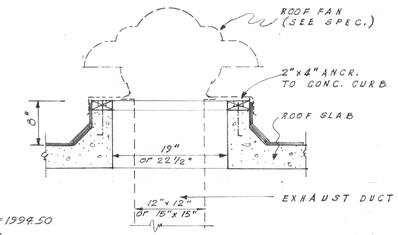
HARRY HENDON AND ASSOCIATES, INC.
ENGINEERS
BIRMINGHAM, ALABAMA — ORLANDO, FLORIDA

| | | | |
|---|---|---|---|
| DRAWN G.H.B.C. | SCALE AS SHOWN | SHEET 1 OF 2 SHEETS | |
| CHECKED G.H.B.C. | APPROVED | 378-14-07 | |
| DATE JULY, 1966 | | | |



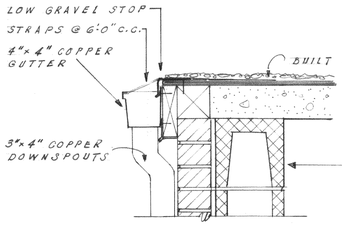

## WEST ELEVATION

SCALE 1/4" = 1'-0"



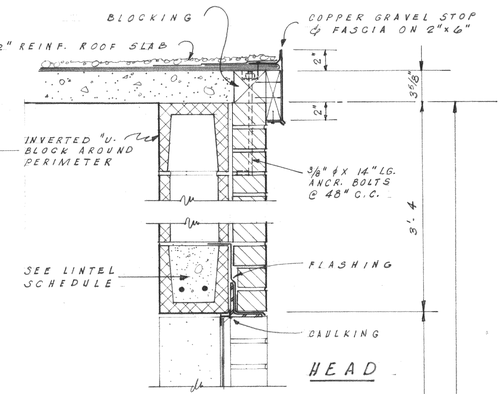

## ROOF FAN CURB DETAIL

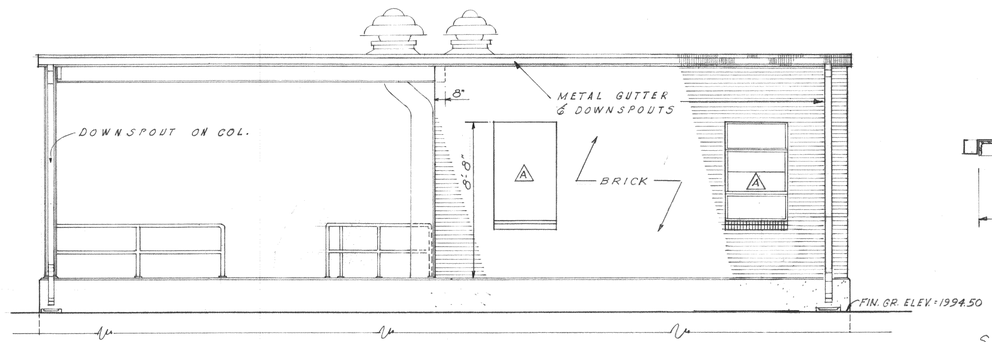
SCALE 1" = 1'-0"




## GUTTER DETAIL

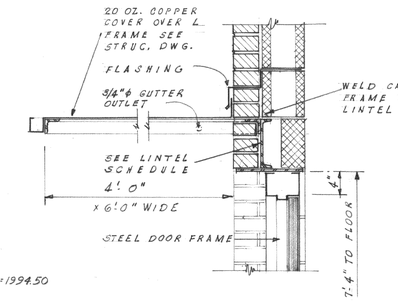
SCALE 1½" = 1'-0"



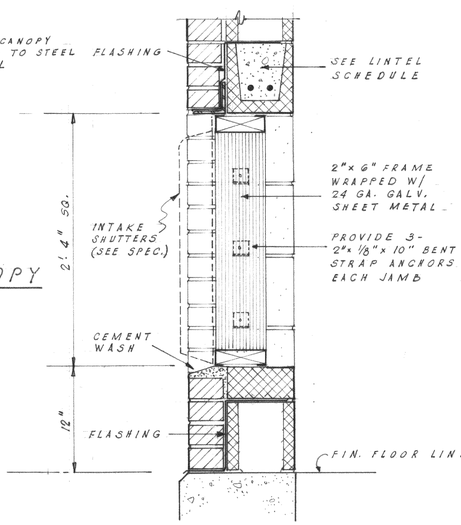

## EAST ELEVATION

SCALE 1/4" = 1'-0"




## SECTION AT METAL CANOPY

SCALE 1" = 1'-0"

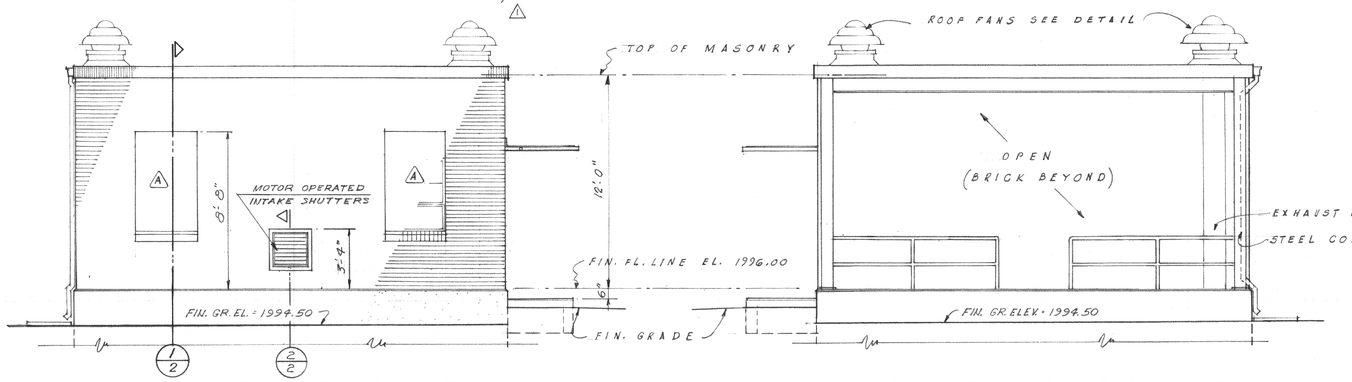



## SECTION (2/2)

SCALE 1½" = 1'-0"

## SECTION (1/2)

SCALE 1½" = 1'-0"




## NORTH ELEVATION

SCALE 1/4" = 1'-0"

## SOUTH ELEVATION

SCALE 1/4" = 1'-0"

"AS BUILT"

| NO. | DATE | DESCRIPTION | CHKD. | APPR. |
|---|---|---|---|---|
| 1 | 7-3-67 | RELOCATED ELEC. CONTROLS, WDW'S & SHUTTERS ILL. | | |

REVISIONS

SULLIVAN, LONG & HAGERTY
GENERAL CONTRACTOR
P. O. BOX 10329
BIRMINGHAM, ALA. 35202

GRID # P9638 PROJECT # 1966005
ASH. INT. SEW CARRIER BRIDGE P.S. SEC. 14 & 15
# 378
FILE LOCATION-P9638 REV-

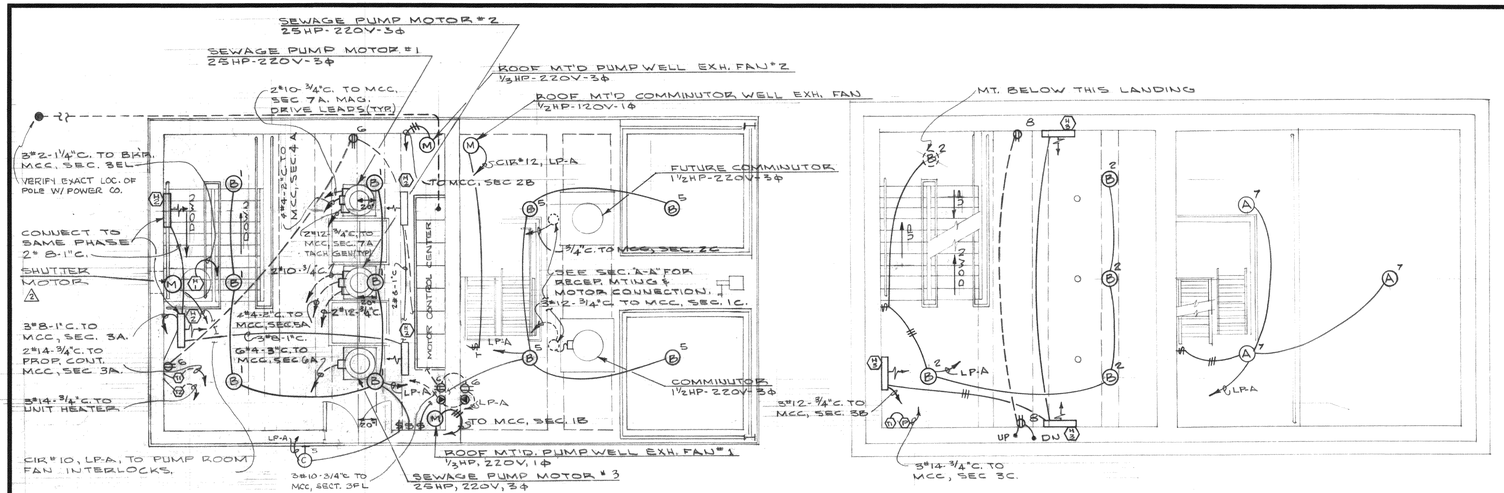
FWPCA PROJECT NO. WPC-NC-172
ENGINEER'S PROJECT NO. 378

CARRIER BRIDGE PUMPING STATION
ASHEVILLE, NORTH CAROLINA

# BUILDINGS

HARRY HENDON AND ASSOCIATES, INC.
ENGINEERS
BIRMINGHAM, ALABAMA — ORLANDO, FLORIDA

| | | |
|---|---|---|
| DRAWN G.H. & C. | SCALE AS SHOWN | SHEET 2 OF 2 SHEETS |
| CHECKED G.H. & C. | APPROVED | 378-14-08 |
| DATE JULY, 1966 | | |



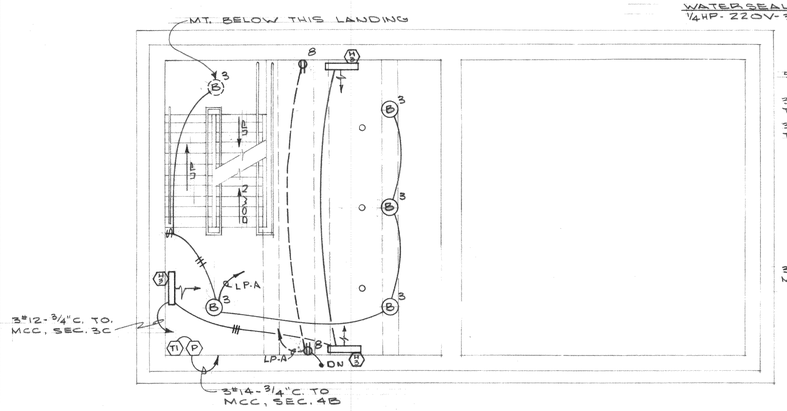

## TOP FLOOR PLAN

SCALE: 3/16"=1'0"



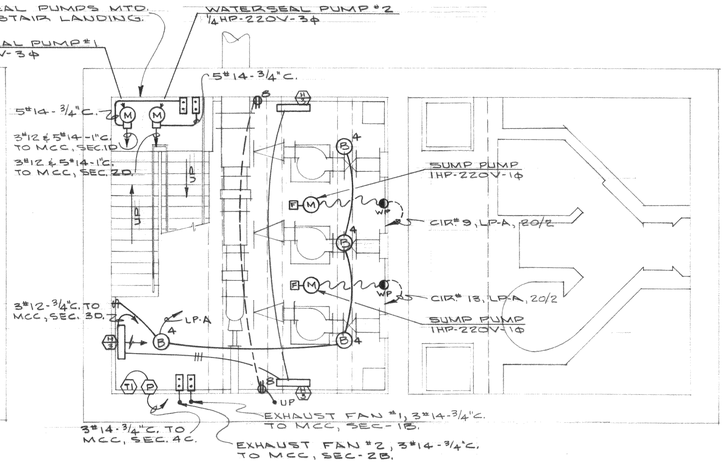

## 1ST INTERMEDIATE FLOOR PLAN

SCALE: 3/16"=1'0"




## 2CD INTERMEDIATE FLOOR PLAN

SCALE: 3/16"=1'0"




## BOTTOM FLOOR PLAN

SCALE: 3/16"=1'0"

"AS BUILT"

| NO. | DATE | DESCRIPTION | CHKD. | APPR. |
|---|---|---|---|---|
| | | REVISIONS | | |
| 2 | 7-3-67 | RELOCATED SHUTTER MTR & HEATER WI | R.B.T. | R.B.T. |
| 1 | 7-3-67 | RELOCATED MCC, SER. ENT. TWO WIZ HEATERS & LIGHT. | R.B.T. | R.B.T |

M. B. HAYNES ELECTRIC CORP.
ELECTRICAL CONTRACTORS
ASHEVILLE, NORTH CAROLINA

SULLIVAN, LONG & HAGERTY
GENERAL CONTRACTOR
P. O. Box 2930
BIRMINGHAM, ALA. 35201

GRID # P9638 PROJECT # 1966005
ASH. INT. SEW CARRIER BRIDGE P.S. SEC. 14 & 15
# 378
FILE LOCATION-P9638 REV-

FWPCA PROJECT NO. WPS-NC-172
ENGINEER'S PROJECT NO. 378

CARRIER BRIDGE PUMPING STATION
ASHEVILLE, NORTH CAROLINA

# ELECTRICAL EQUIPMENT AND WIRING

HARRY HENDON AND ASSOCIATES, INC.
ENGINEERS
BIRMINGHAM, ALABAMA — ORLANDO, FLORIDA

DRAWN E.A.C. | SCALE AS SHOWN | SHEET 1 OF 4 SHEETS
CHECKED R.B.T. | APPROVED Robert B. Tubb
DATE JULY, 1966 | 378-14-09

# Meeting Summary

| | |
|---|---|
| Project: | Carrier Bridge Pump Station |
| Subject: | Pre-Bid Meeting |
| Date: | Tuesday, May 20, 2025 |
| Location: | MSD Training Center |
| Attendees: | See attached sign-in sheet |

1. All parties intending to the bid on the project are required to become registered plan holders. Contact Amanda Cutshaw, acutshaw@msdbc.org to purchase plans.
2. The project includes four (4) major work areas:
    a. Pump Station
    b. Force Main
    c. Influent Gravity Sewer
    d. Gravity Sewer Rehabilitation
3. The river crossing portion of the overall project has been separated into an independent project. This project is under contract and work is expected to begin August of 2025.
4. The selected contractor for this project will be responsible for making the connection to the force main installed as part of the River Crossing project. It is anticipated that force main under the French Broad River will be revised to 42" HDPE. This will be further clarified via addendum.
5. The temporary construction easement (TCE) adjacent to the pump station site overlaps with Duke Energy Transmission Mains. This TCE portion that overlaps the Duke R/W may only be used for parking and ingress/egress to the project site. Trailers, equipment storage, and laydown areas must be outside this portion of the TCE.
6. The project includes a cash allowance for integration. This will be provided via addendum.
7. HDR reviewed the bid form.
    a. Bidders must fill in the information for their intended subcontractors. If intending to self-perform the work, indicate as such.
    b. Bidders must circle the anticipated equipment manufacturer for all listed items.
    c. There are two additive alternates. Bidders must indicate which item is included in their base bid by putting $0 in the blank. For the alternate, bidders must indicate the total additional price for the change described.
8. The meeting concluded and a tour of the site followed.

*Metropolitan Sewerage District of Buncombe County, NC*

**Carrier Bridge Pump Station**
**Project No. 2019045**
**Pre-Bid Meeting**
**May 20, 2025 @ 10:00 AM**

**Sign In Sheet**
***(Please print legibly)***

| Name | Company Name | Contact Number | E-mail |
|---|---|---|---|
| Matt Shultz | HDR | 704-338-6588 | matthew.shultz@hdrinc.com |
| Nelson Heringer NH | HDR | 704-449-1384 | nelson.heringer@hdrinc.com |
| Hunter Carson | MSD | 828-225-8241 | hcarson@msdbc.org |
| Darin Prosser | MSD | 828-225-8280 | dprosser@msdbc.org |
| MICH STANLEY ~~Kevin Lesley~~ | MSD | 828-225-8288 | klesley@msdbc.org |
| Ben Nisbeth | MSD | 828-225-8253 | bnisbeth@msdbc.org |
| ALEX Ung | PC | 802.391.4850 | aung@PCconstruction.com |
| DREW HAREN | HAREN CONST | 423-604-3031 | COSBORNE@HARENCONSTRUCTION.com |
| Tyler Mathis | Thalle | 828 855 4741 | NCestimating@thalle.com |
| JON COOK | RUBY-COLLINS | 770-402-2961 | ESTIMATING@RUBY-COLLINS.COM |
| Gary Jokanik | " | 715-292-8621 | " |
| John Middleton | Morgan | 865-724-3246 | Estimating@Morgan1.com |
| BRIAN KLAUKA | CROWDER | 980.417.0108 | BKLAUKA@CROWDERUSA.COM |
| RICHARD GOODRUM | GEOTREE | 864216 1128 | richard.goodrum@henkel.com |
| BRANDON CAMPBELL | ADAMS ROBINSON | 704-929-1074 | ARCO@ADAMSROBINSON.COM BCAMPBELL@ADAMSROBINSON.COM |
| Thomas Neubauer | Kiewit | 8472640560 | Thomas.neubauer@kiewit.com |
| Zach Williams | Blue Tank & Pump | 8656017045 | zwilliams@bluetankandpump.com |
| Danny Nash | TP Howard | 828-628-1369 | dannyd@tphowards.com |
| David Coe | Crowder Construction | 704-348-1331 | DCoe@crowderusa.com |

SBrinkley@escimtd.com

| | | | |
|---|---|---|---|
| Scott Brinkley | ECS | | 828.785.9535 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

## Carrier Bridge Pump Station - Question Log

| Question No. | Question | Response |
|---|---|---|
| 1 | Please specify if this project has any BABA or AIS requirements. | This project has no BABA or AIS requirements. |
| 2 | Please clarify if the manufacturer will need to supply bonds of any kind, or if these will be provided by the contractor/others. | No bonds outside of what is in the contract documents are required. |
| 3 | Please clarify if the spare parts are total, or per screen. | The spare parts listed are total, not “per screen”. |
| 4 | Please confirm the channel width. I see 5ft in the specs, however the drawings look like it shows 5'-2” | The channel widths are 5'0”. |
| 5 | Is Headworks standard finish/passivation method below acceptable in lieu of acid passivation? | Equipment shall be passivized per the specification. |
| 6 | The 50 MGD max is shown with a max downstream water level of 3ft. That won't be enough upstream to pass flow. A quick calc, with a 5ft wide channel, shows we need ~6.5ft upstream of water depth to pass a flow of 50 MGD per screen. Please let us know if there are any changes allowed to the channels or if an upstream water level of 6.5ft would be acceptable. That would put the downstream water level at ~6ft with a quick estimate. | The screen channel levels are clarified via addendum. |
| 7 | Please clarify/confirm the op floor, top of channel, and channel invert elevations. It doesn't show the op floor elevation and shows TOC in multiple places below. We saw other dimensions listed on another page, but need confirmation. | The top of the operating floor is El. 1993.00. The tops of channel and channel invert are EL 1954.25 and EL 1947.25, respectively. Bidders are responsible for verifying all relevant dimensions and elevations. |
| 8 | Does the cash allowance include tax? | The cash allowance does not include tax. |
| 9 | Would MSD consider deductive alternates instead of additive alternates. | Alternates shall be additive as indicated on the Bid Form. |
| 10 | Would Geopolymer Spray Applied Pipe Lining (SAPL) be considered or allowed as a substitute/alternative to traditional Cured-In-Place-Pipe (CIPP) method for structural rehabilitation of large diameter pipe – specifically for the French Broad Interceptor Rehabilitation portions of 48-in & 54-in gravity sewer pipe? | Substitution requests will not be reviwed until after the bid and award of the constructionc contract. |
| 11 | What is the anticipated Notice to Proceed date? | A notice to proceed should be anticipated in the August-September time frame. |
| 12 | Does the Contract include milestone dates for the gravity sewer rehabilitation. | No. |
| 13 | What is the Engineer's Estimate? | $70-75 million. |
| 14 | Will the project proceed if the engineer's estimate is exceeded. | MSD intends to proceed with the project. Value Engineering with the low bidder is an option in lieu of canceling the project. |
| 15 | Are there any specific special damages that should be considered or anticipated? | This will be clarified via addendum. |
| 16 | Can we put “TBD” in lieu of a specific subcontractor. | No. Substitution requests for subcontractors will be evaluated by the Owner. |
| 17 | Is the intent of the Instructions to Bidders to place portions of the bid outside the inner envelope? | No. The entire Bid Form shall be placed in the inner envelope. |
| 18 | The Advertisement for Bids state the pre-bid conference is mandatory. Section 4.01 states the pre-bid conference is non-mandatory. Please confirm? | The pre-bid conference is mandatory as stated in the Advertisement for Bids. This will be clarified via addendum. |
| 19 | Please clarify the station limities for Milestone 2 is STA 0+53 to STA 7+01 as shown on drawing 1C302? | The station limits for Milestone 2 shall be 0+53 to 7+01 for Sheet 01C302. If the alternate shown on Sheet 01C302A is utilized, the station limits for Milestone 2 shall be 0+53 to 10+19. The language in Article 4 will be updated based on the selected alternate prior to execution of the Contract. |
| 20 | Drawing 1C302 details a 6" service line to the east of the proposed main gravity sewer and an 8" Gravity sewer to the west. The alternate routing does not show any intermediate connections, please confirm if this is correct? | The proposed alternate routing has a 8" sewer connection at Manhole No. 14. |
| 21 | Are there asbuilts for the existing pump station available? | Yes, they will be distributed via addendum. |
| 22 | Please confirm if the existing pump is to be removed completely or can be demolished 2' below grade and filled with stone? | The pump station shall be demolished 3-below grade and filled with flowable fill. This will be further clarified via addendum. |
| 23 | Please confirm any changes in tariff regulations that effect the price of materials after bid date will be negotiated and compenstated under Article 7.11.C | Contractor may submit notice under Article 7.11.C for changes in tariff regulations that impact the cost of the Work. |

| Question No. | Question | Response |
|---|---|---|
| 24 | Specification section 46 21 13 3.2 B calls for the bar screens to have nonpotable water piping routed to the screens for a wash water connection. Where is this piping to come from? | No nonpotable wash water connection is required. |
| 25 | Specification Section 00 52 13 Article 4.06 - States that contractor shall reimburse Owner (1) for fines and penalties imposed on Owner as a direct result of Contractor's failure to attain Substantial Completion according to the Contracts Times. Could the owner please identify the additional fines beyond those covered under the Liquidated Damages? Are there any other separate agreements or obligations between the Owner and other authoriteis that could resuld in damages being passed onto the Contractor? Would the owner consider setting a cap to the Special Damages clause? | This will be clarified via addendum. |
| 26 | Special Provisions 7.03 states that contractor shall be responsible for the cost of overtime (premium) pay and other expense incurred by Owner for Engineer's services by the performance of work such as weekends, holidays, and overtime during the week. What cost assumptions should be used to determine the reasonable charges for overtime work, including rates for Engineer's services and construction observation on weekends or holidays? | Overtime rates will be clarified via addendum. Approval of all overtime requests will be required. |
| 27 | During the mandatory site visit, there was a comment made during the field walk about a Duke power pole by the existing pump station having to be relocated prior to the start of construction. Is that relocation expected to be completed prior to NTP? | The power pole is expected to be relocated prior to NTP. |
| 28 | Are there any other utilities that are in conflict or need to be relocated prior to construction? | Any utility relocations required by the Contractor are indicated on the Drawings. |
| 29 | Is there any coordination or conflict expected with the Railroad Yard accross the road? | No. |
| 30 | Sheet 01C305 - Note 5 states that "Bypass system must be continuously monitored by on-site trained staff 24/7 per specifications". Is the requirement to have someone on the job site 24/7, or would a pump alarm system with a local quick response be acceptable? | Onsite monitoring is requird per the Contract Documents. |
| 31 | During the site visit, it was mentioned that MSD is working on the easement with Duke Power. Will the agreement be completed by NTP? | The agreement is anticipated to be in place by NTP. |
| 32 | We are requesting a two week bid extension in order to incorporate pending plan/specification revisions and obtain comprehensive subcontractor and vendor pricing. | No bid extension will be granted. |
| 33 | What is the deadline for questions? | Questions may be submitted until 2 PM local time on Monday June 9. |
| 34 | Can a site visit be arranged to visit the existing pump station? | No additional site visits are permitted. As-built drawings of the existing pump station will be distributed via addendum. |
| 35 | Could you provide the sizes of the existing manholes to be rehabilitated (FBI-1 to FBI-6) on sheets 01C305 through 01C308. | Manholes have a tee base with a 48" riser. |