

**CITY OF CHARLESTON
KANAWHA COUNTY, WEST VIRGINIA
SLACK PLAZA RENOVATIONS**

**ADDENDUM #2
April 16, 2021**

THRASHER PROJECT #030-10284

TO WHOM IT MAY CONCERN:

The following are clarifications and responses to questions posed by contractors for the above reference project.

A. GENERAL

- 1. THE BID FORM HAS BEEN REVISED. YOU MUST USE THE REVISED BID FORM WHEN PREPARING YOUR BID PACKAGE FOR THIS PROJECT. A REVISED BID FORM IS INCLUDED WITH THIS ADDENDUM.**

B. SPECIFICATIONS

- Specifications included with this addendum are revised. No new specifications have been added.
 - 015000 SF – Temporary Facilities and Controls
 - 017300 SF – Execution
 - 017700 SF – Closeout Procedures

C. DRAWINGS

- Sheet C1.01 – Quantity table updated.
- Sheet C7.01 – C7.02 – Clarifications made to electric and water lines needed for spray jet system. Security camera locations added. Phone charging station locations added.
- Sheet C8.02-C8.03 – Note clarifying process of boulder selection and installation approvals added.
- Sheet C10.06 – Revisions to live wall details. Dimension revised on Retaining Wall Detail.
- Sheet C10.09 – C10.10 – Electric Enclosure clarifications.
- Sheet C10.11 – Swing detail revised.

7. Sheets A1.01 – Partition Type 2 Labeled
8. Sheet A1.02 – Partition Type 2 Detail Added
9. Sheet P1.01 – Water Heating Schematic Revision
10. Sheet P2.01 – Notes revision
11. Sheet P2.02 – Notes revision
12. Sheet P3.02 – Notes revision
13. Sheet M1.01 – Down Blast Roof Exhaust Fan detail revision.
14. Sheet M3.01 – Duct work revision

D. QUESTIONS AND RESPONSES

1. **QUESTION** - Where are the specs for the following: Site furnishings, swing units, bike racks, trash receptacles, water bottle filling station.

RESPONSE – Product information for all site furnishings is either listed in the plans or has been addressed by this addendum.

- a. Site Furnishings – See plan sheet C8.01 for information on café tables. Café Tables to be Fermob 60 CM Bistro Table. Each table is to be accompanied by (3) three chairs which are to be Fermob Bistro Metal Chair.
 - b. Swing Units – the swing unit detail has been revised to include additional information. This is a custom fabricated swing and a manufacturer model no. is not available. Information on a fabricator has been provided in the detail.
 - c. Bike Racks – See detail sheet C10.11. Bike racks to be Landscape Forms Emerson Surface Mount.
 - d. Trash Receptacles – See detail sheet C10.06. Trash receptacles to be Forms+Surfaces Apex Receptacle. Model No. SLAPX-24S.
 - e. Water Bottle Filling Station – See detail sheet C10.06 – Water Bottle Filling Station to be Willoughby Stainless Fountains, Model CWBF-2-RFB-PET, Color Type 316 Stainless Steel.
 - f. Phone Charging Station – See detail sheet C10.04. Phone Charging Station to be Legrand Catalog Number XCSAL3GRUU-SV.
2. **QUESTION** – Section 015000-2, 2.1 – references a common use field office. Will this be required for this project?

RESPONSE – This is NOT required. A revised spec has been issued with this addendum.

3. **QUESTION** – Section 017300-1, 1.3&1.4 – references certified surveys, will this be required for this project?

RESPONSE – This is NOT required. A revised spec has been issued with this addendum.

4. **QUESTION** – Section 017700-1, 1.3, C – references field report for pest control. Is this required for this project? If yes, could more information be provided as to the field report requirements? It is also referenced in Section 017700-4, 3.1, C, which refers you to pest control in Section 015000. We found nothing on pest control in Section 015000.

RESPONSE – This is NOT required. A revised spec has been issued with this addendum.

5. **QUESTION** – Due to COVID-19, many manufacturers are behind on production, especially specialty items. If there is a problem in procuring the necessary materials to complete this project in the allotted time frame, does the Owner intend to assess liquidated damages?

RESPONSE – The intention of liquidated damages for this project is to ensure the project remains on schedule. Exceptions will be made and extensions will be granted due to manufacturer delays or extreme weather that directly impacts completion schedules. It is required that such delays are documented and the engineer and owner are notified immediately of any impacts to the schedule.

6. **QUESTION** – Bid item No. 64 – Sculpture Installation – In Addendum No. 1, Item 64, calls for the Contractor to install, coordinate installation with Sculptor. It also states Sculptor is responsible for construction and delivery of sculpture to site. We have several questions pertaining to this item:
- What if Sculptor does not meet the construction and delivery timeframe, as outlined in the Construction Documents?
 - Can information be provided as what to anticipate concerning these sculptures, as far as weight and dimensions?
 - Are the sculptures in 1 piece or many?
 - Would the Owner consider removing this as a bid item and work directly with the Sculptor?

RESPONSE –

- All bidders are to bid the work as if the sculpture will be complete and ready for installation prior to final completion.
- There will be three sculptures total. Two of the sculptures which resemble people will be approximately 15' tall, 4' wide, and 3' deep. The sculptures will come in three pieces (legs, torso, and head). The legs are the heaviest piece and will weigh approximately 1,000 pounds. The legs are hollow, and each leg will be placed over rebar protruding from the foundation. After placement the legs will be fitted with additional rebar to attach to the torso and then filled with concrete. The torso will then be lifted into place over the protruding rebar and filled with concrete. The head will not require a concrete fill and will be attached using masonry glue. The third sculpture is a dog that will be lifted into place on the foundation. It will be roughly 3' tall and 3' wide.

- c. See response above.
- d. The owner does not wish to remove the bid item.
- e. **ADDITIONAL INFORMATION** – The contractor will be responsible for the crane (or equipment to lift described weight), scaffolding, concrete for filling sculpture, and rebar for reinforcement of this concrete. The sculptor will be responsible for the fabrication and delivery of the sculptures to the site as well as providing oversight for the install process.
- f. **EXAMPLE INSTALL VIDEO** – This YouTube link contains a brief video of sculptures being installed in Tampa that were created by the same artist. These sculptures are very similar to what will be installed at Slack Plaza. This is for informational purposes only.
<https://www.youtube.com/watch?v=q8WKrSCltMg>
- g. **BIDDING QUANTITIES** – For purposes of bidding Bid Item No. 64: Sculpture Installation please factor in the following to your bid.
 - a. 48 Linear Feet of #8 Rebar.
 - b. 200 Cubic Feet of concrete.
 - c. Scaffolding
 - d. Crane (or equipment to lift described weight)
 - e. Labor, materials, or equipment otherwise determined necessary to install these sculptures based on the information provided.

7. **QUESTION** – Bid item No. 47 – Live Wall – Is the contractor responsible for plantings in the live wall? If yes, please provide the plant listings.

RESPONSE – Plantings for the Live Wall are not included in this contract.

8. **QUESTION** – Where is S1, that is referred to in the notes on the Live Wall Detail – Side view, on sheet C 10.06.

RESPONSE – This detail has been clarified to remove this reference. The planter color has been identified as forest green.

9. **QUESTION** – Bid Item No.49 – Swing Units – Is there a manufacturer or product ID number for the swings and stainless-steel framing? If these are to be field constructed, is there some kind of shade structure on top? Can a more informative detail be provided?

RESPONSE – There is not a specific manufacturer for this element as it is intended to be a custom fabricated feature. A revised detail is included with this addendum including contact information on a fabricator familiar with the project and experience producing this type of custom fabricated feature.

10. **QUESTION** – On Drawing C10.08, typical handrail detail references railing to be stainless steel. Drawing C5.01 references aluminum fence. Which is correct? Also, there is no quantity or bid item listed in the bid form.

RESPONSE – A revised detail has been included with this addendum. Fence and handrail are to be aluminum. Color to be silver to match other furnishings in the plaza. The quantities and bid form reference ADA ramp railing which covers this item. The total quantity of fence / handrail is 101 linear feet. The quantities listed this correctly, but the bid form had the wrong quantity. An updated bid form has been included with this addendum.

11. **QUESTION** – Could more information be provided concerning the tree mulch rings referenced on Drawing C5.01? Example: Size, material, manufacturer, etc.

RESPONSE – Tree mulch rings are to be 3 feet in diameter. The intent is to leave a void in the pavement to allow for mulch around the base of the tree and access for watering. Plastic paver edging can be used as a border to the pavement for these rings.

12. **QUESTION** – On Sheet C10.06, Retaining Wall Detail – Bid quantity is for 133 LF. We can only find approximately 94 LF near the Police Station at the steps and ADA Ramp. Is this the correct amount or are we overlooking another area of approximately 40 LF?

RESPONSE – 106 LF is the correct quantity for bidding. Quantities on Sheet C1.01 and the bid form have been revised.

13. **QUESTION** – Bid Item No. 15 – Security Camera System – In Addendum No. 1, Section 012200-3 Item O, #1 calls for the design and installation of a security camera system as identified in the plans. Nothing was found in the plans. Could more information be provided as to the intent and what areas this item will cover?

RESPONSE – Sheet C7.02 has been revised to identify the desired location of four cameras providing coverage looking away from the central walkway to the outer reaches of the plaza. This sheet is included in this addendum.

14. **QUESTION** – Bid Item No. 57 – Electric Enclosure Fence & Gates – Where is the fence and electric gate shown in the drawings? Also, the only gate in the plans is in C10.10, which appears to be a manual gate. Where is this item located?

RESPONSE – There are no electric gates required for this project. The fence and gates detailed on sheets C10.09 and C10.10 are to be used for the “electric service enclosure”. This enclosure is located near Summers Street to the right of the stage. The fence and gates are only on the front side of the enclosure. A detail view of the electric service enclosure is also on Sheet C10.09. Construction of the electric service enclosure is to be included in Bid Item No. 9 – New Electric Service.

15. **QUESTION** – Bid Item No. 55 – Decorative Fencing – Can a detail of the fencing and columns be provided?

RESPONSE – This is a custom fabricated feature and we do not have access to the original design files. The original fabricator of this cage and panel system was Structural Systems of Nitro, WV. In order to price this fencing to perfectly match the existing fence in place please contact Eric with Structural Systems. (304) 204-4766.

16. **QUESTION** – Bid Item No. 29 – Decomposed Granite – Could a material specification be provided for the decomposed granite or at the very least the color?

RESPONSE – The color of decomposed granite was clarified in Addendum #1 on detail sheet C10.04. To further clarify the adjusted note from Addendum #1, the intent is that the decomposed granite would be of a natural blue/gray color to complement the veneer stone on the seat walls this surfacing is adjacent to. Tan colors will also be accepted, and we will work with what is readily available to you.

17. **QUESTION** – Bid Item No. 43 – Spray Jet System – On Drawing C10.12, shows (2) different spray jets. What is the correct quantity for each one? On Drawing C5.01, references a Spray Jet Control Cabinet near the back of the stage. No information concerning the Spray Jet Control Cabinet can be found. Also, no plumbing detail is shown. Can more information be provided for this item and associated plumbing?

RESPONSE – There are a total of 16 spray jets. There will be 8 of each type of jet identified in the details. Equipment to be supplied by the spray jet manufacturer includes the spray jets, activator bollard, and control cabinet. A plumbing design will also be provided by the manufacturer as well as a pre-pour site visit and startup site visit. Not included in the manufacturer cost and the responsibility of the contractor are quantities of 1” water line, and 1” electrical conduit and installation of all equipment. Plan sheets C7.01 and C7.02 have been revised to identify the conduit and water lines as they exit the control cabinet. The quantities chart on sheet C1.01 and the bid form have been revised to reflect these updated quantities of 1” water line and 1” electric conduit.

18. **QUESTION** – Could you please provide a specification for the 3/4”, 1”, 2” water line running throughout the project as shown on Sheet C7.01? Could a material specification or product ID be provided for the riser boxes and lids to access the valves?

RESPONSE -

1. 3/8” Polyethylene Service Tubing
2. 3/4” SDR Polyethylene Service Tubing
3. 1” PVC SDR-17
4. 2” PVC SDR-17
5. Gate Valves – Brass or bronze body, non-rising stem, inside screw, single wedge or disc, compression ends, with control rod, valve box and key.
Manufacturers include but are not limited to:
 - a. Clow
 - b. M&H Valve Company

- c. Mueller
- d. American Flow Control
- 6. Valve Boxes – Cast-iron box having top section and cover with lettering “WATER”. Bottom section with base of size to fit over valve and barrel approximately 5” in diameter, and adjustable cast-iron extension of length required for depth of bury valve. Manufacturers include but are not limited to:
 - a. Tyler Union
 - b. Star Pipe Products

E. CLARIFICATIONS

- 1. None.

If you have any questions or comments, please feel free to contact me at your earliest convenience. As a reminder, bids will be received until 2:00 p.m. on Friday, April 23rd, 2021 at 501 Virginia Street, East, Charleston, WV. Good luck to everyone and thank you for your interest in the project.

Sincerely,

THE THRASHER GROUP, INC.



Samuel Rich, PLA
Project Manager



4-16-2021

CITY OF CHARLESTON
KANAWHA COUNTY, WEST VIRGINIA
PROPOSED
SLACK PLAZA RENOVATIONS
THRASHER PROJECT #030-10284

BID FORM

ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted to:

City of Charleston
501 Virginia Street, East
Charleston, WV 25301

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 – BIDDER’S ACKNOWLEDGEMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 90 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

ARTICLE 3 – BIDDER’S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

Addendum No.

Addendum Date

| | |
|-------|-------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous

Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

- E. 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 any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.
- F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- G. 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.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.
- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.
- J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 4 – BIDDER'S CERTIFICATION

4.01 Bidder certifies that:

- A. 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;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;
 - 2. "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;
 - 3. "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; and
 - 4. "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 5 – BASIS OF BID

GENERAL

The Bidder shall take notice of and shall be responsible for any local or state taxes levied and applicable, and the cost for the same shall be included as part of the submitted Bid.

The total Bid cost stated includes a complete operating installation including furnishing and installation of any and all changes or additions in plans, piping, mechanical work, additional electrical work, accessories, controls, etc. necessary to accommodate alternative equipment systems or materials used in construction.

BID PROPOSAL

The Bidder agrees to perform all required Work described in the detailed Specifications and as shown on the Plans for the complete construction and placing in satisfactory operation the Slack Plaza Renovations. The Project "Sequence of Construction" has been detailed in the Drawings and Specification Division 1, Project Summary, Section 1010, Part-2 Execution. The Bidder agrees to perform all the Work proposed for the total of the following Bid prices.

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

**PROPOSED
 SLACK PLAZA RENOVATIONS
 FOR THE
 CITY OF CHARLESTON
 KANAWHA COUNTY, WEST VIRGINIA
 Thrasher Project # 030-10284**

BID SCHEDULE

NOTE: Bid Unit PRICE amounts are to be shown in both words and figures. In case of discrepancy, the amount shown in words will govern. Bids shall include sales tax and all other applicable taxes and fees.

| Item # | Qty. | UNIT | DESCRIPTION | UNIT PRICE | UNIT PRICE WRITTEN IN WORDS | TOTAL PRICE |
|--------|------|------|-----------------------------|------------|-----------------------------|-------------|
| 1 | 1 | LS | Mobilization/Demobilization | | | |
| 2 | 1 | LS | Construction Stakeout | | | |
| 3 | 1 | LS | Erosion & Sediment Control | | | |

| Item # | Qty. | UNIT | DESCRIPTION | UNIT PRICE | UNIT PRICE WRITTEN IN WORDS | TOTAL PRICE |
|---------------|-------------|-------------|-----------------------------|-------------------|------------------------------------|--------------------|
| 4 | 1 | LS | Traffic Control | | | |
| 5 | 1 | LS | Demolition | | | |
| 6 | 185 | LF | Saw Cut Existing Asphalt | | | |
| 7 | 2,500 | CY | Unclassified Excavation | | | |
| 8 | 1 | LS | Police Building Renovations | | | |
| 9 | 1 | LS | New Electric Service | | | |
| 10 | 3,200 | LF | 3/4" Electric Conduit | | | |
| 11 | 1,080 | LF | 1" Electric Conduit | | | |
| 12 | 120 | LF | 3" Electric Conduit | | | |
| 13 | 1 | EA | Ice Rink Electric Service | | | |
| 14 | 10 | EA | Electrical Outlets | | | |

| Item # | Qty. | UNIT | DESCRIPTION | UNIT PRICE | UNIT PRICE WRITTEN IN WORDS | TOTAL PRICE |
|---------------|-------------|-------------|----------------------------|-------------------|------------------------------------|--------------------|
| 15 | 1 | LS | Security Camera System | | | |
| 16 | 220 | LF | 12" HDPE Storm Pipe | | | |
| 17 | 260 | LF | 4" Perforated Storm Pipe | | | |
| 18 | 20 | LF | 4" HPDE Storm Pipe | | | |
| 19 | 5 | EA | Type B Inlet | | | |
| 20 | 2 | EA | Straddle Manhole, Complete | | | |
| 21 | 70 | LF | 6" SDR-35 Sewer Line | | | |
| 22 | 20 | LF | 3/8" Water Line | | | |
| 23 | 250 | LF | 3/4" Water Line | | | |
| 24 | 930 | LF | 1" Water Line | | | |
| 25 | 179 | LF | 2" Water Line | | | |

| Item # | Qty. | UNIT | DESCRIPTION | UNIT PRICE | UNIT PRICE WRITTEN IN WORDS | TOTAL PRICE |
|---------------|-------------|-------------|-------------------------------------|-------------------|------------------------------------|--------------------|
| 26 | 1 | EA | Water Meter Setting | | | |
| 27 | 545 | SY | Central Walkway Pavers | | | |
| 28 | 744 | SY | Plaza Pavers | | | |
| 29 | 6,490 | SF | Decomposed Granite Areas | | | |
| 30 | 295 | SY | Concrete Stage | | | |
| 31 | 20 | SY | Concrete ADA Ramp to Police Station | | | |
| 32 | 112 | SY | Concrete Bands | | | |
| 33 | 10 | SY | Concrete Steps to Police Station | | | |
| 34 | 134 | LF | Type I Concrete Curb | | | |
| 35 | 70 | SY | Concrete Sidewalk | | | |
| 36 | 1 | LS | Detectable Warning Surface | | | |

| Item # | Qty. | UNIT | DESCRIPTION | UNIT PRICE | UNIT PRICE WRITTEN IN WORDS | TOTAL PRICE |
|---------------|-------------|-------------|------------------------------|-------------------|------------------------------------|--------------------|
| 37 | 3 | EA | Summers Street Pole Lights | | | |
| 38 | 10 | EA | Central Walkway Pole Lights | | | |
| 39 | 370 | LF | String Lights | | | |
| 40 | 300 | LF | Wall Down Lights | | | |
| 41 | 25 | EA | Up Lights | | | |
| 42 | 41 | EA | Bollard Lights | | | |
| 43 | 1 | LS | Spray Jet System, Complete | | | |
| 44 | 274 | LF | Stone Veneer Seat Walls | | | |
| 45 | 106 | LF | Stone Veneer Retaining Walls | | | |
| 46 | 208 | LF | Concrete Screen Walls | | | |
| 47 | 104 | LF | Live Wall | | | |

| Item # | Qty. | UNIT | DESCRIPTION | UNIT PRICE | UNIT PRICE WRITTEN IN WORDS | TOTAL PRICE |
|---------------|-------------|-------------|-------------------------------------|-------------------|------------------------------------|--------------------|
| 48 | 31 | EA | Café Tables | | | |
| 49 | 4 | EA | Swing Units | | | |
| 50 | 6 | EA | Trash Receptacles | | | |
| 51 | 8 | EA | Bike Racks | | | |
| 52 | 1 | LS | Cantilever Shade Structure | | | |
| 53 | 4 | EA | Phone Charging Stations | | | |
| 54 | 2 | EA | Water Bottle Filling Station | | | |
| 55 | 100 | LF | Decorative Fencing (Match Existing) | | | |
| 56 | 2 | EA | Removable Bollard | | | |
| 57 | 1 | LS | Electric Enclosure Fence & Gates | | | |
| 58 | 101 | LF | ADA Ramp Railing | | | |

| Item # | Qty. | UNIT | DESCRIPTION | UNIT PRICE | UNIT PRICE WRITTEN IN WORDS | TOTAL PRICE |
|--------|-------|------|------------------------|------------|-----------------------------|-------------|
| 59 | 75 | CY | Topsoil | | | |
| 60 | 7,900 | SF | Sod Lawn Areas | | | |
| 61 | 2 | EA | Large Sculpture Bases | | | |
| 62 | 1 | EA | Small Sculpture Base | | | |
| 63 | 5 | EA | Boulder Formations | | | |
| 64 | 1 | LS | Sculpture Installation | | | |
| 65 | 1 | LS | Landscaping | | | |

TOTAL BID: _____

_____ (\$ _____)

(Amounts are to be shown in both words and figures. In case of discrepancy, the amount shown in words will govern.)

NOTE: THE CONTRACTOR'S UNIT PRICES SHALL INCLUDE PURCHASE AND INSTALLATION, COMPLETE IN PLACE, PER BID ITEM IN ACCORDANCE WITH THE DETAILED SPECIFICATIONS.

Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for

all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

METHOD OF AWARD

If at the time this contract is to be awarded, the lowest total bid submitted by a qualified, responsible Bidder does not exceed the amount of funds then estimated by the Owner, as available to finance the contract, the construction contract will be awarded. If such bids exceed such amount, the Owner may reject all bids.

The owner may award the contract on the Total Bid submitted by a qualified responsible Bidder less the amount(s) of the Deductive Alternate(s) subtracted in numerical order, as listed in the contract to produce the lowest bid within the funds available for financing.

- A. Unit prices have been computed in accordance with paragraph 13.03.A of the General Conditions.

- B. Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

ARTICLE 6 – TIME OF COMPLETION

- 6.01 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 calendar days indicated in the Agreement.

- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 – ATTACHMENTS TO THIS BID

- 7.01 The following documents are submitted with and made a condition of this Bid:
 - A. Bid Opening Requirements

ARTICLE 8 – DEFINED TERMS

- 8.01 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 9 – BID SUBMITTAL

BIDDER: *[Indicate correct name of bidding entity]*

By:
[Signature] _____

[Printed name] _____
(If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest:
[Signature] _____

[Printed name] _____

Title: _____

Submittal Date: _____

Address for giving notices:

Telephone Number: _____

Fax Number: _____

Contact Name and e-mail address: _____

Bidder's License No.: _____
(where applicable)

NOTE TO USER: Use in those states or other jurisdictions where applicable or required.

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.
- B. Related Requirements:
 - 1. Section 011000 "Summary" for work restrictions and limitations on utility interruptions.

1.2 USE CHARGES

- A. Installation, removal, and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities engaged in the Project to use temporary services and facilities without cost, including, but not limited to, Engineer, testing agencies, and authorities having jurisdiction.
- B. Water and Sewer Service from Existing System: Water from Owner's existing water system is available for use without metering and without payment of use charges. Provide connections and extensions of services and metering as required for construction operations.
- C. Electric Power Service from Existing System: Electric power from Owner's existing system is available for use without metering and without payment of use charges. Provide connections and extensions of services and metering as required for construction operations.

1.3 INFORMATIONAL SUBMITTALS

- A. Site Utilization Plan: Show temporary facilities, temporary utility lines and connections, staging areas, construction site entrances, vehicle circulation, and parking areas for construction personnel.
- B. Project Identification and Temporary Signs: Show fabrication and installation details, including plans, elevations, details, layouts, typestyles, graphic elements, and message content.
- C. Fire-Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate Contractor personnel responsible for management of fire-prevention program.
- D. Moisture- and Mold-Protection Plan: Describe procedures and controls for protecting materials and construction from water absorption and damage and mold. Describe delivery, handling, storage, installation, and protection provisions for materials subject to water absorption or water damage.

1. Indicate procedures for discarding water-damaged materials, protocols for mitigating water intrusion into completed Work, and requirements for replacing water-damaged Work.
2. Indicate sequencing of work that requires water, such as sprayed fire-resistive materials, plastering, and terrazzo grinding, and describe plans for dealing with water from these operations. Show procedures for verifying that wet construction has dried sufficiently to permit installation of finish materials.
3. Indicate methods to be used to avoid trapping water in finished work.

1.4 QUALITY ASSURANCE

- A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.
- C. Accessible Temporary Egress: Comply with applicable provisions in the United States Access Board's ADA-ABA Accessibility Guidelines.

1.5 PROJECT CONDITIONS

- A. Temporary Use of Permanent Facilities: Engage Installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

PART 2 - PRODUCTS

~~2.1 TEMPORARY FACILITIES~~

- ~~A. Field Offices: Prefabricated or mobile units with serviceable finishes, temperature controls, and foundations adequate for normal loading.~~
- ~~B. Common Use Field Office: Of sufficient size to accommodate needs of Owner, Engineer, Construction Manager, and construction personnel office activities and to accommodate Project meetings specified in other Division 01 Sections. Keep office clean and orderly. Furnish and equip offices as follows:~~
 - ~~1. Furniture required for Project site documents including file cabinets, plan tables, plan racks, and bookcases.~~
 - ~~2. Conference room of sufficient size to accommodate meetings of 10 individuals. Provide electrical power service and 120 V ac duplex receptacles, with no fewer than one receptacle on each wall. Furnish room with conference table, chairs, and 4 foot square tack and marker boards.~~
 - ~~3. Drinking water and private toilet.~~

- ~~4. Heating and cooling equipment necessary to maintain a uniform indoor temperature of 68 to 72 deg F.~~
- ~~5. Lighting fixtures capable of maintaining average illumination of 20 fc at desk height.~~

2.2 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.
- B. HVAC Equipment: Unless Owner authorizes use of permanent HVAC system, provide vented, self-contained, liquid-propane-gas or fuel-oil heaters with individual space thermostatic control.
 1. Use of gasoline-burning space heaters, open-flame heaters, or salamander-type heating units is prohibited.
 2. Heating, Cooling, and Dehumidifying Units: Listed and labeled for type of fuel being consumed, by a qualified testing agency acceptable to authorities having jurisdiction, and marked for intended location and application.
 3. Permanent HVAC System: If Owner authorizes use of permanent HVAC system for temporary use during construction, provide filter with MERV of 8 at each return-air grille in system and remove at end of construction.
- C. Air-Filtration Units: Primary and secondary HEPA-filter-equipped portable units with four-stage filtration. Provide single switch for emergency shutoff. Configure to run continuously.

PART 3 - EXECUTION

3.1 TEMPORARY FACILITIES, GENERAL

- A. Conservation: Coordinate construction and use of temporary facilities with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.
 1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. See other Sections for disposition of salvaged materials that are designated as Owner's property.

3.2 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.3 TEMPORARY UTILITY INSTALLATION

- A. General: Install temporary service or connect to existing service.
 - 1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
- B. Sewers and Drainage: Provide temporary utilities to remove effluent lawfully.
 - 1. Connect temporary sewers to municipal system as directed by authorities having jurisdiction.
- C. Water Service: Install water service and distribution piping in sizes and pressures adequate for construction.
- D. Sanitary Facilities: Provide temporary toilets, wash facilities, safety shower and eyewash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.
- E. Temporary Heating and Cooling: Provide temporary heating and cooling required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of low temperatures or high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed.
 - 1. Provide temporary dehumidification systems when required to reduce ambient and substrate moisture levels to level required to allow installation or application of finishes and their proper curing or drying.
- F. Isolation of Work Areas in Occupied Facilities: Prevent dust, fumes, and odors from entering occupied areas.
- G. Electric Power Service: Provide electric power service and distribution system of sufficient size, capacity, and power characteristics required for construction operations.
 - 1. Install electric power service overhead unless otherwise indicated.
- H. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.
 - 1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.
- I. Telephone Service: Provide temporary telephone service in common-use facilities for use by all construction personnel. Install WiFi cell phone access equipment and one land-based telephone line(s) for each field office.
- J. Electronic Communication Service: Provide secure WiFi wireless connection to internet with provisions for access by Engineer and Owner.

- K. Project Computer: Provide a desktop computer in the primary field office adequate for use by Engineer and Owner to access Project electronic documents and maintain electronic communications. Equip computer with not less than the following:
1. Processor: Intel Core i5 or i7.
 2. Memory: 16 gigabyte.
 3. Disk Storage: 1 -terabyte hard-disk drive and combination DVD-RW/CD-RW drive.
 4. Display: 24-inch LCD monitor with 256-Mb dedicated video RAM.
 5. Full-size keyboard and mouse.
 6. Network Connectivity: 10/100BaseT Ethernet Gigabit.
 7. Operating System: Microsoft Windows 10 Professional.
 8. Productivity Software:
 - a. Microsoft Office Professional, 2013 or higher, including Word, Excel, and Outlook.
 - b. Adobe Reader DC.
 - c. WinZip 10.0 or higher.
 9. Printer: "All-in-one" unit equipped with printer server, combining color printing, photocopying, scanning, and faxing, or separate units for each of these three functions.
 10. Internet Service: Broadband modem, router, and ISP, equipped with hardware firewall, providing minimum 10.0 -Mbps upload and 15 -Mbps download speeds at each computer.
 11. Internet Security: Integrated software, providing software firewall, virus, spyware, phishing, and spam protection in a combined application.
 12. Backup: External hard drive, minimum 2 terrabytes, with automated backup software providing daily backups.

3.4 SUPPORT FACILITIES INSTALLATION

- A. Comply with the following:
1. Provide construction for temporary field offices, shops, and sheds located within construction area or within 30 feet of building lines that is noncombustible according to ASTM E136. Comply with NFPA 241.
 2. Utilize designated area within existing building for temporary field offices.
 3. Maintain support facilities until Engineer schedules Substantial Completion inspection. Remove before Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.
- B. Temporary Roads and Paved Areas: Construct and maintain temporary roads and paved areas adequate for construction operations. Locate temporary roads and paved areas as indicated within construction limits indicated on Drawings.
1. Provide dust-control treatment that is nonpolluting and nontracking. Reapply treatment as required to minimize dust.
- C. Traffic Controls: Comply with requirements of authorities having jurisdiction.

1. Protect existing site improvements to remain including curbs, pavement, and utilities.
 2. Maintain access for fire-fighting equipment and access to fire hydrants.
- D. Parking: Provide temporary offsite parking areas for construction personnel.
- E. Storage and Staging: Use designated areas of Project site for storage and staging needs.
- F. Dewatering Facilities and Drains: Comply with requirements of authorities having jurisdiction. Maintain Project site, excavations, and construction free of water.
1. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining properties or endanger permanent Work or temporary facilities.
 2. Remove snow and ice as required to minimize accumulations.
- G. Project Signs: Provide Project signs as indicated. Unauthorized signs are not permitted.
1. Identification Signs: Provide Project identification signs as indicated on Drawings.
 2. Temporary Signs: Provide other signs as indicated and as required to inform public and individuals seeking entrance to Project.
 - a. Provide temporary, directional signs for construction personnel and visitors.
 3. Maintain and touch up signs so they are legible at all times.
- H. Waste Disposal Facilities: Comply with requirements specified in Section 017419 "Construction Waste Management and Disposal."
- I. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Comply with progress cleaning requirements in Section 017300 "Execution."
- J. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.
1. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.

3.5 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.
1. Where access to adjacent properties is required in order to affect protection of existing facilities, obtain written permission from adjacent property owner to access property for that purpose.
- B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.

- C. Temporary Erosion and Sedimentation Control: Comply with requirements of EPA Construction General Permit or authorities having jurisdiction, whichever is more stringent and requirements specified in Section 311000 "Site Clearing."
 - D. Temporary Erosion and Sedimentation Control: Provide measures to prevent soil erosion and discharge of soil-bearing water runoff and airborne dust to undisturbed areas and to adjacent properties and walkways, according to erosion- and sedimentation-control Drawings requirements of EPA Construction General Permit or authorities having jurisdiction, whichever is more stringent.
 - 1. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross tree- or plant-protection zones.
 - 2. Inspect, repair, and maintain erosion- and sedimentation-control measures during construction until permanent vegetation has been established.
 - 3. Clean, repair, and restore adjoining properties and roads affected by erosion and sedimentation from Project site during the course of Project.
 - 4. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.
 - E. Stormwater Control: Comply with requirements of authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.
 - F. Tree and Plant Protection: Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion.
 - G. Site Enclosure Fence: Prior to commencing earthwork, furnish and install site enclosure fence in a manner that will prevent people from easily entering site except by entrance gates.
 - 1. Extent of Fence: As required to enclose entire Project site or portion determined sufficient to accommodate construction operations.
 - 2. Maintain security by limiting number of keys and restricting distribution to authorized personnel. Furnish one set of keys to Owner.
 - H. Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each workday.
 - I. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- 3.6 OPERATION, TERMINATION, AND REMOVAL
- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
 - B. Maintenance: Maintain facilities in good operating condition until removal.

1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- C. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.
- D. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
 1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
 2. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 017700 "Closeout Procedures."

END OF SECTION 015000

SECTION 017300 - EXECUTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes general administrative and procedural requirements governing execution of the Work, including, but not limited to, the following:
1. Construction layout.
 2. Field engineering and surveying.
 3. Installation of the Work.
 4. Cutting and patching.
 5. Coordination of Owner's portion of the Work.
 6. Coordination of Owner-installed products.
 7. Progress cleaning.
 8. Starting and adjusting.
 9. Protection of installed construction.
- B. Related Requirements:
1. Section 017700 "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, replacing defective work, and final cleaning.
 2. Section 024119 "Selective Demolition" for demolition and removal of selected portions of the building.

1.2 DEFINITIONS

- A. Cutting: Removal of in-place construction necessary to permit installation or performance of subsequent work.
- B. Patching: Fitting and repair work required to restore construction to original conditions after installation of subsequent work.

1.3 INFORMATIONAL SUBMITTALS

- ~~A. Certified Surveys: Submit digital copy signed by land surveyor.~~
- ~~B. Certificates: Submit certificate signed by land surveyor, certifying that location and elevation of improvements comply with requirements.~~

1.4 CLOSEOUT SUBMITTALS

- ~~A. Final Property Survey: Submit digital copy showing the Work performed and record survey data.~~

1.5 QUALITY ASSURANCE

- ~~A. Land Surveyor Qualifications: A professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land surveying services of the kind indicated.~~
- B. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.
1. Structural Elements: When cutting and patching structural elements, or when encountering the need for cutting and patching of elements whose structural function is not known, notify Engineer of locations and details of cutting and await directions from Engineer before proceeding. Shore, brace, and support structural elements during cutting and patching. Do not cut and patch structural elements in a manner that could change their load-carrying capacity or increase deflection.
 2. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.
 3. Other Construction Elements: Do not cut and patch other construction elements or components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.
 4. Visual Elements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch exposed construction in a manner that would, in Engineer's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.
- C. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of specified products and equipment.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Comply with requirements specified in other Sections.
1. For projects requiring compliance with sustainable design and construction practices and procedures, use products for patching that comply with sustainable design requirements.
- B. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to Engineer for the visual and functional performance of in-place materials. Use materials that are not considered hazardous.

- C. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.
 - 1. Use cleaning products that comply with Green Seal's GS-37, or if GS-37 is not applicable, use products that comply with the California Code of Regulations maximum allowable VOC levels.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Existing Conditions: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities, mechanical and electrical systems, and other construction affecting the Work.
 - 1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, gas service piping, and water-service piping; underground electrical services; and other utilities.
 - 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- B. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
 - 1. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
 - 2. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
 - 3. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
- C. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:
 - 1. Description of the Work, including Specification Section number and paragraph, and Drawing sheet number and detail, where applicable.
 - 2. List of detrimental conditions, including substrates.
 - 3. List of unacceptable installation tolerances.
 - 4. Recommended corrections.
- D. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Existing Utility Information: Furnish information to local utility that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information to Engineer through Construction Manager in accordance with requirements in Section 013100 "Project Management and Coordination."

3.3 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks and existing conditions. If discrepancies are discovered, notify Engineer promptly.
- B. Engage a land surveyor experienced in laying out the Work, using the following accepted surveying practices:
 - 1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
 - 2. Establish limits on use of Project site.
 - 3. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
 - 4. Inform installers of lines and levels to which they must comply.
 - 5. Check the location, level and plumb, of every major element as the Work progresses.
 - 6. Notify Engineer when deviations from required lines and levels exceed allowable tolerances.
 - 7. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.
- C. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and rim and invert elevations.
- D. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.

- E. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Engineer.

3.4 FIELD ENGINEERING

- A. Identification: Owner will identify existing benchmarks, control points, and property corners.
- B. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.
 - 1. Do not change or relocate existing benchmarks or control points without prior written approval of Engineer. Report lost or destroyed permanent benchmarks or control points promptly. Report the need to relocate permanent benchmarks or control points to Engineer before proceeding.
 - 2. Replace lost or destroyed permanent benchmarks and control points promptly. Base replacements on the original survey control points.
- C. Benchmarks: Establish and maintain a minimum of two permanent benchmarks on Project site, referenced to data established by survey control points. Comply with authorities having jurisdiction for type and size of benchmark.
 - 1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.
 - 2. Where the actual location or elevation of layout points cannot be marked, provide temporary reference points sufficient to locate the Work.
 - 3. Remove temporary reference points when no longer needed. Restore marked construction to its original condition.
- ~~D. Certified Survey: On completion of foundation walls, major site improvements, and other work requiring field engineering services, prepare a certified survey showing dimensions, locations, angles, and elevations of construction and sitework.~~
- ~~E. Final Property Survey: Engage a land surveyor to prepare a final property survey showing significant features (real property) for Project. Include on the survey a certification, signed by land surveyor, that principal metes, bounds, lines, and levels of Project are accurately positioned as shown on the survey.
 - 1. Show boundary lines, monuments, streets, site improvements and utilities, existing improvements and significant vegetation, adjoining properties, acreage, grade contours, and the distance and bearing from a site corner to a legal point.~~

3.5 INSTALLATION

- A. Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.

- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure satisfactory results as judged by Engineer. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations, so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy of type expected for Project.
- E. Sequence the Work and allow adequate clearances to accommodate movement of construction items on-site and placement in permanent locations.
- F. Tools and Equipment: Select tools or equipment that minimize production of excessive noise levels.
- G. Templates: Obtain and distribute to the parties involved templates for Work specified to be factory prepared and field installed. Check Shop Drawings of other portions of the Work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- H. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions with manufacturer.
 - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Engineer.
 - 2. Allow for building movement, including thermal expansion and contraction.
 - 3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- I. Joints: Make joints of uniform width. Where joint locations in exposed Work are not indicated, arrange joints for the best visual effect, as judged by Engineer. Fit exposed connections together to form hairline joints.
- J. Repair or remove and replace damaged, defective, or nonconforming Work.
 - 1. Comply with Section 017700 "Closeout Procedures" for repairing or removing and replacing defective Work.

3.6 CUTTING AND PATCHING

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.

1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to void existing warranties.
- C. Temporary Support: Provide temporary support of Work to be cut.
- D. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- E. Adjacent Occupied Areas: Where interference with use of adjoining areas or interruption of free passage to adjoining areas is unavoidable, coordinate cutting and patching in accordance with requirements in Section 011000 "Summary."
- F. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to prevent interruption to occupied areas.
- G. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
 3. Concrete: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
 4. Excavating and Backfilling: Comply with requirements in applicable Sections where required by cutting and patching operations.
 5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
 6. Proceed with patching after construction operations requiring cutting are complete.
- H. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as practicable, as judged by Engineer. Provide materials and comply with installation requirements specified in other Sections, where applicable.
 1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.

- a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
 - b. Restore damaged pipe covering to its original condition.
3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
 - a. Where patching occurs in a painted surface, prepare substrate and apply primer and intermediate paint coats appropriate for substrate over the patch, and apply final paint coat over entire unbroken surface containing the patch, corner to corner of wall and edge to edge of ceiling. Provide additional coats until patch blends with adjacent surfaces.
 4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
 5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition and ensures thermal and moisture integrity of building enclosure.
- I. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

3.7 PROGRESS CLEANING

- A. Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.
 1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
 2. Do not hold waste materials more than seven days during normal weather or three days if the temperature is expected to rise above 80 deg F.
 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
 - a. Use containers intended for holding waste materials of type to be stored.
 4. Coordinate progress cleaning for joint-use areas where Contractor and other contractors are working concurrently.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where Work is in progress to the level of cleanliness necessary for proper execution of the Work.
 1. Remove liquid spills promptly.

2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways. Comply with waste disposal requirements in Section 015000 "Temporary Facilities and Controls."
- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- J. Limiting Exposures: Supervise construction operations to ensure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.8 STARTING AND ADJUSTING

- A. Coordinate startup and adjusting of equipment and operating components with requirements in Section 019113 "General Commissioning Requirements."
- B. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- C. Adjust equipment for proper operation. Adjust operating components for proper operation without binding.
- D. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- E. Manufacturer's Field Service: Comply with qualification requirements in Section 014000 "Quality Requirements."

3.9 PROTECTION AND REPAIR OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Repair Work previously completed and subsequently damaged during construction period. Repair to like-new condition.
- C. Protection of Existing Items: Provide protection and ensure that existing items to remain undisturbed by construction are maintained in condition that existed at commencement of the Work.
- D. Comply with manufacturer's written instructions for temperature and relative humidity.

END OF SECTION 017300

SECTION 017700 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for Contract closeout, including, but not limited to, the following:
 - 1. Substantial Completion procedures.
 - 2. Final completion procedures.
 - 3. Warranties.
 - 4. Final cleaning.
- B. Related Requirements:
 - 1. Section 017823 "Operation and Maintenance Data" for additional operation and maintenance manual requirements.
 - 2. Section 017839 "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of cleaning agent.
- B. Contractor's List of Incomplete Items: Initial submittal at Substantial Completion.
- C. Certified List of Incomplete Items: Final submittal at Final Completion.

1.3 CLOSEOUT SUBMITTALS

- A. Certificates of Release: From authorities having jurisdiction.
- B. Certificate of Insurance: For continuing coverage.
- ~~C. Field Report: For pest control inspection.~~

1.4 SUBSTANTIAL COMPLETION PROCEDURES

- A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's "punch list"), indicating the value of each item on the list and reasons why the Work is incomplete.

- B. Submittals Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction, permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 2. Submit closeout submittals specified in other Division 01 Sections, including Project Record Documents, operation and maintenance manuals, damage or settlement surveys, property surveys, and similar final record information.
 3. Submit closeout submittals specified in individual Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 4. Submit maintenance material submittals specified in individual Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by Engineer. Label with manufacturer's name and model number.
 5. Submit testing, adjusting, and balancing records.
 6. Submit sustainable design submittals not previously submitted.
 7. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
- C. Procedures Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
1. Advise Owner of pending insurance changeover requirements.
 2. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
 3. Complete startup and testing of systems and equipment.
 4. Perform preventive maintenance on equipment used prior to Substantial Completion.
 5. Advise Owner of changeover in utility services.
 6. Participate with Owner in conducting inspection and walkthrough with local emergency responders.
 7. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 8. Complete final cleaning requirements.
 9. Touch up paint and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- D. Inspection: Submit a written request for inspection to determine Substantial Completion a minimum of 10 days prior to date the Work will be completed and ready for final inspection and tests. On receipt of request, Engineer will either proceed with inspection or notify Contractor of unfulfilled requirements. Engineer will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Engineer, that must be completed or corrected before certificate will be issued.

1.5 FINAL COMPLETION PROCEDURES

- A. Submittals Prior to Final Completion: Before requesting final inspection for determining Final Completion, complete the following:
1. Submit a final Application for Payment in accordance with Section 012900 "Payment Procedures."
 2. Certified List of Incomplete Items: Submit certified copy of Engineer's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Engineer. Certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 3. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 4. Submit pest-control final inspection report.
- B. Inspection: Submit a written request for final inspection to determine acceptance a minimum of 10 days prior to date the Work will be completed and ready for final inspection and tests. On receipt of request, Engineer will either proceed with inspection or notify Contractor of unfulfilled requirements. Engineer will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.

1.6 LIST OF INCOMPLETE ITEMS

- A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
1. Include the following information at the top of each page:
 - a. Project name.
 - b. Date.
 - c. Name of Engineer.
 - d. Name of Contractor.
 - e. Page number.
 2. Submit list of incomplete items in the following format:
 - a. MS Excel Electronic File: Engineer will return annotated file.
 - b. PDF Electronic File: Engineer will return annotated file.
 - c. Web-Based Project Software Upload: Utilize software feature for creating and updating list of incomplete items (punch list).
 - d. Three Paper Copies: Engineer will return two copies.

1.7 SUBMITTAL OF PROJECT WARRANTIES

- A. Time of Submittal: Submit written warranties on request of Engineer for designated portions of the Work where warranties are indicated to commence on dates other than date of Substantial

Completion, or when delay in submittal of warranties might limit Owner's rights under warranty.

- B. Organize warranty documents into an orderly sequence based on the table of contents of Project Manual.
- C. Warranty Electronic File: Provide warranties and bonds in PDF format. Assemble complete warranty and bond submittal package into a single electronic PDF file with bookmarks enabling navigation to each item. Provide bookmarked table of contents at beginning of document.
 - 1. Submit on digital media acceptable to Engineer by email to Engineer.
- D. Warranties in Paper Form:
 - 1. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
- E. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.
 - 1. Use cleaning products that comply with Green Seal's GS-37, or if GS-37 is not applicable, use products that comply with the California Code of Regulations maximum allowable VOC levels.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
 - 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a designated portion of Project:
 - a. Clean Project site of rubbish, waste material, litter, and other foreign substances.

b. Leave Project clean and ready for occupancy.

~~C. Pest Control: Comply with pest control requirements in Section 015000 "Temporary Facilities and Controls." Prepare written report.~~

D. Construction Waste Disposal: Comply with waste-disposal requirements in Section 015000 "Temporary Facilities and Controls."

3.2 REPAIR OF THE WORK

A. Complete repair and restoration operations required by Section 017300 "Execution" before requesting inspection for determination of Substantial Completion.

END OF SECTION 017700

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GENERAL NOTES:

- ANY CONSTRUCTION METHOD OR MATERIAL THAT IS NOT COVERED IN THESE CONTRACT DOCUMENTS WILL BE COVERED BY WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS STANDARD SPECIFICATIONS, ROADS AND BRIDGES, ADOPTED 2017 AND THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS, SUPPLEMENTAL SPECIFICATIONS DATED JANUARY 1, 2021, STANDARD DETAILS VOLUME I DATED MAY 1, 2016 AND VOLUME II DATED JANUARY 2019. THE CONTRACT DOCUMENTS AND CONTRACT PLANS ARE THE GOVERNING PROVISIONS APPLICABLE TO THIS PROJECT. REFERENCE TO OTHER ENTITIES IS FOR TECHNICAL RESOURCES ONLY, NOT MEASUREMENT AND PAYMENT.
- THE CONTRACTOR SHALL LOCATE AND PROTECT EXISTING UTILITIES AND FACILITIES FROM DAMAGE BY EQUIPMENT OR PERSONNEL. THE CONTRACTOR SHALL CONTACT ALL UTILITY AND FACILITY AGENCIES FOR FIELD MARKING PRIOR TO BEGINNING CONSTRUCTION. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE EXISTING UTILITY INFORMATION IS THE BEST AVAILABLE AND MAY NOT BE COMPLETELY ACCURATE OR REPRESENTATIVE OF ACTUAL CONDITIONS. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR TO THE UNDERGROUND UTILITIES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND/OR OWNER IN WRITING, OF ANY EXISTING DAMAGED UTILITIES PRIOR TO BEGINNING CONSTRUCTION. ANY UTILITIES OR FACILITIES DAMAGED DURING THE PROJECT BY THE CONTRACTOR OR EQUIPMENT SHALL BE PROMPTLY REPAIRED AT THE CONTRACTOR'S EXPENSE. HAND DIGGING TO PROTECT UTILITIES FROM DAMAGE SHOULD BE ANTICIPATED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A VALID STATE CONTRACTOR'S LICENSE AND PAYING ALL STATE AND LOCAL B&O TAXES. ALL PERMITS MUST BE SECURED PRIOR TO CONSTRUCTION. PERMITS PERTAINING TO THE WASTE SITE SHALL ALSO BE ACQUIRED BY THE CONTRACTOR. OWNER WILL OBTAIN WVDEP STORMWATER CONSTRUCTION PERMIT.
- EXISTING BASE MAPPING FOR THIS PROJECT WAS PERFORMED BY THE THRASHER GROUP INC. IN APRIL OF 2020, NAD 83 DATUM.
- THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL PLAN AND ELEVATION DIMENSIONS OF THE VARIOUS WORK ITEMS ON THIS PROJECT.
- THE CONSTRUCTION DRAWINGS REPRESENT THE PROPOSED LINES, GRADES, CROSS SECTIONS, AND APPURTENANCES TO ACCOMPLISH THE INTENT OF THE SCOPE OF WORK. CERTAIN INCIDENTAL ITEMS TO COMPLETE THE SCOPE OF WORK MAY NOT BE SHOWN.
- ALL WORK PERFORMED AND ALL MATERIAL FURNISHED SHALL CONFORM TO THE LINES, GRADES, CROSS SECTIONS, DIMENSIONS, AND MATERIAL REQUIREMENTS SHOWN ON THE CONSTRUCTION DRAWINGS. THE CONSTRUCTION DRAWINGS SHOW THE CONSTRUCTION LINES, GRADES, DEPTHS AND DIMENSIONS ON WHICH ESTIMATED QUANTITIES ARE BASED. THE CONSTRUCTION LINES, GRADES, DEPTHS AND DIMENSIONS ARE SUBJECT TO VARIATION NECESSARY TO OBTAIN SUBGRADE AND/OR FINAL GRADE SATISFACTORY TO THE ENGINEER.
- THE CONTRACTOR SHALL HAVE ON THE SITE AT ALL TIMES A COMPETENT SUPERINTENDENT CAPABLE OF READING AND UNDERSTANDING THE CONSTRUCTION DOCUMENTS AND THOROUGHLY EXPERIENCED IN THE TYPE OF WORK BEING PERFORMED, AND SHALL BE ABLE TO COORDINATE WITH THE ENGINEER.
- ALL BROKEN CONCRETE & ASPHALT, TRASH, RUBBISH, ORGANICS & OTHER UNSUITABLE AND EXCESS MATERIAL SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ANY AND ALL NECESSARY PERMITS FOR OFF-SITE DISPOSAL / WASTE AREAS.
- THE OWNER RESERVES THE RIGHT TO CONTRACT TO AND PERFORM OTHER OR ADDITIONAL WORK ADJACENT TO AND WITHIN THE WORK AREA COVERED BY THIS CONTRACT. WHEN SEPARATE CONTRACTS ARE LET WITHIN THE LIMITS OF ANY ONE PROJECT, EACH CONTRACTOR SHALL CONDUCT HIS WORK SO AS NOT TO INTERFERE WITH OR HINDER THE PROGRESS OR THE COMPLETION OF THE WORK BEING COMPLETED BY OTHER CONTRACTORS. THE CONTRACTORS WORKING ON THE SAME PROJECT SHALL COOPERATE WITH EACH OTHER AS ORDERED BY THE OWNER AND/OR ENGINEER.
- SATISFACTORY SOILS ARE SOILS IN CLASSIFICATION GROUPS GW, GP, GM, SW, SP, AND SM ACCORDING TO ASTM D 2487, GROUPS A-1, A-2-4, A-2-5, AND A-3 ACCORDING TO AASHTO M 145, OR A COMBINATION OF THESE GROUPS. THE SOILS MUST BE FREE OF ROCK OR GRAVEL LARGER THAN 6 INCHES IN ANY DIMENSION, DEBRIS, WASTE, FROZEN MATERIALS, VEGETATION, AND OTHER DELETERIOUS MATTER.
- NO MATERIAL GREATER THAN 3 INCHES IN ITS LARGEST DIMENSION MAY BE UTILIZED INSIDE FILLING OPERATIONS.
- STOCKPILE EXCAVATED MATERIALS CLASSIFIED AS SATISFACTORY SOIL MATERIAL WITHIN LIMIT OF DISTURBANCE, SHAPE THE STOCKPILES FOR PROPER DRAINAGE.
- FILL SHALL BE PLACED IN LIFTS OF MAXIMUM LOOSE DEPTH OF 8 INCHES. THE MATERIAL SHALL BE COMPACTED TO AT LEAST 98 PERCENT OF MAXIMUM DRY DENSITY BENEATH PAVEMENTS, WALKS, STEPS, AND BUILDINGS AND 95 PERCENT OF MAXIMUM DRY DENSITY IN OTHER AREAS AT MOISTURE CONTENT WITHIN ±3 THREE PERCENT OF THE OPTIMUM AS DETERMINED BY ASTM D698. IF FILL FAILS COMPACTION TESTING, THE CONTRACTOR SHALL REWORK (RE-COMPACT, WATER AND RE-COMPACT, EXCAVATE AND DRY, ETC.) THE MATERIAL TO ACHIEVE THE SPECIFIED COMPACTION. THE CONTRACTOR MAY BE REQUIRED BY THE ENGINEER TO EXCAVATE FILL AND REPLACE WITH MATERIALS CAPABLE OF MEETING THE COMPACTION SPECIFICATIONS.
- WHERE THE SUBGRADE OR LAYER OF SOIL MATERIAL MUST BE MOISTURE CONDITIONED BEFORE COMPACTION, UNIFORMLY APPLY WATER TO THE SURFACE OF THE SUBGRADE, OR LAYER OF SOIL MATERIAL, TO PREVENT FREE WATER APPEARING ON THE SURFACE DURING OR SUBSEQUENT TO COMPACTION OPERATIONS.
- REMOVE AND REPLACE, OR SCARIFY AND AIR DRY, SOIL MATERIAL THAT IS TOO WET TO PERMIT COMPACTION TO SPECIFIED DENSITY. SOIL MATERIAL THAT HAS BEEN REMOVED BECAUSE IT IS TOO WET TO PERMIT COMPACTION MAY BE STOCKPILED OR SPREAD AND ALLOWED TO DRY. ASSIST DRYING BY DISKING, HARROWING OR PULVERIZING, UNTIL THE MOISTURE CONTENT IS REDUCED TO A SATISFACTORY VALUE, AS DETERMINED BY MOISTURE-DENSITY RELATION TESTS.
- IN THE EVENT AN ERROR WITH THE PLANS SEEMS APPARENT, THE MATTER MUST BE TAKEN UP WITH THE ENGINEER FOR CAREFUL REVIEW BEFORE PROCEEDING WITH CONSTRUCTION.
- IN AREAS TO RECEIVE FILL AND AT THE FINAL CUT SUBGRADE, PROOF ROLL AND COMPACT THE EXPOSED GROUND SURFACE FOLLOWING CLEARING AND GRUBBING AND ANY REQUIRED EXCAVATION WITH A MINIMUM OF FOUR PASSES OF AN APPROVED COMPACTOR. PROOF ROLLING SHALL BE UNDER THE OBSERVATION OF THE ENGINEER AS DESCRIBED HEREIN. IMMEDIATELY FOLLOWING THE COMPLETION OF EXCAVATION TO PROPOSED SUBGRADES IN CUT AREAS, PROOF ROLLING SHALL BE PERFORMED AS SPECIFIED. ANY AREAS WHICH DEFLECT, RUT, OR PUMP UNDER THE LOADED DUMP TRUCK SHALL BE UNDERCUT AND REPLACED WITH COMPACTED FILL MATERIAL OR STONE BASE COURSE AS DIRECTED BY THE ENGINEER. IF UNDERCUT IS REQUIRED BEFORE PLACEMENT OF INITIAL FILL LIFT, THE CONTRACTOR SHALL CONTACT OWNER AND ENGINEER TO DISCUSS COMPENSATION BEFORE PROCEEDING.
- STABILIZATION MEASURES, INCLUDING BUT NOT LIMITED TO PERMANENT SEEDING AND MULCHING SHALL

- BE INITIATED AS SOON AS PRACTICAL IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CLOSE, BUT IN NO CASE MORE THAN SEVEN (4) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CLOSED.
- WHERE THE INITIATION OF STABILIZATION MEASURES BY THE SEVENTH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASES IS PRECLUDED BY SNOW COVER, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS CONDITIONS ALLOW.
- WHERE CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN 14 DAYS FROM WHEN ACTIVITIES CEASED (E.G. THE TOTAL TIME PERIOD THAT CONSTRUCTION ACTIVITY IS TEMPORARILY HALTED IS LESS THAN 14 DAYS), THEN STABILIZATION MEASURES ARE NOT REQUIRED TO BE INITIATED ON THAT PORTION OF THE SITE BY THE SEVENTH DAY AFTER CONSTRUCTION ACTIVITIES HAVE TEMPORARILY CEASED.
- AREAS WHERE THE SEED HAS FAILED TO GERMINATE ADEQUATELY (UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70%) WITHIN 30 DAYS AFTER SEEDING AND MULCHING MUST BE RE-SEEDDED IMMEDIATELY, OR AS SOON AS WEATHER CONDITIONS ALLOW.
- THE CONTRACTOR SHALL PROVIDE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AND OTHER ACTIONS AS REQUIRED BY LOCAL AND STATE REGULATIONS OR REQUESTED BY ENGINEER. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING OR MODIFYING SEDIMENT CONTROL MEASURES DURING CONSTRUCTION IN ORDER TO PREVENT EROSION.
- EROSION AND SEDIMENT CONTROL DETAILS NOT SHOWN IN THE PLANS SHALL BE IN ACCORDANCE WITH THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION EROSION AND SEDIMENT CONTROL MANUAL, LATEST EDITION.
- ALL QUALITY CONTROL TESTING AND INSPECTION SHALL BE PERFORMED BY A QUALIFIED TESTING AGENCY AND WILL BE PAID FOR BY THE OWNER. TESTING SHALL BE PERFORMED FOR SOILS, SUBGRADE, AGGREGATE BASE COURSE, CONCRETE, AND ASPHALT.
- ALL SUBCONTRACTORS SHALL BE RESPONSIBLE FOR COORDINATING THEIR ITEMS OF WORK AND COMPLETION SCHEDULES WITH EACH OTHER AS WELL AS THE GENERAL CONTRACTOR.
- IF SUBSURFACE DRAINAGE/SPRINGS ARE ENCOUNTERED DURING CONSTRUCTION. THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER IN ORDER TO PROVIDE AN ADEQUATE CONNECTION TO THE EXISTING OR PROPOSED DRAINAGE CONVEYANCE SYSTEM.

CONSTRUCTION SEQUENCE

- LOCATE ALL EXISTING UTILITIES. THE CONTRACTOR SHALL NOTIFY MISS UTILITY OF WEST VIRGINIA AT 1-800-245-4848 A MINIMUM OF (2) DAYS PRIOR TO ANY EXCAVATION OR CONSTRUCTION.
- INSTALL ALL PERIMETER AND EROSIONS AND SEDIMENT CONTROLS.
- DEMOLISH FEATURES IN THE EXISTING PLAZA THAT DO NOT REMAIN AND ROUGH GRADE THE SITE.
- INSTALL DRAINAGE, UTILITIES, LIGHT FIXTURES, WALLS AND FOUNDATIONS FOR VARIOUS FEATURES.
- INSTALL VARIOUS PAVEMENT TYPES PER THE PLANS AND DETAILS.
- PLACE TOPSOIL IN AREAS TO RECEIVE SOD OR LANDSCAPING. INSTALL SOD AND LANDSCAPING. INSTALL MULCH.
- AFTER COMPLETE STABILIZATION OF THE DRAINAGE AREA, REMOVE EROSION AND SEDIMENT CONTROL FACILITIES AND DRESS AND STABILIZE AS REQUIRED.
- FINAL PROJECT CLEANUP AND DEMOBILIZATION.

CONTACT INFORMATION

| | |
|---|---|
| <u>OWNER</u> | <u>ENGINEER</u> |
| CITY OF CHARLESTON 501 VIRGINIA ST. EAST CHARLESTON, WV 25301 ATTN: JONATHAN STORAGE (304) 348-8000 | THE THRASHER GROUP 300 ASSOCIATION DRIVE CHARLESTON, WV 25311 ATTN: SAMUEL RICH, PLA (304) 848-6490 |
| <u>WATER</u> | <u>SEWER</u> |
| WEST VIRGINIA AMERICAN WATER 1600 PENNSYLVANIA AVENUE CHARLESTON, WV 25302 1-800-685-8660 | CHARLESTON SANITARY BOARD 208 26TH STREET WEST CHARLESTON, WV 25387 (304) 848-1084 |
| <u>POWER</u> | <u>GAS</u> |
| APPALACHIAN POWER SUITE 800, LAIDLEY TOWER 500 LEE STREET, EAST CHARLESTON, WV 25302 ATTN: BRANDON PORTER (304)-348-4172 | MOUNTAINEER GAS COMPANY PO BOX 5201 CHARLESTON, WV 25361 1-800-834-2070 |
| <u>MISS UTILITY</u> | |
| 1-800-245-4848 http://www.muwv.org | |

PLAN LEGEND

- 1600 --- EXISTING 1' CONTOURS MAJOR / MINOR
- PROPERTY LINE
- EXISTING ROAD EDGE
- EXISTING UNDERGROUND ELECTRIC
- EXISTING SANITARY SEWER
- EXISTING WATER LINE
- EXISTING ELECTRIC MANHOLE
- EXISTING WATER MANHOLE
- EXISTING SANITARY MANHOLE
- EXISTING CLEAN OUT
- EXISTING LIGHT FIXTURE
- EXISTING DRAIN INLET
- EXISTING WATER VALVE
- PROPOSED PLAZA PAVERS
- PROPOSED LANDSCAPE
- PROPOSED DECOMPOSED GRANITE
- PROPOSED SOD LAWN AREAS
- PROPOSED CONCRETE PAVEMENT
- PROPOSED CENTRAL WALKWAY PAVERS
- PROPOSED EDGE OF PAVEMENT
- PROPOSED LIMITS OF DISTURBANCE
- PROPOSED WATERLINE
- PROPOSED GATE VALVE
- PROPOSED SANITARY SEWER LINE
- PROPOSED ELECTRIC CONDUIT
- PROPOSED 4" PERFORATED STORM PIPE
- PROPOSED 12" HDPE STORM PIPE
- PROPOSED DRAIN INLET
- PROPOSED MANHOLE
- PROPOSED CLEAN OUT
- PROPOSED CENTRAL WALKWAY POLE LIGHTS
- PROPOSED STREET LIGHT REPLACEMENT
- PROPOSED LIGHTED BOLLARD
- PROPOSED STRING LIGHTS
- PROPOSED UP LIGHT
- PROPOSED WALL DOWN LIGHTS
- PROPOSED STAGE OUTLETS
- PROPOSED BAND DISCONNECT

2

QUANTITIES

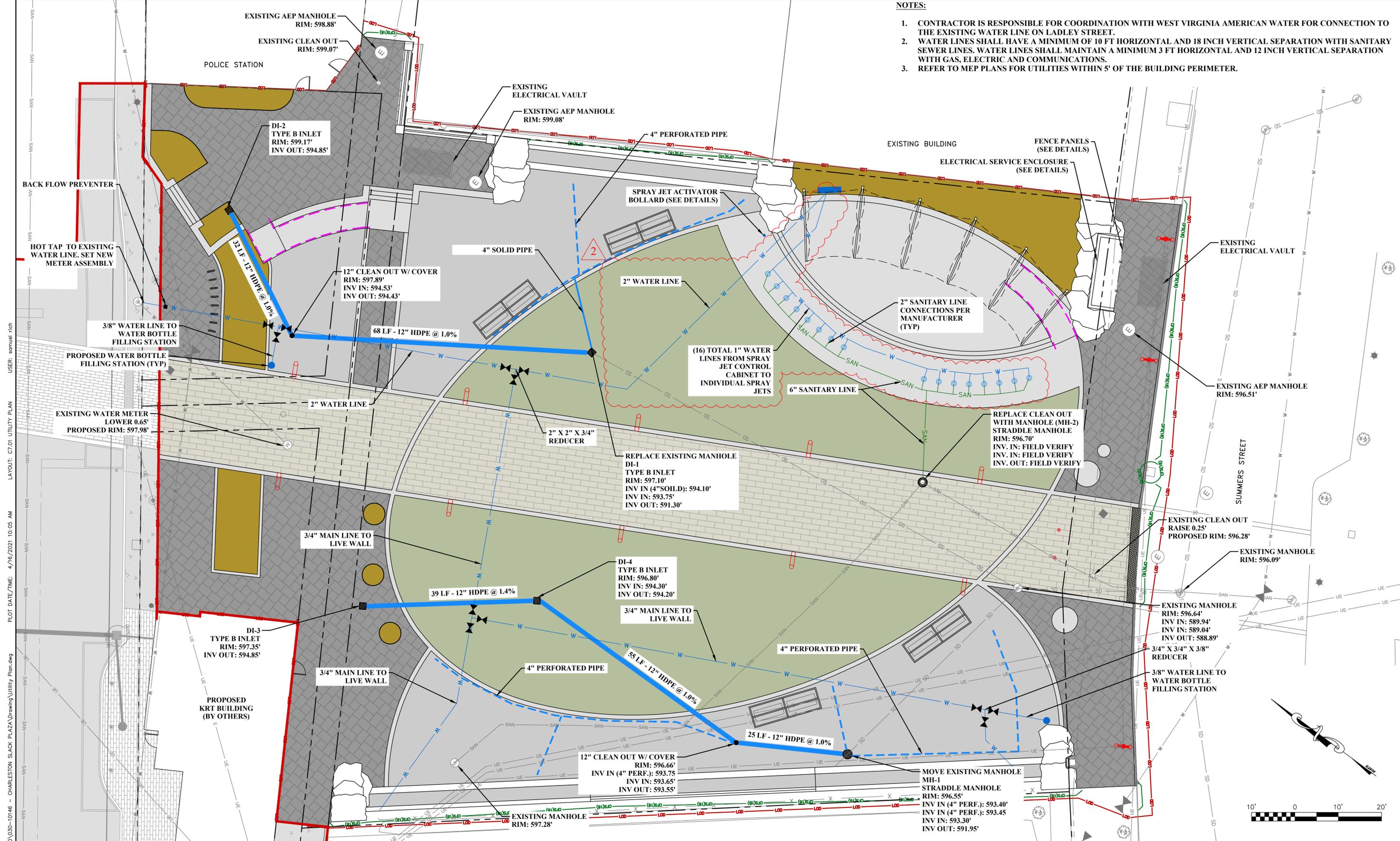
| ITEM NUMBER | DESCRIPTION | UNIT | QUANTITY |
|-------------|---------------------------------------|------|----------|
| 01 | MOBILIZATION / DEMOBILIZATION | LS | 1 |
| 02 | CONSTRUCTION STAKEOUT | LS | 1 |
| 03 | EROSION & SEDIMENT CONTROL | LS | 1 |
| 04 | TRAFFIC CONTROL | LS | 1 |
| 05 | DEMOLITION | LS | 1 |
| 06 | SAW CUT EXISTING ASPHALT | LF | 185 |
| 07 | UNCLASSIFIED EXCAVATION | CY | 2,500 |
| 08 | POLICE BUILDING RENOVATIONS, COMPLETE | LS | 1 |
| 09 | NEW ELECTRIC SERVICE | LS | 1 |
| 10 | 3/4" ELECTRIC CONDUIT | LF | 3,200 |
| 11 | 1" ELECTRIC CONDUIT | LF | 1,080 |
| 12 | 3" ELECTRIC CONDUIT | LF | 120 |
| 13 | ICE RINK ELECTRIC SERVICE | LS | 1 |
| 14 | ELECTRICAL OUTLETS | EA | 10 |
| 15 | SECURITY CAMERA SYSTEM, COMPLETE | LS | 1 |
| 16 | 12" HDPE STORM PIPE | LF | 220 |
| 17 | 4" PERFORATED STORM PIPE | LF | 260 |
| 18 | 4" HDPE STORM PIPE | LF | 20 |
| 19 | TYPE B INLET | EA | 5 |
| 20 | STRADDLE MANHOLE, COMPLETE | EA | 2 |
| 21 | 6" SDR-31 SEWER LINE | LF | 70 |
| 22 | 3/8" WATER LINE | LF | 20 |
| 23 | 3/4" WATER LINE | LF | 250 |
| 24 | 1" WATER LINE | LF | 930 |
| 25 | 2" WATER LINE | LF | 179 |
| 26 | WATER METER SETTING | LS | 1 |
| 27 | CENTRAL WALKWAY PAVERS | SY | 545 |
| 28 | PLAZA PAVERS | SY | 744 |
| 29 | DECOMPOSED GRANITE AREAS | SF | 6,490 |
| 30 | CONCRETE STAGE | SY | 295 |
| 31 | CONCRETE ADA RAMP TO POLICE STATION | SY | 20 |
| 32 | CONCRETE BANDS | SY | 112 |
| 33 | CONCRETE STEPS TO POLICE STATION | SY | 10 |
| 34 | TYPE 1 CONCRETE CURB | LF | 134 |
| 35 | CONCRETE SIDEWALK | SY | 70 |
| 36 | DETECTABLE WARNING SURFACE | LS | 1 |
| 37 | SUMMERS STREET POLE LIGHTS | EA | 3 |
| 38 | CENTRAL WALKWAY POLE LIGHTS | EA | 10 |
| 39 | STRING LIGHTS | LF | 370 |
| 40 | WALL DOWN LIGHTS | LF | 300 |
| 41 | UP LIGHTS | EA | 25 |
| 42 | BOLLARD LIGHTS | EA | 41 |
| 43 | SPRAY JET SYSTEM, COMPLETE | LS | 1 |
| 44 | STONE VENEER SEAT WALLS | LF | 274 |
| 45 | STONE VENEER RETAINING WALLS | LF | 106 |
| 46 | CONCRETE SCREEN WALLS | LF | 208 |
| 47 | LIVE WALL | LF | 104 |
| 48 | CAFE TABLES | EA | 31 |
| 49 | SWING UNITS | EA | 4 |
| 50 | TRASH RECEPTACLES | EA | 6 |
| 51 | BIKE RACKS | EA | 8 |
| 52 | CANTILEVER SHADE STRUCTURE | LS | 1 |
| 53 | PHONE CHARGING STATIONS | EA | 4 |
| 54 | WATER BOTTLE FILLING STATION | EA | 2 |
| 55 | DECORATIVE FENCING (MATCH EXISTING) | LF | 100 |
| 56 | REMOVABLE BOLLARD | EA | 2 |
| 57 | ELECTRIC ENCLOSURE FENCE & GATES | LS | 1 |
| 58 | ADA RAMP RAILING | LF | 101 |
| 59 | TOPSOIL | CY | 75 |
| 60 | SOD LAWN AREAS | SF | 7,900 |
| 61 | LARGE SCULPTURE BASES | EA | 2 |
| 62 | SMALL SCULPTURE BASE | EA | 1 |
| 63 | BOULDER FORMATIONS | EA | 5 |
| 64 | SCULPTURE INSTALLATION | LS | 1 |
| 65 | LANDSCAPING | LS | 1 |

NOTES:

QUANTITIES PROVIDED FOR INFORMATION ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL QUANTITIES.

CAD FILE: R:\030\030-10146 - CHARLESTON SLACK PLAZA\Drawings\GENERAL NOTES.dwg PLOT DATE/TIME: 4/16/2021 10:08 AM USER: samuel rich LAYOUT: C1.01 GENERAL NOTES

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|--|--|--|---|--|---------------------------------|---------------------------------|--|--|--|



- NOTES:**
1. CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH WEST VIRGINIA AMERICAN WATER FOR CONNECTION TO THE EXISTING WATER LINE ON LADLEY STREET.
 2. WATER LINES SHALL HAVE A MINIMUM OF 10 FT HORIZONTAL AND 18 INCH VERTICAL SEPARATION WITH SANITARY SEWER LINES. WATER LINES SHALL MAINTAIN A MINIMUM 3 FT HORIZONTAL AND 12 INCH VERTICAL SEPARATION WITH GAS, ELECTRIC AND COMMUNICATIONS.
 3. REFER TO MEP PLANS FOR UTILITIES WITHIN 5' OF THE BUILDING PERIMETER.

USER: samuel rich
 LAYOUT: C7.01 UTILITY PLAN
 PLOT DATE/TIME: 4/16/2021 10:05 AM
 CAD FILE: R:\030\030-10146 - CHARLESTON SLACK PLAZA\Drawing\Utility Plan.dwg

| NO. | BY | DATE | DESCRIPTION |
|-----|-----|------------|---|
| 2 | SAR | 04/16/2021 | MAIN WATER LINE REVISION. ADDITIONAL 1" WATER LINES ADDED FOR SPRAY JET SYSTEM. |

| | |
|-----------------|---------------------|
| SCALE: | SEE GRAPHIC SCALE |
| DRAWN: | EW DATE: 03/29/2021 |
| CHECKED: | SR DATE: 03/29/2021 |
| APPROVED: | JG DATE: 03/29/2021 |
| SURVEY DATE: | |
| SURVEY BY: | |
| FIELD BOOK No.: | |

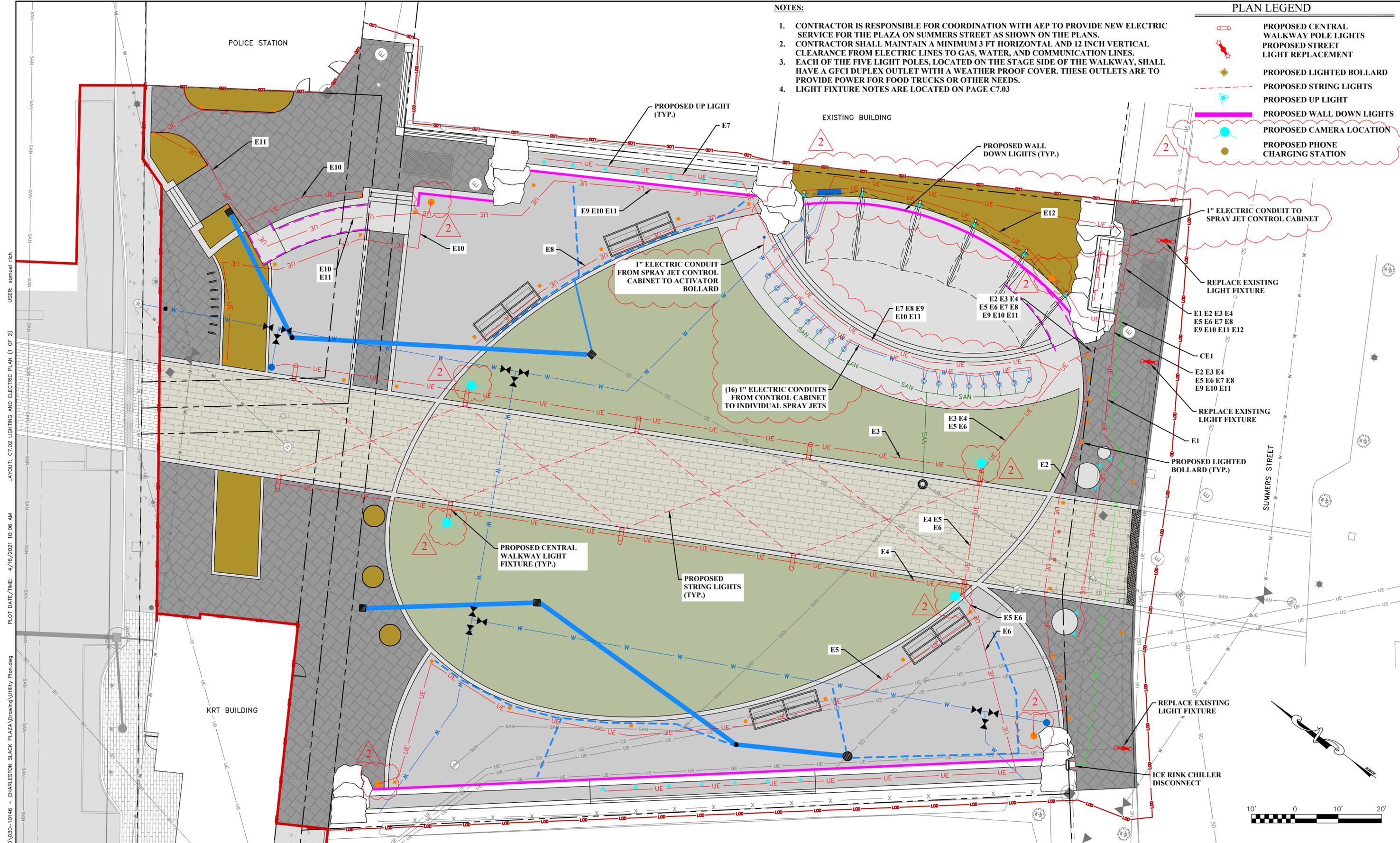
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| PHASE No. | | UTILITY PLAN |
| CONTRACT No. | | SLACK PLAZA RENOVATIONS |
| PROJECT No. | 030-10284.00 | CHARLESTON, WEST VIRGINIA |
| | | 03/29/2021 |
| | | CONSTRUCTION DOCUMENTS |
| SHEET No. | C7.01 | |

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NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH AEP TO PROVIDE NEW ELECTRIC SERVICE FOR THE PLAZA ON SUMMERS STREET AS SHOWN ON THE PLANS.
2. CONTRACTOR SHALL MAINTAIN A MINIMUM 3 FT HORIZONTAL AND 12 INCH VERTICAL CLEARANCE FROM ELECTRIC LINES TO GAS, WATER, AND COMMUNICATION LINES.
3. EACH OF THE FIVE LIGHT POLES, LOCATED ON THE STAGE SIDE OF THE WALKWAY, SHALL HAVE A GFCI DUPLEX OUTLET WITH A WEATHER PROOF COVER. THESE OUTLETS ARE TO PROVIDE POWER FOR FOOD TRUCKS OR OTHER NEEDS.
4. LIGHT FIXTURE NOTES ARE LOCATED ON PAGE C7.03

PLAN LEGEND

- PROPOSED CENTRAL WALKWAY POLE LIGHTS
- PROPOSED STREET LIGHT REPLACEMENT
- PROPOSED LIGHTED BOLLARD
- PROPOSED STRING LIGHTS
- PROPOSED UP LIGHT
- PROPOSED WALL DOWN LIGHTS
- PROPOSED CAMERA LOCATION
- PROPOSED PHONE CHARGING STATION

CAD FILE: R:\030\030-10146 - CHARLESTON SLACK PLAZA Drawing Utility Plan.dwg
 PLOT DATE/TIME: 4/16/2021 10:06 AM
 LAYOUT: C7.02 LIGHTING AND ELECTRIC PLAN (1 OF 2)
 USER: samuel rich

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| NO. | BY | DATE | DESCRIPTION |
|-----|-----|------------|---|
| 2 | SAR | 04/16/2021 | CAMERA & PHONE CHARGING LOCATIONS ADDED. ELECTRICAL CONDUIT FOR SPRAY JET SYSTEM ADDED. |

| | |
|--------------------------|------------------|
| SCALE: SEE GRAPHIC SCALE | DATE: 03/29/2021 |
| DRAWN: EW | DATE: 03/29/2021 |
| CHECKED: SR | DATE: 03/29/2021 |
| APPROVED: JG | DATE: 03/29/2021 |
| SURVEY DATE: | |
| SURVEY BY: | |
| FIELD BOOK No.: | |

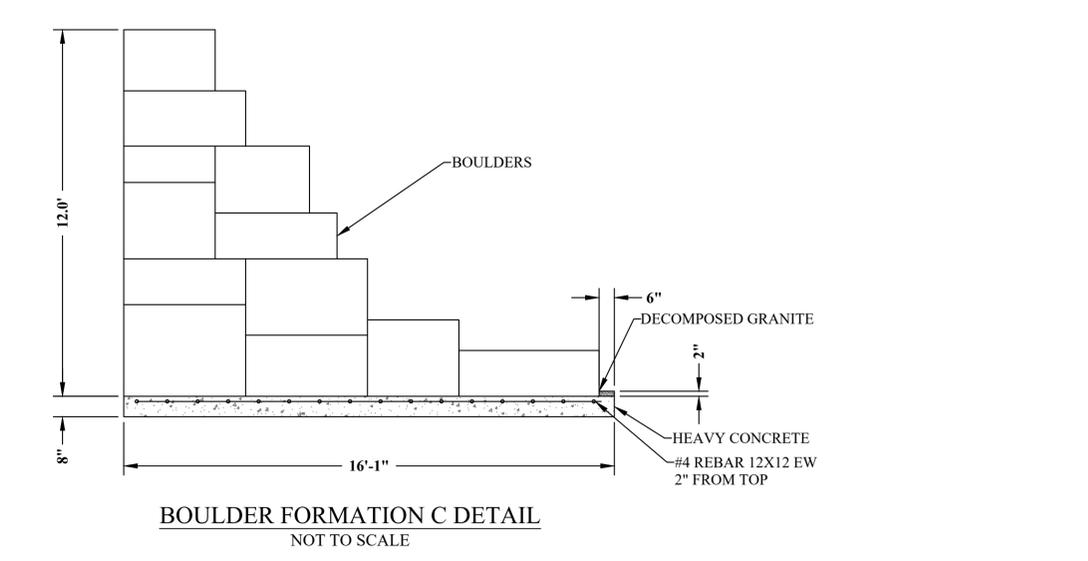
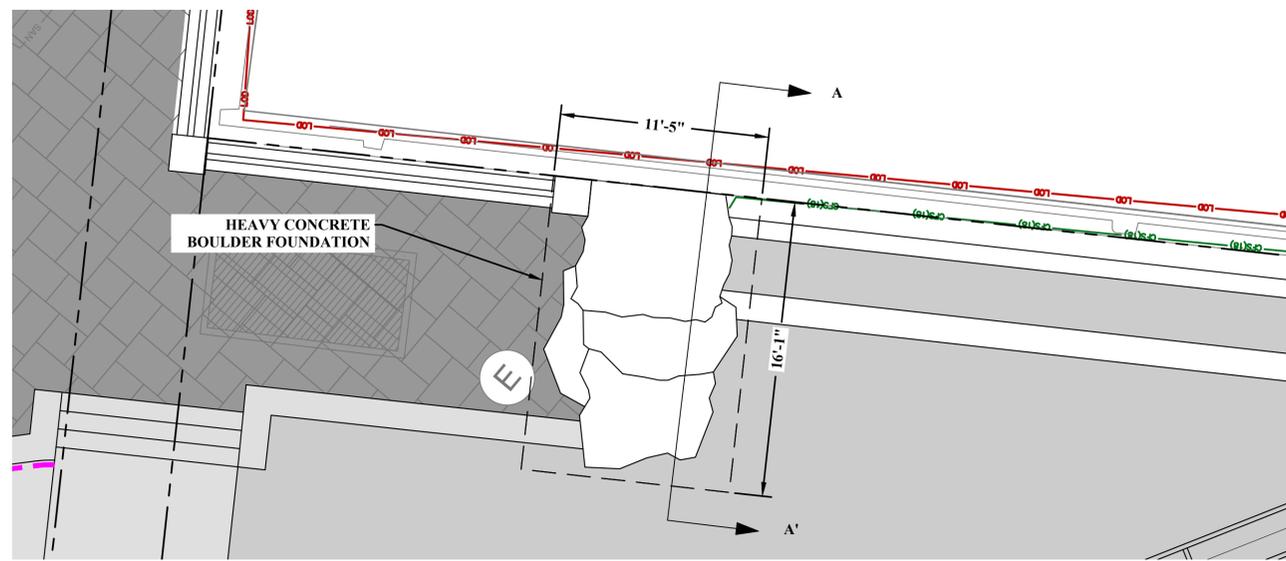
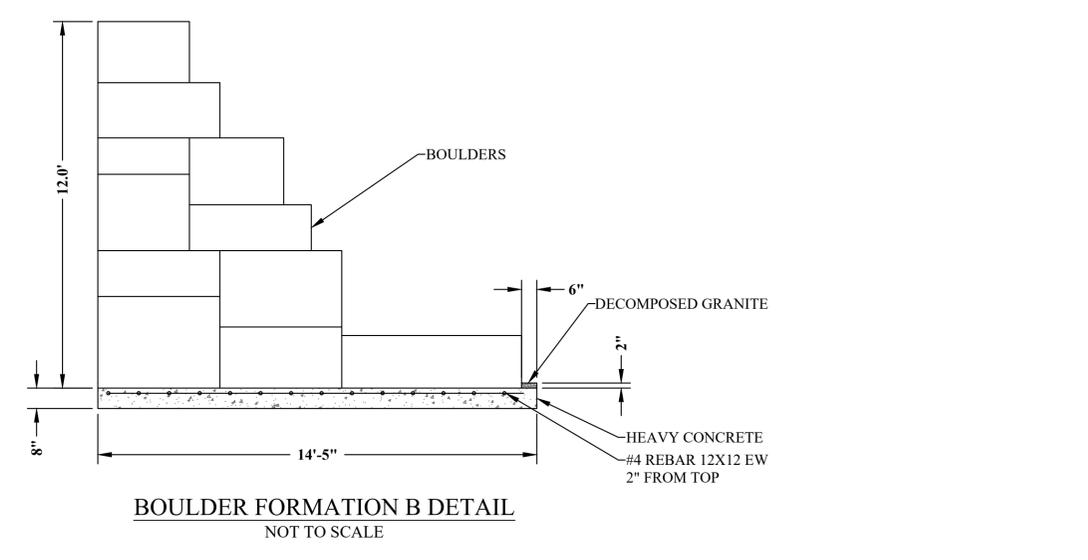
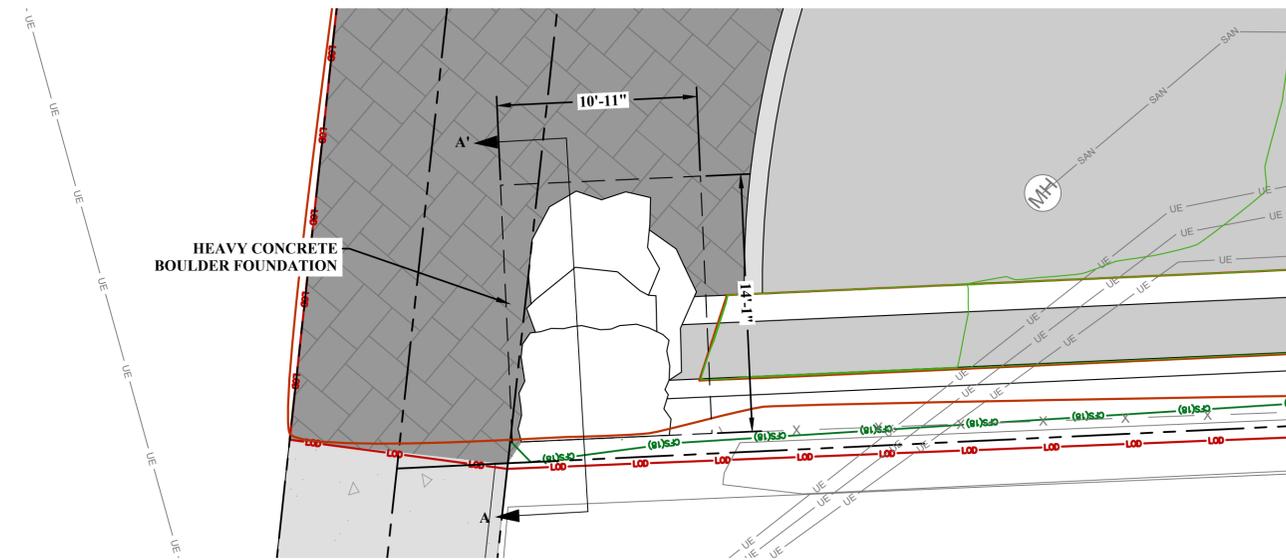
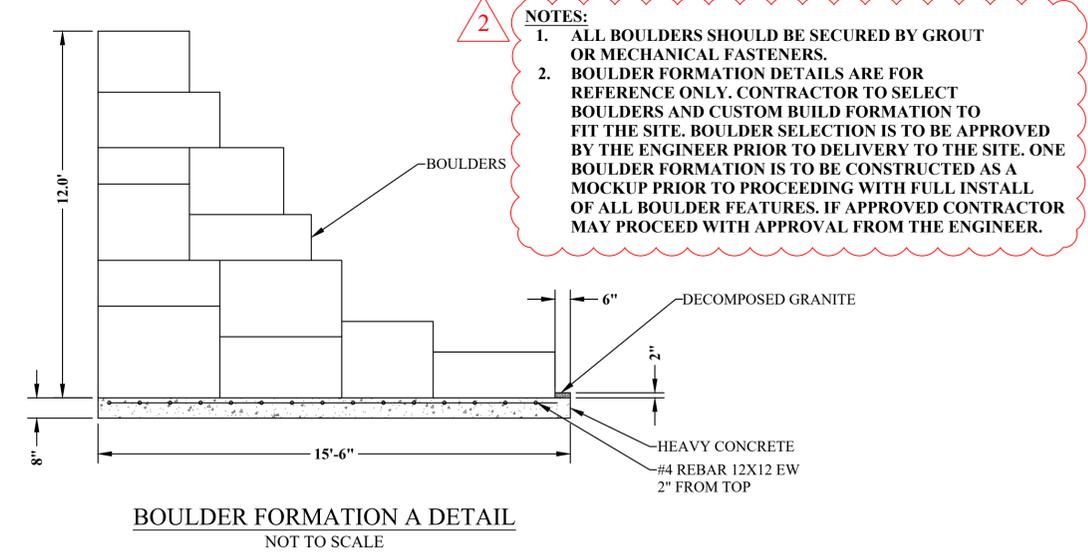
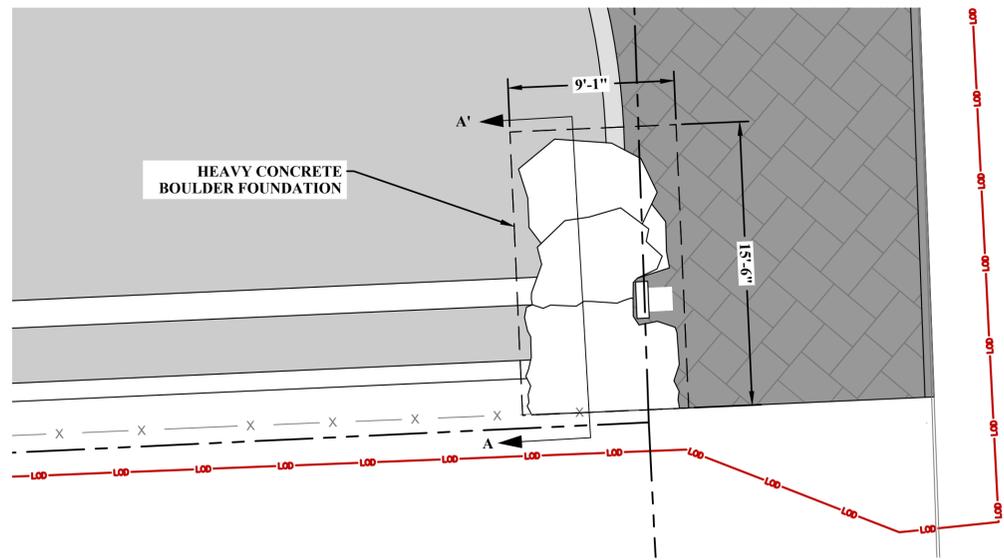
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| PROJECT No. | 030-10284.00 |

LIGHTING AND ELECTRIC PLAN (1 OF 2)
 SLACK PLAZA RENOVATIONS
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C7.02



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| 2 | SAR | 04/16/2021 | BOULDER FEATURE NOTE CLARIFICATION |

| | |
|-----------------|---------------------|
| SCALE: | SEE GRAPHIC SCALE |
| DRAWN: | EW DATE: 03/29/2021 |
| CHECKED: | SR DATE: 03/29/2021 |
| APPROVED: | JG DATE: 03/29/2021 |
| SURVEY DATE: | |
| SURVEY BY: | |
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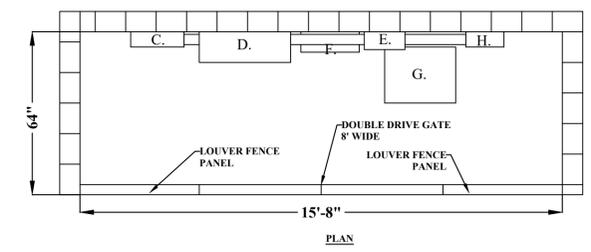
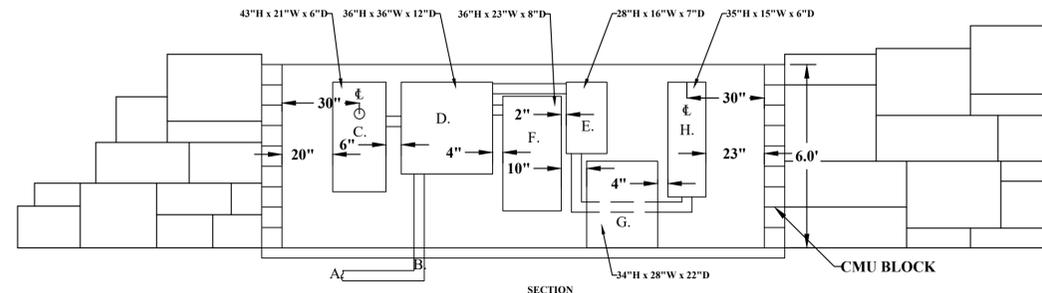
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|--------------|--------------|
| PHASE No. | |
| CONTRACT No. | |
| PROJECT No. | 030-10284.00 |

BOULDER FORMATIONS
SLACK PLAZA RENOVATIONS
CHARLESTON, WEST VIRGINIA
03/29/2021
CONSTRUCTION DOCUMENTS

SHEET No.
C8.02

CAD FILE: R:\030\030-10146 - CHARLESTON SLACK PLAZA\Drawing\10146-DETAILS.dwg
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 LAYOUT: C10.09 DETAILS
 USER: samuel rich

2



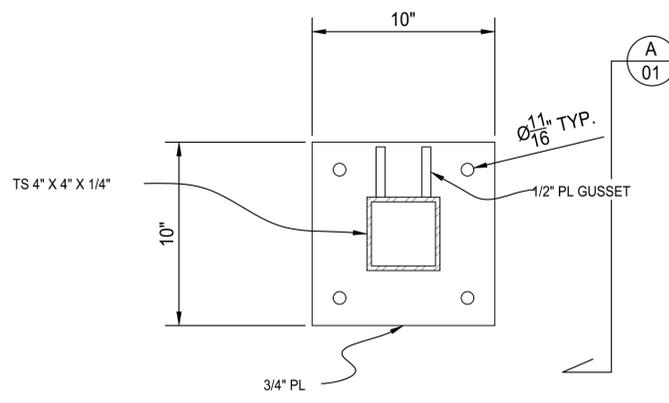
ELECTRICAL ENCLOSURE DETAIL
NOT TO SCALE

RISER DIAGRAM:

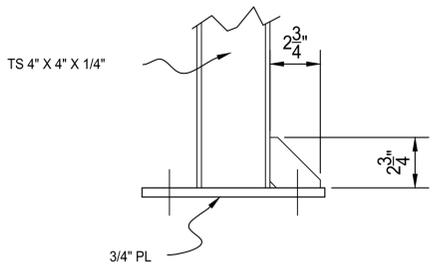
- A. NEW FEED FROM POWER COMPANY
480 VOLT, 3 PHASE, 400 AMP SERVICE
- B. 4" CONDUIT WITH CABLE AND GROUND
- C. NEW 400 AMP, 480 VOLT, 3 PHASE METER
- D. CT CONTROL PANEL
- E. TRANSFORMER DISCONNECT
3 PHASE, 4W, 480 VOLT, 200 AMP WITH
AMP FUSES
- G. 100 KVA 480/208/120 VOLT TRANSFORMER
- H. PANEL 208/120 VOLT, 3 PHASE, WITH 225
AMP MAIN BREAKER

NOTES:

- 1. ALL CABINET SHALL BE AT LEAST NEM-3R
AND SHALL BE NEMA-4X WHERE POSSIBLE



TYPICAL BASE PLATE DETAIL
ALUMINUM

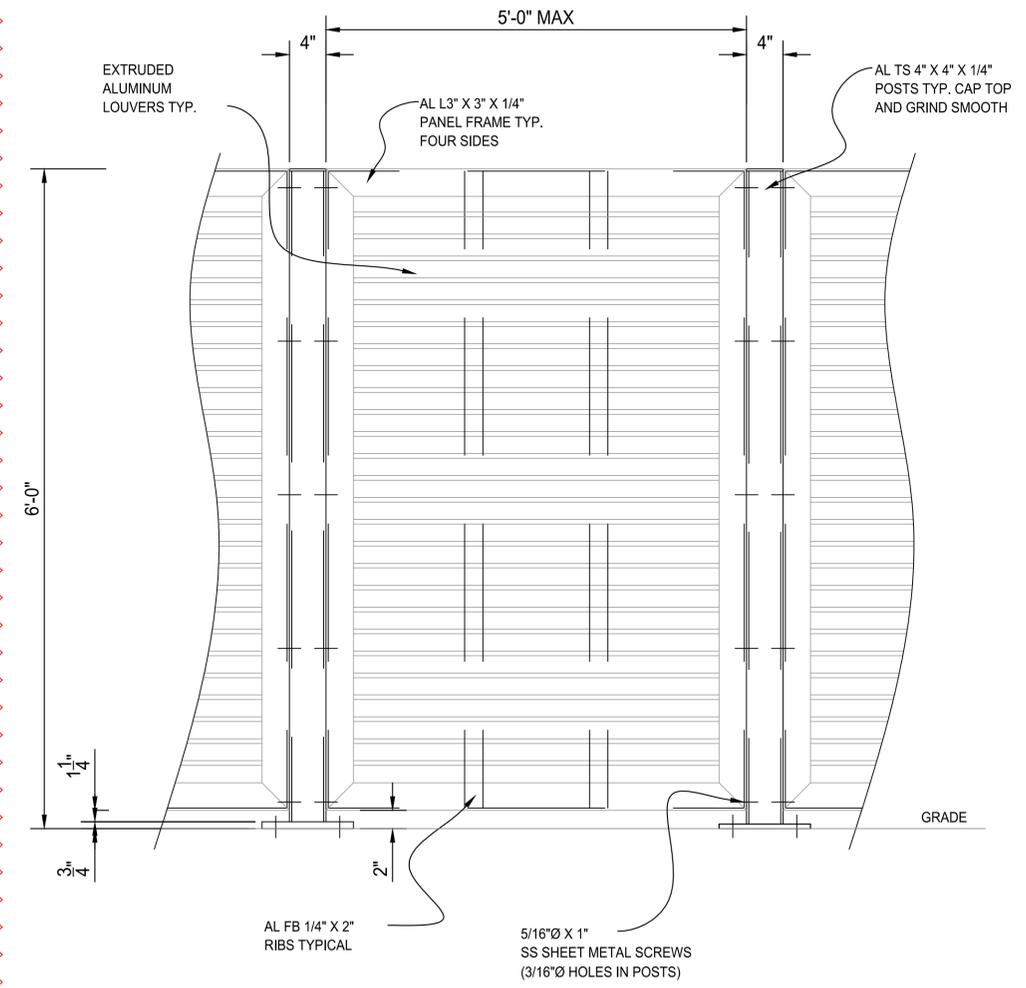


TYPICAL GUSSET DETAIL
ALUMINUM



PLAN VIEW

2



ELEVATION VIEW

TYPICAL LOUVER FENCE DETAIL

NOTES:
ELECTRIC ENCLOSURE FENCE AND GATE TO BE PALM
SHIELD ATLAS HORIZONTAL LOUVERS.

| NO. | BY | DATE | DESCRIPTION |
|-----|-----|------------|--|
| 2 | SAR | 04/16/2021 | FENCE PANEL DETAIL UPDATED WITH MANUFACTURER AND DIMENSIONS. |

| | |
|--------------------------|------------------|
| SCALE: SEE GRAPHIC SCALE | |
| DRAWN: EW | DATE: 03/29/2021 |
| CHECKED: SR | DATE: 03/29/2021 |
| APPROVED: JG | DATE: 03/29/2021 |
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DETAILS
 SLACK PLAZA RENOVATIONS
 CHARLESTON, WEST VIRGINIA
 03/29/2021
 CONSTRUCTION DOCUMENTS

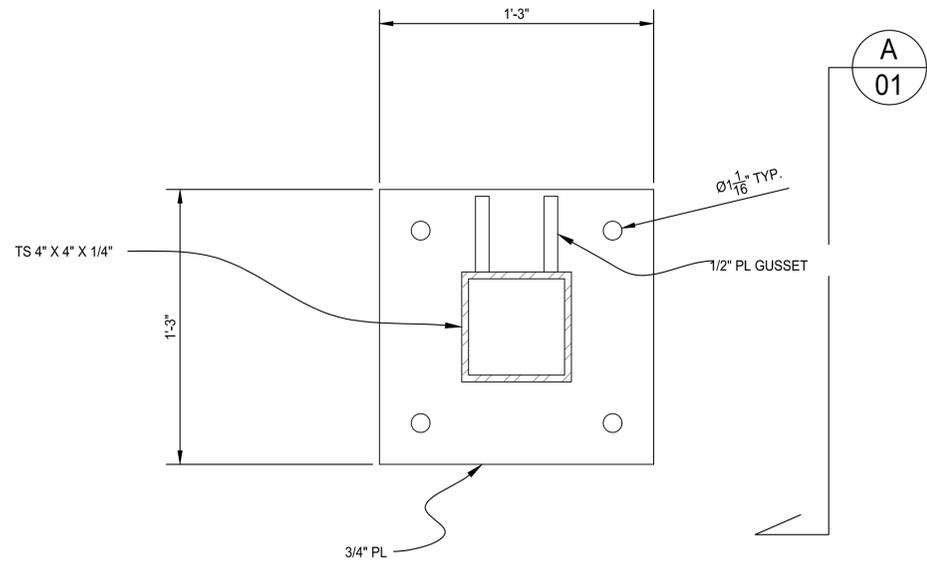
SHEET No.
C10.09

USER: samuel rich

LAYOUT: C10.10 DETAILS

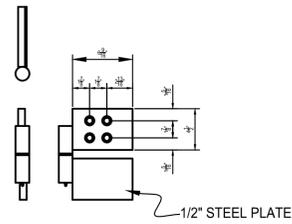
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CAD FILE: R:\030\030-10146 - CHARLESTON SLACK PLAZA\Drawing\10146-DETAILS.dwg

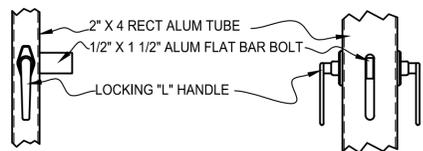


TYPICAL BASE PLATE DETAIL

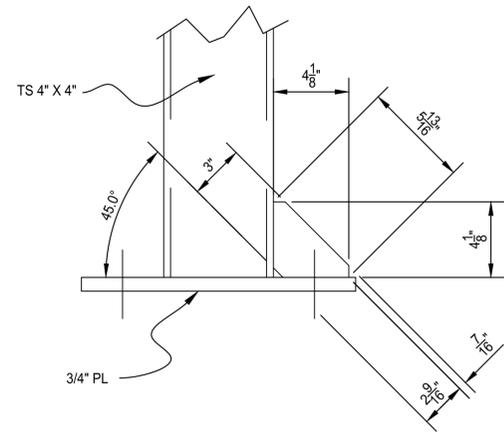
STEEL



HINGE DETAIL
 ZERK END IS FEMALE
 FIELD WELD TO POST
 MALE END ATTACHES TO GATE
 MALE DOWN FOR GATE LIFT OFF
 A "STOP" CAN BE WELDED TO THE GATE POST
 ABOVE THE HINGE TO PREVENT LIFT OFF

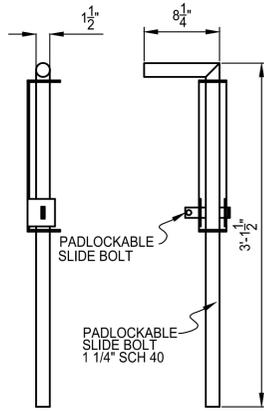


GATE LATCH DETAIL

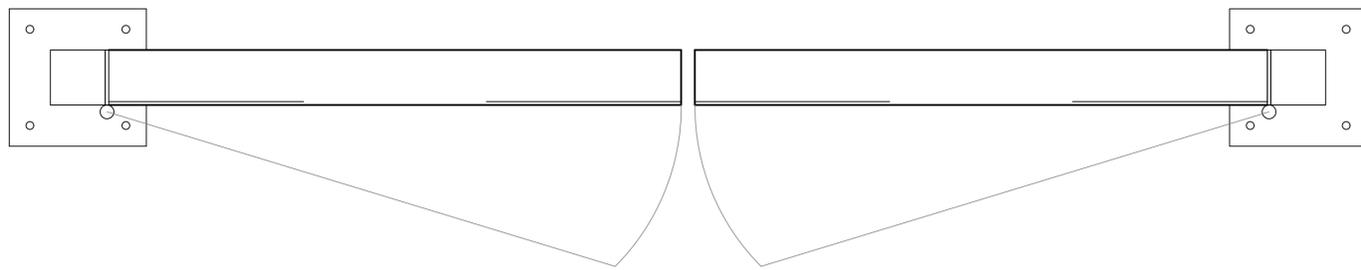


TYPICAL GUSSET DETAIL

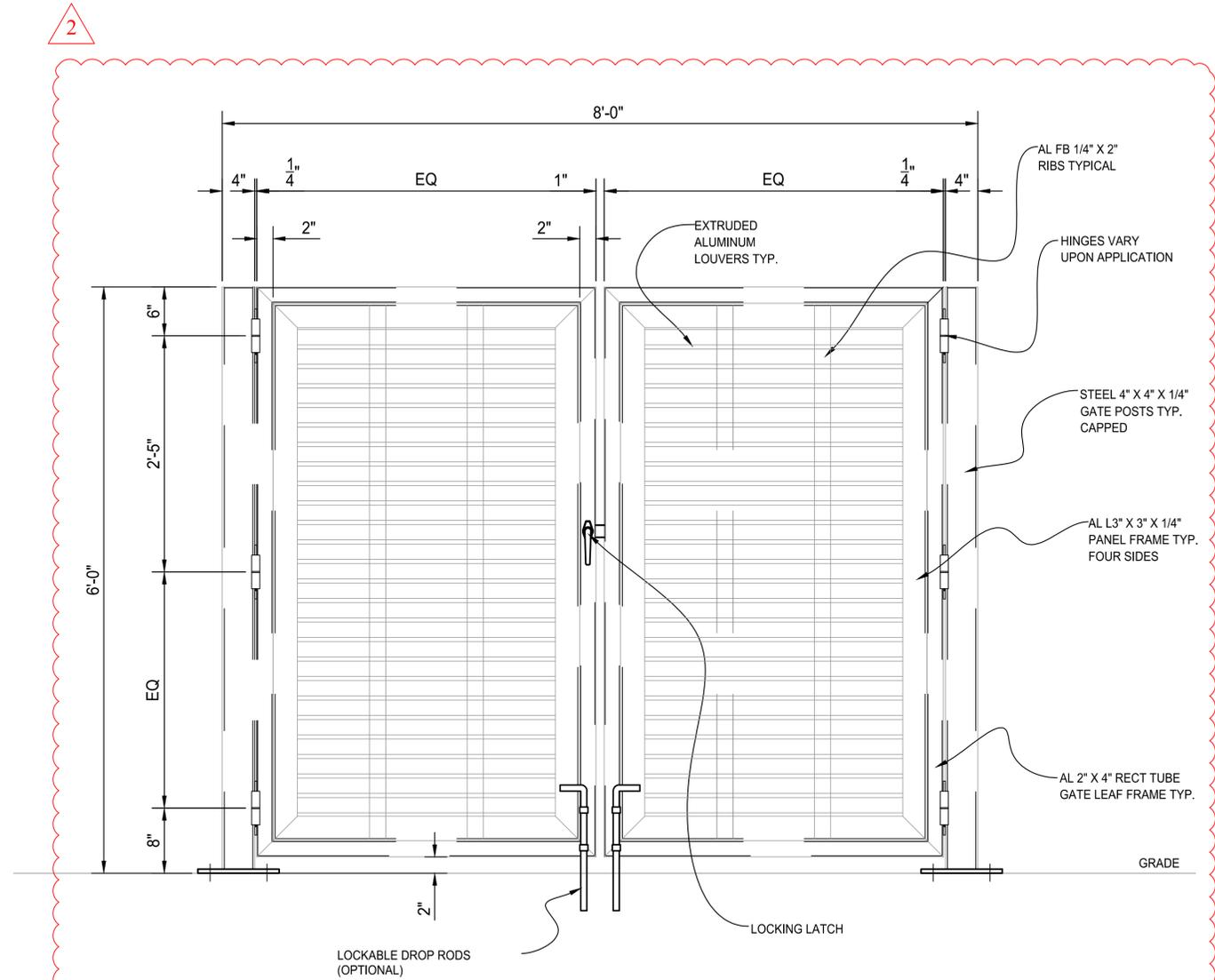
STEEL



DROP ROD DETAIL



PLAN VIEW



ELEVATION VIEW

DOUBLE DRIVE GATE ASSEMBLY
OPENING DIRECTION MAY VARY

NOTES:

ELECTRIC ENCLOSURE FENCE AND GATE TO BE PALM SHIELD ATLAS HORIZONTAL LOUVERS.

| NO. | BY | DATE | DESCRIPTION |
|-----|-----|------------|---|
| 2 | SAR | 04/16/2021 | GATE DETAIL UPDATED WITH MANUFACTURER AND DIMENSIONS. |

| | |
|--------------------------|------------------|
| SCALE: SEE GRAPHIC SCALE | |
| DRAWN: EW | DATE: 03/29/2021 |
| CHECKED: SR | DATE: 03/29/2021 |
| APPROVED: JG | DATE: 03/29/2021 |
| SURVEY DATE: | |
| SURVEY BY: | |
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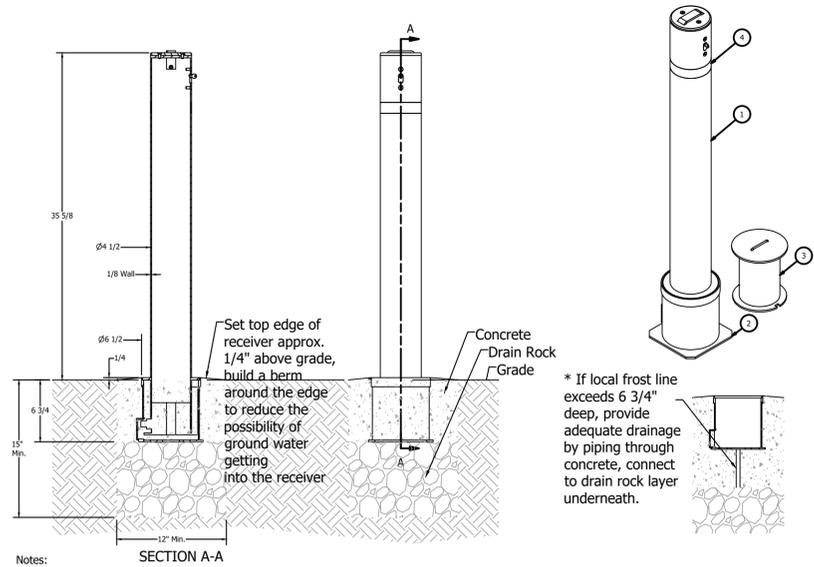
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| CHARLESTON, WEST VIRGINIA | |
| 03/29/2021 | |
| CONSTRUCTION DOCUMENTS | |

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| SHEET No. |
| C10.10 |

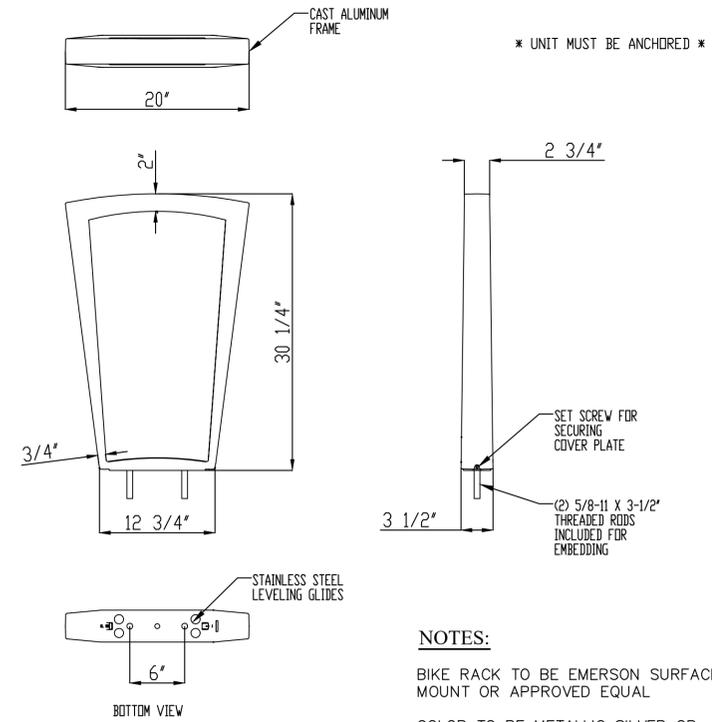


SECTION A-A

- Notes:
- Embedment details are for reference illustration only. Minimum foundation sizes depend on local soil conditions, weather conditions, and engineering requirements.
 - Bollard is provided as shown, with parts listed below. Concrete foundation and/or installation not provided by Reliance Foundry.
 - This drawing is not drawn to scale. Dimensions provided herein is for reference only. Please consult Reliance Foundry sales professionals if any dimension is critical to your particular installation.
 - Reliance Foundry reserves the right to amend design and specifications without prior notice for product improvement.

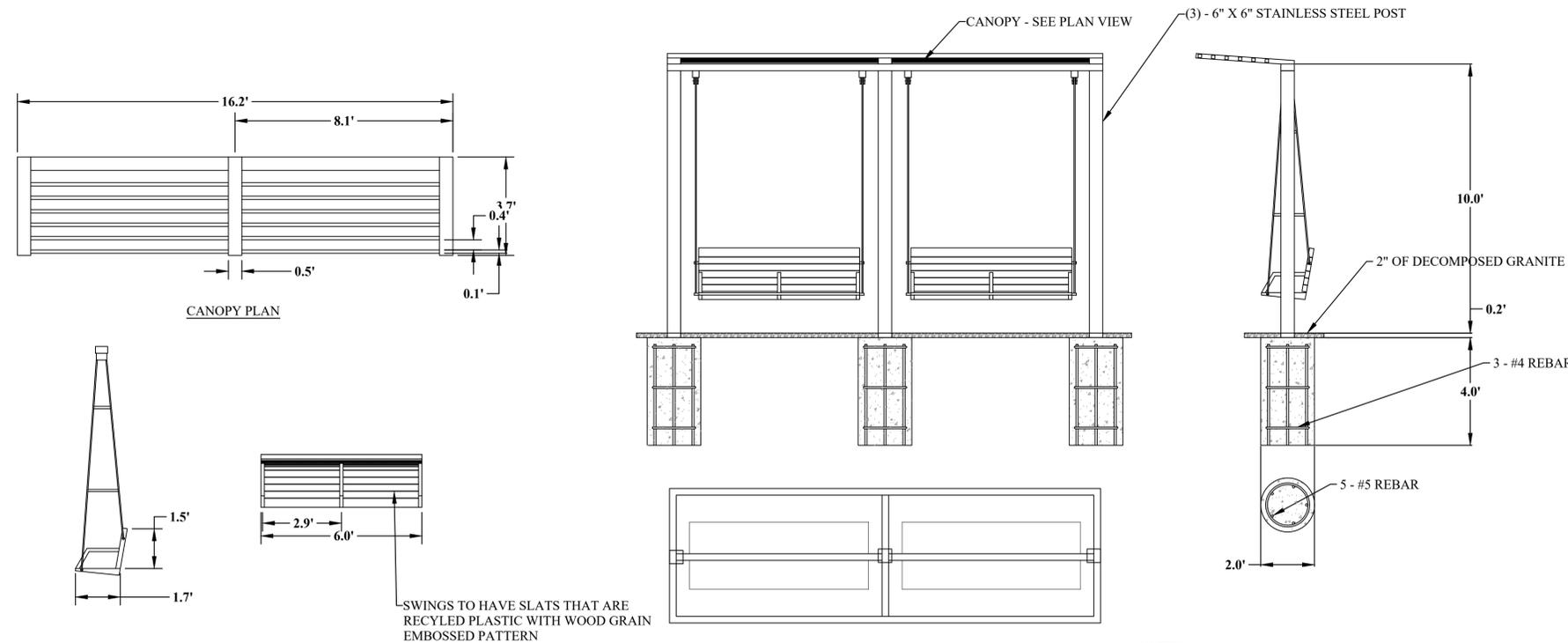
| PARTS LIST | | | | | |
|------------|-----|----------------------------|---|--------------------------|-----------|
| ITEM | QTY | PART NUMBER | DESCRIPTION | MATERIAL | WEIGHT |
| 1 | 1 | RB464 | RB464 Removable Bollard Assembly | Stainless Steel 316 | 25 lbs |
| 2 | 1 | RB464R | RB464R Removable Bollard Receiver | Steel Hot Dip Galvanized | 7 3/4 lbs |
| 3 | 1 | RB464RC | RB464RC Removable Bollard Receiver Cover | Steel Hot Dip Galvanized | 5 3/8 lbs |
| 4 | 1 | Reflective Tape (Optional) | Optional Reflective Tape, Max. 1-1/8" Width | Plastic | |

REMOVABLE STEEL PROTECTIVE BOLLARD
NOT TO SCALE



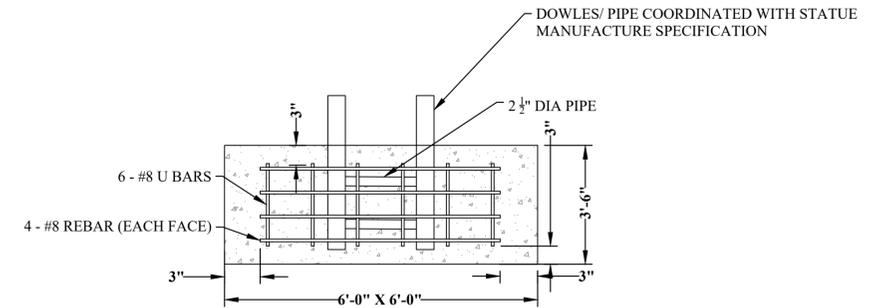
- NOTES:
- BIKE RACK TO BE EMERSON SURFACE MOUNT OR APPROVED EQUAL
 - COLOR TO BE METALLIC SILVER OR APPROVED EQUAL

BIKE RACK DETAIL
NOT TO SCALE



CUSTOM SWING DETAIL
NOT TO SCALE

- NOTES:
- ALL SWING PARTS TO BE FABRICATED STAINLESS STEEL EXCEPT FOR THE SEATING SURFACE SLATS AS NOTED IN THE DETAIL.
 - MANUFACTURER - BOMAR CUSTOM METAL FABRICATION
 - ADAM LEE - (317) 430-0680



STATUE FOUNDATION DETAIL
NOT TO SCALE

USER: samuel rich

LAYOUT: C10.11 DETAILS

PLOT DATE/TIME: 4/16/2021 10:28 AM

CAD FILE: R:\030\030-10146 - CHARLESTON SLACK PLAZA\Drawing\10146-DETAILS.dwg

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| 2 | SAR | 04/16/2021 | CUSTOM SWING DETAIL REVISED |

| SCALE: SEE GRAPHIC SCALE | |
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| DRAWN: EW | DATE: 03/29/2021 |
| CHECKED: SR | DATE: 03/29/2021 |
| APPROVED: JG | DATE: 03/29/2021 |
| SURVEY DATE: | |
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| PROJECT No. | 030-10284.00 |

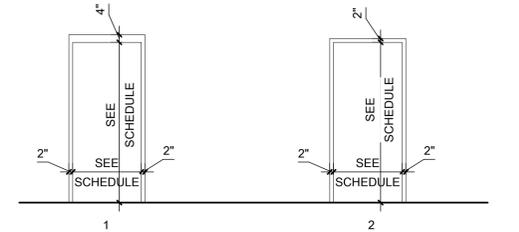
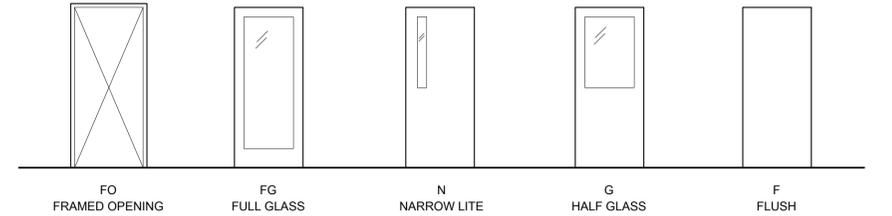
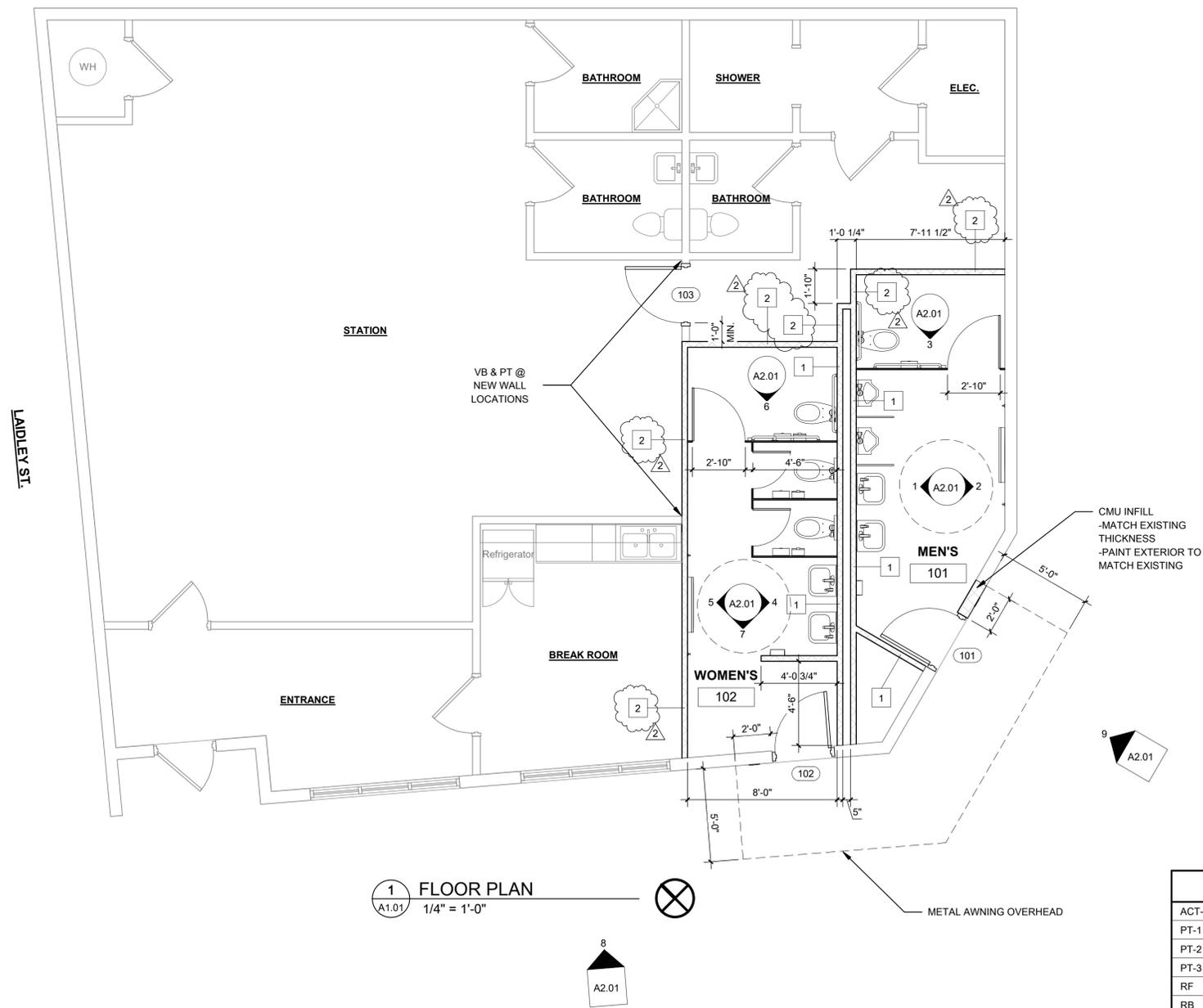
DETAILS
SLACK PLAZA RENOVATIONS
CHARLESTON, WEST VIRGINIA
03/29/2021
CONSTRUCTION DOCUMENTS

SHEET No.
C10.11

- GENERAL NOTES:**
- SEE PLUMBING, MECHANICAL, & ELECTRICAL SHEETS FOR ADDITIONAL INFORMATION.
 - SEE ELEVATIONS FOR DIMENSIONS.

| DOOR SCHEDULE | | | | | | | | | | | | | | |
|---------------|------|-------|--------|-----------|----------|----------------|------------|-------------|----------------|--------------|-------------|--------------|-----------|----------|
| # | DOOR | | | | | | FRAME | | | | FIRE RATING | HARDWARE SET | ASSEMBLY | COMMENTS |
| | TYPE | WIDTH | HEIGHT | THICKNESS | MATERIAL | FINISH | FRAME TYPE | FRAME DEPTH | FRAME MATERIAL | FRAME FINISH | | | | |
| 101 | F | 3'-0" | 7'-0" | 1 3/4" | GALV HM | PT-3 | 1 | 5 3/4" | GALV HM | PT-3 | - | 1 | INSULATED | |
| 102 | F | 3'-0" | 7'-0" | 1 3/4" | GALV HM | PT-3 | 1 | 5 3/4" | GALV HM | PT-3 | - | 1 | INSULATED | |
| 103 | F | 3'-0" | 7'-0" | 1 3/4" | WD | MATCH EXISTING | 2 | 5 3/4" | HM | PT-3 | - | 2 | | |

| ROOM FINISH SCHEDULE | | | | | | | | | |
|----------------------|------------|--------------|------|-------------|------|-------|-------|----------------|---------|
| ROOM # | ROOM NAME | FLOOR FINISH | BASE | WALL FINISH | | | | CEILING FINISH | REMARKS |
| | | | | NORTH | EAST | SOUTH | WEST | | |
| 101 | MEN'S | RF | RB | PT-1 | PT-1 | PT-1 | PT-2 | | |
| 102 | WOMEN'S | RF | RB | PT-1 | PT-1 | PT-1 | PT-2 | | |
| 108 | BREAK ROOM | - | VB | - | PT-1 | - | ACT-1 | | |
| 112 | HALL | - | VB | - | - | PT-1 | ACT-1 | | |



NEW CONSTRUCTION LEGEND

- EXISTING TO REMAIN
- NEW CONSTRUCTION

FINISH LEGEND

| | | |
|-------|---------------------------------|--|
| ACT-1 | ACOUSTICAL CEILING TILE W/ GRID | MATCH EXISTING |
| PT-1 | PAINT | SHERWIN WILLIAMS; SW 7015 REPOSE GRAY; SATIN W/ ANTI-GRAFFITI COATING; WALLS |
| PT-2 | PAINT | SHERWIN WILLIAMS; SW 7757 HIGH REFLECTIVE WHITE; FLAT W/ ANTI-GRAFFITI COATING; CEILING |
| PT-3 | PAINT | SHERWIN WILLIAMS; SW 0077 FRENCH GRAY; SEMI-GLOSS W/ ANTI-GRAFFITI COATING; DOORS & FRAMES |
| RF | RESINOUS FLOORING | STONEHARD; STONSHIELD; STEEL GRAY |
| RB | RESINOUS BASE | STONEHARD; STONSHIELD; STEEL GRAY |
| VB | VINYL BASE | MATCH EXISTING |

1 FLOOR PLAN
A1.01 1/4" = 1'-0"

LAYOUT TAB: FLOOR PLAN; PLOT DATE/TIME: 4/15/2021 4:45:13 PM; USER: RJS; CAD FILE: R:\030020\10284\00\City of Charleston - Slack Plaza Renovations\Drawings\Arch\Rev\Slack Plaza Restroom_A_2011.rvt

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|-----|-----|------------|-------------|
| 2 | RJS | 04/16/2021 | ADDENDUM #2 |

| | |
|---------------------|------------------|
| SCALE: 1/4" = 1'-0" | DATE: 03/10/2021 |
| DRAWN: RJS | DATE: 03/10/2021 |
| CHECKED: RJS | DATE: 03/10/2021 |
| APPROVED: RJS | DATE: 03/10/2021 |
| SURVEY DATE: | |
| SURVEY BY: | |
| FIELD BOOK No.: | |

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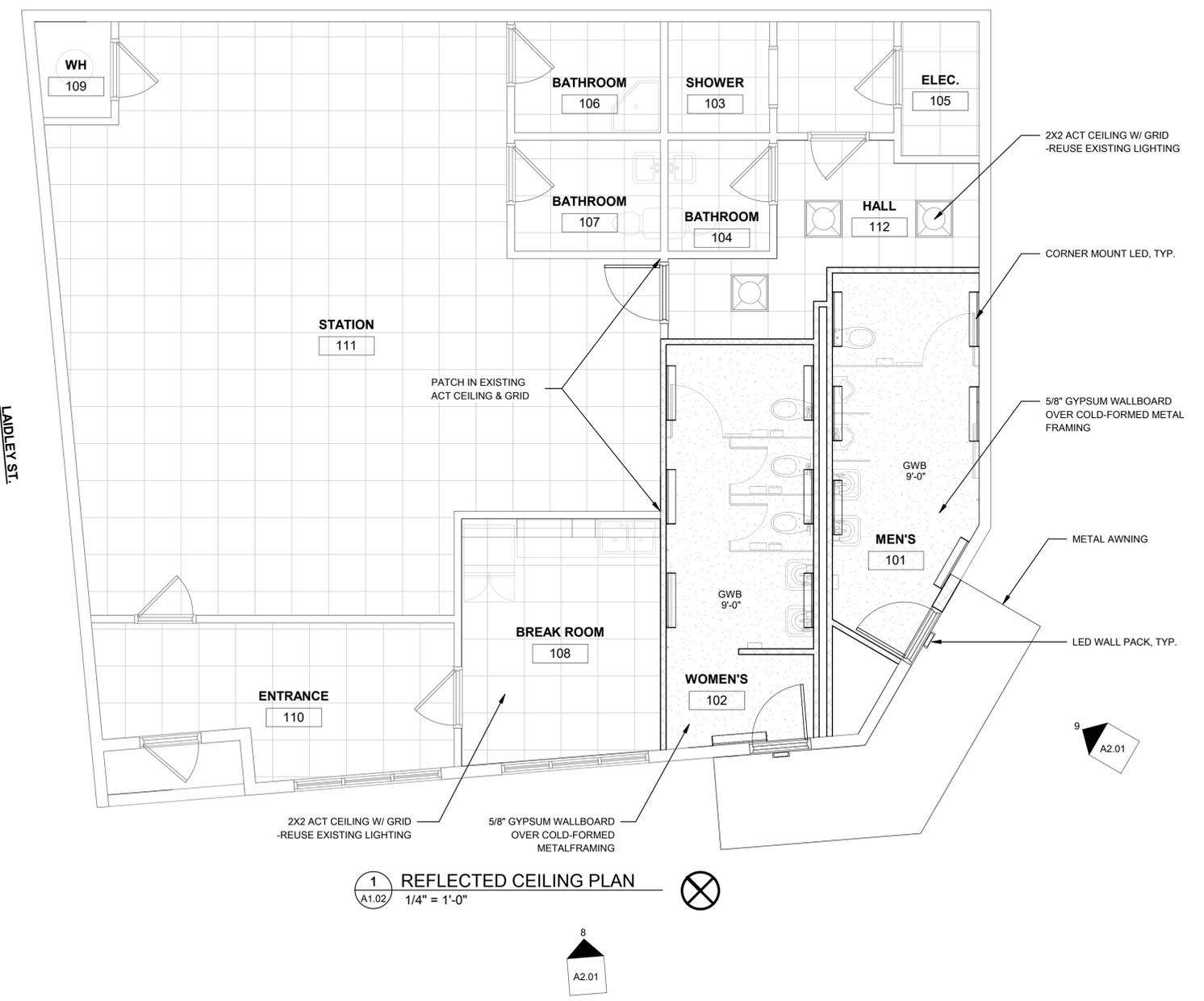
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| PHASE No. | |
| CONTRACT No. | |
| PROJECT No. | 030-10284.00 |

FLOOR PLAN
SLACK PLAZA RENOVATIONS
CHARLESTON, WEST VIRGINIA
03/29/2021
CONSTRUCTION DOCUMENTS

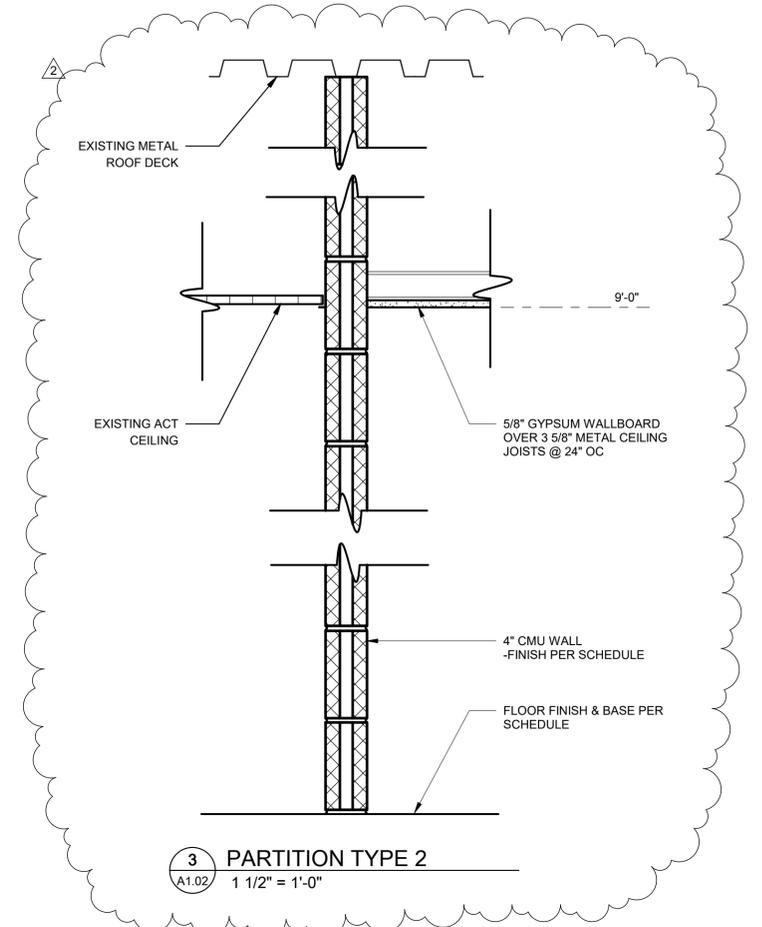
SHEET No.

A1.01

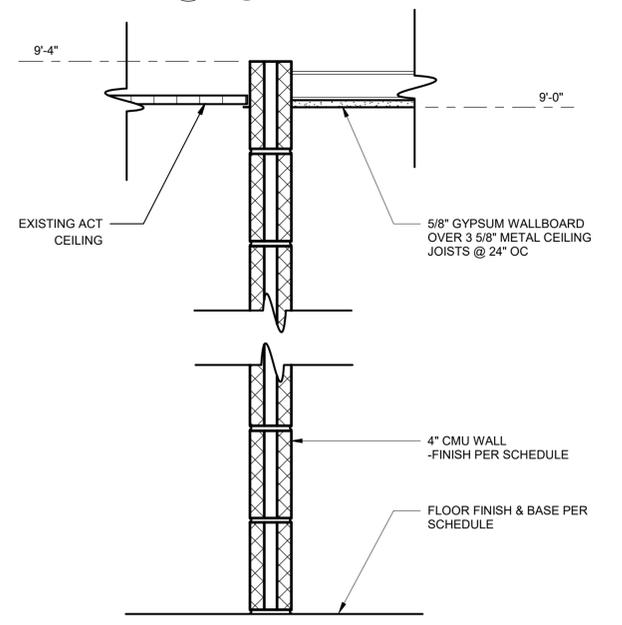
- GENERAL NOTES:**
- SEE PLUMBING, MECHANICAL, & ELECTRICAL SHEETS FOR ADDITIONAL INFORMATION.
 - SEE ELEVATIONS FOR DIMENSIONS.



1 REFLECTED CEILING PLAN
A1.02 1/4" = 1'-0"



3 PARTITION TYPE 2
A1.02 1 1/2" = 1'-0"



2 PARTITION TYPE 1
A1.02 1 1/2" = 1'-0"

| REFLECTED CEILING PLAN LEGEND | |
|-------------------------------|--|
| 2'x2' ACOUSTICAL CEILING TILE | |
| 2'x4' ACOUSTICAL CEILING TILE | |
| GYPSUM WALLBOARD CEILING | |
| SUPPLY DIFFUSER | |
| RETURN AIR GRILL | |
| 2X2 LIGHT FIXTURE | |
| LED WALL PACK | |
| CORNER MOUNT LED | |
| BULKHEAD | |
| WALLS BELOW | |

| NO. | BY | DATE | DESCRIPTION |
|-----|-----|------------|-------------|
| 2 | RJS | 04/16/2021 | ADDENDUM #2 |

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| SCALE: As Indicated | DATE: 01/21/21 |
| DRAWN: JSA | DATE: 01/21/21 |
| CHECKED: RJS | DATE: 01/21/21 |
| APPROVED: RJS | DATE: 01/21/21 |
| SURVEY DATE: | |
| SURVEY BY: | |
| FIELD BOOK No.: | |

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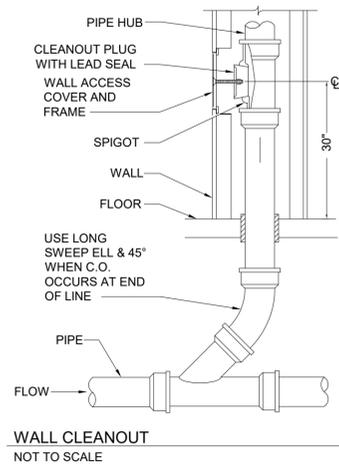
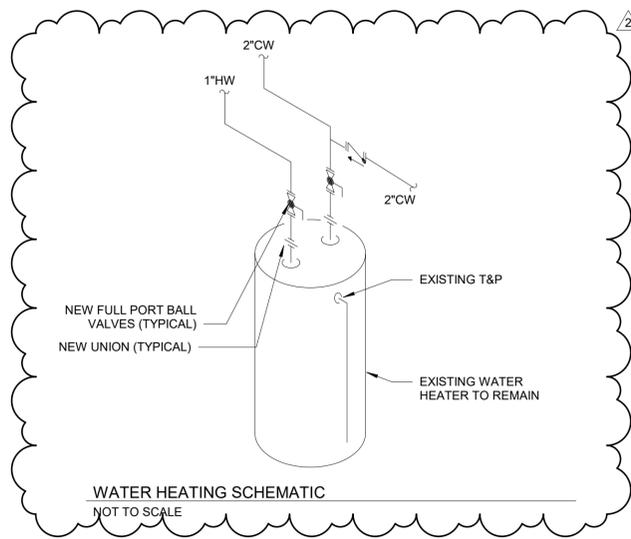
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| PHASE No. | |
| CONTRACT No. | |
| PROJECT No. | 030-10284.00 |

REFLECTED CEILING PLAN
 SLACK PLAZA RENOVATIONS
 CHARLESTON, WEST VIRGINIA
 03/29/2021
 CONSTRUCTION DOCUMENTS

SHEET No.
A1.02

LAYOUT TAB: REFLECTED CEILING PLAN
 CAD FILE: R:\030020\10284\0284.dwg
 PLOT DATE/TIME: 4/15/2021 4:55:58 PM
 USER: JSA
 FILE: R:\030020\10284\0284.dwg
 USER: JSA



GENERAL PLUMBING NOTES

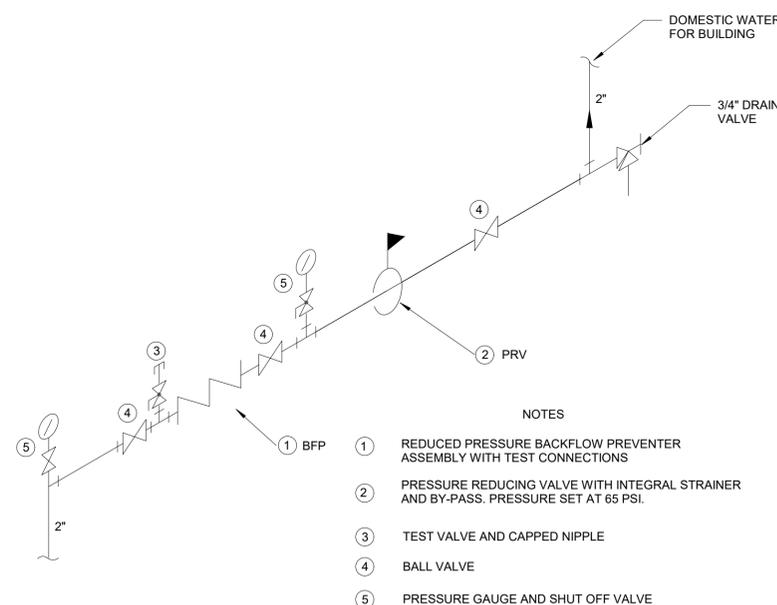
- PERFORM ALL WORK IN ACCORDANCE WITH CURRENT EDITION OF INTERNATIONAL PLUMBING CODE AND ALL APPLICABLE LOCAL CODES AND ORDINANCES.
- CONTRACTOR SHALL VISIT SITE TO VERIFY ALL EXISTING CONDITIONS THAT MAY AFFECT WORK.
- CONTRACT SHALL INCLUDE ALL MATERIALS, LABOR, TOOLS, ETC., FOR A COMPLETE AND OPERABLE INSTALLATION. ALL MATERIALS SHALL BE NEW, SPECIFICATION GRADE, AND U.L. LISTED PRODUCTS, UNLESS NOTED OTHERWISE.
- COORDINATE ALL WORK AND SCHEDULES WITH OWNER, ARCHITECT, OTHER CONTRACTORS AND BUILDING MANAGEMENT.
- STORE MATERIALS WHERE DIRECTED. PROTECT STORED MATERIALS AND INSTALLED WORK FROM DAMAGE. REPLACE ALL DAMAGED ITEMS WITH NEW.
- REMOVE DIRT, DEBRIS AND UNUSED MATERIALS FROM SITE REGULARLY AND DISPOSE OF BY PROPER AND LEGAL METHODS.
- PROVIDE UNIONS AND VALVES AT ALL EQUIPMENT.
- PROVIDE PROPER SEALS AND FIRE STOPPING AT ALL WALL, FLOOR AND CEILING PENETRATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS AND RATINGS FOR WALLS, FLOORS, AND CEILINGS.
- PERFORM TESTING AND MAKE FINAL ADJUSTMENTS TO VERIFY PROPER PERFORMANCE OF ALL SYSTEMS AND EQUIPMENT.
- MAINTAIN "AS BUILT" RECORDS OF ALL INSTALLED ITEMS AND PROVIDE TO ARCHITECT AT PROJECT COMPLETION.
- MOUNT ALL HANDICAP ACCESSIBLE DEVICES AND EQUIPMENT PER UNIFORM FEDERAL ACCESSIBILITY STANDARDS (UFAS)
- COORDINATE ALL SANITARY, VENT AND DOMESTIC PIPING ELEVATIONS WITH OTHER CONTRACTORS PRIOR TO INSTALLING ANY PIPING.
- PIPING SHALL NOT BE ROUTED ABOVE ELECTRIC PANELS.

GENERAL NOTES

- ALL WORK SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE INTERNATIONAL PLUMBING CODE & LOCAL AUTHORITIES HAVING JURISDICTION.
- ALL PIPING IN EXTERIOR WALLS TO BE RUN ON BUILDING SIDE OF INSULATION.
- PIPING LAYOUT IS SCHEMATIC. EXACT LOCATIONS OF PIPES TO BE COORDINATED WITH BUILDING STRUCTURE AND WORK OF OTHER TRADES.
- MINIMUM PIPE SLOPE ON THE DRAINAGE AND VENT SYSTEM WITHIN THE BUILDING:
 - ALL PIPE UP TO AND INCLUDING 3" SHALL SLOPE AT LEAST 1/4" PER FOOT.
 - ALL PIPE 4" AND LARGER SHALL SLOPE AT LEAST 1/8" PER FOOT.
- PIPING SHALL NOT BE ROUTED ABOVE ELECTRIC PANELS.
- COORDINATE PIPING IN TOILET AREAS WITH RECESSED TOILET ACCESSORIES. OFFSET PIPING AS REQUIRED TO ALLOW RECESS OF THESE ITEMS. SEE ENLARGED TOILET PLANS FOR LOCATIONS.

PLUMBING SYMBOLS

| SYMBOL | DESCRIPTION |
|----------------|-------------------------|
| --- | COLD WATER LINE |
| --- | HOT WATER LINE |
| --- | HOT WATER RECIRC. LINE |
| --- | SANITARY SEWER LINE |
| --- | VENT LINE |
| (A) | PLAN NOTE |
| HB | HOSE BIB |
| ○ | TURN UP OR FROM BELOW |
| ○ | TURN DOWN |
| (E)VTR | EXISTING VENT THRU ROOF |
| ○ | BALL VALVE |
| FCO | FLOOR CLEANOUT |
| SCO | SURFACE CLEANOUT |
| FD | FLOOR DRAIN WITH TRAP |
| (E)MANHOLE | EXISTING MANHOLE |
| (E)WATER METER | EXISTING WATER METER |
| ⊗ | CONNECT TO EXISTING |



DOMESTIC WATER SUPPLY DIAGRAM
NOT TO SCALE

FIXTURE SCHEDULE

| MARK | DESCRIPTION | HW | CW | SAN | VENT | MOUNTING HEIGHT |
|-------|--|------|------|-----|------|-------------------|
| LAV-1 | LAVATORY: SLOAN MODEL #SS-3308 WHITE VITREOUS CHINA SINGLE HOLE WITH RIGHT HAND SOAP HOLE. FAUCET: SLOAN MODEL #RES-801-CP FAUCET & SOAP COMBO. ELECTRONIC BATTERY POWERED SENSOR OPERATED. POLISHED CHROME FINISH. PROVIDE A FLOOR MOUNTED CARRIER. | 1/2" | 1/2" | 2" | 2" | WALL-MOUNTED ADA |
| WC-1 | WATER CLOSET: SLOAN MODEL #ST-2009 1.6 GPF ELONGATED WATER CLOSET. SENSOR FLUSHOMETER: SLOAN MODEL #G2 8111-1.6. BATTERY POWERED SENSOR OPERATED. POLISHED CHROME FINISH. | --- | 1" | 3" | 2" | FLOOR-MOUNTED |
| WC-1H | ADA WATER CLOSET: SLOAN MODEL #ST-2009 1.6 GPF ELONGATED ADA WATER CLOSET. SENSOR FLUSHOMETER: SLOAN MODEL #G2 8111-1.6. BATTERY POWERED SENSOR OPERATED. POLISHED CHROME FINISH. | --- | 1" | 3" | 2" | FLOOR-MOUNTED ADA |
| UR-1 | URINAL: SLOAN MODEL #SU-1009 1.0 GPF STANDARD WASHDOWN URINAL. PROVIDE A WALL CARRIER. SENSOR FLUSHOMETER: SLOAN MODEL #G2 8186-1.0. BATTERY POWERED SENSOR OPERATED. POLISHED CHROME FINISH. | --- | 1" | 2" | 2" | WALL-MOUNTED |
| UR-1H | URINAL: SLOAN MODEL #SU-1009 1.0 GPF STANDARD WASHDOWN URINAL. PROVIDE A WALL CARRIER. SENSOR FLUSHOMETER: SLOAN MODEL #G2 8186-1.0. BATTERY POWERED SENSOR OPERATED. POLISHED CHROME FINISH. | --- | 1" | 2" | 2" | WALL-MOUNTED ADA |

SPECIALTY SCHEDULE

| MARK | MANUFACTURE | MODEL | DESCRIPTION | REMARKS |
|------|-------------|-------------|-------------------------------------|---|
| BFP | WATTS | LF09M2QT | REDUCED PRESSURE BACKFLOW PREVENTER | 2" LEAD FREE REDUCED PRESSURE ZONE BACKFLOW PREVENTER. LEAD FREE BRONZE BODY. |
| FD | ZURN | ZS415SS-5SS | FLOOR DRAIN FINISHED AREAS | CAST IRON BODY, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH SEEPAGE SLOTS. HHEEL. PROOF 5" DIAMETER STAINLESS STEEL STRAINER. PROVIDE WITH TRAP PRIMER CONNECTION. |
| WCO | ZURN | Z1445-4 | WALL CLEANOUT | DURA-COATED CAST IRON BODY. GAS AND WATERTIGHT ABS TAPERED THREAD PLUG. |
| TP | MIFAB | M2-500 | TRAP PRIMER | PRESSURE DROP ACTIVATED BRASS TRAP SEAL PRIMER. PRESSURE DROP REQUIRED TO ACTIVATE DEVICE SHALL NOT EXCEED 5 PSI. FOR MULTIPLE DRAIN APPLICATIONS PROVIDE DISTRIBUTION UNITS AS REQUIRED UP TO 3 DRAINS. PROVIDE WITH ACCESS PANEL. |

| NO. | BY | DATE | DESCRIPTION |
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| 2 | FD | 04/16/2021 | ADDENDUM #2 |

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| SCALE: As indicated | DATE: 03/25/21 |
| DRAWN: FD | DATE: 03/25/21 |
| CHECKED: DEB | DATE: 03/25/21 |
| APPROVED: KES | DATE: 03/25/21 |
| SURVEY DATE: | |
| SURVEY BY: | |
| FIELD BOOK No.: | |

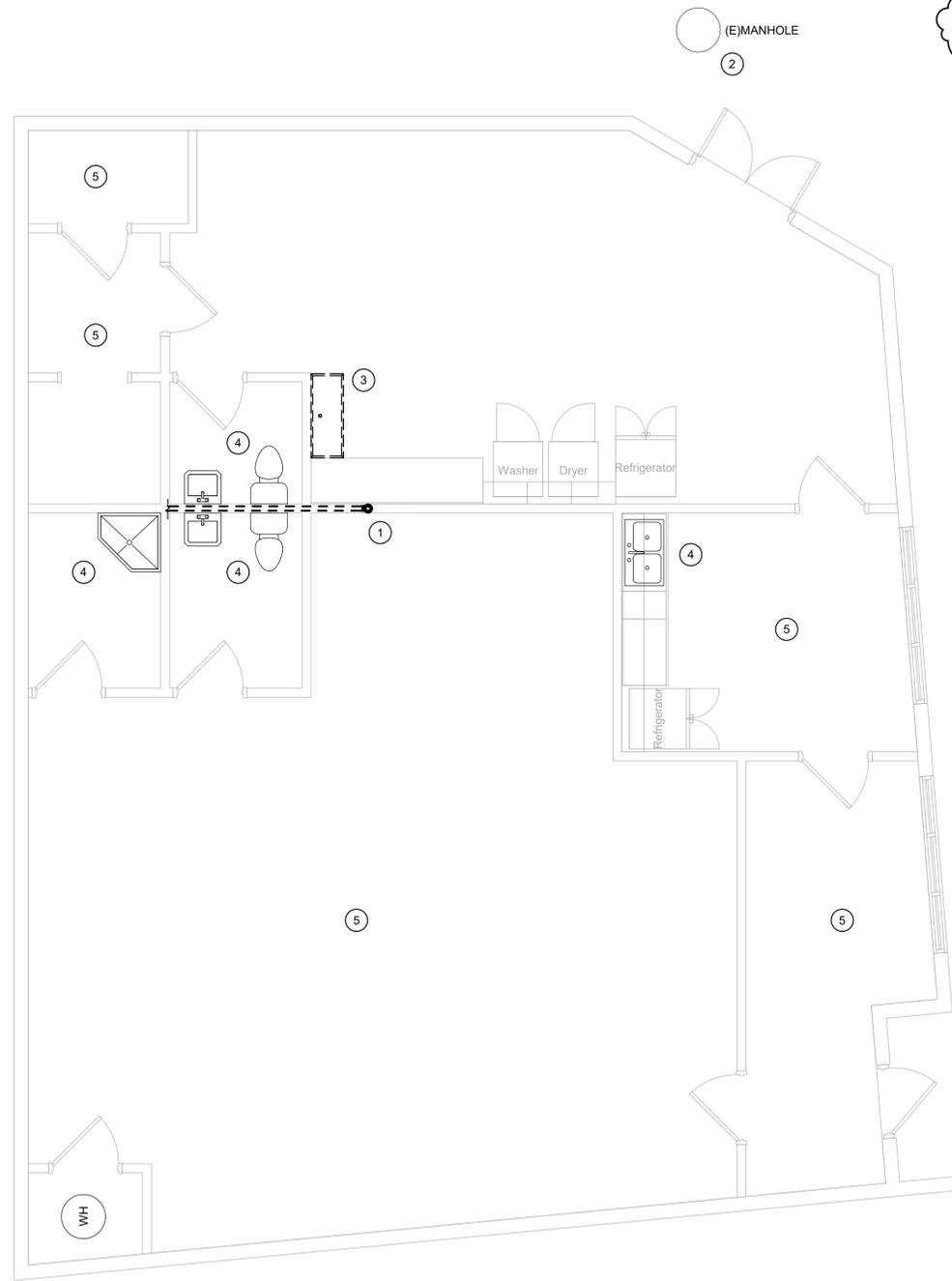
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| PHASE No. | PROJECT No. 030-10284 |
| CONTRACT No. | |

DETAILS, NOTES, SYMBOLS & SCHEDULES - PLUMBING
SLACK PLAZA RENOVATIONS
CHARLESTON, WEST VIRGINIA
03/29/2021
CONSTRUCTION DOCUMENTS

SHEET No.
P1.01

| DEMOLITION SANITARY & VENT KEYNOTES | |
|-------------------------------------|--|
| NOTE# | DESCRIPTION |
| 1 | EXISTING VENT THROUGH ROOF TO REMAIN. |
| 2 | EXISTING SEWER MANHOLE TO REMAIN. |
| 3 | EXISTING DOG WASH TO BE REMOVED. REMOVE EXISTING SANITARY WASTE AND VENT LINE TO MAINS AND CAP BELLOW FLOOR AND ABOVE CEILING. |
| 4 | EXISTING FIXTURES TO REMAIN. |
| 5 | NO WORK IN THIS AREA. |



1 DEMOLITION SANITARY & VENT PLAN
 P2.01 1/4" = 1'-0"

| NO. | BY | DATE | DESCRIPTION |
|-----|----|------------|-------------|
| 2 | FD | 04/16/2021 | ADDENDUM #2 |
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| SCALE: 1/4" = 1'-0" | |
| DRAWN: FD | DATE: 03/25/21 |
| CHECKED: DEB | DATE: 03/25/21 |
| APPROVED: KES | DATE: 03/25/21 |
| SURVEY DATE: | |
| SURVEY BY: | |
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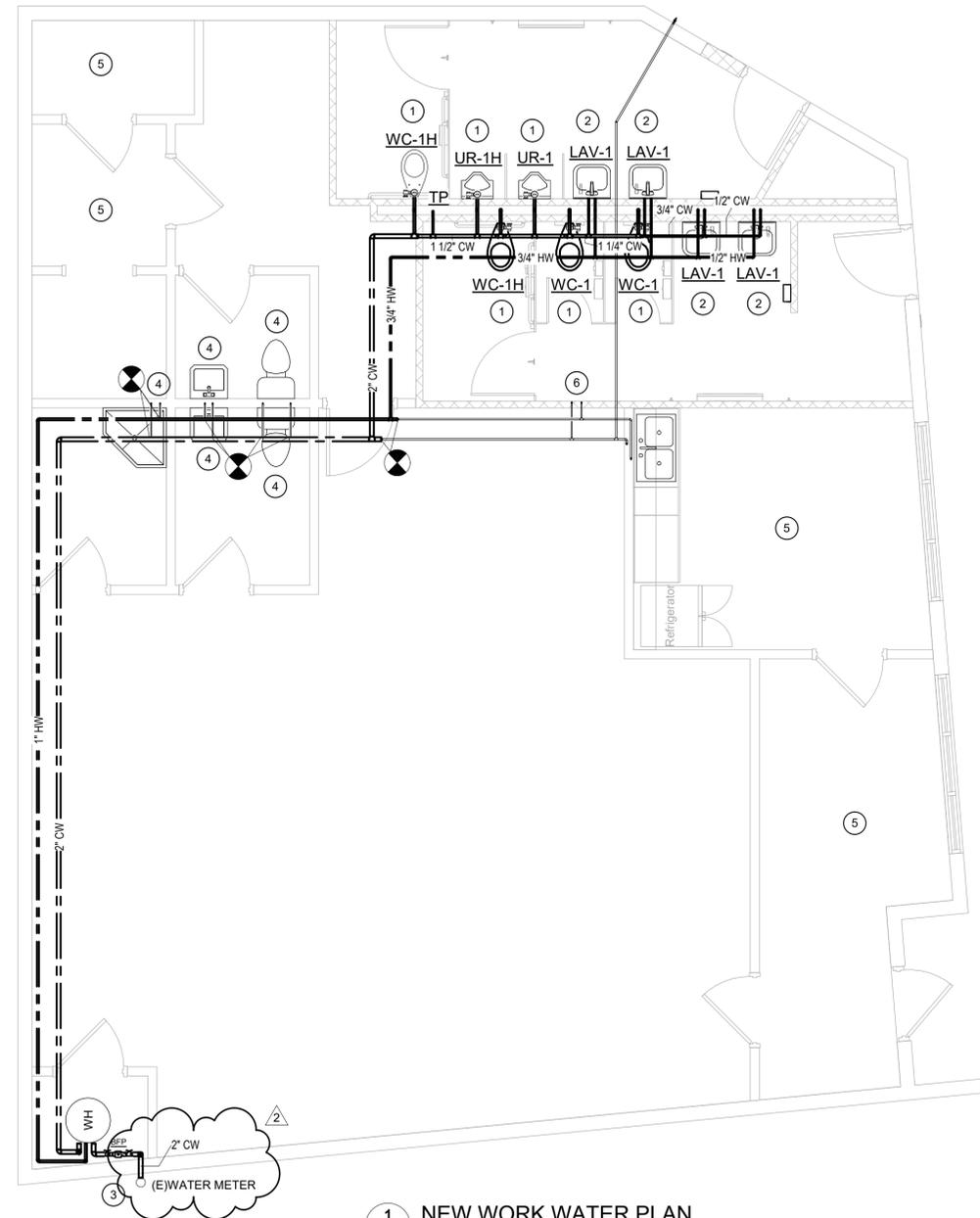
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| PHASE No. |
| CONTRACT No. |
| PROJECT No. |
| 030-10284 |

DEMOLITION SANITARY & VENT FLOOR PLAN - PLUMBING
 SLACK PLAZA RENOVATIONS
 CHARLESTON, WEST VIRGINIA
 03/29/2021
 CONSTRUCTION DOCUMENTS

SHEET No.
P2.01

LAYOUT TAB: NEW WORK WATER FLOOR PLAN - PLUMBING
 CAD FILE: C:\Users\jwh\Documents\SLACK PLAZA\MEP_mrozak.rvt
 PLOT DATE/TIME: 4/16/2021 8:00:07 AM
 USER: FD

| NEW WORK WATER PLAN KEYNOTES | |
|------------------------------|--|
| NOTE# | DESCRIPTION |
| 1 | 1" COLD WATER PIPE DOWN. |
| 2 | 1/2" HOT AND COLD WATER PIPE DOWN. |
| 3 | NEW 2" SUPPLY WATER PIPE TO EXISTING WATER METER. |
| 4 | CONNECT EXISTING WATER LINE FROM EXISTING FIXTURE TO NEW WATER LINE. |
| 5 | NO WORK IN THIS AREA. |
| 6 | CAP HOT AND COLD WATER LINE ABOVE CEILING. |



1 NEW WORK WATER PLAN
 1/4" = 1'-0"

| NO. | BY | DATE | DESCRIPTION |
|-----|----|------------|-------------|
| 2 | FD | 04/16/2021 | ADDENDUM #2 |
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SCALE: 1/4" = 1'-0"
 DRAWN: FD DATE: 03/25/21
 CHECKED: DEB DATE: 03/25/21
 APPROVED: KES DATE: 03/25/21
 SURVEY DATE:
 SURVEY BY:
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| CONTRACT No. | |
| PROJECT No. | 030-10284 |

NEW WORK WATER FLOOR PLAN - PLUMBING
 SLACK PLAZA RENOVATIONS
 CHARLESTON, WEST VIRGINIA
 03/29/2021
 CONSTRUCTION DOCUMENTS

SHEET No.
P3.02

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| ROOF EXHAUST FAN SCHEDULE | | | | | | | | | | | | | |
|---|--------------|--------------|--------------|-----|----------|------|-------|------|-------------|-------|-------|------|-------|
| MARK | MANUFACTURER | MODEL NO. | WEIGHT (LBS) | CFM | S.P.(IN) | RPM | SONES | HP | VOLTS/PHASE | FLA | MCA | MOCp | NOTES |
| EF-1 | GREENHECK | G-080-D-1/20 | 28 | 420 | 0.15 | 1550 | 7.3 | 0.05 | 115V/1Ø | 0.33A | 0.41A | 20A | 1,2 |
| NOTES: | | | | | | | | | | | | | |
| 1. DIRECT DRIVE ROOF MOUNTED EXHAUST FAN WITH 14" HIGH ROOF CURB, BACKDRAFT DAMPER, BIRD SCREEN AND NON-FUSED POWER DISCONNECT. | | | | | | | | | | | | | |
| 2. SOLID STATE SPEED CONTROLLER. | | | | | | | | | | | | | |

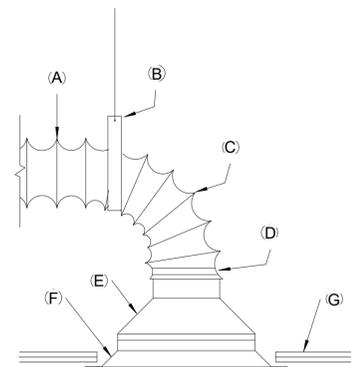
| GRILLE, REGISTER AND DIFFUSER SCHEDULE | | | | | |
|--|--------------|-----------|--|--|-------|
| MARK | MANUFACTURER | MODEL NO. | USE | DESCRIPTION | NOTES |
| D1 | TITUS | TMS | SUPPLY | SQUARE CEILING ROUND NECK DIFFUSER WITH FRAME TYPE 3 | 1,2 |
| E1 | TITUS | PAR | EXHAUST | SQUARE FLUSH PERFORATED DIFFUSER WITH FRAME TYPE 3 | 1,2 |
| R1 | TITUS | PAR | RETURN | SQUARE FLUSH PERFORATED DIFFUSER WITH FRAME TYPE 3 | 1,2 |
| NOTES: | | | GENERAL NOTES: | | |
| 1. STEEL. | | | 1. SIZE OF NECK FOR ABOVE ARE SHOWN ON PLAN. | | |
| 2. WHITE FINISH. | | | 2. SIZE OF GRILLE FOR ABOVE ARE SHOWN ON PLAN. | | |

GENERAL MECHANICAL NOTES:

- PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE HVAC SYSTEM AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE.
- CERTAIN ITEMS SUCH AS RISES AND DROPS IN DUCTWORK, ACCESS DOORS, VOLUME DAMPERS, ETC., ARE INDICATED FOR CLARITY IN CERTAIN AREAS. THIS DOES NOT RELIEVE THE CONTRACTOR OF PROVIDING THESE ITEMS NOT SHOWN IN OTHER AREAS AS REQUIRED FOR A COMPLETE INSTALLATION.
- UNLESS NOTED OTHERWISE, LOCATE ALL ROOM THERMOSTATS 5'-0" ABOVE FINISH FLOOR.
- ALL DUCTWORK SHALL CLEAR DOORS AND WINDOWS.
- ALL DUCTWORK DIMENSIONS, AS SHOWN ON DRAWINGS, ARE INTERNAL CLEAR DIMENSIONS. DUCT SIZE SHALL BE INCREASED IN SIZE TO COMPENSATE FOR INTERNAL LININGS.
- COORDINATE DIFFUSER, REGISTER, AND GRILLE LOCATIONS WITH ARCHITECTURAL PLANS, LIGHTING, AND OTHER ITEMS LOCATED IN CEILING.
- LOCATE ALL MECHANICAL EQUIPMENT FOR UNOBSTRUCTED ACCESS TO UNIT ACCESS PANELS, CONTROLS, AND VALVING.
- PROVIDE FLEXIBLE CONNECTIONS IN ALL DUCTWORK SYSTEMS CONNECTED TO AIR HANDLING UNITS, FANS, AND OTHER EQUIPMENT THAT REQUIRE VIBRATION ISOLATION. FLEXIBLE CONNECTIONS SHALL BE PROVIDED AT THE POINT OF CONNECTION UNLESS NOTED OTHERWISE.
- RUNS OF FLEXIBLE DUCTWORK SHALL NOT EXCEED 5 FEET.
- ALL DUCTS SHALL BE GROUNDED ACROSS FLEXIBLE CONNECTIONS WITH FLEXIBLE COPPER GROUNDING STRAPS.
- TURNING VANES SHALL BE INSTALLED IN ALL RECTANGULAR DUCT ELBOWS THAT EXCEED 45° CHANGE IN DIRECTION.
- CONTROL RELAYS SHALL BE WIRED BY THE ELECTRICAL CONTRACTOR. THE MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL THE RELAY IN THE EQUIPMENT.

| SYMBOL LEGEND | |
|---------------|--|
| SYMBOL | DESCRIPTION |
| | EQUIPMENT SYMBOL - SEE LIST ON DWGS. |
| | RIGID AIR DUCT SYSTEM |
| | FLEXIBLE DUCT |
| | MANUAL CONTROL DAMPER (MCD) W/ LOCKING DEVICE |
| | CEILING SUPPLY DIFFUSER |
| | CEILING RETURN OR EXHAUST GRILLE |
| | DUCT SIZE INSIDE DIMENSIONS - 24"W x 10"D |
| | DUCT SIZE - 10" DIAMETER |
| | THERMOSTAT / SENSOR |
| | PLAN NOTE |
| | CONNECT TO EXISTING |
| | DIFFUSER SYMBOL - SEE SCHEDULE NECK SIZE DESIGN CUBIC FEE PER MINUTE OF AIR QUANTITY FOR ROOM OR SPACE |

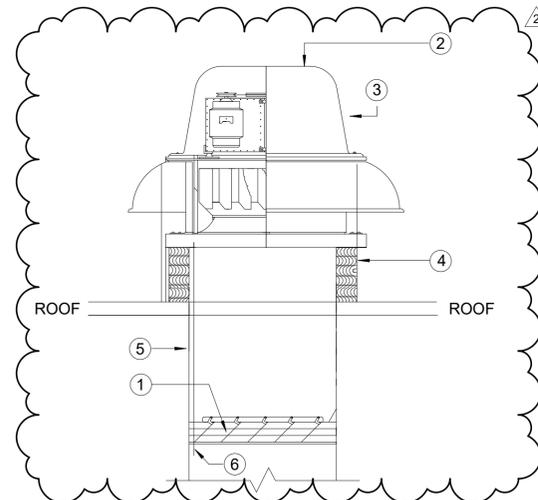
| ABBREVIATIONS | | | |
|---------------|----------------------------|-------|--------------------------|
| AFF | ABOVE FINISHED FLOOR | MAU | MAKE-UP AIR UNIT |
| BF | BELOW FLOOR | MH | MOUNTING HEIGHT |
| BCU | BLOWER COIL UNIT | MBH | THOUSAND BTU/HR |
| CFM | CUBIC FEET PER MINUTE | MOD | MOTORIZED DAMPER |
| COP | COEFFICIENT OF PERFORMANCE | NIC | NOT INCLUDED IN CONTRACT |
| CU | CONDENSING UNIT | NTS | NOT TO SCALE |
| DN | DOWN | O.A. | OUTSIDE AIR |
| DB | DRY BULB | PC | PLUMBING CONTRACTOR |
| DU | DUCTLESS UNIT | PD | PRESSURE DROP |
| EA | EXHAUST AIR | RA | RETURN AIR |
| EAT | ENTER AIR TEMPERATURE | RH | RELATIVE HUMIDITY |
| EC | ELECTRICAL CONTRACTOR | RPM | REVOLUTIONS PER MINUTE |
| ECH | ELECTRIC CEILING HEATER | RTU | ROOFTOP UNIT |
| EER | ENERGY EFFICIENCY RATIO | SA | SUPPLY AIR |
| EF | EXHAUST FAN | SD | SMOKE DETECTOR |
| ESP | EXTERIOR STATIC PRESSURE | SF | SUPPLY FAN |
| EUH | ELECTRIC UNIT HEATER | STR | STARTER (MOTOR) |
| EWH | ELECTRIC WALL HEATER | TS | TIP SPEED |
| FD | FIRE DAMPER | TSP | TOTAL STATIC PRESSURE |
| FPD | FEET PER MINUTE | (TYP) | TYPICAL |
| GC | GENERAL CONTRACTOR | TZ | TRANSFORMER |
| GUH | GAS UNIT HEATER | UNO | UNLESS NOTED OTHERWISE |
| HP | HORSEPOWER | WH | WATER HEATER |
| KW | KILOWATTS | W/ | WITH |
| L | LOUVER | WB | WET BULB |
| LAT | LEAVING AIR TEMPERATURE | W/O | WITHOUT |
| | | WP | WEATHER PROOF |



ELEVATION

INSTALLATION DETAILS FOR FLEXIBLE DUCTS
NOT TO SCALE

- (A) INSULATED FLEXIBLE DUCT (8'-0" MAX. LENGTH)
- (B) HANGER BANDS IN ACCORDANCE WITH FLEX MANUFACTURERS INSTRUCTIONS
- (C) ALL BENDS TO BE LONG RADIUS
- (D) PLASTIC OR STAINLESS STEEL TIE BAND
- (E) SQUARE TO ROUND ADAPTER OR ROUND TRANSITION (WHERE REQ'D.)
- (F) CEILING DIFFUSER OR GRILLE
- (G) CEILING



- ① BACKDRAFT DAMPER GRAVITY OR MOTOR OPERATED AS SPEC'D
- ② DIRECT OR BELT DRIVEN AS SPEC'D
- ③ SPUN ALUMINUM ROOF EXHAUSTER
- ④ PREFABRICATED CURB
- ⑤ DUCT
- ⑥ CONDUIT HOLE

DETAIL OF DOWN BLAST ROOF EXHAUST FAN
NOT TO SCALE

FD

USER:

PLOT DATE/TIME: 4/16/2021 8:58:37 AM

LAYOUT TAB: SCHEDULES, NOTES, LEGEND & DETAILS - HVAC
CAD FILE: C:\Users\jwain\Documents\SLACK PLAZA\MEP_mrozek.rvt

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| 2 | FD | 04/16/2021 | ADDENDUM #2 |
| NO. | BY | DATE | DESCRIPTION |

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| SCALE: As indicated | DATE: 03/25/21 |
| DRAWN: FD | DATE: 03/25/21 |
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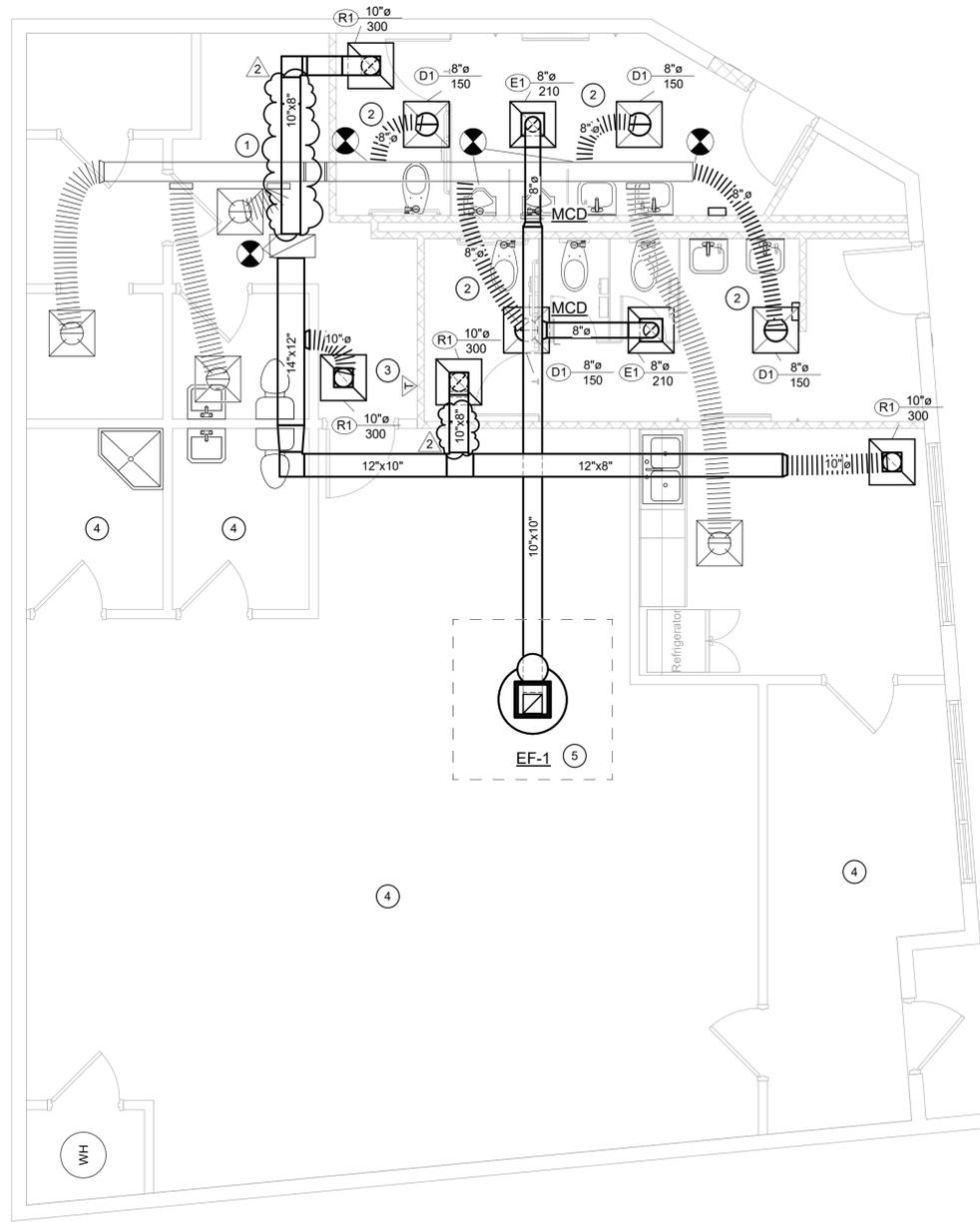
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| PHASE No. |
| CONTRACT No. |
| PROJECT No. |
| 030-10284 |

SCHEDULES, NOTES, LEGEND & DETAILS - HVAC
SLACK PLAZA RENOVATIONS
CHARLESTON, WEST VIRGINIA
03/29/2021
CONSTRUCTION DOCUMENTS

SHEET No.

M1.01

| NEW WORK FLOOR PLAN KEYNOTES | |
|------------------------------|---|
| NOTE# | DESCRIPTION |
| 1 | EXISTING DUCT TO REMAIN. PATCH ALL EXISTING OPENINGS IN DUCT RUN TO MATCH ADJACENT SURFACE. |
| 2 | CONNECT NEW FLEX DUCT AND DIFFUSER. FIELD VERIFY SIZE OF EXISTING DUCT. SIZE OF FLEX DUCT SHALL MATCH DIFFUSER NECK SIZE. |
| 3 | RELOCATE THERMOSTAT TO THIS LOCATION. EXTEND CONDUCTORS AS REQUIRED. |
| 4 | NO WORK IN THIS AREA. |
| 5 | EF-1 ON ROOF, CENTRALLY LOCATE BETWEEN EXISTING RTU'S. |



1 NEW WORK FLOOR PLAN
 M3.01 1/4" = 1'-0"

| NO. | BY | DATE | DESCRIPTION |
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| 2 | FD | 04/16/2021 | ADDENDUM #2 |
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NEW WORK FLOOR PLAN - HVAC
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 CHARLESTON, WEST VIRGINIA
 03/29/2021
 CONSTRUCTION DOCUMENTS

SHEET No.
M3.01